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READERS in search of a particular subject will find it useful to bear in mind that the references are in several cases distributed under two or more separate but nearly synonymous headings—such, for instance, as Brain and Cerebral; Heart and Cardiac; Liver and Hepatic; Renal and Kidney; Cancer and Epithelioma, Malignant Disease, New Growth, Sarcoma, etc.; Child and Infant; Bronchocele, Goître, and Thyroid; Diabetes, Glycosuria and Sugar; Light, Roentgen, Radium, *X* Rays; Status Lymphaticus and Thymus; Eye, Ophthalmia and Vision; Bicycle and Cycle; Motor and Automobile; Association, Institution, and Society; Paris, France; Berlin, Prussia, Germany; Vienna, Austria, etc. To still further assist the reader, subjects dealt with under the various main headings in the JOURNAL have been set out in alphabetical order under their respective headings—for example, "Act ,Workmen's Compensation," "Correspondence," "Leading Articles," "Literary Notes," etc.; while under "Original Articles," will be found a list of those who have contributed papers on scientific and clinical subjects, with the title of their contributions.

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A Lecture
ON
JEJUNAL AND GASTRO-JEJUNAL ULCERS.

DELIVERED AT THE MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, LONDON,

BY

A. W. MAYO-ROBSON, C.V.O., D.Sc., F.R.C.S.

GENTLEMEN,—I have selected this subject for three reasons—first, because I have had considerable experience of jejunal and gastro-jejunal ulcers; secondly, because I consider that the disease occurs much more frequently as a sequel of gastro-enterostomy than the profession is quite willing to acknowledge; and, thirdly, because I have certain suggestions to make both with regard to prevention and treatment.

My operative experience extends to seven cases, some of which have followed operations that I have myself performed, and others have followed on operations performed by eminent surgeons, whose technique, according to our present ideas, is beyond reproach.

Gastro-enterostomy—an operation which can be performed with an operative risk of 1 or under 1 per cent.—is one of the most useful in surgery, when performed on suitable cases. But the fact that certain methods or refinements of technique afford safeguards against nearly all the dangers of the operation, does not of necessity show that unfavourable sequelae may not arise in some other way, and that the dangers, which do not make their appearance until many months, or it may be years, after the original operation, may possibly be greater than ordinarily recognized, and very serious in their results. I think the time has arrived for a reconsideration of the operation of gastro-enterostomy, of the class of cases in which it is justifiable to perform it, and of whether or not one can suggest a better way in some cases of giving the stomach and duodenum absolute rest until ulcers or other disease may have healed or been remedied.

Only recently, sepsis was the most serious factor to be contended with, after which followed the fear of shock and haemorrhage, to say nothing of the dangers of starvation from fear of feeding, and failure of union in the anastomosed viscera.

Practically the whole of these dangers have been overcome by improved technique, but the serious complications that have not yet been successfully combated are jejunal and gastro-jejunal ulcers—the former being wholly in the jejunum, the latter at the margin of the anastomotic opening. I am able to show specimens of both of these types of ulcer.

The etiology of ulcers of the type which have hitherto, rightly or wrongly, been termed peptic ulcer, is extremely interesting, and has given rise to much speculation and to many theories.

In the stomach ulcer is extremely common, in the duodenum equally so, and certainly much more frequent than hitherto has been supposed, but in the jejunum it has been generally thought to be very rare. Probably it never occurs in the jejunum except as a complication of the operation of gastro-enterostomy.

Braun, I believe, first described the occurrence of such an ulcer in the jejunum of man, and since that time the subject has received attention at the hands of Hahn, Kausch, Körte, Kocher, Mayo, Paterson, myself, and others. In 1903 I prepared a paper on the subject which was published in vol. lxxxvii of the *Medico-Chirurgical Transactions*. It contained, I believed at the time, the first case described in English literature. I was then able to collect 16 cases from various sources, but many have since been reported by other surgeons. In Mr. Paterson's paper he referred to 2 of his own and to 61 recorded cases.

Dr. W. J. Mayo believes that the greater part of, if not all, gastro-jejunal ulcers are due to failures in technique in the operation of gastro-enterostomy, whereas true jejunal ulcers seem to be unavoidable. In the Rochester clinic, out of 1,141 gastro-enterostomies, so far as could be ascertained, there had been no case of pure jejunal ulcer, though there had been an operative experience of three gastro-jejunal ulcers—one the result of an impacted Murphy button, occurring three years and nine months after operation, the button having been retained in the stomach. The ulcer in this case was excised, and another operation performed over a Mayo-Robson bone bobbin, the patient making a good recovery. The second case was the result of retention of an infected suture, and occurred seven months after operation. The ulcer was excised, and another gastro-enterostomy performed, the patient making a good recovery. The third case was the result of an infected haematoma in the suture line. The whole opening, including the ulcer, was excised two and a half years later and a Finney's operation performed.

It would seem, from a study of reported cases, that no type of gastro-enterostomy renders the patient immune from this form of ulcer, since it has occurred after anterior gastro-enterostomy, after posterior gastro-enterostomy with a loop, both with and without lateral anastomosis, after posterior gastro-enterostomy without a loop, after Roux's operation, as well as after the use of the Murphy button and my decalcified bone bobbin, and after the employment of simple sutures.

As to the cause, some interesting experiments were performed by Mr. Paterson, and described in a paper he read before the Royal Society of Medicine in June, 1909. His observations seem to confirm what had previously been suspected—that the cause of jejunal ulcer after gastro-enterostomy was due to excessive acidity of the gastric juice.

I had previously expressed an opinion, which I still hold, that sufficient care is not exercised in dieting patients who have undergone the operation of gastro-enterostomy, and that hyperchlorhydria and sepsis combine to produce ulceration; in fact, the cause of this form of ulcer is exactly the same as that of duodenal and gastric ulcers.

In order to prevent this complication it has seemed to me that absorbable material should only be used for the marginal suture, but, even where chromic catgut only has been used, the disease has sometimes followed. A modification of its application may therefore be advisable, only fine catgut being applied as a marginal suture to

appose but not constrict the mucous margins, and two lines of sutures, serous and sero-muscular, employed to unite the outer and middle coats of the viscera.

The dangers of jejunal ulcer arise not only from painful indigestion (the pain simulating that of duodenal ulcer, only varying its position), but also from a recurrence of symptoms of ulcer often associated with haemorrhage, and not infrequently ending in perforation.

The danger of perforation directly into the peritoneum is greater after posterior than after anterior gastro-enterostomy, as after the anterior operation omental adhesions frequently tend to prevent perforation, as shown by the first case I reported in 1903, where the ulceration ultimately reached to the abdominal wall, having passed through the adherent omentum.

But the mesocolon may also prevent perforation into the peritoneal cavity, as shown by one of the specimens exhibited, which demonstrates a gastro-jejunal ulcer that had perforated the margin of the opening between the stomach and the jejunum, and was extending into the mesocolon.

Symptoms.

If after a period of good health subsequent to the operation of gastro-enterostomy a patient begins to complain of acidity, flatulence and discomfort after meals; followed after a time by definite pain from an hour to two or three hours after food, and relieved temporarily by taking milk or some other light diet, or some form of alkali such as sodium carbonate; if the pain occurs on the left of the umbilicus, and is associated with marked tenderness and rigidity of the left rectus, the suspicion of ulcer of the jejunum will arise.

The complication of haematemesis or melaena or even the presence of occult blood in the faeces will make the diagnosis fairly certain; but if with all these symptoms a swollen and tender loop of bowel can be felt in the region of the anastomosis, or below and to the left of the umbilicus, the surgeon can no longer be in doubt as to the nature of the disease.

The symptoms of acute perforation resemble those of peritonitis following on perforation of a gastric ulcer.

Treatment.

With regard to treatment, the old adage that "prevention is better than cure" has special significance in connexion with jejunal ulcer. Not only must the profession set its face against the wholesale performance of gastro-enterostomy for every gastric ailment and limit it to suitable cases, particularly those with obstructed pylorus, but we must also try to effect such improvements in technique that jejunal or gastro-jejunal ulceration will not be likely to occur. More especially it behoves us not to neglect the medical aspect of the case, and to this end it is important that operating surgeons should bear in mind that the operation of gastro-enterostomy is at best only an incident in the treatment of diseases of the stomach and duodenum, and that the operator should in all these cases be closely allied with the physicians or the medical attendants who have the after-care of the patients. To my mind careful dieting and medical treatment subsequent to operation and for some considerable time afterwards are absolutely indispensable.

If jejunal or gastro-jejunal ulcer has been diagnosed by a recurrence of symptoms at some interval after the operation of gastro-enterostomy and the case fails to yield to general treatment, the only course open to the surgeon is to perform abdominal section and to thoroughly examine the jejunum at and near the point of anastomosis.

If the ulceration is at the gastro-jejunal anastomosis or in the jejunum, and the original ulcer at the pylorus or in the duodenum has healed, the jejunum may be detached from the stomach, the ulcerated area excised, and the openings in the stomach and jejunum closed.

If the pyloric or duodenal ulcer, in healing, has led to stenosis, an anastomotic opening cannot be spared, and either a new site for the gastro-enterostomy must be selected on the posterior wall of the stomach, or an anterior gastro-enterostomy after Roux's method may have to be done after closing the original opening.

If the ulceration is jejunal, and the area involved extensive, the diseased part of the jejunum may have to be excised, and according to the healthy condition or otherwise of the duodenum and pylorus, the healthy jejunum may be united end to end and the stomach opening closed, or a new gastro-enterostomy may be performed at a fresh site.

Should the jejunal ulcer be distinct, and the margin of the anastomotic opening be found healthy, it may be advisable to excise the ulcer and to repair the bowel without excising the jejunum more extensively, and without interfering with the anastomotic opening.

Should the patient be profoundly ill and unable to bear a prolonged operation, a loop of jejunum some inches below the disease may be brought to the surface, and the operation of jejunostomy performed. Through a tube introduced into the jejunum the patient can be fed, and the ulcerated area, whether jejunum, duodenum or stomach, can be put at complete rest until healing is effected, when the artificial opening can be allowed to close.

I feel sure that this operation of jejunostomy has not received the attention it merits, as in extreme cases I have found it most safe and useful. I have employed it in haematemesis where the bleeding point could not be found, in chronic ulceration with great thickening, as in plastic linitis, and in chronic perforation, where the parts were hopelessly matted, and the patient was unfit to bear a prolonged operation.

But the operation of jejunostomy may be found useful in all conditions where it is necessary to give the stomach complete rest for a time, whether the disease be in the stomach or duodenum, and I believe that in many cases of ulcer near the cardiac end of the stomach, or along the lesser curvature, as also in some ulcers of the duodenum that have failed to yield to medical treatment, the operation of jejunostomy, if there is no pyloric stenosis, will come to be the operation of choice, as by its means the patient can be well fed for months without a particle of food being allowed in the stomach, thus giving the ulcer, whatever site it may occupy, absolute rest and freedom from irritation. After a period, when healing of the ulcer or ulcers has resulted, the small tube can be left out, and the minute opening will close voluntarily.

Were I speaking simply from theory I should hesitate to advance these opinions, but an extensive practical experience both of gastro-jejunostomy and of jejunostomy enables me to speak with confidence in stating my views.

The Operation of Jejunostomy.

The operation I have performed consists in taking a loop of the jejunum well beyond its origin, just sufficiently long to reach the surface without tension. A small incision is then made into the top of the loop just large enough to admit a No. 12 Jacques catheter, which is inserted and passed for fully 3 inches down the distal arm of the loop. This is fixed to the margin of the incision in the gut by a silk or thread suture, and the entrance of the tube into the bowel is further secured by two purse-string sutures one over the other. The top of the loop is fixed to the parietal peritoneum and posterior aponeurosis by two stitches and the wound closed around the tube. The patient can then be fed at once with egg, milk, and a little brandy. The whole operation can be done in from ten to fifteen minutes, and with no shock and very little visceral exposure.

As a further precaution, the loop may be short-circuited, but this is not absolutely necessary, and, should the patient be seriously ill, the short-circuiting is undesirable.

For the operation to be a success the bowel must be placed so that it will serve two purposes: (1) To permit the passage onwards of the bile and pancreatic fluid poured into the intestine above the artificial fistula; and (2) to allow of food being introduced into the fistula without fear of regurgitation either of the food or of the intestinal contents.

The feeding is done by means of a funnel and tube that will slip over the catheter, and it can be repeated every four hours, or more or less frequently, according to the requirement of the case.

The operation will be found useful in the following conditions:

1. Widespread cancer of the stomach too advanced for gastrectomy and too extensive for gastrostomy. I have found it useful in a number of such cases. By securing complete rest to the stomach, it stops haemorrhage, relieves pain, diminishes the size of the tumour and prolongs life very considerably.

2. In general cicatricial contraction of the stomach, due to the swallowing of caustic fluids, in which the stomach has been so far damaged that it no longer performs its functions or even allows of the passage onwards of food.

3. In chronic ulcer of the stomach giving rise to haemorrhage, pain, or vomiting, and to malnutrition: and where the patient is too ill to bear partial gastrectomy, which can, however, be subsequently done if thought needful after the patient's condition had been restored by adequate feeding.

4. In some cases of chronic duodenal ulcer, associated with hyperchlorhydria, in which there may be a fear of jejunal ulcer subsequently developing if gastro-enterostomy be performed.

5. In certain cases of duodenal ulcer in very stout subjects where it is extremely difficult to perform a posterior gastro-enterostomy, and in which violent haemorrhage has only recently occurred and may be again excited by dragging on the stomach.

6. In jejunal or gastro-jejunal ulcer where the patient is thought to be too ill to bear one of the extensive operations previously mentioned; or where, the disease being slight, it is thought that the complete rest to the stomach and upper jejunum that can be given by a jejunostomy will at the same time relieve the hyperchlorhydria and cure the ulcer. Neumann has, in fact, suggested the operation for hyperchlorhydria alone.

7. In recurring haematemesis failing to yield to ordinary treatment, and where on exploration no ulcer or other removable cause can be discovered.

8. In persistent vomiting threatening life, as in the severe and sometimes fatal vomiting of pregnancy, where no food whatever can be retained in the stomach.

URETHRAL CALCULI.

WITH SPECIAL REFERENCE TO ENCYSTED CALCULI OF THE PROSTATIC URETHRA.

BY

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NOMENCLATURE.

SOME discussion has found a place in the literature of this subject as to the proper application of the term "urethral calculus." The term should be used for all calculi which are lodged in the urethra, whether formed in the urethra itself or elsewhere. A calculus in the bladder is none the less a vesical calculus if there is evidence of its having descended from the kidney, and the same applies to urethral calculi. The question of nomenclature was first raised by Lieblein,[1] who argued that the title "urethral stone" should be used only for stones which are formed primarily in that channel, or stones arrested in the urethra which increase in size after lodgement. The same argument was developed by Kaufmann,[2] and has been approved by others. It would introduce, however, an entirely new principle into the nomenclature of calculi in the urinary passages, and upon clinical grounds there is much to be said against it. With regard to calculi in general, the qualifying adjective used has always been one which has reference to the site of the stone at the time of description; the adjective is clinical, and has no pathogenetic significance. The adjective "urethral" should be employed in this sense, and the attempt to give it a pathogenic significance is, in the present writer's opinion, misdirected.

IMPACTED CALCULI.

Urethral calculi are either calculi which have been formed in the urinary passages above and have lodged in the urethra, or calculi which are formed in the urethra itself, or in some cavity or channel communicating with it.

The lodged or impacted calculi of the urethra are vesical or renal in origin. While sufficiently small to engage in the urethra they are too large to pass, and are arrested behind some natural or acquired strait in the passage. In a paper published in 1904 Englisch[3] collated the records of 400 such cases. Among these the sites of impaction were:

In the navicular fossa	...	11.2 per cent.
In the pendulous portion	...	14.5 ,,
In the scrotal portion	...	13.7 ,,
In the bulbous portion	...	18.6 ,,
In the membranous portion	...	42.0 ,,

No reference is made in the paper to calculi impacted in the prostatic urethra. That calculi do lodge in the prostatic urethra is well known, either in the bladder neck or where the prostatic joins the membranous portion.

It is a matter for surprise that the proportion of calculi recorded as lodged in the membranous urethra is so large when regard is had to the anatomy of this segment of the urethra. The membranous urethra is about half an inch in length, bounded above and below by the superior and inferior triangular ligaments; it is surrounded by an annular coat of unstriped muscle, and it is further supported by the fibres of the compressor urethrae. It is also a matter for surprise that Englisch should speak of the great distensibility of this portion, and explain on this ground the frequency of acquired urethral diverticula here. It is difficult to avoid the conclusion that many of these so-called membranous urethra diverticula are in reality diverticula of the prostatic urethra where it abuts on the superior triangular ligament, and that many of the calculi recorded as impacted in the membranous urethra have been, in fact, in the terminal part of the prostatic urethra. The prostatic urethra is the most dilatable portion of the channel, and once the superior triangular ligament is pierced the urethra is surrounded and supported by the muscular structures above referred to. A calculus or pouch behind the triangular ligament is of the prostatic and not of the membranous urethra. The term "membranous urethra" has not, in fact, been employed in so strict a sense by surgeons as by anatomists—even so precise a writer as Young speaks of opening the membranous urethra in the course of a dissection behind the triangular ligament.

Impacted calculi, having their origin in the urinary channels above, exhibit the varieties of structure of vesical and renal stones. They are comparatively frequently met with in children; out of 324 cases in Englisch's paper in which the age was known, 127 were under 15 years of age and 66 under 6 years of age.

In children the points of impaction are behind the natural straits of the urethra. In the adult acquired straits, that is, strictures, play the most important part in determining the site of arrest. If they remain in position they set up changes in their surroundings and also undergo changes themselves. Irritation of the urethral wall leads to ulceration, and the obstruction offered by the calculus to the stream of urine causes dilatation behind the site of impaction. The stone itself tends to increase in size by the deposit of phosphates upon its surfaces. Such secondary deposit is always phosphatic. The diagnosis and treatment of impacted urethral calculus are discussed in the textbooks and are well understood.

ENCYSTED CALCULI.

By encysted urethral calculi is here understood calculi which lie in pockets or diverticula communicating with the urethra. It is convenient to consider first diverticula of the anterior urethra in front of the superior triangular ligament (the urethra proper), and secondly, diverticula of the prostatic urethra, which is the representative of the primitive urogenital sinus.

Diverticula of the urethra proper are congenital or acquired. The congenital diverticula are due to imperfections and abnormalities in the union of the genital folds which bound the genital groove. Complete failure of union of these folds results in hypospadias; imperfect union may leave a pouch of greater or less extent, and the dermoids of the median ridge described by Timofeew[4] owe their origin to the same cause. Such congenital pouches are almost always found on the proximal side of the glandular portion, and from this point extend for a greater or lesser extent towards the scrotal fold. Acquired diverticula are more common, and arise from a variety of causes. They may be retention cysts of urethral glands or blood cysts which burst into the urethra. Other causes are strictures and operation scars, and a urethral fistula may end in the formation of a diverticulum. An impacted

calculus may form a pouch for itself by pressure ulceration of the urethral wall, and it may come to lie entirely outside the urethral channel; the pocket in which it lies is then an acquired diverticulum of the urethra.

The diverticula of the prostatic urethra are also either congenital or acquired. On the floor there is normally a median recess, the sinus pocularis, which represents the persistent lower common extremity of the ducts of Müller. In the adult it is a cul-de-sac which runs upwards and backwards for 6 to 12 mm.; its upper extremity lies behind and beneath that part of the prostate which underlies the urethral floor, and in some cases reaches to the posterior surface of the gland. Congenital abnormalities of the sinus pocularis are on record, and are referred to below. Possibly some of the congenital diverticula of the prostatic urethra are due to abnormalities of the urogenital sinus where it joins the urethra proper. Acquired diverticula occur in two situations—at the proximal and at the distal extremities. A certain number of those at the proximal end, near the bladder neck, are produced by prostatic calculi; these stones form pockets in the substance of the gland, which pockets tend to establish communications with the urethral channel. According to the observations of Englisch[5] and Vollemier,[6] cysts of the prostate underlying the urethra are responsible for another form of acquired diverticulum of the vesical end of the prostatic portion. Chronic abscesses of the prostate may also, by opening into the urethra, create a pocket in which a calculus might lodge or form. Diverticula of the distal end are produced by impacted calculi which lodge in the urethra on the vesical aspect of the triangular ligament, become embedded, and form pressure diverticula.

The composition of encysted stones has been relied on to decide the question of their origin, it having become an accepted doctrine that only phosphatic stones are formed *in situ*, and that urate, uric acid, and calcium oxalate stones found in diverticula must have come down the urethra from above. Tillmanns says stones formed in the urethra are "almost always phosphatic"; others are more dogmatic; Kaufmann, for example, stating that they are always so.

There is no obvious reason why calculi of other composition should not be formed in preformed diverticula, at any rate. Those described by Lieblein[7] were urate, and he considered them formed *in situ*, on account of the absence of symptoms pointing to their descent. Finsterer[8] recorded two cases: one of a large urate stone with a delicate coating of phosphate; another a mixed urate and oxalate stone with a small amount of phosphate: he considered both formed *in situ* in diverticula. In 100 cases of diverticulum stone collected in Englisch's paper whose composition was recorded, 22 were urate, 16 oxalate, 27 phosphate, and the remainder of mixed composition. Englisch, however, accepts the view that only the phosphatic stone is formed *in situ*, the others having come down from above. As far as I can ascertain, the doctrine is based on the *a priori* reasoning that urethral stones, including those in diverticula, are formed only as a result of local irritation and inflammation. Given a preformed diverticulum, however, and the urinary constitution which tends to the production of calculi, there does not appear to be any difficulty in the way of assuming that calculi other than the phosphate may form *in situ*.

Primary prostatic concretions may, as has already been stated, establish a communication with the urethra, the pocket in which they lie then forming acquired diverticula of the prostatic urethra. There is agreement amongst authors as to the constitution of these calculi; they are stated to consist of calcium phosphate and carbonate with a small proportion of organic matter.

The following three cases present examples of encysted calculi in diverticula which communicated with the floor of the prostatic urethra near the neck of the bladder.

CASE I.

E. S. H., aged 27, when first seen in 1908.

History.—A vague account was given of a blow in the perineum by a cricket ball in 1891, following which there was slight bleeding from the urethra for about a week. There was no history of venereal infection, and this may be accepted as correct. There were no further urinary symptoms until 1899, when he commenced to have some difficulty in passing urine. The cause of this difficulty was considered to be stricture, and from this time until 1908, when I first saw him, he had had instruments passed at intervals, and had also been instructed in passing them himself. In 1903 he became acutely ill with pain and tenderness in the left loin. He consulted a surgeon in London, who removed the left kidney; he was told that the organ was destroyed by tuberculosis. A sinus persisted in the loin for about three years, eventually closing after a series of injections of a suspension of iodoform.

During all this time he had varying difficulty in urination, and instruments were passed at frequent intervals with a transient improvement in his symptoms. He never had an attack of renal colic, except just preceding the illness for which the left kidney was removed.

In August, 1908, he presented no signs of disease in any system except the urinary. The complaint was that of pain and difficulty in micturition. The urine contained a copious deposit of phosphates, was alkaline in reaction, contained no albumen and no pus. On examination I found a stricture immediately behind the bulbous portion admitting with difficulty a No. 8 English metal bougie. The passage of the bougie caused a great deal of spasm. I sent him to bed and tied in a No. 5 silk webbing catheter for twenty-four hours. This was not well tolerated; it caused a mild attack of urethritis and cystitis; the stream was, however, much improved. The improvement was only short, and, as further treatment by intermittent dilatation proved unsatisfactory, I advised external urethrotomy, and this was performed on April 16th, 1909. A stricture of moderate dimensions just behind the bulb was cut through. During convalescence from this operation he developed acute arthritis of the right hip-joint, an abscess formed on the pelvic aspect of the acetabulum, and was opened. The lesion gradually subsided, leaving an incomplete ankylosis of the joint. In the following July (1909) when passing a metal bougie along the urethra a grating sensation was felt just before entering the bladder. A radiograph was taken; this showed a fan-shaped shadow behind the symphysis pubis, and extending above and below this, apparently due to a collection of calculi. On rectal examination there was felt a collection of stones in the situation of the prostate which grated on palpation the mass being about the size of a damson. On August 26th, 1909, the bladder was opened above the pubis, and on passing the finger into the internal meatus a diverticulum in the floor of the prostatic urethra was immediately met with, communicating with the urethra by an orifice which admitted the forefinger with difficulty. The diameter of the saccule was about two inches, and it was packed with calculi. They were removed with some difficulty by a spoon, and numbered thirty-three; twenty-seven are seen in the photograph (Fig. 1). All were faceted on one face or another, and most showed several facets; they were of a fawn colour and very hard. One of the largest was submitted to Professor Benjamin Moore for analysis, and his report was as follows:

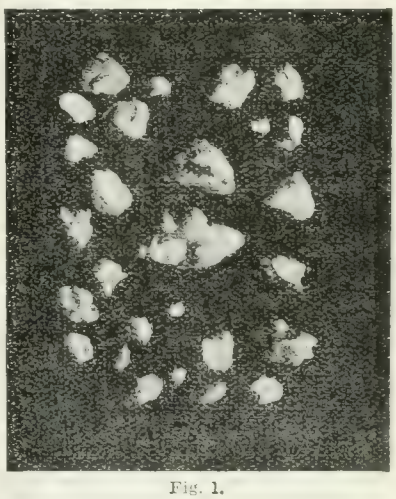


Fig. 1.

Calcium phosphate	61.5 per cent.
Calcium oxalate	30.8 ,,
Uric acid	3.9 ,,

The patient made a slow convalescence from this operation; the wound was not finally closed until after seven weeks. A calculus, which must have been dislodged into the urethra at the time of operation and overlooked, was subsequently removed.

The condition remained satisfactory for a period of eighteen months, the urinary stream was good, he had none of the previous pain and difficulty in micturition, and the general health was excellent. On March 5th, 1911, he had an attack of right renal colic while away in France and another attack a month later. There were several minor attacks following this, and on June 10th, 1911, he again came under observation. He was then seriously ill, and on examination I found the right, and only, kidney much enlarged and tender to palpation. A radiograph was taken by Dr. Thurstan Holland, and showed a collection of four calculi lying close together in the right ureter below the brim of the pelvis. It was obviously necessary to remove these without delay, and this was done on June 13th. Suppression of urine supervened, and he died on June 16th.

When this history is considered in the light of the later findings, it is clear that the long-continued difficulty and

[1] The nature of the renal disease and the reason for the persistence of the sinus were cleared up by the radiograph taken in July, 1909, which showed a calculus still present in the left ureter about the pelvic brim.

pain on micturition are to be ascribed to the presence of the encysted calculi, and that the stricture was of minor importance. The failure to relieve his symptoms by dilatation by myself and others points to this. The encysted calculi caused a condition of spasm which was responsible for the difficulty of micturition and the pain in micturition. Unfortunately I am unable to present an analysis of the calculi removed from the ureter owing to a laboratory misfortune. They were of a brown colour, rough surface, and the naked eye diagnosis was calcium oxalate. The absence of anything in the history pointing to the calculi in the urethral pouch having descended from above inclines to the belief that they were formed *in situ*. They filled the diverticulum and were packed together and faceted. The orifice of the diverticulum was comparatively small, and situated centrally in the floor of the urethra. They had in all probability been present in part for a period of ten years before the projection of one into the urethra revealed their presence, and during these ten years various surgeons had passed bougies along the urethra.

All these facts taken together appear to me to make it certain that they were formed *in situ*.

Their position in relation to the prostate inclines to the view that they were formed in the substance of the prostate itself. The sac as felt per rectum appeared to have replaced the prostate, and the radiograph shows them extending to right and left of the middle line beneath the neck and trigone of the bladder. On the other hand, their chemical composition raises a difficulty in adopting this view. Primary prostatic calculi are composed of calcium carbonate or calcium phosphate or a mixture of the two, there is no record of a prostatic calculus composed of 30 per cent. of calcium oxalate. On the whole it seems most in accordance with the facts to consider that the primary condition was the production of stones in the prostatic tissue underlying the urethra; these led to the formation of a cavity by pressure, which cavity communicated with the urethra at first indirectly through ducts and later directly. The further formation of concretions in the adjacent gland tissue and the increase in size of the original calculi led to a gradual growth of the diverticulum, and the calculi were built up in part from prostatic secretion and in part from the urine in the pouch. It is to be noted that the patient was a determined "stone maker" and that the calculi produced elsewhere were oxalate.

CASE II.

S. A., aged 48, as a boy and youth had been much troubled with incontinence of urine; this continued up to the age of 20. At the age of 18 he had an attack of gonorrhœa, from which he recovered in a few weeks under treatment. At 23 he first had some difficulty in passing water associated with pain. The attacks were occasional, and he noticed they were liable to occur after taking alcohol. He was treated by the passage of soft bougies "for a year or two" from the age of 25 onwards; he then had internal urethrotomy performed, which improved the difficulty in passing water, but the occasional pain in urination continued, especially when he first emptied his bladder in the morning. He had no further treatment until the age of 44, when he went to a hospital on account of increasing pain and difficulty in urination. He was then told that there were some stones about the neck of the bladder, but no operation was performed. In July, 1911, he passed a few small stones. I saw him, with Dr. Thomas Clarke, on August 17th, and operated the same day. A metal bougie, which was passed with some difficulty through the bulbous portion, came on calculi just before entering the bladder. The urethra was opened in the perineum, and a stricture of moderate dimensions was cut through at the bulb. The perineal wound was extended backwards, and a finger passed towards the bladder came on a diverticulum of the floor of a prostatic urethra containing calculi. The left forefinger in the rectum felt the collection of stones, and with the aid of this finger, and by means of a spoon passed through the urethral wound, they were removed. They numbered 86 (Fig. 2). The pouch was investigated with the right forefinger. The interior was rough; it measured approximately 2½ in. antero-posteriorly and 2 in. transversely, and extended backwards from its communication with the prostatic urethra behind the base of the bladder. There was no calculus in the bladder. A catheter was fixed in the bladder, and a rubber drainage tube also placed in the diverticulum. Three of the larger calculi were examined by Professor Benjamin Moore, who reported that the composition was as follows:

Calcium phosphate	...	...	94.3 per cent.
Uric acid	...	...	1.5 ,,
Calcium oxalate	...	...	2.3 ,,

When seen on October 8th, 1911, the wound had healed; he had no pain on passing water, and the stream was good. There was, however, a considerable degree of incontinence: between the periodic emptying of his bladder the urine dribbled. The explanation of this dribbling was not clear. However, on November 13th a metal sound was passed into the bladder and a calculus demonstrated. On taking a radiograph a large shadow appeared to occupy the base of the bladder, and to project into its neck. On November 15th the urethra was opened behind the triangular ligament; projecting into the internal meatus was a mass of calculus connected with a stone of very large dimensions in the bladder itself: it was of the consistence of moderately hard mortar; a lithotrite did not crack it, but pulped it. Some similar soft phosphatic material was adherent to the bladder wall here and there. In order to remove the whole of this it was necessary to make a suprapubic opening also. The diverticulum from which the calculi were removed at the previous operation was represented only by a shallow depression in the floor of the prostatic urethra; into this some of the soft phosphatic material projected. The formation of this phosphate was evidently due to a septic cystitis following the operation. Its position in the neck of the bladder was the apparent cause of the dribbling of the urine. At the second operation the bladder was of very small size, and was practically filled with the phosphate mass.

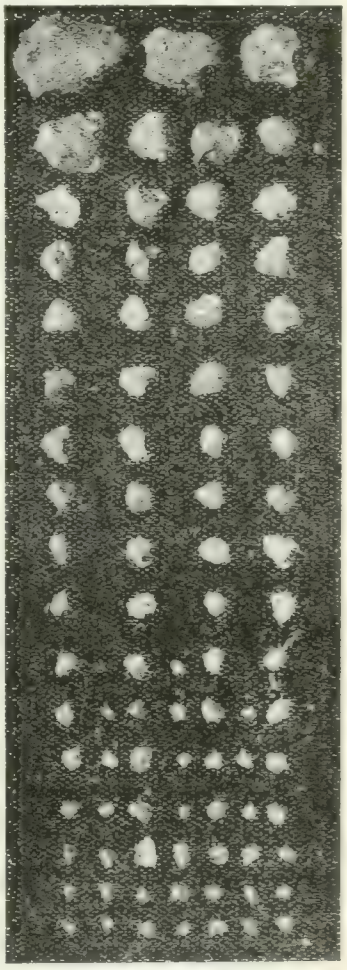


Fig. 2.

This history shows a striking resemblance to the first. The incontinence which troubled him right up to adolescence may have been due to some congenital structural abnormality about the neck of the bladder, but this can only be surmised: certainly involuntary micturition up to the age of 20 is a very uncommon condition. His pain and difficulty in micturition were ascribed solely to stricture for close on twenty years, and as internal urethrotomy was performed by a competent surgeon, it must be assumed that there was a stricture present. At the time of my operation there was a narrow strait at the bulb, but its dimensions were such that it could have had little influence on his symptoms. No doubt the greater part of his disability was due to the presence of the calculi, unsuspected for many years. Their position and relation to the prostate and chemical composition point to their having been formed primarily in the prostate. The small quantities of uric acid and calcium oxalate present were probably deposited *in situ* from the urine.

The necessity for dealing with the stricture as well as with the calculi influenced the character of the first operation undertaken. The urethra was opened in front of the triangular ligament, and the incision was extended backwards from this, in order to gain access to the pouch. No radiograph was taken of this case before the first operation, so that it is impossible to demonstrate the exact position of the calculi: the diverticulum was, however, central in position, underlying the urethra and neck of the bladder. Of the possible ways of explaining the formation of the calculi, the one which seems best to accord with the facts is that calcium phosphate calculi were first formed in the prostate, and that after the establishment of a communication with the urethra small quantities of uric acid and calcium oxalate were deposited from the urine. It is however, impossible to negative the presence of a pre-formed diverticulum as the first stage of the whole process

in view of the records of such preformed pouches in this part of the channel.

Case III.

A. M., aged 42, patient of Dr. Finny, Ellesmere Port. In this case I had the advantage of a history drawn up by the surgeon under whose care he had been in India, of which the following is an abstract:

In September, 1900, the patient without warning began to suffer from frequent urgent calls to urinate, with pain during and after the act. On passing a sound it was arrested with a grating sensation a short distance in front of the triangular ligament. After returning home the same day he passed a stone consisting of several "hemp-seed" calculi, agglomerated together and separable from each other with great ease. On subsequent examination "only a small sound enters the bladder, and that with much pain"; his symptoms continued, but with less intensity. On December 4th, 1900, a stone was located in the urethra "close up at the back of the scrotum." The urethra was opened, but no stone was found there or elsewhere. On December 8th, however, a stone was removed by urethral forceps. At the end of January, 1901, he had a return of his old symptoms; on March 22nd, 1901, a small stone was located "½ in. in front of membranous portion of urethra," and removed with a scoop. His symptoms continued off and on, pain on micturition and frequency being constant, but it was not until August, 1902, that he had another acute attack. On August 9th, 1902, a stone was located, "apparently embedded in the prostate," but an attempt to remove it was unsuccessful. However, a further attempt with a scoop was successful on August 16th, and another minute stone was washed from the bladder. A week or two later he had very severe lumbar pain (renal colic); this recurred from time to time, and he also had a return of pain and difficulty in micturition.



Fig. 3.

In 1904 he was under the care of a surgeon in London, who performed an external urethrotomy and stated that a stricture was present; he removed two minute spherical stones, which he stated were prostatic concretions. This operation did not relieve him, pain and difficulty in urination continued, and he also noticed that whenever he passed a constipated motion he had a sharp cutting sensation in the perineum.

When I examined him a large calculus was felt with the finger in the rectum in the situation of the prostate, grating was felt on moving it. A radiograph showed a large dense shadow to the right side of the middle line and two minute separate shadows close to its outer edge. Both kidneys and ureters were examined and showed nothing abnormal. No instrument was passed along the urethra.

Operation on October 27th, 1911.

An inverted V incision was made in front of the anus, the bulb exposed and the wound deepened by blunt dissection: the fibres of the external sphincter inserted into the central point of the perineum were cut, and the space between the rectum and the prostate was opened up. There was much old cicatricial tissue around the urethra behind the bulb. The prostatic urethra was opened behind the triangular ligament, and on inserting the finger the orifice of the pouch was immediately come upon. It was emptied of its three calculi without difficulty (Fig. 3), the opening was largely dilated, and a sharp spoon was freely used in the cavity. The interior of the pouch had a rough irregular wall. A rubber catheter was passed into the bladder and fixed by a catgut stitch through the margins of the urethral wound. The wound of the overlying parts was closed with deep and superficial sutures of catgut. The catheter was removed from the bladder on the fourth day; urine ceased to come from the perineal wound on the sixteenth day.

The chemical composition of the large calculus was reported by Professor Moore to be:

Calcium phosphate	... ...	60.91 per cent.
Calcium oxalate ...	... ...	13.36 ,,
Calcium carbonate	... ...	5.96 ,,

No uric acid.

This case differs from the other two in that soon after the onset of symptoms the true nature of his affection was discovered by the passage of a calculus. His first symptoms were evidently produced by the projection of a calculus out of the prostatic pouch into the urethra, and before this time there were no urinary symptoms of any kind. Subsequently other calculi, projecting and escaping into the urethra, were removed, but the pouch was not opened up and exposed. The calculi which I removed were situated well to the right of the middle line and firmly fixed. The large calculus presents a number of projections which suggest the irregularity of the bed in which it lay. On section it has an amorphous soft white centre, and around this are laid down concentric layers of a harder material of pale fawn colour, between the layers of which there is more of the softer whitish material. The position of this large calculus points to its having formed in the right lobe of the prostate. No prostatic tissue could be made out with a finger outside and another within the pouch—the gland appeared to have been destroyed by pressure. In this case I think there can be no doubt that the calculi were true prostatic calculi formed in the gland. There is nothing in the history which throws any light on the condition which led up to their formation.



Fig. 4.

Chemistry of the Calculi.

It is necessary to say something on the composition of the calculi found.

Case I.—The calculi were all of a fawn colour; practically all were facetted—some appeared to be compounded of several fused together. Chemically they consisted of two-thirds calcium phosphate, one-third calcium oxalate. On section they appear to the naked eye to be composed of two substances, the one of white and the other of a brown colour. (Fig. 4, *a*.) These have been laid down for the most part in layers, but there is a good deal of irregular deposit. The innermost part of each of the two calculi cut is composed of the whitish material. It is much less hard than the brown. Probably the white is calcium phosphate, the brown calcium oxalate. The arrangement in the calculi shows that during their growth both these substances were deposited in part intermittently, in part simultaneously, the initial deposit being phosphate.

Case II.—The chemical analysis of the calculi in this case was somewhat of a surprise. Concentric layers are more definite than in the last case, a whitish and dark brown substance alternating, the white material being more friable (Fig. 4, *b*). The analysis gives the proportion of oxalate as being very small. The dark-coloured

material probably represents a mixture with some organic substance. The centre of one of the smallest seed calculi is composed of this, and is surrounded by the whitish phosphate. In this case the evidence points to the formation of the calculi in the prostate by the deposition of phosphate, a small proportion of oxalate being added from the urine, together with traces of uric acid.

CASE III.—In this case the large stone removed is composed of two substances—centrally a friable white substance, and peripherally a harder yellowish-brown substance (Fig. 4, *c*). The latter is laid down concentrically, the central part is amorphous. This is a calculus, primarily pure phosphate, on which oxalate has subsequently deposited, no doubt from the urine, after the formation of a definite communication between pouch and urethra.

In all three cases the clinical symptoms, the anatomy of the pouch in which the calculi lay, and the arrangement and number of the calculi, point to their having formed *in situ* primarily in the prostate gland, eventually in pockets communicating with the urethra. The chemical analyses make it necessary to revise the statements in the textbooks as to the composition of urethral calculi formed *in situ*. Evidently, the presence of calcium oxalate in a calculus cannot be accepted as evidence that it had descended from the urinary channel above.

ANATOMY OF THE DIVERTICULA.

In all three cases the pouches in which the calculi lay appear to belong to the acquired diverticula, whose formation is secondary to that of the calculi themselves, and directly due to their presence. This is the most common origin of pouches in the prostatic urethra according to the cases on record, although there are cases in which it is impossible to avoid the assumption of a preformed diverticulum antedating the formation of the contained calculi, in particular a diverticulum resulting from cyst formation in the gland.

Englisch[9] describes a preparation derived from a man aged 40. A cyst was present immediately under the mucous membrane of the posterior wall of the prostatic urethra. It was lined by a many layered flat epithelium, and presented numerous depressions and pockets corresponding to dilated prostatic ducts and acini. The contents consisted of an albumen-like fluid, containing epithelial masses, cells, and prostatic concretions. The same author also describes specimens which show that abnormalities in size of the sinus pocularis are met with, and that it may attain considerable dimensions. He quotes the following cases recorded by Burkhardt:

A man aged 59, who in life had had no urinary symptoms, presented a fluctuating cyst underlying the internal urethral meatus to the right of the middle line.

A man aged 51. Six months previously sudden dysuria and retention for two days. Return of the same symptoms two weeks before record. With the cystoscope close to the bladder neck was seen a greyish-red translucent swelling the size of a nut. Removal by suprapubic incision. The cyst was single, and showed the characteristics of a prostatic retention cyst.

A third case concerned a man of 22; dead from tuberculosis. Behind the posterior border of the inner meatus there was present a small soft swelling; a sound in the sinus pocularis led into this tumour, and it was, in fact, a dilatation of this channel.

Michailow[10] has recorded a retention cyst of the sinus pocularis causing urinary obstruction. Large diverticula connected with the prostatic urethra have been placed on record by Escat, Thistle, Ferraton, and Kapsammer.

Escat[11] found and removed by perineal dissection a congenital diverticulum from a youth aged 18. This presented in the perineum behind the scrotum, and was traced to an opening in the pars prostatica. It was considered by Escat a dilatation of the Müllerian ducts. It contained no calculi. The same author described the case of a man of 31 with congenital inversion of the penis, congenital and acquired urethral strictures, and a diverticulum in the pars prostatica which gave rise to great difficulty in catherization. In Thistle's[12] case a fluctuating swelling presented in the perineum; this was a urethral pouch extending backwards behind the neck of the bladder—it contained three uric acid stones.

Ferraton[13] recorded a "voluminous calculus of the urethra enclosed in a juxta-vesical pouch, a small prostatic pseudo-bladder." The patient was aged 24. At the age of 4 he had pain on micturition, and ever since a slight discomfort had persisted. For five years before admission the urinary symptoms had been more pronounced. Radiography showed a circular shadow behind the pubis. The bladder was opened above; the forefinger, introduced into the internal meatus, came at once on a cavity opening out of the floor of the urethra containing a calculus, the cavity being considerably larger than the contained calculus. Analysis showed a centre of urate surrounded by phosphate of lime. Ferraton considered the cavity pre-existing.

Kapsammer[14] has related the removal of a stone the size of a goose's egg from "a vaginal sac" in a male. The patient was aged 29; from youth he had passed blood by the urethra occasionally. At the age of 26 a fluctuating swelling was found between the perineum and prostate which could be emptied into the urethra by pressure. Three years later the stone was removed by perineal incision, and at a second operation the sac was extirpated. The sac had all the appearance of a vagina, communicated with the pars prostatica, and its wall had the structure of epidermis except for glands and follicles. It was surrounded by a layer of unstriped muscle.

These cases illustrate the manner in which preformed saccules of the prostatic urethra may arise. The writer is not aware of any record of a saccule whose origin was definitely traceable to the bursting of a prostatic cyst into the urethra, and such a sequence of events is not likely to be capable of demonstration; but the fact that such cysts do occur, and the likelihood of their establishing a communication with the urethra, make it probable that some of the prostatic urethral pouches arise in this way. The large pouches described by Escat, Ferraton, Thistle, and Kapsammer probably owed their origin to an abnormal development in connexion with the urogenital sinus and its junction with the urethra, or, as Ferraton supposed, to a dilatation of the sinus pocularis.

The following two cases of diverticula, although described as of the membranous urethra, may be noted as illustrating the lodgement of urinary calculi in preformed diverticula.

Finsterer,[15] in an article on urethral stones, relates a case of diverticulum of the membranous urethra. The patient was aged 35, and a calculus was easily palpable on rectal examination above the sphincter ani. Extraction was difficult owing to its firm enclosure in the pouch, which resembled a forebladder (Vorblase). The stone was compound, four articulating with one another; around a small porous nucleus of ammonium urate phosphate was deposited in concentric layers. From the description given it seems very doubtful whether the diverticulum was actually of the membranous urethra.

Schapiro[16] writes of a man, aged 37, from whom he had removed a urate calculus, weighing 5.8 grains, from a congenital diverticulum of the membranous urethra. He considered the diverticulum congenital because no pathological cause for its development could be discovered.

The pouches which form in the prostate around a primary prostatic calculus are more frequently met with than the congenital type, but they are not common.

Young[17] states that he has met with eleven cases of prostatic calculi, in eight of which they were embedded in prostatic tissue, and removed with enlarged prostates. In one case a calculus was removed from the left lobe of the prostate of a child. In another, a patient aged 36, three calculi almost completely filled the prostatic capsule; the third was a case of multiple seed calculi in a *post-mortem* specimen.

Morton[18] has described three cases:

1. A patient aged 35; difficulty in micturition for fifteen years; a pouch present in the prostatic urethra in which there were seven calculi and three minute concretions. One stone was also present in the bulbous urethra and one in the bladder. All were phosphatic. There was a stricture of the scrotal urethra. Later several stones were found in an extension of the pouch backwards under the bladder.

2. A patient aged 34. History of urinary retention when a boy. From this time suffered from incontinence. Nine months before admission had retention, and a month later two stones were removed from the scrotal part of the urethra. On examination stones were felt per rectum grating upon each other, and were removed from the "dilated" prostatic urethra.

3. A patient aged 63. External urethrotomy many years before. Stricture. Stones were felt by sound in prostatic urethra and palpable per rectum. Fragments of stone were removed from a "greatly dilated prostatic portion," partly composed of

calcium oxalate; the prostate seemed to have disappeared, the floor of the pouch being apparently formed of the urethral and rectal walls only.

Morton remarks that in none of the cases was the stricture just in front of the prostatic urethra nor was it so tight as one would expect it to be if it had been the cause of the marked dilatation. He says "as far as I know only phosphatic stones are formed in the urethra."

Fenwick[13] has related the case of a man of 28 years, who had had urinary symptoms for five years. The prostate per rectum felt a mere capsular shell spread over a bag of stones. The stones were five in number and one projected into the prostatic urethra.

De Keersmaecher[20] writes of two cases. A man of 69 years gave a history of fifteen to twenty years' pain in urination. The bladder was opened above the pubis, and immediately within the internal meatus a pouch was found containing calculi. A man, aged 27, had had internal urethrotomy several years before without improvement. A metal bougie felt a stone in the deep urethra. The bladder was opened above the pubis and the finger in the internal urethral opening came on a pouch containing three stones.

DIAGNOSIS.

Encysted calculus of the prostatic urethra is a condition which, though rare, is met with from time to time and gives rise to symptoms of a characteristic kind. There is pain and difficulty in urination, the stream varies greatly without any obvious reason. The passage of an instrument gives rise to an extraordinary muscular spasm which simulates a true stricture. The passage of bougies, however, affects the stream but little and the improvement in urination is very transient.

Unless a rectal examination is made or a calculus projects into the urethra, the true cause of these symptoms will probably remain long unsuspected and the patient be treated for stricture. In two of the cases recorded here a stricture masked the chief cause of the symptoms for many years, in the third the escape of a stone into the urethra revealed the state of affairs at an early stage. These calculi are evidently liable to be formed at a comparatively early age, and in young adults who present the symptoms of difficult and painful micturition, if the urethral examination does not satisfactorily account for these symptoms, it will be well to bear in mind the possibility of such a condition as described here.

A point to note also is the intolerance of instrumentation which these patients present; the passage of an instrument along the urethra gave rise to great pain in each case when the posterior urethra was reached. In Cases I and III a catheter was fixed in the urethra while stones were still present, and in each case a urethritis was set up.

These calculi are felt at once on rectal examination, the prostate is more or less replaced by a mass of intense hardness, and when there are several stones present there is grating on palpation.

The passage of an instrument is attended by certain characteristic symptoms—the muscles of the membranous urethra are on guard and the instrument meets with difficulty here owing to their spasm; just before entering the bladder there is complaint of great pain. Of course if the bougie finds a grating surface in the posterior urethra the diagnosis is plain—at any rate, it is clear that a calculus is there.

TREATMENT.

The old methods of removing encysted calculi such as these by means of scoops and forceps when they project or escape into the urethra do not furnish a proper remedy for the condition. It is absolutely necessary that free access should be obtained to the pouch. Calculi are extremely likely to be overlooked unless the pouch is dealt with in the most thorough manner possible, and for this reason also the suprapubic route is inferior to the perineal. I do not think that calculi can be searched for in outlying pockets, as they must be, by the suprapubic route.

The procedure adopted in the third case offers the best means of dealing with the pouch thoroughly. The most obvious suggestion is the total removal of prostate, pouch, and calculi. In the class of case illustrated by these three histories I do not consider the suggestion feasible. The enucleation of a hypertrophied prostate is one thing, the removal of a mass consisting of remains of prostatic tissue with calculi together with prostatic sheath is quite another, and anatomically impossible, and unless the prostatic sheath were removed with the scissors the wall of the pouch in such cases would not be taken away.

The best method is to open the prostatic urethra behind the triangular ligament. The operation is begun as for a perineal prostatectomy. After freeing and retracting the rectum, the distal part of the prostatic urethra is exposed and opened on a staff. The incision will be within 1 in. to 1½ in. of the pouch, and the finger is thrust into it. The opening into the pouch is forcibly stretched. The calculi are then removed with a spoon or with forceps, the forefinger of the left hand outside the pouch being used as an aid. The most careful exploration is necessary to avoid leaving small calculi behind, and it is necessary to use the spoon vigorously within the cavity, and frequently to explore with the finger.

The second operation in Case II gave an opportunity of examining what was a pouch of considerable size three months previously; all that was present was a shallow depression in the urethral floor. If therefore the pouch is thoroughly cleared and curetted, it may be expected to practically obliterate itself, provided that the pouch is freely thrown open into the urethra by forcible dilatation of the aperture of communication.

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A CASE OF CALCULI OF THE PROSTATIC URETHRA.

BY

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IMPACTION of calculi in the urethra is an occurrence more frequent in children than in adults, the usual place to find them being the fossa navicularis, because the meatus is the narrowest part of the urethra. Such impaction is probably the most frequent cause of retention of urine in children, but usually the urethra is not completely blocked and the urine dribbles away.

In adults a calculus may lodge behind a stricture, cause ulceration and perineal abscess, which bursts and establishes a fistula, through which sometimes the stone escapes.

Prostatic calculi may be divided into two classes:

1. Calculi which lodge in the posterior urethra, escaping from the kidney, bladder, or seminal vesicles; and a small group of cases in which the stone is primarily formed in the posterior urethra.

2. Calculi formed in the substance of the prostate gland—the true prostatic calculi—entirely distinct in origin and nature from urinary calculi.

I report the following case as being of interest, owing to the comparatively large size of the stones and their perfect adaptation to the prostatic urethra; also because I believe the cases to belong to the somewhat rare class in which the stones are formed primarily in the prostatic urethra.

CASE.

P., a highly neurotic Cingalese, aged 20, was admitted into the General Hospital complaining of the following symptoms: Frequency of micturition (about ten times during the day and about fifteen times at night, giving him little sleep). Micturition was accompanied by a burning sensation, especially towards the end of the act, when he experienced a scraping sensation, beginning at the anus and ending at the meatus. In spite of severe straining the stream was thin and weak, and the last few drops contained a thick white precipitate—phosphates. Micturition was most easily accomplished when he lay on his side, but was almost impossible when standing, owing to sudden blockage and interruption of flow. This effect was no doubt contributed to by the loose stone I subsequently

found in his bladder. During the day, therefore, he found it easier to micturate sitting on his haunches (a method much in vogue amongst the natives here). Micturition under the best of circumstances was torture. I saw him lying on his side straining prodigiously, groaning in agony, and pressing with his fingers forcibly on the perineum, and the result of all was a thin feeble stream of urine rapidly passing into a few drops, which soon ceased.

There was dribbling in the intervals of micturition, but the bladder was not distended. He sometimes felt a small foreign body move in the fossa navicularis (referred sensation). He never passed blood or stones per urethram, but has often noticed white pieces like "cocoanut scrapings" in his urine—no genital symptoms. This state of things had been going on for ten months.

The patient had undergone twelve months' imprisonment in a Ceylon gaol, from which he was released only three months ago. In gaol he had done hard labour on a diet of rice, coffee, dry fish, and hard bread, and meat. After one month's imprisonment he received lashes. He had hardly been three months in gaol when he noticed the first symptom of his disease, namely, frequency of micturition.

On making a rectal examination, which I had to do under anaesthesia, owing to the severity of pain, I felt the grating of two stones lodged in the region of the prostate, and confirmed this on passing a sound, when I also detected another stone lying loose in the bladder. Prostatitis and deferentitis were present.

Operation.

I performed suprapubic cystotomy and removed three stones—one from the bladder 3.2 cm. long, and two from the prostatic urethra, 2 cm. and 1.4 cm. in their longest diameters respectively. I found the bladder wall very attenuated. The prostatic stones I reached by passing my finger through the internal meatus, and extracted them with scoop and finger, aided by a finger in the rectum, without very much difficulty. They were situated about ¼ in. from the neck of the bladder; the semilunar stone was removed first. These stones were faceted for articulation with each other, and, as will be seen from the diagrams, are not unlike the scaphoid and semilunar bones of the carpus. The stones were composed of phosphate and calcium carbonate.



Stones in prostatic urethra. (Actual size: A, 1.4 cm.; B, 2 cm. by 1.5 cm.)

I did not keep in a rubber catheter at the time, and regretted it afterwards, as I was only able to do so after dilating the urethra with sounds a couple of days later. I corrected his phosphaturia with urotropin, acid sodium phosphate, and a bitter infusion.

In three weeks the patient left hospital with no unpleasant symptoms and quite cheerful.

Certain points in the case call for remark.

Casper favours the pre-rectal route in the extraction of prostatic stones; I think I was well advised in having adopted the suprapubic approach in this case.

Judging from the contour of the two prostatic stones, their accurate adaptation, and the presence of phosphaturia, I think the conclusion that these stones were formed primarily in the prostatic urethra justifiable. I am inclined to believe that the narrow portion of the bigger stone projected into the membranous urethra, the narrowest portion of the passage; it is significant that this constricted part measures 1.2 cm., the length of the membranous urethra.

The overwork, anxiety, intimidation, and bad food inseparable from the life of a convict seem to have been the causative factors in the production of the phosphaturia and calculi. At any rate, the symptoms began only three months after he went into prison.

Pressure on the perineum was an aid to micturition, serving probably to cause a slight dislodgement of the calculi. The feeling of a foreign body in the fossa navicularis was a referred sensation. Difficulty of micturition when standing was an effect of the action of gravity on the prostatic stones, whilst the sudden blockage to the urinary flow must be attributed to the vesical stone.

Dribbling in the intervals of micturition is attributable to the inability of the prostatic sphincters and the compressor urethrae to act, the latter probably owing to the intrusion of the narrow neck of the lower stone within the membranous urethra. In other words, there was mechanical incontinence of urine.

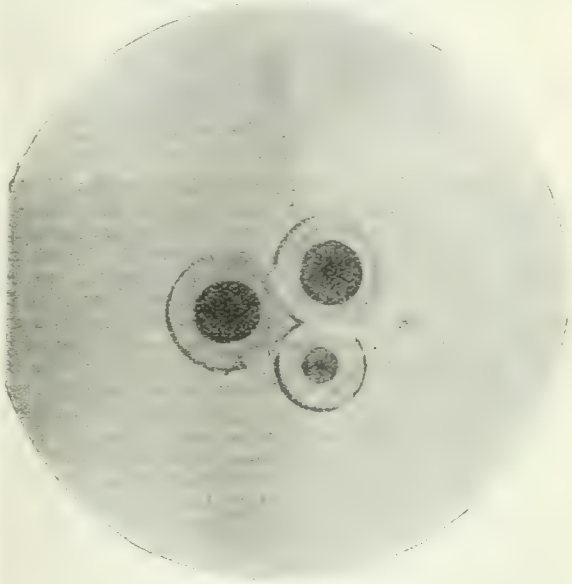
AN UNUSUAL URINARY DEPOSIT OF CALCIUM CARBONATE.

By W. HERBERT BROWN, M.D.,

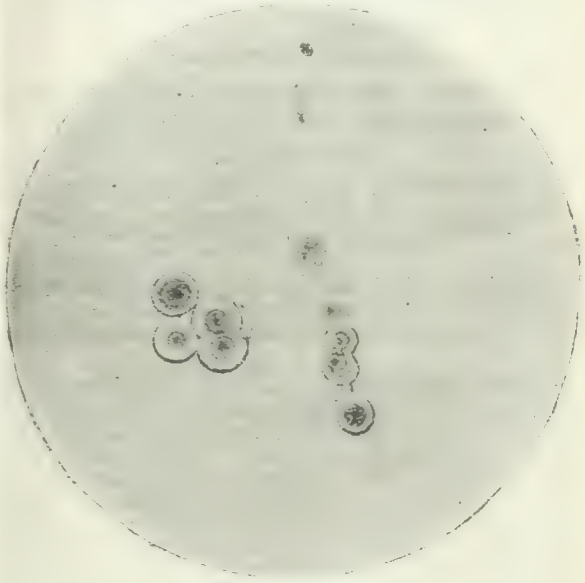
ASSISTANT DISPENSARY PHYSICIAN, ROYAL INFIRMARY, GLASGOW.

A DEPOSIT of calcium carbonate in human urine is of such rare occurrence that I regard this a sufficient reason for bringing the following case before the notice of the profession.

The patient, a man aged 65, was presumably suffering from granular kidney. He had been feeling in excellent


Fig. 1.—Calcium carbonate; high power.

health till this, the first and terminal illness since boyhood. The symptoms began with headache, followed later by sickness and vomiting; he got progressively worse, gradually passed into a comatose state, and died three


Fig. 2.—Calcium carbonate.

weeks after the onset of symptoms. The arterial tension was noted to be high. At no time did the urine contain more than a very small quantity of albumen. The first specimen, examined during the first week of illness, showed

an organic deposit containing a number of granular and hyaline casts, but no crystals of any kind. A second sample, examined two days later, showed no deposit, and no tube casts were found in this or any of the samples thereafter. During the second week of illness the urine became more highly coloured and muddy, and looked simply like a concentrated urine with a deposit of pale urates. Microscopical examination, however, revealed a very large number of crystals, as shown in Figs. 1 and 2. They had a beautifully clear and sharply defined appearance, consisting of a double contoured envelope and a finely striated structure centrally.

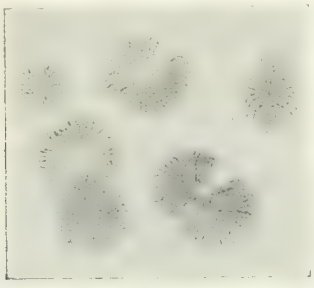


Fig. 3.

Dr. Middleton, Senior Visiting Physician to the Glasgow Royal Infirmary, who kindly examined the specimen, said he had never seen such a urinary deposit, but thought it most probably calcium carbonate, though the appearance of some crystals suggested leucin. Mr. Agnew, Lecturer in Chemistry, St. Mungo's College, examined some of the sediment, and reported that it consisted of calcium carbonate. Various books were consulted, and though some of the illustrations of lime crystals were a little like this specimen, none presented the picture shown in Fig. 1.

For some days this sediment continued to be present, and then was gradually replaced by one consisting chiefly of crystals as shown in Fig. 3. Among these, however, were always to be found a few circular ones, and also a few uric acid crystals. The very finely striated appearance in this second form was very clearly shown, and gave the impression that these crystals were simply the first form minus the double contour. They were clearly of the same chemical composition, possibly in a different phase of formation. Of this interesting and unusual deposit I offer no explanation.

The patient's diet latterly consisted of nothing but milk, and the only drugs he had during his illness were the alkalis, a few doses of erythrol-tetranitrite, and hypodermic injections of pilocarpine, and these latter I do not think offer an explanation.

A NEW CELL PROLIFERANT: ITS CLINICAL APPLICATION IN THE TREATMENT OF ULCERS.

By CHARLES J. MACALISTER, M.D., F.R.C.P.,

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THE inquiry of which the following is a short preliminary account originated in a somewhat accidental way when I was seeking for information concerning cell proliferants.

COMFREY.

My attention had been directed to the fact that from time immemorial the symphytum, or common comfrey, had been much recommended by the ancient writers in medicine as a vulnerary and as a dressing for sores and ulcers of various kinds. From the days of Saxon leechdom* (*c.* 1000) to the end of the seventeenth century there were few authors who did not refer to it, and it was sometimes spoken of as being the "chief vulnerary herbal." I can find no reference to comfrey in any books on materia medica or therapeutics of relatively recent date; Pereira, for instance, does not refer to it, and it was never an official remedy so far as I can discover. To this day, however, it has a traditional reputation among country folk, both in England and in Ireland, as a domestic herbaceous "simple" for applying to sores, and I was much interested during the past summer, when visiting a farm at Tarvin in Cheshire, to find that its owner always keeps a bed of comfrey growing in order that he may provide the villagers with it when occasion arises.

I was a good deal impressed by the old accounts of this ancient remedy, and in particular with the description of one case, which led me to think that it might be quite worth while to investigate the qualities of comfrey and to discover whether it, or any of its constituent principles, had any influence upon cell growth; and as a result of researches carried out in collaboration with Dr. Titherley and Mr. Coppin, of the Chemical Department of the University of Liverpool, I shall presently show that it contains a body which may have some important clinical applications.

Through the kindness of Professor Harvey Gibson I was provided with a large quantity of the root, some of which was handed over to Dr. Titherley and Mr. Coppin, and while they were making a careful chemical analysis of it, which took a considerable time, I proceeded to dress the only ulcer which was then available to me with a strong infusion made from the powdered root. This case was an exceedingly unpromising one, because it was a "rodent" of about two years' duration, not a simple ulcer. It was a stroke of good fortune, however, that this case was the first to be experimented upon, because having resisted all kinds of previous treatment, the marked epithelial growth which took place upon it seemed more likely to be the result of a specific action of the application than would have been the case in an ordinary varicose ulcer for instance. It was a very large ulcer (measuring 4 in. by 3 in.), involving the skin and deeper structures over the upper thorax, and it was slowly spreading, more especially by its upper margin, which was high and undermined; the other margins were less raised. The base was irregular, and there was some sero-purulent discharge. After being dressed with the mucilaginous infusion for about a week the surface cleaned, and a distinct growth of epithelium could be seen taking place from some of the marginal points. Later on the upper margin flattened somewhat on its inner aspect, the undermining vanished, and after growing here and breaking down there for a time the epithelium became stronger and closed in to a considerable extent.

By this time Dr. Titherley reported to me that he had obtained a definite, so far unidentified, crystalline body from the root, and he was able to give me sufficient to experiment with. Since it was very sparingly soluble in water, quite a large amount of solution was made, which was now used as a dressing for the ulcer instead of the infusion. With this application the skinning-over process in the course of a month was all but completed.

I do not propose at this point to proceed with clinical results. Several other experiments were made, however, all of them confirming the suggestion that the symphytum root contained a principle which might be useful as a cell proliferant. It therefore behoved us to investigate its chemistry before studying its practical utility.

In his preliminary examination Dr. Titherley established the facts that the root contained:

1. Gums.
2. Sugars, including a reducing sugar.
3. Resins.
4. A protocatechuic derivative or derivatives.
5. A substance giving an intense yellow solution with sodium hydrate (not investigated further).
6. A crystalline solid, very rich in nitrogen and melting at 226° C.

Since from clinical observations this latter body appeared to be the physiologically active constituent of the root, Mr. Coppin was asked to devote his attention to its investigation. His methods of extracting it will be fully published at a later date; but Dr. Titherley and he found that the root contained about 0.8 per cent. of it, and by estimating its carbon, hydrogen, and nitrogen contents he showed that it possessed the same empirical formula as allantoin, which it greatly resembled in its chemical properties.

ALLANTOIN.

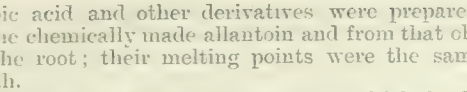
Some allantoin was now prepared from uric acid, and the product from the root was proved conclusively to be an identical substance by chemical methods. For example,

* Dr. Edward E. Nicholson (Neuilly) furnished references.

allantoic acid and other derivatives were prepared both from the chemically made allantoin and from that obtained from the root; their melting points were the same, and so forth.

Allantoin ($C_4H_6N_4O_3$) is a compound which is obtained by the alkaline oxidation of uric acid in the cold.

Uric Acid. *Allantoin.*



It is a pure white crystalline substance, melting at about 226 C., with decomposition. It is only slightly soluble in cold water (0.6 per cent.), but readily in hot water. It is rather more soluble in cold alcohol, but it is quite insoluble in ether. Dry allantoin is quite stable, but if boiled with water for a considerable time it undoubtedly undergoes decomposition to a slight extent. It is decomposed by alkali, giving a variety of products, the nature of which entirely depends upon the conditions under which the experiment is carried out. For instance, concentrated potassium hydrate in the cold gives allantoic acid, whereas boiling with dilute sodium hydrate for half an hour and then acidifying with nitric acid gives urea nitrate. Allantoin is to a certain extent an amphoteric substance—that is, it is capable of combining with both acids and bases.

A potassium salt of allantoin is $C_4H_5N_4O_3K$.
A salt of nitric acid is $C_4H_6N_4O_3HNO_3$.

Regarding the chemical physiology of allantoin or the part which it plays in human metabolism very little is known, but some interesting facts have been recorded which may throw light upon its action as a cell proliferant and may point to its having a function to perform in the bodily chemistry, apart from any possibility of its being a product of purin metabolism, in which light it has generally been regarded. It is present both in animals and plants. It was first discovered in the former, and received its name from the fact that it was found in the fetal allantoic fluid. Later on it was identified in the urine of pregnant women. Recently its presence has been demonstrated in very small amounts as a normal constituent of the urines of healthy people, but that it is not an end product of human metabolism, which means that it is probably not derived from the oxidation of uric acid to which it is closely allied, has been shown by a good many observers, as pointed out by Dr. Ackroyd in a paper published in the *Bio-Chemical Journal* for March, 1911. This is an important observation, and is based upon the works[1] of Schittenhelm, Wiener, Minkowski, Poduschka, and Wieschowski, who have shown that when allantoin is given to man it can be recovered to a considerable extent in the urine, and the author himself concludes "that the whole quantity of allantoin excreted by man on a milk and vegetable diet may be derived directly from that contained in the food." It will be noted that I am speaking of the relation of allantoin to human metabolism only. In the dog, cat, and rabbit, on the other hand, it appears to be a normal end product of metabolism.

If these facts are reliable the allantoin in human urine is mainly derived from vegetable foods, as pointed out by Dr. Ackroyd, and in the healthy individual it appears to pass practically unchanged through the economy, the amount eliminated representing about the amount which had been ingested.

Distribution of Allantoin in the Vegetable Kingdom.

Our knowledge of this is not very extensive, but it is a very suggestive and interesting fact that such analyses as have been made indicate that it is generally found in parts which are related to growth either active or potential. For instance, in 1881–82 Schultz and J. Barberi found it in the buds of certain plants and in the bark of branches of trees, and Ackroyd refers to its identification in the embryos of wheat separated in the process of milling, and in beet juice by Richardson and Crampton (1886); he has himself demonstrated its presence in bread, French beans, and green peas, whereas it is absent from bananas and rhubarb. Now this is a suggestive circumstance taken in conjunction with the fact that it is a characteristic component of the fetal allantoic secretion, and related therefore to an important structure connected with the fetal circulation, a structure along which the vessels pass which convey the fetal blood to and from its intimate relationship with the maternal blood.

Whenever we find any substances constantly in certain parts of plants or animals it is quite reasonable to suppose that they may be in some way related to and necessary for the particular tissues which have selected them, and although the allantoin in the human embryo might be regarded as a fetal waste product, I think we may feel justified in assuming that, in the economics of Nature, it has a function to perform, perhaps in relation to cell multiplication, especially as it is not at once eliminated through the maternal circulation. The same suggestion is raised by the fact that it is also present in milk, the food of the rapidly growing young organism, and in the parts of some plants in which active cell multiplication takes place. We are making some investigations concerning these matters, and later on this preliminary communication will, I hope, be augmented by a description of the results of that work.

Having thus referred to the history of events which led up to this inquiry concerning comfrey root and the discovery of its comparative richness in allantoin, I must proceed to say a few words concerning its effects upon the cases which have been treated with it.

Clinical Observations with Allantoin.

In making clinical experiments great care has to be exercised in the selection of cases, in order to make certain that other conditions which would ordinarily promote healing are not alone operating and bringing about or starting the cell proliferation. On this account I have tried to safeguard my observations in the first place by treating those ulcers which have refused to heal under ordinary forms of rest and cleanliness and under ordinary forms of treatment, and in the second place I have provided a good many medical men with solutions of allantoin to treat their cases with, in order that my own results might be confirmed or tempered by theirs. One is rather apt, when experimenting with a substance in this way, to allow optimism to exaggerate the resultant benefits, and it is an advantage to get others to form independent judgements concerning them from their own observation.

I shall begin by shortly relating a few of the numerous cases where, under my own care, several long-standing ulcerations were the subject of investigation. One of the most striking cases was the following:

A woman, aged 48, who was transferred to me by Mr. Douglas Crawford on July 20th, 1911. There was a large ulcer on the dorsum of the foot and another, practically continuous with it, over the lower third of the leg. The bases were in places sloughy and even gangreous looking, and there was a purulent discharge. She was sent to Mr. Crawford, I understand, for his opinion as to whether the leg should be amputated. The ulcer measured 5 in. by 4 in., and had been in existence for five years. Allantoin dressings were commenced on July 25th; a week later the surface had cleaned and presented healthy granulations, and a rapid growth of epithelium was taking place from all the margins. On August 12th it was manifestly healing, and on August 17th, that is, in thirty-three days, this huge ulcer was reduced to the size of a pin's head. The scar was healthy and sound. She was kept in bed for a fortnight, and since her discharge has remained sound and well.

Another class of ulcer which has quickly responded to allantoin includes those which are apt to occur in paralytic cases.

We had an example of this in a girl aged 11 years, who had a large ulcer on the dorsum of her left foot. The skin had broken down rapidly, leaving a large, deep, circular ulcer about the size of a penny. Since it showed no signs of healing at the end of five weeks, Mr. Robert Jones invited me to dress it with allantoin. This treatment was commenced on March 10th. The epithelium rapidly grew in, and in four weeks it was entirely healed.

Another case analogous to this was that of a young woman, also a patient of Mr. Jones, who had circular paralytic ulcers on each leg. They were examples of what used to be called weak ulcers in my student days, and they had remained practically unchanged, one of them for five months and the other for eight months, in spite of the fact that the patient had been recumbent for several weeks. On May 2nd they were dressed with allantoin, and on May 17th the ulcer on the right leg was skinned over. The one on the left leg took longer, but it was healed on June 8th. The epithelial coverings in this case were thin and the cicatrices soft and flat. She was one of those patients with flail legs, the surface cold and the muscles atonic, and one was not surprised to hear that one of the ulcers subsequently recurred.

I might quote many cases of various kinds which have been treated under my own observation, such as chronic varicose ulcers, burns, etc., all of which have exhibited increased growth of epithelium and hastened healing processes, but there are others to which I attach almost more importance because they have not been under my own immediate care.

Dr. Arthur Wallace records a case of an abdominal hysterectomy for fibroids; during the course of the operation gall stones were discovered, which were removed, and the gall bladder was drained. A fistula persisted for a month without any indications of closing. A light gauze wick saturated with allantoin solution was introduced twice daily into the fistula. From that time the track steadily narrowed, and ten days after the first application bile ceased to escape and the sinus healed up steadily.

Dr. Wallace also reports a case of abdominal hysterectomy for carcinoma of the cervic uteri, with pelvic dissection. On the day following operation an irregular area of skin on the right buttock was noted to be hyperaemic. The margins were sharply defined. On pressing against it sensation was found to be diminished, and the pressure was followed by temporary local anaemia. Such areas have been previously noted after this operation. Usually they disappear in a few days, but in a few cases necrosis of the skin has occurred, and this happened in this case. Experience of such ulcers in other cases has shown that they are long in healing, many weeks being required for the process.

September 21st. Ulcer measured 2½ in. by 1 in. Dressing with allantoin solution was begun.

September 28th. A rapid growth of epithelium has occurred during the week, and the ulcer is two-thirds of its former size.

October 2nd (that is, four days later). The ulcer measures 1½ in. by ⅝ in. It is surrounded by a zone of thick epithelial growth of whitish colour, soddened by the solution.

The patient was then dismissed with a dry dressing. The remainder of the ulcer required a fortnight for healing.

Dr. Wallace writes that he has used the solution in several cases in which a drainage tube track has been slow in closing.

An example occurred in an obese woman whose healing powers were of a poor kind. Healing by first intention occurred, but the cicatrix was thin and weak, and broke down superficially without apparent cause. An immediate change took place when allantoin solution was employed as a dressing, the epithelial margin thickened and quickly spread in towards the centre, permanent healing being secured by the end of five or six days.

Dr. Kidston records an excellent result in a chronic myxoedematous ulcer which was making very slow progress under other dressings, but with the use of allantoin the progress was steady, and a ring of young epithelium could be seen growing in from the margins. He reported that the scar left was much more healthy than had been the case with previous ulcers in this patient (she had suffered from them before), and that the scar was strong and healthy.

Allantoin in Gastric Ulcer.

The following case suggests that allantoin may have a useful application in gastric and other internal ulcerations:

On February 17th, 1911, a woman aged 47 was admitted into my ward in an extremely debilitated condition in consequence of a very severe attack of haematemesis. For many weeks previously she had suffered from pain after food, and had vomited persistently for a fortnight prior to her admission. Even water caused pain and was immediately rejected. There had been melaena for some time prior to the attack of haematemesis for which she was immediately admitted. For twelve months she had been conscious of pain on pressure over the abdomen, and had noticed a lump in the epigastrium, extending into the hypochondrium. This woman was so feeble that the ward sister said that it was a pity that a patient so ill and advanced in disease should be sent into hospital. I felt disposed to agree with this opinion, because on examining her abdomen I found a tumour just underneath the ribs on the right side. It was rounded, irregular, and intensely painful, and my impression at the time was that she had a carcinoma of the stomach, an opinion which was strengthened by the fact that she had an undoubted cancer of the breast. When the irritability of the stomach subsided, she was given the mucilaginous infusion of comfrey root reinforced with some of the saturated solution of allantoin. In addition to the improvement which took place in her stomach symptoms, in the course of a month the abdominal tumour disappeared, an area remaining, however, which was extremely painful on pressure; but in time this also disappeared, and what I had taken to be a malignant growth had vanished.

I have treated other cases of gastric and duodenal ulcers in the same way, and have reason to think that it is a helpful measure for them. My experiences with allantoin have led me to believe that it may prove to be of considerable practical utility, not only in the types of ulcers to which I have referred, but perhaps also in tuberculous cases and even in corneal ulcerations and I would suggest to my surgical brethren the possibility of its being serviceable as a dressing when skin grafting has been performed. It is easy of application and, so far as I have seen, non-irritating. Although allantoin itself is somewhat expensive, the solutions for application only require to contain from 0.3 to 0.4 per cent. of the crystals.

In conclusion I desire to thank all those medical men who have assisted me by sending cases or by making independent observations, and I am especially indebted to Sir William Hartley (who provides funds for this research), and to Dr. Titherley and Professor Harvey Gibson and other scientific friends at the university who have done so much to assist and encourage me in the work which I have undertaken.

REFERENCE.

[1] Schittenhelm and Seisser, *Zeit. Exp. Path. Ther.*, 1909, vii. 116-133. Hirokawa, *Biochem. Zeit.*, 1910, xxvi, 441-457. Wiechowski, ibid., 1910, xxv, 431-459.

THE NEW CELL PROLIFERANT:

A NOTE ON THE SYMPHYTUM OFFICINALE OR COMMON COMFREY.

BY

WILLIAM BRAMWELL, M.A., M.D., B.Ch.,

LIVERPOOL.

An interesting question was raised at a recent meeting of the Liverpool Medical Institution, when Dr. Macalister introduced the subject of a long-forgotten remedy—the *Symphytum officinale*, or common comfrey—which once held a prominent place in the medical armament of the older writers. Dr. Macalister has wisely had this singularly efficacious remedy analysed, and Dr. Titherley and Mr. Coppin (of the chemical department of the Liverpool University) have discovered that the root is rich in allantoin, which they found to be a "potent cell proliferant."



I have on more than one occasion cured old ulcers which have resisted other treatment, by the simple extract from the root applied on lint to saturation. After a few hours this dressing, in favourable cases, sets quite hard, and can only be removed by the lengthy application of water, which is often more tedious and painful than the average patient, who has been in the habit of applying some simple dressing, cares to endure. This hard setting acts, in some measure, like strapping, drawing the edges of the ulcer towards one another, but probably much more

evenly and accurately than the most skilful strapping could effect. This looks as though the cure is wrought similarly to healing under a scab.

One patient, an old gentleman of gouty diathesis, who will not diet or take medicine, finds the nightly application of the mucilage of symphytum the only remedy of the many he has tried which gives him any relief for pruritus ani. His sufferings at one time were so intense that he says he could not sleep for weeks together.

I judge the explanation of its efficacy in this case to be very simple. When the mucilage is taken into the mouth there is a sense of dryness, due to some astringent principle, probably tannin; at the same time, if the air be drawn in, there is a sensation of coldness and numbness much like that felt after peppermint, though in a lesser degree, but without the previous burning sensation, and hence it is slightly anaesthetic. In pruritus ani these two principles acting together, the one driving back the acid-laden blood, the other soothing the irritated nerve endings, will, I think, account for the relief which is felt in this troublesome complaint.

Acting on this principle, I have frequently used it internally as a last resource where more elegant preparations have failed—for example, in gastralgia, when I have believed this to be due to an irritated gastric mucosa, and to ease the pain of and to cure gastric ulcer. In these cases its efficacy has been much more wonderful than its effects in external applications in cases like the above; and here, too, its cell-proliferating capabilities, which Dr. Macalister's colleagues have discovered, will be a large factor in promoting the growth of new mucous tissue over the irritated and congested surface of gastric ulcer.

It is indeed refreshing and gratifying, in these days of serums and vaccines and highly complicated preparations, the administration of which, in some cases, is fraught with the gravest possible danger and soul-harrowing anxiety on the part of the administrator, to find a physician of Dr. Macalister's standing setting on foot the investigation of so simple and natural a remedy as common comfrey.

Καὶ τὰ φύλλα τοῦ ξύλου εἰς θεραπείαν τῶν ἐθνῶν.

TREATMENT OF PUERPERAL SEPTICAEMIA BY VACCINES.

By A. HAWKYARD, M.D.Durh.,

LEEDS.

The history of the following four cases throws some light, I think, on the common cause of puerperal septicaemia. In regard to the first case, it seems to me, judging by the three subsequent cases, that I was right in ascribing the nurse's suppurating finger as the cause of the patient's illness.

I should think the colon bacillus is never found in the pus of a recent abscess, though I have been told it is found sometimes in old chronic abscesses. Streptococcus, colon bacillus, and staphylococcus swarm in faeces, especially colon bacillus, and I think we may take it that if colon bacillus is found inside the uterus, it has been conveyed there on the finger of the examining hand. Even with the greatest possible care it is impossible sometimes to avoid doing this; and conversely, in the absence of the colon bacillus, we must look round for some other cause. I think it would be impossible to infect a patient with *streptococcus only*; if faeces had been introduced into the uterine passages and caused septicaemia, colon bacillus would surely also be found.

These cases illustrate the very great importance of first of all identifying the infecting organism or organisms. It is obvious that one cannot expect recovery, or even improvement, in a case of septicaemia caused by the triple infection of streptococcus, colon bacillus, and staphylococcus if a vaccine prepared from streptococcus only be used. Judging from my experience, we may expect to find the colon bacillus helping to cause puerperal septic conditions in nearly all these cases. It would be extremely useful, therefore, if there was on the market a vaccine prepared from streptococcus, colon bacillus, and staphylococcus, so that valuable time would not be lost in waiting for the preparation of an autogenous vaccine.

The best mode of obtaining a swab of the uterus is to introduce, through a speculum, the swab into the upper part of the uterus, previously having cleansed with sterile wool the vagina and os uteri.

Case I.

On January 7th, 1911, I delivered a primipara, aged 21, instrumentally. On January 9th she had a rigor, and a temperature of 106°. I injected a stock vaccine of streptococcus, and had an autogenous vaccine prepared at the Yorkshire Pathological Laboratory, Leeds, from a sterile swab which had been introduced, with proper precautions, into the uterus. The immediate result of the administration of the vaccine was to bring down the temperature.

On January 11th, the temperature again rising, I administered ½ c.cm. (2½ million) of the autogenous vaccine, the result being to bring down the temperature to nearly normal. On account of rising temperature vaccine was administered—on January 16th, 5 million, on January 19th, 10 million, after which the patient made an uninterrupted recovery, and was practically well on January 31st. I am sorry no temperature chart was kept, but I used vaccine when the temperature rose to about 104°. The report from the laboratory was to the effect that the infection was due to a nearly pure streptococcus infection, a very small number of colonies of staphylococcus being present.

This case is important because it resulted in an action for slander being entered against the patient's husband at the assize court by the nurse in attendance. I found her to be suffering from a suppurating finger (it had been bad more than a fortnight), and when I received the pathologist's report I had no hesitation, seeing she had handled the patient's parts, in expressing the opinion, when questioned by the husband, that the suppurating finger was the cause of the illness. Subsequent experience has justified this opinion.

Case II.

Whilst the above case was under treatment I saw a case of puerperal septicaemia in consultation with another medical man. The patient had been ill for about a fortnight. A swab of the uterus was taken and the infecting organisms were found to be streptococcus, colon bacillus, and staphylococcus. A vaccine was prepared and the patient improved under its administration for a time, but she died about eight weeks after confinement, of pneumonia. Had the vaccine treatment been commenced earlier it is probable the result would have been different.

Case III.

On April 29th, 1911, I was called in to stitch the perineum of a woman who had been delivered by a trained midwife. On April 30th the patient had a rigor and was obviously commencing with septicaemia. A stock vaccine of streptococcus was at once administered, and a swab of the inside of the uterus was taken. The infecting organisms were found by the pathologist to be streptococcus, colon bacillus, and staphylococcus. Under treatment the patient recovered. I need not enter into details, as the temperature chart is annexed, and sufficiently indicates the course of the illness. It is a twelve-hour chart, but the four-hourly chart which was taken during the whole of the illness indicates more clearly the beneficial effect on the temperature of the vaccine injections. The initial dose of the autogenous vaccine was 2½ million on the fourth day of illness, followed by 5 million on the sixth day, 10 million on the seventh day, and again 10 million on the eleventh day, the temperature being 105°. There was no apparent need for further vaccine treatment after this.

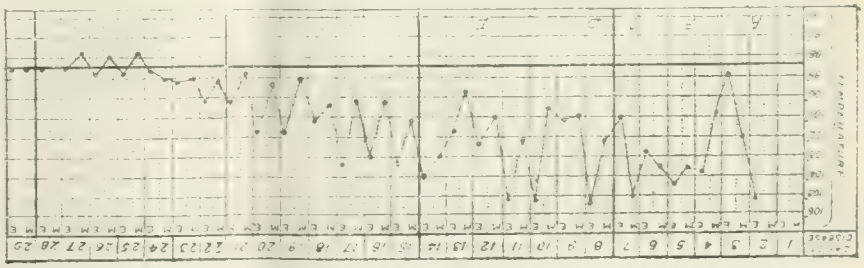


Chart (Case III).—A, Stock vaccine: B, autogenous vaccine, ½ c.cm.: C, autogenous vaccine, ¾ c.cm.; D, autogenous vaccine, 1 c.cm.; E, temperature at noon, autogenous vaccine, 1 c.cm. Rigor occurred on the second and seventh days.

Case IV.

Early last month (November) I saw a woman recently delivered. For reasons not necessary to mention, I sent her into hospital. She developed puerperal septicaemia, a swab of the uterus disclosing a pure colon bacillus infection. She was treated by autogenous vaccine and recovered.

SALVARSAN IN YAWS.

BY

HENRY ALSTON, M.B.,

MEDICAL SUPERINTENDENT, ST. AUGUSTINE YAWS HOSPITAL, TRINIDAD.

I AM able to give the results of the treatment of 500 cases of framboesia with salvarsan at the St. Augustine Yaws Hospital, Trinidad, from January to October, 1911. Intramuscular injections only were used, and the usual dose was 9 grains (0.6 gram) for an adult.

The 500 cases were injected as follows: January (20), February (1), March (14), April (87), May (68), June (75), July (101), August (17), September (87), October (30).

The first case was injected on January 4th and the 500th case on October 14th.

The injections were made by Drs. Rost and Cleaver and by myself. Dr. Cleaver kindly acted for me when I had a holiday, and gave most of the injections.

I write this on November 28th, when six weeks and four days have elapsed since the 500th case was injected.

Results.

498 cases are cured (99.6 per cent.).
409 cases were cured with one injection (82.0 per cent.).
75 cases were cured after a second injection.
14 cases were cured after a third injection.
The total number of injections was 603.

Stubborn Cases.

Two of the cases are not yet cured:

S. C., aged 7 years, male. Injected on September 16th. I reinjected him on November 11th.

T. M., aged 14 years, male. Injected on October 2nd. I reinjected him on November 8th.

Both cases show amelioration. Each will be given a third injection next week.

Relapses.

Only 5 cases discharged cured came back, and they were cured with a reinjection. Before salvarsan was used relapses were 12 to 14 per cent.

Complications and Deaths.

When Dr. Cleaver was acting for me, 4 deaths occurred among cases that had been injected by him. Dr. Cleaver is of opinion that none of the deaths were the result of the injections with salvarsan. No local gangrene, no nerve or ear complications, and no dimness of sight occurred in any case. The only complication was the formation of an abscess at the seat of injection in 2 cases.

Deaths at the St. Augustine Yaws Hospital from May to September this Year.

E. S., male, 60 years. Injected May 2nd. Took ill May 18th. Died May 30th. Cause of death certified by Dr. Cleaver to be stomatitis and diarrhoea.

Rammarine, male, 3 years. Injected July 8th. Took ill July 16th. Had fever. Passed 50 ascarides. Died on July 19th. Death certified by Dr. Cleaver to be due to fever associated with worms.

Meenaram, male, 65 years. Injected twice, June 5th and July 15th. Had gonorrhoea. Took to bed August 2nd. Died September 3rd. Cause of death, malarial fever and diarrhoea.

Seecharan, male, 11 years. Injected September 16th. Took ill on September 27th and died same day. Cause of death, fever and convulsions.

There were 103 deaths at the St. Augustine Yaws Hospital during the ten years preceding the use of salvarsan—an average of ten deaths per annum. Seventy-four per cent. of the yaws cases admitted to the St. Augustine Hospital have conspicuous painless enlargement of the femoral lymphatic glands. When discharged cured a minority are noticed to have lost the femoral swellings; a majority retain them, but they are reduced in size and softer.

The absence of complications (except a local abscess at the rate of 1 for every 301 injections) shows that salvarsan is not in itself harmful, and that the deaths and serious complications in the treatment of syphilis attributed to the drug must be due either to the method used or to complications which belong to syphilis alone.

It is usually stated that the active agent for curing in salvarsan is the arsenic. I have proved by experiments that such organic arsenic compounds as sodium cacodylate and arsacetin have no effect in yaws cases, and that the efficacious preparations soamin and orsudan are far behind salvarsan in curative power.

Mercury utterly failed at the St. Augustine Hospital as a cure for yaws, so if there be the choice of two drugs for syphilis there is no such choice in the case of yaws.

Conclusion.

Salvarsan is a specific for yaws, and there is no danger attending its use for this disease.

AN EXAMINATION OF ABOR ARROW POISON.

BY

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CHEMICAL EXAMINER TO GOVERNMENT, BENGAL.

THE material here discussed was scraped off an arrow-head removed from a wounded man. It was moist and earthy looking.

Resinous Body.

An oleaginous resinous body was extracted which was soluble in alcohol (90 per cent.) and dilute acetic acid, also in ether and in chloroform, but insoluble in water. It gave the "croton oil reaction" on the tongue and in the pharynx. A little rubbed on the skin of the forearm raised a crop of minute papules in twenty hours. This patch was slightly reddened and itched; it was not painful, and only slightly tender on pressure; after ten hours more it had faded and slowly resolved. Croton oil itself will vesicate the skin. Inoculation of half the extract from this one arrow-head into a guinea-pig gave rise to no symptoms of poisoning.

Residue.

The insoluble residue was dry and powdery. It consisted of vegetable fibres, cells, and detritus, with some earthy matter, but no animal tissue; it gave no physiological reaction. A minute trace of an alkaloid-like body was obtained which had a slightly bitter taste, but no other characters by which it could be recognized. There was no aconite present in the poison.

Conclusions.

I suggest that aconite is not used by the Abors, and that the idea that it is present on their arrow-heads is due to the somewhat similar physiological tongue test. Using the frog test no confusion between the two could arise. There is no anaesthesia with croton, and to an "educated tongue" the burning, tingling sensation is different.

It would seem that the "arrow poison" is a paste made by pounding the soft parts of *Croton tiglium* plant, and not obtained from the seeds.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

HYDRAMNIOS: TWINS: ADHERENT PLACENTA. Mrs. McD., aged 35, who had had four children, complained of pain over the right lower ribs, with sickness and vomiting. Pleurisy was detected, and treatment ordered accordingly. The abdomen was noted to be markedly distended, and the patient calculated she was about six months pregnant or thereabout. It was obvious that there was much discrepancy between the size of the abdominal tumour and the period of gestation. No heart sounds could be ascertained, nor any fetal parts palpated. Hydramnios was diagnosed, and the case watched.

The pleurisy and stomach symptoms cleared up, but the patient remained confined to bed on account of abdominal distress and vague pains. The urine contained some sugar, but no albumen. Her previous labours had been normal in every respect. The swelling gradually increased in size until, before delivery, the abdominal distension was enormous, the patient's general condition meanwhile keeping quite good.

Labour set in ten days after the case was first seen. The pains went on slowly, and a bag of membranes could be felt presenting. The patient, whose general condition continued satisfactory, was allowed to progress for a time in the hope that a moderate amount of cervical dilatation might take place. This, however, proved an exceedingly slow process, and after the patient had been in labour for

a few hours, the os then admitting two fingers, it was decided to rupture. Fluid, which was carefully collected, escaped freely, the hand meantime in the vagina, and the wrist used to plug the opening from time to time. During this escape an attempt to turn proved impracticable, owing partly to insufficient dilatation of the os, and eventually a head presented. After a little difficulty in applying forceps this child was delivered easily.

A twin pregnancy was now ascertained. Moderate abdominal pressure caused the second child to present transversely. Delivery was quite soon effected, the amniotic sac in this case being complete with little liquor. Both children were males, and the latest born showed signs of life for a time.

The placenta of the second child came away normally, but that of the first was adherent, necessitating extensive separation right up to the fundus. At once, after completion of this stage ergotin was administered hypodermically, and a hot intrauterine douche containing lysol given. The fluid constituting the hydramnios was afterwards ascertained to measure four and a half gallons.

The puerperium was quite uneventful, and the patient made an excellent recovery.

Manipulations and procedure in the case were much facilitated through excellent assistance given by the Queen's district nurse.

J. G. McDOUGALL, M.B.Ed.

Kinlochleven, Argyllshire.

EFFECT OF CANE SUGAR ON THE UTERINE MUSCLE.

I read with interest Dr. Carter's "Case of Cardiac Failure Treated by Cane Sugar," reported in the BRITISH MEDICAL JOURNAL of November 25th, 1911.

The effect of cane sugar on heart muscle seems to have been known for some time, though, I believe, the knowledge is by no means widespread. The effect of cane sugar on uterine muscle is, on the other hand, well known, both to medical men and to the laity.

"It is said to be of considerable assistance in increasing the energy of the uterine contraction in labour" (*Practitioner*, September, 1907, p. 439). This has been made use of by French people in inducing an otherwise slack uterus to produce good effective labour pains. Sugar is thus given either in solid form or in solution with, I believe, very good results.

In Egypt it is usual to give infusion of caraway seeds, well sweetened with sugar, for at least one week after delivery. This is believed to hasten and increase the mammary flow, as well as to bring about a speedy involution of the uterus. What good effect there may be is attributed to the caraway seeds, while sugar is considered only as a sweetening agent. To medical men, familiar with the physiological and therapeutical action of cane sugar, it is only natural that a good deal of these beneficial effects should be attributed to the good offices of cane sugar.

This beneficial effect suggests to me the employment of this home remedy in such cases as subinvolution of the uterus when the administration of drugs may have some retarding influence on the mammary secretion.

Cairo. H. SHAHEEN, M.R.C.S.

OEDEMA OF THE EYELIDS TREATED BY BURIED STRANDS OF SILK.

IT is acknowledged that treatment of this condition has hitherto been unsatisfactory. Mr. W. Sampson Handley [1] suggested artificial lymphatics in the form of sterile silk threads, and Mr. A. B. Mitchell,[2] of Belfast, has published a successful case. A report of a case I have had may be of interest.

N. N., aged 30, came to the Ophthalmic Institution, Glasgow, in February, 1911. In 1909 she received a slight cut in the skin above the right eye, and this, in two weeks' time, was followed by erysipelas, which began at the wound and spread over the forehead, affecting the right side more severely than the left. After the attack the upper eyelids remained swollen, the right more so than the left; they were soft, bulging and overhung the eyeballs. The lower lids were unaffected.

The method of procedure was practically that suggested by Mr. Handley. I used a long, somewhat blunt needle threaded with No. 8 tubular silk. A small incision was made just outside the outer canthus, and through this the needle was passed and carried in the substance of the lid along its lower margin towards the inner canthus, where it was brought out through a small incision. The needle was then unthreaded, and again threaded with the end emerging at the outer canthus. It was inserted again at the outer canthus and thrust downwards in the cheek for an inch or more and brought out through a small incision and unthreaded. The needle, threaded with another thread, was once more inserted at the outer canthus incision and this time carried through the upper part of the lid and out at the opening at the inner canthus. The end emerging at the outer canthus was carried into the substance of the cheek as before. The ends of the threads were shaved off and the wounds closed with collodion. A general anaesthetic was employed and the usual antiseptic precautions observed.

For a week there seemed little improvement: then the swelling went down, and now, while the lids are not quite normal, they are nearly so. There was a little suppuration over one of the threads in the left cheek, and part of the thread had to be removed; thereafter the suppuration ceased, and now scarcely any trace of the operation is noticeable.

It seems probable that the small incision at the outer canthus may be followed by sufficient cicatricial contraction to cause some obstruction in the line of drainage at a place where there is no depth of soft tissues. I think this could be obviated by entering a long curved needle at the inner end of the lid and carrying it through into the cheek without interruption.

J. ALEXANDER WILSON, M.D.,
Assistant Surgeon, Ophthalmic Institution, Glasgow.

ANTE-PARTUM HAEMORRHAGE.

I HAVE read with great interest Dr. Herman's paper on *ante-partum* haemorrhage. There is one cause of this trouble not referred to, and that is the traction caused by an unusually short cord. I can remember two striking instances of this. In one there was very profuse haemorrhage, the os was fully dilated, but the head although coming down somewhat with the pains, which were strong, was pulled back again. The patient's condition when I got to the house, which was many miles from my own, was getting serious from loss of blood. I at once proceeded to deliver by forceps, and when the head was brought down the cause of the trouble was at once seen—the cord was wound five full times around the neck. As soon as possible the cord was tied and severed and the placental end shot up out of sight. The rest of the birth was rapid once the restraining cord was cut. The long end of the tape used for tying was a guide for the short end of the cord. The placenta showed how much had been detached before birth. The cord was under the average length, and only a very short piece led from the child's neck to the placenta. Recovery was uneventful and the child lived.

In a second case the total length of the cord was only about ten inches. It was not around the child's neck. The haemorrhage was much less. Forceps had to be used and the cord tied, cut, and let go. Recovery of mother and child took place normally.

With regard to plugging the vagina I cannot understand Dr. Herman describing this as "horribly painful." Discomfort there is, but a rational method of plugging only causes discomfort and not pain. Personally I always carry a Sims speculum in my bag. If I have to plug I put the patient on her side, introduce the large end, and get the nurse to hold the perineum well back. The first few inches of the bandage or lint is covered with vaseline dusted over with boracic powder. The vagina can be readily packed, using the retractor, a sponge holder, or even the handle of a long spoon. As the upper part of the vagina is filled the speculum is gradually drawn down. In the absence of a Sims speculum, the handle of a big tablespoon can be used to retract the perineum, and the vagina can easily be packed with only a moderate amount of discomfort. If Dr. Herman will use either of these methods he will, I feel sure, readily qualify his statement as to packing the vagina being "horribly painful."

The plugs excite uterine contractions, and so help to control haemorrhage.

LEONARD W. BICKLE, F.R.C.S.Edin.

Adelaide, S. Australia.

[1] BRITISH MEDICAL JOURNAL, April 9th, 1910.
[2] Ibid., November 20th, 1909.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

NORTH OF ENGLAND BRANCH: NEWCASTLE-UPON-TYNE DIVISION.

THE second winter scientific meeting was held in the Royal Victoria Infirmary, Newcastle-upon-Tyne, on Friday, December 15th, 1911, when upwards of 100 medical men were present.

Practical Points Concerning the Sanatorium Treatment of Pulmonary Tuberculosis.

Dr. BEATTIE, in delivering a short address on this subject, said that a wrong impression existed in the minds of the laity and also in those of many members of the medical profession concerning the curative effects of sanatorium treatment. He defined a sanatorium as being merely the best special hospital devised for the treatment of pulmonary tuberculosis, securing in a large proportion of cases arrest of that condition, and in all cases having an undoubted educational value. He laid great stress upon the necessity for early diagnosis, in not neglecting to examine the lungs in subjects complaining of anaemia, languor, dyspepsia, loss of weight, morning cough, etc., in recognizing the tuberculous origin of a large proportion of cases of pleurisy and haemoptysis, and in not waiting for the presence of tubercle bacilli in the sputum. He regarded localized areas of crepitation, best elicited after coughing, as the most reliable objective evidence. In doubtful cases, as a diagnostic aid, Koch's Old Tuberculin in dilutions of 1 in 100 to 1 in 1,000 was more certain and safe than von Pirquet's or Calmette's or Moro's methods. He insisted that patients in whom the infection was active, as indicated by pyrexia, were not in a condition for transport, and that their interests were best served by rest and home sanatorium measures until the temperature at all hours had been normal for a fortnight. He said a sanatorium depended for its success upon its resident medical officer, who must be not only a capable physician but a strict disciplinarian. In reviewing the sanatorium régime, he considered rest as being of primary importance.

1. Rest to the body generally.
2. Rest to the lung
   (*a*) by the avoidance of expiratory efforts, such as coughing, singing, shouting, laughing, etc.;
   (*b*) by the avoidance of rib elevation movements.
3. Rest before food.

Exaggerated notions existed with regard to the necessity for fresh air. Indeed, the sanatorium régime had been wrongly designated the "fresh air treatment." It was not necessary to have more fresh air than was sufficient to maintain the atmosphere in living and sleeping rooms equal in freshness to that out of doors. There was sometimes a disadvantage in starving and draughts through risk of pleurisy or bronchitis, and consequent unrest owing to increased cough. Concerning food, cramming was no longer deemed necessary, but a sufficient ingestion of proteids and fats was desirable to increase weight as evidence of improving powers of resistance. Graduated exercises were necessary or desirable in apyrexial cases, at least to the extent of preventing cardiac dilatation, and for the further purpose, as advocated by Patterson, of bringing about autoinoculation with tuberculins generated at the patient's own foci. The educational value of measures for the prevention of reinfection of the patient or the infection of others could not be overestimated. Treatment in a sanatorium was by no means limited to the above régime, and the daily supervision and direction of the medical attendant, but included all forms of symptomatic treatment, such as the exhibition of antiseptics by various routes, and also, wherever desirable, the curative administration of tuberculins in suitable cases. The great disadvantages under which the system at present laboured were the scarcity and cost of such institutions and the inadequate periods of time spent there. Although arrest in early cases might be attained in six months, a firm cicatrix could not be secured within from eighteen months to two years. In conclusion, he reviewed the prospects expected from compulsory notification, and expressed hopes for some co-ordinate effort, such as the establishment of isolation hospitals for the incurable poor, a greatly increased number of sanatoriums, and the establishment in every town or district of dispensaries for the treatment of sufferers from tuberculosis.

Phthisis in Miners.

Sir THOMAS OLIVER illustrated his remarks on phthisis in miners by a series of lantern slides, in which he demonstrated the effects of dust upon the lungs, the phagocytic powers of certain cells within the alveoli, and the transportation of dust particles to the bronchial glands and subpleural areas by means of the lymphatics. The alveolar catarrh induced by the physical injury from the dust is followed by a proliferation of the fibro-connective tissue cells of the alveolar walls, which in the end leads to marked fibrosis of the lungs. In addition to the changes set up in the lungs in experimental anthracosis which he had induced in animals, and which showed the earlier stages of the disease, Sir Thomas Oliver threw upon the screen illustrations of gold miners' phthisis, ganister miners' phthisis, and the pneumonic lesions observed in a Kolar gold miner, remarking that in the case of the South African and Indian gold miners the dust which was inhaled seemed to predispose these men to pneumonia. Miners' phthisis—a pulmonary lesion which is of the nature of a fibrosis, and therefore in its early stages not tuberculous—was subsequently contrasted with phthisis in coal miners, Sir Thomas reminding the audience that the old type of lung disease in coal miners, namely, anthracosis, which was still fairly prevalent in Newcastle when he came to the city over thirty years ago, had considerably disappeared owing to the improved ventilation of the mines, and that its place had been taken by the tuberculous type, the infective organism of which was not caught in the mine, but in the home or elsewhere. In reviewing the number of admissions of coal miners into the Royal Victoria Infirmary, Newcastle-on-Tyne, for the last ten years, attention was especially directed to the large number of cases in the neck compared with affections of the lungs, facts of some importance from the point of view of the relationship of trauma and tuberculosis.

Some Complications of Parturition.

Dr. NAPIER BURNETT, in limiting the scope of his address, drew attention to one of the effects of the Midwives Act—that in many districts to-day a doctor's obstetric practice was all but limited to primiparae, the patients in subsequent confinements employing the less expensive district nurse. The first complication illustrated on the screen was that of *Incomplete breech presentation* in primiparae, especially where the thighs were flexed, the legs extended, and the buttocks sinking deep into the pelvic cavity. Personal experience of four such recent cases were detailed, emphasis being laid on the serious prognosis for both mother and child, in the absence of early diagnosis by abdominal palpation. The treatment advocated was the early bringing down of a foot, or cephalic version. The lesser degrees of pelvic deformity which the practitioner is liable to encounter, were then illustrated. While recognizing the value of accurate measurements by the pelvimeter, the importance of the *Relative size of the presenting part* to the pelvis was insisted on. The lecturer strongly condemned the operation known as "high forceps," maintaining that, in the absence of engagement and moulding, forceps should never be employed. After dealing with *Rupture of the uterus* and *Post-partum bleeding*, showing how these conditions are most likely to be produced, special attention was called to the recognition and treatment of *Shock* as a complication of parturition. Dr. Burnett expressed his conviction that much of the morbidity complicating present-day midwifery might be prevented by the employment of rectal saline injections, immediately following difficult labour. Such treatment quickly restores the patient's powers of resistance (depleted by shock) to the invasion of pathogenic organisms.

Oesophagoscopy.

Mr. C. W. M. HOPE, Assistant Surgeon at the Throat and Ear Hospital, Golden Square, London, gave an excellent and highly appreciated demonstration with the oesophagoscope. He showed a malignant growth at the lower end of the oesophagus of an elderly lady, local anaesthesia

only being employed. Mr. Hope also gave a demonstration with the gastroscope.

Gall-stone Disease with Jaundice.

Mr. G. GREY TURNER gave a lantern demonstration on gall-stone disease with jaundice. He said that on a previous occasion he had spoken on gall-stone disease without jaundice, and the secretaries thought it well that he should finish the subject. The first slides illustrated points in the development and physiology of the liver. The speaker said from a surgical point of view the functions of the liver were most important, so much so that obstruction of the common duct amounted to a systemic disease. The varieties of gall stones were shown, some in section, demonstrating the formation of a common duct stone on the nucleus of a smaller stone from the gall bladder. The pathological consequences of impaction in the common duct were next dealt with, and slides shown illustrating the bile-logged liver and cases of septic cholangitis with abscesses. Three groups of cases were next separately dealt with—namely, those in which the stones pass after producing temporary obstruction, those in which chronic impaction occurs, and those in which there is intermittent biliary fever (Charcot) with ball-valve obstruction. The clinical features were pointed out and the diagnosis briefly referred to. Using Mayo's figures, it was shown that gall stones without jaundice were operated upon with a mortality of 3 per cent., while when complicated with jaundice and sepsis the mortality was 22 per cent. Finally, a specimen was shown in which gall stones had existed for years with many attacks of jaundice and in which after the last attack pancreatitis had supervened, the whole of the pancreas having sloughed, leading to the death of the patient.

Reports of Societies.

ROYAL SOCIETY OF MEDICINE.

SECTION OF DISEASES OF CHILDREN.

Friday, December 15th, 1911.

Dr. G. A. SUTHERLAND, President, in the Chair.

Tuberculous Joint Disease in Children.

MR. A. H. TUBBY, in a paper on the indications for surgical interference in tuberculous joint disease in children, and the nature of the operations which might be performed, said that tuberculosis of joints was such only in its initial stages, for all the succeeding conditions of the parts were, as a rule, avoidable sequelae. In adults there was a tendency to limit extension of the disease by the formation of a barrier around it, but in children this did not exist. Abscesses connected with tuberculous joints responded more favourably to aspiration and injection of iodoform or camphor-thymol than to incision and drainage. Excision of the hip was a far from successful operation, and in the knee he performed excision only when conservative measures failed. In respect of all joints, conservative measures usually yielded better results, both as to the cure of the disease and retention of function, than the so-called radical operations. Sir ANTHONY BOWLBY said that tuberculous diseases of the joints in children stood in a different position from similar diseases in the adult because of the much greater powers of resistance and repair shown by the tissues of children. But these powers of repair depended largely upon the health and nutrition of the child, and hence it was imperative to attend to the general health. All possible sources of ill health should be attended to, especially tonsils, adenoids, and carious teeth. Even when the joint affected was in the upper limb the recumbent position should be employed for a time. He also emphasized the importance of the open-air life. The advent of asepsis, he said, had completely altered the whole picture of tubercle in joints, and death was more often caused by sepsis than by tubercle. The greatest possible care was necessary in dealing with abscesses to prevent the joint becoming septic, and at the same time great care was necessary not to infect the neighbouring tissues with tubercle. His treatment of abscess was aseptic incision and temporary drainage. Even in septic cases the limb could be usually saved by directing one's efforts to the general health of the child, by doing all that could be done locally, and by the use of vaccines to obtain aseptic conditions. He amputated less and less frequently for even apparently desperate conditions, for he had seen children recover from most extensive emaciation and amyloid disease, with hectic fever, treated upon conservative lines. In concluding a very favourable view of the curability of tuberculous joint disease in children, he expressed an opinion that what was wanted was increased accommodation in hospitals in the country for the treatment of the disease. Dr. A. BUTLER HARRIS, speaking of the rôle of vaccine therapy in this disease, said that as far as was known at present it did not appear to matter much whether the strain of tubercle bacillus present was of human or bovine origin. The same tuberculin appeared to do well in every case, and the opsonic indices came out equally well whether one or other strain was used. In diagnosis the estimation of a series of tuberculo-opsonic indices was undoubtedly of use. In respect of treatment auto-inoculation was only practicable by the method of passive congestion, and in such the dosage could not be regulated, and a steep negative phase might result. The method was only practicable in joints distal from the trunk, and it was easy to realize that distal joints were less liable to pour excess of inoculating material into the body than the proximal ones; it was also interesting to note that ankles and wrists did better than knees and elbows under this treatment; it was not commended for shoulders and hips. The advantage claimed for this method was that an autogenous vaccine was introduced. This, however, was of little moment, since there was no evidence that one strain of tuberculin was better than another when used for therapeutic inoculation. The evidence he had obtained from some thirteen hospitals as to the value of the administration of tuberculin was somewhat divergent, but he concluded from it that tuberculin, given in small doses under conditions of surgical rest, was a remedy which tended to accelerate the rate of recovery. Mr. ROBERT JONES agreed that there existed the greatest possible difference between joint tuberculosis in the child and in the adult. In the early stage in children joint tuberculosis nearly always ran a benign course, provided that certain things were attended to. The first was that the affected part should have absolute rest; secondly, the child should have absolutely good food; and, thirdly, it should have good country air. He emphasized the importance of children being out of doors both day and night. Immobilization of the joint should be very complete. He believed children were often taken out of their splints too soon. His practice was never to open an abscess until it came up to the surface, and then only by a very small puncture. Sir WATSON CHEYNE said that now he practically never operated for a tuberculous joint in a child. He could not help thinking that tuberculous disease of joints was milder than it was formerly; whether it was that the bacilli were less virulent he did not know. It was known there were diseases which gradually died out. It was certain the modern mode of living was more hygienic. He did not think that operation for such diseases in children could be put out of mind altogether. In the treatment of abscesses he employed antisepsis and asepsis, opened freely, and scraped them out. He always used tuberculin, and thought it did no harm, but he had not yet seen a definite good result which he could attribute to it. Mr. H. J. GALVAIN (Alton) was an ardent supporter of the conservative treatment, but was fully alive to the importance of radical treatment under special circumstances. His experience led him to believe that in many cases the course of the disease could be foretold, and if it were likely to run a serious course he believed in early operation. Abscesses he invariably aspirated. He emphasized the importance of treating these children in the best country air, in country hospitals specially equipped for the purpose. If all early cases were so treated he believed that there would be about 95 per cent. of recoveries, mostly without deformity. Mr. J. JACKSON CLARKE raised the point as to the number of cases apparently cured in infancy and the number which had recurred in later life. He said that there were a certain number which broke out again in later life. He had not seen a case ameliorated by tuberculin which had resisted other treatment. Mr. SUTCLIFFE (Margate) emphasized the long duration of time these cases required to heal. It took many years to heal a case

of tubercle; the average time for a tuberculous knee or hip was four or five years. Hip cases did best if continually kept in bed for many months. He used tuberculin, but could not say he had seen any definite results from it. Mr. E. M. Corner said that if there was an abscess the case would sooner or later come to operation, and he preferred to incise the abscess, wash it out, and employ temporary drainage. With regard to the number of cases which healed without operation he suggested that diagnosis was of importance. The diagnosis of a tuberculous hip was really a diagnosis of inflammation of the joint; the tuberculous nature was merely a matter of assumption, and he did not see that the opsonic estimation added much to the presumption that it was tuberculous. He thought that a good number of so-called tuberculous joints which got well were instances of infection by another organism, and not by the tubercle bacillus. His experience with tuberculin agreed with that of the previous speakers, but he had seen cases which did not improve in the ordinary way get well when put on tuberculin. He suggested that some of the successes which followed tuberculin treatment were not due to it, but to some unknown factor which was not yet understood. Mr. Lockhart Mummery advocated a conservative treatment. When obliged to operate he did as little as possible, merely opening an abscess through a small incision, removing any caseous material, and immediately suturing the wound. When septic infection had occurred he had found, after scraping the sinuses, that plugging them with gauze soaked in 5 per cent. formalin often gave good results.

Section of Balneology and Climatology.

At a meeting on December 13th, 1911, Dr. G. H. Thompson, President, in the chair, Dr. Gustave Monod (Vichy), in a paper dealing with the *Treatment of gastro-hepatic dyspepsia*, contrasted hydrological treatment as carried out at Vichy, Carlsbad, and Cheltenham. Cases of this kind might, he thought, be treated with equal success at each of these health resorts. The chemical analysis of the waters did not explain their therapeutic effect, and waters of widely different chemical composition produced the same clinical results. The clinical standard was the only reliable one, and should form the basis of all hydrological treatment. He had been particularly impressed with the therapeutic resources of Cheltenham, and gave it as his opinion that the waters of this spa, if they were hot, would unite the merits of Vichy with those of Carlsbad—a combination which would confer worldwide renown on a British health resort. He deplored the meagre quality of the literature on Cheltenham from a clinical point of view, and maintained that, unless well-defined clinical indications were furnished, Continental physicians would not feel encouraged to send their patients to an English spa.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

At a clinical meeting on December 20th, 1911, Mr. J. M. Cotterill, President, in the chair, the following were amongst the exhibits:—Mr. D. P. D. Wilkie: (1) A woman aged 58 who had syphilis for twenty-five years, and for fifteen years syphilitic psoriasis, and marked leukoplakia of the tongue with deep fissuring. The general condition was one of great debility. She was given 0.5 gram *Salvarsan* nine months ago. The psoriasis disappeared in fifteen days, and all that now remained of the tongue condition was slight fissuring. (2) A woman with a syphilitic ulcer on the leg of six years' duration, and who had given birth to four stillborn children. She received a similar dose of salvarsan in March, 1911; the ulcer healed in four weeks, and in October, 1911, she gave birth to a healthy child. Dr. Chalmers Watson: A case of typical *Afebrile rheumatoid arthritis* in a man aged 23, with painful swelling of phalangeal and metacarpo-phalangeal joints, ankles, wrist, and elbow. Under a diet in which animal proteid was restricted and excess of farinaceous food avoided, and a daily mineral laxative, the patient completely recovered. Dr. Byrom Bramwell: A female, aged 21, who had been admitted to hospital with marked scoliosis and apparent shortening of the left leg, ascribed to a fall two years before. She complained of pain in the back and left hip. X-ray examination showed no disease of either hip-joint, and under chloroform the deformity completely disappeared. The patient, after treatment by isolation and suggestion, had rapidly improved, and now walked perfectly well. Mr. C. W. Cathcart: Several patients after fracture, in whom a perfectly satisfactory functional result had been obtained, although the anatomical alignment of the fractured ends had been very imperfect. Dr. J. V. Paterson: A case of *Pulsating exophthalmos* following trauma. All the classical signs of this condition were present, but unusual features were the complete immobility of the eyeball, the marked ptosis, and the instantaneous loss of vision.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Medicine.

At a meeting on December 15th, 1911, Sir John Moore, President, in the chair, Dr. O'Carroll gave an account of *A case of rat-bite fever*. The patient, a man, was bitten on the lip by a rat in March, 1910. After some time the submaxillary glands enlarged, and the patient suffered from recurrent attacks of remittent pyrexia. Each attack lasted four or five days, with an interval between each of three or four days. A month or so afterwards the patient developed a very marked nephritis. Pleural effusion accompanied it and necessitated paracentesis thoracis on several occasions. By the end of the year the patient had so far recovered from all ailments as to be able to return to his work, which involved considerable fatigue and exposure. He had since remained well.

LIVERPOOL MEDICAL INSTITUTION.

At a meeting on December 21st, 1911, Dr. T. R. Bradshaw (President) in the chair, Mr. A. A. Bradburne reported the case of a family in which *Ptosis and immobility of the eyes* had been present in five generations and traceable as far back as 1710. He described the condition of the six members at present alive and of seven who were known to have the affection. Dr. E. W. Hope read a note on the *Notification of pulmonary tuberculosis*, tracing the various stages through it and calling attention to the fact that after January 1st all cases of this order would be taken as included in the Infectious Disease Notification Act, 1889. Mr. R. E. Kelly showed a case in which he had performed *Splenectomy*. The patient, a boy aged 9, had been run over by a motor car, and was admitted to the Royal Infirmary, suffering evidently from internal haemorrhage. On the abdomen being opened, within one hour of the accident, the spleen was found severely lacerated and had to be removed. Recovery was uneventful. Six months had since elapsed, and the boy appeared perfectly healthy with the exception of some slightly enlarged lymphatic glands. The blood showed the following changes: Red cells, increased haemoglobin index, but no poikilocytes or erythroblasts; white cells, increased lymphocytes, a basophilia of 2½ per cent. and an eosinophilia.

NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

At a meeting on December 14th, 1911, Mr. C. W. M. Hope (London), after giving a demonstration of the *Use of the oesophagoscope under local anaesthesia* on a series of oesophagoscope under local anaesthesia on a series of patients suffering from stricture due to various causes, classified possible treatment under the following headings: (1) Dilatation, (2) dilatation and intubation, (3) gastrostomy, (4) radium, following a dilatation. No. 2 was considered the most advisable method of treatment, and advocated strongly. For its accomplishment he recommended a modification of Symon's tube, a silver flexible stilette being passed through the lumen and a vulcanite front being fixed to it. In connexion with radium, he referred to several patients in whom temporary improvement had resulted from its use, and described in detail one case in which there was a septic fungating carcinomatous stricture. Now, after twenty-one months, there was still present some sign of stricture, but all appearance of ulceration had gone, and the oesophagus was lined throughout with apparently normal mucous membrane. The patient was about 1 st. heavier than previously, and was able to swallow solid food quite well.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

AT a clinical meeting on December 15th, 1911, Mr. H. LITTLEWOOD, President, in the chair, the following were among the exhibits:—Mr. H. H. GREENWOOD: A case of *Melanotic sarcoma of neck* which he had treated with Coley's fluid, and which had seemingly recovered. The patient, a man of 67, was first seen on February 2nd, 1911. On the right shoulder, just above the middle of the clavicle in the posterior triangle, was a lump 1 in. by ½ in.: the skin over it was normal, except a tiny black speck. On March 1st, 1911, a portion was excised under cocaine: it was found to be solid and coal-black. It was reported as melanotic sarcoma, after microscopic examination. On March 3rd, 1911, the growth was dissected out, and proved to be extensive. The whole of the growth was coal-black: small outlying portions lying on the front of the vertebrae were left. Stitches were removed on March 10th, healing occurring cleanly. On March 13th, between the stitch marks, sprouting portions of black growth began to show. On that day ½ minim of Coley's fluid was injected: this was followed by a rigor and a temperature of 101°. The injection was repeated every two days until March 31st, the dose being increased to 3 minims, when nux vomica was given to counteract the prostration. The injection had been continued up to the present time, being made sometimes into the growth, sometimes into the chest wall over the pectoralis, and the dose had been increased to 15 minims. Mr. W. THOMPSON: A case of *Xerostomia* in a female aged 23. Four years ago she had some swelling in the right parotid gland, followed a few days later by swelling of the left parotid. This went away after ten days, but had recurred at frequent intervals ever since. She had not been free from the swelling for more than two or three months at a time, and had suffered from excessive dryness of the mouth for two years. Dr. W. H. MAXWELL TELLING: A case of *Unilateral facial sweating* in a male aged 60; he had been troubled with the present condition twelve years: it came on shortly after going to America. There was sweating of the left side of the face and shoulder directly limited to the middle line. The parts felt hotter when sweating. The condition was very apparent under observation, and had recently got sufficiently severe to trouble him during the night. There were no other objective signs, and no pupillary changes were visible during the sweating.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on December 21st, 1911, Dr. ERNEST KNIGHT, President, in the chair, Dr. PERCIVAL HAY, in a paper on corneal ulcer, dealt with some points in the etiology of the disease, and showed that the age incidence of the *Hypopyon ulcer* coincided with that of pneumonia in adults, a circumstance which seemed to suggest that there was a lowering of resistance to the pneumococcus after middle life. The statement generally put forward by German authors, that the disease is a seasonal one and is favoured by exposure to heat, was shown to be based on false premisses and only partly true. Statistics covering more than 1,700 cases demonstrated that the visual results of treatment were very unsatisfactory. Over 50 per cent. of the cases ended in vision less than $\frac{6}{60}$. By instituting new methods of treatment, in which greater attention was paid to the treatment of the conjunctiva and treatment in the open air, the author had obtained V. $\frac{6}{18}$ in 40 per cent. of his hypopyon cases. Dr. F. H. WADDY recorded four cases of *German measles* which occurred in one family; they presented a strong resemblance to scarlet fever, but differed from it in point of period of incubation, the symptoms of invasion, the nature of the eruption, and the condition of the throat and tongue. None of the patients had ulceration of the throat, but the glands of the neck were swollen. The interval between the eruption in the first case and those succeeding it was twenty-four days, and between these and the last case twenty-two days. The first case was followed by rheumatism and endocarditis. The second case occurred immediately after measles, and it was followed by suppuration in the ear, and three weeks later by acute nephritis. Desquamation occurred in all the cases except the second, in which there was not the least trace of it.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on December 20th, 1911, Dr. JACOB, President, in the chair, Dr. S. E. GILL, in a paper on *Ringworm*, described the usual treatment as falling into three classes of work: (1) The use of antiseptics, which inhibited the spread of the disease, but otherwise had but little effect; (2) use of counter-irritants, which did good in so far as they caused epilation: and (3) epilation pure and simple, such as that produced by *x* rays. The latter in the most capable hands cured ringworm in about seven weeks, as compared with as many months by the other methods. The dangers of *x*-ray treatment were much exaggerated, permanent baldness being very rare, and colour changes also rare. From an administrative point of view it was advisable that the exclusion of ringworm-children from school should be in the hands of one person, and consequently their readmission should also be in his hands. If general practitioners would send their cases to the Medical Inspection Department from time to time for microscopic examination and report, it would be useful to them in dealing with a troublesome disease from which very little credit was to be obtained with their patients, and would also be of service in helping the school authorities to prevent the return to school of children who were still in an infective condition. In the discussion Dr. JACOB (President) spoke of the disappointing results from the use of copper ions, which he had tried extensively. Dr. R. WOOD (Ilkeston) favoured the use of sulphurous acid (B.P.). Dr. H. G. ASHWELL and others spoke of the very disappointing effects of ordinary treatment even when carried out systematically in institutions.

HARVEIAN SOCIETY OF LONDON.

AT a meeting on December 7th, 1911, Mr. J. ERNEST LANE, President, in the chair, Dr. J. H. CHALDECOTT, in a paper on *Chloroformization of patients in the upright position*, said that during the past six years he had used the upright sitting position when anaesthetizing patients for nasal and naso-pharyngeal operations in 1,400 cases. In his experience, this position was safer for the patient, grave symptoms rarely occurring, and breathing being easier. Moreover, syncope did not occur, and if a sponge were inserted in the naso-pharynx there was no trouble with bleeding into the larynx. There was little (if any) vomiting after regaining consciousness, and the position was more convenient for the surgeon. The patient should be properly prepared, the chair should be a dining-room or kitchen chair, a high stool being provided for the patient's feet. An armchair—and especially an easy chair—should be avoided. When ready for the operation, the anaesthetist passed his left arm round the patient's neck, thus controlling the position of the head and holding the mouth tube of the Junker in the same hand, the right hand being free. A dental prop should be inserted. Anaesthesia should be induced rapidly with gas and ether, and chloroform administered on an open mask before the Junker was applied.

THE catalogue of Messrs. De Dion Bouton for 1912 is a rather useful pamphlet, for much space is devoted to the photographic illustration of motor bodies, and a good idea of the large choice available in this direction is thus afforded. In addition, the booklet affords succinct information as to the outstanding features of De Dion cars and specifications of its models for the current year.

DR. SEIDELIN, in the *Yellow Fever Bulletin* for November, 1911, describes what he believes to be a new parasite in the blood of yellow fever cases. This organism, he thinks, bears a close resemblance morphologically to various forms of *Babesiidae*, especially to *Theileria parva*. The relationship of this parasite to other blood-inhabiting protozoa cannot be determined before a more detailed knowledge has been obtained of its different phases, especially of those in the mosquito, which may be presumed to be its definite host. Dr. Seidelin is shortly going to Mexico to try to work out the history of the parasite in greater detail. Though some time has now elapsed since he first published his discovery no confirmation of it from other sources has appeared, and in some ways the diagrams given at the end of the report are not altogether convincing. With fresh material, however, Dr. Seidelin may be able to prove that the bodies seen by him are parasites and the cause of yellow fever.

Reviews.

DIAGNOSIS OF CARDIAC DISORDERS.

A RECENT work[1] by Professor AUGUST HOFMANN, of Düsseldorf, will doubtless find many readers, presenting, as it does, the whole subject of cardiac and vascular disorder from the point of view of the experienced clinician. He takes as his text the condition of insufficiency of cardiac power, as shown by cardiac failure under various forms of stress. Following the example of many previous teachers, he has utilized his own lectures, delivered during recent years, and has amplified and brought up to date all those parts which are under special investigation at the present time. Much of the work is devoted to a close description of modern methods of graphic record of the simultaneous movements of heart and vessels, and the author has evidently spared no pains to make this portion of his work as complete as it is interesting. The clinical application of these elaborate methods is at present almost impossible, except under special conditions, nor can it be said that the information said to be conveyed by the multiple tracings themselves is as yet fully accepted by all observers. The interpretation of a normal tracing must be generally agreed upon before much reliance can be placed upon the abnormalities noted in the tracings of disease. But it is only by continued work upon the right lines that unanimity can be attained, and a perusal of Dr. Hofmann's book will show that much has already been done, though more remains behind. Vascular tension and the movements of the walls of arteries and veins in response to the heart's contraction can only be fully determined by means of tonometric apparatus, and it may be noted that the plethysmograph, which was used a good deal some thirty years ago, has again been brought into use in association with the tachograph and the sphygmomanometer. The introduction of the electrocardiograph has already led to a clearer conception of many forms of cardiac irregularity, and with better understanding there may ultimately come a more effective means of treatment, but at present the powers of the physician have not been greatly augmented thereby. In the second part of his book the author enters fully into the subject of cardiac insufficiency, and shows in detail the various influences which may bring stress to bear upon the heart, and the exact manner in which such stress is exerted. The enormous number of these influences is very striking, and the extended bibliography from which they have been drawn gives evidence of the thoroughness with which the subject has been attacked. The vital importance of early recognition of insidious morbid processes can hardly be exaggerated, and there can be no doubt that the instrumental methods of diagnosis have greatly aided the older means of physical examination, and may often have considerably modified prognosis and prophylaxis. The clinical evidence of the failing heart or the thickened vessel is usually only too clear, but a fuller understanding of morbid tracings will in time enable the physician to recognize the early stages by which such morbid changes are being brought about, and thus may point the way by which their increase may be checked. Such work as Dr. Hofmann records shows that the desired result will not be missed for lack of earnest workers in many lands. Of the concluding chapters on the treatment of insufficiency it must be noted that the same completeness is manifest, and that the author is able to draw largely upon his own extended experience. The essence of success may be found in attention to detail, and no point which may remotely bear upon the impairment of the heart's action is regarded as too slight for mention.

There are few things more interesting and instructive to the young morbid anatomist or to the post-graduate student than a tour of a well-stocked museum in the company of a sympathetic demonstrator. Every variety of lesion that may affect any organ can thus be studied more or less minutely as each case may demand, while the appearance of the specimen itself is, as it were, photographed upon the mind. But such mental pictures are apt to fade, and cannot then be called up when wanted. The happy thought has occurred to Dr. G. W. NORRIS, of Philadelphia, to make a series of photographs of the most instructive specimens of heart disease in the five museums in that city, and to publish them in a handsomely presented volume, entitled *Studies in Cardiac Pathology*,[2] with clinical notes and observations explanatory of each case and of the particular points which it serves to illustrate. These observations are in many instances strengthened by apt quotations from recognized authorities, and supply a great deal of historical and statistical information which adds considerably to the educational value of each section. The specimens selected for illustration are for the most part typical examples of the morbid conditions to which the heart and pericardium are liable, and include almost all of them. Many of them are rarely met with, as, for instance, the specimens of gummata and true aneurysm of the heart. Of the photographs themselves, it may be said that they are as perfect as such pictures can be, but it would doubtless add greatly to their realistic value if they were to be reproduced stereoscopically. The use of stereoscopic photographs of anatomical and pathological specimens has increased considerably of late years, and has been found to convey a far better idea of the changes brought about by disease than is possible by the simpler method. Dr. Norris's book should be a welcome addition to the medical library as a work of easy reference from which to gather statistical information, and as a pleasant means of refreshing the memory as to the actual changes brought about by every form of cardiac disorder.

The attempt to convey a clear conception of a sound by means of a verbal description is generally doomed to failure. Comparison with some known and unvarying sound enables the reader to form an idea of his own, but in the long run the sound itself must be heard before its quality can be appreciated. Especially is this the case with regard to the sounds of the heart, whether normal or abnormal, and in his small monograph on *Heart Sounds and Murmurs*,[3] which he presents as a pocket-book for clinical reference on elementary auscultation for the use of students, Dr. BROCKBANK has endeavoured to describe the varied modifications of the normal heart sounds met with in diseased conditions. It cannot be said that he has altogether succeeded in presenting his subject in convincing form. The student at the bedside, puzzled by sounds which are new to him, will not easily find their explanation at a glance. The author has entered at considerable length, for a pocket-book, into the possible causation of the rarer as well as of the commoner murmurs, and many of these explanations are original and well thought out, but they will prove of more interest to the cardiac specialist who takes pleasure in scientific speculation than to the undergraduate student.

It may be admitted that in spite of the great advances that have been made in mechanical means for registering the action of the heart, and of the help afforded by the *x* rays, the difficulties of the diagnosis of its diseases have not been entirely removed, and simple means, requiring no apparatus, by which any additional light could be thrown upon its state would be most welcome. This is what Dr. EHRENFRIED ALBRECHT, a physician practising in Bad Oeynhausen, believes he has discovered, and the purpose of the book before us, whose title may be translated as the respiratory reaction of the heart,[4] is devoted to its explanation. It is usual, if the condition of the heart be not plain, to make the patient go through certain rapid movements, such as quick walking or climbing on to a chair several times in succession, in the hope that by imposing additional work upon the heart any defect in its function will become manifest by undue rapidity or alteration in rhythm, or by changes in its sounds. The plan which Dr. Albrecht recommends is to excite the

[1] *Funktionelle Diagnostik und Therapie der Erkrankungen des Herzens und der Gefässe.* By Prof. Dr. Aug. Hofmann, Wiesbaden: J. F. Bergmann. 1911. (Sup. roy. 8vo, pp. 485; 12s.)

[2] *Studies in Cardiac Pathology.* By Geo. Wm. Norris, M.D., Associate in Medicine at the University of Pennsylvania. London: W. B. Saunders Company. 1911. (Large 8vo, pp. 233; 85 coloured illustrations. 25s.)

[3] *Heart Sounds and Murmurs: Their Causation and Recognition.* A Handbook for Students. By E. M. Brockbank, M.D.Viet., F.R.C.P., Senior Honorary Assistant Physician, Royal Infirmary, Manchester. London: H. K. Lewis. 1911. (Post 8vo, pp. 63; figures 17. Price 2s. 6d. net.)

[4] *Die Atmungsreaktion des Herzens.* Von San.-Rat. Dr. Ehrenfried Albrecht. Jena: Gustav Fischer. 1910. (Sup. roy. 8vo, pp. 214. M.5.)

heart by making the patient hold his breath after one or more deep inspirations. He uses a wooden stethoscope, and auscultates at five points—(1) over the absolute dullness in the parasternal line; (2) at the apex and left border of the heart; (3) in the fourth and fifth intercostal spaces between the right sternal border and the parasternal line; (4) in the aortic area; (5) in the pulmonary area. While auscultating the observer must keep his finger on the pulse. The effects of holding the breath may be to induce abnormal pulsations or thrills, to increase the intensity of the heart sounds, to bring out murmurs or make them louder, to increase or diminish the rate of the pulse, to alter the heart's rhythm, or to cause reduplication of the pulmonary second sound. The method is illustrated in an appendix containing summaries of forty-four cases of heart disease in which it was applied to their examination.

MEDICAL DIAGNOSIS.

In a brief preface, Dr. MITCHELL STEVENS expresses the hope that his volume on *Medical Diagnosis*[3] may prove of some help to those engaged in medical practice. This remark discovers the idea which prompted the compilation of the work, and we believe that the general practitioner will find it to be of the greatest value. As its names implies, it is devoted to the study of diagnosis, and, as the perusal of the work shows, to bedside diagnosis, for there is little or no appeal to the bacteriological laboratory and its methods except when this is absolutely necessary. The author has contrived very fully to set out signs and symptoms, and closely apposes sections dealing with the differentiation of the maladies which present the particular signs and symptoms under discussion. A glance at the table of contents suffices to give an idea of the scope of the succeeding pages, which are divided into twenty-four sections, and include consideration of all the various systems, beginning with a preliminary description of general symptoms and physical signs. So thoroughly are the various sections elaborated, so good are the cross references, and so full of information is each section that we can best describe the volume as an index of diagnosis. It is purely a technical guide, and therefore all the more useful to the busy man seeking to gain information rapidly. We do not, however, wish to convey the idea that the volume is no more than a mere index, for the reader, if wishful, can abstract a large amount of information from the plan adopted by Dr. Mitchell Stevens of grouping all the conditions in which, say, the knee-jerk is absent on one or both sides, in which paralysis occurs in one or two limbs, unilateral or bilateral, or the various conditions of the heart in which murmurs are present near the pulmonary cartilage, say, in diastole. There are many useful diagrams, as, for example, of the cervical brachial and lumbar plexuses. No doubt some of them are purely diagrammatic, but so true is the instinct Dr. Mitchell Stevens reveals as a teacher that each picture serves admirably the object for which it was designed. It is not often we are able to detect errors, but, if we are not greatly mistaken, the portrait of a patient suffering from facial hemiatrophy, given on page 1301, should be labelled one of congenital torticollis, the facial asymmetry seen in this malady being exquisitely shown in the picture. An excellent index closes a volume which will find a well deserved place on the bookshelves of many a busy practitioner.

THE HUMAN ATMOSPHERE.

MANY of the readers of this JOURNAL will already be aware, from recent notices in the lay press, of the claims of Dr. KILNER[4] of London to have demonstrated the constant presence of an "aura" around human beings. We believe that the "aura" as described by clairvoyants has gathered round it a considerable literature, but Dr. Kilner "especially desires to impress on his readers that his researches have been entirely physical and can be repeated by any one who takes sufficient interest in the subject." From this it might be surmised that Dr. Kilner's "aura" is, in his view, a purely physical phenomenon. Perusal of Dr. Kilner's book, however, does not support this view.

Leaving this point aside for the moment, we note that Dr. Kilner maintains that every one is surrounded by "a haze intimately connected with the body, whether asleep or awake, whether hot or cold, which, although invisible under ordinary circumstances, can be seen when conditions are favourable." The favourable conditions to which reference is made include the following: (1) The subject or the portion of the subject's body under observation must be bare of clothing; (2) must be regarded in dim daylight against a dark or black background; (3) the observer must either look at the subject through a special coloured and transparent screen or must have looked through such a screen at fairly bright daylight for a few seconds before making his observation. The screens, which have been invented by Dr. Kilner, are oblong glass cells, containing a solution of dicyanin in alcohol. It is maintained by Dr. Kilner that looking through the dicyanin screen affects the retina in such a way as to alter the "chromatic focus" of the individual looking through the screen, and to enable him to perceive rays outside the usual visible spectrum. This action, he says, is both cumulative and deleterious, making frequent employment of the screens unnecessary and painful. Dr. Kilner says that his eyes have become permanently affected, so that he is able to dispense with screens under suitable conditions.

According to Dr. Kilner the aura varies in different individuals in size, shape, thickness, texture, and colour, these variations being determined by age, sex, condition, health, mental and emotional qualities, and moral character. The aura is divided by Dr. Kilner into three: (1) A dark band, from $\frac{1}{4}$ in. to $\frac{3}{4}$ in. in width, adjacent to and following exactly the contour of the body, named "the etheric double": (2) the "inner aura" surrounding the etheric double, composed of granules arranged in striae and of several inches in thickness, this layer fading gradually into (3) a structureless, faint cloud, called by Dr. Kilner "the outer aura." Lastly, Dr. Kilner describes patches and rays, or streams of brightness, emanating from various parts of the body, suddenly appearing and as quickly vanishing. These rays are described as of three kinds: (1) Those appearing in and surrounded by the aura itself and entirely separable from the body; (2) rays proceeding from one part of the body to another; and (3) rays projected straight out from the body into space. As these rays are said by the author to possess no diagnostic value, it would be tedious to give in detail Dr. Kilner's description of them. The point which requires special mention is the author's contention that by suitable subjects these rays can be emitted at will from practically any part of the body. One subject, for example, could make "beams" radiate from the tip of the nose, from the crest of the ilium, or from the nipple. Dr. Kilner seriously maintains that the subject can by "willing" even change the colour of the aura from blue to red.

Passing from these last-named displays, the suggested medical value of the aura proper requires brief mention. As already stated, Dr. Kilner claims to have observed variations in contour and consistence of the aura in health and disease. The aura of the healthy male is apparently fairly uniform in these particulars, but the female aura is said to show great differences. Up to the onset of puberty the female aura resembles the male aura, but after that epoch it is said to be more pronounced in front of the breasts and nipples, to widen at the sides of the trunk, and to show a marked "bulge" opposite the small of the back, these changes being associated, in Dr. Kilner's view, with sexual activities. The bulge at the back is said to be especially pronounced in hysterical women; the epileptic have an asymmetrical aura, the left side showing generally a "contracted" aura. This contraction is limited to the inner aura, and is, according to Dr. Kilner, so typical that he has diagnosed masked epilepsy from this form of aura in a subject of periodic depression. Also local alterations are said by Dr. Kilner to occur over the seat of local affections—for example, in duodenal ulcer, in tumour of the heart, in tuberculous disease of the hip-joint, and in shingles the aura has been found absent over the parts affected. Lastly, to bring this description to a close, "temperament and mental powers, rather than any temporary charges of bodily health, seem to be represented

[3] *Medical Diagnosis.* By W. Mitchell Stevens, M.D., M.R.C.P., Senior Assistant Physician to the Cardiff Infirmary, Lecturer in Pharmacology, University College, Cardiff. London: H. K. Lewis. 1910. (Demy 8vo, pp. 1610; 177 illustrations. 25s.)

[4] *The Human Atmosphere.* By Walter J. Kilner, B.A., M.D.Cantab., M.R.C.P., etc., late Electrician at St. Thomas's Hospital, London. London: Rebman and Co., Limited. 1911. (Demy 8vo, pp. 342 illustrated and with screens. 30s.)

by the hue of the aura." Dr. Kilner says that the owners of blue auras are the most mentally fit, the owners of grey auras being mentally deficient! "Fineness and transparency," says Dr. Kilner, "may be considered a higher type than coarseness and dullness." Again: "Education is a factor which ought, theoretically, to have an immense influence on the aura by its refining influence; *but the changes produced by it are so delicate*" [the italics are ours] "as to be imperceptible by our present means of examination. Nevertheless, it is extremely probable that it has produced a congenital effect through heredity"!

It is needless to point out what possibilities, medical and educational, there are in the "aura"—if it exists. But that is the question. And we may say at once that Dr. Kilner has failed to convince us that his "aura" is more real than Macbeth's visionary dagger. Such question-begging statements, the extraordinary claims of the author, and the use of such terms as "No. 1 auric force," "No. 2 auric force," even when given a scientific air by designating them as "1 AF" and "2 AF," were not reassuring. Following the vague directions given by Dr. Kilner, the reviewer and a friend—the latter a distinguished scientist—made numerous experiments with the screens provided with the book, all with negative results. It is true that the reviewer, after prolonged trial, imagined he perceived a faint whitish line surrounding dimly illuminated objects; but on discovering that this effect was even better produced by regarding the ivory handle of a cane, and, better still, a white plaster cast, personal experimentation was abandoned in despair. Unwilling to condemn as mere vain imaginings what has been stated as a certain fact, unless after full trial under Dr. Kilner's own conditions, the reviewer sought and was accorded a demonstration by the discoverer of auric force. The results were again entirely negative. That he saw nothing, in the crepuscular twilight of the room, in an atmosphere charged with suggestion (indeed, what we were to see was verbally and digitally suggested), except the nude subject against a background neither uniformly nor dead black, proves only one thing—that the reviewer was not markedly "suggestible." If it be true that "seeing is believing," the converse, that believing is seeing, is equally true. This is, we believe, the truth of the whole matter.

NOTES ON BOOKS.

THE contents of the edition for 1912 of *Herbert Fry's Guide to the London Charities*[1] appears to have been brought thoroughly up to date, but otherwise this compact handbook remains unchanged. It gives in alphabetical order a list of all charities either established in, or working from, the metropolis, together with the names of their principal officials, their annual income, the date of their foundation, their address, and the special object which each institution or association endeavours to fulfil. The volume is a very handy reference book on the subjects to which it is devoted, and its price brings it within the reach of all those who have either money to bestow or patients and other persons for whom they desire to find accommodation. Included is an appendix in which various charitable bodies describe their particular needs and claims in their own words.

The edition of *Who's Who*[2] for 1912 contains 118 pages more than the edition for 1911, and we have no doubt that use of the new edition will prove it to be as accurate and complete as its predecessors. It is, perhaps, the most useful of all books of reference of its class, which is the biographical annual. It is completed by a separate volume, *Who's Who Year Book*, which contains tables formerly embodied in the biographical volume, and, in fact, the nucleus of the whole publication. The tables have all been tested by practical experience, and are very useful. A third year book, issued by the same publishers, Messrs. A. and C. Black, is the *Writer's and Artist's Year Book*,[3] giving particulars of British and American journals and magazines, lists of publishers and other information useful to journalists and writers.

Perhaps nothing shows more plainly the *Wanderlust* which seems to be inborn in almost every Englishman than the warm welcome that books of travel usually meet with in this country. Dr. JOHNSTON ABRAHAM, therefore, may rest assured that the modest record of his voyage in Eastern waters will not pass unnoticed. Like Kipling's soldier, Dr. Abraham has heard the East a-callin', and in *The Surgeon's Log*[4] he gives a very interesting and picturesque account of it as it appeared to him when viewed for the first time from the deck of a trading vessel. His book, moreover, contains some curious tales of life in those far-off lands,

> Where the gorgeous East with richest hand
> Showers on her Kings barbaric pearl and gold,

including a story of Chinese vengeance which for sheer ghastliness would be hard to beat. For the most part, however, the author contents himself with the record of daily events, which, thanks to his simple, straightforward style and quiet sense of humour, proves very pleasant reading. The interest of the *Log* is further enhanced by the excellent photographs which adorn its pages; but we trust that Dr. Abraham will forgive us for pointing out that "In the teeth of the N.E. Monsoon" is a rather inappropriate title for the illustration which faces page 128.

Mr. JAY DENBY had not been very long in Shanghai when he discovered the truth of Bret Harte's famous lines, "that for ways that are dark and for tricks that are vain, the heathen Chinee is peculiar." In the *Letters from China*,[5] which he wrote to his people at home, he gives some amusing examples of the extraordinary ingenuity displayed by the wily Celestial in his efforts to get the better of the unfortunate "foreign devil" who happens to be his employer. Happily for himself, and also for his readers, Mr. Denby is blessed with a keen sense of the ludicrous; and the story of his struggles with bland but mendacious servants is told with much humour. Judging from the unsavoury descriptions scattered throughout the book, the classic definition of the manners and customs of a certain tribe of savages might be applied with equal justice to the Chinese lower classes, for the average "Chink" appears to have no manners, and his customs, for the most part, are "beastly." But the writer has nothing but admiration for the Chinese gentleman and man of honour, "the highest type of gentility there is," and for the marvellous adaptability which is the real reason of the Yellow Peril, and which may one day place the yellow man "in a position to wipe the floor with any other four nations combined." Mr. Denby has been ably seconded in his portrayal of Chinese life by Mr. H. W. G. Hayter, whose admirably grotesque drawings have exactly caught the spirit of ironical fun with which the book is pervaded. The same volume includes a number of short stories, in which, however, the author is hardly at his best.

There is no doubt of the utility of *The Englishwoman's Year Book and Directory*,[6] which has now appeared annually for over thirty years. Its contents are divided into some eighteen sections, each subdivided again into a number of articles, and between them they supply a complete account of everything that women do or may do by way either of gaining a livelihood or merely passing their time. The conception of the work is good, and if all the information given is as accurate as that in the sections dealing with questions of which we have personal knowledge, the book as a whole must be a thoroughly reliable guide.

THE issue of the *Sanitary Record Year Book and Diary*[7] for the present year is the thirtieth to appear: in effect, perhaps, it is a diary rather than a year book, and as such should admirably suit the needs of most public health officials. But the year book part of it is also well arranged, there being, in addition to a review of sanitary legislation during 1911, a variety of memoranda of a kind useful to sanitary officers.

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[1] *Herbert Fry's Guide to the London Charities*. Forty-eighth annual edition. Edited by John Lane. 1912. London: Chatto and Windus. (Crown 8vo, pp. 293. Price 1s. 6d.)

[2] *Who's Who* for the year 1912. London: A. and C. Black. 1912. (Post 8vo, pp. 2378. Price 10s. cloth, 12s. 6d. limp leather.)

[3] *Writer's and Artist's Year Book*, 1912 1913. London: Messrs. A. and C. Black. 1912. (Post 8vo, pp. 175. Price 1s. net.)

[4] *The Surgeon's Log*. Being impressions of the Far East. By J. Johnston Abraham. London: Chapman and Hall, Ltd. 1911. (Med. 8vo, pp. 350; 24 illustrations. 7s. 6d. net.)

[5] *Letters from China, and some Eastern Sketches*. By Jay Denby. Illustrated by H. W. G. Hayter. London: Murray and Evenden. (Post 8vo, pp. 438; figs. 21. 6s.)

[6] *The Englishwoman's Year Book and Directory*. Edited by G. E. Mitton, with the assistance of many experts. Thirty-first year of issue. London: Adam and Charles Black. 1912. (Post 8vo, pp. 415. 2s. 6d. net.)

[7] *The Sanitary Record Year Book and Diary*. Published by the Sanitary Publishing Co., Fetter Lane. (Med. 8vo. 2s. 6d. net.)

ANTIMOSQUITO MEASURES IN INDIA.

THE second meeting of the General Malaria Committee, held in Bombay on November 16th, 1911, and two following days, was attended by some thirty members and delegates. The main purpose of the committee is to study the measures which should be taken to mitigate malarial fevers in India.

PRESIDENT'S ADDRESS.

Sir C. P. Lukis, K.C.S.I., Director-General, I.M.S., and Acting Sanitary Commissioner for the Government of India, who presided, opened the proceedings by an interesting review of the work recently done in India and of investigations which should now be undertaken.

He first, however, made a sympathetic reference to the untimely death of the late Lieutenant-Colonel Leslie, Sanitary Commissioner with the Government of India. His loss, Sir C. P. Lukis said, would be deeply felt, not only by members of the committee, but by all interested in the cause of sanitation in India and the Far East.

Special Malaria Classes.

Sir C. P. Lukis then referred to the recent change in the method of selecting officers to attend the malaria classes at Amritsar. Under the new arrangement it would be possible for any officer, who was seriously desirous of studying malaria, to gain admission to one of the classes, and it was hoped that ere long this would result in a large number of competent and keenly active workers being spread over the country—a result that could not fail to bring about a great increase in knowledge, not only of malaria, but of other closely allied diseases, especially those of the "Leishmania" group.

The Indian Research Fund.

It was hoped with the aid of the new Indian Research Fund to carry out many investigations which hitherto for financial reasons had been outside the bounds of practical politics.

The first inquiry which would be undertaken at the expense of this fund had already been commenced, namely, an inquiry into the methods by which yellow fever might be prevented from entering Indian ports, and might be stamped out should it ever succeed in obtaining a footing. The danger of its introduction, which might arise on the opening of the Panama Canal, had recently engaged the serious attention of the Government of India, and it had been decided, in consultation with the Secretary of State for India, to depute Major James to the endemic area by way of the route that would be followed by ships proceeding to India when the canal was opened. The assistance of the Research Fund would, it was expected, be obtained for two other inquiries. The first was the institution of malariometric investigations, for which work the Central Committee considered it desirable to have at least one worker who could devote his whole time to the development of malariometric methods and their application to the study of Indian malaria. Such a worker it was hoped to obtain with the assistance of Sir Ronald Ross. The second was an inquiry into the bionomics of *Anopheles*, in connexion with which it was hoped to secure the help of Professor Howlett.

The Value of the Study of Species of the Anopheles.

Sir C. P. Lukis then continued as follows: I now turn to two very important contributions to our knowledge which have been made during the past year. The first is the publication of Dr. Bentley's admirable report on the causes of the recent malarial outbreak in Bombay, which has confirmed Major Liston's original observations incriminating *Neocellia stephensi* as the carrier of malaria in this city; and which suggests that malaria can not only be reduced, but it can be absolutely eradicated from the greater part of Bombay at a cost which would amount to less than a tenth part of the loss estimated to be occasioned each year by the disease. The second contribution is a report which has just reached me from Major Christophers, who was sent to investigate the causes of malaria in the Andamans. The first thing that struck him was the remarkable fact that a large number of villages were quite free from malaria, in spite of the fact that many of them were surrounded by riceland, swamp, or jungle, whereas others showed a considerable amount of malaria, the spleen-rate varying from 25 per cent. to 50 per cent. Eventually it was noted that what determined the healthiness or unhealthiness of a village was its proximity to the sea. Villages near the sea were invariably malarious; those remote from the sea healthy. Even a distance of half a mile from the sea was sufficient to ensure the endemic index being 0 per cent. This distribution of malaria was shown by actual measurement to be exactly coincident with the occurrence of a particular species of *Anopheles*—namely, *Pseudomyzomyia ludlowi*—which appears to breed chiefly in salt swamps and brackish water, and which is undoubtedly the chief malaria carrier in the Port Blair Settlement.

Now, so closely does this mosquito, on casual examination, resemble *N. rossi*, that, with reference to these two species, Professor Eysel has remarked upon the folly of too nice distinctions in regard to the species of *Anopheles* and the transmission of malaria. Yet the existence of two distinct, though closely related, species of *Anopheles* is the explanation why, in the Andamans, the proximity to ricelands and swamps is innocuous, provided that these are at a distance from the sea.

The Value of Antimosquito Measures.

These observations of Bentley and Christophers show, I think, the value of investigation, and how important is the study of species when one is concerned with the spread of malaria by *Anopheles*; but, gentlemen, they do more than this, they justify the hope that the adoption of antimosquito measures in India must not prove either such an expensive or impossible task as some would have us believe.

Here I should like to say that I view with concern the tendency amongst malaria workers to divide up into two camps—namely, those who advocate antimosquito measures and those who pin their faith on quinine prophylaxis. In this connexion I would draw your attention to a speech which I made before the Imperial Malaria Conference in 1909, when, after pointing out the almost insuperable difficulties connected with quinine prophylaxis as applied to a free population, I went on to say that, whilst agreeing that quinine prophylaxis, properly carried out, was one of the most valuable weapons in the fight against malaria, and whilst admitting that in rural areas it might be the only weapon at the disposal of the Government, I felt bound to express my opinion that, if they were to place sole reliance on this measure in Indian villages, they were doomed to disappointment. Quinine prophylaxis should go hand in hand with general sanitation and with the destruction of *Anopheles* breeding grounds whenever this can be accomplished at reasonable expense, and it seems to me that recent observations justify us in thinking that this destruction is not likely to be as costly as has hitherto been supposed. Quinine has undoubtedly conferred inestimable benefits upon the individual, but it never has and never will be of equal value to the community as a whole, and you cannot get away from the fact that if there were no mosquitos there could be no malaria. I fully realize that in some of the hyperendemic areas mosquito destruction may be a counsel of perfection, but even there much good may be done by reducing the numbers of the special species which acts as the carrier, and, I ask you, should we halt in our activity because we cannot attain to an ideal perfection? I recognize the fact that no one method will suffice as a general *anti*malarial measure; I recognize the power of each in its proper place, but I hold strongly that wherever possible mosquito *anti*measures must be carried out. I also recognize the importance of preliminary investigation, but it must not be carried to extremes. The time has come for definite action on well considered and practical lines.

It must be remembered that there is a limit to the number of men available for carrying out such thorough investigations; also that such investigations occupy much time, so that before they are completed the acute situation may have declined and the psychological moment for action may have passed away—not to occur again until the next epidemic. I wish it to be clearly understood, therefore, that I do not think we can depend upon scientific research alone. For this opinion there are two very good reasons. In the first place I hold that, in many cases, actual operations may with advantage be carried out in conjunction with investigation. Indeed, I consider that,

in certain instances, the former may be the only method of investigation. We are dealing with a vast complex of factors, and the elimination of one or more of these may be the only practical way of solving the problem.

Again, from the point of view of the limited resources at our disposal, as compared with the large amount of malaria with which we have to deal, I submit that if we wait until our experts have made a complete investigation of all the problems connected with the epidemiology and endemiology of the disease, there is the danger that India will remain for many years practically untouched. We require, then, two classes of men—the scientific experts and the practical workers—the former engaged in research and ready to aid the latter when in difficulties—and the latter trained in the taking of spleen indices and in the recognition of the commoner varieties of *Anopheles*. It is not necessary that they should be able to dissect them. Men trained to this extent would be quite capable of mapping out the geography of an epidemic and that of the mosquito breeding places in the neighbourhood of the infected area, and of noting the types of mosquito found therein; and from the data furnished by them it ought not to be difficult to ascertain the actual carrier and to work out a definite scheme of attack.

I trust, gentlemen, that no delegate will think that I wish to imply that nothing has been done in the past. This is very far from my intention. I merely wish to express my opinion that we are perhaps too much inclined to pin our faith entirely on the scientific investigator to the detriment of the practical worker, and my reason for bringing this forcibly to your notice is that we are, at the present moment, fortunately situated as regards malaria. We have narrowly escaped a year of famine, and, owing to the deficient rainfall, we are justified in hoping that, unless circumstances of an unexpected nature arise, we shall not be visited by a severe epidemic of malaria during the coming year. We have, therefore, ample time in which to prepare our plan of campaign.

Diseases of the "Leishmania" Type.

I alluded just now to the diseases allied to malaria, especially those of the "Leishmania" type. There are several points in connexion with these which require further investigation.

As you are all aware, the genus Leishmania at present comprises three species:

L. donovani—the parasite of kala-azar.
L. tropica—the parasite of Oriental sore.
L. infantum—the parasite of infantile splenomegaly in N. Africa.

The points in connexion with these, which in my opinion require further investigation, are as follows:

1. *The Possible Antagonism between Oriental Sore and Kala-Azar.*—So far as I am aware, the evidence in favour of this view is chiefly geographical in nature, and it appears to me that we should endeavour to obtain more accurate and scientific evidence on this point, which is one of more than academic interest; for, if the antagonism is proven, there ought to be no difficulty, on the analogy of vaccinia and variola, in utilizing our knowledge and in immunizing patients against attacks of kala-azar by inoculating them with the milder disease.

2. *The Rôle of the Domestic Fly as a Carrier of Oriental Sore.*—Both Wenyon, as the result of his work in Baghdad, and Row, in India, regard this insect as the carrier. On the other hand, Patton, as the result of his recent observations in Cambay, is inclined to incriminate the bed bug. Further investigations on this point are clearly necessary.

3. *The Question of the Carrier of Kala-Azar.*—It is generally understood, though it is by no means proven, that the bed bug is the carrier in this case. On the other hand, Nicolle regards the dog as the reservoir of the parasite which causes the infantile kala-azar of North Africa, and both he and Basili have proved that the parasite is carried from dog to dog by the dog-flea, and he suggests the possibility that it may be conveyed from dog to man by the same means. So far as I know, dogs in India have not been found to be infected with *L. donovani*, and I believe that all attempts to infect dogs with it have failed; but I submit that a much more extensive examination of dogs in kala-azar districts in India would seem to be indicated.

Need for Investigation of the Distribution of Various Species of Mosquitos.

Finally, gentlemen, let us not forget the possibility of the importation of yellow fever into India. Major James has gone to Panama to study the methods of keeping it out of the country, but that is no reason why we should sit with folded hands waiting for its arrival.

In this connexion I invite your attention to the following quotation from the admirable report on the recent outbreak of that disease in West Africa, which was almost the last piece of work done by the late Sir Rubert Boyce, whose untimely death we all deplore:

> Much more attention will require to be paid to the Stegomyia and to the fevers met with in towns where the Stegomyia is the most common mosquito. Medical officers will require to be as alert to the possibility of yellow fever as they are in the West Indies or in Central America. Nay more, it is essential to ascertain definitely what is the prevailing mosquito of all principal centres of population, and the inquiry might at this stage with advantage be extended to other parts of the tropical empire, such as India and the East Indies.

This is sound advice. Think what a difference it might have made if in 1894 we had known as much about the rat-flea and plague as we now know about the Stegomyia and yellow fever. It behoves us, therefore, to be up and doing. The Central Malaria Committee has not neglected its duty in this respect; we have already more than forty-two species of Culicine mosquitos, including six species of Stegomyia, in the museum attached to the Malaria Bureau, and in order to advance the work still further we are bringing up to date the pamphlet of instructions to collectors, emphasizing in it the present necessity for collecting Stegomyias and other Culicine mosquitos, and we are making arrangements to distribute it even more widely than is done at present.

I trust that all of you will do your best to help us in this matter. But do not be content merely with a mosquito survey; lose no opportunity of preaching a crusade against the mosquito, both in its sylvan and domestic varieties. The work of Sir Ronald Ross has demonstrated the danger of Anopheline as carriers of malaria; we now know that domestic mosquitos of the genus Stegomyia may prove an even greater danger in the immediate future. Even though the complete eradication of mosquitos, therefore, may be a counsel of perfection so far as India is concerned, it is our bounden duty, whenever practicable, to endeavour to lessen their numbers and to educate the public in such a way that the efforts of Government may be supplemented by individual endeavour. Unless this be done, it is useless to expect that our campaign against malaria will ever be crowned by success.

Discussions.

The subsequent proceedings of the committee included the reception of brief reports of the arrangements for investigating malaria in the different provinces.

Dr. Bentley opened a discussion on antimalaria measures by giving an account of a partial survey of Bombay, showing that wells and cisterns were the chief objects of attack. He advised that the former should be filled in and the latter closed, and estimated that the expenditure of one lakh of rupees would render innocuous 60 per cent. of the permanent breeding places. Colonel Lyons expressed the opinion that the use of quinine was a measure for the individual, and difficult to enforce even among troops. On the other hand, the investigations of breeding places and a gradual expansion of antimosquito measures ought to be adopted throughout India. Sir David Semple, while not prepared to advocate antimosquito measures everywhere, was convinced that in many places in India conditions were favourable for mosquito destruction, and was glad that so much prominence was being given to this policy. Major Robertson said that "quininization" as a general measure was doomed to failure, and cordially agreed with the statement of the President that the psychological moment had arrived for antimosquito measures.

Dr. Rutherford (Ceylon), who had had fourteen years' experience in West Africa, said that it was there illegal for any one to have standing water or pools in their grounds, and every one was required to keep wells covered. There

was an organization of district inspectors and local village headmen, breeding places were mapped out, the natives taught to recognize mosquitos, and subsidies given to villages where internal sanitation was carried out satisfactorily. Several speakers referred to the necessity of imposing on the railways of India the duty of not leaving trenches in which water accumulated and remained.

Several speakers referred to investigations which seemed to show that severe mortality from malaria was associated with extreme poverty; and Major Lalor gave an account of Italian experience which seemed to prove that intensive cultivation tended to diminish malaria, even though the related mosquitos should continue to infest the locality.

Resolutions.

On the second day of its meeting the committee adopted the following resolutions, proposed by Surgeon-General Bannerman:

1. This Conference is of opinion that researches by experts in the field, such as those carried out by Christophers and Bentley, prove the value of preliminary scientific investigation, and seem to point to the probability that anti-mosquito measures may not prove so costly as was at one time feared.
2. The Conference believes that no one measure can be suitable for all the conditions that favour the prevalence of malaria; that quinine prophylaxis applied to a free population is difficult to carry out in the thorough way necessary for success; and that a combination of several measures may be required as local circumstances may indicate. The Conference is of opinion that, notwithstanding the difficulties of quinine prophylaxis, it cannot be too strongly emphasized that, under the peculiar conditions of the Indian populace, arrangements for the treatment by quinine of those sick from malaria is a matter of primary importance from the point of view of saving life, of preventing suffering, and of destroying a potent source of infection.
3. The Conference desires to call the attention of Government to the possibility of danger arising from borrow pits in the proximity to human habitation, especially when such excavation would result in stagnation of water therein.
4. The Conference is of opinion that education of the people is a most important antimalarial measure, and that every effort should be made to secure the co-operation of the public, without which there is little hope that the campaign against malaria will ever be crowned with success. They believe that instruction in schools as well as lectures and lantern demonstrations in villages and towns are the best methods of propagandism, and that in this way information is more likely to reach the people than by the publication of pamphlets and posters.
5. The Conference, while strongly recommending the prosecution of further research, is of opinion that, although expert investigation is still necessary, enough is known as to the breeding habits of mosquitos, etc., to make it frequently possible for trained workers to deal with malaria in an efficient manner.
6. In view of the possibility of the importation of yellow fever into India, the Conference suggests the advisability of a careful "Stegomyia" survey and of the education of the public in the matter of destruction of domestic mosquitos.

The resolutions were carried unanimously. The Conference then closed.

MOTOR CARS FOR MEDICAL MEN.

Ford Cars.

Dr. T. Shanasy (Nhil, Victoria) writes: Several correspondents have asked about the above. I have been running a 20-h.p. two-seated model, and am well pleased with it. I previously had a twin 10 to 12-h.p. of a famous make, which cost half as much again, was heavier, and needed, I think, more attention. The Ford is a distinct proposition of its own, as, for instance, the magneto, the springing, the petrol control, the gearing; much simpler to drive than those of the sliding gear variety. Where there are metal roads 30 miles to the gallon of petrol should be done; but in this district we have only tracks, with stretches of sand, so I run only 20 miles to the gallon. A year's experience of the Ford and 2,900 miles on it are the basis of my experience. The back tyres began to peel near the head, so my saddler sewed sheepskin leather all around both sides, head to beginning of tread, for 16s. each tyre. I carry them as spares. The front ones seem the same as when I got her. It is wonderful how complete they turn them out—the accessories, lamp, speedometer being first-class. The radiators need some brass clamping for sides—done for a few shillings. Engine knocks quickly unless the spark is retarded at once before rounding corners, taking sand, reducing speed for the washaways one meets ascending hills. The upholstering is only fairly good, but look at the price asked—£275 here. Will someone say whether the Atlas metal disced tube protectors become hot and affect the tube?

THE INSURANCE COMMISSIONS.

The Joint Committee.

The Lords Commissioners of the Treasury have appointed a Joint Committee of the several bodies of Insurance Commissioners under Section 83 of the National Insurance Act, as follows:

Chairman: Charles Frederick Gurney Masterman, Esq., M.P.

Vice-Chairman: Sir Robert Laurie Morant, K.C.B.

The Chairmen for the time being of the several bodies of Commissioners, *ex officio* members of the Committee:

James Smith Whitaker, Esq., M.R.C.S., L.R.C.P.

John Swanwick Bradbury, Esq., C.B.

The Chief Registrar of Friendly Societies.

Sir John Struthers, K.C.B.

The name of a woman member of the Joint Committee will be announced at a later date.

The Joint Committee have appointed Mr. W. J. Braithwaite, Assistant Secretary of Inland Revenue, to be Secretary, and Mr. A. W. Watson, F.I.A., to be Chief Actuary to the Committee. Mr. Masterman has appointed Mr. J. A. Salter to be his Private Secretary for National Insurance work.

The first meeting of the Joint Committee was held at the Treasury on Saturday, December 30th.

The National Boards of Insurance Commissioners.

The appointment of the several bodies of Commissioners for England, Scotland, Ireland, and Wales is also officially announced as follows:

England.

Chairman:
Sir Robert Morant.

Deputy-Chairman:
Mr. J. Smith Whitaker.

Commissioners:
Mr. J. S. Bradbury,
Mr. D. J. Shackleton,
Mr. J. Lister Stead,
Mr. Thomas Neill,
Miss Mona Wilson,
The Chief Registrar of Friendly Societies.

The Board of Commissioners for England has thus been completed by the appointment of Mr. Thomas Neill. Mr. Neill has been engaged in insurance work, beginning as an agent, and becoming successively district manager, inspector, and ultimately general manager of the London, Edinburgh, and Glasgow Assurance Company, a post he held for sixteen years. When that company was transferred to the Pearl Life Assurance Company, Mr. Neill became one of the directors to the latter. It is stated that he was one of the founders of the Association of Industrial Assurance Companies and Collecting Friendly Societies.

Scotland.

Chairman:
Mr. James Leishman.

Deputy-Chairman:
Dr. John Christie McVail.

Commissioners:
Mr. J. McNicol,
Miss Mary Muirhead Paterson,
Chief Registrar of Friendly Societies.

Ireland.

Chairman:
Mr. Joseph Aloysius Glynn.

Deputy-Chairman:
Mr. W. S. Kinnear.

Commissioners:
Dr. W. J. Maguire,
Mrs. Marie Louise Dickie,
Chief Registrar of Friendly Societies.

Wales.

Chairman:
Mr. T. J. Hughes.

Deputy-Chairman:
Dr. H. Meredith Richards.

Commissioners:
Mr. J. Rowland, M.V.O.,
The Hon. Violet Blanche Douglas-Pennant,
Chief Registrar of Friendly Societies.

THE COMPOSITION OF CERTAIN SECRET REMEDIES.*

"ELIXIRS OF LIFE."

In a report published in the JOURNAL of January 7th, 1911 (p. 26), an account was given of the results of the examination of "Sequarine," which appeared to consist of the "orchitic fluid" proposed by the late Dr. Brown-Séquard. Two other preparations which show strong affinities to "sequarine" are now being largely advertised, and we give here an account of the analysis of samples of these obtained from the vendors in the usual way.

NEUROVRIL.

The preparation known as Neurovril is supplied by the Neurovril Company, London, W. The price is 21s. per bottle, "sufficient for one month," or 7s. 6d. for a smaller bottle, "sufficient for one week." The smaller bottle was found to contain nearly 8 fluid ounces. An advertisement, occupying the space of a column in a London daily paper, is headed, in large letters,

HAS THE ELIXIR OF LIFE BEEN DISCOVERED?
Amazing Results of Great Health Discovery announced To-day.

And the first paragraphs are as follows:

There is announced to-day a mysterious serum, which, whilst according relief in cases of severe illnesses, apparently, from the statements made, actually introduces into the body not a mere stimulating force, but life itself. Although the discovery has been made by a Continental scientist, he has already sent particulars to his confrères all over the world, and so important do British scientists consider this matter, that they are making every effort to place the information at once in the hands of those who are ailing.

The amazing successes that have attended the application of this wonderful new health discovery have aroused on all hands the question: "Has the Elixir of Life at last been discovered?"

After much more of the same sort, it continues:

The new serum is a new food for use in cases of

Loss of Memory,	Melancholia,
Headache,	Irritability,
Exhaustion,	Slackness,
Nervous Weakness,	Nervous Prostration,
Brain Fag,	Partial Paralysis.

It is a blood food for use in cases of

Anaemia,	Impoverished Blood,
Rheumatism,	Kidney Troubles,
Sciatica,	Disordered Liver.

It is a physical food for use in cases of

Wasting Tissue,	Thinness,
Lack of Muscular Vigour,	Aged Appearance,
Weak Back,	Premature Decline.

The wonderful result after even the first dose will be a delightful sensation to those who have long lost the vigour of full manhood or womanhood.

A booklet is sent on application, from which the following passages are quoted:

When it is said that old men and women are made young, that the decrepit take on a new virility, that the yellow-hued cheeks assume the roses of youth, and the worn out brain gains new power to think and control action—these are facts beyond all disputing.

The great new basic serum makes it possible to defy the approach of age, and, better still, enables men and women to come back from the realms of senile decay and continuous illness to the vigour of perfect man and womanhood. Tissue by tissue, new flesh, new energy-creating cells are formed, and as the basic serum is absorbed into the system, throughout the whole body is carried on a work of rejuvenation. . . .

Realising the inutility of conducting investigation on stereotyped lines, elaborate search was made for a new idea, and in a most singular manner the secret that proved the keynote of our scientist's success was found. His work involved ceaseless laboratory experiments through the realms of organic chemistry and physiological science, and demanded abnormal patience. . . .

Further experiments proved that the new basic serum not only supplied vitality and strength to the body, but could be prepared in such a way as to prove an anti-toxin, a means of resisting and curing illness. . . .

To say that Neurovril contains protoplasmic life is no rash assertion; it is a perfectly true statement proven by exhaustive laboratory tests.

Teeming with millions of life centres, every drop of Neurovril introduced into the body effects a wonderful change. The life centres develop and give up their energy to the body. . . .

The following appears on the label:

Analysis of Active Principle:

75 per cent.	phosphates, immediately assimilable	
20 ,,	albumen, remarkable for creating virility	
2 ,,	carbonate calcie	
3 ,,	water	Total 100 per cent.

The directions are:

Take of this Tonic, regularly, half of a Neurovril glass (supplied with this bottle) night and morning directly after meals.

"Half of a neurovril glass" is about 5 fluid drachms. Analysis showed that 100 parts (by measure) of "neurovril" contain 18.9 parts (by measure) of alcohol, and gave 19.1 parts of residue on evaporation, of which 18.1 parts consisted of sugar. A trace of oil of cloves was present, giving a slight clove odour, and a faint odour like that of animal tissue in a state of incipient decomposition could also be detected.

The liquid was slightly turbid, and a trace of fatty substance was present. No appreciable amount of "serum" or other animal substance was present; only the slightest indication of a trace of nitrogenous matter could be detected, this being of the nature of an organic base, and the amount of phosphate was so small that it was doubtful, even with a very delicate test, whether any at all were present. The total ash was 0.03 per cent., and it contained a little lime. The 1 part per 100 fluid parts which was not sugar was probably chiefly glycerine, but a small quantity of glycerine in presence of a large quantity of sugar can hardly be positively identified by examining a reasonable quantity of the material.

If the "active principle" contains, as stated on the label, 75 per cent. of phosphate and 20 per cent. of albumen, it follows from the analysis that only a minute trace of it is present in the liquid, which is practically a mixture of simple syrup and diluted alcohol.

OSOGEN.

Osogen is supplied by the Osogen Company (L. F. Williams and Co.), London, W.C., at 2s. 9d., 7s. 9d., and 11s. a bottle. A bottle price 2s. 9d. was found to contain 1 fluid ounce, and a bottle price 11s. 5 fluid ounces.

An advertisement, occupying the space of a column in a London daily paper, is headed:

MYSTERIOUS SERU-PHOS. Amazing Elemental Combination Startles Scientists. More Effective than the most powerful Serum.

Some extracts from it are:

Scientific discussion is at present rife anent a mysterious new combination of organic elements. Some time ago Professor Brown-Sequard, F.R.S., F.R.C.P. (formerly head of Queen Square Hospital, London), discovered a serum (Sequard Fluid) which was used with success in treating various ailments. Another eminent scientist has now discovered that by combining this serum with organic reconstituent elements its curative value is more than doubled. After Professor Brown-Sequard announced his discovery to the Paris Biological Society, Professor Prince Tarkanhov (St. Petersburg) and other scientists began experiments with the serum, and hence the new remedy is a direct product of the labour and learning of some of the greatest scientific men of their age. This seru-phos combination (called Osogen) has been pronounced absolutely certain in curative effect and more swift in action than the most powerful serum used alone. Scientists who investigated it were amazed by its wonderful potency, and Physicians, both in London and on the Continent, predict that Osogen will supersede many other forms of treatment. . . .

Osogen is not a secret remedy. It is a vital extract ($C_5H_5N_5$), combined with organic reconstituent elements (glycerophosphates), all of which are now recognized by the Medical Profession, and appear in Pharmacopoeias throughout the world. One of the ingredients has been called by famous scientists "more powerful than the interchange of blood." The whole is almost an exact replica of the elements which combine to form the human economy. The vital extract increases disease-fighting corpuscles, another constituent forms nerve cells (especially cells of the Spinal Nerves), another forms tissue cells, etc. Its action is restorative in every part of the body,

* Previous articles of this series were published in the following issues of the BRITISH MEDICAL JOURNAL: 1904, vol. ii, p. 1585; 1906, vol. ii, pp. 27, 1645; 1907, vol. i, p. 213; vol. ii, pp. 24, 169, 209, 393, 530, 1653; 1908, vol. i, pp. 833, 942, 1373; vol. ii, pp. 86, 505, 1022, 1110, 1193, 1285, 1566, 1697, 1875; 1909, vol. i, pp. 31, 909, 1128; vol. ii, p. 1419; 1910, vol. i, pp. 151, 213, 393, 1005, 1063, 1120; vol. ii, pp. 982, 1350, 1928; 1911, vol. i, pp. 26, 91, 823, 1324; vol. ii, pp. 32, 77, 456, 767, 854, 1543. Analyses are also to be found in *Secret Remedies* (chapters i and ii). London: British Medical Association, 429, Strand. Price 1s., post free 1s. 5d.

and its use is especially recommended in cases where the serum alone has not effected a thorough cure.

In a small pamphlet enclosed in the package, "Osogen" is described as

Serum and Glycerophosphates. A Natural Remedy for Neurasthenia, Nervous Disorders, Brain Fag, General Debility, Anaemia, Bright's Disease, Influenza, Sciatica, Functional Weakness, Loss of Vital Power, Indigestion, Dyspepsia, Rheumatism, Kidney Disease, Dropsy, Diabetes, Asthma, Consumption, Locomotor Ataxy, and Paralysis.

The directions on the label are:

20 to 30 drops in a wineglass of water after meals three times daily. Children over six: 5 to 15 drops as above.

Analysis showed the liquid to contain glycerophosphates of iron, magnesium, sodium and quinine, a little alcohol and a trace of chloroform, with glycerine in large quantity. Not more than a trace of nitrogenous matter was present in addition to the quinine, showing that if the mixture contained any of Brown-Séquard's Orchitic Fluid, the amount was very small. Determination of the quantities of the various ingredients gave the following formula:

Quinine glycerophosphate	...	0.75 part
Iron glycerophosphate	...	2.14 parts
Magnesium glycerophosphate	...	0.77 part
Sodium glycerophosphate	...	0.90 ,,
Spirit of chloroform	...	3.8 parts by measure
Glycerine	...	73 ,, ,,
Water to	...	100 ,, ,,

LITERARY NOTES.

THE sixteenth volume of the second series of the *Index Catalogue of the Library of the Surgeon-General's Office, United States Army*, has recently been issued. It carries the vocabulary from "Skinko" to "Stysanus."

In the JOURNAL of December 30th, 1911, we had something to say as to pedantry in plurals. It was, therefore, with amused interest that we saw it pointed out in the *Observer* of December 31st, 1911, that "one perceives in the cables from Nepal an inclination to shirk the question of the plural of 'rhinoceros.'" Our contemporary goes on: "To say that the King 'shot thirty tigers and thirteen rhinoceros' is simply disingenuous, for you cannot make 'rhinoceros' a collective word like 'grouse,' at once singular and plural." "Why not," asks the writer in the *Observer*, "boldly 'rhinoceroses'?" Exactly; that is just the teaching we meant to convey. A recent correspondent in the *Times* has suggested the use of "rhinocerotes," which is good Greek but in our opinion bad English. Since our note appeared we have heard that a surgeon at a great London hospital speaks of "diverticulae"; this is a worse offence, for it is neither Latin nor English. A solecism similar in kind though opposite in substance is the use of "phenomena" as a singular. The offender in this case was a physician of the highest eminence writing in a contemporary.

On the same subject Dr. J. E. Sandilands of Kensington writes:

May I suggest that in the article on the above subject which appeared in the BRITISH MEDICAL JOURNAL of December 30th, one of the most forcible arguments against the use of the Latin plural for the word "sanatorium" has been omitted, since no reference is made to the fact that the word itself is not to be found in the Latin language. The first syllable, provided it be pronounced long, occurs in the substantive sānitas, but for the remaining four syllables Dr. W. Smith's dictionary offers no vestige of authority.

Under these circumstances the Académie Française would appear to have been in a holiday mood when they decided with mock solemnity that one of the least justifiable pseudo-Latin words in medical terminology should not be allowed to perpetrate the added fraud of assuming a Latin suffix to denote the plural number. In the same article mention is made of a "very superior person indeed" who could not bring his lips to frame such a plural as serums. It would be interesting to know whether the same fastidiousness led this gentleman to speak of sānitary arrangements and sēra, or whether he vulgarly asked for sērum and trusted that the chemist would know too little of Latin to call for orders "at a late hour," instead of sending a phial of antitoxin.

Such a word as "sanatorium" would, we suppose, have made Quintilian stare and gasp. All the same the unclassical word is often seen bedizened with a classical plural which is singularly (we beg pardon for the accidental pun) out of place. The existence of the word itself, however, is justified by its necessity. In regard to the quantity of the first syllable of serum, Dr. Sandilands is doubtless correct. But the time is long past when Sydney Smith said that a false quantity perpetrated early in life was sufficient to wreck a promising career. Not very long ago a schoolmaster was laughed at in a court of law when he insisted on pronouncing bona fide as "*bonna fidde*." Even in the groves of Academe the classical length of a syllable seems now to be regarded as a negligible quantity. The other day when some young men were presented for the degree of B.M. at Oxford there was some talk beforehand as to the correct pronunciation of the first words of the oath they were to take, "Do fidem." An "old hand" assured them they need not be particular, "for we don't bother much now about quantities at Oxford." As if to confirm his words, immediately afterwards the proctor, reading out the words of the oath, said "Do fīdem."

Another question of quantity is raised in the following letter from Dr. Henry Hick, of New Romney:

I have waited for my opportunity, and surely now it has come. I have read with interest your article on plurals. May I suggest that "Sauce for the goose is sauce for the gander," and that what applies to plurals applies equally to pronunciation?

You say, "If we adopt words . . . we should give them full rights." Your red rag, "enēma," has long been an English word, and to say because it is Greek we must give up the classical English pronunciation is as bad as to say we must use Greek plurals. All the old dictionaries and universal usage in the past point to the long second "e." When I wrote before you asked why the pronunciation should provoke such strong comment. Well, I heard the new pronunciation at the same time that the expressions, "Hot the water," "Certificated nurse," "Bath the baby," etc., came into use, and one is judged by the company he keeps.

Dr. Hick has waited a long time for his opportunity; but we cannot help thinking his patience has been exercised to little purpose. We do not know why he should say that "enēma" is a red rag to us. In 1896 there was a little correspondence in the JOURNAL on the pronunciation of the word, and we took occasion to point out that besides the fact that the word actually used by the Greeks was ἔνεμα, the pronunciation, "enēma," is given in the *New Sydenham Society's Lexicon of Medicine and the Allied Sciences;* by Gould in his *Illustrated Dictionary of Medicine;* by Hoblyn in his *Dictionary of Medical Terms* (edited by J. A. P. Pryce); by Foster in his *Illustrated Encyclopaedic Medical Dictionary;* by Dr. J. S. Billings in the *Natural Medical Dictionary;* by Wagstaffe in his edition of Mayne's *Medical Dictionary;* by J. Thomas in his *Pronouncing Medical Dictionary;* also by Dunglison and Dulane in their lexicons. The *New English Dictionary* (Oxford) the most recent, as it is the best, authority we have, gives both pronunciations, "enēma" having the place of honour; the following note is added: "The normal pronunciation is ē-nīmă, but the incorrect form is in very general use." We should not have given the certificated nurse, who would seem to be Dr. Hick's "red rag," the credit of having set the doctors right in a matter of pronunciation; and as a matter of historical fact at the medical school—one of great fame in these far-off days, by the way—where we played the part of idle apprentice, enema was most frequently used though enēma was tolerated. We are all inconsistent in these matters. Who says parĕsis or angĭna, though these are the correct quantities? We hear men of great repute speak of electrolysis; why do they not say paralysis? We have heard trachĕa and chorĕa from the lips of eminent physicians. Most of us on this side of the Atlantic say vaginal, but only the half educated say urinal. Americans, however, speak of the abdŏmen and the umbilicus; and we have a vivid remembrance of our modesty receiving a shock (we were young then) at a demonstration of an irrigator by a fair lady of New York in the presence of her husband, a well-known specialist, when she indicated what she called the vaginal tube. Other iniquities attributed to the certificated nurse by Dr. Hick are the use of "bath" and "hot" as transitive verbs. Both forms have good authority in their favour, as he will see if he will look into the *New English Dictionary* (*sub vocibus*), though "hot" is described as ("now *colloq.* or *vulgar*"). This admission may be comforting to Dr. Hick's bruised grammatical spirit.

The rules of pronunciation, as those of grammar itself, rest on custom—that *usus* which, as Horace says, is the

jus et norma loquendi. To return to "enema," we repeat what we said in 1896, that it is clear the Greeks pronounced it with the middle syllable short; and we think those who would pronounce it otherwise may reasonably be asked to show cause why they should not also speak of ictērus and cholēra. But if any freeborn Briton insists in speaking of enēma, or for that matter of eczēma, there runs not in these realms, as far as we are aware, any writ to the contrary.

Nova et Vetera.

THE FOLK-LORE OF THE UMBILICAL CORD.

IN Scotland there are various beliefs which centre round the umbilical cord as regards its power of affecting the genito-urinary organs and the general health of the newborn child. It would be interesting to find out through the medium of the BRITISH MEDICAL JOURNAL how far these and similar ideas prevail in Britain.

At the time of birth when the cord is cut great care must be taken not to cut it too short if the child be a male, as in such a case he will in adult life run the risk of being childless. If a good length of cord is left the child will have a long penis, suggestive to the folk of procreative power. If, on the other hand, the child be a female the cord should be cut short, thereby securing for it in adult life a narrow vulva, suggestive to the popular mind of retention of the male element, and consequently of fertility.

But this latter operation can be overdone. In a curious collection of miscellaneous "information," originally published in London in 1595,[1] we find it laid down that

> As soon as the child is born—especially a boy—there ought to be great heed taken in the cutting of the Navel String; for the Member of Generation doth follow the proportion of the Navel String; and if it be tied too short in a Wench it may be a hindrance to her bringing forth her child. Therefore it is meet that Midwives have a great regard therein!

Here, then, we have clearly pointed out to us the danger of overdoing what otherwise is a necessary precaution.

In Scotland there is a further belief that if the umbilical cord be tied carelessly and allowed to bleed, the child will be a bed-wetter. The compiler of *A Thousand Notable Things* varies this somewhat, for he says:

> If the navel string after it is cut do chance to touch the ground before it be burned, the same child will not be able to hold his or her water, whether night or day.

Elworthy,[2] speaking of Devonshire, bears testimony to this belief:

> The piece of the *funis umbilicus* should be taken off at the proper time and burnt; if this is not done and it is allowed to drop off naturally, especially if it should drop on the floor, the child will grow to be a bed-wetter.

He goes on to make what is obviously a reference to the connexion between the cord and the genital organs:

> Much more might be said as to the reasons given for the careful attention to this operation, especially as to the different treatment of a boy and a girl.

The number of "knots" on the umbilical cord of a first-born child is held to foretell how many of a family the mother is to have; divination and augury being thus added to the power of the navel string in addition to sympathetic effect.

In Lincolnshire[3] it is believed that the navel string should be carefully kept by the child's mother, just as some hold that a caul should be kept, otherwise harm will accrue to the child. And, to quote *A Thousand Notable Things* again, we find that "a piece of a child's Navel String, worn in a ring, is good against the Falling Sickness, the pains of the Head, and of the Collick." Later on in the book the cure is repeated, with the emendation that the "Navel string must be so borne as to touch the skin." Salmon[4] tells us that

> a drop or two of the blood of the Navel String being first given to a new-born Child in a little Breast milk prevents the Falling Sickness, Convulsions and all other Fits; and very wonderfully revives it almost dead.

This belief that the umbilical cord has a sympathetic connexion with the child, and that what is done to it produces a corresponding effect for good or ill on the child, is common in various parts of the world. Frazer[5] tells us that in Mandeling the midwife cuts the cord with a piece of a flute on which she has first blown, as then the child will have a good voice. Among some tribes in Western Australia it is held that a man swims well or ill according as his mother put his navel string in water or not. In Rhenish Bavaria the cord is kept for a while wrapped in old linen, and then cut or picked to pieces according as the child is a boy or a girl, in order that he or she may be a good workman or a skilful seamstress. The navel string of a boy in ancient Mexico was given to soldiers for burial on a battlefield in order that the boy might acquire a passion for war. So among the Indian tribes of British Columbia the cord fastened to the dancing mask of a famous dancer will make the child a good dancer; attached to the knife of a skilful carver, a good craftsman in woodwork; attached to the baton of a singing master, a good singer. And the navel string of the King of Uganda is kept with the utmost care throughout his life. Wrapped in cloth, the number of wrappers is increased with the years of the king, until it ultimately assumes the form of a human figure swathed in cloth. The custodian ranks as an important Minister of State, the bundle being from time to time presented to the king.

Hartland[6] also deals very fully with the subject. In cases of barrenness, water containing three drops from the navel of a newborn child is given in Olchowiec (Russia). Other women, especially Jewesses, are said to suck blood from the child's navel. Ukrainian women drink water in which a portion of an umbilical cord has soaked. Among some of the Roumanians in Hungary it is the custom that a barren woman eat the dried remains of the navel string and drink some of the blood. A Kamtchadal woman, who on bearing wishes to become pregnant soon again, eats her infant's navel string; while among the Maori women of the Tupo tribe certain trees which are associated in the popular mind with the navel strings of mythical ancestors have the power of making women fruitful, and until lately the navel strings of all newborn children were hung on their branches. Barren women embrace them, and according whether they embrace them from the east or west side they conceive boys or girls.

[1] *A Thousand Notable Things.* London: Printed by Edward Crowch for John Wright at the Globe in Little Brittain, 1670.
[2] *The Evil Eye.* London: John Murray. 1895. (P. 75.)
[3] *Folk Lore concerning Lincolnshire* (Folk Lore Society's Publications). London: David Nutt. (P. 226.)
[4] *New London Dispensatory.* Fourth Edition, 1691. Book II, p. 190.
[5] *The Golden Bough.* First Edition, pp. 54–55.
[6] *Primitive Paternity*, vol. i, pp. 71 and 128.

SCIENCE NOTES.

ZIMMERN AND BATTEZ have recently reported (*Arch. d'électr. méd.*, November 25th, 1911) the results of irradiations carried out upon rabbits under ether. After exposing the thyroid and exactly localizing the area of *x*-ray action, the bulbar portion being protected by means of a sheet of sterilized lead, irradiations from a tube were given for forty minutes (dose, 10 to 16 Holzknecht units; milliampèrage, 0.8 to 1). The chief symptom was an accelerated and dyspnoeic respiration, lasting for about twenty days after the experiment, and coinciding with a condition of weakness and somnolence. There were also considerable modifications of nutrition, including emaciation and anaemia. A month after irradiation, when the respiration had become normal, there were trophic troubles of the skin, the fur falling out in tufts, and what remained was brittle and lustreless. Loss of weight was clearly marked in the third month following the irradiation, and at the end of that time the animals succumbed from atrophic cachexia. The physiological analysis of the symptoms made it evident that the *x* rays had a destructive action on the cells of the thyroid and parathyroid glands. The length of time which the animals survived suggests that the disappearance of the noble elements of the gland was progressive, and that the survival was due to the persistence of the external glandules, which in the rabbit are situated on the outer side of and underneath the thyroid body. Upon these the action of the *x* rays was not directed. The radiations destroyed simultaneously the two parts of the gland, the cells of the thyroid body and the cells of the parathyroid glandules enclosed in the gland.



Liverpool from the Mersey
(Published by permission of Messrs. Littlebury Bros.)

EIGHTIETH ANNUAL MEETING

OF THE

British Medical Association

LIVERPOOL, JULY, 1912.

LIVERPOOL, PAST AND PRESENT.

By THOMAS H. BICKERTON,
Ophthalmic Surgeon to the Royal Infirmary.

(Continued from Vol. II, 1911, p. 1551.)

II.

FEATURES OF LIVERPOOL, AND CHANGES SINCE THE LAST MEETING—1883.

THOSE who have not visited Liverpool during the last twenty-nine years will require a "Guide" if they visit it in 1912, for the aspect of the city is greatly changed. Streets have been widened, and the many new buildings give an unfamiliar appearance, to which even residents are hardly yet accustomed. The facilities for visiting the City and neighbourhood have been greatly added to. Since 1883 the Mersey Tunnel, connecting Liverpool with Birkenhead, Wallasey, and the entire Wirral Peninsula, has been opened; and the electrification of the railway system renders a run through the tunnel a less trying ordeal than in the early years of its existence, when passengers were almost suffocated with sulphur fumes.

The Electric Overhead Railway is another feat of engineering skill, and was opened in 1893. From the windows of the trains the visitor obtains a splendid view of the river, sailing ships and steamers, dry docks and landing stages, and, in fact, the whole of the magnificent line of docks, which are the finest in the world. This was the first railway of its kind, and traverses the docks from end to end. At the northern extremity is Seaforth, the home of William Ewart Gladstone when a boy, while the southern terminus is close to Sefton Park, considered by some to be one of the finest in the country.

The tramway system has undergone complete reorganization. New routes have been laid down and widely extended, horse traction has entirely disappeared, and the splendid service of electric cars to almost every part of the city leaves little to be desired. The disappearance of the horse-drawn trams and the ancient omnibuses from the main streets is, perhaps, one of the changes which will first strike the eye of those who remember Liverpool when they were the principal means of locomotion. In these days of electric cars, motors, taxicabs and motor cycles, a fine carriage with a pair of spanking horses attracts as much attention as would have been bestowed on a 40 h.p. Napier thirty years ago.

The view of the city from the river is striking. In the foreground are the magnificent offices of the Mersey Docks and Harbour Board and Liver Friendly Society, and the clock on the latter building constitutes Liverpool's claim to the possession of at least one "biggest thing on earth," for the "Great George" outrivals "Big Ben" in size.

In the first part of this article (December 9th) a picture was given of St. George's Hall, which Mr. Norman Shaw, R.A., described as "one of the greatest edifices of the world." The east front is faced with a fine portico of sixteen Corinthian columns about 60 ft. in height. The building contains statues of many distinguished citizens, and the great organ, built by Willis, is an instrument of extreme power and beauty of tone.

Leaving St. George's Hall by the north side, a magnificent series of buildings is presented to the view—the Walker Art Gallery, the gift of Sir Andrew Barclay Walker, Bart.; the Free Public Library and Picton Reading Room; the Brown Library and Museum, the former the gift of the late Sir William Brown, Bart.; and the Central Technical Schools. There is no other city in the universe that can show a group of buildings representing science, art, and literature in such proximity, science and art being pivoted on literature.

These buildings overlook St. John's Gardens, a fine open space at the rear of St. George's Hall. Here there are statues to William Ewart Gladstone—whose birthplace in Rodney Street (now the home of the medical faculty) may still be seen—William Rathbone, and other famous Liverpool men. The memorial to the officers and men of the King's Liverpool Regiment who fell in the Burmese, Afghan, and South African wars is one of the finest monuments to the memory of the fallen brave to be found in the kingdom.

Popularly styled "The Gateway of the West," Liverpool, the maritime capital of the empire and the second seaport of the world, possesses a splendid floating landing stage which visitors should not fail to inspect. The places of interest in the vicinity of the city must await mention on some future occasion.

SCHOOL FOR THE INDIGENT BLIND—1790.

Man's inhumanity to man has perhaps never been shown more clearly than in the diabolical custom of putting out the eyes of prisoners of war, those accused of treason, and of criminals. The literature on this subject is almost too horrible to contemplate. This form of punishment by one or another method has been resorted to in nearly every civilized country, from the time of Samson—probably before—to as late as the middle of the nineteenth century. "When the punishment was intended to be gentle it was



Front view of Liverpool Infirmary 1749, facing Shaw's Brow, now William Brown Street. The Library Room built over archway of patients' entrance is seen on the right-hand side.
(From an engraving in the possession of R. A. Bickersteth, Esq., F.R.C.S.)

effected by red-hot needles or plates, but when no mercy was intended to the victim his eyes were plucked out with the thumb and finger, or crushed with the heel of a boot."

Turning from this act of deliberate cruelty to the subject of blindness as it arises from various causes, it is cheering to find that there is a general decrease in the number of blind persons. This is as it should be, because in the majority of cases blindness is preventable; and "progress in medical science, use of antiseptics, better sanitation, control of infectious diseases, and better protection in shops and factories," have all been factors in lessening the evil. In a paper of this kind it is not possible to do more than hint at the magnitude of the work that has been done, and which still remains to be done, in this field of labour. Laws must be enacted and enforced with regard to the treatment of the eyes of infants; but the opinion of Dr. Park Lewis, of Buffalo, N.Y., as deduced from a paper prepared by him for the American Medical Association, would indicate that laws are not sufficient to prevent evil, and the combined influence of the medical profession, the general public, and the State, will be necessary to accomplish the end in view—namely, preventing preventable blindness. In the days which are probably not far distant, cases of blindness, except from accident and constitutional disease, will be reduced to a minimum.

To Liverpool belongs the honour of having been the first town in the United Kingdom to establish a school for the blind. It is difficult to determine who was the first to suggest its establishment, and we can forgive all who claim to have done so.

The idea originated in 1790, and the furthering of the scheme is attributed to Mr. Edward Rushton, father of Mr. Rushton, sometime stipendiary magistrate in Liverpool, and great grandfather of Commander Edward Astley Rushton, R.N., who recently married the daughter of our President-elect, Sir James Barr. Edward Rushton was an enthusiastic champion of the cause of the negro, and when he was 19 years of age, during a voyage to Dominica, malignant ophthalmia broke out among the slave cargo; when all others refused to help he attended them in the hold. Unfortunately he fell a victim to the disease, and was deprived of sight for the rest of his life.

He was a benevolent and energetic man, but he believed that the best way to help the blind was to educate them in the performance of some useful and suitable handicraft. He first proposed that all blind persons should themselves subscribe to a fund for providing relief in sickness and old age. His blind friend, Mr. John Christie, an eminent teacher of music, suggested gratuitous instruction upon the harpsichord, violin, etc., to the indigent blind of both sexes, for which it would be necessary to secure the use of a room in one of the public buildings. The Rev. Mr. Dannett—to whom some writers give the credit of founding the school—invited several of those interested in the matter to dine with him. There were present, Mr. Lowe, Mr. Christie, and Mr. Rushton—all three blind; also the Rev. J. Smyth (Incumbent of St. Anne's), Mr. Carson, and Mr. Roscoe. A few rules and regulations were drawn up, chiefly the work of Mr. Roscoe, and so the scheme was launched, and the Liverpool Asylum for the Blind was opened in 1791.

Two houses, "recently erected," were rented in Commutation Row, but the establishment was carried on "on a principle different from that of any other in the kingdom; the blind are neither fed nor lodged; they receive bread and beer every Sunday, and the rooms have good fires; it is a sort of manufactory, where every person is paid in proportion to his labour, with this distinction, that masters are employed to teach them at the charge of the charity, and the several goods so manufactured are afterwards sold to the best advantage. This greatly lessens the parish expenses, which would otherwise cause an advance on the different taxes imposed on the inhabitants for the support of the poor."

These premises were utilized for about ten years, but in 1800 a larger building was erected on the south side of London Road. "The musical services of the blind pupils proved so attractive that it was determined to build a church, which, besides serving the purpose of the inmates, might prove beneficial to the funds of the institution."

In 1850, owing to the enlargement of the railway station, it was necessary to remove the church, and "a purchase was negotiated of the entire site of the institution, which was removed to Hardman Street. . . ." The old building in London Road was demolished, and the School for the Blind is still situated in Hardman Street.

Edinburgh and Bristol followed the example set by Liverpool and established similar institutions in 1793, and to-day there are thirty-seven schools for the education of the blind scattered through the kingdom, two being in Liverpool

LIVERPOOL HOSPITALS.

Stanley Hospital.

As in the case of so many of Liverpool's splendid hospitals, the Stanley Hospital owes its origin to the energy and initiative of one or two medical men—in this instance to David Dunlop Costine, M.D., and Edwin Mason Sheldon, M.R.C.S. It was established at 56 and 58, Stanley Road, in the year 1867, and designated, by special permission of the Right Honourable Edward Geoffrey, fourteenth Earl of Derby, K.G., etc., "The Liverpool Stanley Hospital."

In 1896 a stained glass window was added to the hospital, erected by the tenantry of the Knowsley estate to the memory of the fourteenth Earl of Derby, unveiled by the sixteenth Earl of Derby, Lord Mayor of Liverpool, March 20th, 1896.

From time to time new wings have been added, and the hospital to-day is a monument to the generosity of the Earls of Derby, who have always taken a keen interest in its welfare.



Stanley Hospital.

Eye Hospitals.

In 1820 two institutions for the treatment of diseases of the eye came into existence, one—in August—the Liverpool Ophthalmic Infirmary, to which Dr. Traill was the physician, and Messrs. Thomas Christian, James Dawson, and T. F. Hay, surgeons; the other—in July—the Institution for Curing Diseases of the Eye, to which Dr. Hannay was physician, Messrs. Braudreth and Loftus consulting surgeons, and Mr. Brackenbury operating surgeon and surgeon-in-ordinary. The former of these two still exists, under the name of the Liverpool Eye and Ear Infirmary; the Institution for Curing Diseases of the Ear—established in 1840 at 5, Mount Pleasant—being amalgamated with the Ophthalmic Hospital, at the instance of Mr. Hugh Neill, in 1841.

In December, 1838, "The Dispensary for Diseases of the Eye," 5, Marybone, was opened by R. Hibbert Taylor, M.D. The committee consisted of Rev. Jonathan Brookes, Hugh McNeill, Dr. Ralph, George J. Duncan, Robert Dirom, and the surgeon, R. Hibbert Taylor, M.D.

The first report appeared in 1841, after two years' work, in which upwards of 2,000 patients had been treated as out-patients, funds not being available for beds. The establishment of the dispensary was due to the fact that there had been "great increase of the working classes in the northern districts" of the town.

The second report, published in 1845—four years after the first—gave 8,000 cases treated in the six years since opening. The expenses were £200 to £300 a year, calculated from the commencement. This was defrayed entirely by the committee, with the exception of £33 14s. 6d., subscribed partly by friends (£23 18s. 6d.) and partly by dispensary patients (£9 16s.) in the five years 1840 to 1844.

Children's Infirmary.

The Liverpool Infirmary for Children was promoted by Dr. Alfred Stephens, of 4, Upper Parliament Street, in 1851, the funds being provided by Mr. Matthew Gregson, who was president of the institution from 1851 to 1876. It was the only provincial hospital devoted entirely to children.

The building first used was a small private house in Upper Hill Street. Within three years a move to a larger house, 48, Great George Street, was made. Until 1856 only out-patients were relieved, but in that year the increasing number of patients rendered another migration necessary. A house in Hope Street (No. 58) was rented, and for the first time in-patients accommodated.

In 1866 the present site in Myrtle Street was obtained, and on June 23rd in that year the late Duke of Saxe-Coburg, then Duke of Edinburgh, laid the foundation stone of the Infirmary for Children, which has recently been superseded.

In 1880 the committee reported that "the attendances reached the extraordinary total of 29,250." Notwithstanding the various suggestions made for reducing the frequency of attendance and the imposing of a limit (first of fifty then of sixty) to the number of new cases seen on any one day, there was a steady increase till the maximum was reached in 1896.

Overcrowding of the out-patient department, which was situated immediately below one of the wards, with constant outbreaks of diphtheria and other infectious diseases, necessitating frequent closing of the whole infirmary, necessitated rebuilding.

The experts who reported on the sanitary condition of the infirmary all laid great stress on the absolute necessity of separating the out-patient department from the building of the infirmary proper.



Children's Infirmary.

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The new building was opened on January 10th, 1907, by H.R.H. the Duchess of Albany. There is accommodation for one hundred cots in five wards, three for medical and two for surgical cases. The hospital proper, the out-patient department, the laundry, and the nurses' home are all separate and detached buildings.

Bootle Borough Hospital.

The annual report of this hospital states that it was established in 1846. It was; but how, and where? At the corner of Strand Road and Derby Road a certain Dr. Reid had a surgery, and part of it was utilized as a dispensary. Dr. Reid appears to have laboured alone and single-handed for some years, but he was happy in having friends who sympathized in a practical way with his desire to do still greater things. A sum of money left to the Rev. John Crump by a Mr. Robinson formed the nucleus of a fund which enabled a start to be made.

In 1871 a cottage was taken in Berry Street, Bootle,

where medicines were dispensed and four or five beds provided. Dr. Wills now became an active worker, and together with some half-dozen energetic gentlemen succeeded in greatly extending the usefulness of the charity. In 1872 the first wing of the hospital was built upon land given by the late Earl of Derby, uncle of the present Earl, and accommodation was now available for twenty to twenty one patients.

When the Bootle Docks were opened in 1887 the population of the district was more than doubled—increasing from 20,000 to 40,000 or 45,000—and further hospital accommodation became an imperative necessity. Another wing was added to the hospital at a cost of £12,000. Lord Derby generously subscribed £1,000 towards the funds of the hospital. Through the good offices of the late Edward Whitley, the sum of £500 from the Roger Lyon Jones legacy was apportioned to the fund also.



Bootle Borough Hospital.

The Committee of the Bootle Borough Hospital is desirous of adding a new wing to the building as a memorial to our late King Edward VII, deeming this the most desirable means of perpetuating his memory. If the scheme now in contemplation can be carried out, the hospital will be rendered up-to-date in respect to buildings and equipment.

Some other Hospitals.

Space will not permit of more than a passing allusion to a few of the other hospitals which have played so great a part in the history of medicine in Liverpool in the relief of suffering.

In 1757 Dr. Matthew Turner advocated the establishment of a lying-in hospital. Forty years later (1796) a "Ladies' Charity" for the relief of poor married women at their own homes was founded. Eighty-four years later (1841), a Married Lying-in Women's Hospital came into existence. Recently Sir William Hartley, one of Liverpool's most generous benefactors, has offered to erect a Maternity Hospital free from special restrictions—a most pressing need.



Birkenhead Borough Hospital.

The Hospital for Cancer and Skin Diseases was founded in 1862 by Dr. Seaton Smythe, who in 1869 bequeathed it £10,000. St. George's Hospital for Diseases of the Skin was established in 1863. St. Paul's Eye Hospital was founded in 1871 by the late Mr. George Walker at 6, St. Paul's Square, then a lodging house, for the treatment of the poor suffering from diseases of the eye and ear. In 1875 the whole house was taken, a committee appointed, and the hospital made a public charity. In 1909 ear work was discontinued, and in 1910 the present building was erected opposite the David Lewis Northern Hospital.

The Hospital for Women, opened in 1883, was the outcome of the endeavours of Dr. Francis Imlach. The Hahnemann Hospital was erected and given to the city by the late Sir Henry Tate, Bart., in 1877.

On the Cheshire side of the Mersey are the Birkenhead Borough Hospital, Birkenhead Wirral Children's Hospital, and Victoria Central Hospital, Liscard.

The Hospital Sunday and Saturday Fund for 1911 was £14,742, the lowest amount received for nine years. The Fund started in 1871, the total received in forty years being £308,695.

TRAINING SCHOOL AND HOME FOR NURSES, ASHTON STREET.

This building was erected by William Rathbone, in memory of his wife: "In grateful memory of her love the work of nursing the poor in their own homes by trained nurses was instituted in 1859, and this Home was built and opened in 1862."

For a full account of the circumstances which led up to the founding of these Homes it is necessary to read the *History and Progress of District Nursing*, by William Rathbone, and also *William Rathbone: a Memoir*, by Eleanor E. Rathbone. All that can be ventured on now is to glance at the principal facts in connexion with their establishment.

In 1859, Mrs. Rathbone died. To quote from one of the above-mentioned volumes:

> His wife had been attended during her last illness by a nurse, Mary Robinson. . . . Seeing how much difference trained nursing could make, even in a home where every comfort and appliance that affection could suggest was provided, William Rathbone began to think what illness must mean in the homes of the poor, where comforts, appliances, and skill were alike wanting. . . .

He engaged Nurse Robinson for three months to nurse poor patients in their own homes in a certain district of Liverpool, undertaking to supply necessary appliances, nourishment, and medical comforts. At the end of a month Nurse Robinson said she found herself unable to face the misery and suffering she was called upon to witness, and desired to be released from her engagement. She was, however, persuaded to go on, and grew to love her work so much that she said if Mr. Rathbone would agree to keep her on she would never do any other kind of nursing. Her success in affording relief reconciled her to the sadness of her calling. To quote again:

> Lives had been saved which would otherwise have been lost; patients considered chronic had been restored to health; object lessons in the value of cleanliness, order, and fresh air had been given in many homes.

Mr. Rathbone then wished to extend his experiment

and looked about for suitable nurses, but in vain. He applied to numerous institutions, but could not succeed in obtaining any. He then consulted Miss Florence Nightingale. She suggested that Liverpool had better form a school to train nurses for itself in its own hospital.

The principal Liverpool hospital, the Royal Infirmary, had then no facilities for training, and most of its nurses, like those of other hospitals of the day, were women of a rough type, often untrustworthy and intemperate, and, according to the lowest modern standard, inefficient. The Committee were conscious of the need for improvement in this respect, and had made an effort to attract a better class of women by empowering the matron to offer any that seemed worth it a salary of £16 instead of the usual £10. But the matron had found only four nurses whom she could trust not to celebrate such a rise in prosperity by getting drunk on quarter-day.



Nurses' Home, Royal Infirmary
(Published by permission of Messrs. Hegan, Lewis and Co., Liverpool.)

The real difficulty in starting a training school was that the Infirmary had not sufficient accommodation for either nurses or probationers. Mr. Rathbone therefore undertook to build a training school and home for nurses, and to present it to the Infirmary, on condition that it was to be given a fair trial as a training school, and if this failed the building was to become the absolute property of the Infirmary, and might be turned to any purpose they pleased.

On July 1st, 1862, the nursing of the Infirmary was handed over to the committee of the new Liverpool Training School and Home for Nurses, and after a year's work in temporary premises they took possession of their Home in Ashton Street on May 1st, 1863.

Their work was to provide nurses for three distinct purposes in the following order of priority: first, for the Royal Infirmary; secondly, for poor patients in their own homes; thirdly, for well-to-do private patients. The training was, of course, to be carried on in the wards of the Royal Infirmary.

In 1898 the District nursing work of the Liverpool Training School and Home for Nurses, was handed over to the Liverpool Queen Victoria District Nursing Association.

The inscription on the statue to William Rathbone states that he "instituted the Training School for Nurses, and brought trained nurses into the homes of the poor and suffering, first in Liverpool and later throughout the country."

BRITISH MEDICAL SOCIETIES.

The question of precedent in the formation of medical societies is of historic interest, and it reveals the names of men of outstanding enlightenment in bygone days.

In ancient times medical libraries were in the possession of monasteries and cathedrals. Before the establishment of the Royal College of Physicians, the licence to practise physic was in the hands of the Church, and the practice of medicine scarcely existed as a distinct profession. Thus we find in the catalogue of Christ Church, Canterbury, written about the year 1290, mention of 280 works on medicine; in the library of St. Augustine at Canterbury, 230 or more medical treatises: and in the Dover Privex Library catalogue, written in 1389, mention of 118 medical works.

The University of Aberdeen was founded in 1477, and



The Medical Institution.

the University of Edinburgh in 1583; but at first, in these universities and in all other colleges in Scotland, only divinity, school philosophy, and languages were taught.

A library existed in St. Bartholomew's Hospital about the year 1425; only two books of this library are known to exist. This may not have been a medical library.

Soon after the foundation of the Royal College of Physicians (1518), its founders and first president, about the year 1520, gave the college a number of books, and this



gift of Sir Thomas Linacre formed the nucleus of the present library.

The first mention of a library at the Society of Apothecaries is in 1633. The Medical Society of London, founded in 1773, in its first published memoir, dated 1792, speaks of a medical library having been formed for the use of its members. The present library of the Royal College of Surgeons was begun soon after its re-establishment in 1800, although mention is made of a library when the separation between the barbers and surgeons took place in 1745, the former retaining the hall, library, and plate.[1]

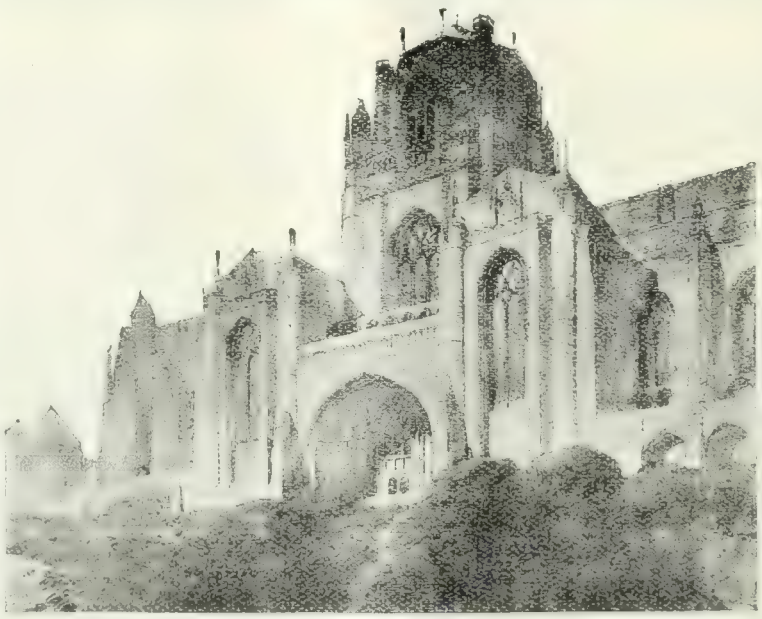
Liverpool Medical Societies.

The haze which envelops the origin of all the early medical societies of Liverpool is as difficult to penetrate as that which surrounds the lives of the early medical men.

Liverpool Medical Society—Liverpool Medical Library.

Reference has already been made in the previous article to the fact that the Liverpool Medical Library was publicly instituted on October 7th, 1779. Taking the *public* institution as the date of origin, the society ranks fourth among the medical societies of England, the Medical Society of London (1773), Middlesex Medical Society (1774), Colchester Medical Society (1774), alone taking precedence.

But it is also a fact that the Liverpool Medical Library existed as a private medical society "for some years" prior to its public institution. Its formation may have taken place as early as 1771—not earlier—and if it could be shown to have originated in 1772, it would take precedence of every medical society in England; the Edinburgh Medical Society (1737), alone taking precedence in the United Kingdom.



The New Cathedral.

(Reproduced by permission of the Right Reverend the Lord Bishop of Liverpool.)

Another fact—to be found in the earliest catalogue of the Liverpool Medical Library, which is in the possession of the Athenaeum Library—is that the name by which the Liverpool Medical Library was originally known was "The Liverpool Medical Society." The object of this medical society, named after its *public* institution the Medical Library, was the formation of a medical library.

The housing of the books of this library during the first half-century of its existence was a matter of difficulty. Originally they were kept (1771?–1779) in the dispensary room of the infirmary on Shaw's Brow—the site of St. George's Hall—thence they were taken (1779) to the dispensary in Church Street, as being nearer the centre of the town. Next a room was specially built (1807) for the books over the patients' entrance to the infirmary (Shaw's Brow) (see engraving). On the demolition of the infirmary to make way for St. George's Hall the Corporation built (1827) a "Library Room" at the back of the weighing machine house in the Cattle Market, Lime Street; and when this site was required (1833) for Lime Street Station arrangements were made for its accommodation, first at 31, Houghton Street (1834), next at 70, Wood Street (1834), and later at 16, Suffolk Street (1835).

It was the existence of this collection of books which led (1833) Dr. J. Rutter to agitate for a building worthy of accommodating a library, which in the fifty and more years which had elapsed had become a "very valuable one," and in this necessity we find the origin of the fine building—the Liverpool Medical Institution—at the corner of Mount Pleasant and Hope Street.

In the meantime (1779-1833) glimpses of other medical societies appear. In 1806, 1808, and 1813, we read of (*a*) the Liverpool Medical and Physical Society, (*b*) the Medical Society of Liverpool, (*c*) the late Medical Society of this town; but we have discovered no data respecting the origin, constitution, or place of meeting of any of these societies. Neither do we know the cause or causes of their termination.

In the year 1833, the Liverpool Medical Society — the fourth or fifth of its name—was formed for the discussion of medical subjects, Dr. Rutter being elected its first president. An additional reason for desiring more commodious premises than would suffice for a library was the existence of this Medical Society.

The Liverpool Medical Institution.

The Medical Institution is the oldest and finest building of its kind in Great Britain. It is now one of the oldest public buildings in the city, being opened in 1837, before the foundation stones of either the St. George's Hall or the Liverpool College, Shaw Street, were laid. If the example of naming a building after its founder was followed, the name of this building would be the Rutter Medical Institution. An enlightened city council, which has added lustre to its reputation by naming its museum the "William Brown Museum," its art gallery the "Walker Art Gallery," and its reading room the "Picton Reading Room," would view sympathetically a movement to perpetuate the name of a most distinguished citizen.

[1] For this information respecting medical libraries I am indebted to Mr. W. Fleming, Bedell and Secretary of the Royal College of Physicians, London.

As soon as the Medical Institution was opened, the Medical Library Society, with its valuable collection of books moved into it, and the recently formed (1833) Medical Society shortly after transferred their meetings from the Royal Institution to it.

During the July meetings the Medical Institution will be the head quarters of the lady guests of the Association.

DR. JOHN RUTTER.

No medical sketch of Liverpool would be complete without allusion to Dr. Rutter. He was the son of one of Liverpool's freemen, was born in Liverpool (1762), educated at Edinburgh, and rapidly rose to the acknowledged position of Liverpool's leading physician. A Quaker, and the nephew of William Rathbone (1762-1789), he was one of the small band of enthusiastic pioneers, including Mr. William Roscoe, Drs. James Currie, John Bostock, and Thomas Stewart Traill, "who gave the right impetus and a right direction to that public spirit to which we owe those institutions of which Liverpool is with reason proud." It was in recognizing and advocating the means by which progress is alone possible—namely, education and co-operation—that Dr. Rutter pre-eminently shone. He was not only the founder of the Medical Institution Building, but the Athenaeum owes its existence principally to his exertions.

THE CATHEDRAL.

While Liverpool has undoubtedly been first in the United Kingdom, or first in the provinces, in the establishment of several institutions and societies, and in the case of a circulating library first in Europe, it is only now in the twentieth century that a Cathedral worthy to be an "outward sign and symbol of the Christian Faith, to which the British people owe everything," is in process of erection.

The Bishopric of Liverpool was formed in pursuance of the Act of Parliament known as the Bishoprics Act of 1878, and it was by an Order in Council dated March, 1880, that the Parish Church of St. Peter (erected 1700) was assigned to the diocese as its cathedral. The first Bishop of Liverpool, appointed by Lord Beaconsfield, was the Very Rev. J. C. Ryle; and we have it on the authority of his successor—Dr. Chavasse, the present Bishop—that it is mainly owing to his policy and wise organization of the diocese that the erection of a cathedral was brought within the range of practical politics.

The selection of a suitable site for the cathedral was a matter of considerable difficulty, but the one eventually decided upon—St. James's Mount—gives general satisfaction. "The visitor who takes his stand at the corner where Hope Street joins Upper Duke Street, will gain some idea of the commanding situation and splendid possibilities of the site, which in many respects recalls the beauties of Durham and Lincoln. St. James's Cemetery lies at its foot, and the wooded hillside, some 50 ft. in height, leading up to the summit of the Mount, will add beauty as well as dignity to the noble building which is to crown the eminence."

The 19th of July would appear to be a red-letter day in the Calendar of Liverpool, for that date, apart from being the birthday of the Association, and the date on which its members will assemble in Liverpool for the fourth time, will be recorded in the annals of the city for all time, for on July 19th, 1904, the foundation stone of the cathedral was laid by His Majesty the late King Edward VII. Although the main body of the building is still surrounded by scaffolding, the beautiful Lady Chapel is completed, and is open daily for divine service.

PROGRAMME OF BUSINESS.

President: Professor ROBERT SAUNDBY, M.D., LL.D., F.R.C.P., Professor of Medicine, University of Birmingham, and Physician, Birmingham General Hospital.

President-elect: Sir JAMES BARR, M.D., LL.D., F.R.C.P., Consulting Physician, Royal Infirmary, Liverpool.

Past-President: Sir HENRY T. BUTLIN, Bart., D.C.L., LL.D., Consulting Surgeon, St. Bartholomew's Hospital, London.

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Chairman of Council: JAMES ALEXANDER MACDONALD, M.D., LL.D., M.Ch., R.U.I., Honorary Physician, Taunton and Somerset Hospital, Taunton.

Treasurer: EDWIN RAYNER, M.D.Lond., F.R.C.S., Consulting Surgeon, Stockport Infirmary, Stockport.

The Eightieth Annual Meeting of the British Medical Association will be held in Liverpool in July, 1912. The President's Address will be delivered on Tuesday, July 23rd, and the Sections will meet on the three following days. The Annual Representative Meeting will begin on Friday, July 19th, 1912.

The Address in Medicine will be delivered by GEORGE ALEXANDER GIBSON, M.D., D.Sc., LL.D., F.R.C.P.Edin., Physician, Edinburgh Royal Infirmary.

The Address in Surgery will be delivered by FRANK THOMAS PAUL, Ch.M., F.R.C.S., Surgeon, Liverpool Royal Infirmary.

THE SECTIONS.

The scientific business of the Meeting will be conducted in twenty Sections, which will meet on Wednesday, July 24th, Thursday, July 25th, and Friday, July 26th.

The President, Vice-President, and Honorary Secretary of each Section constitute a Committee of Reference for that Section, and exercise the power of inviting, accepting, or declining any paper, and of arranging the order in which accepted papers shall be read. Communications with respect to papers should be addressed to one of the Honorary Secretaries.

A paper read in the Section must not exceed fifteen minutes, and no subsequent speech must exceed ten minutes.

Papers read are the property of the British Medical Association, and cannot be published elsewhere than in the BRITISH MEDICAL JOURNAL *without special permission.*

The following twenty Sections have been authorized by the Council:

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Liverpool Medical Institution, 114, Mount Pleasant, Liverpool.

PROVISIONAL PROGRAMME.

The following is the provisional time table for the Liverpool Meeting:

FRIDAY, JULY 19TH, 1912.
10 a.m.—Annual Representative Meeting.

SATURDAY, JULY 20TH.
9.30 a.m.—Representative Meeting.

MONDAY, JULY 22ND.
9.30 a.m.—Council Meeting.
10 a.m.—Representative Meeting.
7 p.m.—Secretaries' Conference and Dinner.

TUESDAY, JULY 23RD.
9.30 a.m.—Representative Meeting.
2 p.m.—Annual General Meeting.
8.30 p.m.—Adjourned General Meeting, President's Address.

WEDNESDAY, JULY 24TH.
9 a.m.—Council Meeting.
10 a.m. to 1 p.m.—Sectional Meetings.
12.30 p.m.—Address in Medicine.
5 p.m.—Religious Services.

THURSDAY, JULY 25TH.
10 a.m. to 1 p.m.—Sectional Meetings.
12.30 p.m.—Address in Surgery.
7.30 p.m.—Annual Dinner.

FRIDAY, JULY 26TH.
9 a.m.—Council Meeting.
10 a.m. to 1 p.m.—Sectional Meetings.

SATURDAY, JULY 27TH.
Excursions.

Medical News.

MR. LYNN THOMAS, C.B., has been appointed a member of the Advisory Committee of the British Red Cross Society.

THE usual course of lectures and demonstrations at the Hospital for Sick Children, Great Ormond Street, will be resumed on Thursday next at 4 p.m., when Dr. Still will give a lecture on asthma in early life.

THE private view of a collection of oil paintings and water colours by Dr. Leonard Hill, F.R.S., which has been arranged at Baillie's Gallery, Bruton Street, Bond Street, takes place this day, January 6th. Those of our readers who visited the previous collection by the same artist-physiologist will anticipate with pleasure the opportunity of visiting his new exhibition, which remains open until January 29th.

THE Committee of Organization of the Seventh International Congress of Dermatology and Syphilography has fixed April 18th–13th) as the date of the Congress, which is to be held in Rome immediately before the International Congress against Tuberculosis (April 14th–20th). The definitive programme of the Congress of Dermatology will be printed during the latter half of the month of January, and fresh communications can still be inserted up to January 15th.

THE next meeting of the Society for the Study of Inebriety will be held in the rooms of the Medical Society of London, 11, Chandos Street, Cavendish Square, W., on Tuesday, January 9th, at 4 p.m. (afternoon meeting). Mr. Hastings Gilford, F.R.C.S. (author of *The Disorders of Post-natal Growth and Development*), will open a discussion on "Alcoholism and Problems of Growth and Development."

THE sixth annual dinner of the Royal London Ophthalmic Hospital will take place at the Imperial Restaurant, Regent Street, W., on Wednesday, February 7th, when Mr. Richardson Cross will take the chair at 8 p.m. Further particulars may be had from Mr. J. Herbert Parsons, 54, Queen Anne Street, W.

DR. W. B. BROAD, Superintendent of the Cardiff Sanatorium, was, on the occasion of his 50th birthday, presented with a beautiful silver centre-piece at a dinner given in his honour by a large circle of friends. Professor Hepburn, who presided, referred to his association with Dr. Broad at Edinburgh, when he was a popular sergeant-major in the University Medical Corps.

DR. R. MURRAY LESLIE, Senior Physician to the Prince of Wales's General Hospital, has been presented by the French Consul-General to M. Cambon, the French Ambassador, who personally conferred upon him the decoration of Officier de l'Instruction Publique et des Beaux-Arts, recently awarded to him by the French Government.

A CIRCULAR has been issued to members of the British Medical Association in Kensington, Hammersmith, Chelsea, and Fulham, announcing that it has been decided to unite the local members in a "British Medical Association Reform Committee" in opposition to the decision of the Council concerning the present position of the profession under the National Insurance Act. It is further announced that a meeting will be held under the chairmanship of Dr. Fred. J. Smith, at the Town Hall, Hammersmith, on Tuesday next, at 4 p.m., for the purpose of forming this committee for the Kensington and Chelsea Divisions. The basis of agreement, the circular states, is an attempt to remedy the failure of the present Council of the British Medical Association to obtain the just demands of the profession, and the object of the committee is to consider how this attempt may be made successful. Medical men from other districts will, it is stated, be welcomed

British Medical Journal.

SATURDAY, JANUARY 6th, 1912.

A SPECIAL REPRESENTATIVE MEETING.

At no time, probably, in the history of the British Medical Association has there been so much excitement amongst its members as at the present moment. The labouring press has with difficulty toiled to keep pace with the activity of the Divisions. Meetings have been held all over the country, at which numbers have attended who are usually content with the privileges of platonic membership. As the reports published in the Journal show, the great majority of them have declared with no uncertain sound that in their opinion, unless the six cardinal principles are granted without evasion or reservation, the profession should stand aside and let the Frankenstein of the Exchequer make what arrangements he can to galvanize into some likeness of life the legislative monster he has created. It will be noted that eight Divisions have asked the Council to convene a Special Representative Meeting to discuss the emergency, and it is with much satisfaction that we are in a position to announce that the State Sickness Insurance Committee, which met on Wednesday, has resolved to recommend the Council to take steps to call a Special Representative Meeting to consider the present position of the profession with reference to the Insurance Act. A report will be issued to the Divisions for their consideration, and the Representative Meeting will be held at as early a date as possible. We understand that a date towards the end of next month is contemplated. The profession stands in need of a clear lead, and we can see no other way of getting this save through the Representative Body.

A requisition has been received, signed, we are informed, by 564 members, for a Special General Meeting of the British Medical Association to discuss a resolution formulated as a result of the meeting in London of December 19th, in the following terms: "That, in the opinion of this Extraordinary General Meeting of the members of the British Medical Association, the National Insurance Act does not safeguard the six cardinal points of the policy of the British Medical Association in a manner satisfactory to the members of the aforesaid Association, and we consider that the Council of the British Medical Association has failed in its duty towards its members." As a requisition signed by a hundred members is valid, this requisition is in this respect good, but Mr. Colquhoun Dill, the counsel consulted when the present constitution of the Association was drawn, has advised the Council that the requisition is not in order, since the business proposed to be done is not of the order which the Association has decided it shall be competent for a general meeting to do. Counsel has therefore expressed the opinion that the Council would be acting unconstitutionally were it to act upon the requisition by convening an Extraordinary General Meeting. Were this purely a legal or technical point, it would be difficult on general grounds of policy to defend; but it is not. Under the rules which, in framing the present constitution, the members of the Association devised for it, the powers of a General Meeting are very narrowly limited, extending to little beyond certain formalities reserved for the general meetings of a company by the Companies Act. All real power to deliberate, and to settle and declare the policy of the Association, rests with the Representative Meeting, in which by Article 29 the general control and direction of the policy and affairs of the Association is vested. Counsel has accordingly advised that the subject-matter of the proposed resolution is a matter to be dealt with by the Representative Body, and points out that a special meeting of that body can be convened under By-law 36 by the Chairman of Representative Meetings, if so requested by either the Council or by seven constituencies.

Representatives are elected annually by the Divisions; but there is a by-law which provides that, if a Representative is unable or unwilling to attend a Representative Meeting, the constituency he represents has power to select a substitute. This point is worth noting, because it serves to meet any objection to now calling a Special Representative Meeting which might be founded on the belief that it would be useless to ask the Representative Body to reconsider decisions made so recently as last November.

The essence of the constitution of 1902, as originally conceived, was that the Representative was to be elected by the members of each Division at a meeting held for that purpose, and was to report and vote in accordance with the expressed views of his constituents at such meeting or thereafter. A member who did not attend the meeting of the Division at which the Representative was elected had no part in his election, and this fact may have put a certain strain upon his loyalty in such a crisis as now exists. By a recent amendment of the by-law a Division may so alter its rules as to provide that in future the election of its Representative may be made by voting papers sent to each member of the constituency. The Representative Meetings have been, and it would seem must always be, deliberative assemblies, and the object of deliberation is to form opinion, not merely to register preformed decisions. In ordinary circumstances, when Representatives found that there was a majority or considerable minority opposed to the policy they were instructed to support, it was usually easy to postpone decision to the next annual meeting, the intervening period allowing time for the discussion of opposing arguments among members in Divisions. But the circumstances of the past year have not been ordinary, and there has been no time to give the slow moving machinery of reports to and meetings of Divisions full play.

The Representative Meeting in November was confronted not only by a number of new clauses and amendments already adopted by the House of Commons, but by a bill still in the fluid state, still being altered from day to day by the Government, whose decisions were automatically registered by the House of Commons—that is to say, the meeting had to deal not only with facts, but with probabilities. As may be seen from the reports of meetings of Divisions, and the voluminous correspondence recently published, many members consider that the meeting in November blundered. It is therefore reasonable to afford it an opportunity of reconsidering the matter after the further discussions which have already taken place in the Divisions, and which will take place at meetings held to consider the report now promised.

EXPERIMENTAL THERAPY OF CANCER.

THE results of an important and interesting experimental research into the therapy of malignant growths were recently communicated, as our Berlin correspondent records, to the Medical Society of Berlin by Professor v. Wassermann, Dr. Keysser, and Dr. Michael Wassermann. The communication was of a preliminary character, and the details of the experiments are reserved for future publication. The experiments were made upon mice suffering from carcinoma or sarcoma. In some of the mice the tumours had arisen spontaneously, but in the majority of cases they had been produced by inoculation from mice similarly affected.

In presenting a brief account of their results the authors were careful to point out that these are at present of merely scientific importance, and that there is no reason to suppose that the precise means which they have found effective in their animal experiments would be successful in the case of man.[1]

Encouraged by the brilliant researches of Ehrlich, whose educated search for poisons sufficiently selective in their action to kill protozoan parasites whilst leaving the cells of the host uninjured, has been attended with so much success, Professor Wassermann and his collaborators have been striving to find a chemical substance which, introduced into the blood, shall exert an action sufficiently differential to destroy the cells of a new growth without endangering the life of the animal.

This must not be regarded as by any means a hopeless quest, for the selective affinity towards and relative susceptibility to chemical substances exhibited by the various tissues and even different cells of the same tissue are indeed striking. To this is due the fact that one substance is a narcotic, another raises the blood pressure, whilst a third stops the heart. The specific action upon particular cell groups is just as strikingly manifested when substances of closely related chemical constitution are considered, such as morphine and apomorphine, or the various toxic proteins of animal and vegetable origin. It is, therefore, not unreasonable to believe that these specific affinities for particular chemical groupings may be exploited for therapeutic purposes to an almost indefinite extent by careful and patient study of the relationship of particular cells to substances of definite chemical architecture.

Although the subject of chemo-therapeutics is in its infancy, important guiding principles have been laid down. They are largely due to the genius of Ehrlich. A general protoplasmic poison such as mercury or arsenic displays little selective action. To make such a poison specific it must be, to use a crude analogy, wrapped up in a parcel which is chemically more attractive to the protoplasm of particular cells than to cells in general. Acting on this principle Ehrlich introduced arsenic into various organic compounds, and by modifying with the greatest skill the precise nature of the chemical configuration of the latter, ultimately obtained arsenic compounds for which the protoplasm of trypanosomes and spirochaetes exhibited an avidity considerably in excess of that manifested by the cells of mammals harbouring these parasites. He thus obtained a measure of specificity sufficient to afford a margin of safety for therapeutic use.

Malignant growths are due to a kind of civil war in which the invaders consist of anarchist members of the community and their progeny, and it might not unreasonably have been supposed that the selective affinities of, for instance, the epithelium of the mammary gland and the cells of a mammary carcinoma would not greatly differ. Nevertheless, the possibility of a rational therapy for new growths rests upon the assumption that sufficient difference exists to enable selective action to be manifested.

Undismayed by the difficulties of the task, the authors undertook the search for a chemical substance capable of such selective action. For reasons which are not now material, their attention was first drawn to the action of salts of selenic and telluric acid. Selenium and tellurium are elements belonging to the same group as sulphur, but the selenates and tellurates, unlike sulphates, are highly poisonous, possibly owing to the ease with which they part with their oxygen within living cells, the selenium and tellurium being reduced and deposited.

The injection of these salts directly into the new growths was followed by their more or less complete destruction, but, as the authors point out, for therapeutic purposes the agent must find its way to the carcinoma cells when introduced into the blood stream. The introduction of selenates and tellurates into the veins was not attended by a satisfactory result.

When injected in sufficient quantities into the blood stream of mice with carcinoma they killed the animals, but smaller amounts had no effect upon the growths; in other words, they exhibited no selective action. Attempts were therefore made to combine selenium and tellurium with an organic substance in the hope that some selective action might occur. Various members of the eosin group of dyestuffs were experimented with, as these possess great power of penetration throughout extravascular areas of the tissues. Some hundreds of different preparations were made and tried without result, until finally a compound of eosin and selenium was produced, and proved to exert a specific destructive effect upon the tumour cells.

The authors give no details of the composition and properties of this substance beyond the statement that it is readily soluble in water and that more than 2½ mg. is required to kill a healthy mouse. The selective absorption of the substance is strikingly shown by the following experiment: If 2½ mg. were injected into the veins of a healthy mouse the animal became pink all over, but the same quantity introduced into an animal bearing a tumour produced little coloration of the surface of the skin. When, however, in the latter case, the tumour was examined it was found stained an intense red.

The account given by the authors of the successful cases of the treatment is briefly as follows: After the third injection the tumours were distinctly softer, and after four or five injections became cystic. Further doses, making 6 to 8 in all, led to diminution in size and absorption. In ten days the growths had disappeared. Examination of the tumours at various stages of the treatment showed that the whole structure had liquefied, and in the later stages no trace of the carcinoma cells was to be found.

In animals which had received a sufficient number of injections to cause the apparent disappearance of the tumour no recurrence has yet, after some months, taken place; but in inadequately treated animals, although the treatment was followed by softening and diminution in the size of the growth, rapid recrudescence occurred.

It was not found possible to treat successfully growths of larger size than a cherry. With larger

[1] A preliminary paper is published in the *Deutsche medizinische Wochenschrift* for December 21st, 1911, s. 2389.

growths the same initial changes occurred, but the animals always died. In the opinion of the authors, these deaths were due to the rapid absorption of the disintegrated contents of the tumours.

Whilst anxious not to raise false hopes, the authors express the opinion—which, considering the reputation as an experimenter possessed by Professor von Wassermann, we believe to be justified—that an important beginning has been made in a direction in which further research may ultimately lead to the discovery of a useful treatment for malignant disease.

Selenium and tellurium are members of the same group of elements as oxygen and sulphur, and resemble the latter in most of their compounds. The atomic weights of these three elements are: Sulphur 32, selenium 79.2, tellurium 127.5, and in most of its properties selenium is intermediate to the other two, thus conforming to the general rule for such groups; for example, selenium is less electronegative, or acidic, in character than sulphur, and tellurium is less so than selenium, and corresponding differences are to be found in their various compounds. Selenium is a widely distributed element, but is only found in small quantities; the chief source is iron pyrites (FeS_2) in which a part of the sulphur is replaced by selenium; tellurium is comparatively rare. Both are non-metals, but, like like sulphur, they occur in several allotropic forms, and one form of each has a metallic appearance, and possesses some of the properties of metals. The three series of salts—selenides and tellurides, selenites and tellurites, selenates and tellurates—correspond respectively to sulphides, sulphites, and sulphates; fairly numerous organic compounds of the two elements have also been prepared. Most of the selenates and tellurates are soluble. The sodium, potassium, and ammonium salts (Na_2SeO_4, Na_2TeO_4, etc., most of them also containing water of crystallization) are colourless crystalline compounds soluble in water (sodium tellurate only slightly so). The compounds of selenium and tellurium with hydrogen are unpleasant-smelling and poisonous gases, hydrogen selenide (H_2Se) being more poisonous than hydrogen sulphide (H_2S), and hydrogen telluride (H_2Te) more so than the selenide. Small traces of selenium and tellurium compounds were formerly of fairly common occurrence in bismuth salts; they were held to be objectionable on account of the formation of hydrogen selenide and telluride in the stomach. The tests ordered in the *British Pharmacopœia* for bismuth salts include one for proving their absence, and the bismuth salts supplied for medicinal use in this country now practically never contain any.

THE INTEREST OF THE PUBLIC IN CONDITIONS AND TERMS OF MEDICAL SERVICE.

Sir Clifford Allbutt, in a letter to the *Times* (January 3rd), has put before the public, with his accustomed force and eloquence, a point of view to which neither the Chancellor of the Exchequer nor his actuaries seem hitherto to have given any attention. The matter has been canvassed before, but has never been so well put, nor with so much authority. He asks the public to consider the influence which the Insurance Act must have upon the development of medicine in regard to the very end at which the Act professes in part to aim. The Chancellor of the Exchequer, knowing little or nothing of modern medicine or its business, has been content, Sir Clifford Allbutt says, "with an antiquated notion of medicine and of medical service; he took for granted without inquiry a notion built of some vague knowledge of village clubs and of the old-fashioned *vade mecum* way of doctoring. This is, 'for such and such a disease such and such a drug; take the mixture, drink it regularly, and get well if Nature will let you.' And if our people have ceased to check the doctor's bill by the pill boxes, bottles, and pots on the shelf, even Cabinet Ministers have not escaped from this ancient habit of thought."

As Regius Professor of Physic in the University of Cambridge he tells the public that the younger men who are passing from the universities in recent years "are entering upon medicine as into a new calling, with new ideas, and with changed views of their portion in it. Many of these abler and more accomplished men are now passing beyond the large towns into smaller towns and villages, some of them preferring a country life. Thus they are missionaries, carrying with them these new ideas of medicine, and developing new modes of practice. With these men, if not discouraged, lies the future of medicine in its popular sense; and they have chosen medicine as a calling chiefly because of its new scientific values, and of its enormously increasing power over disease. . . . Thus the hereditary maxims and craft rules of the elder medicine, maxims and rules which made current practice easy and comparatively irresponsible, are dissolving into wider conceptions and a larger scope of work which demand a far more arduous and far more responsible service. To this service the modern medical student in town or country is ready to devote himself."

Sir Clifford Allbutt then shows that a modern physician—in which term he includes the modern practitioner, to whatever side of the profession he may be given—perceives that while the treatment of disease is not independent of hereditary lore and cleverness of resource, yet "it is first and last a matter of searching diagnosis; and, every day, diagnosis is opening out as a more and more abstruse and costly affair. In therapeutics much may depend upon the precise administration of a drug at a cardinal moment, a drug used economically and in a timely manner; but it is no longer a matter of continual pills and potions. Therapeutics consists even more in rearrangement of life, and the aid of other, often physical, means of an elaborate kind—such as specific exercises, baths, climate, rest, massage, electricity, and so forth—means, it is true, not commonly at the service of the general practitioner, but of which he brings a full knowledge from his schools, and on which he is able to advise intelligently. And for a more searching diagnosis he can do still better. The man who leaves us for practice is schooled in all these methods; he can examine the blood, counting and comparing its corpuscles; he can perform the ordinary bacterial examinations; he can estimate the chemical values of secretions and excretions; he is skilled in the use of instruments of precision, of blood pressure gauges, endoscopes for the eye, the larynx, and other internal parts; he knows something of optics, and can indicate precisely where more of this kind of investigation can be had, and to what advantage. But all this means time and money, and a long and costly technical education."

Sir Clifford Allbutt gives as a concrete instance the Wassermann reaction, and explains its purport, the skill required for its proper application, and its cost. He then turns to the application of his general argu-

ment, and says: "Now if we are to say that the general practitioner is to be but a stop-gap, and that every malady of importance is to be sent to some central institution, is not this to take the heart out of our very efficient students, and to degrade the career of medicine? Gloss it as we may, contract practice will stand lower in public esteem, and will be of lower average efficiency and much less humane: it will damp the aspirations and blot the high-minded ideals with which I, who know, say that the young physicians of to-day are entering our profession: and it will push them back to old-fashioned routine and to ill-remunerated and therefore undervalued service."

In a brief discussion of the argument for the continuance of the contract system founded upon the existence of club practice, he expresses the opinion that the system was breaking down, and that where such work made the bulk of the practice it was perfunctorily done. But he goes on to state that where a club formed no great bulk of a practice "the work has been done better, often admirably, because it has been regarded as hospital work has been regarded by consultants, and been done for love of the profession, for goodfellowship and humanity, and, it is fair to add, for some advantage of *status* and experience, but not for pecuniary profit."

He concludes his argument by asking the public if the new machinery is calculated to develop the backbone of medicine on new and growing lines, or if it is to sweep us back upon old methods. "Can the answer be doubtful? The solution is no contract, but payment for work done on a standard tariff."

Again we may resort to the columns of the *Times* to show the view which the public is being advised to take. In a closely reasoned article published last week (December 29th, 1911) our contemporary returned to a calm consideration of the importance, from the point of view of the public, of ensuring an arrangement with the medical profession on equitable terms of service and remuneration if the Act is to attain the objects which the public desires to flow from it. The argument may best be stated by way of quotation. It is first pointed out that "the primary object of the Act is to provide better treatment in illness for the poorer classes than they can otherwise afford at home. That treatment must be paid for, but the Act does not make provision for adequate payment. On the contrary, its financial stability rests on an estimate of wholly inadequate payment, while it contemplates that method of service and remuneration which experience has proved to be the most unsatisfactory, and it leaves all the details to be wrangled over and fought for all over the country. . . . The approved societies will control the Insurance Committees, and they will try their utmost to secure medical treatment on the cheapest terms. . . . If they succeed in their intentions, they will secure a medical service which will resemble the work of the sweated alien; it will be cheap—and nasty. In some favourable districts it may be found possible, but it will not be satisfactory; it will depend on underpaid and overworked labour. In other districts, however, a medical service on terms approaching those contemplated by the Act is totally impossible. Those are the rural districts, in which the practitioner has to cover great distances to get from one patient to another. Under a scale of 6s. a head he must have 1,000 patients in order to make £300 a year, and this sum would have to include not only drugs, but dressings, bandages, splints, anaesthetics, and all other appliances. How is a country doctor to attend to all these patients scattered over a radius of twenty or thirty miles?" The conclusion drawn from all this is that the medical profession "has the clearest and most unequivocal ground for making an absolute stand on this question. Unless fair terms are conceded, the medical treatment will be a fraud and a make-believe, and the first object of the Act will be nullified. Their interest is the public interest, and the public are quite capable of understanding that point. The question is, What are fair terms and how are they to be secured? And here, too, the profession, if they are to carry the public with them, must be practical and united. It is useless to go back on what is past and indulge in recriminations."

The opinion is expressed that the Representative Meeting in November made a mistake, and failed to give expression to the wishes of the bulk of the profession, and that what its members now have to do is to unite in retrieving the error then made. It is recognized that they are united in intention, and that the British Medical Association is the only existing organization which can give expression to that intention in united action. The practical policy suggested by our contemporary at the present moment is to prepare for a Special Representative Meeting by the discussion in each Division of the questions of the wage limit and the rate of remuneration. This procedure, it is argued, would lead to the adoption "of a standard and uniform demand, with provision for a certain amount of local modification: and the profession could make the concession of these terms the condition of working the Act. This is a practical plan. Some time would be required to carry it out: but there will be time. An enormous amount of preliminary work has to be done by the Insurance Commissioners before the question of benefits is reached at all, and by the time it is finished the medical profession should be ready with their considered and united requirements. If they set about this in an earnest, practical, and reasonable manner, dropping recrimination, or keeping it to themselves, they will carry the public with them."

THE INSURANCE ACT.

THE text of the National Insurance Act, 1911, reprinted from the official text published by authority, is contained in the SUPPLEMENT for this week as issued to members in the United Kingdom. For convenience of reference, an alphabetical index to its principal provisions has been compiled, and is printed at the end of the text. The Insurance Commissioners have to make regulations on a large number of important matters, including many which will nearly affect the administration of medical benefit, and it is desirable that there should be no undue delay in the preparation of such regulations which, before being promulgated, ought to be submitted to the medical profession for its criticisms. The same observation applies to the regulations affecting sanatorium benefit, in the drafting of which it will be fatally easy to make mistakes, unless full advantage be taken of the experience of those who have practical knowledge both of the organization and administration of a properly co-ordinated scheme for dealing with the prevention of tuberculosis.

THE TETRARCHY.

THE original idea of the National Insurance Bill was to have a single scheme, as nearly as possible uniform, for the United Kingdom, including Ireland, administered under a board of Commissioners, one and undivided. On getting to close quarters with the details of the scheme, the Chancellor of the Exchequer seems to have become

convinced that it would be necessary to set up boards of Commissioners in Scotland and Ireland, and, having come to this conclusion, it was only natural that he should have been ready to extend the same privilege to the Principality of Wales. This decision, which was accepted by the House of Commons about the middle of November, while the bill was in Committee, did not altogether please some of the supporters of the Government, who fear that it may interfere with the uniformity they desire, and it must undoubtedly tend to introduce some additional complications into a scheme already very full of difficulties and complications, financial and other. With the view of diminishing occasions for stumbling, a Joint Committee was set up, consisting of representatives of the several bodies of national Commissioners, with certain additional members. The duties of this Committee specified in the Act are chiefly of a financial nature, but other powers and duties of the several bodies of Commissioners may be devolved upon them in accordance with regulations which are to be made by the Treasury and laid before Parliament. Mr. C. F. G. Masterman, M.P., has been appointed Chairman of this joint committee, and will represent it, and also apparently the several national boards of Insurance Commissioners, in the House of Commons. Mr. Masterman is Parliamentary Secretary of the Home Office, and was Parliamentary Secretary of the Local Government Board in 1908 and 1909. The other members of the board are Sir R. L. Morant, who will act as Vice-Chairman, the Chairmen of the several bodies of Insurance Commissioners, the Deputy Chairman of the English board, Mr. J. S. Bradbury, C.B., the Chief Registrar of Friendly Societies, Sir John Struthers, K.C.B. (Secretary of the Scottish Education Department), and a woman whose name is not yet announced. It seems probable that the influence of this Joint Committee in producing uniformity of action throughout the tetrarchy will be very considerable, at any rate at first, but until the functions, other than financial, which are to be assigned to it are made known by the publication of the Treasury regulations, it is impossible to be confident on this point. The establishment of such a Joint Committee undoubtedly lends weight to the suggestion made in a letter published in the SUPPLEMENT for this week by Dr. H. F. Oldham of Morecambe, who took an active part in the work of the first two or three Representative Meetings, as those who attended them will well remember. Dr. Oldham suggests that the Representatives, at the meeting which he anticipated would be called, should be empowered by the Divisions to elect from among themselves a Central Medical Committee for the purpose of dealing directly with the Insurance Commissioners. Such a Central Medical Committee should, he suggests, be empowered to lay before the Commissioners the minimum terms on which the profession will decide that it might be willing to act. The terms would include an absolute guarantee of the six cardinal principles of the Association, the acceptance by the State of all the risks involved in providing medical benefits, that the insurance should cover the insured under all circumstances and everywhere in Great Britain, that the disciplinary control of the members of the medical profession should be entirely in the hands of the profession, and that the indiscriminate use of prescriptions by pharmacists must be prevented. He believes that the Insurance Commissioners would be in a position to undertake absolutely to guarantee these demands, and that in this way local bargaining between local Medical Committees and local Insurance Committees might be avoided. If the Insurance Commissioners refused to grant or to provide the minimum asked, it would be the duty of the Central Medical Committee to decline to negotiate further, and of the British Medical Association to call on the profession to refuse service of any sort under the Act until its demands had been accepted. There is no doubt that the tetrarchical system of administration involves a certain risk of disunion between the profession in the four countries, a risk which would be obviated by the appointment of a central or joint medical committee corresponding with the Joint Committee of Commissioners, as suggested by Dr. Oldham. In Scotland the profession seems in a fair way to avoid the risks attending local bargaining by a mode of procedure which will eventually result in a national discussion with the Scottish Insurance Commissioners, and therefore comes very near to Dr. Oldham's plan. An identical course of action is being taken by the medical men in one part of Scotland after another. The policy adopted is to reaffirm the six cardinal principles of the British Medical Association, and to at once give the Scottish Commissioners formal notice that the profession in the district will absolutely refuse to work under the Act unless the regulations framed by the Commissioners are consistent with the concession of the six cardinal principles.

MR. STIGGINS IN POLITICS.

THE *Nation*, which in spite of its title is a bitter party paper, a fortnight ago wept salt tears because it had discovered, as it thought, that "the temper of science at the present day is . . . strangely conservative." It would be a very awkward fact for the party the *Nation* befriends were it true, but as Fluellen observed, "There is occasions and causes why and wherefore in all things," and the notion is founded on the circumstance that 116 Fellows of the Royal Society out of some three or four hundred responded to Sir William Ramsay's round robin asking whether they approved of the National Insurance Act by saying that they did not; so that the truth of the *Nation's* assertion is not quite conclusively established on a sound mathematical or scientific basis. As long as science, we are told, had something to fear from religious intolerance it was, on the whole, allied with liberty, "and through liberty with the cause of democracy in general." Alas for the good old days! Now science shows the world that horrid bogey biology, and has learnt "to disparage the value of institutional reforms." Nevertheless we are allowed to take some comfort from the assurance that cause and effect are to be found in the life of society as elsewhere, and are exhorted to a dispassionate observation of the manner of their working. The injunction is immediately illustrated by this strange piece of incoherence: "The science of society . . . has to recognize that the fuller and deeper, and therefore the more scientific, view of its peculiar field is that which appeals to the religious rather than the scientific mind in the ordinary sense of the term." The appeal to religion "in the ordinary sense of the term" to justify your own political brand of politics, was probably old in the reign of the Pharaoh who was drowned in the Red Sea, but it does not grow sweeter with age. Might it not be well for the *Nation* to bethink itself of the fate that at long last, as they say in the Sister Isle, befell Mr. Stiggins? Was it not the shepherd who exhorted Mr. Sam Weller "to abstain from all hypocrisy and pride of heart; and to take in all things exact pattern and copy by him (Stiggins), in which case he might calculate on arriving, sooner or later, at the comfortable conclusion, that, like him, he was a most estimable and blameless character, and that all his acquaintances and friends were hopelessly abandoned and profligate wretches. Which consideration, he said, could not but afford him the liveliest satisfaction." Again, last week, the *Nation* lectured the medical profession very much in the way in which an old nurse rebukes a wayward boy for pouting at the food provided by his kind parents, because it had dared to find fault with the table which Mr. Lloyd George's actuaries had spread for it. "We hope and believe," it said, "that the Government suggestion of a capitation fee of 6s. will be realized. Such

a grant"—mark that the word is not dole—"gives a doctor £300 a year for 1,000 patients, at the rate of forty-five visits a day. This, in addition to private practice, would be enough for town doctors. Country medicals," our good grandam graciously admits, "might fairly ask for better terms." Why "better terms"? Why not say more money? Something under fourpence-halfpenny a visit is "enough for town doctors"! and "thoughtless spirits" are to take note not to ask for more. For one set of people who think themselves superior in intelligence and position to tell another set of people they believe to be inferior in these respects what they ought to be satisfied with, what is "enough" for them, is a very old song. It might be sung to the same tune as the ditty, which the "advanced thinkers" of a generation or two ago thought so consummate a piece of satirical wit, the ditty which ends, if we remember right, with the lines:

> God bless the squire and his relations,
> And keep us in our proper stations,

or words to that effect.

UP-TO-DATE QUACKERY.

THE results of the analysis of two nostrums put forward for the cure of a large number of complaints are published in this issue. The advertisements by which these nostrums are commended to the public in each case furnish excellent illustrations of the way in which the makers of proprietary medicines are quick to take advantage of the slight smattering of scientific terms which the public possesses, and the sort of familiarity with the progress of medical research that may be obtained by glancing at the scrappy paragraphs published by some of the more widely read daily and weekly newspapers. However favourable dense ignorance may be to the success of the charlatan, the ignorance which believes itself to be enlightened and educated is still more so. In the advertisements of both the preparations in question, it is claimed that they embody the latest results of scientific research, and these claims are supported by meaningless talk about serums, "organic reconstituent elements," "a vital extract ($C_2H_7N_1$)" "red corpuscles or phagocytes," antitoxin, etc. The tenor of the statements made points to both mixtures containing the "orchitic liquid" prepared by Brown-Séquard from testicles, or some similar preparation; but analysis showed that if any organic matter of such a kind were present at all, it was in exceedingly small quantity; the principal constituents of the one were alcohol and sugar, and of the other small doses of glycerophosphates of iron, magnesium, sodium, and quinine, with glycerine. The price charged, though very different in the two cases, is, needless to say, a liberal one. It is interesting to note that in one advertisement it is thought necessary to say, "Osogen is not a secret remedy"; this is not the only case among recent advertisements of proprietary medicines in which it is claimed that the article in question is "not a secret remedy"; and the anxiety on the part of the proprietors to make the public believe that their articles are not of the class dealt with in the book *Secret Remedies* may be regarded as testimony to the effects which have followed its publication.

THE INTERNATIONAL OPIUM CONFERENCE.

THE International Opium Conference which has been sitting at The Hague since December 4th, 1911, adjourned for the Christmas recess on December 23rd, and will, it is understood, resume its sessions on January 8th, 1912, when an early completion of its labours is anticipated. The main object of the conference is to put into the form of an International Convention the resolutions which were arrived at by the International Commission held at Shanghai in 1909. A Conference, diplomatically speaking, is a far more important event than a Commission. The representatives of the different nations attend as plenipotentiaries, with authority to sign, subject, of course, to ratification by their respective Governments, the articles of the convention and protocols which they prepare. Twelve nations have sent representatives to the Conference at The Hague, the Dutch Government once again having afforded hospitality at that famous city of diplomacy to those engaged in an international work alike of high policy and of humanitarian endeavour. The meetings are held in a chamber in the Binnenhof, adorned with the paintings of Lairesse. The proceedings were opened on December 4th by a welcome pronounced by M. Van Swinderen, the Dutch Minister for Foreign Affairs, and Bishop Brent, one of the American delegation, was elected President of the Conference. The British plenipotentiaries are the Right Hon. Sir Cecil Clementi Smith, G.C.M.G., Sir William S. Meyer, K.C.I.E., Sir William J. Collins, D.L., M.D., F.R.C.S., and Mr. M. W. Max Müller, C.B., M.V.O. The other nations represented are the United States, Germany, France, China, Italy, Japan, Netherlands, Persia, Portugal, Russia, and Siam. The press is not admitted to the sessions, and the official language is French, though speeches are, it is understood, often made in English. Many technical questions of a pharmacological nature have, we understand, arisen, and these have been referred to a Technical Commission composed of those delegates who have medical or chemical qualifications. Nine nationalities were represented on this Technical Commission, and the members and the names they represented were as follows: *Germany*, Dr. Kerp, of the Imperial Health Office of Berlin; *America*, Dr. Hamilton Wright and Mr. Henry J. Finger; *China*, Dr. Wu Lien-Teh, who fought the plague in Manchuria; *France*, Dr. Gaide, Médecin-Major in the Indo-Chinese colonies of France; *Great Britain*, Sir William Collins, Vice-Chancellor of the University of London; *Italy*, Professor Rocco Santoliquido, M.P.; *Japan*, Dr. Tomoe Takaki, Director of the School of Medicine in Formosa, and Dr. Kotaro Nishizaki, Director of the Hygiene Laboratory at Yokohama; *Netherlands*, Dr. J. G. Scheurer, Member of the Second Chamber; *Russia*, Dr. Chapirow, Honorary Physician to the Czar. Of this Commission Sir William Collins was elected President, and Dr. Wu Lien-Teh Honorary Secretary. Certain resolutions passed by the Conference, dealing with the limitation of the production and distribution of raw and prepared opium have already appeared in the press. It is understood that, mainly on the proposal of the British representatives, steps are also being taken with a view to control the manufacture and distribution of morphine and cocaine. The question of "anti-opium remedies," so much puffed in China, is also under consideration.

THE NEW YEAR HONOURS LIST.

THE five knighthoods conferred on members of the medical profession in the New Year Honours list exemplify the great variety of duties which medicine is called upon to fulfil in the modern State. Sir George Henry Savage is one of the most distinguished of those physicians who in England have devoted themselves to the study of mental diseases. He was formerly Physician and Superintendent of Bethlem Royal Hospital, and is now Consulting Physician for, and Lecturer on, Mental Diseases at Guy's Hospital. Sir James Mackenzie Davidson was at one time Lecturer on Ophthalmology in the University of Aberdeen. When the *x* rays were discovered he turned his attention to their application in diagnosis and treatment, and has made many valuable contributions to this department of medicine in relation especially to stereoscopic radiography. Sir Robert John Collie is Medical Examiner to the London County Council and the Metropolitan Water Board, and has written a work on medical evidence and the laws relating to compensation for injury, a subject to which he has given special attention.

Sir Bertram Windle, F.R.S., now President and Professor of Archæology, University College, Cork, was formerly Professor of Anatomy and Dean of the Medical Faculty of the University of Birmingham. Since his appointment, University College, Cork has made great strides, and seeks the establishment of a separate university. Sir J. Hawtrey Benson, President of the Royal College of Physicians in Ireland, is Consulting Physician to the Royal City of Dublin Hospital and Medical Adviser in Ireland of the Colonial Office. In the same list the honour of C.B. is conferred on Dr. Arthur Newsholme, Principal Medical Officer to the Local Government Board for England and Wales, and formerly M.O.H. for Brighton: and that of C.M.G. on Lieutenant-Colonel David Prain, F.R.S., who was Director of the Botanical Survey of India and Superintendent of the Royal Botanic Gardens, Calcutta, until his retirement from the Indian Medical Service in 1905, in which year he was appointed Director of the Royal Botanic Gardens, Kew. We may note also as of interest to the medical profession that the honour of knighthood has been conferred on the Principal of the University of London, Dr. H. A. Miers, formerly Professor of Mineralogy at Oxford, and on Dr. E. B. Tylor, Emeritus Professor of Anthropology at Oxford.

NOTIFICATION OF BIRTHS ACT.

AT Worcester in the last week of December three medical men were each fined £1, including costs, for failure to comply with the Births Notification Act, which has been adopted in that city. On the same occasion two of the fathers concerned were also summoned, but in the one case the summons was withdrawn, and in the other a fine of only 2s. 6d. was inflicted, on the ground that the case was the first in which a parent had been prosecuted. Attention is drawn to the latter circumstance, because when coupled with the other prosecutions recorded, it indicates decided lack of discretion on the part of the health authorities of the city of Worcester. Under the Notification Act parents and medical attendants stand on the same footing legally in regard to their liability to prosecution if notification of a birth is not made by one or the other of them in any area where the Act has been adopted, but morally it seems to be generally admitted that the responsibility rests really upon the parents. Medical men, of course, can never benefit personally by the operation of the Act, but parents may do so since its main purpose is to secure that health authorities, by being made aware of the birth of a child, shall be in a position to aid its parents in its management by promptly placing at their service a health visitor and any other assistance deemed to be required. In any case, the number of occasions on which we have had to record prosecution of medical men is, in comparison to the large number of areas where the Act is in force, relatively very small. This paucity is natural, for apart from considerations of mere fairness a wise administrator would instinctively abstain from prosecuting medical men for defaults under the Act unless and until every effort to educate parents in their duties in this matter and to secure their performance had failed to result in a reasonably high ratio of notifications of births. Any other course indeed would tend to provoke among medical men a most undesirable feeling of hostility towards the health authority. Apart from this, most wise administrators endeavour to avoid the methods of bureaucracy such as are represented by special endeavours to secure notification in the very cases in which birth notification is least likely to result in benefit, namely, those in which the children are in the care of medical men. We regret, therefore, to have to record the prosecutions in question and doubt very much if in the long run Dr. Mabyn Read, who, as M.O.H. of Worcester, must presumably have either initiated or approved them, will find that he has done the town any good.

SIR JAMES BARR ON THE INSURANCE ACT.

SIR JAMES BARR has not had altogether a "good press" for the letter published in our issue of last week, which he addressed in duplicate to the *Times* and the BRITISH MEDICAL JOURNAL. The assertion with which he set out, that the Insurance Act is a long step in the downward path towards socialism, was open to the obvious retort that the scheme has been steadfastly opposed by all socialist organizations which have said anything about it, and in particular by the Fabian Society, which so far agrees with Sir James as to consider that it is no better than a "fraud"—in its opinion—on the working classes. Nor have the grounds of his attack upon the sanatorium benefits provided under the Act met with universal approval, because apparently the public is not yet prepared to accept his doctrine as to the sterilization of the unfit. On the other hand, his statement of the real argument for the medical profession in respect of the actuarial provisions for medical and surgical attendance has been received with sympathy and approval, although even on this head one of our correspondents joins issue with him. His denunciation of the absurd rate of 6s. a head—that is, 4s. 6d. a head for the medical man and 1s. 6d. a head for the pharmacist—is forcibly phrased, but it expresses the settled opinion of the profession at large. The amount, as he says, is utterly inadequate for an efficient service, and his application of the word "fraud" to a service that is not efficient will not be criticized.

THE TUBERCULOSIS NOTIFICATION ORDER.

THE Order of the Local Government Board making pulmonary tuberculosis compulsorily notifiable came into force on New Year's Day. It is designed to complete the organization for ensuring the notification to health authorities of all cases of the disease. A medical practitioner is not required to notify any case which has already to his knowledge been notified, either under this Order, under the Poor Law Order (1908), or under the Hospitals Order, if the notification has been made to the medical officer of health of the area within which the patient resides; but if a patient who has been notified in the area of one sanitary authority removes into another area, a fresh notification to the medical officer of health of the new area should be given. Patients in a prison, reformatory, school, or lunatic asylum, and patients in a Poor Law institution or under the care of a Poor Law district medical officer are not to be notified under this Order, nor are applicants for life insurance, nor a passenger or member of the crew of an emigrant ship, discovered to be tuberculous by a medical examination in either case. By a curious and out of date anomaly of British law, the Order does not apply to an "inmate of any building, ship, vessel, boat, tent, van, shed, or similar structure belonging to His Majesty the King." It is recognized that the local authority should be in a position to offer sanatorium treatment, and in the memorandum accompanying the Order it was stated that the Public Health Act, 1875, and the Public Health London Act, 1891, gave local authorities power either to provide sanatoriums themselves or to contract for the use of such institutions. It was also pointed out in the memorandum that treatment in an institution is not always necessary or desirable, and that there are many cases which under suitable instruction and supervision may properly be treated in the patients' own homes. Consequently, the local sanitary authority is empowered to supply such medical or other assistance and facilities for the detection of pulmonary tuberculosis for preventing the spread of infection and removing conditions favourable to infection.

THE LUNACY COMMISSION.

THE Lord Chancellor has appointed Mr. Barnard Thornton Hodgson, Barrister at Law and Secretary to the Commissioners in Lunacy, and Dr. Charles Hubert Bond, Medical Superintendent of the Long Grove County of London

Lunatic Asylum, to be Commissioners in Lunacy. Mr. Oswald Eden Dickinson, Barrister at Law and Secretary to the Lord Chancellor's Visitors in Lunacy, has been appointed, with the approval of the Lord Chancellor, Secretary to the Commissioners in Lunacy, in the place of Mr. Hodgson. These appointments are made under the Lunacy Act Amendment Act passed early last month. It was originally intended to amalgamate the Masters in Lunacy with the Commissioners in Lunacy, and to comply with the strong recommendation of the Royal Commission to the effect that two additional medical Commissioners should be appointed. The proposal to amalgamate the Masters and Commissioners in Lunacy was dropped in consequence of the opposition of the Bar, and the success of this opposition is further evidenced by the appointment of another Legal Commissioner and of only one additional Medical Commissioner.

THE INTERNATIONAL MEDICAL CONGRESS.

We publish this week as an inset details as to the organization of the Seventeenth International Congress of Medicine. A full programme of the Congress and its various sections will be issued not later than September 30th, 1912. To make room for it, it has been necessary to omit the EPITOME OF CURRENT MEDICAL LITERATURE. It will be seen that the date of the Congress has been fixed for August, 1913: the proceedings will extend over the week from the 6th to the 13th. The work will be distributed among twenty-two sections as follows: (1) Anatomy and Physiology; presided over by Professor Arthur Thomson, of Oxford. (2) Physiology, with Professor Schäfer, of Edinburgh, as President. (3) General Pathology and Pathological Anatomy; Mr. Shattock as President: a subsection of Chemical Pathology, presided over by F. G. Hopkins, D.Sc. (4) Bacteriology and Immunity, presided over by Professor Woodhead. (5) Therapeutics (Pharmacology, Physiotherapy, Balneology), of which Sir Lauder Brunton is President. (6) Medicine, with Professor Sir William Osler as President. (7) Surgery, presided over by Sir Watson Cheyne; with one subsection of Orthopaedics, of which Mr. Robert Jones is President; and one of Anaesthesia, general and local, presided over by Dr. Dudley Buxton. (8) Obstetrics and Gynaecology, the President of which is Sir Francis Champneys. (9) Ophthalmology, presided over by Sir Henry Swanzy. (10) Diseases of Children, of which Dr. Eustace Smith is President. (11) Neuro-pathology, presided over by Sir David Ferrier. (12) Psychiatry, of which Sir James Crichton-Browne is President. (13) Dermatology and Syphilis, of which Sir Malcolm Morris is President. (14) Urology, with Professor Hurry Fenwick as President. (15) Rhinology and Laryngology, presided over by Professor StClair Thomson. (16) Otology, of which the President is Mr. Arthur Cheatle. (17) Stomatology, presided over by Mr. Morton A. Smale. (18) Hygiene and Preventive Medicine, of which Dr. Newsholme is President. (19) Forensic Medicine, with Professor Harvey Littlejohn as President. (20) Naval and Military Medicine, presided over by Surgeon-General Porter, Director-General of the Medical Department of the Royal Navy. (21) Tropical Medicine, the President of which is Sir David Bruce. (22) Radiology, presided over by Sir J. Mackenzie Davidson. The official languages will be English, French, and German, which will be used by the central office for the transaction of international business; in the general meetings Italian will be employed, in addition to these languages. An appeal will shortly be issued to the profession for funds to meet the necessary expenses of the organization of the Congress, which, it is estimated, will be not less than £8,000, exclusive of the subscriptions of members. The King has graciously accorded his patronage to the Congress. All correspondence should be addressed to the Honorary General Secretary (Dr. W. P. Herringham), Seventeenth International Congress of Medicine, 13, Hinde Street, London, W.

STATE MEDICAL SERVICE AND CHARITY.

THE Chairman and Secretary of the Brighton Division of the British Medical Association ask for the support of every practitioner in the district in the action which they have taken, as a matter of urgency, with regard to the advertisement of an appointment for a consulting and operating surgeon to the Brighton Workhouse Infirmary, at an honorarium of fifty guineas a year. At an urgency meeting of the Medico-Political Committee of the Division it was decided in view of the decision of the Association that State medical service should be completely separated from charity, and of the decision of the committee that the appointment contravened this principle, the resolutions published in the SUPPLEMENT of December 30th, 1911, p. 712, should be brought before a special meeting of the Division summoned for January 12th. A circular was issued to every medical practitioner in the district, and in response an undertaking has been given by 222 medical practitioners. As the time which has elapsed since the issue of the circular has so far been short, it is expected—and we hope that the expectation will be fulfilled—that no member of the profession will apply for the appointment except on such terms as shall be approved by the Division. The guardians have been informed of the action taken on behalf of the Division, and their Workhouse Committee has decided to postpone further action for a short time.

THE NAVAL MEDICAL DINNER.

THE Naval Medical Dinner was held at the Criterion Restaurant, London, on December 19th. Surgeon-General Christopher Pearson presided, and there were present Sir James Porter, Director-General the Medical Department of the Navy, Sir W. Watson Cheyne, Sir W. Dyce Duckworth, Professor W. J. R. Simpson, C.M.G. (members of the Naval Medical Consultative Board), and more than fifty medical officers on the active and retired lists. At a meeting held before the dinner it was decided to make the dinner an annual event and to form a committee to carry out the necessary arrangements.

THE office of Medical Secretary of the British Medical Association is now vacant owing to the resignation of Mr. J. Smith Whitaker on his appointment to be Deputy Chairman of the Board of Insurance Commissioners. An advertisement for a successor appears this week in our advertisement columns.

THE TWO-POUND INCOME LIMIT.

A LETTER from Mr. James Boyton, M.P. for East Marylebone, published in the *Times* of January 1st, has raised a controversy as to the exact circumstances under which the amendment moved by Sir Philip Magnus on August 2nd, 1911, to fix in the bill an income limit of £104 a year in respect of medical benefit was negatived without a division. Mr. Boyton asserted that a division was not challenged in consequence of—

> a communication received from Dr. Smith Whitaker who was under the Gallery during the debate, to the effect, so far as I remember—Sir Philip Magnus has the letter—that whilst appreciating the efforts being made on behalf of the medical profession to secure the amendment, it would be better to drop the question until a later stage of the bill.

In the *Times* of the following day was published a letter from Mr. Smith Whitaker, stating that Mr. Boyton's account was seriously misleading upon questions of fact, and that it was clear that he could not have perused, recently at all events, the letter of which he professed to state the effect, or consulted those who had first-hand know-

ledge. Mr. Whitaker then gives the following account of the circumstances:

> The facts so far as I am concerned are that, during the debate on Sir Philip Magnus's amendment as to the £2 income limit, Sir Philip did me the honour to consult me on the question, upon which I learned that he and some of his colleagues who supported the medical profession were in doubt as to whether it would or would not be expedient in the interest of the medical profession to press the amendment to a division. I replied that I could not presume to advise as to what was the best course to take in a question which appeared to me to be one of purely parliamentary tactics. Subsequently a prominent Unionist, whose name I am prepared to give if I can obtain his consent, urged upon me that the Association should not insist on the amendment being pressed to a division, as there was evidently no support for it except on the Unionist side, and, even there, many who were sympathetic dare not vote for it, because it would be unpopular with their constituents. In these circumstances it was represented to me that we should not secure even a three-figure vote in favour, and possibly not more than 60. Such a result might injure the prestige of the profession in the House, and might prejudice our prospects of obtaining other amendments for which we were pressing. On my stating that I had already left the matter entirely in the hands of Sir Philip Magnus and our other parliamentary supporters, the member in question informed me that they did not appear to realize that I had given them a free hand (so far as it was in my power as an official of the Association to do so). Thereupon I wrote the letter to which Mr. Boyton alludes, and the purport of which he so entirely misrepresents, and gave it to the member in question, who undertook to give it to Sir Philip Magnus, as it would remove all doubt. I did not retain a copy, but saw it in Sir Philip Magnus's possession the same evening, and doubtless he is in a position to publish it. My recollection of the substance is, however, perfectly clear, namely, that I gathered that members of Parliament who were generally favourable to the profession considered that we should make a great mistake of tactics in pressing the amendment to a division: that, of course, I could not judge upon such a matter, but if he and our other parliamentary supporters who were co-operating with him considered that, on the whole, the interests of the medical profession would best be served by not pressing his amendment to a division, I felt sure that the British Medical Association and the profession generally would nevertheless feel satisfied that they (Sir Philip Magnus and his colleagues) had made every possible effort to secure that which the profession desired. In a later consultation with Sir Philip and other members I agreed, in view of their opinion, that it should go to a division, and that was my last word on the matter. I was surprised when a division was not taken, but heard afterwards that this decision was arrived at in a further conference in which I was not consulted.

As to the further conference mentioned by Mr. Whitaker, Dr. Addison, M.P., in a letter published in the *Times* of January 3rd, makes the following statement:

> Towards the end of the debate on Sir P. Magnus's amendment I was asked to attend an informal conference in the "No" lobby. I found there four or five well-known members of the Unionist Party, and they were good enough to ask my opinion as to whether it would be wise to divide or not. The substance of my reply was that I could only advise from the point of view as to what seemed best to me in regard to the medical service. At the same time, I did not disguise my personal opinion that the amendment in the form proposed would prove, if accepted, to be an administrative impossibility, would be unfair in its incidence, and that the claim that underlay it would be much better met by my own amendment which came later (now Section 3, Clause 15).
>
> With regard to the point at issue, I said that the general sense of the House was against the amendment, and that it was quite evident that only a small number of members would go into the lobby in support of it. This being so, it appeared to me that it would be unwise to divide, as the result would show that in that form the demand to which the profession attached such great importance could only obtain the support of a small minority of members, and would damage their case generally.
>
> I was not present when the decision was finally arrived at, but the reason for it was obvious to every one. The amendment did not commend itself to the House as the best way of meeting the difficulty. Not that the House was out of sympathy with the desire of the medical men that the amendment embodied, but because it was recognized that the proposal before it was not a workable one. I believe that Sir Philip Magnus acquiesced in the decision with great reluctance, desirous, as he always was, to carry out so far as he could the wishes of the medical men who form so large a part of his own constituency. The decision was, I am sure, a wise one and in the best interests of the medical profession, just as also the course of the debate made it inevitable.

In the *Times* of January 4th there is a letter from Sir Philip Magnus, in which he deprecates further discussion, which can serve no useful purpose, as it is too late, and continues:

> But lest it should be thought that I am withholding from publication the letter which Dr. Whitaker wrote in the House of Commons on August 2nd, I desire to state that the letter is not now, and, strictly speaking, never was, in my possession. The letter was shown to me and read by me, and it certainly influenced my decision; but after I had read it the letter was passed on to other members, and in whose hands it was ultimately left I cannot say.

In the same issue Sir Henry Craik, M.P. for Glasgow and Aberdeen Universities, published a letter, in the course of which he says:

> I had been present at the meetings with the Chancellor of the Exchequer, where the various points were discussed, and an amendment similar to that of Sir Philip Magnus stood on the paper in my name.
>
> I was present during the whole of the debate, and heard nothing whatever of any suggestion that we should not divide. I know nothing of preliminary discussions with Mr. Smith Whitaker, nor of any such mysterious conference of anonymous members in the "No" lobby as is referred to by Dr. Addison.
>
> It was only at the last moment that I found, to my astonishment—to give it no graver name—that no division was to be challenged. On my asking what was the reason for action so inexplicable, which I thought my own constituents would deeply resent, the letter from Mr. Smith Whitaker to Sir Philip Magnus was produced as the ground of the failure to take a division.
>
> Whoever told Mr. Smith Whitaker that only sixty members would support the amendment gravely misrepresented the facts. I am certain that the division would have been more close than most of the divisions on the bill, and many members who intended to support the amendment expressed to me their astonishment at the course taken. The only ground ever alleged to me for that course was Mr. Smith Whitaker's letter.

In commenting upon the formation of the Reform Committee in West London the *Times*, after referring to what it considers "the supineness of the Council in the present crisis," writes:

> Nor does the controversy over what happened in Parliament and why it happened . . . help to improve the impression. There was at least a very unfortunate misunderstanding then, and the desire for firmer and clearer counsels is intelligible. But we see no use in labouring this ancient history now. The efforts of the controversialists would be better directed to securing united action.

The Registrar-General desires to intimate to medical officers of health that they will be furnished about February 1st with particulars of transferable deaths registered during the last quarter of 1911. At the same time will be supplied to them the numbers of births to be added to or deducted from those furnished them by registrars in order to correct for lying-in institutions in accordance with the announcement made in a footnote to Table I of the Local Government Board. A copy of the Registrar-General's Manual of Causes of Death will, it is hoped, be sent to every medical officer of health during the latter part of the present month.

Canada.

THE CANADIAN PUBLIC HEALTH ASSOCIATION.

THE Canadian Public Health Association held its first Annual Congress in Montreal on December 13th, 14th, and 15th. This association was formally organized in October, 1910, when a conference of federal and provincial public health officers was held in Ottawa. An official organ of the society is published in Toronto, and is called *The Public Health Journal*. It seemed peculiarly appropriate that the first meeting of the congress should be held in Montreal, not only from a social point of view but because Montreal presents many enigmas of sanitation. The whole proceedings were carried out with enthusiasm and precision under the management of the president, Dr. Starkey, Professor of Hygiene in the McGill University, and promise much for the progress of sanitation in Canada.

Inaugural Meeting.

The first session was called to order at the Medical Faculty Building of McGill University on the morning of Wednesday, December 13th. The official opening of the congress took place at the Royal Victoria College, when the congress was formally opened by His Royal Highness the Duke of Connaught, the patron of the association. Her Royal Highness the Duchess of Connaught and Princess Patricia were also present. Many other distinguished persons were there, including Mr. R. L. Borden, the Premier of Canada; Sir Lomer Gouin, Prime Minister of the Province of Quebec; Mr. Martin Burrell, Minister of Agriculture, and the scene in the hall of the college was an unusually brilliant one.

Dr. Starkey opened the proceedings with an address of welcome to Their Royal Highnesses, and then read a letter from Lord Strathcona, in which the Canadian High Commissioner wished success to the association and enclosed a cheque for 2,500 dollars towards its expenses

Address by the Duke of Connaught.

When His Royal Highness rose to address the congress the entire audience stood and listened with deepest interest and respect to the Duke, who said:

"I wish to express my sense of deep satisfaction at being present at this meeting called to inaugurate the first meeting of the Canadian Public Health Association. Of the many public questions which are awaiting solution in Canada to-day, none are so important to my mind as that of the health of the people. It is a subject which affects everybody, and we owe it to ourselves and the rising generation to see that conditions are improved as lies within our power. This is a matter which rises above politics, and it is the duty of the whole nation to join in promoting the objects of this association." His Royal Highness then pointed out the urgent necessity of such an association as shown by the reports of epidemics of typhoid fever, diphtheria, and small-pox, and the great infant mortality. "It is an erroneous idea that deep knowledge is necessary. While much skill and knowledge is required for scientific research the results are comparatively simply of application, and in this connexion I wish to pay a hearty tribute to the professional men for their willingness at all times to give to the public the benefit of their valuable experience." His Royal Highness said that the object of the association was of great educative value, since nothing could be more useful than the spreading of knowledge which would conduce to the prevention of disease, so as to secure healthy bodies in which to cultivate sound minds. A further point was the teaching of the healthy upbringing of children, and their proper education in the rules of hygiene. This education of children His Royal Highness considered a most effective means of applying the work of the association. "In this way we shall avoid wasting time in combating the apathy of those older people who want to let well enough alone, and shall disseminate knowledge where it will do most good. Our idea is that what was good enough for the past generation is not good enough for the present, and to improve conditions we must teach the growing generation." His Royal Highness paid a warm tribute to the garden city project advocated by Mayor Guerin, and recommended most strongly as tending to do away with the evils which always follow in the wake of slums. He dealt especially with the efforts of sanitary experts to reduce infant mortality by improving the conditions under which the young are brought up, and expressed the pleasure with which he noted that such important matters as sewage disposal and pure drinking water were to be dealt with. These matters were so important that they were to be taken up by the federal and provincial legislatures, and their deliberations would be much aided by the association.

Another point dealt with by His Royal Highness was vaccination as a branch of preventive medicine. While he did not care to join in any controversy on this point, he significantly remarked that in the cemetery at Gloucester lay the bodies of 275 children, unvaccinated victims of a small-pox outbreak sixteen years ago, while during that epidemic only one vaccinated child lost his life.

"It is to be hoped that the people will avail themselves of the knowledge to be imparted by such a congress as this," concluded His Royal Highness, "because it is only when the people have fully grasped the meaning of any movement that legislative bodies can begin their work. Legislation without the intelligent support of the people is useless. It would be wise for us to remember that sanitary legislation is intended for the benefit of all, individually and collectively, and is not intended to make life irksome, but to protect us from disease, and as such we should give our full support to the authorities administering such laws."

Other Addresses.

The Premier (Mr. R. L. Borden), who followed, declared that he was strongly in sympathy with the work of the association, which was in the interests of the people. "I do not think that in the past the matter of public health," he continued, "has received all the consideration it should, and I trust that in the future Mr. Burrell will be able to give it a more direct attention than it has received in the past." There was a great loss every year through preventable disease, and Mr. Borden considered that this was a subject which should be dealt with in an effective way. "And speaking for those responsible for the administration of affairs in Canada," said the Premier, "I say that we promise to give this matter our most earnest consideration as far as it lies within the purview of the Dominion Government." This was taken to mean the formation of a new federal department of public health.

Mr. Martin Burrell, Minister of Agriculture, was the next speaker. He welcomed the formation of the association as calculated to establish a co-operation between laymen and physicians. Mr. Burrell deprecated that in so vast a coutry as Canada there could be such problems as overcrowding and slums.

When Sir Lomer Gouin was called upon, he took the opportunity to address Their Royal Highnesses in French. He extended to the royal visitors a warm welcome to the Province, and also thanked them for their interest in the work of the association, which he considered capable of doing a splendid work. The Provincial Government was anxious to do everything possible to aid the work, and had already prepared plans for the division of the Province into ten districts, which were to be under the supervision of as many expert hygienists. These were to be chosen by competitive examination from the English and French universities.

Brief addresses were also given by Mayor Guerin, and Dr. Montizambert, Director-General of Public Health.

DISCUSSIONS AND PAPERS.

The various papers read at this Congress were such as to show that those officials in charge of the different departments of public health were alive to the importance of their subject, and realized the tremendous amount of work yet to be done ere the Dominion could be effectively guarded against the severe and oft-recurring epidemics which sweep through cities and towns.

Among the papers read at the morning session on December 13th was one on The Military Aspect of Sanitation, by Colonel Carleton Jones, Director-General, Medical Services, Ottawa. This paper was a surprise to many of those present. Among other things it was stated that hitherto the only practical sanitary lessons given to the Canadians were given at the annual camp meetings. The great triumph which military sanitation had reached was clearly seen in the Russo-Japanese war. Colonel

Jones then cited the immense improvements which had taken place in Cuba under a military Director of Public Health.

Medical Inspection and Care of Immigrants on Shipboard was the title of a paper read by Dr. J. D. Pagé of Quebec. Dr. Pagé dwelt on the importance of ship surgeons receiving training for this work, and deprecated the low salaries paid as not conducive to the best men filling the positions. It was of national importance that only the best men should hold these places and that some encouragement should be given to those of ability to retain their places.

Conservation of food by cold was ably dwelt upon by Dr. Bryce, Chief Medical Officer of the Department of the Interior. It was a thoughtful paper, carefully prepared, and showed the great field Canada had before her in this wide but hitherto little explored area. Conservation of food by cold is to the people of Canada of vast importance, and if, as Dr. Bryce pointed out, it is properly undertaken, will mean much to the Dominion. Milk, water, ventilation, and inspection of institutions were all fully discussed, and much needed reforms were clearly indicated.

Dr. J. G. Adami spoke on the value of child exhibitions, such as that for which Montreal is now preparing for the fall of next year, and showed how in cities where these had been organized there were immediate and striking results. Dresden has lately held one of these Child Welfare Exhibitions.

Dr. A. D. Blackader gave a very instructive paper on the more important cause of the high infantile mortality in large cities, and the influence exerted by milk dépôts.

Municipal milk supplies was the subject of an address by Dr. W. T. Shirreff, in which he pointed out that the producer, the distributor, and the consumer, were all equally concerned in providing pure milk. He advocated the testing of all cows with tuberculin, and that the federal authorities should compensate any dairyman whose cows were destroyed in the public interest.

In dealing with Municipal Food Inspection, Mr. P. B. Justin, chief food inspector of Winnipeg, said that meat inspection should be both *ante mortem* and *post mortem*: the ideal system of meat inspectors could not be attained until private slaughter-houses were abolished.

Medical officers of health, engineers, architects, laboratory workers, social workers, all read papers, and discussion on housing and town planning, and on the biological method of sewage disposal, were held.

Election of Officers.

The congress came to a close on December 15th, with the election of officers for the ensuing year. The following officers were elected: President, Dr. C. A. Hodgetts, Ottawa; General Secretary, Major Lord Drum, Ottawa; Treasurer, Mr. G. D. Porter, Toronto.

India.

[*FROM OUR SPECIAL CORRESPONDENT.*]

THE DELHI DURBAR HONOURS LIST.

THE medical services have not been illiberally treated in the Durbar Honours List, published on December 12th. The K.C.S.I. bestowed on Surgeon-General Lukis, Director-General of the Indian Medical Service, was generally expected and will be very popular in the service for which he has already done so much. The like high honour received by Surgeon-General Trevor, P.M.O. in India, will be equally appreciated by the R.A.M.C., who have also been honoured by the award of a C.S.I. to Lieutenant-Colonel Aldridge, recently of the Army Head Quarters Sanitary Department. Surgeon General Bannerman, of Madras, formerly head of the Bombay Bacteriological Department, and Lieutenant-Colonel Harris, Inspector-General of Civil Hospitals, Bengal, also receive the C.S.I., and these awards will be popular among their many friends. Surgeon-General Branfoot, of the India Office, receives a tardy K.C.I.E. after a long and very distinguished career. The C.I.E. is awarded to the following India Medical Service officers: Lieutenant-Colonel Mactargart, Inspector-General of Jails; Lieutenant-Colonel Roberts, Residency Surgeon, Indore, who has organized a bacteriological laboratory and a hospital for Europeans; Lieutenant-Colonel Frenchman, of the retired list; Major Leonard Rogers, the Calcutta pathologist; Major Burden, Residency Surgeon, Nepaul; and Major Elves, of Madras. Lieutenant-Colonel Bedford, who recently retired from the chemical department, receives a knighthood, and Major Walter, of the Army X-ray Institute, and Major Tucker, of Coimbatore, receive the gold Kaiser-i-Hind medal. Altogether the list is a generous and well distributed one, and has given wide satisfaction in the medical services.

THE EFFECT OF THE RECENTLY ANNOUNCED ADMINISTRATIVE CHANGES.

The great administrative changes announced at the Delhi Durbar will have little effect on the medical services outside Bengal, but in that province it will be profound. The reunion of Eastern Bengal with Lower Bengal as a separate province, and the separation of the more healthy Behar and Chotta Nagpur and Orissa under a Lieutenant-Governor will result in all the desirable districts from the climatic point of view belonging to the latter province, leaving the new Bengal with only two or three desirable stations outside Calcutta. Presumably the Calcutta Medical College posts will be recruited from the new Behar Lieutenant-Governorship as well as from Bengal, in which case all attractions of the Bengal medical service will depart, and there would probably have been some difficulty in recruiting for the district appointments were it not that a good many Bengalis have recently entered the I.M.S. With the advent of the new Governorship the head of the Bengal Medical Department will presumably become a Surgeon-General, as in the Bombay and Madras Presidencies.

Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

THE INSURANCE ACT.

Manifesto of the Scottish Medical Corporations.

THE following is the final form of the manifesto to be issued to the members of the medical profession in Scotland in the course of this week by the three Scottish Medical Corporations. The covering letter, which is to accompany the manifesto, has not yet been adjusted, but will be in a day or two:

The National Insurance Bill has now become law.

The six cardinal points, again and again insisted upon by the profession as a minimum, have not all been incorparated in the Act.

The three Scottish Medical Corporations, namely, the Royal College of Physicians of Edinburgh, the Royal College of Surgeons of Edinburgh, and the Royal Faculty of Physicians and Surgeons of Glasgow, have previously expressed their views on the bill. Now that the bill has become law, the Scottish Corporations, who are cordially in sympathy with the profession, and are anxious to assist it in any way in their power, recognize that at this critical juncture *united action is essential*.

The Scottish Corporations are of opinion that since under the National Insurance Act Scotland is to have an Executive of her own, separate Commissioners, and a separate fund, it is essential that the medical profession in Scotland should have a strong and thoroughly representative Central Medical Council or Committee, endowed with full advisory and administrative powers, with a paid secretary and an office in Scotland. They have decided that in the first instance a General Council should be called together, consisting of (*a*) the Councils of the three Scottish Corporations, together with representatives of the four Scottish Universities; (*b*) the Scottish Committee of the British Medical Association; and (*c*) co-opted representatives from towns and counties, chosen by the local medical practitioners from the various districts all over Scotland.

The Councils of the three Corporations will recommend the bodies they severally represent to contribute liberally towards the expenses of such a scheme.

The Scottish Corporations are of opinion that the members of the medical profession in Scotland should refrain from undertaking any medical work under the Insurance Act until regulations have been framed by the Scottish Insurance Commission entirely in accordance with the six fundamental requirements of the profession.

The Scottish Corporations would most earnestly and seriously impress upon the profession the paramount importance of loyal co-operation and of determined and unflinching adherence to the six cardinal points, and the necessity for thorough and minute organization of the profession in Scotland.

East Lothian Practitioners.

At a large and representative meeting of the medical practitioners of East Lothian held in the County Buildings, Haddington, on Friday, December 29th, Dr. James Gordon, East Linton, presiding, after discussion on the National Insurance Act, the following resolution was unanimously agreed to:

> That this meeting of medical men practising in East Lothian herewith resolves itself into the "East Lothian Medical Association"; that the general purpose of the proposed association be an organized union of the medical practitioners of East Lothian for the purpose of protecting the interests of the professton and of strengthening the bonds of professional fellowship.

It was remitted to a committee of eight, one-third of the total number of practitioners in the county, to draw up a constitution to submit to a future meeting. It was further agreed to intimate without delay to the Scottish Commissioners that, unless the six cardinal points of the British Medical Association were fully embodied in the draft regulations to be drawn up by them for the working of the Act, no practitioner in East Lothian will go upon the panel.

Inverness-shire Practitioners.

At a largely-attended meeting of the medical practitioners of the town and county of Inverness, on Friday, December 29th, 1911, the following resolutions were unanimously adopted, and a copy was sent to the Scottish Commissioners, who are to carry out the provisions of the National Insurance Act:

1. That this meeting reaffirms the six cardinal principles of the British Medical Association.
2. That the Scottish Insurance Commissioners be informed that the profession in the town and county of Inverness will absolutely refuse to work under the Act unless the regulations framed by the Commissioners are consistent with the concession of the six cardinal principles above referred to.

Nearly every medical practitioner in the town and county of Inverness has signed the undertaking not to act on any panel until such time as the six cardinal points have been granted. Arrangements have been made for the formation of local Medical Committees to watch over the interests of the profession in the town and county of Inverness.

Sutherland Practitioners.

A meeting of the medical practitioners in the county of Sutherland was held on Friday, December 22nd, in the Sutherland Arms Hotel, Lairg, to consider the position of medical men in the Highlands of Scotland under the National Insurance Act. Representatives were present from all parts of the county. It was unanimously agreed to form a County Medical Committee, with Dr. MacLachlan, Provost of Dornoch, as convener, and Dr. Bremner (Golspie) as secretary. A motion that the committee should act in concert with the Scottish Medical Union was proposed by Dr. Simpson (Golspie), and seconded by Dr. Jameson (Scourie), and carried unanimously. The secretary was instructed to communicate with representatives of the medical profession in the Highland counties with a view to effective co-operation.

FEES OF MEDICAL LECTURERS ON HYGIENE.

At a recent meeting of the School Board of Glasgow Dr. Grant Andrew entered a protest against the fees paid by it to medical lecturers on hygiene. He said that he desired to enter his dissent to the rate of remuneration of 7s. 6d. for a lecture of three-quarters of an hour's duration fixed by the Domestic Science Committee for lectures on hygiene. Candidates to deliver these lectures had been advertised for, and three lady doctors were appointed. One member asked, amid some laughter, what was "the trade union rate for these lectures." Dr. Andrew stated that the fee was a guinea, but added that he did not wish to discuss the matter, but merely to dissent from the rate fixed.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

MEDICAL INSPECTION OF SCHOOL CHILDREN.

MR. J. B. STORY, F.R.C.S.I., in the course of a paper on the medical inspection of schools and school children, read at a meeting of the Statistical and Social Inquiry Society, said that the first year's expenditure would be about £12,500, and after three years it would be approximately £23,000. A rate of three-eighths of a penny in the pound on the valuation of the country would produce over £24,000. He suggested that the cost should be defrayed by a local education rate rather than by a subsidy from the Imperial Parliament, as this would make the local authority take a pride in its schools, which it has no inducement to take at present.

DUBLIN HOSPITALS AND THE INSURANCE ACT.

Arrangements are being made to hold another conference of delegates of the various Dublin hospitals early in January to consider what further steps should be taken in connexion with the working of the National Insurance Act. A meeting was held last July at which a series of five resolutions were drawn up, copies of which were sent to the Chancellor of the Exchequer and the Irish members of Parliament. These were published in the SUPPLEMENT, August 12th, 1911, p. 300.

ANTIVACCINATION CRUSADE.

At a recent meeting of the North Dublin Guardians the following resolution was carried:

> That, in the opinion of this board, the practice of vaccination is uncleanly, revolting, and a danger to public health. And that in future it shall be a direction to the officers of this union that no prosecutions shall be instituted against persons who refuse to submit themselves, or their children, to this dangerous practice. And this board desires to place on record its opinion that small-pox, and other diseases, can be eliminated by the provision of proper housing and sanitary accommodation. That a copy of this resolution be forwarded to the South Dublin Board of Guardians.

The mover said that he had studied reports from unions in England, and found that where a lesser number of children were vaccinated, there was a lower death-rate. In the whole town of Leicester not 10 per cent. of the children were vaccinated, and the death-rate of that town was, he maintained, the lowest in the United Kingdom at the present time.

MANAGEMENT OF A CARLOW HOSPITAL.

The Carlow Board of Guardians has received a letter from the Local Government Board enclosing the report of its inspector, Dr. Joseph Smyth, upon the sworn inquiry recently held in reference to the charges made by the head nurse of Bagnalstown Hospital against the late assistant nurse and also with reference to the general management of the hospital. In his report the inspector stated that the use of soda water for ordinary drinking by the inmates should be discontinued and plain pure water obtained. With regard to the nursing arrangements in the hospital, the Board pointed out that as the head nurse was responsible, in the absence of the medical officer, for the administration of the hospital, the general supervision and control of the assistant nurse, wardmaids, and attendants, and for the proper order and discipline of the sick wards under her charge, she could not be expected to fulfil her obligations if she were required to perform night duty. With regard to the friction which apparently existed between the medical officer and the head nurse, the Board deferred action in the hope that both these officers, realizing that their personal feelings could not be allowed to interfere with their public duty, would compose their differences and work for the future in official harmony. It was decided to hold a special meeting to consider the report.

IRISH BRANCH OF THE BRITISH DENTAL ASSOCIATION.

The annual dinner of the Irish Branch of the British Dental Association was held on Saturday evening, December 16th, at the Shelbourne Hotel, Dublin. The Lord Lieutenant was present, and spoke of the importance of dental treatment in connexion with the children

attending schools. The way to obtain this, he said, was by creating and fostering a public opinion in its favour, and they should be thankful that they had such a body as the British Dental Association to create this public opinion.

FREE DENTAL DISPENSARY.

At the last weekly meeting of the South Dublin Board of Guardians, a letter was read from the Rathgar and Terenure Branch of the Women's National Health Association, saying that it had arranged to supply the poor of the district with the services of a qualified dentist free, and requesting permission of the guardians to use the room attached to the Terenure Dispensary twice monthly for the dentist's attendance. This permission was granted.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

LIVERPOOL.

THE UNIVERSITY.

THE past year at the university has not been in any particular direction eventful, but there has been steady progress all round. At the annual meeting of the court in November last a new statute regulating matriculation examinations was adopted, and an additional ordinance constituted a new board for university extension, providing certificates in architectural design and granting diplomas in ophthalmic surgery. This is the first year which the university has closed with a debit balance (£1,175). The extension of the university buildings for the accommodation of the arts faculty required £32,000, and an appeal has been made for the necessary £8,000 to complete this sum. Other events which have occurred in the university during the past year have already been recorded.

The Old Students' Association held its annual ball in the Exchange Hotel on December 27th, 1911. Miss G. E. Scrimiger, the president, received the company, along with Dr. C. W. Hayward, the treasurer. The ball proved a great success.

SIR ALFRED JONES MEMORIAL HOSPITAL.

At a recent meeting of the residents of Garston and Aigburth, held in the Co-operative Hall, in connexion with the proposed new accident and emergency Hospital for Garston, the offer of £7,500 which the Liverpool Corporation made to free them from their present obligation to maintain an accident hospital at Garston was considered. Dr. Grimes presided, and amongst those present were Drs. J. J. O'Hagan, R. Humphreys, Blair-Bell, and Paterson. The present hospital dates back thirty-two years, and is considered to be quite inadequate for the needs of the district. Dr. Paterson read the report of the executive committee, which recommended the ratepayers of the district to accept the City Council's offer; it pointed out that there was in hand £10,000 from the estate of the late Sir Alfred Jones, and £8,000 from the estate of the late Mr. James Wilson of Cressington, whilst the promised donations amounted to £2,000, which, with the offer of £7,500 by the City Council, made a total of £24,500, but a considerable proportion of this had to be set apart for maintenance. The committee had considered various sites, and that recommended was central, stood high, and offered good frontages. The vendors had offered in the event of purchase to contribute 10 per cent. of the purchase money as a donation to the new hospital. After much discussion the report was adopted, and it was further resolved that the new hospital should be called the Sir Alfred Jones Memorial Hospital.

MEDICAL CHARITIES AND THE CHRISTMAS SEASON.

In association with the medical charities of the city and districts the Christmas season has brought pleasure and gladness to the hearts of those who through sickness or accident were perforce inmates of the various hospitals. The patronage and willing help of the Earl and Countess of Derby (Lord Mayor and Lady Mayoress) was evident in many delightful ways. At the Royal Infirmary Lord and Lady Derby furnished the Christmas tree, which was brought from Knowsley Park. It was loaded to breaking strain with beautiful and well-selected presents for the patients. Lady Derby herself inaugurated the ceremony of distribution, after which Lord and Lady Derby made a tour of inspection of the infirmary. At the Children's Infirmary the annual Christmas party was a great success, and the beautifully decorated tree was a great source of delight to the little patients, all of whom received presents of toys, etc. Space will not allow of notices of festivities at all the charitable institutions.

SOUTH WALES AND MONMOUTHSHIRE.

KING EDWARD VII HOSPITAL, CARDIFF.

GREAT efforts have been made by the Lord Mayor (Alderman Courtis) to raise the £3,500 required by Christmas to meet the anonymous challenger. His Lordship and the Lady Mayoress have already subscribed £500 to the fund, and they have now most generously contributed a further £500. Among other recent donations is £100 from the Tredegar Iron and Coal Co. The Lord Mayor in his final appeal expresses the hope that other coal owners will follow their example.

SWANSEA HOSPITAL.

At a board meeting of the Swansea Hospital it was stated that the building account debt had been further increased by nearly £1,000 during November. The report of the Subcommittee on the Insurance Act was passed, that committee having framed a resolution that the Act was incomplete unless provision was made in it for hospitals supported by voluntary contributions.

COLLIERY WORKMEN AND THE INSURANCE ACT.

MR. W. BRACE, M.P. for South Glamorgan, in a speech at Bargoed on December 29th, 1911, said that if the doctors went "on strike" he would not complain of their action, but the workmen, who were the doctors' employers, might lock them out. He saw nothing impracticable in the workers and doctors coming to an amicable settlement and devising a scheme suitable to both sides; but in his opinion the poundage system would have to be abolished, and the money received in bulk at the collieries would have to be administered by some authority. Such an authority would, he hoped, be formed by the workmen themselves to administer their own funds. Mr. Brace's remarks about professions going on strike were received with laughter, but Mr. Brace and his audience do not apparently appreciate the fact that only persons already employed can strike. A man who says that the terms offered by an employer are not good enough to make him apply for work is not a striker.

Special Correspondence.

BERLIN.

Action of some Members of the Sulphur Group (Selenium and Tellurium) on Mouse Cancer.

THE Berliner Medicinische Gesellschaft had one of its great nights on December 20th, when Wassermann spoke on "chemotherapeutic experiments on animals suffering from tumours," undertaken by him in conjunction with Keisser and v. Hansemann. The last named gave an account of his *post-mortem* examination of these animals. The great hall of the Langenbeck House was filled to the last place.

It appears that a year ago Wassermann, when engaged in studying the question whether cancer cells live longer in the blood serum of a cancerous individual than in the serum of a healthy person, treated freshly excised cancerous tumours with sodium tellurate and selenate, salts which give a black or red precipitate in the presence of living cells. He found that the precipitates were formed inside the cells. His next step was to examine whether the same chemical affinity between carcinoma cells and tellurium or selenium existed in the living cancerous individual. This experiment could, of course, not be made on human subjects, and the research was from this point carried on exclusively on cancerous mice. Wassermann laid special stress on this in his speech, as did

v. Hansemann afterwards, and both dwelt on the fact that mouse cancer differed very considerably from human cancer, and that the experiments and their results referred exclusively to mice, and his account of them must not be understood as having any bearing on the possible cure of human carcinoma. Wassermann's next step was to inject the saline solutions into the tumours; the result was that the tumours were softened, liquefied, and that in some cases they healed. Intravenous injections, which were then tried, gave a negative result.

Wassermann then, with his assistants, set about finding a non-toxic selenium combination which might be selected and absorbed by the cancer cells. Eventually a combination of eosine and selenium was found which possessed this property. The results were as follows:

After three injections into the caudal vein of 2.5 mg. each on three consecutive days, the tumour becomes softer; after the fourth some liquid can be felt, and the tumour shrinks: after the fifth and sixth injection the tumour feels like an empty bag, and in about ten days every trace of it has disappeared. There were many fatal cases. If the tumour were large and the softening process rapid, the liquefied contents of the tumour entered the blood vessels and acted as a poison. When this was not the case, and if the tumour completely disappeared, no new tumour formed even after an interval of many months.

Von Hansemann, who spoke on Wassermann's experiments from the anatomical point of view, said that the injections act destructively on the nuclei of the tumour cells. He was able to follow up and demonstrate what became of the disintegrated mass of the tumours. The blood carried them to the spleen, and occasionally, but in small quantities only, into the liver. In the spleen they were gradually destroyed, unless they were carried in in such quantities and in such a rush that they could not be overcome: in that case death ensued. No other anatomical changes were found, and in no single case was a normal body cell in any way attacked by the new remedy.

Before the meeting dispersed, the Director of the Royal Cancer Institute stated that for the last year or more Klemperer, in conjunction with Emil Fischer (the distinguished chemist of the Berlin University), had been engaged on very similar experiments. They treated cancerous mice with injections of vanadium and selenium.

PARIS.

Prophylactic Inoculation in Typhoid Fever.—Fees for Attendance after Operation.—The Anatomy Riots.

DR. VINCENT has communicated to the Académie de Médecine the results of the prophylactic inoculation for typhoid fever of soldiers in Morocco. Wright's vaccine was employed, and also a polyvalent vaccine, which contained several different species of bacilli obtained in Morocco, and some paratyphoid organisms. Dr. Vincent vaccinated 283 soldiers, and in none did any unusually severe sequelae occur. Some slight fever and local pain was experienced by several patients, but only after the first injection. The method adopted was to give four injections of Wright's vaccine and five injections of polyvalent vaccine at intervals of seven or eight days. The soldiers were extremely liable to become infected with typhoid fever, both on account of the extreme heat which lowered their vitality considerably, and also on account of the general insanitary conditions. No soldiers were vaccinated who had previously had enteric, or even febrile gastric attacks. Of 2,632 men who were not vaccinated, 171 were laid up with enteric, and 134 had attacks of gastric disturbances accompanied by fever; this represented 11.5 per cent. of attacks in unvaccinated soldiers. Only one case of enteric occurred among the 129 soldiers treated with Wright's vaccine. The 154 men who were inoculated with the polyvalent vaccine were absolutely immune, and no case of enteric fever or gastric disturbance occurred amongst them. It would be interesting to know whether people immunized by vaccine may still be "typhoid carriers," as the presence of the typhoid bacillus is undoubted in such cases, but whether it is immediately eliminated or whether its toxic action alone is inhibited has not yet been worked out.

An interesting case was recently decided in the Paris courts. A practitioner who was called in to see a patient advised operative interference, and a surgeon called in consultation decided to operate, and the practitioner was present at the operation. During the patient's convalescence the practitioner paid several visits, and after due time sent in his bill for attendance during the operation and for his following visits. The fee asked was £4 for attendance at the operation and 16s. for each visit. The father of the patient said that the doctor had not been asked to pay these visits and was not entitled to the fees. The ruling of the court was as follows: (1) That the fee of £4 was excessive for mere attendance at the operation as the doctor did nothing but look on, and, in the opinion of the court, £2 was sufficient remuneration. (2) That the doctor had no right to pay the subsequent visits to the patient while in the nursing home, as the patient was under the surgeon's care, and that unless specially called for the physician should not have attended.

During the past few weeks some rather unusual scenes have taken place at the university here. Each afternoon at the Ecole de Médecine crowds of students collect and indulge in a passionate demonstration of hostility towards the Professor of Anatomy. Discontent has been brewing for several years on account of the manner in which the anatomy classes are conducted, and the upshot on this occasion has been serious rioting. At every gate of the university detachments of soldiers and police were stationed to maintain order, and even took up their stand in the classroom during the lecture, so that the professor spoke and demonstrated to soldiers and police, while the students stood in crowds outside in the quadrangle shouting and singing songs. They refused to attend the lectures until they got satisfaction from the University Court, and several of the ringleaders were arrested. The "strike" is looked upon as a huge joke by all the undergraduates, and although they have good reason for complaint, their method of showing disapproval is rather crude. The other day one "back bencher" threw a bag of flour at the professor, who was covered with white from head to foot. The University Court, before whom the arrested students were brought, acquitted one student, suspended two for three months, and one for six months. The court then notified that the university would be closed to students of the first and second year until January 5th, 1912, and that if after that date any new disturbance arose, the medical department would be closed till the end of the first term, and no fees would be returned for classes missed.

Correspondence.

SIR JAMES BARR AND THE INSURANCE ACT.

SIR,—Sir James Barr's letter is merely a reiteration of his own personal opinions, and it fails lamentably to carry conviction to its readers, because there are no cogent reasons stated for most of these opinions. To deal with his points seriatim:

He begins by applying his favourite word "fraud" to the bill, but does not justify the epithet then nor even later.

1. Do not inherited riches tend to destroy individual effort? Are not the upper classes a "spoon-fed" race who look to paternal inheritance to feed and clothe them, so that they need not work any hours a day? Are they thus encouraged to multiply their breed? Is it not a natural fact that hardships and adversity stimulate the birth-rate? If the whip of hunger and possible suffering is needed to produce the best individuals, why should not all be subjected to it?

2. The expense, with the amount of sickness, will be ever diminishing, because extension of contract practice will act as a most powerful stimulus to the medical profession to study the raising of healthy individuals, and to instruct insurees in this matter, as well as in the maintenance of good health. It would not pay most doctors to do this now! How dare Sir James Barr insinuate that his practising *confrères* will permit the enormous amount of malingering which his eye foresees under the bill? He says a crop of unscrupulous lawyers will spring up! Does he consider the crop of unscrupulous doctors is already here?

3. What financial experience is referred to here? Is it the diminution in the National Debt? An incentive to save the funds of his friendly society rarely exists in the

individual club member, at any rate at his own expense; and anyhow, if he be fit to work, the doctor will not sign him "on his club"—but Sir James Barr thinks that he will.

4. The lower the fee provided for the doctor, the more urgent will be the stimulus to the study of methods of health maintenance and illness prevention, and this will inevitably result in an improvement of the national health—a directly opposite effect to the one Sir James Barr imagines will occur. The Act is designed for "the prevention of sickness."

5. How much would Sir James Barr suggest spending on sanatoriums? Would he make the bill even more expensive? And he complains of the expense in his Sixth Clause! And then in Clause 8 he objects to treating consumption at all; he wants to let the poor devils die! In 5 he wants institutional treatment, and in 6 he says the wage earner is best able to take care of himself. Then where is the need for altruism and voluntary hospitals? If institutional treatment *is* needed (and of course it is, imperatively) it must eventually be provided under the insurance scheme, and it can be done by demanding from *all* the rich what a few now give willingly.

6. We are to degenerate because we propose a scheme to diminish sickness and alleviate suffering! And yet Germany, that paradise of Sir James Barr's political party, has such a scheme.

7. What an absurd opening sentence here! And what a misstatement, with no attempt at justification, the last sentence of this clause is! How about the lodging-house girls in the large cities and towns with gastric ulcer, with consumption, with varicose ulcer? Will the general hospitals take these last two cases in?

8. Bring up the infants and children healthily, and you will have a healthy race; the flat chest can be profoundly altered by physical culture. Attend to the children's teeth above all—as Dr. Hildesheim so eloquently advocates in last week's JOURNAL. By all means let us practise eugenics; it is urgently needed. But here, again, you will interfere with the wage earner's liberty (vide *his* 6).

The greatest danger of the present day to the doctor's income is the trend of modern legislation in tackling public health matters—sanatoriums, tuberculosis dispensaries, infectious hospitals, inspection of school children, school clinics, and so on. Then, again, we have the old trouble of hospital abuse. And, further, we have health societies, such as the Food Reform Association. How we should welcome all these old enemies as allies if we decided to work under the bill for a proper capitation fee; with their help and our own efforts we should soon be possessed of sinecures.—I am, etc.,

MONTAGUE DIXON, M.D., B.Sc.,
Melton Mowbray, Jan. 1st. M.R.C.S., L.R.C.P.

SIR,—There is no scientific truth better established than that in every race of living beings two classes may be found—the fitter, high up on the crest of the wave of evolution, destined to evolve, to survive, and to progress: and the less fit, by-products cast off in this upward march, incompatible with their surroundings, and doomed to extinction. Putting aside for the moment the various social grades which time and circumstances have brought into being—the submerged tenth, the working or artisan class, the great middle class, the aristocratic class—we find in civilized mankind at the present day two essential natural divisions—upper and intelligent, lower and non-intelligent. The relation the one bears to the other is highly important, and to comprehend it clearly at least one fallacy must first be swept aside—the belief that the lower of these is the recruiting ground of the higher. The exact opposite is really the case, for as fast as Nature eliminates the lowest of the lower class, so fast is their place taken by the members of the stratum just above, and these again replaced by the less well endowed of the class still higher. From the topmost stratum of this higher class, from the aristocrats of intellect, speaking broadly, does evolution proceed, and though there are exceptions which the purpose of this communication does not permit me to investigate, from this class only is intellectual eminence born. This is not the same, be it noted, as "aristocracy by birth" so called, though, as abundantly proved by every shred of genetic investigation, it is an aristocracy by birth in the most rigid interpretation of that term.

To every one who endeavours to take stock of the intellectual resources of our nation on this first day of a new year it will be at once apparent that the aim and trend of all recent legislation has been to hamper the class on whose freedom and existence national progress and pre-eminence depend, and to foster and even delegate power to that other class which asserts by its very place in the social scale not only its utter inability to cope with the struggle for existence without the aid of the other, but actually its menace to any progress at all. In other words, its elimination is the price of national progress. Unless we pay that price we cannot progress.

But a further point is also apparent. One class we see organized, directed, and led; the other disorganized, disunited, and utterly devoid of guidance and leadership. To crown all, we see ourselves faced with the prospect of manhood franchise, swamping for ever the already small voice of the party of progress, and revealing for the future nothing but a vision of the race rushing headlong after its herd of swine down the steep place that leads to destruction.

With such, as a citizen, every medical man is concerned; to labour the point is superfluous. In addition, however, we see beside the national disaster the nearer and more immediate professional one. What does the National Insurance Act actually mean? It means that our old legitimate pride, our traditional right to do our own work in our own way at our own price is to be snatched from us. As men of science we cease to exist; as civil servants, slaves of the voluble upstarts whom we now call statesmen; slaves of that hydra-headed tyrant the soon-to-be-enfranchised mob, reaping not even the reward of the self-vaunting pill-maker, ignoring the science our loss of leisure has rendered barren, we find ourselves at last in darkness and degradation to which the Middle Ages are models of inspiration and light.

Can we not avert it? Can we not even now accept true leadership? Let us take our stand on the words of Sir James Barr, and let us say with him: "Stand from under this Act, and let it and its author crash together." And let us not only say it—let us do it, fearlessly and independently. Let us hail Sir James Barr as our leader; it is still in our power to avert our destruction, and, by working out our professional salvation, to stem, in some measure, the tide of neurotic and debasing legislation which, unstemmed, will carry our race to its certain doom.—I am, etc.,

Wood Green, N., Jan. 1st. A. RUGG GUNN.

SIR,—It seems to me a most unfortunate circumstance for the profession that at this somewhat unique crisis in its history it should have as President-elect of the British Medical Association, and evidently as titular leader of the forces opposed to the Insurance Act, a violent political partisan such as Sir James Barr.

The whole of the opinions expressed in his letter in the JOURNAL of December 30th, 1911, are certainly, to the great majority of your readers, discounted by its last sentence of somewhat cheap clap-trap taken from the *Standard* against Mr. Lloyd George. There can be no two opinions as to whether this sort of thing can do good or harm. It can only do an infinite amount of harm to the cause it is supposed to serve. This agitation is in danger of becoming suspect: it is felt by many that the fight against the Act in certain quarters is being exploited with mixed motives.

We are all more or less partisans. Personally, I love to meet a man who is a valiant fighter for the faith that is in him; but a pronounced partisan of extreme views and a valiant political fighter is surely a person profoundly unsuited to act as foreman of a jury sitting in judgement on such an issue as that now facing the medical profession.—I am, etc.,

Wrexham, Jan. 2nd. JOHN T. HISLOP.

ARTIFICIAL RESPIRATION IN THE APPARENTLY DROWNED.

SIR,—As a member of the committee which supported the adoption of the Schafer method by the London police, I joined in that recommendation. Last autumn, unfortunately, I was called on to perform artificial respiration on a man and a boy who lost their lives in a boating accident. The man was found floating with

his head under water, and was brought to shore about ten minutes after the boat was overturned. He was cyanosed and pulseless. I carried out the Schäfer method, and continued it with the help of a coastguard. Hot-water bottles and blankets were quickly fetched, and the limbs of the man rubbed by willing helpers. The Schäfer method produced great venous congestion of the face and neck, due no doubt to the expression of the blood out of the abdominal organs, the liver in particular. On changing, after some period of useless effort, to the Sylvester method I found the congestion rapidly disappeared. On going back to the Schäfer method the congestion at once reappeared. The same happened again on repeating the change. I came to the conclusion from this very striking experience that the best thing to do in a similar case would be to change frequently from the Schäfer method to the Sylvester and back again. This procedure evidently must keep up an artificial circulation of the blood through the head. I would urge others to follow this course and not stick to the one method only.

In the case of the boy, aged 9, I used the mouth-to-mouth method of inflation, placing a handkerchief over the boy's mouth, and pressing a hand over his stomach to prevent inflation of that organ. I found this method very easy and effectual, and a lady after watching me carried on the method very well, while I was called away to attend another rescued child. The boy had been found after some delay under the sail of the overturned boat, and could not be resuscitated.

The mouth-to-mouth method is far the most effectual method for children, and on another occasion I should try it on an adult, and alternate this with the other methods. From my practical experience I am convinced it is not the best thing to stick to any one, but to frequently change the method. I am speaking, of course, of help given by a trained man.—I am, etc.,

LEONARD HILL.

Loughton, Dec. 26th, 1911. London Hospital Medical College.

DISEASES OF THE PANCREAS.

SIR,—In your review of Professor Albu's monograph on the diagnosis of pancreatic diseases, published in the JOURNAL of December 30th, 1911, p. 1698, you say that "when a drop of a solution of adrenalin is instilled into the eye the pupil dilates under normal circumstances, but in diabetes and Graves's disease this fails to occur." May I point out that the first part of this statement is contrary to the fact, and that the second part is only to a certain extent true? Loewi (Vienna Medical Society, July 14th, 1907), who first made observations on the effect of adrenalin on the pupil in its relation to diseases of the pancreas, found that small doses do not act upon the normal eye, but that after removal of the pancreas its instillation causes speedy and pronounced mydriasis, so that this effect can be used as a means for diagnosing pancreatic insufficiency. In 18 cases of diabetes Loewi obtained a positive result with 10 (55 per cent.), but with patients suffering from a variety of non-pancreatic affections mydriasis was only observed in 2 out of 30. Similar results were obtained by Quadrio (*Il Policlinico*, xv, July 26th, p. 933) and others. I have not had the opportunity of reading Professor Albu's book as yet, so I cannot say whether the mistake is his or your reviewer's, but, at any rate, it is likely to mislead your readers.

Further on in the same review it is stated that my suggestion that the crystals obtained in the "pancreatic" reaction "are a pentosazone is impossible, as pentose urine does not give the reaction." Such a dogmatic statement must, I think, be due either to a disregard of the facts or to a failure to appreciate them correctly, possibly owing to the difficulties of struggling with a foreign language. Normal urines to which a pentose, such as xylose or arabinose, has been added yield an osazone resembling in many respects that found in some urines giving a positive "pancreatic" reaction, as I showed in a paper read to the Royal Society in 1909.—I am, etc.,

London, W., Dec. 30th, 1911. P. J. CAMMIDGE.

SWEETS IN CHILDHOOD.

SIR,—There will always, no doubt, be found some who question whether sweets can have any deleterious effect on the teeth notwithstanding any evidence which has been, or may be, brought forward. Mr. Hopewell-Smith and Dr. O. Hildesheim may continue to believe that "Our knowledge of the etiology of dental caries is based on misapprehension, developed on lack of research, and crowned by ignorance," but I am sure the great majority of the members of the dental profession who have studied the question would vigorously contend that our knowledge of the etiology of dental caries is based on the illustrious scientific work of the late Dr. W. D. Miller, developed on "the knowledge that has been laboriously accumulated by the dental profession during the last twenty years" and crowned by the success of a method of prevention based thereon, which has recently been described as "eminently practicable and almost wonderful, nay, miraculous to the uninitiated, in its results."—I am, etc.,

London, W., Dec. 30th, 1911. J. SIM WALLACE.

SIR,—The answer to many of Dr. Hildesheim's problems is already to hand. The incidence of dental caries coincides, both in man and beast, with the use and stagnation among the teeth of "soft, sticky, starchy, and sugary food." The late Mr. Mummery's investigations proved this. At one end of the scale were exclusively meat eaters (Gauchos of the Argentine Plains) free from caries; intermediate were races using coarsely ground cereal foods (Hill tribes of Northern India); and at the other end civilized peoples using soft, sticky, farinaceous foods.

The problems enunciated may be answered in this way:

1. *The especial incidence in childhood.* Dental caries is a disease of early life among civilized peoples, since from the moment of eruption teeth are exposed to conditions favourable to decay.

2. *The greater incidence in females after puberty.* Not so in my experience.

3. *The different incidence in different social classes.* Avoidance of dental caries depends on personal cleanliness.

4. *The incidence among different races, and the relation, if any, to their dietaries.* Incidence of dental caries varies directly with the stagnation of soft, sticky, starchy, and sugary food.

5. *The incidence in wild and domesticated animals.* Depends on the same factor. The horse is a case in point: the wild horse is free from caries: the domesticated horse, fed on crushed oats, suffers from caries. (Mr. J. F. Colyer has published information on this point.)

6. *The degree of vulnerability of various teeth and of various surfaces.* Runs exactly parallel to their chances of stagnation. Well illustrated by the popular idea that the wisdom teeth come through decayed.

7. *The bacteria that are causally related to caries.* Needs more investigation.

8. *The nature and function of Nasmyth's membrane.* Whatever be its nature or function, it fails to protect against caries.

9. *The difference between white caries and brown.* White is rapid, and found in young teeth; brown is slow, giving time for the causative or other germs to develop chromogenic functions.

10. *The determining factors in the alkalinity and acidity of saliva.* Needs more investigation, but either weak alkalinity or weak acidity (and the salivary reaction is always weak) is favourable to cleansing and incapable of harming the teeth.

As concerns the starting-point of this correspondence, "sweets in childhood," I personally am convinced of the evil effects of stagnant sugar on the teeth, and I should like to get historical data as to the period when the use of sugar became general, and data of the incidence of caries before, during, and after that period, to test my conviction. Unfortunately, dated skulls are hard to come by—can any of your readers tell of any?

By the way, may I ask those who talk of the child's physiological craving for sugar what happened to the children during the long ages before sugar became a cheap household commodity? Did they die for want of sugar, or was the craving satisfied by the modicum present in what vegetable food they could get? Or have we come on a new fact in evolution—that children rapidly evolve a liking for what is nice?—I am, etc.,

London, W., Jan. 1st. J. G. TURNER.

PARASITISM.

SIR,—In the BRITISH MEDICAL JOURNAL of December 23rd, 1911, p. 1679, Mr. Wheldon points out that my definition of a parasite does not allow of differentiation between symbiosis and parasitism, but this is rather

difficult to decide, because, judging from well-known examples of symbiosis, and from that literature on the subject which I have been able to examine, the meaning of the word "symbiosis" is nearly as vague as that of "parasitism." One authority states that symbiosis means merely that two creatures live together; a second says that one of the two creatures cannot live without the other; a third, that they must be living together for mutual benefit; and, fourthly, that they do not inhabit each other, but that one feeds on some cast-off product of the other. For instance, *Bacillus coli* is usually said to be a parasite, and yet it is of benefit to its host; whereas *Entamœba coli*, which will not live in artificial culture without the presence of certain bacteria, is said to be living in symbiotic relationship to the bacteria. There seems to be little difference. I do not wish to presume, but I should like to suggest that the time has come for both terms to be accurately defined. It appears to me that, if my definition of a parasite is sound, symbiosis should be considered to be a form of parasitism—a subdivision of it, the difference being that a symbiotic parasite is one which does not feed on the vital structures of its host, but which essentially derives benefit from some substance produced (cast off or set free) by the metabolism of the latter. Some such definition will, I think, prevent the number of various meanings being multiplied, which seems to be likely under the present conditions.—I am, etc.,

London, W., Dec. 28th, 1911. H. C. Ross.

THE BLOOD IN CEREBRO-SPINAL MENINGITIS.

SIR,—At a time when so much careful work is being devoted to cerebro-spinal meningitis and poliomyelitis, may I venture to suggest that attention be directed to the blood?

In November, 1900, and January 15th, 1901, we published reports, in the *Journal of Tropical Medicine*, describing an outbreak of cerebro-spinal fever at Cape Coast.

Briefly, there were over 80 cases, and in every one of these we found a diplococcus in the blood in quite early stages of the disease, while thirty controls showed no diplococci. In addition, there was a marked early polynuclear leucocytosis, and the two together were sufficient to enable cases to be diagnosed in quite early stages. At that date our observations roused much opposition, but they have, in the main, been since confirmed by various observers. In particular, in the account in Osler and McCrae's *System of Medicine*, stress is laid on the importance of recognizing the existence of quite slight cases. Several such cases we recognized early by examination of the blood.—I am, etc.,

MARY HAMILTON WILLIAMS, M.B.,
Colwall, Dec. 31st, 1911. B.S.Lond., D.P.H.Camb.

Public Health
AND
POOR LAW MEDICAL SERVICES.

INCREASE OF WORK WITH STATIONARY SALARY.

District Medical Officer's Increase of Salary.

A. C. is a medical officer with a district six miles across and an area of 6,825 acres; his salary of £28 a year was fixed many years ago when the population (now 14,000) was only about half that. He asks: What would be a reasonable amount of increase to apply for, he being now expected to attend 150 old age pensioners when required so to do, in addition to all his former duties?

*** Our correspondent has undoubtedly a strong claim for an addition to his present salary, first, on the ground of the great increase of population, and, secondly, because he will in future become responsible for the medical care of all the old age pensioners in his district. It is, however, impossible for us to say what this increase should be. If the population has doubled and if its character has not altered, and if the original payment was reasonable in the original conditions, then to ask for it to be doubled might be proper, but we venture to suggest that before making any formal application for a change of salary he should be in a position to state to what extent the old age pensioners' claims on him have added to his professional labours.

The Services.

GLASGOW UNITS, R.A.M.C.(T.)

DURING his visit to Glasgow next week Lord Haldane will lay the foundation stone, on January 8th, of the buildings at Yorkhill which are to house the Glasgow units of the Royal Army Medical Corps, Territorial Force. These buildings will be the most handsome and extensive of their kind in Scotland. The site extends to 2½ acres, and the estimated cost of the buildings is £28,000. There will be accommodation for the Glasgow Yeomanry, a fully equipped riding school for the use of mounted units, and accommodation for the five medical units, the Lowland Mounted Brigade Field Ambulance, 1st and 2nd Lowland Field Ambulances, and 3rd and 4th Scottish General Hospitals. These medical units comprise 32 officers and 730 men, and the western portion of the buildings will be allotted to them. This will have a drill hall 132 ft. by 70 ft., and orderly rooms for each unit. The other accommodation will include officers' rooms, sergeants' rooms, rank and file rooms, board room, lecture hall, nursing ward, hospital kitchen, and other "training rooms." In the courtyard there will be wagon sheds for the technical vehicles of the field ambulances, with harness rooms and stores for the equipment. The riding school will be in the eastern portion of the buildings, and will have an arena 150 ft. long by 106 ft. wide, with stabling for forty horses. Harness, saddlery, and forage rooms will also be provided, and rooms for dressing for officers and men. The transport sections of the field ambulances will, on the completion of the buildings, have opportunities for a practical training which they have not had in Glasgow since the institution of the Territorial Force.

THIRD HIGHLAND FIELD AMBULANCE.

LIEUTENANT-COLONEL W. KINNEAR, commanding 3rd Highland Field Ambulance, Dundee, has been granted an extension of his period of command for two years.

Medico-Legal.

CONVICTION OF AN UNREGISTERED PRACTITIONER.

AT the Central Criminal Court on December 19th, 1911, Charles Louis Lumley, said to be aged 61, and described as a physician, was indicted for wilful murder, it being alleged that he had performed an illegal operation upon a woman and that she had died from the effects. In the event, the prisoner was pronounced not guilty of murder, but guilty of manslaughter, and received a sentence of seven years' penal servitude.

According to the evidence, as reported in the *Times*, the prisoner, who was practising medicine in Great Titchfield Street, W., was visited last September by a man and a woman, and having examined the latter stated that she had either appendicitis or peritonitis, and that the best thing she could do would be to go into a nursing home and have performed an operation which would cost fifteen guineas. In consequence she went to a house in Maida Vale, where she was kept in bed and attended by the prisoner, who later called a medical man into consultation. The latter found signs of septic poisoning and the patient eventually died. For the defence it was submitted that the miscarriage from which the woman died was innocent and natural in its occurrence. In the course of the case it was alleged by the police that the prisoner when arrested at the coroner's court on the termination of the first inquiry attempted to commit suicide by taking a drug, and that on being placed in a cell after arrest he gave vent to statements which could hardly be reconciled with the defence subsequently put forward. It was also stated by the police before sentence was delivered that ever since January, 1895, the prisoner had been suspected by them of performing illegal operations on women, and that in October, 1896, a female patient of the prisoner's was the subject of an inquest which resulted in death being shown to have been due to the performance of an illegal operation, and in the return of a verdict of wilful murder by some person unknown. The prisoner said he was innocent of the charge, and the judge said he did not propose to punish him for the suspicions entertained by the police respecting him.

Although the prisoner in this case was described as a physician, the designation was incorrect. He lost all claim to any such title eleven years ago, namely, in July, 1900, when the Royal College of Physicians of Ireland, whose licence he had obtained in 1881, struck his name off the roll as a consequence of the General Medical Council having found him guilty of infamous conduct in a professional respect and having erased his name from the *Medical Register*. The ground of this conviction was that in the course of an action in the High Court at which Mr. Lumley had given evidence it was shown that he had submitted a fraudulent account to the husband of the defendant in that action, with the intention of deceiving him into a belief that he had professionally attended his wife and in order to induce him to pay the amount due for these pretended services. At this time the prisoner was resident in Jermyn Street, and he appears to have continued to practise medicine at various addresses in London since the erasure of his name from the *Register*.

Universities and Colleges.

UNIVERSITY OF LONDON.

MEETING OF THE SENATE.

A MEETING of the Senate was held on December 13th, 1911.

Recognition of Teachers.

The following were recognized as teachers of the university in the subjects and at the institutions indicated:

King's College.—Mr. Charles Frederick Myers-Ward (Physiology).

St. Thomas's Hospital Medical School.—Mr. John Prescott Hedley (Diseases of Women), Mr. Walter Goldie Howarth (Laryngology), Dr. Maurice Alan Cassidy (Clinical Medicine).

King's College Hospital Medical School.—Dr. Harold Waterlow Wiltshire (Clinical Medicine), Dr. Herbert Willoughby Lyle (Ophthalmology), Mr. Thomas Percy Long (Clinical Surgery).

St. Mary's Hospital Medical School.—Dr. Joseph Blumfeld (Anaesthetics), Dr. George Coats (Ophthalmology), Dr. Robert Henry Cole (Mental Diseases), Dr. Vincent Zachary Cope (Clinical Surgery), Captain Stewart Ranken Douglas (Bacteriology), Mr. Bernard Henry Spilsbury (Pathology).

Bethlem Royal Hospital.—Dr. John George Porter Phillips (Mental Diseases).

Royal Dental Hospital and London School of Dental Surgery.

The Royal Dental Hospital and London School of Dental Surgery was admitted as a school of the university in the Faculty of Medicine (in dentistry only) for a period of five years as from October 1st, 1911.

Imperial University Congress.

It was reported that Dr. Alex Hill, M.A., M.D., F.R.C.S., formerly Master of Downing College, Cambridge, had been appointed Secretary to the Imperial University Congress to be held in London next July, in place of the late Dr. R. D. Roberts.

Readmission to the Faculty of Medicine.

Mr. C. F. Myers-Ward, L.R.C.P., M.R.C.S., has been readmitted to the Faculty of Medicine.

Appointment of Representatives.

Dr. R. H. Cole has been appointed a Governor of the Slough Secondary School.

Professor H. R. Kenwood, M.B., D.P.H., has been appointed in respect of University College as the representative at the Congress of the Royal Sanitary Institute to be held at York in July, 1912.

Advanced Lectures in Physiology.

The following advanced lectures in physiology are announced to be given during the second term:

1. Dr. A. Waller, F.R.S., at the university: Four lectures on recent work in physiology relating to the circulation and to the nervous system, with special reference to the human subject, on Tuesdays at 5 p.m., beginning January 23rd.

2. Dr. Henry Head, F.R.S., at University College: Eight lectures on the afferent nervous system, on Fridays at 5 p.m., beginning January 26th.

3. Dr. Otto Rosenheim, at King's College: Four lectures on some questions of chemical pathology related to physiological processes (for instance, diabetes, fatty degeneration, cancer), on Mondays at 4.30 p.m., beginning January 29th.

4. Dr. M. S. Pembrey, at Guy's Hospital: Eight lectures on milk, on Thursdays at 4 p.m., beginning on January 18th.

Courses 2 and 4 have been recognized by the Senate as courses of advanced lectures which a candidate at the B.Sc. (Honours) Examination in physiology may name for part of his examination. Course 1 was originally announced as eight lectures and as such had been similarly recognized, but in view of the fact that the course now consists of four lectures only, this recognition has been withdrawn.

Lectures by Professor of Protozoology.

Professor E. A. Minchin, F.R.S., will give a course of fourteen lectures on the haemoflagellates at the Lister Institute of Preventive Medicine, Chelsea, on Tuesdays and Fridays, at 5 p.m., commencing on January 16th.

Chadwick Lectures.

Sir Alexander Binnie, M.Inst.C.E., will deliver, at the Institution of Civil Engineers, the four Chadwick Lectures on water and water supply on Thursday, February 1st, 8th, 15th, and 29th, at 5.30 p.m.

Lectures of Superintendent of the Brown Animal Sanatory Institution.

Mr. F. W. Twort, M.R.C.S., L.R.C.P., Superintendent of the Brown Animal Sanatory Institution, will deliver, in the theatre of the Royal College of Surgeons, Lincoln's Inn Fields, a course of five lectures on a study of Jöhne's bacillus of cattle and lepra bacilli of man and rats on Monday, January 8th, and the four following days, at 4 p.m. The lectures are given under the will of the late Mr. Thomas Brown.

Francis Galton Laboratory Lectures.

A course of eight lectures on Tuesday evenings, beginning on January 30th, 1912, will be given in the theatre, University College, at 8.30 p.m., as follows:

1 and 2. Professor Karl Pearson: (*a*) Sir Francis Galton, his Life and Parentage (January 30th); (*b*) Sir Francis Galton, his Work and Teaching (February 6th).

3. Ethel M. Elderton: Infantile Mortality: The Employment of Mothers and the Occupation of Fathers (February 13th).

4. Major Greenwood, jun., M.R.C.S., L.R.C.P.: Infantile Mortality in Relation to Administrative Control (February 20th).

5. David Heron, D.Sc.: A Study of Extreme Alcoholism (February 27th).

6. N. Bishop Harman, M.B., F.R.C.S.: Some Signs of Physical Degeneracy and their Lessons (March 5th).

7 and 8. Professor Karl Pearson: (*c*) Tuberculosis: Heredity and Environment (March 12th); (*d*) Social Problems: Their Treatment, Past, Present, and Future (March 19th).

The fee for the course is 10s. 6d.

School of Architecture.

The Senate accepted with cordial thanks the offer of an anonymous donor to give £30,000 for the erection of buildings on the University College site for the combined School of Architecture to replace the schools now separately conducted at University and King's Colleges.

UNIVERSITY OF LEEDS.

Degrees.

AT a congregation on December 21st, 1911, degrees of Bachelor of Medicine and Bachelor of Surgery were among those conferred:

A. L. Bastable, †H. Caplan, J. B. T. Keswick, C. J. H. Little, G. E. MacVie, F. W. Nunneley, †W. Robinson, †J. B. Sinson, J. P. Walker, F. Wigglesworth.

Second Class Honours.

Examinations.

The following candidates have been approved at the examinations indicated:

SECOND M.B., CH.B., PART I (*Anatomy and Physiology*).—W. D. Anderton, S. N. Cohen, J. J. Digges La Touche, H. Foxton, F. King, W. H. Lonen, H. W. Robinson, H. Sochet, J. Wilkinson, C. Wilson.

FINAL M.B., CH.B., PART I.—L. H. Butler, L. Dunbar, F. H. Kitson, K. Menon, J. J. Pickles, H. P. Shacleton, H. Sinson, J. Wright.

D.P.H.—*Part I*, G. O. Chambers, H. F. Horne. *Part II*, C. C. Pickles.

The next term of the University begins on Wednesday, January 10th.

UNIVERSITY OF GLASGOW.

Council Register.—The register of the General Council of Glasgow University for 1912 has now been made up and authenticated in terms of statute and ordinance. It contains 8,245 names as compared with 7,946 in the previous register, an increase of 299. During the revision the names of 400 new members were added and those of 101 deceased members deleted. There is, however, room for considerable improvement in the important matter of the intimation of deaths and alterations of address, as among the 101 names deleted were those of one who died so long ago as 1877, one in 1881, one in 1898, one in 1899, and three in 1900.

Statistical Report.—The annual statistical report by the University Court of the University of Glasgow to the Secretary for Scotland was issued on December 28th as a White Paper.

LONDON SCHOOL OF TROPICAL MEDICINE.

THE following candidates were approved at the examination held at the end of the thirty-seventh session:

W. D. Wright, Captain, I.M.S., †C. F. Simpson, B. A. Percival, W. Y. Turner, E. J. Quirk, J. W. Tomb, J. W. Thomson, R. Semple, M. Salih, L. Sammy, P. L. Craig, Miss L. E. Watney, R. Willan, W. B. A. Moore, E. J. Powell, M. Graves, W. Browne, S. Goodbrand, W. A. Nicholson, H. Ostrom, Miss M. Pantin, R. Muglistón D. C. Robertson, G. Girgis El-daba, J. G. Morgan, E. Ward, C. H. Crooks, N. Mahrus.

Passed with distinction.

About half these successful candidates are medical officers in the Colonial Medical Service.

APOTHECARIES' HALL OF IRELAND.

THE two courts of examiners have been constituted as follows: *Court A.—Chemistry and Physics*: Professor H. Ryan, J. J. O'Sullivan. *Biology and Physiology*: G. M. Keating, W. O'Kelly. *Anatomy*: D. B. Kennedy, A. Charles. *Pharmacy*: F. G. Adye Curran, J. D. Crinion. *Materia Medica*: T. G. McGrath, J. C. McWalter. *Pathology*: R. J. Rowlette, G. B. White. *Medical Jurisprudence*: F. K. Cahill, W. Fottrell. *Hygiene*: Sir C. Cameron, R. P. McDonnell. *Medicine*: J. Lumsden, C. J. Powell. *Surgery*: Sir T. Myles, Professor Conway Dwyer. *Midwifery*: Seymour Stritch, P. T. McArdle. *Ophthalmology*: E. Magennis, R. J. Montgomery.

Court B.—Chemistry: J. C. McWalter, R. P. McDonnell. *Materia Medica*: J. D. Crinion, F. G. Adye-Curran. *Pharmacy*: J. A. Whelan, T. G. McGrath.

Letters, Notes, and Answers.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):—
2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL
2630, Gerrard, BRITISH MEDICAL ASSOCIATION
2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

F. H. B. asks for any suggestions with regard to the cause and treatment of bagginess or oedema of the lower eyelids. There is no disease of the heart or kidneys, and a slight error of refraction is corrected by glasses.

ANSWERS.

A. M. writes in answer to E. K.: I had a shipwright under my care who suffered from an irritable erythematous rash whenever he worked in teak.

FACTITIOUS URTICARIA.

DR. H. J. THORP (Ipswich) writes, in reply to "F. B.," that very many cases of chronic urticaria are of neurotic origin and associated with other disturbances of the nervous system requiring rest of body and mind. Complete change of air sometimes succeeds when all other remedies fail. A careful and well regulated diet is important. As to medicine, a mixture of sodium bicarbonate and gentian should be taken before each meal.

LETTERS, NOTES, ETC.

"PATENT CURES."

CAPTAIN L. BERTIE MILLINGTON, R.E. (Royal Societies Club, S.W.), writes: As a layman as regards your profession, might I suggest that qualified medical men generally should give more attention than they have done lately to various "patent cures," etc. As things are, we trust our own family doctors, but find that our subordinates prefer to buy sixpennyworth of some well-advertised patent medicine, with a virtuous hope that they will be at once rejuvenated. I think the tax on "patent medicines" probably does this, because it makes them more expensive, and, with the uneducated, the more things cost the better they must be.

FEES FOR REPORTS UNDER THE WORKMEN'S COMPENSATION ACT.

PRACTITIONER writes: I find that an attempt is being made at the present time by insurance companies to pay a fee of 10s. 6d. for medical reports respecting the condition of workmen claiming under the above Act. In my own experience I have been offered a fee of 10s. 6d. twice within the past two or three weeks, whereas the recognized fee for such reports has always been one guinea. I trust that members of the profession will steadfastly resist this attempt to cut down their remuneration, and that they will decline to examine and report on any case for less than one guinea.

*.** This matter was brought before the Annual Representative Meeting at Birmingham by a resolution moved by Dr. F. E. Wynne on behalf of his Division, suggesting that in cases arising under the Workmen's Compensation Act the minimum fee for the initial examination and report should be £1 1s. After two amendments had been moved it was decided to refer the matter to the Council for consideration and report.

TOO OLD AT FORTY.

OVER FORTY.—I desire to enter an emphatic protest against the frequency with which the stupid "too old at forty" craze is now being put into practical operation.

Public bodies in making appointments are conspicuous in this evil tendency of thus limiting the age of applicants, and thereby, I venture to think, are not only guilty of exhibiting very serious ignorance, but of perpetrating gross injustice to the public and other persons whom they fail to enlist in the public service. The age disqualification which is taking place amongst working men bids fair to become a very serious element in the social problem of the future, but when such conditions are applied to the professions, the veriest optimist is disposed to become apprehensive. Surely the age of 40 is just about the time when a man begins to achieve some degree of level-headedness and common sense and to profit by the many shortcomings of his past experience. He looks back and sees a woful lack of tact here, a foolish indiscretion there, and everywhere illustrations and instances of his want of knowledge of human nature, of men, and affairs. Is not the period from 40 to 60 the sanest, wisest, and most evenly balanced, both physically and mentally, in the whole span of life? The London County Council are this week advertising for six medical assistants in the Public Health Department, but none over 40 need apply.

I have no wish to make youth a disqualification, but I think there are abundant reasons why, at any rate, it should not be a *sine qua non*. There was a time when youth and inexperience were considered disqualifications, but the modern tendency is diametrically opposite, and, whilst a man must hope to do little until he reaches 30, he must nevertheless be shelved at 40. Another evil is that, if he wishes to enlarge his experience or his salary by a change in his appointment, this must be done by the age of 39, or he must "stick."

It seems to me this matter is of essential importance, and one which the British Medical Association in the interests of the profession should seek to rectify, and I am confident it will be of service.

In conclusion, let me bid you turn to the legal profession, and imagine the absurdity of the age of 40 being considered too senile for election to the Judicial Bench; or turn to the Church, and imagine the Premier searching about for some experienced divine under 40 to appoint to the next vacant see.

AUSTRALIA FOR THE SONS OF MEDICAL MEN.

MR. RICHARD ARTHUR, M.D., C.M.Edin. (President Immigration League of Australasia), writes: The sons of medical men in the United Kingdom often enter the profession of which their fathers are members, but I understand that the medical profession is overcrowded in England and that Mr. Lloyd George is going to make the prospect of entering it more uninviting than ever. Even in Australia, where the conditions at present are somewhat better, the Universities of Sydney, Melbourne, and Adelaide are turning out hundreds of young doctors, and their numbers are increasing faster proportionately than the population.

It is a serious question nowadays for a medical man as to whether his son should follow in his footsteps, or whether he might not do better by looking elsewhere. After much consideration I decided that my own son should take up farming in Australia, and I am more and more convinced that this decision is in his true interests. He is spending three years at the premier agricultural college in Australia—the Hawkesbury College, near Sydney. There he is learning both the science and the practice of farming, and the fees, including the most excellent board and lodging, are £30 for the first year, £20 for the second, and £10 for the third. Other expenses and pocket money come to about £20 a year. At the other colleges in New South Wales £15 is charged for the first year and the second is free. At the Hawkesbury College the students attend lectures and the laboratory one day and are in the fields the next, thus obtaining a really practical training. They have plenty of recreation—cricket, tennis, shooting, swimming—with occasional concerts and dances, and they have an alive Students' Christian Union. Now if a lad goes through the medical course in England it means an outlay of about £1,000. For this amount he could obtain not only a thorough training in agriculture in Australia, but could pay a deposit on land and stock it.

The life is undoubtedly hard and strenuous, with much monotony, but it is healthy, and the financial rewards are generally ample to a man with grit and perseverance. I recommend the college course, so that a lad may be broken in gradually to the life among his fellows, instead of going direct to a farm and facing the continuous toil on it. There are similar colleges in Victoria and South Australia, where young Englishmen are received. A few vacancies at these colleges are reserved for students from abroad, but it would be well for any one wishing to enter his name to do so as quickly as possible. Our agents in London at 50, Parliament Street, S.W., would make arrangements to this end if communicated with, or I would be glad to answer any letters if addressed to me at Parliament House, Sydney, N.S.W.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page	8	0	0

An average line contains six words.

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

NOTE.—It is against the rules of the Post Office to receive *postes restante* letters addressed either in initials or numbers.

A Lecture

ON THE

EVIDENCES OF AURICULAR FIBRILLATION, TREATED HISTORICALLY.

DELIVERED AT UNIVERSITY COLLEGE HOSPITAL,

BY

THOMAS LEWIS, M.D., M.R.C.P., D.Sc.,

LECTURER IN CARDIAC PATHOLOGY, UNIVERSITY COLLEGE HOSPITAL MEDICAL SCHOOL; PHYSICIAN TO OUT-PATIENTS, CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST.

IT is not always an easy task to choose a subject for an isolated and formal hospital lecture, and it has been especially difficult for me in that my recognized function as a lecturer covers a small field. It occurred to me that, speaking in this building, I could not do better than select a subject in which University College Hospital may claim a special interest, and describe to you the course and result of certain observations which have been made in this school since many of you joined it. I refer to an affection of the heart beat which is now spoken of as *auricular fibrillation*.

Let me preface a largely personal narrative by saying that, while the knowledge that fibrillation of the auricles is a common event in clinical cases came to me as a result of my own observations, I can take little credit to myself on that account, but, with others, regard the proof as the inevitable outcome of the introduction of new methods. So, with this introduction, I will recite the history of our knowledge of this affection in the light of my own experience during the past three years. If this recital does nothing more, it may help to emphasize the limitations of our methods as we employ them in investigating disease, and impress the necessity of grasping any new means within our reach of forwarding our object—the elucidation of human maladies. You know how closely disease is scrutinized by hosts of ready workers; and you will discover, if it is not already known to you, how speedily the advantage of each new stratagem, and each new engine of warfare, which medical ingenuity invents in its struggle with its enemy, disease, is exhausted.

A new line or means of transit is developed, the opportunity is seized on all sides, a stride is taken; some shuffling adds a little to the progress and establishes the move by fortifying the new position; then comes the long wait until once more new cover or new means of reaching it is perceived, and the slow march is continued.

The history of the recognition of fibrillation of the auricles will impress you with the dimness of our eyes and the opacity of the obstacles which embarrass our vision. You will know how blind we have been to things which, once seen, are so apparent.

The investigation starts so far back that none can see its beginning. Suffice it to say that for many years medical workers have written of a gross irregularity of the ventricular and arterial pulsations, occurring especially in patients in whom cardiac failure is imminent, and in whom cyanosis, venous engorgement and dropsy are outstanding features. You all know these patients; you have all seen the picture, hung from time to time as it is in the galleries of disease which our wards constitute: the body raised with pillows, the haggard and anxious countenance; the glistening eye, its white oft tinged with yellow; the flushed cheeks; the full, plum-coloured and open lips; the laboured breathing; the prominent precordial bulging; the confused and wavy impulses which hurry from interspace to interspace; the swollen legs and belly. Here it is but rarely that one seeks in vain the pulse which bears distinctive qualities. Its rapid action, the utter disorder of rhythm, the hopeless jumbling of strong pulsations with quick runs of almost imperceptible beats, the changing length of intervening pauses, are all characteristics.

It is this pulse which forms our starting point. It has been figured and described by many, but its significance has only lately been realized. Named by Hering the *pulsus irregularis perpetuus* in 1902, on account of its supposed permanence, it has received close study for many years. But little came of this study, and the similar perturbation of the ventricle, to which it evidently owed its origin, was regarded for a long while as an expression of deficient co-ordination in the heart. The complexity of the movements seemed to defy investigation.

The first real step came with Mackenzie's observation, that whenever such a pulse is found, no trace of auricular activity can be identified (Fig. 1). Mackenzie had discovered a means of obtaining graphic records from the jugular pulse, and the curves obtained were really indices of the pressure changes in the right auricle. He developed a *new method*—the analysis of irregularities of the heart—by recording the contractions in its several chambers. In a normal venous curve each upstroke of the carotid is preceded by a prominent wave (Fig. 1, A) known to result from auricular systole (*a*). This wave is missing whenever the pulse shows the characteristic irregularity. Moreover, he showed that it vanishes when the irregularity suddenly appears (Fig. 1, B)

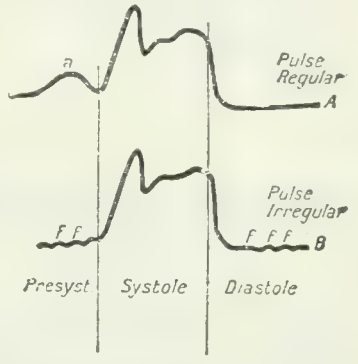


Fig. 1.—A diagram of the jugular pulse: A, when the heart beats regularly; B, when it shows the irregularity described in this lecture. In A, the presystolic pulsation *a*, which is due to the auricular contraction, is present. In B it has disappeared completely. When the pulse is slow but irregular, *a* may be replaced in the jugular curve by small and rapid oscillations *f f*.

in a patient whose pulse has previously been regular. Another fact was elicited by the same worker. He noticed in a case of mitral stenosis that, where a presystolic murmur had been present, this murmur was lost when the pulse became disorderly. He rightly attributed the original murmur to auricular systole, and explained the two phenomena, namely, the absence of auricular pulsation in the neck and the absence of auricular murmur in the chest, by supposing a change in the action of the auricle. The actual change postulated was *paralysis of the auricle*. But Mackenzie, on continuing his researches, found not only that with the restoration of the regular rhythm the auricular wave is restored, but that, in cases which succumb without such restoration, the right auricle may show considerable hypertrophy. These facts ultimately led him to the rejection of his first hypothesis. Believing that a hypertrophied auricle could not remain inactive, and holding abrupt paralysis and abrupt renewal of the auricular systole to be improbable, he sought a new explanation and concluded that auricle and ventricle contract together; for under these circumstances the evidences of the auricular contraction would be buried in the ventricular systole. But simultaneous contraction of auricle and ventricle required explanation; and Mackenzie, influenced by certain histological findings, expressed the view that auricle and ventricle commence their contractions together because the stimulus awakening contraction starts in the tissue which lies between them and unites them, namely, the upper end or "node" of the auriculo-ventricular bundle. Here is the origin of the term "nodal rhythm."

I have wandered from facts to hypothesis, and now return; the same papers which located the disturbance in the node emphasized the invariable association of the irregular pulse with the absence of signs of auricular activity. The importance of this emphasis was considerable, for it materially helped to establish the irregularity as one *sui generis*. This should be clear. If we find scattered bacteria which have a fixed and distinctive microscopic appearance, they are not therefore regarded as forming a single and distinct type; but if their growth in culture media is associated with constant phenomena, the culture tests are further evidence that we deal with

a single organism. So with the irregularity: it presented distinctive qualities wherever found—evidence in itself insufficient though suggestive. But the discovery of a second constant character, the change in auricular mechanism, bore witness to the view that a single and distinct disorder was under observation.

Such was the position when first I became acquainted with it. It was known from Mackenzie's work that a gross irregularity of the heart was always accompanied by a change in auricular action, and, further, the irregularity seemed to be an entity separable from all other cardiac disturbances. Yet at that time the first generalization was alone outstanding, and there was always a feeling of some insecurity in regard to the second. At this time, too (1908), the "nodal rhythm" hypothesis was at its acme; in this country, at all events, it was generally regarded with favour, and the term had been widely adopted. It is difficult for me to say, looking back, though it is not so far away, to what extent I regarded it as a probable explanation. My papers, written at that time, are guardedly expressed when the term "nodal rhythm" is used: I was certainly far from a whole-hearted acceptance of it.

The awakening was a sudden one. In the first week of October, 1909, a man came to my out-patient department at the City of London Hospital: he showed paroxysms of a peculiar form of tachycardia. It is not necessary to enter into a detailed description of the curves obtained from him at this and his subsequent attendances at University College Hospital. It will be sufficient if it is stated that I was confronted with a case in which I believed that a rhythm coming from the "node" was clearly demonstrable. It was *a new method*, namely the electro-cardiographic, which gave the facts to argue from. It was this patient who first convinced me that the heart irregularity of which I speak to-day could not be due to a "nodal rhythm," for the signs which he presented were totally different from those exhibited by the other patients. His attacks were of *regular* tachycardia, and it brought home the contrast, and emphasized the *irregularity* of the other condition as its leading quality. From the day on which I first saw this patient my interest was centred in the cause of the irregularity, so commonly seen in heart failure, the condition then attributed by others to "nodal rhythm."

In the introductory remarks reference was made to blindness to facts which afterwards seem so evident. At this time, when I felt that the "nodal rhythm" hypothesis was no longer tenable, a series of electro-cardiographic curves from dogs in which the auricle was fibrillating (as a result of stimulation with a faradic current), and a second series from patients collected in the wards of this hospital, and in whom the irregularity in question was present, were in my possession; yet for some little while I failed to perceive that the secret lay almost bare before my eyes: and this was the more surprising, for in a paper already written and in the press * I had briefly described both series of electric curves.

We may now go back to a paper written by Cushny and Edmunds. In 1906 these authors described the arterial curves obtained in dogs when the auricle was thrown into fibrillation, and they compared them with the curves of a patient in whom paroxysms of irregular tachycardia had occurred from time to time. They tentatively suggested that the irregularity might have had a similar origin in patient and dog. I believe that it was a remembrance of this paper, read some time before and forgotten, which finally led me to examine the irregularity of auricular fibrillation more carefully.

Comparing the electric curves in my possession, it immediately became obvious that discovery was not far away, and a further and larger series of jugular and electric curves were taken from a dog. My conviction on the subject dates from the experiment performed on this animal on November 11th, 1909. Having sufficient data I visited Dr. Mackenzie, for it was imperative that if the new view were to gather force I should win his assent. In taking venous curves from the dog I used the ordinary clinical polygraph, obtaining venous and radial curves, so that they had the appearance of clinical records. There were normal curves showing *a* waves, and curves from the fibrillating heart in which the venous pulse was of the ventricular form, and from which all sign of auricular contraction had vanished. I placed them before him without comment, and he stated his belief, as I had hoped, that they were from a patient with "nodal rhythm." From this moment my task was easy, for the electric curves which I had obtained were equally convincing.

It was in this manner that the auricular fibrillation theory won Dr. Mackenzie's support—support so generously given and so valuable, for it was withdrawn from the rival hypothesis, "nodal rhythm." But several points remained to be cleared. In some of the venous curves from patients in whom the heart-rate was slow, very small oscillations occurred in the venous curves (Fig. 1, B, *f*); they had been described by Mackenzie, and he had actually attributed them, in the year of Cushny and Edmunds's paper, to fibrillation of the auricle, but in a later publication he stated that the waves which he had taken for those produced by a fibrillating auricle were in reality the result of a fault in the method of registration. These little waves now assumed more consequence, and by stimulating the vagus in an animal in which the auricle was fibrillating and thereby slowing the ventricle, I was able to show that such waves are actually produced by a fibrillating auricle.

The position of the evidence at this stage may be summed up in the statement that the arterial, venous, and electric curves had been found identical in experimental auricular fibrillation on the one hand and in the irregular hearts of patients on the other. It was then that I published my preliminary communication.[1] Almost immediately afterwards a paper by Rothberger and Winterburg came into my hands for the first time, and in it these writers also emphasized the similarity of the electric curves in the experimental and clinical conditions. The observations of Rothberger and Winterburg actually preceded my own, and were published in July, 1909: they have since been confirmed by a number of other workers.

Now the similarity of the curves taken in three ways from animal and man constituted very striking evidence: yet the proof to-day is based on these and a number of still more convincing observations.

In the remainder of this lecture this evidence will be dealt with, and I will begin with a detailed description of the electro-cardiographic curves. In my introductory remarks I spoke of advance in knowledge when a new method is discovered. It is to Einthoven's string galvanometer that we are indebted for the ultimate solution of the problem—the problem of the causation of the gross irregularity which is seen in clinical subjects. When you connect the limbs of a patient (for example, the right arm and left leg) by means of baths of salt solution and wires to this sensitive instrument, it gives a record of the heart beat, which depends upon the electric current evolved in the heart by the contraction of its muscle.

In an electro-cardiogram from a normal human subject each heart beat is represented by three chief movements of the recording instrument (see Fig. 2). The first of these (marked P) is due to auricular contraction. Inspect the ventricular portion of the curve; R is a steep and pointed summit, while T is broad and rounded. The shape of this whole ventricular curve, as we now know, is significant of contraction of the ventricle in a given direction. Such curves are yielded when the ventricle contracts in response to an excitation coming to it from the direction of the auricle (that is to say, through the bundle), and by no other form of ventricular contraction.

Now the curves of patients who have complete pulse irregularity give several important pieces of information. I show such a curve in Fig. 3. You see the peaks, R and T, which represent ventricular contraction. The individual cycles closely resemble individual normal cycles. The conclusion to be drawn from this fact will be obvious: the ventricle has received its impulse from the direction of the auricle and the disturbance in the mechanism of the heart beat as a whole must *therefore be sought in the auricle*. Secondly, you note that P, the auricular summit, is not present, a fact which confirms the findings of the venous tracings and emphasizes the absence of a co-ordinate and presystolic auricular contraction. Thirdly, you will be struck by the presence of a number of small

* The paper was actually published in *Heart*, 1909, vol. i, issued on November 1st, 1909, and the descriptions appear in footnotes on pp. 119 and 127.

oscillations running throughout the whole curve. The electro-cardiograms from these cases show four things:

1. The absence of a normal auricular contraction.
2. The presence of a type of ventricular beat which indicates its origin in an impulse received from the auricle.
3. The special oscillations.
4. Constancy of the picture, from patient to patient, in respect of the first three points.

We may deal with the last first. The constancy in the type of electric curve proved finally that the gross irregularity is a single and isolated condition, a disturbance *sui generis*. But what of the oscillations? We have seen that the experimental curves of fibrillation of the auricle had been found to be similar. They present similar oscillations. Further experiment upon the dog quickly revealed the origin of these oscillations in the fibrillating auricle, for the oscillations are maximal when the wires connect this heart chamber directly to the galvanometer. No such oscillations, or only very much smaller ones, and these transmitted, are seen when the instrument is connected either to the ventricle or to other parts of the body. It seemed desirable that similar evidence should be obtained in the human subject, and this more especially as the oscillations in human curves had been ascribed by Hering to tremor of the body muscles. The required evidence was obtained by discarding the usual points of contact—namely, right hand and left foot: for if such points are joined to the galvanometer the whole heart and whole trunk and two of the limbs are interposed between the points of contact, and the oscillations in the curve might come from any part of this tissue mass. The galvanometer was connected to the end and base of each separate limb: no oscillations came from either arm or leg. Similarly it was shown that none come from either abdominal or back muscles, but that as soon as the contacts are brought near the heart the oscillations become prominent. Using smaller electrodes as contacts, and studying the area of the precordium alone, in a case where the right auricle was enlarged, it was found, further, that the oscillations are largest when the electrodes lie directly over the right or superficial auricle. This auricle or its immediate neighbourhood was fixed as the point of origin of the oscillations, and as the oscillations were found to be continuous throughout the whole cardiac cycle it became evident that such oscillations could be produced only by a muscle mass in continual activity and lying in this region. A fibrillating auricle alone fulfilled these conditions. This—the location of the maximal oscillations and the demonstration that they are continuous—is one of the strongest evidences which we now possess in support of the occurrence of auricular fibrillation in the cases considered.

The oscillations come, as I have been able to show recently, from an area of chest wall which gives, when the heart beats normally, the largest electric summit corresponding to auricular systole.

I now come to what I regard as the last and most conclusive proof of the theory. The appearance of a fibrillating auricle is quite distinctive. It does not contract co-ordinately—that is to say, as a whole—but its walls stand in diastole, a position of virtual paralysis: yet inspection of the surface shows that its muscle is broken up into a multitude of small areas, each of which seems to be contracting vigorously, but with no relation to the contraction in surrounding areas. When you compare the appearances of co-ordinately contracting and fibrillating auricle, you may draw parallels between this chamber and a surface of water, disturbed on the one hand by great billows and on the other by a downpour of rain. In the normally beating heart the regular waves of contraction give rise to regular beats of the ventricle: in fibrillation haphazard impulses issue from the auricular turmoil and stimulate the ventricle. Thus the irregularity of the ventricular beating is produced. But that is not the point to be emphasized, though it explains the pulse irregularity, an explanation which no other hypothesis attempts. The point to lay stress upon is that the visible signs in the heart are distinctive and easily recognizable.

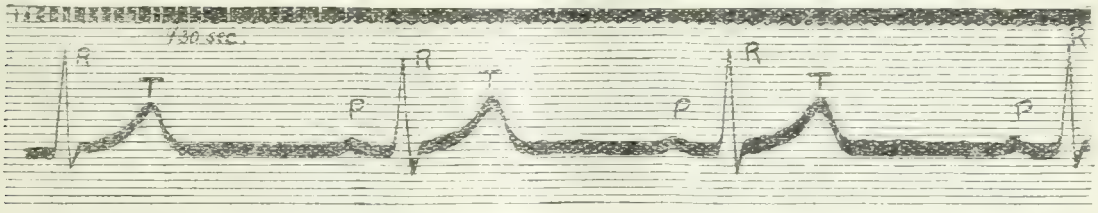


Fig. 2.—An electro-cardiogram from a normal subject, showing the usual electric variations, P, R, and T; P corresponds to auricular contraction, R and T correspond to ventricular systole. The time is in $\frac{1}{30}$ second.

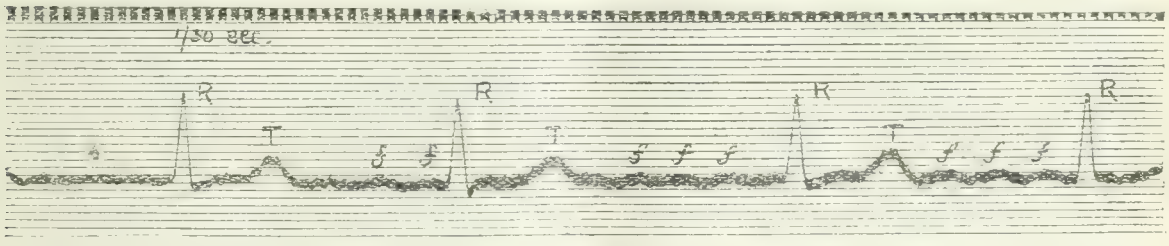


Fig. 3.—An electro-cardiogram from a patient showing complete heart irregularity. The ventricular variations, R and T, are seen, though they are not placed regularly. P is absent; it is replaced by the oscillations, *f f*, which are derived from the fibrillating auricles. Time in $\frac{1}{30}$ second.

You will see from what has been said, how important an actual view of an auricle would be if the heart beat in a grossly irregular fashion. The opportunity came when, in searching for similar disease in the lower animals, I found it in the horse. Largely through the kindness of Dr. Woodruff—whom many of you know, for as a veterinary surgeon he came to study human ailments in this hospital—I was able to show that horses are subject to the same heart disorder, and that the curves given by such hearts are of the same form as those seen in man. The final opportunity of examining a horse suffering from a degenerate heart and giving the recognized signs occurred on Bulford Plain. The chest was opened while the heart was still beating, and I obtained, as did those with me, a clear view of a fibrillating auricle, brought to this state, not by experimental interference, but by disease. It is this observation which has dissolved remaining doubt and which has placed the theory in so secure a position. We now know quite definitely that auricular fibrillation may occur and persist as a manifestation of disease.

Is there any further evidence which might be obtained? Yes, in two ways! One has been indicated already. Sooner or later a fibrillating auricle will be seen in the human chest, opened by a surgeon for the relief of his patient. The second is, perhaps, less satisfactory to the end we consider. You know that the rabbit's heart may be revived after death by perfusion and that activity may

be sustained for considerable periods, but you may not know that the same has been shown for the human heart several hours after death. It is quite within the bounds of possibility that if, in the hands of one accustomed to the method, a heart is taken from one of the patients some while after death, the revival of such a heart may be possible. And it is also probable that in reviving it will return to its former mode of beating—that is to say, the auricle will be seen in fibrillation.

But these are facts which it is for the future to reveal. For the present we must rest content with the proof as I have given it.

Finally, let me refer quite briefly to the results of this conclusion. It explains not only the irregularity as we witness it, but it explains almost all the remaining phenomena which are associated with it as a mechanism—facts which I pointed out in my first communication.

When a healthy dog's auricle passes into fibrillation, the ventricle doubles or trebles its original rate; the gross irregularity of our patients is accompanied by tachycardia. The conclusion explains why digitalis acts so magically in slowing such hearts, for digitalis produces heart-block and heart-block slows the ventricle when the auricle fibrillates. It also explains the spontaneous slowing or original slowness of the ventricular action in some patients, for here disease has affected the conducting tissues and has impeded the rapid and irregular impulses from reaching the ventricle.

In brief, the original rapidity of the pulse and its irregularity, the character of the irregularity, the loss of the auricular wave in the neck, the loss of the P summit in the electro-cardiogram, the loss of presystolic murmurs, the presence of rapid oscillations in the venous curve, the presence of oscillations in the electro-cardiogram, the varying rate of the ventricle in a single patient or from patient to patient, the action of digitalis—each and all are clear once the true explanation of the mechanism is grasped. And this explanation, as I have shown you, is that in such cases we have to deal with fibrillating auricles.

REFERENCE.

[1] BRITISH MEDICAL JOURNAL, November 27th, 1909.

THE EFFECTS UPON THE HEART OF SOLUBLE DIGITOXIN, AN ISOLATED GLUCOSIDE OF THE DIGITALIS GROUP.

BY

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ALTHOUGH digitalis is one of the most valuable of all our cardiac drugs, its therapeutic administration still lies at a stage of development comparable to that of the use of decoctions of cinchona bark before the isolation of quinine.

The physician is still, unfortunately, forced to prescribe an infusion or tincture of digitalis leaves prepared on the same principles as a cup of tea, although the toxicity of the product so administered may vary as much as that of the domestic beverage.

As a matter of fact, when either an infusion or tincture of digitalis leaves is prescribed, not one remedial agent is employed but a blunderbuss of about half a dozen bodies with powerful cardiac action, some undoubtedly favourable for the condition to be combated, others as equally certainly unfavourable in their continued effects upon cardiac muscle.

The reason for this state of affairs in regard to digitalis therapy does not lie so much in a want of knowledge as in a plethora of knowledge, for instead of having in the digitalis leaves one predominatingly important active substance, as in the case of quinine or caffeine, we have, as in the case of the morphine alkaloids, a number of active bodies requiring a great deal of experimental labour and clinical experience to decide between their relative values and uses.

In order to surmount some of these difficulties in the clinical use of digitalis there has been introduced in recent years the process of physiological standardization in order to give some idea of the approximate strength, as a kind of therapeutic battery, of the complex group of bodies probably present in varying relative amount in any given galenical preparation, such as pharmacopoeial infusion or tincture.

Two methods which have been employed for this standardization are (1) the determination of the minimal amount which will, when injected into a lymph sac, cause complete stoppage of the heart of a frog of average size (20 grams weight) within one hour, and (2) the determination of the minimal concentration in Ringer's solution, which when perfused through the isolated mammalian heart, stops all action of the ventricle within one hour. The amount of a good tincture of digitalis required in the first method should not exceed 0.3 to 0.4 c.cm.; and, in the second method, the digitalis preparation should stop the heart within the hour at a dilution of 1 in 200. A third method of experimentation more recently employed by Waller, with interesting results, is to study the effects of the drug in arresting the contractile power of skeletal muscle immersed in the diluted drug. This method has the merit of greater simplicity, and the results seem to resemble closely those obtained with cardiac muscle itself.

But although those methods of physiological standardization may be safely relied on for giving information as to the genuine digitalis nature of a commercial sample, and also some indication as to the careful preparation from "good" leaves, still, as satisfactory scientific and practical methods of dosage they fail in two important aspects.

In the first place, there is no definite standard such as an isolated glucoside of this class would give, if obtainable and universally agreed upon as a standard; there are many isolated products all differing from one another, some soluble and others insoluble, and all varying in their action upon the heart, and as yet pharmacologists have not been able to select any one of these as a unit.

Secondly, the proposed standardization test is a test of "killing power," and physicians do not want to kill, but cure. Underlying this test of killing within a certain time by ventricular arrest is the tacit assumption that it is the same body which kills and produces the favourable therapeutic effect. On any other hypothesis the so-called physiological standardization is meaningless.

The basis of the whole process is that digitalis in small doses stimulates cardiac muscle, and in large doses paralyses it, and hence if in the case of a given preparation we determine the larger dose which kills, we can logically infer what is the smaller dose which will just develop the beneficial therapeutic effect. Now, however sound such argumentation might be in the case of a single active body difficult to isolate, and hence standardized by such an indirect method, it loses all application when dealing with at least four bodies so very different in action and toxicity as are the glucosides of digitalis leaves. The test would only hold if there were the same ratio between maximum therapeutic action and minimal lethal dose for each of these bodies, and experience of both pharmacologist and clinician demonstrates that this does not hold true.

This line of thought holds good not only for the standardization of digitalis, but also for the decision as to whether the usual unknown mixture of the *Pharmacopoeia* should be still used, or whether the active glucosides should be isolated and used separately. There is no question that at least one of the glucosides present in the digitalis leaf—namely, digitonin—is injurious in its action, and ought to be eliminated if possible; and amongst the remaining members of the group there can be little doubt that these vary amongst each other in relative toxicity and degree of excitatory action.

It would have been more scientific to separate these active bodies and make use of them according to the clinical indications in varying cases rather than to fire off a blunderbuss of them all in unknown proportions at the patient's heart.

Here it should be emphasized that it is not maximum toxicity or brute strength that is to be aimed at. If it were so, strophanthin, which is much more powerful, would in all cases be prescribed; but it is easy enough to stop a heart with any of these drugs given in sufficient dose. The active agent to pick out is that one which possesses what might be described as the greatest factor of safety, that is, the highest ratio between the minimal lethal dose and the dose giving a good therapeutic effect. Some attention ought also to be paid to the possibility of accurate

dosage, and here a body which can be completely isolated holds an advantage because the physician knows exactly how much he has given his patient.

The number of bodies possessing an action closely resembling that of the digitalis group upon the heart is an enormous one, and goes on increasing all the time.

In addition to the older well-known remedies, such as squills and strophanthus, there are the plant principles carpaïn, helleborein, sparteïn, and probably all the members of the huge group of the sapo-glucosides, of which commercial saponin from ordinary quillaia bark is the best-known representative. In this laboratory we have recently investigated two isolated glucosides, one named mowrin, from the mowrah bean of India, and the other called hederin, from the leaves of the common ivy. Both of these bodies possess a remarkably stimulating action on the cardiac muscle, and when perfused through the isolated heart show an increased force of beat and a slowing of the rate, and generally give tracings very similar to digitalis. But, unfortunately, they have in the end an injurious effect upon the heart, appearing to render it oedematous; and also they possess a highly injurious action upon red blood corpuscles, causing rapid haemolysis even in dilute solution. In many respects, both chemically and physiologically, these sapo-glucosides possess an interesting and suggestive resemblance to the bile salts, but their haemolytic and certain other properties rule them out as heart tonics.

In crude digitalis such an injurious sapo-glucoside—namely, digitonin—is always present, and in the infusion its presence is even necessary to dissolve the *crystalline digitoxin*, which is quite insoluble in aqueous solution.

In the process of testing various digitalis preparations dissolved or suspended in saline, according to their solubilities, Waller[1] found that the insoluble preparations were without effect upon the muscle preparation; while those three preparations out of the five tested which were active—namely, *Digitonin cryst.* (Merck), *Digitalinum pulverizatum purum Germanicum* (Merck), and *Digitalinum verum* (Schmiedeberg)—all give a soapy froth on shaking. This is the usual physical index of the presence of a saponin or sapo-glucoside.

In the course of the present work, in order to avoid complicating the results by administration of alcohol at the same time and to render intravenous injection possible, I have evaporated off the alcohol from a tincture of digitalis, and then made the residue up as a fine suspension in an equal volume of saline.

Such a suspension I have found entirely inert upon intravenous injection, and it has occurred to me that the uncertain action of tincture of digitalis, when given by the mouth, may be due to its precipitation in insoluble form when largely diluted with water in the stomach.

It is obvious that amongst these many glucosides possessing a marked cardiac action, if one could be found free from the saponin properties of haemolyzing blood and sufficiently soluble in water to be administered without alcohol, and in case of need given intravenously, it would possess a preference as a cardiac tonic.

Such a substance would appear from Waller's work to be a rarity, but Cloetta[2] claims to have isolated a body with these properties from digitalis leaves in his "digitoxinum solubile." The glucoside exists in the leaves, along with the digitalinum verum of Schmiedeberg, in smaller quantity. The various other insoluble bodies taken out by alcohol, such as Merck's crystalline digitoxin, are, according to Cloetta, isomeric forms of this soluble glucoside, which become polymerized and insoluble in the manipulations necessary for preparation. The soluble body has half the molecular weight of the insoluble crystalline body.

Soluble digitoxin is manufactured by the Hoffmann-La Roche Chemical Works, and is known commercially as digalen. It is dissolved in dilute glycerine solution, containing in each cubic centimetre 0.3 mg. of the isolated soluble digitoxin; that is to say, the solution is so dilute that it corresponds to only 3 parts of gincoside in 10,000. I have to thank Messrs. Hoffmann-La Roche for supplying me in addition with a corresponding solution, in saline alone, to ensure the absence of any glycerine effect, but as no such effect was found, and the glycerine solution best preserves the activity of the glucoside, the commercial digalen was employed for most of the experiments.

Although experiments with red blood corpuscles clearly demonstrated that digalen satisfied the condition of absence of a saponin-like body, there being not the slightest sign of laking, the first impression obtained in studying the action upon the heart by orthodox methods was disappointing, for it looked as if the substance was very weak, as compared with a standardized tincture of digitalis. So it is, if the ordinary sign of stopping the heart within one hour be taken as the standard of therapeutic activity.

Thus, while a standard digitalis tincture injected into the dorsal lymph sac of a frog in an amount of 0.4 c.cm. stopped the heart within the hour, as much as 1 c.cm. of the digalen solution barely did so, the heart beating feebly and at long intervals up to one hour and fifteen minutes.

Again, while 3 c.cm. of the standard tincture injected intravenously in a medium-sized rabbit killed within a few minutes, it was only a dose of at least 10 c.cm. of digalen which sometimes proved fatal in an hour or more in rabbits of about this weight. Given hourly, or two-hourly, in 1 to 2 c.cm. doses, more than 10 c.cm. can be borne by a 2 kg. rabbit in the course of the twenty-four hours. From the point of view of lethal dose, therefore, digalen solution only possesses one-third to one-fourth of the strength of standardized tincture of digitalis. But the question arises, Does the lethal dose, as determined in this way, fix the therapeutic value of the drug? and in our opinion, the effects upon the heart obtained in the experiments on the intact mammal, and the minimal amounts required to develop a marked therapeutic action in the isolated mammalian heart, negative this proposition, and demonstrate on the other hand that the lessened lethal effect is a distinct advantage.

Equivalent amounts of the digalen solution produce as distinct and marked slowing as the tincture, and on listening to the heart the increased force is obvious in the short, sharp systole. It has the further advantage that it can be given intravenously without pain: the absence of alcohol is here a highly desirable factor, and the safe dose is at least treble that of the tincture.

On perfusion through the isolated mammalian ventricle a marked therapeutic effect is obtained with as little as 2 c.cm. in a litre (see Fig. 2), and in the later full physiological effect there is a marked increase in the tonicity of the heart muscle, as shown by the elevation of the base line.

The results appear to indicate that in the use of ordinary pharmacopoeial preparations of digitalis the tonic effects and toxic effects are produced in varying degree by the different glucosides, and that soluble digitoxin is one which possesses more valuable therapeutic properties, with a large factor of safety, than the mixture as extracted in the tincture.

Effects on the Heart in the Intact Mammal.

Rabbits were employed throughout for the experiments, on account of the ease of intravenous injection into the marginal vein of the ear, and for the purpose of comparison with the results of perfusion of the drug in solution in Ringer's saline in the same animal, as shown in the next section of this paper.

It requires some training of the ear to count the rate of heart-beat accurately in the rabbit, on account of the speed of the beat, but the heart-beat, although so rapid, is steady and regular, and with a little practice can be counted quite well.

In addition to the slowing in the rhythm recorded in the experiments below, the ear, after a little training to the work, soon detects and appreciates what the numbers do not show, and that is a sharpening in pitch of the systolic heart-sound, which gives the impression of a sharper blow. This is very characteristic, and corresponds doubtless to the therapeutic stage marked by the increased stroke in the earlier part of each tracing of the effect on the perfused isolated heart, as shown in the next section.

One very striking result, resembling that obtained by Sherrington and Sowton[3] when studying the comparative concentration of chloroform in saline and in serum which acted upon the heart, is seen on comparing the results of this section with the succeeding section, in which the drugs dissolved in saline acted upon the isolated heart. This result is a very beautiful one, and the physico-chemical explanation of it is most interesting and of important practical application in therapeutics, showing

that the dosage of a drug depends on its relative chemical affinities for saline, serum, and cell substance.

When the solution of the digalen is injected intravenously in a 2-kilogram rabbit, it takes about 3 c.cm. to produce a full therapeutic effect with recovery to normal in about two days' time, and even as much as 10 c.cm. can be given without producing a lethal result. Now, if we make the assumption—to be on the safe side—that the blood of the rabbit represents one-tenth of the weight, the amount of fluid in which the 3 c.cm. injected is distributed is about 200 c.cm.* This gives a solution of the digalen solution of about 1 in 70 for the therapeutic dose, and 1 in 20 or less for the lethal dose. If this be now contrasted with the concentration of the drug in saline which acts upon the isolated heart, it is found that even 1 in 500 rapidly gives a large therapeutic effect, and even with this dilution the heart muscle does not remain in equilibrium, but goes on taking up the drug continuously from the saline until it poisons itself, and in about another hour and a half to two hours the heart-beat is enormously reduced, and, in fact, almost stopped, while its muscular tonicity has increased enormously (see Fig. 2); with a concentration of 1 in 200 the rapidity of the whole process is increased, but the picture as a whole is the same (see Fig. 1). The whole thing is a beautiful example of the application of physical chemistry in bio-chemistry and medicine. Even with the five-hundredfold diluted solution there is no equilibrium at any point at which the heart can go on functionating, and the muscle is finally poisoned just as with the 1 in 200 concentration, but the absorption is slower and the system —*cardiac muscle, saline, and drug*—moves more slowly towards equilibrium. Contrasted with this, even so high a concentration as 1 in 70 does not poison when serum is the circulating medium instead of saline, but instead the system—*cardiac muscle, serum and drug*—comes into equilibrium at the stage of therapeutic effect, and remains there steadily for days until the drug becomes changed or excreted. The drug has to distribute itself between saline and cardiac tissue in the one case and between serum and cardiac tissue in the other.

In the former case the *Coefficient of Distribution* is a high one and practically all the drug goes on passing over into the heart. If the saline is perfused long enough the heart will be overcome, even with a high dilution in the saline.

In the case of the serum, the *Coefficient of Distribution* of the drug between cardiac muscle and serum is a comparatively low one, and even at a much higher concentration of the drug in the blood an equilibrium point will soon be reached at which no more drug will leave the blood and pass into the heart muscle. The amount in the blood will then act as a fly-wheel regulating the amount kept up in the heart. If the amount in the blood diminishes, some will slowly diffuse out from the heart till a lower equilibrium-point is reached with the heart less under the digitalis control. Proceed now in the opposite direction and increase the concentration of the drug in the blood, and the concentration of the drug in the heart muscle will go up accordingly to a higher equilibrium-point. So, corresponding to each concentration in the blood there will be a concentration in the heart tissue. As the concentration in the heart tissue is heaped up that organ comes more and more under the influence of the drug, and, finally, after passing through the therapeutic stage, there is a level or range at which it becomes embarrassed and finally stops beating.

It is interesting here to compare the difference between chloroform and digitalis in action upon the heart in the light of this result. Chloroform is a readily diffusible body, easily got rid of by lungs and kidney. If the administration is stopped for a few minutes the concentration of the chloroform in the blood rapidly falls, and the heart recovers and again beats more rapidly. But digitalis is a slowly diffusing substance, not rapidly got rid of from the blood nor quickly moving from blood to heart, or vice versa, even when injected directly into the blood stream. As shown in most of the experiments recorded below, except where the dose is a very huge one, it is some hours before any effect is seen. It is well known to physicians that when the drug is given by the mouth little effect is seen for a day, or even till the second day. Naturally, in the disappearance of the effect of the drug there is the same slowness in the inverse order, the drug slowly coming out of its interlocking position in the cardiac muscle as the concentration of the drug in the blood slowly diminishes.

This is the chemico-physical basis which really underlies the phenomenon usually described as the cumulative action of digitalis, and teaches a twofold lesson—first, as to the proper administration of digitalis; and, secondly, as to which among the digitalis group of glucosides should be chosen to reduce this undesirable result to a minimum. In the first place, the drug should be pushed by a physician having large experience of such cardiac cases until the full therapeutic advantage is developed, and then the dosage should be largely depressed, just to compensate, and no more, for the amount of drug destroyed or slowly excreted. There should be no attempt made by pushing afterwards to attain the impossible, as that will only result, on the chemico-physical basis above outlined, in driving the heart on into the full physiological stage, where the output is diminished and the heart embarrassed and stopped (see later parts of Tracings 1 to 3).

Secondly, we see in the case of the saline experiments that where the *Coefficient of Distribution* between heart and circulation fluid is a high one, it is almost impossible to get the concentration of drug in the circulation fluid so low that an equilibrium is obtainable at the therapeutic stage. Now such an evil result would be accentuated if the drug had a stronger affinity for cardiac muscle, and had to be given in still lower concentration. Hence a stronger drug—such as strophanthus—is not so safe, even in correspondingly less dose, than a digitalis glucoside, because it cannot be regulated so nicely. It possesses more tendency to go into the heart, stay there, and become cumulative for succeeding doses. A drug with less specific affinity and more readily diffusible in or out, will also have a larger range and *factor of safety* between its therapeutic and its lethal dose, than a more specific one entering into firmer union with the cardiac tissue at lower concentration. Accordingly, in treating ordinary heart conditions of failing compensation, it is distinctly the weaker drug that is indicated and not the stronger one, and also the more readily soluble and diffusible one, so that accumulation may be avoided.

What constituent is it in the blood which confers upon it this power of retaining such a drug as digitoxin and balancing against the pull of the heart for it? It is probably in part the protein of the blood, and in part the fatty constituents, as in the case of ordinary anaesthetics, and an exhaustive investigation is required as to whether it is cardiac proteins or cardiac lipoids which absorb and hold these glucosides that act so powerfully on the heart. In any case, some organic constituent in the blood is pitted against another organic constituent in the heart muscle for the possession of the dose of cardiac glucoside, and the ratio of distribution varies for each glucoside and determines the specific power of that glucoside.

Experiments.

As it was found that subcutaneous injection in mammals caused a certain amount of inflammation and oedema, the drug was in most cases given by intravenous injection followed by a small amount of normal saline. By this method the drug can be introduced almost painlessly and very effectually; the smallest trace of phlebitis or other evil result has never been observed, and in those clinical cases where the condition of the stomach contraindicates administration by the mouth intravenous injection of digalen can be recommended. There is the added advantage of increased rapidity of action over the ordinary oral administration of digitalis, although even with intravenous injection a full effect is not obtained until the expiration of three or four hours. (See experiments.) The reason for this is to be found in the chemico-physical explanation of the action of the drug given above.

Experiment 1.—*Continued Administration of Digalen in Medium Doses.*

Rabbit of 2,090 grams. Initial rate of heart, 43 in 10 seconds.

First Day. At 11.45 a.m., rate 43 in 10 seconds. At 11.52 a.m., injected intravenously 3 c.cm. of digalen; at 11.53 a.m., rate 46 in 10 seconds; at 11.56 a.m., rate 38 in 10 seconds; at 11.57 a.m.,

* According to recent determinations by Boycott, *Proc. Physiol. Soc.*, November, 1911, the blood volume in the rabbit is only one-twentieth of the body weight.

rate 40 in 10 seconds; at 12.2 p.m., rate 42 in 10 seconds; at 12.16 p.m., rate 46 in 10 seconds; at 12.53 p.m., rate 45 in 10 seconds. At 2.56 p.m., injected intravenously 3 c.cm. of digalen; at 3.4 p.m., rate 45 in 10 seconds. At 4.3 p.m., injected intravenously 3 c.cm. of digalen: at 4.36 p.m., rate 47 in 10 seconds. Total amount administered in first day, 9 c.cm.

Second Day. At 11.12 a.m., rate 35 in 10 seconds. No digalen given.

Third Day. At 11.15 a.m., rate 28 to 35, and varying rhythmically in rate, fast and slow alternately.

Fourth Day. At 1.30 p.m., rate 34 to 36 in 10 seconds.

Fifth Day. At 11.30 a.m., rate 40 in 10 seconds.

Seventh Day. At 11.25 a.m., rate 39 in 10 seconds, regular. At 11.45 a.m., injected intravenously 6 c.cm. of digalen: at 11.52 a.m., rate 46 in 10 seconds; at 2.50 p.m., rate 49 in 10 seconds.

Eighth Day. At 11.15 a.m., rate 33 in 10 seconds.

Ninth Day. At 11.0 a.m., rate 41 to 43 in 10 seconds. Note that there is remarkable slowing of the heart on the day succeeding administration, and that this slowing is prolonged in duration; note also the low toxicity of the digalen.

EXPERIMENT II.—*Continued Administration of Digalen in Smaller Doses.*

Rabbit of 1.630 grams. Initial rate of heart, 50 in 10 seconds.

First Day. At 3.54 p.m. rate 50 in 10 seconds. At 3.57 p.m., injected intravenously 2 c.cm. of digalen: at 4 p.m., rate 48 in 10 seconds; at 4.38 p.m. 45 in 10 seconds. At 5.2 p.m., injected intravenously 2 c.cm. of digalen: at 5.4 p.m., rate 44 in 10 seconds: at 6.3 p.m., rate 45 in 10 seconds. At 6.5 p.m., injected intravenously 2 c.cm. of digalen: at 6.7 p.m., rate 47 in 10 seconds: at 6.30 p.m., rate 46 in 10 seconds; at 7 p.m., rate 45 in 10 seconds. At 7.5 p.m., injected intravenously 2 c.cm. of digalen: at 7.6 p.m., rate 46 in 10 seconds. Total amount administered during first day, 8 c.cm.

Second Day. At 11.37 a.m., rate 42 in 10 seconds. At 11.40 a.m., injected intravenously 2 c.cm. of digalen: at 11.42 a.m., rate 42 in 10 seconds; at 12.10 p.m., rate 33 in 10 seconds: at 12.50 p.m., rate 32 in 10 seconds. At 12.56 p.m. injected intravenously 2 c.cm. of digalen: at 12.58 p.m., rate 36 in 10 seconds; at 2.10 p.m., rate 36 in 10 seconds. At 2.13 p.m., injected intravenously 2 c.cm. of digalen: at 2.20 p.m., rate 39 in 10 seconds; at 3.2 p.m., rate 31 in 10 seconds. At 3.10 p.m., injected intravenously 2 c.cm. of digalen; at 3.14 p.m., rate 35 in 10 seconds; at 3.40 p.m., rate 30 in 10 seconds. At 3.45 p.m., injected intravenously 2 c.cm. of digalen: at 3.55 p.m., rate 34 in 10 seconds. Total amount administered in second day, 10 c.cm., making 18 c.cm. in first and second days. The heart-rate has been reduced from 50 in 10 seconds to 30-34 in 10 seconds.

Third Day. At 1.45 p.m., rate 38 in 10 seconds. No digalen administered this day.

Fourth Day. At 3.35 p.m., rate is 31 in 10 seconds. No digalen administered.

Fifth Day. At 12.55 p.m., rate is 44 in 10 seconds; at 5.40 p.m., rate 36 in 10 seconds.

Twelfth Day. At 4.40 p.m., rate steady at 40 in 10 seconds.

EXPERIMENT III.—*Effects of Large Dose of Digalen Injected Intravenously.*

This experiment was really carried out to determine the minimal lethal dose, but the glucoside was so much less toxic than was expected that the animal did not die from the amount injected.

This amount was, however, so considerable that paralysis of the vagus with increased heart-rate was obtained as with large doses of digitalis.

Rabbit of 2.290 grams. Initial rate of heart-beat before drugs, 36 in 10 seconds.

First Day. Heart-rate at 3 p.m., 36 in 10 seconds. At 3.5 p.m., injected 5 c.cm. of digalen into marginal vein; at 3.15 p.m., heart-rate 30 in 10 seconds; at 4.50 p.m., 32 in 10 seconds; at 5.47 p.m., 32 in 10 seconds.

Second Day. Heart-rate at 12 noon, 42 in 10 seconds: at 5.30 p.m., 40 to 42 in 10 seconds. No drug given this day as heart so much above normal.

Third Day. Heart-rate at 11.55 a.m., 40 in 10 seconds. Injected 5 c.cm. of digalen intravenously at 12.7 p.m.; at 12.9 p.m., heart-rate 36 in 10 seconds; at 12.12 p.m., 37 in 10 seconds; at 1.44 p.m., 40 in 10 seconds; at 6.25 p.m., 38 in 10 seconds.

Fourth Day. At 11.15 a.m., heart beating almost too fast to count and irregularly; rate about 54 in 10 seconds; at 5.30 p.m., 44 in 10 seconds.

Fifth Day. At 11.40 a.m., beat 40 to 42 in 10 seconds. At 11.55 a.m., injected 5 c.cm. of digalen intravenously; at 11.58 a.m., 36 to 38 in 10 seconds.

Sixth Day. At 11 a.m. rate almost uncountable at about 54 in 10 seconds. The rate remained high for about three days, and then fell to about normal again. The animal, which had received about 15 c.cm. of the digalen solution within four days, completely recovered, a demonstration of the exceedingly low toxicity of the drug, although the action on the heart was pushed past the slowing stage into the rapid stage accompanying vagal paralysis.

EXPERIMENT IV.—*Still Larger Doses of Digalen.*

Rabbit of 2.250 grams. Initial rate of heart beat before drugs 42 in 10 seconds.

First Day. At 4.20 p.m., rate 42 in 10 seconds: injected 8 c.cm. of digalen intravenously; at 4.30 p.m., rate 37 in 10 seconds; at 4.55 p.m., 34 in 10 seconds; at 5.45 p.m., 32 in 10 seconds.

Second Day. At 12.5 p.m., 48 in 10 seconds; at 5.35 p.m., 44 in 10 seconds.

Third Day. At 12.25 p.m., 45 in 10 seconds. At 1 p.m. injected 10 c.cm. of digalen intravenously; rate immediately after 47 in 10 seconds: at 1.5 p.m., 42 in 10 seconds; at 1.50 p.m., 40 in 10 seconds; at 5.30 p.m., 39 in 10 seconds.

Fourth Day. At 11.55 a.m., rate 43 in 10 seconds; at 5.30 p.m., 46 in 10 seconds,

Fifth Day. At 12 noon, 38 in 10 seconds.

Sixth Day. At 11 a.m., 35 in 10 seconds.

Seventh Day. At 5 p.m., 42 in 10 seconds; a return to the normal rate.

This animal survived and remained quite well, although it received a dose of 8 c.cm. of the drug, followed within two days by another dose of 10 c.cm., making 18 c.cm. in all. Except for a very short period after the injection when there is slowing, the rate of the heart is increased with such large doses. The most striking effect is the low toxicity accompanying a marked cardiac action.

EXPERIMENT V.—*Minimal Lethal Dose of Digalen.*

Rabbit of 2.130 grams. Initial rate of heart, 44 in 10 seconds.

At 3.28 p.m., rate 44 in 10 seconds, very regular; at 3.37 p.m. injected intravenously 10 c.cm. of digalen: at 3.40 p.m., rate 37 in 10 seconds; at 3.41 p.m., rate 38 in 10 seconds; at 3.43 p.m., 37 in 10 seconds. At 4.20 p.m., rabbit dead; heart found *post mortem* in diastole.

EXPERIMENT VI.—*High Toxicity of Tincture of Digitalis (Standardized).*

Rabbit of 1.880 grams. Initial rate of heart, 39 in 10 seconds.

At 12.5 p.m., rate 38 to 40 in 10 seconds.

At 12.10 p.m., injected intravenously 2 c.cm. of standardized tincture of digitalis.

At 12.10 p.m. animal dead.

EXPERIMENT VII.—*Toxicity of Small Dose of Tincture of Digitalis (Standardized).*

Rabbit of 1,790 grams. Initial rate of heart, 46 in 10 seconds.

At 12.19 p.m., rate 46 in 10 seconds.

At 12.21 p.m., injected 2 c.cm. of a tincture intravenously.

At 12.22 p.m., rate 37 in 10 seconds; at 4.10 p.m., animal lying on side, rate 56 to 60 in 10 seconds; at 4.20 p.m., heart becomes blocked and irregular, fast and slow alternately, and finally stops.

This experiment illustrates the high toxity of the mixed glucosides in digitalis tincture as contrasted with digalen, and taken with Experiment VI, shows that digitalis in tincture cannot be used intravenously, while digalen can be so used with safety.

EXPERIMENT VIII.—*Determination of Lethal Dose of a Standard Tincture of Digitalis.*

Rabbit of 2.140 grams. Initial rate of heart, 40 in 10 seconds. Injected intravenously 5 c.cm. of a "good" physiologically standardized tincture of digitalis. The animal died almost immediately. Heart found after death in diastole.

EXPERIMENT IX.—*Lethal Dose of Tincture of Digitalis.*

Rabbit of 1.490 grams. Initial rate of heart, 38 in 10 seconds.

First Day. At 3.13 p.m. injected intravenously 2 c.cm. of standardized tincture of digitalis: at 3.15 p.m., rate 28 in 10 seconds; at 3.17 p.m., 32 in 10 seconds; at 3.20 p.m., 34 in 10 seconds.

Second Day. At 3.5 p.m., rate about 50 in 10 seconds, very rapid with faint sounds. At 3.25 p.m. injected intravenously 3 c.cm. of standardized tincture of digitalis; rate just after injection 42 in 10 seconds; one minute later, rate 37 in 10 seconds; at 3.28 p.m., 23 in 10 seconds, and heart very irregular; at 4.30 p.m. the animal is dead; heart found on examination after death in diastole.

EXPERIMENT X.—*Lethal Dose of Tincture of Digitalis.*

Rabbit of 1.850 grams. Initial rate of heart, 37 in 10 seconds

At 5.10 p.m. injected very slowly 4 c.cm. of tincture of digitalis; the animal died almost instantly. The heart was found *post mortem* in diastole.

EXPERIMENT XI.—*Continued Administration of Standardized Tincture of Digitalis.*

Rabbit of 1.600 grams. Initial rate of heart, 44 in 10 seconds.

First Day. At 2.31 p.m., rate 44 in 10 seconds. At 2.33 p.m. injected intravenously 2 c.cm. of a standard tincture: at 2.36 p.m., rate 40 in 10 seconds; at 3.15 p.m., rate 40 in 10 seconds. At 3.19 p.m. injected intravenously 2 c.cm. of standard tincture: at 3.22 p.m., rate 40 in 10 seconds; at 3.50 p.m., rate 40 in 10 seconds. At 3.52 p.m. injected intravenously 2 c.cm. of standard tincture: at 3.56 p.m., rate 40 in 10 seconds. Total amount injected on first day, 6 c.cm. of standard tincture.

Second Day. At 1.47 p.m., rate 41 in 10 seconds. No digitalis given.

Third Day. At 3.55 p.m., rate 36 in 10 seconds. At 4 p.m. injected intravenously 2 c.cm. of standard tincture: at 4.3 p.m., rate 36 in 10 seconds; at 4.7 p.m., 37 in 10 seconds; at 4.55 p.m., 46 in 10 seconds.

Fourth Day. At 12.57 p.m., 54 in 10 seconds; at 5.41 p.m., 42 in 10 seconds.

EXPERIMENT XII.—*Absence of all Activity when an Active Standardized Tincture of Digitalis is Evaporated to Dryness and made up to an Emulsion of Equal Volume in Saline.*

Rabbit of 1,220 grams. Initial rate of beat, 55 in 10 seconds.

First Day.—At 2.5 p.m., rate 55 in 10 seconds. At 2.59 p.m. injected 3 c.cm. of saline suspension of digitalis; at 3 p.m., 56 in 10 seconds. At 3.45 p.m. injected 4 c.cm. of saline suspension of digitalis; at 3.50 p.m., rate 56 in 10 seconds; at 4 p.m., 54 in 10 seconds.

Second Day.—At 2.7 p.m., rate 51 in 10 seconds; at 5.30 p.m., 51 in 10 seconds.

This animal showed no signs of any effect from an amount of a saline emulsion corresponding to 7 c.cm. of this tincture, which was the same as killed in the previous three experiments, and also killed a frog, heart in systole, within one hour, and perfused through the isolated rabbit heart at a dilution of 1 in 200 in Ringer's solution arrested the heart in systole within 30 minutes.

EFFECTS OF PERFUSION OF THE DRUG IN SALINE THROUGH THE ISOLATED MAMMALIAN HEART.

The hearts used in these experiments were taken from medium sized rabbits, so that the results can be strictly compared with those obtained in the previous section on intravenous injection.

The perfusion was made through the coronary arteries from the aorta, Ringer's saline saturated with oxygen in the usual way being used. The drug was added, in the amounts stated under each tracing, to 1 litre of the Ringer's saline. After the tracing of the heart-beat had become steady, as shown in the first section of each tracing, the connexion with the warmed saline containing the drug was established and the variations in heart-beat recorded. For comparison, portions of this record belonging to the time intervals noted under each portion have been brought together. The lowest trace shows time in seconds, the line above is the injection signal, and the upper trace is that of the heart apex, the heart being suspended freely by the cannula fixed in the aorta.

The three experiments illustrated by the tracings are samples showing concordant results with those obtained in other experiments. In each case there is a pure digitalis effect shown of: (1) Increase in force, shown by the increased amplitude of beat; (2) slowing of the heart; (3) increased slowing of the heart accompanied by decrease of force; (4) arrest in systole, or nearly so, with marked increase in tonus, shown by the elevation of the base line.

The experiment in Fig. 1 is with the digalen solution diluted two hundred times with saline. As the digalen solution only contains 0.3 mg. of the amorphous digitoxin in 1 c.cm., this represents a concentration of 3 in 10,000, and it follows that the concentration being perfused in this case is 3 in 10,000 × 200, or 3 in 2,000,000 parts.

In the second experiment, illustrated by Fig. 2, the concentration is 2 ampoules of 1 c.cm. per litre, corresponding in actual strength of drug to 3 parts in 5 millions. Yet even at this exceedingly low concentration, when saline is the perfusing medium, there is no equilibrium, but the heart goes on absorbing from the saline until it has taken up enough to stop its beating. With such a concentration as this in blood there would be no apparent effect, for the reasons given in the preceding section.

The tracing shown in Fig. 3 is that obtained by adding 2.5 c.cm. of a saline solution containing 0.9 mg. in 1 c.cm. to 1 litre of saline—that is to say, 2½ parts in 1,000,000. This is the strongest of the three solutions shown, as the tracing likewise demonstrates.

CONCLUSIONS.

1. Present methods of standardization of such drugs as digitalis rest on an erroneous basis, which presupposes a direct linear relationship between therapeutic dose and lethal dose, whereas in a varying mixture of active substances in a galenical preparation no such relationship need exist.

2. The ratio of lethal dose to therapeutic dose may be defined as the factor of safety of a drug.

3. In picking out from a mixture of active principles that one which is most advantageous therapeutically, the substance should be chosen which possesses the highest factor of safety, and not that one with the highest toxic action, and hence producing an effect in smallest quantities. For example, the experiments above recorded show that soluble, or amorphous, digitoxin has a higher factor of safety than the mixed glucosides of standardized tincture of digitalis; and, again, tincture of digitalis is safer than strophanthus, or mowrin, or hederin.

4. The physico-chemical basis determining the toxicity of such a cardiac drug, as also the factor of safety, is the relative adsorption, or combining powers for the drug, of

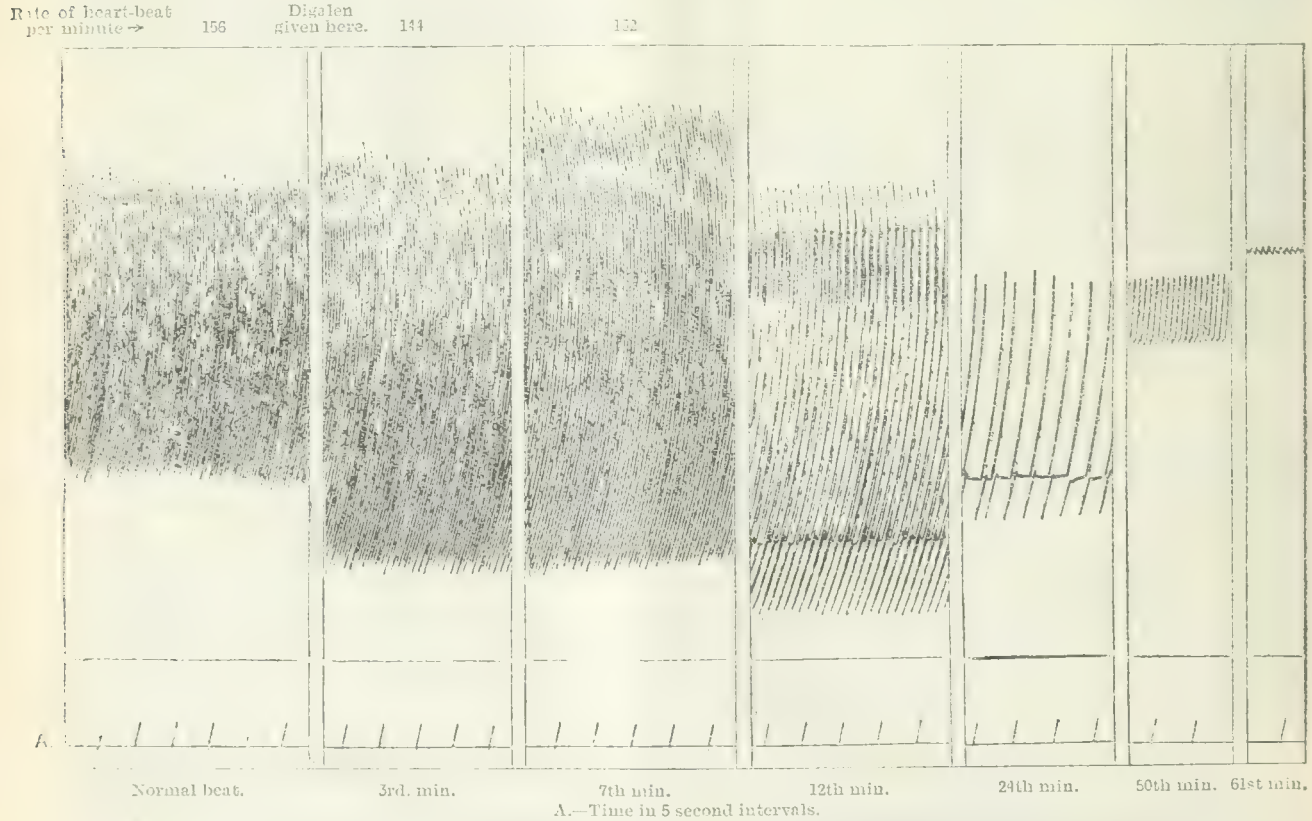


Fig. 1.—Rabbit's heart perfused with Ringer's solution. Effect of digalen at 1 in 200 dilution (5 ampoules of 1 c.cm. to 1 litre of Ringer's solution). Tracing reads from left to right. Observe increase of force of beat and slowing of heart and final tonicity.

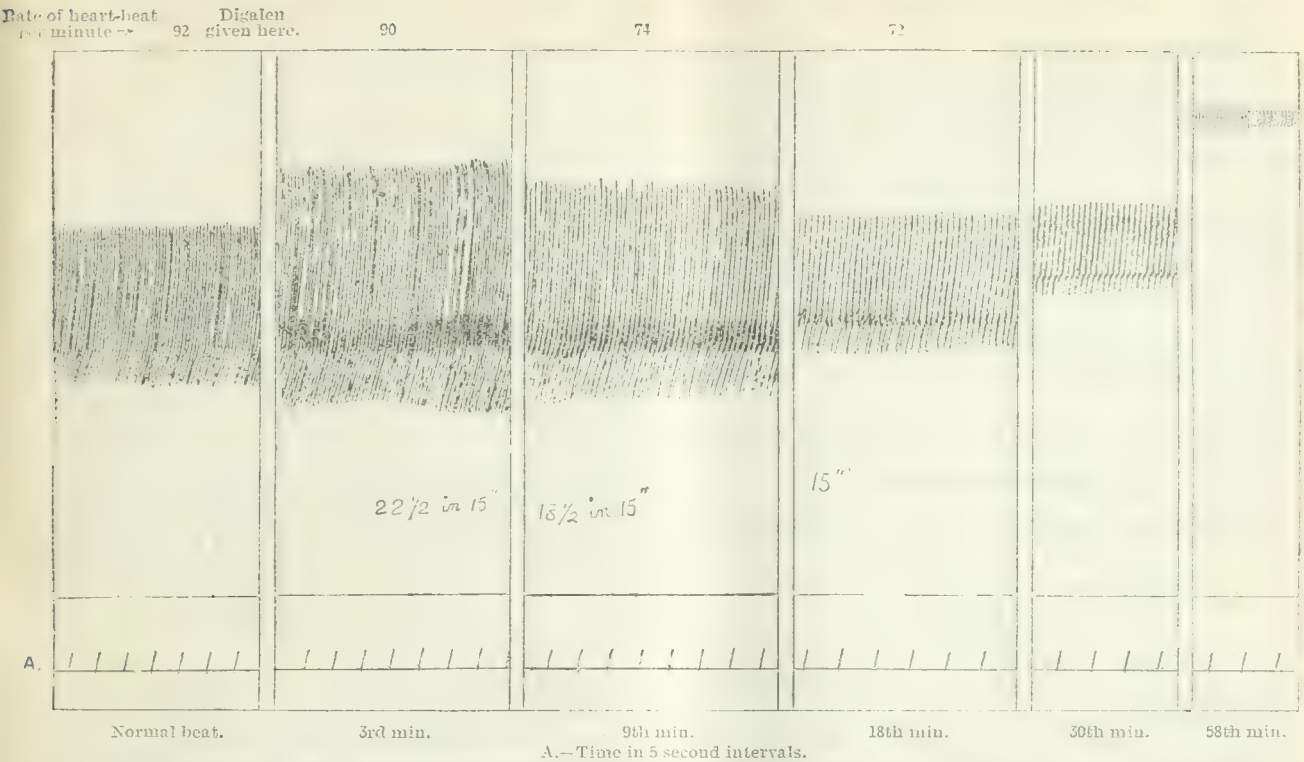


Fig. 2.—Rabbit's heart perfused with Ringer's solution. Effects of digalen at 1 in 500 (2 ampoules of 1 c.cm. in 1 litre). The increase in tonicity is well shown, as also increased force and diminished frequency at the earlier stages.

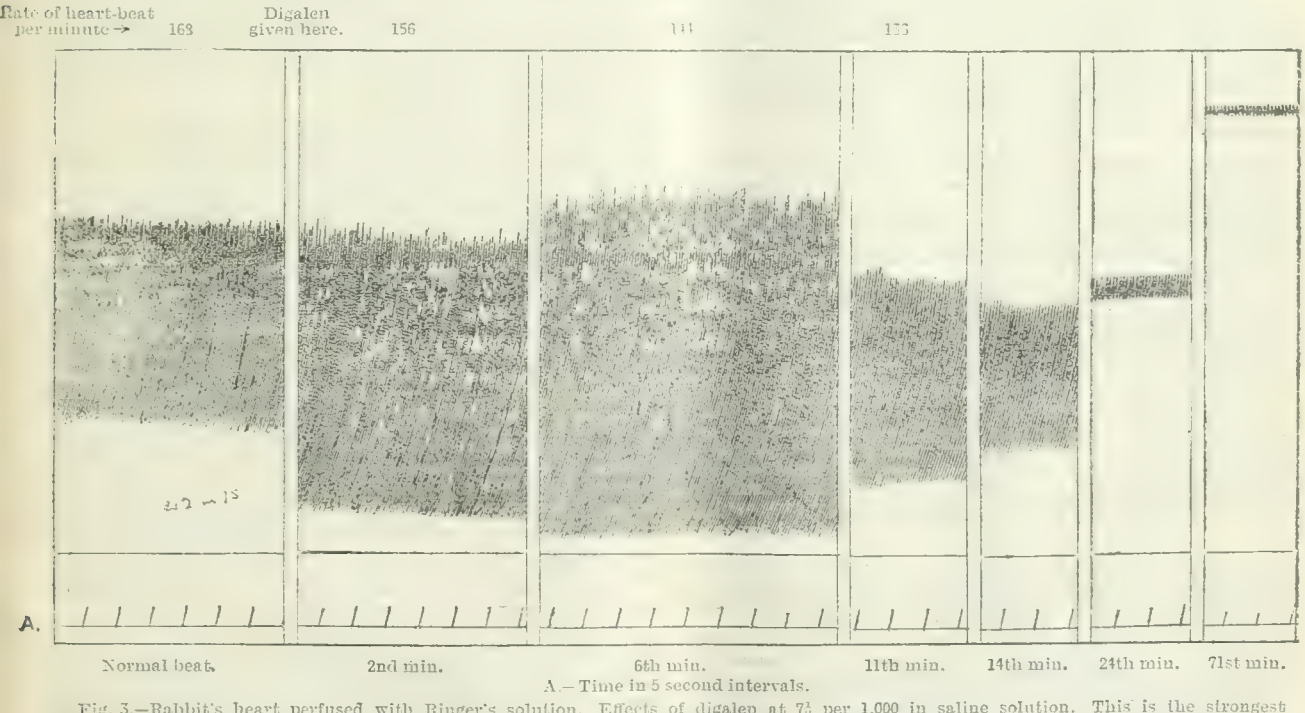


Fig. 3.—Rabbit's heart perfused with Ringer's solution. Effects of digalen at 7½ per 1,000 in saline solution. This is the strongest concentration tested on the isolated heart. Note the strong tonic effect produced as shown by elevation of lever at end above highest point of systole of normal beat.

the blood on the one hand and the cardiac tissue on the other. The ratio of cardiac tissue adsorption to blood adsorption fixes the value of the Coefficient of Distribution, and on this the effect of the drug depends. Although the Coefficient of Distribution is nearly constant, it varies somewhat at different concentrations of the drug, and if the Coefficient of Distribution decreases with increasing concentrations, this will lead to a higher factor of safety. In comparing different drugs with one another, a high Coefficient of Distribution means high toxicity, and usually a low factor of safety and a rapid cumulative action.

5. Soluble digitoxin, on account of its solubility in water, can be used for intravenous injection. This solubility prevents any pain or local inflammation, such as is occasioned by injection of alcoholic solutions, and the low toxicity as compared with that of the mixed glucosides in tincture of digitalis renders intravenous administration safe (compare Experiments IV and V with VI, VII, VIII, and IX). At the same time, a full therapeutic effect, which is very persistent, is obtained on the heart.

6. In administering soluble digitoxin (digalen) a full therapeutic effect should be aimed at, and thereafter the

drug should not be pushed farther, but just enough given to maintain the advantage by keeping pace with the elimination of the drug.

7. The heart tracings show that a pure digitalis effect is obtained on perfusing digalen, the therapeutic effect being marked, and the tonus at the end very considerable.

8. The tracings also demonstrate the much higher Coefficient of Distribution of the drug in saline solution than in the blood so resembling the chloroform action. Even at the lowest concentration tested no therapeutic equilibrium is established, but the heart goes on taking up the drug from the saline till the death point is reached. This does not occur with a much heavier dosage in the intact animal where the drug is dissolved in the blood.

9. Soluble digitoxin shows none of that haemolytic action in destroying red blood corpuscles which is possessed by those sapo-glucosides which act on the heart, as, for example, the digitonin present in ordinary tincture of digitalis.

REFERENCES.

[1] *Journal of Physiology*, vol. xxxviii: Proc. Physiol. Soc., p. x. [2] *Munch. med. Woch.*, 1904, No. 33. [3] BRITISH MEDICAL JOURNAL, July 23rd, 1904.

A CASE OF CARDIAC FAILURE TREATED BY CANE SUGAR.

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THE following notes of a case of cardiac failure treated by cane sugar show how remarkably an apparently hopeless case was benefited by its use.

The patient, a plumber, aged 28, first consulted me on December 4th, 1910, complaining of great shortness of breath and swelling of his abdomen, which had commenced in July, 1910, and gradually grew worse; he had, however, continued his occupation. He had previously always been healthy and temperate. In March he was helping to pull a heavily-laden hand-cart up a stiff hill, when he suddenly felt giddy and faint, great difficulty in getting his breath, and had to sit down for a time. After a short rest he was able to continue his work, and thought no more about this incident.

State on Examination.

The patient looked ill, dusky complexion, anxious expression, marked dyspnoea, had to gasp between his sentences whilst talking to me. *Heart:* Faint apex beat, little to left of left nipple line, diffused. No definite bruit heard at apex, but a galloping, tumbling kind of rhythm, very irregular and intermittent. *Aorta:* No bruit heard, but second sound accentuated. *Pulse* 100, feeble, small, irregular and intermittent. *Lungs* normal. Respirations 35. *Abdomen* much enlarged and definite signs of dropsy. Slight oedema of skin over lower part. Girth measurement at level of umbilicus 35½ in. *Liver* not enlarged to any extent. *Appetite* only fairly good. *Tongue* fairly clean. *Urine:* No albumen, high-coloured urates.

Diagnosis.

I considered his condition of failing heart most serious, and that the cause was probably due to damage of mitral valve at the time he was helping to pull a hand-cart the previous March. I ordered him to bed, to lie absolutely quiet, put him on light nourishing diet and tinct. digitalis ♏ v, tinct. nucis vom. ♏ v, every four hours; large doses of mag. sulph. mornings.

Progress.

December 7th, 1910. Condition much the same; head and shoulders well propped up with pillows. Taking nourishment fairly well. Passed three pints of urine in twenty-four hours. Increased tinct. digitalis to ♏ x doses every three hours.

December 12th, 1910. Feeling better, breathing more comfortably, and sleeping better. Better colour. Pulse a little steadier, 88. Heart sounds much the same. Appetite improving. Increased tinct. digitalis to ♏ xij every four hours; added liq. strychninae ♏ iij. Girth measurement of abdomen less 32 in.

December 17th, 1910. Substituted strophanthus for digitalis. Condition much the same.

December 22nd, 1910. Much the same. Returned to digitalis and strychnine. Calomel gr. v at night occasionally.

December 26th, 1910. Rather worse. Increased amount of fluid in abdomen. Pulse 88, respirations 40. Slight oedema at bases of both lungs. Passing less urine. Heart sounds much the same.

December 31st, 1910. Same galloping sounds heard at apex, with a faint systolic bruit as well. Continuing digitalis and strychnine, also mag. sulph. mornings and calomel at night. Had a consultation with Dr. Wood, who gave a very bad prognosis.

January 2nd, 1911. Discontinued digitalis for a while and gave pot. iod. instead.

January 4th, 1911. Slightly better; breathing more comfortable. Passing more urine, 2 quarts. Amount of dropsy much the same.

February 1st, 1911. Considerably worse; more fluid in abdomen; signs of fluid in left pleura; also some pleuritic frictions in left axilla causing pain. No rise of temperature. Heart sounds the same; bruit still heard at apex.

March 3rd, 1911. More comfortable, and is now lifted out on couch and wheeled out of doors when fine. Appetite better; sleeping better. Certainly improved by being in open air. Still taking cardiac drugs.

April 30th, 1911. Condition of heart much the same. More comfortable on the whole. Amount of fluid in abdomen much the same, though fluid in left pleura less marked. Taking nourishment fairly well.

May 5th, 1911. Not so well; not well enough to go out of doors last few days. Abdomen increasing in size; oedema of skin of abdomen more marked. Breathing more distressed. Respirations 40; pulse feebler, 100. Heart sounds at apex very irregular and bruit distinct. Appetite bad. Colour dusky.

May 7th, 1911. Very ill, condition appears hopeless. Taking very little nourishment and vomiting at times. Fluid in both pleurae at bases; tapped abdomen, and drew off 22 pints.

May 8th, 1911. Much relieved by tapping, better colour, and able to take more nourishment. Pulse 80. Respirations 30. Heart sounds much the same.

May 10th, 1911. Able to be wheeled out of doors again, and seems to be improving slightly. Still taking digitalis, which seems to do more good than any other drugs.

June 2nd, 1911. Breathing becoming difficult again, unable to lie down, not well enough to go out of doors for some days. Fluid reaccumulating in abdomen. Pulse 94, weaker. Heart's action weaker, sounds of same character.

June 11th, 1911. Much worse. Abdomen filled up again. Breathing very bad. Pulse very feeble, 100. Oedema of bases of both lungs, and fluid in left pleura. Abdomen tapped, and 16 pints drawn off.

June 12th, 1911. More comfortable since fluid of abdomen removed. Condition of heart much the same. Commenced sugar treatment. Taking 5 oz. Glebe's granulated cane sugar a day. Continuing small doses of digitalis as well.

June 16th, 1911. Discontinued all medicines with the exception of occasional doses of mag. sulph. and calomel. Persevering with the sugar, taking the full 5 oz. most days. Occasional feeling of nausea. Able to be wheeled out in bath chair.

June 20th, 1911. Says he feels decidedly better, much more comfortable, and able to lie down at night now. Better colour. Breathing much better. Pulse a little stronger, but still very irregular and intermittent. Heart sounds much the same. Some fluid in abdomen, but no marked increase. Fluid left side of chest less. Oedema at bases of lungs less. Taking the 5 oz. of sugar regularly. Appetite good.

July 2nd, 1911. Decided improvement in general condition, able to go out in bath chair and remain out all day. Much better colour. Appetite good. Taking the full 5 oz. of sugar without any inconvenience. No increase of fluid in abdomen. No signs of fluid in left pleura. Diminished breath sounds at left base behind, due to thickened pleura. No oedema of lungs.

August 30th, 1911. Still improving, out every day in bath chair, and able to sit upright in chair. Taking the 5 oz. of sugar regularly. Appetite good. Sleeps well. Seems much better in every way. Scarcely any fluid can be detected in abdomen and none in chest. Heart sounds more regular. Pulse stronger. Passing normal quantity of urine.

September 12th, 1911. Wonderfully better; still out of doors every day in chair. Says he would like to walk, but I advised him not. No appreciable quantity of fluid in abdomen. No oedema of skin. Good colour. Heart sounds less irregular. Bruit not always heard. Pulse stronger.

He continued to improve up to October 9th, 1911, when he had a severe shock on being told that a friend and neighbour of his had been run over by a train and had lost a leg. He experienced difficulty in breathing again, not eating or sleeping well. Pulse weaker. I ordered him to bed for about a week, and gave him digitalis for a few days. He soon improved with the rest, and was able to go out in his bath chair again on October 16th.

October 20th, 1911. Condition much improved, and is now as well as he was before October 9th.

November 29th, 1911. Has been going out every day in chair, in which he sits up quite comfortably. Says he feels quite well. Appetite good, sleeps well, able always to lie down at night; passing good quantity of urine; no shortness of breath. Has not walked yet, but is very anxious to; is able to stand by himself. Still taking the 5 oz. of sugar. Heart: Apex beat in normal position; no bruit heard; still the continuing irregular rhythm at apex; heart's action considerably stronger. Pulse 80, small, irregular, and intermittent, but much stronger. Lungs normal, with exception of diminished breath sounds at left base. No oedema or fluid in abdomen.

REMARKS.

This is evidently a case of failing heart which dates from March 1910, and due to his damaging his mitral valve by overexertion.

From the time he first came under my care he was treated with all the various cardiac drugs, in variable doses, with absolute rest and suitable diet. He at times showed signs of improvement, but it was never lasting, and

he went from bad to worse. I had to tap him on May 7th, 1911, drawing off twenty-two pints from his abdomen. This, one thought, was the beginning of the end. He in a few weeks again had to be tapped; this time sixteen pints were removed.

Since June 12th, 1911, he has taken 5 oz. of sugar a day, hardly missing a single day and almost always taking the full quantity. Only twice since he commenced the sugar has he taken any cardiac drugs, and then only for a few days. Further, he has never again required tapping.

I attribute his remarkably improved condition (this condition at one time appeared absolutely hopeless) solely to the cane sugar. His urine was examined on various occasions and only contained an excess of urates. Whether in time he will sufficiently improve to allow of light work remains to be seen, but I certainly think it well worth while continuing the sugar treatment. Dr. Wood, who saw the patient twice with me before I commenced the sugar treatment, agreed with me that there was little to be done, as it seemed quite a hopeless case. I may add that the patient experienced no inconvenience in taking such a large quantity of sugar, except at the very first, when he occasionally had a feeling of nausea. Before commencing the sugar he had to be almost constantly taking aperients, now he hardly ever takes any.

I am indebted to Dr. Goulston, of Exeter, for the idea of the cane sugar treatment.

A CASE OF OBSCURE FEVER WITH PRONOUNCED NERVOUS SYMPTOMS,

APPARENTLY DUE TO INFECTION BY A LEPTOTHRIX BACILLUS.

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THIS was a case of continued fever of obscure origin, running a course of a little over three weeks, with marked symptoms of disturbance of the nervous and also of the urinary systems. It appears to have been due to a leptothrix bacillus not previously described as a pathogenic organism except in a case recorded by Professor J. Ritchie and Dr. Stuart McDonald,[1] and in five other cases met with by the latter during an epidemic of cerebro-spinal meningitis. These cases were all fatal.

The leptothrix described by Professor Ritchie and Dr. Stuart McDonald occurred in a case of pyaemia and meningitis, and had the same characteristics, except as regards motility. The patient was a child, aged 1½ years. The symptoms were:

1. Diffuse inflammation of the left leg, with a small abscess outside the knee-joint.

2. An abscess in each elbow-joint and suppuration in the right middle ear.

3. Signs of meningitis and hypostatic pneumonia; death.

A leptothrix was recovered from the blood, cerebro-spinal fluid, and from the suppurating joints: its characters and cultural characteristics will be given below. In this case there was also a terminal pneumococcal infection. *Post mortem* there was a purulent subdural meningitis over the left cerebral hemisphere, pia-arachnoiditis in patches over the brain, and spinal meningitis. They found the organism to be pathogenic to monkeys and mice, very slightly to guinea-pigs, and not at all to rabbits. By intra-spinal injection in monkeys it produced acute meningitis. It appeared to break down the resistance of the body to other pathogenic organisms.

Dr. Stuart McDonald[2] had previously described 5 cases of meningitis during prevalence of epidemic cerebro-spinal meningitis, in which micro-organisms with the same microscopic characters as this leptothrix bacillus were found in the cerebro-spinal fluid. In none of these cases was the typical meningococcus isolated. In two cases there was a mixed infection with the *Diplococcus crassus*. In one case in which there was a *post-mortem* examination—the patient dying after eight days' illness with typical clinical symptoms of cerebro-spinal meningitis—a fibrino-purulent lepto-meningitis was found on the sides and vertex of the brain. In this case there was a growth on blood-agar after three days like a pneumococcus, with next day a leptothrix formation.

Our patient, Rowland W., aged 23, was a shop assistant. When very young he had a severe attack of chorea, and early in 1911 he had rheumatism, which laid him up for three weeks. These were the only previous illnesses, and he had never had gonorrhoea or any previous difficulty in micturition.

Five weeks previous to admission he was given double work to do, owing to the illness of his manager, and this work involved the keeping of accounts, with which he was unfamiliar. He began to suffer from severe headaches, chiefly frontal, and felt weak and overdone. There was no complaint of sore throat. The headache grew much worse on September 11th, and he gave up work on September 15th. He saw Dr. Stevens on September 19th, who found he had fever, and sent him to bed. The fever continued, with headache, dullness and drowsiness, and slight abdominal swelling. There was no delirium, no diarrhoea, no cough, no pains in or swelling of the joints, and no abdominal pain except a little over the pubes; he had some difficulty in passing water; there was no discharge from the urethra and no history of gonorrhoea.

He was admitted on October 3rd. He had a heavy expression, was dull and listless, and complained of headache; his aspect strongly suggested enteric fever. He was quite clear in all statements, but had little memory of his illness.

Condition on Admission.

Cheeks flushed; pulse regular, not dicrotic, varying in rate from 96 to 110 per minute; respirations 28 to 30; bowels constipated; appetite fair; tongue dry, furred in centre. On examination, chest well formed, lungs normal.

Heart.—Apex beat and area of dullness normal: the sounds showed evidence of affection of heart muscle (toxaemia), in that there was a triple sound at the apex, and the pulmonary second was accentuated.

Abdomen.—Not distended, resonant everywhere; no abdominal pain or tenderness; no ascites. The lower edge of the liver was felt just below the ribs; it was not tender. The splenic dullness was increased, beginning above at the seventh rib, and extending forwards to the anterior margin of the ribs, its tip being just felt. There were three or four doubtful pink spots on the abdomen.

The *urine* contained a trace of albumen, a few pus cells, and a deposit of urates. It had a very peculiar mouselike odour.

Nervous System.—Pupils small, equal, acted well to light and accommodation. Optic discs normal. Knee-jerks exaggerated; superficial reflexes all normal. There was a marked fine muscular tremor with slight twitchings of the muscles. Widal's test, taken once before and once after admission, was negative. During the next few days he lay in a very drowsy state with low muttering delirium, especially at night. Slight retraction of head and stiffness of limbs. He answered questions slowly and complained chiefly of headache and of pains over the bladder. He had great difficulty in micturition. The urine contained a trace of albumen and was somewhat turbid. On October 6th Widal's test was again negative.

Within a few days after his admission to hospital cultures were made from the blood on two occasions from three different veins. Each sample yielded a pure growth of the leptothrix. The same organism had been first recovered in pure culture from the cerebro-spinal fluid. The latter was clear and contained a very large number of lymphocytes; few polymorphs; a differential count gave small lymphocytes 60 per cent., large lymphocytes 33 per cent., polymorphonuclears and endothelial cells 7 per cent.

A specimen of urine removed by catheter with antiseptic precautions gave a similar growth to that found in the blood and cerebro-spinal fluid.

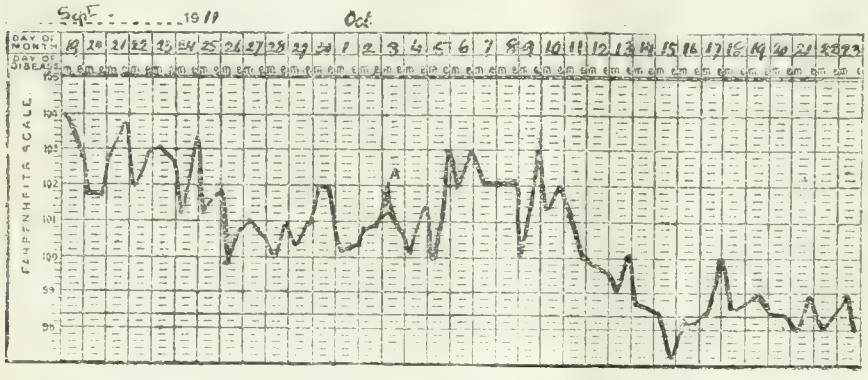
From October 8th to 14th the patient was at his worst: he lay in a drowsy, stuporous condition, with low muttering delirium, with an occasional loud cry, like a patient with meningitis. During the nights the delirium became more violent, and he shouted out and tried to get out of bed. At this time he could not be sufficiently roused to answer questions, and appeared to be somewhat deaf; he lay down in the bed on his back; restlessness was not a marked feature of the illness. The tremor increased, and there was marked subsultus tendinum. At the same time there was some retraction of the

head and neck, slight rigidity of the limbs, no optic neuritis, and no alteration in reflexes except for exaggeration of the knee-jerks and deep reflexes generally. At times he perspired profusely. The urine had to be withdrawn by catheter at first, then for three to four days—October 10th to 14th—there was incontinence of both urine and faeces. There was no diarrhoea, and the stools were pale in colour. The tongue remained very dry, with a brown fur over the dorsum. There was no abdominal distension, and no further enlargement of the spleen or liver. The pulse varied from 100 to 112; it was soft, regular, and dicrotic. A blood examination on October 11th gave red cells 6,420,000, haemoglobin 128 per cent., index about 1, leucocytes 8,000.

Differential count of leucocytes:

Polymorphonuclears	... ...	47 per cent.
Small lymphocytes...	... ...	29 ,,
Large lymphocytes...	... ...	16 ,,
Transitionals ...	... ...	7 ,,
Eosinophiles ...	... ...	0
Myelocytes...	... ...	1 ,,

There was a fairly rapid fall of temperature on October 12th and 13th, which, except for a small subsequent rise on the 17th, then remained at or about normal (see Chart). The general



A, admitted to hospital.

symptoms showed a remarkably rapid improvement: he became brighter, the delirium and tremor ceased, and he gradually gained strength. He recovered control over the rectal sphincter almost at once, but not over the bladder for some days longer—the use of the catheter not being required after the 19th. His recovery occurred before the vaccine which was being prepared was available.

On October 21st he was quite convalescent, and left the hospital on November 2nd, somewhat weak, but otherwise quite well. The urine was then of normal specific gravity, clear, with no deposit, and free from albumen.

There was no haemorrhage, no petechial rash, and no herpes throughout.

The cultural characteristics of this leptothrix bacillus are as follows: Recovered from the blood on two occasions, and from three different veins, from the cerebro-spinal fluid, and from the urine. Each sample yielded a pure growth of the leptothrix. Growth was slow, and only occurred on the surface of the agar and not at all in broth primarily. The first visible colony appeared on the third day of incubation; smears made prior to this contained the leptothrix. The colonies appeared as moist, flat, dull, discrete growths with defined, even edges and no wrinkling on the surface. They were transparent, with a milky haze in their substance; they did not cling to the surface of the media, nor were they tough to the touch. In smears the appearance was that of a long, non-septate, non-branching filament; no bacillary forms occurred. They did not stain by Gram's method; no motility observed, except that a wave-like motion often traversed the length of the filament. Growth in gelatine occurred without liquefaction, and the colonies were similar to those on agar. No growth in anaërobic culture. Acid was produced in litmus milk and in litmus glucose, levulose, galactose, maltose, glycerine, and mannite broths. Lactose, saccharose, dextrine, dulcit, and sorbit litmus broths remained unchanged, no acid being found. Indol was not formed, and neutral red broth was not changed. There was no gas formation in any medium.

There is a striking resemblance to the *Bacillus typhosus* in the ferment reactions and indol test. It did not agglutinate with serum from a case of enteric fever. Agglutination occurred in contact with the patient's own serum up to a dilution of 1 in 350.

Subcultures were difficult to carry on, probably through a sensitiveness to drying. The strain was lost at both the subcultures. Lastly, the patient's serum did not agglutinate *B. typhosus*, *B. paratyphosus*, or the dysentery group of bacilli (Shiga and Flexner) 1 and 2.

Briefly stated, the characteristics given by Ritchie and McDonald[1] of the leptothrix in their case are that the bacillus was Gram-negative, motile, grew on all media, in some cases in long forms, did not liquefy gelatine, gave slight acid in milk and glucose, not in lactose, with no gas formation in any medium; agglutination observations were incomplete. Except with regard to motility, the characteristics of the organism in each case therefore correspond. The close correspondence in the reactions of this leptothrix to the *Bacillus typhosus* is interesting in view of the possibility of a mouth leptothrix being in some way the precursor of the latter organism.

With regard to the mode of invasion of the body, McDonald points out that such leptothrix forms are most usually found in infections about the mouth, pharynx, or lungs. One of us (Scott-Williamson), in attempting to make aërobic from anaërobic subcultures of *Bacillus fusiformis* in cases of Vincent's angina, has on three occasions found a leptothrix bacillus, which in subculture had all the appearances of the leptothrix above described, and was in all probability the same organism. He also found it in association with *Diplococcus crassus*. As McDonald has suggested in his cases, it seems probable that in our case the infection of the blood took place through the bucco-pharyngeal mucous membrane.[2] As in two of his cases of epidemic cerebro-spinal meningitis, this leptothrix was associated with *D. crassus*, the presence of the two organisms together in the buccal cavity supports this route of infection.

Clinically the symptoms during the greater part of the illness bore a marked resemblance to an irregular case of enteric fever; to that group of cases of this disease in which the nervous manifestations predominate. The very slight signs of abdominal disturbance, the absence of spots, and of Widal's reaction, etc., of course practically negatived enteric fever; but, in spite of all this, it was at one time strongly suggested.

The blood count is, perhaps, worthy of special note: there was no leucopoenia, the leucocytes being 8,000, but there was a relative increase of lymphocytes, the numbers per cubic centimetre being: Polymorphs 3,760, small lymphocytes 2,320, large lymphocytes 1,280, transitionals 560, myelocytes 80. Eosinophiles were absent in the count. This increase of lymphocytes in the blood may be connoted with that in the cerebro-spinal fluid.

Lastly, the case is another example of the value of lumbar puncture in a case of febrile illness with marked nervous phenomena. The discovery of the bacillus in the cerebro-spinal fluid led in this instance directly to the elucidation of the cause of what was at the time a very obscure illness, and at that period so severe that it seemed likely to prove fatal. As another instance in which a lumbar puncture was of similar value may be mentioned the case of a youth aged 20 with continued fever and symptoms suggesting diffuse meningitis. Lumbar puncture was done and a paratyphoid bacillus removed from the cerebro-spinal fluid.

REFERENCES.

[1] Case of Pyaemia and Meningitis associated with a Pathogenic Leptothrix Bacillus, *Journal of Path. and Bact.*, vol. xiii. 1909, p. 119. [2] Observations on Epidemic Cerebro-spinal Meningitis, *Journal of Path. and Bact.*, vol. xii. 1908, p. 447. [3] Loc. cit.

THE foundation stone of a new building which is to take the place of the temporary quarters hitherto used for the Children's Sanatorium at Holt, Norfolk, was laid on December 19th. All building expenditure has been met by Mr. Otto Beit, but the maintenance fund will have to be increased as the new building provides more accommodation than formerly. Donations may be sent to the Honorary Secretary of the Children's Sanatorium, Mr. T. H. Wyatt, M.V.O., 63, Denison House, Vauxhall Bridge Road, S.W.

THE USE OF COLOUR TESTS IN MEDICAL AND SURGICAL PRACTICE.*

BY

W. M. BEAUMONT,

BATH.

MODERN methods of colour vision testing are due to the work of Edridge-Green, and the present-day use of his lantern increases *pari passu* with the disuse of Holmgren's wools.

Some interest in the subject of colour tests was aroused by the reading of three papers at the annual meeting of the British Medical Association, held at Bournemouth in 1891. At that time on most of the railways and in the shipping service the testing was done by lay officials and seldom by surgeons; the colour test was often merely a variegated sheet of paper, while the standard of form vision could be passed with sight that was only one-quarter of the normal. In the mercantile marine the exposure of the methods adopted and the standard required came as a surprise, I think, to most surgeons, and steps were at once taken by the British Medical Association to investigate the matter. A committee of ophthalmic surgeons was formed to make inquiries as to the regulations adopted in the United Kingdom, in Europe, and in the United States. The report of this committee fully confirmed the authors of the papers.

An attempt was then made to reform the methods of examination, more especially with regard to the railway companies. The success, however, was limited. The stumbling-block apparently was the fear that the transference of the testing from lay officials to qualified surgeons would involve expense. Only those who have had experience know how difficult it is to fight so huge a monopoly as the railway interest is. The *Times* and most of the great London papers backed up the movement. The Government was appealed to, but there the railway and mercantile marine influence was overwhelming. Mr. Bryce, then President of the Board of Trade, and now our Ambassador to the United States, was interviewed, but his reply was that the Government could not undertake to lay down rules, because if they did they would relieve the railways of responsibility. For instance, in case of an accident due to an error of sight on the part of a railway servant, if it were found that the regulations laid down by the Board of Trade had been followed, it would be difficult to prove that the company was answerable for the disaster. During the last twenty years it has to some extent been recognized, however, that "clerks and inspectors are not sufficiently acquainted with the science of optics and the intricacies of colour blindness to utilize the one in the detection of the other."

To those who are surgeons to railways and to marine companies the subject of colour tests is most important. For many years and down to quite recent times Holmgren's wool test was the best that was available, but in important cases it is now no longer relied upon by ophthalmic surgeons. Some form of lantern has superseded Holmgren's method almost universally, and as it is simple to use and more in accordance with the daily work of signalmen, whether on land or sea, it is absolutely essential that all who have colour testing to do should obtain a lantern—for choice, of the Edridge-Green pattern.

I would like to pay a tribute to Dr. Edridge-Green, the inventor of this apparatus. For years he battled with dogged perseverance against highly placed official opposition, and as his views to some extent were heterodox, and contravened the teaching of Helmholtz and Holmgren, his fight was a long and arduous one. Now his lantern and his method of testing colour perception are practically adopted by the Admiralty and all the higher branches of the public services in this country, and still more universally by ophthalmic surgeons.

The advantages of the lantern over the wool test are manifold. First, it is simpler to apply. The colours do not fade or get soiled by time and use. Many half-educated candidates fail to grasp the meaning of the term "shades" as applied to the lighter and darker colour-tints. It is easier to convince the friends that the rejection of a candidate is justified—a very important fact in the case of boys who are applying for admission to Osborne in order to become officers in the Royal Navy. Still more important is the fact that some colour-blind people can pass the wool test. The lantern is a method of testing which resembles the actual signals in use by land and sea, and the obscurity produced by distance, fog, mist, or rain can be closely imitated.

Without going into details I will explain how the various colours are used. The two signal colours are, of course, red and green. The lantern can be arranged to show the red as seen on a foggy day; some colour-blind men, whilst recognizing the red as red under ordinary circumstances, will call it green when it is modified by fog. By varying the size of the diaphragm aperture we can represent the bull's-eye signal lantern as seen at 600, 800, or 1,000 yards.

Since the last railway strike the men have been agitating for an alteration in the method of vision testing, demanding that they shall be taken on the line and shown the lamps. This would be satisfactory if the signals were always seen under identical circumstances. But as the recognition of them is influenced by climatic variations, it is impracticable to carry it out. A man would have to be tested not only on clear and dark nights, but also on rainy, foggy, and misty days. With a clear atmosphere he may recognize the colour easily, but if he has shortening of the red end of his spectrum he may miscall it. I saw a boy a few weeks ago who had been tested by Holmgren's wools and passed by a surgeon as free from colour-blindness, and yet when he was examined at the Admiralty he was rejected. The friends refused to believe that he was colour-blind, and they were much astonished when I was able to demonstrate to them that, though his perception was accurate enough under a good illumination, yet when the light was reduced he called red green.

For surgeons connected with the railway companies and with the marine the lantern is quite indispensable, but there is a yet more important use for it, and that is for all practitioners who see cases of brain disease. The arsenal of no general hospital is quite complete that has not a colour-perception lantern. Take for instance a case of cerebral tumour in which the perimeter often shows, as was first pointed out by Bordley and Cushing, a contraction of the field for blue, so that it is no more extensive than that for red, and the boundaries of the two interlace. Normally, of course, the blue is considerably larger than the red. In these cases I find there is sometimes abnormality in the colour sense when tested by the lantern through a small aperture, although Holmgren's wools show no abnormality. Whilst much attention has been directed to the colour fields in disease of the brain, very little has been given to colour perception and discrimination in these cases. The thorough way in which physicians examine cases of brain disease for contractions of the fields of vision, for hemianopsia, and for scotomata, should, I think, be supplemented by colour perception tests by means of the lantern. In doing so it must not be forgotten that about 5 per cent. of men are congenitally colour-blind when tested by wools, and a higher percentage by the lantern. In ophthalmic practice the number of cases of intracranial tumour that one sees is limited, but in several that have recently come under my notice there has been a failure to recognize the violet end of the spectrum, more especially when the examination has been made with a small aperture so that the retinal image was minute. Loss of violet vision does not necessarily indicate the presence of a gross local lesion, such as a growth or a haemorrhage; it may merely signify a general deterioration of the brain, with a consequent loss of a highly specialized and recently developed function.

It is well recognized that colour differentiation is much more acute than it was in the classical days of Greece and Rome. The Greek words for colours in many cases had a primary meaning that had nothing whatever to do with colour, and as a portion of the brain became adapted for the reception and interpretation of colour perception, so words already in existence were appropriated for their description. Naturally there was at first much confusion with regard to the differentiation and nomenclature of colours. The Greek word *glaucos* originally meant glancing or gleaming, and had no reference to colour (Liddell and Scott). Homer applies it in this sense to the sea, but later it meant pale blue or grey. The Romans used the word not only to describe the colour of the olive, the willow, and the vine (that is, what we should call green), but also they

*A paper read before the Bath and Bristol Branch of the British Medical Association.

applied it to precious stones (such as the topaz) when we should say blue. The eyes of Athena are described by *glaucos*, not because they were blue, but because they were gleaming or fierce. With regard to purple, the Latin word *purpureus* meant various shades of red, and the corresponding word in Greece was probably first applied to the troubled sea and meant dark; it was only later that it was applied more definitely to colour.

The Greeks recognized three colours only in the human iris—first, *glaucos*, the lightest tint; second, *xanthos*, the intermediate shade, (but previously meaning bright-eyed and having no reference to colour); and third, *melas*, the darkest shade.

A very early reference to colour occurs with regard to Joseph's coat, which we are told was of many colours, but unfortunately they are not enumerated.

The rainbow, to which we have equally early reference, does not appear to have fascinated the ancients because it was polychromatic. In the Bible and in Homer it was considered to be merely a sign to man, and the word *iris* was used for any bright coloured circle surrounding another body. In this sense it was applied to the eye, which of course is usually monochromatic. It is a significant fact that form vision in the days when Pompeii was a living city was so advanced that the statuary of Phidias and Polycletus is of unsurpassable perfection: nevertheless the colour sense, after making allowance for the effects of time, is crude, and the tones are monotonous, red and yellow predominating. The mural paintings and frescoes at Pompeii are artistically inferior to the bronzes.

As time wore on presumably the function of the temporo-occipital lobe became more and more detailed, and in Saxon and early English days colour sense was well advanced, as we see in the illuminated missals of those times.

The Moors early developed a refinement of colour recognition, and there is no doubt that the Crusades stimulated the appreciation of tints and shades which prepared the way for the wave of Byzantine gorgeousness which swept over Southern Europe. When the Renaissance set in it is probable, judging from the works of da Vinci and Raphael, that colour perception was almost as matured as it is to-day, and that it was also a most important factor in the extraordinary development and progress of art, in all its branches, which distinguishes the sixteenth century.

The diagram shows the higher visual cortex on the lateral aspect of the right cerebral hemisphere. The upper part of the dotted area (A) is devoted to the recognition of words, letters, etc.: the middle (B) to persons and places; and the lowest (C), the temporo-occipital or fusiform lobe, to the recognition of colours. The posterior part is concerned with form vision (D) and ocular movements.



The isolated position of the fusiform lobe renders it probable that when a lesion is a primary one in that part of the occipital lobe, the earliest symptoms would be confined to loss of colour sense. On the other hand, a lesion spreading from other parts of the visual area would probably render the patient blind before a diagnosis of loss of colour recognition could be made.

A lesion confined to both fusiform lobes would probably not interfere materially with form vision, the centre for which is further back (D), except that the negation of colour would tend to blend all objects in one harmonious neutral tint. Such was the vision of our ancestors some few thousand years ago. In the present day, however, a congenital case of total colour-blindness is rare, and still fewer acquired cases have been published. A one-sided lesion in the colour centre is occasionally met with, and probably they are more common than is acknowledged. A patient so affected, in walking along a country lane, would have a green hedge on one side and a grey one on the other.

It is well recognized that there are symptoms which point to intracranial pressure which precede papilloedema and amongst these are, I believe, changes in the recognition of colour. The importance of these pre-papilloedematous symptoms lies in the fact that the tendency of present-day surgery is in the direction of early decompression operations.*

Although acquired colour-blindness has not been investigated very extensively, the more general use of the lantern by physicians will, I believe, lead to an extended recognition of its prevalence in cases in which the temporo occipital lobe is involved.

The investigation of a patient's capacity to discriminate between colours is no longer a matter of academic interest alone; it is no longer associated in practice only with the examination of railway men and sailors; but it is becoming an additional aid in the diagnosis of localization. The area of usefulness of colour tests has become increased, and it is worthy of the attention of the physician and of the surgeon. As the sense of touch is investigated for the recognition of heat and cold, and also for the presence or absence of stereognosis; as taste is examined with regard to sweets and bitters, for salts and acids; so too should vision be analysed, not only with regard to form and fields, but also as to the discrimination of colours.

A NOTE ON THE RELATION OF CORNEAL AND ABSOLUTE ASTIGMATISM.

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ASSISTANT SURGEON, OPHTHALMIC INSTITUTION, GLASGOW ROYAL INFIRMARY, ETC.

THE object of this communication is to ascertain the relation of corneal astigmatism, as recorded by the astigmometer, to absolute astigmatism, as worked out by retinoscopy, the retinoscopy being done either under atropine, or, in the case of older patients, under homatropine and cocaine. All the observations have been made by myself, the instrument used being Javal and Schiötz's astigmometer (the same instrument being always used), and the retinoscopy having been worked out always with a plane mirror, the shadows being reversed in every case.

The 500 cases have not been selected in any way, but have been taken consecutively from my private journals: in this way the possibility of individual difference has been excluded. The corneal astigmatism and the absolute astigmatism were worked out quite independently of each other; in many cases the corneal astigmatism was observed one day and the absolute astigmatism worked out on the return of the patient a few days later, in this way excluding the possibility of any tendency one might naturally have to make one observation confirm the other. The cases have been limited to 500, a number sufficiently large, at any rate, to warrant some generalization from, and a convenient figure. The notes kept of the different cases were in the ordinary course of practice, without any intention of using them in this way.

These 500 cases give 1,000 eyes, and the observations have been made with the following results:

Out of the 1,000 eyes examined the absolute astigmatism and the corneal astigmatism are the same in 475 cases—that is, 47.5 per cent.; 230 were hypermetropic, 353 showed compound hypermetropic astigmatism, 89 were myopic, 190 showed compound myopic astigmatism, and 138 mixed astigmatism. The divisions into the different classes of hypermetropia, hypermetropic astigmatism, myopia, myopic astigmatism and mixed astigmatism, were made by the actual figures found by retinoscopy.

In each case the lens which first turned the shadows was the one noted, so that it might be said in every case there was an over-correction. In the ordinary course many of those eyes were practically emmetropic, or at least emmetropic in one meridian.

*Research is needed with regard to the quantitative estimation of colour perception. Cohn, as long ago as 1879, pointed out that a spot of red 1 mm. square could be seen at 14 metres, whereas a similar sized violet one could only be named at 2 metres. (BRITISH MEDICAL JOURNAL, 1892, ii, page 626.)

It is only fair to bear in mind that many cases were fitted with glasses without having recourse to retinoscopy, but in this note the results are built up from cases in which it was thought advisable to dilate the pupils.

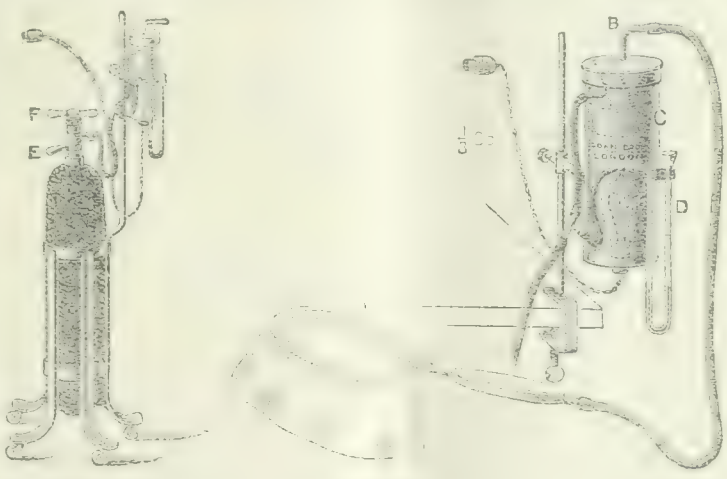
THE ADMINISTRATION OF OXYGEN.

BY

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OXYGEN is usually given in a thin stream through a nozzle or small funnel held more or less near the mouth or nose of the patient. I have seen a nurse hold it 6 in. away. This method is more than inefficient; it is absurd. The oxygen diffuses into the atmosphere, and the patient inspires air enriched very slightly with oxygen. Analyses of the pulmonary alveolar air obtained from subjects to whom oxygen was administered in this way showed an increase of only 1 to 2 per cent. If a most wasteful current was used and the funnel held close to the mouth, the increase was at most 10 per cent. Patients who are ill and fretful, say with pneumonia, cannot bear a tight-fitting mask. Thus oxygen cannot be administered in the most economical way by means of an anaesthetic mask fitted with breathing bag and caustic soda to absorb the exhaled CO_2. If such a method could be borne, a 20 ft. cylinder would give a supply for continuous breathing of oxygen, which would last all day, for a patient in bed uses only about 250 c.cm. per minute, and there are about 56 litres in the cylinder.



Oxygen mask and heating box (Down Brothers). A, The mask, which can be used with or without the heating box. C, The cup in which alcohol and water are placed above the electric lamp. The ingoing current of oxygen blows over the cup. D, The manometer, the use of which I have discarded.

Ludicrously inefficient as the nozzle and funnel methods are, I have known of a practitioner going a step further in absurdity, in allowing the oxygen to escape in the patient's room! A man might as well hope to affect the composition of the sea by emptying his bladder into it.

It has been ascertained that in places situated at high altitudes, such as Mexico City, it gives the patient who has pneumonia much the better chance if he is rushed down to the plains. This shows the importance of the partial pressure of oxygen in maintaining the strength of the heart, etc., while the invading microbe is defeated by the rise in the immunizing powers of the blood. It therefore seems well worth while to try the effect of a still higher partial pressure of oxygen on patients situated at sea level.

It has been ascertained by Lorrain Smith, and by J. J. R. Macleod and myself that high pressures of oxygen produce inflammation of the lung. This is only brought out in mice by a very prolonged exposure (two or three days) to a partial pressure of 70 to 80 per cent. of an atmosphere—that is, four times as much oxygen as normal. The miners who practise wearing the Fleuss rescue apparatus for use in mines at the Howe Bridge and other rescue stations now set up in the colliery districts breathe 80 to 90 per cent. of oxygen for two hours or more, and never suffer in the least.

There is abundant evidence that the breathing of this partial pressure of oxygen has no ill effect. Bornstein has even breathed oxygen at two atmospheres pressure for half an hour without harm. Undue alarm as to the poisonous effect of oxygen has been felt by the medical profession. Oxygen does not influence the metabolism of the resting man at all. The common idea that the processes of combustion in the body are accelerated by breathing oxygen is erroneous. A man doing very hard work is benefited by breathing oxygen because he does not then suffer from a shortage of oxygen, and so works more easily. Shortage of oxygen leads to the production of lactic acid, and this adding its effect to that of the carbonic acid in the blood increases the dyspnoea. The same must hold good with men ill of pneumonia. The problem is to contrive a mask which will allow a patient with pneumonia to receive an efficient supply of oxygen and yet will not render him uncomfortable or fretful. Messrs. Down have made for me a celluloid face-piece, to which a curtain of washable material is attached. The handle of the mask is also the inlet tube for the oxygen. The current of oxygen flows over the mouth and nose of the patient. The current is turned on until an agreeable cooling effect is obtained, and no sense of closeness is felt when the mask is applied to the operator's face. The operator, by applying the mask to his own face, will soon get to know the right degree of hissing noise in the tube. The patient inspires the atmosphere confined under the mask, and as a current is used sufficient to blow away the CO_2, a very high percentage of oxygen is obtained in the alveolar air—for example, over 70 per cent.

Messrs. Down have also contrived for me a heating box which can be used with the mask for evaporating alcohol and adding vapour of alcohol to the oxygen. An incandescent electric lamp is placed at the bottom of the box; one of the lamps in the ward or room can be inserted into the socket at the bottom of the box, and the wires from this attached by a plug to the socket from which the lamp was taken. A pot containing whisky or brandy, 2 parts, and water, 1 part, is placed in the box above the lamp. The current of oxygen is led through this box. There is no need to use a heating box or to wet the oxygen, unless alcohol or some other vapour is required to be given. Using the mask alone, I find patients like the cool stream to play upon their face. The stream has to be made forcible enough to have a cooling effect, otherwise the patients push away the mask.

In the figure a water manometer is shown attached to the heating box. I devised this as an index for measuring the supply of oxygen, but experience has shown me that it is troublesome in use; the uninitiated cannot control the tap properly and blow out the water from the manometer. A gauge is not needed. It suffices to turn on the current until a distinct pleasant cooling effect is produced on the face, and learn to use the hissing noise of the current as an index. This method of giving oxygen is thoroughly efficient, and has produced most striking results in two cases of pneumonia on which I have tried it. The irregular pulse with its extra-systoles becomes regular, stronger, and less rapid, the ashen colour of the lips becomes red, and the patient recovers consciousness. In the case of an old retainer in my household dying of pneumonia, the administration of oxygen time after time restored her to consciousness. Aroused from that sleep which ends in death, she said, "Why, you have woken me up," and answered questions, only to relapse again soon after the oxygen was withdrawn. The return to consciousness makes the patient sensible of his illness, it improves his condition but he feels his distress, and therefore may ask for the oxygen to be discontinued.

In the struggle with the invading micro-organism oxygen helps to maintain the strength of the heart and so preserve the patient until the process of immunization is established and the disease arrested. To give oxygen most efficiently we require to place the patient altogether in a superoxygenated atmosphere, wherein he can live and be

nursed and fed. This is a very difficult condition to realize. I am now experimenting with an oxygen bed—an airtight chamber into which the bed and patient can be placed. An account of this I hope to give in a subsequent note.

These researches are assisted by a grant from the London Hospital Research Fund.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

SPHYGMOMANOMETRY AND PACHON'S OSCILLOMETER.

I WAS interested in Dr. Watson Wemyss's observations on Pachon's instrument (BRITISH MEDICAL JOURNAL, December 2nd, 1911, p. 1472). It may interest some of your readers to know my own experiences.

I have for some time been using this instrument, and have made several hundreds of observations with it during the season at Vittel and since at Beaulieu. In order to make it comparable I coupled it up with a Riva-Rocci mercurial manometer; we worked out a table of corrections, and these show very much higher readings for the Pachon than for the mercurial, and, like all instruments constructed on the anëroid principle, the errors are not proportionate. With the oscillometer it is quite as troublesome and uncertain to find the two critical points as with the Riva-Rocci. Furthermore, the time taken up in reducing the pressure to find these points is much greater, and if patients have high tension they complain a good deal of pain of the prolonged compression. I am about to try Oliver's auscultatory method for the Riva-Rocci, and a double armlet suggested by Amblard but not yet carried out, in which the lower cushion is used to determine by an indicator the first passage of blood through the arteries as the arm is decompressed by the upper cushion.

I think that the actual amplitude of the oscillations of Pachon's instrument may in the future give some valuable information, and I am collecting observations with that object.

The armlet of the Pachon is incorrect—first, on account of its narrowness, and, secondly, because the application to the forearm does not cut off the circulation between the radius and the ulna. I soon abandoned this, and replaced it by the broad armlet on the upper arm. The old strap method of fixing this I found took too much time, and was too fumbling a process. I tried glove pressure buttons, but the pressure on the arm, when closing them, was too painful for the patient. I then designed three blunt hooks and eyelet holes on a broad canvas strap, and this was carried out by Hawksley. It is ideal, being put off and on each in one movement. I find I economize one minute in each of these processes, which mounts up to near upon an hour when one has twenty or thirty observations to make of a forenoon.

Another question still unsettled is, What is an *average normal* blood pressure? I have adopted an empirical method which, though not scientifically correct, has working advantages. It is this: For every year of age after 15 allow 1 mm. of mercury, and add 100 to the number. Thus, a person 15 years old, 115 mm.; one of 35 years, 135 mm.; one of 60 years, 160 mm.

Beaulieu. H. J. JOHNSTON-LAVIS.

CATARRHAL JAUNDICE OCCURRING IN EPIDEMIC FORM.

LAST summer I saw an outbreak of acute catarrhal jaundice among children, occurring in a small village in Suffolk, similar to that reported by Dr. Holdernesse in the JOURNAL of December 9th, 1911, p. 1533.

The symptoms were the same in the majority of the 10 cases, namely, jaundice coming on suddenly, with slight rise of temperature and pulse-rate, pale stools, and bile in the urine. Slight pharyngitis was noticeable in each case, while vomiting occurred in only 3. As regards age, the eldest was 12 years old, and the youngest 6. In one family, all sleeping in the same room, only two contracted the disease.

The important point in these cases was the early occurrence of acute pharyngitis, which in every patient was getting better when the jaundice came on, showing, I consider, the strong possibility of the pharynx being the primary point of infection. I have come across similar cases in the Fens of Cambridgeshire, and always, as in the present instance, in hot, dry summers.

Walsham-le-Willows. RALPH N. POIGNAND, M.B.Cantab.

TREATMENT OF GONOCOCCAL ARTHRITIS.

WHILE agreeing with Dr. J. Bain[1] in his contention that in gonococcal arthritis treatment of the urethra is of the first importance, I would like to supplement his remarks with regard to the best method of carrying it out.

That lavage of the whole urethra is by far the most effective local treatment is certain, but the solution of silver nitrate which he recommends—that is, 10 grains to the pint or about 1 in 1,000—is far too strong to begin with in the majority of cases. The fluid by the irrigation method fills the urethra under considerable pressure and is forced into all its nooks and crannies—lacunae, gland ducts, prostatic ducts, etc.—and while being very effective is also very painful. It is not uncommon to excite an immediate seminal emission, due probably to the fluid finding its way into the ejaculatory ducts. I consider that a strength of 1 in 5,000 (2 grains in the pint) is sufficiently strong to begin with, or even 1 grain in the pint in sensitive individuals. This can be rapidly worked up to 1 in 2,000, or 1 in 1,000 if necessary, in very resistant cases. London water destroys about 1 grain in the pint of silver nitrate, so that unless distilled water be used this should be allowed for in making up the solution. I am also of opinion that irrigation by the hydrostatic pressure method, the reservoir being raised about 5 ft. above the couch, is superior to that by any form of syringe, for the reason that the stronger solutions of silver nitrate are very liable to excite a spasm of the bladder in spite of the use of cocaine. This is evidenced by the fluid rising in the glass reservoir. On removing the nozzle from the meatus the patient will be found to be in the act of emptying his bladder. Again, in the more acute or irritable cases, a violent spasm of the bulbo-cavernosus muscle may occur, the spurting-out fluid forcing the nozzle away from the meatus, and unless the irrigator be held with a light hand an enormous tension in the urethra will ensue. In chronic conditions, no doubt, no evil result follows, but the same cannot be said of the acuter cases. Gonococcal rheumatism very frequently begins when the local disease is in a subacute and not a chronic condition. A large number of these patients have a varying amount of prostatitis, and a strong silver irrigation would undoubtedly be followed by an increase of the prostatic inflammation. A lavage with mild silver nitrate or potassium permanganate solution after a gentle massage of the prostate per rectum would be indicated. To ensure the gentleness of the proceeding ½ drachm of a 2 per cent. cucaine lactate solution may be injected and "milked" back into the posterior urethra as indicated by Dr. Bain.

Great caution must be observed in commencing instrumental treatment in these cases of generalized gonococcal invasion, and they should not be used until the joint or other inflammation has partially subsided. The pressure caused by the use of a sound or a Kollmann's dilator, while securing the absorption of inflammatory deposits, also favours the entrance of living micro-organisms into the circulation. To minimize this evil the whole urethra should be thoroughly flushed with a warm 4 per cent. solution of boric acid or a 1 in 10,000 mercury oxycyanide before the use of the instrument, and the usual silver nitrate or permanganate after.

London, W. W. WYNDHAM POWELL, F.R.C.S.

NERVOUS RETENTION OF URINE.

A YEAR or two ago it occurred to me that in certain cases of retention of urine—hysterical and after labour—a rectal injection of glycerine might be efficacious, and since then, when such cases have occurred, I have tried the plan with success. I am reminded of it by a district nurse telling me she found it "a great success" after trying it, on my instructions, in a case of retention after labour.

For all I know, the idea may not be new, but I have not heard of it.

HARFORD EDWARDS, L.R.C.P., M.R.C.S.

Markyate, near Dunstable.

[1] BRITISH MEDICAL JOURNAL, December 30th, 1911, p. 1695.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

WOODSTOCK HOSPITAL, CAPETOWN, SOUTH AFRICA.

THE SEQUENCE OF A CASE OF BULLET WOUND.

(By A. M. GEDDES, M.B., Ch.B.)

THE patient in the following case, a child aged 6½, was accidentally shot nearly four years ago by a service revolver at a range of between 3 and 4 feet, and was admitted to hospital soon afterwards.

The bullet, a No. .320, had entered the facial surface of the superior maxillary bone somewhere about the region of the canine fossa, and from thence had travelled intradurally along the base of the skull, remaining therein. Around the external wound was a well marked circle of powder staining. She lay comatosed. Pulse 92 and temperature 99°. Her condition was grave and her recovery not anticipated; about the third day, however, she began to pick up, and by the fourteenth day had to all intents and purposes completely recovered. She left hospital on February 4th, 1908, with no sign or symptom that the retained bullet was in any way causing discomfort. An *x*-ray photograph taken soon after admission showed it to be lying on the tentorium cerebelli.

She remained perfectly well until about a year ago, when she began to complain of frequent headaches which gradually increased in severity. At the same time she became irritable, and latterly began to hold her head flexed towards the right, that is, the bullet side. An operation was proposed, and the suggestion being accepted, she was readmitted for its performance.

At the operation, performed on October 9th, 1911, nearly *four* years after the accident, the skull was trephined a little above the site of the bullet, to keep clear of the lateral sinus. After removal of the circular disc of bone, the site of the bullet was determined by careful probing. It was found to be lying, as anticipated, upon the tentorium cerebelli and against the lateral sinus. Although great care was taken, as soon as the bullet was gently moved upwards a great gush of blood took place, conclusive proof being thus afforded that it had been ulcerating into the lateral sinus. In a second or two the child was dead white, with dilated pupils, and pulseless. The bullet was immediately withdrawn and intravenous and subcutaneous infusion at once commenced; at the same time the cerebral cavity in the lateral sinus direction was plugged with a large gauze plug. Hypodermics of brandy and strychnine were also administered.

After some time a faint flicker was felt at the radial, and this improved considerably after she had been returned to bed, been got warm, and continuous saline commenced. Further gradual improvement took place during the days following.

The next difficulty to be faced was the removal of the plug, and it was thought advisable to do this under an anæsthetic. This was accordingly done, or partially done, on the 14th, five days after the operation. Only about 5 inches of the plug was removed as there was some fresh bleeding. Two days later another 6 inches was removed, and on the 19th the remaining part of the plug was withdrawn. The haemorrhage then was practically *nil*. The last part of the plug was coated with soft brain tissue.

A small gauze plug was again introduced and subsequently removed some few days afterwards. What cavity then remained had closed up by fourteen days after the operation, and the scalp wound healed by granulation.

The case is interesting from the following points of view:

1. The rarity of non-fatal bullet wounds of the skull.
2. The long period for which the bullet remained in the skull without causing discomfort.
3. The complete recovery despite the opening into the lateral sinus.

Reports of Societies.

ULSTER MEDICAL SOCIETY.

AT a clinical meeting on January 4th, Dr. MCKISACK, President, in the chair, the following were among the exhibits:—Dr. HANNA: (1) A case which he considered to be an instance of *Simple tumour of the left vocal cord*, probably of the nature of a fibroma; he proposed trying some local astringent treatment before resorting to operation. Mr. CECIL SHAW thought it would be safer to operate at once. He also showed (2) a case of *Affection of the palate*, which gave rise to some discussion as to whether it was tuberculous or syphilitic in its nature, or whether both affections were present. The Wassermann reaction was positive, and the balance of opinion was in favour of the syphilitic nature. Dr. Hanna said he intended to try antisyphilitic measures. Mr. MITCHELL: (1) Two cases of *Operative union of a severed ulnar nerve*. One was in a young lad who showed perfect recovery, both as regards power and sensation, now after nineteen months; the other did not as yet show any recovery after two months. (2) A case of *Cyanosis enterogenus* which was improving after a successful gastro-enterostomy done for chronic gastric ulcer. Dr. MCCAW: A boy, aged 2 years, suffering from congenital hypertrophy and dilatation of the colon or *Hirschsprung's disease;* the symptoms dated from birth: there was obstinate constipation, only relieved by daily doses of castor oil, and on one occasion when the oil was withheld, the boy went for three weeks without a movement. The abdomen was enormously distended, and during the examination a peculiar peristaltic wave stretching across the abdomen travelled up from pubis to ensiform. Examination of the rectum revealed an enormous cavity the size of the pelvis, and when the fingers passed the valves of Houston a discharge of faeces took place. Dr. RANKIN referred to a case where he had given a bismuth meal, and had seen the shadow in the transverse colon within fifteen hours: but although the patient was carefully watched for eight days and had a daily motion, this period elapsed before the bismuth stools appeared. The PRESIDENT: A case of *Disseminated sclerosis* developing after a fall on the back; he emphasized the importance of such an occurrence in the light of the Compensation for Injuries Act. He also related the case of the onset of locomotor ataxia, or its rapid intensification, after injury. Dr. JAMES B. MOORE: A case of *Huge external teratoma* springing from the sacrum of a child 3 months old; the Roentgen rays showed some indefinite shadows. He proposed postponement of operative measures as the child was thriving.

MR. W. D. SPANTON, Consulting Surgeon to the North Staffordshire Infirmary, was, at a meeting at the North Staffordshire Hotel, Stoke, on December 19th, 1911, presented with an illuminated address enclosed in a silver casket, together with a chiming grandfather clock, the presentation being made by Colonel A. H. Heath, on behalf of some 150 subscribers. The casket bore an inscription to the effect that the gifts were made on the occasion of Mr. Spanton's retirement to Hastings after a long period of residence in North Stafford, where his great skill and ability had always been at the disposal of the people and of philanthropic institutions, and as a token of the esteem and regard in which he is held. A corresponding presentation from Mr. Spanton's professional colleagues in Staffordshire was recorded in our issue for November 11th, 1911.

THE amendment of the German insurance law which came into force on New Year's Day provides for the compulsory insurance of widows and orphans of the working classes. Pensions will be paid to invalided widows of insured workmen. A widow is held to be invalided when her working capacity has been reduced to less than one-third. Orphans' pensions will be paid to the children under 15 years old, the legitimate offspring of an insured workman, or the children of a deceased insured mother. The State pays 50s. a year towards each widow's pension and 25s. towards each orphan's. Later in the year another amendment providing old age and invalidity pensions for clerks, officials, teachers, mercantile marine officers, and theatre and orchestra artists, and pensions for their widows and orphans, will come into force.

Reviews.

EMBRYOLOGY IN THE LABORATORY.

PROFESSOR MINOT, of Harvard, has brought out a second edition of his valuable *Laboratory Textbook of Embryology*.[1] It is illustrated with 262 beautifully executed figures, while the text is a model of clear exposition. It is intended to direct the student's attention to actual original observations, and to aid him in drawing correct conclusions from these observations. The student repeats and uses the actual methods by which embryological science has been built up, so that at the end of the course he can say that he knows of his own knowledge. To attain this result is the ideal of laboratory education. The opening chapter deals with general conceptions and contains much of interest concerning the vertebrate type, comparison of larval and embryonic types of development, germ layers, the law of unequal growth, germ cells, sex, the theory of heredity, the law of recapitulation, arrest of development, etc. In Chapter II the early development of mammals is discussed; its opening pages contain much of interest concerning the spermatozoan ovulation and impregnation of the ovum. A finely illustrated account of the human embryo follows in Chapter III. There are no observations upon the first stage, that of segmentation of the ovum in man, or any primate, excepting one monkey's ovum in the four-celled stage. The development of the blastodermic vesicle in man is also unknown, but one or two ova are known at the stage just after the development of this, when the embryonic shield is differentiated. Fig. 74 illustrates Peter's ovum in this stage—Peter is the investigator, not the mother—while Fig. 72 gives a most interesting illustration of the monkey's ovum in the same stage.

The fourth to the eleventh stages, all occurring during the first month, are illustrated from human embryos, and, following the account of these, the development of the human embryo is traced from the fourth week to the fourth month. The following chapter deals with maturation, fertilization, and segmentation in white mice and the method of obtaining and studying the blastodermic vesicles of the rabbit. Thirty days after littering the buck is admitted, and the exact time of covering recorded (not an easy matter to determine in the reviewer's experience). From the fourth to the beginning of the seventh day the vesicles lie free in the uterus, and may be seen on slitting up this organ as pearly bodies.

Chapter V deals with chick embryos, and Chapter VI with pig embryos.

> The enormous precocious development of the chorionic vesicles in pigs produces an enlargement of the uterus which is usually sufficient, by the time the embryo has attained a length of 6 mm., to be observable to the untrained eye.

It is, therefore, only necessary to ask the man who removes the viscera from pigs in the large packing establishments to lay aside all uteri which appear distended. The pig embryo has thus come to be the especial material of the student, and Professor Minot gives full directions for obtaining sections, and illustrates, by means of a splendid series of drawings, pig embryos from 7 to 20 mm. big. Chapter VII deals with the human uterus and fœtal appendages, and the last chapter with histological methods.

Turning to certain points of interest discussed in the first chapter, we find that two views of the ovum, in relation to the structures which arise from it, have been brought forward. The one view is that each part of the ovum is predestined to form a definite part of the adult; the other that the ovum is homogeneous, and lacks differentiation, and any part of it may form any part of the adult; if given the requisite opportunity. In support of the second view it was demonstrated by Ernst Pflüger that if the pigmented upper surface of the frog's egg is turned down, and the white surface of the ovum fixed uppermost the white side produces a normal back and nervous system, though lacking the typical pigmentation. Hans Driesch showed, too, that after the first division of the sea-urchin egg into two cells, these may be shaken apart, and each then produces a sea-urchin larva of half the normal size. Zoga claims to have repeated the experiment on the eggs of Clytia, and to have obtained even one-sixteenth larva. W. Roux, in favour of the first theory, has demonstrated that certain eggs of animals of several invertebrate orders contain substances which have an exact distribution, and which have a definite fixed relation to adult structures. "By putting these eggs in a centrifuge the distribution of these substances may be artificially changed. The eggs thus altered, the substances continue to transform themselves into their predestined structure, which consequently appear displaced." Both views have therefore obtained experimental support, and further knowledge is required to harmonize the findings.

> The unequal multiplication of the cells in all embryonic epithelia is the fundamental factor of development, and we see it shaping the embryo . . . the causes of the unequal growths are unknown. We have not even an hypothesis to offer as to why one group of cells multiplies or expands faster than another group of apparently similar cells close by in the same germ-layer. It is no real explanation to say that it is the result of heredity, for that leaves us as completely in the dark as ever as to the physiological factors at work.

Here the cancer researchers and the embryologist find the same problem confronting them. Recent investigations, says Professor Minot, have made it probable (note the moderation of the remark) that a few cells are set apart during the period of segmentation to form the germ cells. Their number is small; they preserve for some time the appearance of segmentation spheres, multiply very slowly, become separated one from another by somatic (tissue) cells, and

> pursue their development, one is tempted to say, independently of tissue formation and somewhat like foreign members of the body.

As to the cause of sex, it has been discovered that in certain insects the females have one more chromosome in each cell nucleus than the males. This difference is explained by the fact that there are two kinds of spermatozoa, one of which contains an extra chromosome. The ova receiving this become females. Unfertilized frogs' ova have been made to develop into tadpoles merely by the prick of a needle, but we shall have to wait before learning whether the sexes are developed in this way in the usual proportion.

CYSTOSCOPY.

IN his *Practical Cystoscopy*, Dr. PAUL M. PILCHER[2] has set out to "state fairly the indications for cystoscopy and to outline its technique in the minutest detail, describing the instruments used and how to use them." The book is divided into eight parts. The first deals with the different varieties of cystoscope and the measures to be adopted in sterilizing them. An outline is given of the main features in the construction of each of the different types in modern use, and the author's opinion of their respective merits and faults is frankly stated. He then devotes his attention to the cystoscopic examination. As usual in the best American books of surgery he enters very thoroughly into full details as to the preparation of the patient, the preparation of the room where the examination is to take place, and the instruments required, all of which is very valuable information to the man who wishes to use the cystoscope in his private practice. The method of conducting the examination is clearly set forth, and a useful chapter gives the rules to be observed in making a complete examination of the inside of the bladder so that no detail may be overlooked. Dr. Pilcher goes on to describe the technique of catheterization of the ureters, with a word on the great diagnostic value of this manœuvre. In common with most urinary surgeons, he much prefers ureteric catheterization to the use of a separator, which he considers to have "a very limited field of usefulness." The various diseases of the bladder are next briefly described, with the cystoscopic appearances presented by each of them. This system is followed in turn for the prostate, the ureters, and the kidneys. The descriptions throughout are concise, clear, and adequate, and are well illustrated in many cases by drawings in colour. One

[1] *A Laboratory Textbook of Embryology*. By Professor Charles S. Minot, LL.D. Second edition. London: J. and A. Churchill. 1911. (Imp. 8vo, pp. 414, figs. 262. 16s. net.)

[2] *Practical Cystoscopy, and the Diagnosis of Surgical Diseases of the Kidneys and Urinary Bladder*. By Paul M. Pilcher, A.M., M.D., Consulting Surgeon to the Eastern Long Island Hospital; late Surgeon to the German, Seney and Samaritan Hospitals of Brooklyn, N.Y.; Associate Surgeon to the St. John's Hospital of Brooklyn; Attending Cystoscopist to the Jewish Hospital of Brooklyn. Philadelphia and London: W. B. Saunders Company. 1911. (Sup. roy. 8vo, pp. 398, with 233 illustrations, 29 of them in colours. 24s.)

chapter deals with the various tests the modern surgeon employs for estimating the functional activity of each kidney—cryoscopy, the phloridzin test, etc.—detailed instructions for the performance of each test being given. The author concludes with an account of the therapeutic uses of the cystoscope—as, for instance, in making topical applications, and so on. The book is excellent in every way, and the author fully succeeds in describing in "the minutest detail" the cystoscope and how to use it. The scope he would give the instrument seems to be wider than that generally accepted in this country; for instance, we do not remember hearing of its use in cases of the pyelitis of pregnancy before. The illustrations are a leading feature of the book, as they should be in a work on this subject. They are very true and clear, and reflect much credit upon Miss Eleanor Fry, who is responsible for most of them. The book is excellently got up, and we can recommend it to men who wish to acquire proficiency in the use of the cystoscope and therefrom to draw correct conclusions.

In his preface to his recently-published *Lehrbuch der Kystoskopie und Stereokystophotographischer Atlas*,[3] Dr. S. JACOBY of the University of Berlin, states that "the most faithful, impartial, and therefore the most scientific method of reproduction is photography," and we must admit the truth of his contention when we see the stereoscopic pictures of the inside of the bladder which form the bulk of the volume. The value of the stereoscope has not long been recognized in illustrating medical and surgical subjects, and this latest contribution shows what an enormous improvement it is over every other method of illustration. Dr. Jacoby has presented forty-eight photographs, one of which is coloured, depicting the inside of the normal bladder and the most common pathological conditions to be found there. They are marvellously clear, every detail is well defined, and they reproduce in the most graphic form the different appearances seen through the cystoscope. They form an invaluable collection for any man who is going to use the instrument seriously. In addition to the photographs the book contains some two hundred pages of letterpress wherein are described the various types of cystoscope and their mechanism, the technique of using the instrument and of catheterizing the ureters. Dr. Jacoby has himself introduced a special form of cystoscope in which a stereoscope takes the place of the ordinary single eyepiece; it was with this instrument that the photographs in the atlas were taken. A brief summary of the most common diseases affecting the urinary apparatus is given with the appropriate value of cystoscopic examination in each case, reference being made to the atlas to illustrate the points to be emphasized. A chapter is devoted to intravesical therapy and the value of the cystoscope in the application of it. A description of the technique employed in obtaining intravesical photographs and stereophotographs is included. An excellent index gives a description of each of the stereoscopic plates, together with the reference for that particular subject in the letterpress. Mention must also be made of the many clear diagrams and illustrations scattered throughout the book. We have nothing but admiration for the all-round excellence of this work. Dr. Jacoby is a master of his subject, and his book is worthy of the master. No hospital surgeon should be without this atlas of cystoscopy.

TEXTBOOKS OF BACTERIOLOGY.

THE fourth edition, which has just appeared, of Professor HEWLETT'S *Manual of Bacteriology*[4] is slightly larger than the third, and contains a considerable number of improvements throughout the text. At the end of Chapter I there is an interesting account of the preparation of endotoxins by the disintegration of bacterial cells in the presence of intense cold, and in Chapter V anaphylaxis receives much fuller treatment than in the previous edition. With regard to the Hofmann bacillus and its possible relations to diphtheria, Professor Hewlett now admits that "the general trend of opinion at present is to consider it as quite distinct from the Klebs-Loeffler bacillus"; though at the same time he puts forward the alternative view that the Hofmann bacillus in reality includes several species, "of which one may be a modified Klebs-Loeffler bacillus, the others having no relation with this organism." It would be interesting to learn if the author has confirmed his original experiments by again converting a Hofmann into a Klebs-Loeffler bacillus. There are several additions and emendations in the chapter on the tubercle bacillus. In the previous edition this organism was described as a slender rod from 3 to 5 μ in length. It is now recognized by Professor Hewlett that the length is subject to considerable variation, being about 1 μ when the bacillus is grown on serum, and from 1.25 μ to 6.5 μ in the tissues. Some notice is also taken of the Final Report of the Royal Commission on Tuberculosis, which appeared whilst the present volume was in the press. In his third edition (1908) the author hesitated to accept it as proved that *Treponema pallidum* is the specific organism of syphilis. He now admits that the specificity of this spirochaete has gained universal belief, and that it can generally be distinguished, with care, from other spirochaetes.

Professor BAUMGARTEN'S recently published textbook of pathogenic micro-organisms[5] is a revival of his textbook of pathological mycology, which appeared more than twenty years ago. The advances which have been made in the meantime in our knowledge of infection and immunity caused the author to feel that his older volume was out of date; extensive revision has, therefore, been necessary in order to bring it up to the standard of modern requirements. The present volume is divided into a "general" and a "special" part. The former deals with the general biology of bacteria, the nature of their pathogenic properties, immunity, and the technique of the bacteriological laboratory. The treatment of these matters is lucid and sufficiently full to give the student a substantial groundwork of knowledge; the minute care and accuracy of the laboratory details are particularly commendable. In the "special" part, which occupies the remaining two-thirds of the volume, the pathogenic bacteria are described seriatim, with special reference to the morbid processes which they induce in the body. Here we appreciate the advantage of Professor Baumgarten's wide experience as a histologist; it enables him to treat the pathological anatomy of bacterial diseases much more thoroughly than is usually attempted by the younger school of bacteriologists. The modern bacteriologist, we fear, not infrequently despises histological work as uninteresting routine from which little that is new has emanated since the time of Virchow; hence he takes little trouble to verify for himself the statements handed on from one textbook to another about the reaction of the tissue cells to bacterial invasion. Professor Baumgarten's name is especially associated with the controversies which have been waged for many years, and are still unsettled, concerning the histogenesis of the tubercle. In the present volume he gives a detailed account of his reasons for adhering to his original position, and maintains that supporters of Metchnikoff's rival theory have failed to prove their case. It is doubtful at present how the matter will eventually be settled: it is probable that both sides err in excess of dogmatism and overstatement. That neither side will ever own defeat is absolutely certain.

SEWAGE DISPOSAL AND WATER PURIFICATION.

A VERY large proportion of the literature which deals with methods of sewage disposal has been written by engineers or chemists who have designed particular systems of disposal, and who describe those systems only. Mr. G. BERTRAM KERSHAW has come to the conclusion that sewage treatment does not lend itself to patents, for there is no method of disposal which can be universally adopted regardless of local conditions. In his work on *Modern*

[3] *Lehrbuch der Kystoskopie und Stereokystophotographischer Atlas.* Von Dr. S. Jacoby, Ehemalig. I. Assistenten von Weil und Geh. Mediz-Rat und a. o. Prof. Dr. Max Nitze an der Universität in Berlin. Leipzig: Verlag von Dr. Werner Klinkhardt. 1911. (D. sup. roy. 8vo, pp. 256; mit 48 stereoskopischen Tafeln und 121 Textfiguren. M. 25.)

[4] *A Manual of Bacteriology.* By R. Tanner Hewlett, M.D., F.R.C.P., D.P.H. Fourth edition. London: J. and A. Churchill. 1911. (Demy 8vo, pp. 715; plates 26, figs. 66. 10s. 6d. net.)

[5] *Lehrbuch der pathogenen Mikroorganismen.* Von Dr. Paul V. Baumgarten. Leipzig: S. Hirzel. 1911. (Roy. 8vo, pp. 965, with 86 illustrations. M 24.)

Methods of Sewage Purification[6] there is to be found a very carefully written account of the principal methods which are at the present time being utilized. Until quite recently Mr. Kershaw was the engineer to the Royal Commission on Sewage Disposal, and in his opening chapters he deals with the first six reports of the Commissioners. With the proposal of the Commission to establish a central authority for the purpose of dealing with the pollution of rivers and streams he is in entire agreement, and expresses the opinion that a very large proportion of the pollution which rivers receive could be obviated if even elementary precautions were taken. He is in agreement with many other observers that rivers effect a very considerable amount of self-purification as they flow along, the extent of self-purification depending upon several factors, of which the most important are the nature of the pollution, the ratio of the volume of the polluting liquid or liquids to the volume of the river, the velocity of the river, its average depth, and the presence or absence of aquatic plants. He refers also to one other factor to which attention has not hitherto been sufficiently drawn, and that is, the influx of ground water to the river bed along its course, which, diffusing with the river water, improves its condition by dilution. Only about six pages are devoted to the consideration of conservancy methods of sewage disposal, although the author very properly admits that the question of suitable methods of sewage disposal for villages and rural districts has not hitherto met with anything like the attention it merits at the hands of sanitarians. In his description of earth closets he states that the earth acts as a covering, and more or less as a deodorant, but he makes no mention of the nitrifying action of the earth, which is surely of considerable importance. Although the work is intended primarily for the use of engineers, it ought to prove of considerable assistance to public health officers and to those who are in any way concerned with sewage disposal works, for a very clear idea is conveyed of the differing methods employed in the purification of sewage, which is defined by the author as the removal of suspended matter and the oxidation of the organic matter and ammonia which remains. A most useful and informing chapter is that which contains an account of nine sewage works in different parts of the country in actual operation, including one for the purification of distillery waste on percolating filters.

The efforts of the earliest public health reformers in this country were directed towards the provision of a pure water supply. For a time they were satisfied with the removal of gross pollution, but the occurrence in later years from time to time of waterborne diseases in districts where the supplies were considered to be beyond reproach has pointed to the need for increasing care if the purity of public water supplies is to be ensured. In *Modern Methods of Water Purification*[7] Mr. JOHN DON and Mr. JOHN CHISHOLM have aimed at giving an account of modern developments in the theory and practice of water purification. They have dealt with the subject from the point of view of the sources of supply of water; storage and the construction of reservoirs; filtration by sand and by mechanical filters, and purification by ozone. Separate chapters are also devoted to the chemical and biological features of water, to water softening, and to the distribution of water. In the last-named chapter plumbo-solvency is referred to, and an account is given of the best methods of dealing with waters which act upon lead. Although the authors are in agreement with other observers as to the advantages of storing raw water for the purpose of ridding it of organisms, they consider that deep layers of sand are almost perfect safeguards against the intrusion of bacteria. They believe that artificial filter beds should not be too shallow; using *B. violaceus* and *B. prodigiosus*, they have found by experiments with a wide glass tube nearly filled with fine sand which had been kept moist for a fortnight that the test bacteria were not able to pass through 8 ft. of the sand, but on gradually diminishing the depth of the filtering medium the bacteria passed through in regularly increasing numbers. On the debatable question as to the part played by the slimy deposit which gradually forms on sand filters, the authors express the opinion that micro-organisms can be removed from water by a sand filter whether there is a surface film or not, but that the sand bed does its work best when the granules have become coated with slime and gelatinous growths that swarm with germs. Medical officers of health and others who are officially concerned with public water supplies will find this volume a most useful and helpful work of reference, and its value is very much increased by the inclusion of a large number of well-executed drawings.

[6] *Modern Methods of Sewage Purification: a Guide for the Designing and Maintenance of Sewage Purification Works.* By G. Bertram Kershaw. London: Charles Griffin and Co., Ltd. 1911. (Med. 8vo, pp. 356; with 36 plates. Price 21s. net.)

[7] *Modern Methods of Water Purification.* By John Don, F.I.C., A.M.I.Mech.E., and John Chisholm, A.M.I.Mech.E., Engineer and Manager of the Airdrie, Coatbridge, and District Waterworks. London: Edward Arnold. 1911. (Demy 8vo, 368 pp., 96 illustrations, 15s. net.)

THE DRESDEN VACCINE INSTITUTE.

AN account of the State Institute for obtaining animal vaccination lymph in Dresden was written by the Director, Dr. CHALYBÄUS[8] for the International Hygienic Exhibition in Dresden. It was produced at the instance of the Royal Ministry for Internal Affairs, and may be looked on as a new edition of the report made by the same author as long ago as 1877 on the Dresden Institute of that time to the twenty-fourth congress of the German Public Health Society, under the title *Sanitäre Verhältnisse und Einrichtungen Dresdens.* The new volume contains a brief summary of the attempts made to procure animal lymph in Dresden from 1838 to 1886, and a detailed account of the buildings erected for this purpose in Dresden in 1887 and again in 1910; incidentally the whole process is very thoroughly described, and a glance is given to the lymph-procurement of the empire.

It is worth while to recapitulate the historical part from the German point of view. In 1796 Jenner vaccinated the boy Phipps with lymph from the hands of Sarah Nelmes, a dairymaid who had natural cow-pox, contracted by milking a cow that had cow-pox sores. In Germany numerous public vaccinations were made as early as 1799 and 1800, and the immediate decline of small-pox epidemics made everyone believe that the protection given by vaccination was permanent. But from about the year 1816 those epidemics recurred and increased, chiefly in 1823 and 1824, almost everywhere. It is true that small-pox in the vaccinated was a modified small-pox, of very mild character as a rule, but it was genuine small-pox. The blame for this recurrence was laid at first upon the lymph, which it was thought had degenerated by long transmission. Hence a search began for natural cow-pox in the cow, and retro-vaccination of calves with humanized lymph was also resorted to. But retrovaccination seemed to weaken the protective power of the lymph instead of increasing it. Not till the fourth decade of the last century was it recognized that the recrudescence of small-pox epidemics was due, not to any fault in the lymph, but to the inherent temporary character of the protection conferred by it. The result of this recognition was the Prussian Law of 1834, making revaccination compulsory for all recruits on joining the army. This was followed in 1874 by the Imperial Vaccination Law, making revaccination compulsory in all schools at the age of 12 years.

Recourse was had to animal lymph, not to regenerate, or rather strengthen, the lymph, but to multiply it and purify it. The example of Italy was followed, where "animal vaccination" had been maintained from the beginning. In 1864 Lanoix brought the Italian procedure from Naples to Paris, and there Warlomont of Brussels, and Pissin of Berlin learnt it. The technique improved, and in 1871 Bezeth showed that clear self-exuding calf lymph was weak and did not keep well, and that the contents of each pock must be removed as a whole by the razor or sharp spoon, as in the Italian way. Then came the use of glycerine, and the gradual perfection of the present method.

The work contains details of the construction and cost of a properly appointed building for obtaining animal lymph, and is a valuable repertory of facts. We heartily congratulate Dr. Chalybäus on this report, the result of his long and successful public work, the fruition of which is the new Dresden State Lymph Institute of 1910.

[8] *Die staatliche Lymphanstalt und die Gewinnung tierischer Schutzpockenlymphe in Dresden.* Von Dr. Th. Chalybäus, Vorstand der Lymphanstaldt. Dresden: Gerard Kühtmann. 1911. (Med 4to, mit 19 Abbildungen; pp. 99. M. 5.)

NOTES ON BOOKS.

DR. WERNER SPALTEHOLZ has for some years been occupied in the attempt to produce macroscopic preparations of various organs, and even of the whole bodies of animals, which shall be perfectly transparent to the naked eye. A large number of specimens which he had prepared were on view in the International Health Exhibition held in Dresden in the summer of 1911. In his book on transparent preparations of human and animal structures[1] he indicates the course which his researches have hitherto taken, explains the principles upon which he works, and the difficulties with which he has had to contend. His early work led him to the conclusion that success depended upon the choice of a fluid, in which to immerse the organ, which had the same index of refraction as the tissues of the organs themselves. His difficulty has lain in the wide differences which exist between the refractive indices of different organs and of different parts of the same organ. His early work, of which a description was published so long ago as 1888, had enabled him to make transparent preparations of the skin, with its subcutaneous tissue and fasciae, as well as of comparatively thick muscles. In this he had followed the ordinary process used in microscopic work: he had dehydrated in alcohol and passed the specimen through xylol to Canada balsam. By the substitution of benzol for xylol the transparency was improved, but the method with which he had most success was to immerse the preparation in benzol, to which an amount of carbon disulphide, depending on the index of refraction of the tissue, was added. At present he is occupied in experiments with other substances with a mixture of oil of winter green and benzyl benzoate, and with a mixture of the same oil and isosaprol, which also promise well. The book shows clearly the difficulties of the work and the immense amount of labour which the author has expended in his attempts to overcome them.

As Dr. FRIEDRICH PELS-LEUSDEN points out in his preface to the first volume of Dr. PAUL GLAESSNER'S year-book of orthopaedic surgery,[2] it is extremely difficult to keep up with the course of periodical literature in any of the specialities. Dr. Glaessner therefore has attempted to summarize the contents of publications on orthopaedic subjects which have appeared in the years 1909 and 1910, adding a list of papers under authors' names and a subject index. Though two years are included in the present volume, the book is to be published yearly in future, and should prove of considerable use to those who wish to find out the latest views and practice in orthopaedic matters.

The rough-tongued, warm-hearted country d[illegible] no sign of losing his hold upon the affections of the fiction-reading public. For a long time past he has been a favourite figure with novelists, and he reappears once more in his customary part of Good Samaritan in Mr. ALLEN ARNOT'S novel, *The Dempsey Diamonds*.[3] These diamonds are a legacy left by the last of the Dempseys to her only living descendant, to whom, for family reasons, it is necessary to convey them with the utmost secrecy. This delicate undertaking is entrusted to old Dr. Garland of Buchan's Ford, a little village in the heart of the Scottish Lowlands; but the "best laid schemes o' mice an' men gang aft agley," and the doctor's sudden illness and death cause the jewels to fall into the wrong hands. The history of their loss and recovery is told by Mr. Arnot with a pleasant mingling of pathos and humour. His story contains some charming sketches of Scottish life and character, though the plot is perhaps somewhat unnecessarily complicated and the succession of events a trifle bewildering in its rapidity. The minor characters, which are all excellent, display considerable power and insight, but Mr. Arnot is less happy in his portrayal of the principal characters in this little drama of country life. His portrait of James Garland the younger, who succeeds to the old doctor's practice, is, however, a fine study of a man fighting against fearful odds and determined not to give way before the opposition of a whole countryside. Mr. Arnot is to be congratulated upon what we take it is his first novel, and the *Dempsey Diamonds* may be pardoned for the trouble they brought in their train, since it has resulted in so interesting and readable a book.

The conference annually held by the National As[illegible]n for the Prevention of Consumption took place last year at a time when the National Insurance Bill was before the House of Commons, and as the speakers, who included Professor Sims Woodhead, Dr. R. W. Philip, Sir William Osler, Dr. J. J. Perkins, Dr. J. E. Squire, Mr. C. S. Loch, and many other authorities, had this fact in their mind, the *Transactions*[4] are perhaps of an unusually interesting kind. The concluding paper was one by Mr. E. J. Schuster, LL.D., who brought forward a number [illegible] holding that the question, Will national i[illegible] national health? should be answered in the negative.

The Red Cross Manual of First Aid,[5] by Dr. D. M. MACDONALD is, as stated in the preface, a compromise between the well-known ambulance books and the simpler works. It consists of twelve chapters, each dealing with a separate first-aid subject, and in most cases begins with hints to the lecturer, and concludes with questions for the pupil to answer, the intermediate part being a succinct account of the subject dealt with. It is written in plain language, with as few technical terms as possible, and is likely to prove very useful to those preparing for an examination. The illustrations are very clear, and will help the reader considerably in his study of the subject.

As a reference book to charities *The Classified Directory to the Metropolitan Charities*[6] differs from many of its congeners in that all the institutions dealt with are classified in sections, according to the precise work which they purport to perform. It is, no doubt, a convenient arrangement in many respects, and has been adopted from the beginning by the editor of the publication, Mr. W. F. HOWE. The edition for 1912, which is the thirty-seventh, contains a brief account of about a thousand metropolitan charities and a list of a very large number of analogous institutions in England and Wales. In a species of preface Mr. Howe supplies an interesting summary of the approxi[illegible] income in the two past years of various classes of charities having their head quarters in London. We note that the total income in 1910–11 of 933 charities was £8,060,796, and that of this sum over £3,700,000 belonged to religious bodies and less than a million and a half to hospitals, dispensaries, and nursing homes.

[illegible]re of *Wright's Improved Physicians'*, [illegible] *onsultants' Visiting List* for the current year is that its compiler, Dr. ROBERT SIMPSON, has added some pages on which to record week by week all motoring expenses. Otherwise this visiting list retains the form which has proved so popular for many years past. Its special feature is that by an ingenious system of inter[illegible] a patient's name need be entered only once a month, cash payments and journal totals all being shown on the same line. There is space also for entries as to consultation, obstetric and vaccination engagements. The number of patients for whom room is provided in the six different editions of the book vary from 40 to 240; the prices run from 5s. to 7s. One edition, known as Form B, has no date entries, so can be used in any year.

Dr. Gordon Ward has written (December 18th, 1911) to point out that in the notice of his *Haematological Charts*, published in the JOURNAL of December 2nd, 1911, the use of the compartments plotted out in the charts was misunderstood; the misunderstanding was due to the assumption that the squares were to be used for distributing the white corpuscles, as in the standard use of the Thoma-Zeiss apparatus. In fact, Dr. Gordon Ward means each to receive a letter connoting the type of white cell in the stained film. By picking out each letter the number can be analysed. Used in the way the designer intends, the charts are useful, and secure that the result shall be full and accurate.

[1] [illegible] Von Dr. [illegible] Professor der Anatomie an der Universität Leipzig. Leipzig: S. Hirzel. 1911. (Med. 8vo, pp. 48. M. 1.)

[2] *Jahrbuch für Orthopädische Chirurgie*. Bearbeitet von Dr. Paul Glaessner, Orthopädischer Assistent der chirurgischen Universitäts-Poliklinik in der Kgl. Charité zu Berlin. Erste Band 1909. Zweiter Band, 1910. Berlin: Julius Springer. 1911. (Roy. 8vo, Band I pp. 407, Band II. pp. 114. M.10.)

[3] *The Dempsey Diamonds*. By Allen Arnot. Published by John Lane, The Bodley Head, London; and John Lane Company, New York, 1911. (Post 8vo, pp. 328. Price 6s.)

[4] *Transactions* of the Annual Conference at Caxton Hall, Westminster, of the National Association for the Prevention of Consumption, July 19th to 21st, 1911. London: Adlard and Son. 1911. (Cr. 4to, pp. 220. 2s. 6d.)

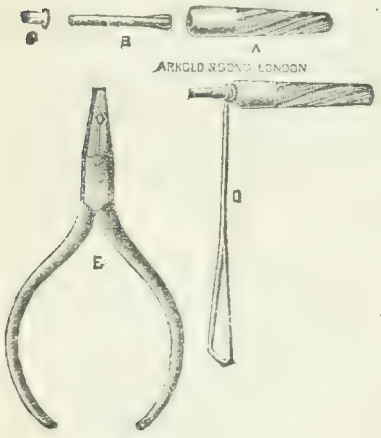
[5] *Red Cross Manual of First Aid and Stretcher Drill*. By D. M. Macdonald, M.D. London: George Gill and Sons, Ltd. 1911. (Fcap. 8vo, pp. 78; 38 illustrations. 1s. net.)

[6] *The Classified Directory to the Metropolitan Charities for 1912*. Thirty-seventh annual edition. By W. F. Howe. London: Longmans, Green, and Co. (Fcap. 8vo, pp. 175. Price 1s.)

MEDICAL AND SURGICAL APPLIANCES.

A Modified Instrument for Simple Trephining in Glaucoma.

LIEUTENANT-COLONEL R. H. ELLIOT, I.M.S. (Government Ophthalmic Hospital, Madras), writes: An experience of over 400 trephinings has shown that the instruments for the purpose now on the market are all imperfect. The best I have seen is that invented by Mr. Sydney Stephenson, and the guiding lines for the present model have been taken from that instrument. The new features presented are as follows: In order to give the surgeon a good grip and to prevent his fingers from constantly slipping down as he presses, (1) the handle is made conical (A) with the apex of the blunt cone upwards; (2) the fluting is spiral; and (3) the edges of the fluting are serrated at right angles to its length. The blades (B), which can be thrown away as soon as they become blunt, are made from solid drawn steel tubing; one end of each blade is divided into three parts, and opened to form a spring—this when inserted into the handle holds the trephine firmly—the other end forms the cutting blade, and the edge is brought up sharp from the inside. This enables the operator to cut a hole the exact size of the trephine. A small pair of pincers (E) is supplied, with which the blade can easily be fitted into or removed from the handle. This should always be done at the time of operating. The blades must never be left in after use. The handle is hollowed throughout, so that it can be easily and quickly cleaned and dried after use by means of a pipe cleaner (the best form being the metropolitan pipe cleaner made in U.S.A. and sold by all tobacconists). The bore of the proximal portion of the hollow is slightly less than that of the distal portion. This, whilst enabling the handle to be cleaned, at the same time prevents the blades from passing up more than the correct distance. A stop (C) can be supplied which can be fitted to any of the blades. A small handle (D) is provided with a loop at one end, through which the blades can be passed. This enables an operator to keep the cutting edge of his blade in one position during the operation, and is an improvement on the method of holding the blade with forceps. The whole instrument is supplied in a small case by Messrs. Arnold and Sons, of Giltspur Street, E.C., to whom I am much indebted for the assistance they have given me in working out the details of the instrument.



ROYAL COMMISSION ON TUBERCULOSIS.

LUPUS VULGARIS.

THE second volume[1] of the appendix to the final report of the Royal Commission appointed to inquire into the relationship of animal and human tuberculosis deals with the tubercle bacillus as concerned in the production of lupus vulgaris.

The investigation was undertaken by Dr. Stanley Griffith, and the work done is recorded with the same admirable precision and wealth of detail as in the case of the volume relating to the investigation of viruses obtained from cases of human tuberculosis other than lupus (see BRITISH MEDICAL JOURNAL, September 16th, 1911, p. 634).

The cases dealt with numbered 21. The ages of the patients varied from 3¾ to 68 years, and the duration of the disease from three months to thirty-six years. The material from one of the cases did not cause tuberculosis in guinea-pigs, and cultures from it were not obtained; but the remaining 20 all provided cultures the viruses of which were tested on various species of animals by inoculation, passage, feeding and other experiments.

In only 3 instances were the cultures yielded identical both in cultural character and virulence with one or other of the two established types of mammalian tubercle bacilli. In these 3 exceptional cases the culture was in one case typically bovine, and in the other two typically human. In the remaining 17 cases the bacilli were bovine in 8, and human in 9 instances so far as cultural characteristics were concerned, but in respect of virulence they in no case presented that corresponding to the cultural characteristics. In the 8 cases in which the cultural character was that of bovine tubercle the virulence was less than that of typical bovine tubercle, not only for the calf and rabbit, but also for the monkey and guinea-pig. In the 9 cases in which the cultural characters were those of human tubercle bacilli the virulence was also below the standard virulence of typical cultures of such bacilli. In both divisions there was considerable variation in the extent of the fall below the standard.

The properties, cultural character, and virulence of the bacilli did not appear in any of the cases to have any relation to the age of the patient or to the duration of the lupus in the individual.

The result of passage experiments was not absolutely conclusive, but sufficiently so to convince the observer that he was dealing in the one set of cases with attenuated varieties of bovine tubercle and in the other set with attenuated varieties of human tubercle.

Cause of the Attenuation.

The report also puts forward reasons for holding that this attenuation was not antecedent to the entry of the bacilli into the individuals affected, but was due to some influence exerted by the skin. The question was also considered whether the bacilli of these variant cultures could be regarded as transitional forms—that is, as an intermediate stage in a transformation from bovine into human tubercle. On this point the following statements are made:

> First, as regards cultural characters. None of the cultures can be regarded as intermediate in this respect, since it has been possible to classify every lupus virus either as a bovine tubercle bacillus or a human tubercle bacillus on the basis of cultural characters alone; not one was in this sense equivocal. There is, however, the possibility that a bovine tubercle bacillus might have fully acquired the characteristic cultural features of the human tubercle bacillus whilst retaining a virulence that would entitle it to be classified among the bovine tubercle bacilli. But there was not found among the viruses of Division II any example of such a eugonic virulent virus.
>
> Secondly, as regards virulence. Considering first the results in calves and rabbits, animals which have habitually been employed to differentiate between bovine and human tubercle bacilli, an inspection of the table on page 25 shows that there is a series of lupus viruses which, in respect of virulence for these animals, are intermediate between bovine and human tubercle bacilli; all these viruses had the cultural characters of bovine tubercle bacilli.
>
> Had the pathogenic powers of these viruses been lowered for the calf and rabbit alone, and not for the monkey and guinea-pig as well, the conclusion would have been inevitable that in these instances we were dealing with cultures which were becoming transformed. But inoculation experiments on monkeys and guinea-pigs, animals equally susceptible to both types of tubercle bacilli, have shown that these viruses were reduced in virulence for these species also; in fact, the nearer their virulence for bovines and rabbits approached that of the human tubercle bacillus, the lower it proved for the monkey and guinea-pig. Thus, the apparent bridging of one gap was accompanied by disclosure of another equally broad.
>
> It was to be anticipated that a bovine bacillus in process of transition into a human bacillus would, so long as it remained more virulent than that bacillus for the calf and rabbit, prove equally virulent with that bacillus for the monkey and guinea-pig; and the circumstance that the lupus viruses in question did not fulfil this condition, that, on the contrary, they would need to reacquire full virulence for the monkey and guinea-pig for classification with the typical human virus, precludes me from accepting them as transitional in type.

Dr. Stanley Griffith's final conclusion is that on the facts so far observed these dysgonic variant viruses should be regarded as no more than attenuated varieties of the bovine tubercle bacillus, just as the eugonic variants should be regarded as attenuated human tubercle bacilli, and that they do not stand in any closer relation to the human tubercle bacillus than does the typical bovine tubercle bacillus.

[1] Final Report of the Royal Commission on Tuberculosis. Part II. Appendix. Vol. ii. Investigation of Viruses obtained from Cases of Lupus. By A. Stanley Griffith, M.D. 1911. London: Published by His Majesty's Stationery Office. Eyre and Spottiswoode, Limited. (Demy 8vo, pp. 475. Price 4s. 9d.) (Cd. 5791.)

Nova et Vetera.

MODERN FAITH HEALING.

F. ANTON MESMER.

(Continued from vol. ii. 1911, p. 1559.)

THE following is a translation of the full text of the report of the French Royal Commission on Animal Magnetism,* a document of the highest importance in the history of medicine. Owing to the great length of the report it has been found necessary to divide it:—

REPORT OF THE COMMISSION.

On March 12th, 1784, the King nominated physicians chosen from the faculty of Paris—MM. Borie, Sallin, d'Arcet, Guillotin—to make an examination and report to him on the animal magnetism practised by M. Deslon; and at the request of these four physicians His Majesty nominated five members of the Royal Academy of Science—MM. Franklin, le Roi, Bailly, de Bory, Lavoisier. M. Borie having died at the beginning of the work of the Commissioners His Majesty chose M. Majault, Doctor of the Faculty, to replace him. The agent which M. Mesmer claims to have discovered, which is made known under the name of animal magnetism, is as he characterizes it himself, and in his own words: "A fluid universally diffused; it is the medium of a mutual influence between the heavenly bodies, the earth, and animate bodies; it is extended so that there is no vacuum; its subtility is beyond comparison; it is capable of receiving, propagating, communicating all the impressions of movement; it is susceptible of flux and reflux. The animal body feels the effect of this agent; and it is by insinuating itself into the substance of the nerves that it directly affects them. One recognizes particularly in the human body properties analogous to those of the magnet; one distinguishes in it poles equally diverse and opposite. The action and the virtue of animal magnetism may be communicated from one body to other bodies animate and inanimate; this action is excited at a considerable distance without the help of any intermediate body; it is increased, reflected by mirrors; communicated, propagated, augmented by sound; this virtue may be accumulated, concentrated, transported. Although this fluid is universal, all animate bodies are not equally susceptible to its influence; there are even some, although in very small number, which have a property so opposite that their presence alone destroys all the effects of this fluid in other bodies. Animal magnetism can cure immediately diseases of the nerves and mediately the others; it perfects the action of drugs; it induces and directs salutary crises so that one can control them; by its means the physician knows the state of health of each individual, and judges with certainty the origin, nature, and progress of the most complicated diseases; he prevents the development of them, and succeeds in curing them without ever exposing the patient to dangerous effects or troublesome consequences, whatever be the age, the temperament, or the sex. Nature offers him magnetism, a universal means of curing and preserving men." (*Mémoire de M. Mesmer sur la découverte du mag. an.*)

Such is the agent which the Commissioners have been directed to inquire into, and the properties of which are avowed by M. Deslon, who admits all the principles of M. Mesmer. This theory forms the basis of a memoir which was read at M. Deslon's house on May 9th in the presence of the Lieutenant-General of Police and the Commissioners.

It is posited in that memoir that there is only one Nature, one disease, one remedy: and that remedy is animal magnetism. That physician, while explaining to the Commissioners the doctrine and procedures of magnetism, taught them the practice of it, making them acquainted with the poles, showing the manner of touching the patients and of directing upon them this magnetic fluid. (1) To prove the existence of animal magnetism. (2) To communicate what he knew about this discovery. (3) To prove the utility of this discovery and of animal magnetism in the cure of diseases. Having made themselves acquainted with the theory and the practice of animal magnetism, it was thought necessary to ascertain the effects. The Commissioners went—each of them several times—to see the treatment of M. Deslon. They saw in the middle of a large room a circular case made of oak and raised about a foot or a foot and a half, which is named the tub (*baquet*). The top of this case is pierced by a number of holes, whence there come out stems of iron bent and movable. The patients are placed in several rows around this tub, and each has his rod of iron, which, by means of the bend, can be applied directly to the diseased part. A cord passed round their bodies unites them to each other. Sometimes a second chain is formed by joining hands—that is to say, applying the thumb between the thumb and first finger of one's neighbour. Then one presses the thumb thus held, the impression received on the left is transmitted to the right, and so goes round. A "pianoforte" is placed in the corner of the room, on which are played different airs with varied movements. Sometimes to this is joined the sound of the voice and song. All those who magnetize have in their hand a rod of iron 10 to 12 in. long. M. Deslon declared to the Commissioners, first, that this rod is a conductor of magnetism. It has the advantage of concentrating it in its point, and of making the emanations more powerful. Secondly, in accordance with the principle of M. Mesmer, is also a conductor of magnetism, and to communicate the fluid to the pianoforte it is sufficient to put the rod of iron near it. The player on the instrument also supplied some, and the magnetism is transmitted by the sounds to the patients round about. Thirdly, the cord round the patients is destined as well as the chain of thumbs to increase the effects by communication. Fourthly, the inside of the tub is so made as to concentrate magnetism in it. It is a large reservoir from which it spreads by the iron rods plunged in it. The Commissioners satisfied themselves later, by means of an electrometer and an iron needle not magnetized, that the tub contains nothing whatever either electric or magnetized. With regard to the declaration of M. Deslon as to the interior composition of this tub, they have not recognized in it any physical agent capable of contributing to the reported effects of magnetism. The patients grouped in large number and in several rows around the tub therefore receive at the same time magnetism by all these means—by the stems of iron, which transmit to them that of the tub; by the cord twined round the body and by the union of thumbs, which communicate to them that of their neighbours; by the sound of the pianoforte or of an agreeable voice, which diffuses it through the air.

The patients are again magnetized directly by means of the finger and the iron rod, directed in front of the face above or behind the head, and on the diseased parts, the distinction of the poles being always observed. One acts on them by the look and fixing the gaze on them. But especially they are magnetized by the application of the hands and by the pressure of the fingers on the hypochondria and on the regions of the lower abdomen, an application which is often continued for a long time, sometimes during several hours. Then the patients present a very varied picture by the different states in which they are. Some are calm, quiet, and feel nothing; others cough, spit, feel some slight pain, a local or a general heat and sweat. Others are agitated and tormented by convulsions. These convulsions are extraordinary in their number, duration, and violence. As soon as one convulsion begins several others manifest themselves. The Commissioners have seen some that lasted three hours. They are accompanied by expectorations of a cloudy and viscous water caused by the violence of the efforts. Sometimes streaks of blood have been seen and among others there is a young male patient who often throws it up in abundance. These convulsions are characterized by rapid involuntary movements of all the limbs and of the whole body by tightening of the throat, jerking movements of the hypochondria and the epigastrium, wildness and confusion in the eyes, piercing shrieks, tears, hiccoughing, and immoderate laughter. They are preceded or followed by a state of languor and dreaminess, a sort of prostration, and even drowsiness. The least unexpected noise causes startings, and it has been remarked that the change of tone and time in airs played on the "pianoforte" had an influence on the patient so that

* Rapport de Commissaires chargé par le Roi de l'Examen du Magnétisme Animal. Imprimé par ordre du Roi. Sur la copie imprimée au Louvre. A Paris: Chez Moutard, Imprimeur, Librairie de la Reine, a de l'Académie Royale des Sciences, rue des Mathurins, Hôtel de Cluni. 1784.

a livelier movement agitated them more and renewed the vivacity of their convulsions. There is a padded room destined primarily for patients attacked by these convulsions, a room called "the room of crises." M. Deslon, however, does not consider it fitting to make use of it, and all the patients, whatever may be their symptoms, are gathered together in the rooms of public treatment. Nothing is more astonishing than the sight of these convulsions; when one has not seen it one cannot form an idea of it, and in seeing it one is equally surprised both at the deep repose of some of the patients and the excitement of others; the varied symptoms which are repeated, the sympathies which are established. One sees patients seek each other out exclusively, and, hurrying towards each other, smile, speak with affection and calm each other's crises. All are subject to the magnetizer. They may be in an apparent sleep; his voice, a look, a sign, brings them out of it. One cannot help recognizing in these constant effects a great power which excites the patients and dominates them, and of which the magnetizer seems to be the depositary. This convulsive state is improperly called "crises" in the theory of animal magnetism. According to that doctrine it is regarded as a salutary crisis of the character of those caused by Nature, or of those the skilful physician knows how to produce in order to facilitate the cure of the diseases. The Commissioners will adopt that expression in the rest of this report, and when they use the word *crisis* they will always mean the state either of convulsions or of drowsiness in some way lethargic, produced by the procedures of animal magnetism.

The Commissioners have noted that in a number of the patients passing through the crisis there were always many women and few men; that these crises took an hour or two to become established, and that as soon as one was established all the others began successively within a short time. But after these general remarks the Commissioners quickly came to the conclusion that the public treatment could not be the scene of their experiments. The multitude of effects was the first obstacle. Too many things are seen at a time for one to be able to judge of any particular effect. Moreover, distinguished patients who come to the treatment for their health might be annoyed by the questions; careful observation of them might either inconvenience or displease them. The Commissioners themselves would be hindered by their own discretion. They decided, therefore, that it being needless for them to be assiduous in their attendance at the treatment, it was sufficient that some of them should go from time to time to confirm the first general observations, to make new ones, if there were any to be made, and to report to the Commission assembled together. After having observed these effects at the public treatment, they passed on to disentangle the causes and to seek for proofs of the existence and utility of magnetism.

The question of the existence is the first—that of utility can only be treated after the other has been completely settled. Animal magnetism may well exist without being useful, but it cannot be useful if it does not exist. Consequently the principal object of the investigations of the Commissioners and the essential object of their first experiments had to be to assure themselves of that existence. That object by itself was very vast, and had to be simplified. Animal magnetism embraces all Nature; it is, it is asserted, the medium of the influence of the heavenly bodies upon us; the Commissioners believed that they ought first to put aside that great influence, and only consider the part of the fluid spread upon the earth, without troubling themselves whence it comes, and to determine the action which it exerts upon us, around us, and under our eyes; before examining its relations with the universe. The surest means of proving the existence of the magnetic fluid would be to make its presence sensible. But it did not take the Commissioners long to recognize that that fluid escapes the perception of all the senses. It is not luminous and visible, like electricity. Its action does not manifest itself to the sight like the attraction of a magnet; it is without taste and without smell; it proceeds without sound, and surrounds or penetrates you without the sense of touch informing you of its presence. If it exists in us and around us it is therefore in an absolutely insensible manner. Among those who profess magnetism, there are some who pretend that it is sometimes seen coming out of the ends of the fingers which serve as conductors, or who believe that they feel its passage when the finger is passed in front of the face and on the hand.

In the former case the emanation perceived is only that of perspiration, which becomes entirely visible when magnified by the solar microscope; in the second the impression of cold or freshness which is felt, impression all the more marked the hotter one is, results from the movement of the air which follows the finger, and the temperature of which is always below the degree of animal heat. When, on the contrary, the finger is put near the skin of the face, which is colder than the finger, and when it is left in repose, a feeling of heat is caused which is communicated animal heat. It is also pretended that the fluid has a smell, and that it is perceived when the finger or the iron which acts as a conductor is passed under the nose. It is said even that these sensations are different under each nostril, according as the finger or the iron is passed in the direct or the opposite pole. M. Deslon made the experiment on several Commissioners; the Commissioners repeated it on several subjects; not one of them has perceived this difference of sensation in the nostrils; and if in giving one's attention to it one has, in fact, perceived some odour, it is when the iron is passed that of the iron itself heated and rubbed; and when the finger is presented that of the emanations of the sweat, a smell often mingled with that of the iron with which the finger itself is impressed. Therefore M. Deslon has never laid stress on these passing impressions; he has not thought it necessary to produce them as proofs; and on the contrary he has expressly declared to the Commissioners that he could only demonstrate to them the existence of magnetism by the action of that fluid working changes on animate bodies. This existence becomes all the more difficult to determine by effects which should be decisive, and the cause of which shall not be doubtful; by authentic facts, on which moral circumstances can have no influence; lastly, by proofs capable of striking, convincing the mind, the only ones which are of a nature to satisfy enlightened physicists.

The action of magnetism on animate bodies may be observed in two different manners—either by this action long continued, and by its curative effects in the treatment of diseases, or by its momentary effects on the animal economy, and by the appreciable changes which it produces therein. M. Deslon insisted that the former of these methods should be employed principally and almost exclusively. The Commissioners have not thought fit to do so for the following reasons: Most diseases have their seat in the interior of the body. The long experience of a great number of centuries has made known the symptoms which announce and characterize them. The same experience has taught the way to treat them. What is in his method the aim of the physician's efforts? It is not to oppose and subdue Nature; it is to aid her in her operations. Nature cures the sick, the Father of Medicine has said; but sometimes she meets with obstacles which hinder her in her course, which uselessly waste her forces.

The doctor is the minister of Nature; an attentive observer, he studies her course. If that course is firm, sure, equable, and without deviation, the doctor observes it in silence, and takes care not to disturb it by remedies, to say the least, useless; if that way is hindered, he facilitates it; if it is too slow or too rapid, he accelerates or retards it. He confines himself sometimes to regulating the way of life in order to attain his end; sometimes he uses drugs. The action of a remedy introduced into the human body is a new force combined with the great force which makes life; if the remedy follows the same paths which that force has already opened for the expulsion of evils, it is useful, it is salutary: if it tends to open contrary routes and to turn aside this internal action it is harmful. Nevertheless, it must be agreed that this effect, salutary or harmful, absolutely real as it is, may escape common observation. The physical history of man presents very remarkable phenomena in this respect. It is seen that the most opposite régimes have not prevented the attainment of great age. One sees men attacked apparently by the same disease cured by following contrary régimes and taking remedies entirely different; Nature is therefore powerful enough to maintain life notwithstanding a bad

treatment and to triumph at once over the evil and the remedy. If it has this power of resisting remedies, *a fortiori* it has the power of operating without them. The experience of their efficacy is therefore always somewhat uncertain; when we have to do with magnetism there is a further uncertainty, that is, of its existence. Now how can one be assured in the treatment of diseases of the action of an agent whose existence is disputed, when it is possible to doubt the effect of remedies, the existence of which is not problematical? The cure which is cited as most favourable to magnetism is that of the Baron de —— ; the Court and the town have equally been informed about it. We will not enter here into a discussion of the facts; we will not examine whether the remedies previously used may have contributed to the cure. It is admitted, on the one hand, that the patient was in a very dangerous state; and, on the other hand, that all the resources of ordinary medicine were of no avail. Magnetism was employed, and the Baron de —— was completely cured. But could not a natural crisis by itself have wrought this cure? A woman of the people, very poor, living at the Gros-Caillou, was attacked in 1779 by a well-marked malignant fever. She steadfastly refused all help, and only asked that a vessel which was beside her should always be kept full of water. She remained quiet on the straw which served as a bed, drinking the water all day, and doing nothing else. The disease developed itself, passed successively through its different stages, and ended in a complete cure.†

Mademoiselle G——, staying in the Petites-Ecuries of the King, had in her right breast two glands which caused her much anxiety; a surgeon recommended the use of the *eau du Peintre* as an excellent solvent, telling her that if the remedy did not succeed within a month it would be necessary to extirpate the glands. The young lady, alarmed, consulted M. Sallin, who judged that the glands were capable of resolution; M. Bouvart, who was afterwards consulted, gave the same opinion. Before commencing the remedies she was advised to try distraction; a fortnight later she was seized at the opera with a cough so violent, and such abundant expectoration, that she had to be taken home: she spat up during the space of four hours about three pints of a glairy lymph: an hour later M. Sallin examined the breast, he found no vestige of glands. M. Bouvart, who was called in the next day, satisfied himself as to the happy effect of this natural crisis. Had Mademoiselle G—— taken the *eau du Peintre* the "painter" would have had the honour of the cure. The constant observation all the centuries prove, and doctors recognize, that Nature alone and without any treatment cures a large number of patients. If magnetism had no action the patients submitted to its procedures would be as though they had been left to Nature. It would be absurd to choose, in order to determine the existence of that agent, a means which in attributing to it all Nature's cures would tend to prove that it has a useful and curative action even when it had none. In this the Commissioners are of the opinion of M. Mesmer. He rejected the cure of diseases when this means of proving magnetism was proposed to him by a member of the Académie des Sciences. It is, said he, "an error to believe that this kind of proof is beyond dispute: nothing proves irrefutably that the doctor or the art of healing cure patients."‡

The treatment of diseases can therefore only furnish results always uncertain and often misleading; this uncertainty could only be dissipated and every cause of illusion outweighed by an infinity of cures and, perhaps, by the experience of several centuries. The object and the importance of the Commission call for prompter means. The Commissioners had to confine themselves to purely physical proofs—that is to say, to the momentary effect of a fluid on the animal body—stripping these effects of all illusions which may mingle with them and assuring themselves that they cannot be due to any other cause than animal magnetism. They propose to make experiments on isolated subjects who would be willing to lend themselves to the various experiments which might be devised, and who, some by their simplicity, others by their intelligence, would be able to give a faithful and exact account of what they experienced. These experiments will not be related here in order of time, but in the order of the facts they are intended to elucidate. At the outset the Commissioners resolved to make their first experiences on themselves, and to submit themselves to the action of magnetism. They were very curious to recognize by their own sensations the effects attributed to this agent. They therefore submitted themselves to these effects with such resolution that they would not have been displeased to experience some symptoms and derangement of the health which, if thoroughly recognized as a certain effect of magnetism, would have placed them in a position to reply at once and on their own personal testimony to this important question. But in thus submitting themselves to magnetism the Commissioners took a necessary precaution. There is no person in the very best of health who, if he set himself to observe himself attentively, would not feel within him an infinity of movement and variations, either of infinitely slight pain or of heat in different parts of their body; these variations, which take place at all times, are independent of magnetism. It is therefore not, perhaps, unimportant to direct and fix one's attention thus upon one's self. There are so many relations, whatever be the medium between the will of the soul and the movements of the body, that one could not say how far may go the influence of the attention, which seems to be only a series of acts of the will directed constantly and without interruption to the same object. When one considers that the will moves the arm as it wishes, should one be sure that the attention directed to some internal part of the body cannot excite in it slight movements, set up heat, and modify the actual state so as to produce new sensations? The first care of the Commissioners had to be not to become too attentive to what was going on within them. If magnetism is a real and potent cause, it does not need that they should think of it in order to act and manifest itself; it should so to speak force and fix their attention and make itself perceived by a mind even purposely diverted. But in deciding to make experiments upon themselves the Commissioners unanimously resolved to make these experiments among themselves, without admitting any other person than M. Deslon, or persons chosen by themselves to magnetize them. They also undertook not to magnetize in the "public treatment" so that they might freely discuss their observations and be in all cases the only or at least the first judges of what they should observe. In consequence there was set apart for them in M. Deslon's house, a separate room and a particular tub, and the Commissioners went and placed themselves there once a week. They remained there up to two and a half hours at a time, with the stem of iron pressed on the left hypochondrium, surrounded by the cord of communication, and making from time to time the chain of thumbs. They were magnetized either by M. Deslon or by one of his disciples sent in his place, some longer and more often, and it was the Commissioners who appeared likely to be the most sensitive: they were magnetized sometimes with the finger and the iron rod, presented and passed across different parts of the body, sometimes by the application of hands, and by the pressure of fingers either on the hypochondria or on the pit of the stomach.

None of them felt anything, or, at least, experienced anything, of such a nature as to be attributable to the action of magnetism. Some of the Commissioners are of robust constitution, others of more delicate constitution and subject to infirmities. One of the latter felt a slight pain at the pit of the stomach after the strong pressure which had been made on the part. That pain lasted the whole of that day and the next: it was accompanied by a feeling of fatigue and malaise. A second felt on the afternoon of one of the days, when he was touched, a slight irritation in the nerves to which he is very subject. A third, who is endowed with greater sensibility, and especially with excitability of the nerves, felt greater pain and more marked irritations; but these slight phenomena are the consequence of the perpetual and ordinary variations in the state of health, and consequently have nothing to do with magnetism, or the result from the pressure made on the region of the stomach. The Commissioners only mention these trivial details through scrupulous fidelity: they report them because they have imposed on themselves a law to speak the truth

† This detailed observation was communicated to the Faculty of Medicine of Paris at a meeting *de urinæ mensis* by M. Bourdois de la Mothe, Physician of the Saint Sulpice Charity, who regularly visited the patient every day.

‡ M. Mesmer, *Précis historique*, p. 35-37.

always and about everything. The Commissioners could not help being struck by the difference between the public treatment and their private treatment at the tub. Calm and silence in one, movement and excitement in the other. There multiplied effects, violent crises, the habitual state of the body and the mind interrupted and disturbed, Nature excited; here, in a word, the body without pain, the mind without disturbance, Nature preserving both its equilibrium and its ordinary course, absence of all the effects; the greater power which astounds in the public treatment is no longer to be found. Magnetism without energy seems to be devoid of all appreciable action. The Commissioners having at first been to the tub every eight days, wished to try whether a continuous treatment would not produce something. They therefore went three days consecutively, but they remained equally irresponsive and obtained no effect. This experiment, made and repeated at one time on eight persons, several of whom suffer from habitual infirmities, justifies the conclusion that magnetism has either no action or only a slight one in health, and even in a condition of slight infirmity. It was decided to make experiments on persons really ill, and they were chosen from among the lower class.

Seven patients were gathered together in M. Franklin's house at Passy. They were magnetized in his presence and that of the other Commissioners by M. Deslon. The widow Saint Amand, asthmatical, having the belly, thighs, and legs swollen, and the woman Auseaume, who had a tumour on the thigh, felt nothing. The little Claude Renard, a child of 6 years, scrofulous, almost phthisical, having the knees swollen, the leg bent, and the joint almost without movement, an interesting child, more intelligent than is usual at his age, also felt nothing; as was the case with Génevièvе Leroux, aged 9 years, attacked with convulsions and a disease resembling that known as St. Vitus's dance. Francois Grenet felt some effects. His eyes are diseased, especially the right, with which he hardly sees, and where there is a considerable swelling. When the left eye was magnetized, by bringing near and moving the thumbs close for a considerable time, he felt pain in the eyeball, and the eye watered. When the right eye, which was the most diseased, was magnetized he felt nothing. He felt the same pain in the left eye, and nothing anywhere else.

The woman Charpentier, who was thrown to the ground against a log by a cow two years ago, felt several consequences of that accident. She lost her sight, partly recovered it, but remained in a state of chronic infirmity. She has stated that she has two ruptures, and the belly of such acute sensibility that she cannot bear the strings of her petticoats; this sensibility is due to irritated nerves which had become very excitable. The slightest pressure made in the region of the belly may arouse this excitability and produce effects throughout the body owing to the communication between nerves. This woman was magnetized like the others, by application and pressure of the fingers; the pressure was painful to her; then on directing a finger to the rupture she complained of pain in the head; the finger being placed before her face she said she lost the power of breathing. On reiterated movement of the finger from above downwards she had rapid movements of the head and shoulders, as occurs in cases of surprise mingled with fear, such as happens in a person in whose face some drops of cold water would be thrown. It seemed that she felt the same movements with her eyes shut. Fingers were placed under her nose after she had been told to shut her eyes, and she said she would faint if it went on. The seventh patient, Joseph Emmyé, experienced effects of the same kind, but much less marked. Of these seven patients there were four who felt nothing and the three others felt effects. These effects deserved the attention of the Commissioners and required a scrupulous inquiry. The Commissioners, for their own enlightenment and to settle their ideas on this point, took the course of testing patients placed in other circumstances, patients chosen from among members of the upper class, who could not be suspected of any interested motive, and whose intelligence would be capable of discussing and appreciating their own sensations. Mesdames de B. and de V., MM. M—— and R—— were admitted to the private tub with the Commissioners, they were begged to observe what they felt but without concentrating their attention too much upon it. M. M—— and Madame de V—— were the only ones who felt anything. M. M—— has a cold swelling over the whole knee-joint, and he feels pain in the patella. He declared after having been magnetized that he felt nothing in the whole body except at the moment the finger was passed in front of the diseased knee. He then thought that he felt a slight warmth at the place where he habitually feels pain. Madame de V——, suffering from nervous attacks, has several times been on the point of falling asleep while she was being magnetized. Magnetized for an hour and nineteen minutes without interruption, and most often by application of hands, she felt only agitation and malaise. These two patients came only once to the tub. M. R——, suffering from the remains of a congestion of the liver following a severe obstruction imperfectly cured, came three times and felt nothing. Madame de B——, seriously attacked by obstructions, came constantly with the Commissioners; she felt nothing, and it should be pointed out that she submitted herself to magnetism with perfect tranquillity arising from a great incredulity. Various patients were tested on other occasions, but not around the tub. One of the Commissioners in an attack of migraine was magnetized by M. Deslon during half an hour. One of the symptoms of this migraine was excessive coldness of the feet. M. Deslon put his foot near that of the patient; the foot was not warmed, the migraine lasted the usual length of time, and the patient, having gone back to the fireside, obtained from it the salutary effect which warmth had always wrought on him without having felt, either during the day or the following night, any effect of the magnetism. M. Franklin, although his infirmities prevented his going to Paris and being present at the experiments there made, was himself magnetized by M. Deslon, who went to him at Passy. The assembly was numerous; all present were magnetized. Some patients who had accompanied M. Deslon felt the effects of the magnetism as they usually feel them in the public treatment.

But Madame de B——, M. Franklin, his two female relatives, his secretary, and an American officer felt nothing, although one of Franklin's relatives was convalescent from an illness. The American officer was at the time sick of an intermittent fever. These various experiments supply facts suitable to be placed side by side and compared, from which the Commissioners were able to draw conclusions. Of fourteen patients there were five who seemed to feel effects and nine who felt nothing. The Commissioner who had migraine and cold feet got no relief from magnetism, and his feet were not warmed. That agent, therefore, has not the property attributed to it of communicating heat to the feet. Magnetism is also stated to have the property of making known the nature and especially the seat of the evil by the pain which the action of that fluid infallibly sets up there. This advantage would be precious; the fluid indicative of the evil would be a great means in the hands of the doctor, who is often deceived by equivocal symptoms. But Francois Grenet only felt some sensation and some pain in the less diseased eye; if the other eye had not been red and swollen, one might have believed it to be intact, judging from the effect of magnetism. M. R—— and Madame de B——, both suffering from obstructions—and Madame de B—— very seriously—having felt nothing, would not have been made aware of the seat or nature of their disease. Obstructions are, however, diseases which are said to be particularly amenable to the action of magnetism, since, according to the new theory, the free and rapid circulation of that fluid through the nerves is a means of clearing the canals and destroying the obstacles—that is to say, the congestions which it meets there. It is said at the same time that magnetism is the touchstone of health; if M. R—— and Madame de B—— had not experienced the disorders and sufferings inseparable from the obstructions they would have been warranted in believing themselves in the best of health. The same may be said of the American officer. Magnetism, which is proclaimed as an indicator of diseases, therefore utterly failed in its effect.

The heat which M. M—— felt in the patella is too slight and too fugitive an effect to form the basis of any conclusion. It may be suspected that it comes from the cause set forth above, that is to say, from too much attention in observing

oneself; the same attention would find similar sensations at any other time when magnetism would not be employed, the drowsiness felt by Madame de V—— arises doubtless from the constancy and weariness of keeping in the same position. If she had some "vaporous" sensations it is known that it is the peculiarity of nervous affections to depend much on the attention paid to them; it is enough to think of them or to hear them spoken of to make them recur. One may judge of what is likely to happen to a woman whose nerves are very excitable and who, magnetized during one hour and nineteen minutes, has during that time no other thought than that of the complaints which are habitual to her. She might have had a nervous crisis more considerable without there being any cause for surprise.

There remained, therefore, only the effects produced on the woman Charpentier, on Francois Grenet, and on Joseph Ennuyé which may be credited to magnetism. But, then, in comparing these three particular cases with all the others, the Commissioners were struck by the fact that these three patients of the lower class are the only ones who felt anything, whilst those belonging to a higher class, more enlightened, more capable of recognizing their sensations, felt nothing. Without doubt Francois Grenet felt pain in the eye and lacrymation because the thumb was placed very near his eye. The woman Charpentier complained that on her stomach being touched the pressure corresponded to her rupture, and this pressure may have produced part of the effects which the woman felt; but the Commissioners suspected that these effects had been intensified by moral circumstances.

Let us represent to ourselves the position of a woman of the lower class, consequently ignorant, attacked by a disease and wishing to be cured, brought with fuss before a large assembly consisting of doctors where a treatment altogether new to her is administered, from which she persuades herself beforehand that she is to feel marvellous effects. Let us add that her compliance is paid for, and that she believes that she is pleasing us more by saying that she feels effects, and we shall have natural causes which explain these effects; we shall have at least legitimate reasons for doubting that their true cause is magnetism. Moreover, it may be asked why magnetism had these effects on people who knew what was being done for them, who might believe it to be their interest to say what they did say, whilst it has no hold on the little Claude Renard, on that delicate organization of childhood so excitable and so sensitive. The intelligence and candour of that child give assurance of the truth of his testimony. Why did not that agent produce any effects on Genevieve Leroux, who was in a perpetual state of convulsions? She has certainly excitable nerves. How is it that the magnetism did not manifest itself either in increasing or diminishing her convulsions?

Her indifference and apathy lead to the belief that she felt nothing because the absence of her reason did not permit her to judge that she ought to feel something. These facts allowed the Commissioners to observe that magnetism appears to have no effect in those of the patients who submitted themselves to it with a certain incredulity; that the Commissioners, even those who had more excitable nerves, having purposely diverted their attention, having armed themselves with a philosophic doubt which should accompany every inquiry, have not experienced the impressions felt by the patients belonging to the lower class, and they were led to suspect that these impressions, assuming them all to be real, were the consequence of an anticipated persuasion, and might be an effect of the imagination. There has followed from this another scheme of experiments. Their researches will henceforth be directed towards a new object—that is, to destroy or confirm this suspicion, to determine up to what point the imagination may influence our sensations, and to ascertain if it can be the cause wholly or partly of the effects attributed to magnetism.

Then the Commissioners got word of the experiments made at the house of the Dean of the Faculty by M. Jumelin, Doctor in Medicine; they wished to see these experiments, and they assembled with him at the house of one of them, M. Majault. M. Jumelin told them that he was not a disciple either of Mesmer or of M. Deslon; he had learnt nothing from them about animal magnetism; and on what he had heard reported he conceived principles and planned procedures. His principles consist in looking upon the animal magnetic fluid as a fluid that circulates in all bodies, and which emanates therefrom, but which is essentially the same as that which makes heat; fluid which, like all the others, tending to equilibrium, passes from the body which has the most into that which has the least. His procedures are equally different from those of MM. Mesmer and Deslon. He magnetizes like them with the finger and the iron rod as conductors, and by the laying on of hands, but without any distinction of poles.

Eight men and two women were first magnetized, and felt nothing; lastly, a woman who is door-keeper of M. Alphonse le Roy, Doctor in Medicine, having been magnetized on the forehead but without contact said that she felt heat. M. Jumelin making passes with his hand and presenting the five ends of his fingers over the whole face of the woman, she said that she felt as a flame that wandered about; magnetized in the stomach she said she felt heat in that region; magnetized on the back she said she felt the same heat there; she declared, moreover, that she was hot all over the body and had a headache.

The Commissioners, seeing that of eleven persons subjected to the experiment only one had been sensitive to the magnetism of M. Jumelin, thought she had experienced something only because her imagination was doubtless more easily set in motion; the occasion was favourable for the elucidation of this point. The sensibility of this woman having been proved, the question was only one of sheltering her against her own imagination, or at least of putting her imagination on a wrong scent. The Commissioners proposed to bind her eyes, so as to observe what would be her sensations when one operated without her knowledge. Her eyes were bandaged and she was magnetized; the phenomena no longer corresponded to the parts to which the magnetism was directed. Magnetized successively on the stomach and in the back, the woman only felt heat in the head, pain in the right eye, and in the left eye and ear. Her eyes were unbound, and M. Jumelin, having applied his hands over the hypochondria she said she felt heat there; but at the end of several minutes she said she was going to faint, and in fact she did faint. When she quite recovered herself she was taken in hand again. Her eyes were bandaged; M. Jumelin was put aside, silence was enjoined, and the woman was made to believe that she was magnetized. The effects were the same, although no action was exercised on her, either from near or from afar; she experienced the same heat, the same pain in the eyes and in the ears; she felt, moreover, heat in the back and in the loins. At the end of a quarter of an hour a sign was made to M. Jumelin to magnetize her in the region of the stomach; she felt nothing; in the back the same thing happened. The sensations diminished instead of increasing. The pains of the head remained, the heat of the back and of the loins ceased. It will be seen that here effects were produced, and these effects are similar to those experienced by the three patients referred to above; but both the one and other were obtained by different procedures; it follows that the procedures have nothing to do with the matter. The method of MM. Mesmer and Deslon and an opposite method equally yield the same phenomena. The distinction of poles is therefore chimerical. It may be observed that when the woman saw she referred her sensations precisely to the spot magnetized; whereas when she did not see she placed them at random and in parts very remote from those to which the magnetism was directed. It was natural to conclude that it was the imagination which determined her sensations, true or false. One was convinced of it when one saw that after a good rest, feeling nothing more and having her eyes bandaged, the woman experienced all the same effects, although she was not magnetized; but the demonstration was complete when, after a sitting of a quarter of an hour, her imagination having doubtless become tired and cooled down, the effects, instead of increasing, diminished at the moment when the woman was really magnetized.

If she fainted, that accident sometimes happens to women when they feel themselves tight and embarrassed in their clothes. The application of the hands to the hypochondria may have produced the same effect on an excessively sensitive woman; but there is no need to have recourse to that cause to explain the fact. The

weather was then very hot; the woman had doubtless felt emotion in the first moment she made an effort to submit to a new unknown treatment, and after an effort too long maintained it is not extraordinary that one should faint.

This fainting has, therefore, a natural and known cause; but the sensations which she experienced when she was not being magnetized can only be the effect of the imagination. By experiments similar to those made by M. Jumelin in the same place on the following day, in the presence of the Commissioners, on a man with his eyes bound and on a woman with her eyes uncovered the same results were obtained; it was recognized that their replies were evidently determined by the questions put to them. The question indicated where the sensation ought to be; in place of directing magnetism upon them one only raised and directed their imagination. A boy of 5 years magnetized afterwards only felt the heat into which he had previously been thrown in playing. These experiments have seemed to the Commissioners sufficiently important to make them wish to repeat them with the object of getting further enlightenment, and M. Jumelin was good enough to comply with the suggestion.

It would be useless to object that the method of M. Jumelin was bad; for at that time the intention was not to test magnetism but the imagination.

The Commissioners agreed to bind the eyes of subjects who had been tested, not to magnetize them for the most part, and to put the questions with sufficient skill to indicate to them the replies. This procedure was not of a nature to lead them into error; it only deceived their imagination. In fact, when they are not magnetized their sole reply should be that they feel nothing; and when they are magnetized it is the impression felt which should dictate their answer, and not the manner in which they are interrogated.

Consequently, the Commissioners having repaired to M. Jumelin's house, they began by testing his man servant. A bandage prepared for the purpose, and which served for all the following experiments, was applied to his eyes. This bandage was composed of two gum elastic plasters, the concavity of which was filled with eider-down, the whole closed and stitched between two pieces of cloth cut into a round shape. These two pieces were attached one to the other; they had strings which tied behind. Placed over the eyes they allowed between them room for the nose and freedom of respiration without its being possible to see anything—even the light of day, neither through or above or below the bandage.

These precautions taken, for the comfort of the subjects tested and to ensure the certainty of the results, M. Jumelin's servant was persuaded that he was magnetized. Then he felt an almost general heat, movements in the belly, the head became heavy, gradually he became drowsy, and seemed to be on the point of falling asleep, which proves, as has been said above, that this effect depends on the position, on the weariness, not on the magnetism. Then, magnetized with his eyes uncovered, by presenting the iron rod at his forehead he felt prickings there. On the eyes being again bandaged, when the rod was presented to him he did not feel it, and when it was not presented, asked if he felt nothing in the forehead, he declared that he felt something come and go across the breadth of the forehead.

M. B— —, a man of education, especially in medicine, when his eyes were bandaged, presented the same spectacle—feeling effects when nothing was done; often feeling nothing when something was done. These effects have even been such that before having been magnetized in any manner, but believing that he was so, for ten minutes he felt in the loins a heat which he compared to that of a stove. It is evident that M. B— felt a strong sensation, since to give an idea of it he had to have recourse to such a comparison; and this sensation originated only from the imagination which alone acted upon him. The Commissioners, especially the physicians, made a large number of experiments on different subjects, whom they themselves magnetized, or whom they made believe that they had been magnetized. They magnetized indifferently, either at opposite poles or at direct poles or the other way about, and in all the cases they obtained the same effects; in all these tests there was no other difference than that of the greater or less power of the imagination. They therefore convinced themselves by the facts that the imagination alone can produce different sensations, and cause feelings of pain and heat, even considerable heat, in all parts of the body, and they concluded that it necessarily plays a large part in the effects attributed to animal magnetism.

(To be continued.)

SCIENCE NOTES.

The familiar pictures of the old-fashioned Christmas with stage coaches embedded in snowdrifts represent probably no more than the conditions of a few years occurring at irregular intervals. It must be remembered that before the correction of the calendar Christmas Day corresponded to a date twelve days later, and there is truth in the weather proverb, "As the day lengthens the cold strengthens." The French Republic when it reorganized everything set up a month, from December 22nd to January 21st, which it called the snowy (*nivose*), and this year heavy snow fell in many parts of England about Twelfth Night. Mr. W. Sedgwick has been making a study of the information as to the weather to be extracted from the notes made by Evelyn and Pepys in their diaries for the years from 1648 to 1703. In only thirteen winters is a fall of snow mentioned, and in only three of these does it seem to have been heavy. Frosts sufficiently severe and prolonged to call for special notice occurred in ten years only. One of these was the hard long frost of the winter of 1683-4, when the Frost Fair was held on the Thames, and hackney coaches plied on its frozen surface. On the other hand, Evelyn notes eleven mild or wet winters. Mr. Sedgwick concludes that there is no evidence for the belief that the weather of the winters of the twentieth century differed from that of those of the seventeenth. There are, of course, great differences from year to year, and there may be a slow cyclic change—the period has been put at about thirty-two or thirty-three years; the weather of the years at one part of the cycle may have a general resemblance to each other, and differ from that of the years in another part of the cycle, but the average for a long period of years does not seem to have changed. The doctrine of averages asserts itself in all meteorological phenomena, and this fact is illustrated by the heavy rainfall of November and December in Great Britain after the very dry summer. The rainfall in the last two months of 1911 was heavy enough to restore the average for the year, and in some places was of exceptional magnitude. Sir Alexander Binnie has published a striking example from Ebbw Vale in South Wales, a district known by name to our readers in another connexion. The fall from October 18th to December 31st was 29.33 in., and on each of nine days it amounted to or exceeded 1 in. in twenty-four hours. Now the total annual rainfall in London averages under 25 in. During the last Christmas season the greatest rainfall on any one day was 0.27 in. in London, 0.33 in. in Oxford, 0.31 in. in Liverpool, and 0.42 in. in Yarmouth.

The Haversian system of canals in the ends of the femur and other long bones is met with only in birds and mammals, although it appears in outline in some reptiles. In most reptiles the structure is laminated, while in amphibians it is lamellar, which may be regarded as the simplest type. Many birds and mammals have the femur constructed on this type, others have it laminated, or there is a mixture of lamellar and laminated, while in some mammals the femur has a structure comprising all three types. These general results have been arrived at by Dr. Foot[1] from a comparative histological study of the femur in the frog, alligator, and snapping turtle, as well as of numerous birds and mammals.

[1] *Trans. Amer. Micr. Soc.*, xxx, 1911, p. 87.

Messrs. E. Leitz (London) ask us to announce that their business has been transferred to 18, Bloomsbury Square, W.C., a few doors from the British Museum.

Under the will of the late Mr. Thomas George Gibson, a solicitor of Newcastle, the Armstrong College of the University of Durham and the Newcastle Royal Infirmary each receives a bequest of £2,000.

THE LATE DR. HUGHLINGS JACKSON.

RECOLLECTIONS BY DR. MERCIER.

MAY I supplement Sir Jonathan Hutchinson's recollections of Dr. Hughlings Jackson as a coeval and a comrade, by the recollections of one of a younger generation, who knew him as a master? I was closely associated with him for some years, and have always regarded him with very great admiration, both for his intellect and his character. No man ever had a better claim to the title of genius, for his mind was of extraordinary quality. Not very wide, perhaps, in range, it had, within its range, a grasp and penetration truly wonderful.

His speculations on the ultimate nature of mental processes and their connexion with brain processes are the most profound, and over a wide field, the most consistent and explanatory that have ever been attained; and they will undoubtedly form the foundation of a future system of psychology that is yet to be elaborated. It is lamentable that he never gave to the world a complete body of doctrine. He had in contemplation a book, of which he published now and then in some journal of small circulation a chapter or part of a chapter, but the book was never completed, partly from his difficulty in putting his thoughts into words, and partly from his extreme fastidiousness in expression. His writings had the reputation of obscurity, but they were not in the least obscure to those who were familiar with his modes of thought and the subjects of his thought. They had, however, a lack of literary skill and a certain crudity of expression that was in striking contrast with the elaboration and clearness of his thought. Of this lack of skill he was himself conscious. He said that writing on his subjects was like driving six horses abreast, each of which needed continuous attention. I know that he wrote one paper thirteen times, and was still unsatisfied.

Sir Andrew Clark's dictum that neither Sir Jonathan nor Dr. Hughlings Jackson had a sense of humour is accountable only when we remember that Sir Andrew was a Scotsman. Sir Jonathan Hutchinson's humour is, indeed, uttered with a deliberate gravity that might easily deceive the voluble Scot, but Dr. Hughlings Jackson not only had the keenest sense of humour of any one I ever knew, but on the utterance of a witticism his face would light up, and he would throw his head back with uncontrolled delight. He it was who stopped the operator who had just removed a cerebral tumour, and was beginning to "make good," with the remark, "You have forgotten something"; and when the harassed operator looked up in alarm, continued, "You have forgotten to put in the joke." The subject of the operation was a Scotsman.

Going round the wards one day, Dr. Jackson was surprised to find one of the beds empty. "Where is this patient?" "He is gone out, sir." "Gone out?" "Yes, sir; he was discharged cured on Wednesday." Dr. Jackson instantly turned to me: "Put that down in the notes, Mr. Mercier. Put down that he was discharged cured, *and put down the medicine that cured him.*"

Driving with him in a cab, I noticed that the cab was taking a roundabout route, and asked Dr. Jackson if I should correct the man. "Leave it to him," said Dr. Jackson; "he knows best—he is a specialist in that department."

He was the originator of the expressions, "A clotted mass of spasm," "An optic disc that looks as if it had been trodden on."

Mr. Harris was, as Sir Jonathan Hutchinson says, frequently referred to as the *diabolus ex machinâ*, to whose malignant intervention untoward events were due. In particular, he haunted Dr. Jackson in order to hide his things.

I am able to supplement Sir Jonathan Hutchinson's information by informing him that Dr. Jackson did not escape the common lot of being referred to by a nickname. The name was by no means derogatory, however. He was generally known as "The Sage."

Dr. Jackson's memory was curiously erratic. He never remembered the name of a patient, though some were under his care for years. He would refer to them as "the man behind the door," "the woman with the hammer toe," and so forth. He could never find his way to his own wards without a guide, but any fact that bore on any of his doctrines, especially if it was corroborative, he could remember in the minutest detail. Even his own doctrines he did not always remember. If asked what he thought of So-and-so, he would say, if it were not one of the things that then occupied his attention, "I forget now, but you will find my opinion in the *Medical Times* for last October," or as the case might be.

Dr. Hughlings Jackson had a great love for Dr. Johnson, and, as Sir Jonathan Hutchinson has said, they had much in common. Dr. Jackson had all Johnson's love of truth, his power of forcible expression, and his love of epigram. "No good ever came of telling lies" was a favourite maxim of Dr. Jackson. Once, when I was assuring a little girl that we should not hurt her, he interposed. "I would not tell her that. We might hurt her, though we don't mean to." He would sometimes, however, indulge in casuistry, and put cases in which a lie might be justifiable.

He had also a great admiration for Herbert Spencer, with which he inoculated me, but I always thought—and in this I think Sir Jonathan Hutchinson agrees—that Dr. Jackson gave Spencer far too much credit as the founder and suggestor of Dr. Jackson's own doctrines. In this opinion I have been confirmed by reading Spencer's *Autobiography*, which destroyed not only my respect for the man, but also, illogically perhaps, my faith in his doctrines. It seems impossible that the opinions of a man who depicts himself as the glorified quintessence of a prig can be worth anything.

It was very rare to hear from Dr. Jackson a word in disparagement of any one. I have heard him speak, without mentioning his name, of a medical practitioner as the kind of man who would ask what is good for a cough, and whose talents would be appropriately employed in keeping an eel-pie shop; but when he referred to any specific person as "a man I should be very polite to," you knew it meant that the man was a bounder, or a humbug, or worse. A man who held the ophthalmoscope with the glass side next his eye, and declared he saw the disc, was a man Dr. Jackson would be very polite to.

No one could be associated with Dr. Jackson without being impressed with his high standard of rectitude. In face of a gross injustice that he was powerless to remedy, he would say, "The only thing to do is to say a great big damn, and have done with it."

"His mind," says Sir Jonathan Hutchinson, "was essentially deductive, and did not require a very large amount of material for his conclusions." This is emphatically true. He sought instinctively for a general principle; he leapt to first causes, and connected remote phenomena in a sweeping generalization. For instance, he attributed epilepsy, half jocularly, to a deficiency of bromine in the boiling gases that constituted the solar nebula when it filled the orbit of Neptune.

It was not customary for him to express much sympathy with suffering, but the sight of suffering that he could not relieve made him uncomfortable, and he would take some pains to avoid passing the bed of a patient that he was powerless to help.

Dr. Jackson had a weak voice, and his lectures were not well attended. Conscious of his tendency to talk over the heads of his audience, he would, when lecturing to a mixed class, be almost too elementary. Courteous and retiring as his manner was, he knew how to keep order, and could draw blood from a boisterous student by a cutting sarcasm. He was credited with suggesting to a student who asked for leave of absence on the ground of his health, that the holiday was to be taken "as a prophylactic measure," but the real author of this witticism was Mr. Rivington. On one occasion Dr. Jackson was to lecture on paralysis of the cranial nerves, and I collected for him a number of cases illustrating, among them, paralysis of every cranial nerve except the eighth, and put up a notice that he would demonstrate them. On this occasion he had a very large audience, and at the conclusion I expressed a hope that he was satisfied with the attendance. "There would have been as many," said he, "if you had put up a notice that Dr. Jackson would kill a pig."

As to the relation between body and mind, Dr. Jackson was a convinced, and even a dogmatic, parallelist. He said once that if he could be convinced of an interacting dualism he should abandon the study of the nervous system; his implication being that dualism means the negation of law. All expressions that imply interaction or community of nature between body and mind, such as

"psycho-motor" or "the centre for ideas," he called "scientific blasphemy." I do not remember discussing monism with him, but I have no doubt he would have regarded it as a mere verbal juggle.

Dr. Jackson did not read German, and when he found his name mentioned in a German publication, as he often did, he was impatient till he could get the passage translated. I used to compare him to a hungry cat, prowling round a cage in which a succulent mouse was securely ensconced.

His desire to secure *post-mortem* examinations once gave me some embarrassment. I went to a seaside town to make a *post-mortem* examination on a girl who had died in a convent. Permission to make the examination was granted on condition that a nun remained in the room the whole time. I took it for granted that the condition was imposed in order to secure that nothing should be taken away, and my suspicion was confirmed when I found that I could not get the investigator out of the room while I put the brain in my bag. I tried, by asking for one thing after another, to get her to go for them, but she was prepared for these tactics. Another nun was stationed outside the door, to whom she communicated my requests, and from whom she obtained, without leaving the room, the things I asked for. At length I took the bull by the horns, wrapped up the brain in oiled paper, and put it in my bag. "Are you going to take that brain away?" asked the nun, in what I regarded as a threatening tone of voice. "Yes," I said defiantly, "I am." "Then," said she, "I will get you some mould out of the garden to put in the place of it?" And she went herself and fetched it.

Dr. Jackson was like other people in appreciating the acknowledgement of his achievements, and in feeling sore when his ideas were appropriated without acknowledgement; but, though he has many times pointed out to me in his published articles his anticipation of doctrines that were set forth by others as new, he never cared to enter on a public controversy about priority, and he was careful to deprecate credit that he did not feel he had deserved. On being congratulated on the discovery of a tumour at the exact spot on the brain at which he had predicted it would be found, he disavowed any acumen in making the prediction. His sole ground, he said, was that he had seen a tumour in the same place in a previous case displaying the same symptoms. If he had predicted the localization of the tumour on the ground that, according to some doctrine of his own, it ought to be just there, he would have felt himself entitled to credit.

It is much to be regretted that he has left so much unpublished, and that his published articles have never been collected into a single book. The world is much poorer by his neglect in these respects.

INTERNATIONAL CONGRESS ON HYGIENE.

THE fifteenth International Congress on Hygiene and Demography will be held in Washington in September this year (23rd to 28th). The President of the United States will be the Honorary President of the Congress. The President will be Dr. Henry P. Walcott, of Massachusetts; the Secretary-General, Dr. John S. Fulton, of Maryland. The Congress will comprise two divisions; one of Hygiene, the work of which will be distributed among eight sections; the other on Demography.

HYGIENE.

Section of Microbiology.

The provisional programme of matters to be discussed in the first section of the Division of Hygiene (Hygienic Microbiology and Parasitology, President, Dr. Theobald Smith, of Harvard) is as follows: (1) Paratyphoid and allied bacilli, including the bacteriology of animal foods; (2) special or selective culture media for micro-organisms; (3) anaphylaxis, with special reference to infectious processes; (4) filterable viruses; (5) poliomyelitis and other infections involving the central nervous system; (6) the biology of uncinaria; (7) the relation of micro-organisms to their insect hosts.

Dietetic Hygiene: Hygienic Physiology.

The second section will discuss the following subjects: (1) The specific dynamic action of foodstuffs; (2) nutrition and growth, (*a*) general aspects, (*b*) the nutritive requirements in early infancy; (3) the rôle of inorganic substances in the nutrition of man; (4) the physiological significance of some substances used in the preservation of food; (5) practical dietetics, (*a*) cost and nutritive value of foods, (*b*) diet in relation to disease, (*c*) the influence of the preparation of food on its nutritive value; (6) ventilation in its hygienic aspects; (7) the hygienic physiology of exercise.

Hygiene of Infancy and Childhood.

The subjects to be discussed in the third section are the following: (1) The hygiene of the home; (2) the hygiene of the school child; (3) the hygiene of the school building; (4) hygiene of instruction; (5) hygiene with reference to physical defects; (6) the hygiene of the teacher; (7) the hygiene of open-air schools; (8) out-of-school hygiene; (9) municipal hygiene with reference to children; (10) propaganda of hygiene.

Industrial and Occupational Hygiene.

The following is the programme of the fourth section: (1) The physiology and pathology of work and fatigue; (2) occupation and fatigue neuroses; (3) the physiology and pathology of work in compressed air; (4) the effects of exposure to intense heat on the working organism; (5) diseases and accidents of miners and tunnel workers; (6) diseases and accidents of metal workers; (7) the dangers in the use of mercurial salts in the industries; (8) industrial accidents and trade diseases in the United States; (9) safety devices and the prevention of accidents; (10) dangerous trades or dangerous processes? (11) the relations of the Bureau of Labour to industrial hygiene; (12) industrial insurance the basis of industrial hygiene; (13) six problems in industrial hygiene; (14) age problems in industrial hygiene; (15) the economic aspects of hook-worm disease; (16) tenement house manufacture, the causes, evils, and remedy.

Control of Infectious Diseases.

The following is the programme of the fifth section: (1) Bacillus carriers—their influence in the dissemination of infection, especially in relation to typhoid fever, diphtheria, cerebro-spinal meningitis, dysentery, cholera, and influenza; what attitude shall sanitary authorities adopt towards bacillus carriers? (2) Importance of flies and other insects as carriers of infectious diseases. (3) Relative importance of aërial and contact infection in the dissemination of contagious diseases. (4) The administrative control of tuberculosis. (5) The rôle of bovine tuberculosis in the production of human tuberculosis. (6) The rôle of artificial immunization in the prevention of diphtheria, typhoid fever, plague, cholera, tuberculosis. (7) Sanitary measures against cerebro-spinal meningitis. (8) Etiology of poliomyelitis and the possibilities of its prevention. (9) Prevalence of gonorrhoeal vaginitis in institutions for children and its prevention.

State and Municipal Hygiene.

The discussions in the sixth section include hygiene, streets, water supply, and disposal of waste; legislative and administrative functions of boards of health.

Hygiene of Traffic and Transport.

The programme of the seventh section is as follows: Street traffic, tramway traffic; railway traffic, river and lake traffic, sea traffic.

Military, Naval, and Tropical Hygiene.

The eighth section will, under the heading of Military Hygiene, discuss the prevention of infectious diseases and camp sanitation.

Under the heading of Naval Hygiene: the hygiene of engine and firerooms force, with special reference to the tropics; the prophylaxis of venereal diseases in home and foreign ports; disinfection on shipboard; transportation of wounded; dressing stations; preparatory prophylaxis for wound healing; international basis for naval statistics; hospital ships, their functions as an integral part of the fleet in peace and war; the prevention of the spread of infectious diseases on board ship.

Under the heading of Tropical Hygiene will be discussed the rôle of insects in the transmission of tropical diseases; the prevention, immunization, and treatment of tropical diseases; tropical diseases of uncertain origin; laboratory methods as applied to the tropical diseases.

DEMOGRAPHY.

Statistics.

The following is the provisional programme of the Division of Demography: The development of vital statistics in the United States since 1900. Measures needed for immediate future. Progress toward the construction of life tables for the population of the United States. Mechanical methods of tabulating statistics, their advantages and their limitations. Infant mortality in the United States and other countries: (*a*) How do the changes in infant mortality compare in direction and rate with the changes in mortality at other ages? (*b*) How can demography best measure the effect of efforts to diminish infant mortality? The classification of causes of death, with especial reference to the changes made in 1909 in the international classification and to other changes that may be needed. Statistical evidences of changes in the death-rate from tuberculosis. The present condition of criminal statistics in the United States and European countries. Diagnoses of the causes of death. The margin of error to which they are subject in various places and for various diseases. Measurements of the healthfulness of occupations. Statistical evidences of the effect of intemperance upon mortality. Statistics of pauperism. Sources and methods. The statistics of accidents. The effect of social and economic position upon the death-rate. The present position of municipal vital statistics on Europe and the United States. The training of demographers: (*a*) How are trained men obtained in foreign countries? (*b*) How may the demand for and supply of them in the United States be increased? Validity of substitutes for the birth-rate proposed or used in the United States. The present position and the prospects of American birth-rate statistics. American statistics of marriage and divorce. Statistical bases for a system of pensioning members of the Civil Service.

STATE SICKNESS INSURANCE IN GERMANY.

DR. ADOLPH RENSHAW, of Sale, Chairman of the Altrincham Division of the Association, having intimated his intention of making inquiries in Germany on the medical aspects of State sickness insurance during July and August, 1911, the Chairman of the State Sickness Insurance Committee suggested certain questions upon which it would be useful to have information, and asked Dr. Renshaw to consider himself the accredited agent of the Committee during his visit to Germany.

Dr. Renshaw's report is now published by instruction of the Committee. Though the inquiries were made by Dr. Renshaw on behalf of the Committee, the statements made rest entirely upon Dr. Renshaw's authority and are not necessarily accepted by the Association.

MATTERS ON WHICH INFORMATION WAS DESIRED.

The following were the matters suggested to Dr. Renshaw as points upon which information was desired:

1. Any difficulties which have arisen owing to free choice of doctor being given, and means whereby these difficulties have been met.
2. Any special difficulties which have arisen in districts where free choice of doctor has not been granted. Information as to attitude of public particularly valuable.
3. Information as to the way in which complaints against doctors are dealt with. It is understood that in some districts there are elaborate courts of honour or committees of some kind; information on this subject would be useful.
4. Any information as to the opinion of the profession on method of remuneration.
5. Effect of insurance system on recruiting for the profession. Is it believed to have had favourable or unfavourable effect as regards inducing the right type of men to enter the profession?
6. General information as to amount of remuneration, for example, inclusive payment or payment for extras, and, if so, what are the extras, and how are they paid for?
7. Any information as to method of organization of the profession which seems to have a special bearing on the insurance question, and might be useful here.

REPORT.

In considering the following report it is necessary always to keep in mind fundamental economic and social differences that exist as regards conditions of work and everyday life in Germany and England.

The medical profession in Germany has not up to the present enjoyed as a whole equal financial or social position to that experienced by the English doctors during the past quarter of a century; they are fighting to improve their position, and have everything to gain; the profession in England, on the other hand, is fighting chiefly to prevent new conditions causing them loss both in status and from the economic point of view—that is, they have much to lose.

The people of Germany are a disciplined race, their individuality and independent spirit has been merged in a military system which makes organization a simple matter, and in a corresponding degree makes easy the administration of such a method as invalidity insurance. The English masses are only accustomed to discipline either indirectly or not at all, and so have developed a natural antagonism to anything in the shape of curtailing their accustomed independency or freedom of action, a spirit which rapidly becomes active in the face of opposition.

These factors must be taken into account when comparing the two systems. The German doctors as a whole are satisfied with their insurance scheme. It works smoothly, and their position has immensely improved from every point of view since the introduction of the bill.

They do not like, however, the extension now before the Reichstag which raises the income limit from £100 to about £125, and introduces classes of the community before treated as private patients.

1. *Free Choice of Doctor.*

No difficulties have arisen owing to free choice of doctor. The free choice is practically universal, except that in certain big works and in the local area of Westphalia special medical officers are appointed.

Dr. von Wilde (Frankfurt), physician, says: "No difficulty arises. The patient can change, if necessary, every quarter, in the country places every year." Dr. Eugen Egenolf (Kelheim) says: "Doctors are not appointed. All can belong to the Krankenkasse, which is divided into districts."

Dr. Seckbach (Treasurer to the Aerzte-Verband für freie Aerztwahl, Frankfurt) states that 260 doctors are on the list in Frankfurt. They had some difficulty in persuading the Post Office and railway to agree to the free choice, but ultimately an agreement was come to to try the method for two years. At the end of that time the authorities of both—that is, railway and Post Office—expressed themselves as so pleased with the system that they had no intention of asking for a return to the old method of appointing their own medical officers.

Herr W. Low (a foreman manager in works at Hochst) says that the men would be quite satisfied with the invalidity insurance system if they could always have free choice; this they had not in his works (6,000 men), but appointed medical officers which were elected yearly. With regard to the Extension Act now before the Legislature one complaint is that the free choice of doctor is not clear.

2. *Attitude of Public to Free Choice.*

There are no districts where free choice of doctors has not been granted; medical officers are appointed to certain works, and there are private societies which employ their own doctor, but this is exceptional and apart from the general scheme.

To prevent undercutting in such appointments, a fund exists to compensate for loss sustained by medical men refusing to work under the recognized rate. (Dr. von Wilde's subscription to such fund or funds amount to £5; the usual subscription is £1.)

The attitude of the public is wholly in favour of free choice of doctor; the invalidity insurance is included in a system which also contains old age pensions and workmen's compensation insurance, one payment for all: it is therefore sometimes a matter of difficulty to differentiate as regards details of payment, procedure, etc. The whole scheme of insurance is so much an integral part of German life that the attitude of the public is that of the usual attitude to the obvious.

Herr Low says: "The workpeople are in favour of the principle of insurance, but feel very strongly that they ought to have the right of free choice: when they have not, they have no option in the matter, but must employ the elected medico. Also that there is a great deal of malingering difficult to cope with; certain officials are told off as supervisors to watch cases of suspicion."

Mr. Schofield (manager of works near Cologne, Messrs. Peters) says that they employ a works medical officer. In his experience, when there is free choice of doctor, the doctor gets most patients on his list, and so the largest income, whose attitude is most complacent during sickness or supposed sickness. They pay Mks. 9 for medical attendance on man and family, Mks. 3.50 on single man.

3. *Mode of Dealing with Complaints against Doctors.*

The complaint must be sent in to the Krankenkasse in writing, and is thence referred to the doctor for his explanation and comment. This usually ends the matter. If not, a commission is formed upon which the medical profession is fully represented, but members are chosen who are not in professional contact with the defendant. The matter is fully considered and probably settled. In the very rare cases in which this result is not attained a second commission is formed of entirely different members who finally settle the matter. The doctor does not exist as an individual as regards such a matter. The Krankenkasse defends or in case of need punishes its members. Those having complaints to make must deal with the Krankenkasse (association), and cannot directly attack the doctor.

With regard to courts of honour it is understood that such do exist, but, according to Dr. von Wilde, are thought little of, the medical men considering that such courts have not the judicial capacity to deal with cases needing an impartial view. All the evidence pointed to the fact that the doctors occupied an exceedingly strong position. The patients are compelled to keep the proper hours for consultation. If they do not the doctor refuses to see them.

Patients difficult to deal with are rare; the doctor is compelled to attend those placed on his list. Patients who have not made any choice are distributed geographically,

It will be understood that the possibility of abusive or difficult patients is very much minimized in a country employing universal military service, owing to training in discipline and obedience that follows.

4. *Method of Remuneration.*

The method of payment is universally per capita.

Dr. von Wilde: "The doctors prefer it."

Dr. Seckbach: "No doubt the payment for work done would be better, but we recognize that it is quite impossible." He says there are certain associations in Germany which pay so much a visit or consultation, usually Mk. 1.

With regard to the income derived by this per capita method, two medical men in Frankfurt receive Mks. 14,000 yearly. They both live in the more densely populated part of the town.

Roughly, the receipts last year were, for Frankfurt, Mks. 641,000, the expenses Mks. 11,000. This was divided among 260 doctors.

The capitation sum is 4s. 3d. in Frankfurt.
" " 5s. in Cologne.
" " 4s. 2d. in Leipzig and Munich.

For this advice only is given, all medicines, drugs, splints, trusses, dressings, etc., are supplied in addition.

For a family where the husband is suffering from total invalidity, the sum of 9s. 6d. is paid: this covers all attendance, whether the family is large or small.

Dr. Egenolf (Kelkheim), a typical country practitioner, says that the invalidity insurance system has been a God-send to him. Previously the working classes never paid him anything worth consideration (the working man of the artisan class moves rapidly from town to town under the German system of labour bureaus). Now he obtains a fixed income from this source, which can always be relied upon. He strongly supports the per capita method of payment.

5. *Effects on Recruiting for the Profession.*

The effect of the insurance system on recruiting for the profession has been *nil*. The type, which is certainly not a low one in Germany, has remained constant.

Dr. von Wilde: "The insurance system has no influence on the recruiting for the profession: the standard of the type has not been lowered." Dr. Egenolf says that it is a great thing for the young and struggling members of the profession. They are glad to have something fixed, which very often they would not get from private patients. Dr. Seckbach was surprised at the question, and Dr. Hutzen took the same attitude: the great organization of the German profession, commencing with Leipzig, dates from the introduction of the invalidity insurance system. Doubtless, therefore, in the German medical mind the two ideas of insurance and improvement in status, etc., are co-operative.

No evidence whatever can be found that the insurance system has had any effect on recruiting for the profession or has had any unfavourable effect as regards inducing the right type of men to enter the profession. If anything, the evidence is all the other way, as the free choice of doctor enables a newly qualified man, by obtaining a position on the list, to depend upon a certain amount of practice for which payment is sure.

6. *Amount of Remuneration.*

The per capita payment includes all ordinary attendance, the only extra being a midwifery fee of Mks. 15 for a day confinement and Mks. 20 for one taking place at night, no extra for midwifery complications, for example, use of forceps, version, etc.

There is an extra fee provided if a second opinion is needed: this is usually Mks. 50. There are also fees for operation: these are very small compared with the English idea of such fees.

The Union of Doctors (not the Insurance Fund) pays Mks. 3 for a night visit, and the railway companies in Frankfurt pay a similar fee; mileage beyond a certain fixed area is paid only by the doctors' Fund; this as a rule never exceeds the sum of Mks. 3 in any one case. Accounts are settled quarterly in all cases. In Cologne a fee of Mks. 4 is also paid extra for a night visit; the capitation sum here is also higher—Mks. 5.

Medical men appointed specially to examine cases of malingering are paid special fees.

It is usual to pay a fee of Mk. 1 for examination of a case for insurance.

The workman contributes two-thirds, employer one-third, the State nothing towards the premium for invalidity insurance.

Invalidity insurance treatment, as a rule, lasts for half a year; beyond that time the patient pays his doctor.

7. *Organization of the Profession.*

The organization of the profession in Germany is exceedingly good: the Leipsiger Verband, to which all associations in Germany are allied, claims never to have lost in a contest.

In Frankfurt not only has the profession persuaded the Post Office and the railways to adopt the system of free choice of doctor, but as an example of the power of organization it was customary in every theatre at each performance to have a doctor in attendance; the payment for this was two free seats. The Aerzte-Verband pointed out that this was insufficient, and after a sharp contest obtained a payment of £30 a year, in addition to the two free seats; this was regarded as a highly satisfactory result.

The Cologne Association (Köln Verein) is just concluding a strike—which is ending entirely in the favour of the medical profession—over a hospital question. The whole German profession has been organized for about ten years (Dr. von Wilde), and every year sees improvement in this respect; the outsiders are very few.

The general public is strongly in favour of employing medical men on the insurance list, as they consider this a proof of competency; the medical men, on the other hand, are keen to be admitted to the list.

Dr. von Wilde considers a doctor is kept in order sufficiently by public opinion: if work is shirked or badly done his list of patients proportionately decreases. This opinion may be contrasted with that of Mr. Schofield, manager of Messrs. Peters's Works, Cologne, that the doctor of the most benevolent disposition obtains the largest number of artisan patients. Probably both opinions are correct.

THE EXTENSION TO THE INVALIDITY INSURANCE BILL.

The whole profession in Germany is opposed to the proposed new conditions, and are universally cancelling their contracts as from the beginning of 1912: they hope to obtain substantial concessions, for example, a rise in the per capita sum in proportion to the extension of the wage limit: about 700,000 more of the population are affected, and if the bill passes in its present form from one-half to two-thirds of the population of Germany will be under the invalidity insurance system.

The extension includes agricultural workers, servants, casual labourers, workers in home-trades, home-workers, members of ships' crews, shop assistants and apprentices, dispensers in chemist's shops, performers in theatres and orchestras, and teachers and masters in private schools. A voluntary system is developed to embrace small shop-keepers, farmers, and members of employers' families, according to average daily wage, formerly placed at a maximum of Mks. 4, now Mks. 5, and possibly by statute raised to Mks. 6. The funds may grant special treatment and nursing expenses: the reduction in the amount of the insurance allowance must not be more than 25 per cent. of the sum allowed for invalidity. A period of twenty-six weeks is allowed for an illness, but this may be extended to a year. Eight weeks are allowed *post partum*: the doctors hope by negotiations to have this reduced to four.

It is understood that most of this new legislation is put forward owing to socialistic pressure: the Social Democrats are to-day the strongest party in the empire numerically, 3,259,000, though they only control forty-three seats in the Reichstag. It is understood that certain compromises have been made in the new extension bill by understandings arrived at between the Centre Party and the Social Democrats.

The burden to German industry already amounts to 800 million marks per annum, the additional cost by the new bill will be 135 million marks, so that the future cost will be three million marks per diem.

The employers of Plauen, Chemnitz, Essen, have addressed the Reichstag to the effect that already the limit of a bearable burden has been reached.

PERSONAL COMMENTS.

The main idea of my visit to Germany was to discover, if possible, defects in the working of the invalidity insurance system in that country. It is only honest to admit that it is impossible, after visiting the residences of the medical profession, to entertain any other idea than that existence is comfortable.

The medical profession in Germany regard the insurance system as a solid basis of practice, and the wonderful organization that deals with huge masses of the sick poor easily and skilfully compels admiration. Comparing the chaos and overlapping that prevails here, and the waste of energy, coupled with the doubt that must occur to the mind of any keen observer that the treatment of disease among the poorer classes in this country can be considered as a whole satisfactory from any point of view; and then, turning to the German methodical and scientific organization, recognizing that the medical man rejoices in the new system after experiencing the old, listening to unanimous approval, causes the mind to concentrate on the one final thought that the Invalidity Insurance Bill now before this country, with all its faults, contains a germ from which may develop lasting good both to the community and the medical profession.

I give this opinion, of course, based on the broadest principles; details of administration and organization exist capable of improvement in Germany; but, to give one example, when it is considered that a per capita payment of 5s. has been reached in Cologne, excluding entirely the provision of anything but advice, and that in this country, with a much higher standard of living, the contract per capita payment has not universally reached 4s., with all medicines, etc., to provide, the thought is compelled that we can learn something from our Teuton *confrères*.

LITERARY NOTES.

THE November number of the *Empire Magazine* contains, among other interesting matter, an article entitled "The Real John Bull," by Mr. J. K. Sadler. He says the typical "John Bull" of the caricaturist is as dead as Sir Roger de Coverley, or may we say, more appropriately, "Squire Western"? "In his place is found the figure, well preserved, of a man of whose age one can only definitely say that he is on the wrong side of 30."

He is in comparison slenderly made, and his well cut and well creased trousers end in narrow patent leather boots; he is neat without coxcombery, and his face is longer and more bony than the other's; his eyes have rather a pondering look, and his whole expression is one of unaggressive self-control, but he has many shades of expression, and can do much more than a lowering frown and a rather brainless guffaw. He has learned the finer touches of facial mobility, and he abhors back-slapping and horseplay. . . . He plays golf and tennis, rides cycles, and rows with some finish. He takes his sports a trifle seriously, and as often as not prefers tea and cigarettes to a cigar and a whisky-and-soda, whilst a churchwarden and brandy and water hot are things at which he would raise his eyebrows. In short, he is a serious, executive sort of man, who reads a good bit and does everything rather hard. He has lessened his waistband and refined his tastes, and though he may be in some ways less lovable than the dear, pig-headed blustering old ignoramus he has succeeded, he still has a heart, somewhat less accessible, and courage, a good deal less on tap. This long-limbed, rather bony man of serious mien is difficult of approach in train or club, and his outworks of guarded urbanity ward off the ready contact of mind which his full-blooded ancestor delighted in.

We may be allowed to add that the creation of the older type, whose characteristics are embodied in the name "John Bull," is usually ascribed to John Arbuthnot, Queen Anne's famous physician and the friend of Swift, Pope, and other wits of that day. Whether he actually invented it or not seems to be doubtful, but it is certain that he fixed the type and stamped it on the national mind in his *History of John Bull*. The December number of the *Empire Magazine* contains a number of interesting articles on the King's tour in India, Christmas in India, Christmas in Australia, and others of like character.

To the November number of the *Magazine of the London (Royal Free Hospital) School of Medicine for Women* Mr. Willmott Evans contributes an account of an early gastrotomy. It was performed at Leyden in 1635 by a surgeon named Schwabe for the removal of a knife ten fingerbreadths in length which a peasant had thrust into his throat with the object of causing vomiting. It slipped into the stomach. The man's case was so piteous that it excited much interest, and after a consultation of physicians it was decided that an attempt should be made to remove the foreign body. The operation is related by Dr. Becker, whose report, translated by Mr. Lakin, runs as follows in seventeenth-century English:

The Body being prepared and all Things necessary provided, at length, on the 9th. of July, one and forty days after the Accident, there met the Dean of the Faculty, with the Honourable the Members, together with the Students, Masters of Arts, in company with that most experienced Chirurgeon, Daniel Sewabius, my venerable Friend, now in Heaven, who calling upon the Divine Assistance and Benediction the Rustic who, with undaunted Courage, waited the Section, was bound down on a Table, and, the Place being marked out, the Incision was made toward the left Side of the Hypochondrium, some two Fingers breadth under the short Ribs, according to the Direction: and first the Skin and fleshy Pannicle (there being no Fat seen) with the subjected Muscles, as also the Peritonæum, were carefully divided, when, altho' the Ventricle did somewhat sink down and avoiding our Fingers, did not so presently admit of Apprehension, a little staying the Operation: yet at length attracted by a Needle crooked, it shewed that the Knife was there, which being laid hold on, through the Coats of the Ventricle and the Point brought upwards, the said Ventricle, above the same was a little incised, and the Knife successfully extracted: which was viewed by all the Bystanders, applauded by all, and by none more than the Patient himself, who professed that this was the very Knife he formerly had swallowed. The Knife being thus successfully brought forth and the Patient eased of his Bands, the Wound cleansed of the Blood, and the Abdomen, that had been incised, closed together with five Sutures, by their Interstices the Balsam was instilled warm and Dossils therewith impregnated laid on, and then a Cataplasm of Bole, the White of an Egg and Alum, to allay all Inflammation on the Outside.

By the fourteenth day the patient was doing well and made a complete recovery. Mr. Willmott Evans quotes the following entry in *Evelyn's Diary* under date August 28th, 1641:

But amongst all the rarities of this place (Leyden) I was much pleased with their anatomy school, theatre, and repository adjoining, which is well furnished with natural curiosities: skeletons, from the whale and elephant to the fly and spider, which last is a very delicate piece of art to see how the bones (if I may so call them of so tender an insect) could be separated from the mucilaginous parts of that minute animal. Amongst a great variety of other things I was shown the knife newly taken out of a drunken Dutchman's guts by an incision in his side, after it had slipped from his fingers into his stomach. The pictures of the chirurgeon and of his patient, both living, were there.

It is not quite certain, says Mr. Willmott Evans, to what case this account refers, but as there was a remarkable operation at Leyden for the removal of a knife from the stomach of a man in the year 1635, it is probable that the knife then removed was the one seen at Leyden by Evelyn in 1641.

The second number of the *North of England Clinical Journal*, the organ of the Newcastle-upon-Tyne Clinical Society, which is edited by Dr. George Foggins, contains among other interesting contributions an excellent paper entitled Important Problems in the Diagnosis of Diseases of the Nervous System, by Dr. Risien Russell, and an account of the pirate-doctor Thomas Dover, inventor of the powder which bears his name, by Dr. R. E. Sedgwick. Dover, after studying both at Oxford and Cambridge, lived some time with Sydenham. He had an adventurous career, and was nearly 50 when he started a practice in London. His blunt ways and contempt for the conventionalities of the profession made him unpopular alike with physicians and apothecaries. A man who could speak as follows could scarcely expect to be beloved by his brethren:

I never affronted any apothecary, unless ordering too little physic; I must confess I never could bring an apothecary's bill to £3 in a fever, whereas I have known some of their bills in this disease amount to £40, £50, and £60. When I have attended some of my patients, they have very often given it as a reason for not seeing me that I did not prescribe every time I visited them, and have likewise told me they learned this doctrine from the apothecary, "that it is your writing physician only that has a title to a fee." To me this appears very plainly a deceit, however plausible to others, and to make it clear to you, only consider that if the physician writes, it must be ten or twelve shillings at least in the apothecary's way, and for my own part, I do not look upon this to be at all better than picking one man's pocket to put money into another's. It is my own opinion the less apothecarys' gains are, the better the patients may afford to fee the doctor.

His partiality for mercury earned for him the nickname of "The Quicksilver Doctor," which he greatly resented. He is believed to have died in 1642 at the age of 80.

British Medical Journal.

SATURDAY, JANUARY 13th, 1912.

PLEDGES AND PUFFS.

It is of vital importance that at the present moment the profession should stand four-square against the winds that blow upon it from diverse quarters if it is not to be crushed under the *rudis indigestaque moles* of the Insurance Act. Credit for good intentions may freely be given to the framers of that scheme, and it is outside our province to discuss it as a move on the political chessboard. But we think no one who is not blinded by party feeling will deny that it is as "crude and incondite" as Carlyle found the Koran. The British Medical Association, while approving the principle, has from the first firmly insisted on modifications in certain important points which affect the medical profession; and although apples of discord have been cleverly thrown in our midst, there has been no wavering in its resolve to use the whole power of its organization to prevent the Act being worked in a manner detrimental to the interests of the profession which it represents. But if its efforts are to be successful it is necessary that it should have the whole-hearted support not only of its members, but of all doctors who are, or may be, affected by the Act. There is every reason to believe that the Association will rally virtually all the medical practitioners of the kingdom to the ranks of its supporters. Already between 26,000 and 27,000 signatures have been appended to the undertaking drawn up with the object of consolidating the profession in its attitude towards the Act. As it is estimated that of the 32,000 medical practitioners in Great Britain only 24,000 are available for service under the Act, the number of undertakings received is more than enough to make that measure a dead letter, as far as the medical benefits which it promises are concerned, unless the just demands of the profession are complied with. Early in December the undertaking had been signed by more than 22,000 practitioners; it will therefore be seen that the number has considerably increased within the last month, and it has continued to increase daily, though naturally more slowly as the possible total was more nearly approached. It has not been thought expedient to publish the numbers before, as the work of verification has to be done very carefully, a task which necessarily takes much time and involves work of considerable difficulty. We have therefore given the figures in round numbers, leaving a wide margin for possible duplicates. It was thought better to sacrifice the possible advantage of earlier publication to strict accuracy.

To this caution it is, perhaps, due that the *Practitioner* some time ago embarked on what we may be allowed to call a privateer campaign by inviting pledges from medical practitioners not to work under the Act. We made a brief reference to this matter in the Journal of December 16th, 1911. A further circular has been issued by our contemporary, which bears date January 3rd. It is therein stated that over 15,000 pledges—more than two-thirds of the necessary 23,000—had then been received. The names of several more or less distinguished members of the profession are given as having signed the pledge. Throughout its campaign the *Practitioner* has found a vigorous ally in the *Daily Mail*, which announces in its issue of January 9th that pledges are "coming in daily increased numbers." It is significant, however, that whereas the pledge used to figure under large headlines in a conspicuous place, it is now relegated to an obscure corner. Having regard to the common methods of our "live" newspapers, a guess may perhaps be hazarded that its trumpet-blowing and flag-waving have failed to excite all the enthusiasm that was desired. If this be the case, it can scarcely be wondered at. It is a little too evident that the *Daily Mail* is using the "Doctors' Revolt" as an engine of political warfare; and we can scarcely think that the "leaders of the profession" who have set their names to this document realized that they were to be used in much the same way as the names of leading actresses are displayed in advertisements of Sandow's corsets. As a matter of fact, some of these leaders no longer lead, while none of them are likely to be personally affected by the Act. As to the pledge itself, it may be asked what worth it has. To whom is it given? The proprietors of the *Practitioner* are, we believe, laymen, and there is no organization behind them to enforce the observance of the pledge, which is therefore a mere "chimaera buzzing in the void." We are far from blaming their commercial enterprise; as tradesmen they are, like Falstaff, labouring in their vocation when they use any honest means to puff their wares. But a movement organized by the profession for its protection against oppressive legislation has no need of such auxiliaries.

Let us compare the two pledges. That of the *Practitioner* is carefully guarded, as will be seen from its wording: "Feeling that the present National Insurance Act is unjust to the medical profession, I hereby pledge my word not to accept any service whatsoever under it. I stipulate, however, that unless at least 23,000 members of my profession in Great Britain combine with me in this pledge, I am to be freed from it." In that of the Association the signatory undertakes that he will not enter into any agreement for giving medical attendance and treatment to persons insured under the bill, excepting such as shall be satisfactory to the medical profession and in accordance with the declared policy of the British Medical Association; and that he will enter into such agreement only through a local Medical Committee representative of the medical profession in the district in which he practises, and will not enter into any individual or separate agreement with any approved society or other body for the treatment of such persons. The point that this is a much more definite and businesslike undertaking than the pledge asked for by the *Practitioner* need not be laboured. Briefly stated, the difference is that one is the expression of a frankly wrecking policy without the offer of any alternative, and with no authority behind it, whereas the other is a practicable agreement with all the binding force that can be given by professional sanctions. While the Association insists on the essential demands of the profession, it leaves the way open for such modifications as may fashion the Act into a piece of social machinery that will work for the benefit of all concerned.

The number of adhesions received by the Association makes it certain that the Act cannot be made operative, as far as the provisions for medical attendance are concerned, unless the profession is satisfied that it is to get a reasonable return for the services which it is called upon to perform. That the Government has now, after living in a fool's paradise created

by the suggestive power of a Celtic imagination, awakened to the reality of the situation, is manifest from the tone lately taken by its supporters in the press. We are even threatened with a whole-time Medical Service if we refuse to listen to the sirens of the Exchequer. The *Observer* is not a Government organ, but it sometimes lays claim to special inspiration. In its last issue it announces, under an imposing array of headlines, that it is "enabled to state upon excellent information" that if the doctors prove refractory the Chancellor will abandon the contributory element in the Act and will get the money to organize a State Medical Service by putting sixpence on the income tax on incomes above a certain limit. "Mr. Lloyd George," we are told, "would treat these measures as part of a wider campaign for the organization of national health," and are assured that "he is perfectly prepared to stake his career on the result." This, we venture to say, is mere sound and fury. We are unable to estimate the value of the stake referred to; but, whatever it be, the profession has a far larger stake in the Act as it now stands than the career of any politician. The Chancellor, to use a famous phrase, is a "transient and embarrassed phantom"; on the other hand, the health of the people, the extirpation of disease, and the promotion of measures for the maintenance and development of our national efficiency are objects of the most vital importance. The attainment of these objects depends wholly on the devotion with which the medical profession places its knowledge and skill at the service of the State and the people.

The *Daily Chronicle* scoffs at the vaticinations of the *Observer*, but vouchsafes a prophecy of its own. "Should there," it says, "be anything like an attempt by the doctors to break down the Act, the local Insurance Committees will engage the exclusive services of medical men, for which the Act provides ample power." The *Chronicle* seems, however, to forget that the Act cannot enforce service on the doctors. They have undertaken not to work unless their demands are complied with. If exclusive service should entail professional ostracism, only Ishmaels of medicine could be found to accept it; the work would in consequence be inefficiently done, and the whole purpose of the Act would be defeated. Would it not be better that the terms which, after full and careful consideration, the Association has offered should be frankly accepted? It is not universal contract practice with slightly better pay that is needed, but an organized system of providing for highly skilled attendance on persons unable to get it for themselves. And it must be a system that includes a properly directed scheme of prevention, of which untrammelled research is a necessary part. From a "sweated" profession only the irreducible minimum of work can be expected. This is a matter that concerns the public even more than the profession. The Chancellor, we know, thrusts far-reaching measures on the people with the light-heartedness with which M. Ollivier is said to have entered on the disastrous war with Germany. But we believe him to be sincerely anxious to bring about the golden age which he sees in his visions of the future. The profession will do all it can to help in the realization of these dreams, which it dreamed before Mr. Lloyd George was born, and to which it has already done not a little to give form and substance. But it cannot allow itself to be treated as a negligible quantity because its voting power is small; and it is to be hoped that Mr. Lloyd George, and the Government of which he is so influential a member, may be brought to see, before it is too late, that without the cordial co-operation of the whole profession his Insurance Act will be nothing but a costly failure.

ANTIMALARIAL MEASURES IN INDIA.

A NEW sanitary era seems to have dawned in India. We are the more disposed to believe that this is not a too sanguine belief, because those responsible appear fully to recognize the importance of basing all their measures on scientific knowledge, not upon empiricism. The way was shown by the medical officers of the army, and the General Malaria Committee, appointed by the Indian Government, has gone a long way on the road to applying to the protection of the indigenous population principles which have produced among European soldiers the remarkable diminution in sickness and death recorded by Sir F. W. Trevor, the retiring Principal Medical Officer of the Army in India, in the speech at Delhi, a report of which is published elsewhere in this issue. Already application of the measures dictated by the knowledge accumulated since Sir Ronald Ross some fourteen years ago showed that the malarial parasite was transmitted by mosquitos of the Anopheline genus has brought about a remarkable diminution in malaria among natives of India where all the conditions can be controlled. In the memorandum presented by the Acting Sanitary Commissioner to the Indian Legislative Council in September last,[1] he was able to show that the admission-rates from malaria per 1,000 of strength of the Indian army had fallen from 467 in the quinquennium 1889–93 to 228 in the quinquennium 1904–8, and that among Indian prisoners the rate had fallen in the same period from 393 to 199. The Government of India has assigned a sum of £33,000 to the Indian Research Fund for the study of medical and sanitary problems, and the resolutions of the second meeting of the Indian Malaria Committee published last week (page 23), together with the address of the Acting Sanitary Commissioner, Sir C. P. Lukis, K.C.S.I., show that the value of scientific researches and surveys by experts is fully appreciated, and that those already conducted support Sir Ronald Ross's contention that antimosquito measures may not only prove more effective but also less costly than was expected. At the same time, in another resolution the committee recognized that though further research is necessary, enough is already known as to the breeding habits of mosquitos to make it frequently possible for trained workers to deal with malaria in an efficient manner.

There can be no doubt that the most effective way of dealing with malaria is by antimosquito measures, that the mosquito can be most effectually attacked in its larval stage, and that this can best be done by abolishing all collections of stagnant water, small or large, liable to be visited by mosquitos. This is the ideal measure, and undoubtedly in many instances could be carried through in India. Even where it cannot be completely effected, it can be approximately carried out with corresponding benefits; at all events, it is the ideal measure which should be striven for. Circumstances, such as considerations of expense, engineering difficulties, native prejudice, agricultural requirements, and so forth, may, in particular localities, militate against its complete, or even partial, attainment, and it is in these conditions only that less efficient measures, such as quinine and mosquito protection are legitimate; but in no case should the more radical measure be altogether lost

[1] BRITISH MEDICAL JOURNAL, October 28th, 1911, p. 1127.

sight of. Fortunately, as Sir C. P. Lukis indicates, in certain malarial areas it may not be necessary to tackle all mosquito-breeding places, but only such spots—possibly very limited spots, as in Bombay and the Andamans—that foster the particular *Anopheles* responsible for the local malaria. This in many places will simplify the task and greatly reduce the cost of antimosquito sanitation. As Sir C. P. Lukis remarks, this is a powerful argument for further and careful study, by special officers, of the distribution of species of mosquito in relation to malarial endemicity.

We presume that action will be taken on Dr. Bentley's report on the recurring epidemics of malaria in Bombay, which for so long a time have been a scourge to part of the city and to the shipping visiting the port. If so, we trust that every care will be observed that the measures to be instituted and the funds asked for shall be adequate to the end in view. A failure in Bombay would be a serious setback to malarial sanitation in India, a setback which might not be recovered from for many years to come.

We are glad to see that the authorities are taking time by the forelock and are already preparing against the possible introduction of yellow fever into India by the new route which will be opened up by the completion of the Panama Canal. Other oriental countries would do well to make similar preparations.

Although she ought to have been the first in the field, India has been somewhat tardy in giving practical application to the recent developments in tropical pathology. She has at last awakened to their importance and to her responsibilities in the matter and she may congratulate herself on the very efficient band of workers constituting and employed by the General Malarial Committee.

THE PUBLIC, THE PROFESSION, AND THE INSURANCE ACT.

Certain criticisms of the Insurance Act which the Regius Professor of Physic at Cambridge had published in the *Times* were embodied in an article published last week. To a later issue of our contemporary Dr. Lauriston Shaw, who claims to speak from experience as a member of the State Sickness Insurance Committee of the British Medical Association, contributed a reply, in which, however, he expresses his entire agreement with many of Sir Clifford Allbutt's statements, and agrees with him also "in deploring the ignorance and inattention to, public requirements as regards the provision of medical service which is so conspicuous in, but not confined to, the Insurance Act." Further, Dr. Shaw, in referring to the "many blemishes" of the Act, points out that "it does not secure, once and for all, things that we should have been glad to have seen finally secured." Nevertheless, he writes to some extent as an apologist for the Act, since he considers it a redeeming feature that "it leaves many important matters in so fluid a state that it is within the power of the medical profession to mould the future, exercising its influence in a way that could never have been done through the agency of the House of Commons."

Dr. Shaw asks to be referred to the specific propositions upon which Sir Clifford Allbutt based certain assumptions, which Dr. Shaw enumerates as follows: (1) that the medical work under the Act must necessarily be done under contract at a low rate of pay, (2) that the general practitioner is to be a stopgap, and that every malady of importance is to be sent to some central institution, and (3) that the new machinery is not calculated to develop the work done in medicine on new and growing lines but must sweep us back upon old methods. As to the first of Dr. Shaw's points, it is surely common ground that while the Act does not specify any mode or rate of pay, the mode must from the point of view of the Exchequer be so much a head, and that the basis of the actuarial calculations is inadequate. In this connexion it may be observed that in a new edition of *The People's Insurance Explained by the Right Hon. D. Lloyd George, M.P.*, which is published at one shilling, the speech with which he introduced the bill on May 4th, 1911, is reprinted—the speech in which he spoke of "raising the level to 4s.," a rate with which the doctors ought to be satisfied. The second assumption, again, is surely founded upon the same order of facts. At 4s. a head a year medical practitioners cannot undertake to apply tedious and costly methods of diagnosis. If they are not applied, the Act palters with us in a double sense, and while keeping the word of promise to our ear, breaks it to our hope: therefore the patient must go to some central institution. The third assumption was founded, we imagine, on similar considerations.

Dr. Shaw considers that one great merit of the Act, with all its many faults, is the elasticity of its provisions. It leaves, he says, the question of method of remuneration, whether on a contract basis or otherwise, and the amount of remuneration statutorily undetermined. He believes that the authorities and the profession conjointly can, to a great extent, shape the administration to their will, and that if the members of the profession apply themselves temperately but firmly, and with sufficient forethought, they can secure that the new insurance service shall not merely afford enhanced remuneration to the medical practitioner, but place him in a position in which he can better discharge his duty to the community. Dr. Shaw looks upon free choice of doctor as an important means of obtaining a satisfactory administration, and he says that the whole fight under the German insurance system has been for the free choice of doctor by the patient. Professor Müller of Munich, in an address from which we had occasion to quote in a previous issue, states that the first stage of the conflict arose out of the fact that at the outset of insurance, the insurance companies or corporations appointed a small number of doctors of their own who were required to take charge of all the company's patients at a fixed salary. This system caused intense dissatisfaction, at first among the doctors not employed by the companies, and afterwards among the patients, who found that they received insufficient attendance, and that the whole-time insurance doctor had not time enough to attend upon them. It was then the struggle for free choice of doctor began. By the unanimous action of the doctors the insurance companies or corporations were eventually forced to raise their fees, and the majority of the companies granted free choice of doctor to the persons they insured. Other difficulties remained, but these, Professor Müller considered, now that the free choice was given to the patients, would be solved by the doctors themselves, through the exercise of strong internal discipline.

In a brief rejoinder Sir Clifford Allbutt, after describing Dr. Shaw's letter as a supplement rather than a reply to his own, says: "In the warmer hours of my imagination I can see, with Dr. Lauriston Shaw, a new life of the profession linking up the family physician in living organization with the staffs of the in- and out-patient departments of

the hospitals, with laboratories for those analyses which at this day are essential even to the humblest practice, and with institutions for physical means of treatment now out of the reach of all but the wealthy. These visions may be accomplished by virtue of that 'elasticity' which unaided I might have called vacuity. In so far as the Act is not an Act there may still be hope. By the way, is the 6s. a year 'elastic'?" It is clear enough that Sir Clifford Allbutt based himself upon the Act as it is, the speeches of its putative father, and the actuarial calculations upon which the estimates of cost have been founded. He has therefore done the country and the profession a great service by clearly warning the public that, unless the Exchequer and its Chancellor change their point of view and amend the actuarial data, medicine in this country must be set back or the profession must refuse to work under the scheme.

It is becoming more than ever generally recognized that upon the action which the medical profession now takes must depend the whole future of the scheme. Dr. Chapple, who sits in the House of Commons as the representative, in the Ministerial interest, of Stirlingshire, in an address at the Paddington Radical Club last Tuesday, pointed out that the doctors were the fulcrum upon which the success of the Insurance scheme depended, and that if they were unanimous in their opposition the scheme could not be carried out. While believing that this would be a great misfortune both for the doctor and for the individual insured person, he said that if an attempt were made to force doctors, against their will and against their sense of justice, to perform medical duties which they felt to be unfair and unjust, the insured persons would not get the full value of their services. It was essential that the medical profession should undertake to carry out the scheme with a good grace and with the feeling that it had been honestly and fairly treated. At present its members feared that if the Act were put into operation it would be abused, and that they would be called upon to attend upon classes they had never contracted to attend in the past. He concluded by saying that he believed that it was possible so to adjust the relationship between the doctor and the State as to do no injustice to either.

In spite of apparent differences, a study of the reports of meetings of Divisions and Branches of the British Medical Association and of other meetings of medical men throughout the country, which we have spared no pains to make as complete as possible, will show that there is complete unanimity of opinion on the general principle that the medical profession cannot and will not undertake to work the Act if the present actuarial calculations are maintained. The difference of opinion expressed at meetings, and in the correspondence published in our columns, turns upon the question whether the profession should or should not make use of the machinery set up by the Act, and constitute local Medical Committees for the purpose of discussing with the Insurance Commissioners and with the local Insurance Committees conditions and terms of service. Among the points which would arise in such discussions would be the local income limit, the definition of ordinary medical service, the amount and mode of remuneration for such service, and the conditions under which such extraordinary service as emergencies, night visits, mileage, consultations, operations, and the giving of anaesthetics could be rendered. The profession is unanimous in its resolve not to accept conditions which will endanger its future development and the continued efficiency of the services which it renders to the public.

BONESETTING.

MUCH has been heard recently about the art and mystery of bonesetting. Enthusiastic persons have rushed into print to describe their personal experiences, and the General Medical Council has been made the object of a good deal of ignorant and not altogether disinterested abuse for its decision in regard to the giving of anaesthetics by qualified medical men on behalf of bonesetters. The subject has been dealt with in the JOURNAL by Professor Howard Marsh, and by Messrs. Romer and Creasy, and there have been numerous editorial references to it during the last few years. We have always held that it was a subject well worthy of the attention of surgeons, and have expressed regret that doctors are too apt to look upon such things as outside their province because they regard unqualified practice as in itself sufficient to damn whatever it touches. This attitude, as we have repeatedly taken occasion to say, is not scientific, and does not tend to increase the respect with which the profession is held by the public. We abhor quackery as much as any, but it is an unquestionable fact that much has been learnt by those who have taken the trouble to study the methods of practitioners outside the fold. The time was when cutting for stone, herniotomy, and, in fact, most serious operative surgery was left to men who were looked upon by the regular profession as itinerant quacks. The hatred and suspicion of specialism in modern times may possibly have been a survival of this notion which finds expression in the oath known by the name of Hippocrates, one clause of which expressly states that cutting for stone must be left to those who practise that art. It is, therefore, with special interest that we see that a debate has been held at the Pupils' Physical Society at Guy's Hospital, in which a surgeon of such eminence as Mr. Arbuthnot Lane took part. The debate is reported in the *Guy's Hospital Gazette* of November 23rd, 1911. Mr. Lane, speaking of the rigidity that so often follows the treatment of fractures with immobilizing apparatus, said that the hospital patient who could not get massage went from bad to worse, and developed progressive degenerative changes in the affected joints. These cases came into the hands of the bonesetter, who by the employment of sufficient force broke down the adhesions within the joint and in the tissues outside it, with the result that a mobility which was most striking was very frequently obtained. Mr. Romer gave a short historical sketch of bonesetting. Notwithstanding the lesson received in 1871 when Wharton Hood published his papers on bonesetting, and showed that there was something to be gleaned from the practitioners of that art, the general opinion to-day among the profession was that there was nothing fresh to learn on the subject. Mr. Romer went on to say that though surgical treatment of recent injuries had made immense strides, bonesetting had not stood still either, but had adapted itself to the after-condition, which, even to-day, after the most modern treatment by massage, radiant heat, and electricity, often left much to be desired in the way of cure. Although complete ankylosis was rare compared with the time when absolute rest was thought essential for the treatment of bone and joint injuries, a joint need not be entirely incapacitated by adhesions to require manipulation. Hence it frequently happened that the possibility of some small adventitious band was not suspected, provided the joint moved with comparative freedom, and it was especially in these cases that the modern bonesetter proved successful. Careful examination in such cases would reveal a painful, though comparatively slight, interference with the normal range of movement, to cure which forcible manipulations would often be just as necessary as in a joint whose action was entirely lost. Doubtless many cases of this kind might eventually recover by other means, but radiant heat and massage

were not easily obtainable in country places, whilst treatment by means of bonesetting was usually simple and effective, once the principles of the manipulations had been grasped. Any practitioner could do them successfully, provided care was taken to ascertain the particular lesion that existed. A certain delicacy of touch was requisite to appreciate that lesion properly, whilst the correction of it largely depended on knack, but both could easily be acquired by experience and practice. Until knowledge was sufficiently advanced to avoid the possibility of adhesions being left behind, Mr. Romer thought every doctor should make himself acquainted with the manipulations necessary for the different joints. There were certain broad principles to be observed in manipulating all cases, but the adhesions would be found to vary in position according to the joint affected, and each joint therefore required its own special movement, while the after-treatment was of the utmost importance. These various points were known to the successful bonesetter, who, by experience, was enabled to determine the seat of the lesion and rectify it in a way not yet clearly understood by medical men who had not taken the trouble to study seriously the treatment of these small and apparently trivial after-effects of injury. Mr. Steward, Mr. Rowland, and Mr. Layton also took part in the discussion. The debate is noteworthy as a sign that the scientific surgeon realizes the truth of the maxim, *Fas est et ab hoste doceri*.

A PIONEER OF EXPERIMENTAL PHYSIOLOGY.

A TABLET has recently been placed in the old parish church of St. Mary, Teddington, in memory of the Rev. Stephen Hales, D.D., a former vicar of the parish. According to the *Times*, some eminent living men of science have long sought to discover the place where Hales was buried, and at length a stone recording his death was found in the church porch. The tablet has been placed on the wall of the west porch beneath the tower of the old church. It bears the following inscription: "Beneath is the grave of Stephen Hales. The epitaph, now partly obliterated, but recovered from a record of 1795, is here inscribed by the piety of certain botanists, A.D. 1911. 'Here is interred the body of Stephen Hales, D.D., Clerk of the Closet to the Princess of Wales, who was minister of this parish 51 years. He died 14th January, 1761, in the 84th year of his age.'" Hales, who was born in 1677, was educated at Corpus Christi College, Cambridge, of which he was admitted a Fellow in 1702–3. While at Cambridge he "perambulated" the country in search of Ray's plants. He became a Fellow of the Royal Society in 1718. He was appointed Minister of Teddington in 1708–9, and was assiduous in the discharge of his clerical duties, enlarging his church, and helping the parish to get a good water supply. He made female parishioners do public penance for irregular conduct. Peg Woffington lived in his parish, but it does not appear that she was subjected to his discipline. He was a neighbour of Pope, and was one of the witnesses of his will. Horace Walpole calls him "a poor, good, primitive creature." This is a curious example of "how it strikes a contemporary." Hales was equally distinguished as a botanist and as an animal physiologist. His contributions to physiology have been summarized by Michael Foster as follows: "He not only exactly measured the amount of blood pressure under varying circumstances, the capacity of the heart, the diameter of the blood vessels and the like, and from his several data made his calculations and drew his conclusions, but also by an ingenious method he measures the rate of flow of blood in the capillaries in the abdominal muscles and lungs of a frog. He knew how to keep blood fluid with saline solutions, got a clear insight into the nature of secretion, studied the form of muscles at rest and in contraction, and speculated that what we now call a nervous impulse, but which was then spoken of as the animal spirits, might possibly be an electric change. And though he accepted the current view that the heat of the body was produced by the friction of the blood in the capillaries, he was not wholly content with this, but speaks of the mutually vibrating action of fluids and solids in a way that makes us feel that, had the chemistry of the time been as advanced as were the physics, many weary years of error and ignorance might have been saved." Mr. Francis Darwin, in an account of Hales contributed to the current number of the *Parish Magazine*, says: "Stephen Hales has been called the 'father of physiology,' and he deserves this title in regard both to animals and plants. His experiments on the blood pressure of animals are second only to Harvey's work on the circulation. In the domain of plant physiology he is equally great. In all his researches he combined a belief in the design of the Creator with a passionate desire to understand the mechanism of living things. Thus he treated the manifestations of life as things to be weighed, measured, and analysed in the laboratory. It is this point of view that gives his work so modern a character and entitles him to be considered one of the founders of a rational science of biology. Although he loved science for its own sake, it is equally clear that he was dominated by a permanent desire to use his knowledge for the benefit of his fellow-creatures. Water supply, ventilation, the distillation of potable water at sea, the preservation of food on long voyages, the treatment of at least one disease—the stone—and especially the harm arising from intemperance in the use of alcohol, all received attention. It is impossible to read his works without mingling personal affection with the respect inspired by his intellect."

PAYMENT UNDER THE INSURANCE ACT.

CERTAIN daily papers seem anxious to convince their readers that to set aside more than 6s. a head for medical benefit, including drugs, under the National Insurance Act would be making a present to the medical profession, and are bolstering up their endeavours by references to what they are pleased to regard as investigations on the subject. The value of these is perhaps sufficiently indicated by stating that the *Pall Mall Gazette* leaves its readers to suppose that only an unusually successful practitioner ever enjoys as the outcome of his labours a net income of some £300 or £400 a year. The statements of the *Daily News*, which is also active in the matter, are better documented, but are apparently based on an assumption that any number of insured persons will be available to every member of a medical panel, wherever he lives, and that whatever their number they will only produce just a comfortable amount of work. The former assumption is obviously foolish, while as for the latter there are not, as a matter of fact, any figures in existence which would enable it to be stated with certainty how many visits or attendances any given number of individuals in this country would under the conditions supposed require in the course of a year. This, however, by no means implies that there are no figures which justify medical men in concluding that if they are not paid a very much higher capitation fee than any which seems likely to be available under the Act, they will be serious losers. Inquiries have been for some time in progress and will be continued, but in the meantime we may recall several articles already published in our columns. The two owners, for instance, of a certain practice showed in our issue for May 27th, 1911, that if their joint net income was not to be reduced, payment under the Insurance Act would have to be not less than 10s. a head; while in the SUPPLEMENT for December 2nd, 1911, a member who had kept figures regarding his contract work for over eighteen years showed that the sum he was likely to get for each visit paid to insured persons would be between 7d. and 8d.,

and thus hardly cover his travelling expenses. A third contributor, taking the official actuarial estimates, supplied reasons for concluding that the owner of a certain practice would have to increase his work by fifty-four visits a day—a quite impossible task—or else submit to a lowering of his existing income. All these writers were dealing with figures derived from their own work, and the first named were so satisfied of the justness of their conclusions that they offered to allow the Chancellor of the Exchequer, or any other person with a proper object in view, to test them by examination of their books. We also published last August an abstract of a pamphlet dealing with the National Insurance Act in the light of thirty years' experience of provident dispensary work. It supplied figures collected throughout that period, and ended with the conclusion that to allow a sum of less than 12s. a head for medical benefit would prove an absolute mistake. This pamphlet, in view both of the spirit in which it is written and for its text, is well worth reading, for its author comes to his conclusions despite the facts that his personal interest in the matter must have nearly reached its close, and that he is a strong advocate of the objects and principles underlying the Act. None of these papers, however, supplies any conclusive answer to the question of how much work any given number of insured persons will entail on those who would make themselves responsible for their medical treatment under the Act. Nevertheless, a rough conclusion can be based upon them—this being that a medical practitioner whose patients mainly consist of insured persons would have to work uninterruptedly for at least ten hours a day if he wishes to make a net income of even as little as £250 a year.

THE WALRUS AND THE CARPENTER.

As several of our correspondents point out, the profession must be on its guard against the attempt that is being made by party men and party newspapers to make capital out of its present attitude to the Insurance Act. We refer elsewhere to the attempts of the *Daily Mail* in this way; they are, perhaps, too clumsy to deceive any one, but the Radical papers do not show themselves at all backward in defending the Act and Mr. Lloyd George at the expense of the profession, a tendency to which attention is also called in the article already mentioned. We desire here to make a specific protest against the attempt now being made by some Government organs to place the medical profession in an odious light before the public as a rapacious set of persons who are trying to drive a hard bargain, or to exact more than their due. The real position is that the State is imposing upon a profession, hitherto, indeed, enjoying few or no privileges, but free and independent, State control from which most of the churches, and some men in all churches, claim that those who minister to the spiritual needs of the people shall be free. At the same time the State imposes on the medical profession duties and obligations, and proposes to pay less, far less, than the money value. We refer to the actuarial data used by Mr. Lloyd George in explaining the financial bases of his scheme, when we say that the scheme, as it at present stands, is in this respect financially unsound. With its financial soundness or unsoundness in other directions to which some of our correspondents insist on referring we have nothing to do. The attempt to induce the profession to accept this unsound economic proposal by cajolery and rhetoric having manifestly failed, the Radical newspapers turn round and threaten us. We decline to be cajoled, and we equally decline to be frightened by threats. The medical profession cannot expect the disinterested support of either political party; acting as a united body, sinking minor differences, and dropping useless recrimination, it can very well do without their assistance. All medical men have their political opinions, for the profession includes probably more mugwumps than any other, but the less, in this vital matter, we talk and write and think from the party political point of view the better. We can all vote straight at the next general election, but in the meanwhile let us all be mugmumps. When the song of the walrus and the carpenter was ended Alice said she liked the walrus best, because he was a little sorry for the poor oysters. When it was pointed out that he ate more than the carpenter, holding his handkerchief in front so that the carpenter could not count how many he took, Alice, it will be remembered, thought him mean, and was disposed to like the carpenter best. When, however, she was informed that he ate as many as he could get, Alice, after consideration, concluded that they were both very unpleasant characters.

THE "BRITISH PHARMACEUTICAL CODEX."

THE recently published second edition of the *British Pharmaceutical Codex*, to which we have already briefly referred, contains several new features which much enhance its usefulness to the medical practitioner, and in its present form it is unquestionably the most complete book of medicines in use in the British Empire. The subject matter, which in the first edition was all placed in one alphabetical arrangement, is now divided into two parts; this division and the addition of new matter have increased the book by about 150 pages, but by the use of thinner paper an increase in bulk has been avoided. The full working formulae for all galenical and other preparations have been removed from the text of what now constitutes the first part, in which monographs on all drugs and chemicals at present used to any considerable extent are included; the paragraphs dealing with the source, characters, constituents, action, and uses of each drug are now followed by a short summary of the composition of all its preparations, two or three lines for each suffering to give those particulars which a prescriber requires to have before him—such as the proportion of the drug in question in each preparation, the names of other drugs accompanying it, and a brief note of the special character of the preparation and the dose. The prescriber can thus see at a glance what preparations of recognized formulae, both official and unofficial, are available for the exhibition of any given drug. The monographs give evidence of careful revision and extension in accordance with the most recent investigations. The selection of any particular information from the monograph is facilitated by uniform arrangement under headings, and by the use of heavy type for these and for such words as "soluble," "incompatible," etc. The second part of the book is a very complete formulary of unofficial preparations. This section contains nearly 350 pages, with an average of about five formulae to a page. The preparations given represent those which have proved useful in practice, and many of those printed in the earlier edition have been revised; the employment of proprietary articles of a semi-secret character must be greatly diminished if this formulary is freely consulted, as it contains representatives of most of these, but without the element of secrecy. The number of different formulae (for example, eight for emulsions of cod-liver oil) gives a range of choice which must be wide enough for any case, and the prescriber has the advantage of feeling reasonably certain that by ordering any of these preparations and adding the letters "B.P.C." to its name the patient will always receive the same medicine, in whatever part of the country it may be dispensed. Each group—such as "Misturae," "Pilulae," "Emulsiones," etc.—is introduced by a paragraph or article dealing with general properties, best methods of dispensing, etc., which, though primarily intended for the pharmacist, contain a good deal of information useful to the prescriber. Some of the groups are new to the book—for example, Ampullae (ampoules) and Oculenta (eye ointments). A pharmaco-

logical and therapeutical index is now added of the usual type: such an index may sometimes be of use in suggesting alternatives when it is desired to change the drugs administered in a given case, but can hardly be expected to do much more, and practitioners requiring information of this character would naturally consult works on therapeutics. The general index to the volume is well arranged, and any required information can be found with the least expenditure of time; its comprehensive nature may be judged from the fact that it occupies 100 pages, containing three columns to a page. As a whole the book is thoroughly creditable to the Pharmaceutical Society, and should prove of great service to medical practitioners in regard to the important subject of the prescribing of medicines.

AN EIGHTEENTH CENTURY WRITER ON INFANT PSYCHOLOGY.

WITH the increasing attention given at the present day both by educationalists and doctors to the psychology of infancy, a special interest attaches to the pioneers in this subject. Although, in the nineteenth century, the late Professor Preyer of Jena stood foremost in unravelling the workings of the infant's mind, Darwin was earlier in the field by publishing, in 1877, his biographical sketch of an infant. Moreover Darwin, in his autobiography, tell us that as long ago as 1837, on the birth of his first child: "I at once commenced to make notes on the first dawn of the various expressions which he exhibited." These observations have commonly been regarded as breaking new ground, but, writes a correspondent, turning over some scientific works of a century ago, I came upon some volumes of Nicholson's *Journal of Natural Philosophy* which show that Darwin had a forerunner in this special branch of psychology, for, sandwiched among papers on mechanics and chemistry, lay an interesting little study of an infant which antedates Darwin's sketch by more than a lifetime. The volume in question is that for 1806, and the author, whose identity is hidden in the initials "R.B.," states that six years previously he had published (where he does not say) a study of an infant until its twelfth day. This takes his observations back to the eighteenth century, and therefore he is entitled to the first place in the chronology of his subject. His communication bears the title, "History of the Developement of the Intellect and Moral Conduct of an Infant during the earliest part of her Existence; being concluded at the fourth Month of her Age." His observations, though often simple, are sometimes singularly acute. This, no doubt, is in some degree explained by the fact that, as he assures us, he was the father of many children, and that he had kept, some years before, a pet monkey whose mental accomplishments he appears to have studied. With this experience he had been led to the belief that at the moment of birth our moral habits are so far formed that a physiognomist could write the character of a child an hour old. Accordingly he proposed to lose no time in studying the moral habits of his latest child, and he enthusiastically insisted on beginning his observations at the very moment the child was born. "It is not the custom," he apologizes, "in this country for the father to be present at events of this nature; but I am well convinced that his presence, if he possesses firmness, good sense, and affection, is calculated to produce the happiest results." We first see him, therefore, watch in hand, counting the seconds before the babe drew its first breath. Day by day he chronicles its progress. On the fourth day the child could follow objects with her eyes, and next day adjusted its optic axes and, he thinks, the concomitant focal mechanism of the eye. Incidentally he mentions that another of his children was able to do this within an hour of birth—an observation the credit of which is usually given to Donders, who in 1871 recorded it in the *Archiv für Ophthalmologie*. On the eighth day, "R. B." continues, the child not only recognized her mother by smell and contact, but associated her with a sense of refreshment, while "R. B." himself was connected in her mind with ideas of mental entertainment. Though he regretfully admits that she evinced a preference for the mother, he hastens to add that she bestowed on the father "a marked preference of intelligent attention." In fact, throughout his paper, "R. B." shows himself the proud father, and to this attitude, perhaps, we must ascribe the unusually intelligent actions of his offspring. At any rate, the modern child is, we fear, by no means as precocious. Thus, on the twenty-third day she made many attempts at articulation. Three days later she could without difficulty utter many simple sounds, and knew the word "child" as applied to herself. At the end of the sixth week she knew her own name, and, towards the end of the eleventh week, the father records that "her mother, as well as myself, think C's power of mind and observation are at this time much superior to that of a monkey; but her education, or quantity of acquired habits, less." After some further observations on these lines, the history ends all too soon. Whether it is now possible to identify the original-minded "R. B." we cannot say. Perhaps some of our readers can throw light on the matter. In any case, however, he deserves to be remembered, as does his little girl who, at three months, so sadly betrayed a weakness of her sex by making first use of her hands to grasp the tea-tongs, and, worse still, "could not command the voluntary power of letting go."

THE RECOGNITION OF ORGANIC HEMIPLEGIA.

IN view of the increased inducements to malingering afforded by the Workmen's Compensation Acts, and the further prospect of such temptations by the National Insurance Act, great interest attaches to any additional means by which to distinguish between organic and functional paralysis. There are, no doubt, two aspects of the problem; it is very necessary to be able to detect cases of simulated paralysis, whether of hysterical or fraudulent origin; but it is also important to be able to recognize whether, when the patient is lying comatose, hemiplegia is or is not present. The value of Babinski's sign under these circumstances is generally recognized. Hoover's observation, the validity of which we can fully confirm, is that when a patient suffering from organic hemiplegia is asked to try to raise the paralysed limb from the bed, he presses with the heel of the sound foot on the mattress, as can be felt if the hand of the observer is slipped under the heel when the patient is asked to execute this movement. In cases of simulated or hysterical paralysis this pressure of the heel is absent. Two years ago we drew attention to an article by Dr. Lhermitte, in which he summarized a number of additional points in the differential diagnosis of organic from functional or simulated hemiplegia. The first was that if a partially paralysed hemiplegic patient tries to raise his arm, the fingers are extended and abducted like the sticks of a fan. In the second, when the fingers are passively extended the thumb is spontaneously flexed. In the third, when the elbow rests on the table and the hand is raised by an observer to a vertical position, if the support is removed the partially paralysed hand drops to an angle at the wrist. In the fourth, if the patient is lying on his back with his feet together, and is asked to abduct the sound leg, the paralysed leg will be found to be slightly abducted too. The fifth is based on the hypertonicity of the muscles of the paralysed leg; if the patient is lying on his back the sound leg can be raised from the bed to an angle of 70 to 75 degrees, but the paralysed leg only to one of 40 or 45 degrees. The last was contributed by Dr. Neri of Bologna, who has recently made another observation of a like kind.[1] He says that if, when the patient is lying on his back with both hands

[1] *La Semaine médicale*, No. 1, 1912.

stretched in front of him lying prone upon the coverlet, the observer slips his hand under the forearm of the patient and flexes the forearm upon the arm without touching the patient's hand, the hand on the healthy side preserves its original place; it remains prone, with its long axis parallel to the axis of the body; but the hand on the paralysed side becomes partially supinated, its long axis being more or less transverse to that of the body. He explains this as the result of the hypertonicity of the supinator muscles. We have recapitulated these signs on account of their obvious utility if experience prove them to be trustworthy.

MEDICAL TERMS IN THE NEW ENGLISH DICTIONARY.*

THE quarterly part of the *Dictionary* for January, 1912, covers the rubrics from *See* to *Senatory*, and contains, as usual, some interesting medical terms as well as many medical meanings of ordinary terms. As one of many instances of the latter class, we may refer to the words *seek* and *seeker*. Two meanings, obsolete now, of the verb *seek* were to attack and to probe. Thus in Blind Harry's *Wallace* the sentence occurs, "seknes hyr had so socht in to that sted, Decest scho was," where disease is spoken of as *seeking* or *attacking* a person. Again, in a work of the fifteenth century, we read how "Lechis sone his wound is sought" (probed). In the latter sense the word *seeker* is employed at the present time as meaning "a probe or tracer used in dissections," and Huxley and Martin's *Elementary Biology*, published in 1888, is made to furnish an illustrative quotation of it. There is also a sentence from Wurtz's *Surgery*, of 1658, which illustrates and explains its use at the same time: "The small iron instruments which by reason of seeking are called the seekers or searchers." *Segment* is another ordinary word which possesses medical meanings when used to describe the parts of the vertebral column and of the spinal cord; *segmentation-cavity* and *segmentation-sphere* are well known terms in embryology. Under *Seidlitz*, Dr. Bradley, who is responsible for this part of the *Dictionary*, has the following note: "The name of a village in Bohemia where there is a spring impregnated with magnesium sulphate and carbonic acid. Used *attrib.* in Seidlitz salt, magnesium sulphate; Seidlitz water, an artificial aperient water of the same composition as the water of the Seidlitz spring. Hence in Seidlitz powder (arbitrarily named merely on account of its aperient property), a dose consisting of two powders, one of tartaric acid and the other of a mixture of potassium tartrate and sodium bicarbonate, which are to be dissolved separately, and the solutions mixed and drunk during effervescence." The first illustrative quotation relating to these well-known banishers of the morning headache bears the date 1815, and another of 1837 is the familiar one from Dickens's *Pickwick*, which tells of the clerk "mixing a Seidlitz powder under cover of the lid of his desk." It is a curious coincidence that the very next rubric in alphabetical order in the *Dictionary* is also the name of a salt—namely, *Seignette*, the name of a French chemist of the seventeenth century, used attributively in *seignette salt*, a name for potassium and sodium tartrate (Rochelle salt). Turning over the pages we come, a little further on, to yet another salt, namely, *seltzer*, which ought to be written *Selters*, after the little village in Hesse-Nassau, Prussia, which bears the name. This Selters or seltzer water contains sodium chloride, with small quantities of sodium, calcium, and magnesium carbonates. An illustrative quotation of 1741 from Pott gives the advice to "drink the selters water, and keep to a cooling regimen," whilst a much more recent book describes one of its characters taking "a great gulp of brandy and seltzer"—hardly a cooling regimen, one is tempted to think. A group of strictly medical terms is that containing *semeiography*, *semeiologic*, *semeiological*, *semeiologist*, *semeiology*, *semeiotic*, *semeiotical*, and *semeiotics*. These words all take origin in the Greek σημεῖον, a sign, and they all refer to signs of disease, or rather to symptoms; thus, *semeiology* is defined as "the branch of medical science which is concerned with symptoms," more usually called symptomatology. A 1625 work furnishes the illustrative quotation, "The chiefe part of Physicke diagnosticke or semiotique, which teacheth us to know the nature, causes, and substance of the disease by the signes and grounds of the same." Again we congratulate the editors of this great *Dictionary* on the steady progress the work is making, and on the excellence of the workmanship in it.

*A New English Dictionary on Historical Principles. Edited by Sir James A. H. Murray. *See-Senatory* (vol. viii). By Henry Bradley, Hon. Ph.D.Heidelberg. Oxford: At the Clarendon Press. London, Edinburgh, Glasgow, New York, Toronto, and Melbourne: Henry Frowde. January 2nd, 1912. (Price 2s. 6d. net.)

HOSPITAL APPOINTMENTS AND DISPENSING.

A RULE to the effect that full, as distinct from assistant, physicians and surgeons on the staff of the Royal Portsmouth Hospital must not dispense, or contract for the supply of, medicines, was rescinded by the governors at a meeting on January 5th. It appears to be one of very long standing at the institution, and the ground put forward for its abolition at this particular date was that its existence unduly limited the choice of governors in their selection of candidates for the staff, since in one important section of the locality served by the hospital all medical men dispensed their own medicines. It seems, however, to have been admitted that the proposal to rescind the regulation was really brought forward in the interests of one particular member of the assistant staff, whose promotion was deemed desirable, but in existing circumstances would be difficult. This being the case, the decision seems reasonable, but whether, since the rule existed, it would not have been better to waive it in favour of this particular candidate instead of rescinding it altogether is another question. Perhaps it would have been more in accordance with the spirit of the age if the governors had first waived the rule in favour of all existing members of the staff, and then extended it to all other candidates for appointment to either rank. This by no means implies that men who dispense medicines, or do a certain amount of work on contract terms, are unfit for hospital appointments, since in respect of those on the medical side it might be argued that a physician who in private life handled his own drugs would prove a greater therapeutic adept than one who only prescribed. Every one, also, knows that surgical ability is to a certain extent inborn, and that admirable work in this direction is daily performed by men who conduct dispensing practices or are partners in firms that do so. The statement, in short, is merely a recognition of the fact that advances or new developments are constantly taking place in the department of medicine in the way of diagnostic and therapeutic measures, while surgical principles and technique are constantly evolving, so that the more time those who take up medical or surgical appointments are able to devote to their special work the more likely are they to become and remain real experts therein. In principle, therefore, it would be a sound rule to restrict hospital appointments to those who limit unnecessary calls on their time by declining to do dispensing or to take any responsibility in connexion with it; but by no means everywhere at present could this rule be put into practice with advantage to the community.

WE regret to have to record the death of Dr. Sophia Jex-Blake, and hope to publish an obituary notice in a later issue.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

The Insurance Act.

A meeting of the Scottish Committee of the British Medical Association was held at Edinburgh on January 6th. There were present: Drs. Dewar, Buist, Macfarlane, Gordon, Martin Smith, Balfour Graham, Hamilton, Moorhouse, Mackintosh, Smith (Aberdeen), Grant Andrew, Scott Carmichael, and Dr. Livingston the Honorary Secretary. Dr. Cox, the Acting Medical Secretary of the Association, was also present. The meeting was called specially to consider proposals which had been made by the Councils of the Royal Colleges in Scotland for the formation of a National Council. These proposals were reported in the Journal of January 6th, p. 48. A deputation from the Scottish Corporations attended, consisting of Dr. Byrom Bramwell, President of the Royal College of Physicians, Edinburgh; Dr. Russell, Royal College of Physicians, Edinburgh; Dr. Berry, President of the Royal College of Surgeons, Edinburgh; Dr. Bowie, Royal College of Surgeons, Edinburgh, and Dr. Napier, President of the Royal Faculty of Physicians and Surgeons, Glasgow. After discussion it was resolved that a further meeting should take place on January 20th to consider the whole subject, and that in the meantime no appeal of the kind foreshadowed in the proposals of the Royal Colleges should be made to the profession in Scotland.

A meeting of the medical practitioners of the county of Ross and Cromarty was held on January 5th, at Dingwall, for the purpose of considering their attitude to the National Insurance Act. Dr. Bruce of Dingwall presided, and there was a large attendance of doctors from all over the county. After a prolonged discussion, Dr. Adam moved, and it was unanimously agreed, that the practitioners of the county of Ross and Cromarty are not prepared to act under the National Insurance Act unless the six cardinal points framed by the British Medical Association are conceded.

A meeting of the profession resident in the western portion of Banffshire was held on Friday, January 5th, when the following resolution was adopted:

> That the practitioners resident in the western portion of Banffshire are not prepared to act under the National Insurance Act unless the six cardinal points framed by the British Medical Association are conceded in the regulations framed by the Scottish Insurance Commissioners.

Elgin and Moray passed a similar resolution on Saturday, December 30th, 1911, and Fife on January 9th, 1912.

As already reported, many other Branches and Divisions in Scotland have forwarded resolutions in similar terms to the Scottish Insurance Commissioners, and the following is the text of the reply which has been sent:

> National Health Insurance,
> Scottish Insurance Commission,
> Edinburgh, January 8th, 1912.
>
> Sir,—With reference to your letter of — I am directed to assure you that the whole subject of medical benefit will receive the earnest attention of the Commission, with the least possible delay. A special committee has been appointed to consider it and all relative matters.—I am, sir, your obedient servant,
> (Sgd.) John Jeffrey, Secretary.

Queen Victoria's Jubilee Institute for Nurses: Scottish Branch.

The twenty-third annual report of the Scottish Council of Queen Victoria's Jubilee Institute for Nurses has been issued. It deals with the year ending October 31st, 1911. The Council recorded the loss of three of their number during the year—Mrs. Higginbotham, Dr. James Andrew, and Dr. Joseph Bell—whose services to the Scottish branch during the whole period of its existence it was impossible to overestimate. As the work of the institute, both national and local, had increased yearly, the Council had resolved to appoint a new committee, consisting in the first instance of certain of the lady representatives, and of eight other Scottish ladies interested and experienced in philanthropic agencies. The new committee would supervise and report on the work in the Central Training Home, which included the nursing of the sick poor in Edinburgh. It was hoped that by this means the administration of the Central Home might be strengthened, and knowledge of the general work of the institute spread to a much wider circle, and its sphere of influence extended. Lady Susan Gilmour has succeeded the late Miss Guthrie Wright as honorary secretary. During the year thirty-six nurses passed through the six months' training in district nursing given in the Scottish Central Training Home. Two of these received in addition the special training qualifying them for the examination of the Central Midwives Board, which they passed. Two nurses were given the same training in a maternity hospital at the Council's expense, and were also successful in obtaining the midwives' certificate. Dr. John Thomson, who has for twenty years given lectures to the nurses in training, has resigned, and Dr. Charles McNeill, who was appointed in his room, has given two courses of lectures on foods and fever nursing. The nurses have also all had lessons on sick-room cookery. At October 31st, 1911, the Council was responsible for 32 officials. The number of Queen's nurses now on the Scottish roll was 353. There were 225 nursing associations affiliated to the Scottish branch of the institute. During the year 5,841 patients were nursed, 142,393 visits were paid, and 439 operations were attended.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

Milk Commission.

The Viceregal Commission appointed to take evidence in regard to the question of the methods of the production and distribution of Irish milk supplies resumed the hearing of evidence at Dublin Castle on January 5th. Sir John Lentaigne has had to resign his seat on the Commission, as he found that his professional duties did not allow him to serve on the Commission with any degree of efficiency, and Sir Stewart Woodhouse, M.D., has been appointed to take his place.

Bicentenary of Trinity College School of Physic.

The bicentenary of the School of Physic of Trinity College will be celebrated on July 4th, 5th, and 6th. A meeting of graduates of the School of Physic is to be held at an early date and a committee appointed. Numerous guests from various colleges and medical faculties are to be invited. It is intended that various social functions, garden parties, receptions, and banquets shall be held in addition to the academical meetings at the university, at which honorary degrees will be conferred on the distinguished visitors.

Outbreak of Anthrax near Wexford.

The second outbreak of anthrax has occurred near the town of Wexford. In the outbreak a few months ago 5 cattle died and 32 were slaughtered. Now one bullock has died, and the matter has been reported to the County Council by M. Malone, V.S. Both Professor McFadden and Mr. Mettam have given their opinion that the recent case was undoubtedly anthrax. As the Local Government Board has recommended that anthrax in cattle should be dealt with by treatment rather than by slaughter the Board has been asked to act immediately.

Clifden Health Home.

Her Excellency the Countess of Aberdeen presided over a meeting of the proposed Clifden Health Home, held in Galway, and gave a summary of the methods adopted to secure the use of the disused coastguard station at Clifden as a home for incipient cases of pulmonary tuberculosis and for tuberculous children with disease of the joints, and cases reported from sanatoriums to require further treatment. It will contain twenty beds, and the Galway County Council have undertaken to support ten of these and to give £300 towards the alteration of the building. Plans for the necessary alterations were considered, and a local tender at £600 was provisionally accepted.

Resignation of Dr. M. J. Russell.

At the last meeting of the guardians of the South Dublin Union a letter was read from Dr. M. J. Russell resigning the position of medical officer for No. 2 South

City Dispensary District. A resolution was passed accepting the resignation with regret, and Dr. Maughan was appointed to fulfil the duties at four guineas a week, pending the permanent filling of the vacancy. The election is to take place in a fortnight, and the salary offered is £140 a year. A resolution was also adopted expressing appreciation of the manner in which Dr. Russell had discharged the duties of medical officer during the two years in which he was an officer of the board, and tendering him congratulations on his new appointment as Assistant Medical Officer of Health for the City of Dublin.

Health of Belfast.

At the meeting of the City Council of Belfast on January 1st, the Chairman of the Public Health Committee (Councillor Dr. Thomson) gave some interesting figures when moving the adoption of the Public Health Committee's minutes. The death-rate for the past month had been 16.9 from all causes, and 1.2 from zymotic disease. The committee had authorized for the current year an expenditure of £55,000, and a capital outlay of £30,000. With unlimited money many other reforms could be carried out, but there must be some limit to municipal expenditure. The health statistics for the past year were very satisfactory. The mortality of children under 1 year of age was the lowest recorded for thirty-seven years, except for the year 1884. A high infant mortality meant a high mortality for the next five years of life. Much of this reduction was due to the improvement of the milk supply. He believed all the necessary powers of inspection of outside dairies, from which two-thirds of the milk supply came, would be obtained. Professor Symmers, he said reported that the milk from the town dairies was much purer than that which came from without the city. The deaths from phthisis numbered 308, as compared with 825 in the previous year. In 1905 these numbered 1,116, and there had been a steady fall since. He believed the diminution would have been greater if many cases which in former years had been registered as chronic bronchitis had been registered as phthisis. The zymotic death-rate was 1.8, and only twice during the last twenty years had it been lower.

Management of Lunatics in Ennis Workhouse.

As the result of the report of Mr. J. G. MacSweeney, Local Government Board inspector, on the sworn inquiry held by him lately into the general management of the lunatic department in the Ennis Workhouse, both the master and the attendant have resigned. In accepting the master's resignation several of the guardians paid a high tribute to his services.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

BIRMINGHAM.

Professor Saundby.

Professor Saundby has resigned the post of Senior Honorary Physician to the General Hospital, Birmingham. The resignation was received by the Board of Management on January 5th, and it was unanimously resolved:

> That the Board, having received with great regret the resignation of Dr. Saundby, Senior Honorary Physician, desire to record their high appreciation of the very able manner in which he has discharged his duties as Honorary Physician for the past twenty-seven years, of the skill and attention he has devoted to the patients under his care, and of the interest he has taken in the welfare of the institution; that his resignation be accepted with great regret, that the post be declared vacant, and that steps be taken to fill the vacancy on Friday, January 26th.

It was further resolved:

> That it be recommended at the next meeting of the governors that, in consideration of the eminent services rendered by Dr. Robert Saundby to the hospital during the past thirty-six years, he be appointed Honorary Consulting Physician to the hospital.

A special committee was appointed to consider what steps should be taken to commemorate Professor Saundby's services. Dr. Saundby, who is Professor of Medicine in the University of Birmingham, and President of the British Medical Association, came to Birmingham in April, 1876, when he was appointed resident registrar and pathologist to the General Hospital. In November, 1877, he was made assistant physician, and in January, 1885, was elected honorary physician. He has therefore been connected with the hospital for thirty-six years, and since the resignation of the late Dr. Edwin Rickards in 1891 has been the senior honorary physician. No one could have shown more devotion to the welfare of his hospital than Dr. Saundby; he visited the wards nearly every day, and spent a large amount of time in the conscientious discharge of his duties towards the hospital and the patients put under his care. By his colleagues on the medical staff his loyalty and sympathetic interest were warmly appreciated. To them especially his resignation of active work at the hospital is felt to be a very great loss.

Acute Poliomyelitis.

In accordance with the Infectious Disease (Notification) Act, 1889, the Council of the city has decided, and their decision has been approved by the Local Government Board, that acute anterior poliomyelitis shall be compulsorily notifiable for a period of two years. The order of the Council came into operation on January 1st. It has been estimated roughly that over 200 cases of acute poliomyelitis occurred in Birmingham last year.

The Women's Hospital.

The organizers of the large charity ball, held on November 30th last in aid of the Birmingham Midland Hospital for Women and Maternity Hospital, have just issued their report and balance-sheet, which show that a profit was made of £279 16s. 9d., and has been raised to £300 by an anonymous friend. The governors of the Women's Hospital are now responsible for the Maternity Hospital, which was taken over in the spring of last year and has had an annual deficit of several hundred pounds. The committee of the Women's Hospital hopes to co-ordinate the work of the two hospitals in a satisfactory way and, with the generous help of the public, to raise sufficient money for both.

MANCHESTER AND DISTRICT.

Manchester and School Clinics.

At a recent meeting of the Manchester Education Committee Sir T. T. Shann, the chairman of the committee, said that letters had been received from several associations advocating the establishment of school clinics, but he was bound to draw attention to the great cost now involved in the medical inspection of school children. He included under this the sum of £14,000 a year spent in the care of feeble-minded, crippled, and epileptic children and the feeding of the necessitous children. Moreover, directly through the medical inspection there were about 4,000 children excluded from school every year, meaning a loss in Government grants of £8,000. So far, the Board of Education had not helped to meet the extra cost thrown on the rates in this way. The Education Authority was, in fact, in a worse position than formerly, and the more efficient medical inspection was made the greater the loss. If medical inspection were to be of any value it was essential that there should be increased financial assistance from the Government, and under present conditions it was impossible for the Manchester Education Committee to spend more money out of the rates. Miss Dendy, while generally approving the remarks of Sir T. T. Shann, thought the committee should be careful how it took any action that would result in the establishment of several out-patient departments for children overlapping the existing hospitals, and suggested that a special committee should be appointed to consider a scheme before anything was done. Sir T. T. Shann disagreed with the suggestion of another member of the committee that the work of medical inspection and feeding of necessitous children should be in the charge of the health authorities and be paid for by them, as he did not want another authority interfering in the schools. There was no definite proposal before the committee, and no course of action was decided upon.

INFANTILE PARALYSIS IN MANCHESTER.

In consequence of the circular of the Local Government Board a proposal is now before the City Council to make acute poliomyelitis and cerebro-spinal fever compulsorily notifiable in Manchester under the Infectious Disease (Notification) Act, as it is in London and many other cities. Sporadic cases of both diseases are not rare in Manchester, but there are no means of knowing their number, and probably far more cases occur than ever come to the knowledge of the health authorities. In the year 1910 there was only one death in Manchester and two in Salford recorded as being from cerebro-spinal fever, but there is no separate record given for infantile paralysis, though it is said that at the Children's Hospital 268 cases of infantile paralysis were seen in 1909 and 195 in 1910.

SOUTH WALES AND MONMOUTHSHIRE.

WELSH NATIONAL MEMORIAL.

CONSIDERABLE progress has lately been made by the anti-tuberculosis campaign begun by Mr. David Davies, M.P. Further subscriptions are announced amounting to nearly £700. These include sums of £100 from Mr. J. E. Buckley Jones of Rhyl, Captain H. B. L. Hughes of Abergele, and the Mond Nickel Company. Negotiations are now almost completed whereby the control and upkeep of the West Wales Sanatorium at Alltymynydd will be taken over by the Welsh National Memorial Fund. This will prevent the overlapping of two similar charities, and remove a considerable financial burden from the shoulders of the supporters of the institution.

India.

[FROM OUR SPECIAL CORRESPONDENT.]

THE HEALTH OF THE ARMY: STATION HOSPITALS.

DURING the Durbar celebrations Surgeon-General Sir F. W. Trevor, K.C.S.I., on resigning the office of Principal Medical Officer with the Army in India, was entertained at dinner by eighty-three officers of the Medical Service.

In responding to the toast of his health, proposed by his successor, Surgeon-General Sloggett, Sir F. W. Trevor, after thanking the officers of the service for the splendid work they had done in improving the health of the army, said that he did not believe there was in the whole history of sanitation a more striking example of the good results to be attained by strenuous sanitary administration. To have reduced the death-rate from 17 per 1,000, the average for the decennial ended 1904, to 9.8 in 1907 and 4.6 in 1910 was a phenomenal performance, when it was considered that the invaliding was at the same time reduced from 2,506 in 1904 to 1,766 in 1907 and 562 in 1910. This showed that men were not being kept in India to die as was anticipated by some pessimists. The results were due principally to good work in barracks by senior medical officers and those working under them in carrying out better sanitation in cook houses and latrines, enteric inoculation, segregation of the infected and enteric convalescent dépôts in the hills. These efforts had been cordially supported and helped by officers commanding units, the rank and file themselves, and in very many cases much was due to the enlightened attitude and activities of cantonment magistrates. The improvement was still going on. The latest statistics showed a reduction up to the end of October of 4,000 cases of malaria, 50 enteric, 400 venereal. The death-rate was about the same as last year, namely, 4.6 per 1,000. These results were all the more satisfactory in that the year had been characterized by an exceptionally hot season, and a great number of deaths from heat-stroke, suicide, and cholera. The fact that there was only one death from enteric fever in August and one in October was most striking. No doubt the lower the death-rate went the more difficult further reduction became, but there was still a wide field for improvement on other lines, more particularly in improving medical organization for war and familiarizing both administrative and executive medical officers with medical tactics and the handling of medical units in the field. It had been a source of great pleasure to him when on tour to hear the way general officers commanding speak of the way their medical officers have worked, and he had had the warmest thanks and congratulatory letters from the Commanders-in-Chief, Lords Kitchener and Roberts. In conclusion he said: I have only one regret, and that is that we have failed to carry through the scheme for establishing station hospitals for the Indian army. I think it is lamentable that such an obvious reform should be rejected for the sake of financial considerations, which the vast saving we have made would far more than cover.

Special Correspondence.

PARIS.

The Diagnosis of Locomotor Ataxy.—Congress of Hydrotherapy.—Attenuated Cholera.

A LONG debate on tabes took place recently at the Society of Neurology. The chief question taken up was the distinction between symptoms really tabetic and those due to lesions not really tabetic. Dr. D. Marassey, who opened the discussion, said that the first requisite was to establish what, as pathological lesions, were actually the causal factor in tabes. Differences of opinion still existed as to the exact seat of lesion, some placing it in the posterior columns, whereas others regard the nerve roots as the parts primarily involved. The leucocytosis (lymphocytosis) in the cerebro-spinal fluid was a sign which in France was frequently held to confirm the diagnosis. He maintained that tabes was the result of a general infection of the whole nervous system, and that, therefore, other nervous disorders might be present at the same time as the primary disease. Dr. Navegroth expressed the opinion that tabes was due to neuritis of the nerve roots caused by a slowly progressive and incurable syphilitic change which occurred near the exit of the nerve roots from the spinal cord; the membranes covering the roots and the cord might be involved in the progress of the lesion. That the lesion was primarily irritative was evidenced by the fact that the lightning pains were primary symptoms. Nuclear lesions could not be considered as real tabetic lesions, and he questioned the advisability of including the Argyll Robertson pupil, perforating ulcer, and joint affections, such as Charcot's joint, amongst the real tabetic symptoms. Professor Babinski spoke on the classification of tabes, but expressed the opinion that the pathological seat of the lesion must be definitely fixed before an absolute classification could be made. He laid great stress upon the value of loss of tendon reflexes in diagnosis, not merely those of the lower limbs but also those of the arms. The Argyll Robertson pupil was pathognomonic of syphilitic nervous disease in some form or another. Sicard considered that a positive diagnosis could be made when reflexes were abolished, Argyll Robertson pupil present, and lymphocytosis existed in the cerebro-spinal fluid. Professor Marie and Dr. Foix said that in their experience of tabes women were much more likely to exhibit sphincter disturbances, whereas in man the ataxic symptoms were much more marked.

A Congress of Hydrotherapy was held from December 11th to 14th in Paris, and debated several points which are interesting not only to practitioners in France but to those of other countries. It was resolved that it would be advantageous to the profession if a chair of hydrotherapy were founded in Paris, and if a course of lectures were given each session on the value of the natural waters and health resorts in France. In France the climatic conditions are ideal for health resorts, the wealth of natural springs is enormous, and the French as a nation place great faith in the therapeutic value of the natural waters. The Congress decided that such a course of lectures would be a valuable addition to the medical curriculum and a great benefit to the country as a whole. The Congress also expressed the opinion that a tax should be levied upon visitors to the health resorts according to the length of their residence in a place, so that the inhabitants should not be called upon to pay the heavy taxation necessary for the entire upkeep. This resolution

was based upon the fact that in many places the resident population was small, whereas the visiting non-tax-paying population was large. It was thought also that advertising in foreign countries should be paid for out of a common fund, so that the French health resorts should be made better known to strangers and that attention should be given to the inspection and improvement of hotel accommodation.

At the meeting of the Medical Society of the Hospitals on December 15th, MM. Joltrain and Maillet made a report on the bacteriological findings in five cases of pseudo-cholera investigated during the epidemic of 112 cases which occurred in Paris in July and August, 1911. Bacilli analogous to the cholera spirillum were found, and cultures made from five cases. The organisms were short and curved and actively motile. On agar the cultures were white, and gelatine cultures became liquefied. The organisms were Gram-negative; cholera-red reaction was present, but slow in making its appearance. In two cases agglutination was positive with cholera serum. There was no agglutination of the typhoid bacillus nor of any of the typhoid group. Agglutination was present with Finckler bacillus and with active cholera spirilli from the Marseilles cases and from cholera cultures from Italy. The conclusions drawn were that the cases examined, though not virulent cholera, were due to an attenuated form or modified strain of the cholera spirillum.

BERLIN.

The Outbreak of Poisoning at Municipal Night Shelters.—Census of the Medical Profession.—The Effect of Town Life on the Youth of the Nation.

THE appalling catastrophe in one of the Berlin municipal night shelters—a large number of sudden seizures with a high percentage of deaths, some almost instantaneous, new cases each day for a week—has not yet been medically cleared up, though pathological anatomists, bacteriologists, and other specialists have been hard at work since the very beginning—that is, since Christmas Day. Theories and surmises on the subject are numerous, but it is useless to discuss them until the investigations set on foot have led to some convincing conclusion. One certain fact there is—namely, that from the moment the police closed a low taproom near the shelter, where "schnapps," largely adulterated with methyl-alcohol, was sold at a low price, from that moment no further case of illness has occurred. On January 5th a special conference on the seizures was convened by the Chief of the Prussian Medical Department, Dr. Kirchner, in the Ministry of the Interior. Delegates from the German Imperial Board of Health, from the Municipality of Berlin, from the Institute for Infectious Diseases and from the Municipal Night Shelter itself—twenty-five experts in all—took part in the first meeting, which is shortly to be followed by a second one. Intensely sad as the whole matter is, one learns with relief and satisfaction that not a shadow of responsibility for the seizures attaches to the night shelter itself, where scrupulous cleanliness prevails and where the bread and soup supplied gratis to the inmates is of excellent quality and always carefully inspected.

A special census just published gives the number of medical practitioners in the German Empire in the autumn of 1911 as 31,852, against 31,631 a year earlier. The increase during the twelvemonth therefore amounts to no more than 0.7 per cent. Prussia leads the way with 19,609 doctors, against 19,382 the year before. In Bavaria the number has decreased by 4.4 per cent., from 3,342 to 3,194. In the remaining Federal States there has been neither increase nor decrease to speak of.

From statistics submitted to the German Reichstag, it is apparent that the percentage of German youths and young men physically fit for military service was again lower in 1910 than in the previous year. If those set aside for the present or passed on at once to the reserves are counted as unfit, only 53 per cent. of the would be recruits were found physically fit for service in 1910, whereas in 1909 the percentage was 53.6, and in 1903 it was 54.5. The number of young men refused altogether was 890. Of those born in country districts and engaged in agricultural or forest work, 58.2 were found fit; of those born in country districts and engaged in other branches of industry, 55.1 per cent.; of those born in towns but engaged in agricultural forest work, 56.2 per cent.; of those born in towns and engaged in other branches of industry, 47.9 per cent. It would be difficult to find a set of four simple figures more instructive than these.

Correspondence.

THE MEDICAL SECRETARYSHIP.

SIR,—I see that the vacancy in the Medical Secretaryship of the Association is advertised; and from what I know of the constant anxiety of the Council to do their best for the Association and the profession, I am confident that they will spare no time or trouble in trying to find the most suitable person for the post.

From the professional point of view the two most important offices in our Association are the Editorship of the JOURNAL and the Medical Secretaryship. The financial success of the Association depends greatly upon the manner in which the JOURNAL is edited; and in this respect the satisfaction of the Association is complete. From the professional point of view the importance of the Medical Secretaryship can scarcely be over-estimated, as its occupant is a permanent official, whilst the Chairmanship of the Representatives, of the Council, and all the many and important professional committees of the Council are but temporary. And so it comes about that the Chairman of one committee after another may go in turn to the Medical Secretary for information, for help, and, perhaps, for guidance; and thus it might happen that the mind of each Committee, and so of the Council and of the meeting of Representatives, might become gradually moulded to the pattern of the Medical Secretary. Even a Medical Secretary is but human, and he is placed in a position of such great power that in time he might become by force of circumstances a dictator to the Association, and, therefore, to the profession. There was a time when an editor of the JOURNAL, unfortunately, became a dictator, but that is long past and almost forgotten. The British Medical Association belongs to the profession: it is a democracy, and the task of the Council will be to find for the advertised vacancy a person who, whilst single hearted in his service to the profession, will be no seeker after authority or advancement. This may be a difficult task.

In conclusion, I would like to refer to the individual member of the Association, who is so apt to find fault with the way in which his representative or his member of the Council may, or may not, at any time have acted in his official position. It is the duty of the individual to take a living, personal interest in the election of his representative or member; and, in choosing him, he should try to find a person who has so much strength of character that he is not too easily moulded to pattern. And, having carefully chosen him, let him trust him. Finally, let him try to realize and appreciate the immense amount of unpaid work which he does as his representative or member—and let him be a little bit grateful for it.—Yours, etc.,

London, W., Jan. 9th. EDMUND OWEN.
A former Member of Council.

ABOR ARROW POISON.

SIR,—Major Windsor's note on Abor arrow poison in last week's JOURNAL is very interesting. It is undoubtedly the fact that aconite is used largely for poisoning arrows by the tribes in that neighbourhood, and is commonly sold by the Mishmis, a neighbouring tribe, under the name of "Mishmi bikh," or Mishmi poison, but a man who was up with the expedition against the Abors, just after the Mutiny, told me that very few of the arrows used by the Abors were really poisoned; I think this is probably true. They reserve such arrows for "pot shots" at close range, and, if I remember rightly, in the whole of that expedition only one man, a bluejacket, was struck by an arrow poisoned with aconite: I believe he died. I wonder whether there are any survivors of that expedition? The troops engaged were part of Sir William Peel's Naval Brigade and some of the 42nd Assam Light Infantry. I hope there may be an opportunity for collecting other

arrows in the course of this expedition, and that Major Windsor will let us know the result of his examination.—I am, etc.,

Birmingham, Jan. 9th. ROBERT SAUNDBY.

THE NEW CELL PROLIFERANT.

SIR,—May I correct the statement made in my note on the new cell proliferant in last week's issue, that Dr. Titherley and Mr. Coppin had discovered the cell proliferating capabilities of allantoin? Obviously they analysed the comfrey for Dr. Macalister, to whom alone is due the credit of having originated the investigation, and of having discovered the therapeutic qualities of allantoin.—I am, etc.,

Liverpool, Jan. 8th. W. BRAMWELL.

SIR,—I can confirm Dr. Macalister's remarks upon the value of allantoin as a cell proliferant. Towards the end of last year there was an explosion at works in the neighbourhood of the hospital, and we were called upon to treat a large number of men who were severely burnt on the hands, forearms, and face. The burns were mostly of the second or third degree, and for about a week they were dressed with gauze soaked either in a solution of picric acid or in a solution of iodine.

Dr. Macalister asked me to try dressing them with allantoin, and kindly provided us with a quantity of it. In the first instance it was tried on two or three cases only, but the results were so satisfactory and so convincing to house-surgeons, dressers, and nurses, that dressing with allantoin solution soon became general. It not only stimulates epithelial growth, but "cleans up" sloughing surfaces in a most remarkable fashion.

When nurses and house-surgeons are really keen about any particular line of treatment there is generally something in it. This has certainly been our experience with allantoin.—I am, etc.,

Liverpool, Jan. 8th. R. W. MURRAY.

SIR,—I am interested in Drs. Macalister and Bramwell's papers in the JOURNAL of January 6th respecting the *Symphytum* or common comfrey, giving the composition of, and cases treated by, this herb; and I think it is more valuable than we imagine, but the mad rush for new drugs has put a lot of old remedies in the shade. I well remember fifty years ago that in other parts of this county the inhabitants used to make a decoction of the herb, and give it to those suffering from bad coughs and what they called weak chests, and were quite satisfied with its soothing effect, and highly esteemed it. I have also known it used in Devonshire for sore and broken parts of the body; by scraping and applying the root thus pulped, it is considered very soothing.—I am, etc.,

Strete, Devonshire, Jan. 6th. CHARLES J. R. LAWDAY.

SIR,—Dr. Macalister may be interested to know that the following description appears in *A Complete English Dispensatory*, by John Quincy, M.D., published in 1733:

Rad. Consolidae, Roots of Comfrey.

These are more efficacious in this Intention than the flowers taken notice of. They are sometimes made into a Conserve in the Shops, but such slimy or glutinous Bodies are very imprudently worked up into such Forms, because the Sugar in a little time destroys that very texture from which their medicinal Virtues arise. This Root is very conveniently boiled up into a Jelly, and if it be a little sweetened, as it is used, is not at all amiss. It is very strengthening, and good against all Fluxes whatsoever, but particularly Seminal Weaknesses; and where the Virulence is removed, it is excellent in old Gleets; and to stop the Whites in Women.

I am, etc.,

Pontardulais, Jan. 8th. R. J. ISAAC.

A HOSPITAL FOR PAYING PATIENTS.

SIR,—I do not wish to burden your columns by replying at length to the letter of Dr. Harvey Hilliard in your issue of December 23rd, 1911, p. 1676, as your space is probably as limited as my time, but with your kind permission I would like to assure Dr. Hilliard that the opinions he has seen fit to express (and they are obviously those of an interested party), have in no way altered my views on the matter in question. By what right Dr. Hilliard claims to command a greater knowledge of nursing homes and their management than I do myself, I cannot quite see. I have not the pleasure of Dr. Hilliard's acquaintance, but I believe he is engaged in the practice of anaesthetics. If this is so, I cannot admit his right to criticize the experience of any practising surgeon in a matter which so obviously concerns the surgeon rather than the anaesthetist. I am sorry if I have accidentally hurt Dr. Harvey Hilliard's susceptibilities, but I know, as indeed we all do, that plain truths are frequently unpalatable fare.—I am, etc.,

London, W., Jan. 6th. LAWRIE MCGAVIN.

SIR JAMES BARR AND THE INSURANCE ACT.

SIR,—The substance of the letters of Sir James Barr and his supporter Dr. A. Rugg Gunn lies in their expressed opinions that the National Insurance Act will tend to racial decadence, and will be subversive of eugenic ideals. To those interested in questions of race hygiene these opinions may seem hasty and ill judged, for the simple reason that most legislative enactments dealing with health and social reform are of the nature of experiments, whose ultimate outcome from the racial point of view cannot be predicted.

The interaction of nature and nurture, heredity and environment—to the study of which the Bishop of Oxford so forcibly directed the attention of the profession last July at Birmingham—is as yet practically unknown in human affairs. It is unscientific of Sir James Barr to abuse Mr. Lloyd George for introducing this Act to the Legislature, for it is practically certain that this Act is the product of the social conscience and lies outside the will of any one man. If Mr. Lloyd George had not introduced this Act a similar one would have been introduced by someone else, and this also from the various points of view would have been equally faulty. Group action for both social and individual ends is becoming the characteristic of the twentieth century, and some eugenists will see in the Insurance Act the beginning of that control which will in the end lead to the realization of their aims. If the medical profession acts collectively so as to gain such conditions of working that medical science will have full play, we need not fear that the race will suffer by this Act. Nay, more, the profession of medicine will gain in status, and its educative powers will lead more and more to the establishing of sociology on a biological basis.—I am, etc.,

Warrington, Jan. 7th. J. S. MANSON.

SIR,—There is one point in the letter of Sir James Barr which I should have challenged sooner had I not thought that it would certainly have been dealt with by some one better qualified than myself. He says that he objects to the Insurance Act because "it is a long step in the downward path towards socialism."

Now many of us who call ourselves socialists are quite as bitterly opposed to the Act as Sir James Barr. Moreover, our opposition to it has this advantage over his, that it is founded upon ethical principle and not political prejudice. We strongly oppose the Act because it indefinitely perpetuates the very worst features of the competitive system.

Towards the end of his letter Sir James praises the work done by medical officers of health, as indeed well he may. But he does not seem to have realized that the whole-time salaried medical officer of health is a typical socialistic institution. We socialists have a scheme of our own, which was first outlined in the Minority Report of the Royal Commission, and of which many approve who would not call themselves socialists. It would extend the State medical service, of which we already have the beginning in our Army and Navy Medical Services and in our medical officers of health, and would create a "Clinical and Domiciliary" staff of medical officers whose work would commence with the poorest of the poor, who are not touched by the Insurance Act, but who obviously most stand in need of help. There would also be an "Institutional Staff," who would look after the

hospitals, sanatoriums, and convalescent homes. Each county or county borough would have a chief medical officer, a highly paid and thoroughly efficient official, whose duty it would be to harmonize the work of these various services—clinical, institutional, sanitary, and I should add, educational—so that the whole community may be kept in a thoroughly efficient state of physical health. Indeed, the whole idea underlying the scheme is prevention rather than cure.

Now it is evident from Sir James Barr's letter that he approves preventive medicine in general and medical officers of health in particular, and, therefore, there is no reason to doubt that he will approve this scheme embodied in the Minority Report. Can it be that Sir James himself has touched the unclean thing and has himself leanings towards socialism, like the gentleman in Molière's play who had been talking prose all his life and had never known it! It is, of course, natural that a knight should wish to tilt at something or other; but if he be wise he will make sure that what he is tilting at is really that which he imagines it to be and not a windmill.—I am, etc.,

Manchester, Jan. 6th. E. VIPONT BROWN.

SIR,—The general tenor of the letters on the National Insurance Act published in this week's JOURNAL leads one to hope that a saner condition of mind is coming over the profession. Two acts of supreme unwisdom stand out in the controversy, the mischief of which will be far-reaching. One is the *Practitioner's* Referendum, the other the letter of Sir James Barr of December 22nd, 1911, published in the *Times* and in the JOURNAL.

As an advertising manœuvre the action of the proprietors of the *Practitioner* is no doubt a clever one. But that 15,600 (January 3rd, 1912) medical men should allow themselves to be made pawns in a political game at the bidding of entirely unknown and irresponsible individuals, and allow their names to be sent across from Howard Street, Strand, to Carmelite House, to furnish a new sensation for the readers of the *Daily Mail*, is as surprising as it is lamentable.

I will not attempt to deal with the whole of Sir James Barr's letter. The first ten paragraphs deal with aspects of the question which have been fully discussed and are fair matters of controversy; but we are not now dealing with a bill open to amendment. The Insurance Act has passed both Houses by huge majorities. Its principles have been accepted by both parties, endorsed by every important organ of public opinion. There is not the slightest chance of any substantial modification of its principles, whatever political party holds sway. Its passage necessitates negotiations of vital importance to the profession between the Ministers concerned, the statutory bodies appointed under the Act, and the only organization capable of representing the profession—the British Medical Association. Does the profession enter this negotiation under happy auspices when the President-elect of the Association stoops to personal abuse of his principal adversary? His action is impolitic, undignified, and ill-starred.—I am, etc.,

Felixstowe, Jan. 9th. C. G. HAVELL.

SIR,—In the BRITISH MEDICAL JOURNAL of January 6th, Dr Hislop complains that the President-elect of the British Medical Association is titular head of the forces opposed to the Insurance Act, and also a violent political partisan. Sir James Barr is, of course, well able to look after himself, but if nobody who holds extreme political views is to occupy a prominent position in the British Medical Association, there would have to be a fairly good clearance of "pronounced partisans of extreme views and valiant political fighters." One would like to suggest in all humility that the process should not be one-sided, but should include even the supporters of Mr. Lloyd George who play the political game for all it is worth, and who look upon the members of the medical profession as mere pawns to be sacrificed in order to save the game of the present Government.—I am, etc.,

Streatham, S.W., Jan. 8th. HARRY E. SMITH.

SIR,—There are two letters in your last issue which call for a short reply from me.

1. Dr. Montague Dixon is quite welcome to his own opinions, though they may be contrary to general experience. I hope he may live long enough to experience their truth or falsehood as the case may be. I am not aware that I have ever advocated the abuse of riches, whether inherited or otherwise, and I am certainly not of the opinion that "the whip of hunger and possible suffering is needed to produce the best individuals."

2. "The expense, with the amount of sickness, will be ever diminishing, because extension of contract practice will act as a most powerful stimulus to the medical profession to study the raising of healthy individuals, and to instruct insurees on this matter, as well as in the maintenance of good health." Has this been the experience of club practice in the past? Are we likely to get a crowd of health reformers among men who will be hardly able to earn a miserable subsistence, let alone have the leisure necessary to study the advance of medical science?

3. Has Dr. Montague Dixon never heard of the Land Valuation Act, which cost £350,000 to collect £15,000, and even when in full working order will probably cost 7s. 6d. for every sovereign collected? A tax which is difficult to collect is always a bad tax, and an Act which is expensive and difficult to administer can scarcely commend itself to any rational being, let alone to a political economist.

4. "The lower the fee provided for the doctor, the more urgent will be the stimulus to the study of methods of health maintenance and illness prevention, and this will inevitably result in an improvement of the national health." If this be so, what, then, is the use of talking about adequate remuneration? Why not reduce the capitation fee to 1s. 6d. or 2s., in place of the 4s. 6d. provided by Mr. Lloyd George? Is there any intelligent being outside an asylum who will endorse Dr. Montague Dixon's proposition?

5. It is quite unnecessary to discuss my views on sanatoriums with Dr. Montague Dixon.

6. We have here got a peculiar form of reasoning. "We are to degenerate because we propose a scheme to diminish sickness and alleviate suffering." Who said so, and where is this scheme? It is not so long ago since I said that the degeneracy which some have noticed among the Germans is probably due to their Insurance Act.

7. He thinks that domestic servants will be better attended under the Act than they are at present. That is not the opinion of my servants, nor the opinion of the servants of any person whom I know. Of course Dr. Montague Dixon's personal observations may be different. What does he know about "the lodging-house girls in the large cities and towns, with gastric ulcer, with consumption, with varicose ulcer"?

8. He is in favour of eugenics, but apparently attaches more importance to nurture than nature. He fails to recognize any difference between innate and acquired characteristics. He is welcome, so far as I am concerned, to any "sinecures" he may acquire under the Act, but I rather think the Insurance Commissioners might have something to say to his proposals as to how those sinecures are to be acquired. However, in order to do him no injustice I quote his whole paragraph. "The greatest danger of the present day to the doctor's income is the trend of modern legislation in tackling public health matters—sanatoriums, tuberculosis dispensaries, infectious hospitals, inspection of school children, school clinics, and so on. Then, again, we have the whole trouble of hospital abuse. And, further, we have health societies, such as the Food Reform Association. How we should welcome all these old enemies as allies if we decided to work under the bill for a proper capitation fee: with their help and our own efforts we should soon be possessed of sinecures."

I must apologize for wasting so much space in replying to Dr. Montague Dixon's empty tirade in favour of the Insurance Act, especially as his conclusions are ably controverted by the letter which followed from the pen of Dr. A. Rugg Gunn.

Dr. John T. Hislop accuses me of being a "violent political partisan." I usually find that those who attribute political bias to others are themselves tarred with that brush. Notwithstanding any opinion which Dr. Hislop may hold

of me, I am quite at liberty to form my own of Mr. Lloyd George and his taunts and sneers at the medical profession and "their wrangles at the bedside of the sick." That my opposition to the Act is due to political bias is absolutely false, and Dr. Hislop should have sufficient intelligence to know that his statement is false. I always give my reasons for the faith that is in me. When Mr. Lloyd George introduced his Insurance Bill I was captivated by his brilliant speech and large promises. I thought that it might be on somewhat similar lines to proposals which I had made some five years ago, whereby the health of the community would receive equal consideration to their diseases. When the details of the bill were published I soon found that it was nothing but a huge and expensive sham on the public and would, in my opinion, prove deleterious to the future of the medical profession. Since then I have not ceased to oppose the bill, and now the Act, on principle, and not on political grounds. I should vote against a Conservative who supported this Act.

Bluff now looms largely on the horizon in order to intimidate the medical profession and the employers of labour. We are told that if matters come to a deadlock, Mr. Lloyd George will not abandon the Insurance Act, but will stake his political reputation on it, will abolish the contributory basis, and give ninepence for nothing, and put sixpence on the income tax. He will also establish a State Medical service—possibly with men made in Germany. So far as medical men are concerned, I do not know that such a scheme would be any worse for them than the present, but possibly Mr. Lloyd George's colleagues, and the public might have something to say in the matter.

A distinguished representative of a friendly foreign Power recently sought an interview with me on this Insurance Act, as he said he had to report on all such subjects to his Government. He told me that he was not going to recommend them to follow the English example. He candidly informed me that he had recently reported that, in his opinion, the English race was deteriorating, that it was ceasing to raise really great men, that it was losing that spirit of independence and self-reliance which had formerly distinguished the race and acquired for the nation all her colonies and vast possessions all over the world. Nowadays men's heart and soul were not in their work, there was too much sport of a kind, but not real sport; the majority did not play football or cricket, but only watched the games. When at work they anxiously watched the clock for the arrival of the dinner hour, and then their conversation was not about what they had done, but about the score in the football field. Who is there among us who would dare to contradict this estimate of the English race of to-day?

In your leaderette, on page 44, you fall into the same error as the *Times*—that the Act is not socialistic in its tendencies because it is opposed by the socialists, but this is an obvious *non sequitur*. The socialists oppose it on the grounds of its contributory basis, which is the only redeeming feature in the Act. They know that the offer of ninepence for fourpence is a barefaced fraud, because the ninepence is debased coin, but offer them ninepence for nothing and they will jump at it. The socialist is an individual who barely sees beyond the length of his nose, and, like a general paralytic with grandiose ideas, thinks in millions and hundreds of millions without any idea as to where such are to come from; he would readily kill the goose which lays the golden eggs. When Mr. Lloyd George brings in his non-contributory scheme with which we are threatened—and adds an additional sixpence to the income tax then there will be a row. Medical men have not got great incomes to tax, so they can afford to smile—"to wait and see" how much of the sixpence they are going to get.—I am, etc.,

Liverpool, Jan. 8th. JAMES BARR.

THE VARIETIES AND TREATMENT OF ASTHMA.

SIR,—Four assumptions in regard to asthma crop up in the present discussion: that it is a neurosis, that it is intractable, that there is high blood pressure, that the expiratory difficulty is greater than the inspiratory. I can merely touch on them.

1 and 2. No one would call asthma a neurosis who had much experience of it in working men. In 90 per cent. of them, as I have pointed out,[1] it occurs so regularly at week-ends (Sundays or Mondays) that one is driven to the conclusion that, like the "Monday morning disease" of horses, to which I have also referred,[2] it is a toxaemia resulting from an error in metabolism. Put this right, the nose also, where necessary, and you cure the asthma. That the toxaemia affects the nerves of the respiratory tract does not vitiate the truth of my statement, but helps to account for the value of nasal treatment. The importance of the distinction lies in the fact that if asthma be reckoned a neurosis, treatment is apt to be symptomatic, rarely helps permanently, and may have vicious results: whereas treatment against the errant metabolism is radical and more or less permanently effective. Where asthma is not complicated by tubercle, albuminuria, alcoholism, mouth-breathing, or pronounced emphysema, you can either cure the patient or so diminish the frequency and severity of his attacks that he will count himself cured. This has happened so often in cases apparently hopeless that I am free to say there is no disabling and distressing chronic condition for which one can do so much as asthma. Seventy per cent. of asthmatics without such complications are curable.

3. For fifteen years I have looked for cases of asthma with high blood pressure, and have found only two; but both, though they were not cases of renal asthma, had slight albuminuria, and one is a man of 70 whose pressure has been reduced from 165 to 135, and who, though he still has albuminuria, is practically rid of his asthma. And this striking lack of high pressure is not astonishing when we take the whole asthmatic patient into account. The typical asthmatic is not a "beefy" man, but a lean, sallow, poisoned-looking creature, prevented by his attacks from systematic over-feeding and compelled thereby to a wholesome, periodic starvation; but while Nature cures in this way she teaches us in this way also to prevent. The asthmatic's arteries are not usually hard, and so and with his periodic starvation he has become proverbially long-lived. High pressure would have to be looked for in the pulmonary, not in the general circulation.

4. The assumption that the chief difficulty in the asthmatic paroxysm is expiratory is the basis of Dr. Watson-Williams's theory, but I have systematically for years asked my patients as to this point, and the great majority say their chief difficulty is inspiratory. This meets Dr. Williams's objection to the theory of bronchial contraction. This difficulty might be due to bronchiolar constriction or to the difficulty of inflating an already distended chest, as Dr. Harry Campbell rightly insists, or to both: I shall not here discuss this or the ludicrously warring theories of bronchial spasm and vasomotor spasm. Why cannot both be correct? One curse of medicine has been its blindness to two sides of a shield, its tendency to ascribe effects to single causes when more than one has been in play. So, here, as I have tried to show. We have in asthma a toxaemia with a special tendency to affect the respiratory tract and render it hypersensitive; and whenever there is a lesion, as there is in 90 per cent. of asthmatics, in the respiratory orifice, the most sensitive area in that tract, we have the signs not only of toxaemia but of spasm. I have seen cases of asthma with urticaria, Raynaud's symptom, congestion of the trachea, petechiae, haemoptysis, so that one must believe in a vasomotor element. Moreover, the frequently recurrent, afebrile bronchitis of children, so often erroneously diagnosed and so fatuously treated as bronchitis, is really asthma. This Gee long ago pointed out.[3] In bad asthma the vocal cords may not move with respiration, but be wide apart, permitting a clear view of the trachea: I have seen it then injected,[4] and I think I have noticed the like through the bronchoscope. What further proofs Dr. Gibson seeks for a vasomotor factor in the asthmatic spasm he will find in the following four citations: (1) Halsted's case of sudden bronchial dyspnoea, recurrent over ten years, and shown by bronchoscope to be angioneurotic oedema of bronchus.[5] (2) Bronchoscopic examination during asthmatic spasm showed congestion of membrane and narrowing of lumen by spasm of muscular coat (Yankauer[6]). (3) Whiting's

[1] *Glasgow Hosp. Rep.*, 1901, p. 157.
[2] BRITISH MEDICAL JOURNAL, 1903, vol. i, p. 1080.
[3] Ibid., 1899, i, 719.
[4] *Glasgow Hospital Rep.*, 1901.
[5] *Laryngoscope*, 1909, p. 525.
[6] Ibid., 1910, p. 495.

paper[7] on angioneurotic oedema and the familial aspect of the disease; it further supports the view of asthma as a toxaemia, for angioneurotic oedema, notwithstanding its name, is of toxic origin, and like asthma, is accompanied by eosinophilia. (4) Goodall's paper[8] on serum-sickness mentions 30 cases with urgent symptoms like bad asthma, with 16 deaths; 22 occurred in asthmatics—another proof, not of a neurosis, but of an error in metabolism.

But Brodie and Dixon's proofs are also irrefragable, and would carry conviction to any one who had watched the instantaneous diminution of râle and signs of emphysema after applying cocaine and suprarenal solution inside the nose of an asthmatic during a spasm.

One possible explanation of the action of adrenalin when injected intravenously in asthma seems to have been overlooked: it will go straight to the distressed right heart and help it to contract. Adrenalin is a stimulant to the sympathetic, and would act on the cardiac ganglia.—I am, etc.,

Glasgow, Dec. 18th, 1911. JAMES ADAM.

SIR,—In his last courteous letter,[9] Dr. Watson-Williams asks why I postulate that constriction of the radial connotes dilatation of the bronchial arteries. I do not; but his question clearly indicates the expediency, always felt sooner or later in any discussion which tends to be prolonged, of harking back and separating postulates from facts. We are trying to discover whether bronchial spasm or bronchial vasomotor turgescence constitutes the obstruction to respiration in asthma. The upholders of the spasm theory postulate constriction by the circular muscles of the tubes: the upholders of the turgescence theory postulate dilation of the bronchial arteries. *These two are the only postulates made on either side.* So that if, as Dr. Watson-Williams says, I am postulating too much, then so is he, and so also are all those who hold the theory of bronchial spasm. The constriction of the radial, indicating a more or less general peripheral constriction of the systemic arteries and arterioles, is not a postulate. It is a clinical observation, first made, so far as I know, by a strong upholder of the bronchial spasm theory—namely, Hyde Salter[10]—and frequently confirmed subsequently. Salter showed that the smallness of the radial is coexistent, coextensive, and coterminous with the dyspnoea; therefore, for those who hold the vasomotor theory, it would have all these same relations with the postulated bronchial vasodilation. Incidentally, it may be mentioned that the contraction of the radial has been measured. Dr. William Russell, working with the arteriometer, found the diameter of this vessel to vary between 2.2 m. during the asthmatic paroxysm, and 2.4 m. thereafter.[11]

The observed peripheral vaso-constriction of asthma accurately fits in with, materially aids, and all but finally clinches, the vasomotor theory. For it explains (1) the precipitation of paroxysms by any condition associated with peripheral vaso-constriction—for example, malaria, the invasion stage of almost any continued fever, and external cold, however applied: (2) the freedom from asthma conferred by any condition involving peripheral vaso-dilation, for example, the therapeutic influence of numerous vaso-dilative drugs, pyrexia of any kind, excluding the initial vaso-constrictive stages, and external heat, however applied; (3) the two-fold influence of emotion; and (4) the well-authenticated inter-relations of asthma with many other paroxysmal affections—for example (to mention only a few of those which are best known), migraine, functional angina pectoris, periodic gastralgia, and, at any rate some, cases of epilepsy, in all of which peripheral vaso-constriction is a common factor, or, at least, a practically constant phenomenon.

On the other hand, the peripheral vaso-constriction of asthma hampers the advocates of the bronchial spasm theory. It is true they have sought to explain it as a result of the dyspnoea. Dr. Langdon Brown says: "The fixation of the chest which occurs in the attack must interfere with the diastolic filling of the heart, and thus lead to a small pulse through diminished output during systole."[12] Unfortunately for this view, it is easy to show by remedies—for example, external heat—which dilate the periphery that the peripheral constriction, of which the contracted radial is but an index, is an essential factor in, not a result of, the paroxysm.

It is not easy to see how ligaturing of the pulmonary veins bears on the question of asthma. The experiment would no doubt result in congestion, perhaps even oedema, of the lungs, but how could it cause swelling of the bronchial mucosa?

The very widespread tendency to assume that all constrictions and dilatations observed in the systemic arteries are of general distribution is surely no more than a faulty habit, for "countless and ceaseless variations are occurring in all parts of the circulatory system" (Leonard Hill).[13]—I am, etc.,

Beckenham, Dec. 23rd, 1911. FRANCIS HARE.

SIR,—Psychotherapy has its own particular argument for entering into this controversy. The following is a short case:

Mrs. — had been a martyr for some years to asthma. She had been in an attack for three days and nights when she sent for me. She declared she had "never closed her eyes" and had eaten nothing. She looked a pitiable object. I asked the husband to remain in the bedroom, for I wanted his wife to rest awhile. I put the patient's head back as far as her strained sitting posture would allow, resting it on heaped-up pillows. I then reduced her to the subliminal state, telling her in this state that she would notice her breathing becoming easier and slower, and that she would fall into a comfortable sleep. I then left her, after observing the breathing becoming easier immediately. I afterwards learnt that the breathing had gradually become ordinary as she *pari passu* slipped further into the fully recumbent posture, and that she had slept for twelve hours, only here and there a little "phlegmy cough" disturbing, but rousing only once when she asked for a drink, falling back immediately after taking it into a comfortable sleep again. This was eighteen months ago. She has only had one threat of uneasy breathing since, which I cleared in a few minutes.

In various purely vasomotor conditions treated by psychotherapy, both direct and indirect suggestion in the subliminal state will usually be required, for example, in blushing—that the skin will feel cool while the mind will be calm, and so on: and in vascular engorgements of any kind—that a sensation of local and mental coolness and local shrinking will be felt. But in cases involving muscular spasm, the mere reducing to the subliminal state causes muscular relaxation. The above case, as a type, will serve to indicate that muscular bronchiolar contraction (being relieved at once by indirect subliminal suggestion) is the chief factor in the creation of asthma.—I am, etc.,

London, W., Jan. 2nd. HAYDN BROWN.

PROGNOSIS IN PAROXYSMAL TACHYCARDIA.

SIR,—The case of paroxysmal tachycardia related by Dr. R. O. Moon in the JOURNAL of December 23rd, 1911, is very interesting, and I think he is probably right in considering that the association of the condition with a large patent foramen ovale was purely accidental. I do not feel so confident that "sudden death is distinctly rare" in these cases. One of the earliest physicians to draw careful attention to these cases was, I believe, that wonderful observer, the late Dr. J. S. Bristowe, of St. Thomas's Hospital; and, in case Dr. Moon has not read the account of Dr. Bristowe's cases, I should like to refer him to his work, *Clinical Lectures and Essays on Diseases of the Nervous System*, published in 1888. In Chap. VII, "On Recurrent Palpitation of Extreme Rapidity in Persons otherwise Apparently Healthy," there are the notes of ten cases, with general remarks and interesting observations, and some of these proved rapidly, and one suddenly, fatal. In recent years I had a case of this kind under my care—an old lady who ultimately died with signs of contracted granular kidney; although there was no evidence of this disease when the attacks first appeared some four or five years before death. The abrupt termination of the paroxysms, referred to by Dr. Moon, was a marked feature in this case, and digestive troubles appeared to be the exciting cause of some of the attacks.—I am, etc.,

London, N.W., Dec. 25th, 1911. H. J. MACEVOY, M.D.

[7] *Lancet*, 1908, ii, p. 1356.
[8] BRITISH MEDICAL JOURNAL, 1911, i, p. 292.
[9] Ibid., December 23rd, 1911, p. 1676.
[10] *On Asthma*, 1868, pp. 72, 73.
[11] *Lancet*, 1901, June 1st, p. 1522.
[12] *Physiological Principles in Treatment*, 1908, p. 284.
[13] *Textbook of Physiology*, E. A. Schäfer, vol. ii, pp. 81-2.

"CHRISTIAN SCIENCE" OPPOSITION LEAGUE.

SIR,—As a result of the recent outcry against "Christian Science" treatment of the sick the "Christian Science" Opposition League has been formed.

The objects of the League are as follows:

1. To make Christian Science "healers" amenable to the law, and to bring a charge of manslaughter against them in the event of death under their ministrations.

2. To be represented by counsel at all inquests on "Christian Science" victims.

3. To oppose by means of lectures, pamphlets, exposure in the press, and by every other legitimate means the erroneous and pernicious teaching of Christian Science "healing."

The reasons for this opposition are as follows:

1. Because Christian Scientists assert that physical disease is purely an error of the mind.

2. Because their treatment, being merely amateur and misapplied mental suggestion, ignores all physical or material methods of treatment.

3. Because Christian Science has been proved to interfere with domestic happiness.

4. Because it has also the effect of making its adherents unsympathetic.

5. Because Christian Science "healers" are untrained, unskilled, and generally unfitted to undertake the cure of bodily ailments.

6. Because Christian Science "healing" methods too often entail needless suffering, permanent disablement, insanity, and even premature death, and therefore constitute a serious danger to the whole community.

The constitution of the Christian Science Opposition League is:

Non-sectarian.
Non-partisan.
Open to all.

Now, as the medical profession must be the final arbiters between the Christian Science "healers," on the one hand, and the opposition on the other, the Christian Science Opposition League must prove of immense interest to it, and I venture to hope that your readers will support us in our efforts by assisting financially or otherwise the great work we have in hand.

If your readers would like fuller information as to the aims of the League, it can be obtained upon application to me at this address.—I am, etc.,

VIVIAN WALL,
Honorary Secretary, Christian Science Opposition League.

71, Piccadilly, London, W., Jan. 6th.

MOSQUITO DESTRUCTION.

SIR,—In your issue of September 23rd, 1911, a communication appeared from Sir Ronald Ross advising the use of potassium cyanide for larvicidal purposes, half a grain of the cyanide being made up with aerated soap and dissolved in the water containing the larvae to be destroyed. In connexion with mosquito destruction operations now in process of organization, a trial has been given to this method.

A strength of 1 in 3,000,000 was stated by Professor Ross to kill the larvae used by him in a few hours. In our observations this had no effect on larvae of *Culex fatigans*, other (unidentified) culex larvae, or those of *Stegomyia fasciata*. The strength of solution was gradually increased until two pellets (1 grain of potassium cyanide) were used in a quart of water. Larvae and a raft of eggs were placed in a solution of this strength. Three days afterwards the larvae were still alive and the eggs had hatched, the young larvae being active and apparently unimpaired.

I shall be glad to learn the experience of other workers with this substance, as it would appear that considerable differences exist in the respective effect of potassium cyanide on the larvae employed in these observations and on those observed by Professor Ross.—I am, etc.,

J. S. C. ELKINGTON,
Brisbane, Nov. 29th, 1911. Commissioner of Public Health.

NOTIFICATION OF BIRTHS ACT.

SIR,—In the JOURNAL of January 6th you had an annotation on a prosecution of medical men in Worcester for not notifying births. In the last paragraph you say that I "must presumably have initiated or approved of" the prosecution.

In the course of an inquiry into a death certified to be due to cerebro-spinal meningitis, I found the birth of the child had not been notified, and in my report to the Health Committee on this death I mentioned the fact. I was then requested to report on whether other births had not been notified. This I did. Beyond this I neither wrote nor said anything to "initiate or approve" of the prosecutions.—I am, etc.,

Worcester, Jan. 9th. MABYN READ.

EPIDEMIC POLIOMYELITIS OCCURRING AT STOWMARKET, SUFFOLK.

SIR,—My name having been attached to results unknown to myself,[1] I write to state that although it is true that, through the kindness of Dr. Hillier, I have been working at the bacteriology of the disease, I have not as yet attained results sufficiently advanced for a bacteriological corroboration.—I am, etc.,

London, W., Jan. 6th. ALICE TAYLOR.

PLAGUE PREVENTION AND RATS: A SUGGESTION.

SIR,—It would appear to be true that the flea which carries plague would rather bite rats than man. Would it not then be possible to utilize the rats as a barrier against human infection? I think it would not be found too expensive, too laborious, or too difficult to train the rats to come daily to be fed. Then as they take their departure through specially designed gateways to shunt those sick into another chamber where more food is waiting. But this chamber should really be the oven of a crematorium. Here they could be killed by cyanogen: the heat turned on, and rats, fleas, and bacilli utterly destroyed. But if rats sick of plague cannot be distinguished from healthy rats, then some plan of quarantine could be arranged.

The first step to judge of the practicability of this would be the collection of the knowledge of those who have tamed rats; the second the testing of the evidence, and the acquisition of further knowledge by experiment.

If carried out, the number of rats executed would not in most instances be high enough to frighten the others away from a certain good meal. At any rate, the experiment seems worth while, for we should at least increase our knowledge.

I can but regard as a dream my picture of the healthy rats being daily cleansed of their fleas and turned loose to catch a fresh crop. But even some modification of this may be found out in time.—I am, etc.,

ARDI.

DISEASES OF THE PANCREAS.

WITH reference to Dr. Cammidge's letter (January 6th, p. 53), our reviewer writes that the passage in Professor Albu's book which he endeavoured to summarize is not very clear. It reads thus:

> In this connexion is specially to be recalled the discovery of adrenalin mydriasis by O. Loewi (Vienna) in 1908, which is to be recommended as a diagnostic aid in suspected pancreatic disease. After instillation of a few drops of adrenalin, 1 to 1,000, or similar suprarenal preparations into the eye, a marked dilatation of the pupils occurs which lasts some time. Loewi's statement was confirmed in two cases by Glaessner, and also in some cases by Schwarz, who, however, obtained more often negative results in pancreatic diseases, and several times in ordinary diabetes and in morbus Basedowii—that is, in morbid conditions, one of which certainly frequently, and the other according to the theories referred to above possibly, stand in some etiological relations to the pancreas. Anyway Loewi's sign deserves attention and further testing. As an explanation of its production it has been suggested that the action of adrenalin paralyses the sympathetic which the normal function of the pancreas would prevent.

The reviewer adds that with reference to Dr. Cammidge's suggestion that the crystals are pentosazone, Professor Albu says "this is impossible, because pentosurine does not give a reaction:" it is possible that this is not quite the same thing as urine to which pentose has been added artificially, as Dr. Cammidge appears to have done.

[1] BRITISH MEDICAL JOURNAL, 1911, vol. ii, p. 1691.

Obituary.

JOHN FRANCIS SUTHERLAND, M.D., F.R.S.E.,

DEPUTY COMMISSIONER IN LUNACY FOR SCOTLAND.

In the untimely death of Dr. J. F. Sutherland, His Majesty's Senior Deputy Commissioner in Lunacy for Scotland, at the age of 57, the medical profession, both at home and abroad, has to deplore the loss of one who attained a European reputation in the wide field of insanity, inebriety, hygiene, and medical jurisprudence, and of a man whose sterling honesty and charm of character were known to a very large circle.

John Francis Sutherland was born at Lybster, Caithness, in 1854. He received his medical education at the Universities of Edinburgh, Glasgow, and Paris. At Edinburgh Lord Lister early noted him as "a very distinguished member of my class," and wrote of him twenty years later: "He has laboured assiduously at the subjects of hygiene and the welfare of the insane, and the services which he has rendered have been recognized both at home and abroad as of a very high order." In 1880 he graduated M.D.Edin. as Gold Medallist with highest honours. His thesis was later published under the title, *Hospitals: their History, Construction, and Hygiene.* Coming at a time when hospital administration was in a state of chaos, the clear-sighted policy of this work won general attention, and its pages were freely quoted in the petition of the Charity Organization Society to the House of Lords in 1889.



DR. J. F. SUTHERLAND.

Dr. Sutherland spent the greater part of his life in official employment. From Deputy Medical Officer to the training ship *Mars*, he was appointed Resident Medical Officer to the British Hospital, Paris. In the French capital he formed many lifelong friendships, among others with the late Sir John Rose Cormack, Bart., M.D., the late Hon. Alan Herbert, M.D., and with Dr. Edward Neech. In 1880 he was appointed Medical Officer to H.M. Prisons, Glasgow, by Sir William Vernon Harcourt, and in 1887 he was promoted to be Consulting Medical Officer to the General Prison, Barlinnie, by the Marquis of Lothian.

It was in Glasgow that he gained, during fifteen years, his vast experience of insanity, inebriety, and criminology, and by solid inquiry, by humane, lucid, and vigorous writing and public speech promoted important reforms. In that city he was the pioneer of that broad and humane policy of penal reform which is now finding its way into legislative enactments. It is now more than a quarter of a century since a day when, as principal witness for the defence in a murder trial, he first urged his well-known views on the jurisprudence of intoxication before a great, but, on this point, an unsympathetic judge. Yet he lived to hear those opinions enunciated from the bench by the Lord Justice Clerk of Scotland. His researches, memorials, and statistics did much to secure the appointment of two Royal Commissions and of a Departmental Committee on Habitual Offenders and Inebriates. When invited in 1894 to be a member and secretary of the latter, he received from Sir George O. Trevelyan, then Secretary for Scotland, a fitting recognition both of his services as an expert and of his practical activity, ability, and zeal. His advocacy of a more scientific and humane treatment of the degenerates and derelicts of society was marked by all the authority of convinced knowledge. When receiving the Departmental Committee in the Municipal Buildings, Glasgow, Lord Provost Sir James Bell referred to "the continuous efforts of Dr Sutherland to bring this crying evil to a point at which the Government could take it up and treat it as a disease."

Dr. Sutherland took a keen but disinterested part in the social and corporate life of any city or town in which he lived. He was a deacon in the United Free Church of Scotland in Glasgow, in Edinburgh, and latterly in Tain. In Glasgow he played a large part in forming the Association for Improving the Social Condition of the People, was Vice-President of the West of Scotland Free Education League, and a member of the executive of the most successful Industrial Exhibition held in that city. In 1895 his name was sent to the Queen as Senior Deputy Commissioner in Lunacy, and before leaving for Edinburgh he was entertained by the citizens of Glasgow at a complimentary dinner: on this occasion Lord Provost Sir John Ure Primrose, on behalf of the city, said: "We are a company representing all interests in this city, every phase of political creed and belief, gathered together to pay a tribute of admiration to one who has commended himself to us all, and whose good qualities are to-night receiving that recognition at the hands of his fellow-citizens which is very precious to any man of honest intention."

During the last sixteen years he had been invited to deliver many addresses before scientific conferences, congresses, and societies in this country and abroad. One of the most remarkable was that on "The Ratio, Growth, and Geographical Distribution of Insanity in Scotland," delivered before the British Association in 1901, and reported verbatim in the *Times*. His paper on the "Jurisprudence of Intoxication," in the *Edinburgh Judicial Review*, commanded wide attention. He was a Fellow of the Royal Statistical Society, London, and of the Royal Society of Edinburgh, and received many distinctions from scientific societies in Paris, Moscow, Madrid, and New York. By his published works alone he proved himself a man of great ability and of indefatigable industry, leaving some fifty communications on the subjects of psychology, degeneracy, criminology, legal medicine, penal reform, and hospital and asylum construction. His recent volume on *Recidivism: A Problem in Sociology, Psychopathology, and Criminology*, laid a sound foundation on which the Legislature may yet build, while his *Ambulance Vade-Mecum* remains the most popular work of its kind, having run to forty editions, with another in the press. By his untiring and unselfish devotion to work, he won the respect and friendship of the most distinguished members of his profession.

In undergraduate days his clinical notes were sent to the General Medical Council by Sir Douglas Maclagen as the best example of case-taking in the Royal Infirmary. It is also a tribute at once to his teachers and himself that, although he had for many years given up general clinical work, his opinion was often sought by his colleagues in Ross-shire. To his devotion to duty and to the public service, in a department entailing great physical energy, is partly attributable his short and fatal illness. It would be idle insincerity to pretend that his abilities found scope in the work on which he was engaged for the past sixteen years, and there was a strong feeling that his services had not received the recognition they deserved. He was a man of fearless and outspoken opinions, but of a

kindly and sympathetic nature, and his genial humour will be missed in every parish of Scotland, which he knew so well.

Dr. Sutherland married the youngest daughter of the late Rev. John Mackay of Lybster, and is survived by his widow, two sons—one of whom is in the medical profession—and a daughter.

During his last illness, at his residence, 1, Scotsburn Road, Tain, he was attended by his friends, Dr. E. Mackenzie (Tain), and by Drs. R. W. Philip and G. A. Gibson (Edinburgh).

His recreations were born of a love of Nature and of the open air. He was a keen fisherman and a good shot, and possessed that wide knowledge of fur and feather which comes from observation. Even this was a reflection of his work in the world. After a heavy day with a light bag, when men of half his age turned homewards in the late afternoon, he himself would tramp on through fields, woods, and heather. If "they" were not there, they would be somewhere else, until night fell, when he returned tired, but seldom unrewarded. It was a long march of fifty-seven years. There were bitter disappointments, but there was loyalty to ideals, indomitable courage, and unselfishness, and at the end of the day he came home, with clean hands, a brilliant record, and the respect and affection of his fellow men. His life was a happy one, and he was no less fortunate in death, which came to him as he stood with a friend, his gun, and his dogs on the top of a hill between red moors and a blue inland sea.

ALFRED WOLFF, M.R.C.S.,

LONDON.

We regret to announce the death of Mr. Alfred Wolff, which occurred on December 26th at his daughter's house in Birmingham. Mr. Wolff had been in failing health for some months past, but he did not himself regard his condition as serious until a few days before his death. The actual cause of death was infective endocarditis. Mr. Wolff, who was a prominent member of the Jewish community, was the son of the late Abraham Wolff, a well-known practitioner of his day. Born in London in 1853, Mr. Wolff was educated at University College School and University College, and received his professional training at St. Thomas's Hospital. From the age of 23, when he was admitted a Member of the Royal College of Surgeons until his retirement last year, he was engaged in a large general practice. He was a man of wide general knowledge and keen artistic tastes, taking a great interest in the fine arts, and being a good judge of pictures. He was very fond of travelling, and whenever he could spent his holidays on the Continent. He retired from active professional life at the beginning of 1911, so as to be able to indulge his taste for travel. Quiet in manner and never seeking to thrust himself into the foreground, he was nevertheless known to a wide and influential circle of friends, who valued him for his professional skill and the integrity of his personal character.

Medical questions particularly concerning the Jewish race had for many years been referred to him by the British Medical Journal. His wide experience among Jews enabled him to speak with authority on these matters. He also did a considerable amount of general reviewing; but his most important contribution was an elaborate comparative study of cancer mortality, the results of which were published in the Journal of April 18th, 25th, May 2nd, May 9th, May 16th, 1903, and July 9th, 1904. Mr. Wolff held very strong views as to the existence of cancer-infected houses and villages. His own large experience had also led him to the conclusion that the notion generally held that Jews are less vulnerable in regard to cancer and tuberculosis than other people is unfounded. Mr. Wolff was a man of great breadth of mind, and was ready to discuss all such subjects without the least trace of religious or racial prejudice. He held that the only point in which the Jew has the advantage in the matter of health over the average Gentile is his temperance. The Jew, he used to say, drinks little of any fluid, and his abstinence keeps him free from the host of diseases due directly or indirectly to alcohol.

In 1877 Mr. Wolff married Amy, the youngest daughter of the late Sylvester Samuel, of Liverpool, who survives him. He leaves a son, Mr. M. A. Wolff, who is a mining engineer, and a daughter, who in 1908 married Dr. J. G. Emanuel of Birmingham.

Surgeon-Major W. H. P. Lewis, R.A.M.C., retired, died suddenly in London, on December 16th, at the age of 52. Most of his service was spent with the army in Egypt. He experienced many attacks of malaria, suffered from cholera in 1888, and also from hepatitis. After serving altogether some twenty years in Egypt, he retired and settled in practice in Gower Street. Later on he entered into a partnership in Battersea. Dr. Lewis suffered from sunstroke last summer, and since then from neurasthenia. An inquest was held by Mr. Troutbeck at the Westminster Coroner's Court, on December 19th, and Dr. Freyberger, who had made an autopsy, attributed death to alcoholic poisoning. Dr. Lewis's brother and partner both stated that he was a man of temperate habits. Dr. Goodbody, Assistant Professor of Chemical Pathology at University College Hospital, who had been treating Dr. Lewis, stated that in his experience, which was considerable in cases of neurasthenia, constipation was a very prominent symptom, and produced an auto-intoxication; this in a man of Dr. Lewis's temperate habits would cause a very small amount of alcohol to have a very great effect, and would also in turn cause an abundant secretion of fluid in the stomach, a condition found at the autopsy.

Medico-Legal.

HOSPITALS AND THE LAW OF NEGLIGENCE.

A recently published volume of Lord Halsbury's *Laws of England* contains an article entitled Medicine and Pharmacy, which appears to state the last word of the law affecting medical practitioners. Under the general head of "Negligence" it contains the following passage on the liability of hospitals and public institutions: "Hospitals and public institutions are not liable for injuries to patients or other inmates arising from the negligence of physicians or surgeons, or their nurses or assistants officiating therein, provided it is shown that due care and skill were exercised in the selection of their staff." Reference is made to the judgement of Lord Justice Kennedy in Hillyer *v.* St. Bartholomew's Hospital (1909, 2 K. B. 820, where he said: "I see no ground for holding it to be a right legal inference from the circumstances of the relation of hospital and patient that the hospital authority makes itself liable in damages, if members of its professional staff, of whose competence there is no question, act negligently towards the patient in some matter of professional care or skill, or neglect to use or use negligently in his treatment the apparatus or appliances which are at their disposal."

WORKMEN'S COMPENSATION.

A Case of Nystagmus.

The fact that a workman may recover compensation even where he has not given the statutory notice of accident, is emphasized in the case of Moore *v.* Naval Colliery Company, heard in the Court of Appeal on October 18th, 1911.

The county court judge had refused to award compensation to the claimant, who was suffering from nystagmus, on the ground that he had not made his claim within the statutory period. It was stated in evidence that if a man abstained for a time from working underground the disease was likely to leave him. The man consulted his doctor, but a strike broke out in his district, which lasted a considerable time. He was not able to work any longer because the colliery in which he was employed came to a standstill. He thought that the nystagmus would pass away during the strike, and he did not do anything at the time; but, finding that the nystagmus did not improve, he consulted Dr. Cresswell of Cardiff, who suggested that he should see the certifying surgeon, who certified that he was suffering from nystagmus. The Court of Appeal was asked to say that if there had been a failure, such failure had been made by mistake, and that relief should be granted, as the employer was not prejudiced.

The Master of the Rolls, in giving judgement, said that in his opinion there had been reasonable cause for the delay in registering the application, and he thought the learned judge was wrong in the decision at which he had arrived; the appeal would, therefore, be allowed, and the case sent back to the county court judge. The Lords Justices concurred, and the appeal was therefore allowed.

Compensation for an Alleged Broken Back.

In Tomlinson *v.* Clifton Colliery Company (Nottingham, October 20th) a claim for compensation was put forward by a miner named Tomlinson, who in March, 1906, was buried under a fall of roof in the mine. Dr. R. Snell went with him to the

General Hospital, but neither he nor the house-surgeon, Dr. Black, could find a trace of serious injury. Tomlinson walked home and the next day paralysis set in. He was taken back to the hospital, where he remained a month, and the paralysis disappeared. He was discharged cured, but still suffered pain, and was an out-patient for two years. He had been unable to do any work. Dr. Black, who had examined the man recently, found evidence that his back was broken, and said that a skiagram showed unquestionably that the spine was fractured. In his opinion the man ought not to do any manual work, or the spine might be nicked and he might fall dead. Dr. Anderson, called on behalf of the colliery company, said he could see nothing in the skiagram showing a broken back. He thought the man was suffering from stiffened muscles, through being kept still so long. Suitable exercise would do him good. He was in splendid general health.

Judge Allen, who was assisted by a medical referee, thought the man not wholly incapacitated, and awarded him 15s. weekly.

Operation or Reduced Compensation.

The case of Dixon *v.* Houghton Colliery (Durham, October 23rd) shows that a county court judge has very considerable powers which he may exercise if a workman will not consent to a reasonable operation. It appeared that the applicant, on April 12th, 1910, had one of his fingers broken and another lacerated by a fall of stone. He was paid 13s. 9d. a week, and a house and coals allowance until May 1st, 1911. He underwent an examination by Dr. Morgan, of Sunderland, and the company reduced the compensation to 2s. 6d. a week, along with house and coals allowance. The respondents declared that the applicant had refused to undergo a simple operation, which would help him to perform his work. Dr. Martin stated that he examined the applicant and found his heart was affected. If the operation was one of necessity and not of convenience he would recommend it, and ask his client to take the risk, which was a substantial one. Dr. Morgan, for the respondents, said there was an appreciable risk by the operation, but he, personally, would undertake it.

His Honour gave judgement for plaintiff for the payment of 13s. 9d. a week from May 1st, and that from now the payment be reduced to 5s. per week.

Finality of a Medical Report.

An important decision was given in the First Division of the Court of Session on October 28th in a stated case involving the question of the finality of a medical report. The claimant, John Walker, sought compensation under the Workmen's Compensation Act, 1906, from the Fife Coal Company. In April, 1910, Walker fractured his leg while employed at respondents' pit. He was then receiving 14s. per week as compensation from another company in respect of partial incapacity due to a previous accident. In respect of this second accident the respondents paid him 6s. weekly, the two sums making full compensation of 20s. He returned to work with respondents on November 12th, 1910. In March, 1911, the question of his fitness for work in respect of his fractured leg was remitted to a medical referee, whose report was to the effect that Walker was suffering from shortening of the leg, that the fracture had been soundly healed, that a good useful leg was the result, that his condition was such that he was able to work as a miner, that there was some thinning of the muscles, but these would undoubtedly strengthen up with work, and that the limb should be quite as strong as the sound one. The appellant lodged answers, in which he said his leg was still weak and painful, and swelled on exertion, and that he had not fully recovered its use.

Sheriff-Substitute Umpherston refused proof on the grounds that the referee's report meant that the appellant's physical condition was as good as it was before the second accident; that that report was final; and that any incapacity for work must therefore be attributable to some other cause. He therefore terminated the appellant's right to compensation in respect of the second accident.

The Division held that the Sheriff-Substitute was right in holding that the medical referee's report was final, and that, therefore, the appellant's right to compensation had come to an end.

The Services.

SOUTH WALES MOUNTED BRIGADE FIELD AMBULANCE.

THE annual dinner and smoking concert of the South Wales Mounted Brigade Field Ambulance took place at the Imperial Café, Hereford, when a most successful and enjoyable evening was spent. Lieutenant-Colonel J. R. J. Raywood, the officer commanding, presided, and was supported by Captain J. Griffiths. The work done by this unit in 1911 included an Easter camp at Ledbury, annual brigade training at Builth, and camp at Carnarvon. Three officers and eighteen non-commissioned officers and men attended special courses at the Royal Army Medical Corps school of instruction, Cardiff, and one officer and three men the Army Service Corps dépôt, Manchester. The strength of the unit is 115 non-commissioned officers and men and 4 officers. The training this year is at Porthcawl, South Wales.

Medical News.

DR. G. OKELL of Winsford has been appointed to the Commission of the Peace for Cheshire.

THE Chelsea Hospital for Women has received £250 from the executors of the late Mrs. Barnato, given under the exercise of their discretionary powers.

THE Orient Line Steamship *Otway*, which left London last week, is the first steamer of the line to call at Toulon, thus giving an all-sea route to the Riviera.

THE annual dinner of the West London Medico-Chirurgical Society will be held in the Wharncliffe Rooms, Hotel Great Central, Marylebone Road, N.W., on Thursday, February 8th.

A MEETING of the general council of King Edward's Hospital Fund for London was held on January 8th. The resolutions approved at the December meeting, regarding work during the current year, were formally adopted and the names of those appointed to committees by the Governors read out.

THE annual general meeting of the Harveian Society of London, which took place on January 4th, was followed by a successful smoking concert. In the course of the evening Mr. Ernest Lane, the outgoing President, delivered an address on the unity of the medical profession. It already possessed a powerful organization in the shape of the British Medical Association, and all should join this body. The new President is Dr. H. J. Macevoy; the Honorary Secretaries are Drs. D. W. Carmalt-Jones and G. de B. Turtle.

DR. LEONARD HILL'S pictures fill two rooms at the Baillie Gallery, Bruton Street, W. At his last exhibition most if not all were oil-paintings; in this many, and the most interesting, are water-colours: all of these are landscapes, unless ducks on a shady pond flecked with sunlight are to be put into some other class. He has the uncompromising boldness in the translation of colour which derives from Japan, and, in his studies of birds, the Japanese desire to give movement, and attitude rather than mere form. His art appeals to the Japanese, and one of his paintings was purchased not long ago for presentation to the Governor of Formosa. The collection is enough to prove that Dr. Hill might have earned as high a distinction as an artist as he has won as a physiologist. The exhibition remains open until January 29th.

THE ninth annual congress of the Association Internationale de Perfectionnement Scientifique (A.P.M.), which is under the high patronage of the French Government, will take place in August next (3rd to 31st) in the Balkans, in Turkey, and in Greece. The congress will be opened in Evian-les-Bains or Thonon-les-Bains (Lac de Genève), and will be continued at the following places: Venice (via Simplon), Trieste, Grottes d'Adelsberg, Agram, Belgrade, down the Danube, Passes de Kazan, the Iron Gates, Bucharest, Sofia, Constantinople, Mytilene, Smyrna, Athens, Phaleron, Eleusis, Corinth, Olympia, Corfu, Bologna (via Brindisi). The last meeting will be held at Aix-les-Bains. Those wishing to present communications on subjects belonging to the domains of general and special medicine, surgery, and the cognate sciences, hygiene in all its departments, prophylaxis and public assistance, are requested to intimate their intention to the President, Head Office, A.P.M., 12, Rue François-Millet, Paris XVI. The General Secretary of the congress is Dr. Ghislain Housel.

IN the *Sleeping Sickness Diary* of the Nyasaland Protectorate (Part xv, October 12th, 1911) Dr. Barclay, Acting Principal Medical Officer, gives an account of an attempt to treat cases of sleeping sickness with salvarsan. The preparation was tried in 5 cases, the dose being in one case 0.4, in two 0.5, and in two 0.6 gram. The injections were all given intramuscularly and each was divided, half being injected into each buttock: a neutral suspension of the drug with caustic soda in distilled water was employed. Local pain—in some cases referred to the feet—resulted in all patients, but in no case did it seem severe. In two of the cases a brawny infiltration occurred at the site of injection, without, however, any evidence of abscess formation. None of the cases showed the slightest signs of any improvement. One died fourteen days after injection, another three weeks after, and two others at later dates: the fifth patient was becoming progressively worse. Dr. Barclay believes, therefore, that salvarsan is useless in advanced cases of sleeping sickness, though he thinks it might be tried in early cases of trypanosomiasis and in early cases of sleeping sickness.

Public Health
AND
POOR LAW MEDICAL SERVICES.

CERTIFICATION OF DEFECTIVE-MINDED PERSONS AS LUNATICS.

THE guardians of the parish of Fulham have adopted the following report of its Workhouse Visiting Committee upon the question of the demand being made in various quarters for greater powers of detention of defective-minded persons being conferred upon public authorities:

Your Committee report as follows:

That they have had under consideration resolutions from various sources in favour of legislation having for its object greater legal powers for the detention of defective-minded persons than are at present conferrable.

Your Committee find that under the Lunacy Acts the legal definition of a lunatic is given as being an idiot or person of unsound mind.

The law courts have decided that imbecility and loss of mental power, whether arising from natural decay, or from paralysis, softening of the brain, or other natural causes, or intemperance, and though unaccompanied by frenzy or delusion of any kind, constitute unsoundness of mind amounting to lunacy within the meaning of this definition (Reg. *v.* Shaw).

The following are extracts from reports of the Lunacy Commissioners:

Most of the cases in which we press for certification are weak-minded women and girls, to whose condition marked attention has been drawn in the reports of the Royal Commission on the Care of the Feeble-minded and of the Royal Commission on the Poor Laws. Under present conditions many of this class live an in-and-out existence at workhouses, returning at more or less frequent intervals to be confined of illegitimate children. It is our confident opinion that persons of this description, who are quite incapable of looking after themselves, are certifiable under the Lunacy Acts, and it is only those about whom we have no doubt that we press the authorities to certify and detain. In one country workhouse, in the year under review, the visiting Commissioner found living in the house uncertified, and therefore free to go in and out as they please, three women of this class, who had between them had eleven illegitimate children, and three others awaiting confinement, one of whom had already had five illegitimate children. We cannot help thinking that the reluctance to certify cases of this class arises largely from inexperience of the local medical officers as to the requirements of certifiability, and also from what we consider mistaken notions of kindness in the wish to avoid attaching the stigma of insanity.

To a less extent the same considerations apply to the young imbecile men, many of whom we find living uncertified in the workhouses, and who, though conducting themselves properly while under supervision, are often liable to outbursts, during which, if allowed full liberty, they may constitute a real danger to the community. We are of opinion that the powers of certification given by the Lunacy Acts are sufficient to justify all such cases as we have mentioned being placed under certificates and detained.—(*Report* of Commissioners, 1910.)

The general workhouses we have visited during the year are also, as a rule, very well managed, and with but few exceptions their insane inmates are properly housed and kindly treated. We are, we hope, experiencing less difficulty in obtaining the certification, in accordance with Section 24 (3) of the Lunacy Act, 1890, of persons in workhouses who fall within the definition of "lunatic" contained in the Act. We are glad to notice that the medical officers of workhouses, especially those in populous centres, with perhaps a better knowledge of the requisites of certifiability, do not appear to experience much difficulty in certifying and detaining many of the weak-minded women and girls to whose condition public attention has been largely attracted since the report of the Royal Commission on the Care of the Feeble-minded. The detention of women of this class is of paramount importance, both in their own interest and in that of the community, but, of course, each case has to be decided on its own merits. It is satisfactory, therefore, to see that medical officers of wide experience consider that they are able to certify and detain cases of this class by the powers they already possess under the Lunacy Acts without waiting for further legislation on the lines of the report of the Royal Commission with a possibly simpler certificate. We hope to see these views generally shared by the medical officers of the smaller and more remote country workhouses, for there are still too many of this class living an in-and-out life, returning from time to time to be confined of illegitimate offspring, in most cases more feeble-minded than themselves.—(*Report* of Commissioners, 1911.)

Your Committee having regard to such decision and opinions, consider that the existing powers are sufficient.

The report, for a copy of which we are indebted to the clerk to the guardians (Mr. E. J. Mott), has, we understand, been circulated to other boards of guardians.

Section 24 (omitting a temporary provision) is as follows:

24. *Lunatics in Workhouses.*—(1) Except in the cases mentioned in this Act, no person shall be allowed to remain in a workhouse as a lunatic unless the medical officer of the workhouse certifies in writing—

(*a*) That such a person is a lunatic, with the grounds for the opinion; and

(*b*) That he is a proper person to be allowed to remain in a workhouse as a lunatic; and

(*c*) That the accommodation in the workhouse is sufficient for his proper care and treatment, separate from the inmates of the workhouse not lunatics, unless the medical officer certifies that the lunatic's condition is such that it is not necessary for the convenience of the lunatic or of the other inmates that he should be kept separate.

(2) A certificate under this section shall be sufficient authority for detaining the lunatic therein named against his will in the workhouse for fourteen days from this date.

(3) No lunatic shall be detained against his will or allowed to remain in a workhouse for more than fourteen days from the date of a certificate under this section without an order under the hand of a justice having jurisdiction in the place where the workhouse is situate.

(4) The order in the last preceding subsection mentioned may be made upon the application of a relieving officer of the union to which the workhouse belongs, supported by a medical certificate under the hand of a medical practitioner, not being an officer of the workhouse, and by the certificate under the hand of the medical officer of the workhouse hereinbefore mentioned.

(5) The guardians of the union to which the workhouse belongs shall pay such reasonable remuneration as they think fit to the medical practitioner who, not being an officer of the workhouse, examines a person for the purpose of a certificate under this section.

(6) If, in the case of a lunatic being in a workhouse, the medical officer thereof does not sign such certificate as in Subsection 1 of this section mentioned, or if at or before the expiration of fourteen days from the date of the certificate an order is not made under the hand of a justice for the detention of the lunatic in the workhouse, or, if after such an order has been made, the lunatic ceases to be a proper person to be detained in a workhouse, the medical officer of the workhouse shall forthwith give notice in writing to a relieving officer of the union to which the workhouse belongs that a pauper in the workhouse is a lunatic and a proper person to be sent to an asylum, and thereupon the like proceedings shall be taken by the relieving officer and all other persons for the purpose of removing the lunatic to an asylum, and within the same time, as by this Act provided in the case of a pauper deemed to be a lunatic and a proper person to be sent to an asylum, and, pending such proceedings, the lunatic may be detained in the workhouse.

(7) In the case of a lunatic in an asylum provided for reception and relief of the insane under the Metropolitan Poor Act, 1867, notices to be given to and proceedings to be taken by a relieving officer shall be given to and taken by one of the officers of the asylum to be nominated for the purpose by the managers of the asylum district.

DUTIES OF MEDICAL OFFICER OF HEALTH AS TO NOTIFIED CASES.

M. (Scotland) appears to have complied with all rules both at law and of medical ethics, in connexion with the case of diphtheria as to which he inquires. It is unusual for a medical officer of health to find it necessary to visit, much less to treat, a case notified to him. In April, 1903, the Local Government Board in England expressed the opinion that "the certifier's statement of a notified case of infectious disease should be accepted unless there is reason to believe that he is not acting in good faith. The Board do not consider that it is ordinarily the duty of a medical officer of health to examine personally patients who have been notified as suffering from infectious disease with a view to checking the accuracy of the certificate, and where circumstances may render such an examination desirable it should be made after communication with the medical practitioner in attendance and, if possible, with his co-operation." We are not aware that the Local Government Board in Scotland has expressed any similar opinion.

EXTRANEOUS PATIENTS IN ISOLATION HOSPITAL.

A. K. J. If a medical officer of health is appointed to act as medical superintendent of an isolation hospital in which, at the time of his appointment, the patients are drawn solely from the town for which he acts as medical officer of health, it is manifestly unfair that, without any increase in his remuneration, he should be expected to attend patients from other districts. In a district in the Midlands, where the medical officer of health is paid £20 per annum for acting as superintendent of an isolation hospital with nine beds, he is paid an additional fee of two guineas for attending every patient taken into the hospital from adjoining districts. Our correspondent should represent to the town council that the outside authorities who send in patients should be required to pay a fee for medical attendance in addition to the sum paid for maintenance in the hospital.

NOTIFICATION OF DIPHTHERIA.

M.O.H.—It is certainly prudent for a medical practitioner to notify a case of diphtheria in a patient if Klebs-Loeffler bacilli have been found, even though there be no very pronounced clinical signs. The medical officer of health will then know where to look for carriers.

PUBLIC FOUNTAIN.—There is no doubt that there is some risk attached to the use of a common drinking cup connected with a public fountain. In order to minimize this risk the "Crystal Stream" drinking fountain, first introduced in America, and made in this country by Messrs. Doulton, has been used. It is in the form of a pedestal. The nozzle of the supply pipe is oval shaped, with all surfaces smooth, so that the risks of the adhesion of saliva or the lodgement of disease germs are diminished. A slight pressure of the hands on the ring opens the supply valve, when the water bubbles up from the nozzle. Upon the pressure on the ring being withdrawn the valve closes. By means of a regulator the outflow from the nozzle may be controlled as the pressure in the main varies. Mischievous persons cannot squirt water by pressing the fingers over the jet, nor is there so much risk of damage to a drinker's face following a sudden blow on the back of his head. There is no waste of water, as it flows only when being used. Dr. Charles Porter, the Medical Officer of Health of St. Marylebone, has, however, raised the objection that with this type of fountain air may be swallowed when drinking, and that it is impossible to see gross impurities which may be present, and would be noted if the water were in a vessel and could be looked at before it was drunk.

Universities and Colleges.

UNIVERSITY OF EDINBURGH.

ANNUAL REPORT FOR 1911.

Numbers of Students.

DURING the past year the total number of matriculated students (including 630 women) was 3,421, being 55 more than last year. Of these, 1,301 (including 580 women) were enrolled in the Faculty of Arts; 426 (including 20 women) in the Faculty of Science; 1,353 (including 19 women) in the Faculty of Medicine. The number of students in the Faculty of Science exceeds by 84 that for 1910, and is the highest number ever reached. Of the students of medicine 593, or nearly 44 per cent., belonged to Scotland: 265, or nearly 20 per cent., were from England and Wales; 91 from Ireland; 99 from India; 256, or nearly 19 per cent., from British colonies; and 49 from foreign countries. These figures showed that the proportion of non-Scottish students of medicine was well maintained, in fact was slightly higher as compared with 1910. The number of women attending extra-academical lectures, with a view to graduation in medicine in the university, was 59.

Degrees Conferred, etc.

The following degrees were conferred during 1911: Bachelor of Science (B.Sc.), including 3 who received the recently instituted degree in forestry, 63 (the highest number ever reached); Doctor of Science (D.Sc.), 5; Bachelor of Medicine and Master in Surgery (M.B., C.M.), 1; Bachelor of Medicine and Bachelor of Surgery (M.B., Ch.B.), 164; Doctor of Medicine (M.D.), 72; Master of Surgery (Ch.M.), 2. The General Council of the university now numbers 11,556. The Diploma in Tropical Medicine and Hygiene was conferred on nine candidates.

Scholarships, etc.

The total annual value of the University fellowships, scholarships, bursaries, and prizes now amount to about £18,900, namely, in the Faculty of Science, £1,590; in the Faculty of Medicine, £3,910. A number of bursaries are in the gift of private patrons, but the great majority of the university bursaries, prizes, etc. are awarded by the Senatus after competitive examination. In addition to the above, a sum of upwards of £660, being the income of the Earl of Moray Endowment Fund, is annually available for the encouragement of original research.

Lectureships, New Courses, etc.

A number of new lectureships have been instituted by the University Court. Among them is the Barclay and Goodsir Lectureship in Comparative Anatomy, founded on a legacy by the late Miss Mary Dick, now amounting, with accumulations thereon, to over £12,000. Dr. O. C. Bradley, Principal of the Dick Veterinary College, has been appointed first lecturer. The other lectureships deal with the following subjects: Genetics, in which subject Mr. A. D. Darbishire, M.A., the first lecturer, is shortly to give a course of instruction: Mycology and Bacteriology associated with the Department of Botany, to which Mr. Malcolm Wilson, B.Sc., has been appointed; and Agriculture, in which the lecturer is Mr. J. A. S. Watson, B.Sc.

The university has instituted a Diploma in Psychiatry; and courses of instruction—chiefly to be given by existing teachers of the university—have been arranged for the following subjects: Anatomy of the Nervous System; Physiology, Histology, and Chemistry of the Nervous System; Pathology of the Brain and Nervous System; Practical Bacteriology in its Relations to Mental Diseases; Psychiatry, Systematic and Clinical; Psychology, including Experimental Psychology and Clinical Neurology.

Accommodation was again given in August by the university authorities for a scheme of vacation courses in modern languages; also, in September, for a scheme of post-graduate courses in medicine held under the joint auspices of the university and the Royal Colleges of Physicians and Surgeons, and both of these schemes proved highly successful.

New Ordinance.

In May last the sanction of His Majesty in Council was given to the Ordinance of the University Court of the University of Edinburgh, No. 12 (Regulations for Degrees in Medicine); and the Ordinance came into operation at the beginning of the current winter session. The principal changes which the Ordinance introduced were the permission given to students to appear for the examination in Anatomy and Physiology at the end of the second year of study, and in Pathology and Materia Medica at the completion of the third year.

Personal Changes.

It is with sincere regret that reference is made to the death of the distinguished surgeon, Dr. Joseph Bell, who was for many years one of the representatives of the General Council on the University Court, and who brought to the deliberations of that body a wide knowledge of affairs and a keen interest in the welfare of the university. Dr. Bell was also one of the representatives elected by the University Court on the Board of Curators of Patronage. In this latter office he is succeeded by Dr. D. F. Lowe, while Dr. George A. Berry fills his place as one of the representatives of the General Council on the University Court. Mr. John Tait, D.Sc., M.D., has been appointed Lecturer in Experimental Physiology, in succession to Dr. W. A. Jolly, resigned; and Mr. T. J. Johnston, M.B., as second Lecturer in Anatomy, in succession to Mr. R. B. Thomson, resigned.

Parliamentary Grant, Benefactions, etc.

The Carnegie Trust for the Universities of Scotland continues to make appropriate provision for some of the needs of the university, especially in regard to the endowment of lectureships, the purchase of books for the library, buildings, permanent equipment, and apparatus; while of the large sum devoted by the Trust to the payment of class fees, about one-third comes to Edinburgh students. Intimation has been made of a bequest to the university by the late Miss Margaret Wardlaw of £2,000 (to be supplemented by other sums), to be called, in memory of her late brother, "The D. R. Wardlaw Memorial Bequest," and to be for behoof mainly of indigent and deserving students who may be temporarily incapacitated from pursuing their studies in consequence of illness or personal injury. Note has to be made of a sum of £320, being balance of the Chiene Portrait Fund, to provide annually a sum of money and a bronze medal, to be called "The Chiene Medal in Surgery"; a bronze replica of a silver medallion presented to Professor Chiene by his old house-surgeons; and a bronze medallion portrait of the late Professor Cunningham presented to the Department of Anatomy by the subscribers. Mr. Henry S. Wellcome, of London, has intimated his intention of presenting annually to the University of Edinburgh, for the purpose of encouraging original research in the history of medicine, a gold medal, together with a grant of £10, and a silver medal with a grant of £5 for the best essays on that subject.

The Library.

The additions to the University Library for 1911 numbered 4,725. The recataloguing of the library on slips having been finished in 1906, the question as to the final revision of the entries, the insertion of cross-references, and the printing of the catalogue will have to be seriously considered at a near date. No funds are yet available for this purpose, but it is hoped that some generous donor may ere long be found willing to associate his name with this important work.

UNIVERSITY OF BIRMINGHAM.

THE following candidates have been approved at the examination indicated:

FINAL M.B., CH.B.—J. H. Bampton, R. B. Coleman, C. C. C. Court, P. A. Newton.

CONJOINT BOARD IN ENGLAND.

THE following candidates have been approved at the examinations indicated:

FIRST COLLEGE (*Part I. Chemistry; Part II. Physics*).—T. B. Bailey, *H. S. Baker, *G. A. Bevers, J. L. D. Buxton, H. G. R. Canning, †R. G. J. Charlesworth, *E. A. Clegg, O. F. Conoley, L. H. Dardier, †D. M. Dickson, †C. H. Fischel, J. T. T. Forbes, W. V. Gabe, *W. O. Holst, †R. F. Jarrett, *H. D. L. Jones, T. L. Kan, G. Kinneir, †R. D. Langdale-Kelham, *W. U. D. Longford, F. B. Matthews, R. G. Mayer, R. S. Millar, A. L. S. Payne, *R. I. Rhys, T. H. Rhys, *G. C. Robinson, E. J. G. Sargent, †F. G. L. Scott, †M. M. Shafi, †C. M. Slaughter, A. Sunderland, R. O. Townend, G. W. Wheldon, *H. E. P. Yorke.

* Passed in Part I only. † Passed in Part II only.

FIRST COLLEGE (*Part III. Elementary Biology*).—D. H. Andrews, N. A. H. Barlow, A. Bishara, L. G. Blackmore, G. L. Cutts, G. Dayal, A. B. Dunmere, J. H. C. Eglinton, J. T. T. Forbes, W. N. Harrison, C. G. Hooper, R. F. Jarrett, C. H. Jenkins, H. D. L. Jones, P. R. E. Kirby, E. M. Litchfield, R. S. Millar, S. G. Moftah, L. W. Moore, G. V. Richards, E. J. G. Sargent, R. Singha, E. L. Stephenson, E. W. Terry, R. O. Townend, C. P. G. Wakeley, H. G. Watters.

Letters, Notes, and Answers.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London*. The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, London*.

TELEPHONE (National):—
2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION
2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

A FATHER asks any reader who has had experience of operations for the surgical treatment of prominent ears to state the results of such experience.

SAVAGE (South Africa) asks for information as to the best form of battery to obtain for cautery work, electrolysis, head light, cystoscopic and sinus transillumination work, to be used in a country where no electric installation is within 100 miles.

S. H. R. will be glad to know if any member has made use of hypodermic aperients. Some few years ago there was an annotation in one of the medical journals suggesting phenolphthalein for this purpose.

FIBROLYSIN.

X., who is treating with fibrolysin a case of urethral stricture of twelve years' standing in a patient the subject of pulmonary tuberculosis of five years' duration, affecting the upper portion of the left lung, and evidently of a fibroid character, asks for experience with respect to the dose and length of time the treatment may be continued, and as to the risk of pulmonary haemorrhage. He is at present injecting 2.3 c.cm. of Merck's preparation into the right flank every second or third day.

LOSS OF HAIR.

XINGA asks for views as to the diagnosis and treatment of the case of a man, aged 35, who is apparently suffering from seborrhoea capitis. The hair, previously extremely thick, has been falling off rapidly for the last two years. At first there was slight redness and extreme oiliness of the scalp, and the scalp has gradually become more red, itchy, and hypersensitive. He is subject to migrainous headaches, has suffered from a slight form of mucous colitis, and is neurotic and hypochondriacal, and though he has no real indigestion has frequent eructations like nervous and hysterical women.

INCOME TAX.

MODERATE has applied to the Assessor of Taxes for a reduction to the extent of one-third or one-fourth of the assessment on his house, on the ground that he occupies a considerable proportion of it for professional purposes. The assessor replies that he can take no steps unless our correspondent obtains a reduction of the district rate assessment.

Our correspondent appears to be under the impression that the use of part of his house for professional purposes entitles him to a reduction in the assessed value of his property. This is not the case, though if the assessment be on general grounds excessive he should appeal against the district rate assessment by giving notice through the rate collector.

HORNBEAM wishes to know whether, and on what authority, discount is allowed on income tax paid in advance of January 1st, and whether the discount applies also to property tax and house duty.

*** A discount at the rate of 2½ per cent. per annum may be claimed on income tax, Schedule D, due on January 1st, but paid before that date. The allowance on £100 tax paid on December 1st would be about 4s. No discount is provided for in the case of property tax or house duty. The authority for the allowance is Section 141 of the Income Tax Act, 1842, as amended by Section 10 of the Revenue Act, 1889.

PETROL TAX REBATE.

C. E. A. A. was informed, in reply to an inquiry addressed to a motor journal, that he could not claim rebate on less than a year's consumption; the Excise authorities refuse to allow him rebate for more than six months' consumption.

*** The Excise officers are right. The relief from one-half the petrol duty, allowed to medical men, can be claimed only for petrol consumed within the six months preceding the date of the application for repayment.

ANSWERS.

MÉDECIN.—Mr. H. De Méric's *Dictionnaire des Termes de Médecine, Français—Anglais* (London: Baillière, Tindall, and Cox, 1899), would probably meet our correspondent's requirements.

LETTERS, NOTES, ETC.

FOUND.

MESSRS. ALLEN AND HANBURYS LIMITED, Bethnal Green, London, E., ask us to state that in an empty case recently returned by a customer they found a plain gold signet ring with an oval shield bearing a crest. They are unable to identify the sender of the case, or even to ascertain whether it came from a doctor or a chemist.

A WARNING.

WE are informed by a resident in Chelsea that a man describing himself as a doctor has been calling on people in that locality with a petition against the Insurance Act, which he said was organized by the British Medical Association. He also took the opportunity wherever possible of collecting small subscriptions towards the expense of the protest. The man is about 5 ft. 8 in. in height, with a moustache, neither dark nor fair, looks abut 42, and speaks rather like an Irishman. The suspicions of our informant were aroused by the fact that in the petition he was asked to sign the word profession was spelt with two "f's."

RECENT GRANTS OF ARMS TO MEDICAL MEN.

ARMA VIRUMQUE writes: I regret to notice that in recent grants to doctors there is an absence of any bearing suggestive of the practice of medicine. I refer to such bearings as the winged caduceus, the coiled serpent, the lighted lamp, and the flaming torch. Such bearings were formerly common. They form very beautiful heraldic embellishments, and are very suggestive of scientific medicine. The Heralds, I believe, will always be found responsive to the suggestions of a grantee in the matter.

A PORTABLE SPITTOON.

MR. WILLIAM MARTINDALE, of New Cavendish Street, W., has recently put upon the market a pocket spittoon which combines several excellent features. Of oval shape and measuring 3 in. by 1 in., it is of convenient size, and, being of nickel silver or other bright, strong metal throughout, is sightly in appearance and unbreakable. It is also easily emptied and cleansed, and can not only be opened readily, but closed with equal ease in such fashion that there would be no chance of the contents exuding even if the case were carried upside down. We regard it as about the best appliance of the kind that we have yet seen. Its price is 8s.

FEES FOR REPORTS UNDER THE WORKMEN'S COMPENSATION ACT.

DR. THOMAS R. WIGLESWORTH (Minster) writes: I have made a very considerable number of reports for insurance companies under the Workmen's Compensation Acts. Some of the insurance companies when writing for report say they will be pleased to forward usual fee of 10s. 6d. on receipt of report. I always reply saying that I shall be pleased to make report, but that my fee is £1 1s., and I have invariably received it. I should advise "Practitioner" to do the same, and not accept less.

PROCTOCLYSIS.

AN appliance intended to facilitate saline injections *per rectum* or *per cutem* which has recently been brought under notice consists of a large india-rubber cork carrying a glass siphon to the long end of which is attached a pipe with a nozzle for the delivery of the fluid and an elastic bulb to start its flow. The cork is of such size as to fit the mouth of one or other of the various makes of heat-retaining flasks now obtainable, and if the delivery tube is removed from the siphon and the upper end of this inserted into a hole in the cork, the injection having been prepared at home by the practitioner, can be taken ready for use forthwith at his patient's house. The appliance has been made by Messrs. Arnold and Son of West Smithfield, according to the specification of Dr. Lennox Wainwright of Folkestone, who, as also many of his surgical friends, has found it very efficient. The price is 11s. 6d.

A CORRECTION.

DR. WEATHERHEAD (Brighton) has called our attention to an error in the Index, which he wishes to have corrected. (1) Under "F," the reference is given as, "Fetus *in utero* over forty years," (Dr. *Weathered*), 1109. (2) Under "W," the reference is given as, "*Weathered*, Dr.: Fetus *in utero* forty years," 1109, 1694. In those references Dr. Weatherhead's name is misspelt, and "Fetus in *utero*" should, of course, be "Fetus in *abdominal cavity*." The mistakes, he adds, are not the fault of the compiler of the Index. The entries were made from the official report as received for publication.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page	8	0	0

An average line contains six words.

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

NOTE.—It is against the rules of the Post Office to receive *postes restante* letters addressed either in initials or numbers.

Remarks
ON THE
OPERATIVE CURE OF ASCITES DUE TO LIVER CIRRHOSIS.*

BY
RUTHERFORD MORISON, F.R.C.S.,
PROFESSOR OF SURGERY, DURHAM UNIVERSITY.

THE first paper published by Dr. Drummond and myself in connexion with this subject appeared in the BRITISH MEDICAL JOURNAL of September 19th, 1896.

Not until Dr. Charles Frazier wrote on the operative treatment of hepatic cirrhosis four years later[1] were we aware that any one had a prior claim to our own in respect to the procedure suggested. As Professor Talma's suggestion and case were recorded in a Dutch journal and in the Dutch language, with which neither of us was acquainted, our ignorance will cause no surprise.

The first case, successfully operated upon more than sixteen years ago, was shown by me in the Medical Section at the Annual Meeting of the British Medical Association in Carlisle in July, 1896. The patient, after being tapped four times at intervals of a month, and then operated upon, had recovered her health, and was shown in excellent condition and without any fluid in her abdomen eight months after the operation.

In the first paper[2] I offered an explanation as to the manner in which the operation was suggested to me. During a visit to the *post-mortem* room Dr. Drummond showed me the body of a man dead from cirrhosis of the liver, and explained that this patient had no ascites because the collateral circulation, chiefly through the enlarged veins of Sappey, had relieved the portal obstruction.

I then suggested that, if his explanation was correct, it might be possible to cure an existing ascites by an operation which would establish a new anastomotic circulation. In the first case on which we tried the operation the ascites was not the result of cirrhosis, and the patient died nineteen months later, unrelieved.

The second and successful case was that of the patient shown at the British Medical Association meeting at Carlisle, previously referred to, and on which the paper[3] of Dr. Drummond and myself was based.

In this paper we first referred to the ordinary connexions between the portal and systemic circulations, and then said, "but when adhesions form between the viscera and parietes, innumerable new vessels develop in them and convey blood freely from the portal into the systemic circulation through the subperitoneal plexus of veins." (The proof of this is that when a parietal and visceral adhesion are separated both the visceral and parietal raw surfaces bleed.) "Probably the most important of these new channels can be developed in adhesions between the omentum and parietes."

"A study of Nature's methods suggested that operation might be useful in selected cases, for we were familiar with the enormous newly-formed blood vessels frequently met with in the portion of omentum adherent to rapidly growing abdominal tumours; we had seen adhesions of all sorts in the abdomen develop large vascular channels, and we knew that such vascular adhesions could form with considerable rapidity. On one occasion one of us (Morison) removed an ovarian cyst with twisted pedicle of three days' duration, and already vascular adhesions had fixed the omentum to the tumour."

In a second paper on the same subject,[4] I reported the subsequent history of our successful case, and also the result of a *post-mortem* examination, as follows:

> The patient, a woman, attended the Medical Section at the Annual Meeting of the British Medical Association at Carlisle eight months after the operation, and was then apparently in perfect health. The abdominal scar had yielded to some extent, producing a ventral hernia. This was the result of a cough which had troubled her for some months and of imperfect suturing, but the hernia occasioned no inconvenience and was kept in place by an abdominal belt. Two years after the operation this patient called on me concerning her ventral hernia. During this time she had felt strong and well, had led an active and happy life, and had performed all the duties of her household. Latterly a troublesome cough had led to a marked increase in the size of the hernia, and her belt had ceased to be a sufficient support. She was anxious to have the hernia radically cured, and, considering the trouble it was causing, the certainty that it would get worse, and the good condition she was in, I could not refuse to undertake the operation. (This was performed on October 5th, 1897.) The only peculiarity observed was that the subperitoneal vessels were large and bled freely. She recovered in an hour from the immediate effects of the operation, but towards evening became restless and complained of pricking pains and numbness in her arms and legs. Next morning, after a restless night, I found her distinctly jaundiced and complaining still more of the numbness and pain in her arms and legs, which were very tender when touched. The jaundice and restlessness increased, and on the second day after the operation she became comatose, and died at night, deeply jaundiced.
>
> At the necropsy Mr. W. G. Richardson removed the whole of the abdominal viscera and the parietes, excepting the skin, *en masse*. He then injected the whole from the trunk of the portal vein. I showed the specimen at a meeting of the Northumberland and Durham Medical Society on November 11th, 1897, and in demonstrating it said: "The liver, the spleen, and the intestines are seen to be attached to the parietes chiefly by dense band-like adhesions. (Many of these seemed to contain little except a blood vessel, and in several of them such vessel was 4 in. in length.) The omentum, also, is firmly adherent over the anterior abdominal wall by strong bands. In all of these adhesions innumerable injected vessels are readily seen, passing from the viscera to the parietes. Many of them are fully the size of a normal radial artery. The subperitoneal plexus of vessels forms a dense large network. . . ."
>
> Dr. Bolan reported as to the microscopical condition of the liver: "Typical cirrhosis, with much fatty degeneration. Fibrous tissues well formed. . . . So-called new bile ducts present in numbers, liver cells showing extreme fatty degeneration in all zones, and normal cells few and situated in central portion of lobule."
>
> This patient had a definite alcoholic history.

My second successful case, published in the same paper,[5] was that of a temperate man, aged 42, operated upon on January 12th, 1897. His abdomen was much swollen and tense with fluid.

> The abdomen was opened . . . between the umbilicus and ensiform cartilage, sufficiently to admit my index finger for exploratory purposes. The characteristic hard, hobnail surface, which was felt on reaching the liver, left no further doubt as to the diagnosis, and the parietal incision was extended from the ensiform cartilage to the umbilicus. . . . The general recovery of the patient requires no note. From the surgical point of view it was straightforward. It was, however, evident, during the last few days of his stay in Newcastle, that he was much depressed mentally, and after his return home the depression increased, and for three weeks he was alternately depressed and excited. This feature seems to be deserving of more attention than would have been given to the same in an ordinary case, for it may possibly be one of the special risks of this operation. Dr. Drummond has brought before the Northumberland and Durham Medical Society at various times cases of liver cirrhosis complicated by peculiar nervous symptoms, and in one patient who died he was unable to find any change in the nervous system to account for the symptoms. In that case the liver was in an advanced stage of cirrhosis; there was no ascites, and there was a very large vein of Sappey connecting the portal with the systemic circulation. The explanation given by Dr. Drummond of the attacks—namely, that they were due to intestinal products finding their way directly into the systemic circulation without any liver influence being brought to bear on them, is in accordance with the fact that this patient was on several occasions rescued from an apparently hopeless coma by the administration of a brisk purgative, and also with the results of experiments on the liver functions.
>
> *Subsequent History.*
>
> Ten months after the operation my patient was shown at a meeting of the Northumberland and Durham Medical Society. He appeared then to be in excellent health, and said that he felt perfectly well. . . . I next heard definitely of him in January, 1899. A well-known insurance office wrote asking me to report on the nature of the operation performed two years previously. He had been passed by the medical adviser of the company as a first-class life, but before completing the insurance I was consulted.

This patient got pneumonia—of which he had previously three attacks—in the spring of 1903, never satisfactorily recovered, and died of heart and kidney disease, with general dropsy and ascites, on August 10th, 1903. The *post-mortem* examination showed liver cirrhosis. For six years he was quite well.

Tempted by this success I shortly afterwards operated upon an alcoholic man with cirrhosis and ascites who had never been tapped. He died three days after the operation comatose and jaundiced.

The only other death I have had due to the operation occurred in a young woman on whom I operated in 1910. She had cirrhosis of the liver consequent on acute yellow atrophy, and had been tapped several times for ascites.

* Read before the Surgical Section of the Royal Society of Medicine.

She died three days after the operation comatose and jaundiced, as the two previous cases had.



Fig. 1.—R. P., three and one half years after operation. Shows the enlargement of the epigastric vein on the right side. The wearing of a truss has prevented the enlargement of the corresponding vein on the left side.

My third successful case was published in the *Annals of Surgery*, September, 1903.

The patient was a man 52 years of age, a heavy drinker, who had been tapped before operation (fourteen times for ascites) at intervals varying from six to twenty days.

The operation was performed on August 29th, 1899. The liver was firm, finely granular on the surface, and of about normal size. The spleen was hard, and enlarged to at least double the normal size.

In July, 1903 (four years later), the report on his condition by the surgical registrar, Mr. G. Grey Turner, was: "He is very well; never looked better; is fat and strong, and has a good appetite. There are no signs of fluid in the abdomen. The veins in the abdominal wall are very large. He complains of some dragging pain in the abdomen; the liver can be felt adherent to the abdominal wall."

In July, 1910 (eleven years after operation), this patient was shown to the Society of Clinical Surgeons of America, who visited this country. He had been doing regular work, and was in good health. At the present time, between twelve and thirteen years after the operation, he is still well, and 65 years old.*

In my last paper[6] I say: "Other factors besides mechanical obstruction of the portal vein doubtless aid the development or retard the arrest of ascites due to cirrhosis: but my cases prove at least that the establishment of an artificial accessory circulation can cure it." Further experience has confirmed this view, but, as I have always been careful to point out, the cases in which operation can be of use are rare and must be carefully selected.



Fig. 2.—R. J., May 4th, 1911. A striking enlargement of the superficial veins, such as is shown here, may lead to erroneous conclusions. The circulation through them is relatively insignificant compared with that in the subperitoneal vessels. In many cases of cirrhosis the subperitoneal plexus forms a spongy sheet, which bleeds like a naevus when incised. The object of operation is to make extensive communications between this and the visceral vessels. There must be, for this purpose, widespread adhesions. Operations which separate or excise the peritoneum should be avoided, and the omentum must be spread out and fixed under the abdominal wall.

So far as I know, the most suitable are those of alcoholic cirrhosis in patients otherwise sound and whom repeated tapping has failed to cure. None of these cases have, in our experience, been failures. The reason probably is similar to that of the cure of dropsy from heart failure following persistent overstrain. In both the chief predisposing cause of the dropsy can be removed—in the case of the heart by rest, in the case of the liver by abstinence from alcohol. This explanation seems probable, because, though I have operated upon patients in good condition with ascites due to syphilitic cirrhosis, none of them have been cured.

The most unfavourable cases are those which at their commencement simulate an abdominal emergency and suffer from pain and tense tympanites preceding the development of ascites.

The Operation.

The choice of an anaesthetic may be of importance. The great danger in these cases appears to be the development of a condition related to acute yellow atrophy, and chloroform, as is well known, can produce similar changes in the liver, so that some other anaesthetic should be chosen.

My first case taught me that the abdominal incision should be made above the umbilicus to avoid the development of a ventral hernia. With this exception, the operation I do now is the same as that I originally suggested.

The steps are:

1. Open the abdomen from the ensiform cartilage to the umbilicus.

2. Introduce the hand into the abdomen and project a finger against the anterior parietes in the middle line, 3 in. above the pubis.

3. Make a small incision on to the finger tip, and through this introduce a long small glass drainage tube into the recto-vesical or recto-uterine pouch.

4. Dry the abdominal cavity and scrub the peritoneum with mops.

5. Suture the omentum to the anterior parietal peritoneum across the abdominal wall, and close the upper abdominal wound.

6. Apply an antiseptic dressing over the wound and tube, and over this, from above down to the tube, a series of long circular strips of adhesive strapping, with the object of keeping the parietal in contact with the visceral peritoneum.

7. The tube now exposed through the dressings is surrounded with a sheet of dental rubber perforated to grasp it below the collar on it, and the separated tube dressing is wrapped up in the indiarubber sheet.

After-Treatment.

A nurse is engaged to attend to the tube and pump off the fluid sufficiently frequently to keep the dressings dry. If this can be accomplished, the dressings require no change for ten days, after which, as a rule, a small indiarubber tube can be made to take the place of the glass one. I have heard of septic peritonitis resulting from this operation. We in Newcastle have never seen this, and it may be that our free use of antiseptics during the operation and in the dressings is the explanation.

As a rule, the wounds are entirely healed in one month, and no further accumulation of fluid occurs. It need, however, occasion no serious disappointment if the fluid reaccumulates, as some of our most successful cases have required tapping on one or two occasions after their recovery from the operation.

Many successful results have now been recorded from this operation, but I have thought it more fitting to occupy the time you have kindly placed at my disposal in dealing with the general principles involved, than in enlarging upon details which can be better treated by those who may take part in the discussion which I hope will follow.

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[1] *American Journal of Medical Sciences*, December, 1910. [2] BRITISH MEDICAL JOURNAL, September 19th, 1896. [3] Loc. cit. [4] Cure of Ascites due to Liver Cirrhosis by Operation, *Lancet*, May 27th, 1899. [5] *Lancet*, May 27th, 1899. [6] *Annals of Surgery*, September, 1903.

* The same day my colleague, Mr. Grey Turner, showed a similar case. It is now more than five years since he operated, and the patient is well.

DR. MARIE KJÖLSETH has been awarded a gold medal by the University of Christiania for a dissertation on a pathological subject. She is, we understand, the first woman who has won this distinction.

WE are asked to state that at the meeting of the ninth International Otological Congress, which is to be held in the new buildings of the Medical Department of Harvard University, in Boston, U.S.A., during the week beginning August 12th, 1912, the award of the Lenval, Adam Politzer, and Cozzolino prizes will be made by the International Jury chosen for the purpose. The Lenval and Adam Politzer prizes are offered for the best published work on the anatomy, physiology, and pathology of the organ of hearing; the Cozzolino prize for the best published work on the anatomy and pathology of the organ of hearing, and upon clinical therapeusis. Candidates should communicate with the President of the Jury, Professor Dr. Adam Politzer, 19, Gonzagagasse, Vienna, and should send to him the work offered in competition, at least six months before the date of the opening of the next congress. Should a sufficient number of valuable works be presented in competition, the jury may divide the Lenval Prize and the Politzer prize, thus making five prizes for distribution.

A REVIEW OF RECENT METHODS FOR THE RADICAL CURE OF HERNIA.*

BY

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It was on November 17th, 1883, that the first operation for radical cure was performed at the Salop Infirmary, upon a boy, one W. H., aged 4, from Much Wenlock. In the next year there were four operations, including one upon a young woman aged 21. Ten years later (in 1893) twenty operations were performed, and now it is quite usual to see two or more in a single morning, and it has been said that this procedure is the commonest operation in surgery, except that for removal of post-nasal adenoids.

Early Results.

In 1890, at the request of Mr. Eddowes, then senior surgeon to this infirmary, I collected all the cases operated on here from November, 1883, to November, 1890, and I subsequently extended the list to include all cases up to the end of 1894. The result of this inquiry was communicated to Mr. Rushton Parker of Liverpool, and embodied by him in a paper read at the annual meeting of this Association in London in 1895, and I quote from his paper as follows:

> Out of 81 operations performed at the Salop Infirmary by Mr. William Eddowes and his colleagues, 45 were in 43 children and infants of 12 years old and under:
>
> 25 from 6 months to 2 years,
> 10 from 2 years to 4 years,
> 10 from 5 years to 10 years.
>
> The only fatal case died from pneumonia, the wound having healed; in none had strangulation existed, and the hernia is not known to have recurred in any. I quite expect that other surgeons will be able to produce reports which, like this one of Mr. Eddowes, are more favourable than my own, and add confirmation to the favour with which I regard herniotomy in children.

So much, then, for our results sixteen years ago in the case of children; what can be said in regard to adults? I regret to say that these were far from satisfactory. Most of the patients replied that they were much better, and that the rupture was now easily controlled by a truss and gave no trouble; others that they were quite cured, and yet others that the operation had failed and that they were as bad as ever. Not very reassuring you will agree, but I hope to show the reason for this, and to tell you that by improved methods of operating on adults the tale is a very different one to-day.

Varieties of Inguinal Hernia.

1. In about 5 per cent. of the so-called congenital type where the sac is large there is no closure at all of the funicular process, which normally becomes obliterated from below. The testes seem to be inside the sac, but are not really so.

2. The funicular process is partly obliterated, but a definite processus vaginalis is present. This is the commonest variety, constituting about 95 per cent. of all hernias in children.

3. "The infantile," where the hernia in its descent pushes a fresh sac before it, inverting the unobliterated portion of the funicular process below and obscuring the diagnosis.

4. The ordinary acquired form.

Etiology.

Mr. Hamilton Russell, now of Melbourne, and formerly house-surgeon at this infirmary, published in the *Lancet* in 1899 a letter which attracted considerable attention at the time, and from which I will briefly quote the most important points:

1. Oblique inguinal hernia is *invariably* caused by the presence of a congenital sac which is provided in nearly every case by a patency in whole or in part of the processus vaginalis.

2. There is no evidence to support the view that congenital weakness of the abdominal wall in the inguinal region is a factor in the causation of inguinal hernia.

3. While actual weakness of the abdominal wall in the inguinal region is frequently met with, and is an occasional cause of recurrence after operation, such weakness is not congenital, but is an acquired weakness due to the existence of the hernia and the prolonged use of a truss.

4. Complete removal of the sac when performed before the abdominal wall has sustained such damage will not be followed by recurrence.

5. The causes of recurrence after operation are:

(*a*) The above mentioned acquired weakness.
(*b*) Incomplete removal of sac.
(*c*) Traumatism the result of a mistaken method of operating.

The acceptance of these views leads to the conclusion that ordinary inguinal and femoral hernias are not ruptures in the sense of being due to strain, but are primarily due to a congenital sac and are impossible without it.

If this be so, it follows that most of the operations formerly practised for the radical cure, which dealt so largely with suturing the canal, are unnecessary, and that those that divide the canal freely to obtain access or to divert the cord are injurious; no doubt these same operations also treat the sac, but such treatment is not so much insisted upon as the repair of the canal and the suturing of the pillars of the ring.

Striking confirmation of the frequent presence of this pre-existing sac has been recently brought forward by Mr. R. W. Murray, and is referred to in Professor Alexis Thomson's *Manual of Surgery*. Mr. Murray made 200 consecutive *post-mortem* examinations upon persons in whom during life there had been no history or evidence of hernia, and in these he found no less than 68 diverticula of the peritoneum, of which 44 were femoral, 22 inguinal, and 2 umbilical, showing clearly that this pre-existing sac is no mere hypothesis.

Having insisted, then, that the sac is pre-existing and is the cause of hernia, it follows that its complete removal will cure the condition, and so it is found in practice.

But it will be asked, Is any one bold enough to act upon this, and is it not necessary in addition to strengthen the canal and to obliterate the rings? To this I answer that I believe such patching is entirely unnecessary, and usually a source of weakness and further trouble, and is always to be avoided except when one is obliged to open the canal in order to deal effectively with adherent omentum or retained testes; then, of course, any damage done to the canal must be repaired by suture; but the sac is the thing.

I had lately a conversation with Mr. Edward Deanesly, of Wolverhampton, upon this subject, and he has kindly placed his most recent figures at my disposal for the purposes of this paper. From November, 1906, to November, 1908, Mr. Deanesly had in his hospital clinic 250 operations for radical cure of inguinal and femoral hernia, and in all save an insignificant proportion the inguinal canal was left absolutely unsutured, and the femoral canal was left open except for a simple pursestring in the fascia lata and pectineus fascia. In perhaps 2 or 3 where the hernia was excessively large or complicated by undescended testis, the external oblique was sutured so as to narrow the external ring. The patients were discharged in ten to twelve days, and returned to work in four weeks. The cases were absolutely unselected, and none wore a truss after operation. This series included all sizes of hernia up to that of a football, and all ages, from 6 months to 60 years.

It is well known that if the operation fails the hernia will again show itself within the first twelve months, so that these figures of 1908 may reasonably be examined and tested for recurrence, and we find that only 9 had recurred, and these have all been cured by a second operation.

Guiding Principles in Operations.

The method of operation used by Mr. Deanesly is that of Professor Kocher of Berne (second method). I think that nothing more need be said to prove that the treatment of the sac is the treatment of hernia, and in order to treat the sac thoroughly great attention must be paid to its neck. The fundus may be cut away at an early stage of the operation if it is much enlarged or likely to interfere with subsequent steps. The neck of the sac is much longer than is often supposed, but it must be clearly separated

* Read before the Shropshire and Mid-Wales Branch of the British Medical Association.

from the cord to its actual junction with the peritoneum—a point which Kocher has shown to be marked by a pad of subperitoneal fat, which forms an outlying spur of the prevesical fat; after being thus freed, it is displaced upwards and outwards by drawing it through an opening in the internal oblique and transversalis muscles at a point ¾ in. above and to the outer side of the internal ring. The whole of the lax peritoneum present in the neighbourhood of the internal ring is thus rendered taut, and there is no trace remaining in the form of dip or dimple.

Kocher formerly recommended that the sac should be laid down over the roof of the inguinal canal and there pressed down into it, as it were, through the roof, and retained by sutures, but this suturing, combined with transfixion and torsion, occasionally led to necrosis of the sac, and has been abandoned in favour of simple removal after dislocation upwards and outwards.

I remember particularly one of my cases in which this necrosis took place, and I quite expected the operation would fail, especially as the man was a repairer of motor cycles, and often had the severe strain of pedalling those unwieldy machines some distance; but I have seen him lately, and am glad to say that he has no hernia.

Mr. Stiles, of the Royal Sick Children's Hospital in Edinburgh, has long discarded all suture of the canal or rings, and I learnt from him that he recently completed a series of 1,000 cases with a mortality of 6—700 of them with a mortality of 2 only, a total mortality of much less than 1 per cent. Results could hardly be better, and would compare favourably with those of the operation of circumcision. The best age for operation is 5 to 6 months, before dentition begins.

Mr. Stiles has given up the use of trusses at the Sick Children's Hospital altogether, being guided to this conclusion mainly by the fact that cases which were apparently cured by truss pressure were those of the congenital type, which were really cured by the natural obliteration of the funicular process occurring from below upwards. That this view is correct is shown by the number of waiting cases which, on being sent for for operation, are found to be already cured.

It may seem difficult sometimes, when dealing with infants, to say positively whether a rupture exists or not; the parent will assure you that a lump does come in the groin, but, on inspection and examination of the two rings, they seem of equal size. If, however, the cord be carefully isolated, it is quite possible to feel in all cases of hernia that something, the empty sac, is present coming down the inguinal canal.

The surgeon must be prepared to find other structures than small intestines and omentum inside a hernia sac. I myself in the last year have met with the Fallopian tube, the caecum with appendix, and the urinary bladder, but such findings do not materially increase the gravity of the operation and are readily dealt with.

Children.

Strangulation is rare in children, and when it occurs it is generally in infants under 1 year. This condition is most frequent on the right side, because it is the caecal herniae that usually become strangulated. Moreover, it must not be thought that irreducibility is a very urgent matter in a young child. There is no hurry about operation, for in them strangulation is a slow process. A dose of chloral and bromide may be given by mouth or rectum and hot fomentations applied to the hernia, the knees being bent over a pillow so as to relax the structures about the external ring, where the tightness is usually greatest, and a delay of twelve hours advised. Failing reduction in this way, it may often be effected under chloroform; but if this with mild manipulation fail, the operation must be performed exactly as in non-strangulated cases.

I would advise that all preparations for operation be made before taxis under chloroform is resorted to, so that valuable time may not be lost.

A few words may be said about the dressing and the after-treatment. It is necessary to protect the wound in some way, yet ordinary dressings are very difficult to keep clean; dry collodion has been tried, but it does not give free exit to the serum, which must be produced in any wound where the tissues have been much separated and handled. Stiles always uses a paste consisting of iodoform one part, bismuth subnitrate two parts, kept in a solution of 1 to 1,000 mercury perchloride. A piece of gauze is placed over this and a small flannel binder over all as a temporary dressing. When the child is put to bed the temporary dressing is removed, leaving nothing on the wound but the paste. The legs are controlled by clove-hitch bandages applied to the ankles over a layer of lint. Over the body is a small wire cradle, from which hangs a diaphragm of towelling, on to which he micturates. The shoulders are lightly fastened to the mattress by the usual reins of knitted material, and the hands are prevented from coming in contact with the wound by another small draw sheet pinned under the reins and over the cage. A piece of boracic lint is pinned over and under the child's vest, which reaches to about the umbilicus. No sepsis has occurred in connexion with this method of treating the wound in children.

A mattress stitch or two is used to obliterate the deep wound, which is removed on the second day; the skin is sewn with horsehair, which is removed on the sixth or seventh day, and the child is discharged on the eighth or ninth day. It is not necessary that the child should be weaned.

Adults.

In adults the wound is dressed in the usual way with dry gauze and wool, drainage being very seldom employed, and bandaged with a flannel or domette spica 3 inches wide; it is well to bandage the opposite side also, including the two in a St. Andrew's Cross. This serves to support the scrotum, preventing oedema, and rendering the after-treatment much more comfortable.

Finally, I always use an elastic bandage applied in St. Andrew's Cross fashion, as this keeps the edges of the superficial dressing secure and prevents any accidental contamination by involuntary movements of the patient's thighs during the first few hours.

There are, of course, many other forms of abdominal hernia to which I have not referred (one author describes fifteen in all), but it would only lead to confusion if I attempted to include the treatment of these in my brief paper. I will therefore simply say once again that the treatment of all is essentially the same, and that the great underlying principle is to find the neck of the sac and to occlude it thoroughly. You may then do what you please with the other parts, varying the detail according to circumstances, and putting in such supporting and obliterating sutures through canal and rings as your experience may determine.

A CASE OF PERFORATED PEPTIC ULCER OF THE OESOPHAGUS COMPLICATED BY PYOPNEUMOTHORAX.

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The following case is of interest because it is a very typical example, both as regards history and pathological appearances, of a rather rare condition, though one probably more common than is generally believed. The author is indebted to Professor Wyllie for allowing him use of the clinical notes taken by his resident, Dr. Leslie.

History.

W. A., aged 42 years, admitted to Ward 34 on March 13th, 1910, under Professor Wyllie, complaining of pain across the lower part of the chest, worse on the left side, and pains across the back.

Up till the beginning of January, 1910, he was in good health. He had been accustomed to take considerable amounts of alcohol in bouts about every other week for the last eight years. Subsequent to these drinking attacks he suffered from his stomach, being unable to take food and vomiting bile. Since January, 1910, he had suffered from lassitude, uneasiness in the stomach, flatulence and vomiting about an hour after each meal, followed by relief to symptoms. He has been afraid to eat and thus has lost weight considerably. On March 14th, after vomiting his dinner, he went to bed, and has not got up since then. The day before admission, when suffering from severe pains in the chest, he called in a doctor, who diagnosed pleurisy, and recommended his admission to the hospital. During the days that intervened he had been unable to retain anything in his stomach. The vomited food was tinged brown. The patient suffers severely from thirst; he has no difficulty in swallowing, but has some uneasiness in the lower part of the chest, between the ribs where they join the sternum. No

tumour can be made out on palpation, but there is some rigidity of the muscles of the upper part of the abdomen. The respirations are 28 per minute.

He has pain in the chest, both in front to the left side low down and behind across the lower part. Cough not marked.

There is practically no movement of the left side of the chest, except a little at the apex of the lung. Vocal fremitus is absent over the whole of the left side, normal on the right. On percussion a resonant note is obtained all over the chest with just a slight loss of tone at the left base. Over the left side, however, true pulmonary resonance is not obtained. On auscultation, the breath sounds are faint all over the left side of the chest, but are present over the right side. They have the character of normal vesicular breathing, with a slight prolongation of expiration at the right apex. Over the bases, especially the right, there is well-marked friction. Vocal resonance not much affected; on the whole, not quite so good over the left side generally. No Hippocratic succussion tried for, as patient was so ill, but the bell sound test with coins gives a positive result, especially above the bend of the seventh rib space all round the heart.

The blood was examined and showed 14,000 leucocytes. There was no glycogenic reaction. On admission, the temperature was 101°, but it gradually fell to subnormal.

Result.

On March 21st the left pleura was explored: some foul-smelling gas escaped; afterwards pus was obtained and about 25 c.cm. was removed. Next day more pus was removed. The patient vomited at frequent intervals, and died during the afternoon.

A *post-mortem* examination was held on March 23rd, the following observations being made:

Body well developed, but shows some emaciation. Rigidity well marked. The left lung is adherent to the chest wall towards the apex. It is completely collapsed in its lower part, and covered with grey fibrino-purulent exudate. There is a considerable amount of stinking fluid in the left pleura. There are also adhesions at the apex on the right side.

On opening the stomach and duodenum, an ulcer is found just beyond the pylorus in the anterior wall of the duodenum, with a considerable amount of thickening around.

Immediately above the cardiac orifice in the œsophagus there is a large ulcer measuring about 1½ in. in its greatest diameter. There are two perforations in its floor, opening into an abscess cavity in the mediastinum, lined with grey necrotic material communicating with the pleura. The margin of the ulcer is rounded, and the floor is formed by the muscular coat of the œsophagus.

The stomach is dilated. The mucous membrane is swollen, injected in places, and covered with glairy mucus. The pericardial sac contains a small amount of fluid, with flakes of lymph suspended in it. The heart is covered with a layer of recent fibrinous exudate. The left lung is largely collapsed; the apex shows a considerable amount of fibrosis. Lower part covered with fibrinous exudate. There is scarring also at the apex of the right lung, and what appears to be a small bronchiectatic cavity. There is some recent fibrinous exudate at the base. The spleen is somewhat enlarged, firm, and shows chronic perisplenitis. The kidneys are somewhat enlarged, cortex swollen and pale, soft and friable.

Summary of Post-mortem Findings.—Ulcer of lower part of œsophagus perforating into left mediastinum and left pleura. Pyopneumothorax. Old tubercle at both apices. Chronic ulcer of duodenum. Recent fibrinous pericarditis. Cloudy swelling of organs.

According to Tileston[1] (1906), peptic ulcer of the œsophagus was first described by Albers in 1839. Tileston has been able to collect 41 authentic cases of the condition, to which number he adds 3 which came under his own notice.

Ewald[2] (1910) describes 1 case diagnosed by means of the œsophagoscope, and which was cured. Probably, therefore, at least 46 have been recorded up to date, including the author's.

The most typical and constant symptoms of the condition are: Pain, which is severe and comes on immediately after food, the site of the pain being at the lower end of the sternum and a little to the left of it. Pain is also felt between the shoulders. Vomiting is the next most constant symptom. Dysphagia is present in more than half the cases. It is due to reflex spasm of the muscle of the œsophagus from pain, and it is the main diagnostic point between the condition and gastric ulcer. Hæmatemesis is also a very common symptom. Perforation has occurred in 8 cases—thrice into the right pleural cavity, once into the left (author's case), once into both (in each case with pneumothorax), once each into the aorta, pericardium, and lesser omental sac.

The ulcer is usually single. It may extend into the stomach, and independent ulcers may occur in the stomach or duodenum (author's case). The situation is usually close to the cardiac orifice, and the right postero-lateral wall appears to be the commonest site. The condition is usually found in middle life.

As regards sex, of 45 cases in which the sex was specified 31 were males and 14 females. This preponderance in the male corresponds to what one knows of duodenal ulcer. Healing not infrequently occurs, as in the recent case described by Ewald,[3] and one mentioned by Quincke.[4]

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A CASE OF TYPHOID FEVER COMPLICATED WITH CHOLECYSTITIS.

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TYPHOID inflammatory affections of the gall bladder and large biliary passages are described at some length by Curschmann in the Nothnagel Encyclopaedia. He states that typhoid bacilli are almost constantly present in the gall bladder, that gall stones have only been found present in about half of the cases, and that the result of infection varies, in many cases there being no ill effects whatever, while in others inflammation is produced, which may go on to pus formation or ulceration. Distension and slight swelling of the gall bladder has not been uncommon in my experience, but the case about to be described is the first instance in which I have seen any serious conditions arise in the gall bladder. Our hospital records do not show a single case of cholecystitis.

In respect of general literature, fatal forms only seem to have been noted when the condition was first recognized, but Westcott, quoted in Keen's *Surgical Complications*, tabulated 74 cases of typhoid infection of the gall bladder, of which 30 resulted in perforation. Osler mentions 3 cases operated upon at the Johns Hopkins Hospital, and Sir Hector Cameron, in a recent issue of the BRITISH MEDICAL JOURNAL, mentioned a case which he operated on years after the patient had suffered from typhoid fever.

The case here described was that of a married woman aged 23. She was one of a series of cases which occurred in a mining village, where the disease was spread by personal contact. A brother of hers had been removed to the Shotts Fever Hospital on December 15th, 1910, and just before his removal the patient, who was eight months pregnant, admitted having kissed him. Within fourteen days she began to complain of feeling unwell, and on December 31st, 1910, took to bed.

Next day I was consulted, and found her suffering from symptoms suggestive of typhoid fever, including severe frontal headache, high temperature, and furred tongue. A specimen of blood was taken for Widal's reaction, and proved negative, but two days later (January 3rd) another specimen of blood gave a positive reaction, and arrangements were made for removing the patient to hospital.

State on Admission.—The conditions upon admission to hospital, January 5th, 1911, were those of classical typhoid fever, and the case presented no unusual symptoms during the first eight weeks of illness. During the first week of illness the patient was nursed at home, and admitted to hospital about the beginning of the second week of illness, with her temperature ranging from 102° to 103° F.

Progress.—During the third week of illness the oscillations were of the usual type, and the temperature fell by lysis, becoming normal at the end of the third week. On February 6th she gave birth to a healthy female child. Labour was easy, as the child was very small and emaciated, weighing only 4 lb. The temperature rose to 101° F. on the day of confinement, but was down on the following day. The pulse was rather weak. On the following day the patient was rather stronger, and gradually improved. On the third day after being confined, as the breasts became engorged with milk, the child was put to the breast, and continued to suckle along with artificial feeding until February 23rd.

On February 11th the patient was able to get out of bed, and with a gradually increased and more liberal diet she gained strength rapidly.

Treatment.—For the first four weeks in hospital the treatment was of the simplest nature. To the ordinary milk diet was added thin Benger's food, and sanatogen, 1 oz. per day. A dilute sulphuric acid mixture four times a day was also administered. Afterwards strained soup and thin flour gruel was given.

Onset of Cholecystitis.—By the end of the eighth week the patient was considered about fit for discharge, when suddenly, on February 23rd, she felt an acute pain on the right side of the abdomen and vomited about a pint of thick yellow fluid. As the pain was very severe, she was given half a grain of morphine hypodermically in the forenoon, and this was repeated again in the evening, as the pain was again beginning to trouble her. While the pain was severe she perspired freely. Her temperature was subnormal at first, but in the evening rose to 101° F.; there was dullness, tenderness, and resistance on the right side in the region of the gall bladder, the dullness being continuous with the liver dullness, and extending down to the level of the umbilicus. Hot laudanum stupes were applied continuously all day and during the night.

On the following day the temperature was down to 100° F. She had still a good deal of pain and was sick, but did not vomit. On account of the nature of the pain, the faeces were carefully examined for gall stones, but none were found. This condition continued until March 19th, there being severe pain almost daily, which had to be controlled with morphine. The temperature was very irregular, at times being subnormal, when the paroxysms of pain were very severe, then, after a feeling of cold and shivering, rising to 102° or 103° F., and on one occasion to 105° F. She was inclined to be sick and did not take nourishment well and lost flesh, though the swelling seemed to be gradually getting less—indeed, the lower margin on the enlarged gall bladder was now 2 in. higher than on February 24th and 25th.

Operation.—As she seemed to be losing ground and suffering much pain, it was deemed, after consultation with Dr. J. T. Wilson, the County Medical Officer of Health, advisable to open the gall bladder, and the operation was performed by Dr. Peter Paterson, of Glasgow, on March 20th, who opened the gall bladder by a vertical incision through the right rectus muscle. The gall bladder, which was small, firmly adhered to the colon, while its walls were thick and very friable. On opening it, an ounce of thick ochre-like pus escaped, and two gall stones about the size of peas were removed. Drainage was provided by a large rubber tube stitched to the incision in the gall bladder.

Result.—The bile drained away freely at first, but gradually decreased to 1 oz. in the day, upon which the tube was removed. When the tube was removed, on April 2nd, six rounded, rough concretions were found, which were very friable, two being broken in being removed. The further history of the case was uneventful, and on May 24th she was dismissed from hospital feeling fit and well, the wound having healed perfectly. The child was healthy and continued to thrive. The blood when tested six weeks after birth gave the Widal reaction.

The Fluid from the Gall Bladder.—Dr. J. Hume Paterson, who examined specimens from the case at the County Bacteriological Laboratory, furnished reports which may be summarized as follows:

Specimen No. 1 was a mixture of blood and purulent yellow material taken at the time of the operation. Smears prepared from this material and cultures on ordinary agar and McConkey's bile-salt agar plates showed an organism in great numbers that morphologically and culturally was identical with *Bacillus typhosus*. As this was a mixed specimen containing blood from the wound as well as fluid from the gall bladder, and as there was hope of obtaining further specimens, the organism found was not submitted to differential tests with the various carbohydrates, etc., but the patient's blood gave an agglutinating reaction.

Specimen No. 2 was bile fluid draining from the gall bladder. Smears and cultures showed an organism in great numbers that morphologically and culturally was identical with *Bacillus typhosus*. The usual subcultures were made with colonies from the ordinary agar plate, with the result that the organism was found to be *Bacillus typhosus*. Thus a culture in taurocholate broth gave with glucose a slightly acid reaction; with lactose, saccharose, and dulcite, no acidity; with mannite, slight acidity; litmus milk gave a slight acidity, but no coagulation. The patient's blood gave an agglutinating reaction.

Specimen No. 3 was gall stones (5 in number, with several fragments). The whole stones were each about the size of an ordinary pea, pale yellow in colour, with nodular glistening surface. They were readily broken down, being of very soft consistence. Dissolved in hot absolute alcohol, allowed to recrystallize, and examined microscopically, they were found to be composed of cholesterin crystals and mucin. Two of the stones were washed well in absolute alcohol, and then in sterile water. They were then split open with a sterile knife, and smear preparations made from their centres. These were stained and examined for micro-organisms with negative results.

The more important points in this case might be summarized thus:

1. The presence of almost continuous constipation throughout the whole course of an ordinary typhoid illness.

2. The development of inflammation of the gall bladder during convalescence, about the eighth week of illness.

3. The development of peritonitis in connexion therewith, forming adhesions between the gall bladder and the colon.

4. The presence of *Bacillus typhosus* in pure culture, and

5. The presence of a few gall stones, consisting of cholesterin and mucin.

In conclusion, I wish to express my thanks to Dr. Peter Paterson, the Surgeon, and Dr. J. Hume Paterson, the Bacteriologist, who were associated with me in dealing with the case. Also to Dr. J. T. Wilson, the Medical Officer of Health for Lanarkshire, for much helpful advice, and for permission to publish my notes.

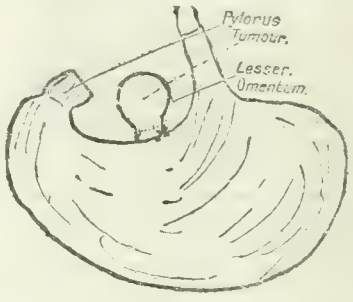
A CASE OF FIBROMYOMA OF THE STOMACH.

By DOUGLAS GORDON CHEYNE, M.B., Ch.B.,
RESIDENT MEDICAL OFFICER, ROYAL WATERLOO HOSPITAL.

THE rarity of the case, of which I here give a few notes, is my excuse for reporting it; taken in conjunction with the case which Mr. W. T. Green, F.R.C.S., published in the BRITISH MEDICAL JOURNAL of October 28th, 1911, its interest is increased

Though resembling Mr. Green's case in general, in detail it was quite different and also wholly unlike any of the other older cases, notes of which were published in the same article.

In the present case the patient appeared almost unaware of the presence of the tumour and made no complaints



therefore one may presume there were no symptoms. Indeed she sought advice in our out-patient department for an entirely different complaint, namely, prolapsus uteri, and it was only by the merest chance that the tumour was discovered at all. In the out-patient department the signs were suggestive of a subperitoneal fibroid detached, or an ovarian cyst with a long pedicle. It was at that time thought that the mass was movable in all directions, but subsequently this proved to be incorrect. She was accordingly admitted into our wards as a gynaecological case.

The patient was a married woman, aged 59, who had had three children and three miscarriages. She had been subject to bleeding from the rectum after defaecation for many years, and had been wearing a ring pessary on account of a prolapsed uterus. The menopause had occurred twelve years before. About a year ago she noticed a small lump in the abdomen, and fancied it had been getting bigger, but it had caused no symptom.

Condition on Admission.—She was a healthy, rather obese woman, with an excellent colour. Had no complaints. Teeth in good condition, tongue clean, appetite good. Bowels regular. Temperature 98°, pulse 80, respirations 25. In the epigastrium, in the middle line, is seen a distinct bulging, which appears to move a little upwards and downwards on respiration. On palpation a firm, smooth, rounded, elastic mass, about the size of a cricket ball, is felt. It permits of considerable movement in a lateral direction, being capable of being drawn over to either lumbar fossae, but does not allow movement in a vertical direction below the level of the umbilicus. It has evidently no connexion with the pelvis. The note obtained on percussion is absolutely flat. Auscultation of the stomach reveals no evidence of dilatation of that organ. Vaginal examination revealed signs of rectocele and cystocele, but otherwise nothing abnormal is found. There were well-marked external haemorrhoids, now in an inflamed condition, which probably accounts for the bleeding on defaecation. The urine was acid, specific gravity 1022; no albumen or sugar; some phosphates.

Diagnosis.—The case was seen soon after admission by Dr. Gow, who decided that, apart from the prolapse, it was not a gynaecological case, and referred it to the surgical side, where she was examined by Mr. Pendlebury, Dr. J. D. Mortimer and myself being present. On that occasion no trace of the tumour, which before had been so obvious, could be found. The next day it reappeared exactly as before, and was again seen by Mr. Pendlebury, who thought it might possibly be an omental cyst, or a pyloric tumour, and decided, subject to the approval of the patient and her friends, to do an exploratory operation. This was readily given, and an anaesthetic was administered on October 28th by Dr. J. D. Mortimer.

Operation.—An incision was made through the rectus muscles in the right hypochondriac region, and the peritoneal cavity opened. The tumour at once presented itself, and was about the size of a cricket ball, and growing from the lesser curvature of the stomach, between the layer of the lesser omentum. The rough sketch given may better explain this. There were no adhesions. There was a short pedicle, along which came the vessels supplying it, arising from the edge of the lesser curvature. An incision was made through the peritoneal surface round the base, and after ligaturing the pedicle the tumour was easily removed by blunt dissection. There was practically no haemorrhage. The cut peritoneal surfaces were united by Lembert sutures. The stomach and other abdominal viscera appeared to be perfectly normal. The abdominal wall was closed in layers. The operation lasted fifteen minutes. There was very little sickness or discomfort afterwards.

Result.—The convalescence was uneventful. Stitches were removed on the eleventh day, and the patient got up on the eighteenth day, and went home on the twentieth day.

The tumour excised weighed 4 oz. Its surface was smooth. It was softish in consistency, and at places almost cystic. The pathological report was as follows:

The tumour has the structure of a fibromyoma, composed of interlacing bundles of smooth muscle cells enclosed in a scanty stroma. It shows some areas of mucoid degeneration, and is in parts infiltrated with leucocytes. At one end of the tumour the appearance to the naked eye suggests the red degeneration so often seen in uterine fibromyoma. It appears to be an encapsuled growth, and is not malignant.

In conclusion, the disappearance of the tumour may be explained by its having been drawn underneath the liver while the stomach was very empty. Its origin, its lack of symptom, and its structure all combine to show how difficult may be the diagnosis of these cases, a difficulty which can only be overcome by an exploratory operation.

I wish to express to Mr. Pendlebury my best thanks for his kind permission to publish these notes.

A METHOD OF TREATING DAMAGED INTESTINE WITHOUT RESECTION.

WITH ILLUSTRATIVE CASES.

By H. BRUNTON ANGUS, M.S., F.R.C.S.,

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FREQUENTLY when doing emergency work one meets with intestine which is torn, gangrenous, or perforated over a limited area; or, after separating adhesions, free oozing is so persistent as to necessitate immediate treatment.

In many cases of this kind resection appears to be the only resource, but if the patient is old and feeble, exhausted, or suffering from severe shock, time is an important consideration, and the following simple method will be found most useful:

Where there is a perforation—for example, from a bullet wound—a suture or two of chromicized catgut passing through all the coats approximates the edges of the rent; then with Pagenstecher's thread the adjacent sides of the damaged area of intestine are brought together by means of Lembert suture—either continuous or interrupted—thus enclosing the weak spot.

At first sight it appears as though obstruction would result from the kinking of the bowel, but this complication has not ensued after repeated trials.

The method is so simple, and occupies so short a time as compared with resection and subsequent anastomosis, that I thought it desirable to publish it, together with one or two examples illustrating its application.

For the drawings illustrating Case II I am indebted to Mr. F. C. Pybus, Surgical Registrar at the Royal Victoria Infirmary, Newcastle-on-Tyne.

CASE I.—*Bullet Wounds of the Intestine and Bladder.*

A girl, aged 18 years, was admitted into the Royal Victoria Infirmary on June 25th, 1911, after having been shot with a small saloon rifle from behind. The accident occurred at 4 p.m.

On admission (at 5.15 p.m.) there was a small round wound on the left side of the buttock with inverted and slightly burnt edges. The pulse was 80; temperature, 98.4° F.

On examination there was a little abdominal tenderness and slight abdominal rigidity. Half an hour later she complained of severe abdominal pain, and vomited; the face was pale, the mucous membranes blanched, the pulse 120, feeble, and poor in volume, the pupils dilated. There was marked abdominal rigidity, with general tenderness. A catheter passed into the bladder evacuated a large quantity of bloody urine. On passing a probe into the wound and with a finger in the rectum, the probe was felt to pass into the pelvis.

Operation (at 6.45 p.m.).—Chloroform and open ether were administered, and a median laparotomy below the umbilicus revealed free intestinal contents flooding the whole peritoneal cavity. The intestines were examined, and six irregular perforations with protrusion of the mucous membrane were discovered—three together—in two loops of small intestine, which were lying in the pelvis. The edges of each aperture were drawn together by a single transverse suture passing through all the coats. The damaged areas were now shut off by suturing all around them, approximating the adjacent surfaces of each loop by means of Pagenstecher's thread. The peritoneal cavity was flushed with normal saline at a temperature of 110° F. No hole was felt or seen in the bladder from the peritoneal aspect, so the abdomen was closed, a large drainage tube inserted.

Subsequent Progress.—There was haematuria for a day or two. The patient had a little chest trouble, and the wound suppurated for a while. She made an excellent recovery.

July 22nd.—She left the hospital well; the scar is stretched.

Readmitted August 29th, and her abdominal wound was sutured in layers on account of commencing hernia. At the same time the bullet was extracted under the skin of the right side of the pubes. The wounds now healed by first intention, and the bowels act normally.

At the second operation the two damaged loops of gut were inspected, and not the slightest trouble was found at the site of operation. The intestinal contents apparently passed through quite freely, the gut on either side of the kink being equally distended.

CASE II.—*Bullet Wounds of the Small Intestine.*

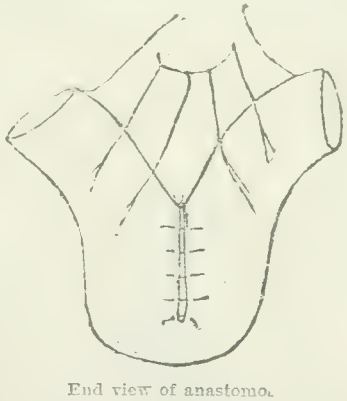
A young man, aged 25, was admitted into the Royal Victoria Infirmary on October 16th, 1911.

History.—When loading a small air-rifle, with the barrel directed towards his abdomen, the trigger went off and the bullet entered his belly. The accident happened at 10.45 a.m.

Operation at 6.30 p.m. (seven and three-quarter hours later). Median laparotomy performed. In the jejunum, 1 ft. away from the duodeno-jejunal junction, a loop of intestine was



found with two perforations. Two feet away from the duodeno-jejunal fold another loop of intestine showed three wounds, one large and jagged, and two smaller ones. The apertures were drawn together by sutures passing through all coats, then the damaged areas were covered by approximating the adjacent surfaces of the bowel by means of Pagenstecher's thread.



End view of anastomosis.

These sutures only penetrated peritoneal and muscular coats. The peritoneum was irrigated with normal saline, and the abdomen closed.

Result.—Uninterrupted recovery, bowels act normally. The patient returned seven weeks after the operation in perfect health. The accompanying drawings give a good idea of the nature of the injury, and shows the method of treatment.

CASE III.—*Intestinal Obstruction from Band with Adhesions.*

A woman, aged 58, was admitted into the Royal Victoria Infirmary on July 26th, 1910.

History.—She had had attacks of pain in the abdomen and vomiting since July 10th, bowels moved only by enemata. Five years previously she was in bed for ten months with pain and vomiting.

On Admission.—She looked ill and emaciated; temperature 100.2° F., pulse 120. There was no abdominal distension; tenderness present over the right iliac fossa and rigidity of the lower half of the right rectus. Nothing felt in pelvis.

Operation.—August 3rd, 1910. An oblique incision was made over the right iliac fossa; the appendix was found to be normal. Down in the right side of the pelvis the small bowel was obstructed by a band adherent to the pelvic brim. This was ligatured and the gut released. On pulling up the small intestine from the pelvis about 3 ft. of it presented thickened, oedematous, and hypertrophied walls. At one point a tight simple stricture was seen as if a band had compressed it. This narrow stricture was divided longitudinally and enteroplasty was done. Further along (about 4 in.) the gut presented a raw and profusely bleeding area, which had been adherent in the pelvis. The bleeding was so persistent that it was necessary to approximate the two sides of the bowel with Pagenstecher thread, so as to shut in the raw area. This decidedly kinked the bowel, so much so that the Surgical Registrar thought we should have further obstruction.

Result.—The patient got quite well and the bowels act normally.

SOLID CARBON DIOXIDE IN THE TREATMENT OF HAEMORRHOIDS.

BY H. GRAEME ANDERSON, M.B., CH.B., F.R.C.S.,

SURGICAL REGISTRAR AND PATHOLOGIST TO THE METROPOLITAN HOSPITAL; PATHOLOGIST TO ST. MARK'S HOSPITAL.

HAEMORRHOIDS and naevi have an almost identical histological structure, and, having had excellent results in the treatment of the latter by means of solid carbon dioxide, I determined to try it in the former. Both naevi and haemorrhoids show congeries of dilated vessels in a connective tissue basis; but the histological appearances of haemorrhoids differ much from each other, the differences depending on their duration and the irritation, mechanical and bacterial, to which they have been exposed. Thus it is difficult to demonstrate by means of the microscope any selective action on the part of the solid CO_2. Its action depends on its extremely low freezing point (– 79° C.). Morton has advanced the ingenious theory that the tissues are cooled and become rigid and the individual cells, with their semifluid contents, become hard and firm; now water and water-containing substances undergo expansion progressively as the temperature falls below 4° C., and this expansion following on rigidity causes fracture of the cell wall and injury to the nucleus. I have not examined haemorrhoidal tissue immediately after freezing, but have done so after fourteen days. Then the changes seen are inflammatory—effusion of blood, round cell infiltration, etc. In one case there was distinct ulceration where the snow had been applied.

The snow is easily prepared from the gas cylinder; a crayon ¾ in. in diameter is used. The patient is prepared in the ordinary way, gas is given, and the anaesthesia prolonged for a little by means of ether, the whole operation being over in from three to five minutes. The sphincters are lightly stretched, and the piles brought down by means of pressure forceps. The crayon is then applied with fairly firm pressure for twenty seconds to each haemorrhoid in turn, white saucer-like depressions being produced where the crayon has been applied. The frozen tissues are returned within the anus, and, as no bleeding occurs, a tube is not required, but a simple gauze dressing completes the procedure. No pain should be experienced; the bowels can be opened on the third day and the patient allowed up after that time.

I have now treated 5 cases of piles in this way.

CASE I.—L. L., aged 28, tailor, admitted to Metropolitan Hospital August 30th, 1910, with haemorrhoids of thirteen years' duration. He had haemorrhage, some prolapse, slight pain and constipation. On September 4th solid CO_2 was applied to four uncomplicated haemorrhoids—twenty seconds to each. He had no pain, slept well afterwards, and had no difficulty with micturition. Bowels were opened on the third day, and he was allowed up at the end of a week. The anal canal was examined each day and felt quite smooth. He was dismissed on September 17th and was seen again in the out-patient department, when he was free from symptoms.

CASE II.—H. K., aged 20, tailor, admitted to Metropolitan Hospital on September 25th, 1910, with haemorrhoids of ten months' duration. He had haemorrhage at intervals, slight protrusion, constipation, but no pain. On September 27th three small uncomplicated haemorrhoids were treated by CO_2, as in Case I. He had no pain, but the catheter had to be used for a day or two. He was dismissed on October 8th and seen again in December, when he was free from symptoms.

CASE III.—A. M., aged 29, housewife, admitted to Metropolitan Hospital on September 15th with haemorrhoids of twelve years' duration. She had prolapse, haemorrhage, and pain. On September 16th solid CO_2 was applied to three large internal haemorrhoids for twenty seconds each. There was also present a ring of oedematous external piles. She had no pain afterwards, slept well, and did not require the catheter. The bowels acted on the fourth day, and no prolapse occurred, but on rectal examination the haemorrhoids could be felt as before. All went well for another week, and then prolapse again occurred. On September 30th I did a ligature operation and examined the haemorrhoidal tissue microscopically, but, as stated before, the changes were those of an inflammatory nature.

CASE IV.—Female, admitted to St. Mark's Hospital with haemorrhoids of some years' duration. October 12th, 1910, three large internal haemorrhoids were treated for thirty seconds each with solid CO_2. But the haemorrhoids prolapsed again on the third day, and they were removed by Sir F. C. Wallis a week later by the Whitehead method. I cut sections of the tissue, which showed superficial ulceration where the snow had been applied.

CASE V.—Male, admitted to St. Mark's Hospital suffering from haemorrhoids. He had prolapse and haemorrhage. Three uncomplicated piles were found, and I applied snow to the two lateral piles for twenty seconds each whilst Mr. Gordon Watson, who had charge of the case, ligatured the perineal pile. The patient had no further prolapse or haemorrhage, and was dismissed well.

This treatment by means of solid CO_2 is only suitable for small, uncomplicated internal haemorrhoids, as in Cases I and II. With the good results obtained in the first two cases I believed I had found a simple remedy for the cure of piles, but, as the other cases show, it is only a remedy to be applied in selected cases.

A CASE OF RUPTURED LIVER AND RIGHT KIDNEY: OPERATION: RECOVERY.

BY

GATHORNE R. GIRDLESTONE, M.B.OXON., F.R.C.S.,

OSWESTRY.

ON August 26th, 1911, Thomas D., aged 14, received a severe blow in the right loin from a falling rope bridge at a quarry. He was bending forward when struck.

He was brought up four miles to Oswestry, and was seen by Dr. W. A. Lewis, who sent him straight to the Cottage Hospital, where I saw him at once. His appearance showed extreme shock; his pulse was only 76, small and regular; his pupils widely dilated. There was no external bruising, but his right loin and the right side of the abdomen were very tender and rigid. No abdominal dullness was detected. He was made warm in bed and closely watched.

Two hours later his colour was better, his pulse 88, no change in local signs was discovered. An hour later pulse 96, and shortly after it rose to 104. Exploration was decided on, although no other change was detected.

First Operation.

Chloroform was administered by my partner, Dr. J. H. Crofton. On opening the abdomen through the upper outer part of the right rectus sheath, much free blood and a loose triangular piece of liver about the size of a walnut presented. The anterior part of the liver was intact, and I did not at the first moment find the liver rupture, but on passing my hand into the right loin I felt the kidney with its inner border split and ragged. I then found that the liver in relation with the upper pole of the kidney was widely ruptured. There was a rapid flow of blood from this region, and the boy's condition was becoming very bad. I slightly enlarged my incision by cutting transversely outwards, rapidly shelled out the kidney, from which the whole pelvis, ureter, and vessels had been completely torn away, felt for the renal vessels and put a long-handled clamp on them, thus stopping all the haemorrhage except a slight oozing. I put a large gauze plug in the liver tear.

By this time the patient's collapse was extreme, and I had to cover the wound temporarily and infuse a pint of saline into the median basilic vein, leaving the cannula in place. The patient's condition was still extremely bad; the only hope lay in getting him back to bed as soon as possible. I left the clamp on the renal vessels and sewed the wound up with four stitches, finally infusing another pint of saline.

After-History.

The boy was returned to bed with little hope; his colour was ghastly, his breathing feeble and gasping; his pulse was 110, very soft, but much improved by the saline infusion. I did not give him more saline, as I feared pulmonary oedema or exudation. As a last resort I gave him strychnine mjv, ether mv, hypodermically. He was devotedly nursed. Strychnine mij, ether mij, was given again in four hours, and half a pint of saline was given per rectum later as often as he would retain it.

Next morning he was a little better, but extremely weak; pulse 108. In view of the fact that I had not been able to sponge out the blood, which must have been contaminated with renal and hepatic exudation, I feared peritonitis, so gave him calomel gr. v, followed by mag. sulph. 3j hourly; an enema at 4 p.m. was without result. He had further saline rectal injections, and in the night strychnine and ether were again given. Next morning the calomel and mag. sulph. were repeated with good result.

On August 29th he seemed better; the bowels were opened again; the general condition of the abdomen was good. The exudation, which had been very copious, was less.

On August 30th he was better; the pulse varied from 86 to 92.

Second Operation.

C.E. was given by Dr. Crofton. I reopened the wound, sponged out sero-sanguineous fluid from the loin, then, with my finger on the vessels, gently removed the clamp; no bleeding occurred. I replugged the liver rent, put a cigarette drain down to the region, and sutured the wound in layers with silk and, for the skin, salmon gut. The peritoneum had retracted far, and was very difficult to bring together.

The general peritoneal cavity had not been shut off by adhesions: it was clean and dry; the extravasated blood and fluid had entirely disappeared: there was no peritonitis.

The patient stood the second operation most satisfactorily. The sinus healed in a few weeks, and the boy left the hospital on October 25th.

I saw him on December 7th. He was strong and well; the scar was perfectly sound.

The following points seem to me very striking:

1. The severity of the injury: (*a*) The kidney was ruptured completely away from its pelvis and vessels and partially split: (*b*) the liver was extensively torn, and a portion completely detached.

2. The fact that the renal vessels were only bleeding comparatively slowly, suggesting wonderfully efficient reaction.

3. The slowness of the pulse at the time of admission and the slowness of its rise. I think that this may be accounted for by rupture of the suprarenal with absorption of its secretion.

4. The capability and activity of the peritoneum in dealing with a considerable quantity of blood and exudation so completely in four days.

ON ACETYL-SALICYLIC ACID, WITH SPECIAL REFERENCE TO ITS VALUE IN TYPHOID FEVER.

By GRAHAM CHAMBERS, B.A., M.B.,

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ACETYL-SALICYLIC acid is formed from salicylic acid,

$$C_6H_4\begin{matrix}OH\\COOH,\end{matrix}$$

by replacing the hydrogen atom of the hydroxyl group by the radicle acetyl, CH_3CO. The chemical formula of acetyl-salicylic acid is therefore

$$C_6H_4\begin{matrix}OOCCH_3\\COOH.\end{matrix}$$

The aspirin is protected.

Many of the physical and chemical properties of acetyl-salicylic acid are very similar to those of salicylic acid. Like the latter, it is a solid, crystalline, very slightly soluble in water, and freely soluble in ether and alcohol. It also resembles salicylic acid in being a monobasic acid, but differs from the latter in being less stable. For instance, it is decomposed by boiling with an alkali or a mineral acid into a salicylate or salicylic acid. Martindale and Westcott state that heating the drug in presence of moisture decomposes it into salicylic acid, and that the solution in water effected by means of sodium bicarbonate contains sodium salicylate and sodium acetate. They also state that when the drug is administered by the mouth it passes unchanged through the stomach, decomposing only on reaching the alkaline intestinal juices. Cushny holds a similar view, for he states that the systemic action of the drug is dependent upon its decomposition in the intestine into sodium salicylate. According to these authors, therefore, the actions of salicylic acid and acetyl-salicylic acid, administered by the mouth, are the same, except with regard to their local actions in the stomach. This, I believe, is incorrect; and I shall report observations in this paper which show that the pharmacological action of the two drugs, after absorption, are not the same, and that acetyl-salicylic acid is absorbed, at least in part, before decomposition occurs. Solutions of the drug, which should be similar to those which occur after the drug is administered by the mouth, were tested for salicylic acid, making use of a solution of ferric chloride, which gives a violet colour with salicylic acid, but not with acetyl-salicylic acid. This is the usual qualitative test for a salicylic acid, and it was used, in addition, to determine quantitatively, by a colorimetric method, the amount of salicylic acid or sodium salicylate formed from acetyl-salicylic acid.

Summary of Chemical Experiments.

1. A solution of the drug in cold water gives no violet colour with ferric chloride.

2. A solution of the drug in boiling water gives a violet colour with ferric chloride.

3. If one dissolves the drug in cold water, and then boils, the intensity of the ferric chloride reaction increases for several minutes.

4. The drug, dissolved in water, at the temperature of the body, gradually decomposes, the amount decomposed varying with the length of time for at least twelve hours. A colorimetric method showed that the amount of acetyl-salicylic acid decomposed in twelve hours was four times greater than that in three, and that very little was decomposed in half an hour.

5. The drug dissolves in a solution of baking soda or in a 1 per cent. solution of sodium carbonate without decomposing into a salicylate. If either of these solutions is kept at the temperature of the body decomposition gradually occurs, but very little is decomposed at the end of half an hour.

6. The drug dissolves in a 0.2 per cent. solution of hydrochloric acid without decomposition. If the solution is kept at the temperature of the body decomposition gradually takes place.

These experiments indicated that the decomposition of acetyl-salicylic acid in a medium such as the gastric or intestinal juice is a gradual process, and that thirty to forty minutes after the drug is exhibited, at which time its pharmacological action is frequently evident, very little of the drug is decomposed. I believe that this is true, because I can show that the analgesic and antipyretic actions of acetyl-salicylic acid are more potent than those of salicylic acid, which could not be the case if acetyl-salicylic acid were decomposed by the intestinal juice, as Martindale and Westcott, Cushny, and others state. I should judge, therefore, that as a rule the greater part of acetyl-salicylic acid is absorbed undecomposed.

Pharmacology.

The principal difference in the pharmacological action of the two drugs—salicylic acid and acetyl-salicylic acid—is due probably to the presence in the latter of the radicle acetyl, because the introduction of this group into a compound as a rule augments both the analgesic and antipyretic actions. For instance, acetanilide, which is the acetyl derivative of aniline, and acet-phenetidine (phenacetine), which is the acetyl derivative of phenetidine, are more analgesic and antipyretic in character than aniline and phenetidine respectively.

The Analgesic Action.

Nowadays the analgesic property of acetyl-salicylic acid is fully recognized, and it is extensively used in the relief of pain. It has the advantage over acetanilide, antipyrin, and phenacetine of being less injurious to the blood and other tissues of the body.

The principal indications for the exhibition of acetyl-salicylic acid as an analgesic are the relief of the milder forms of pain, such as that of sore throat, tonsillitis, myalgia, pleurisy, etc. My surgical colleagues tell me that it is very valuable in the relief of pain of diseases of bone and joints, and I have found it, in doses of 5 grains every three hours, of considerable value in the relief of pain of malignant disease.

The Antipyretic Action.

Salicylic acid may be said to act as an antipyretic in two ways, namely, by its action as an internal antiseptic, and by its action on the heat centres, sweat apparatus and other parts which enter into the regulation of the temperature of the body. In acute rheumatism the lowering of the temperature after the exhibition of large doses of salicylic acid is probably partly due to its antiseptic action, because in many cases there is an abrupt fall of temperature to the normal or subnormal, very similar to that of a crisis of an acute infection; usually this is followed by very little rise of temperature after the administration of the drug is discontinued. On the other hand, there are cases of fever in which the administration of salicylic acid produces sweating and a transient fall in the temperature, which, as soon as the drug is discontinued, rises to its former height. The antipyretic action of salicylic acid in this kind of case is no doubt dependent on the action of the drug on the heat-regulating apparatus.

Acetyl-salicylic acid also may be said to act as an antipyretic in two ways, similar to those of salicylic acid; but it is usually not administered in doses sufficient to exercise its internal antiseptic action, and the antipyretic action of the drug must therefore be due to the action of the drug on the heat-regulating apparatus (sweat glands, heat centres, etc.), which property is present to a much greater extent than in the case of salicylic acid.

The following observations afford evidence that acetyl-salicylic acid is a more potent antipyretic than salicylic acid:

To 10 patients with typhoid fever of moderate severity we gave 6 grains of sodium salicylate every four hours, and carefully observed the course of the temperature, etc. The skin did not become moist, and we were unable to detect any result from the administration of the drug. After five days the salicylate was replaced by acetyl-salicylic acid exhibited in 3-grain doses every four hours. The result of the change was almost immediately apparent. The skin became moist, and the temperature was lowered; the degree of sweating was variable. In some cases it was very slight, while in others it was profuse. In cases in which there was little sign of action the dose was increased to 4 or 5 grains.

Acetyl-salicylic Acid in Typhoid Fever.

In the prognosis of typhoid fever the course of the fever is an important consideration. A very high temperature, say above 104° F. every evening, maintained for one or two weeks, and unaccompanied by considerable morning remissions, should be considered a danger signal. On the other hand, a low or comparatively low course suggests a favourable outcome. Indeed, in my experience, the mortality in the latter cases has been practically *nil*. Again, most physicians agree that in the treatment of typhoid fever it is essential to keep the fever under control, because high fever in itself, irrespective of its cause, is harmful. The question whether cold baths or cold spongings are superior to antipyretic drugs, etc., cannot be discussed here, but in private practice, and sometimes in a hospital, either from want of proper facilities or insufficient aid in nursing, it not infrequently happens that hydrotherapeutic measures prove insufficient to control the fever. The question then arises whether it is better to allow the fever to run its high course or call to use antipyretic drugs. Two years ago I decided in favour of the latter view, because it was found that the exhibition of acetyl-salicylic acid in small doses, 3 to 5 grains every four hours, combined with tepid or hot sponging, was generally an effective means of lowering the temperature. The exhibition of the drug in this dosage to typhoid patients does not alter the blood pressure or produce any appreciable ill effects. The skin remains moist, and in some cases there is profuse sweating. The greatest effect on the temperature is obtained by sponging the patient about half an hour after the administration of a dose of the drug, in this way combining the antipyretic actions of the medicinal and hydrotherapeutic agents. It is probable that other beneficial effects are derived from the exhibition of acetyl-salicylic acid. The increase in the amount of perspiration should diminish the toxaemia, although it is very difficult to estimate how much endotoxin is excreted with the sweat. As a clinical observation I may mention that the patients were all of the opinion that they felt better during a moderate degree of perspiration, and to me they seemed clearer mentally and more willing to carry out other parts of the treatment, such as the drinking of water, etc.

I have been especially impressed with the marked diaphoretic and antipyretic actions of the drug. Three grains every four hours had frequently considerable effect, and in most cases 5 grains at the same periods produced profuse diaphoresis. In only one case were we compelled to increase the dose above 5 grains. In two cases—one treated during September, 1909, and the other during October, 1910—5 grains every four hours appeared almost too active, as the temperature charts show a fall in temperature of 9° and 10° respectively during the exhibition of the drug; there was no untoward effect during the fall of the temperature, but in the case of antipyretics which act as acetyl-salicylic acid does, one does not like to see such precipitous action. In giving acetyl-salicylic acid to typhoid patients, it is desirable, therefore, to commence with a dosage of 3 grains every four hours; if this should not be sufficient, the quantity should be gradually increased until the desired effect has been obtained. The reason why acetyl-salicylic acid is more effective as an antipyretic in typhoid fever than in most other fevers is, probably, that the fever of typhoid fever is frequently labile in character. This theory also affords an explanation of the undoubted value of hydrotherapy in the treatment of the disease, because it is found that the more readily the temperature can be reduced by a bath or sponge the better the prognosis.

The Mode of Administration.

When a drug is given dissolved in water, its action is usually quickly manifest, because it almost immediately passes into the intestine and is absorbed. This principle is of special importance to the exhibition of acetyl-salicylic acid, because the shorter the stay in the gastro-intestinal tract the less the decomposition of the drug. The drug should therefore never be administered in tablet form, but in solution. It is only slightly soluble in cold water; it is freely soluble in water containing sodium bicarbonate; the application of heat to a solution in water tends to decompose the drug.

PASSAGE OF A CAST OF THE BLADDER PER URETHRAM.

BY

JEHAN M. BARLET, M.D.BRUX., M.R.C.S., L.R.C.P.

THE patient in the following case, a married woman aged 26, first sent for me on November 2nd, 1911, and stated that for two or three days she had had severe pains in the lower part of the abdomen, which were like labour pains; she had also been losing large quantities of blood, with clots, and had passed a large mass, which she said was like a piece of flesh.

State on Examination.

Bimanually, the uterus was found to be enlarged to about the size of a three months pregnancy; the os was patulous, and admitted the tip of the index finger, and she was losing freely.

Treatment.

She stated that her periods had been perfectly regular, but thinking she had had a partial miscarriage, and that the placenta had been retained, I dilated the cervix with Hegar's dilators to No. 16, and I then inserted my finger into the uterus, and, to my surprise, I came upon a fetus enclosed in the membranes. This being the case, I did not rupture the membranes, but after washing out the vagina with cyllin, I plugged the vagina with iodoform gauze. The latter I removed the next day.

Result.

The patient went on exceedingly well; all the pains and haemorrhage ceased. No miscarriage took place, and on November 12th she got up perfectly well.

Further Development.

Next day, however, she complained of pain on passing water, and also of frequency of micturition—this occurring about every twenty minutes. In consequence, I put her on a mixture containing potass. bicarb., urotropine, tinct. belladonna, syr. limonis and chloroform, which did not improve her condition, except that the pains diminished somewhat.

On November 15th she got up at 2 a.m. to pass her water, and found that she was unable to do so, though she had a pressing desire. She continued to strain for twenty minutes, then had intense pain, and finally passed a fair quantity of water, together with a good deal of blood, and a mass which was seemingly rolled up, and in circumference about the size of a thumb.

On examining this mass I found it to be gritty, and, on closer investigation, came to the conclusion that it was the mucous membrane of the bladder in which were embedded numberless calculi of small size. I sent the specimen to be examined microscopically, and received the following report:

The specimen was a sloughy-looking thick membrane, with irregular corrugated surface, roughly triangular in shape, measuring 3½ in. across and 3 in. in the other direction.

The whole was permeated by concretions of varying size, and composed chiefly of phosphates and urates.

The reaction to litmus was strongly alkaline.

The specimen had to be decalcified in order to obtain a section.

Microscopically it is seen to be composed of very necrotic tissue—so necrotic, in fact, that no cell elements can be recognized.

The membrane appears, however, to be composed of two layers, one of which was probably muscular.

Scattered throughout are small spaces which look at first like tubular glands from which the epithelium has been shed, but on closer inspection it seems more probable that they are merely spaces occupied by crystals of salts which have been dissolved out in the process of decalcification.

There is no histological indication as to the origin of this cast, but in view of the nature of the mineral deposits, the configuration of the specimen (bladder), and the history of the case, there can be little doubt that it comes from the bladder.

The report on the urine was as follows:

Reaction, acid; specific gravity, 1015; albumen, a fair amount; blood, a small amount; sugar, absent.

Microscopy of centrifugalized deposit:

This contains a small amount of pus and blood, with some young vesical cells and granulation cells.

No renal elements have been found.

Bacteria are not very numerous, and are mixed, but consist mainly of Gram-staining bacilli of two kinds, and unusual in the bladder.

There are also some staphylococci of large size.

The *B. coli communis* is not present.

I venture to publish this case owing to two unusual features about it: first, that a dilatation of the cervix sufficient to allow of the index finger being introduced into the uterus was not followed by a miscarriage: and secondly, the circumstance of a passage of a cast of the bladder studded with calculi.

I have been unable to find any literature bearing upon the latter fact, and should be glad if any readers could supply a reason for its occurrence.

I have had the specimen mounted, and shall be very pleased to show it to any one who desires to see it.

I may add that the patient made a good recovery, with the exception that for a little time she experienced inability to hold her water.

UNDER the will of the late Mr. James Law Perrin, a tobacco manufacturer of Bristol, the Royal Ear Hospital, Soho, and the General Hospital, the Royal Infirmary, the Hospital for Women, the Eye Hospital, and the Dispensary in Bristol, as also the Swansea Hospital, each receives a bequest of £500.

THE receipts for 1911 of the Metropolitan Hospital Saturday Fund exceeded by £2,371 the amount collected in any previous year, reaching a total of £37,055. This sum does not include the amounts received by the Distribution and Surgical Appliance Committees in respect of payments made towards the cost of the benefits supplied. These amounted to £8,456, so that the total for the year was £45,521, as against £42,229 in 1910. The number of benefits granted rose correspondingly, reaching 63,361, as compared with 59,737 in the preceding twelve months.

THE CORRECTION OF ERRORS OF REFRACTION FOR MICROSCOPE WORK.

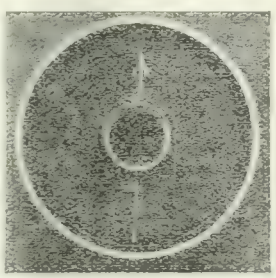
BY

LIEUT.-COL. SIR WILLIAM B. LEISHMAN, M.B., F.R.S., R.A.M.C.,

PROFESSOR OF PATHOLOGY, ROYAL army MEDICAL COLLEGE.

THE eyestrain which not infrequently results from prolonged use of the microscope, especially when working with high powers and artificial light, is often so great as to cause considerable discomfort and headache, and may even lead to the abandonment of microscope work, except for brief examinations. In many cases this trouble is caused by errors of refraction, more particularly by some degree of astigmatism. If this astigmatism is considerable, the microscopist is practically certain, in these days, to be aware of it, and to possess glasses which correct his particular error, but if it is small it may never be detected until advancing years lead him to consult an oculist as to his first pair of presbyopic glasses. In either case, when he attempts to work at his microscope with spectacles or pince-nez *in situ*, he is certain to find them so uncomfortable and inconvenient that, sooner or later, he discards them, and trusts once more to his unaided vision and his powers of accommodation, with the frequent result that continuous work becomes increasingly difficult and the effects of eyestrain more conspicuous.

The small device here illustrated has been designed with a view to correcting the error of refraction without employing spectacles. It is so obvious and simple that it is very probable that something similar may have been described and used long ere this, but, since the writer has been unable to discover that this is the case, it appears worth while, for the sake of others similarly situated, to describe the ocular cap which he has had made for his own use. The increased definition which has resulted from the use of this cap is unmistakable, and there has also been a marked lessening of the feeling of strain which used to result from long hours of high-power work.



No lengthy description is needed, the principle being merely that the lens necessary to correct the error of refraction of the eye commonly used is fitted accurately into the centre of an aluminium carrier, so constructed as to form a cap which may be placed over the microscope ocular. In the case of a lens with cylindrical correction for astigmatic error the vertical meridian is permanently marked on the carrier by means of an arrow, as shown in the illustration. As most workers employ oculars of the same maker, the external diameter of which is approximately the same, the cap may be made to fit them all by arranging to have the internal diameter adjusted to fit the largest ocular used.

The photograph has been taken from the cap made to the writer's design by Messrs. Cary and Co., 7, Pall Mall.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

TORTICOLLIS IN ACUTE RHEUMATISM.

R. T., aged 12, was admitted under my care on December 14th, 1911, with acute rheumatism. He had been ill five weeks, and the joint trouble, which began in the left ankle, had spread to the knees, shoulders and elbows. A month before admission his neck became twisted and remained so; when we saw him his head was bent towards the right shoulder, the chin being pointed to the left. He cried with pain when attempts were made to straighten it. In addition there was endocarditis with a double aortic murmur, but the boy had never been ill before in his life. I ordered him to lie flat on the bed without any pillows; his neck was

smeared with methyl-salicylate ointment and he was given small doses of sodium salicylate. Two days later the spasm was almost gone, and at the present date (January 8th) he has quite recovered from everything except the heart lesion.

In spite of more than forty years' experience I have never before met with this complication, yet so strange are coincidences that there is another case of acute rheumatism at the present time in the General Hospital who presents the same symptom. It is not as a rule mentioned in our textbooks or encyclopaedias of medicine, and the only reference to it which I have been able to find is in the textbook of the *Practice of Medicine* by Dr. James M. Anders of Philadelphia. He says on page 1104: "In a case of my own, a man of 23, it followed an attack of acute articular rheumatism and was associated with high arterial tension"; this is under the heading of Torticollis, and so far as I have been able to discover it is not usually included among the symptoms or complications of acute rheumatism.

Birmingham. ROBERT SAUNDBY.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

ROYAL NAVAL HOSPITAL, PLYMOUTH.

INTUSSUSCEPTION CAUSED BY CANCER OF INTESTINE.

(Under the care of Deputy Surgeon-General W. EAMES, R.N.)

MR. J. C., aged 31, artificer engineer, was admitted into hospital on July 19th, 1911, with a history of having been placed on the sick list on July 5th, 1911, suffering from diarrhoea, colic, and tenesmus, which, despite medicinal and dietetic treatment, was only partially relieved. There were some blood clots per anum.

The patient complained of tenderness in the left iliac fossa, where on examination the parietes were resistant and there was dullness on percussion. A sausage swelling was found in this region, evidently in connexion with the bowel. Above this a mass of faeces had collected; this latter was relieved by an enema, but the tumour and tenderness continued, and the motions continued liquid and scanty, with some tenesmus.

The patient's temperature had reached 100° F. at night for the first week, and he complained of flatulence with occasional vomiting after taking food.

On admission the patient looked ill and wasted, and complained of the symptoms noted above, and on examination of the abdomen a well defined indurated but movable tumour could be felt on a level with, but to the inner side of, the left anterior superior spine of the ilium; the tumour was tender to the touch. Some diarrhoea, stools mucoid with some blood clots.

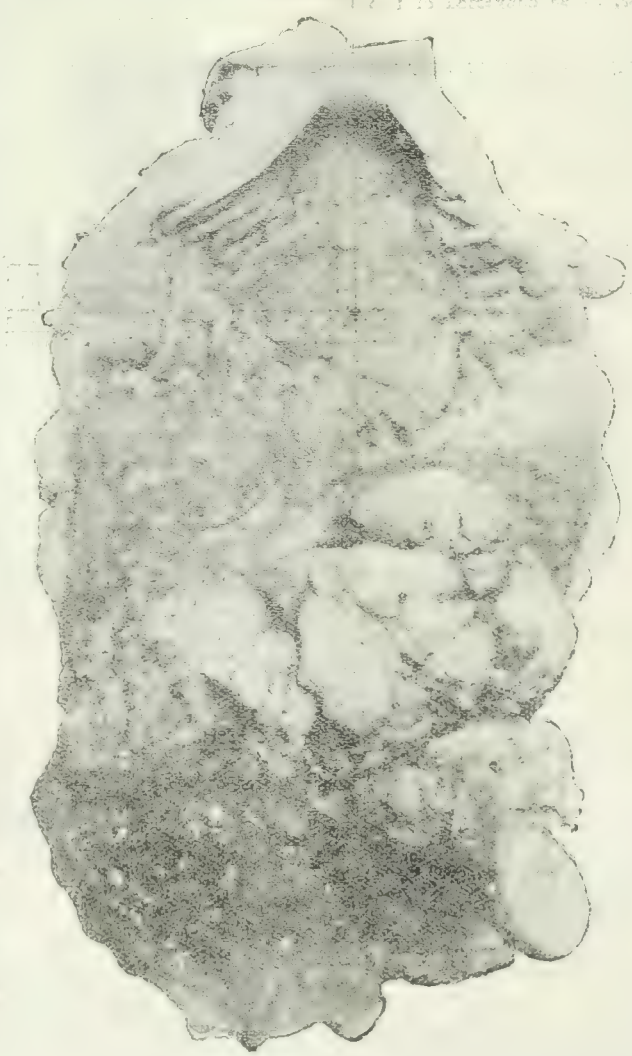
The patient was given morphine gr. ¼ hypodermically, a warm solution of boric acid administered as an enema morning and evening, and pil. opii gr. ¼ ter in die.

On July 22nd the patient was placed under gas and ether and a rectal examination made, with a negative result. No mass could be reached nor pelvic glands felt.

On July 24th, with the assistance of Surgeon L. Warren I performed laparotomy through the outer edge of the left rectus, and on a level with the anterior superior spine of the ilium.

On examination of the intestine, an indurated and sausage-shaped mass was felt in the descending colon, about 4 inches above the sigmoid flexure, which on being brought to the surface was found to be dilated and thickened intestine, containing in its lumen a large indurated and lobular mass which had caused a very firm intussusception collar of bowel involved, being very congested and softened, and was very easily perforated by the finger in attempting to stretch the adhesions.

Intestinal clamps were then placed on the bowel above and below the mass, and the intervening portion of bowel with its contents to the extent of 6 inches removed by resection, and end-to-end junction made. The abdominal wall was closed by through-and-through sutures of silkworm gut, and a large drainage tube inserted in the lower angle of the wound.



The patient stood the operation fairly well and was treated directly after operation by subcutaneous saline infusion until in all 66 ounces had been absorbed.

On examination of the intestine removed, there was found to be a firmly fixed intussusception caused by a large indurated papillomatous mass, growing with a broad base from the mucous and submucous coat of the bowel, which is shown in the photograph herewith attached. Microscopic section shows well marked columnar-celled carcinoma.

With the exception of being troubled with flatulence (which was relieved by the flatus tube) the subsequent progress of the case has been most satisfactory.

On July 28th an enema of ol. oliv. was administered and mist. alba 1 oz. every four hours, resulting in the bowels being opened three times without pain, the stools being solid and without any trace of blood.

The abdominal wound has healed, and the patient is steadily advancing in health and strength.

The accompanying photograph was kindly taken for me by sick berth attendant Davies, a member of the operating theatre staff of this hospital.

Reports of Societies.

ROYAL SOCIETY OF MEDICINE.

SURGICAL SECTION.

Tuesday, January 9th, 1912.

Mr. CLINTON T. DENT, President, in the Chair.

The Talma-Morison Operation.

MR. RUTHERFORD MORISON read a paper on the Talma-Morison operation, which will be found at page 113 of this issue.

In the discussion which followed, Dr. HALE WHITE said that for the most part he was in agreement with the views expressed, and more especially in regard to the statement that suitable cases were rare. The six cases that he himself could recall were all exceptional ones. Cirrhosis, he thought, was caused by some poison—usually alcohol—and the condition could be compared to that of granular kidney. Some signs present were not due to the direct effect of the cirrhosis—for example, swelling of the feet, which was not due to pressure, the rise of temperature, and certain nervous symptoms. In fact, the patients usually died in a state of coma. Half the cases were diagnosed in the *post-mortem* room, and of the others less than a half had cirrhosis. Ascites often developed very rapidly, even with a slight degree of cirrhosis, and these cases soon died and were unfavourable for surgical treatment. In short, owing to the occurrence of toxic symptoms, and the fact that not above a fourth of all cases of cirrhosis showed ascites, the number of cases suitable for operation was extremely small. In uncomplicated cases of cirrhosis death supervened in two months on an average; and if the patient survived several tappings, the ascites was due to chronic peritonitis. An operation producing a collateral circulation was liable to prove fatal in much the same way as the formation of an Eck's fistula in dogs. In view of the present diminution in the amount of alcohol consumed and the rarity of suitable cases, the operation, he thought, would die out.

Mr. W. G. SPENCER thought such an event extremely desirable, as in most cases the operation was partly exploratory in nature. He recalled several cases in which the diagnosis proved erroneous and the patient was cured either of papillomatous ovaries, an adherent appendix, pelvic peritonitis, or chronic peritonitis produced by an old duodenal ulcer. Still, hypertrophic cases remained cured of their ascites for a long time. On Dr. de Havilland Hall's advice he performed the Talma-Morison operation five years previously on a case of hypertrophic cirrhosis and there had been no recurrence, and a patient of Dr. Murrell's with Banti's disease had been relieved for eighteen months. In some intractable cases he found the Talma-Morison operation insufficient, and amongst the operations he had performed was that of inserting a glass spool between the peritoneum and the abdominal parietes.

Dr. ROLLESTON was in favour of the operation in selected cases, though the amount of collateral circulation it produced was very small when compared with that produced by Nature. The good results obtained were due to the collateral circulation carrying off the excess of blood from the liver, thus allowing the liver cells to hypertrophy and to continue their normal function.

Dr. ESSEX WYNTER deemed most of the symptoms of cirrhosis to be due to the fluid starvation of the body, as all the fluids were rapidly absorbed and turned out as ascites. The toxic element might be reduced by the French method of withdrawing a portion of the ascitic fluid and injecting it under the skin—the procedure known as auto-serotherapy. The Talma-Morison operation differed from those that had been performed on his cases by Mr. Sampson Handley, in that it reduced the congestion instead of draining the ascites. The main difficulty experienced was that the endothelium proliferated so rapidly that the cavity into which the fluid drained became simply a peritoneal pocket.

Mr. SAMPSON HANDLEY suggested that the quickest way of determining what was the best operation would be for each surgeon to practise his own method and no other. He agreed with Dr. Hale White that the drainage operations were of no use in the acute cases. The success obtained by the Talma-Morison operation was probably due to the drainage taking place along the insertion of the omentum. He himself effected drainage either by the femoral canal or by the insertion of long silk strands. He had performed the latter operation with success two years ago; he had also turned the saphenous vein into the abdominal cavity, but he valves proved to be insufficiently competent, and the patient bled into the peritoneal cavity.

Dr. PARKES WEBER said his attention had been drawn to the subject by a case examined *post mortem* in which the ascites had been cured by frequent tapping and the formation of numerous adhesions. Four of his cases had been operated on by Mr. Michels with complete success. With regard to the question of operative treatment other than simple tapping, he divided cases of cirrhosis into two classes. The first contained patients who for some reason (for instance, the presence of perihepatitis, perisplenitis, and extreme spontaneous omental adhesions) had the collateral circulation well established, and did not readily develop ascites, but were specially liable to haematemesis from dilated oesophageal or gastric veins, the liver was generally decidedly enlarged in this group of cases. The second class contained patients with a poor collateral circulation who developed ascites early. The main object of omentopexy should be to convert Class 1 into Class 2. In many cases there was no ground for subdividing them into those due to cirrhosis and those due to chronic localized peritonitis, because many cases of cirrhosis had chronic localized peritonitis.

Mr. L. A. DUNN (on behalf of Dr. Sinclair White) recorded 19 cases in which the Talma-Morison operation had been performed; there were 5 deaths (3 from anuria, 1 from haemorrhage, and 1 from peritonitis). Of the remaining 14 cases 3 died within twelve months and 2 others required tapping before a cure was effected.

Mr. WARING said the operation he performed for ascites was that of dissecting out a pocket between the rectus and its sheath and then inserting a large portion of the omentum into it and stitching the omentum down in a few places so as not to constrict it. Ascites was usually the terminal symptom, and the operation was only justifiable if the patient could bear it.

Mr. G. H. MAKINS mentioned that of the 5 cases in which he had operated 4 had been tapped several times before. The operations that he performed were those of omentopexy and of stitching the liver to the diaphragm. In his opinion the operation was justifiable in suitable cases.

Mr. RUTHERFORD MORISON, in reply, stated that his operation originated from a discussion that he had with Dr. Drummond in the *post-mortem* room. During it Dr. Drummond opined that the ascites was due to mechanical obstruction, and he (Mr. Rutherford Morison) said if that were the case he could cure the condition by operation.

LIVERPOOL MEDICAL INSTITUTION.

Thursday, January 11th, 1912.

Dr. T. R. BRADSHAW, President, in the Chair.

Heath's Operation.

MR. ADAIR DIGHTON, in a note on the rational treatment of chronic suppurative otitis media, described such treatment as immediate performance of Heath's conservative mastoid operation in every case which was uncomplicated by labyrinthine suppuration when first seen. Only when the labyrinth was suppurating was any form of radical operation justifiable. He had found that when the cases were treated by Heath's method the hearing was restored almost to normal in as many as 75 per cent., and reported cases in proof of this. In one case the patient, at first unable to hear the watch on contact, had improved after the operation so much that he could hear the watch at 17 in., the average normal for that watch. Mr. T. GUTHRIE said that the so-called Heath's operation was in principle identical with that introduced by Küster in 1879, and had been abandoned both by him and other otologists as a routine operation for chronic disease. For suitable cases, however, it was a good operation, but such cases were a small minority. It was a matter of common knowledge that in large numbers of cases of chronic suppurative disease healing took place after such measures as the removal

of adenoids and various forms of intramcatal treatment. Mr. E. Malcolm Stockdale emphasized the importance of distinguishing sharply between acute and chronic cases, and agreed with Mr. Guthrie as to the importance of removing adenoids if present. When the mastoid antrum communicated freely with air or marrow cells, mastoiditis ensued early and required a post-aural operation, and in such cases the speaker performed the conservative mastoid operation. When the mastoid antrum had a firm bony wall and was small a post-aural operation was only likely to become necessary in neglected cases, and then the radical or complete post-aural operation was called for. Mr. Hugh E. Jones congratulated Mr. Dighton on his results, but thought it incorrect to assume that the antrum was always diseased in suppurative otitis media; in genuinely chronic cases the real bone disease was generally in the tympanum. He also did not agree with the statement that the radical mastoid operation always destroyed the hearing power; the result in that respect, whatever operation was performed, depended on the condition of the essential organs before operation. In reply, Mr. Adair Dighton pointed out that Heath's operation was not the same as that which Mr. Guthrie had ascribed to Küster.

Gastro-duodenal Ulceration.

Mr. Keith Monsarrat, in a paper on the diagnosis and treatment of gastro-duodenal ulceration, analysed a series of 50 consecutive cases of simple affections of the stomach which he had submitted to operation. The series included 18 cases of gastric ulcer not at the pylorus, 11 cases of duodenal ulcer, 15 cases of pyloric and duodenal stenosis, and 4 cases of gastric dilatation without stenosis. Mr. F. T. Paul said he was not in favour of excising ulcers of the stomach, and did not consider gastro-enterostomy very satisfactory for ulcers far removed from the pyloric region; on the other hand, pyloric and duodenal ulcers and stenosis were most satisfactorily treated by this operation. Mr. Newbolt considered that the diagnosis between gall stones and gastro-duodenal ulcer was often most difficult, and had met with a combination of the two conditions. He believed that a good number of people died directly from haemorrhage from gastric and duodenal ulcers, although one was led to believe that this was rarely the case. He performed the posterior no-loop operation, but was not in favour of performing this operation when closing a perforated duodenal ulcer, preferring to do it later if required. Mr. Arthur Evans emphasized the frequency and danger of duodenal ulcers. He had been called upon to operate no less than seven times within the last twelve months for the condition. He questioned the desirability of doing gastro-enterostomy at the time in addition to closing the perforation and invagination of the ulcer. Dr. Tinne called attention to the great similarity between cases of Henoch's purpura and gastric ulcer with sudden symptoms of perforation. In both there were haematemesis, sudden violent abdominal pain, and to all appearances the classical symptoms of perforation. It was not till the following day that the purpuric spots about the joints made their appearance and gave the diagnosis.

EDINBURGH OBSTETRICAL SOCIETY.

Wednesday, January 10th, 1912.

Dr. Haig Ferguson, President, in the Chair.

Pyosalpinx in the Puerperium.

The President, in a note on a case of pyosalpinx successfully treated by abdominal section during the puerperium, said that the majority of such cases were classed as pelvic cellulitis and operation was delayed till an abscess had formed. Many cases of cellulitis starting high in the pelvis were due to tubal infection, and in such early operation was advisable. The infection might begin before labour and be exacerbated by it, or might first make its appearance during the puerperium. The former group was more local and more amenable to treatment, while the latter was an incident of a more generalized infection. The height of the swelling in the broad ligament was important in diagnosis. If it was high up to begin with, or high at any time, it was probably tubal; if it started low down and spread upward and outward, it probably resulted from a cervical laceration. A tubal swelling was difficult to differentiate from a small ovarian cyst that had been bruised or twisted during labour. Operation should, if possible, be delayed till the more acute signs abated, but one should not wait indefinitely for the pus to become sterile. Dr. Barbour said that a swelling high up in the broad ligament was not necessarily tubal. Many cases of simple cellulitis started high up, and spread along the round ligament to the abdominal wall. On the other hand, tubal abscesses tended to open into the bowel. Dr. Lackie said that in the case to which the President had referred the tube was swollen and acutely congested, and contained one drop of pus. After its removal the symptoms at once disappeared. Dr. Haultain said there should not be much hesitation in opening the abdomen during the puerperium. He agreed that the height of the swelling was helpful in diagnosing its tubal origin, but its mobility was much more significant. With a mobile tumour situated high in the pelvis, and a high temperature in the puerperium, he would operate at once. Dr. Young referred to a case in which pyosalpinx developed after a two months' abortion. Though the patient had symptoms indicating a spreading infection, the pus was sterile. Dr. Watson described a case of double gonococcal pyosalpinx in which the acute symptoms came on ten days after labour. Dr. Brewis said that the majority of cases of pyosalpinx occurring after labour recovered without operation. When interference was necessary, in early cases an abdominal operation was preferable, in older cases nine out of ten should be opened from below.

The Free Martin.

Dr. Berry Hart read a communication on Numan, a veterinarian and comparative anatomist of Utrecht, and a forgotten observer on the free martin, whose atlas and views he described. A real hermaphrodite condition, he added, was not to be found amongst mammals. From the present-day knowledge of Mendelism, it could be said that the free martin was one of twins, of which one was a potent bull, and the other defective. Into the latter were segregated the non-potent organs of the opposite sex. No instance of a similar condition in female twins had yet been discovered. In man a pseudo-hermaphrodite might arise from a single ovum.

MEDICAL SOCIETY OF LONDON.

X-ray Diagnosis of Tuberculosis.

At a meeting on January 8th, Dr. Mitchell Bruce, President, in the chair, Dr. G. Harrison Orton, in a paper on the *X-ray diagnosis of pulmonary tuberculosis*, said that the movement of the diaphragm was restricted on the affected side or sides, this restriction being as a rule in the lower part of the excursion. This fact, to which Dr. Francis Williams had been first to draw attention, was admitted by most if not all observers. Nevertheless, there was a great difference of opinion as to the value of that sign, the stage of the disease at which it appeared, and its constancy. In the speaker's opinion, it appeared at a very early stage of the disease, and was a very valuable sign when present. Careful measurement to detect it was sometimes required, and it could not be observed in all cases. Possibly, moreover, it was present in all cases at a certain stage of the disease, but might have passed off in some before the case came under observation. Some interesting observations on the point had been published by Dr. David Lawson, who examined with *x* rays a series of patients first when the disease was active and again after they had begun a course of treatment (hill climbing, etc.), and arrest had been secured. The result suggested that limitation of movement corresponded with the period of activity of the disease. In the speaker's own view, there could be little doubt that the diaphragm movements did vary with the stage of the disease, and that no doubt accounted for many of the discrepancies of opinion as to the value of that sign. Such limitation of movement was part of Nature's means of procuring rest for the inflamed lung, while later on, if the disease had become arrested, and provided the destruction of lung tissue was not too considerable, the diaphragm took on so to speak a compensatory movement, in order to enable the remaining healthy lung to do the extra work required of it. In some cases a peculiar jerky movement of the diaphragm on the affected side might be a more marked feature than limitation; it was very characteristic to any

one who had seen it, but difficult to describe, and often associated with so-called "cog-wheel" respiration at one or other apex. There were other alterations in the movements and in the shape of the shadow of the diaphragm, but he had hardly time to say more than that all might give valuable information in certain cases. Some of those alterations were no doubt the result of adhesions, but he felt confident that the limitation he had described was not in the majority of cases due to adhesions, but was evidence of loss of function.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

A Health Grant.

AT a meeting on January 12th, Professor A. BOSTOCK HILL, President, in the chair, Dr. WILLIAM BUTLER read a paper dealing with the formerly existing epidemic grant and the relationship of school attendance to the requirements of health. In its course he suggested the institution of a health grant which would comprehend not merely the claims arising out of the procedure for dealing with epidemics, but out of all other considerations bearing on the health of school children. A proportion of such grant sufficient at least to cover the maximum loss due to interference with school attendance arising out of health considerations should be apportioned for that purpose and should be paid only where the Board of Education approved of the arrangements made for dealing with communicable diseases. During the discussion which followed Dr. J. TUBB-THOMAS expressed approval of Dr. Butler's proposal, and referred to the many administrative difficulties connected with the epidemic grant. Dr. SIDNEY DAVIES spoke of the harm done by teachers and attendance officers urging children to school whether well enough to go or not. Dr. BYGOTT advised the abolition of school prizes for regular attendance, as they resulted in children attending school in an unfit state. Dr. HOWARTH advocated the payment of the grant on general and not on individual grounds. Dr. W. A. BOND and Dr. R. DUDFIELD had both found the epidemic grant extremely useful, and Dr. CLEMENTS urged its reinstatement. Dr. FRANKLIN PARSONS regretted that the grant had been withdrawn at such an inopportune time, and just when systematic medical inspection had been introduced, by means of which the difficulties had been reduced of ascertaining whether a child was really ill. Dr. CALDWELL SMITH disapproved of paying teachers according to the number of attendances, and pointed out that in Scotland they were paid fixed salaries. Dr. JAMES KERR considered that schools had not such an influence upon epidemics as was at one time supposed. The epidemic grant had the effect of preventing children being crowded into schools when they should be at home. Dr. E. H. T. NASH approved of Dr. Butler's proposal, for there was no probability of the old grant being reintroduced. Dr. GERARD TAYLOR feared that with a health grant they might be penalizing a school for no fault of its own. The PRESIDENT did not think the health grant would be suitable for rural districts, though he approved of the proposal for towns and large urban areas.

BRIGHTON AND SUSSEX MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on January 4th, Mr. T. H. IONIDES, President, in the chair, Mr. H. H. TAYLOR showed a man of 35 who complained that his sight had been failing recently. In the left eye vision was $\frac{6}{9}$, in the right $\frac{6}{5}$. The right disc was distinctly white, with clean cut edges, and normal vessels. The left was pale, but not atrophied. Perimetric examination showed restricted temporal field in the right eye, and no central vision at all; in the left, temporal hemiopia. The pupils were very contracted, there was no tremor or ataxia, and the knee-jerks were normal. There was no sign of acromegaly, and *x* rays showed no enlargement of the sella turcica. Dr. D. HALL read notes and showed photographs of a case of *Henoch's purpura* in a boy aged 15. It began with pyrexia and general pains, the eruption appeared the next day on the limbs; gastro-intestinal symptoms followed a day later. At the height of the attack about a dozen stools with some blood in them were passed each day. After some months' treatment, mainly dietetic and symptomatic, the boy left Brighton, having made an incomplete recovery. Dr. L. A. PARRY, in a paper on cases of *Urinary calculi*, advocated the suprapubic operation in boys, unless the operator had had very considerable experience of lithotrity. In women, dilatation of the urethra and extraction of the stone was the ideal procedure, it was available for stones up to about 1½ in. in diameter. He referred to a case of a stone in the female bladder which had formed round a hairpin used for the purpose of procuring abortion. The sharp ends of the pin, which were not covered by the stone, were seized with Spencer Wells forceps and the stone easily withdrawn. A case of stone in the urethra which gave a negative result with an *x*-ray photograph, but was detected by means of the cystoscope, and subsequently removed, was also recorded.

UNITED SERVICES MEDICAL SOCIETY.

AT a meeting on January 10th, Major E. B. WAGGETT, R.A.M.C.(T.), President, in the chair, Lieutenant-Colonel C. H. BURTCHAELL, R.A.M.C., delivered a lecture illustrated by magic lantern slides on *The Medical Service with Lord Methuen's Force* during the advance on Kimberley in 1899, with reference to the modern organization of the medical service." In the course of it he compared the organization of field ambulances with that of the bearer companies and field hospitals replaced by them. He suggested as the only essential differences the facts that the former are now divisional units, that the bearer and hospital *personnel* now form part of one unit which is divisible into three parts, and that, while there is an increased number of stretchers and stretcher bearers under the new arrangement, the *personnel* available for dressing stations and so-called hospital purposes is practically the same as formerly in relation to the strength of troops, one tent subdivision of a field ambulance being almost identical with half a field hospital. At the battle of Belmont the Principal Medical Officer was present at the staff reconnaissance, and thus made acquainted with the plan of action and the ground he was able to select places for the dressing stations, etc., and to forecast the arrangements for succour of the wounded much more effectively than if he had had to rely on second-hand information. At the Modder River the medical units were following close behind the troops when the enemy unexpectedly opened a heavy fire. This determined the position of the dressing stations, which were located just out of range of the enemy's guns or in the nearest protected ground available. Ambulance wagons were unable to reach the regimental aid posts, where wounded were collected, until after nightfall, when the enemy withdrew. At the battle of Magersfontein the field hospitals accompanying the troops were held in reserve during the first stage of the engagement and did not open until late in the day, when they moved up to the sites of the dressing stations formed by the bearer companies. One field hospital—that is, the equivalent of two tent subdivisions of a field ambulance—remained at Modder River, four miles distant, and there received and entrained over 600 wounded for Orange River and Cape Town. At Orange River difficulties arose because there was no organization like the present clearing hospital available at that place.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on January 5th, Mr. MCADAM ECCLES, President, in the chair, the following were among the exhibits:—The PRESIDENT: A case of *Transposition of viscera* in a man. The transposition was complete, and included the attachment of the mesentery. The patient had come for treatment for vomiting and haematemesis, and had a posterior gastro-jejunostomy performed, and during the operation it was possible to demonstrate the completeness of the transposition; the man was right-handed. Mr. W. E. FRY: A patient with *Two big toes on one foot*. Dr. GRAINGER STEWART: (1) A case of *Myotonia atrophica* in a male aged 39. The wasting involved the sterno-mastoids, biceps and triceps, forearm muscles and slightly the small hand muscles, also the thigh muscles and muscles below the knee. The patient was unable to

close his eyes tightly or to smile. (2) A case of *Hand tremor* on sustained voluntary movement in a male aged 12. The hand affected was the right. A history of headache and vomiting and the presence of optic neuritis made clear the existence of intracranial pressure. (3) A case of *Bilateral involuntary movements* in a male aged 9½. This patient was a seven-months child, had made no attempt to use his hands until the age of 3, and was unable to walk until aged 7. He taught himself to write and feed himself with his toes before he learnt to walk. The involuntary movements of the hands and face, first noticed at the age of 4, had gradually increased. There was no spasticity and no fits, and sensation was unimpaired. Dr. F. G. CROOKSHANK (for Dr. BERNSTEIN): A case of *Cretinism* with a goitrous mother. The child was born in Ealing, the mother in Bethesda in Wales, where endemic goitre was said to occur. In the Swiss valleys the endemic cretins are born of goitrous parents.

Reviews.

CONDUCT AND ITS DISORDERS.

IN the preface to one of his most recent works, *Conduct and its Disorders, biologically considered*,[1] Dr. MERCIER describes as curious the fact that there is not in existence any comprehensive study of conduct as a whole, any general view of the field of human activity. He points to the fact that whilst ethics, or conduct as right and wrong, has been studied for millenniums, and the actual conduct of men in concrete affairs has for millenniums been described in history, "of conduct as a whole," to quote one of his characteristic sentences, "of what it is; of its nature; its varieties and kinds; of their relations to each other; of its vagaries and disorders, no book treats; no study exists." Yet, as he himself says, "Conduct is Action in pursuit of Ends." It is thus coextensive with the whole of purposive action of every kind of every individual from birth to death, and it is therefore not surprising that a task of such magnitude has not been attempted. If no book treats of it, it is probable that this is because no book could do so successfully, and we venture to suggest that when Dr. Mercier says that "the psychiatric physician, whose function it is to treat disorders of conduct, not only makes no systematic study of conduct, but denies that such a study is desirable, even if he admits such a study is possible," is not correctly interpreting the attitude of most psychiatric physicians. However this may be, our doubts as to the feasibleness of such an endeavour remain unchanged after reading this book. Even Dr. Mercier, with his encyclopaedic information, his philosophic faculty of seeing the One in the Many and thus laying bare the concealed relations of apparently disparate phenomena, his power of ruthless logic and rare mastery over words, has been unable to give more than a general and somewhat mechanical and artificial classification of the principal forms of conduct. Needless to say, many parts of the book are deeply interesting; its arguments are ingenious and its teaching eminently sound; but this is not because of the conception of the theme, but because of the conceptions of its author.

The book is designedly a study "praxiology"—or the systematic knowledge of conduct as a whole—from the biological point of view, and the possible criticism that its author regards man too much as a zoological specimen is thus at once put out of court.

It is, perhaps, time to give an outline of Dr. Mercier's division of his subject. As conduct is action in pursuit of ends, actions are treated in Book I and conduct in Book II. Action is treated in successive chapters according to whether it is spontaneous or elicited, abundant or scanty, instinctive or reasoned, self-indulgent or restrained, impulsive or deliberate, novel, habitual or automatic, original or imitative, crude or elaborate, work or play, and skilful or unskilful. Powerfully reminiscent of Herbert Spencer's teaching, these chapters are admirable. In Book II. conduct, after an opening chapter on purposes or ends, is divided, first, into the three great departments of (*a*) that which subserves the conservation of the individual, (*b*) that which subserves the conservation of the community, and (*c*) that which provides for the continuance of the race. Each of these again has its subdivisions—primary, secondary, and so on. Parenthetically it may be remarked that in the chapter on self-conservative conduct Dr. Mercier discusses food and drink and, at some length, inebriety. As is well known, there is a pronounced tendency at present among those who wish to prevent habitual drunkenness to regard inebriety as a disease. Nothing can be clearer or more convincing than Dr. Mercier's expressed views on this matter. Regarding inebriety as an alteration of the ratio of self-control to desire for alcoholic intoxication, he agrees that it is a constitutional peculiarity, acquired or inborn. When acquired, he rightly says, it would be straining the meaning of words to call it a disease; when inborn the question becomes one of nomenclature.

> But there are cogent reasons why the term disease should not be strained so as to cover inebriety. By disease is commonly understood a state of things for which the diseased person is not responsible, and which he cannot alter by any effort of will. But this is not the case with inebriety. If the desire for drink can be increased by indulgence and self-control diminished by lack of exercise, equally the reverse effect can be produced by voluntary effort. . . . It is erroneous and disastrous to imply, by calling inebriety a disease, that it is to be accepted with fatalistic resignation, and that the inebriate need make no effort to mend his ways.

Self-conservative conduct is naturally followed by "Social Conduct" with its numerous subdivisions, and under the heading of the influence on conduct of the estimation of others—ambition, pride, vanity, conceit—there is many a shrewd thrust. The sanctions of morality are in similar fashion traced to the general recognition, instinctive or other, that certain conduct is socially or racially disadvantageous or advantageous as the case may be. There is, perhaps, nothing new in these, or, indeed, in most of the biological explanations advanced for the origin and fundamental nature of the modes of conduct analysed, but the pith and epigram in which they are expressed make them well worthy of reading. Under social-racial conduct the interesting question of why in the female unchastity should be more reprobated than in the male is discussed, and Dr. Mercier adds to the ordinary explanation that male lapses meet with far milder reprobation because they do not introduce bastards into the family by also attributing it to the long prevalence of polygamy and concubinage, from which male infidelity is but a step: that is, that male chastity is of recent growth in the march of civilization and hence less esteemed. Doubtless, also, Dr. Mercier is right when he says, in discussing "courtship," that the part of the male is "to court, to pursue, to possess, to control, to protect, to love, while that of the female is more passive"; but it seems a little fanciful to suggest that "this distinction rests, no doubt, upon the fundamental difference of the male and female elements—the sperm and the germ. The first is locomotor, the second is non-locomotor." Surely, however, in modern society it is the woman who pursues, and is successful only when she persuades the man that he is not pursued.

The above example illustrates a characteristic feature of this book—the constant endeavour to refer particular modes and conduct to their primitive paleogenetic origin. Sometimes these appear to be too far-fetched—as, for example, when agoraphobia is regarded as an atavistic phenomenon, a resurgence of a primitive instinct, inherited from arboreal man, to take refuge in tree tops and elude his carnivorous foes by leaping from bough to bough, from tree to tree. Near to trees, then, arboreal man was safe; and to-day the agoraphobic feels safe, or safe from his fear, when he is near some tall vertical object. The opposite condition of claustrophobia is similarly referred to a later period, when man was a cave dweller. One might naturally have imagined that the descendant of the cave dweller would have been the agoraphobic and have felt safe from his fear indoors. Not so, according to Dr. Mercier—the enforced dwelling in caves, holes in the ground, hollow trees, etc., bred a sense of confinement and an irresistible desire to get out into the open, to-day reproduced by the claustrophobic. This example may fitly close this review. It illustrates the constant and justifiable endeavour of the author to refer conduct to its biological origin. If the term "biology" be accepted in its widest sense as "the science of life," no more need be said; but if it be used for the study of organic beings, to

[1] *Conduct and its Disorders.* By Charles Mercier, M.D., F.R.C.P., F.R.C.S. London: Macmillan. 1911. (Demy 8vo, p. 377. 10s. 6d. net.)

the deliberate exclusion of all psychological explanations, then much, and perhaps the greater, part of human conduct must be shut out.

THE INSURANCE ACT.

THE first of the promised books containing detailed discussion of the National Insurance Act from the legal point of view to attain publication is, we believe, the volume by Mr. ORME CLARKE, of the Inner Temple, entitled *The National Insurance Act, 1911*.[2] The general arrangement of the book follows that customary in such treatises. An introductory summary, divided into ten chapters and occupying some seventy pages of rather large type, is followed by a print of the Act, with explanatory notes on the Sections and Schedules. In the course of the notes various legal cases are referred to, and a table of these with full references is given. In the introductory summary the six cardinal principles of the British Medical Association are set out. In commenting on the absence from the bill of the income limit of £2, Mr. Orme Clarke observes:

No income limit is fixed by the Act, but by Sec. 15 (3) provision is made for regulations of the Insurance Commissioners to authorize Insurance Committees to require any person whose income exceeds a limit to be fixed by the Committee to make his own arrangements for receiving medical attendance and treatment (including medicines and appliances). In this connexion it may be pointed out that there is no existing legal machinery for finding out the incomes of any persons whose income is less than £160 a year, that figure being the limit below which incomes are not assessable to income tax.

With regard to the free choice of doctor, Mr. Orme Clarke appears to see difficulty mainly in relation to the distribution of those insured persons not otherwise provided for (Section 15, (2) (*d*)) who have been refused by the practitioner whom they may have selected. The words are "distribution amongst, and so far as practicable under arrangements made by, the several practitioners whose names are on the list." Mr. Orme Clarke thinks that the words "so far as practicable" do not govern "distribution amongst," and puts the following case:

A., B., and C. are the practitioners on the list in a given area; D., an insured person in that area, has selected A. as his practitioner, but A. has refused to have him. Similarly, B. and C. refuse to have him, and A., B., C. are unable to arrange between themselves who is to take D. D. would be one of the persons who would have to be distributed, and, in the absence of arrangement between A., B., and C., it is submitted that D.'s right to select would revive, and he would be allocated to A., who, in fact, had previously refused to have him.

The author submits further that the exercise by a practitioner of his right to be placed on the list must carry with it the possibility of the abrogation of his right to refuse to treat any given patient. Mr. Orme Clarke, however, raises the questions, (1) whether in such a case the practitioner is not entitled to persist in his refusal to treat the person in question, and (2), if so, whether the Commissioners may use their powers under the proviso and suspend the person's right to medical benefit. As to the administration of medical benefit by the local Insurance Committees the author says, "medical benefit is to be administered by Insurance Committees," but he does not discuss the effect of Section 15 (4), the "Harmsworth Amendment," further than to say that in these cases the Insurance Committee may contribute the whole or part of such amount towards the expenses of the system or organization in question. As to the amount of medical remuneration, he observes:

No figure is fixed by the Act for the remuneration of medical practitioners. A bargain will have to be made between the Insurance Committees and the medical practitioners on the lines of Sec. 15. The amount of money available for providing medical benefit will be, in the case of members of an approved society, such sum as may be agreed between the society and the Insurance Committees, or, in default of agreement, such sum as the Insurance Commissioners may determine. Sec. 15 (6). And, in the case of deposit contributors, such sum as the Insurance Committees may, with the consent of the Insurance Commissioners, determine. Sec. 42 (*d*). If these sums are insufficient, power is given to county and borough councils and the Treasury to sanction the estimates for cost of medical benefit, and, if they do sanction them, they are thereupon obliged to pay one-half each of the estimated excess. Sec. 15 (7) and (8).

The Solicitor-General has written an introduction to the volume, in the course of which he says:

. . It is easy enough to say that we are in favour of "the principle" of National Insurance; and indeed those who really understand what the necessary principles of National Insurance are, are thereby committed to much which they may otherwise be tempted to repudiate. But, after all, the essence of a scheme such as this lies in its details, and as a guide to those details Mr. Clarke's book will, I am convinced, prove useful to many.

Sir John Simon goes on to urge that the two parts of the Bill—Par. I, National Health Insurance, and Part II, Unemployment Insurance—should be brought into operation at the same time, since the two parts of the scheme ought to work side by side, and that in particular unemployment insurance should not be set up in advance of sickness insurance, as otherwise "the man who loses work through ill-health will find it to his advantage to declare that he is perfectly well." In reply to the criticism that more time should have been found for the consideration of the scheme before it was passed into law, he asserts that few modern Acts of Parliament have occupied more time in discussion and that certainly no modern Act of Parliament has been more widely discussed, and continues:

True it is that there will be many improvements to be effected. We have already amended the Old Age Pensions Act once, and may have to do so further. Amendments of the National Insurance Act are quite certain, as soon as we know where the shoe pinches; but before you can know where the shoe pinches, you have to make up your mind *to begin to wear it*.

In these sentences we find the only taint of politics in the volume. Mr. Orme Clarke himself appears to be strictly legal and impartial. He has done his work well and accurately so far as we have been able to test it, and the book will be very useful to every one who desires to make himself acquainted with the provisions of the Act and their interpretation.

It is unfortunate that the second edition of Mr. LLOYD GEORGE's book, *The People's Insurance*,[3] has not been brought up to date. The text of the Insurance Bill, as given, is only as it left the House of Commons; it does not contain subsequent amendments, and the arrangement of the clauses differs from the completed Act. Parts I and II of the book are reprinted from the first edition, and contain the speech of the Chancellor of the Exchequer on introducing the bill on May 4th, and some explanatory memoranda issued by the Treasury and the Board of Trade at the time of that introduction. Some of these are now entirely out of date, and a note is prefixed that "some of the points enumerated need to be read in the light of the amendments since introduced." Another thirty pages are taken up with the speech of the Chancellor of the Exchequer in defence of the bill at Birmingham on June 10th, 1911, which is now chiefly of historic interest, and the rest of the book consists of extracts from the Chancellor's speech of November 28th, 1911, to the deputation of women on the domestic servants' question, and a few replies to letters addressed to the Chancellor before the bill was finally amended. All this has been published before in other forms. Thus the book contains absolutely nothing new except a brief triumphant preface by the Chancellor himself, and much of its matter is not only out of date but inapplicable to the completed Act. It is not easy to understand why a second edition of this character should have been issued.

Mr. C. M. MORAN, barrister, has prepared an *Alphabet of the National Insurance Act, 1911*,[4] with the object of explaining "the terms of the Act in plain English," to collect its provisions on each point of interest in one place so that they can be readily found and seen at a glance, and to serve as a guide to the national insurance scheme as a whole. The volume achieves the second of its avowed objects, but we cannot think that it will serve as a convenient guide to the national insurance scheme as a whole,

[2] *The National Insurance Act, 1911. Being a Treatise on the Scheme of National Health Insurance and Insurance against Unemployment Created by that Act, with the Incorporated Enactments, Full Explanatory Notes, Tables, and Examples.* By Orme Clarke, Barrister-at-Law. With an Introduction by Sir John Simon, K.C.V.O., M.P., Solicitor-General. London: Butterworth and Co. 1912. (Demy 8vo, pp. 491. 12s. 6d.)

[3] *The People's Insurance*, explained by the Right Honourable D. Lloyd George. London: Hodder and Stoughton. 1911. (Cr. 8vo, pp. 236. Second Edition. Price 1s.)

[4] London: Methuen and Co. (1s. net.)

and we have a little suspicion of plain English in its application to an Act of Parliament. In some places, however, Mr. Morau quotes the actual words of the Act. The chief use of the volume will be as an index to the Act itself, a copy of which cannot be dispensed with by any person who wishes to understand its provisions. The Act was printed in the SUPPLEMENT to the JOURNAL of January 6th.

Dr. R. R. RENTOUL has issued a pamphlet entitled *The Sick Public: the Doctors: and The National Insurance Act, 1911*,[5] consisting in the main of what he calls a draft notice of motion for calling a meeting. The motion is to the effect:

That the Members of the ——— Division British Medical Association and the Medical Practitioners in and about ——— now appoint a "Local Medical Committee" (as provided by Section 62 of the National Insurance Act), to inquire into and report at an early date to a meeting of the Medical Profession in ——— and Districts, upon all those medical provisions bearing upon the treatment of insured persons under the Act, and that two-thirds of the Executive Committee of the ——— Division, British Medical Association, partly form such "Local Medical Committee" with power to add to the number of this Committee, the remainder being non-members of the British Medical Association.

The remainder of this section of the pamphlet consists of a series of questions proposed to be submitted to the local Medical Committees for their consideration and report, and to this section follows a series of notes. The gist of the recommendations made in the notes appears to be contained in the following paragraphs:

I would ask doctors to organize at once their Local Medical Committees: to see what the Insurance Commissioners will accept, and to have their offer definitely drawn out. I still think that if a capitation grant of not less than 15s. be obtained, this will give each doctor acting under the Act a gross income of over £500 yearly. This, with no bad debts, and paid monthly, with dispensing, midwifery, surgical fees, and private practice, etc., added, would give an average gross income to each doctor of about £650, or more.

Further, I would strongly recommend all doctors to adopt rules for the formation of their own Public Medical Service—owned and controlled by themselves, and with an agreement with the Insurance Commissioners to pay to such Service a sum of money opposite each person insured for sickness and other benefits under the Act, and equal to that which will be required for medical benefit under the Act. This sum, added to the arranged scale of fees to be paid by sick members, either on a cash or insurance basis, would meet all the present difficulties. . . .

I would just add that the pivot of our success, or of failure, can rest at the last stand made by doctors connected with the voluntary and other hospitals. If they refuse to act unless well paid, the medical part of the Act must fail.

In a preface the author laments that the proposal for the formation of a public medical service made by him in 1889 was not accepted.

STUDIES OF THE HEART MUSCLE.

COMING at a time when so much attention is being given to the polygraphic and electro-cardiographic studies of the heart in disease, Professor DIETRICH'S monograph[6] on the elements of the cardiac muscle is bound to be carefully studied. The three main investigations described are the study of the cross-striations of cardiac muscle fibres as met with in various conditions—normal and pathological—of the nuclei of the cardiac muscle under the same conditions, and finally of the histological features of the specific system for the conduction of stimuli first recognized in part by His as a bundle of fibres connecting the muscle of the auricle and ventricle, and later on more fully explained by the discovery of the auricular ventricular node by Tawara, and of the sino-auricular node by Keith and Flack.

By the use of the double staining method by means of brilliant-schwartz-saffranin Professor Dietrich has been able to show the presence of the cross-striations in all human heart muscle fibres, and also in the fibres of the heart muscle of the rabbit, sheep, and dog. The form and arrangement of these cross-striations are constant and characteristic for each type of cardiac muscle; they are not altered by conditions of death agony or by any states of contraction. Atrophy of the heart muscle does not obscure them. Their features in cardiac hypertrophy are very interesting, because by means of the characters shown it is possible to arrive at definite conclusions as to how the bulk of the muscle is increased in this condition. Each individual fibre undergoes an increase in size, the fasciculation of the hypertrophied muscle is not so fine, and the branchings of the cells are less thick; the cross-striations of the fibres will now be found to extend throughout their breadth, to be more delicate in structure, and to be less sharp at the bends; or the zigzag appearance may be much smaller, the coarse, step-like appearance of these bends being no longer seen. The muscle fibres at the site at which the cross-striations travel across them show contractions, and this Professor Dietrich considers to be almost a characteristic feature in hypertrophy of the heart. The researches of Panofsky show that whereas in a normal heart, on an average, there are eighteen to twenty cross striations in a field, in cases of atrophy there are twenty-one, and in the cases of hypertrophy nine to thirteen, the observations being made in identical situations, with the same magnification, and using sections of the same thickness. Simple plate-like or stretched nuclei are found in the fibres in hypertrophy of the heart, a change no doubt due to the general expansion of each muscle fibre which takes place in this condition. The attempt to exclude the nuclei from participation in the degenerative changes which occur in the fibre is not justified by observations.

The complete study of the various parts of the conducting system of fibres forms a most important part of his investigation. The fibres in the auricular and ventricular walls are discussed in detail. Though Purkinje's fibres are well seen in the sheep's heart, their representatives in the human heart show considerable departure in morphological detail. Apparently different parts of the system show great variations in contents of the cells; in some places there is much, in others little glycogen. An attempt is made to show the nature of the structural connexion between these cells and the ordinary cardiac muscle, as well as with the collection of involuntary muscle discovered by Aschoff in the auricle.

Short reference is made to the all-important question whether or not the cells of this conducting tissue are capable of actually initiating a stimulus. Their richness in sarcoplasm suggests this possibility to Professor Dietrich, but the wonderful continuity existing between each and every part of the conducting system gives Mönckeberg reasonable ground for looking upon the system as having much in common with the conductive power of nerve fibres.

MEDICAL DIAGNOSIS.

THE second edition of Dr. MCKISACK'S *Dictionary of Medical Diagnosis*[7] brings up to date a book of which, on its first appearance, we were able to speak in terms of high praise. As its title indicates, it is a treatise on the signs and symptoms observed in diseased conditions, and is likely to be even more useful to medical practitioners than to medical students. The articles have all been revised, and additions have been made to some of those contributed by the author's colleagues; Dr. Houston has given an account of the Wassermann reaction, Dr. Rankin has amplified his description of the radiography of the abdomen, and Dr. McIlwaine has described the antiformin method of examination for the tubercle bacillus. A number of diagnostic signs, tests, or reactions, omitted in the first edition, have now been introduced. The book is extremely useful for ready reference, and in this connexion the only criticism we feel disposed to make is that the index might be extended.

Although the *Manual of Physical Diagnosis* by Dr. O'REILLY[8] bears the imprint of a London publisher, it has all the appearance of having been produced on the other side of the Atlantic, being disfigured by American spelling, for example, maneuver, by the absence of diphthongs, and by a superabundance of misprints; for example, "serium" for serum, "filtarate" for filtrate, "declaim" for disclaim. The book is of the kind with which we are familiar as a

[5] Liverpool: Cornish and Sons; or from the Author. (1s. net, or fifty copies 6d. each.)

[6] *Die Elemente des Herzmuskels*. By Professor Dr. A. Dietrich. Jena: Gustav Fischer. 1910. (Roy. 8vo, pp. 46; 3 figs. 5s., or M.1.20.)

[7] *Dictionary of Medical Diagnosis*. By Dr. Henry Lawrence McKisack. Second edition. London: Bailliere, Tindall, and Cox. (Demy 8vo, pp. 602; figs. 76; 10s. 6d. net.)

[8] *Manual of Physical Diagnosis*. By Brefney Rolph O'Reilly, M.D., C.M. London: J. and A. Churchill. 1911. (Post 8vo, pp. 589; with six plates and forty-nine other illustrations. 8s. 6d. net.)

clinical guide for students, and it fulfils that purpose on the whole very well. In some respects it errs by being overloaded with detail, while in the examination of the urine, the stomach contents, and faeces it is scarcely adequate. We should have thought the subject of vocal cord paralysis of sufficient importance, in view of its occurrence in aneurysm, goitre, and cancer of the oesophagus, to deserve a description, but the reader is referred to a text-book on laryngology. We notice the author speaks of Heberden's nodes as "Haygarth's nodosities," but they are not quite the same thing. It is not quite certain what Haygarth meant, but it is clear from his writing that he described by this term a definite painful progressive disease, apparently a form of rheumatoid arthritis, and not a single phenomenon. The formula for Esbach's solution is given wrongly, nitric acid being substituted for citric acid, and that for Fehling's solution is different from any that we are accustomed to use. The author objects to the use of the Ewald or Boas test meals on the curious ground that these meals are not "usually taken by people living in America." As they are purely empirical tests, neither Ewald nor Boas would wish them to be applied if the results in "people living in America" differ from those met with in people living in Germany or England, but if any other meal is to be substituted, its value must be shown by an equally extensive empirical study.

NOTES ON BOOKS.

ONE of the most important of the many social problems which confront the civilized nations of to-day is undoubtedly that which relates to the welfare of the children—the future progenitors and defenders of the race. It is not always an easy matter, however, for those who have heard "the young, young children . . . weeping in the playtime of the others, in the country of the free," to avoid mistakes which may destroy the fruit of years of labour: therefore the invaluable series of *National Health Manuals*[1] should prove of great assistance to all who have devoted themselves to this particular branch of social work. The third of these most useful handbooks has recently appeared under the title *School Life*, and forms a fitting sequel to its predecessors *Infancy* and *Childhood*. "We are still in the experimental stage in regard to most matters relating to social reform," Dr. KELYNACK, the editor, remarks in his short preface, "and there is a danger that in our eagerness and enthusiasm . . . we may be led into serious errors or be guilty of deficiencies and extravagances which will inevitably hinder progress. Social advance must be based upon and governed by scientific principles. To indicate and to explain these is the main purpose of these manuals." This purpose, it is hardly necessary to add, has been well fulfilled by these attractive little volumes. *School Life*, as its title indicates, deals exclusively with the school life of children of every age and condition, and contains much valuable information and advice with regard to the dangers and difficulties, mental, moral, and physical, which often arise at this critical period of the child's career. Each chapter has been contributed by a competent medical authority, special attention being paid to such questions as child labour, school sanitation and hygiene, and the proper treatment of defective and abnormal children. The book, which is well printed and of a convenient size for handling, is provided with a long list of useful references.

In putting into book form and publishing his notes on *Improvised Methods of Aid in the Field*[2] Lieutenant-Colonel MACKAY has rendered a service not only to members of Voluntary Aid Detachments but also to those who have to instruct them. A knowledge of improvisation is always essential in rendering efficient first aid, but it is especially necessary in war, as it frequently happens that the appliances ready to hand are far too few to cope with the large number of cases that have to be quickly dealt with. The first chapter indicates various tools and materials that will be found useful, and describes how they may be employed to manufacture stretchers, splints, slings, etc. The second is devoted to an explanation of work that has to be done in the collecting zone: but here as a rule Voluntary Aid Detachments would not be employed. The next three chapters describe how wagons, carts, railway carriages and trucks, boats, barges, etc., can be utilized for the comfortable transport of the sick and wounded; and the remaining two indicate various methods of constructing temporary shelters on the field, and of extemporizing and arranging hospitals. There are numerous illustrations which make the descriptions easier to understand, and two diagrams showing the medical organization in the field. The book is one we should advise members of Voluntary Aid Detachments to obtain.

In his work on *England's Recent Progress*,[3] Mr. WELTON has investigated the movements of population in various types of community, as indicated in the official statistics, between 1881 and 1901. A series of more or less distinct groups having been formed (Large Towns, Old Towns, Colliery Districts, etc.), migratory movements, death-rates, birth-rates, and marriage-rates are specially investigated in each class. A work of this kind hardly lends itself to review in the ordinary sense of that term, as will be gathered from the fact that, out of 742 pages, some 600 consist exclusively of tables—an eloquent testimony to the industry and patience of the author: the volume should find a place in every reference library, but it would have been more easy to read if Mr. Welton had brought the conclusions he desired to emphasize to a more definite focus. The section dealing with birth-rates is perhaps that which has most interest at the moment. Comparing the figures for 1881–90 and 1891–1900, the author observes that "these figures simply support the idea that since 1881 there has been a progressive decline in the birth-rate, affecting textile manufacturing places and residential towns in a special degree, but extending to every part of the kingdom." In discussing local variations, he infers that where people marry most freely they take the least care to reduce fertility below what is natural. Contrasting the two decennia of the period under review, he finds that the reduction is somewhat greater in the second period—"residential places and old towns, where the loss in the preceding decennium was great, show slightly diminished losses, but colliery districts considerably greater ones, not large enough, however, to interfere with the fact that fertility in those districts still touches the highest point." On the whole, it is not too much to say that students of social changes are indebted to Mr. Welton for bringing together and tabulating a great deal of important information.

Telepathy seems to possess a curious fascination for certain temperaments, and apparently some of its more ardent votaries go so far as to discover signs of its influence even in the ravings of delirium. The hero of Dr. G. M. IRVINE'S latest book, *In the Valley of Vision*,[4] having "conceived the idea of the possibility of establishing telepathic communication with many individuals—probably with all—when in a critical condition as the result of acute disease," was able, we are assured, not only to converse with the shades of Sir Walter Scott, Don Quixote, and other "viewless forms of air," but also to watch from his bed of sickness the process of purification undergone in the next world by the souls of unscrupulous doctors, politicians, financiers, jerry-builders, and the rest of that great army which exists by exploiting the miseries of its fellow-men. The recital of those false creations "proceeding from the heat-oppressed brain" of a semi-conscious man is evidently meant to convey a moral, and one which, no doubt, is badly needed by a considerable proportion of mankind: but on the whole the book is, perhaps, hardly worthy of the clever author of that successful novel, *The Lion's Whelp*. His new book, however, lacks neither originality nor interest, and will doubtless find interested readers amongst those to whom the supernatural, in all its various guises, never appeals in vain.

[1] *National Health Manuals. School Life.* Edited by T. N. Kelynack, M.D. London: Charles H. Kelly. 1911. (Post 8vo, pp. 168. 1s. net.)

[2] *Improvised Methods of Aid in the Field.* By H. Mackay, M.D., T.D., Lieutenant-Colonel R.A.M.C.(T.). London: Eyre and Spottiswoode, Limited. 1911. (Demy 16mo, pp. 120; 47 illustrations. 1s. 6d. net.)

[3] *England's Recent Progress: An Investigation of the Statistics of Migrations, Mortality, etc.* By Thomas A. Welton, F.S.S., F.C.A. London: Chapman and Hall. 1911. (Roy. 8vo, pp. 806; graphs 48. 10s. 6d. net.)

[4] *In the Valley of Vision.* By G. M. Irvine. London: Simpkin, Marshall, Hamilton, Kent, and Co. 1911. (Cr. 8vo, pp. 175; illus. 16. Price 2s. 6d. net.)

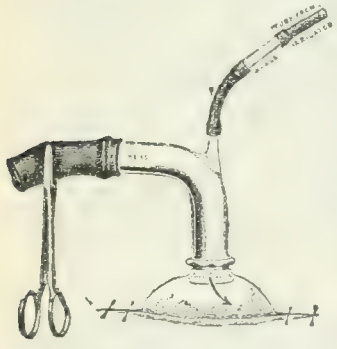
THE After-Care Association for Poor Persons discharged recovered from Asylums for the Insane, Church House, Westminster, has received donations of £20 from the Clothworkers Company, and £10 10s. from the Skinners Company.

UNDER the will of the late Mr. William Bell Readhead, a shipbuilder, of South Shields, Ingham Infirmary receives a bequest of £1,000, and the Nursing Guild branch of the St. John Ambulance Association at South Shields, and the Indigent Sick Society in that town, a sum of £100 each.

MEDICAL AND SURGICAL APPLIANCES.

An Improved Colotomy Tube.

Mr. Duncan C. L. Fitzwilliams, F.R.C.S., writes: The paramount importance of evacuating the septic and highly toxic contents of the bowel with the least possible delay in cases of acute obstruction has long been recognized; unfortunately this is not always an easy matter, and after fixing the ordinary colotomy tube of Paul's pattern into the gut our attempts to empty the bowel are confined to giving aperients by the mouth, and more recently the administration of eserine subcutaneously to stimulate peristalsis. As, however, vomiting may continue for some hours, or even days, after the operation, aperients are frequently of little use. The most effective and the quickest method of emptying the bowel is to wash out the contents by enema; this, however, cannot be done with the colotomy tube at present in use. On several occasions I have tried to do this by making a small hole in the large rubber escape tube used to carry off the bowel contents and introducing fluids while the tube is clamped below the hole. This has proved unsatisfactory, as leakage occurs subsequently through the hole, and the tube is thus rendered useless. Some months ago Messrs. Weiss and Son made to my pattern a colotomy tube which avoids these drawbacks. The tube differs from that in general use in the fact that a small, short arm is inset into the convexity of the curve, so that it has the same direction as the limb of the tube which is inserted into the bowel. When in use, a small piece of drainage tube about 6 in. long is fitted on to the short arm. After the tube is fastened into the bowel the end of the drainage tube will project above the dressings and must be secured to prevent the escape of bowel contents; this may be done with a pair of clip forceps or a safety pin attached to the binder, or the tube may be tied in a simple knot. After the first gush of faecal material has passed, the interior of the bowel can be washed out by means of a douche can or an enema syringe, the fluid being led through the small rubber tube into the interior of the colotomy tube. The large escape tube is flushed out and then clamped, after which the fluid enters the bowel. In this way enemata can be given at short intervals without disturbing or soiling the dressings. The ordinary enemata can be employed, but if an irritant such as turpentine is used only half the usual strength should be given on account of the inflamed state of the bowel. After the bowel is cleared, which can be done usually in about six hours, fluids such as warm saline can be given in the same manner as is employed in septic peritonitis. It is rapidly absorbed, and is useful in replacing the amount of fluid lost by the previous vomiting. If the vomiting has been present for some days another element antagonistic to the patient has to be reckoned with, namely, actual starvation. For this reason it is a good plan to add to the saline sufficient glucose to make a 2 per cent. solution. This can be absorbed directly into the blood. I have used these tubes on more than a dozen cases, and find them a great advance on the old ones which serve merely as an outlet for the bowel contents. The tubes are made in four sizes, ranging in diameter from ¼in. to 1¼ in.



MEDICINAL AND DIETETIC ARTICLES.

Atophan.

We have received from Messrs. A. and M. Zimmermann (3, Lloyds Avenue, London, E.C.) a sample of tablets of atophan, or 2-phenylquinoline-4-carboxylic acid, made by Messrs. Schering, and put forward as a remedial agent in gout. It is claimed that by its administration the amount of uric acid eliminated is greatly increased, the action being similar to that of sodium salicylate, but more intense and prompt. It is a white substance insoluble in water, but the tablets are so made that they disintegrate rapidly when wet; it is soluble in alkalis, and it is recommended that sodium bicarbonate should be given in considerable quantity during its administration.

BRITISH MEDICAL BENEVOLENT FUND.

At the December meeting 22 cases were considered, and grants amounting to £161 were made to 18 of the applicants. As the current account was already overdrawn to the extent of £215 the deficit was consequently increased to £376, and the Committee earnestly appeals for support to enable it both to pay off this overdraft and to deal with the very distressing and numerous applications which are always received early in the year. Contributions may be sent to the Honorary Treasurer, Dr. Samuel West, 15, Wimpole Street, London, W. Appended is an abstract of the cases relieved:

1. Wife, aged 25, of M.R.C.S., L.S.A. Husband had to be removed to an asylum a few weeks ago, and applicant, who is in very bad health, is practically destitute. One child, aged 14 months. Voted £10.

2. Daughter, aged 27, of late L.R.C.P.Edin. Has been employed as a telephone clerk for the last ten years, but is in feeble health, and has therefore decided to endeavour to support herself by letting lodgings. Voted £5.

3. Widow, aged 65, of L.R.C.P.Edin. Supplements an annuity of £20 by addressing envelopes, etc., but finds increasing difficulty in getting employment. Relieved fourteen times, £141. Voted £5.

4. Widow, aged 53, of L.R.C.P.Edin. Has been deprived of a home by the recent death of a relation, and is dependent on a few shillings a week allowed by her mother-in-law. Relieved four times, £20. Voted £10.

5. Wife, aged 48, of M.R.C.S. Is separated from her husband through no fault of her own, and endeavours to support herself and six children, aged 17 to 9, by letting lodgings. Relieved twice, £24. Voted £5.

6. Daughters, aged 57 and 53, of late M.R.C.S. Health indifferent, and attempt to maintain themselves by taking lodgers or boarders, but have had a very bad season. Relieved seven times, £84. Voted £12.

7. Widow, aged 66, of L.R.C.P.Edin. Only income £20 a year from a small house, of which the lease has nearly expired. Relieved twelve times, £138. Voted £12.

8. Widow, aged 65, of M.R.C.S., L.S.A. Quite unprovided for at husband's death about twelve months ago, but hopes to support herself by taking a resident patient or boarders. Relieved once, £6. Voted £6.

9. Widow, aged 52, of L.S.A. No income and entirely dependent on her earnings from needlework, in which she is assisted by the younger of two daughters. Elder daughter, aged 18, earns a few shillings a week by teaching. Relieved five times, £46. Voted £12.

10. Widow, aged 63, of L.S.A. Only income £12 a year; children unable to give more than slight help. Relieved twice, £24. Voted £12.

11. Widow, aged 50, of M.R.C.S. No income and is endeavouring to establish a boarding house. Relieved twice, £20. Voted £10.

12. Daughter, aged 62, of late M.D.Edin. Used to be a companion, but gave up her post a few years ago to nurse her two elder sisters, who are both chronic invalids. Only income £10 a year, allowed by a friend. Relieved six times, £72. Voted £12.

13. Widow, aged 47, of L.K.Q.C.P.I. Quite unprovided for at husband's death and dependent on letting lodgings and on needlework. Relieved once, £5. Voted £5.

14. Widow, aged 74, of M.R.C.S. Has a small income, but asks for a little help to meet unavoidable expenses. Relieved once, £12. Voted £5.

15. Widow, aged 61, of M.R.C.S. Quite unprovided for at husband's death three years ago, and finds great difficulty in obtaining a suitable post, even in exchange for a home. Relieved twice, £26. Voted £12.

16. Widow, aged 66, of M.R.C.S. Is quite destitute except for small uncertain earnings from needlework. Relieved twice, £24. Voted £12.

17. Widow, aged 83, of M.R.C.S. Only means of support an annuity of £10 and an old age pension of 5s. a week. Relieved once, £6. Voted £6.

18. L.S.A., aged 67. Practises in a thickly populated neighbourhood, but finds great difficulty in getting paid, and is in consequence in arrears with his rent. Health very indifferent. Relieved twice, £36. Voted £10.

From the latest report of the English Mission Hospital at Bagdad, it would appear that bilharziosis is as rife in Mesopotamia as in Egypt. In the experience of the senior member of the staff, Dr. Frederick Johnson, it is found chiefly in those who draw their drinking water from the stagnating pools formed in the desert when the Tigris and Euphrates overflow in the spring time, while those who draw their water direct from these rivers are exempt. The figures given in the report show that, in relation to the size of the institution, much surgery is performed thereat, operations on the bladder and urethra perhaps predominating. Subscriptions in aid of its work will be gladly received by the secretary of the Church Missionary Society, Salisbury Square, E.C.

Nova et Vetera.

MODERN FAITH HEALING.

F. ANTON MESMER.

(Continued from page 84.)

REPORT OF THE COMMISSION—*continued.*

BUT it must be agreed, however, that the practice of magnetism produces in the living body changes more marked and disorders more considerable than those just reported. None of the subjects who believed that they were magnetized have hitherto been thrown into convulsions; it was therefore a new object of experiment whether by only exciting the imagination one could produce crises similar to those which take place in the public treatment. Then several experiments were arranged with this view. When a tree was touched according to the principles and method of magnetism every person who stops at it should feel more or less the effects of that agent; there are some even who lose consciousness or have convulsions. M. Deslon was spoken to about the matter and replied that the experiment ought to succeed provided the subject were very sensitive, and it was agreed with him to make it at Passy in the presence of M. Franklin. The necessity that the subject should be sensitive made the Commissioners think that to render the experiment decisive and unanswerable it must be made on a person chosen by M. Deslon and whose sensitiveness to magnetism he had tested beforehand. M. Deslon therefore brought with him a boy of about twelve: an apricot tree standing alone and suitable for keeping magnetism which should have been impressed upon it was marked in the orchard of the garden. M. Deslon was taken there alone that he might magnetize it, the boy remaining in the house with the persons who did not leave him. It could have been wished that M. Deslon had not been present at the experiment, but he declared that it might fail if he did not direct his cane and his gaze on that tree to increase the action. It was decided to keep M. Deslon away as much as possible, and to place Commissioners between him and the young man, so as to make sure that he made no sign and to be able to answer that there was no understanding between them. These precautions in an experiment which must be authentic are indispensable without being offensive.

The boy was then brought with his eyes bandaged, and he was presented successively to four trees which had not been magnetized, making him clasp them each for two minutes, according to what had been arranged by M. Deslon himself. M. Deslon being present, and at some distance, pointed his cane towards the tree that had been really magnetized At the first tree the boy, asked after a minute, declared that he was sweating heavily; he coughed, expectorated, and said he felt a slight pain in the head; the distance to the magnetized tree was about 27 feet. At the second tree he felt giddiness and even pain from the head: the distance was 36 feet. At the third tree the giddiness as well as the headache became intensified: he said he thought he was coming near the magnetized tree; he was then about 38 feet from it. At last, at the fourth non-magnetized tree, and at about 24 feet distance from the tree which had been magnetized, the boy fell into crisis: he lost consciousness, his limbs became rigid, and he was carried to a neighbouring plot of grass, where M. Deslon attended to him and restored him.

The result of this experiment is entirely against magnetism. M. Deslon tried to explain the fact by saying that all the trees are magnetized by each other, and that their magnetism is further reinforced by his presence.

But in that case a person sensitive to magnetism could not go into a garden without running the risk of having convulsions. This assertion is contradicted by everyday experience. The presence of M. Deslon did nothing more than it did in the carriage in which the boy came with him, sitting opposite him, and in which he experienced nothing. If the boy had felt nothing, even under the magnetized tree, it might have been said that he was not sufficiently sensitive, at any rate on that day; but the boy fell into crisis under a tree which had not been magnetized. This was therefore an effect which had no physical or external cause, and which cannot have any other cause than the imagination.

The experiment is therefore entirely conclusive: the boy knew that he was being taken to the magnetized tree; his imagination was struck, gradually exalted, and at the fourth tree it was excited to the degree necessary for the production of the crisis. This experiment is supported by others, and yielded the same result. One day when the Commissioners were all gathered together at Passy at M. Franklin's house, and with M. Deslon, they begged the latter to bring with him patients and to choose from among the poor people undergoing treatment those most sensitive to magnetism. M. Deslon brought two women, and while he was occupied in mesmerizing M. Franklin and several persons in another room, the two women were separated and placed in two different rooms. One, the woman P., had opacities on the eyes, but as she still sees a little, nevertheless her eyes were covered with the bandage above described. She was persuaded that M. Deslon had been brought to magnetize her; silence was enjoined; three Commissioners were present—one to ask questions, another to take notes, the third to play the part of M. Deslon. One pretended to speak to M. Deslon, begging him to begin, but the woman was not magnetized: the three Commissioners remained quiet, occupied only in observing what was about to happen. At the end of three minutes the patient began to feel a nervous shiver; then successively she felt a pain at the back of the head, and in the arms a creeping sensation in the hands (that was her expression); she became stiff, clapped her hands, rose from her seat, stamped her feet—the crisis was well marked. Two other Commissioners, placed in the room alongside with the door shut, have heard the stampings of the feet and the beatings of the hands, and, while seeing nothing, were witnesses of this noisy scene.

These two Commissioners were with the other patient Miss B., suffering from disordered nerves. She was allowed to see, her eyes being left uncovered; she was seated before a closed door and persuaded that M. Deslon was on the other side busy magnetizing her. Hardly a minute had passed since she sat down before that door when she began to feel a shiver; after another minute her teeth chattered, although she felt a general heat; lastly, after a third minute, she fell altogether into crisis. The respiration was hurried; she stretched her two arms behind her back, twisting them strongly and leaning her body forward: there was a general trembling of the whole body: the chattering of the teeth became so noisy that it could be heard outside: she bit her hand deeply enough to leave the marks of her teeth there. It is well to point out that neither of these patients was touched in any way; their pulse was not even felt, so that it might not be said that magnetism had been communicated to them; and, nevertheless, the crises were complete. The Commissioners wished to know the effect of the working of the imagination, and to appreciate the part which it might play in the crises of magnetism have obtained all they wished. It is impossible to see the effect of this working more plainly and in a more evident manner than in these two experiences. If the patients have declared that their crises are stronger at the treatment this is because the excitement of the nerves is communicated, and in general every peculiar and individual emotion is increased by the sight of similar emotions.

The opportunity occurred of testing a second time the woman P., and recognizing how much she was dominated by her imagination. It was desired to make the experiment of the magnetized cup: this experiment consists in choosing among a number of cups one cup which is magnetized. They are presented in turn to a patient sensitive to magnetism: he should fall into crisis, or at least feel appreciable effects when the magnetized cup is presented to him; he should be indifferent to all those which are not magnetized. It is only necessary, as M. Deslon has recommended, to present them to him with the direct pole, in order that he who holds the cup should not magnetize the patient, and that there should be no other effect than that of the magnetism of the cup.

The woman P. was sent for to M. Lavoisier's residence at the Arsenal, where M. Deslon was; she began by falling into crisis in the antechamber before having seen either of the Commissioners or M. Deslon: but she knew that she was to see him, and this is a well-marked effect of the

imagination. When the crisis was over the woman was taken to the place for the experiment. Several porcelain cups which had not been magnetized were presented to her; the second cup began to move her, and at the fourth she fell altogether into crisis. It may be replied that her condition was a state of crisis which had begun in the anteroom and became renewed of itself; but that which is decisive is that on her asking for something to drink it was given to her in the cup magnetized by M. Deslon himself; she drank quietly, and said she was much relieved. The cup and the magnetism therefore failed in their effect as the crisis was soothed instead of being increased. Some time afterwards, whilst M. Majault was examining the opacities on her eyes, the magnetized cup was presented to her behind her head, and that during twelve minutes; she did not notice it and felt no effects; she has even at no time been more quiet, because her imagination was distracted and occupied with the examination of her eyes that was being made. It was related to the Commissioners that this woman being alone in the anteroom, different persons having nothing to do with magnetism went near her, whereupon the convulsive movements had begun anew. It was pointed out to her that she was not being magnetized; but her imagination was so struck that she replied: "If you had done nothing to me I should not be in the state in which I am."

She knew that she had come in order to be subjected to experiments; the approach of anyone, the least noise, excited her attention, awakened the idea of magnetism, and renewed the convulsions. The imagination in order to act powerfully often requires that several strings be touched at once. The imagination corresponds to all the senses; its reaction must be proportionate both to the number of senses which stir it and to that of the sensations received; this is what the Commissioners have recognized by an experiment of which they are about to give an account. M. Jumelin had spoken to them of a young lady, aged 20 years, in whom he had caused loss of speech by the power of magnetism; the Commissioners repeated the experiment at his house; the young lady consented to submit to it and to allow her eyes to be bandaged. An effort was first made to attain the same effect without magnetizing her; but although she felt, or thought she felt, effects of magnetism, it was found impossible to strike her imagination enough to make the experiment successful. When she was really magnetized, her eyes left bandaged, the result was not more successful. Her eyes were uncovered, then the imagination was set in motion at once by sight and by hearing; the effects were more marked; but although the head began to get heavy, although she felt discomfort at the root of the nose, and a great part of the symptoms which she had experienced the first time, nevertheless she did not lose her speech. She herself noticed that it was necessary that the hand which magnetized her on the brow should be brought down to the level of the nose, remembering that the hand was thus placed when she lost her voice. What she suggested was done, and in three-quarters of a minute she became dumb; nothing but some inarticulate and low sounds were heard, notwithstanding the visible efforts of the throat to produce the sound, and those of the tongue and lips to articulate it. This state lasted only one minute; one sees that, finding herself precisely in the same circumstances, the seduction of the spirit and its effects on the organs of voice were the same. But it was not enough that speech should warn her that she was magnetized; it was necessary that sight should offer her a stronger and more stirring testimony; it was still further necessary that a gesture already known should awake her ideas. It seems that this experiment shows wonderfully how the imagination acts, is aroused by degrees, and has need of more external helps to be more effectually set in motion. This power of the sight on the imagination explains the effects which the doctrine of magnetism attributes to the gaze. The gaze has in an eminent degree the power of magnetizing; the signs and gestures employed usually produce no effect, the Commissioners were told, except on a subject over whom one has previously taken hold by casting a glance upon him. The reason is simple; it is in the eyes that are placed the features most expressive of the passions; it is there that is unfolded all that the character has of most imposing and most seductive. The eyes should therefore have a great power over us, but they have this power only because they stir the imagination, and in a manner more or less exaggerated according to the strength of that imagination. It is therefore the glance that begins the whole work of magnetism, and the effect of it is so potent, it leaves traces so deep, that a woman newly arrived at M. Deslon's house, having met, as she was coming out of the crisis, the glance of one of his pupils who was magnetizing her, stared at him for three-quarters of an hour. She was long pursued by that look. She always saw before her that same eye fixedly looking at her, and she had it constantly in her imagination for three days during sleep as well as when she was awake. It is easy to see all that can be produced by an imagination capable of retaining so long the same impression—that is to say, to renew itself, and by its own power the same sensation during three days. The experiments just recorded are uniform and equally decisive; they warrant the conclusion that the imagination is the true cause of the effects attributed to magnetism. But the partisans of this new agent will perhaps reply that the identity of the effects does not always prove the identity of the causes. They will grant that the imagination can excite these impressions without magnetism, but they will maintain that magnetism can also excite them without the imagination. The Commissioners easily negatived this assertion by reasoning and physical principles; the first of all is not to admit new causes without absolute necessity. When the effects observed may have been produced by an existing cause and which other phenomena have already manifested, sound physics teaches that the effects noticed should be attributed to that; and when it is announced that a cause hitherto unknown has been discovered sound physics equally requires that it should be established, demonstrated, by effects which do not belong to any known cause, and which can only be explained by the new cause. It is therefore for the partisans of magnetism to bring forward other proofs and to seek effects entirely stripped of the illusions of the imagination. But as facts are more convincing than reasoning, and have a more striking evidence, the Commissioners wished to test by experiment what magnetism would do when the imagination did not act. Two adjoining rooms in a flat, with a door of communication between them, were arranged. The door was taken away, and for it was substituted a frame covered with a double fold of paper stretched over it. In one of the rooms was one of the Commissioners to write down what would happen, and a lady was announced as coming from the provinces, and as having linen which she wanted to have worked. Miss B., a seamstress who had already been employed in the experiments at Passy, and whose sensitiveness to magnetism was known, was sent for. When she arrived everything was so arranged that there was only a single seat on which she could sit down, and that seat was placed in the embrasure of the door of communication, where she was as if in a niche.

The Commissioners were in the other room, and one of them, a physician practised in magnetism and having already produced effects, was entrusted with magnetizing Miss B. through the screen of paper. It is a principle of the theory of magnetism that that agent passes through wooden doors, walls, etc. A screen of paper could not present an obstacle to it: moreover, M. Deslon positively established that magnetism passes through paper, and Miss B. was magnetized as if she had been exposed and in his presence. She was so in fact during half an hour, at a foot and a half distance at opposite poles, following all the rules taught by M. Deslon and which the Commissioners have seen practised by him. During all that time Miss B. carried on a conversation gaily; asked about her health she answered freely that she was quite well. At Passy she fell into crisis at the end of three minutes; here she bore the magnetism without any effect during thirty minutes. It was because here she did not know she was being magnetized, whilst at Passy she believed she was being so. It is evident, therefore, that the imagination alone produces all the effects attributed to magnetism, and when the imagination does not act there are no more effects.

There is only one objection to be made to this experiment—that is, that Miss B. might be indisposed, and might be less sensitive at that moment to magnetism. The Commissioners had foreseen the objection, and conse-

quently made the following experiment. As soon as the magnetization through the paper had ceased, the same physician Commissioner passed into the other room; it was easy for him to engage Miss B. to allow herself to be magnetized. Then he began to magnetize her, taking care, as in the following experiment, to keep himself a foot and a half away, to employ only gestures and movements of the index finger and the iron rod; for had he applied the hands and touched the hypochondria, it might have been said the magnetism had acted by that more immediate application. The only difference there is between these two experiments is that in the former he magnetized at opposite poles, following the rules, whereas in the second he magnetized at direct poles and in opposite directions. By acting thus one should not, according to the theory of magnetism, produce any effect. Nevertheless, after three minutes Miss B. felt malaise and suffocation; there supervened successively hiccoughing, gnashing of the teeth, a feeling of constriction of the throat, and severe headache; she moved uneasily on her chair; she complained of her loins; she sometimes stamped sharply with her foot on the floor; then she stretched her arms behind her back, twisting them strongly as at Passy; in a word, the convulsive crisis was complete and perfectly marked. She went through all these stages in twelve minutes, whilst the same treatment used during thirty minutes left her unmoved. There is nothing more here than the imagination. It is therefore to that that the effects belong.

If imagination made the crisis begin it was also the imagination that made it stop. The Commissioner who magnetized her said it was time to stop; he presented to her his two forefingers crossed; and it is well to observe that in that way he was magnetizing her at direct poles as he had done up till then; there was, therefore, nothing changed, the same treatment ought to have continued the same impressions. But the intention was sufficient to quiet the crisis; the heat and the headache disappeared. The evil has always been chased from place to place, when it was declared that it was about to disappear. It is thus at the voice which commanded the imagination the pain in the neck ceased. Then successively the feelings in the chest, the stomach, and the arms. Only three minutes were required, after which Miss B. said she no longer felt anything, and was absolutely in her natural state. These last experiments, as well as several of those that were made at M. Jumelin's house, have the double advantage of demonstrating at the same time the power of the imagination and the fact that magnetism has no part in the effects produced.

If the effects are still more marked, if the crises seem more violent in the public treatment, it is because several causes combine with the imagination to work with it, to multiply and increase its effects. One begins to master the spirits by the look; a touch, laying on of hands quickly follows, and it is proper to develop here its physical effects.

These effects are more or less considerable: the least are hiccoughs, rising of the stomach, purgations; the most considerable are the convulsions called "crises." The place where the touch is applied is in the hypochondriac region, on the pit of the stomach, and sometimes on the ovaries when it is women who are touched. These different regions are pressed and squeezed with the hands or the fingers. The colon, one of our great intestines, passes through the two hypochondriac regions and the epigastric region which separates them. It is placed immediately under the skin. It is therefore on this intestine that the touch is made, on this intestine sensitive and very irritable. Movement alone, movement repeated without any other agent, excites the muscular action of the intestine, and sometimes causes evacuations. Nature seems to indicate as if by instinct this manœuvre to hypochondriacal patients. The practice of magnetism is nothing but this very manœuvre; and the purgations which it may produce are still further facilitated in the magnetic treatment by the frequent and almost habitual use of a real purgative drug, cream of tartar given as a beverage. But when movement principally excites the irritability of the colon, that intestine presents other phenomena. It swells more or less, sometimes acquiring a considerable volume. Then it communicates to the diaphragm such an irritation that that organ becomes more or less convulsed, and this is what is called "crisis" in the treatment of animal magnetism. One of the Commissioners has seen a woman subject to a kind of spasmodic vomiting repeated several times every day. Her retchings only produced cloudy and viscous water, like that ejected by patients in crisis during the practice of magnetism. The convulsion had its seat in the diaphragm, and the region of the colon was so sensitive that the slightest touch on that part, a strong movement of the air, surprise caused by an unexpected noise, sufficed to excite the convulsions. This woman, therefore, had crises without magnetism, due solely to the irritability of the colon and the diaphragm, and the women who are magnetized have their crises owing to the same cause and this irritability.

The application of the hands on the stomach has physical effects equally remarkable. The application is made directly on the organ. Sometimes one exerts on it a strong and continuous compression, sometimes light and reiterated pressures, sometimes a quivering by a rotary movement of the iron rod applied to that part; lastly, by passing over it successively and rapidly the thumbs one after the other. These manœuvres quickly produce in the stomach an irritation more or less strong and more or less durable, according as the subject is more or less sensitive or irritable. The stomach is prepared or disposed to this stimulation by previously compressing it. This compression places it in the position of acting on the diaphragm, and communicating to it the impressions which it receives. It cannot be irritated without the diaphragm being irritated, and hence their result as by the action of the colon, the nervous phenomena of which we have spoken.

In sensitive women, by simple pressure of the two hypochondriac regions without any other movement, the stomach is constricted and these women faint. It is this that happened to the woman magnetized by M. Jumelin, and it often happens without other cause when women are too tightly laced in their clothes. There is then no crisis; because the stomach is compressed without being irritated and the diaphragm remains in its natural state. The same manœuvres practised in women over the ovaries, in addition to the effects peculiar to these organs, produce much more powerfully still the same occurrences. The influence and dominion of the uterus on the animal economy is well known. The intimate relation of the colon, of the stomach, and of the uterus with the diaphragm is one of the causes of the effects attributed to magnetism. The regions of the lower abdomen subjected to different touches correspond to different plexuses which there constitute a veritable nervous centre by means of which, apart from any system, there certainly exists a sympathy, a communication, a correspondence between all the parts of the body, an action and a reaction, such as the sensations excited in that centre, set in motion the other parts of the body, and reciprocally a sensation felt in one part quickens and brings into play the nervous centre which often transmits that impression to all the other parts. This explains not only the effects of the magnetic touch but also the physical effect of the imagination. It has always been observed that the affections of the soul direct their first impression on this nervous centre, which is the reason why it is commonly said that one feels a weight on the stomach and has a sense of suffocation. The diaphragm comes into play. Hence sighs, tears, and laughter. There is then felt a reaction on the viscera of the lower belly, and it is thus that the physical disturbances produced by the imagination can be accounted for. Shock causes colic, fear causes diarrhœa, grief causes jaundice. The history of medicine includes an infinity of examples of the power of the imagination and the affections of the soul. The fear of fire, a violent desire, a first and established hope, a fit of anger, restore to a disabled gouty man or a paralytic the use of his legs; a keen and unexpected joy will cause a quartan fever of two months' duration to disappear; a strong attention stops hiccough. People mute by accident recover speech as the consequence of a lively mental emotion. History shows that this emotion is sufficient to bring about recovery of speech, and the Commissioners have seen that the imagination when struck was enough to suspend the use of it. The action and reaction of the physical on the moral, and of the moral on the physical part of our economy, are proved since observation has been practised in medicine, that is to say since its beginning.

Tears, laughter, hiccoughs, and, in general, all the effects observed in what are called the crises of the public treat-

ment, therefore originate either in disturbance of the functions of the diaphragm by some physical means, such as touch and pressure, or from the power with which the imagination is endowed to act on that organ and disturb its functions. If it be objected that touching is not always necessary to produce these effects, it may be replied that the imagination may possess sufficient power to produce it all by itself—especially the imagination acting in a public treatment, and then doubly excited by its own movement and by that of the imagination of those around. It has been seen what it produces in the experiments made by the Commissioners on isolated subjects. One may judge of its multiplied effects on patients gathered together in the public treatment. These patients are assembled there in a place small relatively to their number; the air is hot, although care is taken to renew it, and is always more or less charged with mephitic gas, which acts especially on the head and the nervous system. If there is music, that is an additional means of acting on the nerves and stimulating them. Several women are magnetized at once, and at first feel only effects like those which the Commissioners obtained in several of their experiments. They recognized that even at the treatment it is most frequently at the end of two hours that the crises begin. Little by little the impressions are communicated and reinforced, as is seen in theatrical representations, where the impressions are greatest when there is a large audience, and especially in places where one is free to applaud. This sign of the particular emotions establishes a general emotion, which each one shares to the degree of his sensitiveness. This is what is observed, further, in armies on the day of battle, where the enthusiasm of courage, like panic terrors, spreads with such rapidity. The sound of the drum, military music, the noise of the cannon and the musketry, the cries and the disorder shake the organs and give to the spirits the same movement and raise the imaginations to the same pitch. In this unity of intoxication an impression manifested becomes universal; it encourages the men to charge or determines them to take to flight. The same cause is the origin of revolts; imagination governs the crowd; men gathered in a number are more subject to their senses, reason has less control over them; and when fanaticism presides at these assemblies, it produces the Quakers of the Cevennes. It is to stop this movement, so easily communicated to the spirit, that assemblies are forbidden in disaffected towns. Everywhere example acts on the *morale* and imitation calls the physical part into play; by isolating individuals the spirits are calmed; by separating them one equally causes the cessation of convulsions, always by their nature contagious; a recent example has been seen in the young girls of Saint Roch, who separated were cured of the convulsions, which they had when they were together.

Magnetism, or rather the imagination, is therefore found acting at the theatre, in the army, in numerous assemblies, just as at the tub, acting always by different means but producing similar effects. The tub is surrounded by a crowd of patients; the sensations are continually communicated and given back; the nerves at length must be fatigued by this exercise; they are irritated, and the most sensitive woman gives the signal. Then the cords, everywhere stretched to the same degree and at the same pitch, answer each other and the crises are multiplied; they are mutually reinforced, they become violent. At the same time the men who witness these emotions participate in them in proportion to their nervous sensibility, and those in whom that sensibility is greater and more excitable themselves fall into crisis. This great excitability, partly natural and partly acquired, as well in men as in women, becomes a habit. These sensations felt once or several times, nothing more is needed than to recall the remembrance of them, to excite the imagination to the same pitch in order to produce the same effects. It is always easy to do this by placing the subject in the same circumstances. Then the public treatment is no longer necessary. One need only touch the hypochondria, pass the finger and the iron rod in front of the face; these signs are known. It is not even necessary that they should be employed. It is sufficient that the patients with their eyes blindfolded should believe that these signs are repeated upon them, and should persuade themselves that they are being magnetized; the ideas awake, the sensations are reproduced, the imagination, using its accustomed means and going back by the same paths, makes the same phenomena reappear. It is this that happens to patients of M. Deslon who fall into crisis without the tub and without being excited by the sight of the public treatment.

Touch, imagination, imitation, such therefore are the true causes of the effects attributed to this new agent known by the name of *animal magnetism*, to this fluid which is said to circulate in the body and to communicate itself from one individual to another; such is the result of the experiments of the Commissioners, and of the observations they have made on the means employed, and the effects produced. This agent, this fluid, does not exist, but, chimerical as it is, the idea of it is not new. Some authors, some physicians of the last century, have expressly treated of it in several works. The curious and interesting researches of M. Thouret prove to the public that the theory, the procedures, the effects of animal magnetism proposed in the last century closely resembled those renewed in this one. Magnetism is, therefore, only an old error. This theory is to-day presented with a more imposing apparatus, necessary in a more enlightened century; but none the less it is false. Man seizes, abandons, takes up again the error which pleases him. There are errors which will be eternally dear to humanity—how many times has not astrology reappeared on the earth? Magnetism would tend to bring us back to it. It has been desired to link it to the heavenly influences in order that it might be more seductive, and might attract men by the two hopes which touch them most—that of knowing their future and that of prolonging their life.

There is reason to believe that the imagination is the principal of the three causes just assigned to magnetism. It has been seen by the experiments set forth that it alone suffices to produce crises. Pressure and touch seem, therefore, to serve as preparations for it; it is by touch that the nerves begin to be excited, imitation communicates and diffuses the impressions.

But the imagination is that active and terrible power which works the great effects one sees with astonishment in the public treatment. These effects strike the eyes of every one, whilst the cause is obscure and hidden. When one considers that these effects have in the last centuries seduced men estimable by their worth, by their knowledge, and even by their genius—such as Paracelsus, Van Helmont, Kircher, etc.—one need not be astonished if to-day educated and enlightened persons, if even a large number of physicians, have been deceived by it.

The Commissioners admitted only to the public treatment, where one had neither time nor opportunity for making decisive experiments, might themselves have been led into error. It was necessary to be able to isolate the effects in order to distinguish the causes of them; one must have seen, as they did, the imagination acting in some way partially produce its effects separately and in detail in order to form a conception of the accumulation of these effects, in order to form for oneself an idea of its whole power and realize its prodigies. But this examination requires a sacrifice of time and a number of continuous researches which one has not always the leisure to undertake for one's own instruction or curiosity, which one has not even the right to pursue unless by persons charged as the Commissioners were with the orders of the King and honoured by public confidence.

M. Deslon does not depart from these principles. He declared, in the committee held at the house of M. Franklin on June 9th, that he believed he could state as a fact that the imagination played the largest part in the effects of animal magnetism; he said that that new agent was perhaps only the imagination itself, the power of which is as great as it is little known. He asserts that he has constantly recognized this power in the treatment of his patients, and he likewise asserts that many have been either cured or infinitely relieved. He observed to the Commissioners that the imagination thus directed to the relief of suffering humanity would be a great benefit in the practice of medicine,* and, persuaded of this truth of the power of the imagination, he invited them to study with him the process and its

* M. Deslon had already said, in 1780: "If M. Mesmer had no other secret than that of bringing the imagination effectively into play for the health, would there not still be a marvellous benefit? If the medicine of the imagination were the best, why should not we practise the medicine of the imagination?"—*Observation sur le Magnetisme Animal*, pp. 46, 47.

effects. If M. Deslon is still attached to the first idea, that these effects are due to the action of a fluid communicated from one individual to another by touch, or by one directing a conductor, he will soon recognize with the Commissioners that only one cause is needed for an effect, and that, since imagination is sufficient, the fluid is useless. Doubtless we are surrounded by a fluid which belongs to us; insensible perspiration forms round about us an atmosphere of vapours equally insensible; but this fluid acts only like the atmosphere, can communicate itself only infinitely little by touch, is not directed either by conductors, by the look or the intentions, is not propagated by sound nor reflected by mirrors, and cannot produce in any case the effects attributed to it.

It remains to examine if the crises or the convulsions produced by the procedures of this pretended magnetism in the gatherings around the tub may be useful and cure or relieve patients. Doubtless the imagination of the patients often has a great influence in the cure of their diseases. The effect of it is only known by a general experience, and has not been determined by positive experiments; but it does not appear that one can doubt about it. It is a well known adage that faith saves in medicine; this faith is the product of the imagination; then the imagination acts only by mild methods; it is by diffusing calm in all the senses, in re-establishing order in the functions, in stimulating the whole by hope. Hope is the life of man. Whosoever can give him one helps to give him the other. But when the imagination produces convulsions it acts by violent methods; these methods are almost always destructive. There are very rare cases in which they may be useful; there are desperate cases in which everything must be disturbed in order that everything may be put in order and used. These dangerous agitations can only be used in medicine like poisons, it must be necessity that calls for them and there must be economy in their use. The need is momentary, the disturbance should not be repeated. Far from repeating it the wise physician looks to the means of repairing the necessary evil which it has produced; but in the public magnetic treatment the crises are repeated every day; they are long, violent; the state of these crises being harmful the habit of them can only be disastrous; how can it be thought that a woman whose chest is attacked can without danger have crises of convulsive cough and forced expectoration, and by violent and repeated effort fatigue perhaps tear the lung where it is so difficult to apply balm and palliatives? How can one imagine that a man, whatever be his disease, should require, in order to be cured, to fall into crises where the sight seems to be lost, where the limbs become rigid, where in hurried and involuntary movements he strikes his chest violently—crises which finish by abundant spitting of glairy matter and blood? This blood is neither vitiated nor corrupt; this blood comes from vessels whence it is brought by effort and from whence it comes against the order of Nature. These effects are therefore a real evil and not a curative evil; it is an evil added to the disease whatever that may be.

The crises are attended with another danger. Man is always a slave to custom; habit modifies Nature by successive degrees, but she disposes of it so powerfully that often she changes it almost entirely, and makes it unrecognisable. Who shall assure us that this state of crises, in the first instance impressed at will, will not become habitual? And if this habit thus contracted were often to reproduce the same phenomena in spite of the will, and almost without the help of the imagination, what would be the fate of an individual subject to these violent crises, tormented physically and morally by their unhappy impression, whose days should be divided between apprehension and pain, and whose life would be only a lasting torture? These diseases of the nerves, when they are natural, are the despair of physicians; it is not the function of art to produce them. That art is disastrous which disorders the functions of the animal economy, pushes Nature out of her ordinary path, and multiplies the victims of its derangements. That art is all the more dangerous since it not only aggravates diseases of the nerves by recalling the phenomena and making them degenerate into habit. But if this evil is contagious, as may be suspected, the custom of provoking nervous convulsions and of exciting them in public in the treatments, is a means of spreading them in large towns, and even of afflicting future generations with them, since the diseases and habits of the parents are transmitted to their posterity.

The Commissioners having recognized that this animal magnetic fluid cannot be perceived by any of our senses, that it has had no action either on themselves or on the patients whom they submitted to it; having assured themselves that the pressures and touches cause changes which are seldom favourable in the animal economy and stimulations of the imagination which are always troublesome; having, lastly, demonstrated by decisive experiments that the imagination without magnetism produces convulsions and that magnetism without imagination produces nothing; they have concluded unanimously, in regard to the question of the existence and utility of magnetism, that nothing proves the existence of the animal magnetic fluid: that this non-existent fluid is therefore useless; that the violent effects seen in the public treatment are produced by touch and the imagination set in action, and by that mechanical imitation which leads us in spite of ourselves to repeat that which strikes our senses. And at the same time they feel compelled to add as an important observation that the touches, the repeated action of the imagination, in order to produce crises may be harmful; that the sight of these crises is equally dangerous by reason of the imitation which Nature seems to have imposed upon us a law, and that consequently every public treatment where the methods of magnetism shall be employed can only in the end have disastrous effects.

Paris this day August 11th, 1784.

(Signed) B. FRANKLIN.
MAIAULT.
LE ROY.
SALLIN.
BAILLY.
D'ARCET.
DE BORY.
GUILLOTIN.
LAVOISIER.

NOTE.—If it be objected to the Commissioners that this conclusion includes magnetism in general, instead of relating only the magnetism practised by M. Deslon, the Commissioners will reply that the intention of the King was to get their opinion on animal magnetism. They have, consequently, not gone beyond the terms of their reference; they will further answer that M. Deslon seemed to them acquainted with what are called the principles of magnetism, and that he certainly possesses the means of producing effects and exciting crises. These principles of M. Deslon are the same as those contained in the twenty-seven propositions which M. Mesmer made public in print in 1779. If M. Mesmer now enunciates a wider theory, the Commissioners did not need to know that theory in order to decide as to the existence and the utility of magnetism; they had only to consider the effects. It is by the effects that the existence of a cause is manifested; it is by the same effects that its utility can be demonstrated. Knowledge of the phenomena is obtained by observation long before it is possible to arrive at the theory which links them and explains them. The theory of the magnet does not yet exist, and its phenomena are ascertained by the experience of several centuries. M. Mesmer's theory is here indifferent and superfluous; the practices, the effects—this is what had to be examined. Now it is easy to prove that the essential procedures of magnetism are those of M. Deslon.

M. Deslon was for several years the disciple of M. Mesmer. During that time he constantly saw employed the procedures of animal magnetism and the methods of exciting and directing it.

M. Deslon himself treated patients in M. Mesmer's presence; apart from him he has produced the same effects as when with M. Mesmer. Afterwards brought together, they one and the other united their patients, one and the other indiscriminately treated these patients, and consequently in following the same procedures. The method which M. Deslon follows to-day can, therefore, only be that of M. Mesmer. The effects equally correspond. There are crises as violent as multiplied and announced by the like symptoms in the hands of M. Deslon and in those of M. Mesmer; these effects, therefore, do not belong to a special practice, but to the practice of magnetism in general. The experiments of the Commissioners prove that the effects obtained by M. Deslon are due to touch, to imagination, to imitation. These causes are therefore those of magnetism in general.

The observations of the Commissioners have convinced them that these convulsive crises and violent methods can be useful in medicine only as poisons are: and they have judged, independently of all theory, that everywhere where one will seek to excite convulsions they may become habitual and harmful—they may spread in epidemic form, and may perhaps spread to future generations.

The Commissioners have consequently been bound to conclude that not only the procedures of a particular practice, but the procedures of magnetism in general, might in the long run become disastrous.

(To be continued.)

THE IMPORTANCE OF MAINTAINING THE INDEPENDENCE OF THE MEDICAL PRACTITIONER.

By Charles E. S. Flemming, M.R.C.S., L.R.C.P.,
Bradford-on-Avon.

A State medical service is one of the agents with which many a social reformer hopes to produce his Utopia. Recommendations made in the Minority Report of the last Royal Commission on the Poor Laws, suggestions and threats made by the Chancellor of the Exchequer, and, last but not least, many hints in the last annual report of the Chief Medical Officer of the Board of Education, make it evident that the fear of a service of medical officers under the direct control of the State is not without foundation.

I believe that the two fundamental objections of the medical profession to the Insurance Act are, first, a fear that its members will lose their independence, becoming, not as at present, free servants, but slaves in a particularly undesirable bondage; and, secondly, a belief that this loss of independence would entail a depreciation in the efficiency of the practice of medicine. By independence I mean freedom from lay control—not as citizens, for in this respect they must be as other citizens—but in so far as the practice of their profession and their relations to their patients are concerned. Social reformers are apt in making their calculations to forget that the medical profession cannot be dealt with in the same way as the labour market. Failure to recognize this fact may be as disastrous to some of their schemes as the non-recognition of human sentiment has been to the proposed reforms of some socialists. The point at issue is a question of efficiency, and not an argument between socialism and individualism, between which, after all, there is only a distinction of degree; they meet at their extremes, and in most communities something of both is necessary. Since the perfecting of the State implies the well-being and free initiative of its units, not only must each individual be an altruist, but may justifiably object to the Government interfering with him save when it is necessary for the general good. In other words, while the State should, if necessary, by its help or its compulsion, convert to the general benefit what is now the gain of a limited number, it should interfere as little as possible with bargaining between persons or groups of persons.

We have to ascertain the extent to which State interference is necessary for the most beneficial action of the medical profession for the general well-being. A man must not so use his faculties as to interfere with and injure others; at the same time, he must not allow his faculties to be wasted, for this entails an indirect injury on the community. He is expected, and so far may be interfered with, to use his faculties so that the community derives the greatest advantage from them.

Now, is the State, acting through its popularly elected representatives, central or local, likely to have the qualities required for estimating the value and quality of professional work, for dealing with, controlling, and directing the medical profession? It may grant the profession certain monopolies and privileges to be used for the benefit of the community, but the control of the conduct of its members must be vested in a body of medical men responsible to the Government, as, in fact, is the case in this country, to a certain limited extent, through the General Medical Council.

Medical men realize that while the State has given them certain privileges, for which it requires an ample and more than ample return, and controls them so that they can do no harm to the community, it has done little to protect them or assist them. Consequently they have been compelled for their own protection and mutual aid to form a sort of guild, a voluntary association, and while this association purposes to protect and promote its own interests, it has always recognized that its object must equally be the welfare of the nation. While this association proves itself efficient, and as long as it recognizes the claims of the community, it may justly demand the recognition of the Government, and like the old guilds may well be entrusted with the organization of the work of its members. Experience has shown that in such matters voluntary action is much more effective than Government action. But, when a project admitted to be useful and necessary cannot be realized through voluntary or individual effort, or when those concerned in the proposal cannot properly judge of its necessity, or its proper and efficient accomplishment, then should the Government interfere, but so far only as will ensure the suggestion being carried out, and so far only as it may be able on behalf of those concerned, to ensure that such legislation shall be instituted and enforced to the greatest advantage of the people. The question becomes not, to interfere or not to interfere, but how much to interfere? No scientifically constructed scheme will interfere with natural development except to direct its course. In other words the profession may be answerable to, but not under the control of, the State.

When the State found its children were not being educated properly, and that those concerned did not appreciate the necessity for good education, and could not afford, and if they could afford, could not judge, as to its efficiency, it took into its own hands the whole system of education; but there can be little doubt that the system in its extreme officialism is too rigid and does not give results at all proportionate to the energy and money expended. If this is the result in a matter that might be expected to permit of a good deal of dogma, how very much more would it of necessity be with the practice of a science and art as varying, as individualistic, as catholic, as complex, and as theoretical as is that of medicine.

If the State takes over the complete control of the treatment of the people, we may, in the light of what has been done in the case of education, have very grave doubts as to her wisdom and success in the undertaking.

What would be the value to the State of medical men were they all paid servants of the State? How difficult, almost impossible, it would be for them to criticize freely and fearlessly, and with unbiassed minds, suggested alterations in laws and regulations affecting directly or indirectly their work. At present the medical man, owing to his independent position, is a most valuable critic, and his criticism is not only destructive but constructive.

What would be the value of a medical man to his patients? Would the patient always be a free man to choose his own doctor? Owing to the peculiarly and essentially intimate relationship between doctor and patient, it is more important than the official can or will believe that he should be able to do so; his choice may appear illogical, but it is human, and we have to deal with human beings. The most materialistic practitioner will hardly deny the importance or value of suggestion or faith-healing in some form or other. It is essential, therefore, for the success of treatment that the patient shall have confidence in his particular medical attendant, and for very comfort of mind and body, which are important helps to cure, the patient must suit himself, if possible, as to the manner and temperament of his doctor. A patient at present is influenced in his choice by three things—expense, trust, liking. He often does not call in a particular doctor because, much as he likes and trusts, he cannot afford; or when the question of expense does not arise he may trust but not like, or vice versa. He will decide according to circumstances. The State may interfere so as to do away with the question of cost to the advantage of all concerned, but the other points must be left to the free will of the patient and doctor.

Doubtless there is in the practice of medicine, apart from the technical art, an art that appeals neither to the intelligence nor the senses, but that satisfies some desire of the patient. It is difficult, if not impossible, to define—a natural gift of some men, but by most men acquired or properly developed only after a period of endeavour. They are not likely to develop this art, so valuable in actual treatment, if they are bound to work according to special methods.

The scientist and artist is often a man who can work only in his own individual way. Even stress of competition, while it sometimes urges men to action who otherwise could be idle, yet, by the routine it necessitates, so hinders the scientist that he cannot do his best work. One man may work slowly, another rapidly; one apparently indolently, another with unresting vigour. Were each man to have the same amount of work allotted to him, how badly would many individuals of necessity be fitted. Orderly and methodical routine are not everything

in practice; in fact, they are apt at times, by their very rigidity, to interfere with the proper accomplishment of work essentially so varied. Were he to work as an official still more would the practitioner be hindered by the punctilio of his duties without the compensating advantage of the stimulus of competition.

With the artist, failure to take advantage of his moods and mannerisms makes indifferent what otherwise might be great—so with the physician. The science and art of medicine as ordinarily understood are so very far from being perfect or exact, that it is necessary for every medical practitioner to be an investigator, a scientific inquirer, a persevering artist—but the enthusiasm of investigation, unless fed by the fascination of his work, degenerates into the drudgery of the mechanic.

Art, whose ideals are so lofty, could not attain her desire: Science, ever in search of truth through difficult, untravelled paths, could not find her quest; Practice, whose subject is as varying as humanity, could not work its greatest good, if tethered and harassed and crippled by statutes of Parliament and regulations of officials.

Work will be done not for art, but for advancement. I shall be told that it is, under the present conditions of practice, done for gain. So it is, but the two—art of medicine and gain—interfere with one another less than may at first be thought, certainly less than do art and authority. The art of medicine knows no authority but science. Provided that the worker can regulate the price paid for his work, it should only act as an incentive, leaving him largely at liberty as to method and amount of work. A member of a powerful guild can, within reasonable limits, so regulate his wage.

Really good work must be done for the pleasure of the doing; there is a real difference between work that is done to order and work that is done for its own sake. In theory the best work and work done for profit are incompatible, but in practice, if the price paid is regulated by those who know the cost and manner of its production, who know what good work is, and who have a full appreciation of its value, the standard of the work is not likely to suffer.

But what are likely to be the rewards, beyond the living wage, in a State-regulated service? Men of marked individuality and strong character would, by their innate force, get promotion, though even then often at the cost of much individualism, but the profession as a whole would tend to the level of any other Government service. The rewards, promotion, commands, and prizes would go to diligence and obedience to rule rather than to originality. The risk of travelling off the beaten track would be too dangerous, and the temptation would be to keep in line.

Merit would be estimated not by the profession who should know it, nor by the patients who might appreciate it, but by the official and according to the official standard. Added to the defects inherent in such a method of judging efficiency and excellence, there would be the danger of other influences superseding real merit. One of the most serious dangers of an officially managed service would be the tendency to methods of routine, not so much in the actual regulations as in the method of thought, and the style of work. This is not a theoretical danger; it has been realized in many Government services, including Government medical services. There would certainly have to be some system of inspection. The inspectors and those to whom they were answerable would doubtless have their ideals as to treatment, and there would be a very real risk of the production of schools of thought or practice. Even as it is, fashions in medicine are mischievous, but we should indeed be going back to bad times if we stereotyped practice as it was stereotyped in the days when orthodoxy was throned and dominant, when individuality was less proper and less profitable.

We feel indignant when we think of the hindrance to its progress that science has suffered in the name of orthodoxy. What official could be expected to practise, to recognize, still less to be enthusiastic about, anything that was not strictly orthodox, at any rate in the eyes of his superiors?

The only superior that the medical man admits in his work is science, and I doubt whether he will ever willingly submit—I trust not—to any other authority.

In a State service with whole-time or salaried appointments, not only is there at once lost the stimulus of competition—so powerful an incentive to a man to do his best for his patient, and in this way valuable to the patient—but that free choice of doctor so well recognized to be in every way in the interest of the patient is taken away, and that particular interest in his patient which a medical man acquires after continued residence in one place, an interest and a knowledge of much value to both, is destroyed, because the medical man, if he has any desire to improve his position, can only do so by being promoted to some other district where the amenities are greater. He cannot enlarge his practice where he is, because his district is already mapped out and surrounded by others similarly limited.

We are told that the reason why a State service is necessary is the need for more active measures for the prevention of disease. I admit the need and the inestimable value of prevention, but I contend that as yet, at any rate—that is, until all disease has been prevented—treatment must continue, that treatment as carried out by the general practitioner must continue.

The medical officer of health deals with the prevention of diseases known to be preventable, diseases the causes of which can be controlled not by treatment of the patient himself, but by treatment of his surroundings. The medical officer of health has to deal with units rather than with human individuals, and so his work cannot be compared with that of the ordinary medical practitioner.

How much of everyday illness is really preventable by legislation? Many have an exaggerated idea on this point; let any general practitioner examine his list of patients at an average time, and I think that he will be surprised to find in how small a proportion of his cases could the illness have been prevented by any practicable legislation. In the case of deaths the proportion due to preventable disease is much larger, but the great majority of illnesses are not fatal.

In some of the arguments it seems to be assumed that the interests of medical practitioners conflict with the interests of public health, and that the State ought to make it the business and the profit of the practitioner to prevent rather than to cure; the patient whose illness has not been prevented will take a different view of the duty of his medical man. However this may be, it is certain that in the past, in spite of the fact that it has not been to his immediate pecuniary interest, the practitioner of medicine has been foremost in endeavouring to prevent sickness and disease: the first to draw attention to faults and wants in sanitation, in food, and in ways of living; and has been the most active, often in spite of opposition or, worse still, apathy, to urge improvements in legislation to enable these evils to be removed. He has done this because he has been an enthusiast in the practice of his profession as a servant of humanity. The art of preventing, alleviating, and curing disease is his first care, and the success of his art is his ambition.

We are told that treatment must be more methodical and better organized, and that this can only be done through a State service working under the medical officer of health. There is no doubt much overlapping and waste, and need for reform, but treatment cannot be put into watertight compartments. I have no desire to belittle the work of the medical officer of health; on the contrary, I believe that it must continue to grow in importance every year, but his work not only does not deal with clinical treatment, but only deals with a part of prevention.

The conception of the work of the general practitioner in the following words, written in support of a State service, is so utterly incomplete as to be wholly misleading: "Simply bringing the patient to the doctor and his guessing the disease, and the administration of appropriate drugs, do not constitute what modern requirements consider necessary for dealing with disease."

Much of the work of the general practitioner consists not only in treating existing disease, but in preventing, by his advice and influence, the recurrence of that disease, or the damaging of the patient's constitution which might lead to other disease, or to his falling a victim to those organisms which the official preventer of disease had not been able to keep away or get under complete control.

Is this work of influencing the life and the health of the patient, and through him of his children and his neighbours, likely to be carried out as effectively by the official medical attendant, the State medical drill sergeant, for

whom the patient may have no particular respect, as by the ordinary family doctor, who is loved, respected, and listened to?

Just as the influence of the independent practitioner on any single patient is greater than that of the official medical officer, so is the sum of the influences of several independent practitioners much greater than that of a body of State servants.

SCIENCE NOTES.

THE result of some experimental investigations, which may be preliminary to a co-ordination of the measurements of *x* rays and radium, enabling the one to be spoken of in the terms of the other, was brought before the Roentgen Society at the January meeting by Mr. Sidney Russ, B.Sc., of the Cancer Research Laboratory at the Middlesex Hospital. The comparison of the absorption of *x* rays and the beta and gamma rays of radium by different thicknesses of aluminium, seemed to suggest that the *x* rays came down rather on the beta side of radium than on the gamma side, the penetration of the rays from an *x*-ray bulb belonging much more closely to the order of beta penetration than to the other. Mr. Russ showed some very elaborate tables of measurement comparing the ionization produced in the electroscope by gamma rays and *x* rays respectively, and from those passed on to compare what might be termed biological doses, endeavouring to obtain an equivalent in terms of beta and gamma rays for the rays from an *x*-ray bulb. He pointed out that while it might appear that the *x*-ray bulb was equivalent to a very large quantity of radium, the distance factor was a very important one to be reckoned with in the case of the *x* rays. He took 10 cm. as the distance from the anode at which a piece of tissue was exposed to the rays, 7 cm. representing the distance between anode and glass. As the result of some interesting calculations, for which his paper subsequently to be published must be consulted, he came to the conclusion that in equivalent times the same biological effects per square centimetre irradiated ought to be obtained by means of *x* rays from an unscreened bulb working at 9 cm. spark gap, the distance of the tissue from the anode being 10 cm., as by means of a beta ray exposure corresponding to 2.75 milligrams of radium bromide. He added that in irradiating malignant tumours in mice his applicator had the almost equal intensity of 2.81 mg. of radium per square centimetre, and on looking through the results obtained he had no doubt as to the approximate accuracy of the figure. The *x*-ray effect on the tumours was doubtful at half an hour's exposure and decisive after an hour. That of the beta ray was doubtful at half an hour and decisive at an hour and a half. The calculation just made was for surface conditions. The case of screened doses in deep-seated conditions would be quite different, but he took it for granted that the beta rays would be utilized in surface conditions unless people had such a large quantity of radium at their disposal that they could afford the luxury of indulging in gamma rays.

Little more than a year ago attention was called to a remarkable increase in the bacteria in frozen soil observed at the Cornell Experiment Station during the winter of 1909–10. No explanation of the phenomenon was forthcoming at the time, but in the course of the succeeding winter a series of experimental observations was made by Conn. The results of the two years have been carefully compared, and from them certain deductions of general interest have been drawn. The bacteria in question, of which a great variety exist, have been grown artificially and their characters studied, and it has been found that the winter flora differs considerably from the summer flora in soil under approximately the same conditions. The increase of these winter forms raises the important question whether they really grow and multiply at the low temperatures at which they are found or whether their presence in such numbers is to be accounted for by some other explanation. In the case of most bacteria a temperature near freezing point seems to arrest growth and multiplication, but at the same time it is known that certain bacteria grow actively in cold storage, and some have actually been cultivated in frozen ice-cream. These latter facts indicate that bacterial increase in frozen soil is not impossible, and Conn's observations show that that is what really happens. It is not a case, however, of the winter flora overgrowing the summer forms, but rather the arrest of the latter by the extreme cold allowing the winter bacteria to appear in greater numbers. The increase in frozen soil is thus not a direct effect of the low temperature, but is due to the depressing influence of the cold upon that group of bacteria which is able in summer to keep the winter bacteria in check.

The first of Professor MacBride's series of studies in heredity was communicated to the Royal Society in the middle of November last. For a considerable time past MacBride has been attempting to rear young Echinoderms under artificial conditions, and after much patient labour his efforts have been crowned with a satisfactory degree of success. In the tank-room at the Imperial College these tiny pin-head urchins may now be seen at various stages of development, and their behaviour and continued growth form a source of constant interest and concern. These successful experiments have enabled detailed investigation of the effects of crossing different species, and the first of these has been concerned with a cross between the common sea urchin (*Echinus esculentus*) and the heart urchin (*Echinocardium cordatum*). These two genera are sufficiently far apart, systematically, to give rise to well-marked points of difference in their larval forms, and for this reason it has been a matter of no great difficulty to determine the predominance of paternal or maternal characters in the crossed larva. The question of the transmission of these characters in Echinoderms has, it is true, been tackled by more than one biologist, but the results have heretofore been contradictory and inconclusive. This unsatisfactory position has been largely due to the fact that the normal development of the species utilized was only incompletely known, and, in consequence, dependence had to be placed upon characters which are either slightly marked or even variable in the normal larvae. By his careful studies MacBride has been enabled to eliminate those difficulties. In the case under discussion the larva of the heart urchin has a well-marked aboral spike, which is absent in the sea urchin. The eggs of the former fertilized by the sperms of the latter give rise to hybrids which display the paternal character in the absence of the spike. When the converse experiment is attempted, no development takes place beyond the formation of a fertilization membrane, and the eggs eventually undergo cytolysis. This predominance of the paternal character is remarkable from the fact that in previous experiments by De Morgan and Shearer on hybrids between *Echinus esculentus* and *Echinus miliaris*, the larvae always displayed the predominance of maternal characters, while similar results were obtained in the well-known experiments of Loeb, in which the eggs of sea urchins were fertilized by sperms belonging to entirely different classes of animals. MacBride's discovery should stimulate further research, and the results of his future investigations will be awaited with interest.

G. Broesike[1] has made a careful investigation of the function of the various component parts of the seminal fluid in man, and finds that there are four essential constituents. During erection a secretion is produced from Cowper's glands, and perhaps also from urethral glands, which serves mainly to lubricate the mucous membrane of the urethra, and to a slight extent to neutralize its acidity. The latter function, however, is chiefly performed by the prostatic secretion which is distinctly alkaline. It thus tends to protect the sperms, not only in the urethra, but also in the vagina. The semen, containing actively motile sperms, comes from the epididymis and vas deferens, but not from the testis itself. The sperms do not attain their maximum motility till twenty-four to forty-eight hours after they have left the testis, and they probably remain actively motile for a further period of four or five days. The last constituent of the seminal fluid is the alkaline gelatinous secretion from the seminal vesicles, which appears to help in forcing the sperms from the urethra and in retaining them in the vagina. The function of the seminal vesicles is, as the author remarks, chiefly glandular and not receptacular, although it is true they sometimes contain a few mature sperms.

[1] *Arch. mikr. Anat.*, vol. lxxviii, 1911, p. 128.

THE COMPOSITION OF CERTAIN SECRET REMEDIES.*

MEDICINES FOR ALCOHOLISM.

WE have previously reported on some advertised preparations for the cure of inebriety (BRITISH MEDICAL JOURNAL, 1909, vol. i, p. 909; *Secret Remedies*, pp. 162–169), some of which consisted only of such substances as potassium bromide, acetanilid, sodium bicarbonate, etc., while one was a liquid preparation of cinchona. We now report on a small number of others for which very strong claims are made; in each case it is asserted that the patient can be cured without his being aware that drugs are being administered.

THE TEMPERANCIA ASSOCIATION TREATMENT.

The medicines sold under this name are supplied from an address in London; the price charged for a supply (price stated as two guineas) was 21s., for which sixty capsules were sent.

Some extracts from an advertisement of this "treatment" are as follows:

The "Temperancia" Assn organized in 1895 by Dr. Alexr. G. Edison, M.D., L.F.P.S., etc., and the Revd Henry Martin Janeway, D.D., B.A., L.H.D. are accepting Free and paying patients for the Treatment of Alcoholism (Drunkenness in any form).

With the methods adopted by this Association all desire for alcoholic stimulants is permanently destroyed, a distaste for alcohol created, and the nervous and diseased system restored to a healthy and natural condition, at your own home, hotel, or while at work, without publicity or inconvenience.

The treatment can be taken either voluntarily, or those who, through "the grasp of drink," fail to realise their peril, and will not listen to reason, can be cured SECRETLY, against their own free will, and without their co-operation, by any member of the family, with the special course prepared for this purpose. Either course is perfectly harmless, adapted for both sexes, of any age, even of the most delicate health, and is endorsed by the Medical profession, the Press, the Clergy, and thousands of cured patients.

Application to the address given brought a booklet on the "treatment," various leaflets, and a list of questions to be answered. The following extracts are from the booklet:

The treatment is prepared in Two distinct forms, viz.:—

LIQUID { to be used in all cases when a patient treats himself voluntarily, with his own free will and

CAPSULES { To be used in all cases where a patient is to be treated secretly, without his knowledge.

The treatment in CAPSULE form is absolutely tasteless and odourless, and is placed in coffee, tea, soup, or any other convenient food. . . . To do good by stealth is enjoined upon us by the teachings of the highest authorities, and is in strict accordance with the highest morality.

It does not matter whether a patient is treated secretly or voluntarily, the results are the same. Almost from the very first day of its use the appetite improves, he eats and sleeps better, he becomes less restless than usual, his eyes become bright, his hands steady, the brain clear, and the spirit buoyant. . . .

The "Temperancia" Treatment, both the Liquid or Capsule, can be given with utmost *safety*. As already explained, it does *not* contain any drugs, poison or minerals of any description, but it is entirely of a vegetable preparation. An overdose is perfectly harmless; it will not injure a man, woman, or child even of the most delicate health. . . .

Both our Liquid and Capsule treatment are prepared in courses. Each course of the Liquid treatment contains Two (2) full-sized bottles, and each course of the Capsules Two (2) full sized packages. The cost per course, either the Liquid or Capsules, is Two Guineas (£2 2 0), or Two courses, if ordered at one time, Three Pounds Ten Shillings (£3 10 0). . . .

It is impossible to estimate the time required to effect a permanent cure in any individual case . . . the "Temperancia" Treatment often effects a complete cure in but a few days.

After the lapse of an interval, in which no order was sent, a circular letter was received, from which the following extracts are quoted:

We are indeed surprised not having received from you an order for the treatment prepared by this Association. . . . There is only one conclusion we can arrive at, namely, that financial circumstances make the cost of a treatment prohibitive to you. Should this be the case we would like to say, that this Association being at all times willing to extend a helping hand to everybody, is prepared to treat your patient for a fee of only 21s. per course.

One guinea was then sent for a supply of capsules, together with answers to the list of questions. These questions were as follows, the answers given being here printed in italics:

Name or initials of patient.
Age? *34.*
Sex? *M.*
Married? *Yes.*
How long? *7 years.*
Any children? *2.*
Height? *5ft. 11.*
Weight? *12 stone.*
Complexion? *Fair.*
Occupation? *Clerk.*
Works hard? *Yes.*
Is the patient to be treated secretly or voluntarily? *Secretly.*
How long since he commenced drinking? *Four years.*
Nature of liquor used? *Whisky; and other spirits.*
Quantity per day, or as near as possible? *Varies from 2 glasses to a bottle or more.*
Does he drink during the night? *No.*
Before breakfast? *Sometimes.*
Does he ever become drunk? *Yes.*
Does he drink daily or periodically? *Daily; but to excess only periodically.*
If periodically, how often? and how long does each bout last? *Sometimes every week, sometimes once in several weeks. One or two days.*
When did he have his last bout? *A week ago.*
What mental effect does he suffer with from drink? *Excitement; sometimes delusions.*
How is his appetite, sleep, and digestion, both when drunk or sober? *Good when sober; not bad when drinking.*
Is he nervous, irritable, or phlegmatic? *Rather irritable.*
Is he getting thinner or stouter? *Not changing.*
Constipated? *No.*
Does he ever complain of heart trouble? *No.*
Any disease he was or is suffering with? *No.*
If so, what was the doctor's advice?
Taking any medicine at present, and for what purpose? *No.*
Any of the parents or grandparents addicted to drink? (state which, and if not alive, give cause of death) *No.*
Did the patient ever have Delirium Tremens? How often, and when? *Two or three times last year.*
Does he use Tobacco? (state what form, quantity, and if he inhales) *Pipe and cigars; about 3 oz. and 6 or 8 cigars a week. Does not inhale.*
Does he use any Narcotic Drugs? (state which, quantity per day, and how long used) *No.*
Has he ever been treated for the liquor habit? (state when, what treatment, if voluntarily, how long treated, cost of same and results) *No.*
P.S.—Write fully on the other side any additional information regarding the patient's past and present condition that the physician should know of.

Two boxes of capsules were received, each containing thirty, with no labels. A written letter was received separately, in which the following directions were given:

For the first two days take three capsules daily, four the third day, five the fourth, and then six every day until the course is finished.

(The sixty would thus last eleven days, and leave three capsules over.)

The way to take them is in either hot tea, coffee, or soup. Empty the contents into the cup, not put the whole capsule, and thoroughly stir until dissolved. Eat plain wholesome food, good fruit, and keep the bowels well open.

The best time for taking the powders is on arising in the morning, mid-day, and before retiring at night. Should you find it difficult to give the six daily, two may be taken at one time, but not more, as they might taste, and they must be well stirred, and dissolved.

(They were previously described as "absolutely tasteless.")

The contents of the capsules consisted of a light brown powder, the average amount in one being 8 grains. Determination of the weight of the contents of several capsules singly, taken without selection, showed them to vary from 5 grains to 9.4 grains. Analysis showed the powder to consist of powdered cinchona, sugar of milk, and magnesium carbonate. The amount of cinchona was ascertained by weighing the fibre after removing other ingredients with solvents and comparing it with the fibre

* Previous articles of this series were published in the following issues of the BRITISH MEDICAL JOURNAL: 1904, vol. ii, p. 1585; 1905, vol. ii, pp. 27, 1645; 1907, vol. i, p. 215; vol. ii, pp. 24, 169, 209, 393, 530, 1653; 1908, vol. i, pp. 835, 942, 1373; vol. ii, pp. 85, 505, 1022, 1110, 1193, 1285, 1566, 1697, 1875; 1909, vol. i, pp. 31, 909, 1128; vol. ii, p. 1419; 1910, vol. i, pp. 151, 213, 393, 1035, 1053, 1120; vol. ii, pp. 982, 1350, 1928; 1911, vol. i, pp. 26, 91, 823, 1324; vol. ii, pp. 32, 77, 456, 767, 854, 1543; 1912, vol. i, p. 26. Analyses are also to be found in *Secret Remedies* (chapters i and ii). London: British Medical Association, 429, Strand. Price 1s., post free 1s. 3d.

left by powdered cinchona when similarly treated; and also independently by determining the amount of alkaloid present. Both results showed the cinchona to form about 13 per cent. of the powder; milk-sugar was found to amount to 55 per cent., and the magnesium carbonate to about 32 per cent. Each capsule would thus contain about 1 grain of cinchona. The estimated cost of the powders for sixty capsules is 1d.

Edward J. Woods Treatment.

The medicines sold under this name are supplied by Edward J. Woods, Ltd., London. The price charged is 2 guineas, for which 60 powders and 63 tablets were sent.

Advertisements are usually accompanied with a picture of a man's head, purporting to represent the advertiser. The following extracts from such an advertisement show their general tenor:

I was a Heavy Drinker
Consumed quart of whisky every 24 hours
Cured in 3 days

If you know anyone who drinks alcohol in any form, regularly or periodically, let me send my Free Book, "Confessions of an Alcohol Slave."

I drank beer at first, then gradually developed into a drinker of strong liquors. When drinking heavily I did not hesitate to pawn my coat or break a public house window to get spirits. For long periods I drank over a quart of whisky, rum or gin daily. And some mixed drinks and beer additionally! . . .

For 16 years I kept it up, and I was regarded as a hopeless case. Various "cures" did me no good. But now I have a joyful message for drinkers and Mothers, Wives, Sisters.

While drifting from bad to worse, as all slaves of King Alcohol do, I unexpectedly found a true cure. It was (and is) genuine. It saved my life. My health was quickly restored. I became and am a respectable man, enjoying every benefit of freedom from the accursed alcohol. I speedily and naturally lost all desire for drink. I took less and less. I began to prefer tea, coffee, and other non-alcoholic liquids; the craving for liquor ceased, I could sleep perfectly, my stomach became well, and I recovered from other ailments which I now know were due to my indulgence in strong drink.

Wonderful.

My cure took 3 days; if I had relied upon will power or faith I should still be a drunkard, because an alcohol slave has no will power while drinking. I rejoiced so greatly at having found a true cure that I decided to devote my life to removing the curse from others. My success has been marvellous. . . .

What I promise is absolutely guaranteed. My remedy is for either steady or periodical drinkers. Think of it, a complete and permanent home cure between Friday night and Monday night—or any other 72 hours!

Men, or Women, Any Age, Quickly Cured. . . .

On application to the address given, the "Confession" referred to above and various other papers were sent. From these it appears that the "Treatment" is of American origin, and the business seems to have attained considerable dimensions in America before being established in England. Two sets of remedies are supplied—"the A Set of Remedies to be given with the knowledge and consent of the person," and "the B Set for conquering his drink habit secretly, so that he will gradually form a disgust for alcoholic drinks of all kinds and will never know what saved him unless you chose to tell him." One of the papers was an 'Information Form No. A 4," which was as follows—the answers given to the various questions are printed in italics:

Sex? *M.*
Age? *34* years.
Married? *Yes.*
Approximate weight? *12* stone lbs.
Height about? *5* ft. *11* in.
Steady drinker, or does he (or she) drink in a bout (spree) after keeping sober for some time? *Steady drinker in slight excess; bout occasionally.*
What kind of alcoholic drink mostly taken? *Whiskey and other spirits.*
About how much every 24 hours? *Varies from 2 or 3 glasses to 2 bottles.*
Has person ever had delusions? *Yes.*
Fits? *No.*
Delirium tremens? *3 times.*
Insanity? *No.*
Apoplexy? *No.*
Will remedies be given with or without person's knowlege? *Without.*
Do bowels move freely, or are they constipated? *Alright.*
About how many years has person been accustomed to use of alcoholic drinks? *All his life; only to excess for about 4 years.*
Does person sleep soundly through the night? *Usually.*
Does person need to drink alcohol during the night? *Not as a rule.*
Is person drinking at present? *Yes.*
What is occupation (or nature of same) and how much outdoor exercise is usually taken? *Clerk. Does fair amount of walking and little cycling.*
Does person prefer to drink with company, or quietly, alone? *Both.*
Are any medicines or drugs being taken for any purpose? *No.*
Here please give further details of case.

The preparations sent (B set) consisted of 60 powders and 68 tablets. They were accompanied by a circular letter, in which the following directions were given:

The chief rule is that you are to give three No. 777 Powders and three No. 1010 Tablets every day, if you can, and that these are to be given at different times, not all together. If you miss doses, you are not to make them up.

If the dose should seem to be too strong, it can be reduced by giving a half or quarter Powder or Tablet. But do not increase the doses until you have sent me the report, which should come at the end of your having given 42 each of the Powders and Tablets, i.e., about two weeks. If it takes a longer period to give these, then your report can be delayed accordingly.

Be cheerful and optimistic. Maintain your perseverance and kindly temper. Watch and wait! Success may come slowly but it will come surely.

This is somewhat different from "a complete and permanent home cure between Friday night and Monday night, or any other 72 hours!" An extract from a pamphlet of general directions sent with the medicines is:

Even if six months are required to accomplish the desired purpose, it is a highly satisfactory reward for the expense, time, and effort used.

I beg of you, therefore, to treat this matter with calmness. Do not write me that you are utterly disappointed, that you feel as if nothing can ever do any good, and other similar remarks, but keep perseveringly on.

From another leaflet it appears that Edward J. Woods, Ltd., does business in other articles as well. A list is given of twenty-six medicines supplied by the company, which includes such varied ones as:

No. 444.—Blood Purifier, Liver Regulator and Stomach Improver.
No. 555.—Aphrodisiac tablets.
No. 1111.—Tablets for the kidneys.
No. 1616.—Rheumatism, gout, lumbago, neuralgia and sciatica remedy.
No. 2020.—Tablets to prevent incontinence of urine.
No. 2222.—Anti-deafness tablets.
No. 4444.—Asthma tablets.
No. 5555.—Preparation for darkening grey or white hair to natural black or dark brown.
No. 1212.—Special method for reduction of superfluous fat.
No. 3333.—Anti-nicotine Tablets.
No. 1515.—Female Remedy.
No. 44.—Flesh Developing Cream.

The powders had an average weight of 9.9 grains, single ones varying from 7.2 to 11.9 grains. Analysis showed them to contain:

Tartar emetic	3.6	per cent.
Sugar of milk	96.4	,,

No trace of any other substance was found. A powder of average weight would thus contain 0.35 grain of tartar emetic.

The tablets had an average weight of 1.6 grains. Analysis showed them to contain

Tartar emetic	13.2	per cent.
Boric acid	10.7	,,
Sugar of milk	76.1	,,

No trace of any other substance was found. One tablet would thus contain 0.2 grain of tartar emetic, and the daily dose of three powders and three tablets would contain 1.65 grains.

The estimated cost of materials for 60 powders and 68 tablets is about 1d.

Alcola.

Alcola is supplied by "Physicians Co-operative Association," Chicago, and the price charged for it is £1.

The method of advertising which appears to be adopted in this case is for a Mrs. Anderson, Hillburn, New York, to advertise offering to send, without charge, information about a medicine which cured her husband of the drink habit. On writing to the address given, a lithographed letter was received purporting to be from Mrs. Anderson; its nature is shown by the following extracts:

My dear friend

I have just read your letter asking me how I cured my husband of drinking, and I will answer it at once as I am sure

that you are anxious to drive drunkeness from your home just as soon as you possibly can.

Mr. Anderson was a hard drinker for over 20 years and the disease had got such a firm hold that it was impossible for him to shake it off and it continued to grow worse and worse with no sign of ever stopping.

Just about this time I received a letter from a lady telling me about a remedy called Alcola which she said had never been known to fail and she urged me to send for it at once as she knew it would certainly cure.

I had already tried about every remedy that I had seen advertised for the cure of drunkenness but none of them did any good whatever and I was tired of spending my money for nothing but you know a person especially a woman will do anything to save her family and home and I made up my mind to make one more effort to cure Mr. Anderson if it was possible so I managed after some trouble to get the money and took her advice and sent for it and gave it as directed and in a very short time he lost all the terrible craving for liquor that he had had for so long. His health improved in every way too. This was about eight years ago and he has never drank since. . . . The Physicians Co-operative Association 309 to 311 Michigan Ave Chicago Ill. are the only ones who prepare and sell Alcola and I will write them to-day and ask them to send you full information. . . .

A little later a long circular letter was received from the "Physicians Co-operative Association," together with a booklet in which it was stated that:

Alcola is the very best treatment for drunkenness that you can possibly obtain. . . .

It cures all stages of the disease, from the beginner to the one who has drank for years and is thought beyond hope. It makes no difference whether the disease was inherited or acquired nor what kind of liquor the patient uses. Alcola is absolutely harmless. . . . Alcola does not contain even a trace of opium, morphine, cocaine, chloral, cannabis indica or any other dangerous narcotic or habit-producing drug. . . .

Alcola is prepared either to be taken with the patient's knowledge or to be given secretly. When you send your order state which treatment you wish.

A short list of questions, as follows, was also sent; the answers given are printed in italics:

Information Regarding Patient.

Age. *34.*
Occupation. *Clerk.*
How long has patient drank? *5 years.*
Does he keep liquor in the house? *Yes.*
Has he any chronic disease that you know of? *No.*
How is his general health? *Fair otherwise.*
Will the treatment be given secretly? *Yes.*
Are you yourself to give treatment to the patient? *Yes.*
What relation is patient to you? *None; we live together.*

IMPORTANT.

Will tablet be given twice a day or three times? *Twice.*
Will you begin treatment at once? *Yes.*

The medicines sent consisted of three boxes of tablets, labelled respectively No. 1, No. 2, and No. 3. They were accompanied by a long printed paper of directions, a long circular letter, a "Report Blank," and other papers giving particulars of "our Co-operative Plan," by which the purchaser obtains a commission on sales to others resulting from his introduction of "Alcola." The chief parts of the directions are:

Tablets Nos. 1 and 2 are to be given as follows: One tablet three times a day at meal time. Give alternately, that is, a tablet of No. 1 at one meal, No. 2 at the next meal, No. 1 the next, No. 2 the next, and so on.

They can be given in almost any liquid except water, but strong tea, coffee, highly seasoned soups, etc., are preferred. . . .

Tablet No. 3. This tablet is to be used only when the patient has been drinking to a noticeable degree, or if the patient is a moderate daily drinker, give every third day.

This tablet should be given as soon after the patient has been drinking as is possible, that is, if the patient comes home under the influence of Drink give No. 3 at once, if you can. If patient does not drink, do not use No. 3.

After you have been using the treatment three weeks fill out the enclosed report blank carefully and fully and send it to us. This is a most important point, for in this way we can judge how your patient is getting along, and if necessary can give you further advice that we are sure will be of great assistance and value to you.

It is absolutely impossible for any physician to tell the length of time or the amount of medicine it will require to cure any particular case. . . .

The length of time it requires to effect a cure depends entirely upon the patient's susceptibility to the action of the medicine. . . .

. . . we even find cases where but little improvement is noticed with the use of the first package . . . when these cases are found it will be necessary to continue the use of ALCOLA longer than the average amount of time in order to effect a complete cure.

No. 1 Tablets.—The box contained 62 tablets of a pale yellow colour; the average weight of one was 5.7 grains. Analysis showed the presence of—

Strychnine	... ...	0.12 per cent.
Caffeine	... ...	4.72 ,,
Sugar of milk	... ...	86.9 ,,
Talc	... ...	4.1 ,,

With starch, a little gum or dextrin, and a trace of colouring matter.

Each tablet would thus contain 0.007 grain of strychnine and 0.26 grain of caffeine.

No. 2 Tablets.—The box contained 63 tablets of a light chocolate colour; the average weight of one was 5.7 grains. Analysis showed the presence of—

Strychnine	... ...	0.2 per cent.*
Boric acid	... ...	4.4 per cent.
Sugar of milk	... ...	82.8 ,,
Talc	... ...	3.0 ,,

With starch and colouring matter.
*Approximately.

A trace of vegetable débris was present, perhaps from a small quantity of some vegetable extract showing no distinctive characters. The colouring matter was basic in nature and could not be separated from the strychnine; hence the figure for the latter is approximate only.

Each tablet would thus contain about 0.011 grain of strychnine.

No. 3 Tablets.—The box contained 29 tablets, which were greyish with a pink tinge; the average weight of one was 2.9 grains. Analysis showed the presence of—

Tartar emetic	... ...	16.7 per cent.
Calcium sulphate	... ...	61.4 ,,
Talc	... ...	3.1 ,,

With starch and colouring matter.

A trace of a pungent substance was present resembling the pungent principle of pepper, and a trace of vegetable débris which may have been from a small quantity of a vegetable extract showing no distinctive characters.

Each tablet would thus contain 0.48 grain of tartar emetic. The estimated cost of the ingredients for all the tablets in the three boxes is about 1¾d.

THE ASYLUM OFFICERS (EMPLOYMENT, PENSIONS AND SUPERANNUATION) BILL.

REPORT FROM THE SELECT COMMITTEE.*

IN our issue of September 23rd, 1911, we published a brief and general account of the Asylum Officers' Bill, 1911, as amended by a Select Committee, but did not touch upon the evidence heard and discussed by the committee.

The committee consisted of eighteen members: eleven sittings were held and twenty witnesses were heard. The views of the Lunacy Commissioners for England and Wales were given by Dr. Marriott Cooke, and those of the Lunacy Commissioners for Scotland by Mr. T. W. L. Spence, Secretary to the General Board of Lunacy for Scotland. The Irish Board of Lunacy was not represented. Mr. Moylan gave evidence as to the views of the Home Office on the bill as drafted; Mr. H. F. Keene those of the London County Council Asylums Committee; Drs. D. M. Cassidy and F. Perceval those of the Lancashire Asylums Board; and Mr. J. W. Bund, Member of the Executive of the County Councils Association and of the Barnsley Hall (Worcestershire) Visiting Committee, gave the views of the County Councils Association. Dr. T. S. Clouston represented the whole of the working royal asylums of Scotland, and Mr. T. Munro (Clerk and Treasurer, Lanark District Asylum) gave evidence on behalf of practically all the Scottish District Lunacy Boards. Of associations not being administrative bodies, the Medico-Psychological Association of Great Britain and Ireland was represented by Dr. C. H. Bond; the Asylum Workers' Association by Dr. G. E. Shuttleworth (honorary secretary), Miss M. Lord (matron of Banstead Asylum), Dr. M. J. Nolan (President of the Irish Division), Mrs. O'Connor (matron of the Ballinasloe Asylum), and Mr. Martin Brophy (attendant, Maryborough

*Report and Special Report from the Select Committee on the Asylums Officers (Employment, Pensions, and Superannuation) Bill, together with the Proceedings of the Committee, Minutes of Evidence, and Appendices. London: Wyman and Sons, Limited. 1911. (1s. 6d.)

Asylum), the last three named on behalf of the Irish Division of this Association. The Rev. H. M. S. Bankart (secretary), an active promoter of the bill as drafted, spoke on behalf of the National Asylum Workers' Union. Mr. Harry Arnold (charge attendant) gave the views of the attendants at the Three Counties Asylum, and Mr. Jas. S. Marr (house steward, Woodilee Asylum, Glasgow) and Mr. G. Pirie (superintendent, Paisley District Asylum) spoke to particular clauses of the bill. Lastly, Mr. W. K. Jarman (National Debt Office) gave some actuarial calculations as to the extra cost involved by the bill.

It will be seen that the witnesses were thoroughly representative of all the various interests likely to be affected by the passing of this bill, and of all shades of opinion upon it, from the vigorously expressed views of Mr. Bankart, the protagonist and organizer of the National Asylum Workers' Union, whose executive drafted the bill, through varying degrees of partial approval from the English Lunacy Commissioners and other bodies to the cold antagonism of visiting committees to the clauses affecting finance. Perusal of the proceedings of the committee also affords ample evidence of the great care taken by the committee to thoroughly consider in an impartial spirit every essential point.

The bill as drafted—and it may be parenthetically remarked here that the drafting of the bill incurred a good deal of hearty condemnation—fell into two parts; the first, given in Clause 1, establishing a statutory limitation of the maximum hours of employment to sixty hours per week, and Clauses 2 to 6 amending the Asylums Officers' Superannuation Act of 1909.

Dealing first with the evidence given to the committee upon Clause 1, the report shows a wide diversity of opinion, the points of conflict being: (1) The advisability or inadvisability of fixing any statutory limit; (2) the existence or non-existence of any real grievance or dissatisfaction of subordinate asylum staffs on account of their hours of labour; and (3) conceding there was a case for the fixing of a maximum, what this maximum should be, and in what manner it should be secured.

On the first point Dr. Clouston ably opposed the fixing by statute of any limit, on the ground that it would work badly for the patient; that as soon as the asylum committees found their expenses going up in consequence of a reduction of hours in labour they would be bound to effect economies in other directions, by reducing the proportion of staff to patients, by cutting off extras and luxuries to the patients, and that also it would tend to make asylum boards and their staff regard the financial rather than the curative side of their functions. The directly opposed view was given by Mr. Bankart, who urged the necessity of State interference, on the grounds of "the abominable conditions of life in an asylum for the workers," the trying and fearful monotony of the work, its dangers and humiliations, the unduly long hours of labour, and the very real dissatisfaction on this account of the subordinate staffs, and the "hopeless case" of these latter if left to the asylum committees and their medical superintendents, the majority of whom he stigmatized as "unfair." Between these extreme views were the views of the majority of witnesses. Dr. Marriott Cooke, admitting that the hours of labour were too long in many asylums—giving an average, he estimated of eighty-four hours per week—and speaking on behalf of the Lunacy Commissioners, expressed his grave doubts of statutory limitation, and inclined to the view that the public attention given to this matter would be sufficient to bring asylum committees to see their responsibilities in this respect. In the same way Mr. Spence deprecated for Scotland statutory limitation, and suggested instead the drawing up of time tables by district lunacy boards, these time tables to receive the sanction of the General Board of Lunacy, with, if necessary, the sanction also of the Secretary for Scotland. Mr. Moylan, of the Home Office, did not express any official views on this point, the Home Office having no direct jurisdiction, but he handed in to the committee the views expressed by seventeen visiting committees, unanimously adverse to the whole of Clause 1.

Drs. Cassidy and Perceval, speaking for the Lancashire Asylums Boards and Asylums Committees, submitted that there was no case, so far as their asylums were concerned, for State interference with the discretion of the asylums committees in the matter of hours of labour, though under cross-examination they admitted that an Act of Parliament might step in by prescribing a minimum of leave. On the other hand, Dr. Bond, speaking for the Medico-Psychological Association of Great Britain and Ireland, had no objection to urge against a statutory limit; and Dr. Shuttleworth, speaking for the Asylum Workers' Association, and after stating that the hours worked by attendants were often excessive, said that the fixing of a statutory maximum by Act of Parliament, leaving the visiting committees to arrange anything they chose under that maximum, would be the most reasonable way of meeting the case. Notwithstanding powerful reasons against it, however, the Select Committee have incorporated statutory limitation of the hours of labour in the bill. As to the existence or non-existence of real dissatisfaction with the hours of labour among the attendants, the evidence was conflicting, only one or two of the witnesses affirming that there was any real grievance on this score, and the great majority, composed of heads of departments, contending that the proposed reduction to sixty hours was unreasonable and impracticable. The general opinion, however, was that a seventy or seventy-two hours' week was reasonable, and, as already announced, seventy hours is the maximum arrived at by the Select Committee.

During the discussion of this question of hours of labour many cognate points were touched upon—for example, the time allowance for meals, the counting or not of emergency duty, attendance at concerts and amusements as work or not, and so on. The evidence given revealed great incongruities in these respects, and, admitting the need for statutory limitations, the prescription of uniform standards arrived at by the committee[*] seems to be fair. Also it should be said that the Select Committee altered the money repayment for overtime provided by the bill as drafted into repayment by time.

Turning to the remaining clauses, Clause 2 of the amended bill confers the right to pension "upon any female established officer or servant of the first class who has been in the service of any asylum for not less than twenty-five years, whatever her age." The evidence in favour of this provision was practically unanimous. The bill as drafted included men also within this provision, but the Select Committee did not consider the case made out for altering the Act of 1909, which confers the right to pension at the age of 55 when twenty years' service have been completed.

Clause 3 of the amended bill extends the power, conferred by the principal Act, to grant a gratuity or special superannuation allowance to established officers or servants *injured* in the discharge of their duty, to any such officer or servant who is permanently incapacitated for asylum duties as the result of an *illness* contracted without his own default and clearly attributable to the nature of the duties assigned to him. Mr. Moylan pointed out that in the original bill for the principal Act "confirmed illness (bodily or mental)" was included, and that after it had been shown that every case of neurasthenia could be put down as "illness clearly attributable to the duties of his employment," illness as ground for a special pension was omitted from the bill. In the 1911 amended bill this proposal is reinstated. As a matter of fact, in the drafted bill the power to confer gratuities extended to the victims of accidents or illness irrespective of its causation, but, according to Mr. Bankart, this was an oversight.

Passing by Clause 4, which refers to gratuities and allowances to dependants, Clause 5 enables visiting committees to grant gratuities to female officers or servants retiring with ten years' service.

Clause 6 of the amended bill deals with a very important matter—the dismissal of officers and servants. Under Section 276 of the Lunacy Act, 1890, it does not appear that the power of summary dismissal is legally vested in the medical superintendent, but is vested in the visiting committee. The evidence, however, revealed great irregularity in practice in this respect. In Ireland and under the Asylums Committee of the London County Council the strict legal procedure is followed. In Scotland, however, the power of summary dismissal is specifically delegated to the medical superintendent under rules under

[*] BRITISH MEDICAL JOURNAL, September 23rd

the Act of 1857, and in many English provincial asylums summary dismissal is, in fact, exercised by the superintendent.

The bill as drafted permitted the medical superintendent merely a power of suspension, which should become operative and effective only when confirmed by the visiting commitee. Under this heading Mr. Bankart stated that ordinary British justice did not exist in asylums, and that there were cases of wrongful dismissal which were never inquired into by the committee. Dr. Clouston, on the other hand, firmly maintained the necessity of leaving the power of summary dismissal in the hands of the medical superintendent on disciplinary grounds, and in this he was supported by other witnesses. Nevertheless, Clause 6 rules that this power shall be exercised only by the visiting committee, and shall not be delegated by them to any officer, though general rules may be made giving the medical superintendent power to suspend pending the decision of the visiting committee. Further, any person whom it is proposed to dismiss shall be entitled to receive notice of the meeting of the visiting committee at which his dismissal is to be considered.

Clause 7, as already announced, substitutes five for ten years as the basis of calculation of the average salary and emoluments for the purposes of pension.

Clause 8 refers to the distribution of grants in case of death or pensions being illegitimate.

Clause 9 deals with the method of reckoning length of service in parochial asylums in Scotland and attempts to rectify an unfortunate situation which has arisen in Scotland. In that country the insane are looked after either in district asylums, which correspond to county and borough asylums in England; or in parochial asylums, whose work is practically identical with district asylums; and in royal asylums, which are mental hospitals, supported by endowments, subscriptions, and, in the case of pauper patients, by contracts with parishes. The Act of 1909 applies only, according to the reading of the General Board of Lunacy of Scotland, to district asylums, and in consequence service in parochial asylums—excepting two parochial asylums, specifically included in the 1909 Act—does not count for pension. At Woodilee Asylum, for example, thirty-nine officers lost from one to twenty-six years' service. This anomaly is redressed by Clause 9 of the amended bill.

Clause 10 transfers the powers and duties of the Secretary of State under the principal Act to the Commissioners in Lunacy. Any dispute, therefore, arising under the principal Act as to whether a person is entitled to be treated as an established officer or servant, or as to the class of established officers to which a person belongs, or as to whether a nurse or attendant is one "whose primary duty is the care or charge of patients" within the meaning of the Act shall be determined by the Commissioners, whose decision shall be final.

This appears to be the most satisfactory way of disposing of a fertile source of trouble and in some cases hardship. Section 15 of the principal Act reads: "In the case of any dispute as to the right to superannuation allowance of any officer or servant of an asylum, or as to the amount of the superannuation allowance to which such officer or servant is entitled, such dispute shall be settled by the Secretary of State, whose decision shall be final." In practice there have been wide differences in the decision by visiting committees whether an officer was an established officer or servant or not, and whether they should be placed in Class 1 or Class 2 of established officers. Officers who in other asylums have been placed in the established class have in certain asylums been excluded and thus deprived of any opportunity of pension. Dr. Shuttleworth, for example, related the case of a chaplain in one of the Yorkshire asylums, who after twenty-five years' service has been excluded altogether, and many anomalies with regard to the classifying as Class 1 or Class 2.

Appeals have been made to the Secretary of State, but the law officers of the Crown have advised that upon these points there is no appeal to the Secretary of State, and that the remedy of any officer who considers himself injured in this respect is by mandamus. Clause 10 of the amended bill remedies this matter "as from the commencement of the Act."

Lastly, Clause 11 enables established officers or servants to adopt the principal Act as now amended, and Clause 12 cites the short title and construction.

LITERARY NOTES.

MESSRS. MACMILLAN AND CO. have in the press a work entitled *National Insurance*, by Messrs. A. S. Comyns Carr and W. H. Stuart Garnett, Barristers-at-Law, and Dr. J. H. Taylor of Salford. The scope of the work may be gathered from the following list of contents: Table of cases. Table of statutes. Chapter I, The employer under both parts of the Act; Chapter II, The insured person under both parts of the Act; Chapter III, Administration: the Insurance Commissioners, Insurance Committees, Approved Societies, and their relation to existing local authorities; Chapter IV, The medical profession; Chapter V, Sanatorium and maternity benefits and the public health; Chapter VI, Finance. The National Insurance Act (1911)—Part I, Part II, Part III, the Schedules. Index. Mr. Lloyd George contributes a preface, a fact which may be taken as giving the work a kind of official *imprimatur*.

We learn from the *Boston Medical and Surgical Journal* (December 31st, 1911) that Professor Morris Jastrow, of the University of Pennsylvania, in his *Aspects of Religious Belief and Practice in Babylonia and Assyria*, gives a translation of an ancient incantation ritual which has obvious analogies in its spirit to Mrs. Eddy's *Science and Health*, and might be regarded by some as superior to that work in style and dramatic effectiveness. "Away, away, far away, far away!" the primitive sufferer from the "claim" of disease is to exclaim. "For shame, for shame, fly away, fly away! Round about face, away, far away! Out of my body, away! Out of my body, for shame! Out out of my body, fly away! Out of my body, face away! Out of my body, go away! Into my body do not return! To my body do not approach. My body do not oppress." It seems to us that this incantation contains the quintessence of Christian Science practice.

It is known to all lovers of "R. L. S." that in his search for health he spent some time at Saranac Lake. In the *New York Medical Record* of December 16th, an account of his stay there is given. In 1887, accompanied by Lloyd Osborne, his stepson and literary collaborator, he established himself for the winter in the yellow Baker Cottage. Ever since Stevenson stayed there this cottage has been a kind of shrine which devotees have never failed to visit. We are told that on a visitor stepping out of the train he is generally asked: "Don't you want to see the yellow cottage that Robert Louis Stevenson occupied?" The Adirondack winter was trying to him, but his health improved. In the cottage was a large fireplace, where logs were ever burning brightly. He loved to sit by this log fire and talk. Windows were tightly shut, and he smoked cigarettes incessantly. Dr. Trudeau, who himself originally went there in search of health, has stated that Stevenson "used to rail in such forcible but beautiful and picturesque language at the cold, at the snow, at the cloudy days and the succession of them, and the lack of colour and sunshine. His idealistic and artistic temperament clung to all that was beautiful in life as expressed in Nature, in art, in form, light, and colour, in thought, in poetry, and in imagination. He deliberately turned his back on the cold facts of science and life, ignored them as much as possible, and shunned the discussion of such subjects as poverty, disease, sorrow, and suffering, with which we were more or less surrounded." On Saturday afternoons Stevenson was "at home" to any that might come. Naturally, many went to see him, but he seemed to get little pleasure out of these visits. Conversation quickly tired him. A persistent "fashionable lady," we are told, seemed to be an especial *bête noire* to him, and once after she left, Stevenson said, "It isn't the great unwashed I dread, but the great washed." From one visitor Stevenson derived great delight. This was Richard Mansfield. To see Mansfield on a table in a corner of the room giving his marvellous impersonation of "Dr. Jekyll and Mr. Hyde," while Stevenson sat by the log fire, which fitfully lit up the room, must have been a striking experience.

British Medical Journal.

SATURDAY, JANUARY 20th, 1912.

THE KING'S EVIL AND THE ROYAL TOUCH.

One of the most striking results of the progress of education amongst the masses and the great advance made by medical science during the last hundred years is the total disappearance of a host of popular superstitions. Amongst others, the doctrine of the Divine Right of Kings has "gone with the old world to the grave," and in its train has vanished another attribute of royalty which for centuries was regarded literally as becoming the throned monarch better than his sceptre. The power of healing scrofula, or King's Evil, was believed to be the special prerogative of each successive sovereign, of which nothing—neither his extreme youth, nor a vicious life, nor even the loss of his throne—could deprive him. The story of this wonderful gift has already been told in the British Medical Journal, in an article which appeared on May 13th, 1899; it is more fully treated by Dr. Raymond Crawfurd in his FitzPatrick Lectures, which have been published in a volume entitled, *The King's Evil*.[1]

According to Dr. Crawfurd, the term "King's Evil" was at first employed very loosely. It was frequently used to denote the "rainbow disease," or jaundice; and probably the milder forms of bubonic plague, so terribly common in Europe during the Middle Ages, came under the same heading. The enlarged glands characteristic of that disease might easily have been mistaken for the scrofulous swellings in the neck which afterwards came to be regarded as the only disease which yielded to the royal touch.

The custom of touching for King's Evil, which was observed by almost every King of England from Edward the Confessor to George I, originated in France in the early part of the eleventh century. Dr. Crawfurd rejects as legendary the well-known story of Clovis being endowed at his coronation with a miraculous gift of healing which he subsequently transmitted to his successors. The first authentic record of healing by touch on the part of a Christian king, he says, is to be found in an old chronicle written shortly after the death of Robert the Pious, King of France, in which that monarch is described as being in the habit of visiting his sick subjects in their own homes and curing them by a touch of his hand and the sign of the Cross, a ceremony invariably accompanied by a small dole of money. Though many of Robert's patients were lepers, there is some ground for believing that he also undertook the treatment of scrofula; and it is obvious that his contemporaries did not consider his healing powers to be hereditary, but an outward and visible sign of the saintliness shown in his life. It is equally clear that these powers were very quickly claimed by his descendants, for in less than a hundred years the custom of touching for disease seems to have been firmly established in France, and was religiously observed by every French King up to the time of the Restoration. In England it was unknown until the last of the old Saxon kings was recalled from exile to ascend the throne of his fathers.

It is a curious fact that though Edward the Confessor cured but one case of scrofula during the whole of his reign in England, his touch had restored health to many during his exile in Normandy; and Dr. Crawfurd is inclined to look upon this as a proof that he had been incited thereunto by the example of the pious King of France, of whose charitable deeds he must often have heard when living at the Norman Court. Strangely enough, none of his Norman successors ever attempted to heal, and the custom consequently fell into abeyance on this side of the Channel until the accession of Henry II. That it was revived by the latter monarch was probably due to motives of policy on the part of a foreign prince anxious to gain the affection and confidence of his new subjects and to connect himself in their minds with the last of their native rulers. No attempt seems to have been made by either of Henry's sons to propitiate their miserable subjects in like manner; but, with these two exceptions, the ceremony of touching for King's Evil was observed by every King of England for nearly 600 years. It only fell into partial disuse during the years immediately following the Black Death, when the plague had both swept away a good half of the number of possible applicants, and greatly increased the fear of infection on the part of the King and his entourage. The dissolution of the monasteries, which turned hundreds of sick poor adrift upon the world, and the miseries brought about by the Civil War, caused an enormous increase in the crowds of sufferers who had recourse to the King, and the numbers reached their greatest height at the Restoration, when patients came even from America in the hope of relief. The power of healing by touch was recognized by not a few doctors as a form of treatment in cases where medicine and the knife had alike proved futile. Even Sir Thomas Browne did not hesitate to send patients abroad to the exiled Charles I. This may have been in the belief that faith healing would work a cure where medicine had failed, as Charcot sent suitable cases to Lourdes; but it is more likely that Browne, who had a considerable grain of superstition in his mental composition, believed in the miraculous efficacy of the royal touch.

The royal touch was also regarded as an unmistakable sign of a legitimate claim to the throne. Charles I, whilst actually a prisoner in the hands of his enemies, continued to touch the sick brought to his door; his son diligently followed his example during his wanderings about the Continent. William III's flat refusal to countenance what he considered a gross superstition was received with dismay by many of his own adherents, and George I's refusal to touch the child of an English gentleman resulted in the father's espousal of the Stuart cause. Whilst the Hanoverian Kings steadily declined to emulate—in this instance, at any rate—the kingly deeds of their predecessors, the exiled Stuarts had carried their rights as well as their wrongs with them over the water. James II, the "Old Pretender," and his son, and Charles Edward, touched, and Cardinal York (regarded by Jacobites as Henry IX), the last of the line, continued to do so to the end of his life. It was quite a usual thing in the eighteenth century for patients to betake themselves to the little Court of St. Germain or Rome, just as a century earlier anxious parents had sent their sickly children to Belgium or Holland for the sake of "the touch of

[1] *The King's Evil*. By Raymond Crawfurd, M.A., M.D.Oxon., F.R.C.P., Fellow of King's College, London. Published at the Clarendon Press, Oxford. 1911. (Pp. 167. 8s. 6d.)

a vanished hand." Readers of the Verney Papers will remember that when Ralph Verney and his family were living in France, in the middle of the seventeenth century, one of their young relations was sent to them in order to be touched by the French King, there being no King in England at that time. The family correspondence contains several references to the efforts made by the child's nurse to place her in Louis's path when he walked abroad, and the hopes entertained by her friends for her recovery prove how firm was the popular belief in its efficacy. Here we may quote an amusing story related by the Marquis d'Argenson in his *Memoirs*. Under date 1723 there is the following entry:

"At the anointing of the King at Rheims a man from Avesnes who had horrible scrofulous glands went to have himself touched by the King. He was absolutely cured. Hearing this I proceeded to make a formal inquiry, and to collect sworn information as to his previous and subsequent state, the whole being in proper legal form. This done I sent the proofs of this miracle to M. de la Vrillière, Secretary of State for the Province. I thought I should get great praise for my zeal for the royal prerogative. I received a dry letter, in which it was said that nobody doubted of this gift possessed by our King. But I knew very well that all had been read to the King, who, although a child, loved to hear it said that he had wrought this miracle."

One cannot help smiling at the rebuff administered to the courtier, who, as his *Memoirs* show, could scarcely have been a blind believer. But how could such a man have solemnly written down this tale of a well-deserved snub? It is a lesson for those who try to curry favour with princes.

The belief in the "touch" was extended even to the coin which was bestowed on every recipient of the royal bounty; and Dr. Crawfurd relates that in the Shetlands as late as 1838 A.D. a few crowns and half-crowns bearing the effigy of Charles I were still used, in default of the royal touch, as remedies for the Evil; as such they had been handed down from generation to generation. The blood of the Royal Martyr, like that of Louis XVI, was also accredited with miraculous properties; and even a handkerchief used to staunch the bleeding nose of Charles II on his flight from Worcester field was piously preserved by a Royalist lady, who afterwards applied it to scrofulous persons, with what success, however, we are not told. The last case of touching for King's Evil in Great Britain took place in Holyrood Palace, during the rising of 1745, when Prince Charles touched a scrofulous child, with, it is said, the happiest results. In France the ancient belief lingered for another eighty years before it vanished for ever in the wreck of the old French Monarchy. Swept away during the Revolution, like everything else connected with the antique world, it recovered for a brief space of time some of its former glory under Charles X, who, at his coronation in 1824, "revived the whole ancient ceremonial, and touched 121 sick persons, who were presented to him by two famous surgeons, Alibert and Dupuytren." These eminent practitioners would doubtless have been as ready to bear witness to the efficacy of the royal touch, had they been called upon to do so, as Wiseman testified to the cures wrought by the chaste hands of Charles II. Since then no other sovereign has touched for King's Evil. But relics of the old belief still exist in the ancient coins or "Angels," the pieces of money conferred on each applicant, and doubtless considered by many the most important part of the whole ceremony. Some of these coins are still to be found in public and private collections, and several photographs of them are included amongst the illustrations of the present volume, together with a few excellent reproductions of old prints. Dr. Crawfurd has evidently spared no pains in the preparation of his book. He has given a clear and detailed account of the gradual development of the ceremony of healing, from the simple prayer and laying on of hands of early times to the elaborate ritual of latter days, and has shown how from the pious practice of a devoted King it grew into one of the most powerful weapons ever wielded in defence of the divine right.

THE ASYLUMS OFFICERS BILL, 1911.

THE Asylums Officers Bill, in the form in which it emerged from the Select Committee appointed to consider it, is certainly an improvement upon the bill as originally drafted. In its early form the bill provided that the maximum number of hours' employment a week for male attendants and nurses should be sixty, that notice of the hours of duty on the several days of the week should be posted in the asylum, and would have subjected any person employed contrary to provisions of the bill, and also the medical superintendent, on summary conviction, to a fine not exceeding £5. The bill also permitted the visiting committees of asylums to grant special superannuation allowances and gratuities to established officers or servants who, not being entitled to superannuation allowances, should be permanently incapacitated for asylum duties by injury or illness, bodily or mental. The bill further contained one clause designed to take the power of summary dismissal—often delegated to him by the visiting committee—out of the hands of the medical superintendent, and another providing for the aggregation of periods of service, of whatever length, in different asylums for pensionable purposes.

Such a bill, imposing irritating restrictions and penalties upon those responsible for the administration of asylums; offering large opportunities for securing superannuation allowances or gratuities; permitting, if not favouring, a "family post" of officers from one asylum to another; and one, moreover, certain to increase to a serious extent the financial burdens already borne by a highly taxed community, was certain to encounter vigorous resistance.

As to the genesis of the bill, it appears from the evidence tendered to the Select Committee—digests of which will be found in our issues of September 23rd and to-day—that it was practically drafted by the Executive of the National Asylum Workers' Union. This union—organized apparently in a spirit of dissatisfaction with the Asylum Workers' Association—is of recent growth. From his own account it was called into existence by an ex-asylum chaplain, the Rev. H. M. S. Bankart, and those who read his evidence will probably feel no surprise at the termination of his asylum career.

The views laid before the Select Committee were very conflicting. On the one hand, Mr. Bankart stigmatized the conditions of life of workers in asylums as "abominable" and "loathsome"; he described the medical superintendents as so unfair that ordinary British justice did not exist in asylums, and stated that he had a very poor opinion of visiting committees. On the other hand, the more temperately-worded and, we may add, the more accurate statements of all other witnesses held nothing to justify such expressions.

Between these opposite views the Select Committee drew a line about midway. The amended bill is, frankly, a compromise, with the virtues and defects of any compromise. It is, at any rate, a workable measure, and if it be put into effect will probably not entail any serious ill results.

The amended bill establishes *inter alia* a statutory maximum of 140 hours for the day staff and of 120 hours for the night staff in any period of two consecutive weeks. Few, remembering the irksome and often disagreeable nature of the work of asylum attendants and their constant exposure to verbal abuse and bodily assault, without any possibility of reprisal, will quarrel with the limitation of hours agreed upon by the Select Committee. It has, indeed, been surpassed by the London County Council and some other asylums. It is the new principle involved—the intervention of the State between the visiting committees and their employees—that so many find obnoxious.

It has been contended that the statutory fixing of a maximum, beyond which the attendant or nurse will have a right of absolute freedom, will militate against the "nursing spirit" and the "hospitalization of asylums" so sedulously cultivated in recent years. It has also been maintained that where the statutory maximum involves a reduction of the hours of labour the asylum committees will seek to recoup themselves for the increased cost by diminishing the proportion of staff to patients and by curtailing luxuries and comforts to patients. If this be true, it is evident that a bill intended to benefit the staffs of asylums may injure in actual working both patient and nurse. Moreover, it need hardly be pointed out that an unvarying maximum leaves out of consideration the very varying economic conditions which obtain in different districts as regards the quality and price of labour and the financial resources of the employers.

The crux of the whole matter, so far as hours of labour are concerned, is whether there are any solid grounds for dissatisfaction on the part of the subordinate staffs. The evidence on the matter laid before the Select Committee was, as we have said, conflicting; but, after reading the whole evidence, it is impossible to avoid the conclusion that, speaking of asylums as a whole, there are not any such grounds. The asylum attendants themselves do not appear to nurse any grievance under this head, and those who made combined representations scouted as impracticable the sixty hours' maximum proposed in the bill as originally drafted. The members of the Asylum Workers' Association at Bangour Village Asylum stated, in a letter read in evidence by Dr. Shuttleworth: "The sixty hours' limit is not considered reasonable or practicable, and is, therefore, disapproved of. The members are of opinion that it is unnecessary and undesirable that the hours of duty of nurses, male or female, should be fixed by Act of Parliament. They are further of opinion that, even if it were considered proper to have the hours of duty so limited, it would be impossible to fix a time limit which would be fairly applicable to all asylums wherever situated, whatever the size and whatever the class of patient received. . . . Each asylum should be left to fix the hours most suitable to its own conditions."

It was admitted by Dr. Marriott Cooke, speaking on behalf of the English Lunacy Commissioners, that the hours of duty were very variable, and in some cases excessive, and this variability appears to have been regarded by the Select Committee as a defect. This attitude seems, for the reasons given above, to be open to question. Mr. Bankart stated in evidence that at Carmarthen Asylum the attendants' hours were 96 per week, and those of the nurses from 104 to 110; also that at Ballinasloe (Ireland) the men worked 105 hours a week, and that at Lancaster Asylum where he was for some time chaplain, although the hours were 78 to 90 for the men, he had known them do 99½ hours per week, and the women 98 to 108 hours. These are indeed excessive hours, but, unfortunately for his case, the reverend gentleman wobbled so much under cross-examination that he was requested to supply an accurate list. This Mr. Bankart did, and we see from this list, printed as an appendix, that the hours of duty at Carmarthen Asylum are 84 for the men and not 96, and 94½ for the women and not 98 to 108; that at Ballinasloe the hours are 83 and not 105, and at Lancaster 67 for the men and 80 for the women, instead of 78 to 90, and 98 to 108 respectively. We may suitably commend to one of Mr. Bankart's profession the warning of a late distinguished scientist, "to have God's own truth in the measurements." After this Mr. Bankart's diatribes against medical superintendents and visiting committees are robbed of their sting.

Even a Blue Book has points of humour, and, leaving aside the refreshing vigour of Mr. Bankart's evidence, the examination of Dr. Marriott Cooke by Mr. Wardle, M.P., may be mentioned. The matter under discussion was the feasibility of a 60 hours' limit. The practically unanimous opinion of witnesses was that this limit would involve three shifts in 24 hours. Dr. Marriott Cooke had already stated in evidence that the average hours of labour were 84, and that he was in favour of a general reduction to 72. We extract the following:

> 107. If it is possible to do it in 72 hours, is it not possible to do it also in 60 without having three shifts?—No, I do not think it is, because what you can do by making a comparatively small reduction of an hour or two you cannot do in an 8 hours' day.
>
> 108. Let us understand one another. The difference between 84 and 72 is 12?—Yes.
>
> 109. And the difference between 72 and 60 is 12?—Yes.
>
> 110. If it is possible to halve it, why is it not possible to go the whole length, and do the 24 instead of 12?

Mr. Wardle's method is ingenious, and opens up wide possibilities for the economic management of asylums; for, obviously, the difference between 60 and 48 is also 12, and the difference between 48 and 36 also 12, and so by a simple method of arithmetical regression its staffs could be reduced to zero, no shifts would be required, and an immense economy of public funds effected.

Leaving this vital question of labour, the remaining clauses of the amended bill, with the possible exception of that affecting the medical superintendent's power of dismissal, restricting this power by making the dismissal operative only when the consent of the visiting committee is obtained, but enabling the medical superintendent to suspend, appear to be good. As will be seen from our digest, several hardships under the principal Act of 1909 are removed, some legal obscurities cleared up, and even with regard to the power of dismissal, it is to be remembered that under the London County Council's Asylums Committee, in Ireland, and, we believe, in State Asylums, the medical superintendent merely suspends. Notwithstanding its good points, it must be admitted that this bill, if it become law, will probably have effects reaching far beyond the limited class to whom it specifically applies. At

present it affects merely the staffs of county and borough asylums in England and Wales and their equivalents in Scotland and Ireland; but there seems to be every reason for believing that where anything is to be gained thereby, it will be used as a lever to obtain similar advantages by the staffs of registered hospitals, private asylums, prisons, and criminal lunatic asylums, and even those of general hospitals.

THE SCHEME AND THE ACT.

IT seems to be necessary, even at the risk of incurring the charge of "damnable iteration," again to point out that the "National Insurance Act" and the "National Insurance Scheme" are not convertible terms. The Act is a part, no doubt the most fundamental part, of the scheme, but the scheme is completed by certain other documents, of which the most relevant are the estimates contained in the reports of the actuaries consulted by the Treasury, estimates which must be embodied in future Finance Acts, from that of this year to that of some dim future which precedes the millennium. Already, indeed, the coming of the Insurance Scheme has cast its shadows on the Finance Act which Parliament just succeeded in passing before last year ended. That Act contained a subsection allocating a sum of a million and a half sterling, to be made available in such manner as Parliament may determine, for the purposes of the provision of, or making grants in aid to, sanatoriums and other institutions for the treatment of tuberculosis, or such other diseases as the Local Government Boards in England, Scotland, and Ireland, with the approval of the Treasury, may appoint.

In the Budget for this year provision must be made for the State subsidy which will be required if the Insurance Act comes into operation on the specified day. The actuaries, in their most recent report, estimate that this State subsidy must be £1,600,000 in the financial year 1912-13; that next year the State subsidy to be provided by the Finance Act of that year will be a little over four millions, and that the amount will gradually rise until it reaches in round numbers five millions and three-quarters in the financial year 1922-23.

It may be remembered that the actuaries were, last May, instructed by the Treasury to answer certain questions, from A to I, and were instructed to assume that the rate of interest earned on invested funds will be 3 per cent. per annum, that the costs of administration will be the amount produced by the gross rate of contribution of 4s. per member per annum, and that the cost of the medical benefit, including medicines, will be on an average 6s. per member per annum. In framing their answers, the actuaries found that it was necessary to make an estimate of the number of compulsory, voluntary, and deposit contributors, and of the number of women who year by year would become eligible for maternity benefit. Taking the figures thus obtained, the actuaries first of all calculated the total cost per annum of providing all the benefits; the sum thus obtained they call the "total outgo." In order to ascertain the proportion of this total outgo to be paid by the fund formed by the contributions of the insured and the employers, the actuaries first had to make deductions in respect of the fact that the weekly contributions actually to be paid are in excess of the premiums theoretically sufficient to meet the benefits; the deductions are 11.34 per cent. in the case of men and 12.65 per cent. in the case of women. They pointed out that although, if their estimates proved correct, the increased cost of benefits would not be immediately felt, it must be taken into account in discounting the future and in estimating the reserves necessary to be credited to the societies. They then ascertained the annual expenditure for proportion of benefits and cost of administration chargeable against contributions, and the annual amount in respect of the proportion of benefits and cost of administration chargeable against the State. Further, they pointed out that while certain of their estimates were, in the nature of the case, affected by a considerable element of uncertainty, the financial aspects of the scheme were, speaking generally, not materially affected by this uncertainty. That is to say, the amount per head to be set aside for medical benefit was not considered to be among the matters in a state of uncertainty. Subsequently, the actuaries were instructed by the Treasury to revise their estimates in view of the changes embodied in the bill down to the end of the Committee stage in the House of Commons on November 21st; the revision[1] affects only matters of detail, and the new estimates are founded upon the same data, including the 6s. a year for Medical Benefit (which includes treatment, drugs, and appliances).

Last week (pp. 92-93) reference was made to an interesting and instructive correspondence in the *Times* between Sir Clifford Allbutt and Dr. Lauriston Shaw, which at that time had been brought to a point by Sir Clifford Allbutt's question—Is the 6s. a year elastic? Dr. Shaw's reply was to the effect that the Act contained no reference to any special sum allotted to medical benefit, nor any detailed definition of the medical service comprised within that term, and that a scrutiny of the Act would afford indications that "the monetary provision for medical benefit is not only unstated, but is genuinely elastic." Sir Clifford Allbutt demurs to this reply, on the ground that his question was not whether the 6s. a head was expressed in the Act, but whether it was "elastic." "What matters," he continued, "whether in the Act or not, if the actuaries' reports were based upon this unit, so that if this be exceeded the fund and the scheme become insolvent? In this case any subsidy must come from the rates; but is it likely that the local authority will subsidize a non-elective body on which they have but one-fifth of representation? And is there any provision thus to subsidize the medical outlay as distinguished from the administrative expenses of the Insurance Committee?"

The reference is to the seventh subsection of Section 15 of the Act; we read the subsection as applying to a deficit disclosed in the accounts of some particular local Insurance Committee, and not as applying to the general scheme of insurance. As we have endeavoured to indicate in the earlier part of this article, the scheme must be considered as a whole; attention must not be exclusively directed to the words of the Act, but regard must be had also to the method by which the actuaries have proceeded to ascertain the amount of the State subsidy. We submit that the rate to be paid for medical benefit, being one of the data given by the Treasury to the actuaries, is a matter to be settled by the Treasury, acting, no doubt, on the advice of the Insurance Commissioners, and that as at present conceived and understood by the Treasury the scheme is not "elastic" in this important respect. The medical profession will have to point out to the Insurance Commissioners that the datum given to the actuaries by the Treasury in respect to medical

[1] See SUPPLEMENT, p. 62.

benefit is incorrect, because inadequate to achieve one of the fundamental principles of the Act, which is to provide an efficient medical service. The profession in Scotland is acting upon this assumption, which has by implication been accepted by the Scottish Commissioners when they reply that they are giving their most earnest attention to the matter and have appointed a committee to consider it.

A SPECIAL REPRESENTATIVE MEETING.

A SPECIAL meeting of the Council of the British Medical Association was held on January 17th to consider a requisition signed by 564 members of the Association, requesting the Council to convene an extraordinary general meeting for the purpose of discussing as special business a resolution affirming "that in the opinion of this extraordinary general meeting of the members of the British Medical Association, the National Insurance Act does not safeguard the six cardinal points of the policy of the British Medical Association in a manner satisfactory to the members of the aforesaid Association, and we consider that the Council of the British Medical Association has failed in its duties towards its members." In addition to the requisition, the Council had before it the opinion of Mr. Colquhoun Dill, counsel who was consulted when the present constitution was drawn. The opinion of Mr. Colquhoun Dill was to the effect that the special business for which an extraordinary general meeting might be convened was such business as by statute must be dealt with by special resolution, and such business as the regulations and by-laws of the Association require to be dealt with in general meeting; that the resolution set out in the requisition did not fall within the above categories and was therefore not special business, and that therefore the discussion of it in general meeting was prohibited by Article 27. He in consequence advised that, the requisition being out of order, the Council would be acting unconstitutionally if it acted upon it by convening an extraordinary general meeting; and, further, that the resolution, if passed by a meeting so convened, would not be a valid resolution of the Association. He advised also that the provision of Article 22 empowering 100 members to convene a special general meeting did not apply, inasmuch as under the regulations of the Association a general meeting could not be convened at all for the purpose mentioned in the requisition. After the matter had been discussed at some length, the Council decided *nemine contradicente* to inform the members of the Association who had signed the requisition that the subject mentioned in it did not fall within the category of subjects that could be dealt with at an extraordinary general meeting of the Association, that it was therefore not special business, and that discussion of it was prohibited by Article 27, and added that the Council would be acting contrary to the Articles of Association in convening an extraordinary general meeting for the purpose of discussing the subject of the requisition. Mr. Colquhoun Dill went on in his opinion to point out that the subject matter of the proposed resolution was a matter to be dealt with by the Representative Body, and it is therefore proposed to convene a Special Representative Meeting. We understand that the date provisionally suggested for the Special Representative Meeting is Wednesday, February 21st. A report to the Divisions and Representative Body on the National Insurance Act as it affects the medical profession is in preparation, and will be submitted by the State Sickness Insurance Committee to the Council at its ordinary quarterly meeting on January 31st. The report will make reference to the text of the bill, and we would remind members that this text was published in the SUPPLEMENT of January 6th. It seems, therefore, worth while to suggest that that SUPPLEMENT should be preserved for reference.

THE JOINT COMMITTEE AND THE ADVISORY COMMITTEES.

OWING to the importance of the functions which may come to be discharged by the Joint Committee appointed under the National Insurance Act for England, Wales, Scotland, and Ireland, it has been thought proper to print the regulations issued on January 11th by the Commissioners of the Treasury defining the powers of the Joint Committee, although these first regulations have little reference to matters directly interesting the medical profession. In paragraph 17, however, the Joint Committee is empowered to exercise, either alone or jointly with the several bodies of Commissioners, the powers and duties of such bodies under Sections 57, 58, and 78 of the Act, but without prejudice to the exercise and performance by the several bodies of Commissioners of all or any of their powers and duties under the Act. Section 57 applies to the appointment by the Commissioners of officers, inspectors, referees, and servants, and the definitions of their duties by the Insurance Commissioners; Section 58 to the appointment of the Advisory Committee; and Section 78 to the power of the Commissioners, with the consent of the Treasury, to remove difficulties and to issue orders modifying the provisions of the Act so far as may appear necessary or expedient for carrying an order into effect, powers which are to expire on January 1st, 1914. As will be seen by the correspondence between the Acting Medical Secretary, acting under the instructions of the State Sickness Insurance Committee, and the National Insurance Commission for England, published in the SUPPLEMENT, the Commissioners have informed the Association that the preliminary steps necessary to the setting up of the Advisory Committee under Section 58 of the Act are now under the consideration of the Commission, and that before any decision affecting the question of representation of the medical profession upon the Advisory Committee is arrived at the Commissioners will communicate with the British Medical Association. The further information is given that it is understood that the additional regulations which the Treasury is preparing for issue will include rules for the appointment of an Advisory Committee for each of the National Commissions as well as an Advisory Committee for the Joint Committee. It may probably be assumed that the undertaking now given to the effect that the English Commission, before any decision affecting the question of representation of the medical profession upon the Advisory Committee for England is arrived at, will communicate with the British Medical Association applies also to Wales, Scotland, and Ireland. As is shown by the letter from the Scottish Insurance Commissioners published last week, that body, in response to the sort of round robin which had been sent to it by the Divisions of the Association and other bodies of medical men in Scotland, has already appointed a special committee to consider the whole question of medical benefit and of relative matters with the least possible delay.

THE LATE MR. LABOUCHERE.

THE death of Mr. Labouchere deserves mention here, as the founder of *Truth* did much to expose quackery. That his knowledge of the aims of scientific medicine and his sympathy with the profession was sometimes imperfect, may be freely admitted. Yet it cannot be denied that he did an immense amount of good by exposing frauds, and warning a public, always too willing to be deceived, against putting its trust in impostors. This kind of work, done in its own way by a paper like *Truth*, was likely to have more effect than if such attacks on pretenders preying on the credulity or the last hopes of those stricken by disease had

appeared in a medical journal. They reached a larger number of readers, and there could not be any suspicion of professional jealousy about them. While the credit of the work must be in large measure given to the late Mr. Horace Voules, who had an extraordinary instinct for the "smelling out" of impostors, Mr. Labouchere took all the responsibility—by no means a light one—upon his own shoulders. If he did not actually wield the lance in tilting against the giants of fraud and imposture, he provided the weapons and bore all the brunt of the fray. This particular form of knight errantry is attended with many dangers in a country where the press has to contend with a law of libel so full of pitfalls as ours. Of that law Mr. Labouchere used to say he knew more than any man living, and it is certain that his experience of it was, like Sam Weller's acquaintance with London, "extensive and peculiar." Whether it was a bogus charity, a hospital whose finances were badly managed or whose sanitary condition was unsound, an inebriate home the inmates of which were ill treated, or worthless cures for all sorts of diseases from cancer to corns, *Truth*—on information received, as the police say—proceeded with no faltering hand to rend the veil which hid the secrets of the prison-house, and to place in the pillory those guilty of fraud, cruelty, and maladministration. *Truth* was recognized as a terror to malefactors, and Mr. Labouchere might justly have been proud, like Pope, to see men who feared not God afraid of him. That mistakes should sometimes be made was inevitable, but on the whole the work was well done. His outspoken denunciations of wrong, and his reputed wealth made him the target of numberless litigants. He was successful in most of the actions brought against him; but he spent vast sums in defending them. To a poorer man his victories would have been of the Pyrrhic kind, for he could scarcely ever recover costs. Mr. Labouchere's journalistic career illustrates in a striking manner the danger of exposing even gross forms of quackery as the law of libel now stands. The average juryman, susceptible as he is to appeals to all the most cherished prejudices of the freeborn Englishman, who, as Dr. Gregory said, likes to go to the d——l in his own way, does not always succeed in forming a sound judgement on issues for the decision of which considerable technical knowledge may be required. The late Lord Russell of Killowen did a good deal to stamp out speculative libel actions against newspapers, and had his career not been cut short his influence might have been strong enough to prevent the abuse of the courts for such purposes, which has since grown into a crying evil. A movement is now on foot for the protection of newspapers which, in the discharge of the duty they owe to the public, honestly and without malice expose fraud and imposture. It is, indeed, high time that the shackles which fetter the press in its fight against those who prey on human folly should be struck off.

BONESETTERS.

In the JOURNAL of January 13th we gave a summary of a debate on bonesetting which took place at Guy's Hospital. It will, perhaps, be interesting to some of our readers to have the views of so experienced a surgeon as Professor Howard Marsh on the same subject. In an address delivered before the Abernethian Society, and published in the *St. Bartholomew's Hospital Journal* for December, he says that bonesetters cure many cases. They most astonish the public when they break down adhesions following fracture or other injury, or "rheumatism," and which, though they are slight, cause pain when the part in which they are present is moved. They put in semilunar cartilages or slipped tendons, or they move joints which have been kept too long at rest. They rupture small ganglia about the wrist, and say they have put a little bone in, or they "put in hysterical joints." If the patient complains of pain or stiffness in the spine, the bonesetter finds that one of the "buttons" of the back is out, and at once forcibly puts it in. The button which is "out" is identified either by its prominence or because it is tender on firm pressure. When it is borne in mind, says Mr. Marsh, that the bonesetter's method is practically limited to forcible movement, it is easy to see that in regard to results their cases fall into two groups: those which forcible movement can cure, and those in which it is either useless or mischievous. The former are the bonesetter's successes; the latter make up his failures and his disasters. The late Mr. Hutton, while he had many notable successes had few disasters, for, though he did not know what the nature of many cases were, he could see that there were some he had better not touch. Mr. Howard Marsh lays stress on the point that there are many cases of which the cure lies in movement. Any case of this kind a bonesetter will probably cure. Doctors have not realized the value of this, and are afraid of doing harm. People are even sometimes cured by an accidental wrench which ruptures adhesions about the shoulders or ankle. The little bones have become the exclusive province of the bonesetter, and they are always at his call, like Roderick Dhu's Clan Alpin warriors, ever ready at a moment's notice wherever and whenever they are wanted. The bonesetter can tell where the bone is "out" by finding a tender spot. This spot, to the surgical mind, means a bruised semilunar cartilage or a painful adhesion. The bonesetter detects these little bones in the most unlikely places, as under the last inch of the tendo Achillis or just below the anterior iliac spine. The bonesetter knows that a bone goes in by the snap. These snaps, however, are not due to the concussion of two joint surfaces as they are forced into contact, but, on the contrary, to the separation of surfaces which have been stuck together by inspissated synovia. Many people can make their fingers crack by pulling at them till the joint surfaces suddenly separate. In severe cases there may be four or five bones "out." The bonesetter puts them all in at one time. If a cure does not result when he puts the first little bone "in," he puts in another, and so on till the cure is finished. If no cure ensues, the blame is laid to the door of the surgeon, who by his wrong treatment has made the result impossible. Mr. Howard Marsh does not take the view that all bonesetters are dishonest quacks. He thinks that on the average they are about as honest or dishonest as other people. They mostly believe what they say, and this is not to be wondered at considering that they sometimes work cures which astonish not only their patients, but themselves. Of course, they sometimes fail, but then surgeons, they say, never succeed, and, moreover, make the cases incurable. Bonesetting and surgery had a common origin, the difference being that while surgery has progressed the creed of the bonsetter is what it was centuries ago. Mr. Hutton used to say, "Don't bother me with anatomy. I can cure you. What more do you want?" Mr. Marsh says that cases that have come under his notice confirm the statement that bonesetters make no diagnosis and have no knowledge of the real nature of the cases with which they deal. "In all the following instances joints were—or were to be in a day or two—put in: a tuberculous hip, a hip which had been already excised, a large sarcoma of the lower end of the thigh bone, a bursa over the tuber ischii, a slight lateral curvature—said to be a case in which the pelvis had opened and both the hips were out—an elbow and an ankle, both healthy joints." The latter were sent as test cases. Mr. Marsh goes on to say that faith plays a large part in bonesetting, as might be expected from the ignorance of people. If bonesetters could only keep to adhesions, which careless surgeons may have overlooked, and leave tuberculous

joints and sarcomas alone, they would, in Professor Marsh's opinion, be useful. But there's the rub; the confidence begotten of ignorance too often leads them to "rush in," where knowledge makes a surgeon, it may be, too cautious. The result is disaster. One success, however, outweighs many failures. This is the strength of the bonesetter's position.

THE USE OF EXAMINATIONS.

Macaulay created the Competition Wallah, and since that time the ingenuous youth of these realms have become more and more closely formed mentally on the model of the Mandarin. Now grave doubts are being expressed in various quarters as to the utility of examinations and the results of the competitive system. Thoughtful persons who watch the educational signs of the times are asking the question, Is the rising generation over-examined? With this is connected the question of cramming, a process of intellectual over-feeding which every one condemns, but to which most students find it necessary to subject themselves to a greater or less extent. Some years ago Sir William Ramsay denounced the system prevalent in this country, and boldly maintained the thesis that a man's teachers are the best judges of his capacity, drawing the practical conclusion that examinations in the formal sense are not only unnecessary, but futile. Sir John Byers has recently come forward on the other side. After distributing the prizes at Lurgan College on December 21st, he said the best type of education was that which prepared a boy to do his work in whatever position he might be placed, while at the same time, by the equable training of his faculties, it endeavoured to provide him with the culture found in the community of men and women united by sympathy of thought and ideals in the dignity and loftiest aims of life. In order to gauge the knowledge and mental development of students as well as to estimate the efficiency of schools and colleges some method was required; and, speaking from his own experience as a teacher and examiner, Sir John Byers held that examinations were an indispensable element in coming to a decision on such questions. He admitted that examiners were liable to errors, but he maintained that such mistakes were largely the fault not of the system, but of the way in which it was carried out. In the hands of examiners who had not sufficient experience of teaching, who failed to recognize the difficulties of the teachers and the frequent inexperience of candidates, who tried to find out not what a student knew but what he did not know, no doubt examinations were sometimes at fault. But, he asked, what could be substituted for them? Were students to be allowed to practise medicine without any test of their knowledge and fitness? Were examinations for admission to the public services to be abolished, and were we to return to the days of nomination by patronage? Were young men to be appointed to positions not on the ground of their own knowledge and capabilities, but because of their social position, their religion, or their politics? We agree with Sir John Byers that there must be tests of some kind if incapacity is to be weeded out and jobbery is to be avoided. We think, however, that there is something to be said in favour of a certain measure of selection, such as has been established for admission to Osborne. The Competition Wallah has not been uniformly a success, and the glib Babu who has a distinct talent for passing examinations has often proved unfit for responsible positions. Sir John Byers maintained that experience shows that success in examinations is in the vast majority of cases followed by success in after-life, because the same qualities that are needed for success at examinations—industry, resourcefulness, concentration, good health, and the power of rapidly turning from one subject to another—are those found most helpful in any kind of work. If by success in examinations Sir John Byers means the highest academical distinctions, we think this statement as a general proposition is open to question. Many of our most distinguished legislators, lawyers, divines, and doctors have simply "satisfied the examiners." It may be said that with the high standards of the present day this is enough, but we do not think it is what Sir John Byers means. Examination is a very imperfect test of knowledge and none at all of character. What has become of all the Senior Wranglers? is a question that has often been asked. We believe the fate of the great majority of them was an obscure country parsonage, or a schoolmastership, when the end was not premature breakdown. We have heard that many lads from a public school which a few years ago was noted as a forcing ground for scholarships, were mentally exhausted before they had completed their university course. The ideal method of testing knowledge has yet to be found. The present system of multiplied tests and the fissiparous tendency shown in splitting up examinations into groups, and even single subjects, is in itself a proof that a reform in the direction of simplification is needed.

SOME NOSTRUMS FOR ALCOHOLISM.

We publish elsewhere some particulars of the claims made for three proprietary articles advertised for the cure of the drink habit, and the results obtained on analysing the preparations in question. The claims advanced are naturally a good deal alike in the three cases, but the drugs used are almost entirely different. Each of the preparations is supplied in two forms, the one to be taken voluntarily by patients desirous of being cured, and the other to be administered without the patient's knowledge; obviously, if a cure can be effected in the latter way, there can be less hesitation in ascribing the result to the drugs than when the patient has exercised his will in the same direction, and the preparation for secret administration was therefore selected for analysis in each case. The first of the articles examined was found to consist merely of powdered cinchona bark, diluted with milk-sugar and magnesium carbonate; of this it is asserted that "it does not contain any drugs, poison, or minerals of any description," although cinchona is generally regarded as a drug and magnesia as a mineral; since the dose of cinchona which is given is only 6 grains a day, containing about ½ grain of alkaloids, it is scarcely to be expected that any great result will be obtained from the administration of this preparation. In the next article described, which appears to be of American origin, tartar emetic is the only active ingredient found in the powders and tablets. What is evidently aimed at is to produce nausea or vomiting, and to lead the patient to associate these symptoms with the consumption of alcoholic liquors. Much is said about the "treatment" being capable of curing any case in three days, and it purports to be made and sold by an individual who was cured by it in three days, after having been a heavy drinker for sixteen years. If the statements are carefully read, it does not appear to be definitely asserted that the "B treatment," that is, the remedy which is administered secretly, will effect a cure in that time, although the impression might easily be received that three days will suffice, "between Friday night and Monday night, or any other 72 hours," whether the patient is treated with or without his own knowledge and co-operation: but when the money has been paid and the medicine is sent, the purchaser is urged to have patience and not to be discouraged if months should be necessary for the accomplishment of a cure. In the advertisements, letters and circulars, the first person singular is largely used, and they are ostensibly issued by the individual by whose name the preparation is called, and who is said to have been cured by it; but it appears that the vendor is really a limited company, which deals

also in a large number of other nostrums having nothing to do with alcoholism, such as "anti-deafness tablets," "asthma tablets," "rheumatism remedy," etc. The third article reported on is made in America, but it is advertised in this country. In this case strychnine in small doses and caffeine are the principal medicaments, tartar emetic being also employed, in the hope, no doubt, of causing a feeling of nausea to be associated with alcoholic drink. The lowest price charged for any of the three preparations is a sovereign, while each of the other two is priced at two guineas; in every case the prime cost of the ingredients is shown to be so small as to be practically negligible.

TEMPERAMENT IN SPORT.

DR. CLAYE SHAW appears in a somewhat unexpected place in the December number of *Bailey's Magazine of Sports and Pastimes*, to which he contributes an article on temperament in sport, which has a larger range of application than the title might suggest. He says circumstances are always occurring in which governing bodies, selection committees, and in general people responsible for the success of a venture are faced with the necessity of getting the best man for the job and of seeing that he is adequately supported. Successful leadership, it is pointed out, does not always connote perfection in the accomplishment of mechanical detail, although it implies an accurate knowledge of what is wanted at the moment and a balanced judgement of the way by which it is to be attained. Common experience teaches that there are people who are born with and who develop special aptitude, born leaders, born students, born athletes, and, it may be added, born drudges, who are most useful in their way. Plenty react to the spur of a leader of genius who are useless if called upon to apply such a stimulus to others. This is illustrated very notably in the case of Napoleon's marshals, all of whom were men of tried experience in war, and with aptitudes developed in various directions in that field. Most of them, however, did not show to their best advantage when in independent command. It is not an easy thing to decide as to the qualities which fit a man for leadership. He must be tried, and too many thus tried would come under the verdict of Tacitus: *Capax imperii nisi imperasset*. Dr. Shaw goes on to say that the foremost man of a revolution may be the right person to lead his enthusiastic followers to victory, but he may not be the one to keep them together afterwards. Here we may remark that the greatest revolution in the history of mankind was made without a leader. The mediocrity of the men who brought about the French Revolution and led the people during that period of storm till Napoleon ended it with his whiff of grapeshot has often been the subject of comment. Robespierre was a pedantic mediocrity who ruled men by high-sounding phrases taken from Rousseau. He is an extraordinary instance of how a man of small intellect can impose himself by a glibness of tongue and a talent for intrigue disguised under the aspect of an austere integrity. Speaking of the born leader of men, Dr. Shaw says he knows how to wait, and how to bring his individuality to bear at the right moment; he knows, too, when to retire. "Such an adventitious interloper in the tame progress of affairs may be a true patriot, or he may be merely a time server. But he has his *métier*, and in his way he is useful, and even necessary. Will So-and-so keep his head at the critical moment when wickets are falling fast and it is necessary to stop the rot? Who is the man to send in whose calm nerve shall turn the prospect of defeat into victory? The answer is to be found in the word 'temperament,' and we want different temperaments for different pursuits and crises." It is not always advisable, in Dr. Shaw's opinion, to make a champion eleven out of the men with the highest averages in their respective departments. It must be stiffened with a few experienced veterans, who are not upset by the jeers of the crowd or the strain of the moment, and who may be trusted to meet the exigencies of any situation that may arise. Some diseases tend to produce specific changes of temperament, and the importance of recognizing this is obvious when the capabilities of men for filling a particular position have to be appraised. There is one subtle disease not recognized in the nosologies, and not mentioned by Dr. Shaw; it is popularly known as "swelled head." This has brought many an excellent leader to grief, and has ruined many a good cause. The captain who always puts himself on to bowl, or to bat, for instance, or the member of any team who, like the smith in the *Fair Maid of Perth*, plays chiefly or only for his own hand, is pretty sure sooner or later to cause disaster to his side. For practical purposes Dr. Shaw divides the temperaments of individuals into two classes: the nervous and the phlegmatic. "In the former must be noted excitability, restlessness, a tendency to be too impressed by surrounding conditions which interfere with the direct purpose on hand, a large expenditure of energy with consequent rapid exhaustion, and an irascible, timid, or impulsive disposition: in the latter a calm calculation of the future, an agreeable reception of the present surroundings, and an imperturbability in a crisis." These qualities are born with the man, and are but little liable to be changed by any effort. They are not synonymous with character, which is largely made by one's own efforts, and which is really the product of the action of the physical and social environment on the innate temperament. This distinction is vital to the successful application of leadership. "The apparent character of a man is apt to be deceptive. He may have learnt so to attune his private temperament to his environment as to obtain a character of a certain quality or force, sufficient for ordinary conditions, but under stress the expectations formed of him are not realized; to our dismay he fails when he ought to have succeeded, because his character was but a thin veneer over a basic temperament of nervousness or a timid disposition." Above all things a man must learn to play the game, a phrase, says Dr. Shaw, which has more in it than is generally understood. "It is not merely playing fairly; it is learning to concentrate one's attention on what is happening, and to push into the background an unfriendly environment. Crowds are inconsiderate and impulsive; so are many masters, and the man of nervous temperament is liable to be flustered by his surroundings and to think too much of possible failure to rise to his reputation. Whether Wellington did or did not say that Waterloo was won in the playing fields of Eton, there can be no doubt that the qualities which go to the making of a leader in sports are the same as those which help to make a man a leader in war or in politics.

THE INTERNATIONAL OPIUM CONFERENCE AT THE HAGUE.

THE International Opium Conference reassembled after the recess on January 9th. Prior to the meeting of the full Conference the Committee of Redaction had been busy for some days putting into final shape the resolutions already carried by the Conference and completing the form of the International Convention and Protocols which will embody the labours of the Conference. This committee consisted originally of M. Guesde (France) as chairman, His Excellency M. Savinski (Russia), Sir William Collins (Great Britain), Herr Delbrück (Germany), and M. Van Deventer (Holland), but owing to the inability of M. Guesde to return to The Hague, his place was taken by M. Brenier. The chief results of the Conference prior to the Christmas recess have been published. Each signatory

Power undertakes to control the production and distribution of raw opium, prepared opium, and medicinal opium, as well as morphine, cocaine, and kindred preparations. For such purposes limits are to be placed upon import and export, while manufacture and sale are vested in the hands of duly authorized persons. Ten articles are devoted to the means to be taken to restrict morphine and cocaine to proper uses. These articles, according to our contemporary, establish a new international "moral principle of mutual responsibility and mutual protection in a matter vitally affecting the health and order of the civilized world." We understand that it is not the case, as stated in the *Times*, that certain articles dealing specially with the case of China will be placed in a separate Convention; on the contrary, these, with the rest, will appear in the General Convention. We are informed that the first British plenipotentiary, Sir Cecil Clementi Smith, has not returned to The Hague since the recess, and that the greater part of the speaking on behalf of Great Britain has fallen to the lot of Sir William Collins. From various sources we gather that trade interests are not failing to exert such pressure as is possible in regard to the final form of the Convention. The manufacture and sale of alkaloids like morphine and cocaine is a highly profitable industry limited to a few firms, chiefly in Great Britain, Germany, and the United States, though the latter country consumes nearly all it produces. There can be little doubt, having regard to the amount of the output of these alkaloids, that their use cannot be even approximately limited to medicinal purposes; their illicit employment must be considerable. It is idle to regard the morphinist as a mere object of compassion. Those acquainted with the literature of the subject must be aware that neurasthenics who have resorted to the use of morphine and cocaine readily sink into vicious and criminal ways, and by their plausibility and insidiousness constitute themselves dangerous social pests. The difficulties inherent in any attempts at limitation to legitimate use of these potent and valuable drugs are considerable. The facility for obtaining them and for smuggling them is great, and we shall await with interest the publication of the practical measures of an international nature which the Conference is engaged in codifying.

PAYMENT UNDER THE INSURANCE ACT.

On turning to page 59 of the SUPPLEMENT to this issue it will be found that the Acting Medical Secretary of the Association has, by instruction of the State Sickness Insurance Committee, dispatched to the Honorary Secretaries of Divisions throughout the country a letter asking them to try to obtain from members resident in their locality figures indicative of the number of attendances yearly required by any given group of persons. Precise figures are requested, and the form in which the returns might be made is suggested. It is hoped that any members who can do so will assist by furnishing any figures in their possession. As we had occasion to point out last week, no figures at present exist from which a conclusive answer can be derived to the question of how much work any given number of insured persons will entail on those who make themselves responsible for their treatment. It is a problem involving two factors—first, the figure which is now being sought; and secondly, an estimate of the number of patients to whom a medical man can give a full meed of attention in the course of a day if he is doing his work single-handed, not in a hospital nor always in his own home, and subjected to the need of getting in and out of his patients' homes, and discussing perhaps their condition with their friends. It is of great importance that a solution of this problem should be forthcoming rapidly, and that it should be based upon a number of cases large enough to make it at once convincing. A considerable number of lay papers are busily engaged in prejudging the question. Their object is to make out that 6s. a head is an ample amount to set aside for medical benefit, including drugs and appliances, and their statements, when based on any figures at all, appear to be founded on figures derived from the isolated experience of one or more medical men. No single man's experience can afford a satisfactory solution of the problem, though this fact is not always appreciated. As an example, the author of a pamphlet to which we made allusion last week has sent us the following comment on our statement that no conclusive answer to the problem could yet be given. "It must be true," he says, "that no 'conclusive answer' can be given to such a question until the Act has been in operation for some years, but the pamphlet mentioned does in a measure answer the question. On page 35 it says: 'From provident dispensary experience, previously quoted, we know that each member on an average requires the doctor's attention four to five times a year (4.77).' This means that if a doctor had 1,000 members under his care, he would have about 4,770 interviews with them during the year, or a daily average of thirteen—say about seven visits and six consultations a day. This calculation is based on nearly half a million visits and consultations spread over thirty years. The work of this provident dispensary was not on all-fours with what it would be under National Insurance, because in the former 77 per cent. of the members were women and children (p. 22), whereas under the Act the majority of insured persons will be men, and should, therefore, give the doctor less work. On the other hand, the members of the dispensary lived within a radius of one mile of the institution in a thickly populated area, so that the domiciliary visits entailed a minimum waste of time in travelling, whereas the insured persons will probably be more scattered, so that it will take more time to see them at home. But the record of work mentioned is probably a fair basis on which to estimate the work that will be required in the shape of ordinary consultations and visits under the Insurance Act." The reasons why acceptance of our correspondent's view is impossible to us are perhaps sufficiently indicated in the opening sentences of this note; his figure 4.77 had, as a matter of fact, been duly noted, but could not be accepted as conclusive if only because it differed materially from the corresponding figures derived from calculations based on the other communications mentioned in the same article.

THE University College Hospital Medical School proposes to entertain Sir Thomas Barlow and Mr. Rickman Godlee at a complimentary dinner in recognition of the distinction conferred on them by their election to the Presidency of the Royal College of Physicians of London and the Royal College of Surgeons of England respectively. The dinner will take place on Thursday, February 8th, at the Hotel Cecil, Strand. The chair will be taken by Sir John Tweedy at 7.30. Tickets, price half a guinea, can be obtained from the Dean or Secretary at the Medical School, University Street, Gower Street, W.C.

DR. CHARLES ALFRED LEE, of Hull, who died on January 13th, has, it is stated, left a sum of £150,000 in trust for the erection and maintenance of completely equipped almshouses on an open space available in the town. The beneficiaries are to be chosen among persons who have been resident in Hull for at least ten years, preference being given to those who at one time have been in good circumstances; they may be married or single. The arrangements include the provision of medical attendance and a weekly allowance for food and clothing. Dr. Lee, who became M.R.C.S. in 1848 and M.D.Aberd. in 1859, was in his eighty-seventh year and unmarried; he was himself a native of Hull, and had been in practice there for some sixty years. He was medical officer of a cholera ship stationed in the Humber at the commencement of his career, but afterwards held no appointments. The greater part of his large fortune was acquired by inheritance. He was a member of the managing committee of Hull Royal Infirmary, and some years ago established some homes for children.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

THE BICENTENARY OF TRINITY COLLEGE MEDICAL SCHOOL.

A CIRCULAR letter has been sent to the medical graduates of Dublin University inviting them to attend a general meeting of medical graduates to be held in the medical school on Monday, January 22nd, at 4.30 p.m., to consider what part the medical graduates should take in the Bicentenary Festival of the medical school to be held in the first week of next July.

EMIGRATION FROM IRELAND.

The Registrar-General's returns of the number of emigrants who left Irish ports during the year ended December 31st, 1911, show a decrease of 1,884, as compared with 1910. The figures for the two years are: 1910, 32,457; and 1911, 30,573. The decrease was not confined to any particular part of the country, but was apparent in all four provinces. Of the whole number, 27,488 went to the United States and Canada, and of the 19,897 steerage passengers to the United States, 6,396 had their passages paid for in America. The average annual number of Irish emigrants for the ten years 1900 to 1909 was 35,886. With the exception of the years 1908 and 1909, there were fewer emigrants from Ireland last year than in any year since 1890, when they numbered 61,313.

SOUTH DUBLIN UNION.

At the weekly meeting of the guardians of the South Dublin Union on January 10th Dr. W. R. Hooper was elected medical officer for Ratimines (No. 2) Dispensary District, and the Chairman paid a tribute to the manner in which he had discharged his duties while on the resident medical staff of the union. Dr. M. J. Kennedy was elected medical officer for the Clondalkin and Palmerston Dispensary.

OVERCROWDED ASYLUM.

At a meeting of the Committee of Management of the Ballinasloe District Asylum the report of Dr. W. R. Dawson, Inspector of Lunatics, was read, in which he said that on the occasion of his last visit the numbers resident in the asylum were 1,415 (864 men and 551 women), and since then the number had been increased by 23, making the institution, therefore, more grossly overcrowded than ever, especially on the male side; there were 221 patients more than could be properly accommodated, and the discrepancy in the day-room accommodation was much greater even than this. Some of the results of this overcrowding were only too evident in the large number of accidents and the prevalence of zymotic diseases; and there could be no doubt that the bad effect of the present state of affairs seriously jeopardized the chances of recovery of the patients. No alterations could provide enough space, and it was absolutely necessary to erect additional buildings. A block on inexpensive lines, to accommodate from 250 to 300 male patients of the working class, could be suitably erected on the farm, and would at once put an end to the present utterly unsatisfactory state of affairs.

FLOODS AND SICKNESS.

According to reports from Athlone the outlook is now worse than at any time since the floods commenced, two months ago, and as a result a great deal of distress prevails. As was feared, much sickness has been occasioned by the prolonged and abnormal flooding. The authorities have directed that all the schools which were closed for the Christmas holidays shall remain closed for the present. The local medical officers are kept out practically day and night in consequence of the amount of sickness.

Owing to an outbreak of fever in Listowel the county court judge—on the application of the members of the legal profession and on the evidence of Dr. Dillon, to the effect that an epidemic existed—adjourned the further business of the Quarter Sessions for a month as a precautionary measure against the spread of the disease. Sir Acheson MacCullagh, Medical Inspector of the Local Government Board, is at present in Listowel conferring with the local authorities.

"DIRTY DUBLIN."

At the meeting of the council of the Dublin Sanitary Association held last week the dirty state of the roadways and footpaths was under consideration, and the following resolution was passed:

> That, in the opinion of the council of this association, the existing filthy state of the roadways and footpaths in the streets of the city and in some of the suburbs is prejudicial to the public health, and calls for prompt measures on the part of the authorities. The council considers that the provisions of 47 Geo. III., chapter 109, and 5 Vict., sec. 2, chapter 24, should be strictly enforced, and that, in addition, the Cleansing Department should take steps to have the surface of the streets in the city more frequently swept and cleansed.

The provision of the more recent Act is that the footway and water channel of houses in Dublin shall be kept clean at all times, under a penalty of £2.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

KING EDWARD MEMORIAL: CONFERENCE IN GLASGOW.

A CONFERENCE of local authorities in Scotland and of associations interested in the treatment of tuberculosis, convened by the Lord Provost of Glasgow on behalf of the Corporation to discuss the question of a memorial to the late King Edward, having for its object the alleviation of suffering, was held in Glasgow on January 12th. Delegates were present from seventeen county councils, thirty-six town councils, and from several parish councils, associations, and the Royal Faculty of Physicians and Surgeons, Glasgow. The Lord Provost presided. It was intimated that several of the burghs and counties invited had not seen their way to appoint representatives, but that they had expressed themselves in sympathy with the movement. Some had already taken action regarding memorials to King Edward. The first resolution, proposed by Sir Thomas Glen Coats, Bart., to the effect that steps be taken to raise a fund to be called "The King Edward Memorial Fund," was adopted.

The second resolution, proposed by Councillor Baxter (Greenock) and supported by Dr. James A. Adams, the President of the Royal Faculty of Physicians and Surgeons, was in the following terms: "That this meeting is of opinion that the memorial fund should be applied, *inter alia*, to the establishment and maintenance of an institute to be called 'The King Edward Memorial Institute of Preventive Medicine' or some similar name, the institute to be dedicated primarily to research and the dissemination of knowledge in relation to tuberculosis and to be available to the whole of Scotland."

Councillor Dr. James Erskine maintained that it was unnecessary to have a memorial building when the Royal and Western Infirmaries might be used for research. The fund might be applied to the establishment of scholarships for the study of preventive medicine and original research.

Dr. Yellowlees also doubted whether such an institute was an essential part of the crusade against consumption, and pointed out that there was already in London the Lister Institute, where the ablest men were working at preventive work. Eventually the resolution was adopted, the Chairman stating that Dr. Erskine's suggestion could be considered by the executive later.

Bailie Stewart, Convener of Glasgow Corporation Health Committee, moved the appointment of an executive committee to carry out the resolutions of the conference, and also to consider the question of the erection and maintenance of consumptive sanatoriums, and report to a future conference. The intention was, he said, to confer with the various local authorities, and to link up all their efforts in one combined effort. The Insurance Act directly raised the subject of sanatoriums. The resolution was adopted and a larger representative committee was appointed, with Lord Provost Stevenson as convener, and Mr. John Lindsay (Glasgow Town Clerk) deputed as clerk.

CONGESTED AREAS: A PUBLIC HEALTH PROBLEM.

A report has been prepared by Dr. A. K. Chalmers, M.O.H., on insanitary and obstructive buildings in congested areas in the city of Glasgow. It contains a com-

prehensive account of the sanitary history of the present wards of Glasgow and of their respective death-rates. In eight wards the death-rate is always higher than the city death-rate, and in eight more the rate is occasionally higher. In ten wards the death-rate is always below the average. Attention is directed to certain internal defects in house construction, such as defective lighting and ventilation of common lobbies, the existence of concealed beds, back-to-back houses, and want of through ventilation in small houses. A recent survey showed 3,079 apartments without the space required by law. The principal defect, however, in all the areas is overbuilding, and the blocking of what should be hollow squares. The provision of open spaces on the margin of such congested areas fails to accomplish all that is required. To overcome this difficulty of divided ownership the Housing of the Working Classes Act of 1890 made two separate provisions, but their practical application to the task of estimating appreciation in the value of the remaining buildings had not hitherto been attempted; if reasonable progress is to be made in reforming the overbuilt areas of the city there is need for a comprehensive method of dealing with them. There is much to be said in favour of the view that the Corporation should set aside a sum annually for reforming its worst districts. In any case, he remarks, we cannot remain satisfied with what has already been accomplished.

Glasgow School Board and Rickety Children.

The School Board of Glasgow at its meeting on December 28th, 1911, received a report containing the proposals for the prevention of rickets, a disease which from its prevalence in the city has become known in the East of Scotland as "Glasgow legs." It is stated in the report that, of 1,080 children attending the physically defective classes under the Board, 58 to 60 per cent. were on the list directly as a result of rickets. Among the remaining 40 per cent. a number presented secondary results of the same disease. It was pointed out that whereas the education of the ordinary child costs £4 2s. 6d., the cost of the physically defective child was £10 11s. 2d., the difference being due to the conveyance of the children to school, the attendance of nurses, and the provision of meals; and that mistakes in the feeding of infants were responsible. The motion in the minutes of the Committee on Special Schools was:

> That whereas rickets is a disease most painfully prevalent in Glasgow, and a cause of great expense to the community; and whereas it is at the same time, according to the highest authorities, easily preventable, being due chiefly, if not entirely, to gross errors in the feeding of infants, this Committee recommend the Board:
>
> 1. To require that in classes for women and girls, such as cookery classes, supplementary classes, and continuation classes on health and hygiene, special reference be made, in a way to be approved by the Board's chief medical officer, to the cause of rickets, and the means by which its occurrence may be prevented.
>
> 2. To require that examining medical officers press the facts on the attention of all mothers whose children may be found to be suffering from rickets, and
>
> 3. That every assistance within the power of the Board be given to the medical officers of the Corporation in their efforts to stamp out this disease.

These recommendations were approved by the Board after discussion. Two additions were proposed—namely:

> 4. Diet being part of the treatment in our defective schools, this Board requires that all children in attendance at these schools shall take the food provided, and that parents pay for the food when circumstances permit.
>
> 5. That as rickets is produced not only by improper feeding, but by unhealthy, overcrowded, badly ventilated, and dirty homes, this Board make an appeal to the Health Department of Glasgow Corporation to at once take action to tackle this disease at its source.

No. 4 was ruled incompetent, owing to want of legal power, and No. 5 was negatived on a division by 14 votes to 8.

Housing and Health in Glasgow.

The Corporation of Glasgow has adopted the following proposals made by its Health Committee:

1. That the hospital buildings about to be erected on Robroyston estate should be made available for the treatment of consumptives.

2. To confer with the school boards and the parish councils in the city regarding proposed country homes, with which might be associated open-air schools for pre-tuberculous children and home treatment of consumptives where assistance, financial and otherwise, is required.

3. To recommend that reports on insanitary and obstructive buildings and the provisions of the existing law relative thereto be remitted to the Special Committee on the Housing of the Working Classes Acts, 1890 to 1909, for their consideration and attention.

In moving the adoption of these recommendations, the Convener of the Health Committee said that in them was laid the foundation stone of a great constructive policy in dealing with the crusade against consumption. In the discussion which followed special attention was directed to a paragraph in the recent report of the medical officer of health—namely:

> It is scarcely necessary to repeat that the first great step—the basis indeed of the whole movement—lies in the adoption of a policy, continuously in operation, of thinning out overbuilt residential areas, and of making deliberate effort to improve the ventilation and lighting of houses when these are defective. Without this I doubt if any permanent benefit is to be expected from any or all of the other methods taken together. For this work the local authority alone is responsible.

In connexion with the work of clearing slum tenements a sheriff's judgement was recently given against the Corporation. An appeal to the Court of Session resulted in favour of the Corporation on two main points, and as this decision was intimated on the morning of the Council meeting much satisfaction was expressed. The special committee on the Housing of the Working Classes Acts, of which Dr. E. McConnell is convener, will now be untrammelled in its beneficent work.

The Rainfall in Scotland for 1911.

The year 1911 will rank as a one notable for the persistent drought which visited some eastern districts of Scotland. While the rainfall for the year was below the normal over a large part of the country, and greatly below it over a certain limited area, there were well-defined regions over which the year's aggregates differed little from the normal, and some in which there was a decided excess. A few of the more noteworthy figures for the East and West of Scotland may be given:

North-West.

	Inches.		Inches.
Glenquoich ...	... 122.2	Ardgour ...	... 111.6
Portree ...	... 73.0	Fort William	... 84.0
Kinlochquoich	... 128.8	Glencarron ...	... 87.0

West.

	Inches.		Inches.
Benmore ...	... 94.0	Glasgow ...	... 36.3
Dunoon ...	... 86.5	Oban	... 58.1
Greenock ...	... 68 9	Paisley ...	... 47.5

North and North-East.

	Inches.		Inches.
Nairn ...	... 27.3	Forres ...	... 24.1
Aberdeen ...	... 27.5	Huntly ...	... 31.5
Wick	... 27.4	Balmoral ...	... 29.9

East and South-East.

	Inches.		Inches.
Dundee ...	... 17.1	Perth	... 20.5
Edinburgh ...	... 22.4	St. Andrews	... 21.3
North Berwick	... 21.1	Loch Leven	... 31.9

Inland Districts.

	Inches.		Inches.
Kingussie ...	... 28.3	Peebles ...	... 34.3
Grantown-on-Spey	31.3	Kelso	... 25.0
Glenlyon ...	... 64.8	Moffat ...	... 54.6

A glance at these tables shows the usual contrast between West and East. In the first two groups, excepting Glasgow, all have rainfalls of over 40 in., and in the following two groups not a single place has a rainfall of that amount. The extreme range of rainfall over the whole of Scotland appears to have been unusually large. At one extreme we have Kinlochquoich, lying to the west of Invergarry, with 128.8 in., or more than seven times as much as Dundee with its small aggregate of 17 in.

At many stations the total did not differ greatly from those for 1910. Of recent years, and considering Scotland as a whole, 1903 was generally the wettest and 1902 generally the driest. The North and East of Scotland had a rainfall below the normal, and in Forfarshire, the eastern fringe of Perthshire, and in Fifeshire the deficiency was very pronounced—as much as 40 per cent. at Dundee, 35 at Perth, and 25 at Loch Leven. In Midlothian the western limit of the area of deficiency was soon reached, and, roughly speaking, the whole of Scotland in the west

of a line running through Invergarry, Creiff, West Linton, Biggar, and Langholm had fully its normal rainfall, with an excess of more than 10 per cent. at some widely-scattered places such as Glenquoich, Poltalloch, Greenock, Paisley, and Cargen. At Glasgow there was a slight deficiency, as on the Ayrshire coast, and in the extreme South-West divergences from the normal, one way or another, were unimportant.

Skin Diseases School in Edinburgh.

It is expected that the Edinburgh School Board's special school at 41, Lauriston Place, for children suffering from skin diseases will be opened about the end of January. When the Board acquired the property and announced its intention of converting the dwelling-houses into a school for children affected with skin diseases, the proposal called forth vehement protests from residents in the neighbourhood, who objected to the opening of such an institution in their midst. The Board, however, made clear that their intention was not to add another dispensary or hospital to those established in the district, and affirmed that the school would be conducted under the strictest supervision. In deciding to establish the school the Board proceeded under the Education of Defective Children (Scotland) Act, 1906, which gave power to make special provision for the education and medical inspection of epileptic, crippled, or defective children up to the age of 16. The new school will accommodate sixty pupils in three classes of twenty. The staff will consist of a head teacher and two assistants, a nurse, and a caretaker. The ages of the pupils will range from 4 to 16 years. The school will be conducted under the supervision of the Board's medical officer, who will select the cases for admission to the institution. It should be noted that treatment for disease is not provided at the school. The pupils will be in attendance either at a dispensary or on a medical practitioner, and the Board's arrangements merely provide for such supervision as will make certain that the prescribed treatment is being followed. The scheme has been approved by the Scottish Education Department, who are to pay special rates of grants to the Board for the school. Twenty pupils will earn what fifty earn in the ordinary school.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

WEST YORKSHIRE.

Tuberculosis Dispensary in Bradford.

As a corollary of the compulsory notification of pulmonary tuberculosis, the Bradford Corporation has determined to open a dispensary for advising and treating any consumptives who may be induced to attend it. But, with that peculiar perversity in doing the right thing in the wrong way so commonly displayed by local authorities, it is proposed to establish the dispensary on an upper floor of the milk dépôt premises in Morley Street. Even though there is no actual connexion between the premises, the proposition is radically bad both from the point of view of sentiment and also of possible contagion. It is difficult to make the poorer classes understand that their expectoration, if containing tuberculous bacilli, might be a source of contagion. There are sure to be tuberculous individuals loitering about a building of this character, and in the summer months, if they expectorate near it, the sputum will become dried and blown about, so that it is not at all improbable that some of it may get wafted into the milk dépôt. Thus there may be an actual spreading of the very disease that it is hoped to eradicate. Another criticism of the proposal that it is necessary to make here is that the scheme has never been even mentioned to the local medical profession. The medical officer of health has, of course, reported on the matter; but, before a question of this kind is tackled, the local profession ought to be asked to express its opinion on it. It seems that the necessary alterations to the building to adapt it as a dispensary will cost £1,180, and the upkeep will be about £800 a year.

It is to be hoped that the committee will employ part-time local medical practitioners to attend to the consumptives, and not engage a whole-time officer. The constant encroachments on medical practice that are taking place in the great cities are limiting medical work, and the local practitioners should always be given the preference in new schemes for the prevention or treatment of disease.

Bradford Babies' Welcome.

Yet another scheme of the Bradford Health Committee! It is proposed to recommend the City Council to take over the work known as the "Babies' Welcome," which has been carried on for some time at four centres by private means. The medical officer of health of Bradford, in a report, states that the object is to provide medical attention for weakly children, and to give advice to the mothers as to the children's treatment, clothing, etc. It is thought that some financial assistance may be obtained from the Board of Education and the local Education Committee. Probably eleven centres would eventually be opened. The present estimate of cost is: Salary of medical officer, £250; salary of superintendent, £100; hire of rooms, £140; sundry items, £10; total, £500. Here again we would urge that local medical officers should be appointed at a yearly retaining fee to do the work. It has hitherto been carried out most generously by honorary medical officers. Why cannot their services be retained and an honorarium paid them?

Proposed School Clinic at Shipley.

The Shipley Education Committee has unanimously resolved to establish a medical and dental school clinic. The Chairman of the Subcommittee which made the recommendation said "that it was no use continuing the medical examination of the scholars unless something was done to deal with the defects and ailments tabulated from time to time by the school medical officer. It was not proposed to limit the benefits of the proposals to the children of necessitous parents, but to throw them open to the whole of the scholars attending the elementary schools, subject to certain conditions designed to guard against the undermining of parental responsibility." The treatment would be carried out by the school medical officer and school nurse. He also said "he believed most doctors would be only too pleased to know that the children were being attended to. As the school medical officer is the inspector, and as the Shipley school clinic, if established on these lines, would directly contravene the policy of the British Medical Association as laid down at Birmingham, it is to be hoped that the Shipley doctors and the Bradford Division will shortly consider the propriety of opposing the proposed method of carrying out the work. Inspection and treatment must be dissociated, and it is to be hoped that the Shipley education authority will recognize this fact.

SOUTH WALES AND MONMOUTHSHIRE.

Treatment of School Children at Cardiff.

At the monthly meeting of the Board of Management of King Edward VII Hospital at Cardiff on January 10th the question of the treatment of school children was discussed. The Medical Board considered that the city and county authorities should make some provision for the treatment of children found to be defective. Dr. Paterson referred to the great overcrowding of the out-patient department, and pointed out that, in other parts of the county, school clinics had been established, while nothing of this kind had been done in Cardiff. If a clinic were established in Cardiff, only those cases requiring special attention would be sent to the infirmary. A letter from the medical officer of the workhouse was also read, asking whether a number of cases of ringworm might be sent to the infirmary for *x*-ray treatment. Eventually it was resolved that a committee of the Board of Management should meet the Medical Board to discuss the whole matter.

Alleged Malingerer.

At Llanelly County Court the Old Castle Tin Plate Company applied for the reduction of compensation awarded to Mary Morris. His Honour was assisted by

Dr. Lancaster of Swansea as assessor. The girl had originally crushed her hand in 1909, and had a superficial wound which the medical man who first saw her described as a graze. The wound had almost healed on several occasions, but each time broke down as soon as the respondent was removed from medical supervision. Several medical men gave evidence, and all of them expressed the opinion that the girl was tampering with the wound, though she denied that she had been aggravating it with a pin, as was alleged. The girl was persuaded to go into hospital, and the bandages were sealed. In a fortnight the wound was healed, but after leaving hospital it again broke down. No doctor appeared for the respondent, and His Honour gave judgement for the applicants.

India.

[FROM OUR SPECIAL CORRESPONDENT.]

ASSOCIATION OF MEDICAL WOMEN.

A COUNCIL meeting of the Association of Medical Women in India was held in Ludhiana on December 19th and 20th, 1911. The members present were: Dr. Benson (Bombay), President, Dr. Balfour (Patiala), Dr. Vaughan (Simla), Dr. Brown (Ludhiana), and Dr. O'Brien (Lucknow).

A letter was sent to His Excellency the Viceroy urging that the scheme at present under consideration of the Government of India for a properly organized Government service for medical women should be inaugurated on the auspicious occasion of Their Imperial Majesties' presence in India.

A memorial was forwarded to Her Excellency Lady Hardinge petitioning for the formation of college hostels for women students in all the university cities where mixed education is carried on in India. It was pointed out that such hostels have been at work most successfully in all the large educational centres in England for very many years. Each hostel should be under the guidance and control of a lady warden, who should be experienced in educational methods, should be attached to the professional staff of the teaching institution, and, when possible, should herself have a university qualification. The council of the association, while admitting that there are numbers of women who were prevented by social and religious customs from making use of these centres of mixed education, expressed the opinion that the formation of such hostels, which would be designed for the reception of students of arts, law, science, and medicine, would very greatly help to attract women of the higher social ranks both among Indians and the domiciled community. The memorial pointed out that there are in existence many centres for instruction in arts and science—such as the Isabella Thoburn College, Lucknow; the Bethune High School and College, Calcutta; the Maharani's College, Mysore; and the N.I. School, Ludhiana, for medical work—designed entirely for the teaching of such women as cannot take advantage of the many facilities offered by Government for mixed education.

A note was sent to the Honorary Surgeon-General, Sir C. P. Lukis, K.C.S.I., thanking him for his continued interest in the welfare of medical women, and begging for the appointment of women inspectors, who should inspect the work and conditions of life of all medical women, but especially of the lower grades in remote districts. The need for such inspectors has long been recognized and fully supplied by the Educational Department. Their appointment would do much to improve the character of the medical work. The council welcomed the inquiries that the Honorary Secretary of the Countess of Dufferin's Fund was making bearing on the improvement of the class of medical women working under the fund, and expressed the opinion that the standard of the Preliminary Examination should be raised, and strongly deprecated a shorter period of training or a lower standard of examination from women than from men. It was also of opinion that no scholarships for medical training should be granted except on the results of competitive examination, but that the character of the candidate and her general fitness for the profession should also be taken into account.

Correspondence.

BONESETTING.

SIR,—I was glad to see your informing article on "bonesetting," and would remind your readers of an excellent paper by Sir James Paget, entitled "On cases that bonesetters cure."—I am, etc.,

Aboyne, N.B., Jan. 14th. R. FARQUHARSON.

ARTIFICIAL RESPIRATION OF THE APPARENTLY DROWNED.

SIR,—Regarding the case reported in your number of January 6th by my friend, Dr. Leonard Hill, of a man on whom he employed alternately the "Schäfer" and "Silvester" methods of artificial respiration, the great venous congestion of the face and neck which he observed and supposed, no doubt rightly, to be due to expression of the blood from the abdominal organs, was only possible owing to the fact that the heart had entirely ceased beating. Had the heart still been acting the expressed blood would have been driven by it through the lungs, and doubtless the patient would have recovered. When the Silvester position and method were adopted the blood in the veins of the head and neck was caused, by gravity and suction, to flow back into the venae cavae and right auricle, and the congestion disappeared, to return on again adopting the prone position and compressing the abdominal organs. The case was evidently not one of apparent but of complete drowning, and Dr. Hill was operating upon a dead body. The appearances he describes are precisely those which are to be expected in such circumstances.—I am, etc.,

Edinburgh, Jan. 11th. E. A. SCHÄFER.

SIR,—Bacon's saying, "Variety of ignorance is the child of medicine," is my excuse for trespassing on your columns. Over and over again we read of very prolonged efforts at artificial respiration in all types of suffocation. Failure to resort to artificial respiration may lead to censure at an inquest. Thus the routine practice of artificial respiration has become a legal necessity. But I am bold enough to say that it is an over-estimated form of procedure in a large proportion of cases in which it is practised, and I refer especially to those cases which have been removed from the water; nay, were a skilled and ingenious surgeon at hand, not even direct squeezing of the heart muscle would resuscitate them. The nervous system dies very quickly after its blood supply is cut off; I believe half an hour is the limit.

And, as regards the methods of artificial respiration, I cannot but think that one method is as good as another. The up-and-down thrust of the chest walls with an open mouth seems quite to coincide with any form of procedure that imitates the bellows action of respiration. Of course, any dirt, water, or other matter obstructing free entrance and exit of air obviously must be disposed of by common sense measures. If "the Schäfer method produced great venous congestion of the face and neck, due no doubt to expression of the blood out of the abdominal organs, the liver in particular," as stated by Dr. Leonard Hill in a letter on artificial respiration in the apparently drowned (issue January 6th), I maintain the one remedy was venesection. When a subject is suffocated completely, the circulation is hurried to an increasing degree of rapidity, and the pulse becomes like a thread to the feel. Stasis follows, with dilatation of the right cavities of the heart. Diapedesis succeeds to this, and the subject succumbs to paralysis of the heart muscle from obstruction. Briefly, the vascular system is strangulated. Surely, there is one operation for its relief, and a sure one, of letting out poisonous and imprisoned products. It is the use of the lancet, just as release is given to a strangulated knuckle of intestine by the knife, and its circulation opened up. But to perform venesection in every case of suspended animation is clearly an abuse of the practice, and when artificial respiration, heat, galvanism, friction, amyl nitrite, etc., do not quickly answer their purpose as palliatives, then the radical operation of blood-letting must be performed without delay. Moreover, to have a vein opened, or to be prepared for venesection, during the process of

artificial respiration will, in some cases, put the patient, as it were, in double harness.—I am, etc.,

Alton, Hants, Jan. 6th. JOHN FREDK. BRISCOE.

THE ADMINISTRATION OF OXYGEN: A PERSONAL EXPERIENCE.

SIR,—Dr. Leonard Hill's statements as to the value of pure oxygen administered at a suitable temperature through a suitable apparatus I can from personal experience attest.

Last year I took out at Howe Bridge Rescue Station a course of instruction in the use of the Siebe-Gorman oxygen apparatus, receiving at the end of the course a certificate of proficiency.

The curriculum consists of two hours' work in galleries filled with smoke and sulphurous vapours; the galleries are such as one meets with in a coal-mine, tunnels through which one had to travel either on all-fours or in a crouching position. The floors are of hard, sharp flints; the roof supported by wooden props and bars. The work consists of filling and emptying a coal-tub (small wagon) with bricks; setting wooden props to support the roof, bringing out a mannequin representing a dead, or perhaps grievously smitten, man; fixing a brattice screen, and other jobs such as one would be called upon to do in case of fire in a coal-mine. During the practice we breathed 80 to 90 per cent. of pure oxygen through the apparatus for the whole of the time.

My personal condition at the end of the two hours was one of extreme fitness. I felt no feeling of fatigue, notwithstanding that I was in no sense in training. Hungry as a hunter, my sandwich case was soon emptied; my pulse was regular, and never above 85; and each afternoon, following the instruction and practice, I managed to get through a much increased series of professional engagements, for, since I devoted the most of my mornings to attendance at Howe Bridge, my other duties had to be crowded into the afternoons and evenings of the same days.

During the six weeks or two months over which the course of instruction extended in weekly practices, I felt more fit than I had done for the six previous months. When I began the course I was barely convalescent from influenza, which left me with some bronchial catarrh; this latter always seemed to be much improved at the end of the two hours' inhalation of oxygen.

The gentleman (a well-known mining engineer) with whom, and with whose employees, I undertook the course had a similarly favourable experience of the effect of the gas upon his appetite and his general sense of well-being.

I am convinced of the value of oxygen in rescue work. I am convinced of the value of oxygen, properly administered, as a therapeutic agent, but I believe that Dr. Leonard Hill's comparison of the usual methods of its exhibition to the effort of a man "to affect the composition of the sea by emptying his bladder into it" is quite justified; and I trust that this expression of his opinion, in conjunction with that which the airy, graceful, and facile pen of Sir James Barr in his well-known pamphlet on the *Treatment of Pneumonia* has already—years ago—given to the medical world, will suffice to ensure that the oxygen cylinder is no longer used as a toy—a dangerous toy—but as a serious therapeutic agent of value in many and diverse conditions of general systemic failure when the gas is administered at a proper temperature through a suitable apparatus.—I am, etc.,

MAURICE G. MCELLIGOTT, F.R.C.S.Ire., D.P.H.,
Honorary Surgeon, St. John Ambulance Brigade.

Wigan, Jan. 14th.

STATE SICKNESS INSURANCE IN GERMANY.

SIR,—In the BRITISH MEDICAL JOURNAL of January 15th is an important article on "State Sickness Insurance in Germany." It is published by instruction of the British Medical Association State Sickness Insurance Committee. I wish to call attention to the reply to Question 5 on p. 88, which commences thus: "The effect of the insurance system on recruiting for the profession has been *nil*," and more words following to the same effect even more emphatic.

Compare this with the statistics from Germany quoted on p. 101. The medical practitioners in the German Empire in August, 1911, numbered 31,852, against 31,631 a year before, an increase of only 0.7 per cent. It would certainly appear from this that the recruiting for the profession was not very successful in Germany, and that the rate of increase of the profession could not keep pace with the increase of the population.

Again, the number of medical practitioners in Germany is smaller than the estimated number in Great Britain (p. 90), whilst the population of Germany, of course, is far larger than that of Great Britain.

I do not know the explanation of these facts; perhaps Dr. Renshaw can explain them?—I am, etc.,

Newport, Mon., Jan. 15th. C. S. VINES.

THE MEDICAL SECRETARYSHIP.

SIR,—I have read Mr. Owen's letter in the JOURNAL of January 13th with much interest. Any letter over his signature will be widely read, if for no other reason than that he writes with intimate knowledge of the Association, having been Chairman of Council for a period of three years.

Armed with this inside knowledge Mr. Owen appears to have come to the conclusion that the two most important offices in the Association are the Editor and the Medical Secretary.

He says that the financial success of the Association depends greatly upon the manner in which the JOURNAL is edited. No doubt that is the case, but it also depends on the way the JOURNAL is managed, and, in my opinion, the financial success is in a very great measure due to the business Secretary. Mr. Owen lays stress on the Association having at one time had an Editor who became a dictator. Assuming that is admitted, facts show that during that period the Association advanced in numbers and wealth in a manner it has never done before or since, and it must always be a matter of dispute as to whether that period of prosperity was due to the Editor, or the business Secretary, or to both.

I also write with some special knowledge of the Association, as I was first elected a member of the Council in 1892, and have had the honour of occupying the position of Treasurer to the Association from 1899 to 1902, and the Chairmanship of Council from 1902 to 1905, and have since had a seat on the Council.

On looking at the history of the Association, it is striking that up to 1872 the Association never employed a trained business Secretary, but a medical man always occupied that post, and the Association had fallen into such financial difficulties that there was serious talk of calling up the guarantee and winding up its affairs. Since 1872 the Association has had two business Secretaries, and has accumulated a reserve of over £106,000.

In the light of these facts, I think it is only fair that the Association should recognize that for its success there are three equally important offices.—I am, etc.,

Montreux, Jan. 15th. ANDREW CLARK.

SIR,—The appointment of a new Medical Secretary to the Association at this juncture demands plain speaking.

In common with others I have received a circular from one of the applicants for the position, in which the statement is made that a certain gentleman is making application for the post, and is supported by some members of the Council. His name appears on a list of members of the Council enclosed with the circular. Should he have applied without first having resigned his seat the impropriety of such action ought to be obvious to anyone without the necessity of calling attention to the fact, if fact it be. Furthermore, referring in general to the appointment to be made, one is bound to urge upon the Council that in view of the strong expressions of opinion on the National Insurance Act arising on every hand, no man ought to be appointed who by speech or action is committed to the "wait and see" policy. Should this not be done, a feeling of resentment will arise among the rank and file which will far exceed that at present existing in so many places.

As Secretary and Representative of a Division which, while strongly disagreeing with much that the Council has done, has yet carefully refrained from any expression of criticism, not to say censure, I feel bound to state what is the almost universal feeling of those with whom I have discussed the matter.

Surely the right course is to postpone making the appointment until after the Representative Meeting has met.—I am, etc.,

R. Wallace Henry,
Hon. Secretary and Representative of the Leicester and Rutland Division.

Leicester, Jan. 15th.

Sir,—Mr. Edmund Owen has given the Council a timely, and very grave warning. For myself I should say let the appointment not be made. The Medical Secretarial Department could, with very great advantage, be "closed down" until the government of the Association is more settled. At least it would be a saving of vast sums spent quite recklessly on "agenda" books and useless literature of all kinds.

As to the Medical Secretary and the "dictatorship," it is a most fortunate thing for the Association that Mr. Smith Whitaker has secured a more profitable berth.

It will be a serious matter for the present Council if it fills up the office of Medical Secretary at present; don't let them defy the members of the Association much longer; they have done and are doing day by day a great deal too much to split up the Association—they cannot succeed in destroying but they can weaken it. We have been too long governed by a coterie, and, worse than all, a political party. This must be ended!—I am, etc.,

Old Trafford, Jan. 16th. Jas. Brassey Brierley.

SIR JAMES BARR AND THE INSURANCE ACT.

Sir,—Sir James Barr's reply to Dr. Dixon and Dr. Hislop, in the Journal of January 13th, should give a quietus to accusations of political partisanship.

Those who know Sir James Barr's strong and independent character are well aware that he would never allow personal or political considerations to interfere with his public duties. He could, no doubt, afford to disregard the opinions of Dr. de Coverley Veale and Dr. Lishman, the latter of whom fails to obscure his own Radical proclivities; but I would remind these gentlemen that Sir James Barr's letter was addressed to the public, and surely the public have as good a right to be protected against bad legislation as the medical profession.

Personally I thought his letter most refreshing, and I was sorry that its author had not been moved to indite it sooner. As it is, however, it cannot have failed to influence the thoughts of many members of the public for whom it was intended, and so will have done good.—I am, etc.,

Little Sutton, Chester, Jan. 16th. H. W. Nott.

Sir,—It appears to me that the present correspondence, which is assuming the qualities of a discussion on the ethical principles of the Insurance Act, should have occupied our attention before the Act had passed into law. I believe that no sect of the community is better qualified than medical men to discuss the ethical principles of this Act; but those principles have never been challenged, and now we have lost our opportunity. With Sir James Barr I agree, and believe that this Act forcibly demonstrates the fact that this country has followed Germany in the path of degeneracy.—I am, etc.,

Edinburgh, Jan. 13th. Frederick Porter.

A HOSPITAL FOR PAYING PATIENTS.

Sir,—Mr. Lawrie McGavin's letter in the Journal of January 13th is another instance of the unwisdom of expressing an opinion without the trouble of ascertaining the facts of the case.

He says: "By what right Dr. Hilliard claims to command a greater knowledge of nursing homes and their management than I do myself I cannot quite see," etc.

If Mr. Lawrie McGavin had taken the trouble, he could have ascertained that Dr. Harvey Hilliard and the committee of doctors who initiated the idea of the hospital for paying patients—of which committee I had the honour of being chairman—spent much time for many months and held numerous meetings of medical men and others interested, with the object of acquiring all possible acquaintance with the subject of nursing homes. Plain truths are frequently unpalatable fare, and the plain truth of this matter is—that Mr. Lawrie McGavin has expressed an opinion on a matter of which he has no knowledge.—I am, etc.

London, S.W., Jan. 13th. Launcelot Archer.

THE NEW CELL PROLIFERANT.

Sir,—With regard to a letter in your issue for January 13th on the origin of some recently published studies on this subject, may I remind your scientific readers that they are evidently based on the work of my brother, Mr. H. C. Ross, M.R.C.S., L.R.C.P., as fully described by him in his book on *Induced Cell-Reproduction and Cancer*, published a year ago by Mr. Murray. In Chapter XV of the book, et seq., it was shown that certain substances, when placed upon chronic ulcers, have the power of causing very rapid cell proliferation—the result being verified *in vitro* by the action of the same substances on human leucocytes, and illustrated by photographs of the ulcers and blood specimens. The "new cell proliferant" is probably merely another of these "auxetic" substances, but tested only on ulcers. A paper by me on the subject will be found in the current *Proceedings* of the Royal Society of Medicine and also partially in *Nature* of December 14th last.—I am, etc.,

Liverpool, Jan. 13th. Ronald Ross.

Sir,—The following extract may be of interest to those who are taking part in the correspondence on this subject. It is taken from a book with the following title: *Materia Medica or a New description of the Virtues and Effects of all the drugs or Simple Medicines Now in Use. . . . Done from the Latin Original of Dr. Paul Herman late Professor of Botany in Leyden . . . by Edward Strother, M.D. Coll. Med. Lond. Reg. Colleg.*

The extract is as follows:

24. *Consolida Major, Comfrey.*

It is of a sweetish, mucilaginous, and viscous Taste.

It consists of mucous, thick, watry, and oily Particles; from whence it has the following Virtues.

Its sweetish Taste bespeaks it of a temperate and middle Nature, because some saline, and sulphurcous Corpuscles are always well blended and incorporated in a sweet Taste; and its mucous and viscous Taste shew it to have a Power of consolidating and gluing * Wounds together.

It mollifies, and is anodyne, because its smooth and oily Parts cover over, and, by its watery, it dissolves, the saline Particles, which hinder a Cure of Ulcers, or Wounds; therefore is it us'd as an internal Vulnerary.

It is a Specifick in Exulcerations, or Excoriations of the Kidneys, especially such as are rais'd from Cantharides; and then it is boil'd in Milk and drank.

It is us'd internally to breed a Callus in Bones that are fractur'd. †

Wherever Acrimony is the Cause of a Disease it is a Specifick; because the viscous Particles wrap up the salts: From whence it is of Use in Dysenteries, and in Ulcers of the Lungs, or in Coughs proceeding from sharp tickling Salts, which are betray'd by a tickling dry Cough.

Its Juice express'd glues together, and heals external Wounds.

In short, 'tis emollient, anodyne, agglutinant, consolidating, good in Ulcers and all sharp Humors.

N.B. It is always us'd internally in Decoction, and lest its Particles being viscous, should stick to the Wrinkles of the Guts, 'tis advisable to add to the Decoction the Seeds of Fennel, or some such Aromatick; and *This is a General Rule for all viscous Plants.*

Its Preparations are only Syrup of Comfrey of *Fernelius* whose Dose may be to two Ounces.

Its *Generical Mark:* It has monopetalous, tuberose, cylindrical Flowers, dispos'd into Jags, with four Seeds join'd together.

* N.B. Wounds have two General Intentions, *Agglutination* or *Digestion*: such Wounds are fit for the first method of Cure as have lost no Substance, or made in a Part where an Eschar wou'd be unseemly; namely, the Face or Hands.

† N.B. A Callus is at first a liquid Matter, which in Process of Time is gelatinous, and lastly hardens into Bone; *Papin's* Digester reverses this Method of Nature; and, from an hard Substance, turns it back again to a Jelly: It must be concluded, that Comfrey, if it succeeds, contains a great many earthy Parts in it.

The book from which this quotation is taken was published in London by Charles Rivington and printed at the "Bible and Crown," in St. Paul's Churchyard, in 1727.—I am, etc.,

Manchester, Jan. 13th. Charles Powell White.

SWEETS IN CHILDHOOD.

Sir,—In the correspondence upon this vital question I have failed to see mentioned one of the principal points—that is heredity. I have found that a far greater percentage is traceable to the maternal side.—I am, etc.,

London, N.W., Jan. 12th. Percy May.

SIR,—Two questions have been discussed in the various letters which have appeared on this subject—first, the part played by sugar and carbohydrates in the causation of dental caries, and, secondly, the best method of prevention.

In his paper at the meeting of the British Medical Association Mr. Hopewell Smith asserted that children should never be allowed to eat sweets, on the ground that they are in any case of no appreciable value. Such a categorical assertion naturally attracts attention.

The first letter under this title was a protest against this statement. The tendency of children to carbohydrate starvation and acidosis was suggested by the writer as a physiological reason for their desire for sugar, even apart from its great value as a food at a period of rapid growth.

Dental surgeons agree that carbohydrates are the sole exciting cause of dental caries, and base their conclusions on experimental grounds which may be accepted. The evidence that sugar and sweets are predominate among the carbohydrates is not so definite. The work of the late Dr. Miller has been referred to as if it were conclusive, but his own words show that he himself did not consider that sugar, as such, was a very important factor in the production of caries, and was opposed to its prohibition to children.

The experiments of Mr. Hopewell Smith are confined to two subjects, and, although scientifically performed, do not justify any wide-reaching conclusions. That stagnant sugar would have evil effects may be admitted, but the proof that sugar does stagnate is not clear. Both cane-sugar and grape-sugar are readily soluble, and the persistence in the mouth of the colouring matter of sweets is not evidence of the presence of sugar. Little importance appears to be attached to the general malnutrition which may result from eating an excess of sugar. Medical practitioners are familiar with the anaemic child with a poor appetite, who has been in the habit of eating sweets at all hours, and the rapid improvement which follows the prohibition of carbohydrates and the administration of alkalis. The disturbance of the alimentary tract in such instances certainly extends to the mucous membrane of the mouth. It is improbable that such and similar factors are negligible.

Very little importance, or none at all, is ascribed to predisposing causes by dental surgeons. Dr. Sim Wallace dismisses the possibility of any hereditary factor on the argument that it would be an instance of the inheritance of acquired characters. This is not necessarily so. Hereditary conditions, such as haemophilia, must arise as variations and not as acquired characters. Variations are changes in the germ plasm, and undoubtedly can be inherited. There is no reason why a change in the constitution predisposing to dental caries should not arise as a variation and be hereditary.

With regard to the direct prevention of dental caries in children, predisposing causes, whatever importance they may possess, become a secondary question, for attention will doubtless be directed to them for other reasons. I do not believe that sweets should be universally tabooed. The difficulty is to find a correct and yet practical method of finishing a meal. An apple is ideal, but fruit cannot always be forthcoming, and, apart from it, nearly every meal terminates with carbohydrates in accordance with the dictates of appetite, and will undoubtedly continue to do so.

Mr. Turner asks some historical questions. The prominence of bees in ancient literature is suggestive of the value set on sugar. The honey of Mount Hymettus has no particular virtues. The frequent allusions to it in the Greek classics is due to the fact that it was the only solution of sugar readily obtainable by the Athenians.—I am, etc.,

London, E., Jan. 8th. H. LETHEBY TIDY, M.D.

SIR,—The assertion that a child craves for sweets in obedience to physiological appetite is to my mind a dangerous one. If this be conceded, then we shall quickly have all the indiscretions and excesses of humanity (dietetic and otherwise) justified by physiological requirements.

The question before us is "Sweets in Childhood" (not "Sugar in Childhood"), and its bearing upon the causation of dental caries.

With one exception the various contributors would appear to have considered the problem from the latter standpoint, and in doing so to have assumed that, the best sweets being used, the question is simply one concerning the action of pure sugar. Personally, I do not think such a consideration practical. It is a consideration of ideals which do not exist. In discussing this matter I have in my mind the confection which is consumed every day by the greater proportion of children of this country, namely, those attending the public elementary schools. The sweets consumed by these children are those which can be procured at the cost 1d. per ¼ lb. Two considerations appeal to the child in purchasing them: (1) The seductive and attractive appearance of the commodity, (2) the quantity which can be obtained for the money.

The above factors alone guide the child in its selection.

Many of these sweets are given appetizing vegetable names—for example, lemon drops, pear drops, acid drops, pineapple drops, etc. They are flavoured artificially with various organic and inorganic compounds, frequently of an acid nature, such as amyl nitrite, and too frequently coloured with substances which cannot be regarded as innocuous. The sugar used in their manufacture is of the cheapest kind and often gritty from adulteration. The vast majority of sweets consumed in this country are of this nature. Can it be said that they are not factors in the causation of dental caries?

Further, in many cases, especially amongst the younger children, the sweets are not sucked or allowed to dissolve gradually in the mouth, but are ground up by the molars, thus running the risk of chipping the enamel and also of wedging broken particles of the sweetmeat between, and upon the teeth, which particles are slow to dissolve. Why does one so frequently see the lower molars of children of the ages of 4 and 5 years hopelessly carious? May this not be one reason?

For the past three years I have been engaged in the work of medical inspection. Half of this period has been spent in urban colliery and cotton manufacturing areas, the other half in purely rural districts. I have taken some observations and interest in this subject. My figures show very conclusively that the actual percentage of carious teeth is greater in urban than rural districts. My present sphere of work covers a tract of country sixty miles in length, comprising fisher folk, salt and iron miners, agricultural labourers, and farmers. There are two or three small industrial centres, the rest being made up of villages of varying size, and small hamlets on the fell sides. Within this circumscribed area there are centres which stand out as veritable foci of dental caries. One finds a tiny village where the teeth are above the average, and within three miles another larger village where the teeth are so bad as to warrant some local explanation, and in every case one finds there is in the larger village the usual shop where the children can purchase sweets. I am not inferring that this is "the" cause. I think it is one out of many. The teaching of the usual hygienic precautions is the same in the two schools: wherein lies the difference? In many of these foci I have asked the schoolmaster and even local practitioners if they could assign any reason for it, with the almost invariable reply, "They have too many pennies to spend." I have further observed that in elementary schools the teeth of those children whose parents are more comfortably circumstanced have frequently very bad carious teeth. If I may quote an example without being invidious, the teeth of the publican's child are often amongst the worst in the school; such children are often given a penny from the till when leaving home, and in addition are frequently the objects of maudlin bounty.

The most perfect teeth I have seen have been in the mouths of the children of the extreme poor—children who never knew anything but slum life, and who had neither shoes nor stockings, and whose garments were but a travesty; they never possessed a toothbrush. It will be said: "These children eat coarser food." They may do so, but they eat more carbohydrates and less detergent material, also they eat fewer sweets, and possibly, which is more to the point, there is something in their organizations which resists both sweets and starch.

Dr. Hildesheim states that this correspondence has

digressed into a discussion of the etiology of dental caries. It could hardly do otherwise; any man who examines teeth systematically must have this point ever in his mind. It is so evident that very little is known about the true causation of the condition. The commonly accepted theory that the deposition of starchy material upon and around the tooth, and its subsequent fermentation by micro-organisms thereby leading to the production of acid media, does not explain everything. It is a comforting theory, but if it be the true one it is reasonable to suppose that the acid is present in reasonable and appreciable quantities. I have never been able to satisfy myself that this was so, one so frequently obtains an amphoteric reaction. Further, the buccal cavity teems with micro-organisms. An acid medium is not an ideal one for bacterial growth. One can find the pneumococcus in mouths which contain carious teeth. This organism will not grow on an acid medium.

Dr. Hildesheim makes some valuable suggestions for organized research; he advocates somewhat boldly "That the powers that be should be urged to establish a network of dental clinics throughout the land." This is sublime in theory, but impractical at the present moment; there are not sufficient dentists to do the work: the problem is colossal in its magnitude. Of the other lines of research suggested by this writer many are, I regret, only to be pursued within the walls of a dental hospital: I fear the average dental practitioner has neither the time nor the material at his hand. If I might add to Dr. Hildesheim's list, I would suggest that "the practical bearing of acid and alkaline drinking waters" be investigated. I have noted that the teeth of children living in districts where the drinking water is markedly alkaline are whiter, stronger and freer from caries, and that in those districts where an upland surface water is used, which is frequently acid, that the reverse obtains, and there is a greater frequency of deposits of tartar upon the teeth.

I am of opinion that the cause of caries is not to be found so much in the formation of an acid medium within the mouth, as in an actual failure of development. With this end in view I have for some past been taking observations upon the eruptive period of the various permanent teeth. These figures will be published in due course, but they tend to show that the teeth erupt at a much earlier age than is given by most of the textbook authorities.—I am, etc.,

Hest Bank, Lancaster, Jan. 5th. WILLIAM F. J. WHITLEY.

SIR,—This much discussed question has again cropped up in your columns, and perhaps I may be permitted to say a word or two on the point, since undoubtedly it is an extremely important matter.

It is the old crux—the physiologist says sweets are beneficial (and rightly so), and the dentist says that sweets are detrimental (and also rightly so). The question is, How can these two teachings be reconciled?

Dr. Howarth states that "glucose in the stomach is immediately split up into alcohol and CO_2," but this is not what ordinarily occurs in the mouth. Your correspondent may verify for himself that a mixture of glucose, saliva, and mouth organisms undergoes a lactic acid fermentation, and it is this acid which by dissolving the lime salts of the teeth prepares the way for bacterial invasion. Now, I have shown in my recent work on the *Prevention of Dental Caries and Oral Sepsis* that in the saliva resides the normal protection of the teeth. Sweets certainly give rise to an increased flow of saliva, but not to anything like the extent as when combined with a weak organic acid (as sugars are normally in nature). This increased flow of watery, alkaline, and antiseptic saliva tends to sweep away and neutralize any sugar adherent to the teeth; but some sugars form with the mucin of the saliva an extremely viscid mixture, which does not thus tend to be removed. I have shown, however, that the addition of a weak acid, by precipitating the mucin, prevents the formation of this sticky compound, and thus the teeth escape. This, then, is the solution of the problem. Sweets are beneficial so long as their débris does not stagnate in the mouth, and such stagnation and fermentation may be prevented by combining the sugar with a weak organic acid, such as tartaric, citric, or acid potassium tartrate (½ to ½ per cent.). Used thus, no harm whatever will accrue to the teeth either from the sugar or the acid, although it is the exact antithesis of what has been taught for 400 years past—that is, that acids can be beneficial to the teeth.—I am, etc.,

Dental School, University of New Zealand, Dec. 11th, 1911. H. P. PICKERILL, M.D.

"A BIOLOGICAL VIEW OF THE CANCER CELL."

SIR,—On returning here I find, in your issue of December 23rd, 1911 (p. 1678), your comments upon my letter with the above title. The "misquotation" of "complete" for "complex" was either a misreading in copying the draft or a lapse of the typewriter, which wrote "te" instead of "x." The strictures upon the lines cited by me from your article remain correct whether the "organism" was "complete" or "complex," or both. Since it has been my privilege to study and to make investigations in embryology for upwards of thirty years, and since I have taught it in the University of Edinburgh for nearly twenty years, it can scarcely be expected that I should be disposed to accept as true teachings of embryology any of the assertions appended to my letter. I showed your remarks to one of my colleagues, D.Sc.Lond. and University Lecturer in Invertebrate and in Tropical Zoology, and he agreed with me that the references to similar "potentialities of the cleavage cells" in "sponges, coelenterates, echinoderms, annelids, amphioxus," were not true. Since your writer adds that this is also true "in thousands of cases well known to every zoologist or embryologist," it would seem to follow that my colleague and I must be the most ignorant zoologists and embryologists in the world, for we do not know it.

Of all the groups cited in the comments, the one in which the cleavage phenomena are best understood and best investigated is that of the annelids. Here the facts laid bare by the minute painstaking researches of E. B. Wilson, Eisig, and many others flatly refute your writer's assertion.

In the study of "cell lineage" these observers have demonstrated the potentialities of every cell of the early cleavage, and we know that the facts of the normal development are diametrically opposed to the interpretations given by your writer in the article and in his comments. Moreover, the finds of so-called "experimental embryology," which is in reality "experimental pathology," cannot be applied to the natural conditions obtaining in normal development. Further on the writer makes the cells of trophoblast or of its equivalent—for, as I have been able recently to establish, a "trophoblast" or syncytium occurs even in fishes—"subservient to the needs of the embryo." How? Certainly not in a nutritive fashion. The phrase he employs may mean anything, but, no matter what it mean, the trophoblast or its equivalent is never subservient to the needs of the embryo, any more than the fern plant is "subservient to the needs of" the prothallus. This is not a matter of opinion, but a statement of fact. In introducing the term 'trophoblast" in 1889, Professor Hubrecht did indeed imagine that it had for the embryo a nutritive significance. But the assumption is baseless, and *to-day there does not exist in the whole literature of embryology a particle of evidence to show that trophoblast has any nutritive import whatever.* Indeed, unless at the proper moment the embryo set about its suppression, instead of feeding the embryo, the trophoblast will devour it. The expression "thousands of cases" used by your writer is a mistake for "*not a single case.*" Moreover, the references by your writer to various invertebrate animals, and to thousands of mythical cases, are quite beside the point, which related to mammalia development in general and human embryology in particular.

As to the second half of my letter, I have no love for "parables" any more than for "Christian Science" or for "fairy tales of science." A few simple words will explain matters. The polarimeter is an instrument now used for the purpose of determining the physical characters of many organic compounds, more especially the naturally occurring organic compounds, those found or formed in animals or plants. Prior to 1860 it was employed little, if at all, in chemistry. Then, using it for the examination of the double salts of racemic acid, Pasteur was led to the foundation of a

science of stereo-chemistry or chemistry in space. As many years later he explained, in that work he also laid the foundation-stones of his subsequent researches. Just as the introduction of the polarimeter into the investigation of problems of pure chemistry resulted in the foundation of a new and highly important science of stereo-chemistry, so also the application of the principles of stereo-chemistry and the use of the polarimeter in cancer investigation would—if the aphorism of Pasteur, that "Science is prevision," be true—lead to the complete and final resolution of the chemical nature of cancer. The "child of the desert," or malignant neoplasm, would reveal its true nature. So far as I am aware, the albumins of cancer have never yet been examined—in solution—in the polarimeter. On grounds which are decisive, and which recently I again gave in detail elsewhere, the albumins of cancer are dextro-rotatory bodies, and not laevo-rotatory ones. If this be a fact—and it can be verified or refuted easily—then the scientific investigator knows all that he will ever need to learn about the nature of cancer. "Science is prevision," said Pasteur, and that is why, though possessing a polarimeter, I have not, as yet, made this test for myself. And while nearly 40,000 people annually die of malignant disease in England and Wales alone, a polarimeter can be purchased for about £10 sterling. Why, in the name of commonsense, should there be this never-ending talk and all these public lectures concerning the nature of cancer—all terminating with the confession that the speakers know nothing at all about it—when the question of the stereo-chemical nature of cancer can be settled for ever by a single crucial experiment, as Pasteur would have termed it? To any one who knows anything at all about stereo-chemistry and the action of enzymes or ferments, it is clear that, unlike those of the human body, the albumins of cancer are dextro-bodies. As long ago as 1907 I first stated this and gave scientific reasons, but as yet neither cancer-researcher nor ex-researcher has impugned the conclusion. And why? Simply because scientific truth cannot with success be impugned.—I am, etc.,

Edinburgh, Jan. 11th. J. BEARD.

*** In the passage which has stimulated Dr. Beard to such vigorous criticism there are contained three statements: (1) That the zygote or fertilized ovum in Metazoa multiplies by repeated cell-division to form a number of cells which remain in union and build up a complex organism; (2) that the cells of the Metazoan embryo are at first similar in nature and potentialities to the ovum itself; (3) that the cells become differentiated later in various ways in relation to the performance of special functions. The first of these statements amounts to little more than saying that the egg of a frog after undergoing cleavage develops under normal circumstances into a frog, or that of a starfish into a starfish; the third statement also, apparently, is not controverted by Dr. Beard; the point at issue appears to be that he considers that the differentiation of the cleavage cells takes place from the very beginning, as soon as the egg becomes divided into two or more blastomeres. His letter appears, in short, to be an attack on the second of the three propositions stated above. Dr. Beard has, of course, as much right to his own opinion as anyone else; but the fact so frequently observed, that a single blastomere, separated from the others in an early stage of the cleavage of the ovum, can give rise to a complete embryo by itself, might certainly be regarded as a proof that "at first the cells of the Metazoan embryo are similar in nature and potentialities to the zygote itself," a conclusion which is drawn from the experimental data by many, if not most embryologists.

THE NATURE AND ORIGIN OF CANCER.

SIR,—I fear that I do not see eye to eye with Dr. Brock where he considers that cancer is "a dissociation of personality" somewhat similar to that found in hysteria and allied neuroses. In the latter I agree that "the psychic condition of the patient is one of anarchy." In cancer, on the other hand, there is no psychic condition to be considered but a material pathological state, which can only be explained in a material way. If we are going to account for everything that is mysterious in the nature of life by resting on the assumption of a "vital principle," there is no further need for scientific inquiry. Dr. Brock's "controller" may look after the functional activities of the cells; the "controller of cell growth" governs their reproductive activities.

I believe that the "controller" or "governor" is of the nature of a secretion, and that it is a combination of the secretion of the thyroid, adrenals, and pituitary body. The President of the Royal College of Surgeons in Ireland has published a case[1] of glandular recurrence after extirpation of a carcinoma of the larynx, in which the growths disappeared on treatment with thyroid extract, and asked some important and interesting questions:

1. What is the nature of the influence of the thyroid extract and by what process did the tumour melt? [My answer is that the thyroid furnishes a large part of the governing secretion, the mutinous cells are checked and are brought into line with the loyalists, whose good example softens their hearts.]
2. How far does the existence of such cases go to prove that one of the conditions necessary for the occurrence of cancer in an individual is some defective or abnormal internal secretion? [In my opinion it goes a long way in verifying such a hypothesis.]
3. Why does thyroid extract cure a few cases and leave others unaffected? [For the simple reason that the thyroid furnishes only one of the necessary secretions.]

Cancer occurs, as a rule, after middle age, when degenerative processes affect the ductless glands, along with other tissues of the organism. Recuperative and formative powers are then low, and should, say, the adrenals fail, Nature cannot bring about a compensatory hypertrophy of the other two glands. Significant facts are that the pituitary body generally hypertrophies after thyroidectomy and removal of the suprarenals, and also that hyperpituitarism frequently results in thyroid insufficiency. In those cases, where thyroid fails, I would suggest treatment by pituitary and suprarenal gland substance.

It is perfectly well known that the secretions of these three glands contain specific bodies of a peculiar nature, and that they are absolutely essential to normal metabolism.—I am, etc.,

Wigan, Dec. 24th, 1911. J. THOMSON SHIRLAW.

TREATMENT OF ANTE-PARTUM HAEMORRHAGE.

SIR,—Dr. Bickle asks me to qualify my statement that plugging the vagina is "horribly painful." I did qualify it. I said that it was "scarcely too much" to speak of it as "horrible torture."

I was not speaking of what Dr. Bickle describes as a "rational method of plugging," intended "to excite uterine contractions, and so to control haemorrhage." I agree with him that packing with no other object in view than this can be done with "only a moderate amount of discomfort." I do not think it the best way of attaining the ends in view; but let that pass. The plugging to which my phrase was applied was that done with the double purpose of (1) so tightly stuffing the vagina that no blood can get past the plug, so that blood escaping from utero-placental vessels must be retained *in utero*, and (2) that the uterine arteries are compressed by the plug. I will not discuss whether plugging ever attains these ends; but plugging tightly enough to make their attainment imaginable must cause more than "a moderate amount of discomfort."—I am, etc.,

London, W., Jan 11th. G. E. HERMAN.

[1] BRITISH MEDICAL JOURNAL, July 1st, 1911.

The Services.

NEW HEAD QUARTERS FOR GLASGOW R.A.M.C.(T.).

On January 9th Lord Haldane, Secretary of State for War, laid the memorial stone of the new buildings at Yorkhill, Glasgow, which are being erected as head quarters and drill halls for the Glasgow Yeomanry and the five Glasgow units of the Royal Army Medical Corps, Territorial Force. The weather was very inclement, a severe snowstorm having been experienced during the previous afternoon and night, and the ceremony occupied only a few minutes. The anticipated spectacular effect was therefore completely marred. Lord Haldane was accompanied by Lord Provost Stevenson, Major-General Spens, commanding the Lowland Division; Sir George Beatson, the Administrative Medical Officer, and a number of Territorial officers and members of the Territorial Force Association. In declaring the stone well and truly laid, Lord Haldane said that he hoped the ceremony would mark a new period in the history of the force in Glasgow. The buildings were a sign of the reality of the Territorial Force, and of its place as part of the national life of the city and part of the organized forces of the Crown. Lord Haldane and a number of the officers were afterwards entertained to luncheon by the Lord Provost in the City Chambers.

Obituary.

ODILON MARC LANNELONGUE, M.D.,

PROFESSOR OF SURGICAL PATHOLOGY, UNIVERSITY OF PARIS.

PROFESSOR LANNELONGUE, one of the leading surgeons of France, who recently died, was born at Castéra-Verduzan (Gers), in Gascony, in 1840. His father was a practitioner of the town. He studied medicine in Paris, gaining the coveted distinction of *interne* in 1863, in which capacity he served under Jarjavay, Denonvilliers, Gosselin, and Cusco. He took his degree in 1867, the subject of his thesis being the internal circulation of the heart. The monograph is based on original research, and is still, we believe, a *locus classicus*. In 1869 he became *professeur agrégé*, the subject of his inaugural address being club-foot. The same year he was appointed surgeon to the hospitals.

In 1870, during the siege of Paris, Lannelongue was director of several ambulances. His first hospital appointment was that of surgeon to the Bicêtre, where he had large opportunities of studying the surgical diseases of old men. He afterwards was on the staff of the Trousseau Hospital for Children, where he remained twenty-five years. He worked at the surgery of the bones and joints and congenital malformations. He was one of the early adherents of Pasteur and recognized the part microbic infection played in necrosis. His ambition was to reduce to order the chaos of different forms of necrosis; he classified them in three principal groups, namely, osteomyelitic, tuberculous, and syphilitic infections. He was a very careful observer and spared neither time nor pains in his clinical and pathological examinations. This fact makes his books on acute osteomyelitis, and his papers on prolonged osteomyelitis, and syphilis of bone models of scientific precision and accurate observation. His researches procured him admission to the Academy of Medicine in 1883. In the following year he became professor in the Faculty of Medicine, and in 1895 he was elected a member of the Académie des Sciences.

Turning to the study of congenital malformations he published, in collaboration with his favourite pupil Achard, a volume on congenital cysts. Next, in collaboration with Menard, he published in 1891 a book on congenital malformations of the head and neck. He continued his research work, seeking for a curative serum of tuberculosis and the means of cauterizing tuberculous lesions by injections of zinc chloride. He was the first surgeon in France to open the skull for relief of compression of the brain. In the fifty-nine craniectomies done by him for this purpose there was only one death. Among his chief contributions to surgical literature, in addition to the books already mentioned, are memoirs on craniectomy in microcephaly (Académie des Sciences, June 30th, 1890), a new procedure for the treatment of vesico-vaginal fistulae (Société de Chirurgie, 1873), ischaemia as a preliminary to operations (Société de Chirurgie, 1873), osteo-mucous uranoplasty (Société de Chirurgie, 1877), experimental researches on the grafting of dead on living bone (Société de Chirurgie, 1882).

The great esteem in which Lannelongue was held by his brethren is shown by the fact than in 1900 he was President of the International Congress of Medicine held in Paris, and of the International Congress of Tuberculosis in 1905. In the interval he had been President of the Society of Surgery and of the Society of Paediatrics. Last year he was President of the Academy of Medicine.

Lannelongue was successful as a Professor of Surgical Pathology, but it was especially in the hospital that he was at his best as a teacher. For some years he had ceased to take an active part in professional life, but his advice continued to the end of his life to be much sought for, and he was too kind-hearted to refuse it, especially to poor patients.

At the age of 68 he made a voyage round the world; he embodied his experiences in a book, entitled *Le Tour du Monde*.

He was a man of boundless generosity, and was associated with his wife in numberless charities in Paris and his native place and at Velmont. Among his testamentary dispositions, of which President Faillières is executor, is a legacy of £28.000 to the Institute for Young Girls, which was founded at Clichy by Madame Lannelongue. An annual sum of £20 is left to the University of Paris, and the same to the Faculty of Medicine for the assistance of necessitous students.

Professor Lannelogue was very intimate with Gambetta, whose acquaintance he had made when serving in the ambulances in 1870, and whom he attended in his last illness. He was himself an active worker in the field of politics, being first a member of the Chamber of Deputies and afterwards a Senator representing his native department of Gers. He worked strenuously to help in the solution of the difficult problems of repopulation and the suppression of alcoholism. He was ever devoted to the interests of his professional brethren. He was President of the General Medical Association of France for a time, and in that capacity rendered most useful service.

In connexion with the Society of Surgery he founded a quinquennial prize for the surgeon whose work had done most to advance the science. This prize was awarded to Sir Victor Horsley for the first time in January, 1911. He founded a prize at the Academy of Medicine for the widows of doctors, one at the Academy of Science, and one at the Faculty of Medicine for the assistance of students from his own part of the country. He was very fond of that part of France, and endeavoured to develop a thermal station there.

His bier was accompanied to the station by the President of the Republic, who was a personal friend, by several Ministers, a deputation from the Senate, the high functionaries of the University, and the Assistance Publique, numerous representatives of the Academy of Science, the Faculty of Medicine, the Society of Surgery, the Academy of Medicine, and other bodies. The religious ceremony was performed at Castéra-Verduzan, where his body was buried.

Lannelongue went to Paris in 1857, knowing nobody, and having no influence. He made his way by sheer hard work, which is all the more remarkable as, according to himself, he was naturally indolent. He was a man of unpretending manners, and loved simplicity of life. He had a cultivated taste for the fine arts, but his chief happiness was in doing good for its own sake.

SIR CHARLES O'GRADY GUBBINS, M.D.,

SENATOR OF THE UNION OF SOUTH AFRICA.

THE death took place in December, at Newcastle, Natal, of Sir Charles O'Grady Gubbins, a medical man who for many years played an active part in the professional life of South Africa, and for the past ten years or more had been a prominent figure in politics. He was born in co. Limerick in 1855, and received his later education at Trinity College, Dublin, where, after taking first-class honours in history and literature, he entered the medical faculty, and emerged therefrom in 1878 as M.B., Ch.B.

When reinforcements were called for in the Zulu war of 1879, he accompanied the troops sent out as a civil surgeon, and when this engagement was over settled down in practice in Newcastle, Natal. There he held office as District Surgeon, and was in charge of the Base Hospital at Newcastle during the Boer war of 1881. He was also correspondingly employed during the last Boer war. On the first and third of these occasions his services were rewarded by a medal and clasp. Soon after the late war was over he gave up practice and, turning his attention to politics, was sent to the legislative chamber of Natal as senior representative of the Newcastle district. In his new career he rose rapidly. Some six years ago, when the Moor Cabinet was formed, he joined it as Colonial Secretary and Minister of Education. In the former capacity he instituted marked improvements in the Natal hospitals, especially those of Durban and Pietermaritzburg, and as Minister of Education played the leading part in the introduction of the Compulsory Education Act of Natal, and of that which authorized the establishment of a university college in the colony. On several occasions during prolonged absences of his chief he conducted the government of Natal, and was himself several times absent from the colony as its representative on inter-colonial commissions. When some eighteen months ago the union of the four South African colonies was brought about, he was elected a Senator of the new South African Par-

liament, and joined its first Cabinet as a Minister without a portfolio.

The esteem in which Dr. Gubbins was held in political circles is sufficiently indicated by the facts stated as to his career, but it should be added that he was also popular among his professional colleagues, and maintained to the end a warm friendship with many of them. His kindly disposition and genial nature, says one correspondent from South Africa, made him the most popular member of the Natal legislative assembly; in addition to this, he had a grasp of affairs, a clear brain, and instinct for administration which were of the utmost advantage to his party and the Cabinet of which he was a member. Although a successful statesman he never forgot his duty to his profession, but was ever ready to lend a willing ear and a helping hand to any medical deputations who interviewed him while he was Minister. His fitting epitome of the situation under discussion, and his genial and sympathetic hearing, usually accompanied by some sound advice, will be remembered by those of us who had the honour and pleasure to meet him officially. The death of Sir Charles Gubbins created the first vacancy among the South African senators.

He was a younger brother of Surgeon-General Sir William Launcelot Gubbins, Director-General of the Army Medical Staff, and received the honour of knighthood last year.

SOPHIA JEX-BLAKE, M.D.BERNE, M.R.C.P.IREL.

As briefly recorded in our issue for January 13th, Dr. Sophia Jex-Blake died at Mark Cross, Sussex, on January 7th. She was within a few days of the completion of the 72nd year of her life, and had lived near the village in which she died since her retirement from practice in Edinburgh some eleven years ago. During the period of her retirement her health was not good, but she was occasionally to be seen at meetings of medical women, and invariably received the loyal and respectful greeting to which she was eminently entitled.

In her twenty years of work at Edinburgh Dr. Jex-Blake proved a successful practitioner, and left behind her two notable and enduring memorials. One is the Edinburgh Hospital and Dispensary for Women and Children, and the other the Edinburgh School of Medicine for Women. The former was started by her soon after she arrived as a qualified practitioner in 1885 in Edinburgh, as a means of providing a place at which she and others could afford medical and surgical assistance to members of their own sex. Little by little it has developed, until now it is a charitable institution conducted upon ordinary lines, possessed of eighteen beds, an out-patient department of considerable size, and an honorary staff of ten physicians and surgeons, who, with two exceptions, are all medical women. The Medical School for Women she started in 1886, and for many years acted as its Dean and Lecturer on Midwifery; it enjoyed a fair measure of success from the beginning, and, being recognized for graduation purposes by the University in 1894, it became a flourishing institution, and one which still holds at least its own despite the rivalry of a younger place of the same sort carried on within the precincts of the University itself. These two achievements alone would perhaps have sufficed to secure for Miss Jex-Blake a distinct position in the history of medicine and of contemporary life, but her claim thereto really rests upon a much broader basis, and dates back to an earlier period of her career.

A daughter of Thomas Jex-Blake, a Proctor of Doctors' Commons, Miss Jex-Blake on the completion of her education worked for some three years as mathematical tutor at Queen's College, London. Her resolve at this time was to make a career for herself in education, and though she subsequently abandoned it, the idea proved the true starting-point of her work in connexion with the medical education of women and their admission to the degrees and diplomas of licensing bodies in the United Kingdom. During a visit to America for the purpose of making inquiry into the methods there pursued in the education of girls, she came under the influence of the late Dr. Elizabeth Blackwell, who had recently obtained an American diploma in medicine and was about to start medical classes for women. The result was that Miss Jex-Blake remained in America for some years as a student of medicine, and in 1868 returned home with the idea of being able to obtain a diploma and settling down in practice among her own people. The project seemed at first to present no material difficulty, for a year or two previously the Society of Apothecaries of London had waived the regulations requiring candidates to present certificates from recognized schools of medicine in favour of one particular lady and had admitted her to its examinations and licence. Miss Jex-Blake found, however, that the success of this lady—now Dr. Elizabeth Garrett Anderson—had led to the sounding of an alarm among recognized teachers and licensing bodies, who all with one consent began to make excuse whenever an application in respect either of instruction or admission to an examination for a diploma or degree was made by or on behalf of a woman.

Finding all roads to registration under the Medical Act of 1858 closed to women in England, Miss Jex-Blake, accompanied by six other would-be medical women, went to Scotland in the hopes of forcing the doors of the University of Edinburgh. In this attempt they were partly successful, since, after six months of negotiation, the university issued authority for the formation of medical classes for women. During the following six months these seven pioneers pursued their studies almost unobserved, but at the end of that time peace was at an end; their existence and the facilities accorded them had become well known, and an active campaign, not only by Edinburgh students, but also by influential members of the university body itself, began against them. The hostility of the latter was, of course, of chief importance, but the attitude of the students was also a material factor in the situation: Edinburgh students have never been celebrated for the peacefulness of their disposition or their respectful decorum, and on this occasion exhibited considerably less than fair play. Indeed, but for the chivalry of a certain number of them who were known as "the Irish brigade," the position of these women students would have been even more unfortunate than it was. The struggle endured several years, one result being that Miss Jex-Blake found herself a defendant in a libel action which, though it ended in her being ordered to pay damages of only one farthing, involved costs of nearly £1,000. Subsequently legal proceedings commenced between the band of which she was the leader and the Senate of the University itself. Their object was to compel the Senate, which had expressed its intention of granting the women students only certificates of proficiency such as would be useless for the purpose of the Medical Act, to allow Miss Jex-Blake and her fellows to proceed to medical degrees like other students. In the earlier stages of this action the band was successful, but the final decision of the Scottish Court of Appeal reversed the judgement obtained and awarded costs in favour of the university. Though these costs were paid by a committee which had been formed as the result of a public meeting called by the Lord Provost in 1871 to carry on a campaign in aid of the plan of securing medical education for women in Edinburgh, the net outcome of the loss of the action was that Miss Jex-Blake and her followers abandoned the struggle in Scotland and returned to the South.

In this decision they were influenced by the fact that a movement such as they had headed in Scotland had commenced in London, one object being to persuade Parliament to make the right of the licensing corporations to accord their diplomas and degrees to women quite clear, and another the establishment of a school of medicine for women. Both were successful, the immediate outcome being the establishment of that very successful institution, the London (Royal Free Hospital) School of Medicine for Women, and the passage in 1876 of Mr. Russell Gurney's bill. In this campaign Miss Jex-Blake was among the leaders, and so soon as the Royal College of Physicians in Ireland—the first body to take advantage of the new Act—had made the necessary modifications in the wording of its regulations, Miss Jex-Blake, who had already obtained a degree in the medical faculty of the University of Berne, applied for and received the licence of the college. Later on she was admitted to its membership.

Mentally Miss Jex-Blake was a woman of high ability and marked moral courage and determination. In addition she was possessed of many of the more commonly esteemed womanly qualities, though first and foremost, no doubt, she was an admirable fighter.

THE LATE DR. JOHN FRANCIS SUTHERLAND.—Sir James Barr writes: The obituary notice of Dr. J. F. Sutherland in your last issue reminds me that another of my friends has joined the great majority, and I wish to take this opportunity of fully endorsing all the kind words which the writer of the notice has said about him. Your photograph, which must have been taken at least fifteen years ago, reveals the man in his thoughtful, contemplative mood, but does not display that genial, vivacious character with which his friends were familiar. To his great natural ability, sterling merit, fearless, independent and high moral character, all who knew him can bear testimony, but unfortunately these qualities do not always count in the public service, and consequently he did not attain to that position to which he was entitled, and in which some politicians had more than one opportunity of placing him. He was lacking in that obsequious, complacent, servile temperament which usually commends itself to those in place and power. His failure to attain the goal of his ambition should be a warning to those in the present day who are keen to trust their fate to politicians. His brilliant intellect was cramped by official surroundings, and if he had had a more expansive field his great merits might have been more fully recognized and more amply rewarded. The memory of Dr. Sutherland will ever remain green in the minds of those who knew him as one whom to know was to love and esteem.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. Adam Szulislawski, Lecturer on Eye Diseases and Surgeon to the Ophthalmic Department of the General Clinic at Lemberg, aged 46; Dr. F. Topinard, formerly Professor in the Paris School of Anthropology; Professor von Levschin, Director of the Morosoff Cancer Institute, Moscow, aged 73; Professor W. F. Loebisch, of Innsbruck, a pupil of Hoppe-Seyler and author of numerous works on subjects of physiological chemistry, aged 72; Dr. Alessandro Serafini, President of the Faculty of Medicine and Director of the Institute of Hygiene of Padua; Professor Pietro Giuria, one of the leading stomatologists of Italy; Dr. E. Biernacki, Lecturer on General and Experimental Pathology at Lemberg, aged 46; and Professor Franz von Winckel, the distinguished gynaecologist, for twenty years Director of the Clinic of Diseases of Women in the University of Munich.

Universities and Colleges.

UNIVERSITY OF LONDON.

LONDON (ROYAL FREE HOSPITAL) SCHOOL OF MEDICINE FOR WOMEN.

Department of Pharmacology.

THE Council has appointed Dr. Frederick Ransom, M.D.Edin., Internal Examiner in Pharmacology for the University of Cambridge, late Assistant to Professor Behring and Professor Hans Meyer, to be Lecturer and Head of the Department of Pharmacology.

Entrance Scholarships.

The examination for Entrance Scholarships will be held on May 28th and two days following. Forms of entrance and all particulars can be obtained on application to the Secretary and Warden.

UNIVERSITY OF BRISTOL.

THE extramural lectures on "The Applications of Recent Research in Pathology and Bacteriology" will be given during the coming session by the Professor of Pathology at Bournemouth. The first demonstration will be held at the Bournemouth Medical Society's Rooms on Thursday, January 25th, at 5 p.m. The honorary local secretary is Dr. G. Carolin, Valerie, Southbourne Road, Bournemouth.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A QUARTERLY Council was held on January 11th, Mr. R. J. Godlee, President, in the chair.

Physiological Curator.

Mr. R. H. Burne was appointed to this new office in place of that known as Assistant Conservator, the latter office being now discontinued.

The best thanks of the Council were given to Mr. Burne for his valuable services to the College during the last twenty years as assistant in the museum and Assistant Conservator.

Removal of a Member.

The name of a member of the College was removed from the list, his name having been already removed from the *Medical Register* by the General Medical Council.

University of Birmingham.

Sir W. Watson Cheyne was appointed, in the vacancy occasioned by the retirement of Sir Henry T. Butlin, a member of the Court of Governors of the University of Birmingham.

Hunterian Orator.

The President, Mr. R. J. Godlee, was appointed Hunterian Orator for February, 1913.

Royal Commission on University Education.

At the request of the Commission a committee was appointed by the College to draw up a statement upon dental education in London, and to nominate a witness or witnesses to represent the College before the Commission.

National Insurance Act.

A committee was appointed to watch the interests of the members under the provisions of the Insurance Act, with power to confer with any other committee formed with similar objects, with instructions to report to the next Council of the College.

Vacancy on the Court of Examiners.

The vacancy occasioned by the resignation of Mr. J. Ernest Lane will be filled up at the ordinary meeting of the Council on February 1st. Mr. Lane will be a candidate for re-election.

Sir Thomas B. Crosby.

The President announced that the Lord Mayor, Sir Thomas B. Crosby, F.R.C.S., had accepted an invitation to be the guest of the College at a dinner to be given at the college on May 3rd.

CONJOINT BOARD IN ENGLAND.

THE following candidates have been approved at the examination indicated:

SECOND COLLEGE (*Anatomy and Physiology*).—J. P. Adcock, C. F. Anthonisz, Mary E. Ashton, N. K. Bal, P. W. Barnden, Z. M. Bishara, N. Brigg, M. T. G. Clegg, S. Doraisamy, H. G. Dresing, C. T. J. Drobig, J. A. Durante, A. F. El-Hakim, F. E. Fielden, H. D. Field, G. C. Gell, L. A. Graham, A. R. Hacker, A. H. Harkness, F. C. Harrison, A. H. Hilmy, T. Jones, C. G. G. Keane, M. Kingsley, F. E. R. Laborda, J. A. Liley, K. C. Mundlana, A. H. Manfield, R. M. Mitra, N. F. Norman, G. W. Parry, J. M. Parry, O. G. Parry-Jones, W. L. Partridge, H. Peters, G. F. Rodrigues, H. A. Rowell, A. St. Johnston, J. T. Samuel, N. H. W. Saw, F. G. L. Scott, W. G. Shakespeare, G. D. Shann, E. B. Sunderland, L. H. Terry, R. R. H. O. Tha, M. D. B. Tonks, C. N. Vaisey, J. R. N. Warburton.

Medico-Legal.

"NO CURE: NO PAY."

In an action for the recovery of fees for medical attendance, heard at Bloomsbury County Court on November 28th, 1911, the defence set up was an allegation of a verbal guarantee that the patient would be cured in three or four weeks. She was a young woman who, as the result of a consultation, had been placed in the charge of the plaintiff, Dr. George Herschell, to undergo a special treatment. After three weeks the plaintiff, finding that she did not improve as fast as had been anticipated, advised that the treatment should be discontinued and the patient sent to Margate. Payment of his fees being then refused the action was brought, and ended in a verdict for the plaintiff with costs

OBLIGATION NOT TO PRACTISE.

S.—A. sells B. a practice, agreeing not to practise in the town or within a certain radius. B. dies, and what is left of his practice is sold to C. Does the agreement hold good between A. and C. as if it had been made between A. and C.?

This will depend on the terms of the agreement when A. sold the practice to B. If A. agreed with B., his heirs, executors, and assigns, not to practise within the said limits, it would be binding on A. not to practise within those limits in opposition to C. Restrictive covenants of this kind are usually drawn up in this way, as the seller of a practice does not contemplate ever trying to get back again what he has been paid for in hard cash. If the agreement was only between A. and B., then C. has no rights under the restrictive covenant on the principle that *Res inter alios acta alteri nocere non debet.*

BOOK DEBTS.

C. H. W. P. writes that he was in partnership up to the end of 1910, but from that time the partnership was dissolved, the outgoing partner reserving his right to share in book debts. He wishes to know whether, in the case of payment by patients for attendance after the dissolution, where an account was due to the partnership from the same for an old

attendance, the whole of the money paid must go towards the settlement or reduction of the old debt, without any being set aside for the more recent attendance.

*** It is in the power of the patient to stipulate that the payment he makes is for the settlement of the more recent debt; but if he does not, the whole of the payment must be applied to the settlement of the earlier debt. The legal aphorism is *Qui prior est tempore, potior est jure.*

Public Health AND POOR LAW MEDICAL SERVICES.

AMALGAMATION OF OFFICES.

THE Edmonton District Council, at a meeting on January 9th, decided to hold a special meeting in committee to define the duties to be assigned to the officer it proposes to appoint to the amalgamated offices of medical officer of health and school medical officer, and to take the same steps in regard to his assistant, and to decide also their respective salaries and the advisability of advertising the posts. At present the posts are held independently by Dr. Lawrence and Dr. Rock respectively, but a short time ago both received statutory notice of the termination of their appointments in order that the amalgamation might be brought about. The decision to hold a special meeting was preceded by a long discussion, in the course of which two letters addressed to the Council by the Local Government Board and by practitioners in the locality were read. The former, after expressing approval of the amalgamation of the two departments, added:

"The Board considers that where possible this should be effected by the appointment of the same officer in both capacities, with an assistant who would do the whole or the greater part of actual medical inspection, and would also act as assistant medical officer of health. The Board would be prepared to assent to the alteration of the terms of Dr. Lawrence's appointment, so as to enable him to act as school medical officer as well as medical officer of health. But if this is the intention of the Council, the Board does not understand why it should be necessary for them to give Dr. Lawrence notice that his appointment as medical officer of health will be terminated, and desires to be furnished with the Council's explanation on this point.

The other letter stated that for the past six years the signatories had worked amicably with the medical officer of health, and had found him tactful and obliging; they deprecated, therefore, the idea of advertising his post as vacant merely because it was proposed to amalgamate with his office the department of school medical inspection. With reference to the former letter, the chairman stated that he had verbally explained to the Local Government Board why the notices were given, and had added that the majority of the Council, he believed, had no wish either to damage Dr. Lawrence or to displace him from his office. He also drew attention to the motion standing in his own name for the appointment of Dr. Lawrence as medical officer of health and school medical officer, and of Dr. Rock as his assistant. This was subsequently put as a substantive motion, but on a discussion arising as to the precise alterations in salary to be made, the fairness of the projected arrangement to Dr. Rock, and the propriety of the local medical profession expressing its views, the matter ended in the decision to hold a special meeting in committee, and to defer the appointments until February 27th.

THE SANITARY CONDITION OF THE BEDFORD RURAL DISTRICT.

AFTER an inspection of the Bedford Rural District, which has a population of nearly 20,000 persons, Dr. Deane Sweeting is able to make a favourable report.[1] The District Council, he states, has shown commendable activity in sanitary administration. The officials are zealous and energetic. An infectious diseases hospital has been provided, in which, in spite of certain defects, 83 per cent. of the cases of diphtheria and scarlet fever occurring in the district have been isolated during the past eight years. Systematic efforts are being made to convert privies and middens into pail closets, and active steps are being taken to enforce the Housing Acts. In the Bedford Rural District, as elsewhere, private enterprise does not appear to be equal to the provision of a sufficient number of new cottages, and the council has accordingly decided to embark on a housing scheme for one part of its district, on which it is proposed to spend the sum of £1,109, for which sanction has been obtained from the Local Government Board. In some parts of the district water is supplied from shallow wells, dip wells, and other sources which are open to pollution. In other parts sewage disposal needs improving, while the scavenging arrangements in certain more or less populated districts are not very satisfactorily carried out, and in this connexion Dr. Sweeting recommends that the District Council should itself undertake the work. The administration of the isolation hospital is not altogether satisfactory. The patients are attended by a medical practitioner who is not the medical officer of health, that official apparently having nothing to do with the institution, which seems to suffer from the lack of medical administration as distinct from medical attendance. There are only five bedrooms in the administrative block for the female staff, which consists of a matron, three nurses, and four domestic servants. As a consequence one nurse sleeps in the scarlet fever block and two in the diphtheria block. The hospital was erected in 1901 at a cost of nearly £10,000, or about £523 a bed, and as there is accommodation for the treatment at one time of three diseases, Dr. Sweeting seems to have been fully justified in recommending not only an increase in the administrative accommodation, but also in the staff.

[1] Reports to the Local Government Board on Public Health and Medical Subjects. New Series No. 58. Dr. R. Deane Sweeting's Report on the Sanitary Circumstances and Administration of the Bedford Rural District. London: Wyman and Sons. (6d.)

Medical News.

THE first of the course of Page May Memorial Lectures, to be delivered by Dr. Henry Head, F.R.S., at University College, London, will be given on Friday next at 5 p.m. The first of the course of lectures on the bearing of chemical physiology on certain pathological questions, to be delivered by Dr. Rosenheim at King's College, will be given at 4.30 p.m. on Monday, January 29th.

THE President of the Board of Education has appointed His Majesty's Inspector Mr. J. C. Iles, Divisional Inspector of Elementary Schools in the North-Western Division, to be Chairman of the Departmental Committee on Playgrounds of Public Elementary Schools, appointed on July 31st, 1911; and has also appointed Mr. E. B. Phipps, Principal Assistant Secretary of the Elementary Branch of the Board, to be a Member of the Committee. These changes are made in consequence of the resignation by L. A. Selby-Bigge, C.B., of the Chairmanship of the Committee on his appointment to be Permanent Secretary of the Board of Education.

A MEETING was held in York on January 10th for the purpose of making the necessary arrangements for the reception of the Congress of the Royal Sanitary Institute to be held in the city from July 29th to August 3rd. There was a large attendance, including the Archbishop of York, President of the Congress. The Lord Mayor, who presided, having welcomed those present, Colonel Lane Notter, treasurer of the institute, explained the object of the congresses of the Royal Sanitary Institute, and Mr. H. D. Searles Wood, F.R.I.B.A., Chairman of the Congress Committee, stated that it was estimated that some 1,500 persons would attend the Congress. The Archbishop of York also addressed the meeting. Local committees were appointed to make the necessary arrangements. There will be five sections of the Congress, namely: (*a*) Sanitary Science and Preventive Medicine; (*b*) Engineering and Architecture; (*c*) Domestic Hygiene; (*d*) Hygiene of Infancy and Childhood; (*e*) Industrial Hygiene. Conferences have also been arranged between municipal representatives, medical officers of health, engineers and surveyors to county and other sanitary authorities, veterinary inspectors, and sanitary inspectors.

A QUARTERLY court of the directors of the Society for Relief of Widows and Orphans of Medical Men was held on January 10th, Dr. Walter Rigden, senior vice-president present, in the chair. Fourteen directors were present, amongst them being the Right Hon. Sir Thomas Boor Crosby, Lord Mayor of London, one of the vice-presidents of the society. His lordship has most kindly given his consent to be nominated president of the society, to fill the vacancy caused by the death of Dr. Blandford, and the directors feel that Sir Thomas Boor Crosby, who for so many years has taken the keenest interest in the work of the society, will make an ideal president. Since the last court one of the vice-presidents of the society, Sir Samuel Wilks, has died. Three gentlemen were elected members of the society. The sum of £1,288 10s. was voted for the payment of the half yearly grants to the annuitants of the charity. The grants to the orphans have been increased from £15 per annum to £25. The invested funds of the society now amount to £101,760. Membership is open to any registered medical practitioner who at the time of his election is resident within a 20-mile radius from Charing Cross. The annual subscription is 2 guineas, but life membership may be obtained by the payment of one sum, the amount of which depends on the age of the candidate. Relief is only granted to the widows and orphans of deceased members; letters are constantly being received from widows of medical men asking for relief, but this has to be refused as their husbands had not been members of the society. Application forms for membership and full particulars may be obtained by application to the secretary at the offices of the society, 11, Chandos Street, Cavendish Square, W.

Letters, Notes, and Answers.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Attiology, London*. The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, London*.

TELEPHONE (National):—
2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION
2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

HIRSUTE asks for advice as to the treatment (removal or preferably bleaching) of hairs on the upper lip of a young girl.

L.R.C.S.I. asks for advice in the treatment of a woman aged 25 who has had pain in the right gastrocnemius muscle for the last three years. There is no history of strain or accident, and massage, blistering, salicylates, and potassium iodide have been used without success; pain ceases when the limb is rested.

L.R.C.P. AND S. (a planter's doctor) wishes to know if there is any service for medical men in India who are desirous of volunteering to serve during war as medical officer with honorary rank at other times. He is a member of a volunteer corps at present, but cannot hold any rank, as there is already another medical officer.

A. K. B. (China) has been asked to treat superfluous hairs especially abundant on the trunk of body, rendering the possessor, an Englishman, uncomfortable during the hot Chinese summer. The inquirer would be glad to know of any treatment suitable for such a case. *X*-ray treatment is not available. If ionization has been successful, "A.K.B." would like particulars as to the drug most suitable and the strength of current used.

D. B. W. would be glad to receive suggestions for treatment of a married lady who suffers from what appears to be rheumatism in the head. The pains are very severe and cramp-like or lancinating. The worst attacks are followed by vomiting, which does not bring relief. The rheumatic character of the attacks is suggested by the fact that occasionally the pain passes to the neck and left shoulder, and that she has suffered considerably from ordinary rheumatism. For some time she cannot read for any length of time without the eyes filling with tears and smarting. The usual rheumatic remedies have been tried—namely, sodium salicylate, quinine, and aspirin—without any effect. The district is damp and the house not of the driest.

ELECTRIC BICYCLE LAMP.

COUNTRY PRACTITIONER desires to know if any medical man can recommend a good electric lamp (dry or wet cell) for use with an ordinary bicycle, and where such can be obtained.

EVIDENCE OF MASTURBATION.

PERPLEXED WITNESS asks for information which might assist him in stating positively that a given person is not a masturbator. An old and esteemed patient of his is about to apply to the Court of Criminal Appeal against a conviction, mainly based on a belief that he is a person of the kind in question, and this belief our correspondent holds to be unfounded. As he is the subject of a hernia which causes frequent trouble, "Perplexed Witness" has often had occasion to examine him during the past five years, and has never noticed any discharge about the meatus, stiffening of the linen, or smell. Nor is there now perceptible any irritation of the glans, elongation of the prepuce, or tortuosity, thickening or enlargement of the dorsal vein.

ANSWERS.

MR. CECIL ROWNTREE, F.R.C.S., writes, in answer to "Father's" query about the operative treatment of unduly prominent ears: I can at any rate tell him of one such case in which perfectly satisfactory results were obtained. The patient was an adult whose ears were certainly very prominent indeed—so much so that he imagined that they were a bar to his success in life. He consulted Dr. McCarroll, of Shepherd's Bush Green, who sent him to me with the result above mentioned. The operation consists in excising a narrow lozenge of cartilage at the back of the ear, through a vertical incision at the junction between the ear and the skull. The scars are now, of course, invisible.

HYPODERMIC APERIENTS.

DR. J. MANSON (Warrington) writes, in reply to "S. H. R.": I have used a solution of aloin hypodermically, but did not get satisfactory results. I used ½ grain of aloin in 30 minims of distilled water sufficiently warm to dissolve the aloin as one dose. I gave the injections to patients in hospital, who, for one reason or other, could not swallow ordinary aperients. My results were unsatisfactory, either because the dose was too small or the aloin inactive, as it sometimes is, for active aloin undoubtedly causes catharsis if injected subcutaneously or intravenously (see Cushny's *Textbook of Pharmacology*).

SOMNAMBULISM.

INERTIA.—We do not know of any monograph upon somnambulism, though many authoritative works contain articles upon sleep and its disorders. At the end of the articles upon the Disorders of Sleep, by Dr. J. B. Bradbury, and Night Terrors, by Dr. Leonard G. Guthrie, in Allbutt and Rolleston's *System of Medicine* (1910), valuable references are given to textbooks, and special articles upon sleep and its disorders. The special articles which "Inertia" should consult will depend, like the prognosis and treatment, upon the nature of his case—that is, whether one of simple somnambulism or one of hysterical or epileptic somnambulism. For a complete and satisfactory physiological explanation of hysterical somnambulism "Inertia" cannot do better than read Pierre Janet's *The Major Symptoms of Hysteria* (Macmillan, 1907). Possibly he might find Boris Sidis's article on Experimental Study of Sleep (*Journ. of Abn. Psych.*, April-May, June-July, and August-September, 1908) of interest.

LETTERS, NOTES, ETC.

TUBERCULIN DISPENSARY LEAGUE.

MRS. STUART ERSKINE (Honorary Secretary, Tuberculin Dispensary League, 10, Ovington Gardens, London, S.W.) writes: May I solicit the courtesy of your columns for an appeal to those doctors who, having studied Dr. Camac Wilkinson's methods of tuberculin administration, have now themselves opened similar dispensaries? The spread of the movement has been so rapid, that it has not been possible to keep in touch with all. I should be glad to have from such institutions annual reports not later than April 30th in each year, for publication in the annual report of the Tuberculin Dispensary League.

SANITARY MAXIM COMPETITION.

GREAT minds jump. Mr. *Punch* has been complaining of the inappropriate monotony of the Keats Calendars, and Burns Calendars, and Tennyson Calendars, and has offered, for a consideration, to supply appropriate quotations for a Golfer's Calendar, a Suffragette's Calendar, and so on. Dr. Kennan, Senior Sanitary Officer, Sierra Leone, imbued with the same idea, but in a more altruistic spirit, offers prizes for the best collection of fifty-three short maxims with application to the subject of public health and sanitation for inscription on a "Clean-up Day" Calendar, for use in countries where malaria prevails and anti-mosquito vigilance is necessary. In many towns in the tropics the authorities have declared one day in the week to be clean-up day, so that residents may be reminded of their duty with regard to the collection and destruction of receptacles which favour the breeding of mosquitoes. The calendar, which is a block calendar, can be obtained from Messrs. M'Caw, Stevenson and Orr, Limited, price 67s. 6d. per 100 for a minimum of 500, 48s. per 100 for a minimum of 1,000, 42s. 6d. per 100 for a minimum of 5,000. There are two sets of prizes for men and boys and women and girls respectively—first, 30s.; second, 20s.; third, 10s.

GALACTORRHOEA AND AMENORRHOEA AFTER INCISIONS FOR INTRAMAMMARY ABSCESSES.

DR. JOHN J. HANLEY (Hull) writes: The following notes may be of interest, as showing the correlation between galactorrhoea and amenorrhoea, having regard to the facts alluded to in your issue of December 30th, 1911, p. 1709. A 4-para was delivered of a healthy child on October 8th, 1911. Three weeks later she had to abandon suckling her babe owing to recessed, painful, and fissured nipples. The usual means were successfully adopted to suppress the lacteal secretion. Intramammary abscesses developed in the first week in November, in three distinct areas in the lower hemisphere of the left breast, though the nipples in both breasts were quite healed. These abscesses necessitated incision under general anaesthesia on November 9th. The lacteal secretion returned to both breasts, and still continues (January 3rd), for the breast is not yet healed, although healing nicely. There has been no indication of menstruation. When the breast is healed I anticipate, in the light of the report of Dr. Vogt, cessation of lacteal secretion and a return of the menstrual function.

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An Address
ON
THE RESISTANCE OF THE HUMAN BODY TO DISEASE.

DELIVERED TO THE SHROPSHIRE AND MID-WALES BRANCH OF THE BRITISH MEDICAL ASSOCIATION,

BY

ARTHUR R. F. EXHAM, M.D., B.CH.,

MARKET DRAYTON, PRESIDENT OF THE BRANCH.

I FEEL that the position of President this year is more onerous and responsible than usual. For it is certain that we are on the threshold of great changes, and that the next twelve months will in all probability be a critical period for our profession.

If the National Insurance Bill passes in anything like its present form[1] we shall be fighting for the honour and independence of our profession—some of our members even for their very existence as medical men; and probably many meetings will have to be held and careful consideration will be necessary of the weighty questions that are certain to arise in order to deal with them wisely. For one thing the struggle on the vital question of a wage limit is only postponed. Its scene is, however, shifted from the House of Commons to the local Insurance Committees, upon which we were promised proper representation.

May I therefore take this opportunity of reminding you that we dominate the situation, but upon one condition only—namely, that we are united. By union alone can we strengthen the hands of our Representatives. Their influence will be great in proportion as they feel that they have a united profession behind them; and judging from the tone of the meetings held in this room hitherto, I think there can be no doubt about the unity of the profession in the area covered by this Branch of the Association. I feel that my position is made lighter somewhat by this circumstance, and, busy though the year is almost sure to be, I hope to come here and give what assistance I can to this particular work.

The resistance of our bodies to disease is a subject that we know very little about positively; but in these days, when, as it appears to me, there is a widespread nervousness in regard to disease, and especially infectious disease, it is well that we ourselves should remember that there are such things as defences in our bodies; and perhaps by impressing upon our patients saner views in regard to disease we might enable them to face illness with a more equable and confident spirit—a condition we are always happy to meet with, and upon the advantage of which I am sure I need not dwell.

I cannot pretend to deal in any detail with so vast a subject. It would be absolutely impossible for me, in my position, to bring before you the latest ideas about it; my object is rather to direct attention to certain general aspects of it—no doubt familiar to every one here, but not the less interesting, in my judgement, for being well known. You will pardon me, therefore, if very often "I tell you that which you yourselves do know," and I trust you will bear in mind that the remarks are those of a member of the humblest order of the profession—a country general practitioner—on a difficult subject, made in the presence of men many of whom are older, abler, and of much wider experience than himself.

At the outset I wish to make it quite clear that I am not considering the question of immunity, although there is no doubt that the important experiments that are daily being undertaken in regard to immunity must go a long way to clearing up the question of the resistances to disease. Immunity may be defined as the power to repel the agents of disease, where the enemy has found the position too well entrenched and has retired—for the time at least. Resistance is the power to deal with the agents of disease when they have obtained a foothold, where the enemy has carried the outer entrenchments and the real struggle has begun. To carry on the illustration, possibly one may suggest that there is a later stage where the enemy has been defeated in a measure, but the damage inflicted has been serious, and another process is brought into play—namely, the power of compensation, instances of which will at once suggest themselves.

Both immunity and resistance are found, of course, in connexion with agents of disease coming from outside. The diseases which are caused by agents outside our bodies are increasing in number. Besides all the old and well-known infections there are the various invasions of the pneumococcus which are being revealed to us, and those of the *Bacillus coli*; and many, if not most, catarrhal affections, such as tonsillitis and troubles in the upper air passages, probably depend upon micro-organisms, though not always of a specific kind. Besides, many observers are thinking that acute rheumatism may be a bacterial affection and that rheumatoid arthritis certainly is; and this is not unlikely when we remember that we have a bacterial arthritis already in the form of gonorrhoeal rheumatism; also there are various forms of intestinal intoxications, and so on, about which little is known, but which nevertheless undoubtedly exist, and are probably due to some form of bacterial agency.

I speak of disease agents, not diseases; we are too apt, I think, to regard diseases as entities—things that are definite and, I had almost said, concrete, not, of course, as contrasted with abstract, but rather as things with boundaries, and circumscribed; whereas disease ought to be regarded as a particular condition of the individual, due to certain agents and modified by certain conditions. And as bearing upon this view I would like to direct your attention to the well-established fact that particular bacilli do not always cause the same symptoms. The pneumococcus does not always cause croupous pneumonia, and we are all familiar with the protean characters of conditions due to the influenza bacillus and the *Bacillus coli*.

This address is concerned mostly with diseases that have their origin in outside agencies, but may I note in passing that even in cancer—though I admit its origin is quite uncertain—resistance is marked even to the point of occasional spontaneous disappearance, as vouched for in the recent addresses on the subject given by Professor Gilbert Barling and Sir A. Pearce Gould? Yet our knowledge of living agencies as a cause of disease is very recent. In fact, bacteriology as a science has been in existence for not more than thirty years, but during that time its progress has been rapid. Sir Henry Holland, in 1839, suggested that the source of epidemic disease was animalcule life, and J. K. Mitchell, of Philadelphia, in 1847 advanced facts and arguments in favour of the cryptogamic origin of malarial and epidemic fevers. Probably the theory was advanced even considerably earlier; but in the 1877 edition of Roberts's *Medicine*, then one of the favourite textbooks of medicine for students, the only organism that was generally admitted to be a cause of disease was the spirillum of relapsing fever. Still the idea of germ diseases was getting more widely accepted, though it was on the surgical side that the advance came, through the teachings of Lister; and microscopic research, with improved methods of staining and ways of cultivation of micro-organisms, has been constantly adding to our knowledge of this class of diseases.

Now, the germ theory having been accepted, it was hoped by many that we should be able to manage disease better as we knew more about the cause. Was the hope realized? Did our treatment of disease alter very much, and were we more successful? Surely it was not so: and after a while the reason began to show itself. The problem was not so simple as it appeared. In the first place it was not easy to destroy the germs without injury to their host, and in the case of some bacilli, though they could be easily killed, their spores had wonderful vitality. Then further research showed that ill effects mainly depended upon what we call toxins, substances formed by the bacilli in the blood, or locally, and afterwards absorbed into the blood.

In spite of all these difficulties, which we now begun to see, and which, of course, had always existed, people recovered even in what seemed to be desperate conditions, and the question was and is, Why?

The only answer that can be given is that there is a resistance of some sort—a system of defence—in our bodies. And even in past times we were wont to hear such expressions as "Natural tendency to recovery," *vis*

[1] The address was delivered in November last.

medicatrix Naturae, or a phrase that the late Austin Flint of New York was very fond of, "Self-limitation of disease"; all of which I take to mean that the older physicians and surgeons were conscious that many cases recovered in an inexplicable fashion—that, at any rate, the recovery did not seem to be due to the treatment employed. Some power was there that was beyond their ken—an unknown agency was fighting for the patient's recovery.

And do not most of us see the same thing to-day? I know I do. In a large practice for thirty years among all sorts and conditions of men, women, and children—from those who live in the lap of luxury down to those who often are without the bare necessaries of life—nothing has impressed me more than the power of recovery that seems innate in human beings. I see a young patient with pneumonia, living miles from me in the country, in bad surroundings and ill-ventilated rooms, with no nursing, with discomfort of every kind, and irregular feeding, a case whose circumstances preclude the possibility of employing anything but the most simple treatment—everything, so to speak, against it; and yet—and yet—it recovers. And not only an odd case here and there, but scores. The same result happens in measles, scarlet fever, and other affections, where cases recover without any care being taken of them. Further, what are we to make of the fact that many methods are advocated for treating a particular disease, and all, according to those who employ them, equally efficacious. Look at the results that have been revealed to us by *post-mortem* examinations regarding tubercle—cases of people with healed cavities and other evidence of tuberculous disease who have died of something else, and who, we may be sure, did not all recover from their tuberculous attacks under one and the same method of treatment. The inference usually drawn in such cases is that tubercle is a curable disease, that people recover from a condition at one time considered to be nearly if not quite hopeless. But I think the inference can be drawn wider, and we may say that tubercle is not likely to be an isolated instance, but is one of many diseases to which there is in our body great power of resistance. So that the conclusion must be this, I think: That a human being in normally good health is really very resistant to disease, that there is some dormant power in us ready to do battle if called upon. But the How and the Why are still obscure.

Where does the power of resistance reside? How is it to be evoked? These are the questions that for us have the greatest practical importance. There are certain outer defences that we know well. For instance, the healthy unbroken skin is the first external line of defence, and no doubt a perfectly healthy mucous membrane is another. It is at least to many bacilli—certainly the *Bacillus coli*: this seems to be the opinion of the speakers in the Section of Pathology at the recent Birmingham meeting, where stress was laid upon such conditions as constipation, diarrhoea, colitis, stercoral ulcer, and intestinal parasites (such as the hook worm of South America), as favouring the passage of the *Bacillus coli* into various parts of the body; and I would suggest that a healthy mucous membrane is probably a great protection against tubercle, whether the bacillus enters through the pulmonary or intestinal surfaces. Many cases of pulmonary tubercle follow upon influenza, measles, catarrhal pneumonia—all, be it noted, catarrhal diseases in which the mucous membrane is in an abnormal condition for some time. And in past time phthisis was often traced or rather set down to repeated colds. Is it not likely that the local resistance is lowered by the catarrh and the bacillus finds a comparatively easy entry? However, having by some means got through the first line of the outer defences, the invaders find themselves confronted with the local defences, the various resistances of the tissues, and either produce local diseases or pass into the lymph or blood stream and are carried to various parts of the body.

One of the local defences is the process of inflammation (that word of awful import to the average lay mind), the phenomena of which I need not go into. But I may mention in passing that Sir Watson Cheyne has some doubt whether the leucocytosis that accompanies the early stage of inflammation is quite as important as most men believe, holding rather that the essential resisting power of a part to local infection lies in the tissue cells than the adventitious leucocytes which come into it subsequently. Generally speaking, however, a local abscess is the result, and it appears that several micro-organisms have the power of setting up suppuration—the pneumococcus, for instance, as well as the *Bacillus coli*, besides of course the usual pus-producing organisms. As a good example of local resistance there is the abscess found in cases of appendicitis, which localizes the disease, and the failure to produce which results in the many fatal cases of general peritonitis that happen in connexion with appendix inflammation.

But what are the ways in which the various acute infective diseases are resisted? What, so to speak, are the inner lines of defence? Here we are on very uncertain ground, nearly everything being a matter of theory. The researches and experiments of Sir Almroth Wright and his pupils on the opsonic content of the blood and the opsonic index will no doubt help us, but light is coming very slowly. Sir Watson Cheyne states "that the conditions summed up under the term 'local resisting powers' are much more important than the general conditions seems quite certain." Still the general ones must be of very great importance, because one cannot help remembering that there are a large number of general infective diseases with which we are constantly meeting. It is probable, possibly certain, that some of them are local to start with, though we only really know them when generalized (diphtheria, for instance), but there does not seem to be any local resistance to most of them; and if there were no general resistance surely the mortality would be greater. Is there anything known as to what goes on in the body while it is fighting these? In some, if not most, there is leucocytosis. Is it defensive? A few facts bearing on this point may be mentioned. Sir W. Cheyne states that the mortality in infantile erysipelas is at least 50 per cent., and that the mortality steadily falls in older children. Further on he states that, "leaving out the first year of life, there seems to be a slight increase of leucocytosis in children under ten years of age as compared with adults in some of these infective conditions."

Besides, I find in the article on the "Clinical Examination of the Blood," in Allbutt's *System of Medicine*, first edition, by S. M. Copeman, that leucocytosis has been found in many acute infectious disorders, more particularly small pox, scarlet fever, diphtheria, pneumonia, acute rheumatism, anthrax, erysipelas, and perhaps in measles. This was years ago, and no doubt additions and corrections have been made since then. In typhoid it was doubtful in the absence of complications. Regarding pneumonia it is stated that "it is so well marked as to afford valuable aid in the diagnosis and prognosis of the disease. Certain kinds of the leucocytes are increased, beginning with the rise of temperature, and, excepting cases of extreme gravity, this continues and increases up to the crisis, at which stage a well-marked leucocytosis is a favourable sign. On the other hand, if leucocytosis is absent or ill-marked the case will probably end in death." And it is stated that the same kind of information can be obtained in scarlet fever and other diseases. I do not know if these phenomena have been steadily followed up or not. But, curiously enough, it is stated also that leucocytosis is not apparent in tubercle. Whether this statement, which does not accord with the latest observations, is due to the difficulty of deciding what increase in the leucocytes is to be regarded as a leucocytosis I cannot say, but as the normal number of leucocytes is given as varying from a minimum of 6,000 to a maximum of 10,000 per c.mm. of blood, it is a possible explanation. But the very latest account of this subject that I have come across is a report of some observations by Dr. F. A. Craig, of the Phipps Institute, on 100 consecutive cases of phthisis. It is published in the *Journal of Clinical Research* for October last:

STAGE I.—Slight initial lesion in the form of infiltration limited to the apex or a small part of one lobe. No tuberculous complications. Slight or no constitutional symptoms. Slight or no elevation of temperature or acceleration of the pulse at any time during the twenty-four hours, especially after rest. Expectoration usually small in amount or absent.

STAGE II. No marked impairment of function, either local or constitutional. Localized consolidation moderate in extent, with little or no evidence of destruction of tissue or of disseminated deposits. No serious complications.

STAGE III.—Marked impairment of function, local and constitutional. Localized consolidation intense; or disseminated areas of softening; or serious complications.

The majority of the cases examined came under the heading of Stage III. The following is a summary of the average blood counts:

Average Blood Counts according to Stages of Phthisis.

	Stage I.	Stage II.	Stage III.
Haemoglobin	58 %	68 %	63 %
Colour index	0.65	0.72	0.67
Red corpuscles	4,481,500	4,737,000	4,667,000
Leucocytes	9,440	11,385	15,000
Differential leucocyte count:			
Lymphocytes	20.8 %	12.7 %	9.5 %
Large mononuclears ...	13.8	12.2	7.6
Transitionals	7.9	6.4	8.6
Polymorphonuclears ..	54.6	64.8	72.2
Eosinophiles	2.3	3.4	1.8
Basophiles	0.6	0.5	0.3

The two main points upon which it seems that stress can be laid are (1) the earlier the stage the fewer the leucocytes, (2) the earlier the stage the more numerous the lymphocytes and mononuclears and the fewer the polymorphonuclears; whereas conversely the later the stage the more numerous the polymorphonuclears and the fewer the lymphocytes.

In regard to the changes that the blood undergoes whilst a patient who is under observation either improves, remains stationary, or gets worse, the following average figures for a series of cases is full of interest:

Average Blood Counts in Case of Phthisis in Stage III according to the Subsequent Progress of the Case.

	Much Improved.	Improved.	Stationary.	Worse.
Haemoglobin	56 %	65 %	58 %	62 %
Colour index	0.52	0.70	0.67	0.66
Red corpuscles	5,408,000	4,614,000	4,325,000	4,728,000
Leucocytes	11,650	13,390	16,280	15,990
Differential leucocyte count:				
Lymphocytes	11.9 %	10.4 %	9.5 %	6.7 %
Large mononuclears ...	13.5	8.7	7.4	5.9
Transitionals	9.9	8.9	7.9	8.3
Polymorphonuclears ...	61.3	68 8	73.5	77.5
Eosinophiles	3 0	2.8	1.4	1.3
Basophiles	0.4	0.4	0.3	0.3

It is clear that the number of leucocytes follows quite closely the degree of improvement, being lowest in the "much improved," gradually increasing in number in the "improved," and reaching the highest count in the "stationary" cases. The slight decline in the number of leucocytes in the "progressive" cases may be compared to the decrease of resistance occasionally seen in severe or overwhelming septic infections with a consequent failure of the organism to produce a leucocytic reaction.

The percentage of the various forms of leucocytes in the different classes are quite characteristic. The percentages of lymphocytes and large mononuclears are highest in the "much improved" cases, with a gradual decline in the other groups, being lowest in the "progressive" cases. The percentage of polymorphonuclears bears an inverse relation to the above, being lowest in the "much improved," and highest in the "progressive" cases.

If, therefore, one is seeing a case of phthisis for the first time, one may feel happier about it if the total leucocytes are few, and the small and large mononuclear cells are relatively many. If, on the other hand, one is watching a case in which the leucocytes have been unduly numerous, and the polymorphonuclear cells relatively high, one may be pleased if successive counts at intervals show a fall in the total number of leucocytes per cubic millimetre of blood, and a relative increase in the large and small mononuclear cells.

This seems to point to leucocytosis being at any rate one factor in defence. But of course not the whole process. As another defensive process I would with the greatest diffidence suggest that one about which we are still profoundly ignorant—namely, fever. I believe it to be in some way related to defence, and its failure to appear under circumstances where it might be expected is very often of the gravest significance. I need only perhaps mention its absence in general peritonitis, whether in connexion with appendix trouble or not, and point to the fatal cases of diphtheria with subnormal temperatures, and to the fact that in some of the most malignant and fatal cases of scarlet fever the temperature never rises much over 100°. One of these came under my notice some years ago. It was the case of a woman of about 30, in whom the highest temperature was 101°, and which ended fatally in three days. She was cook in my own house, and I saw the case right through. It made a deep impression upon me. I have no proof of this idea, but I have always acted upon it and I have not interfered with temperatures in disease unless they are accompanied by all the nervous phenomena that denote hyperpyrexia. I was often placed in such a position that I could not carry out the usual methods of employing cold, and I did not dare to give powerful antipyretics as I could not watch their effect. But I have had no reason to feel disappointed at my results.

This, however, is a digression for which I trust to be pardoned. I mention it in support of the idea that fever should be looked upon (with reservation) not as the result of poisoning, but rather as a valuable indication of the struggle the organism is making in its fight with disease; certainly not an evil, more probably a friend. But, though we know little of the way Nature resists disease, we know some things that weaken resistance. Locally the bad effect of previous injury is well known, and I have already indicated my belief in evil influence of catarrh affecting mucous surfaces. Among general influences is exposure to cold. Previous recent illness and bad hygienic conditions are responsible for much weakening of our resistance; also starvation or even bad food, alcoholism, and fatigue either of mind or body. Hence, those whose acute illness has been preceded by a period of anxiety are not altogether satisfactory patients as regards recovery. And further, there is a difficulty which probably some of us do not sufficiently realize—that is, the occurrence of mixed infections: it not only complicates the question of treatment, but is bound, I think, to affect injuriously the resisting power. In what way these various causes act we cannot say. In general terms it may be said that, assuming man in his normal condition of body and mind to be resistant to disease, anything that interferes with absolute health renders him in some degree non-resistant. There are, however, special problems in connexion with resistance into which it would take too long to go deeply, even were I qualified to do so. A few deserve mention.

For instance, in tubercle, why is the resistance of some tissues different at some ages from what it is at others, and why should the resistance of the same tissue vary in the sexes?

Again, there is the general question of the resisting power at various ages. Children seem to be less immune from, but more resistant to, any acute infectious conditions. The exanthemata are far more frequent in children, and yet, as a rule, they are apt to be more severe in adults. Pneumonia, again, is more common in young people; in them the mortality is very low, but rises steadily in proportion to age. On the other hand, typhus is not so common in children, yet it is said to be not so dangerous in them. Enteric, again, is not so frequent in young children as in young adults, and is more frequent in the latter than in older persons; yet the mortality is smaller in young children and rises progressively as age advances. And apart from these questions there are the difficulties of dosage and the virulence of the invading micro-organisms. That these are more virulent at some times than at others seems certain, but we not know under what circumstances they become so. Investigation on this point would be valuable, and might throw some light on the origin of epidemics.

Finally there is, perhaps, the biggest difficulty of all—that is, the resistance of the individual. No two human beings are alike either in health or disease, and individual peculiarities and idiosyncrasies are not lost when men are ill. Probably the resistance of any individual man varies greatly from time to time: it is influenced, as I have indicated above, by many circumstances. His surroundings, mode of life, previous history, must all be taken into account.

His hereditary tendencies become important. Heredity, in spite of many efforts to diminish if not to extinguish its importance, is still generally admitted to influence disease in man, and I incline to think that it operates rather in a negative than a positive way. That is, assuming power of resistance, inheritances tend to produce points of non-resistance; or, to put it in another way, inheritance is rather the weakening in a particular direction of an inherent good quality than the intensifying of an evil one. Perhaps it may be said it is the same thing: to me, however, it is a more comfortable and hopeful doctrine.

The mention of the individual brings me back to the question, How is the resistance natural to every man to be evoked?

I take it, if we accept the doctrine of natural resistance, this is really the object of all our treatment of disease; we endeavour by our management of the case to bring out all the forces, whatever they be, that lie dormant in every one, and assist their operation either by directly strengthening them or by lessening any obstacles to their beneficent action.

But just here it is that we are still on uncertain ground, and until we know these things our treatment must be more or less empirical. Light is coming but slowly. The modern treatment of disease by antitoxins and vaccines is surely based upon the principle of helping Nature by the indirect action of living forces. Yet even here our path is beset with dangers, as evidenced by the difficulties of what is known as anaphylaxis.

And even if we knew Nature's general scheme of resistance to disease, even if we solved all the problems that I have mentioned as well as the numerous others that I have omitted, there would still remain the difficulty of the individual; for, as I said before, every man is an individual, and even at the best more or less imperfect. Perfection, whether of mind or body, is hardly to be looked for. We have, therefore, to take our patients as we find them, with all their imperfections, their idiosyncrasies of temperament, their weaknesses, whether due to themselves or their inheritances, and do our best to help them to recover from disease by strengthening the powers for good that remain to them. Alas, how often no response is made to our efforts! From one cause or another the power of resistance has gone, and we can only look on as the case progresses to a fatal termination. The maxim, "Treat the patient and not his disease," has a solid truth behind it, and if we knew our patients better in their ordinary lives and in their earlier slight departures from health, we should be in a better position to treat them in disease. Unfortunately we do not very often get the opportunity, but when we do, what an incalculable advantage it is! and if people only realized this, much could be done. If the prevention of disease is one of our highest aims, an important part of it must consist in the preservation of the health of the individual by teaching him how to keep his defences in good order.

Lastly, I think we must all realize that medicine is still far from being an exact science and that our ignorance is greater than our knowledge. But, if we also realized that the body is endowed with large powers of resistance to disease and that the problem of treatment is how to evoke those powers and help their utilization to the best advantage, and if we realized that resistance varies in the individual, then we would recognize that there is a certain unity in medicine, that it is the treatment of disease and not of diseases; we would recognize that we are not the masters but the servants of Nature, and we would sit humbly at her feet patiently investigating the secrets of that most marvellous collection of forces, the living human body, trying to help her, not endeavouring to take the case out of her hands. And a recognition of the unity of medicine would promote a spirit of unity among ourselves, we should hear less of systems of treatment, we should be spared those unedifying controversies in regard to special methods, of which we have had several instances lately, and which I confess are to me painful, for we would recognize that the goal we are all seeking to attain can be reached by several routes, and that no one of us has a monopoly of wisdom.

And, though medicine is somewhat overshadowed by the triumphs of her more brilliant sister, surgery, may we not look forward to a time when, by a sound application of the knowledge revealed to us by a patient investigation of Nature's methods of dealing with disease, we shall regain for medicine a portion of the field which of late years she has been forced to relinquish?

REFERENCE.

Sir Watson Cheyne, Wightman Lecture, 1908.

A Post-graduate Lecture

ON

THE DIAGNOSIS OF SPINAL CORD AFFECTIONS.

BY DAVID FORSYTH, M.D., D.Sc., F.R.C.P.,

CHARING CROSS AND EVELINA HOSPITALS.

IF an account of the ordinary types of some everyday diseases is not too jejune for a post-graduate audience, I will, without parading anything rare or anomalous or even exceptional, review the common affections of the spinal cord. From the clinical standpoint, these cases arrange themselves in three groups according to their onset: (1) Those in which the symptoms come on all at once: (2) those in which the symptoms are acute, taking several hours or even days to develop; (3) those in which the symptoms are insidious.

I. WHEN THE SYMPTOMS BEGIN ALL AT ONCE.

So few affections begin in this way that the diagnosis is rarely involved, and, as a matter of fact, we have practically only two lesions to think of—trauma and haemorrhage.

In *trauma*, leading to injury of the cord, often as a result of fracture-dislocation, the diagnosis is presented to us in the history either of direct violence to the spine (as in falling from a height or from stabs and bullet wounds) or of indirect violence (by a weight hitting the head or shoulders or by striking the head passing under an arch). In these cases, if the patient lives, a question that may arise is the distinction between organic injury and mere concussion of the spine; with the latter, however, the patient should rapidly improve until, after a few days, his recovery is assured.*

Haemorrhage (haematomyelia), apart from injury, is likely to occur only if the cord is already softened by myelitis or a new growth; and though, in either event, the bleeding produces its effects within a few minutes, some history of the older-standing trouble is sure to be forthcoming. Yet another possible cause of haemorrhage that must not be forgotten is one of the blood diseases, especially pernicious anaemia. Whatever the cause, however, the symptoms by which haematomyelia is to be recognized depend on the position and size of the effusion. As a rule, we find that, without warning, the patient quickly becomes paralysed and anaesthetic up to the level of the lesion. Further, by the inevitable destruction, locally, of the motor nerve cells, the corresponding muscles atrophy and show the reaction of degeneration. Of course, in some cases, the haemorrhage, instead of lying inside the cord, is meningeal (as, for example, when an aneurysm bursts into the spinal canal), and on these occasions the symptoms, as sudden as before, indicate at first irritation of the nerve roots (paroxysmal shooting pains along the sensory fibres, with twitching or spasm of the muscles), and, later, compression of the cord by the effused blood. At this stage, when all impulses, up and down, are interfered with, the patient's sensation of every kind below the lesion is numbed or lost, while his muscles are weakened or paralysed.

II. WHEN THE SYMPTOMS BEGIN ACUTELY.

In these cases we find, as a rule, that the patients, so far at any rate as their nervous system is concerned, felt quite well until a day or two before, but that since then their nervous symptoms have come on rapidly. In these circumstances the diagnosis lies between three conditions: (1) An acute infective process in the cord; (2) some thrombosis in the spinal vessels; (3) acute spinal

* "Railway spine"—really a neurasthenic condition, better called "railway brain," as Thorburn suggested—presents rather cerebral than spinal symptoms.

meningitis. Truly, two other conditions—Landry's paralysis, which spreads within a few days from legs to trunk, to arms, to neck and head, when the patient dies, and diver's paralysis (caisson disease), overtaking workers in high-pressure chambers—might claim admission in this group, but they are in the one instance so rare and in the other so readily diagnosed by the suggestive history as to require no further time spent on them.

1. *An Acute Infective Process.*

These infections, inflammatory or toxic, attack either the grey and white matter together or the grey matter alone; in the former case we have acute myelitis, in the latter acute poliomyelitis. Both of them, being infective, are likely to be ushered in by febrile symptoms—headache, malaise, a little temperature, and so on. The nervous symptoms themselves depend, of course, as to their details, on the position of the inflammation.

Myelitis most often picks out the dorsal cord—sometimes the cervical, sometimes the lumbar. Sometimes, even, it is scattered up and down the cord (and in the brain as well) like, as it were, an acute form of disseminated sclerosis. Whatever its level, however, it usually spreads across the cord as a transverse lesion. This means that with every tract, ascending and descending, being involved at that level, all the nervous conditions lower down—sensory, motor, and reflex—will be disturbed. The patient, therefore, rapidly loses the power in his legs, which, for the time being, become flaccid; his sensation of every kind is dulled or lost; his reflexes, after disappearing for a while, return, become exaggerated, and, with ankle-clonus and Babinski's sign, mark the gradual onset of muscular rigidity.* Often, too, the upper limit of the anaesthesia is fringed by hyperaesthesia. In harmony with these changes the bladder as well as the rectum passes out of control, and the urine is retained to overflowing.

These are the results of the commonest form of myelitis—a dorsal lesion. What are the differences if the cervical cord is attacked? In addition to the foregoing, there is paralysis of the arms and intercostals, with anaesthesia running up to the new level. In the highest cervical lesions of all, the neck muscles, as well as the arm, may be paralysed; and the same with the diaphragm. Moreover, whatever the position of the myelitis, the nerve cells at that level will be destroyed; so that, in a case with the cervical or lumbar enlargement affected, we shall get not only paralysis, but muscular atrophy in the arms or legs, as the case may be, with the reaction of degeneration and the permanent loss of the tendon reflexes in the limb.

With myelitis in its disseminated form the effects, for the most part, are the same, but are distributed irregularly and, perhaps, perplexingly, more especially as some cerebral symptoms, such as nystagmus or optic neuritis, may be produced.

Acute Poliomyelitis.—The other acute infective process needs very few words to fill in its diagnostic features. Common only in children, it directly attacks nothing of importance except the motor cells, and therefore its direct effects are seen nowhere except in muscular paralysis. In its clinical course, as its ephemeral fever subsides (a fever so mild as sometimes to be overlooked altogether), the child is found to be paralysed—one limb, two limbs, all four limbs. The corresponding reflexes are gone and—that is all: unless, indeed, it be that the child complains of some pain when its limbs are handled. Later, of course—perhaps at the end of the week—electrical changes will appear with probably enough muscular atrophy to be both seen and felt; but, on the other hand, by this time some at any rate of the original damage should be made good, and, instead of, say, four paralysed limbs, the child now dangles only one.

2. *Spinal Thrombosis.*

This the second condition responsible for acute symptoms, is the result, apart from pathological states of the blood itself, of arterial degeneration, which, narrowing the vessels, hinders the stream of blood until it clots. As soon as this happens, that part of the cord deprived of its nourishment rapidly degenerates—a sequence of events better known in connexion with the analogous condition of cerebral thrombosis leading up to cerebral softening. Moreover, in the cord as in the brain, the outstanding cause of this endarteritis is syphilis, so that, for all practical purposes, we can interpret spinal thrombosis as syphilitic thrombosis. Occasionally, however, in old people, senile arterio-sclerosis acts in the same way.

As we might suppose from the nature of the process, its sum effect on the nervous elements of the cord is not very dissimilar to that of acute myelitis. Indeed, so alike are they that syphilitic thrombosis is often referred to, even at the present day, as syphilitic myelitis. Still, the former term is in every way preferable, even though, by their symptoms alone, thrombosis and myelitis can hardly be separated. To do this we are generally thrown back on any circumstantial evidence of syphilis (including the Wassermann reaction) that we can find; and the search for this needs to be closely pressed because of the necessity, before venturing a prognosis or beginning the treatment, of disentangling the two conditions.

Just one word more before leaving this question of syphilis and the cord. In addition to exciting thrombosis, the spirochaetes are guilty of other offences against the cord. Thus, their effects sometimes fall heavily on the spinal meninges, with their sensitiveness to pathological organisms, and, as a matter of fact, syphilitic meningitis is, perhaps, even commoner than thrombosis, though, most often, cord and meninges are affected together. This is the condition known as "meningo-myelitis." Yet here again the main trouble is vascular arteritis and phlebitis—and the blood clots both in the spinal and meningeal vessels. Even before this, however, the pia arachnoid is inflamed by a gummatous infiltration, and is sometimes studded with little miliary gummata. Though these morbid changes take time, the symptoms they produce may begin acutely at any time from a few months to several years after the infection. Once set in train, the earliest of them are meningeal, resulting from spinal nerve-root irritation—that is to say, shooting and girdle pains, hyperaesthesia, and perhaps muscular spasm, followed later by paralysis and anaesthesia, but still pain. Finally, as the arterial disease makes itself felt in the cord itself, we get back to our clinical picture of spinal thrombosis.

Throughout the opening stages of this meningo-myelitis, the diagnosis of spinal root irritation may be easy enough; the difficulty is to identify the meningitis as syphilitic. In addition to the Wassermann reaction, some help can be found, as will be explained immediately, in the cytology of the cerebro-spinal fluid, though, even with this, we must again remember to look for corroborative evidence in other directions.

3. *Acute Spinal Meningitis.*

This, the last of our groups of acute spinal affections, must, in order to fit the limits of this lecture, first be whittled down to get rid of those varieties of meningitis which, clinically, appear rather as cerebral cases than spinal. Thus we can put on one side tuberculous meningitis, septic, pneumococcal, influenzal, post-basal, gonococcal meningitis. All of these, no doubt, are acute infections of the spinal meninges, and yet none of them can fairly be made to stand as a disease of the spinal cord. Nor, for that matter, can spotted fever, although we call it cerebro-spinal meningitis. Still, before letting this one go, a small item of information can be extracted from it—namely, the connexion between spinal meningitis and head retraction, as seen so often in babies. Sometimes the explanation is offered that, with the head retracted, the cerebro-spinal fluid finds more room at the base of the brain, thereby relieving, to this extent, the increased cerebro-spinal pressure. The valid explanation, however, is of another sort. The head is retracted by muscles at the back of the neck (especially the complexus, the splenius capitis, and the upper part of the trapezius), which are innervated by the upper cervical spinal nerves. If, therefore, these roots are irritated, no matter what the cause, these muscles will be thrown into spasm, and will draw the head back. Head retraction, therefore, signifies cervical root irritation; and the most striking cause of this is cerebro-spinal meningitis.

To return to our muttons, however. The only truly spinal forms of meningitis are, first, acute septic meningitis resulting, as a rule, from inflammation spreading to the

* These changes do not occur if the transverse lesion is complete—that is, destroys every fibre and cell at the level. Instead, we have flaccidity with permanently lost reflexes.

membranes from a neighbouring part, and, secondly, the syphilitic meningitis already described. Sometimes, with the first-named, the attempt is made to distinguish a pachymeningeal from a leptomeningeal form—a distinction, however, without any clinical value, even if it can be made *post-mortem*. Practically always, if the dura is inflamed, the pia arachnoid is inflamed as well; and, even if an exception occurred, we are quite without the clinical means of separating the two. Acute spinal meningitis, then, so far as we are concerned, is in one kind only. The cases are not very common, but usually the patient, perhaps after a rigor, soon develops the sensory and motor signs, already described, of root irritation, which, at first, may be localized to a few spinal segments. Later, however, if the infection spreads over the cord, the symptoms keep pace with it until, finally, the patient passes into a condition, distressing to witness, which at first sight might even be mistaken for tetanus. He is thrown into painful opisthotonos by the spasms of his back muscles, while at the same time his legs and arms go stiff and rigid. Worse still, his suffering is aggravated, partly by his acutely hyperaesthetic skin, but more by the harrowing, darting pains that shoot along his spinal nerves. Towards the end, however, he finds a merciful relief in the paralysis which follows the irritation, and the spasms give place to flaccidity, the pain to anaesthesia. In these cases, of course, before settling the diagnosis, one would expect to find the primary source of the infection; and this most often lies in a carious vertebra, though sometimes in bedsores, local abscesses, cellulitis, or rarely, infective endocarditis.

So far as the organism responsible for a spinal meningitis is concerned, the point can hardly be settled without a bacteriological examination after a lumbar puncture. Even, however, in answering the main question—Is it meningitis?—the cerebro-spinal fluid is a great help, because when the meninges are inflamed great numbers of cells find their way into it together with inflammatory plasma. If, therefore, the fluid is turbid from cells, or if it gives chemical tests showing an excess of albumen, we have two pretty sure signs of meningitis, whatever its cause. Further, if the cells are polynuclear, the meningitis is very acute (such as the septic form we have been considering), but, if they are mainly lymphocytes, it is a milder variety (syphilitic, for example).*

III. When the Symptoms Begin Insidiously.

In this, our last group, the patients, as a rule, cannot say exactly how long they have been ill. All they know is that their symptoms, too trivial at first to be seriously heeded, have gradually obtruded themselves until at last they are beginning to interfere with their daily affairs. Now, as this insidious onset is shared by more than half a dozen chronic spinal affections, we must keep at hand some scheme of investigation by the help of which we can, in any given case and without waste of time, put aside the majority of the chronic affections, leaving only the two or three between which the diagnosis lies.

To do this, let us first mentally divide the whole group into two—those with none but motor symptoms, and those with sensory symptoms (whether with or without motor symptoms). Among the former we can place:

Motor Symptoms Only.

Progressive muscular atrophy (that is, chronic poliomyelitis).
Amyotrophic lateral sclerosis.
Primary spastic paraplegia.
Friedreich's ataxy.
Ataxic paraplegia.

And among the others:

Sensory Symptoms—? Motor as Well.

Tabes.
Syringomyelia.
Disseminated sclerosis.
Compression of the cord.

On these lines we are electing to make the sensory symptoms our guide, and therefore it is to the sensory phenomena that we must at once turn our attention. If any are found, we can straightway throw over our first list and concentrate on the second. *Per contra*, in their absence, the first list is the one to follow up. Let us take each in turn, beginning with the purely motor affections.

* This lymphocytosis is, of course, also associated with the chronic changes of parasyphilis.

A. *Chronic Spinal Affections with Motor Symptoms Only.*

With these the first thing to look for is muscular atrophy; particularly in the little muscles of either hand, or, if not here, about the shoulders or in the legs. Suppose this found, then we are dealing with either progressive muscular atrophy or amyotrophic lateral sclerosis. The distinguishing points between these two can be briefly summarized.

Progressive Muscular Atrophy.—The muscles of the patient's hand and, perhaps, his deltoid and scapular muscles are wasted and show fibrillary contractions. As a result the corresponding reflexes are feeble or lost and the electrical excitability decreased or absent. In a more advanced case the same process may have spread to the patient's legs or, ultimately, to his bulb. Sometimes this sequence is changed, the legs going first, the arms later, but never the bulb (Charcot-Marie-Tooth type). Sometimes, when only the right hand is affected, we have the "occupational" atrophy of file-cutters, gun-barrel engravers and others who, in their employment, make special use of their thenar, hypothenar, and interosseous muscles.

Amyotrophic Lateral Sclerosis.—Here again the patient's hand muscles are the first to go, but although the same fibrillary twitching and electrical changes are found his wrist-jerk and triceps-jerk are exaggerated. In addition, his legs gradually become rigid and present the features of sclerosis of the lateral columns (spastic gait, exaggerated knee-jerks, ankle clonus, and the Babinski or dorsal plantar reflex). This affection, like the last, sometimes spreads in the late stages up to the bulb.

Suppose, however (the case still being one with only motor symptoms), that no atrophy is to be seen. We have then to decide between primary spastic paraplegia, Friedreich's ataxy, and ataxic paraplegia.

Primary Spastic Paraplegia (or, from the tract affected in the cord, Primary Lateral Sclerosis).—This is marked off from both the others by the absence of inco-ordination. The patient complains of nothing but his legs, and these show the signs, just mentioned, of lateral sclerosis.

Friedreich's Ataxy.—The patient, usually a child, and often with close relatives similarly affected, is unable to co-ordinate his legs (and, later, his arms and head) and his knee-jerks are absent. In addition, his speech is peculiarly hesitating. Further, he may have nystagmus.

Ataxic Paraplegia.—Here inco-ordination is present, but neither nystagmus nor any affection of the speech. Moreover the patient's knee-jerks are exaggerated, and he shows both ankle clonus and Babinski's sign.

B. *Sensory Symptoms Present, with or without Motor Symptoms.*

We now come to a group with lesions that are rather variable. For this reason, be it noted, the symptoms in each instance may not always conform to one type. Still, allowing for this, we ought to be able to identify every sensory case with one of the following four:

Tabes.—This is too well known to need much by way of description. Any patient without his knee-jerks, but with Argyll Robertson pupils and lightning pains, is beyond question tabetic. In addition to these "pre-ataxic" symptoms, he may show hypotonus of his muscles, permitting extraordinarily free movements of his limbs, very variable sensory changes (including anaesthesia, girdle pains, visceral crises, and optic atrophy), squint, diplopia, and Charcot's joints. Later, when his ataxy has come to the front, his sensory changes may become even more extensive.

Syringomyelia, fully developed, combines the symptoms of (1) progressive muscular atrophy in the arms with (2) spastic paraplegia in the legs, and it might therefore pass as amyotrophic lateral sclerosis, were it not for its remarkable sensory changes. By these the patients are made insensitive to pain and heat and cold.† Their touch and muscle sense, however, are keen enough. On the other hand, they are subject to trophic changes, particularly glossy skin, cracked nails, or Charcot's joints. The diagnosis, therefore, turns mainly on the sensory symptoms, and is the easier to make, since these are often the first in the field.

† An affection which, in mediaeval times, by enabling people to pick up live coals, and do other things of the sort, was liable to be diagnosed and treated as witchcraft or wizardry.

In *disseminated sclerosis*, where the symptoms are particularly variable on account of the sclerosed areas being so inconstant in their distribution, the patient's legs are weak and spastic with all the tendon-reflexes exaggerated, while his (or her) arms, also weak, may be paraesthetic. More striking than this, however, and more important in the diagnosis, are its three cardinal symptoms, tremor, nystagmus, and staccato speech. By these it may be known, although in the earlier stages, before these three have fully developed, a hysterical counterfeit may lead us astray.

Compression of the cord, the result usually of caries of the spine, an aneurysm or a secondary growth, produces twofold symptoms—those of spinal root irritation followed by root paralysis, and those of a transverse lesion of the cord itself. Apart from these, however, we may expect a third set due to whatever is causing the compression. If this last group is not to be found, we are then thrown back on the possibility of some primary new growth inside the spinal canal, or a patch of chronically thickened meninges; in either case, the site of the pressure is identified by the distribution of the symptoms. The distinction between the two, however, may be a matter of difficulty. Perhaps the most suggestive differences are that in chronic meningitis the course is slower and that the pain, even from the beginning, is bilateral and spreads over a wider area. Moreover, the meningitis may improve without surgical treatment.

REMOVAL OF EXTRAMEDULLARY TUMOUR OF CERVICAL CORD: RECOVERY.

(AREA OF SUPPLY OF EIGHTH CERVICAL AND FIRST DORSAL POSTERIOR ROOTS.)

BY

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In connexion with the following case, it is permissible to recall the frequency with which extramedullary tumours of the spinal cord are benign in character, and that this holds good when the patient is in later life. Hence the great importance of diagnosis, for by leading to operation it enables a patient suffering from one of the most painful and disabling of diseases to be restored to ease and active life. It is as well, also, to bear in mind the great power of recuperation possessed by the spinal cord, so that it can recover its functions even after very severe and long-continued compression, when the pressure is removed.

L. D., aged 55, married, was sent to the Bristol General Hospital by Dr. Harvey Bird, of Bridgwater, on May 2nd, 1911. Family history good.

The patient had small-pox when a child, and fifteen years ago had exophthalmic goitre for about five years. She then completely recovered, and shows no sign of this disease now, except, perhaps, that her pulse is habitually rather quick—84 to 90 per minute. The menopause occurred at 45 years.

History of Symptoms.

1. *Pain.*—Two years ago (1909), following influenza, attacks of "cutting" pain in left shoulder, lasting a few weeks and then disappearing, and worse in damp or cold weather, occurred. Dull aching pains in the left arm followed shortly after those in the shoulder. For a time in 1910 she was much better, though not free from pain at intervals. In November, 1910, she had a fresh attack of "influenza," with severe vomiting and diarrhoea; since then pains in upper part of left chest, left shoulder, and shooting down left arm to fingers, especially little and ring fingers, have been more or less constant, varying in severity, and often preventing sleep. February, 1911, girdle pain around waist.

2. *Paraesthesia.*—About May, 1910, numbness in left arm from elbow to wrist, around waist, and in her feet and legs. The numbness of legs "felt as if it were in patches"; that around the waist disappeared again; in the other parts it remained permanent. Later, numbness and "pins and needles" affected ulnar border of left hand and little and ring fingers.

3. *Muscular Wasting.*—First noticed in left hand and forearm after influenza in November, 1910, then improved; but in January, 1911, reappeared, and since then steadily increased, affecting all muscles of hand, and also anterior aspect of forearm. Slight wasting of right hand muscles during last month.

4. *Paralysis.*—Loss of power in left shoulder, twelve months, probably at first due to pain; she kept her shoulder at rest because movement increased pain. Gradually increasing paralysis of left arm and hand. For two months left hand and forearm almost completely paralysed and useless. Partial paralysis right hand, one month. Gradual loss of power in legs, two months; unable to walk or to stand without support, two weeks; unable to sit up in bed, one week. Muscular cramps in legs not marked.

5. *Sphincters.*—Difficulty in micturition, four months; worse, three weeks; chief difficulty is in starting micturition. Obstinate and increasing constipation for about same time. General health good; all symptoms have progressed rapidly since shock of husband's sudden death three months ago.

State on Admission.

Well nourished, rather anaemic, with a distressed expression. She could not walk, nor could she stand without being held up. She could just sit up in bed with support. There was no paralysis of any cranial nerve. The pupils were equal, of normal size, and acted well to light, accommodation, and to painful stimulation of skin of neck. The neck muscles were unaffected.

Upper Extremities.—Right: Grip of hand very weak, moderate degree of wasting of small muscles of hand; arm and forearm unaffected. The hand muscles reacted to faradism, but required a strong current. No affection of sensation. *Left:* Small muscles of hand uniformly and extremely wasted, including muscles of thenar and hypothenar eminences, dorsal interossei and lumbricales. The muscles did not react to a strong faradic current. The little and ring fingers were slightly over-extended at proximal and flexed at distal joints. The little and ring fingers were most flexed. The hand was completely paralysed and useless. The long flexors of forearm were paralysed and did not react to faradism; the extensors were not paralysed and reacted. The elbow could not be fully extended. She could not raise her arm above the shoulder; movements of the shoulder were generally limited, and the shoulder muscles contracted, especially the pectorals, but not much wasted, from disuse owing to pain, and there were adhesions about the shoulder joint. Partial loss of sensation over inner (post-axial) side of limb. (See Fig. 1.) The elbow and wrist jerks were present on both sides. No loss of sense of position of either hand or arm, and objects placed in hands recognized at once.

Spine.—Some kyphosis in dorsi-lumbar region and slight lateral curvature.

Abdomen.—Apparently defective sensation to pin-prick over abdomen. Abdominal reflexes absent.

Lower Extremities.—The legs could be drawn up but not lifted off the bed. There was marked spasticity, the muscles being in a state of active spasm, but not wasted. Knee-jerks much exaggerated; slight ankle clonus on right side, not on left. Plantar reflex, extensor and Oppenheim's and paradoxical reflexes present on both sides.

Sphincters.—Complete retention of urine, which was acid, and contained no albumen or sugar. Obstinate constipation. Thoracic and abdominal organs normal.

Wassermann's reaction negative. Tuberculin test negative.

Cerebro-spinal fluid appeared under slightly diminished pressure and contained a considerably increased number of lymphocytes, but was otherwise normal.

It was considered advisable to give her a course of potassium iodide with liq. hydrarg. perchlor. This she had.

Condition on June 14th (Five Weeks after Admission).

She had a great deal of pain during this time in the left shoulder, passing down into the arm, and painful spasmodic contractions of left shoulder muscles and those of lower part of neck. Pain was increased both by passive and active movements. Pains had also begun to affect the right shoulder and arm. They were never so intense as to cause her to cry out, but often prevented sleep.

Wasting of small muscles of the hand was complete on left side and had rapidly advanced on right. There was also wasting of muscles on anterior surface of left forearm, and to a less degree of the right. The left upper extremity was completely paralysed. She could not hold a pen or spoon in the right hand, but could move the arm and forearm. The hands were therefore useless, and she had to be fed. Except that she could draw up the legs a few inches in bed, they were also paralysed. She could not sit up or turn in bed. Except for movements of the head and neck, of the right shoulder and arm, and, to a less degree, of the right forearm and of those muscles supplied by the cranial nerves, she was therefore completely paralysed. The pupils were unaffected. There was complete retention of urine and incontinence of faeces. Some defect of sensation to pain and temperature had now appeared over trunk and legs, and there was some loss of sense of position of the left arm and of the legs. The condition of the reflexes was the same as above stated.

After this period of observation the diagnosis was arrived at of tumour of the cord, external to it, on the left side, and at the level of, and compressing, the eighth cervical and first dorsal roots. I therefore asked my colleague, Mr. Hey Groves, to see the case, and he operated on June 21st.

Operation.

Solution of adrenalin, 1 in 50,000, was injected into the skin and muscles. The laminae of the sixth and seventh cervical vertebrae were first removed, then those of the eighth cervical and first dorsal. The laminae were removed on the left side

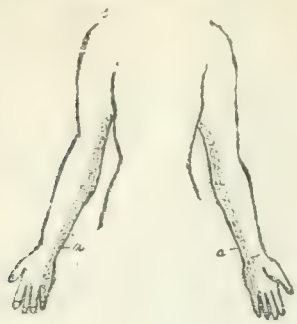


Fig. 1 shows the sensory loss before operation. Over dotted area prick felt as touch over hand as high as *a*: above this very imperfectly felt as prick at certain points only. Slighter loss to light touch (cotton-wool) and to lesser degrees of heat and cold, but not to pressure, over whole dotted area.

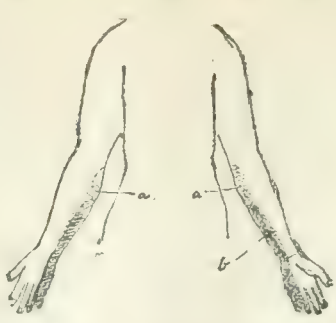


Fig. 2.—Sensory loss six weeks after complete division of left eighth cervical and first dorsal posterior roots. Over dotted areas a partial loss only. Over shaded area loss of sensation to light touch, pin-prick, heat, and cold. Boundary of each coterminous, except on anterior surface, where prick or touch on dotted area *b* provoked a "disagreeable" sensation. Sensation to pressure unaffected.

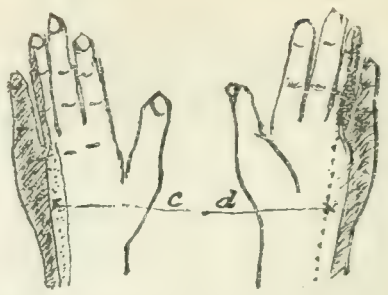


Fig. 3.—Sensory loss on hands. Shaded areas show same complete loss of sensation as on forearms. Over dotted area *c* touch or prick provokes a very "disagreeable" sensation. Over area *d* inside dotted line only slight loss of sensation, but no "disagreeable" sensation.

In each of these diagrams the figure on the left represents the posterior, that on the right the anterior, surface of the left arm and hand.

only. The dura mater was then opened, and it was noticed that the pulsation in the lower part of the exposed cord was deficient, and that there was very little cerebro-spinal fluid. The left half of the fifth cervical lamina was then removed, and a tumour was seen lying under the pia, opposite to the ligamentum denticulatum, at the level of the eighth cervical and first dorsal roots, attached by a short pedicle to the postero-lateral aspect of the cord. The left eighth cervical and first dorsal posterior roots lay over the tumour, and had to be divided to remove it. The tumour was a laminated fibroma, round or oval in shape, and measured 1½ in. by ⅝ in. The cord was much compressed and narrowed, and was jammed up and flattened against the right side of the spinal canal.

After-History.

The patient recovered from the operation without a bad symptom.

By July 20th—one month after operation—she was able to sit up and to move her legs freely in bed and had a fair grip in the right hand, so that she could feed herself. She had nearly recovered power over the bladder and completely so over the rectum.

Electrical Reactions—Left Forearm and Hand.

Constant Current:

Supinator longus	KCC 2 ma.	ACC 3 ma.
Long extensors...	KCC 3 ,,	ACC 2 ,,
Ext. indicis	KCC 3 ,,	ACC 2 ,,
Small muscles of thumb ...	KCC 2 ,,	ACC 2 ,,
Dorsal interossei	KCC 3 ,,	ACC 4 ,,
Long flexors	KCC 8 ,,	ACC 7 ,,

Faradism (Left Hand and Forearm).—No reaction in long flexors of fingers; a doubtful, very feeble reaction to a very strong current in small muscles of little finger, thumb, and interossei; all other muscles of left arm and forearm react.

All muscles of right forearm and hand react to faradism, but require a strong current, and to galvanism.

The abdominal reflexes on the right side had returned; the left were still absent. The plantar reflex was extensor on the right, and mixed—that is, extensor response in great toe and flexor in the other toes on the left foot.

By August 2nd (nearly six weeks after operation) she could raise herself unsupported in bed, and had regained complete control over her bladder. The superficial reflexes as above. The knee-jerks were hardly exaggerated, there was no ankle clonus, and the spasm in the legs was rapidly diminishing.

On September 10th there was usually a flexor response in both plantar reflexes, but occasionally an extensor movement of the great toe appeared—a month later this could not be obtained. The left abdominal reflexes were obtained about this time, namely, about eleven weeks after operation.

Without going into details, it may be added that she is well on the road to complete recovery; she has recovered good use of the right hand and arm, and of her left arm; partial, and steadily increasing, use of the left hand, but the degenerated and wasted muscles of this hand must take several months to recover; she can walk well, unaided and with a natural gait, at the present time at least half a mile; she is rapidly extending her range of movements, and can go up and down stairs. At the date of writing this she is steadily and progressively gaining power over all the limbs, with an eventual prospect of complete recovery.

A few more details about sensation as regards the area supplied by the eighth cervical and first dorsal roots, which were completely divided at the operation, may be of interest. Unfortunately she was not a very good subject for investigation of sensation, and was not sufficiently well to be examined for some time after the operation. The slight disturbances of sensation present in the latter stages of the case over the abdomen and legs, chiefly defective sensation to pin-prick, had disappeared a fortnight after the operation.

The condition of the left forearm and hand is as follows:

Forearm (see Fig. 2).—Over an area on the ulnar side of the forearm, extending about 1½ in. on the anterior and posterior surfaces, upwards to about 2 in. above the elbow and downwards to the wrist, light stroking with cotton-wool and pin-prick are not felt. With regard to the latter, no difference is felt between gentle pressure with the head or the point of the pin, but a pin-prick is sometimes felt as such. The edge of this anaesthetic area to prick varies as much as ½ in., according as it is determined by approaching from the anaesthetic or sound skin. Heat and cold are not distinguished over the same area. The limits of loss to light touch (cotton-wool and pin-pricks) are, so far as can be made out, coterminous back and front. Two blunt points of aesthesiometer were not distinguished as two transversely to the long axis of the limbs in this area, in the long axis they were noticed as two at distances of 4 in. anteriorly and 7 in. posteriorly.

Hand (see Fig. 3).—A line drawn from the fissure between the little and ring fingers on the palm to the wrist parallel with the ulnar border of the hand, marks off an area on the ulnar side of the palm over which light touch, pin-prick, heat and cold are not distinguished, and two points not felt as such in either transverse or longitudinal axis at 2 in. The same affection of sensation is found on the little finger and ulnar half of the ring finger. Unlike the forearm, on the border of this area on the palm there is a zone about ½ in. wide on which any touch or light stroking is very unpleasant, giving rise to an ill-defined but painful sensation; two points can be distinguished at ⅝ in., and extremes of hot and cold felt. A pin-prick is felt rather as painful than as an actual prick. The outer margin of this area is ill defined.

On the dorsum, the little and ulnar half of the ring finger show the same anaesthesia. On the hand, a narrow area of anaesthesia on the ulnar border is bounded by a line drawn from the fissure between these two fingers to the wrist, parallel to the ulnar edge of the hand. Outside this there is a narrow zone where a prick is felt as touch, a light touch is felt, extremes of heat and cold are doubtfully distinguished, but there is not the same disagreeable sensation as in the palm. As in the forearm, the edge of the area of altered sensation varied according as it was approached from the anaesthetic (passed further out) or from the sound side. Pressure was felt everywhere over the anaesthetic area, and there is little or no loss of the

sense of position of the little finger. There are no distinct trophic changes over the anaesthetic area, except that the skin is a little shiny over the fingers.

REMARKS.

The differential diagnosis in this case, although in the light of the conditions found at the operation it may seem to have been fairly straightforward, was not definitely settled until the patient had been some little time under observation. That there was a lesion at the level of the lower part of the cervical region of the cord with affection of the pyramidal tracts below this level was of course obvious. The further points to determine were (1) whether the disease was extramedullary or within the cord, and (2) what was its nature.

Undoubtedly the first clue to the extramedullary seat of the lesion was the discovery of the partial loss of sensation on the post-axial side of the left upper extremity, showing that the left eighth cervical and first dorsal posterior roots were definitely involved. This was supported by the distribution of the muscles affected with wasting and altered electrical reactions, which coincided with the motor supply of the corresponding anterior roots. The pain was more widely diffused, but in its chief intensity corresponded fairly to the same roots. Further confirmation of an extramedullary lesion at this level was afforded by the order of onset of the cord symptoms, that is (1) pain, (2) paraesthesiae, (3) paralysis, (4) wasting of muscles, first at the level of the lesion, and then, as pressure began to be exerted on the cord itself, the appearance of spasm, increased reflexes, and paralysis in the legs, with finally, much later in the case, some sensory loss over the trunk and legs, and affection of sphincters, as the cord gradually became more severely compressed. On the other hand, there were perhaps three features of the case which were difficult of explanation on the above hypothesis of an extramedullary lesion involving at first these roots and then pressing upon the cord.

These were the paralysis of the left shoulder muscles, the atrophic paralysis of the small muscles of the right hand, and at first sight the absence of such severe pain as would be expected from such a lesion. This last point I will refer to again later. As time went on further acquaintance with the patient made it quite clear that she had intense pain at times, which she bore bravely. Further investigation enabled the paralysis of the left shoulder and upper arm muscles to be eliminated as a direct result of the lesion, for it presented the characters of that found in long-continued disuse of the shoulder and elbow joints, and the consequent formation of adhesions about them, and it was, therefore, regarded as due to the attempt to minimize the pains by keeping the joints immobilized, and accordingly only as an indirect consequence of the lesion.

The atrophic paralysis of the small muscles of the right hand without sensory affection was never satisfactorily accounted for until the operation. It might have been taken as an evidence of an intramedullary pressure effect, for example, myelitis, or a small extravasation of blood. That no lesion of this sort occurred, however, is proved by the rapid recovery after removal of the tumour. It only appeared late in the illness, and the explanation afforded by the conditions seen at the operation was that the nerve roots on the right side at this level must have been compressed against the bone, possibly against the edges of the bony foramina. The large size of the tumour, which seemed almost too great to be accommodated in the spinal canal, would account for this, though, even if this explanation be correct, it is difficult to see how the corresponding posterior roots escaped.

The other evidences of an extramedullary tumour on the left side were, however, to my mind, so strong that I felt justified in neglecting this feature of the case, leaving it unexplained before the operation.

As to the nature of the lesion, all the above symptoms, especially the localized nature of the focal symptoms, pointed to a tumour pressing on the left eighth cervical and first dorsal roots, but she had also kyphosis and lateral curvature of the spinal column, and therefore the possibility of tuberculous disease of the bones had to be considered. This was eliminated, however, by the absence of a local deformity of the spinal column, or of local tenderness of the spines, by the characters of the cerebro-spinal fluid, by the test for fixation of the complement for tuberculosis being negative, and by the absence of any tuberculous lesion elsewhere in the body. A syphilitic lesion was excluded also by the examination of the cerebro-spinal fluid, and a negative Wassermann reaction. There is just one other point of interest. There appears to have been no period in the case in which Brown-Séquard's syndrome was present. This syndrome is of frequent occurrence at some stage of cases in which there is either a unilateral lesion of the cord itself, or unilateral pressure upon it. In this case the affection of sensation below the lesion over the legs and abdomen appeared quite late, affected both sides equally, and was slight in degree.

The case further illustrates the fact that if it is not destroyed, or there is no pressure-myelitis, the cord is capable of recovering from an enormous amount of pressure when this is removed.

The order of return of reflexes is of interest:

Two weeks after operation: Sensory disturbance of legs and abdomen disappeared.
Four weeks after operation: Right abdominal reflexes returned; ankle clonus disappeared; left plantar reflex became "mixed" in character.
Six weeks after operation: Power over bladder recovered; knee-jerks still exaggerated.
Eleven weeks after operation: Double flexor plantar reflex; abdominal reflexes returned on both sides.

Another point of interest is the complete recovery from exophthalmic goitre some years previously, and that the patient was able to go through a severe operation without any return of it. Further, there was risk of being deceived by her statements as regards pain; she minimized this, but when one got to know her one learnt that she had very severe pain, but bore it bravely. Pain is a most important symptom in the diagnosis of cases of this kind, and yet its value in diagnosis is diminished by the difficulty of estimating it exactly, because patients vary so greatly in their power of endurance.

I cannot conclude without a grateful acknowledgement of what a large share in the successful result of the case was due to the very skilful manner in which the operation was performed by Mr. Hey Groves. There was no haemorrhage and no shock, and the patient recovered without any bad effects due to the operative procedures—a noteworthy fact in a woman of 55 years of age, and one to encourage explorations in doubtful cases of a similar kind. Lastly, the limitation by Mr. Groves of the operation to removal of the laminae on the left side only, whilst at the same time it afforded easy access to the seat of disease, no doubt resulted in greater subsequent stability to the spinal column, and earlier recovery of power in the back.

AN INVESTIGATION ON THE REGENERATION OF NERVES, WITH REGARD TO THE SURGICAL TREATMENT OF CERTAIN PARALYSES.

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PART V.

THIS article deals with secondary nerve suture, and the facts are derived from clinical and experimental studies.

The term "secondary," as opposed to primary nerve suture, is applied to cases in which the two ends of a divided nerve are not immediately united: or, at any rate, an interval of more than a few days is allowed to elapse before suture.

The condition present is a variable one. Much depends on the time interval before secondary union is performed. It is stated that two (Bowlby[1]) and three (Sherren[2]) years seems to be the time after which we cannot expect any useful recovery in the paralysed muscles, even if secondary union of the nerves be performed.

A great deal depends on the condition of the wound with regard to sepsis or otherwise. A suppurating lesion complicating a nerve division seriously alters the prognosis for the worse. This is well exemplified by two extreme cases.

I had had very little function return after union of the median when only six months had elapsed since the original division. This particular accident was caused by

the arm being pushed through a glass window, and prolonged suppuration followed. On the contrary, I have seen a very satisfactory recovery after secondary suture performed two years after the nerve division. The case was an obstetrical paralysis where the upper and middle brachial cords were torn completely across the ends and were found apart at the time of operation.

As a matter of fact, I believe total disconnexion of the central and peripheral ends of a nerve is rarely found after some months have elapsed, unless suppuration occurred originally. Nearly always a tapering filament stretches across the interval between the two ends of the nerve, and electrical stimulation shows it to contain many functionating fibres. This was the condition actually present in the case of obstetrical paralysis just referred to. In dogs I have occasionally seen a nerve grow across an interval of 1½ in. with almost perfect function after this interval of the nerve trunk had been experimentally excised.

Considering the various pathological conditions present, I believe any explicit statement as to time or amount of recovery is impossible after secondary nerve suture. But several general facts are undoubted:

1. Recovery after secondary nerve suture is slower than after primary union.

2. Recovery follows the same lines as in primary suture, but usually falls short of complete restoration of function—sensation and motion.

3. Other things being equal, the longer the time which elapses before secondary suture is performed, the more imperfect the recovery.

4. Finally, after an uncertain time, restoration of muscle function is unlikely, though a certain amount of sensory recovery is still possible.

The following experiments were made with the object of finding whether the motor nerve cells in the spinal cord, or the muscle and motor nerve endings, were mainly concerned in this failure in regeneration.

Dog I.

In both fore limbs the median was divided and 1 in. of the nerve excised. One year and nineteen days later secondary suture was performed. (In this, as in all other cases, the bulb on the central nerve was excised before suture.) On the right side the central end of the healthy ulnar was joined to the distal degenerated median. On the left limb the central end of the previously cut median was joined to the distal end of the healthy ulnar. Excision of a considerable length of nerve prevented union between the central and distal ends of the same nerve, though at the time of secondary suture it was found that a feeble connexion had taken place between the two ends of the separated median on either side. This was not sufficient to alter any result.

After 238 days it was found that the regeneration was much more perfect on the right than the left side. The test used was the sensitiveness in response to small faradic stimuli applied directly to the isolated nerve above the junction.

Conclusion.—In secondary suture (one year and nineteen days after the nerve division and after 238 days allowed for regeneration) the result is better when the distal nerve is the one degenerated for some time, and the central nerve a healthy one, than when the opposite conditions obtain.

Dog II.

Primary Operation (April 2nd, 1908).—Right side 1 in. of ulnar excised and on left side 1 in. of median.

Secondary Operation (October 8th, 1908—188 days).—Right side: Central healthy median was sutured to distal degenerated ulnar. Left side: The central end of the previously divided median was sutured to the distal end of the healthy ulnar.

Stimulation performed November 23rd, 1909—that is, one year and forty-six days after the secondary suture. Good regeneration had occurred in both legs. The sensitiveness was greater on the right side when tested with the faradic current applied directly to the nerves. This confirms conclusion in Dog I.

Dog III.

Primary Operation (April 21st, 1909).—Right side: Fore limb median nerve divided, and both ends fixed in rubber tubing to prevent wound fibres growing in the distal trunk. Left side same.

Secondary Operation (December 6th, 1909—229 days later).—Right side: Central end of previously divided median was sutured to distal end of freshly cut ulnar. Suture area was wrapped round with Cargile membrane. Left side: Central end of freshly cut ulnar was sutured to distal end of previously divided and degenerated median, Cargile membrane being again used to isolate the suture area.

Stimulation performed October 4th, 1910 (302 days later). On both sides the nerves about the suture level were fairly adherent for some distance to the surrounding structures, and were very difficult to separate from the vein and artery. Regeneration was very efficient, and was better on the left side where the central nerve was the healthy one.

Dog IV.

Primary Operation (May 6th, 1909).—Right: Fore limb median nerve divided and both ends fixed in rubber tubing. Left side same.

Secondary Operation (December 3rd, 1909—311 days later).—Same as Dog 3, but no Cargile membrane used.

Stimulation (September 23rd, 1910—294 days later) gave same results as Dog 3.

Summary of Results.

In four series of experiments secondary nerve suture was performed at an interval varying from 188 to 384 days after the primary division. Two experiments were made on each animal. On one fore limb the central end of the nerve sutured was a healthy one (that is, just divided before the stitching), and the distal end the nerve which had degenerated for the varying periods of time. On the opposite side the central nerve was the nerve divided some considerable time previously, and the distal one joined to it was the freshly cut trunk.

The object of performing these reversed experiments on the same animal was accurately to contrast the two conditions. Thus the time element and the individual factor were identical in the two groups.

At the time of secondary suture it was found that several changes had taken place. Unless special means were taken to prevent it, the distal degenerated nerve was appreciably innervated by wound fibres; so much so that faradic stimulation to the nerve invariably gave a definite though feeble appropriate response.

In one case, even where rubber tubing was used, some wound fibres found their way to the distal trunk. In every instance of ununited nerve division wound fibre innervation plays a prominent part unless sepsis has occurred. In this case the resulting scar tissue interferes with these wound fibres.

In my opinion this explains the influence of sepsis in the original wound in preventing recovery after secondary nerve suture.

The distal degenerated nerve in the experiment was flabby, red in colour, and more or less adherent to surrounding tissues. In two cases a very feeble but still functional strand of nerve tissue had grown across the interval of 1 in. between central and distal ends of the nerve. This shows the vigorous power of nerve regeneration with aseptic conditions. The period allowed for regeneration after the secondary suture varied from 238 to 411 days. Many different conditions were found, which presumably occur in man where secondary suture is performed.* These include variation in size of the bulb where suturing was performed, adhesion to other tissues, etc. It is interesting to note that the cases in which Cargile membrane was used differed, if anything, for the worse in this respect. It is important to observe that whatever variety of condition was present one feature was constant. When the central end of an old divided nerve was sutured to the distal end of a recently divided nerve, the resulting regeneration was not so good as when the reverse condition obtained.

In other words, from the point of view of regeneration, an unremedied nerve division produces more serious changes in the central end (with the nerve cell) than in the distal end (with the muscle fibre and motor end organ).

The appearance in the nerve trunk is the reverse of this. Beyond the bulb at the divided face of the nerve there is little visible change in the central stump. The distal divided trunk is always thinner than normal, more or less adherent to tissues, flabby to the touch, and reddish in colour. The microscope shows marked alterations (Wallerian degeneration) in the distal nerve and none in the central.

From these facts it is legitimate to conclude that the motor nerve cell is more damaged by ununited division of the nerve trunk than the isolated neuro-muscular apparatus.

In other words, when secondary suture is delayed too long and regeneration is not effected, it is not due to degeneration of the muscle or to loss of chemiotactic attraction in the peripheral stump for the sprouting nerve fibres from the central nerve.

* Several animals in which suppuration occurred at the primary or secondary operation were discarded.

CONCLUSIONS.

1. The condition found after the non-union of a cut nerve trunk is very variable.

2. These varying conditions render any definite statement as to time limit to secondary suture difficult, if not impossible. I have had successful cases of secondary nerve suture in the human subject after many (six) years of non-union.

3. Where regeneration after secondary nerve suture has not taken place, the main cause (apart from local conditions at the suture area, such as sepsis) is lack of regenerating power in the nerve cell.

4. When all factors have been taken into consideration and it is concluded that restoration of function after secondary nerve suture is unlikely, there is still another surgical procedure open. This is the suture of recently divided central nerve fibres to the distal trunk of the degenerated nerve—that is, by nerve anastomosis to an adjacent healthy nerve.

My best thanks are due to Professor Osborne for many suggestions, and to Mr. Jona, who assisted me at most of the experiments.

The expense of this research was partly defrayed by a grant from the Royal Society.

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PNEUMOCOCCAL MENINGITIS.

BY

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THE causes of acute inflammation, with purulent lymph exudation, of the pia arachnoid are various forms of pus-producing micro-organisms, and not infrequently more than one kind of organism is found in the same case. The *Meningococcus intracellularis* of Weichselbaum usually suggests itself in the first instance, especially when cases of cerebro-spinal meningitis are known to be in the neighbourhood, though the claims of the pneumococcus for recognition as a common cause are well known to pathologists. The impression that this organism is a more common cause of acute meningitis than is generally supposed, and that involvement of the cerebral membranes is a more frequent complication of fatal cases of pneumonia than is commonly believed, must be my excuse for publishing the following cases. For the notes of the third case I am indebted to Dr. J. W. Smith of Ryton, who has kindly given me permission to use them:

CASE I.

James S., aged 15, a factory storekeeper, was in good health until February 1st, 1911, on which day he was struck on the head by a heavy iron bolt which fell 12 ft. He was not rendered unconscious, but it produced giddiness and headache. He was able to attend to his work next day, and little was thought of the injury until three days later, when he fell in a fit whilst at work. He was unconscious for upwards of two hours, and on recovering complained of pain in the right side of the chest and severe headache.

He was admitted into the Royal Victoria Infirmary on February 5th, when it was noticed that he was drowsy, had a temperature of 101°, a pulse of 95, and that his face twitched. Next day he was restless and delirious and complained constantly of severe headache, chiefly frontal. There was photophobia and slight nystagmoid movements and the pupils were dilated, but there was no ocular paresis. There was slight rigidity of the muscles of the neck, but no retraction of the head. The skin of the trunk and legs was hyperaesthetic. The knee-jerk was normal and the plantar reflex flexor. There was no optic neuritis.

On the third day of the illness the breathing became accelerated and a hyper-resonant note was detected over the left lung. This was, however, soon replaced by dullness, and harsh breathing by tubular, so that it was evident by the fourth day at least that the illness was pneumonia complicated by nervous symptoms. Lumbar puncture on the third day led to the withdrawal of clear fluid free of organisms at increased pressure.

There was little change in the symptoms until the sixth day, when the respirations and temperature rose, the former to 62, and the latter to nearly 104°. Indeed, for a day or two the signs of meningitis became less evident, and the case assumed in a more pronounced form the aspect of a very bad case of croupous pneumonia. On the seventh day the nervous symptoms resembled the delirium of enteric at the end of the third week; the patient was wakeful, muttered constantly to himself, and occasionally uttered loud shouts. He rapidly sank and died on the eighth day.

The urine was free from albumen throughout the illness, and there was no vomiting.

Post-mortem Examination.

Body poorly nourished. Rigor mortis general. No signs of injury to scalp or skull. The heart showed nothing abnormal worthy of note.

The pleural cavities contained small quantities of turbid fluid. Evidence of recent pleurisy over surface of left lung, both lobes of which were consolidated. The right lung was intensely congested, and the lower lobe contained patches of bronchopneumonia.

The spleen was soft and acutely congested. The liver and kidneys were in an advanced state of cloudy swelling.

Examination of the brain showed general leptomeningitis, best marked over the vertex, where there was a deposit of greenish fibrinous lymph. The exudate was also well marked over the base, especially on the under surface of the frontal and temporal lobes and over the pons, medulla, and cerebellum. Films from the cerebro-spinal fluid showed typical pneumococci.

CASE II.

James B., aged 38, cartman, was admitted into the Royal Victoria Infirmary in a semi-conscious condition on January 27th, 1911.

The history of the case was very indefinite. The friend who brought him to hospital stated that he had been found in a lodging-house that morning in a state of delirium, and had only been ill a few hours, having fallen in a fit, which was apparently the commencement of the illness.

The cheeks were flushed and the pulse and respirations quick. There were temporary intervals of consciousness, when his speech was slurred and slow and he appeared to have some difficulty in articulating. The temperature was 103.4°, the pulse 114, and the respirations 28. There was no paralysis. The tongue was furred and dry. The patient was restless and delirious and was with difficulty kept in bed. There was nothing definite to be detected in the chest. The reflexes were normal.

On the morning following his admission he became very violent and excited, and this was followed by a period of collapse, in which the pulse became weak and rapid (130), and a few hours later paresis of the right side of the face and right arm and left eye were noticed. The temperature was 105°, and the respirations 44.

As the day advanced he picked at the bedclothes and became more and more drowsy. The urine had to be drawn off, and was found to contain albumen and sugar. Then ptosis of the left eyelid appeared and the paralysis extended to the right leg with anaesthesia, on which the plantar reflex was extensor. The next development was paralysis of the left side of the face, motor and sensory.

A lumbar puncture was made, and turbid fluid flowed under marked pressure. It contained flakes of lymph, was highly albuminous, and did not reduce Fehling's solution. Pneumococci, streptococci, and lymphocytes were in abundance. A blood count showed no leucocytosis. The optic discs were normal.

He passed rapidly into a state of profound coma, and died on the morning of the fourth day.

Post-mortem Examination.

The body was well nourished. Rigor mortis present. *Post-mortem* lividity marked.

Brain.—Extensive suppurative leptomeningitis. The exudate extended to the vertex and over the base (temporal lobes, pons, and cerebellum). It was best marked over the right hemisphere. It passed down the spinal canal and affected chiefly the cervical and dorsal regions (back and front). A considerable quantity of turbid fluid escaped from the base of the brain and spinal canal. Stained films showed numbers of pneumococci.

Lungs.—Acute inflammatory changes in bronchi and extensive patches of bronchopneumonia on both sides.

Heart.—Muscle soft and flabby. Recent vegetations on both segments of the mitral valve indicating infective endocarditis.

There was cloudy swelling of the liver and kidneys and the spleen was acutely congested.

CASE III.

J. T., a man aged 42, was taken suddenly ill on January 23rd, 1911, with intense headache, vomiting, aching in the back and limbs, and general febrile symptoms (temperature 103°, pulse 152). On the third day delirium, and on the fourth twitchings of the legs and arms, with rigidity of the muscles of the back of the neck and coma were observed. Next day there was general rigidity with opisthotonos; the knee reflex was active and the plantar response extensor, and the pupils were widely dilated. He died on the sixth day of the illness.

Post-mortem Examination.

The lungs were congested and oedematous at the bases, but there was no pronounced consolidation. The heart was normal.

The soft membranes of the brain were covered by a greenish purulent exudate, which passed down the spinal canal. A bacteriological examination of the exudate demonstrated pneumococci.

There is abundant evidence in medical literature of the connexion between pneumonia and meningitis, dating from the publication by Immermann and Heller in 1868 of 9 cases of purulent meningitis found in a series of thirty pneumonic sections, and yet it cannot be said that the subject has received the attention it merits.

It would appear that our present knowledge does not justify any positive statement with regard to the frequency with which meningitis complicates pneumonia, as the statistics of writers vary within wide limits. Netter, for example, quoted by a writer in the *Lyon Médical* (1909), reports numerous statistics varying from 43 per cent. to 1 per cent. Beddard[1] suggests 1 per cent. above the age of 10 years, and from 1 per cent. to 2 per cent. below that age. Holt[2] met with meningitis four times in 500 cases. Osler[3] gives 8 per cent. of fatal cases.

But it is manifest that these findings cannot be relied upon, and I suspect that when the question has been gone into more carefully in the light of more extended statistics and improved methods of diagnosis, and latent cases are recognized, it will be found that meningitis, especially in children, is more common than is generally supposed.

An important paper by Liebermeister[4] on the frequency of meningitis with pneumonia makes the fact clear that the meningitis may easily be overlooked. In three out of eleven consecutive fatal cases of pneumonia occurring in adults ranging from 45 to 71 years, he found reliable microscopic evidence in the brains and spinal cords of acute meningitis, without any gross naked-eye appearances suggestive of membrane involvement; in none of these did the clinical symptoms and signs justify the diagnosis of meningitis. This author alludes further to the connexion between pneumococcal meningitis and outbreaks of cerebro-spinal meningitis, an association to which Immermann and Heller had already called attention, and which has not escaped the notice of other writers. Additional evidence of the frequency of meningitis in cases of acute pneumonia is to be found in the record by Hugo Meyer (to which Liebermeister refers) of 5 cases of latent purulent meningitis in 11 pneumonic necropsies.

The importance of Liebermeister's observation that the meningeal lesion was often microscopic is corroborated by the records contained in a paper on meningitis and meningo-encephalitis by Ludwig Kircheim,[5] who refers to 500 cases of pneumonia, all in young people: in 13 there was, in his opinion, clinical proof of meningitis, but ending in recovery; and in 4 only were there signs of purulent meningitis. In the case of the thirteen he was apparently content with the diagnosis of meningeal irritation (*meningealer Reizung*).

The opinion obtains very widely that cases of pneumonic meningitis are nearly always fatal, and probably very few would venture upon a favourable prognosis. Against this opinion may be set Kircheim's contention that the milder cases recover; and without any desire to minimize the risk or to call in question the correctness of the common belief that the prognosis is grave, I may quote the following case recorded by Dr. Hemenway[6] as affording some ground for the more favourable view.

> A child aged 2 was admitted to the "Babies'" Hospital, New York, with complete consolidation of the left lower lobe, but without cerebral symptoms. On the twelfth day of the illness twitchings were noticed with some retraction of the head. Lumbar puncture was performed and 1½ oz. of clear fluid at high pressure were withdrawn. There was no deposit, but cultures of the fluid showed an abundant growth of pneumococci. The signs of meningitis continued, but on the fifteenth day of the illness the temperature suddenly fell, and the infant rapidly improved and left the hospital cured after an illness lasting twenty-four days.

I venture to think it would not be difficult to procure further evidence in this direction, for the contention that meningitis is not really a rare phase of pneumonia would seem to warrant the deduction that the milder cases recover, but this naturally raises the question how far we are justified in including cases without naked-eye pathological changes in the category.

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TRANSIENT HEMIPLEGIA FOLLOWING PARTURITION.

By HUGH GILLIES, M.R.C.P.Edin.,

NEW ABBEY, DUMFRIES.

The following cases of hemiplegia following confinement occurred with such a short interval between them that they could not fail to arouse attention, and a desire for an explanation of the very interesting phenomena they presented.

Case I.

Mrs. M. H., aged 22, was confined of her second child on June 6th. She had "flitted" on the preceding day from a farm distant thirty miles from her new home: the journey had been done perched upon a quantity of household furniture on an open cart. About 8 p.m. on June 5th she felt her first pain, and I was sent for at 4 a.m. I found the head on the perineum, and the child was born in a few minutes; the placenta was expelled ten minutes afterwards. The whole confinement was perfectly natural; the child was a poor thing, at about the seventh month. The course of after events was normal. I paid my last visit to the mother on June 14th, and allowed her up the next day.

On July 2nd, nearly a month after the birth, while sitting at the fireside nursing the child, the mother "was seized with a fit, her face was working, and she was all twisted to one side, her eyes were rolling in her head." I found her in bed; the face was pale and covered with a cold perspiration, the breathing was stertorous; the head, face, and eyes were drawn to the right side (conjugate deviation); the left arm and leg were flaccid, and when lifted dropped on to the sheet heavily. The pupils were dilated, and the conjunctival reflex was not quite abolished, though lazy. The sounds in the heart areas were normal, and there was no sign of any valvular trouble. The pulse was 78, the vessel wall soft, and the wave full and regular.

Next day she was completely conscious, and four days after the power had to a great extent returned in the affected parts, the hand being the last part to recover. A month after, the recovery was perfect in every part, with the exception of the thumb, which is to-day weak and shrunken.

On inquiring into the history after her recovery, the only thing of any importance was a story of chorea when she was 9, otherwise there was no neurotic history. There was no albumen in the urine either then or at the confinement.

Case II.

J. W., aged 25; her second child was born on August 1st; the confinement perfectly normal, and the puerperium uneventful.

On September 27th, while sitting by the fire with her baby, she fell off the stool, dropping the baby beside her on the floor; in this position she was found by a neighbour, who procured assistance and had her lifted into bed. She never lost consciousness, but remembered all that happened quite well. Paralysis affected the left arm and leg, the face and eyes being quite normal. She complained of most intense headache, which seemed to be of maximum intensity over the right side and above the right ear. The heart impulse was in the fifth interspace and powerful; a murmur was heard, of greatest intensity in the aortic area and systolic in rhythm; the pulse was 90.

The paralysis of the limbs lasted for three days, and then quickly recovered. She is now quite well. In this case also there was a history of chorea during girlhood, but nothing else of any importance.

Here we have two very interesting cases of something producing a sudden and powerful temporary effect upon the brain, and almost as quickly being withdrawn, with complete restoration of function to the parts involved; and it may be permitted to indicate briefly the probable causation of the attacks. In Case I. though the patient made a complete picture of a cerebral haemorrhage, yet there was an indefinable something which made me hesitate to give a too grave prognosis—it may have been the symptoms of haemorrhage into the brain with a tranquil pulse; it is not easy to say. After the first case the second was much easier to define.

That it was neither an apoplexy nor an embolism is proved by the almost complete restoration of function in either case, and, though local palsies and unconsciousness are not uncommon in uraemia, yet the known good health of the patients, the absence of albumen, and of all other signs of kidney trouble, make it necessary to exclude it also.

It seems to me that both cases were caused by a spasmodic contraction of the cerebral arteries—an angiospasm—such as is known to occur in migraine (in which case the retinal arteries on ophthalmoscopic examination can be seen as thin threads). The occurrence of previous attacks of chorea in both cases adds to the soundness of the

theory, indicating, as they do, an instability of the nervous system. It is curious that the extent of the paralysis in both cases is almost identical—the same side affected, at the same occupation, and the same history of previous chorea. Unfortunately there is no record of the mental state of either patient just before the attack, as it would have added much interest to the cases; but as neither can throw any light upon their thoughts at this time any speculation would be useless.

That the thumb in Case I has remained partially paralysed may be accounted for by supposing that the special artery to the thumb centre (such a centre is recognized) has remained in a state of spasm for a longer period and produced a weakness of the ganglia by insufficient nourishment. In Case II the theory of spasm is very greatly supported by the intense headaches, the great complaint of the patient being, "Give me something for my head." I have been unable to find any record of similar cases, and so can quote no authorities upon the causation of this strange affection.

TWO CASES OF TETANUS TREATED BY SUBDURAL INJECTIONS OF MAGNESIUM SULPHATE.

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As this form of treatment may be said to be in the trial stage, the following notes may be of interest.

CASE I.

On September 28th, 1911, Ronald R., aged 9 years, complained of feeling ill, and did not go to school. The following morning, as his condition was unchanged, the parents called in Dr. Morris, of Mount Morgan. Just after the doctor arrived the patient had a violent tetanic seizure, and was ordered to the hospital. He was admitted at 1 p.m., the temperature then being 99.4° and the pulse 112.

The boy had been in the habit of running about barefoot, and there were several small cuts and abrasions on both feet. The cuts were carefully cleaned, and then swabbed with tincture of iodine, and a gauze dressing applied. Although the patient lived some miles out in the bush he had no further convulsions during his journey to hospital.

As soon as the wound had been dressed the boy was put to bed and 1,500 units of antitetanic serum (P. D. and Co.'s) given subcutaneously. At 3 p.m. the patient had a tetanic seizure which lasted two or three minutes; risus sardonicus was well marked, and from this time on there was great difficulty in opening the mouth.

Similar attacks occurred at 4 p.m. and at 5.15 p.m., and a second dose of 1,500 units of serum was then given. The temperature had risen to 100.2°. The attacks now recurred with increasing frequency, until they were almost continuous.

At 2.30 a.m. I injected a third dose of 1,500 units of serum, and under chloroform anaesthesia punctured the spinal canal between the third and fourth lumbar vertebrae and withdrew 2·5 c.cm. of cerebro-spinal fluid, and slowly injected in its place a like amount of sterile 25 per cent. solution of magnesium sulphate. A small pustule had developed in the sole of one foot, and I excised the surrounding tissue and swabbed with pure carbolic acid. In this tissue I subsequently identified the tetanus bacillus. I learnt afterwards that the boy had wounded his foot with a rusty nail some days before, and this was probably the site of the wound.

After the injection of the magnesium sulphate the patient slept quietly for an hour, and then quite suddenly the breathing became embarrassed, and the temperature fell to 97°. As the breathing became steadily worse, a small hypodermic of strychnine was given, and repeated in half an hour's time. The boy's condition distinctly improved, and he took liquid nourishment well.

At 10 a.m. on September 30th the temperature rose rapidly to 104.6°; cold sponging was resorted to, and the temperature fell to 100°. The boy slept all the afternoon, and seemed on the high road to recovery, until the early hours of October 1st, when the temperature again rose to 104°. Cold sponging now had no effect on the temperature, and the breathing again became very embarrassed. Strychnine was administered and oxygen given, but the boy's condition gradually became worse, and he died at 10.40 a.m, the temperature immediately before death being 107°.

From the moment the magnesium sulphate was injected to the time of the boy's death no trace of tetanic spasm occurred.

The dose recommended is 1 c.cm. of a 25 per cent. solution for every 25 lb. body weight, but from the effect of the drug in this case I am inclined to think this dosage too large.

CASE II.

On November 9th, 1911, Vera H., aged 8 years, whilst running about barefoot, cut her foot on a stone. The wound was treated at home until November 22nd, when the child, who appeared to be out of sorts, was brought to the hospital.

On admission temperature and pulse were normal. The foot was soaked for twenty minutes in 1 in 4,000 solution of mercury perchloride, and then dressed with a boric acid fomentation.

The patient was put to bed and slept well all night, but at 7 a.m. on November 23rd she had slight muscular twitchings and complained of pain in the back and of difficulty in opening the mouth; 1,500 units of antitetanic serum were given subcutaneously, and the wound on the foot swabbed with tincture of iodine. Five grains of potassium bromide were given every three hours.

The muscular twitchings continued at intervals all day, and the temperature rose steadily until at 5 p.m. it had reached 104°. Under chloroform anaesthesia I injected 1,500 units of antitetanic serum into the subdural space, having previously withdrawn an equal quantity of cerebro-spinal fluid.

The tetanic symptoms persisting, I gave a hypodermic injection of $\frac{1}{75}$ grain of morphine. As the bladder was becoming distended, the catheter was passed, 20 oz. of urine being withdrawn. The patient passed a restless night, and the following morning (6.30 a.m.), under chloroform anaesthesia, I injected 1 c.cm. of a 25 per cent. sterile solution of magnesium sulphate into the subdural space.

This procedure was followed by a distinct improvement, and the muscular spasms ceased until noon, when they recurred with increased violence and frequency. A second hypodermic injection of morphine was given with great benefit, the child becoming quieter, getting a fair amount of sleep, and taking nourishment well.

At 10 p.m. the convulsions returned, the attacks coming on about every hour till 4 a.m., when they ceased, and the child slept till 7 a.m. Severe attacks of tonic and clonic convulsions then came on, recurring every few minutes throughout the day. More morphine was given, but had no effect.

At 4 p.m. a frightful attack of convulsions took place, the body being violently jerked about the bed, and death ensued ten minutes later.

The patient suffered from retention of urine the whole time she was in hospital, and the catheter was passed as required. During the forty-eight hours preceding death the temperature was high, and cold sponging was resorted to frequently, and seemed to have a very soothing effect. Immediately before death the temperature rose to 108.2°.

From the above notes it will be seen that magnesium sulphate used in this way is a particularly potent drug, and to find the correct dosage seems to me to be the great difficulty. The two patients were about the same age and weight, and I feel sure that the dose administered in the first case was too big, whilst I fear I erred on the other side in the second case.

We see a good deal of tetanus in this part of Queensland, and from my own experience I am inclined to think the above treatment is the one most likely to bring a case to a successful issue.

A SUPPOSED CASE OF HEAT-STROKE: REMARKABLE RECOVERY.

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THE following case seems to me a most notable one, and, as far as my experience goes, is quite unique. It presents many difficulties with regard to the exact pathological condition that was involved, also as to the diagnosis.

A man, aged 53, was crossing a road during one of the hottest days of last summer, when he suddenly found himself on the ground, with a "horse's hoof right on top of him"; this was his description of what happened. He picked himself up and ran across the road to his son, who was waiting for him on the pavement, and who brushed the dust off his clothes. He complained of no pain or discomfort of any kind, but his son took him into a chemist's shop, where he was given a dose of sal-volatile. He then went home by train (a distance of eight miles), sat down and made a good tea, feeling quite well all the time. Towards the end of this meal he became a "little queer," went upstairs and felt very ill indeed, and remembered nothing afterwards. This attack came on about five hours after he had fallen down in the road. I was sent for and attended about half an hour later.

I found his condition extremely grave; he had vomited profusely, was very pale, slightly conscious, with cold and clammy sweat, a slow regular pulse of fairly good volume, pupils reacting to light, and conjunctival reflex present. I was told that he had been much worse before I came, and had been quite unconscious.

I had him placed in bed, and after hearing his recent history, carefully examined him for signs of injuries, but beyond a

bruise on each elbow there were none. The head showed no sign whatever of any injury. The patient gradually recovered consciousness. Three days subsequently he seemed to be progressing favourably, and complained of nothing beyond slight giddiness and some headache, which he did not seem to localize particularly. He ate and slept well, his pulse and temperature were normal, the bowels open, and urine passed freely. I considered him to be going on very well, indeed practically out of danger, and informed his friends to that effect. On the fourth day, however, he became partially unconscious; he still took his food well; the bladder and rectum acted naturally, all the reflexes, superficial and deep, were normal, as were the optic discs, and there was no paralysis of either limbs or speech; the urine contained no sugar or albumen. I called Dr. F. S. Toogood of Lewisham in consultation, and we gave a hopeful prognosis. Coma, however, gradually increased, and he became actually unconscious; his breathing, which up to now had been quiet, was stertorous; he could still swallow a little.

As the patient's condition looked very serious, I asked Sir D. Ferrier to see him with me. At that time the patient passed both urine and faeces unconsciously, and he was unable to swallow. There were slight twitchings of the muscles of both upper extremities, and occasionally of the lips. The pulse remained steady and regular at about 70, and the temperature ranged between 99° and 100°.

The next day Mr. Ballance saw the patient with me; he advised withdrawal of cerebro-spinal fluid from the lumbar region, and drew off under pressure 1½ oz. of very slightly red-coloured fluid. The patient at this time was thoroughly unconscious, and his state seemed hopeless; his temperature had gone up to 104°.

During the five hours after the aspiration the patient gradually became conscious, and within twelve hours he was talking, taking nourishment, and quite able to understand everything that was said to him. The deep, superficial and conjunctival reflexes, which had been absent, all returned. During this period constipation, which was very marked, was most difficult to overcome.

For the next three days the patient appeared to be going on very well, but on the fourth day after the aspiration I noticed that he was gradually again lapsing into a state of insensibility, with symptoms of paralysis; he vomited twice, and there was less of power of deglutition. Mr. Ballance again visited the patient, and performed a second aspiration in the same neighbourhood, drawing off a similar amount of cerebro-spinal fluid of the same appearance as before. Again within five hours the patient began to show signs of returning consciousness, and at the end of twelve hours he was quite sensible, able to talk, and take food by the mouth. From that time he never retrograded, and has made an excellent recovery; he subsequently went to the seaside, and now—several months afterwards—appears to be in his ordinary health.

The principal aim of treatment was to keep the patient and room as cool as possible. The head was shaved and surrounded with ice-bags. The room had large blocks of ice standing in trays, and an electric fan was kept going continuously. The spray from a garden-hose was kept plying on an adjoining roof, and by so doing prevented the reflected heat-rays from radiating into the room. By these means we were enabled to keep the temperature of the room at 60°, whilst the temperature in the shade outside was about 90°.

I have known the patient intimately for the last twelve years, and beyond the fact that I removed some glands from his neck five years ago, he has always enjoyed excellent health, with no organic disease of any kind. A few weeks before the illness he passed as a first-class life for insurance purposes, but on that occasion he was not examined by me. He came to see me about three weeks prior to this attack, complaining of headache and giddiness, accompanied by slight epistaxis. These symptoms I attributed to the excessive heat, and on keeping him as quiet and cool as possible they passed off. To complicate the diagnosis there was the history of a hurt, and the question arose whether he became suddenly unconscious and fell down in the road, or whether he was knocked down by a cab. However this may be, there was no visible injury to the head, and as he immediately rose up and walked to the railway station there would not appear to be any serious result due to a fall or other possible accident.

My opinion is that he had a sudden heat-stroke and fell down as a consequence of that, the heat being excessive (between 80° and 90° in the shade), and he had passed the morning in the somewhat violent exercise of running up and down stairs and walking about large warehouses. He is a total abstainer and non-smoker, his arteries were in an exceedingly good condition for his age, with no symptoms whatever of atheroma, and there was no increase of blood pressure. I think the existence of intracranial tumour may be excluded in this case, there being no prolonged pressure symptoms beyond the coma. It was at one time thought to be a case of haemorrhage affecting the cerebral cortex; but, although there was slight twitching of the arms, this soon passed away, and there was no motor paralysis.

The remarkable recovery in a few hours from what appeared to be imminent death, on two occasions, after the withdrawal of the cerebro-spinal fluid, seems to rather point to the fact that he was suffering from what might in a sense be described as a "blistering of his cerebral cortex," caused by the excessive heat rays of the sun (a meningo-cortical oedema), and that the fluid was being excreted faster than it could drain away, and by removing the excess a drain was established, and thus the pressure was relieved.

ACUTE ANTERIOR POLIOENCEPHALOMYELITIS IN SOUTH STAFFORDSHIRE.

By L. S. TOMKYS, L.R.C.P., M.R.C.S.,

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THE following cases of poliomyelitis which came under my observation during July and August will probably be of interest, in view of the prominence which has recently been given to this disease in its epidemic form. Six of the cases occurred in my own practice, and the seventh was under the care of Captain Bagshawe, R.A.M.C., to whom I am indebted for details and for permission to include it. Five of the cases occurred in the village of Whittington in five separate families, and two (in one family) in a semi-detached cottage about a mile away, the building being an isolated one.

CASE I.—Male, aged 1 year and 4 months, seemed feverish on evening of July 1st, but little notice was taken of this. The next morning it was apparent that the right leg was partially paralysed. This would seem to have been the first case.

CASE II.—Male, aged 6 years. The date of onset is doubtful, but it was some time between Cases I and III. The boy was feverish one night and two days later it was noticed that the right leg was partially paralysed. No doctor was called in, and when seen for the first time on August 16th, when investigating the cases, the child was quite well, with the exception of a slight limp.

CASE III.—Male, aged 1? years, had a typical attack of measles about July 8th. He was out four days after the rash appeared. His brother had measles a fortnight before. On July 15th he appeared to be unwell, but there was nothing definite. On July 18th he apparently had pain in the head, which was retracted. The temperature was subnormal, the pulse rapid, the pupils equal but rather large. He was constipated. He had lost the use of both arms, but could move the hands.

CASE IV.—Male, aged 2½ years. On July 21st had headache and feverishness, and next morning it was noticed that the movements of the left leg were impaired.

CASE V.—Aged 1¾ year (under the care of Captain Bagshawe, R.A.M.C.). The child was first seen on July 21st, when it was brought to the Military Hospital with slight rise of temperature and tenderness of both legs. The following day there was complete paralysis of both legs from the hips down.

CASE VI.—Male, aged 1 year and 7 months, was sick on August 28th and quite helpless on August 29th. There was retraction of the head and loss of use in both arms from shoulder to elbow.

CASE VII.—Male, aged 2¾ years (brother to VI), lost the use of both legs on August 29th, but had been tired and sleepy for about a week previously.

Both these children had suffered from summer diarrhoea.

Whittington, in which five of the cases occurred, is a small village about three miles from Lichfield, and, although the sanitary arrangements naturally leave much to be desired, they are certainly no worse, if anything rather better, than the average. Not being situated near a main road, rapid traffic is scarce, and the village was singularly free from dust, considering the dryness of the summer. The house in which Cases VI and VII occurred is situated in a field close to a by-road.

The water supply is obtained from the South Staffordshire Waterworks Company by the houses in the village, the remaining house being supplied by a well.

Cases II and III had the same milk supply, but the others each had a separate one. The Whittington cases were in the centre of the village, and within a circle with a radius of about 100 yards; the houses were fairly clean and not overcrowded. None are situated near a stable.

It is difficult to trace the origin of the outbreak, as the first child to suffer had never been away from home, and no visitors had been to the house. The child partook of ordinary food, and the only animal on the establishment was a cat. There may, of course, have been abortive cases before this, but I could obtain no information of such. The local veterinary surgeon (Mr. Connell) informs me that he

has not had any cases in animals which could have had any bearing on the causation.

The mother of Case IV took the child inside the house in which Case III was lying ill, but did not enter the bedroom. This was three days before her own child was attacked. Although Cases VI and VII reside a mile away, the grandfather lives in the village, and visits them once a week. I am assured, however, that he had not been in contact with the other cases. This is the only evidence of direct contact which I have been able to obtain, while, on the other hand, the five children attacked in the village were in separate houses, and no second cases occurred in these, although there were other children in each. As regards the two children who were attacked in the same house, the circumstances suggest a common source of infection rather than contact from one to the other. Neither were the children of their immediate neighbours affected, although isolation was not attempted, and communication was as free as usual. With the exception of the child who commenced with measles, I could get no history of nasal or pharyngeal catarrh, and only two had diarrhoea previously. It is noteworthy that, in spite of the character of the season, the village of Whittington was almost free from summer diarrhoea.

The only factor which appeared to be common to all was the plague of flies and wasps.

None of the cases proved fatal, and, although more or less paralysis remains, each case is still slowly improving.

A CASE OF POISONING BY OIL OF MIRBANE (NITRO-BENZOL).

By C. W. HOGARTH, L.R.C.P., M.R.C.S.,
ASSISTANT SCHOOL MEDICAL OFFICER, L.C.C.

OIL of mirbane, known also as essence of mirbane—sometimes spelt "myrbane"—is a clear, bright yellow fluid, with a penetrating aromatic odour of an almond-like character. Caspar,[1] who first described it, says it is used in soap perfumery, but it seems nowadays to be used in the manufacture of blacking, and its peculiar odour is perceived on opening a fresh tin of shoe-blacking. Its specific gravity is 1180 to 1200. It is the product of the action of strong nitric acid on benzene.

W. Blythe quotes Jubell,[2] "that up to 1876, from the time of the discovery of the compound and its commercial use, 42 cases of poisoning were recorded, 13 of which proved fatal, one being suicidal and the rest accidental."

Caspar[3] says the body, long after death, retains the strong odour of bitter almonds; whereas, in poisoning by prussic acid, the body soon loses the characteristic odour. The blood is dark and fluid, and it gives the spectrum of acid hæmatin.[4]

CASE.

Shortly after 11 p.m. I was asked by a woman to go at once and see her husband, who had taken poison. I could not gather its nature, so I took an emergency case with me. On entering the bedroom one perceived a peculiar odour of an almondy character.

The patient was lying on his back in bed; the eyelids were open, and there was a slow nystagmus to the right. I was immediately struck with the purple colour of the lips—just, as one writer has described it, as if the lips were stained with blackberry juice. The skin was dusky in hue, the conjunctivæ insensitive, and the pupils dilated. The limbs were relaxed. The breathing was somewhat embarrassed, the pulse could only just be detected; on auscultation the heart beats could be heard faintly, and the rhythm was irregular. The patient vomited once whilst I was in the room; the vomit had the same odour as the room.

The following history was obtained: The man had had toothache the previous night, and on the advice of a fellow-workman had obtained some oil of mirbane at his works and applied it on cotton-wool to his teeth. Next morning he had felt drowsy, and had not felt fit to go to work. Later in the evening he got worse, and about 10 p.m. he became unconscious. Inasmuch as he had vomited and the poison had been absorbed it did not seem much use giving an emetic, so I ordered more blankets (the limbs were cold) and hot-water bottles to be applied, and gave the man 0.20 gram of caffeine hypodermically. At this time another medical man arrived (he was seen subsequently by still another). I saw him again at 1.30 a.m.; his condition had been improved slightly.

Next morning he was conscious, but his lips were blue, and there was still the persistent odour, exhaled from his body, filling the room. He made an uneventful recovery; the dusky complexion gave way to one of good colour and the pulse became bounding. Nothing more was done beyond the ordering of the exhibition of plenty of fluid. I regret I did not examine the blood.

The points that struck me most were that this was not an ordinary want of oxygen blueness, for the breathing was not embarrassed to any marked extent, but that some profound blood change had taken place, as to the nature of which there are many speculations. It is said that the blood loses its power of oxygen carrying and that the carbonic dioxide content is increased, but in view of the respiration this does not seem satisfactory. The sudden onset of the unconscious condition is to be noted; it came with the suddenness of cerebral haemorrhage, some hours after the nitro-benzol had been taken.

An artificial benz-aldehyde, not by any means so toxic, is now used in perfumery.

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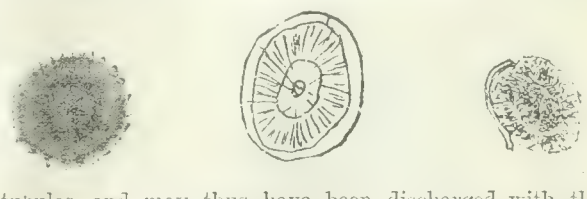
Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

AN UNUSUAL URINARY DEPOSIT OF CALCIUM CARBONATE.

I WAS much interested in Dr. W. Herbert Brown's communication in the BRITISH MEDICAL JOURNAL, January 6th (p. 9), because, though I have never met with a similar deposit during the microscopical examination of urine obtained in the ordinary way, I have found that a similar deposit is not rare in the contents of cysts of the renal cortex, when those contents have become more or less turbid and inspissated.

Dr. Brown's patient was a man, aged 65, suffering apparently from chronic interstitial nephritis, and it is therefore extremely probable that his kidneys contained cortical cysts, the contents of some of which may have been more or less turbid owing to a process of gradual inspissation. The inspissated contents of one or more of such cysts may have found their way into the urinary



tubules, and may thus have been discharged with the urine, giving rise to the unusual urinary deposit discovered by Dr. Brown.

The crystalline bodies in renal cysts, similar to those in the urine described by Dr. Brown, were circular or oval, as seen under the microscope, varying in size from three times the size of a leucocyte to much larger. They showed lines radiating outwards from the centre, and seemed to be enveloped by a clearer outer membrane; sometimes there were three or four concentric circular markings in addition to the radiating striation. They took on the ordinary blue stain with methylene blue. In August, 1895, I noted that these bodies were possibly crystals of calcium carbonate, deposited in an albuminous medium, but I am afraid that I neglected to prove them to be so. On pressure with the cover-slip, they broke up, and doubtless were really spherical (not flat, circular) bodies, having a structure exactly similar to the balls of iron pyrites, which one may pick up any day on the beach of the "Warren" at Folkestone. I here figure drawings of some of the bodies (one of them showing the outer, membrane-like, layer partially detached) which I found in the turbid contents of renal cysts about 1895. I had previously noticed the presence of similar bodies on examining the contents of renal cysts when I was a student, or a member of the resident staff at St. Bartholomew's Hospital. I believe that bodies with a similar appearance have been described as leucine, deposited in globular masses, with concentrically thickened walls and fissured surfaces. Possibly some of the bodies,

supposed to have been leucine, and seen in artificially concentrated urines, were really not leucine at all, but globular crystal formations of calcium carbonate, deposited in an albuminous medium.

London, W. F. PARKES WEBER.

A VACCINE TREATMENT OF HYDROCELE.

WHEN investigating the contents of hydroceles for the presence of germs, I found the contents sterile as a rule (I examined 40 cases), but on one occasion met with an organism which on cultivation proved to be the *Bacillus pyocyaneus*. A vaccine (sterile) containing 25 million of *B. pyocyaneus* was then prepared and injected into the tunica vaginalis (after this had been tapped and evacuated) of the patient in whom the organism in question had been isolated. The injection produced a severe inflammation which lasted seven days, and during this time the scrotum refilled, and its circumference became 2 inches larger than before tapping, while the patient's temperature varied between 101 and 103 F. On cessation of the inflammation the circumference of the scrotum returned to 20 inches. Matters remained in this condition for nearly a month, and for this period it appeared as if the severe inflammation had produced no beneficial effects whatever. Then, however, the swelling gradually decreased, and in two months' time the circumference of the scrotum was reduced to 5 inches and the hydrocele completely cured. This was a year ago, and the man still remains free from his former complaint, although it had previously existed for ten years, and his hydrocele had been tapped more than a dozen times.

Encouraged by the success of this experiment, I then introduced vaccine containing 5 to 10 million of *B. pyocyaneus* or *Staphylococcus pyogenes aureus* into a dozen cases; in some cases the vaccine was introduced after tapping, and in others without tapping. Generally the results obtained were remarkable, the sequence of events in the hydrocele cases being usually identical with those recorded in connexion with the case here described.

I cannot do better than illustrate my remarks by putting a few cases in tabulated form. In 2 cases I had failures because the amount of vaccine was, I think, too small. I have tried this method in a case of ascites with good results, and think it might prove useful in cases of pleurisy.

Results of Hydrocele Cases Treated with Vaccine.

Case.	Date.	Age.	Duration of Disease.	Number of Times Tapped Before Treatment.	Circumference of Scrotum.	Tapped during Treatment.	Quantity of Fluid Removed.	Results.
			years		in.		oz.	
1.	9.1.11	45	12	6	20	Yes	20	Circumference reduced to 5 inches. Cured 24.2.11.
2.	2.3.11	35	3	3	20	Yes	41	Reduced to 6 inches, 25.4.11.
3.	12.3.11	38	7		12	No	—	Reduced to 5 inches, 10.5.1.
4.	15.3.11	22	2	2	13	No		Reduced to 5 inches, 7.5.11.
5.	20.3.11	25	2		10	No	—	Reduced to 5 inches, 28.4.11.
6.	4.4.11	30	6	12	43	Yes	56	Double hydrocele. Reduced to 6 inches, 2.6.11.

S. MALLANNAH, M.D.Ed.,
Bacteriologist to the Government of H.H. the Nizam of Hyderabad.

DR. L. S. NORMAN and Dr. C. Franks have been appointed to the Commission of the Peace for Jarrow.

IN a booklet descriptive of the new operating block opened a short time ago at the North Riding Infirmary, Middlesbrough, the secretary-superintendent of the institution, Mr. Charles Postgate, provides a very clear account of its various arrangements, illustrating them by some excellent photographs. The outstanding feature is the proximity of the operating theatre, sterilizing department, surgeon's room, anteroom, anaesthetic room, and x-ray room, and the completeness with which all these are separated from the rest of the building.

Reports of Societies.

ROYAL SOCIETY OF MEDICINE.

OTOLOGICAL SECTION.

Friday, January 19th, 1912.

DR. MILLIGAN, President, in the Chair.

Treatment of Otogenic Brain Abscess.

THE Section debated, together with the Neurological Section, the question of the factors which conduce to success in the treatment of otogenic brain abscess.

Sir VICTOR HORSLEY, who opened the discussion, dealt with the clinical features of brain abscess, and showed patients recently operated upon, as well as a number of slides by means of the epidiascope. He said it would be agreed that the chief factor conducing to success was early detection of the abscess and its correct localization. He showed two patients on whom he had recently operated. In each of those patients it was quite obvious that the process was continuous, from the primary infection of the ear to the development of the abscess. Often a case of otitis media, especially if it had been treated by mastoid operation, was regarded as well when it really was not well. The child shown had the mastoid operation performed in Wales, and appeared to be well; still it must have had symptoms at that time, which were obvious on arrival at the hospital in London. Chronic otitis cases should be regarded from two standpoints—the bacteriological and the neurological. Blood counts and opsonic tests should be made and clinical records taken at regular intervals: the discovery of an abscess, or an outburst of meningitis could thus be anticipated. With regard to the neurological aspect, many years ago Sir Russell Reynolds pointed out that in cases of otitis media chronica, the reflexes were not normal and the reflexes on the side opposite to the head lesion were altered. That point was not a new one, and he would like to hear the experience of others on the point. He urged more frequent bone operations, because in the adult these abscesses were due to prolonged infection of bone, and that meant that the surgeon had not been sufficiently industrious in scraping away the disease. The chief difficulty in the early detection of cerebral abscess in most cases was not being able to distinguish between abscess and meningitis; indeed, sometimes those conditions were combined. There were four or five cardinal symptoms to which he drew attention. He believed that by pulse alone one could distinguish between the two conditions. In meningitis the rate and force of the pulse would always exhibit an irregularity not met with in brain abscess, unless the latter were highly complicated. In contrast to the irregular and small pulse of the case of meningitis was the regular full pulse associated with abscess. He did not suggest that the abscess pulse was a mere compression pulse, but that it was due to a difference in the affection of the cardiac nervous apparatus. An abscess was a localized lesion not directly affecting the roots of the vagus. Temperature had a special significance. He did not know of a case of meningitis simulating abscess with a low temperature. The meaning of depression of temperature pointed out by Sir Samuel Wilks in brain abscess was not yet sufficiently recognized by the profession. In cerebral abscess the real difficulty was to know whether the abscess was single or multiple. The heat-regulating centres were probably in the pre-central gyrus, and if a lesion were in the coronal plane through the Rolandic area, there would be a rise of temperature on the opposite side of the body. But if the lesion were posterior to that plane there would be no rise of temperature, nor if it were anterior to that plane. If the lesion were in the cerebellum, there would not be a rise of temperature then on the opposite side, nor even on the homolateral side. With regard to motor loss, as the base of the brain rested on the rigid skull and the pus collected in the temporal lobe in cerebral abscess, there was a graded hemiplegia, the face being most involved, then the arm, then the trunk, and lastly the leg. Of the two Rolandic gyri, the posterior was more sensory in function than the anterior. If there were a pressure lesion of one hemisphere, the pressure told on the Rolandic area. If it were posterior to the coronal

plane through the Rolandic fissure, although motor paresis might be scarcely noticeable, there would still be detectable the delicate loss of localization of position and to touch, what he suggested should be called "topognosis." If a minuter examination were made of the cases neurologically, from both the motor and the topognostic sensory standpoints, changes would be discoverable which would lead to the suspicion of the development of abscess. With regard to the reflexes, there was absolute evidence at one's disposal in differential diagnosis, because in meningitis the superficial reflexes soon disappeared, and were affected bilaterally. In the case of brain abscess, however, they were unilaterally affected, and took a long time to disappear. Changes in the abdominal reflexes preceded and continued far longer than the changes in the knee-jerk; thus investigation of the abdominal reflexes was more important than that of the knee-jerk. With regard to the question of optic neuritis, that was a large subject in connexion with otitis media, and he spoke purely as to localization. Constant examination of the fundus oculi showed that in these cases vascular changes preceded neuritic changes; one could detect an over-filling of the retinal veins on the ipsolateral side. One would expect a difference between meningitis and abscess in this respect, because in the former there was a universal pressure on both halves of the brain, so that there would be a bilateral neuritic change. He suggested that this was the case. The meningitic cases showed a highly oedematous and swollen disc, in contrast to the moderately swollen disc of abscess. He asked for opinions regarding optic neuritis accompanying petrous bone disease in children. In a case he saw with Mr. Scott the neuritis was singularly local—that is to say, in the upper part of one disc only, and that on the side on which the ear was affected. On that point alone a decision could be taken in regard to active operative measures. Sir Victor Horsley went on to give details in connexion with the two patients he had brought, and exhibited charts of the fields for different colours. He had not dealt with the question of technique, because he did not think there was anything special to be said about that; it was a question of adequate drainage and vaccination. Drainage was often mechanically a difficult matter, and of recent years he had always employed concentric tubes, so that there was not a time when no tube was in the wound until it finally granulated.

Mr. C. E. WEST introduced the pathological aspect of the subject. He said it was rare to find more than a plastic meningitis surrounding the firmly adherent stalk of the infected part of the brain, and he did not think abscesses ever burst into the meninges at that point. But in the descending horn of the lateral ventricle there was a circumstance of great geographical importance in temporo-sphenoidal abscess. Even moderate-sized abscesses came into dangerously close relationship with the inner aspect of this cavity. While effusion of fluid in the ventricle might offer some support to the abscess wall, it rendered impossible adhesion and obliteration of the cavity. Therefore infection of the ventricles often occurred through organisms passing through some thickness of brain tissue, and a true burst might occur into the ventricle, with a fatal result. When that happened the whole ventricular system became rapidly infected. The slower entrance of organisms into the ventricle through a septum between the abscess and the descending horn allowed of some localization. There was a danger of inserting drainage tubes too deeply into an abscess cavity and so injuring a thin wall of separation from the cavity of the descending cornu. Profound coma could be recovered from after the relief of pressure in temporo-sphenoidal cases. The loss of even large portions of the temporo-sphenoidal lobe seemed to make little difference to the patient, either intellectually or motorially, at least in hospital patients. It was often difficult to say how far an abscess was truly within the cerebellum, and how far it was interlamellar. Here secondary infection of the meninges was far commoner than in temporo-sphenoidal abscess, and the infection often spread over the upper and lower surfaces of the cerebellum, leading to general basal infection. Direct pressure might close the apertures by which the communication between the fourth ventricle and the subarachnoid space was secured, or the openings might be sealed by a plastic meningitis in cases of mild infection of the meninges near the posterior surface of the petrous. In severe secondary meningitis the fourth ventricle might be infected through the lateral apertures of Key and Retzius, or the mesial foramen of Magendie. The question of geography affected the prospects of effective relief by operation, and the balance was in favour of the temporo-sphenoidal lobe, with its advantages of easier access, possibilities of wider exposure, and better drainage position. Brain abscesses varied widely in their limitation, which was proportional to the acuteness or chronicity of the condition. In most otitic abscesses limitation was incomplete and the surrounding brain was softened and infected. An extreme condition in either direction was unfavourable. A thick and firm abscess wall rendered sound and permanent healing difficult, as the cavity was not readily obliterated. Present-day knowledge of the bacteriology of brain abscess was not very satisfactory. Ordinary otitic abscess, with infection by continuity, was highly mixed, the pus being much the same as from the ear. The influenza bacillus was rarely recovered. The densely capsuled abscesses were generally pneumococcal. A few abscesses were due to *Staphylococcus aureus*, which might act as a gas producer in the brain. In temporo-sphenoidal abscess he always used the single route from below for drainage; he thought a counter-opening endangered the meninges and might lead to the infection of fresh brain substance. Moreover, he did not think increased efficiency of drainage was secured by the second opening. He objected to the use of the trephine in otitic abscess of the cerebellum. As little damage as possible should be done to brain tissue. He used an expanding trocar to explore the brain. Where the abscess was well defined, tubes formed a satisfactory drainage; he used a rubber tube of good size, or two of smaller size stitched together. He had abandoned lateral holes in tubes, as they soon became blocked. He believed most of the drainage secured by a tube took place along its surface. The drainage of areas of diffuse infection was one of great difficulty. He had no fondness for gauze for drainage. He was a great believer in prolonged drainage of all brain abscesses, shortening the tube very slowly. He believed the movement and replacement of tubes during the first ten days was responsible for many of the disappointments in cases which at first appeared to be doing well.

The PRESIDENT tendered the thanks of the Section to the two openers of the debate, and referred gratefully to Sir Victor Horsley's paper before the Pathological Society of Manchester in which he dealt exhaustively with the question of the ipsolaterality of optic neuritis. Since that date his knowledge of the commencing stages in the optic disc, as pointed out by Sir Victor Horsley, had been of enormous value to him, not only as to the site of the abscess, but when to step in and interfere. The initial changes were noticed on the nasal side of the disc. He regretted that there had not been time for Sir Victor Horsley to enter in some detail on the question of technique, as that gentleman was known to be a master of technique. Mr. West's paper teemed with information of a pathological nature, and the President asked those who would speak to pay special attention to the question of drainage, and whether and how chronic as well as acute brain abscess should be drained.

Dr. URBAN PRITCHARD related the particulars of one of the early cases of recovery from brain abscess—that of a man, now aged 49, who entered King's College Hospital under the care of Sir Watson Cheyne and himself in September, 1890. Following the operation the man had epileptic fits for some years, preceded by aphasia, which was the warning of the approach of a fit. But he was now practically well, and had not experienced a fit for the last five years. He showed the patient at the meeting, up to which time he had not seen him for fifteen years.

Dr. H. J. DAVIS showed two girls who had been operated upon by him for intracranial abscess. The first case had the radical mastoid done for acute otitis. She had extradural abscess. At the second operation, a few days afterwards, she was found to have multiple temporo-sphenoidal abscesses. After the second operation she had fits and facial paralysis, and became maniacal, with great degeneration of habits; but she slowly recovered, and a large surface of the cerebellum sloughed off. Later she had further fits, and Mr. Armour thought she had a frontal

lobe abscess. That region was explored, but nothing was found beyond acute cerebritis. The girl was now well. The second patient was transferred from a fever hospital, where she had acute diphtheria and acute otitis. She had mastoid abscess with extension backwards. One ounce of pus escaped, and he drained by means of tube and gauze. She still had albuminuria.

Mr. PHILIP TURNER showed a patient, 12 years of age, whose trouble began with a discharge from the right ear and had persisted a long time; the symptoms were quite typical. After the operation there was a considerable hernia cerebri, but no treatment was adopted for that. Eighteen months later the boy had a large polypus in the external auditory meatus. On removal of it there was a gush of cerebro-spinal fluid, which ceased in two or three weeks.

Mr. WAGGETT showed and described a case in a girl of 22 who had had a discharge from the right ear ever since an attack of scarlet fever at the age of 5. A right radical mastoid operation was done, and 2 ounces of foul pus were removed. A rubber drainage tube was stitched in and left in for five days, a probe being passed along the tube every day. The patient made a good recovery.

Dr. LOGAN TURNER (Edinburgh) exhibited a table of 68 operations during six years on subjects of brain abscess at Edinburgh Royal Infirmary. He felt there had been sometimes a failure sufficiently to recognize the symptoms, so that operation either was not done, or was done too late. There was another class of case in which the symptoms and signs seemed to suggest a condition which did not really exist. He had not worked out the ophthalmoscopic appearances in his cases specially, but, after Sir Victor Horsley's remarks, he would look into that question again. There were 22 cases of localized brain abscess, as opposed to 58 occurrences of sinus thrombosis and meningitis. That was in favour of a more successful treatment in localized brain abscess. There were 11 cerebellar, as opposed to 8 temporo-sphenoidal. In 8 cases of abscess, and 2 in which the extradural abscess was in the middle fossa, there was temporal headache in 6, frontal headache in 2, and in 1 it was not stated; whereas of the 11 cerebellar abscess cases, in 7 the headache was frontal, in 1 vertical, in 1 occipital, in 1 it was absent, in 1 not stated. Of 5 cases of left temporo-sphenoidal lesion, in 4 there was aphasia of the visual type, the inability of the patient to name objects. In 8 cases of left cerebellar abscess that sign was not present. In temporo-sphenoidal cases vertigo was present in 1, no vertigo in 8. There were 7 with no nystagmus and 2 with. Of the 2 cases with nystagmus, in 1 there was inner ear disease, in the other extradural abscess in the cerebellar fossa. In the cerebellar cases vertigo was present in 8; 2 patients were too ill to have it tested, and of 1 there was no note. Thus nystagmus and vertigo formed important localizing symptoms. The nystagmus was in both directions in 5 cases, greater in degree towards the affected side. In 2 it was to the affected side only, in 1 to the normal side. In cerebellar cases nystagmus was variable; sometimes it was present, sometimes not.

Mr. HERBERT TILLEY spoke as to the relative frequency of post-operative Jacksonian epilepsy. In one case the aura consisted of a sense of a foul smell. He animadverted against the use of gauze drains, and advocated the employment of a tube of very definite calibre.

Mr. HUGH JONES (Liverpool) commented upon the value of the points which Sir Victor Horsley had brought forward, and asked a number of questions, largely concerned with drainage.

Dr. WILLIAM HILL spoke upon the relative danger of the various kinds of abscesses and the range of usefulness of vaccines, reminding the meeting in this connexion of the variety of organisms which might be present.

Mr. HUNTER TOD related some cases which had come under his care, and pointed out the difficulties which he had encountered. It would be a great advantage if the profession could settle what patients with this condition actually died of. He asked what should be done in cases in which epilepsy developed after operation.

Dr. A. BRONNER (Bradford) also discussed the question of vaccines and a number of points in technique.

Mr. DOUGLAS DREW spoke as to the frequency of optic neuritis. He had rarely met with chronic abscess, except in the adult. In most cases acute abscess in the skull was very unfavourable.

Mr. SYDNEY SCOTT emphasized the high mortality of brain abscess generally, and gave an analysis of 644 cases of intracranial infections at St. Bartholomew's Hospital during sixteen successive years; 267 of those were definitely due to the ear, excluding cases of tuberculous meningitis in which there was otitis media at a late stage. In 100 of the 267 there was leptomeningitis. Of the remaining cases 55 were lateral sinus thrombosis, and 42 brain abscess, of which 30 were temporo-sphenoidal, and only 12 cerebellar. Of the remaining cases 34 were extradural, and there were a few miscellaneous cases which died from other causes. He divided the cases also into periods of seven years, and compared the operative results, which were in favour of the later advances—95 per cent. having been reduced to 70 per cent. mortality. He believed that this high mortality could be met by prophylactic measures, that is, earlier operations on the ear.

After a few remarks on the general subject by the PRESIDENT, Sir VICTOR HORSLEY and Mr. WEST replied.

OBSTETRICAL AND GYNAECOLOGICAL SECTION.

Thursday, January 4th, 1912.

Dr. AMAND ROUTH, President, in the Chair.

Specimens.

Dr. ROBERT WISE: Cervical tube to be left in the cervix after dilatation. Dr. DRUMMOND MAXWELL: Angio-chorioma of uterus. Dr. BLAIR BELL: (1) Exfoliation of endometrium during menstruation; (2) bilateral solid tumours of the ovary, probably carcinomatous sarcomata.

Missed Labour.

Dr. SWAYNE (Clifton) read a paper on two cases of missed labour. Spiegelberg defined missed labour as being the occurrence of the nisus of parturition at or about term, with the subsequent evacuation of a dead or decomposed fetus either by nature or by art. The first case described was one by Oldham in 1847. The period of retention varied greatly. Hagmann describes one case in which delivery by Caesarean section was necessary, the fetus being retained in the uterus for 440 days after the last menstruation, or about five months after term. The condition was rare, only 15 cases having been collected by Hagmann in 1904. In Dr. Swayne's first case, the patient, who had had three previous pregnancies, last menstruated October 16th, 1904. On June 10th, 1905, she had a flooding, and on the 24th the liquor amnii was discharged, and a mass expelled which the midwife attending recognized as placenta. She ligatured and cut the cord. This was followed by an offensive purulent discharge, and on August 8th a portion of the fetus began to come away *per vaginam*. The patient was admitted to the Bristol Royal Infirmary in a very grave condition, semi-comatose, and the uterus was found to be enlarged to the size of a six months pregnancy. The contents of the uterus, which were decomposing, were removed with great difficulty after dilating the cervix, but, in spite of all restoratives, the patient sank the same evening. In the second case the patient last menstruated on December 17th, 1906. On September 17th, 1907, the patient had slight pains and uterine contractions, but these soon passed off, and nothing more occurred till November 30th, 1907, when Dr. Swayne was sent for, and found labour had begun and the os dilating. Owing to the large size of the child, delivery had to be effected by craniotomy. The child was retained for 340 days after the last menstruation, and weighed 14 lb.

Rhabdo-myosarcoma of Uterus.

Dr. W. BLAIR BELL (Liverpool) read a paper on a case of rhabdo-myosarcoma of the uterus.

Miss L. C., aged 70, had the menopause twenty years ago, and remained quite well until July, 1911, when she noticed a slight reddish discharge from the vagina, which was not offensive then but became so later. On September 15th she passed a large piece of growth, which was found on histological examination to be a mixed-celled sarcoma. The uterus, tubes, and ovaries were removed a few days later, and the patient made a good recovery. Ten weeks later she was suffering from intestinal obstruction, and the abdomen was found to be full of growth. Enterostomy was performed, and the patient lived for about a week. The specimen removed showed the uterine cavity to contain a large polypoid growth round

which the wall of the uterus was stretched. On further examination, the tumour proved to be a mixed-celled sarcoma in which there were a large number of broad spindle cells, and some of them were striated muscle cells of a somewhat embryonic type. The recurrent growth in the abdomen was also found to be a mixed-celled sarcoma.

Size of Uterus in Hydatidiform Mole.

Dr. HENRY BRIGGS (Liverpool) read a paper on the relative size of the uterus in cases of hydatidiform mole, and exhibited illustrative cases and specimens. He said that amidst the ample available evidence that the clinical features of cases of hydatid moles had, in the main, been accurately stated by obstetrical writers, he proposed to discuss only one feature—the relative size of the uterus—in cases of hydatidiform mole, and to produce clinical reports of 23 cases and specimens collected by him chiefly from his own practice during the past eighteen years in support of the following conclusions: First, that the uterus in size was very rarely, and then only temporarily, proportionate to the period of pregnancy (only 1 case in the 23), and was almost invariably disproportionate, in 16 of the cases being undersized, and in 4 oversized. Chorion-epithelioma was present in 2 cases, in 1 undersized, in the other oversized. Secondly, the author contended that in almost all cases in which there was either abnormal uterine tension or a rapid increase in the size of the uterus, the retained blood or intrauterine haemorrhage ought to be considered. A complete clinical report of the 23 cases embodied in the paper was then given.

Dr. W. S. A. GRIFFITH drew attention to the unreliability of the measurements of the size of the uterus when taken in relation to the navel, for whereas the usual height of the lower border of the navel was 6 in. above the pubes, in a considerable number of women it measured from 5 to 7 in. Added to this was the difficulty of certain knowledge of the duration of pregnancy. At the same time he was quite prepared to agree with Dr. Briggs that a uterus containing a cystic mole was often smaller than a normal pregnant uterus of the same period. Dr. Griffith was not surprised that Dr. Briggs avoided the question of diagnosis. His own experience was that when the cervix was closed his diagnosis had usually been at fault.

Dr. BLACKER, after expressing appreciation of Dr. Briggs's paper, said that for a long time past he had taught that the size of the uterus might be greater or less than, or equal to, the size of the organ at the corresponding period of pregnancy. Dr. Briggs's paper brought out the fact that in a considerable number of the cases the uterus was definitely smaller than it ought to be. At the same time he thought that in many of the cases quoted the mole had been retained some time in the uterus, and this might explain the apparent anomaly. During the period of retention the mole might have undergone retrogressive changes and shrinkage. He gathered from some of the specimens in which the uterus was larger than normal that Dr. Briggs thought some of this increase due to the presence of haemorrhage *in utero*, but the case of hydatidiform mole he had shown before the Section proved conclusively that the undue enlargement was due to the size of the mole itself. He thought Dr. Briggs had quite proved his point.

The PRESIDENT had seen several cases of hydatidiform mole where the uterus was not enlarged beyond the supposed period of gestation. He was surprised that one of the cases of chorion-epithelioma had been preceded by one of the smaller varieties of hydatidiform mole. He had thought it probable that the larger hydatidiform moles, showing more activity of growth and greater vascularity, were more liable to develop chorion-epithelioma than the smaller and more quiescent ones. He congratulated Dr. Briggs on his valuable contribution to their knowledge of the subject.

Dr. BRIGGS, in reply, admitted the difficulty, and sometimes the impossibility, of substantiating statements as to size changes in the uterus. These drawbacks, however, cut both ways, affecting oversize and undersize, principally in changes of slower and lesser degrees, but the predominance in the long run would come out. Dr. Briggs explained that he had himself yielded tardily to an eighteen years' acquaintance with undersize, because he had seen it repeatedly verified, and the intrauterine haemorrhage recently observed in Case 1 encouraged further inquiry.

CLINICAL SECTION.

Friday, January 12th, 1912.

Sir WILLIAM OSLER, President, in the Chair.

Laparotomy in Pneumococcal Peritonitis.

Dr. H. CHARLES CAMERON, in an elaborate paper on the relative value of immediate and delayed laparotomy for pneumococcal peritonitis, based on an analysis of the records of Guy's Hospital, said that from a consideration of the age and sex, the onset with rigors or herpes labialis, the evidence of preceding colitis, the simultaneous pleurisy, pericarditis, or pneumonia, the great and rapid exudation of fluid into the peritoneal cavity, the high temperature at the onset, it was often possible to make a diagnosis with some certainty. As for the question of the advisability of submitting those cases to laparotomy at the onset of the symptoms, the peritonitis was always the result of pneumococcal septicaemia, and this, if it did not end in death, would appear to run a course usually of some two to three weeks. When recovery did take place, one or more residual collections of pus were found. Such of the cases suggested the possibility that recovery might take place without any operation at all; but recovery, either with or without residual abscess, must be regarded as a rare and unfortunate chance. If immediate laparotomy could claim to save even a small percentage of cases, there could be little doubt that it should always be advised. He found that eight cases admitted in the acute stage were not operated upon before death. In seven of these there was present pleurisy, pneumonia, pericarditis, or endocarditis, as well as peritonitis. The eighth case died as soon as admitted. Twelve cases were submitted to immediate laparotomy. Nine of those died—four on the day following operation, the remainder within a few days. Three cases recovered, but in all three the laparotomy performed at the onset of symptoms failed to produce immediate improvement. The patients passed through a long and critical illness, developed on convalescence the signs of abdominal abscess, and recovered after the evacuation of the pus. No case recovered without the formation of residual abscesses and without a second operation being required. It would appear that those cases of pneumococcal peritonitis which recovered were those which passed successfully through the pneumococcal septicaemia. After the termination of the acute septicaemia only a minority of cases died as a result of the failure to secure drainage of the residual collections of pus. He thought that it was likely that in certain cases it was the right course to pursue. He could find no evidence that establishing drainage by laparotomy at the onset of the disease increased the chance of recovery from the septicaemia, or helped to cut short the process in the peritoneal cavity. On the other hand, he thought that there were cases so ill at the onset of the disease that laparotomy might turn the scale against recovery, and he suggested that in those cases it might be wiser to wait until the septicaemia was at an end, and until the disease had become local to the peritoneum, just as was done in dealing with the empyema which followed upon pneumonia.

PATHOLOGICAL SECTION.

Tuesday, January 16th, 1912.

Professor R. T. HEWLETT, President, in the Chair.

Amaurotic Idiocy.

Dr. J. TURNER recorded two cases of amaurotic idiocy. The histological changes present in the central nervous system were pathognomonic of the condition, and were those already well known. Glia proliferation was not an essential element in the lesion. One patient, as in practically all the recorded cases, was Jewish, but in the other this nationality could be definitely excluded. The speaker thought that in the second of the two patients there were signs suggestive of syphilis, though this disease had been denied by certain observers to be a factor in the condition.

Micrococcus Zymogenes.

Dr. J. A. BRAXTON HICKS recorded a case of ulcerative endocarditis in a woman, aged 40, in whom the above rare micro-organism was cultivated from the blood during life. A vaccine prepared from it produced no obvious

result. Death occurred somewhat later from cerebral embolism. The micrococcus was Gram positive; it liquefied blood serum.

Phagocytosis from the Adsorption Point of View.

Dr. J. C. G. LEDINGHAM gave the results of observations suggesting that the phenomenon of phagocytosis was akin to adsorption, as exemplified in the dyeing of silk with picric acid, etc. The sensitized bacteria congregated around the leucocyte, and were taken up according to the numbers present in the ratio of an adsorption process. It was unnecessary to suppose that the ingestion was purposive.

LARYNGOLOGICAL SECTION.

AT a meeting on January 12th, Mr. MARK HOVELL, Vice-President, in the chair, the following were among the exhibits:—DR. ANDREW WYLIE: (1) A case of *Paralysis of the left vocal cord*, in a woman aged 21 years, which raised the question of paralysis of the recurrent nerve as a consequence of injury. Several members cited cases of this condition which had followed contusions of the neck. (2) A case of *Multiple laryngeal papillomata* in which repeated removal of the growths had failed to bring the disease to a standstill. The advisability of thyrotomy in such cases was discussed, and negatived by most of the speakers. (3) A case of a *Horny white laryngeal growth* which was situated on the right vocal cord. It was regarded as malignant, although probably of a mild type. The CHAIRMAN said the appearance was rare, and cited a case under his own care in which, after removal for a second time endolaryngeally, the growth did not recur. DR. W. H. KELSON: A case of *Swelling of the right ventricular band* in a syphilitic subject. Potassium iodide had been administered without effect. DR. JOBSON HORNE: A case of *Atrophic rhinitis* with nasal obstruction in a child aged 7 years. MR. CLAYTON FOX favoured its treatment by cold paraffin injections. MESSRS. E. WAGGETT and EDWARD D. DAVIS: A case of *Leontiasis ossea* affecting the nasal cavities. There were no signs or history of syphilis, but the Wassermann reaction was positive. DR. DAN MCKENZIE: Two children who had suffered from *Tuberculosis of the retropharyngeal lymphatic glands*. Abscesses had formed in each case, one pointing in the posterior pharyngeal wall, and the other behind the sterno-mastoid in the neck. MR. FRANK ROSE (for MR. HARMER): A woman, aged 61 years, with a *Swelling in the region of the left tonsil*. It was ulcerated on its antero-inferior surface, and was referred by the patient to an injury caused by a crust of bread which had stuck in the tonsil. DR. DUNDAS GRANT: A case of *Tuberculous laryngitis* in which there had been a herpetoid appearance in the shape of small blisters on the infiltrated left side of the larynx. Later these became oval lenticular ulcers. They had caused intense pain, which was relieved by the inhalation of equal parts of anaesthesin and orthoform.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Wednesday, January 17th, 1912.

MR. J. M. COTTERILL, President, in the Chair.

Vaccine-Therapy.

DR. G. L. GULLAND continued the discussion on this subject, adjourned from the last meeting. In tuberculous cervical glands he had obtained satisfactory results with tuberculin, given in small doses, and continued for a long time, provided the glands had not reached the stage requiring surgical treatment. In pulmonary tuberculosis it was contraindicated in febrile cases, or in those doing well with other treatment; but in "stuck" cases, where open-air treatment had carried improvement to a certain point, it sometimes yielded good results. His experience had been largely with T.R., and his method of administration had been to give it in small doses, to avoid producing reaction, and continue its use for a long period. Special caution was required in its use in children.

DR. T. SHENNAN said the highly toxic qualities of vaccines were not realized by many physicians. He was becoming impressed with the value of mixed vaccines in many cases, having obtained decidedly good results with combined *Micrococcus catarrhalis* and pneumococcus, and he had lately been trying mixtures with *B. proteus*, although its pathogenicity was not yet established.

DR. I. S. STEWART had obtained better results with streptococcal vaccines than with any others. In wounds the relief of pain was almost immediate, and in old tuberculous sinuses infected with streptococci the results were very good. Pneumococcal vaccines given before the third day in pneumonia had been associated in his series of cases with an early crisis about the fifth day; here his doses never exceeded 10 million. In *B. coli* infections autogenous vaccines were sometimes good, while "stock" preparations generally failed. All over there was a tendency to give too large doses of vaccines. Massage and passive movements were often valuable adjuvants where the blood supply to the affected part was defective.

MR. L. C. PEEL RITCHIE said that vaccination was now a routine treatment in all infective conditions where the cause was known, but it should always be used in conjunction with other treatment. The present chaos with regard to dosage was due to the enumeration method, which disregarded the varying size of bacteria. A much more accurate method was that of weighing.

DR. R. C. LOW described his experience of vaccines in furunculosis, in which the results were very good; in sycosis, in which cure was only obtained by a prolonged course of injections, in conjunction with other forms of treatment; and in lupus, in which not a single case of cure had been obtained.

DR. W. E. C. DICKSON said the varying size of bacteria was a less important factor than variation in virulence. His own experience coincided with that of others, in that the most striking success had been in staphylococcal conditions.

DR. A. D. FORDYCE said that, with regard to tuberculin, he occupied the same position as Dr. Gulland. But, with the exception of furunculosis and some cases of empyemata with secondary staphylococcal infection, he had not obtained success from the use of vaccines.

MR. D. P. WILKIE spoke of the prophylactic use of vaccines in abdominal cases of operation in two stages, where their employment in the interval diminished the probability of a peritoneal infection following the second operation. But where peritonitis was already present the case was not for vaccination, but for serum-therapy.

MR. W. J. STUART spoke of cases of multiple tuberculous sinuses of the neck, where there was board-like infiltration of the tissues and a secondary streptococcal infection of the discharge. Here surgical measures were hopeless, but mixed vaccines had in his experience been unmistakably successful.

DR. RITCHIE replied.

Trauma as a Factor in Disease.

DR. ALEX. JAMES said the results of trauma might sometimes be analogous to the demagnetization of a bar magnet produced by a blow, the tissue showing no apparent derangement of structure, but suffering some alteration and lowering of vitality. Of all tissues suffering in this way, the nervous system afforded the best examples, because the results were to be seen not only in nervous but in many other tissues. He then cited illustrative cases: an obstinate onychia associated with involvement of the median nerve in a cicatrix and disappearing with its release; a case of Raynaud's disease in one hand associated with an old bullet injury of the part and followed by the appearance of a similar condition in the other hand, the condition being completely relieved by surgical treatment; and a case of amyotrophic lateral sclerosis developing in a miner as the result of a fall of coal, multiple lipomata appearing concurrently under the skin of the abdomen and back. As an example of mental shock or trauma, he gave a case of paralysis agitans appearing suddenly in a station-master after a severe mental strain. He had analysed his hospital records of certain diseases with regard to this factor of trauma. Of 27 cases of locomotor ataxia, 9 had a history of trauma, but none were causal. In 44 cases of disseminated and lateral sclerosis there was such a history in 11 cases, and 6 of these were possibly causal. In 12 cases of paralysis agitans, 2 had definitely followed trauma. Such cases required a very careful examination of all circumstances, for it was certain that in many the only effect of trauma was to bring home to the patient certain symptoms already in existence. The mental attitude of

the patient, especially in compensation cases, required the most careful study.

Dr. E. BRAMWELL said that the cases of Raynaud's disease and multiple lipomata which Dr. James had described were unique. He then cited a case of hemiplegia with anaesthesia following mental shock, and referred to cases of functional paralysis following trauma.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF OBSTETRICS.

Friday, January 5th, 1912.

A. J. HORNE, M.D., P.R.C.P.I., President, in the Chair.

Chorion-epithelioma with Secondary Deposits.

A SPECIMEN was shown by Dr. H. JELLETT:

A woman aged 39 was admitted to the Rotunda Hospital on September 3rd, 1911. She had been married for twelve years, and had had seven children and one abortion. She believed her last pregnancy to have terminated in June, 1910, but on questioning her she said that she had not menstruated between January and May, 1911, and that in May she had had severe haemorrhage. Since that time haemorrhage had been constant. On examination the following day the uterus was found normal in position and enlarged to the size of a two months pregnancy. On the walls of the vagina were three small swellings which were purplish in colour, and resembled small haematomata or thrombosed veins. A diagnosis of possible pregnancy was made, and one of the swellings was removed for examination. Dr. Rowlette reported that they were cystic masses filled with blood clot. The surface epithelium was regular, and the deeper tissues were infiltrated by masses of very irregular flat cells with large blood spaces. A diagnosis of chorion-epithelioma, or mixed-celled sarcoma, was made by him. On September 11th the uterine cavity was explored and pieces curetted away for examination. These were found to be of a similar character to the vaginal swellings. The next day the patient had a cough with expectoration containing a considerable quantity of blood. It was decided to give her the chance of hysterectomy. On the 14th the uterus and ovaries were removed as extensively as possible. The uterus was enlarged to the size of a small fetal head, with a very distinct tumour on its left side. The patient stood the operation well, but her lungs rapidly got worse and she died two days later. At the autopsy the lungs were found to be studded all over with small tumours, corresponding in appearance and characteristics with the uterine tumour and the vaginal metastases. Between September 4th and 11th the uterine tumour had increased considerably in size, and an additional vaginal metastasis had formed. The uterine tumour and all the metastases consisted of blood and infiltrating masses of cells derived from Langhans's layer. There were no syncytial masses and no pieces of chorionic villi.

A portion of the tumour was submitted for diagnosis to Professor Pick, of Berlin, and he confirmed Dr. Rowlette's diagnosis of chorion-epithelioma derived practically entirely from Langhans's layer.

Dr. ROWLETTE said the case was interesting from the pathological point of view, inasmuch as it was not quite typical. The tumour seemed to consist of one set of cells —Langhans layer—and not of other parts of the ovum, as generally occurred. Well-formed villi were very often seen, but in this case no villi were to be found.

Dr. NINIAN FALKINER said that, according to his information, this disease was identified about 1888 by Dr. Sangar, of the United States. Out of a record of 127 cases the mortality was 59 per cent. There was a third name for the disease which explained its pathology—syncytioma.

Dr. GIBBON FITZGIBBON inquired as to the pregnancy after which the tumour developed. With regard to the statement that it was the only specimen of the kind shown for some years, he thought there was one shown in February, 1904, where the symptoms of the disease developed after the removal of a hydatidiform mole. The patient complained of haemorrhage, starting three weeks after the removal of the mole, and continuing until admission to hospital five weeks later. The uterus was curetted, and a perforation of the muscular wall discovered. The uterus was removed, and the condition diagnosed as chorion-epithelioma. There were no metastases, and the patient was quite well twelve months afterwards.

Dr. JELLETT, in reply to the remarks, said the term "syncytioma" was not applicable to all cases, so had been given up. As to the history of previous pregnancy in this case the patient stated that her last pregnancy was in 1910, but all her symptoms dated from May last, and previous to that there was a history of three months' amenorrhoea.

Myoma undergoing Sarcomatous Degeneration.

Sir WILLIAM SMYLY said that his views with regard to the treatment of myomatous tumours of the uterus had undergone a gradual change. Almost every case that required treatment he considered was best treated by operation. Myomectomy, which, owing to improved methods of suturing and the introduction of rubber gloves, was scarcely more dangerous now than hysterectomy, should be generally adopted in women within the child-bearing period of life. He reported a case in which a myoma had been diagnosed twenty years previously, and had caused little inconvenience until about Christmas, 1910. In April a second lump formed in the patient's left side and became very painful. On opening the abdominal cavity the parietal peritoneum was covered with malignant growths. A coil of small intestine was involved in the tumour, and it was necessary to resect about a foot of intestine. A large portion of the parietal peritoneum was also cut away and the abdomen closed. The primary result was good, but after a few weeks the disease again began to show its presence, and she died in about four months. The lesson that he drew from this case was the importance of early interference.

Professor ALFRED SMITH said he would treat each case on its merits. He instanced a case of a patient who had consulted him, in which he diagnosed a fibromyomatous tumour, and advised its removal, but she being anxious that she should become a mother palliative treatment was adopted. She was afterwards confined of a full term child. This, he thought, should make one pause before telling a patient that every fibroid tumour should be removed if it means removing the uterus. He considered that no operation gave better results in practice than myomectomy. If a patient had been recently married an interval of one or two years would be a safe margin to allow her to run without taking any risk provided the tumour was not increasing or causing trouble.

Dr. JELLETT thought, speaking generally, one might say that if a married woman within the child-bearing period had a myoma of the uterus which would not prevent pregnancy going to the full term, it could be removed by myomectomy, and that the operation was indicated. If it was found at the time of the operation that the tumour could not be removed by myomectomy it was most improbable that pregnancy would occur and continue to full term. He advised early operation in all cases, because operation was then more easily and safely carried out. As regards the effect of myomectomy on future pregnancy, frequently cases were seen in which pregnancy occurred and continued satisfactorily.

Dr. SOLOMONS said that during his term at the Rotunda Hospital he saw a good number of cases of women who became pregnant after myomectomy, and in at least three of these cases about one-third of the cavity of the uterus had been removed, yet the patients had quite uneventful confinements. In a case of myoma undergoing sarcomatous degeneration on which he had operated, the intestine was adherent, and he separated this before removing the tumour. He asked Sir William Smyly whether he would, as a rule, remove the intestine with the tumour before previous separation.

In reply, Sir WILLIAM SMYLY said that as to the merits of any case they could not tell what would happen to it—it might get well at the menopause, or it might, and probably would, get worse. He recognized the importance of preserving the power to bear children, and he believed that myomectomy would rather increase fertility, and should be advised where practicable.

Dr. ROWLETTE remarked that he thought the whole tumour was sarcomatous.

Papyraceous Fetus Expelled before Living Child.

Sir WILLIAM SMYLY related a case and read a paper. He said in January, 1911, the patient conceived, and though she twice threatened to abort she went to the end of the seventh month. She then expelled a papyraceous fetus, but the placenta did not come away. Next day it was decided to divide the funis as high up in the cervix as possible in the hope of saving the second child. On the third day a septic fever commenced, and on the fourth had considerably increased. She was then removed to a nursing home, and the second child was delivered by bipolar version. The placenta and membranes of this

second child, which died during the extraction, were expelled in about half an hour, and appeared to be fresh and normal, but as there was no sign of the other placenta following, the hand was introduced, and it was found firmly adherent in the neighbourhood of the right cornu of the uterus. The patient made a good recovery.

Professor Alfred Smith considered the cause of the fetus becoming papyraceous was the insertion of placenta in the cornu of the uterus. The practical point appeared to him to be whether interruption was justified or not. So far as could be gathered, the placenta of the papyraceous fetus was not the cause of the trouble. Whether the fetus came first or afterwards was a mere accident. He asked, Would one in a similar case be justified in emptying the uterus? He would like to know what Sir William Smyly considered the source of the toxin.

Sir William Smyly, in reply, said he attached more importance to the pathological condition of the placental site than to its anatomical position. The fact that the papyraceous fetus came first was the important feature of the case. Had it not done so there would have been no trouble. As to the origin of the septic fever, it no doubt originated in the cord, which was lying in the vagina for twenty-four hours before it was divided.

BATH CLINICAL SOCIETY.

At a meeting on January 5th, Dr. Preston King, President, in the chair, the following were among the exhibits:—Dr. R. Waterhouse: A case of *Pigmentation of the trunk, neck, and shins* in a girl aged 27, epileptic eleven years and very simple. For ten years she had taken bromides as an out-patient, and had forty, fifty, or more fits every year. Eleven months ago she commenced to take drachm doses of syrupus ferri phosphatis co. three times a day in addition, and three weeks later 4 minims of Fowler's solution were added to the mixture. From that time to the present no fit occurred, but a week ago, on account of a complaint of abdominal pain and irritability of the bladder, an examination of the abdomen was made and pigmentation noticed. There was no keratosis of the palms or soles. The deep reflexes were markedly exaggerated, and there was a tendency to ankle clonus, but the reflexes were flexor in type. The friends had only noticed the darkening of the skin within the last year. Dr. V. Wiley: A man, aged 41, a French-polisher by trade, suffering for the past eighteen months from *Occupation neurosis*. He complained of stiffness and numbness of the right hand, and was unable, with his eyes closed, to distinguish the shape or name of objects placed in that hand. Round objects he called square. There was no wasting of muscles nor trophic change, but the radial reflexes were lost on both sides. Mr. H. G. Terry: A *Foreign body removed from the bladder* of an old man, 4 in. of the stem of an ordinary thermometer. It was used by the patient for sounding for stone. Mr. A. de V. Blathwayt: The lower half of the spinal column of a woman aged 29. Five years previously she fell out of a window and sustained a *Comminuted fracture of vertebrae* (the twelfth dorsal and first lumbar), with some dislocation. There was complete paralysis below the lesion, and laminectomy was performed. After two years she was able to resume her occupation as a servant, her only disability being prolapse of the uterus: this was improved by operation twelve months before her death, which was due to suicide by drowning. The President recorded two cases of *Treatment by vaccines*. In one the patient was himself. For years he had suffered from bronchial catarrh and bronchitis, having had one or more yearly attacks which had laid him up for two or three weeks at a time. During an acute attack in October, 1910, a vaccine was prepared from the growth obtained from the sputum. The treatment was begun while the patient was still confined to bed, with an evening temperature of 100° F. There was definite reaction, the temperature rising one degree the first night, and less afterwards, till eight or ten injections had been given. A 50-million dose was used, and was given every fourth day and continued up to Christmas. The acute attack was cut short from the usual two or three weeks to six days, and since then there had been no further acute attacks down to January. During the last two winters he had suffered from slight colds, which had aborted after a few days.

GLASGOW OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

At a meeting on December 13th, 1911, Dr. A. W. Russell, President, in the chair, Dr. William Ritchie read notes of a case of *Stone in the bladder*, in which recurrence took place ten months after cystotomy had been performed. He thought this was due to the site of the calculus not having been sufficiently curetted after removal of the stone. After the first operation the repair of the fistula was not satisfactory, this he attributed to the fact that the fistula had been immediately closed, and that the accompanying cystitis had not been cured by prolonged drainage as was done at the second operation. Dr. Nigel Stark, in a paper on *Uterine fibrosis and allied conditions*, pointed out the want of a standardized and universal nomenclature in gynaecology, and the confusion that resulted. Many text-books made no mention of the term "fibrosis," but connected all the symptoms now ascribed to it to chronic endometritis. By fibrosis was meant increase of fibrous tissue, or replacement of muscular by fibrous tissue. It was always accompanied by some increase in the size of the uterus, and on curetting hardly any mucosa came away. The clinical features were haemorrhage, leucorrhoea, dysmenorrhoea, and pain. Hysterectomy had, therefore, come to be the favourite method of treatment but he deemed it too drastic, and advocated the excision of a wedge shaped portion of the body of the uterus. This operation—uteroplasty—he had performed on eight occasions. Mr. Balfour Marshall preferred hysterectomy as haemorrhage had recurred after uteroplasty. Dr. McIlroy condemned the removal of the ovaries. Dr. Russell said he treated this condition by vaginal hysterectomy.

LONDON DERMATOLOGICAL SOCIETY.

A meeting was held on January 16th, Dr. Morgan Dockrell, President, in the chair. A reception by the President, and an inspection of the laboratories, *x* rays, light, and electric departments preceded the meeting. The President exhibited a case of *Dermatitis herpetiformis* in a woman aged 44, sent to him by Dr. Dornhurst, who was admitted into the hospital on January 5th. For a week before admission blebs had developed, on intensely itching papules, which had been present for three weeks, and were distributed all over the body in groups. He admitted that this was one of the very rare cases of acute dermatitis herpetiformis, and pointed out the following interesting features in support of the diagnosis: First, the grouped macules and papules which were present in all regions of the body. Next, the small and large bullae developing daily in crops on these primary lesions. Lastly, the bleeding patches left when the bullae ruptured, indicating so markedly the difference between the bulla of pemphigus, which has for its roof the stratum corneum and lucidum, and for its floor the stratum granulosum and mucosum, while the bulla of dermatitis herpetiformis has for its roof the epidermis, and its floor the corium, the dilatation of the blood vessels in it giving rise to the haemorrhagic condition seen in this disease, and not found in pemphigus. Dr. Dockrell also demonstrated cases of *Acne varioliformis* and *Acne necrotica*. Dr. W. Griffith showed cases of *Dermatitis herpetiformis*, *exfoliative dermatitis*, and *lichen planus*. Dr. J. L. Bunch exhibited a case of extensive *Lupus vulgaris*, and discussed the methods of treatment. Dr. W. Knowsley Sibley showed a case of *Severe pitting of the face by small-pox*. The attack occurred eight years ago, and photographs of the condition when the patient came under treatment were shown. Dr. Sibley had been treating the case for nearly a year by the hyperaemic method by means of suction cups, and had produced great amelioration. Other methods of dealing with scar tissue had been employed in the same case—namely, cataphoresis of sodium chloride solutions, small doses of *x* rays, hypodermic injections of fibrolysin,

and exfoliation by resorcin. Dr. Sibley considered that the hyperaemic method gave the best results. Dr. Sibley also showed three cases to illustrate the effect of treatment of *Multiple lupus* by solid carbon dioxide followed by *x* rays. Dr. HAMPSON exhibited a case to illustrate the method of *Epilation by x rays*. Dr. GALBRAITH exhibited two cases of *Seborrhoeic alopecia*, which he had treated with bacterial vaccines. Dr. J. L. BUNCH read a paper on *Prurigo and itching diseases of the skin*. The discussion on it was postponed until the next meeting.

ASSOCIATION OF REGISTERED MEDICAL WOMEN.

AT a meeting held on January 9th, Dr. CONSTANCE LONG, President, in the chair, it was resolved that a message of sympathy and condolence be sent to the relatives and friends of the late Dr. Sophia Jex-Blake. In supporting the resolution, Mrs. SCHARLIEB spoke of the debt all medical women owed to Dr. Jex-Blake for the part she played in the struggle in Edinburgh; and Dr. MAY THORNE paid a tribute to the womanliness of her character, to her powers of organization, and to the steadfast purpose of her aims. Dr. EMILY MORRIS read a paper entitled *Some work on rheumatoid arthritis at the Research Hospital, Cambridge*, in which she described the various forms of the disease as met with in the chronic state, the description being based upon the changes found both clinically and *post mortem* in a large number of cases. Three types of cases were found: (1) Those in which no changes could be demonstrated in the bones and cartilages by *x* rays or on *post-mortem* examination. (2) Those in which rarefaction and atrophy of bone were predominating features as seen on *x* ray examination. There was also atrophy of the intra-articular cartilages which might entirely disappear; the ends of the bones were often worn away, and bony ankylosis sometimes occurred. Fibrous adhesions were found in some cases, and muscular wasting was practically always present. (3) Those in which increased deposit of bone was the chief characteristic, leading to lipping and the formation of osteophytes. The cartilage was either hypertrophied or atrophied, or it might be thickened in some parts and worn away in others. Adjacent articular surfaces of bone became worn down, sclerosed and often highly polished. Bony ankylosis occurred, and was perhaps more frequent in the finger joints than in larger ones. Obvious muscular wasting was not common. This group, called by Goldthwait in 1904 "hypertrophic rheumatoid arthritis," appeared to be identical with the osteoarthritis of more recent writers, but one point which seemed to have been overlooked by most observers was the close similarity between the changes found in this form and those seen in chronic gout. This resemblance was so marked that in many cases it was impossible without a clinical history to distinguish between the two conditions. Even on *post-mortem* examination the difficulty remained, since in many cases which had been confidently diagnosed as rheumatoid arthritis in patients who had never had an attack of gout the joints had been found to contain deposits of sodium biurate. A series of investigations had been made upon the purin metabolism in a number of cases of all forms of rheumatoid arthritis, and the results compared with those obtained from a similar investigation in cases of chronic gout. The results were unsatisfactory; although the purin metabolism in cases of rheumatoid arthritis differed in some respects from that in normal individuals, and resembled that found in cases of chronic gout, this resemblance to gout was no more marked in the hypertrophic than in the other forms of rheumatoid arthritis. A series of lantern slides was shown illustrating the above-mentioned conditions. Reference was then made to the results of various forms of treatment which had been tried at the Research Hospital, Cambridge.

THE late Surgeon-Major-General Robert Wyatt Meadows, who served in the Crimean campaign and in the Afghan war of 1879–80, and later was Principal Medical Officer at Devonport and Gibraltar, left an estate which has been sworn at a net value of £25,260. After his retirement from the Army Medical Staff he took up his residence at Saltash, in Cornwall. His death occurred last November.

Reviews.

THE P.M.O. IN THE CRIMEA.

THERE are some men whose whole lives give the lie to Johnson's famous lines "Slow rises worth by poverty depressed." Such a one was Sir John Hall, Principal Medical Officer of the British troops in the Crimean war, who has recently been made the subject of a most interesting biography by Mr. S. M. MITRA, the well-known Hindu littérateur.[1] He was a striking example of a certain type of Englishman, who, without fortune, name, or influence, earns for himself a niche in the Temple of Fame through his own unaided exertions and personal merits.

The son of parents in modest circumstances, Hall was cast early upon his own resources, and proved himself worthy to be ranked by posterity "among the heroes and the wise" by the strong sense of duty and utter disregard of self which characterized him throughout the whole of his long life, and helped to raise him to the highest position in the medical service of the army.

John Hall was born in 1795 at Little Beck, in Westmorland, where his father owned a farm. Through his mother he was connected with the Fothergills, a well-known Westmorland family; "but," says his biographer, "the circumstances of the family rendered it necessary for him to make his own livelihood as soon as possible, and, in the absence of any powerful interest at his back, to trust to his own exertions for his success in life." For this purpose, after leaving the Grammar School at Appleby, he studied medicine at Guy's and St. Thomas's Hospitals, and entered the Army Medical Service six days after the battle of Waterloo, when he was barely 20 years of age. He was sent to Belgium in the capacity of Hospital Assistant in the General Hospital at Brussels: and from that time onward, for over forty years, he was almost continuously abroad on foreign service. To this circumstance, perhaps, is due the fact that he did not take his M.D. degree until many years after joining the service, when he was already a middle-aged man, and a Fellow of the Royal College of Surgeons of England. Hall served his apprenticeship as an army doctor amongst the sick and wounded from the field of Waterloo, and only returned to England when the British troops were withdrawn from Flanders early in the following year. He was then, like many of his colleagues, placed on half-pay; but in the autumn of 1817 he was recalled to duty and sent to Jamaica. There he remained, with an occasional leave of absence, until 1832, winning golden opinions from his superior officers by his devotion to duty and his gallant behaviour during the terrible epidemics of yellow fever which ravaged the island in 1819 and 1825. In one of these his professional zeal nearly cost him his life. Promoted to the rank of Assistant-Surgeon to the Forces in the West Indies in the year 1822, and five years later to that of Surgeon to the Forces, he was recalled from Jamaica in 1832, and spent the next fourteen years at various stations in England and Ireland, besides holding appointments at Gibraltar and Barbados.

Promoted in 1846 to the rank of Deputy Inspector-General of Hospitals, he was sent to the Cape in the same year as Principal Medical Officer, and arrived just in time to take an active part in the South African wars of 1846–48 and 1850–52. His position was one of considerable responsibility and difficulty, but he quickly earned the regard and admiration of all about him. Besides serving in the Kaffir wars of 1847 and 1851, for which he was thanked in a General Order and decorated with a medal, he accompanied Sir Harry Smith across the Orange River in the expedition against the Boers in 1848, and was present at the battle of Boom Platz, his name being mentioned in dispatches "for his eminent services in the field." Not the least interesting portion of his biography is that which relates to these wars in South Africa, the account of which is taken, for the most part, from Hall's own diary and letters written when he was actually in the field.

[1] *The Life and Letters of Sir John Hall, M.D., K.C.B., F.R.C.S.* By S. M. Mitra. With an introduction by Rear-Admiral Sir R. Massie Blomfield, K.C.M.G. With portraits and illustrations. London, New York, Bombay, and Calcutta: Longmans, Green and Co. 1911. (Fcap. 8vo, pp. 586; illustrations 8. Price 16s. net.)

He was not left in Africa to see the end of the struggle, but was transferred to India in 1851 to take up the duties of Principal Medical Officer in the Bombay Presidency; and he remained in India until recalled to Europe three years later as head of the Medical Department of the British troops in Turkey. "It was an immense gratification to Dr. Hall," remarks Mr. Mitra, "to be officially informed from Army Head Quarters that he had been selected by Queen Victoria for the post of Principal Medical Officer of the British Army"; but his gratification must have quickly changed into dismay when he realized the confusion which reigned in the scene of his labours. Mr. Mitra tells us that, "when congratulated by his friends in India on his appointment, he could not help observing to them that, though the honour was great and the appointment flattering, he would willingly forfeit one year's pay could he escape the labour and anxiety he knew he should have to undergo in the performance of his duty." War had already been in progress for a couple of months when Dr. Hall arrived at Constantinople, having been left "in utter ignorance of the strength of the force to be employed, and of all the details of his own department." Previous experience, however, had taught him that all the minor branches of the Medical Department had been cut down in the British Army until they were practically non-existent, and that his first business would be to create them afresh—no easy task on active service with totally inexperienced colleagues, a hostile press at home, and patients lacking everything save the barest necessities of life.

This is neither the time nor the place to enter into a discussion on the miserable blunders of the Crimean campaign; but it should be realized once for all that whoever was responsible for them it was not the Principal Medical Officer, who, as his biographer justly observes, was as "dependent on the orders of those in high authority responsible for the movements of the whole army . . . as the youngest subaltern or the rawest recruit in the forces." Hampered, therefore, as he was on every side, it is all the more remarkable that Hall was able to accomplish as much as he did for the comfort and well-being of his patients, and bring order out of the chaos which had reigned on his arrival, so that by the end of the campaign the hospitals under his care were admittedly in far better condition than those belonging to the French, which during the war had been held up to admiration by the English press. Dr. Hall's untiring zeal in the fulfilment of his arduous and often unpleasant duties during the two years he spent in the Crimea was rewarded before he left the seat of war by his investiture as Knight Commander of the Bath; whilst after his return to England he was created Officer of the Legion of Honour, and Chevalier of the Third Class of the Turkish Order.

The Crimean war was the last incident of Sir John Hall's public career. The two years of constant anxiety and overwork had told severely on his health, and a stroke of paralysis in 1859 compelled him to retire from the service. He spent the last few years of his life wandering about the Continent with his wife and family, and died after a short illness at Pisa, on January 17th, 1866, at the age of 71.

It is strange to note that this humane and tender-hearted man, whose kindness and consideration for all about him was one of his most strongly-marked characteristics, was yet strongly opposed to the introduction of chloroform in military hospitals. In a letter written to Lord Raglan during the war, he solemnly "cautioned medical officers against the use of chloroform in the severe shock of serious gunshot wounds," as he thought few would survive where it was used. But as public opinion he knew was against him he could only caution medical officers and urge them narrowly to watch its effects, "for, however barbarous it may appear, the smart of the knife is a powerful stimulant, and it is much better to hear a man bawl lustily than to see him sink silently into the grave." The world has progressed in this and many other matters since Sir John Hall's day, but even the most advanced of his up-to-date professional descendants might learn a useful lesson from the life of this fine old soldier. Not only the members of his own profession, but Englishmen in general owe a debt of gratitude to Mr. Mitra for his sympathetic and appreciative account of one whose proudest claim to honour lies in the fact that throughout his career he acted up to Wellington's ideal by doing his duty. The *Life*, which is profusely illustrated, contains a short introduction by Rear-Admiral Sir R. Massie Blomfield, K.C.M.G.

HYGIENE AND PUBLIC HEALTH.

A TEXTBOOK which in twenty years has reached its twelfth edition may safely be said to have created for itself a good title to be considered a standard work, and it may certainly be asserted that few diplomates of public health have prosecuted their studies without the assistance of WHITELEGGE and NEWMAN'S *Hygiene and Public Health*,[2] of which a twelfth edition has been issued. It must not be supposed that the position which the work has secured in the literature of the subject is a mere matter of chance. It is due to the industry of the authors in carrying out most thorough revisions in succeeding editions. The official positions occupied by each of the authors gives to the sections dealing with industrial hygiene and the hygiene of schools a very special value, though other departments of public health do not by any means suffer in consequence. The latest edition contains for the first time a chapter on military hygiene, which includes some excellent illustrations of camp latrines. A good account is given of the sanitary service of the Army, but no mention is made of the sanitary service of the Territorial Force, which was established a few years ago on the suggestion of Sir Alfred Keogh. The chapter on infection and immunity is a particularly lucid exposition of the subject, and the new section on the therapeutics of immunity expresses clearly the views which are generally accepted at the present time.

In most schemes of sanitary reform the medical officer of health and the sanitary engineer have a common concern. The one has to point out and to justify the need for improvement, and the other has to discover the best method of effecting improvement. It is quite proper, therefore, that each of these experts should have at least a nodding acquaintance with the special work of the other. In obtaining it they will receive a great deal of assistance from the *Encyclopaedia of Municipal and Sanitary Engineering*,[3] edited by Messrs. W. H. MAXWELL and J. T. BROWN, and which is described in the subtitle as a "handy working guide in all matters connected with municipal and sanitary engineering and administration." The editors have secured as contributors many writers who are entitled to speak with authority on the special subjects with which they deal. Among the medical writers are Lieutenant-Colonel R. H. Frith, R.A.M.C., Professor Henry Kenwood, Dr. David Sommerville, and Dr. J. C. Thresh. The article upon disinfectors, from the pen of Mr. Wolf Defries, is very clear and concise, and should convey even to the unlearned a definite notion of the *rationale* of steam disinfection. It is a pity, however, that the opening paragraphs of the article were not revised by a medical officer of health, for we could hardly then have had the misleading statement that a local authority "has to provide for the disinfection of all articles liable to retain infection." The statement is apparently justified by quotations from the Public Health Acts Amendment Act, 1907, which, however, is in force only in those districts where it has been adopted by the sanitary authority. The sections on vital statistics have been entrusted to Professor Kenwood, who has given an admirable exposition of the subject. In speaking of birth-rates, he makes no mention of the method of calculation as a proportion of married females between the ages of 15 and 45 years for legitimate births, and of unmarried and widowed females at the same ages for illegitimate births. When dealing with the enumeration of population he suggests that a simple method is to multiply the number of inhabited houses by the average number of persons known to occupy each house at the previous census, and advises that one individual should be added for each unoccupied house to account for caretakers and their families. This plan might answer in London and

[2] *Hygiene and Public Health*. By Sir Arthur Whitelegge, K.C.B., M.D., B.Sc.Lond., F.R.C.P., D.P.H., and Sir George Newman, M.D., D.P.H., F.R.S.E. London: Cassell and Co., Ltd. 1911. Twelfth edition, revised throughout. (Feap. 8vo, pp. 770; figs. 50. 8s. 6d. net.)

[3] *The Encyclopaedia of Municipal and Sanitary Engineering*. Edited by W. H. Maxwell, A.M.Inst.C.E., and J. T. Brown, M.R.San.I. London: Constable and Co. (Cr. 4to, pp. 561. Illustrated. 42s. net.)

some large towns, but in other districts it would lead to considerable error. Mr. R. J. Angel's article on swimming baths, with special reference to methods of purifying the water in them, takes up nearly twelve pages, and contains a mass of most useful information. Meteorology is admirably dealt with by Mr. W. Marriott, Assistant Secretary to the Royal Meteorological Society; and the articles on heating and hot-water supplies, by Mr. W. E. Fretwell, give a far better account of these two allied subjects than is to be found in most textbooks. The volume is well illustrated, and the numerous cross-references are evidence of careful and thorough editing.

Under the title, *Health and Disease*,[4] Dr. LESLIE MACKENZIE has gathered together a series of essays dealing in various aspects with preventable diseases. They are written for the general public, and the author has succeeded in reducing to very simple language an account of various biological and physiological processes. There is a practical note running through the whole volume. Of especial value is the chapter on the hygienics of milk, which deals with the problem of how to bring to the consumer clean, harmless, palatable cow's milk. The milking of cows is described as a process of unscientific inoculation of a pure, or almost pure, medium with unknown quantities of unspecified germs. The description of the milking of cows in a dirty, dung-laden cowshed by men or women with unclean hands and clad in filthy clothing is not exaggerated, nor is the author's suggested remedy an impossibility. He would have the principles of the laboratory applied to the protection of milk. It should be sold in airy, sunlit shops devoted exclusively to its sale, and fitted with impervious walls, shelves, counters, etc., the same care being taken as in the construction of an aseptic operating theatre. This is no doubt a counsel of perfection, but it is what should be aimed at.

It is not an easy task to write intelligibly on a scientific subject for readers who are only at school age; it is still more difficult when that subject embraces the structure and functions of the human body. There is the danger on the one hand of giving too little information, and on the other of saying so much that the mind of the reader becomes confused. In his *Health Readings*,[5] intended for elementary schools, Dr. C. J. THOMAS has successfully avoided these two pitfalls. In short, crisp sentences, and by the aid of parallels drawn from Nature, he has indicated how a healthy life may be secured, and in clear and forcible language has shown why his recommendations should be carried out. Although the volume is intended to be read by the children themselves, it should prove of great assistance to teachers in conducting health talks with their pupils.

THE LIMITATIONS OF TUBERCULIN TREATMENT.

A SMALL modicum of knowledge—proverbially a dangerous thing—on the subject of pulmonary tuberculosis is now common property. Hence the question is often put to the physician or the family doctor, "Do you advise the use of tuberculin?" The answer needs very careful consideration, and must be based on personal experience, if any, and upon the recorded observations of specialists. Evidence is rapidly accumulating, and amongst the latest contributions to general testimony we note a useful monograph, *Studies in Pulmonary Tuberculosis*,[6] by Dr. F. G. GRIFFITHS, of Sydney, N.S.W., containing not only a collection of convincing details of actual cases, but a general summary of modern thought on the specific treatment of the disease. A thoroughgoing supporter of the views expressed by Dr. Camac Wilkinson, and a former pupil of his, Dr. Griffiths is an enthusiast for tuberculin. He quotes cases that are entirely convincing, but at the same time he advises caution both in the selection of cases and in the dosage employed, and it may fairly be assumed that he, like others before him, has met with cases in which results have not realized anticipation. The ill success that attended the earlier efforts to use Koch's first tuberculin cannot be forgotten, and although in its present form it is infinitely less harmful, it nevertheless calls for the most careful consideration, founded on complete knowledge of the subject.

That its use in the very early stages of tubercle has apparently caused a complete cessation of the morbid process cannot be denied, and it would seem that in certain cases of more advanced destruction it may do material good, and even aid in the formation of fibrotic tissue. Those, however, who have had the largest experience of the specific treatment are unanimous in the opinion that tuberculin should not be used in cases of mixed infection.

It is precisely upon this point of mixed infection that we are apt to go wrong. Dr. Griffiths maintains that the conditions of mixed infection in consumption have been but little regarded by English writers. The consumptive patient who is coughing up purulent sputum containing a variety of pathogenic micro-organisms is spoken of as tuberculous, and no mention is made of the staphylococcic infection, which is probably the more active of the two processes. In such cases the use of tuberculin is contra-indicated, and it is well that this dictum, founded on sound experience, should be more generally recognized. If consistently acted upon, it follows that its use should be reserved for cases in the very earliest stages, and it is for the detection of such incipient cases that the tuberculosis dispensaries which are coming into existence in different districts in the larger towns are likely to prove of the highest value. As to the treatment of such cases by tuberculin without constant supervision opinions are not as yet unanimous, but it cannot be too often repeated that it is in the early stages only that positive results can reasonably be hoped for, and medical men would do wisely to warn over-confident patients that they must not look to it for cure when the disease has passed the initial stage.

NEUROLOGY.

GREAT advances in the diagnosis of nervous diseases have been made in recent years, and the discovery, or at any rate the publication, of new physical signs asserted to be characteristic of this or that nervous disorder is almost a matter of weekly occurrence. An admirable opportunity for taking stock of the progress made in this direction is afforded by the publication of a new and complete German handbook on the diagnosis of nervous diseases.[7] The author, Dr. BREGMAN, is on the staff of the City Hospital for Jews at Warsaw, and is a pupil of Professor Obersteiner. Dr. Bregman has collected a great deal of useful information about the physical signs and symptoms of nervous disorders, mainly from the literature, but to no small extent also from his own experience. The book is divided into sixteen sections, in which he considers the motor, vasomotor, sensory, mental, and other lesions found in patients with nervous diseases, whether organic or functional. The general arrangement of the sections is excellent, and, where necessary, there is given at the beginning of each an account of the normal physiology or physiological working of the part of the nervous system under consideration. Details of the different physical signs that may be expected are set out, and the opinions of various writers as to their value are quoted. References to the literature are not given, nor, indeed, are they called for in a work of this type, but we cannot help thinking that the book would have gained in interest and value had the dates of the more important neurological advances and discoveries been inserted. As a whole, the volume gives a thorough and comprehensive survey of neurological diagnosis, and it is clearly written. To bring against it the charge that it is somewhat uninteresting in style would, perhaps, be unfair; for it is notoriously difficult

[4] *Health and Disease.* By W. Leslie Mackenzie, M.A., M.D., D.P.H., F.R.C.P.Edin., Medical Member of the Local Government Board for Scotland. London: Williams and Norgate. New York: Henry Holt and Co. 1911. (Fcap. 8vo, pp. 254. 1s. net.)

[5] *Health Readings.* By C. J. Thomas, M.P., B.Sc., D.P.H. London: Methuen and Co., Limited. 1911. (Post 8vo, pp. 144. 1s. 6d. net.)

[6] *Studies in Pulmonary Tuberculosis: its Dissemination, Specific Diagnosis, and Treatment.* By Frederick Guy Griffiths, B.A., M.D., Ch.M., Honorary Pathologist and Assistant Physician, Royal North Shore Hospital, Sydney: Boulton Bros., London: Baillière, Tindall and Cox. 1911. (Sup. roy. 8vo, pp. 120; 6 charts. 5s. net.)

[7] *Diagnostik der Nervenkrankheiten.* Von Dr. L. E. Bregman, mit einem Geleitwort von Hofrat Prof. Dr. H. Obersteiner. Mit 193 Abbildungen und 2 Tabellen. Berlin: S. Karger. 1911. (Royal 8vo, pp. 551. M. 12.)

to make a compilation attractive from a literary point of view, and much of the book necessarily consists of abstracts from the work of others. The printing and paper are excellent, and the illustrations, many of them original, are very fairly good. The book should prove very useful to the specialist in nervous diseases and to teachers.

A review of the second German edition of Dr. R. BING'S *Compendium*[8] has already appeared in this JOURNAL (1911, vol. ii, p. 218). Dr. ARNOLD'S translation has been made from the first German edition, which is but a little less complete than the second. As to the merits of Dr. Bing's book, little further need be said. The translation has been well done in most respects, but there is one in which he might have effected an improvement on the German original; and that is the textual explanations of some of the figures. A single example may be given. In Fig. 37, which gives a characteristic transverse section of the mid-brain, a certain nerve tract is labelled with the letters "F. c. p.;" the text beneath the figure does not explain what these letters mean, but adds, "Other abbreviations as in Fig. 36." Referring to Fig. 36, one finds no explanation of these letters in the text beneath it, but the words "Other abbreviations as in Fig. 35." Reference to Fig. 35 leaves "F.c.p." unexplained, but the reader finds "Other abbreviations as in Fig. 34." The letters are not explained in Fig. 34, but one is referred back in the same way as before to Fig. 33. Turning back to Fig. 33, one finds no explanation of "F.c.p.," but the explanatory text ends with the sentence, "Other abbreviations as in Fig. 32"—one begins to tire of this sentence. Fig. 32 gives no interpretation of "F.c.p.," but says "Other abbreviations as in Fig. 31. Fig. 31 leaves "F.c.p." unexplained—"Other abbreviations as in Fig. 30." Fig. 30 does not mention "F.c.p.," but says "Other abbreviations as in Fig. 29." It is not without emotion that one finds no reference at all to "F.c.p." in Fig. 29; and on looking carefully through the whole series of nine diagrams again one finds that "F.c.p." is a misprint for "F.l.p.," and that "F.l.p." is explained in the text beneath Fig. 31. It is only fair to say that the same series of errors occurs in the second German edition of the book, and that Dr. Arnold is doing no more than repeat the mistake made in the first instance by the artist who drew Fig. 37. But it is always irritating to a reader to be referred from one diagram to another in order to find out the meaning of the abbreviations employed in it, and we cannot help thinking that the publishers would do well to make the explanatory text of each figure complete in itself, should the opportunity be afforded by a second English edition.

In his essay on the symptomatology of the cerebral paralyses[9] GUSTAF BERGMARK has devoted special attention to those which are a sequel to lesions of the sensory motor zone of the hemispheres or internal capsule. Professor Petren's observation that certain cerebral disturbances, notably those of cortical origin, may cause paralyses without increasing the reflexes, has been carefully controlled by Bergmark, whose own material and that gathered from the literature on the subject is considerable. He found that cortical lesions affect the reflexes less than lesions of the capsule, and that no correlation can be found between the sensory disturbances on the one hand and the reflexes on the other. With regard to the differential diagnosis of cortical and capsular lesions, he holds that, apart from the condition of the reflexes, there are certain sensory and motor phenomena which are characteristic of cortical lesions and are absent in lesions of the capsule. Many excellent illustrations are given, and the work bears witness to that thoroughness and attention to detail which is so characteristic of Swedish scientific literature.

[8] *Compendium of Regional Diagnosis in Affections of the Brain and Spinal Cord:* A Concise Introduction to the Principles of Clinical Localization in Diseases and Injuries of the Central Nervous System. By R. Bing. Translated from the German by F. S. Arnold, B.A., M.B., B.Ch.Oxon. London: Rebman, Limited. 1911. (Med. 8vo, pp. 226; illustrations 70. 10s. 6d. net.)

[9] *Bidrag till: De Cerebrala Förlamningarnas Symptomatologi.* By Gustaf Bergmark. Uppsala: Almqvist, and Wiksells, Boktryckeri. (Roy. 8vo, pp. 210.)

NOTES ON BOOKS.

THE third edition of *A Handbook of Medical Diagnosis*,[10] by Dr. J. C. WILSON, of Jefferson Medical College, like the first, is divided into four parts—medical diagnosis in general, methods and their immediate results, symptoms from signs, clinical application—and is profusely and admirably illustrated by coloured plates and figures in the text. It appears, in short, to be fully equal in all respects to the first edition, which we described as about the best publication of the kind that had yet appeared in the English language. Certain of the sections are entirely new—those, for instance, dealing with Mexican typhus, the electro-cardio-diagraph, and Brill's disease or pseudo-typhus.

A pamphlet of fifty pages, with the title, *Small-pox and Vaccination in British India*,[11] has been issued by the Antivaccination League. It consists partly of letters sent by the editor of the *Vaccination Inquirer* to various Indian newspapers; a reprint of a review of the work entitled *Small-pox and Vaccination in British India*, by Major G. P. James, M.D., the Statistical Officer to the Government of India; some excerpts from the works of Herbert Spencer, and various letters against vaccination. But the very first page of the pamphlet is a refutation of all that follows, for it gives, from a return laid before Parliament and from later statistics, the small-pox deaths, actual and per million of population, in each of the three great provinces, Bengal, Madras, and Bombay, and in India as a whole, from the year 1878 to the year 1909. The average annual small-pox death-rate per million living, which was 1,032 in the decade 1868-77, sank steadily in the three succeeding decades to 772, 466, and 374. This is a remarkable diminution in an immense country without universal compulsory vaccination, for vaccination is compulsory only in those municipalities which apply for this power; and Dr. James has informed us in his book that down to 1906 only 484 out of 719 towns had adopted compulsory vaccination. The Surgeon-General to the Governor of Bombay wrote in 1911: "Vaccination is not compulsory in India, or likely to be." And Mr. Montague, in Parliament last year, stated that vaccination is optional over the greater part of India, "including 93 per cent. of population." The vaccinations are over 9,000,000 yearly, but the vaccinated children under 1 year are only about 4,000,000. We are treated to the usual strong language adopted by many opponents of vaccination. The practice is called a terrible curse, and a letter by Lieutenant-Colonel Collie, I.M.S., to the *Times of India*, in which revaccination is strongly recommended, receives the following comment: "The fiendish spirit of tyranny that pervades this letter is as deplorable as its abysmal stupidity. We do not suppose that this vaccino-maniac has enough brains to understand the question." This is indeed unfortunate.

Both editors and publishers are to be congratulated upon the issue of a sixth edition of *An Index of Treatment by Various Authors*.[12] The great and deserved popularity of the book is proved by the fact that a sixth edition has been called for within five years of publication. The editors have taken advantage of the opportunity to subject the original articles to a thorough revision in order that the teaching may be brought absolutely up to date. In the majority of instances this result has been attained. Several new articles have also been added, the most important dealing with puerperal sepsis, hydrotherapy, phototherapy, and thermotherapy treatment by carbonic acid snow. These articles are lucid and comprehensive, and well sustain the general high standard of excellence to be found throughout the book. A glance at the list of collaborators is sufficient to assure the most sceptical that the information in the volume is thoroughly trustworthy. We know of no work which, within the same compass, contains such a mine of useful information, and none which could better repay the purchaser, especially if he be a busy practitioner. Of neces-

[10] *A Handbook of Medical Diagnosis for the Use of Practitioners and Students.* By J. C. Wilson, A.M., M.D. Third edition, thoroughly revised. Philadelphia and London: J. P. Lippincott. 1911. (Sup. roy. 8vo, pp. 1460. 25s. net.)

[11] *Small-pox and Vaccination in British India.* Published by the National Antivaccination League, London. (6d.)

[12] *An Index of Treatment by Various Authors.* Edited by Robert Hutchison, M.D., F.R.C.P., Physician to the London Hospital, and H. Stansfield Collier, F.R.C.S., Surgeon to St. Mary's Hospital, Joint Lecturer in Surgery in St. Mary's Hospital Medical School. Sixth edition, revised and enlarged. Bristol: John Wright and Sons, Limited. London: Simpkin, Marshall, Hamilton, Kent, and Co., Limited. New York: William Wood and Co. 1911. (Med. 8vo, pp. 1115; figs. 67. 21s. net.)

sity in a book like this there are many omissions, but it is safe to say that no one who follows the rules of treatment laid down in this book can go far wrong. The continued success of *An Index of Treatment* may be confidently predicted.

During the past few weeks new editions have appeared of several of the booklets belonging to the Students' Aid Series,[13] and the already lengthy list of volumes published under this general title has been increased by one dealing with histology. The author is Dr. ALEXANDER GOODALL, of Edinburgh, who, commencing with a short sketch of development and ending with a detailed description of histological methods, covers all the essential facts regarding the minute structure. The reissues are a fifth edition of *Aids to Ophthalmology* by Mr. Bishop Harman, and second editions of the corresponding books on *Bacteriology* by Messrs. C. J. Moor and W. Partridge, on *Practical Pharmacy* by Dr. A. Campbell Stark, and on *Pathology* by Dr. Harry Campbell. The latter includes an admirable exposition of the subject of immunity, in which the production and action of antibodies is illustrated by the Wassermann reaction: Mr. Bishop Harman's volume, in addition to other matter, provides a very succinct and yet comprehensive account of refraction work. Both these volumes, indeed, are notable for the amount of information the authors manage to afford despite the brief space at their disposal. The original idea of this series, we believe, was that its members should serve as examination cram-books. As they now stand, most of them are much above the class of such works.

Sir GEORGE BEATSON, M.D., K.C.B., Chairman of the Council of the Scottish Branch of the British Red Cross Society, who takes a very grave view of the existing European situation, has in a pamphlet, entitled *The National Danger and the National Duty*,[14] made a very serious appeal to the country. It is, he urges, essential speedily to come to a compromise on the questions of the strength, the training, and the mode of raising the Home Defence Army. The Territorial Force has never attained the establishment of 315,000 officers and men. The shortage at the beginning of 1911 was 50,000: it is calculated that in March next, when the recruits of 1908 have served their time, the Territorial Force will probably lose some 50,000 men, reducing the strength to 180,000, so that, allowing for new recruits to the extent of 25,000, the Territorial Force will still be 110,000 below the strength considered necessary by the military authorities. The scheme promoted by Lord Roberts, with the support of the Universal Service League, for 1,000,000 men has, Sir George Beatson thinks, stood in the way of the realization of the smaller scheme of the Territorial Force. The compromise suggested is on the basis of 500,000 men, raised upon the voluntary system. He does not accept the criticism that this could not be done, for the Territorial Force, he holds, has been the victim of a combination of circumstances unhappy but remediable. He says:

> The County Associations have been deprived of all powers, the promise of ample pecuniary grants made four years ago have not been fulfilled, a parsimonious economy in the administration of the force has been substituted, while the officers and men of the force have had their enthusiasm damped by being furnished with inferior equipment and indirectly told that the present is a period of latent energy, and that the real training will begin when war breaks out. Nothing, in my opinion, has been so fatal to the progress of a force that depends for its success upon enthusiasm than to be told that the present period of service is only preliminary to real work.

He believes that if greater latitude were given to County Associations, and if more liberal pecuniary support were afforded, and if the National Service League were to agree to the compromise, a conference might be able to agree to a proper working programme. Sir George Beatson has worked so well and so disinterestedly during many years to maintain and improve home defences that his warning with its suggestion of a working scheme will not fail to be widely read, and may, it is to be hoped, lead to an early conference.

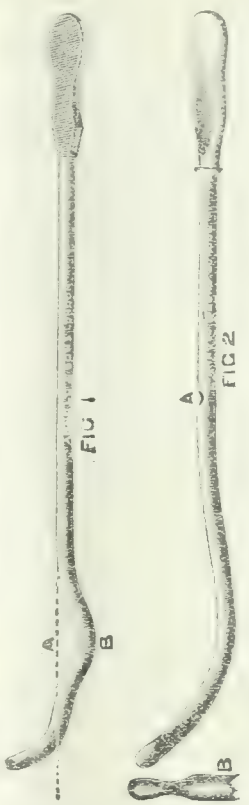
[13] The Students' Aid Series. *Aids to Ophthalmology*. By N. Bishop Harman. Fifth edition. Price, 2s. 6d. net. *Aids to Pathology*. By Harry Campbell. Second edition. Price, 3s. 6d. net. *Aids to Bacteriology*. By Moor and Partridge. Second edition. Price, 3s. 6d. *Aids to Practical Pharmacy*. By A. Campbell Stark. Second edition. Price, 2s. 6d. net. *Aids to Histology*. By A. Goodall. First edition. Price, 2s. 6d. net. London: Bailliere, Tindall, and Cox. 1912. (All fcap. 8vo.)

[14] *The National Danger and the National Duty: A Plea for Compromise and Unity*. By Sir George Thomas Beatson, M.D., K.C.B., D.L. Glasgow: James Hedderwick and Sons. (Cr. 8vo, pp. 16, with folding map. Price, 1d.).

MEDICAL AND SURGICAL APPLIANCES.

Urethral Sounds.

WITH reference to the instruments depicted in the annexed engravings, Mr. James MacMunn, of Finsbury Pavement, writes: Fig. 1 is of chief use when the meatus is narrow and when we wish to fully distend the urethra behind for the diagnosis and treatment of pathological narrowings, especially at the bulb, which, of course, is the widest part of the anterior urethra: the roof is straight and resistant, the floor expansile and uneven. Narrowings and infiltrations are mostly seated in the floor. Considering this character of the roof, it is apparent that the sound, Fig. 1, will exercise a distension from A to B. I use three sizes. Fig. 2 is a sound which will really fall into the bladder "by its own weight." It is remarkable how easily these spoon-shaped sounds will pass. The full curved sound, no matter what circle the curve presents, should be given up—for strictures at least. Passing sounds into the bladder for stricture is usually unjustifiable traumatism. Every sound should be marked at A, 7 in. from its tip. It should be 1½ mm. thinner at its beak and shaft than at the convexity of its curve. I find a flat-necked bulbous point to be the best form of wedge. Before passing instruments it is best to inject the lubricant. Sounds have been greatly superseded, because they have not been properly used; they are better than expanding instruments; they are sedative when cold, and press the contents out of veins, lymphatics, and follicles. These instruments have been long used by me, and are now neatly made by Messrs. Arnold and Sons.



THE WEST AFRICAN MEDICAL STAFF.

THE winter dinner of the West African Medical Staff took place on January 19th at the Trocadero Restaurant, when there was a large gathering of the past and present members of the Staff.

Dr. PROUT, C.M.G., of the Liverpool School of Tropical Medicine, late P.M.O., W.A.M.S., presided, and the guest of the evening was the Right Hon. L. Harcourt, Secretary of State for the Colonies. Other guests were Sir Ronald Ross, K.C.B., Messrs. Fiddian, Robinson, and Baynes, of the Colonial Office; Major Armitage, C.M.G., D.S.O., Chief Commissioner, Northern Territories, Gold Coast; and Mr. R. H. Maude, Solicitor-General, Gold Coast.

After the toast of "The King" had been duly honoured, the CHAIRMAN called upon Dr. Langley Hunt, who was leaving the Staff and proceeding to Ceylon. Dr. LANGLEY HUNT said that the members of the Staff had done a great work in West Africa, and it was only those who had come into close contact with the natives who could realize the great influence they had in gaining their confidence.

Dr. PROUT, in proposing the toast of "The Guests," said that they welcomed the Secretary of State, not only as the head of the Colonial Office, but because they recognized in him the actual head of the West African Medical Staff, and that he was the final arbiter to whom all questions connected with their profession on the Coast must in the last resort be referred, and by whom they must be decided. It was a matter for congratulation that they had had at the Colonial Office a succession of statesmen who had fully realized the vital importance of the great questions of medical research and tropical hygiene. He had been associated for over twenty-five years with the tropics, and had seen a great change come over the attitude of the public and of the official mind. Formerly tropical diseases were regarded with

a species of fatalism, but owing to the advances of tropical research it was now realized that diseases in the tropics were as preventable as in temperate climates, and that it was essential for the economic development and future civilization of the colonies that they should first be made healthy. As a member of the Advisory Committee to the Colonial Office he had had many opportunities of becoming personally acquainted with the keen interest which Mr. Harcourt took in these matters, and instanced, as an example, the Nyasaland Commission on Sleeping Sickness, which was largely due to the personal influence of the Secretary of State. He foresaw in the Advisory Committee to the Colonial Office the nucleus of a vast imperial health organization, with its head quarters in the seat of the empire, but with ramifications extending all over the globe, staffed not only by men of eminence in science in this country, but mainly by men who had had a personal knowledge and experience of the problems to be dealt with in the colonies, with departments dealing with different diseases, collecting statistics, collecting information, stimulating research, and in every way promoting the health of that great empire of which we are so proud.

In responding, the SECRETARY OF STATE FOR THE COLONIES said: I esteem it an especial honour to be the guest of the West African Medical Staff, and I am deeply grateful for the terms in which your Chairman has proposed this toast. I wish to assure you of the gratification it is to me to have this rare but welcome opportunity of expressing to you, and through you to all your colleagues, my deep gratitude for, and high appreciation of, the splendid services you are rendering in your exile to the cause of humanity and empire. A Colonial Secretary, whatever his tastes, however deep his ignorance, must, by his daily experience and anxieties, becomes a *médecin malgré lui*. I do not, however, admit myself to be wholly an ignoramus. It has been one of my relaxations in life—I do not say it as commendation to you—to have been in medicine a judicious mixture of the quack, the empiric, and the amateur. You will no doubt, after such a description, wonder why I have not long ago appeared before the coroner. The reason is, that in the last resort my valour has been so subject to my discretion that in anything more serious than a common cold I have generally sought the advice and paid the fee of those who are qualified to give the one and receive the other. Perhaps I may be permitted the harmless gratification of saying in my own justification that I was one of the first, if not the first, now thirty years ago, to experiment with the leaves of *Erythroxylon coca!* (then a little known plant obtained for me from South America by the *Lancet*), and with the tincture I myself made the cocaine, to procure, I believe for the first time, the complete and rather alarming anaesthesia of the throat and eye. If I could have retained an exclusive knowledge of its effect on the vocal cords, how much trouble and suffering I might have saved by its secret administration in my present profession to opponents and colleagues! I said just now that in the Colonial Office one must be, or ought to be, Molière's "involuntary physician." I say this because perhaps the saddest incidents of an anxious day are the telegrams which pour in on me from all quarters of the globe of yellow fever here, plague there, blackwater fever somewhere else, malaria almost everywhere, sleeping sickness in ill-defined and, I fear, extending regions. There is pathos, as one of your colleagues has written in *Lyra Nigeria*, in the

> Thought of the workers of yesterday,
> The men on whose bones we build;

and there is a sardonic truth in his picture of life on the Coast as

> The woof of farce, together bound
> By warp of grimmest Tragedy.

I wish that by my words to you to-night I could bring home to the rest of you who are fighting the great fight in the swamps, the jungle, and the desert that we who live at home in so-called ease, chained to an administrative desk, are not unconscious and not unmindful of the hopes, the fears, the struggles, and the triumphs of the pioneers of tropical medicine. As the area of research broadens while it concentrates, your opportunities for distinction and achievement extend with the painstaking records of receptive and perceptive minds. If a disinfectant could make Colon into a sanatorium there should be no limit to your aspirations. I am comforted and consoled by the thought that there is in your pursuits what is essential to a Briton—an element of sport. Foxes may be scarce and hounds deficient, but you can always pursue the *Stegomyia* of yellow fever to its earth in a jam-pot, or have a drive of mosquitos to be decimated with a syringe. I am not sure that your colleagues in Central Africa may not have to become big game hunters if *Glossina morsitans* is going to affect the vices of its degenerate brother, *palpalis*. But if I talk lightly after dinner of these incidents, do not imagine that I take anything but a serious view of your difficulties, your duties, and your prospects. If it were not for my official position I should tell you that, as a private individual, I consider you to be miserably underpaid, but, departmentally, I avoid any further reference to the stipend you are willing to accept. This at least I will say, that the insufficiency of the material rewards you reap seems to have no discouraging influence on the efficiency of your service. You have some experimental advantages and opportunities of practical research which are denied to your stay-at-home colleagues. You are occupying one of the actual fields on which the battles of new methods is being fought and their results tested. In the domain of pure medicine I suppose that it would be true to say that, apart from synthetic drugs, no true prophylactic has been discovered since Jesuits' bark developed into quinine. But the work on other lines of Pasteur, Koch, Almroth Wright, Sir Ronald Ross, and Boyce—though not commanding by any means universal assent, has opened new avenues of fruitful inquiry and fertile hopes. It may not be what Sir Benjamin Brodie once called "ideal chemistry," but it is full of possibilities which may stir the imagination of the most phlegmatic. It is true that much caution is required lest the latest hypotheses should be too readily accepted as accepted postulates, but nearly all great discoveries have advanced through the experimental adoption of unproved, sometimes unprovable, assumptions. You are, by the locality of your practice, specially interested in the study, the treatment, and the cure of yellow fever. I should share the usual and proper fate of amateurs if I ventured upon the dangerous discussion of the differentiation of yellow fever from bilious remittent as distinguished by black vomit, or if I trenched upon the speculation as to semi-immunity derived from adolescent and unrecognized attacks. I only mention these doubts and discussions because I am sure we all feel that all avenues of possible progress should not be closed by prejudice or prejudgement. Research is not an end; it is only a means. But it is true that it is also one of the pleasures of life to him who knows how to pursue it. The pursuit of truth—everywhere unsuccessful—has given happiness to generations of great scientists; its attainment is the golden crown reserved for the very few. If a time came when all was known—when investigation and experiment were at an end—half the pleasure and profit of life would have died with the knowledge. We may remain happy, then, in the anticipation of the possession of knowledge yet unwon. The questioning of Nature—the causes of disease, the problems of life and death—will last as long as the generations of mankind. In conclusion, I can only apologize to you for the excursions of an ignoramus. They have been made, not as the speculations of a thinker, but to try to show you that in all that concerns your great profession—in the services you render, in the results you attain—you have a true friend and well-wisher in Downing Street.

Sir RONALD ROSS also briefly responded, and said that progress in tropical sanitation was now going ahead by leaps and bounds. It generally took about ten years before any new discovery in medicine was accepted, and that had been the case with tropical medicine. It was just over ten years since the method of transmission of malaria was definitely proved, and it was only now that actual progress was being made. He thought that though the Americans had done much in the way of the application of tropical sanitation, England, which was first in the field, still showed the way on tropical research and medicine. He was sure that a new era was dawning for West Africa, and he was confident the West African Medical Staff would do all in their power to forward it.

Dr. FORDE then proposed the health of the Chairman, who suitably responded, after which an adjournment was made to the ante-room, where the Secretary of State had the opportunity of making the personal acquaintance of members of the staff.

MEDICAL EDUCATION IN LONDON AND PROFESSOR VON MÜLLER.

By A LONDON TEACHER.

THE Royal Commission on University Education in London, sitting under the chairmanship of Lord Haldane, in considering the question of medical education in the Medical Schools of London and in the University of London, invited, and obtained, the evidence of Professor Friedrich von Müller, M.D., LL.D., Professor of Clinical Medicine at the University of Munich. The memorandum submitted by Professor von Müller to the Royal Commission was published in the pages of the BRITISH MEDICAL JOURNAL on November 25th, 1911. Although Professor von Müller disclaims any knowledge of medical education in London, and, indeed, expressly states that for that reason he is ill-qualified to give advice upon the subject, we may suspect, not without reason, that a commission over which Lord Haldane's influence is paramount will listen with attention to the suggestion that we shall better our old-time institutions by an adaptation to the German plan. Only those who have had an opportunity of estimating the standard of knowledge and of practical capacity of the younger generation of men trained in the London Schools of Medicine, and of comparing this standard with that achieved in Germany, are in a position to realize what incalculable damage would be done were we to abandon our present methods and replace them by the system in vogue in Germany.

The system of medical education in Germany and in England presents the most complete contrast. In England, although we have abandoned the system of apprenticeship, the training remains eminently practical. In the large London hospitals there are numerous physicians and surgeons, each one of whom is head of his own clinic and wards. As soon as a student has graduated at a university, after studying for three or four years the more purely scientific subjects of chemistry, physics, biology, anatomy, and physiology, or when he has passed, after a similar training at one of the London schools, the corresponding examination of the University of London, or of the Conjoint Board of the Royal Colleges of Physicians and of Surgeons, he is admitted to the wards of the hospital, and is attached in turn, as dresser or as clerk, to different members of the hospital staff, by whom he is instructed daily at the bedside. In addition, he attends clinical lectures and demonstrations.

In Germany, after a similar preliminary scientific training, the student is admitted to a large number of clinical demonstrations conducted by the professor upon specially selected cases in a large lecture hall, and attends lectures upon the theory of medicine and classes upon the methods of medical and surgical practice. Under no circumstances is he admitted into the wards of the hospital to work among the patients. The work of the wards is entirely carried on by the one all-powerful head, the professor, and by his paid subordinates and assistants. In his fourth year the student attends in the out-patient department and is instructed in the examination of patients.

To compensate for a training so deficient in opportunity the Government has recently found it necessary to decree that after qualification all students shall spend a year as resident in a hospital.

Following Professor von Müller, we may compare these two systems under the following heads: (*a*) The effect upon the students; (*b*) the effect upon the patients; (*c*) the effect upon the staff of the hospital and upon medical research.

THE EFFECT UPON THE STUDENTS.

According to Dr. von Müller, it is the boast of university education in Germany, as well in the Medical Faculty as elsewhere, that it is founded upon the principle of absolute freedom of learning. "The student is allowed to go his own way, and nobody cares whether he is present at every lecture or whether he is idle." Dr. Müller admits that such a system has its dangers, and those who have any knowledge of student life in a German university will agree with him heartily. "Many weak and unprincipled characters," he says, "are ruined by the absence of control and neglect their studies." In London this difficulty—and it was once a very great one—has been overcome by the plan of giving to the students real duties to perform, carrying with them a real responsibility. At first, no doubt, the responsibility is of the slightest and the supervision of the strictest; yet as time goes on the responsibility becomes greater and the supervision less, until by imperceptible gradation the student becomes able to deal with the difficulties of practice. To postpone nearly all practical experience until qualification and the assumption of the duties of resident house-physician or house-surgeon, as is the rule in Germany, is not only dangerous to the patients, but it throws a sudden and immense strain upon the nervous constitution of the young medical man.

Any one who possesses an intimate knowledge of the London student will know how great is the sobering and elevating effect of this sense of responsibility. At Oxford and Cambridge or in the dissecting-room of a London hospital, during his chrysalis stage, the medical student is often idle and pleasure-loving—sometimes and on occasion rowdy and childish; but let the same student be set to dress the wounds of a child that has been badly burnt or to help some poor woman in confinement, and he will cheerfully work all day and far into the night as well. When the welfare of a patient depends upon his punctuality and industry, punctuality and industry are almost invariably forthcoming.

Our English system has one other immense advantage—the close personal relation which exists between the physician or surgeon and his handful of clerks or dressers, working together for the benefit of some fifty or sixty patients. Friendships so formed are often lifelong possessions. The teacher is upon his mettle to make as few mistakes as possible before an assemblage of dressers or clerks that is not always merciful in criticism. The students are equally determined to forestall any discovery of their chief and to have all the facts of a case ready for his consideration. In Germany the professor is wont at times facetiously to address his audience of students as *Kollege*, and the jest is always relished. In the London hospitals the relationship might well be so expressed in sober earnest.

Clinical demonstrations given in a large lecture theatre are, of course, not without their uses, and such demonstrations are given at all London hospitals in suitable cases. As the sole method of teaching, the disadvantages are numerous and serious. Such a demonstration is unsuitable in all cases of acute illness, because it may be harmful to the patient. It is quite valueless in those diseases where there is no objective sign which presents itself to the eye, and the majority of cases both in medicine and surgery are included in this category. Of what use to demonstrate a case of gastric ulcer or appendicitis to a vast audience of students, packed bench above bench to the ceiling? How can a student so learn to distinguish by stethoscope the signs of early consumption, much less to make the most difficult of all diagnoses—that the ills complained of are purely imaginary? A system of demonstration in a large lecture theatre is, in truth, only applicable to inanimate objects. For instance, it may well be used in the *post-mortem* room, as is the invariable practice in this country. On the other hand, it is quite unsuitable to display the effects of disease upon that most complex thing, the patient. Medicine, inasmuch as it deals, not with morbid anatomy, but with the effects of disease upon patients of varying personality, age, constitution, and temperament, cannot be learnt except by close association between doctor and patient. The senior student in a London hospital has every opportunity of gaining a true understanding of his patients, and those who know the life in the wards will know how often he gains their respect and affection. Patients may never have taken the trouble to learn the name of the surgeon or physician under whose care they were admitted, but they will often remember after many years the name of their clerk or dresser.

The Effect upon the Patients.

If the English system presents all these manifest advantages, it may be asked why it has not been adopted on the Continent.

The divergence between the systems depends partly upon the differences in the circumstances under which the patients enter the hospital, still more upon the character of the students and nurses, and the social class from which they are drawn.

In England there are two separate systems of treatment of the sick poor. Specially selected cases of acute disease, or of disease which is of a curable nature, are admitted into the great voluntarily supported hospitals. For the remainder, there exists the relief afforded by the Poor Law infirmaries. In Germany there is but one institution, the hospital, towards the maintenance of which every patient must pay a varying sum, usually about 3s. per diem. If the patient is too poor to pay, the State insurance or the Poor Law authorities find the money. If he is well-to-do, he may pay a higher price and obtain better quarters and greater comfort.

The attitude of our own poor to the workhouse infirmary is well known; it is as a rule that of extreme repulsion. The infirmaries are and must be managed with the most rigid economy; cleanliness, decency, and a sufficiency of food may be procured, but there is little time for sympathetic attention or the humouring of the sick. In the hospitals of London the conditions are infinitely better: bright fires, easy chairs, flowers, and especially a sufficiency of nurses of the better class, whose work and pleasure it is to wait upon the sick at every moment of the day, make the patients' stay as pleasant as possible. Hospital patients are, therefore, as a rule anxious for admission, and on discharge grateful for what has been done. They are no more inclined to resent the daily visit of their dresser or clerk, whose ministrations they regard, rightly, as important to their welfare, than they are inclined to resent the services of the nursing staff.

In Germany the attitude of the sick poor to the hospital is more akin to that of our own poor to the infirmary. For the small sum charged only the bare necessities are provided, and the nursing is, to our way of thinking, completely inadequate. The patient, so soon as the severity of his suffering is somewhat mitigated, is left to minister to his own comfort, and no attempt is made to cheer the time of his convalescence. There is no gratitude shown or expected, and little trace of the pleasant relationship which exists in the London hospitals between the patient and those who have made themselves responsible for his comfort—house-officer, Sister, dresser, and nurse.

No doubt, under such circumstances as at present exist in German hospitals, examination of patients by students would be resented. "Most of our patients," says Professor von Müller, "have a *right* to be admitted. . . . This is the reason why our patients are not all willing to be examined by the students or to be made the subjects of demonstration in the theatre." In the London hospitals a refusal on the patients' part to enter heartily into the students' attempt to record the case for the physician is almost unknown. In the surgical wards his work as dresser gives the student a position which is never disputed.

The constant care and attention which the dresser or clerk—who, even if he lacks experience, is yet well trained and educated—bestows upon the case can only be for the good of the patient, and is a valuable addition to the less frequent examination of the house-officer or of the physician or surgeon.

Lastly, the English system is only possible when two conditions are fulfilled. The students must be drawn from a class whose code of honour is high and whose previous training and education has been that of gentlemen. Secondly, the nursing staff must be formed of women of refinement and good breeding. Upon these two conditions depends the whole tone of life in the wards. In only a few of the German hospitals is the second condition fulfilled; as to the first, standards of manners differ so widely in different countries that comparison becomes impossible. Those who have had experience of German doctors will know best of what share of refinement, tact, gentleness, and sympathy they are possessed.

The Effect upon the Staff of the Hospital and upon Medical Research.

In Germany the head of the clinic, the professor, receives a salary which is paid him by the university. Professor von Müller says:

> It is not proper that the clinical professor should be burdened with great obligations as a teacher, and at the same time compelled to support himself by private practice. The salary of university professors in Germany is not bad. It amounts for an ordinary professorship to £200 to £500 a year, and permits him to maintain a good social position.

In addition, Professor von Müller goes on to explain, lest in such abundance of wealth a professor should grow lazy, his income is supplemented and his energies stimulated by a small capitation fee for each student. In London, where a successful physician or surgeon may well earn ten times that amount, it would be impossible on such a salary to attract first-rate talent. But even if the best men possible were willing to devote their energies exclusively to hospital practice and hospital teaching, it is certain that such limitation would not be advisable. To lose touch with practice would render any teacher sterile and unattractive within the space of a few years. Moreover, if private practice were forbidden, the provision could scarcely be enforced. The rich and prominent could not be prevented from making use of the services of a physician whose gifts they conceived were pre-eminently suited to their particular case. To attempt to debar a professor of the practice of medicine from the right to practise would be both impossible and unwise. It is necessary to adopt a compromise, and to demand and accept from the hospital physician and surgeon the same assiduous service in the wards that he devotes to his private patients. Assuredly it is against his own interests to neglect his hospital work, inasmuch as the extent of his private practice depends in great measure upon his reputation among the students who pass through his hands.

No doubt in Germany the output of medical literature is greatly in excess of that in England. This is due to the circumstance that in each university there is but one professor who is head of the clinic. The chance of promotion of an assistant to professor in his own school can therefore only be rare. If he is to gain promotion it must usually be by transfer to another school. In such case he is judged for the most part by a consideration of his published works, so that it becomes necessary for all assistants to be frequent contributors to medical literature, to write well if possible, but in any case to write often. Much that is published under this constant stimulus is unnecessary or ephemeral.

Even making allowance for this circumstance, it may perhaps be argued that more research work of value is done in Germany than in this country at the present time. Medical research in England, and especially in London, is hampered for several reasons. The stringent regulations against experiments on animals prevent a certain class of investigation. The high cost of living makes it impossible for men of education to subsist upon research scholarships of a less value than £200 per annum, and even these can, in the nature of things, be attractive only to the younger and unmarried men. Medical research in England is hardly supported at all by the State, and in London, at least, is insufficiently aided by private beneficence.

Were sufficient funds forthcoming there would appear to be no reason why research should not flourish under our present sytem of medical education as actively as it does under that of our German neighbours.

At the annual meeting of the Liverpool Medical Institution, held on Thursday, January 18th, the following list of office-bearers and members of Council was adopted: President, *Robert Jones; Vice-Presidents, W. B. Paterson, C. S. Sherrington, *C. J. Macalister, and *J. Lloyd Roberts; Treasurer, *R. J. Hamilton; General Secretary, Thomas Bushby; Secretary of Ordinary Meetings, *Alexander Stookes; Secretary of Pathological Meetings, *W. Blair Bell; Librarian, J. C. M. Given; Editor of the Journal, John Hay; Council, Arthur Evans, R. E. Kelly, R. W. MacKenna, J. E. O'Sullivan, *C. V. Vereka, O. T. Williams, *T. R. Bradshaw, *T. B. Grimsdale, *E. W. Hope, *W. S. Henderson, *N. P. Marsh, and *C. E. Solomon; Auditors, *O. T. Williams and *Henry Harvey. Those marked (*) did not hold the same office last year.

Nova et Vetera.

MODERN FAITH HEALING.

F. ANTON MESMER.

(Continued from page 137.)

THE SECRET REPORT.

THE Commissioners made a secret report to the authorities dealing with the dangers which the practice of magnetism may cause to morals. It was published afterwards by Dubois of Amiens in his *Histoire Académique du Magnétisme Animal.* From that work it was reproduced in full by Morand in his book on animal magnetism.[1] The following is a translation of the text as there given:

The Commissioners entrusted by the King with the inquiry into animal magnetism, when drawing up the report to be presented to His Majesty and made public, thought it prudent to suppress an observation to which publicity should not be given, but they did not think that they ought to conceal it from His Majesty's Minister. That Minister asked them to draw up a report intended to be placed before the eyes of the King and to be reserved for him alone.

This important observation has regard to morals. The Commissioners recognized that the principal causes of the effects attributed to animal magnetism are touching, imagination, imitation, and they observed that there were always many more women than men in a state of crisis. This difference has, as its first cause, the different organizations of the two sexes. Women have in general more excitable nerves; their imagination is more lively, more exalted. It is easy to strike it and bring it into play. This great excitability of the nerves, while giving them more delicate and more exquisite senses, makes them more sensitive to the impression of touch. In touching them in any part whatever one might say that one touches them everywhere at the same time; this great excitability of the nerves makes them more disposed to imitation: women, as has already been pointed out, are like sounding cords fully stretched and in unison. It is enough to put one of these in movement: all the others on the instant share in it; this is what the Commissioners have observed several times; as soon as a woman falls into crisis the others quickly do the same.

This organization makes one understand why women have crises more frequent, longer, more violent than men, and it is to the sensitiveness of their nerves that the greater number of their crises is due. There are some which belong to a hidden but natural cause, to a certain cause of emotions to which women are more or less susceptible, and which by a remote influence accumulating these emotions and carrying them to their highest degree, may contribute to produce a convulsive state which is confused with the other crises: this cause is the empire which Nature has given to one sex over the other to cause attachment and produce emotion; it is always men who magnetize the women; the relations established are doubtless only those of a patient towards his doctor; but this doctor is a man: whatever be the nature of the diseases, it does not deprive us of our sex, it does not remove us entirely from the power of the other; disease may weaken without ever annihilating the impressions. Moreover, most of the women who go to the magnetism are not really ill; many go there through idleness and having nothing to do; others, while having certain infirmities, none the less keep their freshness and their strength; their senses are unimpaired; their youth retains all its sensibility; they have sufficient charm to act upon their doctor; they have health enough to allow the doctor to act on them; then the danger is reciprocal. The proximity long continued, the indispensable touching, the individual heat communicated, their eyes looking into each other's depths, are the known methods of Nature and the means provided by her from all time to bring about infallibly the communication of sensations and affections.

The man who magnetizes has usually the knees of the woman enclosed between his; the knees and consequently all the lower parts of the body are in contact. The hand is applied on the hypochondria and sometimes lower, on the ovaries; the touch is therefore exerted at the same time on an infinity of parts and in the neighbourhood of the most sensitive parts of the body.

Often the man, having his left hand applied thus, passes the right behind the woman's body: the movement of one and the other is to bend mutually in order to favour this double touch. The proximity becomes the greatest possible, face touches face, each draws in the other's breath, all the physical impressions are instantaneously shared, and the reciprocal attraction of the sexes must act with all its force. It is not extraordinary that the senses become enkindled; the imagination which acts at the same time sends a certain disorder throughout the machine; it captures the judgement, puts aside the attentions; the women are not conscious of what they feel; they do not know the state in which they are.

The Commissioners present and attentive to the treatment have noted with care what happens there. When this kind of crisis is about to occur, the face becomes gradually flushed, the eye lights up, and this is the sign by which Nature indicates desire. One sees the woman bend her head, pass her hand over her brow and her eyes to cover them: her habitual modesty is there watching over her without her knowledge and inspires her with the wish to hide herself. Meanwhile the crisis continues, the gaze becomes wild—an unequivocal sign of the total disorder of the senses. This disorder may not be observed by the woman who experiences it, but it has not escaped the observation of the doctors. As soon as this sign is manifest the eyelashes become wet, the breathing is short, gasping; the chest heaves rapidly; convulsions come on with precipitate and brusque movements either of the limbs or of the whole body. In women of keen sensibility the last degree—the term of the sweetest of the emotions—is often a convulsion; to this state succeed languor, depression, a sort of drowsiness of the senses, which is a repose necessary after violent agitation.

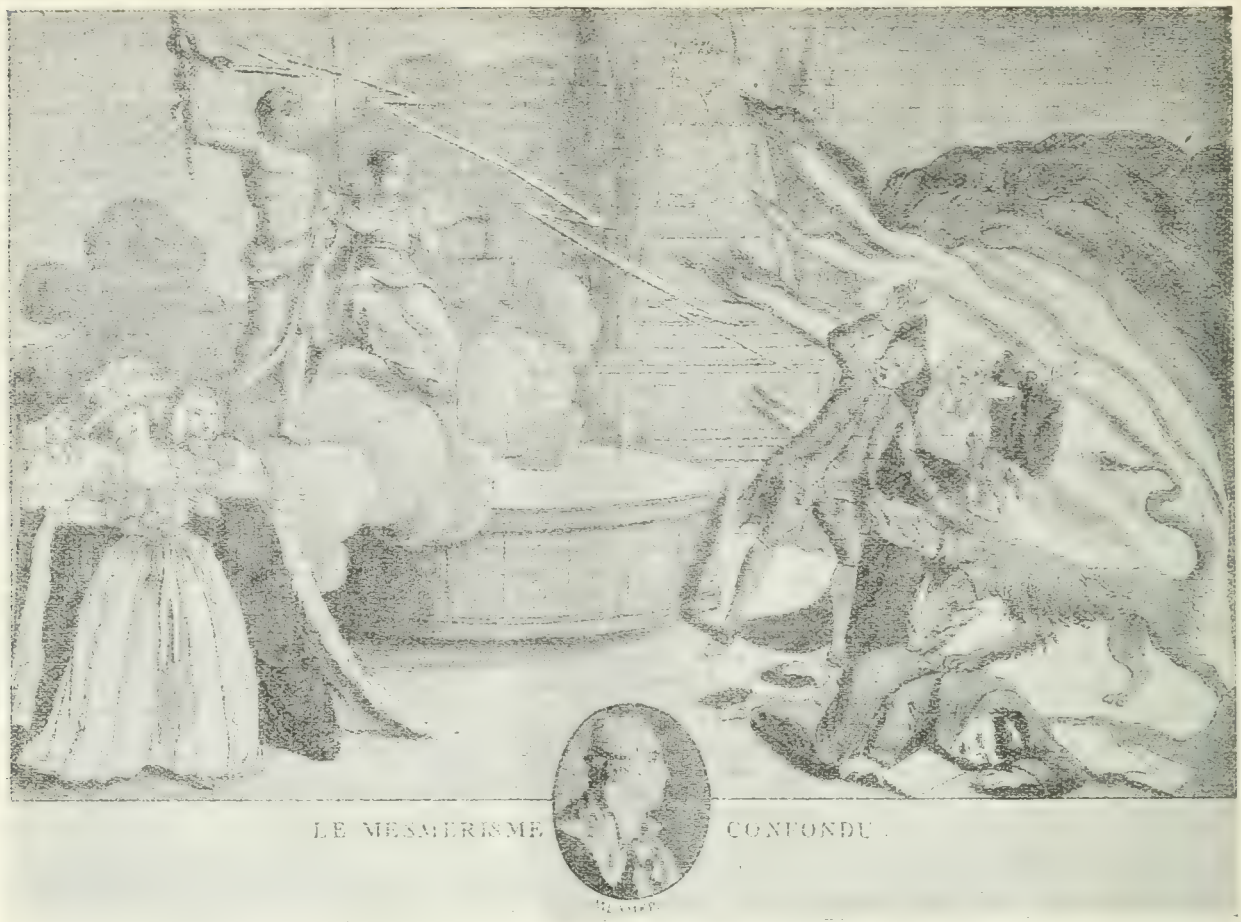
The proof that this state of convulsion is not in any way painful and is entirely natural to those who experience it, however extraordinary it may be to those who observe it, is that as soon as it has ceased no troublesome trace thereof remains. The remembrance of it is not disagreeable; women find themselves the better for it, and have no unwillingness to feel it anew. As the emotions experienced are the germs of the affections and the inclinations, one feels why he who magnetizes inspires so much attachment, an attachment which must be more marked in women than in men, as long as the exercise of magnetism is entrusted only to men. Many women have doubtless not felt these effects: others have been ignorant of the cause of the effects which they experienced. The more pure minded they are the less have they been likely to suspect them. We are assured that many have noticed them, and have left the magnetic treatment; but those who are ignorant of them must be preserved from it.

The magnetic treatment cannot be otherwise than dangerous for morals; in proposing to cure diseases which require a long treatment, one excites agreeable and dear emotions, emotions which are regretted, which one seeks to renew because they have a natural charm for us, and because physically they contribute to our happiness; but morally they are none the less to be condemned, and they are all the more dangerous owing to the ease with which the sweet habit of them can be acquired. A state experienced almost in public amidst other women who seem to feel it equally presents nothing alarming; one remains there, one comes back, and one notices the danger only when it is too late. Exposed to this danger, strong-minded women go away; the weaker may lose there their virtue and their health.

M. d'Eslon is not ignorant of this. The lieutenant of police asked him some questions about it in the presence of the Commissioners at a meeting held in M. d'Eslon's own house on May 9th last.[2] M. Le Noir said to him: "In my capacity of lieutenant-general of police, I ask you if when a woman is magnetized and in a state of crisis it would not be easy to take advantage of her."

[1] *Le Magnétisme Animal (Hypnotisme et Suggestion).* Etude historique et critique. Par le Docteur J. S. Morand, Directeur et rédacteur en chef de la *Gazette médicale de l'Algérie,* Officier de la Légion d'honneur. Ouvrage orné de plusieurs gravures. Pour parler du magnétisme, il faut être médecin. C. Chambard. Paris: Garnier Frères, Libraires-Editeurs, 6, rue des Saints-Pères, 6. 1889.

[2] (?) 1784.



M. d'Eslon replied in the affirmative, and it must in justice to that physician be said that he has always insisted that his brethren, who by their profession are vowed to morality, should alone have the right and the privilege of practising magnetism. It may further be said that although he has in his house a room primarily intended for crises he does not allow use to be made of it; but, notwithstanding this safeguarding of decency, there remains none the less the danger, since the doctor may, if he wishes, take advantage of his patient. Occasions occur every day and at every moment; he is often exposed to it during several hours; who can answer that he will always be able to keep the mastery over his wishes? And even supposing that he possesses a virtue more than human, when he has in his mind emotions which produce desires, the imperious law of Nature will sometimes demand his refusal, and he is answerable for the evil which he has not committed but which he has caused to be committed.

There is, further, a means of exciting convulsions, a means of which the Commissioners have not had direct and positive proofs, but which they have not been able to help suspecting: that is, a pretended crisis which gives the signal or determines a large number of others by imitation. This means is at least necessary in order to hasten and keep up the crises—crises all the more useful to magnetism since without them it could not maintain itself.

There are no real cures; the treatments are very long and unfruitful. There is such a patient who goes to the treatment during eighteen months or two years without any relief; in time one would become weary and tired of going. The crises are a show, they engage attention and interest; moreover, for eyes that pay little attention, they are effects of magnetism, proofs of the existence of that agent, which is really nothing but the power of the imagination.

The Commissioners in commencing their report described only the examination of the magnetism practised by M. d'Eslon because the order of the King, the terms of their reference, sent them only to M. d'Eslon; but it is evident that their observations, their experiments and their opinions refer to magnetism in general. M. Mesmer will not fail to say that the Commissioners have not examined his method, his procedures, or the effects that it produces. The Commissioners doubtless are too prudent to pronounce on what they have not examined, on what they do not know. Nevertheless they feel bound to point out that the principles of M. d'Eslon are the same as those of the twenty-seven propositions printed by M. Mesmer in 1779.[3]

If M. Mesmer propounds a more comprehensive theory, it will only be more absurd on that account; the heavenly influences are an old chimera, the falsehood of which has long been recognized. All that theory may be judged beforehand by this alone—that it has for its basis magnetism, and it cannot have any reality since the animal fluid does not exist. This brilliant theory, like magnetism, exists only in the imagination; M. d'Eslon's method of magnetizing is the same as that of M. Mesmer; M. d'Eslon has been the disciple of M. Mesmer. Again when they have been together both have treated patients indiscriminately, and consequently, in following the same procedures, the method followed by M. d'Eslon to-day can only be that of M. Mesmer.

The effects equally correspond. There are crises as violent, as multiplied, and announced by similar symptoms under the treatment of M. d'Eslon and that of M. Mesmer. What can be M. Mesmer's contention in assigning an unknown and inappreciable difference when the principles, the practice, and the effects are similar? Moreover, if this difference were real, what can be inferred from that in respect of the utility of the treatment as against the means set forth in detail in our report and this note placed under the eyes of His Majesty?

The public voice states that there are no more cures at the hands of M. Mesmer than at those of M. d'Eslon; there is nothing to show that with him, as with M. d'Eslon, the convulsions do not become habitual, and that they do not spread in epidemics in cities, and do not

[3] See BRITISH MEDICAL JOURNAL.

extend to future generations; these practices and these assemblies have equally the same drawbacks in regard to morals.

The experiments of the Commissioners, which show that all these effects are due to touchings, imagination, and imitation, while they explain the effects obtained by M. d'Eslon, likewise explain the effects produced by M. Mesmer. It may, therefore, be reasonably concluded that, whatever be the mystery of the magnetism of M. Mesmer, that magnetism cannot be more real than that of M. d'Eslon, and that the procedures of the one are neither more useful nor less dangerous than those of the other.

(Same signatures as those attached to the public report.) [1]

(To be continued.)

INTERNATIONAL HYGIENE EXHIBITION, DRESDEN, 1911.

REPORT OF THE BRITISH COMMITTEE.

THE following report of the British Committee of the International Hygiene Exhibition has been handed to us for publication:

The great exhibition at Dresden has served two large purposes. It has been the means of placing on record the scientific achievements in the realms of hygiene from the earliest times up to the present, thus assisting the expert in his endeavour to progress. It has also served a vast humanitarian purpose, in instructing millions of lay visitors, with regard to health, the dangers associated with the various modes of life, and the best means of avoiding these dangers. Articles dealing with the value of the exhibition from these and other points of view have appeared in the BRITISH MEDICAL JOURNAL, the *Lancet*, and other journals.

Its International Character.

The exhibition was primarily a German undertaking, but the fact that all the civilized nations were invited to co-operate in carrying out the humanitarian object, rendered it truly international. Among the States officially represented were Austria, Brazil, China, France, Hungary, Italy, Japan and Formosa, Russia, Spain, and Switzerland. It became a necessity, in order that Great Britain should not earn the reputation of an unfriendly nation, that our country should also join hands with Germany in attempting to improve the health conditions of the whole world.

The Governmental Commissions.

Each of the States represented had a special pavilion. The respective Governments appointed a Commission and voted a sum of money for the equipment of the section and for the proper management of the same. The Commissions were placed under the care of a Chief Commissioner, save in the case of Japan, which had six Commissioners acting conjointly. In each section a staff of assistants and clerks were engaged to carry out the business of the section. Sums varying up to £35,000 were voted for the purpose by the various Governments.

The British Section.

Owing to the refusal of the British Government to undertake to organize the British Section, this duty devolved on the Committee appointed *ad hoc*. The difficulties with which the Committee had to contend were partly due to the smallness of the financial support, partly to the lateness of the beginning, which was occasioned by the difficulty in obtaining funds, and partly by the exclusion of support of Governmental departments. An exception to the last named was found in the case of the Board of Education, which lent a small but valuable exhibit, dealing with the hygiene of schools.

In spite of the necessity of economizing by acquiring a small pavilion, the British Section was by no means the smallest in regard to the number and variety of exhibits. The scheme followed was to illustrate a large number of British methods of dealing with the various hygienic problems. The exhibits were, for the most part, not prepared with a view to elaborate elegant display, but in practically every case scientific excellence was the primary consideration. A catalogue of the Section will be sent on application, enclosing 2d. for postage, to any subscriber or member of the Committee.

The Committee were represented by the Secretary, who conducted the work without the assistance of a staff, thereby effecting a considerable economy. During the period of the exhibition the Committee were continually in receipt of congratulations on the excellence of their work, and the presence of the British Section was obviously appreciated in no small degree, as may be gathered from the fact that it was visited by large crowds of visitors, among whom were the leaders of the various hygienic professions of practically every country. Numbers of experts paid repeated visits to the Section.

The Financial Statement.

The accounts of the Committee have been audited by by Mr. F. W. Osborne, certified accountant. His statement is appended below. As will be seen, the sum of £4,784 14s. 6d. was subscribed by the public for the purpose of equipping the Section. Not allowing for certain receipts in respect of the sale of furniture, etc., the expenditure of the Committee was £4,214 13s. 2d., leaving a balance of £707 3s. 8d. Of this balance, £396 8s. has been returned to the guarantors, who, in response to a request, converted their guarantees into subscriptions, and who have now received back in full the sums thus given. A further balance remains of £310 15s. 8d., of which a certain small sum will be required for the purpose of winding up the business of the Committee.

The Committee suggests that the ultimate balance, which is estimated at £275, should be devoted to a cause which is most closely connected with the object for which the funds were originally given. It appears to the Committee that such an object is the Parkes Museum of the Royal Sanitary Institute. It is therefore proposed by the Committee that the sum available be given to the Royal Sanitary Institute, on the condition that it be used for the improvement of the Parkes Museum. This will be carried into effect if the subscribers consent.

Thanks of the Committee to the Subscribers.

In conclusion, the British Committee of the International Hygiene Exhibition desire to express their best thanks to the generous subscribers who have enabled them to carry out their task to the evident satisfaction of their German hosts and of the visitors to the exhibition.

(Signed) THOMAS BARLOW, Chairman.
ILKESTON, Treasurer.
H. W. ARMIT, Secretary.

STATEMENT OF RECEIPTS AND EXPENDITURE, ETC., TO JANUARY 7TH, 1912.

Receipts.

To subscriptions	£4,784	14	6
To sale of furniture, catalogues, and other amounts	97	14	1
To sundry amounts due	39	8	3
	£4,921	16	10

Expenditure.

By pavilion expenses, including cost of building, electric and water installation, electric fittings, furniture, decorations, lighting, cleaning, attendants' wages, etc.	£1,305	10	3
By management expenses, including salaries, clerical and general expenses, printing, stationery, postages, telegrams, travelling expenses, costs of appeal, and charges incurred in London office	2,151	16	8
By exhibits' account, including show cases, stands, insurance, transport, and packing, etc. ...	757	6	3
	£4,214	13	2
By estimated winding up expenses	35	15	8
By repayment, etc., to guarantors	396	8	0
By balance available	275	0	0
	£4,921	16	10

I hereby certify that the above is a correct statement of the receipts and expenditure incurred in connexion with the British Section of the International Hygiene Exhibition, Dresden, 1911. I have been supplied with all the information that I have required. Vouchers have been produced for all payments made, and I have satisfied myself that all the expenditure has been duly authorized.

FRED. W. OSBORNE,
Certified Accountant (London Association).
16, Sherrift Road, West Hampstead,
January 10th, 1912. London, N.W.

[1] See BRITISH MEDICAL JOURNAL, January 20th, 1912, p. 157.

SCIENCE NOTES.

SIR JOHN MOORE has been induced by a note in this column a fortnight ago on Mr. Sedgwick's study of the weather as recorded by Evelyn and Pepys, to send us a reprint of an article entitled "Is Our Climate Changing?" which he contributed to the *Dublin Journal of Medical Science* in 1908. Sir John Moore's conclusion confirms, or rather anticipated, Mr. Sedgwick's, for he says that the facts he had collected proved that, within the past six centuries at all events, no appreciable change has taken place in the climate of the British Isles, and that there is not the slightest evidence to show that within historic times any such change has taken place in the past or is likely to take place in the future. He is able to go back to the journal of the weather kept in the years 1337 to 1344 by the Rev. William Merle, Fellow of Merton College, Oxford. The existence of the manuscript in the Bodleian Library was brought to light in an interesting way. In 1890 Dr. Hellmann of Berlin found in the fifteenth volume of the *Philosophical Transactions* a letter addressed to Dr. Martin Lister, F.R.S., which mentioned that a copy of Merle's observations existed in the library. Dr. Hellmann put the late Mr. G. J. Symons, F.R.S., on the scent, and Mr. Symons had the manuscript reproduced and translated from the original Latin. Merle's notes show clearly enough that the winter weather in England in the fourteenth century varied in different years very much as it does now, and in quoting some of the entries Sir John says that, from Merle's notes, he "can picture the rapid passage north-eastwards across the Atlantic, outside the western shores of Ireland and Scotland, of a succession of deep atmospheric depressions just like those which are observed in a mild January of the twentieth century." For Dublin Sir John Moore is able to quote records for the seventeenth, eighteenth, and nineteenth centuries. For the seventeenth century he refers to the observations of Dr. Gerard Boate, physician to the Parliamentary forces in Ireland. For the eighteenth he has the results of forty years' observation by Dr. Thomas Rutty, published in 1770 in a volume entitled *A Chronological History of the Weather and Seasons and of the Prevailing Diseases in Dublin*. For the earlier part of the nineteenth century he relies upon the manuscript records of Dr. Thomas H. Orpen, who kept observations on the weather in Dublin from 1805 to 1841, and upon the diary of the weather made by John Underwood, Superintendent of the Botanic Garden. From 1853 onwards he has observations made at Bray by Mr. Richard Barrington, and from 1861 to the present day his own observations. Some of Dr. Rutty's notes would apply fairly well to recent years. For instance, 1736: "This summer was as remarkable for heat as the preceding one had been for coldness and moisture"; again, 1739–1740, "Spring mostly cold. Summer very wet. Autumn variable. Winter frosty, after a long series of open winters." The April of 1740 seems to have been very like the April of 1908, and so on. Mr. W. C. Nash, in a paper on the monthly rainfall at the Royal Observatory, Greenwich, for eighty-nine years, 1815 to 1903, showed that for so variable an element as rainfall a consistent average could scarcely be produced, even with fifty or sixty years' observations. A run of eight consecutive wet years, 1875 to 1882, gave a mean for the period of 27.53 in. a year, while a run of eight consecutive dry years, 1895 to 1902, gave an annual mean of 20.92 in., yet the heaviest rainfall for the whole period of eighty-nine years occurred in 1903, when the measurement was 35.54 in. Sir John Moore quotes, apparently with approval, the conclusion drawn by Dr. Buchan from a study of the temperature of London for 130 years, 1763 to 1892, that no evidence of a recurring cycle can be detected, with the single doubtful example of mean annual temperature, and Sir John Moore's conclusion is that "weather—'*varium et mutabile semper*' as it is—resembles the river which, in the words of Horace, '*Labitur, et labetur in omne volubilis aevum.*'"

An interesting exhibition of nesting-boxes for wild birds was held last week, under the auspices of the Brent Valley and Richmond Branch of the Selborne Society, at the offices of the society in Bloomsbury Square. These boxes, which will be on view from January 31st, are precisely similar to those used with such excellent results in the Brent Valley Bird Sanctuary: and, besides being skilfully adapted to suit the needs of different kinds of British birds, are further contrived so as to render their feathered occupants safe from the depredations of cats and other enemies. The good work done by the Selborne Society in promoting the study of natural history and protecting the native flora and fauna is well known throughout the British Isles, and bird lovers would do well to study the methods employed so successfully by certain of its members in their efforts to prevent the dying-out or migration of native birds near our great cities.

UNITED KINGDOM POLICE SURGEONS' ASSOCIATION.

THE annual meeting of the association was held at 429, Strand, London, W.C., on January 17th.

Report of Council.

The council in presenting the eighteenth annual report expressed its high appreciation of the *esprit de corps* now being shown by the members of the association, in common with the general body of the profession, in strenuously endeavouring to protect the interests of the faculty, and maintain that high standard of medical service which is essential for the proper discharge of its important duties for the State, and the responsibilities which each one undertakes as police surgeon. The council intended to continue its endeavours to obtain from the State in the future that recognition for police surgeons which is so necessary in the public interest. The council expressed its regret that there still existed in the medical schools a need for improvement in the teaching and study of legal medicine, and the hope that the State would make better provision for its skilled medico-legal experts, by giving them every opportunity of obtaining material for their work, so that they might be stimulated to specialize and pay greater attention to the study of the subject. The council was strongly of opinion that the police surgeon should be called in at once on behalf of the police in every suitable criminal case, and if a local practitioner was in attendance, work in conjunction with him, as was already the practice in the metropolitan district. Another matter requiring serious consideration was the proposed co-operation with other societies (Medical Officers of Health, Metropolitan Police Surgeons, Poor Law, Postal, Factory, School Medical Officers, and Public Vaccinators). Federal relationship and a joint committee were suggested, for, if the various bodies referred to were brought into close touch with each other, valuable reciprocal support might on occasion be organized, and co-operation might result in financial and even journalistic economy. It was, at any rate, believed that, speaking in general terms, the aims and objects of these various organizations were not dissimilar, and certainly not opposed to each other. It was therefore open to members to discuss and decide whether or not this important step should be taken, and if so, to instruct the council to proceed with the matter without delay.

Elections.

Professor J. T. J. Morrison (Birmingham) was elected President; and Dr. C. E. Hoar (Maidstone) was added to the Council.

Joint Committee.

It was decided to send delegates to the Joint Committee of Medical Officers of Health Association in order to co-operate with them, and Mr. Morrison, F.R.C.S., Mr. Nelson Hardy, F.R.C.S., and Dr. W. H. Whitehouse were appointed.

The Honorary Secretaries of the Association are: Hugh Powell, M.B., Cheltenham, and W. H. Whitehouse, M.D., D.P.H., Cranmer House, 103, Manor Road, Brockley, London, S.E.

DR. WILLIAM P. GORGAS, Colonel in the United States army, whose name is so deservedly famous in connexion with the sanitation of the Canal zone in Panama, has been elected President of the ninth Congress of American Physicians and Surgeons, which is to meet at Washington in 1913.

LITERARY NOTES.

We have received the first number of the *Journal of the London School of Tropical Medicine*, the proposed foundation of which was announced in the JOURNAL of October 21st, 1911, p. 1025. The new periodical is issued by the Council of the London School of Tropical Medicine. Sir Patrick Manson is Editor in Chief; Dr. C. W. Daniels, General Editor. According to the prospectus, the *Journal* will be largely composed of original papers, but it is also proposed to include summaries of selected papers not readily accessible in the tropics. It is believed that by this arrangement past students and other practitioners will be enabled to keep abreast with the steady progress that is being made in tropical medicine. The arrangement of the *Journal* in sections, each under a special section editor, will render the contributions and extracts referred to authoritative. Colonel A. Alcock, Professor Tanner Hewlett, Dr. Leiper, Dr. H. B. Newham, and Dr. C. E. Wenyon are Sectional Editors. The number before us contains a Foreword by Sir Patrick Manson. To all interested in the work of the school and in the study of tropical disease generally the new journal will be a mine of carefully selected information. Intending subscribers should apply to Dr. Newham, Director, London School of Tropical Medicine, Albert Dock, E.

Mention has already been made of the new *Journal of Vaccine Therapy*. The first number, which has been issued this month, contains papers on the pathogenesis and treatment of rheumatic fever and chorea, by Dr. R. J. M. Buchanan; on the vaccine treatment of typhoid fever, by Dr. F. J. Sadler; and on the causation and treatment of acne, by the Editor, Dr. R. W. Allen.

It is announced that on January 30th and following day Messrs. Sotheby, Wilkinson, and Hodge will sell the remaining portion of the library of the late Dr. J. Frank Payne. The medical portion of the library was sold in July last for £2,300, but no intimation, as far as we know, has been made as to its ultimate destination. The portion now to be sold is chiefly noteworthy on account of its extensive collection of rare herbals and other natural history books, which will be first offered in one lot. On turning over the catalogue we note *Saxon Leechdoms*, edited by Mr. O. Cockayne; *The Discovery of Witchcraft*, by Reginald Scot (1665). A special feature of the collection is an extensive series of first and other editions of John Milton's writings and Miltoniana. In this series are many rare tracts. Probably the rarest volume of all is *The Ready and Easie Way to Establish a Free Commonwealth*, etc. (1660); "The author, J. M." This copy of the first edition is said to be probably unique.

Dr. Henry Hick returns to the charge in defence of the pronunciation enēma, which was discussed in this column in the JOURNAL of January 6th:

> Your memory is short. Some two years ago you wrote that as "Enema" was a pure Greek word we were wrong who used the long second *e*.
>
> My argument is that as it is now an English word, the Greek pronunciation has nothing to do with the matter, any more than the derivation has in the matter of plurals.
>
> And "Bailey," in his dictionary, of the date of 1775, uses the long *e*. You said, you failed to understand why the word should be like a red rag to a bull: I reply, because it is one of many vulgarisms which appeared together.
>
> I do not object to a nurse, but to her being certificated.
>
> Any way, I can get over the difficulty of the long *e* by calling a clyster "an objection," as one of my patients does.

Our memory is considerably longer than that of Dr. Hick appears to be. The question has several times been discussed in the JOURNAL during the last seventeen or eighteen years. If our correspondent will look at the issue of November 28th, 1895, p. 1619, he will find that we quoted all the authorities available at the time, including Bailey. We thought we had made it clear that any one can say enēma if he chooses to do so without incurring any penalty. We have ourselves repeatedly pointed out that etymology is not the law of English pronunciation. A story is told of a young curate whose classical susceptibilities were outraged by the customary pronunciation "Alexandria." In his difficulty he sought counsel of Dr. Samuel Parr. The great scholar's reply may serve as a guide to young doctors whose orthoëpic conscience is vexed by a false quantity which has become established in common speech. "Young man," he answered, "*I* may say Alexandria; *you* I advise to say Alexandria like everbody else." We notice, by the way, that, contrary to this sound advice, the pronunciation neurasthenīa is coming into fashion among the younger generation of doctors. How vain is the attempt to preserve the classical quantity in English is amusingly illustrated by the well-known story of a distinguished Scottish advocate who, in pleading before the House of Lords, repeatedly spoke of a curator. This at last got upon the nerves of Lord Denman, who was a first-rate scholar, and he mildly called the advocate's attention to his prosodical *faux pas*. The unhesitating reply contains in it the whole philosophy of pronunciation. "Certainly, my Lord," said the Scot; "in the presence of so many illustrious senātors and distinguished orātors, I have no difficulty in complying with your suggestion about curātors." About "enema" we may be allowed to repeat a good story related by Mr. J. M. Cotterill, of Edinburgh, in our pages. A friend of his, he said, was attending a distinguished scholar and cleric of the Modern Athens. Amongst other things the patient was advised to take an enēma. "But, doctor," said the scholar, whose classical ear was offended by the pronunciation, "what about the quantity—the *quantity*, you know?" "Oh, the quantity," said the surgeon; "well, about two pints or so"! While admitting, as we have always done, that one may say enēma if it pleases him, we are puzzled by Dr. Hick's statement that enema is a vulgarism. Why? His objection to the certificated nurse is, like what the soldier said, not evidence as bearing on this point. Apart from etymology that pronunciation is in accordance with the tendency of our language to throw the accent as far back as is possible consistently with ease of articulation. When this tendency happens to be in accordance with etymology, there does not seem to be any valid reason why this harmonious relation should be disturbed. But etymology does not compel us to say curative, sedative, provocative, and so forth.

On the question of "vulgarism" it may be interesting to recall that in the reign of Louis XIV, when the enema syringe was so much the emblem of the medical art that physicians might have associated with it as a motto, *In hoc signo vinces*, a debate arose as to whether the word *lavement* could be used with propriety in ordinary conversation. The Jesuits characteristically solved the difficulty by suggesting the euphemism *remède*. The original word was for a time a vulgarism, but has long since reconquered its position.

With regard to plurals and pronunciation, we have received the following interesting letter from Dr. William L. Storey, of Belfast:

> Your article "Pedantry in Plurals" in the JOURNAL of December 30th, 1911, and the Literary Notes in the JOURNAL of January 6th, proved very instructive reading. I fear, however, that you are too lenient and do not hold the rod of correction in a sufficiently menacing or authoritative manner!. No writ will, of course, be served on us if we mispronounce or even misspell, while, so far as our calligraphy is concerned, the jury of laymen has found it undecipherable and the accused incorrigible. Some time ago in commenting on a quotation from John Foster in *Harper's Monthly*, June, 1905, you remarked, "In language whatever is—on the lips of good speakers—is right." Any free-lance can ask, "Who shall decide—who a good speaker is—when doctors disagree?" And the *Spectator*, about five years ago, writing under "The Pronunciation of Latin," said "It is difficult to regard the whole movement either towards or away from reform as a matter of supreme importance." Perhaps this is all right in these days of the reign of the democracy, when the working men, and, more recently, the medical men, are getting more or less out of hand; but when a cultured layman asks me why a large number of us pronounce gynaecology with a hard "g," and the first syllable in "purulent" as if it were the sound emitted by an amiable cat—what am I to say? And, in pity, he suggests the purchase of the *New English Dictionary* (Oxford)!
>
> We should certainly "beware the entrance" of a new pronunciation, but, "being in," must we willy-nilly "bear 't"?
>
> I read an American novel this week. Yes! My eye was naturally, and nationally, offended by such spellings as *traveler*, *center*, *marvelous*, *alright*, etc.; but what almost charred my gorge with throttled oaths (as W. E. Henley would say) was the constant use of *like* for *as* or *as if*—for example, "I used to feel like you do." "just like it was before," "it looks like you were going." Unfortunately this Americanism has reached these shores; it has appeared in English newspapers, and, *horresco referens*, I have heard it on the lips of a university man! Surely you will mark a writ against the Britisher who in future purloins his American neighbour's property!

We fear that a good deal of this pirated property has "come to stay," if we may use what we believe to be another Americanism. It would be useless to mark a writ against the invasion of words and phrases, which, after all, are in the nature of lost property returned.

British Medical Journal.

SATURDAY, JANUARY 27th, 1912.

THE ACT OF CHOICE.

The dominant science of to-day, in so far as medical progress is concerned, is undoubtedly bacteriology: that of to-morrow, if all the signs of the times may be trusted, will as assuredly be psychology. Psychology is proving not less amenable to inductive and experimental methods of research than its as yet more advanced because less complex and difficult predecessors: but there is one branch of it—that which concerns the process of volition, the psychology of the will as distinguished from that of thought and perception — which, until quite recently at any rate, has been left out in the cold. Mediæval thinkers regarded the will as an immaterial entity, separate from and independent of the body; needless to say, the modern tendency has been in quite the contrary direction.

The scholastic psychologists, neglecting analysis of the immediate data of consciousness, set out with metaphysical definitions of the nature of will, and from these deduced all concrete volitional acts as logical consequences. The modern attitude towards the problem is, on the contrary, typified by Wundt's assertion that in investigation of the will we must limit ourselves to observing such processes as can be easily influenced by external means—namely, "such as begin with external stimulations and end with external acts." Wundt regarded the will as in essence emotional, the culmination of an emotional process in feelings of resolution and decision, and denied that a volition can ever arise from purely intellectual considerations. From the intimate association of the phenomena of attention and of will he was led to identify apperception with volition. Oswald Külpe follows Wundt in considering apperception and will as one and the same function.

Closely allied to this view is the ideo-motor theory of William James, according to which the mere presence in the mind of the idea of an act tends to bring the act about. "The essential achievement of the will, when it is most voluntary, is," he says, "to attend to a difficult object and hold it fast before the mind." Ribot, on the other hand, regards the subjective phenomena of volition as mere by-products of those unconscious or subconscious psycho-physiological processes by which our actions are in fact determined. For Bain "the motives to voluntary action are unquestionably summed up in pleasure and pain." Mr. Stout follows Wundt in emphasizing the intimate relation of will and attention. With Ribot and Höffding, he attaches little weight to the recognized reasons for a choice or decision. "Behind them there always lies *the self as a whole*, and what this involves can never be completely analysed or stated." Among the first to come to close quarters with the problems of will-psychology by the planning of experiments involving definite acts of choice may be mentioned Donders, Ach, and Prüm.

Dr. E. Boyd Barrett, S.J., in a recently published volume,[1] has described an interesting series of experiments conducted by himself in the psychological laboratory of the Superior Institute of Philosophy at Louvain, which is in the charge of Professor Michotte. In these experiments, which are well worthy of the attention of medical psychologists, the writer "has taken up directly the investigation of motives and motivation, and has examined the problems of the strengthening of motives, the measurement of motive force, and the evolution of motivation." He rightly considers it indispensable "that will psychologists should prepare and plan out in their laboratories precise sets of choices to be made by subjects well trained in psychology and accustomed to introspection. In this manner records of choices of sufficient number and of good quality can be obtained." The subjects of Dr. Barrett's experiments—Professor Michotte, Dr. Fransen, Mr. J. Vance, B.A., and Dr. A. Centner—were all psychological experts. To these four subjects twenty-eight definite choices were presented under identical conditions in a carefully planned order, time durations being marked by chronoscopes, and the precautions prescribed by the best exponents of the psychical method observed. Eight colourless liquids of definite strength and indistinguishable appearance were prepared, carefully graduated from the point of view of agreeableness. The chief constituents of the eight liquids were, respectively, sulphuric acid, sodium carbonate, ethyl alcohol, saccharose, sodium salicylate, sodium chloride, essence of anise, essence of orange peel. To each of these a "nonsense" name was given by the initial letters of which, B, C, J, K, L, V, Z, T, they soon came to be known. The four subjects were first systematically trained in tasting and recognizing the eight mixtures, and when they were all fairly proficient in this the reaction times of the associations formed were tested by a series of experiments. When the reaction times grew regular the introductory series was brought to a close, and each subject then wrote down from memory the eight tastes in their order of hedonic value for him.

The choice-experiments proper were now begun. The names of the mixtures were printed on cards in their twenty-eight combinations of two alternatives, and the sittings were so arranged that in each week of the experimental period the entire series of twenty-eight alternatives was presented to each subject, but in a different order for each week. The subject sat at a small table, in a room from which all distracting conditions were excluded, with a finger resting on the reaction key. On a stand before him were placed two glasses containing two of the mixtures; the raising of either glass broke the contact of a circuit connected with a Vernier chronoscope. Above the stand an Ach's card-changer was so placed that on the appearance of the cards the printed names or initials (for example, Z—B) would be seen above the corresponding glasses. The experimenter, from an adjacent room, by pressing a button warned the subject; then by pressing another button caused the card to appear. On seeing the card, the subject read it, weighed the merits of the proposed alternatives, reacted by raising the finger, and took up and drank the chosen mixture. The experimenter then re-entered and wrote down from dictation all that had passed in the subject's mind during the act of choice. These introspections

[1] *Motive Force and Motivation Tracks: A Research in Will Psychology.* By E. Boyd Barrett, S.J., Doctor of Philosophy, Superior Institute, Louvain. London: Longmans, Green, and Co. 1911.

were the material to be analysed later on. The time of choice (from appearance of card to raising of finger) and the time thence to realization (raising of glass) were measured by a Hipp and a Vernier chronoscope. The entire investigation comprised 1,063 experiments.

The author claims for this method that it has enabled him to trace the building up of motives in real acts of choice, to watch the evolution of motivation under various influences, and to analyse and compare the different types of motivation and choice.

A noteworthy feature in all acts of choice is the tendency to economize effort. Thus, where a conflict of motives exists, it is obvious that any given motive may be strengthened or weakened by various conditions; and if a particular motive be so reinforced as to reach a certain degree of strength, called by the author its critical point, the choice ensues automatically without regard to the presence of other and conflicting motives. A similar economy of effort is evidenced in cases where the mind is repeatedly confronted by identical or like alternatives; there is a notable tendency to the repetition of the original mental phenomena, "as though the mind followed in the furrow already ploughed." To these mental furrows or habits of choice the author applies the figurative title of "motivation tracks," and in the study of their development some interesting facts came to light. While the general structure of the choice-act remains much the same, it is performed more rapidly, with less consciousness of effort, less consciousness of any kind. Superfluous factors are dropped; the choice-process is reduced to its simplest terms, and, in place of being jerky or discontinuous, "passes by like a streak or flash of light." On condition that the original choice between two alternatives was based on a thorough motivation and a definite scale of values, there is, in fact, with every repetition an approximation to automatic choice. The feeling-tone of the process becomes pleasanter owing to the removal of doubt and hesitancy. Individual motives—for example, taste-memories and associations—are less vividly or sensuously realized: the subject feels more detached in his deliberation, which becomes with each repetition less concrete and more abstract. Finally, the stage of almost complete automatism is reached: individual motives, first reduced to "a kind of abstract algebra," finally disappear; the entire process is fused into a single impulsive act, and the choice may be made and realized almost before the subject is aware what he has done. Yet it should be noted that several instances of caprice and inconsistency showed the impossibility of arriving at absolute automatism when dealing with human beings. Inconsistency is particularly liable to occur in the case of choice-acts characterized by hesitation. The latter is to be regarded as an anti-economic and injurious affection of the will, distressing to the subject, and attributable generally to careless motivation and the lack of a definite scale of values. It occurs oftenest when choice has to be made between two alternatives of negative value. The central fact that emerges from the investigation as a whole is that "when a choice has to be made between two alternatives, the choice is quick and easy in proportion as the values of the alternatives are clearly and definitely known." The author claims that all the essential elements of character are expressed in the choice-process, and, for one of his four subjects, he even submits a quantitative statement of the various characteristics revealed by his reactions.

SOME TOXIC EFFECTS OF SALVARSAN.

BEFORE the fifth German Congress of Neurologists, held last October in Frankfort, Professor Finger of Vienna delivered, apparently in the presence of Professor Ehrlich himself, an important address on the toxic effects of salvarsan. In his introductory remarks the Viennese syphilographer mentioned incidentally that as long as the preparation was not on the market he had not countenanced its use outside the hospital clinics, for he considered that its employment in private cases in these circumstances was unfair. After it had been placed on the market some unpleasant experiences had made Professor Finger hold his hand before advising its general use.

He considered that the only data from which conclusions should be drawn were those obtained by observation in a hospital, in a public way, where cases could be seen and followed up by several medical men, for it was easy in private practice for the sole observer to auto-suggestionize himself. Dr. Finger had treated over 500 patients with salvarsan, and with salvarsan only, in order to be able to judge the preparation on its merits, an end which could not be achieved if mercury and potassium iodide were also given. Everyone admitted the good symptomatic results obtained by means of salvarsan, but he desired to deal with the complications, especially those of the nervous system.

Latterly, following the lines laid down by Ehrlich, he had used salvarsan by the intravenous method only. Among the symptoms which might follow the injection, Professor Finger enumerated the following: rigors, fever with a temperature of 40° C. (104° F.) and upwards, general malaise, prostration, headache, dizziness, vomiting, colic and diarrhoea, jaundice, loss of appetite, rapid pulse, cardiac symptoms, dryness and irritation of the throat and pharynx, difficulty of breathing, psychic and motor restlessness, tremors of the knees, bladder troubles, severe sweating, conjunctivitis, salivation with salty taste in the mouth, urticaria, erythema, herpes zoster, temporary melanosis. In addition soon after, indeed in some cases immediately after the injection, symptoms such as the following were observed: oedema and cyanosis of the face, clouding of the mind, vomiting, diarrhoea, breathlessness, diaphragmatic cramps, tonic and clonic contractions of the muscles of the limbs, severe collapse. He considered that these various symptoms pointed to an acute arsenical intoxication, and most observers were of the same opinion. He did not agree with the views of Neisser and Kuznitzky on this point, namely, that the symptoms were the result of the direct action of salvarsan on the spirochaetes, that is, were due to a general specific reaction produced by the setting free of endotoxins through the destruction of a large number of the parasites. That view could not explain the fact that similar symptoms had been observed after the injection of salvarsan in non-syphilitics, as in psoriasis and leprosy for instance. Moreover, the *post-mortem* appearances agreed with the diagnosis of arsenical intoxication. Géronne and many others had established this point, and Professor Finger had himself had a fatal case in which the necropsy was done by Professor Weichselbaum of Vienna, who had come to the conclusion in his report that in the absence of any other discoverable cause death was due to acute arsenical intoxication. Nor did Finger accept the view of Wechselmann of Berlin, that the symptoms were due to micro-organisms in the saline solution employed. Finger said that the saline solution he employed was always freshly prepared and sterilized by the hospital pharmacist, and he had, moreover, ascertained

that even before sterilization the saline solution had been found to be practically free from germs. Although both in his own clinic and in that of others in the Vienna General Hospital, intravenous injections of saline solution to the extent of a litre had frequently been carried out for various conditions, symptoms similar to those he had described had never been observed. Moreover, the same symptoms had occurred after intramuscular injections of salvarsan, so that the saline solution could have played no part in their production.

As to the very important matter of nerve involvement, Finger stated that out of his 500 cases nerve complications were observed 44 times (9 per cent.), whereas in Herxheimer's 900 only 9 occurred (1 per cent.), in Weintraud's 1,500 only 13 (0.9 per cent.) and in Wechselmann's 2,800 only 10 (0.37 per cent.). But Zimmern has pointed out that only 125 of Herxheimer's 900 cases were kept under observation, and it was in these 125 cases that 9 instances of nerve trouble (7.5 per cent.) occurred. Géronne and Gutmann had stated that only 300 of Weintraud's 1,500 cases were under any continued observation, and out of these 300 cases 13 exhibited nerve symptoms (4.3 per cent.). Wechselmann himself admitted that he only saw a portion of his total patients again.* Finger then reviewed in detail the cases of nerve complication he had observed, and concluded that the connexion with salvarsan could not, on the following grounds, be doubted:

1. The occurrence of the nerve troubles with typical regularity some six to eight weeks after the salvarsan treatment.

2. The frequency of these complications in patients treated with salvarsan as compared with the relative infrequency of such complications in patients either not treated at all or treated by means of mercury; in the thousands of cases of syphilis he has had under observation for two or three years after infection such nerve complications had been very rare. But in cases treated by salvarsan he had seen in a short period 44 cases of nerve complications in 500 cases treated by salvarsan. Benario had collected in medical literature 194 cases of nerve complication after salvarsan treatment, and 122 after mercurial treatment, but such statistics were of no value unless the total number of cases treated by the two methods was known, and though the total number of salvarsan cases might be known, the number of cases treated by mercury was not known.

Finger criticized Ehrlich's view that the nerve complications were due to the survival of spirochaetes in bony canals, the spirochaetes in the rest of the organism having been destroyed by the salvarsan. There was, he said, no proof of the complete sterilization of the rest of the organism; on the contrary, Finger found that in 12 out of his 44 cases of nerve trouble, widespread affection of the skin and mucous membranes was present at the time of the appearance of the nerve symptoms, or followed the latter. The Viennese professor adduced other objections to salvarsan, and concluded his paper by stating that, judging from his own statistics, the secondary stage, and especially the early secondary stage, was not a suitable period for the exhibition of salvarsan, 12 per cent. of his nerve complication cases occurring in the secondary stage, as against 4 per cent. in the primary and 2 per cent. in the tertiary stages.

On the other hand, whilst admitting that the increased number of complications observed recently after the use of salvarsan, as far as the auditory apparatus is concerned, do mean something new, Dr. Karl Beck, assistant in the ear, throat, and nose clinic of Professor Kümmel in Heidelberg,[1] points out that as to whether these are due to salvarsan or to syphilis is another matter. In any case he found that, whereas only one such instance of auditory complication has been observed during a period of five years in the ear clinic, five such cases had come under notice in the previous six months after salvarsan treatment. Dr. Beck thought he could clear up the matter by injecting salvarsan in suitable doses into the vein of the tail of white mice, and then, after a time, decapitating the animals and cutting sections of embedded skull and contents. The results were negative. Dr. Beck admits, too, that such experiments on animals cannot afford conclusive evidence as to what happens in the human organism. There are differences which cannot be ignored. The fact remains that auditory complications in the Heidelberg clinic are out and away far more common since salvarsan has been used. This, at any rate, confirms the opinion expressed by Professor Finger of Vienna.

* Whether some of the patients who were injected in the first rush had syphilis at all is a point worth considering.

1 *Muench. med. Woch.*, January 9th, 1912, p. 10.

DEATH OF SIR HENRY BUTLIN.

WITH profound regret we have to record the death, at the age of 66, at his house in London, on January 24th, of Sir Henry Butlin, Past-President of the British Medical Association, and of the Royal College of Surgeons of England. He had been in declining health for a year or more, and his recent resignation of the office of President of the Royal College of Surgeons was due to a feeling of failing physical strength, of which his friends were painfully aware, although they detected no diminution in the critical acumen and even balance of judgement which were his most striking intellectual characteristics. It was characteristic of him, also, that in all his prolonged public work for the profession which he loved, and of which he was so bright an ornament, he never grudged, at whatever cost of leisure or private advantage, to give time and energy unstintingly, and that having once undertaken a duty he was never satisfied until he had made himself thoroughly master of every detail and had thoroughly weighed every fact and circumstance which could influence or determine his final decision. He always took a keen interest in the fortunes of the British Medical Association. He was Treasurer from 1891 to 1895, and President in 1910. A biographical notice will be published next week. A memorial service will be held at St. Andrew's, Well Street, at 1.30 p.m. on Monday, January 29th.

THE PROFESSION AND THE POLITICIANS.

MR. J. M. ROBERTSON, M.P., Parliamentary Secretary to the Board of Trade, recently paid the medical profession a very high compliment when he described them as "the worst set of politicians." That he did not mean this as a compliment, but the reverse, makes the offence all the more gracious, for it leaves no room for doubt as to its sincerity. To appreciate the full significance of the compliment one must know the full import of the word "politician." Lord Salisbury, who must be supposed to have known what he was talking about, described politics as a vile trade. We therefore thank Mr. Robertson for saying that we are not skilled in the arts of intrigue, the "terminological inexactitudes," the "ways that are dark and the tricks that are vain," which go to the making of a successful politician in these days. But when Mr. Robertson goes on to say that the majority of doctors are probably Tariff Reformers, and that this is the reason why they have "set up all that violent and furious opposition to the Act," we venture to ask what grounds he has for such an assertion?

He is good enough to suggest as an excuse for our bad politics the fact that the laborious training needed for the medical profession leaves us no time to learn anything else. Well, that training has taught us not to make sweeping assertions without proof, and that is a lesson which Mr. Robertson has evidently not learnt. When he says that if the Insurance Act had been "a proposal to make the people's food and boots dearer, there would have been no meeting of doctors to protest," he makes a statement as silly as it is unwarrantable. Would not the doctors' own food and boots be dearer? And would not the people have less money to pay their doctors? The truth is, we are bad politicians, in Mr. Robertson's opinion, because we fail to appreciate the merits of a measure which as it stands, while doing little good to the people for whose benefit it is ostensibly intended, will do the medical profession much harm. Mr. Robertson has evidently learnt arithmetic at the feet of the Gamaliel of the Treasury, for he assured his Tyneside constituents that "about six millions sterling would be available for the payment of doctors, and, as 10,000 would be sufficient under the Act, that worked out at £600 per doctor per annum." This is indeed a promise of "rare and refreshing fruit" for the parched lips of the profession! But alas! it turns to ashes in our mouths when we are confronted with the hard fact to which Dr. James Muirhead, of North Shields, calls attention, that as there are to be, roughly, fifteen million persons insured, the number of persons named at 6s. a head allows a sum of four and a half million pounds sterling—this sum to pay both doctor and chemist. Where is the doctor to get his £600 a year from? We may also ask, where does Mr. Robertson imagine Mr. Lloyd George is to get the ten thousand doctors from? When the Messenger announces to Macbeth "There is ten thousand ——," the harassed despot asks, "Geese, villain?" Mr. Robertson would answer "*Doctors*, sir." He must know that there is nothing like that number available if they stand firm and faithful to their pledges. The profession will insist on express and unreserved compliance with its just demands, and will decline to be cooked with any sauce offered by politicians who seek to buy popularity at its expense.

THE "CARNEGIE UNIVERSITY."

AMERICA is the land of many inventions. Among them is the quack university. An account of some of these will be found in Mr. Abraham Flexner's report to the Carnegie Foundation for the Advancement of Teaching on Medical Education in the United States and Canada, issued in 1910. By a strange irony of fate Mr. Carnegie's name has been taken by a "university" which has its seat at Wilmington, in the State of Delaware, from which it holds a charter. An account of this institution is given in the *Journal of the American Medical Association* of November 18th, 1911. Affiliated with the "Carnegie University" is the National Institute of Mechano-therapy of New York City chartered by the State of New York. It has an imposing staff of officers and "regents" whose varied and manifold titular distinctions almost exhaust the resources of the alphabet. Among these learned suffixes the letters M.D. are conspicuous. The effect of this array is somewhat diminished, however, when we learn from the *Journal* that a careful search of official records has failed to reveal the existence of these men of many letters in any list of licensed practitioners of medicine. Our contemporary therefore suggests that these gentlemen may have conferred their degrees on each other. We have heard of a meeting of a medical body which was attended by two persons. One of these elected the other President, and that gentleman thereupon elected to the office of Secretary the "dearly beloved Roger," who formed the rest of the assembly. But let us hear what the institution has to say for itself. The "Annual Announcement" states that the "Carnegie University is the oldest and most celebrated institution of learning of its kind in the United States of America. It was initiated, promoted, and financed by a few of America's most prominent gentlemen in the financial as well as the professional world. These gentlemen knowing the progress that Drugless Therapy (healing) has made in the last twenty years, and understanding the great future for this science, saw the necessity of devoting one of the colleges of the great university to Drugless Therapy, so that those earnestly desiring to become drugless physicians and bloodless surgeons could acquire a thorough and scientific knowledge of the various sciences which constitute the natural method of healing. The university is named in honour of Carnegie, the great philanthropist, who has done so much for the dissemination and promulgation of knowledge and education." We have no doubt that Mr. Carnegie duly appreciates the honour thus done him. It would be interesting to know whether he has given the institution which has taken his name a free library; we cannot help thinking that a present of books, such as an English Sovereign once sent to the University of Oxford, might be useful. The university, it is further stated, "gives instruction in all Drugless Arts, Sciences, and Philosophies, and in any other Art, Science, or Philosophy. It also confers degrees in any art, science, or philosophy." This is a fairly ambitious programme, for "Drugless Art, Sciences, and Philosophies" include the whole of knowledge, except, we suppose, that of drugs, and even that might be covered by the words "any other Art, Science," etc. The diplomas issued by the *Carnegiana Universitas* are described as magnificently engraved pieces of white parchment, 19 by 24 in. When it is added that the recipient is told that whatever "course" he may take "the degree is legal in every country on the globe, and the graduates are protected by the high standing of the corporation, with its immense resources," it will be seen that the successful candidate gets full value for his money. The diploma reminds us of that given to the candidate in the *Malade Imaginaire*, which gave *licentiam, virtutem et puissanciam medicandi * * * et occidendi impune per totam terram*. The examination itself could not be bettered for absurdity, even by Molière. A member of the staff of the *Journal of the American Medical Association* wrote to say that he was going to England to start an office as a bonesetter and asking if he could have a diploma in mechano-therapy without going through the course. He offered to pass an examination if the questions were sent him, and to pay the fees. The offer was at once accepted. A few of the questions asked and the answers—purposely drawn up so as to show ignorance rather than knowledge—are given to show the character of the examination and the sort of stuff that was accepted as entitling the candidate to the degree of Doctor of Mechano-therapy. Embryology was described as the study of the newborn baby and how to care for it. The portal circulation was stated to be the circulation of the chile and chyme which is found in the stomach when the food is being digested. But the cream of the thing is the description of the fornix, which is said to be "that part of the throat at the back of the tonsils which is affected in catarrh. An adjustment of the vertebrae of the neck will often help it." Keratitis should be treated by manipulating the muscles and nerves of the back, and by adjusting the vertebrae of the neck. Malaria is to be treated by massage to make the bowels move, and the spine should be adjusted to improve the circulation. After this exhaustive examination the candidate was informed that he had passed "very satisfactorily," and that the Carnegie University had conferred on him the degree of Doctor of Mechano-therapy. This valuable diploma is to be had for the trifling sum of 50 dols. (£10). The process of graduation could scarcely be made easier or cheaper. If the *Carnegiana Universitas* continues to flourish, the number of "drugless physicians and bloodless surgeons" will increase and multiply at a rate that might supply the Chancellor of the Exchequer with doctors enough to work his *monstrum horrendum informe* of an

Act. This would have the financial advantage that the drug part of the medical benefit could be dispensed with. There are, of course, certain difficulties in the way, but Mr. Lloyd George is not a man to be beaten by trifles, and he would doubtless get a large measure of support among the classes on which he can exert his hypnotizing influence if he proposed to repeal the Medical Acts.

SLEEPING SICKNESS.

On January 17th Dr. John Rennie, Lecturer in Parasitology at Aberdeen University, delivered an address on sleeping sickness and *Glossina*. He said the earliest known undoubted reference to the disease was to be found in a book, entitled *Physical Observations on the Coast of Guinea*, written by John Atkins, a naval surgeon. The disease was there recognizably described under the name of the "sleeping distemper." The work was dated 1742. The next reference to the disease was a description of it as observed in West Africa in 1803—100 years before the parasite transmitting the disease was identified. In 1882 its distribution from Senegal, on the extreme west to Loanda, including the islands in the Gulf of Guinea, was known, and in 1893 its existence on the Niger and at Stanley Falls, on the Congo, was noted. Having pointed out that sleeping sickness was clearly a West African disease, Dr. Rennie referred to its introduction into the eastern portions of the Continent. In 1900 it was discovered in Uganda, and at that time it was so widespread that it must have been in existence in that region for some time. Evidence showed that the northern shores of Lake Victoria Nyanza were infected about 1896. It seemed clear that the flies in Uganda were infected by Congolese followers of Stanley. Those men had contracted the disease where it was endemic. The outbreak in Uganda had all the characteristics of a newly imported disease, and spread in epidemic form with great rapidity, so that, after a duration of about six years, the population of the district was reduced from 300,000 to 100,000. At Entebbe in 1902 Bruce found that 30 per cent. of the population harboured the parasites—trypanosome—in their blood. Fifteen species of the *Glossina palpalis*, the tsetse fly, which was first suspected of transmitting the malady, were known. Their range on the north was restricted to a line drawn from Senegal, across to Lake Chad, and thence to about the fourth parallel on the east coast, and, on the south, to a line from about Cape Frio to Zululand. They had also been discovered in Southern Arabia. Dr. Rennie, in conclusion, alluded to the different methods of dealing with the scourge adopted in the infected areas. They included the establishment of segregation camps, the compulsory removal of the natives from the shores of Lake Victoria Nyanza, and the clearing, so far as possible, of the regions where the fly existed.

THE CLASSIFICATION OF CAUSES OF DEATH.

THE Registrar-General has issued to all Medical Officers of Health an official copy of the *Manual of the International List of Causes of Death* as adopted for use in England and Wales by Dr. T. H. C. STEVENSON, Superintendent of Statistics. The object of the publication is to define the headings of the mortality tables in the annual report of the Registrar-General, and to enable Medical Officers of Health to prepare local tables on lines uniform both with each other and with those recently laid down for use in the General Register Office. The number of possible fatal diseases included in such a list as that contained in the *Nomenclature* of the Royal College of Physicians of London is so great that separate returns for each would be out of the question in tables showing the relation of causes of death, sex, age, locality, occupation, etc., either singly or, as is more often required, in combination. Though it is recognized that mortality-rates from a single well-defined disease or small groups of closely related diseases are more reliable for the purposes of comparison than mortality from groups, and that, therefore, the group headings are on the whole of much less importance than those relating to single diseases, yet grouping is inevitable in the preparation of tables, and this implies a certain amount of classification of disease. For this country the determination of the terms to be regarded as synonyms is supplied by the *Nomenclature*, but difficulties arise in respect of a large number of indefinite or otherwise objectionable terms excluded from the *Nomenclature*, but still used in death certificates. The *Manual* contains an index which refers the various minuter classifications, whether sound or unsound, to the various heads included in the table of the International List of Causes of Death, which underwent a second decennial revision at the conference in Paris in 1909. This list will not only facilitate the comparison of English mortality with that of other countries, but provide a common standard for the compilation of mortality statistics in this country, since the Local Government Board has already adopted it as the basis of the skeleton tables issued for the use of medical officers of health. The difficulty of arranging for the continuity of British records was felt to be an objection to the change, but it has been found possible to overcome this objection almost completely by subdividing a number of the titles of the international list. The continuity thus secured is substantial, though not absolute; none of the minute differences unprovided for are of any substantial importance, and are of less magnitude than many changes which the necessary development of the lists hitherto in use in the General Register Office has from time to time involved. Dr. Stevenson, in his introduction, refers to the definition of primary and secondary causes of death. The following note on the subject occurs in the "Suggestions to Medical Practitioners Respecting Certificates of Cause of Death," issued last October: "By 'primary cause of death' is meant (in the case of deaths from disease) the disease present at the time of death, which initiated the train of events leading thereto, and not a mere secondary, contributory, or immediate cause, or a terminal condition or mode of death. Acute specific diseases, if of recent occurrence, are to be considered the primary cause of death, even though the actual disease, as tested by power of infection, be no longer present at the time of death—*e.g.*, measles (primary), five weeks; bronchopneumonia (secondary), ten days. A terminal condition or mode of death should not be entered as a secondary (or contributory) cause. In a very large proportion of instances the statement of the primary cause gives all the information required; in these cases nothing is gained by adding as a secondary cause such a condition as syncope, heart failure, coma, exhaustion, etc. Thus a certificate of pulmonary tuberculosis is not improved by addition of 'exhaustion' as a secondary cause, though if a complication such as 'pneumothorax' had supervened this should be noted as a contributory cause of death." Any medical officer of health who has not received a copy of the *Manual* should apply to the Registrar-General, General Register Office, Somerset House, London, W.C.

THE WORLD'S GREATEST MEN.

BOSWELL, in his *Life of Samuel Johnson*, says: "Once, when checking my boasting too frequently of myself in company, he said to me: 'Boswell, you often vaunt so much as to provoke ridicule. You put me in mind of a man who was standing in the kitchen of an inn with his back to the fire, and thus accosted the person next him: "Do you know, Sir, who I am?" "No, Sir," said the other, "I have not that advantage." "Sir," said he, "I am the *great* Twalmley, who invented the new floodgate iron."'" What the great Twalmley was so proud of having invented was a kind of box-iron for smoothing linen. This, as might be expected, would appear to be Mr. Carnegie's idea of greatness. Some time ago he drew up a list of those whom he considered the twenty greatest men whom the human race had as yet produced. The list is as follows, the names being placed, we presume, in order of merit:

Shakespeare; Morton, discoverer of ether; Jenner, discoverer of vaccination; Neilson, inventor of hot blast in manufacture of iron; Lincoln; Burns, the Scotch poet; Gutenberg, inventor of printing; Edison, applier of electricity; Siemens, inventor of water meter; Bessemer, inventor of steel process; Musnet, inventor of steel process; Columbus; Watt, improvement on steam engine; Bell, inventor of telephone; Arkwright, inventor of cotton-spinning machinery; Franklin, discoverer of electricity; Murdock, first to employ coal as illuminant; Hargreaves, inventor of spinning; Stephenson, inventor of locomotive; Symington, inventor of rotary engine. We are pleased, though a little surprised, to see that Shakespeare heads the list. We note, too, with satisfaction that Morton and Jenner come next. The name of Burns is inevitable in any list of great men drawn up by a Scot. Columbus naturally has a place as a discoverer of America, in which Mr. Carnegie accumulated his £86,000,000. The presence of Lincoln we take to be a homage to the American spirit. All the rest, with the exception of Franklin—who did not, by the way, discover electricity, though he was a pioneer of electrical science—are "Twalmleys." Mr. Frederic Harrison scoffs at Mr. Carnegie's "greatest men," and asks, "If we once begin to insert the authors of modern mechanical inventions, where shall we stop, and where do automobiles and aeroplanes come in, or Marconigrams and kinematographs, nay, even fountain pens, gramophones, antipon, and pink pills—and all the damnable dodges invented to make us all go faster, work harder, and worry each other worse than man was ever worried before?" The enterprising editor of the *Review of Reviews* submitted Mr. Carnegie's list to about one hundred chosen authorities in Great Britain and on the Continent. The result of the voting was the following list: Shakespeare, greatest of modern poets; Columbus, discoverer of America; Julius Caesar, "the Roman Empire"; Gutenberg, inventor of typography; Newton, founder of modern astronomy and physics; Dante, father of modern poetry; Darwin, founder of new science; Stephenson, inventor of locomotives; Homer, ancient poetry; Buddha, founder of Buddhism; Aristotle, ancient philosophy; Michael Angelo, painter, sculptor; Franklin, discoverer of electric forces; Abraham Lincoln; Moses, early theocratic civilization; Socrates, Athenian philosopher; St. Paul, Apostle of Christianity; Watt, inventor of steam-power machines; Confucius, Chinese philosopher; Charlemagne, founder of European State system; Luther, Apostle of the Reformation. Thus, of Mr. Carnegie's "greatest men," only seven remain in the final list. This list is even more interesting than that of the Pittsburgh ironmaster, as showing the point of view of the average educated man. It will be noticed that in this final list medical research is not represented at all. A list of the world's greatest men which does not contain the name of either Pasteur or Lister is so remarkable that one would like to feel the bumps of the persons to whom Mr. Carnegie's list was submitted, as Charles Lamb wished to do in the case of the man who thought Milton was no poet. When a *plébiscite* was taken by *Le Matin* a year or two ago on the subject of the greatest Frenchman of the nineteenth century, Pasteur headed the list by an enormous majority.

PAYMENT OF DOCTORS' BILLS.

THE Northern Assurance Company has issued a scheme of insurance of medical expenses, otherwise called "payment of doctors' bills," and the leaflet in which it is set forth is of more general interest at the present moment than most of the alluring documents with which the assurance companies adorn our tables. It points out that, while the problem of providing for the medical attendance of the industrial population of the country is dealt with in the National Insurance Act, its provisions do not extend to persons receiving more than £160 a year from their employers by way of salary. This statement, as is well known, requires qualification, since the Act applies to all persons engaged in manual labour whatever their annual income. Leaving this point aside, however, we come to the scheme which the company has devised. It proposes to provide for the payment of medical expenses incurred by those who are outside the benefits of the National Insurance Act, and it is interesting to note the terms which this company—old, for it was established in 1836, and wealthy, for it has accumulated funds of over seven and a half million—has put before the public as a business proposition. In the first place, it may be noted that the scheme is carefully limited. It applies to men only: "policies are not issued to females." All policies cease at the age of 60, and no new policies are issued after the age of 50. A man taking out a policy at the age of 40 or over is required to pay a premium which is higher by close on 30 per cent. The policy will not be issued to young persons; the holder must be 19 years or older. The premiums are governed partly by the age of the applicant, and partly by the maximum sum payable in any one year. If this sum is £10, the policy-holder aged 40 or younger pays 18s. a year; if over 40 he pays 23s.; if the sum be £20 he pays 23s. or 30s., according to age at entry. But the maximum sum payable is guarded by the provision that the medical expenses at these rates must not exceed "£1 per week on the average during the period of disablement." The policy covers "medical expenses, including the cost of medicines and surgical appliances, incurred in connexion with any sickness or accident which incapacitates a policy-holder from following his usual occupation." So far as the clause last quoted goes, the benefit seems to be more or less on all fours with that proposed to be given under the Insurance Act, but its duration is limited by the maximum sums payable, which may be exhausted in ten or twenty weeks respectively. The benefit offered by the company ceases at the age of 60; under the Act there is no age limit, a person once insured will continue in medical benefit to the end of his life, though sickness and disablement benefits cease at the age of 70. The policy issued by the company would apparently be a yearly contract, that is to say, the company might, if it thought fit, refuse to renew a policy at the expiration of any year. If the demands made by a policy-holder were frequent and high, it seems not unreasonable to suppose that the company might be unwilling to renew, and in this way would not allow itself to be burdened by chronic cases; that it is not ready to accept persons likely to suffer from much ill-health or from a chronic illness appears to be confirmed by two questions in the proposal form: "4. Are you free from any physical defect or infirmity, and are you now in, and do you ordinarily enjoy, good health?" and "7. Have any of your near relatives died of or suffered from consumption or tubercular disease? If so, give particulars." There is another question which appears to suggest that the company might not be disposed to accept a proposal from a man who indulges in certain hazardous amusements. This is question No. 10: "Do you engage in any of the following: Football or polo playing, motor cycling, hunting, mountaineering, racing of any kind on horseback or on wheels? If so, state which." It may be concluded from the existence of this proposal form that a candidate is required to submit to medical examination, and that the company only accepts healthy lives. With these limitations—and there may of course be others, or these may be more closely defined in the policy, with a copy of which we have not been favoured—the company considers it necessary to charge a young man 18s. a year for a maximum sum payable for medical expenses of £10 in respect of any illnesses or accidents in any year. As the company offers to arrange larger or smaller benefits (within certain limits),

we may take the Treasury's 6s. and conclude that the company would for that sum provide £3 6s. 8d. for medical expenses in any one year. As the minimum average weekly payment in respect of medical expenses for which the company is willing to arrange is 10s. a week, this would be a provision for illnesses or accidents incapacitating a policy-holder from following his usual occupation during, say, seven weeks in any one year. For a policy-holder entering at the age of 40 it may be assumed that the company would, for the annual premium of 23s., provide up to the age of 60 something under 53 , or, roughly, medical expenses for illnesses and accidents incapacitating for about five weeks in any year. The sickness periods in either case are a good deal longer than the data used by the Treasury actuaries, and granting, what is of course the case, that the company intends to make certain of a profit on its transaction, still it seems fair to conclude that, in the opinion of its actuaries, the Government actuaries have put the rates of sickness upon which their calculations are based too low.

THE INTERNATIONAL OPIUM CONVENTION.

THE International Opium Conference, which assembled at The Hague early in December, and at which twelve nations were represented, has, with commendable promptitude, completed its labours and produced an International Convention, which was signed by the Plenipotentiaries of the Powers taking part in the Conference on Tuesday afternoon. Votes of thanks were accorded to the Queen of the Netherlands and her Minister for Foreign Affairs (Dr. de Marees Van Swinderen), and likewise to Bishop Brent, of the Philippine Islands, one of the American delegates, who acted with great ability and courtesy as President at twenty-five plenary sittings of the Conference. The text of the Convention is now in the hands of the respective Governments, and will, it is hoped, be speedily published in detail. It consists, we understand, of six chapters, and contains twenty-five articles, dealing successively with the new restrictions which are proposed in regard to the production, sale, import, and export of raw opium, prepared opium, medicinal opium, morphine, cocaine, and other alkaloids liable to give rise to addiction. Articles have also been inserted providing for the co-operation of other Powers not represented at the Conference, and for the ratification and coming into force of the Convention, and also of the legislation it will necessitate. The assembly of such a conference and its successful issue in a world-wide Convention marks an epoch in the progress of international law in matters dealing with social welfare, and the physical, moral, and mental health of mankind. Great Britain has long had painful experience of the opium traffic as between India and China; public opinion has been accordingly prepared for vigorous and practical handling of the question. She also made her presence at the Conference conditional upon the inclusion of morphine and cocaine within the purview of the work of the Conference. Such inclusion, it is understood, raised questions of vested interests and trade influence which had to be set off against the social and humanitarian ideals that have given force to the crusade against the abuse of habit-forming drugs. We are informed that even if all the hopes which were entertained at the outset of the Conference have not been fulfilled, much solid work has been done, new international law has been laid down, a broad base upon which future additions may be erected has been constructed, and the prevention of drug abuse has been recognized as a solemn international duty. When we recall the nationalities represented and the difficulty of concerted action on their part in other questions, we may regard the final unanimity, which we are assured was eventually attained, as a triumph of diplomacy. The Plenipotentiaries who on Tuesday last affixed their signatures to the Convention and protocol on behalf of Great Britain were Sir William Collins, Sir William Meyer, and Mr. W. Max Müller.

A SHORT WAY WITH LONG SPEECHES.

LONG speeches are one of those afflictions from which audiences of all kinds devoutly pray to be saved. This is all the more the case since it often happens that the less a man has to say the longer he finds it necessary to take in saying it. Short of the guillotine, rules as to the length of speeches are apt to be evaded, or a man will make up in the number of times he speaks for the shortness of time allowed him for any particular speech. There are men whom no amount of coughing, "movement" (as they say in the French Chamber), cries of "Question," and so forth can disturb in the even tenor of their dreary way. It would prevent much waste of time and loss of temper if we could take a lesson from one of the peoples of Central Africa, who have hit on an effective plan of limiting the output of talk from their orators. When a member of the tribe speaks in public he is obliged to stand on one leg during the whole of his speech. We commend this sensible method to the attention of all assemblies, from the Mother of Parliaments downwards. If in the phrase "a speaker is on his legs" the word "leg" were substituted as an amendment, the cure would be effectual. Formerly, according to Dr. Farquharson, no Cabinet Minister thought he had discharged his duty unless he spoke for an hour. Mr. Asquith says all that he wishes to say in half the time; some of his colleagues, however, more than make up for his brevity. What a saving of time, what a help in the transaction of political business, what a gain to the commonweal, it would be if certain orators had to deliver their rhapsodical periods on one leg! Even here, however, difficulties might arise. A man with one leg would obviously have the audience at his mercy. It was said, we think by Lord Sherbrooke, that a deaf member who was seen to be eagerly trying to catch what fell from a prosy speaker was throwing away his natural advantages. It might be felt by an audience addressed by a one-legged orator that he was making an unfair use of his deficiency.

ANOTHER VACCINATION CHALLENGE.

IN the January number of the *Vaccination Inquirer* a correspondent addresses a challenge to Dr. Drury or any other public vaccinator. Mr. James McGhee offers to hand over the sum of £10 to any charity in the event of any one challenged succeeding in producing in him any semblance of small-pox by means of inoculating him "with the secretion of the pustules of small-pox." Mr. McGhee says he is a firm disbeliever in the "germ causation" of disease. Possibly Dr. Drury and many others might feel incited to break the law relating to the inoculation of small-pox in order to convince Mr. McGhee but for the fact that it is a matter of no importance whatever whether Mr. McGhee believes in the germ causation of disease or not and the experiment would add nothing to the store of medical knowledge. Nothing is more certainly demonstrated by incontrovertible evidence than the possibility of conveying certain diseases (small-pox being one of them) by means of inoculation. The *Vaccination Inquirer* has often used the argument that inoculation of small-pox in days gone by was a great factor in the prevalence of small-pox in those days. In bold letters as a headline to Mr. McGhee's quaint letter the *Inquirer*, referring to the challenge, says: "The only Effective Way of Meeting the Scaremongers." If this expresses the belief that small-pox cannot be conveyed by inoculation with small-pox, then the *Inquirer* must have abandoned a former argument. There are, however, so many inconsistencies and contradictions in the arguments of the antivaccinators that another addition to the list causes no surprise.

THE INSURANCE COMMISSIONERS AND THE MEDICAL PROFESSION.

PROPOSAL FOR A CONFERENCE.

In pursuance of the policy of holding, before drafting the regulations to be made under the Act, preliminary private conferences with representatives of bodies interested or concerned in the National Insurance scheme, the Commissioners for England have addressed the following letter to the British Medical Association:

National Health Insurance Commission (England).
Whitehall, London, S.W.
24th January, 1912.

Sir,

The National Health Insurance Commissioners have decided, for their assistance in bringing the Insurance Act into operation, to take the earliest opportunity of personally conferring with representatives, widely selected, of the chief sections of the community specially concerned. Conferences with representatives of prospective insured persons have already taken place, and it is considered that the time has now arrived when it would be of material assistance to the Commissioners to obtain, in a conference, suggestions from representatives of the medical profession on certain important questions of procedure preliminary to bringing the Act into operation.

The National Health Insurance Joint Committee and the Insurance Commissions for England, Scotland, and Wales respectively propose accordingly to hold a Conference on Friday, February 2nd, with representatives of the medical profession: and the British Medical Association is invited to appoint twenty members, selected from England, Scotland, and Wales, to attend the Conference, which will be held at 3 p.m. A further communication will be addressed to you as to the place of meeting. A similar invitation is being addressed to the General Medical Council and other medical bodies.

The point which it is specially desired to discuss relates to the selection of the medical members of the Advisory Committee, by whom the Commissioners must be advised in the framing of regulations in accordance with Section 58 of the Act: and the Commissioners will also be glad to hear the views of those present on other matters of procedure in bringing the Act into operation which the representatives of the medical bodies may desire to bring forward.

I am, Sir,
Your obedient servant,
(Signed) R. W. HARRIS,
Assistant Secretary of the
Joint Committee.

The Secretary,
British Medical Association,
429, Strand.

Offices of the British Medical Association,
Medical Department, 429, Strand.
London, W.C.,
January 24th, 1912.

Sir,

Your letter of even date, inviting the Association to appoint twenty members to attend a Conference on February 2nd to consider certain matters in connexion with the bringing of the Insurance Act into operation, was considered by a Committee of the Association which was sitting at the time of its receipt. I am instructed to ask whether the Commissioners could see their way to postpone the proposed Conference until after the Special Representative Meeting of the Association, to be held on February 21st and 22nd. The Committee feels that such a postponement would be conducive to the object which the Commissioners have in view, namely, to ascertain the opinion of representatives of the profession, as, at the Special Representative Meeting above referred to, instructions will be given to the Representatives of the British Medical Association which would put them in a much better position to voice medical opinion at such a Conference.

The Committee is still sitting, and I should be obliged if you could let me have an answer this afternoon as to the possibility of postponement of the Conference.

I am, Sir,
Yours faithfully,
(Signed) ALFRED COX,
Acting Medical Secretary.

The Assistant Secretary,
Joint Committee,
National Health Insurance Commission,
Whitehall, London, S.W.

National Health Insurance Commission,
Whitehall, S.W.,
24th January, 1912.

Sir,

Your letter of to-day's date has been considered by the Joint Committee of the National Health Insurance Commissions, who were sitting at the time of its receipt. I am instructed to reply that the principal purpose for which the Conference has been convened would be defeated if it were postponed as suggested, because the Committee must under the Insurance Act proceed to appoint an Advisory Committee without avoidable delay, in order that the preparation of Regulations may be proceeded with. The Advisory Committee must include medical practitioners who have had experience of general practice, and the Commissioners would think it desirable to include other members of the medical profession. They would much value the assistance which they could obtain from such a Conference as has been proposed in arriving at a decision as to the best method of selecting such practitioners and they would greatly regret to be deprived of any assistance from the British Medical Association in this respect.

It appears to the Committee, however, that the ground for postponement suggested in your letter rests upon a misconception of the object of the Conference. It is not contemplated that those attending would act in such a strictly representative capacity, or speak with such delegated authority on behalf of their respective societies as would necessitate their previously receiving instructions of the character which you suggest.

In previous conferences of the kind (which I may say have in no case been public), no expression of opinion has been regarded as committing the organization to which the speaker uttering such opinion belongs. This has not prevented the Conferences from affording great assistance to the Commissioners, and it is understood that they were found useful by those who attended. Certain important societies which took part in the Conferences that have already been held by the Commission had in contemplation meetings analogous in character to the Representative Meetings to which you refer, in which the policy of the Societies on important questions affecting them under the Act would be determined. It was found, as the Commissioners have subsequently learnt, that the explanations elicited in the Conference were of material assistance to them in preparing for such meetings, and that on the other hand the attitude of the Society was in no sense prejudiced by the fact of persons nominated by it having taken part in the Conference convened by the Commission.

In view of these considerations, the Commissioners trust that the British Medical Association will see their way to appoint members to take part in this particular Conference on Friday week.

I am Sir,
Your obedient Servant,
(Signed) R. W. HARRIS,
Asst. Secretary to the Joint
Committee.

Alfred Cox, Esq.,
Acting Medical Secretary,
British Medical Association.

The State Sickness Insurance Committee resolved to refer the invitation to the Council of the Association, which meets on Wednesday next, with an expression of opinion, by a majority, in favour of accepting the invitation.

It will be remembered that the Commissioners have already held such private preliminary conferences with officials and prominent members of friendly and benefit societies, of the principal collecting societies and companies engaged in industrial insurance, and of trade unions (including those which have women members), and also with some of those interested in women's societies whose members will be affected by the Act.

THE rapidity of the wastage of men from a force on active service is illustrated by the experience of the French in Morocco. There has been very little fighting, yet, according to a dispatch of the *Times* correspondent, the white colonial infantry and artillery have lost 48 per cent. by invaliding, and 44 officers and 650 non-commissioned officers and men have died. That in this particular instance climatic conditions may have had much to do with the high rates of mortality and invaliding seems to be proved by the fact that the Algerian elements of the force has lost only 4.1 per cent., and the Senegalese only 0.4 per cent.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

NORWICH.

PRESENTATION TO DR. MICHAEL BEVERLEY.

AT a meeting held in Norwich early this month a presentation was made to Dr. Michael Beverley. It consisted of a silver rose bowl, and a gold watch and bracelet for Mrs. Beverley, accompanied by an album and a cheque for the residue of the sum subscribed. The following inscription appeared on the bowl:

Presented to Dr. Michael Beverley, J.P., by old friends and patients, as a mark of their affectionate esteem and appreciation of the many services rendered by him during a period of fifty years' active work in the city of Norwich and surrounding district.

Mr. W. F. Harmer, who made the presentation, said he was unable to call to mind any one who had held exactly the same position in Norwich as Dr. Beverley, and his departure would leave a gap very difficult to fill. It was forty years since he had first made the acquaintance of Dr. Beverley, who was then a candidate for a vacant post at the hospital. Dr. Beverley had steadily and unobtrusively gained the esteem of the public, and had been assisted in that by Mrs. Beverley, whose recovery from her recent illness he was glad to know was now far advanced.

Mr. S. Cozens-Hardy referred to the fact that Dr. Beverley had for no fewer than twenty years held the onerous position of Honorary Secretary of the East Anglian Branch of the British Medical Association, and had been President of the Branch and its representative on the Central Council. He referred to Dr. Beverley's work as Chairman of the Hospitals Committee of the Association, in which capacity he had presided at meetings in London, the result of one of which had been the movement for the abolition of out-patient recommendations; this system had, in fact, been abolished at the Norfolk and Norwich Hospital. In accordance with the doctrine which he had preached, Dr. Beverley himself resigned from the medical staff on attaining the age of 60. He became vice-chairman and subsequently chairman of the board of management, and had been instrumental in advancing its interest. Whilst vice-president he raised £1,100 for the hospital laundries, and it was on his suggestion that the Duke of Norfolk on his marriage gave £1,000 for the promotion of ophthalmic work at the hospital. Dr. Beverley had also been successful in introducing ladies on to the board of management, an innovation which had proved to be of great advantage. For over forty years Dr. Beverley had been connected with the great hospital, and on his resignation it was charming to hear how grateful the old people spoke of his services, his kindness, and sympathy.

Other speeches were made, including one by Dr. Edgar Barnes, who testified to an old intimate friendship with Dr. Beverley.

Dr. Beverley, in reply, stated that sympathy in affliction and cheerfulness by the bedside were important elements in promoting recovery, though he could not go so far as to accept as otherwise than a doubtful compliment what was said to him by an old lady to whom he had spoken in a jocular vein, "They du say, sir, that yare jokes do more good than yare physic." In some reminiscences of his career Dr. Beverley said as soon as he left school he was apprenticed, according to the then prevailing custom, to Mr. William Bransby Francis, surgeon, of Norwich, where he had to learn to make pills, compound medicines, and even at that early age to treat sick people, and particularly babies, whom he had vaccinated in large numbers. He had at this stage in his career occasionally encountered typhus fever, which, thanks to better sanitation and improvement in the habitation of the poor, was no longer seen. Many changes had taken place since those days among the citizens of Norwich, and Sir Peter Eade, to whom he had been clinical clerk, was the only member of the then hospital staff now alive. After studying in London and Edinburgh he had applied for the degree of M.D. from the latter university, and had received it in spite of the fact that he had not attained the legal age of 21 years. This laxity, however, had had the good result of allowing him to spend a year in Paris. Entering on his duties as house-surgeon to the Norfolk and Norwich Hospital on December 28th, 1864, he remained a resident officer for six years, and had to add to the duties usually imposed on the incumbent of such an office that of superintendent of the nurses, who, although not trained according to the present standard, were endowed with an immense amount of common sense and endurance, and carried out their arduous duties faithfully and well; it had been his pleasure afterwards to secure the admission of some of them in the Great hospital, where they ended their days in peace and comfort. Dr. Beverley then described how, after paying a visit to Edinburgh with an introduction from Mr. Cadge to Mr. Lister, he returned to Norwich to introduce what was then known as the Listerian system. In conclusion, he said that he proposed to expend the cheque he had received so as to secure to his children a heirloom they had often expressed a desire to possess.

WEST YORKSHIRE.

DOCTORS AND THE FRIENDLY SOCIETIES IN HALIFAX.

THE Halifax Trades and Friendly Societies' Council have had a series of evenings for the discussion of the Insurance Bill. In response to an invitation from the Council addressed to the Halifax Division of the British Medical Association, Dr. Drury was deputed to attend recently to speak on "State insurance from the doctor's point of view." Great interest was shown in the proceedings by a crowded audience. The medical profession, Dr. Drury said, was united and organized at the present moment more completely than any other body of workers, although what had been printed in certain newspapers might have led some of them to think differently. There were domestic and other differences over the Insurance Act, but there was one solid and immovable phalanx indissolubly united on the main points. The profession was in deadly earnest. Medical meetings in different parts of the country might have been characterized by excitement and exaggeration, but beneath all there was a seriousness of purpose which would have to be taken into account. The profession was pledged almost to a man to decline service on terms anything like those indicated by Mr. Lloyd George. A short history of past legislation as it affects the medical profession was given, and death certification, the Poor Law Medical Service, and the appointments under the Education Authority were cited to show the manner in which the State had dealt with the profession. The State, said Dr. Drury, had gone one step further and had introduced the thin if not the thick edge of the nationalization of doctors. The operations of the Act would strike at the very root basis of medical practice. The crux of the whole difficulty was that the Chancellor had shaped his model on the friendly society medical contract plan. Was it surprising that doctors throughout the length and breadth of the land were gravely anxious about the future of the profession? The Act was to compel all the 14,700,000 persons who were not already friendly society members to accept medical service on the friendly society club doctor plan with possible slight variations. The Royal Commission on the Poor Laws had condemned this plan. General and popular opinion was against contract practice. The chairman at the last Annual Conference of Friendly Societies, held at Edinburgh, stated that a canvass of their medical officers showed that the majority were not satisfied with the terms and conditions of service, and, whether the Insurance Bill went through or not, the societies would have to reconsider their arrangements with the doctors. Contract practice destroyed some most essential elements in the relationship between doctor and patient. The Insurance Act took in hand millions of persons who at present were well served medically and who acted honourably towards the profession. It was the financial support of these millions, and of persons who were more comfortably off, which alone enabled medical men to serve clubs. The placing of these millions on a basis anything like the present terms of club practice was the grievance which must be remedied, and such terms could not form the basis of any scheme which the profession would work. The members of the medical profession had, in effect, been told by the Chancellor to open their mouths and shut their

eyes and see what the Commissioners would send. As to the question of the terms on which the profession would serve, all he could say that night was that the profession had nothing to sell at anything like the price fixed in Mr. Lloyd George's actuarial calculations, and many details were required from the Commissioners before the matter could be considered. Remarking that the British Medical Association was alone the mouthpiece of the whole profession, Dr. Drury reiterated the six cardinal principles and the important resolutions concerning them. A vigorous discussion followed. Dr. Drury was thanked heartily for his speech, and he was cordially invited to address the Trades and Friendly Societies' Council again on a future occasion.

SOUTH WALES AND MONMOUTHSHIRE.

Cardiff Guardians and Provision for Consumptives.

The Cardiff Guardians have now definitely decided to adopt the plan suggested by the subcommittee, namely, to purchase land and erect their own sanatorium and hospital. A site of 25 acres near Penarth has been offered by the Marquis of Bute at £200 per acre, and this was unanimously considered to be the best and cheapest offered.

The importance of the step is obvious, especially in view of the provisions of the Insurance Act. The Clerk pointed out that, at present, many acute cases, and some consumptive patients, were mixed among healthier people in Poor Law wards totally unfitted for the purpose. The guardians were at present paying £600 a year for maintaining nine or ten patients in sanatoriums; one patient alone had cost them £400. The relief to the ratepayers would thus be very considerable, and the benefit to the sick inmates incalculable under the new scheme.

LONDON.

London County Council Appointments.

At the meeting of the London County Council on January 24th an urgency report by the General Purposes Committee was submitted dealing with a suggestion by Dr. Hamer, the newly appointed medical officer for London, relative to the reorganization of the public health service in London under one control. Dr. Hamer strongly urged that, if the post of assistant medical officer which he recently vacated was to be filled, the new officer should be a deputy medical officer and deputy school medical officer. He suggested a salary of £1,000 a year. The General Purposes Committee, while reserving for further consideration the whole question of the reorganization of the public health department, concurred in Dr. Hamer's suggestion.

The Council decided to invite applications for the new post at the salary suggested by Dr. Hamer. The present members of the Council's medical staff will not be precluded from applying; the age of applicants must not exceed 50 years.

The Education Committee of the Council on January 25th approved the following as medical assistants in the Public Health Department at commencing salaries of £400 a year: Miss Agnes Agatha Parson, M.B., B.S.Lond., D.P.H.; Miss Josephine Letitia Denny Fairfield, M.D., D.P.H.; Miss Jane Reid Foulds Gilmour, M.B., Ch.B., D.P.H.; Mr. James Graham Forbes, M.A., M.D., M.R.C.P., D.P.H.; Mr. Frank Chas. Lewis, M.R.C.S., L.R.C.P., M.B. (Hons.), B.S., M.D., D.P.H.; and Mr. Alexander John Malcolm, M.R.C.S., L.R.C.P., D.P.H.

The Annual Report of the Asylums Committee.

The recently issued annual report of the Asylums Committee of the London County Council for the year 1910[1] shows that on January 1st of that year the total number of lunatics for whom the Council was primarily responsible to find accommodation was 19,914. On that date there were also 6,676 lunatics in Metropolitan Asylums Board Asylums, and 413 in workhouses or with relatives and friends, giving a total number of lunatics chargeable to London of 27,003. On January 1st, 1911, the numbers were as follows: London County Council cases, 20,158; in Metropolitan Asylums Board Asylums, 6,875; and in workhouses or with relatives or friends, 448—giving a total of 27,481. The above figures exclude private patients at Claybury Hall, but include "private list" patients, that is, patients admitted in the first instance as pauper patients but for whom afterwards the pauper maintenance rate is paid, and "private patients" at the Manor Asylum and in the Epileptic Colony. The above figures show an increase of the total lunatics for the year 1910 of only 478, as compared with the average increase of 529, and an increase of London County Council lunatics of 244, as compared with an average of 455. The rate of all pauper lunatics chargeable to unions and parishes in the county of London on January 1st, 1911, per 1,000 of estimated population, was 5.71, as compared with 5.61 per 1,000 of population on January 1st, 1910. Taking individual parishes, Strand heads the list with a ratio of 12.8 per 1,000 of population, and Hampstead is the lowest, with 2.7 per 1,000.

Accommodation.

On January 1st, 1911, the accommodation available in London County Asylums, excluding that for private patients at Claybury Hill, was 20,007, as compared with 19,867 beds on January 1st, 1910. It is satisfactory to note that during the past two years over 99 per cent. of London certified lunatics have been housed in the County Asylums, and also that the steady diminution in the number of applications for beds, commented upon last year, continued during 1910. The scheme for extending the accommodation for male private patients at Claybury Hill has been abandoned, but Horton Asylum and the Epileptic Colony are both being enlarged. Plans for the eleventh asylum are still in preparation, and a contract for the purchase of two properties at Denmark Hill for the erection of the Mental Hospital has been entered into, and is awaiting the approval of the Secretary of State. The land, four and a half acres in extent, will, it is said, provide a satisfactory site for the Mental Hospital of 100 beds. It is anticipated that the cost of the building and equipment will be about £40,000.

Medical Statistics.

On January 1st, 1910, there were 19,823 patients in London County Asylums (males, 8,501; females, 11,322), and on December 31st, 1910, there were 20,066 (males, 8,591; females, 11,475), giving an increase of patients in the County Asylums of 243. The total cases under treatment during the year numbered 23,550, and the average number daily resident 19,997.

During the year 1,770 males and 1,957 females, or 3,727 altogether, were admitted. Of the total admissions, 3,484 were direct and 243 indirect admissions.

In 1,332 the attacks were first attacks within three, and in 512 more within twelve months of admission; in 647 not-first attacks within twelve months, as also in 101 in whom it was not known whether the attacks were first attacks or not; in the remainder the attacks were either of more than twelve months' duration (316), or of unknown duration (205), or congenital cases (156). In their revised form the statistical tables only go back to 1907, so that comparison with former years is largely precluded; but it is encouraging to note that the first-attack cases have steadily declined from 2,502 in 1904 to 2,396 in 1910, and as the number of these cases must form the basis of statistics of "occurring" insanity, the figures for succeeding years will be awaited with interest. As to civil state, 1,656 were single, 1,622 married, and 435 widowed, whilst in 14 no information could be obtained. The average age of the admissions in the males was 42.39, and in the females 42.08 years. Considering only the first-attack direct admissions—from this point of view the important class—the numbers fall according to the age at commencement of attack, into the following age periods: 587 were under 30 years; 567 between 30 and 40; 503 between 40 and 50; 372 between 50 and 60; 249 between 60 and 70; and 79 were over 70 years of age. As compared with the previous three years there was a substantial decrease for both sexes of young cases and also of aged females.

Turning to the forms of mental disorder, the direct admissions were classified as follows: Mania, recent 479, chronic 59, recurrent 143; melancholia, recent

[1] Annual Report for 1910-11 of the Asylums Committee of the London County Council. To be purchased from or through P. S. King and Son, 2, Great Smith Street, Westminster, S.W. No. 1456. Price, 2s. 6d. Post free, 3s.

810. chronic 68, recurrent 173; senile and secondary dementia, 175; systematized delusional insanity, 151; non-systematized, 302; general paralysis of the insane, 314; confusional insanity, 231; insanity with epilepsy, 177; primary dementia, 81; insanity with grosser brain lesions, 66; stupor, 47; acute delirium, 14; volitional insanity, 11; congenital or infantile defect, 166, of whom 48 were epileptic; moral insanity, 4; and not insane, 5.

As to causation, out of the 3,479 direct admissions no etiological factors could be assigned in 380. Of the remaining 3,099, alcohol was assigned in 716, or 23.1 per cent., acquired syphilis in 341, congenital syphilis in 25, influenza in 50, tuberculosis in 39, and other toxins in 34; diseases of the nervous system in 318, including epilepsy 219; other bodily affections in 445, of which cardio-vascular degeneration (276) formed the chief; critical periods in 648, child-bearing in 123, physiological defects and errors in 220, bodily trauma in 128, and mental stress in no less than 960. An insane heredity was ascertained in 872, or 28.1 per cent., an alcoholic heredity in 319, an epileptic heredity in 113, a neurotic heredity in 33, and one of eccentricity in 16, giving a total and combined neuropathic heredity in 1,353. As in many of the individuals some of the above factors would be combined the total neuropathic heredity is not expressed here as a percentage. Mental instability was assigned also in 305, of which congenital mental defect not amounting to imbecility was returned in 247. Table B.9 gives particulars relating to direct admissions suffering from general paralysis of the insane, showing civil states, age at commencement of attack, and the number of cases with evidence of syphilis. Out of the 314 cases with general paralysis 175, or over 55 per cent., bore evidences of syphilitic infection. Of the total paralytics 215 were married.

Discharges, Deaths, Etc.

During the year 1,143 were discharged as recovered, giving a recovery-rate upon the direct admissions of 32.81 per cent. (average 37.24 per cent.), or of recoveries in and on the direct admissions of 31.11 per cent. Also 548 were discharged as relieved and 143 as not improved. Those discharged as not recovered, however, include transfers to other asylums, the actual discharges as relieved or not improved numbering 380. Of these latter 148 were discharged to friends, 204 were sent to Metropolitan Asylums Board asylums, 17 aliens were deported, and 4 were written off as escaped.

During the year also 1,645 died, giving a death-rate on the average numbers resident of 8.23 per cent. The principal causes of death were as follow: Diseases of the nervous system in 560, including 365 deaths from general paralysis; diseases of the heart in 199; diseases of blood vessels in 103; diseases of respiratory organs in 59; diseases of the urinary system in 53; diseases of the digestive system in 29; senile decay in 105; various less common diseases in 8; accident or violence in 11, and general diseases, including 212 from tuberculous diseases, in 512. Arranged in percentages of the total deaths the most notable causes of death were as follow (principal contributory causes aggregated): General paralysis of the insane, 22.43 per cent.; pneumonia, 18.96 per cent.; tuberculosis, 15.81 per cent.; valvular disease and endocarditis, 10.76 per cent.; fatty degeneration of heart, 7.53 per cent.; Bright's disease, 7.96 per cent.; and arterio-sclerosis 6.56 per cent. Deaths from tuberculosis still show a downward tendency, the percentage of the preceding year being 15.93 per cent., and that of the year 1908 17.53 per cent.

As showing the large number of patients who die in London County Asylums at an advanced age a table is given, from which we see that in 1910 no fewer than 303, or 18.42 per cent. of the total number who died, were between 60 and 70 years of age, and 230, or 13.98 per cent., over 70 years of age at death. As naturally coupling itself with the last, and as showing for a series of four years at any rate the consistent accumulation of long-standing and congenital cases, a table contained in the report should be mentioned. This table compares the length of the present attack of patients resident on the last day of the year in the years 1907, 1908, 1909, and 1910, arranged in periods of from less than twelve months up to over forty years. The table shows that in this period of four years the proportion of cases with a duration of less than five years fell from 37.7 to 33.5 per cent. in the case of males, and from 36.3 to 32.0 per cent. in the case of females; whereas the proportion of cases with a duration of over five years rose from 62.3 to 66.5 per cent. in the case of the males, and from 63.7 to 68.0 per cent. in the case of the females. Further evidence of this accumulation is to be found in the table showing the form of mental disorder in those remaining in the asylums on the last day of December, 1910. These were as follows: Senile and secondary dementia, 4,762; chronic mania and melancholia, 4,684; delusional insanity, 3,808; insanity with epilepsy, 1,537; general paralysis, 462; primary dementia, 426; insanity with gross brain lesions, 214; and congenital or infantile mental defect, 1,591. Out of the 20,066 patients remaining in the asylums on December 31st, 1910, there were thus 17,484 whose recovery, judged merely from the form of mental disorder, and omitting many cases who would eventually decline into unfavourable categories, could not be expected. As a matter of fact, the prospect of recovery was regarded as unfavourable in 18,500, as doubtful in 1,087, and as favourable in only 479, or 2.3 per cent. of the asylum inmates.

Cost.

The average net weekly cost per head for patients in London asylums during the year ended March 31st, 1911, was 10s. 2.65d. as compared with 10s. 0.34d. for the previous year.

Pathologist's Report.

The report of Dr. F. W. Mott, F.R.S., Pathologist to the London County Asylums, gives in outline an account of the very great amount of work carried on at Claybury by Dr. Mott and his assistants and co-workers. The work done at the laboratory falls under two heads: (*a*) Research work, and (*b*) routine examination of pathological material from the London County Asylums. Many of the results of research work will be found in the fifth volume of the *Archives of Neurology*, a deeply interesting and valuable collection, reviewed in our issue of December 23rd, 1911. Turning to the pathological work of the asylums, reports were furnished on 8 cases of cerebral tumour, swabs in cases of diphtheria, sputum, and urine. The Wassermann reaction was applied in 127 samples of cerebro-spinal fluid and serum, the results being found "to completely agree with the statements already published by reliable English and Continental observers." A considerable amount of work was done in connexion with typhoid fever, Widal tests being made in 158 blood serums, 80 specimens of faeces and 38 of urine also being examined. Under "Work in Progress" Dr. Mott epitomizes investigations made into heredity in its relations to insanity. One very important fact, Dr. Mott says, has been elucidated—namely, the "law of anticipation." This law, which is, perhaps, more fitly indicated by another term Dr. Mott applies to it—namely, "ante-dating"—consists of the fact that the insane offspring of insane parents tend to become insane at an earlier age than their parents. Thus, out of 2,246 relatives in London County Asylums, there were 420 pairs of parents and offspring, and in only one case did the attack in the offspring commence at a later age than that of the parent's illness. "Nature," Dr. Mott says, "by intensifying the mental disease, as it were, crystallizes out the unsound elements of an insane stock by developing the disease at an earlier age, thus preventing in a great measure the perpetuation of the taint. This fact explains why it is in pedigrees of insane stocks the insanity does not proceed as a rule beyond three generations." Problems in heredity are exceedingly complex, but there can be no question that this fact, if true, is exceedingly important.

Leaving this for Dr. Mott's report on pulmonary tuberculosis in the London County Asylums, it appears that the percentage-incidence of diagnosed tuberculous cases has remained about the same figure for the past four years, varying between 1.93 of the patients resident and 2.07, this latter figure being the last recorded, for the year ended March 31st, 1911. Dr. Mott's *post-mortem* statistics show that out of 1,555 autopsies the percentage in which active tuberculous lesions were found was 43.95.

Lastly, Dr. Mott's report on dysentery and diarrhoea in the London County Asylums up to the end of February, 1911, shows that there was a slight increase in the number of cases of dysentery as compared with the previous year,

and also in the number of diarrhœa cases. Compared with previous years, however, a general improvement in respect of both disorders was to be noted.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

THE WOMEN'S NATIONAL HEALTH ASSOCIATION AND THE INSURANCE ACT.

THE wisdom of the course which the Countess of Aberdeen, President of the Women's National Health Association of Ireland, has followed in utilizing the organization of that Association to set up an Irish National Insurance Society seems to be open to question, and has, in fact, been criticized in Ireland.

In taking this course, Her Excellency has acted under the advice of a committee, consisting of the Right Hon. Sir James B. Dougherty, the Right Hon. T. W. Russell, M.P.; the Right Hon. Sir Henry Robinson, Vice-President of the Local Government Board; the Earl of Carrick, Sir John Lynch, Mr. William M. Murphy, Mr. G. Dougherty, Barrister-at-Law, and Sir William J. Thompson, M.D., Registrar-General for Ireland (Hon. Treasurer). It appears that the committee unanimously adopted the following resolution:

> That we recommend that the Women's National Health Association should take steps to form an approved society under the Act provided that it is found upon inquiry through the various branches of the Association that a sufficient number of insured persons can be obtained to qualify as an independent society under Section 38, Subsection 1 of the bill as introduced into the House of Lords.

The scheme as originally announced was to the effect that the Women's National Health Association of Ireland should form a section competent to become an approved society under the Act, and recommended all its branches to organize meetings at which the provisions of the Act should be explained, and at which every effort should be made to recruit members for the new section of the Women's National Health Association when formed.

It will be observed that the members of the advisory committee were all connected with Dublin and comprised only one member of the medical profession who himself holds an official position. Had the committee contained representatives from the South, West, or North of Ireland who are not officials and a few doctors in close touch with the actual conditions of medical practice, it is probable that a different course would have been recommended. In many places the suggestion was favourably received, but co. Carlow, Tralee, Killarney, and Tanderagee, wish to postpone action; Queenstown does not wish to take action as a branch; Cork intends holding a conference with the representatives of other women's associations before coming to a decision. Belfast, Londonderry, Clonmel, Ballymahon, Innismagrath, and Waterford have decided definitely against taking part in the scheme on various grounds, but principally because they believe that to take part in carrying out the provisions of the Act would import politics into the work, because they deem that to take up insurance work is to go outside their legitimate sphere of action, or because they do not approve of the Act as it stands, and wish to see it amended before having anything to do with it.

At a public meeting, convened by the Provisional Committee of the Irish Health Insurance Society, under the auspices of the Women's National Health Association of Ireland, held in Dublin on January 17th, the Countess of Aberdeen explained the action the Women's National Health Association had taken in the matter, and said that a misunderstanding had arisen. It was not proposed that the branches should be invited to become approved societies, but that the new Irish Health Insurance Society should be a distinct society with its own officials, officers, and agents. No responsibility was to rest on the branches of the Women's National Health Association, and the only time they could really help was during the period before the Act came into force, probably next July, by spreading information and trying to obtain members, so as to make the new society a strong one, able to confer benefits on its members, and to help the Women's National Health Association to obtain adequate representation and influence on the new County Insurance Committees, which would have such great influence and power on public health administration. Her Excellency also protested strongly against the idea that the formation of an insurance section which could become an approved society brought the Women's National Health Association within the arena of politics.

We do not know how far Lady Aberdeen's explanation will satisfy medical opinion in Ireland, which, so far, does not seem to have found definite expression. No section of the community has given more enthusiastic help to the Women's National Health Association than the medical profession, and its members may well have hesitated to appear to put themselves in opposition to its distinguished President. But many of its members, probably the very large majority, hold the opinion that the Insurance Act will seriously injure them individually and the profession as a whole. Many of their relatives are serving on the executive committees of the various branches of the Women's National Health Association, and the action taken by the Executive of the Women's National Health Association, without consultation with the medical profession, placed them in a somewhat invidious position.

The scheme is now described as "The Irish Health Insurance Society (under the auspices of the Women's National Health Association)." Numerous meetings have been held and are being arranged all over Ireland to explain the working of the Act and to start branches of the new society. Lady Aberdeen has issued a circular, in the course of which she says:

> True to our non-political and non-sectarian basis, we are forming an independent insurance society, which will attach no label of any kind to those who insure with it. I must ask you to forgive me if I insist on this point.
>
> No one cherishes more than I do the fact that the Women's National Health Association has formed a platform on which persons of all sections, parties, and creeds can and do unite for the common welfare and health of the nation. I yield to no one in my determination to guard our Association against any taint of party politics, and I resent the imputation that anything of the sort is being imported now into our work.

We are sure that Lady Aberdeen is well advised in her determination to guard against any taint of party politics, and perfectly sincere in disclaiming any such taint. At the same time the medical profession cannot shut its eyes to the fact that the system of sending lecturers to local meetings, "at which the provisions of the Act shall be explained," adopted by the Women's National Health Association of Ireland, bears a very strong family likeness to that adopted in England by a frankly party political organization, the National Liberal Federation.

TRADES UNIONS AND THE NATIONAL INSURANCE ACT.

At a meeting of the Parliamentary Committee of the Irish Trades Union Congress, held in Dublin on January 12th, the following resolution was adopted:

> That this meeting expresses its dissatisfaction at the action of the Irish Party in insisting on the elimination of medical benefits, as we are at a loss to know on what public opinion they base this decision, and we request that a one clause bill be introduced immediately so as to remedy this grave defect; and that copies of this be sent to Messrs. Redmond, Dillon, and Devlin, the Chancellor of the Exchequer, and the Chief Secretary for Ireland.

OLD AGE PENSIONERS IN WORKHOUSES.

There have lately been complaints from various workhouses throughout the country that old age pensioners came into the workhouse infirmaries and refused to allow any of their pension money to be taken for their maintenance while in the hospital. At Trim it was stated that after staying in the house for a fortnight or three weeks they go out and draw the money that had been accumulating, and when the money was spent went back to the house again. A medical officer writes to describe a method by which he has got over this trouble. Every pensioner, when admitted to hospital, is asked if he is willing to pay the average cost and hand over his book. If he refused he was told that he would be transferred to the aged and infirm class, which can be done by the medical officer while retaining him for treatment in the hospital; but the effect of such transfer would be that he would be automatically deprived of his pension, and would have to apply for it again on his discharge.

Floods and Sickness.

Owing to the continuance of the heavy rainfall, the floods in the Midlands and West of Ireland are still on the increase. One curious result of these floods is that the water supply to the Fever Hospital of the Ballymahon Workhouse has been stopped. The water is supplied by a water wheel and force pump from a tributary of the Shannon, and owing to the excessive flooding this water wheel will not work. It has been decided to cart a supply of water to the Fever Hospital until the floods subside.

As mentioned last week, Sir Acheson MacCullagh, Medical Inspector of the Local Government Board, has been making inquiries into the cause of the outbreak of typhus fever in Listowel, and has announced that it is not due to the bad water supply, as suggested, but to the filthy state in which the town is left. It appears that there are no proper sanitary arrangements or scavengering, and that the inhabitants dump their refuse in the street, and manure, etc., is left to rot in the streets for months at a time.

Outbreak of Diphtheria in North Tipperary.

A serious outbreak of scarlatina and diphtheria has occurred in the Ballingarry district, about three miles from Borrisokane. From one family alone four children are in the fever hospital suffering from diphtheria and also a servant suffering from both diphtheria and scarlatina.

Vaccination Certificate.

A very curious position of affairs has arisen at Celbridge. Some time ago Dr. Knapp was appointed by the guardians to act as locumtenent for Dr. Hampton, medical officer of the Lucan Dispensary, for three weeks. The Local Government Board refused to sanction payment on the ground that it did not recognize his qualification in vaccination, as he had obtained a certificate not from one of the three instructors recognized by them. Up to a few years ago the Board recognized a certificate of instruction in vaccination given by any public vaccinator. The guardians, having employed Dr. Knapp, are liable for his salary, but if they pay this the Local Government Board have threatened to surcharge them with it. Dr. Knapp has put the matter in the hands of his solicitor, and at their last weekly meeting the Celbridge Guardians, recognizing that they would probably have to pay heavy costs if the case was brought to the courts, decided to make a further appeal to the Local Government Board to sanction the payment. It appears that Dr. Knapp did not vaccinate anybody during the time he acted as medical officer.

Donnybrook Dispensary.

The controversy that has been going on for some time between the medical officer and the compounder of the Donnybrook Dispensary, which was started by the latter altering the prescriptions of the medical officer without intimating the fact to him, has now been settled by the transference of Mr. Martin from Terenure to the Donnybrook and Irishtown Dispensary, and of Dr. McKenna to Terenure.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

Association of School Medical Officers for Scotland.

A meeting of the Association of School Medical Officers for Scotland was held in the Station Hotel, Perth, on January 20th. Dr. Roberts (President of the Association) was in the chair. Twenty members were present, and new members were elected. A discussion on the control of infectious disease in schools was opened by Dr. McWhan, who detailed the scheme in operation in the County of Berwickshire. Dr. G. Halley Meikle outlined the procedure in the city of Edinburgh, and the discussion was continued by Drs. Gilmour, Findlater, Moffat, and G. Arbuckle Brown. The afternoon session was occupied by a discussion on the work of the school medical officer. It was opened by Dr. Gilmour, who laid special emphasis on the work of the school medical officer in relation to the cleansing of school children, the attendance of parents at inspections, and the instructions to teachers in regard to defective children. Drs. Roberts, Halley Meikle, Arbuckle Brown, Findlater, Moffat, McWhan, and Kidd took part in the discussion, when the necessity of different methods of procedure in each district (town or county) to meet the requirements of each locality was apparent. The election of office-bearers will take place at the annual meeting of the Association, to be held in Glasgow on March 30th.

Cremation.

The annual meeting of the Scottish Burial Reform and Cremation Society (Limited) was held at Glasgow on January 17th. Dr. Ebenezer Duncan presided, and among those present was Lord Provost Stevenson. The report of the directors stated that during the year 35 cremations had been carried out, compared with 26 in the previous year, making a total since the opening of the crematorium of 376. The new incinerating apparatus installed last year had proved satisfactory, and shown economy in fuel. The Chairman, in moving the adoption of the report, said that they were perfectly satisfied from observation that they had made a great advance in creating a public sentiment in favour of cremation. Large numbers had been converted from what he might call a feeling of dislike by attending the services at cremations in their chapel. Now that they had achieved the conquest of the sentiment of the educated and intelligent portions of the population, he had not the smallest doubt that they would also begin soon to see a change of sentiment so far as poorer citizens were concerned. The society was purely philanthropic. It did not exist for profit. If any profit was made it was expended on propaganda purposes, which were entirely in the public interest. One of the objections on the part of the poor was the expense. Well, they were willing to charge modified fees to relatives who were unable to make full payment, and in exceptional cases they were willing to consider the claims of relatives who could not make any payment. With regard to cremation in other parts of Scotland, he might say that within the last few years a very vigorous society had been formed in Edinburgh. While they favoured corporations taking up this matter and building crematoriums, the experience in England was that municipal crematoriums were not a very great success. Lord Provost Stevenson seconded, remarking that, although he would like as much weight as possible to be given to sentiment, he thought that the question of public policy ought to be paramount in dealing with the subject. The real object, practically speaking, in all civilized countries was the returning of earth to earth and ashes to ashes. If that was the object, surely the means to bring that about most quickly was the best. If he could do anything in the way of influencing the corporation in this matter he would do it gladly either in the way of co-operation or perhaps even of competition. Mr. J. D. Easson, secretary of the Edinburgh Cremation Society, supported the motion and referred to the progress of the Edinburgh Society. The motion was adopted.

Special Correspondence.

BERLIN.

The Outbreak of Poisoning at Municipal Night Shelters.

Again last week the meeting of the Berliner medicinische Gesellschaft was so crowded that the hall of the Langenbeck House proved too small, and many were unable to gain admittance. The subject of the evening was the report from the chief physicians of the Municipal Friedrichshain Hospital on the outbreak of disease among inmates of a Berlin night shelter. Dr. Stadelmann, Director of the Department for Internal Diseases, in a clinical report on the many cases he treated, stated that the disease had now been traced to methyl-alcohol, but the symptoms were almost identical with those of botulism. In some cases the severe symptoms did not show themselves until several days had elapsed—another similarity with botulism. In fact it was often difficult to keep the patients in hospital, unaccustomed as they were to any discipline. Dr. Pick, the pathological anatomist of the hospital, spoke of the conditions found *post mortem*,

especially in the eyes. Loss of sight was one of the most alarming symptoms of the worst cases, and Pick, making use of Nissl's colouring method, found that the ganglion cells of the retina had been attacked and that they had undergone changes that made sight impossible. In some cases the optic nerve had also been attacked. Dr. Fischer, the physician of the night shelter itself, gave an account of his experimental researches, which, far from clearing up the mystery of the attacks, seemed to make it still darker. Some of his rabbits grew inebriated, others died; one rabbit which had had an enormous quantity of methyl-alcohol injected (the analogous quantity for a human being would be several hundred cubic centimetres) remained perfectly healthy. Again, asked Fischer, how was it that only night-shelter inmates fell victims to the poison, when numbers of others took "schnapps" in the taprooms in question? Medical men had concocted a "cup" (*Bowle*) with methyl-alcohol, and took no harm from drinking it. Various researches of late years seemed to prove that pure methyl-alcohol was not poisonous. Some other substance must be present in order to produce the toxic action.

Correspondence.

ARTIFICIAL RESPIRATION OF THE APPARENTLY DROWNED.

SIR,—In regard to Professor Schäfer's letter, may I say that I do not question that his method of conducting artificial respiration is the most simple and effective? All I wish to suggest is that the subject should be rolled over from the prone to the supine position and the thorax compressed first in one posture and then in the other. The compression can be applied in either position in the same way—that is to say, the Schäfer method of compressing the thorax can be applied alternately in the supine and prone position. I believe this will relieve the over-distension of the right side of the heart. We know that the distended right heart of an asphyxiated animal will often give vigorous beats when emptied of blood. In such an animal the right heart can be emptied by gravity into the abdominal vessels by lifting up the head end and squeezing the thorax.

This is an easy method of producing the effect of venesection. I now and again carry out this proceeding while rhythmically compressing the thorax of animals collapsed by chloroform poisoning, and often with success.

I think it would give the right side of the heart a better chance of recovering, when at the point of paralytic distension, if the change to the supine and prone positions were frequently made. The head end should be placed a little higher than the feet end of the body, so as to let gravity come into play. The problem is not how to get the largest volume of air in and out of the lungs, but how to get the heart beating again by forcing some oxygenated blood through the coronary vessels and by relieving the distension of the right side of the heart. If directions were given to make a frequent change from prone to supine posture and back again it would not complicate the Schäfer method, and would, I venture to think, make this method even more surely the simplest and best.—I am, etc.,

London, E., January 23rd. LEONARD HILL.

NOTIFIABLE TUBERCULOSIS IN CHILDREN AND VON PIRQUET'S TEST.

SIR,—The question as to what is tuberculosis in children has always received a wide range of answers by different observers. Now that the disease is notifiable, there should surely be some sort of generally accepted standard upon which to judge. The finding of tubercle bacilli must be left out of count, as it rarely occurs; physical signs are so much more fleeting and uncertain than in adults that they alone seem insufficient; history and general symptoms are important; but when all factors are considered a large element of doubt often remains.

I have recently applied von Pirquet's test to the twenty children here in the hope of securing by its aid a reinforcement of judgement. The results were as follows:

	No.	Reacted to von Pirquet's Test.
Children with definite physical signs of phthisis	7	5
Children with doubtful signs (altered breathing or note but no crepitations)	8	4
Children with no signs	5	0

From this it would appear that at any rate there was some negative value in the test, as no reactions occurred in cases with no physical signs, but unfortunately tests with adults at the same time did not bear this out, as three healthy members of the staff reacted out of seven in whom it was tried.

As regards the seven undoubted cases of whom five reacted and two did not, one of the two was a child soaked in tubercle with large numbers of tubercle bacilli in her sputum; this child one would fully expect to fail, as the minute injection of tuberculin could scarcely make an impression where large quantities of her own tuberculin were constantly in the blood stream. But the other child who failed was certainly not more definitely tuberculous than the five who reacted, and among this group of five are children who are as much "soaked" in tubercle as the child who failed to respond.

So far, then, the test was not very convincing; it did better in the doubtful group, for whom its help was most desirable. Here, of eight cases four responded, and these four were certainly those in whom the history or signs had been most definite, although at the time of testing their chests had almost entirely cleared up. The other four we had always felt to be extremely doubtful, though sent on a definite diagnosis which had excluded them from school attendance.

The figures are too small to take percentages upon, but it would be interesting to know if other sanatorium officers or school inspectors who may have used the test have obtained more uniformly satisfactory results from it.—I am, etc.,

ESTHER CARLING,
Medical Superintendent, Maitland Sanatorium,
January 16th. Peppard Common, Oxon.

NON-TUBERCULOUS MILK IN GUERNSEY.

SIR,—The recent report of the Royal Commission upon Tuberculosis has called attention to the fact that a large proportion of the tuberculosis of children and young people is due to the consumption of milk from cows affected with this disease.

Until 1906 tuberculosis was apparently unknown amongst Guernsey cattle, but it was then introduced by cattle reimported after having been to England for exhibition.

This reimportation is now forbidden and drastic laws have been passed compelling the slaughter of all infected cattle, and granting State compensation. As a result the disease has been practically stamped out, and of the 1,364 animals exported during the past three years, all of which were treated with tuberculin, only six were found to be affected.

This gives tuberculosis a rate of under ½ per cent. compared with the estimate of Sir John McFadyean, Principal of the Royal Veterinary College, London, of 20 per cent. of adult cows in England.

The forms of human tuberculosis chiefly caused by bovine tuberculosis (tuberculous glands of neck, abdominal tuberculosis, and lupus) are consequently exceedingly rare in the island of Guernsey.

Channel Islands cows give the richest milk in the world, the average of fat for Guernsey cattle being over 60 per cent. above the English legal standard for fat. It is impossible to overrate the importance, especially where children and delicate persons are concerned, of milk so rich in butter fat, and above all so free from the germs of the scourge of tuberculosis.—I am, etc.,

HY. DRAPER BISHOP,
January 23rd. Medical Officer of Health, States of Guernsey.

THE ETIOLOGY OF LEPROSY.

SIR,—I have read with a great deal of interest the papers by Dr. Sandes, as well as Dr. Long, in your issue of September 2nd, 1911, in which these gentlemen give details of their simultaneous though independent discovery of an acid-fast bacillus identical with the *Bacillus leprae* in bed bugs fed on leper patients.

The possibility that leprosy might be propagated by insect bites had already occurred to many, but all attempts to find the bacillus in insects had failed with the possible exception of those carried out by Goodhue at Molokai. In 1906 he demonstrated an acid-fast bacillus similar to the *Bacillus leprae* in the bed bug (*Cimex lectularius*) as well as the mosquito (*Culex pungens*).

There can be no doubt that the insect theory of transmission fits in admirably with many facts known about the disease, and helps to explain many hitherto obscure points. At the Trinidad Asylum, since its establishment over forty years ago, there has not been a single case of the disease recorded among the nursing Dominican Sisters or the attendant staff, including washerwomen. The wards of the asylum have always been kept scrupulously clean, and the Mother Superior informed me that such a thing as a bed bug is a *rara avis* in the institution. Two of the attendant chaplains to the institution have, however, contracted the disease. The chaplain's house is in the asylum grounds, though far away from the patients' wards.

The probable transmission of the disease by blood-sucking insects should not, however, make us close our eyes to other possible and perhaps not uncommon methods of infection. Of the various paths by which the bacillus might gain access to the human body, the nasal passages have hitherto been considered the most likely. Out of nearly 200 cases examined at the Trinidad Asylum, we succeeded in demonstrating the specific bacillus in the nasal secretion in all the 105 tubercular cases examined, but only in 9 out of 80 anaesthetic cases.

The two types of the disease are so essentially different, not only in their clinical manifestations, but also in their geographical distribution, that various theories have been brought forward to explain the cause of this difference. I venture to submit that it may be due to a different method of infection, the common path of contagion in tubercular leprosy being the nasal mucosa, while anaesthetic leprosy is propagated chiefly by means of blood-sucking insects.

In tubercular leprosy, from the primary lesion in the nose the bacilli are distributed by means of the lymphatics, causing a dense infiltration of the subcutaneous and submucous tissues. In anaesthetic leprosy, on the other hand, the bacilli are injected directly into the blood stream by means of blood-sucking insects. There they are liable to the attacks of the white blood cells, and are gradually destroyed by the leucocytes. The toxin liberated by their destruction is set free in the blood, finding its way eventually to the nervous system, which is particularly susceptible to the leprotic toxin. The few bacilli which escape the attack of the leucocytes would find their way to some of the internal organs. They would remain there in a latent or dormant state, ready at a favourable opportunity to make another irruption into the blood stream, thus causing a further advance in the clinical manifestations of the disease. We have striking analogies in the case of malaria and syphilis, when the germs of these diseases may remain quiescent for long periods and suddenly become active again.

According to this view the nervous lesion in leprosy would be more in the nature of a toxaemia than a direct action of the bacilli on the nervous tissue itself. It is true the specific bacillus has been found in the nerve sheaths; but it has only been detected in relatively small numbers even in cases in which there has been a general and widespread destruction of nervous tissue.

There are many facts in connexion with the disease in support of such a view. The specific bacillus is to be found in the nasal secretion in all cases of tubercular leprosy showing a constant implication of the nasal mucosa; on the other hand, it is commonly absent in cases of anaesthetic leprosy. The bacillus is rarely to be found in the blood, though present in myriads in the subcutaneous tissue and other organs of the body such as the liver and spleen. This proves that the blood probably exercises a destructive influence on the bacilli.

Anaesthetic leprosy is, on the whole, a much milder affection than tubercular leprosy, and often tends to spontaneous cure—that is, in the sense that fresh leprous infection ceases to occur; but the effects of the leprotic process is usually permanent, the trophic lesions from nervous destruction being irremediable.

Tubercular or nodular cases ultimately, and almost invariably if the disease has lasted any length of time, suffer from nervous manifestations. This can be easily explained by the occasional entry into the blood stream of bacilli, their destruction by the leucocytes, with the subsequent liberation of toxin directly into the blood stream.

Anaesthetic cases on the other hand rarely become tubercular unless, as is often the case, they remain for years in an asylum in constant contact with tubercular patients. In such cases there would be a secondary infection through the nasal passages. In support of this contention I may say that two of the nine anaesthetic cases in which I found the specific bacillus in the nasal secretion were already beginning to show signs of nodular infection, manifested by a slight thickening of the lobules of the ear.

There is a very practical result which would follow from such a theory if proved to be correct, namely, the advisability of separating anaesthetic patients from tubercular patients.

Anaesthetic leprosy is much commoner in the tropics than tubercular leprosy: the reverse is the case in temperate climates. Insect life is more abundant in the tropics than it is in colder latitudes, which would easily account for the greater percentage of anaesthetic cases in warm climates.

This suggestion is naturally mere speculation, but I submit that it helps to explain more satisfactorily than the various theories which have hitherto been advanced, the great difference between the two types of the disease.—I am, etc.,

FERNAND L. DE VERTEUIL, M.D.Edin.,
M.R.C.S.Eng., L.R.C.P.Lond., Surgeon, R.N.(Ret.),
Late Surgeon, Royal Naval Hospital, Plymouth.

Vancouver, B.C.

THE MEDICAL SECRETARYSHIP.

SIR,—Mr. Andrew Clark did not read my letter carefully—I agree with him that "there are three equally important offices" in the Association; but my words were, "From the professional point of view the two most important offices" are the editorship and the medical secretaryship. Had I thought that, so written, this could be read as a slight upon the "Business Secretary," I would have asked you to print the word *professional* in italics. But as I have been misunderstood, will you let me say that whilst I was Chairman of Council I was fully satisfied with the way in which the business side of the work of the Association was carried on by the Manager and his willing staff?

Without traversing my remarks about the dictatorship of a former Editor, Mr. Clark says that "during that period the Association advanced in numbers and wealth," and that the Association "has accumulated a reserve of over £106,000." Again, I declare that my remarks were from the *professional* point of view. I did not say whether such a dictatorship might be good or bad for the financial side of the *Association*, but I did imply that such a state of things is bad for the *profession*. I make the distinction because it ought to be understood that the Association is not the Profession; but that the Profession is the proprietor of the Association; and that if the Association did not loyally serve the Profession it would either have to reform itself or to vanish into thin air—notwithstanding the fact that it "now has a reserve of £106,000." Without the approval of the Profession the Association could have no separate life.

With regard to Dr. Brierley's complaint about the "vast sums" spent over the literary output from the office of the Medical Secretaryship, I must confess that during my membership of the Council I also found it extravagant in its bulk, vexatious, and overwhelming. And of late, I take it, this department has been working at even greater pressure (though in one respect, at least, with questionable advantage to the medical profession). I would, therefore, suggest that the staff of that office be now granted a rest

of six months, and that during this time the Council quietly consider if there is actual need for making a new appointment. Of this, at any rate, I am convinced, that there should be no hurry in the matter.—I am, etc.,

London, W., Jan. 22nd. EDMUND OWEN.

SIR,—As a general practitioner, I sincerely hope that the choice of a Secretary will fall on a man who is and has been in active general practice. It would be somewhat unfair if a consultant were chosen, as he would be out of immediate touch with our requirements. Surely a practitioner could be found who would single-heartedly and ably devote himself to our interests.—I am, etc.,

Harrogate, Jan. 19th. J. W. MALIM.

SIR JAMES BARR AND THE INSURANCE ACT.

SIR,—In his letter in the JOURNAL of January 13th Sir James Barr says:

That my opposition to the Act is due to political bias is absolutely false, and Dr. Hislop should have sufficient intelligence to know that his statement is false.

My letter is there for any one to see and to judge whether I ever made such a statement. Sir James Barr vehemently refutes a statement never made by me, but set up by his own imagination. Whether I have sufficient intelligence to know it to be false I am not going to tell him.

If further proof were needed of what in my letter in the JOURNAL of January 6th I called "a most unfortunate circumstance for the profession," it is surely supplied with a liberal hand by Sir James Barr in his letter of January 8th.—I am, etc.,

Wrexham, Jan. 17th. JOHN J. HISLOP.

SIR,—In the JOURNAL of January 20th Dr. Frederick Porter states: "With Sir James Barr I agree, and believe, that this Act forcibly demonstrates the fact that this country has followed Germany in the path of degeneracy." Is Germany degenerating and is the passing of a National Insurance Act one of the stigmata of national degeneration? I would like to make a few brief quotations from Dr. Arthur Shadwell's book on *Industrial Efficiency*, which, I think, completely answers these questions in the negative. Dr. Shadwell's opinions are entitled to every respect, for they are the result of prolonged and original study and investigation, and he is himself a medical man. He says:

Chap. IX. No one can doubt that the general wellbeing of the working classes in Germany, which is strikingly visible to the eye and confirmed by vital statistics, in spite of many unfavourable circumstances, is in a large measure due to the insurance system.

With regard to the efficiency of labour, insurance has developed a very remarkable and unforeseen result. The prospect of having a great and increasing number of chronic invalids on their hands has stimulated the insurance offices and societies to a great preventive effort.

Chap. XI. Hence the State Insurance and the Poor Law outdoor relief, which must be taken together. They are largely responsible for the absence of misery and squalor in the mass, which strikes every observer as compared with England and the United States.

Chap. XI. It is seen not only in the scientific tariff, but in the careful and judicious factory code, the State system of insurance, the organization of traffic and transport by railway and canal, the fostering of the mercantile marine, the educational provision, municipal action, and Poor Law administration. So the edifice has been built up four-square and buttressed about on every side. It is a wonderful achievement in which every unit has played a part, and the spirit which has brought it about is the spirit of duty and work. Here a comparatively poor country, labouring under considerable natural disabilities, has raised itself to the very front rank of industrial productivity, and that its poorer classes, though less favoured by circumstances, yet maintain a higher level of wellbeing, and a far *higher level of vitality* than its wealthier rivals.

The German Act had been in operation nearly a quarter of a century when these opinions were given by this accomplished medical investigator. The Act dates from 1883, and was urged on the Reichstag by those ardent Socialists—Kaiser Wilhelm I and Bismarck.—I am, etc.,

Warrington, Jan. 21st. J. S. MANSON.

THE NEW CELL PROLIFERANT.

SIR,—Referring to the statement of Sir Ronald Ross in last week's issue, the investigations recorded in my paper entitled "A New Cell Proliferant," had no connexion whatever with the work of Mr. H. C. Ross.—I am, etc.,

Liverpool, Jan. 22nd. CHARLES J. MACALISTER.

SWEETS IN CHILDHOOD.

SIR,—Dr. Letheby Tidy writes (p. 161):

The difficulty is to find a correct and yet practical method of finishing a meal. An apple is ideal; but fruit cannot always be forthcoming, and, apart from it, nearly every meal terminates with carbohydrates in accordance with the dictates of appetite, and will undoubtedly continue to do so.

This seems to me to be an admission of a most important though hitherto overlooked principle in dietetics, followed by a douche of cold water. If an apple or fresh fruit is an ideal termination for a meal, why should not the medical profession at least recommend it? Although "nearly every meal terminates with carbohydrates in accordance with the dictates of appetite," equally true is it that dessert or fresh fruit follows sweets in a well ordered repast. And give children the chance of finishing with fruit, unless it is for some special reason contra-indicated, and it will be found that they will be pleased to do so; this at least has been my experience.

It is now some ten years since I commenced to teach my patients that carbohydrates such as bread and marmalade or jam, cake, biscuits, sweets, and the cooked carbohydrates which are usually given to children, tend to leave the mouth in an unhygienic state and to decay the teeth, and the majority, acting on the advice given, more or less regularly themselves take and give their children apples or fresh fruit of some kind with which to finish their meals. It is far easier to get children to finish their meals habitually with a little fresh fruit than it is to get them to make even a pretence of brushing their teeth. Although in the past nearly all children's meals finished with cooked carbohydrate food, there are already indications that such terminations are not quite so general as they formerly were. Certainly, in the families of several dentists, I know that apples or other fresh fruit are habitually on the table. The import of fresh fruits is rising rapidly, and the talk about apples or fresh fruit being relatively innutritious and indigestible is giving place to considerations with regard to the hygiene of the mouth and alimentary canal.

It seems to me that if the medical profession would advocate this ideal termination the day would not be far distant when those who could afford sweets would also see that it was to their welfare to afford fresh fruit to follow the sweets. As regards those who cannot afford fruit, neither can they afford sweets, for the very poor live largely on bread, and this already contains an excess of carbohydrate. What they will always want more than sugar is fat and protein to make up for the deficiency of these in bread. Sugar has been called a "protein sparer," but it would be a disastrous policy for a poor mother to give her children sweets instead of bread if there was already a deficiency of protein in the diet.—I am, etc.,

London, W., Jan. 20th. J. SIM WALLACE.

SIR,—Valuable help is afforded, in regard to what food is good for man, by a knowledge of his past dietetic career. I might cite many instances in proof of this. I will confine myself to two.

1. Until quite recent times—recent from the standpoint of evolution—man consumed no other milk than his mother's. Conclusion: Milk is not an essential article of food for him after the nursing period.

2. Before the agricultural period, which began but as yesterday, the only available sugar (in the pure form) was the precarious supply yielded by wild honey. Conclusion: Sugar (in the pure form) is not a necessary article of diet for man.

I am not arguing from these conclusions that milk and sugar should be excluded from man's dietary. Properly administered they doubtless constitute useful foods. It is probable, however (I say this with due deliberation), that on the whole British children get more harm than good both from milk (except in the case of nurslings) and sugar.

In regard to the question of sweets in childhood, I share Dr. Sim Wallace's views entirely. It would be difficult to

exaggerate the importance of his work in showing the connexion between faulty dietetics and dental disease. I estimate that among the inhabitants of these islands there are upwards of 200 million carious teeth, and as many alveolar abscesses. By following the simple rules laid down by Dr. Wallace both these diseases can be almost entirely prevented.—I am, etc.,

London, W., Jan. 20th. HARRY CAMPBELL.

THE STUDY OF CONDUCT.

SIR,—In your very kind and even too eulogistic notice of my book on *Conduct*, there is nevertheless one accusation that I can rebut. Commenting on my statement that "the psychiatric physician, whose function it is to treat disorders of conduct, not only makes no systematic study of conduct, but denies that such a study is desirable, even if he admits that such a study is feasible," your reviewer says that I am not correctly interpreting the attitude of most psychiatric physicians. I have the best reason to know that I do interpret their attitude correctly. The Medico-Psychological Association includes practically every psychiatric physician in the United Kingdom; and when I proposed, in the Education Committee of that Association, with all the authority of chairman, that the study of conduct is both feasible and desirable, I had not one single supporter. I did not even secure a seconder *pro forma*, so that the matter could be discussed. My proposal was laughed out of court. When I subsequently brought the matter before the whole Association, I was no more successful. Your reviewer may have knowledge, which I have not, that some of my colleagues are now converted, and that my statement is no longer true. I trust he has. But at the time it was written it was punctually correct. I am glad to say that the College of Physicians has made conduct a subject in the new examination in mental diseases.—I am, etc.,

London, W., Jan. 22nd. CHAS. MERCIER.

"TEMPERAMENT IN SPORT."

SIR,—Dr. Claye Shaw's article in *Bailey's Magazine of Sports and Pastimes* is most interesting and to the point. I have always understood that the Duke of Wellington, in his saying concerning the playing fields of Eton, meant to convey the idea that his early training in sport had taught him to keep cool and to be capable of exercising his best judgement on critical occasions. We have an excellent example of the effect of this kind of training in the case of Mr. Douglas, who is at present captaining our team of cricketers in Australia. In spite of frequent barrackings, etc., from the crowds, we read that this gentleman quietly goes on playing his game, which so far has proved to be a wonderfully successful one for his own side.—I am, etc.,

Blackpool, Jan. 22nd. HENRY THOS. BARTON.

TORTICOLLIS IN ACUTE RHEUMATISM.

SIR,—Professor Saundby will find torticollis as a complication of acute articular rheumatism mentioned on page 58 of vol. viii of Brouardel et Gilbert's textbook of medicine (edition 1908). This torticollis is symptomatic of a rheumatic cervical arthritis, which often passes unnoticed. It is almost always unilateral.

An interesting paper on the subject by the late Professor Lannelongue, entitled "Rhumatisme des articulations vertébrales du cou et torticollis" will be found in the *Bulletin Médical* for 1895, page 791.—I am, etc.,

Manchester, Jan. 21st. HAROLD E. KITCHEN.

STATE SICKNESS INSURANCE IN GERMANY.

SIR,—In the JOURNAL of January 20th, p. 159, it is suggested by Dr. Vines that I might explain an apparent discrepancy which occurs between my statement that "the effect of the insurance system on recruiting for the profession has been *nil*" in Germany, and the fact that the increase in numbers in the years 1910–11 was only 0.7 per cent. It would take a long article to do full justice to the matter, but, shortly, the reasons for the small increase are:

1. The increasing and more easily gained facilities for earning a larger income in a commercial career as compared with a professional; German commerce has made gigantic strides during the past twenty years.

2. The increasing severity and length—at least seven and a half years—of the medical curriculum in Germany.

3. The fact that a medical man in a military nation does not enjoy the prestige and social position that, from the point of view of culture, should rightly be his.

A quotation will make my points clearer:

> One result of the educational and legal restrictions which surround the medical profession is that a very high standard of ability is preserved all round, and another is that the profession is much closer than in England *and its members not so numerous in proportion to population.*—*Germany at Home*, by W. H. Dawson, page 27.

—I am, etc.,

Sale, Jan. 23rd. C. ADOLPHE K. RENSHAW, M.A.Cantab.

ADDITIONAL REPRESENTATIVES: A CONSTITUTIONAL QUESTION.

SIR,—The Council has agreed to call a Special Representative Meeting on or about February 21st, and with regard to the personnel of this meeting there is a very important point that requires to be cleared up.

By By-law 31 certain Divisions are entitled to more than one Representative. By By-law 32 these Divisions are clearly entitled to elect their Representatives now at any meeting. The point I wish to raise and have cleared up is this: Are the newly-elected Representatives entitled to sit at the Special Representative Meeting in February?

If they are not so entitled by strict legal phraseology, it seems to me that any objection that might be raised should be waived, so that they may take part in the meeting. This procedure would, I feel sure, best serve the interests of the Association.—I am, etc.,

London, W., Jan. 23rd. FRED. J. SMITH.

*** Dr. Smith's letter was submitted to the Chairman of the Organization Committee, who referred it to the Solicitor to the Association with a request for an interpretation of the regulations on this point. The following is Mr. Hempson's opinion:

OPINION.

With reference to the point raised in the letter of Dr. Fred. J. Smith, sent for publication in the current issue of the JOURNAL, which has been submitted to me, the position is, under the Articles and By-laws, as follows:

The "Representative Body" is created under Article 29, which provides that it shall be

> Composed of members of the Association elected by the Divisions in the manner prescribed by the By-laws, and of the members of the Council for the time being in office, or elected to take office.

Under Article 30 (2) it is provided as follows:

> No member of the Association who is not a member of the Representative Body shall be entitled to take part in any Representative Meeting.

By-law 32 (1) provides that:

> Every Representative shall be elected not more than nine months nor less than four weeks before the Annual Representative Meeting at which he takes office.

By-law 33 provides that:

> Every Representative of a constituency shall come into office at the commencement of the Annual Representative Meeting next succeeding the date of his election, and shall continue in office until the commencement of the Annual Representative Meeting of the following year.

By-law 34 provides for substitutes for Representatives attending Representative Meetings in order to prevent any constituency being unrepresented at a Representative Meeting.

Under these provisions I am of opinion that a Representative duly elected prior to an Annual Representative Meeting does not come into office until the first day of such Annual Representative Meeting, and that he continues in office, as Representative of the constituency by which he is elected, until the commencement of the next Annual Representative Meeting to be held in the following year.

It follows therefore that a Representative elected under the provisions of By-law 32 does not legally and constitutionally come into being as a Member of the Representative Body until the commencement of the Annual Representative Meeting next succeeding his election, nor is he, by virtue of Article 30 (2), permitted to take part in any Representative Meeting until that date occurs.

W. E. HEMPSON.

33, Henrietta Street, Strand, W.C.,
25th January, 1912.

Obituary.

DAVID CHRISTISON, M.D., F.R.C.P.E., LL.D., EDINBURGH.

DR. DAVID CHRISTISON died on January 21st, at his home in Edinburgh, at the age of 82. He was the second son of the famous Sir Robert Christison who was Professor of Medical Jurisprudence in the University of Edinburgh from 1822 to 1832, and from 1832 to 1877 Professor of Materia Medica.

David Christison was born in 1828, and was educated at the Edinburgh Academy and afterwards at Edinburgh University, where he graduated M.D. in 1851. He went out as Assistant Physician to the Renkioi Hospital at the Dardanelles at the time of the Crimean war, but unfortunately became ill there, and this was practically the end of his purely medical career. Henceforth he devoted himself to archaeology, in which subject he was a pioneer worker. When in 1906 the University of Edinburgh conferred upon him the honorary degree of LL.D., the Dean of the Faculty of Law (Sir Ludovic Grant) said:

> He is invited here to-day as one of the pioneers and foremost representatives of scientific archaeology in Scotland. It would be difficult to exaggerate the importance of his administrative services as Secretary of the Society of Antiquaries; but by the community at large Dr. Christison is chiefly known for invaluable work achieved in the field with measuring rod and spade, and more particularly for his laborious and minute survey of the ancient moats, camps, and forts with which the map of Scotland is so thickly studded. The great work which records the results of these last-named researches, conceived in a truly scientific spirit and characterized by cautious avoidance of premature speculation, has completely dissipated the dreams of some of our latter-day Jonathan Oldbucks. I cannot refrain from adding that for some time past Dr. Christison, following up researches originated by his father in the girth-increase of trees, has been achieving results which promise to be scarcely less important for forestry than his antiquarian labours have been for archaeology.

From 1888 to 1904 he was Secretary of the Society of Antiquaries of Scotland, and contributed many important papers to its *Transactions*. Some twenty years ago he was Rhind Lecturer, his subject being The Prehistoric Forts of Scotland. The *Early Fortifications in Scotland* was the title of another extremely interesting book. In 1885, along with his brother, Sir Alexander, he published in two volumes the life of their father, Sir Robert Christison, who died on January 27th, 1882, at the age of 85.

After a visit to the Argentine for health reasons he wrote a number of interesting papers. He was a member of the Botanical Society, to which he made many communications. He gave much time and study to the growth of trees, a subject in which his father, Sir Robert Christison, was deeply interested, and on which he had written several papers.

For some years Dr. Christison's health had been failing. He was a charming and most interesting man. He leaves a widow, one son, and three daughters.

DR. CHARLES ALFRED LEE, the oldest medical practitioner of Hull, who died on January 13th, at the age of 86, was a member of an old Hull family. He was admitted a Member of the Royal College of Surgeons of England in 1848, and in 1858 became a Licentiate and Fellow of the College of Physicians and Surgeons of Glasgow. In 1859 he obtained the degree of M.D. at King's College, Aberdeen. In him the Hull Royal Infirmary has lost a generous supporter. One of the wards bears his name. He was a man of retiring disposition, and in a literal sense he did good by stealth and blushed to find it fame. He went out in all weathers, and never retired from active service; during last summer he was attending his patients. In his younger days he thoroughly enjoyed fox-hunting and yachting; angling was also one of his pastimes. He was all his life a great lover of horses. Dr. Lee, who was a bachelor and had no relatives, has left £150,000 to the city of Hull for the erection of almshouses, in addition to £5,000 in charitable bequests, mostly for the benefit of local institutions. Part of his wealth was inherited; the rest was the fruit of hard work. During his lifetime he had given liberally to charities. He was buried on January 17th, the Rev. T. Heany, Vicar of St. Stephen's, officiating. Mr. Heany, who was one of Dr. Lee's oldest friends, paid a tribute to his memory. He was a good physician, a kind friend, and with all the praise he had he was unspoiled. He was unwilling to hear praise of himself. Having referred to Dr. Lee's love of pictures, Mr. Heany said he might have chosen to give pictures to the city, but he chose rather to carry out the deep-laid sympathy of his nature, and that was that wherever the orphan or the widow were to be found, for them his heart went out.

DR. EDMUND DOWNES, who recently died at Eastbourne in his 69th year, was the son of the Rev. John Downes, of Hannington Rectory, Northampton. For ten years he was at Radley College, and went from there to Woolwich, subsequently being commissioned as a lieutenant in the Royal Horse Artillery. He served in India for about eight years, and then took up missionary work as a layman, his duties for the most part being confined to the frontier. Owing to failure of health he returned to England, and studied medicine at St. Mary's Hospital, being admitted M.R.C.S. and L.R.C.P.Lond. in 1876. He took the degree M.D.Brussels in 1876, and became F.R.C.S.Ed. in 1884. In 1877 he returned to India, where he worked as a medical missionary at Kashmir, but again his health necessitated his returning to England. He settled in practice at Eastbourne in 1884, where he was for some time in partnership with Dr. Harper. Dr. Downes was a warm supporter of philanthropic and religious work, and was for many years President of the local branch of the Y.M.C.A. From 1889 to 1909 he was President of the Eastbourne Swimming Club, and on his retirement he was presented with a handsome illuminated address from the members. Dr. Downes formerly held a commission in the Army Medical Reserve, and in 1896 was nominated surgeon-captain in the local Church Lads' Brigade.

DR. JOHN SHIVES, of Shipley, Yorks, a well-known practitioner in the Bradford district, passed away on January 5th, in his 67th year, at his residence, Arnage, Shipley, after an illness lasting many months, the cause of death being disease of the myocardium, probably dating from acute rheumatism in the Seventies, and ending ultimately in hydrothorax. Dr. Shives was a native of Ellon, Aberdeenshire, and was educated at Aberdeen University. He obtained the diplomas of L.R.C.P. and L.M.Edin. in 1868, and at the University of Aberdeen took the degrees of M.B., C.M. in 1869, and M.D. in 1876. His chief life's work was done at Liversedge, where for many years he conducted a large general practice, and was elected an Honorary Surgeon to the Dewsbury Infirmary. His services were greatly valued in the neighbourhood both in public appointments and among private patients. On leaving for London in 1894 he was the recipient of valuable farewell presents from both patients and personal friends. When in London he became a barrister-at-law (Middle Temple). After travelling in the United States he returned to Yorkshire and settled in Shipley. The interest he took in his profession was deep, and he kept it up to the last; but it was among those that knew him intimately and socially that he shone. There was a geniality, a shrewdness, and a kindliness that bound him to these, and the memory now makes his death a wellnigh irreparable loss to them. He lies among his own kith and kin at Allenvale Cemetery, Aberdeen.

WE have to record with regret the death, on January 17th, at his residence at Faversham, of Mr. CHARLES DUDLEY GARRETT, M.R.C.S., L.R.C.P. Mr. Garrett had been in indifferent health for some years, but his death at the early age of 45 was somewhat unexpected, and has caused great regret in the neighbourhood. He was a son of Mr. Charles William Garrett, of Nortoft, Northampton, and received his medical education at Westminster Hospital, where he distinguished himself in materia medica and practical chemistry; he also acted as prosector for the anatomical examinations of the Conjoint Board in England. He obtained the diplomas of M.R.C.S., L.R.C.P. in 1894, and settled in practice at Dewsbury; while there he was Police Surgeon, and also gave attention to the subject of anthrax among rag-sorters, pointing out the manner in which the infection was contracted in the mills. In 1906 the

condition of his health determined him to leave Dewsbury, and he settled at Faversham. Dr. Garrett had for thirty years taken a great interest in ambulance work, and from 1902 to 1906 was Honorary Surgeon and Superintendent of the Dewsbury Division of the St. John Ambulance Brigade, and was one of the examining officers for Yorkshire. In 1900 he was made an honorary life member of the St. John Ambulance Association in recognition of his able and valuable services as lecturer. After settling at Faversham he became Honorary Surgeon and Superintendent of the local ambulance brigade, and later on was appointed Commandant of the Voluntary Aid Detachment. He possessed the long-service medal, and was an Honorary Serving Brother of the Order of St. John of Jerusalem. He was Surgeon to the Faversham Cottage Hospital, and a member of the British Medical Association, and of the Leeds and West Riding Medico-Chirurgical Society. The funeral took place on January 20th, the first portion of the service being held in the parish church. The coffin was carried by members of the Faversham Division of the St. John Ambulance Brigade, and the funeral was attended by representatives of the Faversham, Boughton, and Doddington Brigades. There was a large attendance at the funeral, including many members of the medical profession.

The Services.

INDIAN MEDICAL SERVICE.

Reduced Railway Fares.

SOME time ago a correspondent in India called our attention to a paragraph which had appeared in the *Civil and Military Gazette*, stating that the Government of India had ruled that the concession under Form "E" certificate to regimental captains and subalterns, notified in India Army Order No. 162, 1911, did not apply to officers of the Royal Army Medical Corps or the Indian Medical Service, even though the latter are actually posted to regiments. Form "E" is one used by military officers in India when travelling *on duty* by rail. On it they obtain first class tickets at second class rates for cash payments, recovering the amount of one and a half first class fares by travelling allowance bill.

In April last regimental captains and lieutenants were authorized to avail themselves of Form "E" when travelling at their own expense (*not on duty*) on State railways. It thus comes about that any regimental captain or subaltern, when not on duty, or when going on leave at any time, can use Form "E," and can travel first class for second class fares on State railways, whereas the medical officer of the same regiment, when a captain or lieutenant, has to pay the full fare. The matter was brought to the notice of the India Office by the Chairman of the Naval and Military Committee of the British Medical Association, and the question was, we understand, referred to the Government of India. A notification has now been received from the India Office to the effect that the suggestion that the extension of the travelling concession to captains and subalterns of the Indian Medical Service has been considered by the Government of India, but that it is not prepared to move in the matter at present. It may be pointed out that this refusal to treat Indian Medical Service officers on the same basis as their fellow regimental officers of the same rank applies also to the officers of the Royal Army Medical Corps; it is one of the discriminations to the disadvantage of medical officers shown by the Government of India, and we hope that the decision may be reconsidered. We are in a position to state that the matter will not be lost sight of.

We understand, though it is not a matter which concerns us, that the senior regimental officers, the lieutenant-colonels, and majors are also discontented with the order in question. For the sight may be seen of the senior officers travelling second class at their own expense, when not on duty, while the junior officers can enjoy the luxury of first class at the same cost to their pockets. Truly, "boons" in India have curious results.

FIRST SOUTH MIDLAND FIELD AMBULANCE.

LIEUTENANT-COLONEL C. HOWKINS presided on January 20th at the annual dinner of the 1st South Midland Field Ambulance, held at the Great Western Hotel, Birmingham. Supporting him were Captain W. McCall, Captain W. Sturrock, Captain G. H. Dawes, Lieutenant Boeddicker, and Lieutenant W. H. Kimpton, officers of the Ambulance. Among the guests were Colonel W. O. Whitcombe, Colonel W. R. Ludlow, Lieutenant-Colonel J. F. Lister, Major W. H. Stephen, Major Robertson, Major Kaufmann, and Major C. Crosskey.

Lieutenant-Colonel Lister, in proposing the toast of "The Ambulance," expressed his pleasure that the Royal Army Medical Corps were at last to go to Great Brook Street to share the quarters with the Electrical Engineers. With such excellent head quarters the 1st Field Ambulance would have no difficulty in maintaining their full strength.

Lieutenant-Colonel Howkins, in responding, said that the Great Brook Street Barracks should prove most excellent head quarters. The barracks contained a riding school, and arrangements were in hand to purchase horses for the use of the ambulance. A large drill hall would be very shortly erected, and every effort made to render the place attractive. Colonel Howkins also said that it was hoped that in the near future a full military band would be formed, and this, he was sure, would prove a great inducement for men to join the Royal Army Medical Corps (Territorial). He also stated that he hoped the men whose engagements expired soon would re-engage, particularly the non-commissioned officers, and that all ranks would do their best to keep the unit up to the high standard of efficiency and establishment it now had.

Lieutenant W. H. Kimpton proposed the toast of "The Visitors" in a humorous speech, to which Colonel W. R. Ludlow responded.

LAWS AND CUSTOMS AS TO SICK AND WOUNDED.

TERRITORIAL MEDICAL OFFICER would be glad to know which books to read to enable him to study "The Laws and Customs of War on Land so far as they relate to the Sick and Wounded," this being one of the subjects for examination of Majors before promotion to Lieutenant-Colonel. The Territorial Regulations, 1910, recommend *Manual of Military Law*, chapter xiv; but this is quite insufficient to answer the questions set at the examination held in December, 1911.

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

THE following degrees have been conferred:

M.B., B.C.—G. V. Fiddison.
M.B.—W. M. Penny, W. B. Wood.
B.C.—L. A. P. Anderson, G. G. Johnstone, A. C. Jepson, J. C. Markton, R. L. Rawlinson, H. B. G. Russell.

UNIVERSITY OF LONDON.

UNIVERSITY COLLEGE.

Preliminary Science Classes.

THE introductory course in chemistry, physics, and biology for medical students held at University College will begin on Friday, March 1st, instead of, as hitherto, at the beginning of the third term in May. Full particulars may be obtained from the Secretary of University College.

LONDON SCHOOL OF TROPICAL MEDICINE.

Up to January 19th, 63 students have entered for the present session (January–April). The entries are classified as follows: For the general course, 50; for advanced course in entomology, helminthology, and protozoology, 13.

CONJOINT BOARD IN ENGLAND.

AT the examination (*Part IV, Practical Pharmacy*) held in January the following candidates were approved by the examiners:

FIRST EXAMINATION.—G. W. M. Andrew, L. D. Cohen, A. B. Danby, W. E. S. Digby, G. E. Dyas, W. K. Fry, N. Grellier, H. J. Hoby, J. E. T. Jones, A. W. Matthew, E. J. Nangle, L. R. Pickett, A. S. Plant, F. P. Pocock, P. Roux, A. H. Samy, A. S. Seabrooke, P. Ward, C. A. Webster, C. A. Weller, S. Wickenden.

SOCIETY OF APOTHECARIES OF LONDON.

AT the examination held in January the following candidates were approved:

SURGERY.—H. St. C. Colson (Sections I and II), J. F. O'Connell (Sections I and II), F. C. Shone (Sections I and II), W. H. Vincent (Section I and II).

MEDICINE.—H. St. C. Colson (Sections I and II), E. B. Keen (Section I), J. F. O'Connell (Sections I and II), C. B. Welsby (Section I).

FORENSIC MEDICINE.—H. St. C. Colson, R. J. M. E. Le Dentu, J. F. O'Connell, H. Willis.

MIDWIFERY.—H. St. C. Colson, M. P. Dos Santos, J. F. O'Connell, C. G. Waddington, H. Willis.

Diploma.

The diploma of the society was granted to the following candidates, entitling them to practise medicine, surgery, and midwifery:

H. St. C. Colson, J. F. O'Connell, F. C. Shone, W. H. Vincent.

DR. MARY STRANGMAN, Honorary Physician to the Maternity Hospital and Burshall Asylum, Waterford, was elected a member of the Waterford Corporation at the annual municipal elections. Dr. Strangman is the first woman to become a member of the Corporation.

THE London All-Indian Moslem League has collected, mainly among the Moslems of India, a sum of nearly £2,400 for the British Red Crescent Society. It is about to send from London, via Marseilles, a Red Crescent Corps, consisting of two doctors, a dresser, a dispenser, and two male nurses, with equipment and stores for a small field hospital, for the relief of sick and wounded Ottoman combatants in Tripoli.

Medico-Ethical.

The advice given in this column for the assistance of members is based on medico-ethical principles generally recognized by the profession, but must not be taken as representing direct findings of the Central Ethical Committee, except when so stated.

PROFESSIONAL SECRECY.

DEVANHA.—(1) The duty of a medical examiner is usually and properly limited to giving an opinion as to fitness or otherwise, and it would be a breach of professional secrecy if he were to reveal to a lay committee such prejudical facts as those alluded to; he should note them in his private case-book, but not include them in the report. (2) Whether he should appear in a cinematographic film to be exhibited to the British public presumably in lectures forming part of the campaign against tuberculosis is not of much importance. If he objects he will doubtless not be pressed, or he can stand so that his face is mainly hidden, or he can be represented by a lay understudy.

Public Health AND POOR LAW MEDICAL SERVICES.

VITAL STATISTICS IN ENGLAND AND WALES (1911).

WE are indebted to the Registrar-General for the following statement showing the birth- and death-rates and the rate of infantile mortality in England and Wales, and in certain parts of the country during the year 1911. During the past year aggregate death-rates from the principal epidemic diseases have not been calculated: they are not, therefore, included in the table. On the other hand, figures relating to London have been inserted in the table.

ENGLAND AND WALES.

Birth-rates and Death-rates in the Year 1911 (Provisional Figures).

	Annual Rates per 1,000 Living.			Deaths under One Year to 1,000 Births.
	Births.	Deaths.		
		Crude.	Corrected.*	
England and Wales...	24.4	14.6	14.6	130
77 great towns including London	25.6	15.5	16.4	140
136 smaller towns ...	23.1	13.8	14.4	133
England and Wales, less the 213 towns	23.4	13.9	13.1	118
London	25.0	15.0	15.8	128

*The corrected death-rates are the rates which would have been recorded had the age and sex constitution of the populations of the several areas been identical with that of England and Wales as enumerated in 1901.

Medical News.

THE anniversary dinner of the Medical Society of London will be held at the Whitehall Rooms, Hôtel Métropole, on Wednesday, March 6th.

THE electro-medical business of Messrs. Newton and Co. will in future be carried on by the firm of Newton and Wright at 72, Wigmore Street, London, W.

WE are informed by the Jeyes' Sanitary Compounds Company Ltd., 64, Cannon Street, E.C., that Dr. E. Klein, M.D., F.R.S., has accepted the appointment of Scientific Adviser to the Company.

THE King has granted to Dr. Charles Todd of the Public Health Department, Cairo, authority to accept and wear the Imperial Order of the Medjidieh of the Third Class, conferred upon him by the Khedive of Egypt in recognition of valuable services rendered by him.

A REUTER'S dispatch announces that a telegram has been received from Yambang, in the Abor country, stating that a cairn with an inscription stone was erected on January 24th at the spot on the banks of the Dihong river where Dr. Gregorson and his party were murdered by Abors last March.

THE arrival of the Orient liner *Otway*, the first steamer of that line to visit Toulon, thus establishing a sea route to the Rivicra, was attended by some ceremony. The houses on the quay were decorated, and the Maritime Prefect, the Prefect of the Var, the Mayor of Toulon, and other officials were present. Speeches were delivered and toasts to the British Royal family and the President of the French Republic were drunk.

A CONFERENCE of representatives of 42 states, convened last November by the Office International d'Hygiène Publique has been sitting in Paris under the presidency of M. Camille Barrère, the French Ambassador in Rome. A new convention has now been signed by all the states represented making regulations with regard especially to plague, cholera and yellow fever, supplementing the Paris convention of 1903.

THE ordinance for the institution of degrees in veterinary science promoted by the University of Edinburgh has received the sanction of the Crown, and will come into force at the beginning of the next summer session. The university is empowered by it to confer the degrees of B.Sc. and D.Sc. in veterinary science. It has been determined to erect new buildings for the Royal Dick Veterinary College, Edinburgh, and this alteration will no doubt contribute to make Edinburgh an important seat of veterinary education.

AT a recent inquest in Southwark the foreman of the jury complained that the present mortuary was "absolutely dangerous." The coroner, Dr. Waldo, expressed his agreement, as did Dr. Massie, formerly a councillor of the borough, who said he had to carry out *post-mortem* examinations with a tank weighing about a ton over his head, resting on a wall full of cracks. It appears that urgent complaints have been made for several years to the Public Health Committee, but the borough council has done nothing. We understand that there would be no difficulty in erecting a suitable mortuary immediately adjoining the coroner's court, which at present is half a mile from the mortuary. It seems quite clear that the borough council is under an obligation to take early steps to remedy the present dangerous and insanitary state of things, and that if it does not, it may presently claim the unenviable distinction of having not only a hidden cathedral but a buried pathologist.

THE monthly meeting of the Eugenics Education Society, at which Major Leonard Darwin presided, was held at the Grafton Galleries on January 18th, when an interesting discussion on the desirability of instructing children in matters of sexual hygiene was opened by the Rev. Mabel Irwin, of the American Society for Moral and Social Prophylaxis. Mrs. Irwin, who read a paper on American methods of introducing eugenic ideas into elementary schools, remarked that the introduction of eugenic teaching into the schools of any country had been and still was a work requiring almost superhuman efforts: and, though instruction in sex hygiene had been made compulsory in public schools of one of the Western States, and experiments were being made in the elementary schools of Chicago, they possessed as yet no satisfactory data as regards the results. The first and greatest of all difficulties was the attitude of the mothers, who would neither teach their children themselves nor allow others to instruct them in the pure facts of biology; and the first duty of the eugenists, therefore, was to overcome this opposition by teaching the parents the vital importance of proper instruction on matters of sex. For this purpose, classes for mothers were being organized in connexion with many American schools, where the mothers might learn from fully trained and qualified teachers how they themselves should instruct their little ones in the great mysteries of life's beginnings. Children, continued Mrs. Irwin, should be taught such things when they were very young, since experience had proved that the most irreparable mischief was usually done during the earliest years of life. Moreover boys and girls should receive exactly the same training in sexual matters; for in America it was beginning to be understood that a healthy race and a pure family life were alike impossible without chastity on both sides. The double standard of morality for men and women had received its death blow in America. In conclusion, Mrs. Irwin remarked that the future looked bright for eugenists in America. The United States already possessed fifty eugenic societies, and the gradual awakening of the American public to the truth of their teaching was strikingly testified by the success of a vast health exhibition recently held for the purpose of proving the dangers of an immoral life, an exhibition which would have been absolutely impossible in America even five years ago. An animated discussion followed Mrs. Irwin's speech, in which Mr. Cecil Chapman, the metropolitan magistrate, took a prominent part.

Letters, Notes, and Answers.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted will be found under their respective headings.*

QUERIES.

Mhow wishes to know if a woman, aged 35, who was successfully operated upon for cancer of the right breast (usual operation of extirpation of whole breast, axillary glands, etc.) fifteen months ago, and who is at present enjoying good health, should marry. She wishes to do so, but not unless she has his consent.

A Platter of Salt.

A. Z. writes: It is a common practice among the humbler classes to place on the breast of a corpse a heap of salt in a platter. What was the origin of this custom?

A Free-Martin(?)

Dr. Geo. Eliot, M.R.C.S. (Grenfell, Sask., Canada), writes: I would like to ask Mr. Lawrie McGavin whether the case No. 50 reported by him in the issue of December 23rd, 1911, under "Abdominal Section Under Spinal Analgesia," was a twin? I am assuming that he took the subject for a woman until the autopsy showed otherwise. Should she prove to have been a twin, it would be interesting could one get a description of the generative organs of the other twin. Is not this a case of twins, not externally malformed, that have been nourished by the same placenta and situate in the same chorion, amongst which we may most naturally look for the human homologue of the "free-martin"?

ANSWERS.

Dr. J. Smedley Boden (Maswell Hill) writes: In reply to "D. B. W.," I should consider, from the account given, that the most likely explanation of his patient's symptoms is that she suffers from eyestrain, the result of some refractive error, the correction of which, after use of a mydriatic, would most likely lead to a cessation of her headaches. For the relief of the headaches—if eyestrain is the cause—I find nothing better than a cachet containing 8 grains of phenacetin and 2 grains of caffeine citrate, taken with some fluid, followed by twenty minutes' rest in a semi-recumbent position.

Dr. Douglas Freshwater (London, W.) writes: In reply to "Hirsute," hair bleaching by means of hydrogen peroxide is a comparatively simple matter. It is important that the part should be previously cleaned with ether or some fat-removing solution, in order that the peroxide may act directly on the hair shafts. A 10 to 20 vols. solution may be employed; the stronger will blister if left on the skin longer than a few minutes. Once the hairs are bleached, it is a simple matter to keep them so by frequent applications for a few minutes while dressing. The employment of peroxide has the added advantage of rendering the hairs brittle, so that they frequently break off. Another method is the use of pernatrol soap, during the employment of which hydrogen peroxide is set free. For the permanent removal of hair electrolysis is the only effective method. I never recommend the employment of depilatories or *x* rays.

Uric Acid.—Acidum acetyl salicylicum cannot be advantageously given in solution as its solubility in water is 1 in 400; it can be made soluble by converting it into one of its salt, for example, the sodium salt, but the addition of caustic or carbonated alkali to do this would sooner or later result in the hydrolysis of the acid and the production of sodium acetate and sodium salicylate. A very sightly mixture or suspension can be produced with a small quantity of tragacanth mucilage; about 90 minims should be used for the suspension to 10 grains of the drug in ½ oz. of water. Mr. W. H. Martindale, who has given us some of the above information, states that in a mixture of this kind the acid remains for the most part unchanged, though even with plain water he has detected distinct splitting up of the acid if kept with the water for a few hours at 37° C. The mixture may be flavoured in any way that is preferred, but Mr. Martindale has sent us a sample made up with 5ss of glyl rosoe, this being the name of a preparation recommended in the *Extra Pharmacopœia* made by flavouring glycerine with an essential oil.

Evidence of Masturbation.

Experienced Witness writes: One can only expect to give negative evidence in such a matter. Point out that if Mr. had this *habit* the usual signs—sweating of the palms, nervousness, avoidance of society, and possibly local indications—would have been observed, which they were not. The evidence should be very guarded, because a witness might be placed in the box who might say "he had repeatedly seen him do it."

LETTERS, NOTES, ETC.

"In the Valley of Vision."

Dr. G. M. Irvine (Mount Norris, co. Armagh) writes: May I say a few words in defence of a book reviewed in your last issue? Being the author of *In the Valley of Vision* I am interested in the review output of the press regarding it.

I do not mind being called an ardent votary of telepathy; those who know me best know best how little truth there is in the imputation. I did think it possible that some one of the reviewers might recognize the fact that the work is nothing less nor more than a travesty of telepathy, and that one I fondly hoped would be the reviewer for a medical journal.

My pictures are those generated by the brain disordered by disease; the pictures of telepathy, which takes itself overseriously, are the products of a normally ill-regulated and uncivilized brain. The dream mind, the delirious mind, and the mind of the telepathist present strong analogies, inquiry into which would produce results valuable in proportion to the difficulty of finding an effective method of investigation. If the pictures in my book are true representations of mind activity during the delirium of disease, your reviewer has recognized a close analogy, inasmuch as he has so far mistaken my meaning as to rank me among the "ardent votaries of telepathy." Whether or not my representations are true must be left to the decision of those practitioners who have the opportunity of observing the phenomena in question.

The Varieties and Treatment of Asthma.

Dr. Alexander Francis (London) writes: It is not surprising that there should be such diversity of opinion with regard to the causation of asthma, when we are not agreed upon facts which can be definitely proved. Dr. Gibson stated (British Medical Journal, October 7th, 1911) that in only 1 case in his wards during the last five years did the blood pressure reach even a moderate degree, namely, 140 mm. systolic, in a man of 50. Dr. James Adam (British Medical Journal, January 13th, 1912), in fifteen years, has found only 2 cases with high blood pressure, and both had slight albuminuria. I have found (British Medical Journal, November 11th, 1911) that in my last 100 cases of asthma 23 had a pressure of 145 or higher, 74 had a pressure of 125 or higher, while in only 18 per cent. was the pressure below 120. This question of blood pressure may seem only a trivial matter, but I am convinced that it has a most important bearing, not only upon the causation of asthma, but even more upon prognosis. With a normal nasal mucous membrane and a high blood pressure, not due to renal disease or arterio-sclerosis, the prognosis in asthma, however long-standing or severe, is distinctly good. Possibly Dr. Gibson's and Dr. Adam's cases refer to poorly-fed hospital patients; but, as far as I can see, the question of food and high pressure is but little understood. Dr. Adam says that the striking lack of high pressure among asthmatics is not astonishing. "The typical asthmatic is not a 'beefy' man, but a lean, sallow, poisoned-looking creature" (British Medical Journal, January 13th, 1912). Contrary to all tradition though it may be, I am convinced that if blood pressure were systematically taken, the greater number of high pressures would be found among the latter class. It may be that blood pressures rule lower north of the Tweed, but this is not borne out by cases I have seen from Scotland. As an instance, I saw a man from Glasgow on September 26th, 1910, who had had asthma which had troubled him more or less for twenty-five years. His blood pressure was 200 mm. systolic, but he had no albuminuria. I reduced it at once to 180 mm., and on October 18th, when I saw him again, his pressure was 178, and it came down to 165. When I last saw him, on November 13th, 1911, nearly fourteen months after his first visit, his pressure was 155, and it came down to 140. The improvement in his condition had been immense. This case is typical of many, and tends to show that Dr. Watson-Williams's remark that the effect of nasal cauterization upon the blood pressure is only transient (British Medical Journal, November 25th, 1911) has no more foundation in fact than his statement that "the most hopeful cases for intranasal treatment are those in which mucous polypi are found" (*Diseases of the Respiratory Tract*, fourth edition, p. 357). I should like to emphasize the fact that it is not in the reduction of the pressure that the virtue of cauterization lies, but in its power of "stabilizing" the vasomotor centre. This is more easily effected in high than in low pressures, and luckily in my experience the majority of asthmatics have a high pressure without any nasal lesion.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	13	4
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An average line contains six words.

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Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

Note.—It is against the rules of the Post Office to receive *poste restante* letters addressed either in initials or numbers.

An Address

ON

INVESTIGATIONS OF THE MOTOR FUNCTIONS OF THE ALIMENTARY CANAL BY MEANS OF THE X RAYS.

DELIVERED BEFORE THE BRIGHTON DIVISION OF THE BRITISH MEDICAL ASSOCIATION ON NOV. 22, 1911.

BY

ARTHUR F. HERTZ, M.A., M.D.OXON, F.R.C.P.,

ASSISTANT PHYSICIAN AND PHYSICIAN IN CHARGE OF THE DEPARTMENT FOR NERVOUS DISEASES, GUY'S HOSPITAL.

WHEN I received the honour of an invitation to address this Division, I thought that I could not do better than fall in with the suggestion of your Secretary that I should deal with the progress in our knowledge of the motor functions of the alimentary canal in health and disease which has resulted from the use of the *x* rays.

The Oesophagus.

In the act of swallowing the food can be seen to pass with great rapidity to the back of the pharynx and thence equally quickly down the oesophagus. When it reaches the cardiac orifice its rapid progress is arrested owing to the sudden diminution in lumen, with the result that it runs slowly into the stomach and its upper limit has time to become horizontal. The interval which elapses between the commencement of the deglutition act and the disappearance of the last trace of food from the oesophagus varies between four and nine seconds in different individuals, half of the total period being occupied in reaching the lower end of the oesophagus, the other half in the passage through the cardia.

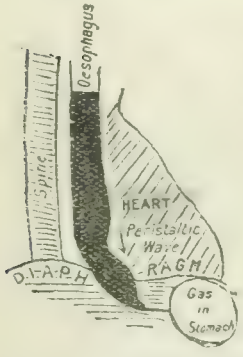


Fig. 1.—Epithelioma of the extreme cardiac end of the oesophagus (1 in. below the diaphragm), showing accumulation of bismuth-containing food in the dilated oesophagus above the obstruction and peristaltic waves attempting to overcome the obstruction.

When for any reason oesophageal obstruction is present, the exact point at which the passage of food is obstructed can be determined and the degree of stenosis estimated; as a rule, more or less dilatation occurs above the stricture, and in some cases strong peristaltic waves can be seen attempting to overcome the obstruction (Fig. 1). Oesophageal pouches can sometimes be discovered with the *x* rays, even if other methods have failed to indicate the cause of the symptoms from which the patient suffers.

The Stomach.

Our knowledge of the anatomy and physiology of the stomach has been completely revolutionized as a result of investigation with the *x* rays. It is now known that the old conception of the stomach as a flaccid bag lying horizontally high up in the abdomen is completely wrong. The *fundus*, which lies beneath the left dome of the diaphragm and always contains gas, passes into the *body* of the stomach at the level of the cardiac orifice. In the vertical position the body is of nearly uniform width and is situated entirely to the left of the middle line. It is either vertical or inclines slightly towards the right, and is separated from the *pyloric part* of the stomach by the *incisura angularis* on the lesser curvature (Fig. 2). The pyloric part of the stomach consists of the *pyloric vestibule*, which is directed upwards as it passes to the right of the middle line, and the *pyloric canal*, which is about an inch in length, and passes backwards, upwards, and to the right, its termination projecting into the duodenum. As a result of the tonic contraction of the sphincter which surrounds the pyloric canal, the latter is normally empty, even when the rest of the stomach is full.

In the vertical position the greater curvature almost invariably reaches below the umbilicus. In the horizontal position the greater curvature rises one or two inches, and comes to lie above the umbilicus (Fig. 3); at the same time

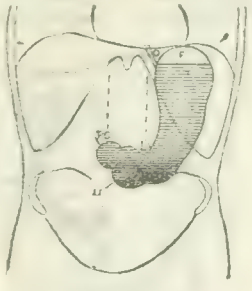


Fig. 2.—Normal stomach in the vertical position.

O, End of oesophagus forming gas; I A, incisura angularis; P C, pyloric canal; U, umbilicus.

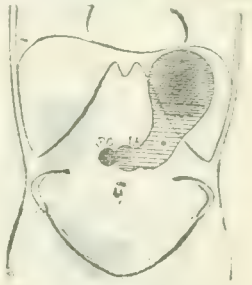


Fig. 3.—Normal stomach in the horizontal position.

F, fundus of the stomach containing gas; U, umbilicus.

the diaphragm ascends slightly, and the fundus rises with it. The lowest part of the stomach can be lifted between two and four inches by voluntary contraction of the abdominal muscles, and it can be caused to drop by their voluntary relaxation.

The stomach always contains gas, all of which collects in the fundus in the vertical position. After a meal the horizontal upper limit of the gastric contents can be clearly seen, most of the fundus being still full of gas; on shaking the body, the splashing of the fluid or semi-fluid gastric contents can be watched, and on leaning to one side the horizontal upper limit can be seen to be maintained. In the empty condition only the pear-shaped upper third of the stomach contains gas, the rest of the organ passing to the pylorus in the form of a collapsed tube, which corresponds in position to the lesser curvature of the full stomach.

From what has already been said it is clear that percussion of the stomach, whether empty or full, can only give information as to the area occupied by the gas it contains, and this bears no sort of proportion to the size of the organ. Although it is possible by means of auscultatory percussion to mark out a very definite area, which was formerly believed to be that occupied by the stomach, the *x* rays have proved that in reality it yields an even less accurate representation of the stomach than simple percussion.[1]

Investigations with the *x* rays have also shown how impossible it is for anybody to interpret the meaning of his symptoms correctly. Thus I have seen numerous patients, including several medical men, in whom an *x* ray examination in the vertical position showed that no excess of gas was present, although they complained of a sense of fullness in the stomach, which they were convinced was due to flatulence, and which they were constantly endeavouring to relieve by eructation.[2]

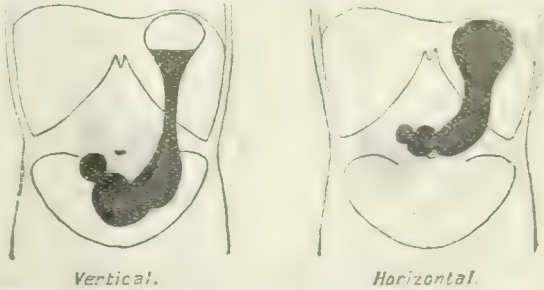


Fig. 4.—Ptosis of an otherwise normal stomach, disappearing in the horizontal position.

With the *x* rays any abnormality in the position and shape of the stomach can be readily observed. By no other means can gastroptosis be invariably diagnosed with certainty, for in many cases in which the stomach is quite normal in position when the patient lies down, as he does for ordinary abdominal examination, it drops to a remarkably low level as soon as he stands up (Fig. 4). I have

been much struck by the fact that severe gastroptosis is not uncommon in individuals whose abdominal muscles are well developed, and whose other viscera do not appear to drop excessively when the erect posture is assumed. Hour-glass stomachs can be readily recognized with the *x* rays, but it is important to remember that various conditions, some of which I shall allude to later, may produce a functional hour-glass constriction, which can generally be distinguished from the organic form by the fact that in the latter the neck does not pass from the most dependent part of the upper segment (Fig. 5). The presence of adhesions leading to fixation or deformity of some part of the stomach can be recognized with the *x* rays; but, unfortunately, they do not often give much assistance in the really early diagnosis of cancer.



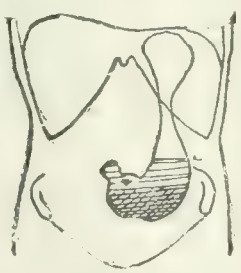
Fig. 5. — Organic hour-glass stomach, due to cicatrization of a gastric ulcer.



Fig. 6. Filling of the normal stomach. U, Umbilicus; L, upper limit of gastric contents.

The tone of the stomach can be very satisfactorily investigated by means of the *x* rays. Owing to its adaptation to the bulk of the gastric contents, there is very little difference in the upper limit of the latter, whether their volume be 40 or 400 c.cm., and the greater curvature is very little depressed as the stomach is gradually filled (Fig. 6). When atony is present, this adaptation no longer occurs, and the food drops into the most dependent part of the stomach, so that its upper limit may even be below the umbilicus instead of between 1 and 2 in. below the diaphragm; as more food is taken, the greater curvature sinks more and more deeply and the upper level of the contents only rises to a comparatively small extent (Fig. 7). In the extreme degrees of dilatation, which occur in cases of long-standing pyloric obstruction, the dilatation may be so great that none of the food taken at an ordinary meal ever reaches the pyloric end of the stomach so long as the patient is in the erect position (Fig. 8). When ptosis is present in addition to atony the new output of the press regarding it.





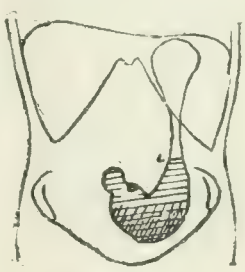


Fig. 7.—Filling of the atonic stomach. U, Umbilicus; L, upper limit of gastric contents.

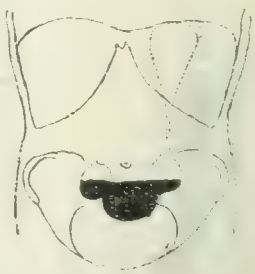
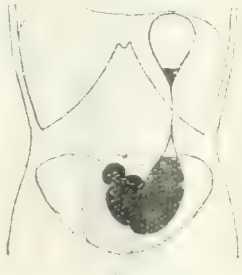


Fig. 8.—Pyloric obstruction due to duodenal ulcer; dilatation and hypertrophy of stomach

When the tone of the stomach is excessive, its greater curvature does not reach the umbilicus in the vertical position and in extreme cases the organ lies very obliquely immediately below the liver. The most common cause of hypertonus is duodenal ulcer (Fig. 10); in a somewhat considerable experience I have invariably found a hypertonic stomach in this condition unless the ulcer had led to organic obstruction. This is of great practical importance, as it assists in the differential diagnosis between duodenal and gastric ulcer, as hypertonus is rarely found in the latter condition. Moreover, when hypertonus is present in duodenal ulcer, the prospects of cure by medical means are generally good, whereas the slightest degree of dilatation indicates that a gastro-enterostomy is essential in order to overcome the obstruction. Hypertonus occurs in some cases of gall-bladder disease and of chronic appendicitis, and it may also result from a course of strict dieting in a patient who has been kept in bed. Spasm near the centre of the stomach can occasionally be observed, particularly in cases of gastric ulcer; it gives rise to a condition of temporary hour-glass stomach (Fig. 11).







A B C

Fig. 9. Orthostatic hour-glass stomach. A, Vertical position, first stage. B, Vertical position, second stage. C, Horizontal position.

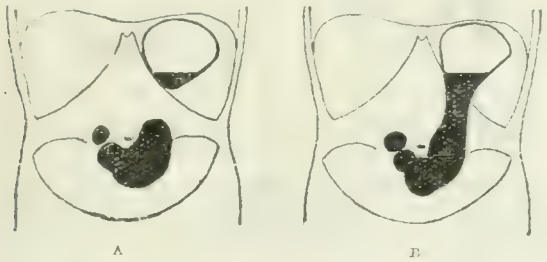


Fig. 10.—Hypertonic stomach due to duodenal ulcer.

The activity of peristalsis can be readily determined with the *x* rays, and the complete independence of peristalsis and tone has only been recognized since this method of examination was introduced. Thus normal peristalsis is commonly observed in atonic and dilated stomachs, and

restante letters addressed either in initial

in rare cases peristalsis may be deficient in hypertonic stomachs. In organic pyloric obstruction increased peristalsis can often be observed before it is visible through the abdominal wall, and instead of commencing in the middle of the greater curvature it can be seen to start near the fundus and to produce a complete separation of the contents of the pyloric end from those of the rest of the stomach at a point considerably more distant from the pyloric canal than is normally the case. I have only once



A B

Fig. 11.—Spasmodic hour-glass stomach with no ulceration. A. Spasm present. B. Spasm disappeared after vigorous contraction of abdominal muscles.

seen antiperistalsis in the stomach: when present it is a conclusive sign of organic obstruction.

The rate of evacuation of the stomach can be estimated with the x rays if care is taken that nothing is eaten or drunk until every trace of the shadow of the bismuth meal has disappeared. The x rays have shown that the stomach begins to empty itself immediately food enters it, and the evacuation continues without intermission until it is complete.

The Small Intestine.

Indications of the rapid passage of chyme through the small intestine can be observed with the x rays, and under favourable circumstances segmentation, which mixes the food with the intestinal juices and promotes absorption of the products of digestion without causing any forward movements of the intestinal contents as a whole, can be watched (Fig. 12). The bismuth-containing chyme is most concentrated in the duodenum before it has become mixed with the bile, pancreatic juice and succus entericus; the position of the duodenum can therefore frequently be determined. I have never observed true stasis in the duodenum, except in cases of organic obstruction, and to a less extent in extreme gastroptosis, in which a kink may occur at the point where the duodenum becomes fixed. I am convinced that kinking of the duodenum plays no part whatever in the etiology of duodenal ulcer, as has recently been suggested, for nothing could be less likely to cause kinking than the hypertonic condition of the stomach present in duodenal ulcer; the latter is, indeed, invariably associated with an unusually rapid passage of the chyme into the more distal parts of the small intestine. The tonic contraction of the ileo-caecal sphincter leads to a slight delay at the end of the ileum, comparable to that which occurs at the lower



Fig. 12.—Diagram to illustrate the consecutive stages of segmentation in the human small intestine. Corresponding points are marked with the same letter.

end of the oesophagus. Consequently segmentation can be more easily observed in the last few inches of the ileum than in any other part of the small intestine. In a few cases I have seen a true kink near the end of the ileum, which has led to more or less obstruction, but in every instance this has been due to adhesions caused by an antecedent attack of appendicitis. I do not believe that a kink in the ileum is of any importance in the etiology of simple constipation, as a delay of more than a few hours is never observed in the end of the ileum, and this is merely an exaggeration of the normal delay caused by the ileo-caecal sphincter.

The Colon.

Like the stomach, the colon undergoes considerable alterations in its situation according to whether the horizontal or the vertical position is assumed (Fig. 13).



A B

Fig. 13.—Influence of posture on position of colon in a normal individual. A, Vertical position. B, Horizontal position.

The only fixed point is the splenic flexure, the hepatic flexure frequently dropping an inch or more when the individual stands up. The caecum varies greatly in position: it is not very rare to find it in the true pelvis in perfectly healthy individuals, who have never suffered

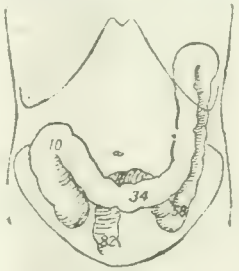


Fig. 14.—Post-dysenteric atony and paresis of the colon. Compare this lumen of the colon and the slow passage of faeces through it with Fig. 16.

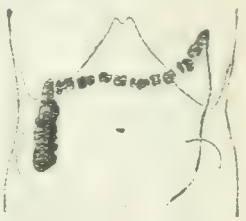


Fig. 15. — Constipation with muco-membranous colitis, showing spasm of descending and iliac colon.

from constipation. Both the splenic and the hepatic flexures often appear to be extremely acute even in normal individuals: but the appearance with the x rays is somewhat deceptive, as the transverse colon is on a more anterior plane than the ascending and descending colon. By manipulation of the abdomen during a screen examination it should be possible to separate from each other the limbs of the hepatic flexure and of the splenic flexure; if this cannot be done, it may be assumed that the limbs are bound together by adhesions. Similarly, if it is impossible to move the shadow of the iliac colon by manipulating the left iliac fossa, it is probable that pericolitis is present, and in some cases of chronic appendicitis the caecum is also found to be abnormally fixed.

The lumen of the transverse and descending colon is very much less than that of the caecum and ascending colon, but in atony, due to such conditions as chronic dysentery, the lumen of the whole colon may be uniformly enlarged (Fig. 14). On the other hand, in spastic constipation, which is associated with the passage of membranes in the condition known as muco-membranous colitis, various segments of the colon may be seen to be abnormally contracted (Fig. 15).



Fig. 16.—Diagram of normal large intestine, the pelvic colon being represented in the position it occupies when full. The numbers represent the hours after a bismuth breakfast at which the different parts of the colon are reached. C, Caecum; A C, ascending colon; H F, hepatic flexure; S F, splenic flexure; D C, descending colon; I C, iliac colon; P C, pelvic colon; R, rectum; U, umbilicus; P, pelvis.

The rate of the passage of faeces through the large intestines can be estimated with the x rays. The caecum is normally reached in a

little over four hours after the bismuth meal, the hepatic flexure two hours later, the splenic flexure three hours after the hepatic flexure, and the beginning of the pelvic colon twelve hours after the commencement of the meal (Fig. 16).

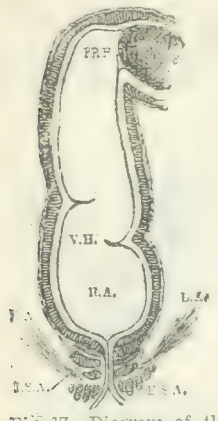


Fig. 17.—Diagram of the pelvi-rectal flexure, rectum, and anal canal. P.R.F., Pelvi-rectal flexure; V.H., lowest valve of Houston; R.A., rectal ampulla; L.A., levator ani; I.S.A., internal sphincter ani; E.S.A., external sphincter ani; F., faeces in pelvic colon.

Under normal conditions the faeces do not pass beyond the sharp pelvi-rectal flexure until immediately before defaecation, but accumulate from below upwards in the pelvic colon (Fig. 17). Investigations carried out with the *x* rays four years ago demonstrated that in defaecation active peristalsis of the whole of the colon occurs, and under normal conditions everything beyond the splenic flexure is evacuated (Fig. 18).

CONSTIPATION.

My *x* ray investigations have shown that it is possible to separate all cases of constipation into two main groups.[3] In *intestinal constipation* a delay occurs in the passage through the colon, especially in its distal half, but defaecation is normal (Fig. 19). In *dyschezia*, on the other hand, the passage through the intestines as far as the pelvic colon is normal, but defaecation is inefficiently performed, and the rectum and pelvic colon are never properly emptied (Fig. 20).

Treatment.

The mode of action of different forms of treatment can often be studied by means of the *x* rays. Thus the stimulating influence of food taken into the stomach on intestinal peristalsis can be recognized (Fig. 21), and the effect of a suitable diet in the treatment of intestinal constipation can be watched (Fig. 22). The *x* rays afford a very valuable means of investigating the pharmacology of aperients and other drugs which influence the motor functions of the alimentary canal; as this method of research is still in its infancy I shall not discuss it more fully at the present moment.[4] The position of the colon and the situation of delay in cases of intestinal constipation vary so greatly that an *x* ray examination is often of great value for the information it gives as to the place where massage can be most usefully applied.

Although the relief of the abdominal discomfort and circulatory symptoms of visceroptosis obtained by the use of a suitable abdominal support is very striking, it is interesting to observe with the *x* rays that the position of the dropped stomach and colon are often unaffected (Fig. 23). Prolonged rest in bed with the foot of the bed raised has been shown by the *x* rays to result in a permanent improvement in the position of the stomach and colon in many cases of severe ptosis.

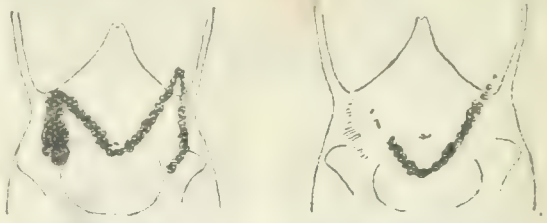


Fig. 18.—Normal defaecation; showing active participation of the whole colon and complete evacuation of everything above the splenic flexure.



Fig. 19.—Intestinal constipation: 24 hours after bismuth meal. Subsequent examinations showed that a similar delay occurred along the whole of the large intestine.



Fig. 20.—Dyschezia: 24 hours after bismuth breakfast. The patient felt no desire to defaecate.

An *x*-ray examination is not infrequently useful for its mental effect on the patient, as it may remove the fear of cancer or obstruction which is so common in nervous individuals suffering from constipation. In some cases, moreover, it may help to dispel the fixed idea held by perfectly healthy people that unless they take an enormous quantity of aperients they will never get their bowels



Fig. 21.—Hourly tracings to show effect of meals on the movements of the colon.



Fig. 22.—A, Non-stimulating diet, leading to constipation. B, After five days of stimulating diet (porridge, green vegetables, fruit, etc.).

over. Thus, having found by means of the *x* rays that a young man who had been in the habit of taking large doses of vegetable and saline purgatives every day was really not constipated at all when he was taking no medicine, I was able to persuade him on two consecutive mornings to open his bowels without artificial help, after demonstrating to him that the faeces had passed through his intestines, and were simply waiting in his rectum to be expelled.

The results of operation on the alimentary canal can be investigated with the *x* rays. My observations have convinced me that gastro-enterostomy is always a drainage operation, and that in successful cases most of the food leaves the stomach through the stoma whether pyloric obstruction is present or not. For this reason the anastomosis should always be made in the pyloric end of the stomach even if the ulcer is near the cardiac orifice. When the operation is unsuccessful it is generally due to the alteration which occurs in the relative position of the parts concerned when the vertical position is assumed; this is least marked with a hypertonic stomach, a fact which explains the rarity of vomiting and other unpleasant symptoms after the operation in cases of duodenal ulcer. I have now seen a number of patients on whom a gastro-enterostomy had been performed for various reasons, who, though cured of their original complaint, were much troubled during and immediately after meals by a feeling of fullness just above the umbilicus.

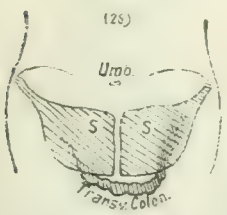


Fig. 23. — Failure of abdominal support to keep transverse colon, which had dropped into the true pelvis, in normal position in the erect posture.

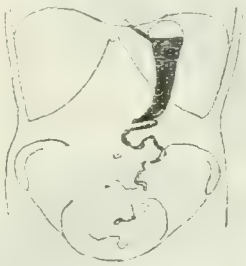


Fig. 24.—Five years after gastro-enterostomy for small duodenal ulcer which did not produce obstruction.

and who in some cases also suffered from diarrhoea after taking food. In these cases the food runs with such rapidity out of the stomach into the jejunum that none accumulates in the former, but the latter is overdistended; this overdistension is doubtless the cause of the discomfort (Fig. 24). Relief is obtained if the patient eats with extreme slowness, especially if the ordinary meals are replaced by smaller and more frequent ones; at the same time the diarrhoea can generally be controlled by the administration of a preparation of pancreatic ferments, which helps digestion in the intestine to compensate for the absence of digestion in the stomach, and also to a certain extent makes good the deficiency of pancreatic juice which results from the absence of the normal stimuli to its secretion.

I have covered such an extensive field in these remarks that I have only been able to give some slight indication of the most important results which have followed the employment of the *x* rays as a method of investigating the physiology and pathology of the alimentary canal. But I hope I have succeeded in awakening your interest in this fascinating subject, and showing you what great advances have already been made in our knowledge in the five years which have elapsed since Rieder showed that it was possible to apply the methods previously used by Cannon on cats to human physiology and pathology.

References.

[1] British Medical Journal, March 14th, 1911. [2] Goulstonian Lectures on *Sensibility of the Alimentary Canal in Health and Disease*, Oxford, 1911. [3] *Constipation and Allied Intestinal Disorders*, Oxford, 1909. [4] *Guy's Hospital Reports*, lxiii, 297, 1909.

The authorities of the United States navy have followed the example of the army by making antityphoid inoculation compulsory in the case of all officers and enlisted men under the age of 45. Henceforward all recruits enlisted will have to submit to vaccination against typhoid fever as they now do against small-pox.

THE IMPORTANCE OF PELVIC DEPOSITS IN THE DIAGNOSIS OF ABDOMINAL CANCER.

BY

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In a certain proportion of cases of carcinoma in the upper abdomen, portions of the growth find their way into the general peritoneal cavity, and then into the pelvis, where they become implanted and grow, in many cases giving rise to a mass easily palpable per rectum. Whether the particles simply gravitate to the pelvis, or arrive there as the result of the natural drainage of peritoneal fluid assisted by intestinal movements, or are carried in some other way, is of no moment for my present purpose.

The masses are to be felt in the recto-vesical pouch or pouch of Douglas, on the anterior wall of the bowel, within three or four inches of the anus. They may be single or multiple, and are either detected as a definite fixed nodule or nodules or as an infiltration. As a rule they feel about the size of a small hazel nut, though they may be much larger. In my cases the presence of the deposits has not given rise to any symptoms whatever, and they have only been discovered in the course of routine examination. Cases, however, have been recorded[1] in which the growth apparently originated in the rectum. Should this question arise, the matter could readily be cleared up by sigmoidoscopic examination, for with deposits of growth on the pelvic peritoneum the mucous membrane is not involved.

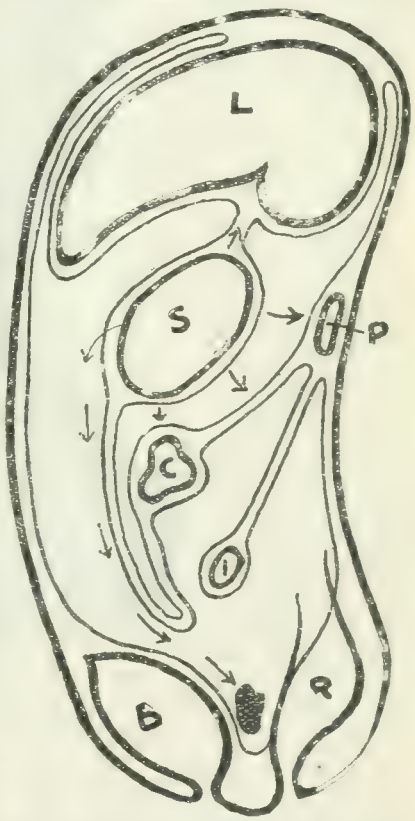


Fig. 1.—Represents diagrammatically a vertical section of the peritoneal cavity. The arrows show the directions in which a stomach growth may spread. The mass in the recto-vesical pouch is a peritoneal deposit of growth.

I wish particularly to emphasize that in cases of malignant disease in the upper abdomen, and especially with stomach cancer, while there may be no signs of dissemination to be made out on ordinary abdominal examination and no ascites, *there may be quite a considerable deposit in the pelvis, easily recognizable on rectal examination and without any symptoms to point to its presence.*

The first case which came before my notice was mentioned by me in an address delivered before a meeting of the British Medical Association at Sunderland[2] on April 3rd, 1906, as follows:

The Importance of Rectal Examination.

In my hospital work nothing has struck me more than the neglect of this method, for seldom a month passes without my seeing cases of serious rectal mischief that have been overlooked or wrongly interpreted for the want of proper local examination. It is indispensable in a complete examination of the peritoneal cavity, for it is only by this route in the male that the recto-vesical pouch can be properly explored. I am familiar with no better instance of its value in this connexion than the circumstances of the following case.

In May, 1900, Loreta's operation was performed for pyloric stenosis at another hospital. In October, 1909, the patient was admitted to the Newcastle Infirmary, where pylorectomy for cancer was carried out by Mr. Morison. In June, 1903, the man returned to the hospital for the removal of a tiny recurrence in the scar. Once again, in July, 1904, the patient applied for relief, suffering from a mass of growth in the abdominal scar. He was otherwise in good health, was able to work as a labourer, and had no stomach or bowel symptoms. It was arranged to remove the growth, but, as part of a regular routine, the zealous house-surgeon examined the rectum only to discover a large mass of growth in the recto-vesical pouch. Operative interference was, of course, hopeless; the patient was saved the pain and inconvenience of a useless operation, and the surgeon spared the chagrin of performing one. The patient sank and died in November, 1904, without developing any signs of obstruction.

Again, in a paper before the Blyth Division of the British Medical Association, March 6th, 1908, on "What can be done for Cancer of the Stomach,"[1] I drew attention to the matter as follows:

Recognition of Hopeless Cases.

Now, cases in which the abdomen contains fluid are usually beyond surgical aid, for it means involvement of the peritoneum by growth. But there are many in which there is extensive peritoneal involvement and yet no fluid, and, in a fair proportion of these, deposits can be felt in the pouch of Douglas. This sign has often been a great help to me, not only for the purpose of diagnosis, but because it shows that the patient's lease of life is rapidly running out and that a radical operation can scarcely be of any avail.

Fig. 3 Fig. 1 in present article] shows roughly the peritoneal cavity in vertical section, with the directions in which a malignant stomach growth may spread indicated by the arrows. Once the epithelium of the growth has burst through the overlying peritoneum it is spread by the influence of gravity, intestinal movements, and the conduction of the fluid which its growth produces. As many of these patients go about in the early stages the particles gravitate into the pelvis, where, without causing any symptoms whatever, they give rise to other deposits, which may form quite a large mass easily felt by the finger in the rectum or vagina.

For instance, in a recent case, a man of 51 was sent up to me for operation. He had been ill for four months, and, owing to frequent vomiting, had become wretchedly thin and ill. There was a large, freely movable mass in the situation of the pylorus. When the patient lay on the left side the tumour moved over to that part of the abdomen, and vice versa. Except for the wretched general condition it was apparently an excellent case for radical operation, as there were no signs of dissemination whatever, but, on rectal examination, some hard nodular masses could easily be felt on the pelvic peritoneum. I performed gastro-enterostomy, and, at the operation, the local stomach conditions were found to be very well suited for a secondary gastrectomy, but the pelvic deposits which I had previously felt were abundantly verified on exploring the pelvis with the hand.

Sometimes the pelvic deposit is the first thing to suggest a diagnosis of stomach cancer, as in the following case:

A lady of 43 was sent to me as a probable case of malignant uterus. On making an examination the uterus appeared to be normal, but there was a definite hard mass in the pouch of Douglas. On going into her history I found there had been much indigestion with vomiting, and she subsequently turned out to have stomach cancer with secondary peritoneal deposits.

Of course, it must be distinctly understood that this sign is of no negative value whatever, for the peritoneum may be studded with small deposits which it is quite impossible to feel on rectal or vaginal examination; and, further, care must be taken not to be misled by an old inflammatory mass in the pelvis, or by faeces in a prolapsed pelvic colon.

Since then I have frequently observed this sign, and its recognition has been of the greatest service, as the following illustrative cases will show:

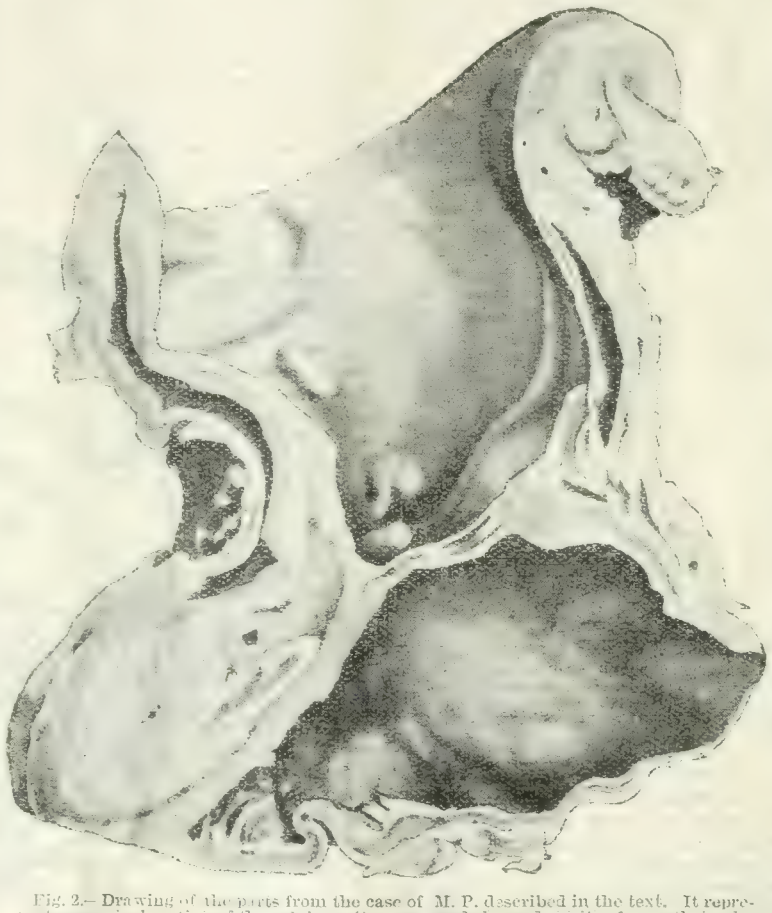


Fig. 2.—Drawing of the parts from the case of M. P. described in the text. It represents a vertical section of the pelvic peritoneum, and shows deposits of growth in the recto-vesical pouch. They were easily felt from the rectum as hard, fixed nodules.

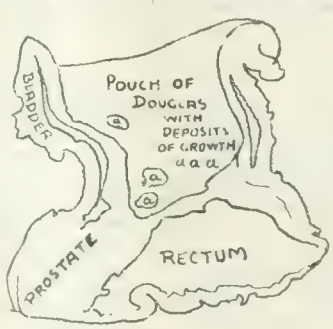


Diagram explanatory of Fig. 2.

CASE I.

M. P., a man aged 45, was admitted to hospital with a history of indigestion of five months' duration. He had pain about an hour after each meal, with frequent vomiting and loss of flesh and strength. When seen he was emaciated, and there was a large movable, nodular mass in the situation of the pylorus, but with no evidence of gross dilatation of the stomach. There were no other masses in the belly, no free fluid, no enlargement of the liver, and no big glands above the left clavicle, but on rectal examination a hard mass was easily felt in the recto-vesical pouch. The patient died suddenly after gastro-enterostomy, and at the necropsy deposits were found in the pelvis as shown in the illustration (Fig. 2). The primary growth was large, and the omentum and peritoneum were invaded, but there were no deposits in the liver.

CASE II.

In January, 1910, I was asked to see a woman, aged 38, who had suffered from indigestion from May, 1909. She saw her own doctor in September of that year, and was better after treatment. By December the symptoms recurred and she was seen by a physician, who sent her to bed. Soon after this a lump was discovered in the epigastrium, and I was asked to see the patient with regard to its nature. The lump would do very well for a growth at the pylorus, but it was only on rectal examination that the discovery of a hard mass at once clenched the diagnosis and showed how far the growth had insidiously progressed. I performed gastro-enterostomy in January, 1910, which gave me the opportunity of confirming the findings, but the patient soon sank and died four months later.

CASE III.

The most recent case was that of a man, aged 68, who was admitted to hospital in November, 1910, with a gall-stone history of twenty years' duration. At the operation the common duct was very large and full of stones, while the gall bladder, which was removed, was shrivelled and very thick-walled. On microscopic examination it showed evidences of a slow-growing carcinoma. In November, 1911, this patient was readmitted, looking better than before but complaining of pain and discomfort after meals, accompanied by vomiting. On examination a large hard mass was felt adherent to the centre of the scar. There were no other masses, no evidence of enlargement of the liver, and no ascites; but on rectal examination a firm, hard, fixed mass was at once felt on the right side, with several smaller fixed nodules to the left. It was decided to open the abdomen with the object of relieving the obstructive vomiting from which the patient suffered. It was

then found that the hypochondriac mass originated in the gall-bladder area and directly involved the duodenum, while there were many peritoneal deposits which were thickly crowded in the pelvis.

Cases like these show the absolute need of routine rectal examination, and are eloquent testimony to the very valuable evidence that may be so gained.

I have no personal statistics as to the proportion of cases in which this sign is present, but Dudley W. Palmer[1] has investigated a consecutive series, and I quote from his paper as follows:

In the 435 case histories were 307 cases of carcinoma of the stomach, the remainder being of the intestine, pancreas, liver, and gall bladder. In this number 28 (or 6½ per cent.) showed secondary deposits on the rectal shelf or in the cul-de-sac of Douglas. No secondary deposits were to be palpated through the abdomen, and, with two exceptions, abdominal fluid was clinically questionable or absent.

The discovery of such pelvic deposits may not only establish the diagnosis of malignant disease, but may at the same time be the earliest clinical sign of inoperability, so far as radical measures are concerned.

REFERENCES.

[1] J. Schnitzler, *Mitth. a. d. Grenzgeb. der Med. u. Chir.*, 1908, xix, No. 2, p. 205; Epitome in *Surgery, Gynaecology, and Obstetrics*, vol. viii, p. 328. [2] *University of Durham College of Medicine Gazette*, December 15th, 1906. [3] *Northumberland and Durham Medical Journal*, June, 1908. [4] *Surgery, Gynaecology, and Obstetrics*, vol. x, p. 154.

FURTHER EXAMPLES ILLUSTRATING CASES OF CHRONIC TOXAEMIAS AT VITTEL.

BY

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In July, 1910,[1] I was able to bring forward a series of typical cases from my practice at Vittel during the previous season (1909). That paper led to a number of inquiries from many medical brethren, most of whom asked for more. Some varieties of chronic toxaemias were not represented, and I have tried in the present notes to, in part, fill up these gaps.

In practice at such a place one finds a large number of cases of a nondescript character, or at least appearing to be so to our imperfect knowledge or our insufficient means of determining in detail the loss of physiological balance or, in other words, the disease, which makes them appear to us as an unco-ordinated group of symptoms. Such indefinable cases represent a large part of one's practice; they do the cure, get relief of their symptoms, and go on their way contented. I do not feel justified in quoting such cases, as they would rather tend to confuse our minds than to push our observations and deductions onward along the path of precise knowledge.

I have therefore limited these new examples of cases, with one exception, to definite morbid entities, to illustrate one or the other ailment that is dignified by a name and presumed to be of known pathology. Like those of the first series, their treatment is based fundamentally upon two principles, which may be defined as:

(1) The use of a vehicular water.
(2) The compensatory relief of the usual work to the kidneys, allowing them to do an equivalent of new work.

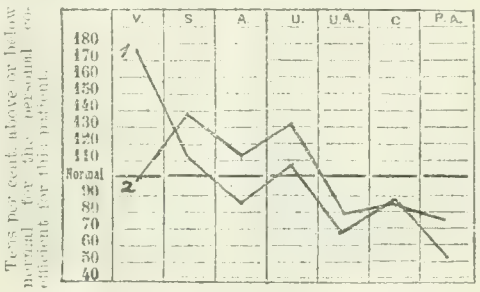
1. The first is the employment of a natural saline solution, just suitable, a little hypotonic to the blood, characterized physiologically by rapid assimilation, and, if the supply is kept up, by equally rapid excretion. So intense is the affinity of the blood for this water that when large quantities are being drunk a tendency to constipation is produced, showing that the blood is even stealing it from the food bolus, and also showing, not infrequently, marked thirst for more by patients drinking considerable quantities daily.

2. The second fundamental principle is compensatory relief of the kidneys. If a given horse can draw a load of two tons of coal, that horse will not be able to draw an additional ton of potatoes. If we take off a ton of coals, we can then replace that amount by a ton of potatoes. This principle is the one we follow in utilizing a non-chloride-bearing water, such as Vittel. If by a suitable diet we reduce the diurnal amount of sodium chloride, which we will put at 12 grams, to a practically accessible amount of 6 grams, we give our cellular structures a chance of giving up to the partly demineralized blood serum their store of uric acid and other toxic substances. At the same time our kidneys have a reserve energy for excreting their uric acid and other toxic substances to the equivalent of the diminished 6 grams of sodium chloride. This analogy will, I hope, make clear the mechanism of the lixiviating effects of such a mineral water as Vittel.

CASE I.

Mrs. C., aged 49. Blood pressure 140 mm.; capillary reflux 3; pulse 58; weight 72.200 kilos. When young had lung trouble, but has been gouty for three or four years, which, she says, is markedly hereditary. Last Christmas, after exercise, had dark water and a little pain, followed by rigors and giddiness, and finally renal colic. Shortly afterwards the stones dropped into the bladder under the influence of Vittel "Grande Source," which had been ordered her. In a few days she passed two small uric acid stones.

She is a "good eater," but temperate in alcohol; her digestion is good, excepting for a little flatulence; has been constipated for some time, and has a thoroughly inactive skin. She has a fair sleep, but is a great dreamer, and has a bad mouth in the morning.



CASE I.—Mrs. C. August 13th, 1910: Specific gravity 1015. Faint traces of biliary pigments, indican, and scatol. Purins 0.342. Extremely numerous pavement cells, some leucocytes, and very small crystals of uric acid. September 5th, 1910: Specific gravity 1027.5. Faint traces of true bile pigments, indican, and scatol. Purins 0.251. No deposits. V, Volume; S, solids; A, acidity; U, urea; U.A, uric acid; C, chlorides; P.A, phosphoric acid.

She came to Vittel feeling generally "down" or "seedy." The first urine analysis portrays the reason of this, as well as some remaining catarrh of the urinary passages. The urea-uric acid ratio is much disturbed. In addition to six glasses of "Source Salée" in the morning, and three of "Grande Source" in the afternoon, she had massage under water every fourth day, and daily general massage with Pelciba iodine jelly. The unpleasant feeling soon disappeared. At the end of the cure all the elements of the urine are raised in quantity, showing that both nutrition and elimination have been improved. Blood pressure fell to 125 mm.; weight had fallen to 69.750 kilos, or a loss of 2.450 kilos (5½ lb.).

I have given this case as one where the principal symptoms indicate that they were due to water starvation, with resulting toxaemia and deposition of uric acid in joints and urinary passages and fat in the tissues. Outside this, I think we can argue very little from the analyses, and this is a good example of clinical success but speculative failure.

CASE II.

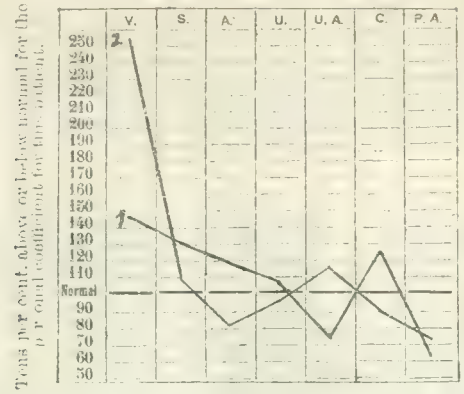
Dr. H., aged 48. Blood pressure 135; capillary reflux 2½; pulse 60; weight 64.650 kilos. Has always suffered from irritability of the bowels, with constipation and occasional diarrhoea. Spasmodic colls and mucous diarrhoea very slight. His digestion is good, he does not suffer from headaches, but always dreams. He is obviously neurotic.

He came to Vittel because he suffers from tendinous fibrosis, which attacks any group of muscles that are put to any new or special use. He exhibits large nodes on tendon sheaths at wrist, etc.

The first urine analysis shows an excess of solids due to too much chlorides, acidity a little raised, urea normal, but marked retention of uric acid, so that the ratio of urea to uric acid is much disturbed with imperfect phosphatic assimilation.

He was ordered a relatively low chloride bearing diet, as free as possible from rich, xantho-uric-bearing foods, six glasses of "Source Salée" every morning, and three glasses of "Grande, Source" in the afternoon, every alternate day a vapour bath and massage under water, to be followed by a rub down with Vigorax. Unfortunately, he was unable to afford but a little over a fortnight for the cure, notwithstanding which he declared

himself as feeling much better, and the nodules on the tendon sheaths at the wrist had much diminished. The second analysis, made while still drinking the water, shows a much greater approach to normal, a great rise in the elimination of



CASE II.—Dr. H. August 1st, 1910: Specific gravity 1018. Traces of biliary pigments. Indican fairly marked. Purins 0.628. Numerous pavement cells and some sodium urate. August 15th, 1910: Specific gravity 1009. Sodium urate, a few leucocytes, and epithelial cells. Purins 0.328. V, Volume; S, solids; A, acidity; U, urea; U A, uric acid; C, chlorides; P A, phosphoric acid.

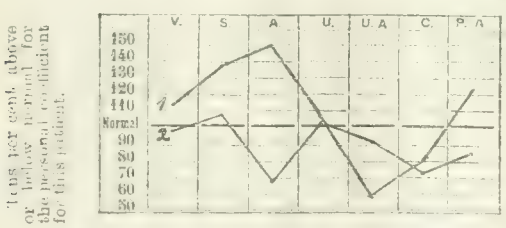
uric acid, so that the ratio of urea to uric acid was restored, and even slightly temporarily reversed, and the phosphates were rising.

This case had been treated by all sorts of imaginable drugs with little good, yet the improvement at Vittel was striking, considering the short time in which it could be carried out.

I take this to be a case of toxaemia of rheumatic facies, probably of intestinal origin, that, were one able to carefully study the intestinal flora, might be definitely classed, and perhaps even treated by an auto-vaccine.

CASE III.

Major M. C., aged 42. Blood pressure 135 mm.; capillary reflux 4; pulse 70; weight 115.100 kilos; height 6 ft. 4 in.; is a big, powerful man. In 1902, in South Africa, had bad headaches, which continued till 1905, when albuminuria was detected. The following winter went to Egypt, and most of the summers since has gone to Contrexéville. He never had scarlet fever, but typhoid as a child, and also malaria. His father died of Bright's disease. He was put on vegetarian diet when his albumen was first discovered. His digestion is good; he now eats fish and chicken, and when abroad veal. He is a heavy smoker (pipe). His headaches are relieved by aspirin, and he takes Hunyadi for his constipation. Has had acute gout in toe.



CASE III.—Major C. August 13th, 1910: Specific gravity 1023. Albumen 2.08 grams per twenty-four hours. Traces of true and modified biliary pigments. Purins 0.696. Large uric acid crystals, some cells, large oxalate of lime crystals very abundant, and some granular cylinders. August 31st, 1910: Specific gravity 1022. Albumen 1.155 grams per twenty-four hours. Purins 0.789. Sodium urate very abundant; a few large crystals of uric acid in macles and rosettes, a few pure epithelial cells. No oxalates or casts. V, Volume; S, solids; A, acidity; U, urea; U A, uric acid; C, chlorides; P A, phosphoric acid.

The urine analysis made before the cure shows marked oxaluria, granular cylinders, and 2.08 grams of albumen in the twenty-four hours. The patient wished to be reduced in weight, and the following was therefore the dietary ordered: "Avoid raw and cooked fats, greasy dishes, fried articles, salt and salted foods, pastry and farinaceous food, sweets, gravies, sweetbread, liver, kidneys, rhubarb, sorrel, spinach, asparagus, vinegar, etc." This would hardly be considered an ideal diet for an albuminuric patient, as he was reduced to rather a highly nitrogenous diet, with some vegetables and fruit. Nevertheless his blood pressure fell to 120 mm. Hg; his capillary reflux from 4 to 3½, his pulse ranging from 66 to 70. His weight steadily fell to 111 kilos—that is, a loss of 4.100 kilos. or 9 lb., in eighteen days. Simultaneously his daily output of albumen was about half of that on his arrival. He took alternately daily a warm immersion bath for twenty minutes at 36° C. and a massage under water at 42° C. He felt much better. The marked acidity of the urine had become negative; the urea to uric acid ratio was restored.

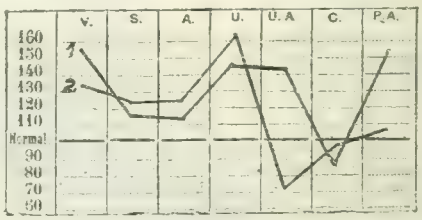
At the height of his cure he was drinking seven glasses (half-pints or 300 c.cm.) of Grande Source before breakfast, which represents, amongst its other constituents, a considerable amount of lime salts, and yet his oxaluria and cylindruria had disappeared.

I have chosen this case as a type of one of the low-tensioned toxaemia albuminuric, and above all to illustrate how unfounded are Dr. Benjamin Moore's conclusions as to the injurious effects of calcareous waters in oxaluria. You will remark that this is a renal case without much hypertension, though no indications of any heart lesion could be found. I think we can interpret this case as one of imperfect metabolism and damaged renal structure which, by suitable lixiviation with a non-chloride bearing water, is soon restored to approximate normal, and might be so entirely if we physicians were not so often subjected to such curtailment of the time given to the cure by the patients themselves.

CASE IV.

Mr. H. N., aged 55. Blood pressure 290 mm.; capillary reflux 3½; pulse 58; weight 67.700 kilos. Has suffered from albuminuria for years, neuralgias, lumbago, and from time to time oxaluria and much uric acid sand. Is a temperate man, both in food and drink; somewhat sedentary. He had been a patient of mine before, and had been warned to limit his salt food, which will explain the low quantity of this in his urine analysis. The only immediate complaint he had was bilateral nasal neuralgia.

The first urine analysis, the day before the commencement of the cure, shows excessive assimilation, though the urea to uric acid ratio is normal; his chlorides are low from intentional



CASE IV.—Mr. H. N. July 27th, 1910: Specific gravity 1018. Albumen 1.80 grams per twenty-four hours. True biliary pigments slight, but urobilin rather abundant, as also indican and scatol. Purins 0.802. Some rosettes of bicalcic phosphate, sodium urate, some crystals of uric acid, some leucocytes and epithelial cells. August 15th, 1910: Specific gravity 1022. Albumen 0.425 grams per twenty-four hours. Traces of reducible matters and of true biliary pigments. Indican and scatol marked. Purins 0.540. Some urates, uric acid, and a few leucocytes. V, Volume; S, solids; A, acidity; U, urea; U A, uric acid; C, chlorides; P A, phosphoric acid.

chloride starvation, and some phosphaturia is present. Biliary pigments and indican and scatol are much in excess.

As he was obviously the type of hypertension of renal origin, his blood pressure was frequently noted during the cure.

The following are the records:

July 25th. Blood pressure 290 mm.; capillary reflux 3½, pulse 58.
July 30th. Blood pressure 240 mm.; capillary reflux 3½, pulse 58.
August 5th. Blood pressure 245 mm.; capillary reflux 3½, pulse 58.
August 10th. Blood pressure 240 mm.; capillary reflux 3½, pulse 58.
August 14th. Blood pressure 215 mm.; capillary reflux 3, pulse 62.

This is a striking example of what can be done in reducing blood pressure in a hypertensionist of renal origin. Simultaneously with this his albumen fell from 1.80 grams per diem to 0.425 gram, or less than a quarter of what it was.

Curiously his urea has somewhat augmented, but there has been a tremendously lixiviating effect on the uric acid, while the phosphaturia has disappeared. What the kidney lesion may be is doubtful. I have notes that in 1909 he had some cylindroids and kidney cells in the urine, but in 1910 we could find no trace of either.

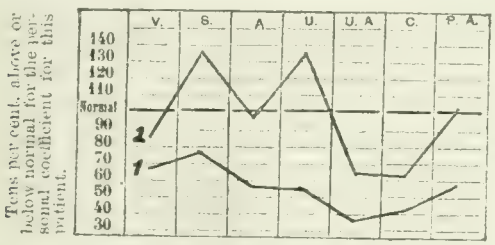
I have just seen the patient (April, 1911). His blood pressure has risen in part—245 mm., and also his pulse, 76—but he walked quickly uphill to my villa just after lunch.

CASE V.

Rev. J. W. R., aged 68. Blood pressure 165 mm.; capillary reflux 3; pulse 89; weight 83.580 kilos. Had psoriasis some years since. Has had nasal catarrh for many years, and lately bad rheumatism in arms and back. Last August had bronchitis.

Is a moderate eater, his digestion is fairly good, but he has suffered from dyspepsia, for which he got much advantage from Burroughs, Wellcome and Co.'s laxative tabloids and ½ grain of calomel weekly. Has been a golfer for twenty years. He gets dripping wet from perspiration before the ninth hole is reached, and used to remain soaked till he changed for dinner. Three weeks since had a bad blow over liver from a motor car.

On his arrival he was markedly depressed and neurasthenic, said he was no longer able to do his work, talked of retiring, and was much troubled in consequence; doubted whether any cure could save him, etc., was too obese. The first urine analysis showed a very fair ratio between the different normal elements, though all were very much below the average. What, however, was unsatisfactory was the presence of 10.35 grams of glucose per diem.



CASE V.—Rev. J. W. R. August 13th, 1910: Specific gravity 1024.5. Glucose 10.35 grams per twenty-four hours. True biliary pigments sensible. Indican and scatol marked. Purins 0.391. Numerous crystals of uric acid in rosettes and isolated, some leucocytes. August 22nd, 1910: Glucose 3.10 grams per litre after a meal. September 1st, 1910: Specific gravity 1028. Glucose *nil*. Faint traces of indican and scatol. Purins 0.319. Large and small crystals of uric acid. Very rare leucocytes. V, Volume; S, solids; A, acidity; U, urea; U A, uric acid; C, chlorides; P A, phosphoric acid.

His diet was suitably modified, and he soon worked up to nine glasses per diem of "Source Salée." He had a massage under water every other day at 42° C., followed by a rub down with Vigorax.

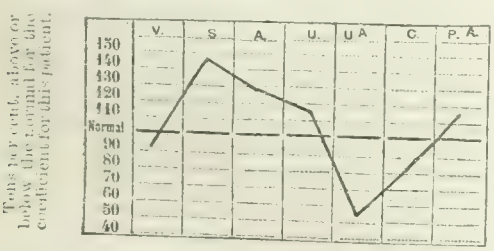
Eight days later he felt much better, and we found 3.10 grams of glucose per litre.

On September 1st he felt quite fit to return to work. His blood pressure had fallen to 145 mm., with same capillary reflux and pulse. He had lost 3,280 kilos in weight, or over 7 lb. An analysis showed a marked improvement with a rise of all the elements. This is specially remarkable for the urea and phosphates, though the uric acid was still in part retained, especially as his diet was naturally rich in nitrogen. The chlorides insufficiency is due to privation in his diet. His glucose had fallen to less than a third in the twenty-four hours (3.10 grams).

This is a good example of glycosuria, neurasthenia, obesity, and visceral goutiness—four forms of toxaemia with some hypertension, all cleared up in a cure of less than three weeks at Vittel.

CASE VI.

Mr. T., aged 22. Blood pressure 145 mm.; capillary reflux 4; pulse 68; weight 64.100 kilos. An otherwise healthy young university man, has suffered from intense seborrhoea capitis for sixteen years, and for a long time a lichenoid growth extending out on the groins and some inches down the thighs and on to the buttocks. He has usually a very dry skin, excellent digestion, is a moderate eater, temperate, hardly smokes, and has his bowels regular.



CASE VI.—Mr. T. August 25rd, 1910: Specific gravity 1029. Traces of albumen and glucose. True biliary pigments sensible and traces of the modified, also traces of indican. Oxalate of lime in great abundance, but small. Uric acid crystals. Purins 0.352. V, Volume; S, solids; A, acidity; U, urea; U A, uric acid; C, chlorides; P A, phosphoric acid.

The urine analysis shows a marked disturbed ratio urea to uric acid, intense oxaluria, traces of albumen and sugar, some biliary pigments, and traces of indican.

He was ordered Pelciba brilliantine for the head and Pelciba antiseptic nearly pure on the skin lesions. At the end of about ten days, when he was called away, both the scalp and the groins were nearly well, and later a letter from him says that he was practically cured excepting for some brown stains on the site of the lichenoid eruption. He had continued the treatment by drinking Vittel water at home. A year later reports perfect health.

I might continue to cite a large number of other similar examples, or some almost miraculous cures, but these latter are always open to the accusation of *post hoc propter hoc*. What, however, is interesting is that a not inconsiderable number of cases drift here independent of medical advice and often contrary to it, and get better. Another section is formed by those sent by their medical advisers as a last resource in diagnostic and therapeutic despair. In nine-tenths of such cases a sentiment of gratitude and respect is engendered towards their medical advisers, which clinches the tie between patient and physician for the future.

REFERENCE.
1 BRITISH MEDICAL JOURNAL, 1910, ii, p. 190.

An Address
ON
IODINE AS THE SOLE DRESSING FOR OPERATION WOUNDS.

DELIVERED AT A MEETING OF THE STAFFORDSHIRE BRANCH OF THE BRITISH MEDICAL ASSOCIATION,

BY

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MEDICAL opinion concerning the utility of iodine as an agent in the production of asepsis has oscillated between contemptuous neglect and unqualified praise. At the present time its virtues are recognized on every hand, and its exceptional usefulness as a skin sterilizant needs no further emphasis, but reliance on its extended efficacy as the sole dressing to be applied to the operation wound from the date of the operation to the discharge of the case, is, I venture to think, a new departure.

This paper is based on the successful results of 31 cases treated by such a method, which, shorn of details, may be summed up as the treatment of the operation area by tincture of iodine, applied at intervals for the first few days, the incision being left exposed to the air, and only covered by the patient's night clothes.

My acquaintance with the use of iodine as the sole dressing for operation wounds dates back to thirty years ago, when I first remember seeing the practice of my father, who, besides being a hospital surgeon, was also public vaccinator, and it is vividly impressed on my mind that when the children came to have their arms inspected on the week following the vaccination, each arm which showed any signs of redness was painted over with a strong solution of iodine, and simply allowed to dry. This was invariably successful in preventing any spread of the cellulitis.

The first time I noticed iodine being used for the preparation and preservation of catgut was in America in 1907, whilst I saw it used for the sterilization of the skin of the abdomen in the gynaecological clinic in Vienna in 1908, and this method I adopted on my return.

Last year, immediately after my visit to the Annual Meeting of the British Medical Association in Birmingham to hear the discussion on the technique of wound treatment, it occurred to me, Why use dressings except iodine to operation wounds, and what is their use? and the more I thought of it the less reason I could see for them in suitable cases, on which account I at once proceeded to put the idea into practice, and I think that my results have fairly justified their absence.

Looking through the literature relating to the sterilization of the skin, I have been struck with the fact that special stress is laid upon the difficulty experienced in rendering the deeper layers of the skin sterile, and especially with the fact that any moisture of the skin means the detection of bacteria, where previously they were absent, if attempts had previously been made to discover them on a dry skin.

Although this stress is laid upon the action of moisture in macerating the epidermis and letting free the various micro-organisms, in no case does one find any special attention paid to the hair follicles, sweat and sebaceous

glands, as possibly being the most important home of these microbes. Norman Walker, in his book on dermatology, says:

> While the sebaceous gland opens with a distinct mouth, either on the surface or into a hair follicle, the sweat duct terminates in the germinal layer. From this point a channel may be traced between the cells of the epidermis, where the sweat communicates freely with the interepithelial lymph, and the duct appears in the well-known corkscrew form in the horny layer.

These so-called sweat or coil glands, according to Unna, are not only concerned with the excretion of a watery fluid, but also in the lumina is a considerable amount of fat; and the fact that the palm of the hand, where, if anywhere, perfect lubrication of the skin is required, contains no other glands but the coil glands is a strong piece of clinical evidence bearing on the character of their excretion.

That these sweat glands play an important part in giving a resting place for these microbes probably explains the difficulty experienced in sterilizing the hands, as the palm of the hand contains no other glands except these sweat glands winding intricately through the epidermis.

What Mr. Leedham-Green tells us about the position of the microbes on the skin is also of interest. He says that we may expect to find them wherever fine molecular dirt can penetrate, but not deeper than that, and that we meet them not only on the surface of the cuticle, but between the cells of the superficial layers of the epidermis and in the entrance to the sweat glands, sebaceous ducts, and hair follicles. Haegler says that they do not penetrate deeply anywhere, either between the cells or in the sweat and sebaceous ducts. Further, Mr. Leedham-Green observes that hands with a soft, smooth skin and short, well-kept nails were cleaned with far greater ease than where the skin was rough or covered with coarse hairs and large sebaceous follicles.

From this it seems to me a very fair inference that the most important part played in infection is the sweat glands, and this is especially borne out by the fact that it is difficult to discover micro-organisms on a dry hand, whilst the more the hands are moistened by washing the more infected do the hands become; from this it is reasonable to assume that the more a part sweats the more micro-organisms are brought to the surface.

As the skin is dotted over with innumerable little holes it is not presumptuous to think that the microbes would more deeply penetrate between the layers of the skin by means of these channels, which offer little or no resistance, rather than through the more difficult path, namely, our first line of defence, the epithelial layers of the skin.

It was from a consideration of these points that I was first inclined to adopt the method of open treatment of wounds by simply painting them over with a solution of tincture of iodine.

In the North Staffordshire Infirmary we have two preparations of iodine in use—the one for ligatures consists of 1 part of *B. P.* tincture with 15 parts of 60 per cent. alcohol, and the other for application to the skin and wounds consists of 2 per cent. of iodine with 90 per cent. industrial methylated spirit.

This industrial methylated spirit has been used for some little time, and has proved perfectly satisfactory, and from a hospital economical point of view it is of great advantage, as it costs only 2s. a gallon as compared with the 26s. a gallon paid for rectified spirit. It contains only 5 per cent. of impurities in the form of wood-naphtha, as compared with the 10 to 15 per cent. of impurities in ordinary methylated spirit. It also has the great advantage that it does not cause any smarting of the eyes or other unpleasant effects.

The effect of the application of iodine to the skin is, first of all, destruction of the microbes of the surface, and, for a very short distance, by its penetrative powers, of those embedded in the very superficial layers of the skin. Probably as equally important an effect is the locking-up of the micro-organisms in the sweat glands by its hardening action on the skin and the simultaneous contraction of the mouths of the glands.

Haegler noted that the microbes do not penetrate deeply anywhere, either between the cells, or in the sweat or sebaceous glands, but I would suggest (and it is on this suggestion that I base my treatment) that their penetration is deeper in the sweat glands than in the layers of the skin.

Mr. Leedham-Green has proved by experiments that the hardening of the skin, when produced by iodine, is gradually lost in the presence of blood or albuminous fluid.

In the same way if one paints iodine on the palm of the hand where sweat is abundant, and covers it up with a dressing, the hand soon has a softer appearance than normal, showing that the water and lubricating fat of the sweat has the same destructive effect on the skin hardened by the iodine.

Mr. J. M. Graham has shown that iodine penetrates more deeply into the pores of the skin when there has been no preliminary washing, and the freer the skin is from moisture and grease, the more efficient is the action of the iodine.

Objection to the use of iodine has been made on the ground that it causes eczema in children and old people, but the usual experience is that it only causes this phenomenon when the iodine dressing has been covered with gauze or wool, and not when left exposed to the atmosphere, unless it is applied very frequently.

Asepticity of the skin is probably impossible of attainment, but it is quite possible to inhibit the growth of bacteria until the wound itself has become sufficiently resistant.

When I thought of the great part which the sweat glands, in my opinion, played in the infection of a wound, I felt that, on theoretical grounds, there was a very great objection to dressings in any form, for, if a patient has the least tendency to sweat, the most likely place for it to happen is on that part of the body which is covered with gauze, wool, and a well-supporting bandage, for here are set free the microbes which have not been destroyed, but only locked up for a short period in these skin-penetrating sweat glands. Accepting this, it naturally follows that a sterile dressing with moisture from the sweat glands, *plus* albuminous fluid in the serum oozing from the wound, may be regarded as a very good medium for the growth of bacteria, and therefore one is forced to the conclusion that an aseptic dressing is harmful, and that if any dressing is used at all it should be one containing an antiseptic to inhibit this bacterial growth.

Our aim in the treatment of a wound is to let it be hermetically sealed against the entrance of outside organisms by its own dried secreted serum, and then to render this sterile to growth of the bacteria, if they should escape from the infected sweat glands.

It has been frequently observed that a rise of temperature takes place on the second day after operation—sometimes called a traumatic rise of temperature. The wound is then often dressed, and swabbed over with an antiseptic, and the temperature falls to normal. On the sweat infection theory, the microbes have come from the glands or from infection by the surgeon, though of course in these days we should be able to exclude him, with his gloves, mask, and head covering.

If a wound is observed two days after operation, it is often seen to have raised and slightly inflamed edges, but, with an iodine dressing, the wound is seen to be flat with the surface, and no surrounding swelling or redness.

There is a great probability that tincture of iodine owes a great part of its therapeutic action to the hyperæmia it induces—like the Bier treatment—causing a phagocytosis or intracellular destruction of micro-organisms in the neighbourhood of the wound, as seen in cellulitis, erysipelas, etc., and also on account of the increased flow of blood to the part, causing a more rapid union of the cut edges.

The preparation of the patient in a set operation is carried out as follows: A bath is given on the night preceding the operation, and clean clothes are put on; in the morning the operation area is dry shaved, rubbed over with ether, and painted over with the solution of iodine; when this was dry, a sterile towel was laid on the skin in the first series of cases, but now this has been abandoned as unnecessary. The area is again painted over when the patient is on the table.

In emergency cases there is no preliminary washing, which would not only macerate the epidermis, but also open the pores of the skin; therefore the area is only

dry-shaved, rubbed over with ether, and iodine painted on, which serves to kill the bacteria on the surface and lock up the rest.

The following precautions are considered essential for success: Perfect asepsis is to be observed during the operation. All bleeding points are to be stopped, and the wound rendered quite dry. All abdominal and deep wounds are to be sewn up in layers; peritoneum, muscle fibres, sheaths, and skin to be united separately to give the necessary support. Care is to be especially taken in skin apposition.

No wet swabs are to be used, in order that the skin may be kept dry, and only that blood is to be cleared away which adheres either to a plain dry swab or is removed by the iodine-containing swab when applying it to the stitched-up wound.

Iodine is to be applied immediately after operation, and again three hours afterwards, to render sterile any serum or blood which may possibly have oozed out.

The wound is again painted over daily for the next three days only, except in cases involving wounds about the perineum or vulva, to which I shall refer later.

The patient is to be watched until completely recovered from the anaesthetic, and the hands are to be kept outside the bedclothes to see that there is no unconscious interference with the possibly irritating wound.

Sisters in charge of the cases say that it is quite remarkable that in none of the cases have the patients touched their wounds, either awake or asleep, and the chief objection is that they like to show their incisions to the visitors. Special mention is made of this, because it is the first criticism that will probably be made of the treatment, and whether the observations of the sisters be taken into consideration or not, all I can state is that if the patient has rubbed, or even scratched, his itching wound, no harm has resulted.

In the first series of cases, the custom was to lay a sterilized towel loosely on the wound after it had been painted, and before being sent out of the theatre, but now that has been discarded as unnecessary, and the patient's clean clothes are simply pulled into position.

In the first six cases the iodine was painted once a day on the wound for six days; but in a case of inguinal hernia there was a slight iodine rash, and so now it is only painted on for the first three days, and again on the removal of the stitches on the ninth day.

There are a few points in regard to the after-treatment in certain cases which it may be as well to mention.

In all abdominal cases and herniae it is customary to give a hypodermic injection of $\frac{1}{6}$ grain of morphine and $\frac{1}{150}$ grain of atropine, immediately after the operation to prevent vomiting.

In operations about the vulva, as in the removal of cysts, etc., and in perinæorrhaphy, the legs are tied to the corners of the bed, to keep them wide apart, and prevent as much as possible any sweating, as the sweat glands in this region are so numerous; in addition, the wound is painted over with iodine every time after urine has been passed.

The method is, of course, only applicable to those cases in which the wound can be completely closed up, and can in no case be used where a drain of any kind is necessary. In all operations where support is afterwards necessary, it cannot be used, as in amputations, excisions, etc.

In abdominal operations the method has been perfectly successful, but if the abdomen has been opened, either by the gridiron incision or the incision in the course of the rectus, the wound has been stitched up in separate layers, and any strain of the muscles only tends to approximate the fibres and sheaths.

In some forms of umbilical and ventral herniae, where there is no muscular support, some kind of binder, such as a sterilized towel, might be necessary until all danger of vomiting had passed, when the part would be freshly painted with iodine.

In inguinal hernia no kind of support is needed, whether one is content with tying off the sac very high up, or whether the canal is opened and reunited, because, as pointed out by Moynihan, the muscles forming the walls of the canal are so arranged that in their contraction they act as inguinal sphincters.

Patients have the further advantage that they do not have the feeling of being trussed up, nor have they to learn to breathe without any movement of the abdomen, and this freedom appears to add very much to their comfort.

All the cases treated by this method have given excellent results, not even a stitch abscess having been observed.

I feel that this is a somewhat revolutionary practice in the treatment of wounds, after being used to the elaborate mass of sterilized gauze, wool, and Gamgee tissue which one has been in the habit of applying, and amongst my immediate friends the method was at first received very sceptically, dire consequences being prophesied. I am pleased to say that it is now being adopted by some of my colleagues with the same encouraging results.

In the annual reports of hospitals it is quite usual to draw attention to the increased cost of dressings, and if the method stands on no higher ground than that of economy, it will still serve some good purpose.

Up to date there are 31 cases, and, as the accompanying table is fairly explanatory, there is very little for me to comment on except to say that it shows that the method has a very wide field for application.

I should like to take this opportunity of tendering my thanks to my house-surgeon, Mr. Gilmore, for the great interest he has taken in the treatment, and also for compiling the table.

List of Cases Operated Upon to Date.

Name.	Age.	Date of Operation.	Case.	Iodine Treatment.	Discharged.
A. C.	44	Aug. 3	Perinæorrhaphy	Iodine after micturition	Aug. 19.
W. D.	22	Aug. 9	Left varicocele	Daily 6 days	Aug. 22.
A. S.	25	Aug. 9	Right inguinal hernia	" "	Aug. 26.
A. P.	20	Aug. 9	Appendicitis	Daily; iodine rash	Aug. 26.
N. B.	35	Aug. 12	Papilloma of vulva	After micturition	Aug. 23.
N. E.	34	Aug. 12	Ruptured perineum	After micturition	Sept. 4.
H. T.	18	Aug. 16	Varicocele	Daily	Aug. 30.
G. A.	56	Aug. 18	Abdominal exploration	"	Aug. 30.
A. C.	18	Sept. 1	Left inguinal hernia	"	Sept. 16.
A. S.	39	Sept. 1	Carcinoma mesocolon	"	Sept. 17.
J. T.	48	Sept. 1	Strangulated right inguinal	Iodine 3 days	Sept. 17.
E. F.	17	Sept. 6	Right inguinal hernia	" "	Sept. 14.
J. E.	33	Sept. 6	Haemorrhoids	Iodine 4 days	Sept. 14.
J. P.	10	Sept. 18	Acute gangrenous appendix	Iodine 3 days	Oct. 2.
H. R.	63	Sept. 18	Strangulated inguinal hernia	" "	Oct. 7.
A. P.	29	Sept. 21	Left inguinal hernia	" "	Oct. 18.
S. L.	72	Sept. 21	Dermoid of ovary	" "	Oct. 10.
J. T.	24	Sept. 23	Ruptured perineum	Iodine 5 days	Oct. 12.
A. F.	45	Sept. 23	Lipoma of back	Iodine 3 days	Oct. 4.
A. W.	23	Oct. 11	Appendicitis	" "	Oct. 28.
A. F.	35	Oct. 12	Ventrifixation of uterus	Iodine 4 days	Nov. 2.
J. H.	59	Oct. 12	Right hydrocele	Iodine 3 days	Oct. 27.
W. M.	63	Oct. 25	Right inguinal hernia	" "	Nov. 9.
D. M.	33	Nov. 3	Fibromyoma of uterus	" "	In hospital.
J. B.	46	Nov. 3	Strangulated femoral	" "	Died Nov. 5.
E. W.	31	Nov. 4	Varicose veins	" "	Nov. 22.
G. C.	30	Nov. 4	Left inguinal hernia	" "	Nov. 20.
R. C.	38	Nov. 4	Left inguinal hernia	" "	Nov 22.
A. T.	20	Nov. 15	Twisted dermoid of ovary	" "	Nov. 20.
H. C.	32	Nov. 16	Papillomatous ovarian cyst	" "	In hospital.
E. L.	67	Nov. 16	Complete procidentia with vesical calculi, transperitoneal cystotomy, 54 calculi removed, Ventrifixation of uterus	" "	In hospital.

THE German Surgical Society will hold its forty-first annual congress at Berlin in April (10th-13th) under the presidency of Professor Garré, of Bonn.

A Lecture

ON

A NEW MATERIAL (DURALUMIN) FOR SURGICAL APPLIANCES.

DELIVERED AT THE MEDICAL GRADUATES' COLLEGE AND POLYCLINIC,

BY E. MUIRHEAD LITTLE, F.R.C.S.,

SENIOR SURGEON, ROYAL NATIONAL ORTHOPAEDIC HOSPITAL, LONDON.

By the term "surgical appliance" I understand all sorts of instruments of the surgeon's art which are applied to the patient's body in the treatment of deformity, disease, or injury.

Such appliances have been used as far back as the history of civilization takes us. Recent excavations in Egypt have revealed to us wooden splints still *in situ* on the mummified broken limb, and even the blood stains on the bandages have been preserved by the dry and sterile sand of the desert. In Italy many bronze appliances have been found, and artificial limbs, strengthened with plates of that metal. No doubt, iron was used in surgery very soon after its use in the arts was discovered, but, if so, oxidation has long ago removed all traces of the appliances which may have been made of that metal. The process of tempering steel was certainly known as early as the ninth century B.C., for Homer describes it, and an iron implement has been found imbedded in the pyramid of Kephron, in Egypt, which is probably as old as 3500 B.C.

I have already referred to the use of wood in ancient times in Egypt. This material remains the best material for many splints and for artificial limbs, but many other substances have been and are used for various purposes, such as leather, gutta-percha, celluloid, poroplastic felt, pasteboard, paraffin, glue, waterglass, and plaster-of-Paris, to mention some of them.

Iron and its properties are so familiar to us that we hardly realize what a remarkable metal it is. It is difficult to conceive our civilization without it. To take one of its properties only, its capability of being magnetized, how many of the modern applications of electricity would be possible without it?

Yet iron in a pure state unalloyed with other elements is a chemical curiosity. Carbon is the element with which it is commonly combined, and the various characteristics of wrought iron, steel, and cast iron depend upon the amount of carbon which they contain.

"*Steel*, strictly speaking, is that form of iron which, containing more carbon than wrought iron and less carbon than cast iron, possesses the valuable property of becoming hard when, being heated to a red heat, it is suddenly cooled. The degree of this hardening depends on the temperature of the steel just before it is cooled, and this process of hardening is known as tempering. It is this property which has given to steel its great value in the arts, and this it is which makes it so useful for surgical appliances. "Mild steel" is really only a pure form of wrought iron incapable of being tempered.

Steel has held the field almost unchallenged for hundreds of years. The demand for offensive and defensive armour stimulated improvement in the production of the metal and in the skill of the craftsmen who made armour, until by the sixteenth century these latter knew pretty well all that was knowable of their business.

One armourer at least turned his attention to the making of orthopaedic appliances. Skatt (or Schacht?) of Utrecht, in the middle of the seventeenth century, won a European reputation and a large income by his treatment of deformities with steel "harness." In that delightful work, *The Memoirs of the Verney Family*, a good deal is to be found about him, a summary of which appeared in the BRITISH MEDICAL JOURNAL some years ago.[1]

An eighteenth century instance of the use of steel supports is to be seen in the last picture of Hogarth's series of *Marriage à la Mode*, in which the child wears "irons" on its legs. A famous inventor of instruments of the end of the eighteenth and the beginning of the nineteenth century was Robert Chessher, a surgeon who devised many appliances, and is referred to by Mrs. Taft in *Middlemarch*, Book V, chapter xlv, thus: "I remember Mr. Cheshire (*sic*), with his irons, trying to make people straight when the Almighty had made them crooked."

Chessher died an old man in 1832, when orthopaedic surgery scarcely existed, and it is since that time that the increased attention given to deformities has led to the production of many ingeniously devised and skilfully made instruments, some of which I had the honour of recommending to the notice of the Polyclinic in a lecture a year or two ago. Into the construction of nearly all these instruments steel enters largely, and leather is used as a covering and for the manufacture of surgical boots.

Despite the great advantages of steel, its strength, its adaptability, and its elasticity when used in the shape of springs, it has certain disadvantages, and of these the two chief are its weight and its liability to corrosion.

Weight.

Many of the cases in which instruments are needed are the results of anterior poliomyelitis. In such the wasted muscles often find themselves severely handicapped by the weight of the appliance which is necessary to enable the limb to be used advantageously. It becomes, therefore, a great object to save every ounce of weight that can be spared.

Corrosion.

Corrodibility becomes a drawback in practice only when the steel is exposed to the moisture of the body, and especially so when it is covered by padding, as those parts of an instrument which are in actual contact with the body necessarily must be. In that case not only is the steel rusted and weakened, but the oxide formed increases the corrosive effect of moisture on the leather and on the padding.

Thus, in a walking instrument the steel plate which is riveted between the inner and outer soles of the boot, and by which the uprights are attached to the boot, is very apt to perish and crack, being corroded as much by the perspiration which soaks through the inner sole as by external moisture. Still, steel has held its ground, although for a few appliances, such as flat-foot plates, aluminium bronze has been used. Although not so easily corroded, its specific gravity is as high as that of steel, for it consists of 90 per cent. copper and is much heavier for the same strength.

When the electrolytic method of preparing aluminium was discovered and that metal was first obtainable at a moderate price, hopes were entertained that it might be used for surgical appliances, and some were made of it, but although very light and not easily corroded it was found not to be stiff enough if pure, and when alloyed it was brittle.

DURALUMIN.

Thus matters remained till a year or so ago, when Messrs. Vickers, Ltd., put on the market a new alloy, which is called Duralumin, and was used in the construction of the naval air ship, which, through no fault of its material, was wrecked at Barrow.

This metal is an alloy of aluminium slightly heavier than that element. It has a specific gravity of 2.8, while aluminium is 2.7 and steel 8, so that it is rather more than one-third the weight of steel. Its strength, however, is about the same as that of mild steel of the same bulk. Like brass it can be made stiffer by hammering, and it is supplied in varying degrees of hardness, according to the purposes for which it is required.

It is practically non-corrodible, being scarcely affected by prolonged exposure to a concentrated solution of sodium chloride, ammonium sulphate in 10 per cent. solution, ammonia, sulphuric or nitric acids, sulphuretted hydrogen solution, or sea water. Caustic alkalis, however, attack it quickly.

Duralumin takes a high polish, which is scarcely dulled by prolonged exposure to the air, even to the air of London. It cannot be brazed, but it can be soldered; as soldering has an annealing effect on it, it is not often advisable to use solder. Nor can it be tempered like steel, but the hardening effect of hammering or rolling takes the place of tempering to some extent.

Having these qualities, duralumin seemed to me to be likely to be useful as a material for orthopaedic instruments, and I asked Mr. Albert Evans to procure some, and to experiment for me at the National Orthopaedic Hospital. The first appliance was supplied about six months ago; since then a number of instruments have been made and used, and have given me satisfaction.

Among those appliances which have been tested by actual and often rough wear, and of which specimens are now shown, are Thomas's hip and knee splints, double Thomas's splint for Pott's disease, spinal supports, walking instruments for paralysis and for severe flat-foot and flat-foot plates. It will be noticed how light they all are. One of these plates which I now show has been in use for some months during last summer and was necessarily exposed to a great deal of perspiration, yet, as is seen, the surface is not in the least corroded. The under surface of this plate, however, is roughened from friction against the sole of the shoe.

All of these instruments have been made for me by Mr. Albert Evans of Fitzroy Street, W. Their cost is the same as that of steel instruments of the same quality, so that hospital patients are able to profit by the good qualities of duralumin.

Duralumin might very well replace wood for many splints, especially for use in countries where white ants are found. It is easily shaped, and it has the advantage over wood that it can be sterilized by boiling without injury.

I have also found another important use for it in combination with gypsum for splints when an *x*-ray picture is wanted without removal of the splint. This often happens in the treatment of congenital dislocation of the hip-joint. An attempt at reduction is made, and the limb at once fixed in plaster-of-Paris while the patient is anaesthetized. If it is then desired to ascertain the exact position of the parts by *x* rays, it is found that without dangerously weakening the splint by cutting away plaster it is impossible to get a satisfactory picture.

By using a duralumin splint, or by merely applying plaster to the thigh and the upper part of the pelvis and connecting these separate segments by strips of sheet duralumin a perfectly firm appliance results, and as the *x* rays are able to penetrate the duralumin easily a good picture of the hip can be obtained. The *x*-ray prints which Mr. Stanley Melville, Radiographer to the Royal National Orthopaedic Hospital, who suggested this use of duralumin, has been kind enough to take for me show that the image is improved rather than the reverse when the rays have passed through a thin sheet of duralumin of No. 14 B.W.G.—that is, of about $\frac{3}{32}$ in. thickness.

It seems probable that a great sphere of usefulness lies before the alloys of aluminium, and no doubt further improvements will be made in them, and this metal, of which the supply is practically inexhaustible, will enter more and more into our daily life, although I will not go so far as an American authority, Professor Marion How of Columbia University, who has expressed the opinion that "at some remote day" (when iron has become scarce) "aluminium, or one of its alloys, may become the great structural material, and iron be used chiefly for those objects for which it is especially fitted, such as magnets, springs, and cutting tools."

REFERENCE.

[1] The Treatment of Spinal Curvature 250 Years Ago, BRITISH MEDICAL JOURNAL, 1903, vol. ii, p. 89.

THE German Balneological Congress will hold its thirty-third annual meeting at Berlin in March (7th–11th). The general secretary is Dr. Brock, Berlin, N.W. 52, Thomasiusstrasse, 24.

THE Berlin Society of Urology was formally instituted on January 16th. Professors Carl Posner and L. Casper were elected presidents; Professor Kutner, vice-president; Professor Rumpel, secretary; Dr. Mankiewicz, treasurer; and Dr. S. Jacoby, librarian.

THE President of Venezuela, we learn from our American contemporary *Science*, has issued a decree creating a National Bureau of Sanitation. Under its auspices will be inaugurated an Institute of Hygiene, which will be composed of a laboratory of bacteriology and of parasitology, a veterinary department, and a central station of disinfection. The staff of the bureau will be composed of a director, a subdirector, a bacteriologist, an engineer, a biologist, a veterinary surgeon, an inspector-general, two technical aids, a secretary, and two laboratory assistants.

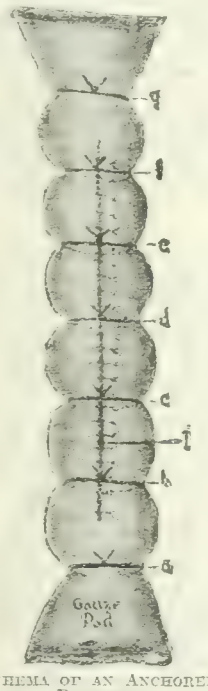
A NOTE ON THE VALUE OF ANCHORED DRESSINGS IN SURGERY.

BY J. LYNN THOMAS, C.B., F.R.C.S.,

SURGEON TO KING EDWARD VII HOSPITAL, CARDIFF.

THE methods of keeping dressings on by means of bandages, strapping, and collodion, are neither satisfactory nor suitable in certain regions, because reliable protection from infection of the line of the operation wound is not guaranteed nor rendered approximately safe by such means.

In order to get over this difficulty in operations upon these regions, thus unfortunately handicapped in a surgical sense, namely, the perineum, the buttocks, and the upper-inner regions of the thigh, I began anchoring the dressings in the fashion indicated in this paper about eighteen months ago. For example, in a case of subcutaneous sarcomatous tumour involving the vulvo-vaginal region, with secondary growth extending downwards along the course of the gracilis, it was necessary, in the first place, to make a long antero-posterior incision close to the junction of the skin and the vulvar mucous membrane, and a second incision extending at a right angle from its centre downwards along the inner side of the thigh for about four inches. In this situation none of the ordinary methods of applying and keeping on dressings were either trustworthy or practicable. However, I found that a carefully planned anchoring of a T-shaped dressing to such a wound gave every satisfaction.



SCHEMA OF AN ANCHORED DRESSING.

The vertical line indicates the skin incision and its sutures; *a*, *b*, *c*, *d*, *e*, *f*, *g*, indicate the anchoring sutures of the gauze dressing. Note the relative positions of *a* and *g* to the ends of skin incision.

The experience gained by anchoring dressings to the surgically handicapped areas proved so welcome that I have for the last fifteen months extended the principle to other regions where any of the ordinary methods gives satisfaction, chiefly on account of its simplicity and efficacy and comfort to the patient. I have used the anchoring method for operations such as those upon the Gasserian ganglion, the face, in laminectomy, operations on the kidney, liver, and uterus, and in other abdominal operations.

I use neither bandages nor wool but confine the protection of the wound to the simple anchored dressings, with the addition of bismuth and xeroform paste to the skin incision, and of vaseline around the contact area of the skin, and gauze dressing. During the tropical heat of last summer such a dressing was very agreeable to patients.

The diagram, kindly made for me by my friend Dr. Owen Ll. Rhys, indicates clearly the method adopted, and the principle involved in the application of the dressing. In an operation for the radical cure of umbilical hernia, for example, in a very fat patient, the sutures of the anchored dressing are passed through the skin and adipose tissue right down to the fascial buried sutures, and are placed fairly close to each other in order that the dead space of the approximated surfaces of the subcutaneous fatty tissue may obtain positive pressure, and so prevent exudation of blood or serum, and also obviate the necessity of drainage. The general appearance of the dressing when finished resembles, according to a friend's opinion, that of a cracker.

ERYTHEMA AND DEATH FOLLOWING INTESTINAL CATARRH.

BY

P. BROOKE UNWIN, L.R.C.P., L.R.C.S. and ALFRED EDDOWES, M.D.

WE give a rather full account of the following case of erythema, as it has an important bearing on the discussion opened by Professor Sir William Osler at the annual meeting of the British Medical Association held at Birmingham last year.

During the patient's illness some of the severe symptoms had led to a suspicion of tuberculosis or cerebro-spinal meningitis, especially the latter.

A child, under 2 years of age, had been ill for six weeks in the hottest part of last summer. The illness commenced with green stools. Mucous casts of the bowels were passed, sometimes with blood. There had been vomiting, retraction of the neck, and unequal pupils. There was no tuberculous history. The child had been breast-fed. Both mother and father were living and well. The only other child was strong and well. Four weeks after the illness commenced a rash appeared. When seen by us together, thirty hours before death, the child was emaciated and unconscious. An icebag was being applied to the head; vomiting had ceased. The bowels acted without haemorrhage, but the child was evidently sinking.

There were numerous patches of erythema on the face, trunk, and limbs. On the face they were chiefly bullous; on the body and limbs (especially legs) they were more deeply situated and nodular. The largest patch felt like a group of gummata, and was situated on the inner aspect of the right thigh. A few patches were flat, and not unlike a chloral (drug) rash. Others again were like the well-known erythema nodosum.

Necropsy.

A *post-mortem* examination was made six hours after death, under difficulties of time, space, and accommodation.

Body emaciated, slight stasis discoloration on back. Sites of former erythema still marked by bluish or purple lumps, or denuded surfaces where bullae had existed—showing well how numerous the skin lesions had been and how symmetrically distributed. Fontanelles not closed. As soon as the skull was opened a large amount of clear fluid escaped. Convolutions very pale, and traversed by highly injected dark veins. One patch of discoloured and slightly roughened surface on left frontal lobe and in dura mater over it. A similar patch on left lobe of cerebellum. These patches were from 1 to 2 in. in diameter. No adhesions. On raising legs about a drachm of clear fluid escaped from the spinal cavity. No pus. No obviously lymph coagulation. Ventricles not dilated.

There was no peritonitis. Liver smooth, enlarged, pale yellow, and soft; on its lower anterior surface and posterior portion of under surface were several glassy-looking lines, as if cracks had been sealed up, suggesting a similar cause having been at work to that which produces the well-known linea alba in the stretched abdominal walls. The gall bladder contained between two and three drachms of bile. The spleen was apparently normal, colour dark red. The kidneys were apparently normal. The stomach and intestines were uniformly pale, and almost empty. No ulcer, adhesion, or stricture. The intestines had a slight doughy feel. Some enlarged mesenteric glands were removed for examination.

There was some injection of the base of the right lung; the lungs were otherwise normal. The heart muscle was very pale, otherwise heart and valves normal. There was no joint swelling, or oedema of limbs. A piece of skin was taken for microscopical examination from one of the largest patches of erythema. The following is the laboratory report:

The sections "from the skin show an extreme degree of dilatation of the vessels not immediately beneath the epidermis, but of those a little deeper in the cutis; the very large numbers of red corpuscles seen here are almost entirely intravascular, the condition being such as would be met with in acute erythema, but there is nothing to indicate its precise nature. Of the other sections, that of the lymphatic gland shows some large-celled hyperplasia, such as results from chronic inflammation, but there is no definite pathological change to be detected in the sections of the medulla or of the cerebellum."

THE German Orthopaedic Society will hold its eleventh congress this year at Berlin on April 9th, under the presidency of Dr. H. Gocht.

THE *Boston Medical and Surgical Journal* states that the United States Consul at Gothenburg, Sweden, reports that acute poliomyelitis prevailed in epidemic form in Jonkoping County last autumn. The total number of cases reported up to November 29th, 1911, was 870. The majority recovered, but it is estimated that of those some 200 have been left with permanent disability from paralysis.

A PRELIMINARY NOTE ON THE PENETRATING POWER OF SOME OINTMENT EXCIPIENTS.

By F. GARDINER, M.D., F.R.C.S.E.,

ASSISTANT PHYSICIAN, SKIN DEPARTMENT, ROYAL INFIRMARY, EDINBURGH.

(From the Research Laboratory, Royal College of Physicians, Edinburgh.)

IT is quite time that the use of the various ointment excipients should be put on a scientific basis, as, although much valuable clinical work has been done, the results are not concise, and are mainly found in the form of favourite prescriptions handed down by authorities.

In 1906 Sutton[1] carried out some researches in Unna's clinic, but his results have not been followed up so far as I know. "Wild" recently published an article on the official ointment bases, regarding them from the point of view of their protective, emollient, and absorbent characters, and as I have been carrying out a research on this subject for the past year, the results so far obtained seem to be of sufficient interest to warrant publication.

Guinea-pigs have been employed, and the parts of the back of the animal utilized have been denuded of hair; the animal was killed later by ether, and the parts which had been treated were excised and cut on a freezing microtome (CO_2). The use of paraffin, celloidin, or any fixing agent would of course have been detrimental, and the parts were accordingly cut fresh. Care had also to be taken to cut from within outwards, and avoid contamination from a stained knife.

With the excipients used a definite quantity of stain or iron salt was thoroughly incorporated, and the whole then rubbed into a part of the skin for a noted time. At first the animal was killed immediately, but in later experiments it was found to be better to leave the ointment on for an hour or so, protecting the parts by strips of plaster.

Of the stains used Scharlach R. gave best results, as it is freely miscible with fats and oils, and is readily recognized in the tissues. It was thought that iron salts would be valuable, as they could be precipitated in the tissues, but the Prussian blue test does not answer in organic combinations and the black precipitate got with ammonium sulphide is not distinct enough. The oleate of iron is better than the sulphate, as the latter does not dissolve in oils.

In the first experiments the hair was shaved off before inunction, and then the use of a depilatory powder was tried, but as both caused some irritation and appeared to prevent absorption, simple close clipping with scissors was adopted and found to give better results. Generally four areas were operated on in the same animal, so that the comparison was obtained whichever method was employed.

The sections were mounted at once in honey and glycerine and examined immediately, as it was found that they were rapidly spoiled by the stain gradually diffusing.

The composition of ungt. ophthalm. basic. is anhydrous wool fat, 6 drachms, and almond oil and distilled water, of each 1 drachm. The cold cream contains spermaceti, rose water, white wax, and almond oil, the exact proportions being kept secret by the firm who made it. Future experiments will be made with a definite formula.

So far the results show the superiority of olive oil and cedar oil among liquid excipients, the first being the better; goose grease is first among the more solid fats, and benzoated lard comes next.

Glycerine of starch with cold cream, glycerine of starch with hydrous lanolin, ungt. ophthalmicum basicum and cold cream are the best of the combinations, and are placed in order of merit.

In conclusion it is well to mention that the experiments only apply to healthy skin, and that when applied to the diseased human epidermis the results may not be analogous.

The evaporation and drying of the various excipients, and their capacity of parting with the drug used, are points also to be considered.

Table showing Results of Experiments carried out for the Purpose of obtaining the Penetrating Power of Some Ointment Excipients.

Excipient.	Stain.	Strength of Stain.	Treatment of Skin.	Duration of Inunction.	When Excised.	Results.	Remarks.
1. Olive oil	Gentian violet	20 %	Shaved	5 min.	Immediate	General staining of upper layers good. Extends half down shaft of hair. Some roots	
2. *a.* Olive oil	Fuchsin	1 %	Shaved	2 min.	Immediate	General staining good. Extends down three-quarters hair follicle	Pieces of skin dried in formalin vapour for four days.
b. Vaselin. alb. ...	,,	,,	,,	,,	,,	Poor, one-quarter down follicle	
c. Adeps benzoat. ..	,,	,,	,,	,,	,,	A little deeper than (*b*)	
3. *a.* Olive oil	Gentian	2 %	Shaved	5 min.	Immediate	Upper layers well stained. Extends almost to foot of hair follicle	
b. Anhydrous lanolin	,,	,,	,,	,,	,,	Staining of upper part only	
c. Unguent. simplex	,,	,,	,,	,,	,,	Upper layers and a quarter down hair follicles	
d. Vaselin. flav. ...	,,	,,	,,	,,	,,	Very superficial	
4. *a.* Vaselin. flav. ...	$FeSO_4$	2 %	Depilatory powder	5 min.	Immediate	Very superficial	
b. Goose grease ...	,,	,,	,,	,,	,,	General staining good. Well down follicles. Some roots	Pieces of skin kept in formalin vapour for two days, then cut with anaestile.
c. Anhydrous lanolin	,,	,,	,,	,,	,,	Upper layers half-way down follicles	
d. Vaselin. flav. ...	Scharlach R.	,,	,,	,,	,,	Same as (*a*)	
e. Goose grease ...	,,	,,	,,	,,	,,	Same as (*b*)	
f. Anhydrous lanolin	,,	,,	,,	,,	,,	Same as (*c*)	
5. *a.* Lanolin	Scharlach R.	5 %	Hair clipped with scissors	5 min.	Immediate	Vaselin. superficial; lanolin deeper	Pieces kept in formalin vapour for two days. Results marred and only comparative.
b. Vaselin. flav. ..	,,	,,	,,	,,	,,		
c. Cold cream ...	,,	,,	,,	,,	,,		
d. Myelocene, solid .	,,	,,	,,	,,	,,		
6. *a.* Myelocene, solid .	$FeSO_4$	5 %	Depilatory powder	5 min.	1 hour	Iron not satisfactory, but reveals cold cream best and next this ung. simplex. Other two poor	Results marred by keeping in formalin vapour for two days.
b. Lanolin	,,	,,	,,	,,	,,		
c. Ung. simplex ...	,,	,,	,,	,,	,,		
d. Cold cream ...	,,	,,	,,	,,	,,		
7. *a.* Myelocene, solid .	Scharlach R.	5 %	Depilatory powder	5 min.	Immediate	Upper layers generally stained, but very little penetration	
b. Almond oil ...	,,	,,	,,	,,	,,	All three penetrate half-way down hair follicles, but generally staining best with olive oil	
c. Cedar oil	,,	,,	,,	,,	,,		
d. Olive oil	,,	,,	,,	,,	,,		
8. *a.* Paraffin. alb. .	Oleate of iron	5 %	Depilatory powder	5 min.	Immediate	Effect quite superficial	Pieces dried in formalin vapour for two days. Sections treated with $(NH_4)_2S$
b. Myelocene, liquid	,,	,,	,,	,,	,,	Both show penetration half-way down hair follicles, but not much general staining	
c. Cedar oil	,,	,,	,,	,,	,,		
d. Vaselin. alb. ...	,,	,,	,,	,,	,,	Very superficial; only a quarter down hair follicle	
9. *a.* Lanolin	Scharlach R.	10 %	Hair clipped	10 min.	1 hours	General staining good half-way down follicle	
b. Vaselin. flav. ..	,,	,,	,,	,,	,,	Faint general staining, and only slightly into follicle	Pieces kept in formalin vapour for two days.
c. Olive oil	,,	,,	,,	,,	,,	Hairs deeply stained nearly to roots. General staining good	
d. Myelocene, solid .	,,	,,	,,	,,	,,	Hairs three-quarters length stain. Good general staining	
10. *a.* Pellanthum ...	Scharlach, R.	10 %	Hair clipped	10 min.	1 hours	Very little penetration. General staining poor	
b. Myelocene, liquid	,,	,,	,,	,,	,,	Half down follicle. Poor general staining	
c. Almond oil ...	,,	,,	,,	,,	,,	Half down follicle. Poor general staining	
d. Cedar oil	,,	,,	,,	,,	,,	Half to three-quarters down follicle. Best of the four also as regards general staining	
11. *a.* Goose grease ...	Scharlach, R.	10 %	Hair clipped	5 min.	½ hours	General staining and penetration half-way down follicles	
b. Benzoated lard ...	,,	,,	,,	,,	,,	Diffuse staining with colour well down hair. Some roots stained	
c. Anhydrous lanolin	,,	,,	,,	,,	,,	Very superficial	
d. Cold cream ...	,,	,,	,,	,,	,,	Good general staining. Some roots, but mostly half-way down the follicles	
12. *a.* Mercury nitin ...	Scharlach R.	10 %	Hair clipped	5 min.	1½ hours	General staining good, but only one-third down follicles	
b. Cream	,,	,,	,,	,,	,,	Extends half-way down follicle, general staining fair	
c. Ung. ophthalm. basic.	,,	,,	,,	,,	,,	Half-way down, good general staining. An occasional gland	
d. Eucerin	,,	,,	,,	,,	,,	Superficial. Only the slightest penetration	
13 *a.* Ung. ophthalm. basic.	Scharlach R.	10 %	Hair clipped	5 min.	1½ hours	Good general staining. Two-thirds down follicle	
b. Glycer. amyli ...	,,	,,	,,	,,	,,	General staining poor. Penetration one-third down follicle, but irregular	
c. Glycer. amyli, hydrous lanolin, equal parts	,,	,,	,,	,,	,,	Good general staining, two-thirds down follicles	
d. Glycer. amyli, cold cream, equal parts	,,	,,	,,	,,	,,	Good general staining, two-thirds down follicles. Many glands stained	

[a] In the case of 4 (*a*, *b*, *c*) ferrocyanide reaction not successful. Better with $(NH_4)_2S$.

In conclusion I beg to tender my thanks to Dr. James Ritchie, the superintendent of the laboratory, for his ever ready assistance, and to Dr. J. A. Murray, of the Imperial Cancer Research, for his helpful suggestions.

REFERENCES.
[1] Unna's *Monatshefte*, 1906. [2] BRITISH MEDICAL JOURNAL, July 22nd, 1911.

HYDROCEPHALUS AS A SEQUEL TO SHOCK.

BY

A. KEITH ARMSTRONG, M.R.C.S., L.R.C.P.,

MONMOUTH.

THE following case presents several unusual features. The connexion between the initial shock and the condition of the nervous system found *post mortem* seems somewhat doubtful, though clinically the whole illness could be traced to the accident, before which he was strong and healthy. Immediately afterwards he could be accurately described as a nervous wreck. I very much regret that a lumbar puncture was not performed, and though this was considered it was not until the patient's condition was so bad that it would have been of no value. The absence of headache was an unusual feature, and although the intracranial pressure must at some time have been considerably increased, it was absent throughout the illness.

The patient, a man aged 54 years, by occupation a cowman, and accustomed to handling cattle all his life, both in this country and in New Zealand, of temperate habits and enjoying good health, was, on April 19th, 1911, knocked against a fence by a bull, and received a bruise on the right side of the chest. He complained of no other injury, but said he felt upset. He walked home unassisted, a distance of about 120 yards. He remained at home feeling very shaky, and suffering some pain from the bruise on his chest.

Four days later I saw him for the first time, and found a bruise on the right lower costal cartilages. This was the full extent of his injury, and was unimportant, but he was markedly nervous, starting when spoken to quickly, with tremors of hands sufficient to cause some difficulty in feeding. The knee-jerks were normal. He could give a clear account of the accident, which had been a great mental shock to him. He said that he thought the bull was going to kill him, which, indeed, seemed likely, and he had, in fact, a very narrow escape of his life.

Under treatment by rest, potassium bromide, and later by tonics, nux vomica, and lecithin, he slowly improved, and at the end of May, by my advice, went away to stay with a relative; when he returned home, three weeks later, although better, he was quite unfit for his work, still being very nervous, and himself stating that he was too frightened to resume his work among the cattle. For nearly four months he remained more or less *in statu quo*, taking his food well, sleeping well, complaining of no pain, and taking a certain amount of daily exercise, but still in a highly nervous state. Early in October he suddenly became much worse. The tremors of the hands increased and a slight tremor of the lips and tongue was present; all the reflexes were increased, ankle clonus was present, with some rigidity of the lower limbs. The plantar reflex was flexor and always remained so; the pupillary reactions were normal. His mental state was one of extreme anxiety about his condition.

During the next fourteen days he slowly got worse, with a slight increase of the rigidity, and showing some mental confusion, but still eating and sleeping well. The urine was free from albumen and sugar.

A further progress in the downward grade of the case now became evident, and on October 19th he was unable to get up. Reflexes were greatly increased. The whole body sharing in the rigidity of the lower limbs, he was unable to raise himself to a sitting posture, and when assisted on to his feet was unable to stand alone; but rather curiously he seemed able to maintain his balance while moving, and could walk fairly well. The optic discs were normal in appearance. His mental state was one of confusion with slow cerebration. The face presented a rather vacant appearance, quite unlike his usual expression. Sensation was normal.

From this time on he continued steadily to get worse, although his mental state varied from time to time, sometimes being quite clear and sometimes confused, and noisy, talking, picking at the bedclothes, etc. On some occasions micturition was involuntary, and occasionally, at irregular intervals, profuse sweating occurred without any alteration in the temperature. He took nourishment well, and obtained a sufficient amount of sleep, at irregular intervals. The temperature remained about normal, only varying between 97° and 98°. There was some catarrh in the lungs, with a good deal of expectoration, and it soon became evident that this condition was likely to become of vital influence in the case; and on November 5th the temperature rose to 103°, accompanied by a corresponding increase in the pulse-rate.

He now rapidly became weaker, and, in spite of the exhibition of stimulants, etc., he died from exhaustion on November 9th.

Necropsy.

Externally, over the sacrum was a reddened, inflamed patch, about the size of the palm of the hand, presenting the appearance of the commencement of a bedsore. There was no sign of injury to the ribs or adjacent structures. The right side of the heart was slightly dilated, otherwise normal, and the lungs were much congested and oedematous. All the abdominal viscera were healthy. The dura mater and arachnoid appeared to be normal. The convolutions were slightly flattened. On opening the brain it was seen that some dilatation of the ventricles was present. The ependyma seemed healthy. On the spinal canal being opened, there was a considerable excess of fluid found, the cord itself appearing normal to the naked eye.

Such a sequel to a nervous shock is rare, but it occurs to me that the condition of hydrocephalus which supervened may be more than a coincidence.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

NERVOUS RETENTION OF URINE.

IN the BRITISH MEDICAL JOURNAL of January 13th, p. 72, Dr. Harford Edwards has suggested a rectal injection of glycerine in cases of retention of urine—hysterical and after labour.

I find that these injections occasionally fail to produce the desired result. For the last ten or twelve years I have ordered a simple enema, not less than Ojss, which has never failed me, the rectum and bladder emptying themselves at the same time. The advantage of not having to pass a catheter after parturition is obvious.

London, N. FREDERIC C. WOOD, L.M.S., D.P.H.

ABSCESS OF THE SPLEEN COMPLICATING MALARIA.

IN no book that I have been able to consult is abscess of the spleen—at least of any size—mentioned as a complication of malaria. Some notes, therefore, on a case in which a large abscess was found may prove of interest.

H., an Indian male, aged 25, came to hospital in Gyantse, Tibet, complaining of attacks of shivering, pain in the abdomen and general weakness. He stated that he had been in perfectly good health until a month before, when, while passing through Sikkim, he was suddenly seized with violent shivering; this passed off in a few days, but ever since this attack he had noticed that he was considerably weaker and that his abdomen was swollen.

On admission on June 8th, 1911, the temperature was 101° F., pulse 90, and respirations 33. The spleen was considerably enlarged, its lower limit reached to within a quarter of an inch of the umbilicus, and in addition the organ projected markedly forward, forming a very evident prominence above the umbilicus. Under treatment with quinine the fever rapidly subsided and the patient was discharged on June 22nd.

I saw him frequently after this date and was able to diagnose malignant tertian malaria. He seemed to be progressing favourably until August 25th, when I was suddenly sent for as the patient "was in a fit." I found him suffering from violent convulsive spasms associated with coma, the case closely resembling one of tetanus. Under energetic treatment with quinine these symptoms subsided, leaving complete aphasia and great weakness. The aphasia passed off in seven days.

After the attack the patient, although he had no actual rise of temperature, began to complain of severe pain over the region of the spleen, which perceptibly enlarged. Various remedies were tried to relieve the pain but with little success. The patient persisted in saying that there "was something inside the spleen," but, although a careful examination was made, nothing definite could be made out. It seems extraordinary that such a large abscess as was eventually discovered could be present in the spleen without causing any rise of temperature or increase in pulse-rate, in fact, without causing any symptoms except pain.

As the pain increased, a needle was inserted into the most prominent part of the spleen; a little pus escaped. Next day I opened the abdomen under chloroform, and discovered a large abscess occupying the anterior half of at least the lower half of the spleen. There was no cyst wall encapsulating the pus, and the rest of the spleen appeared comparatively healthy. About 8 fluid ounces of pus escaped, leaving a ragged cavity in the spleen. This was explored with the finger for further collections of pus, and, none being found, a drain was inserted and the patient put back to bed. He stood the operation well, and looked much better next day. Blood films from the ear taken at the time of the operation revealed no parasite; films of pus from the spleen showed a bacillus apparently identical with *B. coli*.

For six days after the operation his temperature was normal,

but from September 27th (fifteen days after operation) his temperature chart began to show a slight evening rise. This continued for some days, associated with a slight increase in the amount of the discharge. Improvement in the patient's condition was maintained; in fact, he felt so much better that he left hospital on October 22nd. On October 29th he passed a little mucus and blood *per rectum*. A sudden attack of acute dysentery occurring on November 3rd carried him off. Unfortunately, no *post-mortem* examination was obtainable.

The interest of the case lies not only in its rarity and in the large size of the abscess (at least 12 oz. of pus escaped during his stay in hospital), but also in the question as to the source of the abscess. The presence of *B. coli*, and the subsequent dysenteric symptoms, seem to suggest an intestinal origin.

R. F. D. MACGREGOR,
Lieutenant, Indian Medical Staff.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

SOUTH DEVON AND EAST CORNWALL HOSPITAL, PLYMOUTH.

A CASE OF TETANUS: RECOVERY.

(By L. EDGAR ROBERTS, L.R.C.P.Lond., M.R.C.S.Eng., House-Surgeon.)

THE patient in the following case, a man aged 40, occupied as a scavenger, was admitted under the care of Mr. W. L. Woollcombe, senior honorary surgeon, on January 14th, 1911. He stated that he had never been ill in his life, but a week previously felt a pain in the small of the back and the next morning found it difficult to swallow. His throat was sore, and he thought he had a "chill." Hence next day he consulted a doctor, who advised his going into hospital. This advice he carried out two days later, and was admitted as stated.

State on Admission.—He was a well built man, temperature 97.4°, pulse 50, respirations 15, and walked into hospital with a rather stiff upright gait. He said he felt "all one piece." There was well marked trismus of the jaws, these opening only half an inch. The spinal and abdominal muscles were markedly rigid, the latter standing out as two distinct ridges on the abdominal wall.

Diagnosis.—A diagnosis of tetanus having been reached, a search was made for the point of entry of the infection. The patient's hands were very cracked and very dirty, but showed no recent marked abrasion. On the right wrist, just above the anterior annular ligament was an oval abrasion the size of a threepenny piece, which the patient said had been caused on the morning of the day he first felt ill, but there were no other lesions.

Treatment.—The hands were soaked in iodine solution (tinct. ʒj ad Oj) for two hours, and the abrasion swabbed over with pure carbolic. Initial doses of antitetanic serum 60 c.cm., and 10 c.cm. of a 10 per cent. solution of magnesium sulphate (see paper by Peter Paterson, M.B., *Lancet*, April 2nd, 1910) were given, then 20 c.cm. of the serum and 10 c.cm. of the $MgSO_4$ solution every four hours for a few days, amounts being increased and decreased according to symptoms. This was continued until the seventh day, all the injections being given subcutaneously, together with potassium bromide gr. xx by the mouth four-hourly for five days.

Progress and Result.—There were two definite attacks of the typical spasm, opisthotonos, etc., the first on the second day after admisssion lasting fifteen minutes, the second on the third day lasting ten minutes; both left the patient very exhausted. The rigidity of muscles continued until the fifth day, being most marked in the recti. Coughing and pain in the back were troublesome symptoms. The serum injections were practically painless; those of the $MgSO_4$ solution, however, worried the patient a good deal, and gave rise to much irritation, but no rash. He was able to take fluids throughout and was allowed up on the fourteenth day, and except for some soreness of feet felt well. He was discharged on the twenty-first day, apparently in perfect health.

REMARKS.

Another case of tetanus of no greater severity had died two weeks previously; in that case large doses of antitetanic serum were given, but no magnesium sulphate.

I am indebted to Mr Woollcombe for permission to publish these notes.

Reports of Societies.

ROYAL SOCIETY OF MEDICINE.

MEDICAL SECTION.

Tuesday, January 23rd, 1912.

DR. FREDERICK TAYLOR in the Chair.

Vaccine Treatment of Goitre.

A PAPER on this subject was read by Captain MCCARRISON, I.M.S. He reminded the meeting that he had shown that the infecting agent existed in the intestinal tract, and that a plentiful amoebic infection was present in this situation in most of the cases of goitre in Gilgit; he had been endeavouring to cultivate amoebae from the faeces of sufferers from the disease. In the early stage no attempt was made to isolate any particular organism, and the vaccine was a composite one, and was administered to selected cases at intervals of seven to ten days. The results were strikingly good. The bacterial growth had the characters of the *coli* group, but differed from the *Bacillus coli* in that it did not produce indol. A vaccine was prepared from the bacillus and employed in 16 selected cases of goitre, the initial dose being 150 million. It was gradually worked up to 350 million by 50 million increments. He quoted cases of great improvement, the patients carrying on their ordinary work during the treatment. He had treated 33 selected cases of simple goitre by means of vaccines. The "composite" vaccine appeared to have been the best. He believed in inoculating only a small quantity of the vaccine, and that it was better to introduce 150 million bacteria in 5 m. of salt solution than in 1 c.cm. of it. When the inoculation was done in the upper arm the patient was usually able to follow his ordinary avocation. He usually employed an autogenous vaccine, but had obtained excellent results by using the vaccine of one patient for the treatment of another. He had produced goitre experimentally in man by the administration of matter separated from a goitre-producing water by means of a Berkefeld filter. The organisms which had resulted in a return of the thyroid to its normal size, belonged to the *coli* group, and in the intestines they produced poisons—indols and phenols—which were absorbed via the intestinal wall and caused fibrotic changes in liver, kidneys, and arteries. The suggestion was that the thyroid gland was called upon to combat several poisons normally present in the human intestine. When there was superadded the specific virus of goitre an abnormal element was introduced, and an extra strain was thrown upon the gland. The researches confirmed the view he put forward several years ago—that goitre was due to the presence of a living organism in the intestinal tract, and that the thyroid gland was markedly influenced by the nature of the bacterial flora of the intestine. He also emphasized the importance of the antitoxic action of the thyroid mechanism.

DR. LANGMEAD said there were three main classes of case in which the thyroid gland had a specific influence in preventing intoxication: (1) In cases of pregnancy and uterine function generally; (2) rheumatoid arthritis; (3) tetany. It was thought that the thyroid enlargement was actually antagonistic to an agent circulating in the blood.

DR. PARKES WEBER said that if the author's explanation of his results was correct, the goitre which he treated must have been an enlargement of a compensatory nature to counteract certain poisons manufactured in the intestine. On the same assumption, if the author had fed these patients upon thyroid extract he would have brought about a diminution of the thyroid.

MR. JAMES BERRY said it was generally agreed that most cases of goitre were due to some toxic influence, and the chemical theory was being exploded in favour of the microbic view. There was a residuum of cases which the surgeon was called upon to treat—those which did not yield to iodine, arsenic and thyroid gland, or to vaccine treatment. Except in cases of great urgency, no surgeon should operate on a parenchymatous goitre until it had been carefully treated medically—a view with which Captain McCarrison agreed. He asked whether diarrhoea occurred in any of the patients. Probably arsenic acted beneficially

on the thyroid in that way. He thought that what was called parenchymatous goitre was not hypertrophy, but atrophy, though there was enormous distension with stagnant secretion.

The PRESIDENT asked whether some common agent or mode of action could be discovered in all the remedies which had been tried, and that mode of action linked up with that of the vaccines employed.

Dr. ROBERT HUTCHISON asked how long the effects lasted in the author's cases, and whether there was any return of the goitre some time after the vaccination. He expressed the opinion that the idea of intestinal toxaemia was far too current in modern medicine, and was commonly used to explain ill-understood congeries of symptoms. He had a greater faith in Nature than that. She did not provide bacteria in the alimentary tract without also providing, in the liver, a gigantic sentinel, which stood guard at the entrance to the portal system to deal with any poisons so generated. He was surprised to hear Mr. Berry say that parenchymatous goitre should be regarded as an atrophy, as that made it difficult to explain the benefit produced by the administration of thyroid. He proceeded to discuss the subject in a general way, laying stress on the stimulation of the metabolism exercised by the curative agents.

Dr. CROOKSHANK asked whether the goitres which the author investigated tended to disappear spontaneously; also whether endemic cretinism occurred in Gilgit, and whether the children of the goitrous patients were cretinoid.

Captain MCCARRISON replied, stating that the results had lasted since 1909. The vaccine acted, like the other substances, by destroying the toxin in the gut. Cretinism was very common in Gilgit.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

January 10th, 1912.

Dr. F. H. JACOB, President, in the Chair.

THE mid-session address was delivered before the Society and the Nottingham Division by Professor SIMS WOODHEAD, who took as his subject the *Laboratory and clinical work*. He confined his remarks chiefly to the recent work on body temperature and electro-cardiograms. He pointed out the great advantage to clinical medicine in having a continuous temperature chart for the whole twenty-four hours in such diseases as tuberculosis. It was the late Dr. Gamgee who initiated the taking of continuous temperature records by means of thermo-electrical methods. Professor Woodhead continued his work chiefly in connexion with investigating the effects of alcohol on the body temperature. The initial work was enormous, and it took eight to nine months before he obtained his first satisfactory record. After that, however, the work became comparatively easy. Dr. Woodhead explained in detail the photographic temperature recorder of Dr. Gamgee, and also the thread recorder. By means of arrangements with the National Telephone Company a continuous temperature of a patient in the Addenbrooke Hospital was automatically recorded in the university laboratory. The lecturer then stated that small doses of alcohol raised the surface temperature and lowered the rectal temperature; food lowered the surface temperature, but if accompanied by warm fluid the temperature was raised; that fluids immediately raised the rectal temperature, but only for a short time. It was possible in the future that all hospital patients could have continuous temperature records taken, and this should be of great use in enabling us thoroughly to study the progress of disease. Professor Woodhead explained the principles of taking an electro-cardiogram and the details of the machine used. Lantern slides were shown to illustrate his remarks. Electro-cardiograms were almost as characteristic of individuals as were finger-prints; so much so that any variation in an individual's electro-cardiogram meant that there was some lesion of the heart. In Addenbrooke's Hospital a record was now taken of every case of heart disease, and it was hoped that in time these might, by comparison with future necropsies, lead to much usefulness.

Mr. A. FULTON, in proposing a vote of thanks, wondered whether the taking of continuous temperature records and cardiograms would be part of the duties of an insurance doctor, and drew a vivid picture of the tired general practitioner being suddenly awakened in the night by the sudden flash of the galvanometer mirror on the ceiling telling him a patient a mile away had had a sudden rise of temperature.

Dr. P. BOOBBYER seconded the vote of thanks.

Cases and Specimens.

A clinical afternoon was held on January 17th. Dr. F. H. JACOB, President, was in the chair. The following cases and specimens were shown:

Mr. C. H. ALLEN: A patient, aged 38, who was operated upon for perforation of gastric ulcer. A large perforation, with indurated edges, found on the anterior surface of the pyloric end of the stomach, was closed. Three weeks later the patient showed signs of pyloric obstruction necessitating a posterior gastro-enterostomy. *Specimens:* (*a*) Specimen of pyosalpinx and abscess of ovary complicating a fibroid of the uterus. (*b*) Specimen of hypertrophy of prostate gland.

Dr. H. J. NEILSON and Dr. LYN DIMOND: Two cases of epithelioma, illustrating the value of treatment by autogenous vaccines.

Mr. R. G. HOGARTH: (1) A man who had a large aneurysm of the left subclavian artery. The artery was ligatured on the proximal side after subperiosteal resection of the clavicle. (2) A man who had a chronic ulcer on the posterior wall of the stomach. The ulcer was excised by the transgastric method. (3) Two men after prostatectomy, showing the prostate glands removed. They both had the usual symptoms of prostatic obstruction, in one case the gland was large, in the other small.

Mr. H. B. TAWSE: (1) W. G., a boy of 8 with narrowing of the pharynx, adhesion of the uvula to the left posterior pillar of the fauces, necrosis of the right nasal bone and nasal process of right superior maxillary bone, all due to syphilis. History of having had tonsils and adenoids removed twelve months ago. Rapidly improving under mercury and potassium iodide. (2) H. E., a girl of 10 with perforation of the septum, an ulcerated condition of the interior of the nose and upper lip, clearing up with mercury and pot. iod. (3) H. T., a man of 43. Periodical hoarseness for years—gradually became constant—obstruction to respiration with slight cyanosis. Both vocal cords had large fibro-papillomata on them, which were removed with the greatest difficulty by Krause's laryngeal forceps under local anaesthesia. Now in perfect health, voice greatly improved. Specimen shown.

Dr. J. WATSON: *Specimens:* (*a*) Microscopic section of cancer of cervix uteri in parts resembling sarcoma. (*b*) Microscopic section of curetting from fundus uteri showing glandular cancer. History of blood-stained discharge for over a year; the discharge consisted of broken-down cancerous tissue with a small amount of blood. (*c*) Myoma of uterus showing series of tumours becoming submucous. History of six years' haemorrhage.

Dr. W. R. SMITH: *Specimen:* Myoma of uterus, growing from the back of fundus and almost filling the pelvis, while the small uterus proper was high up in front.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

Thursday, January 25th, 1912.

Mr. J. B. LAWFORD, President, in the Chair.

Hereditary Ophthalmoplegia in Five Generations.

MR. A. A. BRADBURNE read a paper on this subject. In this family there was a condition of ptosis accompanied by an almost complete loss of the ocular movements, which had been present in five generations. After enumerating the members affected and briefly describing the condition in each, Mr. Bradburne proceeded to consider the various types of this rare affection. He classed anomalies of congenital ocular immobility into three divisions: First and most common, those in which only ptosis was present; secondly, when this was combined with epicanthus; thirdly, a type in which ptosis might or might not be present, but in which the ocular movements were very defective or altogether wanting. This latter type embraced three subdivisions: (*a*) Ptosis associated with defect of the superior rectus; (*b*) more extensive involvement of the eye muscles with or without ptosis, the condition being due to some nerve lesion; (*c*) this type included the same kind of matters, but the condition was due to entire absence, or very defective development of, the muscles. His own case came under this category. In two of the younger members a certain return of the movements had occurred, and the author suggested how this might have come about. He showed that in the shark the ocular muscles arose from three centres—one for the superior obliques, one for the abductors, and the remaining four muscles arose in pairs from a third. These paired muscles were the superior

with the internal rectus, and the inferior rectus with the inferior oblique. In all the members of this family the superior obliques were probably present: hence, if any further movements became possible one would expect their appearance to follow somewhat the lines as seen in the shark. In one of the members of the family it had done so, as one eye was able to move from a point straight in front outwards, thus seemingly pointing to a development of the second centre. But that did not follow in another case in which both eyes possessed full lateral motion. By analogy one would expect to find development of motion in the upward direction, but such was not present. Hence the human development was from a different centre to that of the shark, or another factor was present in the case. As the patient had ptosis, motion in an upward direction would not be of much practical use, hence it seemed as if the visual act had had something to do with the "evolution." This seemed probable as, in the same case, to prevent diplopia, the visual act had produced a convergent squint. Finally, he asked if the argument could be logically reversed and the condition of muscle palsy attributed to a long-continued non-use of the eyes in some ancestor afflicted with ptosis.

On Crystal-like Bodies of Radiate Structure in the Lens.

Mr. GEORGE COATS read a paper in which he said they were found in a hypermature cataract in a woman aged 69, and had not been seen clinically. In the lens nucleus, which had undergone but little degeneration, round and oval bodies, measuring from 0.035 to 0.160 mm., were found. They had a refractile, crystalloid appearance, and were marked by numerous fine lines converging towards an axial linear streak or spot. There was frequently a tendency to cleavage along these lines, so that the body was split up into a number of radially disposed pyramidal sectors, not unlike the pyramids of the kidney. In the larger crystals there was a central tuberculated mass of mineral hardness, the structure resembling that of a rubber-cored golf ball. Usually the adjacent lens fibres were arranged round the crystals to form a kind of capsule. Only two similar observations were on record, in one of which the bodies were seen clinically as globular beads with a silky or pearly sheen. In all these cases the lens was cataractous; in two the opacity was senile, in one lamellar, the patient being a child of 6. In all the crystals were confined to the more central layers of the lens. As to the nature of the crystals, the scarcity of material made it impossible to carry out extensive histo-chemical researches, but they showed considerable structural resemblance to leucin, a diagnosis which was sufficiently probable, since the crystals occurred in cataractous lenses, and leucin is a product of proteid disintegration. They occurred, however, in the least degenerate part of the lens. Hydrochloric acid produced no effervescence. Dr. W. H. Wilcox, who examined the specimens, reported that the appearance of the bodies was "similar to that which leucin takes when it has been subjected to dehydrating processes."

NORTH OF ENGLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

Friday, January 19th, 1912.

Dr. DONALD (Manchester), Vice-President, in the Chair.

Election of President.

Dr. ARNOLD W. W. LEA (Manchester) was elected President for the ensuing year.

Caesarean Section.

Dr. STOOKES (Liverpool) related the following cases of Caesarean section: (1) A woman, aged 30, who had had three normal labours and gave no history of trouble in the present pregnancy, was seen at five in the morning by two doctors, who found her with strong labour pains and the vagina blocked by a tumour; so they sent the woman to the Maternity Hospital. On admission an arm was presenting, and the vagina was blocked by a soft fibrous mass which passed within the cervix; no pedicle could be reached. The general condition of the patient was fairly good; she was pale, her pulse was about 100. The abdomen was larger than usual, but not tender. Caesarean section was done, and a dead child was extracted weighing 6 lb. 6 oz. After removing the placenta and membranes the tumour was found to have an extensive attachment to the posterior wall of the uterus, so supravaginal hysterectomy was done. The woman died from shock eight hours after. (2) A patient, aged 42, who had had eight normal labours. She was vomiting incessantly, and was constipated; the bowels had moved slightly two days previously. The abdomen was not enlarged more than a full-time pregnancy, and there was no hyper-resonance. Dr. Stookes decided on operation, as he thought there must be intestinal obstruction. After a dead child of over 7 lb. had been removed the peritoneum was found to be salmon pink in colour and studded with small yellow spots. The whole of the small intestine was empty and collapsed. The large intestine was attached by a mesentery 7 in. in length, which allowed the caput caecum to fall into the pelvis. Dr. Stookes thought this must have caused incomplete obstruction, and the empty state of the bowels was due to the reversed peristalsis. He now believed the explanation offered at their meeting by Mr. Cuff to be the probable one: that the woman was suffering from acute pancreatitis. The patient recovered from the anaesthetic and said she was much relieved, but she died next day from exhaustion.

Retroversion of Uterus.

Miss IVENS (Liverpool) read a paper analysing 100 consecutive cases of retroversion of the uterus, treated by round ligament ventrisuspension (Gilliam's operation), in which the after-history had been ascertained in 93 cases. There had been no mortality; 93 had healed by primary union, and in one case only relapse had occurred owing to the tenuity of the ligaments. In 32 uncomplicated cases the results were most satisfactory, while in 11 associated with marked prolapse the uterus was held up well by the round ligaments, which showed extreme hypertrophy after operation. In 46 cases where adnexal disease was present good results were obtained in all but the gonorrhoeal cases, where further inflammatory trouble took place in 11 instances, although the uterus maintained its position. In 3 cases out of 4 with uterine fibroids myomectomy followed by Gilliam's operation was successful; the fourth subsequently required hysterectomy for a submucous sessile tumour. In 20 instances pregnancy had since occurred. Of these 11 had borne children with no difficulty, 6 were still pregnant, 3 had had abortions. As no ill after-effects were present in the 93 cases followed up, it was concluded that the operation was a safe and successful one when done under suitable conditions, and could be undertaken during the child-bearing period. From a careful consideration of the history and symptoms of the cases recorded it was also concluded that in the majority of instances even a simple retroversion of the uterus ultimately caused pathological changes in the pelvic organs, beginning with passive venous congestion, and that for this and other reasons therefore required treatment.

LIVERPOOL MEDICAL INSTITUTION.

AT a meeting held on January 25th, Mr. ROBERT JONES, President, in the chair, Mr. THOS. GUTHRIE read a note on the *Recurrence of adenoids*. He pointed out that recurrence was seen most commonly in children operated on under the age of 4 years, even when the operation had been as complete as possible. Recurrence was not frequent in those between 4 and 7 years of age, and practically did not occur in patients over 7 where the operation had been thorough. Mr. Guthrie showed a photograph of the naso-pharyngeal tonsil removed from a child of 3, and of the growth which recurred at the age of 5. He said recurrence was favoured by attacks of the specific fevers, by congenital syphilis, and by anterior nasal obstruction from bony deformities. He urged after-treatment of the posterior nasal catarrh and attention to the general health conditions of the patients. Dr. BUCHANAN demonstrated the method of *Tuning-fork vibration and auscultation*, and read a note on the subject. He used a fork of "A" pitch, which was struck and the stem placed on the part to be examined; the stethoscope was applied and the fork moved by small steps over the part. The sound vibrations varied with the nature

of the part over which the fork was resting. He claimed that by this method it was possible to map out organs accurately, to differentiate solid from liquid, the colon from small intestine, and the stomach from the colon. He could map out portions of consolidated lung and mediastinal tumours. In one case he had been able to make out an alteration in the size of a kidney which had been verified by separation of urine, and by the findings at the operation. Dr. WARRINGTON read a paper on the results of 17 cases of *Exploration of the brain*. The skull had been opened for symptoms resembling those of tumour of the brain. The operations had been mainly done by Mr. Keith Monsarrat. Of 9 cases of cerebellar exploration death took place soon after operation in 5; in these the diagnosis was confirmed by *post-mortem* examination, and in 2 by the findings at the operation. In 4 cases the patients recovered, 3 were alive and well with the vision preserved. One became blind; in this patient nothing was found at the operation, though bilateral exploration was made. In two of these successful cases nothing was seen at the operation; in one a tumour was diagnosed, and found on the left side of the cerebellum. In 8 cases of cerebral exploration, 4 were fatal within a month. In one a tumour in the right parietal region was partly removed, with relief of agonizing pain, the patient living a year. In 3 cases where no gross lesion was found at the operation relief was obtained from the symptoms; one was alive and well, with improved vision, five years after operation; another three years after operation, and one died a year after with right hemiplegia. Dr. Warrington had found that advanced cases did not improve in vision and the condition of the discs, but where the operation was done in the earlier stages of the alterations improvement was to be looked for as the result of a decompression operation. Considerable discussion took place, in which Mr. THELWALL THOMAS, Mr. DAMER HARRISSON, Mr. E. STEVENSON, Mr. H. E. JONES, Dr. MARSH, Dr. ABRAM, Mr. STOCKDALE, Mr. MURRAY, Mr. C. G. LEE, and Dr. HURTER took part.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

AT a joint meeting of this Society with the Bradford Division, held on January 16th, the following specimens and cases were shown:—Dr. CAMPBELL: A case of *Sprue*. Mr. ALTHORP: (1) A patient after operation for *Cancer of the rectum*, (2) specimens from a case of *Acromegaly*. Dr. HONEYBURNE: (1) Microscopical specimens from Mr. Althorp's case of *Acromegaly*, (2) microscopical specimens from a case of *Acute pancreatitis*. Mr. BASIL HUGHES: (1) Two cases of *Cellulitis of the palm* treated by autogenous vaccines, (2) cases of *Injury to the elbow*, (3) a case of *Gonococcal arthritis* of the wrist-joint treated by vaccine. Mr. BASIL HALL: (1) Lantern slides of surgical cases, (2) *Osteo-sclerosis of the tibia* from a case of gangrene of the leg, (3) *Carcinoma of the rectum*, (4) *Endothelioma of the head of the tibia*, (5) *Cystic tumours* in connexion with (*a*) appendix, (*b*) rectus abdominis, (6) *Hypernephroma*, (7) *Carcinoma of body of uterus*. Dr. JASON WOOD: (1) A case after operation for *Ectopia vesicae*, (2) a case after *Suture of the patella* for fracture, (3) specimen of *Cancer of trachea and œsophagus*, (4) *Epithelioma* of skin over elbow-joint, (5) advanced *Carcinoma mammae*. Dr. MARTIN: (1) Specimen of large *Nasal polypus*, (2) specimen of an *Early ovum*. Mr. GOYDER: (1) Lantern slides of *Congenital dislocation of the hip* before and after reduction by the Lorenz method, (2) lantern slides of cases of *Hare lip and cleft palate*, (3) photograph of a case of *Epispadias*, (4) *Carcinoma of colon* removed from a woman of 32. Mr. MCEWAN: *Uterine fibroid*.

NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

AT a meeting of this society, held on January 18th, Dr. ROBERT HUTCHISON, Physician to the London Hospital, opened a discussion on *Rickets*. He reviewed very briefly what little was known of the pathology, and the clinical types were shortly dealt with as being known to all. To the etiology and treatment he referred more particularly. He dismissed in a word such exploded theories of etiology as congenital syphilis, dilatation of the stomach, microbic infection, intestinal intoxication, absence or defect of internal secretion, and trophic or nervous influences. He considered more fully the lime and acid theories, ultimately dismissing them also. Finally, while acknowledging the undoubted though accessory importance of the general hygienic conditions, he ascribed the disease to erroneous feeding, *the only cause*. For confirmation of this view he turned to clinical experience and the assistance to be gained from the effects of treatment. Little doubt could be entertained that deficiency of fat was the chief factor, but he did not reject the possibility of deficiency of protein and phosphorus acting as an adjunct to it. Treatment was mainly dietetic. In prophylaxis the chief faults to be avoided were (1) too prolonged breast feeding, and (2) in bottle-fed children, too dilute a mixture being used. Increase in the amount of fat administered was the most important measure to be adopted—for example, cod-liver oil, or cotton oil, which was as good, supplemented by phosphorus and iron. He considered diarrhœa no bar to the administration of fat, as was formerly thought. An animated discussion followed, to which Dr. HUTCHISON replied very ably.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.

AT a meeting held on January 19th, Dr. FREELAND FERGUS, President, in the chair, Mr. A. ERNEST MAYLARD showed a boy, aged 10 years, who had been admitted to the Victoria Infirmary in September, 1911, suffering from an extensive *Compound comminuted fracture of the cranial vault in the right parietal region*, with escape of brain tissue, and signs of fracture of the base of the skull. At the operation the extruded brain matter and depressed fragments of bone were removed and other portions of bone elevated. The wounds remained aseptic throughout, but the boy was delirious for some days, and for a fortnight was not expected to survive. Thereafter he made a good recovery, and when shown, about three months after the accident, was mentally acute and physically active. Dr. R. SPEIRS FULLARTON showed a boy, aged 9½ years, who during the past three years had had three attacks of *Haematuria* and now had a large *Tumour in the region of the right kidney*, which was said to have been noticed first about three months ago. The diagnosis was thought to lie between cystic kidney, malignant tumour of the kidney, and hypernephroma. Dr. Fullarton also gave a short account of the *Albumen reaction of the sputum in pulmonary tuberculosis*. His observations, made in 50 cases of phthisis and 50 cases of chronic bronchitis and other non-tuberculous pulmonary affections, confirmed the statements of Continental observers that in the great majority of cases of phthisis, and in pneumonia during the acute stage, albumen was present in the sputum in considerable amount, while in the majority of cases of non-tuberculous conditions (excepting pneumonia) albumen was either absent or present in trifling amount. The proportion of cases in which this rule did not apply, was, however, sufficiently great (as had been shown by Dr. Nathan Raw, and as the speaker had found) to diminish seriously its value in the differential diagnosis between tuberculous and non-tuberculous diseases of the respiratory organs. Dr. JAMES H. NICOLL showed (1) three examples of *Meckel's diverticulum* which had been removed in consequence of their having caused intestinal obstruction; (2) a large *Mesenteric fibrosarcoma*, with three-fourths of the small intestine necessarily removed with it; (3) masses of lymphatic vessels excised in a case of *Filarial lymphangiectasis of the spermatic cord*; (4) *Vesical calculi* of unique composition removed in a case of prostatic haematuria; (5) a large number of specimens from recent cases in which "*Piecemeal*" *prostatectomy* had been performed. He strongly recommended the piecemeal method of removing the prostate, of which, he said, surgical opinion was increasingly in favour. Dr. G. H. EDINGTON showed a specimen of an old *Fracture-dislocation of the upper end of the humerus*, and photographs of a case of old *Fracture of the patella*, with wide separation of the fragments.

THE eighth International Congress of Applied Chemistry will be held in Washington and New York in September, 1912. The Congress is under the patronage of the President of the United States. Mr. Edward W. Morley is Honorary President; Mr. William H. Nichols, President; and Mr. Bernhard C. Hesse, Secretary (25, Broad Street, New York City).

Reviews.

PATHOLOGY OF THE NERVOUS SYSTEM.

The valuable *Collected Papers from the Pathological Laboratory of the London County Asylums*[1] opens suitably with Dr. F. W. Mott's Presidential Address on The Present Position of the Neurone Doctrine in relation to Neuro-Pathology, here reprinted from the *Proceedings of the Royal Society of Medicine* of November, 1909. The neurone concept, emanating originally from Forel, but re-introduced by Waldeyer in the following terms: "A neurone is a nerve cell and all its processes, including the protoplasmic processes or dendrons and the single axis cylinder or process with its cone of origin, its collaterals or side branches, and its terminal arborization," and according to which the whole nervous system was made up of such neurones, nervous units, contiguous but not continuous, and each genetically and trophically independent, had its requiem sung by many eminent workers years ago. In the present paper Dr. Mott maintains that this doctrine rests to-day upon a surer basis than ever, owing especially to the work of Ross Harrison and Ramon y Cajál. His paper is illustrated by excellent diagrams and photographs showing the decisive value of Ross Harrison's transplantation and other experiments upon tadpoles upon the fundamental question of the source of origin of the nerve fibres. By removing the ganglion crest of the embryo of *Rana esculenta*, this crest being already known to be the source of the nerve sheath cells, and regenerative processes being satisfactorily prevented, Ross Harrison found that motor fibres were developed. He was finally able to show that the sheath cells were incapable, without ganglion cells, of forming nerve fibres; and further, by a remarkable series of experiments, he demonstrated that the nerve fibre begins as an outflow of hyalin protoplasm from cells situated in the central nervous system, at any rate in the low vertebrates with whom he was working. Harrison has thus confirmed, by direct observation, the observations of Cajál and others in favour of the genetic independence of the neurone.

Turning to the trophic independence of the neurone, Dr. Mott describes a series of experiments made by Professor Halliburton and himself to discover whether or not regeneration of motor nerves was interfered with by cutting off stimuli, so far as they were able, from the spinal motor neurones of a limb. The results of these experiments were negative—that is, to quote Dr. Mott's words, "the trophic activity of the spinal motor neurones is therefore, in all probability, independent of stimulus arriving from other neurones. They possess, indeed, a trophic autonomy." With regard to functional autonomy, however—a very important matter—Dr. Mott says, although many valuable researches have been published, we are still far from understanding the problem. He admits that there is no proof that the dendrites exercise amoeboid movements, and further, that there can be no question that Apathy and Bethe are right in asserting that there is a fibrillary continuum through several ganglion cells. The question remains whether this continuity exists in the vertebrates. This is a question, we take it, which has already been answered in the affirmative, but even admitting this, Dr. Mott says:

> It is admitted that the lower we descend in the zoological scale the more obvious is the fibrillary continuum, and the simpler and less varied are the adaptations to environment. We may assume, therefore, that in the upward development of the animal series, with the complexity and refinement of motor adaptation, there coexists a neuronic independence.

The second paper in the series is a short but admirable article by Dr. Mott on syphilis and parasyphilis of the nervous system. He says that although in syphilis of the nervous system cases are divided into spinal and cerebral for clinical convenience, his own experience tends to show that the whole cerebro-spinal axis is usually, if not always, affected. He relates instructive cases in which primary symptoms appeared within a few months of the primary infection, and mentions that although Gowers in his Lettsomian Lectures in 1890 scathingly criticized the evidence brought forward by Long and others to show that a slight meningitis might be associated with the early phenomena of syphilis, the modern conception of the cause of the roseolar rash by the spirochaete of syphilis escaping from the blood in the cutaneous vessels, makes it possible that a similar infection of the cerebro-spinal meninges may occur. Also that just as the roseolar rash may be so slight as to escape observation, so the eruption in the meninges may be so slight as to escape notice, and the virus may remain latent until some other cause acts as a coefficient in the production of a definite lesion with symptoms.

Turning to the obscure mode of causation of parasyphilitic affections, Dr. Mott first refers to certain facts which suggest the possibility of a certain form of virus possessing, or having acquired, a special neurotoxic action. He quotes Babinski, who reported the case of two students who were infected on the same day from the same individual, both of whom died fifteen years later of general paralysis. These students, however, were kinsmen. Other cases are mentioned, of whom the most striking is the following, given by M. Morel-Lavallée:

Marthe X.

May, 1870, mistress of Primus (?) (medical (student), and gave him syphilis. He died, 1873, of syphilitic meningitis.	Dec., 1871, mistress of Secundus (medical student), to whom she gave syphilis. He married later, had two healthy children, and died, 1888, of general paralysis.	Jan., 1872, lived four years with Tertius (medical student). He married later, had two healthy children, and died, 1882, of general paralysis.	Later, mistress of Quartus (chemist). He died, 1890, of general paralysis.	Still later, mistress of Quintus (engineer). He died (no date) of *folie syphilitique*.

Another instance is that related by Brosius of seven glass-blowers who suffered from chancre of the lip, and out of five who ten years later came under observation, four suffered from tabes or general paralysis.

Striking as these instances may be, Dr. Mott considers that we are on safer ground if we attribute the effects which follow infection not to the variation of the virus, but to the reaction of the individual himself, as represented in the following equation:

$$\text{Symptom complex } X = \frac{V}{R} = \frac{\text{virus}}{\text{resistance.}}$$ That is to say:

> Parasyphilitic disease of the nervous system depends upon two factors, intrinsic-innate, and extrinsic-acquired—the soil and the seed; the vital resistance and the specificity of the virus, $\frac{V}{R}$. All those conditions which may be inherited or acquired, and which tend to active metabolism of systems, communities, and groups of neurones functionally correlated, and which, owing to those conditions of stress which in one individual would cause spinal neurasthenia, in another cerebral neurasthenia, will, in conjunction with the stimulating effect of the syphilitic poison, cause the nerve cells to exercise an abnormal metabolic activity in the production of the side chain molecules necessary for immunization against the toxic effects of the virus.

Dr. Mott follows up this argument by saying that we may suppose that there is an *inherent* aptitude of the cells of the body of certain individuals to readily adapt themselves to defence against the action of the syphilitic virus in a race that has been widely syphilized for generations, and concludes by affirming the uselessness—indeed, positive harmfulness—of antisyphilitic remedies in true tabes and general paralysis, because they lower the vital energy in a system which is hypersensitive to the syphilitic virus.

As the paper on the Wassermann reaction in general paralysis of the insane, by Drs. J. Henderson Smith and J. P. Candler, was originally printed in the British Medical Journal of July 24th, 1909, further mention is not required here.

Other papers contained in this series deal with Cortical Lamination and Localization in the Brain of the Marmoset, by Drs. Mott, E. Schuster, and W. D. Halliburton; Complete Survey of the Cell Lamination of the Cerebral Cortex of the Lemur, by Dr. Mott and Miss Agnes Kelly; the Nerves of the Atrio-ventricular Bundle, by Dr. J. Gordon Wilson, of Chicago University; a Systematic Histological Examination of the Central Nervous System of a Case of Transverse Lesion of the Spinal Cord in the

[1] *Collected Papers from the Pathological Laboratory of the London County Asylums.* By Several Authors. Drake, Driver and Leaver, Ltd. London. 1911.

Lower Cervical Region, by Sidney V. Sewell and H. Hume Turnbull; and Descriptions of Three Chinese Brains, by Dr. E. H. Schuster.

There is also a short paper illustrated by photomicrographs upon the appearances presented by the brain of a man who lived seven hours after receiving an electric shock of 20,000 volts, by Professor Mott and Dr. Edgar Schuster. The changes included haemorrhages into the cortex of the occipital lobe and a diffuse chromatolysis of pyramidal cells and in cells of the medulla oblongata of profound degree.

Finally, there is a paper on the human pituitary body by Drs. J. P. Candler and A. W. Sikes. In their investigations, which were carried out on the pituitary bodies of eighteen males and twenty-six females, the authors endeavoured to discover whether the results which had so far accrued from the investigations into the pituitary bodies in the lower animals held good also for men. The result was that no difference in structure or function was discovered. Secondly, they endeavoured to ascertain whether any departures from the normal occurred in the pituitary bodies of the insane, again with negative results, no relation being discovered between the nervous affections for which the patients were admitted and the condition of the pituitary.

For the further details of this careful investigation readers are referred to this most valuable collection of papers.

BIER'S HYPERAEMIC TREATMENT.

In *Arthritis*[2] Mr. Peter Daniel formulates the opinions he holds as to the pathology and treatment of diseases of the joints. The manner in which he states his views has the advantage of leaving the reader in no doubt as to his opinions, which appear to be definite enough, but the very decision of his conclusions may make the cautious student hesitate to accept them. For in this complicated and long-debated subject much is still uncertain, and only time and further investigation can show where lies the truth. The author has evidently found it difficult to draw a sharp line between disease of bone-ends and diseases of joints proper, and rightly includes both in his treatise. Internal derangement of the knee-joint is also dealt with.

Mr. Daniel holds that all inflammatory joint diseases, including in this category the arthropathies of organic nervous disease, are of toxic origin, that complete rest is often to be avoided, and that the congestion method with which the name of Professor Bier is connected is in most cases the best means of treatment. He does not accept the usual classification of rheumatic joint diseases, and considers that there is no real dividing line between rheumatic and rheumatoid arthritis, but that they are both only stages of the same morbid process. To this part of his subject a good deal of space is devoted, and he prints in parallel columns his own views and those of Garrod and others. When we mention that twenty-one pages are devoted to this comparison, it will be evident that Mr. Daniel does not shrink from controversy.

As regards the treatment of typical tuberculosis of joints, he says: "It is my intention to confine myself chiefly to Bier's congestion hyperaemia and the technique most suitable for use with it." The student, therefore, must not turn to this book for information as to splints and instruments, but he will find in it a good description of the details of the Bier treatment and of the complications which may arise under it. The author shows a tendency to discard complete fixation, and to allow movement in some forms of the disease. Speaking of the ankle, he says: "We have been too long dominated by the plaster-of-Paris absolute fixation, etc., school of treatment." We cannot go all the way with Mr. Daniel in his advocacy of active and passive movements, but we cordially agree with his condemnation of forcible correction under an anaesthetic in the active stages, and with his preference of conservative over operative treatment.

The section on Pott's disease is practical, but some reference should have been made to the method of forcible correction, which after a great vogue some years ago is very properly almost abandoned nowadays, but which is occasionally useful in the treatment of paraplegia. We have failed to find any notice in the book of the therapeutic use of the tuberculins.

Some medical and surgical books have been read and re-read almost as much for the charm of their style as for the facts and theories contained in them. This book is not likely to come into that category. We are not squeamish, and would fain overlook the false concords between subject and predicate and the split infinitives with which the text abounds, but such a phrase as "to so sew the synovial membrane," is too bad to be passed over.

[2] *Arthritis: A Study of the Inflammatory Diseases of Joints.* By Peter Daniel, F.R.C.S., Senior Surgeon to the Metropolitan Hospital, Surgeon to the Gordon Hospital, Assistant Surgeon to Charing Cross Hospital. The Medico-Chirurgical Series, No. 3. Edited by James Cantlie, M.A., M.B., C.M.Aberd., F.R.C.S.Eng., Surgeon to the Seamen's Hospital Society, Lecturer on Surgery to the London School of Tropical Medicine. London: John Bale, Sons and Danielsson, Ltd. 1912. (Post 8vo, pp. 523, figs. 131. 12s. 6d. net.)

UROLOGY.

Not so long ago the operations on the genito-urinary organs were relegated to a diminutive chapter at the end of the textbooks, but now large textbooks appear and congresses are held for the exposition and discussion of urology. Dr. Rudolf Oppenheimer,[3] in the preface to his textbook of operative urology, points out that hitherto no such work has appeared in the German language, or for that matter in French or English, in spite of the fact that urology has been recognized as a subject of increasing importance. The number of recognized urologists is, of course, limited, but so also is the material. In an average surgical clinic the urological cases are few, and cystoscopy and ureteral catheterism, with a view to renal operations, are performed in a somewhat haphazard and untrustworthy fashion. The diagnostic methods are so different that, in the author's opinion, they ought to be treated as a separate subject of study. He ventures further to suggest that in consequence such operations as lithotripsy, intravesical and intraurethral manipulations are not practised in most surgical clinics. If urological clinics proper cannot be established a closer association between urology and surgery is, he urges, desirable.

The arrangement of the book follows familiar lines. A general part deals with methods of examination, preparation of the patient and of the operator, anaesthesia, and after-treatment. Then the genito-urinary organs are taken in order, beginning with the kidneys. Ureteral catheterism receives premier position as a method of separating the urines. At the same time, the mechanical separators of Luys and Cathelin are commended where the urethra is narrow, the bladder small, or the position of the ureters abnormal. Clinical methods—the subcutaneous injection of phloridzin with subsequent examination of one or other urine for sugar, and the intramuscular injection of watery solution of indigo-carmine in conjunction with cystoscopy—receive also favourable if not enthusiastic mention.

Nephropexy, as practised by the author, is done by partial decapsulation and suture of the true capsule to the cut edges of the abdominal muscles, the posterior suture passing round the twelfth rib so as to hook the kidney well up behind it. The musculature and skin are brought accurately together. The after-treatment is disposed of in four lines, the author vaguely recommending the patient to remain in bed from two to four weeks. The success of such a nephropexy presumes more faith in the substantialness of the kidney capsule than we are disposed to place in it.

The suprapubic route (*sectio alta*) is the method of attacking the bladder preferred. In the removal of tumours the author recommends visual inspection of the interior of the bladder rather than trust in sensations appreciated by the fingers. The transperitoneal method is, he thinks, useful only for tumours placed in the posterior wall reachable by pulling the bladder forwards. The difficulty of suture of the bladder wall so deeply placed is very great, and the bladder should, whenever possible, be sutured; it is done in two layers, taking the precaution to do the first row in Lembert fashion, so that no threads shall project into the bladder. Haemorrhage is the great bugbear of intravesical operations; it may require to be controlled by packing the bladder full of

[3] *Urologische Operationslehre.* Von Dr. Rudolf Oppenheimer in Frankfurt-am-Main. Wiesbaden: J. F. Bergmann; and Glasgow: Bauermeister. 1910. (Demy 4to, pp. 350. Mit 113 Abbildungen im Text und 12 zum Teil farbigen Tafeln. 24s.)

gauze for forty-eight hours. The Freyer operation for enlarged prostate is accorded pride of place.

There are two features of Dr. Oppenheimer's book worthy of special mention—the bibliography and the illustrations. The author has adopted the plan of tacking on the bibliography at the end of the description of each operation: the references are so numerous that here and there the bibliography fills more space than the text. The illustrations are many and mostly life-size—the skin incision on Tafel II is actually 7 in. long diagonally across the page—and seem to have been drawn and painted by the artist with a full brush. The realistic effect of these pictures is startling.

We are glad of the opportunity of bringing this book to the notice of urologists in this country: they will find the trouble of reading some rather difficult German amply repaid by the abundance of good thoughtful material in the book.

PUBLIC HEALTH IN THE UNITED STATES.

THOSE who desire a closer acquaintance with public health administration and with the sanitary condition of the United States of America will be well repaid by a perusal of *Public Hygiene*,[4] by Dr. THOMAS BLAIR, who asserts that the work is the result of a desire to make a personal investigation of public hygiene from the standpoint of a seasoned general practitioner of medicine. He has been assisted in his task by ten other doctors, none of whom appear, however, to be connected with the public health service, and by about an equal number of laymen. Many of the subjects dealt with are such as are not often to be found in works on hygiene. For example, the sanitary condition of hotels and lodging-houses and of railways is dealt with at considerable length. In some States, notably in Texas, there are very stringent laws with regard to the cleansing and disinfecting of railway carriages, and detailed regulations are in force with respect to the methods and regularity of the cleansing. At present each State makes its own public health laws, and these differ in stringency in various parts of the country. In these circumstances it is not surprising to find a strong plea put forward by Dr. J. B. McAlister for a Federal Bureau of Health. No Cabinet Minister has any direct responsibility for the health and life of the people. The only federal guardianship is vested in the United States Public Health and Marine Hospital Service, which is under the control of the Treasury Department, the Secretary of which is described by the author as the chief medical officer of the United States. A Department of Public Health at Washington, it is contended, with the power and wealth of the Government at its back, with laboratories the equal of any in the world, and with a corps of research workers engaged continually in searching out the cause and prevention of disease, would make it equal to any function of the Government.

The favourable opinion which we formed of Dr. CHARLES HARRINGTON'S *Manual of Practical Hygiene* has been maintained after a perusal of the fourth edition.[5] Owing to the death of Dr. Harrington the revision of the work has been undertaken by Dr. Mark Wyman Richardson, Secretary of the State Board of Health of Massachusetts, who has brought to bear on his task a considerable amount of industry and an intimate knowledge of his subject, together with an acurate acquaintance with the public health literature, not only of America and of Britain, but of the European continent. Nearly one-third of the volume is concerned with foods, their composition, nutritive value, methods of preservation, adulteration, and the processes by which adulteration can be detected. The author is in agreement with many other public health administrators that an objection to the commercial pasteurization and sterilization of milk is that these processes invite carelessness in the production and handling of milk, the acceptance of their necessity implying avoidable dirt and encouraging carelessness and negligence, the effects of which can be easily corrected by the application of heat before distribution. Instead of such encouragement there should be a general movement against the existence of antecedent conditions which make this after-treatment necessary. It appears that in Massachusetts the sale of milk which has been heated higher than 167° F. is contrary to law, unless the vessel in which the milk is sold is plainly marked "Heated Milk." In the chapter on disinfecting, the germicidal properties of formaldehyde are discussed at some length, and a clear description of Trillat's autoclave and of Lentz's regenerator is given. Although it is clearly laid down that it is futile to attempt to disinfect the air of a sick room except by sunshine or fresh supplies of air, the author expresses the opinion that formaldehyde gas approaches more nearly the requirements of the ideal disinfectant than any other. No very definite opinion is expressed as to the much debated question of aërial infection as opposed to contact infection, though it is a little startling to find the statement that the morbific agent of scarlet fever resides in the fine particles of epidermis which are continually cast off by the skin. In connexion with the infection of tuberculosis, reference is made to the experiments conducted by Dr. J. H. Hance at the Adirondack Cottage Sanatorium, where every care is taken that the sputum shall be disinfected. Guinea-pigs inoculated from the dust obtained from the buildings occupied by patients died of other infections on the third to the sixth day, but five of the ten inoculated with dust from the oldest cottage, which was occupied by a man who had been complained of for promiscuous spitting, became tuberculous. This supports the view, in the author's opinion, that dust in the air is of secondary importance when all possible sanitary measures are taken with regard to the destruction of the sputum. Although the work is intended primarily for American readers, it contains such a large amount of reliable information that it could not fail to be useful to those who are engaged in the public health service elsewhere.

DUTY AND DISCIPLINE.

THERE appears to be a widespread and rapidly increasing conviction that this country stands at present in a physical, if not a political, sense on the down grade. In spite of the immense improvements in sanitation and hygiene, the better food, better housing, and higher standard of living in every class of society; in spite, too, of the modern cult of health and the craze for athletics and physical culture, the Briton of to-day undoubtedly compares very unfavourably in many respects with his hard-hitting, hard-living ancestors: and the reason is not far to seek. It lies in the different training of the children. If, as a nation, we are less hardy and less vigorous than our forefathers, it is because the present generation of children lack what M'Andrews rightly considers the crowning virtues of his well-loved engines, "Law, Order, Duty an' Restraint, Obedience, Discipline," and this through no fault of their own, but in consequence of a defective and ill-judged upbringing. The iron discipline of former days, barbarous as it seems to us, at least had the merit of fostering the virtues of courage and endurance, but modern education, combined with the universal loosening of the bonds of discipline and the complete absence of restraint in the homes of rich and poor alike, is sapping the strength and vitality of a once virile nation, and breeding a generation of weak, neurotic, pleasure-seeking men and women who are woefully lacking in the very qualities which were once the glory of their race. The *joie de vivre* as interpreted by lovers of inglorious ease and constant amusement has taken the place of the *certaminis gaudium* which played a large part in the foundation and increase of our empire. It is to call attention whilst there is yet time to this evil, and to check its growth, that a new and fifth edition of *Essays on Duty and Discipline*,[6] has been published by Messrs. Cassell and Co., under the auspices of the "Duty and Discipline Movement," a body formed for the purpose of rousing the nation to a sense of the danger in which it now stands. The volume contains forty excellent essays contributed by a number of well-known and distinguished persons, including Field-Marshal Earl

[4] *Public Hygiene*. By Thomas S. Blair, M.D., Harrisburg, Pennsylvania, assisted by numerous contributors. Two vols. London: Rebman, Limited. 1911. (Roy. 8vo, pp. 644; 153 illustrations. 42s. net.)

[5] *A Manual of Practical Hygiene*. By Charles Harrington, M.D. Fourth edition, revised and enlarged by Mark Wyman Richardson, M.D. London: Henry Kimpton. 1911. (Royal 8vo, pp. 850; 12 coloured plates, 124 engravings. 21s. net.)

[6] *Essays on Duty and Discipline*. A Series of Papers on the Training of Children in Relation to Social and National Welfare. London and New York: Cassell and Co., Ltd. 1911. (Crown 8vo, pp. 522. 3s. net.)

Roberts, Lieutenant-General Sir R. S. S. Baden-Powell, Cardinal Bourne, the Archbishops of Armagh and Dublin, the Bishops of London, Durham, and St. Albans; Prebendary Carlile, the Earl of Meath, the Head Master of Eton, Mr. Horace Smith, J.P., Mr. J. St. Loe Strachey, Raymond Blathwayt, and the late Professor Friedrich Paulsen. It is a significant fact that, though differing widely in their religious and political opinions, each of these writers agrees that the days of Britain's greatness are numbered if the rising generation is not saved from the well-meant but mistaken kindness of sentimentalists. No sane person nowadays would urge a return to the Spartan methods of bringing up children which found favour in the good old days; but it is undeniable that some sort of change is needed if we wish "that Our House may stand together and the pillars do not fall." Several of the contributors to the *Essays* do not hesitate to advocate conscription as a means of rectifying the errors of the weak-kneed sentimentality of modern humanitarians. This sentimentality has encouraged the growth of hooliganism and helped to swell the ranks of crime; and it is, indeed, high time that the far-reaching evils of a lawless and undisciplined childhood and youth were more fully recognized. The volumes will have fulfilled a most useful purpose if they succeed in bringing home to parents the truth of the great fact that the future of the race lies in the hands of their children, who for their own sakes must be taught to

> Stand to your work and be wise—certain of sword and pen,
> Who are neither children nor gods, but men in a world of men.

NOTES ON BOOKS.

EVER since the year 1892 fresh editions of *Materia Medica, Pharmacy, Pharmacology, and Therapeutics*,[1] by Dr. HALE WHITE, have been appearing at intervals of somewhat less than two years, and this fact sufficiently proves the popularity of the book. The latest issue, the twelfth edition, contains a certain amount of new matter, but in other respects closely resembles all recent predecessors. The outstanding feature is the great number of remedies noticed, some being included whose presence, in the absence of more familiar examples of the same general class, might not have been expected. The question of the use of alcohol is treated at considerable length, and in a fashion which, on the whole, leaves an impression in its favour. An improvement in the book would be greater accentuation of the possible dangers attending the use of some of the modern hypnotics.

No profession has so many subdivisions as medicine; in none is progress more active, nor in any is the real or imaginary need for new phrases to cover fresh ideas more promptly met. Unfortunately, however, the terms resulting are by no means always self-explanatory, sometimes because they are too strangely compounded to be comprehensible to any but their authors, sometimes because they relate to facts or theories unknown save to other laboratory workers. For this reason there is ample excuse both for the publication of medical dictionaries and for constant new editions thereof. Hence a frank welcome may be accorded to the seventh edition of the *Pocket Medical Dictionary*,[2] by Dr. W. A. NEWMAN DORLAND. It is based on the larger work by the same author, and, despite the short period which has elapsed since its predecessor appeared, contains some hundreds of new words. Nevertheless it remains of convenient size, and will doubtless prove equally satisfactory in use. Even greater compactness could be attained by omission of the lengthy and somewhat superfluous tables setting forth the doses of drugs used in human and veterinary medicine.

In his essay on the significance of the mechanics of development for physiology[3] Dr. ERNST LAQUEUR raises objection to the employment of teleological exceptions, and argues that the physiologist should endeavour to interpret all vital phenomena in terms of the exact sciences of physics and chemistry. The body is self-regulated by co-ordination of its chemico-physical constituents. In illustration of this principle the author collects interesting facts from the experimental work of embryologists, recent investigations of the development and regeneration of the "neuron," and the study of internal secretions, including Starling's work on "hormones." His data are well put together, but are expressed in a pompous, quasi-philosophical fashion which betrays ignorance of that art of eloquence which especially appeals to scientists—the art of making facts speak for themselves.

It is a curious fact that although as a nation we are reputed to consume more sugar than the inhabitants of any other country in the world, this is the only country in Europe (with the exception of Norway) which does not cultivate beetroot for the manufacture of sugar. From time to time attempts have been made to introduce the sugar industry into Great Britain, but these experiments have hitherto been unsuccessful, unless that which is at present in progress in the eastern counties be an exception to the general rule. In view of the recent proposal on the part of the Anglo-Netherland Sugar Corporation to erect a sugar factory in Norfolk, Mr. J. W. ROBERTSON-SCOTT (better known, perhaps, under his pseudonym of "Home Counties") could hardly have chosen a more opportune moment for the publication of his admirable volume on *Sugar Beet*.[4] His book contains an interesting and comprehensive account of this important industry; and being furnished with a number of tables, diagrams, and photographs, should prove a valuable guide to those who are endeavouring to develop beet growing in England.

[1] *Materia Medica, Pharmacy, Pharmacology, and Therapeutics.* By W. Hale White, M.D.Lond., M.D.Dub.(Hon.). Twelfth edition. London: J. and A. Churchill. 1911. (Fcap. 8vo, pp. 703. 6s. 6d. net.)

[2] *Pocket Medical Dictionary.* By W. A. Newman Dorland, A.M., M.D. Seventh edition, revised and enlarged. London and Philadelphia: W. B. Saunders Company. 1911. (Fcap. 8vo, pp. 613. Price 5s. net.)

[3] *Bedeutung der Entwicklungsmechanik für die Physiologie.* Von Ernst Laqueur. Jena: Gustav Fischer. 1911. (Roy. 8vo, pp. 38. M.1.20.)

[4] *Sugar Beet.* Some Facts and Some Illusions. A Study in Rural Therapeutics. By "Home Counties" (J. W. Robertson-Scott). London: H. Cox. 1911. (Demy 8vo, pp. 442; illustrations 109. 6s. net.)

MEDICINAL AND DIETETIC PREPARATIONS

Colloidal Metallic Solutions.

WE have received from Messrs. Oppenheimer, Son, and Co., Limited (179, Queen Victoria Street, London, E.C.), specimens of colloidal solutions of mercury and silver which they are supplying under the names Collosol Hydrargyrum and Collosol Argentum.

Collosol Hydrargyrum is a brownish opalescent liquid of slightly alkaline reaction: our tests showed that no precipitation was caused by boiling it, and on evaporation to dryness on a water bath the residue dissolved easily on again adding water, the solution, however, being no longer opalescent but clear. A portion of the dry residue gave on ignition the odour of burning albuminous matter, showing that the protective colloid used to prevent the mercury being thrown out of solution is of nitrogenous nature. The liquid was blackened by hydrogen sulphide, but no precipitate was formed; metallic copper immersed in the solution gradually acquired a coating of mercury.

Collosol Argentum is a red-brown opalescent liquid and contained a small deposit which consisted principally of silver chloride. Boiling the liquid increased the opalescence to a turbidity, but on then filtering through a paper of close texture nothing solid remained on the filter. Sodium chloride caused no change in the solution, and even hydrochloric acid only slightly increased the opalescence. On evaporating to dryness on the water bath and again taking up the residue in water, some finely-divided silver chloride remained undissolved; on igniting a portion of the residue the same odour was obtained as from the mercury preparation.

Both solutions are intended for use by hypodermic injection or for administration by the mouth, and it is stated that they are alterative, antiseptic, and bactericidal.

WE learn from the *Boston Medical and Surgical Journal* that, according to a statement issued on January 1st by the American National Association for the Study and Prevention of Tuberculosis, a total sum of £2,900,000 was spent in the United States during the year 1911 in the effort to control and eradicate tuberculosis. Of this, £2,360,000 was spent for the cure of consumptives in hospitals and sanatoriums, and the remainder for anti-tuberculosis organizations, dispensaries, boards of health, and other agencies. The largest amount appropriated in any single State was £710,000 in New York; Pennsylvania came second with about £600,000, and Massachusetts third with £221,600. Appropriations of over £2,000,000 have already been made for 1912 by various State legislatures and other public bodies.

Nova et Vetera.

MODERN FAITH HEALING.

F. ANTON MESMER.

(Concluded from page 201.)

The Royal Society of Medicine presented a report to the same effect as that of the Commissioners.[*] The Government was so impressed by the dangers of animal magnetism that it took steps to make the reports as widely public as possible. More than 20,000 copies were printed by its orders, and distributed in France as well as in foreign countries.[†]

Objections to the Report.

Objections were made by some to the report on various grounds. For one thing it was said that Franklin, being then unwell, had not been able to be present at the experiments. It is proved, however, by the report itself that he was only confined to the house by attacks of gout, and that the Commissioners had often carried on their inquiries there in his presence. It was also proved that he submitted to attempts to magnetize him, but, as might be expected, to no purpose. Another objection was that the Commissioners did not inquire into the method of Mesmer, but into that of d'Eslon, who did not know his procedures. This objection was anticipated by the Commissioners, and, as has been seen, was replied to in the Secret Report. D'Eslon was a Doctor-Regent of the Paris Faculty, and was initiated into the inner mysteries of the "discovery" by Mesmer, who at first often spoke of his honesty and candour, though after they quarrelled he denounced his favourite pupil as an impostor. Moreover, Bertholiet, the famous chemist, was asked by the Duke of Chartres to attend Mesmer's performances in order that he might give an account of the procedure. He received detailed instructions from Mesmer himself, and operated according to his principles on a great number of persons, particularly the poor people who followed the treatment. He published a declaration in which he expressed the opinion that the whole thing was quackery.

The Commissioners have been criticized for not taking into consideration the alleged therapeutic effects of animal magnetism. That this objection is unfounded is shown by their report, in which they say that while it is always difficult to form a judgement as to the value of a particular remedy the reality of which there is no doubt, it is obviously impossible to estimate the effect of an agent which does not exist. Besides, Mesmer himself had put himself out of court, as we have seen, by refusing to submit anything but testimonials. Again, he had himself admitted that cures prove nothing.

It has already been stated that Mesmer was induced to promise to reveal the whole secret of his method to inquirers who would subscribe 100 louis each. He deputed the task to adepts who were supposed to have been initiated by the master. Chief among them were Eprémeuil and Bergasse. They gave theoretical courses of lectures to the subscribers, which served as an accompaniment and explanation of the medical treatment to which it may be said not only sufferers but the public were admitted. But the adepts had to confess that the inner mysteries had not been revealed to them. It should be stated that no sufferers from diseases repulsive in themselves or disagreeable to the spectators were admitted to the privileged circle round the tub. Mesmer would not allow an unhandsome disease to come between the wind and the nobility of his fashionable *clientèle*.

Testimonies.

Is there any evidence that Mesmer ever cured organic disease? That he produced nervous "crises" is unquestionable, but these were only manifestations of hysteria similar to those seen in the *convulsionaires* round the tomb of the Deacon Paris.[‡]

There were not a few, however, who believed that real cures were wrought by means of magnetism. Among these were members of the medical profession. It is impossible at this time of day to examine all the testimonies critically, but a glance at some of them will be sufficient to show what value is to be attached to this evidence. It is fitting that the first witness called should be d'Eslon,[§] to whose testimonies special interest is attached, as he was for a time closely associated with Mesmer.

The beginning of his acquaintance with the Master was accidental. Chance made him acquainted with some among Mesmer's patients whose integrity could not be suspected. While he was visiting a sick person one day Mesmer came in. After the ordinary exchange of civilities Mesmer spoke to the patient, and, to d'Eslon's great surprise, the latter had a violent crisis. His eyes wandered, his chest heaved, his voice and respiration failed, the attack ending in profuse perspiration. D'Eslon, after keeping silence for some time, told Mesmer that he was a physician. He showed no sign of embarrassment, though he received the intimation rather coldly. In the course of conversation, however, Mesmer showed a knowledge of medicine which d'Eslon would have liked to possess. From that time he frequently saw Mesmer, who taught him that as there is one nature, one life, one health, there is only one disease, one remedy, one cure. It is as simple as the system by which Sangrado taught Gil Blas the whole art of healing at once. Mesmer cured only by the aid of crises, that is to say, by seconding or provoking the efforts of Nature. Hence, says d'Eslon, it follows that if he has to treat a madman he cures him by bringing on attacks of madness. Hysterical people will have attacks of hysteria, epileptics will have epilepsy, and so forth. He does not say that if a person has, say, a tumour of the leg he will cure it by causing convulsions in the limb, or by using means to stimulate the growth. On Mesmer's theory he ought to have cured the "obstructions" which were at the bottom of all disease by making them worse before they got better. In reading d'Eslon we are forced to the conclusion that he was honest; but it might be said of him, in the words of Autolycus, that "Honesty was a very simple gentleman." He speaks of four children, of 2, 5, 11, and 12 years old, treated by Mesmer. The first was blind from birth. Sitting on a chair he fixed his little hands to a conductor, and there during two or three hours he "gaily" passed his time applying the end of the rod first to one eye and then to the other. An ordinary child would certainly have put the rod into its mouth.

"This interesting creature flatters itself in baby talk that it will see clearly later. Alas! the poor child does not know what it is to see and it is to be feared that it will never know." There is no mention in this case of a crisis, which we have been told is the necessary means of cure. D'Eslon goes on to relate a case of what he calls latent cancer:

> An unmarried woman, aged about 35, had noticed for some years a painful tumour in the lower part of the left breast. She used various remedies without success. Glands enlarged around and at the upper part of the breast which joined and the swelling is nearly bursting the skin. Two painful prominences of leaden colour joined the first, and the nipple retracting formed a blackish circle. It was the seat of stabbing pains. Afterwards the right breast became swollen, with glands scattered round the enlargement. The patient's health was undermined; walking caused great pain, driving was unbearable. She could not lie down in bed, but sat up and got neither sleep nor rest. There seemed to be no alternative but amputation. Mesmer undertook the case. When d'Eslon examined the patient he agreed that if Mesmer prevented the breast from ulcerating he would have wrought a wonderful cure. But he did much more than this, as the patient was infinitely relieved, the outlying glands disappeared, the principal one considerably diminished. The pain became endurable, sleep returned; the woman walked and drove and was altogether in a state which he had not dared to hope for.

It will be noticed that this is not a cure, and, indeed, d'Eslon himself admits this, but he speaks of the consoling effects of the magnetism, and of the hopes it inspires! Time alone can tell, he says oracularly, what will happen. Unfortunately, we hear nothing more about the patient, as is usually the case in these records of wonderful cures.

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[*] See British Medical Journal, January 13th, p. 79, and January 20th, p. 133.

[†] *Biographie Universelle*, vol. xxviii.

[‡] See British Medical Journal, November 27th and December 4th, 1909.

[§] It may be noted that this physician's name is spelt "Deslon" by the Commissioners and "d'Eslon" by himself. We have here followed his own spelling, thus giving him the *particule nobiliaire*.

[‖] *Observations sur le magnétisme animal*. Par M. d'Eslon, Docteur-Régent de la Faculté de Médecine de Paris, and Premier Médecin Ordinaire de Monseigneur le Comte d'Artois. A Londres, et se trouve à Carlsruhe, Chez Michel Maklot, Libraire and Imprimeur de la Court. 1781.

Another case related is that of a girl of 16, who had been epileptic either from birth or early childhood. She was treated by Mesmer, but was obliged to leave him when he determined to treat nobody in Paris. When he returned she came back to him. D'Eslon can say nothing about the beginning of the disease, but he learnt from trustworthy persons that she had so many fits that she was an object of compassion. Magnetism first, he was told, gave her the advantage of foreseeing her attacks. Then, as he witnessed for himself, they occurred only as crises, hastened by magnetism, and ceased in the intervals. He had seen very violent crises, but they gradually became so much milder that the patient had only to lean her head on the back of her chair, and remain in a fainting state some seconds when she came quietly to herself.

It is significant that her relations took her away. D'Eslon says it is regrettable that this experiment was not pushed to its last stage, as there still remained a "remnant of crisis," and the nature of the disease was such that one might have given it more careful attention.

Another case was that of a man who suddenly became paralysed over one half of his face. He went to Mesmer, and four days afterwards the paralysis had disappeared.

Here, says d'Eslon, is a cure which he hopes will be generally satisfactory. Nevertheless, Mesmer professed to think little of it. He told the patient that he had a very serious symptom, but only because he was vaporous, and he was vaporous only because he was "full of obstructions." He advised the patient to have himself treated more freely, but apparently the advice was not followed.

D'Eslon himself was a patient of Mesmer. He says that for ten years he had been subject to a pain in the stomach, caused by an obstruction in the small lobe of the liver. This frequently caused him inconvenience. On certain days he was obliged to undo the buttons of his waistcoat, in order to breathe easily and without pain. Now, he says, he can strike his stomach without ill effect. He had, besides, headache and a continual feeling of cold about the right temple.

He spoke to Mesmer about these annoyances, and the prophet several times endeavoured to exorcise them by playing the harmonica or pianoforte *at them (en leur faveur)*, but each time d'Eslon was obliged to ask to be excused the music! This reminds us of the patient who complained that the thermometer in his mouth took so much out of him. He told Mesmer one day that he would be treated if he had the time. Mesmer suggested that he should take his place daily among the patients. "If your cure is not complete you will get a half, a quarter, or an eighth. It will always be so much to the good." The good simple d'Eslon followed this advice, and as a result he had his crises, his evacuations, his forehead peeled, and his pains in the liver and his headaches were much relieved. D'Eslon adds that his case must not be counted in the number of cures. Mesmer himself proved to him that he could not be radically cured, and his reasons seemed to him to be sound. Doubtless they were, though we should like to know something more definite about them.

We next have Mesmer himself in the character of a patient. He felt a general malaise, which lasted several days. This led him to examine himself with care. Naturally, too, he found himself "full of obstructions" (*rempli d'obstructions*). Acting on the precept, "Physician heal thyself," he subjected himself to his own treatment. D'Eslon says oddly that doubtless he treated himself as a friend, for in the space of one month he had four or five hundred evacuations. Vigorous as Mesmer was, it seemed to d'Eslon that he was fatigued, and no wonder. Even a "superman" could scarcely bear thirteen to sixteen evacuations a day for a month without feeling some effect. Mesmer, however, was pleased at the result, saying he had had a narrow escape, and congratulated himself on having taken the ill in time. D'Eslon saw Mesmer have recourse to magnetism afterwards, but only for two or three days. Probably his first experience was enough, or the effect was lasting.

D'Eslon only saw Mesmer treat two cases of acute disease. When Paris was devastated by influenza in 1780 a patient of Mesmer's who had a delicate chest got pneumonia. He was very ill one night, and sent for Mesmer, who would do nothing till the following day. Then the disease was well marked. He had the patient bled. Here there is a note stating that Mesmer allowed bleeding and emetics, not as remedies, but as means of clearing the primae viae when they were too clogged. D'Eslon had seen him use bleeding, but not emetics, twice in one day!—and ordered him to drink lemonade. This régime seemed to d'Eslon so extraordinary that he ventured to express his alarm to Mesmer. There would seem to be nothing very alarming in drinking lemonade, and it is not surprising to hear that Mesmer replied in a reassuring tone. The following morning the question arose of a further bleeding. Mesmer doubted whether it was necessary, and d'Eslon thought it very dangerous. Nevertheless, the patient was bled, and lemonade was again given to strengthen him. D'Eslon was anxious; "Always lemonade," he said to himself, anxiously. Truly a very simple gentleman! In the evening Mesmer treated the patient during three-quarters of an hour, and lay down beside him on the bed. An hour later he asked, "Well, my friend, how goes it?" The reply was: "I am pouring with sweat; drops of water are running from my forehead." "All is well," was the reply, "you must drink lemonade"; and the patient drank lemonade. The illness had begun on Thursday. On the following Monday the family, having been informed of the danger, arrived in a state of extreme anxiety. The patient went to meet them, assuring them that he was cured. This strange eventful history ends with the statement that it may be said there was no convalescence.

Another patient, a girl aged 21, had a malignant fever with delirium. The symptoms increased in intensity to the twenty-third day. Mesmer then went to see her. After half an hour she recovered consciousness and asked what had been done to her. D'Eslon replied that no harm had been done. Passing her hand from the top of the chest to the lower part of the stomach, she said, "It is not that. On the contrary I felt as if some one took my disease in his hand and put it away from me." At Mesmer's suggestion she was given lemonade, cream of tartar, and other mild acids. Her consciousness remained, the evacuations were established, and remained regular, and after a short convalescence she was perfectly cured. Eight or ten days after the use of the magnetism she was in perfect health and able to go home.

Here d'Eslon states that a physician said to Mesmer in his presence that he might be wrong in attributing to magnetism the effects felt by the patients since he employed other well-known remedies such as cream of tartar. He does not know if the objection in itself displeased Mesmer, or whether it was the tone in which it was expressed, but he answered sharply, "That is true, sir. I also order them chickens and salad. Now that you know my secret you can use it, and I have no doubt that you will work marvels." Here Mesmer would appear to have lost his temper, and it might well have been retorted to him that chicken and salad would have been just as effectual as his magnetism.

Mesmer was asked if his cures would be permanent. His reply is given as follows:

Two classes of citizens can ask that question—the medical public and the non-medical public. To the doctors I answer: Either I cure radically or you never cure so, for animal magnetism does not operate except by crises, expectorations, evacuations, sweating, and similar means. Now, if you take that away from medicine, you know well that there would be no such thing as medicine. As regards the non-medical public, this answer is not sufficient. It must only know by experience. Therefore, I ask for nothing else than to be put to the test, and that the public may be assured that it is not deceived I am very anxious that the Government should protect, examine, and cause to be examined, the after-effects of my operations, so that neither I, nor the others, may abuse the public confidence.

It would seem difficult, says d'Eslon, to use more peremptory language. It may be observed, however, that what is wanted is something more than peremptoriness. All quacks are peremptory. But they are chary in the production of proof. They challenge examination, but it must only be under conditions laid down by themselves, and these conditions do not afford any warranty that the test shall be scientific or that grounds of proof shall be forthcoming.

Mesmer, continues d'Eslon, said sometimes that his agent is so common and so near us that when the time had come to make his discovery public people would be surprised by its extreme simplicity. Many people are still surprised, not only at the simplicity of the method but at the extreme simplicity of those who look upon it as something mysterious and wonder working.

D'Eslon writes as an enthusiast, and the exuberance of his style does not excite confidence. He admits, however,

that he had never been a witness of any miracle. But he confesses that if such a thing had happened he was the man that would testify to it without hesitation. He adds, "Incredulity or levity would exhaust themselves uselessly in jests and sarcasm; in vain would people cover me with ridicule; I should think I had answered everything in saying, 'I have seen it.'"

We have thought it well to give d'Eslon's evidence pretty fully, because it enables the reader to estimate his power of judgement and the value of his statements.

Next comes Dr. Thouret, another Doctor-Regent of the Paris Faculty, but a man not so credulous as d'Eslon. He shows that Mesmer did not limit his treatment to the production of "crises."*

In addition to the magnetic ritual which has been described, Mesmer acknowledged the usefulness of some internal remedies, cream of tartar being the drug which he employed by preference. In certain circumstances he used baths, bleeding, and purges. He condemned the use of the cautery, however, and the methods of treatment which he used as adjuvants of magnetism were mild and agreeable. Sweating was recognized as a medium for the action of animal magnetism, and means were recommended to stimulate the secretion. The greatest cleanliness of body was enjoined. Tobacco was forbidden, and the care of the mouth, nails, and hair was insisted upon. He recommended amusement, and took parties of patients out of town, giving them the opportunity of enjoying all the pleasures of the country in selected houses. Thouret hints that his stay at Creteil had no other motive. Moreover, the exercise involved by the necessity of the patients going to his house once or twice a day, and the distraction of seeing each other around the tub, must be reckoned as factors.

Besides all this, Mesmer played the harmonica with great skill in such a way as to touch the emotions; in this way he found out who were most susceptible and had the most excitable nervous system. There was also an orchestra which played soft airs while the magnetic rites were being performed around the mystic tub. It was especially people suffering from a sluggish stomach who derived benefit. Persons who had neither the heated imagination nor the excitability of nerves favourable to the action of magnetism were declared to be "anti-magnetic."

Thouret points out that the repeated crises which occur during treatment are not devoid of danger. The women say they are better afterwards, but it is only for the moment. Many doctors—trained observers who have followed the treatment—regard these convulsions as possibly very injurious. He thought Mesmer had founded his procedures on those of Gassner, giving them a form more suited to the age and his nation.

Valleton de la Boissière, a doctor of Bergerac, came forward to refute Thouret.† He published a number of testimonies:

Among the deponents are Brother Simon de Turin, a Capuchin of the Great Convent of Nantes, aged 83, subject for several years to giddiness and frequent headaches, followed sometimes by fainting and suffering sharp pains and a great weakness in the hips and legs which made him unable to walk except with the aid of a stick. After a month of magnetic treatment administered by M. Boissière, a disciple of M. Mesmer, he could dispense with his stick, had a good appetite, and slept well. The headaches, however, had not entirely ceased.

Then there was M. de Limelle de Bouvrage, who for a year suffered from ague, with "obstructions of the liver and spleen" and a disgust for food. After two months of magnetic treatment he got rid of the obstinate fever, the stomach did its work satisfactorily, and his bowels had become regular. He further attested that his daughter, aged 10 years, having also had ague for two years, had been perfectly cured by the same treatment. He declared that: "Assuredly if she and I owe so happy a change in our state to imagination, touches and imitation, blessed for ever and praised be the inestimable inventor of these three delightful methods, certainly far preferable to the bitter and detestable potions with which we have vainly and for so long a time inundated our stomachs."

This is an echo of the words of d'Eslon in his *Observations sur le magnétisme animal*: "If the medicine of the imagination is the best, why should we not avail ourselves of it?" It may be remembered that he recognized before the Commission that the imagination played the largest part in the effects of magnetism, and he added that this new agent was perhaps nothing else than the imagination itself, the power of which was as great as it was little known.

Another case was that of a little girl aged 5, with fever following a chill and bilious diarrhœa. She was from the first treated with magnetism; on the fourth day she was given 6 grains of ipecac., and the next day the fever had gone. There is nothing here but the natural course of a slight fever. She was further treated for three months for enlarged glands in the neck following small-pox, which are said to have yielded to the action of the magnetism, which in this case was doubtless the action of time. She and her father afterwards had measles, from which they recovered without any treatment but magnetism.

These cases would doubtless have done as well with Gull's famous mint water prescription.

Among the other cases related by Boissière are the following: A woman for fourteen months had a tumour of about the size of a pigeon's egg; it was resistant, uneven, and slightly painful. It was entirely dissipated by magnetism, concurrently with an application of hemlock. From this case it is impossible to draw any conclusion as the details given are meagre.

A girl for two years was subject to convulsive movements over the whole body. She was never at rest even in sleep. She fell about, broke things, and could do no work. She had to be made to drink by force, she was extremely thin and of a yellowish colour. She had, of course, consulted the best doctors and used all sorts of remedies. Her chest had become affected. Despairing of cure she submitted to magnetism and had crises nearly every day, sometimes at home. Insensibly the convulsions became less strong and less general, and after four months of treatment she was radically cured.

Boissière says that magnetism helps Nature and hastens its operation in all diseases, especially in small-pox. Then we have reports of cases of rheumatic pains, indigestion, deafness, scrofulous ulcers of malignant character in the groin, diseased bone, and so on through a series of patients suffering from "obstructions" of the liver and spleen, with headache, billiousness, and so forth. A case of hip disease, with discharging sinuses, is recorded, in which a perfect cure was effected after ten months and a half of treatment. The diseased thigh was shorter than the other, owing to the different operations that had been performed. But this deformity is pronounced to be incurable even by magnetism. This cure, we are told, proves that animal magnetism has an action that would vainly be sought from ordinary treatment. This statement appears to prove that the worthy but credulous Boissière was somewhat ignorant of surgery. It is not altogether rare, however, even at the present day, for a cure due to the operation of time with the help of surgery, to be attributed to some miraculous agent or to some form of quackery.

In a *Supplément aux Deux Rapports de MM. les Commissionaires*, etc., over 100 cases intended to illustrate the effects of magnetic treatment are related. It is the familiar story of pains in the head, sciatica, convulsions, "paralysis," "rheumatism," "glands" in the breast, and especially "obstructions" of the spleen, and so forth, which figure so largely in all reports of Mesmer's "cures." "Obstruction of the liver" used to be said by Avicenna in his instructions to pupils to be a disease which would always satisfy the mind of an inquiring patient. It has now followed obstruction of the spleen into the limbo of those vague conditions which the physicians of old found so convenient. Another thing notable in these testimonials is the absence of a large number of common diseases—notably consumption and cancer—and the frequency with which a neurotic condition of the patient is either clearly manifest or may plausibly be conjectured.

The author of a frankly hostile work,‡ who appears to be thoroughly well informed, though some allowance must be made for his strong bias against Mesmer, cites a number of cases, with the names of the patients, which were claimed as cures by Mesmer, but which, he says—some-

* *Recherches et doutes sur le magnétisme animal*, par M. Thouret, Docteur-Regent de la Faculté, et Membre de la Société Royale de Médecine. Paris: Chez Prault, Imprimeur du Roi, quai des Augustins, à l'Immortalité. 1784.

† *Lettre de M. Valleton de la Boissière*, médecin à Bergerac, *à M. Thouret, médecin à Paris*: Pour servir de réfutation à l'extrait de la Correspondance de la Société Royale de Médecine, relativement au magnétisme animal. Cette Lettre est suivie d'un précis des cures opérées, à Nantes, par les moyens magnétiques. Philadelphie. 1785.

‡ *L'Antimagnétisme.*

times after a temporary subjective benefit - remained as they had been before. Among these is the famous case of the Swiss man of letters—M. Court de Gebelin—who firmly thought he had found a healer in Mesmer, but who died in the prophet's house. Of him it was said in a contemporary epigram that *Il est mort guéri*. But on the body being opened it was found that there was organic disease of the kidneys, on which the magnetism had had no effect. There is nothing to be said about the cases related by believers but that they are of the same kind which make up the mass of cures wrought by faith healing. The explanation of these "cures"—even if it be granted that the facts were in every case accurately reported—had already been given by the Commissioners.

The End of Mesmer.

The reports of the Commissioners and of the Royal Society of Medicine had the effect of destroying the vogue of Mesmer. Some of his devotees, indeed, endeavoured to defend him, but Mesmer himself judged the situation more accurately, and soon afterwards left France. He carried with him the money of the subscribers, to whom he had not disclosed his secret; adding insult to injury, he accused them in a pamphlet of having robbed him of it. It is said that he spent some time in England under an assumed name. Then he went to Germany, where he published a new exposition, which was coldly received. He retired to Switzerland, and died in obscurity at Meersburg on March 15th, 1815.

Of his later days nothing definite seems to be known. A huge accretion of literature became incrusted around the subject of Mesmerism. Here and there we get glimpses of the man. Dr. Egg von Ellekon, who made his acquaintance in 1804, relates* that he once asked Mesmer why he always ordered his patients to bathe in river and not spring water. The answer was, Because river water is exposed to the sun's rays. To this Dr. Egg replied, that he knew river water was sometimes warmed by the sun, but not so much that one was not obliged frequently to warm it still more; therefore, he said, he did not see why warm water should not often be preferable. Mesmer's answer must be quoted in his own words:

> Dear doctor, the cause why all water which is exposed to the rays of the sun is superior to all our water is because it is magnetized. Twenty years ago I magnetized the sun!

Egg describes Mesmer as an old man of a venerable appearance, talkative—especially on his own merits and discoveries—and, whenever the practice of magnetism was mentioned, assuming an air of mystery which repelled the honest inquirer. He was never tired of sounding his own praise, or of dwelling on the benefits which his magnetic discoveries had conferred on mankind. In his sitting room hung a picture in which he was represented as the good genius of the world, celebrating the triumph of animal magnetism over medical science. He was in the habit of presenting those who made his acquaintance with a print of himself under which were some French verses extolling him in the most fulsome terms. Like Mrs. Eddy and other prophets of new religions or systems, he was accustomed to speak with the greatest contempt of those who differed from or opposed him. He expressed the greatest indignation against more recent adepts in magnetism, whom he called "somnambulists," accusing them either of being unable to understand him owing to their stupidity, or of having betrayed him. He complained bitterly of the persecution he had suffered at the hands of the Faculty, and denounced doctors as poisoners. He said once to Egg that his "expectation" of life had been shortened by ten years because he had once been bled by a surgeon when he was young. Yet there is evidence that he himself used bleeding in certain cases in his practice. Midwives and man-midwives he classed with doctors as privileged murderers of mankind. Why his wrath was so fierce against these harmless necessary persons is not apparent. The tying of the umbilical cord he held to be the cause of small-pox and of all hepatic diseases, under which he classed almost every chronic malady. Outside his own theory, he knew and cared about nothing. His reading was confined to two or three newspapers; of the progress of science he was altogether ignorant, and even his political opinions were tinged by his peculiar views. He went so far as to advocate a political revolution and reorganization of society on magnetic principles. Are we witnessing the beginning of the triumph of Mesmerism in politics at the present day?

Mesmer, like Cagliostro and Saint Germain, made his appearance just at the time most favourable for the success of any prophet of the marvellous. It was an age when, as Carlyle says, "riding on windbags will men scale the Empyrean."† Among these windbags he counts Mesmer.

"Or observe Herr Dr. Mesmer, in his spacious Magnetic Halls. Long-stoled he walks; reverend, glancing upwards, as in rapt commerce: an Antique Egyptian Hierophant in this new age. Soft music flits; breaking fitfully the sacred stillness. Round their Magnetic Mystery, which to the eye is mere tubs with water,—sit breathless, rod in hand, the circles of Beauty and Fashion, each circle a living circular Passion-Flower: expecting the magnetic afflatus, and new-manufactured Heaven-on-Earth. O women, O men, great is your infidel-faith! A Parlementary Duport, a Bergasse, D'Espréménil we notice there: Chemist Berthollet too,—on the part of Monseigneur de Chartres.

"Had not the Academy of Sciences, with its Baillys, Franklins, Lavoisiers, interfered! But it did interfere (August, 1784).

"Mesmer may pocket his hard money, and withdraw. Let him walk silent by the shore of the Bodensee, by the ancient town of Constance; meditating on much. For so, under the strangest new vesture, the old great truth (since no vesture can hide it) begins again to be revealed: That man is what we call a miraculous creature, with miraculous power over men: and, on the whole, such a Life in him, and such a World round him, as victorious Analysis, with her Physiologies, Nervous-systems, Physic and Metaphysic, will never completely *name*, to say nothing of explaining. Wherein also the Quack shall, in all ages, come in for his share."

COLLOIDAL SOLUTIONS AND ARTIFICIAL ENZYMES.

Among the many departments of scientific work in which the researches of recent years have led to notable progress, two which are of considerable interest and importance are the study of colloidal solutions and that of enzymes and enzyme action. These branches of investigation are not altogether independent of each other, and in particular they converge on questions of the chemistry of physiological processes. In this field it is claimed by some that the results already arrived at are of great importance to practical medicine, and it will not be out of place here to give a brief summary of this part of the subject.

The systematic study of colloids was first undertaken by Thomas Graham, and various papers on the subject were published by him in the years 1861 to 1864. In investigating the properties of substances in solution, Graham found that the bodies studied could be arranged in two classes, to which he gave the names *crystalloids* and *colloids*. The most characteristic and constant difference between them was that the former can diffuse, when in solution, through a membrane of parchment or similar material, while the latter cannot. The terms are still retained with the same general meaning as that given by Graham; but instead of considering crystalloids and colloids as different classes of bodies, investigation has shown that it is more correct to speak of the crystalloidal and colloidal states of matter, since a large and increasing number of substances have been obtained in both kinds of solution. Graham used the term *sol* to denote a colloidal solution, and this term is now in general use in this sense, such solutions being called *hydrosols* when water is the medium, *alcosols* when the solvent is alcohol, and, generally, *organosols* when the solvent is an organic liquid. The coagulated form of a colloidal substance is called a *gel*, and a gel formed from a hydrosol and retaining water is a *hydrogel*. A sol may be converted into a gel in a variety of ways, two of the most usual being the addition of an electrolyte and the application of heat; in some cases a reversal of the conditions restores the sol form of the colloid, but in other cases the gel cannot be redissolved by any such means. In accordance with their behaviour in this respect, colloids may be classified into reversible

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* *Animal Magnetism: its History to the Present Time. With a Brief Account of the Life of Mesmer.* By a Surgeon. Published by G. B. Dyer, 24, Paternoster Row, London. 1841.

† Carlyle, *French Revolution*, vol. i.

and irreversible, and the distinction is of some practical importance.

Some of the most interesting of the sols which have been studied in recent years have been those of the metals; gold, platinum, silver, mercury, and many other metals have been obtained in the form of hydrosols, while others, such as the alkali metals, have been obtained as sols in certain organic solvents. An impure sol of silver was prepared as long ago as 1839 by Wöhler, although its real nature was not understood by him: the method used in preparing it—heating silver citrate in a stream of hydrogen—gives substantially the same product as the "colloidal silver," or "collargol," which has found its way into medicine in recent years. Another metal which has found some therapeutic application in the form of a sol is mercury, and colloidal calomel is also employed. A more familiar example, now much less used than formerly, is the so-called "dialysed iron" (liquor ferri dialysatus), which consists of a hydrosol of ferric hydroxide. The addition to this of a very small quantity of sodium sulphate, or of some other salt having no *chemical* action upon it, causes "gelatinization" of the liquor, or, in other words, converts the sol to a gel; and the other sols just alluded to show a similar behaviour on the addition of a trace of an electrolyte. On the other hand, many of the common colloids only show reversible changes; a fairly strong solution of gelatin, for example, sets to a "solid" or a gel on cooling, but resumes the sol form on again raising the temperature; a large excess of salt will throw out the gelatin, but on washing away the salt it can be redissolved. An important fact is that in some cases if the sol of an irreversible colloid is mixed with the sol of a reversible one the mixture is reversible.

Colloids differ from crystalloids, not only in being non-diffusible, but also in the fact that they have no osmotic pressure, or almost none; hence the boiling and freezing points of the solvent are not altered by the colloid as they would be by the presence of a dissolved crystalloid. It is not possible at present to make positive assertions as to the actual condition in which a substance exists when in colloid solution, but a good deal of knowledge with regard to the matter has been gained in recent years by the use of the ultramicroscope in the form given to it by Siedentopf and Zsigmondy. A pencil of convergent rays of light is passed into the solution under investigation, and the path of the beam is examined, against a black background, with a strong microscope. In the case of a perfectly homogeneous liquid nothing is seen; the light passes without diffraction or reflection, and none of it, therefore, is diverted into the microscope. But if the liquid contains solid particles in suspension (which may be far too small to be detected by ordinary microscopical examination in a bright field), some of the rays will be scattered by reflection at the surfaces of the particles; if they are sufficiently numerous and of sufficient size, the amount of light so scattered may be sufficient to be perceived by the unaided eye and the path of the rays will then appear luminous; on examining it with the microscope the luminosity may be seen to be not continuous, but to proceed from numerous small particles, which reflect portions of the beam.

A good analogy is furnished by the familiar fact that if a pencil of rays of sunlight passes through a hole in a shutter into a darkened room in which the air is perfectly still and pure, the rays are invisible from a point at the side of their path, and are only perceived by the image formed on the opposite wall; but if the air has been recently disturbed the particles of dust floating in it scatter so much of the light that its path appears luminous from a little distance, while closer inspection shows the particles of dust as brilliantly illuminated objects, although they become invisible if light is freely admitted into the room.

If ordinary distilled water, even after filtration, is examined with the ultramicroscope, it is seen to contain numerous suspended particles, and it is only after standing undisturbed for weeks, in order that they may subside, that it is obtained tolerably free from them. If a colloid solution is examined with the ultramicroscope it usually shows numerous particles of varying sizes in active movement; in some solutions, however, only a general luminosity has been observed, discrete particles not being distinguishable. When particles are suspended in a liquid of greater or less density than themselves, motion is always observed, and has received the name Brownian movement. The movements to be observed in a colloidal solution with the ultramicroscope, however, have not the characters of the usual Brownian motion. Zsigmondy thus describes his first examination of a metallic hydrosol, in which he expected to see the ordinary Brownian movement of particles:

> How entirely erroneous was this idea! The small gold particles no longer float, they move, and that with astonishing rapidity. A swarm of dancing gnats in a sunbeam will give one an idea of the motion of the gold particles in the hydrosol of gold. . . . This motion gives an indication of the continuous mixing up of the fluid, and it lasts hours, weeks, months, and, if the fluid is stable, even years. . . . The smallest particles which can be seen in the hydrosol of gold show a combined motion, consisting of a motion of translation by which the particle moves from 100 to 1,000 times its own diameter in one-sixth to one-eighth of a second, and a motion of oscillation of a considerably shorter period, and on this account the possibility of the presence of a motion of oscillation of a higher frequency and smaller amplitude could not be determined, but is probable.

It is possible to arrive at approximate measurement of the particles thus rendered visible; in colloidal solutions their diameter is from 20 $\mu\mu$ down to about 1 $\mu\mu$ (1 $\mu\mu$ = one millionth of 1 mm.). They thus approach in smallness the limits which have been assigned from other considerations for the diameter of molecules. The motions which the ultramicroscope reveals are always going on, and were found to be undiminished after keeping for months. A statement of Graham's that "the colloidal is, in fact, a dynamical state of matter, the crystalloidal being the static condition: the colloid possesses Energia" is thus shown to be well founded.

Sols of metals may be prepared in several ways, one of the simplest being that introduced by Professor Bredig of Heidelberg in 1898, in which a current of electricity is passed between poles of the metal whose sol is required, below the surface of pure water. Some disruption of the metal of the kathode occurs, and the particles which fly off from it assume the colloidal state, the liquid becoming coloured after a short time and then consisting of a hydrosol of the metal. Sols of gold, silver, and platinum, containing about 0.004 or 0.005 per cent. of the metal, were so prepared, and the method has been modified and extended to other cases by Svedberg since 1905. The metallic sols so obtained are extremely sensitive to traces of electrolytes and to the influence of heat, the change to gels being irreversible. They possess some remarkable properties, before discussing which it will be necessary to refer to enzyme action.

The natural enzymes form a large group of bodies occurring in animal and vegetable organisms, characterized by having the power of inducing chemical changes in other bodies without themselves becoming changed; in other words, they are catalytic agents.

Various hypotheses have been put forward to account for catalytic action, but no one of them has been proved to be true to the exclusion of the others, and there is good reason to believe that the mode of action is different in different cases. One of the proposed explanations is that the catalyst acts by means of molecular vibrations; the molecules of the substance acted on are supposed to be already in a state of vibration, which becomes increased by sympathetic vibrations in the catalyst to such an extent that the vibrations pass the point of equilibrium, and the substance accordingly undergoes decomposition. According to another view, the substance acted on first forms a compound with the catalyst; then this compound breaks down more completely than merely into its two components, fresh products being formed, and the catalyst set free in its former condition. A third hypothesis is that the acceleration of a reaction caused by a catalyst is due to the altered solubility of the substance acted on, and to its having a different reaction velocity when dissolved in the medium *plus* the catalyst. Whatever the explanation of catalytic action may be, a remarkable fact about the organic catalysts known as enzymes is that the range of their activity is extremely limited, so that a given enzyme which can cause the decomposition of some one substance is often quite powerless to effect the similar decomposition of some nearly allied substance; in other words, their action is specific in a high degree. For

example, cane sugar is hydrolysed into glucose and fructose by the catalytic action of the enzyme invertase, which is unable to exercise a similar action on maltose (an isomer of cane sugar); for the corresponding hydrolysis of this the presence of another enzyme, maltase, is required. A few of the known enzymes can resolve a number of different bodies; thus emulsin induces the decomposition of any of the glucosides amygdalin, arbutin, helicin, salicin, phloridzin, daphnin, and others; but, as a rule, one enzyme can cause decomposition of one particular body and of no others, even stereo-isomerism being in many cases a sufficient difference, so that one of a pair of stereo-isomers is acted on by a given enzyme, while the other is not. Thus, whatever may be the mechanism of enzyme action, there must be some very close relation analogous to that between key and lock, between an enzyme and some grouping or structural arrangement in the molecule attacked.

Enzymes play an enormous part in the chemistry of the physiological processes of both plants and animals. That this is the case with the digestive processes has long been known, but further research has extended the observation to most of the chemical actions of living cells. This has necessarily meant a very large increase in the number of individual enzymes known; but it is probable that no enzyme has as yet been prepared in a state of purity, the fact that they are all colloids making purification extremely difficult, while it also makes the establishment of definite criteria of purity a much less easy matter than it is in the case of crystalloids. The fact that the natural enzymes are all colloidal substances leads naturally to the inquiry whether any other colloids, not produced by living matter as enzymes are, possess catalytic powers similar to those of the latter; and it is found that the simplest of all known colloids, the hydrosols of certain metals, possess in a high degree some properties resembling those of enzymes; and some enthusiastic workers on this subject have applied to them the names of "metallic ferments" or "artificial enzymes."

Although an enzyme has usually some specific and characteristic power of acting as a catalyst towards some one substance, many are capable of acting as catalysts towards certain other bodies also, the changes which result not being specific but being induced by many enzymes indifferently. The most general of such catalytic actions is that which causes hydrogen peroxide to break up into water and oxygen: the many enzymes capable of doing this are called peroxidases. This property is shared by the hydrosols of gold, silver, and other metals; but since the decomposition of hydrogen peroxide may also be induced by finely-divided metals in the solid state, such as platinum black, it must not be too hastily regarded as evidence of an enzyme-like nature in the sols. Another group of natural enzymes, called oxidases, are able to cause oxidation by means of the oxygen of the air, and some colloid mineral substances have been found to exhibit a similar action. Neilson has shown that colloidal platinum and platinum black are able to cause hydrolysis of starch and decomposition and resynthesis of fats. But no case appears to have been recorded in which an "artificial enzyme" has shown a specific power of catalytically inducing decomposition of only one substance, or even a small group; on the contrary, their catalytic power is always far more general than that of natural enzymes.

A striking similarity between enzymes and some inorganic colloids is seen in their sensitiveness to the inhibitive action of minute traces of certain substances; the proportion of catalyst to substance acted on, and of the inhibiting substance (which has been called a paralysator) to the catalyst, are very small—for example, a solution containing 0.00001 gram of colloidal platinum per c.cm. acting upon a solution of hydrogen peroxide containing 0.06 gram per c.cm., converted more than half of it into water and oxygen in forty minutes; the addition of 0.000000014 gram of hydrogen cyanide per c.cm. reduced the rate of change by one-half.

This resembles the effect which has been found to be produced upon living organisms by minute traces of certain metals in distilled water, traces far too minute for detection by any chemical analysis. Thus, mere immersion of a strip of clean copper in a vessel of distilled water containing a number of tadpoles, which would otherwise live in it for several weeks, is sufficient to kill them in a few hours. At the last *soirée* of the Royal Society (June 14th, 1911) Mr. Henry Crookes exhibited a number of cultures of *B. phosphorescens*, and photographs of cultures of *B. coli communis* and *B. prodigiosus*, showing the germicidal effect of certain metals. Nutrient fish-agar was poured into Petri dishes, each containing a small square of metal, and when the agar had set the surface was inoculated with the bacilli; after twenty-four hours they were found to have grown freely except in a zone round the metal. It is interesting to note, however, the differences between different metals in this germicidal effect. Gold, platinum, and a few others had no such action; copper, bismuth, zinc, etc., had a slight germicidal action; and silver and mercury were among those showing strong germicidal action.

Professor Albert Robin of Paris, in a treatise entitled *Les ferments métalliques et leur emploi en thérapeutique*, has described the results obtained in a number of therapeutic trials of metallic hydrosols, prepared according to the method of Bredig described above. He refers to the theory that the catalytic powers of enzymes are not due directly to their constitution, but to their molecules being in a state of vibration and capable of communicating such vibration to other substances, and so to cause them to undergo chemical change; he expresses his own view that metallic sols, which he calls metallic ferments, act by virtue of the intense vibratory movement of their extremely minute particles. According to his experience the properties of the sols *appear* to be identical, whatever the metal dissolved; this is slightly qualified by the statement that he thought he had obtained more regular therapeutic results with palladium than with platinum and gold, but he found that the solutions of the two latter which he was using at the time underwent alteration more rapidly than the solution of palladium, and he ascribes the superiority of the latter solution to this fact. In regard to germicidal action, the experiments by Charrin, Monnier-Vinard, and others which are quoted were all made with colloidal solution of silver, and showed a very high germicidal effect on pneumococcus, staphylococcus, and several other organisms; it would have been interesting to know how far similar properties were shown by gold and platinum, in view of Dr. Robin's statement that they did not appear to differ therapeutically, and the great differences in the germicidal actions of the metals themselves as shown by Mr. Crookes's experiments. In his therapeutic tests Dr. Robin employed hydrosols of silver, gold, platinum, palladium, and an organosol containing manganese combined with albumen and alkali. The hydrosols were prepared by Bredig's method; as already noted, they are immediately converted into gels by the addition of an electrolyte or by heat, and consequently they cannot be employed in isotonic solution, nor can they be sterilized by boiling; the author states, however, that these hydrosols should alone be used, and not those preparations in which the addition of a reversible colloid has produced a more stable mixture. His words on this point are emphatic: "It is necessary to call the particular attention of practitioners to the fact that it is impossible to use in practice with advantage metallic solutions said to be stabilized by an organic colloid, sterilized by heat, and containing sodium chloride or other salts designed to render them isotonic. There are, in fact, a number of commercial preparations thus produced the use of which can only lead to failure or to incomplete results by which therapeutic agents of the highest value are discredited." He also insists that Bredig's silver hydrosol is quite a different thing from collargol, and gives a list of reactions in which they behave quite differently; it is interesting to note, however, that Zsigmondy examined Carey Lea's colloidal silver with the ultramicroscope in comparison with Bredig's, and found that at suitable dilutions, the number, size, and motions of the particles were much alike in both.

An account of the results recorded by Dr. Robin would be beyond the scope of the present general summary; it will suffice to say that he describes in some detail the use of these colloids in various diseases, including pneumonia, acute rheumatism with complications, meningitis, typhoid fever, scarlatina diphtheria, and puerperal septicæmia, in which the results appear to have been very favourable, and Bright's disease, secondary syphilis, pulmonary tuberculosis, and cancer, in which no benefit was obtained.

THE NEED FOR CO-ORDINATION OF CLINICAL AND LABORATORY WORK.

A DISCUSSION on this subject took place at a meeting of the Forfarshire Medical Association held in University College, Dundee, on Thursday, January 18th; Dr. ANGUS MACGILLIVRAY presided.

DR. ARCHIBALD LEITCH, introducing the discussion, said there was a gulf between clinical and laboratory endeavour, and the separation was to the interests of neither. An intimate association would be for their mutual good. There was a suspicion that the laboratory worker, dealing only with the scientific aspect of disease, regarded the clinician, dealing with the art of medicine, as one performing an inferior round of service to his kind. If that suspicion existed it was ill grounded. The clinician, on the other hand, feeling that he was in close contact with actualities, might sometimes regard the pathologist—using the term broadly—as being akin to those philosophers of Laputa who had one eye turned internally on themselves and the other fixed on the zenith, and who could only be brought into a proper appreciation of their surroundings by a tap on the head from their attendant flappers. But these extreme views, it must be admitted, were a rational outcome of our present inco-ordinated system. They could name certain institutions devoted to medical research which had no clinical connexions, and too often their researches were lost or were as seeds cast in unfrequented ground, perhaps years afterwards springing into flower that a wayward traveller in the by-paths might find and cull. Their results did not enter at once into general currency. The scientific investigator spoke mainly to others of his kind; but was not that true also of the clinician? They had no common ground. There were large clinical hospitals with no institute for medical investigation of diseases. But in the majority of cases they had the conjunction of wards and laboratories that went to make up the complete hospital. At the present time they lacked co-ordination. If they looked back over the great advance in past medicine, even within fifty years, all must recognize how much they owed to what one might call extra clinical endeavour and to the play upon that of the clinical mind. They would notice, too, how fruitless were the attempts of the pure clinician to work out into the unknown. It was but natural that one devoid of the only means of gathering new facts by experiment should have recourse to arm-chair speculation which was absolutely harmful in medicine. Let them note the enormous advance in surgery and recognize that facts gained in research, applied by a man who had his eyes alight, brought about the revolution. The father of antiseptic surgery—pathologist first and clinician afterwards—was an example of co-ordination by and in an individual. Our whole system of public health was a co-ordinated effort, and if its advance was due to one thing more than another it was to the researches of the bacteriological laboratory. The authorities under the Insurance Act would suffer financially by disease and profit with health, and, however it might eventuate, medical practitioners and practising specialists were bound to become more and more preventers of disease, trying, at least, to stifle it at its commencement, rather than palliate it in its late manifestations. At central institutions every practitioner ought to have the facility for prosecuting study, elsewhere impossible or inconvenient. The laboratory was more useful than a book. It was a dream of Plato that the time would come when kings would be philosophers and philosophers would be kings, and it might be as much of a dream to wish that all physicians were pathologists and all pathologists physicians. It was rarely possible for one man to be pre-eminent in both. If in medicine the inevitable specialization of effort prevented an equal combination, it was surely possible that each might take one as his principal aim and the other subservient, so that they might dovetail into each other's domains, to their mutual help. Combination was more effective than separation, and they needed a connecting link between the clinician and the research worker—a department where they had common ground. He would like them to consider the advisability of the clinician and the research worker meeting on the common ground of "clinical pathology," and, secondly, the possibility of dovetailing in problems where the special knowledge of each might be helpful to the other. Let them erect in their minds an institution for the purpose. Take the Royal Infirmary. It was a clinical institution primarily. It might be perfect in that respect or it might be just short of it. He did not know and had no opinion. But there they could build the supplementary part of the scheme. They might build, first of all, a flat for the department so absolutely necessary for the clinician—the department of the clinical pathologist—giving respectable facilities for the prosecution of his work, and especially a reasonable staff. They might expect him to be partially supported as a teacher training a younger generation in newer methods, but from the clinical part of the infirmary more would be expected, because he would give it more. In his *post-mortem* room, acting both as physician and pathologist, he would correlate the clinical with the pathological features. He could properly appreciate both, and his records would not be archives of oblivion. He would see the terminal phases of that series of life pictures which in the future they hoped to blot out fully, but of which the clinician might have had only a brief, a partial or obscured view of one particular phase. The clinician and research pathologist must together take things step by step back to origins, and get them "before they were." Laboratory methods of diagnosis, microscopic, bacteriological, and clinical diagnosis would furnish more work. The clinical pathologist would carry out in actual practice the methods which research pathologists had experimentally shown to be possible. He would utilize the material good that had emerged from more theoretic investigations. Having housed the clinical pathologist and given him work to do, let them put on another story. They were getting nearer the heaven of pure research, and would give this flat to their research bacteriologist. They would not buy him cheaply, but good; and they would provide him with work—any amount of it. They gave him the whole range of known and suspected microbic diseases, and they told him truthfully how little they knew. They asked him to turn his eyes away from anthrax and cholera and to work at acute rheumatism. They told him that it caused 75 per cent. of all heart diseases in later life, and that heart diseases were very common. They said to him that first of all they must find the cause, and it was for him to do it. When he had found that he might devote some attention to the way in which it might be combated or prevented, or how the body's fight against it might be fortified. They led him along and showed him pneumonia and the heavy toll it exacted. They told him that they knew the cause and they knew the result, but that there their knowledge ended and it was for him to fill in the stages between. They showed him tuberculosis and told him it decimated their young men and was very costly to their cities. They knew the cause, they knew many of the steps, and they knew how to prevent it and often to cure it, but that there was much more to know, and they whispered that if he did some useful work in it perhaps the Chancellor of the Exchequer would make it worth his while. They told him that the ophthalmologist would like to do some eye work in his laboratory, but that as he, the bacteriologist, knew nothing whatever about eyes, he would have to take the advice in regard to some things from the ophthalmologist, and in exchange must lend him the aid of his laboratory lore. They would introduce the dermatologist, and, though it might not be possible to get him to understand the sesquipedalian phraseology of the physician, he might be able to show him how to get to work towards a solution of his problems. They would introduce the gynaecologist and leave them alone without a word. They would bring along the physician and the surgeon and state the special problems that interested them, and they expected him to advise them, for he had special knowledge where they failed, and they had knowledge where he was completely ignorant. They would leave this department full and busy, and would build a third flat for workers investigating other diseases not of microbic origin. The day was past when pathology was a study of morbid anatomy; it was morbid physiology. All the workers of the institute would co-operate with each other—co-operate with the hospital staff and the general practitioners—and duplication of effort would

be avoided. He would not suggest that they should have a superintendent and various underlings. The best work that was done, especially in Germany and in France, was done where there was more or less a scientific republic. They were all working towards a common end; let them build together, let them understand each other, and not be like the tower-builders of Babel, whose work came to naught because they spoke in myriad tongues. Much of their work might be scaffolding that in time would go down, but it would leave the solid fact, a monument more enduring than brass, which the wind and the biting rain would be powerless to destroy.

Dr. MacGillivray said he had always thought that specialists were like the spokes of a wheel: the more they specialized the more they diverged. What they wanted was that specialists should meet together and assist one another. They had in the pathological department of the university an efficient means of teaching scientific pathology to their medical students and to their research students. Also at the infirmary a most effective clinical pathological laboratory was mainly devoted to teaching, but it must be clearly understood, before the discussion proceeded further, that both these institutions were at the service and the disposal of any person in the district who cared to work there. If Dr. Leitch, with the aid of Mr. Lloyd George, could bring his castle in the air to terra firma, it would be one good thing to be said in favour of the Insurance Act. As regarded private laboratories, every one knew that these were exceptionally costly, and he spoke from experience when he said that they were an enormous expense not only in money, but in time, brains, and energy. All they should need to do was to go to the director of studies, who would show them how to do the piece of research necessary. It was perfectly simple, if seen. He could not have carried on the research he had just completed had it not been for the kindness of Professor Sutherland and his staff and of Dr. Milne. Any man who had had gone through the curriculum and who saw a thing done with his own eyes could do it himself. Laboratory methods were perfectly simple if they saw them carried out. They had in their midst an admirable Clinical Research Association; but it had always struck him that they did not learn work from it; they got the results, but the real interest was doing the work for themselves. The scheme proposed would not interfere with present arrangements; it would bring the clinical side of their work into line with the pathological laboratory, and if Dr. Leitch could bring about that happy consummation, he deserved every encouragement.

Professor Stalker said he was wholly in sympathy with Dr. Leitch regarding the need for co-ordination of clinical and pathological work. It was a realized dream in many parts of the world, more particularly in Germany, but still far short of even approximate realization here. They were too much in the habit of looking for immediate results in this country. They could not hope for dividends immediately in this matter; but they could quite realize the sums of Dr. Leitch's conclusions and the irrefutable basis on which his scheme was built. If they were put under the guidance of rational ideas, and not merely hurried forward to a rough-and-ready practice, many of the lecturer's promises would fulfil themselves. They had been already working forward within the light of Dr. Leitch's ideas; but perhaps it was in a hand-to-mouth fashion—here a little and there a little; and in bringing the clinical observer and the pathologist into closer union Dr. Leitch was striving to show them that they should do so much more systematically and more as part of their routine business, recognizing that the clinical observer was useless without the scientific observer. They had to recognize that an immense portion of physiology suffered from its dissociation from medicine, and there were many directions in which the pathologist could work for days, weeks, months, and even years at long distances from the clinical observer, out of his sight altogether. There was continual need of the clinical observer coming more and more into co-ordination with the pathologist.

Dr. Tulloch said he was somewhat pessimistic over the ideas of the lecturer. In the first place he was very much mistaken if they would lift the general practitioner up into any such ethereal sphere. His time and the emoluments of his office scarcely warranted that angelic attitude. He felt that there was some go-between needed between the general practitioner and advanced knowledge, and yet he would not keep too close to the heels of the theorist, because he was apt to kick occasionally; for though there was truth to be got, there was a great deal of error, and if the practical man at the bedside was to do his patient good and not harm he had better follow at a respectful distance. At the same time, if they could bring about a closer union between the man at the bedside and the man with the microscope, it would be a very good thing. But he felt that the man at the bedside could get most of all he required done for him. He could send his specimens, and for a very small sum could get investigations and reports such as he could not himself attain even if he devoted a considerable part of his time to laboratory work. The clinician had the good of his patient to consider. He was not simply an educationalist, not even an educationalist for himself. He must look to the curing of the patient. The study was very interesting, but the curing of the patient was the first consideration. With the main idea that there should be closer union between the clinician and the laboratory expert he agreed. He thought that scarcely any practical good could immediately come out of the scheme, because it was not sufficiently formulated.

Dr. Mackie White said he was entirely in sympathy with the scheme which had been mooted by Dr. Leitch, and although, as Dr. Tulloch said, it was somewhat inchoate at present, they must begin sometime, and it was more than time they were begun in that work. The fact was we were absolutely an insular nation as regards the whole question, and if they went to a German school and had a talk with the Germans who were busy working at that sort of thing, they could not help seeing that there was a veiled contempt for most of the work being turned out in our own country with regard to these matters. The relationship of the patient and practitioner was a thing by itself, and there was no reason why that relationship should be anything but improved by having in their midst such an institute as Dr. Leitch had suggested. In fact, before long they would be absolutely forced into it, and the great pity was that they had sat still so long doing so little themselves. Discussions at the Forfarshire Medical Association and Branches of the British Medical Association had had little tendency to educate the public, yet rich men were only too glad to be able to spend their money for scientific purposes if they were assured that the money was being well spent. If they put before them the facts as to what was being done in Germany, Italy, or any other country where much attention was paid to scientific developments of medicine, he was quite sure these men would be ready to assist. They would not make a few comfortable cribs for men to do nominal work. Dundee was a young medical school, and he did not think its record was altogether bad for the twenty-five years it had been in existence. When the school started they were in hopes that, free as it was, or should have been, from all binding traditions, they would avoid the old shackles and devote themselves more to clinical, hospital, and laboratory work, upon which the new medicine was being founded. Medicine would advance without them, but it was a great pity to be left out in the cold and to have to go to others for the cure of cholera and tuberculosis, instead of having men in their midst who might do the work as well as those of any other country.

Professor Kynoch said he wanted it to be distinctly understood that the staff of the Royal Infirmary had been aware of the importance of the subject which Dr. Leitch had brought before them, and, persistently, for years they had kept the matter before the directors of the Infirmary and the University authorities; and though he did not say that they had anything like a three-storied building at the Infirmary, they had achieved something, and the Dundee Medical School offered its students adequate facilities. Under the direction of Dr. Milne, at the Clinical Laboratory, they received all the instruction which it was possible for them to retain in their student career, and if they wished to follow out their research work, the laboratories in the Medical School were at their disposal. Men in country districts could not be expected to come and carry out experiments for themselves, and the Clinical Research Association filled a very great want. As to Germany, he knew something about

German hospitals and laboratories. They were told that they could not compare with German work, and he said it was not because the Germans had got fine lab ratories or fine institutions; they worked for the love of their subject. He thoroughly supported everything Dr. Leitch had said, but he wished to emphasize that the work was being carried on in a quiet way, not in elaborate buildings, but with fair facilities, which he would like to see improved on the lines Dr. Leitch had so admirably pointed out.

Dr. R. C. Buist said he did not at all under-estimate the advantages they at present possessed, but as for being satisfied with them he could not possibly use that term. Any afternoon they liked to look into the pathological laboratory they would find the general practitioner at work qualifying in public health or bringing material from his own cases and applying methods he had learnt in the laboratory. But the whole school, clinical and pathological, was in great need of a large increase of staff. Speaking for himself, he had had through his hands during the past twelve years an enormous amount of material which, owing to the want of staff at his disposal, he had not been able to utilize, though it contained promise of considerable contributions to practical medicine. He pointed out that members who recalled the address which Dr. Bruce of Murthly had delivered would remember the valuable results of the co-ordination of laboratory and clinic in mental disease; and it was also within the knowledge of members of the Association that of the men who had gone out from the Dundee School more than one had distinguished himself by his contributions, such as those of Dr. Murray on the serum reactions of pregnancy, and Dr. Nicoll, the Ernest Hart Scholar of the British Medical Association, on fly-borne diseases. It would seem extraordinary that the country which had produced Harvey and Hunter and Jenner should at any time have to take a back rank in the matter of scientific investigation, and he was quite sure that what was needed was not fresh men, but opportunities for them to apply the abilities they had. This was a situation in which Croesus might very well come to their assistance and help them to establish and build that institution from which the results to the community, and to practical medicine in particular, would be of the greatest value. Many illustrations of the need of co-ordination might be brought from the therapeutic as well as the diagnostic side. He would give them a practical illustration from the practitioners' standpoint of the interest of the individual life to illustrate the advantage. It was only ten days ago since he had a case in which he as clinician was at a standstill. He called in a clinician of wider experience, but they were still at a stop. They consulted Dr. Milne, whose report put them in a position to relieve the patient. If this work was to be fully co-ordinated, they must have at their disposal much greater resources, and resources which could be applied to the work without any danger of being taken away from their medical charities. It was the necessity for avoiding competition between the research, and the purely therapeutic and charitable side of the institution, that he should like to emphasize, and he thought there was great public need for such development here and elsewhere.

Dr. Milne said what Dr. Leitch had outlined in his remarks was an expression of the wish of every general practitioner, but the general practitioner was very suspicious of the scientist, and the reason for that was that the matter he read in the medical journals was far too technical for even scientists to understand, if they had not had the opportunity of doing the experiments for themselves. The experiment was easy; it was the explanation that was difficult. Dr. Leitch had outlined a scheme that was novel for this country. Perhaps the institute at Baltimore most nearly exemplified what Dr. Leitch meant. It was asked what good such an institution would do, but they might take the instance of the out-patient department of a hospital where there was a laboratory department. If there was a puzzling case there could be personal interviews between the surgeons or physicians and the pathologist or bacteriologist, and it would be much more valuable to the general practitioner that his patient could be sent to such an institution, and have the technical manipulations performed in such a way that the pathologist could have no doubt about the final diagnosis. He did not need to emphasize the importance of these methods of diagnosis; the pathologist was able to help the general practitioner in diagnosis in his own house. A general practitioner read in the medical journal that a certain method could be used in a case, but if he saw it employed he could use it in the future. He thought it would be a great benefit to the community that there should be a research man on the spot. If, say, an outbreak of typhoid occurred in Dundee, a research man might be put on to discover the causes that were local to Dundee. Then Dundee held a by no means creditable place in the lists of mortality, and there was much to be done in the matter.

Mr. Dox said that at present a great deal of the material that passed through their hands was absolutely wasted, except as giving them a little more practical experience. The diseases were cured after certain rule-of-thumb methods, but the clinician was altogether dependent on himself, and it was evident that the great amount of work that was to be done could not be undertaken by one man or by half a dozen men. Their present pathological efforts were small as compared with the size of Dr. Leitch's scheme, and so long as they had only one or two or half a dozen pathologists to undertake the work there would likely be a great part of it left untouched. Time was given to what they might call the more interesting matter, and the common diseases were left over. He thought it was staffing they required and not so much brains or enthusiasm; they would get that as well if they had the staff.

Dr. Foggie said that the pathologist and clinician were both working on the same level, and the sooner that was definitely recognized the better. The attitude of the pathologist towards the physician wanted correction, and the attitude of the clinician towards the pathologist might require some little change. The great difficulty at the present day, when physicians and pathologists worked so closely together with regard to disease, was to get them to take a better view the one of the other. It was only by conjoint consultation and by active co-operation of the two workers that they could expect any progress. A great deal would depend on the *personnel* in Dr. Leitch's scheme; at present the *personnel* was excellent, but it was too limited. They could not expect one man to take up the whole subject, and no doubt they wanted in Dundee some one who could lecture on pathological chemistry. It was a distinct want, and they would require a man to devote his whole time to the matter. Another department that would be necessary would be a vaccine department such as they had in St. Mary's and Guy's in London, and he pointed out that much of the work that was being done in such places was influencing very largely the work done in Germany. With regard to tuberculosis, the difficulty was to know how much vaccine one should give to a patient, and unless they had some one to guide and control them they found clinical resources at an end, and the chances were that they might be doing more harm than good. In any future work they must look to more active co-operation between the clinician and the pathologist.

Dr. Tulloch said the proposal to call in the laboratory man was all right; his remarks were addressed against the idea of the clinician becoming a laboratory experimenter. He agreed that the students should be brought in whenever possible.

Dr. Pirie referred to the desirability of having an electrical department in Dr. Leitch's institution, and instanced a case where such methods had been of use to him. A lady had trouble with her wrist, whether due to a fracture or tuberculosis was uncertain, but examination in the laboratory at once made the fracture clear.

Dr. Kerr asked if in the institution there would be diagnosis of diseases for poor patients who could not afford the cost of research.

Dr. Leitch, in reply, said it seemed inevitable that laboratory methods of diagnosis must ultimately be provided for under the Insurance Act. As to whether the idea would be realized, that meeting was the first step in that direction. Their clinical material was being wasted because the clinician did not know what could be done with it and the pathologist did not know it was there. As to Germany's advance, he said it was due, not to the fact that the Germans were more scientific than they were, but because Germans had the opportunities and they had not.

BRITISH MEDICAL BENEVOLENT FUND.

At the January meeting of the committee 14 cases were considered and grants amounting to £86 made to 11 of the applicants. Appended is an abstract of the cases assisted:

1. Daughter, aged 44, of late M.R.C.S. No income, and has been unable to earn a living for some years on account of increasing deafness. Finds she can hear with an instrument recommended by an aural surgeon, and asks for assistance to purchase it. Voted £5.

2. M.B., C.M.Edin., aged 57. Has a small practice in Hampshire, but finds great difficulty in obtaining his fees, and asks for a little help. Voted £5.

3. Widow, aged 41, of M.B., C.M.Edin. Quite unprovided for at husband's recent death after a long illness, and has four young children, the eldest only being 5 years old. Voted £10.

4. Daughter, aged 57, of late M.R.C.S. Is most willing and anxious to work, but has broken down in health and been obliged to give up a situation as companion. Relieved once, £12. Voted £12.

5. Daughter, aged 74, of late M.R.C.S. Supplements an income of a few shillings a week by needlework, but is unable to earn as much as formerly on account of rheumatism and failing eyesight. Relieved thirteen times, £125. Voted £12.

6. Daughter, aged 59, of late M.R.C.S. Has supported herself for more than thirty years as governess, school matron, etc., but is now unable to obtain a suitable post. Relieved five times, £60. Voted £12.

7. Widow, aged 56, of M.R.C.S. No income, no children, and unable to maintain herself on account of ill health. Relieved eight times, £80. Voted £2, and case to be reconsidered.

8. Widow, aged 60, of L.R.C.P., L.R.C.S.Irel. No income and is practically incapacitated by the loss of her right hand. Children unable to help. Relieved eight times, £68. Voted £12.

9. M.D.Aberd., aged 59. Used to have a fair practice in a Midland town, but has been incapacitated for several years by spastic paralysis, and is entirely dependent on pensions obtained from charitable societies. Three children, the eldest only 13 years old. Relieved three times, £33. Voted £5.

10. Widow, aged 66, of M.D.Edin. Supplements a small weekly allowance from relations by taking a boarder, and asks for a little help to meet unavoidable expenses. Relieved twice, £12. Voted £6.

11. Daughter, aged 50, of late F.R.C.S. Has supported herself as a companion, but at present has no post, and is not in very good health. Relieved six times, £35. Voted £5.

Contributions may be sent to the honorary treasurer, Dr. Samuel West, 15, Wimpole Street, W.

British Medical Benevolent Fund Guild.

On January 25th a drawing-room meeting of the British Medical Benevolent Fund Guild was held at 100, Harley Street, W., to meet the Lady Mayoress and to consider the extension of the Guild. Fifteen ladies have offered to work in making the charity better known, taking the metropolitan boroughs (with subdivisions) as the basis of the scheme. As a result of the meeting eleven boroughs will be systematically worked, and it is hoped that very shortly the whole twenty-nine will be visited. The ladies will work with Mrs. H. H. Clutton (3, Park Square, N.W.), who has consented to be chief secretary and organizer; and a date will be arranged when the workers and friends of the Guild will meet by invitation of the Lady Mayoress at the Mansion House.

SCIENCE NOTES.

Two other interesting cases of a parasite being itself afflicted by another parasite have been brought to light. It is well known that considerable destruction is wrought amongst olives by the olive fly, *Dacus oleae*. This beast, however, is one of the most unfortunate parasites, for it is infested not only by two different hymenopterous insects, but also by a third species, *Opius concolor*, which Marchal[1] has discovered in North Africa. Unlike the first two, the newcomer is a serious menace to the olive fly, pursuing it assiduously throughout its whole career. It passes its larval stage in the larva of the olive fly and passes into the pupal stage along with the latter. This inveterate foe is apparently not a European species, but, from economic considerations, Marchal recommends its importation. These importations, however, are not so generally successful as might be desirable. Of somewhat different character, though perhaps of more immediate interest, is the case reported by Fantham recently to the Royal Society. It concerns the common body louse, which is found to be the host of a species of flagellate protozoon—namely, *Herpetomonas pediculi*. Parasitic insects, such as fleas and lice, are, of course, well known as carriers of certain phases of the flagellate parasites of vertebrates, but the present case is in a different category, in that the *Herpetomonas* is confined to the louse, and is not a stage in the evolution of some vertebrate flagellate. The case is, indeed, analogous to the numerous instances of flagellate parasites inhabiting the alimentary canal of non-parasitic flies and other insects. These forms are usually non-pathogenic, and of little economic importance; but the present instance is of indirect importance from the fact that the body louse is suspected of transmitting *Leishmania infantum*. The knowledge that a flagellate parasite occurs naturally in the louse may prevent misinterpretations. It is of interest to add that the lice with which Dr. Fantham experimented were fed on his own body, and that at no time could flagellates be detected in his blood.

On reading an article by Gruvel[2] on the classification of lobsters we were somewhat struck by the straits in which systematists are sometimes placed in inventing names to designate genera and species. The enormous multiplicity of the latter has of late severely taxed the resources of the Latin and the Greek languages. It is a tacit understanding that the names should, if possible, bear some relation to the forms described, and fifty years ago that was not such a difficult matter. For specific names there were the old and well-established favourites, *magnus*, *parvus*, *crassus*, etc., while for generic names there was a variety of choice. In the course of time, however, the familiar classical roots were found inadequate to express the never-ending variety of permutations, and recourse was had to various subterfuges. Of these the most popular were place-names such as *tahitensis* and names of persons such as *Ludwigi*. Generic names, always the most difficult of invention, were also formed from persons' names, and in consequence we find almost every European name immortalized in terms such as *Mackenzia*, *Lankesterella*, *Dicksonia*, etc. These names obviously do not give any clue to the structural characteristics of the forms so designated, and for all practical purposes one might invent any agglomeration of letters with a suitable termination, such as *Gollywoggia*, and the unfortunate animal and plant would rejoice in the name for evermore, provided it escaped the meshes of the law of priority. A more skilful subterfuge, and one which has not been so universally adopted, is exemplified in the case of the rock lobsters. There is a well-known genus *Palinurus*, created by Fabricius in the latter half of the eighteenth century; the rock lobsters, in fact, are zoologically known as the *Palinuridae*, a name founded on this genus. It did not require much ingenuity to create a diminutive, namely, *Palinurellus*, but a more ingenious idea is evidenced in the metatheses—*Panulirus* White, and *Linnparus* Grey. This represents just about the limit of nomenclatural poverty, and is only surpassed by the case of the scientist, not altogether unknown to fame, who at the time of writing happened to be enamoured of the fair maiden *Carolina* by name. Such names as *Linocara*, *Rocalina*, and *Calonira* betray their origin only too well; at least, so the story goes.

A most remarkable instance of adaptation is described by Henneke[3] in the case of the fresh water tardigrade or water bear, *Macrobiotus macronyx*. On its first appendage the male bears peculiar hooks which are used in sexual union. The female about this time begins to moult, but the last skin does not actually fall off. It remains attached posteriorly as a sort of vesicular appendix. The males congregate around this, pierce it with their hooks, and discharge their sperms into it. The sperms are then left to find their own way into the cloaca of the female, and it is not surprising that all do not reach it. The female then proceeds to lay eggs, and here again the old skin is made to serve another useful purpose as a brood pouch, in which the eggs accumulate. They are carried about in this way until the young hatch out, when the skin finally drops off, although it may do so somewhat earlier.

[1] *Comptes rendus*, 1911, p. 215.

[2] *Comptes rendus*, 1911, p. 1350.

[3] *Zeitsch. f. wiss. Zool.*, 1911, p. 721.

LITERARY NOTES.

Dr. George B. Shattuck has retired from active editorial management of the *Boston Medical and Surgical Journal*. Dr. Shattuck became editor of the *Journal* in 1881, and has therefore had an editorial experience of thirty-one years, a term exceeded in the United States only by Dr. I. Minis Hays of the *American Journal of the Medical Sciences* and Dr. George F. Shrady of the *Medical Record*, and equalled only by Dr. Frank P. Foster of the *New York Medical Journal*. The *New York Medical Journal* in referring to Dr. Shattuck's retirement says, he "may well be satisfied with this long period of devotion to literary medicine, but his pride must be great as he reviews his work and sees how, under his management, the *Boston Medical and Surgical Journal* has not only maintained the high standards which have always characterized it, but has also steadily advanced in dignity and influence, holding its own with friendly rivals in the front rank of medical journals."

Allusion was made in the Journal of January 27th to a man who described himself as the "Great Twalmley" on the strength of his being the inventor of a kind of box iron for smoothing linen. Boswell adds that the Bishop of Killaloe, on hearing the story, defended Twalmley's title to the epithet of "great," for Virgil, in the sixth book of the *Aeneid*, mentions among the group of worthies in the Elysian fields, "Inventas aut qui vitam excoluere per artes." While gladly admitting this claim, we do not think that a list of the world's greatest men should be all inventors of mechanical devices. A story used to be told of the late Mr. Labouchere that, on meeting Mr. Poole at Marienbad, the celebrated artist in masculine clothing complained to him of the mixed character of the visitors, to which "Labby" replied, "You would not have them all tailors, would you?" We need not point the moral of the "fable."

A correspondent writes:

Your remarks on the pronunciation of "enema" remind me of an incident years old. A certain surgeon who was noted for his quotations from Scripture on every occasion, possible and impossible, on going round his wards saw a patient with a high temperature. He gave directions to the nurse, and on the next day, on looking at the chart and seeing a marked fall in the temperature, he exclaimed with satisfaction:

Truly an enema hath done this.

Pronounced with a long "e" it would have had no point.

The *Aberdeen Daily Journal* of January 9th, in recording the death of George Florence, a farmer who recently died at Glenfoudland in his 91st year, gives some reminiscences of body-snatching. The deceased was a son of the late John Florence, for over half a century a grave-digger at Culsalmond, an occupation in which he was succeeded by another son. Florence was 11 years old when the resurrectionist rioting occurred in Aberdeen, and he had many recollections of the incidents associated with the suppression of the work of procuring bodies for dissection. In many churchyards in the north a place was set apart for the watchers—friends and relatives of the deceased persons who came to watch the place of interment for several nights after the burial. To the body-snatchers the churchyard of Culsalmond was something of a terror. It was practically unassailable. In a corner of the enclosure was erected a watch-house, where bodies were kept for weeks after death, until they were useless from the anatomist's point of view. The walls were of extraordinary thickness, the doors were of iron doubly fashioned, doubly locked, and the keys were placed in the custody of four key-keepers, elected periodically, and without whose personal attendance no one could enter. Among other gruesome stories which Florence had heard of in the north was that of an old man who had been in the habit of disinterring the recently buried, and selling them. He reinterred those for which he could find no purchasers in a piece of waste ground. He carried on this traffic for years, and after his death phantom forms and lights, it was said, were seen at the place where the unsold bodies were buried. In course of time, however, a church was built at that spot, and the ghosts never again appeared. Two farm servants one night had gone to visit their sweethearts, who were maidservants at the manse in an Aberdeenshire parish, and pending the arrival of the trysting hour they sought the shelter of a "lythe" corner of the graveyard. They had not been there long when two men arrived carrying pick, spades, and a small lantern. After scanning the ground for a moment with the aid of their lamp, they located the spot where they knew a grave had just been filled and a small white peg put at the top. Seizing hold of their implements in a businesslike way they set to work, and in less than half an hour they had the body exhumed and put into a bag. They placed the corpse under some shrubs while they went for a vehicle which had been left some little way off. While the body-snatchers were gone the ploughmen hid the body, and one of them volunteered to go into the bag and give the resurrectionists a fright when they returned. When the grave-robbers picked up the bag they noticed a movement within it, and heard a groan. For a moment they hesitated, then were about to shoulder their burden when another sepulchral groan from the bag, and a weird, unearthly yell from a corner of the graveyard made them drop the bag and fly in terror, leaving horse and trap behind them. The ploughmen were well rewarded for the part they had played, for the horse and trap were never claimed.

An eighteenth century doctor's bill which appeared in the January number of the *Old-Lore Miscellany of Orkney, Shetland, Caithness, and Sutherland*, Part I. vol. v, may be of interest to our readers as showing what may be taken as the average fees charged by the family doctor of that period. The original of this interesting document is in the possession of Mr. Horatius Bonar, W.S., of Edinburgh, and relates for the most part to the last illness of Mr. John Bonar, a minister of the Scottish Church, who died on April 22nd, 1752, and was attended on his death-bed by a certain John Gifford. The account, which is headed "Accompt Mr. John Bonar, minister, to Jno. Gifford, surgeon, 1752," runs as follows:

		Str. £	s.	d.
	For antiscorbutic materialls to your daughter...	0	4	0
Febr. 17.	For a glass Wades balsam		4	1
March.	A blooding to yourself		1	0
Aprile.	For a purging potion		2	0
	For a box of alterative pills		4	8
	For a purging apozem		2	0
	The alterative pills renewed in larger quantity		6	1
	Fourteen doses Peruvian bark ...		6	1
	For three purging doses		4	6
	For liniments, tincture, &c., to your mouth		10	6
		2	4	11
	For travelling charges and attendance	2	10	0
		4	14	11
	Received in cash	1	0	0
		3	14	11

Towne, 2nd July, 1752, by the above acctt. theire is a ballance of three pound fourteen shills. and eleven pence str. due by Mr. John Bonar in favours of Jno. Gifford.

The above accompt payed to and discharged by

(Signed) Jn.o. Gifford.

One wonders if "the above accompt" was considered excessive by the family of the deceased minister, and if "Jno. Gifford, surgeon," continued to attend them whenever they happened to require "a purging potion" or "a box of alterative pills." The January number of *Old-Lore Miscellany* contains several other items of interest besides this page from an old account book. A graphic description of "Some Old-time Shetlandic Wrecks" has been contributed by Mr. R. Stuart Bruce; whilst Mr. J. Storer Clouston writes very entertainingly on the origin of "Orkney Surnames," and Mr. Gilbert Goudie gives some interesting examples of the ancient folk-lore of the Shetland Islands. A curious piece of literary history, moreover, is to be found in an article on the new Gaelic dictionary, from which we learn that the compiler, Mr. Ewan MacDonald, far from being a Highlander, hails from the West of England; and, with a disinterestedness rare enough in these days, gave up nine years of his life to the stupendous task of writing and printing with his own hands a book which in future should be "indispensable alike to Celt and Viking."

British Medical Journal.

SATURDAY, FEBRUARY 3rd, 1912.

THE COUNCIL AND THE CONFERENCE.

The Insurance Commissioners have begun badly. They issued last week an invitation to a number of medical bodies to send representatives, in proportions arranged by the Commissioners, to a private confabulation in Whitehall this week. The medical bodies have all with one accord begun to make excuse, and Mr. Masterman, M.P., the Chairman of the Joint Insurance Commission, must already have realized that he has been led into committing the least excusable of political offences—a blunder.

The proposal of the National Insurance Commissioners to hold a conference on Friday, February 2nd, with representatives of the medical profession was notified last week (page 211) by the publication of the correspondence with the Association so far as it had then gone. The Commissioners addressed a similar invitation to a number of other bodies, and specified the number of representatives that they desired to attend. The bodies included the following, the figures showing the number of representatives invited: The General Medical Council (6), the three medical corporations of England and the three medical corporations of Scotland (2 each) (12), the three medical defence societies (2 each) (6), the Incorporated Society of Medical Officers of Health (2), the National Medical Union (2), the British Medical Association Reform Committee (2), the Imperial Medical Reform Association (2), the British Medical Association (20). The Association of Medical Women also received an invitation, which it at first accepted, but it is now, we are given to understand, reconsidering the matter.

When on Wednesday the consideration of the invitation to send representatives to the proposed conference was reached by the Council, the objections to its unconditional acceptance were at once pointed out by Dr. Maclean, Dr. Todd, Dr. Buist, and other members of the Council. Attention was drawn to the disposition which the Commissioners, by this action, appeared inclined to show to continue in respect of the Insurance Act the hasty hustling methods which had characterized the course of the bill through Parliament, methods which the pretence of political expediency could no longer be invoked to excuse. The invitation to the bodies concerned had been issued only eight or nine days before the conference was proposed to be held, an interval which allowed no time for adequate consideration by the various executives, much less for any consultation with members—an objection which had special force in the case of the British Medical Association, particularly in view of the fact that a Special Representative Meeting was being summoned for an early date—less than three weeks hence, in fact. It was urged that before going into any conference with the Insurance Commissioners it was desirable, and indeed essential if the conference was to have any fruitful result, that there should be time and opportunity for consultation between the bodies invited to attend, and that the terms of the Commissioners' invitation rendered this impossible in the present instance. Finally, the weighty objection was made that it was contrary to the ordinary and accepted principles of public life for executive bodies holding positions of responsibility to their members, and in this case to the individual members of a great profession, to go blindfold to a private *causerie* with Government officials, with the foreknowledge that no official record of the proceedings would be kept or published. The feeling of the Council appeared to be unanimous, or practically unanimous, that to accept the invitation at this juncture would be impossible, and it was resolved at once to send a letter to the Commissioners informing them that the Council of the British Medical Association did not see its way to accept the invitation to attend such a conference as was proposed until the Representative Meeting, summoned for February 20th and 21st, had been held. This means, of course, that the question whether any conference, even an open conference with an official record, can properly be attended by representatives of the British Medical Association, is a matter for the Representative Body to decide.

The Royal College of Physicians of London received the invitation on January 25th, the day on which at an ordinary meeting certain resolutions with regard to the National Insurance Act were to be considered. Their consideration was not completed on that day, and a special meeting was held on January 30th, when, after a long debate, it was decided, as will be seen from the report in another column, that the College, while desirous of doing all in its power to promote the objects of the Act in reference to the health of the community, was not prepared to accept the invitation, since it entertained the opinion that the Insurance Act as it stands, or even after any modification in it which the Act empowers the Insurance Commissioners to make, is not adapted to secure the benefits of insurance against loss of health and the prevention and cure of sickness which it was its stated purpose to provide, and that the co-operation of the medical profession in carrying out the operations of the Act is not possible under the Act, or under any modifications of it the Commissioners are empowered to make, without inflicting grave injury on the profession.

It is altogether a mistake to assert, as some seem disposed to maintain, that the action of the College of Physicians was determined by jealousy of the larger representation proposed to be accorded to the British Medical Association, or by the alleged Toryism of the consultant class. It is, of course, true that the great majority of the governing body—that is, the Fellows—of the College are consultants, but nearly all are also members of the teaching staffs of metropolitan or provincial schools of medicine, and in taking the course almost unanimously adopted they were largely influenced by the multitude of appeals made to them by their old students now engaged in general practice throughout England and Wales. About the fact there can be no doubt. Its significance may be left to Mr. Masterman and his colleagues to interpret. At the time of writing the decision of the Royal College of Surgeons of England is not taken, but there can be little doubt what it will be, and there is every reason to believe

that the Apothecaries' Society will take the same view as the sister corporations which together form the Conjoint Board in England. Meetings of the Royal College of Physicians of Edinburgh, and of the Royal Faculty of Physicians of Glasgow, have not been held at the time of writing, but the Royal College of Surgeons of Edinburgh has come to a decision very nearly identical with that of the Royal College of Physicians of London, as has also the London and Counties Medical Protection Society.

The President of the General Medical Council has replied to the Insurance Commissioners informing them that the Council will not be able to appoint delegates to the proposed Conference, as the Council does not meet for some time; he, however, offered to supply any information desired. As has been said, the Council of the British Medical Association took a similar line—not entirely closing the door, but declining to be hustled through the portal without adequate time to consult its members, or to make sure whether it led into the Elysian fields or into Hades. The National Medical Union, the organization founded in Manchester by Dr. Helme, and the British Medical Association Reform Committee, of which Dr. F. J. Smith is the chief spokesman, have both, we understand, declined the invitation.

It is clear, therefore, that the Commissioners' proposal to hold a private conference in a hurry has ended in a fiasco as complete as it would be possible easily to devise. If the Commissioners are so ill advised as to persist in holding it, it cannot in any remotest sense be accepted as representing or expressing the opinion of the profession or in any smallest degree binding it. Those in the profession who have most vehemently criticized the Representative Meeting and the Council of the British Medical Association have dissented because, rightly or wrongly, they considered that the governing and executive bodies of the Association had not shown a sufficiently determined opposition to the feeble attempt to deal with the great question of medical benefit for the people, the preservation of the national health, and the prevention of degeneration contained in the Government's National Insurance Scheme. To a superficial observer the regrettable violence of the language employed by some of these critics may have conveyed the impression that the medical profession was rent from end to end. Those who can and will look deeper know that this opinion is not only erroneous but puerile. The profession, from the teacher-consultant class on one side of its organization to, on the other, the general practitioners who are its backbone, the men in whom the public have confidence, the men whose ministrations, whose sympathy, and whose skill make them valued counsellors in every home in the manifold chances and changes of this mortal life, are, as nearly as 30,000 men may be, unanimous in their opinion and conviction that the medical part of the scheme is bad—bad not only for them but bad for the people—and unanimous in the determination that they will not be obfuscated or bamboozled in secret conclaves.

There is, after all, such a thing as justice even in this world; though the mills of God grind slowly, yet they grind exceeding small, and we do not believe—the individual members of the medical profession do not believe—that the sense of justice and fair dealing with which every man and woman in this country is imbued, will permit a profession which has deserved so well of the people and of the State to be flouted by the Government's brand-new Commissioners or trodden under foot by the Treasury and the misnamed friendly societies.

THE INTERNATIONAL OPIUM CONVENTION.

We are now in a position to state the results obtained by the International Opium Conference, which has been sitting at The Hague during the last two months.

The Conference arose out of the International Opium Commission which was held at Shanghai in February, 1909. That Commission adopted certain resolutions having for their object the gradual suppression of opium smoking in the Far East, the restriction of the use of opium and its derivatives to legitimate purposes, and for this purpose to regulate, by international arrangements, the production and distribution of such drugs, with a view to prevent their illicit transport or consumption.

At the request of the Government of the United States, and with the approval of the Government of the Netherlands, it was agreed by the twelve Powers which took part in the Shanghai Commission of 1909 that a conference should assemble at The Hague in December, 1911, to conventionalize the resolutions passed at Shanghai. The step was regarded as somewhat premature by His Majesty's Government, especially in view of the new arrangements which had been made between Great Britain and China with a view to the restriction and extinction of the Indo-Chinese opium traffic; but, on the understanding that the conference would deal with the growing evil of the illicit use of morphine and cocaine, and that certain reserved questions should not be included in the programme, Great Britain sent four plenipotentiaries to The Hague to take part in preparing the Convention. These were Sir Cecil Clementi Smith, Sir William Collins, Sir William Meyer, and Mr. Max Müller.

The Convention, which was duly signed by the representatives of Great Britain, America, Germany, France, Russia, Italy, Portugal, the Netherlands, China, Japan, Persia, and Siam, recites that the High Contracting Powers, being desirous of taking a further step in the direction marked out by the Shanghai Commission of 1909, and resolved to pursue the suppression of the abuse of opium, morphine, cocaine, and other drugs liable to similar abuse, recognize the need for international understanding, and are convinced that their humanitarian efforts will secure the unanimous support of all the nations interested.

The Convention then deals in three successive chapters with the case of "Raw Opium," "Prepared Opium," "Medicinal Opium," and certain alkaloids. Raw opium is defined as "the spontaneously coagulated juice obtained from the capsules of the *Papaver somniferum*, and which has only been submitted to processes necessary for packing and transfer." The participating nations resolve to enact laws to control the production and distribution of such opium, to limit the places to and from which such opium may be imported and exported, to forbid such export to places prohibiting its entry, and to control such export to places regulating its import. All packages of such opium weighing more than 5 kilograms are to bear a distinctive mark, and all import and export of raw opium are to be exclusively in the hands of duly authorized persons. Chapter II defines "prepared opium" as "the product of raw opium obtained by a series of special processes, such as solution, boiling, roasting, or fermentation, having for their object its transformation into an extract suitable for consumption, including within the term 'dross' and all other residues of smoked opium." The

Contracting Powers undertake in respect of such opium gradually to suppress its use or sale and either at once to prohibit its export or, failing prohibition, to regulate its traffic to certain places and persons, marking its package, but in no case to export it to any country prohibiting its import.

Medicinal opium is defined in Chapter III as "raw opium" which has been heated to 60° C., powdered and granulated, mixed or not with neutral substances, and containing not less than 10 per cent. of morphine. Morphine, cocaine, and heroine are also dealt with in this chapter. Here the influence of the British delegates has evidently been brought to bear, and Article 9 is highly important and far-reaching. It declares that the Contracting Powers will enact pharmacy laws and regulations so as to limit the manufacture, sale, and use of morphine, cocaine, and their respective salts to medical and legitimate uses only, unless such laws or regulations already exist. They will co-operate with one another in order to prevent the use of these drugs for any other purpose.

Then follows a series of articles indicating the mode in which the Contracting Powers will seek to enforce the control of the manufacture, import, sale, distribution, or export of these drugs, by limitation, licensing, inspection, etc., of the premises and persons where such business is carried on. Article 14, again, is of great importance; it recites that the Powers will apply the laws and regulations for the manufacture, import, sale, or export of morphine, cocaine, and their respective salts, to the case of medicinal opium, to all preparations (official and non-official, including the so-called anti-opium remedies) containing more than 0.2 per cent. of morphine or more than 0.1 per cent. of cocaine; to heroine, its salts and preparations containing more than 0.1 per cent. of heroine; and to every new derivative of morphine, cocaine, or their respective salts; or to any other alkaloid of opium which may be generally regarded on scientific investigation as liable to similar abuse.

The rest of the Convention deals mainly with the bringing into force and ratification of the foregoing.

A CAMPAIGN OF ASSURANCE.

IT was announced in the SUPPLEMENT to the JOURNAL of January 27th that a campaign, the object of which is to educate the public mind to a proper appreciation of the value of the Chancellor of the Exchequer's "Christmas gift" to the people, is to be carried on by the National Liberal Federation, with the assistance of a National Insurance Committee. It is to open on February 12th with a speech by Mr. Lloyd George reviewing the situation. He must by this time be aware that his promise of a "new earth"—created by Act of Parliament—has not excited the enthusiasm even among the supporters of the Government which his sanguine temper led him to expect. He has probably learnt that his prophetic soul, dreaming of things to come, did not take into account a factor which is essential to the successful working of his scheme. He did not seek counsel of the profession till he had determined to force his bill through Parliament, and then he asked it in the spirit of Mr. Croaker in Goldsmith's *Good-natured Man*, who was always ready to listen to reason when he was determined, because then "it can do no harm." If there has been any "revolt of the doctors," for that the Chancellor has himself and the medico-political advisers in whom he put his trust to thank. But, as his friends in the press assure us, he is not a man who readily gives in even to the hard logic of facts; so he intends to try to impose his will upon a disillusioned country. This is the situation which he has to review. He cannot be denied the praise of dogged determination; he is a fighter like Witherington in *Chevy Chase*, of whom it is told that:

> When his legges were smitten off
> He fought upon his stumpes.

Mr. Lloyd George is indeed a master of stump oratory, and he will doubtless give his admirers a fine example of that not altogether ingenuous art. It remains to be seen whether he has yet grasped the truth that, without the co-operation of the doctors, his Insurance Act in its present form can only be the ruin of an unfulfilled ambition, cumbering the ground and adding a useless burden to the already overloaded shoulders of the taxpayer. He has been lavish in explanation of his scheme, but the mystified public would doubtless be glad if, as Byron says, he would explain his explanation. Before attempting to educate the people he would do well to educate his spokesmen; otherwise the campaign will be a failure. The sharpshooters whom he has thrown out in various directions to prepare the way for the attack in force have wasted a good deal of powder and shot on the doctors without making any impression on their position. Some specimens of their methods of attack may be interesting.

The Right Hon. C. E. H. Hobhouse, Chancellor of the Duchy of Lancaster, in an address to representatives of friendly societies at Bristol, said that nobody had a greater respect for doctors than he had, but he thought a number of them had made a mistake. It is significant, in view of the composition of the audience, that this statement was received with expressions of approval. Mr. Hobhouse went on to say that the medical profession, led apparently by gentlemen who had not much acquaintance, he imagined, with actual practice amongst the class of persons who were going to be insured, vowed they would not work the bill. He had it on the authority of doctors engaged in friendly society work in East Bristol that under the Act they would be paid 50 per cent. better than at present. This statement, too, was received with cheers—a fact which seems to show that the friendly societies are aware that they have not paid their doctors sufficiently in the past, and that they are quite willing that the deficit should be made up out of public money. Mr. Hobhouse added that when doctors told him they would not work the Act he thought they were actuated by hostility to the Government and the Act, or they did not know in the least the conditions under which they were asked to carry on their business. Now, we may fairly ask Mr. Hobhouse what reason he has for saying that doctors are actuated by hostility to the Government, of which many of them are supporters, or to the Act, which they welcomed at first like the morning standing tiptoe on the misty mountain tops of the Chancellor's eloquence. It is not their fault that, as the haze cleared away, the prospect of the coming day became less glorious. Again, with regard to their knowledge of the conditions under which they were asked to carry on their business, does any politician really expect people to believe that the doctors know less of their business than he does? The fact is that the more the bill has been studied and the more it has been put before the profession in every detail by ourselves and others, the more its manifold imperfections and injustices have become visible. Mr.

Hobhouse and other speakers who take the same line should take the trouble to find out the facts before they make rash assertions. It is not gentlemen who have not much acquaintance with practice among the class of persons to be insured who are leading. It is men who know from experience exactly what service they are asked to render, and with full knowledge are determined not to accept the offer unless they get fair play. There has been no time probably in the history of the profession in this country when they were more united. It is not alone the British Medical Association, but the colleges and universities, which seldom trouble themselves about such sublunary matters, and the General Medical Council—in fact, every body representing any section whatever of the profession, that has joined in the resistance to the Chancellor's hasty and ill-considered legislation. Any differences of opinion which Mr. Lloyd George may flatter himself he has been able to excite are only on side-issues. In disapproval of the Act we may say the whole profession is solidly united. The degree of disapproval may, of course, vary, but in the mass it is quite plain that the profession will have none of it. Mr. Hobhouse's remarks seem to be an apt illustration of the "fossil Radicalism," as to which Mr. Frederic Harrison has recently told us that its idea that soft words can dispel the Teuton wrath is childish ignorance of real fact.

At Tredegar, Mr. T. Richards, M.P. for West Monmouthshire, was good enough to address a solemn warning to the doctors. He is a member of the Labour Party, and, like most of his brethren, seems to object to working men contributing anything whatever towards the preservation of their own health. He said the difficulty they contemplated was not with the Insurance Commissioners or with the local Health Committees, but with the medical men. Referring to the cardinal principles laid down by the British Medical Association, he said the £2 limit was impossible, and would never be conceded by the Tredegar colliers. They had always looked up to the medical men, but if they adopted the attitude of trade unions, they must expect the treatment meted out to trade unions. If the doctors chose to fight with these weapons, they must be prepared to be fought with them. He believed working men generally were prepared to treat their doctor as a gentleman, and to pay him decent wages. This is very gracious of the working man, but the "wages" he has so far paid could hardly be described by the word "decent," and it is plain from the utterances of those who profess to speak in his name that he objects to the compulsory principle altogether, and wishes that whatever wages the doctor may get shall not come out of his pocket. Mr. Richards went on to say that the doctors had something to lose in this matter. Unless they were prepared to work in conformity with the Act, any doctor who was registered could come to Tredegar and insist upon being put on the medical panel. He hoped that when the schemes were approved, the medical men would carry out the arrangement. That, we may say, must depend on what the arrangements are. One thing Mr. Richards and other champions of friendly societies should endeavour to realize, and that is, that the day of club practice under anything like the old conditions is over. It is possible that the working man may get doctors at the lowest wage, but he will find sooner or later that it is a false economy to sacrifice efficiency to cheapness.

Another Labour member—Mr. George N. Barnes, M.P. for Blackfriars, who, we see, has just been appointed a member of one of the numerous committees which are springing up around the Commission like the men from the teeth sown by Cadmus—speaking at Dundee, said the doctors had taken a most mercenary view of the Act. They had fallen upon it vulture-like to extract as much meat out of it as they could get. Politicians, of course, are never mercenary, and it must be very shocking to the mind of the Labour member to whom virtue is always its own reward to find that all doctors do not consider it a sacred privilege to attend the working man for nothing.

At the annual dinner of the Court "Duke of Cornwall" of the Ancient Order of Foresters, held at Oxford on January 19th, Bro. T. C. Hewitt said that in that city he did not think there was a society now which paid more than four shillings a member to the doctor. And, he added, if there was a vacancy in the Courts for a medical man, two or three doctors and the very best men came forward and applied to fill the vacancy. Did that look as if the friendly societies did not pay the doctors fairly? Under the Act they would get 6s. per head. If the doctors said that was unjust to them, were members of friendly societies to believe that all these years they had been 'baled out with coloured water'? Were they to believe that the doctors had not properly attended to them, or that they had not been remunerated fairly at four shillings? The doctors supplied drugs, and had always supplied drugs for this four shillings; and, under the same conditions, for six shillings they would supply just the same as before. He challenged the doctors to deny that fact. In addition to the ordinary membership a doctor would get three times the number of members, and wouldn't a man be prepared to lower rather than to increase if he had three times the amount of business which he usually did put in his way? Bro. Hewitt does not seem to see that this is an argument against rather than for the Act. The chief complaint of the profession against the present club system is that it is impossible to do the work efficiently on the terms offered. If a man is to have his patients increased threefold, or, as Bro. Hewitt puts it, if he is to have three times the amount of business he did before, it may be assumed that he will do it three times worse. This is no reflection on the club doctors, who do their best. It is a simple statement of the limitations of human power. Bro. Hewitt went on to say there would be no bad debts, and, carried away by his eloquence, he went on to give a solemn warning to the doctors. If, he said, they went on strike, let them remember this: That there were other laws beside the Insurance Act. Did they think Englishmen would stand by and see a poor brother neglected or a doctor refuse to attend him? No: the nation would be up in arms at once. Perhaps by this time Bro. Hewitt has cooled down, and has had time to reflect that there is no law that compels a doctor to give his services except on his own terms, any more than a grocer or a baker is compelled to sell his wares except at a profit. The nation might, as he says, be up in arms; but the nation might turn its arms not against the doctors but against log-rolling politicians. When Bro. Hewitt goes on to say that the doctors' action is unworthy of their profession he is talking nonsense, and he becomes more absurd as he proceeds: "Members of friendly societies could say the very same thing of the doctors if they wished to. They could say they were out to wreck the Act unless they were paid for everything they did. Three-fourths of the members of friendly societies to-day were working for the love of the thing" (he does not say what the thing is, but we have no doubt that they have good reason to love it), "and if it were not for them the Act could not go on. Therefore," he said, it was a dis-

grace to the medical profession for them to have adopted the attitude they had." This statement was received with applause. To people who, like Bro. Hewitt, want doctors to work for the love of the thing, it is doubtless natural to think it a disgrace that the men without whose assistance the friendly societies would speedily dissolve into thin air should require something like an equivalent for their work.

At a mass meeting of members of the Municipal Employees Association held at Leicester, Mr. Richard Davis, General Secretary of the Association, said no friendly society had ever given anything like the medical attendance to its members that the insured were to have now. The efforts of the doctors to get Mr. Lloyd George to rob the workers by diminishing the benefit did not matter. The benefits were there, and they, the insured, were assured of them. Here we may venture to ask, How are they assured of them if the doctors do not consent to play the part of flies to the Treasury's spider? Mr. Davis went on to say that the doctors wanted the income limit lowered so that they could have larger private practices. It appears to surprise this worthy gentleman that such a wish should be felt by any one. We wonder—if we may do so without impertinence—if he would object to receive a larger salary? He told his audience that if the whole of the work for the doctors was divided out equally, every doctor would have six pounds a week. He prudently refrained from hinting at the amount of work that would have to be done for this princely sum.

Addressing his Derby constituents on January 10th, Mr. J. H. Thomas, M.P., said the action of the doctors over the Insurance Act should be taken to heart by the workers, who would be certain to profit by the lesson. This is somewhat cryptic, but it seems to imply a threat of some kind. We should be inclined to put it the other way. The doctors are only now beginning to profit by the lesson they have long been receiving from the "workers." We may say, by the way, that it must strike a doctor, who has no limitation of hours day or night and has often hardly time for meals, as strange to see the class that wishes to limit the output and reduce the labour of every working man to a dead level, quietly arrogate to itself the title of "worker." It is high time that the "workers" should learn the lesson that the men who really deserve that name are those who give themselves to their labour without stint. Mr. Thomas went on to say that the doctors belong to a class of society which usually denounced the working-class organization, but they had put the workers up to methods of attack for which they might have reason to be grateful. What this means we do not pretend to understand, and certainly we can afford to contemplate with perfect equanimity any "methods of attack" which the working-class organization may choose to adopt. If that organization has been denounced by doctors it has not been for any other reason than that they have so long been ground under the heel of friendly societies. Mr. Thomas added that in spite of the doctors' opposition, much of which was actuated by purely political motives, the Act would work, and as a trade union leader and an old friendly society member he did not hesitate to say that it would benefit the workers. The prophecy may be taken for exactly what it may be worth, but we may ask what reason Mr. Thomas has to think that much of the doctors' opposition is actuated by purely political motives. If the Act is, as some of his colleagues believe, to make the doctors' condition better than it has been, the doctors would certainly not allow political motives to stand in the way of such benefit. It is precisely because the benefits are given to a large section of the population at his expense that the doctor objects. This is not politics but practical common sense.

Lastly, we have Mr. J. M. Robertson, of Tyneside, again. Only the other day he attributed the opposition of the doctors to the Act to the fact that they were mostly Tariff Reformers. Now he says it is not due to Toryism but to "panic." As he admitted at the same time that they "were the only fear"—in regard to the working of the Act—it would almost seem that the "panic" is on the other side.

We have given these specimens of the tactics of Mr. Lloyd George's sharpshooters, as it is well the profession should know how the fight is being carried on. The reason for all this wrath directed against the doctors is not far to seek. A politician wishing to gain a reputation as a philanthropist devises a scheme which he supposes will please a large number of voters. These naturally accept the promised benefit with eagerness, and can see nothing but selfishness and self-seeking when the men who are to be the agents of the Chancellor's vicarious bounty—not being able to live by philanthropy alone—venture to ask that their interests should be considered. Did not Sydney Smith say long ago that charity was exemplified by Smith expressing the opinion that Jones really ought to do something? Mr. Lloyd George goes further. He wishes to compel Jones to do something, for which he himself is to get the credit.

THE COUNCIL'S REPORT ON THE INSURANCE SCHEME.

THE meeting of the Council of the British Medical Association on Wednesday last did a great deal of important business. It sat from two until past eight o'clock, and during the whole of this time the tension of business was relaxed only for a few minutes when the councillors were permitted to revive their energies with the cup which cheers but not inebriates. We have referred in the first article in this part of the JOURNAL to the decision reached, without hesitation or any prolonged debate, to decline to take part, at forty-eight hours' notice, in a private conversation with the Insurance Commissioners and certain medical bodies which the Commissioners had thought proper also to invite. The Council spent much time in the revision of the Report[1] to the members of the Association for consideration in the Divisions in preparation for the momentous meeting of the Representative Body, which has been summoned for Tuesday and Wednesday, the 20th and 21st of this month. The Report is not so long or involved as some of the documents previously put forth, and we venture most earnestly to appeal to all members of the Association to study it carefully, and to form an opinion, subject to discussion with their fellows in Divisional meetings, on the validity of the recommendations with which it concludes. Looking at it as impartially as possible, it seems a document as free from bias as could have been put forth, and to contain the outline of a policy which the profession should consider with an open mind. It contains, as was to be expected, a vindication of the Council's action, as the executive of the Association, from the aspersions which have been cast upon it. Whatever mistakes have been made—and the man, as Napoleon said, who makes no mistake makes nothing—the question now is whether we cannot close our ranks, and whether the members of the Association cannot within the next fortnight give such instructions to their Representatives as will ensure that the Special Representative Meeting shall

See SUPPLEMENT this week.

formulate a policy on the basis of this Report, of the Act,[2] and of the scheme as a whole.[3] The Report at least puts in a clear light the chief defects in the Act and in the scheme considered as a whole, and makes recommendations which will afford opportunity for the discussion by the Representative Meeting of every defect, even apart from motions which the Divisions will formulate for its consideration. A motion made in the Council to delete all the recommendations received a good deal of support, partly on the ground that the Council ought not to give any semblance for the charge which might conceivably be made, that it was seeking to dictate to the members and the Divisions, and partly on the somewhat different ground that it had been alleged that, at previous Representative Meetings, there had been a disposition to give an undue preference and prominence to motions proposed by the Council. This opinion did not prevail in face of the contention that the Council would fail in courage and in its duty to the Association and the Representative Meeting if it did not submit for free discussion its considered opinion on the attitude which the profession should now assume towards the Insurance Commissioners, the Treasury, and the Government, and the policy which at this stage of the development of the National Insurance Scheme should be adopted.

THE MEDICAL SECRETARYSHIP.

The Council at its meeting on Wednesday had before it a report from the Finance Committee on an instruction to consider and report to the Council as to the filling of the vacancy in the office of Medical Secretary and the whole question of the staff of the Medical Secretary's department. The committee reported that it had invited applications by advertisement, that thirty-one names had been sent in, but that there had not been time adequately to consider them. The committee recommended that it should be authorized to report at the next meeting of the Council, special or otherwise. A discussion ensued, in the course of which it was urged that it would be more businesslike to ask the Finance Committee to make its report on the Medical Secretary's department, which it seemed generally to be considered stood very much in need of organization, before the Council was called upon to fill the vacancy. During the discussion several tributes to the services already rendered by the Acting Medical Secretary (Dr. Cox) were received with marks of approval, and eventually it was agreed that the Finance Committee should make a report on the organization of the Medical Secretary's department, and that this report should be in the hands of the members of Council early enough to enable them fully to consider it before the next ordinary meeting of the Council, which will be held in April, and at which it was proposed the appointment should be made.

RESEARCH DEFENCE SOCIETY.

A branch of the Research Defence Society was founded in Leicester at a meeting of influential citizens held on January 20th. Mr. C. J. Bond, F.R.C.S., occupied the chair, and was supported by Mr. Stephen Paget. Among the others present were Sir Edward Wood, the Mayoress (Mrs. Tollington), and Mrs. A. E. Leonard. The Chairman in explaining the aims and objects of the meeting, said that fortunately, and unfortunately, they heard many arguments put forward against performing experiments on animals, and it was desirable that the other side and the advantages of vivisection should be placed before the public. There were many who conscientiously held opinions opposed to the aims of the society. He believed that it was right to approach all suffering in an attitude of inquiry. People should be concerned as to suffering in animals and in human beings, and the higher in the scale of living the more concerned they should be, and especially when it affected human beings. When one thought about the way in which some people treated their little pets, one sometimes wondered whether people placed the interests of their fellow creatures in front of their pets. There were two reasons why some hesitated to support vivisection. The first was whether there had been any real benefit from such experiments, and, secondly, whether there were proper restrictions to prevent unnecessary suffering. Twenty years ago he performed experiments upon animals, and was willing to take his share of abuse which came to all who had performed experiments of that kind, but he was not prepared that that matter should not go on, by default of people being ignorant of the benefits to be derived. Mr. Bond then introduced Mr. Paget, who, in the course of his address, traced the growth of the vivisection movement from the 1875 Royal Commission up to 1908, when the Research Defence Society was formed with seven members. Now the membership numbered over 4,800. The society had nothing to do with working experiments on animals, or in advising the Home Office. It had nothing to do with any movement for the restriction or abolition of experiments. The society was, foremost, a publishing company, and was desirous of keeping the facts before the public mind. In 1911 no less than 120 address and lantern lectures were given and much literature distributed. Referring to experiments, Mr. Paget said that experiments in bacteriology made up 95 per cent. of the experiments upon animals. Not only human beings, but animals derived much benefit from the experiments. Animal diseases were better treated as the results of information gained by experiments. People had benefited because the medical men were able to trace the source of infection. He would not say a word against antivivisectionists, but when one studied the sort of literature they spread broadcast, and thought of what would have happened had they had their way thirty years ago, and of all the lives that had been saved by the results of the experiments, he thought one had a right to be impatient and ask the public to hear what the work of the Research Defence Society was in the saving of human and animal life, and what they owed to the man of science. On the motion of Dr. Astley Clarke, seconded by Mr. Bratley, it was decided to form a branch of the society in Leicester. On the proposition of Dr. Pope, seconded by Sir Edward Wood, a cordial vote of thanks was accorded Mr. Paget.

SURGERY AND SOCIAL REFORM.

Lombroso's theory of the "criminal type" has now fallen into discredit. For ourselves we never accepted his teaching, which put us in mind of "Hamlet's aunt" in *David Copperfield*. That lady, it may be remembered, had a strong belief in an aristocratic type. "We see Blood in a nose and we know it. We see it in a chin, and we say, 'There it is! That's Blood!' It is an actual matter of fact; we point it out. It admits of no doubt." In like manner Lombroso taught us to see, let us say, arson in the ear, rape in want of symmetry in the face, and murder in the shape of the skull. Had Lombroso's theories been generally accepted, few would have escaped hanging except those cunning or lucky enough not to be found out. The physiognomy, of course, is often an index of the character, and the physical peculiarities noted by Lombroso are part of the physiognomy. The error made by his school lay in the fact that they believed that these physical peculiarities were not merely the "notes" of a criminal tendency, but were structural conditions by which an actual criminal could be recognized. It is related of Socrates that some Lavater of ancient Athens meeting him in the street said that his face bore all the

[2] Supplement, January 6th, 1912.
[3] British Medical Journal, January 20th, 1912, p. 145; and Supplement, same date, p. 62.

marks indicating gross sensuality. When his disciples seemed disposed to resent what they considered an outrage on their revered master, Socrates stopped them and said it was true that the passions expressed by his physiognomy were inborn in his nature, but he had been able to repress them by the force of his will. A *face patibulaire* does not indicate that its possessor will end his days on the gallows in expiation of crimes committed. We note that an American judge has recently pronounced an *obiter dictum* from which we gather that in his belief the physical co-efficient of crime is to be found in the conformation of the throat. Judge DeLacy of the Juvenile Court of Washington states that he has had eminently satisfactory results from the treatment of juvenile criminals by sending them to the hospital instead of to the reformatory. He says that incorrigible, lazy, backward and criminal children have been cured of their bad habits by surgical operations. Doctors who have investigated the condition of the children sent to them by the judge who makes medical examination almost a regular part of the court work, have discovered that many of them are the subjects of disease of the throat, ear, or eye. They become abnormal through pain or nervousness. They fall into mischief and become criminals, not because they are naturally evil, but because of physical conditions, amongst which enlarged tonsils and adenoids hold the first place. Such children have trouble in breathing, become high strung and weak physically, and are so irritable as to be beyond control. When the adenoids are removed the children usually become normal again. The judge, it is said, has enlisted the co-operation of some of the leading surgeons and physicians of Washington. We make no doubt that many backward and incorrigible children suffer from enlarged tonsils and adenoids. These conditions, as is now well recognized, produce the state called by the late Dr. Guye of Amsterdam, *aprosexia*, which means the want of power of concentrating attention. Moreover, in many of these children the hearing is imperfect, and the inadequate oxygenation of their blood produces a state of lowered vitality. All this interferes with their education. Further, the surroundings in which many of them live are insanitary and depressing, and they are constantly exposed to be witnesses of various forms of vice and violence. The moral environment produces viciousness as the physical environment begets disease. It seems a confusion of cause and effect to attribute the vice to obstruction in the throat. Many children of the well-to-do classes suffer from the same physical conditions without showing criminal tendencies. We should be glad to accept Judge DeLacy's simple etiology of crime. It would greatly simplify the problem which is now exercising social reformers so much, and a return to the state of innocency from which Adam fell would be cheaply bought by the sacrifice of any number of tonsils and the removal of adenoid growths. What a virtuous world it would become in a few years if crime could be thus exorcised by surgery! When one looks back across the waste of centuries during which the human race has wallowed in every species of iniquity, one must deplore the fact that the true cause of crime remained so long a mystery as impenetrable as that of the source of the Nile. Even twenty-five years ago one used to hear physicians of the highest eminence vehemently deny the existence of adenoids and denounce those who professed to remove them as quacks of the worst kind. The whirligig of time brings in strange revenges, and it would be curious if the leaders of the profession in the Eighties could revisit the earth for a short time to see into what mountains the molehills of which so much fuss was made have grown. What would they feel if they could see that the despised throat specialist was being hailed as a powerful instrument of social reform? To speak seriously, while we do not by any means believe that the millennium is to be brought about by the removal of adenoids, we hail with deep satisfaction the recognition by a high judicial authority of the simple truth that physical conditions have much to do with criminality. If virtue should not, as the French lady said, be altogether a matter of climate, it is certainly, to a greater or less extent, a matter of physical constitution. But the tonsils and adenoids do not cover the whole ground. Any state of the body which lowers the health and causes irritability must necessarily react on the character, and, *pro tanto*, predispose to crime. The time may come when the surgeon may be the saviour of society—when, for instance, by opening the skull he may be able to remove a cause of disordered judgement, and by so doing restore mental equilibrium, and give the self-control which prevents men from following the criminal instincts that lie hidden in the deepest recesses of human nature; or by short-circuiting the colon may free them from the gloom and fanaticism that are often the outward expression of imperfect intestinal sewerage.

THE MECHANICAL FACTOR IN DIGESTION.

In spite of all that has been published on the results of radiology in demonstrating the motor functions of the various portions of the alimentary canal, its practical application is by no means so general as its extreme utility deserves, and we welcome such demonstrations as that which Dr. Hertz gave recently at a meeting of the Brighton Division (see p. 225), because they help to spread a better knowledge of what radiology can do in this respect, and to impress upon practitioners the urgent need there is for seeking the assistance of a radiologist in the diagnosis of diseases of the alimentary canal. It is not going too far to say that a preliminary radiological examination after the ingestion of a bismuth meal would prevent many exploratory incisions being made, and would give to others a more definite character and purpose. The surgeon would know what to expect, and he would be able to plan his procedure in accordance with his knowledge of the pathological condition present; it would, above all, diminish the number of useless operations for inoperable cancer; and, although it cannot help us in the early diagnosis of this disease, it can give absolutely sound data for operating when a tumour can be demonstrated. Callous ulcer in its early stages can be recognized, and when other symptoms are present radiology illuminates many of the darker shadows of the diagnostic problem. In constipation radiology distinguishes between the atony which involves the whole colon and that in which the pelvic portion only is concerned. The importance of the mechanical factor in digestion is, perhaps, not sufficiently appreciated. So long as the motor functions of the alimentary canal are undisturbed, there are no subjective sensations of discomfort while, on the other hand, muscular atony is the parent of the lengthy catalogue of troubles which the "nervous dyspeptic" pours out to his sympathetic doctor. It is of the utmost importance to recognize and to relieve these ailments, and the former, at least, is made possible by radiology.

INTERNATIONAL CONGRESS ON TUBERCULOSIS.

The eighth International Congress on Tuberculosis, which was to have been held in Rome last autumn, will meet next April (14th to 20th). The Congress is under the patronage of the King and Queen of Italy, and the President is Professor Baccelli. The work will be divided into three Sections as follows: I. Social Defence; II. (*a*) Medical Pathology and Therapy, (*b*) Surgical Pathology and Treatment; III. Etiology and Epidemiology. In the first section the following subjects will be discussed: Associations, sanatoriums, and kindred institutions in the struggle against tuberculosis, with special reference to the development of children and adolescents; the notification of

tuberculosis; the sanitary police of dwellings in the prevention of tuberculosis: home work in manufacturing towns in relation to tuberculosis: tuberculosis and the school; preventive and curative institutions as factors in social defence against tuberculosis; the part played by woman in the prevention of tuberculosis in the family: alcoholism and tuberculosis; tuberculosis and emigration; tuberculosis and the Red Cross. In Section II (*a*) the subjects for discussion are: The influence of locality on the course of tuberculous diseases: the significance of physical changes in relation to the anatomo-pathological modifications of the lungs in tuberculous diseases of the air passages: latent tuberculosis and its diagnosis: the early diagnosis of tuberculosis in relation to its prophylaxis in the army; the *x* ray in the diagnosis of tuberculous diseases; the applications of the discoveries relative to immunity to the clinical study of tuberculosis—(*a*) the raising of the resistance of the human organism to tuberculosis; (*β*) active specific therapy of tuberculous diseases; (*γ*) the treatment of tuberculous disease by specific serums—artificial pneumothorax in the treatment of tuberculous diseases: solar radiation in the treatment of tuberculous diseases; the time for the induction of premature labour in the course of pulmonary tuberculosis. In Section II (*b*) the programme includes the following subjects: The importance of seaside hospitals and of mountain-air institutions in the treatment of surgical tuberculosis: the importance, the limitations, and the time for intervention, operative or other, in surgical tuberculosis; the surgical treatment of abdominal, especially gastro-intestinal, tuberculosis: the surgical treatment of the genital apparatus—(*a*) male, (*b*) female; the treatment of tuberculosis of the urinary apparatus. In Section III the programme is as follows: Human in relation to bovine and other forms of ancient tuberculosis; tuberculosis and milk: the channels of entrance and diffusion of the tubercle bacillus in the organism; modifications of the biological properties of the tubercle bacillus in the medium and in the organism: etiological importance of social factors in tuberculosis; tuberculosis in communities (schools, workshops, barracks, etc.)—(*a*) tuberculosis in armies, (*b*) tuberculosis in relation to recruiting; the epidemiological course of tuberculosis in relation to the means of social defence. In the list of those who are to open these discussions we find the names of Dr. Niven (Manchester), Dr. Robertson (Birmingham), Professor Sims Woodhead and Dr. Griffith (Cambridge), Dr. Theodore Williams, Dr. Heron, and Dr. Corner (London), and Dr. Scurfield (Sheffield). Four general addresses are to be delivered before the congress, and we are glad to note that the Organizing Committee has selected Dr. Philip (Edinburgh) to be one of the four orators, in recognition of the leading part he has taken in the fight against tuberculosis. All communications relative to the congress should be addressed to the Secretariate, via in Lucina, 36, Rome.

THE BRITISH MUSEUM LIBRARY.

THE controversy in which the readers of the *Morning Post* have been indulging as regards the British Museum library is so essentially one in which, as matters at present stand, medical men will take little interest, that there is good reason to regard the criticism levelled against the authorities as wholly or in part justified. The unfortunate fact is that medical men as a class do not attempt to make any use of the unique facilities which the museum library affords. This is partly because of the special facilities which the College of Surgeons library, with its now almost completed subject index, and kindred institutions are able to offer, but even more to the inadequacy of the arrangements which are made by the authorities at the museum. In medicine, perhaps, even more than in other sciences, it is essential to get hold of the literature as soon as it is published; the importance of periodicals is equal if not superior to that of books, and at the museum periodicals are not available until after they have lost their freshness. Nor is any serious attempt made to ensure that the books on the reference shelves should be thoroughly up to date. An even more serious charge is brought against the library by those who have attempted to make use of it in connexion with the history of medicine. The researcher may go to the Surgeon-General's Catalogue and laboriously enter up slips for those books which he hopes may prove of value to him in his work. In an unpleasantly large number of cases he finds that the books and periodicals to which he wishes to refer are not in the collection. This should not be the case. A national collection should aim at being superior to the specialized collections of books which are made by the societies interested. Their function is to get together libraries as complete as they can with the funds at their disposal, and, their size making them more convenient, to act as the first source to which members apply for information. It is for the national collection to supply the deficiencies. The chief failings of the museum, to which attention has been called in the columns of our contemporary, appear to be: The rigid constitution of the museum, the virtual restriction of posts in the library to Oxford and Cambridge men, the absence of a subject catalogue, the gaps in the collection, the unsatisfactory way in which the rights of the museum as regard copyright English books are enforced, the extravagant and curious methods by which foreign books are purchased, the unnecessary delay which elapses before a reader gets the books which he has requisitioned, the cumbersome machinery necessary before provincial newspapers can be consulted, the short hours during which the library is open to readers, and the absence of a periodical room. Those who have had any experience of the courtesy with which the staff attempts personally to meet the wishes of the readers, and who know the self-sacrifice with which many of them discharge their duties, will be glad to notice that the criticism has developed chiefly along two lines—that the constitution of the trustees is not such as to suggest that the museum should be efficiently administered, and that the Treasury and the Government are to blame for the way in which the museum is starved. It is a matter almost of common knowledge that if a member of the staff suggests a reform that will involve a slight increase in expenditure he is apt to get severely snubbed for his pains. Altogether a good case seems to have been made out for an inquiry. The British Museum, with its library, is far too valuable an institution for the nation to allow it to be worked at anything less than its utmost capacity.

TREATMENT OF LEPROSY.

AT two of the Indian asylums of the Mission to Lepers new remedies are at present being tried. A supply of bacterial extract, prepared by Dr. Bayon at the Lister Institute of Preventive Medicine, has just been forwarded to the Calicut Asylum, where it will be applied according to his instructions by Dr. Stokes, the superintendent. The preparation is analogous to tuberculin, and made from a culture originally isolated by Professor Kedrowsky, of Moscow, from cases of leprosy. This organism has been carefully studied by Dr. Bayon by experimental and modern serological methods, and he is of opinion that it is identical with Hansen's bacillus. At Champa, in the Central Provinces, Dr. T. C. Rutherford is experimenting on thirty cases with a new antitoxin. While old and well-recognized palliative remedies are employed at all the society's asylums, facilities for experiment with new and improved forms of treatment are gladly afforded by the Mission, whose organizing secretary is Mr. John Jackson, 33, Henrietta Street, Strand, W.C.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

WALES.

The Profession and the Insurance Scheme.

With the view of arranging concerted action in Wales, a meeting of the Presidents of Branches and Chairmen of Divisions and of the Honorary Secretaries of Branches and Divisions in Wales, together with the Welsh members of the Representative Body has been arranged. It will be held on Friday, February 9th, at Shrewsbury, as the railway facilities make that city the most convenient centre for a meeting at which North, Mid, and South Wales are all to be represented. The meeting will be invited to resolve itself into a Welsh Medical Committee, for the general purpose of promoting the organized union of the medical profession throughout Wales, in order to protect the interests of the profession and to strengthen the bonds of fellowship. It will be proposed that the Committee when formed should invite the co-operation of members of the profession in Wales who do not at the present time happen to hold any of the offices in the Association above enumerated; it is the desire to act through and with the Association, and in particular to seek to extend its membership in Wales, so that it may include every member of the profession in the Principality. The meeting will be invited to reaffirm the six cardinal principles of the Association, and to ask all the Divisions in Wales to convene meetings of the profession, and to invite medical men who are not yet members to attend. At these meetings the cardinal principles will be submitted for reaffirmation, and the terms on which medical men may be willing to accept service under the Act will be discussed. It will also be proposed that the Welsh Medical Committee when fully constituted shall appoint an executive committtee to communicate with the Board of Commissioners for Wales, and to inform them that the profession in Wales will absolutely refuse to work under the Act unless the scheme of medical benefit is consistent with the six cardinal principles, should this, as is confidently anticipated, be the resolve definitely formulated by the meetings of the Divisions in Wales. Preliminary inquiries have shown the utmost unanimity on general principles, and as to the propriety of the course proposed to initiate the movement. The meeting on Friday next will be held at the Raven Hotel, Shrewsbury, at 2 p.m.

Welsh Handbook of the Insurance Act.

The National Health Commissioners for Wales have appointed Mr. Beriah G. Evans to take charge of the official insurance literature for Wales, both English and Welsh. The Commissioners intend to issue a quantity of literature in both languages to explain the Act. Mr. William George, who is preparing a Welsh handbook of the Insurance Act, recently offered a prize of one guinea for the best Welsh idiomatic translation of the principal technical terms and phrases in the Act. There were fifty-one competitors, and the prize has been awarded to Mr. J. Bodvan Anwyl of Pontypridd, the brother of Professor Sir Edward Anwyl.

Welsh National Memorial.

A very large meeting was held on January 23rd at Shrewsbury, under the chairmanship of Mr. David Davies, M.P., for the purpose of considering the position of the Welsh National Memorial under the Insurance Act. The Chairman briefly reviewed the origin of the movement to form a Welsh memorial to King Edward VII, and the steps which had been taken to establish a large fund for fighting consumption in Wales and Monmouthshire. A large sum had been subscribed, the amounts from the various counties and boroughs being as follows:

Breconshire	£4 054	Monmouthshire	£10,920
Cardiff	6,311	Newport	1,187
Cardiganshire	344	Pembrokeshire	692
Carmarthenshire	349	Radnorshire	3,782
Glamorgan	16,895	Swansea	7,059

These amounts, added to other donations, made the total fund £198,000 at present, but when the Chancellor of the Exchequer introduced the Insurance Bill the subscriptions to the memorial at once fell off. The Executive Committee decided that the best way to induce the public to continue subscribing would be to get an amendment of the bill which would give the control of sanatoriums in Wales and Monmouthshire to the Memorial Committee under a Royal Charter. The bill had been amended so that the Insurance Commissioners for Wales had been appointed, and the powers of the Local Government Board with respect to the distribution of grants in aid of sanatoriums and similar institutions would, as regards Wales and Monmouthshire, be exercised by the Welsh Commissioners. A subsection provided that an association for providing sanatoriums, etc., be formed under Royal Charter. The effect of the new provisions would be as follows: (1) One association representative of all classes and all public bodies would control Welsh sanatoriums. (2) The Welsh Commissioners would have power to make grants to the association for the building of sanatoriums. (3) The association would be able to arrange with local Insurance Committees for the treatment of insured and uninsured tuberculous patients in their area. The association had already begun its work. The West Wales Sanatorium, and the Open-air Home at Treborth had already been taken over, a travelling tuberculosis exhibition was touring Wales, and twenty-five nurses were being specially trained. Dr. M. S. Paterson had been appointed Medical Director of the association, and he was now working out a scheme for effective treatment of consumption, with the co-operation of medical officers of health and others. In conclusion Mr. Davies made an appeal, especially to public bodies, to provide the amount remaining to bring the fund up to £300,000. On the proposition of Lord Kenyon, it was with acclamation carried, that Mr. David Davies be appointed the first chairman of the chartered association, to hold office for life.

LIVERPOOL.

Medical Students' Annual Dinner.

The medical students' annual dinner was held on Saturday, January 20th, at the Exchange Station Hotel. Dr. T. R. Bradshaw presided, and Mr. D. Douglas-Crawford was vice-chairman. There was a full gathering, and old students were well represented. The speeches were to the point and happy in sentiment. An excellent musical programme had been arranged, and altogether the evening was a great success.

Liverpool Literary and Philosophical Society.

On January 22nd, at the Royal Institution, and under the auspices of this society, Professor E. W. Hope, M.O.H. Liverpool, read a practical and much appreciated paper on "Some of the Great Sanitary Operations in Liverpool and their Results." He dealt with the fall in the death-rate of Greater Liverpool from 24.8 in 1895 to 17.4 in 1910. There were 3,000 fewer deaths in Liverpool in 1910 than in 1895, although the population had increased 115,000. The diminution in deaths also meant a diminution in sickness. Wherever a community could be educated to understand that sanitary progress promoted commercial progress, the path of the sanitarian was made comparatively easy. The eventful history of tropical sanitation proved this, as did international agreements as to quarantine. The modern methods of medical inspection of ships, and the consequent minimum of interference with commerce, had been rendered possible by a closer study of the nature of infection and the diffusion of knowledge. He drew attention to the education not only of the people, but of statesmen who controlled in these, as in other matters, the destiny of nations, and referred to the education of the people as to the desirability of purity of water supply, the transmission of disease by vermin, flies, and other insects, and as to the need for pure and healthy food and milk. All efforts towards sanitation had met with opposition, but the results were such that only the most ignorant reactionary would wish to recall the old conditions; but the public forgot the old conditions and accepted improvements as a matter of course, so that it was necessary to keep alive a general interest in sanitation. Further, the universities must take care that the training for their diplomas in public health shall be good and the facilities adequate, with degrees and diplomas of a

high order. As to the question of sanitation and eugenics, Professor Hope said that sanitary measures made it easier for the fittest to survive.

The University.

After a short absence from Liverpool, due to ill-health, the Vice-Chancellor, Sir Alfred Dale, has been warmly welcomed by the council and his university colleagues on his return in restored health. The School of Social Science continues to do good work, and has arranged a valuable programme of lectures and classes for students interested in the study of social problems. The election of Mr. Sydney Jones as a member of the City Council is another link in the chain which binds the city and university together. It is to be hoped that he will become a member of the Education Committee. Funds are urgently needed towards the erection of the new building for the University Settlement. The settlement is capable under the best conditions of doing much to assist the solution of the grave problem of poverty in Liverpool. Mr. F. Marquis, the warden, will give any information, and will acknowledge donations. The university now offers courses for a special degree in commercial science (B.Com.Sc.). It will be of considerable value to students who purpose following a business career after university life, for it is hoped that special consideration will be given to holders of it by business houses. The course is of special value to those who purpose entering the Government consular service.

Dr. A. Bernard, after ten years' service as a lecturer in the medical faculty, has resigned. His severance from official connexion with the university is greatly regretted.

A course of lectures on the imagination in mathematics has been arranged, and will be delivered by Dr. W. H. Young.

Liverpool School for the Indigent Blind.

With the exception of that of Paris, the Liverpool School for the Indigent Blind is the oldest institution of its kind in the world, having been founded in 1791. Its utility and value are well maintained. In addition to the head quarters in Hardman Street, a valuable agency for the instruction of the afflicted children only is maintained in Wavertree. In the one hundred and twenty-first annual report presented to the annual meeting it was intimated that the committee desired to offer facilities for teaching adults who had lost their sight late in life. It would not be satisfactory for the older men to live under the routine and discipline of the school for the young, and a home had been established close by to accommodate twelve men, who could live there and attend school daily. This is an excellent enterprise and deserves support, as adults are shut out from most of the other institutions in the country. The announcement that Mr. Wade Deacan, who had held the presidency for thirteen years, had decided to resign the office was received with much regret. Mr. A. Isaacson was appointed his successor.

Dental Students' Ball.

The dental students held their annual ball at the Adelphi Hotel on January 26th. There was a good attendance, and the ball-room was attractively decorated. The masters of ceremonies were Messrs. W. R. Bennette, H. T. S. Channing, and R. C. Kershaw, who were ably supported by a staff of stewards. The guests were received by Professor and Mrs. Thelwall Thomas, a charming bouquet being presented to the hostess by Mrs. Kershaw. An excellent programme of dance music had been provided, and the evening was much enjoyed by all present.

BIRMINGHAM.

General Hospital, Birmingham.

Dr. James William Russell was on January 26th elected Physician to the hospital for a term of fifteen years. Dr. Russell, who is the son of Dr. James Russell, Physician to the Hospital from 1859 to 1885, is a Cambridge graduate and a Fellow of the Royal College of Physicians of London: he became Resident Medical Officer to the hospital in 1891, and a year later was appointed Assistant Physician. He is also Assistant to the Chair of Medicine in the University of Birmingham.

MANCHESTER AND DISTRICT.

Post-graduate Demonstrations.

In order to suit the convenience of practitioners it has been decided to alter the day on which medical demonstrations are given at the Manchester Royal Infirmary from Monday to Tuesday. The surgical demonstrations will be held as heretofore on Friday. The demonstrations will therefore be given at 4.30 p.m. every Tuesday and Friday throughout the year, the months of April, August and September, and Whitsun week excepted.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

Scottish Poor Law Medical Officers' Association.

Annual Meeting.

The annual meeting of the Scottish Poor Law Medical Officers' Association was held in the St. Enoch Hotel, Glasgow, on January 26th, under the chairmanship of Dr. Gilbert Campbell, Chairman of the Committee.

Annual Report.

The committee reported that during the year 1911 detailed information was supplied to a large number of applicants in regard to various appointments. The information was in every case founded on facts supplied by the outgoing medical officers, and thus every applicant knew with accuracy the nature of the appointment.

One of the points upon which the committee was consulted during the year led to a communication being addressed to the Local Government Board inquiring whether a complete set of rules were in existence defining the duties of medical officers to parish councils. The reply of the Board was to the effect that the Board had in contemplation the issue of regulations relating *inter alia* to the duties of Poor Law medical officers. So far as the committee was aware, such rules had not yet been issued.

The Local Government Board had also informed the committee that a number of questions arising in connexion with the granting of medical relief to old age pensioners had not yet been dealt with by any general instructions to the Board. The committee had advised members that:

> Medical officers must attend pensioners as private patients, unless in cases where the parish council grants a medical relief order, then the medical officer must attend the case as part of his duties without any extra remuneration from his parish council. In regard to the supplying of medicine to pensioners, if the medical officer's salary is inclusive of medicine, then he must supply the medicine in the same way as to ordinary paupers. But, if his salary is exclusive of medicines, then he will charge the cost, and recover the same from his parish council.

In several cases in which the services of a medical officer had been terminated on the ground that he was not resident in the parish, the committee had pointed out that as the medical officer had no security of tenure, the parish council could dismiss him without cause given, provided that the length of notice was reasonable, depending on whether the salary were paid monthly or quarterly. In every case reported to the committee the medical officer had resided nearly ten miles from his parish, so that when another medical man started practice in the district it was in the interests of the public that the new man should hold the appointment. The annual meeting unanimously approved the view expressed by the committee.

The Insurance Act had led to many questions being addressed to the committee on which it had been unable to give any definite advice, as everything must depend on the terms, if any, which were arranged with the Insurance Commissioners—"Amount of remuneration, wage limit, mileage in country districts, supplying of drugs, etc., all being burning questions. Combination of the profession is at the present moment essential. Union means success; disunion means disaster."

The report expressed a wish for the success of the association formed to bring Poor Law officials, including inspectors, governors of poor-houses, medical officers, and clerks, under the scheme of superannuation.

The financial report showed that the position of the association in this respect was satisfactory, the balance in hand being £190.

It was pointed out that the secretary had during the last fifteen years carried out the duties of his office without fee or reward, and, having regard to the satisfactory condition of the association's finances, it was unanimously agreed that he should, as from 1911, receive an annual honorarium of ten guineas. The minutes of the last annual meeting were approved, the committee's report adopted, and the election of office-bearers for the ensuing year carried unanimously. The meeting terminated with the usual vote of thanks to the office-bearers.

The secretary of the association is Dr. W. L. Muir, 1, Scion Terrace, Glasgow, to whom, or to the treasurer, Dr. Matthew Martin, 737, Gallowgate, Glasgow, the annual subscription of 5s. should be sent.

HOME FOR FEEBLE MINDED CHILDREN.

The annual meeting of the Glasgow Association for the Care of Defective and Feeble-minded Children was held on January 22nd, Lord Provost Stevenson presiding. The report for the year stated that an extension of Waverley Park Home at Kirkintilloch was proposed, and an appeal for £3 000 would be issued. It was proposed to build cottages to accommodate forty girls, thus doubling the present accommodation. Dr. Hamilton Marr, H.M. Commissioner in Lunacy, said that the feeble-minded in Scotland were estimated at 2.33 per 1.000 of the population, which meant 11.000 feeble-minded persons. The Education of Children (Scotland) Act, 1906, enabled school authorities to make special provision for children who, not being imbecile and not being merely dull or backward, were by reason of mental defect incapable of receiving proper benefit from the instruction in ordinary schools, but from 16 years of age and upwards no special provision was made, and the Waverley Park Home was the only institution ministering to the wants of this class. As the result of many years' practical experience he had come to the conclusion that there was no such person as an ineducable child—that there was no child who, on account of mental defect only, could not be educated. Education might be impeded or rendered entirely useless through gross physical defects, such as paralysis, but in the absence of such physical defects all children could be taught cleanlier and better habits and to use their physical powers so well as to be able to do simple mechanical work in such a manner as to repay some part if not all of the expenditure on them.

PROPOSED OPEN-AIR SCHOOLS FOR GLASGOW.

At the annual social meeting of the Ladies' Auxiliary of Glasgow and District Branch of the National Association for the Prevention of Consumption, held in the City Chambers on January 22nd, an interesting statement was made by Bailie J. W. Stewart, the convener of the Health Committee of the Corporation. Although twenty years had elapsed since the late Dr. J. B. Russell, as medical officer for the city, reported on tuberculosis, there had been no definite policy until within the last few years. Now the disease was notifiable, dispensaries had been provided, a hospital would be erected on the outskirts of the city for advanced cases which were a source of public danger, and it was hoped to do some educative work and to classify the sanatorium cases. Conferences were about to be held with educational and other authorities to discuss the possibility of establishing country homes in connexion with which there might be open-air schools. In that way it was hoped to secure those children who were beginning to show less power of resistance and a predisposition to consumption, and, while allowing them to continue their education, to arrest the disease and send them out with increased power to resist consumption or any other disease.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

BICENTENARY OF TRINITY COLLEGE MEDICAL SCHOOL.

A LARGELY-ATTENDED meeting of graduates in medicine of the University of Dublin was held on January 22nd in the Anatomy Theatre of the Medical School, Trinity College, to consider what part they should take in the bicentenary festival of the Medical School, to be held in the first week of July next. Mr. Robert H. Woods, President of the Royal College of Surgeons, occupied the chair. An Executive Committee was formed, with power to add to its numbers, and Drs. W. G. Harvey, S. S. Pringle, and R. J. Rowlette were appointed Honorary Secretaries. The Chairman expressed the opinion that the graduates shou'd arrange something permanent and useful to mark the bicentenary of the school. The provisional programme for the festival is as follows:

Thursday, July 4th.—Reception of guests and delegates in College Library at 3.30 p.m. In the evening there will be a dinner in the dining hall, followed by a performance in the examination hall by members of the University Amateur Dramatic Society.

Friday, July 5th.—A commemoration service in the College Chapel, followed by unveiling of memorial stone to Dr. Stearne by the Provost, and an address by the Rev. J. P. Mahaffy, followed at noon by the presentation of addresses by delegates. In the afternoon a garden party and in the evening the graduates' dinner.

Saturday, July 6th.—Visit to medical school, followed by reception at the Royal College of Physicians. Conferring of honorary degrees at 1 p.m. Afternoon, garden party.

BELFAST MEDICAL STUDENTS' ASSOCIATION.

The annual public meeting of the Belfast Medical Students' Association was held in the Students' Union on the evening of January 28th. The chair was occupied by the president of the association, Mr. W. W. Dalziel Thomson, B.A., M.B., who delivered an address upon the struggle for truth in medical science throughout the ages. How often in the history of the profession truths had struggled to the birth only to die or to lie dormant for centuries awaiting the fullness of time, or only to be accepted after the bitterest of bitter struggles. He instanced the fate of Andreas Vesalius, who died in the prime of life in penury and broken-hearted. Harvey waged and won the battle for truth, and dealt the death blow to the doctrine of spirits and humours, which had influenced the conceptions of disease since the days of Hippocrates. The contempt which was cast upon Jenner's development of vaccination against small-pox was then referred to. The neglect, stupidity, malignity with which Semmelweis's discovery of the identity of puerperal fever and septicaemia brought this man of genius within the gates of a lunatic asylum. The contemptuous reception of the open air treatment of consumption of Dr. Henry MacCormac was the last instance.

Sir Thomas Myles (Dublin) then delivered an address on "The Medical Student as I Know Him." After some historic and literary references, Sir Thomas said that what struck him most was the general change in the type from Bob Sawyer to the present day, and, next, the passing of the "chronic." In his student days the "chronic" was a well-known and familiar institution, an encyclopaedic source of wonderful information to all first-year students. The medical student must always remain apart from the general mass of mankind. Death and suffering were always with him; what were tragedies to others were commonplaces to him. The Insurance Act, he believed, would tend to split medical men into two camps—those who examined their cases and those who did not. On the whole, he feared the standard would be lowered. He urged all to remember the duty they owed to their patients, and to treat the poorest with due courtesy—as they would treat a duke. In thirty years' practice he had seen thousands of poor patients facing suffering and death with uncomplaining fortitude, and amongst them all he had never met a coward.

Professor Lindsay complimented Dr. Thomson on his re-election as President, and welcomed Sir Thomas Myles, whose address contained much advice worthy of being retained.

On the motion of Mr. J. V. Holmes, seconded by Mr. E. P. Dewar, a hearty vote of thanks to Sir Thomas Myles was passed with acclamation.

RESEARCH DEFENCE SOCIETY.

On January 24th the annual general meeting of the members of the Dublin branch of the Research Defence Society was held in the theatre of the Royal Dublin Society. Sir Charles Ball, Bart., presided, and there was a large attendance. The report for the year was read; in it the committee said that the number of members was well maintained, being now over 500. The literature had

been freely distributed. An important development had been the formation of a ladies' committee, which had undertaken to arrange drawing-room meetings, and by every means in its power to inform other women of the truth about experiments on animals. The committee for the ensuing year was elected. A lecture was then delivered by Professor Leonard Hill, F.R.S., on "Submarine Diving made Safe and Possible through Experiments on Animals." After a cordial vote of thanks to the lecturer the proceedings terminated.

Irish Health Insurance Society.

At the last meeting of the Provisional Committee of the Irish Health Insurance Society it was stated that earlier in the week a meeting of hospital matrons and secretaries of nursing associations and nursing homes had been held, as a result of which it was suggested that a large public meeting of governors of hospitals, doctors, and others interested should be called. It was further suggested that a meeting of nurses should be held, also a series of small meetings or conferences in the various hospitals in the city. These various suggestions were agreed to.

Beri-beri at Queenstown.

A barque from Lobos to London with a cargo of guano was towed into Queenstown last week with one of the crew dead and six others in a very serious condition, as the result of beri-beri. The voyage was protracted, and one by one the crew were attacked by the disease. When off Kinsale one of the crew, who had been laid up for some weeks, died, and the captain put into Queenstown for medical aid and a fresh crew. The sick men were landed, and at once placed in hospital.

An Appeal from Cork.

An appeal is made on behalf of Miss Daly, who through the death of her brother, the late Dr. Pierce J. Daly, of Cork, is now left absolutely devoid of means. Her health, in consequence of long years of devoted nursing, has been greatly shattered. In order to enable her to avoid having to enter a public charitable institution, it has been decided to appeal to the generosity of his many friends in the hope that a liberal and substantial response may be made. A sum of £395 has already been raised, chiefly in Cork, and further subscriptions will be received by the Honorary Treasurer, Dr. M. Cagney, 6, South Mall, Cork; or by Dr. Philip G. Lee, Honorary Secretary, 26, St. Patrick's Hill, Cork.

Medical Inspection of School Children.

Last week, at a meeting of managers and teachers of primary schools, Mr. Oliver St. John Gogarty, F.R.C.S.I., delivered a lecture on "The Health of Our School Children." Ireland, he said, was the only civilized nation that had no such inspection at the present day. No statistics of diseases of school children being available for Ireland, he quoted those of England and Wales to show the number and variety of diseases and the importance of constant medical inspection. More money was wanted for the Irish schools; Scotland, with much the same population, was in receipt of exactly double the educational grant given to Ireland. Medical inspection would have two advantages—it would prevent epidemics, and the child would be taught according to its power of learning. Dr. McVittie, Professor Henley, Dr. Story, Sir Lambert Ormsby, and the Provost of Trinity College also spoke, urging the importance of medical inspection both of the children and the schools.

Infantile Mortality.

The annual report presented to the first annual meeting of the Dublin Committee for the Prevention of Infantile Mortality stated that the instruction given by the visitors was much appreciated by mothers, and the executive were confident that in a very short time infantile mortality would be considerably reduced in the city. The committee had only been in reality working for about six months, as the first band of trained workers, twenty in number, only started last June. There were now eighty trained workers. The principles adopted at the initiation of the scheme had been strictly adhered to: (1) The education of the poor regarding the rearing of children; (2) co-operation with existing medical, educational, and relief agencies; 800 cases had been sent to the secretary by the public health authorities, and 2,000 visits had been paid by the ladies from June 22nd, 1911, to January 6th, 1912. Mr. Vaughan (Chairman of the Public Health Committee) said that that committee was absolutely satisfied that the society was doing an excellent work, and would give it every possible support and assistance.

Correspondence.

RESEARCH DEFENCE SOCIETY.

Sir,—It is just four years since this society was founded, to make generally known the facts as to experiments on animals in this country, and the regulations under which they are conducted; the immense importance of such experiments to the welfare of mankind; and the great saving of human and animal life and health which is already due to them. We hope that you will kindly allow us to report progress. During the past year the society has gained 1,000 new members and associates, and has formed ten new branches. It now has 5,000 members and associates.

During the year the society has lost by death eight of its Vice-Presidents: Sir Henry Butlin, Canon Duckworth, Lady Foster, Dean Gregory, Sir Joseph Hooker, Dr. Hughlings Jackson, the Bishop of Oxford, and Sir Samuel Wilks. The following have consented to act as Vice-Presidents: H.H. the Aga Khan, Mr. Waldorf Astor, Mr. Otto Beit, Lord Cobham, Lord Dunedin, Lord Leconfield, Sir Henry Morris, the Bishop of Rangoon, the Bishop of St. Asaph, Mr. Paul Swain, and the Bishop of Truro.

The following pamphlets and leaflets have been published during the year: (1) A Question of Ethics; (2) Experiments during 1910; (3) The Facts of the Case; (4) The Saving of Human Lives; (5) The Rockefeller Institute; (6) The Case presented by Antivivisectionists; (7) Recent Surgical Progress; (8) Antivivisection Shops; (9) Tuberculosis; (10) Sleeping Sickness; (11) Annual Report, Balance Sheet, and List of Members and Associates. A book is in the press, giving a full summary of the evidence before the Royal Commission; it will be published within a few weeks after the publication of the final report of the Royal Commission.

Since January 1st, 1911, the number of addresses, lantern lectures, and debates has been about 120. The quantity of literature which has been distributed has far exceeded that of any preceding year. The society has held stalls at various important exhibitions.

We greatly hope that many of your readers will become members or associates of the society, and will help its useful work. The Honorary Secretary will always be glad to answer every inquiry, to send literature to all applicants, to receive names for membership or associateship, and to make all necessary arrangements for addresses and lantern lectures in London or elsewhere.—We are, etc.,

Cromer,
President.
Sydney Holland,
Chairman of Committee.
F. M. Sandwith,
Honorary Treasurer.
Stephen Paget,
Honorary Secretary.

21, Ladbroke Square,
London, W., Jan. 27th.

MEMORIAL TO DR. HUGHLINGS JACKSON.

Sir,—I desire to support Dr. Mercier's plea for the collection and publication of Dr. Hughlings Jackson's works. That would be a fitting memorial of a physician of the first rank. It would recall to some of us our recollections, and would explain to others the reasons for our admiration of one who was too careless of his record. For instance, I find on my shelves pamphlets published by him in the *Transactions of the St. Andrews Medical Graduates' Association* and in the *Ophthalmic Society's Transactions*, neither of which is particularly accessible. I think that if Dr. Mercier could be induced to issue a memorial volume it would have a great and lasting success: besides, Dr. Mercier might complete his tale of the cerebral surgeon

and his Scottish patient, who explained in due time that neither the physician nor the surgeon "had a joke to put in."—I am, etc.,

James Murray's Royal Asylum, Perth, Jan. 26th. A. R. URQUHART.

THE STUDY OF CONDUCT.

SIR,—On reading the letter of Dr. Mercier in last week's JOURNAL, I feel sure that he and we of the Education Committee of the Medico-Psychological Association were very much at cross-purposes on the occasion to which he refers. I, for one, by no means dissented from the study of conduct, but we did not assent to conduct being classed with mental attributes, such as reason, will, etc., in a formal syllabus of study then being drawn up. We may be doing an injustice to Dr. Mercier in attributing to him the idea that seemed to underlie his proposition; in that case I should be sorry. But I must point out to him that in that event we are but quits, seeing that he attributes to us an opinion which is not held by any of us, as far as I know. Each day, each hour in our work, we have perforce to give study to conduct whether we may think or not that study to be "not feasible or desirable". Without that study we should be all at sea in our endeavours to estimate the mental affection which begets and is evidenced by conduct.

It occurs to me that if either party continues in the belief attributed to him by the other, our patients will grumble at the injustice of their freedom being taken away, and he or we, as the case may be, continuing to be at large. But Dr. Mercier's subtle and genial humour will always protect him should danger threaten him in such a direction.—I am, etc.,

Ticehurst, Jan. 26th. H. HAYES NEWINGTON.

ARTIFICIAL RESPIRATION OF THE APPARENTLY DROWNED.

SIR,—I cannot follow Professor Leonard Hill's dictum in last week's issue "that the right heart can be emptied by gravity into the abdominal vessels by lifting up the head end and squeezing the thorax when there is over-distension of the right side of the heart in the apparently drowned." Neither can I understand him when he says: "This is an easy method of producing the effect of venesection." It may not be impossible to perform the operation of squeezing the thorax and compressing the engorged right heart, but what about the life of the patient and his ribs? Again, I should like to remark that the object of venesection is not only to relieve tension, but also to let out by-products of asphyxiation from whatever cause, just as auto-intoxication in the abdominal cavity leads to convulsion and is relieved or cured by Epsom salts. It is the extreme cases of suffocation, when diapedesis and intense venous engorgement has succeeded to complete deoxygenation, that I am anxiously concerned about. Nay, when the heart muscle is paralysed from over-exertion, and its substance saturated with CO_2, $CHCl_3$, or other noxious matter, squeezing its walls cannot surely simulate venesection. In the last stage of asphyxiation not only is the right auricle distended, but also the superior and inferior vena cava. In brief, the whole venous system is in a state of engorgement out of comparison with the blood remaining in the arterial system.

I take the liberty of referring Professor Leonard Hill to my series of communications on the practice of bloodletting in the *Clinical Journal* some few years back. He will there find the account of a case of submersion in which venesection saved the man's life when it was quite evident that artificial respiration was useless. Twenty ounces of blood were let out of the right arm: until venous blood was discharged respiration did not return, and then only by an involuntary death-gasp. This was subsequently imitated by the Howard method to the entire satisfaction of a large crowd of people. And, although the patient lost 20 oz. of blood, no saline fluid was injected into a vein or into the rectum. Diapedesis had occurred in the three cavities of the body. He was dazed for many days, and the ophthalmoscope revealed extensive retinal haemorrhages in both eyes, and he was absolutely blind. He also had chest disturbance and his stools were black. His skin, too, showed many petechial haemorrhages. In a darkened room, with liberal quantities of warm milk and the use of diuretics and purgatives, he made a complete recovery. I would add that extensive friction, shampooing, was resorted to from the first moment I saw him. Also I was able to keep up warmth by hot bottles from the ship alongside the pier adjoining the water from where he was removed. The moral of this case is that Nature attempted diapedesis and I completed it by one of the most useful yet often abused operations—venesection.—I am, etc.,

Alton, Hants, Jan. 27th. JOHN FREDK. BRISCOE.

SOME TOXIC EFFECTS OF SALVARSAN.

SIR,—As all of us require an unbiassed opinion upon salvarsan, it would have been better to have given a summary of the whole of the Fifth German Congress of Neurologists held last October in Frankfurt, as then we could have heard both sides. Hearing only one side leaves this side widely open to criticism. In this country more than in any other we have heard so much as to what the "great" or "well-known" syphilologists think of salvarsan. Notice that their greatness has increased since the advent of the drug, although as often as not they have never given an injection. Why an able clinician or a reader of many books should be able to judge a subject of which his experience is *nil* must be an enigma for many. As a clinician Professor Finger is probably second to none, but his knowledge concerning salvarsan and Wassermann's reaction, which is destined to play so important a part in regulating the treatment, is shared—nay, superseded—by many others whose opinion is never voiced. We in this country must not forget that a foreign professor is dependent upon his assistants for the knowledge of any new thing, and assistants can be both good and mediocre.

We read that Professor Finger does not agree with Wechselmann's opinion that the reaction following the injection is due to impurities in the distilled water, because the pharmacist says it is always freshly prepared. The pharmacists in London say also the same thing. This being the case, why is it that none of the reactionary symptoms appear if the distilled water is redistilled a few hours before the injection? and why is it that the symptoms which have been put down as due to the salvarsan can be produced in animals by the use of distilled water alone—distilled forty-eight hours or more before use? That the former statement is correct can be proved by every one who will take the trouble to redistil his water a few hours before giving the injection. Unfortunately scepticism thwarts the attempt.

Another point referred to is the frequency of nerve lesions following salvarsan. Why is it that lesions of the cranial nerves have been more common in Professor Finger's clinic than other clinics on the Continent? Because the injection has not been repeated or mercury added until a recurrence followed the first.

Has it ever been the custom to treat symptoms only? Certainly not. Then why should salvarsan be blamed for producing lesions which would never have occurred if the injections had been repeated or combined with mercury? It is owing to following this rule that no other clinics have experienced these nerve lesions, which are really syphilitic recurrences.

Concerning the French critics, I need only remind readers of the three cases of optic atrophy which were reported before salvarsan was used in France. That was nearly two years ago; yet, oddly enough, such cases have not increased in number—in fact, optic atrophy is never mentioned now. So long as good reports emanate from trustworthy observers, it is our duty to find wherein the fault lies when adverse reports emanate from equally trustworthy observers. It does not aid the cause of medicine when sceptics handle a subject of which they have had no practical experience.—I am, etc.,

London, W., Jan. 29th. J. E. R. MCDONAGH.

MOSQUITO DESTRUCTION.

SIR,—In your issue of January 13th there appears a letter from Dr. Elkington of Brisbane, in which he states that he has tried potassium cyanide for the purpose of killing mosquito larvae, as recommended by us in the BRITISH MEDICAL JOURNAL of September, 1911. I should like to point out a mistake, through which it appears that we found 1 part of cyanide in 3,000,000 an

efficient larvicide. This was not the case, as the highest dilution we employed was 1 in 300.000 of water.

I note, however, that Dr. Elkington found that cyanide solutions as strong as 1 in 15.000 failed to kill larvae. This is quite at variance with our results, as the following figures show. In our experiments 1 part of potassium cyanide in 26.000 parts of water killed all the larvae (*Culex pipiens*) in less than two hours; 1 part cyanide in 58.000 of water killed all the larvae in three and one-third hours; 1 part cyanide in 303.000 of water killed about 50 per cent. of the larvae in six and a half hours, and all except one (out of about 50 larvae) in twenty-two hours. These results are sufficient to show how successful a larvicide potassium cyanide proved under laboratory conditions, and it is difficult to see what the disturbing factor can have been in the experiments conducted by Dr. Elkington.—I am, etc.,

Liverpool, Jan. 26th. E. S. EDIE.

THE SOLUTION AND DECOMPOSITION OF ACETYL-SALICYLIC ACID.

SIR,—Dr. Graham Chambers, writing on this subject, criticizes[1] Dr. Wynn Westcott and myself for stating in the *Extra Pharmacopoeia* that acetyl-salicylic acid passes unchanged through the stomach, decomposing when it reaches the intestine, his view being that the substance is absorbed as such without decomposition. His experiments *in vitro* indicate that very little of the acid splits up in half an hour, either in acid or alkaline juices, and in his conclusion he advocates the administration of acetyl-salicylic acid "in solution," so as to reduce the decomposition to a minimum—that is, he claims that so given it passes rapidly into the intestine (pharmacological action being frequently seen in half an hour) and is absorbed for the most part unchanged. It therefore appears that the statement in our work to the effect that it passes unchanged through the stomach (whether given in cachet or solution would probably make little real difference) may certainly stand, even according to Dr. Chambers's view—the exact pharmacological action is not stated, though perhaps it is implied.

With regard to the action on reaching the alkaline intestinal juices, there must surely be a splitting up of the acetyl-salicylic acid, and the formation of sodium salicylate, however slight at this stage, either from the nascent salicylic acid previously formed in passing through the stomach—admitted by Dr. Graham Chambers—or by the splitting up of the acetylated acid by action of the alkali. Dr. Graham Chambers admits, also, that at body temperature there is "little" of the acetylated acid decomposed at the end of half an hour both in acid and in alkali *in vitro*, but, of course, it is difficult to say exactly what occurs *in vivo* by reviewing experiments *in vitro*.

I would point out that the prescribing of acetyl-salicylic acid in simple aqueous solution is hardly satisfactory. A dozen 10-grain doses in this form would necessitate the dispensing of them in a 120 oz. Winchester! At the same time a very sightly mixture can be made by suspending 10 grains of the powdered acid in ½ oz. of water, with the aid of 90 minims of tragacanth mucilage—that is, 12 doses in a 6 oz. bottle. Sooner or later, however, in presence of water, acetyl-salicylic acid splits up, and therefore the use of an aqueous, let alone an alkaline medium, especially in hot weather, cannot be strictly correct; 10 grains of the drug in powder form would require about 10 oz. of stomach juice to dissolve it, and the result—passage rapidly to the intestines—as Dr. Chambers holds, would be practically the same thing as if the drug were in solution.

With regard to the details of experiments, it so happens that by a curious coincidence I conducted a number of experiments last year with aceto-salicylic acid, both in aqueous solution and in solution with added HCl in the correct proportion, and arrived at conclusions almost identical with those of Dr. Graham Chambers, so far as *in vitro* is concerned. For example, I found by colorimetric analysis that 5 per cent. of a total weight of aceto-salicylic acid in saturated solution in presence of 0.2 per cent. HCl was hydrolized in an hour. Seeing that pharmacological activity is evident in less than this time, it may be that just this small amount of liberated nascent salicylic acid passing on to the alkaline intestinal juice produces or commences the pharmacological action, and we may have here an explanation of the comparatively potent action of a dose of salicylic acid in comparison with the mild effect of this slowly produced nascent acid. Dr. Chambers and I are at one in agreeing that the decomposition of acetyl-salicylic acid in the presence of 0.2 per cent. HCl is a gradual process. I might add that so long ago as 1903 (*Schweiz. Woch. f. Chem. u. Pharm.*, 1903, p. 116) doubt was expressed whether the therapeutic activity of acetyl-salicylic acid was due to it passing unchanged into the intestines, and experiments are cited showing the hydrolysis of aceto-salicylic acid in presence of artificial gastric juice. It was there questioned whether a dose of a salicylate would not produce a therapeutic effect equal to the acetylated acid.—I am, etc.,

London, W., Jan. 22nd. W. HARRISON MARTINDALE.

[1] BRITISH MEDICAL JOURNAL, January 20th, p. 121.

NOTIFIABLE TUBERCULOSIS IN CHILDREN AND VON PIRQUET'S TEST.

SIR,—I quite agree with Dr. Esther Carling that some definite standard should be fixed upon which a reliable diagnosis of tuberculosis in children may be based. In my opinion we have in von Pirquet's test an extremely reliable diagnostic agent, provided certain conditions are fulfilled—namely: First, that in every case in which the first test is negative, before giving a negative opinion the inoculation should be repeated, preferably with a drop of undiluted old tuberculin instead of the 25 per cent. solution generally used. This repetition I believe to be absolutely necessary to avoid errors. Secondly, that forty-eight hours should be the maximum time limit for the appearance of the reaction, instead of the twenty-four hours often recommended. I have found the reaction delayed for forty-eight hours in several cases which subsequently proved to be tuberculous.

Under the above conditions I have performed 150 tests. In cases where tubercle bacilli were present in the sputum, or where the physical signs were unmistakable, I obtained a positive reaction in 96 per cent. In cases where the diagnosis was doubtful (no bacilli, no physical signs), I found the reaction positive in only 33 per cent. of cases, and in many of these the diagnosis was confirmed by subsequent observations. Of the 150 cases, only 16 were children, but I obtained a positive reaction in each one where the physical signs were definite or where bacilli were present. Five doubtful cases in children gave no reaction, prolonged observation of these latter not revealing any signs of tuberculosis. It must not be forgotten that in some cases a palpable infiltration can be detected where there is little or no reddening of the skin, and that such cases are to be regarded as positive reactions. I am at present performing the test with a circular perforator, and measuring the areola at the end of twenty-four and forty-eight hours.—I am, etc.,

G. D. H. WALLACE, M.R.C.S., L.R.C.P., D.P.H.,
Medical Superintendent, Westmorland
January 29th. Sanatorium.

SIR JAMES BARR AND THE INSURANCE ACT.

SIR,—It has given me so much pleasure to find that some medical men have raised a protest against various points in Sir James Barr's letters on the Insurance Act, that I feel it almost a duty to join them. There are some 40,000 medical men on the *Register* of the United Kingdom, and it would be a miracle if they all thought alike politically, or all saw eye to eye on the Insurance Act. There are some of us who think that a socialist, far from being "an individual who barely sees beyond the length of his nose," is in reality a person who takes a wider and more extended outlook on the economic conditions of Western civilization than do persons of other political creeds. Anyhow, it is not very dignified for Sir James Barr to cast cheap jibes at those politically in disagreement with him. There are men both within and without the ranks of the profession, probably quite his equals in intelligence, who profess themselves socialists, and it ill becomes him to compare them to "general paralytics with grandiose ideas."

If Sir James Barr will refer to a resolution passed by socialist doctors, published in the SUPPLEMENT of the BRITISH MEDICAL JOURNAL, January 27th, p. 91, he will see

that their ambition to prevent and eradicate disease and their desire for the wellbeing of the nation are as great as his own. It is only in methods that a difference appears, and time alone can decide whether his or ours are right. He seems to connect in his mind socialism with "that spirit of dependency which is ever found in degenerate races." But dependency is the result, and not the cause, of degeneracy, and degeneracy is the direct result of bad social conditions. Socialism aims at abolishing bad conditions, preventing degeneration, and rendering true individualism and *in*dependency possible for all. Spoon-feeding by a paternal Government may be wise as a temporary measure for checking degeneracy, but it is no part of socialism.

Sir James Barr supports the contributory system of the Act as its one redeeming feature, and apparently condemns socialists for not doing so. But, may I ask him, what is the good of causing ill health in order to cure it? Deductions of even 4d. a week from a family income of 16s. or 17s. a week must cause increased shortage of food, of clothes, and of house room, and so contribute to ill health, dependency, and degeneracy. If the medical profession had raised their voices against compulsory contributions from poor families earning less than, say, 25s. a week, as heartily as they raised it for a wage limit of £2 a week for medical benefits, I cannot help thinking they would have gained more respect.

Once more, though Sir James Barr praises altruism and its ennobling effects, yet in the last sentence of his second letter he makes an appeal direct to selfishness when he raises the fear of increased income tax. Surely it is more truly altruistic to pay cheerfully in rates and taxes whatever may be required for the community's good than to appear in hundreds of "Lists of Subscribers." Organized altruism on the part of all, is infinitely more efficacious than doles to charitable institutions. The man who grudges a tax for old age pensions or a rate for the public health service can have no charity, which is love, in his heart, though he give mightily to hospitals and figures in the newspapers.

In conclusion, I would ask the President-elect to refrain from speaking unkindly of his opponents and to credit them with sincerity, even as, I am sure, they are more than willing to credit him.—I am, etc.,

London, W., Jan. 29th. CHARLES A. PARKER.

SIR,—In reply to Dr. J. S. Manson's letter in the JOURNAL of January 27th, criticizing the statement I made in my letter of January 20th, "that this country has followed Germany in the path of degeneracy," I will accept his quotations from Dr. Arthur Shadwell's book on *Industrial Efficiency* as true—though, certain people who know the cities of Germany now, as compared with what they were ten or fifteen years ago, believe that slums in certain cities are on the increase. I am not in a position, however, to corroborate or refute these statements; but accepting Dr Shadwell's testimony, I should like to point out that it is a dangerous thing to diagnose any disease from one symptom, and the person who attempted to do so would be more than courageous. The fact that "the general wellbeing of the working classes in Germany, which is strikingly visible," etc., does not necessarily prove that Germany is not degenerating. I think that it is apparent that the general wellbeing of the working classes in this country is greatly improved as compared with ten or fifteen years ago, judging from the improvement in dress, the large increase of certain classes of amusement which are kept up largely by the working classes, the amount of money spent weekly on athletic sports, etc., but I should be chary in stating that we, as a nation, are not degenerating.

The National Insurance Bill will lower the prestige of our profession, and through time the *morale* of its members. The subject is such a large one, that to discuss it at any length would trespass too much on your space; but I should like to point out to Dr. Manson that devolution, as evolution, is a slow and subtle process, and that a quarter of a century is but a short epoch in the rise and fall of a nation, and, further, that it is necessary to consider, not merely the working classes, but all classes, in the discussion of such a momentous problem.—I am, etc.,

Edinburgh, Jan. 27th. FREDERICK PORTER.

Universities and Colleges.

UNIVERSITY OF LONDON.

ROYAL FREE HOSPITAL.

THE Earl of Sandwich presided at the recent meeting of the Committee of Management of the Royal Free Hospital, at which the following resolutions were passed:

That the Committee of Management desire to offer their cordial congratulations to Miss Eleanor Davies-Colley, M.D., B.S.Lond., upon her admission to the Fellowship of the Royal College of Surgeons of England; Miss Davies-Colley being the first lady to attain this position, the committee appreciate the distinction gained by the medical school of the Royal Free Hospital through her achievement.

The committee also desire to endorse the congratulations which the board rendered in 1909 to Mrs. Haslam (*née* Miss I. Woodward), M.D.Lond., who, after receiving a medical education at the London School of Medicine for Women and the Royal Free Hospital, was admitted to Membership of the Royal College of Physicians of London, being the first lady to receive this diploma.

It was also reported that the Cordwainers Company will present a gold medal to the nurse who shall obtain the highest number of marks at the annual examination.

UNIVERSITY OF GLASGOW.

ADDITIONAL EXAMINERS.

THE Glasgow University Court has appointed the following additional Examiners:

Zoology,—Professor E. A. Minchin, M.A., F.R.S., University of London.

Anatomy.—Professor Johnson Symington, M.D., F.R.S., Queen's University, Belfast.

Midwifery.—Robert Jardine, M.D., Glasgow.

Medical Jurisprudence and Public Health.—Jas. R. Kaye, M.B., D.P.H., Public Health Department, Wakefield.

Public Health Laboratory Work.—David Somerville, B.A., M.D., D.P.H., King's College, London.

Vital Statistics, etc.—Jas. R. Kaye, M.B., D.P.H., Wakefield.

THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

A COMITIA was held on Thursday, January 25th, Sir Thomas Barlow, Bart., K.C.V.O., President, being in the chair.

The Death of Sir Henry Butlin.

The President referred to the great loss the profession had sustained by the death of Sir Henry Butlin, lately President of the Royal College of Surgeons of England; and it was resolved that a letter of sympathy should be sent from the College to Lady Butlin.

Admission of Members.

The following gentlemen having passed the required examination were admitted Members of the College:

Charles Hubert Bond, M.D.Edin.; Alfred Joseph Clark, M.B.Camb., L.R.C.P.; Georg Dorner, M.D.Koenigsberg, L.R.C.P.; William Johnson, M.D.Lond., L.R.C.P.; Indarjit Singh, M.B.Camb., I.M.S.; Charles Wilfred Vining, M.D.Lond.

Licences.

Licences to practise were granted to ninety-two gentlemen who had passed the necessary examinations.

Diplomas in Public Health.

Diplomas in Public Health were granted, jointly with the Royal College of Surgeons of England, to the following gentlemen:

A. G. Atkinson, M.B., B.C.Camb., L.R.C.P., M.R.C.S.; R. V. Clayton, M.B., B.S.Durh.; F. G. H. Cooke, L.R.C.P., M.R.C.S., L.S.A.; M. M. Cowasjee, L.R.C.P., M.R.C.S.; F. E. Cox, M.B., B.S.Melb., L.R.C.P., M.R.C.S.; G. H. Dupont, M.D., Ch.M.Edin.; Josephine L. D. Fairfield, M.D., Ch.B.Edin.; W. M. Fairlie, M.B., Ch.B. Glasg.; W. R. Gibson, L.R.C.P., F.R.C.S.; J. A. Hagerty, M.B., Ch.B.Glasg.; G. C. Jackson, M.B., B.C.Camb., L.S.A.; S. Maitra, L.M.S.Calcutta; M. N. Mitra, L.M.S.Punjab; J. G. Owen, L.R.C.P., M.R.C.S.; H. C. E. Quin, L.R.C.P. and S.Edin., L.F.P. and S.Glasg.; Jessie A. Scott, M.B., B.Ch.Edin.; F. M. Turner, M.D., B.C.Camb.; A. C. Watkin, L.R.C.P., M.R.C.S.

Under the Medical Act, 1876.

Diploma in Tropical Medicine.

A diploma in Tropical Medicine was granted, jointly with the Royal College of Surgeons of England, to:

J. Bruce-Bays, M.D.Lond., M.R.C.S.

Lecturers.

The President announced that he had nominated Sir James R. Goodhart to be the Harveian Orator for this year, and Dr. D. B. Lees to be the Bradshaw Lecturer, and that the Council had appointed Captain R. McCarrison, I.M.S., to be the Milroy Lecturer for 1913.

Representatives of the College.

The President announced that he had nominated Dr. Frederick T. Roberts to be the representative of the College on the governing body of the University of Wales. Sir Francis Champneys was re-elected a representative on the Central Midwives Board; Sir Dyce Duckworth was re-elected a representative on the governing body of the University of Liverpool, and

Dr. Samuel West was appointed a representative of the college on the Court of Governors of the University of Birmingham.

Election of Councillors.

Dr. W. Collier, Dr. F. A. Mott, Dr. B. P. Hawkins, and Dr. H. D. Rolleston were elected councillors.

Reports.

A report was received and adopted from the Committee of Management, dated December 5th, 1911. The committee recommended that the following institutions should be added to the list of institutions recognized by the Examining Board in England for instruction in chemistry and physics: Royal Dental Hospital of London, and Mill Hill School. The committee also recommended that Rhodes University College, Grahamstown, South Africa, should be added to the list of institutions recognized by the board for instruction in chemistry, physics, and biology.

Certain addenda were made to the scheme of the new examination in psychological medicine, the chief of which were to the effect that the appointment of examiners should be made by the Censors' Board.

Communications.

The following communications were received: (1) From the Secretary of the Royal College of Surgeons of England reporting proceedings of the Council of that College on November 9th, December 14th, and January 11th last. (2) From C. J. Jackson, Esq., informing the College that the late Dr. Hughlings Jackson bequeathed a portrait of himself to the College. (3) From Frank Glover, Esq., offering to the College a gold pencil-case formerly the property of Sir Henry Halford, Bart., President of the College. (4) From Ernest M. Wilks, Esq., informing the College that the late Sir Samuel Wilks, Bart., bequeathed to the College a portrait of himself and a gold cup. The above gifts were accepted, and the thanks of the College ordered to be returned to the writers of the letters. (5) From the Doctors' Wives Defence Movement, concerning certain effects of the Insurance Act. (6) From Dr. James Kerr Love, on behalf of the National Bureau for Promoting the Welfare of the Deaf, concerning the delivery of proposed lectures. The matter was referred to the Censors' Board.

The Insurance Bill.

A Committee of the College was formed to watch the interests of the Fellows, Members, and Licentiates of the College under the provisions of the Insurance Act, with power to confer with any other body established for similar purposes should the Committee see fit to do so.

The President adjourned the Comitia until Tuesday, January 30th.

ADJOURNED COMITIA.

The adjourned Comitia was held on Tuesday, January 30th, Sir Thomas Barlow, Bart., K.C.V.O., President, being in the chair.

Reports.

A report was received from the Censors' Board concerning academic dress for Licentiates. The Board reported: "That a search of the annals having been made, the Board are unable to find that a distinctive dress has ever been granted to Licentiates." A report was received from the Representative of the College on the General Medical Council on the proceedings of the Council during its session in November last.

The Insurance Act.

After some formal business had been transacted the College proceeded to discuss a letter which had been received from the National Health Insurance Commission. The letter, which had been read to the College at its meeting on January 25th, was as follows:

National Health Insurance Commission.
Whitehall, London, S.W.,
24th January, 1912.

Sir,

The National Health Insurance Commissioners have decided, for their assistance in bringing the Insurance Act into operation, to take the earliest opportunity of personally conferring with representatives, widely selected, of the chief sections of the community specially concerned. Conferences with representatives of prospective insured persons have already taken place, and it is considered that the time has now arrived when it would be of material assistance to the Commissioners to obtain, in a conference, suggestions from representatives of the medical profession on certain important questions of procedure preliminary to bringing the Act into operation.

The National Health Insurance Joint Committee and the Insurance Commissioners for England, Scotland, and Wales respectively propose accordingly to hold a conference on Friday, February 2nd, with representatives of the medical profession, and the Royal College of Physicians in London is invited to appoint two members to attend the conference, which will be held at 3 p.m. A further communication will be addressed to you as to the place of meeting. A similar invitation is being addressed to the General Medical Council, the British Medical Association, and to other medical bodies.

The point which it is specially desired to discuss relates to the selection of the medical members of the Advisory Committee, by whom the Commissioners must be advised in the framing of regulations in accordance with Section 58 of the Act; and the Commissioners will also be glad to hear the views of those present on other matters of procedure in bringing the Act into operation which the medical bodies may desire to bring forward.

I am, Sir,
Your obedient servant,
R. W. HARRIS,
Assistant Secretary of the Joint Committee.

The Secretary,
Royal College of Physicians in London.

NOTE.—Section 58 of the Act is as follows: "The Insurance Commissioners shall, as soon as may be after the passing of this Act, appoint an Advisory Committee for the purpose of giving the Insurance Commissioners advice and assistance in connexion with the making and altering of regulations under this part of this Act, consisting of representatives of associations of employers and approved societies, of duly qualified medical practitioners who have personal experience of general practice, and of such other persons as the Commissioners may appoint, of whom two at least shall be women."

The following resolution was proposed and seconded:

That in view of the letter from the Insurance Commissioners the College should proceed to appoint Representatives to place before the Commissioners the resolutions of the College respecting the Insurance Bill, in so far as these resolutions may not have been incorporated in the Insurance Act.

To this an amendment was proposed and seconded as follows:

That in view of the letter from the Insurance Commissioners the College should proceed to consider the invitation of the National Insurance Commissioners to confer with them on the methods of putting the Act into operation.

This was carried by a large majority; it thus became the substantive resolution, and as such was carried.

The following series of suggestions were then put and approved of:

1. That the Insurance Act, as it stands, or even after any modification in it which the Act empowers the Insurance Commissioners to make, is not adapted to secure the benefits "of insurance against loss of health and the prevention and cure of sickness" which are its stated purpose to provide, and that the co-operation of the medical profession in carrying out the operations of the Act is not possible under the Act or under any modifications of it empowered to the Commissioners without inflicting grave injury on the profession. There are:

2. The College, while desirous of doing all in its power to promote the objects of the Act in reference to the health of the community, is not prepared to accept the invitation of the National Health Insurance Commissioners to the conference on February 2nd for the purposes therein stated of "selection of medical members of the Advisory Committee" and for other matters of procedure in bringing the Act into operation.

3. That the College would be happy to assist in any steps which may be taken to prepare an amending Act for the improvement of the public health provided that the interests of medical practitioners and medical science be safeguarded.

The following motion was then proposed and seconded:

That the President be requested, with the assistance of such Fellows as he may nominate, to draw up and send a reply to the invitation of the Joint Commissioners in accordance with, and giving the substance of, the resolutions.

To this an amendment was proposed and seconded as follows:

That the College accepts the invitation to discuss the election of medical members of the Advisory Committee, but is not at present in a position to discuss with the Commissioners any other matters of procedure in bringing the Act into operation.

This amendment was lost by a large majority, and the original motion being put was carried.

The President then dissolved the Comitia.

CONJOINT BOARD IN SCOTLAND.

THE following candidates passed at the quarterly examinations, held in Edinburgh, concluded on January 22nd:

FIRST EXAMINATION.—Anna Grace Stott, J. W. Robb, O. C. Macdonald, H. Morley, J. L. Hendry, J. P. Fairley, A. D. Gorman, and J. B. Minford; and 9 passed in Physics, 3 in Biology, and 3 in Chemistry.

SECOND EXAMINATION.—J. Martin, J. B. Aickin, H. A. L. Guthrie, W. MacLeod, J. Berry, A. F. Readdie, T. E. Lawson, W. S. O'Loughlin. One passed in Anatomy and 6 in Physiology.

THIRD EXAMINATION.—R. Kaushosh, B. S. Raj, Maud Bennett, W. Bannatyne, P. C. Ray, L. Lazarus, O. W. Bateman, A. G. Cowper, C. Cosgrove, D. Bharadwaja, V. J. A. Wilson, C. B. Patch, H. S. Dastur, R. Dorset, J. Williamson. Three passed in Pathology and 6 in Materia Medica.

FINAL EXAMINATION.—E. L. Matthew, T. M. Crawford, S. E. Mangenie, G. I. Secluna, A. L. Edwards, R. N. Raja, C. S. Owen, V. E. Field, H. W. Dunnet, C. C. Bose, A. M. Billings, H. S. W. Roberts, R. C. Mitter, H. G. Lumsden, W. J. H. Davis. Ten candidates passed in Medicine, 7 in Surgery, 13 in Midwifery, and 13 in Medical Jurisprudence.

CONJOINT EXAMINATIONS IN IRELAND.

Sessional Examinations, January, 1912.

THE following candidates have passed these examinations:

First Professional Examination.—W. K. Carew, D. J. Crowly, A. de C. Dodd, D. L. Kelly, D. Long, J. H. McKenna, P. O'B. Nolan.

Second Professional Examination.—J. F. Lyons, C. Murray.

Third Professional Examination.—J. D. Cherry, J. Crowly, T. Gray, R. J. Hennessy, E. Harnett, F. J. L. Kennedy, M. P. Leonard, M. P. Lee, L. McKeever, D. Mullin, J. Sandys, B. Sieff.

Final Examination, January, 1912.

The following candidates have passed this examination:

T. Buckley, H. E. Clarke, T. Dowzer, J. Geraty, B. Kelly, C. J. Kelly, W. O'Brien, P. H. McDonough, P. McGrath, C. P. V. McCormack, P. Ross-Todd.

Obituary.

SIR HENRY TRENTHAM BUTLIN, BART.,

D.C.L.Durh., LL.D.Birmingham, F.R.C.S.Eng.,

CONSULTING SURGEON TO ST. BARTHOLOMEW'S HOSPITAL; PAST PRESIDENT OF THE BRITISH MEDICAL ASSOCIATION AND OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

This great surgeon and pathologist, at once one of the most beloved and most distinguished members of our profession, passed away on Wednesday, January 24th, after a long illness, against which he struggled with extraordinary courage and energy.

Henry Trentham Butlin was born at Camborne, in Cornwall, in 1845, the residence of his father, the late Rev. W. W. Butlin. He received his education from a private tutor, and was entered as a student of the Medical School of St. Bartholomew's Hospital in October, 1864. He then took rooms in the college, of which the late Dr. Andrew was at the time Warden. Intelligent and industrious from the first, he nevertheless did not contend for the school prizes and scholarships. He received the diploma of Member of the College of Surgeons in 1868. It was at this date, after qualification, that he took to constant study in the wards and museum and played an active part in the discussions at the Abernethian Society. It happened that Mr. W. Square, of Plymouth, resigned the appointment of House-Surgeon to Sir James (then Mr.) Paget, after half a year's tenure, and Butlin was made House-Surgeon for the remainder of the year, from April to October, 1868. He afterwards went down to the country, but did not find private general practice quite to his taste. Returning to town, he took the Fellowship of the College in 1871, having already been elected in January of that year, Medical (*not* Surgical) Registrar to the Hospital for Sick Children, Great Ormond Street. The other candidate, now Sir Malcolm Morris, was also destined to rise high in the profession. Butlin greatly distinguished himself, as the records of the Medical Committee bear witness, by the way in which he carried out his duties during the eighteen months of his registrarship. He resigned in July, 1872.

He was elected Surgical Registrar to St. Bartholomew's Hospital in December of the same year, and from that date he remained attached to the great city hospital to the end of his days. The Registrarship was then a relatively new appointment, the value of which was not always understood by those who held it. More than one able man, afterwards distinguished, failed to avail himself fully of its advantages. The purely mechanical duties which it entailed appeared irksome and all but profitless, and the office of Demonstrator of Anatomy was then held to be a more certain pathway to a staff appointment. Butlin, on the other hand, comprehended from the first the responsibilities and duties of the registrarship, and knew how to advance medical science and his own legitimate interests by intelligent labour beyond purely secretarial and statistical work. He recognized what a wide field for research lay open to him. He studied pathology, for which he became so celebrated, and he grew famous because he was fitted for all the work which its study must entail. He noted and compared every feature of importance in every case which he registered. His grasp of microscopic art and science equalled that of Lionel Beale, whilst he had far more foresight than that physician about applications and conclusions. He perfected himself in the art of hardening, cutting, staining, mounting, and drawing morbid tissues, and, ever judicious in all things, he took care to study normal structures, so as to avoid mistaking normal conditions for disease. An error of this kind was very common in those days, when students were not so well trained in histology as they are now. Whilst never in a hurry, Butlin avoided the opposite extreme, and brought all the good work which he undertook before the relatively competent tribunals of the medical press and the learned societies, lest it should fall into irreclaimable oblivion. He never overlooked, as many are apt to do, the great truth that lost clinical records, like lost history, can never be rewritten.

As early as 1873 he prepared an account of the principal tumours removed in the course of that year at his hospital, which appeared in its annual *Reports*. He had already in 1872 been elected a member of the Pathological Society of London. He practised speaking and debating with great care, and speedily distinguished himself in discussions at the Society's meetings. As one consequence the council placed him, within three years of his election, on the Morbid Growths Committee, and he was Honorary Secretary from 1884 to 1886. A faithful study of living languages enabled Butlin to read European works, and ultimately to speak French, German, and Italian with fluency. He was thus enabled to co-operate with the most eminent Continental authorities.

He was made Assistant Surgeon to the West London Hospital in 1872, and remained on the staff of that institution for eight years. Whilst he was engaged in building up his reputation as a pathologist he held other appointments, besides the Registrarship, at Bartholomew's. In 1879 he was made Demonstrator of Practical Surgery at his School, and resigned the office of Registrar. From 1880 to 1892 Butlin, succeeding Sir Lauder Brunton, undertook the Out-patient Throat Department. In July, 1880, the Governors of St. Bartholomew's elected him Assistant Surgeon to the Hospital. Twelve years later, on the retirement of Mr. Morrant Baker in June, 1892, Butlin became full Surgeon. In 1896 he was elected Joint Lecturer on Surgery. He resigned the office of Surgeon in November, 1902, and was appointed Honorary Consulting Surgeon, and elected a Governor of the Hospital. He was placed on the Visiting Governors' Committee in 1909.

In 1880, the same year that Butlin joined the staff of St. Bartholomew's Hospital, he began his active connexion with another famed institution with which he ultimately became so closely identified. Sir Erasmus Wilson for several years delivered lectures at the Royal College of Surgeons; then in 1880 Butlin was chosen as the first Erasmus Wilson Lecturer of Pathology, holding the Chair two years. The lectures were published in a book under the title, *Sarcoma and Carcinoma, their Pathology, Diagnosis, and Treatment*, an excellent synopsis of its subject, and the first of the four more important works which were the fruit of his ripe experience. The second, one of the best type of textbooks, *Diseases of the Tongue*, first appeared in 1885. The third was *Malignant Disease (Sarcoma and Carcinoma) of the Larynx*, and the fourth, *The Operative Surgery of Malignant Disease*, of which there appeared in 1900 a second edition, including special chapters by six other surgeons experienced in the treatment of cancer of special organs. Butlin likewise issued in pamphlet form his reports, brought forward at the Brussels Congress in 1908, on the results of operations for cancer of the larynx (37 cases), and for cancer of the tongue (197 cases).

Butlin proved highly successful as a teacher, and in the earlier part of his career had numerous pupils, many being resident with him. He knew how to distinguish the unfit, among whom the teacher must include relatively intellectual youths deficient in the energy and force of character needed for a professional career. He also knew how to seek and discover the latent mental powers of boys strong and full of common sense though averse from work, who, when only guided by an able teacher, like himself, into the paths of duty and the right methods of study, can make themselves excellent doctors.

The editor of the *St. Bartholomew's Hospital Journal* (December, 1902) gracefully wrote of Butlin's merits as a teacher in the wards:

> Mr. Butlin has always delighted in clinical teaching. To go over a case with his class and dressers, to make them observe its essential features and so arrive at a diagnosis was always a source of keen pleasure to him. His method of teaching was always fresh and clear. He asked pertinent questions and expected straightforward answers. He had no compunction in exposing any one who tried to hedge, and attempts to elude him in this way were singularly unsuccessful. He acted up to his own precepts in this respect, and always had the courage to commit himself to a diagnosis. It is not surprising, therefore, that his classes were well attended, and that it was well known amongst those working for the final Fellowship examination that his Monday afternoon class was something which should not be missed.

Whilst thus rendering himself deservedly popular as a teacher, Butlin acquired high skill as an operator, especially for diseases of the throat and tongue. His practice grew large, and ultimately he was, on that account, compelled to resign his hospital appointment ere he had reached the age limit. Notwithstanding the enormous amount of physical and mental work that he undertook he managed to enjoy a considerable amount of leisure. He loved horse

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Henry D. Butler

exercise, and he made many tours in Europe, visiting remote but highly-interesting places in Spain and Italy little known to the tourist. He took deep interest in Italian pictorial and architectural work, and studied the writings of Vasari and other art critics of the Renaissance.

All members of the Association know what services Sir Henry Butlin rendered to us. At the Worcester Meeting in 1882 he was Vice-President of the Section of Pathology and Bacteriology. In 1889, at the Leeds Meeting, he filled the office of President of the Section of Laryngology. In his address he dwelt on the future position of laryngology. He noted how the specialist had taken into his domain the whole of the mouth, and even the outside of the neck. The lecturer doubted if the laryngologist would retain his hold over such advanced outworks as the neck, but added that if he should lose them it mattered little, as he could well afford to do without them. At the Portsmouth Meeting in 1899, as President of the Section of Surgery, Butlin turned attention in his address to certain questions associated with military surgery which more directly affect the civilian. He deplored the fact that of late years the use of firearms in civil life had increased alarmingly, an evil which has not decreased. At the Exeter Meeting in 1907 Butlin delivered the Address in Surgery, an exceptionally fine and important oration. "On the Contagion of Cancer in Human Beings: Auto-inoculation," which appeared, finely illustrated, in our columns. As a literary souvenir it is, however, eclipsed by Butlin's more recent Hunterian Lectures delivered at the College last autumn. Another fine public-spirited address, still familiar to all our members, was delivered by Butlin, as President of the Association, at the London Meeting in 1910, the subject being "The Evolution of the Association and its Work." Space forbids us to say more of it beyond reminding our readers that it well deserves perusal, being a clear review of the Association's work prepared and made public by a great authority—a kind of review beyond the powers of the most conscientious, industrious, and learned official or literary historian. We must remember that whilst compiling and considering our "evolution" Butlin was discharging the arduous duties of another Presidency, that of the Royal College of Surgeons.

As to his more purely official services to the Association, we must add that he was Treasurer from 1891 to 1895, having been unanimously re-elected to that highly responsible office at the Newcastle Meeting in 1893. He modestly stated on that occasion that doubtless there were men more fitted to be Treasurer than he, but that no one could be found who had more at heart the interests and prosperity of the Association. His fitness and his zeal, already at that date so evident, were amply proved by his subsequent labours in the cause of the Association. At a meeting of the Abernethian Society in January, 1901, Butlin related to the students of St. Bartholomew's Hospital the history, character, and aims of our Association, testifying to the great services rendered to it by Mr. Ernest Hart and Mr. Francis Fowke.

During those years, when he worked so hard for us, for his hospital, and for the College of Surgeons, he had acquired a lucrative practice, yet he never flagged at scientific work. He became President of the Laryngological Society, he prepared four communications which appeared in the *Medico-Chirurgical Transactions*, and was elected Vice-President of the Royal Medical and Chirurgical Society in 1904. When it was converted, after fusion with a number of other institutions of its class, into the Royal Society of Medicine he was placed on its General Council. The Pathological Society, so closely identified with Butlin's early scientific work, he served actively almost to the year of its amalgamation. He held the chair in 1895–7, and the date of his Presidency was most fortunate. The Pathological Society of London was founded by Dr. Bentley and others after a learned association bearing the same name had been established in Dublin, in 1839, and another Pathological Society set up in Reading in 1841. On October 20th, 1846, the London Society held its first meeting, and on October 20th, 1896, it fell very happily to the lot of Butlin, as President, to deliver an address on its jubilee, a prodigious effort on his part when we bear in mind that he was at that date at the height of his active service, private and public, as an operating surgeon. Indeed, his faculty of collecting material for addresses—always a mentally and physically irksome task—and of welding them into orations that could not only be listened to but read afterwards in print with not less pleasure was phenomenal. His fluency and his elegance of diction irrigated those wholesale collections of relatively dry facts on which such addresses are necessarily founded, and rendered them both comprehensible and interesting.

Butlin devoted much time in his later years not only to the Association as we have already related, but likewise to the College of Surgeons. Having lectured with such great success in earlier years in the theatre of the College, he easily found his way into its Council in 1895 and was as easily re-elected in 1903 when he had served the regulation eight years. In 1905 he delivered the Bradshaw Lecture and in 1907 the Hunterian Oration. In 1909 he was elected President of the College, and was re-elected in 1910 and 1911. There can be no doubt that his failing health was greatly tried in 1910 when he held the chair in the Association as well. In 1911 he grew much weaker, but often drove himself to Council and Committee meetings at Lincoln's Inn in the course of the spring. On June 13th a complimentary banquet was given in his honour by the medical profession on the instigation of the Metropolitan Counties Branch of the Association at the Connaught Rooms, and Dr. Lauriston Shaw, who was in the chair, spoke highly of his services, and Butlin was quite bright as in former years when he stood up to make a long yet most pathetic and interesting speech in returning thanks. The hot weather which followed proved most trying. After his re-election in July he went to Switzerland, but the journey there and back proved quite the reverse of beneficial.

In the summer he had received the dentists at the College, and the last photograph of him was taken as he stood in the porch of the building surrounded by his guests. He showed signs of great debility, and after his return to London the laryngeal affection from which he suffered rendered speaking impossible. His two lectures on Unicellula Cancri, the Parasite of Cancer, which, published in the JOURNAL last autumn, gave rise to so much correspondence in our columns, were read from his manuscript by Dr. R. N. Paramore. On November 9th, before their delivery, Butlin resigned the presidency. The new President, Mr. Rickman Godlee, and the Council passed a unanimous resolution emphasizing the courage with which he had performed his presidential duties. It is sad to think that Butlin did not live to enjoy the well-merited titular distinction which he received from King George V on the occasion of that monarch's coronation, but was forced by ill health to retire within a few months after he became a baronet. After his resignation in November he took to his bed, from which he never rose again. For a time he was greatly distressed by increasing dyspnoea and insomnia, and on January 24th he passed peacefully away at noon. "After life's fitful fever he sleeps well." His remains were cremated on Saturday, January 27th, at Golders Green, only his nearest relatives being present.

A memorial service at St. Andrews, Wells Street, on January 29th, conducted by the Rev. H. A. Camberlege (the vicar), assisted by Prebendary Grose Hodge, was largely attended by members of the profession, including the President of the Royal College of Surgeons (Mr. R. J. Godlee), the Vice-Presidents (Mr. Mansell Moullin and Mr. Clinton Dent), the President of the Royal College of Physicians (Sir Thomas Barlow), Sir Douglas Powell, Sir J. F. Goodhart, Sir Lauder Brunton, Sir Anthony Bowlby, Sir Pearce Gould, Dr. Frederick Roberts, Dr. Samuel West, Mr. Howard Marsh, Mr. Lockwood, Mr. Furnivall, Mr. Clement Lucas, Mr. Golding-Bird, Mr. Bilton Pollard, Sir H. Paget-Cooke, Sir J. Tweedy, Sir Frederic Eve, Dr. Dundas Grant, Dr. Raymond Johnson, Mr. Makins, Sir Frederick Wallis, Sir Watson Cheyne, The Dowager Lady Broadbent, Sir John Rose Bradford: Dr. Steeves, representing Sir James Barr (President-elect), Dr. Rayner (Treasurer), and Mr. Guy Elliston (Financial Secretary and Business Manager), representing the British Medical Association; Sir H. Morris and Mr. J. Y. W. MacAlister, representing the Royal Society of Medicine, Miss Cock, representing the London School of Medicine for Women, Dr. E. H. Bashford of the Imperial Cancer Research Fund, and Mr. Smith Woodward (of the Natural History Museum); from the Royal College of Surgeons: Professor

Keith, Mr. Burne, and the Secretary (Mr. S. F. Cowell), and Librarian (Mr. Plarr).

Another memorial service was held at St. Bartholomew's-the-Less, in the precincts of the hospital, the service being conducted by the Rev. H. N. Close, the Vicar and Hospitaller. It was attended by the Lord Mayor, Sir Dyce Duckworth, Sir William Church, Sir Trevor Lawrence, Dr. Godson, Dr. Garrod, Mr. Harrison Cripps, and other members of the staff, the assistant matron, and several of the sisters.

Butlin was an Honorary Fellow of the Laryngological Society of Berlin, and was made a Membre Associé de la Société de Chirurgie de Paris but six weeks ago; only twenty surgeons receive this honour, as the Société prides itself on being highly select. He was also for a time Dean of the Faculty of Medicine of the University of London. In 1893 he received the honorary degree of D.C.L. from the University of Durham, and the University of Birmingham honoured him in a similar manner with the degree of LL.D. in 1910. He was a Governor of Rugby School.

Sir Henry Butlin married, in 1873, Annie, daughter of Mr. Henry Balderson, of Hemel Hempstead, who, with their three children, survive him. The son, Henry Guy Trentham Butlin, born in 1893, educated at Harrow, and now of Trinity College, Cambridge, succeeds to the title.

As late as December 20th, 1911, Dr. Lucas-Championnière wrote to Sir Henry Butlin the following letter announcing the honour so recently conferred upon him:

Mon cher Président, —

La Société de Chirurgie vient sur ma proposition de vous nommer Membre Associé. C'est un honneur que dans notre milieu purement chirurgical nous faisons à peu des maîtres de la chirurgie, les statuts de la Société de Chirurgie ayant décidé que vingt seulement peuvent être associés. Les correspondants sont bien plus nombreux. Vous êtes là en compagnie de Lister, de Czerny, de Durante, de Keen, de Macewen, de Reverdin, de Sonnenburg. L'hommage qui vous a été rendu a été complet, car le vote a été fait à l'unanimité ce qui est bien rare dans cette société un peu restreinte et un peu frondeuse. Vos amis ont été très heureux de le faire constater après le vote.

J'ai appris par les journaux que vous aviez résigné vos fonctions de Président du Collège Royal pour cause de santé. J'espère que ce n'a été qu'un peu de fatigue et que votre santé est aujourd'hui rétablie. . . . J'ai vu que vous aviez pu continuer vos beaux travaux sur la nature parasitaire du cancer, je les suis avec le plus grand intérêt.

Professor ROBERT SAUNDBY, President of the British Medical Association, writes: Twenty-five years of private friendship and public association with Sir Henry Butlin make me painfully conscious of the gap caused by his death. Perhaps his chief characteristic was his very remarkable power of impressing, even on comparative strangers, the sense of trustworthiness. We all leant upon him as the strong man, and when we had him with us we felt sure that everything would go right. This was illustrated in a remarkable fashion in 1890, when as a comparatively new member of the Council of the Association he was elected to the post of Treasurer, and at the end of his three years' term of office he was induced to accept the position for another three years. Another striking example of how men turned to him for help was when he was asked to be President of the Association in 1910, as the only man who could make the meeting a success. There were difficulties, but they melted away as if by magic when it was known that he would preside. It is hard to explain this wonderful gift, but it seems to me to have been due to the perfect simplicity of his character. He was just what he seemed to be. His affectionate manner was the indication of his kind heart, and he inspired love and confidence because he brimmed over with these qualities. He was a most effective speaker, although he had no special gift of voice or language, but he took infinite pains in the preparation of what he had to say, and for this reason his speeches were always worth hearing, and at times rose to a very high level—as, for example, on the occasion of the dinner given to him by the medical profession. That dinner was a remarkable testimony to the affectionate regard in which he was held by his colleagues in all ranks. The frail tenure by which he held his life was painfully obvious in Birmingham last July, when he fulfilled in the kindliest and most perfect manner his duties as the retiring President of the Association. Although so weak that he was scarcely fit for the effort, he insisted on going through all the ceremonial, and nothing could have been more gracious or more touching than his personal references to our long connexion in the work of the Association. He honoured the Association by the part he played in it, but he did not seem to think he was doing anything extraordinary, although the effort and the sacrifice he made were so great that no words of mine can express the gratitude I feel, nor can I acknowledge in fitting terms the debt I cannot repay.

Dr. WARD COUSINS writes: I am glad of an opportunity of contributing a few words to express my very great esteem and sincere regard for my old and generous friend and colleague, Sir Henry Butlin, who after reaching the summit of professional success, covered with honours, and in the enjoyment of the confidence and warm appreciation of all his friends, has been called away. Only a few years ago his election to the position of President of the Royal College of Surgeons caused the greatest satisfaction throughout the profession, and now the sad news of his death has produced everywhere deep sympathy and regret. At the end of last November I received from him a very kind letter which too clearly revealed to me that his splendid energy and self-sacrificing labours were drawing to a close. In the year 1885 Sir Henry Butlin (then Mr. Butlin) was appointed a Representative of the Metropolitan Branch on the Central Council, and the great value of his presence and co-operation at the meetings were recognized at once. He proved to be an excellent speaker, with a clear articulation and pleasant voice, and he soon exhibited his power of expressing his opinions in a few words with vigour and precision which never failed to arouse both attention and careful consideration. At the annual meeting in 1890 he was unanimously appointed Treasurer of the Association. Our old and much esteemed friend the late Mr. Wheelhouse occupied the chair, and I well remember the great enthusiasm of the members when Mr. Butlin's name was mentioned. The following years were a very critical period in the history of the organization, and the office of the newly-appointed Treasurer appeared to be by no means easy and free from anxiety; but his tact and good judgement, combined with a complete knowledge of every detail, soon overcame all difficulties, and his wise efforts gave a new impulse towards financial success and prosperity. In 1893 Butlin was requested to retain the office for another term, and he consented to do so. At the annual meeting held at Newcastle his re-election was carried by acclamation amid warm expressions of satisfaction from all the members. The time had now arrived when many urgent questions had to be settled having reference to the management of the JOURNAL and the general business of the Association. The number of members, too, was rapidly increasing in all parts of the country, and new branches undergoing formation at home and abroad were seeking recognition. Now Sir Henry Butlin clearly foresaw that the gradual expansion of the organization was not far ahead, and that an urgent necessity existed for securing more accommodation for successfully carrying on the various departments of the work. He had always been in favour of acquiring the site and building in the Strand, of which the Association then had a lease. It was a conviction of the real necessity for making preparation for future developments, and that an extension of the area was indispensable for the erection of a more commodious building, which induced him strongly to recommend the purchase of several adjoining houses; this advice was at once acted on. I have often thought over this wise anticipation, and it is an interesting fact that the valuable property in the Strand and Agar Street was secured two years after, and that the conveyance was duly signed on March 24th, 1898. When the annual meeting was held in London during 1910 Sir Henry Butlin was rightly selected for the Presidential chair, and it was the unanimous desire of the profession that he should be requested to accept the office, for throughout his life he had never lost an opportunity of doing all in his power to promote the interests of the Association. Now, on reviewing the stress and pressure of all his professional duties, we feel sure that he must have possessed physical strength and strong self-control far above the normal. His high intellectual qualities were always visible in combination with the power of mental concentration and ceaseless energy.

He will be for ever remembered as a brilliant surgeon and lecturer in one of the largest medical schools in the kingdom, as an able worker and writer on the ever advancing sciences of surgery and pathology, and also as a zealous investigator in striving to unravel the deep problems of disease. We mourn to-day that his work is over; but we are confident that he has left behind an enduring memorial of his devoted life and that his name will have a place with the leading and distinguished surgeons of our day.

Dr. Lauriston Shaw, who was one of the local honorary secretaries of the annual meeting of the British Medical Association in London in 1910, has responded to our request by sending the following appreciation of Sir Henry Butlin's work as President of the Association on that occasion:

Sir Henry Butlin, who had always taken the keenest interest in watching the progress of the Association since his period of Treasurership some years before, became once more actively engaged in its work by accepting the Presidency in 1910. The opportunity occurred of offering to him this, the highest honour in the gift of the Association, in consequence of the decision to hold the annual meeting for 1910 in London. There can be no doubt that Sir Henry was genuinely gratified at this further indication of the regard in which he was held by his professional colleagues, whilst it was clear that the profession generally endorsed in the heartiest manner the decision that the surgeon who had already attained to the foremost position in his technical art as President of the College of Surgeons of England should be invited to hold at the same time the headship of the Association representative of the whole profession of the Empire.

As was foreseen by all who knew Sir Henry Butlin well his occupancy of the Presidency was eminently satisfactory to the profession. Its period corresponded with a time of much anxiety to medical practitioners throughout the United Kingdom. During his year of office the National Insurance Bill was introduced into Parliament and the negotiations between the Government and the profession were initiated, the final results of which are awaited with grave anxiety. The President's genuine appreciation of the representative position of the Association and of its sole right to accept the responsibility of speaking on behalf of medical practitioners as a body was a great source of added strength to the profession in impressing its wishes upon the Government. At the present critical juncture Sir Henry's sagacious advice and wise leadership will be sorely missed. In his position as President Sir Henry Butlin played the leading part in welcoming the Association to London and much of the success of the meeting was due to the enthusiasm and energy with which he put himself at the head of all the movements for promoting both the scientific and social aspects of the gathering. His Presidential Address will long be remembered as an eloquent and convincing appeal for courage and patience in promoting the highest interests of the profession by the united action of its members. The historical summary of the tedious processes by which the profession had in the past secured its unselfish aims for the public good in face of public apathy and opposition constituted a real oratorical triumph in the severely restrained style which was always a pleasing characteristic of Sir Henry Butlin's addresses. The President, by the keen interest he took in the scientific work of the various sections, and in the almost unique medical museum collected for the occasion, gave great encouragement to the voluntary workers in these departments. Sir Henry and Lady Butlin, by the lavish hospitality they offered to the distinguished visitors and foreign guests at the annual meeting, still further increased the reputation they had already achieved as being the most generous and genial of hosts amongst the medical profession in this city.

Mr. Bruce Clarke, the present Senior Surgeon to St. Bartholomew's Hospital, writes as follows: It is difficult to realize that Sir Henry is gone from us. It is nearly forty years since I first met him, when I was a new dresser and he a recently appointed surgical registrar, and we have been friends ever since.

I well remember how ready he was to help the new dresser, and how impressed I was by the thoroughness with which he investigated every detail that could throw light on the disease of the patient.

The microscopic examination of morbid products was then in its infancy, and this was the point on which his interest was centred. One felt one could learn more pathology from him than from any one else. When I was working for the second F.R.C.S. examination, he offered to show me some microscopic sections, and I well remember going to his house to look at them, and being amazed at the immense number of specimens he had, and at the wonderful way in which Mrs. Butlin (as she then was) unearthed any slide that he wanted, and seemed to know all about it.

When he was elected assistant-surgeon a new side of his nature seemed to develop. Up to this time he had appeared to some of us to be too pathological. We had not realized how good a clinician he was. No sooner, however, did he become demonstrator of practical surgery and assistant-surgeon, than he came to be recognized as a surgeon of sound judgement, whose knowledge of pathology was destined to play an important part in helping his clinical investigation of disease. Whatever he had to do, he did well, because he had mentally rehearsed it beforehand. Of nothing was this so true as of a surgical operation. He operated well because he knew exactly what he meant to do, and he did it.

He lectured well because he was determined to master his subject and to put it before his audience with as near an approach as possible to that clearness of exposition and charming delivery which he had so often heard from the lips of his revered master, Sir James Paget, whom he ever delighted to talk about.

Each year his reputation as a clinical teacher grew, but he taxed his strength to the uttermost, often beyond the bounds of prudence. As his practice grew he gave up first his lectureship on surgery, on which subject few have ever lectured better, and then his surgeoncy, because he could stand the strain no longer, and because every bit of work, speeches included, was prepared with an elaborate care that few can realize.

His more recent work, his election to the Presidency of the Royal College of Surgeons and to that of the British Medical Association, is familiar to all and needs no appreciation from me. The same urbanity, the same desire to be of help to others, was as much to the fore when the honours of later life fell upon his shoulders as they had been when he was but a surgical registrar.

The leisure of retirement had no charms for him. He loved work and would have worked on to the end if he had thought he could do the work that had been entrusted to him as he wished it to be done. As soon as he felt that was impossible he bowed to the inevitable and surrendered.

Dr. Dundas Grant has supplied us with the following appreciation of Sir Henry Butlin's work as a laryngologist: Butlin was President of the Laryngological Society during the year 1897-98, having been previously and for some time afterwards a frequent attendant at the meetings. He examined the cases and discussed them in their purely laryngological aspect with all the keenness and receptivity of a student, and raised the value of the discussions as well by his experience in the throat department of St. Bartholomew's for a considerable number of years, as by his general surgical grasp of the subject and the sound pathological basis which his early researches had afforded him. His work on carcinoma and sarcoma (of the larynx) became of course a classic. It is to him that the full value of thyrotomy in the treatment of early and limited epithelioma of the interior of the larynx is due, but he was somewhat conservative in regard to total extirpation, though of late years he formed a more favourable opinion of the radical operation. Up till recently he was an occasional attendant in the Section, and always took an interest in it. At all times he displayed great patience in relation to the expressions of opinion on the part of younger men, and his criticism of them, when they got rather wild, was usually accompanied by such good-natured banter and so merry a little twitch of his eyelids, that he never failed to make a pleasant as well as a strong impression. His example was a very valuable one in regard to general "tone," and he did a great deal to prevent

British specialists from becoming too narrow in their views. I am sure you will find these impressions confirmed by any of the habitual members of the society.

DR. F. DE HAVILLAND HALL writes: My intimate acquaintance with Sir Henry Butlin dates from the spring of 1868, when he told me that he had been appointed House-Surgeon to Mr. Paget, and he asked me if I would come on as dresser. It is hardly necessary to say that I eagerly accepted the offer, and for six months I was in daily contact with Butlin. Even in that early period of his career he showed of what mettle he was. His work in the surgery and wards was performed with exactness, nicety, and punctuality. With such a House-Surgeon acting under a Surgeon of Mr. Paget's distinction, the dressers had an excellent time, and we were all very sorry when it came to an end. Butlin had a wonderful power of getting his own way with dressers, Sisters, and nurses without friction, and his bright countenance and cheery smile were very attractive. After his house-surgeoncy he accepted a post as assistant at Charing in Kent. He wrote to me from there saying that he was getting valuable experience, but that he intended returning to London. I next saw him when he was Surgical Registrar at Great Ormond Street. In 1876 we again came into very intimate intercourse, as we lived opposite each other in Queen Anne Street, and we frequently walked together to the casualty department at St. Bartholomew's Hospital. He had usually something to say bearing on professional subjects, and much valuable information I picked up from him durings these walks. I often used to look in upon him in Queen Anne Street shortly before midnight, and I almost always found him at work with the microscope, assisted by his devoted wife. Though so keenly interested in his professional work, he had a high appreciation of music and art, and I look back with great pleasure to the fact that my first visits to the opera and to the Royal Academy were in his company. He had the gift of doing every thing he took up thoroughly well. He was much interested in cricket and a keen lawn-tennis player; even in such trivial games as Halma he usually came out victorious. Of late years riding was his hobby, and on horseback he looked like a cavalry officer. In the above remarks I have endeavoured to give a picture of how Butlin appeared to those who came into close contact with him. I would only add that he was the kindest and most generous of friends.

ONE WHO WORKED WITH HIM FOR FORTY YEARS writes: I always think that Butlin in his life and work tried to carry out the motto over the door of the school buildings of the great hospital he loved so well: "Whatsoever thy hand findeth to do, do it with thy might." Latterly, when sometimes asked if to-morrow would not do for some piece of work, he would say, "No; if I cannot do my duty, I must resign." And then came the day when he said, "I'm done; I *must* resign" (the Presidency of the Royal College of Surgeons). His end was perfectly peaceful—a little deeper sleep.

EUGENE STEPHEN YONGE, M.D.EDIN.,

PHYSICIAN, MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT.

By the death of Dr. E. S. Yonge, Manchester has lost one of its most promising young specialists in diseases of the nose and throat. Though a comparatively young man, Dr. Yonge had for some time been in indifferent health, and he was so thoroughly devoted to his professional work that there is some fear that he did not take sufficient rest, and the arduous work involved in getting out his last work on *Diseases of the Nose and Throat* probably contributed to his final breakdown.

Dr. Yonge graduated at Edinburgh M.B., C.M. in 1891, and proceeded to M.D. in 1897. He spent some time in post-graduate work at Vienna, Berlin, and Paris, and acted as Assistant House-Surgeon at the South Devon and East Cornwall Hospital and also as House-Surgeon at the Manchester Southern Hospital for Women. He never took any active part in medico-politics, though he has been a member of the British Medical Association for many years and acted as Honorary Secretary of the Section of Laryngology at the annual meeting of the British Medical Association in 1892. Soon after graduating he began to take special interest in diseases of the nose and throat and made this his practical life-study. He brought to the work a remarkable power of invention, and devised several methods of operating on the nasal cavities which are now recognized as most efficient. His writings on rhinology are voluminous, and in addition to his special works on *Polypus of the Nose* and his handbook on the *Diseases of the Nose and Throat*, may be mentioned his articles on "Polypus of the Tonsils" in the BRITISH MEDICAL JOURNAL of 1901, and his *Observations on the Determining Cause of the Formation of Nasal Polypus*, 1907. He made a number of original researches on the cause of common colds and the surgical treatment of paroxysmal rhinorrhoea and hay fever, and his recently published suggestions for the surgical treatment of hay fever by resection of the nasal nerve have been keenly discussed and received very favourable comment. In pursuance of his work on hay fever he went as an English representative to the hay fever section of the International Hygiene Exhibition at Dresden in 1911. For some years he had been Honorary Physician to the Crossley Sanatorium at Delamere and the Manchester Hospital for Consumption and Diseases of the Throat. In this position he endeared himself to the numerous patients who came under his care, who will remember him not only for his skilful manipulation but for the kindly consideration and sympathetic manner in which he carried out his duties.

CHARLES WARDEN, M.D., F.R.C.S.EDIN., J.P.,

HONORARY CONSULTING SURGEON TO THE BIRMINGHAM AND MIDLAND EAR AND THROAT HOSPITAL AND TO THE BIRMINGHAM BOYS' ORTHOPAEDIC AND SPINAL HOSPITAL.

WE record with regret the death of Dr. Charles Warden, which occurred at his residence at Weston-super-Mare, on January 13th, at the age of 85. He was born in Bristol Road, Birmingham, in 1827, and was the youngest surviving son of the late Mr. Joseph Warden, who, before the incorporation of Birmingham, was one of the Commissioners in whom was then vested the government of the town. Dr. Warden was educated at the Edgbaston Proprietary School, after which he commenced his professional studies at Queen's College, under the eminent chemist and metallurgist, Dr. Percy. From the Queen's College he went in 1845 as a student to St. George's Hospital, where he had a successful career, taking honours in chemistry. He studied for nearly two years in the Paris medical schools and hospitals, took the diploma of the R.C.S. in 1850, and spent the winter of that year at the University of Aberdeen, where he took the degree of M.D. He became F.R.C.S.Edin. in 1878.

In 1851 he was appointed House-Physician at the Westminster Hospital, and in the following year was elected Resident Medical Officer at the Lying in Hospital, Birmingham, to which institution he was afterwards appointed Honorary Surgeon. He commenced private practice in 1854, and four years later became one of the honorary staff of the Birmingham General Dispensary, a post he occupied for several years. In 1856 he was appointed honorary medical officer to what was at that time called the "Institution for the Relief of Bodily Deformities," a charity which he helped to organize as the Orthopaedic and Spinal Hospital. As honorary medical officer to the Institution for the Relief of Deafness, to which he was appointed in 1858, he developed the charity by adding to it the treatment of diseases of the throat, and largely through his exertions the institution grew into the Ear and Throat Hospital, to which he was honorary surgeon for many years, and was later appointed consulting surgeon. On the resignation of Mr. Alfred Baker in 1876, Dr. Warden became honorary surgeon to the Royal Institution for Deaf and Dumb Children.

He was one of the original members of the University Graduates' Club, and at one time its President. Among other distinctions he held was President of the Otological Section of the British Medical Association, at the annual meeting held in Birmingham in 1890, and President of the Birmingham Medical Benevolent Society in 1888, being also a member of its Court of Directors for four years.

Among his contributions to medical literature were papers entitled "Osteotomy in the Treatment of Genu Varum and Genu Valgum" and "Deaf-mutism and Consanguineous Marriage," published in our columns. He was

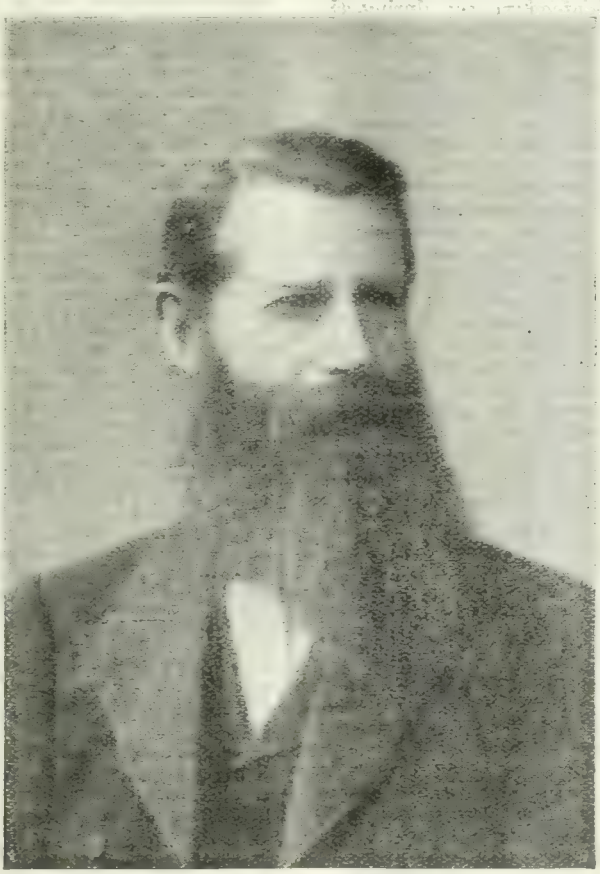
an active member for many years of the Birmingham and Edgbaston Debating Society. In 1892 he was appointed a magistrate for Birmingham. Dr. Warden married in 1856 Eliza Mary, daughter of the late Mr. Allen Everitt.

JAMES TAYLOR, F.R.C.S.Eng., J.P., Etc.,

CONSULTING SURGEON TO THE CHESTER GENERAL INFIRMARY; PAST-PRESIDENT OF THE LANCASHIRE AND CHESHIRE BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

On Sunday afternoon, January 14th, Chester suffered a severe loss by the death, in his 72nd year, of Mr. James Taylor, one of its most esteemed citizens.

He was born at Chapel-en-le-Frith, Derbyshire, on St. Luke's Day (October 18th), 1840, and, when quite a youth, was apprenticed to the late Dr. Loney of Macclesfield. The latter having an appointment as medical officer to a workhouse, his young apprentice was soon called upon to attend nearly all the normal labours at that institution, and in this way acquired an experience in practical midwifery which proved of great value to him in the early days of his practice. He once told the writer of this notice that he attended over a thousand cases of midwifery before he was qualified, and showed him a book, most neatly kept, containing a note of every case from first to last.



Mr. James Taylor

Photograph by] [*Clarke Cambridge.*

He acquired his medical education proper at Anderson's College, Glasgow, and Mason's College, Birmingham. He took the diploma of L.S.A. in 1864, and those of M.R.C.S.Eng., and L.R.C.P.Lond. in 1865 and 1866.

After trying practice for a short time in Oxfordshire he went to Chester in 1868 as one of the Resident Officers at the infirmary. Two years later he started practice in the city, and was very soon elected Honorary Surgeon to the Infirmary—a position he held until 1907, when he was made Consulting Surgeon.

He very soon gained the confidence of the public, and it speaks well for his energy and determination that he found time to prepare for the diploma of F.R.C.S.Eng., which he took in 1882, while engaged in the exacting work of an ever-increasing practice.

Mr. Taylor's work for the Chester Infirmary was publicly acknowledged by a valuable presentation made to him in 1907, on his retirement from the position of Honorary Surgeon; it took the form of a valuable antique clock and candelabra, a beautiful silver tea and coffee service, and a cheque for £200.

In addition to his large city practice he had a large consulting practice in Cheshire and North Wales. Although surgery was his speciality, he was a splendid type of the all-round medical man, and his opinion was much in request in purely medical cases. As an operating surgeon he was self-reliant and quick in his methods, and specially good in abdominal cases.

An active member of the British Medical Association, he was President of the Lancashire and Cheshire Branch in 1903, and frequently attended the Annual Meetings. Had his health permitted it he would have liked to have taken an active part in the opposition to the Insurance Bill.

He was twice President of the Chester Medical Society, and one of its founders. He was Consulting Surgeon to the Wrexham Infirmary, and formerly a Vice-President of the North of England Obstetrical Society. He was also medical referee for the district under the Workmen's Compensation Act. In 1897 he was made a Justice of the Peace for the city and frequently sat on the bench.

The Mayor of Chester, on taking his seat at the police-court on January 15th, referred to Mr. Taylor's death and spoke of him as one of Chester's most distinguished citizens. His name, he said, was a household name in the city. He was a friend of all with whom he came in contact, and his public services to the city as Honorary Surgeon to the infirmary and also on that bench would be sorely missed. He was voicing the feelings of all the magistrates when he said they mourned with his family the loss of one whose place it would be hard to fill. Their sympathies went out to the bereaved wife and family. Colonel Evans Lloyd said, as one who had been so long connected with the infirmary, having been for thirty-five years a member of the board and for twenty years chairman, he was thrown into frequent contact with their dear friend, Dr. Taylor. He could only say that he was the backbone of the institution, and was noted for his kindness and distinguished services. He was especially considered to be a devoted adviser and friend of the nursing staff, and they all knew him as a kindly and distinguished friend of the institution.

He was intensely fond of his profession, which was his hobby. Of a strong, self-reliant, somewhat rugged, but very lovable nature, he was held in affection and respect by poor and rich alike. He was extremely sympathetic towards the younger members of the profession, who never failed to find in him a true friend and wise counsellor in their worries, whether private or professional. It was always pleasant to have him as consultant, he was so helpful and full of encouragement. He was always most careful to try and inspire the patient and his friends with confidence in their family attendant. He was attended in his last illness by his son, Dr. George Taylor, and by Dr. Mann, who had formerly been in partnership with him. He also went to London to see Dr. Hale White, Mr. Herbert Tilley, and Mr. A. D. Reid about his complaint. Condemned to die from an incurable and inoperable disease, he met his fate with calmness and courage. His desire to carry on his work to the very end was almost fulfilled, for he attended his last consultation in North Wales only four weeks before he died.

He was laid to rest in the Chester Cemetery in a blinding snowstorm on January 17th. He left a request, that should the weather be cold or wet mourners were to keep their hats on at the graveside. A service held previously at St. John's Church was attended by a large congregation, among whom were many doctors from the city, the county, and North Wales, in addition to civic dignitaries and the general public.

Mr. Taylor is survived by a widow, two sons, and two daughters. His eldest son, Dr. George Taylor, is in practice in Chester and one of the honorary physicians to the infirmary.

CECIL YATES BISS, M.D., F.R.C.P.LOND.,

FORMERLY PHYSICIAN, BROMPTON CONSUMPTION HOSPITAL AND MIDDLESEX HOSPITAL

DR. CECIL YATES BISS, who died on January 20th, after a disabling illness extending over twelve years, was educated at Cambridge and St. Bartholomew's Hospital. His career at the university was highly distinguished. He was a Foundation Scholar of Downing College, gained the Winchester University Prize, and took a First Class in the Natural Sciences Tripos in 1875. He also took a First Class at the Final Examination for the M.B. in 1880. In the same year he was admitted a Member of the Royal College of Surgeons of England. He proceeded Doctor of Medicine in 1884, and was elected a Fellow of the Royal College of Physicians of London in 1889. He held many professional appointments, being Physician to the Brompton Consumption Hospital and Physician to Out-patients at the Middlesex Hospital. This appointment he held for seventeen years; during the latter part of that time he had beds in the wards of the Senior Physician. He was also the first Lecturer on Pharmacology and Therapeutics in the Medical College of Middlesex Hospital after Dr. Thorowgood resigned the lectureship on materia medica. He was Examiner in Medicine and Materia Medica to the Apothecaries' Society. He was Consulting Physician to Friedenheim (Home for the Dying), and at various times Honorary Physician to the Westminster General Dispensary, Assistant Physician to the Metropolitan Free Hospital, and Consulting Physician to St. Saviour's Hospital. He was for some time Demonstrator of Physiology to Selected Teachers at South Kensington. Dr. Biss was the author of papers on the treatment of pus-secreting basic cavities of the lung by paracentesis and free drainage, read before the Royal Medical and Chirurgical Society (1884); circumscribed scleroma associated with pulmonary stenosis, a communication made to the Clinical Society (1889); on the diagnosis and treatment of certain forms of gastralgia, published in the *Practitioner* in 1891; a report (in conjunction with Sir Alfred Pearce Gould) of a case of intussusception treated by laparotomy, terminating in complete recovery (1892); a clinical lecture on intrathoracic aneurysm, published in the *Clinical Journal* in 1896; and other contributions to medical literature.

Had not Dr. Biss's scientific work and professional activity been rudely interrupted by a stroke of hemiplegia which made him an invalid for the remainder of his life, he would doubtless have fulfilled the promise of an exceptionally brilliant career of which his early successes and his devotion to work had given token. To himself death must have come as a merciful release, but he leaves many friends to mourn the loss of a gifted spirit.

DR. ESSEX WYNTER writes: Dr. Cecil Yates Biss began his career as a teacher in New Zealand, coming with two companions to England in 1872. Dr. Biss was a strong teetotaler and opponent of tobacco, and rather given to admonishing his patients in regard to excesses and irregularities in living, in addition to ministering to their immediate ailments. He was a leader among the Plymouth Brethren, deeply versed in Scripture, and a fluent speaker. He took a serious view of life, and his tall, rather portly figure lent weight to his admonitions. He had a good voice, genial manner, and remarkably even temper, and in committee was a steadier of discussion, and prone to regard matters from a broad standpoint as parts of a wider system.

CHARLES DAVIDSON, M.D.,

COVENTRY.

WE regret to record the death of Dr. Charles Davidson, which took place at his residence in Priory Row, Coventry, on January 21st, after a very short illness. Dr. Davidson, who was 62 years of age, was a native of Aberdeen, and he took the degrees of M.B., C.M. of that university in 1871. After receiving the M.D., he went to Coventry in 1878. He was appointed to the medical staff of the Coventry Dispensary, and was attached to that institution until about eight years ago, when he resigned. Since that time Dr. Davidson has continued in private practice at Priory Row. He was a past-Chairman of the Coventry Division of the British Medical Association. In politics he was an ardent Conservative, and at the time of his death he was Chairman of the St. Mary's Ward Conservative and Liberal Unionist Association. He leaves a son (Dr. Duncan Davidson) and a daughter.

The body of the late Dr. Davidson was cremated at Perry Barr on January 24th, and the funeral, which was largely attended, took place on the following day at Coventry.

Medico-Legal.

ACTION AGAINST THE BRITISH MEDICAL ASSOCIATION.

THE case in which Dr. Robert Bell is suing Dr. E. F. Bashford and the British Medical Association for libel came before the Court of Appeal, consisting of Lord Justice Farwell and Lord Justice Kennedy, on January 30th, by way of an appeal by the plaintiff from the decision of Mr. Justice Bucknill in chambers refusing to strike out certain portions of the defence entitled "Particulars of public interest."

Mr. Herbert, for the plaintiff, said it was an action for libel by Dr. Robert Bell, a duly qualified medical practitioner, against Dr. Ernest Francis Bashford and the British Medical Association in respect of a libel which appeared in the BRITISH MEDICAL JOURNAL, written by Dr. Bashford, and published in what was called a "Special Quackery Number," dealing solely with quacks of all kinds and descriptions. Dr. Bashford's contribution was entitled "Cancer, Credulity, and Quackery." In that article he attacked those who were opposed to him in the treatment of cancer, and mentioned the plaintiff by name. The plaintiff for a number of years performed surgical operations for cancer, but he afterwards came to the conclusion that different treatment was required. His views differed from those of Dr. Bashford, who had, in the article referred to, attacked those who opposed him in the treatment of cancer. The plaintiff complained that these articles by Dr. Bashford meant that the plaintiff was a quack and an impostor, and that he attempted to impose on the credulity of the public, and thereby was guilty of professional misconduct. The defendants denied that the articles were published with any defamatory intention, and pleaded that the facts were true, and that the comments were fair and bona fide comments, without malice, on matters of public interest. That was a plea of fair comment only, and particulars of public interest had been delivered in support of that plea. It was those particulars the plaintiff objected to, because they were really in support of justification which had not been pleaded. These particulars of public interest, it was contended, really amounted to a repetition of the old libel rather made a little stronger. Some portion of them read almost like a final speech to the jury, and counsel strongly objected to them as likely to be embarrassing to his case when it came on for trial.

Mr Colam, for the defendants, said they had not called the plaintiff a quack, because it was expressly stated that he was a duly qualified medical man; but what was said was that his teaching was more dangerous than that of a quack, because of its half-truths, which were more likely to mislead people. They actually quoted illustrations from the plaintiff's own writings; and his claim was based on portions of the articles taken out and pieced together. The defendants had given the particulars of facts complained of in order that the plaintiff at the trial could not say he was taken by surprise.

At the conclusion of Mr. Herbert's argument for the plaintiff, Lord Justice Farwell said they saw no reason to interfere with the discretion of Mr. Justice Bucknill. They did not see how the plaintiff could be hurt or embarrassed in any way by these particulars. The plaintiff ought to be grateful for them, because he had fair warning of the case the defendants were going to make.

Lord Justice Kennedy concurred, and the appeal was dismissed with costs.

The Services.

LAWS AND CUSTOMS AS TO SICK AND WOUNDED.

MAJOR K. BRUCE BARNETT, R.A.M.C. (Sandgate) writes that "Territorial Medical Officer" should consult Professor T. E. Holland's book on the subject, price 6d. (latest edition), and read the article in the *Journal of the Royal Army Medical Corps*, September, 1909.

LIEUTENANT-COLONEL R. T. HALLIDAY, R.A.M.C. (Territorial Force) (Glasgow), writes: I would refer "Territorial Medical Officer" to a very full article on "The Geneva Convention," by Colonel W. G. Macpherson, C.M.G., published in the *Journal of the Royal Army Medical Corps*, being a lecture delivered by that officer at Cambridge University Law Schools, on the invitation of the Professor of International Law. The whole question is fully discussed and explained, and the article should be quite sufficient for the examination referred to.

ASTON writes: A full and very interesting account of the late Geneva Convention is to be found in *War Rights on Land*, by Spaight. The examination referred to is not difficult.

Medical News.

Sir Ernest Hatch, Bart., has accepted the office of Treasurer of the Corporation of University College Hospital and Medical School.

The annual dinner of the Association of Public Vaccinators of England and Wales will be held at the Midland Hotel, Birmingham, on Friday, March 1st, at 6.30 p.m.

The annual dinner of the West London Medico-Chirurgical Society will take place in the Wharncliffe Rooms, Hotel Great Central, on Thursday, February 8th, at 7.30 for 8 p.m.

At the meeting of the Roentgen Society to be held at the Institute of Electrical Engineers, Victoria Embankment, on Tuesday next, the Honourable R. J. Strutt, F.R.S., will read a paper on after-glow in vacuum discharge tubes.

Dr. Leonard Hill, F.R.S., and Dr. Martin Flack will read a paper on the influence of ozone in ventilation at the meeting of the Society of Arts, Adelphi, W.C., on Wednesday next at 8 p.m., when Lord Sanderson, G.C.B., K.C.M.G., will preside.

The estate of the late Dr. Thomas Henry Stocker Pullin, of Sidmouth, who became M.R.C.S., L.S.A., in 1850, M.D.St. Andrews in 1862, and F.R.C.S.Edin. twenty years later, has been sworn at a net value of £90,560. For many years he was medical officer of health for the district, and also in private practice.

Four lectures on sleeping sickness will be given by Dr. F. M. Sandwith, Gresham Professor of Physic, on Tuesday, Wednesday, Thursday, and Friday, February 13th to 16th. The lectures will be given at the City of London School, Victoria Embankment, E.C., at 6 p.m. on each day, and are free to the public.

Professor Simon Flexner, director of the Rockefeller Institute of Medical Research, New York, will deliver the course of Harben lectures at the house of the Royal Institute of Public Health, 37, Russell Square, W.C., on February 26th, 27th, and 29th at 6 p.m. The subject of the course is local specific treatment of infections.

A lecture upon "Malady and Melody, or the Influence of Music in the Healing Art," will be delivered by Dr. G. Norman Meachen on Tuesday, February 6th, at 8 o'clock, in the Vestry Hall of St. Paul's Church, Canonbury, N. Miss Florence Holdernesse, among others, has kindly consented to assist with vocal illustrations. The price of admission is 1s.

According to the last American census, there are 130,000 practitioners of the healing art in the United States. This number includes osteopaths, psychopaths, hydropaths, and other irregular practitioners, as well as members of the medical profession. It is estimated that there is one doctor to every 650 of population in the States, and the average income is computed at £240 a year.

At a meeting arranged by the Royal Sanitary Institute at the Poor Law Offices, Shakespeare Street, Nottingham, on Saturday next, February 10th, a discussion of local public health administration and the Insurance Act will be opened by Alderman T. J. Dabell, M.R.C.S., Chairman of the Health Committee, Nottingham. The chair will be taken at 11 a.m. by Dr. Louis C. Parkes, Deputy Chairman of the Council of the Institute.

Regulations have been issued with regard to the sale of preparations of ammonia requiring that such a preparation shall only be sold in bottles distinguishable by touch from ordinary bottles, and labelled with the name and address of the seller and the word "poisonous." The regulations, which come into force on February 1st, apply to grocers, oil and colour merchants, general dealers, and chemists, and the penalty for failure to observe them is £5.

Mr. Frederick Hallett, Secretary to the Examining Board of the Royal Colleges of Physicians and Surgeons, will leave for the United States at the end of this week, accepting an invitation issued by the Council on Medical Education of the American Medical Association to attend the Conference on Medical Education to be held at Chicago on February 26th, and to address the meeting on the subject of the methods of conducting examinations for licences to practise medicine adopted by the Conjoint Examining Board in England. Mr. Hallett will further, at the request of the English Colleges, study the standards of education and the range of the curriculum required for various university degrees which are recognized by the English Boards.

Letters, Notes, and Answers.

Authors desiring reprints of their articles published in the British Medical Journal are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

Telegraphic Address.—The telegraphic address of the EDITOR of the British Medical Journal is *Aitiology, London*. The telegraphic address of the British Medical Journal is *Articulate, London*.

Telephone (National):—
2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted will be found under their respective headings.*

QUERIES.

Beta wishes to know of a reliable hair dye for darkening grey hair—one that will not injure the hair or the skin.

L.M.F. asks for experience in the use of massage or electrical treatment in hemiplegia due to cerebral haemorrhage; the case in which he is interested is of seven weeks' duration.

Quaestor asks for assistance in making a diagnosis in the case of a middle-aged man who suffers from a thin mucous discharge from the left nostril when eating or drinking, but at no other time.

Glaucus, having a patient suffering from spasmodic asthma, who wishes to reside in London, or suburb, would be glad to hear of suitable districts that possibly might agree with him. The patient finds that dry and more elevated districts with gravelly soil best suit him.

M.S.S. asks for advice in the treatment of a man, aged 32, who for the last fifteen months has suffered from attacks of neuralgic pain in the scrotum, prepuce, and the inner surface of the thighs, lasting mostly for thirty-six hours, and followed next day by herpetic eruption on the prepuce and glands, ending in small clean-cut ulcers, with yellow sloughy bases, which take one to three weeks to heal. The interval between the attacks is decreasing; there is no history of syphilis, or other constitutional disease.

The Urine after Prostatectomy.

J. asks for information in regard to the condition of the urine some time after the prostate has been removed for hypertrophy. In the case in which the inquirer is interested there was only one sharp attack of cystitis just before the operation. Before this the urine was normal, but since the operation always contains an abnormal amount of mucus, generally in threads and wisps, an appreciable number of dead leucocytes, and often a trace of albumen. The reaction is acid. Our correspondent asks whether the condition is of any real importance, and if anything could be done to remedy it. His own opinion is that the prostatic portion of the bladder has remained in a slightly catarrhal condition, and anything like washing out would only increase it by the catheter irritating the urethra and bladder.

Nurses and Assurance.

W. E. H. recently examined a nurse for a personal accident insurance, and in sending the proposal to the company inquired what fee he was to be paid for his examination. The company referred him to the Nursing Association, and added: "We believe that these examinations are usually made free of cost by medical men who are interested in nursing and the Nursing Association."

*** If a nursing association be run in hearty co-operation with local medical men there would appear to be no objection to the latter making some allowance or even making the examination for nothing; if the examination is to be paid for by the insurance company, and not by the nurse or the association, there can be no claim for gratuitous work.

Income Tax.

Medico has recently started a new practice, and estimates the excess of his first year's expenses over the receipts at £200. He possesses some £400 a year from investments, the income of which is taxed by deduction, and inquires whether there is any means of deducting his professional loss from his taxed income and obtaining repayment of part of the tax paid.

*** As soon as our correspondent has completed his first year he should prepare an account of his professional earnings and expenses and send it to the Surveyor of Taxes, with a request for repayment of income tax under the Customs and Inland Revenue Act, 1890. The application should be accompanied by vouchers showing that income tax has been deducted from the remainder of his income. If the loss prove to be £195 the repayment due will be on £355 at 1s. 2d. in the £, made up of £195 and the abatement of £160.

ANSWERS.

PUTTING SALT ON A DEAD BODY.

S. D. C. writes: According to Brand's *Popular Antiquities*, this custom is supposed to indicate the immortality of the soul.

ELECTRIC BICYCLE LAMP.

DR. F. S. JACKSON (Aberdovey) writes: In answer to query of "Country Practitioner" as to electric bicycle lamp, I can strongly recommend the "Ever Ready," to be obtained from Gamage's, Holborn, W.C., price 8s. 6d., refills 9d. I have had one in constant use for about three years, and find it very handy and convenient.

A. B. L. writes: I can recommend "Country Practitioner" to try the "Ever Ready" dry battery lamp, which is put on the market by Messrs. Browne Brothers, 15, Newman Street, London, E.C., or Deansgate, Manchester. These lamps are made in two sizes, 6s. 6d. and 8s. 6d. I have been using the smaller size for the past eighteen months, and find it very satisfactory. The battery lasts about ten hours (sufficient for three months' intermittent burning). Refill batteries for the small lamp cost 9d., for the large lamp 1s.

DR. GRAHAM GRANT (London) also recommends "Country Practitioner" to apply to the cycle department at Gamage's.

INCOME TAX AND BILLS OF SALE.

ENQUIRER.—If the terms of the bill of sale are such that our correspondent is required to pay a certain rate per cent. per annum on the loan, he is entitled to deduct income tax when he makes the payment of interest. If required to pay merely a certain sum at a certain date for interest, it is possible that he may not be entitled to deduct income tax, but the remedy will be to deduct the interest as an expense in making the income tax return. The distinction is that between annual interest and interest that is not annual interest.

NERVOUS RETENTION OF URINE.

MR. FRANK KIDD, F.R.C.S., writes: In answer to Dr. Harford Edwards's memorandum on this subject (BRITISH MEDICAL JOURNAL, January 13th, page 72), the following remarks may be of interest. In the *Zentralblatt für Chirurgie* (January 14th, 1911, page 36) an article by Otto Franck appeared on "Glyzerin als Blasenlaxans." He begins by noting the frequent recurrence of "nervous" retention of urine after operations, the consequent necessity for prolonged catheterization, and the great risks of cystitis and pyelitis thereby entailed. He then remarks that certain gynaecologists (Baisch, Döderlein, etc.) conceived the idea of injecting 20 c.cm. of a 2 per cent. solution of boroglyceride into the bladder after a catheter had been passed and the bladder emptied, with the idea of preventing infection of the bladder. To their surprise they found that the glycerine induced "peristalsis" of the bladder and that hardly ever was a second catheter required. Franck states that he has employed the method in many cases, and without a single failure.

My first opportunity of putting the method to the test did not occur until August. I had operated on a highly-strung patient for double inguinal hernia, and this was followed by complete retention of urine. Having passed a catheter and emptied the bladder, I injected 20 c.cm. of 2 per cent. boroglyceride. This caused no pain or irritation, but in a few hours the patient emptied his bladder spontaneously, and continued to do so for the rest of the time he lay in bed. I have only had one opportunity of trying the method since, and in this case also it was successful. The 2 per cent. boroglyceride is used rather than pure glycerine because it is less irritating, and, in addition, is calculated to prevent infection. Twenty cubic centimetres will be found sufficient to produce the desired effect.

Believing this method to be a practical device of the greatest value to the practising physician, owing to the common occurrence of "nervous" retention of urine after operations and the difficulty in dealing with it, I intended to try it on a series of cases and publish the results. But Dr. Edwards's suggestion of a *rectal* injection of glycerine, if it will act in every case, seems to me to be an advance on the first method, as it does away with the risk of catheterization altogether.

I intend to try it at the London Hospital on a series of cases, reserving the bladder injection for any case in which it happened to fail, and hope to publish the results in a short paper at a later date.

LETTERS, NOTES, ETC.

CEREBRAL INFLUENZA.

MAJOR H. V. MCMAHON DILLON, R.A.M.C. (ret.), writes: In the issue of the BRITISH MEDICAL JOURNAL of January 13th, *re* "Cerebral Influenza," under the EPITOME OF CURRENT MEDICAL LITERATURE, two interesting cases were recorded (Stepp, *Wien. med. Klin.*, No. 34, 1911). I wish to invite reference to two cases somewhat similar recorded by me in the *Lancet* of November 20th, 1909, which may be of comparative interest though somewhat differing in respect of symptoms.

STERILIZING VACCINATON LANCETS.

DR. A. F. MEREDITH POWELL (Ramsgate) has had made for him by the Medical Supply Association an appliance which he finds very useful for sterilizing lancets when vaccinating at private houses and in making a rough test for albumen in urine. It consists of a metal lamp which fits exactly into a strong test tube; the latter in its turn fits into a round leather case, the whole outfit not occupying more room than a gravimeter. The lamp is so constructed that the contained fluid is unspillable.

THE ADMINISTRATION OF OXYGEN.

MR. WALTER CLIFFORD, Mines Rescue Instructor to the N. Staffs Colliery Owners' Association (Stoke-on-Trent), writes: I have read with interest the letters in your valuable JOURNAL *re* artificial respiration of the apparently drowned and the merits of the different methods. Also Mr. M. G. McElligott's experience with the oxygen apparatus at Howe Bridge Rescue Station (BRITISH MEDICAL JOURNAL, January 20th, p. 159), and I think my experiences would prove interesting to your correspondents especially. I have been associated with the oxygen apparatus for use in mines from the very earliest types, and I can bear out in every particular Mr. McElligott's statements concerning the invigorating effect of the oxygen inhaled when wearing the apparatus. Every week I am training sixty men in the use of the oxygen apparatus, and also the rudiments of first aid, and I invariably tell them to use the Silvester method if one of their number becomes unconscious whilst wearing the apparatus. The reason is this: in front of him the wearer carries an indiarubber bag, into which passes all the oxygen he has to breathe, before it reaches his mouth-piece. Obviously, then, if Schäfer's method were adopted, the bag would be pressed out flat under the wearer, and he would not be able to get any oxygen at all to breathe. Another thing is that if Silvester's method be adopted, the oxygen cylinders on his back serve for packing, and support his back a little. The by-pass valve could be opened, so that he would be able to get a plentiful supply of oxygen all the time, whilst, at every exhalation, the release valve, which is situate on the top of the breathing-bag, could be opened, so that no effort to exhale would be needed. Indeed, by this method, the oxygen would be forced on the man's lungs, and, of course, with a little pressure on his ribs by the operator, and with the release valve open, it would be exhaled quite easily. I only recommend Silvester's method when the man is wearing the apparatus, when obviously Schäfer's would be impracticable. But in ordinary cases of unconsciousness through suffocation, I would advise Schäfer's method, as I have found it to be the most reliable.

BREAD IN CHILDHOOD.

MR. THOMAS G. READ, L.D.S.R.C.S.Eng. (Blackgang, Isle of Wight) writes: If instead of tabooing the consumption of sweets in childhood care was taken that children were not supplied with bread that rapidly forms lactic acid during mastication, little would be heard in the future of dental caries during childhood. The extreme outer coating of enamel covering the crown of a tooth is most resistant to acids likely to be introduced into the mouth, but the most perfect teeth must decay sooner or later if lactic acid is frequently formed in the mouth during eating, as lactic acid during its nascent state has such a powerful decomposive action on tooth tissue. To cleanse the teeth after meals, when food that forms lactic acid during mastication has been eaten, will not prevent the damage done during eating. Were medical officers of health to test breads for acid before and after mastication, it would soon be well known that most modern and much standard breads rapidly form lactic acid during mastication. The breads that form lactic acid during eating are those made from flours that have had the ferments of the wheat either destroyed or removed during milling. When the unimpaired ferments of the wheat are present in the flours, the breads produced do not form acid during mastication.

MORPHINE POISONING IN INFANTS.

DR. D. M. MACDONALD, (Leven, Fife) writes: The susceptibility of infants to opium and its preparations is generally accepted. On January 2nd I saw an infant of four months, who four hours previous to my visit had had administered a morphine suppository ⅓ grain, given by mistake for a glycerine one. The child was in complete stupor, with contracted pupils. Irrigation of the bowel with Condy's fluid was carried out, though it is questionable if it was of any good, also the routine stimulation to the skin. The suppository was given at 4 p.m., and by 6 a.m. the following morning the infant was quite lively. I should be glad to know of any similar experience, and whether it is likely that it would have made any difference had the fourth grain of morphine been given instead by the stomach.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

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NOTE.—It is against the rules of the Post Office to receive *poste restante* letters addressed either in initials or numbers.

An Address
ON
PROGNOSIS.

DELIVERED BEFORE THE BOURNEMOUTH MEDICAL SOCIETY,
BY

T. FRED. GARDNER, M.D., M.R.C.P.,
SENIOR PHYSICIAN TO THE ROYAL VICTORIA AND WEST HANTS HOSPITAL.

THE art of Medicine is a difficult one. The diagnosis of disease, its treatment, its pathology, its etiology, are each and all matters of more or less difficulty. The prognosis of disease is beset with pitfalls; these pitfalls are many and frequent, not merely for the tyro in medicine but even for the most experienced. Prognosis means "knowing before," and though here and there no one better than a medical man can "know before" what is likely to ensue in a given case, how often it happens that the event turns out somewhat differently from what even the most experienced among us has been led to expect.

I have been led to take this subject as the basis for a few remarks owing to the number of cases I have encountered in which patients have told me that many years ago they were told they had some fearsome or fearful disease; that Dr. So-and-so said they had only days or a few weeks or a few months, as the case might be, to live, and that, to their astonishment, not only have they lived but the fearful and fearsome disease from which they were supposed to be suffering and which was to prove so fatal has entirely disappeared, according to later authorities consulted; and here and there it has so happened—and I must confess to a certain feeling of exhilaration whenever this fact is superadded—the condemning medical man has died first. I feel I ought to suppress this exhilaration, but have to confess that in almost every case in which this sad fact has been recorded by the condemned patient, I have so far failed. Not that I have not made mistakes myself—as in the sequel I shall show you—but when I consider the numbers of lives I have met with, broken down nervously, apprehensive neurotics; coddled bronchitics; gluttonous dyspeptics; females with "heart disease" suffering from flatulence; patients with pseudo-angina in Bath chairs; cross-grained and irritable old ladies taking opium pills; and making every one about them miserable by fads and fancies and vapours, then I ask myself who is responsible for so much of this misery and distress, and I too often find it is a member of my own profession, who, in some unguarded moment, started a pebble of innocent prognosis which, rolling on during the years, has become a regular avalanche of chronic invalidism and avoidable self-torture. Beware the unguarded word! Beware the unguarded hesitation! Beware even the unconscious sigh! An eminent consultant once told me that a patient made to him this interesting confession. It was fortunately after many years of successful attendance, when the lung mischief for which he was called in had quite healed, and the patient knew her doctor well enough to talk to him in this wise: "Early in my illness, when you used to auscult my lungs, you had, perhaps, what was only a trick, or habit of listening to my breathing, and then giving a little sigh. Every time you did this I said to myself, 'Another bit of my lung gone.'" I need hardly add, my medical friend was quite unconscious of his sighing propensities.

But this brings me to the point I wish particularly to emphasize—that we medical men hold here an enormous power potent for good or ill to our patients. Our prognosis means so much to our patients. Sometimes it means all. Is it serious? Is it dangerous? Is it malignant? Is it a growth? Is it heart disease? Is it this? Is it that? Let no one of us think it is a matter of indifference how we answer. Of course we must give an honest opinion, but how that honest opinion is given matters a very great deal.

I do not intend to debate the old question as to how far we are to communicate dire and dread facts to our patients; whether in all cases we are to tell the brutal truth brutally or politely. Whether the patient with heart disease is to be shielded from knowing the truth, the whole truth, and nothing but the truth. Whether the inoperable malignant growth is to be unmasked in all its hateful aspect to the trembling patient hanging on our lips for the fateful decision. These questions have been debated before and generally receive the tactful and courteous consideration which I am pleased to think still endures among us, and which I believe distinguishes our profession even above all others, not excepting the clerical.

I want rather to emphasize this part of my subject, that in doubtful cases, where we cannot be *quite* sure, where our "knowing before" must, if we are honest to ourselves, be a very uncertain knowledge, let us hesitate before we speak in didactic phrase to either the patient or anxious friends, of how long the sufferer has to live, and how short the time before the "abhorred shears" will snap the life-thread of those dependent upon us for an opinion as to prognosis in an admittedly problematical situation.

We may be *wrong* in our deductions. Let me cull two cases from my own experience to show this. *Twenty-seven years* ago I was asked to see, for an absent colleague, a bad case of haemoptysis, fibroid lungs, extensive excavation, emaciation, fever, and the usual accompaniments of fairly advanced pulmonary disease; frequent and severe attacks of haemorrhage followed. Prognosis—most of you would have failed to guess what has happened. That patient, thanks to indomitable pluck both on his own part and that of a devoted wife, is still the honoured head of one of our principal firms in Bournemouth, going to his office daily, and getting through an amount of work which puts to shame many a younger and a stronger man. How easy to have taken a pessimistic view of such a case twenty-seven years ago, to measure out his days, and to quote a very long figure in sporting odds against the chances of such an one. Had he been told he had no chance of recovery, had he had explained to him the pathology of his case, had he been other than he is in temperament, pluck, and that "quietness and confidence" which go so far to help such a sufferer, think you he would be alive to-day? I trow not. Our deduction from our usual experience of such cases would have buried him years ago.

Yet another case. Four years ago a severe case of rheumatoid arthritis in an old lady of nearly 80 came under my care. The severe pain which she suffered on the slightest movement was excruciating, and this pain persisted in spite of sedatives, spas, and external applications, giving rise to the suspicion that such acute agony could only be due to ulceration inside the hip-joint, to which most of the pain was referred. Heart complications set in three years ago at 80 years of age. The myocardium became very degenerated, anasarca and ascites, and at last a general oedema, reaching even to the face, seemed to usher in the final scene. Prognosis, three years ago—a week or a month would seem to be the proper period to give to such a case. Yet that patient is still living, still dropsical, still with heart attacks of such a nature that she becomes cyanotic for hours, but the pain of the rheumatoid condition has long since departed, and yet blistering her spine has not been the treatment employed.

Such cases, I think, should teach us to be more chary of prophesying when we do not know. Probably every medical man here could give instances from his experience of such cases. The lesson to be learnt is, I think, obvious. Even from the lowest motive—a desire to show our knowledge—it is wise to hesitate before limiting the period of existence possible in even some of the worst cases with which we may be confronted. Nor does the individual who attempts to be in a measure cheerful escape from pitfalls of his own making, as the following instance shows.

An eminent practitioner of this town was attending an old lady, aged 80. To cheer her up, and impart some of that optimistic spirit for which, as well as other virtues, he is rightly famous, he told her he could see no reason why she should not live to be 90. Contrary to his expectations and to those of her friends, a more settled gloom and melancholy possessed the old lady, even after this would-be cheering intelligence. The secret came out later when, asked if she was not glad her doctor said she might live to be 90, she pathetically answered, "No, he limited me"! So here is another possible rock of offence—do not limit your prognosis to a term of years, or some misunderstanding may arise even then.

But there is still another aspect of this subject I would have you notice—the therapeutic effect of a hopeful prognosis. I am now speaking from a personal experience both on my own corpus vile and the results on others. If it is at all possible, be optimistic. You little know the suggestive value of a hopeful prognosis. In the course of a fairly long experience I could quote case after case where a hopeful prognosis has done more than all the drugs, vaccines, serums, inhalations *et hoc genus omne* in curing a patient. Hope, that potent elexir of life, as opposed to hopelessness, that dreary quenching of the spark of life. Never mind the failures, we have all to fail one day. Death, against whom we wage an incessant war, and whom we so often drive away from the field baffled and defeated for a time, has yet this revenge: some day he will return to conquer. Yet, while we honestly can, let us add to our therapeutic armoury the suggestion of hope. If we cannot give hope of cure, let us give hope of relief; if we cannot give relief, let us give hope of partial relief; if we cannot give hope of partial relief, let us have some philosophy to offer to our wounded and sorely stricken patients, that even then we may administer some medicine to the mind.

I am here reminded of a letter written to the BRITISH MEDICAL JOURNAL some years ago reflecting somewhat scathingly on the optimism of a well-known London consultant whose name at that time was in almost everyone's mouth, professional and layman alike. A patient who complained of pain in the chest and had consulted many men but could get no relief at last consulted this famous consultant, and was told nothing could be found, not even with *x* rays. He was sent away with a cheerful prognosis. Soon after *x* rays revealed a mediastinal tumour, from which ultimately the patient died. How wrong, in the opinion of the writer of the letter, was the prognosis of the optimistic consultant. I beg to differ. For the one case that was cheered up wrongfully, I, from my own knowledge, could quote a dozen—and I have no doubt the list could be swollen to a hundred even by those present here (were I to mention names)—which this cheery consultant has blessed by his optimism and put on the road to recovery by a hopeful prognosis; and personally I would rather have the opprobrium of one case where in good faith I had given too hopeful a prognosis than bear the guilty knowledge of having condemned an innocent sufferer to added pains more hard to bear, more difficult to sustain, because mental as well as physical, by a dreary prognosis, proved wrong by the after-history of the case, and given on an assumed knowledge which by the light of experience may be falsified again and again.

May I address myself with all proper humility to the younger members of our society, and beg them to take this matter seriously to heart, for—I say it humbly—I think I have observed they are the principal offenders in this respect? They come fresh from hospital with all the latest learning at their finger-tips: they have seen so much that we poor provincial country "joskins" cannot (as they think) have seen, and are so up to date and familiar with the grave cases and serious puzzles of the London hospitals that there is no wonder they are somewhat biassed in favour of (shall I say?) the greater surgery and the more remote in medical cases. When, then, a child has overeaten at a party and has a flushed face, is slightly delirious, has a high temperature, is constipated, sick, and presents a doubtful *tache cérébrale*, it is not always necessary to get in a couple of nurses, apply Leiter's tubes to the head, make a lumbar puncture, and talk to the anxious parents of tuberculous meningitis and other grave diseases. A dose of calomel has been known to make all the other fuss superfluous. A story told of Sir John Erichsen is much to the point here. A lady had sustained an injury to her elbow and had seen several surgeons of note, who failed to give her relief or even give a satisfactory account of the nature of the injury. She was advised to consult Erichsen (then at the zenith of his fame) for a positive diagnosis. After careful examination he counselled the patient thus: "You say, Madame, that you have come to me for a positive opinion about your elbow, and I frankly admit that I cannot give you that opinion; but if you must have a positive opinion, there is the address of my young house-surgeon—he is just qualified—he will give you one."

No; we are none of us infallible, not even the youngest of us, and this fact should make us all, young and old alike, pause before we destroy hope, give even a suggestion of hopelessness, or light-heartedly give expression to opinions and prognosis which may quench for ever the light from some of our patients' lives, and then if, after all, we should prove to be wrong, let us know that never—and the more if we are ordinarily skilful and have a reputation for medical or surgical skill—never shall we or our more careful colleagues be able entirely to remove the impression which our suggestion has made. Tell a patient, perhaps, a growth is malignant, or say lightly "it may be cancerous," or say flippantly, "Oh, your heart is bad," or "I think your lung is slightly touched," you may not have meant to imply the serious thing your patient thinks you implied, but no matter what reassurance he or she may receive from better men than you, and even from two, three, or more better men than you, the fear, the haunting suspicion, will for ever be in that patient's mind, "It may be true," and long years after, when you have forgotten all about the patient—his or her ailment, and your opinion so haphazardly given—that baleful prognosis will be a gaunt spectre in that patient's mind, productive still of anxiety, foreboding, and fear, if not worse.

But there is the pitfall of the other kind, and I should not be true to you or myself did I not point it out and illustrate it. Here I metaphorically stand in a white sheet and confess my failure. Some years ago I was attending a very stout lady, who was full of fads and fancies; she habitually overate, would shut herself up in hot, stuffy rooms, would take no exercise, and was for ever complaining of all sorts of symptoms and sensations which in their variety and combinations fitted in with no pathological picture of any ailment I had ever seen, read, or heard of. She at last complained that she was so ill and felt so ill that I asked my dear old friend, Dr. Douglas, to see her in consultation. He examined her very carefully and could find nothing to account for her symptoms, and was inclined, as I was, to put down her troubles to neurotic and functional causes. We had our consultation at 3.30 p.m. and departed with cheerful prognosis to patient and friends. At 5 p.m., one hour and a half after our consultation, the patient had an attack of cerebral haemorrhage, and died before I could reach her house. I have never again been asked to attend that family, and I have often wondered whether the cerebral haemorrhage was not caused by the intense chagrin which the patient evinced by Douglas's corroboration of my unvaried cheerful prognosis. Such untoward happenings may occur to every one of us. I do not think any of the physical signs pointed to a greater likelihood of cerebral haemorrhage in this stout old lady; she had no overt signs of arterial degeneration, or Douglas or I would have noticed them.

This case has had a wholesome disciplinary effect in qualifying my exuberant optimism, but in spite of it I feel sure that, when honestly possible, optimism in prognosis is not only our pleasant privilege, but our bounden duty. Often it will turn the scale of the flagging forces and dispel the despairing mists, which those of us who have been ill ourselves know only too well creep miasma-like around our sick beds. Such depressions are, like the earth-born fog they so much resemble, dissipated by the sunny brightness of a hope, which deferred, makes the heart sick, but, when given with authority by a skilful optimist, cheers the heart like a medicine, and is a therapeutic agent of such value that I commend it to all of you as a never-failing charm, and one that will not only give you enhanced reputation in your calling, but will infallibly give back to you many a patient you otherwise might have lost, and prove a veritable godsend to many a weary, tired sufferer, whose blessing on your cheery hopefulness will not be your least future reward.

MR. ALFRED ADDERLEY, J.P., a life governor of the Leicester Infirmary, has left to that institution the residue of his estate subject to certain life interests. It is estimated that the infirmary will eventually receive the sum of about £80,000. The infirmary has also recently received under the will of Mrs. Ellen Dyke Frost two legacies of £1,000—one for the general fund, and one for the Children's Hospital. The estate of Mr. Charles Turner, who died four or five years ago, has been wound up, and, in addition to the sum of £1,400 already received, the infirmary has received from the executors the further sum of £933.

A Lecture

ON THE

EARLY DIAGNOSIS OF PULMONARY TUBERCULOSIS.

Given at the London Medical Graduates' College and Polyclinic.

BY

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The early diagnosis of pulmonary tuberculosis is one of the most important subjects in the whole realm of the practice of medicine. As illustrating this I may mention three facts. First, the great prevalence of the disease in this country. Secondly, whatever form of treatment is to be adopted, it is almost universally admitted that to obtain any substantial good, treatment must be begun in the early stages of the disease. And, lastly, the early diagnosis of this disease is very frequently attended with extreme difficulty. Broadly speaking, there are three classes of patients who present themselves for examination at a chest hospital: (1) Those in whom a diagnosis of pulmonary tuberculosis can be made with certainty; (2) those in regard to whom it can fairly readily be said that they are free from the disease, and (3) a considerable proportion in whom a diagnosis is extremely difficult, where the most thorough inquiry into the symptomatology, the most careful examination for physical signs, and sound judgement are required before we can with certainty place them into either of the two classes already named. It is with this third class that I propose mainly to deal, for it is among these questionable cases that the earliest stages of the disease are found, and we will further limit our consideration to the common variety of the disease—that is, the fibro-caseous. I shall not deal with the acute (whether miliary, bronchopneumonic or pneumonic) or fibroid varieties.

It may be said that the examination of the sputum should settle the question. That is not so; because either there may be no sputum to examine, or, if there is, there may be an absence of tubercle bacilli on repeated examination when undoubtedly the patient is suffering from tuberculosis. There is a tendency on the part of many practitioners to place too great reliance upon the result of the examination of the sputum, and correspondingly to neglect a close inquiry into the symptomatology, and, what is of far greater importance, a thorough examination for early physical signs of the disease. During a period of three and a half years it was my lot to examine the sputa of some thousands of patients treated at the Brompton and Victoria Park Chest Hospitals. During this time it was proved beyond all shadow of doubt that a due consideration of the symptoms and a very careful examination for physical signs were sufficient to establish a positive diagnosis in by no means a small proportion of cases several weeks, and occasionally even months, before tubercle bacilli were found in the sputum. This is really not surprising, because it is necessary to have some breaking down of a tuberculous focus and a communication between such a focus and a bronchus in order to give rise to bacillary sputum, and this may occur in only a comparatively late stage of the disease. The examination of the sputum is of very great service in those patients who suffer from bronchitis and emphysema. Indeed, as a means of diagnosis of early pulmonary tuberculosis it is of far greater value in this class of patients than in younger people, for the physical signs of the primary disease frequently mask the presence of a tuberculous lesion, except in its later stages. Consequently the sputum should be examined periodically and as a matter of routine in all cases of emphysema and associated bronchial catarrh. It should be remembered that pulmonary tuberculosis in elderly people is fairly common. When tubercle bacilli are found in the expectoration, and we are able with certainty to exclude tuberculosis of the mouth, pharynx, and larynx, a diagnosis of pulmonary tuberculosis should be made, even in the absence of symptoms and of physical signs. It is worth while making inquiries in regard to the family and past history of the patient, and whether the patient's general health has been lowered by such causes as overwork, mental worry, excess in alcohol, or overlactation, and whether at the time there is any one suffering from pulmonary tuberculosis in the house or at the place of work.

Onset and Symptomatology.

The clinical picture is very varied, and the symptoms often suggest some other system than the respiratory, and for these reasons mistakes are made, the symptoms being attributed to some trivial and temporary cause instead of pulmonary tuberculosis.

The commonest modes of onset are: (1) An attack of common bronchial catarrh in which the cough continues; (2) repeated attacks of bronchial catarrh and the supervention of chronic bronchitis and emphysema (as already stated, it is here that the examination of the sputum for tubercle bacilli is of such value); (3) influenza; (4) haemoptysis; (5) the insidious form (such as loss of strength and anaemia); (6) pleurisy.

The influenzal mode of onset is now well recognized. Buchanan has recorded 12 cases. But a word of warning is necessary; when a patient says he has had "influenza," it is always well to inquire whether any of the characteristic symptoms of that malady have been present, because the general public often apply this term to any attack of fever, whatever its cause may be, and in this way the initial symptoms of pulmonary tuberculosis have frequently been diagnosed as influenza. But the attack may be one of true influenza, which has so lowered the patient's vitality that he has become infected with tuberculosis. On the other hand, influenza may occur during the insidious course of pulmonary tuberculosis, and cause the latter to take on a much more acute phase; or it may light up a quiescent lesion. Another warning is necessary. It must not be forgotten that haemoptysis is by no means rare in the pneumonia of influenza, and furthermore a subacute relapsing bronchopneumonia, with loss of flesh and even slight blood-spitting, may occur.

In the insidious mode of onset, the symptoms may be general ill-health, languor, debility, loss of strength, an irritable or depressed disposition, breathlessness, palpitation, night sweats, functional derangement of the digestive system, anaemia, or tachycardia—either persistent or on slight excitement. In all cases in which a patient complains of these symptoms there are two points which should invariably be inquired into—namely: (1) Is there a steady loss of weight? and (2) Is there any pyrexia? Either of these, in the absence of other discoverable causes, such as tuberculosis of the lymphatic glands or some joint disease, should arouse suspicion. Of course, loss of weight, as well as night sweats, may occur in general debility having such a cause as overwork or oversuckling. On the other hand, loss of weight is not a necessary accompaniment of early pulmonary tuberculosis, especially in anaemic girls. The temperature should be taken four times a day. This presents the possibility of an inverse type, which exceptionally occurs, being overlooked. As a rule, the maximum temperature is found from 4 to 8 p.m., and the minimum from 2 to 8 a.m. One of the characteristics of the fever in pulmonary tuberculosis is its fluctuating and irregular course. The temperature should also be taken after exercise, not because a mere elevation is necessarily indicative of tuberculosis, since this may occur in healthy people after exercise, but because it is characteristic of tuberculosis that the temperature sometimes does not return to the normal within an hour, which it invariably does in a healthy person.

Haemoptysis.

Of all the symptoms of pulmonary tuberculosis spitting of blood is the most important from the point of view of diagnosis. Haemoptysis is a common mode of onset, but, as far as my observations go, it is not such a common mode as is frequently supposed. It is quite true that a large percentage of patients complain of blood-spitting as a first symptom, but on careful inquiry it will be found that a considerable proportion of them have suffered from a cough or other symptoms for some time previously. The value of blood-spitting in diagnosis rests upon the thoroughness

and success of an inquiry in regard to two points, namely: (1) Does the blood come from the respiratory organs—in other words, is it a case of true haemoptysis? and (2) if it is a case of genuine haemoptysis, is there any cause other than pulmonary tuberculosis to account for it? The rules I follow are these: If it is a case of genuine haemoptysis, and if all other causes than pulmonary tuberculosis can be excluded, and there are suspicious symptoms or physical signs or both, a positive diagnosis of early pulmonary tuberculosis should certainly be given; and even in the absence of suspicious symptoms and signs, since in a very large majority of cases there is a small or deep-seated tuberculous lesion in the lung, though the lesion may heal completely without treatment, there are grave risks, and the only safe course is to promptly put the patient under proper treatment. It should be remembered that there is no such thing as idiopathic haemoptysis, and "phthisis ab haemoptoë" does not exist.

It is not always easy to exclude haematemesis. In haemoptysis the blood is usually coughed up, bright red in colour, frothy, mixed with sputum, alkaline, and as a rule does not clot; there is frequently a history of pulmonary symptoms, and there may be physical signs in the lungs. On the other hand, a possible pulmonary origin is not put out of court by the mere facts that the blood is vomited, is mixed with food, and is acid, for sometimes the blood is first swallowed and then vomited. In haematemesis the blood is usually dark red, non-frothy, and generally clotted; there is often a history of gastric symptoms and abdominal physical signs may be present. If the blood is brought up without the act of coughing or vomiting, it is probably not a case of haematemesis. In true haemoptysis, if the cough persists, the sputum is frequently stained with altered blood, or contains small clots for some days afterwards; this is the most reliable sign of pulmonary haemorrhage. When a large quantity of blood is brought up the differential characteristics already named are of no value, since the blood, whatever its source, is usually bright red in colour, alkaline, non-frothy, and not mixed with food or sputum. But a lesion of the lung sufficient to give rise to haemorrhage of this magnitude is revealed by well marked physical signs, so that for purposes of diagnosis of pulmonary tuberculosis it is not necessary to determine the source of the bleeding.

Next the nose, mouth, pharynx, trachea, and larger bronchial tubes must be excluded as the source of bleeding. A uniformly bright red watery fluid often means that the point of origin is in the mouth. Mere streaks of blood may be present in the expectoration from many causes, and therefore cannot be relied upon as necessarily indicative of pulmonary tuberculosis. In bronchitis and emphysema there may be a rupture of capillaries during a paroxysm of severe coughing. A few cases have been recorded in which malignant disease of the thyroid, pressing on the trachea, has given rise to local congestion and catarrh, with accompanying cough, and the expectoration of scanty mucus tinged with blood; if the enlargement has lasted for some time, emphysema of the lungs may be set up. Aneurysm of the thoracic aorta, pressing on or perforating the trachea, bronchus, or lung, may cause haemoptysis.

One of the most important conditions to exclude is mitral disease, whether secondary to aortic, or primary, and especially mitral stenosis. Mitral stenosis is probably the next most frequent cause of haemoptysis to pulmonary tuberculosis, and a common cause of mistake. Perhaps the heart is not examined at all, or if it be examined it is by no means rare for the characteristic murmur to be absent. Furthermore, because of the inhalation of blood there may be evidences of patches of consolidation, with alteration of the breath sounds and some accompaniments. The heart should be examined on several occasions for the characteristic murmur, the character of the pulse should also be noted, and whether there is a short sharp first sound or not.

Rarer causes are diseases of the blood, haemophilia, some acute specific fevers, suppurative processes in the mediastinum, foreign bodies in the air tubes, bronchiectasis, paroxysms of whooping-cough, injury, pulmonary syphilis, aspergillosis, actinomycosis, hydatid, new growth, and pneumonokoniosis. Lastly, Osler believes haemoptysis may occur in vascular degeneration.

Pleurisy.

The first symptoms and physical signs of tuberculosis may be those of pleurisy, either the dry or the serous form. These may persist until the symptoms and physical signs of pulmonary tuberculosis declare themselves, or the latter may only appear later. Tuberculous pleurisy most commonly occurs at the apex of the lung. Dry pleurisy limited to the axillary region or to the base of one lung is undoubtedly often non-tuberculous. Dry pleurisy limited to one apex is, in the absence of croupous pneumonia, almost certainly tuberculous. Bilateral dry pleurisy, or one that is widespread over the lung, is, in the absence of new growth, probably tuberculous; and quite two-thirds of the cases of pleurisy with effusion have the same cause, especially when, on microscopical examination of the fluid, the cells are found to be lymphocytes, in contrast to polynuclear leucocytes.

Physical Signs.

Although the symptoms are important, it is on the early detection of physical signs that the early diagnosis of pulmonary tuberculosis mainly rests. I would lay down two broad principles of vital importance:

First, the locality of the physical signs. In the great majority of cases the primary seat is from 1 in. to 1½ in. below the summit of the lung (rather nearer the posterior and external borders). A less common primary seat is the second and third interspaces below the outer third of the clavicle. The lower lobe of the same lung is usually affected early. It is best examined by getting the patient to place the hand on the opposite shoulder and examining the back internal to the vertebral border of the scapula. The common primary seat of the lower lobe is from 1 in. to 1½ in. below its summit, that is, opposite the fifth dorsal spine, midway between the spinous process and the vertebral border. The lesion then spreads along the line of the vertebral border of the scapula. This early affection of the apex of the lower lobe is of immense value in differential diagnosis. Occasionally a "crossed lesion" is found, that is, the lower lobe of the opposite lung is involved before that of the side primarily affected. The supraclavicular and infraclavicular regions, the supraspinous fossae, and the interscapular regions opposite the fifth dorsal spine should always be very carefully examined.

Primary basal tuberculosis, apart from the pneumonic type, is very rare, and when it does exist there has usually been some antecedent damage sustained, as, for example, by pleurisy. What is called primary basal tuberculosis is often secondary to an apical lesion, which, because it has healed, or for other reasons, has been overlooked.

Secondly, a diagnosis of pulmonary tuberculosis from one single physical sign should never be made. Considerable variations from the normal are often met with in perfectly sound chests. As an example of this fundamental and all-important rule may be cited the fact that if distinct impairment of the percussion note is discovered at one apex, it should, if pathological, be accompanied by other physical signs, such as diminution of expansion, or alteration in the vocal fremitus or breath sounds: otherwise it may be merely indicative of curvature of the spine. Similarly, the mere presence of bronchial breathing may be due to an abnormal position or course of a bronchus; but when such breathing is pathological, the lesion which gives rise to it is always sufficient in degree to cause some other physical sign or signs. On the other hand, several slight abnormal signs, which when taken separately are of no pathological significance, if they all point in the same direction afford just grounds in making a positive diagnosis.

Another point of importance is to compare exactly corresponding points on either side. It is best to have the patient stripped to the waist, seated or standing, in a good light, and to adopt the usual plan of inspection, palpation, percussion, and auscultation.

One clavicle may be seen to stand out more prominently than the other, and there may be some hollowing of the fossae above and below; but these, and also displacement or uncovering of the heart, are evidences of fibrosis, which is a secondary change, and are not found in the very early stage of the disease. Diminution of expansion at one apex is a very early sign. It may be observed by standing in front of the patient, or sometimes it is better observed by

standing behind and looking down the front of the chest from above. There are various ways of noting it by palpation. The thumbs may be placed on the second ribs below the clavicles, the eyes being fixed on the thumbs when the patient takes a long breath; or the hands may be placed below the clavicles; or, standing behind the patient, the thumbs may be placed in the supraclavicular and the fingers in the infraclavicular regions, or the hands on the shoulders close to the neck, the fingers lying over the clavicles touching the infraclavicular areas and the thumbs lying on the supraspinous fossae.

Diminution of expansion at one apex is of great significance and is a very early sign. It is almost always found before any alteration in the percussion note and frequently as soon as any change in the character of the breath sounds. It may only amount to a slight lagging of movement behind that of the other side. If it merely indicates a localized thickening of the pleura without any lesion of the underlying lung, this apical pleurisy is almost always tuberculous. Normally the vocal fremitus is as a rule greater on the right side than on the left—almost certainly in more than 75 per cent. of cases. If it is found to be equal on both sides and well marked, there is probably some disease in the left upper lobe. If it is more marked, the probability is still greater. If the fremitus is equal on both sides but less apparent than normal, it almost certainly means some diminution at the right apex, and this signifies that at that part there is either a thickened pleura, a pleural effusion, or some localized emphysema. This localized emphysema is most frequently due to a deeper tuberculous lesion. Any changes in the vocal fremitus in the supraspinous fossae have the same significance.

When we come to percussion we have to deal with a difficult matter. There are some general rules which it is of very great importance to observe: First, percussion should be performed from the wrist-joint. When possible the examiner should stand immediately in front of the part percussed, percuss exactly corresponding points, and employ exactly the same percussive force on either side. When percussing in front the patient's head should be exactly in the middle line, and as a rule the best results are obtained by light percussion. When percussing behind, the patient should lean slightly forward and cross the arms, but letting the shoulders drop in order to relax the muscles. It must be remembered that as a normal variation one finds the percussion note below the right clavicle slightly raised in about half the cases of healthy chests. The upper border of the lung should first be ascertained. A lowering on one side is significant; but when it is bilateral its value is little, since the height to which the lungs ascend varies in normal individuals. In early pulmonary tuberculosis there is frequently diminished resonance. The note becomes higher pitched, shorter, sharper, lacks the normal tone, and there is a sense of increased resistance to the finger. This can usually be made out on shallow breathing, but occasionally it is more easily detected after the patient has taken a deep breath, owing to the diminished entry of air into the affected part. When impairment is more marked with light than with deep percussion, there is a strong possibility of the existence of a thickened pleura. The heavier the force required to bring out the lack of resonance, the deeper is the infiltration or consolidation. Sometimes the note on the affected side is not only as resonant as that of the other side, but it may even be hyper-resonant. This is indicative of a one-sided apical emphysema, and such a condition is almost always due to an underlying tuberculous scar. I have several times seen a positive diagnosis of pulmonary tuberculosis given from the mere fact that there was a difference in the notes of the two sides, though there were no other physical signs, and there was no pulmonary lesion. Even a considerable difference in note may be present when the two sides are not perfectly symmetrical. We should most carefully examine for the presence of scoliosis, for this condition influences the position of the ribs and the shape of the chest. It is not enough to inquire about the spinous processes. We should note whether the upper ribs are more curved on the one side and flattened on the other, and look for other signs of scoliosis. Even a very slight deviation of the vertebral column from the normal is sufficient to cause a difference in the heights of the two supraclavicular regions and the two supraspinal regions, one side being more rounded than the other. The percussion on this more convex side is less resonant. The breath sounds may also be diminished in loudness.

In people who are extremely emaciated there may be well-marked impairment at both apices, and yet no pathological change to account for it. This impairment may be accompanied by diminution of the breath sounds. The explanation is difficult: but it may be that, on account of the weakness and rest, the apices are not properly filled with air, and therefore sink lower than normal.

If we follow certain rules, we get incalculable help from auscultation. We should first of all see that the patient breathes properly—that is uniformly, fairly deeply, and, if possible, through the nose. Some patients indulge in spasmodic movements of the chest, with the diaphragm fixed; others open their mouths and breathe noisily. Nervous persons, especially women, when asked to take a long breath sometimes produce a false movement of the chest, but at the same time close the glottis, and, since practically no air enters the lungs, the breath sounds are almost inaudible; or they may narrow the glottis, and, as a consequence, bronchial breathing is heard. These errors are avoided by noting that the abnormality in the breath sounds is bilateral, and by getting the patient to cough. In auscultation, the expiratory part should always be taken as the criterion as to whether breathing is truly bronchial or not. It is of far greater importance than the inspiratory part. In true bronchial breathing the expiration should be blowing, and have a uniform pitch and intensity through the whole act. Auscultation over any part of the lung without asking the patient to cough is of incomplete value, because in a certain proportion of cases accompaniments are only found during or immediately after the act of coughing, and also because the significance of râles largely depends upon whether they persist on repeated coughing and deep breathing. Normal, or vesicular, breathing is described by Fowler as a rustling sound, audible during inspiration, generally followed without any appreciable interval by a sound of lower pitch, shorter duration, and faintly blowing quality heard during expiration, but this may be absent.

In bronchial breathing the inspiration is blowing in character; the pitch is higher than in vesicular; there is a distinct interval between inspiration and expiration: the expiration is still more blowing and has a still higher pitch, and has an equal or longer duration than inspiration. As I have said, in true bronchial breathing the expiration should be blowing, and have a uniform pitch and intensity through the whole act. Bronchial breathing is normally heard over the seventh cervical spine, and this locality should always be taken as the standard. Broncho-vesicular breathing, in which the characters of bronchial are combined with those of vesicular breathing, is heard normally over the manubrium in front and the upper part of interscapular region behind. Now it is of the utmost importance to distinguish between the intensity and quality of the breath sounds. Negligence in this is one of the commonest sources of errors. Regarding the intensity of vesicular breathing, even in normal conditions there is a very great range of variation. In one chest it is very loud, in another it is quite faint. Pulmonary tuberculosis has frequently been diagnosed by mistaking harsh vesicular for bronchial breathing. The error can easily be avoided by comparing one side with the other: it is bilateral. Bronchial breathing should be diagnosed by the *quality* and not by the loudness of the breath sounds. But even here it should be remembered that normally the breath sounds on the right side are of slightly higher pitch, and the expiration is rather prolonged: beneath the right clavicle they may be even bronchial, and this has occasionally led to the diagnosis of consolidation or of a vomica in a healthy person. It is sufficient to note the absence of corroborating physical signs. Cog-wheel breathing, when heard equally over the whole of one lung, is of little significance; when limited to one apex it may be of diagnostic value, but even then it is by no means reliable, as it may be caused by irregular muscular contraction. Harsh breath-sounds, with prolonged expiration, limited to an apex, is generally the earliest auscultatory sign of pulmonary tuberculosis. There may be merely prolongation of expiration. If so, what we infer from it depends entirely on its character.

If it is only faintly blowing and of low pitch it probably indicates emphysema; if it is truly blowing and of high pitch it usually means infiltration.

Weak breathing is, in my experience, usually a later sign than harsh breathing. It is frequently overlooked. A marked diminution of the respiratory sound at one apex, especially the right, if persistent on repeated examination, is, in the absence of a localized condition of emphysema, thickening of the pleura, pleural exudation, or bronchiectasis in which the bronchus is plugged, in my opinion, extremely suspicious. It is of greater value when found at the right apex than the left, because normally the breath sounds are louder at the right than at the left apex. The breath sounds in the second and third spaces are frequently harsh, when those above and below the clavicle are feeble. The breathing over the opposite upper lobe may be harsh, owing to increased functional activity; and this may give rise to an error in diagnosis regarding the site of the lesion, because the feeble breath sounds of the side primarily affected are undetected. As the affected area becomes more densely infiltrated the breath sounds become truly bronchial.

Adventitious Sounds.

Adventitious sounds, when present and correctly understood, are probably of greater help in the early diagnosis of pulmonary tuberculosis than any other physical sign. First of all, get the patient to cough and to breathe deeply, for frequently these acts are accompanied by râles which are inaudible in quiet breathing; and, conversely, the significance of accompaniments often depends upon whether they disappear on deep breathing and on coughing. I have already said that a dry pleurisy limited to one apex is, in the absence of croupous pneumonia, almost certainly tuberculous. Also a bilateral dry pleurisy, or one that is widespread over the lung, is, in the absence of new growth, probably tuberculous. This pleurisy may reveal itself by pleural friction, either of the usual kind or of a crepitant character. As a rule, however, the first accompaniments heard in pulmonary tuberculosis are small crackling râles—that is, sharply-defined, crackling sounds, chiefly heard during inspiration; indeed they may be limited to inspiration. It is sometimes almost impossible to distinguish small crackling râles from crepitant pleural friction. The former are not likely to commence at the very beginning of inspiration on quiet breathing, and are not so frequently heard during expiration as are pleural sounds. If the sounds disappear after coughing, a pleural origin can practically always be excluded, and almost always if the accompaniments only occur after coughing. At a later period of a tuberculous invasion sounds of a clicking character are occasionally heard. Only one or two "clicks" are heard during the act of inspiration, and they are practically pathognomonic of commencing softening in a tuberculous focus. When softening has advanced numerous medium and large sized crackling râles may be audible.

Occasionally on listening over the upper part of the chest, both anteriorly and posteriorly, sounds resembling râles are heard immediately after coughing, which are œsophageal in origin, and due to the patient swallowing. They are recognized by the fact that they are bilateral, and are not heard when the patient is told not to swallow after coughing.

Apart from this possible source of error, and also apart from pleural accompaniments, it may be asked whether crackling sounds heard over one apex or both apices are pathognomonic of a tuberculous lesion. The answer is in the negative. First of all, the râles associated with mitral stenosis have been noted. Secondly, sometimes when a patient, who is accustomed to shallow breathing, takes a long breath, the air vesicles, which in a localized area were hitherto collapsed, become suddenly distended, with the result that crackling sounds may be produced; this is especially apt to occur in emphysematous subjects. Their significance may be ascertained by the fact that they do not persist after continued deep breathing and repeated coughing. But even the presence of persistent and strictly localized crackling sounds in the upper part of the chest is not absolutely pathognomonic of infiltration or consolidation. For I have seen a few cases in whom a diagnosis of pulmonary tuberculosis had been made because of the mere presence of crackling sounds over the upper part of both lungs. There were no other physical signs, but the sounds persisted. The cases were watched, and all the channels of inquiry available for the diagnosis of pulmonary tuberculosis were taken advantage of, with a negative result. Such cases are occasionally met with. For this reason, as well as for others, as I have already stated, a cardinal rule should be that a diagnosis of pulmonary tuberculosis from one single physical sign should never be made. Instead of pleural friction or crackling râles, the first auscultatory sign may be the presence of rhonchi or bubbling râles, which frequently disappear on coughing. When these are strictly limited to one apex, and persist over a considerable length of time, the cause is, in my opinion, practically always tuberculosis, and not a simple catarrh. You will thus see that it is the *locality* of accompaniments, whether pleural, crackling râles, bubbling râles, or rhonchi, which is important. Crackling sounds may be heard along the margin of the cardiac impairment, which, as a rule, are of no significance.

Regarding the vocal resonance, all that it is necessary to say is that any alteration of it has pretty much the same significance as alteration in the vocal fremitus.

Other Chronic Pulmonary Disease.

Having diagnosed the presence of a chronic disease of the lungs, affecting mainly or only the apex of one lung, the problem which remains is to exclude a non-tuberculous lesion, such as actinomycosis, hydatid, new growth, or bronchiectasis. This is practically always easy, and I need not go into the points of differential diagnosis.

Other Methods of Diagnosis.

There are a few remaining avenues of investigation which will be briefly dealt with. First, the Roentgen rays. An examination in early pulmonary tuberculosis may reveal a mottled or stippled shadow or irregular movement of the diaphragm on the affected side. As far as my experience has gone, I have never known of any case in which either of these has been demonstrated before physical signs could be made out on careful examination by a competent examiner. Furthermore, the same kind of a shadow may be obtained in new growth of the lung. And impaired movement of the diaphragm occurs in other affections than pulmonary tuberculosis.

Next, the use of Koch's Old Tuberculin subcutaneously as a means of diagnosis. Provided this is used only under certain well-defined conditions, in my opinion it may be employed with perfect safety. The conditions are these: Never use it if the mouth temperature reaches 100° F.; if there has been a recent attack of haemoptysis; if there are evidences of extensive bronchitis or bronchiectasis, or definite physical signs of pulmonary tuberculosis or tubercle bacilli in the sputum. On the other hand, if these conditions are fulfilled and a certain diagnosis cannot be made by other means, it is of the greatest value and should be resorted to. It is true that cases have been recorded in which a definite reaction was obtained in apparently non-tuberculous subjects, especially in those who have had syphilis (although there was no certain proof that these cases were free from tuberculosis in some part of the body), and undoubtedly some cases of pulmonary tuberculosis do not show a reaction, yet it is an almost absolute test, and in clinical medicine there are very few tests which are absolute. It should be remembered that the reaction may be due to a tuberculous focus in some other part of the body than the lungs and pleura. It is best to begin with 0.001 c.cm. of tuberculin (1 mg.). If no reaction follows within forty-eight hours, administer a second dose twice as large. If there is even a slight rise of temperature following this, repeat the same dose in forty-eight hours. If the reaction to the second dose of the same size is more marked than was the reaction following the first dose, then you may be sure you are dealing with a case of tuberculosis. If these doses fail to produce a reaction, 5 and finally 10 mg. may be used. In regard to von Pirquet's cutaneous reaction and the conjunctival test (Calmette), unfortunately not infrequently it is difficult to say whether the reaction is positive or negative. In both there may be no reaction in the last stages of tuberculosis. Von Pirquet's test can be employed in pyrexial cases. It is more valuable in children, especially in the first three years of life, than in adults.

A reaction always occurs when there is pathological evidence of tuberculosis, though there may be an absence of clinical evidence. The ophthalmo-reaction should never be employed if any affection of the eye is present. Even apart from these cases it is undoubtedly attended with some risk. This test is more in harmony with clinical experience than von Pirquet's.

My opinion is that neither of these tests is nearly of such diagnostic value as the subcutaneous tests.

THE INFLUENCE OF STRONG, PREVALENT, RAIN-BEARING WINDS ON THE COURSE OF PHTHISIS.

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I HAVE repeatedly—and, I venture to believe, conclusively—shown that strong, prevalent, rain-bearing winds exercise a powerful influence over the prevalence of phthisis. I now propose to show that *probably* they also exert an influence on the course of the disease.

There are several lines of inquiry which may be followed in order to ascertain whether these winds do exert an influence on the course of phthisis or not. We may (1) make continuous clinical observations on phthisis cases in some single locality under varying conditions of wind and rain; or (2) we may clinically observe and compare the effects on a series of phthisis patients of residence in sheltered and exposed situations; or (3) we may compare the collective results obtained by similar methods at differently located sanatoriums—some in shelter, some exposed; or (4), lastly, we may compare the average durations of fatal cases whose course has been run in places which present a suitable contrast of shelter and exposure.

It is to this last line of inquiry that I would now especially invite attention. I shall only refer to the three others in order to make clear that they all, so far as I have been able to follow them, seem to lead to the same conclusion.

1. *Observation of Patients in a Single Locality Under Varying Conditions of Wind and Rain.*

This is a line of inquiry which lies peculiarly within the province of sanatorium physicians, and to them one must ultimately look for the width of experience requisite to enable us to form a judgement. My own opportunities have been necessarily very limited. But when, some years ago, the "open-air" treatment began to be introduced into this country and when we were treating a number of cases in connexion with the Royal Devon and Exeter Hospital, it seemed to me that windy and rainy weather unfavourably affected them. About the same time a friend of mine, who had medical charge of a "home for consumptives" at the top of a hill open to all winds, told me that his patients seemed to get on very well except when westerly winds were blowing. In 1904, Dr. A. A. Rodriguez, of Campo in the Azores, was so good as to make inquiries for me amongst the medical men practising in those islands, and told me that, whilst some had noticed no injurious effect from any wind, others had found their phthisical patients were worse when the warm and damp south winds were blowing, and others considered that these south winds did harm and that the north winds, which are dry, did good. A recent statement by Dr. H. Hyslop Thomson[1] that "the sanatorium physician knows well that such winds (strong, prevalent, and rain-bearing) are responsible for elevation of temperature and increased cough and expectoration amongst certain of his patients" is of special importance as embodying just the sort of experience which is necessary for the satisfactory following out of this method. Thus such evidence as I am aware of points in the direction of these winds affecting unfavourably the course of phthisis.

2. *Comparison of the Effects on Phthisis Patients of Residence in Sheltered and Exposed Situations.*

Here my opportunities have been more extensive, though my observations have been far too limited to be more than suggestive. It is obvious that the personal opportunities of any single observer, not specially devoting himself to the treatment of phthisis, can scarcely, in a dozen years, furnish conclusive evidence by this method. A few examples will suffice to indicate my general experience.

A young lady, after a smart haemoptysis, had been seen by me doing remarkably well in a wind-sheltered situation. But, being better, she took it into her head to go for a "bracing change" to one of our most westerly exposed hillsides. A fortnight later I was again sent for. The "change" had not been a success, and she had had another considerable attack of haemorrhage.

A gipsy woman, camping in the open air on the summit of a wind-swept common, was quickly losing ground from phthisis. I got her to shift her camp to the leeside of the hill, and immediately she began to improve.

A man, who had been nursing his son who died of phthisis, developed an empyema. After this had been opened, he went to a very sheltered valley in South Devon, where he did exceedingly well. His second son came to me some time afterwards with early phthisis, and, at his father's request, I sent him to the same place. I have rarely seen so rapid and complete a recovery as the boy made.

A lady with very slight disease of one apex, which had steadily refused to clear up, spent the winter at Chagford, and when I saw her next spring the physical signs had practically disappeared. She went to an exposed health resort in another county, and there the disease broke out afresh.

This north-east slope of Dartmoor, to which I drew attention in 1900 for its comparative shelter from westerly winds and coincidentally low phthisis mortality, has since then been utilized for sanatoriums, which have given very satisfactory results, as I can testify from the cases which I have sent to them.

On the other hand, I have seen cases at various points along our southern sea-board, who had been sent from a distance to live on the actual sea-front, and had been promptly seized with acute chest complications or with haemoptysis. Yet cases suitably located, in sheltered spots at these very health resorts, do exceedingly well. In one of them several excellent medical observers have noticed that cases of haemoptysis which have proved intractable on the actual sea-front, lose their haemorrhages when removed about a quarter of a mile inland, under the shelter of a considerable hill.

Long ago Dr. Thomas Shapter pointed out how undesirable it is to place a consumptive on an exposed seashore, and Dr. Ransome has more recently emphasized the seriousness of the consequences of locating such patients on an exposed sea-front.[2] It seems to me, however, that simple aspect has a good deal to do with the effect. Thus, I remember a patient who had greatly improved in hospital, insisting on returning home to live in the open air at a seaside place which faces almost due east with considerable western shelter. She continued to do very well so long as I had news of her. Also it is not entirely a matter of distance from the sea, for a case which did badly with repeated haemoptysis, lived on a high hill facing west just above a sheltered seaside town, in which, not far from the beach, several cases I know have done satisfactorily.

An interesting observation comes from the Sandwich Islands. This group is said by Hann[3] to present "the finest example of the contrast" between a wet and windy side and a dry and sheltered side. I therefore wrote to find out what was the experience there as to phthisis cases on these two so different aspects. Dr. Grace of Hilo very kindly replied, telling me that it was universally recognized, though the explanation was unknown, that "the windward is the bad side of the islands."

Thus this line of inquiry seems to point in the same direction as the last.

3. *Comparison of the Results of Differently Located Sanatoriums.*

Here one enters on especially difficult and delicate ground. Moreover, I imagine the time is scarcely ripe for drawing conclusions of value. Yet some hints may be gained by considering in what sort of situations the most historically celebrated phthisis health resorts have been established. Dr. E. Campodonico of Lima has recently been so good as to send me particulars of the celebrated resorts in the Peruvian Andes. He writes:

The most famous health resort for phthisical patients in Peru is the territory of Junin, where the towns Tarma, Jauja, Huancayo are located. This region, watered by the river Mantaro, stands at about 3,000 metres above the sea level, on the eastern side of the Andes. . . . These towns are protected

by the lofty range of the Andes, which deflects the course of the trade winds, so that any regular wind blowing there can hardly be spoken of. The climate is very dry, and, although the rainfall reaches a high point in the months of December, January, and February, when sudden and frequent showers occur, the water dries away rapidly. Metal and iron tools are very rarely oxidized.

Here, therefore, there is an absence of the winds we are discussing.

Again, stillness of atmosphere is a feature on which almost all authorities lay stress in their description of the most successful Alpine resorts. Davos is remarkable in this respect. Writers, too, in no way committed to agreement with my views, have commented on the less satisfactory results obtained at equal Alpine heights, where "wind movement" is greater. Görbersdorf in Silesia, where Brehmer conducted his historical experiment of "open-air" treatment, lies in a very sheltered valley on the north-eastern side of the Carpathians. Nordrach in the Black Forest, where Walther made Brehmer's methods familiar to English medical men, also lies in a very wind-sheltered valley. Finally, the Darling Downs of Queensland and the Rocky Mountains resorts of Colorado are alike rarely visited by rain-bearing wind.

Thus, a common characteristic of all these successful climates, otherwise so strikingly dissimilar, is their freedom from strong, prevalent, rain-bearing wind.

4. *Comparison of the Duration of Fatal Cases Running their Course in Exposed and Sheltered Localities.*

Ten years ago a friend who practises on both sides of a high ridge, running nearly due north and south, told me that he had found that his phthisis patients died in a shorter time on its western slope than on its eastern. But it is only lately that the idea has occurred to me of using, as I do here, the recorded durations of the fatal cases.

The information which Dr. J. R. Harper, of Barnstaple, so carefully procured for our joint paper on the influence of strong, prevalent, rain-bearing winds on phthisis prevalence

TABLE I.—*Showing the Distribution of 153 Cases of Phthisis in Three Groups of Parishes arranged as in the Former Paper.*

I. Parishes sheltered from S.W., W., and N.W. winds. II. Parishes exposed to N.W. but sheltered from S.W. and W. winds. III. Parishes exposed to S.W., W., and some also to N.W. winds. Deaths at 50 and over are put in parentheses.

Name of Parish.	1860–1884.			1885–1904.			1890–1899.		
	Short.	Medium.	Long.	Short.	Medium.	Long.	Short.	Medium.	Long.
I.—*Sheltered from S.W., W., and N.W.*									
Bittadon	1								
Brendon			1						
Highbray	1		2 (1)						
Challacombe			1						
Trentishoe			1						
Berrynarbor	2	2	1						
Arlington			2 (1)	1		1			
East Down									
Totals	4	2	8 (2)	1		1			
		16			2				
			18						
II.—*Exposed to N.W. only.*									
Kentisbury	1								
Paracombe		1			(1)				
Martinhoe									
Combe Martin	3	4 (2)	2 (1)	1					
Totals	4	5 (2)	2 (1)	1	(1)				
		11			2				
			16						
III.—*Exposed to S.W., W., and some also to N.W.*									
Countisbury			(1)						
Bratton Fleming	1			1					
Georgeham	1	5 (2)	5 (5)	2		1 (1)	1		1 (1)
Shirwell			1 (1)	2 (1)			1		
Morthoe	1		(1)	1	1				
Braunton	12 (1)	17 (1)	2 (7)	3 (1)	8 (2)	5 (3)	1	2	4 (5)
Heanton Punchardon	3	2 (1)	1 (4)		1	1 (1)		1	1 (1)
Ashford		1	3						
Goodleigh		1	2			(2)			(1)
Stoke Rivers									
Loxhore									
Totals	18 (1)	26 (4)	14 (17)	9 (2)	10 (2)	7 (9)	3	3	6 (8)
		80			39			20	
			119						

Grand total of cases 153

in twenty-three parishes of the Exmoor portion of Barnstaple Rural District during the forty-five years 1860 to 1904, seems to me to furnish just the sort of material requisite. The records used embraced 334 female phthisis deaths over 5 years of age. For 153 of these the duration of the illness was stated, and the tables which follow are based on these 153 cases. The district was one peculiarly fitted for the inquiry, since I was personally fairly well acquainted with it, and it was intimately known to Dr. Harper, so that it was possible to very carefully assess its relative shelters and exposures; its weather had been carefully recorded, and the characters of its soil were well known. For the particulars of each parish and of the district generally I must refer my readers to our original paper or to my recently-published book.[1]

I have kept to the divisions of the period used in our inquiry into phthisis prevalence. The twenty years 1885 to 1904 were separately considered, because during them (Koch's discovery having become, presumably, a matter of general knowledge by 1884) diagnosis might be supposed to have become more precise; and an additional reason for now considering the previous twenty-five years, 1860 to 1884, separately is that after 1884 scarcely any cases with recorded durations occurred in sheltered parishes. Also the decade 1890–99, with remarkably lessened incidence of westerly winds and coincidently low rainfall, obviously should be considered separately from the rest of the period.

In order to compare the durations of the cases I have divided them into three classes—namely, (A) "short" cases, lasting nine months or less; (B) "medium" cases, lasting between ten and fourteen months; and (C) "long" cases, lasting fifteen months or more (Table I).

When we take each of these Groups I, II, and III, for the whole forty-five years, and determine the percentages of the total cases formed by the Classes A, B, and C, respectively, we obtain Table II, which shows that the percentage of "long" cases is much larger in the sheltered parishes than in the exposed, whilst the percentage of "short" cases is practically the same—a very little less in the sheltered parishes. In other words, Table II goes to show that exposure to the wind and rain tends to hasten the course of the disease.

Group II, however, comes out the worst of the three; but here another influence has to be taken into account; the parishes of Group II are on the most generally impervious soil, and under a heavy rainfall—less heavy, indeed, than falls on Group I, but heavier than that on Group III. It is, therefore, a question how much of the shortened durations in this group may be ascribed to the effect of relative dampness of soil.

In the case of the comparison between Groups I and III, however, soil cannot have any share in creating the contrast, since any effect it might produce could only be in the direction of diminishing it, since Group III (exposed) has a lower average rainfall and more generally pervious soil than Group I (sheltered).

Taking next the comparison of the three groups during the years 1860 to 1884, Table III is obtained, which is very little different from Table II.

TABLE II.—*1860 to 1904.*

	III. Exposed to S.W., W., and some also to N.W. (119 Cases.)	II. Exposed to N.W. only. (16 Cases.)	I. Sheltered from S.W., W., and N.W. (18 Cases.)
	Per cent.	Per cent.	Per cent.
Long	36	18	61
Medium	36	51	12
Short	28	31	27

TABLE III.—*1860 to 1884.*

	III. (80 Cases.)	II. (14 Cases.)	I. (16 Cases.)
	Per cent.	Per cent.	Per cent.
Long	36	21	62
Medium	38	51	13
Short	26	28	25

After 1884 we may compare the durations of cases in Group III alone under the varying conditions of wind and rain, which are shown in the Chart, Figs. 1 and 2. These are shown in Table IV.

Rainfall, Westerly Wind Frequency and Duration of Phthisis Cases, Barnstaple District, 1860–1904.

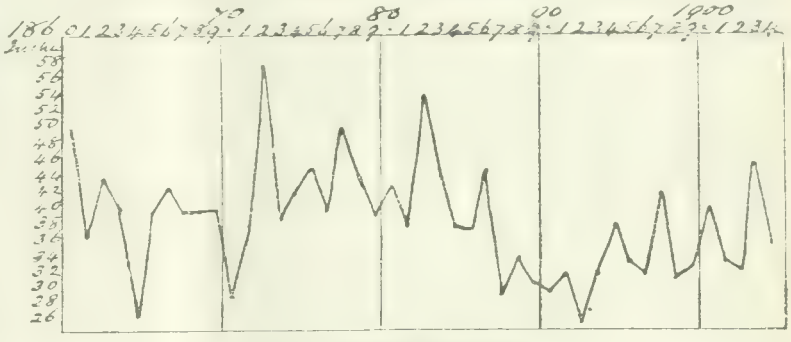


FIG. 1.—Rainfall (Barnstaple).

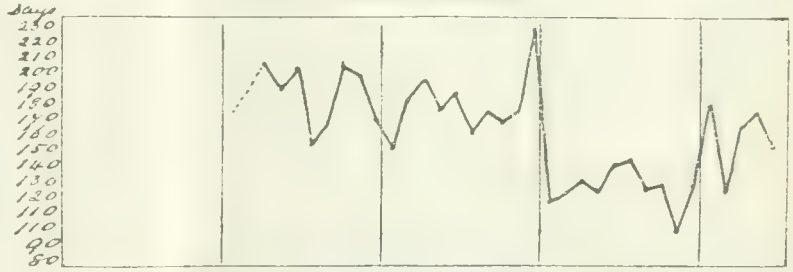


Fig. 2.—Frequency of S.W., W., and N.W. winds (Barnstaple), showing the number of days on which they blew at 9 a.m.

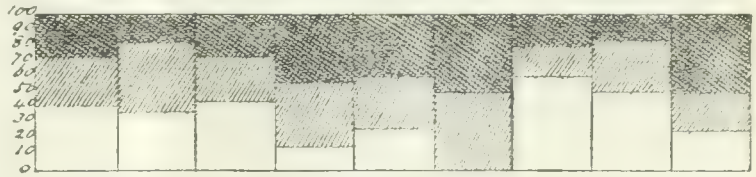


Fig. 5.—Percentages of "short," "medium," and "long" cases of phthisis under 50 years of age in successive 5-year periods. "Short" cases, dark shading; "medium" cases, light shading; "long" cases, white.

TABLE IV.—*Group III.*

	1860 to 1884 (80 Cases.)	1885 to 1904 (39 Cases.)	1890 to 1899 (20 Cases).
	Per cent.	Per cent.	Per cent.
Long	36	42	70
Medium	38	31	15
Short	26	27	15

We see that the percentage of "long" cases became much greater and that of the "short" cases became much less during 1890 to 1899, when the rain and wind were remarkably reduced, than they had been in the wetter and windier period—in other words, Table IV, like Table I, goes to indicate that exposure to wind and rain tends to hasten the course of the complaint.

Elimination of the Influence of Social Advances.

But it might be objected that this lengthening in the duration of the disease in a later period might have been only a concomitant of that steady lessening of phthisis prevalence which has been going on in this country for fifty years or more, owing doubtless to improving social conditions of various sorts. Possibly this is partly true.

Fig. 3, however, showing the phthisis curve (of deaths occurring in each year) from 1860 to 1904, whilst it illustrates indeed the lessening prevalence, equally indicates the influence of wind and rain; and Fig. 4, showing the annual number of fatal cases originating in each year (obtained approximately from the stated durations), makes this influence of rain and wind even more obvious. In order to discover whether a curve in any way comparable to these curves can be obtained from the durations of phthisis cases, Fig. 5 was constructed (of the cases dying

Phthisis—Female Deaths in 23 Parishes of Barnstaple Rural District.

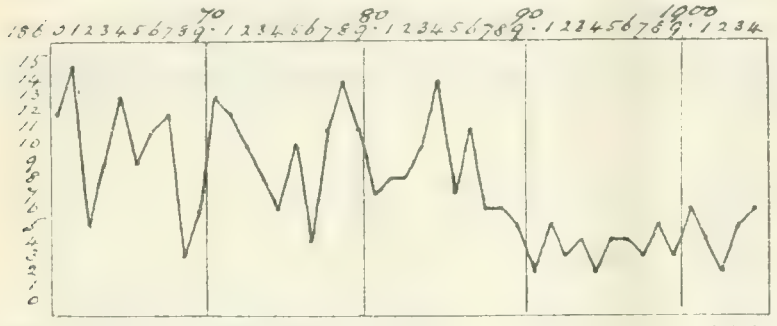


Fig. 3.—All deaths, whether duration is stated or not, referred to the years of their occurrence.

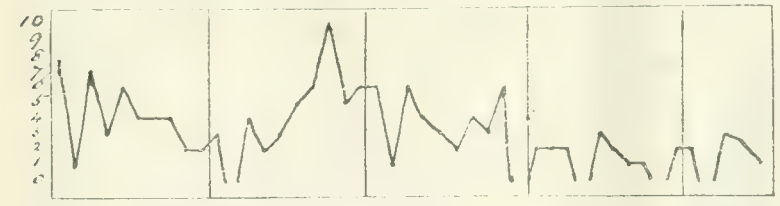


Fig. 4.—All the fatal cases of phthisis whose duration is given referred approximately to their years of origin.

under 50), showing the relative percentage of "short," "medium," and "long" cases in each successive five years between 1860 and 1904. The curve so obtained is, I think, remarkable, indicating most suggestively a relation between (*a*) rain and wind incidences, (*b*) phthisis prevalence, and (*c*) phthisis duration.

Elimination of Error Possibly Caused by Age.

In going through the cases, however, it was impossible to avoid observing how often a "long" duration was associated with an advanced age. Table V was therefore

TABLE V.—*Whole 45 Years.*

Ages.	Short.	Medium.	Long.
-9	1	1	1
10-19	8	8	6
20-29	17	18	14
30-39	9	8	8
40-49	3	6	5
50-59	4	4	16
60-69	—	4	9
70 and over ...	—	2	3

constructed, to ascertain how far age exercises a disturbing influence.

From this it is obvious that, over 50 years old, age does seem to considerably affect the case-durations. Accord-

TABLE VI. *1860 to 1884, Cases under 50.*

	III (50 Cases).	II (11 Cases).	I (14 Cases).
	Per cent.	Per cent.	Per cent.
Long...	20	18	56
Medium	46	46	16
Short	34	36	28

TABLE VII.—*Group III, Cases under 50.*

	1860 to 1884 (50 Cases)	1885 to 1904 (26 Cases).	1890 to 1899 (12 Cases).
	Per cent.	Per cent.	Per cent.
Long...	20	29	50
Medium	46	38	25
Short	34	33	25

ingly, it appeared desirable to recalculate Tables III and IV with the exclusion of all cases dying at 50 and over. Tables VI and VII were thus obtained. They tend to show even more strikingly than Tables III and IV the unfavourable influence apparently exerted by exposure to the strong, prevalent, rain-bearing winds. Long cases are much commoner and short cases much fewer under the less exposure to rain and wind.

To conclude, it seems to me that these tables and curves, taken in conjunction with the other evidence to which I have alluded, constitute a considerable prima facie case for the contention that exposure to strong, prevalent, rain-bearing winds tends to exercise an unfavourable influence on the course of phthisis. How far treatment may prove equal to neutralizing this unfavourable effect of these rainy winds remains to be seen. The cases here dealt with were mostly treated before the days of modern sanatorium methods.

I take this opportunity of expressing once more my great indebtedness to my friend, Dr. Harper, for the invaluable help his careful information has afforded me.

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[1] *British Journal of Tuberculosis*, July, 1910, p. 198. [2] *The Treatment of Phthisis*, London, 1895, p. 133. [3] Hann's *Handbuch der Klimatologie*, vol. i, p. 292. [4] *The Influence of Strong, Prevalent, Rain-bearing Winds on the Prevalence of Phthisis*. Lewis, London, 1910, pp. 61-78.

An Address

ON THE

PREVENTION AND TREATMENT OF PULMONARY TUBERCULOSIS.

DELIVERED BEFORE THE MEDICAL AND SCIENTIFIC SOCIETY, UNIVERSITY COLLEGE, DUBLIN.

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MR. PRESIDENT, LADIES, AND GENTLEMEN.—It is my first duty and pleasure to thank you for the honour you have done me in asking me to deliver the address inaugurating the present session of our society. The subject I have chosen is the prevention and treatment of pulmonary tuberculosis—a subject in which I am myself particularly interested, and one in which every medical practitioner in these countries must take the greatest personal interest, since tuberculosis is the captain of the men of death in these lands, and therefore it must form a large proportion of the cases with which the physician has to deal. Moreover, it is a disease which taxes all one's resources and skill to deal with effectually.

I do not, of course, propose to deal exhaustively with the subject in this short paper, but shall only attempt to emphasize certain measures of prevention and treatment which I think will strengthen our hands in dealing with the disease.

It will be well first to know the mortality and incidence of the disease at the present day. In Ireland last year over 10,000 individuals died of tuberculosis, of which 7,527

were affected by the pulmonary form. In 1909 over 38,000 people died of the pulmonary form in England, so that we may take it that about 50,000 people die of the pulmonary form each year in the British Isles.

Now there are two questions to be asked—Is the death-rate from tuberculosis falling? and if it is, Is it falling faster than or as fast as the general death-rate?

The death-rate in Ireland from the disease was 2.3 per 1,000 in 1900; in 1910 it was 1.7 per 1,000—a marked diminution. Now as to the second question, I am quoting the deductions of Professor Karl Pearson,[1] which I think are the most accurate attainable.

He illustrates the facts by three diagrams. To the graphic records of deaths per 1,000 from all causes are fitted "regression straight lines," which show that they are three distinct periods: from 1835–1866 the average death-rate fell very slowly, from 1866–91 it fell much more rapidly, and from 1891 to 1910 it fell more rapidly still.

Now how does the rate of death from tuberculosis compare with the general death-rate? The records of deaths from phthisis up to 1847 were only partial, but so far as could be made out the fall in the death-rate from it between 1838 and 1847 was immense. The first regression line is fitted only from 1851–66, and shows a marked decrease during the years in which we have seen there was little decrease in the general death-rate. During the next period (1866–94) the fall was accentuated. But during the third period (1894) to the present day the line shows there is a distinct retardation in the rate of the fall. And this has occurred during our period of greatest knowledge and most active campaign against the tubercle bacillus.

The percentage of deaths from phthisis of all deaths from year to year for the last sixty-six years—from 1847 on—shows a fall of from 13 (8 per cent.) in the case of males and of 15 (6 per cent.) in the case of females. But it brings out the grave fact that for the last fifteen years the percentage of deaths from phthisis in the case of males shows a slight rise, while for females the apparent slight decrease is really a rise if we only consider the last ten years.

To sum up, Pearson says: "The relative number of deaths from phthisis has not been diminished by the campaign against the tubercle bacillus, although the absolute number has fallen, but at a sensibly retarded rate."

Now as to the infectivity. The table given by Hamburger and Monti comparing the prevalency of tuberculosis in Vienna determined by autopsy and tuberculin tests will give us some idea of it. So that, taking the lowest figures, we see that the majority of children who reach the age of 14 have been infected. While if we accept Hamburger and Monti's figures we see that 94 per cent. have the bacilli in them. Yet, since the death-rate from tuberculosis in Vienna is only 15 per cent., 80 per cent. have sufficient resistance to prevent the disease killing them. These figures are probably outside ones, but we may take it that the majority of people are infected by the microbe at some time or other.

Man is infected with Koch's bacillus from two sources. First by bacilli that have been living in other human beings, and secondly, from bacilli which have been living in cattle. It is said that bovine bacilli are the chief cause of surgical tuberculosis, and that human bacilli are the chief cause of pulmonary; but undoubtedly the human type can cause surgical and bovine pulmonary tuberculosis. So that if we want to cut off the sources of infection we have to deal with infected cattle and infected human beings.

The great source of bovine tubercle bacilli is milk, which is partaken of raw as a rule, and to a lesser extent meat. The system of dealing with these sources at present in vogue if conscientiously applied ought eventually to lead to the complete elimination of this source. That it is not conscientiously applied at present in Ireland the evidence given before the recent Viceregal Commission plainly shows.

The other source of infection, namely, the infected human being, and how to prevent him from infecting others is a much more difficult problem.

A person with pulmonary tuberculosis in whose lungs softening of tuberculous areas is going on is excreting tubercle bacilli in his sputum, faeces, and sometimes in his urine. The latter two sources have not possibly received the attention they ought, although perhaps in towns where there is a proper septic tank system they would not be a great source of infection. The contrary, however, may be the case in rural districts and where the sewage is treated by means of sewage farms.

With regard to the sputum a known consumptive can be supplied with a spitting flask containing disinfectant, and so the large masses of purulent expectoration disinfected. But one cannot properly control the fine atomized spray given off when the consumptive coughs, which carries tubercle bacilli in its droplets, and these fall on objects around, dry, and infect the dust; a patient who is warned may control this to a certain extent by a handkerchief, but such control can be only partial and he is bound to infect his bedroom during sleep.

Such a patient, then, is bound to be infectious, and ought to be isolated in a suitable institution. Since this is as a general rule impossible under present conditions, then he ought to sleep in a separate apartment, and those who attend to that room ought to take the same precautions against infection as if it harboured a case of typhoid fever; and, further, when the patient vacates that room it ought to be as thoroughly disinfected as if it had contained a case of small-pox. I can recall an instance where member after member of a family who occupied a certain bedroom became infected, until the room was thoroughly disinfected, when the plague was stayed in that house. Some figures quoted a few years ago by Professor McWeeney bring out the necessity for this measure. Certain Paris lodging houses, numbering 820, and containing in twelve years 106,308 persons, yielded 11,500 deaths in this period. The worst of these houses, known as *hôtels garnis*, actually had a death-rate of 42 per thousand from phthisis, in certain wards in Paris.

The habit of promiscuous spitting ought to be put down with a strong hand. Could not suitable spittoons be placed at intervals in our streets to accommodate those members of the community whose handkerchiefs consist of their fingers and thumbs?

The ideal measures for dealing with the disease are those one would use for any infectious disease—namely, notification, isolation, disinfection, and supervision of contacts.

Notification has at last arrived, complete isolation seems

Prevalency of Tuberculosis as determined by:

	Autopsy.		Tuberculin Reactions.			
	Lethal and Non-Lethal.	Only Non-Lethal.	Cutaneous.			Cutaneous and Injectional.
Investigator.	Ghon.	Ghon.	v. Pirquet.	Ganghofner.	Hamburger and Monti.	Hamburger and Monti.
Second year of life	40	17	2	12	9	9
Third and fourth years	60	30	13	27	23	27
Fifth and sixth years	56	34	17	47	36	51
Seventh to tenth years...	63	35	35	57	47	71
Eleventh to fourteenth years	70	53	55	70	51	94

to be at present impracticable, disinfection can be accomplished and also the treatment of contacts.

Much good work has been done in Ireland by the Women's National Health Association in teaching the people the infectious nature of the disease and making them afraid of it, and in many other ways. I need not go further into the other general measures, such as special dispensaries for advice, diagnosis, etc., special hospitals in the cities, and sanatoriums in the country. No one can deny the value of the latter as educative establishments and places for isolation. Their curative value will be discussed later.

There is just one other point I should like to mention before leaving this part of the subject, and that is that tubercle bacilli received direct from a bad case of the disease are more virulent than if they have been some time isolated from him. So that, just as in the case of small-pox, a susceptible individual, if he gets the disease, will hand on a more virulent strain to those he infects.

Since the Vienna figures quoted above show how ineffectual are our methods of preventing the infection, we have to rely on the natural immunity of the healthy individual to resist the disease, and this seems to be effectual in Vienna in about 80 per cent. of the people who receive the infection, so that if one could make the other 15 per cent. or so like unto the 80 per cent. our object would be accomplished.

In order to keep in good health we must live in decent, well-aired houses, be sufficiently clad, have sufficient and uncontaminated food, sufficient exercise, and must breathe through our noses, so that the air may be warmed and be filtered free from microbes.

Every one, I think, realizes the importance of providing proper housing and sufficient money to supply proper food, and of lessening the opportunities of having that money spent on alcohol.

The system of school inspection is doing away with nasal obstruction in children and attending to other abnormalities.

I believe the proper feeding of the infant has a most important bearing on its health in after-life and his resistance to disease. A sound digestion is the first essential of health, and a child who has been improperly fed during the first nine months of his life starts with an impaired digestion. There is no substitute for its mother's milk. The nearest approach appears to be milk direct from the goat. Even if one can give in a bottle the proper proportion of carbohydrates, fats, and proteins, one cannot give it the natural ferments, including anti-microbial substances and neurones.

I do not believe the majority of women who say they cannot nurse their babies. How often have I seen a few bottles of malt extract produce an abundant supply of milk. A woman who does not nurse her baby when she can, knowing, as she must, that any bottle may contain its death warrant, is, in my opinion, guilty of a very grave social offence. Doctors and nurses, I am afraid, are too prone not to emphasize the importance of this.

Next, why is it that a certain percentage of the community have naturally a low resistance to the disease, and can we correct this? Undoubtedly, the answer to the first question is that the low resistance is most often inherited. Pearson has shown that there is a resemblance between parent and offspring in the matter of tuberculosis of 0.5, and this as between father and child is as close as between mother and child. (The resemblance between husband and wife is from 0.25 to 0.3.) Can this be corrected? I think it can. I consider that every member of a tuberculous family should have his resistance to the disease increased by a series of increasing doses of tuberculin. I have practised and do practise what I preach, and have found that in such individuals the injections act as a splendid tonic, the patient expressing himself as feeling more fit and energetic than before. I believe the mother of a child whose father is tuberculous should be inoculated while she is pregnant, or if not then when she is nursing the child. If she is tuberculous herself the problem is more difficult, as she may not be fit for inoculation. However, she may be rendered fit for it by appropriate treatment, or if not, the baby can be inoculated some months after.

By this means one can bring up the resistance of these susceptible children from subnormal to normal; indeed, their resistance for a time at least is well above normal. Maragliano states that after using his tuberculous vaccine he found after three years that the patient had three times the agglutinating power of a normal individual. Even if the specific immunizing substances fade away after a time, yet the mechanism for the production of these substances has been produced and can in all probability be aroused to activity with greater ease than in the normal individual. It is, indeed, a question that ought to be considered whether every one ought not to be prophylactically inoculated against the disease. I inoculated my own baby when she was 3 months old.

Turning now to the question of treatment of the individual infected with the disease, it will be useful to give a classification of the forms the disease takes.

The first division is into *acute* and *chronic*. The acute can be further divided into four subdivisions—namely:

1. Acute miliary, generalized.
2. Acute miliary, of the lungs alone.
3. Acute lobar pneumonia due to the tubercle bacillus.
4. Acute bronchopneumonia due to the tubercle bacillus, and generally called "galloping consumption."

The chronic forms are most usefully classified for purposes of prognosis and treatment into four classes, according to the extent of the lung diseased.

In Class I the lungs have so slight an involvement that there are no physical signs. The patient may have a slight cough, a subnormal temperature, and is easily tired.

In Class II are those in which there are the earliest physical signs, generally in an apex, while the temperature does not go to more than about 99.6°, and the small amount of sputum does not contain tubercle bacilli.

In Class III are those in which there are moist sounds in the lungs, the disease being more extensive and the consolidated lung is breaking down. The temperature is sometimes, and in the worst cases, subnormal, but usually rises to 100° or more. Tubercle bacilli are present in the sputum.

In Class IV are those with extensive disease, large cavities, and septic temperatures. Tubercle bacilli and myriads of other microbes are present in the sputum.

Of course, all cases of phthisis do not fall into these groups, for one finds all sorts of modifications and combinations.

It is obvious that it is of supreme importance to diagnose the disease at the earliest possible moment. I shall not have time to discuss the diagnosis of the acute forms, which are only a small number of cases, but shall confine myself to the diagnosis of the chronic forms.

When there are well-marked physical signs in the lungs and tubercle bacilli in the sputum there is no difficulty about diagnosis, but when there are no physical signs, or when these are present to a slight extent but there are no tubercle bacilli in the sputum, it is another story.

Modern laboratory technique, and our growing but still imperfect knowledge of immunity reactions, have given us several methods of diagnosis. They are:

The tuberculo-ophthalmic reaction of Calmette.
Various skin reactions, such as that of von Pirquet.
Estimation of the opsonic index to the tubercle bacillus.
Local and general reactions produced by inoculation with old tuberculin.
The demonstration of tubercle bacilli in the blood.

Sometimes when tubercle bacilli cannot be found in the sputum they can be found in the faeces, and sometimes when they cannot be found in either by the usual methods they can be found when a large bulk of material is treated by the antiformin method. It must not be forgotten that some tubercle bacilli are not acid-fast, and that there are other acid-fast bacilli which are not tubercle bacilli.

The ophthalmic reaction has been and is extensively used, but there have been some disasters to eyes although it appears to be safe enough if there is no conjunctivitis. There can be no objection to the skin reactions nor to the use of the opsonic index. Old tuberculin injections can be used with safety in incipient cases.

The demonstration of tubercle bacilli in the blood is difficult and there are many differences of opinion as to its practicability.

My own procedure in a doubtful case is as follows: I first do von Pirquet's skin reaction; if this is negative I do it again; if it is again negative I think the case is not tuberculous; if it is positive in an individual above 5 years

old I think the reaction may be due to an old healed focus or to an active lesion. I then give injections of old tuberculin, beginning with $\frac{1}{4}$ mg.: if there is a rise of temperature of 1° or more I think there is an active form of disease and a local reaction indicates the place where it is. If there is no reaction, I increase the amount through $\frac{1}{2}$ and $\frac{3}{4}$ to 1 to 2 mg. If there is no reaction after any of these, I think there is no active tuberculosis present. In later cases, where the diagnosis has to be made between lung lesions due to the tubercle bacilli and those due to other organisms, it may not be justifiable to use the old tuberculin test, although iodoform injections can control a severe reaction in most cases. I then use the opsonic index; an index below 0.8 or above 1.2, or, better still, a fluctuating index, suggests the presence of active disease.

Unfortunately, in some cases the first indication the patient has is the occurrence of a haemorrhage. This is a common mode of onset in athletes, and is in itself practically diagnostic. If tubercle bacilli cannot be found in the blood-stained sputum the disease can be diagnosed by the procedure just sketched.

In the treatment of tuberculous disease a stitch in time saves so many others that no trouble ought to be too great either for the physician or the patient in order to make a diagnosis.

TREATMENT.

The means we have at our disposal for the treatment of the disease are broadly three in number:

1. The open-air treatment in hospitals and sanatoriums.
2. Therapeutic immunization with one or other of the tuberculins.
3. The exhibition of drugs for bactericidal purposes.

Sanatorium Treatment.

Of these the sanatorium treatment at present holds the field, and enormous sums of money have been spent, and, it seems, are going to be spent, in erecting fresh ones. Leaving out of consideration the value of these establishments as educative and isolating institutions, it is necessary to find out their value as a means of cure. Are the results of treatment in them better than the results of treatment in presanatorium days? I am not myself competent to answer the question, neither do I think that physicians interested in sanatoriums can form an unbiassed judgement. A careful actuarial examination has been made by Elderton and Perry, in the department of applied mathematics, University College, London, of the death-rate of patients who have been treated in sanatoriums, and these have been compared with similar statistics of presanatorium days. The results of sanatorium treatment in England, United States, and Germany are included. The conclusions they come to are as follows:

1. The mortality of tuberculous patients who are undergoing or have undergone treatment is much heavier than that of the general population, and even when the disease is taken in the incipient stage the mortality is about four times as heavy.
2. The mortality of the apparently cured cases is about twice as many as that of the general population.
3. The mortality among sanatorium patients does not show any improvement on that of Williams and Pollock's cases (that is, presanatorium cases). The comparison is, however, rendered difficult by the way the older figures were given.

They say in a footnote that the investigation of further material since these results were come to only confirms them. Moreover, these results are chiefly from sanatoriums where people of professional standing are treated, and therefore ought to be able to carry out the hygienic measures they have learnt after they leave the institutions. That the permanent results are not satisfactory is also suggested by the fact already stated that the fall in the number of deaths from phthisis as compared with that of all other causes has ceased; in fact, the percentage is rising.

As to the immediate results of sanatorium treatment, I cull the following figures from 1,200 odd cases treated at German working-class sanatoriums where the minimum stay was ninety days.

Condition on admission very good in 0.0 per cent., good in 30.7 per cent., unsatisfactory in 38.6 per cent., bad in 30.7 per cent.: on discharge was very good in 22 per cent., good in 73 per cent., bad in 5 per cent. Average increase in weight 12½ lb.

On admission 88.7 per cent. had both cough and expectoration: on discharge 67.4 per cent.; 27.2 per cent. had neither. Out of every 100 who had tubercle bacilli in sputum on admission (51.0 per cent. had), 70.2 still had it on discharge. Of those admitted only 20.8 per cent. were febrile. Out of every 100 that were febrile on admission, 75.5 were so on discharge, and only 24.5 were considered to have a normal temperature; 4.4 out of every 100 patients with a normal temperature developed a febrile temperature at the sanatoriums.

Night sweats: 31.7 per cent. had night sweats on admission. Of every 100 who had, 90.9 had not them on leaving.

These were a favourable lot of cases, only 20.8 per cent. had an evening temperature of 99.2°; and only 51 per cent. had tubercle bacilli in their sputum, yet the majority of those who had a temperature and bacilli still had them on discharge. However, the general health of 95 per cent. of those admitted had more or less improved. And 22 per cent. of them were in "very good" condition, which, I take it, means apparently cured.

I wish to emphasize the fact that half of these cases belonged to Classes I and II, the fact that they had tuberculosis being diagnosed by tuberculin reactions.

Perry and Elderton estimate the death-rate of those who leave sanatoriums with arrested disease as ten times the normal, while that of those who leave with the disease still active is forty times the normal.

Of course, the results obtained by different sanatoriums vary somewhat according to the class of case admitted, the kind of treatment adopted and the careful adaptation of that treatment to each individual case. I think it would be hard by sanatorium methods to turn out better results than Dr. Paterson at Frimley, where patients are only admitted in the early stages—namely, Classes I and II—and where by carefully-regulated exercises the patient is trained so that at the end of his treatment he has attained such a state of health that he can do hard manual labour for six hours a day without a rise of temperature or undue fatigue.

The conclusions I have come to as to the results of sanatorium treatment are as follows:

It can reasonably be expected to restore a good percentage of Classes I and II to their previous health without conferring on them any guarantee against reinfection.

Many cases of Class III are improved, but in the majority of cases do not lose their tubercle bacilli.

While in Class IV the treatment from a curative point of view is practically useless unless in exceptional cases.

I do not think any one can be satisfied with such results, and it appears to me absolutely essential to adopt some more vigorous methods of treatment during the patient's sojourn at the sanatorium.

Tuberculin Treatment.

I am afraid this treatment is still regarded by many with great suspicion, not having recovered from the terrible fiasco the premature use of Koch's original tuberculin produced. However, our better knowledge of immunity reactions, of proper dosage, and of the kind of cases to employ it on have reduced the risk of disasters to a minimum.

The kinds of tuberculin used are many in number and the methods of administering them vary. The majority begin with a small dose and gradually work the dose up to a large amount, while others give repeated small doses, some regulating them by the opsonic index.

Although most observers who have used the treatment speak well of it, yet it is hard to estimate the ultimate result. Trudeau has used tuberculin in a certain number of cases in the Adirondacks Cottage Sanatorium since 1890. He used chiefly Koch's old tuberculin and bacillary emulsion, his own tuberculin B. Denis's tuberculin, and tuberculo-plasmin. T.R. and tuberculol were given to a few patients.

A study of 185 patients treated with tuberculin and 864 not so treated, all of whom stayed over 90 days, showed for the early stage a slight difference on discharge in favour of treated patients. For the moderately advanced there was a very marked difference in favour of the treated—namely, apparently cured, treated 27 per cent., untreated 6 per cent.: disease arrested, treated 50 per cent., untreated 51 per cent.: active, treated 18 per cent., untreated 43 per cent.

The ultimate results obtained for one to fifteen years after discharge in 135 patients treated and 690 untreated

show that of 100 patients in the early stage treated 79 are alive, of the untreated 63 are alive, while in the advanced stage 61 of the treated are alive and 35 of the untreated.

Those who speak most enthusiastically of the treatment in this country are Nathan Raw and Camac Wilkinson, who used bovine tuberculin, which does not appear to be liable to produce so much reaction as the human type of tuberculins. Undoubtedly the method is worthy of careful trial.

Dr. Dunn, of the South Dublin Union Infirmary, has used Denis's tuberculin for some years with excellent results in a good percentage of cases.

In pulmonary tuberculosis I have not used tuberculin by itself to any extent; it has generally been used to complement or supplement the last mode of treatment I shall allude to.

Many drugs have been used in the disease, such as creosote, guaiacum, carbolic acid, formalin, etc. The one I wish to refer to is iodine given in chemical combination. The form which I have been using for several years is iodoform, and I have given it intravenously, intramuscularly, and by the mouth. The intravenous method is by far the most potent, and is the method introduced by Dewar of Dunblane, from whom I learnt it. It is given in quantities of $\frac{1}{3}$ to 1 grain dissolved in ether, with a little liquid paraffin added, two to five times a week. The veins usually selected are those of the antecubital fossa. The little operation is quite a simple one. There is no pain or inconvenience to the patient, except a certain amount of coughing, and yet I know of no procedure in medicine which has aroused more *a priori* objections to its use, the bugbears imagined being embolism, thrombosis, gas embolism from ether vapour, in fact, the immediate demise of the patient, and yet no such accident has ever occurred nor have I seen anything approaching to such an occurrence.

But if it does no harm, does it do any good? I will first quote some experimental results, and then relate some cases of my own.

Higgins of the Biological Laboratory, Ottawa, injected rabbits intralaryngeally with virulent bovine bacilli. He then waited until the rabbits, by loss of weight, etc., showed evidence of the disease, and began injecting daily $\frac{1}{10}$ grain iodoform in ether into the auricular vein. For the first week the animals lost weight, but then began to put on as much as 25 to 50 grams a day. When apparently well the lungs were examined, and it was found that the areas where the disease had been were completely replaced by healthy fibrous tissue. I can relate two cases of recovery from acute miliary tuberculosis of the lungs, both of which I saw in consultation and in both of which the diagnosis was agreed to by eminent clinical authorities. The cases were very similar.

The first was a man, aged about 35, who had been feeling ill for about three weeks. He had a patch of congestion in the lower lobe of his right lung, and fine crepitations over both lungs, with dyspnœa, cyanosis, and a rectal temperature ranging from 102° to 104° F. After the treatment commenced the temperature came down gradually and at the end of three months was normal. He has remained quite well ever since—that is, for three years—and is now in vigorous health.

The second case, a girl aged 20, had been ill somewhat longer, and the temperature sometimes reached 105°. Her symptoms and physical signs were almost identical with those of the first case. It is now just a year since I saw her first, and her temperature is normal and she is rapidly gaining weight and strength.

These cases are, I think, on a par with the experimental results in rabbits given above.

The first case I tried the treatment on was a girl aged 17 whose right lung was involved to 2 in. below the clavicle. She was regularly losing flesh, had temperature rising to over 100° F., and had tubercle bacilli in her sputum. At the end of six months' treatment there were no physical signs to be made out, she had no sputum, she felt well, and her temperature was normal. She used to drive three miles each morning to me for her injections through all sorts of weather.

The two last cases I shall mention are recent.

The first came to me on leaving hospital, where he had been treated for pleurisy, and where tubercle bacilli was found in his sputum; I found them present in large numbers. He had to go to the country for a month, where he took 10 grains of iodoform by the mouth daily. He gained a stone in weight. On returning to town he rapidly got worse, developed physical signs in the right apex, while he had pleuritic thickening over most of the left lower lobe. The temperature rose to 100.6 F. in the evening. He has now, in four months, lost all cough, has the slightest amount of expectoration with no tubercle bacilli, his temperature is normal, and he is being immunized with tuberculin, while he has never been so heavy in his life.

The second had a large amount of expectoration swarming with tubercle bacilli, and a cavity in the upper lobe of his left lung. In this case the infection was grafted on a chronic bronchitis due to the pneumococcus and *Bacillus septicus*, which also were causing chronic nasal catarrh, middle-ear disease, and perforation of the right drum. After a year's treatment the cough has disappeared almost completely, he has one small piece of sputum in the morning, which contains no tubercle bacilli. He is strong and has a normal temperature. This case has also had vaccines for the original infection.

Both these cases have been living in the city, have been pursuing their ordinary employment, and have come to me each day for their injections.

Even in advanced cases with large involvement I have succeeded in getting the temperature normal, greatly reducing and sometimes abolishing the expectoration and improving the cough. But I think cases who have had large involvement can seldom be anything but delicate in this climate, however much you improve them.

I hope I have said enough to prove that the treatment can do good. The only fact absolutely known as to its action is that it causes a leucocytosis. Dewar suggests several explanations, two of which are that the iodoform may act unchanged, that it may be split up, oxygenation of the CH group producing formaldehyde, the iodine being liberated, and both acting directly as germicides. It is quite likely that the iodoform is split up, for iodoform in solution in ether is very unstable, being rapidly decomposed, for instance, by light, with the liberation of iodine.

I think myself that one of its chief actions is the well-known action of iodine in converting toxin into toxoid, which is not poisonous, but acts as an excellent stimulant and for the formation of antitoxin. The power that an injection of iodoform has in abolishing a reaction after an injection of tuberculin would tend to confirm this hypothesis.

Since there seemed to be so much prejudice against the intravenous use of the drug, and since its intramuscular injection did not seem to be as efficient, I have tried to intensify its action when given intramuscularly by adding to it other drugs. The first I used was a 2 per cent. solution of benzoyl chloride in liquid paraffin. This drug also produces a leucocytosis, and *in vitro* dissolves the tubercle bacillus. I obtained some encouraging improvements in a few cases and a complete apparent cure in the only early case I have used it on, and I think the combination worthy of further trial.

Lately I have been using Szendeffy's combination of iodoform or iodized peptone with menthol and radium, and, although I have completely failed with it in three very advanced cases which were probably beyond all treatment, the majority of cases have very much improved. I cannot say more yet, as the cases are too recent. Unfortunately this last combination is being exploited commercially at a ridiculous price; I can make the preparation for about one-sixth what is usually charged for it. It is a pity, because the preparation is undoubtedly useful.

I think it is essential, before ending the treatment of a case, to give a series of injections of tuberculin, in order to increase the patient's immunity, and if possible to leave him with at any rate the mechanism for producing specific antibodies with ease. Otherwise the patient has no guarantee that he will be able to resist the reinfection that he is almost certain to get. The form of tuberculin used will depend on the physician's own particular fancy in this direction. I do not think T.R. a good form. A.T., I think, is; also A.F., P.T.O., P.B.E., and B.E. I have used with success in several cases a preparation of my own made by dissolving tubercle bacilli in benzoyl chloride and diluting with liquid paraffin. I usually give it combined with iodoform, the latter being given with the idea of reducing the reaction. It is a very powerful preparation, the initial dose being a millionth of a milligram and the largest dose I have used is a thousandth of a milligram. That the iodoform does reduce reaction I have proved by giving a case several doses of the combination without a reaction and then giving it without the iodoform, when a reaction occurred.

Let me end by stating that I think that the adoption of treatment with combined iodine *plus* immunization will enormously increase the output of apparently cured cases.

Time and carefully kept records alone will enable a judgement to be formed of the permanency of such results.

I look forward to the time when the resistance of the units of the nations has been so raised that it will be only exceptionally that the tubercle bacillus will be able to live in human tissues.

REFERENCE.

[1] *The Fight against Tuberculosis and the Death-rate from Phthisis.* By Karl Pearson. London: Dulau and Co.

NOTES ON CLINICAL TRIALS WITH MARMOREK'S ANTITUBERCULOUS SERUM.

BY

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RECENT discussions on the value of tuberculin have shown that much diversity of opinion exists as to its efficacy. My experience with tuberculin has been unsatisfactory, but I have obtained rather more success with another agent—namely, Marmorek's antituberculous serum. This serum has been before the profession for a number of years, but no definite opinion of its utility has been formed in this country though many foreign observers have spoken very highly of it.

I here record the treatment and results of 10 cases which were treated by me in the Royal Waterloo Hospital, London, S.E. For allowing me facilities for this purpose I have to thank Dr. Guthrie Rankin.

Two methods of injection are used—hypodermic and rectal. The former is supposed to be beneficial in acute and rapidly advancing cases, while the latter is more efficacious in chronic and apyretic cases. The great drawback to the subcutaneous injection is supersensitiveness, which is common to the injection of all serums.

The dose used was 2½ c.cm., given hypodermically, until anaphylaxis was seen, when 5 c.cm. was given rectally daily for fourteen to twenty-one days. This was followed by an interval of seven to ten days without serum, which was again followed by daily injections for fourteen to twenty-one days. This routine was carried on as long as the case demanded it. Marmorek recommends that even after recovery seems complete weekly doses of 5 c.cm. should be given for several months.

CASE I.—W. S., aged 3, admitted January 9th with great dyspnoea, a harsh, dry cough, almost incessant sunken features, wasted and in an advanced stage of disease, seemed in some measure improved after four injections. By February 8th there were signs of cavitation at the right apex, and death took place on February 24th. Serum had been given daily.

Post mortem: The right pleura was greatly thickened and covered with tuberculous deposit. At the right apex a large cavity with extensive infiltration throughout the lobe was found. The left lower lobe was consolidated, and the bronchial and mesenteric glands were tuberculous.

It was notable that, in spite of the steady progress of the disease, the temperature and pulse were steadied, the symptoms were less severe, and the patient was more comfortable.

CASE II.—I. H., aged 3, was admitted December 21st with history of having recently had pneumonia, while phthisis was rampant in his family. The entire right lung was affected. The usual treatment was adopted, but the disease made rapid progress, and when serum treatment was begun on January 19th the child was almost moribund, with a temperature swinging between 101° to 104° F. By February 12th the child was eating and sleeping well, cough and dyspnoea had disappeared, and physical signs were clearing up, and on March 4th she was sent home much improved, with normal temperature and pulse. Seen a month later, improvement was well maintained, and there had been great increase in weight.

CASE III.—L. D., aged 10, admitted February 25th with tuberculous history and well-defined physical signs throughout the right lung. Serum was commenced on March 1st and continued up to April 4th, when her condition was so much bettered that she was sent to a convalescent home. The physical signs had not altered, but the temperature was normal and the weight steadily increasing. Reported on two months later the child was at school and thriving well.

CASE IV.—S. B., aged 7, admitted February 3rd, complained of rapid wasting, night sweats, cough, and dyspnoea, and was found to have definite signs in the right lower lobe, while bacilli were found in great numbers in sputum. Serum was given from February 8th to March 5th, and he was discharged on March 26th with practically no physical signs in the chest, greatly increased in weight, no cough, and no night sweats. A report on this child could not be obtained two months later.

CASE V.—G. G., aged 3, admitted February 23rd, in a very much emaciated condition, with extensive physical signs all over the left chest. Serum commenced on admission and continued up to March 26th without effect. Death took place on April 3rd, and *post-mortem* examination showed typical miliary tuberculosis.

CASE VI.—A girl, aged 6, admitted January 6th with a large indurated mass of submaxillary and cervical glands, which, in spite of antituberculous treatment for over eighteen months, had persisted. The general condition was good and the lungs were healthy. Serum was commenced on February 2nd and continued up to March 26th, when she was discharged. During this time the glands, which were about as large as walnuts, hard and adherent, diminished to the size of small almonds, and became simultaneously soft and discrete.

CASE VII.—S. E., a boy, aged 7, was admitted on January 7th with swelling around the ankle and a sinus on the external aspect of the os calcis, which had been discharging for about a month. The sinus was opened up and cleaned on admission, but when serum was commenced on January 28th had not ceased to discharge. Injections were continued up to April 2nd, when, after much coaxing, the sinus cleaned up and healed, and good movement in the joint was obtained. One cannot think that in this case the serum had much curative effect, as with the usual surgical treatment a good result would have been anticipated as soon.

CASE VIII.—S. W., aged 2½ years. Admitted February 27th with swelling in right knee. Skiagram showed definite rarefied patch in the diaphysis of the lower end of the femur, with what appeared to be a sequestrum in it, while the joint capsule was much thickened. Serum injection was commenced on admission, and continued up to April 3rd, when the patient contracted measles and had to be discharged from hospital. Before discharge a skiagram of the bone showed very slight improvement, but clinically there was no change.

CASES IX AND X.—Two girls suffering from tuberculous hip disease, with considerable deformity, and, as shown by skiagrams, considerable destruction of the heads of the femora and acetabular cavities. Serum in each case was given for about two months and a half, but recovery was not more rapid than would have been expected with strict surgical treatment alone.

At the Seamen's Hospital, Greenwich, I continued the treatment of phthisis with Marmorek's serum. Eight cases were treated, all in an advanced stage of disease, and, with the exception of one case, no improvement was noted. In this case the patient was a lad of strong physique, in whom weight and chest measurements rapidly increased, and in whom the fever and average weekly weight of sputum diminished correspondingly.

At the time of discharge, however, the sputum was still muco-purulent, and contained bacilli, and the physical signs had not much altered.

It is claimed for this serum that under its influence tuberculous sinuses of old standing rapidly cease to discharge and heal. But in those cases selected for trial this was not found to be so. It is, however, but fair to state that, besides having these discharging wounds, the three cases were in an advanced stage of pulmonary phthisis, and, although treatment extended over three months, no change took place in the amount of discharge from, in the first case, an ischio-rectal sinus; in the second, an old tuberculous empyema wound; in the third, a submental sinus.

Anaphylaxis was a troublesome feature in the administration of the serum by the hypodermic method, and the rectal method was chiefly employed.

The dose for adults was 5 c.cm. for hypodermic and 10 c.cm. in saline solution to ʒij for rectal injection. The frequent rectal injection was much resented by the patients, and this was a decided objection to the treatment.

I cannot claim on these results the success which some Continental writers have claimed. But, in my opinion, the following conclusions are warranted:

1. There is no danger in administration apart from anaphylaxis, which can be overcome by adopting the rectal method.

2. In certain cases the general improvement is most striking, although physical signs are not altered to a similar extent.

3. The undoubted success obtained in some of the cases justifies further clinical trials.

THE next examination of candidates for the Royal Naval Medical Service will be held in London on April 1st and following days. Fifteen appointments will be offered for competition. Application forms, which must be returned by March 21st, and the regulations for entry can be obtained from the Medical Director-General, Admiralty, S.W.

AS TO THE NATURE OF THE PARASITES OF LEPROSY AND TUBERCULOSIS.

BY

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In a recent communication Dr. Bayon,[1] criticising an opinion expressed by Beauchamp Williams[2] to the effect that "leprosy may be caused by, perhaps, several varieties of a highly pleomorphic streptothrix," remarks that "to suit Williams's view it"—that is to say, the parasite of leprosy—"would have to be an actinomyces also." As a matter of fact the generic terms *Streptothrix* and *Actinomyces*, and *Oospora* and *Nocardia* also, are synonymous. The first of them is used by British pathologists generally, German pathologists appear to prefer usually the second, and the other two are in common use by French pathologists. A fifth generic synonym, *Cladothrix*, has fortunately fallen out of use. Consequently, the terms *Streptothrix* and *Actinomyces* are applicable equally as the generic designation of the parasite of leprosy. For there cannot be any reasonable doubt but that the parasites which Hansen identified in the tissues of lepers and described as *Bacillus leprae*, which Deycke was apparently the first to demonstrate in culture from leprous lesions, which Rost first succeeded in growing freely on artificial media, which Williams subsequently studied in full detail, and which have been isolated during the last year or two by a considerable number of bacteriologists, all belong to one and the same species (*Streptothrix leprae*) of "ray fungus" or streptothrix.

I have seen only stained cover-glass preparations of the acid-fast, and morphologically typical, streptothrix which Deycke obtained from cases of leprosy. But by the courtesy of Beauchamp Williams I have had opportunities of examining three strains of the organism which he has isolated from cases of leprosy occurring in Persia and India, and two strains of an identical organism which had been isolated by Rost.

It is certain that these latter parasites belong to a single species which, under certain conditions of culture on artificial media, presents a number of acid-fast rod forms which are identical with the acid-fast forms recognizable in leprous granulomata. And it is evident, I think, that this parasite is that which Deycke described under the name of *Streptothrix leproides*. Deycke, however, appears to have hesitated at first to accept as the essential parasite of leprosy a micro-organism which, being a streptothrix, did not conform in growth on artificial media with the then accepted morphology of Hansen's *Bacillus leprae*. Kedrowsky[6] also recognized streptothrix forms in cultures of an organism which he isolated from a case of leprosy.

A review of modern literature concerning the parasite of leprosy shows that confusion as to the proper place in botanical classification of the specific infecting organism has been caused partly by the multiplicity of nomenclature already referred to, and partly by failure to connote the varying morphological phases of streptotricheae generally at different stages of their life-cycle. This matter was dealt with fully in the Milroy Lectures for 1910,[7] and need not be referred to again, except very briefly.

The type-form of the genus Streptothrix is represented by the tangled masses of branching mycelium found in pus when suppuration has occurred in cases of streptotrichosis. Similar tufts of branching mycelium, the branching being lateral and not dichotomous, can be demonstrated nearly always in young cultures of streptotricheae in broth. The typically mycelial stage in the growth of the parasite is succeeded successively by stages of "segmentation" and "fragmentation." Rod-shaped, bacilli-like segments become differentiated along the length of the mycelial threads. Degeneration of intervening segments of the mycelium occurs with, or very soon after, the segmentation—so that, when fragmentation follows, the original tuft of branching mycelium is replaced by a confused aggregation of bacillary forms, some of which are long and thread-like, whilst others may appear as short bacillary or spirillar forms. The occurrence meanwhile of "chain sporulation" complicates the morphological picture. In cultures on artificial media aërial hyphae grow out from the surface of the mycelium, and present single chains of spores. When fragmentation occurs the aërial hyphae become separated off from the mycelium, and then present exactly the appearance of streptococci. Later these chains break up, and the spores appear as isolated spherical bodies, or in pairs. It is probable also that endogenous spore formation occurs along the length of some of the isolated rod segments.

In an old culture of a streptothrix, therefore, one finds the following elements: Longer or shorter bacillary forms, some of which may have a spiral or wavy appearance, some of which may resemble diphtheroid bacilli, and some of which may have the stump of a lateral branch still attached; short chains of spores, which resemble exactly streptococci; and paired or isolated spores. All these elements stain deeply by Gram's method; and, except when traces of branching remain—and segments showing this may be very few and far between—the surviving elements of the original mass of mycelium are indistinguishable morphologically, according to their nature, from bacilli and cocci. Under varying accidental circumstances incidental to the examination of cultures on artificial media, the spherical spores of the streptothrix may appear in stained specimens, as though they might be streptococci, diplococci, isolated cocci, or irregularly grouped staphylococci. If a species happens to be one of the acid-fast streptotricheae, a correct morphological interpretation of specimens stained by the Ziehl-Neelsen method is obscured in another way by the fact that in many cases some only of the persistent rod-shaped or bacillary segments have acid-fast properties. Also, with most acid-fast streptotricheae, as with Koch's parasite of tuberculosis, acquisition of acid-fast properties is a matter of age. Some species which have this property develop it early and show it in nearly all of the rod segments, whilst in other species acid fast properties are acquired only after some weeks of growth on artificial media, and then the special property is manifest only in a small minority of the segments. And so it will be found that in specimens from old cultures of a typical acid-fast streptothrix—such as *St. nocardii*, *St. eppingeri*, or *St. leprae*—which have been stained by the Ziehl-Neelsen method, not only have "bacillary" and "coccal" forms to be considered, but the bacillary forms are, apart from casual morphological variation, of two kinds—those which are acid-fast and those which are not so.

Consideration of the varying morphology of the streptotricheae generally, and of the alternative staining characteristics of the rod forms of the acid-fast species in particular, will explain readily enough the error of those critics of Rost's earlier work who suggested that what he had described rightly as pure cultures of the parasite of leprosy were merely contaminated cultures of Hansen's acid-fast "bacillus."

Something may be added generally as to the function of the spores and persistent rod forms which in old cultures succeed the original branching mycelium of the streptothrix. With most of the numerous species which have now been examined in my laboratories, there is no possible doubt as to what happens when the organism is growing under conditions of culture on artificial media. Both the spores and the persistent rod forms of an old culture are capable, on transference to a new soil, of reproducing the branching mycelium which represents the type form of the genus. Under no circumstances of artificial culture has it appeared that rod segments are produced directly from pre-existing rod segments, and without the intervention of a mycelial stage. Equally, the spherical spores invariably sprout out into a new mycelial mass—a process which can be easily watched if an old culture of a quickly-growing species is kept for twenty-four hours in a drop of nutrient broth on a warm stage under the microscope. Also, I have found clear microscopical evidence that the rod segments of a pathogenic streptothrix may develop into a new mass of branching mycelium under the conditions of parasitic life in an animal host. In some of the more slowly-growing species the intervention of the typical mycelial stage before the development of new persistent rod forms may be difficult to demonstrate when an old culture is transplanted in a fresh medium, and especially when the culture medium used is a solid one. But, as I have explained elsewhere, this difficulty arises from the fact

that, growth being very slow on artificial media, segmentation and fragmentation of the mycelial threads follow so closely on increasing growth that it is almost impossible in some species to trace continuously the true morphology of the organism.

In any case, it is certain that the typical streptotricheae present two distinct persistent and reproductive forms—spherical spores produced under conditions of artificial culture in special spore-bearing hyphae, and rod segments. Either of these produces a new mycelium when transplanted in a fresh artificial culture medium; and the rod segments, as well as the spherical spores, are capable of producing similar mycelium in the tissues of an animal host. Further, whilst we have no evidence at present that the persistent rod forms are capable of directly reproducing themselves, as such, in growth on artificial media, there is a possibility that this direct reproduction may occur under strictly parasitic conditions. This possibility is suggested by what is known of the biology of *Sporothrix schenckii*, belonging to a closely allied but somewhat higher genus of mould fungi. Some ten years ago I pointed out[7] that Sporothrix presented two different reproductive forms which may be termed provisionally, and for purposes of distinction, endogenous "spores" and exogenous "spore bodies." The type form of Sporothrix when growing on artificial media is represented by a tangled mass of branching mycelium which resembles generally that of Streptothrix, but which is definitely septate, and of coarser character than the other. As the culture of Sporothrix grows older provision for reproduction is made in two ways. Spherical "spores" appear along the length of, and within, the comparatively coarse mycelial thread; and ovoid, yeast-like "spore bodies" bud out from the sides of the primary mycelial threads and from the extremity of secondary lateral branches. In course of time the mycelium degenerates and, as such, disappears; the only remnant of it is amorphous, Gram-staining débris. The persistent recognizable morphological elements in oldish cultures are the spherical "spores" and the yeast-like "spore bodies." If some of an old culture of Sporothrix is transferred to nutrient broth and afterwards watched on a warm stage under the microscope, it will be seen that each of the two morphologically different persistent elements gives rise to a new mycelium which sprouts out from either form, exactly as the nearly similar mycelium of a streptothrix sprouts out from either the spherical spore or the rod segment.

But whilst I have not hitherto been able to find any evidence as to the direct multiplication of the persistent rod forms of streptotricheae in growth on artificial media, it is otherwise with the persistent forms of Sporothrix. In old cultures of *Sporothrix schenckii* in a nutrient broth medium there are appearances which suggest direct multiplication of the persistent yeast-like bodies. One finds in such a culture large yeast bodies, like to those which in younger cultures are seen sprouting out from the mycelium, in immediate contact with three, four, or more smaller yeast forms. Also, under the conditions of parasitic life, a direct multiplication of the yeast-like bodies, as suggested by Hektoen,[7] appears to be indisputable. If a mouse be inoculated subcutaneously with either a young mycelial culture or with an older culture which contains only spherical and yeast forms, a slowly-extending infective infiltration of the subcutaneous tissue follows. On examination after death it is found that the area of infected granulomatous tissue is thickly crowded with Gram-staining yeast forms; but no trace of mycelium can be found. The appearances are, in short, those of a yeast infection, except that the parasites are present in much larger numbers than one finds usually in an experimental yeast infection. On transplanting these yeast forms of Sporothrix from the animal tissues in an artificial medium, a growth of the typical mycelial form occurs at once with subsequent development of the persistent forms. It should be added that my own experiments were carried out with a culture of *Sporothrix schenckii* with which Hektoen had very kindly supplied me. And a statement made in the paper referred to, that "mycelium apparently does not occur under parastic conditions," applies only to experimental infection of the mouse with the particular species. Pinoy,[8] on the other hand, has described recently natural cases of infection of man by *Sporothrix beurmannii*, in which, whilst yeast forms predominated in the tissues, mycelial forms were found in and around the capillaries of the parts infected.

In view, however, of the evidence as to the reproduction of the persistent yeast forms of Sporothrix by direct multiplication, the possibility of a similar reproduction in parasitic life of the persistent rod segments, or "bacillary" forms, of the streptotricheae has to be considered seriously. And the comparison is the more interesting when we remember that just as reliance on the morphology of one particular phase of development of the parasites of leprosy and tuberculosis as it occurs more conspicuously in the tissues has, unchecked by cultural investigation, been responsible for the inclusion of these diseases amongst the bacillary infections, so a similarly misplaced reliance on the morphological significance of a phase of the life-cycle of the parasite as it occurs in the tissues has caused error in the diagnosis of cases of sporotrichosis. It is obvious from published records that in the past certain cases of infective granulomata occurring in man, which were attributed to "yeast" or "protozoal" infection, were actually cases of sporotrichosis. The persistent yeast forms of Sporothrix in the tissues were mistaken for yeasts, or coccidia, as the case happened. It was not until Schenck succeeded in obtaining the parasite in culture, and until Hektoen added to our knowledge of it, that a correct determination of the nature of sporotrichoses was possible. Similarly Calvin, Frothingham, and Paige[9] have quite recently proved, by the isolation of *Sporothrix schenckii* from the infected tissues, the true nature of epizootic lymphangitis of horses, a disease which had been regarded at one time as a protozoal infection, at another time as a yeast infection.

The rod segments of streptotricheae generally representing persistent forms which are capable of reproducing the mycelial form of the parasite, and possibly also capable of direct multiplication as rod forms, the particular significance of the specially staining rod segments of the acid-fast species has to be considered next. The acid-fast properties are associated with the presence in the organism of special fatty bodies (neutral fats, fatty acids, and lipoids) whose biochemical relations have been studied especially by Much and his pupils. Much has shown that the fatty bodies are specific generally for the acid-fast group of organisms, and are capable of producing specific antibodies in the serum of infected animals. Thus the nastin obtained from the parasite of leprosy is capable of causing a powerful reaction when injected into patients with either leprosy or tuberculosis; and the similar nastin obtained from the parasite of tuberculosis will cause a reaction with patients having either infection. Much and Kössli have shown by a series of complement-fixation tests that other, and non-pathogenic, acid-fast organisms—a "smegma" bacillus and the "blind worm" bacillus—are capable of reacting as antigens with the serums of tuberculous patients. Wills[11] has shown, by an extended series of complement-fixation experiments, that the serums of leprous and tuberculous patients, and of lower animals which have immunized artificially against the respective parasites, contain antibodies which are specific for either organism, and also for the two non-pathogenic species, with differences which are merely quantitative. An excellent summary of the work done in the direction indicated by Much and those associated with him is given in Wills's paper, and affords strong additional evidence as to the close relationship between the parasites of leprosy and tuberculosis and certain other reputed bacilli of the acid-fast kind, whose relationship with the streptotricheae has been suspected for many years.

But whilst the acquirement of acid-fast properties is associated with the presence of certain specific fatty bodies which are apparently common to all the acid-fast group, it must be remembered that the possession of these properties is, in a sense, an accidental characteristic, and one which certainly depends to some extent on external circumstances. Experience with organisms such as *St. nocardii*, *St. eppingeri*, *St. caprae* and *St. leprae*, shows that the acquirement of acid-fast properties during growth on artificial media is a matter of much uncertainty. Sometimes a culture will show acid-fast segments within a week, or less, of the commencement of growth; in other cultures none will be found for three or four weeks. The general rule is that the older a

particular culture is the more conspicuous are the acid-fast forms.

In the case of *St. leprae* it would appear that the conditions of parasitic life specially favour the acquirement of acid-fast properties; under saprophytic conditions of growth the rod segments tend to remain non-acid-fast. With Koch's parasite of tuberculosis acid-fast properties are acquired quickly during saprophytic growth; it is only in very young cultures that the non-acid-fast forms described by Klein and others can be demonstrated.

What evidence is available on the point suggests that the acid-fast forms of Streptothrix may represent not only persistent but also specially resistant elements. The spherical spores of the streptotricheae are generally distinctly less resistant against injurious physical and chemical influences than are the spores of fission fungi; and it may be that a second resistant element—the acid-fast rod form—has come into existence. Thus, Marino[7] found that the acid-fast forms of the parasite of tuberculosis preserved their vitality for a considerable time in the intestinal canal of the leech, resisting the action of the digestive juices for as long as fifteen months. At the end of that time there was marked attenuation of virulence; but still inoculation of the parasites into the guinea-pig was followed in some cases by a very slow infection which resulted in death. There is also evidence of a probably similar kind with regard to the parasite of leprosy. It has been suggested that growth of this organism on artificial media is favoured in symbiosis with intestinal amoebae, and Beauchamp Williams[10] has recorded his own experiments bearing on this question. With certain strains of his streptothrix the acid-fast forms appeared to die out in the course of successive subcultures. Then subcultures which appeared to consist of non-acid-fast diphtheroid rod segments were mixed with amoebae. At the end of forty-eight hours the amoebae were found to be full of acid-fast rod segments. But an explanation other than that which supposes favourable symbiotic influences may be suggested. There is evidence that bacteria form a part of the natural food of the intestinal amoebae, and of *Amoeba dysenteriae* in particular. And under the circumstances it would seem most likely that the amoebae digest and assimilate the non-acid-fast segments of the streptothrix, and that in the struggle for prolonged existence other, more resistant, acid-fast forms survive, as Marino's experiments have shown to be the case with the acid-fast form of the parasite of tuberculosis which is resistant against the digestive ferments of the leech.

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AT a recent meeting of the Society of Tropical Medicine and Hygiene Dr. Stannus read a paper on pellagra in Nyasaland, in which he brought forward strong evidence of the existence of the disease in that region: and Dr. Sandwith described the work done in different States of America on the same disease. In a discussion that followed Drs. Sambon and Chalmers related the observations already described in the JOURNAL (December 16th, 1911, p. 1613), made during the tour in pellagra-infected parts of Italy, Roumania, Hungary, the Tyrol, France, and Spain. Dr. Sambon believes that flies (*Simulium*) play a part in the spread of the disease, and the epidemiological features encountered during the tour just mentioned lead Dr. Chalmers to take the same view. The trend of opinion seems to be to some such idea, but an enormous amount of work must still be done to prove this. Already, however, it seems proved that maize is not the operative cause of the disease, and this of itself constitutes a very important step forwards in the etiology of pellagra.

A CASE OF ACTINOMYCOSIS OF THE LUNG.*

BY FRANK NICHOLSON, M.D.LOND.,
SENIOR PHYSICIAN, HULL ROYAL INFIRMARY.

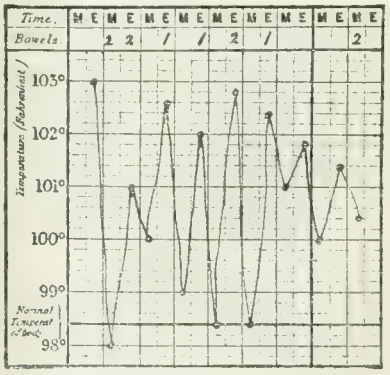
A YOUNG farm labourer from Holderness, aged 19, was admitted into the Hull Infirmary under my care on September 22nd, 1911, and died on September 30th. He gave an indefinite history, but for a year he had apparently had a cough and expectoration with night sweats and dyspnœa, the sputum being generally thick, yellow, and offensive. In April last he had had pleurisy, he said.

The family history was unimportant. Both parents are living and well, and he had four sisters and three brothers who are all well but not very robust. His own previous history was one of good health, and he had lived in the country doing farm work since he left school.

Before admission he had had little medical treatment, but for the preceding fortnight he had been under the care of Dr. Simpson of Skirlaugh, who kindly wrote to me. During this fortnight Dr. Simpson tells me the temperature was at first 102°, with pain in the knees and ankles, but subsequently did not exceed 99.4°, whilst throughout there was a good deal of cough night and morning and a considerable quantity of offensive expectoration.

On admission into hospital on September 22nd the cough was very troublesome and the sputum very profuse, fetid, and purulent. Temperature, 102°; pulse, 102; respirations, 28. At the right base posteriorly there was dullness up to the angle of the scapula, with diminished fremitus, feeble breath sounds, a few râles, and vocal resonance altered but little. The physical signs at the apex and in front, as also those over the left lung, back and front, were natural. The urine had a specific gravity of 1030, and contained no albumen, sugar, or other abnormal ingredients. The examination of the abdomen was negative. An exploring needle was inserted over the right base behind in three places, but with negative results.

During the next few days there was nothing to report, except that he seemed weaker and vomited once, on September 25th. No tubercle bacilli were found in the sputum.



Phthisis seemed excluded, as there were no tubercle bacilli in the sputum, which was very free and purulent, and an ordinary empyema was negatived, as vibrations, though diminished, were still present at the right base, and an exploring syringe drew nothing. My opinion was that he had an abscess of the lung or a localized empyema between the lobes.

As he was getting worse and a fatal termination seemed certain, a needle was again inserted in two places over the right base, but drew no pus. I asked my surgical colleague to excise one or two ribs, and attempt to evacuate the abscess. One inch of the ninth rib was accordingly excised. The lung was found solid, and there was a little pus in the right pleura. The patient unfortunately collapsed, and died on the table.

At the *post-mortem* examination the lower lobe of the right lung was consolidated, and on section presented the appearance of grey hepatization with multiple small abscess cavities scattered throughout—they were none of them larger than a large pea. As the appearance suggested actinomycosis, I had sections prepared which showed numerous small abscess cavities surrounded by dense leucocytic infiltration and bronchopneumonic consolidation, while in some of the cavities were masses of Gram-staining streptothrix having the character of the ray fungus.

Actinomycosis affected the lung in about 15 per cent. of the recorded cases, but it is quite possible it is a much more common disease than is generally believed, a certain number being looked upon as non-tuberculous phthisis.

In the *Journal of the American Medical Association* for November 4th, 1911, Dr. Bridge of Los Angeles gives details of 17 cases. In some of these there was a mixed infection, tubercle bacilli being found in the sputum, and in most of them the sputum was noted as being very fetid.

Unless the little grains of actinomyces be found in the expectoration—they have a dirty grey and yellowish appearance, looking very like the roe of the herring—or

* Read at the meeting of the East York Division.

the growth invades the chest wall and appears in the skin as a nodular irregular mass which breaks down. I think the diagnosis must be very difficult, but it is worth thinking of when the sputum is purulent and there are no tubercle bacilli, whilst there is no evidence of an empyema.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

THE VALUE OF ANCHORED DRESSINGS IN SURGERY.

I AM much interested in Mr. Lynn Thomas's article in the issue of the BRITISH MEDICAL JOURNAL of February 3rd, under the above heading, in which he describes as a new feature a roll of gauze fixed to a wound by deep sutures.

I have been in the habit of using an exactly similar dressing to that he describes in nearly all my operation cases for more than six years. It first occurred to me to make use of a dressing fixed to the wound by sutures in cases in which there was difficulty in maintaining the ordinary dressings by means of bandages in accurate apposition to the wound, especially after operations in the submaxillary or cervical areas. By including a thick roll of gauze in a few deep sutures of salmon-gut, I found that I was able to keep my incisions accurately covered and that the dressings applied outside it did not tend to become displaced. Following this, I made use of the dressing in abdominal cases, when I found that there was no tendency for the external dressings or bandage to slip up upon the abdomen. From that time I have used it almost invariably after all abdominal operations, for inguinal and lumbar incisions, after cervical, and frequently after breast operations. In actual practice I use a firm roll of sterilized gauze about three inches longer than the incision it is desired to cover, passing my sutures through the skin and superficial fascia, and where possible picking up in the depth of the wound some of the deeper layers, the sutures at each end of the wound being placed a short distance from the actual end of the incision. The cutaneous margins are then sewn up with a continuous thread suture, covered by the roll of gauze and the salmon-gut sutures tied over it.

In many cases I made use of no other dressing for the wound outside this, but I found, especially in abdominal cases, that patients preferred the support and the feeling of reliance given by a firm bandage, so that now I cover the gauze with wool and bandage it on. This form of dressing is particularly useful in cases in which there is much adipose tissue, as it almost entirely prevents any oozing taking place between the superficial planes of the wound. If it is desirable, as in renal operations, to make use of a drainage tube, I bring the latter through an opening in the gauze, taking care to place a suture over the latter on each side of the tube.

The dressing is certainly most comfortable to the patient, who does not feel any drag upon the wound on any movement; there is no fear of the wound becoming uncovered by slipping of the bandage, and usually, when it is removed on the sixth or seventh day, it is hardly soiled, and not adherent to the incision. My successive house-surgeons in charge of my cases have been unanimously in favour of it.

I do not claim any priority of discovery of this form of dressing; probably it was used by others before I thought of it some six years ago, in the same way that it has recently occurred to Mr. Lynn Thomas.

London, W. R. H. JOCELYN SWAN, M.S., F.R.C.S.

THE INTRAMUSCULAR INJECTION OF SALVARSAN.

IN September, 1911, a young gentleman, aged 28 years, came into my surgery armed with a note from a well-known consulting surgeon, advising that the bearer should be salivated forthwith, with the object of diagnosing between cancer or syphilis. The patient had been for some time suffering from an ulcerated tongue, with a profuse and foul-smelling discharge, and as he thought his local medical man's treatment was not benefiting him he consulted a specialist and brought his letter to me. I did not quite like the idea of salivation, and from his history and a certain hesitation in his manner when answering my question, I believed him to be the victim of syphilis, and I suggested the intramuscular injection of salvarsan, and with his consent, and also the full consent of his father, I injected the salvarsan into both glutei. He bore it well, had not a bad symptom, and his temperature never went higher than 100°. In less than a week after injection all discharge had ceased, and the bad taste had also gone (he used a liberal quantity of formamint). The tongue then commenced to heal rapidly, and on the nineteenth day after the injection it was perfectly healed, and had completely regained its normal condition, and my patient since then has enjoyed most excellent health.

I think this case is very markedly in favour of the intramuscular injection of salvarsan in syphilis, and I cannot help thinking that the danger is more in the intravenous injection than in the intramuscular, but we shall know more by-and-by, when we are able to watch whether the benefits received will be permanent. I have injected a gentleman suffering from advanced locomotor ataxia: although not by any means cured, he is well satisfied, and says he has been greatly benefited by the injection.

Eccles. ANDREW SPEARING.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

MACCLESFIELD INFIRMARY.

A CASE OF APPENDIX ABSCESS IN AN UMBILICAL HERNIA.

(By C. AVERILL, M.D., B.S.Durh., Honorary Surgeon to the Institution.)

THE patient in the following case, an adult and married woman, was admitted to the infirmary on July 3rd, with a history to the effect that on June 30th pain had commenced in an umbilical hernia of which she was the subject, coming on in spasms and lasting about an hour. On the following day she had vomited everything she took, and this had continued until admission; meantime the bowels had not been moved.

State on Admission.—The patient appeared very ill, her face very cyanosed, pulse 124, temperature 99.8°, and respirations 28. The hernia, measuring about six inches in diameter, was red and inflamed, with patches of ulceration on the skin. A hard lump could be felt in it, otherwise it was soft, and there was an impulse on coughing. The abdomen moved with respiration, and there was no pain on palpation.

Operation.—An operation was performed the same day. A vertical incision having been made over the sac to the left of the umbilicus, the former was opened, and it was found to contain gut and omentum adherent to the sac wall. On separating the adhesions a second sac was found to the right; this contained small intestine, the caecum, and the appendix, all very inflamed and matted together. On separating these adhesions an abscess containing about four drachms of foul-smelling pus was found, situated at the neck of the sac just outside the abdominal cavity, the walls being formed partly of sac and partly of intestine. The pus was carefully mopped up with dry gauze, and the abscess cavity wiped out with solution of hydrarg. biniodid. The appendix and some of the redundant omentum were removed, the adhesions separated, and the bowel returned to the abdomen; a rubber drainage tube was then inserted, extending down to the pelvis, and the wound closed. An injection of pituitary extract was given at the end of the operation. Rectal salines were ordered every two hours, and an injection of eserin gr. $\frac{1}{100}$ every eight hours.

Result.—The patient improved up to July 8th, when there was a rise of temperature and pulse-rate. On the 10th there was considerable discharge of pus from the upper part of the wound above the tube. She again improved until the 16th, when there was another rise of temperature. On the 19th, an area of redness was seen on the left side of the wound, from which a considerable amount of pus was evacuated. From this time onwards convalescence continued without further signs of pocketing, and in a few weeks the patient was discharged quite well.

Reports of Societies.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF PATHOLOGY.

Friday, January 12th, 1912.

T. G. MOORHEAD, M.D., President, in the Chair.

Generalized Tuberculosis with Unusual Features.

DR. W. D. O'KELLY exhibited specimens from a case of general tuberculosis with some unusual features.

The patient, M. K., aged 11, was admitted to the Mater Misericordiae Hospital under the care of Dr. M. Dempsey. The condition was regarded as tuberculous meningitis. Lumbar puncture gave a moderately clear fluid, which did not flow as if under great pressure. That fluid was examined for tubercle bacilli with a negative result. Culturally no organism could be found. There were a large number of polymorphonuclears present in this cerebro-spinal fluid, and, as it was sterile, the case was reported as probably tuberculous in origin. Von Pirquet's reaction was positive.

The following were notes of the autopsy: The body was that of a slender girl. A slight macular rash was present on the lower end of the abdomen.

Cranial Cavity.—There was a moderate amount of clear fluid at the base of the skull. The pial vessels were congested. The pia arachnoid was somewhat opaque all over, but especially at the base of the brain. A turbid fluid was present in the interpeduncular space. On the surface of the brain and on the pia miliary tubercles were not very common, except between the olfactory bulbs. On the convexity of the left cerebral hemisphere, and posteriorly, was seen a fibrino-purulent exudate, and on cutting into the brain at this point a crop of miliary tubercles could be seen in the walls of a sulcus, whilst outside this was an apparently older tuberculous focus, about the size of a bean. The spinal cord was not examined.

Thorax.—The pleural and pericardial sacs contained little fluid, and no fibrinous exudate was seen. The lungs were somewhat emphysematous, and the base of the right lung was in a state of hypostatic congestion—almost of infarction at one spot. On the surface and cut section of both lungs many small pearly-grey, semi-translucent tubercles were situated. The bronchial glands were small, and no distinct evidence of tuberculosis could be seen in them with the naked eye.

The heart showed slight patency of the foramen ovale. The mitral valve had three pieces of clot adherent to it, but Dr. O'Kelly did not regard them as vegetations.

Abdomen.—Little or no fluid was present in the peritoneal sac. The mesenteric glands were scarcely enlarged, except in one place. The lower end of the oesophagus showed ulcers rather like tuberculous ulcers of the intestine. The stomach contained some mucus and a little altered blood. The Peyer's patches were enlarged and hyperaemic, and this condition became more and more marked as the caecum was approached. Many of them showed tubercles, or larger caseous areas in their depth, which could be seen from both sides of the bowel. At one spot, rather high up in the ileum, a crop of tubercles was seen extending all round the serous coat of the bowel. They then passed along, if not into, the mesenteric vessels leading to a few enlarged, caseous mesenteric glands. Nowhere else were tubercles seen on the peritoneum, nor were caseous glands encountered except in this situation. This portion of the gut, with its mesentery attached, was removed entire, and the lumen was left intact for some time. As no ulcers were found in the rest of the small intestine an incision was made into this loop later on, and here an ulcer could be seen. The view, however, was not good, as the tissues tended to tear when any effort at flattening out this portion of gut was made. The reason of this was probably fibrosis in the neighbourhood of the ulcer. The liver and spleen showed numerous miliary tubercles on their surfaces and in cut sections. Those on the surface of the spleen were the largest seen. The kidneys showed a few miliary tubercles. The other tissues and organs were either not examined or appeared healthy.

Microscopically there could be no question as to the tuberculous nature of the process. Sections from the lungs, spleen, and liver were stained for tubercle bacilli, but none were seen. Histologically these organs showed the typical appearances of tuberculous lesions. It was, perhaps, open to question whether the ulceration at the lower end of the oesophagus was tuberculous, or whether it might not be due to *post-mortem* digestion. The section shown left no doubt as to the *ante-mortem* origin of these ulcers, and, although not showing typical giant cells, yet there were numerous lymphoid cells present and some endothelioid cells, with abortive attempts at giant cells in places. Nearer to the surface many polymorphonuclears were to be seen—evidence, no doubt, of mixed infection.

The question arose as to the mode of infection and also as to the way in which the generalization took place. Infection by the respiratory tract was negatived by the absence of anything but a miliary tuberculosis in the lungs. The infection took place by the digestive tract. There was a chronic focus in the ileum showing an ulcer and with the glands draining its lymphatics caseous. In the brain there was a subacute focus with miliary tubercles around it. All through the ileum there were evidences of acute tuberculosis, and also the same condition of things in the other viscera. The patient, in Dr. O'Kelly's opinion, was taking milk infected with tubercle bacilli. An ulcer started in the intestine, and the neighbouring glands became affected. How long this condition lasted could not be said; but suddenly an inrush of tubercle bacilli occurred, the Peyer's patches were all infected, the ulcerated area allowed the entrance of many bacilli. They caused tubercles to form on the peritoneum and along the vessels of the gut, and, almost certainly, the generalization took place by the escape of some tuberculous matter into these mesenteric vessels. One other point—Why did the ulcers occur in the oesophagus? Infection of the intestinal tract was usually due to the swallowing of infected material. Now, in the oesophagus the food was passed along rapidly, and little time was given for infection. Possibly there was some antecedent lesion, such as an abrasion caused by the passage of a bone, or a patch of necrosis resulting from the swallowing of some very hot particle of food. In some such circumstances infection might take place, but ulcers of the oesophagus appeared to be very rare, excluding, of course, the malignant variety. The textbooks made no reference to the condition. Dr. O'Kelly added that he was unable to demonstrate tubercle bacilli in the affected tissues. Numbers of sections were stained by the Ziehl-Neelsen method, especially those from the lungs, spleen, and liver, with a negative result. Even the antiformin method was unsuccessful. He still had hopes, however, of tracing the dairy from which this girl became infected.

DR. MOORHEAD said he thought von Pirquet's reaction of very little use. He was inclined to doubt that the ulcers were of a tuberculous nature. In a similar case he had found the thoracic duct covered with tubercles, and he would like to know if the duct had been examined. It was, he thought, generally recognized that the zone at the gastro-intestinal end of the oesophagus was more likely to become ulcerated than any other part.

DR. CROFTON inquired if any tubercle bacilli had been found in the cerebro-spinal fluid. He thought it rather exceptional for von Pirquet's reaction to be found positive in a case of generalized tuberculosis.

DR. STOKES asked if the focus in the brain produced any sensory symptoms. Its position immediately behind the Rolandic fissure suggested the question.

DR. O'FARRELL inquired if any culture had been made from the brain, having regard to the polymorphonuclears found in the cerebro-spinal fluid. He did not think the ulcer in the oesophagus was due primarily to the swallowing of a piece of hot food, nor to the scratch of a small bone. He asked as to the possibility of diaphragmatic pleurisy having given rise to the tuberculous infection.

DR. BOXWELL mentioned that in a similar case of acute generalized tuberculosis in a child he had found a small circular erosion near the cardiac end of the stomach. Knowing the extreme rarity of tuberculous ulcers of the stomach, he had looked upon it as due to *post-mortem* digestion.

DR. L. G. GUNN said that ulceration occurred more frequently at the lower end of the oesophagus, although that end of the tube had a rich blood supply. He thought a greater number of the ulcers occurring in the stomach were tuberculous than was generally supposed.

DR. O'KELLY, in reply, said he had not much experience of von Pirquet's reaction, but his view was that a negative reaction meant that the patient was free from tuberculosis, and a positive reaction that the person had or had had tuberculosis at some time. With regard to the polymorphonuclears in the cerebro-spinal fluid, he quoted Emery's statement that when such cerebro-spinal fluid was found to be sterile one would be justified in diagnosticating tuberculosis. Of course, lymphocytes were more frequently present. He did not discover any tubercle bacilli; this he attributed to the case being very acute. Except in one case, where the oesophagus was digested, he had not previously seen erosions at the lower end. The thoracic duct had not been examined, nor was a culture made from the brain. The focus in the brain was well behind the Rolandic area. In any case the patient was comatose on admission.

Addison's Disease.

Dr. W. D. O'Kelly exhibited the suprarenal gland from a case of Addison's disease. He showed one kidney with suprarenal attached. Both suprarenals were affected. An unusual feature of the case appeared to be the downward dislocation of the suprarenal.

Dr. Harvey gave a short clinical history of a case with an account of the morbid anatomy of the disease.

F. P., a dressmaker by trade, was admitted to the Adelaide Hospital, under Dr. Bewley, on May 22nd, 1911, complaining of weakness and vomiting. She had been very robust. In 1897 her foot had been amputated for tuberculous trouble. Subsequently she began to suffer from pain along her spine, which continued without intermissions until February, 1911, when she became noticeably weak. The weakness increased for a couple of months, when the following symptoms supervened: Insomnia, loss of appetite, with palpitation and breathlessness on the slightest exertion; constant pain in the stomach, uninfluenced by food; frequent attacks of vomiting, usually in the morning, and often followed by fainting; general languor, mental and bodily, and failure of memory.

On admission she appeared excessively weak. She was moderately well nourished, nor was there apparent anaemia. She lay sunken down in the bed, answered questions drowsily without turning her face or eyes towards her interrogator. The skin of the face and hands, and more especially that of the axillae and nipples, was darkly pigmented. Reflexes normal; slight nystagmus. Temperature irregular, generally subnormal, but rising to about 100°. Pulse weak, tension low, rather rapid (100 per minute). A trace of albumen sometimes present. There was general tenderness over the abdomen. She gradually sank, and died on June 16th, 1911. At the *post-mortem* examination very little abnormal could be made out by the naked eye, save completely caseous suprarenals, the darkly pigmented skin, and a markedly flabby heart. On microscopic examination the suprarenals were entirely caseous, none of their normal structure being discernible. The skin showed dense masses of pigment, mostly situated in the deep layer of the rete Malpighii. The heart muscle showed an extreme degree of "fragmentation." In addition to this, a miliary tuberculosis was present in the lungs and liver, and tubercles were also present in the ovary.

It would seem that this miliary tuberculosis, which had every appearance of being recent, must have come on shortly before the patient's death. The suprarenals, on the other hand, must have been tuberculous for some considerable time, and the history of the case would suggest their infection before the foot was amputated in 1897.

Dr. Boxwell related the following case: The patient, a woman aged about 36, came under Dr. Lennon's care suffering from supposed carcinoma of the stomach. There was extreme cardiac and general muscular weakness and continuous vomiting. The thoracic viscera were normal. *Post-mortem* examination showed nothing wrong in the stomach, nor was there at first sight any abnormality in the abdomen. It was then thought that the case was probably one of Addison's disease. The right suprarenal, though somewhat tougher than usual to the touch, was apparently normal. The other suprarenal was found lying completely separated from the kidney at the bottom of an encysted collection of thin, grey, odourless pus. On a further examination of the patient at this point some black spots like freckles were noticed, but no typical pigmentation. Addison's disease being known to arise without pigmentation, and from disease of one gland alone, this case was considered as such. Microscopic section did not show much the matter with the suprarenal. A section was shown under the microscope

Dr. O'Kelly thought that the absence of caseation in this case of Addison's disease suggested the idea that the gland, although apparently attached, was functionally diseased. He inquired why it was that in typically tuberculous cases the disease was always bilateral, and how it was that the suprarenals alone became caseous. In the case shown by him there was no evidence of tuberculosis except in the suprarenals.

Dr. Gunn remarked that it was extraordinary what bad prognosis had to be given in cases of tuberculous disease of the bones of the foot. He had seen a number of cases necessitating amputation, and in few of them were the patients' lives saved. He was inclined to look on all cases of bone tuberculosis very seriously from the point of view of cure.

Dr. Parsons said that Dr. Boxwell's case reminded him of a patient he had in Baggot Street Hospital with persistent vomiting, which it was found impossible to stop, and she died after a week. *Post-mortem* examination showed both suprarenal glands to be tuberculous. He never suspected Addison's disease, there being no pigmentation. Acute cases, he thought, died without pigmentation.

Mr. Pearson referred to the more frequent occurrence of Pott's caries in the upper lumbar region, which was thought to be due to the intimate relation of the thoracic duct with that region.

Professor Scott thought that the section from Dr. Boxwell's case was quite normal, while that from Dr. Harvey's case showed no suprarenal tissue at all. He had often wondered whether tuberculosis was really the primary disease in the suprarenal. He was inclined to the view that the first thing was an unhealthy condition of the suprarenal, which allowed the tubercle bacilli to get a footing there at a later date.

Dr. Moorhead inquired if any work had recently been done on the chromatin system. He mentioned that some time ago he had a case under observation in which all the symptoms of Addison's disease were present, but on *post-mortem* examination the suprarenals were found to be normal.

Dr. Harvey, in reply, said with regard to Dr. O'Kelly's comment about the suprarenals being bilaterally affected, he thought Professor Scott's suggestion alone threw any light on the question. He recollected the case of a patient who had undergone a gynaecological operation afterwards suffering from weakness, and stimulants appeared to have no effect on the pulse. *Post-mortem* examination showed complete caseation of the suprarenal glands, but there was no other focus of tuberculosis that could be seen, nor was there any trace of pigmentation. He agreed with Dr. Gunn that in cases of amputation for tuberculosis of the bones of the foot death almost invariably followed.

Carcinoma of Cardiac End of Stomach.

Dr. Boxwell showed a specimen taken from an old man, who had complained of pain in the stomach and vomiting at intervals for two months. From the history given and from the physical examination pyloric obstruction was suspected. Two attempts were made to wash out the stomach after a test meal, but on both occasions the fluid returned immediately, and was found to have a neutral reaction. As an attempt to introduce the stomach tube beyond the standard mark also failed, this line of investigation was immediately abandoned. It was obvious the stricture, if such were present, was cardiac, not pyloric. Further questions elicited the fact that, while liquid or pulpy food could be swallowed readily, solid food regurgitated after a few minutes almost unchanged. The patient declared he was much relieved by the treatment. Three days after he was suddenly seized with an attack of syncope but recovered in about ten minutes. A slight trace of blood was now for the first time noticed in the stools. He had two further attacks that night, in the second of which he died. The *post-mortem* examination revealed a ring-like cancer almost completely closing the oesophageal opening. Below the diaphragm the growth had eaten into the left lobe of the liver, and death had been due to the erosion of a large branch of the hepatic artery, causing the last fatal haemorrhage. The adhesion between the stomach wall and the under surface of the liver was of the feeblest, and any forcible attempt to pass the tube would certainly have ruptured this attachment. The stomach and bowel were filled with blood. A large secondary deposit on the anterior border of the liver had been partly responsible for the diagnosis "pyloric cancer."

Cancer of Bladder.

Dr. Gunn gave particulars of a typical warty carcinoma of the bladder occurring in a patient from whom a villous growth had been removed some years before, and at the time reported "innocent." Both ureters were widely dilated and thickened, and both kidneys pyonephrotic.

Perforation of the Bladder.

Dr. Gunn said the patient from whom the specimen was taken had been thought to be suffering from enlarged prostate. He was moribund on admission, and the *post-mortem* examination proved death to be due to general septic peritonitis. In the bladder were found three calculi, one in each of two lateral pockets, giving the organ the shape, and to the touch the sensation, of a large prostate gland. The third calculus had caused a perforating ulcer of the fundus, and consequent peritonitis.

Section of State Medicine.

Friday, January 19th, 1912.

Dr. T. P. C. Kirkpatrick in the Chair.

The Proposed Sterilization of the Mentally Unfit.

Dr. M. J. Nolan read a paper on this subject, in which he advanced the calculation that this line of treatment, when confined to cases of reproductive age, only amounted to some 7 per cent. of the asylum population on any given date. He invited the attention of his hearers to the probable bad effect of these operations on the mental condition of these recoverable cases, and also the probable evil effect on the healthy husband or wife of such recovered cases. He dwelt on the fact that the lines of mental inheritance followed no very definite lines, and that the sterilization of the unfit of one generation was no guarantee for the degree of fitness in the next. He pointed out that this aspect of the question became more involved when the observations made recently at the Epileptic Village Colony at Skelman, U.S.A., were taken into account. There it was noted that the mating of persons nervously unstable with those mentally deficient produced 50 per cent. of normal offspring, so that such paradoxical results would tend to reinforce the sound stocks, and that as the natural law was the survival of the fittest, Nature always kept the degenerates in the minority. In conclusion, he held that sterilization was a premature proposal, and that much could be done by legislation touching education, syphilis, drink, marriage of defective, and pathological research in mental disease, to accomplish the reduction in the number of the insane so much to be desired by all.

Causation of Insanity in Ireland.

Dr. R. R. Leeper stated that in the course of his experience he found that in cases of insanity which did not recover, and in which recovery was not complete, a hereditary taint was nearly always present. In Ireland the most potent cause in the production of insanity was the unreformed Poor Law system. None of the recommendations by the Royal Commission upon the Feeble-minded could be carried out without Poor Law reform. The workhouses of Ireland continued to receive a number of defective and feeble-minded women, who gave birth there to numbers of illegitimate children who were defective; thus a steady stream of degenerates was yearly poured into the general population. The married habitual pauper's children were reared in workhouse atmospheres, and developed into criminals or degenerates of one kind or another. People entered into marriages without due consideration of the matter from an eugenical standpoint. They were suffering to-day, and their posterity would suffer from the neglect of Poor Law reform, as without due recognition, and obviously preventive measures, the insane population of Ireland would increase.

Dr. Dawson said that some of the arguments brought forward by Dr. Nolan could be used against any preventive system whatsoever, and therefore proved more than was intended. He concurred with Dr. Leeper's remarks as to the necessity for Poor Law reform, on the ground (if for no other reason) that the number of mentally defective was so very marked a feature of the workhouse population. In connexion with the Royal Commission on the Feeble-minded, he had had occasion to examine all the children in the workhouse schools as well as other schools in the City of Dublin, and he found that the proportion of mental degenerates in the former was 7 per cent., whereas the average of all the schools was only 1½ per cent., which proved statistically what Dr. Leeper had arrived at by general observation. Referring to an investigation recently carried out in one of the London County Asylums, with the object of finding the number of children who had been begotten after the first attack of insanity, he stated that it was found that in the majority of cases the children had been born before the disease developed, and therefore in such cases sterilization would, of course, have been of no use. This point would have to be taken into account if sterilization was to be legalized. Still, it had been shown conclusively, by an unintentional experiment, that segregation had the power of stamping out mental defect, for in the valley of Aosta, where cretinism was formerly rife, the foundation of an institution for cretins had within forty years succeeded in banishing this form of mental disease. Either sterilization or segregation was necessary, because such measures as physical and mental training and subsequent care, though necessary and desirable for the individual, at best could only prevent the development of mental defect in himself, and could not obviate the transmission of such actual or potential defect to his posterity. Of these two measures, of course, sterilization was the cheapest, and regarding it he did not think that vasectomy would produce the unfavourable results described by the President, whatever might be the case with castration. On the other hand, the only difficulty which stood in the way of segregation was the financial, and this difficulty would in time be wiped out by the decrease in the numbers of the mentally unfit.

Dr. Cox pointed out, with regard to the question of sterilization, that it was not heard of now for the first time in this country, for in the old pre-Norman days it was carried out in Ireland to ensure the non-succession of certain chieftains. The point raised by Dr. Leeper regarding Poor Law legislation was one of more importance. All classes in Ireland revolted against its introduction, and he thought it a hardship that a tribe of vagrants worse than gipsies should, through this system, be inflicted on the country. If it were decided to prevent the propagation of the unfit it was possible the race might miss some great men owing to sterilization having antedated their natality.

Dr. Nesbitt thought all scientists were agreed as to the relation of heredity to insanity, and, following Mendel's theory, there could be little doubt in the matter. This could be stopped by either sterilization or segregation. If they were convinced that heredity was of importance in this matter they should follow their views to the logical conclusion.

Dr. Maurice Hayes remarked that there was one method of sterilization which he had not heard referred to—namely, *x* rays. It was not a permanent sterility, and there was no impairment of the enjoyment of the normal function. *X*-ray exposure caused sterility by the destruction of the spermatozoon. In the case of the female *x* rays had a similar effect on the ovaries. This treatment was not open to the same objections as others.

Drs. Seymour Stritch and Solomons also spoke.

Dr. T. P. C. Kirkpatrick said it seemed hardly possible to proceed to severe measures so long as the principles of eugenics were neglected by the people as well as by the legislatures.

Dr. Leeper, in reply, said there was a good deal in what the President had stated in his paper, but he (Dr. Leeper) could not follow him the whole way. He had not the slightest doubt that sterilization would eventually be established. The saving in England, if sterilization were carried out, would be about twenty million pounds per annum, and this was an argument which would appeal to the people more than Mendelian laws. As to how the degenerates were to be got at, there would, he said, be a board of lawyers and doctors set up to deal with the cases. He had no doubt that if a reform of the Poor Law was effected an enormous decrease in the mentally unfit would take place. It would, he thought, be hard to decide as between segregation and sterilization.

ROYAL SOCIETY OF MEDICINE.

Section for the Study of Disease in Children.

Friday, January 26th, 1912.

Dr. Sutherland, President, in the Chair.

Muscle Transplantation for Talipes Valgus.

Mr. Douglas Drew showed a case illustrating the late result of muscle transplantation for the relief of talipes valgus. The peroneus brevis had been transplanted to the tibialis posticus by passing it across, beneath the tendo Achillis, and over the other tendons at the inner side of the ankle. The operation had been most successful in remedying the valgus, but a slight degree of varus had supervened. Reference was made to other cases in which a similar result had been obtained.

Haemophilia.

Dr. Theodore Thompson showed two brothers with haemophilia:

(1) Aged 10 years, a poorly nourished boy. Symptoms since infancy. Bruising on very slight trauma. Bleeds for one hour

if he scratches his hand. Sometimes slight bleeding from the mouth. For several years has had attacks of pain and swelling in the knees. Coagulation time five minutes. (2) Aged 5 years. Stout and well nourished. Extensive bruising of the skin and deeper structures occurs on very slight injury. The only family history of bleeding is on the mother's side.

Cerebellar Tumour.

Dr. ERIC PRITCHARD and Mr. SYDNEY STEPHENSON showed a case. Five years ago the patient received a blow on the head. Three years ago he vomited for no apparent cause, and since then he had been subject to intermittent attacks of headache, vertigo, and sickness, which were preceded by optic prodromata, which usually took the form of fortification spectra with a brilliant range of colours. There was slight inco-ordination in walking, and Romberg's sign was present. The pupils responded to light, both directly and indirectly. There was hippus, especially in the left eye. When the eyes looked straight at an object—as, for example, the ophthalmoscopic mirror—they jerked slightly up and down. There were also jerking movements on looking inwards, outwards, and upwards. There was double papilloedema without inflammatory signs of retinitis.

Deformity of Chest.

Dr. R. C. JEWESBURY showed a case. The patient was a girl, aged 12 years. The mother first noticed "something wrong" with the shoulder ten months ago. The child had a severe fall down fifteen stairs when 3½ years old, and was considerably hurt at the time. The upper part of the right side of the chest was much flattened, the first and second ribs were sunken; bony thickening was felt on these ribs below the clavicle. The pectoral muscles on the right side looked wasted, but there was no loss of power. The radiogram showed a bony outgrowth from the first rib, projecting downwards, and articulating with a similar growth from the second rib. Cervical ribs, well developed on the right side, were present.

Hemiplegia.

Dr. R. C. JEWESBURY showed three cases of hemiplegia:

(1) Boy, aged 4 years, full-time child, prolonged labour, no instruments. Child has been weak down the right side from birth; fits, chiefly affecting the right side, from birth, causing twitching, with loss of consciousness. There is marked atrophy of the right side of the face, weakness of the right face, right arm and leg, hand and foot cold, shortening of the right leg. (2) Girl, aged 7 years, weakness down left side, noticed when 7 months old. Fits of epileptic type affecting right side first noticed five months ago. Left arm and leg much wasted, marked loss of power; shortening of both arm and leg. (3) Boy, aged 4 years. Loss of use in right hand and arm noticed about one month. Squint first noticed six months ago. Marked loss of power in right hand and arm, the arm is usually held straight downwards and is kept stiff. He walks with the feet wide apart, and keeps the right leg stiff. Weakness in right leg. Elbow-jerk and knee-jerk increased if obtained when muscular spasm is relaxed. Backward boy, and speech difficult to understand.

Congenital Pulmonary Stenosis without Cyanosis.

Dr. PARKES WEBER showed a case in a boy 6 years of age. The heart was somewhat in excess of the normal size, and over the precordium was heard a harsh systolic murmur, with its maximum intensity over the pulmonary area, to the left of the sternum.

Lymphatism.

Dr. EDMUND CAUTLEY showed a case. The patient was a boy aged 6½ years. He was tall for his age. There was an area of dullness over the manubrium sterni extending more to the left than the right, some general enlargement of the lymphatic glands and spleen, adenoids, and hyperplasia of the circumvallate papillae; the heart beat was slow, the pupils large, the complexion pale, the skin thin, with an excess of subcutaneous fat.

Shortening of Femur.

Mr. LOCKHART MUMMERY showed a case in a boy aged 7½ years. The presentation was a breech, and at 2 weeks of age something wrong was noticed with the left leg. For two years he had worn a high boot, and there did not appear to be any increase in the shortening in that time. The left leg was 1½ in. shorter than the right, and this was practically entirely in the femur. The angle of the neck of the femur was slightly reduced on the left side. It was considered that the shortening might be due to an injury to the upper femoral epiphysis at birth.

Tuberculous Tumour of Dura Mater.

Dr. EDMUND CAUTLEY showed a specimen from a child aged 14 months.

Radical Cure of Inguinal Hernia in Children.

Mr. PHILIP TURNER read a paper, the object of which was to bring forward a modification of the usual operation for this condition. By the method the least possible damage was inflicted upon the walls of the inguinal canal, and the sac was efficiently removed. The operation which Mr. Turner performed was as follows: The external oblique aponeurosis was exposed by a short incision above Poupart's ligament, external to the external abdominal ring. A short ½ in. incision was made through the aponeurosis just above the middle of Poupart's ligament; the internal oblique was retracted, and the cord, covered by the cremaster, exposed just below the internal abdominal ring. By blunt dissection the cord and sac were drawn through the small incision in the external oblique; the sac was readily isolated and ligatured at the internal ring and removed, the small incision in the external oblique aponeurosis being closed with a few catgut sutures.

BALNEOLOGICAL AND CLIMATOLOGICAL SECTION.

Thursday, January 25th, 1912.

Dr. G. H. THOMPSON (Buxton), President, in the Chair.

Bubonic Plague.

DR. F. M. SANDWITH read a paper on this subject (illustrated by the epidiascope), which was discussed by the PRESIDENT, Dr. SOLLY (Harrogate), Dr. ABRAHAM, Dr. CLIPPINGDALE, Mr. MIDELTON (Bournemouth), and Dr. LIEVEN (Aix-la-Chapelle). Dr. ABRAHAM remarked that the important rôle that the lower animals played in the spread of disease was one of the most notable advances in knowledge in recent times, and he believed that the number of diseases so spread would be recognized to be greater in the near future. He instanced leprosy, the bacillus of which would probably be found to be identical with the acid-fast bacillus discovered by Mr. Dean some few years ago in rats. Dr. Bayon was now working on this subject, and his observations so far tended to prove the truth of this view. Dr. CLIPPINGDALE, referring to the matter mentioned by the President, the outbreak of plague at Eyam in 1665, said he had visited the place, and was interested to learn that the vicar had not only placed a cordon round the affected area, but outside that cordon had placed a tank of water into which money was placed to pay the people who brought food for the cloistered, plague-stricken inhabitants, thus showing on the part of the reverend gentleman a commendable knowledge of the requirements of sanitation. Mr. W. J. MIDELTON (Bournemouth) said he thought he had heard Dr. Sandwith say that pus organisms killed off plague bacilli in the buboes. If so, did not that raise the question that pus organisms might be beneficial under certain circumstances? Dr. LIEVEN (Aix-la-Chapelle) mentioned how important was the study of zoology for employment in practical bacteriology, as, for instance, the *Bacillus typho-murium* (mouse typhoid) discovered by Loeffler, which attacked only certain specimens of mice, and it was luckily that species most commonly found to which it had a predilection. The PRESIDENT and Dr. SOLLY (Harrogate) also took part in the discussion.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

AT a special meeting held on January 19th, Mr. H. LITTLEWOOD, President, in the chair, Dr. BASHFORD, Director of the Imperial Cancer Research, gave an address on *Some aspects of the cancer problem*. There was a clinical demonstration of cases of malignant disease which had remained free from recurrence for seven years or longer after operation. Dr. A. HAWKYARD showed a patient in whom the right half of the tongue, with glands, had been removed by Mr. Lawford Knaggs over 9 years ago. Mr. H. H. GREENWOOD showed a case of duct cancer of the breast, successfully operated upon in 1897; and a second case of scirrhous cancer operated on in 1899. In both

cases Halstead's operation was performed. Dr. A. Christy Wilson showed: (1) A patient who was operated upon by Mr. Pridgin Teale in 1881 for carcinoma of the breast; and (2) a man from whom he had removed a sarcoma of the upper jaw in 1898, the growth being the size of a Tangerine orange, and was small celled. The whole of the left upper jaw, including the orbital plate, left tonsil, pillars of the fauces, etc., was removed. The President gave a demonstration of patients he had operated on for malignant disease during the years 1896 to 1905. The number was 190. These were written to by Mr. Willans, Mr. Littlewood's house-surgeon. Only 69 replies were received. Of these, 23 patients were alive and well; 6 cases lived more than seven years, and died without any recurrence; 23 died within two years from recurrence; and 17 others died from recurrence at longer intervals. Out of 190 cases, therefore, 29 were known to have lived seven years after the operation without any recurrence—that is, about 15 per cent. The cases shown were: Sarcoma of clavicle (1); sarcoma of testis (2); sarcoma of upper jaw (3); sarcoma of breast (1); carcinoma of breast (5); carcinoma of colon (5); carcinoma in other parts (6).

Reviews.

A STUDY OF "PSYCHICAL RESEARCH."

Although Dr. Ivor Tuckett's book, which is the subject of this review, is entitled *The Evidence for the Supernatural*,[1] and deals with more topics than that of psychical research, about two-fifths of its contents are devoted to so-called "occultism," including especially what is commonly known as "spiritualism," "telepathy," etc. To this most weighty and interesting part of the work our remarks will be directed. We may say at once that a book of this kind was much needed, and that Dr. Tuckett has supplied the need in a strikingly effective and successful manner. He attacks his chaotic material, including the elusive human subjects who form so large and important a part of it, with singular clearness of method and remarkable freedom from prejudice; and he has well achieved his object "not to give way to any form of bias except that which arises from fear of being misled by inadequate or unreliable data."

That this book supplies a pressing want at the present time is evident from the positive assumptions made by many prominent members of the Psychical Research Society, and others who believe in "Spiritualism," or "Telepathy," that the facts upon which these doctrines purport to be based are undeniably established, however opinions may differ as to their interpretation. It is, moreover, notable that, since the death of Huxley, whose teaching and writings so powerfully led the minds of men in the way of sound thinking, there has been no great public exponent of scientific method on whom this prophet's mantle has fallen. It is a fashion to contrast the scientific spirit of the nineteenth with the philosophy of the twentieth century; and many seem to follow wandering fires in several departments of thought.

In this matter of "Psychical Research," which is not seldom confused in the public mind with "Psychology," there is to be observed an increasing tendency to appeal to the authority of men versed in certain branches of scientific knowledge in support both of the alleged facts of "spiritualism" and "telepathy," and of hypotheses put forward to explain them. For example, Sir Oliver Lodge, who, since the death of the best-known founders of the Psychical Research Society, is to be regarded as one of the chief supporters of modern "Occultism" in this country, believes, in common with many other persons, that "thought transference" is conclusively proved. So also does Sir W. F. Barrett, as is shown in his recent book on *Psychical Research*.

Following such leaders are many people who are desirous of some kind of confirmation of their own beliefs, and therefore confide gladly in the expressed convictions of men who hold prominent positions in the scientific world. Yet we learn now for the first time from Dr. Tuckett that the gentleman who last year announced more than once in the *Times* an offer of £1,000 to any one giving satisfactory proofs of "thought transference" had addressed this offer to three of the "leading authorities on telepathy" for satisfactory proof of even one recent case. On p. 306 of Dr. Tuckett's book are given the three replies, quoted from a statement by the gentleman who received them. The first was from "one of our leading scientists who has often declared his belief in telepathy." It expressed his surprise at any one "imagining that incontrovertible evidence could be obtained at all in an inductive problem." Now, should, perchance, Sir Oliver Lodge or any other prominent believer in "thought transference" be the author of this reply, how greatly different his esoteric doctrine must be from the exoteric pronouncements which render these leaders such valuable authorities to the mass of believers in "occultism" in general!

It is worthy of note in this context that a critical and highly interesting leading article on "Thought Transference," occasioned by the above mentioned challenge, appeared in the *Times* on August 25th last year, but failed to elicit any correspondence from those who publicly assert that "thought transference" is an established fact.

The main evidence which is relied on for the proof of "thought transference" or of "spiritualism" in its modern garb, is contained (*a*) in the Reports of the Psychical Research Society, in which the now notorious Smith-Blackburne experiments, and, much later, experiments with Smith alone as hypnotist, figure very largely; (*b*) in the book entitled *Phantasms of the Living*, by the late F. W. Myers, E. Gurney, and F. Podmore, and in other papers published by the Society for Psychical Research; and (*c*) on still more recent experiments, among which the records of various persons alleged to possess the power of automatic writing are regarded as of prime importance, ranking as high or even higher as trustworthy evidence of the "occult" than the so-called "trance" records of the famous Mrs. Piper. It is chiefly this multiform material to which Dr. Tuckett directs his eminently fair and able criticisms. We believe that, with the exception of Professor Newcomb's article in the *Nineteenth Century and After* for January, 1909, which was occasioned by the republication in book form of certain articles that had previously appeared in the *Westminster Gazette*, no serious or detailed consideration of the allegations of the Psychical Research Society or of any kindred statements, has been attempted for many years, with the exception of some occasional newspaper correspondence. For reasons of space we cannot attempt to give a consecutive summary of Dr. Tuckett's arguments. This book must be read almost in its entirety, including the valuable appendices, in order that the reader may fully appreciate the points established by the author. But a few of these may be referred to as illuminative.

On p. 396 Mr. F. Podmore, writing in 1902, twenty years after the origin of the Society of Psychical Research, of which he was a founder, is quoted as saying with regard to "thought transference": "Possibly, apart from two recent items—namely, the telepathic experiments at Brighton conducted by Professor and Mrs. Sidgwick and the results of Mrs. Piper's trance-utterances—the question of the reality of such a faculty would hardly seem worth discussion." But on p. 127, and in Appendices J, R, and Q, Dr. Tuckett shows of how little scientific value the telepathic experiments were, and in Appendix Q he has completely undermined the "occult" hypothesis of Mrs. Piper's powers.

Again, by drawing attention to certain criticisms of the book entitled *Phantasms of the Living*, which were published by Mr. Taylor-Innes in the *Nineteenth Century* (vol. xxii, p. 189, and vol. xxx, p. 764), Dr. Tuckett has, it seems to us, deprived of any possible weight the reply of Sir Oliver Lodge, in the *Nineteenth Century* for February, 1909, to Professor Newcomb's article on "Modern Occultism" to which reference has been made above.

The absence of bias which marks this work is brought out prominently by contrasting it with the recent book by Sir W. F. Barrett on *Psychical Research*, in which no mention is made of the critical work and writings of Mr. F. Podmore, who was well known as one of the most prominent members and founders of the Society for Psychical Research. And in connexion with this

[1] *The Evidence for the Supernatural: A Critical Study made with "Uncommon Sense."* By Ivor Ll. Tuckett, M.A., M.D.Cantab. Formerly Fellow of Trinity College, Cambridge, and Senior Demonstrator of Physiology in Cambridge University. London: Kegan Paul, Trench, Trübner, and Co., Limited. 1911. (Med. 8vo, pp. 399; 7s. 6d. net.)

question of bias, and the tendency on the part of believers in the occult to shelve unwelcome evidence, we would draw attention to pp. 354–5 of the book under review, where two quotations from the writings of the late F. W. Myers give evidence of the spirit which marked that writer's attitude towards the subject, and also that of the Society of Psychical Research itself at the outset. In the one Myers says that when, disillusioned with orthodox Christianity, he found hope for his longing for immortality in the phenomena of Spiritualism, he resolved to spend all life's energies in beating against the walls of the prison-house in case a panel anywhere might yield. In the other, Myers states that the Society of Psychical Research was founded with the establishment of thought transference as its primary aim. This clearly shows a motive other than scientific in the minds of at least some of the founders of the Society of Psychical Research. In this context we would refer especially to an account communicated to the *Westminster Gazette* for January 29th, 1908, by Sir James Crichton-Browne, F.R.S., of a meeting of the Society of Psychical Research in its early days, at which he had been invited to be present as an independent critic. After the *séance* was over, the critic expressed his belief that the phenomena observed were the result of trickery, basing his opinion partly on direct observation and partly on the cessation of the phenomena after adequate tests had been applied. "Then," says Sir James Crichton-Browne, "I vividly recollect Mr. Myers standing in front of the fire and saying, 'It must be allowed that the demonstration has been a failure, and I attribute that to the offensive incredulity of Dr. Crichton-Browne.'"

The real kernel of interest in the subject matter of this book, especially to medical men and to others who approach it in a scientific spirit, consists in the psychological characteristics of the women and men who are the agents of the "phenomena" produced, as well as of those who believe in the genuineness of such phenomena, and propagate the doctrines of spiritualism or telepathy. It is not "thought transference" so much as the persons to whom "entrancement" and "automatism" are attributed, and those who believe in their powers, who are the proper study of scientific men. Paid "mediums" of all kinds, who have been so frequently exposed in actual fraud, and are confessedly detectible in proportion to the stringency of allowed tests, may be neglected altogether. Of those who take no material reward, some undoubtedly deceive for the sake of personal notoriety, a motive far greater and more widely spread than most non-medical persons not directly conversant with "spiritualistic" inquiries would readily admit. But, on the other hand, it is fair to remember that some people are deeply convinced of the existence of occult powers or influences in manifestations of this kind, and in their earnest longing to explain this belief, and to enforce it upon others, do a little evil in order that greater good may come. These, perhaps, should not be harshly judged. The contrast between them and the single-minded and detached truth-seeker illustrates the eternal antagonism between the scientific mind and the mind to which only burning desire and vivid imaginings give ground for firm belief. But we would here say, in passing, that it is hard to conceive that any "spiritual" communication which, up to date, has been alleged to occur through the agency of "trance mediums" or "automatic writers," could possibly either confirm, disturb, or destroy the faith of any genuine believer in Christianity or some other religions.

It seems desirable to combat the methods and conclusions of the advocates of telepathy and spiritualism, both in the cause of scientific truth *per se* and on account of the intellectual, moral, and material harm which may and does result from these particular beliefs. It is not necessary, nor will space allow us, to dilate upon the second of these reasons, especially to medical readers. But the first, perhaps, requires some explication. Much loose thinking about the evidence for these phenomena seems to prevail among some persons who have much knowledge of certain branches of science, and confidently appeal to scientific method in support of their plea for the further extension of "psychical research." Thus, in a book entitled *The Recent Development of Psychical Research*, by Mr. W. C. D. Whetham, F.R.S., the author, after giving an excellent description of the various steps of the process by which "Laws of Nature" are established and from time to time modified by new knowledge, goes on to say that "nothing must be ruled out of court because contrary to received views. Where a *primâ facie* case has been made out everything must be examined" (by the methods already described). But he then proceeds to give, among some illustrations of the possible results of such investigations, the question of "*direct thought transference* as one which seems to be coming within the range of scientific inquiry," and states that "it is possible that an advance has already been made towards clearing away part of the mystery that surrounds these phenomena" (*sic*). This illustration may deceive the unwary, for the writer apparently ignores the fact that most scientific men who have paid any attention to this subject deny that any *primâ facie* case has been made out for the search for any cause, at present unknown, in explanation of these so-called "phenomena."

Again, in the admirable and scientific work by M. Solomon Reinach, entitled *Orpheus, or a General History of Religions*, there is a reference to "telepathy, etc." which may be quoted here. After dealing with the subject critically and concluding that so-called "mediums" are charlatans who have recourse to subtle methods of fraud, he proceeds to say that "the facts of telepathy are not yet scientifically established, but that, after all, *they do not seem any more extraordinary than the experiments of wireless telegraphy*"! The *ignoratio elenchi* displayed in the first of these quotations, and the failure shown in the second to perceive that the facts of wireless telegraphy are not *in pari materiâ* or comparable with the alleged facts of telepathy, are sufficient to point the statement that there is among certain men of science much confusion of thought regarding the subject under discussion.

Touching the pitfalls incidental to "psychical research" and the qualifications necessary to those who undertake such inquiries with the sole object to see "whether these things are so," Dr. Tuckett insists on a thorough training and practice in the use of scientific method; some knowledge of conjuring and sleight of hand, experience in modern experimental psychology, etc. But he seems to lay hardly sufficient stress on the necessity for a keen eye for deception, even in quarters and circumstances where it may be least expected; and above all, on a practical knowledge of the vagaries of human conduct. Such qualifications as these last are to be found at their highest in medical men who are imbued with the scientific spirit. Among the several men of undoubted eminence in various branches of scientific work who have been known, and are constantly quoted, as believers in so-called "occult" phenomena, it is to be remarked with emphasis that biologists, physiologists, and medical psychologists are far to seek; while physicists and mathematicians are not rare. Entry into the life-school gives the key to unlock many cabinets in the human mind, and thus supplies important aids to the due assessment of the value of human evidence.

We cordially recommend the careful study of Dr. Tuckett's book to all who, from any point of view, may be interested in this subject. The appearance of the work is especially welcome now, in view of the recent publication of the above-mentioned book by Sir W. F. Barrett, Professor of Experimental Physics in the College of Science for Ireland. This book, in its wholesale championship of so-called "psychical research," is practically, with all its numberless assumptions, a negative assault on scientific method generally.

SURGERY OF THE THORAX.

The surgery of the thorax does not appear to have kept pace with the surgery of other regions. This observation will be readily borne out by those to whom the efficient surgical treatment of chronic empyema wounds of lung, pulmonary abscess, and bronchiectasis has been for long a depressing business. The extremely limited application of surgical methods to pulmonary tuberculosis in comparison with the great advances in surgical treatment, both conservative and operative, of tuberculosis in other situations must be regarded as in some degree an aspersion on our vaunted progress. Exploratory laparotomy is now undertaken with as much lightheartedness as a conscientious surgeon can undertake any operation. But exploratory thoracotomy—and by that is meant opening the chest cavity so as to admit the whole hand if need be—is undertaken still, if ever, with considerable

diffidence and some apprehension. Professor SAUERBRUCH and his assistant Dr. SCHUMACHER, in their work on the *Technik der Thoraxchirurgie*,[2] maintain that the whole outlook on this branch of surgery is altered by the introduction of apparatus obviating the risks of artificially produced pneumothorax. Their book is the outcome of eight years' personal observation and work in thoracic surgery. It is divided, naturally, into two parts, general and special. In the former, such general matters as the preparation of the patient, his position on the operation table, the general operative technique, and, most important of all, the question of intrathoracic pressure—negative and positive—are discussed. Apparatus designed to obviate the risks of pneumothorax are of two kinds—positive pressure apparatus and negative pressure apparatus. Three varieties of positive pressure apparatus are described in this book—those invented by Engelken, Brauer, and Tiegel respectively. The collapse of the lung which follows the opening of the pleural cavity and the admission into it of atmospheric air, with its accompanying dangers of "flapping" of the mediastinum, displacement of heart and great vessels, and impeded movement of the sound lung, is prevented by forcing air at pressure higher than that of the atmosphere into the air passages. Brauer's apparatus envelopes the head and neck of the patient and the hands of the anaesthetist in an air-tight chamber, into which air is pumped at pressure higher than that of the atmosphere. Tiegel's apparatus fits closely over the mouth of the patient, and it has various tubes attached to the electrically driven pump. Professor Sauerbruch has objections to these forms of apparatus, and prefers negative pressure apparatus. This consists of a chamber, the air pressure in which is kept lower than atmospheric pressure by means of a suction pump. Within it are the operator, his assistant, and all of the patient except his head. The collapsed lung is forced outwards against the thorax wall owing to the negative pressure within the chamber, combined by the atmospheric pressure from without through the natural air passages. All these apparatus are fully illustrated and described in the text.

It will be seen, therefore, that elimination of the paramount danger of pneumothorax by such apparatus as Sauerbruch's negative pressure chamber permits many hitherto inoperable conditions to be brought within the scope of surgery. The author points out the danger of "tension-pneumothorax" where the air cannot escape into the subcutaneous cellular tissue, but more is being pumped into the pleural cavity from a wound of the lung or of a bronchus, and says that in all such cases thoracotomy by intercostal incision without removal of rib and suture of the wound in the lung is indicated. Similarly tumours of ribs and breast can be radically dealt with even at the expense of large portions of the chest wall. Transpleural laparotomy is the type of operation rendered very much safer by the employment of the negative pressure apparatus. During last winter the author had two cases of injury successfully dealt with by this route: in one a revolver bullet wound of the liver was reached through the diaphragm, in the other ruptured lung was sutured, and then a ruptured spleen removed through the diaphragm.

Excellent, if not elaborately detailed, descriptions of other operations are given. Freund's operation of removal of a small portion of the cartilage of the first rib in certain cases of apical tuberculosis, and the same surgeon's operation of chondrotomy with insertion of a fasciculus of the pectoralis major between the cut portions of the cartilage for emphysema with rigid chest are described. The methods of exposure of the heart for wounds, and the operation for transpleural and perdiaphragmatic removal of the cardiac end of the stomach are described. The description of Trendelenburg's operation for pulmonary embolism is in that author's own words.

The illustrations are by Dr. Schumacher, and are, it is naïvely suggested, the more valuable from the fact that they were mostly drawn immediately after the operation was over. They are more than helpful—they are an integral part of the book.

It will be seen, therefore, that this is a good book, well and clearly written (the German, we are glad to be able to say, is comparatively easy), by one who is a pioneer in this region of surgery. The ripe personal experiences of such a distinguished surgeon as Professor Sauerbruch will be gladly welcomed by English readers.

[2] *Technik der Thoraxchirurgie.* Von Dr. F. Sauerbruch, O. O. Professor, Direktor der Chirurg. Universitäts Klinik, Zurich, und Dr. E. D. Schumacher, Privat-dozent, I. Assistent an der Chirurg., Universitäts Klinik, Zurich. Berlin: Julius Springer. 1911. (Med. 4to, pp. 105, mit 55 textfiguren und 18 mehrfarbigen Tafeln. M.24.)

DISEASES OF THE STOMACH.

THE handbook on the surgical significance of stomach radiology, written by Dr. PAUL CLAIRMONT and Dr. MARTIN HAUDEK,[3] gives an interesting account of 35 cases of stomach disease examined by *x* rays, the notes being illustrated in many cases by figures. The authors claim that if the employment of radiology in the examination of the stomach were more systematic and regular there would be fewer failures, fewer exploratory operations, and fewer operations performed too late to be of service. No pathological change was found in the stomach in any of the cases where, in spite of a negative radiological result, an operation was undertaken on clinical grounds. In many cases in which the old methods had given grounds for suspicion, radiology indicated precisely the seat, nature, and extent of the lesion, and thereby greatly contributed to the success of the operation. In several cases a useless operation was prevented by the demonstration of inoperable cancer, while in others where an exploratory incision would have been made the operation became a laparotomy based on definite indications. In only one case out of the whole series was the condition misinterpreted; in this the appearances rendered the existence of a pyloric ulcer probable, but the operation showed only thickening, for which a gastro-enterostomy was performed. In no single case did a radiological diagnosis of cancer prove to be unfounded. If no definite opinion could be expressed at the first examination, its repetition a few weeks afterwards permitted a decisive opinion to be given. The fear that valuable time may be lost by this method of examination has not been supported by their experience. So far as the early diagnosis of callous ulcer is concerned there are distinct advantages in radiology, as by it this obstinate lesion may be demonstrated before it has given rise to extensive changes. On the other hand, they can point to no instance in which it can be said that it has helped in the early diagnosis of carcinoma, although in no instance was cancer overlooked. This, they think, was probably due to the fact that the cases were not submitted for examination when the patient first began to complain of pain, and recommend that in all cases where the presence of pain and the age of the patient suggest the possibility of cancer, radiology should be tried without waiting for other clinical symptoms. They submit that the method is only in its infancy, and that much may be hoped from its further development. The authors may be congratulated upon their book, which should be read by all interested in stomach surgery.

The book entitled, *Diseases of the Stomach and Upper Alimentary Tract*, hardly fulfils the aim of its author, Dr. ANTHONY BASSLER,[4] which was to supply a "handy work for the busy general practitioner of medicine," as it weighs about 5 lb. and contains over 800 pages. About half of his space, however, is devoted to non-clinical matter, set out at great length, about 200 pages being devoted to methods of examination. It would be more practically useful if authors would tell their readers what methods they personally practise instead of taking up so much space by details of methods, many of which are untried or unnecessary. The author seems well acquainted with recent German literature, upon which his book is based. It shows throughout want of care in proof reading, as there are many ugly mistakes, "gastrides," "dilation," "Dietel" for Dietl; a plexiметer is described as if it were a hammer (p. 99); "mammelomé," "melancholily," "enderoptosie," "Curchinaum" for Curchmann; honorary does not mean honourable (p. 658). On pp. 695–6 there are a number of prescriptions which are curiously written, many of the drugs are not put in the genitive, and we have such forms as "liquor ferri albuminata," "zincum valerianata," "tinctura valerianata." The book is illustrated by some

[3] *Die Bedeutung der Magenradiologie für die Chirurgie.* Von Privat-dozent Dr. Paul Clairmont und Dr. Martin Haudek. Jena: Gustav Fischer. 1911. (Roy. 8vo, pp. 95; Abbl. 8. M.2.80.)

[4] *Diseases of the Stomach and Upper Alimentary Tract.* By Anthony Bassler, M.D. Philadelphia: F. A. Davis Co. London: Stanley Phillips. 1910. (Roy. 8vo, pp. 854; figs. 108. 25s. net.)

very excellent photographs of pathological specimens, but there are a great many useless figures of various appliances.

INTERNAL MEDICINE AND ORTHOPAEDICS.

In the preface to his book which he and his assistant, Dr. SAXL, have written,[5] Dr. LORENZ brings forward cogent reasons why physicians should know more than they do of the uses and resources of orthopaedic surgery. The instances which he quotes are striking enough, particularly one of a tabetic who told his physician that he found himself much more comfortable when he kept his hands in the cross-pockets of his riding breeches. As the patient found no relief from putting his hands in the side pockets of his trousers, his relief was attributed to auto-suggestion. The rapid development of an arthropathy of the vetrebral column, however, explained the relief afforded by the support given by the first-mentioned attitude. Dr. Lorenz justly urges that an orthopaedist accustomed to treat spondylitis would have recognized the condition and much earlier treatment would have been given, to the advantage of the patient.

The work is divided into sections on diseases of the respiratory, circulatory, digestive, urinary, and nervous systems, and of the organs of movement. All are adequately dealt with. The effects of the deformities of the spine upon the functions of the lungs are well shown. In this connexion the consequences of ankylosis of the sterno-clavicular articulation of the first rib with shortening of the cartilage are worthy of note. It is claimed that the consequent stenosis of the upper opening of the thorax causes or favours the development of phthisis, and for this condition operations have been performed by Freund and others. Spinal curvature following empyema and its treatment is well described. It is remarkable how little the heart may be affected by the interference of even the severest grade of scoliosis. A case is recorded of such a kind, in which at the age of 86 no ill effects on the heart could be found.

It is in the treatment of diseases of the nervous system that orthopaedics and internal medicine touch one another most. In many kinds of palsy orthopaedic appliances are helpful, and it is to be regretted that very many medical men appear to be unaware of this undoubted fact. Although some of the most distinguished physicians in this country discourage the use of instruments in cases of anterior poliomyelitis, it is a fact that by the discriminating prescription of these aids not a few adults and adolescents have regained their long-lost powers of locomotion. Even in incurable and progressive nervous disease the onset of helplessness may often be much deferred by the use of appliances. Professor Lorenz and Dr. Saxl by no means confine themselves to instrumental therapeutics. The latest operative measures are described or mentioned in this book, and the advice given is generally prudent and sound. We would, however, put in a word of caution against the expectation of great results from tendon and muscle transplantation. The book is suggestive, and likely to be of considerable use to those who read German.

PHYSICAL THERAPEUTICS.

THE formulary of physical therapeutic agents,[6] by Drs. LARAT, DURAND-FARDEL, DAGRON, and DUBOIS, is a useful little book which explains the application of electricity, mineral waters, light (including sunlight and the Finsen light), massage, and gymnastics, and, in an alphabetical index of diseases, describes the application of these different agents. It is noteworthy that the mineral waters of French stations only are described, while the authors omit to mention the useful means which are now so largely employed for producing stasis and for the local application of hot air devised by Professor Bier. The chapter on electricity is brief, but includes *x* rays and radium. The book is prefaced by a eulogistic introduction by the late Professor G. DIEULAFOY.

We are not sure that we can give an adequate account of Dr. B. BARCZEWSKI's handbook and textbook of "my reflex massage,"[7] which he claims to be "a new practical method for the diagnosis, treatment, and prophylaxis of diseases." He says that he learnt his method by experience in his own person. After a fall on his arm he suffered from pain in his shoulder, which increased and prevented sleep, and was rather made worse than better by a hot bath and ordinary massage. He therefore stopped massage, but still could not sleep; this led him to go over his shoulder with his fingers in order to see what was the matter, and in thus searching for the affected part he discovered that the greatest pain was over the acromio-clavicular joint, and on making pressure at this point the pain lessened; when the pressure was relaxed the pain was relieved and he got some sleep. He repeated this operation several times during the night and the following days, and applied his discovery to other patients, of whom he had a good many, as he had to some extent specialized in the treatment of accidents. He claims to have treated successfully in this manner a number of cases, chiefly neuralgias, gouty rheumatic troubles, and various functional conditions, and so far as we understand his theory he believes that the seat of pain points to a deposit of which his procedure causes the absorption. He attaches little importance, however, to his explanation, and is ready to accept any plausible theory, but he has no doubt of the facts, and offers to demonstrate his results at any medical meeting. His method, he says, differs from ordinary massage in being applicable to a much wider range of disease, and also by possessing incomparably greater curative effect in a much shorter time. He has used it largely, not only in dealing with accidents, but in his practice at Wiesbaden, where he says he has gradually developed a speciality with constantly increasing results for the treatment of the most varied conditions, especially chronic cases which had undergone, without benefit, all possible treatment. He gives a number of cases, but we can only refer our readers to the book itself if they wish to know more about Dr. Barczewski's system.

[5] *Die Orthopädie in der Inneren Medizin.* Von Regierungsrat Professor Dr. A. Lorenz, vorstand des K.K. Universitätsambulatoriums für orthopaedische Chirurgie in Wien, und Dr. Alfred Saxl (Assistent am K.K. Universitätsambulatorium für orthopädische Chirurgie in Wien. Supplemente zu H. Nothnagel, spezielle Pathologie und Therapie. Herausgegeben von Professor Dr. L. von Frankl-Hochwart. Wien und Leipzig: Alfred Hölder. 1911. (Double sup. roy 16mo, pp. 156.)

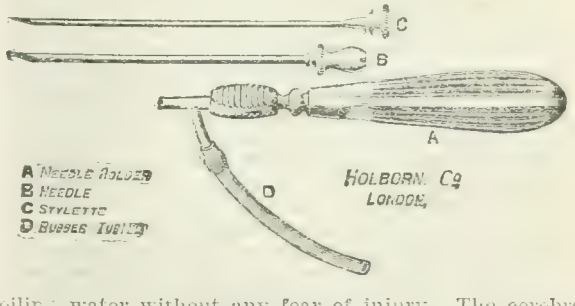
[6] *Formulaire des agents physiques.* Par J. Larat, Ray, Durand-Fardel, G. Dagron, Dubois. Préface de G. Dieulafoy. Paris: Octave Doin et fils. 1912. (Cr. 8vo, pp. 460 12 figs. Fr.6.)

[7] *Hand und Lehrbuch meiner Reflexmassage.* Von Dr. B. Barczewski. Berlin-Schoeneberg: J. Goldschmidt. 1911. (Roy. 8vo, pp. 154; Tabelles v. M.3.50.)

MEDICAL AND SURGICAL APPLIANCES.

Lumbar Puncture.

THE annexed illustration depicts an apparatus devised by Mr. H. WANSEY BAYLY, Clinical Pathologist to the Royal National Hospital for the Paralysed and Epileptic, in order to secure greater control of the work of performing lumbar puncture than is possible when a syringe is used. In respect of it he writes: My apparatus can be plunged straight away into boiling water and taken out of the



boiling water without any fear of injury. The cerebro-spinal fluid is conducted through the rubber tube into a sterile test tube, and thus there is no fear of contamination. If, after the puncture has been made, the fluid does not flow into the test tube, the holder is removed and the stilette passed down the needle. I find, however, that it is only very occasionally that the stilette has to be used. The apparatus was made for me by the Holborn Surgical Instrument Company.

CUMBERLAND INFIRMARY.

IN the JOURNAL of November 4th, 1911, we gave a report of the ceremony at the opening of the King Edward VII Memorial Wing, and as this marks the completion of the scheme of reconstruction and enlargement which has been in progress during the last three or four years, it will probably be of interest to show what has actually been accomplished. The need of this great work being undertaken has long been pressed on the governors both by the committee and the medical staff, and probably the greatest factor in securing the success of the scheme is the fact that the scheme finally adopted obtained the unanimous approval of all the three above-named bodies interested in the welfare of the institution.

The Infirmary is situated on high ground on the west side of the city, and is surrounded by a park of seven acres. The original building is on the corridor principle, and was opened in 1841 with 40 beds. The total cost (including the price of the site) was £8,350, and its first physician, Dr. Thomas Barnes, one of the earliest members of the British Medical Association, was mainly instrumental in raising this sum. In 1873 the number of beds was increased to 100, and a new out-patient department was erected, the total cost of these improvements being £13,800. In 1894 a nurses' wing was added above the out-patient department, and accommodation provided for 22 nurses. In 1899 a new operating theatre was erected. For some time past it has been felt that an extension was urgently needed, the number of patients frequently exceeding the bed accommodation, and in 1907 a scheme was formulated. It is interesting to note that the moving spirit in originating and carrying out this scheme has been Dr. Henry Barnes, a nephew of the founder. The scheme as carried out has provided a new wing containing a new male surgical ward with 12 beds on the ground floor, and a children's ward with 24 cots on the first floor. The wing has, with the sanction of His Majesty King George V, been named "The King Edward VII Memorial Wing," and a large part of its cost has been provided out of the Cumberland King Edward VII Memorial Fund. A new nurses' home has also been provided, with accommodation for 40 nurses. A new kitchen block has been built; new *x*-ray and ophthalmic departments have been added; a steam laundry has been erected; a centralization of the heating and hot-water services has been effected, one boiler now sufficing to do the work previously done by eight small boilers scattered about in different parts of the building. Better accommodation has been secured for the domestic servants by their transference from the basement (which they previously occupied) to the quarters built for the nurses in 1894, and various other improvements have been made which add greatly to the efficiency of the institution. In the accompanying block plan all the parts that are black were in existence before the present extension scheme was adopted, and the new portions are shaded.

The King Edward VII Memorial Wing faces south, and has two wards 56 × 25 ft., with sanitary towers and a balcony on each floor at the west end; at the east end there is another balcony on each floor, and a ward kitchen and a sister's room also. The wards are of fire-proof construction, with teak block floors with tile margin along the walls. They are heated by steam-heated radiators and Shorland's ventilating ward stoves. There are four up-cast ventilating shafts in each ward. The walls are tiled for 4 ft. 6 in. high, and, in addition, in the children's ward there is a picture frieze representing nursery rhymes, the rhymes selected being "Sing a song of sixpence," "Jack and Jill," "Little Jack Horner," "Mary, Mary, quite contrary," "Where are you going, my pretty maid?" "Little Bo-peep," Old Mother Hubbard," and "Little Boy Blue." The pictures are duplicated, but each repetition has been kept as far apart as possible. They have been designed and executed by Doulton and Co., and were a special gift from an influential governor of the Infirmary. There is an inscription on a stone panel at the west end of the children's ward as follows:

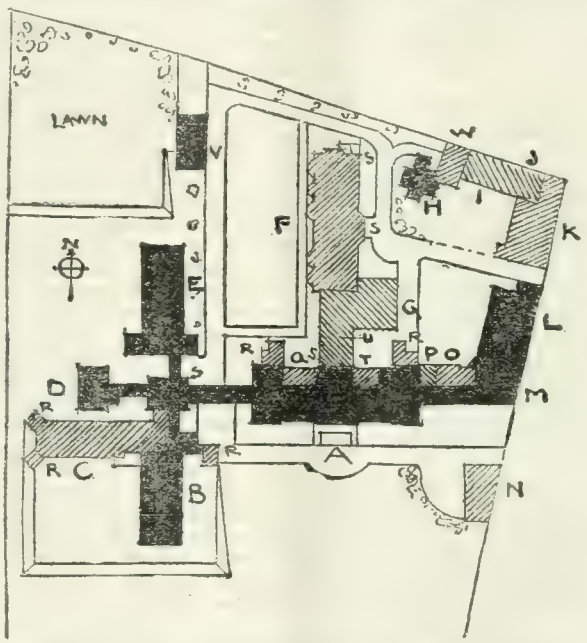
KING EDWARD VII
MEMORIAL WING
1901–1910.

At the entrance of each ward there is a small wooden panel with the words upon them in raised gilt letters "King Edward VII Memorial Wing."

The kitchen block consists of kitchen 35 × 24 ft., with scullery, servery, larders, pantries, and store-rooms. The servants' hall is 25 × 18 ft.

The nurses' home has on the ground floor a dining room and a sitting room, each 35 × 31 ft., with teak block floors, and the dining room walls are panelled with yellow pine. On the same floor are a library, a lecture room, and a linen room. On the first and second floors bedroom accommodation is provided for 40 nurses, with bathrooms and lavatories on each floor. Each bedroom is 12 ft. 3 in. × 8 ft. 6 in. They have solid pitch pine polished floors on fire-proof flooring. Above the entrance of the principal doorway the following inscription has been placed:

NURSES' HOME : NAMED : BARNES WING
IN RECOGNITION OF THE SERVICES RENDERED BY
HENRY BARNES, ESQ., M.D., LL.D.,
IN THE ENLARGEMENT OF THE INFIRMARY.



A, Administrative block; B, ward; C, King Edward VII Memorial Wing; D, operating theatre; E, ward; F, nurses' home; G, kitchen, etc.; H, mortuary; I, boiler-house; J, pump-room; K, laundry; L, out-patient department; M, porter's lodge; N, motor house; O, ophthalmic room; P, *x* rays; Q, chapel; R, sanitary towers; S, staircases; T, clinical room; U, servants' hall; V, garden house, etc.; W, disinfector.

The home is connected with the main building by a winter garden 62 × 25 ft., which is situated above the servants' hall and kitchen offices. It is used for patients' entertainments, exhibitions of the linen league, and other functions.

The laundry block has disinfecting chambers, boiler-house and pump room for all heating and hot-water services, a wash-house and ironing room, with drying chambers, receiving and dispatch rooms, and a separate staff wash-house.

The ophthalmic and *x*-ray rooms adjoin the main building, and existing rooms in this part of the hospital have been converted into a chapel and a clinical room. A terrace and tennis-lawn have been made out of surplus soil from the foundations.

The scheme originally contemplated considerable alterations and extensions of the out-patient department, but in view of the probable effect of the National Insurance Bill on this class of patients it has been decided to postpone the carrying out of this part of the scheme until it is seen what the effect is likely to be. The estimated cost of the entire scheme was £30,000, and towards this the total amount received or promised up to date is £29,850. The architect is Mr. J. J. Burnet, LL.D., A.R.S.E., architect to the Western Infirmary, Glasgow.

Nova et Vetera.

A "SURGEON VENTURER."

Doctors, as is well known, played a large part in the extension of our Indian Empire; in the good old days of John Company they not infrequently had, and took advantage of, what Dr. Johnson called "potentialities of growing rich beyond the dreams of avarice." The careers of not a few medical men in the colonies have in them all the elements of the most thrilling romance. One of these finds a chronicler in General Sir Henry Brackenbury, who, in the January number of *Blackwood's Magazine*, gives a very interesting account of a "Surgeon Venturer" of the last century. The narrative is founded on a book entitled *Journals and Reminiscences of James Douglas, M.D.*, edited by and privately printed for Douglas's son in New York in 1910.

James Douglas was born at Brechin in Forfarshire in 1800. He was the son of a Wesleyan minister and received his early education at the Academy of Dumfries and other schools. At the age of 13 he was apprenticed to Dr. Thomas Law, one of the Ellenborough family and the leading medical man in the Lake District. General Brackenbury gives an extract from the indenture of apprenticeship, which he considers an extraordinary document. It contains only the provisions usual in such documents, though of course it seems incongruous that a boy of 13 should be made to contract not to play cards, dice, or any unlawful game, fornication commit, nor matrimony contract, etc. But as the period of apprenticeship was for five years, the contract was not so very onerous after all. As perquisites the boy had the shilling which was the fee for blood-letting or tooth-drawing. The blood-letting was very profitable, as it was the custom of the people generally to be bled every spring, and many of them were also bled in autumn. We may here mention by the way that this custom continued long after. Sir James Paget tells us of his sanguinary experiences on market days when he was an apprentice at Yarmouth. Writing in his seventy-ninth year, Douglas upholds the system of training as calculated to turn out more efficient and practical men than the modern system of learning from lectures and books. But when one thinks of a lad of 14 making up prescriptions, one cannot help recalling the chemist's assistant in *Pickwick*, whom his master described as "a nice boy; but the prevailing impression on his mind is that Epsom salts mean oxalic acid and syrup of senna laudanum." At the close of his five years' apprenticeship Douglas went to Edinburgh to prosecute his studies, but in his first session he took an appointment as surgeon to a whaler for a voyage to the Arctic regions. Here, again, Sir Henry Brackenbury seems to be surprised that an unqualified lad should have charge of a ship's crew about to engage in one of the most dangerous occupations known to seamen. But for long afterwards this was quite common. The students in Scotland found it a convenient, though possibly dangerous, way of earning money to complete their studies, and at the same time seeing surgical practice. In addition to his medical duties young Douglas performed the functions of a chaplain. His ship, the *Trafalgar*, of Hull, penetrated the Arctic circle to 81° N., a point nearer to the North Pole than any ship had reached before that date, except those under Sir John Ross. He kept a journal, which is full of adventures with whales, polar bears, unicorns, and ice. On his return he finished his curriculum at Edinburgh, where one of his teachers was Robert Liston, and some weeks before his 20th birthday he obtained the licence of the Royal College of Surgeons of Edinburgh. After a short period of further study in London, where he attended the lectures of Astley Cooper and Abernethy, he was admitted a Member of the English College of Surgeons. He then sailed as surgeon in the *Theodosia*, a trader owned by Mr. Gladstone of Liverpool, father of the statesman. He went to India, where he hoped to get a permanent appointment in the East India Company's service.

In 1822 he returned to England to receive an appointment as Assistant Surgeon in the Bengal Presidency, but he never went back to India. While in London waiting for a vessel to take him to Calcutta he filled up his spare time by attending the lectures and practice of Astley Cooper. One day he saw on the notice board an open letter addressed to Cooper by the Secretary of the Government of Poyais asking him to recommend a well-qualified surgeon to accompany a party of settlers to the Mosquito Shore. The Mosquito Shore was taken possession of about the middle of the eighteenth century by an agent of the Governor of Jamaica, of which colony it was then a dependency, and some kind of settlement was formed there. One of the Indians was invested King of the Mosquitos under the protection of England. An adventurer called Gregor M'Gregor had ingratiated himself with this comic-opera king and obtained from him a grant of 76,000 square miles to which the king had no real title. M'Gregor assumed the style of Cazique of Poyais, and undertook to colonize the territory. He went to England in 1821 with the ostensible object of securing colonists and the means of developing the resources of the territory. In London he became acquainted with a man called Thomas Strangeway, whom he appointed his "aide-de-camp." Strangeway wrote a sketch of the Mosquito Shore, which was a compilation of the most glowing descriptions of the agricultural possibilities of the West Indies transferred to the swamps of Honduras. Strangeway's misrepresentations were exposed; nevertheless, M'Gregor managed to obtain £16,000 for the right to colonize swamps to which his own title was of the most shadowy kind, and a company was floated. On Douglas presenting himself at the office of the company he found three or four substantial-looking gentlemen who called themselves directors. They induced him to give up his appointment in India, and he sailed for the supposed colony in November.

The party consisted of a commandant, a secretary, and a commissary, who took with them twenty-seven young men in the forecabin and in the steerage forty-six men and women, and a few children. In February, 1823, they reached the Mosquite Shore, where they met with a hostile reception from the natives. After a time the party succeeded in landing, but instead of finding "a remarkably healthy climate, agreeing admirably with the constitution of Europeans," an "extremely rich and fertile soil," a "country beautifully varied by hill and valley with fine savannahs and plains," and "ready and profitable markets," together with "many very rich goldmines," they found a very different state of things. The resemblance to Eden described in *Martin Chuzzlewit* is so strong that Dickens might have taken his description from that of Strangeway, who had ornamented his pamphlet with a frontispiece showing a number of substantial buildings surrounding a church, with a respectable steeple. But, alas! they looked in vain for the church and the houses. The unbroken forest reached down to the water's edge, and their tents having been left on board their ship, they were fain to make fires of driftwood and sleep on the beach. We cannot follow them through their various adventures, in which, as may be imagined, remittent fever played a large part. Exposed as they were, without shelter, to all the fury of storms and tropical rains, with scanty supplies of food and no medicines, sickness raged among them. Douglas himself fell ill, and was soon reduced to a skeleton. In time help came to them, and such settlers as survived were taken home again.

Douglas chose to proceed to America, where he wandered about with some companions till he was stranded at Utica. His health began to improve and he was thinking of returning to New York, when an accident completely changed his career. He was asked by a farmer to visit a man through whose body a pitchfork had passed. Douglas operated successfully, removing a plug of clothes that had been carried into the abdomen, and the patient made a good recovery. This gained for him such a reputation as a surgeon that he built a house, married, and settled down with the intention of spending his life in Utica. In 1824 the Medical College of Auburn asked him to give a course of lectures on anatomy and surgery. The Honorary Degree of Doctor of Medicine was conferred upon him. On his return to Utica he fitted up a private dissecting room and narrowly escaped getting into serious trouble by "snatching" the body of a negro boy. In spite of this, he repeated the offence, but, instead of a friendless lad, he this time, by mistaking the grave, "resurrected" the body of a well-known and highly respected citizen. He fled from Utica and went to Quebec, intending to make his

home there. There again he was brought into notice by a fortunate accident. In 1832 came a visitation of cholera, which entailed on him an amount of work which nearly broke him down.

In 1846 his surgical career was brought to an end by the consequences of a prick in the finger while he was amputating for frostbite. He then devoted himself to the treatment of the insane, who since the conquest of Canada by the British had been exclusively in the hands of nuns. Approached by the Government, Douglas expressed the opinion that the patients would be benefited by the disuse of confinement and other severe methods of treatment, and he undertook to take charge of the lunatics for three years on an understanding that the Government would provide a suitable asylum. Drs. Fremont and Morrin joined him and remained partners till their death. From a report of Douglas in 1849 it appears that "insane persons were confined merely as unmanageable or as dangerous to the community and themselves. No measures were adopted for their restoration to reason. They were shut up in separate cells, were debarred intercourse with the world and with each other, were left to brood over their disordered fancies until they became maniacal, tore their clothes, became filthy in their habits, and, from a well-known law of nature that the faculties become dormant for want of exercise, became imbecile or idiotic. Occasionally a patient was removed by his friends, rarely was one restored to reason." Douglas allowed the patients to associate together, and as soon as their muscular power was sufficiently restored they were encouraged to employ themselves in occupations congenial to their former habits and tastes. The effects of this treatment were soon apparent in improved health and spirits, and in some cases restoration to reason. To this work Douglas gave the rest of his life, till his 66th year, when it was found impossible to continue the contract on the Government allowance, and he was driven to part at a great sacrifice with his interest in the asylum. He continued to live at Quebec till 1875, when he went with his son to the United States. He lived eleven years longer in Phoenixville, Pennsylvania, and in New York. Unsuccessful mining speculations swallowed up whatever money he had accumulated, but the last years of his life were peaceful and happy.

He was a man of massive frame, and of very remarkable gifts. Oliver Wendell Holmes, after once meeting him, said that in his head and figure he was the nearest approach to the ancient Jupiter he had ever seen. His son says: "He had many of the qualities of greatness, for his character possessed the elements out of which either a man of wide professional repute or a statesman of commanding influence might have been compounded, and therefore those who knew him well wondered that he remained obscure. Perhaps he knew himself better than others knew him, and may have suspected that the strong properties of his nature were mingled with others so inconsistent that the resultant was a character too eccentric and full of contradictions to bear the scrutiny of the public eye."

The Public Health Bulletin (No. 50) of the Treasury Department Public Health and Marine Hospital Service of the United States is devoted to further studies upon leprosy. Currie and Stollmann have continued their studies on rat leprosy. Many attempts were made to cultivate the bacillus of this disease on artificial culture media: both on the media ordinarily employed in the laboratory and by the method of Clegg in symbiosis with amoebae and cholera vibrios, but all failed. In a further series of experiments continued over a year all the results were again entirely negative, not a single culture of the genuine bacillus having been obtained. In one instance an acid-fast streptothrix appeared after an inoculation from an ulcer on the abdomen of a leprous rat, but, as such organisms might easily occur accidentally on an exposed surface, the authors rightly consider it an accidental contamination. In a series of immunity experiments Currie and Clegg were unable to differentiate by the method of Bordet and Gengou the leprosy bacillus from certain other acid-fast micro-organisms. They further found that extracts of certain acid-fast bacilli, other than *B. leprae*, would deflect the complement when combined with leper's serum. They were unable to produce specific agglutinins for *B. leprae* by injecting a horse with the cultivated lepra bacillus.

MOTOR CARS FOR MEDICAL MEN.

Motorists and Road Repairs.

An interesting case recently came before the Swansea County Court in which a Swansea motorist brought a claim against the Glamorganshire County Council for damages caused to his car by the negligence of the council's servants in not properly restoring a portion of the road between Swansea and Mumbles after making an excavation. In view of the importance of the matter to motorists generally, the legal expenses were defrayed by the Automobile Association and Motor Union on the recommendation of the Welsh Automobile Club.

In summing up, the judge apparently attached considerable importance to the fact that the defendants could not call any evidence as to the condition of the road immediately after the accident, and that after the plaintiff had reported the accident to the council, the hole had been properly filled up. Judgement was given for the motorist for the amount of the claim and costs.

The question of the liability of road authorities in carrying out repairs is one of vital importance to motorists. It is the view of the Automobile Association and Motor Union that there is an obligation upon local authorities to execute any repairs with due regard for the convenience and safety of the public, and while this action was principally supported in the general interests of motorists, the decision should be of benefit to all road users.

Bosch H. T. Magneto.

In the course of a reply to an inquiry about the Ford Car published some time ago, Dr. E. J. Chambers (Doncaster) wrote stating that he had at first found the car very liable to ignition trouble and plug sooting and oiling. He had a Bosch H. T. magneto fitted over three months ago, and finds that it has improved the running of the car very much; the plugs keep cleaner, there is a good pull at low speed on top gear, and no misfiring. He adds that he had some difficulty in getting the magneto fitted, but that eventually Messrs. Wyer and Eggleston, East Laithe Gate, Doncaster, succeeded in adjusting it. He anticipates that, owing to more regular running, it will save its cost in twelve months in wear and tear alone, to say nothing of temper and time.

Piston Wear.

The St. Pancras Garage Company, whose fleet of taxicabs comprises fifty De Dion Bouton four-cylindered 14-h.p. cars, has recently had the engines of all of them overhauled, and has found, we are informed, that despite the fact that the average distance each car has run is 22,000 miles, the wear shown by the pistons in no case exceeds 0.008 in. This is regarded as remarkable in view of the excessive strain to which the engines of taxicabs are subjected owing to the exigencies of driving in crowded streets.

Motor *v.* Brougham.

F.R.C.S.Eng. sends us the following:

Cost of Running a 15.9-h.p. Daimler Limousine Motor Car in 1911.

Total mileage	5,650 miles.		
For pleasure, about	1,300 ,,		
For professional purposes, about ...	4,350 ,,		
Total cost for year (including depreciation)	£306	9	7
Chauffeur	90	14	0
All other costs	110	0	0
Depreciation 20 per cent. of £528 18s. 2d. (initial cost) ...	105	15	7
Total cost per mile (nearly)	0	1	1
Chauffeur, per mile (nearly) ...			5.9d.
All other costs, per mile			4.6d.
Depreciation, per mile			4.5d.
Petrol used (approximately)	280 gallons.		
Miles per gallon (approximately) ...	20 miles.		
Car unavailable on account of re-varnishing and repairs	21 days.		

The car was bought in June, 1910.

Former Cost of Running a Brougham and Two Horses (one in morning, the other in afternoon).

Total cost (including depreciation) ...	£210	0	0
Mileage (all for professional purposes), about	4,000 miles.		
Cost per mile	1s. 0½d.		

The limousine exceeds the brougham in appearance, readiness, speed, comfort, and convenience, and exhilarates the mind, whilst driving in a brougham dulls it. I should not like to go back to the latter. Thanks to the chauffeur, the car looks almost like new.

LUNACY IN ENGLAND AND WALES.

THE annual Report of the Commissioners in Lunacy for the year 1910[1] is published in two parts, the first containing the Report of the Commissioners proper, and the second part the statistical tables upon which the report is founded. Part I was referred to in a leading article published in this JOURNAL on August 5th, 1911. In that article the main facts were given as to the numerical and proportional increase of the insane and the effect of accumulation inside asylums in bringing about the alleged increase of insanity.

Increase of Insanity.

Table I, Appendix A, shows that on January 1st, 1910, there were 130,553 lunatics, idiots, and persons of unsound mind known to the Commissioners in England and Wales, of whom 10,616 were private patients, 118,901 pauper lunatics, and 1,036 criminal lunatics; whilst on January 1st, 1911, there were 133,157 lunatics, idiots, etc., of whom 10,890 were private patients, 121,172 pauper patients, and 1,095 criminal lunatics, giving a total numerical increase for the year of 2,604, as compared with the increase for 1909 of 1,766. The private patients increased by 274 (increase in 1909 was 223), the pauper patients by 2,271 (increase in 1909 was 1,524), and the criminal lunatics by 59 (increase in 1909 was 19). The year 1910 was thus, so far as the numerical increase is concerned, an unfavourable year as compared with the preceding year, though better than 1908, when the total increase was 2,703.

As compared with the general population, the ratio of total lunatics per 10,000 was 36.40 on January 1st, 1911, as compared with 36.10 on January 1st, 1910, and with 36.02 on January 1st, 1909; or 1 lunatic to 275 of general population on January 1st, 1911, as compared with 1 to 277 on January 1st, 1910, and 1 to 278 on January 1st, 1909.

Taking the individual classes, the ratio of private patients per 10,000 of population was 2.97 on January 1st, 1911, as compared with 2.92 on January 1st, 1910; that of pauper lunatics 33.75 on January 1st, 1911, as compared with 32.83 on January 1st, 1910; and that of criminal lunatics 0.35 on January 1st, 1911, as compared with 0.29 on January 1st, 1910.

Turning to the more valuable index to the growth of insanity of the proportion to population of admissions, Table III, Appendix A, shows that during the ten years 1901–1910 the ratio of total admissions rose from 6.37 per 10,000 of population in 1901 to 6.93 in 1902, then fell steadily to 6.26 in 1907, rose to 6.29 in 1908, fell again to 6.09 in 1909, and still further to 6.04 in 1910. Of all statistics bearing on this matter, however, the ratio of *first* admissions to general population is probably the most certain index to the actual increase or decrease of insanity, and here Table III, Appendix A, shows that during these same years of 1901–1910 the ratio of *first* admissions per 10,000 of population rose from 4.99 in 1901 to 5.76 in 1902, fell steadily to 5.16 in 1906, rose to 5.19 in 1907, and remained at the same figure during 1908, then fell to 5.00 in 1909, and still further to 4.96 in 1910. These figures are satisfactory, and afford strong internal evidence that the considerable apparent increase of the insane is not due to any actual increase of insanity, but is the result of such factors as accumulation from diminishing death and recovery rates and the possible more frequent certification of recurrent cases of insanity. Next year's figures, which will permit of collation with the census returns of 1911, will be awaited with much interest.

Distribution.

On January 1st, 1911, the total number of 133,157 lunatics, etc., were distributed as follows: In county and borough asylums, 99,742; in registered hospitals, 4,585; in metropolitan licensed houses, 1,669; in provincial licensed houses, 951; in naval and military hospitals, 167; in criminal lunatic asylums, 895; in ordinary workhouses, 11,685; in metropolitan district asylums, 7,043; and residing with relatives or others, 6,069.

The total number of cases under treatment during the year 1910 in institutions or as private single patients (that is, excluding those in metropolitan district asylums, in ordinary workhouses, and those residing with relatives or others) was 131,275, including 778 in idiot establishments, or excluding idiot establishments, 128,956.

Table XI, Appendix A, shows the total number of pauper lunatics, idiots, etc., in the various administrative counties, county boroughs, and boroughs on January 1st, 1906, and January 1st, 1911, giving the increase in each case for the five years expressed as percentages. From this it is seen that the average annual increase for all counties was 1.5 per cent., for county boroughs 2.5 per cent., and for boroughs 1.0 per cent., or a total increase of 1.8 per cent. The greatest increase in the counties was that of 5.9 per cent. in the case of Middlesex; the greatest county boroughs 8.4 per cent. in the case of Hastings and West Hartlepool; and the greatest borough increase that of King's Lynn, with 9.6 per cent., and Bury St. Edmunds close behind with 9.1 per cent. These increases, of course, do not necessarily indicate actual increases in insanity, but possibly only increases in population by changes in area.

Each succeeding year the Commissioners' Report shows an increasing proportion of the certified insane in asylums, hospitals, and licensed houses, and a diminishing number in workhouses and with relatives or others. This is again shown in 1910, the proportion in asylums, etc., having risen during the year from 79.89 to 80.04 per cent. Those in workhouses underwent a small increase from 15.37 to 15.46 per cent., but, we are glad to note, those with relatives or others fell from 4.74 to 4.50 per cent.

The total cases under treatment during the year numbered 131,275, as compared with 130,671 in 1909, and 128,399 in 1908. The average number daily resident in 1910 was 107,646 (males, 50,233; females, 57,413), as compared with 105,687 in 1909, and 103,671 in 1908.

Occupations.

Very interesting material for analysis is furnished by Table XIV, Appendix A, which shows the number of insane in institutions arranged according to occupations, as compared with the numbers having these occupations in the general population. Taking, first, professional occupations, during the three years 1907–09, civil and mining engineers gave the highest ratio with 48.9 per cent. per 10,000; then painters, engravers, and sculptors, 27.3 per 10,000; architects, 17.6 per 10,000; male musicians, singers, etc., 16.5 per 10,000; lawyers, 14.8 per 10,000; medical men and women, 12.9 per 10,000, and clergymen, 12.3 per 10,000. No ratios could be given in the case of soldiers and sailors, as the statistics were unreliable. The principal ratios of those in domestic offices or services were as follows: Charwomen, 29.5; domestic indoor servants, males, 17.8; females, 23.6; gardeners, 11.7; caretakers, 9.8; gamekeepers being the lowest with 6.6. Of commercial occupations, commercial travellers gave the highest ratio with 15.5, and brokers, etc., the next highest, with 12.6 per 10,000. Railway men generally gave low ratios, ranging from 1.4 in the case of pointsmen to 9.5 per 10,000 in the case of railway labourers. Of those employed on roads, livery stable keepers gave the fairly high ratio of 20.0, whilst of those engaged on the sea, the merchant service gave a ratio of 16.5 per 10,000. Of remaining occupations, the following are the outstanding ratios: Warehousemen, 43.0; coal heavers, 14.2; agricultural labourers, 12; fishermen, 9.7; brewers .5.1; costermongers—males, 28.3, females, 34.0; general labourers, 39.5, and persons living on their own means, 5.5 in the case of males and 7.9 in that of females.

Admissions.

The total number admitted during the year to all institutions (excluding ordinary workhouses and metropolitan district asylums, but including single patients and also excluding transfers and readmissions) was 22,141, as compared with 21,992 in 1909, 22,447 in 1908, and 22,119 in 1907. Excluding idiot establishments, the total admissions show an increase over those of 1909 of only 97. To the separate classes of institutions the numbers admitted were as follows: To county and borough asylums, 19,942; to registered hospitals, 818; to metropolitan licensed houses, 448; to provincial licensed houses, 348; to naval and military hospitals, 121; to criminal lunatic asylums, 96; as private single patients, 88; and to idiot establish-

[1] Sixty-fifth Report of the Commissioners in Lunacy. Part II. London. 1911. Published by His Majesty's Stationery Office, and to be purchased from Wyman and Sons, Limited, Fetter Lane, E.C. Price 5s.

ments, 280. Excluding idiot establishments, the 21,861 admissions were composed of 2,451 private patients, 19,147 pauper patients, and 263 criminal lunatics. As usual, in all classes, with the exception of criminal lunatics, the female admissions outnumbered the male, the figures for 1910 being: Male private patients, 1,037, and female, 1,414; male pauper patients, 9,044, and female, 10,103; male criminal lunatics, 223, female, 40. As to the age of the admissions, Table XXII, Appendix A, shows that during the three years 1907–09 on an average 314 were below the age of 15 years: 963 were between 15 and 19; 1,905 between 20 and 24; 4,708 between 25 and 34; 4,741 between 35 and 44; 4,062 between 45 and 54; 2,767 between 55 and 64, and 2,259 of 65 years and upwards. From this it might appear that the most vulnerable age periods, so far as mental diseases are concerned, are between 25 and 34 and between 35 and 44; but the succeeding table, Table XXIII, Appendix A, which gives the ratios per 10,000 of each age period to the whole population, shows a gradual ascent from the 0.3 per 10,000 of those under 15 years of age to the 14.9 per 10,000 of those over 65 years of age.

As to civil state of the total average for these years of 21,718 admissions, 9,493 were single, 9,482 were married, 2,624 were widowed, and in 119 the state was not known. If the ratios to the general population at all periods be considered, the proportion per 10,000 are: Single, 4.9; married, 8.4; and widowed, 14.6. This is, however, due to the fact that the number of patients admitted under the age of 20 were relatively few, thus lowering the ratio to the young population outside asylums. If only admissions of marriageable ages be considered, considerably more single than married or widowed persons were admitted.

Turning to the character of the admissions as to whether they were first attack cases or not, if those in whom this was not known be excluded, there was a yearly average over the three years 1907–9 of 19,609 admissions. Of these the attacks were stated to be first attacks in 14,454, or 73.7 per cent., and not-first attacks in 5,155, or 26.3 per cent. Considering the same three-yearly average, the 21,718 admissions were classified as follows: Recent mania, 5,041; chronic mania, 557; and recurrent mania, 1,077; recent melancholia, 4,877; chronic melancholia, 474; and recurrent melancholia, 780; senile dementia, 1,177; secondary dementia, 508; general paralysis, 1,552; insanity with epilepsy, 1,013; delusional insanity, systematized, 725; non-systematized, 878; confusional insanity, 648; primary dementia, 437; insanity with grosser brain lesions, 231; stupor, 189; acute delirium, 80; alternating insanity, 53; volitional insanity, 64; and moral insanity, 30. Also there were 1,326 cases admitted of congenital or infantile mental deficiency, of whom 442 suffered from epilepsy and 38 were moral imbeciles.

The epileptics formed 2.1 per cent. of the private admissions during the three years under review, and 8.0 per cent. of the pauper admissions, whilst the general paralytics formed 6.6 per cent. of the private admissions and 7.2 per cent. of the pauper admissions, giving total percentages of 7.3 per cent. of the epileptics and 7.1 per cent. of general paralysis.

Tables XV, XVI, XVII and XVIII set forth the assigned causes and associated factors in the direct admissions, and also in the first-attack cases of the direct admissions by a yearly average spread over the three years 1907–9. Taking here the whole direct admissions—that is, first-attack and not-first cases together—alcohol was assigned in 3,289, or 15.4 per cent. of the total (males, 22.1 per cent.; females, 8.7 per cent.); or in 276, or 11.2 per cent. of the private admissions (males, 15.5 per cent.; females, 6.9 per cent.), and in 3,013, or 15.9 per cent. of the pauper admissions (males, 23.0 per cent.; females, 8.9 per cent.). Acquired syphilis was assigned in 1,005, or 4.7 per cent. of the total (males, 8.2 per cent.; females, 1.2 per cent.); or in 140, or 5.9 per cent of the private admissions (males, 11.2 per cent.; females, 0.6 per cent.), and in 865, or 4.6 per cent. of the pauper admissions. It will be noted that whereas alcohol was apparently a much more frequent cause of insanity in the pauper admissions, both male and female—though preponderatingly in the male paupers—than in the private admissions, syphilis was a much more frequent cause in the private male admissions than in the pauper class. Drug habits were assigned in 45, or 0.2 per cent., and again this was more pronounced in the private class—0.7 per cent. for males and females, as compared with 0.1 per cent. in the case of male pauper and 0.2 per cent. in the case of female pauper admissions. The remaining toxic factors do not offer material for comparison between two classes of patients, but were assigned in 1,137, or 5.3 per cent. Lesions of the brain and spinal cord were assigned in 495, or 4.7 per cent.; epilepsy in 1,272, or 5.8 per cent., and other neuroses in 242. Various bodily affections, of which cardio-vascular degeneration was the chief (680, or 31 per cent.), were assigned in 1,810. Physiological defects and errors were assigned in 1,001; critical periods in 3,503, or 15.9 per cent.; and child-bearing in 800 women, or 7.1 per cent. of the female admissions. Also bodily trauma was assigned in 667, or 3.5 per cent.; and mental stress in 4,657, or 21.4 per cent. Comparison of the private and pauper admissions shows that mental stress was assigned as cause in 30.1 per cent. of male private and 31.8 per cent. of the female private admissions, as compared with 18.0 per cent. for the male pauper and 22.3 per cent. for the female pauper admissions. An insane heredity was ascertained in 5,072, or 23.3 per cent. of the total direct admissions for the three years 1907–9. Curiously enough—seeing that private patients would naturally be expected to know more concerning their forbears than pauper patients—an insane heredity was ascertained in only 18.0 per cent. of the male private patients as compared with 21.2 per cent. in the case of male pauper cases; the female private admissions, on the other hand, gave an insane heredity in 27.3 per cent., as compared with 25.5 per cent. for female paupers. An epileptic heredity was ascertained in 354, or 1.6 per cent.; a neurotic heredity in 304, or 1.3 per cent.; an eccentric heredity in 111, or 0.5 per cent.; and an alcoholic heredity in 1,134, or 5.2 per cent. The only point for comparison here is that an alcoholic heredity was elicited in 5.4 per cent. of the male pauper and 5.8 per cent. of the female pauper admissions, as compared with 2.2 per cent. in the case of the male private and 2.1 per cent. in the case of the female private patients. Lastly, in 2,662, or 12.2 per cent., no principal factor could be assigned; in 1,701, or 7.8 per cent., no factor at all was assignable, and in 1,957, or 9.0 per cent., no factor was ascertained, owing to defective history.

Discharged as Recovered.

During the year 1910, and excluding idiot establishments, there were discharged as recovered from all institutions 7,501, giving a total recovery-rate, calculated upon the admissions, after excluding transfers, of 34.31 per cent. The average recovery-rate for the ten years 1901-10 was 36.49 per cent. Since the year 1905, when it stood at 37.79 per cent., the recovery-rate for all institutions had dropped steadily year by year to the present figure. Taking the recovery-rates for 1910 of the separate institutions and giving after each in parentheses the average for the ten years 1901-10, the figures work out as follow: County and borough asylums 33.86 per cent. (average 35.95); registered hospitals 42.66 per cent. (average 44.92 per cent.); metropolitan licensed houses 25.29 per cent. (average 33.36), provincial licensed houses 37.35 (average 38.95); naval and military hospitals 35.54 (average 52.92); criminal lunatic asylums 24.02 (average 27.87); and private single patients 56.74 (average 32.58). With the exception of the private single patients, whose numbers are so small as to be practically inconsiderable, the year 1910 was marked by low recovery-rates.

Deaths.

During the year, including those in idiot establishments, a grand total of 9,840 deaths occurred, giving a death-rate, calculated on the average number daily resident, of 9.14 per cent. Excluding idiot establishments, 9,777 deaths occurred, giving a death-rate of 9.26 per cent. This death-rate may be compared with that of 9.78 for 1909, or 9.53 for 1908, or the average of 9.87 for the ten years 1901-10.

The death-rates for the separate institutions were as follow, with the averages for the past ten years in parentheses: County and borough asylums, 9.52 per cent. (average, 10.16); registered hospitals, 6.09 per cent. (average, 6.76); metropolitan licensed houses, 10.69 per cent. (average 12.17); provincial licensed houses, 8.7 per cent. (average, 7.75); naval and military hospitals, 7.93 per cent. (average, 10.75); criminal lunatic asylums, 2.12 per cent. (average, 2.51); and private single patients, 5.62 per cent. (average, 6.88). Like the recovery-rates,

the death-rates, therefore, were low for practically all institutions during 1910. As compared to death-rates of the general population outside asylums, of course, the death-rates of asylum inmates are very high at all age periods. Thus, Table XIII, Appendix A, shows that the ratio of deaths in asylums during 1909 per 1,000 of asylum inmates during that year was for those under the age of 15 years 46.4 in the case of males and 57.6 in the case of females; whereas the death-rate per 1,000 for the same age period in the population at large was 15.9 for males and 13.5 for females; similarly for the age period 15 to 19 the asylum inmates gave a death-rate of males 91.5 and females 59.3, as compared with 2.8 and 2.6 respectively in the general population. Those interested will find the complete details for all age periods on pp. 146 and 147 of the Commissioners' Report.

Turning to the causes of death in the 9,806 who died in county and county borough asylums, hospitals, and licensed houses during the year 1910, Table XXVII, Appendix A, shows that 2,848 died of diseases of the nervous system, including 1,691, or 17.2 per cent. of the total deaths, from general paralysis, and 396 from epilepsy; 1,192 died from heart disease, and 478 from diseases of the blood vessels: 469 from diseases of the respiratory system; 172 from diseases of the digestive system: 497 from genito-urinary diseases, including 406 from chronic Bright's disease; 21 from diseases of the lymphatic and ductless glands; 14 from diseases of bones; 8 from mastoid disease; 3 from rodent ulcer: 4 from accidents of childbirth; 58 from accident or violence: 860 from conditions not specified—that is, mainly from senile decay (821); and 3,182 from general diseases, including 476 from lobar pneumonia, 257 from bronchopneumonia, 223 from dysentery, and 1,599, or 16.3 per cent. of the total deaths, from tuberculous diseases.

As usual, the Commissioners furnish a tabular statement (Table XII, Appendix B), showing the mortality from tuberculosis in county and borough asylums in the year under review, the asylums being arranged in three groups —namely, those with more than 1,000 inmates, those with 500 to 1,000 inmates, and those with less than 500. The first group, composed of thirty-four asylums, gave proportions of tuberculous deaths ranging from 7.9 per cent. of total deaths in the case of Colney Hatch to 25.4 in the case of Whittingham (Lancs.), with an average of 15.9 per cent.: those of the second group gave mortalities ranging from 4.6 per cent. in the case of the City of London Asylum to 42.9 per cent. in the case of Cotford (Somerset), with an average of 17.9 per cent.; and the last group, those with less than 500 inmates, gave mortalities ranging from none in the case of the three asylums—Scalebor Park, London Epileptic Colony, and York City—to 30.5 per cent. in the case of Sunderland, with an average of 14.2 per cent. The total proportion of tuberculous deaths in county and county borough asylums was 16.6 of the deaths from all causes.

ANNUAL REPORT OF THE LOCAL GOVERNMENT BOARD.

PART II of the fortieth annual report[1] of the Local Government Board for 1910–11 deals with public health and local administration, county council administration, and local taxation and valuation. Under the heading of Housing of the Working Classes it is stated in the report that of the 1,476 dwelling-houses in respect of which closing orders were obtained or made during the whole year 1909–10, no less than 700 were dealt with by local authorities under the provisions of the Housing, Town Planning, etc., Act, which only became law on December 3rd, 1909. This shows that considerable activity prevailed in this matter between that date and March 31st, 1910, and there are indications that the provisions of Section 17 of the Act in regard to the closing of houses unfit for habitation were extensively used during the year 1910. With regard to closing orders, 34 appeals relating to 168 houses and two blocks of artisans' dwellings were made during 1910 to the Board. In 4 cases affecting 25 houses the closing orders were confirmed and the appeals dismissed: in 3 cases affecting 5 houses the appeals were successful; in 11 cases affecting 74 houses they were abandoned; and in 6 cases affecting 21 houses and two blocks of artisans' dwellings the appeal, owing to some informality, could not be entertained by the Board.

Medical Officers of Health.

At the end of 1910 the appointment of medical officer of health had been sanctioned by the Board in 1,017 of the 1,134 boroughs and urban districts in England and Wales, and in 648 of the 666 rural districts. In some cases sanction to an appointment had not been applied for, while in others sanction had been refused owing to the terms or the conditions of the appointment being unsatisfactory. There were only 13 rural districts employing more than one medical officer of health. In these 13 districts there were 29 medical officers of health. In 50 cases a medical officer of health was acting for more than one district and giving his whole time to public health work. These 50 medical officers of health were appointed to 143 boroughs and other urban districts and 151 rural districts. There were in addition 138 whole-time medical officers of health appointed to a single borough or district. Thus, of the 1,800 districts in the country, 432 had the services of a whole-time officer. The report states that the general experience of those districts which have adopted the suggestion of the Board to combine for the appointment of a whole-time medical officer of health is that a saving has been effected in the cost of administration, and that the public health of the districts has improved.

Milk Supply.

There are now only 75 urban and 69 rural authorities who have not made regulations under the Dairies, Cowsheds, and Milkshops Orders. Over 160 authorities have made arrangements for the veterinary inspection of milch cows in their districts.

PLAGUE INVESTIGATION IN INDIA.

IN a supplement containing 206 pages to vol. xi, 1911, of the *Journal of Hygiene*, a series of reports on plague investigations in India, issued by the Advisory Committee appointed by the Secretary of State for India, the Royal Society, and the Lister Institute, are published.

XL.—An obituary notice is given of Major George Lamb, M.D.Glas., I.M.S., who had been associated with the work of the Committee since its commencement in 1905, for the most part as officer in senior charge of investigations in India.

XLI. *Recent Observations on Rat-Fleas.* — The chief points noted in this summary of recent work on rat-fleas elsewhere than in India are: (1) English field rats harbour *C. fasciatus* and *Ct. agyrtes* in about equal numbers. (2) The tropical rat-flea (*X. cheopis*) has been found on rats at Guy's Hospital in London in abundance. (3) The work of Chick and Martin shows that *C. fasciatus* feeds on man about as readily as on the rat or rabbit: the common mouse-flea (*Ct. musculi*) and *Ct. agyrtes*, on the other hand, bite man hardly or not at all. (4) Observations in Marseilles by Gauthier and Raybaud, in Sydney by Tidswell, and in Japan by Kitasato, show that at each place there is a seasonal variation in the prevalence of rat-fleas, especially of *X. cheopis*, and that the maximum abundance of fleas is found at the time of year when plague epidemics in man mostly prevail in the given locality.

XLII. *Preliminary Observations on the Protective and Curative Value for Rats of the Serum of a Horse Immunized with a Toxic Nucleo-Protein Extracted from the Plague Bacillus.*—The serum prepared by Sydney Rowland, when tested on rats, showed considerable antitoxic value. 1 c.cm. neutralizing about a hundred fatal doses of the toxic nucleo-protein with which the horse had been inoculated. It also had a good prophylactic value against infection with living plague bacilli, 1 c.cm. protecting every animal, and $\frac{1}{1}$, c.cm. 7 out of 10 rats against a dose of plague bacilli inoculated twenty-four hours later, which killed 80 per cent. of untreated rats. The serum was also efficacious in a curative way when administered subsequent to infection, and it is shown to save the lives of a sensible proportion of infected rats

[1] *Fortieth Annual Report of the Local Government Board—1910-11.* Part II (*a*) Public Health and Local Administration. (*b*) County Council Administration. (*c*) Local Taxation and Valuation. London: Wyman and Sons, Limited. 1s. 10d. (Cd. 5978.)

even when given as long as twenty-four hours after infection. This is the more remarkable since the control rats, inoculated but untreated with serum, begin to die on the second day.

XLIII. *Investigations into Plague Vaccines.*—Dr. Rowland also makes a second report on the toxic nucleo-protein which he has extracted from the plague bacillus, and which, as he has previously shown, acts as a highly efficient vaccine in rats in doses so small as $_{1}\frac{1}{10}$ mg. This nucleo-protein forms loose compounds with chloroform and toluol, which are relatively non-toxic and are easily reversible (drying, vacuum); these compounds have greatly diminished immunizing power. The effect of heat on the toxic and immunizing powers of the nucleo-protein is much less if the whole bacillus is heated before extraction than when the extracted nucleo-protein is heated in solution in dilute saline. Extracts of the plague bacillus contain an active proteolytic enzyme. If this be allowed to act on the nucleo-protein, the immunizing power at first increases and then remains steady for some months. The toxic value, on the other hand, diminishes progressively, so that after some time the hydrolyzed extract is relatively non-toxic, but still forms a very efficient vaccine both against toxic nucleo-protein and against infection with live bacilli. Hence the protective and toxic properties of such an extract of plague bacilli are distinct.

XLIV. *Statistical Investigation of Plague in the Punjab.*—Mr. Major Greenwood presents a second and third report, in which, continuing his statistical analysis of the data collected by the late Major Lamb on the occurrence of plague in the villages of the Punjab and United Provinces, investigating the influence of proximity to railways, he finds that in districts containing large cities, villages near a line of railways are liable to a higher rate of plague epidemics than villages, similar in size and other respects, not so situated. This is probably due to increased opportunities for personal transit rather than to the movement of merchandise, since in purely or mainly agricultural districts proximity to railways does not entail any increased liability to plague infection. It is also shown that large villages tend to be infected earlier in the plague season than small villages, that the mortality from plague tends to be greater the earlier a village is infected, and that in nearly all cases large villages, when infected, suffer less heavily than smaller communities. There is some evidence that the same difference between large and small places obtained in England in the fourteenth to seventeenth centuries. Analysis of the possible explanations leads to the conclusion that the difference in mortality depends upon some material factor which varies with the size of the community rather than on the random incidence of plague infection on a population living in aggregates of varying size.

XLVI. *Observations on Plague in Eastern Bengal and Assam.*—The province of Eastern Bengal and Assam has suffered very little from bubonic plague, although it is in close proximity to heavily infected districts in Bengal (Calcutta, Saran). Imported cases from these districts have from time to time given rise to small outbreaks of pneumonic plague, but no bubonic epidemic has arisen. The Commission has made an inquiry lasting over a year into the conditions which might determine this immunity. In Dacca an investigation was undertaken for the whole twelve months into the prevalence of rats and fleas, and other places were visited for short periods. It appears that the freedom of the province from plague can chiefly be attributed to the scarcity of rats in the houses. Per 100 traps set, from 1 to 9 *Mus rattus* were caught in different places, as compared with 20 to 50 in Poona, Belgaum, Punjab villages, and other heavily infected localities. This comparative scarcity of rats seems to be due partly to the habits of the people, who are comparatively clean, neat and tidy in their household arrangements, and partly to the structure and disposition of the houses, which are either too well built or too flimsy to afford much shelter for rats. In many places also the houses are widely separated from one another. The Commission visited also the neighbouring town of Bhagalpur in Bengal, which has suffered rather severely from epidemic plague on several occasions; here they found the more usual ill-built, crowded, and dirty houses with mud walls, and 34 rats were caught for every 100 traps set. Rat-fleas were found to be about as common as elsewhere in India, varying from 2 to 8 per rat in different places. In Dacca weekly observations showed that there was a distinct seasonal variation in the prevalence of fleas, the maximum falling in April, that is, in the plague season as judged by the seasonal prevalence of plague in Calcutta (160 miles distant).

XLVII. *Observations on the Breeding of Mus rattus in Captivity.*—To breed wild rats successfully in captivity it was found necessary to have a separate hut for each pair. If several pairs were confined in the same hut, provided with artificial burrows, etc., not only were young never produced, but on being killed the females were never found pregnant. Under appropriate conditions, however, an active pair will produce from 29 to 44 young per annum; the commonest number in a litter is 6, with an average interval of 56 days. The young will breed when 5 months old, probably earlier, and in the absence of any mortality it may be calculated that a single pair will increase to 198 in twelve months and 858 in 16 months. Interesting data are given with regard to the rate of growth of young rats in length and weight; up to about 100 grams weight (14 weeks) they grow about 1 gram per day, weighing 4 grams at birth.

THE COMPOSITION OF CERTAIN SECRET REMEDIES.*

A RINGWORM CURE.

"DETHBLO," WILSON'S PATENT RINGWORM CURE.

THIS preparation is sold by W. T. Wilson, Haddenham, Bucks; a 1s. 1½d. package contained a bottle holding rather less than 2 fluid drachms of the preparation, and a brush for applying it.

It is advertised in the following terms:

THIS PREPARATION has been used by the Proprietor for many years in the treatment of Hundreds of Cases, and has never once failed to cure. . . .

An improvement is visible after one application. Two or three dressings in any but exceptionally severe cases are sufficient to effect a Cure.

No necessity for Cutting the Hair or Shaving the Head.

It Cures when all other remedies have been tried and failed. Obstinate cases, after eighteen months of other treatment, have yielded to a few applications of "Dethblo."

It is Harmless to Hair or Scalp of even the youngest children; infants in arms have been successfully treated on many occasions.

The directions on the label are:

Apply with brush enclosed, well penetrating the infected parts with "DETHBLO." Treatment should be given every other day for few days, and the infected part should not be washed until satisfactory improvement is noticed.

Analysis showed the liquid to contain ferrous sulphate and acetic acid; a trace of coloured organic matter was also present, such as would be due to a small portion of the acetic acid having been added in the form of vinegar, and the odour of the liquid resembled that of vinegar rather than that of acetic acid only. The quantities found were, in 100 parts by measure:

Ferrous sulphate	...	33.7 parts
Acetic acid (estimated as glacial) ...	11.9	,, by measure

Careful search did not reveal the presence of any other ingredient.

Estimated cost of ingredients of 2 fluid drachms, one-fiftieth of a penny.

* Previous articles of this series were published in the following issues of the BRITISH MEDICAL JOURNAL: 1904, vol. ii, p 1585; 1905, vol. ii, pp. 27, 1645; 1907, vol. i, p. 213; vol. ii, pp. 24, 160, 209, 393, 530, 1655; 1908, vol. i, pp. 833, 942, 1373; vol. ii, pp. 86, 505, 1022, 1110, 1193, 1285, 1566, 1697, 1875; 1909, vol. i, pp. 31, 909, 1128; vol. ii, p. 1419; 1910, vol. i, pp. 151, 213, 393, 1005, 1063, 1120; vol. ii, pp. 982, 1350, 1928; 1911, vol. i, pp. 26, 91, 823, 1324; vol. ii, pp. 32, 77, 456, 767, 854, 1543; 1912, vol. i, p. 26, 141. Analyses are also to be found in *Secret Remedies* (chapters i and ii). London: British Medical Association, 429, Strand. Price 1s., post free 1s. 3d.

A CHASSIS of the Nazarro car, which has been introduced into England by Messrs. Newton and Bennett, Limited, 35, King Street West, Manchester, and 34, Knightsbridge, London, will be shown for the first time in England at the Motor Show at Manchester. Only one type, 20 to 30 h.p., for touring and racing will be made.

LITERARY NOTES.

Messrs. Constable and Co. will commence the publication in April next of a new quarterly scientific review, to be entitled, *Bedrock: A Quarterly Review of Scientific Thought*. The *Review* will appear as an organ devoted to the full discussion of such subjects as the effect on the race of native and foreign disease, of intemperance, of city life and luxury; the fitness of women for government; the real nature of the psychological and physiological difference between sexes, races, and classes; the present relation of science to religion: theories of evolution and heredity: the trend of scientific and mechanical research, invention, and development; in fact, with all the greater problems of modern science. It will, further, make a feature of notes on current research work and reviews of selected scientific books. The Editorial Committee consists of Sir Bryan Donkin, F.R.C.P.; Professor E. B. Poulton, F.R.S., LL.D., Hope Professor of Zoology in the University of Oxford: Professor H. H. Turner, D.Sc., F.R.S., Savilian Professor of Astronomy in the University of Oxford: and G. Archdall Reid, F.R.S.E. The acting editor will be Mr. H. B. Grylls. The first number will contain amongst other contributions: Recent Researches on Alcoholism, by Dr. G. Archdall Reid: Darwin and Bergson as Interpreters of Evolution, by Professor Poulton: and Social and Sexual Evolution, by The Hermit of Prague.

Mr. Edward Arnold announces a series of international medical monographs, which is under the general editorial supervision of Dr. Leonard Hill and Dr. William Bulloch. At short intervals there will be published monographs dealing with subjects of exceptional interest and importance, each by a leading authority who has made a special study of the particular subject. It is hoped that readers interested in any special branch of medical science, or who are following the rapid progress of knowledge in some new phase of research, will find in a concise form the results of the leading investigators throughout the world. The practising physician also will find the volumes of great value, special attention being given to the practical application of the results of scientific research to the treatment of disease. The following volumes are now ready: *The Mechanical Factors of Digestion*, by Dr. Walter B. Cannon, George Higginson Professor of Physiology, Harvard University. *Syphilis: a Systematic Account of Syphilis from the Modern Standpoint*, by Dr. James McIntosh, Grocers' Research Scholar, and Dr. Paul Fildes, Assistant to the Bacteriologist of the London Hospital. *Blood Vessel Surgery and Its Applications*, by Dr. Charles Claude Guthrie, Professor of Physiology and Pharmacology, University of Pittsburgh, etc. The following will be ready shortly: *Caisson Disease and Diver's Palsy; The Illness of Workers in Compressed Air*, by Dr. Leonard Hill. *Lead Poisoning and Lead Absorption: the Symptoms, Pathology, and Prevention, with Special Reference to their Industrial Origin and an Account of the Principal Processes Involving Risk*, by Dr. Thomas M. Legge, and Mr. Kenneth W. Goadby. *The Protein Element in Nutrition*, by Major D. McCay, I.M.S., Professor of Physiology, Medical College, Calcutta. *Shock: The Pathological Physiology of Some Modes of Dying*, by Yandell Henderson, Ph.D., Professor of Physiology, Yale University. *The Carrier Problem in Infectious Disease, with Particular Reference to Enteric Fever, Diphtheria, Cerebro-spinal Meningitis, Bacillary Dysentery, and Cholera*, by Dr. J. C. G. Ledingham, Chief Bacteriologist, Lister Institute of Preventive Medicine; and Dr. G. F. Petrie, of the same Institute. Each work can be obtained separately.

Chilblains are such a common cause of suffering in childhood that the number and variety of remedies for these disfiguring effects of cold weather need hardly surprise us. Dr. Maurice de Fleury, writing in the December number of *L'Hygiène*, devotes a couple of pages to the consideration of different forms of treatment, though he is careful to warn his readers that none of them are by any means infallible. They are, in fact, for the most part, methods of prevention rather than cure. Acting on the principle that chilblains (which Dr. de Fleury is inclined to consider as signs of a constitutional tendency to gout) are frequently the result of some defect in the general health, the writer recommends special attention being paid in winter to the diet of children afflicted with a poor circulation. Not only should the amount of heat-producing foods be considerably increased, but the patient, in addition, should be treated with cod-liver oil, or, according to some authorities, with quinine: whilst, as regards external treatment, massage and friction are often of great assistance in counteracting the ill effects of exposure to cold and damp. Eau de Cologne and spirits of camphor both serve to harden the skin, and so render the extremities less susceptible: and brushing the fingers with a nailbrush steeped in soapy water, and wrapping the toes in silk paper so as to keep them from coming into contact either with each other or with the stockings, may also be of use as a preventive measure. If, however, in spite of all precautions, the chilblains persist in making their appearance, care should be taken to prevent their breaking by the family physician or by a good children's doctor. The care of the teeth is another important consideration in childhood: and the December number of *L'Hygiène* contains an interesting article on this subject by George Viau. Madame Augusta Moll-Weiss displays her usual discernment and good sense in the advice she gives with regard to the management of a sick-room, whilst Dr. André Castex has contributed a long article on the care of the voice. Mention should be made, moreover, of M. Edmond Cleray's notes on old-world magic and magicians: whilst Dr. Cabanès's charming account of Madame de Sévigné's various illnesses is one of the most delightful features of a very interesting number.

The recently published *Year Book of the Viking Club*, which contains a full account of the proceedings of the Society for Northern Research during the year 1910–11, gives some interesting details concerning the old Norse superstitions connected with pregnancy and childbirth. In the early days of Scandinavian history, when the chief end and object of marriage was the rearing of a large and stalwart family, who in due time would be able to defend their parents' homestead and property, women were expected not to shirk the burdens and responsibilities of motherhood, and to bear children was at once their duty and their honour. As is the case with all primitive peoples, barrenness was looked upon as a curse, and many were the means to which the childless wife had recourse in the hope of obtaining the coveted blessing of children. In Ireland, for instance, the would-be mother was fed with certain parts of the wild goose, or the evening after-milkings whilst they were still warm, without, however, her knowing the nature of the food she was expected to consume. In a certain parish of Shetland, called Sandsting, "an egg-shaped pebble of quartz, 2 in. by 1½ in.," was considered an infallible cure for sterility. This stone, which was believed to have been brought originally from Italy, and was passed from one wise woman to another for generations, was placed in burn-water, in which the sterile woman washed her feet, and through this simple act obtained her heart's desire. There seems reason to believe, moreover, that in Norway and Iceland certain fishes were credited with the miraculous power of producing conception; whilst in Sweden she who desired her first-born to be a son, was advised to take a baby boy to sleep with her on the night before her marriage. The belief, still prevalent in Iceland, that a shower of rain on the wedding day is the forerunner of a fruitful and happy union, lingers also in certain parts of this country, and is, perhaps, yet another sign of the deep and lasting impression made by the wild Norsemen in their periodic descents upon English shores.

The opening of the Princess Christian Farm Colony at Hildenborough in Kent, which took place in July last and was noticed in the pages of this Journal, marked an important epoch in the history of the National Association for the Care of the Feeble-minded. The founding of this "colony" was one of the earliest attempts made in England towards the permanent segregation of the unfit; and the January number of *The Child* contains an interesting account by Miss A. H. P. Kirby, the secretary of the association, of the results of this experiment. "The experiments made in the first homes of the National Association," remarks Miss Kirby, "proved that, in the majority of instances, to train the feeble-minded and then send them out into the world at large again was cruel kindness, and only invited almost certain disaster." The aim of the farm colony at Hildenborough, therefore, is to provide a permanent home for a certain number of persons suffering "from such severe mental defects

as practically to cut them off from the rest of the world," and one, moreover, where "the excellences of all are used to make up for the deficiencies of each, and the aim of the Colony is to attain to the dignity of a sort of industrial village, where the whole of the requirements are met, as far as possible, by the work of the colonists themselves." Mental deficiency, fortunately, does not necessarily preclude a certain amount of manual skill; and, thanks to proper training and constant supervision, the inmates of the Hildenborough colony, both male and female, are now able to take an active part in the various industries carried on with such signal success on this charming estate. A home of a different kind, though no doubt in its own sphere equally useful, is the large orphanage founded over forty years ago at Clapham by the famous preacher, Spurgeon, a short account of which has been contributed to the January number of *The Child*, by the present headmaster, Mr. Vernon J. Charlesworth. The same number of this interesting magazine also contains articles by Drs. John Priestley and John Lambert, on the medical inspection of school children and the proper cleansing of school buildings; whilst much useful information may be gathered from Dr. A. S. Cobbledick's remarks on the important subject of defective eyesight in children, and Dr. G. Norman Meachen has given some valuable advice on the prevention and cure of that scourge of childhood—the common chilblain.

SCIENCE NOTES.

WALKER contributes a very valuable paper to the *Philippine Journal of Science* for October, 1911, on "A comparative study of the amoebae in the Manila water supply, in the intestinal tract of healthy persons, and in amoebic dysentery." The subject is one of the greatest importance, though at the present moment great confusion as to classification and other points prevails. Walker's chief conclusions are that the amoeboid organisms found in the Manila water supply and in the intestinal tract of man belong to the genus *Amoeba* Ehrenberg. He believes that the cultivable species of the genus *Amoeba* are not parasitic in the intestinal tract of man, and when obtained from cultures from the intestine are probably derived from cysts of amoebae that have been ingested with water or food and have passed unchanged through the intestinal tract. Amoeboid organisms parasitic in the intestinal tract of man belong to a distinct genus *Entamoeba* Casagrandi and Barbagallo, these organisms being strict or obligatory parasites incapable of multiplication outside the body of their host or of cultivation on Musgrave and Clegg's medium. He recognizes one non-pathogenic species of this genus, the *Entamoeba coli* Schaudinn, and one pathogenic, *Entamoeba histolytica* Schaudinn, this latter including the *Entamoeba tetragina* Viereck. An infection with either *Entamoeba coli* or *Entamoeba histolytica* must always come, according to Walker, directly or indirectly from another infected person, water or uncooked food only transmitting amoebic dysentery when contaminated with faecal matter from a case of amoebic dysentery. An infection with *Entamoeba histolytica* may persist for an indefinite period after symptoms of dysentery have disappeared, and during this time resistant encysted entamoebae may be passed and become an important source of infection to others. Such persons become carriers of amoebic dysentery comparable to the "carriers" of typhoid fever or cholera.

That the colours of objects alter under the light from artificial illuminants is a commonplace of the general experience, yet the extent to which this shifting of colour-value takes place is surprising when it is scientifically considered. The purchaser of a carpet, linoleum, or piece of hand-painted chintz must suffer some misgivings when he sees how the colours which had pleased him in daylight, or under shop illumination, are degraded under the light, especially if it be yellowish, employed in his own apartment. Few attempts have been made—at least since the advent of the newer illuminants—to determine exactly the colour changes which are thus produced, but Mr. T. E. Ritchie, A.M.I.E.E., at the meeting of the Illuminating Engineering Society on January 16th, brought forward the results of some elaborate investigations on this subject. There is no need to enter into the details of his testing procedure, which consisted in photographing coloured silk ribbons on a panchromatic emulsion, firstly by daylight, and subsequently by the light of several artificial illuminants. The colours observed in the bright diffused daylight of a September noon being taken as the standard, it was found that a very close approximation was obtained with an inverted arc lamp of a particular commercial pattern, under which brown, green, blue and orange appeared normal, red slightly brighter, and mauve slightly darker. With an enclosed arc lamp of the single, long-burning type, red was lightened by several shades and some darkening was observed in each of the other colours. The colour-revealing properties of the inverted incandescent gaslight and the metallic filament incandescent lamp were about equally satisfactory. In both cases red was lightened by many shades, the green darkened and changed to a yellower tint, blue also darkened, and orange and yellow brightened. Ordinary gaslight was low down in the list, but as the days of the luminous gas flame without a mantle are so nearly ended it is not necessary to dwell upon the colour changes which were noted. With arc lamps used chiefly for exterior illumination, the author found the white-flame carbons give, especially in the lighter shades, a much nearer approximation to daylight than the yellow flame. The effect of the mercury vapour lamp upon colours was, of course, extraordinary, almost all the tints being curiously flattened or deadened, and this illuminant was only included for the purpose of indicating the extreme extent to which colours are changed by a light possessing in itself, perhaps, the nearest approach to a monochromatic spectrum of any yet available. The author expressed the opinion that, in view of the existence of illuminants which were at least sufficiently colour-true, and which had an advantage over daylight in that their intensity was constant, there was no excuse for confining classes for the teaching of painting or designing to daylight hours or for keeping art galleries closed after sunset.

Of some interest in connexion with the spread of infectious disease by flies is a recent communication by Horn and Huber.[1] The association of the paratyphoid B bacillus with flies has hitherto not attracted so much attention as that of the typhoid bacillus, but there has been a growing tendency to regard flies as possible carriers of all the enteritis group of organisms. One initial difficulty in the experimental demonstration of such a possibility is the fact that bacteria possessing many features in common with that group are of widespread occurrence in nature, and are to be found in the faeces of various animals and quite frequently in flies. It is also maintained by some that the enteritis bacilli themselves may exist as harmless saprophytes. Apart from the latter opinion, however, it is evident that some care must be exercised in pronouncing on the identity of enteritis-like bacilli obtained from flies. The observations of Horn and Huber have to some extent emphasized this necessity, but it must be remarked that few of the strains isolated by them would have been taken for *B. paratyphosus* B by most bacteriologists, even in the absence of serological evidence. Only two of the strains gave agglutinative reactions with paratyphoid B serum, and only to half its titre, and of these one agglutinated spontaneously in saline solution. None of the strains, in fact, could be regarded as true *B. paratyphosus* B, and, on the other hand, many of them could be identified with organisms of frequent occurrence in the faeces of cattle and horses. It may be added, however, that Nicoll,[2] in this country, has succeeded in obtaining *B. paratyphosus* B from flies, and there can thus be little doubt that flies may and do carry this organism as well as other members of the enteritis and typhosus groups.

[1] *Zeitsch. f. Infektionskrankh. der Haustiere*, x, 6, December, 1911, pp. 443-453.

[2] *Journ. Hygiene*, xi, November, 1911, p. 383.

THE late Dr. Joseph Bell, of Edinburgh, left, in addition to considerable real estate, personal estate in the United Kingdom valued at £62,654.

British Medical Journal.

SATURDAY, FEBRUARY 10TH, 1912.

EDUCATION OF CHILDREN IN THERAPEUTIC INSTITUTIONS.

Perhaps the most important and suggestive aspect of the antituberculosis movement is that which concerns school children. What is the degree of incidence of tuberculosis in children? On what points is the diagnosis to be based? What measures are to be adopted for the protection and recovery of the affected? To what extent are such measures compatible with the maintenance of regular education? These are some of the questions which meet us on the threshold.

There can be little doubt that tuberculosis is much more frequent in children than was formerly—or, indeed, is generally—supposed. This view has in this country been advocated especially by Dr. R. W. Philip of Edinburgh, who, in a lecture before the Washington Tuberculosis Congress in 1908, stated that his personal observation had led him to the conclusion that no fewer than 30 per cent. of school children presented stigmata of tuberculosis: and abroad by Escherich, Hamburger, Monti, and von Pirquet. The more the facts are scrutinized the more does the view appear justified, though it cannot be said that it has been generally accepted by those concerned with the education of children or with the training of students of medicine. There is still much disregard of refined methods of diagnosis. A positive diagnosis is still limited too frequently to the undoubted case of so-called phthisis—a term which, if it means anything at all, means an advanced degree of tuberculosis. Many physicians hesitate, indeed, to admit the diagnosis unless tubercle bacilli be demonstrable. But tuberculosis is a slowly advancing infiltrative infection, and its manifestations are as definite as those in early syphilis. As the diagnosis of tuberculosis comes to be commonly made at this early stage, so in direct proportion will prophylactic and curative measures prove effective. As a rule, when tuberculosis can be reasonably suspected it is actually present, and the fact can usually be determined if only the patients be subjected to a sufficiently systematic and thorough examination on modern lines.

Without pinning ourselves down to a definite percentage, we may yet admit the great frequency of tuberculous infection in children, and are therefore bound to inquire what measures should be adopted in the interest of the child's health and education. It is manifest that for the larger number—that is, for those infected in slight degree—little more is needed than the intelligent application of large hygienic principles in the school, and, so far as it can be obtained, in the home. Much has been said as to the need of open-air schools for various groups of delicate children. The truth is, all schools ought to be directed on open-air principles. Artificial systems of ventilation should be abandoned as unphysiological. Natural cross-ventilation from large windows freely open should be encouraged. The child should be taught the greatest lesson of practical hygiene from day to day through the ever-open window. The evil effect of protective measures, whether in the direction of close, warm rooms, or in that of excessive, tight-fitting clothing, must be exposed and combated. School buildings should be simpler in construction, and the outlay thus saved should be spent in the provision and equipment of larger playgrounds.

Granting these general principles, we may be ready to agree that there is need for more rigidly open-air schools for children who are already definitely affected by tuberculosis, but who, without damage to their health, remain capable of education. Such schools ought to be related to—or rather, we should say, ought to be under the medical direction of—a recognized tuberculosis organization or institution. The institution may either be a sanatorium, as in the case of the school of the Royal Victoria Hospital at Edinburgh, which has been in active operation for a good many years, or a tuberculosis dispensary, as in the case of the Kensal House School, London, which is under the medical superintendence of the Paddington and Kensington Dispensary for Consumption. The essential point in the creation and government of such a school is that in matters medical, where the child's health is primarily concerned, the direction be vested entirely in the hands of the medical staff. It is natural that the Education Department or local education authority, in recognizing such a school, should satisfy itself as to the character of the medical institution under whose guidance the school is to be conducted, but it is equally clear that there should be no interference in relation to the actual medical direction.

Under such conditions, the possibilities of benefit to the community are conspicuous. It has been shown by experience, in Edinburgh, Liverpool, and London, that when simple lessons are adapted to the age, progress, and physical state of each child, a large amount of satisfactory education may be maintained, and that the progress of the child towards recovery is definitely hastened by the mental activity. Physical improvement and mental development go hand in hand; the same applies to crippled children under orthopaedic or other surgical treatment. Instead of the waste of time which enforced residence in a sanatorium or hospital would otherwise entail, the period of residence is profitably employed in the interest of education.

It is to be hoped that in the near future progressive educational authorities will generally appreciate the purpose and far-reaching significance of the combination to which we have referred. In London, so far, things have worked smoothly, despite the very deliberate ways of the Board of Education: it approved the first cripples' school which was started by Dr. Macalister for Liverpool children, but hesitated for more than a year before consenting to the proposal of the London County Council to take over the school for cripples established by private enterprise in the wards of the National Orthopaedic Hospital. This school, one of a group of schools for physically defective children, is associated with that in the Alexandra Hospital for Hip Disease, and it speaks well for the tact and good sense of all concerned that in more than ten years there has not been any friction in its working between the authorities of the Council and those of the hospitals.

Besides these two hospital schools, in which the teachers and the necessary apparatus are supplied by the Council, there are thirty-eight day-schools for cripples scattered about London; the tuberculosis school, to which reference has already been made, is carried on in a large house and garden rented by the Paddington Dispensary, but teachers and materials are supplied by and at the expense of the Education Committee of the London County Council. This is an open-air school when climate permits, and the object which the committee of the dispensary has in view is, while ensuring that the children are instructed in the ordinary subjects of elementary education, to teach them to live properly in their own homes, and so prevent them from becoming chronic consumptives and sources of infection to others. Last year there were over 80 children attending this school; this is a small number compared with the tuberculous population of London, but it is hoped that from these small beginnings great things may grow. Indeed, the London County Council has for four years maintained three open-air schools, but only one of these—that at Forest Hill—is open at this time of year. It is much to be wished that all the cripples' schools should be conducted in the summer months out-of-doors, and probably this will come in time. When the School Board for London handed over its duties to the London County Council, those ladies who had done such good work upon the Board found themselves ineligible for membership of the Council; but their services were not lost to the public, for administrative posts were found for them. At the present time the special schools are under the able superintendence of Mrs. Burgwin, who has seen and taken part in their establishment under the Board.

The proposal rejected in Edinburgh seems to have been closely similar to that accepted in London. The School Board of Edinburgh, in reply to the request of the Managing Committee of the Royal Victoria Hospital, failed (by a majority) to see its way to co-operate with the medical authorities of the hospital, who have for a good many years treated and taught a considerable number of tuberculous children. The proposal was a practical and inexpensive one, amounting to this—that the School Board should avail itself of the exceptional opportunities for the medical treatment of such children, and co-operate, in the interests of the children and of the School Board alike, by providing two or more teachers and a suitable classroom, so that the actual teaching might be conducted on more formal lines than were possible at the hands of voluntary teachers, the hospital authorities holding themselves responsible for the residence and maintenance of a large number, and for the medical supervision of all the accepted pupils. The School Board seems to have taken the untenable view that tuberculous children were either not worth educating at all or were likely to suffer by studies, notwithstanding the fact that these studies were recommended and were to be supervised by the medical authorities of the hospital.

THE PATHOLOGY OF ACUTE POLIOMYELITIS.

THE distinction between regional and generalized infectious diseases is frequently artificial. Many diseases which remain for the most part local, nevertheless produce a profound effect on the whole body. On the other hand, a disease which is generalized at an early stage may produce its most obvious lesions in certain restricted local areas, as, for instance, in a typical case of typhoid fever.

Acute poliomyelitis has generally been regarded as a disease in which the virus and essential tissue changes are confined to the central nervous system and its membranes—if we except the naso-pharynx and, in the case of experimental monkeys, the site of inoculation and the lymph track thence to the nerve centres. Flexner has recently published[1] the results of the *post-mortem* examination of eleven children, of whom ten died on the third to the eleventh day from the onset of acute poliomyelitis. He describes widely distributed pathological changes as occurring constantly in these cases. Besides the well-known lesions found in the central nervous system during the acute stages of the disease, the changes observed by Flexner were found in the lymphatic tissues, the spleen, and the liver.

He found hyperplasia of the lymphoid tissues throughout the body, especially in the lymph glands, and in the lymphoid tissue of the small intestine. The increase of the endothelial cells in the central parts of the glands was especially remarked, and was accompanied by softening of the glands. The spleen was enlarged and its Malpighian bodies increased in size. Other changes described as characteristic consisted of necrosis of groups of liver cells; the dimensions of such a group varied from a few cells to one-eighth of a lobule. The necrosis was succeeded by an invasion of lymphoid cells and polymorphonuclear leucocytes, and by rapid regeneration, evidenced by the active multiplication of liver-cell nuclei.

The general increase of lymphoid tissue in this disease has been briefly alluded to by previous writers, but widespread changes have not been so definitely described before, and have generally been regarded as inconstant. It remains to be shown whether the changes in the lymphoid tissues and spleen and in the liver indicate the presence of the living virus in these organs, or are due to toxic products formed at a distance.

The experimental evidence for the existence of virus in the internal organs, except the central nervous system, is not quite consistent. The experimental disease has very rarely been produced in monkeys by virus derived from parts of the body other than the central nervous system or the naso-pharynx. Krause and Meinicke, however, claim, and Marks has apparently proved, that the blood, spleen, and liver can convey the disease to rabbits, though in these animals the symptoms are of a very equivocal kind. The proof of the identity of the disease in rabbits and monkeys is only obtained when a monkey is again infected from a rabbit and shows signs of typical poliomyelitis.

Further additions to our knowledge of this disease from the experimental side have recently been published by Levaditi and his co-workers.[2] They show that though washings of mucus from the nasal cavities of an infected monkey are not capable of causing the disease when injected into another monkey, still the virus can be obtained by inserting a tampon into the diseased animal's nose and using for inoculation the fluid which has collected in it after twenty-four hours.

Levaditi, Gordon, and Danulesco,[3] have shown that the virus obtained from three fatal cases of acute

[1] *Journal of the American Medical Association*, January 13th.

[2] Landsteiner, Levaditi, and Danulesco, *Compt. Rend. d. l. Soc. d Biolog.*, December 2nd, 1911, p. 558.

[3] *Comnt. Rend. d. l. Soc. d. Biolog.*, December 16th, 1911.

epidemic poliomyelitis which occurred in the South-West of England during 1911 is able to impart the disease to monkeys. The English epidemics are thus brought into line with those from which active virus has been obtained in Austria, Germany, the United States, and France.

PELVIC HAEMORRHAGES AND ECTOPIC GESTATION.

DURING the past ten years, as we have already had occasion to observe, clinical evidence has shown that the tendency of gynaecologists to ascribe all pelvic haematoceles to rupture of an ectopic sac has been pushed to extremes, and has therefore led to error. Those same observers who at first denied the possibility of primary ovarian gestation ultimately acknowledged the ocular proof afforded by Van Tussenbroek, and they must now admit that, as was once believed very widely, pelvic haematoceles may be due to the rupture of haemorrhagic cysts of the ovary. The proof has been demonstrated by several French writers—De Rouville, Bender and Marcille, Tartanson, and Jayle—whilst Bazy has attempted to prove that severe haemorrhages may be derived from the Fallopian tubes themselves, quite independently of tubal gestation, a theory which gave rise to several discussions at meetings of the Obstetrical Society about twelve years ago.

The question is highly important in relation not only to medico-legal questions, but to obstetric science as well as to pure gynaecological pathology. A very careful report, recently published by Leriche and Blanc-Perducet of Lyons,[1] deserves therefore very careful consideration. The patient was a woman aged 43, who had been pregnant eleven times, including five miscarriages. There was a history of swelling in the left iliac fossa after the first pregnancy. In August, 1909, she underwent an operation for what, according to her account, would seem to have been early rupture of an ectopic sac, and a second, ten days later, for femoral hernia. In April, 1911, a severe attack of abdominal pain set in, when the periods were ten days overdue. The patient was admitted into hospital after about a week's delay. There was a tender mass in Douglas's pouch, simulating a retroverted fibroid uterus, and it should be noted that haemorrhage from a ruptured vein in a fibromyoma of the uterus has been observed by Herbert Spencer and others. Leriche operated and found a great quantity of clotted blood in the pelvic cavity. The uterus, which was in a condition of general fibromatous degeneration, was removed with the appendages. Convalescence was uncomplicated. There were no membranous shreds nor any other evidences of recent or old peritonitis. The Fallopian tubes were the seat of inflammation, but were permeable and free from any fetal sac, clot, or dilatation. The ovaries were distinctly enlarged and sclero-cystic. There were two small blood cysts in the left ovary—a condition not rare in late sclero-cystic degeneration. The same condition existed in the right ovary, which contained one cyst as big as a pigeon's egg, showing evidence of a recent laceration on its outer wall. Its interior contained a clot. The Fallopian tubes and the ovaries, especially the right organ at and close to the ruptured cyst, were carefully examined under the microscope, and no traces of fetal structures nor chorionic villi could be detected. The cyst was not derived from a corpus luteum, but was follicular and the result of sclero-cystic changes, which were associated, as others have noted, with fibrosis of the uterus. Thus the severe internal haemorrhage was independent of ectopic gestation or normal pregnancy.

The diagnosis of ruptured ovarian blood cyst from a ruptured tubal sac or a tubal abortion attended with free bleeding is not easy. In the case recorded by Leriche and Blanc-Perducet the patient during the ten days before the attack of acute haemorrhage suffered from dull hypogastric pains of a colicky character and began to feel weak. The periods were, we have noted, overdue. The acute symptoms subsided a little as the patient kept her bed; but fresh attacks occurred, and, let it be remembered, clot, mostly in stringy shreds, came away from the uterus. When the woman wisely applied for hospital relief and was admitted, a pelvic mass was detected, but a morbid condition of the uterus rendered this physical sign less characteristic. Still, all the usual symptoms of intermittent intraperitoneal haemorrhage due to tubal abortion were present. The stringy clot was not examined, as the case was urgent, but one distinct negative symptom was noted when the patient was placed in a hospital ward. There were no changes in the mammary glands indicating early pregnancy. Jayle collected reports of fifteen or sixteen instances of ruptured blood cyst, the more recent being without doubt genuine. In one of his own the patient was a maiden lady aged 42, and the characteristic attacks followed three successive monthly periods. Menstruation had always been regular, and exploration was difficult on account of sclerosis of the hymen. Other recorded cases are not so clear.

Any bloody discharge from the uterus requires careful examination; but although no uterine decidua can exist in these cases, that structure is not always to be found in the far more frequent cases in which tubal pregnancy is the source of the haemorrhage. It has often been passed before the patient comes under a doctor. There are also fallacies, well known to the experienced practitioner, about the appearances of the breasts. Whilst diagnosis is so uncertain there can be no doubt about treatment. When a surgeon has to deal with haemorrhage he must stop it. In a case of this kind haemostasis can be effected by opening the abdominal cavity and removing the bleeding ovary. There is seldom, if ever, much difficulty about ovariotomy under the circumstances, as the ovary is relatively small and firm adhesions are rare. Lastly, the organ removed should be placed in the hands of a competent pathologist. Then, and most likely not till then, the absence of chorionic villi and fetal relics will show that the ovary is not the seat of a primary ectopic gestation, whilst other appearances will prove the existence of sclero-cystic degeneration, involving the wall of the cyst whence the blood issued. On no account should this systematic examination for fetal relics be omitted, as the question of the possibility of pregnancy may be a matter of gravity. It is only under opposite conditions, when the internal haemorrhage is found to arise from a sac and a fetus is discovered in or outside that sac, that the microscope is not absolutely necessary for diagnosis.

In conclusion, it may be said that there can be no doubt that in relation to haemorrhage from a tubal fetal sac these bleedings from haemorrhagic ovarian cysts are exceedingly rare, but it is by no means proved that they are rarer than haemorrhage from a true ovarian fetal sac.

[1] *Annales de gynéc. et d'obstét.*, September, 1911, p. 529; see also Jayle, *Revue de gynéc. et de chir. abd.*, March and April, 1908.

THE INTERPRETATION OF DIFFICULTIES.

MR. LLOYD GEORGE has contributed a preface to a book entitled *National Insurance*,[1] written by Mr. A. S. Comyns Carr and Mr. W. H. Stuart Garnett, Barristers, and Dr. J. H. Taylor, a member of the Council of the British Medical Association. The body of the book consists of a commentary, in six chapters, on the employer, the insured person, administration, the medical profession, sanatorium and maternity benefits and public health, and on finance. This is followed by a text of the Act with notes. In the commentary it is said that "The Act does not establish in any way the cost of medical benefit, and the estimate of 6s. per annum is purely speculative." In the notes on Section 15 it is pointed out that in framing the Act it was assumed that 6s. per annum would suffice, but it is argued that as, after estimating the cost of the other benefits, there is a margin of 1s. 8d. a year in the case of men and 2s. 1½d. a year in the case of women, and that the contribution assigned for sickness benefit contains a margin of not less than 10 per cent., the whole of the margin expressly assigned in the actuarial tables ought to be available for either additional benefits or for the cost of medical service; "it appears possible that 7s. for men and 7s. 6d. for women might be assigned for the cost of medical benefit without rendering the scheme insolvent." Mr. Lloyd George's preface is devoted to generalities. He says: "In the National Insurance Act it has been our aim to provide, as far as may be, for every worker some kind of shelter against the slings and arrows of fortune. In doing so we have not, I think, laid any real additional burden upon the wealth and productive ability of the nation. We have substituted for tardy relief provision made in anticipation of need, no more costly but infinitely more effective and more kindly in its operation than distress funds or the Poor Law. Some remain, for the moment, wholly or partly outside the operation of the scheme. We have not even yet been able to reach the lowest deeps, to grasp the utterly incapable, the loafer, or the wastrel, and set him, too, on the firm ground of self-respecting manhood, fit to withstand all the shocks of adversity, but we may claim to have established barriers to prevent men falling into that abyss of human despair. We have in one great measure swept into the National Insurance scheme some 10,000,000 workers hitherto unprovided for. Much remains to do, and in the coming years much may be done, but here at least is a beginning, made on a broad and comprehensive plan." He admits that in so large a measure whatever care may have been taken in the process of draftsmanship points of difficulty will arise, more especially as the Act traverses so much untrodden ground. He recommends the book as an attempt to anticipate and elucidate the difficulties.

COUNSELS' OPINION.

LAST month the *Practitioner* submitted to three counsel learned in the law the question whether under the Act the Insurance Commissioners or the Insurance Committees have power to make arrangements with medical practitioners embodying all or any and, if so, which of the six cardinal points. The counsel consulted were Sir E. Clarke, K.C., Mr. W. O. Danckwerts, K.C., and Mr. Stuart Bevan, and the opinions they gave were issued on February 1st. They do not contain anything very novel, and are chiefly of value as confirming the view as to the injurious effect of the provisions of the Act as they concern the medical profession. With regard to the income limit of £2 a week, all three counsel of course agree there is no such limit in the Act, but all three point to the provision of Section 15 (3) requiring the Insurance Commissioners to make regulations authorizing the Insurance Committee to fix a limit Sir E. Clarke and Mr. Bevan express the opinion with respect both to this and to the non-manual labourer with remuneration above £160 a year, who by Schedule 1 (Part II, *g*) would be excluded from medical benefit, that the Insurance Committee will have no power to inquire into the total income of an insured person. Sir E. Clarke writes: "I do not see how it would be practicable to enforce a limit except on the basis of the weekly wage;" and Mr. Bevan that "there is nothing in the Act itself which excludes the non-manual labourer, who in addition to a remuneration below £160, has a private income amounting to any sum whatever." As to voluntary contributors, both these counsel agree that the limit of a total income from all sources of £160 a year only applies to voluntary contributors, and only to them during the first five years of their insurance. So that there is still hope for future Governors of the Bank of England and Chancellors of the Exchequer who are now at school. As to free choice of doctor, the three counsel merely set out briefly the effect of the provisions of the Act, but none of them touch on Section (15) subsection (4) (Harmsworth amendment). The opinions on the administration of medical and maternity benefits merely set out the facts, with the exception that Sir E. Clarke thinks it "probable that the representatives of the approved societies will be at least one-half of the whole [Insurance] Committee." As to the mode of remuneration Sir E. Clarke believes that the obligation on the local Insurance Committee to consult the recognized local Medical Committee on all questions affecting the administration of medical benefits would cover the question of the method of remuneration, and he seems to think that the regulations made by the Insurance Commissioners might require the local committee to adopt a plan approved by the Medical Committee. Mr. Danckwerts is less optimistic: he merely says that the Commissioners' regulations will provide for the nature of the arrangements, and that local Medical Committees "have some power of enforcing their views and regulations may be made in regard thereto." Mr. Bevan, after pointing out that the Medical Committees are merely consultative bodies without powers to enforce their views as against the Insurance Committees, continues as follows: "It may be, however, that the regulations to be made by the Commissioners and the provision in the section that the Medical Committees may exercise such powers as may be determined by the Commissioners may result, when those regulations are made and those powers defined, in the Medical Committees having some power of enforcing their views. The Act, however, contains no guarantee that such will be the case." As to the rate of remuneration, it is agreed that this will be a matter for contractual arrangement in each case. Mr. Danckwerts adds: "Though this is so in general, I think the Commissioners' regulations to be made in conformity with Section 15 (1) as to the nature of the arrangements may more or less effect something towards conformity with this demand. It must not be forgotten that the funds available are limited." Mr. Bevan concurs, but adds: "As the Act stands there is nothing to indicate that what is considered to be adequacy of remuneration will necessarily be secured." As to the sixth point, adequate medical representation on the administrative bodies set up under the Act, the opinions merely set out the well-known facts. In a brief general opinion on the powers of the Insurance Commissioners Sir E. Clarke expresses the view that as to method and amount of remuneration the powers are sufficiently wide "to enable them to yield to the wishes of the medical profession"—an ambiguous expression which must be read with his observations under each head separately, and then seems to amount to very little, and that the administration by Insurance Committees as now constituted, and the representation on the administrative bodies being matters controlled by the express provisions

[1] *National Insurance*. By A. S. Comyns Carr, W. H. Stuart Garnett, Barristers, and J. H. Taylor, M.A., M.B., Ch.B. With a preface by the Right Hon. D. Lloyd George, M.P. London: Macmillan and Co., Ltd. 1912. (Med. 8vo. pp. 534. 6s. net.)

of the statute cannot be modified in any way. Mr. Danckwerts contents himself by expressing the view that Section 62 seems to him "to leave room for the Commissioners giving local Medical Committees effective powers in regard to many of the matters raised."

"THE PROFESSION AND THE POLITICIANS."

In a short article under this heading which appeared in the British Medical Journal of January 27th, p. 206, we commented on some opinions which Mr. J. M. Robertson, M.P. for Tyneside, was reported to have expressed as to the political incapacity of doctors. As will be seen from a letter which is published at page 336, our remarks have made Mr. Robertson very angry. He evidently has the intolerance of the slightest criticism characteristic of politicians of his type. But as Disraeli said of Vernon Harcourt, his invective lacks finish. He tears his passion to tatters. He denies having said that the violent and furious opposition of doctors to the Insurance Act is due to their being mostly Tariff Reformers. If this be so he has been ill used by the local press, for we find in the *Newcastle Daily Journal* of January 16th that, speaking of doctors, he is reported to have said "the majority of them were probably Tariff Reformers, and it was on that ground, he was afraid, that they had been so ready to set up all that violent and furious opposition to the Insurance Act. If it had been a proposal to levy a tax to make the people's food and boots dearer, there would have been no meeting of doctors to protest. They would have said nothing." Mr. Robertson, as far as we have seen, has not repudiated this report. He virtually admits its substantial accuracy in the letter we publish, when he says that the majority of doctors would make no protest against a tariff which raised the price of food and manufactures for the masses. And this for what Sir Toby Belch would call the exquisite reason that the "tariffist doctor" either thinks prices would not rise or believes that he would be compensated by higher fees! He surely must give the doctors credit for knowing that if the cost of living rises it must affect them more than any other class of the people, for they are always the last to be paid, and a rise of fees would then probably lead to a greater number of bad debts. As regards the "general Toryism" of which Mr. Robertson speaks with such confidence, we repeat that he has no right to assume this as a fact; indeed in the correspondence into which his hasty generalization has forced him, he calmly owns that "naturally" his statement is "unproved" as there is no political census of doctors. We are inclined to think that the general Toryism imputed to doctors by Mr. Robertson is what our antivivisectionist friends call a "platform fact." We have no reason whatever to believe that the shouting down of Sir Victor Horsley—of which we may say in passing that it was worse than a crime, it was a blunder, besides being a gross discourtesy to a distinguished man—was inspired by political feeling. Our impression is that a large proportion, if not a majority, of the profession are indifferent in the matter of politics. Their attitude would be aptly expressed by the old lines:

> I care not a fig
> For Tory or Whig,
> But I sit in a bowl and kick round me.

The doctor's work leaves him no time for the wirepulling of political life and his training tends to disgust him with its sophistries. It is only fair to Mr. Robertson to add that, as is shown by a later speech reported in the *North Mail* of January 24th, he has found it politic to change his ground. He there attributes the opposition of the profession to "panic," and adds that he had been assured by medical friends that it was this and not Toryism which had inspired a great deal of the doctors' denunciation of the Liberal Government. Mr. Robertson seems to think that we should have given an account of the "general case" as put by him to the blameless Hyperboreans whom he was addressing. This would have been irrelevant, as we were only concerned with his attack on doctors as politicians. Moreover, our readers have had the opportunity of seeing all this "put" by men who can speak with greater authority, and it seemed superfluous to trouble them with it all over again. Regarding the 10,000 doctors, we quoted Mr. Robertson's own words, and we asked—and we once more ask—where he thinks they are to be got. We will better his instruction by suggesting that, as a preliminary to understanding, he should take the trouble to read what he is replying to. We are not concerned to defend the quality of our "fun," though, as Francis Jeffrey said in like circumstances, we might appeal to a gayer critic. We may conclude with a word of advice to Mr. Robertson. Instead of trying to make people believe that the opposition of the medical profession to the Insurance Act is political in character, he would do well to cultivate the innocence of Mr. Lloyd George, who, at the City Liberal Club on Saturday last, said that, with the exception of Mr. Shackleton, he had no notion to what party any of the English Insurance Commissioners belong, nor did he think any one else had. This pastoral simplicity somehow recalls the Dartmoor shepherd, but it is better than gratuitous denunciation of a body of men as Tories because they have not the true faith in a particular piece of Liberal legislation which a partizan with the spirit of Torquemada insists upon as necessary to political salvation.

THE TREASURY AND THE INSURANCE ACT.

The London newspapers which are commonly looked upon as the organs of the Government—the *Daily News*, the *Daily Chronicle*, and the *Westminster Gazette*—have during the last few days contained a series of articles which are significant. The first article in the *Daily News* assumed a somewhat threatening tone and contained the accusation that the doctors were acting from political motives, or were at least allowing themselves to be used by a political party. This attitude has been to some extent modified, and even in the first article it was recognized that the estimate of 6s. per member for medical benefit is too low if a comprehensive definition is to be given to treatment. The bogey of a whole-time medical service was trotted out, but from the general tone of the articles it is to be gathered that this is not seriously contemplated, and it is now being pointed out that the question of remuneration has been left open for settlement between the Insurance Committees, or "conceivably the Commissioners," and the doctors. "It has," the *Daily Chronicle* continues, "been assumed all along that because the sum of 6s. for each insured person per annum was mentioned in the Treasury estimates to cover medical benefit this was the maximum amount available. It ought clearly to be understood that no such limit has been fixed," and we are told that the Insurance Commissioners have not been able to come to any conclusion. "Nobody," it is added, "for one moment expects that under a State scheme a great profession should be asked to work at an unremunerative rate of pay. Indeed, in the interest of everybody concerned it is most desirable that the doctors should be induced to give ungrudging service. The bulk of the money for medical benefit will be found by the approved societies. Is it not obviously in the interest of these societies that they should have the cordial co-operation of the doctors, so that attempts at malingering may be put down, and that sick members should be cured as speedily as possible? Poorly paid doctors would almost certainly mean unnecessarily heavy demands upon the sick funds." The choice which is said to lie before the general practitioner is, "Will he confer—not with the friendly societies, but with the Commissioners—or will he blindly pursue his demand for an amending Act?" We are not aware that

it has been shown that general practitioners demand an amending Act. What the report presented by the Council to the Association recommends is that the Council should be instructed to press upon the Government and the Commissioners the further conditions necessary for securing the requirements of the profession, and to notify to the Commissioners that no negotiations will be entered into with any Insurance Committee until the Representative Body is satisfied that the requirements of the profession are conceded. One of these, and not the least important, concerns the question of remuneration, and the Treasury, having assumed the sum of 6s. a year for each insured person to be sufficient—an assumption which must influence, if not wholly determine, the attitude of the friendly societies and county councils to this financial question—may well be asked through its titular head to give these bodies a lead by indicating, as may well be done without any loss of credit, that a closer examination of the circumstances has shown that a larger provision must be made if an adequate service is to be provided. The letter sent by the Insurance Commissioners on February 7th, in reply to an inquiry from the British Medical Association (SUPPLEMENT, p. 162), does not advance the matter.

SECONDARY X RAYS AND X-RAY BURNS.

No part of Sir James Mackenzie Davidson's lecture at the Royal Institution on February 2nd was of greater importance than his demonstration of the secondary *x* rays which proceed from the glass of an *x*-ray tube. These secondary rays have been the subject of investigation by physicists for years past, and it is quite possible that they are of the same nature as the secondary rays generated by the impact of primary rays upon solid matter, to which Barkla and Sadler have drawn attention. Fifteen years ago Professor Silvanus Thompson gave the name of "paracathodic rays" to the rays which followed from the reflection of the cathode ray stream and its impingement upon the glass, although at that time Professor Thompson affirmed that the cathode rays produced no *x* rays upon this second impact. But Sir James Davidson seems to have been the first to recognize the physiological importance of this secondary radiation. He believes that these secondary rays given off from the surface of the glass are mainly responsible for the dire *x*-ray burns in operators. His attention was called to the matter upon finding that the area of dermatitic trouble in his own hands ended sharply at a line corresponding to the coat cuff, for of course cloth is quite transparent to the primary *x* rays, and in his own case the adjacent parts of the skin beneath the sleeve had been equally exposed with the uncovered hand itself. The fact seemed to suggest that an agent was at work, less evidently powerful than the main *x*-ray stream, but more insidious and indeed likely to be more vitally injurious because these secondary rays are more readily absorbed than the primary ones by the skin. Sir James excellently demonstrated the existence of these rays by suspending opposite the anode of the tube from which the primary rays emerge a mass of lead through which no primary rays could penetrate; nevertheless, within the eclipsed area were shadows caused by other rays, and these rays could be traced to points of emergence on the glass of the tube. An electroscopic test proved that in the case of a "high" tube, if the action of the primary rays were taken as one, the action of the secondary rays would be one-half, and that in the case of a "low" tube, the primary again being taken as one, the secondary were represented by one-seventh. As a confirmation of the physiological action of these rays, he mentioned the fact observed by Freund, that a tube so high as to give no fluorescence on the screen would cause epilation, and that with a tube having the electric current passed in the reverse direction, so as to produce only very weak primary rays, similar results were obtained. Sir James suggested the construction of a tube which would make it possible to employ for therapeutic purposes these secondary rays alone. He added that it was only in the course of the preparation of his lecture that the physiological importance of these rays suggested itself to him. If these are actually the rays which do the damage, the belated discovery would only be comparable with that extraordinary accident by which the *x* rays themselves remained undiscovered for many years after the Crookes's tube was an accomplished fact.

HOME SCIENCE.

SANITARIANS have for years been grappling with the problem of the waste of infant life, which is all the more lamentable since it is largely due to causes that it is in our power to remove or counteract. A solution of the problem is more and more imperatively called for in proportion as the birth-rate tends to decrease. There are signs that the national conscience is becoming awakened to the blot on our civilization made by the blood of the countless victims to the ignorance of mothers, not all by any means belonging to the poorer and less educated, which is the Moloch of modern child life. Conspicuous among these signs is the recent movement for the education of women in home science, which has taken form and substance in the special school for that purpose attached to King's College. The movement owes much of its success to the active interest in it taken by Her Majesty the Queen. The "school," as we have called it, is part of the Women's Department of King's College. It is in organic relation with the London University. Besides preparation for degrees in the Faculties of Arts and Science, the department provides courses in Home Science and Economics for the King's College Certificate and the King's College Diploma. In May, 1911, some £60,000 had been privately subscribed for the furtherance of the movement for higher education in home science. An anonymous donor gave £20,000 to found an institution to be called Queen Mary's Hostel. Lord Anglesey gave an equal sum for the building and equipment of laboratories. A sum of £10,000 for the endowment of professorships and lectureships on chemistry, hygiene, and physiology was also subscribed. The origin of the movement was the desire to diffuse sound knowledge of the laws governing health, sanitation, and household economy, and especially to lessen the great loss of infant life by preventable disease. As the promoters pointed out, "the object is to foster a sounder knowledge of the laws which govern health, sanitation, and household economy. The moral and physical welfare of our country depends primarily on the training and healthy upbringing of its children. This is the special work which Nature and custom has assigned to women, and it is in directing attention to the type of education provided for girls that the true remedy lies. By ensuring that in future every girl's education shall include some knowledge of the science which affects her home problems and some practice of the domestic arts, the whole standard of home life would be raised, and trained experience substituted for instinct and tradition, which have hitherto been the chief guides for mothers." For the effective working of the scheme it was estimated that £100,000 was required. A Trust Fund Committee was formed to receive contributions. The committee was composed as follows: Lord Anglesey (chairman), Sir William Anson, M.P., Mrs. Asquith, Mr. Balfour, Lord Justice Buckley (honorary treasurer), Lady Esher, Lady Meyer, Sir Arthur Rücker, F.R.S., and Lady Rücker, and Dr. John Atkins (honorary secretary). It is now announced that the whole sum has been provided. Mention has already been made of the gifts of Lord Anglesey and the anonymous benefactor who provided the money needed for the foundation of Queen Mary's Hostel. Among the other contributors are Mrs. Wharrie, who gave a sum of

£20,000 to provide for the teaching of chemistry in memory of her father, the late Sir Henry Harben; the remaining £30,000 required was supplied by another donor. In addition to these donations mention should be made of the following: "Anonymous," £5,000; Mr. Almeric Paget, M.P., and Mrs. Almeric Paget, £1,000 each; the Duke of Devonshire, the Duke of Westminster, Lord Plymouth, Lady Wantage, and Mr. Otto Beit, £500 each; Lady Salisbury, Lady Mond, and Messrs. Rothschild and Son, £250 each; Lord Scarborough, Mrs. Alfred Morrison, and Mr. R. Nevison, £200 each; the Hon. W. F. D. Smith, Mr. Alfred Nathan, and "Anonymous," £100 each. The fund will be administered in accordance with the terms of the trust deed by an executive committee composed of representatives of the subscribers and of King's College for Women, including Lady Meyer and Lady Rücker, who were the pioneers of the scheme. Negotiations are now proceeding respecting a site for the hostel and for the new buildings of King's College for Women, in which will be incorporated the laboratories for the home science department. Every member of the medical profession and every patriotic citizen will heartily wish success to a scheme which strikes at one of the roots of the national decay, such deplorable evidence of which confronts us throughout the land.

THE CONSTITUTION OF PROTOPLASM.

THAT living protoplasm is a colloidal solution of the nature of an emulsion is the idea put forward a short time ago by Lepeschkin[1] in a preliminary paper on the structure of protoplasm. Under certain conditions this emulsion may become transformed into gelatinous foam with fluid honeycomb-like walls. Further, the colloidal parts, in which Brownian movement is exhibited, probably consist of a great variety of heterogeneous compounds. Owing to the slow movement of the colloid material chemical change in any part is not distributed immediately but tends to cause changes in the protoplasm at that particular part. These changes are evidenced by movements such as contraction of the cell or by the separation of special substances. These movements, etc., accelerate the motion of the plasma, and in this way the effect of the stimulus is eventually distributed to all parts. In addition to the cytoplasm the nuclears and other cell structures are believed to be of a similar colloidal nature. Lepeschkin maintains that all phenomena exhibited by protoplasm may be interpreted in terms of this "living plasma" theory, but it is apparent that much fuller experimental demonstration is necessary before such general conclusions can be accepted.

[1] *Bericht. Deutsch. Bot. Gesellsch.*, 1911, p. 181.

EDUCATION IN MIDWIFERY IN AMERICA.

IN a paper which appears in the *Journal of the American Medical Association* of January 6th, Professor Whitridge Williams of John Hopkins University gives an account of the results of an inquiry made by him with regard to the teaching of obstetrics in the United States. A schedule comprising some fifty questions was sent to the professors in the 120 medical schools giving a full four-year course. Replies were received from 43; thirty-one of these were from among the sixty-one schools which are designated as "acceptable" by the Council on Medical Education of the American Medical Association, and 11 from the 59 non-acceptable schools, not including one from Canada. The replies, says Dr. Whitridge Williams, clearly demonstrate that most of the medical schools included in his report are inadequately equipped for their work, and are each year turning loose on the community hundreds of young men whom they have failed to prepare properly for the practice of obstetrics, and whose lack of training is responsible for unnecessary deaths of many women and infants, not to speak of a much larger number more or less permanently injured by improper treatment or lack of treatment. He sums up his conclusions as follows: (1) Generally speaking, medical schools are inadequately equipped for teaching obstetrics properly, only one having an ideal clinic. (2) Many of the professors are poorly prepared for their duties, and have little conception of the obligations of a professorship. Some admit that they are not competent to perform the major obstetric operations, and consequently can be expected to do little more than train men-midwives. (3) Many of them admit that their students are not prepared to practise obstetrics on graduation, nor do they learn to do so later. (4) One-half of the answers state that ordinary practitioners lose proportionately as many women from puerperal infection as do midwives, and over three-quarters that more deaths occur each year from operations improperly performed by practitioners than from infection in the hands of midwives. It is clear that reforms are urgently needed, and Dr. Whitridge Williams suggests the following as the most important: (1) Reduction in the number of medical schools, with adequate facilities for those surviving and higher acquirements for the admission of students. (2) Insistence in university medical schools that the head of the department be a real professor whose prime object is the care of hospital patients, the proper training of assistants and students, and the advancement of knowledge, rather than to be a prosperous practitioner. (3) Recognition by medical faculties and hospitals that obstetrics is one of the fundamental branches of medicine, and that the obstetrician should not be merely a man-midwife but a scientifically trained man with a broad grasp of the subject. (4) Education of the general practitioner to realize that he is competent only to conduct normal cases of labour, and that major obstetrics is major surgery and should be undertaken only by specially trained men in control of abundant hospital facilities. (5) The requirement by State Examining Boards that every applicant for licence to practise shall submit a statement certifying that he has seen delivered and has personally examined under appropriate clinical conditions at least ten women. (6) Education of the laity—that poorly trained doctors are dangerous, that most of the ills of women result from poor obstetrics, and that poor women in fairly well conducted free hospitals usually receive better care than well-to-do women in their own homes; that the remedy lies in their hands, and that competent obstetricians will be forthcoming as soon as they are demanded. (7) Extension of obstetric charities—free hospitals and out-patient services for the poor, and proper semi-charity hospital accommodations for those in moderate circumstances. (8) Greater development of visiting obstetric nurses and of helpers trained to work under them. (9) Gradual abolition of midwives in large cities and their replacement by obstetric charities. If midwives are to be educated it should be done in a broad sense and not in a makeshift way. Even then disappointment will probably follow. It may be conjectured that the answers from the large number of schools which have not replied would, if given with equal frankness, be still less satisfactory. As to Dr. Whitridge Williams's suggested reforms, however, we take leave to doubt whether they are not too drastic. We particularly demur to his statement that all difficult cases should be relegated to the care of specialists. In this country—and the same remark must apply much more forcibly to America—it would be impossible, even if it were desirable, that all cases offering any difficulties should be taken out of the hands of the general practitioner. There are many men in general practice who have records of thousands of cases, including every kind of complication, and with a minimum mortality. We think that what Dr. Whitridge Williams's facts do conclusively show is that medical education in the department of obstetrics is, on the average, very inadequate in the United States. It is, we believe, admitted by all who know the facts

that the preliminary training is poor—a fact which may throw a sidelight on the recent controversy as to the relative advantages of our public schools and institutions of the same kind in the United States. Even in those universities which require a degree in arts as a condition of admission to the medical faculty, the general level of culture is low as compared with the general standard of our schools. Moreover, training in many of the medical schools is scanty and narrow, and they turn out men very imperfectly equipped for the battle against disease which it will be their business to wage. There are too many schools, and many of them are run on an almost purely commercial basis. It must be noted that Dr. Whitridge Williams's strictures apply mainly to schools that have a four years' course. From this it may be inferred that the state of the other schools whose aim in regard to output would seem to be quantity rather than quality, and whose methods may be compared to sausage-making in Chicago, would show still more lamentable results.

WOMEN'S IMPERIAL HEALTH ASSOCIATION.

THE annual meeting of the Women's Imperial Health Association was held at 7, Hanover Square, W., on January 31st. Amongst those present were: Muriel Viscountess Helmsley (President), Dr. H. J. F. Simson (Vice-Chairman), and Mr. E. M. Corner, F.R.C.S. (Honorary Treasurer). The Chairman, Dr. R. Murray Leslie, in proposing the adoption of the annual report, referred to the honour conferred on the association by H.R.H. Princess Louise, Duchess of Argyll, in becoming its Patron, and alluded to the warm interest Her Royal Highness had shown in the various departments of the work. It was announced that the association had become incorporated under the Companies (Consolidation) Act, 1908 (without profits). In reviewing the work of the year Dr. Murray Leslie referred to the very successful health fête and congress held last summer. The congress was the first of the kind ever held in this country. Health caravan tours were conducted—one in Essex, Norfolk, Hertfordshire, Leicestershire, Rutland, and Bedfordshire, and the other through Hampshire, Dorset, Devonshire, and Somerset. In the villages the arrival of the caravan with its accompanying kinematograph demonstrations was hailed with delight. The work of the London Parks Caravan was well known to habitués of the parks at Battersea, Hampstead, Parliament Hill, Victoria Park, Wormwood Scrubbs, Wandsworth, Streatham, Clapham, Tooting, and Peckham Rye. Reference was made to the work done by the association in regard to the preservation of teeth of school children. In connexion with this matter it may be mentioned that the association offers prizes for the best-kept mouths, and it has been mainly instrumental in founding the British Dentists' Hospital. A model School for Mothers has been established in Lambeth. It has been proposed that the president should visit India next winter in response to representations pointing out the advantage of forming a branch of the association to promote hygiene amongst the women of that country. During the year 200 health lectures had been delivered under the auspices of the association, most of them illustrated by lantern slides and kinematograph displays, while 163,000 health leaflets and pamphlets had been distributed. A Juvenile Health League of nearly 1,000 children has been established in Romford in connexion with this association. The treasurer's report was most satisfactory; it was stated that a considerable sum was added to the reserve fund.

A PSYCHOLOGICAL COMEDY.

MR. SUTRO's new play at the Garrick Theatre is a psychological study, touched with a light hand, of a mischievous type which is perhaps commoner than would seem to be generally supposed. At any rate, the woman—the character is generally a woman—who does evil out of a spirit of impish perversity is a type very well known to doctors, and not peculiar to any one class of society. In a lower stratum it generally goes the way of petty criminality, in a higher it saves appearances with greater or less success, at any rate for a time, but commonly does more harm, spoiling men's lives and wrecking other women's happiness. In this play the wiles of the imp are directed against a hard-working altruistic pathologist, who, on the appeal of his wife, and encouraged by the enthusiasm of his fellow-workers, determines at last to try on a child a therapeutic serum for cerebro-spinal meningitis, which for years he has been perfecting. Of the *Fire-screen* who gives the title to the play we need say nothing but that the imp is caught in her own toils—but only for a time. She extricates herself with appropriate impudence. The first scene gives a judiciously slight glimpse into the pathologist's laboratory, where every detail has been carefully studied, and a good idea is given of the austere precision and biological cleanliness of such places. The play is a comedy full of bright sayings, with several strong scenes, and admirably acted, so that the first-night audience went away amused, well pleased, and interested.

PRESENTATION TO DR. LATHAM OF CAMBRIDGE.

IT is proposed that a presentation of a suitable nature be made to Dr. Latham by the medical men of the district on his retirement from active work. He has for many years held a leading position as Physician to Addenbrooke's Hospital, as Downing Professor of Medicine, and as a consultant for a very wide area. His generosity in entertaining the members of the Cambridge and Huntingdon Branch of the British Medical Association and of the Cambridge Medical Society has ever been highly appreciated, and it is thought that the members of these two bodies would desire to express not only their personal appreciation, but also wish to ask him to accept some token expressive of the great services he has rendered to them and to their patients. It is calculated that if the members contribute a sum not exceeding 10s. each, a handsome amount will be available for the purpose. Further, it is hoped that an opportunity will be given to convene a meeting of subscribers to show the regard in which his fellow practitioners hold him. In case other medical friends, or old pupils of Dr. Latham, to whom no intimation of the proposal has been sent, desire to contribute, their subscriptions will gladly be received by one of the Honorary Secretaries, J. Alden Wright, M.D., Honorary Secretary Cambridge Medical Society, or H. Buckley Roderick, M.D., Honorary Secretary Cambridge and Huntingdon Branch British Medical Association, 19, Trumpington Street, Cambridge.

SIR GEORGE HARE PHILIPSON, President of the Newcastle College of Medicine, has been appointed by the Senate Vice-Chancellor of the Durham University.

THE officers of the Sections of Neurology and Psychological Medicine of the annual meeting of the British Medical Association at Liverpool in July next have arranged that the chief topics for discussion shall be the neuroses and psychoses of the climacteric, their prognosis and treatment, to be opened by Dr. Percy Smith, Dr. C. J. Macalister, and Dr. T. B. Grimsdale, from the standpoints of the psychiatrist, the general physician, and the gynaecologist; and the diagnosis and treatment of compression paraplegia, to be introduced by Dr. Ernest Reynolds and Sir Victor Horsley.

THE twenty-ninth annual general meeting of the Medical Sickness and Accident Society will be held at the house of the Medical Society of London, 11, Chandos Street, W., on Thursday, May 9th, at 4.30 p.m.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

WALES AND MONMOUTHSHIRE.

The Profession and the Insurance Scheme.

The proposal to form a Welsh Medical Committee or Council to organize and conduct future discussions as to medical benefit under the Insurance Act with the Welsh Commissioners has met with general approval in Wales. At a meeting of the South Wales and Monmouthshire Branch at Swansea on February 2nd a resolution was unanimously passed in favour of constituting for Wales and Monmouthshire a Welsh Medical Council representing both members and non-members of the British Medical Association for the purpose indicated. It was further resolved that no offer from the Welsh Commissioners should be accepted until after the Representative Meeting of the British Medical Association in London on February 20th and 21st. In consequence of the approval with which the proposal has been received it has been resolved to postpone the meeting at Shrewsbury arranged for Friday, February 9th, until Thursday, February 15th, so as to allow time for the Divisions in Wales and Monmouthshire to meet to discuss the resolutions it is proposed to submit to the Shrewsbury meeting, and to elect delegates to attend it. It has been suggested to officers of Divisions that eligible non-members should be invited to the Division meetings so as to ensure unanimity in the profession throughout Wales and Monmouthshire. The resolutions to be submitted to the Shrewsbury meeting, which will assemble at the Raven Hotel in that city at 2 p.m. on Thursday next, February 15th, will include the reaffirmation of the six cardinal principles, and the appointment of a Welsh medical committee or council, to convey to the Board of Insurance Commissioners in Wales the decisions of the medical profession. The postponement of the Shrewsbury meeting has been rendered possible by the very general approval of the course proposed to be taken, which has done away with the necessity of holding the suggested preliminary meeting on February 9th. The meeting on February 15th will, it is anticipated, be able at once to proceed to the constitution of the Committee for Wales and Monmouthshire, and the election of an Executive Committee.

Llandudno Fever Hospital.

In a report to the Local Government Board in 1910 Dr. R. W. Johnstone, referring to the Llandudno Isolation Hospital, stated that the patients treated in it were attended by their own medical men, and that there was no medical officer, and no general medical supervision of the hospital. Since the date of that report there appear to have been some changes made in the administration of the institution, but from correspondence which has been appearing in the local newspapers there is still much more to be done. The principal complaints (and they are made by Dr. E. R. Woodhouse and Dr. T. L. Kenrick Davies), are that there is insufficient accommodation to receive the different infectious diseases which the rules of the hospital permit to be admitted for treatment, and that the arrangements for discharging patients is inadequate. On the other hand, Dr. E. Gooddy, as a result of his personal experience, expresses the opinion that the hospital fulfils the functions for which it was intended. The urban district council, anxious that the best should be made of existing conditions, attempt to prove statistically that it would be difficult to improve upon those conditions, and hurl reproaches at their critics. It is a pity that this attitude has been taken up by the sanitary authority, which is responsible for the well-being not only of the inhabitants of the town but of a very large number of persons who visit the locality every year, and upon whose goodwill the prosperity of the inhabitants largely depends. Unless considerable alterations have been made since Dr. Johnstone visited Llandudno in 1909, the district council would be well advised in bringing the hospital into line with modern requirements, and in this most practical and effective manner silencing their critics.

Suggested Homes for Harmless Lunatics.

Delegates from various boards of guardians met at Carmarthen on January 27th to consider the advisability of classifying and housing the harmless lunatics and feeble-minded persons in West Wales. The general feeling was that, owing to the crowded state of lunatic asylums in Wales, many of these lunatics were kept in workhouses, where they mixed with the inmates to the detriment of all concerned. Mr. Hugh Williams, an inspector of the Local Government Board, said there were in the three counties of West Wales 212 imbeciles and feeble-minded persons and 658 lunatics. There were thirteen union workhouses, and he thought that six of these could be done away with. If there were fewer tramp wards there would be fewer tramps, and he advised that the three counties should unite in reducing expenditure in this direction. A committee was formed to draw up a scheme for the approval of the various boards of guardians.

MANCHESTER AND DISTRICT.

The Manchester Royal Infirmary.

The annual report of the Board of Management of the Manchester Royal Infirmary gives special attention to the effect the National Insurance Act may be expected to have on voluntary hospitals. The board expresses its belief that there is a general consensus of opinion that the work and expenditure of hospitals will be in no way lessened by the Act, and an appeal is made to the public to continue and to increase their subscriptions "not only on the ground of the necessity to support the hospital, but also from the point of view of individual economy." The report quotes the following remarks of the Chancellor of the Exchequer in his reply to the hospital deputation:

> The hospitals of the country were essentially a part of the machinery of civilization, and he could not imagine any country allowing any single hospital to be closed. He did not wish to indicate at present what would have to be done, but he was perfectly clear in his own mind that no country could allow a hospital to be closed because it was short of cash.

In commenting on these remarks, the report continues:

> This statement obviously implies that if the hospitals are not supported voluntarily they will be supported by taxation, which would probably result in the conversion of voluntary hospitals into State hospitals. Space does not permit of a discussion of the advantages or disadvantages of such a change, and it is only possible to say that, in the opinion of the board, it would be injurious alike to the patients, the public, and the progress of medicine. It has sometimes been claimed as an advantage that if the hospitals were supported out of the taxes every person would be compelled to contribute his share, but it must be remembered that it is just as likely that the money would be raised by class taxation as by general taxation, and that the hospital tax might be raised by an addition to the income tax or to the super-tax or by the imposition of another penny upon the workman and another twopence upon the employer—an infinitely heavier burden than the voluntary contributions now made. It must also not be forgotten that these alternatives to voluntary support are a long way off, and that in the interval the hospitals have to be carried on.

The work of the infirmary shows a great increase on previous years in every department. Thus in 1911 the in-patients numbered 8,631, compared with 5,169 in 1908, while the out-patients, casualty cases, and home-patients numbered 63,949, compared with only 46,856 in 1908. The total number of persons in all departments, inclusive of the Barnes Convalescent Home, who received the benefits of the charity in 1911, totalled 74,540. The most remarkable increase was in the number of minor casualties, mostly coming under the Workmen's Compensation Act, the number reaching 22,654, as compared with 18,381 in 1910, the number of attendances for treatment by these cases being 76,733.

In the original appeal of the board to the public for funds, it was stated that after removal to the new infirmary at least £12,000 in new annual subscriptions would be required to enable the institution to pay its way, and the response had only amounted to about £3,220. There has been a further increase during 1911 of £563 in subscriptions, which still leaves such a large sum to be obtained that the board feels that it may soon be necessary to make a fresh special appeal. It is announced that the board hopes shortly to obtain possession of the old Grosvenor Street Chapel and the Roby Schools, and to erect a central

branch on the site, at an estimated cost of £45,000, including the purchase price of the land. Reference is also made to the appointment of a special medical officer to devote his whole time to the investigation into the causes and cure of cancer.

It may be noted that an additional contribution of 1d. from insured persons and 2d. from employers would bring in about £9,000,000, whereas the memorial presented to the Government on behalf of the voluntary hospitals of Great Britain and Ireland stated that "the voluntary hospitals of the kingdom are at present supplying this need (medical and surgical attendance for the working classes) at an annual cost of nearly £4,000,000, exclusive of interest on the original cost of the hospital buildings." It is evident that the Infirmary Board believes that the cost of State hospitals would be enormously greater than the cost of the voluntary hospitals.

THE MANCHESTER ROYAL EYE HOSPITAL.

An arrangement has been made between the Manchester Royal Eye Hospital and the University of Manchester for the appointment of a laboratory steward to the hospital, who will work under the supervision of the Professor of Pathology of the University. This arrangement is intended to facilitate the examination of pathological specimens in connexion with diseases of the eye as treated at the hospital, and it is hoped that progress may be made in the preparation of serums and vaccines for use in the treatment of such diseases. It is agreed that Professor J. Lorrain Smith, as the Professor of Pathology, shall be appointed Honorary Pathologist to the hospital with a seat on the Medical Board. The annual report of the hospital shows that the number of patients treated during 1911 was greatly in excess of any previous year. The out-patients admitted at Oxford Road were 25,222, an increase of 3,155, and at St. John Street 14,037, an increase of 1,262. The in-patients admitted at Oxford Road numbered 2,008, an increase of 21, the average stay in hospital being just over twenty days. The number of accident cases treated at the two hospitals was 9,350, which is an average of about 29 per day. The ordinary expenditure for the year exceeds the ordinary income by £544, which has made it again necessary to encroach on legacies and other moneys which ought to be invested as capital. The report states that unless the subscription list can be increased, the furnishing of new wards, for which there is ample accommodation in the enlarged hospital, will have to be indefinitely postponed, although the number of persons waiting for admission as in-patients makes increased accommodation a matter of some urgency.

In moving the adoption of the annual report Mr. P. W. Kessler said that a certain amount of the increased work was due to the education authorities taking up the question of the eyesight of school children, and the education that the people were receiving through this action was making them see the necessity of coming to the hospital sooner than they used. The Insurance Act might lead to a certain amount of loss in subscriptions from employers and employed, especially the former. The out-patient department might be relieved to some extent, but there was likely to be an increase in the work of the in-patient department. A great deal was being done to make hospitals receive something for the work they would do under the Act, and this might lead in the future to the hospitals being run by the insurance authority. He would be sorry to see that happen, but at present they were in the dark, and it would be a year or two before they could know what was to happen to them.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

SCOTTISH MEDICAL INSURANCE COUNCIL.

The temporary Executive Committee of the Scottish Medical Insurance Council has issued the following circular letter:

Since the National Insurance Bill passed through both Houses of Parliament and became law there has been much agitation, and a feeling of uncertainty and insecurity as regards the future of the medical profession. As separate Commissioners have been appointed to administer the Act in Scotland the Scottish Committee of the British Medical Association has been taking steps to have power given to it to act independently of the Central Council of the Association in all matters connected with the National Insurance Act as it affects Scotland. In view of these developments the committee has been desirous of being strengthened so as to make it fully representative of all the medical interests in Scotland.

At the same time the medical corporations in Scotland have been actively considering in what way they could help the profession in Scotland.

The outcome of many consultations and conferences was that the medical corporations issued invitations to the Scottish Committee of the British Medical Association and to the Scottish universities to meet them in conference to consider the feasibility of taking joint action, instead of the Scottish Committee and the corporations taking separate action.

The proposal to hold such a conference was cordially responded to by the universities and by the Scottish Committee of the Association. Representatives from Edinburgh, Aberdeen, and Glasgow Universities attended, and although St. Andrews could not arrange for representatives to this special meeting, it has since then intimated that it has nominated members of the medical faculty to attend any further conferences.

The conference was held on Saturday, January 20th, in the hall of the Royal College of Surgeons of Edinburgh.

After an interchange of views, and some discussion, it was found that any differences of view mainly affected matters of detail, and that the conference was agreed as to the desirability of *joint action* as against separate and inco-ordinate action on the part of the bodies represented.

The next question which had to be considered was—*What action should be taken?*

Again, after a free interchange of opinion, it was determined that a body should be formed which should consist of (1) representative practitioners from the insurance areas; (2) the members of the Scottish Committee of the British Medical Association; (3) representatives from the three medical corporations; and (4) representatives from the universities. It was further decided to take steps for the selection of representatives from the insurance areas without delay, and that every member of the profession, whether a member of the British Medical Association or not, should have a vote in this election, and should be eligible as a representative of his own area.

It was decided that the most suitable means of selecting representatives would be to have nominations, signed by two practitioners, sent in from the various areas to the Secretary of the British Medical Association Division in which the area is situated; that thereafter voting papers be sent out to the practitioners in the areas with the names of those who have been proposed as suitable to represent the area. As soon as the postal voting papers are returned the representatives elected will be called together to meet with the Scottish Committee and with representatives from the medical corporations and the universities, which together will form the Scottish Medical Insurance Council. When the Scottish Medical Insurance Council meets it will decide upon the policy to be adopted, and will appoint a representative Executive Committee to carry out whatever resolutions may be arrived at.

Matters arising out of the National Insurance Act will be defined and considered, and it is hoped that the representatives selected by the areas will be able to give definite information as to the views held in their areas.

As the insurance areas are practically the administrative units under the Act, it is hoped that every practitioner will actively help the Division Secretary—first, in seeing to nominations being made, and secondly, in seeing that the voting papers are returned by every practitioner in his area.

It is further hoped that arrangements will be made to provide the railway fares of those attending the Council and Executive Meetings.

The Scottish Medical Insurance Council, thus constituted, should consolidate medical opinion and action in Scotland, should be able to ascertain the special requirements of different localities, and authoritatively bring them to the notice of the Insurance Commissioners; while the individual practitioner will have the Scottish Medical Insurance Council to advise him in all matters of difficulty and doubt.

Temporary Executive Committee.

RALPH STOCKMAN,
University of Glasgow.
WILLIAM RUSSELL,
Royal College of Physicians.
R. MCKENZIE JOHNSTON,
Royal College of Surgeons.
MICHAEL DEWAR,
Chairman, Scot. Com., B.M.A.

DUNFERMLINE DOCTORS AND THE INSURANCE ACT.

Medical practitioners in Dunfermline are determined not to work under the Insurance Act unless their terms are conceded in the regulations framed by the Commissioners. In view of the passing of the Act, they are increasing their terms for medical attendance upon members of friendly and other societies in the city. Last week delegates of the friendly societies met the doctors with a view to endeavouring to persuade them to revert to the old rates, but the medical men refused to move. The friendly societies then met to hear the report from their deputation. It is thought

probable that the friendly societies will accept the proposal of the doctors that all contracts cease in March in the event of their increased terms not being accepted. This action of the medical men in Dunfermline seems to be worthy of the attention of those in other towns who find themselves in similar positions.

Vagrancy and Insanity.

Dr. Douglas McRae, Medical Superintendent of Ayr District Asylum, in his annual report for 1911, gives statistics for the three decennial periods, from 1881 to 1911, which he claims show that the occurring insanity in relation to the numbers of the general population, is not even relatively increasing, but is actually decreasing. The available accommodation is, he says, "to a decided extent taken up by individuals who formerly were allowed to roam unattended, because considered harmless and comparatively inoffensive. The aged and broken down are much more readily placed under institutional care than in the days when such were regarded as more or less a legitimate domestic burden, whose care was a pious duty. The 'village idiot' or the 'senile dotard,' indeed, every kind of mental cripple is deemed an incubus at home, and the proper subject for asylum care nowadays." He states that it is probable that the improved hygienic conditions of modern civilization combined with the relatively smaller amount of alcoholism among women "are the most important factors in their decreasing liability to certifiable insanity. These views, moreover, support the belief that a systematic suppression of vagrancy and inebriety by compulsory State detention in self-supporting colonies would go far to reduce the amount of mental disease occurring in the general community, and considerably add to the sum of human happiness."

Insanitary Conditions in Relation to Consumption.

In a lecture delivered under the auspices of the Edinburgh Sanitary Society Mr. W. Kelso, the Chief Sanitary Inspector, Paisley, pointed out that since the commencement of the crusade against consumption, and notwithstanding all that had been said and reiterated about proper conditions of living, fresh air, and good wholesome food for the treatment and cure of the disease, it did not yet appear to be realized that these conditions were as important for its prevention. An investigation made in Paisley a few years ago showed that one and two apartment-houses constituted 72 per cent. of the total houses in the town, and that 80 per cent of the deaths from consumption took place in them. Whether mainly due to the small houses and vitiated air, to occupational influences, to habits and conditions of living, or one or all of these conditions combined, it showed an excess of 8 per cent. of deaths from consumption in these small and often overcrowded houses. An energetic crusade was much required to close many of the old damp and insanitary houses all over the country. Street improvements and street widening operations had the effect of clearing away old insanitary properties, and the new ones were somewhat more in keeping with sanitary ideals, although many of them still contained the boxed-in or press bed, but of a worse type than the old ones, because provided with doors. Observations made some time ago disclosed the fact that about midnight only about 16 per cent. of the windows were open, and during the daytime the highest number found open was about 50 per cent. The Housing and Town Planning Act, 1909, if properly used, was destined to go a long way in preventing the perpetration of worse buildings and planning blunders in the future. The annual loss to the nation from consumption alone was estimated to be not less than £10,000,000, made up from loss of life, loss of wages, loss to friendly societies, Poor Law institutions, charitable institutions, and private charities. It was because of the great loss, and the suffering entailed throughout the country, that one and a half millions of money had been set aside by Parliament, and provision made in the Insurance Act for another million being spent annually, for the treatment and prevention of consumption, the latter of course holding out the best hope of eradicating the disease.

Leanchoil Hospital, Forres.

The report submitted to the annual meeting of the governors of the Forres Hospital held on January 31st showed that the funds at December 31st amounted to £6,995 14s. 11d., the largeness of the surplus being accounted for by the legacy of the late Mr. Thomas Murdoch, Chicago. The patients treated in the medical and surgical wards numbered 119 during the year. In the infectious diseases hospital the number of patients being treated on December 31st, 1910, was 10. The number admitted during 1911 was 23.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

Reception at the College of Surgeons, Dublin.

A reception given on January 27th by the President of the College and Mrs. Woods to meet the Lord Lieutenant and the Countess of Aberdeen was very largely attended, not only by medical men but also by members of other professions. In the council room and in the anteroom of the Examination Hall Professor J. Alfred Scott and Mr. A. H. White had brought together an interesting collection of microscopical and other scientific exhibits, including bacilli of various diseases, and the ova of trout six days old, showing the circulation. There was also a cinematograph exhibition demonstrating bacilli and growth of plant life. Sir Charles Cameron had an exhibit of food and its adulterants, and the lower part of the College museum was also open to the public. It is many years since the college has been thrown open in this way to an evening reception of the lay public.

Women's National Health Association and the Insurance Act.

The new Irish Health Insurance Society is still a subject of considerable interest both to the medical profession and the general public. A letter appeared in the daily press last week pointing out that, as in England and elsewhere, working-class women coming under the Act will naturally be expected to insure with societies to which their menkind already belong or which are canvassing for more members, but that practically all such Irish societies are strongly political, sectarian, or trade unionist, there will be keen competition between them to get all possible "good lives," leaving the "bad lives" to the Post Office; if, therefore, zealous but inexperienced Women's National Health Association workers try to compete for "good lives" they will instantly be treated to a system of boycotting and will be said to be trying to undermine the Nationalist principles of the women workers of Ireland. All along it has been recognized that there is a great danger of the Women's National Health Association becoming tainted or, what is just as bad, thought to be tainted with politics, which would at once handicap very largely the good work this organization is undoubtedly doing throughout the country. A special meeting of the Enniskillen branch of the Women's National Health Association was held on January 31st to consider the matter. Mr. A. Irwin, LL.D., explained the working of the Act, and Mrs. Archdale (who was in the chair) said that she would not like to advise anyone to join the proposed Irish Health Society until she was in a position to state the advantages it presented over other societies. With one dissentient, the committee decided not to undertake as a branch the working up of the Irish Health Insurance Society.

Health and Housing Exhibition, Cork.

The Health and Housing Exhibition, under the auspices of the Women's National Health Association, was opened to the public in the City Hall, Cork, during the third week in January. Her Excellency the Countess of Aberdeen opened the exhibition in person before a large and representative audience. Exhibitions of this sort help to bring home in an eminently forcible way a great deal of valuable knowledge connected with the physical well-being of the people. As indicating the scope of the enterprise it is sufficient to say that the display in the City Hall was the most comprehensive of its kind yet organized outside Dublin. A very large food section formed an important part of the exhibition. It showed by diagrams, specimens, etc., the relative value and proportions of fats, proteins, sugar, and water in different foods. The nursing section dealt with a very important interest in the work of the

association, and the town planning section was replete with models and exhibits of the most approved styles of cottages and dwellings for the poor. Lectures were delivered daily by doctors, engineers, and architects, who, with the organizing secretary of the association, explained the exhibits to groups of persons interested.

CORK JOINT HOSPITAL BOARD.

The first annual report of the working of the sanatorium was read at the quarterly meeting of the board on February 3rd. Dr. Ahern, R.M.S., stated that 131 men and 88 women were admitted during the year, and that 40 were still undergoing treatment at the end of the year and were not included in the statistics. That left 179 patients, 109 men and 70 women, who had been admitted and discharged. 20 were paying patients who came from Cork 12, Kerry 6, Limerick 1, and Tipperary 1. Of the patients in the early stage of the disease 65 per cent. left the sanatorium with the disease completely arrested—namely, with completely healed lungs, and the condition of 32.5 per cent. of them "very much improved"—namely, their general health and full working capacity was completely restored, although the lungs were not quite healed. In other wards 97.5 per cent. of the early cases were greatly benefited. Of the moderately advanced cases, 60.3 per cent. of them were very greatly benefited, and had their full working capacity restored, and 20.7 per cent. were able to perform light work. The number of beds in the sanatorium was 77, and the average number of beds occupied daily was 45. Admission had been refused to 135 hopeless cases. If the disease was to be eradicated, Dr. Ahern urged the following chain of agents: (1) Compulsory notification; (2) tuberculous dispensaries similar to that recently opened in Dublin; (3) hospitals for advanced cases; (4) farm colonies for those who have left the sanatorium, and for whom carefully-selected and supervised employment was desirable.

CARRICK-ON-SUIR WATER SUPPLY.

A protracted inquiry was recently concluded, before Mr. P. C. Cowan, Chief Engineering Inspector, Local Government Board, regarding a scheme for a water supply for the town of Carrick-on-Suir at an estimated cost of £9,000. The project was strongly opposed by residents in the Carrickbeg district of the town, who allege that as they are on the other side of the river from the town proper, and have an ample water supply, they should not be included in the area of charge. Mr. Errington, Town Clerk, stated that the scheme would involve a rate of 2s. 2d. in the pound, but he calculated that there would be a large reduction in the rate, owing to the water rents from private houses, railways, manufacturers, etc. When the inspector had explained how the ratepayers in the Carrickbeg district would be affected, a large part of the opposition dropped, and a vote of thanks was unanimously accorded him at the close of the inquiry.

TYPHUS FEVER.

Dr. Browne, Local Government Board Inspector, has drawn the attention of the urban council of New Ross to the urgent necessity of having the town properly cleansed in view of an outbreak of typhus fever on the border line of the district. At a meeting last week the medical officer, Dr. W. O'Connor, stated that as there was much communication between the Mauchlins, where the epidemic has occurred, and the town, measures should be taken at once to prevent the disease from spreading. Every effort should be made to improve the sanitary state of the town, which he stated was by no means good. The meeting decided to take practical steps to give effect to the recommendations for cleaning the town.

INMATE NURSES.

In consequence of an inquiry held recently at the South Dublin Union regarding a charge against an inmate nurse and porter who were sent with the ambulance to a place several miles from Dublin to fetch a patient so ill that she died two days afterwards, a member of the Irish Nurses' Association has written a very pertinent letter to the *Irish Times* asking for the exact meaning of the term "inmate nurse," and inquiring what training this person possessed to qualify her to take charge of a patient in such a grave condition. The writer concludes the letter as follows: "Surely it is high time now that things should be called by their right name, and that the term 'nurse' (when in attendance on the sick) should be a State-registered title, only to be used by those who are qualified to bear it?"

WEXFORD DISPENSARY DOCTORS' SALARIES.

At the Wexford Board of Guardians, it was decided to adopt a revised scale of salaries for dispensary medical officers in the Wexford Union. Triennial increments of £7 10s. were granted, the salary in Wexford Urban District to reach a maximum of £175 and in the other dispensary districts £150. It was also unanimously decided to make the scale retrospective.

FORSTER GREEN HOSPITAL FOR CONSUMPTION.

The sixteenth annual meeting of the Forster Green Hospital for Consumption took place in Belfast on January 31st; the President, Mr. Herbert Ewart, occupied the chair. Dr. Houston, honorary secretary of the medical staff, presented the medical report: A total of 346 patients were treated in the wards: the 277 patients discharged during the year were classified on admission as follows: Incipient 98, advanced 159, far advanced 14, other diseases 6: on discharge, in 26 the disease was arrested, in 61 greatly improved, in 111 improved, in 68 not improved, and 5 died in hospital. The limit of three months for Corporation patients is too short for cases that are improving, and relapses were discovered in some on return home. The "work" treatment was being carried out with benefit. In the out-patient department 965 new cases were seen.

India.

[*FROM OUR SPECIAL CORRESPONDENT.*]

ST. JOHN AMBULANCE BRIGADE.

MAJOR R. J. BLACKHAM, R.A.M.C., was Commandant of a Coronation Durbar Contingent of the St. John Ambulance Brigade, consisting of nearly one hundred of all ranks which served at Delhi throughout the Durbar period—that is, nearly a fortnight. The Contingent was well equipped in every respect, and had the following transport establishment, namely: 3 transport carts, 15 ambulance carts, 36 transport ponies and 30 riding ponies, specially provided for the occasion by His Highness the Maharaja of Jaipur. The men of the Contingent were officially recognized by the Durbar Authorities, and were attached to the Civil Ambulances under the Command of Colonel Bamber, C.V.O., I.M.S. They rendered valuable services to many hundred cases, and were fortunate enough to be on the scene at the only two serious accidents which occurred in the immediate vicinity of Their Majesties. This is the first occasion on which voluntary ambulance workers have been officially employed in India. His Majesty the King-Emperor has been pleased to bestow the Coronation Durbar Medal on Major Blackham, in recognition of special services at the Coronation Durbar at Delhi.

Sydney.

[*FROM OUR SPECIAL CORRESPONDENT.*]

CONTROL OF THE PUBLIC HOSPITALS.

THE attitude of the Government towards the question of the control of the large public hospitals is still uncertain, and, judging from the utterances of the Ministers, the Cabinet is not united on this point. A short time ago the Acting Minister of Education made a significant declaration of the Government policy. He said that the hospitals should be under Government control, and he went on to express the hope of seeing this state of affairs soon brought about. The drift of the Government policy has been to increase Government control, and in some cases where grants have been made to institutions, the Government has stipulated for fuller representation of its interests in administering the funds. In at least one instance the Government has appointed a special repre-

sentative to the Board of Management, and the general tendency has been for the institutions to pass absolutely into the hands of the Government. The straight-out declaration of the Minister of Education might be literally interpreted to mean that the Government were about to nationalize the hospitals. But in reply to a question put to him in the Legislative Assembly a few days ago, the Premier, Mr. McGowan, said that he was not aware of the statement of the Minister of Education that it was the intention of the Government to nationalize the hospitals, but he did know that the subsidies to the hospitals were increasing every year, and that the work done by the hospitals is of such importance that no Government can allow them to stop. Personally, he held the opinion that the subscriptions made to these hospitals have not been increased in the same ratio as the work done by them. He thought that the members of the community were ever so much better for subscribing to the work, and as an individual in the collective body he wanted to encourage the public to continue their subscriptions. As far as the Government was concerned, the view they took was that the work of the hospitals must not be impaired, and they must be allowed to continue on their present lines.

In view of the attitude of the Government, a significant step has been taken by the directors of the Women's Hospital in Crown Street, Sydney. Some time ago the Government announced that as it had a financial responsibility to meet in connexion with the hospitals it subsidized, it is intended to have more direct participation in the administration of them. Accordingly the board of directors of this hospital have decided to make provision for representatives of the Government to have seats on the board, and a special meeting is being convened for the purpose of amending the by-laws to give effect to this proposal.

The Compulsory Notification of Pulmonary Consumption.

In the annual report of the Sydney town clerk, reference is made to the compulsory notification of pulmonary consumption in the city and its good results. In the year 1900 the necessary powers were obtained by the council on the strong representations of the city health officer and the town clerk, to make phthisis a notifiable disease within the city. Sydney is unique in this respect in New South Wales, and the end has certainly justified the means in this instance; none of the untoward results prophesied have come to pass. In 158 cases the patient was visited by responsible officers under the direction of the city health officer, and each of these patients was carefully instructed how to deal with the expectoration and otherwise how to conduct himself so as not to be a source of danger to others. In cases where the circumstances rendered it necessary for the patient to be removed to the Hospital for Consumptives every assistance was given him, and in many cases consumptive persons were strongly urged to avail themselves of hospital treatment, and were eventually persuaded to do so. In case of the removal or death of the notified person the premises previously occupied by him were always disinfected by the trained staff of the sanitary department. Disinfection was carried out in 150 cases, 69 dwellings being disinfected after death, and 81 after the removal from them of a consumptive patient. The agenda of the Annual Conference of the Political Labour League contains a resolution to be proposed:

> That the Ministry be requested, in the interest of the public health, to use the power they possess to proclaim consumption a notifiable disease throughout the State as well as the city corporation area; or, if necessary, a law be passed through Parliament to enable the Minister to place tuberculosis of the lungs on the same footing with regard to notification as typhoid, diphtheria, plague, leprosy, scarlet fever, etc.

The fact that great benefits accrue to the sufferer and the public through the notification of consumption in the city area, and that no hardships result, ought long ago to have influenced the Minister to proclaim this disease notifiable.

Labour and Public Health.

The agenda paper of the same conference contains other proposals in regard to public health. A State health department under a responsible Minister of the Crown is advocated, and for administrative purposes it is proposed that the State shall be divided into health districts, and in each district there is to be a complete medical and surgical staff with all up-to-date appliances. The object of this seems to be that the best medical and surgical and nursing skill shall be made available to the people of the remotest corners of the State. This is an extension of the Countess of Dudley's bush nursing scheme, for it provides medical attendance, instruments and appliances, as well as nursing to the people in the back blocks. This appears to be in reality a means of introducing the nationalization of the profession.

Cremation in New South Wales.

A sum of £5,000 for the establishment of a crematorium was placed upon the Estimates of public expenditure, but when the Estimates were revised previous to being submitted to Parliament this amount was struck off. As the adherents of cremation have for a long time been anxious to establish a crematorium in Sydney, a deputation from the Cremation Society of New South Wales recently waited upon the Premier to ask that the sum of £5,000 should be placed again on the Estimates for the purpose of meeting the expense of erecting a crematorium in Sydney. Dr. Foreman, the president of the Cremation Society of New South Wales, said that in all the large centres of Europe and America crematoriums were established and were being increasingly used. It was earth burial and not cremation that concealed crime. When a person desired a relative cremated two medical certificates were necessary and a *post-mortem* examination was held, so that a crime would thus be immediately detected. The society asked for £5,000 to build a chapel and a crematorium. There should be no religious objection to it, as the injunction "ashes to ashes" was only possible by cremation. Other speakers having urged the application, the Premier, in reply, stated that personally he was in favour of cremation. His colleagues had placed £5,000 on the draft estimates, but it had to be struck off, as they had to keep the Estimates as low as possible. He would, however, reopen the question before the next Estimates were drafted, and they in turn would have to answer the objections that were made as to cremation being an incentive to crime, and costly. Personally he was as thoroughly convinced as they were; he had no sentimental scruples, and believed in taking the best means to preserve the living.

Dinner to the President of the late Congress.

A dinner was tendered to Dr. Antill Pockley, President of the Ninth Session of the Australasian Congress, by some of his medical colleagues at the University Club, at Sydney, on November 30th. Sir Philip Sydney Jones occupied the chair. After the toast of His Majesty the King, Dr. S. H. MacCulloch, the Honorary Treasurer of the Congress, proposed the health of "Our Guest," who had so well conducted the business of the congress, and with the valuable assistance of his wife had done so much to make the congress the most successful from every point of view that had ever been held in Australia. Sir Philip Sydney Jones, before asking Dr. Pockley to reply, said that he had the pleasant task of presenting to Dr. Pockley a silver centrepiece and candelabra as a memento of his presidency of the Ninth Congress. They desired to give him something of a permanent character whereby he would be enabled to remember the work he had so ably carried through, and on behalf of the company he presented him with this token of esteem and regard from his brother practitioners. Dr. Pockley, in reply, expressed his sincere thanks for all the good wishes uttered by the previous speakers, and the proofs of the goodwill of his fellow practitioners. The presidency of the congress was no sinecure, and, while he had done his best to make the late congress a success, he realized that but a small part of the success was to be attributed to his efforts, for "no president," he said, "had had so willing and so able a set of officials as he had behind him."

Dr. A. J. Brady, who proposed the health of the Chairman, said it was a great pleasure to have Sir Philip Sydney Jones presiding over their gathering. He was the President of the First Congress held in Sydney nineteen years ago. He was a distinguished member of their profession, and one whom they all honoured and respected as a public-spirited man. Sir Philip Sydney Jones, in

reply, expressed his most sincere thanks for the honour done him in asking him to preside. He would like to say that with his advancing years he had not mixed much with his professional brethren, but he was nowhere so happy as when he found himself in the company of members of his profession. After the health of the General Secretary (Dr. A. A. Palmer) had been enthusiastically drunk the company dispersed.

Special Correspondence.

VIENNA.

Dispute between the "Medical Organization" and the "First Aid Association" of Vienna.—Social Position of Military Doctors.

Vienna is at present following with great interest the course of a dispute between the "Medical Organization" and that most useful institution, the Viennese "Rettungsgesellschaft" or "First Aid Association," which latter body, by the way, has but recently celebrated its thirtieth anniversary, when it received numerous tokens of appreciation from its many friends and sympathizers. It is now some time since the organization, which comprises about 90 per cent. of the medical practitioners of Vienna, took upon itself the task of settling the differences of the "Rettungsgesellschaft" with its medical staff. These, in the first instance, arose from the demand of the doctors for a sliding scale of fees and a retiring pension for such among them as had held permanent appointments as officials under the association. As hitherto the management of the association—a private body supported entirely be voluntary contributions—had been in the hands of private individuals, certain other securities were also asked for and refused by the managing board. In consequence of this refusal, considerable friction has arisen between the association and the medical organization with regard to the appointment of doctors, the organization having been called in to act as mediator by the medical staff of the association. The dispute has unfortunately been made public through an action brought against a member wrongfully accused of unprofessional conduct by his own chief, the director of the association. The sympathies of the public at once went out to the defender, and the association has become extremely unpopular. At the present moment every effort is being made by the different medical associations to bring about an honourable compromise and prevent the threatened boycott of the "First Aid" by the entire profession, a measure which could not fail to have a disastrous effect upon life in the capital. Popular feeling runs so high in Vienna that even the labouring classes understand the position of the doctors and are in entire agreement with the policy of the organization.

The social position of medical officers in the Austrian army has, for many years past left much to be desired. The exclusion of military doctors from certain privileges, such as admission to court functions, to personal service near the Emperor, or to regimental honours, was no doubt in many instances due to racial or religious prejudices, for a large percentage of doctors in the Austrian army are—or were—of Jewish parentage. But the career of an army doctor was, in any case, a very poor one. No account was taken of individual merit, and few reached the position of staff surgeon, and that only after a service of at least twenty-two years. This antiquated system, which reduced all and sundry to the same dead level of mediocrity, is now to be revolutionized; and a welcome change may be observed in the attitude of the upper classes, both military and civil, towards the medical profession. Army doctors can now take part in all court functions provided they are in uniform; and under the new régime a regimental surgeon must appear at every court of honour. Moreover, in future, the doctor may apply for promotion after ten years' medical service or fifteen years' military service; and it is to be hoped that those concessions, combined with an increase of 12 per cent. in the pay, will induce more men to enter the army than has hitherto been the case, and so fill those gaps in the medical corps which are so much to be deplored at the present moment.

Correspondence.

THE NATIONAL INSURANCE ACT AND CONSUMPTION.

Sir,—One of the most important matters that must soon occupy the attention of the Insurance Commissioners is to decide in what manner the funds which will be available under the Act for the cure and prevention of consumption shall be expended. In order that the greatest amount of good may be secured from this expenditure it is necessary in the first place that careful consideration should be devoted to drawing up a definite plan of campaign—further, whatever plan may be adopted there are at least two conditions with which it should comply:

(*a*) There should be reasonable grounds, based on the results of experience, for presuming that it is capable of solving the consumption problem.

(*b*) Its cost must be such that it is practicable to put it into operation generally over the whole of the country.

Doubtless many opinions will be advanced and many methods of procedure suggested, and eventually it may be found possible to evolve a system comprising the best features of several methods. In the meantime it may be of service to give a brief account of a system for the municipal control of tuberculosis that has been in operation in Portsmouth since last June, a system which not only promises to be successful, but which, so far as expense goes, is readily capable of being applied to the whole country.

The centre of the attack against consumption in Portsmouth is the municipal tuberculin dispensary, of which Dr. Hilda Clark, late of the Street Tuberculin Dispensary, is the medical officer; there are also provided a hospital, open-air shelters, fully-trained nurse visitors, and a voluntary Care Committee, all organized and co-operating with the Public Health Department.

The Care Committee is composed of representatives from the Health Committee, the board of guardians, and from every charitable and social organization in the borough; these include the Charity Organization Society, the Personal Service League, the Soldiers' and Sailors' Families' Aid Society, and various local, parish, and Church relief societies. The President is the mayor for the time being, and the Chairman of the administrative committee is the medical officer of health. The Committee meets fortnightly at the dispensary, when the medical officer to the dispensary brings forward the names of any cases attending who require help in some form or other to enable them to benefit to the fullest extent from the treatment they are receiving. This assistance may take the form of milk, food, clothes, maintenance during a short period of rest, change of air, temporary assistance in the housework when the patient is the mother of a large family, or the securing of more suitable work, or securing better sleeping accommodation, etc. The patient, whatever his particular need may be, is allotted to an individual member of the Care Committee, whose business it is to see that, if possible, the assistance required is provided. As all the charities in the town have been linked up to the Care Committee, it is usually found that one of these, through its representative, is able and willing to do all that is required. The work of the Care Committee has been invaluable in enabling patients to undergo treatment at the dispensary whom otherwise it would have been impossible to treat.

The basis of the municipal system is the treatment by tuberculin at the dispensary on the intensive system advocated by Dr. Camac Wilkinson. This system was adopted by the town council in preference to providing a sanatorium because it was felt that the results of sanatorium treatment amongst members of the working classes had proved unsatisfactory; moreover, the expense of construction and maintenance of a sanatorium capable of dealing with all the consumptives in the borough was prohibitive. It was felt, further, that a fatal obstacle to the success of sanatorium treatment was the fact that as it necessitated working men giving up their work and means of livelihood, they habitually put off applying for sanatorium treatment until the disease had advanced beyond the stage when a fair chance of recovery remained. Now, in the case of consumption, it will be readily admitted that the treat-

ment that will prove the most successful, other things being equal, is the one by means of which one is able to secure the patients for treatment in the early stage of the disease. The dispensary system secures this object, and a large proportion of the patients now attending the dispensary at Portsmouth are doing full work all the time. Ninety of the patients who applied for treatment between the months of June and December last year were engaged in work outside their homes. Of these, 40 were at work when they applied, and have continued at work ever since during their course of treatment. Five, although at work, were unfit to do it, and of these, 4 were induced to give it up temporarily, 2 having since been enabled to return to work. Out of the 45 who were too ill to work at the time of applying, 19 have returned to full work, 3 are doing part work, and 4 are fit for work, but have not yet been able to secure a job.

Up to the present the results we have obtained at the dispensary have been strikingly successful. In making this statement I think I shall be borne out, if need be, by many medical officers of health and representatives from other local authorities who have visited the dispensary and examined the patients and their medical history sheets. As the dispensary has not yet been in operation for a year I am not in the position to claim that the apparent cures we have obtained will be permanent; several years must elapse before any such claim can be substantiated. I can say, however, that everything points to its proving a great success, and certainly the Municipal Tuberculin Dispensary has firmly established itself in the confidence of the working classes of Portsmouth, and this feeling of confidence is solely due to the benefit the patients have themselves derived from the treatment.

Were it not for the fact that large sums of money will shortly be available for the treatment and cure of consumption I should not presume after so short a trial to advocate the system we are now practising; my sole object in so doing is to call attention to a scheme which at the least is well worth the careful consideration of those responsible for the administration of the National Insurance Act funds. What is possible in Portsmouth is possible in other places; the population of this town is 236,000; the cost of our system as at present carried on is under £2,500 per annum; extended sufficiently to deal with all the consumptives entitled to benefit under the Act it will in all probability not exceed £4,000. That is to say, the cost of applying this scheme to the whole of the population of the country at the same rate would not amount to more than a million pounds sterling per annum, the amount that is estimated will be available under the National Insurance Act.—I am, etc.,

A. MEARNS FRASER, M.D.,
Portsmouth, Jan. 30th. Medical Officer of Health.

SIR JAMES BARR AND THE INSURANCE ACT.

SIR,—Dr. Frederick Porter is hard to please and still harder to follow. I gather from his letter in the JOURNAL of February 3rd that he is not very certain as to the symptoms of national degeneracy. If the "strikingly visible wellbeing of the working classes in Germany" is no proof against national degeneracy, then one may take it that the strikingly visible masses of dirt, squalor, misery, and poverty in our industrial cities and towns are not proofs against national progress, elevation, and strength. Few—even opponents of the Insurance Act—will agree to this.

The whole point of my letter of January 27th was that Dr. Shadwell was not a tourist of the impressionist type, but a medical investigator with a scientific mission to study social facts and draw unbiassed conclusions. He and no one else pretends that Germany is a perfect social organism without defects, such as the housing to which Dr. Porter refers; neither does any one pretend to state that the elements of national degeneracy are not present. But these defects and elements are kept in check by study, forethought, and organization, of which the State Insurance Act is one of the results. As for the effect of the Insurance Act on the medical profession, I have failed to find in the columns of our JOURNAL any evidence that the experience of Germany has shaken the *morale* of the profession there. If one were to judge by their original and effective contributions to the medical sciences, their *morale* must be put on a high plane; and if the civilized world in general were to judge, the prestige of the German medical profession would rank quite as high, if not higher, than that of their British colleagues.

The doleful predictions of Dr. Porter and Sir James Barr are not sustained by an appeal to the past, nor are they likely to be verified in the future.—I am, etc.,

Warrington, Feb. 3rd. J. S. MANSON.

SIR,—It is not my intention to take an active part in this controversy. The letter which appears in your issue of January 13th from Dr. J. S. Manson, however, appears at first sight so plausible and may appeal to many who are at pains to reconcile the crocodile-like sentimentalism which characterizes the present day with some semblance of sociological general principles, that I feel constrained to point out some of the fallacies it involves. And in doing so let me take certain of his statements seriatim.

"The interaction of nature and nurture, heredity and environment," he says, "is as yet practically unknown in human affairs." It is impossible that Dr. J. S. Manson can have overlooked the enormous amount of experimental facts accumulated and the pregnant conclusions which have resulted from them since the rediscovery of the work of Mendel in 1900. Before that date a statement so sweeping might have had some justification, though even then there was available the magnificent work of Archdall Reid and the results of the biometricians. To traverse it to-day would involve a discussion quite foreign to the nature of this communication and to the subject matter of this correspondence. Suffice it to say that each day the evidence grows stronger that the central facts of Mendelism—for example, the conception of unit-characters and the doctrine of gametic segregation—hold good for the mechanism of descent throughout the whole organic kingdom. To affirm *a priori* that mental characters form the supreme exception to this general rule is to support a theory which requires to be bolstered up by fresh hypotheses whenever fresh facts are discovered, and that, as Pasteur long ago pointed out, is the one great characteristic by which a bad theory may be recognized. It is, of course, assumed—and few will quarrel with such an assumption—that in man evolutionary progress is proceeding and will continue to proceed mainly along the lines of intellectual fitness, such as I showed in my last letter to be a possession of one only of the two natural divisions of which every race is composed.

Let us now deal with the assertion that the National Insurance Act, like so many of our recent legislative mistakes, is "the product of the social conscience and lies outside the will of any one man." I agree, and, further, I have no doubt that even the Conservative Party, false alike to its ideals and its traditions, would not hesitate to introduce a similar measure. But let us consider for a moment the genesis of this particular brand of social conscience. In my communication of January 6th I pointed out that of our two natural classes one was united, organized, and led; the other disunited, disorganized, and devoid of proper leadership. Only one result is possible—that the doctrines of the former should prevail, should, in time, voice the so-called social conscience. And so it has proved. But are we therefore to accept them as infallible or even inevitable? Is the class destined by Nature to continue and extend our racial evolution, for this reason to be content to fold its arms and accept with resignation, if not with acclamation, the lead of the other? It is becoming more and more difficult to do otherwise, to raise, as it were, the standard of morality of the social conscience; the birth-rate of the intelligent classes is steadily decreasing, while that of the lower classes is being equally steadily maintained. In other words, the race is becoming more and more composed of members of the lower and less intelligent classes. This fact is largely due to the legislative results of our new social conscience, and, like a vicious circle, it itself provides for the predominance of that variety of social conscience which has given rise to it.

In an elaborate investigation recently published, Drs. Davenport and Weeks have recorded their opinion that, "provided marriage matings continue as at present and

no additional restraint is imposed, the proportion of epileptics in New Jersey would double every thirty years." I think this brief quotation is sufficient answer to Dr. Manson's opinion "that most legislative enactments dealing with health and social reform are of the nature of experiments, whose ultimate outcome from the racial point of view cannot be predicted."

There is, in fact, only one reason why the legislative products of our social conscience at the present day are all in essence socialistic, and therefore in the highest degree detrimental to the race in that they foster the lower elements of the community at the expense of the better elements; and, similarly, there is only one reason—unless, indeed, one be found in the saying of George III. "We must call in bad men to govern bad men"—why the nation is represented to-day by men of the stamp of the author of the basest and most ignoble slur ever cast on an honourable profession, the statesman who stooped to the accusation of "wrangling over the sick-bed." That reason was also indicated in my former letter. We have come to such a pass that we have not got, and cannot recognize even if we had, true leadership.

Again I appeal—let us stand from under this Act, and let it and its author crash together. We shall then not only escape a degrading thraldom ourselves, but we shall also perchance, by offering some resistance to the torrent of over-legislation, obtain a little recognition of the wisdom contained in the words of an ancient Chinese philosopher, Lao-tzu (600 B.C.), who said: "Govern a great nation as you would cook small fish, that is, don't overdo it."—I am, etc.,

London, Jan. 14th. A. RUGG GUNN.

THE PROFESSION AND THE POLITICIANS.

SIR,—I have had sent me your article of January 27th, in which you represent me as having asserted that the violent and furious opposition of doctors to the Insurance Act is due to their being mostly Tariff Reformers. You modestly allege that medical training has taught you all not to make sweeping assertions without proof; but neither medical nor journalistic training seems to have put you on your guard against sweeping inferences from scrappy newspaper reports. I never made the assertion you impute to me. I did say that most doctors are Tories and Tariff Reformers, and you, without venturing to deny this, can only meet with epithets my statement that the majority of them would raise no protest against a tariff which raised the prices of food and manufactures for the masses. "Would not the doctors' own food and boots be dearer?" you ask. Yes, in my belief: but what thinks the tariffist doctor? Either he thinks prices would not rise, or he believes that he would be compensated by higher fees.

My references to the politics of doctors in my recent speeches were connected with two propositions: (1) That their alarm at legislation which affected them might well make them henceforth more scrupulous in their attitude to schemes of legislation affecting other people; (2) that their general Toryism *entered into* their attack on the Insurance Act. I know as well as you that a number of Liberal doctors oppose the Act. But it was not they, was it, who lately shouted down Sir Victor Horsley in a fashion rarely illustrated in that political life to which you feel yourself so virtuously superior?

With regard to the nuance of the Act. I put three separate estimates—six millions, five millions, and four and a half millions. The first, I mentioned, was not my own calculation, but I thought it arguable. Your way of confuting it is astonishing. You deliberately exclude (1) the maternity benefit and (2) the sanatorium benefit, which are apart from the proposed capitation grant. And you lecture politicians about "ways that are dark and tricks that are vain"!

The general case put by me, of which you give no account whatever, was: (1) That, whereas the House was willing to give, if possible, a 6s. capitation grant apart from medicine, it was found impossible to satisfy the profession with any reasonable fixed grant, and the matter was accordingly left to the committees and the Insurance Commissioners; and (2) that the proper payment of the doctors being absolutely necessary to the proper working of the Act, either the Commissioners would secure it in virtue of their powers or any necessary amending legislation would be passed the moment it was seen to be required. All this you are careful not to quote—if you had it before you. You are so habitually anxious to be funny in your leading articles that you rarely contrive to give an outside reader like myself the slightest confidence in your political judgement.—I am, etc.,

Pembury, Kent, Feb. 4th. J. M. ROBERTSON.

P.S.—I never said that 10,000 doctors would be *got*. I said that number would probably *suffice* to work the Act. You should really try to understand what you are replying to.

*** Some comments on this letter will be found at page 325.

THE NEW CELL PROLIFERANT.

SIR,—It is a considerable number of years since Bernard Fischer's experiments on the chemiotactic and proliferative stimulation of the squamous epithelium of the rabbit's ear were made.

It appears that he used shellac resin dissolved in oil. His method of operating was as follows: The fluid, having been prepared, was injected by means of a hypodermic syringe from the inside of the pinna, through skin, subjacent tissue, and cartilage, into the cellular tissue lying between that and the external skin, but not piercing the latter. Fischer found that this procedure produced a formidable proliferation of the Malpighian layer of the outer skin of the opposite side of the pinna. This proceeding caused finger-like processes to be formed, which passed into the subcutaneous tissue down to the droplets of oil, and even in some cases into the track of the needle through the cartilage itself. With this the accumulation of the injected oil diminished, leaving the shellac resin in a solid form in the tissues. With the absorption of the oil the proliferation ceased, and the epithelial finger-like processes underwent atrophy.

Apart from the interest and ingenuity of the above experimental studies, and of much else that Bernard Fischer did, it is not very obvious to me what practical scientific gain is to be obtained from them. Nor, to all appearance may we predicate much more from the highly vaunted allantoin, which it is the passing fashion to obtrude upon our notice in spite of the abundance of cell proliferants which we already possess.—I am, etc.,

London, W.C., Jan. 23rd. FREDK. W. WRIGHT.

SIR,—My attention has been called by one of my colleagues to the article in your issue of January 6th on a new cell proliferant by Dr. Charles J. Macalister.

As stated by Dr. Macalister, comfrey has been known from very early times, and the common name of the plant in Lancashire, bone-set or knit-bone, may have been handed down from the time of the Saxons.

The leaves and root are sold by herbalists in this country, and abroad comfrey has an extensive use as a demulcent and mild astringent. During a sojourn of some years in the north of France I have known it to be sold frequently for making *tisane*, and understand that the thick mucilage obtained by boiling the root with water is used to make bandages for setting small fractures. This use is referred to by Martindale in the reference below, and is similar to that of thick mucilage of starch by veterinary surgeons.

Dr. Bramwell's Note on Comfrey (BRITISH MEDICAL JOURNAL, January 6th, 1912, p. 12), the plate illustrating which seems to have been taken from Woodville (below), and the letter of Dr. R. J. Isaac in the issue of January 13th give the general uses of the plant in medicine, and the quotation in the BRITISH MEDICAL JOURNAL of January 20th gives an older account. The quotation from a book in the previous century, written by a very notorious practitioner of medicine and astrology at the time of Charles II and Oliver Cromwell, may be of interest to your readers; particularly to the many who believe that there is some curative property in the old vegetable drugs which have been handed down for centuries, and who, like Dr. Macalister, can suggest that both the plant and its active principle are of value.

I should like, however, to correct a misapprehension on the part of the author of the article first mentioned as to his difficulty in finding anything about comfrey in books on materia medica and therapeutics. The references quoted below will show that a good deal has been written about

the drug, even recently, and it is to be regretted that Dr Macalister did not, before writing the very meagre historic note on comfrey, seek the help of one versed in pharmacognosy.—I am, etc.,

PROSPER H. MARSDEN,
Lecturer in Materia Medica and Pharmacy in the University of Liverpool.

Jan. 20th.

COMFEY.

Descript.) The common great Comfrey hath divers large and hairy green Leavs lying on the ground, so hairy or prickly that if they touch any tender part of the Hands, Face, or Body, it will cause it to itch: the Stalk that ariseth up from among them being two or three foot high, hollow and cornered, is very hairy also, having many such like Leavs as grow below, but lesser and lesser up to the top. At the Joynts of the Stalks, it is divided into many branches with some Leavs thereon, and at the ends stand many Flowers in order one above another, which are somwhat long and hollow like the finger of a Glove, of a pale whitish color, after which come smal black Seed. The Roots are great and long, spreading great thick Branches under ground, black on the outside and whitish within, short or easie to break, and ful of a glutinus or clammy Juyce of little or no tast at all.

There is another sort in al things like this, save only it is somewhat less, and beareth Flowers of a pale purple color.

Place.) They grow by Diches and Water sides, and in divers Fields that are moist, for therin they chiefly delight to grow: The first generally through al the Land, and the other in some several places.

By the leave of my Authors, I know the first grow often in dry places.

Time.) They flower in *June* and *July*, and give their Seed in *August*.

Government and Vertues.) This is also an Herb of *Saturn*, and I suppose under the Sign *Capricorn*, cold, dry, and earthy in quality:

Spitting & pissing Blood, Inward wounds & bruises, Phtisick, Bloody flux, Terms, staps, Whites, Nerves cut Muscles cut, sharp Humors, Wounds, Ruptures, broken Bones, Knotted Breasts, Hemorrhoids, Inflammation, gout, Pained Joynts, Gangrens.—What was spoken of Clowns Woundwort, may be said of this. The great Comfry helpeth those that spit blood, or make a bloody Urin: The Root boyled in Water or Wine, and the Decoction drunk, helpeth all inward hurts, bruises, and wounds, and the Ulcers of the Lungs, causing the Flegm that oppresseth them to be easily spit forth; It stayeth the defluxions of Rhewm from the Head upon the Lungs, the Fluxes of Blood or humors by the Belly, Womens immoderate Courses, as well the Reds as the Whites; and the running of the Reins happing by what cause soever. A Syrup made therof is very effectual for al those inward Griefs and Hurts: and the distilled Water for the same purpose also, and for outward Wounds and Sores in the Fleshy or Sinewy part of the Body whersoever; as also to take away the fits of Agues, and to allay the sharpness of Humors. A Decoction of the Leaves hereof is available to all the purposes, though not so effectual as of the Roots. The Roots being outwardly applied, helpeth fresh wounds or cuts immediately, being bruised and laid thereto; and is especial good for Raptures and broken bones: yea it is said to be so powerful to consolidate and knit together; that if they be boyled with dissevered pieces of flesh in a pot, it will joyn them together again. It is good to be applied to Womens Breasts that grow sore by the abundance of Milk coming into them; as also to repress the overmuch bleeding of the Hemorrhoids to cool the Inflammation of the parts thereabouts, and to give ease of pains. The Roots of Comfry taken fresh, beaten smal, and spread upon Leather, and laid upon any place troubled with the Gout, do presently give ease of the pains: and applied in the same manner giveth ease to pained Joynts, and profiteth very much for running and moist Ulcers, Gangreans, Mortifications, and the like, for which it hath by often experience been found helpful.—(Nich. Culpeper, Gent. Student in *Physick and Astrologie*; Living in Spittle Fields, London. 1653: *The English Physitian enlarged*, etc.)

REFERENCES TO THE PLANT SYMPHYTUM OFFICINALE, L., AND ITS USES.

1. *Chemist and Druggist*, January 20th, 1912, p. 97. Mention of Comfrey in the Middle Ages and in Elizabethan herbals.
2. *The British Pharmaceutical Codex*, 1911. (Pharm. Soc., London, p. 389). As an adulteration of digitalis leaves.
3. Martindale and Westcott: *The Extra Pharmacopœia* (14th edition. London, Lewis, 1910, p. 727) refers to the use of the plant and root boiled as a poultice for sarcomatous or cancerous tissues, L. I. 99,910. As decoction and syrup in kidney disease with blood in the urine, ibid., 939. General use, from an old herbal, ibid., 1068. Root pulped was used to stiffen bandages for fractures.
4. Henry Kraemer: *A Textbook of Botany and Pharmacognosy* (J. B. Lippincott Co., Philadelphia and London, 4th ed., 1910, p. 767) states that the root contains "a sluco-alkaloid consolidin and an alkaloid cynoglossine."
5. R. G. Greenish: *A Textbook of Materia Medica* (2nd ed., Churchill, London, 1907) refers to it as (2) above.
6. A. Tschirch: *Handbuch der Pharmacognosie* (1909, Tauchnitz, Leipzig, I, i, 95) refers to the collection of the root, which is there called *Radix Consolidae maj.*
7. Lyons: *Plant Names, Scientific and Popular* (Nelson, Baker, and Co., Detroit, 1907, p. 449). Nomenclature and uses.
8. John Humphrey: *Materia Medica of Vegetable Origin* (2nd ed., 1907, Kimpton, London). Ref. as (2) above.
9. Remington: *The Practice of Pharmacy* (4th ed., 1905, p. 750). As an unofficial mucilaginous substance used as an astringent and demulcent.
10. E. Merck: [illegible] *Preparate, Drogen und Mineralien* (1905, S. 244). *Radix Consolidae*, nomenclature and states of division in which the root may be obtained from the firm of Merck.
11. F. Harwood Lescher: [illegible] (1857, p. 262). As (8) above, and gives description [illegible].
12. Planchon et Collin: *Les drogues simples d'origine végétale*, 1895, Octave Doin, Tome I, p. 641). Where it says "La racine de consoude renferme un principe mucilagineux et une petite quantité d'acide gallique."
13. Maisch: *A Manual of Organic Materia Medica* (Kimpton, 1895, p. 59). As (8) above.
14. E. Perrand: *Aide-mémoire de pharmacie* (Baillière, Paris, 1891, p. 239) says: "On emploie la racine, qui est noire à l'extérieur, [illegible] blanche en dedans. [illegible] mucilagineuses et [illegible] hæmorrhoïdes and diarrhœa, in the form of an infusion 2 [illegible] and a syrup.
15. Wood and Bache: *Dispensatory of the United States of America* (1870, p. 1766) mentions decoctions of the fresh and dried root. "According to Lewis comfrey root yields to water a larger proportion of mucilage than that of Althæa."
16. P. L. N. Chernoviz: *Formulario ou Guia medico* (Pariz, 1868, pp. 277–8—a work of reference used in the countries of Central and South America, printed and published in Paris), states that the roots and leaves are used in the form of infusion and syrup for the treatment of hæmorrhage of the lungs, and that the syrup is used in the [illegible] diet drinks. The names Chernoviz gives to the plant are *Consolida menor, Solida*, and *Sanphito*.
17. Dorvault: *L'Officine* (Asselin, Paris, 1867, p. 392) gives an account similar to (16).
18. Merat and De Lens: *Dictionnaire universel de matière médicale et de thérapeutique générale* (Bailliere, Paris, 1834, Tome 6e, p. 618). This work gives a very full account of comfrey, with many references, and states that the root contains a crystalline substance.
19. William Woodville: *A Supplement to Medical Botany* (1794) gives a coloured plate, and an account of the drug, with the various names by which it is known.
20. Nich. Culpeper: *The English Physitian enlarged*, etc. (Peter Cole, London, 1653, pp. 73–4) which is quoted in full above.
21. Nich. Culpeper: *Pharmacopœia Londinensis*, etc. (1655, p. 4) speaks of comfrey as *Radix Consolidae majoris*, and mentions a *Radix Consolidae minoris*, which he calls Self-Heal, and it is the plant *Prunella vulgaris*.

SIR,—There seems to be no new thing under the sun; as those who have read the accounts of Comfrey in 1727–1733 given in letters to the BRITISH MEDICAL JOURNAL will agree.

Will you allow me to give an account of the Medicinal Action of Comfrey written in 1640? In *Theatrum Botanicum, The Theater of Plantes* or *An Universall and Compleate Herball*. Composed by John Parkinson Apothecarye of London, and the Kings Herbarist. London, Printed by Tho: Cotes, 1640. On page 524 there may be found the following description of "The Vertues" of the Great Comfrey or *Symphitum Majus*:

THE VERTUES.

The great Comfrey is as some say, cold in a temperate degree, and others say hot, which is not held true, but drying and binding in a greater measure, for it helpeth those that spit blood, or that bleede at the mouth, or that make a bloody urine: as also for all inward hurts, bruises, and wounds, and helpeth the ulcers of the lungs, causing the fleagme that oppresseth them, to be easily spit forth, the roote being boyled in water or wine: the same also drunke, staveth the defluxions of rheume from the head upon the Lungs, the fluxes of blood or humours, by the belly, womens immoderate courses, as well the reds as the whites, and the gonorrhœa or the running of the raines, happening by what cause soever: A syrupe made thereof is very effectuall for all those inward griefes and hurts; and the distilled water for the same purpose also, and for outward wounds or sores in the fleshy or sinewy parts of the body wheresoever, as also to take away the fits of agues, and to alay the sharpnesse of humours: a decoction of the leaves hereof is availeable to all the purposes, although not so effectual as of the rootes: Camerarius saith, that two ounces of the juice drunke, doth much good in the Lethargy and dead sleepe; the rootes being outwardly applyed, helpeth fresh wounds or cuts immediately; being bruised and laid thereto, by glueing together their lips, and is especiall good for ruptures and broken bones: yea it is said to be so powerfull to consolidate or knit together, whatsoever needeth knitting, that if they be boyled with dissevered peeces of flesh in a pot, it will joyne them together againe: it is good to be applyed to womens breasts, that grow sore by the aboundance of milke comming into them: as also to represse the overmuch bleeding of the hemorrhoids, to coole the inflammation of the parts thereabouts, and to give ease of paines: the rootes of Comfrey taken fresh, beaten small, spread upon leather, and laid upon any place troubled with the gout, doe presently give ease of the paines; and applyed in the same manner, giveth ease to pained joynts, and profiteth very much for running and moist ulcers, gangrenes, mortifications, and the like, often experimented and found helpefull.

Those members of the British Medical Association who are coming to Liverpool for the annual meeting in July next will, if they pay a visit to Sefton Park, Liverpool, see outside the palm house a very beautiful marble statue of "John Parkinson, Apothecary to King James I. Born 1567.

Died 1650," the author of the above-mentioned *Theatrum Botanicum*.—I am, etc.,

REGINALD THRELFALL BAILEY,
M.R.C.S.Eng., L.R.C.P.Lond.

Liverpool, Jan. 20th.

ARTIFICIAL RESPIRATION IN THE APPARENTLY DROWNED.

SIR,—Dr. J. F. Briscoe inadvertently ascribes to me a statement which I did not make. I wrote "in such *an animal* the right heart can be emptied by gravity," etc.

In regard to the apparently drowned I wrote, "I believe that this will relieve the over-distension of the right side of the heart." It is quite easy to empty the right heart in the animal by lifting up the head end and squeezing the thorax, and this must assuredly relieve the distension of the right heart in man. I quite agree with Dr. Briscoe that venesection is a sound method of treatment, but it is one which the layman cannot apply, while he can carry out the alternation of method which I propose.—I am, etc.,

LEONARD HILL.

Loughton, Essex, Feb. 5th.

THE AGE INCIDENCE OF CANCER.

SIR,—The chief difference between cancer and sarcoma, apart from the nature of the cells, lies in the age incidence of cancer, and the chief difference between parenchymatous and interstitial tissue, apart from the nature of the cells, lies in the parenchymatous faculty of desquamation.

This alone, I consider, strongly suggests that the varying liability to cancer as age advances is due to this varying parenchymatous faculty. Nor is this suggestion unsupported. As age advances, the flow of secretions, of bowel contents, of menstrual discharge, etc., becomes less, and cellular cohesion and impermeability become greater. Desquamation not only becomes sluggish, but less effective.

Furthermore, cancer is friable. The cells even in scirrhus float in juice. There is little cohesion. Such cells are conspicuously susceptible to the influences of this faculty. In cancer of the kidney the diffuse nature of the degeneration and the tortuosity of the tubules prevent even the young from escaping tumour formation.

I contend that youth is not inimical to cancer, but predisposes to successful elimination by desquamation.—I am, etc.,

P. HORNE MACDONALD.

Johnshaven, Jan. 29th.

THE NATURE AND ORIGIN OF CANCER.

SIR,—I am glad that Dr. Thomson Shirlaw has taken exception to certain of my remarks about cancer, as it gives me an opportunity of making my position a little clearer. He and I are agreed that the distinctive feature of cancer is that it results from the falling into abeyance of some agency which has hitherto controlled the organization of cells in the body. In health every cell is kept in its proper place; cancer is a local evidence of some relaxation of the grasp of this central "controller."

Now, Dr. Shirlaw says that this central controller "is of the nature of a secretion, and that it is a combination of the secretion of the thyroid, adrenals, and pituitary body." In this "material" explanation he has a competitor in Dr. H. T. Dufton, who maintains (BRITISH MEDICAL JOURNAL, December 23rd, 1911) that "the multinuclear giant cell is, as it were, the 'managing director' of cell activity."

In answer to Dr. Shirlaw, I would point out that the agency which regulates and controls the disposition of the cells in the body obviously exists in the developing embryo before the three glands which he names have appeared, and that it therefore cannot possibly be made up of their secretions.

I would suggest that Dr. Shirlaw cease his efforts to find a "scientific explanation" of this indubitable controlling force. He appears to agree with me that the break-up of personality observed in hysteria is due to a failure to use the will; now, the idea of a free "will" is most certainly anything but "scientific"; as far as the objective methods of science can tell us there is no such thing as free will; but nevertheless, for the practical purposes of psychotherapy, we have to accept as our fundamental postulate that it is very much in existence! (Cf. editorial in *Lancet*, November 13th, 1909.) Now, similarly, when we find the cells in part of a man's body beginning to break away, to proliferate, and generally to misbehave themselves at the expense of their host, we are, I submit, forced to suppose that there has been a partial failure of some controlling agency similar to the will, and which we would also, *a priori*, expect to be undetectable by the methods of science, though none the less "there." We might describe it as the "subconscious" part of the will—or else the will as the "conscious" part of it—whichever conception be preferred. I see Dr. Charles Walker (BRITISH MEDICAL JOURNAL, December 30th, 1911) refers to this "force" or "influence" as "cell autonomy" or "somatic co-ordination"; our fathers knew it as the *vis conservatrix et medicatrix Naturae*.

Dr. Shirlaw uses bold language when he says, "In cancer there is no psychic condition to be considered, but a material pathological state, which can only be explained in a material way." I should say that the material presentment of the cancerous process afforded us by science is more of a "description" than an "explanation"; the latter, which is so desirable for the practical ends of prevention and cure, is, I maintain, to be found rather in the conception of the regulating agency as being a "force" or "law" (metaphysical or abstract as that may sound) than as being a mere multinuclear giant cell or a blend of internal secretions.

In conclusion, I may say that I have dealt more fully with this subject in an article which is to appear in the February number of the *Practitioner*.—I am, etc.,

ARTHUR J. BROCK.

Edinburgh, Jan. 21st.

THE STUDY OF CONDUCT.

SIR,—Amazement and stupefaction are words very inadequate to express my feelings on reading Dr. Newington's letter.[1] When he appropriates to himself and his associates the opinion that I myself hold and have tried to express; and when he credits me with the opposite opinion, which he and they held and which I combated; I am completely matagrabolized, and, to use the current asylum slang, "disorientated." I am like a child in the presence of that complicated hypothesis—

> Supposing I were you,
> And supposing you were me,
> And supposing we both were somebody else,
> What a wonderful thing it would be!

It would indeed; but not more wonderful than the lapse of memory by which Dr. Newington attributes his own opinions to me, and appropriates mine to himself.

Fortunately for me, there is documentary evidence to which I am able to appeal. Dr. Newington now says that he, for one, by no means dissented from the study of conduct, but "we did not assent to conduct being classed with mental attributes—such as reason, will, etc.—in a formal syllabus of study then being drawn up." Well, Dr. Newington does not dispute that I was in a minority of one and that he and his associates had it all their own way, and reference to the syllabus in question will show that in the original draft, in the composition of which I had no hand, "Action, instinctive, volitional, and automatic," is No. 9 of a series of items under the heading of Psychology, other items of which are: No. 7, "Judgement and Reasoning"; No. 10, "Attention"; and in which will has no place. Reference to the syllabus, adopted after such modifications as I could induce the committee to accept, shows that "action, voluntary and involuntary," etc., is still included as a branch of psychology, and "defect and disorder of conduct" has been added, but added, not as an independent subject, but as a branch of morbid psychology. The utmost concession that I could obtain was that these were separated from the other branches of psychology by a space. Under Morbid Psychology, Item 5 is Delusion, Item 7 is Defect and Disorder of Will and Attention, and Item 8 is Defect and Disorder of Conduct. If, therefore, Dr. Newington and the other members of the committee "did not assent to conduct being classed with mental attributes," how came those items there? But this is far from being all the evidence in my favour. In the subsequent debate

[1] BRITISH MEDICAL JOURNAL, February 3rd, 1912.

before the whole association I am recorded in the official organ of the association as having said:

In the provisional syllabus that has been distributed you will find that some phases of conduct are included under psychology. It is difficult to treat this opinion with respect. . . . I will consent to regard conduct as a branch of psychology when you show me how to equate a smell of lavender with the Houses of Parliament, or when you can propel a battleship by a feeling of consternation. . . . Whether conduct is worth study or not is a question that I hope to hear debated this afternoon, but whether conduct can be included in psychology does not admit of debate. If you included the construction of the steam engine in a syllabus of counterpoint and harmony, or if you included the drafting of parliamentary bills as a branch of astronomy, you would not go further astray.

This was my attitude; what was the attitude of my opponents? Dr. Stoddart replied:

The point was that he (Dr. Stoddart) regarded conduct as a part of mind, and that was where they parted company. . . . the only point on which he differed from Dr. Mercier was that he (Dr. Stoddart) wished to include conduct in the study of psychology.

This is the opinion which, according to Dr. Newington, "is not held by any of us, as far as I know"; and his statement that "each day, each hour in our work, we have perforce to give study to conduct" is a paraphrase and *précis* of my contribution to the debate. Dr. Urquhart, in the same debate, held that "disorder of conduct was a late symptom, and one of secondary importance to the physician."

Whether psychiatric physicians, before my advocacy of the study of conduct, did or did not regard it as desirable or feasible, is of little importance; but it is a matter of considerable interest that in less than two short years men can forget that they held certain opinions, and honestly believe that they held the very opposite. The fun of the thing is that, as Dr. Urquhart admitted, I have been trying for five-and-twenty years to hammer into the heads of my colleagues an appreciation of the importance of studying conduct, and my efforts have always been received with an indulgent but contemptuous smile at "one of Mercier's fads." The same reception was for years accorded to my advocacy of the study of psychology by alienists, and I have little doubt that I shall be cited hereafter as a strenuous opponent of this innovation also.—I am, etc.,

London, W., Feb. 5th. CHAS. MERCIER.

COMBINATION OF M.O.H. AND OTHER APPOINTMENTS.

SIR,—Recently the *Western Daily Mercury* reported the proceedings of a joint meeting of the St. Austell Board of Guardians and the Rural District Council to consider the appointment of a medical gentleman to carry out the combined duties of medical officer of health, medical officer to the Union workhouse, and also No. 7 district.

A suggestion was also made that the office of public vaccinator should also be included. After a discussion the matter was adjourned for a month, a committee being appointed to discuss the various suggested schemes.

It is proposed to pay a salary of £400 per annum to a medical gentleman who presumably will have to devote the whole of his time to his "official duties." The combined appointments are as follows:

	£
Medical officer to the Union workhouse	35
Medical officer to the Union district No. 7 ...	30
Probable fees	10
Medical officer to the Union cottage homes ...	5
Medical officer to the rural district	270
Medical officer to the urban district	70

We hear on good authority that the expense of conveyance, drugs, etc., will fall on the holder of this appointment.

The local medical men have protested against the injustice of including in the office of medical officer of health the duties which are performed by other medical men resident in the district, and were supported by at least two of the members, who saw the danger of some of the work being neglected. Our main purpose, however, in writing this letter is to point out to the profession the grave danger they would be placed in by the creation of a medical bureaucracy, especially an inadequately paid one. These officials will be under the control, either directly or indirectly, of the Government. A sufficient number of them will in time become a sort of Government medical reserve, to be employed under the Insurance and other Acts on terms which the more independent practitioner would refuse—a position which we trust no medical man will accept.

The case illustrates the points which were urged by many speakers at the Joint Medical Officers' Associations' dinner, and shows the urgent necessity of all medical men who hold official appointments joining their respective associations, so that some joint action may be authoritatively taken, in view of the increasing number of local bodies who are seeking to make these ominous appointments on the spurious ground of so-called economy.—We are, etc.,

RASHELL DAVISON,
Chairman of Council;
D. A. BELILIOS,
Honorary Secretary,
Association of Medical Officers of Health.

New Malden, Feb. 6th.

EXTRACTION OF LENS IN THE CAPSULE.

SIR,—In an editorial published in the BRITISH MEDICAL JOURNAL of August 27th, 1910, on extraction of the lens in its capsule, you introduce details of the cases operated on by me in Major Kilkelly's in Bombay in February, 1909, of which he gave an account in an article in the *Indian Medical Gazette*, May, 1910.

These figures and this article has been quoted or referred to several times in the *Lancet* and BRITISH MEDICAL JOURNAL by various writers, and yet it has never been noted at any time that I subsequently proved these statistics to be quite untrustworthy, and consequently of no value to the ophthalmic world as far as intracapsular extraction goes. I will be much obliged therefore if you will publish the following summary of the whole case. (The whole controversy can be seen in detail by any one who consults the *Indian Medical Gazette* of 1910 and 1911, or the April number of the *Ophthalmic Record* of Chicago, 1911.)

While at the Bombay Medical Congress in February, 1909, at the urgent request of Major Kilkelly, I.M.S., I performed twenty-three intracapsular extractions in his hospital and left by the next train. At the time of operation I entered the details of the operation on the bed-head tickets of these patients. I heard no more of the cases until I saw them reported by Major Kilkelly in the May number of the *Indian Medical Gazette*, 1910. My permission to publish these cases was not asked, nor was any information given me concerning them before the publication of the results. I was not invited down to Bombay to see and report on them myself, along with Major Kilkelly and Dr. Porteus (who published notes of these cases in *North-West Medicine*, U.S.A., about the same time).

In a succeeding number of the *Indian Medical Gazette*, as a part of the controversy and as directly bearing on it, Major Kilkelly reported one side of a purely private case of mine—and reported it incorrectly—done at Amritsar, Punjab, without consulting me. The case was one that had gone wrong, but Major Kilkelly reported it because was of "general interest"—implying that it was in harmony with the Bombay cases, that such was the usual result of my cases, and that I knew nothing of the after-result of my cases. However, I was able to publish the whole of the case, putting a very different construction on the result.

Dr. Porteus, with Major Kilkelly's permission (not having asked mine), examined the Bombay cases said to be done by me, and reported details. When I put Dr. Porteus's facts as regards gross lesions along side of Major Kilkelly's facts as regards the same lesions they very much disagreed in every detail almost, even to the number of cases purporting to be mine. (Dr. Porteus reported on 24 cases—one too many). I also asked Major Kilkelly for the loan of the bedhead tickets to see my own entries thereon, as both these surgeons had recorded more capsules left behind than were entered on the bedhead tickets. He declined to let me see them, stating that he did not see what "useful purpose it would serve."

The results in themselves were utterly unintelligible to me, and when I put the facts of Dr. Porteus and Major Kilkelly alongside of each other, the only conclusion I could draw from the discrepancies was that these two

surgeons could not have examined the same cases, but that the failures of Major Kilkelly's hospital had been paraded for him and Dr. Porteus, and had been put to my charge. This charge I made in the controversy, and no attempt has been made to meet it, and no attempt can be made to meet it while Dr. Porteus's facts and Major Kilkelly's facts stand.

I consequently cannot understand how any fair-minded man can quote the results published by Major Kilkelly as having any bearing on intracapsular extraction.—I am, etc.,

HENRY SMITH, M.D., M.Ch.,
Lieutenant-Colonel, I.M.S.

Amritsar, Jan. 15th.

BLACKWATER FEVER.

SIR,—Among the many excellent features of your admirable publication, not the least enjoyable to me are the discussions in your "Correspondence" by your readers. Here one finds the physician saying what he thinks, unhampered by the limitations of a prepared paper, and from these discussions one cannot fail to obtain profit and pleasure.

It is because you are so liberal to those who have opinions to present, that I venture to ask you to allow me some of this space to reply to a recent communication that has interested me very much. I refer to the letter of Dr. C. Anthony in the JOURNAL of November 18th, 1911. Dr. Anthony claims to have demonstrated a specific organism in 187 cases of blackwater fever. This may not impress you as a discovery of any very great importance, as similar organisms are put forward every year as etiological factors in tropical diseases whose causation is obscure: and, moreover, this disease has but an academic interest to physicians outside of its endemic areas.

But to us who have to do daily with this malady, the question of its etiology is one of great importance, the more so since the relation of malaria to haemoglobinuric fever is a vexed problem, and has a vital bearing on the immediate and after treatment of the affection. If it is true, as many, including myself, believe, that blackwater fever is a manifestation of malarial infection, the after-treatment consists in removing the primary cause, and in preventing relapse or reinfection. If we are not correct in our hypothesis, there is no need to place the patient on a treatment that so often is not well borne. But in this disease, more so than in any other of tropical or subtropical origin, the solution of the problem of etiology is most urgently needed, for, if the malarial hypothesis be correct, the primary cause can, in most cases, be removed by proper treatment, so that the patient will not suffer the relapses which are so frequent and so many times fatal. I can say, without fear of contradiction, that only the physician who has, or has had, many cases of haemoglobinuric fever in his practice realizes the importance of determining its etiology. Dr. Anthony states, in part:

> Allow me to point out that blackwater fever is a disease *sui generis*, and stands by itself. Out of 187 cases I always found a special micro-organism in the blood, which I shall term for convenience sake *Treponema spirillum verticalis*, measuring 3 to 5μ, and not easily stained. The staining I use is carbol-fuchsine, and I have also been able, after injection of the culture, to produce haemoglobinuria in animals in from three to ten days. I am now in England, and at the disposal of the medical profession to prove my statement.

I have no desire in this letter to enter into a controversy as to the etiological factor in haemoglobinuric fever. There are many physicians who have carefully studied this disease, and the literature is already filled with conflicting hypotheses. But not until now has any specific proof of the etiology of the malady been advanced. Even the most ardent adherents of what is termed the malarial hypothesis admit that the exact mechanism of the production of haemoglobinuria is obscure. If Dr. Anthony can demonstrate, as he offers to do, to the medical profession in England that he has found a micro-organism other than the malarial parasite to be the cause of blackwater fever, he is entitled to the gratitude of all who are engaged in research into the etiology of the disease, for at present such research is a most difficult and very often a most unprofitable task. I, for one, shall be glad to rest from my labours, to wait for the antitoxin that will, no doubt, be forthcoming very shortly. I sincerely hope that either the Liverpool or the London School of Tropical Medicine will allow Dr. Anthony to exhibit to its faculty or students the *Treponema spirillum verticale* when the next case of blackwater fever appears in hospital. Or perhaps the Society of Tropical Medicine and Hygiene will avail itself, as certainly it should, of this opportunity for the edification and instruction of its fellows.

If Dr. Anthony can prove to the satisfaction of Sir Patrick Manson, Sir Ronald Ross, Dr. J. W. W. Stephens, or Dr. W. Carnegie Brown, as well as others familiar with the examination of the blood in this disease, that they have overlooked an organism which he has found in the blood of 187 cases, those of us in the canal zone who also have sought patiently and in vain in peripheral blood and in autopsy smears for this hitherto undiscovered marvel will be the first to acclaim the new parasite, although it will mean consultation with the oculist and a revision of our staining technique, to which latter much time and experimentation have been devoted. However, until Dr. Anthony makes this demonstration, there are some reasons why one should remain sceptical, and, with your permission, I shall briefly enumerate them.

I believe that, for its demonstration in the peripheral blood in each of 187 cases, this new micro-organism must, as a rule, exceed in number the parasites of malaria or of relapsing fever in the quantity in which these generally appear. Without the use of the Ross "thick film" method, I should feel that I had achieved something to be proud of could I demonstrate parasites in 187 consecutive admissions due to malaria into this hospital.

Dr. Anthony classifies his micro-organism as a *Treponema*. If there is any parasite of this genus or of the allied genera that will stain after carbol-fuchsine, and not after a good Wright's or Hastings's stain followed by a prolonged staining in Giemsa after the method introduced by Dr. S. T. Darling, Chief of Board of Health Laboratory on the Canal Zone, it is evident that such a parasite must possess a structure quite different from those of its own genus, or of the closely related genera, for *T. pallidum* and *T. pertenue* as well as all other pathogenic micro-organisms, as far as I am aware, will take such a stain, and are demonstrated without difficulty when present in any quantity.

For some years past, in Ancon and Colon Hospitals, a very careful search of the peripheral blood in blackwater fever, and of autopsy sections and smears, which are obtained in nearly all fatal cases, has failed to reveal any micro-organism other than the malarial parasite that could be accepted as an etiological factor in blackwater fever. Such preparations, when properly stained, give very beautiful pictures, and there have been demonstrated many micro-organisms, including spirilla-like forms, but none that answers Dr. Anthony's description.

Although I have stained the peripheral blood with carbol-fuchsine in several recent cases, I should not care to place myself on record as having seen the *Treponema spirillum verticale*, although not a few objects of peculiar form, not observed in control specimens stained by Hastings's, were found. From what I have seen in these few specimens, one of which contained many malarial parasites, I should not advise the use of carbol-fuchsine in blood staining. It is a very good culture medium for several species of moulds common in warm countries, and I have been informed that new micro-organisms have been discovered more than once when this reagent was used.

However, academic argument, although useful when no no other method is available, is not of value when actual proof can be had. And I must admit that no arguments of mine are likely to obtain against the evidence afforded by the positive findings in 187 cases. As I have stated, I trust that the medical profession of England will not delay in accepting Dr. Anthony's offer. In the meantime, permit me to suggest to Dr. Anthony that unless he revises the appellation of his micro-organism to accord with the accepted canons of biological nomenclature, some jealous co-worker in the same field will do it for him, and so deprive him of a part of the honour that will undoubtedly be his, when he is successful in convincing the gentlemen whom I have mentioned of the existence of the *Treponema spirillum verticale*.—I am, etc.,

W. M. JAMES, M.D.

Ancon Hospital, Ancon, Canal Zone,
Dec. 29th, 1911.

THE MEDICAL FEDERATION (LTD.).

SIR,—Whatever opinions may be held as to the terms on which the profession should be willing to work under the Insurance Act; whatever opinions as to the wisdom displayed by the Council of the British Medical Association in their negotiations with the Chancellor; or as to the respective merits of a method of payment in detail for work as done or by capitation: or as to the chances of just treatment the profession would have under a Conservative instead of a Liberal Government—one firm conviction is now everywhere avowed, that a strong combination for purposes of mutual protection is essential for the maintenance of a profession to which the health of the nation can rightly—or indeed, safely—be entrusted.

During the last two years the British Medical Association has proved itself an organization sensitive to respond to the opinions, and register the needs of members of the profession scattered throughout the whole country; but it was not built for times like these; it is not equipped for voyages in such stormy seas. It can give us the organization for combination, but having perfected that, it must fail in its provisions for mutual protection; its constitution forbids it. Even if it collects a voluntary fund ostensibly for such protection, danger to its very existence threatens the moment these funds are disbursed for such a purpose.

And for some years past the Association, knowing this, has considered how best to obtain these protective powers—on what lines its articles of association should be altered or could be altered so that at the same time these needed powers could be obtained and the Board of Trade left satisfied.

And now, if the plan were ready, the machinery of its constitution is such that it must take two years and more before the new articles could be enforced; and that is useless to the profession in its present crisis.

Only one way out presents itself—namely, the formation of a new company, independent of the Association at first, possessing all its present powers and the additional powers so greatly needed; the support of the whole profession for the company, and ultimately the absorption of the Association by it.

In this way all the necessary protective and money-raising powers can be obtained within the present year.

The Medical Federation, Limited, has been formed and registered for this purpose; it has received the most careful consideration of eminent counsel, and combines powers of protection with complete democratic control by its members.—I am, etc.,

Westbury-on-Trym, Feb. 5th. THOS. M. CARTER.

Medico-Ethical.

The advice given in this column for the assistance of members is based on medico-ethical principles generally recognized by the profession, but must not be taken as representing direct findings of the Central Ethical Committee, except when so stated.

RELATIONS WITH UNQUALIFIED DENTISTS.

DE INQUIRENDO.—For a qualified dentist to have any professional relations with his father who is practising as an unqualified dentist would be unwise, and if any accusations should be made against him, the son would have to show his innocence. Thus, sharing a house or a waiting room or a look up surgery, or allowing his plate to appear upon his father's house, might be regarded as evidence of the existence of professional relations.

Medico-Legal.

FEES TO AGENTS.

T. A. G. writes that some time ago he engaged a locumtenent through a local agent by telephone at £5 a week, to include all charges. Some time later, meeting the same locumtenent in charge of a neighbouring practice, he engaged him again to take charge for him for another week. He has now received an account of one guinea from the agent, being 10s. 6d. for each occasion. He wishes to know whether he is compelled to pay on either, or both, occasions, as during the twenty years he has been in practice he has never yet had such a claim made, although he has repeatedly employed the services of a locumtenent.

* Legally, an agent can only claim commission from one of the parties—either the principal or the locumtenent: but a custom has grown up of late years to make a charge to the principal of a certain amount, as a "booking fee" or "office expenses," and if the principal has been informed of this, the agent would be entitled to recover it. Our correspondent would probably have to pay half a guinea for the first occasion, but we doubt whether the agent is entitled to claim the second half guinea.

The Services.

INDIAN MEDICAL SERVICE.

THE result of the January examination was announced on January 27th, 1912. There were 38 candidates, the first 12 being admitted as lieutenants on probation with effect from January 27th, 1912.

The names of the successful candidates with the marks obtained by each out of a possible total of 5,100 are given below, together with their degrees and medical schools:

Name.	Degrees, etc.	Medical School.	Marks.
R. H. Candy ...	M.B., B.S.Lond., M.R.C.S., L.R.C.P.	London Hospital	3,447
P. J. Veale... ...	M.B., B.S.Lond.	Bristol University and University College Hospital	3,376
H. Hingston ...	M.B., B.S.Lond.	Westminster Hospital	3,358
J. C. Bharucha ...	L.M. and S.Bombay, M.R.C.S., L.R.C.P.	Grant Medical College, Bombay, and London Hospital	3,338
F. J. Anderson ...	M.R.C.S., L.R.C.P.	St. Bartholomew's Hospital	3,254
H. J. M. Cursetji ...	L.M. and S.Bombay, M.B., B.S.Cantab., M.R.C.S., L.R.C.P.	Grant Medical College, Bombay, Cambridge University, and London Hospital	3,191
J. S. S. Martin ...	M.B., Ch.B.Edin.	Edinburgh University	3,094
P. F. Gow	M.B., Ch.B., D.P.H.St. Andrews	University College Medical School, Dundee and St. Andrews University	3,093
R. V. Morrison ...	M.B., Ch.B.Edin.	Edinburgh University and Royal College of Surgeons, Edinburgh	3,019
J. C. Dey	M.B.Calcutta	Calcutta Medical College and Westminster Hospital	3,006
J. W. Jones ...	M.B., Ch.B.Glasg.	Glasgow University	2,993
J. H. Hislop ...	M.B., Ch.B.Glasg.	Glasgow University	2,958

GLASGOW MEDICAL UNITS (TERRITORIAL FORCE).

THE annual gathering and presentation of prizes in connexion with the Glasgow Units of the Royal Army Medical Corps (Territorial Force) was held in the Repertory Theatre on the evening of January 31st. The play was *Wee Macgregor*, and the whole theatre was reserved for members of the units and their friends. After the close of the second act the prizes gained during the past year were distributed on the stage. Sir George T. Beatson, M.D., K.C.B., the Administrative Medical Officer for the Lowland Divisional Area, presided, and was accompanied by Major-General Spens, C.B., commanding the Lowland Division, who presented the prizes, and by Lieutenant-Colonel W. F. Somerville, Lieutenant-Colonel A. D. Moffat, Lieutenant-Colonel R. T. Halliday, Lieutenant-Colonel Alex. Napier, and Lieutenant-Colonel Morgan, R.A.M.C., Maryhill. Sir George Beatson, in reviewing the work of the year, said that in the divisional area they were only short in numbers to the extent of 2 officers and 17 men, having on the roll 198 officers and 1,655 men, while they had the full complement of 360 nurses enrolled. He thought these figures spoke well for their patriotism. Then they had in the division 22 men and 66 women's voluntary aid detachments, numbering in all 2,711 persons enrolled during the past twelve months. Altogether in training and other respects they had had a very satisfactory year's work. They had now received good equipment of a technical kind, and the prospects for the coming season were good. They hoped to be in occupation of their new drill hall by the end of May, and they were much indebted to General Spens and to the County Association for the firm stand they had made to secure the suitable housing of the corps.

DR. J. J. GRAHAM BROWN will deliver the Morison Lectures before the Royal College of Physicians, Edinburgh, on March 4th, 6th, and 8th, at 5 p.m. on each day. The subject of the lectures is Certain Aspects of Ataxia.

Obituary.

SIR HENRY BUTLIN.

DR. HENRY BARNES (Carlisle) writes: What a loss Butlin will be, and what splendid service he rendered to the Association! If any effort is being made to perpetuate his memory I should be glad to help. By the way, there is a trifling error in date in your very excellent obituary notice. It is there stated that he was Treasurer from 1890 to 1895. His second term of office expired at the Carlisle meeting in 1896. He was re-elected for a second term at the Newcastle meeting in 1893. Up to that time no one, I believe, had ever been elected for a second term as Treasurer, and he was much gratified by the confidence thus shown in his re-election, which was quite unexpected. He had the happy faculty of making figures interesting, and the admirable quarterly statements made to the Council, and the lucid statements at the annual meetings were really models of their kind, and must be fresh in the minds of many of the members.

THE LATE DR. BISS.

DR. W. ESSEX WYNTER (London) writes: The very brief notes which conclude the obituary notice of Cecil Yates Biss in your last issue convey an imperfect impression of his character, and it is only fair to his memory and in accord with his own strict regard for truth in the minutest detail to put this in its proper light. Dr. Biss was above all things unsectarian. His views were individual and unaffected by considerations of agreement or opposition to those of others. Though not a smoker from choice, he employed tobacco, on the advice of a friend, during his illness, till satisfied that he derived no benefit from it. In the use of alcohol also he was no prohibitionist, using it in strict moderation himself and employing it without hesitation in the treatment of patients, though he inveighed against the unnecessary and excessive use of stimulants, whether in health or disease. As in these matters, so in religion, he held his own views, and as a matter of conscience expounded them, but not in conscious agreement or opposition to any denomination. Nothing, however, could indicate the fortitude or serenity of his disposition better than the long unrepining vigil of his protracted illness, in the course of which he experienced the loss of his wife and the son who had adopted his own profession, in addition to his own compulsory retirement from the main pursuits of life just as success seemed to crown his efforts.

WE regret to announce the death, after a long illness, of DR. AROON CHUNDER DUTT, of Everest Lodge, Newington, Hull, which took place on January 29th. Dr. Dutt belonged to a Calcutta family, well known for its legal and literary abilities, being himself the grandson of Sir Rajah R. Deb, K.C.S.I., first county court judge of Calcutta, and cousin of the late Romesh Dutt, C.I.E., Prime Minister of Baroda. Dr. Dutt graduated at Cambridge, taking the degree of B.A. in the Natural Science Tripos with honours, proceeding to the M.B., and later to the M.D. degree. He was also Associate of King's College, London, and was a member of the East Yorkshire Division of the British Medical Association. After holding various hospital appointments at Morpeth, Salford, and Scarborough hospitals, Dr. Dutt practised in Whitby, Yorks, for a few years, and then in Hull for fifteen years up to the time of his death. He was the author of "Health Notes for the Seaside," and "The Causes and Treatment of Some Forms of Vertigo," also "Case of Brain Tumour" (BRITISH MEDICAL JOURNAL). He married the only daughter of Mr. F. W. Booty, of Scarborough, and his widow and only daughter survive him.

WE regret to have to announce the death of Mr. J. M. COMLEY, M.R.C.S.Eng., Calcutta, on December 30th. He was one of the oldest residents of Calcutta, and probably the oldest medical practitioner in the city. Educated at Guy's Hospital Dr. Comley became M.R.C.S. in 1859. He went to Calcutta about fifty years ago, and, except for a short period he spent at Kursong practising amongst the planters in the district, he had practised in Calcutta ever since. When he first went there it was a very different place to the Calcutta of to-day, and in the intervening years he had in a quiet and unobtrusive way done a good deal to improve sanitary conditions and make it a healthier city. During this time he built up a large practice amongst all classes of people. He was of a charitable disposition, and many poor people of Calcutta have reason to remember him for many good deeds done unostentatiously. Mrs. Comley has been well known in Calcutta for many years for her extensive charities among the poorer classes of the domiciled community. She was the foundress of St. Mary's Home for the Poor, which is one of the best known institutions of its kind, and provides a home for many poor persons, both European and Eurasian. Dr. Comley was for many years medical adviser to the home. He had been ill for two and a-half months when he died at the advanced age of 74.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession who have recently died are: Dr. José Ribera y Sans, Professor in the Medical Faculty of Madrid and a member of the Spanish Royal Academy of Medicine; Dr. J. Albarrán, Clinical Professor of Diseases of the Urinary Passages in the University of Paris, aged 50; Dr. Karl Horstmann, Extraordinary Professor of Ophthalmology in the University of Berlin, aged 65; Dr. Herman Versluysen of Antwerp, Vice-President of the Belgian Stomatological Society, aged 48; and Dr. Max Salomon, a prominent physician of Berlin, one of the founders of the establishments for children on the German seacoast, and author of numerous writings on the history of medicine.

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

Degrees.

THE following degrees have been conferred:

M.D.—Francis P. Young.
B.C.—Bernard Haigh, W. D. Coplestone.

Graphic Records of Heart's Action.

Dr. James Mackenzie will give a demonstration on graphic methods of recording and interpreting the functions of the heart on Monday, February 19th, at 5 p.m., at the Medical Schools.

John Lucas Walker Studentship.

Applications for this studentship, the holder of which shall devote himself to original research in pathology, are invited, and should be sent, accompanied by copies of papers containing published work and references, before February 19th, 1912, to Professor Sims Woodhead, Medical Schools, Cambridge, who will also give further particulars. The studentship is of the annual value of £200, and tenable under certain conditions for three years.

Research Studentship in Physiology.

Dr. Jamison B. Hurry, of St. John's College and Reading, has offered to endow a research studentship in physiology to be called the Michael Foster Research Studentship.

A CORRECTION.

We regret that, in giving the list of candidates upon whom degrees had been conferred in the University of Cambridge (BRITISH MEDICAL JOURNAL, January 27th, p. 223), Mr. G. V. Fiddian's name was printed "G. V. Fiddison." The line should read as follows: "M.B., B.C.—G. V. Fiddian."

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary Council was held on February 1st, Mr. Rickman J. Godlee, President, in the chair.

The late Sir Henry Trentham Butlin, Bart.

The following resolution was passed by the Council:

That the Council hereby record their deep regret at the death of their colleague Sir Henry Trentham Butlin, Bart., for whom they entertained the warmest feelings of personal friendship, and they desire to express their very sincere sympathy with Lady Butlin and the other members of the family in their bereavement.

That the Council do also record their appreciation of the distinction and ability with which Sir Henry Butlin fulfilled the duties of President of the College and Member of the Council, and their grateful sense of the many services rendered by him to the College and the medical profession. The Council believe that no member of the profession more fully enjoyed the confidence and esteem of his colleagues, and his devotion to duty in failing health and increasing infirmity will be treasured by them as a priceless example of courage and unselfishness. For these reasons, as well as for his admirable skill in practice, they are assured that his name will always be held in honour and kindly remembrance.

The President reported that the vacancy in the Council occasioned by the death of Sir Henry Butlin would be filled up at the annual meeting of Fellows in July.

Issue of Diplomas.

Diplomas were granted to ninety-one candidates found qualified for the Membership of the College.

Diplomas in Public Health were granted jointly with the Royal College of Physicians to eighteen candidates found qualified.

Court of Examiners.

Mr. James Ernest Lane was re-elected a member of the Court.

National Insurance Act.

A letter of January 24th was read from the Assistant Secretary of the Joint Committee for National Health Insurance, stating that the National Health Insurance Joint Committee and the Insurance Commissions for England, Scotland, and Wales respectively propose to hold a conference on Friday, February 2nd, with representatives of the medical profession, and inviting the College to appoint two members to attend the conference.

The following reply was sent to the National Health Insurance Commissioners:

"The Council regret they are not prepared to send representatives to the meeting suggested by the National Health Insurance Commissioners."

It was further decided to inform the Commissioners that the Council are of opinion that the administration of the medical benefits cannot be carried out under the Act with due regard to the interests of the public and the welfare of the medical profession, and that no satisfactory arrangement can be arrived at without an Amending Act; and that the Council would, however, be prepared to render any assistance in their power in the drafting of an Amending Act for the provision of such amendments as are necessary to secure the co-operation of the medical profession.

The Standing Committee of the College was instructed to take steps to communicate with the Medical Corporations, with the view of united action with regard to the Insurance Act.

Royal Commission on University Education in London.

Mr. R. J. Godlee, President, and Sir Alfred Pearce Gould were nominated as witnesses to represent the College before the Royal Commission in regard to dental education.

Central Midwives Board.

Mr. Golding-Bird was reappointed representative on the above board.

Bradshaw Lecturer.

The President reported that he had chosen Mr. C. Mansell Moullin as Bradshaw Lecturer for the ensuing collegiate year.

Report by the General Medical Council on Dental Education.

A letter was read of December 22nd, 1911, from the Registrar of the General Medical Council, enclosing a copy of the report of the Dental Education and Examination Committee of that Council on the inspector's reports on the final examinations of the Dental Licensing Bodies, in which all these examinations are reported as "sufficient."

The Secretary stated that in the report of the Dental Education and Examination Committee the proportion of marks which candidates at the examinations for the licence of this college must obtain in order to pass is given as two-fifths, whereas three-fifths is the proportion required, and reported the steps which had been taken to correct this error.

Primary Fellowship Examiners.

Attention was called to the large percentage of rejections in the primary examination for the Fellowship, and in accordance with Section xiv., paragraph *b*, of the standing rules, the Nomination Committee was requested to arrange to visit the primary examination for the Fellowship in May next, and to report to the Council.

CONJOINT BOARD IN ENGLAND.

Diplomas of L.R.C.P. and M.R.C.S.

AT a meeting of Comitia of the Royal College of Physicians on January 25th, and of the Council of the Royal College of Surgeons on February 1st, diplomas of L.R.C.P. and M.R.C.S. were respectively conferred upon the undermentioned candidates who have passed the Final Examination of the Conjoint Examining Board and have complied with the necessary by-laws:

J. S. Allen, S. Array, G. V. Bakewell, G. Barratt, D. Bird, C. H. B. Booth, A. V. Boyall, T. C. Butler, C. G. H. Campbell, A. B. Cardew, E. E. Chipp, T. Clarke, H. G. Crawford, C. W. De Morgan, G. de Swietochowski, E. P. Drabble, C. R. Dudgeon, N. Dugan, P. V. Early, M. C. F. Easmon, W. M. Ecclestone, O. E. D. Ellis, A. Evans, A. G. Evans, D. B. Evans, G. A. Ewart, I. Fahmy-Eluinyawi, M. A. Farr, A. Ferguson, C. M. Forster, A. A. Fyfe, A. L. Gardiner, G. H. Garlick, J. T. S. Gibson, C. E. A. Goddard, T. C. Graves, J. C. Hellman, E. R. Hext, S. M. Hatherley, G. V. Hobbs, R. H. Hodges, B. W. Howell, F. J. Humphreys, P. L. Hurst, C. M. Ingoldby, H. G. G. Jeffreys, Nagubai Moreshwar Joshi, Bhagat Ram Khanna, L. Levene, R. H. Liscombe, E. M. Livesey, A. C. McAlister, M. Mackenzie, A. F. C. Martyn, P. H. Mitchiner, Kavasji Curseji Mollaferoze, F. L. Nash-Wortham, P. A. Newton, B. N. Norman, W. D. Owen, D. B. Pascall, W. B. Peacock, G. H. Pearson, J. H. Pendered, W. S. Perrin, R. A. Pittard, J. McF. W. Pollard, H. B. Pope, G. L. Preston, A. J. Rae, P. W. Ransom, R. E. N. Reade, E. D. Richards, E. U. Russell, R. Sherman, F. B. Smith, P. Smith, H. K. V. Soltau, G. Sparrow, J. L. Stewart, C. W. H. R. G. Van der Beken, V. Vesselovsky, R. H. Vicary, V. D. C. Wakeford, L. C. Watkins-Baker, A. J. Waugh, E. White, C. G. Worlow, J. B. A. Wigmore, R. W. Willcock, J. Winterbotham, P. A. With.

* M.R.C.S. Diploma previously granted.

Public Health

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Inverness.—The annual report of the Medical Officer of Health for Inverness (Dr. John Macdonald) has just been issued. Based on an estimated population of 24,000, the birth-rate works out at 20.875 per 1,000 persons, and the death-rate at 16.958. The water supply of the burgh has been engaging the attention of the local authority for the last ten years, and steps are now being taken to improve it. The annual return of the registrar shows that the number of statutory declarations of conscientious objection under the Vaccination Act (Scotland), 1907, are increasing; 137 declarations were lodged during the year, as compared with 95 in the previous year. This represents more than a quarter of the total births registered. Infectious diseases for the most part are treated in the isolation wards of the Northern Infirmary, but there are also small-pox and cholera hospitals. The number of cases of infectious disease notified during the year was 127, of these over 67 per cent. were removed to the hospital. The number of cases of diphtheria, 57, was unusually severe. The medical officer of health is satisfied that this disease did not spread by means of school attendance, nor is he convinced that bad drainage plays such a great part in the causation of diphtheria as has been assigned to it in the past. Possibly "carriers" were of more importance. During the year 24 cases of phthisis were voluntarily notified: since the beginning of this year compulsory notification of this disease has been adopted.

County Borough of Blackpool.—The population of Blackpool at the last census was 58,376, but the statistics in the annual report of the medical officer of health, Dr. E. W. Rees-Jones, are based upon an estimated population at the middle of 1910 of 60,113, a number which has been arrived at by multiplying the known number of inhabited houses by 4.5, the estimated average number of persons per house. The very low birth-rate of 16.7 per 1,000 was recorded. An instructive table in the report shows that since 1878 the Blackpool birth-rate has decreased by 37 per cent., though in England and Wales during the same period the birth-rate has fallen only 30 per cent. The illegitimate birth-rate is given as 4.61 per 1,000 females at conceptive ages, those ages being stated as from 20 to 45 years. This is not a usual or very satisfactory method of indicating the amount of illegitimacy. It is better to state the number of illegitimate children as a proportion of the number of unmarried and widowed women at conceptive ages, which are generally considered to be from 15 to 45 years. The corrected death-rate from all causes was 12.5 per 1,000, and varied from 9.6 per 1,000 in one part of the town to 14.6 in another. The infantile mortality-rate was 106 per 1,000 births, a very distinct improvement on that of former years, for in the ten-year period 1900-1909 it was 132 per 1,000. The phthisis death-rate was 0.72 per 1,000. A scheme of voluntary notification of this disease is in force in the borough, but during 1910 there were notified only 37 cases, although the deaths numbered 43. Dr. Rees-Jones considers that the sanitary authority should have compulsory power to disinfect thoroughly all premises which have been occupied by consumptive persons, and that it should be a penal offence to allow such premises to be occupied by others without previous disinfection.

SEWERING OF NON-ADOPTED STREETS.

W. R. S.—Section 152 of the Public Health Act, 1875, appears to throw the responsibility for sewering streets which have not been "adopted" upon the owners of the property abutting on such streets. The owners would be the actual owners for the time being of the buildings, and not the persons from whom the land on which the buildings are erected has been leased.

YARDS AND CISTERNS.

A. W. B.—Section 25 of the Public Health Acts Amendment Act, 1907, which is an adoptive Act, empowers a sanitary authority to require a yard in connexion with and exclusively belonging to a dwelling-house to be paved. Section 35 of the same Act enacts that a nuisance which may be dealt with under the Public Health Act, 1875, includes "any cistern used for the supply of water for domestic purposes so placed, constructed, or kept as to render the water therein liable to contamination, causing or likely to cause risk to health."

THE German Society of Experimental Physiology will hold its next meeting in April (16th to 19th).

THE Selborne Society, which is arranging a Gilbert White exhibition at the offices of the Civil Service Commission, Burlington Gardens, on Friday and Saturday next, February 16th and 17th, are anxious to obtain the loan of copies of the *Naturalist's Journal*, a skeleton diary devised by Daines Barrington first published in 1767, and the first edition of Aikin's *Calendar of Nature*, and a copy of Stillingfleet's *Calendar of Flora*. They also wish to know the origin of the foresters' custom of making arbours on St. Barnabas's Day, and as to the nature of the genteel corded stuff called barragons made by Quakers at Alton.

Medical News.

On the occasion of his recent visit to Gibraltar the King conferred the honour of Membership of the Victorian Order upon Dr. William Turner, Surgeon to the Colonial Hospital, Gibraltar.

THE annual oration of the Hunterian Society will be given at the London Institution, E.C., by Dr. Glover Lyon on Wednesday evening, February 14th, at 9 p.m. The subject of the address is the cure of consumptives: a review and a forecast.

THE Oxford Ophthalmological Congress will assemble at Keble College, Oxford, on Wednesday, July 17th next, and the meeting will be held on Thursday, the 18th, and Friday, July 19th. Any member who has cases or specimens to show or would be willing to give a demonstration or exhibition is asked to communicate with Mr. Sydney Stephenson, Honorary Secretary, 33, Welbeck Street, London, W.

IT is announced that a committee has been formed at Dôle, Louis Pasteur's town on the slopes of the Jura, for the purchase of the house in which he was born. The French Minister for Foreign Affairs, M. Poincaré, has now received, through the French Ambassador in Washington, an offer from Mr. Rockefeller to subscribe the remaining £2,200 required for the purchase of the house. M. Poincaré transmitted to the committee at Dôle Mr. Rockefeller's generous offer, which was gratefully accepted.

DR. F. C. DAVIES, Medical Officer of the Battersea Tuberculosis Dispensary, will open a discussion before the Institute of Civil Engineers on February 12th by reading a paper on the history of the infectivity idea in relation to tuberculosis and its influence on public health authorities, and Mr. A. Alban H. Scott will discuss the question of the planning and designing of private and national sanatoriums at a suitable cost. The meeting will be held at the Royal United Service Institution, and the chair will be taken at 8 p.m. by Mr. Edward White, chairman of the London County Council.

WE have had occasion previously to refer to the Holophane "Lumeter," which is a small photometric instrument intended for the measurement of the brightness of a surface as distinct from that of a source of illumination; Messrs. R. and J. Beck, Ltd. (68, Cornhill, E.C.), now send particulars of an improved model having an increased range of adaptability. With the new instrument the brightness of any surface from one-hundredth of a candle-foot to two thousand candle-feet can be measured. The procedure consists in graduating an illuminated disc until it corresponds in intensity with the portion of the surface under examination, which is visible through an aperture in the centre of the disc itself. The matching having been obtained, the degree of brightness is read off on a scale. A new and useful accessory is a polar curve apparatus, enabling the intensity of light from a given source to be rapidly determined in every direction and at all angles. It seems to have a special application to the lighting of school rooms.

THE usual monthly meeting of the Medical Sickness, Annuity, and Life Assurance Society was held at 429, Strand, London, W.C., on Friday, January 19th, Dr. de Havilland Hall in the chair. The accounts presented showed that the business of the society during the last month of 1911 continued to be good. As the winter advances the claim list grows, but the amount of the sick claims paid away in December compared favourably with the amount usually paid in this month, and did not exceed the net monthly expectation provided for in the table of rates of contribution. Every year since the society started in 1884 the number of members has grown, and the amount paid away in sickness benefit has also increased. But the amount of sickness provided for when the business was founded has not been exceeded, and every year the sickness business shows a margin in favour of the society. The funds, which now amount to over a quarter of a million sterling, have always earned a much higher rate of interest than that assumed when the business of the society is valued, and as in addition (through the economy with which the business is worked) the management expenses amount to much less than the 10 per cent. allowed in the rules, the whole operation of the society produces a substantial surplus. The time of the committee was mainly occupied in examining special reports on the condition of chronic cases. A large portion of the surplus made by the society is earmarked on behalf of these cases. Prospectuses and all further particulars on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

Letters, Notes, and Answers.

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CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, London, W.C.; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Office, 429, Strand, London, W.C.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

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2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

M.D. asks as to the maker and cost of a hot air cabinet heated by electricity.

R. S. M. asks for advice in the treatment of a man troubled with redness of the nose, especially in cold weather, but otherwise healthy.

BRITISH asks for advice in the selection of a locality in England for a permanent residence for a patient who had an attack of tubercle, but has apparently made a complete recovery.

ANSWERS.

DR. ANDREW S. MCNEIL (Liverpool) writes: In reply to "Quaestor," I think it is quite likely that if he examine the left inferior turbinate bone of his patient he may find it enlarged and projecting into the naso-pharynx. Where such is the case, the pressure exercised through the soft palate upon the inflamed and hypertrophied mucous membrane of the turbinate bone in the act of swallowing food is capable in some cases of producing hypersecretion, and in others—perhaps later stages—of primary crusts on the turbinate bone affected. If the condition is present, nasal douching with glycothymoline, 1 to 2 of warm water, might be tried; and later, if necessary, partial turbinectomy. If this is not successful, resection of the nasal nerve might be undertaken.

LETTERS, NOTES, ETC.

SYMPHYTUM AND BORAGO.

DR. WM. HARDMAN (Blackpool) writes: I have been much interested in the observations recently published on *Symphytum officinale*, or the common comfrey. There are two varieties of this, *S. officinale* and *S. tuberosum*. There is a considerable difference in the appearance of these two plants, though also a strong family likeness. Probably both would have the same properties. I should like to know if this is so. A very nearly allied plant is the common borage, *Borago officinalis*. The common comfrey, according to my experience, is decidedly not common in the fylde, though occasional specimens are met with; but borage, where once it becomes established, is a very persistent and prolific weed. It has a much handsomer flower than either of the others: it is, in fact, a beautiful plant. The properties of borage seem almost identical with those of comfrey, and I should be surprised if it did not turn out to be utilizable as a source of an allantoin-containing infusion equally with the two comfreys.

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NOTE.—It is against the rules of the Post Office to receive *postes restante* letters addressed either in initials or numbers.

An Address

ON THE

CORRELATION OF SYMPTOMS AND SIGNS IN SOME ABDOMINAL DISEASES.

DELIVERED BEFORE THE MANCHESTER PATHOLOGICAL SOCIETY.

BY B. G. A. MOYNIHAN, M.S., F.R.C.S.,

PROFESSOR OF CLINICAL SURGERY, UNIVERSITY OF LEEDS.

WHEN Dr. Craven Moore invited me to deliver an address before the Manchester Pathological Society, I felt at first, and perhaps not unnaturally, certain qualms as to accepting. In the recent wide advances made by pure pathology I have played no part and could speak with no authority. But it might successfully be argued that no pathology can be pure which does not attach itself in some degree to those clinical manifestations to which morbid processes in any part may give rise. And it may be in the recollection of some of you that I ventured a few years ago to coin the phrase, the "pathology of the living," to assert my belief in the importance of a knowledge of the morbid changes in the abdominal viscera during the life of the patient.[1] The final changes occurring as the result of a long-sustained disease in any organ are no doubt of interest; but that interest is, in my view, bereft of its chief title to importance if an intimate acquaintance with it does not confer the power of relieving the suffering or prolonging the life of the one who has fallen a victim to this particular malady. My own investigations into this form of pathology have been largely concerned with the abdominal organs. In connexion with some of these new discoveries have been made—for example, in respect of duodenal ulcer, and of the many forms of chronic inflammatory troubles in the large intestine: whereas in others the firmly established views and the opinions tenaciously held by generations of physicians have been shown to be founded on fancy rather than on fact, the most excellent example of this being, of course, in connexion with the various disorders classified under the term "dyspepsia." In his investigations the surgeon has not always worked in the same medium nor with the same weapons. Speaking figuratively, he has had to use the hatchet and the crowbar as well as the trowel: he has had to destroy as well as to design.

Take, for example, the condition recognized by the term "gastric ulcer." Among the many diseases which the physician has felt most competence and confidence in recognizing there are probably few or none whose symptoms would appear to be more definite or more characteristic than is the case with gastric ulcer. The description given of this disease in the ordinary textbooks of medicine are such that its recognition would seem to be a matter of ease and certainty: and the unequivocal diagnosis is made with quiet assurance and with astounding frequency, if the records of any of the larger hospitals can be accepted as evidence. There can, however, be no doubt whatever that in the majority of the cases the opinion has been wrong, and the treatment based upon it futile and ill-directed. For when a diagnosis of ulcer of the stomach has been made with every circumstance of care, and with every aspect of reason and probability, in a series of cases which are examined upon the operation table, it is found that in a large proportion of them no slightest evidence of structural disease can be discovered in that organ. It does not need a long experience of the operation room to convince any one that the "gastric ulcers" have more often than not their seat in other organs than the stomach.

The surgeon in his inquiry into this matter has passed through three phases of activity. In the first, fortified by his early experience of the dramatic results of gastro-enterostomy performed in cases of pyloric stenosis (three of my patients doubled their weight and one almost trebled it), he was led to apply this operation in cases in which, upon every ground of inquiry and experience, a gastric ulcer was assumed to be present. He acted upon the medical diagnosis, and it was for a time his firm belief that inveterate and rebellious cases of gastric ulcer could be most satisfactorily treated by this method of short-circuiting, or of "draining the stomach," as it was said. Inspection of the stomach and the verification of the real existence of an ulcer were slurred over and the operator made haste to perform his intended procedure. The results of operations so conducted were not gratifying. In many cases the results were bad, and in some disastrous. It was at this time that we began to assert, to the surprise of many and the consternation of some, that before the surgeon proceeded to the performance of an anastomosis between the stomach and the jejunum he must be satisfied of the undoubted existence of an ulcer, which was held to be a "visible, tangible, or demonstrable lesion." One of great culture and experience wrote to ask me if it was "really true that an ulcer which has been long present, exciting severe symptoms in many attacks, could be seen or felt," and asking whether when of small size and of slight depth, like a "chap" on the hand, it could not be hidden away by a fold of the mucosa of the stomach. I held it then, and hold it now as firmly as ever, to be true that, except perhaps in the rarest possible circumstances (I have only one case in evidence), an ulcer which has been the cause of prolonged and recurrent "attacks" is an ulcer which has engaged all the coats of the stomach in its ravages, and can therefore be seen from the outside of the viscus, and can be felt and made plain to the onlooker. This view seemed one that was hard to accept, and to this day it is perhaps not appreciated at its value, with the result that purposeless operations are still performed upon the stomach. It seemed, then, to me that in the event of failure to discover any lesion in the stomach no operation involving that organ should be done. In the second stage we were accordingly content to investigate cases of supposed gastric ulcer and to treat them in accordance with the disclosures made at the time the parts were laid bare for inspection. If an ulcer was found it was excised, or if causing obstruction a short-circuit was made; if no ulcer was found, admission of an incorrect diagnosis was frankly made and the abdomen was closed. To some it seemed a painful and bitter experience to acknowledge an error of diagnosis—to discover nothing where much had been expected. But consolations were speedily forthcoming. It is not often that the end of any inquiry can be foreseen when only the first developments are being made. The old alchemists laboured to discover the transmutation of the baser metals into gold; in that they failed, but they built up the science of chemistry. Saul went in search of his father's she-asses, and found a kingdom. This stage of simple inquiry was happily very brief, for it soon became a matter of certainty that patients who gave the history of incoercible dyspepsia must be suffering from a real disease, from an organic lesion somewhere, and not from any real or fictitious vice in the action or secretion of the stomach.

It was therefore in the third and present stage that we began to widen the scope of our inquiry, to enlarge, as we could do with safety, the area of investigation within the abdomen, until we were able to discover some gross lesion which might perhaps be associated with the symptoms we were called upon to relieve. And here a remarkable discovery awaited us—a discovery for which all the experience of *post-mortem* pathology or the teachings of the textbooks had left us wholly unprepared. We found, and we still find, that in more than one-half of the cases in which an operation for gastric ulcer was deemed expedient by reason of the wearisome persistence of pain, vomiting, and occasional haematemesis, their stubbornness or open rebellion against the most assiduous and approved treatment, the stomach showed no evidence of textural change. A lesion could be found quite different from that expected—an adherent or obstructed appendix, a tuberculous ulceration of the ileum or the caecum, a prolapsed and perhaps obstructed stomach, or a calculous cholecystitis. Arbuthnot Lane lays, I believe, the chief responsibility in many of these cases upon the ileum, in which he describes a "kink" a few inches above the caecum. The world would be an easier place to live in, and our lot would be lighter, if only the hypothesis of Lane were capable of proof. But for my part I am sorry to have to say that in spite of a search, as capable as I can make it, in the last two years, I discover only very infrequently the "kink" in the ileum; and I have as yet never found it without the plain evidence of an

appendicitis, to which I believe it to be secondary. In my own experience the commonest site of a "gastric ulcer" is the right iliac fossa, and I have no doubt whatever that in a majority of the cases which form the basis or the text of the very careful and elaborate treatises by the physicians of all lands upon "gastric ulcer," no morbid process of this kind was present. If this be true many questions at once arise, of which two are of the greatest importance.

The first is this: If in cases of so-called "gastric ulcer" there is no evidence of structural disease in the stomach, but an obvious morbid condition in another part the removal of which relieves the patients of all the symptoms ascribed to an ulcer, what is the explanation of the gastric manifestations? And especially what is the reason for the severe and sometimes recurrent haematemesis?

The second is: If a "gastric ulcer" is so frequently not a lesion in the stomach, but in another part, what is the value of the great variety of "cures" that are so much vaunted?

With regard to haematemesis. This is, of course, a very striking phenomenon, and when it suddenly occurs in considerable quantities it is a symptom which naturally causes great alarm. By the German physicians especially, I believe, great reliance is placed upon the occurrence of haematemesis as a means of recognizing the presence of a gastric ulcer. But it is common knowledge, I suppose, that patients have died of haematemesis in whom no lesion of any kind was discovered in the mucosa of the oesophagus or stomach. I say "was discovered," but that, of course, does not strictly imply that it was not present. For Dr. Bolton has shown with what sedulous care the mucous membrane, properly stretched out, must be examined, with the aid of a magnifying glass, before any crack or fissure, from which blood may have flown freely, can be discovered. No one, I imagine, supposes that a mucous membrane sweats blood, without any lesion of the surface, in the way the skin sweats. The old beliefs in that kind of "vicarious menstruation" are not heard of nowadays. For blood to come in gross quantities there must be a real and a deep lesion of the surface of the stomach. That must, I think, be conceded. But this does not imply that such a lesion is an old one; indeed, all the information we possess with regard to the local destructions, erosions, fissures, or acute ulcers of the alimentary canal, in cases of typhoid fever (in the stomach or duodenum), in erysipelas, in cases of burn, in albuminuria and many other acute febrile disorders, suffices to show that these things are toxaemic in character, abrupt in onset, quick in development, and probably rapid in their disappearance. It does not seem difficult to me to suppose that in the presence of a continuing septic process in, say, the appendix, waves of a more acute form of infection may from time to time occur, in each of which a toxaemic result in the stomach or duodenum may be expressed by gastric symptoms, among which haematemesis is the most prominent. In this connexion recent inquiries conducted at the London Hospital are of the greatest interest. They show more clearly than any other pathological records of which I have knowledge how dependent a severe haematemesis may be upon lesions which are primarily unconnected with the stomach. Hutchison records[2] 24 cases of fatal haemorrhage from the stomach after operations of various kinds upon the abdominal viscera. Of these 24 no less than 21 were cases of appendicitis with septic complications, localized abscess, or diffuse peritonitis. In three cases recent acute ulcers were found in the stomach (twice) and in the duodenum (once); in the remaining cases only "haemorrhagic erosions" were found. The origin of this serious and profuse bleeding is ascribed to a profound alteration in the blood due in most cases to toxins of septic origin. The experiments of Wilkie would make it appear probable that a retrograde venous embolism from the original septic focus may be responsible for the development of acute ulceration in the stomach or duodenum.

It is well for the purposes of one's work to have some sort of mental picture of the diseases with which one is called upon to deal. The view I take of "gastric ulcer" as described in the textbooks of to-day is that in the majority of cases it is not primarily or chiefly a lesion in the stomach, but consists of a persisting chronic infective lesion in, as a rule, some abdominal organ, and that in this focus more acute infections from time to time arise which cause those transient exacerbations in, or additions to, the symptoms which are sustained more quietly throughout the whole course of events. Whether the more quiescent symptoms are due to a secondary infective gastritis, to an enhanced or erratic activity in the secretion of the gastric juice, or to those irregular muscular conditions which are known as "pylorospasm," or to any combination of these, seems to be quite uncertain. That this hypothesis is not altogether fanciful may be firmly asserted in view of the undoubted fact that in cases of chronic gastric and duodenal ulcer a primary focus of infection is discovered very frequently in the abdomen. Its most common site is the appendix. Every appendix that was taken away has been drawn, but in a few cases the organ was not examined, for it was believed that in some the safety of the patient would be best considered by a rapid operation in which no more was done than was essential to the saving of life. Where time safely allowed it the appendix was always removed. It will be seen upon scrutiny of the drawings that in almost all the plain evidences of advanced and ancient disease can be recognized. Infection, therefore, would appear to be the essential original condition responsible for the later, strictly secondary, and dependent lesions which we recognize as acute ulceration, erosion, fissure, and finally chronic ulceration in the stomach and duodenum. Is this lesson not one which has been entirely learnt from a study of the "pathology of the living"?

For the second question, as to the value of the Leuhartz and other modes of treatment, the answer I think is plain. If in the majority of the cases of "gastric ulcer" the stomach is not primarily affected, these dietetic cures being surely dependent for their reason upon an accurate recognition of the morbid conditions they are intended to relieve, can be of little value. The surgeon, of course, sees the medical failures: the successes never reach him, and his view therefore, though not prejudiced, is, no doubt, deflected by the greater weight of evidence coming from the one direction. And, of course, it must be admitted that even if the real "gastric ulcer" is an infective condition low down in the bowel, the rest and starvation may well permit of its subsidence for a time. This is the view of "gastric ulcer" which the work of the surgeon compels him now to take. In giving his experience as it is formed in the operation theatre, he has no desire to change true rules for odd inventions, but only to disclose those things which are revealed by his different mode of study.

One very remarkable contrast is found in the experience derived respectively from the operation theatre and the *post-mortem* room. In all the textbooks of medicine the far greater frequency of occurrence of gastric ulcer as compared with duodenal ulcer is mentioned. The ratio is variously stated as between 9 to 1 (Trier) and 40 to 1 (Andral). Probably a proportion of 10 to 1 (that given by Fenwick) is accepted by most authorities. The experience of surgeons in recent years has shown, as stated above, that most cases of "gastric ulcer" do not affect the stomach, and the disclosures upon the operation table prove that duodenal ulcer is decidedly commoner than gastric ulcer. The ratio is probably about 5 to 1.

What, then, it may be asked, are the symptoms which allow a diagnosis of chronic gastric ulcer to be made with reasonable probability? When the ulcer is situated on the lesser curvature, extending down one or both surfaces of the stomach—a very common condition—the symptoms are in the very great majority of cases marked out chiefly by their order and precision. Pain follows upon the ingestion of food after a definite interval, which is consistent throughout the whole history of the case. As a rule the interval of comfort after a meal varies from half an hour to one hour. The pain is felt chiefly in the middle line and to the left, and tenderness also is more marked in these positions. If the hand is placed vertically with the fingers towards the chest, immediately below the costal margin and to the left of the mid line, and the patient takes a deep breath at a moment when the pressure of the hand is increased, a sharp pain will be felt by the patient. Occasionally the pain radiates along the left costal margin, or upwards to the left breast, and this appears more especially to be the case when adhesions exist between the ulcer and the liver or the diaphragm. If the ulcer

should be on the posterior surface of the stomach, and deeply erode the pancreas. pain in the back is very severe, and may be constant. So far as my own experience goes, a deep, gnawing, persisting pain in the back is the invariable accompaniment of the ulceration, which burrows in the pancreas. Pain in the back it will be remembered is a very significant feature in cases of acute pancreatitis. The pain in cases of gastric ulcer, then, is regular in the time of its appearance, and in some cases it is marked by the seasonal variations so very definitely noticed in cases of ulceration in the duodenum. The summer months, in such examples, are those in which there is most freedom from suffering. Vomiting, which brings relief from pain, and haematemesis are both at times present, but are no help in the diagnosis unless the methodical repetition of the attacks of pain is also noticed. On *x*-ray examination of the stomach after the ingestion of a bismuth meal two conditions may be found. The appearances of an hour-glass stomach may be portrayed, or delay in the emptying of the stomach may be noticed. Both are probably due to spasm of the muscles of the stomach, affecting, in the one, the zone of the gastric wall in which the ulcer lies, and in the other the pyloric antrum, producing the condition described as "pylorospasm."

In a few cases a prepyloric ulcer may give rise to symptoms which mimic with remarkable accuracy those produced by a duodenal ulcer. These cases are very rare, but of their existence there is no doubt. In such cases a differential diagnosis may be made by observing that when an *x*-ray examination is made the "hypertonic" condition of the stomach is present in duodenal but not in gastric cases, and by examination of the stomach contents for free HCl. If an excess of acid is discovered to be constant (three examinations at intervals are necessary, according to Craven Moore) the ulcer is probably in the duodenum. If the acidity is low, then the ulcer is probably in the stomach. In one of my cases, in which a history suggesting very strongly the presence of a duodenal ulcer was given by a patient whose gastric contents showed a very low acidity, we found a large saddle-shaped ulcer about 3 in. proximal to the pylorus. The duodenum was intact.

A diagnosis, then, of chronic gastric ulcer depends for its accuracy upon a history the details of which are repeated from day to day with very definite and sustained regularity, upon certain signs given on physical examination, upon an *x*-ray examination of the stomach, and upon the results of a series of chemical investigations of the gastric contents. But even when every care is exercised, the most rigid inquiry made, and the most painstaking examination conducted, a greater number of errors in diagnosis will be found to have crept in than in cases of duodenal ulcer. In this latter disease mistakes in diagnosis are rare.

Among the more firmly accepted beliefs inculcated in the past by *post-mortem* experience, and chiefly by those statements of the textbooks which are loyally copied from one generation to another, is this: that in the majority of the cases—the usual estimate is 90 per cent.—gall stones exist in the gall bladder without giving rise to any symptoms. If it is necessary to substantiate this statement I might quote from several authorities. The best textbook of medicine in the English language contains this sentence:

> In the majority of cases gall stones cause no symptoms. The gall bladder will tolerate the presence of large numbers for an indefinite period of time.

The most authoritative work in the German language states:

> Cholelithiasis is, as *post-mortem* observations show, an extraordinarily common malady. On an average every tenth human being, and of elderly women perhaps every fourth, has gall stones. This does not, of course, express the frequency with which biliary calculi give rise to morbid phenomena, for one often enough finds *post mortem* the gall bladder and bile ducts completely packed with calculi, although these have never caused any inconvenience or produced any ill effects.

The distinguished surgeon who contributes the chapter on gall stones to *Allbutt's System of Medicine* says that:

> Gall stones may be found after death without having produced any symptoms during life.

There is no need to add to the list, which would include almost every authority, living or dead. In opposition to these opinions I desire to state as positively as I can that gall stones almost never exist in any circumstances without the production of quite characteristic symptoms—symptoms which allow of the recognition of their cause with great accuracy. In all my experience I have only twice operated upon patients for gall stones without being able to elicit a previous history of "gall-bladder dyspepsia" of months' or years' duration. The textbooks tell us that the majority of cases of dyspepsia, especially flatulent dyspepsia, are "functional" in origin; and, again, that in many cases gall stones exist within the gall bladder without exhibiting their presence. The two statements require correlation; each explains the error of the other. For without doubt many of the so-called "functional" forms of dyspepsia are organic, and chief among them all is that connected with cholelithiasis. Of the inaugural symptoms aroused by the formation and the presence of stones in the gall-bladder I have written fully elsewhere, and can now add nothing to that description.[3] A greatly enlarged experience has confirmed the accuracy of the picture I have there drawn. It is remarkable to note with what frequency many stones may be present in the common duct without any notable obstruction to the passage of bile resulting from their presence. In the large number of "secondary" operations that I perform upon the biliary tract the condition most commonly disclosed is the lodgement in the common duct, at any point, including the ampulla, of a stone or stones whose presence has escaped recognition at the first operation. The technical difficulties of these secondary interventions are so considerable (they are greater, I believe, than in any other operations) that any one who begins an operation for cholelithiasis should make it his business to search and search again all the possible channels in which a stone may have been arrested. The reason for the so frequent overlooking of these stones is that jaundice has not been present, and accordingly a search for a calculus in the main bile passage has been thought unnecessary. When I look through my cases of recent years I find that in no less than 25 per cent. of the patients from whose common ducts or hepatic ducts I have extracted calculi there is not at the moment, nor has there ever been in any period of the history, the remotest suspicion of a tinge of jaundice. Jaundice is not, as Courvoisier supposed, the "cardinal symptom" of stone in the common duct. It cannot be so if it is absent in this large proportion of cases. But if the staining by bile of the skin or conjunctiva has never been observed, is it possible to forecast the discovery of stones in the duct during an operation? In the large majority of cases the diagnosis can be made. I have found that in patients who are undoubtedly suffering from cholelithiasis the occurrence of attacks of colic, rather milder in intensity than usual but of far greater frequency—say, four or six attacks in two weeks—especially if the attacks are associated with a mild form of chill, a "goose-flesh" sensation in the skin and a slight shiver, and if there is continuous loss of weight, the presence of a stone may with reasonable confidence be predicted.

An organ which seemed very successfully to elude the vigilance of the pathologists of all times before the present was the pancreas. The grosser forms of disease in it—calculi, cysts, or neoplasms—were from time to time recorded, but of the frequency and importance of the symptoms which resulted from a derangement of the organ there seemed to be no knowledge. For example, Wilks and Moxon say of chronic inflammation of the pancreas that "the anatomical evidence of such occurrence is not very satisfactory." Malignant disease of the pancreas even now has proved, with the rarest exceptions, to be beyond the reach of the most intrepid operators. It is true that a very few cases of pancreatectomy have been performed with results which have been more satisfactory than could have been hoped. But the experience gained from these does not seem to hold out a favourable prospect for future attacks. It is curious to see how small a growth in the head of the pancreas needs to be to evoke long and bitter suffering, and the maddening torture of the itching which deep jaundice will often cause. I have seen a growth no bigger than a hazel nut prove fatal.

In respect of the treatment of these patients, I think we have all feared to advise operation because of the early ghastly mortality, computed by so fine a surgeon as Murphy some years ago at 80 per cent. A record of operations was

indeed a martyrology. In the last few years I have operated in almost all cases that have come to me, for I have felt that it was well worth the while of any patient to face the risk of operation rather than to suffer the agony which must otherwise be his lot. In all cases I have joined the gall bladder to some part of the alimentary canal—to the duodenum if I could do so with ease; to the stomach if it could be reached with less difficulty; in one case only I have taken the colon. The immediate results have been surprisingly good, for no patient yet has died, and the relief has been in all very considerable. I was at first a little apprehensive when the fistula was made into the stomach, but such cases seem to differ in no recognizable particular from those in which the duodenum has been available. Bile flowing freely into the stomach does not seem to impede the full activities of gastric digestion.[1] In two of these cases it is certain that a mistake in diagnosis was made, for after a lapse of two and a half and three years the patients are quite well, have lost all tinge of jaundice, have gained weight and are in active work. They were doubtless examples of that most interesting and remarkable condition, chronic pancreatitis. I am not sure whether in these later days the pancreas is not sometimes accused of inflammatory transgressions when innocent. But it is quite certain that it may be accused of malignancy when it does not deserve the reproach. The older writers tell us nothing of chronic pancreatitis—the recognition of it is due to the investigations carried out upon the common bile duct in the search for stones impacted therein. When, as sometimes happened, a large hard mass was discovered, malignancy was imputed and a bad prognosis given, which the patient made haste to falsify. Riedel and chiefly Mayo Robson are entitled to the credit of this highly important advance in our knowledge. We are now fully aware of the fact that chronic pancreatitis depends very often for its development upon an infection from the common duct, which is set going by stones in transit or in arrest there. The danger of the condition lies in its continued development long after the original cause has been removed. In a few of my cases, after the lapse of years, glycosuria has developed and the patient has died comatose, no doubt from an implication of the islands of Langerhans in an interacinar inflammation. Glycosuria can be found from time to time in the urine of patients who suffer from cholelithiasis, and it may perhaps rightly be considered as the most urgent of all indications for early operation. In a very large proportion of the cases the pancreatic complication does not need to be specially considered: the removal of the cause, nearly always a calculus, with the subsequent drainage of the bile to the surface, is quite enough to ensure a subsidence of the inflammation. The fact that when a certain limit is overstepped the process of chronic induration will continue unchecked, and that the death of the patient from diabetes may thereby be caused, should, however, urge upon us the necessity of early operative rescue in all these patients.

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[1] BRITISH MEDICAL JOURNAL, November 16th, 1907. [2] *Proc. Roy. Soc. Med.*, 1911, vol. iv., No. 3, p. 61. [3] BRITISH MEDICAL JOURNAL, November 28th, 1908. [4] Ibid., 1901, vol. i. p. 1135.

DURING the year 1911, we learn from the New York *Medical Record*, there were 2,145 deaths among medical practitioners in the United States and Canada. On an estimate of 140,000 physicians the rate was 15.32 per 1,000. For the nine previous years the death-rates were as follows: 1910, 16.96; 1909, 16.2; 1908, 17.39; 1907, 16.01; 1906, 17.0; 1905, 16.36; 1904, 17.14; 1903, 13.7; and 1902, 14.74. The average annual mortality was 16.11 per 1,000. The age of death varied from 23 to 99, with an average of 59 years and 10 months. The chief causes of death in the order named were cerebral haemorrhage, "heart disease," senility, pneumonia, external causes, and kidney disease.

IN connexion with his visit to India, the King has been pleased to confer the following promotions and appointments in the Royal Victorian Order upon members of the medical profession: Lieutenant-Colonel Sir Richard Havelock Charles, K.C.V.O., Serjeant-Surgeon to His Majesty, is promoted to be Knight Grand Cross; Fleet Surgeon Robert Hill, M.V.O., R.N., H.M.S. *Medina*, is appointed a Commander, and Lieutenant-Colonel Robert Bird, C.I.E., Professor of Surgery, Medical College, Calcutta, and Dr. William Turner, Surgeon, Colonial Hospital, Gibraltar, are created Members of the Fourth Class.

An Address

ON

COMPRESSED AIR ILLNESS AND EXPERIMENTAL RESEARCH.

DELIVERED BEFORE THE DUBLIN BRANCH OF THE MEDICAL RESEARCH SOCIETY, JANUARY 25TH, 1912.

BY

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LECTURER ON PHYSIOLOGY, LONDON HOSPITAL.

I COME before the Society this evening at a time when there is great hope for the progress of medicine—a time when we look forward to discoveries which will eventually result in an enormous amount of relief to suffering mankind, and a time when this society ought to have very little difficulty in defending itself from the attacks of those who wish to suppress medical research. Within the last year or so we have seen the discovery of a synthetic drug which has given us the means of curing one of the worst diseases that afflict humanity. Ehrlich's great discovery has opened up before us a new field of work, and, further, has inspired us with the belief that similar discoveries may shortly be forthcoming in other departments of medicine. The hope as to the imminence of such discoveries has recently been strengthened by a communication from Morgenroth to the effect that in his laboratory he has succeeded in curing 50 per cent. of the mice infected with the pneumococcus, a septicaemia which kills 100 per cent. Morgenroth has synthesized a drug and standardized the dose, by means of which he has been able to cure half the animals thus infected. We now look forward with some anticipation to see whether the same drug can be used in cases of pneumonia in man; the problem is not only to determine the dosage of the drug which will be effectual in man, but also to prove that the same drug which acts upon the pneumococcic infection in a mouse will also succeed in the human organism. Within the last few weeks also we have learned from Wassermann that he has synthesized a compound of selenium with eosin, and with this he has succeeded in curing cases of cancer in mice. The discovery is only just at its beginning, and in many cases the drug has destroyed the mouse, while in others it has destroyed the cancer and cured the mouse. But from this discovery we entertain the hope that something ultimately will come which will help to alleviate one of the greatest scourges of mankind.

All the great advances have been gained by experiments on animals, and I bring before you to-night a branch of inquiry in which I have been engaged for some fifteen years, hoping to demonstrate to you, again by experiments on animals, that it has been made safe for man, with suitable precautions, to work in compressed air. These precautions have been established by scientific methods and by the methods of research which this society helps to maintain.

Work in compressed air has accounted for a vast amount of sickness, suffering, and loss of life. Ladies who wear ropes of pearls, or pearl ornaments of any kind, are generally unaware of the mortality which follows those engaged in the pursuit of these gems. In the pearl fisheries off Broome in Western Australia, where Japanese are engaged as divers, I understand that the loss of life is something like 7 per cent., and the cemetery at Broome contains scores upon scores of graves of those who have lost their lives in the search for the pearls which decorate the woman of fashion. All this loss of life can be entirely prevented if the scientific methods which have been worked out upon animals are followed; and not only so, but the pearl fisheries can be safely extended with great economic advantage. The same thing holds good for many other branches of industry in which divers or workers in compressed air are employed. Compressed air enters into all great subterranean undertakings of to-day—tunnelling, harbour building, shaft sinking, drainage, pier and bridge constructing, and salvage work, as well as in diving for pearls and sponges. The means of

intercommunication in all the great cities of the world depend upon the tunnels built with the aid of compressed air under the rivers which pass through them; but all such work is limited to a certain depth by the pathological effects produced in the workers. The caisson worker, or diver who uses the diving dress, is surrounded with compressed air and breathes in it freely. The body of either is pressed upon by the air, and it is necessary that the air pressure be kept just greater than that of the water in order that the water may be kept out of the dress or the caisson. I can demonstrate this point on a model diver and a model diving bell or caisson that I have here. As this little model diver descends in the water and I pump air through the dress it will be seen that the pressure of the air, as indicated by the manometer, always remains just greater than the pressure of the superincumbent water above the diver's head. Whether it be the air or water that uniformly presses upon the body, the tissue fluids transmit the pressure equally, and although it is computed that an extra atmosphere means an additional total pressure of 30,000 to 40,000 lb. on the body of a man, no mechanical effect is produced. Living matter is a jelly containing about 80 per cent. of water, and, like water, it is practically incompressible.

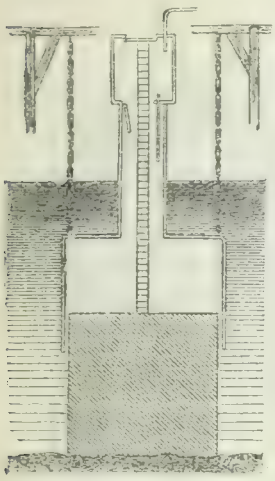


Fig. 1.—Diagram of caisson showing air-lock.

Since attention was first drawn to compressed-air illness in the middle of the last century a large number of medical writers, ignorant of physical laws, have supposed that exposure to compressed air mechanically alters the distribution of blood, forcing it inwards and causing a congestion which on decompression is suddenly and dangerously altered. One of the common kinds of illness in compressed-air work is paralysis, and it was supposed that this paralysis was caused by blood being pressed out of the periphery into the central nervous system and then on decompression—that is, on emerging from the compressed air—this blood underwent a sudden revolution and caused haemorrhages in the nervous system, which, in their turn, produced paralysis. I have noticed that the same false views are even now put forward in the daily press to explain the symptoms shown by aëroplanists when in contact with the rarefied air at high altitudes. The sickness at high altitudes suffered by mountain climbers, balloonists, and aëroplanists has nothing to do with the mere mechanical effect of compressed air. On going into a caisson up to a pressure of several atmospheres no effect is visible upon a man's circulation; no change in the complexion indicates any alteration in the blood-flow through the face, there is no difference in the heart beat, there is nothing, in fact, to suggest that the slightest mechanical effect is produced. Almost the only mechanical effect which is produced on the body by a change in the barometric pressure is an alteration in the pressure in the middle ear, and this is easily relieved by opening the Eustachian tube. Under compressed air also there takes place a compression of any gas which may happen to be in the alimentary canal, and this leads a man to tighten his belt.

The illness which occurs at high altitudes is entirely due to want of oxygen. At an altitude of 18,000 ft., where the barometric pressure is one-half, a man on filling his lungs with air takes in only half the weight of oxygen which he absorbs at sea level. His respiratory and circulatory organs are scarcely able to work sufficiently hard to get the required amount of oxygen. After a time, of course, he gets into training at high altitudes by the exercise and strengthening of his respiratory and circulatory organs, by the increased formation of haemoglobin which carries the oxygen to the tissues, and by the alteration in the alkalinity of the blood, thereby increasing the readiness with which haemoglobin gives up to the tissues its oxygen. The breathing of oxygen entirely removes mountain sickness. It is interesting to note that, while a man depends upon the pressure of oxygen in the atmosphere, a fire depends upon the percentage. At ordinary atmospheric pressure a man can breathe 17 per cent. of oxygen without feeling the slightest symptoms, while at this percentage a fire will not burn. On the other hand, at great altitudes, where the partial pressure of oxygen is halved but the percentage of oxygen remains the same, a man becomes distressed but a fire will burn. Hence the danger of aëroplanists trying to beat altitude records.

No symptoms of illness ever occur when a man is under compressed air. All the illness results from decompression, and the fact that the mere mechanical pressure uniformly applied is of no importance to living matter is shown by the existence of life in the greatest depths of the sea yet sounded, where the superincumbent pressure may equal two, three, or even five miles of water. With the help of Sir Charles Parsons of turbine fame, and a most powerful hydraulic press which he has constructed, I have recently been able to investigate the effect of high pressures of water upon life. So powerful is this press that Sir Charles Parsons has compressed water to 80 per cent. of its bulk. Some years ago a French observer, Regnard, compressed living aquatic animals, frog's muscles, etc., to 500 or even 1,000 atmospheres, and he found that at these high pressures the tissues became stiff and took up water, and that life was destroyed. Sir Charles Parsons and I have found the same thing to happen. Frogs' muscles, exposed to 300 atmospheres for two hours, remain normal in appearance, and excitability is retained, not only in the muscles, but in the nervous system also.

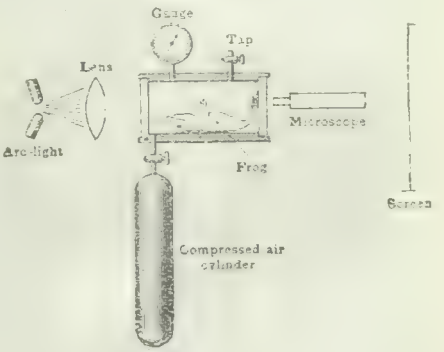


Fig. 2.—Circulation in frog's web demonstrated under pressure.

The reflex action, the response of the nerves to excitation, the beat of the heart, are all unchanged. But 400 atmospheres' pressure for two hours entirely destroys the microscopic structure and abolishes excitability altogether. Furthermore, the question is one of time as well as of pressure. A frog with the skin intact will stand ten minutes at 500 atmospheres without much hurt, but with the skin off, the nerves and muscles are destroyed in that time, becoming opaque in appearance, and showing on microscopic examination that the muscle fibres have broken in places, and the cross striations have been destroyed. From the nerve fibres the myelin can be teased out in droplets quite easily and the empty sheath left. The nature of the skin protects certain animals. For example, a gnat's larva survived two hours at even 700 atmospheres, but was killed in a similar time at 900 atmospheres. Oysters survived an exposure to 700 atmospheres for ten minutes, but were killed, as was shown by their shells gaping open and by their opaque appearance, after a brief exposure to double that pressure.

All our experiments go to prove that life is destroyed by several hundred atmospheres of water pressure, the water apparently becoming of such a concentration as to destroy the chemical structure of the living protoplasm. These experimental results are to a certain extent contradictory to those obtained by deep-sea soundings, for many forms of life, fish and otherwise, have certainly been found at depths of two or three miles. If life exists at the greatest depths, where the pressure may be a thousand atmospheres, we may be sure that the protoplasm has become evolved in such a way as to be immune to the high pressure of water. By means of a small chamber fitted with transparent windows, together with a hydraulic pump, I have been able to submit goldfish, which possess a swim-bladder, to

a thousand pounds of pressure within a few seconds and to observe their behaviour. They sank like a stone to the bottom immediately, owing to the sudden compression of the swim-bladder. After a time, having adjusted the amount of gas in the swim-bladder—no doubt by secretion—they began swimming about again, unharmed by pressure. I have also projected on the screen the shadow of the beating heart of a frog, submitting it to 50 atmospheres. The delicate structure of the heart continued to carry out its rhythmic beat unaffected by this enormous and sudden alteration of pressure. Similarly, muscle contracts normally when suddenly submitted to a pressure of air equal to 50 atmospheres. It is true that after a time the contraction languishes, but this is not due to pressure *per se*, but to poisoning by the high pressure or concentration of oxygen. The mechanical theories of compressed air are also refuted by this experiment. I stretched the frog's web over the glass window of the small pressure chamber and illuminated it by the arc light, so that the circulation of the blood was projected on to the screen. I found that the circulation remained unchanged on the pressure being rapidly raised by 20 or even 50 atmospheres. The manometric records of blood pressure taken from mammals show no noteworthy change when the pressure is raised to 3 atmospheres.

In the helmet of the diving-dress which, by the kindness of Messrs. Siebe Gorman and Co., I am able to demonstrate this evening, there is an inlet valve con-



Fig. 3.—Experimental chamber. The photograph was taken when Mr. Greenwood was inside.

nected with the pump by the air-pipe and an outlet valve. The air pumped into the dress keeps the water from entering at the wrist-cuffs, and the whole body remains dry, warm, and equally compressed. By means of the outlet valve the diver can adjust his specific gravity so that he is only slightly heavier than the water and can move easily along the bottom. He fills his dress more or less with air just as a fish fills its swim-bladder. He can go down rapidly, 100 ft. in two minutes, but it is dangerous to fall down, for if the pump does not keep up with the water pressure a cupping effect is produced and the diver may suffer haemorrhage from the lungs. If the dress becomes over-filled with air—and this may happen when the men who are pumping send down too large a quantity—the diver is blown up to the surface, and in the case of the old style of dress he may become helpless and unable to open his valve, arms and legs being blown stiffly out. To prevent this accident, in the new diving-dress the legs are laced up. The helmet also is provided with an emergency valve or spit-cock, which the diver can open and thus let out excessive air.

Divers have in the past been unable to stay down for any length of time at the greater depths owing to a feeling of oppression, which they have ascribed to the pressure of the water. Mr. Major Greenwood and I have exposed ourselves in our compressed air chamber to + 92 lb. (7 atmospheres) and to + 75 lb. (6 atmospheres) respectively, and we have found the breathing to be just as free and easy as at atmospheric pressure. Beyond an increased nasal twang of the voice no symptoms were produced, and there were no signs by which the pressure could be estimated. Dr. John Haldane has done good service by proving that the oppression is due to an increased partial pressure of carbonic acid in the helmet owing to deficient ventilation. It is not the percentage, but the absolute pressure of the carbonic acid which controls the breathing. There is normally about 5 per cent. of an atmosphere of carbonic

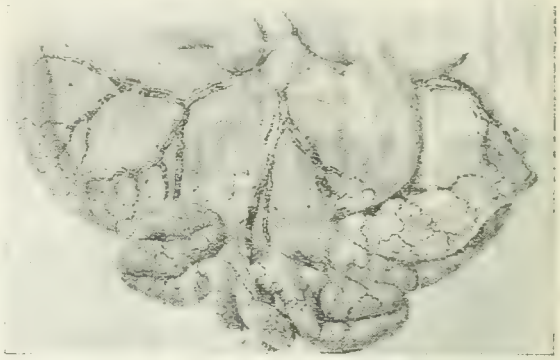


Fig. 4.—Bubbles in vessels of mesentery (v. Schrötter).

acid in the lungs, and the respiratory centre so works as to keep the partial pressure always the same. Thus, while in our lungs at 1 atmosphere we found 5 per cent. carbonic acid, at 5 atmospheres we found on analysis 1 per cent. But the partial pressure was 1 × 5, so that the proportion still remained 5 per cent. of an atmosphere. In order to keep the carbonic acid in the helmet down to a bearable concentration it is necessary that the same volume of air should be sent through the helmet, the volume being measured at whatever pressure the diver happens to be subjected to—that is to say, at 2 atmospheres the amount of air, adequate at 1 atmosphere, which is driven down to the diver must be doubled, at 3 atmospheres trebled, at 6 atmospheres increased six-fold. Under the old conditions of working, often with leaking pumps and tired men to pump them, the ventilation has generally been actually less than at atmospheric pressure, not six times greater, as it ought to be at a depth of 165 ft. A small increased partial pressure of carbonic acid, even up to 2 or 3 per cent. of an atmosphere, will not stop the diver from doing efficient work; but at 4 or 5 per cent. of an atmosphere the pulmonary ventilation is increased from 200 to 300 per cent., and if the diver is working hard, his breathing will become distressing and the feeling of oppression intense.

In order to get adequate ventilation at deep pressures several pumps must be linked up together, and a great many men are required to keep them working. To avoid this excessive labour, Mr. R. H. Davis (of Messrs. Siebe Gorman and Co.) and I are at present engaged upon an improvement of the diving helmet which will enable the

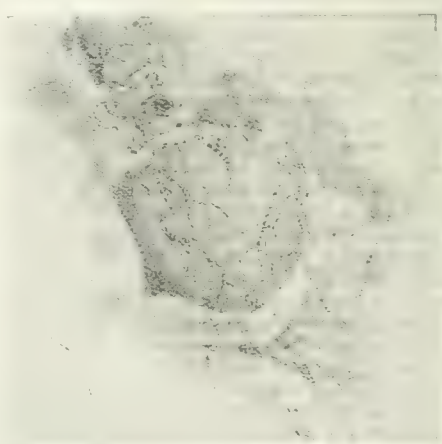


Fig. [illegible] v. Schrötter).

diver to do efficient work at deep pressures even when only one pump is employed. This device ought to save a good deal of hard pumping work. We have also contrived the self-contained diving dress which I demonstrate to-night. It is fitted with cylinders containing compressed air enriched with oxygen to 50 per

cent., and it has a caustic soda chamber. The oxygen supply is delivered 5 litres per minute to the helmet by a reducing valve, and the force of the oxygen stream is utilized by means of an injector to circulate the air in the helmet through the caustic soda chamber. No life-line or air-pipe is carried, only a light telephone cable, and this makes the dress suitable for the exploration of flooded mines, tunnels, shafts, etc., through which it is

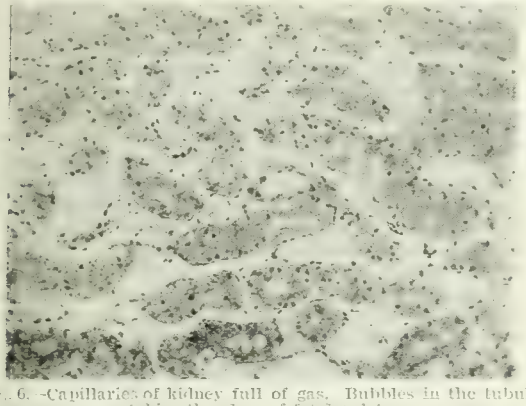


Fig. 6.—Capillaries of kidney full of gas. Bubbles in the tubules taking the place of fat droplets

impossible for the driver to carry great lengths of heavy air-pipe and life-line. Air containing 50 per cent. of oxygen is used in place of pure oxygen, in order to avoid the risk of oxygen poisoning.

I come now to the cause of compressed-air illness. In all the great compressed-air works from first to last the men have suffered from illness and loss of life: there is no risk in going into or staying in a caisson. As Pol and Watelle said, "*On ne paie qu'en sortant.*" These observers gave particulars of 64 workers who were employed in the sinking of a coal shaft through wet soil at an absolute pressure of 4¼ atmospheres. There were 14 cases of slight illness, 16 cases of more or less severe illness, and two deaths. At the St. Louis bridge works, out of 352 workers there were 119 cases of illness, 56 being cases of paralysis, and 14 deaths. The absolute pressure reached 4⅓ atmospheres. In the East River tunnels at New York—one of the greatest works undertaken with compressed air, but carried out under well-regulated conditions—the percentage of illness was 0.66, and of death 0.0035, in 557,000 man-shifts. The absolute pressure employed was 3 atmospheres. Out of the 3,692 cases at these East River tunnels over 88 per cent. were of the kind known as "bends"—that is, severe pain in the joints and muscles—1.26 per cent. gave symptoms of pain and prostration, 2.16 per cent. nervous symptoms, 5.33 per cent. vertigo, 1.62 per cent. dyspnœa and oppression, called "chokes," and 0.46 per cent. loss of consciousness and collapse. The number of deaths was 20. Yet mules which were kept for a year in the Hudson tunnel at 3 atmospheres' pressure were healthy enough to kick and bite at all comers, so that it is clearly decompression, and not exposure to pressure, which causes the trouble.

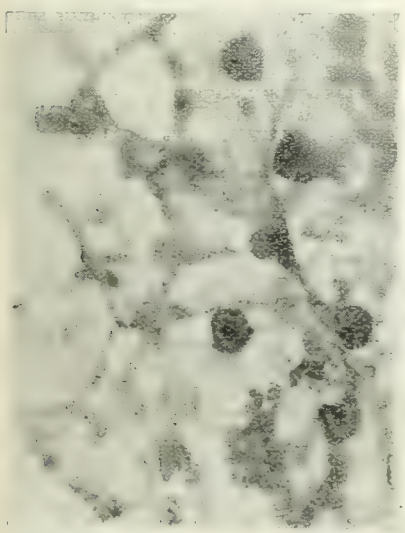


Fig. 7.—Liver cells blown out by gas bubbles.

The cause of the illness which has such a protean manifestation was suggested by Hoppe-Seyler and made clear by Paul Bert, the latter showing by experiments on animals that nitrogen gas is dissolved in the blood and tissue fluids in proportion to the pressure of the air, and that the dissolved gas on too rapid decompression bubbles off and effervesces in the blood of animal or man. The bubbles, by blocking up the capillaries and cutting off the blood supply here and there, produce the symptoms. Exposure to high atmospheric pressure has no ill effect until the pressure becomes so great that the partial pressure or concentration of oxygen acts as a tissue poison. The illness which occurs on decompression is prevented by making the period of decompression sufficiently slow to allow time for the dissolved nitrogen to escape from the lungs. When Robert Boyle submitted animals to the action of his air-pump, he observed that bubbles of air might be set free in the blood, aqueous humours, etc. And in these experiments we find the germ of the discovery which was completed by Paul Bert. It is astonishing how the researches, published by this renowned scientist in a volume of many pages, were almost totally neglected by engineers and the medical officers of their caisson works, both in this country and in America. When I began the investigation of the subject some fifteen years ago I discovered that Paul Bert's work was almost unknown, and that the causation of compressed-air sickness was generally attributed to causes entirely at variance with physical laws and physiological facts. I myself had independently carried out many experiments which proved that the cause of the illness was due to the setting free of bubbles of nitrogen after decompression, without being aware of the fact that similar experiments had previously been made by Paul Bert, so that the same conclusions were independently reached by me. Exposed to 1 atmosphere at body temperature, the blood dissolves a little less than 1 per cent. of nitrogen; at 2 atmospheres 2 per cent., at 3 atmospheres 3 per cent., and so on. The tissue fluids take up the dissolved gas in the blood, and with time the whole body becomes saturated. This process of saturation takes a certain time, since the blood forms but 5 per cent. of the whole body weight, and the blood must carry the nitrogen from the lungs to the tissues. Probably some 5 kg. of blood circulate through the lungs per minute, and this blood conveys the dissolved nitrogen to a tissue weight of 60–80 kg. Vernon has shown that fat dissolves some five or six times as much nitrogen as water, and the discovery of this important fact makes it clear to us that the fat man will dissolve far more nitrogen than the lean man and become saturated much more slowly. On decompression, the reverse process has to take place. The excess of nitrogen dissolved in the tissues must be carried back by the blood to the lungs and there make its

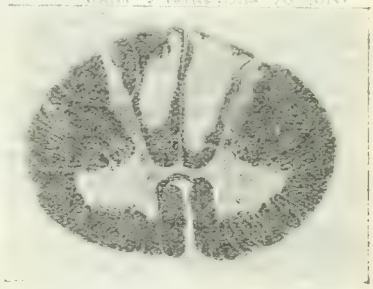


Fig. 8.—Lesion in posterior columns of cord produced by air embolism (v. Schrötter).

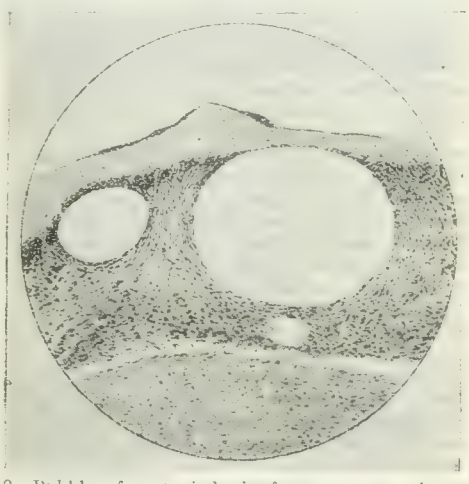


Fig. 9.—Bubbles of oxygen in brain of mouse compressing cerebral cells. Decompression from 12 atmospheres O_2. Mice can recover from such, the O_2 being absorbed.

escape. If the decompression is made too rapidly for this to take place, the supersaturated blood and tissues may give up their nitrogen in the form of bubbles. It is clear, therefore, that fat men must be eliminated from all high-pressure work. Out of 50 autopsies which have been done on fatal cases of caisson illness, gas bubbles have been visible in the blood vessels in 19 instances. Most of the other cases were old-standing lesions of the spinal cord. The paralysis so often produced is due to the local death and degeneration of the spinal cord owing to the blocking of the circulation there by the bubbles.

One of the proofs that the nitrogen gas is so dissolved is that the blood collected from the artery of an animal while under pressure, when analysed with the gas pump, shows that the amount of dissolved nitrogen varies with the pressure—roughly speaking, we found 1 per cent. per atmosphere. We have exposed rats to 10 or 20 atmospheres, killed them by instant decompression, then opened their bodies under water and collected and analysed the gas which has been set free. We found from 6 to 16 per cent. of carbonic acid, a trace of oxygen, and 80 to 87 per cent. of nitrogen, the volume of nitrogen corresponding roughly to the saturation at the pressure employed. Major Greenwood and I have tested upon ourselves the rate of saturation, using the urine as a test fluid. We were compressed in a large boiler placed at our disposal by Messrs. Siebe Gorman and Co., who have generously helped us in our researches. The chamber was fitted with electric light, telephone, and taps for slow decompression. The pressure was raised by means of a diving-pump driven by a gas-engine. Having found out what was safe for animals, we exposed ourselves to the same kind of tests, and spent as long a time as seven hours enclosed in this steel prison which I demonstrate now upon the screen. We drank a quart of water, and some half an hour afterwards, when the kidneys were freely secreting, we collected samples of urine at varying pressures and times. The urine collected in sealed bulbs was evacuated by the gas pump, and we found that the urine secreted during the next ten minutes after reaching any given pressure was saturated with nitrogen at that pressure. But in spite of slow decompression we often found that our urine was still supersaturated as we came out of the chamber. A certain amount of supersaturation is not dangerous. The colloidal nature of the blood prevents the bubbles of nitrogen from forming easily. To demonstrate the bubbling off of nitrogen on rapid decompression, I spread the web of a frog's foot or a bat's wing over the glass window of the small pressure chamber. The circulation of the blood is projected on the screen with the aid of a microscope and an arc light, and we are able thus to observe the circulation under 20 atmospheres of air pressure and to watch the bubbles forming in the capillaries on rapid decompression. We are able to see that recompression diminishes the size of the bubbles and finally drives them back again into solution. When the larger mammals, such as cats and dogs, are exposed to the high pressure of, say, 8 atmospheres for an hour or so and are then decompressed in a few seconds, they die in one or two minutes. On the other hand, small mammals, such as mice and rats, may escape owing to their small bulk and to their rapid respiration and circulation. The heart of a mouse may beat 700 times per minute as against our own 70. Paralysis in the limbs follows too rapid decompression, or the animals fall over and become unconscious. The gurgling of gas bubbles in the heart may be heard, respiration becomes embarrassed, and the animals die. On dissection the peritoneal cavity may be found distended with gas, or the gas may be confined to the stomach and intestines. Some of the gas rises in the fermentative processes of digestion and from air swallowed during compression. Such gas may possibly be the starting point for the setting free of bubbles in the blood, and it is therefore important that men suffering from flatulence should not work in high pressures. The vessels, both arteries and veins, may show chains of bubbles, as exemplified in the photograph I am able to produce of the coils of the intestines and the mesenteric vessels. The bubbles are seen in the fat, the joints, the veins of the brain, etc., and the coronary vessels. The right side of the heart itself may be distended with them. The gas in the heart produces embolism of the pulmonary vessels, obstructs the circulation, and brings about sudden death. In the larger animals, when decompressed from eight atmospheres in five seconds, we have found the cells of the liver, kidneys, etc., vacuolated or even burst with bubbles. We have collected gas set free in the heart, and found about 80 per cent. of it to be nitrogen. The bubbles may take a long time to form, and if they form only in the fat and veins and in such organs as the liver they may do little harm, but if they are swept on into the heart and pulmonary circulation or enter the arterial system and block up the vessels of the brain and spinal cord, then it is manifest that the symptoms will be grave.

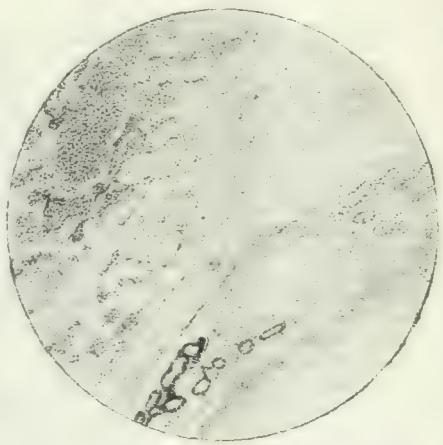


Fig. 10.—Section through wall of bronchial tube and pulmonary alveoli. Showing inflammation produced by exposure to four atmospheres of oxygen.

Among caisson workers some are affected and others not, and immunity is not given by continued work in compressed air. We may look for the explanation in such phenomena as the varying state of the blood, the varying vigour of the circulation and respiration which are affected by fatigue and by vasomotor changes during compression when the air is chilled, fermentative processes going on in the alimentary tract, and the relative amount of fat in the individual. A young man in perfect health, wiry, small, and spare, with powerful heart and deep respiration, can expel the dissolved nitrogen from his lungs far more readily than the old, the intemperate, the stout, and those who are over-fatigued by excessive labour. The records of caisson workers show that men under 20 generally escape, and that the percentage of cases is highest for men over 40. The longer the shifts the more complete the saturation of the body, and the higher the pressure the greater will be the risks and the gravity of the symptoms. The men who work the air-locks and, in passing material through, undergo frequent but brief compression and decompression are not affected. The records show that practically no cases occur at a pressure below 2 to 2½ atmospheres absolute.

Much has been made of the impurity of the air—in particular of the percentage of carbonic acid—as a contributory cause of caisson sickness. The ventilation of the tunnels built by the London County Council under the Thames has been carried out at an increased and, in my opinion, needless expense in order to keep the carbonic acid percentage down to a very low level. Recently I have carried out many experiments on ourselves and on students, who have been sealed up in a small air-tight chamber, and I have found—like Fluegge and his school in Germany and Haldane in this country—that it is the heat, moisture, and stillness in the air which cause discomfort and fatigue, and not excessive CO_2, deficiency of oxygen, or any supposed organic poison in the air breathed. There is no evidence standing the criticism of investigation to prove, or even to make it likely, that there is any organic chemical poison exhaled in the breath. In the absence of any toxic gases, such as an escape of coal-gas or other trade product, the problem of ventilation becomes a question of movement, heat, and relative moisture of the air. It is these latter qualities of the air which affect the skin and respiratory tract, and, through their influence upon the vast area of cutaneous nerves, give us feelings of comfort or discomfort. In open-air treatment the coolness of the air and its movement are the essential qualities which promote health by stimulating activity and metabolism and the nervous well-being of the body. Hot, moist air causes fatigue by taxing the cooling mechanism. Blood which might be going through the viscera, muscles, and brain is sent to the skin to be cooled. A rapid heart-beat has to be maintained, and this fatigues the heart.

The fatigue, increased by a hot, moist atmosphere, makes greater the danger of decompression. Heat causes more blood to come to the skin and brings about a more complete saturation of the subcutaneous fat with nitrogen. The cold in the decompression chamber, due to the expansion of the air, causes vaso-constriction, impels the blood from the skin, and stops its desaturation. The money spent on excessive ventilation really raises the heat of the caissons, for compressed air is heated by the compression, and it would be better spent in the cooling of the caissons. To secure efficient work the wet bulb temperature should be kept below 70° F. The men should not pass from a warm caisson to a cold air-lock and a cold outer world. They should go through a warm air-lock to a warm room. An excess of CO_2 in the air-lock or diver's helmet during decompression—by "excess" I mean 2 or 3 per cent. of an atmosphere—is favourable, as it increases pulmonary ventilation and the out-breathing of nitrogen. The safety of compressed air workers depends upon the relation of the period of decompression to that of compression. The proper periods of compression and of decompression have been worked out in an extensive series of experiments on goats by Haldane, Boycott, and Damant, and on pigs and goats by Major Greenwood and myself. We chose the pig as being in shape, diet, and habit of body—and perhaps in habit of mind!—more like to man than the goat. The Admiralty now use a table regulating the descent, working period, and decompression of the diver, which is based very largely upon experiments on animals, and the use of this table has prevented all serious accident. The decompression periods given in this table can be shortened considerably if active exercise is taken, for by this means the ventilation of the lungs and the rate of the circulation can be increased, perhaps, by six times. When

Table showing Dissolved Gas in Urine when (1) Air, (2) Oxygen, was breathed during Decompression.

I. Breathed air at 3 atmospheres. After 15 minutes emptied bladder. Sample I collected 7 minutes later at 3 atmospheres. Decompressed to 1½ atmospheres in 3 minutes. Sample II collected 6 minutes later at 1½ atmospheres. Decompressed to 1 atmosphere in 3 minutes. Sample III collected 8 minutes later at 1 atmosphere.

	Nitrogen.	Oxygen.	Pressure Atm.	Nitrogen calculated (0.85 per atm.)
Sample I	3·654	0.152	3	2.55
Sample II	2·859	0.144	1½	1.416
Sample III	1·669	0. 81	1	0.85

II. At 3 atmospheres for 11 minutes. Emptied bladder and breathed oxygen for 9 minutes, then took Sample I. Decompressed to 1½ atmospheres in 2 minutes. Took Sample II 4 minutes later. Decompressed to 1 atmosphere in 1½ minutes. Took Sample III 5 minutes later.

	Nitrogen.	Oxygen.	Pressure Atm.	Nitrogen calculated.
Sample I	2·091	0.297	3	2.55
Sample II	0·8815	0.1935	1½	1·416
Sample III	0·5351	0.0911	1	0.85

doing hard work in the caisson a man rapidly saturates himself with nitrogen, and it is very disadvantageous that he should sit quietly in a cold air-lock during decompression, with heart and respiration working at low level owing to fatigue. By arranging air-locks so as to give staged decompression, and making the men climb out of the tunnel from one air-lock to another, they can be made to do hard work, and the work itself helps to wash the nitrogen out of their bodies, and thus very greatly increases the safety of decompression.

Another means by which the decompression period can be shortened with safety is by the breathing of oxygen. If oxygen is breathed at the full pressure just before decompression there will be a vacuum for nitrogen in the lungs, while the pressure will prevent any bubbles of nitrogen from forming in the tissues. Unfortunately, high pressures of oxygen act as a poison. Four atmospheres of oxygen convulses animals in from 30 to 60 minutes, and causes inflammation of the lungs. Bornstein and other engineers have breathed oxygen for 30 minutes at a pressure of 3 atmospheres. Such a period is the limit of safety. Oxygen can be breathed economically by means of the Siebe Gorman apparatus for use in mines, and I demonstrate this apparatus in use this evening. At the Howe Bridge rescue station squads of miners are trained in its employment, and the efficiency and utility of the dress was fully demonstrated in the recent great colliery explosion at Bolton. J. F. Twort and I have investigated the effect of the breathing of oxygen on the volume of nitrogen dissolved in the urine. Precautions were taken to collect the urine without contact with the atmosphere. A large quantity of water was drunk so that samples of urine could be collected every seven minutes or so. The oxygen apparatus was taken into the chamber and the oxygen breathed at 3 atmospheres of pressure just before and during decompression. Our results show that while the urine is supersaturated after decompression in twelve minutes when no oxygen is breathed, it is under saturated after the breathing of oxygen.

It may be possible in deep-sea diving work, as in the pearl fisheries, so to arrange a supply of hydrogen and oxygen that the diver may breathe such a mixture during decompression in great depths. As he comes nearer to the surface the hydrogen supply will be cut off, and he will be given oxygen only. The hydrogen is used to prevent oxygen poisoning (v. Schrötter). The ideal method for safe decompression in high pressures, which has been worked out by experiments on animals, is rapid decompression to some two atmospheres of pressure, and then a pause, during which oxygen is breathed and exercise taken, followed by gradual decompression to one atmosphere, while oxygen breathing and exercise are continued.

Paul Bert proved that the one method of cure for the illness is recompression. Caisson workers suffering from "bends" have found relief by going back under pressure. Recompression chambers or medical locks are now instituted at all large caisson works. Experiments on animals show that recompression must be applied very quickly in dangerous cases before vital parts are killed by the interference of the bubbles with the circulation. "Bends" may be relieved hours, or even days, after they have come on. Recompression cured 90 per cent. of the cases

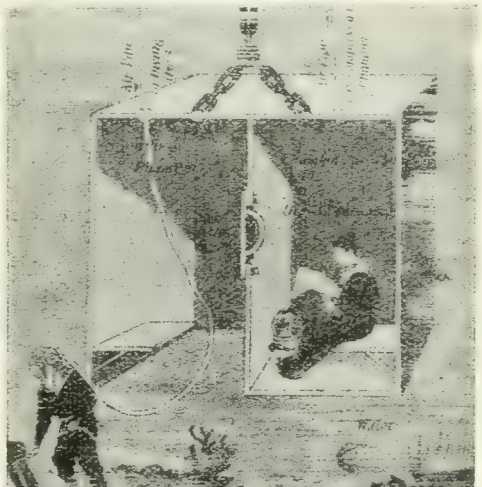


Fig. 11.—Diving bell with air-lock for decompression of divers.

in the East River tunnel, and all but 0.5 per cent. were partly relieved by this means. Oxygen breathing can be employed with advantage in a medical lock. Decompression from the medical lock after the cure is effected must be very slow, for some of the bubbles, having run together to form larger bubbles, only shrink on recompression, and do not quickly go into solution. These may expand again on decompression. For deep-diving work a recompression chamber should be at hand. I have contrived a double-chambered diving-bell, one chamber being open to the sea and the other closed save for a manhole communicating with the first. The divers, after completing their work, enter the inner chamber and close it, the bell is raised on deck, and the man is decompressed a stage further. Such a contrivance prevents exposure to the cold during slow decompression in the ordinary way when the diver climbs a shotted rope. It also eliminates the risk of the prevention of gradual decompression by bad weather.

I hope that I have now given you sufficient details of these researches to make it clear that the workers on this subject in this country and abroad have done much to perfect a safe method of carrying out work in compressed air by scientific investigations carried out on animals, and that the fruits of their labours have a great economic importance. A full account of these researches and of work in compressed air will be found in my book on caisson sickness, now in the press (Arnold).

ON ARTIFICIAL RESPIRATION WITH OXYGEN.

BY

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SHORTLY after the discovery of oxygen by Priestley in 1774 it was used in many diseases, and at first, like most new remedies, it was said to be exceedingly successful. Further observations, however, showed that it was not so useful as at first supposed. It has continued to be used more or less ever since, but one of the great difficulties has been that of obtaining it in a convenient form for clinical use.

When making experiments with it as a means of

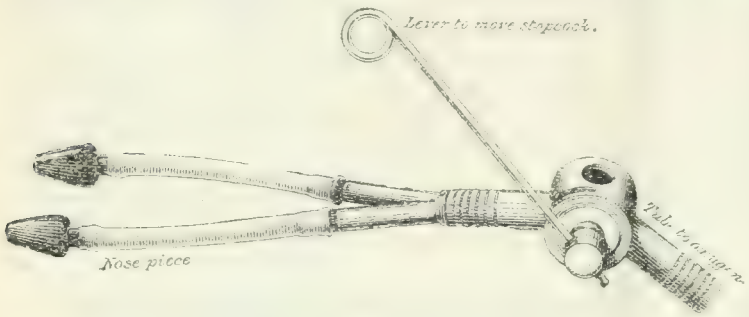


Fig. 1.

preventing death from cobra venom, Sir Joseph Fayrer and I, in 1874, obtained it in a small gasometer, but our supply unfortunately ran out in the middle of one experiment. We then had it in a large gas bag, and this was more successful but was very inconvenient for carriage.

In 1891 Dr. Prickett and I had a case of pneumonia in which we used oxygen compressed in a cylinder, with very gratifying results. The publication of this case[1] appeared to give an impetus to the use of oxygen. Numerous papers on its use appeared shortly afterwards in medical journals, and it has continued to hold its place ever since. In one case of pneumonia which I saw with Dr. John Attlee, as one lung was clearing up the other became consolidated, and it seemed to be simply a race for life to get a sufficient amount of breathing space in the clearing lung before too much of the other became useless. In this case we kept up a continuous inhalation of oxygen day and night from cylinders connected to a funnel, which was suspended a few inches above the patient's nose and mouth. The results here were also very satisfactory: without oxygen the patient must almost certainly have died.

Sometimes patients complain of the oxygen feeling dry or cold. This difficulty can be got over by passing the gas through a Woulfe's bottle containing warm water, and kept from cooling either by hot cloths or by immersion in a basin of hot water. To this, in cases of bronchitis, tincture of benzoin, pine oil, or other expectorants may be added. In cases where a diffuse stimulant is required alcohol or ether or a mixture of both may be put into the Woulfe's bottle or into a Junker's inhaler. In cases of angina pectoris amyl nitrite may be given with oxygen, either by dropping it into a Junker's inhaler with alcohol or by simply putting a drop or two on cotton-wool and placing it in a funnel before the patient's nose. Ethyl iodide may be given in the same manner in asthma.

The effect of oxygen sometimes as a cardiac stimulant is very extraordinary. Some one, I think Sir Douglas Powell, has well said the heart is the organ which first takes toll of the oxygenated blood returned from the lungs, and in a case of cardiac asthma I found the tension in the radial artery, which was only equal to 75 mm. of mercury when the inhalation of oxygen was begun, rose to 150 in the course of ten minutes. When natural respiration has completely ceased artificial respiration with oxygen may be kept up for some time by simply placing the end of an india-rubber tube passing from the oxygen cylinder into the patient's nostril, at intervals corresponding to the natural respirations, either with or without compression of the other nostril. The force of the gas issuing from the cylinder is sufficient to inflate the lungs, and when the tube is removed from the nostril the gas is again expelled from the chest by the natural resiliency of the chest wall, aided, if necessary, by gentle compression.

I demonstrated an instrument for keeping up artificial respiration with oxygen at the International Medical Congress in Rome, 1894, but the account which appeared in the reports[2] was not illustrated and attracted very little attention either at the time or afterwards. I think it may therefore be worth while to describe it again with illustrations to show its working. The instrument itself is shown in Fig. 1. It consists of a stopcock of peculiar construction which is connected by an india-rubber tube at one end to the cylinder containing oxygen, and at the other terminates in two nozzles which pass into the nostrils. By moving a short lever the nostrils are alternately put into communication with the oxygen cylinder and with the open air, so that, by moving the lever alternately backwards and forwards, artificial respiration is kept up with the minimum of exertion, so that it might be continued if necessary for hours. Fig. 2 gives a general view of the arrangement of the apparatus with sections of the stopcock at A and B. In A the stopcock is shown with the communication free between the lungs and the air, and the communication with the oxygen cylinder is closed, this being the position in expiration; B shows the position in inspiration when the oxygen streams from the cylinder into the lungs and the opening which communicates with the outer air is closed.

In the illustration the stopcock is represented as being directly connected by tubing with the oxygen cylinder, but in order to prevent the tubing being blown off, or other unpleasant surprises from too great pressure of the oxygen, it is advisable to insert a large distensible bag between the

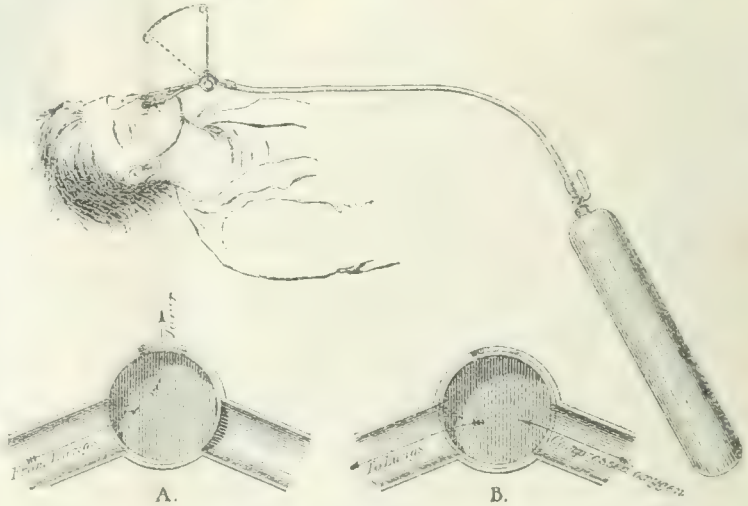


Fig. 2.

stopcock and the cylinder. If necessary it may be weighted by laying books upon it, so as to obtain the pressure required.

REFERENCES.

[1] BRITISH MEDICAL JOURNAL, January 23rd, 1892. [2] Atti dell' XI Congresso medico internazionale, Roma, 29 Marzo - 5 Aprile, 1894.

THE German Roentgen Society will hold its eighth annual meeting this year at Berlin on April 14th. There will be a demonstration on the evening of April 15th. Communications relative to the Congress should be addressed to the secretary of the society, Dr. Immelmann, Berlin W. 35, Lutzowstrasse 72.

INTRINSIC CANCER OF THE LARYNX:

*OPERATION BY LARYNGO-FISSURE: LASTING CURE IN 80 PER CENT. OF CASES.**

BY

STCLAIR THOMSON, M.D., F.R.C.P.LOND., F.R.C.S.ENG.,

PROFESSOR OF LARYNGOLOGY AND PHYSICIAN FOR DISEASES OF THE THROAT IN KING'S COLLEGE HOSPITAL; PHYSICIAN TO KING EDWARD VII SANATORIUM, MIDHURST.

FEW clinical classifications are more useful than the one made by Krishaber when he suggested that cases of cancer of the larynx may be divided into two groups according to the anatomical site of origin of the disease.[1] He gave the name of "intrinsic cancer" to all cases where the disease is found to start from the vocal cords, the ventricles, the ventricular bands, the interarytenoid region, and the subglottic area. When cancer originates in any other points of the larynx—the epiglottis, arytenoids, aryepiglottic folds, and the pharyngeal surface of the cricoid—Krishaber preferred to call it "extrinsic cancer." Now, this classification is of the greatest clinical importance, for, while extrinsic cancer is, according to Butlin,[2] "a dire disease," seldom operable, offering only a chance of cure with the generally crippling operation of laryngectomy, and giving a statistical table of lasting arrest which is in no way encouraging, it is quite otherwise with intrinsic cancer. Semon has frequently called attention to the evidence we now possess that there is probably no other region of the body where operation for cancer can show anything like the satisfactory results that can be obtained when the disease occcurs in the interior of the larynx and is removed by laryngo-fissure. His own practice shows a lasting cure in 80 per cent. of his cases.[3] I imagine that the statistics of operation for epithelioma of the lips may show a better result; but I believe that when any other region, and particularly an internal organ, is attacked with this dreadful disease, no such hopeful prospect can be entertained.

In spite of the pioneer work performed by Butlin and Semon in this country, and carried on by Chevalier Jackson, Moure, Schmiegelow, Chiari, Koschier, and others abroad, it is regrettable that many members of the profession still fail to appreciate what can be done for the cure of cancer when it attacks the interior of the larynx. It is deplorable to note how often cases fail to present themselves until the intrinsic disease has been allowed to spread until it became extrinsic, and too extensive to be operable. Such extrinsic cases are certainly more common in the out-patient room, yet Semon says that of the two classes of laryngeal cancer the intrinsic form is the more common. In 212 cases seen by him the cancer was intrinsic in 136, and extrinsic or mixed in 76. Taking only his male patients, the divergence was more marked—namely, 124 intrinsic compared with 53 extrinsic—for it is well known that the extrinsic is the more common form in women. Chevalier Jackson's careful figures show that the more hopeful form (that is, intrinsic) is more frequent in the proportion of 98 to 43.[4]

One reason why statistics and reports of cases are not more frequently forthcoming is that they do not come to the laryngologist until, in many cases, they are too advanced for operation. A second reason is that cancer in the larynx is not a common disease: Semon, whose experience was very extensive, saw 212 cases in private patients in twenty-eight years, and of these 136 were intrinsic. He rightly claims that, with Butlin, he had been fortunate in having exceptional opportunities of treating laryngeal growths surgically, yet his gratifying results were obtained on a record of only 25 laryngo-fissures for cases microscopically verified as undoubted malignant growths.

This comparative rarity of intrinsic laryngeal cancer is the second reason which helps to explain why, this evening, I cannot submit the results of more than ten cases. But our records will continue to deal with comparatively small numbers until the public and the profession realize the importance of early diagnosis of every case of persistent hoarseness, and see, from such gratifying results as these I am now able to submit, that intrinsic cancer of the larynx is one of the most favourable manifestations of malignant disease, allowing of a lasting cure in a very large majority of cases submitted to the laryngologist for suitable operation.

Cases.

The ten cases were operated on between the years 1900 and 1910—a period of ten years. I give the abbreviated notes of them in chronological order:

CASE I.

Mr. W. T., aged 47. April 23rd, 1900: Huskiness for three months. Limited, non-ulcerated thickening of middle third of right vocal cord, which moved freely. By August 4th the thickening was more defined—a distinct truncated cone with a cornified, white extremity. Although cords moved freely and no glands could be felt, the suspicion of a malignant growth was now confirmed and endorsed by Sir Henry Butlin, who operated on August 14th, 1900. I saw the patient again in June and July, 1901, when his larynx was absolutely free from any recurrence of the disease. He was last seen by me on January 9th, 1902, when he presented himself with a gland the size of a pigeon's egg below the angle of the left jaw. The area of the left lingual tonsil was enlarged, congested, and very hard to the touch. His larynx was still quite clear—that is, seventeen months after operation. Hearing subsequently of his death, I wrote to Sir Henry Butlin, and received the following letter:

"1st July, 1904.

"My dear Thomson,

"I have no intention of publishing the case separately, and I should be very pleased indeed that you should do so.

"The operation, as you say, was on August 14th, 1900, and consisted in (something more than) the complete removal of the right vocal cord for an ulcerated epithelioma, which extended along almost the entire length of the cord, up to and just beyond the commissure. The disease was proved by microscopic examination to be epithelioma, and I think I still have the sections; indeed, I am sure I have them.

"In December, 1901, he came to me on account of an enlarged, hard, and fixed gland behind the angle of the jaw, on the left side, and I found that it was associated with induration, undoubtedly malignant, of the left border of the tongue, about, but a very little in front of, the lingual tonsil. The larynx was quite free from disease.

"You saw Mr. T., I think, about the same time, and formed a similar opinion of his case; and we both held the view that it was not a suitable case for operation.

"He came to see me at rare intervals; and I received a letter from his wife in 1903, telling of his death on the 26th of June of that year. . . . The larynx remained free, as I always found it, up to the time of his death, so far as any recurrence of the original epithelioma is concerned.

"Of course it is very disappointing that he should have suffered from, and succumbed to, an attack of similar disease in another near organ of the body.

"Believe me,

"Yours very truly,

"HENRY T. BUTLIN."

CASE II.

Mr. C. S., aged 49. September 20th, 1900: Huskiness for two years. The right vocal cord was entirely replaced by a dull red, ovoid, irregular growth, and the right side of larynx was quite immobile (Figs. 1 and 2). The diagnosis of epithelioma was clear, and was confirmed by both Sir Felix Semon and Sir Henry Butlin. October 10th, 1900: Operation, with the assistance of Mr. E. Stabb and Dr. F. Ford, chloroform being administered by Mr. Bellamy Gardner. Small gland met with in front of crico-thyroid membrane. Hahn's tube employed. All the right cord, with a good margin, was removed back to the processus vocalis, and the anterior portion of the left cord was also removed. The patient was able to swallow in twenty-

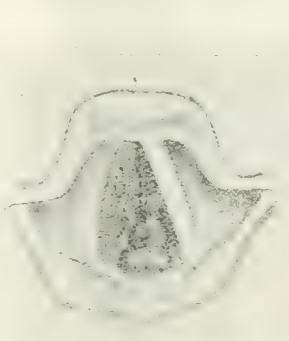


Fig. 1.—Case II. Dull red, ovoid, irregular growth replacing right vocal cord, which is fixed in cadaveric position.



Fig. 2.—The same larynx, showing complete immobility of right cord during phonation.

* Paper read before the Medical Society of London on February 12th, 1912.

four hours, and at the end of forty-eight hours sat out of bed. Dr. Jobson Horne reported that the growth was a carcinoma, but that the removed portion of the left cord and the small gland were free from disease. Later on there was some compensatory thickening in the ventricular band on the operated side, and on June 3rd, 1901 (eight months after operation) the patient saw Sir Henry Butlin, who agreed that there was no suspicion of recurrence of malignant growth, nor was there any when I last saw the patient on November 18th, 1901, more than a year after operation. He wrote to me from Scotland in January, 1902, to say that as he was keeping well and suffering no inconvenience from his throat he had thought it unnecessary to call and report himself. I heard that he died suddenly in February, 1902, but beyond a statement that he had spasm of the glottis, I could not obtain satisfactory details.

Case III.

J. K., aged 48, attended King's College Hospital on October 9th, 1903, for hoarseness of thirteen months' duration, due to a greyish, dimpled, sessile growth, occupying the anterior two-thirds of the left vocal cord (Fig. 3). A small gland existed below the angle of the right jaw. As the patient had been treated successfully in the Victoria Park Chest Hospital in 1895 by Dr. Heron with Koch's tuberculin, it was generally thought by members of the Laryngological Society of London that the case would prove to be tuberculous, although there were no other symptoms beyond arrested phthisis.[3] It was not until July of the following year (that is, 1904) that the increase of the growth, the infiltration of the cord, and the consequent interference with its movements, made me conclude it was an epithelioma. It is worth noting that the patient was kept under observation for nine months before the diagnosis was settled and had been hoarse for thirteen months previously. This long period of twenty-two months shows how slow the progress may be in the early stage of intrinsic cancer of the larynx, and also how difficult the diagnosis may be.

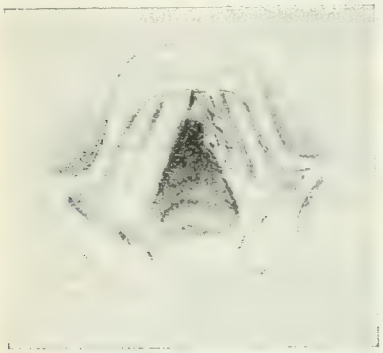
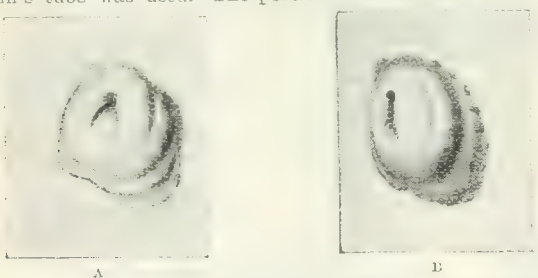


Fig. 3.—Case III. Epithelioma of vocal cord.

July 12th, 1904: Laryngo-fissure under chloroform (Fig. 4). Hahn's tube was used. The portions removed showed well-marked epithelioma, the tissues being so deeply infiltrated that from the purely pathological point of view the outlook would not be favourable.



A B

Fig. 4.—Case III. Two life-size drawings of the growth removed by laryngo-fissure.

Six weeks later a small thickening was noticed in the anterior commissure. As this developed into a pale, pedunculated growth, the size of a pea, it was removed with intralaryngeal forceps, and under the microscope proved to be a granuloma (Fig. 5). The patient's case is further reported in the *Proceedings of the Laryngological Society of London* for January 13th, 1905. He has successfully come through attacks of influenza, bronchitis, and pneumonia, and a fairly good voice has enabled him to carry on his occupation as a baker in the East End (Fig. 6).

He has now been seven and a half years free of recurrence of cancer.

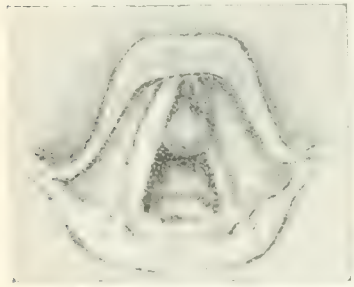


Fig. 5.—Case III. Granuloma in anterior commissure during convalescence.

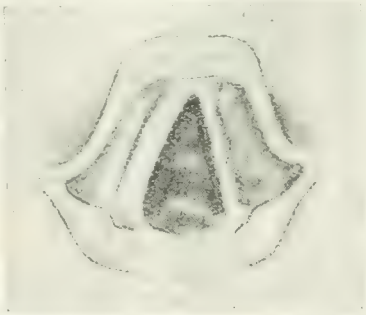


Fig. 6.—Case III. After operation. Showing new cicatricial and quite fixed left cord, with compensatory hypertrophy of left ventricular band.

Case IV.

Sir W. D., aged 49. October 9th, 1906: Voice had been husky for six months. History of lues. No enlarged glands. The whole of the right vocal cord was replaced by a red, rough, irregular, ulcerating, mulberry-surfaced growth, which mechanically prevented complete approximation of the cords, although the intrinsic movements on the affected side did not at first appear to be interfered with (Fig. 7). However, at the end of a month, during which time the patient was submitted to anti-syphilitic treatment, the mobility of the right cord was failing, and the diagnosis of epithelioma was then confirmed by both Sir Felix Semon and Sir Henry Butlin. November 8th, 1906: Operation by laryngo-fissure, assisted by Mr. A. H. Buck of Brighton and Mr. E. Stabb, chloroform being administered by Dr. J. F. W. Silk. Hahn's tube was employed. Dr. Emery reported that the removed growth was an epithelioma with unusually malignant appearances. About eight weeks after operation the patient expectorated two pieces of bone, evidently ossified cartilage from the margins of the incision in the thyroid plate. The patient made a good recovery, and resumed an active life with a good strong voice. But in July, 1907 (that is, eight months after operation), there was a decided recurrence. As at that time I had just lost a nail from a septic right fore-finger, Sir Felix Semon kindly made an exploratory laryngo-fissure, but found the growth had invaded both thyroid alae, and was no longer suitable for laryngo-fissure. The case was then transferred to Mr. Burghard, who excised the whole larynx on August 14th, 1907, but the patient died of recurrence on July 13th, 1908, one year and eight months after his first operation.



Fig. 7. Case IV. Epithelioma of larynx.

Case V.

C. L., aged 54, was admitted to King's College Hospital on October 4th, 1907, with partial loss of voice for over a year. The left vocal cord was entirely replaced by a nodular growth, greyish and white in parts, and in the anterior commissure there was a granulation strongly suggestive of perichondritis from invasion of the thyroid ala. The left side of the larynx was quite immobile. The condition is well shown in a coloured drawing which I was fortunate enough to have had made. No glands were felt (Fig. 8). October 17th, 1907: The operation of laryngo-fissure was carried out entirely under local anæsthesia with cocaine and adrenalin (eudrenine). Hahn's tube was not used. All the left cord and the soft tissues in the left half of the larynx were removed. As the disease was found to extend along the lower surface of the opposite side, the right vocal cord was also removed, except for the portion attached to the vocal process. As the condition of the thyroid cartilage itself was suspicious, a portion of it on each side of the commissure was clipped away. Owing to the extensiveness of the operation the tracheotomy tube was left in for eighteen days. The patient was fed by the mouth at the end of twenty-four hours, and at the end of a week he was eating solid food. The microscope showed the disease to be an epithelioma. The patient is able to earn his own living. He has no stridor even in sleep, in spite of the very free removal of his vocal cords; he reports that he may be a little short-winded on exertion. He speaks easily and loudly with a strong, harsh voice, and this voice is apparently produced by the vibration of the aryepiglottic folds. The patient was shown before the Clinical Section of the Royal Society of Medicine on February 11th, 1910. He has now been four years and four months without any recurrence of the disease.

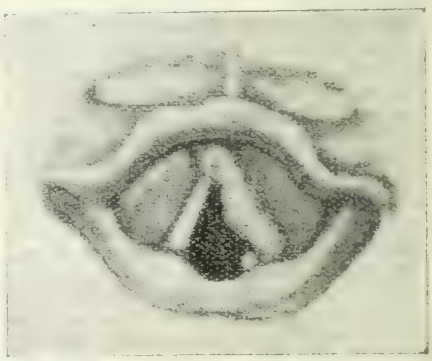


Fig. 8.—Case V. Epithelioma. Laryngo-fissure entirely under eudrenine. Growth found to extend to anterior two-thirds of right subglottic region. Both vocal cords completely removed and part of right ala.

CASE VI.

Mr. R. B. E., aged 59, was sent to me by Mr. R. C. Priestley in January, 1909. The patient had been hoarse continuously for three or four months, but voice had not been good for two or three years. On the middle third of the left vocal cord there was a papilloma-like, irregular, greyish growth, and the cords moved freely (Fig. 9). There were no enlarged glands. The growth was removed endolaryngeally and completely, and sent for examination to Dr. Eastes's laboratory. The report of Dr. Cuthbert Lockyer was that the microscope showed it to be a squamous-celled carcinoma, and this was confirmed by Mr. Shattock. Sir Henry Butlin examined both the growth and the patient, and strongly advised operation.

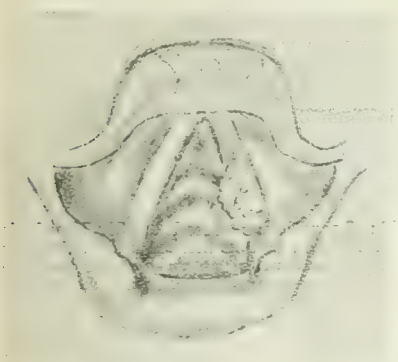


Fig. 9.—Case VI. Epithelioma of larynx.

February 17th, 1909: Operation, assisted by Messrs. Gilbert Smith, Irwin Moore, and E. Stabb, chloroform being given by Mr. Walter Tyrrell. Laryngo-fissure; no Hahn's tube was used. The left vocal cord with surrounding soft tissues was raised on its perichondrium from the inner surface of the thyroid cartilage and removed *en masse*. Tracheotomy tube was removed at the end of the operation. The microscopic examination of the removed portion confirmed the original diagnosis of epithelioma. The patient was fed by the mouth from the first day. Six weeks later an oval, pale, smooth growth about the size and shape of a small bean was removed from the anterior third of the newly-formed cicatricial left vocal cord. Under the microscope this was shown to consist of granulation tissue, with a tiny strip of degenerated epithelium which was quite benign.

The patient's voice is so satisfactory that he has been able to resume his profession of a schoolmaster. He smokes and is in good health. Three years have now elapsed without any trace of recurrence.

CASE VII.

Mr. J. S. P., aged 43. When this patient consulted me on February 15th, 1909, his voice had not been strong for a year. The right vocal cord was replaced by an irregular, slightly warty infiltration in its whole length, the posterior two-thirds being whitish. The cord moved, but not freely. There were no glands. The patient had a very hoarse, stenotic voice. He was also seen by Sir Henry Butlin, who wrote that "it ought to be much more widely cut out than in your preceding case. It is not a nice-looking growth, so I would go wide of it at each end."

February 25th, 1909: Laryngo-fissure, with the assistance of Messrs. Stabb, Moore, and Bedell Stanford. Chloroform was given by Mr. Walter Tyrrell. The entire right vocal cord and all the soft parts on the same side were raised off the perichondrium, and peeled off the inner surface of the thyroid cartilage. No Hahn's tube was employed, and no tracheotomy tube was left in. The microscopic examination of the removed growth showed it to be an epithelioma. The patient made a rapid recovery, and returned to playing lawn tennis and riding a bicycle. But towards the end of May (that is, within three months) stenosis and stridor slowly set in, with thickening over the anterior end of the right ventricular band. In June he was seen by Sir Henry Butlin, who advised waiting, in hope that the condition might be inflammatory or perichondrial.

In August we had a consultation with Dr. Lack, who advised waiting and watching, with complete excision of larynx if recurrence became decided. In September and October this advice was confirmed by Sir Henry Butlin, but by November, 1909, the stridor was so marked and suffocative attacks had become so alarming that tracheotomy was performed, and a week later, after a conference with Sir Henry Butlin, I removed the entire larynx with the first two rings of the trachea. The lower extremity of the trachea was attached to the front of the neck, and the opening into the pharynx was closed with catgut and the muscles sewn together over this, as it was my intention to cut off all communication between the mouth and the lungs. But these stitches broke down, leaving a gaping opening from the neck into the pharynx. The mucus and saliva which poured down into this space required careful plugging for many weeks as well as feeding with a nasal stomach tube. The result, however, was much more satisfactory than if the stitches in the pharynx had all held: for, as the wound slowly closed by granulation, the opportunity was taken of keeping open a track, by means of an inverted rubber tracheotomy tube, from the front of the neck up to behind the epiglottis. Into this track the upper lobster-tail portion of a von Bruns's artificial larynx was fitted, the lower segment of the instrument passing down into the orifice of the trachea, which had meantime become anchored to the front of the neck. When the orifice of this instrument in the front of the neck is corked up the patient is able comfortably to carry on respiration with air which has been filtered through his nose, and it also permits of his talking freely in a loud, strong whisper. When he requires more air—as in bicycling—he simply removes the cork from the von Bruns apparatus, and he then has an intake of air direct through the orifice in his neck in addition to what he inspires through his nose (Fig. 10).

The patient's feeling of well-being can be judged from the following extracts from some recent letters. He writes: "I think nothing of riding from 8 to 10 miles on my bicycle. I can bend down with the greatest ease, and this used rather to distress me. I never want to rest as formerly, and walk quite as fast as an ordinary man. I can lift quite heavy weights, always sleep well, have a good appetite and less constipation than formerly. I smoke 2 oz. of tobacco a week in a pipe—never anything else—and find it a great solace. I think I have noticed that my brain works with a clearer vision and I grasp facts more easily than hitherto; but perhaps this is through my being forced to speak as little as possible, and consequently I think and reason things out a good deal beforehand so as to save unnecessary talking. I am so well that I am anxious to get work to do, and some friends are trying to find me employment. I feel that by remaining idle I am wasting the powers which have been so mercifully restored to me."

I have quoted the patient's own description of his case at some length, as it shows a cheerfulness and vigour in marked contrast with the feeble and pitiable condition of many cases of laryngectomy in which all communication between the upper and lower air passages has been absolutely cut off.

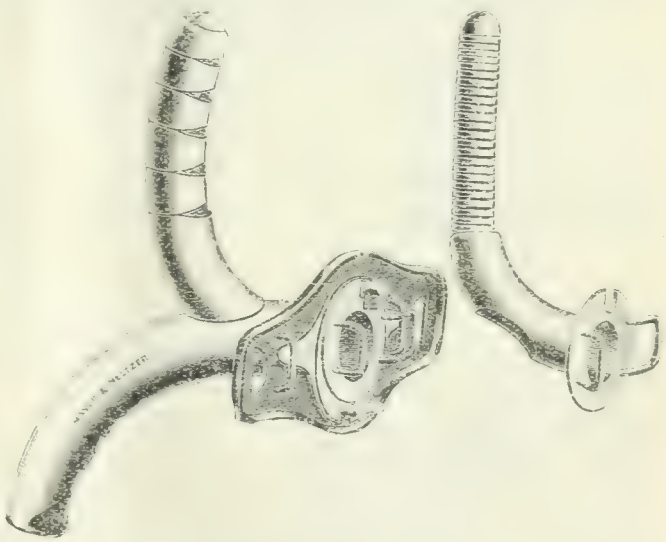


Fig. 10.—Modification of von Bruns's apparatus for cases where an opening is maintained into the pharynx.

It is now two years and two months since the entire larynx was removed, and the patient remains in excellent health and spirits and quite free from any recurrence of disease.

CASE VIII.

Mr. E. D., aged 58. December 21st, 1909. Referred to me by Sir Alfred Fripp and Dr. Greville MacDonald. He had been hoarse for about six months, and ten days previously to my seeing him a growth had been removed intralaryngeally by Dr. MacDonald from the right vocal cord and found microscopically to be an epithelioma. Both vocal cords moved freely, and the central part of the right cord showed an abraded granular surface. No glands. Chloroform was administered by Sir F. Hewitt, and with the assistance of Sir A. Fripp and Drs. Greville MacDonald and Irwin Moore, I performed a laryngo-fissure. Hahn's tube was not used. The soft tissues on the inner surface of the right thyroid cartilage were raised with the perichondrium, and the right cord was thus completely removed. The tracheotomy tube was not left in, but seven hours later it had to be inserted on account of some haemorrhage in the trachea. The tube was discontinued two days later. Within twenty-four hours of the operation the patient was sitting up and swallowing. Recovery was uneventful, except for some necrosis of the divided edges of the thyroid cartilage.

The microscopic examination of the removed vocal cord revealed an epithelioma.

The patient leads an active life and is in excellent health. His voice is fairly good. He has now passed more than two years without any suspicion of recurrence.

CASE IX.

Mr. F. S., aged 68, was brought to me on October 20th, 1910, by Mr. Leonard Avery with hoarseness of some three months' duration. The anterior four-fifths of the left vocal cord was replaced by a rough, almost cauliflower-like, infiltration, leaving

the processus vocalis free. The surface was whitish, and the base and the rest of the cord were deeply congested. At the corresponding part of the opposite cord there was a little whitish roughness (Fig. 11). Both cords moved freely. No enlarged glands. There was no history of lues and the Wassermann reaction was negative. To confirm the diagnosis of epithelioma I sent the patient to Sir Henry Butlin, and his letter in reply is so interesting that I quote it in extenso:

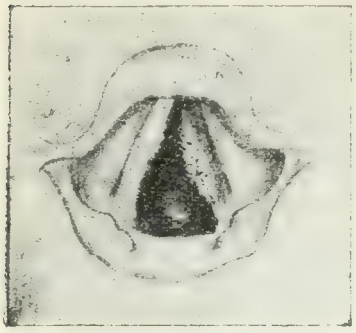


Fig. 11.—Case IX. Epithelioma of larynx.

"My dear Thomson,

"Even if there had been a positive reaction to Wassermann's test, I should regard the little growth in Mr. S.'s larynx as almost certainly malignant, on account of the whitish papillary projection from a red raised base, which looks like a collar around the whitish portion. The cord is red for some distance beyond the limits of the tumour. But it moves quite freely. There is a suspicion of something wrong on the margin of the other (the right cord), but I do not think it is yet a contact cancer.

"There is no widening of the larynx or enlarged gland that I could feel in the neck. It is an excellent case for thyrotomy. Cut the cord right out, and there ought not to be any recurrence. And just shave off the right cord if it is suspicious.

"But the patient is not good for an operation—chronic bronchitis, emphysema, and a very intermittent and slow pulse, and a bit slow in replying to questions. If he can stand lying with only an excuse for one flat pillow for four or five days after the operation, so that the liquids do not ooze down his air passages, you may pull him through. But if he has that oozing into his air passages, particularly of septic liquid, I think that he will die.

"However, I am quite sure he had better face the danger of an operation than be allowed to die slowly of a horrible disease.

"Yours very truly,

"HENRY T. BUTLIN."

November 3rd, 1910: Operation, assisted by Messrs. Avery, Irwin Moore, and A. J. Hutchison of Brighton. Drs. R. Wilson and Rogers of Montreal were present, and Sir Frederic Hewitt gave chloroform. The thyroid cartilage was so ossified—the patient's age was 68—that it required a saw to divide it. No Hahn's tube was employed. The growth on the left cord, with the surrounding soft parts, was raised on the perichondrium from the thyroid cartilage, and clipped out *en masse*. The suspicious spot on the opposite side was found to be a leucoplakia-like spot about the size of a lentil, and it was clipped off, but nothing further was done. No tracheotomy tube was left in. Dr. Spitta reported that the growth from the left cord was an epithelioma, but that the portion removed from the right cord showed only thickened cells. The patient swallowed liquids within twenty-four hours, and was out of bed and eating solid food within forty-eight hours. There was no bronchial or pulmonary trouble traceable to the operation, but later on, in very foggy November weather, he developed considerable emphysema and bronchitis, with a temperature of 101°. In spite of this he made a good recovery.

He has gained 1 st. in weight, has resumed smoking, and speaks freely in a strong rough voice.

He has now been one year and three months without any suspicion of recurrence.

CASE X.

Mr. I. M. R., aged 55, a merchant in Calcutta, was brought to me by Sir Havelock Charles on November 10th, 1910. He gave a history of intermittent huskiness for nearly two years and of persistent hoarseness for seven months. When in India in September a portion of a growth was removed *per vias naturales* from the right side of his larynx and pronounced to show no positive sign of malignancy under the microscope. On examination I found the right side of the endolarynx was fixed by a rough infiltration, replacing the cord and some of the ventricular band; there was no distinct fungation nor whitish sprouts about it, and no glands in the neck. The Wassermann reaction was negative. Sir Felix Semon, in consultation, unhesitatingly confirmed the clinical diagnosis of malignancy and advised immediate laryngo-fissure, but with reserve in regard to possible extension to the glands beside and below the thyroid cartilage.

November 18th, 1910: Operation, assisted by Sir Havelock Charles and Dr. Irwin Moore; chloroform by Mr. Walter Tyrrell. The growth did not invade the ventricular band to the extent suggested by the laryngeal mirror. The growth was undermined and removed *en bloc*, as in the previous cases. Microscopic examination showed a malignant growth of squamous type. In addition, a small mass of tissue was removed from the anterior commissure, together with a small anterior portion of the left vocal cord. This was also reported to show a malignant growth. Finally, as there was a suspicious appearance of the posterior part of the right side, the vocal process with part of the arytenoid was removed. On this the pathologist's report was: "There is no malignant invasion of the arytenoid tissue. The glands are degenerated and inflamed. The surface epithelioma is intact, but beneath it there is a zone of round-celled infiltration."

The patient was sitting up and eating solids within forty-eight hours. He returned to India a month later.

These 10 cases can be summarized in the following table, which I have arranged so as to be readily referred to for certain points which appear to me to call for consideration and discussion (see table at foot of page).

The duration of the cure in each case from the date of operation to February, 1912, has been as follows:

	Cases.
7½ years	1
4 years and 4 months	1
3 years	1
2 years and 2 months since laryngectomy ...	1
2 years and 1 month	1
1 year and 3 months	2
Died from other cause 15 months after operation	1
Died from cancer of tongue on opposite side 3 years after operation, and without local recurrence	1
Died from local recurrence	1
	10

CONCLUSIONS.

The conclusions to be drawn from this record can be stated briefly as follows:

All the patients were male.

Their ages varied between 43 and 68. Five, or 50 per cent., were under 50. Four were between 50 and 60. One was nearly 70.

	Sex and Age.	Duration of Huskiness.	Kept under Observation.	Enlarged Glands.	Movement of Vocal Cord.	Preliminary Microscopic Examination.	Hahn's Tube.	Pathological Report.	Recurrence.
Case I ...	M., 47	3 months	4 months	None	Good	Not made	Used	Epithelioma	None locally. Death from cancer of opposite side of tongue 3 years later.
Case II ...	M., 49	2 years	—	Small gland on crico-thyroid membrane	Abolished	Not made	Used	Carcinoma	None at end of 15 months. Death from other causes.
Case III ...	M., 48	13 months	9 months	Slight on opposite side	Slightly impaired	Not made	Used	Epithelioma	None after 7½ years.
Case IV ...	M., 49	6 months	1 month	None	Slightly impaired	Not made	Used	Epithelioma	Recurrence in 8 months. Death.
Case V ...	M., 54	1 year	—	None	Abolished	Not made	Not used	Epithelioma	None after 4 years and 4 months.
Case VI ...	M., 59	3 months	—	None	Good	Positive	Not used	Epithelioma	None after 3 years.
Case VII ...	M., 43	1 year	—	None	Slightly impaired	Not made	Not used	Epithelioma	Recurrence in 9 months. Laryngectomy. No recurrence since in 2 years and 2 months.
Case VIII...	M., 58	6 months	—	None	Good	Positive	Not used	Epithelioma	None after 2 years and 1 month.
Case IX ...	M., 68	3 months	—	None	Good	Not made	Not used	Epithelioma	None after 1 year and 3 months.
Case X ...	M., 55	7 months	—	None	Abolished	Negative	Not used	Epithelioma	None after 1 year and 3 months.

In no case did thyrotomy reveal any error of diagnosis.

The death-rate from the operation was nil.

Only one case is dead from local recurrence.

A second case died from separate development of cancer in another part of the body.

A third patient is dead from another cause.

Laryngo-fissure alone has yielded a lasting cure in 80 per cent. of cases.

Laryngo-fissure, supplemented by excision of the larynx in a case of local recurrence, has preserved 90 per cent. of the patients.

In the only two cases in which there was local recurrence the disease reappeared within the year following the operation of laryngo-fissure. This fully confirms Sir Felix Semon's conclusion that there is little or no anxiety as to return of intrinsic cancer if the larynx remains free for twelve months.[6] This conclusion is not invalidated by even such an interesting observation as that of Tilley where a patient had one vocal cord removed by laryngo-fissure for epithelioma: that side of the larynx remaining free for thirteen years, and the patient then dying from a cancer which developed on the opposite vocal cord.[7]

As regards the diagnosis, it will be noticed that hoarseness, more or less persistent, was the principal subjective symptom. It had been present in periods varying from three months (Case IX) to two years (Case III) before the patients presented themselves. In the majority of cases the diagnosis was made at once from the clinical appearances alone. In one case the condition was kept under observation for one month, in another for four months, and in a third case for nine months, before other possible diseases were eliminated. This last mentioned case was actually hoarse for twenty-two months (Case III), and yet he has now been free of recurrence for seven and a half years.

In no case was there any decided enlargement of the cervical glands. In one case (Case III) there was a slight enlargement of one gland, but it was on the opposite side of the neck. In a second instance (Case II) the small gland always present in front of the crico-thyroid membrane was found slightly enlarged, but the microscope proved it to be free from epithelioma.

In three cases there was a preliminary microscopical examination of a removed portion of the neoplasm. The reasons why this is not done systematically in my practice are threefold: (*a*) In the majority of cases intrinsic laryngeal cancer presents itself as an infiltration of the cord, so that the removal of a satisfactory portion for examination is practically impossible. (*b*) An attempt at such a removal may hasten the extension of the disease, and it certainly so alters the local appearances that diagnosis by inspection becomes much more difficult. (*c*) The report on an unsatisfactory portion may be misleading, and so cause dangerous delay. This occurred in one of my cases (XI); in the other two the microscopical report confirmed a suspicion, and justified me in proceeding with an operation which, otherwise, would have been undertaken with diffidence.

The microscopical report of the neoplasm removed at the operation in every instance confirmed the diagnosis of cancer.

The impaired mobility of the affected cord is, when present, a valuable symptom. The cord was quite fixed in two cases (V and X), and its movement was impaired in three other cases (III, IV, and VII). In two of these latter cases this failing mobility developed while under observation, and helped to confirm the diagnosis. Hence, in all, there was interference with movement of the cord in 50 per cent. of my cases, and I am thus able to confirm the value of a possible symptom to which Sir Felix Semon first directed attention.[8]

The technique of laryngo-fissure I do not propose to enter into this evening, but I would only refer to two points. I used Hahn's tube in the first four cases, but dispensed with it in the last six cases, and do not intend ever to employ it again. It is untrustworthy, risky, and unnecessary. The second point is the anaesthetic. One operation (VI) was performed under the local anaesthesia of eucaine. Although quite successful, the ordeal to both patient and surgeon is considerable, and I do not think that the mental strain to the former is counterbalanced by the gain. Several patients have declined it. The anaesthetic in the other cases was chloroform, and I am indebted in every instance to the skill of the anaesthetist who administered it. In such cases not only is an expert necessary, but there is probably no other operation in surgery where particular training and experience is so necessary. For future cases I shall look forward to the advantages of the intravenous method of administration.

For the absence of error of diagnosis in any case, and for the avoidance of any mortality from the operation, we are indebted to the pioneers in this subject, and without any risk of being charged with Chauvinism I think we may claim that the greater share of the credit is due to Sir Felix Semon and our deeply-lamented friend Sir Henry Butlin. The diagnosis still remains a difficult subject. As Butlin pointed out seventeen years ago,[9] there are three classes of cases—the first in which any one can make a diagnosis; the second, in which only the better instructed and more experienced make it and others do not; and the third class, in which the conditions are so obscure that no one can make the diagnosis unless the larynx is opened, and in some cases it is even then difficult to make sure of the nature of the disease. A reference to the details of my ten cases will illustrate these points. In 50 per cent. of them the impaired mobility was a valuable sign. In 20 per cent. the microscope confirmed a suspicion. In 35 per cent. the gradual development of symptoms proved of value. I would call attention to this latter test, as it may be wiser to watch a case for some months—as happened in one of my successful cases (III)—rather than risk a failure. In all cases the sex and age of the patient, and the careful exclusion of other possibilities, are of paramount importance.

The convalescence in two cases was marked by an occurrence which often raises unnecessary alarm in the minds of laryngologists who may not have had experience of it, or who have not been warned of it by their studies of the subject. I refer to a small growth which sometimes makes its appearance in the anterior commissure or on to the new cicatricial vocal cord within a few months of the operation. This happened in Cases III and VI. Within three months a smooth, soft, pinkish, more or less pedunculated growth appeared. It was removed with laryngeal forceps, and was found to be a simple granuloma (Fig. 5).

The technique has been established by Semon and Butlin, and the improvements introduced by von Bruns, Chevalier Jackson, Mouré, and others have been generally in the direction of simplification. I am glad that I have ventured to dispense with the Hahn's tube, and I am well satisfied with keeping the patient in a freely ventilated room and getting him out of bed as soon as possible, frequently within twenty-four hours. Preliminary treatment in the way of cutting off alcohol and tobacco, and purifying the mouth, are amongst small but important details.

In conclusion, I can but re-echo the fervent hope expressed in this room by Sir Felix Semon exactly five years ago—namely, that this evening's discussion may give a fresh impetus to early diagnosis, and immediate, thorough removal of the disease by thyrotomy in cases of intrinsic cancer of the larynx.[10]

I am much indebted to my friend Dr. P. Watson-Williams for most of the drawings which illustrate this article. They are made from my own rough sketches.

REFERENCES.

[1] *Guy's Hosp. Rep.*, xvi, 1873, p. 518. [2] BRITISH MEDICAL JOURNAL, August 23rd, 1890. [3] Allbutt and Rolleston's *System of Medicine*, vol. iv, 1908, p. 251. [4] *Laryngoscope*, xix, August, 1909, No. 8, p. 587. [5] *Proceedings of Laryngological Society of London*, December, 1903, p. 68. [6] *Journ. of Laryngol.*, September, 1905, p. 473. [7] *Proc. Roy. Soc. Med.*, Laryngological Section, December, 1909, p. 33. [8] Heath's *Dictionary of Practical Surgery*, i, 1886, p. 895; *Trans. Clin. Soc. London*, xx, p. 46; BRITISH MEDICAL JOURNAL, 1888, i, p. 1240; *Centralbl. f. Laryng.*, v, pp. 52, 268. [9] BRITISH MEDICAL JOURNAL, October 28th, 1893, p. 1034. [10] *Trans. Med. Soc. London*, vol. xxx, January 28th, 1907, p. 111.

THE thirteenth French Congress of Medicine will be held in Paris in October next (13th to 16th), under the presidency of Professor Chauffard. The following questions are proposed for discussion: Oxaluria and oxaluria: acute infectious colitis: treatment of haemorrhagic syndromes. In addition to these the following are suggested: Anaphylactic states in their clinical aspects: antityphoid vaccination. The General Secretary is Professor P. Teissier, 142 *bis*, rue de Grenelle, Paris.

A PECULIAR CASE OF OESOPHAGEAL DILATATION.

By PEVERELL S. HICHENS, M.A., M.D.Oxon., F.R.C.P.Lond.,

HONORARY PHYSICIAN, NORTHAMPTON GENERAL HOSPITAL.

THE following very remarkable case of oesophageal dilatation in an achondroplasic dwarf seems to be worthy of a full report.

H. G. first came under my notice on July 26th, 1905, at the age of 33. He presented the typical appearances of achondroplasia, but it is not necessary to enlarge upon them, as it is not with reference to this disease that the case is reported.

First Residence in Hospital.

His occupation was that of a tailor, and he had enjoyed very fair health all his life till the last two or three years, when he began to have symptoms off and on of difficulty in digesting his food. He complained of pain after food, and of frequently vomiting his food almost immediately it had been taken. There was no history of vomiting blood or of melaena. The stomach showed no appearance of dilatation downwards, but came up in the axilla to the third rib.

The patient vomited nearly every day at first; the food appeared to return undigested, and did not smell of the gastric juice, but the vomit was acid. An oesophageal bougie was arrested 17 in. from the teeth, and on attempting to wash out the stomach with a stomach tube, the tube was arrested at the same distance from the teeth and the fluid came back

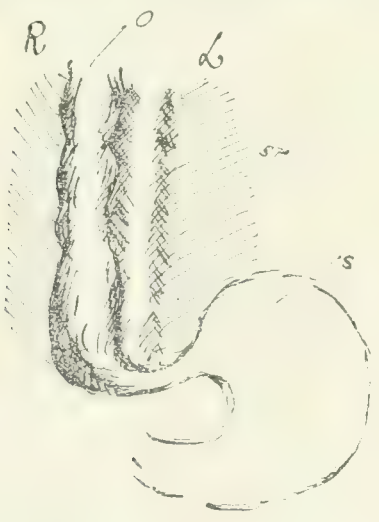


Fig. 1.—Diagram of *post-mortem* appearance of stomach and oesophagus. O, Oesophagus; SP, spine; S, stomach.

immediately, quite clear and not at all acid. Mapping out the stomach with carbonic acid gas showed only slight dilatation.

The diagnosis seemed to be stricture of the oesophagus at the cardiac orifice with subsequent dilatation. The cause of the stricture was, however, very doubtful; the age of the patient and duration of the symptoms was rather against malignancy, and there was no history of ever having swallowed some corrosive. I came to the conclusion that there was possibly some congenital narrowing at the cardiac orifice, and called in my surgical colleague, Dr. R. A. Milligan, with the idea of asking him whether it would be possible to open the stomach and dilate the cardiac orifice from below. The alternative diagnosis was that the patient had a large oesophageal pouch. Dr. Milligan succeeded in passing a small bougie into the stomach, but a larger one doubled up above the stricture. His opinion was that it would be better not to operate.

With careful dieting the patient in the course of two months improved very considerably, and went out of the hospital in a fairly well-nourished condition, although he still vomited from time to time—about once in three to five days.

Second Residence in Hospital.

Nothing more was then heard of the patient till March 31st, 1909, when he reappeared at the hospital. He then reported that he had kept fairly well for some time, but that then his symptoms had gradually returned and that now he could keep nothing down at all. He complained of pain and fullness in the chest after meals, and that then shortly all the food was returned. He complained of great thirst and emaciation and that the bowels were very costive.

The stomach was not dilated, but came high up into the axilla, this time to the fourth rib; on both sides of the thoracic vertebrae behind from a little above the angles of the scapulae downwards there seemed to be a rather hyper-resonant note. All bougies, even the smallest, were arrested 17 in. from the teeth.

A bismuth meal was given and my colleague, Dr. W. M. Robson, kindly took an *x*-ray photograph of the thorax for me. The photograph when developed showed a marked shadow extending well to the right of the spine and reaching far up towards the clavicle. This seemed to point to the curious fact that the pouch or dilatation of the oesophagus was on the right side of the spine and not on the left. The food vomited was distinctly acid.

Under a course of purgatives and dietetic treatment as for a gastric ulcer, the patient made a complete recovery for the time being. He gained 13 lb., and left the hospital having not vomited for the last fifteen days. He was then able to take minced chicken, minced mutton, eggs, etc.

Third Residence in Hospital.

The patient made his appearance at the hospital for the last time on September 28th, 1909. He looked very emaciated, weak, and collapsed, and reported that his symptoms had recurred almost immediately after leaving the hospital in May, and that he had vomited nearly every day since that time.

On this occasion the stomach appeared to be distinctly dilated downwards nearly to the umbilicus.

No treatment was of any avail, and the patient rapidly sank and died, apparently from starvation, on October 20th, 1909.

Post-mortem Examination.

The oesophagus was to the right of the spine, greatly dilated and obscurely sacculated in its whole length. The muscular walls were greatly thickened and also the mucous membrane, which, however, was quite smooth and not congested. The walls of the oesophagus were considerably thicker than the walls of the stomach.

To gain the stomach the oesophagus crossed the spine at a

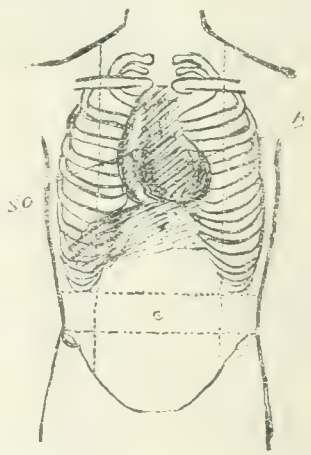


Fig. 2.—Diagram of *x* ray photograph after a bismuth meal. S.O, Shadow of dilated oesophagus; H, heart.

right angle, as in the accompanying sketch (Fig. 1). The mucous membrane of the oesophagus showed no sign of ulceration, new growth, or any stricture. The cardiac opening of the stomach admitted the middle finger of the hand. There was much débris of food in the oesophagus, very little in the stomach. Fluid poured into the oesophagus seemed to pass with difficulty into the stomach.

What was the origin of this curious condition seems to be doubtful. If the position of the oesophagus on the right side of the spine was a congenital anomaly, then probably the whole condition may be explained by the fact that the oesophagus had to cross the spine at a right angle to gain the stomach.

Food would tend to accumulate at the kink, and hence sagging and kinking would occur with the final result of a relatively complete obstruction.

The case might conceivably, however, have been one of the more ordinary cases of idiopathic dilatation of the oesophagus, due possibly either to cardiospasm or paralysis of the longitudinal muscle of the oesophagus. It is, perhaps, not impossible that under such circumstances the oesophagus should finally get displaced across the spine owing to the increasing weight of food within it. The mature age at which the patient died seems to be rather in favour of the second theory, as it seems unlikely that such a serious congenital malformation as the first theory would involve would have permitted the patient to reach adult life.

A CASE OF ANGIOMA OF THE ORO-PHARYNX.

BY

W. SANDERSON, M.B., Ch.B.,

LIVERPOOL.

Angioma is a disease not often found in the oro-pharynx. The first case of the kind recorded was by Wolfenden in the British Medical Journal, 1887, and the condition was described by him as being probably quite unique. In his case the growth involved the right half of the oro-pharynx and extended downwards to the level of the base of the tongue and upwards to a little above the level of the soft palate. A few cases of much smaller growth have been recorded since by McBride, Woods, Lichtwitz, and Laurens, but the greater portion of the tumour in these instances was located in adjacent parts—namely, the soft palate, faucial pillars, tonsils, and tongue.

The following case may therefore be of interest, not because of the symptoms or the treatment, which were practically *nil*, but on account of the rarity of the position of the growth, its extent, though localized to one particular area, and its appearances:

A spare, rather pale girl, aged 10, was brought by her mother on account of slight cough, which had been noticed off and on for about two years. A sister had been operated on some time previously for adenoids, and the mother thought that the cough in the present case might be due to the same cause. The expectoration had been on one or two occasions slightly tinged with blood. The patient herself felt quite well, had no discomfort or difficulty in swallowing, and breathed with the mouth closed. On inspection a diffuse bluish-red growth was seen involving the pharyngeal wall in its posterior and lateral aspects, extending on each side as far as the posterior faucial pillars. Posterior rhinoscopy showed that it ceased by a horizontal margin just above the level of the soft palate. There were no adenoids. The growth, though continuous, stood out in three vertical ridges, which became pillar-like if the patient gagged—one central on the posterior wall and one on each lateral wall. On tracing these downwards with the laryngoscope, the central ridge was seen to terminate in a rounded bulbous extremity, which frequently came in contact with the tip of the epiglottis; the lateral masses reached to the same level and presented the same appearance as the central one. There was no pulsation. The general tint was dark red, interspersed with bluish streaks; the surface was finely irregular, and the whole of the mucous membrane appeared to be involved. A minute area of the right posterior faucial pillar was also affected. The growth on palpation was firm but not hard.

This, then, is the history and description of the case, and one finds the latter to differ somewhat from that given in textbooks and recorded cases. In these the tumour is said to occur as a soft, purple, nodular growth of large varicose and tortuous veins, probably originating in Cruveilhier's plexus, and covered with intact mucous membrane.

In the case I have described there were no large vessels visible, and the mucous membrane itself was affected with the disease. Kyle, in his description of angioma of the upper air passages, states that the colour varies, depending upon the size of the tumour and its association with a vein, with an artery, or with both. If connected with an artery it is usually light red and pulsates: if with a vein the colour is darker, bluish-red, and pulsation is slight or absent; if with both artery and vein—and this is said to be the most frequent—it is dark red. From the clinical aspect one would place the above case in the veno-capillary group, and this was confirmed by microscopic examination of a portion removed by punch forceps from the right half of the growth.

A marked feature of naevi in the pharynx, and one which to a great extent influences the treatment of the condition, is the absence of symptoms. The majority of cases are accidentally discovered, and this may somewhat account for the fact that comparatively few cases have been recorded. Similar growths, on the other hand, occurring in the nose and larynx often bring the sufferers speedily for advice on account of obstruction in the nasal passages, epistaxis, muco-purulent discharge, interference with phonation, and respiratory troubles. Dr. Paul Laurens described a case in 1907 of angioma of the pharynx and velum palati that he had cured after fifteen sittings by monopolar electrolysis, but, where pharyngeal naevi and those in adjacent parts are large and cause little inconvenience, the general opinion at present is that it is better to leave them alone, and to instruct the patient to avoid food likely to abrade or tear the diseased part.

EARLY EXCISION OF BOILS.

BY

J. CROPPER, M.A., M.D.Cantab.,

CHEPSTOW, MON.

The results obtained by the method described below have been so encouraging during the last few years that I make no apology for publishing it.

A boil or furuncle may be described as a localized necrosis of the dermis resulting from intense inflammation due to staphylococcic infection. The efforts of Nature to throw the dead part off by ulceration—in other words, the separation of the slough—complete the process.

Since most, if not all, surgical operations are a frank imitation of natural processes, and are merely designed to accelerate these, it occurred to me that in the case of a boil, when once the inflammatory process was under way, all that one could do was to remove the central area of skin, which would sooner or later undergo necrosis, and thus forestall Nature, and that this would at once relieve stasis. The treatment by a crucial incision does not achieve this end in a satisfactory manner. I omit here any account of methods of treatment by pure carbolic acid or epilation, because I have rarely found them of any use beyond the first or second day. Afterwards there is a good deal of irritation and more drastic methods are needed. I tried the method first on myself on two occasions with most gratifying results. All pain was at once at an end and the scar was trifling.

An ethyl chloride spray, a sharp cataract (Graefe's) knife, and a pair of dissecting forceps are all that are required. The skin over and around the boil is well frozen. This renders it firm and easily cut, which is a great point. With the cataract knife held perpendicularly to the skin surface, a circular disc of the whole skin of the size of a wheat seed or small pea is removed by sawing movements. Where there is much inflammation the diameter of the piece removed may be $\frac{1}{4}$ in., but it need never be larger if tackled early. The pain caused by this procedure is really trifling, even when carried out on the tender inner part of the leg, and the bleeding is insignificant, and should be encouraged by warm bathing. The subsequent treatment by any form of antiseptic dressing seems to be of quite minor importance. It can be fixed by strapping. There is usually a little suppuration, but, from the moment of the operation, the throbbing and intense soreness are at an end.

I have personal experience of the relief to be obtained, and I find that somewhat hysterical girls will come back for treatment to be repeated, even on the face.

Not the least of the advantages is that the resulting scar, which is minute, is far less than the unsightly lumps so often left after ordinary treatment by poulticing, etc. Moreover, the danger of a secondary infection by the pus is reduced to a minimum. Where this method has been carried out properly complete success has resulted, and even where it has been badly done there has been considerable relief in all cases. The following are the words of one of my patients treated on the sixth day:

Before the operation I had a great deal of pain and throbbing so that I could hardly walk at all but had to lie down most of the time. The swelling of the leg became very painful on standing. I was somewhat apprehensive that the operation might be painful, but as a matter of fact I hardly felt the knife at all when the skin was frozen. As soon as it was over I experienced intense relief instantly, and suffered no more pain but only some slight soreness from the healing of the wound.

The deep purple congestion of the leg disappeared almost at once, and ten days later; after some suppuration, the wound was nearly closed.

At the recent examination for sanitary inspectors under the Public Health (London) Act, 1891, held by the Sanitary Inspectors Examination Board, fourteen candidates were successful, of whom six were women. Two candidates were also successful in the examination for the special certificate for inspectors of meat and other foods held in conjunction with the above examination.

THE VALUE OF VITAL BLOOD STAINING IN THE STUDY OF THE SO-CALLED "INFECTIVE GRANULE."

BY

ANDREW BALFOUR, M.D., B.Sc., F.R.C.P., D.P.H.,

DIRECTOR WELLCOME TROPICAL RESEARCH LABORATORIES, GORDON COLLEGE, KHARTOUM.

[PRELIMINARY NOTE.]

IN the fourth report of these laboratories, and also elsewhere,[1] I have mentioned how valuable is the dark-field method of blood examination in studying the extrusion of living granules from spirochaetes and trypanosomes. By this method, combined with the better known laboratory processes, one has been able to discover a good deal regarding the part played by the infective granule in Sudan spirochaetosis, both in the blood and organs of the fowl and in the fluids and tissues of the ticks which serve as vectors of the disease. At the same time certain gaps in our knowledge remained to be bridged, and it was with the object of discovering, if possible, the missing links, that I decided to see if vital staining of the blood, a method commonly employed by German haematologists for studying the morphology of blood cells, would be of service.

After various trials it was found that toluidin blue was the best stain to employ and the most suitable strength proved to be one of 0.05 per cent. The solvent used is normal salt solution. I have no intention here of entering into details. The technique is of the simplest—the fresh blood and staining solution being mixed in a Wright's pipette and a drop of the mixture mounted as a sealed cover-slip preparation. I would merely say that this method, which during my enforced absence in Cairo has been carefully followed out by my laboratory assistant, Mr. Buchanan, appears to have solved many difficulties. It frequently shows up the granules in the living spirochaetes, it stains the free and living granules, it has apparently enabled the penetration of the red cell by the granule to be witnessed, and it has shown that not only are granules (spore forms) discharged from the mature intracorpuscular bodies, but that these bodies, unruptured and still containing the spores (merozoites), can be themselves set free from the red cells. Incidentally it has shown that they possess capsules or limiting membranes. Further, and of the greatest importance, it would seem to have permitted the demonstration of the development of the young spirochaete from the granule in the peripheral blood.

I say "seem," because it must be remembered that by thus staining the blood the latter is naturally placed under abnormal conditions, and also because such observations require to be repeated and confirmed. From what I have myself seen, however, I have little doubt of their accuracy, and I may say that Major Fry has also found the method most useful in studying the granules which are shed by trypanosomes. I hope to employ this vital staining in the case of fluids from infected ticks and of secretions from hard sores and syphilitic skin lesions.

So far as the blood is concerned, one great advantage of its use is that haemoconia remain unstained, and thus a very disturbing factor in dark-field work is easily eliminated.

I trust the publication of this preliminary note may induce any who are working at this granule problem to give the method of vital staining a trial, as it is important to collect all available evidence regarding a phenomenon which I believe to be of very great importance and significance. I think it might prove specially valuable in the study of what I have called "cryptic trypanosomiasis," a term which I see Dr. Bagshawe has adopted.

REFERENCE.

[1] BRITISH MEDICAL JOURNAL, November 11th, 1911.

THE late Mr. James Wilcock, J.P., of Blackburn, has by his will bequeathed £3,000 to the Imperial Cancer Research Fund (to which he had in his lifetime given £1,000), £2,000 each to the endowment funds of the Blackburn and East Lancashire Infirmary and the Blackburn and District Nursing Association, and £100 to the Pakhoi and Leper Medical Mission.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

A CASE OF ACTINOMYCOSIS OF THE LUNG.

THE recorded case of actinomycosis of the lung by Dr. F. Nicholson in the BRITISH MEDICAL JOURNAL of February 10th makes me think the following notes might be of interest.

The patient, an unmarried woman, 37 years of age, has been in poor health for three years, suffering from epilepsy. Previous to that time she was quite healthy. During all that period she had been on a specially restricted diet which she rigidly adhered to, and the foods which had been cut off were so numerous and so frequently on the table as ordinary articles of diet that I believe she was underfed. The family history is good. I saw her first on August 12th. She complained of pain in the left side on breathing, had a very slight rise of temperature (99° to 99.5), some slight cough and dullness at the base of the left lung, but no expectoration; a small patch of crepitation was present. At the end of a week, after the subsidence of pain and temperature, I used von Pirquet's cutaneous tuberculin test without giving any reaction. She now left the district for a week or two, and during that time the cough got very bad, became spasmodic in character, accompanied with retching, much expectoration, night sweats, and great emaciation. On her return on September 6th I found the dullness increased, and many moist rales present over the base of the left lung; there were no rales in the apex of the left lung, or anywhere in the right lung.

The expectoration was very offensive and profuse, and I sent it to Dr. Claridge, of Norwich, for examination, expecting to hear it contained tubercle bacilli. He reported that the case was one of actinomycosis, the ray fungus being easily detected, and that no tubercle bacilli could be found. The expectoration was yellowish-green, containing small frayed, woolly-looking pieces. When spread on glass and looked at against a black background little yellowish specks could be picked out with a needle, and when placed on a slide and pressed down by the cover-glass showed the ray fungus very distinctly.

For fourteen days the temperature ranged from 100° in the morning to 101° and 102° in the evening, and the expectoration measured about 1 oz. daily. I gave a bad prognosis, but after three weeks of feeding up the patient began to improve, the cough disappeared, and the temperature became normal. When I examined her last (in November) the dullness was still apparent and the breath sounds feeble, but there were no rales. She is now able to be about in her usual not very robust health.

Cromer. ROBERT GRANT, M.D.

MELAENA NEONATORUM.

SOME cases of this comparatively rare disease have been reported during the past year or two in this JOURNAL. This is the more valuable, inasmuch as all the textbooks which I have consulted give only the slightest notice to the subject. The following case presents some noteworthy features.

The mother was a primipara, aged 38. The labour came on twenty-one days after the time when careful calculation led it to be expected. The first stage lasted about a week, and was controlled by all the means available. The delivery was accomplished with the aid of forceps, the patient being under chloroform for fully an hour, while gentle traction was employed to save the perineum. The child was a large female, born with slight wounds over the sides of the cranium where the forceps had gripped. On the day following birth I was called to see the child suffering from convulsions of a slight degree. These were put down to irritation from pressure by the forceps. To control the convulsions, I administered a little chloral and bromide by the rectum by means of a small india-rubber syringe. After the first injection I was surprised to see a little dark blood come away. Never having seen the condition before, I paid no attention to it. Some hours later I was called to see one of its cloths, containing three large clots of red blood. For two full

days blood was passed in large quantities from the rectum, painlessly and easily. The child became absolutely blanched. I administered adrenalin by the rectum, turpentine, and other haemostatics. I was just about to administer a saline infusion hypodermically when the bleeding stopped of its own accord, and the child is now doing well.

The outstanding features of the case all hinge round one point—the possibility of prolonged pressure on the child's body causing the haemorrhage. Thus, the mother was aged 38; the labour was three weeks overdue; the first stage lasted a week, and the actual transit of the child took over an hour. In addition, the child was very large, weighing 12 lb. In a recent number of the JOURNAL a writer emphasized the necessity of inducing labour whenever full term came on; and, in view of the above case, the suggestion is worth considering.

Shettleston, N.B. JAMES DUNLOP, M.B.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

LONDON COUNTY ASYLUM, CANE HILL.

AN INTERESTING CASE OF STRANGULATED HERNIA UNDER EXCEPTIONAL CONDITIONS.

(By H. G. CRIBB, Senior Assistant Medical Officer.)

A. G., female, aged 49, was admitted to Cane Hill Asylum on October 15th, 1906, suffering from melancholia; she weighed 19 stone 2 lb. There were typical symptoms of chronic nephritis, and an irreducible ventral hernia measuring 12 in. by 7 in. During her residence in the asylum she has frequently been in bed, with markedly diminished daily quantity of urine (it varied between 21 and 58 oz. in the twenty-four hours), and oedema of legs.

On January 16th, 1912, the patient complained of abdominal pain, and was found to have developed a left inguinal hernia, which proved irreducible; frequent vomiting set in, and continued during twenty-four hours. In view of the renal condition and the ventral hernia, operation was postponed as long as possible; but the vomiting continuing and no relief being obtained from the use of enemata of various kinds, I decided to operate.

The skin was prepared by a preliminary wash, followed by two applications of iodine (tr. iodi 1 part, spirit 2 parts) to the operation area and surrounding skin. Owing to the patient's general state, I determined to try a local anaesthetic (Dr. Waite's preparation), which was freely injected into the skin, subcutaneous tissue, and then deeper. No pain was felt after the first puncture.

The usual operation was performed, but owing to the thickness of the abdominal wall and the tenseness of muscles, chloroform was found necessary before the hernia could be reduced, as there were numerous adhesions round the neck of the sac. The bowel was found to be very congested and black, but still shiny, and was considered to be in a fit state for replacement. The sac was ligatured, the ring sewn up with silk, the muscles sewn over, and the wound closed, a small gauze drain being inserted. The operation lasted forty minutes, and the patient's condition, considering her state before operation, was good. The wound healed by first intention, and recovery was uninterrupted.

The interesting points in this case were:

1. The facts that the patient was the subject of renal disease, had a large ventral hernia (both of old standing), and had lost some 5 st. 9 lb. during the last five years, naturally made one hesitate to operate.

2. The value of local anaesthesia in cases where a general anaesthetic is contraindicated cannot be overestimated.

3. The undoubted value of iodine and spirit to render the skin aseptic.

I am indebted to the Medical Superintendent for permission to publish this paper.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

BIRMINGHAM BRANCH.

Thursday, February 8th, 1912.

Professor MORRISON, President, in the Chair.

Rheumatoid Arthritis in a Child.

DR. WALTER JORDAN showed a boy, aged 8 years, with marked enlargement of all the interphalangeal joints of both hands and ganglionic swellings over the backs of the wrists. Extension of the fingers was limited, and of the wrists extremely so. The elbows were kept semiflexed, and showed very little range of movement, especially on the left, where supination was practically abolished. The shoulders seemed not to be affected. The knees were kept flexed and the hips slightly flexed, the left adducted also. A skiagram showed that there was no bony enlargement, but rarefaction of phalanges. There was no enlargement of the spleen; a small gland was to be felt in each axilla, and minute kernels in the groins. The patient was said to have been quite healthy until 2 years old, when a small swelling was noticed over the right wrist; later the feet and knees became affected. In spite of treatment at several hospitals the disease gradually progressed, the fingers becoming involved about sixteen months ago. Other children in the family were healthy; the father was said to have phthisis and the mother's mother to have been very rheumatic in her fingers in old age. Under treatment since April 24th, 1911, at the parish infirmary, the boy had had less pain and the swellings had slightly diminished, but fixation had increased in the elbows and remained about the same in the knees. Treatment had included a combination of continuous extension and passive movements, the correction of constipation, and the administration of sodii salicyl. and pot. bicarb., gr. xviii of the former drug being now taken five times a day. The substitution for a time of pot. iod. and liq. arsen. had been followed by a return of irregular pyrexia, which salicylate again controlled.

This was discussed by the PRESIDENT, Dr. EMANUEL, Dr. SAWYER, and Mr. NUTHALL. Dr. WALTER R. JORDAN replied.

Congenital Dislocation of Shoulders.

Mr. A. W. NUTHALL showed an infant, the subject of a condition called, for want of another term, congenital dislocation of the shoulders. The mother had first noticed the peculiar position of the arms when the child was 3 months old; it was not present at birth.

The arms, instead of hanging at the sides, were abducted and elevated, the elbows projecting slightly in front of the shoulders; the left elbow was on the level of ear, the right a little above the shoulder. The elbows were in the flexed position. The arms could be brought down to the sides, but only with difficulty and with evident discomfort to the child; when released they returned to their elevated position with an elastic recoil. The head of the humerus appeared to be in the normal situation, and a skiagram showed that the clavicle, scapula, and humerus were normal in their shape, development, and relative positions. Another deformity was present: talipes valgus of the left foot. The mother stated that the labour was not difficult, but that the cord was wound twice round the child's neck; she believed the presentation to have been a vertex one. The extension of the arms at the shoulders had produced deep creases across the deltoids.

It was suggested that the condition was of intrauterine origin, and analogous to the genu recurvatum produced by over-extension of the leg. The case was discussed by the PRESIDENT and Mr. GEORGE HEATON. Mr. NUTHALL replied.

Gumma of Trachea.

Dr. J. G. EMANUEL showed a case:

A married woman, aged 38, was first seen on August 15th, 1911, and found to be in a very distressed condition, in imminent danger of suffocation and threatened with starvation. She was sitting propped up in bed, cyanosed, and breathing with great difficulty—each inspiratory effort being accompanied by loud stridor. She had a troublesome and ineffectual cough, which caused great pain on the larynx. For seven weeks she had been unable to swallow anything but fluids, and during the last week swallowing had become so painful that even fluids were rejected, and she had subsisted on nutrient enemata. The last

two days even these latter were not retained. Examination of the chest and larynx revealed no cause for the stridor, and consequently some obstruction was diagnosed. The patient had enjoyed good health until three months previously, when she was suddenly seized one day at work with an attack of respiratory difficulty, resembling, according to her description, an attack of severe asthma. From that day the breathing had been laboured and had steadily grown worse; a cough which caused her much pain in the throat and stridor added to her discomfort. She had lost much flesh and sleep had become impossible. By applying to the pharynx a 10 per cent. solution of cocaine swallowing was made possible, and a drachm of blue ointment was rubbed into the skin every night. Her breathing began to improve, and a week later (August 22nd) she was seized with a fit of coughing that threatened to choke her, but terminated in the ejection of a necrotic mass, the size of a marble, which had embedded in it fragments of three rings of tracheal cartilage. With the ejection of this mass her breathing at once became easy and the stridor disappeared. Ten days later she left the hospital looking and feeling quite well. She reported herself as an out-patient every week and took regularly pot. iod. gr. 10, liq. hydrarg. perchlor. 3ss ter die. In spite of this five weeks later her symptoms suddenly reappeared, commencing, as on the first occasion, with a sudden asthmatic-like attack. She was forthwith readmitted. It was thought that she had been neglecting to take her medicine, so the same mixture was given, but with an increased dose of the perchloride, namely, pot. iod. gr. 10, liq. hydrarg. perchlor. 3j ter die. The patient made no improvement for six days, however, but developed a gumma on the sole of one foot. Recourse was then had to inunction of blue ointment, with the result that all symptoms rapidly subsided, and she left the hospital in a week's time quite well.

Dr. Emanuel drew attention to the important part played by mercury in what was clearly a case of tertiary syphilis and to the advantage of inunction over oral administration.

Enlarged Prostate.

Mr. George Heaton showed three specimens and read clinical notes of the cases.

1. Enlarged prostate and calculus removed by suprapubic cystotomy and prostatectomy in a gentleman aged 60. He had been under treatment for prostate enlargement for a year, and had been repeatedly examined by various medical men. He occasionally passed a little blood. The frequency of micturition was greater than could be accounted for by his prostate enlargement. The residual urine was 2 oz. He was very intolerant of catheterization. Cystoscopy under an anaesthetic showed a small calculus in post-prostatic pouch. Suprapubic cystotomy and prostatectomy was performed. He had several small pulmonary embolic attacks during convalescence. Good recovery. Complete restoration of urination. Can hold his water four to five hours.

2. Enlarged prostate causing attacks of complete retention with haemorrhage, removed by suprapubic prostatectomy. Patient aged 55. Had lost a brother some years ago from prostate enlargement. He had several attacks of complete retention relieved by catheter. Bladder opened in November last for complete retention. The prostate was found very much enlarged. Fourteen days afterwards the prostate was removed through suprapubic fistula. Slow convalescence. He has now completely regained power of micturition, which is easy and painless. He passed two small phosphatic concretions during his recovery.

3. Enlarged prostate removed by suprapubic prostatectomy from a gentleman aged 53. A very nervous patient who, though warned by his medical attendant that his prostate was the cause of his symptoms, declined operation for many months. Latterly had been fast losing flesh and becoming anaemic. His bladder was in a state of perpetual over-distension. Micturition was very frequent day and night. The bladder contained 3 pints of urine after the end of voluntary micturition, very light coloured, specific gravity 1003, and contained a faint trace of albumen. The risks of the operation in his case were put before him, and he assented to the operation. Suprapubic prostatectomy was performed. A pedunculated middle lobe completely blocked up the internal orifice of the urethra. The bladder itself was greatly distended, its walls thinned and fasciculated. The bladder and operation wound gave no further trouble, but he never seemed to pick up after the operation. He became more anaemic and developed acute cardiac dilatation from which he died ten days after the operation. No *post-mortem* examination was made, but he had doubtless dilatation of his ureter and kidney pelvis with chronic interstitial nephritis, the result of the long-continued back pressure on the organs.

Uterine Haemorrhage.

Mr. Beckwith Whitehouse read a paper on some notes on uterine haemorrhage, with special reference to the abuse of the curette. This was discussed by Dr. Purslow, Mr. J. Furneaux Jordan, Dr. Oakes, Dr. Heaton White, and Dr. Thos. Wilson. Mr. Beckwith Whitehouse replied.

NORTH OF ENGLAND BRANCH: NEWCASTLE-ON-TYNE DIVISION.

The third monthly winter scientific demonstration of the Division was held at the Royal Victoria Infirmary, Newcastle-on-Tyne, on Friday, January 19th, when about 160 medical men were present.

Cerebral Tumours.

Dr. Drummond gave a demonstration on cerebral tumours. In introducing the subject he mentioned the typical signs and symptoms of the condition. He then demonstrated an exceptionally good series of clinical cases and specimens illustrative of the condition.

Tumours of the Larynx.

Mr. W. F. Wilson delivered an address on this subject, in which he said that persistent hoarseness in a child was indicative of a simple wart or papillomatous growth of the larynx, hoarseness *plus* dyspnoea being pathognomonic of such a condition. The history should be inquired into, so as to exclude syphilitic or diphtheritic membranous adhesions. Treatment should not be delayed in a child subject to attacks of dyspnoea, as the concomitant engorgement and congestion of the lungs and tubes might result in an eleventh-hour tracheotomy being followed by disastrous results. Tracheotomy should precede any operation for the removal of the growth, as it rendered such an operation free from unnecessary complications; then the growth should be removed by the direct method, using a Killian's tube or some modification of the same. Sedative steam inhalations (among which there was nothing better than the compound tincture of benzoin) in mild cases, and cold water sponging of the face and neck while the child was immersed in a bath of hot water, to cut short an urgent attack of dyspnoea or to avert threatened glottic spasm, would prove to be of use in many instances. "First stage intrinsic carcinoma of the larynx" did not come before the notice of the surgeon with anything like the lamentable proportionate frequency with which he saw the hopeless infected second stage of the disease. They knew that an epithelioma of the larynx might remain confined to the cords for more than two years. Yet the fact was there; they rarely had the opportunity of dealing with such a case, and as it was during that first stage only that they could offer the patient any hope of curing him, and remembering that eminent authorities like Butlin, Semon, Fraenkel and others had pronounced that he could be cured, it behoved them to plead for the more frequent use of the mirror in suspicious cases, and so to cultivate a closer familiarity with it, and to appreciate what early diagnosis means to the patient. Persistent hoarseness in a person of middle or older age should arouse suspicion, and the larynx should be carefully inspected with the mirror in every case. Epithelioma of the cord merged with the structure of the cord and seemed to "grow out" of it, whereas in a small fibroma or papilloma the growth appeared to "lie on" the surface in many instances as though it had been stuck there, and it did not affect the integrity of the cord like a malignant neoplasm; no matter what similarity or dissimilarity existed, a sufficiently large portion of the growth should be removed for microscopical examination, and the piece excised must be examined in vertical section to the plane of the cord from which it was taken, so as to avoid a mere shaving of the cord epithelium leading to mistakes. In inoperable cases the application of radium might be facilitated by using a suitable fenestrated tube under a general anaesthetic. Mr. Wilson had found that in the second stage cases, where tracheotomy had been necessary or not and where ulceration had not yet appeared, the latter complication might be markedly delayed, and life for that reason prolonged, by the administration of two or three minims of creosote in conjunction with five grains of the sodium benzoate in water three or four times a day. Antiseptic mouth-washes, especially after taking food, were likewise indicated.

Conservative Methods in the Treatment of Tuberculous Bone and Joint Disease.

Mr. H. J. Gauvain gave an address on this subject. Having alluded to the various views hitherto held as to the nature of tuberculous bone and joint disease and the effects of those views on treatment, he proceeded to deal at length with the present conception of the condition,

and from that argued that the disease was of the nature of a general infection with local manifestations, and that the logical treatment for such a condition would be one in which both general and local treatment should concurrently be undertaken. He then discussed those general methods of treatment which should be employed, and defined the requirements of a suitable country or marine hospital. The diet and drug treatment having been touched upon, the author proceeded to discuss those cases where radical measures might reasonably be undertaken. He alluded to a particular class of patients in whom the disease was of a very virulent type, and in whom unfavourable prognosis could early be given, and described how, by early recognition of these cases, treatment could be specially directed to procure a cure. The local treatment of tuberculous bone and joint disease was then discussed, with special reference to spinal caries. Splints suitable for immobilizing the spine and preventing or correcting deformity were described, and an exhibition was given of a cinematograph film illustrating the application of plaster-of-Paris in spinal caries. It was believed this was the first occasion on which the application of plaster-of-Paris had been demonstrated by this method. Lastly, the treatment of tuberculous abscesses and sinuses was considered. The value of aspiration combined with the employment of modifying fluids was dwelt upon, and the author showed that the process of healing after aspiration had been undertaken differed essentially from the process of healing of tuberculous abscesses which had been incised. The value of bismuth paste in the treatment of sinuses was discussed, and the author gave his views of those sinuses which were suitable for this method of treatment and those cases where not much success could be anticipated.

Reports of Societies.

MEDICAL SOCIETY OF LONDON.

Monday, February 12th, 1912.

Dr. J. MITCHELL BRUCE, President, in the Chair.

Lord Lister and Sir W. Allchin.

BEFORE proceeding to the business of the meeting the PRESIDENT referred in sympathetic terms to the great loss which the society had sustained in the last few days by the death of their greatly respected Fellows, the late Lord Lister and Sir William Allchin. A vote of condolence with their nearest relatives was passed by the Fellows standing.

Intrinsic Cancer of the Larynx treated by Laryngo-fissure.

Dr. STCLAIR THOMSON read a paper on this subject, which is published at p. 355.

Sir FELIX SEMON said that he was glad that Dr. StClair Thomson's experience bore out the points which he (Sir Felix) had emphasized in his paper five years ago. At one time the operation of laryngo-fissure had fallen into disrepute, and for ten years no one attempted it, but the late Sir Henry Butlin had restored it to its proper position. He thought that there was some improvement in recent years in the stage at which patients were sent by practitioners, but there was still room for further improvement, not only in England, but all the world over. After long-continued hoarseness, patients should be sent for efficient examination by a specialist. He thought many of the so-called recurrences were not really recurrences, scientifically speaking, because they did not occur either at the site of the original growth or in lymphatic connexion with it. Occasionally the second growth was of quite a different kind. He still held to the statement that if recurrence did not take place within one year the patient would probably remain free. He emphasized the importance of occlusion of the lower air passages during the operation.

Dr. DE SANTI said that he had operated upon eight cases for intrinsic cancer of the larynx within twelve years. Seven were men. One was wrongly diagnosed as sarcoma, and proved to be a benign papillary growth. One had recurred fourteen months later in the glands. The longest period of immunity after the operation was eleven years. As the result of experimental injections to show the distribution of the lymphatics, he still held that the classification into extrinsic and intrinsic growths was the most satisfactory. All the seven cases recovered.

Mr. E. B. WAGGETT said epithelioma of the larynx was a disease of extremely low malignancy, and consequently was especially suitable for operative treatment—facts which were imperfectly recognized by the profession generally. In order to obtain such cases early enough it should be insisted upon that all practitioners should be able to see the inside of a larynx during life before they passed their final examinations.

Mr. HERBERT TILLEY recorded a case in which the operation had been successful for thirteen years. Then the patient died, and a hard button-like epithelioma was found *post mortem*. Another case illustrated the slight degree of malignancy, since symptoms were present for five years before the diagnosis was confirmed and operative treatment was deemed necessary. He did not think that bleeding after the operation was due to adrenalin having been used, but rather to the degenerate state of the arteries in elderly patients.

Dr. WILLIAM HILL said that in his opinion primary extrinsic cancer of the larynx did not exist. He thought that the cases described that evening were not so much characteristic of intrinsic cancer of the larynx as of cancer of a small area of the larynx—"the vocal cord area." These were peculiarly operable. What he had called "party-walled" cancer was not so suitable for laryngo-fissure, as it soon spread and became extrinsic.

Aching Throat.

Dr. KELSON pointed out that, although not serious to life, aching throat was important because very common, very depressing, and very persistent. The patients were mostly middle-aged, and might belong to either sex. They might show the various signs of chronic pharyngitis and other local pathological conditions, but these might be entirely absent and the throat appear normal. Anaemia, gout, or rheumatism might be present, but the treatment of these alone seldom cured the aching. Most commonly the patient suffered from flatulent dyspepsia with constipation. The nerve supply was described briefly, and shown to be exceedingly rich and varied; but, on the other hand, the sense of locality in the pharynx was very vague, and consequently pain was often referred to parts in this region other than those actually stimulated. Neurotic conditions and overuse of the voice would not explain the majority of cases of aching throat. A number of cases were then referred to, including two in which the cause had been salivary calculus. Since dyspepsia was by far the most common associate of aching throat, this must especially be treated. The assistance of a dentist was very often necessary, and the question of diet must be carefully considered. Cleansing washes and gargles might be used for the throat and nose, but operative treatment had better be avoided in the first instance. The aching might be due to toxins, or perhaps be a referred pain from the stomach.

ROYAL SOCIETY OF MEDICINE.

SURGICAL SECTION.

Tuesday, February 13th, 1912.

Mr. CLINTON DENT, President, in the Chair.

MEMBERS of the Sections of Medicine and Anaesthetics were also invited to attend.

The Death of Lord Lister.

The PRESIDENT, before the commencement of the ordinary business, paid an eloquent tribute to the memory of the late Lord Lister, O.M., who passed away last Saturday, full of years and full of honours, from a world whose pain and suffering he had done so much to alleviate. His scientific work was the heritage of the whole civilized world. The fewest words were the best when all words were empty, but the Section wished to express its profound sense of loss at the death of the most widely known and most universally revered member of the profession, whose contributions to medicine and the ancillary sciences had been so great. Whatever fabric future generations might erect, it would be built largely on the foundation that

Lord Lister had laid down. He proposed the following resolution:

> The Fellows of the Surgical Section of the Royal Society of Medicine desire to express the deep regret with which they learnt of Lord Lister's death, and to place on record their profound sense of the incalculable benefits that his life-work has conferred not less on other branches of medical science than on surgery and on humanity generally. They desire to convey to the members of his family their sympathy in this great loss—a loss that will be universally felt throughout the civilized world.

Sir ANTHONY A. BOWLBY, C.M.G., seconded, and specially emphasized the great results of Lister's work in the alleviation of the suffering which was formerly so acute immediately after operations, so that it might be described as torture. The resolution was carried by the entire meeting rising in silence.

Partial Thyroidectomy under Local Anaesthesia.

A discussion on partial thyroidectomy under local anaesthesia, with special reference to exophthalmic goitre, was opened by a contribution (read by Mr. DUNN, Honorary Secretary) by Dr. T. P. DUNHILL (Melbourne), who gave simply the results of his own experience, as there was room for legitimate difference of opinion on every aspect of the subject; they were still far from finality. The chief interest would centre around such questions as "Is surgical interference justifiable? If so, at what stage was it indicated?" In the classical type there was goitre, tachycardia and palpitation, tremor, staring eyes, with or without exophthalmos. There might or might not be complete amenorrhoea, emaciation, alopecia, and other less constant symptoms. But there was little or no organic degeneration, and the heart had not yet "broken down." There was a possibility of a complete return to health by medical treatment or rest, or with no treatment at all. It was possible that, in spite of medical treatment, the disease might progress, to end either in death or in such organic degeneration that a return to health was impossible. In the second class he placed the cases in which the disease had progressed to the point of organic degeneration. In the third class were the cases in which the thyroid gland was quite small, and yet there might be one or more of the characteristic signs in extreme degree. The fourth class included cases in which were some thyrotoxic symptoms, associated with a goitre not truly exophthalmic in type. In deciding whether to operate in each class, one must take into account the position in life of the patient, and the severity of the case in relation to the progress made under medical treatment. If the patient had means and leisure and the symptoms were not progressing, and there seemed no danger of the heart passing from mere irritability to organic change, medical treatment could safely be persisted in for an indefinite time. He refused to operate until he knew that the patient had had three months' efficient medical treatment, unless there were other circumstances influencing the case. These cases responded promptly to operative treatment, and if organic disease was not present cure was complete, provided sufficient gland was removed. With local anaesthesia and expert operating the danger was *nil*. In the second class one met with every stage of wreck, with irregular pulse, and apex beat anywhere between the nipple line and the axilla. Most surgeons said these should not be touched, because (1) operation was too dangerous, (2) organic disease had advanced so far that improvement could not follow. Out of 380 thyroid operations he had done 19 in cases of this class. He did not think any anaesthetist would care to give a general anaesthetic to cases in this class, but under local anaesthesia the patients stood the operation well. There was only danger under two conditions: (1) Operating under an acute exacerbation of poisoning, (2) operating when bronchitis was present. He lost his first case through removing too much tissue at once with much crushing when he was inexpert. His second death was through operating when bronchitis was present, but the pulse-rate was daily increasing, and he took the risk to try and save life. Hypostatic pneumonia followed, and the patient died. The third case was moribund when he operated. He had lost one other case, the circumstances of which he was not at liberty to publish. Operation, in the author's opinion, should not be regarded only as a last resource; if it were, cases would be continually progressing from Class I to Class II. Five cases had been sent to him during the last eighteen months, which simply died as soon as they got into hospital. Operation was out of the question, and all had been under constant medical attention. Enough of the gland must be removed to cure the disease, and yet enough must be left for physiological purposes. In young patients and those not very bad, the larger lobe should be enough, with any mid-lobe or isthmus. In older people and those in whom the disease was very bad, the removal of one lobe would be of little use: one lobe and half the other must be taken away. Most of his operations had been performed under local anaesthesia. General anaesthesia alone was not the chief cause of death. He had placed the apparatus for general anaesthesia on a shelf in the room, and told the patient she might have it on demand, but he had never had to change. Local anaesthesia meant using 7 oz. of 2 per 1.000 novocaine, and well infiltrating all the front of the neck. If one lobe and a portion of the other were removed, the eye corresponding to the complete removal receded much more than the other. In 380 operations he had never seen evidence of tetany. He never did the intracapsular ligation of vessels. If removal were done rapidly and gently, removal of one lobe and a half was less dangerous than removal of one lobe alone.

Sir VICTOR HORSLEY said he could not hope to add much to what he said in the discussion at the Hunterian Society last year. But he would now take up certain points which Dr. Dunhill had raised and give his own experience. With regard to pathology, he did not quite agree with Dr. Dunhill's four classes. It was sufficient for their purpose to divide cases into true exophthalmic goitre with watery secretion, parenchymatous goitre with exophthalmic symptoms, and a third rare class in which the gland was wholly diseased, and in which he thought total removal ought to be carried out and then graft normal gland beneath the peritoneum. With reference to clinical experience and mortality, Dr. Dunhill said that in his experience the danger was *nil*, and that was his (Sir Victor's) own experience since he lost his first case sixteen years ago. He had not had another death; but in 3 cases he refused to operate, and so it might be said that he had avoided mortality. He thought the mortality-rate which had been published by physicians must depend upon an incorrect estimation of the condition of the patient before operating. With regard to methods of operating he did not see anything to call for special notice, except to say that he had discontinued doing ligature of arteries: it did not produce the effects brought about by removal of the lateral lobe and part of the isthmus. Concerning persistence of symptoms in successful cases—that is, those which could return to work—certain symptoms tended to persist: the hurrying of the heart on exertion and a degree of exophthalmos. He also had satisfied himself that his cases had had medical treatment for many months before he operated. Last year he operated upon a nurse who had had medical treatment for thirteen years. He thought, with Dr. Dunhill, that three months' medical treatment was enough. He did not believe there was any medical treatment which would cure a case of parenchymatous goitre with exophthalmic symptoms in the adult. But parenchymatous goitre in a young girl at the period of puberty could be got rid of by compensatory thyroid treatment. Classes I and II, which Dr. Dunhill mentioned, he would call parenchymatous goitre with exophthalmic symptoms, and which urgently called for operation. He was convinced that a certain number of cases of true exophthalmic goitre would get well with faradism and rest-cure treatment. If, after three months' medical treatment, the patient were not on the road to complete cure, surgery should be resorted to—namely, removal of the lateral lobe and isthmus. He had never operated on the condition with anything but general anaesthesia, and he had never seen any reason to depart from that. Still, he was convinced that the question of the anaesthetic had no influence on the prognosis in that operation. But he admitted that too often in general anaesthesia an excess of the anaesthetic was given; it should be given dosimetrically and in minimal quantity.

Dr. GEORGE MURRAY said the exciting cause of the proliferative changes in the thyroid gland in exophthalmic

goitre was not known. Sometimes there was atrophy of redundant epithelium and that might be secondary to a gradual fibrosis of the gland, which might proceed to destruction of glandular epithelium. General treatment, including mental and bodily rest, tended to diminish thyroidal activity. Excess of protein food should be avoided. Arsenic and belladonna probably tended to depress the activity of the secretory cells. The cytolytic serums tried did not seem to be specific in action, and might cause degenerative changes in other organs. The first three of his cases, in which one lobe of the thyroid gland was excised—in each case by a different surgeon—died immediately after the operation: two apparently died of heart failure within an hour of operation. Therefore for a long time he was reluctant to advise operation. Of 300 cases he had seen, only 10 had been operated upon, the mortality from the operation having been 30 per cent. It now seemed that operation could be recommended in a larger number of cases than previously appeared desirable. The prognosis given in most textbooks he regarded as too pessimistic; many cases recovered without operation.

Mr. LEEDHAM-GREEN (Birmingham) said that when the subject was discussed at the annual meeting in London, a very gloomy view was taken of the operation. But its value had not yet been sufficiently appreciated in England; indeed, many practitioners did not know that an operation could be done for its relief. He thought there was a distinct mortality from the operation, higher than that of simple goitre. Six leading German surgeons gave a mortality which varied from 3 per cent. to 17.3 per cent. In estimating whether the results warranted such a risk, one must compare it with the results of conservative treatment, but the data on which to base such an opinion were, as yet, few. The average for many hundreds of published cases was 15 per cent. Restoration to health also was strikingly good after operation. He had had only 30 cases, most of them during the last five years, and there were three deaths. But he had never refused to operate on a case. In this severe disease he did not take up the attitude that because there was extreme danger to the patient one must avoid operating. He had had some remarkably successful cases among patients who were dying, and had been refused operation, but were now able to work and earn their living. All the remainder, except the deaths he had referred to, had definite benefit from the operation. At the present time, in this country, the indication for operation was when all other treatment had failed; but if it was to be successful it must be resorted to before the nervous system was shattered by the prolonged ill effects of the disease. But he did not think every case of exophthalmic goitre should be operated upon. The modern tendency was to operate more radically than formerly; and his best results had been in cases in which he had removed the most. He regarded the anaesthetic as a matter of considerable importance: there was so little margin of safety that the operator could not afford to neglect the smallest point in the patient's favour. Unless the surgeon were accustomed to local anaesthesia, it was better to employ a general anaesthetic. He always gave his patients a preliminary dose of scopolamine and morphine.

Mr. LYNN THOMAS (Cardiff) said that since 1907 he had used novocaine 1 per cent., and after an experience with open ether *plus* oxygen he was of the same opinion as Sir Victor Horsley, that the anaesthetic was a very small factor in determining the success of the operation. He had had four deaths in connexion with the treatment of Graves's disease. He always had patients under observation for weeks, sometimes months, before operating upon them; and he did not operate unless the patient had absolute confidence in him. One of the cases died from emotional shock, one from pneumonia. In Wales most of the cases he had encountered came from near the sea: none from the mountain-top. Goitre cases which he operated upon were sent afterwards to the mountains.

Dr. HALE WHITE dealt with cases of exophthalmic goitre which came into Guy's Hospital between 1888 and 1907—twenty years; those (some of which could not be traced) with private patients totalled over 200. For first consideration he excluded those which had been operated upon, because his object was to discover what was the course of the patients who were not operated upon. That must be ascertained before it could be decided whether operation was useful or not. He traced 49 hospital patients, and 53 whom he had seen outside. An actuary had shown that, whereas the tables of twenty insurance offices gave the mortality for such ages of healthy persons as 5, the mortality among these cases not operated on was 8. Of 40 cases, 26 did well, 12 described themselves as having been moderately well or better, and 2 were not better. He gave descriptions of a number of cases in each class. He thought that in the future, when the operation had been made safe, the object of operating would not be to prevent the patient dying from the disease—for the disease did not kill many—but because it would get the patient well quicker and more perfectly than medical treatment got them well. But that could only be shown by a large number of cases, in which it would be known how completely they were cured; and it must be shown that after the operation patients were better able to do their work. Finally, the ultimate test must be actuarial: one must know what was the expectancy of life of a woman who had had part of her thyroid removed, and that could not be settled for some years, and only then on actuarial computation.

[The debate was adjourned to February 27th.]

CLINICAL SECTION.

Friday, February 9th, 1912.

Sir WILLIAM OSLER, President, in the Chair.

Diaphragmatic Hernia.

Dr. WILFRED HARRIS and Mr. W. H. CLAYTON-GREENE communicated the notes of a case of this condition. The patient, a big, heavy woman, 5 ft. 10 in. in height, aged 31, during the last twelve months had been growing bigger, having increased 12 in. in girth in that time. She noticed, about a year before, pain in her left side at the level of the sixth rib. In March, 1911, she was assured that she was pregnant, and at that time her periods became scanty and shortened from their normal ten days to three days, but she remained regular every month throughout. In spite of this, pregnancy was insisted on, and she made all preparations, in December, 1911, getting a monthly nurse down from London. For months past she had difficulty in walking, owing to increasing pain in her left side: she could not sit properly, having to sit sideways on the front edge of a chair, on account of the pain in her side. She had been feeling increasingly short of breath, but was encouraged to go about and do everything. Five years ago she had a bad fall downstairs, and broke two ribs on the left side. Owing to the pregnancy not developing normally, Dr. Bott was called down to see her, and he found no evidence of pregnancy, but discovered dullness at the left base. He brought her at once up to London, and she vomited in the train, and again after arrival, since when her pain became worse, and she was said to have increased 2 in. in girth in the following week. Pelvic examination under an anaesthetic proved the uterus to be normal, and *x*-ray examination showed a sickle-shaped shadow at the left base, with a bright area above it, the diagnosis then being made of localized pneumothorax with a localized pleuritic effusion and partial collapse of lung. She complained of a great deal of pain and of hyperaesthesia of the skin on the left side. Dr. Harris saw her on December 29th, and found hyperresonance on percussing the left front, with diminished movement of the left apex and base, and with dullness in the left lower axilla and back, up to the eighth rib. There was weak air entry over the left upper back, with loud breath sounds over the whole of the right chest and heart sounds loudest to the right of the xiphi-sternum. No splash or coin sound. On auscultation, while the patient swallowed a little water loud sounds were heard at the back of the chest. Dr. Harris made a diagnosis of diaphragmatic hernia, assuming that the diaphragm might have been ruptured by the fall five years ago, and that a hernia of stomach and intestines into the left chest had gradually increased since a second blow on the side a year ago, causing collapse of the left lung and pushing the heart over to the right. He therefore declined to aspirate, and ordered 4 oz. of bismuth to be given with bread and milk, in view of another examination by skiascopy two hours later. This was done, and the bismuth shadow was clearly seen inside the chest. He therefore advised laparotomy, with a view

to possible reduction of the hernia. Mr. Clayton-Greene operated on January 1st, and on inserting his hand found numerous peritoneal adhesions and a total absence of the left half of the diaphragm and of the parietal pleura on the left side, it being possible to feel the ribs posteriorly practically up to the clavicle. The left lung was extremely small and the left thorax filled with stomach and intestines, the right half of the diaphragm being normal. The wound was at once sewn up and nothing further done. She had since made an uninterrupted recovery and was perfectly well, except for slight tenderness on the left side.

Exhibits.

The following cases were shown: Mr. F. J. STEWARD: Case of *Excision of epithelioma of lower end of pharynx*. Dr. FREDERICK LANGMEAD: Case of *Anomalous oedema*. Dr. F. PARKES WEBER: Case of *Diffuse symmetrical lipomatosis*, and a case of *Osteitis deformans with chronic eczema*. Mr. GEORGE F. STEBBING: Case of *Persistent nystagmus associated with periodical vomiting*. Dr. HECTOR MACKENZIE and Mr. W. H. BATTLE: Case of *Hirschsprung's disease*. Dr. HERBERT FRENCH: Case of *Tabes dorsalis* with one knee-jerk absent and the other brisk. Mr. W. H. BATTLE: Case of *Neuro-fibroma* of the supraorbital nerve in the orbit.

LARYNGOLOGICAL SECTION.

Friday, February 2nd, 1912.

Dr. STCLAIR THOMSON, President, in the Chair.

Angioma of Nose.

Mr. HERBERT TILLEY showed a specimen and section of discrete angioma of nose which had been removed from a young man, aged 17, who applied to hospital for severe attacks of nose bleeding, which had rendered him very anaemic and weak.

Enlargement of Bridge of Nose by Nasal Polypi.

Mr. HERBERT TILLEY also showed a case of enlargement and distension of the bridge of the nose in a patient suffering from nasal polypi and pansinusitis. The upper regions of the septum were also thickened and considerable periostitis of the bones seemed to be present. The PRESIDENT, commenting on the appearances, remarked that in the cases he had seen, as in the present case, there had been no evidence of syphilis.

Ulcerated Growth of Larynx.

Mr. J. EVERIDGE showed a case of ulcerated growth of the larynx with a negative Wassermann reaction. In the opinion of most of the members the disease was regarded as a tuberculous deposit.

Thyroid Tumour at Base of Tongue.

Mr. CHARLES A. PARKER showed a case of thyroid tumour at the base of the tongue in a girl aged 16 years. The tumour was so large as to call for removal, but the apparent absence of any thyroid gland in the neck had led to hesitation in operating. The suggestions offered by members to avoid the difficulty were that the tumour might be dislocated from its buccal site to a position deeper in the tissues of the tongue, or that a partial excision only should be made.

Swelling in Tonsillar Region.

Dr. W. H. KELSON showed a swelling in the right tonsillar region in a woman, aged 24, with a hard mass at the angle of the jaw. The swelling also involved the lateral pharyngeal region above and behind the tonsil. The disease was generally regarded as inflammatory, possibly connected with a chronic suppuration of the ear from which the patient was suffering.

Paralysis of Soft Palate.

Dr. ANDREW WYLIE presented a case of paralysis of the soft palate, dating from a sore throat several weeks previously. Repeated bacteriological examinations had failed to disclose the presence of the Klebs-Loeffler bacillus, and several of the speakers referred to the elusive character of this organism as a fact which renders a negative finding of no value.

Skiagrams, Cases, etc.

Dr. WILLIAM HILL exhibited a series of skiagrams illustrating (*a*) the palliative action of radium salts in malignant stricture of the gullet, and (*b*) the advantages of the *x*-rays screen for accurately applying a radium apparatus in the strictured area. Mr. HERBERT TILLEY and the exhibitor drew attention to the importance of the necessity for the nicest precision in introducing and leaving radium at the exact site in the oesophagus in cases of malignant stricture. Dr. JAMES DONELAN showed a singer, aged 44, with a *Growth on the anterior third of the right vocal cord*, which was regarded as a singer's node. Mr. CHARLES W. M. HOPE exhibited a microscopical section of a malignant *Columnar-celled carcinoma of the oesophagus* from a man aged 25 years: attention was drawn to the occasional appearance of a columnar-celled cancer in a tube lined by squamous epithelium, and the mode of origin of such growths adverted to. Mr. NORMAN PATTERSON showed a case of *Abeyance of nasal breathing of hysterical origin*, the speech being markedly affected. Dr. E. A. PETERS showed: (1) A case illustrating the formation of *Bilateral symmetrical perforations of the palate in a case of syphilis*: (2) A case of *Tumour of the right lateral wall of the pharynx* involving the right arytenoid in a woman, aged 27 years. The advisability of the early examination of such cases by the direct method in order to exclude post-cricoid carcinoma was remarked upon. A case of *Sublingual ulceration* of the floor of the mouth was exhibited by Dr. GEORGE C. CATHCART, and considered by certain of the members to be septic in origin. Mr. H. SECCOMBE HETT showed a series of 3 cases illustrating *Cysts of the larynx*. In one the cyst lay on the lingual aspect of the epiglottis; in the second on the vocal cord; while in the third a cyst, or cystic fibroma, was to be seen on the right arytenoid. Discussing the treatment of laryngeal cysts, several members expressed a preference for the galvano-cautery as compared with their removal by means of forceps. Dr. DUNDAS GRANT exhibited a woman, the subject of tuberculosis, with an *Outgrowth from the lower pole of one tonsil*.

SECTION OF ANAESTHETICS.

Friday, February 2nd, 1912.

Dr. MCCARDIE, President, in the Chair.

Acetonuria in Children.

Dr. R. S. FREW, in a paper on the significance of acetonuria in children, showed that acetonuria was produced in the child by mere changes of diet; further, that the duration of the acetonuria was about three days, that it was more marked the younger the child, being 100 per cent. in babies changed from breast to artificial feeding, and 46 per cent. in children 11 and 12 years of age; the average of all children below 12 years of age being 61 per cent. He further pointed out that by giving dextrose this acetonuria could be made to disappear at any stage within twelve hours, and that the carbohydrate starvation necessary for its production was caused by the digestive instability of children. He drew attention to acetonuria being invariably produced by gross starvation in about twelve hours. It was maintained that both these conditions obtained in the preparation of the child for anaesthesia and that this was sufficient to account for the high percentage of acetonuria after anaesthesia recorded by various observers, which ranged from 63 per cent. to 89 per cent. This acetonuria could be prevented by the administration of dextrose up to and after the administration of the anaesthetic, thus avoiding what must be regarded as an additional risk.

After-effects of Chloroform.

A paper was read from Dr. A. L. M. MUSKENS, of Bergen of Zoom, Holland, describing the results of some experiments on rabbits made to investigate the after-effects of chloroform. Twenty-five rabbits were kept under chloroform one to two hours. Tables were shown illustrating the tissue changes in eight rabbits which died from the effects of the anaesthetic at periods of from twenty-two to one hundred hours, and in eight others which were killed at periods of three hours to five days after the administration. In the first group all the cases, except one in which chronic myocarditis was evidently the cause of death, showed advanced fatty degeneration of the liver amounting in most instances to complete central narcosis; in the rabbits in the second table (except in one animal killed immediately after the operation) fatty degeneration was also found, but to a somewhat less advanced degree than in the first group. Changes in the kidney and heart

tissues were much slighter and more variable. The writer considered that the liver degeneration was due to the chloroform, and was the cause of death in the fatal cases. He suggested that fat and oil should be avoided before an anaesthetic either in food or drugs, and that cholagogues might be useful afterwards in so far as they tend to remove fat as well as bile from the liver.

Mr. R. E. APPERLEY showed some microscopic specimens from livers of rabbits, and also of human subjects, illustrating the after-effects of chloroform. The rabbits had been kept under chloroform for half an hour daily for several days, and subsequently killed. In one of the human cases the patient had had two anaesthetics at a short interval—the first ether, the second chloroform: he died shortly after the second administration, of cerebral haemorrhage unconnected with the operation or anaesthetic. All the specimens showed fatty changes. Mr. Apperley pointed out that acetonuria occurred after anaesthesia in nearly all cases; after ether the amount was much greater, but fell to the minute trace which might be considered normal in one day; after chloroform the rise was less, being as 20 to 50, but persisted in a gradually diminishing degree for four days. This was doubtless to be explained by the fact that chloroform had much more effect upon the kidney than ether, and delayed excretion. In severe post-anaesthetic vomiting little acetonuria is generally present, when the vomiting stops the acetonuria increases.

Mr. A. L. FLEMMING agreed with the last speaker in regard to the respective effects of ether and chloroform upon the kidney. He stated that in 68 cases in which careful examination of the urine had been made, far more kidney cells were found after chloroform than after ether, and fatty changes were also present. Acetonuria frequently existed in cases where there was loss of fluid—for instance, vomiting; and he found that where a previous injection of saline had been given there was generally little acetonuria or unpleasant after-effects.

The PRESIDENT read notes of a case of chloroform toxaemia after an operation for cleft palate on a child of 2½ years. The operation was difficult and lasted one and a quarter hours; the anaesthetic was borne perfectly and but little blood was swallowed. At night the child was much collapsed and remained seriously ill for all next day, but gradually improved. The palatine flaps sloughed. The same child had had an operation when 12 months old, which was followed by prolonged vomiting. It was noteworthy that this child could not tolerate fat in any form. Cod-liver oil invariably upset him and starchy food had the same effect. He was subject to attacks of "liver-chill," accompanied by vomiting and diarrhoea. At a subsequent operation Dr. McCardie had administered ether for half an hour with no after-effects.

Dr. J. H. THURSFIELD referred to a series of post-anaesthetic deaths which had occurred at the Hospital for Sick Children, Great Ormond Street, in 1907, the causation of which was still under investigation. These deaths occurred under varying conditions, and were not to be explained either by the anaesthetic used, the methods of administration, or the preparation of the patient. He thought there was an additional factor still to be discovered. Acidosis occurs in all cases, and in a few passes into acid intoxication. Children operated on in the out-patient room, whether prepared or not, showed reaction next day in 100 per cent. of cases. Those operated on four or more days after admission were not found to react differently from those operated on immediately. He considered that dextrose had no effect whatever on acid intoxication. Sodium bicarbonate gave better results. He did not believe that the condition of the liver was causative or peculiar to the condition under discussion. The same changes were found in many diseases with quite different symptoms.

Dr. G. W. GOODHART did not agree that the liver changes found in acid intoxication were the same as those in other diseases. He thought that the clear differentiation of three zones was characteristic and not found in other conditions. He doubted whether there was any fatty degeneration of the kidney. This was difficult to prove, as fat occurs in quite healthy kidneys.

Mr. C. WAUGH objected to the name "post-anaesthetic poisoning." None of the cases referred to above had occurred among his cases, and he attributed this largely to his method of preparation. He had abolished purging and preliminary starvation, merely substituting the operation for a meal. He gave a large dose of soluble carbohydrate both immediately before and after the operation. He considered dextrose better than sodium bicarbonate, and instanced two cases where the patients' lives had apparently been saved by use of the latter.

Dr. SILK agreed with Mr. Waugh that the name should be dropped. Post-operative acetonuria depended on a complicated series of conditions.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Wednesday, February 7th, 1912.

Mr. J. M. COTTERILL, President, in the Chair.

Renal Colic.

Mr. C. W. CATHCART showed a woman, aged 44, who had suffered from renal colic for two years. The removal of a renal calculus did not relieve her symptoms, and on *x*-ray examination a stone was shown low down in the left ureter. The ureter having been exposed extraperitoneally, the stone was removed by a loop of copper wire mounted on a handle.

Fracture of Humerus followed by Paralysis of Movement.

Mr. CATHCART also showed a case of fracture of the humerus followed by paralysis of movement without impairment of sensation in the arm. On operation, the musculo-spiral was found caught in callus round the upper fragment, was relieved, while the fractured bone was wired. Steady recovery of movement since operation.

Myxoedema.

Dr. G. L. GULLAND showed a woman aged 44, presenting a typical picture of myxoedema, the symptoms having been present for three years. The right lobe of the thyroid was enlarged; there was also mitral stenosis.

Tabes Dorsalis.

Dr. GULLAND also showed a case of tabes dorsalis in a woman, aged 53. There was no history of syphilis, but of spinal disease seventeen years ago, which was treated by stretching. The Wassermann reaction was negative, and the cerebro-spinal fluid showed lymphocytosis. In addition to the classical symptoms of locomotor ataxia, there was partial paresis of both third nerves, and hemiatrophy of the tongue.

Entero-vesical Fistula.

Professor CAIRD showed a case of entero-vesical fistula in a man, aged 51, due to carcinoma of the sigmoid, involving the base of the bladder. The operation consisted of separation of the cancer from the bladder, enterectomy, closure of the bladder wound, and appendicostomy.

Treatment of Tuberculous Peritonitis in Adults by Operation.

Professor CAIRD read a paper on the treatment of tuberculous peritonitis in adults by operation. He dealt with a series of 31 cases, not including such conditions as tuberculosis of the appendix or caecum, or tuberculous ulceration of the small bowel. He believed that operation should be postponed until medical treatment had had a thorough trial. The clinical types were cases with free fluid, the dry forms with tubercles and adhesions, and mixed forms. The operation consisted in an incision from the umbilicus downwards, and opening of the peritoneal cavity. The benefit accruing from this in the cases of free fluid had been variously explained—by the entry of air, the relief of tension, the subsequent hyperaemia and exudation of fresh lymph more highly charged with bactericidal substances. The first explanation was probably incorrect, because the injection of air into the peritoneal cavity in these cases did no good. Contrary to general opinion, he had had best results from the dry forms with adhesions. In this group, such complications during operation as opening of the bowel and bladder were sometimes unavoidable, and also subsequent faecal fistula. In the mixed types some cases were closely imitated by cancer of the peritoneum with malignant ascites; and in these diagnosis could only be determined by microscopical examination.

Ortho-Roentgenography of the Heart and Aorta.

Dr. W. HOPE FOWLER and Dr. W. T. RITCHIE read a paper on this subject. After a brief history of ortho-

radiography a description was given of the Snoeck high-tension transformer and the Groedel orthodiagraph (a modification of Levy-Dorn's). The normal cardiac outline was then discussed. There were two curves on the right side and either three or four on the left. The variations of these curves in health, their form and pulsations, were indicated. The respiratory movements of the heart were more extensive than the pulsatile, and the form of the cardiac silhouette differed according to the phase of respiration at which the record was taken. The records were measured according to Groedel's method, measurements being also taken from the patient's right fist as standards, according to Levy-Dorn and Möller, for the size of the normal heart. Pathological conditions affecting the heart were more readily characterized by alteration of the cardiac silhouette than by variation in size alone. In well-marked cases of mitral incompetence the two lower curves on the left side were prominent. In mitral stenosis with the auricular musculature contracting in a co-ordinate manner the heart was rather vertical, the outline curves were sharply demarcated from each other, the left auricular and pulmonary curves were specially prominent, while that of the left ventricle might be diminished. Mitral stenosis with auricular fibrillation was characterized by a large globular heart, with bulging of the pulmonary and both auricular curves. In aortic incompetence the "recumbent egg form" was not constant, although the curve of the left ventricle was enlarged. Combined aortic and mitral incompetence presented a larger and more dilated heart. Illustrations were also shown of orthodiagraphic outlines from cases of mediastino-pericarditis, patent ventricular septum, patent ductus arteriosus, chronic interstitial nephritis, and aortic aneurysms. The orthodiagraphic and percussion outlines of various hearts were compared with one another, and it was shown that the left border of the heart and the upper limit of the liver, as ascertained by firm percussion, frequently lay too far to the left and too high respectively, while the right percussion border might be too near the mesial line. Owing to the oblique position of the heart within the thorax, the basal portions of the heart offered special difficulty to accurate delimitation by percussion. The position, size, and form of the heart could not be delimited so accurately by percussion as by the orthodiagraph.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

PATHOLOGICAL EVENING.

Friday, February 2nd, 1912.

Mr. W. McADAM ECCLES, President, in the Chair.

The late Sir Henry Butlin.

AFTER the formal opening business of the meeting the PRESIDENT proposed that a vote of condolence be sent to Lady Butlin on her recent bereavement. As a society they felt that loss, for Sir Henry Butlin had been for many years a member with them, and they had recently elected him an honorary member.

"Dermoid Cysts" of Ovary.

The PRESIDENT showed a number of specimens of "so-called dermoid cysts" of the ovary, all exhibiting the presence of teeth. He discussed their probable origin, whether they were true teratoma, an epithelial inclusion, or a kind of unisexual development. He inclined to the first hypothesis.

Mr. ASLETT BALDWIN also showed a specimen of teeth from an ovarian dermoid, in which the number and perfection of the teeth was remarkable.

Mr. HOPEWELL SMITH, in commenting on the specimens, said that microscopic examination of these teeth usually showed that the hard tissues were malformed and the dentinal tubes irregular in arrangement.

Fractured Neck of Femur.

Mr. ASLETT BALDWIN showed, amongst other specimens, a radiograph of fractured neck of a femur with screw uniting the bone in position. The case was that of a man aged 40 years, who fell from a cart. The fracture caused 2 in. shortening. The shortening was reduced by an apparatus which permits screw traction on the limb, and when perfect length had been secured the steel screw, shown in the radiograph, had been driven through the trochanter into the neck and head of the bone. The whole was secured by a plaster mould.

Decidual Cast from Extrauterine Gestation.

Dr. WALTER FRY showed a decidual cast from a case of extrauterine gestation. A multipara, aged 26, missed one period. A fortnight later there was sudden violent pain about the left ovary. She was examined under chloroform, but nothing abnormal was found. A week later the cast was passed, and she recovered. Sections of the cast showed decidual cells of maternal origin, but none of fetal origin. Dr. Fry asked: If there was a conception, where was the fetus?

There was a discussion on this case, in which Dr. SIMSON, the PRESIDENT, and Dr. BERNSTEIN took part.

Fatal Visceral Disease.

Dr. JULIUS BERNSTEIN showed a number of specimens of recent cases of fatal visceral disease. Some of these led to valuable discussions. One was a specimen of acute infective endocarditis in a man aged 40, who had been seen by Dr. L. Dobson, who said the man's first medical attendant had considered the case one of cerebro-spinal meningitis; ten days later the doctor fell ill with the same symptoms. Dr. Reece of the Local Government Board inclined to the same diagnosis, but examination of fluid obtained by lumbar puncture in both cases proved that both were suffering from pneumococcic cerebro-spinal infection. The man died and the doctor recovered. He considered the endocarditis was a late secondary lesion, for there were no heart symptoms pointing to it.

Retroperitoneal Tumour.

There were shown (for Mr. BIDWELL) masses of soft fibroma or fibrolipoma which formed a retroperitoneal tumour; the symptoms pointed to the presence of a hydatid. The PRESIDENT said diagnosis of these cases was difficult, and occasionally the growth attained a huge size.

Membranous Rhinitis.

Dr. BERSTEIN showed a film preparation of pure Klebs-Loeffler bacillus taken from a case of membranous rhinitis. Dr. F. G. CROOKSHANK said these cases were not uncommon, although rarely recognized except by nose specialists. The symptoms and sequelae were not severe as a rule; he thought that was due to the absence of mixed infection.

Ulcerative Endocarditis.

Dr. A. C. FIRTH showed a specimen of ulcerative endocarditis due to general pneumococcal infection in a child aged 3. Examination of hospital reports for nine years only showed the occurrence of one other similar case at this early age.

Skiagrams.

Dr. REGINALD MORTON showed skiagrams of cases examined with other physicians. One, with Dr. PRITCHARD, was of a case of aneurysm of the arch of the aorta; the shadow of the aneurysm and the obstructed mass of a bismuth meal in the œsophagus could be seen. Other plates were of a case of gastroptosis, under the care of Dr. BERNSTEIN. The progress of the bismuth meal was shown in its various stages and the site of the delay noted.

Cancer of Uterus.

Dr. H. J. F. SIMSON showed cases illustrating the difficulties to be met with in the diagnosis of cancer of the uterus. There was a typical cauliflower growth of the cervix in which diagnosis was unmistakable; one of intracervical growth of most malignant character, but causing few symptoms; another of a uterus removed in a case of pyometra and grave symptoms simulating carcinoma of the body of the uterus, all of which were due to a fibroid in the posterior wall, causing obstruction.

Gastrectomy for Pyloric Ulcer.

Dr. E. A. SAUNDERS and Mr. L. BIDWELL showed a specimen of pyloric ulcer removed by partial gastrectomy with excellent results.

Disease of Nails.

Dr. ALFRED EDDOWES showed photographs illustrating diseased conditions of the nails: Psoriasis, overgrowth and deformity of the great toenails due to injury, and a rare condition of the nails of hands and feet that had been thought to be ringworm.

LIVERPOOL MEDICAL INSTITUTION.

At a meeting held on February 8th, Mr. ROBERT JONES, President, in the chair, Dr. HILL ABRAM read a note on 2 cases of *Oedema of the orbit*: (1) A man, aged 30, who had swelling in the neck and in the right orbit, a naso-pharyngeal discharge of muco-pus, and, just before death, a violent epistaxis. A *post-mortem* examination showed necrosis of the pituitary body, with enlargement and oedema of the lymphatics of the right side of the neck: no growth was found, and the tissues were not further examined. (2) A robust man of 53. His illness began with pain in the right temple, swelling in the right eye, and a rise of temperature. The orbit was incised. At the autopsy there was exudation at the base of the brain, pus in the cavernous sinuses, thrombosed veins, and an actinomycotic mass in the orbit. Two difficult points to decide were—how the organism gained access to the body and what was the source of the infection. The mouth, teeth, and the intestinal canal, and even the skin, had been suggested as points of entry. The infection might come from domestic animals, or from foreign bodies, such as straw or splinters of wood. As the organism was found in carious teeth, it was possible that it led a saprophytic life. Dr. Abram suggested that further investigation was needed to decide whether the organism was anaërobic in man and aërobic in Nature. He could find no conclusive evidence of infection from man to man or from cattle to man. In the discussion that followed Dr. LLOYD ROBERTS mentioned a case of oedema of the orbit, with oedema of the rectum, in which an organism similar to the bacillus of diphtheria was found. The patient was given anti-diphtheritic serum, with the result that the swelling began to disappear in fifteen hours, and in a few days the patient was quite well. Mr. ADAIR DIGHTON referred to a case of actinomycotic meningitis following excision of the right eye for panophthalmitis after injury. In this case there was no oedema of the orbit. Dr. STALLYBRASS suggested milk as a vehicle of infection, as the disease had been found in the udder and the organism in milk. Dr. LLOYD ROBERTS opened a discussion on *Colitis* from the medical side. He reviewed our knowledge of the subject, and especially referred to Dr. Hale White's work, which began about twenty-four years ago. Dr. Roberts commented on the increase in frequency of the disease as well as of appendicitis since then. Mr. PAUL opened the discussion on the surgical side. He used two operations—appendicostomy for the milder cases and right lumbar colotomy for the more severe. A small incision gave access to the appendix, its base was anchored by fishing gut sutures, and a narrow rubber tube or pointed catheter was passed into the colon at the first operation. If left to a later stage, difficulty might be found owing to the shrinkage which took place in the appendix. Right lumbar colotomy was a difficult operation; opening the peritoneum did not much matter, but it was important not to injure the duodenum. He did not make as much of a spur in these cases as in other colotomies. He began systematic washing out of the bowel about two weeks after the operation, and did not find that antiseptics made much difference. In the discussion that followed, Dr. BRADSHAW claimed for castor oil in small doses an almost specific action in cases of colitis. Dr. WHITTAKER spoke of the treatment by electric enemata, by lactic acid cheese, and by enemata of allantoin. Mr. R. W. MURRAY said that in the first wash-out it was important not to use a larger quantity of fluid than half a pint, as large amounts sometimes caused collapse. Dr. MACALISTER spoke of the connexion between colitis and rheumatoid arthritis. Common paraffin had been found useful, as it formed a coating in which organisms could not live. He had found simaruba and pomegranate bark useful in these cases. Dr. C. L. WILLIAMS, Mr. NEWBOLT, Dr. COLIN CAMPBELL, Dr. MOORE A. ALEXANDER, and Dr. O. T. WILLIAMS took part in the discussion.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.

At a meeting held on February 2nd, Dr. FREELAND FERGUS, President, in the chair, Lieutenant-Colonel Sir WM. B. LEISHMAN delivered an address on *Antityphoid Inoculation*. After reviewing the history of the subject he referred to various methods of preparing antityphoid vaccine, and described that employed in the British army. The strain of typhoid bacilli used was one whose virulence had by long culture been greatly diminished. From subcultures of that strain, grown for thirty-six hours, and killed by exposure for an hour to a temperature of 53° C., the present vaccine was prepared. Careful tests were made to ensure the sterility of the vaccine before its issue for use, and no instance had occurred of sepsis attributable to it. Standardization of the vaccine was effected by counting the number of bacilli present along with a known quantity of normal blood whose plasma had been replaced by saline solution. The doses usually given were—an initial dose of 500 millions and, ten days later, a second dose of 1,000 millions of dead bacilli. If a single dose only could be given it was one of 1,000 millions. Experience in England and in India quite dispelled the idea that, owing to the development of a negative phase with increased susceptibility to infection, persons inoculated in presence of an epidemic of enteric fever ran more risk than the non-inoculated of contracting the disease. On the contrary, inoculation proved highly protective. As to the conditions under which antityphoid inoculation ought to be carried out as a prophylactic measure in civil life, all persons in attendance on cases of enteric fever and, on the occurrence of enteric in any large institution, all the inmates should be inoculated. In the army, even in time of peace, enteric fever was certain to be introduced, either by recruits (typhoid carriers or men incubating the disease) or from the surrounding population; and in time of war even the best sanitary organization was powerless to ensure protection from infection. All recent military experience showed the enormous incidence of invalidity and very high death-rate from this cause. The benefits resulting from antityphoid inoculation were strikingly shown by the statistics of enteric fever among British troops in India. For 17 years prior to 1907 the annual number of admissions had averaged 1,406, with an average of 353 deaths. In 1905 antityphoid inoculation was introduced as a voluntary measure, and while at first not largely utilized, was by 1907 being taken advantage of by the troops in increasing numbers. Since that date the admissions from enteric had fallen steadily, till in 1910 they numbered only 296, with 45 deaths. Recent experience with a large body of United States troops stationed on the Mexican frontier, among whom antityphoid inoculation was compulsory, proved the almost complete protection which this measure afforded the soldiers. Many observers had also found that antityphoid inoculation was of value not only in prophylaxis, but also as a therapeutic agent in cases of enteric fever, and the speaker believed that for this purpose a stock vaccine was more effective than an autogenous one.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

At a clinical meeting held on February 8th, Mr. J. B. LAWFORD, President, in the chair, Mr. ROBERT DOYNE showed a case of *Guttate iritis*. He said he had never seen a case in a man. The guttae were independent, in position, of the inflammatory points. In the patient a week ago there were four well-marked spots, but now there was only one. It seemed to be an exudation between the layers of epithelium where it was reflected; usually the subjects of the condition were gouty. The PRESIDENT reminded the members of the cases shown by Mr. Doyne two years ago, and they seemed to have occurred only in cases of chronic iritis. If the condition happened in acute iritis it might be missed in the general haze. Mr. CHARLES WRAY showed (1) 3 cases of *Frontal sinus disease* with pathological specimens. (2) A severe case of *Ingrowing lashes treated by the electro-cautery*; he said that although Ziegler advocated that for entropion the cautery should be at a white heat, his own experience was that it was better at a dull red heat, and he preferred the thermo-cautery. (3) A *Cyclo-phorometer*, and described his method of testing. The case was discussed by Mr. WORTH, who referred to a book he published ten years ago on the subject. Mr. G. COATS exhibited a case of *Unilateral proliferation of the uveal pigment*, and Mr. TREACHER COLLINS one of *Unilateral melanosis of the uvea and sclera*, with elevations *on the affected eye*. Mr. COATS said there was evidence that the spot was there shortly after birth, and it had increased considerably in the last year. There was increased pig-

mentation of iris, fundus, and sclera. The point of most interest was the presence of elevations on the surface of the iris. Twenty-six cases of the kind had been recorded, and of these no fewer than 7 developed sarcomata in the eye late in life. The commonest age for it to occur was between 50 and 60, and the age of the youngest case recorded was 34. Mr. COLLINS said he had his case under observation and care for ten years. Not every case of melanosis showed elevations on the iris. Some years ago he showed at the society sections at the seat of melanosis, apparently dating from birth, in a man aged 60. He thought it was melanotic sarcoma of the ciliary body. He recently re-examined that section, and found it remarkably free from elevations. Mr. HEWKLEY raised the question whether it was the rule for the irides to be a light-grey colour at birth. Mr. LESLIE PATON showed a case of *Hole in the macula*, which he considered differed from ordinary cases of hole in the macula and from the fifteen cases collected in Mr. Ogilvie's paper, in the fact that the hole was blueish-white. There was no history of injury in the case, but there had evidently been considerable retinal disturbance all round the macular region. Apart from the hole, the general appearance was like that of albuminuric retinitis, but there was no trace of albumen in the urine, and no other organic disease. Mr. GREEVES showed again a patient with recurrent *Unpigmented tumour of the sclera*, the case having been brought forward originally in October last. Removal was done, and later there seemed to be a recurrence, but the scar tissue which began to form seemed to strangle the tumour, and it had now disappeared. The first tumour was pronounced to be a very cellular haemangioma. Mr. CUNNINGHAM showed two cases: (1) *Cholesterin crystals in the anterior chamber*; (2) *Retinal haemorrhage and exudation* in a young subject. The second case he regarded as one of vascular disease. The PRESIDENT, discussing Mr. Cunningham's second case, said he saw the lad in hospital, and no condition had been found which was likely to be causally related to the eye condition; nothing, for instance, in the blood-cell count, or the coagulation time, or the presence of any bacterial condition. The possibility of lead poisoning had also been excluded. Mr. DOYNE said he was convinced that the veins, not the arteries, were responsible for the haemorrhage. The whole eyeball might appear to be suddenly filled with blood. The cases which he had seen recovered, sometimes with very good vision, leaving some silvery stains in the retina, and sometimes some membrane in the vitreous. In one case he found that the blood tension was very low. Von Pirquet's reaction was positive. Mr. HARRISON BUTLER said Professor Axenfeldt had proved several of these diseases to be due to alterations in the retinal vessels, and he pointed out that nearly all the cases had a tuberculous basis. Mr. LESLIE PATON did not agree that these cases were analogous to cases of intravitreous haemorrhage. One case he saw had some cranial nerve palsy. Dr. FARQUHAR BUZZARD said he knew the case to which Mr. Paton alluded. It was not a case of true Bell's palsy, because only certain fibres of the facial nerve were affected. He thought it might have been due to a local haemorrhage in the facial nucleus or the facial nerve. One could easily imagine, following on Mr. Doyne's suggestion, that it might be caused by a small tuberculous deposit in the pons. Mr. CYRIL WALKER referred to the case of a man, aged 21, who was healthy but the sight of one eye was bad. He had many streaky-looking haemorrhages in the nerve fibre layer, and there were ten fairly large ones, the largest a quarter the size of the disc, and there were twenty smaller ones. In three weeks the sight improved a great deal. There was no macular star. Two months later the patient had a very large intraocular haemorrhage which blotted out everything. That remained opaque until two months later, when it began to get translucent. The treatment was mainly rest and the patient was also given some mercury. Mr. LAYTON DAVIES related the case of a male clerk, aged 19, who came complaining of severe headaches, and that a few days previously he was blind in his left eye. In the fundus striate haemorrhages were found over the retina, and dilatation of the vein, with white exudation, in the macular region. It looked like a case of albuminuric retinitis, but a physician found the urine normal. Mr. W. H. JESSOP considered such cases were somewhat allied to Raynaud's disease or even haemophilia; the subjects of it, when struck, rapidly became bruised. There seemed to be some defect in the coat of the arteries, leading readily to transudation. The discussion was continued by Mr. RAYNER BATTEN and the PRESIDENT. Mr. DAWNAY showed a case of persistence of anterior portion of hyaloid artery.

NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

THE fourth ordinary meeting of this society was held in the Royal Victoria Infirmary, Newcastle-on-Tyne, on February 8th, Dr. ANGUS MARTIN presiding. The evening was devoted to the demonstration and discussion of medical and surgical cases. Dr. ANGUS MARTIN showed a woman on whom he had performed *Removal of the uterus for chorion-epithelioma*, and in whom there was evidence of secondary lung involvement—bloody expectoration, etc. She was in excellent health, some months having elapsed since hysterectomy. The specimen was also shown. Dr. BLATTIE exhibited a case of *Acute chorea* in a boy of 18, accompanied by maniacal symptoms. He enlarged on the urgency of inducing sleep by heroic doses of hypnotics. The boy had mitral stenosis with regurgitation. Dr. PARKIN showed a case of *Cervical rib*, on either side the rib pressing on the lower trunk of the brachial plexus and producing nervous symptoms, neuralgia, paraesthesiae, etc. An operation had been performed on both sides, with cure on the right side and some relief on the left side. Dr. Parkin also brought forward a case of *Irregular first rib*, its anterior end being deficient and not coming up to its sternal articulation, but appearing to be attached to the upper surface of the second rib. The inner end of the clavicle was also malformed and less prominent than its fellow. The deformity was undoubtedly a rare one. Mr. ANGUS showed a man from whom he had removed a *Large sarcoma of the thigh*. The seat of disease was being treated with Coley's fluid, the dose having been increased to 10 minims. The patient was in good condition. Dr. BOLAM showed a case of *Carcinoma of the male breast*, which was receiving x-ray treatment, and exhibited a very marked degree of fibrosis and contraction. He also showed cases of *Naevus linearis and pemphigus*. Mr. RICHARDSON demonstrated a case after *Operation for ruptured gastric ulcer*, which was followed by pleural infection and empyema. It was of interest that on admission, four hours after rupture, pleural infection was suspected and constantly watched for. Mr. CLAY exhibited a case of *Apparent spontaneous cure of epithelioma of the penis* in a patient with undoubted syphilis. The microscopic report was only "suggested" epithelioma, and thus the disappearance of the lesion under iodide and mercury might be accounted for by its being a gumma of the penis. Mr. HAMILTON DRUMMOND showed a case of *Traumatic cerebral hernia* following compound fracture in the right temporal region. Spontaneous cure was looked for. Dr. HORSLEY DRUMMOND showed a case of *Cachectic infantilism*, the patient being 22 years old, and 4 ft. 6 in. in height. He had markedly enlarged liver and spleen and considerable dyspnoea. A positive Wassermann reaction had been obtained, while no evidence of pancreatic disease could be demonstrated. It was suggested to be of pituitary origin. A discussion followed the exhibition of the cases.

HARVEIAN SOCIETY OF LONDON.

A CLINICAL evening was held at Paddington Green Children's Hospital on February 1st, Dr. MACEVOY, the President, in the chair. The following cases were shown: Dr. GUTHRIE: (1) *Transposition of viscera and dextrocardia*; (2) *Right cerebellar tumour*; (3) *Chronic jaundice with splenomegaly*. Dr. SUTHERLAND: (1) *Achondroplasia*; (2) *Congenital heart disease*; (3) *Acute poliocencephalitis*; (4) *Cardiac disease with rheumatic nodules*; (5) *Tuberculous peritonitis*. Dr. MILLER: (1) *Infantilism and chronic renal disease*; (2) *Acute poliomyelitis*. Mr. EDMUNDS: *Congenital absence of femur*. Mr. MAYOU: (1) *Sympathetic paralysis of right eye*; (2) *Congenital word-blindness*. The cases were discussed by various members. Some interesting microscopical slides were also shown in the new Pathological Department by Dr. PERKINS.

Reviews.

THE INSURANCE SCHEME.

THE volume with the title *National Insurance*,[1] by Messrs. A. S. COMYNS CARR and W. H. STUART GARNETT, barristers, and Dr. J. H. TAYLOR of Salford, to which brief reference was made last week, differs from most law books inasmuch as it contains an introduction, extending to over 100 pages, in which an attempt is made, and on the whole a very successful attempt, to describe simply and broadly the machinery of the Act, and to bring together in a connected form matters which can be gathered only after careful comparison of the various sections. In the second part the Act is set out in full and the several clauses are annotated in a manner familiar in law books. In the chapter on administration, as well as in that headed "Financial," much attention is turned to the financial question. It is pointed out that the Treasury is entrusted with a large control of the finances, partly directly and partly through the Insurance Commissioners, it being the duty of the latter, among other things, to fix the rates of contribution of voluntary contributors and to determine the expectation of sickness for the purpose of valuation tables. The financial chapter strikes us as particularly excellent, as it succeeds in dealing clearly with an exceedingly complicated subject with remarkable brevity. On the question of medical remuneration it may, however, be more convenient to quote the note to Clause 15 (Subclause 6), first setting out the terms of the subclause:

15 (6). There shall in each year be paid to the Insurance Committee for each county or county borough out of moneys credited to a society which has members resident in the county or county borough such sum in respect of the medical benefit of such members and the cost of administration thereof as may be agreed between the society and committee, or, in default of agreement, may be determined by the Insurance Commissioners.

The following are notes on this clause:

"*Out of moneys credited to a society*"—i.e., under s. 54 (1) q.v. The society has no say in the matter, so that the medical profession has in effect a first charge on the insurance funds. Cf. s. 42 (c).

"*Such sum as may be agreed.*"—When there is a local medical committee it must be consulted upon these agreements (s. 62).

The Act nowhere defines the sum to be paid for medical benefit, nor the parts of such sum which are to be assigned to doctors and druggists. In framing the Act it was, however, assumed that 6s. per annum would suffice, having regard to the fact that 3s. 7½d. was the average rate for contract work under clubs and societies. The Government actuaries were accordingly instructed to prepare their estimates upon that basis, and accordingly assigned 1.51d. out of the contribution of 7d. for men and 6d. for women for the cost of medical benefit. (Parly. Paper, Cd. 5983 of 1911). It will be observed that this assessment of 1.51d. involves the assumption that on the average 48 weekly contributions will be paid in the year. Having estimated the cost of the other benefits, a margin of .42d. in the case of men, or 1s. 8d. in the year; and .53d. in the case of women, or 2s. 1½d. in the year, remains unallotted. But the contribution assigned for sickness benefit itself contains a margin of not less than 10 per cent. due to the withholding of benefit for the first three days and to the fact that the tables of expectation of sickness are derived from recent experience of the Manchester Unity of Oddfellows without allowance for the fact that the Manchester Unity experience includes industrial accidents, which do not rank for benefit under the Act. The whole of the margin expressly assigned in the actuarial tables ought therefore to be available either for additional benefits or for the cost of medical service; and it appears possible that 7s. for men and 6s. 6d. for women might be assigned for the cost of medical benefit without rendering the scheme insolvent.

In the introduction a similar opinion is expressed in almost identical terms. With regard to sanatorium benefit, we are inclined to think that the statement that an Insurance Committee has no specific authority to erect sanatoriums or other institutions is rather too absolute, having regard to the terms of the Finance Act, 1911, which sets apart one and a half million sterling "for the purposes of the provision of, or making grants in aid to, sanatoriums," etc. The chapter on the medical profession occupies some thirty pages, and for it no doubt Dr. Taylor is mainly responsible. He gives a sketch of the contract system of practice, and says truly that it was the recognition of the abuses of that system, and the desire to cope with them, which more than anything else led to the reorganization of the British Medical Association some ten years ago. The crude result of the inquiry then made by the Association was to show that the average fee now paid in medical clubs may be taken as about 4s. a year.

But Dr. Taylor continues the universal opinion of medical men, supported by both the Majority and the Minority Reports of the Poor Law Commission, is that the present club rates are altogether inadequate. The rates were originally fixed on a charitable basis, and though perhaps the element of charity is no longer a deciding factor, and the rates remain low simply and solely through the keen competition in the profession, the clubs are generally only taken as a makeshift because they can be worked in the intervals of ordinary private practice; but if contract work is to be extended to one third of the population, considerably higher rates will be demanded.

He, however, goes on to say that

It is useless to plead that the present members of clubs are picked lives, as that may continue to be the case in the approved societies.

Judging from recent decisions of some of the most important societies to dispense with medical examination on entry, this opinion would seem to require modification. He goes on as follows:

But at present the friendly societies have a fairly low age limit for admission, while under the Act no approved society will be allowed to refuse applicants on the ground of age alone. This will raise the average age of the members for some years to come, and the sickness-rates increase so rapidly with age that, according to the Manchester Unity tables, the sickness rate between the ages of 60 and 64 is four times as high as it is between 40 and 44, which of course means a corresponding increase of work for the doctor.

There are many other points which might be taken up both in this chapter and in other parts of the introduction, but we have said enough to show that the book has been carefully compiled. References and cross-references are freely given to facilitate a study of the Act and the formation of a judgement on the opinions expressed by the authors on various points. To the preface by Mr. Lloyd George reference was made in our last issue.

DISEASES OF THE THROAT, NOSE, AND EAR.

THE practitioner desirous of reorganizing his library with a view of finding room for works on diseases of the throat, nose, and ear would have no difficulty in filling up the gaps he might be able to make. Judging from the large number of works published on these subjects during the last two or three years, the difficulty would be in making a selection. Therein lies the task of the reviewer, who has briefly to indicate the scope of the various works to assist the practitioner in making a selection to meet his requirements. Commencing with a smaller work, the practitioner who does not read German, but is desirous of a brief but practical introduction to diseases of the nose and throat, will find himself indebted to Dr. BOWRING HORGAN for a translation of Dr. JOHANN FEIN'S work, entitled, *Hints for the General Practitioner in Rhinology and Laryngology*.[2] A limited but applicable knowledge of these subjects, as the author wisely states in the preface to his work, is of much greater importance for the general practitioner than an extensive knowledge which he is not able to apply properly. In that brief sentence is summed up the purport and contents of the little work. It is preeminently practical, with the result that we find the diseases classified according to the most striking symptoms which they present to the practitioner. Diseases which may be satisfactorily treated by the general practitioner are isolated and worked out in detail. On the other hand, those sections dealing with diseases that come almost entirely within the domain of the specialist are curtailed. We agree generally with the views expressed by the author, but exception must be taken, in the light of modern research, to the statement, "Tuberculosis of the larynx not uncommonly occurs as a primary affection." Doubtless this will be revised in a future edition, to which the work is fully entitled.

Another translation into English of a work published in the German language on *Diseases of the Nose, Mouth,*

[1] *National Insurance.* By A. S. Comyns Carr, W. H. Stuart Garnett, and J. H. Taylor, M.A., M.B., C.E. With a preface by the Right Hon. D. Lloyd George, M.P. London: Macmillan and Co., Ltd. 1912. (Med. 8vo, pp. 534. 6s. net.)

[2] *Hints for the General Practitioner in Rhinology and Laryngology.* By Dr. Johann Fein, Privatdocent, University of Vienna. Translated by J. Bowring Horgan, M.B., B.Ch. London: Rebman, Limited. 1910. (Cr. 8vo, pp. 256; 40 figs., 2 plates. 5s.)

Pharynx, and Larynx,[3] is that by ALFRED BRUCK, of Berlin. For the translation we are indebted to Dr. F. W. FORBES ROSS and Dr. FRIEDRICH GANS. The original German edition has already been noticed in these columns, so that it only remains for us to mention that the English edition closely follows the German text, and is quite readable even at the risk of not producing "classical English." The translators in their preface state that one of the most salient features of the original work is the prevailing absence of any unnecessary verbiage or "padding out." The introduction of editorial notes scattered through the English translation appears to be a work of supererogation.

Amongst the new editions we have pleasure in noticing one of Dr. LAMB'S little works; its scope has been enlarged; the outline sketch of diagnosis has been expanded, and sections of the treatment of diseases have been added. The title of the book has therefore been changed to *A Practical Guide to the Diseases of the Throat, Nose, and Ear*.[4] Dr. Lamb rightly maintains that the student who has learnt to use reflected light, and has studied the normal appearances and topography, will have little difficulty in making progress. There is no doubt the student must, above all, aim at the mastery of the methods of examination. The beginner does not require large material; it is, in fact, a serious disadvantage, as he is apt to acquire hasty and superficial methods of working. Dr. Lamb has furnished students desirous of obtaining a serviceable and practical knowledge of diseases of the ear, throat, and nose, with a safe elementary guide, telling them what they may expect to see, what the appearances indicate, and how the conditions should be treated.

Another clinical manual for the study of diseases of the throat which has reached its second edition is that by Dr. JAMES WALKER DOWNIE. This is a second edition in name only, for its predecessor has been remodelled[5]—it has been almost wholly rewritten and brought up to date. A considerable amount of new matter has been added as the natural result of the many important advances in the methods of diagnosis and treatment of diseases of the throat which have been made since the appearance of the first edition. The reader will find of service the subdivision of the subject-matter under a number of suitable headings to facilitate reference. The work is illustrated by several new and original drawings in black and white, and short notes of several cases which illustrate the course of a disease, the method of treatment and the ultimate result, have been introduced.

Dr. GLEASON'S *Manual of Diseases of the Nose, Throat, and Ear*[6] has also reached its second edition. The original character of the work is maintained. It is compactly printed, bound in a limp leather cover, which makes it quite portable and readily handled. The size has not been increased. Single sentences and paragraphs, amounting in all to about 60 pages, have been eliminated to make room for fresh matter. Amongst the new sections that have been added the following are to be noted: On membranous rhinitis, nasal mycosis, septal perforations, Ludwig's angina, Vincent's angina, leprosy of the nose, pharynx, and larynx, the blood in diseases of the upper respiratory tract, intracranial complications of otic disease and the climatology of diseases of the upper respiratory tract. A feature of the work is the formulary at the end of the volume. The local therapeutics of all drugs mentioned in the text are described, in some cases to the extent of a page or more. The first edition was noticed in these columns, and we have no hesitation in stating that no pains have been spared to make the second edition equally concise, practical, and up to date.

[3] *The Diseases of the Nose, Mouth, Pharynx, and Larynx*. By Dr. Alfred Bruck (Berlin). Edited and translated by F. W. Forbes Ross, M.D., assisted by Friedrich Gans, M.D. London: Rebman, Ltd. 1910. (Sup. roy. 8vo, pp. 639; figs. 217. 21s.)

[4] *Practical Guide to the Diseases of the Throat, Nose, and Ear*. By William Lamb, M.D., C.M.Edin., M.R.C.P.Lond. Second edition. London: Baillière, Tindall and Cox. 1909. (Cr. 8vo; pp. 358; illus. 55, plates 2. 7s. 6d.)

[5] *Clinical Manual for the Study of Diseases of the Throat*. By James Walker Downie, M.D., F.F.P.S.G. Second edition. Glasgow: James Maclehose and Sons. 1909. (Demy 8vo, pp. 450; illus. 88, plates xvii. 10s.)

[6] *A Manual of Diseases of the Nose, Throat, and Ear*. By E. P. Gleason, M.D., LL.D. Second edition. Philadelphia and London: W. B. Saunders Co. 1910. (Post 8vo, pp. 563. 12s.)

POPULAR DIETETICS.

ALTHOUGH Mr. LEIPOLDT'S little book, *Common-sense Dietetics*,[7] is intended rather for the public than for the medical profession, yet it contains much that may be read with advantage by medical men. It is written more from the standpoint of the *bon vivant* than from that of the physician, or perhaps we should say it is intended as a guide to those who wish to enjoy the good things both in food and drink under regulation. The amount of scientific information is, perhaps, more than the public need, but sustains the author's attitude of the scientific expert. He takes up a very definite position against total abstainers from meat and alcohol. We believe he unduly disparages the positive evidence of the injurious effects of alcohol, and when he says that "medical men are perfectly well aware of the fact that overfeeding and under and improper feeding are accountable for far more misery and suffering than drink causes" he states what certainly cannot be proved, and ignores the truth that a large part of the poverty which causes underfeeding is due to wasteful expenditure on alcoholic drinks. The author seems to claim to write as an authority on gastronomics, and discusses the most out-of-the-way dishes and wines as if they were familiar to him. His preferences are largely those of an Austrian—for example, in according the highest place to Styrian chickens, to Tokay as a dessert wine and to the light wines of Austria and Styria for drinking with dinner. Contrary to English opinion, he recommends that champagne should be "well iced" before being drunk, while he outrages British feeling by quoting with apparent approval that "port is one of the worst dessert wines it is possible to drink." Another evidence of the author's standpoint being not that of this country is that he speaks of "specially fattened carp," which are rarely seen here, and omits our common mackerel (he is speaking of fish containing a large amount of fat), and also in his prejudice against tea, which he says can only be "admitted at the breakfast table on sufferance." We are content to bow the head and accept his supercilious disparagement of English cooks and cooking, yet we think the ordinary domestic cookery of well-to-do houses is at least equal if not superior to that met with in Germany, while ignorance of cooking amongst the poor seems to be an evil which is felt almost as much with them as it is with us. The book is well written, and the author has collected information about eating and drinking from all times and all parts of the world, and has enlivened his pages with many anecdotes of celebrated men and *bons vivants*. It is a pity that he should have allowed several misprints to pass, as there are mistakes or misprints in both of his French mottoes, and on page 137 "alkaloids" should be "alcohol" and "hydrogen" should surely be "nitrogen." His reference to beri-beri as a disease due to vegetable food, which he uses as an argument against vegetarianism, suggests that he has not grasped what recent work has shown us—namely, that the disease in question results, not from the vegetarian diet, but from the grain being deprived, when cleaned by machinery, of certain elements which are necessary for health. We cannot help doubting whether all the author's opinions so dogmatically expressed are based upon an experience that can justify them, for many of his comments suggest that he is speaking rather from hearsay than from personal knowledge. Nevertheless, he has written a lively and entertaining book, which we have no doubt will find many admirers among those who wish to eat and drink well.

Dr. G. CARROLL SMITH'S book, entitled, *What to Eat and Why*,[8] is, in the words of the preface, an attempt to place "before the medical student, and particularly the active, busy practitioner, a book describing the fundamental elements of food and the principles underlying its use, the essential reasons why a change of the diet in certain diseases is desirable, and how this change may be made in the most practical, time-saving way." After a short introduction, in which the modern scientific bases of dietetics are described, the book proceeds to discuss the dietetic treatment of particular diseases, including not only those of metabolism, but such conditions as bronchitis, emphy-

[7] *Common-sense Dietetics*. By C. Louis Leipoldt, F.R.C.S.Eng. London: Williams and Norgate. 1911. (Post 8vo, pp. 255. 2s. 6d. net.)

[8] *What to Eat and Why*. By G. Carroll Smith, M.D. Philadelphia and London: W. B. Saunders and Co. 1911. (Med. 8vo, pp. 319. 12s. net.)

sema, leukaemia, and others, which are not ordinarily regarded as presenting special dietetic indications. Dr. Smith does not write carefully, and his style is peculiar, as he talks about excessive protein food "clogging the kidneys and liver with ash"; his grammar is not impeccable—split infinitives abound; "gastro" is used as equivalent to gastric." French words are written without accents, and German words often without the modification; such a well-known writer as Ziemssen appears as Ziemson, and Lieberkuehn as "Luberkuhn"; cream of tartar is spelled "tarter," and in his ascriptions his history of disease is wofully short, recent American and German writers getting credit for what was known to their and our grandfathers. With regard to practical matters, he advises the reduction of "all healthy adults over 50 years of age who are more than 10 lb. overweight." He asserts dogmatically that the principal meals should be in the morning and at midday, in spite of the fact that the custom of large numbers of mankind, due probably to climatic considerations, is opposed to this rule. He gives a good many tables, which would be more useful if they were fuller and more accurate; but he gives none of purin foods, and his table for diabetes is scanty. His dietetic directions for chronic gastric catarrh are insufficient, while he makes a serious mistake in recommending gastro-enterostomy for atonic dilatation of the stomach. Under ulcer of the stomach he talks about the Lenhartz treatment, but does not give its details, and mistakenly says it consists of stomach feeding "within a few days after the haemorrhage occurs," whereas its essential feature in this respect was that Lenhartz allowed no interval. The author's dieting of typhoid fever is unnecessarily complicated, and we do not agree that "when the patient has only four or five stools daily it is better not to try to restrict the number." In our opinion the book is not a safe guide, nor is it on a level with the present high standard of American medicine.

NOTES ON BOOKS.

DR. GRAHAM GRANT has issued a second edition of his book entitled *Practical Forensic Medicine*.[9] Its scope is better defined by the subtitle, "A Police Surgeon's Emergency Guide." It deals with all the special calls made upon medical knowledge and natural acumen by the office of police surgeon, and the titles of certain chapters—for instance, Drunk or Sober? Drunk or Dying? Fractured Base—indicate the practical character of the book, which is conveniently arranged for ready reference. The author has been assisted by various expert friends in dealing with special subjects, and acknowledges general indebtedness to Dr. F. J. Smith, editor of *Taylor's Medical Jurisprudence*. Dr. Grant adheres to some opinions expressed in his first edition which elicited criticism, but has taken pains to indicate that the opinions are personal and may not be universally accepted. He writes in a condensed and yet racy style, and many of his cases and stories will serve as useful warnings and sign-posts to medical men who do not hold an official position as police surgeon. It contains also an excellent chapter on inquests, with a table of notes for a *post-mortem* examination which will be very useful to any medical man who has not already had much experience in these matters.

The irregularity in the publication of TIGERSTEDT'S textbook on physiological methods,[10] of which parts of the first, second, and third volumes are in our hands, is a defect in an otherwise very valuable book. Judging from the chapters which have already appeared, this publication promises to be a standard work on physiological methods, and one which every library will be commended to include among its works of reference. It may be recommended to senior students and to practitioners who wish to keep well abreast of the time in respect to physiology, but the various articles are somewhat too much of the nature of what are usually regarded as monographs to find much favour with the hard-driven student or busy practitioner. Nevertheless the loss will be theirs, for not only the material but also the manner in which it is presented are excellent. In the third and fourth parts of volume i metabolism is dealt with by Zuntz and Caspari, respiration by the editor, calorimetric determinations by Rubner (this account might be more complete, inasmuch as the description of Atwater and Benedict's work is rather scrappy, and no mention even is made of Hagemann); graphic registration, including general principles and experimental research on the organs of warm-blooded animals, is dealt with by Frank and Tigerstedt. In the fourth part of volume ii Frank is responsible for haemodynamics, while in the first part of volume iii the sensory functions of the skin are treated by von Frey, and the investigations of the senses of smell and taste by Zwaardemaker. The work is well illustrated.

A comprehensive work[11] recording practically all that is known on human and animal bio-chemistry is in course of publication: it is edited by Professor C. OPPENHEIMER, of Berlin, assisted by a large number of well-known bio-chemists. This work is now nearly complete, the 22nd, 23rd, 26th, 27th, and 28th fasciculi being in our possession. No. 29 completes the series. Nos. 22 and 23, appearing together, were issued in 1909, and end vol. ii. A very excellent article by L. Pincussohn on the physical chemistry of urine, and one by R. Tigerstedt on energy, suffice to form a guarantee of the high character of the publication. In vol. iii the subject of metabolism receives treatment of varying kinds at the pens of Morawitz, Neuberg and L. Mohr, Weinland, Stern, von Wendt, and Oppenheimer with Pincussohn. The article on ferment action by Ernst Stern, and that by the editor and Pincussohn on intermediary metabolism are careful compilations of intrinsic value. We anticipate that the work will find many friends.

We have received parts of a textbook on the surgery of the ear and upper respiratory passages edited by Dr. KATZ, Dr. PREYSING, and Dr. BLUMENFELD.[12] The work will consist of a series of articles on various subjects coming within the title of the work, but only two of these are complete; two others will be concluded in subsequent fasciculi. The articles completed are on the treatment of the stenoses and the surgery of the external nasal organ by Pieniazek and Seifert respectively. The articles not yet concluded are by Port and Boenninghaus on protheses and operations on the accessory cavities of the nose. The articles contain sound matter, and are sufficiently detailed to serve for reference.

It is not by any means every writer who is capable of producing a really good school story. The cleverest novelist may fail in his portrayal of what Disraeli justly termed "the microcosm of a public school"; and this is often through no lack of sympathy or knowledge, but simply because he who is writing has, all unconsciously, lost touch with those of whom he writes. It is for this reason, possibly, that one is conscious of a certain feeling of disappointment after reading Mr. E. W. HORNUNG'S new novel, *Fathers of Men*.[13] The plot of the book, indeed, is excellent, being both original and striking; but for all his skill the creator of Raffles and Stingaree has hardly succeeded in making it convincing. The gradual transformation of Jan Rutter the stable boy into a worthy product of a famous public school is too automatic to be entirely true to life; and apart from his schoolboy hero, Mr. Hornung's characters are all more or less stereotyped and conventional. But the story goes with a swing from start to finish, and to many readers not the least of its merits will be the author's whole-hearted belief in the much-maligned English public school system—a system which, with all its faults, is yet able to boast that "We don't go in for making scholars. We go in for making men."

The new edition of Nisbet's *Medical Directory*,[14] that for 1912, differs from its predecessors inasmuch as the christian names of practitioners are now given in full, an alteration desired, the editor says, by many, and certainly in our judgement an improvement. For this reason apparently the number of pages in the volume has been increased by about 70, but it remains of convenient bulk, and for many purposes the fact that all the names are in

[9] *Practical Forensic Medicine: a Police Surgeon's Emergency Guide.* By C. Graham Grant, L.R.C.P. and S. Edin., V.D., Lieutenant-Colonel R.A.M.C. (T.), Barrister-at-Law (Gray's Inn). Second edition. London: H. K. Lewis. 1911. (Cr. 8vo, pp. 98. 2s. net.)

[10] *Handbuch der physiologischen Methodik.* Edited by R. Tigerstedt. Volume i, parts 3 and 4; volume ii, part 4; volume iii part 1. Leipzig: S. Hirzel. 1910-11. (Sup. roy. 8vo. The price of the various parts varies between 3 and 14 marks.)

[11] *Handbuch der Bio-Chemie der Menschen und der Tiere.* Edited by Professor Dr. Phil. et Med. Carl Oppenheimer, assisted by many others. Jena: Gustav Fischer. 1909, 1910, 1911. (In 23 fasciculi. Price 5s. per fasc.)

[12] *Handbuch der speziellen Chirugie des Ohres und der oberen Luftwege.* Edited by Drs. L. Katz, H. Preysing, and F. Blumenfeld. Würzburg: Curt Kabitzsch. 1911. (Vol. i, fasc. 1, 6s.; vol. iii. fasc. 1 and 2, 12s.)

[13] *Fathers of Men.* By E. W. Hornung. London: Smith, Elder and Co. 1912. (Cr. 8vo, pp. 377. 6s. net.)

[14] *Nisbet's Medical Directory* for 1912. London: James Nisbet and Co. (8vo, pp. 930. 8s. 6d.)

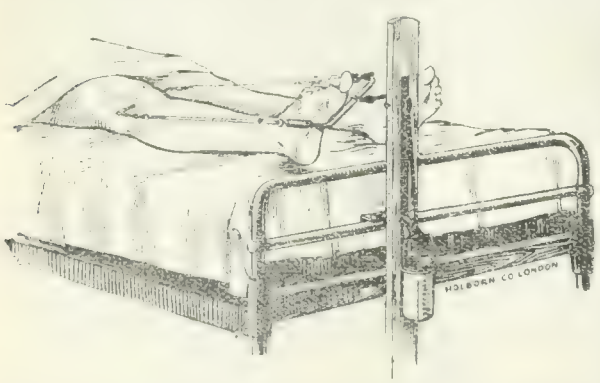
one list and not subdivided according to countries is a convenience. Space is again found for a local directory, giving the names of practitioners in each locality.

MEDICAL AND SURGICAL APPLIANCES.

Limb Extension.

The appliance known as the Codevilla-Steinmann pin, which aims at making limb extension more perfect by applying the traction directly to the bone itself, has been modified by Mr. Alexander MacLennan, M.B., C.M., of Glasgow, as shown in the annexed diagram. He writes as follows: It is unnecessary here to refer to the indications for the use of this instrument, but it may be pointed out that by it a much greater extending force may be applied than by any other means. The pins are made of steel in varying sizes, and are tested to bear a strain of 40 lb. The head is expanded to give a good hitting surface, and is shaped to permit of a spring hook being attached after the pin has been driven home. The point is threaded so as to take a nut after it pierces the bone. This nut has a form similar to the head: the nut should jam the point, which must not pass through it. The nut thus acts as a guard to the point, and at the same time makes a firm solid end. The skin is punctured by the scalpel and the pin driven through by means of a hammer, and as it is always to be forced through cancellous bone there is no risk of splintering or cracking the bone. I think it much better to hammer the pin into position rather than pass it after drilling. A couple of chains are then attached to the pin by means of two spring hooks; the other ends of the chains are attached to two spring balances. The balances accurately indicate the amount of traction upon each end of the pin. The pull imparted to the chains is transmitted by the crossbar, which is placed beyond the sole of the foot. If the extending force is applied exactly in the middle of the cross bar the pull on the chains is equal, but if it is desired to pull on the chains unequally, the large spring hook may be placed more to the side of the cross bar to whose chain it is intended to give the greater strain.





This naturally tends to tilt the pin, and so it is possible to correct a lateral displacement of the fragments. The cross bar is notched in a graduated manner for this purpose. Extension may be by weight and pulley, or be arranged for by the tension of the spring balances, which are fixed to a rigid support (the latter plan, however, requires more adjustment and attention). A glance at the balance scales will show the amount of pull upon each side. These pins may be conveniently employed with the Hodgen or other swinging splint. The apparatus may be sterilized completely, and is simple and efficient, and may be obtained from the Holborn Surgical Instrument Company.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

The Insurance Act.—Hospital Ships.

The annual dinner of the West London Medico-Chirurgical Society took place at the Hotel Great Central on February 8th, when Mr. McAdam Eccles, President of the Society, occupied the chair. After the usual loyal toasts had been duly honoured, the Chairman said that the society eschewed politics and ethics, but in the present crisis he ventured to break that unwritten rule and ask Sir Philip Magnus, who had been a champion of the cause of the profession in the House of Commons, to speak on the Insurance Act.

Sir Philip Magnus said that the discussion that was now going on in the various newspapers with regard to the Act should have taken place before the bill was introduced, and certainly long before it became an Act of Parliament. With regard to the £2 limit, which it fell to his lot to propose in the House of Commons, he had always had great sympathy with the medical profession in endeavouring to insist upon the limit which was one of the now celebrated six cardinal points, and he firmly believed that if the medical profession had been differently represented, and also if they had shown the same amount of resolution and determination which had been evinced since the bill became an Act, all the six cardinal points would have been obtained in the bill itself. The £2 limit he considered was a most important point, as it was essential for the profession to limit if possible the area over which the contract system of attendance was to extend. The contract system might be essential with regard to the poorer classes, but if it was to be far extended it would deprive the ordinary medical practitioner of his little leisure and the opportunity of making some private practice, so that while the system might be desirable on a limited scale, it was like some drugs which, when applied to the living organism in small quantities, produced very good effects, but if given in too large doses destroyed the organism entirely; what was true of the human organism was also true of social bodies. If the Insurance Act were studied it would be found that about three-fourths of it was quite different from what it was when introduced, as pages and pages of amendments had been passed in the House of Commons without any discussion whatever. Under the Act there was practically no income limit, since any person whose income had not exceeded £160 per annum at the time of his insuring, and who had been an insured person for five years, might become and remain a voluntary insurer eligible to receive medical benefit, whatever his income might later amount to. With regard to future action it was necessary above all for the profession to hold together and present a united front. Mr. Masterman had, he thought, made a foolish threat the previous day when he stated that if the Government were unable to come to terms with the medical profession they would take the medical benefit out of the Act altogether. If this were done he asked what would become of the Insurance Act as a measure for curing sickness. The Chancellor of the Exchequer had made a mistake in not taking the medical profession into his confidence before he introduced his bill. The legal opinions which had been taken with regard to the powers of the Commissioners showed that it was not quite certain whether they had power to grant the conditions which the members of the medical profession rightly required in order that they might serve under the Act, and he would suggest that the profession made quite certain that the Commissioners had the power to grant the conditions and that the assurance was given in proper legal form. If the Commissioners did not possess the necessary power, then the only thing for the profession to do was to endeavour to obtain from the Government an amending Act giving the necessary conditions.

The toast of "The Imperial Forces" was proposed by Mr. J. G. Pardoe.

Sir James Porter, K.C.B., Medical Director-General, R.N., in responding for the senior service, mentioned that

in May next the medical wing of the Naval College would be opened. Within the last few days contracts had been made for the first hospital ship of the world, a ship specially built for the purpose for the Royal Navy. Much thought and care had been expended on the plans.

Sir W. L. GUBBINS, K.C.B., Director-General, Army Medical Service, in responding for the military services, referred to the great saving of life due to antityphoid inoculations, a movement in which the medical officers of the British army had been pioneers.

Mr. MCADAM ECCLES proposed the toast of "The West London Medico-Chirurgical Society." After speaking of the success of the society, which had now reached its thirtieth birthday, he referred to the suggestion that there was a split between general practitioners and consultants with regard to the National Insurance Act, and said that their society was an absolute negative to such a suggestion; the general practitioners and the much-abused consultants were at one on the matter, and it was societies such as theirs, and such social gatherings as they were at present enjoying, that brought them together.

Mr. FREDERICK LAWRENCE, a past president and the oldest member of the society living, responded to the toast and referred to the early history of the society.

Dr. S. D. CLIPPINGDALE proposed the toast of "The Kindred Societies and Guests," which was responded to by Dr. J. MITCHELL BRUCE as President of the Medical Society of London, Mr. W. WHITAKER THOMPSON, Mayor of Kensington, and Dr. J. A. MACDONALD, Chairman of the Council of the British Medical Association.

Dr. MACDONALD said that when asked to respond to the toast he thought in the circumstances that it would be better not to do so, because he knew that he was one of the suspects; but from members of a society such as theirs he knew perfectly well that every one would receive fair play. The meeting that evening spoke very much for the way in which medical men were united. For the past year and a half his place had been in anything but a peaceful atmosphere, but he hoped that the medical profession would unite and see that it obtained all that it required and all that it had every right to get under the Insurance Act.

The toast of "The Chairman" was proposed by the MASTER OF DOWNING (Mr. Howard Marsh), and the CHAIRMAN'S acknowledgement brought the proceedings to a close.

During the evening a message expressing good wishes was sent to the chairman of a dinner being given to the Presidents of the Royal Colleges of Physicians and Surgeons by University College men, and a reply from Sir John Tweedy reciprocating the wishes was received.

THE MEDICAL FEDERATION, LIMITED.

A MEETING of the members of the medical profession practising in Bristol and the district took place on Tuesday, February 13th, at the Royal Hotel, Bristol, at 3.30 p.m., to consider the report of the Special Committee on Medical Federation. Four hundred invitations had been issued, and about 250 were present.

Dr. T. M. CARTER, who was voted to the chair, dwelt in his opening remarks on the pleasure it gave him to take the chair, especially as he had been in the chair as Chairman of the Division when the federation movement originated at the great meeting of the Bristol profession on May 23rd. The key to the whole situation was the unity of the profession, and any movement which tended to strengthen that unity must be for the ultimate good. He referred to recent political speeches, and said that as a consistent Liberal he strongly resented the imputations of political bias on the part of those doctors who opposed the Act which were so frequently being hurled at the profession. In sketching the growth of the Bristol scheme from its inception he said that great care and expense had been necessary, and referred to the fact that the temporary board of directors was practically the Executive Committee of the Division, and the managing directors and secretary were respectively the Divisional Secretaries and the Chairman.

The SECRETARY of the Company (Dr. H. F. Devis), in presenting the report, first dwelt on all the various steps which had been taken by the committee up to the present time, laying emphasis on the fact that no important step had been taken without the knowledge of the executive of the British Medical Association. Cognizant of all Bristol had done, the Association had not disapproved of their work, but, in some particulars at least, had expressed its distinct and emphatic approval. The Bristol executive had at various times been in communication with various officials of the Association, and had invariably received encouragement from them. It would be impossible to say that the slightest disloyalty to the Association had at any time appeared in the past history of the federation movement, and as long as the conduct of affairs lay in the same hands it was perfectly safe to predict an equal loyalty for the future. At the present time the profession had failed to secure under the Act even the minimum demands of the six-point policy. More than this, it would be impossible to get under the Act some of these points. Even had the whole of the six points been secured under the Act, an Act which contained powers such as the absolute autocracy of the Commissioners and the right of a lawyer to annul a medical certificate, with a possible penalty to the medical man of three months with hard labour, was not a fit Act for any self-respecting medical man to work under. The profession of Bristol was unanimous, the profession through the country was almost unanimous in its determination not to work under the Act. This was an easy determination, and one that would be kept by the consultant and the practitioner among the wealthy classes. But what about the men who worked among the poor? They were just as determined, perhaps even more, than their wealthier brethren. But what had they to rely upon to assist them? What had the Association to rely upon in this tremendous fight? The Association relied upon the enthusiasm, public spirit and loyalty of each man; but, useful and admirable as these were, they were a poor weapon against ruin. The Association relied upon 27,000 undertakings, which had been acknowledged to be conditional upon guarantee of indemnity, and which, without such guarantee, would not be worth the paper they were written on. The Association relied on a voluntary subscription list, which had been raised for the purposes of compensating members of the Association. Legal opinion, opinion of men at head quarters, and each man's own common sense would show that both the raising of such fund, and the using of it for such a purpose as compensation was absolutely illegal, and, therefore, the whole fabric of the Association's defence fell to the ground. The Association had for years been endeavouring to acquire powers of money raising, and of indemnification, but had for various reasons failed. It would take from two to three years to acquire these powers in the ordinary way. But there was a shorter way—by amalgamating with a corporation which already possessed these powers. The only medical organization in the kingdom which possessed these powers was the Medical Federation, Limited, and it was in order to give these powers to the Association that the Federation had been organized and registered by the Bristol Division. The Federation was a company limited by a £5 guarantee, with powers to raise money in any legitimate manner, and to use money to protect, indemnify, or compensate. It had also powers to protect the honour and interests of the profession whenever and however these might be assailed; furthermore, to promote scientific research and to publish a journal. The Bristol Committee, acting on the expressed wishes of the Organization Committee, intended to start the new company and bring it to a successful issue, and as soon as a sufficient number of members of the Association were also members of the Federation, amalgamation was in their own hands, and with it the acquisition of those powers the Association so needed and desired. It was impossible for the Association itself to manage, control, or finance this movement, for by so doing it would place itself outside the memorandum, which was of a very limited character. The effect of the Federation on the Association would be to strengthen it and keep it together, not to split it, for it was a movement from within the Association itself.

Dr. SCOTT-WILLIAMSON, the managing director, explained many details in the memorandum and articles of association, and answered many questions.

Dr. J. J. S. LUCAS proposed the following resolution:

> That this meeting approves the action of the Executive Committee appointed to carry out the resolution passed at the meeting held on May 23rd, and accepts the formation of

the Medical Federation, Ltd. (the memorandum and articles of which have been laid on the table), as the first step towards uniting the profession on trades union lines.

This was seconded by Dr. BERTRAM ROGERS and carried with great applause.

Dr. H. F. Devis is secretary of the Medical Federation, Limited, and the registered address is Lion Chambers, Broad Street, Bristol.

LITERARY NOTES.

MESSRS. WITHERBY AND CO. will shortly publish for Mr. P. H. Bahr two important reports, the one on *Filariasis and Elephantiasis in Fiji*, and the other on *Dysentery in Fiji*. The reports, which embody the results of a year's study of these subjects in Fiji, are to be illustrated with plates in colour and monochrome, and charts.

There is perhaps no more common sign of ill-health in childhood than the frequent occurrence of severe sick headaches. These may be due to a variety of causes, some of which are often the premonitory symptoms of serious illness. The February number of *The Child* contains an interesting article by Dr. Hugh T. Ashby on the diagnosis and treatment of the different types of this most troublesome complaint. "Headache accompanies so many diseases," remarks Dr. Ashby, "some very serious and some only trifling, but . . . every headache in a child should be regarded in a serious manner, and be treated accordingly," though great care should be taken at the same time to encourage the little patient to bear the pain as bravely as possible, and the least tendency to malingering should be at once discouraged. The most frequent causes of headache in growing children, according to Dr. Ashby, are undoubtedly anaemia, overwork, and too rapid growth; but they may also arise from some deep-seated affection of the eye or ear, whilst adenoids, and all diseases of the nose, are a prolific source of pain through the congestion they produce in the head. On the other hand, a badly-ventilated schoolroom or a lack of sufficient exercise is often at the root of the trouble, which disappears as soon as these defects are remedied. Again, headaches may be hereditary, and it is well known that highly-strung and neurotic children suffer far more from migraine than do their less nervous and impressionable companions. Finally, Dr. Ashby is of opinion that decayed teeth, which interfere so seriously with the proper digestion of the food, "often set up and keep up periodic attacks of headache," though this is not nearly so usual in children as in adults. Another article that should prove useful to those in charge of young children is Dr. John H. Yearsley's short account of "Injuries to the eye in early childhood," which is also included in the February number of *The Child*. The number also contains some excellent advice as regards moral training in youth, by Dr. H. Macnaughton-Jones and Miss Isabel D. Marris; whilst Mr. J. Courtenay Lord has contributed an interesting account of the children's courts, and Dr. Robert J. Ewart writes with his accustomed skill and vivacity on the influence of prenatal conditions upon the subsequent development of the child.

Dr. W. L. Storey (Belfast) writes:

> In the course of your very instructive remarks in the JOURNAL of January 27th, on the quantity of the "e" in enema you observed—
>
> > that pronunciation [enēma] is in accordance with the tendency of our language to throw the accent as far back as is possible consistently with ease of articulation.
>
> By a fortunate coincidence I have just come across an extract from a letter in the *Athenæum* of some years ago bearing out your case. The writer says:
>
> > In course of time as soon as a word has become naturalized and at home in the language the accent is almost invariably thrown back to the first syllable. Instances in point are: Despicable, formidable, hospitable illustrate, interesting, which are now despicable, formidable, etc. I recollect when Deuteronomy was pronounced as I accent it. It is now Deuteronomy, a cumbrous unmanageable word, as is laboratory, but they are bound to obey what I believe to be the law of English pronunciation. A curious illustration of this law is furnished by the words refectory, confessor, confession, which are pronounced by my brethren of the Roman Catholic religion—because they are more familiar with those terms than the most of us—refectory, confessor, confession. And again when we speak of the guardians of law and order as the police, the criminally disposed classes, who were much more familiar with them than we, poor things! speak of them as the pōlis. Some words are on their way to change. For example, I, and I daresay most of your readers, have been in the habit of saying robust, but I once heard the creator of Sherlock Holmes pronounce it rōbust.
>
> The standard of English pronunciation is usage—the best usage of the best people.

I myself have heard farmers and labourers in the West of Ireland say that they had received "a registered letter from America."

Bearing in mind, then, the reason why Bill Sikes and his congeners place the accent in *police* on the first syllable, may we not logically conclude that enēma will by-and-by disappear in favour of enēma?

The pronunciations réfectory and cónfessor (cónfession we have never heard) are traditional among Roman Catholics and probably represent the original English pronunciation. In the *New English Dictionary* it is said that the historical pronunciation from AF. [Anglo-French] and ME. [Middle English] *confessour* is *cónfessor*, which is found in all the poets, and is recognized by the dictionaries generally, down to Smart (1836–49), who has cónfessor in the senses of one who avows his religion in the face of danger and one who hears confessions, and conféssor as meaning one who admits the commission of a crime. For these, it adds, Craig (1847) has cónfessor and conféssor, but conféssor is now generally said for both. The last statement is inaccurate as far as Roman Catholics are concerned. There is some difference of usage, however, among them regarding the word when employed to describe St. Edmund the Confessor.

The February number of *Knowledge* contains an interesting note on left-handedness by Professor J. Arthur Thomson. He says the question whether the condition is inherited is still doubtful, but Jordan has investigated 78 families, dealing with 3,000 individuals, and his evidence goes to show that the trait passes from father to son. It is supposed that left-handedness is associated with the greater development of the right hemisphere of the brain. It is, however, important to distinguish between constitutional tendency and the result of education. Thus most parrots receive with the left foot, but that is because they are ordinarily approached in feeding with the right hand. When the left hand is consistently employed in the feeding, the parrot responds with its right foot.

SCIENCE NOTES.

REMARK is made in *La Nature* (December 30th, 1911), in an article by Professor Magini,[1] with reference to the rapid disappearance of the black buffalo from Italy. The herds of these animals used to form a characteristic feature of the Roman Campagna, with their white-haired watch-dogs and their "cowboys," armed with the remarkable-looking trident with which they guard and control the animals. These buffalos are believed to have been introduced into the Tuscan and Pontine marshes and into the marshland of Paestum and Basilicate in the reign of the Lombard king, Agilulf, about the year A.D. 600. They were brought from Hungary, which is also supposed to be the home of the long-horned oxen of Italy. At the present day the flesh of the black buffalo is regarded as inferior to that of the ox, although in point of fact it is much more nourishing, and it is now eaten only by the lower classes and by the Jews. There appears, however, to be still a considerable quantity of it sold every year, for Magini does not hesitate to warn the Italian Government that this is at least one of the causes in the rise of the price of meat. According to his computation, the number of head in the whole of Italy some years ago was as high as 65,000, whereas at the present time there are not more than 550 in the Pontine marshes, while during the last ten years there has been an annual sale of 1,000 head at Naples and 6,000 at Rome. These remarks are interesting, not only economically, but also from the biological point of view, as further evidence of the curiously unfortunate fate which has overtaken the whole tribe of buffalos.

[1] *Bull. Soc. Nat. d'Acclimatation*, November 1st, 1911.

British Medical Journal.

SATURDAY, FEBRUARY 17TH, 1912.

THE COMING REPRESENTATIVE MEETING.

THE work which the Representative Body has to do at the meeting beginning on Tuesday next is of momentous importance, and every member of the Association, and indeed of the profession, will earnestly hope that means will be found to compose the differences within the profession which have recently been disclosed. Encouragement for this hope will be found in the realization of the fact that the differences are far less deep than might at first sight appear; points upon which the profession are unanimous have been obscured by insistent reiteration of matters of detail, no doubt often important details, upon which opinion is not settled, and by recriminations and personal attacks, which, in sympathy with many Divisions which have passed resolutions on the subject, we hope the Representative Meeting will brush aside.

As evidence that there is a large measure of agreement in fundamental points we may take the letter published last week from Dr. Helme, who has been one of the severest critics of the Council of the British Medical Association, and compare his recommendations with those with which the report of the Council concludes. The Council recommends that it should be instructed to press upon the Government and the Commissioners the further conditions necessary for securing the requirements of the profession, and to notify the Insurance Commissioners that no negotiations will be entered into with the Insurance Committees until the Representative Body is satisfied that the requirements of the profession are conceded. While recommending the appointment of provisional local Medical Committees in every insurance area, it makes this recommendation only on the understanding that such Committees shall be constituted without prejudice to the question whether they shall later accept recognition as statutory local Committees. Dr. Helme recommends that the profession should at once form local branches corresponding to the administrative areas of the Act, but independently of the Act, and that these Committees shall be ready to be recognized by the Commissioners under the Act when the time comes —that is, when the six points are guaranteed. Dr. Helme says that it is necessary that locally the profession should come to some agreement within itself, and the Council recommends that it should be instructed to take steps to organize the profession in order to secure, failing the provision of adequate remuneration under the National Insurance Act, that under a contract practice appointment held at lower rates than those which may be agreed upon as adequate by the Representative Body. Dr. Helme would have the profession stand clear of the Act until the six points are guaranteed, and this apparently comes to much the same thing as the Council's recommendation that it should be instructed to notify the Insurance Commissioners that no negotiations will be entered into with any local Insurance Committee until the Representative Body is satisfied that the requirements of the profession are conceded. Dr. Helme recommends that local panels should only be formed when each Division is satisfied. The Council expresses the opinion that to use the machinery of the Act by, as we understand, approaching the Insurance Commissioners would not compromise the ultimate rights of the profession to refuse to form panels if its requirements are not granted.

The Representatives will have had the opportunity of reading the references to the medical question made by Mr. Lloyd George at the London Opera House last Monday in his speech to the political organization which now bears the name of the Liberal Insurance Committee. He followed up the declaration of the Chief Government Whip in Edinburgh on Saturday by a speech which for the first hour or so was frankly partizan, and this part of his speech we have excused ourselves from reporting (SUPPLEMENT, p. 177). Nobody can complain that Mr. Lloyd George should have indulged in party quips and flouts, for the business of a party man is to back his party, but it is a fact of which reasonable cool-headed men may wisely take note. As we have ventured to say before, the profession cannot expect disinterested support from any political party; it must rely upon its own union and the justness of its cause. To its would-be political friends let it say, *Dieu me garde de mes amis; pour mes ennemis, je m'en charge.*

Mr. Lloyd George in his public references to the medical profession has more than once used biting phrases which drop easily from his tongue but leave a sting of injustice which terribly complicates public business. On this occasion he held himself more in restraint than on some previous occasions, and after a passing warning to the doctors to beware of the blandishments of the opposite political party, he went on at once to a serious discussion of the situation as it is and as it may become. He denounced what he considered the "rude ineptitude" of the Royal Colleges in demanding an amending bill and refusing to discuss the present Act, and to this accusation the Presidents of the Royal Colleges in England have published a rejoinder which has appeared too late to be more than mentioned here.

Mr. Lloyd George, however, went on to admit that the action of the British Medical Association in declining the invitation of the Insurance Commissioners at a few days' notice and when it was known that a special meeting of its governing body was about to be held, to a private conference on the fundamental questions now exercising the profession, was not unreasonable; he admitted also the difficulty of the position in which the profession has been placed, and the reality of its grievances, and that it had good grounds for viewing the future with apprehension, though he of course took an optimistic view of the Act. He admitted that harsh, unconscionable control by the friendly societies was a real grievance, but contended that, in spite of the fact that the insured persons constituted a

would diminish if it did not abolish the grievance, since the representation of the insured was diluted by the representatives of the Government, of the County Council, and of the medical profession, since the committee, in his opinion, could not arrange terms of payment without consulting the local Medical Committee, and since all the arrangements were subject to an appeal to the Insurance Commissioners. Clearly, he expects the Commissioners to take a serious and independent view of the obligations the Act imposes upon them. In touching on the income limit he laid stress on the same point—the need for backbone in the Insurance Commissioners, since his only remedy for the admitted medical grievance on this score was that the Act empowered the Insurance Committees to fix an income limit in a district, and that, as the Insurance Commissioners had full powers with regard to the approval of contracts, they would be able to influence the decision of the committees on this point. As to the Harmsworth amendment he was defiant; from it, he said, the Government, whatever happened, would not budge; he maintained that it simply dealt with existing rights and protected existing institutions, and did not affect the bulk of the insured persons. He admitted that it was an exception to the freedom from friendly societies' control which he contended the Act afforded; and it is certain that the profession does not consider the proviso permitting free choice of doctor an adequate safeguard, and is not at all satisfied that the subsection will, if put into operation, affect only existing rights and institutions. In the note on the subsection in the book on *National Insurance* by Messrs. Comyns Carr, Garnett, and Taylor, it is said that the word "system" is a "generic word which may be held to allow of indefinite multiplication of separate medical institutes or medical clubs, grouped under one existing system, and acting independently of the Insurance Committees, provided that the system itself is approved by the Committee and the Commissioners." The further opinion is, however, expressed that the words "treated as, or as part of," signify that if "the provision for medical attendance and medicines made by the institute falls short of what the Insurance Committee itself provides for other persons, the contribution from the Committee towards the cost of the institute may be proportionally reduced," and also that the words "towards the expenses" involve "that the institute would not be allowed to make any profit for other purposes out of the contribution given by the Insurance Committee."

The third point Mr. Lloyd George made was that in districts where there was no contract practice that system need not be set up under the Act. In any such area, he said, the money for medical benefit could be paid into a general pool for that area; the doctors could charge for their attendances, and the insured must make up the adverse balance. This dictum requires explanation; as it stands it appears to imply a *pro rata* payment. He contended that no doctor would be forced by the Act to take contract practice, but he slurred the point that in an area where a pooling or some similar alternative system was not in force the doctor must apparently accept the contract system or stand out altogether. The same fallacy underlies part of his answer as to the financial insufficiency of the provision for medical benefit. But the main point in this part of his speech was that he admitted that the matter was open to argument, and added that in his opinion it was for the medical profession to demonstrate that the financial provision was unsatisfactory. We will not press the point that this is not quite the right way of putting the matter, but would merely say in passing that in this case the Government has come to the medical profession with an offer to buy what the profession has not offered to sell. If a man walks into another's stable and offers a price for a horse standing there, and the owner refuses it, the would-be buyer has no right to require or even to expect the owner to name his price: it is for the buyer to make a better offer if the owner shows any disposition to sell at all.

However this may be, the Chancellor of the Exchequer went on to say that if the Commissioners were satisfied that the profession had proved that the financial provisions of the scheme were too limited, it would unquestionably be the duty of the Government to advise Parliament to find all the money necessary. But it seems clear that he still underestimates the amount and kind of attendance, and therefore the total amount of money required, "to provide a satisfactory medical service for the insured people of the country," to quote his own words.

The initial mistake was to base the financial estimates on the old club rates, which were admittedly inadequate even for the limited service rendered. The service now asked is for employed men and women at all ages, without—if we may judge from the resolution of the Manchester Unity and certain other organizations, to abolish medical examinations—any sifting out of damaged lives at entry, and with the prospect of an eventual extension to wives and children.

Up to this point it may, perhaps, be said that Mr. Lloyd George reasoned with the profession; but in his concluding sentences he drew a very black picture of what would befall it if it demanded an amending Act and refused to work under the existing Act. He said that the Government had large suspensory powers. It would be possible still to give all the benefits to the insured, and to hand over the money allocated for medical benefit to the insured persons "through the societies," as he put it. The profession would then, he argued, again have to deal with the societies, the very bodies from which it had sought to escape, and with societies enormously increased in numbers and financial stability. He further suggested that the effect of a "doctors' strike" would be to encourage very greatly the extension and establishment of medical institutes and dispensaries, and that all the safeguards provided in the bill, whether against the societies or the institutes, would be lost. He concluded by saying that the disappearance of these safeguards would only render the Act more popular with the working classes. We doubt this very much, and at any rate the contention can have little weight with the medical profession nor, it might have been supposed, with a statesman imbued with the desire to benefit his fellow countrymen. In any case, all these possibilities are foreseen and discussed in the report of the Council; and though it need not be denied that a difficult and dangerous position would thus be created for the profession, which might not be unwelcome to some of the officials of the friendly societies, yet the Government must understand that rather than submit to terms and conditions of service which it considered unfair and inadequate, the profession, led by the Association, would face the situation depicted in such lurid colours by the Chancellor of the Exchequer. Nor can it be supposed that he desires its realization. It would be a confession of failure. The dissatisfaction would not be confined to the medical profession; it would be shared by the insured persons, whose wishes and

preferences seem sometimes, in the anxiety to ensure a party triumph, to be forgotten in a manner which, remembering the avowed object of the whole scheme, is not only regrettable, but impolitic. Life is as dear to the day labourer as to the millionaire, and his health and strength are even dearer. It will be a cruel deed to impose upon him—for the Act is compulsory—the third best, when the best is only anxious to give itself on just conditions which will make it possible for it to give its best.

At the same time, and though we cannot pretend to any gift of prophecy, it may with some confidence be anticipated that the Representative Meeting will not be disposed to adopt a policy of total abstinence, which in this instance would not be the soberest, but will be prepared to instruct the new State Sickness Insurance Committee, it is advised by the Council to elect, to take steps to open up negotiations with the Insurance Commissioners. These, carried on in the light of day, and with the full knowledge and sanction of the profession, may eventually lead to the solution of difficulties which now seem almost insuperable.

INTRINSIC CANCER OF THE LARYNX.

MACAULAY'S famous comparison of progress to the incoming tide may be applied to the healing art. If one takes a limited period it may seem to be stationary or even actually to recede; but on longer observation it will be seen that gradually one landmark after another is reached and passed, and the advancing flood runs with ever-increasing swiftness and force. Or to present the same image in the words of Arthur Hugh Clough:

> For while the tired waves, vainly breaking,
> Seem here no painful inch to gain,
> Far back through creeks and inlets making
> Comes silent, flooding in, the main.

It was not for many years, and after many apparent ebbings, that the new surgery, of which the illustrious pioneer has just passed away, won complete and universal acceptance. Other instances may be found in the history of the operation for stone and ovariotomy. Methods are proposed and used, at first perhaps successfully; then, owing to crudeness of execution or wrong application, come failures, and the treatment is discarded, to be revived later under more favourable conditions, and finally annexed to the empire of medicine. Sometimes the advance is so slow as to escape the notice of any but those whose scientific interest is directed to a particular region of the body. In the case of the more uncommon diseases, indeed, it may pass without general recognition, and the footsteps made by progress on the sands of time may be more or less completely obliterated unless succeeding pioneers follow the imprints and clear the path towards the goal.

In cases of cancer the *ultima ratio* of the knife still offers almost the sole hope of cure. In too many instances the hope is but small, either because the disease does not come under observation until too far advanced, or because it attacks a region which is, at present, anatomically beyond the scope of surgery. As an example of this may be cited malignant disease of the lower oesophagus. Hidden away in the mediastinum it is entrenched beyond the reach of the knife, and thus compares unfavourably with cancer of, say, the pyloric end of the stomach. What is loosely referred to as "cancer of the throat" has also an unenviable reputation as being a hopeless form of the disease. In regard to the pharynx this may be partially true, but as far as the larynx is concerned it is most important to distinguish two clinical forms. When the disease appears in the form which laryngologists call "extrinsic cancer of the larynx"—that is to say, when it develops in the epiglottis, the aryepiglottic folds, and the pharyngeal surface of the voice box—then, in the words of Sir Henry Butlin, it is indeed "a dire disease."

Women are, as is well known, less subject to cancer of the larynx than men: but when females are attacked, it is generally with this extrinsic form. With males, it is the reverse: although more subject to laryngeal cancer, the neoplasm originates more frequently within the larynx, and generally on the vocal cords. Now, as the paper by Dr. StClair Thomson, published at p. 355 of this issue, amply proves, it is doubtful if operations for cancer in any other part of the body can show such satisfactory results as he has obtained by laryngo-fissure, for to secure a lasting absence of recurrence in 80 per cent. of cases is a feat of which laryngology may be proud. This also is obtained without any crippling operation: a useful if rough voice is preserved, and the patients are able to gain their livelihood, enjoy good health, and join in most of the duties and pleasures of life. Similar results were first obtained by the pioneer work of Butlin and Semon, and the latter so frequently and so insistently called attention to the early symptoms of laryngeal cancer and the really brilliant results obtainable by splitting the larynx that he must be well pleased to see that his successors can but confirm his dicta and results. They start with all the advantages which Butlin and Semon were without when, some twenty-five years ago, they revived the then discredited operation of laryngo-fissure; and thus it is that Dr. StClair Thomson is able to show that in none of his cases was there any error of diagnosis, and that from the operation he has not had a single death.

Intrinsic cancer of the larynx is not a common disease, but we imagine that the deaths in unoperated cases, or in cases which present themselves too late for a hopeful result, far outnumber the lasting cures which have been published. Yet, if we read Dr. StClair Thomson's paper aright, there seems no reason why this proportion should not be reversed; on the contrary, there is ground for hope that every case should, under normal conditions, be lastingly cured. Apart from the necessary conditions—namely, a patient in a suitable state of health to stand such an operation—only two other requirements seem necessary. These are, early diagnosis of the disease, and a properly carried out laryngo-fissure. It cannot be expected that every practitioner can make a diagnosis which depends so much on technical skill and a trained eye; but as, fortunately, the chief subjective symptom is persistent hoarseness, it is the duty of each of us to urge every patient with such a symptom to obtain an expert opinion. The operation, as Dr. StClair Thomson observes, has been developed and improved by the steps by which it has been simplified. But the simpler an artistic performance appears the more difficult it is generally to execute well. The operation of laryngo-fissure must remain in the hands of the expert laryngologist, or of those well trained in the surgery of this region, just as the delicate operations on the eye are nowadays handed over by common consent to the ophthalmologist. In such hands there appears no reason why such a striking record as that in the paper referred to should not become more general.

THE PRESENT POSITION OF THE PROBLEM OF TSETSE FLIES AND SLEEPING SICKNESS.

THE publication recently of the Eleventh Report of the Sleeping Sickness Commission of the Royal Society affords a fitting opportunity for taking a brief general survey of the question of sleeping sickness in relation to its transmission by tsetse flies as it at present stands. Those who have read the notes on the subject which have appeared from time to time in these columns will be aware that, through the results of the research of investigators in the laboratory and the observations of medical officers in various districts, a condition of affairs is now known to exist which is undoubtedly of serious importance in connexion with the welfare of the territories of tropical Africa. Three lines of inquiry have been prosecuted more especially of late—namely, as to the real manner in which the tsetse fly (*Glossina palpalis*) acts as the transmitter of the trypanosome of sleeping sickness (*Trypanosoma gambiense*); as to the possibility of wild animals serving as a source or "reservoir" of the parasites for the flies; and, lastly, as to whether other species of tsetse fly also convey the disease.

Both Bruce and his colleagues of the third British Commission to Uganda, and also Kleine and his collaborators in German East Africa, have proved conclusively that *G. palpalis* is a true host of *T. gambiense*—that is to say, one in which a definite cyclical development of the parasites is undergone. This development takes a period of at least twenty days from the time when the fly fed on infective blood; and after this interval has elapsed a fly may become permanently infective—in other words, liable to produce the disease in any human being or susceptible animal on which it feeds. It is quite likely, moreover, that a fly, once infective, remains infective for the rest of its life; the amount of harm which may be wrought by a single infective tsetse fly is therefore sufficiently obvious. On the other hand, all the evidence obtained up till now is against the transmission of the parasite from the fly to its progeny. Further, the British Commission found that only a small proportion—about 5 per cent.—of the experimental flies become successfully infected in the first place, and considers that the proportion of infective to non-infective flies occurring wild in nature must be very much smaller.

By a convincing series of experiments the members of the British Commission have shown that both wild game, such as the antelope, and also certain domestic animals—for example, cattle—are capable of harbouring the parasite of sleeping sickness, and that flies may become infected from such animals and subsequently transmit the disease to healthy ones. Up to the present, however, it has not been proved that this potential reservoir actually exists—that the antelope, for instance, is naturally infected in any district, and thus a material source of the trypanosomes for wild flies. Two or three facts were ascertained, however, which are highly suggestive in this connexion. In the antelope the parasites were very scarce and difficult to find by microscopical examination of the blood, even when the animal was proved by experiment to be infective for flies. Infected antelope might remain for some time in apparently good health, notwithstanding the fact that they were being kept in the confined surroundings of a laboratory. In a quite recent communication Fraser and Duke have stated that an antelope remained infective for flies 315 days after it had been infected, and the animal itself was alive at the end of a year. Hence the infection produced in antelope by *T. gambiense* appears to be of the chronic type, and, for all that is known to the contrary, may be of a similar character to the infection of wild game by *T. brucei*. It seems quite likely, therefore, that the wild game may act as a reservoir for the parasite of sleeping sickness, but with the difference in this case that it is to be regarded only as a secondary source, man himself being the primary and principal source of the trypanosomes. Another important fact ascertained by the Commission was that tsetse flies from the lake shore remained infective and capable of giving rise to the disease in experimental animals, although three years had elapsed since the removal of the native population and domestic animals from the zone. It is still uncertain, however, to what extent these infective flies can be considered as having derived their parasites from a wild game reservoir. For one thing, it is doubtful whether it can be safely assumed that no "leakage" has occurred. If infected natives had passed through this zone, though only occasionally, the number of infective flies would probably have become thereby replenished. Again, it is not yet known how long a tsetse fly can live. Flies have been maintained for several months in captivity, and Bruce has suggested that they may perhaps be able to live for two or three years in their own haunts. Hence there is also the possibility that the flies from the lake shore which were found to be infective had been infected before the natives and domestic animals were all removed.

It is now known that *G. palpalis* is not the only tsetse fly which, under suitable conditions, can act as a true host for the parasites of sleeping sickness. Taute, working on the shore of Lake Tanganyika, has lately shown that *G. morsitans* may also become permanently infected with this trypanosome. In the case of this host the necessary period which must elapse before the essential propagative forms are developed is apparently twenty-one days, being thus about the same in this species as in *G. palpalis*. The investigation furnished positive results in a sufficient number of cases for Taute to conclude that the transmission of *T. gambiense* by *G. morsitans* is not to be regarded merely as an exceptional occurrence. Taute's observations may prove to be of considerable epidemiological significance, particularly as there are now good reasons for thinking that *G. morsitans* does convey sleeping sickness in certain districts. During the last couple of years or so a number of cases have been recorded from Nyasaland and North East Rhodesia, which in many instances certainly have been contracted in areas where no *G. palpalis* can be found, but where *G. morsitans* and other species are of frequent occurrence. The trypanosome in these Rhodesian cases, it may be mentioned, appears to be a distinct strain or race of parasite, to which the name *T. rhodesiense* has been given. For the present it is, perhaps, best regarded as a new variety—it may be of *T. gambiense*, or it may be of *T. brucei*. *G. morsitans* and *G. fusca*, among other forms, have been for some time incriminated as possible "carriers," and recently the actual transmission of the parasite by means of the former species has been obtained by Kinghorn. Hence in all probability *G. morsitans* is the natural transmissive agent of this new strain.

It will be apparent from the foregoing summary that the tsetse-fly danger is proving much more formidable than was once considered likely. It is no

longer a question of *G. palpalis* only; and it would be indeed rash to assume that the power of infecting man is restricted to the two species, *palpalis* and *morsitans*. The great importance of Taute's work is that it tends to show that the "specific relation" between a particular trypanosome and a particular tsetse fly may be largely a matter of climatic conditions and the associated biology of the fly. It cannot be considered at all improbable that in districts where no *G. palpalis* is to be found this fly may be represented, as it were, by another species whose habits and environment are such that it could act as a host for *T. gambiense* if the parasite were to be introduced into its zone. All the indications of recent research point unhesitatingly to the conclusion that the urgent problem of the immediate future is how to get rid of the tsetse flies. Their complete extermination is perhaps too much to hope for yet awhile, but no efforts should be spared to bring about their disappearance from the vicinity of human settlements and pathways of communication. In a recent article R. W. Jack has described some interesting observations on the breeding haunts of *G. morsitans*—that is, the kind of position usually chosen by the fly for the deposition of its puparia—and he is of the opinion that the instinct of the flies is to avoid places where the puparia would be in danger of destruction from the scratching of game birds (such as guinea-fowl, francolins, etc.). Observations such as these on the bionomics of the flies may be of great practical value as indicating additional methods of combating the pests and helping to reduce their numbers.

EPIDEMIC POLIOMYELITIS.

The Local Government Board in England has issued in a small Blue Book an interesting series of reports and papers on epidemic poliomyelitis[1] in Devon and Cornwall in 1911, and in the Midlands and Dorsetshire in 1910. In a prefatory letter Dr. Newsholme points out that the occasional appearance of small groups of cases has been recognized for some years past, and that the suspicion that these cases have formed part of a much more considerable and widely spread local prevalence has been confirmed by the fact that the disease manifests itself in very different forms, so that its true nature may easily pass unrecognized. Both Dr. Reece, who made the local investigations in Cornwall and Devonshire, and Dr. Farrar, who made those in the Midlands and Dorset, state that abortive cases in which little or no paralysis resulted were detected in considerable numbers, and Dr. Newsholme thinks that it may be reasonably conjectured that such cases play an important part in the dissemination of the virus. In this connexion he calls particular attention to an outbreak of illness associated in only one or two instances with paralysis, which affected nearly every house in a Devonshire hamlet last autumn. If the illness in this case was true poliomyelitis, it was, he points out, "at once extremely infectious, and so slight in its manifestations as hardly to be recognizable." Moreover, both Dr. Reece and Dr. Farrar came across circumstantial evidence that infection can be conveyed by an apparently healthy carrier, as has been suspected in some epidemics abroad. The local health authorities in Devon and Cornwall seem to have shown a lamentable lack of firmness in dealing with the outbreaks, and some of the statements put forth on their behalf may be called disingenuous. The medical men, especially, perhaps, those engaged in the public health service, displayed much courage both physical and moral, and in some instances at least were not very generously treated by the local authorities. In one case in the Bideford Rural District, which has no isolation provision, accommodation could not be found for a nurse who was taken ill while attending a confinement: nobody would let an empty cottage: her landlady refused to have her back, and, finally, "the medical attendant, in the face of adverse criticism, and to his great credit, took the nurse into his own house, isolated her as far as possible, and engaged a nurse to attend her." Of the isolation hospital of the Urban and Rural District Councils of Holsworthy, Devon photographs are given, showing it to be a small thatched cottage, without furniture, and with water standing several inches deep on the floor of the back room. Yet the Clerk seems to have felt justified in writing in the local press: "Your information as to a hospital is also at fault. There is an isolation hospital at Holsworthy." The volume contains a review by Dr. Hugh A. Macewen on the literature bearing on the clinical character and epidemiology of the disease drawn chiefly from Sweden, the United States, and other countries in which extensive epidemics have occurred, and two reports by Dr. Mervyn Gordon. The first of these is a critical review of the experimental researches on the virus of poliomyelitis, including those bearing on immunity, with an account of the histology of the disease. The second is a preliminary report of the results of his examination of pathological material, including cerebro-spinal fluid from numerous cases, and the spinal cord from four cases. The characteristics of the fluid were consistent with a diagnosis of poliomyelitis and in no case with that of cerebro-spinal fever, and the histological examination of the spinal cords revealed typical lesions of poliomyelitis. Material from two of the cases forwarded by Dr. Gordon to Professor Levaditi of the Pasteur Institute in Paris was there found to produce typical acute poliomyelitis on inoculation into monkeys.

[1] Reports to the Local Government Board on Public Health and Medical Subjects. New Series, No. 61, to be obtained through any bookseller, price 5s.

A PRACTICAL ROYAL COMMISSION.

The Report of the Royal Commission on Tuberculosis for the Province of Quebec, just issued, gives a clear and practical presentation of the procedure for the prevention and eradication of tuberculosis. The report is excellently arranged. The first six pages are devoted to the most important conclusions arrived at by the Commissioners, and the last part contains a more minute study of the subject, reporting the evidence in detail. In the Province of Quebec the mortality from tuberculosis is higher than in the Province of Ontario and in the United States, and it is a striking fact that the death-rate from this disease is as high in the rural as in the urban districts. The Commission found that the majority of deaths from tuberculosis occur among women, and the death-rate among French Canadians is higher than among Anglo-Canadians. The Commissioners premise that tuberculosis is infectious and transmissible, and that it can be prevented, just as other infectious diseases have been prevented. Attention is specially directed to the significance of overcrowding in dwellings and other places where large numbers of people are brought into contact, such as schools, offices, and workshops. The report divides the measures to be taken against tuberculosis into two distinct groups: *those which can be carried out at once* and *those which can be carried out gradually*. Among the measures to be carried out at once are stricter observance of the public health laws, education of the general public regarding tuberculosis, teaching of the principles of hygiene in schools, medical inspection of schools and workshops, the establishment of tuberculosis dispensaries, isolation hospitals for advanced cases, and open-air schools; and legislative enactments regarding alcoholism, premature employment of children, inspection of milk, etc. Among measures to be carried out gradually are included the creation of sanatoriums, farm colonies, and holiday colonies, and legislation to

enforce the building of cheap and healthy houses for the working classes, and general improvement of hygienic conditions throughout the province. The report submits recommendations to the Lieutenant-Governor in Council as to the part the Government should take in the tuberculosis campaign. These recommendations are founded on the evidence given in the report, and on the plan followed by New York City in combating tuberculosis, and the Edinburgh scheme for the prevention of consumption. An account of these methods and of the present condition of the campaign against tuberculosis in the various provinces of Canada, is given in the appendices. Because of their great significance in the issue now before this country, we may quote the first five of the recommendations made to the Lieutenant-Governor, in the words of the Report. "(1) That very explicit instructions be given to the Provincial Board of Health, to municipalities, and other duly constituted authorities to enforce the regulations respecting the compulsory notification of tuberculosis, the disinfection of contaminated premises, the healthy condition of dwellings, schools, and industrial establishments; and that such authorities be actively assisted by the law officers when compelled to enforce such regulations. (2) That the Provincial Board of Health be the central authority which will direct the application of the means of combating tuberculosis, and, to that end, that it be given a sufficient appropriation to establish a special department for tuberculosis with the necessary staff. That department should be under the direction of a *physician of acknowledged competence in the matter*,[1] who would apply all the educational means mentioned in the Report, inspect the antituberculosis institutions, and strive to have others established to complete the antituberculosis armament, compile statistics, and submit a yearly report on his administration and on the results of the campaign against tuberculosis. (3) That in every municipality or union of municipalities, where there is a chartered antituberculosis association, the Government, on a favourable report of the Provincial Board of Health, contribute a proportionate amount (to be determined) towards the cost and maintenance of every established dispensary, and empower the municipalities served by such dispensaries to contribute an equal amount towards their erection and maintenance. (4) That the Government contribute a proportionate amount (to be determined) towards the establishment of isolation hospitals or the construction of special pavilions in existing hospitals, receiving advanced cases of tuberculosis among the poor, and empower the municipalities served by such isolation hospitals or pavilions to contribute to their erection and maintenance. (5) That the Government contribute a certain amount (to be determined) towards the maintenance of advanced cases of tuberculosis among the poor, in special hospitals or pavilions, by distributing that amount "pro rata" at so much per head and per week, and empower municipalities also to contribute in the same manner to the same object." The medical members of the Royal Commission included Dr. E. P. Lachapelle (Chairman), Dr. T. G. Roddick, and Professor J. G. Adami; and among the lay members was Colonel Jeffrey H. Burland, the donor to Montreal of the Royal Edward Institute for Tuberculosis.

MILK AND CREAM PRESERVATIVES.

A recent report[2] to the Local Government Board in England by Dr. G. W. Monier-Williams on analyses and methods of detection of certain proprietary substances sold as preservatives for milk, cream, etc., is chiefly concerned with a new preservative sold under the name of Mystin. Extracts are given from a trade circular in which it is stated that public analysts had certified that mystin does not contain formalin, borax, boric acid, hydrogen peroxide, benzoic acid, salicylic acid, and that it is free from preservatives of any kind. A further quotation from the circular is to the following effect: "It must be clearly understood that mystin, unlike so many preparations, is not merely one of the familiar chemicals under a new name, but is a preservative previously unknown to science, only discovered after a lengthy period of close research work by our chemist. Mystin is absolutely non-injurious. We have absolutely assured ourselves by a variety of methods, among them the daily drinking of a quart of milk treated with the preparation, that it is entirely harmless . . . whilst the fact that . . . its presence cannot be detected by analysis proves that it contains none of the injurious chemicals in ordinary use as preservatives." Analysis showed that mystin contained 9.85 per cent. sodium nitrite and 0.30 per cent. of formaldehyde in water. Dr. Monier-Williams calculates that a quart of milk treated with the preservative in the proportion directed would contain 2 grains of sodium nitrite, the maximum pharmacopoeial dose of this substance, and upon this he remarks: "Sodium nitrite is a dangerous drug, with a powerful action on the heart, and should not be taken except under medical supervision. Apart from the possibly injurious action of the formaldehyde, it is clear that the consumption of milk containing the maximum medicinal dose of sodium nitrite in one quart is fraught with considerable danger to health, which would be accentuated in the case of children or invalids." The formaldehyde was estimated by Feder's reaction. The reason for the presence of such a large excess of sodium nitrite—not itself a preservative—was not at first evident, but it was found that milk treated with mystin in the proportion directed did not give Helmer's reaction, which is that most generally relied on by analysts for the detection of formaldehyde in milk, so that in the ordinary routine examination of milk samples for preservatives such a sample might be passed as genuine. The results of the analysis of another preservative sold under the name of Accoine is also given. It is claimed for this preservative also that it could not be detected by analysis: it was found to contain 13.97 per cent. sodium benzoate and 1.94 per cent. of sodium carbonate in water. Another substance advertised as a preservative for margarine was found to consist almost entirely of sodium fluoride, and yet another recommended as a cream preservative was found to contain sulphite, and probably consisted of a mixture of sodium metabisulphite and sodium sulphite.

[1] The italics are in the original Report.

[2] "Report to the Local Government Board, by Dr. G. W. Monier-Williams, on Analysis and Methods of Detection of Certain Proprietary Substances sold as Preservatives for Milk, Cream, etc." London: Wyman and Sons, Ltd. (Food Reports No. 17. Price 2d.)

EFFICIENCY IN VENTILATION.

Any devotees of the open-window cult who were present at the meeting of the Society of Arts on February 7th must have experienced keen satisfaction on finding their position so well defended in the paper on "Ozone in Ventilation," read by Drs. Leonard Hill and Martin Flack. Speaking for his colleague and himself, Dr. Hill brushed aside the idea, which is fostered by little books on hygiene, that the good results of efficient ventilation are due to the chemical purity of the air. They are due really to the movement, coolness, and relative humidity of the air, and to the ceaseless variations of these qualities. It is commonly supposed that a slightly increased percentage of CO_2 acts as a poison, but Dr. Hill pointed out that whatever the percentage of CO_2 in the atmosphere might be, the breathing mechanism was so arranged that the CO_2 in the pulmonary air was kept constant at about 5 per cent. of an atmosphere. Moreover, the rebreathing of expired air was to some extent inevitable. The child at the breast, the chicken under the wing, the pig in the sty, all breathed a far higher percentage of CO_2 than was allowed in factories by the Home Office. Another factor in the chemical purity of the air was the concentration of

oxygen, but Dr. Hill affirmed that even in the worst ventilated building the oxygen was never lessened by more than 1 per cent. of an atmosphere, and only when it was brought down below a pressure of from 14 to 15 per cent. of an atmosphere did signs of oxygen want make their appearance. Again, it was asserted that an organic chemical poison existed in the exhaled breath, and for the speaker's scepticism respecting this, in a paper read before the British Association, he was taken to task by a London daily paper, which said, in effect, "It is all very well for Dr. Hill to talk. We know by the evil smell of overcrowded rooms that there must be organic poison." But that was not enough. The scientific man wanted absolute evidence, and offensive smell did not prove the existence of poison. The smell of dead meat might be loathsome to a poet, but the slaughterer throve in it, and similarly in other kinds of stench did the people who worked in glue factories, fried fish shops, and sewers. In an experiment in which eight students were imprisoned in a small chamber holding about 3 cubic metres of air, and kept there until the CO_2 reached from 3 to 4 per cent., and the oxygen had fallen to 17 or 16 per cent., the wet bulb temperature rose to about 85° F., and although the discomfort was severe it was relieved to an astonishing extent by whirling the air with electric fans and so cooling the bodies of the prisoners, and the relief was greater still when cold water was allowed to circulate through a radiator. The discomfort was clearly shown to be due, not to chemical impurities, but to excessive heat and humidity. Dr. Hill considered that the open fire and the open window, by bringing in the cool air and keeping the air moving, had everything to recommend them, and he deplored the fact that warm, windless air, so likely to lessen the individual's immunity to bacterial infection, was common in places of business and amusement. In the House of Commons the air was maintained at the "deadly uniformity" of 63°, although he found, on making an examination, that on the floor beneath the seats occupied by some of the front bench men there were trap-doors by means of which a little variation in the air-current introduced into the neighbourhood of these favoured senators could be obtained as desired. The speaker said that he would have extended this touching attention, and, in another sense than the one intended by Guy Fawkes, have blown up the chamber. Ozone in ventilation, which figured in the authors' title but not largely in their text, has, in their opinion, already effected a great improvement in the air of the Central London Railway. In harmful concentrations it quickly gives a danger signal, and a man cannot be poisoned unawares. It is a powerful deodorizer, and will quickly sweep away disagreeable smells, whether by destroying them or by preventing the nose from smelling them was of little consequence. When in such weak concentrations as are used for the purpose of ventilation its beneficial effect on the olfactory nerves and on those of the skin and respiratory tract is the essential justification for its introduction.

ALCOHOL, ADOLESCENCE, AND BUSINESS LIFE.

Civic hospitality is popularly associated with brimming bumpers. Yet only last week a representative gathering of influential business men accepted the invitation of Sir Thomas B. Crosby, the Lord Mayor, to hear Sir Thomas Barlow, President of the College of Physicians, and Sir Thomas Clouston, ex-President of the Edinburgh College of Physicians, speak on the relationship of alcohol to adolescence and business life. During the Lord Mayoralty of an abstainer like Sir Vezey Strong such a gathering would have been less remarkable; for the present Lord Mayor is a hale octogenarian and a moderate drinker. But Sir Thomas Crosby, as a medical man, has, doubtless, in his long and useful life, seen enough of the havoc wrought by intemperance to lead [illegible] of his high position to any effort to promote the welfare of those who are at once the heart and brain as well as the backbone of England's commerce. Sir Thomas Barlow believes that young men entering on a business career slip into the habit of taking stimulants, unconscious of their danger. As Sir Thomas Clouston put it, young men fell into the drink habit through sheer want of knowledge; and he added that no man "should take alcohol till his beard has grown, and after it has grown he should refrain from drinking till he is twenty-five, and be precious careful about taking it afterwards." To few members of the community can the authoritative pronouncements of Sir Thomas Barlow and Sir Thomas Clouston be more useful than to business men, and particularly to commercial travellers. The death-rate of commercial travellers from alcoholism is excessive. Indeed, a man must have a firm will to stand aloof from the convivial customs which have obtained in the inns and hotels in which he stays when on the road. In many towns good temperance hotels do not exist, and the traveller has been compelled to live, and too often transact business, in an alcoholic environment. He has, in consequence, lost more than he has gained. The business acumen of the Jew is as conspicuous as his sobriety, and Gentile traders might do worse than ask themselves how far the one is the consequence of and dependent upon the other.

THE JOHANNESBURG SEWAGE FARM.

The sewage of Johannesburg, where there is a population approaching 200,000 persons, is dealt with mainly by irrigation on a sewage farm 2,642 acres in extent, situated some 9 miles from Johannesburg. There is a belt 600 ft. wide between the irrigable area and the lower boundary of the farm to prevent pollution of water-courses. The farm was first irrigated with sewage in November, 1907, but in March of the following year complaints were made of smell nuisances from it, and in 1909 an action for damages was instituted against the Johannesburg Municipality, and was heard before Mr. Justice Bristowe, in the High Court. An interdict was granted against the farm, which was suspended for nine months to enable the defendants to take steps to improve the arrangements. A joint report on the future management of the farm was then presented by the medical officer of health, Dr. Charles Porter, and the town engineer. They made certain recommendations which were adopted by the municipality, and the result of a second action for damages against the municipality, which was tried before Mr. Justice Bristowe in December, 1911, goes to show that the farm is now conducted on proper lines, and is not a nuisance. The principal evidence of the plaintiff, a market gardener, in the last action, was that of himself and his wife, who said that the smells from the farm woke them up at night and made them vomit. There was, however, no medical evidence called to show that either of them was ill. Indeed, the wife frankly said she did not believe in South African doctors. That, said Mr. Justice Bristowe, might be quite satisfactory to her, but not to the court, because the court did believe in South African doctors. The ultimate decision of the court was that although there was evidence to show that a smell existed in the neighbourhood of the farm occasionally, yet it was not sufficiently pronounced or sufficiently continuous to constitute a nuisance.

A HOSPITAL SHIP FOR THE ROYAL NAVY.

As will be seen from the statement made by Director-General Sir James Porter, K.C.B., R.N., at the dinner of the West London Medico-Chirurgical Society, the Admiralty is considering tenders in respect of a contract for the supply of a specially designed hospital ship for the

royal navy, which it is intended should be ready in May, 1913. She will be a vessel of 5,000 tons, turbine propelled, and having a speed of between twelve and fifteen knots. She will be, we believe, the first ship specially constructed for this purpose by any nation. In addition to general wards, she will have isolation wards to deal simultaneously with three or four types of infectious disease. Patients will be transferred from the wards by electric lifts to two operating theatres with preparation rooms attached, the whole heated throughout by radiators. There will be a laboratory and bacteriological room, an ophthalmic room, a dental room, a padded room, ample bath accommodation, a steam laundry with disinfector, an incinerator for soiled dressings, and a mortuary. There will be special cooking arrangements for the sick, and cold storage will be provided. The boat will be fitted with an internal telephone system, and will have a wireless telegraph installation. She will carry a number of boats, motor and others, for the transference of sick and wounded. The medical staff in peace will consist of four medical officers and twenty-nine sick-berth men; in war the staff will be nine medical officers and forty-seven sick-berth men. Cooks are not included in this number.

LECTURES AT THE ROYAL COLLEGE OF SURGEONS.

PROFESSOR ARTHUR KEITH, Curator of the Museum, will begin a course of six lectures at the Royal College of Surgeons of England, on important phases in the evolution of man, on Monday, February 26th. On Friday, March 15th, Professor W. Girling Ball will give a lecture on streptococcus infection, with special reference to the value of vaccines and serums; on March 18th Professor J. W. H. Eyre will lecture on the pathology and diagnosis of tuberculosis of the conjunctiva; on March 20th and 22nd two lectures on the mechanism and treatment of shock will be given by Dr. L. G. Parsons and Mr. H. Tyrrell Gray respectively; and on March 25th Dr. Edward Fawcett will lecture on the development of the human chondro-cranium and various cranial bones.

A MEETING of the supporters of the London School of Tropical Medicine will be held at the Mansion House under the presidency of the Lord Mayor on Wednesday, February 28th, at 3 p.m. Mr. Lewis Harcourt will be among the speakers.

WE are informed that Surgeon-General Bannerman of the Madras Presidency has telegraphed to Professor Sir Ronald Ross, Liverpool School of Tropical Medicine, that Captain Patton of the Indian Medical Service has discovered the complete development of the parasite of kala-azar in Indian and European bed-bugs.

SIR THOMAS BARLOW, President of the Royal College of Physicians of London, and Mr. Rickman J. Godlee, President of the Royal College of Surgeons of England, were entertained by their colleagues, old students, and former pupils at a dinner at the Hotel Cecil, London, on February 8th. The chair was taken by Sir John Tweedy, and about 150 persons were present. The toast of the evening—"Our Guests"—proposed by the Chairman, was suitably responded to by Sir Thomas Barlow and Mr. Godlee. The health of the Chairman was proposed by Professor G. D. Thane.

A CINEMATOGRAPH display of bacterial processes will be given in the out-patient hall of Charing Cross Hospital on Tuesday, February 27th, at 5 p.m., to which all students and medical men are invited. Those desirous of being present are requested to communicate with Mr. Kenneth V. Smith, secretary of the Charing Cross Hospital Medical Society.

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

The King's Speech.—The King's Speech did not contain any definite promise of legislation directly affecting medical matters, although there is a promise of legislation to deal with certain social and industrial reforms.

The Debate on the Address in the House of Commons on Wednesday, after the speeches of the mover and seconder, was confined to speeches by the two leaders. Mr. Bonar Law, after reminding the House that the Opposition had moved an amendment pointing out that the bill ought to be postponed because it had not been properly considered by Parliament, accused the Government of using the whole party machinery to explain to the country a measure, not before but after it had become law. He said that he had been informed that while the Liberal Insurance Committee was masquerading under the name of the National Insurance Committee public money was spent on propaganda. He asked whether any of the meetings carried out by the organization were so paid for. He criticized the speech of the Chancellor of the Exchequer at the London Opera House, saying that, as blandishment was of no more use, the doctors were now to be brought to heel by threats. Mr. Bonar Law concluded his reference to the subject by expressing the belief that though the Act had become law it would never come into operation. Mr. Asquith, towards the conclusion of his reply, said that no legislative measure of the time had been exposed to such misrepresentation as the National Insurance Act. The results of recent by-elections had been attributed to the unpopularity of the Act, and it was therefore high time that steps should be taken to counteract the misrepresentations which were made by the opposite party, and explain to the people what the Insurance Act really meant. He asked Mr. Bonar Law what he meant by saying that the Act would never come into operation. How was that to be prevented? Was the right hon. gentleman, if and when he came into power, going to repeal it? To this challenge Mr. Bonar Law replied, "Certainly," a declaration received with cheers and counter-cheers. Mr. Asquith retorted that he was glad to establish the fact that the first plank in the new platform of the Tory party was the repeal of the Insurance Act. He indignantly repudiated the suggestion that public money, meaning by that money from the public exchequer, had been expended for the purpose of agitation or meetings in connexion with the measure. Mr. Bonar Law explained that it had occurred to him that, since it was an Act, the Government might have considered that it was in the interests of the country that public money should be so expended. Mr. Asquith emphatically stated that not one halfpenny of public money had been or would be so spent. He then challenged Mr. Bonar Law to repeat in the House of Commons the charge that the Government had created offices with the intention, which they had carried out in fact, of putting into those offices as a reward of political services their own political partisans. There was not a scintilla of justification for such a charge. The two speeches produced a good deal of excitement, but the House adjourned early. Mr. Bonar Law has published a letter in which he denies that he undertook on behalf of his party, without qualification, to repeal the Insurance Act, and continues:

> That was not my meaning. My understanding of the Prime Minister's question was: "If you come into power now, will you repeal the Insurance Act?" and my answer was, "Certainly."
>
> If the Opposition had the opportunity of dealing with the subject of insurance at once, the repeal of the present Act would be necessary in order that a thorough reconsideration of its provisions might be made. But it is, I should have supposed, evident that if the Act were actually in operation, or if serious commitments had been made in anticipation by bodies interested, the subject could only be dealt with by drastic amendments of the existing Act.

Ireland.

[FROM OUR SPECIAL CORRESPONDENT]

Association of Fellows of Royal College of Surgeons in Ireland.

The annual dinner of the Association of Fellows of the Royal College of Surgeons in Ireland was held on February 3rd in the Dolphin Hotel. Lieutenant-Colonel Adye-Curran, F.R.C.S.I., President of the Association, presided. Mr. Frederick Spicer, F.R.C.S.I., the Representative of the Association and Secretary in London, proposed the toast of "The Association." Its object, he said, was to promote the interests and welfare of the Fellows. The existence of such an association ought to cause every Fellow of the College to flock into its ranks, and it was only ignorance or inability to appreciate the objects of the Association which prevented more of the Fellows from becoming members. He would therefore urge the Council to make more extensive and bolder exertions in the way of advertising amongst the Fellows of the College these objects. The exception that might be taken to their original founders could not count with many. There seemed to be a fear that they were a discontented lot, ready to pull down everything in order to get something out of the ruins for themselves. This was, however, an unjust and unreasonable accusation. Let them examine the College from any standpoint, and they would have to admit that things were not exactly what they might be. Financially her state was rotten, and the professors were underpaid. She was insulted and flouted by England, as her Fellows, however eminent they might be, were not even eligible for many surgical appointments in that country. He therefore appealed to the members in Ireland to wake up and act at once. They should unite and bring pressure to bear on their parliamentary representatives, in order to get their aid in obtaining some of that enormous amount of wealth which was spent in education in this country. The Chairman, in proposing the toast of "Our Guests," said that the primary object of the Association was to assist their College and by mutual help further the welfare of its Fellows in whatever country they might be. They had already achieved much. The most important medical topic at present was the Insurance Act, but he would only express the hope that the Government might see their way to introduce during the coming session some sort of an amending bill which would render it more acceptable to the profession at large.

National Insurance Act.

The Conjoint Committee of the British Medical Association and the Irish Medical Association have issued a letter to the medical practitioners of Ireland, saying that though the Act comes into force on July 15th no work will be required of the profession until next January, and then only the signing of certificates. But the question of remuneration for these requires careful consideration. Owing to the elimination of medical benefits there is outside the Act a great danger of a widespread and immediate introduction of contract practice absolutely under the control of friendly societies with enormously increased memberships. After a time, approved societies which have accumulated sufficient funds may introduce medical benefit as an additional benefit, which may be administered under the same conditions as medical benefit in Great Britain, but the Irish Commissioners have power to leave the administration in the hands of the friendly societies, which would of course be directly opposed to the interests of the profession. They therefore warn the doctors not to make any arrangements for the present with the friendly societies without first communicating with the Conjoint Committee. They also ask for particulars of any extension of contract practice, and they draw attention to the fact that the profession in Ireland has no voice in the selection of the medical men who are to serve on the Insurance Committees, as is conceded in Great Britain. The letter concludes with the suggestion that arrangements should now be made to have a local Medical Committee formed in the district of each Insurance Committee.

A notice appeared recently in the daily papers to the effect that the Irish Commissioners are prepared to receive applications from friendly societies, trade unions, public bodies, or other bodies who desire to become approved societies under the Act, for the service of lecturers on the National Health Insurance Act. The duty of the lecturers is to explain the Act, and not to advocate any particular system of insurance or provision against sickne[illegible] will answer questions or submit the same for an[illegible] the Irish Commissioners. The service of the lecturers is to be given free, they will not be allowed to attend political or other meetings of a controversial nature, though they will be allowed to explain the Act to all bodies, political, religious, social, or otherwise. It is also proposed to form classes in Dublin and Belfast, and other large centres, where officials of existing organizations may receive special instruction.

Speaking at the annual meeting of the Drogheda Chamber of Commerce last week, the President said that the most important matter that had come before them that year was the National Insurance Bill. He hoped that when amendments had been made in the course of time in the Insurance Act they would see the whole dispensary and outdoor relief and Poor Law system remodelled on some uniform basis, and so amalgamated that they would provide one economic, uniform system of administering relief to necessitous persons.

County Clare Sanatorium Joint Committee.

Last week the first meeting of the Committee of Management of the new County Clare Sanatorium, which is now almost complete, was held in the judge's room at the Ennis County Court house. Lady Inchiquin presided. After some discussion as to the advisability of obtaining local as well as outside estimates for equipment, lighting, etc., it was decided to delegate the purchase of these to a sub-committee. The sub-committee appointed to select a suitable matron reported that they had selected Nurse McKeough, who is to have a special course of training at the Allan Ryan Home Hospital. It was finally decided that April 15th should be provisionally chosen for the formal opening of the sanatorium.

Ballinrobe Guardians and their Medical Officers.

At a special meeting on February 5th the Ballinrobe Board of Guardians had under consideration an application from the five medical officers of the union for the adoption of a graded scale of salaries. The medical officers stated that their combined salaries amounted to £530, out of which only £50 was paid by the rates. The present salaries were fixed about sixty years ago, when £100 was practically equal to £200 at the present day, and had never been increased since. The scale they suggested was one which created an initial salary of £125 per annum for each medical officer, with triennial increments of £7 10s. to a maximum of £200, these increments to be retrospective in the case of the present medical officers. The cost of this scheme would amount, with the present staff, to only 1½d. in the £. The guardians admitted that the doctors were entitled to an increase in their salaries, but the ratepayers were opposed to increases. The clerk was directed to ascertain if the Local Government Board would recoup the half or any increase that was given, and in the meantime the application was adjourned, the guardians stating that they would be unanimous in allowing an increase of £20 to each medical officer should the Local Government Board refund half the amount.

Charge against an "Inmate Nurse."

At the last meeting of the South Dublin Board of Guardians the report of the committee appointed to investigate the complaint about the removal of a patient to the workhouse infirmary was read. It contained a recommendation that the Local Government Board should be asked to hold a sworn inquiry into the matter, and also another recommendation by the chairman of the board suggesting that the officials implicated in the case should be severely reprimanded, on the ground of the delay they had caused in bringing the patient to the workhouse. The report also advised that in future a ward mistress should accompany the workhouse cab in all cases where the removal of female patients was concerned. It was decided not to ask for a sworn inquiry, but that the guardians themselves should deal with the matter by reprimanding the officials who were implicated. There has been no explanation offered so far of the term "inmate nurse."

MEDICAL INSPECTION OF SCHOOL CHILDREN.

At a meeting of the Dublin School Managers' Association (Church of Ireland), held last week, it was proposed that:

> In view of the physical defects which are so largely to be found among the children, it is of importance that some form of medical supervision should be organized. This work belongs properly to the public health authorities, and it is impossible for school managers to make provision for this medical inspection in addition to the expenses for which they are already responsible.

ILL-EFFECTS OF USE OF SALT IN THE REMOVAL OF SNOW.

The Dublin Sanitary Association have issued a warning to the sanitary authorities and public in general that the practice of removing snow by scattering salt upon it is eminently insanitary, and prejudicial to health. The addition of salt to snow makes a freezing mixture, which chills the feet, rots the shoe-leather, and damages horses. The council of the association, therefore, advises the early removal of snow by scraping and sweeping of the pavements, with a subsequent sprinkling of the surface with sawdust, fine gravel, or sand.

HEAVY FINE FOR MILK ADULTERATION.

In the Southern Police Court, Dublin, last week, Mrs. Mary Farrell, 112, Francis Street, was prosecuted by Inspector O'Brien of the Dublin Corporation for having sold him milk which had been adulterated with 41 per cent. of water. The facts were admitted, and the excuse offered was that Mrs. Farrell was an old lady and unable to look after the business. She had been already convicted five times. The magistrate said if he had the means of dealing with whoever was responsible for this he would send the person to gaol. The doctor, however, had certified that this woman was ill, and he supposed he could not send her there. But he would fine her £25.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

GLASGOW WESTERN INFIRMARY RESIDENTS' CLUB.

THE seventeenth annual dinner of this club was held in the Grosvenor Restaurant, Gordon Street, Glasgow, on February 9th, when seventy-five old residents sat down to dinner under the chairmanship of Dr. J. Middlemass Hunt of Liverpool. Amongst others present were Drs. Geo. Middleton, J. H. Nicoll, Clarke (Dumfries), Marshall (Rothesay), J. Goff (Bothwell), Captain Gourlay, I.M.S., and Dr. A. Connal (Southern Nigeria). After the loyal toasts the Chairman proposed the toast of "The Club" in a delightfully reminiscent speech. Dr. W. R. Sewell (Helensburgh) gave the toast of "The Old Institution." He mentioned that when he was indoor assistant in 1875 there were only six residents. As showing what changes have taken place, it may be mentioned that there are at present fifteen resident assistants. Dr. James Parker gave the toast of "Absent Friends." The guests of the club were Dr. J. Crawford Renton and Dr. D. Macartney, who was recently promoted to wards in the Western Infirmary. Dr. James Parker (Kilmacolm) was elected chairman for next year. The menu card for the dinner was designed by Dr. A. MacPhail of Charing Cross Hospital Medical School. The secretary (Dr. James Galbraith Connal, 7, Somerset Place, Glasgow) would be obliged if members would intimate any change of address.

PARISH COUNCILS AND THE LUNACY BILL.

A conference of representatives of parish councils in Scotland was held in Glasgow on February 9th, 100 representatives being present, to consider the Lunacy (Scotland) Bill and other relative Acts. At present the District Lunacy Boards are elected by members from the county councils, but the parish councils provide the whole cost of maintenance for the institutions while the county councils provide only for the upkeep of the buildings. A motion submitted to the conference in favour of representation of parish councils on these boards was adopted unanimously. Discussion also arose on the provisions of Clause 8 of the bill, which provides for the certification of lunatics by one medical man, and it was agreed to petition in favour of the system of having all lunatics certified by two medical practitioners as at present. The question of the treatment of patients in mental observation wards was afterwards discussed. It was pointed out that while this class cost from half to double more than the ordinary patient in the lunatic asylum, it was most desirable that such treatment should be provided, and that the Government should allow such expenditure to rank and participate in the parliamentary grant allowed for lunatic patients, particularly on the ground that this treatment was more conducive to an early recovery than asylum treatment, and that the stigma of being a certified lunatic was not imposed on the patient. The question of dealing with epileptics and inebriates was also under consideration, and a remit with powers was made to an executive committee.

CONFERENCE ON HOUSING AND TOWN PLANNING.

Circulars have been issued to local authorities in Scotland regarding the Scottish National Conference on Housing and Town Planning Administration which will be held in Glasgow on March 21st and 22nd. Much of the time of the conference will be devoted to the explanation of the new town planning powers and housing powers under the Act of 1909. The conference will probably be attended by nearly 300 delegates. Sir Thomas Hunter, the Town Clerk of Edinburgh, will preside, and among those who will deal with certain aspects of the subjects to be discussed will be Mr. John Lindsay, Town Clerk Depute, Glasgow; Dr. A. K. Chalmers, M.O.H. for Glasgow; Councillor Dr. Walsh, Dundee; Dr. Williamson, M.O.H. Edinburgh; Councillor Shawcross, Rochdale; Councillor Wilkins, Derby; and Mr. Raymond Unwin, Member of the English Advisory Town Planning Committee.

MEDICAL OFFICERSHIP OF STIRLINGSHIRE.

A special meeting of Stirling County Council was held in Stirling on February 9th to consider the appointment of a medical officer of health for the county, in room of Dr. J. C. McVail, recently appointed Deputy Chairman of the Scottish Commission under the National Insurance Act. The council considered a recommendation from the Public Health Committee that the present arrangement of a joint medical officer for the counties of Dumbarton and Stirling, which had subsisted since 1891, be continued, but on a division this recommendation was defeated, and it was agreed to have a medical officer for Stirlingshire at a salary of £500, with clerical assistance and travelling expenses, and the Public Health Committee was empowered to make the appointment. Suggested stipulations that the applicants be able to make bacteriological examinations and should reside in the county of Stirling were disapproved.

VOLUNTARY AID DETACHMENTS.

At a meeting of the Scottish Committee of the Council of County Territorial Associations, held in Edinburgh, Colonel R. C. Mackenzie, C.B., Chairman of Glasgow Association, presiding, the secretary intimated that the War Office could not sanction a capitation grant for Voluntary Aid Detachments. The intention was that the organization of voluntary aid should, as the name implied, be self-supporting. During the discussion which followed it was pointed out that an item of expense was the payment of doctors who gave instruction to the detachments, and in some districts it would be necessary to drop the detachment unless some extra assistance were given. Major Marshall (Fifeshire) said that instead of asking for a capitation grant it would be better if the Government would first place at the disposal of the county associations the equipment necessary for the medical lectures. It might also arrange with Regular or Territorial medical officers to deliver the lectures. In the course of the discussion it was stated that the Red Cross Society had the question at present under consideration, and it was agreed to let the matter drop meantime pending the result of the society's deliberations.

A public meeting convened by the Lord Provost was held in the City Chambers on February 7th to consider the formation of Voluntary Aid Detachments by the Glasgow Committee. Brigadier-General Sir John Hanbury Williams, in charge of army administration in Scotland, delivered an address, asking for the support of the public

in organizing for the care of the sick and wounded during war. Sir George T. Beatson also addressed the meeting, and explained the organization of the Scottish Territorial Red Cross Brigade. Councillor McEwan, the County Director, said it was proposed to have a first-aid detachment for each ward of the city, and that challenge cups for competition among detachments had been offered.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

MANCHESTER AND DISTRICT.

Opening of St. Mary's Hospital.

The new St. Mary's Hospital for Women and Children was formally opened on February 9th by the Earl of Derby, President of the hospital. The building and equipment have cost something like £60,000, which has been provided by Mr. E. Reid, as trustee of the late Mr. Maunassah Gledhill. For some months, however, after the completion of the building the board of management did not feel justified in opening the hospital for the patients who were waiting, as the money needed for its upkeep could not be raised, and the hospital stood ready but unoccupied as a reproach to Manchester. Last April, after several appeals for funds, it was partially opened, and all the accommodation provided was quickly taken up. It contains 111 beds, 86 for women and 25 for children, which are already in full use, and the ceremony performed by Lord Derby was only in the nature of a formal opening.

In declaring the hospital open, Lord Derby said the St. Mary's Hospital had been an institution for 122 years. During the first year of its existence 400 maternity patients were treated, including 72 in-patients, whereas last year there were 4,500 maternity cases, 800 operations were performed, and about 11,300 out-patients received treatment. The situation of the hospital was admirably adapted for obtaining fresh air for the patients, and it was convenient for the students of the neighbouring university. The board of management, after two special appeals, had received enough money to justify them in opening the building, but by no means enough to rid their minds of all anxiety, and there was still great need of funds. He sincerely hoped that the hospital would obtain that Royal recognition which was only accorded to the best of such institutions, and he would personally do what he could in attempting to obtain such recognition. He congratulated Mr. Reid on seeing the fulfilment of his benevolent design. The late Mr. Gledhill's money could not have been used for any better purpose than the foundation of a noble institution for the benefit of suffering humanity.

Sir F. Forbes Adam, Chairman of the Board of Management, in thanking Lord Derby, said he believed the difficulties of the board had now been removed. Mr. Reid had paid the whole cost of the building and equipment, and had done everything on such a scale as to provide one of the finest hospitals of the kind in the kingdom, but many months had elapsed before they could get funds to enable them to open the hospital. Dr. Edward Hopkinson then came forward and gave £2,000 on condition that the opening took place before a certain date. He was followed by Bishop Welldon, who gave £500, which had been placed at his disposal. Other gifts then came in, which formed the basis for an emphatic appeal to the public. He congratulated the architect, Mr. John Ely, on having provided a simple but beautiful building admirably adapted for its purpose. On behalf of the board he then presented Lord Derby with a gold key. Mr. H. Agnew, the Treasurer, said the result of the appeal to the public had been remarkable, as something like £40,000 had been raised, and they had also increased their subscription list by about £1,600 a year. One of the most pleasing things had been the way in which the committee of ladies, led by Mrs. Philips, had raised £1,000 in pennies and halfpennies, and had formed a guild to afford further support.

A vote of thanks to Lord Derby was supported by Bishop Welldon, Sir Alfred Hopkinson, and Mr. E. Reid, and the visitors afterwards inspected the wards.

The Care of the Feeble-Minded.

From the annual report for 1911 of the Lancashire and Cheshire Society for the Permanent Care of the Feeble-Minded, it appears that the society is in a sound financial position though additional subscriptions are needed. The extent of the operations of the society is shown by the maintenance account, which entails an expenditure of £7,500 a year, and the value of the real estate amounts to about £30,000. It is urged that the question of finance is one in which the society ought to have Government assistance. The education grants cease when the children reach the age of 16; and though in a few cases, where the grants have been discontinued by education authorities, it has been found possible to persuade boards of guardians to undertake responsibility, in the majority of cases a child sent by an education authority becomes, on reaching the age of 16, an unrelieved charge on the society. Thus, as the years go by and the inmates of the home pass from the supported to the non-supported stage, there is arising additional need for assistance from the public. The total number of inmates is now 232, of whom 63 are over 16, and further provision has had to be made for the latter. The society is doing its best not to send any away on reaching the age of 16, and is looking forward to the promised Government bill to enable it to retain its inmates during their whole lives. During the year a new dormitory with 24 beds has been provided for the young women and a new house for the young men, and there is now separate accommodation, though not sufficient, for all ages of boys and girls and men and women. It had been hoped that a small hospital could have been provided with about 20 beds, but, so far, existing accommodation has had to be used. There have been very few removals during the year, though some few children have been discharged as too hopelessly imbecile for a colony only intended for the feeble-minded. No less than 55 different authorities have sent children to the colony from all over England and Wales, and many applications have had to be refused. The colony now contains 29 men, the oldest being 23, and 106 boys, the youngest being 6, and also 39 women and 58 girls. All the children that can learn to read and write do so, though the task of teaching is slow and laborious. The older boys and men are mostly employed in farming and gardening, and a carpenter and plumber are engaged to train some of them. The women and girls who are old enough are engaged in laundry work, and in sewing and knitting. During the year there was an outbreak of chicken-pox affecting 6 children, and also there were 5 cases of pneumonia, one of whom died. There was also an epidemic of tonsillitis among the girls at Warford Hall, 14 being affected. Two children developed trachoma, and were removed to the Royal Eye Hospital, Manchester. Epileptic attacks are common among the feeble-minded, and 15 children were affected, 4 being so bad that they had to be discharged. No child is admitted who is known to suffer from epilepsy, as it is not thought desirable to allow them to mix with the other children. It is noted that almost all the new-comers improve in physique after a few weeks' residence.

Post-Graduate Course at Salford Hospital.

A course of post graduate lectures is being given at the Salford Hospital. The first was delivered on February 1st by Mr. Garnett Wright, on localized abdominal tuberculosis, the second on February 8th by Dr. F. E. Tylecote, on cerebral influenza, and the third lecture by Mr. R. Ollerenshaw, on appendicitis, on February 15th. Mr. J. B. Macalpine will lecture on swellings in the neck on February 22nd, and Dr. G. C. Heywood on serious pleural effusion on February 29th. Other lectures will be given weekly before Easter. The lectures are given on Thursdays at 4.30 p.m.

SOUTH WALES AND MONMOUTHSHIRE.

Health of Cardiff School Children in 1911.

Dr. Walford, medical officer of health, in his report for 1911 to the School Management Committee, states that there were 8,970 children examined, and of these 1,935 were referred for special medical inspection. Of 1,064 cases followed up by the school nurses, 111 were treated at the infirmary, 186 by local doctors, 19 by chemists, 23 at the tuberculosis dispensary, and 184 were not treated at all.

In addition to the foregoing there were 365 cases of defective vision, 304 of which were followed up, and 1,049 cases of defective teeth, 475 of which were inquired into. Of the eye cases 79 were treated at the infirmary and 213 were not treated at all, and of the cases of defective teeth 402 received no treatment. Dr. Walford said that where parents were able to provide for treatment they usually did so. The teeth cases gave most trouble. The question of establishing a school clinic was discussed, the general opinion being that, while some good would be done, it would be relieving some parents of duties which they could afford to pay for. The question was deferred for further report. Dr. Walford expressed himself in favour of a school clinic and of an open-air school.

WELSH NATIONAL MEMORIAL.

The executive committee of the West Wales Sanatorium agreed to the following conditions being submitted to the governors on the handing over of the institution at Alltymynydd to the Welsh National Memorial:

1. The institution changes hands on July 1st, 1912.
2. Until adequate accommodation for the whole of Wales is provided, patients from Carmarthenshire, Pembrokeshire, and Cardiganshire, shall have priority of admission.
3. That all obligations with regard to buildings and staff be taken over.

The Cardiff Board of Guardians considered a letter from the Welsh National Memorial Committee in which it was urged that the guardians should not proceed at present with their scheme for erecting their own hospital and sanatorium. Alderman Beavan advised the guardians not to let this communication prevent their going on with their proposals. They had had experience of paying for their patients in other institutions, and there was nothing new in the letter. Mr. Lloyd George had made it clear that boards of guardians would be excluded from grant clauses under the National Insurance Act. On the motion of the Chairman it was decided to go on with the purchase of land for the erection of an infirmary, and to deal with the question of a sanatorium when it arose. A member of the board pointed out that it would be some years before the National Memorial Committee would have its sanatoriums ready.

HEALTH OF CARDIFF FOR 1911.

Dr. Walford presented a summary of the vital statistics for Cardiff at the last meeting of the Health Committee. The estimated population was 182,729. There were 4,730 births, producing a birth-rate of 25.8 per 1,000, and 2,594 deaths, with a death-rate of 14.1 per 1,000. Zymotic diseases accounted for 364 deaths. The birth-rate compared with 26.5 in 1910, and an average rate for 1901–10 of 29.4, whilst the death-rate compared with 13.00 in 1910 and 15.00 in 1901–10. During the ten years ended 1901 the death-rate averaged 18.00 per 1,000.

VOLUNTARY AID DETACHMENTS.

The Glamorgan County Association has adopted a scheme whereby detachments of the St. John Ambulance Association in the county may be accepted and registered on an equal footing with those of the Red Cross Society. Amongst the names of those on the advisory committee are those of Lieutenant-Colonel Sheen, Lieutenant-Colonel Lloyd Jones, and Mr. J. Lynn Thomas, C.B. Mr. Lynn Thomas has, however, written, as a member of the advisory committee of the British Red Cross Society, expressing his personal disapproval of the action of the County Association.

BIRMINGHAM.

PROPOSED MIDLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

A MEETING will be held on Tuesday next, February 20th, at 5.30 p.m., at the Grand Hotel, Birmingham, to found an obstetrical and gynaecological society embracing the Midland, Eastern, and Western Counties of Great Britain. The invitation has been accepted by a number of medical practitioners in Birmingham and the Midlands, including several ladies. A dinner will take place after the meeting. Dr. Beckwith Whitehouse, 52, Newhall Street, Birmingham, who is acting as honorary secretary *pro tem.*, will be glad to receive the names of any practitioners desiring to become members of the new society at its formation.

Correspondence.

THE MEDICAL FEDERATION, LIMITED.

SIR,—The various evils and dangers which Drs. Taylor, Hall, and others in recent issues foreshadow as likely to result from a policy of defying the Insurance Act might, indeed, under certain circumstances, be too great to face. Happily, great evils bring forth great remedies, and we have to thank Mr. Lloyd George and his Act and their interference with the liberty and independence of the general practitioner for having brought forth an efficient defence in the shape of the Medical Federation.

Just as the Medical Defence Union for a trifling sum guarantees the practitioner against the injury and loss caused by any attempt to defame him, so the Medical Federation for a comparatively small sum will guard him against all injury and financial loss resulting from his resistance to the sweating tendencies of the age. Briefly, the Federation is a union of medical men to insist on decent conditions of practice and on a living wage, and it guarantees its members indemnity against diminution of income resulting from an attempt to augment that income. It has frequently happened that in disputes with friendly societies the medical man has had to choose between bankruptcy and submitting to extortionate demands of service, and has been forced by economic pressure to choose the latter alternative. Now, with this weapon of collective bargaining *plus* financial indemnity, every club doctor and corporation servant can feel that the moment he convinces the Federation that his remuneration is inadequate or his conditions of practice unsatisfactory he can hand an ultimatum to his employers, secure that he will suffer no loss thereby.

It is sincerely to be hoped that the executive of the British Medical Association will realize the effectiveness of this weapon and the desirability of securing it for the Association. The signatories of the Federation are imbued with the truest loyalty to the Association, and have decided to give it the first offer of profiting by their labours, content that they will have achieved something to the benefit of the profession to which they belong.—I am, etc.,

Fishponds, Feb. 10th. HARRY GREY, M.D.

THE DEBATE ON THE INCOME LIMIT IN THE HOUSE OF COMMONS.

SIR,—From a report appearing in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of February 10th it appears that Dr. Helme, in addressing the Cardiff Medical Society on January 16th, made the following statement:

> Sir Philip Magnus moved an amendment in the House of Commons which would have given us what we wanted, and included the £2 maximum limit as well, but our Medical Secretary, who was in the House during the debate, sent down a private note asking that it should not be pressed to a division. Dare the Medical Secretary do this without knowing it was in accordance with the wishes and policy of the Council?

Although I cannot, for obvious reasons, deal with the structure of inference against the Council which Dr. Helme builds upon his statement respecting my action upon the occasion in question, I am bound to deal with that statement as a question of alleged fact affecting myself which is entirely untrue. The untruth, indeed, will be apparent to any one who refers to the letters from Dr. Addison and myself to the *Times* which were reprinted in the BRITISH MEDICAL JOURNAL of January 6th. Dr. Helme makes a definite statement as to the alleged contents of what he speaks of as a private note sent down by me during the debate; his statement is so framed as to suggest that I gratuitously intervened for the purpose of influencing the action of those members of Parliament who supported the amendment moved by Sir Philip Magnus respecting the £2 limit. Both statement and suggestion will be seen by those who refer to the correspondence in question to be alike baseless. Although these letters appeared ten days before the date of Dr. Helme's speech, it is charitable to assume that he had not read them when he made the statement in question. I venture to submit, however, that even so, having obviously no first-hand knowledge of the circumstances, he might have made some inquiries from those who had such knowledge before making a statement as to what he supposed to be the facts

especially as he regarded these supposed facts as of such gravity as, in his judgement, of themselves to justify a vote of want of confidence in the Council of the Association.

For the information of those who have not read the correspondence in question and have not immediate access to that number of the British Medical Journal, I will briefly recapitulate the facts.

First, I did not voluntarily intervene in the matter in any way. Such part as I took was due to the fact that I was consulted, first, by Sir Philip Magnus himself; secondly, by a prominent Unionist member of Parliament; and, thirdly, again by Sir Philip Magnus. On each occasion the question was as to the expediency in the interests of the medical profession of pressing Sir Philip Magnus's amendment to a division, in view of the undisputed fact that it had no chance of being carried; and that, having regard to the course of the debate, there was a great probability that, on a division, the minority voting for it would be relatively small. This, it was suggested to me, might injure the prospects of the profession with regard to amendments that had still to be considered by the House. On each occasion I made the same statement—namely, that assuming it to be the fact, as I was advised, that the amendment had no chance of being carried, the question appeared to be one of purely parliamentary tactics as to whether the pressing to a division of an amendment which was certain to be beaten would, on the whole, have a prejudicial or beneficial effect on the general parliamentary interests of the profession at that stage. On this I did not feel competent to advise. But I stated that I was assured that the profession had full confidence in Sir Philip Magnus and other members of Parliament who had taken up our case with regard to the £2 limit, and that if they were satisfied that it ought not to be pressed to a division, I was assured that nevertheless the profession would feel that everything possible had been done by their parliamentary supporters. On the third, and last occasion when I was consulted, when I was called out of the Gallery by Sir Philip Magnus to confer with himself and one of the Unionist Whips, I left them with the understanding that the amendment *would* be pressed to a division, and I was surprised when the vote was taken without the House being divided upon it. The decision to take this course was arrived at, as I subsequently learnt, in a further conference, *in which I was not consulted*, between Sir Philip Magnus and several of the Unionist members, who sought also the advice of Dr. Addison. Dr. Addison has already, in his letter to the *Times*, reprinted in the British Medical Journal, stated the substance of what took place in that conference while he was present.

As this letter is written to the British Medical Journal for the information of the members of the Association, it seems proper to add, what it was not necessary to state in my letter to the *Times*—namely, the considerations which were present to my mind in giving the reply which I gave to the questions put to me.

First, I had regard to the terms of the resolution of the Representative Meeting, which constituted my instructions on the subject:

> That the Council be instructed to use their best endeavours to have the £2 limit fixed in the bill with provision for a lower limit to be fixed locally, but, failing that, to obtain as best they can the fixation of £2 as a maximum limit with such local option.

Secondly, I had regard to the course of the debate. As will be seen on reference to Hansard, Sir Philip Magnus's amendment had no support from any of the sections of the House composing the Government majority. Even on the Unionist side only one member, besides the University members, supported it, whereas so influential a Unionist as Sir Gilbert Parker, whose name appeared on the order paper as a supporter of the amendment, spoke against it, explaining to the House that he had become convinced that an income limit would be better secured in the interests of the profession, as well as of the community, by local action rather than as a statutory uniform national limit.

Thirdly, I was aware that in our canvass of members of Parliament, conducted through the Central Office and the Divisions in June and July, both we centrally found, and our Divisions reported, that many members who had promised deputations of their medical constituents to support them on other matters refused to do so on this.—I am, etc.,

Hendon, N.W., Feb. 14th. J. Smith Whitaker.

Sir,—I note with regret that, notwithstanding the full publication of the facts in the British Medical Journal of January 6th, in which you did me the honour of quoting a letter from myself to the *Times*, and letters also from Sir Philip Magnus and Mr. Smith Whitaker, who were personally conversant with the facts, Dr. Helme thought fit at Cardiff on January 16th to revive the very unfair and serious misstatement as to the part taken by Mr. Smith Whitaker with respect to Sir Philip Magnus's amendment on the £2 limit not being pressed to a division. As Sir Philip Magnus and others whom he consulted were good enough to call me to the conference, as a sequel to which the decision in question was taken, I am in a position to say that Mr. Smith Whitaker's letter to Sir Philip Magnus had nothing to do with the discussion, and so far as I remember no communication from Mr. Smith Whitaker was even mentioned. The cause of the decision was the conviction, first, that the amendment had not the remotest chance of being carried; secondly, that it was likely, having regard to the tone and tendency of the debate, to be defeated by an overwhelming majority; and, thirdly, that such a result might be prejudicial to the general parliamentary interests of the profession; that, in short, the profession had nothing to gain by pressing the amendment to a division, but had a good deal to lose. If any one needs further confirmation of this opinion I advise him to refer to the report of the debate in Hansard. To any member of Parliament such a debate afforded conclusive evidence that the motion before the House was certain to be heavily defeated.—I am, etc.,

February 14th. Christopher Addison.

THE PROFESSION AND THE POLITICIANS.

Sir,—Whatever may be thought of the tone and style of your leaderette in yesterday's Journal against Mr. Robertson, M.P., its inaccuracy is certain. You say that "we have no reason to believe that the shouting down" of myself at the Queen's Hall meeting "was inspired by political feeling." Although I showed you yesterday that your statement was not justified by the facts, you refused to officially correct it, and thereby forced me to do so.

Your own report of the meeting shows that the incident was undoubtedly "inspired by political feeling," and moreover, directly after the meeting I gave you personally the proofs that the occurrence was both political and organized. Though you speak in your leaderette as the Editor of the Association's Journal, I do not believe that the members of the Association consider with you that the suppression of free speech was a "blunder." All the letters I have received from them and articles in other newspapers I have seen condemn it as being a "crime" against liberty.—I am, etc.,

London, W., Feb. 11th. Victor Horsley.

*** Sir Victor Horsley has had two conversations by telephone with the Editor about the incident at the Queen's Hall meeting, one shortly after the meeting, the other on February 9th. In the first, Sir Victor Horsley stated *inter alia* that he had been informed two days before the meeting that he was to be shouted down, and his recollection is that he then described the opposition as political. The Editor had no knowledge of any plan to refuse Sir Victor Horsley a hearing, and has no recollection of any reference to politics in this conversation. The Editor does not find in the report in the Journal, nor in those published in the *Daily News*, the *Daily Chronicle*, or the *Times*, any suggestion that the incident was inspired by political feeling. Sir Victor Horsley has asserted that the incident was so inspired, but he has not furnished any proof of the assertion. The recent reference to the incident was introduced by Mr. J. M. Robertson in his

letter published in the JOURNAL of February 10th, page 336, and in commenting on it, quoting a well-known saying, we said that "it [the Queen's Hall incident] was worse than a crime, it was a blunder." In the second conversation Sir Victor Horsley complained, *inter alia*, that the Editor had not stated that the incident was political and organized, but again he advanced no proofs that such was the case. The Editor, therefore, would not have been justified in making such a statement.

SIR,—As you have referred to a disagreeable subject in your last issue, and accused about three thousand members of "worse than a crime" (*sic*) at Queen's Hall, might I ask any one interested to read the report of the Representative Meeting, as issued to Divisional Secretaries, and *then* to pass judgement on the two thousand and more members who showed their just contempt for the man who, at the beginning of this bitter controversy, advised us that "it was our duty to assist the Government." I ask you to publish this, as the JOURNAL should not adopt the style and manner of the Radical press on the morning following the Queen's Hall meeting.—I am, etc.,

Gillingham, Kent, Feb. 12th. IAN JEFFERISS.

P.S.—Is it not a fact that the man who was shouted down *is* a politician and a prospective Radical parliamentary candidate?

THE STUDY OF CONDUCT.

SIR,—After the opening paragraphs of Dr. Mercier's letter of February 5th, my mind became obsessed with the recollection of the classical joke played by a wag with boots. One morning at an early hour he stole out of his room and ingeniously shifted the boots and shoes of every man and woman in the hotel. When breakfast time came there was naturally a good deal of friction and confusion. Dr. Mercier has, with equal ingenuity, shifted round all our opinions, including his own. I am saved much trouble in recovering my own by a reference to my preceding letter, where I find that I did not object to the study of conduct, but that I did not assent to conduct being classed with attributes such as will, reason, etc. That is where I and others stood, and that is where we stand now, whether Dr. Mercier stands with us or not.

Dr. Mercier claims a victory from us. Let him take it *ad valorem*, but I implore him to count the cost before he persists in so doing. Let him think whether mere grouping amounts to "classing." Let him contemplate the impending horrors of fallacy. Let him read the following extract from a recent—indeed, I believe the most recent—authority on logic:

> The fallacy of Equivocation is a pervading and ubiquitous fallacy. It varies in subtlety from a manifest pun, that would not deceive a child, to a confusion the most subtle, the most difficult to detect, to recognise, and to avoid of all fallacies; and of all fallacies it is the most frequently perpetrated. Nothing is more frequent in reasoning, and especially in disputation, than the use of a term in two or more senses without any appreciation on the part of either of the disputants, or of the single reasoner, that it is used in more than one; nor is there any source so fertile of difference of opinion. In fact, difference that appears to be a difference of opinion about facts is very often, unknown to the disputants, difference about the meaning of words; and no controversy can be useful or fertile that is not preceded by a definition of the words to be used and an agreement about the meanings to be attached to them. It is not too much to say that in most controversies each party uses some important term, on which the controversy hangs, in a sense different from that understood by the other party; or uses the term first in one sense and then in another without any recognition or appreciation of the equivocation.

All this authoritative and good common sense is applicable alike to the major issue of what is conduct and to the minor issue of classing. I am sure that Dr. Mercier's conception of conduct is not that of those who are arrayed against him; and I am equally sure that he is not justified, in treating grouping, such as has been practised in our syllabus, in the same sense as "classing" was used. One can collect, assemble, place together, and group bits of wild duck and some flour for the purpose of making a game pie, but would that justify one in classing duck with wheat for any other fertile purpose?

Originally I wrote of "placing conduct on the same plane as attributes, etc." But, on consideration, I thought that perhaps there might be critical inquiries as to what plane might mean, so I substituted the most general term I could think of, with the unfortunate result that Dr. Mercier has fallen to a fallacy.

I adverted in my last letter to the inexhaustible fund of genial and subtle humour possessed by Dr. Mercier. One present example thereof occurs to me. It is so subtle that I really think that it was not recognized by him, and that, therefore, it could not have struck him when he dragged us out of our restful retirement.

He urges us to gird up our loins and go to the study of conduct, and he urges not the lawyers, parsons, schoolmasters, bakers, or candlestick-makers, but us, the psychiatric physicians, presumably interested and possibly skilled in psychic affairs; and when we get to the study of conduct, according to Dr. Mercier, what do we find?

> In treating of Conduct, however, it is desirable to eliminate, as far as possible, reference to mental states and processes. We shall find hereafter that it is not always possible to eliminate such references completely, but at least it should be minimized.

And April 1st is weeks off yet!—I am, etc.,

Ticehurst, Sussex, Feb. 10th. H. H. NEWINGTON.

SIR,—Dr. Mercier stands self-condemned. Quoting the provisional syllabus for the proposed psychiatrical diplomas, originally suggested by myself and readily accepted by a subcommittee of the Medico-Psychological Association, he shows that one of the items was "Action, instinctive, volitional and automatic," and that another was "Defect and Disorder of Conduct"; yet he alleges that psychiatric physicians deny that the study of conduct is desirable. Moreover, at the meeting to which he refers he confused the controversy by saying, "Whether conduct is worth study or not is a question that I hope to hear debated this afternoon, but whether conduct can be included in psychology does not admit of debate" (meaning that it could not be included).

We are all agreed that conduct is worthy of study, and every textbook on mental disease is a study of the conduct of the insane. Modern works, indeed, go too far for Dr. Mercier; for he scoffs even at the names which have been given to certain varieties of insane conduct in order to draw attention to their existence and importance. Also every textbook on normal psychology with which I am acquainted includes a chapter or two on will, instinct, habit, etc., in other words, on conduct; and any attempt to dissociate this from other mental functions is doomed to failure, for perception, emotion, sentiment, judgement, etc., are the very springs of conduct. Dr. Mercier's letter in your last issue, for instance, is the result of his "amazement," "stupefaction," and "matagrabolization"; and his latest book is the outcome of his erroneous judgement that the study of conduct had never been attempted before.

To divide the study of conduct from psychology would, therefore, be as irrational as to learn the mechanism of the steam engine without knowing the properties of steam.

Dr. Mercier's burlesque analogies call for no comment; they are mere irrelevancies calculated to obscure the issues.—I am, etc.,

W. H. B. STODDART.

Bethlem Royal Hospital, London, S.E., Feb. 12th.

AS TO THE NATURE OF THE PARASITES OF LEPROSY AND TUBERCULOSIS.

SIR,—Assuming that the *B. leprae* has been grown on artificial media, it must be admitted that some accounts of its morphology are rather suggestive of mycological necromancy. Mr. Foulerton comes forward to reduce chaos to order and explains that these organisms are forms of Streptothrix (which is synonymous with Actinomyces). He reviews the life-history of a Streptothrix: his language is not precise, and I am compelled to state what I suppose he means in the following lines.

The young Sporothrix mycelium consists of (1) true branching hyphae, (2) which are septated. After a period of growth (3) small rounded forms are observed, singly, in pairs, or in short chains, and these have been proved to be germinative cells. (4) Short, oblong elements are also found which have been observed to be formed by multiple septation of the hyphae. Though somewhat irregular in shape at times, these also are germinative cells. (5) It has been observed that many of the hyphal cells degenerate and die, and that the different elements readily fall apart. Aërial hyphae are formed.

Referring to these five definite observations by their numbers: (1) proves that the organism is not a Schizomycete; (2) excludes it from the Phycomycetes. It must therefore belong to the Ascomycetes, the Basidiomycetes, or the Fungi imperfecti—and to which is usually readily determined by the fruits (or germinative cells); (3) proves conidial fructification, which is the most primitive known and common to all fungi (outside the Schizomycetes, at any rate); (4) proves oidial fructification, the second form of fruit, and therefore superior to the conidial. Now an organism is always located by its superior fructification, and as no other forms have been observed in Streptothrix, it must for the present be classed by its oidia in the Oospora of botanists. It appears that the French bacteriologists have already found for it a place in the sun. The genotype is *Oïdium lactis* (Fresenius), now known as *Oospora lactis;* and as this is a large and comparatively easy organism to study, English bacteriologists might make use of it to enable them to overtake their French brethren. Both *O. lactis* and *Oïdium pullulans* (Lindner) are well described and figured in Lafar's *Technical Mycology*, vol. ii, part ii. pp. 451–455.

It only remains to note that Mr. Foulerton thinks it "probable also that *endogenous* spore formation occurs." But this is quite another story. Expelled from the Schizomycetes, the organism has now a claim to be judged by the laws of botany. This involves the necessity of regarding the cell which contains the endospore as either an ascus or a sporangium. In any case the organism could find no accommodation in the Oospora. Have the French encountered any endospores in their organisms (which we are informed are synonymous with Streptothrix and Actinomyces?

Most of our trouble in medical mycology arises from the fact that medical botanists insist on using the term "spore" for anything that is round. We all know what the market gardener means by seed potatoes, but it is often difficult to guess what the bacteriologist means by spore. Outside the parish of the pathogenic, the term "endogenous spore" has a definite meaning.

In his streptothrix, Mr. Foulerton has observed, "short chains of spores resembling streptococci." These streptococci at least may be regarded as *Streptothrix conidia*, as they are associated with the parent hyphal form. In an ordinary streptococcal chain the enlarged cell here and there naturally suggests such an origin for orthodox streptococci—the large element representing the chlamydospores in many torulas. Mycologists sometimes refer to Mr. Foulerton's "chains of spores" as "gemmating mycelium" (Lafar), at other times as "conidial chains," while Brefeld, in his well-known work on the smut fungi, called them "yeast conidia." To appreciate this it must be understood that yeasts cannot be classed as Blastomycetes. Rounded yeast is simply the conidial stage of a hyphal form, as was proved by the illustrious Danish saccharomycologist, Hansen, more than a quarter of a century ago.[1] A few yeasts form hyphae even on solid media—for example, *Sac. marxianus*—but these must usually be sought in the film that forms on liquid media after the growth of the conidial form has ceased. Such yeasts as form endospores on solid or other media are Saccharomycetes, and the conidium now functioning as an ascus contains ascospores. The life-history comprises mycelial, conidial, and sporogenous forms.

But there are yeasts which do not form endospores. These are what interest us at present. They are sometimes called "torulas," and are often conidial forms of unknown position. In some it is easy to induce hyphal growth, as in the yeast stage of the thrush fungus—which, by the way, in infections grows in the tissues in its conidial form. In such cases the yeast may be named after its hyphal form—mucor yeast, etc.—and so we may say Sporothrix yeast, as I pointed out[2] in criticizing Dr. Ritchie's *Sporotrichum beurmanni*. Much of what I said there will explain also some points in Mr. Foulerton's description of Sporothrix. I am interested to find that Mr. Foulerton has not encountered any form of Zygospore such as Dr. Ritchie described in his organism.

The object of this note is to suggest to English bacteriologists that it is time to abandon mid-Victorian mycology.—I am, etc.,

London, W., Feb. 12th. ROBERT CRAIK, M.D.Glasg.

[1] Lafar, vol. ii, pt. i, p. 126.

THE NEW CELL PROLIFERANT.

SIR,—I beg that I may be allowed to dissent from the opinion of Dr. Frederick W. Wright, who states in the BRITISH MEDICAL JOURNAL of February 10th, page 336, that the study of cell proliferants is not of much practical scientific gain. Surely the study of the causes of cell proliferation is not only the study of the cause of the reproduction of living matter, but also the study of the fundamental bases of heredity, development, pathology (in that it is the study of the cause of the cell proliferation of healing), the cause of tumours, including cancer, and the maintenance of life in the animal and vegetable kingdoms. What makes the individual cell reproduce itself (proliferate or divide are synonymous terms) should be, and probably is, the main question which pathologists, and certainly all those investigating the cause of tumours and cancer, are asking themselves. Is cell division due to "instinct," or is it caused by a chemical or a physical stimulus? This is the problem which many investigators are trying to solve; and in my opinion, as one of the investigators, the only way to solve it is to take individual living cells and to try to find out experimentally what will make them reproduce themselves. I do not think that one is justified in calling a substance a cell proliferant until it has been seen in the first instance to make individual living cells divide under the microscope.

Several years ago J. Loeb discovered that the development of the ova of sea urchins could be induced parthenogenetically by certain chemicals. Two and a half years ago I devised a technique by which individual white blood cells and certain epithelial cells were made to divide under the microscope in direct response to the chemical substances produced by cell death. In other words, the products of death seem to be the cause of cell reproduction. Further investigation showed that—in many instances, at all events—cells divide when they absorb a sufficient quantity of those substances which contain the amidine grouping; these are, for example, creatin, creatinine, xanthine. Or the primary amines, such as methylamine; or the amino acids, such as leucine and tyrosine, will also cause cell reproduction, all of them being the products of cytolysis. In spite of the fact that some cytological objections have been raised against the division figures induced by these agents in the living cells, for they seem to differ in some points from the well-known figures seen in dead and fixed specimens, the experiments have recently been confirmed by the production of tumours in animals by the agency of these chemicals, and cell division has also been induced by them in the ova of *Ascaris megalocephala*. Moreover, the action of these auxetic substances, as they were originally called, on certain of the protozoa leaves little room for doubt that they do directly cause cell division. The reason why so many substances, irritants and so forth, appear to cause cell proliferation when placed, say, on the surface of an ulcer, is probably because they are poisons, and in killing some of the superficial cells set free the products of cytolysis enumerated above, which, in their turn, cause the proliferation of the deeper living cells. On the other hand, the so-called "new cell proliferant" may itself contain the amidine grouping—in fact, some authorities say that it does, and if so, it will directly cause cell multiplication; in either case its action is easily explained, although it seems a pity that it was not tested on individual cells under the microscope before it was hailed as a new discovery. It would appear that mechanical irritants act in a similar way to the chemical

[2] BRITISH MEDICAL JOURNAL, July 29th, 1911.

tmcs, for by causing cell death they indirectly give rise to the auxetics which cause cell proliferation or even tumour. —I am, etc.,

London, S.W., Feb. 12th. H. C. ROSS.

SIR,—As Mr. Prosper H. Marsden does not give Gerarde's *Herball* as a reference for the use of comfrey in former times, I would like to mention that Nich. Culpeper seems to have derived most of his account from that source, according to the edition published in 1636, as amended by Thomas Johnson, a copy of which I possess.—I am, etc.,

R. ATWOOD BEAVER, M.D.Vict., M.B.Lond.

Clifton, Feb. 12th.

SYMBIOSIS.

SIR,—As the important question of the definition of *symbiosis*, raised by Mr. H. C. Ross in his letter which appeared in the BRITISH MEDICAL JOURNAL of January 6th last, has not yet elicited any reply, I beg leave to refer him to a treatise wherein this subject is dealt with at some length by Dr. J. McFarland.[1] This author suggests, I think very rightly, that *parasitism* is a form of *symbiosis*, and not the reverse as suggested by Mr. Ross, whose definition, in the light of recent research, does not seem to me to be adequate.

McFarland subdivides symbiosis into *commensalism*, *mutualism*, *helotism* and *parasitism*. The third of these subdivisions, *helotism*, is, I venture to submit, important in a medical evolutionary sense, having regard to those micro-organisms which constitute the normal flora and fauna of the human muco-cutaneous periphery. Certain of which, it is true, are known to become pathogenic on gaining ingress through accidental breaches in the epithelial continuity, or by becoming implanted in regions to which they have not been habituated. It is conceivable that at an early period of mammalian evolution the *Bacillus lacticus*, for example, may have been pathogenic; that during a later stage in the evolution of their hosts the latter became "carriers" of them, till in more recent times these organisms, in the opinion of certain high authorities, have become functional necessities of their hosts, by suitably modifying the chemical decompositions in the regions to which they have become habituated. In this form of symbiosis the leucocyte is supposed to enslave its erstwhile enemy, and enforce it to labour on its behalf.

This conception appears to me rational and in conformity with science, though to the superficial reader it will doubtless appear the very height of romance. But "truth is stranger than fiction."—I am, etc.,

London, W., Feb. 8th. H. D. MCCULLOCH.

SIR JAMES BARR AND THE INSURANCE ACT.

SIR,—To fully meet the criticisms of Dr. Rugg Gunn, contained in his letter in your issue of February 10th, would require an essay on social philosophy of which I am not capable. I should not have thought that the almost platitudinous propositions of my letter of January 13th could have called forth so confused a medley of criticism as is contained in Dr. Gunn's letter.

In stating that "the interaction of mixture, heredity, and environment is as yet practically unknown in human affairs," I did not overlook the Mendelian discoveries and experiments, nor the application of the Mendelian principles to man. No doubt the future of human genetics lies largely in elucidating these principles, but at present even so enthusiastic a Mendelian as Professor Bateson hesitates, for he says in his *Mendel's Principles of Heredity*:

> In regard to some of these wide departures from expectation shown in many pedigrees of human diseases and defects, it is, I think, still open to question whether the transmission is a process comparable with that which we ordinarily designate as heredity.

I am as fully appreciative as Dr. Gunn of the importance of innate characters, and I am confident that, when human genetics is as well established as sanitary science, society will endeavour to control its own composition just as at present it is endeavouring to control its environment by dealing with public health and social reform. Future legislation and social action based on genetic physiology for the purpose of multiplying and propagating the worthy elements of the race will simply be an extension of our present-day social legislation, which really has its springs in the discoveries of modern science. These place in men's hands the power of controlling that environment, and this power is being used. Farr, Koch, Pasteur are probably more responsible for the Insurance Act than Dr. Gunn imagines. After giving qualified assent to his references to Mendelism I am utterly at a loss to understand his final appeal to Lao-tzu (600 B.C.). The *laissez faire* wisdom of that Chinese philosopher is utterly opposed to modern science, whether it deal with heredity or environment. A social theory based on *laissez faire* is utterly opposed to a social theory based on Mendelism, bacteriology, and modern science in general. How Dr. Gunn can advocate both in the same letter puzzles me. Even China herself has thrown over Lao-tzu (600 years B.C.). Under the pressure of Western civilization she has gone so far as to establish the constitution of a Republic and to pass laws to prevent her citizens from poisoning themselves with opium. We may even hope to see before long a Chinese Lloyd George introducing a State Insurance Act to the Chinese Parliament, and expounding with Oriental eloquence his plans for bringing refreshing fruits to parched lips. As a disciple of Lao-tzu (600 B.C.) Dr. Gunn will soon be a lone voice in the wilderness crying aloud, "Govern a great nation as you would cook small fish, that is, don't overdo it."

My statement "that most legislative enactments dealing with health and social reform are of the nature of experiments, whose ultimate outcome from the racial point of view cannot be predicted," hardly needs defending, in spite of the quotation from the elaborate investigation by Drs. Davenport and Weeks. The statement follows from the recognition of the difficulty of the problem dealing with the transmissibility of acquired characters and of our ignorance how far environment suppresses or brings to light genetic qualities; and further experience shows that these Acts are continually being modified by repeal and amendment. I cannot follow Dr. Gunn in his classification of society into "two natural divisions—upper, intelligent, disorganized, disunited, and devoid of proper leadership; and lower, non-intelligent, united, organized, led." It seems rather paradoxical, and I only hope he does not include the medical profession in the first division.

If I may make so bold, I would warn him against classification, which in the past has proved so formidable a barrier against sound speculation.—I am, etc.,

Warrington, Feb. 12th. J. S. MANSON.

THE DANGERS OF ALCOHOLIC INSANITY.

SIR,—So much controversy has taken place as to whether drink does or does not ultimately lead to insanity, that the very important point is apt to be forgotten that drink does undoubtedly cause insanity—alcoholic insanity.

The main point in connexion with alcoholic insanity, on which those who deal with it are pretty generally agreed, is that the law dealing with such cases is hopelessly inadequate. These patients usually find their way to the lunatic wards of the workhouse infirmary, and workhouse medical officers often complain that cases of alcoholic insanity, with homicidal or suicidal tendencies, are readmitted to the insane ward two or three times in the same year, and the probability is that they are positive dangers to society on many other occasions.

The trouble is that this form of insanity is of such a fleeting nature that the patient may be all right next morning after a night's rest, or the dangerous symptoms may pass off in an hour or two, so that only those who have actually seen the patient at the time could state that he had suffered from temporary insanity. This, of course, would lead to great difficult in certifying under the present regulations.

When a man is discharged from an asylum as "cured" he either remains permanently "cured" or for a reasonable time, but alcoholic insanity is such a curable form that it becomes one of the most incurable and dangerous, as the patient is again allowed to mingle in society with unlimited opportunities of again becoming a lunatic at any time.

If a man is admitted as a lunatic on a "fourteen days' order," it hardly seems fair to the man himself or to

[1] *Biology, Medical and General.*

society to discharge him at the end of the fourteen days, however sane he may appear: and it hardly seems just to treat a man as a lunatic on one occasion and as a criminal on a subsequent occasion, when he was really irresponsible for his actions. The point as to whether he should be held accountable under such circumstances I will not discuss, but I think the State should hold itself responsible for the actions of those who are known to suffer from such a frequent form of recurring lunacy.

The following case serves to illustrate some of the points mentioned:

A man was detained as an alcoholic lunatic on a three days' order, and on a subsequent occasion he came into the tramp ward of the workhouse at night in a state of alcoholic excitement. Without any provocation he turned suddenly on the night attendant, knocked him down and gave him a terrific hammering, and might probably have made an end of him if the day attendant had not heard his shouts for help, and rushed to the rescue. The man was sentenced next day as a criminal to a short term of imprisonment, but if he had been detained in the first instance that would not have happened, and society would know that there was no possibility of further crimes. But similar or worse crimes may occur on his release. In such cases, once a lunatic always a lunatic, is pretty generally true, and a fourteen days' detention order should be changed to a much more permanent form.

The number of murders and suicides accounted for by drink is so great that something more drastic than the present arrangement is urgently called for: and when a man who in other respects has been quite exemplary commits a crime when "mad with drink," and has no proper recollection of it next morning, or when he has sobered down shortly after the shock of the accident, he can hardly be held entirely responsible for his actions, and certainly not if he has been certified as a [illegible] before.

Undoubtedly alcoholics are dealt with under the Inebriates Act, but as a rule such cases (which usually swell the ranks of peripheral neuritis) have been before the magistrates thirty or forty times, and are more of a nuisance than a danger to society.

It seems a big business, but, after all, the number of alcoholic lunatics as compared with the total number of "drunks" is very small, and the benefits to society in general would be of such an incalculable nature that it would undoubtedly be worth while. It would be an excellent tonic to society. The friends who have to live with the patient do not, as a rule, regard the fourteen days as sufficient, and quite commonly at the end of the period they come and say, "Are you sure he's all right now? Could you not keep him a little longer?" I certainly think that the present conditions are unsatisfactory.—I am, etc.,

JOHN M. MACPHAIL.
Assistant Medical Officer.
February 6th. Eastville Workhouse, Bristol.

THE NATURE AND ORIGIN OF CANCER.

SIR,—In a letter published in the JOURNAL of February 10th Dr. Brock endeavours to disprove my hypothesis of the existence of a *material* governing secretion by pointing out "that the agency which regulates and controls the disposition of the cells in the body obviously exists in the developing embryo, before the three glands which he names have appeared, and that it therefore cannot possibly be made up of their secretions." I would remind him that the fetus is part and parcel of the mother, and that it derives its nourishment from the maternal blood, where the secretions already exist.

Where I differ from Dr. Brock is that he looks upon the regulating agency as some "force" or "law" which is supposed to be inherent in every organism, and is the cause not only of its first development but of its subsequent maintenance in a state of health. This is a happy assumption, involves no serious thought, and can be used to explain many difficult problems. But does it not savour more of common sense, while knowing that there is a causative force of some kind in life, to recognize that it acts through a *material* instrumentality—the organism—with the physiology and pathology of which we are only concerned? Should, say, part of the machinery in a cotton-mill break down, the engineer in charge will promptly disconnect and repair that part; if, however, all the machinery stop, he knows that the motive power, the "actuating force," has gone—the mill is lifeless. Similarly, in the human organism, we try to remedy any defects in the machinery, which we cannot properly do without first knowing the machine; the "actuating force" is beyond the province of the materialist, and I have not heard of a psychologist restoring the dead to life.

The body is, after all, a mass of protoplasm, an extremely complex chemical substance, or rather mixture of chemical substances, constantly undergoing katabolic and anabolic changes of a chemical nature—material enough, in all conscience.

Dr. Brock flatters me when he calls my theory a "scientific explanation." It has only reached the stage of a working hypothesis. At any rate, its application has been effectual in saving the life of a woman suffering from cancer of the œsophagus. Surely far better this than groping hither and thither in a psychological fog, with the patient meanwhile slipping through one's fingers.—I am, etc.,

Wigan, Feb. 12th. J. THOMSON SHIRLAW.

SIR,—Dr. Brock has quoted a parenthetical remark of mine as if it were my main point. When I said that the multinuclear giant cell was the "managing director" of cell activity, I referred, of course, to the cell activity which is coexistent with irritation and antecedent to the formation of cancer. The point I wish to emphasize is that the germ cell of cancer is the product of the conjugation of a sperm with a tissue cell. It is undoubtedly a fact that the germ cell is a fertilized tissue cell, and I offered the suggestion that, as multinuclear giant cells are found wherever there is cell activity, the microzoon required to connect the chain, and to fertilize the tissue cell, is a discharged nucleus from a giant cell.

I am well aware that, in Dr. Archdall Reid's words, "every hypothesis is a mere guess until every other alternative hypothesis has been considered, and until it has been demonstrated that only the chosen hypothesis accords with the whole of the available and authentic evidence," but as I have not the opportunities for experimental investigation, I consider that the scientific use of the imagination need not be kept under such severe restraint, and, therefore, I invite others to apply the tests of the phenomena of cancer to this hypothesis.

Since I last wrote to you, sir, there has passed away from among us a great master mind. Sir Henry Butlin's researches and observations on this subject have directed our knowledge into its present channel, and were, indeed, the starting point of this discussion. From him, my old master, I acknowledge with gratitude I received not only my first lessons in clinical pathology twenty-two years ago, but also much counsel and many kindnesses almost up to the last. Words would fail me if I attempted to describe my admiration for him and for his methods of precision. We have now but the recollection and the example of him left, and the legacy of his writings. In his last lecture he referred to an intention of publishing some further phenomena of cancer. It would be interesting to know whether there is any record of these, and whether he committed to writing any further thoughts arising from the published correspondence in your columns.—I am, etc.,

Stowmarket, Feb. 12th. H. T. DUTTON.

SWEETS IN CHILDHOOD.

SIR,—A point of as much, if not of more, consequence than the effect of one or of another carbohydrate on the teeth appears to me to be the relative influence of deficiencies in the mouth, and defects in their structure. The tendency of starchy and sugary food to "stagnate," as Mr. Turner says, among the teeth is increased by a shortening of the jaws and consequent overcrowding of them, and is thus an illustration of the circumstance that decay is not independent of influences additional to those in the mouth.

Whatever difference in opinion there may be as to the causation of caries, there is, I think, insufficient ground for Mr. Hopewell Smith's assertion quoted by Dr. Hildesheim, but on the contrary it has, in my belief, been already largely determined by dental surgeons, and rests

to a great extent between a combination of the results occasioned by adverse influences in the mouth as described by different authors, and defects in the inherent structure of the teeth, which some maintain has a potent influence in its incidence. The observations of Mr. May, Dr. Letheby Tidy, and Dr. Whitwell show that they either incline to, or are of, the same opinion. Judging by the opening remarks of Dr. Sim Wallace, in his letter of December 16th, 1911, on the malnutrition among sufficiently fed children, there seems to be a possibility of his becoming more open to accept the view. It is to be hoped this will eventually become generally accepted, rather than that it is due to one cause only, and then the question of the increasing prevalence of caries in recent years may become more readily discernible. The need of arresting the latter occurrence is evident when it is realized that the agencies which induce it are also doubtless effecting injurious results in other tissues of the body.

The question of sweets appears to resolve itself largely into one of degree, and while there may be no reason to disapprove of a moderate consumption, the excessive use of them may be, as Dr. Tidy and Dr. Whitwell suggest, one of the many causes which occasion detriment to the teeth; similarly that excess in other directions may be harmful to various structures. As to the judicious employment of sugar, it is usually considered that more strenuous effort is required in civilized communities since steam and electricity revolutionized existence; being a food of especial value in the maintenance of heat and energy, it is thus likely to be more needed at the present time than at any other period in the history of the world.—I am, etc.,

Oxford, Jan. 27th. A. STAYT DUTTON.

PELVIC HEMORRHAGE AND ECTOPIC GESTATION.

SIR,—Your leader on this subject in the JOURNAL of February 10th, p. 323, of a case of haematocele caused by rupture of an ovarian blood-cyst, is interesting to me, as not only bearing out my own experience, but also raising the question as to views I have expressed with regard to the origin of some cases of acute illness arising during menstruation.

In the BRITISH MEDICAL JOURNAL of January 26th, 1907, I quoted a series of 4 cases of acute illness arising during menstruation, one of which cases was accompanied by all the clinical features of a haematocele. Since then I have seen at least 3 cases in which during menstruation the patient has been seized with acute pain in the side, nausea or vomiting, a certain amount of collapse, a rise of temperature in one case amounting to 102°, in the other case to 101°, and in one case attended by the formation of a doughy swelling in the pouch of Douglas.

In this case the patient was menstruating, and jumped over a wall. When I saw her she was vomiting severely, had missed no periods previously, had a bloody vaginal discharge, typical of menstrual fluid, and the pouch of Douglas was full of what felt like clot, the uterus was not enlarged, the cervix was not softened, and there were no breast changes or anything to lead the patient to think she had been pregnant.

I wished to operate at once, but the friends would not consent unless I could say that an operation was absolutely unavoidable. This I could not do, as, judging from former experience, if the diagnosis were right—of haemorrhage from a ruptured Graafian follicle—I thought the clot would quickly absorb. As I met this patient out walking a fortnight after, this view had proved to be correct, and the doctor informed that she had made an uninterrupted recovery.

The other two cases I confirmed by removing the affected ovaries soon after menstruation had ceased: both cases I had advised operation to previously, one for persistent retroflexion of the uterus and a prolapsed and adherent ovary; this ovary I found was enlarged to the size of a hen's egg, and at one side was a blood cyst, and from this blood clot was diffused in the stroma of the ovary, and the fluid part of the blood was so near the surface that the cyst ruptured, and some of the contents escaped as I brought it out of the abdomen.

In the other case I had to deal with chronic oöphorosalpingitis after puerperal sepsis, and here when I cut through the ovary after removal in its centre was a clot the size of a nut, there was also a cyst enlarging it up to the size of a hen's egg. The symptoms in this case were so acute, namely, retching, pallor, collapse, and intense iliac pain, that the doctor, who had seen several cases of acute tubal gestation, asked me if I thought this might not be a case.

Personally, I think that these cases show that the process of ovulation may become pathological, and may, by the damage caused to the ovary when distended with blood lead to ovarian dysmenorrhoea and adhesion, and by its extra weight to prolapse.—I am, etc.,

Cheltenham, Feb. 15th. THOMAS HOLMES, M.S., M.D.Lond.

MORPHINE POISONING.

SIR,—Dr. D. M. Macdonald (Leven, Fife) has recorded a case,[1] which I should like to comment upon. It is just thirty-five years since I introduced and published acid permanganate as an accurate quantitative test for morphine, uric acid, and a hundred other things. It is a quarter of a century since I published potassium permanganate as an antidote for morphine and opium poisoning. Dr. W. Moore, at a banquet of medical men ten years afterwards, took 3 grains of morphine, and it was followed by, I think, 4 grains of permanganate. He made me ashamed that I had done so little to make the antidote known, that I devoted the next two years to the extension of the permanganate method, and published forty serial articles in one of the minor medical weeklies. The two points which have called my attention to the subject are these: First, did Dr. Macdonald really use Condy's fluid, for the proprietors some time ago made it clear to the public that such was not potassium permanganate. If Dr. Macdonald did use Condy's fluid, I have nothing to say with respect to the fact, but let it be so recorded. If he did not use Condy's fluid, but used permanganate, then, in the interest of accuracy and of medicine, let such be stated, because in one of the published cases, I think in the BRITISH MEDICAL JOURNAL, both solutions were used. The next point is: Why did Dr. Macdonald conclude that the irrigation of the bowel by the oxidizer was "questionable if it was any good"? Nothing could be more rapid than the breaking up of morphine, quinine, cinchona salts, and uric acid, by the action of potassium permanganate, especially if made acid.

Whereas many alkaloids, as I have described in the articles mentioned, are not broken up by weak acid potassium permanganate—such are, atropine, crystallized aconitine, cocaine, caffein, hyoscine, and hyoscyamine—I doubted myself whether the method of hypodermic injection of permanganate in cases of morphine poisoning could do any good, as practised by Dr. Moore after his demonstration, for the permanganate is at once decomposed by albuminous fluids, and I have only found time differences in action, and no special selective affinity. But, here, even, we must not be too sure: for I have a patient who has taken about half a grain of potassium permanganate every morning for more than ten years, and I am obliged to believe what he states—that he has made fundamental alterations in his economy and in his urine.

My past and laborious work should at least have universally established that oxidization, as an antidotal method for all albumen poisons and for most or many alkaloid poisons, should be co-ordinated with stomach pump and emetics, far beyond physiological antidotes such as we at present possess.

We still seek oxidizers for some plant poisons other than the albuminous ones.—I am, etc.,

London, S.E., Feb. 8th. J. BARKER SMITH, L.R.C.P.

[1] BRITISH MEDICAL JOURNAL, February 3rd, p. 284.

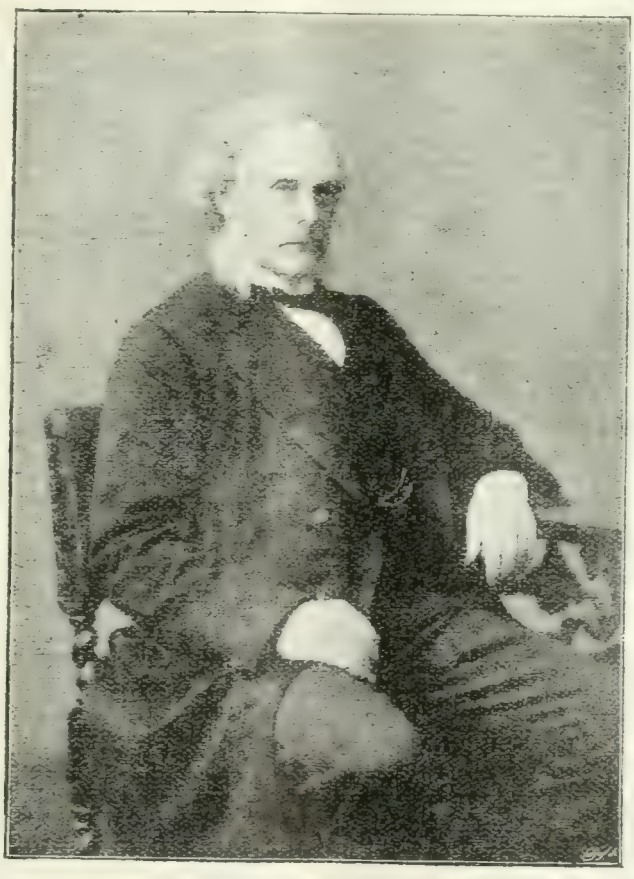
ON January 11th the new building of the New York Post-Graduate Medical School was opened to inspection and use. The plant provides for eleven operating rooms and groups of teaching rooms for each of the departments, besides extending the capacity of the hospital service to about 400 beds. The curriculum of the school is correspondingly extended and adapted to the tripled facilities.

Obituary.

LORD LISTER.

PRIVY COUNCILLOR; MEMBER OF THE ORDER OF MERIT; FELLOW AND SOMETIME PRESIDENT OF THE ROYAL SOCIETY; KNIGHT OF THE PRUSSIAN "ORDRE POUR LE MÉRITE," ETC.

ALTHOUGH Lord Lister had passed the ordinary span of human life, and although he had spent many of his last years in retirement, his death comes upon us almost as the disappearance of a star. In him the profession has lost its brightest ornament and the world one great among the very greatest men of all time. The news was not, of course, unexpected. He had been for years in failing health, and those who saw him at the Guildhall in 1907 were painfully struck by his wasted form, the weakness of his voice, and the general infirmity of body to which his whole appearance bore witness. He had for some time been partially disabled by an affection of the joints, but the immediate cause of death was pneumonia which carried him off in four days. Death took place at Walmer on the morning of Saturday, February 10th. Unlike so many pioneers of new regions of truth, he lived to see the complete fulfilment of his work and its acceptance by the whole scientific world. Of him it may be said in the words of Cicero: "In such a death there is neither pain nor bitterness, but as a ripe fruit is lightly and without violence loosened from its branch, so the soul of such departs ungrieving from the body wherein its life's experience hath lain."



Full accounts of Lord Lister's life and work have been given in the JOURNAL at various times in recent years—more especially in the issue of December 13th, 1902, which was a Special Lister Number; in that of April 6th, 1907, on the occasion of his 80th birthday; and in that of June 5th, 1909, when his *Collected Papers* were reviewed. To these we would refer the reader for further details. Only a comparatively brief summary of the chief events of his career therefore need be given now.

Joseph Lister was born on April 5th, 1827, at Upton, in Essex. He was the son of Joseph Jackson Lister and Isabella, daughter of Anthony Harris, of Maryport, Cumberland. Of his father he wrote an interesting sketch in 1870 which was republished in his *Collected Papers*. Joseph Jackson Lister was a very remarkable man, who, leaving school at the age of 14 to assist his father, who was engaged in the wine trade, found time amid the cares of business to supplement his education, especially in mathematics. He was especially interested in optics. He made great improvements in the microscope; in particular, he was the first to solve the problem of the production of achromatic lenses. He was described by a great authority as "the pillar and source of all the microscopy of the age." Mr. Joseph Jackson Lister was a Fellow of the Royal Society, and, in the words of his illustrious son, rendered services to scientific study that can hardly be over-estimated.

Lord Lister, who was of Quaker stock, received his early education at a school kept by members of the Society of Friends at Tottenham; among his schoolfellows were Dr. Wilson Fox and W. E. Forster. In due course he went to University College, London, taking the degree of Bachelor of Arts at the University of London in 1847. He then studied medicine in the Medical Faculty of the College, and graduated M.B. at the University of London in 1852. In the following year he was admitted a Fellow of the Royal College of Surgeons of England.

Lister may be said to have grown up in a scientific atmosphere. During his period of studentship he came greatly under the influence of Sharpey, the Father of British physiology; he also worked hard at chemistry under Graham. The teaching of these men, together with the great advantages given him by his father's inventions and his work and example, gave him a powerful impulse towards the cultivation of pure science. His first investigations were mainly in the domain of histology. But he by no means neglected the clinical side of his profession. He was, we believe, Erichsen's first house-surgeon, and he was house-physician under Walshe, one of the greatest physicians of the last century. After completing his studies in London, he went at Sharpey's suggestion to Edinburgh, where he worked under Syme for some years, first as House-Surgeon and afterwards as Assistant Surgeon at the Royal Infirmary. We get a glimpse of him at this period from the late Professor Annandale, who wrote in the Lister Number: "As from my earliest student days I attached myself to these (Syme's) wards, I had constant opportunities of studying Mr. Lister's methods, and along with my fellow students I soon learnt to have a sincere admiration for his thorough earnestness in the advancement of his profession and his devotion to the interest and treatment of the patient. He gave valuable assistance to Mr. Syme in connexion with his infirmary work, and I specially recollect how successfully he aided him in several of his brilliant operations. One of these operations was that in which Mr. Syme boldly opened into a traumatic aneurysm of the left carotid artery low down in the neck and

secured the vessel above and below its wounded point, and in this way saved the life of the patient, and probably also saved the man who had stabbed the patient from being hanged.

"The other case was one of a large right axillary aneurysm, which was also successfully treated by laying open the sac and tying the ruptured artery. The aneurysm, owing to its size, had elevated the clavicle, rendering satisfactory compression of the third part of the subclavian artery impossible. But Mr. Syme overcame the difficulty by making a small incision through the skin and fascia immediately above this bone, and through this wound Mr. Lister passed his finger down and successfully compressed the artery until the injured vessel was secured."

Lister began a course of extramural lectures on surgery in the old High School Yard. At that time he was carrying on investigations in regard to the coagulation of the blood, and his students were enlisted as assistants in his many experiments. "Many hours," says Annandale, "were spent by us in this way in the slaughter-houses, in the Veterinary College, and in his private house, and we could not but be struck with the ingenuity of these experiments and the great care which was taken to make their results accurate."

In 1856 Lister married Syme's daughter. The union was one of ideal happiness. In his wife Lister found not only love and sympathy but active helpfulness. Only those who knew him are aware with what devotion she assisted him in his scientific work. His relations with Syme were also of the pleasantest. The older man took great pride in the work of the younger, and foresaw, at least in part, the developments in surgery to which it was to lead. Lister was of a sociable disposition, and was popular with his students, and welcomed guests at his own house. He was a prominent figure in the company, including distinguished foreigners, which often gathered under his father-in-law's hospitable roof. On some of these occasions Lister did not disdain to entertain the company by singing "Jock o' Hazeldean."

The scientific work done by Lister at this period cannot be better summarized than is done in the Introduction prefixed to his *Collected Papers*:

"The earliest papers were on the duration of vitality in the tissues, on the structure of involuntary muscular fibre, and on the cutaneous pigmentary system of the frog. Another group of papers dealt with the early stages of inflammation, with gangrene from arteritis, and with the coagulation of the blood both within and without the blood vessels, while a third group was concerned with the nervous system, and included observations on the functions of the visceral nerves, with special reference to the inhibitory system; on the parts of the nervous system regulating the contraction of the arteries; and on the structure of nerve fibre. It is not difficult to perceive the interrelation of these several lines of study and investigation, and the perusal of the papers in which they are embodied affords an interesting example of acute reasoning applied to the interpretation of the results of accurate observation and experiment."

In 1860 Lister was appointed to the Chair of Systematic Surgery in the University of Glasgow, becoming Surgeon to the Royal Infirmary of that city in the following year. To understand what he accomplished one must know what surgery was when he entered on his duties as Surgeon to the Glasgow Royal Infirmary. Surgical wards were ravaged by pyaemia and hospital gangrene, and the mortality after operations was excessive. The number of disasters was greatly increased by the discovery of anaesthetics, which gave a great impetus to operative surgery. As surgeons used the knife much more freely than they had done before, when only particularly favourable subjects could be chosen, the immediate result was a large increase in the number of deaths after operation. When Lister went to Glasgow, inflammation and suppuration were universally regarded as natural processes in wounds by surgeons, who directed their efforts, by means of poultices and other applications, to helping the formation of what was called "laudable" pus. Septic disease was everywhere rife, and was the mere despair of surgery. These things were looked upon as inevitable. Sir Hector Cameron, who worked under Lord Lister when he made his first attempts in the direction of antisepsis, describing the state of things at that time, says:

> Every wound discharged pus freely, and putrefactive changes occurred in the discharges of all, producing in the atmosphere of every ward, no matter how well ventilated, a fetid, sickening odour, which tried the student on his first introduction to surgical work just as much as the unaccustomed sights of the operating theatre. It is hardly necessary to add that fatal wound diseases and complications were never absent at any time from the hospitals of that day.

It is worth while to point out that, according to Sir Hector Cameron,

> Lister soon began to enjoin on all persons in his clinic the practice of scrupulous cleanliness, which was at that time by no means always a characteristic of surgical practice. The washing of hands was insisted on after dressing each individual case, and large piles of clean towels stood on the tables of his wards for the use of his dressers and nurses.

Lister's work on inflammation, valuable as it was did not lead him directly to his great discovery. But, unlike the surgeons of that day, he was not content to accept inflammation and suppuration as a necessary part of the process of healing. He believed that the natural course of events was that a wound should heal, like a simple fracture or other subcutaneous injury, without inflammation, suppuration, or septic infection. He recognized that the source of the mischief in wounds was putrefaction, and that the prevention of this should be the aim of the surgeon. The idea was in his mind at the very beginning of his career, when he was Erichsen's house-surgeon in University College Hospital. The accepted teaching of the day, that putrefaction was due to the action of the air, particularly of the oxygen, on the organic fluids in wounds, did not satisfy him, and in the various methods of dressing adopted by him he never made any attempt to exclude that constituent of the atmosphere. As has been said, he insisted on rigorous cleanliness, and his wards were so insanitary that neither this nor frequent changes of dressing, nor careful drainage, nor free washing with warm water and Condy's fluid, availed to check the prevalence of pyaemia, erysipelas, and hospital gangrene. Pyaemia is now little more than a memory to those who have witnessed the gradual diffusion of Lister's teaching. The same thing may be said of hospital gangrene. What

that fearful scourge was may be learnt from John Bell who, in his *Principles of Surgery* (1801), says:

When it rages in a great hospital it is like a plague; few who are seized with it can escape. There is no hospital, however small, airy, or well regulated, where this epidemic ulcer is not to be found at times; and then no operation dare be performed! Every cure stands still! Every wound becomes a sore, and every sore is apt to run into gangrene; but in great hospitals especially it prevails at all times, and is a real gangrene. It has been named the Hospital Gangrene; and such were its ravages in the Hôtel-Dieu of Paris (that great storehouse of corruption and disease) that the surgeons did not dare to call it by its true name; they called it the rottenness, foulness, sloughing of the sore! the word, hospital gangrene, they durst not pronounce: for it sounded like a death-bell: at the hearing of that ominous word, the patients gave themselves up for lost. In the Hôtel-Dieu this gangrene raged without intermission for two hundred years, till, of late, under the new government of France, the hospital has been reformed. "A young surgeon (says an ancient French author) who is bred in the Hôtel-Dieu may learn the various forms of incisions, operations too, and the manner of dressing wounds; but the way of curing wounds he cannot learn. Every patient he takes in hand (do what he will) must die of gangrene."

What, then, says the same author, speaking of the treatment of hospital gangrene, is the surgeon to do?

Is he to try experiments with ointments and plasters while men are dying around him? Is he to expend butts of wine, contending, as it were, against the elements? No! Let him bear this always in mind, that no dressings have ever been found to stop this ulcer; that no quantities of wine or bark which a man can bear have ever retarded this gangrene; let him bear in mind that this is a hospital disease, that without the circle of the infected walls the men are safe; let him, therefore, hurry them out from this house of death; let him change the wards, let him take possession of some empty house, and so carry his patients into good air; let him lay them in a school room, a church, a dunghill, or in a stable (like Paree's (*sic*) gangrened soldier); let him carry them anywhere but to their graves.

These scourges were so prevalent in the Glasgow Royal Infirmary that Lister says he felt ashamed, when recording the results of his practice, to have to allude so often to hospital gangrene and pyaemia, and he came to welcome simple fractures, though of little interest either for himself or the students, because their presence diminished the proportion of open sores among the patients. In other hospitals, both in this country and abroad, the state of things was just as bad.

Then came the discoveries of Pasteur, which revealed the cause of putrefactive fermentation to be the development of living organisms in the dust of the atmosphere. Lister forthwith applied the new doctrine to the treatment of wounds. By his conviction that the ideal to be aimed at was that a wound should heal like a subcutaneous injury he was led to apply it first in the treatment of compound fracture. The effect was immediate and striking. Not only did repair occur without systemic disturbance, but primary amputation, which before was almost a thing of the past, and not only innumerable limbs, but a vast number of lives were saved. He observed that the crust formed by the carbolic acid applied as a dressing and the blood became organized into living tissue, and that dead bone, instead of being exfoliated, was absorbed. From compound fracture he extended his treatment to psoas abscess, and gradually to wounds of all kinds. Although at a shallow depth, under his wards were found a multitude of putrefying bodies of people who had died of cholera in 1849, and who had been buried in pits, he was able to report to the British Medical Association in 1867 that during the previous nine months not a single case of pyaemia, erysipelas, or hospital gangrene had occurred in his wards. How had this miracle been wrought? It could not be ascribed to mere cleanliness, though that was most strictly enforced: the influence of sanitation was absolutely excluded by the existence of the sources of putrefaction in the near neighbourhood of the wards. This very fact, indeed, formed an *experimentum crucis* that proved that the change was due to the adoption of measures which killed the invisible agents which produced septic disease.

It is unnecessary to repeat here the oft-told tale of the evolution of modern surgery on the lines laid down by Lister. It can be read in detail in our Lister Number, or in the Introduction to his own *Collected Papers*. It is enough to say that Lister, taking Pasteur's pregnant discovery as his guide, studied for himself with characteristic thoroughness the action of micro-organisms in producing putrefactive fermentation in organic fluids and the methods of preventing their development. Next, with the infinite capacity for taking trouble which has been said to be the essence of genius, he tried how the new principle could most effectively be applied to the treatment of wounds. His early methods were crude and cumbrous, and he gave nearly the whole of his professional life to perfecting them. His aim was towards simplification, and he abandoned the carbolic acid spray and other details as soon as he was convinced that they were unnecessary. To gain any notion of the inexhaustible patience with which he worked, his own papers must be read. It will there be seen that he would pursue a research for a score of years, ever seeking for sources of fallacy, for causes of failure, and for the often elusive secret on the discovery of which final success depended. The most striking characteristics were his absolute candour and open-mindedness. He was always ready to confess mistakes, and he spared no pains in trying everything likely to help in the solution of the problem he had set before him. How completely he succeeded is writ large in the surgery of to-day. To him it is due that the surgeon's knife now penetrates safely and successfully into regions such as the abdomen, the brain, and the chest, which not very many years ago were declared to be beyond its reach. To him also is due the painlessness of wounds made under aseptic precautions. In the pre-Listerian era the smarting after wounds was often extremely distressing to the patient. This has practically been abolished. When Huxley visited the Edinburgh Royal Infirmary he summed up his impressions as follows: "What amazes me, Mr. Lister, is the painlessness of your wounds. You have not only banished those awful scourges which used to affect our wards, but you have abolished the pain and suffering associated with wounds and surgery." It may be said of him, as of Edward Jenner, that the very completeness of his success tends to obscure the greatness of his achievement.

In 1869 Lister was appointed to the Chair of Clinical Surgery in the University of Edinburgh in succession to Syme. There he continued his work, devising and testing improvements in the methods of carrying out the antiseptic principle. At the same time he prosecuted researches on the germ theory of putrefaction and on lactic fermentation. Of these Edinburgh days interesting reminiscences are contained in tributes paid to his memory by Professor Francis Caird in his class of clinical surgery and by Professor Alexis Thomson. Professor Caird said he felt, like others, that he ought to see what was going on before joining the ranks of the unorthodox. In the other wards patients died "like sheep on the hillside." If they walked into Lister's ward, what a difference! In 1874 the speaker was told, "Have nothing to do with Lister; he is hopelessly unorthodox." And yet as students every one thronged to Lister's wards, every one was attracted there, and Lister said, "From the beginning I had youth on my side." At that time many distinguished surgeons had as many as 80 per cent. of deaths, in spite of all sorts of treatment. Professor Alexis Thomson, to his class of systematic surgery, said they must not imagine that Lister's fame rested solely on his work in antiseptics or that that work itself was merely haphazard. Many new surgical procedures were introduced by Lister which were not associated with his name, as his name was too great to be linked with such minor affairs.

In 1877 he accepted an invitation to fill the place left vacant at King's College by the death of Sir William Fergusson. Here he persevered in the effort to perfect his method. In 1892 he retired from active surgical work.

Although for many years he was subjected to much criticism, and was met by active opposition—mainly by those who had not seen his work and its results—he always pressed right onward in what he believed to be the true path with a quiet confidence in his discoveries which supported him through the trials that beset the pioneer. But it must be borne in mind that Lister's path in life was easy in comparison with that of most who are the first to burst into the silent sea of strange truth. Seldom indeed have a scientific innovator's merits been more signally recognized in his lifetime than those of Lister. He was elected a Fellow of the Royal Society in

1860, and was awarded the Gold Medal of the Society in 1880 and the Copley Medal in 1902—the highest distinctions which the Royal Society has to bestow. He became President of the Royal Society in 1895. In 1896 he was President of the British Association for the Advancement of Science. He was President of the Section of Surgery of the British Medical Association in 1870 and again in 1875. It was to the Association at the Dublin meeting in 1867 that he made one of the earliest public enunciations of the antiseptic principle in surgery. Among the academic honours showered on him may be mentioned the following: The University of Edinburgh conferred upon him the honorary degree of LL.D in 1878, the University of Glasgow that of LL.D. in 1879, in 1880 Oxford made him a D.C.L., and Cambridge a LL.D. In 1897 the Universities of Toronto and Montreal each conferred the LL.D. upon him. He was an Honorary M.D. of Dublin, Würzburg, Budapest, Bologna, and Geneva. In 1898 the Victoria University conferred upon him the degree of D.Sc. He was an Honorary Fellow of the Royal College of Surgeons in Ireland and of the Faculty of Physicians and Surgeons of Glasgow. When he retired from the active staff at King's College he was appointed Emeritus Professor of Clinical Surgery and Consulting Surgeon to the Hospital. Foreign academic bodies vied with each other in doing him honour. He was a Foreign Associate of the Institute of France and of the Paris Academy of Medicine (1899) and a Laureate of the French Academy of Science (1881); an Honorary Member of the American Academy of Arts and Sciences, of the German Surgical Society and of the medical societies of Amsterdam, Budapest, Dresden, Finland, Leipzig, Munich, and St. Petersburg, and of the Imperial Academy of Sciences, Vienna. He also received the Cothenius Medal of the Imperial Leopold Academy of Natural Sciences, and the honorary degree of M.D. from the Universities of Bologna, Budapest, and Würzburg.

While Regius Professor of Clinical Surgery in Edinburgh he was appointed Surgeon to the Queen in Scotland, and, after his removal to London, Surgeon-Extraordinary. In 1900 he was appointed Sergeant-Surgeon-in-Ordinary to Queen Victoria, and in 1901 was nominated to the same office to His Majesty King Edward VII. He was gazetted a Baronet in 1883, and in 1897 was made a peer with the title of Baron Lister. On the occasion of the Coronation in 1902 his name appeared in the first list of members of the Order of Merit, and he was sworn a member of the Privy Council. He was also a Knight of the Prussian Order "Pour le Mérite," and a Knight Commander of the First Class of the Order of the Dannebrog (Denmark). In 1907, on the occasion of his eightieth birthday, he was presented with the Honorary Freedom of the City of London, the document being contained in an elaborate golden casket. In the same year a committee consisting of Sir Hector C. Cameron, Sir W. Watson Cheyne, Mr. R. J. Godlee, Dr. C. J. Martin, and Dr. Dawson Williams was formed to collect his scattered papers and publish them in a permanent shape. In this work they had the advantage of the guidance and advice of Lord Lister himself. The *Collected Papers*, which were printed by the Clarendon Press, appeared in two handsome volumes in 1909.

Lord Lister, who was left a widower in 1893, had no children, and his peerage—the first conferred on a member of the medical profession in this country—dies with him. Dignified in appearance, he was modest and unassuming in manner. He was a man of absolute integrity and utter devotion to duty and gave the impression of single-hearted love of truth. He treated his patients of whatever rank with the most genuine sympathy for suffering; indeed, it was the horror excited in him by the sights of the hospital wards in his early days that moved him to seek for a means of prevention. William Ernest Henley, who was a patient in the Edinburgh Royal Infirmary for eighteen months, left the following fine pen picture of him:

The Chief.

His brow spreads large and placid, and his eye
Is deep and bright, with steady looks that still.
Soft lines of tranquil thought his face fulfil—
His face at once benign and proud and shy.
If envy scout, if ignorance deny,
His faultless patience, his unyielding will,
Beautiful gentleness and splendid skill,
Innumerable gratitudes reply.
His wise, rare smile is sweet with certainties,
And seems in all his patients to compel
Such love and faith as failure cannot quell.
We hold him for another Herakles,
Battling with custom, prejudice, disease,
As once the son of Zeus with Death and Hell.

It was proposed on behalf of the Royal Society and the Royal College of Surgeons that Lord Lister should be buried in Westminster Abbey, and the consent of the Dean was obtained. It appeared, however, that Lord Lister himself had expressed a wish to be buried in Hampstead Churchyard, where the body of his wife lies. The interment is fixed for this day (Friday), and the first part of the funeral service will take place in the Abbey at 1.30 p.m. The coffin of the late Lord Lister will bear the following simple inscription: "Joseph Lister, born 5th April, 1827, died 10th February, 1912." The inscription plate will be of bronze.

The King, who, it is said, invariably remembered Lord Lister's birthday and sent a present of flowers on each anniversary, has sent a gracious message of sympathy to the late surgeon's family.

Queen Alexandra and other members of the Royal family also have telegraphed, and numerous messages of condolence have been sent by representatives of the medical and surgical professions. Queen Alexandra's message is in the following terms:

Pray accept my most sincere sympathy in the great loss which the whole nation shares at the death of Lord Lister, whose name will ever be honoured and gratefully remembered as that of the greatest benefactor to suffering humanity throughout the world.

The following telegram was sent to Sir Ray Lankester from the Directors of the Institut Pasteur, Paris:

L'Institut Pasteur vous prie d'exprimer à la famille de l'illustre Lister et à la Société Royale les regrets que lui cause la mort du rénovateur de la chirurgie.

ROUX.
METCHNIKOFF.

At the request of the Vice-Chancellor, the Principal of the University of London has written to Dr. A. H. Lister assuring Lord Lister's family of the profound sympathy of the University (of which he was a Fellow), and adding:

We are proud to remember on this occasion that he was one of the only two men, outside the circle of Royalty, upon whom this university has ever conferred an honorary degree.

The Austrian Minister of Public Instruction, Dr. de Hussarek, has addressed to the British Ambassador an expression of condolence upon Lord Lister's death.

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Sir W. WATSON CHEYNE writes:

I need not go into the tale which has been so often told of late years of Lister's great discoveries, and the way in which they have been elaborated. At the present moment my mind goes back to the time when I first came into contact with him nearly forty years ago. It was at the commencement of the winter session 1872–3 that I first attended Lister's classes, and the admiration and enthusiasm with which he then inspired me have never waned.

To my mind he was an ideal teacher and master, and I well remember the enthusiasm with which his work was followed by the large number of students who at that time attended the medical classes at the Edinburgh University. The operating theatre in the old Infirmary, although it contained seating accommodation for a large number of students, was always overcrowded on his lecture days, and, indeed, it was a race when the classes broke up in the University at 12 o'clock, to obtain a seat in the theatre at the old Infirmary; and this enthusiasm continued up to the end of his work in Edinburgh.

The cause of the enthusiasm is not far to seek; not only was he a great lecturer and teacher, but the matter of his lectures was always full of interest. It was not a case of being taught things which we could find in the books: everything was new, and the treatment of the various cases was always looked at from the fresh point of view, which resulted from the abolition of the danger of septic diseases. The treatment which he advised, which he carried out before us, and which ultimately proved completely successful, was often diametrically opposed to what we were taught by the other surgeons, and what we were told would almost of necessity lead to a fatal result. In fact the revolution in surgical practice which went on before our eyes was so complete, and the outlook for the future was so vast, that it is little wonder that Lister gathered around him a large number of enthusiastic followers. One of the great charms which attracted us was that he taught us to think. We were not told certain established facts which we had to learn by rote. It was new pathology and new treatment with which we became acquainted, and he was always searching for the reason of what he observed, and trying to devise treatment which would be in unison with the conclusions which he had drawn from his observations. His observations and deductions were laid before us and found a fruitful source of conversation and argument among the students.

One can imagine what it must have been to introduce modern surgery suddenly into the midst of old surgery, and it was very modern surgery that Lister taught. I still possess my note book containing full notes of his lectures during the winter session of 1872–73 and the summer session of 1873, and I often look at them with pleasure and find that the treatment which he then recommended to us for the first time is, in many respects, the same which is being employed at present. Lister was always interested in the work of others, and ready to help them in every way; very open-minded in adopting methods which seemed to be an improvement on his own; very tolerant of other opinions and almost painfully conscientious. During my long association with him I never heard him speak ill of any one.

Mr. G. LENTHAL CHEATLE writes:

It is frequently said of Lord Lister that he was not a great teacher and neither was he a great operator. I have never heard the former stated by anybody he had taught, nor have I heard the latter said by anybody who had watched his practice.

To have been taught by Lord Lister is a priceless asset which it is impossible to overestimate. To go to him with a difficulty was to give him a text upon which to demonstrate, and he would place one's difficulty in its proper place and proportion, and from it soar away to the limits of knowledge and speculation.

Yet Lord Lister did not attract large classes to King's College Hospital. He often said to me he drove to the hospital with his head hanging down in his carriage at the thought he was to lecture to so few men. It was their loss as well as his, for no doubt he expected large classes when he came from Scotland to London.

There are a comparatively few men who occupy high positions in the profession who came personally under Lister's tuition. To each one of these men every surgical act and thought is based upon the great pervading personal influence which alone made the art of administering to the sick a profoundly sacred duty. All Lord Lister's clinics were really important ceremonies, in which one felt proud of having taken part.

As an operator Lord Lister was said to be slow, but when rapid manipulation was essential he was quicker and more accurate than any operator I have seen. He made his assistants feel their responsibility one day when he

thought I had given him a wrong end of the wire with which he was fixing the fractured fragments in position. He said to me, "Had you done so I would never have forgiven you."

It was after this that I was assisting him to remove a breast, and in attempting to place a Spencer Wells clamp on an intercostal artery I pressed the points of the forceps into the pleura, which gave rise to a slight amount of pneumothorax, in spite of the immediate application of my finger. I expected a heavy rebuke for my carelessness. Lord Lister did not say a word; he gave rather a deep sigh, looked at me, and then cut a periosteal flap from the nearest rib, and with it effectually covered the small hole. My forceps had stopped the bleeding.

"One day I was helping Lord Lister in a case of lateral lithotomy. Dr. Hensley timed it. The operation of removing two calculi occupied thirty-two seconds. The onlookers were so impressed with the dexterity he exhibited that they clapped their hands. Lord Lister instantly turned round to them and said, "Gentlemen, gentlemen, remember where you are."

Mr. T. F. Hugh Smith, F.R.C.S., a son of Mr. Henry Smith, who was for a time a colleague of Lord Lister at King's College, writes:

The following may be of interest: A friend and fellow student of mine—not a native of Great Britain or Ireland—had almost completed his medical career, prolonged by reason of being a slow worker, when funds ran out.

As my friend had been a dresser to Mr. Lister, I ventured to call upon the latter and to put the case of my fellow student before him. Almost before I had finished speaking he gave me a cheque for fifty pounds, shook my hand, and expressed his best wishes for the success of his late dresser.

The Rev. Sydney Thelwall, late Vicar of Radford Semele, Leamington, writes:

May I be allowed to publish in your columns, in memory of that great and good man, Lord Lister, who has just been taken from us, a record of a golden saying of his from which medical men, and not medical men only, may learn wisdom? When I, one of the many whom his God-given skill and generosity have benefitted, was having the advantage one day of his conversation, he said in his quiet but impressive way: "When I am asked what is the first requisite for a really first rate surgeon, I always say, 'A feeling heart.'" He added: "People do not always believe me. But it is so."

Dr. Thomas Fielding (Bournemouth) writes:

May I call your attention on the death of Lord Lister to an error that I believe has been made on two occasions by Sir Hector Cameron in accounts of Lord Lister's work, and published in your Journal:

I think you will find it stated that the remarkable experiment of tying a blood vessel of a calf (or horse) with carbolized catgut was made in 1868, which is a year too late.

I attended Professor Lister's lectures and graduated in 1867, and well remember his coming into his class room in the early part of the year and saying, "Before beginning my lecture I should like to make a statement. All of you who attend my wards are aware of the difficulties I have had with the suppuration attending the ligatures of arteries. I have given it much thought and have been experimenting with a view to remedying it, and yesterday I completed an experiment which seems to hold out hopes of solving the difficulty. You probably know that calves are bled a week before they are killed, and I obtained permission from a butcher to bleed a calf and tie the vessel with strict antiseptic precautions. I was to have the head and neck of the calf when it was killed, and an examination seems to show that the ligature of animal tissue (catgut) had to some extent become incorporated with the living tissue of the animal. If further experiments show this to be correct I believe it will have a profound effect on the future of surgery."

I think the date of this ought to be given correctly in any obituary notice of Lord Lister because it is not unlikely that records may exist of operations with ligature of arteries based on it. I, for instance, tied the arteries on this principle in an amputation performed by Dr. J. Evens in Dorset in August, 1867.

*** In the introduction to Lord Lister's *Collected Papers* it is stated (p. xxxvii) that "he first on the 12th of December, 1867, tied the left carotid artery of a horse with purse silk which had been steeped in a strong watery solution of carbolic acid."

SIR WILLIAM ALLCHIN, M.D., F.R.C.P.Lond., F.R.S.E.,

CONSULTING PHYSICIAN, WESTMINSTER HOSPITAL.

The death of Sir William Henry Allchin, M.D., Consulting Physician to Westminster Hospital and Physician Extraordinary to the King, took place on February 8th, after a long illness.

He belonged to an old Kentish family, and always maintained his affection for that county. While busily engaged in practice and public work in London, he found his best recreation in a ramble with his wife through the Kentish lanes, and in later life he had a house in Kent, where he spent much of his scanty leisure.

He was born in Paris in 1846. His father engaged in medical practice in Bayswater, and after a private general education young Allchin entered the Medical Faculty of University College in or about 1865, and took the diplomas of M.R.C.S.Eng. and L.S.A. in 1869. He served for a time as medical officer of the *Great Eastern* when that famous forerunner of the leviathans of to-day was used as a telegraph ship. He graduated M.B. in the University of London in 1871, on which occasion he was the first man of his year in medicine taking the University Scholarship. Soon after graduating he became in succession Physician to the Western Dispensary and to the St. Marylebone Dispensary. He had held also the office of Physician to the Victoria Hospital for Children, Chelsea, and at the time of his death was Consulting Physician to that institution as well as to the Westminster Hospital. In or about 1872 he was appointed Lecturer on Comparative Anatomy and Animal Physiology at University College, and retained this post for some time after he became connected with Westminster Hospital. His connexion with University College was maintained by his election to be a Life Governor. Of his long connexion with Westminster Hospital we are able to give the following account in the words of his life-long colleague, Dr. de Havilland Hall:

"Sir William Allchin's long connexion with the Westminster Hospital and Medical School dates from 1872, when he was appointed Medical Registrar. At that time the Medical Registrar had to perform the *post-mortem* examination of patients dying in the medical wards, so that Allchin very early in his career took a large part in the work of the hospital. At the same time he was appointed Demonstrator of Practical Physiology, and he threw all his energy into the task for which he was eminently fitted by his previous training and experience at University College. In May, 1873, owing to the retirement of Dr. Radcliffe, Allchin became Assistant-Physician, and in the school he was appointed the First Lecturer on Pathology and Morbid Anatomy. In 1874 he resigned the post of Medical Registrar. In this year commenced the very strenuous work which he did on behalf of the Medical School by his appointment as Sub-Dean, Mr. Cowell being the Dean. As an indication of Allchin's readiness to assist in the work of the school it may be mentioned that when steps were taken to complete the dental department, in addition to all his other duties he undertook to teach dental anatomy, physiology, and histology. In 1877, owing to a vacancy in the Senior Staff, caused by the resignation of Dr. Basham, Allchin became Physician, and commenced the many years of splendid work which he carried on in the wards of the hospital. In 1878, after having acted as Sub-Dean for four years, he succeeded to the office of Dean of the School, which post he held for five years. In this year also he was appointed Lecturer on Physiology. In 1882 he resigned this chair to become joint Lecturer on Medicine, which post he held for ten years. In 1890, at the request of his colleagues, he again took up the duties of Dean of the School, and held office for three years.

"The chronological list which has been given above will indicate to some extent what Allchin did for the school and hospital. The high estimation in which he was held by his colleagues is shown by the fact that when the school began to go down he was requested to resume the post of Dean. As Dean he was a firm disciplinarian, strictly fair and just in his dealings with the students, but always ready to do a kind action. It was, however, in the wards of the hospital that Allchin was seen to the greatest advantage. He was most careful and methodical in his examination of patients, never in a haste to make a diagnosis before he had thoroughly considered all the bearings of the case. Hence he was an admirable clinical teacher, and reflected the greatest credit on the great medical school of University College, of which he was one of the most distinguished pupils. His demonstrations in the wards were highly appreciated by the students, and he had always a large following.

"It was therefore with the greatest regret that in 1905 his colleagues and the students heard of his intention of giving up active work at the hospital before the age of compulsory retirement had arrived. This regret was shared by the sisters and nurses, to whom he had endeared himself by his many kindnesses. On retiring from the active staff he was elected Consulting Physician to and Vice-President of the hospital.

"There only remains to say that his services as a member of the House Committee of the hospital were invaluable. He had the faculty of getting to the bottom of things and expressing his meaning in clear and logical language, so that his remarks were always received with the greatest attention and exercised a weighty influence on the decisions adopted by the committee. His premature death is consequently a great loss both to the school and also to the hospital, as up to the very last he was always ready to give advice and assistance when the need arose."

Sir William Allchin became a Fellow of the Royal College of Physicians of London in 1878, he gave the Bradshaw Lecture on the nature and causes of duodenal indigestion in 1891, was Harveian orator in 1903 when he took for his subject the study of structure in relation to function, and in 1905 gave the Lumleian Lectures on some aspects of malnutrition. He was an examiner from 1881 to 1884 and again from 1886 to 1893. He took a great interest in the business of the College and from 1883 to 1886 held the office of Assistant Registrar; he was a member of the Council from 1897 to 1899 and a Censor in 1903 and 1904.

The office of Assistant Registrar at the College of Physicians was instituted in 1883 in consequence of the work of the Registrar (then Sir Henry Pitman) having been greatly increased by the rapidly increasing number of applicants for the College licence. Dr. Allchin's was the first appointment to the office in that year, and he held it for three years. At that time the examinations and the whole administrative business of the licence were carried on at the College in Pall Mall.

About this date, 1883, Dr. Wilson Fox, deeply impressed by the fact that the regulations and character of the examinations of the University of London interposed insuperable obstacles to any but a small minority of metropolitan medical students obtaining degrees in medicine, so different to the conditions prevailing in other parts of the kingdom, brought this disability before the College of Physicians. Later it was referred on his motion to a committee to report "how far it is desirable that the College should endeavour to obtain powers to confer the title of Doctor of Medicine on its Fellows, Members, and Licentiates." After some delay, and with an addition to the reference, it was so referred, and the Committee reported, April, 1884:

(1) That it is desirable that increased facilities should be afforded to English medical students for obtaining the degree of M.D. (2) That the College should immediately take steps to promote that object either by obtaining the co-operation of one or more English universities, or by independent action.

Further action was postponed until the negotiations then going on for associating the Royal College of Physicians and Royal College of Surgeons in their examinations for their respective Licence and Membership were completed, with a view to their co-operating also in taking steps with regard to the degree question. The question was not revived until 1885, when the Royal College of Surgeons proposed the appointment of seven delegates from each College to consider it. After much discussion and references to and reports by committees on both sides, a final report was received on December 16th, 1886, by both Colleges from the delegates, recommending the adoption of the following resolutions:

1. That candidates who have passed the examinations of the Examining Board in England for the L.R.C.P. and M.R.C.S. should have a degree in medicine and surgery conferred upon them, provided that they have passed such examination in arts and science as may hereafter be defined; and have pursued clinical studies in London—or in other medical school or schools if the governing body should so determine—for at least two years after having passed the Second Professional Examination.
2. That an application be made to the Crown by the Royal College of Physicians of London and the Royal College of Surgeons of England, acting conjointly, for power to confer degrees in Medicine and Surgery.

On the occasion of an intermediate report, in 1885, in which the above resolutions of the final report were foreshadowed, Dr. Allchin, who was strongly of opinion that the desired end should be attained by a reform of the University, if possible, and not by the colleges obtaining university powers in one faculty for giving a degree, which he feared might disparage them and depreciate the value of their highest qualifications, F.R.C.P. and F.R.C.S., felt obliged to resign his appointment as Assistant Registrar, of which he writes:

Holding as I did at the time an official position in the College, I did not feel at liberty to contest the opposite view which was so strongly held by my chief, Sir Henry Pitman, as well as by the President, but the following day placed my resignation in the hands of Sir Wm. Jenner, and relieved of responsibility regained the freedom to pursue such course as might seem to me desirable under the circumstances.

So it was that on the occasion of the debate (December, 1886) on the adoption of the above final resolutions of the delegates, although with a full college and overwhelming majority supporting them, he moved the following amendment:

That no scheme for conferring degrees in medicine and surgery upon candidates who have passed the Examining Board in England shall be deemed satisfactory, unless it provide for the conferring of degrees by some university body outside the College themselves, but one on which they may be represented.

This was seconded by Dr. N. Moore but rejected by 70 to 9. Dr. Allchin found a justification for his motion when later Lord Selborne's Commission disposed of the College's petition in a few not very complimentary words of disapproval. The report, however, was adopted and the delegates authorized to take the necessary steps for an application to the Privy Council for a charter conferring on the College the powers required.

It should be noted that during all this time, from 1884 onwards, a movement for reforming the University of London was spreading. Convocation had taken the matter up, and the Association for Promoting a Teaching University in London was constituted, and had been showing much energy and activity. The Senate of the University had begun to stir itself, and in 1886 appointed a strong committee to consider representations made to it. The joint action taken by University and King's Colleges in 1886–7 for a new university was no less significant. These all lead up to the appointment of the first Royal Commission on the university question in London, of which Lord Selborne was President. The intention of the Government was announced in the House of Lords on March 12th, 1888, and the Commission issued on May 2nd: "To inquire whether and what kind of new university or powers is or are required for the advancement of higher education in London." The report of the Commission was issued in April, 1889. The gist of it was: (1) That the petition of the Royal Colleges for powers to confer degrees ought not to be granted. (2) That the existing University of London should be asked to consider whether, by alterations in its charter, the more important demands of the various petitioning bodies could be met agreeably to the scheme outlined in the report. (3) That if the university failed to do this the Privy Council would be prepared to consider the proposals for founding a separate local university.

On the receipt of the report the President consulted Dr. Allchin on the action to be taken, and at a meeting of the College on May 20th, 1889, on the proposal of Dr. Allchin, seconded by Sir Risdon Bennett, a committee was appointed to consider the report, together with any other communications which might be received, with power to confer with the Royal College of Surgeons. Dr. Allchin was appointed Secretary of this Committee, a position which he continued to fill, with the highest satisfaction to the College, up to the appointment of the Statutory Commission in 1898. In June, 1888, a communication was received from the University announcing the proposed remodelling of the University in the sense of the recommendations of the Commissioners, and on the basis of the amended scheme of the Senate of June, 1887. From this time (1889) throughout 1890, negotiations were continually going on between the Royal Colleges themselves and between them and the University, and by the latter with University and King's Colleges and the Metropolitan Medical Schools, in the continuous revision of a scheme of reconstitution until a form was obtained embodying the maximum of the reforms desired which could yet be accepted by all.

At last, on February 18th, 1891, a "Further Revised Scheme," known as Mr. Anstie's, from the knowledge, judgement, and indefatigable labours of this gentleman in promoting it, was cordially approved and accepted by the colleges, and more or less by all the parties. Unfortunately, all this labour was lost for the time being, for, sad to say, on May 12th the scheme was rejected by a decisive majority in a large, imperfectly informed, and excited meeting of Convocation, and the Senate had to report its failure to the Commissioners.

Immediately on this followed an entirely new set of negotiations, hurriedly conducted under the aegis of the Privy Council, with the promoters of the draft charter of the "Albert" (henceforth "Gresham") University, and the petition of University and King's Colleges, now identified with it. This led to a full-dress hearing before the Privy Council, all interested for and against it being represented by counsel (June 29th to July 1st, 1891). Judgement was deferred for twelve days, which were devoted to further conference between the parties. On July 13th judgement was given by Lord Selborne: (1) The prayer of the University and King's Colleges was granted nearly in the form of the charter; (2) the claims of the Royal Colleges were disallowed; (3) the ten medical schools obtained their request to be made constituent colleges in one faculty, and to have five direct representatives on the council. On July 21st the Royal Colleges resolved to stand aloof from the university. The negotiations had occupied two calendar months.

The New University Charter, however, met with so much opposition in the then session of Parliament (1891) that the Government withdrew it and remitted it for reconsideration to a fresh Royal Commission appointed in the spring of 1892 under the presidency of Earl Cowper. Evidence was freely invited, and a vast amount accumulated in the course of the year. It was not till the end of February, 1894, that the report of the Commission (so-called "Gresham") was issued. It came before the Joint Committee of the two Royal Colleges on March 6th, and in April was approved by both as being "in accordance with what the Colleges have hitherto affirmed, and as constituting the most comprehensive and academic scheme hitherto proposed."

The next step was to put pressure on the Government from all the interested bodies to appoint a Statutory Commission at an early date with power to frame statutes and ordinances in general conformity with the recommendations of the report. It was understood that this would be done if not likely to be seriously opposed in Parliament. Many vexatious delays in the following years, 1895–97, occurred, including a change of Ministry (July, 1895), and it was not until late in the session, July, 1897, that it was introduced into Parliament. Nothing, however, was done, and the bill for a Statutory Commission was again introduced in February, 1898, and was eventually carried under the name of the University of London Act, 1898. Unfortunately this Act with its appended schedule introduced serious departures from the scheme and intentions of the report of the Cowper Commission, and compromises to ensure the passing of it, which in the opinion of the Colleges and others were undesirable. Under this Act the statutes of the present reconstituted University of London were settled.

At the comitia on July 26th, 1900, a notice from the Vice-Chancellor to appoint two representatives on the Senate of the reconstituted University was received, and Dr. Pye Smith and Dr. Allchin were appointed. The following resolution was then moved by Dr. Norman Moore and adopted by acclamation, the mover paying a warm tribute to the indefatigable zeal and success with which Dr. Allchin had devoted himself to the university cause during the past sixteen years, and the valuable services he had rendered the College as Secretary of the University Committee for a period of more than ten years:

> That a vote of thanks and the sum of 100 guineas be given to Dr. Allchin as an acknowledgement of his services during several years, and on numerous occasions, as Secretary to the University Committee, as Representative of the College before the Royal Commissioners and the Prime Minister, and in many other ways in relation to the reconstruction of the University of London.

As regards Sir Wm. Allchin's own or special views on the university question in London, he was from the beginning of the movement for promoting a teaching university for London in favour of a reconstitution of the old university for that purpose, rather than for the creation of a second university, and he did all in his power to promote it. On the whole, he was probably fairly satisfied with the "Finally Revised Scheme of the Senate" (Anstie's) for such a reconstitution, under Lord Selborne's Commission, which was rejected by Convocation; and also with that outlined in the report of Lord Cowper's Commission, apart from the provisions of the Statutory Commission and the schedule appended to it, which went far to mar it in several respects.

As regards medicine and medical degrees, he was strongly impressed with the reality and importance of the familiar, standing grievance and disability of London medical students and the obligation of providing a degree or degrees in medicine reasonably accessible to an industrious man of average ability, and, closely connected with this, to prevent the drifting of students from London to university towns. To the last Sir William Allchin regarded the association of the university with the Royal Colleges in joint examinations (under Statute 123) for degrees in medicine, to be granted in conjunction with the primary qualifications of the colleges, under such conditions as should render them generally accessible to London students, as the most important step for remedying the above grievance of the London student and the depletion of the London schools.

For some years before his death he was engaged on a report on the university, prepared, we understand, at the request of the Government. It was, we believe, recently completed, the final proofs occupying most of his available time during his last illness.

Sir William Allchin was not a voluminous writer, but everything he published, like all his speeches on the university and other allied questions, was carefully thought out and expressed in clear and well-balanced sentences. He contributed a number of papers and addresses to the *Westminster Hospital Reports*, of which he was joint editor in 1888. He contributed the articles on disorders of digestion and of the intestines to Quain's *Dictionary of Medicine*, and assisted the editor in its production. He contributed also to *Allbutt's System* the article on diseases of the peritoneum, and himself edited a *Manual of Medicine*, which was published in five volumes between 1900 and 1903, and for that work obtained the co-operation of many distinguished writers, including many junior members of the profession, for it was characteristic of him to encourage young men to put forth their best efforts.

He was a member of the Medical Consultative Board to the Admiralty, and had been an Examiner for Commissions in the Medical Departments of the Royal Navy, the Army, and the Indian Medical Service. Altogether he did in various capacities a great deal of public work, and brought to it not only a wide acquaintance with medicine and its allied sciences, but also a constant anxiety to discharge the duties he had undertaken with careful discrimination, and punctilious regard for the rights of the individual as of the State. It was probably as much in recognition of this

public work, as of his eminence as a physician, that in 1907 he received the honour of knighthood. He was also Physician Extraordinary to the King.

Sir William Allchin married in 1880 Margaret, daughter of Mr. Alexander Holland of New York, who survives him. A memorial service was held in the Westminster Hospital Chapel at 9.45 a.m. on February 15th, and the interment took place later at East Malling, Kent.

AN OLD WESTMINSTER STUDENT writes: Allchin's clinics at Westminster were always well attended. Former students of the medical school were always present, and perhaps appreciated his teaching to a greater extent than the ordinary student. This was, no doubt, largely due to the fact that he dwelt more upon the deeper aspects of the disease than upon the diagnosis and treatment which is bound to be the chief attraction to the individual who is looking at all cases from an examination point of view. However, no one who availed themselves of the golden opportunities will ever regret the hours spent with him in the wards. There were no artificial aids to memory suggested by him, and his logic and reasoning were probably of more lasting value than such methods. Allchin was always popular with the Westminster students, and, one may say, beloved by all who came into contact with him.

JOHN MARSHALL, M.B., C.M.,

HAMILTON, SCOTLAND.

THE general public and the medical profession in Hamilton and Lanarkshire have sustained a severe loss by the death of Dr. John Marshall, which occurred on February 7th in a nursing home in Glasgow.

Dr. Marshall was a son of the late Dr. John Marshall, and was born in Hamilton in 1873. He received his early education at Hamilton Academy and Glasgow Academy, and became a student at Glasgow University, where he graduated M.B., C.M. in 1896. After spending a short time as assistant with Dr. Wardle, of Bishop Auckland, he joined his father in a large and busy practice in Hamilton, which included appointments as medical officer to several of the large collieries in the district and to the parish council. These important appointments Dr. Marshall continued to fill on the death of his father in 1902. He joined the volunteer force in 1901 as Surgeon-Lieutenant to the 2nd Volunteer Battalion Scottish Rifles, was promoted Surgeon-Captain in 1904, and was transferred to the R.A.M.C.(T.) in 1908 with the rank of Captain. He took a deep interest in all forms of athletics, and always tried to find time for recreation, though often with difficulty, in a game of golf, of which he was an exponent of no mean capacity. As a member of the Glasgow Medical Golf Club, and on the links both on the east and west coasts of Scotland, his was a familiar figure.

Naturally of a quiet and gentle disposition, almost amounting to shyness at times, he was greatly beloved by all his patients and friends. Thrown at a comparatively early age into all the cares and turmoil of a busy general practice, he was essentially a young man who realized "the importance of being earnest," and in everything he undertook, whether in work or play, always gave the impression that whatsoever his hand found to do he did it with all his might. Earnest seriousness in all he attempted, coupled with a loving devotion to the members of his family circle, may be said to be the outstanding features in a career closed with tragic abruptness.

Dr. Marshall was unmarried, and is survived by his mother and four sisters, for whom the deepest sympathy is felt in the irreparable loss they have sustained.

MR. ALLEN LANKESTER HAYNES, M.R.C.S., L.S.A., J.P., died at Witham, Essex, on February 8th. He was born in August, 1836, the son of Mr. J. B. Haynes, F.R.C.S., of Evesham, and received his education at Evesham Grammar School, Derby, and Guy's Hospital. He took the diploma of M.R.C.S., L.S.A., in 1860, and afterwards commenced practice at Evesham, first in partnership with his father then with one of his four medical brothers, and finally with Dr. L. F. Leslie. He was Medical Officer and Public Vaccinator for the second district of the Evesham Union, Surgeon to the Cottage Hospital, the Post Office, and to various friendly societies. Mr. Haynes was an ardent churchman and a Conservative in politics. He was a Justice of the Peace and for several years was an Alderman of the borough. He formerly held the rank of Surgeon-Captain in the Volunteer Force. He had a wide circle of friends by whom he was highly esteemed. During the last few years he had suffered from ill-health and had latterly resided at Witham. He leaves a widow and eight children.

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

Demonstratorship in Medicine.

E. LLOYD JONES, M.D., has been appointed Demonstrator in Medicine.

UNIVERSITY OF LONDON.

MEETING OF THE SENATE.

A MEETING of the Senate was held on January 24th.

Recognition of Teachers.

Mr. Hugh Lett and Mr. James Sherren have been recognized as teachers of clinical surgery at the London Hospital Medical College.

Charles Graham Medical Research Fund.

Regulations were adopted for the administration of the medical research fund for which provision was made in the will of the late Dr. Charles Graham. The income of the fund, which will amount to about £1,250 a year, will be devoted to aiding research in the School of Advanced Medical Studies connected with University College Hospital. A Director of Research will be appointed at a salary not exceeding £400 a year; there will be a scholarship in pathology of the value of £200 a year, tenable for two years; and provision is further made for the award of a gold medal for pathological research, for making grants to workers in the laboratories, and for defraying the expenditure on apparatus, etc., required for the purposes of the trust.

Resignation of Sir William Ramsay.

The Senate accepted with sincere regret Sir William Ramsay's resignation of the Chair of General Chemistry at University College, and expressed their high appreciation of the services which he had rendered to the university both by his inspiring work as a teacher and by the great series of researches carried out by him at University College.

King's College for Women.

Provisional recognition was granted to a scheme for the endowment of the teaching of home science and economics in connexion with King's College for Women, for which purpose a sum of £50,000 has been promised, the administration of the scheme to be vested in a special committee under a trust deed. (BRITISH MEDICAL JOURNAL, February 10th, p. 325.)

M.S. Degree in Dentistry.

It was resolved:

That the appropriate Registrar be authorized to issue to any person on whom the Degree of Master of Surgery, Branch II (Dental Surgery), has been conferred a certificate stating that such person is qualified to practise dentistry or dental surgery, in accordance with the requirements of Section 18 of the Dentists Act, 1878, provided that such certificate shall not be issued except at the request of the person in question; and that the General Medical Council be informed of this resolution.

Personnel of the Senate.

Professor W. C. Unwin, LL.D., B.Sc., Pres. Inst. C.E., F.R.S., has been appointed to be a member of the Senate for the remainder of the period 1911–15, vice Sir John Wolfe Wolfe-Barry, K.C.B., F.R.S., resigned.

Personnel of the External Council.

Dr. H. L. Eason has been appointed a member of the Council for external students for the remainder of the period 1911–12, vice Dr. Leonard Hill, F.R.S., resigned.

Physiological Laboratory Committee.

Sir David Ferrier, F.R.S., has been elected a chairman of the Physiological Laboratory Committee for the remainder of the year 1911–12.

Appointment of Representative.

Dr. Frederick Taylor has been reappointed the representative of the University on the General Medical Council.

UNIVERSITY OF BIRMINGHAM.

The annual report of the Council of the University shows that during last session there were 1,017 registered students, of which number 633 were matriculated students. This is a total increase of 59 on the previous year. The total number of students was distributed as follows:

	1910–11.	1909–10.	1908–9.	1906–7.	1904–5.
Faculty of Science ...	239	265	245	207	134
Faculty of Arts	231	246	215	170	124
Faculty of Commerce ...	28	28	30	18	16
Faculty of Medicine ...	85	71	75	66	92
Total matriculated ...	633	608	565	461	366
Unmatriculated ...	384	350	419	483	479
Total	1,017	958	984	944	845

In the Faculty of Medicine in 1910–11 there were 155 male students and 45 female students. There has been during the past year a closer incorporation of clinical teaching in medicine with the university, and thereby the medical staffs of the General and the Queen's Hospitals have become clinical teachers to the university. By this means the additional Government grant for medical education has been secured.

The income for the year ending September 30th, 1911, was £55,423, and the expenditure £60,265. This shows an excess of expenditure over income of £4,842, which, added to previous adverse balances, makes an accumulated deficiency of £37,748.

Grant from the Birmingham City Council.

At a meeting of the Birmingham City Council held on February 6th it was decided to make an annual grant to the university of £15,000 as from April 1st, 1912. The conditions of the grant are as follows: (1) That the university should offer fifteen major scholarships annually, entitling the holders to the remission of the university fees altogether, with a maintenance grant of not more than £50 per annum. This, if carried out and suitable candidates were forthcoming, will involve an annual expenditure which might amount to upwards of £3,000. (2) "That the university should (*a*) maintain such tutorial classes as may be considered desirable by the joint committee of the university and working men representatives, and (*b*) appoint junior lecturers in such subjects as economics, history, and literature (or such others for which there is a demand in working-class circles), who would be appointed with the definite object of devoting part of their time to giving evening lectures to adult workers at the university itself or in other parts of Birmingham."

UNIVERSITY OF GLASGOW.

University Court.

Inclusive Fees.—At the meeting of Glasgow University Court on February 8th the question of inclusive fees was under consideration. A memorandum of the resolutions adopted at the conference of representatives of the four University Courts, held at Perth in December last, was submitted. Dr. Hutchison objected to any increase on the students' fees in view of the grant of £12,500 per annum recently made by Parliament to the university. The ordinance passed by the University Court and sanctioned by Parliament three years ago had been in no way altered or suppressed. No doubt the Court had power to raise or lower class fees, but neither under the Act of Parliament nor in the ordinance was there anything about inclusive fees. Sir David McVail objected to the inclusive fee system as an interference with the liberty of the Scottish student. Ultimately it was agreed to send a draft reply to the communication from the General Council to the effect that the University Court would come in with the other universities in establishing a system of inclusive fees, but that the following be incorporated in the reply: "That any student not being a beneficiary of the Carnegie Trust who, on presenting himself for graduation, can show that the classes which he has actually taken would, if paid for severally on the scale of fees in force at the time, have amounted to a less sum than he has paid in inclusive fees shall be entitled to have the balance repaid to him by the university."

Medico-Legal.

WORKMEN'S COMPENSATION.

A Medical Referee's Opinion.

In Watkiss *v.* Shelton Iron, Steel, and Coal Company (Hanley, December 20th, 1911), the applicant was a labourer. Whilst employed in a dip in the Hanley Deep Pit, the back of his hand was scratched by rusty iron, and after a time blood poisoning ensued. The wound healed, and the applicant resumed work, but subsequently was unable to continue owing to muscular pains in the upper part of the arm. The medical witnesses called by the applicant disagreed in their evidence with those called for the defence, and the judge under the circumstances decided to submit the medical points of the case to a medical referee, selecting Mr. J. T. J. Morrison, F.R.C.S., of Birmingham. That gentleman, in the first instance, reported that he had come to the conclusion that blood poisoning had not caused any disease of the muscles, and that, if the applicant could free himself from the idea that he could not use his arm, he would regain the natural use of the limb. Both sides having claimed that this report was favourable, the county court judge remitted it to the medical referee. On his having further reported,

His Honour remarked that, as it was a peculiar case, he had thought it right to call in the services of a medical referee. His report, however, was not conclusive, both sides claiming that it was in their favour. Dr. Morrison had since given him a second one to be added to his original report. In this communication Dr. Morrison submitted that the data which seemed to be material were: (1) The infected wound of the wrist; (2) the recovery to a certain extent; and (3) incapacity for full work, due, in his opinion, setting aside the weakness, to the idea conceived in the workman's mind. Obviously, proceeded Dr. Morrison, the accident and incapacity were somehow connected, and, he took it, the essential point was to distinguish, if possible, between the modified sequence and the direct result. In doing this he gave his opinion in the form of answers to two questions: "(*a*) Was the accident (including the wound infection) the direct cause of the infection? To this the answer was in the negative. (*b*) Had the mental state which controlled the incapacity been induced by shock or lead poisoning or any other morbid state, mental or physical, directly traced to the constitution? The answer to that question was also in the negative." In conclusion Dr. Morrison wrote: "On the basis of these views, I have to express an opinion that the idea in the workman's mind is self-conceived. The accident being eliminated, I assume it is not necessary to decide whether the conception was induced by independent brooding or by any other cause that may be suggested." On this statement His Honour gave judgement for the respondents.

Pneumonia or Accident?

In Doyle *v.* Workington Iron and Steel Company (Whitehaven, December 20th, 1911) some interesting evidence was given as to whether a blow on the breast can give rise to pneumonia. It was admitted that the claimant's husband died of that disease.

The accident occurred in the pit; the deceased was knocked down by a bogie, and on the next day a doctor was sent for, and found him suffering from acute pneumonia of the right side. The patient died and the medical man expressed the opinion that death was due to traumatic or contusion pneumonia, brought about by the accident—that, in falling, he fell on his breast and so caused a contusion of his lungs. A previous attack of pneumonia would undoubtedly make him predisposed to another attack. When giving evidence, he said, in reply to His Honour, that he did not see any mark of bruises on the chest. The pneumonia was in the middle lobe of the right lung. In cross-examination, he said that pneumonia was sometimes epidemic. At that time there was an epidemic of pneumonia at St. Bees. The patient had died of contusion pneumonia or concussion pneumonia.

Another medical witness said he had heard all the evidence, and was of opinion that the man's death was due to the accident. A previous attack of pneumonia would without any doubt whatever make him more disposed to another attack. In the majority of cases there was no external evidence of bruising. He had had two cases of severe blows on the abdomen with internal rupture without any external appearance of contusion. He would not use the term "septic pneumonia" of the present case, because that might be understood to mean epidemic pneumonia.

A medical witness called on behalf of the employers said he had heard the evidence given and thought death was not connected with the accident. There was an epidemic of pneumonia in the district at the time. He attended five cases at St. Bees, and he heard that there was at the same time an epidemic at Frizington.

His Honour and Dr. Tawse, medical assessor, retired to consider the case. On their return His Honour said that no doubt there was some difficulty in the case. The difficulty arose in this way: It was necessary that the applicant should prove conclusively to the satisfaction of the court that the man died from pneumonia resulting from the accident. They had come to the conclusion that this had not been proved, and when he had said that he had said really all that it was necessary for him to say. They were bound by the law as laid down in the superior courts to the effect that where the evidence was equally consistent that death had been caused in a certain way, and that it had not been caused in that way, that was not conclusive proof. They therefore found that it had not been proved that deceased's death was caused by the accident, in other words, that the injuries did not result in the death; that fact not proved. He therefore gave judgement for the respondents with costs.

Hydrocele.

In Brown *v.* Cargo Fleet Iron Co., Ltd. (Middlesbrough, January 23rd), it appeared that the applicant was an ore filler, a healthy man, and a very good workman, very rarely losing a shift. The man had to pull a barrow weighing about 6 or 7 cwt., and the load of ore about 18 cwt.—24 or 25 cwt. in all—from the tip to the trucks. On July 29th, as he was struggling to wheel his barrow up the incline with a full load, he felt a severe pain the lower part of the abdomen. His mate, who was near by, heard him cry out that he had hurt himself, and he was unable to continue. He went and sat down in a cabin thinking it would pass it off; but as it grew worse, he reported the accident to the firm, and went home. The same day he went to see Dr. Benson, who found a swelling in the lower part of the abdomen, and sent him to the hospital. Later on he

for hydrocele, which had developed. The question was whether the hydrocele was caused by disease or by the accident.

Dr. Benson, who saw the man on the day of the accident, said hydrocele might be caused by disease or injury; but from the history of the case he thought in this case it was caused by [illegible] strain, though he admitted that it was unusual. Two [illegible] medical witnesses gave similar evidence.

Dr. Jones, house-surgeon to the North Ormesby Hospital, into which institution the man was admitted to undergo an operation, said it was his opinion that the hydrocele was of long standing. He questioned the man several times, and on one occasion he said: "Well, there might have been a bit of a swelling there before." Dr. Levick concurred, and said he saw the man a few days after the accident, and did not think the hydrocele had been aggravated by the accident.

At this stage His Honour stopped the proceedings and found for the respondents, with costs.

Public Health AND POOR LAW MEDICAL SERVICES.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

City of Cork.—The population of the City of Cork at the census of 1901 was 76,122, and it is on this number that the superintending medical officer of health, Dr. Denis D. Donovan, appears to have based the statistics in his annual report for 1910. The birth-rate thus calculated was 25.8 per 1,000, the death-rate from all causes 19.3 per 1,000, and from the principal zymotic diseases 0.9 per 1,000. For many years the zymotic death-rate has not been high, a fact which may be associated with the free use that is made of the isolation hospitals. All the eight cases of typhus fever which occurred in 1910 were treated in hospital, 50 per cent. of the scarlet fever cases and 80 per cent. of the diphtheria and typhoid fever cases were thus isolated. The most serious problem to be dealt with in Cork is the enormous amount of tuberculosis. The phthisis death-rate in 1910 was 3.0 per 1,000, or only slightly below that recorded in 1903, when it was 3.7 per 1,000. During three years a system of voluntary notification has been in force, but barely 1 per cent. of the cases have been notified. Dr. Donovan strongly urges the adoption of compulsory notification of the disease, a course which he considers would enable the sanitary authority to carry out the simple precautionary measures needed to prevent the spread of infection. By means of leaflets and in other ways the inhabitants of Cork are being instructed as to the nature of the disease, but it is not very encouraging to learn that, although 233 deaths occurred from consumption in 1910, in only 83 instances were the services of the public health staff requisitioned to carry out disinfecting operations.

County Borough of Halifax.—At the last census it was found that the population of the four county boroughs—Halifax, Hastings, Burton-on-Trent, and Canterbury—had decreased since 1901. The recorded population of Halifax was 101,556, or 6,644 less than the estimated population at the middle of 1910. Calculated on the revised estimate of population the birth-rate in 1910 was 18.2 per 1,000 and the death-rate from all causes 15.1 per 1,000. The rate of infantile mortality was 89 per 1,000 births, a very remarkable decrease upon the rate recorded for 1909—namely, 135 per 1,000. The Notification of Births Act came into force in Halifax in March, 1908. The lady health visitor appointed by the corporation is assisted in her work of visiting the homes of newly born children by members of the Halifax Public Health Association. For the purpose of organization the borough is divided into five districts, a certain number of voluntary visitors being assigned to each district under the charge of a superintendent. A nourishment scheme was started at the end of the year to provide nourishment for expectant mothers and for those recently confined. Any mother in need can have a meal ticket, which provides her with a dinner for twelve days, to be renewed, if necessary, at the expiration of that time. She must consume the meal at the dining room arranged for, which is always the nearest to her home. Dr. Neech, the medical officer of health, does not mention the Goux conservancy system in his report, but in the report of the inspector of nuisances, which is attached to Dr. Neech's report, it is stated that at the end of 1910 there were over 18,000 of these closet tubs in use in the town.

Stratton Rural District (Cornwall).—The population at the last census was 4,974, or a decrease of 84 since 1901. The birth-rate was 20.0 per 1,000 and the death-rate from all causes 10.1 per 1,000. The infantile mortality-rate was equal to 88 per 1,000 births. Dr. D. A. Chamberlain, the medical officer of health, reports that there is considerable room for improvement in the housing conditions to be found in some of the smaller villages in the district. The lack of suitable cottages renders occupation of those which are uninhabitable a necessity. It is satisfactory to find that at last there seems to be a probability of an isolation hospital being erected for the joint use of the inhabitants of the Stratton and Bude urban and the Stratton rural districts, in which there is a combined population of nearly 8,000 persons.

Stockton Rural District.—This Durham district has not increased so rapidly during the past decade as it did in the ten-year period 1891-1901. The population at the last census was 17,527. The birth-rate was 28.5 per 1,000, the death-rate from all causes 11.9 per 1,000, and the infantile mortality-rate was equal to 87 per 1,000 births. The Medical Officer of Health, Dr. J. W. Blandford, fears there is likely to be some overlapping in the duties of the school medical officer and the medical officer of health which may lead to confusion and friction. Both scarlet fever and diphtheria were prevalent in the district during the year, 58 cases of the former disease and 51 of the latter having been notified. Seven cases, 3 terminating fatally, of pneumonia occurred in two houses in the same locality. Examination of the sputum and of material taken from the throats of the patients revealed the presence of diphtheria bacilli, but no mem[illegible]

LOCAL GOVERNMENT BOARD INQUIRIES.

F. (South Wales).—A medical officer of health who [illegible] evidence at an inquiry of the Local Government Board must give expression to the opinions which he considers will be to the best interests of public health of the district irrespective of whether he is in agreement with the sanitary authority on particular matters. He is by no means expected to support the wishes of the authority when such support is contrary to his own judgement. It would be prudent for him to let the sanitary authority know, prior to the inquiry, what the nature [illegible]

Medical News.

THE Chelsea Hospital for Women has received a donation of £200 from Mr. R. Nivison.

THE Royal Victoria Hospital, Bournemouth, has received the sum of £500 under the will of the late Miss Maria Margaret Panton, of Bournemouth.

AT the meeting of the Medico-Legal Society, to be held at 11, Chandos Street, W., on Tuesday, February 20th, at 8.30 p.m., Mr. George Jones, barrister, will read a paper on defects in the organization of the medical profession.

MR. C. F. G. MASTERMAN, M.P., Chairman of the Joint Insurance Committee, has been appointed Financial Secretary to the Treasury in the place of the Right Hon. T. McKinnon Wood, appointed Secretary for Scotland.

IN connexion with the opening of Parliament the St. John Ambulance Brigade posted sixteen stations along the route traversed by the King and Queen: 206 members of all ranks paraded, and in all twenty-six cases were treated.

THE Public Health Committee of the Lambeth Borough Council propose to invite a conference with reference to the establishment in the district of tuberculosis dispensaries in connexion with the campaign against consumption.

THE Association for the International Interchange of Students has arranged a conference, which it is stated will be attended by representatives from universities throughout the English-speaking world, to meet in London on June 28th, that is, in the week preceding the meeting of the Congress of Universities of the Empire.

A CERTAIN number of appointments to the West African Medical Staff will be made about the end of March. The salary is £400, rising by annual increments of £20 to £500 and afterwards to £600, with prospects of promotion to higher posts with salaries ranging up to £1,200 and allowances. The age limits are 23 and 35. Officers are entitled to four months' full-pay leave in England after each year's service, and to free passages. Pensions are awarded after 18 years' service, or after seven years in cases of invaliding. Particulars may be obtained from the Private Secretary, Colonial Office, Downing Street, S.W.

THE Basingstoke Borough Council applied recently for a ten mile speed-limit upon certain streets in the town. As a result of a conference between the Borough Council, the Hants County Council, the Royal Automobile Club, and the Automobile Association and Motor Union, and after the inspection of the road, the opposition to the proposed limit was withdrawn. The local authority agreed to supplement the ordinary speed-limit signs with special illuminated signs for use at night. This, we are informed, is the first instance of the erection of such illuminated signs by a local authority, and, should the experiment prove satisfactory, the motoring organizations will endeavour to get the number extended to indicate both existing and future speed-limits.

Letters, Notes, and Answers.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

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CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, London, W.C.; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Office, 429, Strand, London, W.C.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London*. The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, London*.

TELEPHONE (National):—
2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

MR. FRANK KENNEDY CARILL, F.R.C.S. (Dublin), would like to find out whether there is a book in French corresponding to Deutsch's medical German, containing a list of medical terms in French, followed by conversations in the form of question and answer for each region of the body.

We know of none. Perhaps some of our readers may be able to supply the information required.

H. W. asks for information in the case of a young man, with no history of bladder, kidney, or urethral disease, who suffers when at home from frequency of micturition, the bladder requiring to be emptied about every two hours. There is also marked urgency. On the other hand, he never requires to rise at night, and when on a visit from home, or when his daily routine of work is interfered with, so that his mind is off his bladder, he can carry his urine for a normal time. There is nothing abnormal in the amount or constituents of the urine. The condition is of about two years' standing.

MR. BOWLES, SURGEON, OF HIGH WYCOMBE.

S. D. C. writes: Dr. Martin Llewellyn of High Wycombe is said to have accompanied Charles I to the scaffold and to have received from the King the gloves he wore upon that occasion. The doctor is said to have transmitted these gloves to a great granddaughter, who married a Mr. Bowles, surgeon, of High Wycombe. Is anything known of this Mr. Bowles or of the present whereabouts of the gloves? The gloves recently obtained by a law suit have no documentary history, so I was informed by the gentleman who received them and who courteously gave me all the information he could about them.

INCOME TAX.

TAXED has professional earnings of £40, and untaxed income from interest amounting to £8. The proportion of his rent regardable as paid for professional purposes is £60. On inquiring whether he is bound to pay income tax on the £8, he is referred to various sections of the Income Tax Acts.

*** Our correspondent has two means of obtaining relief. He may, if his total income from all sources be under £160 or under £700, claim total exemption or an abatement, as the case may be; or, if his income exceed £700, he may prove that he has made a loss on his profession after charging all expenses, and may claim to be relieved of tax on other income to the extent of that loss, under the Customs and Inland Revenue Act, 1890. He should communicate with the Surveyor of Taxes accordingly.

F. D. H. R. receives a salary of £150 and extra fees as district medical officer, and wishes to know whether he may return his salary for assessment under Schedule E and the extra fees under Schedule D, together with his income from private practice.

*** The Revenue authorities will raise no objection to the inclusion in the general return under Schedule D of both the salary and the fees on the average of the three preceding years; they might, perhaps, demur to treating the salary under Schedule E and the fees under Schedule D, though there is much to be said for that course.

LETTERS, NOTES, ETC.

DR. A. A. WARDEN (Paris) writes: It is impossible to read without the greatest interest all that Mr. Leonard Hill writes on his experiences with oxygen as a therapeutic agent. One gathers that the usual method by which Mr. Hill has administered oxygen is by inhalation, the defects and uncertainty of which have led him to construct the ingenious apparatus figured on p. 71 of the BRITISH MEDICAL JOURNAL, January 13th. Mr. Hill states that "undue alarm as to the poisonous effect of oxygen has been felt by the medical profession," but our neglect has surely rather been due to our ignorance of its physiological action and therapeutic value, and to the fact that hitherto no apparatus save the clumsiest has been at our disposal for applying it. Mr. Hill points out that "in the struggle with the invading micro-organism (in pneumonia) oxygen helps to maintain the strength of the heart and so preserve the patient until the process of immunization is established and the disease arrested," the object evidently being to get the oxygen absorbed as quickly as possible. Surely then the subcutaneous injection of oxygen has many advantages over its inhalation, not only in diseases of the respiratory tract, but also in many other conditions—septic infections, tuberculosis, anaemia, etc. For many years Professor Thiriar, of Brussels, and others have thus used oxygen. In 1906 Dr. Albert Ronet published a case of ascitic tuberculous peritonitis successfully treated by the intraperitoneal injection of oxygen. In December, 1910, I injected several litres of oxygen in a patient with bad double pneumonia. The great difficulty hitherto has been that of accurately measuring and controlling the amount of oxygen injected, the only apparatus available being the large metallic reservoirs used in commerce, or the oxygen bag. (I used Professor Thiriar's instrument filled from a large cylinder under pressure.) This difficulty has now been overcome by the admirable apparatus designed by my friend, Dr. Raoul, Bayeux, and presented by him at the Academy of Sciences on November 20th, 1911. It consists of three parts: (1) A light but strong and accurate "détendeur" or decompressor. (2) A series of small cylinders containing the oxygen under a pressure of 100 atmospheres, so that a litre of the gas is about the volume of a cigar. (3) A sensitive tap that allows the oxygen to be distributed at rates varying from 1 c.c.m. to 1 litre per minute. I believe that in oxygen thus used we have a non-toxic and potent remedy likely to prove of use in many pathological conditions.

A STUDY OF "PSYCHICAL RESEARCH."

IN the review of Dr. Tuckett's book, *The Evidence for the Supernatural*, which appeared in the JOURNAL of February 10th, at line four from the bottom of the first column of p. 309, the title of the work by Mr. Whetham, F.R.S., referred to as "Recent Development of Psychical Research" is the *Recent Development of Physical Science*.

SHADOW TEST IN RETINOSCOPY.

DR. GEORGE HARDYMAN (Bath) writes: In calculating the spherical and cylindrical dioptric measurement by the shadow test in retinoscopy, I have found the following algebraic formula useful:

$$\frac{1}{+(y-x)\phi}$$

x being the dioptric measure of the lens abolishing the shadow in the horizontal meridian, and y the dioptric measure of the lens abolishing the shadow in the vertical meridian. The calculation is made as if the axis was vertical, and afterwards corrected if it be not so. The above formula, I believe, holds good for all forms of regular astigmatism as well as for emmetropia, hypermetropia, and myopia.

ERRATA.

THE following corrections should be made in Dr. Crofton's address on the prevention and treatment of pulmonary tuberculosis, published in the JOURNAL for February 10th:

Page 295, col. 1, lines 36-38, for "13 (8 per cent.), in the case of males and of 15 (6 per cent.) in the case of females," read "13 to 8 per cent. in the case of males, and of 15 to 6 per cent. in the case of females."

Page 295, col. 1, line 50, for "neurones," read "hormones."

Page 298, col. 2, line 26, for "cases," read "causes."

Page 298, col. 2, lines 35-36, for "acts as an excellent stimulant and for the formation of antitoxin," read "acts as an excellent stimulant for the formation of [illegible]."

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page	8	8	0

An average line contains six words.

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NOTE.—It is against the rules of the Post Office to receive *poste restante* letters addressed either in initials or numbers.

An Address
ON
THE IMMUNITY PROBLEM AND ORGANIC EVOLUTION.

AND THE ATTITUDE OF CIVILIZED COMMUNITIES TO DISEASE.

DELIVERED BEFORE THE OXFORD MEDICAL SOCIETY.

BY C. J. BOND, F.R.C.S.,
SENIOR SURGEON, LEICESTER INFIRMARY.

A RIGOROUS analysis of the conceptions formed by different individuals of the process by which immunity against disease is brought about in the individual and in the race would, I venture to think, reveal a certain amount of uncertainty, even in the minds of members of a learned society, as to the exact relationship between the individual or acquired form on the one hand, and the racial or natural form of immunity on the other.

And yet, until we have realized the steps by which acquired immunity or direct adaptation to disease has been developed in the individual, we have left a large gap in our knowledge of the history of human progress.

By this I do not mean that we should discuss the biochemistry of the immunity reaction. For our present purpose it does not matter whether the struggle between the body cells and the disease organisms takes place at close quarters and depends on a contact reaction between phagocytes and bacilli, or whether it occurs at longer range between the fixative and digestive secretions of the defensive cells and the toxins of the disease organisms after these have been shed into the blood stream.

We are not concerned with amboceptors or with haptophore and toxophore groups, or with endotoxins and exotoxins, except indirectly. We are concerned rather with the manner in which certain capacities of "defence" on the part of the body cells are exercised in response to certain capabilities of attack on the part of the disease organisms, and more especially with differences in the making and in the bringing into action of this offensive and defensive machinery.

As a matter of fact, many of us have a more consistent, if not a more fully detailed, conception of the indirect or racial than of the direct or individual form of the immunity response.

We know that races become naturally immune to lethal diseases—such as tuberculosis or yellow fever, in which recovery is difficult—by a process of selection of the more naturally resistant individuals, and, although we do not know the origin of these individual differences in natural susceptibility and still call them "spontaneous" variations, we do know that their origin is a matter of breeding and a question of the transmission of hereditary characters, and that it is only influenced indirectly by environmental factors.

We know also in the same way that the capacity to recover from non-lethal diseases—such as measles or scarlet fever — is a question of natural endowment, a question of racial evolution, a sort of half-way step between natural insusceptibility to attack on the one hand, and the purely individual non-inherited form of acquired immunity on the other.

My purpose this evening is to try to analyse our conception of that form of individual adaptation known as Acquired Immunity, to see how it stands when compared with Natural Immunity from the evolutionary point of view, and with other use acquirements made by the individual to changed conditions of life.

In the first place, we start by recognizing certain features about immunity. We appreciate the fact that the body cells of the individual acquire these new characters by the exercise of an innate capacity of recovery from disease, and the real question awaiting solution is, How does the exercise of a capacity of recovery bring about in the cells which exercise it a state of insusceptibility to subsequent attack by the same disease organism?

At first sight it looks as if the exercise of innate capacity of one kind—namely, a capacity to recover—has resulted in the establishment of another kind of capacity, a capacity to resist invasion. Whereas, if we regard the state of artificial immunity which results from recovery from disease not as a new capacity but as a use acquirement on the part of the defensive or body cells, then it is necessary to account for its persistence or transmission in heredity to the cell descendants of these cells, for, as we know, modern biological conceptions deny the possibility of the hereditary transmission of acquired characters.

Hence it is very important to know the fundamental nature of this newly acquired character, this capacity to resist invasion. We want to know whether it does represent a use acquirement, and, if so, what is the essential nature of a use acquirement. We want to know whether the method by which the defensive cells acquire this artificial immunity against subsequent attacks of the same disease is the same method as that by which the nerve cell learns or acquires a new form of neuro-psychic response.

In both cases alike (from the individual point of view) a new adjustment has been made as the result of the exercise of an innate capacity which in the case of the defensive cells is that of recovery from disease.

I.

Now the first proposition that I wish to put forward, and that I hope to substantiate, is: That "becoming different," the assumption of new characters on the part of any individual cell or group of cells is in every case the outcome of variation and selection among units of a certain order, size, and complexity.

Just as the evolution of new characters by any race or species is the outcome of a process of variation and selection among the germ cells from which the individuals of those species spring, or just as the acquirement of new characters by any cell group or organ during the lifetime of the individual is the outcome of a process of variation and selection *among* the cells of which the organ is composed, so also the acquirement of a new character on the part of the individual cell is the result of a process of variation and selection among the intracellular protein groups of which the individual cell is composed.

Thus while the capacity on the part of any individual organism or individual cell to make use acquirements depends on the exercise of a capacity to vary, either among cells or among cell parts, the nature of the use acquirement made is decided by the nature of the environmental stimulus towards which this capacity to vary is exercised.

The factors which bring about adaptation in the individual are environmental change in interaction with capacity to vary, either on the part of somatic cells or on the part of the intracellular elements which compose the individual somatic cells. Just as in racial adaptation it is the germ cells which vary.

II.

And the second proposition that I wish to put forward is: "That in every case of the assumption of a new character by any individual cell or cell group the ultimate test of the nature of the new character assumed—that is to say, the criterion as to whether it has come about by use acquirement or as an innate variation—must be the order of units amongst which the change has occurred and the presence (or absence) of destruction and regeneration among them during the process."

It is only by applying this test, it is only when we know the order of the units making the change, and know also whether during the process of making it they do or do not undergo death and replacement by fitter units, that we can say whether the new character is a use acquirement or an innate variation, whether, in fact, it is due to "inter"-cellular or "intra"-cellular variation and selection.

For we must remember that an adaptation which is a use acquirement on the part of the individual may be an innate variation on the part of the cells in which it arises.

This, of course, involves a reconsideration of what we mean by a use acquirement. It means that we must judge of a use acquirement not from the point of view of the individual organism in which it appears, but from the standpoint of the individual cells which make it. We must judge of it, in fact, not by its manifestations, but by its mode of origin.

Judged, then, by this test, by the size and quality of the units which make the adaptation and by the way in which it is made (that is to say, whether the making of it has been associated with destruction and regeneration of individual cells or by a reconstruction and rearrangement of intracellular parts), the ways of making use acquirements in the individual human being are few. In fact, the defensive cells and nerve cells seem almost alone in this capacity.

We may illustrate this conception of direct adaptation as a process of intracellular as opposed to intercellular variation, by two or three of the so-called use acquirements made by the individual.

The occurrence of muscular hypertrophy in response to increased muscular effort has been regarded as an excellent example of an acquired character, and when regarded solely from the point of view of the individual it is so. It arises in response to extra calls for muscular effort, that is increased stimulation, during the lifetime of the individual. It disappears when the stimulus ceases to operate and it is not transmitted to offspring.

But the method by which it is brought about is not the same as that by which acquired immunity is brought about. In the enlarging muscle the increased volume is due to multiplication of voluntary muscle cells and not to the occurrence of new characters in the muscle cells themselves. The increased nerve stimulation and the increased blood supply are responded to, not by variation in muscle cells, but increased cell division of muscle cells. Thus, although the individual acquires a new character, a larger biceps, the individual muscle cells do not acquire any new characters, the increased size of the muscle being due to increased numbers of muscle fibres.

Here, then, during the process of making the acquirement, although there is no injury or death, but only a proliferation of muscle cells, there is no intracellular variation in the muscle cells themselves. The hypertrophy is the result of a quantitative and not a qualitative change in cell division, the result of the exercise by the muscle cells of a highly-developed, innate capacity to undergo cell division, when stimulated in a certain way.

The *characters acquired by epithelial tissues when transferred* from a mucous to a skin surface, or vice versa, when transplanted, in fact, from an aquatic or moist to an aërial or dry environment, may be taken as another example. A portion of epithelial tissue, or a skin graft, transplanted to a moist mucous surface loses its horny stratified character or squamous cell arrangement and becomes a layer of mucus-secreting columnar cells.

I say epithelial tissue because we have no reason to think that the fully-grown, functionally-active epithelial cells themselves undergo this change. What happens is that the younger epithelial cells which spring from the undifferentiated "mother" cells grow up into this new condition in harmony with the changed environment, while the older, fully developed cells perish and are thrown off. Young undifferentiated epithelial cells inherit a capacity of developing in one of two directions, according as the environmental conditions favour one or the other line of growth.

Thus in this case also a supposed example of the origin and transmission to cell descendants of a new character or acquirement turns out on examination to be an example of hereditary development along one of two alternative lines.

In the making of this acquirement a destruction has taken place of those cells which are unable to adapt themselves, and a proliferation and multiplication of those cells which are capable of surviving and of functionizing under the new conditions. Again, there has been *inter* not *intra* cellular selection.

Neural Adaptation.

Now let us contrast these supposed examples of use acquirement with the case of the nerve cell responding to quantitative and qualitative alterations in the stimuli of light or sound or to new nerve stimuli, still confining ourselves, of course, to the life-history of the individual. Here we have the most perfect example known of a typical use acquirement, the result of adaptation on the part of individual cells to altered environmental conditions.

From our present point of view there are two main features about this process of neural adaptation of special interest.

First, it occurs in perfection in a cell (like the nerve cell) which of all animal cells possesses the greatest capacity for rearrangement of its internal molecular composition.

The researches of Marinesco, Gustav Mann, Hodge, and others into the changes in the Nissl bodies and nuclei and other component parts of nerve cells, as the result of fatigue, all bear witness to a capacity for rapid change in the protein intracellular substance.

That which is true of fatigue in lesser degree is true also of response to altered stimulus, to "use acquirement" in greater degree. For if we ask ourselves the question, What is the difference between a renewed response to an old stimulus and a new response to a new stimulus? we are bound to conclude that the difference is a matter of degree. It is a question of the amplitude of the swing of the metabolic pendulum.

Moreover, that which is true of the nerve cell is true of the nervous system as a whole. When a higher level neuron group, or when the brain as a whole learns a new language, it makes a "use acquirement." Not only so, when it forgets an old language it also makes a negative adjustment, and much of our mental equipment is made up by substitution, by a process of forgetting an old and learning a new mode of response.

Neuro-psychic adaptation rests on the possibility of alternative nerve channels, on the selection and establishment of one out of a number of possible nerve routes or synaptic paths for the passage of the neural wave. Our notion of voluntary action as the outcome of deliberation and choice is in harmony with this view.

Further, all this takes place in a tissue the component cells of which in the adult human subject are incapable of cell division, and as a consequence are incapable of handing on the acquirements they have made to any cell descendants.

In the case of the nerve cell a very high capacity for intracellular change has been evolved at the expense of capacity for cell multiplication and regeneration. Just the reverse of what has happened in the case of the muscle cell. And along with absence of cell division and cell regeneration goes the equally important absence of cell destruction during neuro-psychic adaptive response.

The process of making use acquirements on the part of the neurons to changes in environmental stimuli—as long, at all events, as those changes fall within the limits of nerve cell capacity—is unaccompanied by any injury to, or death of, the neurons. This is a very important fact, and is in striking contrast to the wholesale destruction and regeneration of cells which takes place in other tissues when exposed to new conditions.

When we also recall the fact that, although there is no destruction and regeneration of individual nerve cells during the process of neural adaptation, yet that destruction and reconstruction does occur on a large scale among the intracellular protein elements of which the nerve cells are composed, we are led to the conclusion that these marked differences in the behaviour of cells during adaptive response must be associated with a difference in the method whereby the adaptive response is made, that is, with a difference in the size and kind of units which vary and undergo selection when exposed to the new conditions.

Judged, then, by the standard laid down, the neuro-psychic response fulfils all the conditions of a true "use acquirement" both when regarded from the point of view of the individual organism and of the individual nerve cells. Variation and selection take place among units of an intracellular and not an intercellular order. The adaptive response is not accompanied by any destruction or regeneration among the nerve cells or the units concerned. It is brought about by the stimulus of environmental change in interaction with the exercise of a capacity for intracellular variation on the part of individual nerve cells, and it is not hereditarily transmitted.

Comparison of Immunity Reaction and Neuro-muscular Response.

We are now in a position to compare the immunity reaction with the nervous and muscular responses from the same point of view.

There is no more striking use acquirement from the individual point of view than that by which, after recovery

from disease, the individual acquires immunity against subsequent invasion by the same disease organism.

From the individual point of view such an adaptive response fulfils all the tests of a "use acquirement." It is brought about in response to environmental change, and it is not transmitted to offspring.

But it is necessary to examine the reaction, not only from the point of view of the individual, but also from the point of view of the body cells which make the adaptation, and more especially from the point of view of that somewhat ill-defined group of wandering and fixed cells which have intimate connexions with the blood and lymph streams, and which we call the defensive group of cells.

The immunity reaction, as a whole, falls into two great divisions: The natural immunity, which comes about through the selection of more resistant individuals during racial experience of disease, and the acquired immunity, which results from the exercise of an innate capacity of recovery after individual experience of disease. Just as the response of the central nervous system is made up of two primary divisions—the racially-acquired innate method of reflex and instinctive action, and the individually acquired ideo-volitional mode of response.

It is chiefly with the second or acquired aspect of the immunity reaction that we are now concerned. And although it will be necessary to compare the acquired with the natural form in its mode of origin and mode of action, it is chiefly with differences between them in completeness, in persistence, and specific relationships, in so far as these illustrate the different phases of a "use acquirement" that we are now interested.

Acquired immunity, again, like immunity as a whole, also assumes two more or less distinct aspects.

On the one side we have the short range cellular reaction between phagocytes and disease organisms, and on the other hand the long range blood reaction between the fixative and digestive secretions of the defensive cells and the toxins of the disease organisms after these have been shed into the blood stream.

The first takes place for the most part locally against organisms like the tubercle and the leprosy bacilli, which rely for their offensive powers on the elaboration of intracellular toxins. In the second, the disease organisms manufacture exotoxins, which circulate in the blood stream, and to which the defensive cells respond by the formation of antibodies.

These two aspects represent the *antimicrobial* and the *antitoxic* divisions of the acquired immunity reaction.

Now it is of interest from our present point of view that the persistence of acquired immunity bears some sort of relationship to these differences in mode of action of the defensive cells.

For instance, the immunity which follows a localized reaction like vaccinia, or a localized streptococcal or staphylococcal infection, or a disease like tuberculosis or osteomyelitis, characterized by inflammation and perhaps suppuration, is less persistent than the immunity which follows a generalized reaction like small-pox or measles. In the one, phagocytosis or local destruction of defensive cells as well as disease organisms occurs to a considerable extent. In the other the reaction is more general, and destruction of body cells may be absent.

Or if we regard the two phases from the exotoxic and endotoxic point of view we find the same relationship. Thus, if we examine the reaction made to an organism like the tubercle bacillus which secretes little or no exotoxin and against which it is difficult for the body cells to manufacture an efficient antibody, and in which resistance must take the form of a local tissue reaction, and recovery takes place by the destruction of the bacilli at close quarters, then we find that in tuberculosis acquired immunity is often a question even of local distribution—it is incomplete and of short duration; in fact, recovery from tuberculosis is made up of a series of localized reactions against localized attacks by tubercle bacilli of varying degrees of virulence. These reactions are followed by phases of incomplete and transitory immunity, and these again by recrudescences of the local disease.

On the other hand, in a disease like small-pox or measles, the disease organisms secrete an exotoxin, and the defensive cells liberate fixing and neutralizing antibodies, and the struggle is fought out in the blood stream and body fluids. The persistence of acquired immunity under these conditions is much greater and generally lifelong. But even in measles and scarlet fever the persistence of the immunity which follows recovery varies considerably.

I have, through the kindness of colleagues in general practice, collected some records which suggest an hereditary or familial element in some cases.

1. *Whooping-cough.*

1. Two brothers. Suffered from whooping-cough in childhood. Again more severely at public school.

2. Father. First attack in infancy. Second attack, aged 30 (?), during daughter's illness—slight.

Daughter. First attack, aged 3—severe. Second attack, aged 16—moderate.

3. Mother. First attack in childhood—severe. Second attack, first week after confinement—moderate.

Infant. Also had whooping-cough.

Son. First attack, aged 7. Second attack, aged 14—mild.

2. *Measles.*

1. Mother, aged 35. First attack, aged 4—mild. Second attack, aged 25—much more severe.

Six children. Two have had measles twice or three times.

Annie. First attack, aged 3—moderate. Second attack, aged 8—very severe. Third attack, aged 11—slight.

Winnifred. First attack, aged 6 months—moderate. Second attack, aged 2½ years—moderate.

No other cases of plural attacks ancestrally or collaterally.

2. E. B., aged 6. First attack, aged 5—severe. Second attack, aged 6—mild.

Sister. Also has had two attacks of measles.

3. *Scarlet Fever.*

1. Brother and sister. G. S.: First attack, aged 7. Second attack, aged 14. M. S.: First attack, aged 16—slight. Second attack, aged 25—severe.

In these cases the persistence of the acquired immunity—that is to say, the number of generations of cell descendants to which the new character of insusceptibility to reinvasion is handed on—bears some relation to the completeness with which these defensive cells reacted and exercised their capacity of recovery, since mild attacks in childhood were generally followed by severe attacks in later life.

Moreover, this fact that early loss of acquired immunity runs in families suggests that the early loss is associated with an hereditary difference in the capacity of recovery by the exercise of which acquired immunity is brought about.

For it is, as we know, only in the individuals of those races which have evolved some capacity of recovery by racial experience, and only in those diseases of which the race has had previous adequate experience, that acquired immunity is present as a mode of adjustment to disease.

It will be a matter of considerable interest to ascertain whether, and if so, to what extent, this hereditary transmission of innate capacity of recovery follows Mendelian lines. For if it does, then we may expect to find Mendelian features in the persistence of the acquired immunity which results from its exercise.

Thus, then, we may state in general terms that the persistence of acquired immunity depends to a great extent on (1) the number and kind of body cells which have exercised the capacity of successful response, (2) the completeness with which the response has been made, and (3) on the extent to which the characters so acquired have been transmitted to the cell descendants of the cells which acquired them, just as the completeness and persistence of natural immunity both depend on the amount of experience which the race has had of disease and the stringency of selection it has undergone in regard to it.

Further, when in acquired immunity the capacity of recovery has been exercised under normal conditions of response—that is to say, when the reaction has been made to an organism of a full degree of virulence normal to its species, and where the reaction has not been cut short by the premature destruction through treatment of the disease organism or its toxins in the body of the host—then the protection afforded by recovery is usually lifelong and as durable as that afforded by natural immunity.

Further, acquired immunity, like natural immunity, is a specific reaction, but in both forms the protection afforded by recovery from invasion by a certain disease organism extends to the attacks of different varieties or strains of the same organism within certain limitations. Thus the acquired immunity which follows vaccination protects against small-pox, and natural susceptibility to small-pox also applies to vaccinia.

There is yet another point of interest about the relationship of acquired to natural immunity.

If a large number of non-immunized individuals possessing innate capacity of recovery are exposed at the same time to the infection of a certain disease, only a certain number will contract the disease on that occasion, while of those who escape some will contract the disease on a future occasion. Whereas if a large number of naturally susceptible individuals—that is to say, individuals belonging to a race that has had no experience of the disease and who consequently do not possess any innate capacity of recovery—are exposed to the same disease at the same time, they will all contract it at once.

This fact, that susceptibility to invasion varies more in individuals who possess an innate capacity of recovery than in individuals who do not possess this capacity, suggests that this capacity of resistance itself varies in potency and efficiency at different periods of the individual life-history: at one time it enables its possessor to resist invasion, while at another it only enables him to recover after invasion; and whereas the older established form of natural immunity is either fully present or wholly absent, the more recently evolved form of capacity of recovery is present in a more irregular and capricious manner—in a more active or in a less active condition.

Insusceptibility a Use Acquirement.

We have now critically examined acquired immunity from the point of view of the cells which acquire it, and we have compared it with natural immunity, both in its mode of manifestation and mode of origin, and we find clear evidence of the operation of variation and selection in the production of acquired immunity, just as we find clear evidence of the operation of the same factors in the production of natural immunity. We also know that from the point of view of the individual the immunity which succeeds individual experience of disease is a pure "use acquirement."

How can we reconcile these two conceptions of acquired immunity? How can we reconcile its function in the individual as a use acquirement with its origin in a process of variation and selection? Only, I think, by remodelling our conception of a "use acquirement." It is only by regarding a portion, at any rate, of the acquired immunity reaction as the result of a process of variation and selection on the intracellular scale that we can harmonize these contrary views.

If we suppose that in the making of the "use acquirement" of insusceptibility to subsequent invasion the body cells exercise a capacity of varying intracellularly (that is, in the construction and arrangement of the protein groups which compose their protoplasm) when stimulated by changes in the nutrient fluid which surrounds them, if we suppose further that that particular molecular composition and arrangement which survives and persists in each cell is the one which is best suited to the altered nutrient conditions brought about by the toxin of the disease, and that therefore the particular kind of intracellular response selected will depend on the kind of disease organism to which it is made, then we are able to understand why this new and acquired form of cell metabolism is transmitted to cell descendants. It is so transmitted because it really arises as an innate variation among the intracellular units in the individual cells which acquire it.

So regarded, innate capacity of recovery or resistance to disease on the part of the body cells becomes innate capacity to vary intracellularly when exposed to new conditions introduced by disease organisms. And this capacity to vary, although possessed in different degree by all the individuals of a race that has had sufficient experience of the disease in question, remains latent in such individuals until roused to exercise by exposure to disease. Thus, by the exercise of this capacity for intracellular variation on the part of the cell and by the selection of the most appropriate kind of molecular response a new character arises in the cell, that of a capacity to resist reinfection, representing from the point of view of the individual organism a "use acquirement."

Moreover, by so regarding individual reaction to disease, we are bringing the use acquirement of the immunity reaction into some sort of relationship with the use acquirement of neural response which we have already seen reason to think is also the outcome of a process of variation and selection among the intracellular elements in nerve cells.

Just as the latitude of the neural response is determined by the hereditary limits of innate neural capacity, so the latitude of the individual immunity reaction is determined by the extent of the hereditary capacity of recovery or resistance to the disease.

But the question remains, How much of this insusceptibility to subsequent invasion is due to "intra"-cellular and how much to "inter"-cellular selection? How much, in fact, is represented by use acquirement and how much by innate variation?

As pointed out previously, our test for this problem must be the order of units among which variation and selection occur, and the presence or absence of destruction and regeneration among the individual cells concerned in the response.

When judged by this standard the acquired immunity reaction again falls into two divisions: An antimicrobial or phagocytic side, characterized by local tissue reaction to organisms which chiefly manufacture endotoxins in which destructions and regeneration of wandering cells occur and local reaction, inflammation, and suppuration may be present; and an antitoxic or humoral side, characterized by general body fluid response to organisms which secrete exotoxins in which local reaction is insignificant and cell destruction absent.

Judged, then, by this test, the antimicrobial or phagocytic side of the immunity reaction represents innate variation, and the antitoxic or humoral side of the reaction represents "use acquirement," although, when regarded from the body cell point of view, both arise through a process of variation and selection, in the one case among intercellular and in the other among intracellular units.

It is interesting to note also that of these two divisions of the acquired immunity response the phagocytic or antimicrobic is an older character phylogenetically than the more recently evolved antitoxin reaction.

It is also interesting to note that the two most prominent instances of use acquirements in the human individual—the neural adaptation to changes in nerve stimuli and the immunity reaction on the part of body cells to the toxins of disease organisms—have both arisen in two fields of human activity in which development has in historic times been most rapid and in which selection has been most stringent. Mental activities and evolution against disease have exercised a predominating influence on modern civilization.

Thus, then, a critical examination of the immunity response leads us to the conclusion that all forms of immunity—the natural and the acquired—arise in a process of variation and selection among units of different size and complexity.

In the racially acquired form of natural immunity these units are the germ cells from which the more resistant individuals spring. In the antimicrobial aspect of acquired immunity response they are those individual body cells which react to the disease organisms. In the antitoxin aspect they are the intracellular elements of which these cells are composed.

Judged from the point of view of the individual organism, adaptation to disease is a "use acquirement"; judged from the point of view of the units which undergo adaptation, it is a process of innate variation.

The Immunity Problem from the Bacterial Side.

Probably much more light will be thrown on the difficult problem of the mode of origin of the immunity reaction when more is known concerning the way in which disease organisms adapt themselves to changing conditions, and gain or lose in virulence.

When we know whether exalted virulence in bacteria is brought about by innate variation or use acquirement, by interbacterial or intrabacterial variation and selection, we shall probably also know how body cells become immune.

Following the principles laid down, we must first ascertain the order of units among which the variation and selection process takes place during bacterial adaptation. And to do this we must ascertain the prevalence and incidence of cell destruction and cell regeneration among disease organisms when they undergo adaptation to the defensive activities of different hosts on the one hand and to different culture media on the other.

We know already that in most cases the process of invading the resistant human or animal organism by disease organisms is associated with a considerable death-rate among the invading organisms. We also know that a considerable number of generations of organisms must live and perish in the culture fluid or in the partly immunized host before a strain is born of a virulence capable of flourishing under the new conditions.

But we do not yet know whether, under any circumstances, individual disease organisms themselves acquire increased offensive capacity when exposed to altered nutrient conditions. We do not know whether the increased or diminished virulence is obtained by innate variation among the bacteria or by use acquirement on the part of individual organisms. A knowledge of these facts would indicate the order of units among which variation and selection is taking place.

A comparison, if such were possible, between the death-rate among disease organisms when acquiring exalted virulence by repeated passage through different hosts of varying degrees of immunity, and the death-rate among the same organisms when acquiring exalted virulence by growth in different culture media, would go far to determine the relative share taken by intercellular and intracellular variation in these two forms of adaptation. It is a suggestive fact that in order to bring about increased offensive capacity or exalted virulence in any strain of disease organism it is necessary to pass the organisms through a series of hosts of different degrees of immunization or to grow successive generations in different culture media. In both cases the essential requirements are a large number of bacterial generations exposed to different environments. These requirements are incompatible with direct adaptation, but favour the occurrence of intercellular variation and selection.

Organisms which cause disease are organisms of enormous fertility and very great variability. They are capable of a far greater and more rapid relative increase than the body cells to which they are opposed.

Further we must not lose sight of the fact that if it is to flourish as a race each species of pathogenic disease organism must possess the capacity, not only to multiply rapidly within the body of the host, but also to pass from the body of one host to another after the death of the first. It must be able to survive during transit through air, earth, or water, if it is to bridge the gap between intracorporeal and extracorporeal life. In this sense, then, the task required of a disease organism is greater than that required of a defensive cell.

Now this very marked fertility and variability among disease organisms is itself suggestive of adaptation by intercellular as opposed to intracellular selection during bacterial acclimatization.

For we know that among disease organisms as amongst animal cells the destruction of unfit and the multiplication of fit varieties are just the two conditions which favour the selection of more virulent strains of organisms during the progress of disease and that these conditions are incompatible with adaptation by "use acquirement" which presupposes a capacity on the part of each individual organism or cell to persist and adjust itself to the new conditions.

The crucial difference between indirect adaptation by innate variation and direct adaptation by use acquirement is this: In the first, the organisms which are exposed to the new conditions perish and are replaced by organisms of greater resistance. In the second, the organisms which are exposed to the change themselves undergo the adjustments necessary to adapt them to it. The first is a *pre*-experimental, the second a *post*-experimental change.

We can hardly doubt, therefore, that when in the process of invading the human or animal organism, and while still exposed to the resistance of body cells and body fluids disease organisms become adapted to their new environment, and develop strains of altered virulence, they do so for the most part by the old method of the natural selection of more resistant individual organisms. But there is some evidence that the other, the direct method of individual use acquirement, is not altogether absent among some unicellular organisms when exposed to altered conditions.

Although susceptible of either explanation Ehrlich's experiments in the immunization of trypanosomes against fuchsin and arsenic suggest an increased struggle for existence among the organisms during the process of chemo-immunization, and Ehrlich himself suggested that the adaptation was brought about by a partial starvation of individual trypanosomes by a blocking of their nutri-receptors by antibodies derived from the cells of the partially immunized hosts.

But we may also recall the observations of Metchnikoff and Dallinger and others on the effect of environmental change on unicellular animal organisms. The researches of Cohn, Balbiani, Danysz, and many others have shown that infusorians and other protozoa do become adapted to nutrient media of different chemical and even toxic composition by a gradual process of acclimatization, and, if this process is sufficiently gradual, adaptation is brought about without causing the death of the organism.

Dallinger showed that the same thing occurred in changes in the physical environment. He gradually acclimatized infusoria to a water temperature of 23° C. without causing their death, and later to a temperature of 70° C.

Metchnikoff says, in regard to Davenport's and Neal's experiments on the acclimatization of stentors to four times the lethal percentage of mercury chloride, that the immunity cannot be attributed to the selection and persistence of those stentors which possess a natural resistance to the sublimate, but that it is the result of a gradual and direct chemical influence on the protoplasm of the stentors which, once acquired, enables all the animals to survive doses lethal to unacclimatized control individuals.

The experiments of Stahl are also very suggestive from this point of view of acquired immunity. Plasmodia of myxomycetes were habituated to and were finally attracted by solutions of glucose of a strength formerly injurious to them, and to which they manifested negative chemiotaxis, and Metchnikoff brought about the same result with arsenical solutions. In this case, as in Dallinger's infusoria, the adaptation seemed to be associated with hydrolytic changes, the protoplasm of the adapted individuals contained less water.

Thus the evidence points strongly to the possibility of adaptation to environmental change taking place in some unicellular animal organisms by a process of individual use acquirement unassociated with the death of any of the organisms exposed to the change, and therefore independent of any process of variation and selection among the organisms concerned. Possibly the same explanation may apply to some extent to pathogenic organisms.

If the conception of a use acquirement which I have just put forward be true, then we must regard the adaptive change on the part of these organisms under such conditions as the outcome of a process of variation and selection in, and of reconstruction and rearrangement of, the intracellular protein elements of which the organisms are composed.

Function and Adaptation.

It may be thought that in selecting the neural response as an example of use acquirement I have confounded normal function with direct adaptation. But when we come to analyse our conception of function we realize how it merges into use acquirement by intracellular variation, and how both spring from the fundamental property of irritability in all protoplasm and its capacity of response to stimulus.

The alternating or partly overlapping cycles of anabolism and katabolism which we call function, or response to stimulus, either proceeds along lines of hereditary cell potentiality, in which case we call it normal function, or it proceeds along lines and in a direction away from original cell potentiality, when it represents the making of a new acquirement.

In both cases there is a "becoming different," a "changing of state" on the part of the cell in response to environmental influence of some kind or another.

Adaptation implies shifting the mode or plane of functional response, and this shifting is done in the case of direct adaptation or "use acquirement" by the action of environmental change, not in originating but in selecting one particular mode out of a number of modes of action which in the intracellularly varying cell cluster round the habitual mode of normal response. After a time this particular mode becomes established as the normal mode of response under the new conditions, and we then call it altered function.

Pfeiffer has shown that the adaptive movements of bacteria under the influence of increasing stimulation obey the same psycho-physical law as that which governs the response of the nervous system to alterations in nerve stimuli; both reactions conform to the Weber-Fechner law. This is an important fact, and suggests that the two reactions have a common origin in the fundamental property of irritability common to all protoplasm. In this sense adaptation and function are essentially one.

Every nerve cell above the reflex and instinctive level makes a use acquirement when it responds to changes in a nerve stimulus, and every group of neurons which makes new acquirements, which forgets an old and learns a new language, is establishing a new response to a new stimulus, and in doing so it is carrying on normal function. The reason why normal function and the making of new acquirements are, in the case of the nerve cells, one and the same thing is that the nerve cell possesses the capacity of intracellular variation—in other words, of educability—to a marked degree.

Another example will make this even clearer. The pigmented skin cells of the frog (as Lord Lister showed) respond to alterations in the intensity of the light stimulus by changes in the distribution of pigment in the chromatophore skin cells. This is their normal mode of response, their normal function, and each time that the pigment cell responds thus, every time that it changes intracellularly and concentrates or diffuses its pigment granules, it also makes a use acquirement. The response occurs among units of an intracellular order, and it is not accompanied by injury, death, or regeneration of the cell as a whole under normal conditions. The alternating cycles of cell response in this case represent acquirements which correspond with the lines of hereditary cell activity.

Thus, "use acquirements" can be brought about in several ways—by the simple rearrangement of intracellular parts as well as the destruction of old, and the reconstruction of new and different intracellular parts. Both methods involve intracellular change and intracellular selection.

Under the old régime of natural selection, the evolution of a new kind of response meant variation among individuals. It involved the destruction of old and the selection of more fully adapted individual organisms during the process of readjustment to the new conditions of life. Under the new régime of "use acquirement" the evolution of a new response means variation among intraindividual or intracellular units; it means the substitution of new for old parts in the machine, instead of the destruction of the machine itself.

Just as the rapidity with which races become adapted to new conditions depends on the rate of destruction of the unfit and the regeneration of the more fit, so the rapidity with which the individual organism or the individual cell acquires a new character and adjusts itself to new conditions depends on the rate of intracellular variation and intracellular selection or of intracellular rearrangement.

It is well known that the process by which the individual cell adjusts itself to new conditions occupies a considerable time. It is a gradual process of becoming accustomed to the environmental change which must not be too violent or too rapid; if it is, then it involves the death instead of the readjustment of the cell. The time is taken up by the process of variation and selection which goes on among the intracellular elements during this process of adjustment.

If the variations are large and discontinuous and in the right direction, the use acquirement will be rapidly made, the new response will be rapidly learnt. If the variations are small and fluctuating, or if the stringency of selection set going by the environmental change is not great, then the cell will be a long time in adjusting itself or in making the use acquirement.

In both cases, in functional discharge and in use acquirement, the limits within which functional activity can be maintained or adaptive response made are both determined by cell potentiality, or, in other words, by the hereditary capacity of the cell for intracellular variation.

It is, of course, true that in many adaptive responses some cells, like some unicellular organisms, are more apt at readjustment than others. This means that such cells differ in capacity for intracellular variation. This means also that such responses are partly indirect. In such reactions the principle of intercellular or interorganismal selection is still present, and if the difference in capacity of adjustment is sufficient to cause death, or injuriously affect regeneration and cell division in some of the cells then this principle comes into active operation and the process of making the adaptation descends to the intercellular level.

It is, in fact, one of the essential conditions of the making of a pure use acquirement that all the cells or unicellular organisms concerned in the reaction shall be able to readjust their internal composition and mode of action sufficiently to enable them to live, and to avoid injury under the new conditions, otherwise the units which vary in capacity and are selected are cellular and not intracellular units and the making of the acquirement is associated with the destruction of unfit cells.

Neural adaptation to changes in nerve stimuli entirely fulfils these conditions. So also (if our conception of it is true) does that portion of the acquired immunity reaction which is unaccompanied by the destruction or injury of any body cells.

The Attitude of Civilized Communities to Disease.

If, then, the acquirement of the immune state be a type of adaptive response in general—if we are right in regarding all adaptation as either individual or racial, direct or indirect, and as the result of variation and selection, either among cells or in cells—then it is clear that such a view must largely influence our conception of the true attitude of civilized communities to disease.

Among primitive societies the problem of adaptation to disease has been almost entirely a question of racial evolution under the control of natural selection. Savage peoples, in order to escape death from disease, must be naturally immune. Capacity to recover is of no avail unless the conditions of mutual protection and co-operation are present under which alone recovery is possible.

Hence under such primitive environmental conditions the acquirement of the immune state by individual experience and recovery is of little importance as a factor in adaptation against disease. Half measures and part adaptations are useless; it is necessary to be wholly and innately immune. For any individual to acquire immunity against disease two things are necessary: He must possess some innate capacity of resistance, and opportunity must be present for its exercise. But as civilization advances conditions of life arise which allow of these factors coming into play. The screening and protecting influence of individual acquirement modifies the stringency of natural selection, and, as Baldwin, Morgan, and others have pointed out, it directs the lines along which organic development shall proceed.

Conditions which conduce to recovery from disease, and which therefore favour adaptation by use acquirement, are, broadly speaking, the care of the sick during recovery on the one hand, and improved medical treatment, especially along bacteriological lines, on the other.

It is to the principle of "use acquirement" involved in all such measures of co-operation and environmental control that I wish to draw attention.

Advances in our knowledge of the prevention and the treatment of disease; improved methods of treating the sick and favouring recovery—these constitute a great object lesson in adaptation by "use acquirement."

Advances in external sanitation by which disease organisms are banished from the environment, measures of internal sanitation, such as serum and vaccine therapy, by which the disease organisms are destroyed or their virulence reduced after they have gained an entrance into the body—all such measures lead us further and further away from the old régime of innate variation and natural selection. The necessity for being immune by nature becomes less as the possibilities of becoming immune by art become greater.

But some one will ask, What bearing has all this discussion about the intimate nature of acquired immunity on the practical question of the best way of treating disease? What does it matter, some one will say, as long as we become insusceptible, whether we acquire immunity by a process of intracellular variation and selection during individual life or whether we are born immune through

the operation of natural selection during racial experience of disease?

It matters just because the immunity reaction is a type of all adaptive response, and, since evolution is largely adaptation to a widening environment, a true solution of the immunity problem supplies the key to many other evolutionary problems also.

When narrowed down to essentials, there are only three ways of undergoing adaptation to environmental change, just as there are only three ways of becoming immune against disease:

1. Either adaptive change is entirely the result of external influence and the organism is as clay in the hands of the environmental potter.
2. Or the organism initiates and directs its own adaptation independently of outside interference.
3. Or adaptation is the result of the interaction of environmental influence and cell potentiality.

Now the immunity problem sheds some light here. We know that the toxin of the disease organism does not directly build up by chemical influence the immune response in the body cell. Nor does the body cell evolve the immune state in the absence of the stimulus of the disease organism.

The state of acquired immunity is the outcome of the exercise on the part of the body cell of a capacity to become different, to vary intracellularly, in not one only but in several directions, when stimulated by the toxin of the disease organism. When this hereditary capacity to become different, to vary intracellularly, is inadequate to meet the new conditions, "use acquirement" is impossible; the cell perishes, and the process of adaptation sinks from the intracellular to the intercellular level.

The problem for the social reformer is how to promote the adaptation of the social organism to its environment without sacrificing the interests or the lives of the individuals during the process of reform. The problem for the physician is how to bring about immunity and resistance to disease in the individual organism without at the same time injuring or destroying the body cells and so producing illness or disease itself.

The problem for both is how to raise the adaptive response to the intracellular level. Both must build on innate capacity for response, on capacity to vary or become different, in fact, on educability. Both alike should try to accomplish the result by stimulating the exercise of this capacity on intracellular and intraindividual lines, and should only resort to intercellular and interindividual struggle with its attendant destruction of competing units when intraorganismal methods have failed or are incompetent to produce progress.

Now this cannot be done by a return to older methods. A return to crude individual competition and natural selection would only serve to destroy the forces of co-operation and mutual protection, which are essential conditions for the exercise of the capacity of recovery and the production of acquired immunity from disease, just as they are essential also for the making of "use acquirements" in many other fields of human activity. Hope for future progress lies in the extension of the method of adaptation by "use acquirement" and environmental control, in the improvement of environmental conditions and the banishment of disease organisms from the human environment by measures of external sanitation, and in the destruction or the reduction of the virulence of disease organisms by vaccine- and chemo- therapy, if they should obtain a foothold in the body.

These are the methods of use acquirement and environmental control, and the methods by which more and more adaptation to disease on the part of the human race will be brought about.

And if, as I have already said, we may regard the great immunity reaction as a type of evolution and adaptation in other fields, if we may regard natural immunity through natural selection as a type of the earlier methods, and artificial immunity through the exercise of individual capacity to profit by experience and through environmental control as a type of the methods of the future, then, bearing in mind the success that has been achieved by these latter methods in the struggle against disease, we may look confidently to an extension of use acquirement and environmental control in other fields, rather than to a return to innate preadaptation and natural selection, remembering always that both methods depend on innate capacity of some kind or other—capacity of being already adapted before experience, on the one hand, or capacity to become adapted and to learn by experience on the other.

Since innate capacity of recovery in the immunity reaction, like capacity to learn or educability in all adaptive responses are matters of heredity and breeding, it is essential in discarding the older method of natural selection that we take steps to safeguard the transmission and production of innate capacity by some measures of Eugenic control.

A Clinical Lecture

ON

AN ANALYSIS OF FIVE HUNDRED CONSECUTIVE OPERATIONS FOR ACUTE APPENDICITIS.

DELIVERED IN THE POST-GRADUATE COURSE AT THE MANCHESTER ROYAL INFIRMARY.

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IN the BRITISH MEDICAL JOURNAL of January 25th, 1908, I submitted an analysis of 100 consecutive operations for acute appendicitis. To these I have added 400 operations since performed, the present list including, therefore, all the operations I have undertaken in the *acute* stage of appendicitis between January 1st, 1906, and October 28th, 1911.

SEX.

The series comprised 285 males and 215 females. Much stress has in the past been laid upon and theories invented to account for the alleged great preponderance of appendicitis in the male over the female sex. I believe, however, that many slight attacks pass unrecognized in the female, in whom, owing to the menstrual function, slight abdominal pain is not held of so much account as in the male, where all abdominal pain is abnormal. Moreover, many attacks of appendicitis coincide in their onset with that of menstruation, and are, therefore, all the more likely to be overlooked.

AGE.

The average age was 26.3 years: of males 25.3, of females 28.1. The oldest patient was 77, the youngest 3.

Age Periods.	Males.	Females.	Total.
1 to 5 years	6	5	11
5 to 10 "	24	13	37
10 to 20 "	83	53	136
20 to 30 "	74	55	129
30 to 40 "	49	48	97
40 to 50 "	32	17	49
50 to 60 "	13	17	30
60 to 70 "	1	6	7
70 to 80 "	3	1	4
	285	215	500

PREVIOUS ATTACKS.

One hundred and forty-two patients gave a history of one or more definite previous attacks, that is, 28.4 per cent.

DURATION OF SYMPTOMS PRIOR TO OPERATION, WITH RESULTS.

In all cases the duration of the disease has been calculated from the first severe abdominal pain. It is well

known that this does not represent the real duration either of symptoms or disease, a preceding period of general malaise being very frequent, and corresponding to inflammatory changes confined, however, to the mucosa of the appendix. The onset of acute abdominal pain, which is almost always in the first instance referred to the "umbilical area," indicates the extension of the morbid process to the visceral peritoneum.

	Cases.	Deaths.	Mortality.
			Per Cent.
1. Under twenty-four hours	66	2	3.03
2. Twenty-four to forty-eight hours	78	3	3.8
3. Third day	96	6	6.2
4. Fourth day	55	5	9.09
5. Fifth day	46	9	19.5
6. Sixth day	21	5	23.8
7. Seventh day	21	2	9.5
8. Second week	77	6	7.7
9. Third week or later	40	2	5.0
	500	40	8

The most instructive feature of this analysis is the progressive increase of mortality with each successive day of the disease up to the sixth day. Of the five deaths occurring in those patients operated upon within forty-eight hours the two on the first day and one of those on the second were due to the interesting but very fatal condition known as "delayed chloroform poisoning" or "fatty acid intoxication." One other case in this series died from the same cause, and as in all four chloroform was the anaesthetic administered, I believe it better to avoid this agent in these acute abdominal infections, especially in children. Though it is not impossible for the condition to follow upon the administration of ether, yet the recorded cases show this to be much less probable, and I believe that with "open ether" as the routine anaesthetic the mortality in these "early" operations can be materially reduced. The two remaining deaths in these cases operated upon within forty-eight hours were one from continued spread of the infection leading to general peritonitis, and one from acute pneumonia, developed on the eighth day, after complete subsidence of the abdominal symptoms.

Of the 35 deaths among the cases operated upon after forty-eight hours the causes were: Shock, collapse, or toxaemia 26, acute pneumonia 4, pulmonary embolism 1, sudden heart failure 1, acute nephritis with uraemia 1, and intestinal obstruction 2 (one of which occurred during the administration of an anaesthetic at a subsequent operation for the relief of the obstruction, and one after operation for obstruction developing three months subsequently to the opening of a large appendicular abscess from which the appendix had not been removed).

RESULTS CLASSIFIED ACCORDING TO THE PATHOLOGICAL CHANGES.

I have now relinquished the attempt made in my previous paper (January 25th, 1908) to differentiate between "diffuse" and "general" peritonitis, the true recognition of the latter being possible only either at a *post-mortem* examination or at a much more extensive operative procedure than is now my practice.

	Cases.	Deaths.	Mortality.
			Per Cent.
Group A.—Infection limited to the appendix	135	1	0.74
Group B.—Circumscribed abscess ...	213	10	4.64
(Appendix removed)	(107)	(2)	(1.86)
(Appendix not removed)	(106)	(8)	(7.54)
Group C.—Diffuse spreading peritonitis	152	29	19.07

Group A.—Infection Limited to Appendix.

The solitary death in this group was one of those already referred to, from "delayed chloroform poisoning." With ether as the routine anaesthetic, the mortality of operations where the infection is still limited to the appendix will be reduced to a negligible quantity.

Group B.—Circumscribed Abscess.

It is interesting to note that of the 213 cases in this group, with a total mortality of 4.64 per cent., the appendix was removed in addition to opening the abscess in 107, with a mortality of 1.86 per cent., whereas in 106 cases where it was left the mortality was 7.54 per cent. This does not, apparently, support the view so frequently advanced, that removal of the appendix materially increases the risks of operation, though it must be admitted that the cases in which I left the appendix were usually the more serious prior to operation—either of very large abscess or whose general condition rendered any prolongation of the operation inadvisable. My tendency is undoubtedly towards a more frequent removal of the appendix in abscess cases. Thus in the first 200 cases in this series the appendix was removed in 35.4 per cent. of the abscess cases; in the remaining 300 in 61.6 per cent.

The advantages of removing the appendix are certainly considerable: (1) The patient is spared a subsequent operation for its removal (and this I urge unless, as sometimes happens, the appendix has been recognized as a slough coming away with the discharge), or, failing this, the risk of further attacks. (2) The wound heals more quickly when the appendix has been removed, and drainage may be dispensed with earlier; consequently there is less chance of subsequent ventral hernia. (3) Persistent sinus and faecal fistula are less common. About two years ago, on opening an appendicular abscess in a youth, I found the appendix hanging freely into it, apparently about 3 in. long, and perforated. Fearing to break down the deep wall of the cavity by separating the base of the appendix freely, I merely ligatured it flush with the wall, cutting off just distal to the ligature, but well above the perforation. A small faecal fistula persisted for some months, which at a second operation by another surgeon was found to lead directly to the stump of the appendix, the rest of which, 1½ in. in length, was removed, the fistula then closing. (4) Remote troubles are less likely. Only very recently I have operated upon a man for acute intestinal obstruction, in whom four years ago an appendicular abscess had been opened by a colleague without removal of the appendix. This I found practically normal, except that from its inner aspect, close to the tip, a short but strong band of adhesion extended to the mesentery of the ileum, and under this 2½ ft. of small intestine were strangulated and completely gangrenous, the case ending fatally.

In deciding, during the course of an operation for appendicular abscess, upon the advisability of searching for the appendix, the point that weighs most with me, granting that the general condition of the patient is sufficiently good to allow of the necessary prolongation of the operation, is whether the abscess has been reached through the general peritoneal cavity or not. If the former (and this I prefer) then the abscess will have been carefully packed off with gauze from the rest of the peritoneum, and, having wiped the cavity as clean as possible, I have no hesitation in separating its walls and searching carefully for the appendix. Where, however, prior to operation the abscess has become adherent to the anterior abdominal wall and is opened into directly, and where, therefore, protective gauze packs cannot be placed around it, I hesitate to interfere materially with its deeper walls lest I break through into unprotected and uninfected peritoneum.

Concretions.

Fruit seeds were found in the appendix in a few instances, and in several small thread worms were present. Faecal concretions occurred in 21 per cent. of the cases. Their presence is interesting in relation to the site of perforation or gangrene. Perforation of an appendix which does not contain a concretion usually occurs near to the tip and on the free border, just distal to the termination of the attachment of the appendix-mesentery. Perforation of one containing a concretion is more probable opposite the concretion. The practical application of this is that if a perforation be found elsewhere than near the tip of an appendix in which no concretion can be felt

careful search should be made for one which may have escaped through the perforation, and which, if overlooked, may lead to a persistent sinus.

A consideration of the above two mortality tables at once renders evident the advantage of early operation, with limited infection. This advantage is also very manifest when we take into account the *morbidity* of the cases that recover. Thus, if only we can secure the appendix while the infection is still limited to it no drainage is requisite, primary union is the rule, no risk of subsequent hernia arises, and the patient may be allowed up within a few days—that is, the convalescence is exactly comparable to that after an "interval" operation. And even if the infection has but recently extended beyond the appendix, nevertheless these advantages can, in many cases, be still obtained. Where, however, a definite abscess has been allowed to form, drainage is essential, and has to be carried out for many days, and sometimes weeks, convalescence is prolonged, complications more likely to supervene, and the chances of subsequent yielding of the scar greatly increased.

Further improvement in the mortality statistics of operations in the acute stage of appendicitis is to be looked for chiefly upon the lines of earlier diagnosis, and of a more general recognition of the advantages of early operation. I believe also that the adoption of less heroic measures in the operative treatment of diffuse peritonitis than were formerly in vogue will diminish the mortality of the "delayed" cases. Flushing the abdominal cavity is almost a thing of the past. In the most desperate cases a rapid incision under nitrous oxide anaesthesia through the lower part of the right rectus muscle, and the insertion of a large rubber tube to the bottom of the pelvis is all that is advisable at the time, and may save life where any further procedure would have turned the scale against it. Secondary abscesses may form, but can be more safely dealt with when the immediate danger of "toxaemia" is passed.

Early Diagnosis.

In this connexion a factor which is not yet, I believe, sufficiently appreciated is the great frequency of the disease. If called to a case of acute abdominal pain and sickness, the probabilities are in favour of appendicitis before one reaches the patient at all. Most of the cases of acute abdominal pain occurring in definite attacks, and of doubtful origin, are proved in course of time to be due to the appendix.

The early symptoms of acute appendicitis and their characteristic order of onset have been well described many years ago by Murphy. They are:

1. Abdominal pain, usually referred at first to the "umbilical area," later to the right iliac fossa.
2. Nausea, and in many cases vomiting.
3. Localized tenderness.
4. Localized muscular rigidity.
5. Rise of temperature and rise of the pulse-rate.

The importance of this order of onset cannot be too strongly insisted upon, and if the symptoms present in any acute abdominal crisis have not conformed to it, then a diagnosis of acute appendicitis should not be made without considerable hesitation. So far as the last group (5) is concerned, I believe it would have been better omitted from the list. I feel strongly that fewer cases would pass unrecognized in their early stages were it to become the universal rule never to take the temperature nor count the pulse in a suspected case of acute appendicitis; they are only too apt to mislead. The temperature is of no value as a guide, and though the pulse-rate may possibly possess some prognostic worth, it is certainly of no assistance in early diagnosis. It seems difficult for men to convince themselves that dangerous pathological changes, such as gangrene, perforation of the appendix, and rapidly spreading peritonitis can coexist with a normal temperature and pulse, yet this is a by no means infrequent occurrence, and one which it is important should be widely known. Moreover, Murphy's fourth symptom—muscular rigidity—need not be waited for to complete a diagnosis, since it indicates that the infection has already spread from the appendix, and that there is either toxic irritation or actual inflammation of the parietal peritoneum overlying it. So long as the infection does not extend beyond the visceral peritoneum, rigidity of the abdominal muscles of the true involuntary type is not met with.

It is, then, upon the first three of Murphy's symptoms that we have to rely for the early diagnosis of acute appendicitis:

1. *Abdominal Pain.*—It is important to remember that the early pain is usually not felt over the appendix at all, but is referred to the area around the umbilicus—that is, to the peripheral distribution of the spinal nerves arising from those segments of the spinal cord with which the appendix and small intestine are connected through their sympathetic nerve supply—eighth to eleventh dorsal. The later transference of pain to the right iliac fossa indicates extension of the irritation to the parietal peritoneum (or rather to the rich nervous plexus in the connective tissue immediately underlying it), and inasmuch as this is supplied by the cerebro-spinal as distinct from the sympathetic nerves, accurate localization of the irritated area is possible. Thus the closer the situation of the appendix to the parietal peritoneum the earlier will the latter be irritated, and the sooner will the pain be localized. It must, however, be remembered that the appendix is sometimes placed deeply among the coils of small intestine or among the pelvic viscera, so that there may be no local pain at any stage, the initial "umbilical area" pain becoming steadily generalized. Absence of local pain may be, therefore, either a favourable sign, indicating that the infection is so slight as never to irritate the parietal peritoneum (and the appendicular origin of many of these cases is overlooked), or an unfavourable sign, indicating an appendix deeply placed among the viscera. When well marked local pain appears in the right iliac fossa early on in the attack one may confidently expect to find the appendix not far removed from the parietal peritoneum.

2. *Vomiting* is relatively more frequent in children than in adults, many of whom do not proceed further than the stage of nausea. The initial vomiting is a purely reflex phenomenon, and usually disappears within twenty-four hours. Persistence of vomiting, and its recurrence after having once definitely ceased, are strongly suggestive of spreading peritonitis.

3. *Local tenderness* should be searched for not only through the abdominal wall but also by rectal examination, since the appendix is frequently a pelvic organ. I have frequently detected local tenderness on rectal palpation when no trace whatever of a tender spot could be obtained on abdominal examination.

Treatment.

At the onset of acute abominal pain the patient should be at once placed in the semi-recumbent or Fowler position, and this should be consistently maintained throughout any removal to hospital or nursing home, throughout the subsequent operation, and for several days afterwards. During the operation the limbs and chest should be wrapped in wool and flannel bandages and the theatre maintained at as high a temperature as can be comfortably borne. A good light is essential, and I always have at hand an electric forehead lamp, the use of which has frequently enabled me to remove the appendix from an appendicular abscess which otherwise I should have been compelled to leave. For the majority of cases (76 per cent. of this series) I use the lateral "gridiron" incision, reserving one through the lower part of the right rectus for those where I have reason to believe, either from the situation of the local tenderness or the presence of any palpable swelling, that the appendix is situated nearer to the middle line than usual. In either case the muscle fibres are separated, never divided, and at the conclusion of the operation the wound is sutured in layers with iodized catgut, either completely or around a drainage tube, if such be requisite. On opening the peritoneum I palpate carefully with my gloved left index finger for any swelling, having located which I introduce a retractor beneath the inner lip of the wound and instruct my assistant to make strong traction upon it in a direction vertically upwards, so as to lift the abdominal wall away from the intestines as far as possible, while I introduce the gauze packing. This step I consider the most important of the whole operation and one worthy of the expenditure of considerable care. I generally use from 4 to 6 yards of "roll" gauze, 6 in. wide and four layers thick, and pass it in in four pieces—north, south,

east, and west of the inflammatory swelling—leaving a forceps attached to each. The "south" piece is the longest and extends well into the pelvis; if the appendix is closely adherent to the outer part of the iliac fossa, there may be no room for more than a short "west" piece. While introducing the gauze I always keep my left index finger placed lightly upon the swelling to prevent traction being exerted upon it while the gauze is pushed into place with long dressing forceps. Unless this precaution is observed, it is easy for the gauze to carry along with it a portion of intestine constituting the wall of the inflammatory mass, and so to break down limiting adhesions and flood the area with pus before packing is completed. Having, then, securely isolated the inflamed area from the rest of the peritoneal cavity, I open up the mass with my finger, wiping away any pus as fast as it escapes until the abscess cavity is dry, or, if no pus be present, searching for the appendix itself. The factors which influence me in deciding when to search for the appendix in the presence of a localized abscess have already been referred to. Wherever possible I prefer to treat the appendix as I do in "interval" operations—that is, crush and ligate its base and bury the stump in the caecal wall with a purse-string suture. In many cases, however, where the base of the appendix is situated deeply, it is not advisable to draw up the caecum sufficiently to pass a purse-string suture, and I have no hesitation in leaving the stump simply ligated, though here I invariably employ drainage. The gauze packs are next removed in the inverse order of their insertion, the "east" piece usually bringing with it a little of the omentum, which I tuck snugly around the drainage tube when such is used. Flushing with saline I now never employ except for cleansing large abscesses which have been reached without exposure of the general peritoneal cavity. I have already referred to the treatment of desperate cases of diffuse peritonitis and the importance of not attempting too much.

THE INGUINAL OPERATION FOR THE RADICAL CURE OF FEMORAL HERNIA.

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THE inguinal method of operation for the cure of femoral hernia seems now to be very frequently employed. My attention was first called to it by the paper of Mr. T. E. Gordon in the BRITISH MEDICAL JOURNAL, 1900, vol. i. p. 1338, at a time when I was myself planning some method for closing the crural canal at its upper end, and I began to perform the operation of radical cure of femoral hernia by this method in January, 1903. Since then I have operated on 27 cases in this way up to the end of June, 1911, and I have endeavoured to trace the first 12 of these cases. They were all operated on more than six years ago, and therefore there has been plenty of time for late relapse. It is stated that when relapse occurs after operation for femoral hernia it is usually late.

The statistics given to show the results of operation for radical cure of hernia are not usually satisfactory. We are generally told that so many cases have been operated on by some special method and only so many relapses are known; or if the cases are examined and found free from relapse, the time after operation at which such an examination is made is not given for all cases. What we really want to know is not whether few cases returned to the surgeon with relapse, for, of course, relapsed cases might quite likely not return to the surgeon who had operated, or whether so many cases were found free from relapse when examined shortly after the operation, but what proportion of patients have been found free from relapse some years after the operation. Even if they are free from relapse many years after the operation, that does not, of course, prove that they will never get a relapse, but we must have some time limit. But every one who has tried to obtain the result of treatment years after an operation knows how extremely difficult it often is to trace such cases amongst hospital patients. They move so frequently, and where they move to is not generally known in the neighbourhood where they previously lived. I have been more fortunate in tracing my first twelve patients operated on by this method of radical cure than I expected. Two out of the twelve died; one of them was an elderly man who died a week after the operation (which was for strangulated hernia followed by "radical cure") from bronchitis, and the other died nine months after the operation, of heart disease and without any recurrence of the rupture. In three cases my letters were returned through the "dead letter" office and seven replied. All these seven stated that they were free from recurrence, though one male had developed an inguinal hernia on the same side. I was able to examine four myself. Thus all the cases (seven) it was possible to trace, out of the twelve, were free from recurrence six years after the operation. In looking through the records of these cases, I have been struck with the small proportion of radical cures of femoral hernia which I have done, compared with inguinal hernia. I find I have only done radical cure for femoral hernia in 47 cases, and in no less than 27 of these the radical cure was done after herniotomy had been done for strangulation, leaving only 20 cases of operation for the radical cure of femoral hernia apart from strangulation. Some of the seven cases found free from recurrence after six years were radical cures done at the end of a herniotomy. I have not looked through my records to see in how many cases of inguinal hernia, which I have operated on for strangulation, I have done a radical cure, but I find that, whereas I have only operated in 20 cases of non-strangulated femoral hernia for radical cure, I have done so in 156 cases of non-strangulated inguinal hernia.

Although when considering the best method of closing the crural canal I came across the paper by Mr. Gordon, yet a little more than a year later, and before I began to practise the operation, Mr. Parry of Glasgow advocated it in a paper published in the BRITISH MEDICAL JOURNAL, 1901, vol. ii. p. 1136. I do not remember reading the paper at that time, but Mr. Parry had practised the method for four years before he published his paper—that is, he performed it for some time before Mr. Gordon did so. But unknown to both these surgeons, Lotheissen[1] described a similar operation several years before, and both he and Parry were led to adopt this method for the radical cure of femoral hernia after they had employed it in the operation for inguinal hernia. Parry brought the cord out through the crural canal and fixed the internal oblique and transversalis to Cooper's ligament, so as to form a barrier against descent of both forms of hernia. Lotheissen also fixed the conjoint tendon to Cooper's ligament in operating for combined inguinal and femoral hernia, and was thus led to adopt the method for femoral hernia alone.

The operation which I perform is not quite the same as the method described by Lotheissen, Gordon, or Parry, and I think it will be well first to describe it and then to point out how it differs from them. I make an incision parallel to and very slightly above Poupart's ligament, in the position of the neck of the sac, and then carry it downwards at the inner end at almost a right angle to the part parallel with Poupart's ligament, but where the horizontal joins the vertical portion it is curved, not angular. Each limb of the incision is about 2 in. long. The flap of skin which is thus cut is then dissected up in the outward direction, exposing the sac, Poupart's ligament, and the lowest part of the aponeurosis of the external oblique above it. The sac is now opened and the contents reduced. It is better not to tie the neck in the thigh, as it can be tied higher up from above Poupart's ligament, when later on it is reached through the incision through the external oblique; but if the sac is large it may not be easy to pull it up through the crural canal, and thus it may be necessary to tie the neck of the sac in the thigh, and after removal of the rest of the sac simply return the tied neck through the crural canal. In any case, whether tied in the thigh or above Poupart's ligament, the sac is always removed. If it is removed from above Poupart's ligament, it should, I think, be separated from its surrounding fat and fascia by dissection in the thigh before it is drawn up through the crural ring. Hence the incision should be carried over the sac in the thigh by means of a vertical limb, in the way I have described. Having, then, separated the sac ready to be drawn up

through the crural canal, or removed it after ligature of its neck, an incision is made through the external oblique just above and parallel with Poupart's ligament, as in Bassini's method of performing radical cure of inguinal hernia. It is not, however, necessary to carry this incision into the external ring. The transversalis fascia must be divided, and then either the ligated neck of the sac will appear if it has been returned from the thigh, or if it has not the neck of the sac will be identified and the whole sac, already separated from its surroundings in the thigh, must be drawn up through the crural canal, the neck tied so as to take into the ligature as much peritoneum as possible in order to obliterate the neck, and then the rest of the sac cut off. In the female the round ligament can be easily separated and drawn aside, and the cord can also be easily displaced without any harmful traction so as to get good access to the parts beneath, as I have found in several operations performed by this method in males. I may say that in thin patients of either sex there is no real difficulty about the operation if you know the anatomy of the part you are dealing with, but these structures do lie at a very great depth in very fat patients, and it is not easy to then get a good view of the deep part of the wound, and the difficulty in getting your needle to take the required curve at a very considerable depth and in a very narrow space may be considerable. Having dealt with the sac you must next define the crural ring, and particularly the ilio-pectineal line, with the origin of the pectineus muscle on it, covered by the thick pectineus fascia (the pubic portion of the fascia lata). This line of fascia is sometimes called Cooper's ligament. It should be split open parallel to the ilio-pectineal line, to the extent of the diameter of the crural ring, so as to expose the fibres of the pectineus muscle in order to obtain a raw surface to which the lower edge of the abdominal muscles can be united. It is, of course, necessary at this stage to carefully define the position of the femoral vein. I have never had any trouble from the deep epigastric vessels, but it is well to remember their position. I may have had to tie the deep epigastric vein when I have had to deal with venous bleeding, but I have certainly never cut the artery. I find a metal spatula is the best form of retractor in the deep space. It holds aside the loose fat in a way the ordinary hook retractor does not do. As soon as you have made your incision in the edge of the pectineal fascia it is best to pass three silk stitches through the edge of the split fascia, and then to rethread the deep end of each stitch and carry it through the lower edge of the internal oblique and transversalis muscles, and by tying the knot fix the muscles to the cut edge of the fascia. It is easier to pass all these stitches first through the fascia and then afterwards through the muscles, than to include fascia and muscle in each stitch as it is passed. I generally draw down and fix to the fascia the muscle edge before it becomes the conjoint tendon. The latter never seems to me a firm enough structure to be used with advantage in this way. By fixing the abdominal muscles to the pectineal fascia a barrier is formed to the entrance of a hernia into the crural canal. It has seemed to me that a weak spot was left after the operation just over the femoral vein, and that an incipient hernial sac might protrude over the vein round the outer edge of the new barrier, and thus enter the crural canal. In many of my operations I have therefore sewn the internal oblique to Poupart's ligament over the vein—that is, I have carried the barrier further out—and I think in some cases this is a wise thing to do; but it does not seem necessary in all, as I sometimes find, after suturing the internal oblique and transversalis to the pectineal fascia, the edge of the muscle is so closely applied to the vein as to make it seem impossible for a hernial sac to descend there. Gordon, in the account of his operation, advises the stitching of the internal oblique to Poupart's ligament above the crural ring. He says this is done "so as to pack down as much muscle fibre as possible against the opening, and also to relieve any tension that might be thrown on the primary stitches." This is no doubt a good plan, but what I suggest is making a union to Poupart's ligament further out, over the femoral vein, in some cases. Parry also sutures the conjoint tendon to Poupart's ligament as well as to the pectineal fascia.

I have not adopted the method of performing the radical cure of femoral hernia by stitching down Poupart's ligament to the pectineal fascia for two reasons: I have always been afraid of wounding the femoral vein with my outermost stitch, and I thought that if Poupart's ligament were fixed down to the pectineal fascia so as to occlude the ring in this way it might press on the femoral vein. But when you have exposed the femoral vein—or, perhaps more strictly speaking, the iliac vein—from above Poupart's ligament, as you do in this inguinal method of operating, and can see exactly where it lies, there seems no danger of puncturing it; and, moreover, you can satisfy yourself it is not injuriously pressed on when you fix Poupart's ligament to the pectineal fascia, so that in my last two operations—not in any of the first 25—I have stitched Poupart's ligament to the pectineal fascia, and have thus made the operation a combination of the method of Lotheissen and that of Lockwood and others. I have not done so because Lotheissen's operation has been a failure, but because with the ring exposed from above it has been so simple and safe to pass these extra stitches, and it seems to me that every extra barrier to further descent of the hernia must be an advantage. In many of my earlier cases I drew together with a purse-string suture the fascia around the saphenous opening, but this, of course, is of no great value. The inguinal operation is completed by sewing up the opening in the external oblique as in Bassini's operation.

Although for the reasons I have already stated I have not used any method of radical cure which consists in union of the wall of the crural canal by stitches passed from below, I have turned up the flap from the pectineus muscle advocated by Sir Watson Cheyne. But this always seems to me a closure of the canal at the wrong end, and I was planning closure of the upper end when I came across Mr. Gordon's paper. The closure of the crural ring rather than the saphenous opening is, of course, the great advantage of the inguinal operation.

I must now point out in what way the method by which I perform this operation differs from that of the three other surgeons who have described it. Lotheissen does not make any incision downwards over the sac, but only one parallel with Poupart's ligament, and the sac is generally dragged upwards into the space opened by the incision through the external oblique. But he says this may not be possible if the sac is large, and it cannot be possible if the hernia is irreducible. In such cases he simply draws down the lower edge of the inguinal skin incision, so as to expose the sac. It seems to me that better access is given to the sac by making a downward limb to the incision, and that a preliminary separation of the sac from its surrounding fascia in the thigh makes it easier to drag it up through the ring. I think it would be a great mistake to tie the neck of the sac first from the thigh and then retie it when the sac had been drawn up through the ring so as to get a ligature on it higher up, for some part of a coil of intestine might be lying in the neck above the first ligature, and so be included in the second. And if the first ligature were removed before another was put on, it would be difficult to get enough of the edge of the sac into the second ligature to make it hold well, for we should then have to deal with a fairly large opening in the peritoneum. But this might, of course, be sewn up, as one does with a very wide neck in operating on an inguinal hernia.

The method which I have adopted differs slightly from Parry's in the form of the incision, but more essentially in that I always remove the sac, as it seems to me there is nothing to be gained by drawing it up and leaving it under the abdominal wall. The tied neck can always be drawn up under the internal oblique and transversalis, out of the line of descent of the hernia, as some of us do in operating for inguinal hernia. Mr. Gordon's method and my own are almost identical. I have already explained that in some cases I made the union of the internal oblique to Poupart's ligament further out, that is, over the femoral vein, and that in the last two cases I have operated on I have sewn Poupart's ligament down to the pectineal fascia also.

At a meeting of the Section of Surgery at the Royal Society of Medicine,[2] Mr. C. H. Fagge recorded his experiences of this inguinal operation in more than 30 cases. He was able to examine 19 out of 29 a short time after recovery from the operation, and found only 3 recurrences. All were, however, operated on as late as 1910, so that

sufficient time had hardly elapsed to judge of the results. Mr. Fagge speaks of the advantage of this method of operation in strangulated femoral hernia, and he suggests that Gimbernat's ligament may be divided outside the sac through the inguinal incision in the external oblique. In division of the constricting band causing strangulation outside the sac, either in inguinal or femoral hernia, it is necessary to be careful that while one's attention is given to this division, a very small piece of strangulated intestine—perhaps only a Richter's hernia—does not slip back unobserved as soon as the constriction is divided, and therefore before we have time to make the examination of the groove of constriction for perforation, which is so important to do.

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A CASE OF ADDER BITE.

BY

ERNEST F. CLOWES, M.R.C.S., L.R.C.P.

WOTTON-UNDER-EDGE.

CASES of adder bite are of sufficient interest to warrant description, because of their rarity and the very alarming symptoms produced.

F. B., aged 28, a man enjoying excellent health and of good physique, was walking through some woods in search of grass snakes on June 16th, 1911. He was quite unaware of the fact that the ordinary viper (*Vipera berus*) was to be found in every county of England, Scotland, and Wales. In a shady path he suddenly came across what he thought was a dark coloured grass snake; he picked it up, handled it, and noticed a V-shaped mark on its head, also that it was of a dirty chocolate-brown colour. After examining it for two or three minutes, he decided to take it home, and in order to get a box out of his pocket, he had to change the snake from his right hand to his left. Whilst doing this, the reptile suddenly bit him over the first phalanx of the left thumb. He dropped the snake, and says he felt a darting pain shoot up the arm to his shoulder. After this he cannot give a very clear account of his movements, but remembers being found by some woodmen, who gave him whisky and advised him to suck the wound. He was removed to his home, and I saw him about forty minutes after the accident.

I found him lying down, very pale and collapsed, and quite pulseless. His pupils were dilated, the left more than the right; the sclerotics were pearly white and glistening. The breathing was shallow and jerky; he was rather confused mentally, and complained of thirst and a stifling feeling in the throat. The left thumb and hand was swollen, but the swelling was limited at the wrist.

I immediately applied a tight ligature about 3 in. above the wrist, and soaked the whole hand in a strong solution of Condy's fluid. The thumb had two small punctured wounds about ½ in. apart on the dorsal aspect of the first phalanx: the wounds looked like small pin pricks. I made a deep crucial incision over the wounds, and allowed it to bleed freely, the wound was then filled up with crystals of potassium permanganate, and dressed with double cyanide gauze. A mixture of digitalis, compound spirit of ether, and ammonium carbonate was given, and a hypodermic of strychnine $\frac{1}{30}$ grain. Hot water bottles were applied to the feet, legs, and abdomen.

He rallied somewhat after this treatment. The pulse was 140; respirations 26, shallow and jerky; temperature 96.6° F. He complained of pains shooting like "electric shocks" down his spine, legs, and arms. His whole body was hyperaesthetic; so much so that he did not like the bed-clothes to touch him. He could only move his legs and arms feebly, the knee-jerks were absent in both legs, but slight plantar reflexes were present. He complained of difficulty in swallowing, and had a constant desire to pass water, although he could not do so. The corneal reflexes were decidedly sluggish. The pupils reacted to light and accommodation, but the left was more dilated than the right. He said that he could not see properly, everything looked misty, and he could not tell the difference between a red and yellow rose when they were shown to him.

The swelling of the hand was now much increased, and there was great pain in the arm. I gave him a hot rectal saline injection and decided to infuse normal saline solution into the axillae. As I thought some of the pain in the arm was due to the tightness of the ligature round the wrist, I loosened it slightly, but almost immediately the patient cried out with pain, which he said shot down his spine and legs. The pain was followed by vomiting and he was utterly collapsed. Another hot rectal saline and more of the ether mixture and a hypodermic of strychnine was administered, and again the patient rallied.

As the patient's condition did not improve, local injections of sterile 5 per cent. permanganate solution at the edge of the oedematous area were made upon the suggestion of Professor Walker Hall; three separate injections were made at various sites round the limb; normal horse serum was also proposed to be given in 10 c.cm. doses three times daily. After the first dose of normal serum I waited for two hours, and then loosened the ligature again. There was some pain in the dorsal spine, and also slight pains down the legs, but no nausea or vomiting or collapse followed. At 8.40 p.m. the pulse was 110. Respirations 20, temperature 100.6° F. The patient now passed some urine (6 oz.); it was dark and smoky coloured; reaction acid; specific gravity 1025; albumen and blood present. Hot rectal salines were administered every three hours, and the ether mixture every two hours; nourishment in the shape of soups, milk, and egg-flip was given freely. An endeavour was made to procure antivenene, but it could not be obtained in time for administration.

At 11.30 p.m. he was fairly comfortable, but complained of some pain in the forearm and shoulder. His pulse was 100, respirations 20, temperature 101.8° F. I loosened the ligature again, and no bad symptoms supervened. I left him for the night with instructions for the rectal salines and the ether mixture to be continued.

I saw him early in the morning of June 17th. He had slept a little, but had suffered some pain in the left arm and shoulder. He had passed about 10 oz. of blood-stained urine during the night. The whole arm from the hand to the shoulder was now intensely oedematous, and the oedema extended slightly over the chest, neck, and back. The hand and arm were bluish red in colour, and the lymphatics stood out as bright red lines. He complained of headache, and he could not yet distinguish colours. The left pupil had nearly regained its normal size. He still had much loss of power in the legs, and the knee-jerks were absent, but the plantar reflexes were stronger. Pulse 90; respirations 18 and normal in character: temperature 100° F. From then onwards the patient made an uninterrupted recovery. Knee-jerks appeared on June 20th. The urine was free from blood and albumen on June 21st, and all oedema of the arm had subsided by June 28th. For about a month the patient had a good deal of stiffness in the hand and fingers, but otherwise was quite well.

The case gains in interest from the fact that the patient was of more than average intelligence, and did not manifest any hysterical tendencies. Except during the period of collapse, he was able to give a succinct account of his symptoms. The transference of the venom appeared to be limited to the superficial lymphatics, and to occasion a considerable amount of reaction along their path. When the ligature was loosened, the resultant pain followed too rapidly to be due to any circulation of the poison; the suggestion lay near to hand to regard the condition as associated with a primary inhibition of nervous impulse and the general systemic pains as referred in character. The normal horse serum appeared to play a part in reducing the effect of subsequent removal of the ligature and the admission of small doses of the poisoned oedema fluid distal to the ligature into the general system, for even after the first dose there was less pain when the ligature was slackened.

A CASE OF RUPTURED SPLEEN: SPLENECTOMY: RECOVERY.

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THE following case upon which I operated presents several points of interest. The patient, a farmer, aged 52, was admitted into Doncaster Royal Infirmary on Thursday, July 20th, 1911, at 1 p.m.

History.

On July 18th, at 8 a.m., he fell from a hayrick about 12 ft. high on to his left side across a stone wall. He continued at his work until 9 a.m., and then went home to bed suffering a good deal of pain. In the afternoon he felt better, and got up for a little. About 10.30 p.m. the pain became worse; it was situated in the pit of his stomach and round the left side. On the following morning he sent for Dr. Chambers, but by this time the pain had become easier. On July 20th, Dr. Chambers, thinking that the man was suffering from internal haemorrhage, and that his spleen might be ruptured, sent him into the infirmary. The patient insisted on walking downstairs to the cab, and on arrival at the infirmary stepped out of the cab into the ambulance chair.

Condition on Admisson.

The patient was a strong, well-made, burly man. The pulse was 132, and the temperature 99°. He looked pallid, but was not at all collapsed. He complained of pain in the epigastrium and left hypochondrium, and was tender over that area. The abdomen moved fairly well on respiration, but there was some abdominal distension. There was an indefinite area of dullness in the left flank.

A turpentine enema was ordered, and hot fomentations applied to the abdomen. At 4 p.m., when I saw him again, his

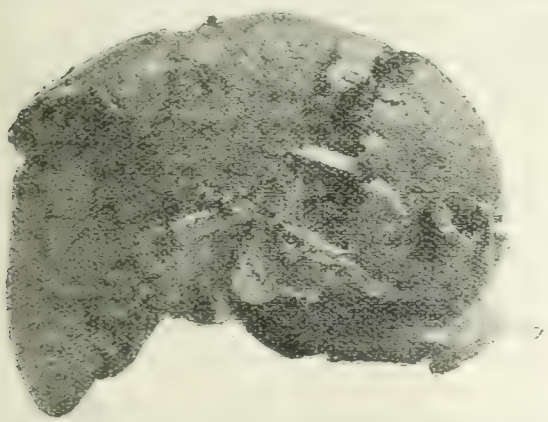
pulse was 116, and he said he felt a good deal better. There had been a very good result from the enema.

I decided to operate for the following reasons: (1) The history of a very severe injury. (2) The increase in the pulse-rate. (3) The presence of dullness in the left flank.

The remarkable feature about the case was that the man did not look ill; he was not at all collapsed, and did not appreciate the seriousness of his condition; he was able to describe his accident in detail, and laughed at times during the recital. During the afternoon he said, "I suppose I shall have to be operated on, but I'm as strong as an old toad and shall pull round all right."

Operation.

At 8 p.m. the patient was anaesthetized with chloroform. The skin was first shaved and then painted with tincture of iodine. A vertical incision was made about 1 in. to the left of the middle line, extending from just below the costal margin to the level of the umbilicus. The left rectus muscle was then split in the same direction. Tetra cloths were then clamped to the edges of the wound, so as to exclude the skin from the operation area. On opening the peritoneum blood gushed out. There was a great quantity of blood and blood clots in the left side of the peritoneal cavity, in fact the haemorrhage was so great that the sister who was helping me was soaked right through to her skin, and I would have been in a similar condition but for a mackintosh apron. There was a rupture in the spleen into which two fingers could be inserted. A transverse incision was made extending outwards from the vertical incision in order to obtain better access to the spleen, which was then brought into the wound and the pedicle clamped with Lane's stomach clamp. The pedicle was ligatured in sections with strong catgut and the spleen removed. After all the blood had been removed from the peritoneal cavity the abdomen was closed. During the operation the patient became pulseless,



and 3 pints of saline was injected into the median basilic vein by the house-surgeon; this improved the pulse somewhat, but he was removed to the ward in a very critical condition. During the night 5 pints of saline were infused into the cellular tissue of both thighs by means of Barnard's apparatus.

The next morning the patient said he was very comfortable except for some pain in the region of the wound. There had been vomiting. His pulse at 6 a.m. was 140, but by 10 p.m. had fallen to 120. During July 21st and 22nd rectal salines were given every four hours.

Result.

The patient made an uninterrupted recovery except for some suppuration which occurred in the wound, partly, no doubt, owing to his great loss of blood, and partly to the hurried character of the operation. He was given during his stay in hospital red bone marrow in the form of virol: also sheep's spleens. He was discharged from the hospital quite well on Monday, September 4th. No enlargement of the lymphatic glands could be felt.

Dr. Langley very kindly made an examination of the patient's blood on two occasions, with the following results:

First Examination, July 28th, 1911.

Red Cells.—Number 2 million per c.mm. Roulcau formation fair. Some tendency to agglutination. Marked poikilocytosis. Macrocytes and microcytes present, and ghosts. Polychromatophilia. Granular and vacuolar degeneration marked. Normoblasts and megaloblasts present. Blood platelets numerous. Coagulation good.

White Cells.—Number 6,000 per c.mm., as follows:

Polymorph. neutrophiles	...	212=70.3 per cent.
Small lymphocytes ...	...	28= 9.3 ,,
Large lymphocytes ...	...	29= 9.6 ,,
Large hyaline	...	16= 5.3 ,,
Eosinophile	...	14= 4.6 ,,
Mast cells	...	None seen
Transitional leucocytes	...	1= 0.3 per cent.

There were 13 normoblasts and 6 megaloblasts seen while counting 300 leucocytes.

Second Examination, August 19th, 1911.

Red Cells.—Number 4 million per c.mm. No nucleated red cells were seen. No granular or vacuolar degeneration. Poikilocytosis and polychromatophilia slight. Rouleau formation fair. Platelets normal. Macrocytes and microcytes still present.

White Cells.—Number 6,420 per c.mm., as follows:

Polynuclear neutrophiles	...	143=47.6 per cent.
Small lymphocytes ...	...	80=26.6 ,,
Large lymphocytes ...	...	37=12.3 ,,
Large hyaline ...	...	16= 5.3 ,,
Eosinophiles	...	20= 6.6 ,,
Mast cells	...	4= 1.3 ,,

The photograph shows the site and extent of the rupture in the spleen.

ANAESTHESIA FOR SUBMUCOUS RESECTION OF THE SEPTUM.

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THE subject of anaesthesia in the operation of submucous resection of the septum is an important one to both the patient and the surgeon. The fact that the operator has choice of local anaesthesia or general narcosis complicates the problem, and the decision to limit himself to the one or combine the general with the local anaesthetic can only be arrived at after due consultation with the patient and a careful consideration of his state. With local anaesthesia the aim has been to combine ischaemia, with the object of rendering the area of operation as bloodless as possible for visual definition of the parts dealt with. This has been attained by the addition of a few drops of adrenalin chloride to the solution of the local anaesthetic substance—namely, cocaine hydrochloride, novocain, alypin, etc.—used.

Various methods of procuring local anaesthesia have been employed: (1) The topical application of crystals of cocaine to both sides of the septum (Freer); (2) pledgets of cotton-wool soaked in a 20 per cent. solution of cocaine hydrochloride, or novocain, 20 cent., to which a few drops of adrenalin chloride (1 in 1,000 solution) are added, and, lightly squeezed, are packed against the septum for fifteen minutes or so, and the operation proceeded with: (3) the septum is painted over with a 20 per cent. solution of cocaine hydrochloride to which is added a few drops of adrenalin chloride (1 in 1,000), and subsequently infiltrated with a very weak solution of cocaine or novocain to which a few drops of adrenalin chloride are added (Hajek). The last method in local anaesthesia is the one to which my partner, Mr. Marsh, and I adhere; it certainly gives the best results as regards anaesthesia, and the subperiosteal infiltration facilitates the detachment of the muco-periosteum and perichondrium; moreover, the thickening of the muco-periosteum accruing from the infiltration renders it more resistant to perforation.

The following are the steps of the procedure: (*a*) About one and a half hours previous to operation a substantial meal is given, the ingestion of which enables the patient to better withstand the effect of cocaine. (*b*) Both nasal passages are sprayed with a 20 per cent. solution of cocaine hydrochloride, to which an equal quantity of 1 in 1,000 adrenalin chloride is added. This application may be made while the patient is in bed. (*c*) Both sides of the septum are thoroughly rubbed with cotton-wool mounted on wool carriers soaked in cocaine hydrochloride 20 per cent. and adrenalin chloride 1 in 1,000 equal parts: less cocaine is absorbed in this way into the system than if pledgets of cotton-wool soaked in cocaine are introduced for some time. For this step and throughout the rest of the operation the patient withstands the effect of the anaesthetic much better if he is lying on his back on the operating table; there is less tendency to syncope—a somewhat alarming contretemps which I have seen when I used to perform the operations with the patient sitting erect in a chair as Hajek recommends.

THE TECHNIQUE OF THE INJECTION.

A solution of 0.40 cocaine hydrochloride, 0.60 common salt, 200 distilled water (equivalent to ⅓ per cent. of cocaine hydrochloride in normal saline), to which is added two drops of adrenalin chloride (1 in 1,000) to the cubic centimetre, is used for injection. The syringe employed is of

1 c.cm. capacity, and two needles are used, a long and a short; the needles have tapering barrels extending the greater portion of their length to give them increased rigidity.

One syringeful is injected with a long needle in the upper and posterior parts of the septum under the muco-periosteum covering the bone, in the neighbourhood of the naso-palatine nerve. This serves to anaesthetize the posterior part of the septum. The second syringeful is entered in the anterior and upper part of the septum—that is, in the neighbourhood of the internal twig of the nasal branch of the ophthalmic nerve. A third syringeful is divided between the line of incision and the septum near the floor, especially where the anterior palatine canal emerges. The same amount is injected on the other side. The mouth is then covered with a mask of gauze, held *in situ* with adhesive strapping, and the operation proceeded with. After the first syringeful is injected, certain circulatory disturbances in varying degrees are noticed, the patient usually becomes blanched, beads of perspiration exude, the heart thumps distressingly, and occasionally, in fatty subjects and persons addicted to much smoking, it beats quite irregularly, intermitting one now and again. Others complain of intense pain in the lower part of the back and abdomen—I am inclined to believe this is due to great and tense pulsation of the abdominal aorta. A good many have headaches which last during the operation or supervene some hours later. All these effects are attributable to the action of adrenalin in raising the peripheral pressure and stimulating the heart. These symptoms shortly subside, and the injection may be resumed. The increased pulsation generally occurs in diminishing degree after each injection; sometimes from fifteen to twenty minutes afterwards there is a reactionary fall of blood pressure, and the patient partially collapses, due possibly to the late absorption of cocaine. I have, however, never seen this phenomenon interrupt the course of the operation since I have placed them supine on the table.

With local anaesthesia properly done one can gain complete insensibility to operative manipulations, but there is always a distressing noise transmitted in a magnified degree to the ears when the bone of the superior maxillary crest and vomer are punched out or chiselled away. It is on this account that one is induced to turn to a combination of local anaesthesia and narcosis in nervous and timid patients. With a combination of general and local anaesthesia the patients are unconscious of the circulatory disturbances, grating of the bone, headache, and manipulation of the nose so distasteful to females. The element of danger is increased, however, as some reported fatalities show, but with a competent anaesthetist, and attentive observation of the effect of the injections, the risk is reduced to a minimum.

With regard to the method in detail, anaesthesia is induced with a mixture of chloroform and ether (in the proportion of 1 to 2); the induction should proceed slowly, and when the patient is barely unconscious, that is, when the breathing is automatic but the reflexes brisk, half a syringeful of the ½ per cent. cocaine and normal saline above mentioned, to which is added two drops of adrenalin chloride (1 in 1,000) to the cubic centimetre, is injected in the posterior part of the septum. The effect should be watched, and if increased pulsation ensues wait until it subsides a little before injecting any more. The same sites of injection are selected as in the description given of local anaesthesia. I always regard increased pulsation of the heart-beat and a strong pulse as safe signs. Great pallor and no increase in the pulse tension or strength of the heart's beat should excite suspicion, and the injection must be suspended, the operation being pursued without further infiltration. Irregularity of the beat occurs occasionally, although the heart may beat strongly. This I regard as no deterrent, but intermittent beating associated with a pulse of a weak and feeble character is distinctly interdictory. In this connexion I should like to interpolate a report of 3 cases showing the alarming effect of the sudden absorption of adrenalin on the system—an effect due, in my opinion, to the action of adrenalin on a circulatory system depressed by chloroform, and not the result of a nasal reflex, for the action only supervened after a latent period corresponding to the approximate time of absorption.

Case I.

A pale and anaemic woman with a feeble circulation was fairly deeply anaesthetized before the submucous injection was thrown in. About a minute after this the patient suddenly became intensely pallid, respiration ceased, and the pupils suddenly dilated. She was promptly inverted, and after about twenty to thirty seconds of anxious waiting she gave a sighing respiration, then a second, and finally recommenced breathing. Artificial respiration was not resorted to.

Case II.

This case occurred in a woman about a month later almost in the same way, except that the untoward symptoms appeared earlier. Inversion restored her breathing, and the operation was completed.

In both these cases the effect was at first attributed to chloroform overdose, but in the light of a further case which occurred a week later at the Ear and Throat Hospital this opinion was modified.

Case III.

This was a case of endo-nasal operation for antral suppuration. The patient was rather deeply anaesthetized, and I injected 3 c.cm. of normal saline with a few drops of adrenalin (1 in 1,000) added into the anterior end of the inferior turbinate, with the object of resecting this bloodlessly. Within ten seconds respiration ceased, the pulse was suppressed, and the pupils widely dilated. She was inverted immediately, and respiration gradually restored, the pulse becoming stronger by slow degrees.

The effect was attributable to adrenalin as no cocaine was present in the solution. It occurred earlier in this case owing to the wide venous space into which it was injected and more rapid absorption into the system. One can only conjecture how it acts. Is it by causing anaemia of the bulb, or may there be some slight toxic action on the respiratory centre? Does the heart first fail owing to spasm of the coronary arteries? The whole condition supervenes so rapidly it makes accurate observation difficult. After the injection the mouth, chin, and lips are well vaselined over: a piece of gauze fourfold thick and about 3 in. wide is doubled across a strip of adhesive strapping, this mask is laid across the mouth and affixed by the strapping to the cheeks. The mouth is kept half open by a Doyen's gag, and the anaesthetic administered by dropping it on the gauze, which is kept slightly raised from contact with the mouth by the hand. Very little anaesthetic is required, as the local infiltration numbs all pain and consciousness need only be barely abolished.

Conclusions.

For *local anaesthesia* (1) all healthy individuals who do not mind slight discomfort; adipose subjects if they will submit to it.

For *combination of general and local*—nervous and timid subjects who prefer abolition of consciousness in whom the heart is quite sound; (2) children if operation is really necessary. Great care should be exercised in anaemic pallid subjects with a feeble pulse. Over a hundred cases have been done with a combination of local and general anaesthesia, and more than five hundred with local anaesthesia, with no fatalities.

A preliminary injection of scopolamine and morphine is to be deprecated as the morphine seems to inhibit the ischaemic effect of the adrenalin.

ATROPINE AND OPEN ETHER ADMINISTRATION.

By H. BELLAMY GARDNER, M.R.C.S., L.R.C.P.Lond.,

FORMERLY ANAESTHETIST AND INSTRUCTOR IN ANAESTHETICS AT CHARING CROSS HOSPITAL.

In order to facilitate the general adoption of the open method of ether administration I venture to place on record some modifications of technique which contribute towards the ease of the induction and the perfection of the resulting anaesthesia.

An initial communication on this subject appeared in the British Medical Journal for November 23rd, 1907, and a description of the method used in the Journal for January 18th, 1908. A paper was also read at the annual meeting of the British Medical Association in London, 1910, and reported in the Journal for September 17th, 1910.

The Technique.

1. One hour before the administration a hypodermic injection of atropine sulphate $\frac{1}{100}$ grain is given with the object of preventing the considerable secretion of mucus in the air passages which may otherwise be caused by ether. This also prevents sweating during the operation, and thereby retains the body heat. Atropine is also a respiratory stimulant and a vagal obtundent, both valuable qualities unhampered by contraindications. Morphine is not advantageous for routine employment, because it appears to induce undue oozing of blood from the wound during operation, and certainly retards the reappearance of the laryngeal reflex and the resumption of consciousness during recovery.

2. When the patient is in position for the ether administration a small mouth prop is inserted between the side teeth and held in position by light pressure upwards upon the lower jaw with the administrator's left hand.

3. A ring pad made of gauze is then rested on the patient's face encircling the nose and mouth.

4. The wire mask fitted with a pad made of sixteen layers of gauze is now laid upon the ring pad, and the patient instructed to breathe in and out slowly through the mouth.

5. The administrator now talks quietly to the patient all the time, while he drops ether continuously upon the mask until unconsciousness supervenes.

6. The mouth is then opened wider with a jaw gag, a tongue clip with finger loop is inserted, and the tongue drawn slightly forward away from the pharynx.

The mouth prop is then readjusted, leaving the mouth partly open as at first. The ring pad and mask are then replaced and the ether drops continued.[1]

By means of this procedure all further anxiety as to the patency of the airways is removed, and laboured respiration entirely avoided.

Practical Advantages.

These may be shortly summed up under the following headings:

1. A smooth induction period of six to eight minutes.
2. Very early clouding of the mental faculties.
3. Tranquil regular respiration with abdominal relaxation.
4. Absence of mucus in the air passages.
5. No unusual oozing of blood from the wound.
6. Extraordinary safety, alterations in the patient's position or disturbances of vital structures producing barely any depression.
7. Maintenance of normal blood pressure and absence of shock owing to the obtundent effects of both atropine and ether.
8. Suitability for goitre operations and adenoid and tonsil extirpation.
9. The patient may be safely propped upright on pillows on return to bed.
10. No after-effects, vomiting being quite rare.
11. Acidosis improbable.
12. Unusual value therefore in septic conditions and those with flagging circulation.

After four years' employment of open ether administration, in contrast with thirteen years' previous use of other methods, I cannot refrain from strongly urging its general acceptance as a substitute for chloroform and mixtures in all routine surgical work on account of its extreme simplicity, safety, and convenience for the operator, administrator, and patient.

[1] The mouth props, tongue clip, mask, and sewn gauze pads may be obtained from Messrs. Allen and Hanburys of Wigmore Street.

THE Lord Mayor, who presided at the annual meeting of the St. Mark's Hospital for Cancer, Fistula, and other Diseases of Rectum, London, E.C., on February 16th, said that his knowledge of the institution was of long standing, since more than fifty years ago he had the pleasure of knowing the founder, and had assisted the staff of the hospital at operations in the early days on a number of occasions. The annual report, moved by Dr. A. W. Oxford, showed that 643 in-patients and 1,997 out-patients had been under treatment during 1911. The addition of six beds increased the cost of provisions and a falling-off in the income had produced a deficit of £621. A vote of thanks to the honorary medical staff, moved by the Lord Mayor, was acknowleged by Mr. Swinford Edwards.

LEFT-SIDED SUBPHRENIC ABSCESS DUE TO PERFORATED DUODENAL ULCER.

BY

H. D. ROLLESTON, M.D., F.R.C.P.,

SENIOR PHYSICIAN, ST. GEORGE'S HOSPITAL; PHYSICIAN, VICTORIA HOSPITAL FOR CHILDREN.

THIS case is remarkable from two points of view, the clinical and the anatomical.

A man aged 66 was admitted on March 1st, 1910, to St. George's Hospital with severe abdominal pain, worse on the right side, and extending from the right costal margin to the iliac fossa. The right half of the abdomen was tender, rigid, distended, and resonant: the liver dullness was diminished. There were signs of a small pleural effusion on the right side. The tongue was dry and coated, and the patient looked pale, ill, and distressed. The temperature was 99° on admission, the pulse 88, and the respirations 24. The urine, 1030, acid, contained indican, gave a slight reduction with Fehling's solution, and was free from albumen and pus. He had not been sick, and was not so at any time after admission. Rectal examination did not reveal anything abnormal.

Past History.—He has had similar, though less severe, attacks: the first was five years ago, and he has had four since, the last seven months ago, when he vomited bile and was in bed for three weeks.

Progress of the Case.—The pulse gradually quickened to 118, the respirations to 36, and the temperature varied between 97° and 101°. Definite signs of a gaseous subphrenic abscess on the right side developed; it was noticed that the left loin was dull on percussion, and was oedematous. On March 8th Mr. Dent opened the abdomen by an incision 3 in. long through the outer side of the right rectus. On opening the peritoneum gas escaped, but there was not any pus. A large mass of thickened omentum was found extending to the left of the incision beneath the left rectus, and on separating this an abscess containing offensive pus was opened; a large drainage tube was inserted. A few drops of bile were noticed in the discharge: and, though the cause of the abscess was not found, it was thought to be probably a perforated duodenal ulcer. The wound drained freely after the operation, and on the following day food came out of the wound. The patient gradually sank and died on March 13th, 1910.

The necropsy, performed by Dr. Trevor, showed that the gastro-colic omentum was attached by old adhesions to the anterior abdominal walls, from side to side, just below the costal margins. The under surface of the liver was adherent to the stomach, and there were adhesions around the gall bladder. There was a large subphrenic abscess on the left side of the upper abdomen, limited to the right by the left side of the falciform ligament of the liver, and occupying the dome of the stomach chamber; in short, the left anterior intraperitoneal subphrenic abscess as described by Barnard. A small track passing downwards and to the right under the free margin of the falciform ligament of the liver ran to a perforated duodenal ulcer the size of a shilling on the anterior surface just outside the pyloric ridge. A thin track of pus was found on the convexity of the liver to the right of the falciform ligament, but it did not spread out into an abscess; there were also one or two scattered collections of coagulated pus, the size of a threepenny piece, on the convexity of the right lobe of the liver, but the substance of the liver did not show any suppuration. As these small purulent areas on the convexity of the right lobe of the liver were quite recent, it is probable that they had formed after the laparotomy.

It is noticeable that in this case the signs pointed to a right-sided gaseous subphrenic abscess, whereas the abscess was really on the left side. In explanation of this want of accord between the physical signs and the real condition, it is highly probable that there was free gas on the right side of the falciform ligament, though the abscess was on the left side. For at the operation air but no pus came out when the peritoneum was opened by the incision to the right of the right rectus muscle.

The main interest of the case is the occurrence of a left-sided subphrenic abscess due to a perforated duodenal ulcer. In this instance the history of past attacks of a similar, though less severe, nature and the presence of adhesions make it highly probable that there had been attacks of local peritonitis in connexion with the duodenal ulcer, and that the adhesions thus produced were responsible for the abscess being on the left side of the abdomen. Left-sided subphrenic abscesses due to perforated duodenal ulcer must be very rare, for the condition is not referred to in Moynihan's work on duodenal ulcer.[3] From Box's remarks[1] it appears that a left-sided intraperitoneal abscess might occur even in the absence of adhesions. He says: "The most posterior part of the general peritoneal cavity of the left subphrenic region is situate, when the body is supine, near the posterior border of the spleen, to the outer side of the upper end of the left kidney, just above the

level of the eleventh intercostal space. It is in this direction that effusions from ruptured gastric or even duodenal ulcers are directed by the slope of the mesial watershed and the presence of the mesocolic shelf." Hunt[2] records an abscess confined to the lesser sac of the peritoneum with which a duodenal ulcer communicated directly; such an abscess would extend into the left side of the abdomen.

REFERENCES.

[1] Box, *Lancet*, London, 1910, i, 851. [2] E. R. Hunt, *Trans. Med. Soc. Lond.*, 1905, xxviii, 76. [3] Moynihan, *Duodenal Ulcer*, 1910 (W. B. Saunders Company).

ON THE TRANSMISSION OF LEPROSY TO ANIMALS BY DIRECT INOCULATION.

By H. BAYON, M.D.,

BEIT MEMORIAL RESEARCH FELLOW.

(From the Lister Institute of Preventive Medicine.)

APPARENTLY there exists the widespread opinion that leprosy has never been transmitted to animals by means of direct inoculation of nodules from the human being. In fact, Abraham, in his careful and comprehensive chapter on leprosy in Allbutt and Rolleston's *System of Medicine*, after reviewing the various attempts to inoculate animals, comes to the conclusion that

> The evidence given above, though to some extent conflicting, may on the whole be regarded as supporting the view expressed by Besnier—that leprosy is strictly a human disease which cannot be transmitted to animals.

I need not refer to the similar views held for many years regarding syphilis, which, being a disease due to a protozoon-like germ, might possibly be specific for the human race, as appears to be the case with malaria in man. And yet, after Bertarelli and Parodi succeeded with their first experiments, no one seems to have found it impossible to transmit syphilis to the rabbit.

Leprosy is a disease due to a definite bacterium, and there appears to be no special reason why the rabbit or any other laboratory animal should not be inoculable with it. The existence of spontaneous rat-lepra affords, in fact, the best ground for postulating the possibility of transmitting lepra to animals.

However, in a matter like this it is useless to quibble with words about possibilities. All arguments can be swept aside by the statement of successful inoculation, supported of course by detailed histological evidence.

I am not taking into consideration the infection of animals with leprosy after cultivation of the germ.

Rost has reported that he has produced the clinical features of leprosy in a monkey by injecting his streptothrix.

Duval, by injecting his strain of *B. leprae* in enormous quantities into a monkey, produced lesions which, he says, could not be distinguished from those in the human being. Kedrowsky has produced in mice and rabbits lesions extremely similar to those of human leprosy by injecting the germs he cultivated from lepers. I have had an opportunity of examining his microscopical slides personally, and admit that they are most convincing.

With a diphtheroid-like germ cultivated from a leper I have produced lesions in a mouse indistinguishable from those occurring in spontaneous rat leprosy.

Now, however, I am concerned with reviewing the work done by grafting lepromata to animals direct from the patient. So far as I can gather from the literature on this subject the positive results which have been recorded are as follows:

1881. Neisser, after twenty-four unsuccessful attempts on rabbits, injected two dogs with leprous nodules, and concluded from the results that leprosy developed locally at the site of inoculation.

1883. Damsch grafted lepromata in the anterior eye chamber of two rabbits. The animals died after 139 and 219 days. Apparently a slight increase in the quantity of acid-fast germs had taken place. He also inoculated two cats in the abdomen with leprous nodules. After 120 days numerous bacilli were found in the newly formed tissue round the atrophied nodules.

1888. Vossius carried out experiments in a similar fashion to Damsch on rabbits and had identical results. He also considered that the acid-fast germs had multiplied.

1885–6. Melcher and Ortmann inoculated four rabbits in the same way. They succeeded in getting, after four to ten months, definite metastases and deposits of acid-fast germs in the spleen, liver, caecum, pleura, and pericardium. They stained these germs with Baumgarten's differential stain and found that they had the staining properties of Hansen's germ.

1887. Wesener injected several rabbits with leprous nodules, and in two animals out of eight, after periods of four and a half months and eight months respectively, he found lesions apparently identical with those described by Melcher and Ortmann—that is, nodules from the size of a pinhead to that of a pea in the lungs, on the pleura, on the epiploon, in the liver, in the lymphatic glands, spleen, kidneys, caecum, and peritoneal surface. Caseation and giant cells were present. In the eyes of the rabbits he obtained after six and eight months a congregation of round cells choked up with acid-fast germs. He considered that the generalized lesions were due to tuberculosis and that the ocular lesions were caused by dead bacilli, because acid-fast germs can be demonstrated in the eye of the rabbit after inoculation with nodules which have been kept for years in alcohol.

1901. Barannikow confirmed these results on one rabbit.

1893. Wnoukow inoculated twenty rabbits with leprous nodules in various fashions (intraocularly, subcutaneously, intraperitoneally). In fourteen rabbits he got lesions which he considered to be of tuberculous nature. No confirmatory tests with guinea-pigs appear to have been made.

1893. Tedeschi inoculated a leproma into the dura of a monkey. The animal died after eight days; that is far too brief a period for any conclusions to be drawn.

1902. Ivanow injected several guinea-pigs with leprous nodules. In one case the animal was killed after eight months and found to have nodules in the epiploon, which Ivanow considered were due to multiplication of the bacilli.

1905. Thiroux inoculated five rabbits with leprous material. The animals lived thirteen to twenty months and presented various lesions at autopsy, which Thiroux considered to be tuberculous.

1906. Nicolle inoculated monkeys with ground-up nodules and succeeded in getting localized lesions.

1909. Marchoux and Borret inoculated a chimpanzee under the skin of the ear with a freshly-excised leprous nodule. It apparently increased in size during three months and then began to be resorbed. An examination of the blood showed a few leucocytes with badly-staining bacilli. The animal died ninety-six days after inoculation. The nodule had reached the size of a split pea, and under the microscope was shown to consist of three layers. In the middle were the remains of the original tissue, quite necrosed, with a few loose acid-fast germs. Around this was a considerable number of lymphocytes, enclosing numerous bacilli, and at the periphery organized connective tissue with a few cells filled with bacilli. The authors considered that a proliferation of the original germs had taken place.

1909. Sugai inoculated Japanese dancing mice intraperitoneally with an emulsion of fresh leprous nodules and found as a result the development of miliary granulomata on the peritoneal lining, especially in the hepatic region and epiploon. Also the bronchial and peritoneal glands showed characteristic leprous lesions. All contained acid-fast germs. The attempt to transmit the disease from these to other mice failed.

1909. Kitasato appears to have successfully inoculated an orang-outang on the cornea. Only scanty details were, however, given.

1909. Stanziale reports upon some very careful and thorough experiments on rabbits. In one typical case he inoculated into the eye of the animal a fragment of leproma. During the first few days a marked hyperaemia developed round the opening in the cornea. Soon afterwards a constant diminution in the size of the nodule could be made out, accompanied by the formation of an opalescent exudation, which took its departure from the inoculated piece of tissue and spread out as a fan-shaped segment. After twenty days the nodule became stationary

and remained so during fifteen to twenty days without any noticeable change taking place. After forty days the nodule began slowly to increase till it had tripled its original size. In the same time small grey nodules made their appearance and could clearly be distinguished on the surface of the inoculated tissue. These little nodules attained the size of a pin's head. Some appeared to be adherent while others were loose and independent. After the initial hyperaemia due to the operation had disappeared, a new formation of blood vessels took place, which spun a delicate network round the piece of tissue inoculated. After seventy days the rabbit's eye was enucleated, part of the tissue was used for histological observations and the rest was grafted into the cornea of two other rabbits. In one the graft got resorbed without any further results in the course of two months. In the other rabbit the graft began to increase in size after fifty days and produced similar changes to those described in the foregoing animal. The experiments are being continued by the author, but to date the results obtained are: thirty-one rabbits have been inoculated and in eight it was possible to produce leprous ocular lesions. In some of the positive cases the material was taken eighteen to nineteen hours after excision from the patient. In all cases in which the inoculation succeeded the Wassermann reaction was positive. As a control Stanziale inoculated lepra nodules into the abdomen of another rabbit and found at intervals after a month the reaction constantly negative. The same negative result was achieved after grafting into the cornea of rabbits pieces of human skin or dead leprous nodules.

These experiments of Stanziale have been most carefully carried out, and full descriptive details are given.

1911. Duval inoculated a series of animals—namely, four rats, four white mice, and four Japanese dancing mice—with grumous material taken from an acute case of human leprosy which had developed numerous soft subcutaneous leprous masses and had repeated attacks of leprous fever. A small quantity of material was used in each case—namely, 0.5 c.cm. emulsified in 1 c.cm. of normal saline solution. Some were injected intraperitoneally, others subcutaneously.

The two white mice which received intraperitoneal injections died fourteen days after the inoculation. At the autopsy both showed a general infection of the peritoneum with a pure growth of the *B. lepræ*, while the mesentery, omentum, visceral and parietal peritoneum contained numerous minute, firm greyish-white nodules, which on microscopic section proved to be typical leprous lesions. The most surprising feature was the occurrence of a slightly turbid, semigelatinous exudate, which microscopically consisted almost entirely of large mononucleated cells (macrophages). Great numbers of these cells were filled with acid-fast bacilli, and scarcely any were found that did not contain a few. No remarks are made about the other animals.

1911. Conret fed two goldfish on teased nodules from a leper. No other food was allowed the animals until they had disposed of the leprosy tissue, after which they were cleansed and transferred to a clean aquarium.

The first was examined twenty-four days later; acid-fast organisms had not been found in the faeces for three days before the animal was killed. No evidence of infection was apparent externally or internally. Films made from the omentum and other organs showed a few scattered acid-fast bacilli. The average number of bacilli to the slide was about four, and no change in morphology was seen. The second fish was examined after thirty-seven days. The findings were similar to those in the first one. With reference to these experiments it should not be forgotten that tap water appears to harbour acid-fast germs frequently, as shown by Brehm, Beitzke, Schern und Dold. The tap water at the Lister Institute also contains acid-fast germs.

My own experiments on this question are as follows:

I injected four rats on two occasions in the testes with ground up nodules from a case of leprosy from Mauritius. Two rats did not show any macroscopic lesions, even after four months. One rat, however, developed, four weeks afterwards, a nodule at the site of inoculation, which grew to the size of a small pea. On puncture it showed acid-fast germs and necrosed tissue, some of which I do not doubt represented the original cells injected. After five weeks the rat died,* and I injected the whole of the nodule subcutaneously into two other young rats. Quite lately, that is, three months after inoculation, one of the rats is losing fur on the surface of its abdomen, without there being any signs of the usual rat scabies about the ears or tail. Small shotty nodules are felt under the skin.

Another rat developed now, three months after the second injection, a nodule in the left testis. This broke down, and was found to contain acid-fast rods in great quantity. I cannot decide so far if a multiplication of the lepra germs has taken place. I do not intend admitting a multiplication till definite metastasis can be found in other organs, and not only germs at the site of injection.

However, taking into careful consideration the literature I have quoted, I come to the conclusion that leprosy is directly transmissible to rats and rabbits from the human being; that, however, a very long time of incubation must be allowed for, and very many unsuccessful attempts and partial results are to be expected, as has been the case in my experiments.

I consider the results of Melcher and Ortmann, Wesener, Wnoukow, Stanziale to have been successful. Spontaneous tuberculosis in laboratory animals is extremely rare. During ten years I have not seen a single case, and the experience of other workers I have asked is similar to mine.

It is quite true that lepra "bacilli" are so quiescent, and cause such minimal reactions in the tissues they invade, that it is not possible to distinguish whether they are dead or alive, the word "alive" being taken in the sense of "capable of multiplying." We have no other method of deciding whether an acid-fast germ is living or killed but that of testing its capacity for multiplication on a laboratory culture medium. And this has been for many years a controversial point with leprosy, because no culture so far has succeeded in reproducing anything like leprous lesions in the animals experimented upon. Lately, however, Kedrowsky has published drawings and photographs of microscopical sections which leave little doubt that he has succeeded in producing in rabbits and mice lesions indistinguishable from those occurring in leprosy of the human being. I have now been working with this germ for over a year and have not been able to find any evidence that did not speak in favour of its being leprosy.† This germ produces in the liver of rabbits and in guinea-pigs lesions which, taken singly and separately from the others, might be mistaken with the chronic type of tuberculosis which occurs in rabbits and very exceptionally in guinea-pigs, and which can easily be imitated by the intravenous injection of an avian strain into rabbits. This appears to me to also be circumstantial evidence in favour of leprosy having been inoculated on several occasions to rabbits. The lesions were wrongly taken to be tuberculosis.

With regard to Campana's and Wesener's experiments, we must bear in mind that in the analogous disease in rats, genuine or spontaneous rat leprosy, we also find the incubation extremely long, up to seven months, and one is often in doubt whether the bacteria found in the lesions have multiplied or are the original ones injected. And yet there is not much doubt possible that in many cases we succeed in transmitting the disease by inoculation through several generations. My conclusions, therefore, are that:

1. Leprosy can under certain circumstances be transmitted to animals, the main difficulties being the high percentage of unsuccesses and the long incubation.

2. The most suitable animals appear to be the rabbit, rat, or mouse. In the rabbit the intraocular method is preferable. The resulting lesions are often not visible to the naked eye, and are similar to those caused by certain strains of human tubercle.

3. In the rat the incubation is also very long, the resulting lesions comparable to those occurring in spontaneous leprosy of the rat.

4. Not all leprous patients' nodules are equally "infective" for animals. In some cases the lepra

* I can add that no acid-fast germs were found in the organs of this rat. Microscopical sections were made of liver, spleen, and testes. The disease, if transmitted, was localized.

† I cannot in this paper describe the serological and experimental tests I have carried out with Kedrowsky's germ. It is an actinomyces-like bacterium, and in its acid-fast stage morphologically identical with the "bacilli" found in the serum and pus of lepers.

"bacilli" appear to be absolutely incapable of multiplication, for reasons we do not at present know.

5. According to Stanziale's experiments, the "Wassermann reaction" is positive in rabbits which have successfully been inoculated.

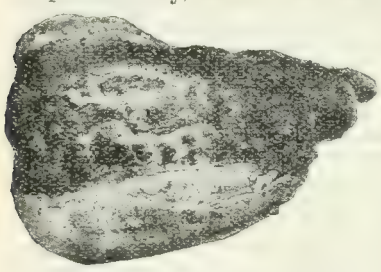
Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

INTESTINAL OBSTRUCTION FROM AN UNUSUAL CAUSE.

On a Saturday a few months ago I was called to see a girl about 18 years of age. She had been in good health until the previous Sunday, when, just before dinner, she ate an orange, skin and all. Shortly afterwards, she was taken with severe pain, followed by vomiting and diarrhoea, which lasted until the following Thursday, her mother informing me that an orange always upset her in this way. On the Friday the pain was more severe and the vomiting persistent.

When I saw her she complained of great abdominal pain, and said she could retain nothing. The bowels had moved the previous day, and she had been passing flatus since. There was considerable abdominal tenderness, more particularly on the right side. This condition continued until on the Monday there was distinct faecal vomiting. An operation, however, was refused. On the following day the patient's condition was much worse—constant faecal vomiting with abdominal pain—no movement of the bowels in spite of repeated enemata, but passage of flatus. The patient was removed to the hospital. I opened the abdomen the same evening, and on introducing my hand into the abdominal cavity I felt a hard mass like a stone in the pelvis. This mass was found to be blocking the ileum, about six inches from the ileo-caecal junction. I removed the lump through a longitudinal incision in the ileum, and on examination found it to consist of small bits of gutta-percha matted together.



Photograph (exact size) of foreign body made up of bits of gutta-percha, matted together and blocking top ileum, causing intestinal obstruction.

The girl works in a safety-fuse factory, and her duty is to supervise the coating of the fuse with melted gutta-percha. This is contained in little cups through which the fuse passes, and the girl's duty is to keep these cups filled with gutta-percha from a container; this is done by means of a large spatula. Some of the gutta-percha naturally adheres to the spatula, and the girl had been in the habit of cleaning the spatula with her fingers, and then removing the gutta-percha adhering to her fingers with the teeth, and chewing and swallowing it.

The photograph is the exact size of the lump removed, and the different colours are explained by the fact that some of the gutta-percha is mixed with bitumen, giving it a black colour, and some is not.

The patient made an uninterrupted recovery, and is now at work again.

J. TELFER THOMAS,
L.R.C.P.Lond., M.R.C.S.Eng.
Camborne.

THE Royal Society will celebrate its 250th anniversary this year on July 16th.

SURGEON-GENERAL W. J. FAWCETT, C.B., A.M.S., retired pay, has been appointed a Deputy Lieutenant for the County of Leitrim, and a Justice of the Peace for the same county.

THE President of the United States has sent to the Senate the nomination of Dr. Rupert Blue, of South Carolina, as Surgeon-General of the Public Health and Marine Hospital Service, in succession to the late Dr. Walter Wyman.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

UNIVERSITY COLLEGE HOSPITAL.

A CASE OF CRANIO-SPINAL MENINGITIS, WITH RIGHT-SIDED HYDROCEPHALUS SIMULATING INTRACRANIAL TUMOUR.

(Under the care of Dr. BATTY SHAW.)

[Reported by TREVOR BERWYN DAVIES, B.Sc.Wales, M.D., B.S.Lond., late House-Physician.]

FLORENCE J., aged 4½ years, was admitted into University College Hospital on February 14th, 1910; the following history was obtained from the mother:

History.

The illness began eight weeks before admission with irritability and frontal headache; the patient cried out at times with the pain in her head, while in the intervals between the crying she was rather drowsy and resented interference. The appetite, which had been good, now became very poor, and the patient began to vomit; this was unrelated to food and came on at intervals of two to three days, the vomited matter consisting of clear non-blood-stained fluid, about one teacupful in quantity being forcibly shot up on each occasion. The bowels were fairly regular up to nine days before admission, but had since been obstinately confined. During the week before admission the mother noticed that the child had a squint. The patient had been gradually getting thinner and weaker. She had had bronchitis and measles when 2 years of age, and whooping-cough when 3 years old. She had been breast-fed and was always a bright child, although her mother says she had noticed twitchings and convulsive movements at times ever since birth. The patient had begun to go to school in October, 1909.

There was a history of three miscarriages in the mother, and of two other children dying a few hours after birth, while another child died of diarrhoea and vomiting when 15 months old. The patient had one brother alive and well.

State on Admission.

The patient is a thin, poorly-nourished child, lying on her right side, with the legs drawn up. She is irritable and cries when touched, and yawns frequently. The temperature is 99.4 F., pulse 136, and respirations 28 per minute. The heart and lungs are normal. Faecal masses can be felt in the abdomen.

Central Nervous System.

The pupils are equal, reacting well both to light and accommodation. There is double optic neuritis, that on the right side being the more marked. Both external recti are paralysed, and there is also coarse nystagmus present. The remaining cranial nerves are normal.

Limbs.—There is no rigidity, paralysis, or tremor. Kernig's sign is absent, and there is no *tache cérébrale*. The reflexes are normal in the upper limb, but in the lower limbs the knee-jerks are both absent, and there is well-marked extensor response on both sides. There is no ankle clonus. The sphincters and sensation are normal. The gait could not be observed,

Further History of the Case.

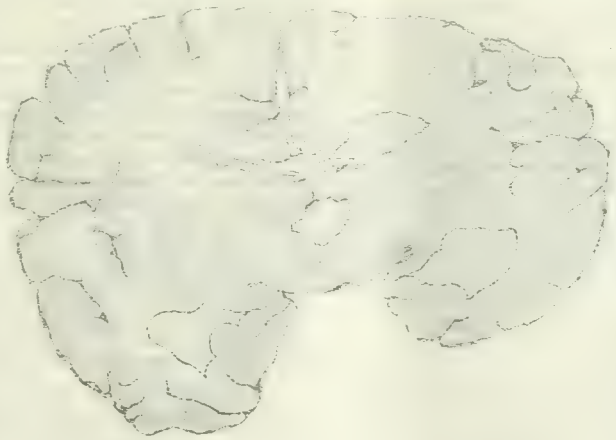
Lumbar puncture was done on February 15th and revealed 4,900 white cells per cubic centimetre, 71 per cent. of which were small lymphocytes. Extracellular Gram-negative diplococci were found. No tubercle bacilli were found, and von Pirquet's reaction was negative.

The bowels were opened daily with enemas, and the patient began to improve a little, both in intelligence and spirits. By the end of a week (February 21st) she was able to walk. The gait was somewhat reeling, with a tendency to fall to the right side; she walked with a wide base. Rombergism was well marked. The physical signs were much as before, except that the right knee-jerk could

be obtained, and, in addition, there was marked inco-ordination of the left arm and hand and some rigidity of the posterior cervical muscles. Mr. Tilley found the ears to be normal at this date, and Mr. Percy Fleming confirmed the presence of double optic neuritis.

From February 21st until March 11th the patient continued to become mentally brighter and the weakness of the left external rectus became less marked. The inco-ordination, however, now affected the right upper limb as well as the left, and there was a marked coarse tremor of both hands. The optic neuritis subsided a little and the plantar reflex was now flexor. The gait remained as before. The temperature during this time oscillated between 98° and 100°. On March 11th the patient had a series of fits, each lasting about two minutes, and beginning with twitchings of the limbs—the right at one time, the left at another. The eyes deviated to the left and the patient was unconscious during each fit. The fits ceased in about twelve hours, and the patient lapsed into a permanently unconscious state. Lumbar puncture was again performed; 472 cells per cubic centimetre were found, 70 per cent. of which were small lymphocytes. An extracellular diplococcus was obtained as before. The patient remained unconscious for two days. Lumbar puncture was performed daily. The fluid now obtained was free from cellular elements and under slight pressure.

There was marked head retraction during the period of unconsciousness, as well as the following physical signs: Fine nystagmus, both knee-jerks brisk, plantar reflex flexor on both sides. The pulse was irregular and the breathing somewhat periodic. There was no *tache* or Kernig's sign present. By March 18th the patient was quite conscious and had well-marked signs of a right-sided hemiplegia with aphasia. She understood what was said to her and answered questions by movements of the head. The optic neuritis continued to subside, while the weakness of the left external rectus was not so marked. There was a fine tremor of the left hand. From March 18th until April 13th there was not much change in the patient's condition; she became very excited at times, laughing or crying uncontrollably.



Right. Left.

Transverse Section of the Brain.

There was well-marked rigidity on the right side on April 1st and the aphasia and tremor persisted. On April 13th she again lapsed into unconsciousness and vomited a few times. The tremor was now well-marked in both upper and lower limbs, and there was also a definite *tache* present. The pulse again became rapid and irregular and the respirations were now definitely "Cheyne Stokes" in character. The head retraction was again very marked. Lumbar puncture was done daily during the next week, at the end of which time she was a little more conscious. She vomited several times independently of her nasal feeds.

The optic neuritis completely subsided during this time: the left optic disc appeared somewhat pale. The irregular pulse and periodic respiration persisted and the patient remained in a semi-conscious state until May 2nd. On that date the breathing became very imperfect and was gasping at times. There was some dullness at the base of the left lung and areas of tubular breathing and fine crepitation. The patient rapidly sank and died in a few hours.

Necropsy.

The *post-mortem* examination was made by Mr. T. W. P. Lawrence, pathologist to the hospital. The body is much wasted. The heart and pericardium are normal. The left lung shows greyish-yellow bronchopneumonic areas scattered throughout the lower lobe. The right lung is congested and less aërated than normal. The alimentary canal, spleen, and liver normal.

Brain.—The convolutions are somewhat flattened and the cerebro-spinal fluid increased in amount. At the base of the brain there is a slightly marked opacity of the pia arachnoid, extending from the optic commissure to the medulla, and extending laterally on to the under surface of the cerebellum. After hardening in potassium bichromate and formalin the convolutions of the left convexity are seen to be more flattened than those of the right, the whole surface of the left convexity being depressed (see figure).

Spinal Cord.—A sero-fibrinous exudation is present in the soft membrane along the whole extent of the cord, and one or two small patches of haemorrhage are seen. The dura mater of the cranial cavity is normal: there is no collection of pus between it and the cranium. The venous sinuses are normal. The left middle ear is full of pus, the right is normal.

Brain in Section.—On transverse section the left hemisphere of the cerebrum is found to be much smaller than the right (see figure). The third ventricle is moderately dilated, also the left lateral ventricle. The right lateral ventricle is very much dilated (not apparent in the hardened specimen). The ependyma is in places thickened and granular. The thickness of the brain substance is less on the left side than on the right side (for instance, from roof of ventricle to upper surface of brain = 23 mm. on left side, 30 mm. on right: the right insula measures vertically 29 mm., the left 15 mm.). The left basal ganglia are small compared with the right. The white centre of the left hemisphere does not appear to be reduced in size, and towards the hinder end of the brain it occupies a larger area than on the right side. The grey matter of the left hemisphere is reduced in thickness but the reduction is greater in some parts of the cortex than others—that at two corresponding points in the cortex of the two sides the thickness is 2½ and 1 mm. respectively. The narrowed cortex is paler than normal and in some places nearly as pale as the white substance. In the recent state the whole cortex was very soft and pulpy on the left side—after hardening in formalin it has become firmer in most parts, but in some it remains soft, has a finely granular appearance, and in places breaks away *en masse* from the subjacent white matter. The central white matter is similarly softened in one or two places. The basal ganglia do not show these changes in colour and consistence, being merely reduced.

All sections of the cerebral hemispheres show the above-mentioned changes in greater or less degree, but they are most marked in the middle sections, least so in the anterior. The degeneration of the cortex is most marked in the convolutions bounding the Sylvian fissure, namely, the left inferior frontal gyrus, the superior and middle temporal gyri, the insula, the lower portions of the anterior and posterior paracentral gyri and the supramarginal gyrus. The pia arachnoid is not thickened, but it strips off more readily from the more degenerated areas. The cerebral arteries are normal, and contain no thrombi.

The right cerebellar hemisphere is smaller than the left: at one part on its under surface there is an irregularly oval depressed area 1½ × ½ in. On section the folia of the hinder half of the right hemisphere have thin grey matter, very pale, and scarcely distinguishable from the white cortex, and they are reduced in thickness, but there is no granular softening similar to that in the cerebral cortex. Sections of the medulla and cord show no recognizable macroscopic changes.

Comment by Dr. T. B. Davies.

The case is interesting from several points of view:

1. All the classical signs of headache, vomiting, optic neuritis, and mental change were strongly in favour of an

intracranial neoplasm, and yet *post mortem* no such condition was found to exist.

2. The conditions of encephalitis and meningitis are shown to exist, and yet they are found in different localities. It is reasonable to believe that both originated from the otitis media.

3. The optic neuritis subsided, but whether this was from relief of the pressure or removal of the toxic substances by repeated lumbar puncture is not clear.

4. The development of right-sided hydrocephalus was probably associated with atrophy of the brain substance of the left side, much in the same way that one lung becomes emphysematous when the other is contracted.

5. Meningitis appeared to be the main pathological condition responsible for the features of the illness up to February 21st. Encephalitis would appear to be responsible for the clinical features beginning on March 11th. Subsequent to this period the optic neuritis completely disappeared.

In conclusion, I am much indebted to Dr. Batty Shaw for his permission to publish the notes of this case, and to Mr. Lawrence for his drawing of the condition of the brain.

Reports of Societies.

EDINBURGH OBSTETRICAL SOCIETY.

Wednesday, February 14th, 1912.

DR. HAIG FERGUSON, President, in the Chair.

Incidence of Puerperal Eclampsia.

SIR HALLIDAY CROOM read a communication dealing with the incidence of puerperal eclampsia mainly from the seasonal point of view. Of 8,445 women delivered in the Royal Maternity Hospital during the last twenty-two years, 238, or 2.8 per cent., were the subjects of eclampsia. This percentage was high compared with that of other hospitals in the country, whereas the average age and the relative proportion between primiparae and multiparae were in agreement with other statistics. In 1899 a sudden rise occurred in the number of cases; and since that year the disease had steadily increased. This increase was partly explained by the better understanding of the toxaemias of pregnancy, and recognition of the fact that the sooner the pregnancy was ended, the greater was the chance of recovery. Another factor was the change in diet in recent years as the result of importation of foreign meats. In the country, where old habits of feeding still prevailed, eclampsia was rare. Eclampsia was a disease of town life, and populous mining districts had lately grown up around Edinburgh and supplied an increased number of eclamptic subjects. At the same time the death-rate was decreasing as the result in part of the earlier admission of patients and in part of improvements in treatment. Many of the deaths were to be ascribed not to eclampsia itself, but to such complications as pneumonia and pulmonary oedema. Sir Halliday Croom described the recent investigations into the seasonal incidence of the disease and showed that the variations in different towns were marked. In the Edinburgh Hospital the statistics over a period of twenty-two years showed that it was not a question of months or seasons, although sudden changes of temperature seemed to exert an influence. The admissions to the hospitals frequently occurred in groups, and in each instance there had been a distinct fall in the temperature and an increased rainfall. No theory of eclampsia explained why in twin pregnancies, in which the conditions for a toxaemia were most favourable, the death-rate from eclampsia was small.

DR. BERRY HART considered the disease due to disturbed chemistry in the trophosphere, a consequent accumulation of toxin, and irritation of the kidneys. A sudden change in the temperature might determine an attack.

DR. JAMES RITCHIE said eclampsia occurred in one pregnancy and not in the next; hence the cause, perhaps organismal, must be looked for in the uterus.

DR. FORDYCE thought the earlier admission of patients and the increased popularity of the hospital accounted for the fall in the death-rate and the rise in the numbers.

DR. KEPPIE PATERSON asked if the improvement in the mortality was not, as in infectious diseases, due in part to improved sanitation in the city. He had seen the coexistence of a severe outbreak of scarlet fever, measles, and diphtheria with several grave cases of eclampsia.

DR. OLIPHANT NICHOLSON said that if a meat diet was noxious, then eclampsia might be due to a deficiency in the thyroid secretion.

DR. LACKIE said that, though diet seemed to have an effect, it was said that eclampsia occurred in the same proportion in rich and poor.

THE PRESIDENT said that to avoid eclampsia patients should be kept in the country, have a low diet, and lead an indoor life.

Contraction of Pelvic Outlet.

DR. JAS. YOUNG read a report of two cases, one treated by pubiotomy, the other by induction of premature labour. In the former the pelvis was funnel-shaped, with an interspinous diameter of 9 in., intercristal 11 in., antero-posterior diameter of outlet 4¾ in., distance between ischial tuberosities 3¼ in., and posterior sagittal diameter 2½ in. At the time of operation the head was fixed in the R. O. P. position, and delivery could not be effected with forceps. Pubiotomy was performed, a separation of 1½ or 2 in. was obtained between the bony edges, and delivery was rendered easy. After operation the pelvis was supported by strips of plaster wound round the body. The only untoward after-result was a slight weakness in the left leg, which persisted for six weeks. Pubiotomy was claimed to be the operation of choice in funnel pelves. In the second case the distance between the ischial tuberosities was 2⅝ in., the antero-posterior diameter of the outlet 4½ in., and the posterior sagittal diameter 3⅞ in. Labour was induced at the thirty-seventh week.

SIR HALLIDAY CROOM said Dr. Young had selected the ideal case for pubiotomy. It should be the complement of forceps, and should be adopted only when the head was down, and Caesarean section was rendered impossible.

DR. BERRY HART considered pubiotomy a useful and easy operation, which might be employed even in cases of contracted inlet.

DR. LAMOND LACKIE gave notes of a case of contracted brim, for which he had performed pubiotomy and delivered with high forceps. Very little callus formation resulted.

THE PRESIDENT said that the ideal case for pubiotomy was in contracted outlet. The conjugate diameter of the brim was no more increased than in the Walcher position.

Specimens.

The following specimens were shown:—Dr. W. FORDYCE: *Uterine fibroid* that had grown in thirteen months; *Double pyosalpinx following on gonorrhoeal infection* eighteen months previously; *Haematosalpinx* resulting from complete absence of the vagina; *Tubo-ovarian suppurating cyst*, and *Gangrenous appendix*. Mr. SCOTT CARMICHAEL: *Uterus and twin placentae from a case of Caesarean section* at term, showing also cervical fibroid. Dr. B. P. WATSON: *Adenomyoma of uterus*. Dr. JAS. YOUNG: *Ovary with luteal haematoma*, removed along with uterus for intractable haemorrhage. Dr. BREWIS: *Two uteri removed by Wertheim's method*.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

AT a meeting held on February 2nd Mr. H. LITTLEWOOD, President, in the chair, Mr. J. A. COUPLAND read a paper entitled *A Year's Experience of Salvarsan*. He referred to 20 cases treated in the primary and secondary stages of syphilis. The treatment in the earlier cases had been by intramuscular injections; latterly, by two intravenous injections of 0.5 or 0.6 gram. The average period of observation had been six months. In 2 cases recurrence of secondary symptoms had followed at two and seven months' intervals after intramuscular injections. In 1 primary case recurrence had followed one month after 0.6 gram intravenous injection. In all these cases further intravenous injections had produced a rapid disappearance of symptoms. In 1 case recurrence was present after two 0.6 doses given intravenously. In 2 cases, in spite of a negative Wassermann, enlargements of lymphatics were still present, and he did not regard the cases as cured. In 2 cases the reaction had been alarming; in 1 this was immediate, and to be attributed entirely to faulty technique.

The solution injected was not clear, but showed a flocculent precipitate. This was given at a time when the giving of an emulsion intravenously was recommended, a method which was now entirely abandoned. In the second case two intravenous injections (0.6 gram in a clear, slightly alkaline, solution) had been given at a fortnight's interval to a patient aged 37, who had contracted the disorder seven years previously. The reaction after the first dose had been very slight. Three days after the second the patient became dazed: on the fourth he became comatose and had epileptiform convulsions, and remained in this condition for two days. A complete recovery had followed. Mr. Coupland, after commenting on the similarity of this case to others recently reported, was inclined to attribute this alarming train of symptoms to the short interval between the injections, and to the fact that the patient had not been confined to bed after the second injection. No symptoms of cerebral syphilis had been observed before the injections; the patient had lived a healthy life, but was in a very restless and worried condition before treatment. Half of the cases treated had, however, been treated with a similar dosage without any bad symptoms, and in only two had the second reaction been slightly more pronounced than the first. He was inclined to advise a period of two months between the injections, and the maintenance of at least three days in bed both before and after every injection. A review of the fatal cases already recorded showed that faulty technique and the inclusion of cases of gross cerebral, arterial, or renal lesions were responsible for the great bulk of the fatalities. Further knowledge of the rate of excretion of the drug, and the factors which disturbed it were needed before the degree of danger attached to this treatment were definitely determined. He laid stress on the fact that the most satisfactory results had so far followed the treatment of the primary stage of the disorder before a positive Wassermann had appeared: the diagnosis should first be corroborated by the finding of the specific organism. The importance of following up the cases so treated, and the necessity of accumulating evidence of the permanent value of the treatment was referred to. Mr. Coupland thought the obliteration of the secondary stage was already more rapid, more easily obtained, and more complete than could be obtained by mercurial treatment. The resulting improvement of the patients' health, as evidenced by absence of anaemia, by increase in weight, and by their frequently expressed sense of well-being, contrasted favourably with the conditions noted under the older treatment of the same class of hospital patient. The more rapid and complete obliteration of the secondary stage was regarded as of distinct value to the community, as it must surely diminish the risk of accidental infection of the family and associates of the syphilitic. The question of a subsequent course of mercury was at present an open one: it would certainly have to be adopted where a positive Wassermann persisted after repeated injections of salvarsan. Its routine adoption could only stultify the experience, which every one is anxious to obtain, as to the ultimate value of the remedy. Cases and specimens were shown by Mr. J. F. DOBSON, Dr. G. W. WATSON, Dr. ALEX. D. SHARP, Dr. T. CHURTON, Dr. J. B. HELLIER, Mr. A. L. WHITEHEAD, Dr. R. A. VEALE, Mr. L. R. BRAITHWAITE, Dr. C. OLDFIELD, Mr. W. GOUGH, Mr. H. LITTLEWOOD, Dr. T. WARDROP GRIFFITH, Dr. W. H. MAXWELL TELLING.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

AT a meeting on February 9th, Professor A. BOSTOCK HILL, President, in the Chair, Dr. G. A. AUDEN in a paper on the *Open-air school and its place in educational organization*, said that during the last decade the importance of fresh air in the treatment of tuberculosis had been recognized, but just as the value of sanatorium treatment for phthisis was very largely the educational effect which its popularity had had upon the community, this too would be the case with open-air schools, for they would lead to the application of similar open-air principles to the organization of ordinary elementary schools. After describing in some detail the new open-air schools which had been given to Birmingham by Mr. and Mrs. Barrow Cadbury, Dr. Auden referred in appreciatory terms to the roof schools established in New York and elsewhere, and suggested that more use might be made of rivers or broad estuaries by placing on them river ships as day convalescent homes or schools, and hinted that in this direction might lie a possible use for the Thames steamers. The management of an open-air school should be entirely under the jurisdiction of the school medical officer, for the educational side was of only secondary importance while the medical aspect was paramount. Dr. E. W. HOPE said that all developments, such as open-air classes, must have an enormous influence in improving the conditions of all schools. He thoroughly approved of playground and roof classes. Dr. W. BUTLER considered that open-air schools were quite as necessary for normal children, in whom they might prevent physical deterioration arising, as for those children who were below normal, and in whom extremes might be serious. Dr. W. H. SYMONS referred to the Stockholm schools, the essential points of which were their extreme simplicity. Dr. E. H. T. NASH deplored the tendency there was to cut down the size of playgrounds on the score of economy. He advocated the erection of cheap temporary school buildings. Dr. SHRUBSHALL considered it unnecessary to erect special open-air buildings. He thought that a two months' stay in a residential school was not long enough; it should be at least six months.

MEDICAL SOCIETY, UNIVERSITY COLLEGE, DUBLIN.

AT a meeting held on February 8th, Mr. J. S. MCARDLE in the chair, Professor MCWEENEY read a paper entitled *Recent views as to the nature and causation of cancer*. He outlined the various theories generally held on the subject, and referred more particularly to the irritation theory, to which, he held, most of the evidence pointed. He suggested, however, that where irritation gave rise to malignant disease, one had to suppose another factor in the case—namely, the presence of a certain abnormal type of cell, the exact characteristics of which were at present unknown. He was inclined to regard the theory of parasites, of either exogenous or endogenous origin, as quite opposed to the facts of the case. He referred to the work done and being done at present in England, Germany, etc., on the inheritance of malignant disease in mice, and gave an outline of the interesting results obtained in the endeavour to produce immunity from malignant disease in mice by the injection of embryonic mouse tissue. In spite of these results, however, he was of opinion that any knowledge derived from them could not be so generally applied to man as might be supposed, and thought that the more fruitful line of work would prove to be that of such workers as Wassermann, who had already arrived at a chemical compound capable of picking out the cancer cells in a living organism. Dr. BOYD BARRETT, Mr. MCANLEY, Dr. CROFTON, Dr. H. MEADE, Dr. M. HAYES, and the CHAIRMAN took part in the discussion.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

AT a meeting held on February 7th, Dr. M. PARRY JONES in the chair in the absence of the President, Dr. A. CHRISTIE REID introduced a discussion on *Trauma as a factor in some diseases of the nervous system*. The subject of brain tumour and brain abscess was briefly referred to. Gumma of the meninges was a frequent sequela of trauma. The frontal lobes and motor areas were the most frequent sites of traumatic tumours. In addition to the direct origin of tumours from traumatism, it must not be forgotten that an injury might cause a sudden enlargement of the tumour from haemorrhage, etc. Also tumours, by causing giddiness, might be the cause of an injury. These facts were of great importance from a medico-legal aspect. More detailed reference was made to late traumatic apoplexy and meningitis, the work of Duret and Ballinger being especially mentioned. Quincke's meningitis serosa was next brought under review. An interesting case, published by Kurt Mendel, and a recent case of acute acquired hydrocephalus following on shock (BRITISH MEDICAL JOURNAL, February 3rd, 1912) being adduced as evidence of a possible traumatic origin for this rare condition. Myelitis and myelodelesis (Kienböch) were rapidly revised. Under the heading of "neuritis" special notice was taken of

Erb's shoulder-arm paralysis. The paper concluded with remarks on traumatic epilepsy. Dr. M. PARRY JONES thought the classical symptoms of brain tumour were not really due to the tumour but to increased intracranial pressure caused by the growing tumour. Although cerebral abscess without a wound was very rare, he had seen a case, which he quoted at length. Dr. F. H. JACOB quoted a fatal case of pneumococcal meningitis following an injury. Drs. K. BLACK, A. R. TWEEDIE, A. M. WEBBER, and R. HEELIS continued the discussion.

ASSOCIATION OF REGISTERED MEDICAL WOMEN.

A MEETING at which clinical cases were shown was held on February 6th, Dr. CONSTANCE LONG, President, in the chair. Dr. MARY THORNE showed a woman who had been increasingly *jaundiced* since an attack of vomiting six months ago. The liver had been gradually enlarging since that time. It was smooth and not tender. There had never been any pain or pyrexia, and the gall bladder was not enlarged. The stools were pale, and the urine contained bile pigments. The patient was slowly losing flesh; her appetite for and digestion of fats were excellent. The diagnosis was uncertain; Dr. Thorne at first thought it was a case of malignant disease, but against that was the slight degree of change that had occurred in four months. She did not think an operation would be of any use. Dr. LONG mentioned that the patent suffered from severe pruritus, in consequence of which sleep could only be obtained by the use of morphine. She was in favour of an exploratory laparotomy. Miss ALDRICH BLAKE considered that the absence of pain, fever, and variations in the intensity of the jaundice was against a diagnosis of gall stones, that obstruction of the common bile duct by new growth was unlikely owing to the absence of enlargement of the gall bladder, and that there was probably growth in the liver itself. Dr. FLORENCE STONEY showed (1) a case of *Lupus of the face* of many years' duration, which was in course of cure by *x* rays; (2) (for Miss CHADBURN) a woman with *Enlargement of the shoulder-joint* in whom the diagnosis had originally rested between syphilis, sarcoma of the humerus, and rheumatoid arthritis—a skiagram and the presence of enlarged finger-joints had decided in favour of the last; (3) (for Miss GARRETT ANDERSON) a girl, aged 20, with a *Raised indurated lesion on the skin of the hand and forearm*. It had been present since the age of 2. Dr. Stoney was inclined to think it was self-inflicted. Dr. AGNES SAVILL suggested as alternative diagnoses lichen hypertrophicus and linear papilloma. Against the former was the long history, while the latter disease was congenital. Self-inflicted lesions were always pustular sooner or later, and it seemed unlikely that the disease could have been so produced at the age of 2 years. A careful inquiry into the history and a microscopic section of the lesion should be made. Miss ALDRICH BLAKE showed a case of *Spleno-medullary leukaemia* with a leucocyte count of 432,000 per c.mm. The patient was a woman, who complained of having felt tired and lost flesh for the last nine months. Enlargement of the abdomen had been noticed since Christmas.

THE ninety-third anniversary dinner of the Hunterian Society was held at De Keyser's Royal Hotel on Wednesday, February 7th, Dr. Hingston Fox, President, in the chair. There was an attendance of sixty-six Fellows and guests, including ladies. The Royal toasts were proposed by the President; that of the Hunterian Society was proposed by Sir George Newman and replied to by Dr. A. T. Davies. The Guests and Sister Societies were proposed by the President; Mr. Rickman Godlee replied for the Royal College of Surgeons, and Dr. Mitchell Bruce for the Medical Society. Dr. T. B. Hyslop spoke for the guests. A programme of music was provided by Miss Christine Roy and Mr. Robert Carr, vocalists, and Mrs A. C. Jordan, who gave violin solos, Miss Gwendoline Williams playing the accompaniments. The annual oration was delivered at the London Institution on Wednesday, February 14th, by Dr. Glover Lyon on "The Cure of Consumptives: a Review and a Forecast." The orator emphasized the important part played and to be played by sanatoriums in the treatment of consumptives, and drew attention to many practical points in which sanatorium treatment, as conducted in most existing institutions, failed to conform to the needs of the various types of patient.

Reviews.

RECENT SYPHILOLOGICAL WORK IN OBSTETRICS AND GYNAECOLOGY.

THE recent pamphlet by Dr. FRANZ WEBER on syphilis in the light of modern investigation, with special reference to its influence in obstetrics and gynaecology,[1] seems a suitable occasion for a summary of the series of more or less systematic investigations which, under Professor Doederlein's direction, have been carried out in the Munich Frauenklinik. Besides Weber's monograph, reports in the series have been published by Baisch[2] and Trinchese.[3]

In gynaecology the material has not been important, and the results may be summed up in the warning to remember that some cases of endometritis exfoliativa or of persistent menorrhagia may depend on a latent syphilitic factor, the recognition of which by the Wassermann reaction may indicate the line of successful treatment.

In obstetrics the results have been much more important. Weber tried the Wassermann reaction in 67 cases of pregnancy which terminated before the twenty-eighth week, and found that of 35 ending within the first sixteen weeks not one gave a positive result. On the other hand, of the 32 later cases, 12 without any ascertained history or clinical evidence of syphilis gave a positive reaction, and in the examination of 9 dead fetuses from these 12 cases spirochaetes were found in the organs of 6. Among 33 cases of recurrent abortion, 6 only gave a positive reaction. Of these, 2 aborted in the third month, and 1 each in the fourth, fifth, sixth, and seventh months respectively.

The examination of the macerated fetus showed that in 84 per cent. the organs contained spirochaetes, though advanced maceration was apt to render the staining difficult. The spirochaetes were found in greatest number in the adrenal. The liver and lungs were the next most favoured organs, and there the organisms were apt to occur in the neighbourhood of the vessels. The ovary, testicle, and epididymis almost constantly contained organisms, especially in the connective tissue, and by contrast they were comparatively rare in the spleen. In living children the bullae of pemphigus showed spirochaetes, and they were also found in the organs of children dying early with signs of congenital syphilis. Weber reproduces photomicrographs showing the spirochaetes in the subcutaneous tissue of pemphigus, the lungs, the wall of the aorta, and the muscle of the uterus in syphilitic children. Baisch in a case of scleroderma found a positive Wassermann reaction in the mother, and a special syphilis haemorrhagica neonatorum is described in Weber's paper.

The placenta was the subject of a very careful investigation by Trinchese, who in 100 cases examined from 200 to 250 sections from various parts in each placenta. He found the results in general agreement with those from examination of the fetal organs, failing in one only to find spirochaetes in the placenta when the organs contained them. They are, however, much less numerous in the placenta than in the organs. The interest of his work is, however, not merely statistical, since, as can be seen in his photomicrographs, he was able to demonstrate the passage of the spirochaete through the wall of the villus. According to his account the spirochaete circulates in the fetal blood and penetrates through the vessel and the villus setting up a nodular thickening of the syncytium at the point. Access to the fetus may be gained originally by the reverse process. The macroscopic appearance of the placenta in these cases does not correspond to the classical descriptions of the syphilitic placenta, and is not characteristically different from the normal placenta.

Baisch investigated the Wassermann reaction in 140 cases where syphilis was suspected. Of 102 cases in which the mother gave a positive reaction and the child was certainly syphilitic, 75 mothers showed no recognizable sign of syphilis. In 3 cases mother and child gave different reactions, mother negative and child positive in 2, and in 1 the contrary. From these observations Baisch

[1] *Die Syphilis im Lichte der modernen Forschung, mit besonderer Berücksichtigung ihres Einflusses auf Geburtshülfe und Gynäkologie.* Von Dr. Franz Weber, Assistent an der Kgl. Univ. Frauenklinik. Mit 8 Abbildungen im Text. Berlin: S. Karger. 1911. (Sup. roy. 8vo, Abb. 8, pp. 128. M. 7.)

[2] *Münch. med. Woch.*, 1909, p. 1929; *Monats. f. Geburts. u. Gynaek.*, 1911, xxxiv, p. 273.

[3] *Münch. med. Woch.*, 1910, p. 570.

argues that the placenta is penetrable only for the spirochaete and not for the chemical bodies due to its presence. In 12 cases of syphilitic children the mother gave a negative reaction, but Baisch thinks that they fall within the normal proportion of failures of the Wassermann reaction in cases that are certainly syphilitic, and with them he also classes 3 cases with a definite history of syphilis in which the reaction was negative though only two had had a course of treatment. The question of the influence of treatment of the mother during pregnancy on the life of the child is not yet ripe for definite statement, though in his latest paper Baisch is very hopeful of the results of thorough treatment with salvarsan. Weber adds 110 cases more to the list, so that the conclusions are based on 250 cases in all.

These new investigations raise interesting points as to the interpretation of the old laws of Colles and of Profeta. If 146 symptomless mothers of syphilitic children all give positive Wassermann reaction it seems that we must read Colles's law as a mere expression of the fact that an individual may have syphilis without any of its clinical manifestations, and that the mothers of syphilitic children are themselves in all cases syphilitic. Similarly, in the healthy children of syphilitic mothers the apparent immunity to syphilis is merely the expression of a real infection which reached the child by way of the placenta without producing active clinical signs. The various theoretical questions are discussed at some length by Weber, who further devotes seventy-five pages to an account of the spirochaete and the Wassermann reaction.

ROENTGEN RAYS IN GYNAECOLOGY.

In this monograph on Roentgen rays in gynaecology, Dr. MANFRED FRAENKEL,[1] who has done much of the early work in the domain, exhibits a naive sense of proprietorship that neither lessens the attractiveness of his narrative nor prejudices the reader in favour of his conclusions. There is a considerable body of interesting observation and experiment, and a measure of therapeutic success, about which Dr. Fraenkel has dreamed and speculated till he can dip both hands into the stock of common knowledge, and setting together the atrophying influence of the rays on the sexual glands and the governing influence of the latter on the functions of pregnancy and uterine bleeding, construct "meine Ovarialtheorie" of his therapeutic attainment, and use it as a basis for sociological anticipation.

Of the cases treated, 23 were myoma, of which, in summary, the report reads, "three-fourths show benefit sometimes with, sometimes without distinct recession of the tumour; in all evident influence on the periodic bleeding is observed by return to the normal of three or four days, and often less." The causes of failure in the other cases were not clear. Fraenkel argues that the myoma patient should have the chance given of forestalling an operation which at its best still shows a mortality of 3.4 per cent. Cases of bleeding from enlarged uterus and other causes are next reported, but an earnest warning is given against the use of Roentgen treatment in cases of carcinoma unless they are inoperable.

He gives an account of 23 cases of dysmenorrhoea and 34 of endometritic fluor albus treated, though not all with success. One of the failures was a case of uterine tuberculosis. Gonorrhoea also is a cause of defeat. The neurasthenia at times accompanying the dysmenorrhoea was relieved. In 1907 Fraenkel published a case of abortion in a tuberculous woman after twenty-five exposures, and in his animal experiments he found evidence of destruction of the fertilized egg with, at times, apparently intrauterine absorption of the contents. Not only is it possible to interfere with the ovum while still in the ovary or in the uterus, but Roentgenization of the young animal produces retardation of growth. Fraenkel recounts a series of three generations of guinea-pigs where the mother of the first, having been treated, was small, and the smallness persisted in the two following generations, and describes this as the first certain evidence for the inheritance of acquired character.

Some points of technical interest are reported. Impregnation of the tissues with eosin shortens the time needed for exposure, and this was found of service in cases of pruritus vulvae. For irradiation of the ovaries deep penetration is secured by using a hard tube (Wehnelt 9–10), and, while each exposure is limited to a quarter of the erythema dose, the skin is further guarded by using a lead plate with twelve perforated fields through one of which the rays at each sitting are directed. The milliampèrage is 1 to 1.2, and exposures should be given after the close of a menstrual period. Exposure too nearly preceding a period may augment instead of lessening the bleeding. A series of experiments by photographic film to show the penetration of the rays to the vagina and through the uterus is reported in detail.

A careful and well-illustrated account is given of the results of observations made on animals, mostly guinea-pigs. From these it seems that, according to the extent of the exposure of the ovaries, their function may be reduced for a time or destroyed, so that the power of producing facultative sterility or artificial menopause is, by extension of the observation to woman, in our hands. The power of producing abortion or retardation of the growth in whole or in part of the young animal has already been referred to. Starting from this point, Fraenkel raises a series of questions of interest to society as well as to the physician. In view of their importance and the readiness with which recourse is now had to dangerous measures for avoiding the inconveniences of pregnancy, Fraenkel insists that the use of Roentgenization should be confined to medical practitioners. In their hands Fraenkel thinks that it will prove a safer therapy in cases of tuberculosis than those at present at our disposal, and that in cases of syphilis it may be used to produce a temporary sterility which might be prolonged through the period of cure of the syphilis.

Enough has been said to show that the monograph is interesting and suggestive, and that it affords sufficient basis for the employment of the method in many of the cases that are at present difficult to manage for the best in the interest of the patient. At the same time, further and wider experience will be needed before its claims to a permanent place can be definitely settled.

THE PATHOGENIC PROTOZOA.

It is not so many years ago that the only known pathogenic protozoa were the malaria parasite and the amoeba of dysentery, but at the present day the protozoa stand as formidable rivals to the bacteria in the part they play in the production of disease, not only in man, but also in most animals. It is more particularly in the department of tropical diseases that they have found their place, but that they have not confined their attention to this branch is evidenced by the growing number of diseases of temperate climates in which they are known or suspected to be the causal agents. The accumulating information relating to these forms demands, as in other branches of knowledge, periodical revision, and for that reason we are ready to welcome Dr. VON PROWAZEK'S *Handbuch der pathogenen Protozoen*,[2] which, so far as it goes, sums up rather well the present position of affairs. It is interesting to note the increasing space devoted to the subject of protozoa in textbooks of tropical medicine and parasitic diseases, and it is not in the least surprising that the work under review will, when completed, extend to 500 pages or more. It is not a textbook in the usual sense of the term, however: it is rather a series of small monographs contributed, for the most part, by recognized authorities. Thus, the article on technique is by Giemsa; that on classification by Hartmann; on trachoma by Halberstaedter, and so on. This subdivision of labour, while securing, perhaps, the most authoritative exposition, is open to the usual criticism that it may lead to lack of uniformity and to loss of coherence in the general treatment. In no respect is the objection more liable to be raised than in the matter of classification and nomenclature; but, so far as can be seen, Dr. von Prowazek has avoided this difficulty at least. The general chapter on classification is from the pen of Professor Hartmann, of Berlin, and he

[1] *Die Röntgenstrahlen in der Gynäkologie, mit einem Ausblick auf ihren künftigen Wert für soziale und sexuelle Fragen.* Von Dr. med. Manfred Fraenkel, Charlottenburg. Berlin: Richard Schoetz. 1911. (Roy. 8vo, pp. 269; figs. 46; Tfn. 14. M. 7.50.)

[2] *Handbuch der pathogenen Protozoen.* Herausgegeben von S. von Prowazek. I and II Lieferungen. Leipzig: Johann Ambrosius Barth. 1911. (Sup. roy. 8vo; I Lfg., pp. 117. M. 6.40; II Lfg., pp. 119-248. M. 7.20.)

has introduced several radical changes, which have not yet found their way into the general literature, and some of which, indeed, are by no means universally accepted. Thus he definitely subdivides the class *Sporozoa* into two distinct classes *Cnidosporidia*, or *Neosporidia* as it was at one time called, and *Telosporidia*, bringing the former into closer conjunction with the *Sarcodina*. This is a change which has been urged by many authorities for some time past, and is slowly taking effect. The *Telosporidia*, or *Sporozoa* in the limited sense, now only include the *Coccidia* and *Gregarinida* along with probably the *Haemogregarinida*. The remainder of the *Haemosporidia*, including the malaria parasites, are transferred to the class *Mastigophora* or flagellates, and are united with the trypanosomes in the order *Binucleata*. The advisability of such a change was pointed out by Hartmann himself as long ago as 1907, but it has certainly not yet commended itself to most systematists, and we venture to think that it will not meet with ready acceptance. The spirochaetes, again, are definitely included as an appendix to the flagellates, although it is not made clear whether all the forms known as *Spirochaeta*, *Spirillum*, etc., are intended to be embraced. Presumably, however, that is the case. The most important feature of the book, and the most interesting from a medical point of view, is the introduction of the *Chlamydozoa* as an appendix to the whole phylum *Protozoa*. The far-reaching significance of this step cannot be over-estimated. If the facts and theories advanced by von Prowazek and his co-workers are proved to be correct—and there appears no great reason for doubt—it will mark a new epoch in the history of infectious disease, and cannot but lead to a revolution in thought as well as in treatment. For the past ten years, perhaps, indications of the coming change have not been wanting, and names such as *Cytorycles*, *Neurorycles*, etc., have been finding a place in scientific writings. As is not unusual, the advent of these new forms has been looked at askance, and has met with opposition by the more conservative body of the scientific community. The unqualified failure, however, of all hitherto conceived pathological and bacteriological ideas to account for diseases such as small-pox, scarlet fever, trachoma, and a number of others, must lead the unbiassed mind to the suspicion that some new line of thought must be opened up, and that some new variety of causal organism must be sought for. The idea of the ultramicroscopic filter-passing virus was a step in this direction, but our notion of such entities has been hitherto hypothetical in the extreme. At the opposite pole, comparatively speaking, is the idea of the intracellular parasite, an idea which, from its tangibility and demonstrability, has found general acceptance. It required a bold conception to connect these two ideas, and this is what von Prowazek has done in establishing the *Chlamydozoa* as a class *sui generis*. At present the best known and most familiar example of this class is the parasite of rabies, the intracellular stage of which gives rise to what is known as Negri's body. The association of this body—which is believed to be a "cell inclusion" surrounding the actual parasite—with the disease is now so firmly established that its presence is regarded as diagnostic. At the same time it is equally well established that the virus of rabies is of an ultramicroscopic or filter-passing order of magnitude, and these two facts have for the past eight years been somewhat irreconcilable. Von Prowazek's conception of the life-history of the *Chlamydozoa*, crudely enough outlined as it still is, offers a plausible explanation of these apparently discordant facts, and throws a flood of light on the etiology of a number of other diseases, some of which have already been mentioned. Corresponding to Negri's bodies several other forms, such as Guarnieri's bodies in the case of small-pox, first observed as long ago as 1892, and Mallory's bodies in scarlet fever, have been described. These bodies represent the intracellular phase, and include a variety of forms. According to the interpretation of von Prowazek they are originated by what are called "Initialkörper." These are small oval bodies which exhibit marked bipolar staining, and which are capable of multiplying by transverse division. Their presence stimulates the production of the "cell-inclusion," in the centre of which may frequently be found a "Rest-körper." The "Initialkörper" eventually become arranged around the periphery of the cell-inclusion. At a later stage an enormous number of minute "elementary bodies" are produced within the cell-inclusion. These form the infective stage, and are so small as to be capable of passing through a bacterial filter, although they are large enough to be seen as minute points under a high magnification. With Giemsa's stain the initial bodies take on a blue colour, and the elementary bodies a red. Such in outline is Prowazek's idea of the life-cycle of these remarkable parasites. It seems vain at present to criticize its obvious imperfections and to cast doubt on the accuracy of the interpretation of observations which are beset with very great technical difficulties. On the other hand, we can at least say that the views put forward by von Prowazek and his colleagues appear to be logically sound, and worthy on that account of the most serious consideration.

One may expect that, enticed by an alluring generalization, they have in some cases overstepped the mark, but their work on the whole cannot fail to carry a considerable amount of conviction.

Although tempting, to enter into details of these remarkable investigations would carry us too far. It may, however, be well to say a few words with regard to small-pox, trachoma, and molluscum contagiosum, in which the picture so far delineated seems less obscure than in the other cases. It is somewhat curious to note that the diseases in which these parasites are believed to play a part are for the most part primary affections of epithelial cells, the chief exception being the case of rabies. Many of them are essentially contagious diseases, but the degree of contagiousness varies. Molluscum contagiosum is notably difficult to transmit experimentally, and in addition it appears to be highly specific. At one time it was believed to be caused by *Coccidia*, at another by bacteria, but both these theories were discounted by the discovery in 1905 that the virus was of a filter-passing nature. This led Lipschütz in 1907 to the elucidation of what he regards as the true causal agent. Throughout the molluscum lesion an enormous number of minute bodies, much less than 1 μ in diameter, are to be found. These are situated chiefly in, and in fact almost completely fill, the cells of the Malpighian layer. Their origin can be traced to cloudy cytoplasmic masses, and they apparently represent the elementary bodies or infective stage. The well-known "molluscum bodies" are regarded as reaction products in the cells of the stratum lucidum and corneum, and are analogous to the cell inclusions of other *Chlamydozoa*. In trachoma we have what may be considered as a more typical formation, and Halberstaedter gives a particularly concrete account of the history of the parasite in this case. Definite cell-inclusions are met with in the epithelial cells; around their periphery a number of initial bodies are arranged, and in their midst the elementary bodies originate. In variola and vaccinia the picture is essentially the same; but there is this difference, that the presence of the parasite leads chiefly to cell destruction instead of cell proliferation, as is the case in chronic epithelial affections, such as trachoma.

TROPICAL MEDICINE.

CHRISTOPHERS writing on "Malaria in the Punjab" in the *Scientific Memoirs by Officers of the Medical and Sanitary Departments of the Government of India*[6] has reached some very interesting conclusions as to the cause of the epidemics of that disease which have prevailed from time to time in the Punjab. The disease in that district—apparently as in other districts of the world—exists in two forms, namely, endemic and epidemic, the latter being the autumnal rise, or, as Christophers calls it, "fulminant malaria." All the epidemic areas specially examined by the author had suffered greatly from being flooded; and the floods had acted equally whether they were due to excessive sudden local rain, or to the indirect effects of rain causing the overflow of rivers. To quote his own words, "the

[6] *Scientific Memoirs by Officers of the Medical and Sanitary Departments of the Government of India*. New Series, No. 46. "Malaria in the Punjab." By Major S. R. Christophers, M.B., I.M.S., Assistant to the Director, Central Research Institute, Kasauli. Issued under the authority of the Government of India by the Sanitary Commissioners with the Government of India, Simla. Calcutta: Superintendent Government Printing, India. 1911. (Sup. roy. 8vo, pp. 158; 11 Maps; 9 Charts. Rs. 2. or 3s.).

higher epidemic figures seem to depend entirely upon floods, and fulminant malaria of a certain intensity is almost synonymous with malaria of diluvial origin." He recognizes, however, that whilst the very severe manifestations of fulminant malaria are dependent on floods, epidemic malaria seems to reach a certain intensity apart from floods in the sense in which he uses that term. He further admits that the exact mechanism of epidemic causation is still unknown, the epidemic condition appearing to be due to an excessive seasonal increase of the normal parasite rate, fluctuations in which occur even in healthy years. His experiments upon the quantitative factor may help in the solution of the matter, but his general results will certainly not apply to Italy and subtropical countries in the southern parts of Europe. The real cause of these outbreaks is uncertain, but atmospheric heat certainly plays a part.

Major GREIG and Captain WELLS, I.M.S., write on dysentery and liver abscess in Bombay[7] in the same series of *Scientific Memoirs*. The investigation of dysentery is attended with much difficulty, and the authors, though dealing chiefly with the amoebic form of the disease, soon recognized that this is so. A considerable amount of work has been accomplished lately in amoebic dysentery, especially as regards the different amoebae which are supposed to be the causative agents of the disease, and it has become customary to talk of an *Entamoeba coli* as a harmless parasite, and an *Entamoeba histolytica* as a harmful one. All observers have not, however, been agreed as to this differentiation and classification of amoebae, and recently Viereck and others have described a third species supposed to be pathogenic, namely, the *Entamoeba tetragena*, while Castellani in Ceylon believes that a fourth, the *Entamoeba undulans*, may act as a producer of diarrhoea. The amoebae which the present authors found in their Bombay cases were sent to Professor Minchin at the Lister Institute for identification, and Miss Robertson, who examined them, came to the conclusion that they did not present the characteristics of either *E. coli* or *E. histolytica*, but seemed to resemble forms described by Noc from similar sources in Cochin China. Such being the case, the subject would seem to become more complicated than ever, more especially when the authors' statement that the same, or apparently the same, amoebae can be cultivated from tap water is borne in mind. In recent experimental work, conducted on amoebae in the Philippine Islands, monkeys were extensively used as tests, but Greig and Wells now find that amoebae normally quite commonly occur in the stools of these animals, and, such being the case, they rightly consider that results obtained from monkeys must be received with the greatest caution. Clearly, then, until some better method can be devised for distinguishing one species of amoeba from another, chaos must reign more or less supreme as to the part each or any play in the production of dysentery. One point, however, Greig and Wells make clear in their report, and that is, that ipecacuanha has wonderful curative effects both on amoebic dysentery and the hepatitis which is so common in these cases. This confirmation of the value of ipecacuanha, so clearly demonstrated by Major Rogers, I.M.S., recently, should greatly help in establishing once and for all the place of this drug in the treatment of dysentery associated with the presence of amoebae. The conflicting reports about ipecacuanha that have recently come from the Philippines would tend to show that the variety of dysentery met with there may be a different form from that seen in India. As against this, however, is the fact that cases of dysentery associated with amoebae in the stools from South America and other parts respond to ipecacuanha equally with the Indian cases. What would seem to be required now as regards the study of amoebic dysentery is some simple method of distinguishing pathogenic from non-pathogenic amoebae in the stools if the latter really exist. The report by Greig and Wells is a very sound one, and will do good in bringing many of these difficult points to notice. It is to be hoped that they will carry their inquiry further.

[7] Ibid., No. 7. Dysentery and Liver Abscess in Bombay. Being the report of an inquiry carried out by Major E. D. W. Greig, M.D., D.Sc., I.M.S., and Captain R. T. Wells, M.A., M.B., I.M.S., under the direction of the Director, Central Research Institute, Kasauli. (D. sup. roy. 8vo; charts 12; plates 3; text 1. Rs. 2, or 3s.)

Hookworm Disease,[8] a textbook on ankylostomiasis, by Professor DOCK and Dr. BASS, of Louisiana, will be found useful. It deals in considerable detail with etiology, pathology, diagnosis, prognosis, prophylaxis, and treatment. With such a well-worn subject as ankylostomiasis not much can be expected in the way of new work or variety from the old, but, nevertheless, the authors have contrived to make their book not only readable, but entertaining. It relates to what has been called—probably incorrectly—the new-world ankylostome, designated by Stiles *Necator Americanus*, which, translated, would appear to read the "American Murderer." The writers state on page 60 that both parts of the name have been criticized, but that the objections are invalid from the standpoint of zoological nomenclature. That may be so, but, on the other hand, if the rules of zoological nomenclature are to bind so tightly, then more care should be taken originally in giving names. The fact of this species having been found by Leiper widely distributed in parts of West Africa, and by Loos in pygmies from Central Africa, at once shows that it belongs to the old world as well as to the new, and, indeed, that it was probably conveyed by African slaves from the former to the latter. The symptoms of hookworm disease, as set forth by the authors, are what were expected from the descriptions given of ankylostomiasis from other countries. It may seem strange that no fewer than twenty-six pages should be required for diagnosis, largely devoted to the description of the egg of the parasite and how to find it; but ankylostomiasis is a comparatively newly-described disease in Lousiana, and such minute descriptions are necessary to educate the students who are being taught there. The methods of centrifuging given are of distinct value. Prophylaxis, a very difficult subject indeed, is ably discussed, and a chapter on treatment finishes the book. One passage in the work (page 188) is open to doubtful interpretation. It states: "Many of the other entozoa, though not all, are expelled with hookworms after treatment. The following may be named: *Ascaris lumbricoides* and *Ascaris caninum*; *Bilharzia*, *Trichinella*, *Strongyloides*, *Balantidium*, *Oxyuris*, *Diplogonoporus grandis*, *Amoebae*, *Fasciola hepatica*, *Taenia saginata*, *Taenia solium* and *Filaria*." Thymol has no effect on bilharzia and filaria, and though the authors must know this they have not made it quite clear to the uninitiated. Apart from this, however, the text is very clear, easily read, and equally easily assimilated. The diagrams are excellent, and the book can be confidently recommended, especially to those practising in America.

There are many good books on animal parasitology now, but there is no reason why the latest, *Précis de parasitologie*,[9] by Professor E. BRUMPT, of Paris, should not be welcomed. The book forms one of the "Collection de précis médicaux," chiefly meant for students preparing for examinations and for practitioners and others after graduation, another well-known member of the group being a summary of exotic pathology, by Jeanselme and Rist. To the present work Professor Blanchard contributes a preface in which he draws attention to the gigantic progress made in parasitology since the year 1883. Professor Brumpt, of course, needs no introduction, for the part he has played in tropical medicine is well known by all workers in that subject; his book is very well written and the matter contained in it accurate and thoroughly up to date. A very pleasing feature of the work is the large number of original drawings incorporated in the text. Misstatements once made are very apt to crop up time after time in new books, and we find here (p. 442) the time-honoured error that *Stegomyia*

[8] *Hookworm Disease: Etiology, Pathology, Diagnosis, Prognosis, Prophylaxis, and Treatment*. By George Dock, A.M., M.D., Professor of the Theory and Practice of Medicine, Medical Department, Tulane University of Louisiana, New Orleans; and Charles C. Bass, M.D., Instructor of Clinical Microscopy and Clinical Medicine, Medical Department, Tulane University of Louisiana, New Orleans. Illustrated with 49 special engravings and coloured plates. London: George Keener and Co. 1910. (Royal 8vo, pp. 250. 9s.)

[9] *Précis de parasitologie*. Par E. Brumpt, Professor agrégé, Chef des travaux pratiques de parasitologie à la Faculté de médecine de Paris. Préface par M. le Professeur R. Blanchard, Membre de l'Académie de Médecine. Paris: Masson et Cie. 1910. (Post 8vo, pp. 941; 683 figures. Frs. 12).

calopus is an efficient host for the development of the *Micro-filaria bancrofti*. Its appearance here is the more surprising, because immediately afterwards, in a list of insects in which the results are stated to have been negative or incomplete, *Culex taeniatus* is given. This is the old name of *Stegomyia calopus*, and was the name used when the researches on the development of the *Micro-filaria bancrofti* were being carried out. Why the name *Filaria demarquayi* should be changed to *Filaria juncea*, apparently at the suggestion of Railliet (p. 460), is not clear, and the change has nothing to recommend it. These, of course, are only small points, and do not detract from the general merits of the book as a whole. A very useful feature of the work will be found in Part II—that which deals with vegetable parasites other than bacteria—that is, with the ringworms, streptothrix group, hyphomycetes, and allied parasites. This branch, as far as tropical work goes, has been little written upon, and, as Dr. Brumpt has done much research on some of the groups himself, it is fitting that he should describe them. This *Précis de parasitologie* is a very useful, carefully written book, containing an enormous amount of material.

Tropical Hygiene for Anglo-Indians and Indians[10] is the title of a small book by Surgeon-General LUKIS and Major BLACKHAM. In the preface to the book it is stated that the St. John Ambulance Association has long taken a leading part in popular instruction in sanitation in Great Britain, but its excellent courses on home hygiene and sanitation are not adapted to the requirements of a tropical country. With a view to supplying this want, the authors have compiled their work as a manual for the senior certificate in home hygiene of the Association, a certificate which may now be obtained after a special curriculum adapted to the sanitary needs of India. The book meets this end very well, and will be found useful for other students of hygiene and sanitation as well as for those for whom it is specially intended. The subject is dealt with quite fully, being divided into ten chapters as follows: (1) The communicable diseases of the tropics; (2) malaria, kala-azar, and sandfly fever; (3) air and ventilation in hot climates; (4) water and water supplies in the tropics; (5) food in hot climates; (6) clothing in the tropics; (7) houses and their surroundings in the tropics; (8) disposal of refuse in hot climates; (9) insects and disease in the tropics; and (10) disinfection in the tropics. The book is well illustrated with photographs and diagrams explanatory of the text, and clearly written, well printed, and should therefore prove very useful for all working in this important subject in India.

The Value of Quinine in Combating Malarial Fever,[11] is the title of a highly useful and important pamphlet by S. S. ABRAHAMSON, published by the Java Cinchona Planters' Association, and intended to enlighten the public with regard to the specific value of quinine as a malarial prophylactic and cure. It contains authentic and reliable information on the subject, and is written in a plain and simple form which should appeal even to the most ignorant of the laity. Many still believe that the best way of combating malaria is by thorough quinine treatment of all sufferers, or as many as possible; and if cost is no object, and there is any certainty that the treatment will duly be carried out, the method is useful.

The Anopheline Mosquito: Some Facts and Information for Use in Schools,[12] is the title of an exceedingly useful little primer written by Mrs. DAUGLISH. Prepared for a society formed in Barberton in the Transvaal to fight malaria, the primer has since been introduced into the schools there in the hope that it will teach the rising generation some of the simple facts concerning the propagation of malaria. Written clearly and in an easy style, there is not the slightest doubt that the little book will attain its aim, and the good that it may do can hardly be overestimated. Dr. J. W. Stephens contributes an introduction, and several very good photographs are to be found throughout the text. All schools for children in the tropics should be supplied with this primer.

[10] *Tropical Hygiene for Anglo-Indians and Indians.* By the Hon. Surgeon-General C. P. Lukis, M.D., F.R.C.S., C.S.I., Director-General, Indian Medical Service; and Major R. J. Blackham, D.P.H.Lond., R.A.M.C., Divisional Sanitary Officer, First Division, Indian Army. Calcutta: Thacker, Spink, and Co.; London: W. Thacker and Co. 1911. (Roy 8vo, pp. 183, Figs. 32. 4s. 6d. net.)

[11] *The Value of Quinine in Combating Malarial Fever.* By S. S. Abrahamson, official of the "Netherlands-Indies Association for the Promotion of the interests of the Cinchona Planters"; published by the Association. 1911. (Med. 8vo, pp. 23. Price 5·d.)

[12] *The Anopheline Mosquito: Some Facts and Information for Use in Schools.* By R. C. Dauglish, with an introduction by J. W. Stephens, M.D. London: John Murray. 1911. (Cr. 8vo, pp. 28; 7 illustrations. 6d.)

NOTES ON BOOKS.

WE are happy to announce the appearance of the fifth edition of Dr. H. OPPENHEIM'S excellent textbook on diseases of the nervous system.[13] The first edition was published in 1894, and subsequent editions have been noticed in this JOURNAL (BRITISH MEDICAL JOURNAL, 1905, March 11th, p. 541). The work opens with an excellent description of general symptomatology, methods of examination, and so on. Then follow, in order, the accounts of the special diseases of the nervous system. The illustrations are good, full literary references are given in the text, all the authorities are quoted, and practically every investigator of all countries is accorded satisfactory notice.

The octogenarian author of *Health to Date*[14] is to be congratulated on the production of a chatty, entertaining book. Dr. FERNIE gathers into one volume modern methods and modern views on food and diet, clothing, sleep, and up-to-date treatment. Serum treatment, sour milk, opsonins, fresh air, light, *x* rays, drugs, hydropathy, and radium receive notice, and the volume ends with a statement of some of the latest speculations on the relationship between body and spirit. The possessor of a cultivated style, of which it were to be wished that more medical writers were the masters, Dr. Fernie from his well-stored mind, if not from well-kept notebooks, brightens, but never overburdens, his pages with quaint bits of folk-lore, odd customs, and apt poetical quotations. His good sense preserves him from faddism. As a lucid survey of the progress of modern medicine the book may be recommended to lay readers, whilst the medical man may glean from it many hints useful to him in his daily work, and may spend many a half-hour with pleasure and profit with Dr. Fernie's genial pages before him.

MALLORY and WRIGHT'S *Pathological Technique*[15] is a book which will recommend itself as useful to many, including as it does much information with regard to pathological methods which is not to be found in such handy form elsewhere. For the chief part it is an ordinary book on bacteriological methods, and as such is no better or worse than several others, except in so far as it is more comprehensive. In addition, however, it deals with methods of conducting *post-mortem* examinations, and this part of the book will be found of considerable use. The part, also, dealing with histological methods is unusually full and complete. It is to be regretted that in some cases processes of purely historical interest have been introduced, and that, in others, methods such as fixation by alcohol are recommended, although disapproved by the majority of histologists. Apart, however, from these trivial faults, the book can be strongly recommended as reliable and at the same time interesting.

The well-known textbook of pathological micro-organisms by KOLLE and WASSERMANN[16] has entered upon its second edition, and two fasciculi have been delivered; the complete publication will comprise about forty. Dr. Rudolf Abel gives a short general account of the historical development of the doctrine of infection, immunity, and prophylaxis in a chapter which contains much matter of interest and is pleasant reading. Professor Dr. Emil Gotschlich deals with the general morphology and biology of pathogenic micro-organisms. After detailing what is known of filtrable micro-organisms, he passes on to the discussion of the size, shape, changes in structure, internal structure,

[13] *Lehrbuch der Nervenkrankheiten für Aerzte und Studierende.* By Professor Dr. H. Oppenheim. Fifth edition. Berlin: S. Karger. 1908. (Sup. roy. 8vo, pp. 1657; 432 illustrations; 8 plates. M.37.)

[14] *Health to Date: The Modern Doctor, with Newer Methods of Cure.* By W. T. Fernie, M.D. Bristol: John Wright and Sons, Ltd.; London: Simpkin, Marshall, Hamilton, Kent and Co., Ltd. 1911. (Cr. 8vo, pp. 471. 4s. 6d.)

[15] *Pathological Technique.* By F. B. Mallory, A.M., M.D., and J. H. Wright, A.M., M.D., S.D. Philadelphia and London: W. B. Saunders Company. 1911. (Med. 8vo, pp. 507; figs. 162. 15s. net.)

[16] *Handbuch der pathogenen Microorganismen.* Edited by Professor Dr. W. Kolle (Berne) and Professor Dr. A. von Wassermann (Berlin). Second edition. Jena: Gustav Fischer. 1911. I and II Lieferung. (Roy. 8vo. pp. 240. Price 5s. pro Fasciculus.)

and other characteristics of bacteria which can be rendered visible. The physical qualities of the cells, their chemical composition, and their life conditions form the continuation, and the manner of reproduction, as well as antagonism, symbiosis, and variability, concludes this chapter. Next he takes the reader into the realms of the general biology of bacteria, and deals with the relations of the germs of disease to the body infected. A subsequent chapter contains data regarding the existence and condition of life of pathological bacteria outside the infected body. It is unnecessary to say more of the publication at this stage than that the subjects are excellently treated.

We have received a fasciculus belonging to GRALL and CLARAC'S treatise on exotic pathology, dealing with intoxications and poisonings.[17] It opens with an article on beriberi by Hébrard, in which the disease is discussed fully and with circumspection. In the second part poisoning by opium is treated by Dr. Gaide, poisoning by hashish or cannabis and by kawa-kawa by Dr. Clarac, and by certain substances used by savage races in trials by ordeal to prove guilt or innocence, including tanghin, m'boundou, strophanthus, stramonium, calabar, and tali, by Lasnet and Boyé. The same authors deal in the third part with arrow and weapon poisons. In all these subjects the matter is interesting and the data reliable. The fourth part consists of a treatise on some forms of vegetable poisonings by Boyé, and Clarac devotes himself to quinine poisoning. The same authors continue the series by articles on animal venoms and other poisons, and aphrodisiacs and abortives. Throughout the whole fasciculus the matter is good and interesting, but in many places there is too much minute detail and repetition. At times the authors become somewhat dogmatic. On the whole the work is of good quality, the illustrations are good, and the print excellent.

We have received a copy of the *Reckoning Test*,[18] a mental test employed in Kraepelin's clinic, as modified by Dr. W. J. MALONEY for use in the Crichton Royal Institution. Figures from 1 to 9 are systematically arranged in series, and the patient is required to add them as rapidly as possible in pairs. Each investigation lasts a fixed time, generally ten or fifteen minutes. At the end of each minute the examining physician calls "Stroke," and the patient then makes a dash under the last figure he has written; in this way the rate of work per minute can be ascertained. The total number of sums is thought to be a measure of the capacity for intellectual work, while their accuracy is related to the integrity of the patient's fixed associations and power of attention. The publication will be of service to those alienists who desire to employ the method in asylum practice.

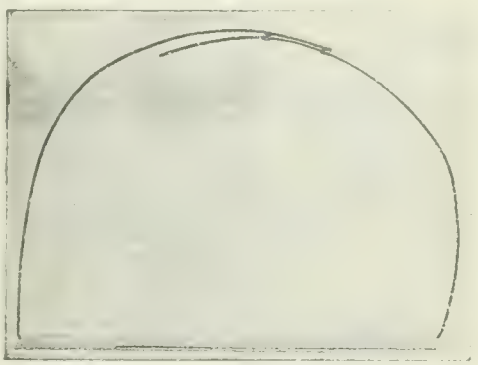
[17] *Traité pratique de pathologie exotique, clinique et thérapeutique.* Edited by Ch. Grall and A. Clarac. In eight fasciculi. Fasciculus 5: Intoxications et empoisonnements beri-beri. Paris: J. B. Baillière and Son. 1911. (Roy. 8vo, pp. 452; 134 figs. 16s. unbound; 11s. 3d. bound.)

[18] *Kraepelin's Reckoning Test*, as used in the Crichton Royal Institution, Dumfries. *Key to Reckoning Test, for Physicians' Use.* By W. J. Maloney, M.D. Edinburgh: J. F. Mackenzie. London: Simpkin, Marshall, and Co. 1911. (Demy 4to, pp. 16; price 3d., 2s. 6d. per doz. net. *Key:* Dble. pott 4to; 5s. net.)

MEDICAL AND SURGICAL APPLIANCES.

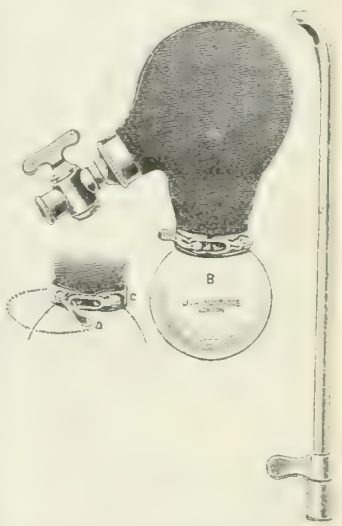
A Simple Anaesthetic Screen.

MR. G. GREY TURNER (Newcastle-upon-Tyne) writes: Some type of screen is now very commonly used to shut off the anaesthetist from the field of operation, or to shield the latter from the patient's view in cases where local or spinal anaesthesia is employed. Most screens that have come before my notice are either an appendage to a special table, or require to be specially fitted to any table, or are too rigid to be easily altered during the course of an operation. The illustration shows a screen which I had made some three years ago, and which I have found to be most satisfactory, and to possess advantages over all others that I have seen. It is constructed of two halves, each consisting of a flat foot-piece of stout tin, not quite the width of an ordinary operating table, and bearing an arm of stout copper wire 2 ft. 3 in. long. The extremity of the copper arm of one side is provided with two loops, into which the extremity of the other loosely fits. The illustration shows the two halves put together as in use. After the patient is on the table the foot-piece of one side is pushed in between the top of the operating table and the sheets on which the patient lies, the weight of the body keeping it in position. The opposite half is similarly adjusted from its own side, and the arch completed by the meeting of the copper arms in the centre. The screen is complete in itself, and can be used with any table, at any part of the latter, and at any angle. The copper wire is so pliable that it can be easily bent to any required shape, or can be pushed aside in the course of an operation, which is often an advantage. If a smaller screen is required, say, for neck operations, then one half can be bent into the necessary size, or one half can be pushed beneath the patient in the long axis of the body for operations on the side of the head or neck. The towels can be very conveniently prevented from slipping off the screen by means of a couple of gentleman's tie-clips. The apparatus is exceedingly simple, and takes much less time to appreciate and apply than to describe. The screen is very light, and can easily be carried to an outside operation. Messrs. McQueen and Sons, of Newcastle, have carried out my ideas in this matter, and supply the screen at a cost of a few shillings.



An Evacuator for Litholapaxy.

MR. JOHN PARDOE, F.R.C.S., Assistant Surgeon to St. Peter's Hospital and the West London Hospital, writes: Most evacuating bottles used in the operation of litholapaxy are made with two metal collars, one fixed to the neck of the rubber reservoir, the other fixed by cement to the glass neck of the bottle. The instrument is assembled by fixing the glass bulb to the rubber bottle by means of a bayonet joint on the two metal collars. This is a perfectly adequate means of fastening the two halves of the evacuator together, but has the grave disadvantage of making it impossible to sterilize the instrument by boiling. After boiling once or twice the cement fixing the metal collar to the glass becomes loose, and the instrument first begins to leak and very shortly the glass and metal come apart. Mr. J. H. Montague has at my suggestion made an evacuator which can be boiled again and again without this disadvantage. The accompanying illustration shows the method adopted; A is the rubber reservoir; B is the glass bulb. Both the rubber neck of the reservoir and the glass neck of the bulb are made very long. The rubber neck is encircled by a metal collar C, which can be tightened or loosened in a moment by the little patent lever D. To use the instrument the lever D is pulled open, the bulb B pulled out of the rubber neck of A, the two halves are filled with sterile water and are now placed together again. The lever is drawn down, forming an impermeable joint, and the evacuator is ready for use. After a certain length of time the rubber where it is embraced by the metal collar tends to perish, but as the rubber neck is very long it is only necessary to cut off the perished portion. I have now had this instrument in use for a considerable time, and find that it gives every satisfaction.



ROYAL COMMISSION ON TUBERCULOSIS.

Tubercle Bacilli and Milk.

The third volume[1] of the appendix to the final report of the Royal Commission appointed to inquire into the relationship of animal and human tuberculosis relates to six special investigations of different points arising in connexion with the general subject; two were conducted by Dr. A. Stanley Griffith alone, two by Dr. L. Cobbett, and two by Dr. A. Stanley Griffith in association with Mr. F. Griffith, M.B.

The volume, therefore, falls into six parts, of which the first deals with human viruses of irregular type—those described in the second interim report and elsewhere as Group iii—while the two last deal with the stability of the virulence of tubercle bacilli in the living body, and with experiments with mixed viruses. These are more in the nature of true appendices than the rest, since the conclusions reached and their bases were more or less extensively considered in earlier volumes. Nevertheless, the first investigation, which was an extension by Dr. Stanley Griffith of one originally undertaken by Dr. Cobbett, contains a good deal of new matter, though this, apart from the fact that it serves to confirm the original conclusions on the subject, is mainly of technical interest.

The second part of the volume covers two closely allied inquiries, the first being as to whether, when the udders of a lactating animal are normal, its milk is nevertheless liable to contain tubercle bacilli. For this purpose four cows and seven goats which had been proved to be free from tubercle were rendered tuberculous, and then, before their udders became affected, their milk was tested. In two of the goats the results were negative, but the other nine experiments showed clearly that the normal mammary gland will permit the escape of tubercle bacilli, whether of bovine or human type, from the blood stream into the milk: hence arises a strong presumption that the milk of naturally tuberculous cows, even though free from udder tuberculosis, will contain tubercle bacilli whenever in the course of the disease tubercle bacilli circulate in the blood stream.

The second investigation arose out of the first, being based on the consideration that though milch cows are never submitted to preventive inoculation with living tubercle bacilli, calves are thus treated. It was determined, therefore, to endeavour to ascertain whether such inoculation of calves intended eventually to supply milk for human consumption is free from danger such as would attend the vaccination of milch cows, or, in other words, whether tubercle bacilli can gain access to the sinuses of the immature mamma, live and multiply therein, and be present in the milk of the animal when it begins to lactate. To settle this question a considerable number of heifer calves were inoculated with tubercle culture in such fashion that when killed after a lapse of from 91 to 127 days the calves were in good condition, and had increased normally in weight, while the effect of the inoculation ranged in different animals from tuberculosis limited practically to the site of inoculation and the nearest glands to generalized but not severe tuberculosis.

In the event the whole of the question was not answered, but nevertheless much light was thrown upon it. The tubercle bacilli used were of various types, and were inoculated in large doses into the subcutaneous tissues of the 11 heifers employed. In 7 of these the bacilli found their way into the milk sinuses of the undeveloped mamma, and in 4 cases at least were present in such numbers as to suggest that they had undergone multiplication there. The experiments, therefore, are held by Dr. Stanley Griffith to have established the important fact that tubercle bacilli thus introduced can find their way into the ducts and milk sinuses of the immature mamma, and to suggest that they will live and multiply therein for considerable periods. Whether the bacilli in these cases would have remained alive until the period of lactation remains a matter of conjecture; but, judging from the length of time bacilli have been shown to be capable of living in the milk sinuses of cows, there is a reasonable probability that the first milk of some of the animals used would have contained living tubercle bacilli. Hence the net result of the investigation is to point to the desirability of testing the milk of any cow which as a calf has been subjected to preventive inoculation with living human tubercle bacilli before its use as human food is permitted.

Swine Tuberculosis.

The third part of the volume deals with the result of an inquiry into the nature of the bacilli concerned in the production of swine tuberculosis. In all, 63 cases due to the natural incidence of the disease were investigated; except in 2 of them, the disease appeared to be alimentary in origin, and in 21 was apparently localized to lymphatic glands connected with the alimentary tract; in 33 it was generalized, and in the remaining 9 the condition of the rest of the body of the animal from which the material was derived could not be ascertained with certainty. Out of the 63 cases, 59 provided cultures, and an examination of these led to the conclusion that natural tuberculosis in swine may be caused either by bovine, human, or avian tubercle; that bovine tubercle is the most common cause, since it was found in all the cases in which disseminated tuberculosis existed, and in more than half of those in which, so far as could be ascertained, the disease was localized; and finally, that when tuberculous lesions in the pig's alimentary glands are caused by human or avian tubercle bacilli, they cannot be distinguished from those sometimes produced by bacilli of bovine tubercle type.

Production of Immunity.

The volume contains also a relation of experiments to test the effect of endeavouring to produce immunity to bovine tubercle bacilli in calves by the inoculation of either large doses of living human tubercle bacilli or of small doses of those of bovine type. Sixteen calves were used, including 4 employed as controls. The latter were given forthwith 50 mg. of bovine tubercle bacilli subcutaneously, and 3 of them died of severe general tuberculosis within 77 days, while the fourth showed the same condition in a progressive stage when killed after the lapse of 92 days. The other 12 animals, after preliminary inoculations (10 with bacilli of human origin, 2 with bacilli of bovine origin), were similarly treated, and 7 of them, when killed in good health after the lapse of from 90 to 95 days from the administration of this high dose, showed for the most part only slight and non-progressive lesions in the internal organs; 2 others which died at earlier periods from some intercurrent disorder were also very slightly affected. The remaining 3 calves became the subjects of general tuberculosis, though of a less severe kind than that affecting the controls.

The experiments are held to show that the inoculation of large doses of living human tubercle bacilli, as also the inoculation of small doses of bovine tubercle bacilli, may raise the resistance of a calf sufficiently to protect it against a dose of bovine tubercle bacilli, which would prove fatal in a calf not so protected. But a further conclusion is that this degree of resistance is not always produced, and that calves which have been subjected to preventive inoculation once, and even twice, with slightly virulent human bacilli may develop fatal tuberculosis when inoculated with virulent bovine bacilli.

[1] Final Report of the Royal Commission on Tuberculosis. Part II. Appendix. Vol. iii, Reports on investigations dealing with (1) Certain Viruses of Irregular Type; (2) The Excretion of Tubercle Bacilli; (3) Swine Tuberculosis; (4) Immunity. By A. Stanley Griffith, M.D., and F. Griffith, M.B. Together with two Reports submitted to the Commission in 1906. By Dr. L. Cobbett. 1911. London: Published by His Majesty's Stationery Office, Eyre and Spottiswoode, Limited. (Fcap. 8vo, pp. 355. Price 3s. 3d.) (Cd. 5893.)

An International Exhibition of Social Hygiene was opened in Rome on February 4th. An inaugural address was delivered by Professor Baccelli.

The German Government has established a Chair of Social Medicine in the University of Giessen. Attached to the professorship is a large hospital for cases of accident.

A meeting will be held at the Mansion House on February 28th for the purpose of raising a sum of £10,000 for the extension of the laboratories and the erection of further residential accommodation for the students at the London School of Tropical Medicine, Royal Albert Dock, E. Mr. Lewis Harcourt will speak in favour of the object in view, signifying the importance attached by the Colonial Office to the subject of improving health conditions in the tropics.

INDEPENDENT MEDICAL PRACTICE IN INDIA AND THE INDIAN MEDICAL SERVICE.

SOME months ago a letter, signed "Mene," appeared in the Allahabad *Pioneer*, asserting that the Indian Medical Service had been weighed in the balance and found wanting, that it was archaic and inefficient, and was obstructing the development of an independent medical profession in India. A lengthy correspondence ensued, extending to some eighteen letters from various persons taking different points of view. It would be impossible to review all these letters, but from them certain main deductions may be drawn, on which, with what knowledge we already have of the subject, we propose to make some remarks.

"Mene's" letter shows an imperfect acquaintance with its subject. Taking the main point that the civil surgeoncies should be taken away from the Indian Medical Service and given to "independent medical practitioners," he (or she, for "A Medical Woman" sees in the letter the hand of one of her own sex) says that "every town or area has a medical man subsidized by Government," who "stops any healthy development of independent medical practice." This cry of interference with the practice of the private or independent medical practitioner has been so frequently raised that it will be well to inquire into the truth of it and to see what is meant by civil surgeoncies.

The unit of executive administration in British India is the "district." A district may cover an area of from a few hundred to a couple of thousand or more square miles, with a population of anything from a few hundred thousand to a couple of million or more inhabitants. The European officers of such a unit are usually:

A magistrate and collector, with one or two Indian Civil Service assistants, a judge, an engineer officer, a senior police officer, with one or two European assistants and a civil surgeon. The civil surgeon is the responsible head of all the medical, sanitation, vaccination, hospital and dispensary, gaol executive, vital statistics, and medico-legal work affecting the aforesaid population of possibly two millions, or never less than many hundreds of thousands. By Government order he has to spend at least three months of the year on tour, visiting outlying dispensaries at least twice a year, and inspecting the work done in a certain number of villages by native vaccinators. Very numerous other small duties of a medical nature fall to him. His sole assistant is as a rule the native assistant surgeon in charge of the Civil Station Hospital or dispensary. When not on tour, the civil surgeon has daily to visit the gaol as both governor and medical officer, the civil hospital, operating there perhaps daily, the police hospital, and also to visit any sick officials above a certain rank. In a few places there are also lunatic asylums under the sole charge of the civil surgeon. He has also to perform frequent, almost daily, *post-mortem* examinations in medico-legal cases, and give the necessary evidence thereon in court. On the whole, there are few harder worked men in the country. When he has done his official work he is free, if sent for, to attend to consultation work or other private practice in the native town or elsewhere. Nowadays such calls, we are told, are few and far between. For all this, his pay would be less than for the charge of a native regiment, were it not for the very moderate allowances for some extra charges. These, then, are the ordinary duties and the actual position of the highly-paid, subsidized official doctor who prevents the individual medical practitioner from making a living amongst the tens of thousands of his own countrymen. The complaint appears to us from a European point of view to be childish. By reference to the Civil Lists we find that in the various provinces the number of civil surgeoncies are as follows:

Bombay	26
Madras	31
Bengal	34
United Provinces	46
Punjab	29
Eastern Bengal and Assam	27
Central Provinces	22
North-West Frontier Province	12
Total (exclusive of Burma) ...	227

The tenure, therefore, by Indian Medical Service officers, amongst whom are natives of India, of most, but not by any means all, of these posts—for a considerable number are held by assistant surgeons (Eurasians or natives of India)—is what "Mene" and others consider "stops any healthy development of an independent medical profession in a country counting 300 millions of inhabitants." It works out at about one such officer to over 1¼ millions of people. Lord Morley, the late Secretary of State for India, appears to have been imbued with the same views, for in his dispatch on the subject about two years ago he urged on the Government of India the expediency of opening some of these appointments tentatively to independent medical practitioners, and of gradually withdrawing them from the Indian Medical Service. But it may be asked, How could any single independent practitioner, European or native, resident and practising at any one of these "towns" or stations, perform the duties of the civil surgeon, for a salary of course, and yet remain independent? If he only took a portion of the duties, who would perform the rest? It would need several such independent men, who would then be bitter opponents of each other for such private practice as there might be. Then how about leave rules, vacancies, the desire for pensions, and, above all, discipline and control? for if independent, their work would not be subject to control or supervision. Lord Morley's dispatch undoubtedly raised false hopes. To anyone with even a moderate amount of knowledge of the subject it must seem evident that Government work can only be performed by paid, or if the term be preferred, "subsidized," Government servants, who are under control, who are responsible officers, who can be replaced at a moment's notice from a regular service, who are above suspicion in the matter of medico-legal work, and who, at present in the persons of the Indian Medical Service officers, are a body thoroughly efficient and above reproach.

We believe that this opinion is that of all the other European services in India, and we know that it is that of prominent members of the native community.

There is room in all these "towns and areas," as "Mene" calls them, for independent doctors; the civil surgeons would certainly not object to them. In fact, on mere selfish grounds, they might be disposed to welcome them, for they would probably add to the consultation work of the former. In this connexion, however, the question will arise whether there exists a sufficiency of patients desirous of Western medical treatment to provide numerous independent practitioners with a living from moderate fees. Of the 300 millions of inhabitants of India, probably quite 90 per cent. prefer the native systems of medicine, or are not within reach of doctors practising Western medicine. Moreover, Western medicine calls for Western drugs, and these are very greatly more expensive than Oriential drugs. The latter probably cost a pie or two (one pie equals one-twelfth of a penny) a dose. The Indian doctor educated in Western medicine at a medical college expects a fee of four rupees (5s. 4d.) a visit, though probably he rarely gets so much, except in the Presidency towns. It is, indeed, a question whether, as in other branches of education in India, a more highly educated class of medical practitioner is not being turned out by the medical colleges in larger numbers than the country at present requires or can absorb. Some officers of long experience hold that the Government of India would be wiser to restrict the outturn of the more highly college-educated licentiates in medicine and surgery, and by improving the medical schools and increasing their numbers promote the outturn of a much larger number of hospital assistants, as they have been called till lately. These men have smaller requirements and are content with smaller salaries and fees. There is a great demand for them throughout the country which the medical schools at present are far from meeting.

The critics of the Indian Medical Service in the *Pioneer* maintain that it is unnecessary to retain the civil side as a reserve for military medical requirements in case of war, because, in such a contingency, any number of medical men could be obtained from Europe within three weeks, as in the case of the South African war. It cannot be said that in that war this system proved to be altogether a success, though civilian medical men were serving with English troops against an English-speaking enemy in a good climate. How would such men get on with Indian troops whose

language they could not speak, of whose caste rules and customs they were absolutely ignorant, and in a semi-tropical country? The importation of the so-called Secretary of State doctor in the early days of the plague was not altogether successful, mainly for these reasons. With the present system of mobilization in India also troops are on the march for the front or are embarked for oversea within a few days of the order to mobilize. No better system than the present for a medical reserve has as yet been suggested.

What strikes us in these letters attacking the Indian Medical Service, and in former attacks, is that the good of the country at large, the efficiency of Government administration, the necessity for meeting military requirements, the absolute necessity in medico-legal work of having knowledge and testimony above the possibility of suspicion, seem to be quite overlooked or appear to be reckoned of trifling importance, while the personal desires, advancement, and gains of the small class called "independent medical practitioner" are put forward as a paramount and national claim. In Bombay, Madras, and Calcutta, and in a few other large cities there are numbers of clever, prosperous, and contented independent doctors, European and native, a few of whom are making incomes which will compare favourably with successful colleagues in Europe. It is not these men who are making the outcry and are wanting to dispossess or replace the Indian Medical Service civil surgeon in the inland districts. We suspect it is the men who are unsuccessful or who fail in establishing themselves in practice in the Presidency towns.

THE COMPOSITION OF CERTAIN SECRET REMEDIES.*

Celmo No. 2.

Among the proprietary remedies for rheumatism, gout, and neuralgia reported upon in the British Medical Journal of October 1st, 1910, was included the preparation called Celmo. On that occasion the results of an analysis of No. 1 Celmo were reported upon, and appended is the result of an analysis of Celmo No. 2, recommended for "indigestion, gouty dyspepsia, flatulence, etc., etc."

A bottle, price 2s. 9d., contained 30 tablets, of average weight 5.8 grains. The principal ingredients were found to be pepsin and diastase. The amount of pepsin was found, by its digestive action on albumen, to be equivalent to about 3 grains of pepsin (*B.P.*) in each tablet. The amount of diastase could only be inferred from the diastatic power of the mixture, but, as commercial diastase is very variable in strength, no exact quantity can be stated as the amount present; the diastatic power was such that a tablet digested 1.9 times its weight of starch in half an hour under the conditions of the test of the *British Pharmaceutical Codex*, so that about 100 tablets would be required to have as much effect in the digestion of starch as an average teaspoonful of a good active malt extract. Maltose was also present, suggesting that the diastase may have been added in the form of malt extract.

A small quantity of a bitter substance was present, which agreed in its characters with Socotrine aloes, the amount being about ½ grain in each tablet. Stearic acid and starch were present in small quantity; these materials are commonly employed as accessories in tablet making. No evidence was found of any other ingredients.

* Previous articles of this series were published in the following issues of the British Medical Journal: 1904, vol. ii, p. 1585; 1906, vol. ii, pp. 27, 1645; 1907, vol. i, p. 213; vol. ii, pp. 24, 160, 209, 393, 530, 1653; 1908, vol. i, pp. 833, 942, 1373; vol. ii, pp. 86, 505, 1022, 1110, 1193, 1285, 1566, 1697, 1875; 1909, vol. i, pp. 31, 909, 1128; vol. ii, p. 1419; 1910, vol. i, pp. 151, 213, 393, 1005, 1063, 1120; vol. ii, pp. 982, 1350, 1928; 1911, vol. i, pp. 26, 91, 823, 1324; vol. ii, pp. 32, 77, 456, 767, 854, 1543; 1912, vol. i, p. 26, 141, 318.

A committee for the establishment of a league against spitting in public places has been formed in Rome. Almost all its members also belong to the Section of Hygiene of the National Council of Italian Women, the president of which is the Marchesa Lucifero.

Nova et Vetera.

LÂTAH AND ÂMOK.

It is only within comparatively recent years that we have become interested in things psychological pertaining to the Malay. Probably this is largely due to the fact that until recently we came very little in contact with them, the Dutch having monopolized for several centuries dominion over the greater part of the East Indies. True, we have had possession of the Straits Settlements since the eighteenth century, but these were mere outposts of empire; and it was not until Wallace's *Malay Archipelago* and *Island Life* focussed attention on that part of the world, and the comparatively recent rapid spread of British influence over the Federated Malay States, Sarawak, and British North Borneo fixed that attention, that we first began to study the Malay races as they deserved. Now the discovery of large lodes of tin in the Federated Malay States, and the enormous impetus of the rubber industry, has made the subject of the Malay, his habits, customs, and methods of thought, a topic of commercial and therefore constantly increasing importance.

Lâtah.

Lâtah may be defined as "a mental condition in which suggestion is at once followed by an uncontrollable action." The most recent work on tropical medicine[1] in the English language states, in addition, that the lâtah in a state of lâtah is wholly unconscious of what he is doing. Such a statement is incorrect. The lâtah almost always knows what he is doing, and it is one of the most distressing features of the affection that the body is often irresistibly impelled to words and actions the mind absolutely repudiates.

Occasionally, however, in deep lâtah the patient may become unconscious. Gilmour Ellis,[2] from his wide experience, states: "Consciousness is certainly sometimes lost during a paroxysm, but in the cases I have seen it is not so." It obviously, therefore, must be of infrequent occurrence. Personally, I have not seen it.

Types.

There are two main types of lâtah—the impulsive, and the mimetic. As examples, two classical cases may be quoted:

A Eurasian clerk, very decorous, the father of a family, intensely respectable, when startled into lâtah, would shoot out his arm violently at the nearest object, and burst into a stream of brief but very foul coprolalic language. He was intensely conscious of his weakness, very ashamed of it, yet absolutely unable to control himself, or his language, when in the lâtah state.

That is the "impulsive type." As an example of the "mimetic," the following is classical:

The cook of a coasting steamer had his baby brought to him when the ship was in port. He was known to be intensely devoted to, and proud of, the child. It was also known to his shipmates that he was lâtah. When he was nursing the baby, in his arms on deck, one of the Malay crew came along with a billet of wood, which he pretended to nurse in his arms, like a baby. Next he began to toss the billet of wood in the air, catching it again as it fell, knowing that the unfortunate lâtah, absolutely unable to resist, would be fascinated into imitating him. This the poor victim did do, tossing his precious baby up towards the awning and catching it again, loathing and dreading to do so, yet compelled by his lâtah state to absolutely keep time with his tormentor. Suddenly, instead of catching his billet, the sailor opened his arms and let it fall on the deck. Unable to resist, the miserable father did likewise, the baby fell heavily on deck, and never regained consciousness.

Predisposing Causes of Lâtah.

Temperamentally all the Malay races are exceedingly high strung and nervous. "Externally impassive," says O'Brien,[3] "no one can know them long without being struck by their extreme susceptibility and peculiar sensitiveness to the influence of what we should call the accidents of everyday life." There is no doubt that there is a hereditary tendency to lâtah in almost every Malay. They themselves give a very wide definition to the term,

including all, from those who are absolutely automatic to suggestion, to those of a mere markedly excitable temperament. Most Malays take very little notice of mild cases—they are so common, they do not tend to become more severe, they do not, as a rule, interfere with health, and usually very little with business. There is no tendency for the condition to degenerate into insanity—an *orang lâtah* (lâtah man) never becomes an *orang gila* (lunatic).

It has been suggested that the enervating climate of the Malay Peninsula and the archipelago is responsible for the condition. Even Europeans get "jumpy" and intensely irritable after a few years there, and "tropical neurasthenia," it is suggested, is the forerunner of what, in a few generations, would be lâtah.

On the other hand, an almost identical affection, "miryachit," occurs in Siberia,[4] and "Tourette's disease" and the "jumping Frenchmen of Maine" will immediately occur to those acquainted with the varieties of spasmodic tic.

At one time I was strongly of the opinion that the constant chewing of betel to which the Malay is addicted was the probable main predisposing cause, and in a recent work[5] I ventilated the theory. The fact that the Chinese in Malaya, who live exactly the same life as the natives, but are not addicted to betel, practically never suffer from lâtah gave colour to the view. On the other hand, Dr. Andrew Gilmour has described several typical cases of lâtah amongst pure-bred Kaffirs in South Africa,[6] and he assures me they certainly were not betel-chewers. The theory must, therefore, be abandoned, and we must admit that no satisfactory explanation has, up to the present, been propounded.

Exciting Causes.

A *lâtah* behaves like an ordinary individual until startled into the lâtah state. What will make one person lâtah has often no effect whatever on another equally susceptible to the condition. The causes may be classified as follows:

1. *Auditory.*—An unexpected noise, especially if made behind the patient, is a very common exciting cause. Sometimes the noise must be a definite "signal-word," usually the name of some wild beast. A well-known "pawang" (medicine man) only went lâtah when the word "harimau" (tiger) was mentioned.

2. *Visual.*—Some unlooked-for movement in a bystander is a common excitant of lâtah. During one of O'Brien's river expeditions a certain young Malay, who helped greatly and was quite rational and respectful, was pointed out to him as a well-known lâtah. To quote O'Brien's words[7] "I saw him standing alone on the bank as we put off down stream, and I waved my hand to him. To my surprise he began to wave his hand frantically in return, and continued to do so till I lost him at the first bend of the stream. . . . As I rounded the bend I saw him still waving. . . . The steersman, to whom I turned, came out with the stereotyped formula, '*dia baniak lâtah, tuan*' (he is very 'lâtah,' sir)."

3. *Tactile.*—A sudden touch from behind, or a dig in the ribs, is a very usual exciting cause. One such lâtah victim used to burst into coprolalia, rush to the nearest tree, and embrace it fondly, as if it had been a woman.

Treatment up to the present has been most unsatisfactory. The condition seldom appears before puberty. It is said to be commoner in women than in men, and especially common amongst old women; another fruitful period is that of the menopause. When it does appear early it usually lasts all the patient's lifetime. Luckily, unless the patient is deliberately tortured it has little or no effect upon health. A few patients are said to have cured themselves by determination not to succumb.

Âmok.

Âmok, at first sight, does not appear to have any relation with lâtah, yet competent observers have expressed the conviction that without lâtah there would be no âmok. It has not been proved that lâtah degenerates into âmok, nor that âmokers are especially prone to lâtah. Ellis points out, however,[8] that the "paroxysmal form of lâtah is very suggestive of the mental condition of âmok," differing from it only in extent of time.

Many totally erroneous ideas are held, even in the Far East, both as to the genuineness of the condition and as to its cause. A learned judge who sentenced an âmoker to death at Penang, was apparently under the delusion that it was a form of Mohammedan euthanasia, the man slaying all the "infidels" possible on his way to certain death and paradise. The Malays ran *âmok*, however, long before they were Mohammedans, and when the âmoker is out to slay he buries his "kris" in friend or foe alike—Chinese, Klings, Parsees, his fellow Malays, just as they come.

The great decrease of âmok when the British in Malacca and the Dutch in Java and Celebes, condemned every âmoker to death, originated a belief that every case was one of private vendetta; but even allowing for the condition having been frequently simulated as a cloak for private revenge, there remains a genuine substratum of real âmokers for whom we have to account; and the fact that such cases are now invariably condemned to imprisonment for life in a criminal lunatic asylum is strong evidence of the genuineness of the condition, since any Malay would infinitely prefer death to such a living tomb.

The Dutch, who have much experience of âmok, especially amongst the Bugis, attribute the attack to opium smoking. Miall,[9] with an extensive knowledge of the Dutch East Indies, is inclined rather to the belief that "the smoking of hashish (a preparation of cannabis indica) in particular renders the habitué subject to crises of maniacal fury known by the term âmok." This may be so in certain cases, but it is not so in all. Any strong emotion—anger, sorrow, or fear—which drives the Malay, Achilles-like, to his tent, leaving him solitary and brooding, may cause âmok amongst these emotional people.

The first symptom is an acute depression which deepens, darkening everything around him. Then follows the premonitory aura. The blackness disappears, he sees colours, usually red, and the attack of maniacal fury follows immediately. His memory becomes a blank. He rushes out amongst his fellow men, armed with a "kris" or chopper, and assaults with homicidal fury every living person he meets—friend or foe, man, woman, or child. The violence of the attack lasts for a few hours only; memory during the period is a blank. The patient is sleepy and stuporose for some days after. Apparently then he becomes quite normal again.

Conclusion.

We now come to the question, What is the connexion, if any, between lâtah and âmok? Here a recent experiment of Fletcher's[10] may usefully be considered. Briefly it was as follows: A known lâtah in hospital was taken out of the ward into another room, where she was rendered lâtah. In the interval a dummy figure was put into the bed next hers. When she was brought back she was given a knife, and it was suggested that she should stab the apparently sleeping body. She acted on the suggestion instantly, and struck furiously at the figure. Immediately afterwards the suggestion was withdrawn, and she was horrified at her conduct. It was a correspondingly great relief, therefore, when the sheet was withdrawn and the dummy figure exposed to her eyes.

Suppose, now, that to a lâtah, consumed with a great anger or sorrow, brooding over his wrongs, such a suggestion were made, either by self-suggestion or accident. Owing to his condition, the suggestion would be stronger, more imperative, more lasting than usual. In such a case we would almost certainly get a typical âmoker.

It will be obvious that the whole subject is intensely elusive. It is very difficult for the European to get behind the Oriental mind. There are almost no objective signs to go upon; the lâtah, and the âmoker, except when under the influence of their affection, behaving like ordinary people, showing no stigmata of degeneracy, giving no signs of madness.

J. Johnston Abraham, M.D.Dub., F.R.C.S.Eng.

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FUNERAL OF LORD LISTER.

THE first part of the funeral service of Lord Lister took place at Westminster Abbey on Friday, February 16th. The body had been removed the night before from his house, 12, Park Crescent, Regent's Park, to Westminster Abbey. The hearse was followed by two carriages, in which were two nephews of Lord Lister, Mr. R. J. Godlee, President of the Royal College of Surgeons, Mrs. Godlee, and Mr. Lister-Harrison. At the Abbey the body was received by the Dean and Clergy of the Abbey, and was taken to St. Faith's Chapel, where a short service was held.

A beautiful wreath of orchids and lilies sent by the German Emperor was presented by the German Ambassador, Count Wolff-Metternich, and received on behalf of the family by Mr. J. J. Lister and Dr. Arthur Lister. The German Ambassador addressed the following letter to Dr. A. H. Lister:

By order of His Imperial Majesty the German Emperor, who knew the late Lord Lister personally, I will have the honour to lay a wreath on the resting place of the great savant.

Will you further kindly inform the late Lord Lister's relatives that, acting under instructions from my Government, I have conveyed, through the Foreign Office, to the societies of which Lord Lister was president, the sorrow of the Imperial Chancellor and the Royal Prussian Government?

Before the beginning of the service Sir Frederick Bridge played the beautiful music composed by Purcell for the funeral of Queen Mary in 1694 and the "Funeral March" of Chopin. Then followed Beethoven's "Tres Aequali," sounded on four trombones high up in the triforium. The approach of the funeral procession was first indicated by the distant voices of the choir, singing in the cloisters the opening verse of the hymn, "Brief life is here our portion." Preceded by the Canons, the coffin was slowly borne through the nave and choir and placed on a high catafalque, at the corners of which four tall candles burned. The catafalque was covered with a purple pall on which were embroidered the words, "Blessed are the dead which die in the Lord"; and upon it had been placed Lord Lister's orders—the Order of Merit, the Prussian order "Pour la Mérite," and the Grand Cross of the Order Danebrog.

Pall Bearers.

The pall bearers were:

Lord Rayleigh, O.M., representing the Order of Merit.
Lord Rosebery, University of London.
Lord Iveagh, Lister Institute.
Sir Archibald Geikie, President Royal Society.
Principal Sir Donald MacAlister, Glasgow University.
Sir Watson Cheyne, Bart., King's College.
Mr. R. J. Godlee, President Royal College of Surgeons.
Professor E. M. Caird, Edinburgh University.

Lord Iveagh took the place of the Chairman of the Lister Institute owing to the indisposition of Sir Henry Roscoe, and Sir Donald MacAlister acted instead of Lord Lister's old friend, Sir Hector Cameron, who was absent owing to illness. The pall bearers were followed by the chief mourners: Mrs. Lister, Mr. and Mrs. J. J. Lister, Dr. A. H. Lister, Mr. and Mrs. W. T. Lister, Miss Lister, Miss E. M. Lister, Miss G. Lister, Dr. and Mrs. Phear, Mr. and Mrs. R. J. Godlee, Mr. Frank Godlee, Mr. Theo. Godlee, Miss Godlee, Mr. J. H. Pim, Mrs. Goodbody, Miss Pim, Miss C. Pim, Mr. A. Lister-Harrison, the Right Hon. J. W. Wilson, Mr. and Mrs. Albright, Mr. and Mrs. C. T. Barclay, General Macvicar Burn (brother-in-law), and Mr. Ernest Beck.

Representatives of the King and Royal Family.

The King was represented by Sir Frederick Treves, Queen Alexandra by Sir Francis Laking, and Princess Louise (Duchess of Argyll) by Mr. Oswald Balfour.

Following the pall bearers came the Lord Mayor, the Lord Provost of Edinburgh, and the representatives of scientific and learned societies.

Foreign Delegates.

Professors Lippmann (President), Chauveau, Dastre, and Roux (French Academy of Science); Professor Roux (Pasteur Institute, Paris); Professor Pozzi (French Academy of Medicine); Professor Garré (President of the German Congress of Surgeons); Sir Victor Horsley (Société de Chirurgie, Paris); Professor Hector Treub (Medical Association of Amsterdam).

Representatives of Scientific Bodies.

Royal Society.—Sir Alfred Kempe (Treasurer); Sir Joseph Larmor, M.P., and Sir John Rose Bradford (Secretaries); Sir William Crookes, O.M. (Foreign Secretary).

Royal College of Physicians of London.—Sir Thomas Barlow, Bart., President; Dr. J. Mitchell Bruce, Senior Censor; Dr. T. A. Ormerod, Registrar; and Sir Richard Douglas Powell, Bart.

Royal College of Surgeons of England.—Mr. C. W. Mansell Moullin and Mr. C. T. Dent, Vice-Presidents.

University of London.—Sir E. Busk, Chairman of Convocation; Sir H. Miers, Principal; and Sir Philip Magnus, M.P.

Royal College of Surgeons, Edinburgh.—Mr. G. A. Berry, President.

Royal College of Surgeons, Dublin.—Mr. R. H. Woods.

Royal Society of Edinburgh.—Sir James Dewar, F.R.S.

University of Edinburgh.—Professor Alexis Thomson.

University of Glasgow.—Mr. Birrell, Lord Rector.

King's College.—The Bishop of Exeter; Principal the Rev. A. C. Headlam, D.D.; and Professor J. M. Thomson, F.R.S.

King's College Hospital.—Sir David Ferrier and Dr. Tirard.

University College, London.—Dr. Gregory Foster, Provost.

British Association.—Sir William Ramsay, President.

Royal Society of Medicine.—Sir Henry Morris, Bart., President.

Royal Society of Medicine: Section of Obstetrics.—Dr. Amand Routh.

Corps Diplomatique.

The Austro-Hungarian, French, German, Russian, and Italian Ambassadors, the Danish, Swedish, Norwegian, Belgian, Portuguese, and Greek Ministers, the Servian Chargé d'Affaires, and Dr. Wu Lien-Teh, representing the Chinese Minister.

Representatives of Foreign Academies.

Swedish Academy of Science.—Count Wrangel.

Society of Science, Norway.—M. Benjamin Vogt.

Academy of Madrid.—Sir William Ramsay, F.R.S.

Academia de' Lincei, Rome.—Sir Joseph Larmor, M.P.

Imperial Academy of Sciences, St. Petersburg.—Sir Archibald Geikie, P.R.S.

Representatives of Colleges and Universities.

Royal College of Surgeons of England.—Mr. Golding-Bird.

Royal Society of Medicine.—Mr. J. Y. W. MacAlister, Secretary.

Royal College of Surgeons, Edinburgh.—Mr. J. M. Cotterill, Mr. R. McKenzie Johnston.

Royal College of Physicians, Edinburgh.—Dr. Byrom Bramwell, Dr. John Playfair.

Royal Faculty of Physicians and Surgeons, Glasgow.—Dr. Charles O. Hawthorne.

Royal College of Surgeons, Ireland.—Sir Henry Swanzy.

University of Edinburgh.—Professors Caird, Littlejohn, and I. B. Balfour.

University of Glasgow.—Professor Kennedy, Dr. John Smith, Sir David McVail, M.D., Rev. John Anderson, Professor Murdoch Cameron.

University of Oxford.—Earl Curzon (Chancellor), Sir William Osler, Bart., M.D., F.R.S., Sir W. Church, Bart.

University of Cambridge.—Professor Howard Marsh, Master of Downing.

University of Aberdeen.—Lord Strathcona, F.R.S., LL.D., Sir Henry Craik, K.C.B., M.P., Sir David Ferrier, M.D., F.R.S., Principal G. A. Smith.

University of St. Andrews.—Sir T. B. Crosby, M.D.

Trinity College, Dublin.—Sir Charles Ball, Bart.

National University of Ireland.—Mr. J. G. Swift MacNeill, M.P.

Queen's University, Belfast.—Professor Andrew Strahan.

Leeds University and Leeds Infirmary.—Professor J. R. Hellier.

Manchester University.—Dr. William Thorburn.

Birmingham University.—Professor Malins and Professor Jordan Lloyd.

Bristol University.—Mr. Paul Bush, C.M.G.

Sheffield University.—Professor MacDonald.

University of Wales.—Lord Kenyon, Mr. Lynn Thomas, C.B.

Representatives of Public Bodies.

Order of Merit.—Lord Rayleigh, O.M., F.R.S.

Royal Society.—Dr. Lazarus Fletcher, Sir John Kirk.

Local Government Board Medical Department.—Dr. S. Monckton Copeman, F.R.S.

Board of Education.—Sir George Newman, M.D.

Medical Society of London.—Mr. J. Mitchell Bruce, M.D. (President), Dr. J. W. Carr, Mr. E. M. Corner, and Dr. George Bethell.

British Association.—Mr. J. Perry, F.R.S., and Major MacMahon, F.R.S.

British Medical Association.—Mr. Edmund Owen, Vice-President; Dr. Rayner, Treasurer; Mr. H. Betham Robinson,

President, Metropolitan Counties Branch; and Mr. Guy Elliston, Financial Secretary and Business Manager.

British Academy.—Lord Reay.

Royal Institution.—Sir James Crichton-Browne.

British Science Guild.—Sir Lauder Brunton, Bart.

Lister Institute.—Mr. J. Luard Pattison, Honorary Treasurer. The other members of the Governing Body and the Director, Dr. C. J. Martin, and the whole staff, to the number of thirty, attended.

Royal Institute of Public Health.—Professor W. R. Smith, Principal.

Society of Apothecaries.—Dr. Bramley Taylor, M.D., Mr. A. Mowbray Upton, and Dr. Sangster.

Hunterian Society.—Dr. Hingston Fox.

Harveian Society of London.—Mr. D'Arcy Power.

Royal Microscopic Society.—Mr. H. G. Plimmer, F.R.S.

The Medical Services.

Army Medical Service.—Surgeon-General Sir William Gubbins.

Medical Department of the Admiralty.—Sir J. Porter, Fleet Surgeon E. J. Finch, R.N., and Staff Surgeon W. L. Martin, R.N.

West African Medical Staff.—Mr. Arthur E. Horn.

Medical Schools and Hospitals.

University College, London.—Lord Reay, K.T., Professors Thane, Hill, and Starling, F.R.S.

King's College, London.—Sir Charles Lyall, Dr. Buzzard, Sir A. K. Rollit, and many members of the professorial staff.

University College, South Wales.—Professor Berry Haycraft.

Oxford Medical School.—Sir William Osler, Bt., F.R.S.

King's College Hospital.—Mr. Herbert Twining, Treasurer; Lieutenant-Colonel C. F. Fellows, Mr. G. H. Hawker, and Mr. J. G. Ritchie, members of the Committee of Management; Rev. T. Parker, Chaplain; Captain H. S. Tunnard, Secretary; and many members of the staff.

King's College Hospital Medical School.—Mr. Clifton Kelway.

St. Bartholomew's Hospital.—Mr. C. B. Lockwood.

Brompton Hospital.—Dr. S. H. Habershon.

Central London Ophthalmic Hospital.—Mr. Ernest Clarke.

Charing Cross Hospital.—Dr. William Hunter, Mr. Stanley Boyd.

Guy's Hospital.—Dr. Hale White and Mr. Charters J. Symonds.

Norfolk and Norwich Hospital.—Dr. Michael Beverley.

Glasgow Royal Infirmary.—The managers were represented by Mr. James Macfarlane, and the staff by Mr. David Newman and Dr. George S. Middleton.

London Hospital.—Sir Bertrand Dawson, Sir Frederic Eve, and Dr. William Bulloch.

London Temperance Hospital.—Mr. H. J. Paterson.

Middlesex Hospital.—Sir James Kingston Fowler and Mr. John Murray.

Queen Charlotte's Lying-In Hospital.—Dr. Walter Griffiths.

Royal Eye Hospital.—Mr. F. L. Paton.

St. George's Hospital.—Mr. A. William West and Dr. H. D. Rolleston.

Royal Ear Hospital.—Sir Ernest Hatch, Treasurer, and Mr. McLeod Yearsley, Senior Surgeon.

St. Mary's Hospital.—Sir John Broadbent, Bart.

University College Hospital and Medical School.—Mr. Raymond Johnson, Dean; Dr. G. F. Blacker, Vice-Dean; Mr. J. G. T. Buckle, Secretary of the Hospital; Mr. L. R. Thomas, Secretary of the Medical School; Dr. E. M. Cowell, Resident Medical Officer of the Hospital; Mr. G. E. O. Williams, President of the Medical Society, and many members of the staff.

Westminster Hospital.—Sir J. Wolfe Barry.

Royal Infirmary, Edinburgh.—Professors Harvey Littlejohn and Francis M. Caird, who were members of the Edinburgh University Deputation.

West London Medico-Chirurgical Society.—Mr. McAdam Eccles.

Epsom College.—Mr. J. Bernard Lamb.

Merchant Taylors' Company.—Mr. F. M. Fry, Master.

Glasgow University Club, London.—The Lord Advocate (Mr. Ure), Mr. C. Scott-Dickson, M.P., and nineteen other members of the club.

Edinburgh University Club, London.—Rev. Archibald Fleming, D.D., Dr. Alexander Morison, Dr. J. J. Pringle, and Dr. G. A. Sutherland.

Kew Gardens.—Colonel Prain, Director.

Zoological Society.—Mr. R. J. Pocock and Dr. P. Chalmers Mitchell (Secretary).

Among those present were also:

Mr. Asquith, Lord Lansdowne, the Duke of Northumberland, the Duke of Abercorn, Lord Sudeley, Sir Arthur Church, Sir W. Lee-Warner, Sir Savile Crossley, Sir Clifford Allbutt, Sir Henry Craik, Sir Felix Semon, Professor Silvanus Thompson, Sir James Reid, Mr. Bland-Sutton, Sir J. K. Fowler, Sir Patrick Manson, Sir Alfred and Lady Pearce Gould, General J. C. Baillie, Lady Morris, Lady Osler, Sir R. Havelock Charles, Sir James Goodhart, Sir William Dalby, Sir Anthony Bowlby, Right Hon. R. Farquharson, M.D., Mr. J. W. Wilson, M.P., Mr. Fowell Buxton, Mr. T. Staveley Oldham, Sir John Kirk, Sir Malcolm Morris, Sir Thomas Fowell Buxton, Sir Robert Burnet, Sir Charles Lyall, Surgeon-General Sir Lionel Spencer, Professor B. Balfour, Professor Murdoch Cameron, Professor J. R. Hellier, Dr. Davey, Dr. Lazarus Fletcher, Dr. Sidney Martin, Dr. H. Willoughby Lyle, Dr. Elliott, Dr. StClair Thomson, General J. C. Baillie, Major-General J. M. Burn, Colonel Montague Broun and Mrs. Montague Broun, Colonel R. C. Lucas, Mr. J. W. Wilson, M.P., Mr. Golding-Bird, Mr. G. R. Turner, Mr. Arthur Barker, Mr. E. Beck, Mr. Dunn, Mr. Bagshaw, Mr. A. Mayo Robson, Mr. Yong, Mr. Bilton Pollard, Mr. and Mrs. F. G. Fitch, Mr. Twisaday, Mr. Herbert W. Page, Mr. A. Chaston Chapman, Mr. and Mrs. Ballance, Mrs. Reid, Mr. and Mrs. Arbuthnot Lane, Mr. Burgh, Mr. and Mrs. A. Milnes, Mr. H. F. Waterhouse, Mr. Cross, Mr. J. H. Morgan, Miss and Miss H. Seebohm, Miss Reeves, and Mrs. and Miss Goodbody.

The opening sentences of the Burial Service were sung (unaccompanied) to Dr. Croft's music, and this was followed by Psalm xc, in a musical setting by Purcell. An anthem by Handel, closing with the words, "His body is buried in peace, but his name liveth evermore," was followed by Goss's anthem (unaccompanied) "I heard a voice." The service closed with the hymn, "O God, our help in ages past," and the Benediction, pronounced by the Dean. The funeral procession was then re-formed, and the coffin was borne slowly out of the church to the music of the "Dead March" in *Saul*, the congregation remaining in their place until the organ ceased.

TRIBUTES.

Royal Society.

At the ordinary meeting of the Royal Society on Thursday, February 15th, the President (Sir Archibald Geikie) referred to the signal loss sustained by the Society and by the scientific world at home and abroad by the decease of Lord Lister, in whom the Society had a special interest as a past President. It was moved from the Chair, and resolved by the Fellows present rising in their places, that the condolence of the Society be sent to the family of Lord Lister, and that the Society do adjourn without transacting the business of the meeting as a mark of respect to his memory.

Foreign Academies.

The Royal Society has received the following telegrams of sympathy, which were published in the *Times* of February 16th:

GERMANY.

The Prussian Department of Public Instruction mourns in sincerest sympathy with the Royal Society the grievous loss which science has experienced by the decease of their former president, the great master of surgery, Lord Lister.—VON TROTT ZU SOLZ, Prussian Minister of Instruction.

Royal Saxon Society of Sciences, Leipzig, deeply moved by Lister's death, sends warmest sympathy. (No delegates.) (Unsigned.)

Medical Society, Leipzig, sincerely laments their distinguished honorary and foreign member. Personal representation unfortunately impossible.—MARCHAND.

The Medical Faculty of the University of Munich mourns with you at the bier of Lord Lister, one of the greatest benefactors of mankind. It will always be a glory of Great Britain that she has brought forth this son.—M. GRUBER, Dean.

The Royal Bavarian Academy of Sciences regrets that during the university term none of its members is able to take part in the obsequies of England's great son, Lord Lister, but it is at one with the whole civilized world in its grief at the demise of one of the greatest benefactors of mankind, whose benevolent lifework can never be lost.—HEIFEL, President.

RUSSIA.

Imperial Academy of Medicine, St. Petersburg, sends its sincerest condolences to the Royal Society on the death of Lord Lister, whose loss has saddened not only England but the whole medical world.—MOISSEEFF, Secretary of the Academy.

Imperial Academy of Sciences, St. Petersburg, begs Sir Archibald Geikie as honorary member to represent the Academy at the funeral of Lord Lister.—OLDENBURG, Perpetual Secretary.

AUSTRIA-HUNGARY.

Imperial Academy of Sciences, Vienna, profoundly deplores the death of the great surgeon and benefactor of the sick, Lord Lister, whom they were proud to count among their honorary and foreign members, and express their sincere sympathy with the Royal Society in their loss.—PRESIDENT BOEHMBAWERK, Becke.

The Hungarian Academy, Budapest.—The Hungarian Academy of Sciences sends its deepest condolences to the funeral of its great member, Lord Lister.—BERZEVIUZY, President.

OTHER COUNTRIES.

Academy of Sciences, Paris.—Academy will send to the obsequies of Lister, Lippmann (President) Chauveau, Dastre, Roux.

Accademia dei Lincei, Rome.—The Accademia dei Lincei deplores the loss of their illustrious member Lord Lister, and begs to be allowed to be represented at the funeral by their member Sir Joseph Larmor.—BLASERNA, President.

Christiania University.—The Medical Faculty of Christiania University expresses sympathy to the Royal Society in the great

loss sustained by the British medical profession and the whole science of medicine by the death of the father of modern surgery, Lord Lister.—DECANIS HARBITZ.

Swedish Academy of Sciences, Stockholm.—Swedish Minister, Count Wrangel, instructed to represent Swedish Academy of Sciences at Lord Lister's funeral.—DAHLGREN, President.

Dutch Medical Society, Amsterdam.—Dutch Medical Society delegates Professor Hector Treub, of Amsterdam, to Lord Lister's funeral.—Dr. SCHREVE, Secretary.

Academy of Science, Amsterdam.—Academy Science, Amsterdam, regrets deeply cannot send delegate Lord Lister's funeral.—LORENTZ.

Telegrams of condolence have also been received by the Royal Society from the Ministry of Public Instruction in Rome; the University of Amsterdam (nominating Professor Treub to attend the funeral service); the Association of German Clinics of Leipzig; the Swiss Society of Natural Sciences of Geneva; and the Scientific Society of Christiania.

The following telegram was received by Sir Archibald Geikie, President of the Royal Society, from the Marquis di San Giuliano, the Italian Minister for Foreign Affairs, being forwarded by the Italian Ambassador:

> I beg you to express to the Royal Society the condolences of his Majesty's Government on the death of Lord Lister, whose name will live in perpetual veneration in the grateful memory of mankind. I associate myself personally with the Royal Society's mourning, being attached to that illustrious body by many touching recollections both of my own references to Italy at more than one of their annual reunions, and of eloquent tributes paid by their most eminent speakers to the scientific glories of our country.

COMMITTAL TO THE GRAVE.

About 4 o'clock the procession reached Hampstead Cemetery, where the committal portion of the service was read by the Rev. E. Barter. Though only the immediate relatives were present at the graveside, many people gathered round and joined in the singing of the hymn, "Jesu, Lover of my soul." Many wreaths were placed on the grave.

MEMORIAL SERVICE AT EDINBURGH.

In St. Giles's Cathedral, at Edinburgh, on Friday, February 16th, a memorial service for the late Lord Lister was held, and was attended by a large number of representatives of medical and other official bodies, as well as of the general community. The Lord Provost and the Presidents of the Royal College of Physicians and Surgeons were at the service in Westminster Abbey. The city, therefore, was represented by Bailie Laing, the senior magistrate; Sir Thomas Hunter, the town clerk; and by several other members of the Corporation in their official robes. The university was represented by Principal Sir William Turner, Sir Thomas Fraser, Sir Halliday Croom, Emeritus Professors John Cheyne and Crum Brown, Professors Wyllie, Schäfer, Cossar Ewart, Hunter Stewart, and others. The General Council of the university was represented. The Royal College of Physicians sent Sir John Batty Tuke, Sir Thomas Clouston, Drs. W. Allan Jamieson, James Carmichael, Wm. Taylor, Berry Hart, Graham Brown, Cumming, John Thomson, Haultain, Fleming, Boyd, James Ritchie, the Secretary (Dr. Harry Rainy), and the Treasurer (Dr. Norman Walker), all in official robes. The Royal College of Surgeons sent the Secretary and Treasurer (Dr. B. McKenzie Johnston), Mr. Hodson, Mr. MacGillivray, Mr. David Wallace, Dr George Mackay, and others. The Royal Infirmary sent Sir James Affleck, Lieutenant-Colonel Sir Joseph Fayrer, the Superintendent, Mr. W. S. Caw (the treasurer and clerk), several managers, resident physicians and surgeons, the Lady Superintendent (Miss Gill), and a number of members of the nursing staff. The Edinburgh and Leith Medical Practitioners' Association was represented by the President (Dr. James), the Treasurer (Dr. Stevens), the Secretaries (Drs. Bowie and John Orr), and others. The Edinburgh High Constables, Queen Victoria's Jubilee Institute for Nurses, the Royal Hospital for Sick Children, students of the University, and the general community were also represented. Several clergymen took part in the service, and the Rev. Dr. Wallace Williamson gave a short address.

GLASGOW UNIVERSITY LISTER FUNERAL SERVICE.

A funeral service in memory of the late Lord Lister was held in the Bute Hall of Glasgow University on February 15th. The service was of an impressive character, and was well attended by members of the Senate, representatives of the medical bodies in the city, and by the students. The University mace was draped. Principal Sir Donald MacAlister, Professor Reid, Professor Milligan, and Professor Cooper each took part in the service, and the anthem, "Lord, now lettest thou Thy Servant depart in peace," was sung by the University choir. The congregation remained standing while the Dead March in *Saul* was rendered by the organist. An interesting personality, who attended the service with Lady MacAlister, was Nurse Bell, who was the late Lord Lister's nurse in his ward at the Royal Infirmary when he began his antiseptic treatment. She is now 81 years of age, and she has been forty-five years in the Royal Infirmary. She was sent to Dr. Lister's ward on the night of her arrival, and acted there for fourteen months. Dr. Lister was then in charge of wards 17, 24, and 26 in the buildings now being demolished. Nurse Bell is now affectionately known as the Nurses' nurse, and is still on the staff.

MEMORIAL SERVICE AT JERSEY.

Dr. HERBERT C. MAJOR, of St. Brelade, Jersey, informs us that at the request of the local profession a memorial service was held at St. Mark's Church in that Island on February 16th, and was largely attended by members of the profession and others.

VOTE OF CONDOLENCE.

At a meeting of the University College Committee on February 21st the following letter was adopted:

> Dear Sir,—In the name of the Committee and Professorial Board of University College we desire to express our deep regret at the death of the Right. Hon. Lord Lister, O.M., formerly President of the Royal Society and Fellow of this College, and we tender our sincere sympathy to the members of his family for the loss that they have sustained.
>
> We remember with pride that Lord Lister received his medical education within the walls of this College and of University College Hospital.
>
> We wish to record our high appreciation of the supreme value of his labours in the field of biological and medical science, as a result of which he was enabled to introduce improvements and methods which have reformed surgical practice, and have been of incalculable benefit to humanity, by prolonging life and alleviating suffering.—We are, yours faithfully,
>
> (Signed) REAY,
> *Chairman of the College Committee.*
> T. GREGORY FOSTER,
> *Provost and Chairman of the Professorial Board.*
>
> J. J. Lister, Esq., F.R.S.

TRIBUTE FROM A FRENCH SURGEON.

Dr. LUCAS-CHAMPIONNIÈRE, the eminent Paris surgeon, writes:

In the midst of the universal mourning which must mark the death of Lord Lister, his pupils and friends cannot be backward in rendering homage to the great man of science who is gone. I reckon myself among the oldest of his disciples, as I had the honour to make his acquaintance at Glasgow in August, 1868. I am inclined to think that there is none of his pupils who can recall a publication on the antiseptic method older than my own, since my first essay on the antiseptic method appeared on January 10th, 1869.

Forty years later, in the midst of the expansion of modern surgery following the development of these marvellous surgical techniques which allow us safely to open all cavities, to undertake operations beyond the imagination—which was nevertheless fertile—of previous surgeons, it is a joy for the School of Lister to cast a glance at the road that has been traversed. These forty years have sufficed for a work which the oldest science of the world would not have dared to look for even in its dreams.

When I had the good fortune to meet Lister I had, happily for me, studied with care the work of Pasteur. Thus, the exposition by the master of his new conception of surgery found a mind quite prepared. I was also quite prepared for combat, for Pasteur was a great fighter. Notwithstanding the most violent attacks in France and in other countries, he defended his ideas with a persistence and even a violence which have not been sufficiently praised in that man of science.

The intellect of Lister, so marvellous in scientific analysis, was well fitted to understand the discoveries of Pasteur's genius and to foresee the applications of them. During my stay at Glasgow I was charmed by the clearness of his views, by the logic of his operative deductions. Forty years of surgical life have only increased my admiration for the Master. Firm, but in manner almost timid, seeming always absorbed by his thoughts, he was of a temperament entirely different from that of Pasteur. Always benevolent, it seemed that he cast

his scientific truths upon the world as truths that were its due, but without fighting as Pasteur did. His perseverance, his steadfastness in research, the honesty of his publications, his activity in experiment were his only weapons. In the superb monument raised to him by the publication of his writings there is not one polemical article. But he had given to all those who approached him convictions so sincere and so strong that in England, as in all countries, it is his pupils who have carried on the war necessary to overcome the resistance with which established science always meets every new truth.

All his pupils have been happy to serve his cause. All have been happy that his age has permitted him to witness the triumph of his ideas and the realization of modern surgery, which to the present generation looks so beautiful, so powerful, so complete that it is always ready to think that things have always been so.

Only the older men can remember the wretched surgery of the greatest of our masters which gave mortalities of 30 to 70 per cent. for the rare operations they performed—operations which are done to-day with such safety that we hand them over to our youngest assistants as a preparation for real surgery. We alone have seen the frightful mortalities of maternity hospitals; the terrible epidemics which are no longer anything but a memory.

We old pupils must not fail to recall to the young generations that this extraordinary benefit spread over the whole of mankind is the work of Lister, a work to which we have devoted our lives, and which in return makes us what we are.

We have under his impulse participated in a scientific movement which in its intensity is perhaps unparalleled in the history of the sciences, for it was necessary to build up modern surgery from the very foundations. But to build it was necessary first to demolish that surgical science which passed for the most ancient and the best established among them all.

It is fitting to recall this on the day of the death of the great savant whose work is so fertile, that a single generation has only been able to know its beginnings, and which holds in it the hope of a still greater future.

A Pathologist's Appreciation.

At a meeting of the Pathological Section of the Royal Society of Medicine held on Tuesday, February 20th, the Section passed a resolution regretting the loss sustained by the death of Lord Lister. The resolution was seconded by Dr. William Bulloch, who made some observations upon the varied and extensive pathological and bacteriological work of the great surgeon.

Mr. S. G. Shattock, who had taken the chair in the unavoidable absence of the President, then made the following remarks:

When we trace the science of bacteriology onwards from the first discovery of bacteria by Leeuwenhoek (1675), we find that its progress is marked by certain striking, yet isolated, experiments. After the discovery of bacteria in putrid fluids, the problem which naturally arose was: Are these micro-organisms the causes of putrefaction, or do they appear in a putrid fluid because the latter furnishes a specifically suitable pabulum.

This problem remained under discussion up till quite a recent date. And upon the right solution of it depended the scientific foundation of the antiseptic system of surgery. Tyndall, in his *Floating Matter in the Air*, has furnished us with an excellent historical summary of this long-drawn debate, though the work was published before one of the most striking of Lister's experiments had been put on record.

The first amongst these landmarks in the history of this vital discussion is the famous experiment of Spallanzani (1777), which showed that a putrescible fluid in a sealed flask, if heated to the boiling temperature, underwent no putrefaction. In 1836 came Schulze's experiment, which demonstrated that if the air admitted to a putrescible fluid—itself first boiled—were passed through a bulb of sulphuric acid, no putrefaction ensued. In 1837 Schwann varied this by proving the same to hold true if the air were calcined. In 1854 Schröder and Van Dusch showed that if the air in such an experiment were filtered through cotton-wool, it was as efficiently sterilized as by the other methods. In 1861 came the demonstration by Pasteur that an S-shaped curve in the neck of the flask was sufficient to prevent the access of bacteria to the contained fluid, after the latter had been boiled.

Turning to our own countrymen, amongst Tyndall's contributions to the subject were the experiments he carried out in 1875, in which a series of empty test tubes were inserted through the bottom of a closed box, the interior of which had been coated with glycerine. After some days the tubes were charged (by means of a pipette passed through the top of the box) with putrescible fluids of the most varied kinds. The contents of the tubes were then boiled from below the box. No putrefaction ensued, the bacteria within the box having previously subsided in the still air and become fixed to the glycerine coating the interior.

This striking experiment redemonstrated the truth that the agents causing putrefaction were particulate; and, as no change had been produced in the air itself by any previous treatment, that the air *per se* was impotent to incite this change. Every one of these experiments was of the greatest value, and yet, it must be allowed, they did not all together demonstrate enough to furnish a completely logical basis for the promulgation of the New Surgery, since the matter of the experiments was not exactly comparable to what obtains in the case of a wound or other injury. They proved that putrefaction was set up by bacteria introduced into fluids previously sterilized by heat, but they did not meet the question whether bacteria might not, in the case of a surgical injury, come from within; whether infection might not be autogenous. Herein lies the high importance of Lister's experimental contribution to this subject.

He made one communication only to the *Transactions of the Pathological Society of London*, namely, that on Lactic Fermentation in vol. xxxix, 1878, and in this he described, for the first time in its fullness, the method he adopted. The experiments were conducted by receiving human urine or cow's milk into a sterilized flask of particular form (Lister's), and then decanting the fluid into a series of sterilized liqueur glasses furnished with glass caps and stored under glass shades. The result was to prove that the milk from a healthy cow, "like urine from a healthy bladder, contains no material capable of giving rise to any fermentative change, or to the development of any kind of micro-organisms which we have the means of discovering." The same he had found true of blood. It was clear from this corroboration of clinical evidence, that autogenous infection—disallowing that from a cutaneous source—must be regarded as occurring only in exceptional cases; that in the healthy individual it did not arise; and that if the entry of bacteria from without could be obviated, there was little to fear on the side of infection from within.

Let me conclude with a word on the application of this varied knowledge in practice. Of all Lister's surgical antagonists, the most critical and the greatest was Sir William Savory; and it is interesting for those who followed this controversy through, to study it in the light of what we now know, and endeavour to analyse it. Savory's ideal was aseptic surgery, in contrast with the antiseptic system as it was then practised by Lister.

His cardinal argument ever was, that any germicide sufficiently powerful to kill the bacteria in a wound must of necessity be strong enough to damage the living tissues, and by doing this, reduce the local resistance and bring about the very disaster which it was the object to avert. Nothing could be sounder than such teaching, one thing always provided—namely, that every instrument used be bacteriologically clean, and every manipulation carried out keeping clear of septic contacts. The true significance of this Savory never acknowledged. He never came to allow the truth that what was called in a general way cleanliness, unless it were rigidly bacteriological, meant little or nothing. He trusted to the resistance of the tissues concerned, as to something in itself all-sufficient to withstand infection. But that he dared not rely in practice upon such an academic hypothesis is obvious from the fact that even in the last course of his lectures on surgery, his teaching still remained—that it was unjustifiable, for example, to operate upon an ununited fracture by reason of the uncontrollable risk it involved. As an historical fact, it admits of no contradiction that in the development of surgical science, aseptic was reached only through antiseptic surgery.

TRIBUTE FROM A GLASGOW PUPIL.

Dr. WILLIAM N. MACCALL (Southport) writes:

I wish to add my testimony from personal experience to the beauty of character of my dear old friend and master who has passed away at a ripe age, honoured by all the world. Of all my teachers he is the one I most admired; who by his example, even more than his teaching, inspired me to aim at a high ideal in personal and professional conduct.

I began my medical studies at the University of Glasgow in 1863, a silent and rather shy lad, not quite 18 years old. Lister noticed this, and in the most kind-hearted way gave me every opportunity and encouragement to show what was in me. Gratitude for this kindness became converted into sincere personal attachment, deepening as the years of almost daily intercourse revealed to me the inner beauties of his nature. He had the Quaker straightforwardness and earnestness, tempered in its expression by a very tender heart. He was very fond of children, as was constantly shown in his ways with them in the wards. His smile when speaking to the little ones made his fine face positively beautiful.

He was rather reticent by nature, but perhaps the most outstanding characteristic of this great man was his extreme modesty.

In the hospital (the Glasgow Royal Infirmary) he had usually a smaller following than the other surgeons. He was less popular with the students than the more showy or brilliant operators. He was not rapid, but very careful and thorough—after all, in these days of anaesthetics, the more valuable qualities. But we who constituted his regular followers made up for any deficiency in numbers by our whole-hearted enthusiasm.

I attended my first course of lectures on systematic surgery in the winter of 1864–5, and took almost verbatim notes, which lie before me now. One point is worthy of mention. In speaking of the enormous difference of fatality between simple and compound fractures he is still of the old school, saying it is due somehow to the admission of air causing putrefaction, etc., with such a risk of fatal blood poisoning that it was better in any serious case to amputate, as the probable result of attempting to save the limb would be to lose the patient.

I may, I trust, here interpolate another instance of his kind-heartedness. I had come out first in his class examinations, but was in bed from the results of a chill. Lister, finding I had not answered to my name, and learning the cause, drove to where I lived, bringing certificates, etc., congratulated me heartily, and spent half an hour at my bedside with kind and cheering talk.

In the next year's course, 1865-6, there was a clear foreshadowing of his great discovery in the fullness and care with which he expounded the researches of Pasteur—proving that it was the admission of *germs* carried by the air that caused putrefaction.

I was dresser to Lister for two periods, during one of which the awful mortality from hospital gangrene and pyaemia occurred, finally necessitating the cessation of all operations—an unforgettable experience.

I graduated in May, 1867, and was resident in the Royal Infirmary for about eighteen months following, during which the antiseptic treatment was developing, under the hands and brain of Lister. He often said, "Perfection we cannot attain, but we must constantly strive after it."

I watched it all during that period, helped in it wherever time and opportunity allowed. I became and remain his enthusiastic disciple, carrying out his principles in hospital and private surgery. Antiseptic treatment has become *aseptic*, but the principles are the same.

FAMOUS OPERATIONS.

Dr. FREDK. W. WRIGHT (London) writes:

As a spectator of many of the brilliant surgical operations performed by Mr. Syme in conjunction with the late Lord Lister, I may mention one, not recorded by the late Professor Annandale, namely, the opening of the sac of a traumatic aneurysm of the gluteal artery as it emerges from the pelvis upon the innominate bone. The patient had sat down upon the point of one of the expanded blades of a pair of scissors. I remember well the breathless suspense which oppressed students, as well as the medical element of the professors, at the moment when the knife was plunged into the huge sac, and the relief that was felt when, a few minutes afterwards, ligatures had been applied and the patient was removed to his bed. I saw during the same session the similar operation on the left carotid—referred to by Annandale—for traumatic aneurysm. The prolongation of the operation in this case arose from the difficulty of placing the ligature around the vessel, owing to its course beneath the clavicle. And I well remember the question occurring to me, "Why not cut through that bone and turn the ends aside?" I imagine this would be done in present-day practice. Some time after this I witnessed the two great surgeons ligature the abdominal aorta at its middle part. At all these operations, and many others of less importance, the late lamented Sherlock Holmes was the omnipresent house-surgeon.

A CLERGYMAN'S TRIBUTE.

At the memorial service held in Edinburgh the Rev. Dr. WALLACE WILLIAMSON delivered an address. He said his words would be few, and he hoped not unworthy of the man whose character, as he said of his own father, was marked by "a most rare modesty and Christian humanity." He proceeded: "It is not merely sorrow, but a certain proud gratitude, that brings us together within this church to-day. A great and good man has passed from among us. The world is poorer now he is gone; but his memory and his work remain—a permanent possession, a stimulus to workers in every field of human effort, and an abiding blessing to suffering humanity. Of Joseph Lister's winsome personality, those speak most warmly who knew him best. It was his gentleness, above all, that made him greater. His very presence was a spiritual force. Clear-eyed and pure of soul, he cherished from earliest days that love of truth which guided him to the end. His noble passion for humanity extinguished all thoughts of self and personal fame, impelling him along that path which he steadfastly pursued till he found the secret of his search, and bestowed on the world probably the greatest boon which science has been able to win for the physical life of mankind. Yet greater than his greatest achievement was the man himself, and the final secret of his greatness was that serene simplicity which was his most distinguished characteristic. This was indeed the true basis of his strength, alike in his character and his work. To his love of truth he added a fine human sympathy, which not only quickened his insight but added grace and tenderness to his bearing. His was the grave and thoughtful courtesy which bespoke the Christian gentleman and the earnest lover of his kind. Hence we are not surprised to learn how he stirred enthusiasm and moved men to reverence, how he gained such love and affection as rarely falls to a scientific teacher. Behind his acknowledged mastery of his science, his grave and noble face, marked by 'soft lines of tranquil thought,' revealed a soul of singular beauty and sweetness, of high integrity and stainless honour. That such a man, dowered with God's gift of genius, should rise to lofty heights and achieve great things was inevitable.

Now that he has gone, we remember with thankful and grateful hearts how nobly he used his gifts and how splendid his contribution has been to the world. Even those of us who have no technical knowledge of surgical science can deeply appreciate the meaning and far-reaching influence of his work. Little more than a generation ago the realm of surgery was like an unexplored country where the traveller had to make his way as best he could without clear guidance or any certainty of direction. It is a realm unquestionably where chance ruled. The application of anaesthetics had doubtless lightened the surgeon's task and widened his field, but the dangers associated with his art were correspondingly increased. To the genius and unwearied patience of Lister humanity owes its deliverance almost entirely from these dangers. The surgeon works under conditions which not only inspire confidence but substitute certainty for guesswork. Mortality under operation has been decreased to an extent that seemed almost inconceivable. Well has he earned the name appropriately given to him of 'the great life saver,' and there is probably no exaggeration in the statement that already he had been the means of saving and prolonging to their normal term more lives than all the wars of the nineteenth century had destroyed. Such lives have not only been prolonged but saved from an end that almost inevitably involved grievous suffering and agony. It is

this broad fact which appeals to the world to-day. Not only has the noble science of surgery been revolutionized, but there has been brought to myriads of human sufferers the blessed hope of relief from pain; to the soldier on the battlefield, whom the old methods consigned to mutilation or lingering death; to the workers in our mines and factories and furnaces; to all who are exposed to the numberless dangers of modern civilization. The whole world stands debtor to Joseph Lister to-day. The whole world offers grateful homage to his memory. It is in this spirit we meet to-day. In humble gratitude for a whole life devoted to the highest and purest aims, for the splendour of his example, for his courage and tenderness, as well as for his undying gift to humanity, we bid him a proud farewell, looking for that blessed and immortal life where pain is unknown, where sorrow and sighing shall flee away."

THE CHAIRMAN OF ABERDEEN DIVISION.

At a meeting of the Aberdeen Division of the Aberdeen Branch held at Aberdeen on February 16th, Dr. JOHN GORDON, who presided, made the following reference to the death of Lord Lister:

You will, I am sure, allow me in a few words to recall to your memories the memorial service which to-day has taken place in the world-famous Abbey of Westminster, wherein lie many of the most gifted of the British race. This solemn service and thanksgiving have taken place for the gift to the world of such a man as Lord Lister, who was set aside to bring the service of science to the meanest or the noblest of his fellow-men, to ameliorate their pains, to rescue them from certain death, and to restore them to strength and to duty. Full of fame, honours, and, above all, the delights of seeing for many years constant growth of the healing power of his labours, and knowing also that as the years sped onwards those investigations could but further swell into a full-fed river of help, bringing more and more gifts to humanity, he passed full-orbed to his long sleep. With that simple modesty which is so often the gift of the truly great, he elected that he should finally rest amongst his own people. Such men as Lord Lister belong now to the immortals; and our profession is proud that it is able to count another of its sons in that Valhalla where the corroding fingers of time cannot disfigure the freshness of their immortality. Such men as Joseph Lister have no graves except in the hearts of the countless men and women who have partaken, and will partake, of their healing gifts. The methods, applications, and details of the work of Lord Lister have changed, and will change, but the central idea which illumines all his discoveries is founded on scientific verities, and the savants of all nationalities recognize that such is the case. His methods revolutionized surgery. He robbed it of the terrors which in his day attended every operation, and so often ended in disaster. He made surgery a ministering servant, alert with deeds of kindly daring, helpfulness, and health. To you, as medical men, the mere mention of Lord Lister opens avenues of thoughts which lead you into lands which not long ago were unknown territories. We honour, we revere, and we are proud of the man who quietly, patiently, but steadily, trod the paths which led to aseptic surgery. With sorrow, which is entwined with reverent pride, in your name and my own, I lay this spray of thought before the deathless memory of the master.

THE HOUSE WHERE LISTER WAS BORN.

The Rev. F. TH. HODGKINSON (St. Peter's Vicarage, Upton, Essex), writing in the room in which Lord Lister was born on April 5th, 1827, says: The house is now the Vicarage, and the Church of St. Peter is built upon a portion of the garden in which the great surgeon played as a boy. To the completion of this church Lord Lister himself contributed a few years ago. Mr. Hodgkinson suggests that it would be a fitting place for a memorial to him, and that the best form that the memorial of one who did more than any other man has done to alleviate suffering and to save human life would be a rood screen with the figure of the Saviour of the World. To this, he says, the character of the church is peculiarly adapted. Mr. Hodgkinson continues:

We are all poor people here, and cannot carry out our wish unaided. I therefore ask you of your courtesy to allow me to appeal through your columns to every one who has undergone an operation under antiseptic conditions to send me a donation for this purpose as a thank-offering for the benefit received, and to perpetuate, on the scene of his birth, the memory of one who has placed the whole world under an obligation.

A GRATEFUL PATIENT.

Mr. C. E. GREENWOOD (Beckenham) writes: I have just been reading with deep interest your account of Lord Lister, and venture to send you a few reminiscences of a mere layman.

It was in February, 1878, just thirty-four years ago, that Lord Lister twice operated on me for a large abscess in the liver—first by tapping, and afterwards by opening the liver and inserting a drainage tube, the copper kettle with carbolic spray being used. When Lord Lister emptied the tube of the syringe, he held the blood clot in his fingers and said to Dr. Murchison, who was present, "Now, if we were quacks we could say this was the worm that had done all the mischief."

After he had put in the drainage tube and strapped me up with the yellow sticky carbolic gauze, he wiped his neck with his pocket-handkerchief; and a friend told me afterwards, "That is his thorn in the flesh; whenever he operates, he always perspires profusely."

I said to Lord Lister one morning, "I think it must be much easier for you to cut into a soft part like the liver, than to cut where there are a lot of hard bones like the knee-joint." He looked at me with a smile, and replied, "Sir, your ideas are very crude," and they certainly were!

When quite recovered, I asked him what his fee was, and said I was only a poor clerk on a small salary, and in the kindest manner he at once said, "Give me £5, that will be sufficient," and I gratefully thanked him, knowing that his true fee was nearer twenty times that sum. He was indeed a prince among men.

THE CATGUT LIGATURE.

Dr. HECTOR C. CAMERON (Glasgow) writes:

In your issue of February 17th, p. 402, a letter appears from Dr. Thomas Fielding, of Bournemouth, calling attention to an error which he believes I have made on two occasions in accounts of Lord Lister's work published in your JOURNAL. This error consisted, in his view, in my having mentioned the year 1868 as the date of an experiment of tying the carotid artery of a calf with carbolized catgut. Dr. Fielding believes that the experiment was performed a year earlier.

If, however, he will be good enough to look at Lord Lister's original communications on the subject (*Lancet*, 1869, vol. i, p. 451, reprinted in *The Collected Papers*, vol. ii, p. 86) he will learn that it is he, and not I, that is in error. If we trust to our unaided memory in regard to dates and references of events which happened forty-five years ago, instead of betaking ourselves to original sources of information, it is apt to play us strange tricks. I am not, therefore, surprised at Dr. Fielding's memory having deceived him in this matter.

*** The following extract from a paper by Lord Lister, first published in the *Lancet*, 1869, vol. i, p. 451, and reprinted in his *Collected Papers*, p. 93, proves the date of the experiment referred to:

"In order to put the antiseptic animal ligature fairly to the test, I made the following experiment:

"*Ligature of the Carotid Artery in the Calf on the Antiseptic System, with Threads Composed of Animal Tissue.*—On December 31st, 1868, I tied the right carotid artery about the middle of the neck in a healthy calf a few days old, the animal being under chloroform. Ligatures of two different kinds were employed, at an interval of about an inch and a half, the sheath of the vessel being left undisturbed in the intervening part. The cardiac ligature was of home manufacture, composed of three strips of peritoneum from the small intestine of an ox, firmly twisted together into a three-fold cord. The distal thread was of fine catgut, called 'minikin gut' by the London makers. Both had been soaked for four hours in a saturated watery solution of carbolic acid, which swelled and softened them, so that the thread of my own making was too large to enter the eye of the aneurysm needle except near the ends, where it was thinner than elsewhere. This substantial ligature bore the strain of tying well, but the fine catgut broke as I tightened the noose. I did not, however, remove it, but, having a second piece at my disposal, passed it round at the same place, and with gentle traction completed the knot. There were thus two

ligatures of the fine gut at the distal site. All were cut short, except one end of the catgut, which I purposely left about three-quarters of an inch long, to give a better opportunity of ascertaining what would become of the foreign material. The antiseptic arrangements were as follows: Before the operation the hair of the part was cut short, and a solution of carbolic acid in four parts of linseed oil (preferred for its cheapness) was rubbed well into the skin, to destroy any putrefactive organisms lying amongst the roots of the hairs; for any so situated might escape the action of the external antiseptic dressing, and communicate putrefaction to the discharges, and thence to the interior of the wound. The sponges used in the operation were wrung out of a watery solution of the acid (1 to 40), and all the instruments introduced into the wound, together with the fingers of my left hand and the copper wire used for sutures, were treated with the same lotion, some of which was poured into the wound after the introduction of the last stitch, at one of the intervals left for the escape of discharge, to make sure against the chance of any fresh blood which had oozed out during the process of stitching having regurgitated and taken living germs in with it. The external dressing was a towel saturated with the oily solution, folded as broad as the length of the neck, round which it was wrapped so as to extend freely beyond the wound in all directions, prevented from slipping backward and forward by being stitched to a halter round the head, and to a girth behind the forelegs, while a bandage rolled round it kept it applied accurately to the surface. A sheet of gutta-percha tissue, to prevent contamination of the antiseptic towel from without, and another roller, completed the dressing; and a 'cradle' was placed upon the neck to check lateral movements which might disturb it. I have described these particulars because I am more and more convinced of the necessity for scrupulous attention to details, such as the germ theory dictates, in order to attain anything like uniformity of successful results."

COMMITTEE ON TUBERCULOSIS.

THE Chancellor of the Exchequer is appointing a Committee to report at an early date upon the consideration of general policy in respect of the problem of tuberculosis in the United Kingdom, in its preventive, curative, and other aspects, which should guide the Government and local bodies in making or aiding provision for the treatment of tuberculosis in sanatoriums or other institutions or otherwise.

The Committee will consist of:

WALDORF ASTOR, Esq., M.P. (Chairman).
CHRISTOPHER ADDISON, Esq., M.P., M.D.
N. D. BARDSWELL, Esq., M.D., Medical Superintendent of the King Edward VII Sanatorium, Midhurst.
DAVID DAVIES, Esq., M.P., President of the King Edward VII Welsh National Memorial Association.
A. MEARNS FRASER, Esq., M.D., Medical Officer of Health, Portsmouth.
A. LATHAM, Esq., M.D., Physician at Mount Vernon Hospital for Consumption.
W. LESLIE MACKENZIE, Esq., M.D., Medical Member of the Local Government Board for Scotland.
J. C. MCVAIL, Esq., M.D., Medical Member of the National Health Insurance Commission (Scotland).
W. J. MAGUIRE, Esq., M.D., Medical Member of the National Health Insurance Commission (Ireland).
Sir GEORGE NEWMAN, M.D., Chief Medical Officer of the Board of Education.
ARTHUR NEWSHOLME, Esq., C.B., M.D., Medical Officer of the Local Government Board.
JAMES NIVEN, Esq., LL.D., M.B., Medical Officer of Health, Manchester.
MARCUS PATERSON, Esq., M.B., Medical Superintendent of the Brompton Hospital Sanatorium, Frimley.
R. W. PHILIP, Esq., M.D., Honorary Examining Physician, Queen Alexandra Sanatorium, Davos, and Physician of the Royal Victoria Consumption Hospital, Edinburgh.
H. MEREDITH RICHARDS, Esq., M.D., Medical Member of the National Health Insurance Commission (Wales).
T. J. STAFFORD, Esq., C.B., F.R.C.S.I., Medical Member of the Local Government Board for Ireland.
Miss JANE WALKER, M.D., Medical Superintendent of the East Anglian Sanatorium, Nayland, Colchester.
J. SMITH WHITAKER, Esq., Medical Member of the National Health Insurance Commission (England).

The Secretary to the Committee will be F. J. Willis, Esq., one of the Assistant Secretaries to the Local Government Board.

LITERARY NOTES.

IN a note in this column, which was published in the JOURNAL on February 17th, p. 378, we spoke of St. Edmund the Confessor. It should, of course, have been St. *Edward*. To historically-minded readers we apologize for the *lapsus calami*.

It has often been said that Lord Lister came of a medical family, and it is a fact that several persons of the name have been men of note in the profession. Edward Lister, educated at Eton and Cambridge, was a physician to Elizabeth and James I, and his younger brother, Sir Mathew, filled the same office to Anne of Denmark, James I, and Charles I. Martin Lister, son of Sir Martin and nephew of Sir Mathew, second physician to Queen Anne, was a well-known zoologist in his day. We believe that no connexion can be traced between these Listers and the great man who has recently passed away. We remember once, when reference was made to this supposed ancestry, he took occasion to state that it was a myth.

A Belgian medical journal deplores the death of "Sir John Lister." Such is fame. As Byron says in *Don Juan*:

> Thrice happy he whose name has been well spelt
> In the despatch: I knew a man whose loss
> Was printed *Grove*, although his name was Grose.

It was so printed in the *Waterloo Gazettes*. Grose was a college friend of the poet.

Mr. Heinemann will publish shortly *Animal Life in Africa*, by Major J. Stephenson-Hamilton, F.R.G.S., descriptive of the fauna of the Ethiopian region. Major Stevenson-Hamilton is Warden of the Transvaal Game Reserves, and consequently has had exceptional opportunities for the compilation of such a work. The volume has a preface by ex-President Roosevelt. For immediate publication on Mr. Heinemann's list is a work entitled *Microbes and Toxins in Nature*, by Dr. Barnet, of the Pasteur Institute, with a preface by Professor E. Metchnikoff, author of *The Nature of Man*. This book is a summary of all our present knowledge of the subject. Throughout the descriptions conform to the teaching of Professor Metchnikoff and his pupils.

The March number of *The Highway*, the organ of the Workers' Educational Association, will contain an article from the pen of the Right Hon. Sir John Gorst, on "The Failure of National Education." The writer attacks the national system as "a waste of money and energy." He attacks "higher education," as well as "cramming" and the examination system. The article seems likely to evoke considerable criticism from educationalists throughout the country.

Our readers, who are always eager to hear of some new thing, will doubtless learn with interest about manual auscultation, which is spoken of by M. Marcel Prévost, a member of the Académie Française. In his novel, *La Princesse d'Erminge*, he tells of a medical examination of the princess, who fears that she is pregnant. The doctor, first with the hand, then with the ear, "auscultated" her. (*D'abord de la main, puis de l'oreille, il l'ausculta.*) Unfortunately the author does not describe the procedure more in detail. Beside this we may put another novel method. Among testimonials as to the value of a "stethophone" which have been sent to us, we find one from a distinguished physician which is remarkable enough to deserve quotation. He says: "The great advantage the instrument has over ordinary stethoscopes is that it can be successfully employed to osculate through the dress." Perhaps some might prefer direct "osculation," but the stethophone has at least the advantage that its use will not bring a blush to the cheek of modesty. "Oseulation" is worthy of Mrs. Malaprop.

The death of Dr. Triaire of Tours, which has recently occurred after a long illness, is a loss to medico-historical literature. He was the author of works on Bretonneau and his contemporaries, including Velpeau and Trousseau; on Larrey, the famous surgeon of the Grande Armée; and on Récamier, whose name is associated with the vaginal speculum. Dr. Triaire had collected a large number of notes relative to Guy Patin, and had published one volume of a definitive edition of his letters—a work which, it is to be feared, remains unfinished.

British Medical Journal.

SATURDAY, FEBRUARY 24th, 1912.

THE MAKER OF MODERN SURGERY.

There have been few funerals in Westminster Abbey so impressive as that of Lord Lister, and it is probable that no professor of the art of healing has ever been buried with such signal marks of honour. Those who gathered in that shrine of the illustrious dead included not only representatives of every branch of his own profession and the chief scientific bodies throughout the world, but of crowned heads and of the Governments of nearly every civilized country. It may be doubted whether Lister himself would have cared for the pomp of his obsequies, but it was a spontaneous tribute of respect to a man whose work for the welfare of humanity had made his name a household word far beyond the narrow boundaries of the scientific world in which he lived and toiled. He did not seek for fame, but for truth. The fame that came to him he accepted rather, we imagine, as a public testimony to the value of his work than as a personal compliment. So it was of the honours that were showered upon him. They all set the seal of official recognition upon his achievement and as such they were probably welcome. But for mere titles and decorations in themselves no man ever cared less. To him his work was its own reward exceeding great.

Of the simple dignity of his life, his courtesy, consideration, and kindness to all without regard to social importance, it is needless to speak. Traces of his Quaker origin may be found in his dislike of controversy; like Darwin he left his disciples to do battle against his opponents. Serene and unmoved by the scoffs of ignorance, he continued his work, unshaken in his pursuit of the aim he had set before him. It has been said that genius is naturally self-assertive; this was not so in the case of Lister. "His soul was like a star and dwelt apart." In his work his most marked characteristic was the inexhaustible patience that he brought to the solution of every problem with which he was confronted. He would carry out a series of researches extending over many years, and he thought no detail in the work beneath his notice. Nothing would satisfy him but the fullest demonstration of principles and the utmost attainable perfection in their application. His *Collected Papers* are a record of gropings through the darkness of traditional error and the pitfalls of fallacy that lie about the feet of the investigator. He was ever ready to abandon a method which had proved disappointing, and to begin anew the slow work of research. Of his conscientiousness we ourselves have often had inconvenient proof in his drastic revision of proofs; he would not allow anything to see the light before it had been made to express his meaning with the most meticulous accuracy.

Greater even than Lister's genius was his humanity. In his enthusiasm for the cause he had at heart he never forgot the individual sufferer, and innumerable stories are told of his kindness of heart. Of his gentleness to his assistants—a quality none too common among great surgeons—we need only mention one instance, which was related to us by the person concerned. At a critical stage in an operation the house-surgeon was guilty of a slight remissness which might have caused disaster. Lister only looked at him with an expression of mild reproach, and said in a low voice: "Oh, Smith!" (that was not his name). The man, who has long been dead, told us that this reproof sank deep into his heart, and made of him a better man as well as a more careful surgeon.

When Napoleon heard the name of any one for the first time, he used to ask: "*Qu'est ce qu'il a fait?*" If any one were to ask this question with regard to Lister, the answer would be that he has been the means of saving more lives than Napoleon's ambition destroyed. And his beneficence will go on, producing ever greater and more far-reaching results, whilst Napoleon's activity has left little or no enduring mark on the world. The name of Lister denotes an era; the history of surgery is divided into two parts—before Lister and after Lister. This single fact indicates the greatness of his achievement.

Of the opponents who, doubtless with honest conviction, decried his work, many lived to be converted by the irresistible logic of facts; the others are forgotten. Lister was not the first to use a form of antiseptic treatment in cases of compound fracture. Percivall Pott says:[1] "The Baron Van Swieten, writing as many others have done—that is, theoretically, on surgery—advises us in the case of very bad compound fractures, which may most probably require amputation, to defer operation until we have tried the force of antiseptic fomentation, and applications of like kind, for two or three days; and this opinion and advice he builds, in some measure, on a remarkable case of La Motte, in a seemingly desperate case of a man's leg smashed by the wheel of a heavy carriage." How little Pott approved of this suggestion may be gathered from his comment on this case: "That La Motte's patient escaped I make no doubt, because he has said so; but the surgeon showed much more rashness in attempting to save such a limb than he would have done in the amputation of it; the operation would have been the more justifiable practice."

Nor was Lister the first to use carbolic acid as a surgical application. Moreover, he at first insisted on an elaborate ritual, which further experience showed him to be as unnecessary as it was clumsy and irksome to the surgeon. But though changes in details were made as knowledge grew, the principles enunciated by Lister remained unaltered. Aseptic surgery is a natural and logical development of the antiseptic system. They are not, as some ill-informed or prejudiced critics contend, two different things, but the outcome of the continuous evolution of a great conception. That Lister found the clue to the nature of the process of healing for which he was looking in Pasteur's discoveries as to micro-organisms does not in the least diminish his originality; these discoveries had been before the world for years, but no one had seen their possible application to surgery. When he learnt of the work of Semmelweis, Lister at once acknowledged the merits of that ill-fated reformer as a pioneer in the same path of discovery that led himself to such great results.

What he accomplished is perhaps best shown by the fact that so late as the mid-Seventies Sir John Erichsen, one of his teachers, said in a public address

[1] Footnote to p. 350 of his Remarks on Fractures and Dislocations: *Chirurgical Works*, vol. i. London, 1808.

that operative surgery had at that time reached finality. There were, he said, regions in the human body into which the surgeon's knife could never penetrate—the brain, the chest, and the abdomen. All these secret chambers of the house of life have long since been brought within the province of surgery, and this enormous advance of the healing art has been made possible by the work of Lister. And that work will continue to make practicable further extensions to a degree we can only dimly surmise. Vast as is the range of modern surgery, it may be said with Dante Gabriel Rossetti, that "Leagues beyond these leagues there is more sea."

"SANATORIUM BENEFIT."

THERE is little doubt that the introduction of tuberculosis into the Insurance Act, and the promises which seemed to be implied in relation to prevention and treatment, were responsible for not a little of the enthusiasm with which the bill was greeted. It may be feared that this widespread popular sympathy, together with the concentration of criticism on other provisions of the bill, permitted it to be passed into law with less exhaustive examination of the tuberculosis provisions than might have been desirable in the interests of the subject itself.

Now that the measure has been passed and the duty of interpreting and administering its provisions has fallen on the Insurance Commissioners, it is well that we should seek to realize what the provisions really are, and how far they go.

"Sanatorium benefit" is granted, under certain conditions, to certain groups of insured persons and, by extension, to their dependents. What is to be understood by "sanatorium benefit"? For the persons referred to, sanatorium benefit covers treatment in sanatoriums or other institutions or otherwise, when suffering from tuberculosis or such other disease as the Local Government Board, with the approval of the Treasury, may appoint. This is wide enough and elastic enough.

Two points are especially worthy of note. In the first place, it is made possible to construe all the special benefits granted in relation to tuberculosis, in relation to such other diseases as the Local Government Board, in consultation with the Treasury, may determine. The vista of possibilities is immense. There lies in embryo maintenance or municipalization of hospitals, and indeed the establishment of an extensive State service of doctors. There seems to be no limit. It may be hoped that the two final authorities —the Local Government Board and the Treasury — will content themselves for the present with a more restricted experiment.

The other point of far-reaching importance is that the reference to sanatorium benefit is not limited to sanatoriums as such. The benefit may be given in other institutions "or otherwise." This opens up the question of the treatment of tuberculosis in the widest sense. The extraordinary variability of type and clinical manifestation presented by tuberculosis is inadequately realized by the public. Some conditions may be for the moment of relatively slight importance, while others are most grave. Between these limits there is an infinite variety of type.

Yet every case of tuberculous infection is potentially significant. In the early days of infection it is impossible to say which are to be the serious cases and which will abort. From that point of view it is right that all tuberculous disease should be included in the scheme. But what a vast array! We doubt if Mr. Lloyd George or his advisers have quite appreciated what it means. Evidence is rapidly accumulating which shows that under present conditions of environment the majority of individuals become infected as children. The manifestations in childhood are most various. As sanatorium benefit is to be extended to the dependents of the insured person, the institutions to be provided begin to assume formidable proportions. If the benefit is to be wisely directed, there must be discriminating classification of the patients with suitable adaptation of institutions.

Were the provision of sanatorium benefit limited to cases of pulmonary tuberculosis, the difficulty would still be great, and the possibility of error large. Let us take this simpler aspect first. Even in pulmonary tuberculosis there is a wide diversity of clinical type—from the acute case running its fatal course in eight to twelve weeks, to the chronic case which may last thirty years or more. From the public health standpoint, there is the essential difference between so-called "closed" cases of tuberculosis (that is, without discharge) and "open" cases (that is, with expectoration or other infective excrementa). The problem of tuberculosis, as it occurs in persons living or working in more or less crowded quarters, is a different matter, both for the individual himself and for those around him, from that of tuberculosis occurring in the individual who leads a relatively isolated existence.

It is evident that there are many persons suffering from pulmonary tuberculosis who may be treated at home safely and satisfactorily, if only the methods to be followed are fully understood. There are still more who might be treated at home, if the individual were taught to recognize how largely tuberculous disease is influenced by unhealthy environment, and if such unhealthy environment could be corrected. For the latter group, the educational advantages of temporary residence in a sanatorium are great.

On the other hand, there are numerous patients whose best hope of successful treatment lies in prolonged sojourn in a sanatorium. The progress towards recovery is slow and gradual, from the time when perfect rest is needed, through the period of skilfully selected postural and respiratory exercises, up to the highest stages of working activity. If it is to be effective, the long process must be carefully adapted and rearranged from time to time according to the multiform peculiarities of the individual case.

Then there are, unhappily, crowds of patients already on the downhill grade who will ultimately die, the fatal illness being of extremely varying duration. For such persons suitable provision must be made during the whole period of illness, often in their own interest, and still oftener in the interests of others. Lastly, there are those who, having regained health at a sanatorium or otherwise, require much after-care—require perhaps a complete change in mode of life and occupation, if the recovery which has been achieved is to be maintained.

All this means exact clinical differentiation. If this be not attained, there will be confusion. So-called sanatoriums will be filled with an indifferent collection of patients in all kinds of stages. The hopeful will be merged with the less hopeful, and even with the hopeless. Prognosis and treatment will be confused. Both the patient and the doctor will suffer from the confusion. Finally, the sanatoriums themselves will be clogged with cases of advanced disease, and the calculated supply and exchange of patients will be jumbled and blocked.

Such considerations give occasion for pause and fresh thought. What are we doing to limit the production of cases? Most of the advanced and dying

cases of to-day were once in the early curable stage. If tuberculosis is, as more recent observations go to show, acquired for the greater part in childhood; if the tuberculosis of the adult is often, or even sometimes, but the efflorescence of a long antecedent inoculation, it ought to be recognized at the seedling stage and the later harvest prevented.

Such thoughts serve to show how wide is the issue before the profession and the nation. We dare not overlook environment as a continuous morbific factor, the baneful influence of which must be annulled if the supply of tuberculous cases is to be stopped. With regard to the cases which already exist, we must determine how to handle them effectively and economically at their several stages, so as to achieve for the individual the *optimum* result of treatment and for the community the *minimum* of disadvantage, on the one hand, from the disturbance of working capacity, and on the other, from the risks of infection.

To meet the vast issue certain moneys have been earmarked. Thus, for the erection of sanatoriums —using the term in the large sense already indicated —a million and a half was voted by the Finance Act of last year out of the Sinking Fund for the year ending March 31st, 1911. That sum stands to-day to the credit of the nation, to be distributed by the Local Government Board between England, Scotland, Wales, and Ireland, in ratio to the population of these countries as ascertained at the census of 1911. The distribution is to be made by the Local Government Board with the consent of the Treasury, which, before giving consent, must have consulted the Finance Commissioners.

For the maintenance of sanatoriums (in the large sense) the provision under the Act would be elastic. The primary source would be (*a*) the amount paid or credited in respect of sanatorium benefit, at the beginning of each year to the local Insurance Committee concerned, by the Insurance Commissioners out of the National Insurance Fund. Such amount would be the aggregate of 1s. 3d. for each insured person within its area; (*b*) the amount credited to the local Insurance Committee for the same purpose by the Insurance Commissioners out of the moneys provided by Parliament. Such amount would primarily be the aggregate of 1d. for each insured person within the area in question, but the whole or any part of it might, at the discretion of the Insurance Commissioners, be withheld for purposes of research. A secondary and contingent source would be sums provided in the following way: If in any year the amount available for sanatorium benefit were deemed insufficient to meet anticipated expenditure, the balance required might be provided (with the approval of the Treasury and the county council concerned) half out of moneys provided by Parliament, and half out of the county or borough fund or rate.

It is devoutly to be hoped that before a penny is discharged in the interest of sanatorium benefit, either by the Treasury or by the Local Government Board, or by the Insurance Commissioners, most careful and full consideration will be given to the purposes of the expenditure. It is satisfactory, therefore, to find that the Chancellor of the Exchequer has appointed a large committee, containing a number of experts in the pathology and administrative treatment of the disease, to make a report on tuberculosis, for there is grave danger of rash expenditure, which will not only prove wasteful in high degree, but will neutralize, and even thwart, the benefit which a well-conceived scheme might effect.

If we turn for a moment to the conditions under which sanatorium benefit is granted, a number of difficulties emerge. As already pointed out, sanatorium benefit would be applicable under the Act to insured persons or the dependents of insured persons. Moreover, the antituberculosis measures, of whatever kind, could be applied to the given individual only on a specific recommendation by the local Insurance Committee that he was a fit person for its application. Those provisos were doubtless needful from the Chancellor's standpoint, which had regard to tuberculosis in a certain number of insured persons as being the most frequent cause of prolonged invalidity. Instead of handing the money to the invalid, the local Insurance Committee would expend it in his interest. The experience of German sanatoriums is in favour of the erection of properly equipped sanatoriums for the treatment of suitable cases, and the Insurance Corporations have found it to their advantage to erect these. But prolonged experience in Germany has emphasized the need of exact discrimination in the selection of cases to be regarded as suitable. The entrance to the sanatorium proper is there barred to several of the groups of cases of tuberculosis to which we have alluded. In other words, the sanatorium proper covers but a small proportion of a large field.

The statement that sanatorium benefit would include the establishment of all or any of the other institutions which might be necessary is somewhat misleading in the absence of guarantee that the necessary institutions will be provided. Unless the Insurance Commissioners be closely guided by skill and experience in this complex and difficult subject, the provisions of the Act may be construed in the limited sense of sanatoriums for a loosely defined group of consumptive patients. In other words, the larger outlook towards the eradication and prevention of tuberculosis will be obscured. This would be an immense pity. The prospect is the more disappointing because, thanks to the foresight and continuous effort of members of the profession, there has been evolved in the course of many years in Great Britain a co-ordinated system of antituberculosis activity which has been adopted as a model in many countries. It was no empty compliment that the great administrator of the antituberculosis movement in New York, Dr. Hermann Biggs, paid when he described the Edinburgh scheme as "directed by an unusually far-seeing and intelligent conception," and as "a comprehensive scheme covering all the phases of the problem, the best and most comprehensive scheme which exists." In that scheme the sanatorium, as such, finds an important, well-defined place. But the scheme includes much more. It includes the tuberculosis dispensary, with its immense possibilities of detection of early cases and of domiciliary investigation and direction, and the hospital for advanced cases, the open-air school for tuberculous children, the farm colony, and the tuberculosis laboratory, the several elements being closely linked to each other and related to the Public Health Department. One who has intimate knowledge of the scheme writes of it: "It cannot be too strongly emphasized that the strength of such a scheme lies especially in its organization and co-ordination. Each factor is, doubtless, of value. Each department has its own sphere of operations. As isolated elements, their possibilities are relatively limited. In proportion as the various departments are intimately connected and co-ordinated they each become more serviceable. The way to complete success in the campaign against consumption lies in the harmonious co-ordination of well-directed measures."

THE CINDERELLA OF THE MEDICAL SERVICES.

THERE can be no two opinions as to the vast strides made during the last thirty years in hospital equipment, to the great benefit of the patients in such institutions. It will doubtless, therefore, be a surprise to many to learn that there still exists an important class of hospitals, namely, those of the great Indian Army, which are practically in the same state in this respect as they were three decades ago, while even then they were far behind the times. That this is not an exaggeration will be clear from the following statement of indisputable facts. The barn-like structures which mainly serve the purpose of regimental hospitals for Indian troops are without a single stick of furniture beyond the bedsteads, there being neither a chair nor a table in the wards, much less bedside lockers, and no operation table is furnished. Even operating rooms have only very recently been provided for 7 out of over 100 hospitals, either the verandah or the open air in dust-laden places having to be used for all operations, however serious. No sheets or pillow-cases are provided, except occasionally out of regimental funds, and no hospital clothing; the sick suffering even from such communicable diseases as dysentery wear their own scanty clothing and take them back with them to their lines. Such a truly lamentable state of affairs is enough to take the heart out of all medical officers in military employ, and leave them no incentive to maintain and extend their professional knowledge, while it also seriously handicaps them in the treatment of the sick under their charge. The shock on first meeting with these conditions of work is not easily forgotten, although long familiarity and fruitless efforts to improve matters in time dull the finer senses.

Such a state of affairs in the twentieth century furnishes an overwhelming case for the introduction of some drastic change in the system which has allowed it to continue for so long. The report of the committee which met in Simla in 1910 under the presidency of Surgeon-General Sir C. P. Lukis, K.C.S.I., to consider the advisability of introducing the station hospital system for the Indian Army is therefore awaited with great interest, although it is understood that it is seriously handicapped in its work by being forbidden to suggest any increased expenditure. Apart altogether from the serious deficiencies already mentioned, the primary reason for the abolition of the present regimental system of distributing the I.M.S. officers in military employment is that the most senior lieutenant-colonel, on the eve of his promotion to the important administrative post of Principal Medical Officer, has precisely the same duties and responsibilities as the last-joined lieutenant, who relieves him of the charge of his regiment. During nearly thirty years' service he may have had none of the opportunities for acquainting himself with the numerous details of administrative work, such as are enjoyed by the more fortunate R.A.M.C. officers in command of a station hospital, or as Senior Medical Officer in a large military station. Again, the numerous more junior I.M.S. officers, who are qualified as specialists in different subjects, commonly seldom get an opportunity of holding such appointments, owing to being isolated in charge of a regiment in a small station; if they are fortunate enough to obtain a specialist appointment they may lose it on the transfer of their regiment to a new place. In consequence, the officers of the Indian Medical Service do not actually hold nearly the full number of posts they are entitled to. All this would be remedied by the introduction of the station hospital system. The change will necessitate the introduction of charge allowances for the command of station hospitals and of a fixed grade pay for the junior ranks of not less than they now obtain with the addition of their staff pay. At the present time, in consequence of the charge allowances for the command of station hospitals obtained by R.A.M.C. officers, some of them actually draw higher pay for temporary service in the tropics than equally senior I.M.S. men with continuous service in India; this is an anomaly which requires rectification. It is worthy of note that, although in the eulogistic references to the great reduction during recent years of the death-rate in the British Army in India, the work of the R.A.M.C. officers has rightly been praised, yet little or nothing has been heard of the equally good work done by the military branch of the I.M.S., labouring under the disheartening circumstances already described. Still, as a matter of fact, the reduction in the death-rate of the Indian troops during the last thirty years has actually been greater than among British troops in India. This is most remarkable evidence of the excellent work done by the military branch of the I.M.S., chiefly in the prevention of disease, and the fact deserves to be widely known. One of the principal reasons of the past neglect of this branch of the service is undoubtedly the fact that, although the post of Principal Medical Officer with the Government of India is nominally open to the I.M.S. equally with the R.A.M.C., yet as a matter of practice it is never held by an I.M.S. man; even such a distinguished and experienced officer as the late Surgeon-General Robert Harvey, after several years as Surgeon-General of the Punjab Command, was an unsuccessful candidate for the post. Consequently the officers on the military side of the I.M.S. never have the privilege of serving under a chief of their own service. Under these circumstances it is perhaps not surprising that the necessary expenditure on the R.A.M.C. hospitals leaves but few crumbs for the regimental hospitals of Indian troops.

It has recently been announced that the scheme drawn up by the Simla Committee, recommending the introduction of the station hospital system, has been ignominiously thrown out by the finance department; not because it will cost one penny more than the present effete system, but because it may lead to increased expenditure at some future date! To put the matter quite plainly, this means that an all-important administrative advance is to be indefinitely shelved, because if the station hospital system is once introduced it will be no longer possible to leave the equipment of the hospitals in their present archaic condition. Was ever a more lame and impotent decision arrived at? And this, too, in spite of the well-known fact that both the Director-General of the Indian Medical Service, who was president of the committee, and Surgeon-General Sir F. W. Trevor, K.C.S.I., who has just retired from the headship of the Army Medical Services in India, were both heartily in favour of the scheme, the latter having written strongly in its support in a memorandum issued on the eve of his retirement. Fortunately his successor, Surgeon-General A. T. Sloggett, C.B., C.M.G., is known to be equally in favour of the station hospitals, so that there is every reason to believe that greater attention will in the future be paid to the needs of the hospitals for the Indian Army, and that paltry financial considerations will not much longer be allowed to delay the inevitable adoption of the station hospital system, with the necessary corollary of a very material advance in the medical equipment provided for the needs of our brave Indian troops.

A HOME FOR THE UNIVERSITY OF LONDON.

IT will be remembered that just before Christmas the Royal Commission on University Education in London issued an interim report expressing the unanimous opinion of the Commissioners that the University of London should be recognized and accepted as a great public institution, and that it "should have for its head quarters permanent buildings appropriate in design to its dignity and importance, adequate in extent, and specially constructed for its purposes, situated conveniently for the work it has to do, bearing its name, and under its own control." The *Times* announced on Monday that a friend of university education in London has obtained an option from the Duke of Bedford of four plots of land lying immediately north of the extension of the British Museum recently completed. Facing the new north front of the Museum is a street, called British Museum Avenue, running northward to Torrington Square, and the site upon which an option has been obtained is the land extending to about two and a half acres on either side of this street. It is thought that it would provide a suitable site for the erection as detached buildings on either side of the avenue of a university hall, a senate house with offices, lecture rooms and laboratories, as well as quarters for the officers' training corps and common rooms. The site fulfils another of the conditions laid down by the Commissioners, inasmuch as it is a very central position, within easy reach of University College and King's College, and very well served by the means of public conveyances.

LOCAL SUPPORT OF UNIVERSITIES.

THE governors of the University College of South Wales and Monmouthshire on February 15th considered the return of grants made by local education authorities to the various universities and colleges. The document showed that the Treasury grants varied in proportion to the local support, and pointed out that the local authorities had not been as generous as they might have been. The grants made were very largely in the nature of a *quid pro quo* for free places in the college. Furthermore, it was urged that the grants had not been increased since the passing of the Education Act in 1902, although that Act enabled local authorities to grant aid to higher education. The Act also allowed a rate not exceeding 1d. to be made for this purpose. Principal Griffiths stated that the college received less State aid than any other university college in the kingdom, in proportion to the work done. Cardiff would not give a farthing rate, whereas in Liverpool, Bristol, Sheffield, and other towns, there was a penny rate, without the *quid pro quo* of free places. In connexion with this subject we may call attention to the remarks of Lord Haldane at the annual dinner of the Court of the University of Leeds on February 17th. After referring to his recent visit to Berlin, he said that one of the things to be learnt from the German nation was that in the application of science to industry the biggest men were those who could seize rapidly on the ideas which science gave, and transfer them into practice. It would not do for this country merely to copy: it must work out things according to its nationality and individuality, and it was working out to-day some very remarkable lines of its own. In Germany the enormous number of students of the middle classes in the universities and technical institutes was striking, but in this country something else had been done. If it was behind other countries in some respects it was ahead in one, inasmuch as it was bringing the influence of university life to bear upon the best brains in the artisan classes. The system of evening instruction distinctive of the newer British universities fitted in well with the remarkable aptitude of British workmen for producing, if only they got the chance, a quality of goods he thought superior, but at least equal to, the quality produced by any other workman in the world. Add science to that, and the nation need not be afraid. It was a burden for the universities to carry, but they were doing the greatest service to the State by the splendid part they played in extending the influence of learning to the artisan classes. There can, therefore, be no doubt as to the nature of the advice which Lord Haldane, who is probably the greatest expert on university questions in this country, would give to the councils of the wealthy cities of South Wales.

BRITISH MEDICAL BENEVOLENT FUND.

THE annual general meeting of subscribers to the British Medical Benevolent Fund was held on Tuesday, February 20th, when the present officers were re-elected and a committee appointed for the ensuing year. Dr. West, the Treasurer, presented his financial statement for 1911, and stated that subscriptions amounting to £1,980 8s. 6d. and donations amounting to £347 14s. 6d. had been received for the grant department, whilst help had been given to 216 applicants, the sum so disbursed being £2,362 16s. 6d. The annuity department had received an income of £3,048 7s. 2d., derived from investments in trust securities, and the sum of £2,593 15s. had been paid to the pensioners, of whom there are 131 on the books. Legacies received during the year had amounted to £2,380, including £1,000 from the executors of the late Dr. F. W. Pavy, a Vice-President of the Fund, and £1,000 left by Mrs. John Lowe in memory of her husband, who was for many years chairman of the committee of the Fund. After the report of the Committee had been received the meeting was adjourned until 4.30 p.m. on Wednesday, March 13th, when the Lord Mayor will preside at a gathering at the Mansion House in support of the Fund. The adoption of the report will then be moved by the Right Rev. Bishop Boyd Carpenter, the other speakers being the President of the Royal College of Physicians, the President of the Royal College of Surgeons, the Regius Professor of Physic at Cambridge, Sir John Tweedy, and Dr. West.

MEDICINE AND THE PUBLIC.

THE *Journal of the American Medical Association* of January 16th gives the results of an interrogatory submitted by the *New York Times* to a number of well known persons as to what they considered the five most notable achievements in 1911. As showing how wide the net was cast, it may be mentioned that among those whom it was sought to catch were the Pope, the King of Italy, "Carmen Sylva," Admiral Peary, besides governors of States, economists, writers of fiction, playwrights, authors of scientific works, and editors. Forty-four groups of answers were received. In only ten of these was any mention made of progress in the sphere of medicine. Among those who thought the work in medical research worthy of notice was President Taft, who gave as the second of his answers "the demonstration of the complete success of the prophylactic in typhoid fever, as shown by the fact that in the mobilization of 15,000 troops in Texas for three months there was only 1 case of typhoid." Senator Williams, of Mississippi, also included the application of vaccination methods to the prevention of typhoid. Count Bernstorff, the German Ambassador at Washington, noted the introduction of salvarsan and Wassermann's progress in cancer research. We presume that President Wheeler, of the University of California, also refers to salvarsan when he speaks of "Ehrlich's discovery in specific chemo-therapy." Ehrlich himself considers that "the greatest achievement of the past decade is knowledge that has been gained incidental to the discovery of radium in regard to the transformation of matter." President Thwing, of Western Reserve University, instanced the growth of medical education and research exhibited in the strengthening of medical schools and research institutes. Mr. Booker T. Washington noted

"the discovery of Dr. Simon Flexner of the serum for the cure of spinal meningitis." Professor Osgood, of Columbia University, places among the world's greatest achievements the year's advance in curative and preventive medicine. Perhaps the weightiest deliverance was that of Mr. James Bryce, the British Ambassador at Washington, who said: "In modern times most of the events of the highest ultimate significance have been discoveries in the realm of Nature or inventions in the realm of industry; and their magnitude is seldom known at first. Little was said of the discovery that mosquitos are the carriers of yellow fever and of the intermittent fevers; yet what immense consequences are already seen to flow from the determination of that fact. In science, when a stone is started down a hill no one can tell how far it will go." The fact that less than one-fourth of the persons who replied made any mention of medicine shows how little the aims of those who devote themselves to research in that sphere are appreciated, and how blind even men who may be presumed to represent the modern mind in its highest development are to achievements which have a more direct bearing than those in any other field of discovery on the well-being of individuals and communities.

A CONTRAST IN HEREDITY.

AT the present time, when the question of eugenics is so much debated, it may be interesting to present some curious statistics of heredity in two American families which have lately been published by the Superintendent of the Service of Help to Neglected Infants in the State of Manitoba. Jonathan Edwards, whose name is still well known as one of the most thorough-going advocates of what we may venture to call the hell-fire school of theology, and whose teachings weighed like an incubus on several generations of American youth, was born in Connecticut in 1703. Researches made in 1900 revealed traces of 1,394 descendants of this philanthropic divine. Thirteen of these were presidents, sixty-four were professors in universities, one hundred were clergymen, seventy-five officers of the army or navy, sixty medical practitioners, an equal number authors, one hundred and eighty judges, advocates, or solicitors, eighty functionaries in the civil service, three senators, one vice-president of the United States, one president of a great navigation company, while many were governors of States, members of Congress, mayors, or plenipotentiaries. Thirty-three states of the American Union, and ninety-two cities, besides several foreign countries, profited by the beneficent activity of this family. It is not on record that a single member of it was condemned to any disgraceful penalty. On the other side there is the famous, or infamous, Jukes family, which shows a terrible history of crime and degradation. Max Jukes, of whom we are unable to supply any particulars was born in 1720. He was lazy and drunken. Among his descendants, 310 died in a hospital, 300 died in childhood, 440 suffered from venereal disease, 400 were ill in consequence of their vices, 50 were notoriously immoral, 7 were murderers, 60 spent on an average twelve years in prison, while 130 were condemned for more or less frequent misdemeanours or more or less frequent crimes. As far as can be ascertained, not a single one of Jukes's descendants contributed in any way to the welfare of society, while on the other hand it is estimated that the family as a whole has cost the State about £240,000. Happily it appears to be extinct.

POLIOMYELITIS IN NORWAY DURING 1911.

AT the September meeting of the Christiania Medical Society[1] Dr. Gram gave a demonstration of the incidence of poliomyelitis in Norway during the year 1911. Between January and September 12th the number of cases reported was 697, with 65 deaths; about 200 occurred in July, 200 in August, 120 in the first twelve days of September. No doubt a number of abnormal or abortive cases failed to be reported, so that the total number of cases must have exceeded 700. An epidemic of 36 cases (6 fatal) occurred at Trondhjem in the spring; in June the disease spread over the whole of the South-East of Norway, but in such a way that no connexion of any sort could be made out between the separate foci. In July 67 cases occurred at Lesje, with 3 deaths; here the medical officer himself was attacked. In Christiania 46 cases, with 11 deaths, occurred up to September 12th, and at the end of the year 14 more cases and 1 more death had been reported. Dr. Ustvedt gave the society an account of this epidemic; of the 46 patients, 2 were aged 6–12 months, 11 were 1–2 years old, 8 were 3–4, 11 were 5–9, 3 were 10–19, 11 were 20–29. In January there were 2 cases, in March 2, in June 3 (1 fatal), in July 6, in August 22 (6 fatal), in the first twelve days of September 11 (4 fatal). Seven cases came from Ullevaal Hospital; of these, 3 were children and 2 nurses from the epidemic wards, the other 2 were nurses from the medical wards of the hospital. In only one instance did 2 cases occur in one household; here two brothers were taken into hospital, on July 16th and 23rd, with febrile symptoms and a doubtful diagnosis of poliomyelitis. The fever subsided at once, and as no sign of paralysis could be found, the children were sent out on July 25th as not suffering from poliomyelitis. But a month later paresis of both legs, steppage gait, and the reaction of degeneration were found in both the patients. Dr. Ustvedt also reports an interesting isolated case: the patient, a tramp of 24, had been in prison since April, 1910, and on July 7th, 1911, had a typical smart attack of poliomyelitis. No suspicious case occurred in the prison either before or after this; the man had received no visitors nor any parcel, and the source of his infection could not be made out. In discussing the general aspects of the disease, he remarked that it did not seem to be particularly infectious directly from person to person; secondary cases did not occur, though a number of the patients were nursed at home and without particular precaution. As Leegaard pointed out, the country appears to be more dangerous than the town; not a few of the Christiania patients fell sick immediately after returning to the town from the country. It is advised that the patients should be isolated (as being infectious) for the first few weeks, preferably in hospital; the home should be carefully cleansed; contacts should be kept from school for seven days. The incubation period is set at two to three days, with a maximum of four days.

[1] Forhandlinger i det medicinske selskab, 13de September, 1911, p. 172. *Norsk Mag. for Laegevidenskaben*, Christiania, 1912, No. 2.

MEDICINE IN THE "ENCYCLOPAEDIA OF RELIGION AND ETHICS."

MEDICINE is well represented in the closely packed pages of the Rev. Dr. Hastings's monumental *Encyclopaedia of Religion and Ethics*.[1] Four large volumes of the work have now appeared, and each volume contains more than nine hundred pages, and each page has about fifteen hundred words. Though, of course, the subjects dealt with limit the references to medical matters, yet the reader cannot turn over the leaves of any of the volumes without being impressed by the frequency with which medical customs, medical history, and medical methods force themselves upon his attention. Thus, in the first three volumes, there are hardly any articles which deal with primitive peoples and their ways of life and thought that do not contain lengthy references to medicine;

[1] *Encyclopaedia of Religion and Ethics*. Edited by James Hastings, M.A., D.D., Fellow of the Royal Anthropological Institute. Vol. IV. Confirmation—Drama. Edinburgh: T. and T. Clark. 1911. (Pp. 908. Price 28s. net.)

instances of this are found in Mr. Batchelor's article on the Ainus and in the late Dr. A. H. Keane's article on Australasia. But there are also more directly medical contributions, such as those on Abiogenesis, Abnormalities, Alcohol, Anaesthesia, Anointing, Anthropology, Atavism, Athletics, Atrophy, Automatism, Biogenesis, Biology, Birth, Blindness, Blood, Body, Bones, Brain, Cagots, Childhood, Circumcision, Christian Science, and Climate; and amongst these we may pick out the articles on Birth and Circumcision as valuable monographs of thirty and twenty pages respectively. It is in the recently published fourth volume, however, that the space given to medical or semi-medical articles becomes considerable. The subjects of *consanguinity and bodily development* are discussed by Professor J. Arthur Thomson, those of *degeneration* and *mental development* by Dr. J. Lewis McIntyre, that of *criminology* by Dr. R. F. Quinton, that of *debauchery* by Dr. John Macpherson, and that of *delusion* by the late Dr. George R. Wilson; and there are articles which touch the boundary lines of medicine on such matters as *consciousness* (by Professor Iverach), *doubles* (by Mr. A. E. Crawley), *Darwinism* (by Mr. Benjamin Kidd), and *double-mindedness* (by Professor E. D. Starbuck). The remarkable series of articles on *crimes and punishments* and on *death and disposal of the dead*, extending to no less than 157 pages, by no fewer than thirty-three authors, constantly remind the reader of the very narrow dividing line which existed between medicine and religion and ethics in early times; indeed, the line is in places no broader now than it was then. In addition, however, to all the subjects already referred to, this fourth volume of Dr. Hastings's *Encyclopaedia* contains eleven contributions dealing with *disease and medicine*, and it is in this series of papers that the medical interest of the work concentrates and culminates. Dr. C. S. Myers, Lecturer on Experimental Psychology in the University of Cambridge, deals interestingly with primitive disease and medicine, beginning his survey with Australia, where disease is commonly regarded as an evil sent by one man to another by means of pointing some such object as a bone or stone, working his way up through Torres Straits, Melanesia, and the Malay Archipelago, to the Malay Peninsula, and then turning to a special consideration of primitive peoples in Africa and in Central and South America. One passage from Dr. Myers's article may be quoted, for it contains a generalization and a comparison between ancient and modern medicine which may perhaps give rise to some heart-searching among the members of the profession at the present day. Here it is: "Among primitive peoples, knowing the name of the evil spirit, using archaic language, summoning medicine men from another tribe, are frequently important factors in effecting a cure. Among ourselves a physician is held of slight account who cannot give a *name* to his patient's illness; he still writes his remedies in a dead language; and his reputation is apt to be greater abroad than at home. Although the medicinal part of treatment has come more and more to the front, in no part of the world can the magical aspect be said to have altogether disappeared." We may object to the way in which the comparison is stated, but we can hardly deny that there is some truth in the allegation that modern practice is not altogether free from traits as old as the most ancient art. The ten other articles treating of *disease and medicine* are classified either geographically or racially. Thus, Mr. A. F. Chamberlain, of Worcester (U.S.A.), deals with American disease and medicine, and discusses among other things the question of the pre- or post-Columbian origin of syphilis on the American continent; Mr. R. C. Thomson takes Assyro-Babylonian medicine as his subject, and has much to say of exorcism of the demons of disease, and of the serious penalties attaching to the defective practice of surgery in the valley of the Euphrates in early times; Mr. Thomas Barns has a subject of more general interest in Celtic medicine, and he has much to tell of the ash tree and shrew mouse, of the mistletoe, of the couvade in Ireland, and of the Irish sweat-houses for the cure of rheumatism in use up to the beginning of the nineteenth century; Professor Foucart has Egyptian medicine as his sphere, and makes a valuable contribution to our knowledge of the long list of parasitic affections and cutaneous and ocular troubles which afflicted and still afflict the dwellers by the Nile; and so with Greek and Roman, Hindu, Jewish, Persian, Teutonic, and Vedic medicine, which are all ably handled by such experts as Thraemer, Jolly, Lowe, Casartelli, Sudoff, and Bolling. These are only a few instances of the interest which this book is certain to arouse in the mind of the physician or surgeon, more especially if he have a leaning towards the study of folk-lore; but it may be said in a word that the book contains a mine of curious and recondite information on medical matters which it would puzzle the most learned member of the profession to find easily elsewhere.

DR. JOHNSON AS A TEMPERANCE MAN.

WHEN addressing the business men of London Sir Thomas Barlow and Sir Thomas Clouston referred to Charles Lamb, Edgar Allan Poe, Burns, and Swinburne, whose lives and works were tarnished by intemperate habits. Sir Thomas Barlow, however, was able to set against these victims to self-indulgence the striking self-discipline of Dr. Johnson, who, in an age at once convivial and coarse, became an abstainer from alcoholic liquids. Johnson's shrewd observation, his robust common sense, enabled him to rise superior to his environment. His oft-quoted dictum "Claret for boys, port for men, brandy for heroes," would not suggest teetotalism. But some time between his 54th and 57th year, "having had an illness in which he was advised to leave off wine, he had from that period continued to abstain from it, and drank only water and lemonade." But for a glass of claret he drank when he was 70 he continued teetotal till the age of 72. And he knew from personal experience what it was to be worse for drink. "Drinking," he says, "may be practised with great prudence; a man who exposes himself when he is intoxicated has not the art of getting drunk; a sober man who happens occasionally to get drunk readily enough goes into a new company, which a man who has been drinking should never do. Such a man will undertake anything; he is without skill in inebriation. I used to slink home when I had drunk too much. A man accustomed to self-examination will be conscious when he is drunk, though an habitual drunkard will not be conscious of it." He advised Boswell to drink water only; and to an old college chum who combated his views, and ended by saying: "I am grown old; I am sixty-five." Johnson replied: "I shall be sixty-eight next birthday. Come, sir, drink water, and put in for a hundred." Indeed, the biography glistens with gems of temperance teaching, and teaching more worthy of study than the present-day diatribes of the average temperance extremist. That a man should have strength of character, in such an age as that of Johnson, after more than fifty years of life to become an abstainer adds to one's admiration of the sturdy doctor. And on his deathbed he was still Dr. Johnson the temperance man, for when his physician advised more generous nourishment he replied: "I will take anything but inebriating sustenance."

IT is announced that the Lord Provost of Glasgow proposes to convene a conference to consider a proposal to promote an international memorial to Lord Lister in Glasgow.

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

Private Members' Bills which have their order of precedence settled by ballot are not likely to be so numerous this year as the time of the session must of necessity be mostly occupied by the very important bills promised by the Government. On this account the competition among members was less than usual, and on Friday last when the places were drawn two supporters of the Government drew the best places, namely, Mr. Harold Baker and Sir Croydon Marks. Mr. Agg Gardner came out third, Sir A. Griffiths Boscawen was fourth, Mr. Gordon Harvey was fifth, and next in order were Colonel Harrison Broadley, Sir W. A. Gelder, Sir J. Lonsdale, Mr. Walter Rea, and Mr. G. Stewart. The most conspicuous fact was the ill luck of the Labour group, who only succeeded in getting fourteenth place, a position practically useless. The Irish members, who generally get good places, did not ballot this year, as they naturally wish to save parliamentary time for the Home Rule Bill. The Government during the last few years have on several occasions used private members' bills to help their own legislative proposals, and have adopted them after they have passed the second reading and adapted them in Committee to their own schemes. In this way the Plural Voting Bill, to be brought in by Mr. Harold Baker, and said to be drafted by the Solicitor-General, may become the Government measure, and other franchise matters may be settled in the same way. Sir Croydon Marks's bill to amend the Education Acts in reference to primary education in single school areas will probably offer a means of solving difficulties, and so become, when it goes to Committee, a Government measure. Mr. Agg Gardner's bill to confer the Parliamentary Franchise on women will raise the whole female suffrage question, and if it gets a second reading before Easter will materially advance the parliamentary struggle on the female vote. Sir Arthur Griffiths Boscawen proposes to strengthen the enforcement of the Housing Acts, and Mr. Beck to amend the law as regards the employment of children. As there are only five Fridays open to private members before Easter, if the debate on the Address occupies all this week, the bills mentioned are the only ones likely to make progress. In spite of the small chances for private members' bills this session, no less than twenty-six were introduced on Monday, and the five Fridays devoted to private bills were chosen as follows: March 1st for the Plural Voting Bill, March 8th for the bill to amend the Education Acts, March 15th for the amending bill on housing, March 22nd for franchise for women, and March 29th for the bill to amend the Employment of Children Act. Of the other bills none have much interest to the medical profession, unless it be Mr. Cassel's bill "to amend certain provisions of the National Insurance Act, 1911." The mention of this measure was received with cheers and cries of "Repeal," and April 12th was chosen for the second reading.

The Debate on the Address, which so unexpectedly collapsed in the Commons on Wednesday in last week, so that the members went home at half-past six to cogitate on what Mr. Bonar Law meant by his reference to repeal of the Insurance Act, was resumed on Thursday by Mr. Ramsay Macdonald. He moved his amendment complaining that there was no reference in the speech from the Throne to legislation in favour of a minimum wage and the nationalization of railways, mines, and other monopolies, as a means of securing a more equal division of wealth. The discussion lasted the whole sitting, and ended in the defeat of the amendment by a majority of 98. On Friday the sitting was occupied in discussing the subvention of local expenditure by grants from Imperial funds. This method of relieving the ratepayer, advocated by Mr. Hayes Fisher, however, met with vigorous opposition, and at the close of the sitting was rejected by a majority of 78. The official Opposition amendment was moved on Monday by Mr. F. E. Smith, urging the necessity of dealing with the constitution and reform of the Upper Chamber before entering on the grave proposals for legislation mentioned in the King's Speech. The arrangement made to give two days to this amendment ought to enable the House to deal with several of the many amendments on the paper and the Address to be voted on at the close of Friday's sitting.

Business in the Lords.—Strange to say, the Lords sat longer than the Commons on the first day of the session, for they did not rise till nearly 8 o'clock. The debate on the Address was completed by the Peers at the first sitting, and so an adjournment till Monday was made. On that day the Lord Chancellor proposed to refer all consolidating bills to a Joint Committee of both Houses, and on Wednesday Lord Curzon opened an interesting debate on Delhi as the new capital of India.

Control of the Feeble-minded.—On Monday the Prime Minister, in reply to Mr. Evelyn Cecil, stated that the Government intended to introduce a bill this session for the better care and control of the feeble-minded, on the lines of the report of the Royal Commission issued in 1908.

Forcible Feeding and Insanity.—Mr. Lynch called the attention of the Home Secretary to the case of William Ball, and elicited the following history of the case. Mr. McKenna said William Ball was convicted at Bow Street on December 22nd last of doing wilful damage, and sentenced to two months' imprisonment with hard labour. He was therefore not eligible for the special treatment which might be accorded to certain classes of prisoners under the prison rule recently made by Mr. Churchill, as that rule applied only to persons placed by the court in the second and third divisions, and not to those sentenced to hard labour. This was explained to Ball. From his reception in prison he refused all food, and on December 25th it became necessary to feed him artificially. He was admitted to hospital on that day, and remained there until the day of his discharge. He was fed twice a day by a mouth tube. There was no difficulty in doing this, as the prisoner not only did not resist the process, but assisted as much as possible. No force whatever was used towards him, and the statement which appeared in the Press that he was punished was untrue. No disturbing mental symptoms were observed until the night of January 25th, when he was restless and talking wildly. On January 29th he began to take food naturally, and continued to do so until discharged on February 12th. His mental condition, however, becoming worse, on February 9th he was reported to be certifiably insane, and it was decided that he should be removed to an asylum. A letter notifying this decision to Mrs. Ball was written from the prison on February 10th, but by an unfortunate mistake on the part of a messenger it was not posted until the following day, Sunday, February 11th, and presumably it reached Mrs. Ball by the first post on the Monday. No application to delay the prisoner's removal was made to the Governor, and the prisoner himself made no protest. He was removed from Pentonville to an asylum on the Monday. The prisoner's treatment while at Pentonville was strictly in accordance with the law, as laid down by the Lord Chief Justice in the case of Leigh *v.* Gladstone, and Mr. McKenna was satisfied that he received every care and attention from the medical officers of the prison.

Anthrax.—In answer to Mr. C. Bathurst, Mr. Runciman stated that the figures for 1909 and 1910 were not comparable with those for 1911. Prior to 1911 the returns included all cases reported to local authorities, and were based on the diagnosis of their veterinary inspectors, whereas the figures for 1911 include only those cases in which the presence of the disease had been confirmed by the veterinary staff of the Board. One thousand three hundred and seventeen cases were reported in 1909, and 1,465 in 1910. Nine hundred and eight cases were confirmed in 1911. The Home Secretary, in reply to a second question, said that the Home Office was only notified of cases of anthrax occurring in factories and workshops. The number of such cases in 1909 was 56; in 1910, 51; in 1911, 64. Of these, two in 1910 and one in 1911 were reported to be due to British hides. The Local Government Board informed him that there were no complete statistics, anthrax in human beings not being generally notifiable, but that the industrial cases referred to above apparently constituted the large majority.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

SOUTH WALES AND MONMOUTHSHIRE.

King Edward VII Hospital, Cardiff.

Colonel Bruce Vaughan presided over the board meeting of King Edward VII Hospital (Cardiff Infirmary) on February 14th. He paid a graceful tribute to the memory of Lord Lister.

The annual report showed that the working account income for 1911 was £14,474, being £64 less than in 1910. The expenditure exceeded the income by £1,073, and the bank overdraft was £20,156. The Chairman of the Finance Committee (Mr. Isaac Samuel), in presenting the balance sheet, said that £911 had been received for the nine months during which the regulations as to payment by patients had been in force. Under these regulations all patients who could afford it paid sixpence a day as in-patients and threepence for registration as out-patients. Colonel Bruce Vaughan referred to the unrest in the coal-fields, and expressed the hope that when the colliers were settled again more would be done by them in the way of reorganizing their subscriptions to the hospital. In Pontypool the colliers subscribed £3,000 per annum, while the workmen in the South Wales and Cardiff district could not quite raise £5,000. The thanks of the committee were given to the generous donors to the memorial fund for the new wing, especially to Mr. William James Thomas, who had endowed and equipped a ward, the Marchioness of Bute, the Lord Mayor and Lady Mayoress, Mrs. Nixon, and Mr. William Price, a Cardiff working man, who had sent £100. The Chairman said that it was hoped that some of the wards in the new wing would be taken into use next month.

Meeting of Welsh Medical Men.

Mr. D. J. Williams, F.R.C.S., of Llanelly, the representative of Mid Wales and Shropshire on the Central Council of the British Medical Association, presided over a meeting of medical men resident in Wales and Monmouthshire, held at Shrewsbury, on February 14th. The object in view was to form a provisional Welsh Committee for the organization of the profession on the same lines as the Scottish Committee. The greatest unanimity prevailed, and the meeting was adamant in reaffirming and adhering to the six cardinal points of the British Medical Association. Dr. Jones Roberts, a member of the Central Council of the British Medical Association, elected by the Representative Body, was appointed secretary of the Provisional Committee, which will discuss any necessary points with the Welsh Commissioners, but which will come to no terms with them, whether in accord with the decisions of the forthcoming Representative Meeting or not, without first referring them to the Divisions.

MANCHESTER AND DISTRICT.

Opticians and State Recognition.

At a meeting of the Council of the National Federation of Ophthalmic Opticians held last week at Manchester a proposal was put forward by Mr. R. E. Heppell, of the Northern Counties Optical Society, to the effect that the Federation form an examining body, with power to issue diplomas. Mr. Heppell said there seemed no possible chance of the existing examining bodies settling their differences and amalgamating. In fact, the Spectacle Makers' Company and the British Optical Association could not amalgamate because of the charter in the one case and the articles of association in the other: and neither seemed disposed to relinquish its examination scheme. He was desirous of seeing the Federation of Ophthalmic Opticians getting a little nearer its goal, which was State recognition for opticians. His idea was that the Federation examination should be on more practical lines than that of the Spectacle Makers' Company or the British Optical Association, and that the fee to candidates be about two guineas. Mr. E. Beaumont, West Riding Optical Society, said that the only way out of the difficulty was to form a central council, by mutual agreement in the interests of the craft, to which the examination scheme of the Spectacle Makers' Company and British Optical Association should be handed over. That central council should be representative of all sections of the optical trade. Mr. Heppell's suggestion would only, in his opinion, make "confusion worse confounded." Mr. J. C. Kidd, President of the Federation, said he would like to see something definite done towards having only one examining body, and would not object to the Optical Institute being entrusted with it. After further discussion, Mr. Heppell gave notice that at the next meeting of the council, at Newcastle-upon-Tyne in May, he would move a resolution that the Federation form an examining body, and that the fee for candidates be two guineas.

LIVERPOOL.

Royal Infirmary.

The 163rd annual meeting of the Royal Infirmary was held on February 5th: Sir Archibald Williamson, Bart., M.P. (President), occupied the chair. Mr. Holford Harrison (Honorary Treasurer) presented the report, which stated that the work of the infirmary had been excellent during the year. Many changes had taken place. The opening of the new out-patient department in March, by the Earl of Sefton, had added to the facilities of carrying on an ever-increasing work in an expeditious manner; this was evidenced on Sunday, August 13th, during the strike riot, when 200 cases were treated in about two hours. The old out-patient room had since been transformed into a casualty department, with accident wards for five beds. The old dispensary had been fitted up for *x*-ray work, and afforded spacious and improved accommodation for this purpose. It was with great regret that the committee had to record the resignation of Mr. Brocklebank from the position of chairman, after thirty years' service as treasurer and five as chairman. His magnificent gifts and devoted interest in the infirmary were well known. Negotiations were in progress to accommodate the Liverpool School of Tropical Medicine at the Royal Infirmary. During the year funds for the endowment of beds had been presented by Mrs. Bickersteth, in memory of the late Mr. E. R. Bickersteth; Mrs. Hugh McCubbin, in memory of the late Mr. Thomas Bowden; and the executors of the late Mr. Thomas Davies in accordance with his will. The value of that permanent form of gift was gratefully recognized. The committee regretted the resignation of Mr. J. L. Birkett after forty-three years' service on the board of management, and reported the election of Mr. H. Wade Deacon to fill the vacancy. The total attendances for treatment during the year amounted to 95,076; in the wards 4,213 cases had been treated. The president, in moving the adoption of the report, congratulated the infirmary on its up-to-date efficiency, but noted that, notwithstanding the good work it accomplished, there was a debt of £8,217. The Venerable Archdeacon Madden seconded the motion. The report and accounts were adopted.

Mr. Ralph Brocklebank was unanimously elected president for the coming year.

Recognition of the services of Mr. F. T. Paul as honorary surgeon for twenty-two years was made by the trustees, and he was appointed consulting surgeon; also of Mr. A. Bernard, for service in the department for specific diseases for thirty years, and he was appointed consulting surgeon to that department.

The University.

The Council have granted Professor Muir a year's leave of absence from the end of the present session, and this year he will devote to travel and research in his subject of modern history. Professor Muir has worked hard, and his services have been of conspicuous value to the university. All hope he will enjoy his well-earned rest, and that he will return refreshed and invigorated, and with a valuable piece of research duly accomplished.

Degree in Hygiene.

The Council and Senate have decided to provide courses of study leading to a new degree, that of Master of Hygiene. The degree will be open only to graduates in medicine, and will be conferred after examination and a course of study extending over a considerable period. It is intended that the degree shall be of a very high standard,

and it is hoped that medical men desiring the highest qualifications in the branches of their subject affecting public health will avail themselves of the opportunity of reading for this degree.

Professor E. W. Hope, Medical Officer of Health to the City, has been the chief mover in this latest development of university activity.

The university will still continue to grant the Diploma in Public Health, the degree is for those who desire to pursue their studies further. It will not be long before the new degree is recognized as a very valuable qualification for those seeking the chief posts in public health administration, and it is most fitting that the new course should be instituted at the present time.

Children's Infirmary Ball.

The annual ball in aid of the funds of the Children's Infirmary was held at the Town Hall on February 9th. The guests were received by the Lord Mayor (Lord Derby) and Lady Aldea Stanley. All know how excellently the Town Hall lends itself to such a function, and with charming decorations, excellent music, and a number of efficient stewards a delightful evening was ensured for the large number of guests who were present. The ball proved the success financially it was socially; nothing more could be desired.

HULL.

Dinner of East York Division.

Dr. Norman Walker, of Edinburgh, recently gave an address before the East York Division of the British Medical Association on the dermatologist as detective.

He was afterwards entertained at dinner by the Division, the chair being taken by Dr. J. MacNidder, Chairman of the Division. The toast of the Houses of Parliament, given by Mr. E. H. Howlett, Senior Surgeon to the Hull Royal Infirmary, was acknowledged by Sir Luke White, M.P., who said that he did not think that there was any profession which did so much unremunerative work from the financial point of view as the medical. While recognizing the difficulties which existed at the present time with regard to the Insurance Act, he, as a member of Parliament, believed that the interests of the medical profession were well looked after by the British Medical Association; he paid a tribute to the services of Dr. Addison. The toast of Dr. Norman Walker's health was given by Dr. Leith Waters.

In reply, Dr. Norman Walker, in referring to the Insurance Act, said that the profession should recognize that it was in a very strong position indeed, and while he hoped that the profession would do no hard bargaining, it was entitled to be assured that there would be no hard bargaining on the other side. The Council of the British Medical Association had come in for a good deal of criticism, but it had to steer a very difficult course among contending interests. Recent legislation had only brought to the top things that had been fermenting for years. A great change was coming over medicine, though the process had been going on largely unobserved. The death-rate in 1876 and 1886 was 20.8; to-day it was 14; again, the birth-rate twenty years ago was 31, to-day it was 26; and regard must be had to the progress of surgery, the number of operations, the diminished mortality, and the diminished period of stay in hospitals. All this told upon the profession. The triumphs of medicine were not so much in the limelight as those of surgery, but they existed all the same; thus the death-rate from tuberculosis thirty years ago was 2,600 per million; to-day it was 1,600 per million. All that had diminished medical work, and the profession was, in fact, always striving to deprive itself of its own employment, and it was to its honour that it was so engaged. On the other hand, the diminution of illness, which, so to speak, diminished the work of the medical profession, had been accompanied by a steady decrease in the quantity and a steady increase in the quality of those who entered the medical profession. He concluded by proposing the health of the Chairman.

The Chairman, in reply, said that it was true that all who had studied social questions had arrived at the conclusion that some such legislation as the Insurance Act was bound to come. Hard things had been said about the Council of the British Medical Association, but, in his judgement, so far from being caught napping, it had showed itself very wide awake. Some people had great faith in legislation, but Acts of Parliament and the law only went a little way. The only method by which the profession could get and should get everything it asked and sought for was by internal unity. Colonel A. K. Dibb, in responding to the toast of The Visitors, proposed by Dr. R. Grieve, Assistant Surgeon to the Hull Royal Infirmary, said that no one could be indifferent to the controversy between the medical profession and the Chancellor of the Exchequer, for anything which would lower the status of the medical profession, or prevent it receiving adequate remuneration, would be a mischief to the country.

LONDON.

London County Council.

Medical Inspection of Special Schools.

The Board of Education, while commenting favourably on the improved arrangements for medical supervision recently introduced into playground classes, submitted certain suggestions to the London County Council on February 20th with a view to bringing about further improvements in this direction. In classes in which all the children were definitely chosen on the ground of delicacy of health, the Board thought it was desirable that every child should be subjected to systematic medical inspection as early in the session as practicable, and that all initial and subsequent records made by medical officers should be dated. In classes in which the influences needed were mainly preventive the Board thought that the medical examination should be conducted on more uniform lines than at present. While some examinations were thorough, others appeared to omit such important details as the chest and lungs; others, again, included merely such items as could be gathered from simply looking at the child, while in some of the schools medical supervision of every kind was omitted. That there was need for inspection of the more thorough kind was obvious from the serious cases of defect that occurred in certain of the classes, the scholars of which had been inspected. It was important that the results of routine medical inspection should be re-entered on playground class records (as was done in some cases) in order that the open-air class might be better utilized as a means of following up those cases most likely to benefit under its influence. "Control" measurements might be more generally instituted in classes of the kind referred to, and they should have special reference to height, weight, and haemoglobin content. The Board pointed out that the open-air class was an experiment likely to yield results useful to the whole country, and it was important, therefore, that its usefulness should rest on scientific bases of the kind to be obtained by means of "control" measurements. The Council decided to ask the medical officer to meet the suggestions of the Board as far as possible.

The Council also resolved to ask the Board of Education to approve the formal appointment of Dr. W. H. Hamer for the purpose of certifying defective or epileptic children within the meaning of Section 1 of the Elementary Education (Defective and Epileptic Children) Act, 1899.

Medical Inspection of Secondary Scholars.

The Education Committee reported that the Governors of Lewisham Grammar School had asked whether it would be possible for the Council's medical officer, in examining the scholarship holders at the school, also to examine other pupils at a fixed fee per pupil to be paid by the pupils' parents. The Committee pointed out that the Council had already decided to examine all pupils, whether fee-paying or scholarship holders, in its own secondary schools, and so had accepted the principle that medical examination of all pupils was desirable. The cost of the examination of the fee-paying pupils would not exceed 2s. a year per pupil, and the Committee recorded that the Governors' request should be granted on this basis.

Lunacy Statistics.

The Asylums Committee reported that a summary of the returns prepared pursuant to statute by the London boards of guardians showed that the total number of lunatics in London county asylums or related institutions, and of lunatics in workhouses, or with relatives or friends

on January 1st, 1912, was 28,031, as against a total on January 1st, 1911, of 27,481, an increase of 550. This was rather in excess of the average annual increase (530) for the last twenty-two years. The county was responsible to find accommodation for 20,438 of the total number of lunatics included in the return.

The New Mental Hospital.

The committee also stated that upon receipt of an inquiry from the Lunacy Commission as to the name by which it was proposed that the mental hospital to be erected at Denmark Hill should be known, a communication was addressed to Dr. Maudsley, who, in reply, had intimated, to the great pleasure of the committee, that he did not object to the use of his name in connexion with the title for the new institution. The committee had therefore determined that the hospital should be known as "The Maudsley Hospital," as it felt that no more appropriate name could be chosen. The committee was very glad of the opportunity of thus permanently associating Dr. Maudsley's name with the good work which it believed would be carried on in the hospital, which owed its establishment to his timely suggestion, and towards the cost of which he had made so generous a contribution.

Resignation of the Superintendent of Long Grove Asylum.

In reporting the resignation by Dr. C. Hubert Bond as medical superintendent of Long Grove Asylum, on his appointment by the Lord Chancellor to be a Commissioner in Lunacy, the Asylums Committee stated that Dr. Bond had been in the service of the Council for nineteen years, and had been medical superintendent of the Epileptic Colony as well as of Long Grove Asylum. At both these institutions his care and forethought for the patients in his charge, his desire for the welfare of the staff and his thorough administration, had earned the highest approbation of the committee, which, while it congratulated Dr. Bond on his new appointment, regretted that the County of London would lose his valuable services.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

Scottish Lunacy Board.

Retirement of Secretary.

On his retirement from the office of Secretary to the General Board of Lunacy for Scotland, after a service of forty-seven years on that Board, Mr. T. W. L. Spence of Uyea was entertained to a complimentary dinner in the Caledonian Station Hotel on Wednesday, February 14th. Sir Thomas Mason, Chairman of the Board, presided, and some eighty gentlemen were present, among them being the Master of Polwarth, Sir Thomas Clouston, Dr. Leslie Mackenzie of the Local Government Board, Sheriff M'Lennan, and Dr. Devon, Medical Officer of Duke Street Prison, Glasgow. The croupiers were Dr. Fraser (Convener of the Dinner Committee), Dr. Charles Macpherson, Dr. Marr, and Mr. G. A. Mackay.

Dr. John Macpherson, one of the Commissioners in Lunacy, proposed the health of the guest, who, he said, had served the State in a very special capacity for forty-seven years. He joined the Board of Lunacy as junior member of the staff at the age of 19; twenty-four years later he became its secretary. Mr. Spence had not grown old physically or mentally, but had retained that youthfulness of mind that was progressive, receptive of new ideas, did not lose touch with reality, and so the department with which he had long been associated had retained its youthfulness and vigour. The Board of Lunacy had the saving grace of good traditions. In the first place everything—time, money, position, convenience, even personal reputation—was to be subordinated to the welfare of the insane. That tradition was in the ascendant when their guest laid down his burden. Secondly, there was the tradition that in lunacy administration the medical element ought to be predominant. If Mr. Spence had been a medical man himself he could not have done more to maintain that tradition. In his long career Mr. Spence had been brought into contact with every central and local authority in Scotland, many in England and Ireland, and many abroad. In his relation with all these public bodies and with the general public, he showed that accuracy of knowledge, that decision of character, and that soundness of judgement, which had earned for him universal and well-merited regard.

A letter was read from Lord Pentland, the Secretary for Scotland, regretting his inability to be present, and saying how cordially he joined in this expression of esteem and regard for Mr. Spence, who had performed his duties for many years with such distinction to himself and with such advantage to the public service.

The Chairman then asked Mr. Spence's acceptance of a gold watch, and a pearl and emerald pendant for his wife. In replying, Mr. Spence spoke of his association with the first members of the Board. There was then a kind of tradition that the public were to be regarded as a hostile body, and that it was imprudent to give anything but the most meagre answer to inquiries. A great change had now come about, and the officers of the Board were expected to be the guides and helpers of the community. He had looked forward to assisting in the devising of a Lunacy Consolidation Act. When such an Act was drafted, two words, he hoped, would be eliminated—"lunatic" and "pauper." One had its origin in ignorance or superstition; the other was peculiarly inappropriate and unjust, as applied to the bulk of the insane poor. Mr. Spence said that not a single action for illegal detention had been raised during the last forty years.

Dr. Devon gave the toast of the Local Government Board, and Dr. Leslie Mackenzie replied. The health of the Chairman was given by Sir Thomas Clouston.

A Warning to Lunacy Boards.

Dr. Mackenzie, medical superintendent, Inverness District Asylum, in his report to the District Board, advises that body to keep a watchful eye on Lord Wolmer's bill, as he thinks there is a danger of its being reintroduced into Parliament. The bill proposed to limit by statute the hours of attendants and nurses. To introduce into an asylum or hospital the principles and methods which obtain in a factory or shipbuilding yard would lead in practice to endless sources of friction and discontent. He was sure that the board appreciated, as other boards did, the great loyalty and devotion of their attendants and nurses in their exacting work, and were anxious to make their vocations attractive in every reasonable way. As to the financial aspect of the question, if the bill had passed in its original form it would have meant an immediate increase in the annual cost of maintenance of each patient of £2 10s., and the accommodation required for the additional staffs of the Inverness Asylum would mean a capital expenditure of over £3,000.

The Proposed Crusade Against Consumption.

A meeting of the Executive Council appointed to carry out the resolutions of the conference of representatives of county and burgh councils and other public bodies, held in Glasgow last month, was held last week. The resolutions for consideration were:

(1) That there should be in Scotland a memorial to the late King Edward connected with the prevention and alleviation of suffering, and that steps be taken to raise a fund to be called "The King Edward Memorial Fund"; (2) That the memorial shall be applied, *inter alia*, to the establishment and maintenance of an institute to be called "The King Edward Memorial Institute of Preventive Medicine," or some similar name, the institute to be dedicated primarily to research and the dissemination of knowledge in relation to tuberculosis, and to be available to the whole of Scotland; and (3) remitting to them to consider the question of the erection and maintenance of consumptive sanatoriums, and report thereon to a future conference.

After a long discussion, in view of the importance of the subject-matter, the committee adjourned to February 21st before deciding on a course of action.

In connexion with the crusade against consumption, Sir William Younger, Bart., of Auchen Castle, has provided diet sheets, which have been placed in all the homes of the school children throughout the poor parishes of Upper Annandale. The object is to give information and guidance as to the living economically and wholesomely. The chart gives useful suggestions as to the best forms of diet, the value of different foods, and their relative value.

Glasgow Royal Infirmary.

The annual meeting of qualified contributors to Glasgow Royal Infirmary was held on February 14th. Lord Provost D. M. Stevenson presiding. The report for the year 1911 showed that 8,687 cases were admitted, as against 8,361 the previous year. The rate of mortality was 10.57 as compared with 10.37 per cent. in 1910; excluding 390 who died within forty-eight hours of admission the rate was 6.36 per cent. The daily average number resident was 618.3 as against 608.8, and the greatest number in the house on any day 669 as against 656. At the outdoor department there were in addition 14,572 new patients in the medical department and 13,080 on the surgical side, a total of 27,652 patients, involving 81,358 attendances. The previous year the total was 25,462 with 63,425 attendances. In addition there were 2,185 throat and nose cases, 1,127 ear cases, 573 eye cases, 2,567 skin cases, 1,271 dental cases, 855 gynaecological cases and 1,010 vaccinations. These increase the outdoor total to 36,739 with 105,578 attendances, as compared with 34,113 in 1910 and 85,967 attendances. In the electrical department 5,147 patients attended, 436 for treatment, 37 for electro-diagnosis and 4,674 for *x*-ray examination. The total *x*-ray examinations was 5,440. The daily average staff resident was 239, and on the whole expenditure the average cost of each bed was £73 6s. 2¾d., as against £74 9s. 11d. in 1910. The average cost of each patient treated to a conclusion was £5 4s. 6d.

The ordinary revenue was £28,914 and the expenditure £46,624, a deficiency of £17,710. The extraordinary revenue amounted to £8,844, a decrease of £12,920 from 1910. During the year considerable progress had been made with the rebuilding of the infirmary. The third ward block of the surgical buildings was completed and occupied, and the central or special diseases block will soon be ready for occupancy. The managers are now proceeding with the erection of the eastern part of the front block and the extension from this to the central block. The rebuilding of the remainder of the front block will begin once the new special diseases block is occupied. At the meeting an appeal was made for a further sum of £80,000 to reconstruct the ophthalmic department. The ground was now available, and it was hoped that the funds for the new buildings would soon be forthcoming.

The Problem of Insanity.

At the annual general meeting in connexion with the Glasgow Royal Asylum held on February 15th, Dr. L. R. Oswald, Physician Superintendent, submitted his annual report for 1911. The total number of patients treated was 559, and the average number resident 445. Admissions numbered 115, 61 men and 54 women; 45 men and 44 women were discharged, while 16 men and 9 women died. Of the discharges, 38 were "recovered" and 30 "greatly recovered." The recovery-rate was 33 per cent. on the admissions, as compared with 38 per cent. for the whole of Scotland. In this connexion Dr. Oswald expressed his firm belief that patients were more frequently discharged too soon than needlessly detained. The patient improved brought pressure to bear on his or her friends, appealed to their sympathies, and was removed often against their better judgement. In such cases neither the patient nor the friends were the best judges of the fitness for liberty, and the public were entitled to protection against the danger that came to the State by the procreation in such cases of mentally unfit children, and to the private individual from the presence in the community of those who could not be regarded as normal. After dealing with such questions as the treatment of the patients, the general health of the community, their occupation, amusement, and comfort, and lunacy legislation, the report concluded by stating that there were evidences that the public were becoming wiser in their ideas as to the real nature of insanity and its many causes, and it was to the medical profession that they must look as one of the principal agencies by which that educative process was to be carried on.

Dunfermline Doctors and Friendly Societies.

In consequence of the action taken by the medical men in Dunfermline in refusing to accept friendly society appointments on the old terms of payment, a meeting of representatives of the friendly societies was held on February 16th. It was mentioned at this meeting that the medical men had decided that, unless their terms were agreed to, all contracts would be ended in March. From each member of a friendly society doctors now demand payment of 8s. 8d. annually; that no medicine be supplied at that figure: and that their services be limited to the period from 10 a.m. to 8 p.m. To those terms the friendly societies could not agree. Formerly the average demand per member was 4s., and for that sum medicine was included, and there was no restriction as regards hours. The feeling against the doctors was very strong, and it was agreed to terminate the contracts. It was also proposed to invite other medical practitioners to come to Dunfermline in order to break down the rates. It will be interesting to watch the progress of events, and whether the friendly societies will be able to induce outside practitioners to accept the old rates.

Royal Samaritan Hospital, Glasgow.

A thoroughly equipped building, comprising boiler-house for heating installation, washhouse, and laundry, has been added to the Royal Samaritan Hospital, and opened entirely free of debt. The building, machinery, and apparatus cost nearly £6,000. Further additions, costing £10,000, are, however, considered still necessary, including a new pathological department, with clinical appliances, a mortuary, and a mortuary chapel. An outdoor department is also required, and Lord Rowallan, the president of the hospital, made an appeal for the funds necessary to make this provision in the hospital.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

Royal College of Surgeons in Ireland.

Charter Day Dinner.

Charter Day was recently celebrated at the Royal College of Surgeons in Ireland, when the annual dinner was held in the college. Mr. Robert H. Woods, President, presided. His Excellency the Lord Lieutenant was a guest, and there were about 150 present. The President, replying to the toast of "The College," said that it was now more than a century and a quarter old, and, so far as the function for which it was founded, he was proud to say that it had never been as strong as it was at present. There were more students attending classes than there had ever been before. Considering that that success had been attained in face of very great opposition, the College had reason to be proud. It stood now one of the most, if not the most, successful schools, judging by numbers, and yet it was the only one the Government had not seen its way to endow. It was the proud boast of the College that never since their foundation had the question of religion or politics entered those walls. Those two facts, which should constitute the claim on the Government, at once deprived the College of the only two levers that were worth anything by way of extracting money from the Treasury.

The Council and members presented Mr. Woods with a massive silver cup of Irish design, and Mrs. Woods with a necklet and pendant, as a slight token of the regard in which he was held by every one connected with the College.

The National Insurance Act.

Nearly every day the daily papers contain the announcement of the formation of some new society which intends to become an "approved society" under the Act. The Wexford County Council passed a resolution a few days ago requesting the Insurance Commissioners to call the attention of the public bodies of the county to the fact that it was the intention of the County Council to form an approved society under the Act, and that the clergy be requested to inform their parishioners that such a society was in course of establishment. During the past four months a representative committee of members of the Protestant benefit societies in Dublin has been at work in connexion with the national insurance question. After careful consideration, the Union Friendly Society (Ireland) has been formed. It will be open to accept affiliated branches consisting of Protestant members from all parts of Ireland. A number of branches have been enrolled in

Dublin provisionally, pending the issue of full instructions and model rules by the Insurance Commissioners.

At the last meeting of the Dublin Corporation a resolution was passed directing the law agent and city treasurer to take steps to recover from the funds to be made available for the treatment of tuberculosis under the new Insurance Act the sum of £10,800 already spent by the Corporation on the Brittas Sanatorium for Tuberculosis, and that the law agent report to the Council before the estimates are passed whether the sum of 1d. in the £ lately paid by the Corporation for the Brittas Sanatorium can be procured for the future under the Insurance Act.

The final meeting of the Dublin Hospitals Conference was held last week. Representatives of twenty hospitals were present. The letter of appeal drawn up by the special committee was approved, and a recommendation was passed that copies of this letter should be sent by various hospitals to all their subscribers.

The Royal Hospital for Incurables, Dublin.

A largely attended meeting was held last week in the Town Hall, Rathmines, for the purpose of protesting against the proposal to erect a building for the reception of consumptive patients, which is intended to form a wing of the Royal Hospital for Incurables, Donnybrook. The Chairman said the scheme was bad, first for the neighbourhood, secondly for the patients, and thirdly for the institution itself. One speaker said that other and more suitable sites could be secured outside Dublin, and yet within reasonable distance, where it would be perfectly safe for all concerned to have a building for consumptives erected. Sir Thomas Myles proposed the following resolution:

> Resolved—That as all modern medical knowledge points to the fact that no case of consumption should be called incurable, or considered incapable of benefiting by remedial treatment, it is desirable that unfortunate patients who have reached the so-called chronic stage of the disease should be taken charge of in an institution of the sort suggested by modern knowledge, in a situation where their prospects of improvement will be greatest, and the danger of infection to others reduced to a minimum. As such an institution would probably come within the purview of the National Insurance Act, which hospitals for incurables would not, it is desirable that it should be inaugurated at once, so as to be in a position to receive patients before July next.

A provisional committee was appointed to carry out the objects of the meeting. A few days later a memorial was published in the daily papers, signed by a very large number of governors of the hospital, in which they state that:

> Having read the clearly expressed opinion of the President and Fellows of the Royal College of Physicians of Ireland, we respectfully ask the Committee of Management to reconsider their scheme for the erection of a hospital or new wing in their present grounds for the reception of patients suffering from tuberculous disease.

Practically all the doctors and clergymen who are life governors, except those who are on the managing committee, have signed the memorial, including three archbishops and one bishop.

High Death-rate and Cold Weather.

Sir Charles Cameron, the Medical Superintendent Officer of Health for Dublin, has written to the daily papers stating that for many years past there has not been so high a death-rate in Irish towns as recorded for the week ended February 10th, 1912, namely, 31 per 1,000. The rate in the Dublin registration area was 26.6, and in Belfast it rose to the enormous figure of 41.7. He attributes this high mortality to the unusually low temperature of the week ended February 3rd. In that week the mean temperature was only 30.6° F., nearly 10° below the mean for the corresponding week in the last ten years. Whilst the death-rate in the whole population was 26.6 per 1,000, it was 37.1 in the section of it composed of hawkers, porters, labourers, etc., who constitute a fourth of the whole population.

Deaths of Children by Burning.

A member of the Kingstown Urban Council, at a meeting last week, brought up the question of deaths of children from burning, and said that a number of the members of the Council had waited upon a magistrate, who had fined a woman, whose child died of burns, for not having a fireguard. They had discussed with him the question of providing fireguards. The Council, he said, were not, of course, legally liable to supply such fireguards, but, dealing with the question from a humanitarian point of view, they had assured the magistrate that they would do all they could in the matter. At a recent meeting of the Council of the Dublin Sanitary Association it was resolved:

> That the Council of the Dublin Sanitary Association view with great concern the frequency with which deaths by burning and scalding occur among young children in Dublin. In the week ended February 10th, 1912, three deaths were registered as caused by burning, two of the victims being children under 5 years of age, and the third a child over 5 years. The Council would call the attention of the Coroner, the sanitary authorities, and the public in general to the 15th section of the Children Act, 1908 (8 Edw. VII., ch. 67), which imposes substantial penalties on the guardians of children of tender years for exposing such children to risk of burning.

Housing of Harmless Lunatics.

At the last meeting of the Ballymahon Board of Guardians, the proposal of the Mullingar Asylum authorities to board out a number of harmless lunatics, so as to avoid the necessity for further buildings at the asylum, which would mean a heavy charge on the rates, was considered. It was explained that the cost of an inmate in the workhouse was between £11 and £12 a year, while in the asylum it was £17; so that if the asylum grant were received there would be a substantial saving instead of a loss on each patient taken into the workhouse. The original provision for accommodation in the workhouse was for 700 inmates, and there are now only 105 inmates. The clerk was directed to write to the asylum authorities and acquaint them with the accommodation available, and ascertain what it was proposed to pay for each patient transferred, and how the matter of increased attendance was to be met. This proposal is altogether contrary to the policy recently followed of transferring lunatics from the workhouses to the asylums.

India.

[FROM OUR SPECIAL CORRESPONDENT.]

Mayo Hospital, Lahore.

The first step towards the realization of the Punjab memorial to the late King Edward was achieved at Lahore on December 28th, 1911, when the Lieutenant-Governor, Sir Louis Dane, laid the foundation stone of the Mayo Hospital extension.

Sir Arthur Reid, in asking Sir Louis Dane to lay the stone, dwelt upon the liberality of all classes of the people towards the memorial and upon the feelings of common loyalty to a great cause which had been evoked by the scheme. With regard to finances, he stated that in addition to the Government of India's grant of ten lakhs, Rs. 15,41,117 had been subscribed and more might be forthcoming.

The Lieutenant-Governor thanked the great princes, chiefs, and merchants of the Punjab who had responded so readily to his appeals at Delhi and Lahore. The memorial scheme combined a well-equipped institution for giving instruction in all branches of technical knowledge on modern lines, with large and improved hospitals, without which such instruction would be merely theoretical, and fail to secure real efficiency. The feature of the scheme to which he attached the greatest importance was the improvement of the Medical College and its equipment with bacteriological and other laboratories to enable it to teach Indian medical students as well as they could be taught anywhere in the world, and to serve as a home for post-graduate study and research. It would be necessary to take care that the funds, limited by the Government of India to ten lakhs, *plus* subscriptions, were not expended too freely on hospital improvements to the ruin of more general educational features of the scheme. It has been said that the scheme neglected the older Yunani and Ayurvedic systems, but he entirely denied that. It had been stated in the appeals that there would be a branch for study of what was good

in those older schools of medicine, an object in which the famous Punjab hakims could help if they would. It was still proposed to have a branch in charge of a fully qualified medical man who had sympathy with the objects of this research, but it was not proposed, nor were subscriptions invited, for a college or hospital based on these systems, which, useful though they were, could not compete, as regards surgery and the more modern lines of medical research, with a Western system based on wider experience. At the same time, he was anxious to utilize all the agencies available for work in the great field of human suffering in the Punjab, and certainly should not neglect those older schools whose votaries have done, and were still doing, so much good in their own special lines of medical assistance. With that aim he warmly supported the movement for a Yunani-Ayurvedic college in Delhi, where such an institution under the skilled guidance there available should have a great future, especially as the promoters, as was the case in Lahore, proposed to utilize Western medical and surgical knowledge. As to the medical instruction for women, so spirited an enterprise as the Northern India School of Medicine at Ludhiana, which was now fully equipped with eight fully qualified medical women, and was prepared to educate girls of all creeds and classes for the subassistant surgeon and the assistant surgeon diploma of the King Edward College, deserved support, and he was glad to have been able to give it. A further building grant of Rs. 50,000 had just been promised to complete the accommodation wanted at once, and he noted that a great institution for training women doctors, nurses, and dhais would grow up under Dr. Edith Brown. Sir Louis Dane then laid the foundation stone with the usual ceremonial.

Hong Kong.

MEDICAL AND SANITARY REPORTS.

THE joint reports of the Principal Civil Medical Officer (Dr. Atkinson) and the Medical Officer of Health (Dr. Clark) for the year 1910 has lately been issued.

The area under the Sanitary Board's control includes the island of Hong Kong (about 32 square miles) and a portion of territory on the mainland between the shore and the first range of the Kowloon Hills. The city of Victoria, built on the northern shore of the island of Hong Kong, has a frontage to the sea of nearly four miles.

The domestic buildings of the city of Victoria number 9,694 (exclusive of barracks and police stations); 930 are non-Chinese dwellings.

The city of Victoria is divided into ten, and Kowloon into three, health districts, with a sanitary inspector in charge of each. There are in addition four inspectors in charge of the scavenging work.

General Sanitary Conditions.

The "cubicle question" has for many years been one of the most difficult problems in connexion with the sanitary welfare of the colony, but it would seem that at last it has been solved in a satisfactory manner by the enactment of stringent regulations combined with considerable latitude in their practical enforcement. The public health law of the colony prohibits the erection of cubicles in ground-floor rooms, and limits those on upper floors to two, while it also limits the height of the partition walls to 6 ft., and regulates their construction in certain other directions.

Meteorological Returns.

The mean maximum temperature during the year was 76.6° F., and the mean minimum 68.2° F. The average rainfall during the decade ending 1910 was 80.73 in., so that the rainfall for 1910—70.120 in.—was below the average.

Population.

The non-Chinese population of the colony comprised at the census of 1906 a white population of 12,925, coloured races (non-Chinese) numbered 8,500. In 1910 the estimated population was: Non-Chinese, 14,260; Chinese, 329,920; to which must be added the army and navy, numbering on an average 6,995.

Births.

There were 1,533 births during the year, which gives a general birth-rate of 4.3 per 1,000. The number of Chinese births registered (1,233) does not give an accurate record of the number of births which have occurred. Owing to the custom of the Chinese of not registering births unless the child has survived for a month, and often in the case of females not at all, it is probable that the majority, if not all, of the infants which are sickly at birth or die before they have lived one month have not had their births registered. It is customary, therefore, to assume that all children of 1 month old and under who are admitted to the various convents, and all young infants found dead in the streets, harbour, etc., by the police have been born in the colony, but not registered. The number of such children in 1910 was 782, which being added to the registered births raises the total to 2,315, and a corrected birth-rate of 6.6 per 1,000. The preponderance of male over female registered births is very marked amongst the Chinese, there being 321 males to 100 females.

Deaths.

The deaths registered during 1910 numbered 7,639. The death-rate was, therefore, 21.76 per 1,000, as against 21.13 in 1909. The total number of deaths amongst the Chinese community was 7,430, which gives a death-rate of 22.50 per 1,000. The deaths registered amongst the non-Chinese community numbered 209, of which 182 were from the civil population, 20 from the army, and 7 from the navy. This gives a death-rate of 10.04 per 1,000. This death-rate contrasts very favourably with that of the Chinese and also with that of the United Kingdom; but it must be borne in mind that over half the population of the colony (including Chinese) is between the ages of 20 and 45, and that invalids frequently leave the colony for their native countries.

Infantile Mortality.

The number of deaths of infants under 1 year of age was 2,520, or 32.9 per cent. of the total deaths. The infantile mortality amongst the non-Chinese community during the year was 80 per 1,000, as compared with 111 per 1,000 in 1909. Among the Chinese community the known deaths of infants numbered 2,495, while only 1,233 Chinese births were registered. It has been already explained that a large number of the births among the Chinese population are not registered.

Diseases.

Respiratory Diseases.—The total number of deaths for these diseases for the year was 2,641, of whom 38 were among the non-Chinese community. Phthisis alone accounts for 780 deaths, of which 765 were Chinese. Pneumonia caused 1,165 deaths; many of the bodies were examined in the public mortuaries, and in no case was death attributable to pneumonic plague.

Considerable efforts have been made during the past few years to check the inveterate habit of the lower class Chinese of spitting in public buildings, offices, etc. At the instance of the Government an antispitting league was formed by the leading Chinese, which has been active in its endeavours to check this obnoxious practice. Lectures have been given and leaflets distributed, calling attention to the dangers incident to this habit.

Malarial Fever.—The total number of deaths from malarial fever during the year was 591 (as compared with 422 in 1909), of which 9 only were non-Chinese. Antimalarial measures were first inaugurated in this colony in 1899, and during the past year considerable attention has been paid to this work. Special visits have been made by the sanitary inspectors in search of breeding-places for mosquitos, dense tangles of brushwood in the neighbourhood of houses have been cut down, and standing water has in places been treated with kerosene or with carbolated creosote at regular weekly intervals. During the year the Medical Officer of Health issued a pamphlet entitled "Advice concerning mosquitos and malaria."

Beri-beri.—Beri-beri accounted for 566 deaths, only 4 amongst the non-Chinese community.

Infectious Diseases.—The total number of infectious diseases notified during the year was 176, as against 292 in 1909, of which 25 were of plague. The incidence of plague during 1910 was very light, only 25 cases being notified, of which 4 were imported. The measures upon

which the colony relies for the prevention of plague consist of: (1) The exclusion of rats from all dwellings by means of concreted ground surfaces, the prohibition of ceilings in the native quarters, the protection of all drain openings and ventilating openings by iron gratings; (2) the collection and bacteriological examination of all dead rats—facilities for their collection in the native quarters are provided in the shape of small covered tins attached to lamp-posts, telephone posts, electric light standards, etc. These tins are filled with a carbolic acid disinfectant, and the inhabitants are invited to at once put into them all rats found or killed by them. These tins are visited twice daily by rat collectors, who take all rats found in them to the Government bacteriologist. (3) The destruction of rats by poison, traps, and birdlime boards. (4) The encouraging of the community to keep cats. (5) The systematic cleansing and washing out of all native dwellings at least once in three months with a flea-killing preparation. During the year 56,001 rats were found dead or caught in the city of Victoria, and 21,754 in Kowloon.

Typhoid Fever.—There were 67 cases of typhoid fever in 1910. In most of the cases of typhoid fever that occur in this colony the infection is probably contracted by eating salads of raw vegetables which have been grown in Chinese market gardens, where it is customary to water and manure the plants with diluted human excreta—both urine and night soil. Residents in the Far East should avoid such articles of food as watercress, lettuce, etc Oysters from neighbouring ports are also occasionally a source of infection.

Puerperal Fever.—Twelve cases of puerperal fever were certified during the year: 10 of these were Chinese, while the other 2 were Europeans; 7 of the Chinese cases died. The Government employs nine Chinese midwives, trained in Western methods, to attend the poor in their confinements, and 1,799 cases were attended by them in 1910

Civil Hospital.

The total number of admissions was 2.595, as against 2.384 in 1909, and 8,356 out-patients attended 17.759 times, as against 16.981 attendances in 1909. The average daily number of sick was 92. The death-rate amongst the nationalities was: Europeans, 4 per cent.; Indians, 3.4 per cent.; and Asiatics, 7.8 per cent.

Vaccinations.

The number of vaccinations was 618, as against 521 in the previous year.

Hospitals.

There were 344 admissions into the Victoria Hospital for Women and Children during the year, as against 219 in 1909. There were 21 confinements during the year. For a considerable portion of the year the Tung Wa Hospital had to cope with a demand for admittance frequently in excess of its accommodation. The total number of admissions numbered 4,255, as against 3,723 in 1909.

Besides these hospitals, there are four others in the colony—Alice Memorial and Alice Memorial Maternity Hospitals, Nethersole Hospital, and the Ho Min Ling Hospital. They treated 1,260 cases.

Bacteriological Institute.

The number of examinations made at the institute during the year was 406. As already mentioned, 56,001 rats were examined: of this number 107 were found plague-infected. The Government analyst performed 5,828 analyses, as against 594 in 1909, the majority being Chinese liquors—5,091 samples.

Health Office of the Port.

Every attention is paid to the inspection of shipping on arrival, and the staff inspected 4,284 arrivals, while 111,371 emigrants were examined, of whom 1,190 were rejected, chiefly on account of fevers, scabies, old age, and emaciation.

We have seldom perused a health report which has been compiled with such care as this one, and the Medical Officer of Health, Dr. Atkinson, deserves great credit for the admirable manner in which he has placed his facts and figures before the Government.

Special Correspondence.

PARIS.

Intussusception Results.—Mitral Stenosis with Peculiar Arrhythmia.—Phagocytosis of Red Blood Corpuscles.—Aplastic Anaemia.

AT a recent meeting of the Surgical Society of Paris, M. Ombrédanne reported several cases of intussusception which had been operated upon by disinvagination, or, in other words, by simple reduction of the intussusception. In four of the eight cases reported the incision in the abdominal wall gave way; in his opinion this was probably the complication most liable to occur, and generally with fatal result. Reflex straining and pressing as an effort of defaecation causes great tension on the sutures in the abdominal wall, and the giving way of the stitches was probably due to the fact that sufficient grip was not taken on either side of the wound. To overcome this straining in infants was practically impossible; but M. Ombrédanne emphasized the necessity for leaving a wide margin between the incision and the point of entrance of the suture. A tight binder in such cases would also give support to the sutures and diminish the frequency of the complication.

Drs. Josué and Chevallier read an interesting paper at the Society of the Hospitals on a case of mitral stenosis in which an uncommon form of arrhythmia was observed. The patient complained of palpitation and breathlessness before admission to hospital. The tracings were made with the polygraph and the jugular and radial pulses recorded. The auricular systoles at the first observation numbered 180, and the ventricular beats 129 a minute: the ratio was thus 1.39. Digitalis was administered, and after some days the general condition of the patient improved considerably, but the tachycardia persisted, though the arrhythmia had a different character: the auricles contracted 282 times each minute, whereas the ventricular contractions numbered 72 a minute. The ratio at this time was 3.91. After this the number of auricular systoles diminished and became 162, the ventricular numbering 68, giving the ratio of 2.38. The digitalis was then stopped for five days, and the last observation, taken before the patient was dismissed, gave 233 auricular contractions, the ventricular contractions numbering 75, with ratio of 3.1.

At a recent meeting of the Society of Biology, Professor Achard and Dr. Charles Foix reported that if human serum was made "insensible"—that is, heated for half an hour at 56 C.—and rabbit's red blood corpuscles then added to the serum, no haemolysis occurred. If now human leucocytes were added to the serum, plus rabbit's red blood corpuscles, great phagocytosis of these red blood corpuscles occurred, and the corpuscles could be easily demonstrated within the leucocytes. These experiments showed (1) that a serum normally haemolytic might be made non-haemolytic; and, secondly, that the leucocytes were phagocytic in an "insensible" serum. From these researches the authors were inclined to think that sensibilization and opsonization were one and the same thing.

Drs. Sicard and Gutmann have reported a rare condition of the blood to the Hospital Medical Society. The patient during an ordinary attack of typhoid fever became gradually very anaemic without any signs of icterus. Cultures from the blood gave a pure growth of Eberth's bacillus. The red blood corpuscles became very distorted and fragile, but the serum was neither isohaemolytic nor yet autohaemolytic. Death ensued, but no haemorrhage had occurred from the bowel, and the extreme anaemia seemed to be an example of the rare condition of aplastic pernicious anaemia supervening during an ordinary attack of typhoid fever.

THE late Dr. Cecil Yates Biss left estate of the gross value of £17,334, with net personalty £17,261.

THE late Dr. Sophia Louisa Jex-Blake left estate of the gross value of £14,196, of which £11,095 is net personalty.

MESSRS. CLAUDIUS ASH, SONS AND CO., LTD., 5–12, Broad Street Golden Square, W., have issued a catalogue, very amply illustrated, showing a number of the dental instruments which they manufacture, including forceps, mouth mirrors, filling instruments, and contouring pliers.

Correspondence.

SIR JAMES BARR AND THE INSURANCE ACT.

SIR,—Dr. J. S. Manson might have found a better title for his letter in the JOURNAL of February 17th than "Sir James Barr and the Insurance Act." I am rather puzzled to know what his remarks have got to do with my views on the Insurance Act, and as for his inept criticism of Dr. Rugg Gunn's able letter in your previous issue I can pass that over in silence. He thinks that his statement "'That most legislative enactments dealing with health and social reform are of the nature of experiments, whose ultimate outcome from the racial point of view cannot be predicted,' hardly needs defending." This may appear so to Dr. Manson's vision, but many of us complain of all these wild and extravagant experiments based on ignorance of biological laws, and which cannot lead to the higher evolution of the race. Of all the socialistic legislative experiments of recent years this Insurance Act is the most ignorant and most expensive.

Dr. Manson is evidently not a follower of Weismann when he speaks "of the difficulty of the problem dealing with the transmissibility of acquired characters and of our ignorance how far environment suppresses or brings to light genetic qualities; and further experience shows that these Acts are continually being modified by repeal and amendment." The best thing that could happen to this wretched Insurance Act would be to have it repealed out of existence.

I do not know what language is suitable to characterize his misquotation from Professor Bateson's work on *Mendel's Principles of Heredity*, but, in order that your readers may be able to judge for themselves, I give first Dr. Manson's misquotation and secondly the true quotation from Professor Bateson's work, page 254:

1. In regard to some of these wide departures from expectation shown in many pedigrees of human diseases and defects, it is, I think, still open to question whether the transmission is a process comparable with that which we ordinarily designate as heredity.

2. The very wide departures from expectation shown in many pedigrees of human diseases and defects are certainly in part attributable to the imperfections of the records, but I cannot doubt that the discrepancies are in part due to genuine physiological causes. In regard to some of these it is, I think, still open to question whether the transmission is a process comparable with that which we ordinarily designate as heredity. Some element is obviously handed on from individual to individual, but it seems to me possible that this element or poison is distributed irregularly among the germ cells, spreading among them by a process which is mechanical, like the spread of an oil stain in a heap of paper, or of a fungus in a heap of seeds. In the present state of pathological knowledge it is premature to make any suggestion as to the possible nature of such poisons. I am told by competent authorities that in the cases, for example, of the various polymorphic hereditary paralyses it is very improbable that pathogenic organisms can be the exciting cause; nevertheless, from a study of the inheritance in an ample series of families, I am inclined to suppose that the element transmitted is something apart from the normal organism, and that it is handed on by a process independent of the gametic cell divisions. In such cases I do not anticipate that any "law" of inheritance can be discovered, for if my view is correct the process is not heredity in the naturalist's sense at all.

I hope Dr. Manson will improve his environment by a more careful study of Professor Bateson's work. He will there find some refreshing fruit for his parched mind.—I am, etc.,

Liverpool, Feb. 18th. JAMES BARR.

THE DEBATE ON THE INCOME LIMIT IN THE HOUSE OF COMMONS.

SIR,—Many members of the Association will consider that Dr. Helme made the statement complained of by Mr. Smith Whitaker in consequence of what Sir Philip Magnus wrote in his letter to the *Times* on January 4th last: "The letter (Mr. Smith Whitaker's) was shown to me and read, and it certainly influenced my decision" (to withdraw the amendment). After Mr. Smith Whitaker's emphatic denial that there was anything in the letter asking that the amendment should be withdrawn the case is somewhat altered, although it is a pity a copy of the letter was not preserved. It can hardly be expected that the assumption that the amendment was only withdrawn on account of unanimity of opinion among the supporters of the profession in the House being against it being persisted in, should escape criticism in the face of the contradictory letters that have appeared in the public press on the subject. It is true Dr. Addison writes that "to any member of Parliament such a debate afforded conclusive evidence that the motion before the House was certain to be heavily defeated." But Sir Henry Craik is a member of Parliament, and was present at this debate. He writes in the *Times* of January 4th: "Whoever told Mr. Smith Whitaker that only sixty members would support the amendment gravely misrepresented the facts. I am certain that the division would have been more close than most of the divisions on the bill, and many members who intended to support the amendment expressed to me their astonishment at the course taken. The only ground ever alleged to me for that course was Mr. Smith Whitaker's letter."

Why is Dr. Addison's opinion to be preferred to that of Sir Henry Craik? Under any circumstances, Dr. Helme had ample justification for what he said.—I am, etc.,

London, E.C., Feb. 17th. MAJOR GREENWOOD.

THE PROFESSION AND POLITICIANS.

SIR,—Your editorial addendum to my letter raises a much wider issue than the inaccuracy of your leaderette, for you make fresh and equally misleading statements, the only purport of which is to prejudice my position as a member of the Association and to give a wholly erroneous impression of the issue.

You now assert that in my conversation with you on February 9th I "complained *inter alia* that you had not stated that the incident was political." There is not a word of truth in this assertion. I made no such complaint. In that conversation I firstly corrected the erroneous statement in your leaderette, namely, that you "had no reason whatever to believe that 'the incident' was inspired by political feeling," and then I reminded you that on December 19th I had pointed out to you that the serious issue was not the political one you now discuss but the grave fact that the leaders of the profession who were on the platform, and who subsequently spoke, made no attempt whatever to preserve freedom of speech in an open meeting of medical practitioners or to deprecate its destruction.

I now turn to your treatment of my letter on matters of fact. You take advantage of your editorial position to place under my letter a flat contradiction of my statement that I gave you proofs.

You say, "Sir Victor Horsley has not furnished any proof of the assertion (*sic*) that the incident was inspired by political feeling." This is not true. I proved to you directly after the Queen's Hall meeting that the incident was both organized and political. I told you that not only was I warned beforehand of what would be done, but that when I rose from my chair a so-called steward rushed forward, shouting, "*You* shall not speak, sir; *you* shall not speak," and the claque immediately began a steady chorus of "No," "No," "No." I told you, further, that the chairs were covered with *Daily Mail* Servants' Tax Protester League papers, and that I was assailed with cries of "Traitor," "What price is your peerage?" "Go to your Lloyd George," etc. On February 9th I also reminded you of my previous communication of these facts.

Your statement that I furnished no proofs to you is unworthy of the responsible direction of our JOURNAL, and I have therefore referred it, together with the general question of anonymous comments by the JOURNAL on members of the Association and on others, to the proper authority—namely, the Journal Committee.—I am, etc.,

London, W., Feb. 20th. VICTOR HORSLEY.

SIR,—On page 391 of the JOURNAL of February 17th you publish a letter from Sir Victor Horsley in which he contends that the "howling down" of himself at Queen's Hall was both "political and organized." I was present at the meeting, and while regretting the "howling down" as undignified, no unbiassed person could blind himself to the fact that Sir Victor Horsley was primarily to blame for it. On his own statement to the Editor of the JOURNAL—"he had been informed two days before the meeting that

he was to be shouted down"—he is guilty of inciting to uproar. As for his contention that the opposition was political, I cannot agree. The opposition was due to the fact that he has openly put political interests before medical, as proved by his attitude in speeches on the bill and by his arguments in defence of the action of the Council of the Association, which most of us had heard and read, and his words at the meeting were practically a repetition about "minutes of meetings," etc., and had nothing to do with the main object of this meeting. His aggressive manner on rising in the body of the hall was to all appearances a signal for trouble, and the trouble fell on his own shoulders. He and other members of the Council had turned up at meetings of Divisions to "explain misunderstandings" where none existed. Small wonder, then, that those present did not wish the time of the meeting wasted by mere repetitions. There is no doubt that Sir Victor Horsley and his party have made the bill political for party gain; but if one may judge from conversations with the working classes, only one section of them want the "refreshing fruit"—that is, those who have never practised thrift for themselves. The reason the friendly societies are so keen to become approved societies is that they see in the Act a chance of greatly increasing their membership, and not because benefits to members will be increased.—I am, etc.,

Tottenham, N., Feb. 17th. S. L. Craigie Mondy.

P.S.—Could not the Association draw up a service of its own embodying the six cardinal points, and thus dispense with the Act?

Sir,—I refer to your footnote in comment upon the letter of Sir Victor Horsley, published in your Journal of the 17th inst., and on the one point that requires an answer—the question you ask of "proofs" that the meeting at Queen's Hall was inspired by political feeling when it "shouted down" Sir Victor Horsley. You seek in vain for enlightenment of these "proofs" in the columns of the *Daily News*, *Daily Chronicle*, and *Times!*

Apparently, therefore, you assume that "shouting down" is an ordinary method of argument, quite in accordance with how doctors—at least, doctors in the medical profession if not doctors in education and ability—are accustomed to express their views or opinions! It is to the height of our intellectual stature, this shouting down an opponent whose opposition is rather to our self-love in offending the already convinced opinion we hold in any question! So we fear he will persuade us, "talk us over"—he is too dangerous to be allowed to explain his position, which we have publicly characterized with every slanderous epithet we can name. This is not, in your view, "politics"!

Is it political if a servant of the State is vilified, all his past services forgotten—and most forgotten by those who are least capable of themselves serving one-tenth of that great man's services, and who are always ready to refuse the honour or outward respect that decency may demand?—such a political traducer, shall we say, who can never say "gentleman" when he can say "man," who can speak, in fact, as some of those correspondents who find so ready space in your correspondence columns when the Insurance Act is in question?

But Sir Victor Horsley trusted in the non-political atmosphere, however hostile he knew it to be, when he courageously placed his case before the tribunal of the so delicate critical audience who shouted him down at the Queen's Hall.

It was not sufficient for the *non-politicians* that he came trusting in their judgement. Oh, the pity of it! Oh, the "blundering" of it! If only they had discreetly concealed their politics sufficiently from public nakedness for only the space of time to pretend to hear Sir Victor Horsley excusing himself, then they might have risen up and smote him afterwards with a true and just conviction of his wrong.

But alas! the Editor of the British Medical Journal (who is so facile of his quoting of the classics) says—"Someone has blundered."—I am, etc.,

London, Feb. 9th. D. C. Kemp, Major, I.M.S.

Sir,—My attention has been called to a letter in your issue of February 10th from Mr. J. M. Robertson, M.P., in which he denies having made an assertion imputed to him in regard to the opposition of medical men to the Insurance Act. Incidentally he suggests that you are not sufficiently on your guard against "sweeping inferences from scrappy newspaper reports."

As I am concerned in this matter, having, in my capacity as reporter, given the *Newcastle Daily Journal* an account of the hon. member's speech, perhaps you will allow me to state that Mr. Robertson was accurately represented, and that, so far from the report being a scrappy one, it occupied about three-quarters of a column. The value of Mr. Robertson's denial may be gauged from the following extract taken from my shorthand note:

> The Insurance Bill is perhaps a little ahead of public opinion all round; you cannot change society without causing pinches and wrenches somewhere or other. But let me appeal to those who are discontented. Try to remember that this measure, however it may pinch your corn somewhere, is a scheme to render a vast service to the mass of the people. I think we have a particular right to criticize the doctors in this matter. I will say there is no profession in the country that does more unpaid work than the doctors; that will always stand to their credit; and the remembrance makes me willing to forgive a good deal of their hostility to the bill. But the healing profession has shown more readiness to cry before it is hurt than any other section of the community. It is an unfortunate fact that the bulk of that profession are Tories, the reason being they have to give so much time to laborious training needed for their own profession that they know very little about anything else—I mean in a public way. They are the worst set of politicians in the country; they never get any training that way; they never seem to find time to make themselves good politicians. The majority of the medical profession are Tories. Probably the majority of them are Tariff Reformers, and it is on that ground, I am afraid, they have been so ready as they have been to set up all this violent and furious opposition to the Insurance Act. If the Tariff Reformers proposed a tax to make your food and boots dearer there would be no meeting of doctors to protest; they would not see anything wrong. I am not saying that because they are willing to plunder you, you should be willing to plunder them. They are not going to be plundered.

Politicians who make extravagant assertions are prone to give denials, and the custom of blaming the reporter or the newspaper for misrepresentation is becoming too common. Now that I have refreshed Mr. Robertson's memory with the above extract, perhaps he will admit that he did make the statement imputed to him: and, having done so, he may be disposed to apologize to the medical profession for his unprovoked attack, and to you, Sir, for the manner in which he dealt with your criticism. For myself, I should be quite content with an acknowledgement that I have done Mr. Robertson no injustice.—I am, etc.,

Newcastle, Feb. 16th. Graeme M. Allan.

THE STUDY OF CONDUCT.

Sir,—Dr. Hayes Newington now says it is I, not he and his other friends—for in spite of his belaboring, misrepresenting, ridiculing, and, worst of all, outvoting me, I still call myself one—whose opinions are changed. Well, I gave chapter and verse for what my opinions were two years ago, and if he will be good enough to look up my *Sanity and Insanity* he will find that I held the same twenty-two years ago; and I hold the same now. Where, then, is the change on my side? As for his, he now repeats[1] what he said on February 2nd, which, as I gave chapter and verse to show, is the position that he and all the rest of my colleagues voted against in 1910. He says he "did not assent to conduct being classed with mental attributes, such as reason, will, etc." I have shown by unimpeachable documentary evidence that he not only did assent to this course, but also voted down my proposal to separate conduct from them and place it in a class by itself. This he does not deny. If this is not a change, there is no such thing as change, "nor that is not my nose neither.—Nothing, that is so, is so."

Dr. Newington is good enough to give my book on logic a handsome advertisement, for which I offer him due acknowledgement; and he goes on to say that he is sure that my concept of conduct is not the same as that of those that are arrayed against me. Very likely. But in my book on the subject I have defined my concept of conduct; why don't they define theirs? Then we may be a little forrarder.

Now he raises a quibble about classing and grouping, and accuses me—me forsooth!—of unjustifiably treating "grouping" in the same sense as "classing." Bless the man! "Classing" is his own word, and he accuses me of

[1] British Medical Journal, February 17th, 1912.

equivocation because I quoted him correctly, and assumed that he meant what he said. What next!

Finally, Dr. Newington is kind enough to credit me with an inexhaustible fund of—what? Of patience under misrepresentation? of meekness under calumny? of resignation under false accusation?—virtues to which I may fairly lay some claim—no, but of subtle and genial humour; and, as an instance, he quotes my opinion that, "In treating of conduct, it is desirable to eliminate, as far as possible, reference to mental states and mental processes. We shall find, hereafter, that it is not always possible to eliminate such reference completely, but at least it should be minimised." With this he contrasts my exhortation to alienists to study conduct, and somewhere in the interstices he discovers a joke. I may, perhaps, possess the subtle and genial humour with which Dr. Newington is good enough to credit me, but I am hanged if I am subtle enough, or genial enough, or humorous enough, to see any joke in this. For all the joke I can see, I might be a teetotal Scotsman reading last year's *Bradshaw* on a wet Sunday in Peebles.

It is a fact that the inveterate prejudice and preconception that conduct is a phase of mind does prevent us from eliminating the reference completely—Dr. Stoddart has not even a glimmering of the difference between them—just as our inveterate preconception that colour resides in the coloured thing prevents us from completely realizing in practice that the colour is in our minds and not in the thing; but I see no joke in that, though no doubt there is some cynical amusement to be obtained from contemplating Dr. Stoddart's inability.

Now for Dr. Stoddart. He accuses me of self-condemnation, and he adduces in proof two statements, neither of which have ever been made by me, and triumphantly shows that they are inconsistent. To attribute to your adversary statements that he has not made, and to call him to account for them, is an old and easy device much in vogue amongst politicians, but it seems to me out of place in the controversies of men of science. Dr. Stoddart says I showed that one of the items in his draft syllabus was "defect and disorder of conduct." I never showed any such thing. On the contrary, I showed that this was not in Dr. Stoddart's draft, and that "defect and disorder of conduct" was subsequently added, and, I may now say, was added at my instance, and against Dr. Stoddart's strenuous opposition. Dr. Stoddart says I allege that psychiatric physicians deny that the study of conduct is desirable. I have never said so. I have said they deny that the systematic study of conduct is desirable, and they have denied it in the most practical way possible—by scouting my proposal that conduct should be so studied.

It is true that I made the distinction between regarding conduct as a proper subject of study and regarding it as a branch of psychology. This time Dr. Stoddart is accurate. I made the distinction because it marks a real and important difference, that Dr. Stoddart did not, I thought, appreciate. His letter shows that he does not appreciate it yet. The drawing of this distinction by me Dr. Stoddart calls "confusing the controversy." That may be its title in Wonderland and Through the Looking Glass, where Dr. Stoddart appears to have been brought up, and where you pay words extra to take any meaning you like, but in the workaday world in which we live it is called "clearing the issues," "defining the questions at issue," or some equivalent title.

Every textbook on normal psychology with which Dr. Stoddart is acquainted "includes a chapter or two on will, instinct, habit, etc.—in other words, on conduct." Well, if will is conduct, then imagination is conduct, beauty is conduct, red and blue are conduct, circular and square are conduct, and words no longer have any meaning. I might as well attempt to discuss colour with a person born blind, or music with a person born deaf; and here I abandon the attempt. I have the satisfaction of knowing, however, that Dr. Stoddart's recalcitrancy is only temporary. As soon as my views are appropriated and published as his own by a German, as previous experience shows that they will be, Dr. Stoddart will hail them as a divine revelation.

To return to the main issue. It was resolved to draw up a syllabus of the subjects that a student of insanity ought to study. It was agreed that psychology, the science of the normal mind, should be one such subject. I proposed that praxiology, the science of conduct, both normal and morbid, should be another such subject. This proposal met with no seconder, and was unanimously and contumeliously rejected; I therefore appealed to the whole association, and though I cannot say that I was defeated, for no vote was taken, yet I failed to obtain one supporter. I then wrote a book on the subject, in which I said, "the psychiatric physican . . . not only makes no systematic study of conduct, but denies that such a study is desirable, even if he admits that such a study is possible." To this statement the writer of a very able and appreciative review in the BRITISH MEDICAL JOURNAL demurred. He said I did not correctly interpret the attitude of most psychiatric physicians; and Dr. Newington must need "put his oar into other people's pies," by writing to support him. These are the facts. None of them has been questioned. None of them can be questioned. On these facts I say that the statement in my book is justified and proved up to the hilt. It is for your readers to judge.

Many of them, I am afraid, will say, "What on earth does it matter? You are all agreed now that conduct ought to be studied. Why labour the thing?" With great submission, it does matter—to me. In the first place, my accuracy was impugned, and this little animal is so incredibly malignant that when it is attacked it defends itself. In the second place, I have never in my life engaged in a controversy about priority of doctrine. When I have seen old doctrines of mine, born long before their time, resuscitated and brought forward as original by other men, I have let it go, rather than enter on an undignified wrangle. When I have heard other men deliver solid chapters out of my books as original lectures of their own, I have contented myself with a private expostulation, and more than one such offender has treated the matter as a good joke—and considered me a boor because I failed to see the point. It seems to me now that I have been too complaisant, and that I may as well claim credit when it is justly and lawfully due to me.

The view of insanity that regards it primarily as a disorder, not of mind, but of conduct, is, in my opinion, the most important and far-reaching revolution in our estimation of insanity that has yet been made, and in its ultimate acceptance I have no more doubt than in the permanence of aseptic surgery.—I am, etc.,

London, N.W., Feb. 19th. CHAS. MERCIER.

THE NEW CELL PROLIFERANT.

SIR,—In the BRITISH MEDICAL JOURNAL of February 17th Mr. H. C. Ross gives what he considers is a confirmation of his claim to having discovered certain substances which are capable of making cells divide which will not divide in the absence of these substances. The confirmatory fact, according to him, is that his "auxetics" induce cell divisions in the ova of *Ascaris megalocephala*. Had Mr. Ross told us of something which would prevent cell division with certainty and rapidity in these ova, the information would have been very useful to those who have to conduct classes in zoology. I have seen segmentation going on in them when they were immersed in glacial acetic acid. Living embryos are found in the uteri of females which have been kept for days in formalin. When at the Royal College of Science, London, I had to prepare material for the courses in zoology and cytology, and never found anything that could be relied upon to kill and fix the ova of *A. megalocephala* in under thirty-six hours. It is really funny that Mr. Ross should claim that the substances he thinks he has discovered are capable of inducing divisions in these cells, for every one who has had anything to do with them has known for a great many years that it is extraordinarily difficult to prevent them dividing without destroying them altogether.—I am, etc.,

Glasgow, Feb. 17th. CHARLES WALKER.

INTRINSIC CANCER OF LARYNX TREATED BY LARYNGO-FISSURE.

SIR,—In your report of my remarks on Dr. StClair Thomson's paper in the JOURNAL of February 17th may I point out that the most interesting feature of the specimen I showed was quite overlooked by the reporter? Your statement reads thus:

Mr. Herbert Tilley recorded a case in which the operation had been successful for thirteen years. Then the patient died, and a hard button-like epithelioma was found *post mortem*.

May I say that the original epithelioma occupied the right vocal cord and arytenoid region; this growth was removed by me, and the patient lived for thirteen years. At the *post-mortem* examination the healthy scar of this operation was still obvious, but "a hard button-like epithelioma" had made its appearance in the *left* vocal cord. The whole interest of the specimen centred around the question—Had we to do with a recurrence of the original growth, or was this a fresh deposit occurring in a cancerous individual and only appearing by accident near the site of the first growth? Such a specimen must be of particular interest to those who are engaged in endeavouring to unravel the mysteries pervading the origin and life-history of the cancer cell, and for this reason I ventured to draw particular attention to it.—I am, etc.,

London, W., Feb. 18th. HERBERT TILLEY.

ROENTGEN RAYS IN SURGICAL TUBERCULOSIS.

SIR,—My attention has been drawn to the abstract from the *Berl. klin. Woch.* which appears in the EPITOME of the BRITISH MEDICAL JOURNAL of February 10th under the above heading. It contains certain statements which are to me peculiarly interesting, namely:

(1) Tuberculous adenitis is that which reacts most satisfactorily to the *x* rays. (2) The more or less rapid involution of the glands till they reach their normal size and consistency is followed by an arrest of the disease and the induction of immunity. (3) That the author, Herr von Baisch, summarizes the results obtained by himself *and others in this field*. [The italics are mine.]

On referring to the original article in the German periodical in question, I find that the last part of the third statement quoted above is not correct, and I therefore beg leave to refer your readers, as well as the author, to a contribution on the subject made by me to the *Lancet* five years ago entitled, "Observations on the induction of autovaccination by the *x* ray irradiation of the lymphatic glands involved in tuberculosis and other glandular infections, as revealed by the opsonic chart."[1]

On that occasion I advanced the theory that the lymphatic glands were not merely "filters" in their function, as is commonly supposed, but that they are essentially *the source and the destination of the leucocytes* that are concerned in the elaboration of the opsonins or immunizing agents of the body; that they, in fact, constitute the machinery for the purpose of combating all infectious processes, taking the lymphoid glands to be in the same category.

You, Sir, will, I have no doubt, allow that it is one thing to publish mere results, and quite another thing to endeavour to explain how the results are brought about, particularly if light can be thrown upon the physiological function of organs, about which very little can be learnt from textbooks, and about which our ideas are extremely vague.

I may add that my observations and experiments referred to above have since been confirmed in the United States, in regard to tuberculous adenitis, by Dr. Lawrence and by Dr. Crane. They have also been confirmed in Italy by Sgrs. Paoli and Nuncioni in regard to primary syphilitic adenitis.

I have been recently engaged in an endeavour to correlate and bring into line such apparently divergent though well-established methods for the induction of immunity to infections, as Bier's hyperaemic therapy, Schroeder's method of venesection, and Wright's vaccine therapy, in the light of recent research. I hope to show the remarkably striking parallelism that exists.—I am, etc.,

London, W., Feb. 14th. H. D. MCCULLOCH.

THE DANGERS OF HOT FOOD.

SIR,—In connexion with the question of the causation of cancer, many considerations afford reason to attribute a part of the wide prevalence of the disease to the increased use of hot drinks and hot foods among the general population, as well as to the toxic properties of many of the articles consumed. During last December I made a large number of tests with accurate stem thermometers of the temperature of foods and drinks while they were being taken, and found to my surprise that many solids are eaten at temperatures of 134° to 167° F., and that many liquids, such as soup, tea, and coffee, are drunk at temperatures from 125° to 148° or more. It is curious that neither the mouth nor the lips convey the impression of such great heat, but the skin would, of course, not tolerate any temperature near 130° or 140°; there would be sharp pain and scalding. It seems in the highest degree probable that the frequently repeated daily internal irritation by scalding hot foods and liquids must often result in serious disease. The common destruction of teeth in civilized countries, lately discussed in the JOURNAL, is certainly partly owing to hot foods; even cattle lose their teeth when given hot mashes. The effect of temperatures of 125° to 160° on the internal surfaces deserves consideration.—I am, etc.,

London, S.W., Feb. 7th. R. RUSSELL.

THE NATURE AND ORIGIN OF CANCER.

SIR,—Dr. Shirlaw acknowledges that there is, after all, "a causative force of some kind in life," or, as he calls it, an "actuating force." This, however, is, he says, "beyond the province of the materialist." I quite agree with that; objective science takes no cognizance of this force. The doctor, however, is much more than a mere scientist or "materialist," and he has to deal with human nature, in which this "actuating force"—or, in other words, the will—plays a very important part. When an engine shows a tendency to stop, the engineer may often get it to go on by oiling the wheels, adjusting the cogs, and otherwise reducing friction. In the long run, however, he must go to the root of the matter, and get up more steam. Dr. Shirlaw probably thinks the actuating force in the human machine is inaccessible to us. He is wrong, however. This "force" is, roughly speaking, the same as the will, and the will can be made stronger by exercise, just like a muscle.

Dr. Shirlaw's mixture of internal secretions might conceivably play the same part as the engineer's oil or mechanical readjustments when the machine is threatening to run down—"swithering," as we say in Scotland. Would not, however, other kinds of oil possibly do as well—such as, let us say, horse serum or aqua destillata? I can imagine that certain cases of cancer of the oesophagus might recover after these substances had been injected into them.

Dr. Shirlaw says the early embryo might get its internal secretions from its mother's blood. This is ingenious, but how, I might ask, would this explain the development of the chick in its egg?

I congratulate Dr. Shirlaw on having penetrated far enough into the "psychological fog" to satisfy himself that the "actuating force" does, at any rate, exist. As to his description of the mechanism through which this force manifests itself, I should gravely question whether that will prove even a "working" hypothesis. The one case he quotes might be the exception which proves the rule!—I am, etc.,

Edinburgh, Feb. 18th. ARTHUR J. BROCK.

STERILIZATION OF THE SKIN WITH IODINE.

SIR,—During the last two or three years the method of sterilizing the skin with iodine introduced by Antonio Grossich has been widely adopted. It consists in painting the area to be sterilized with tincture of iodine, and repeating the application after five or ten minutes, without preliminary washing with soap and water. This method has been modified by different surgeons, but without any important change. The method which I have successfully used in all minor operations and in accident cases is as follows.

I scrub my hands with petrol, using a sterile nailbrush, and then dip them for a few seconds in a wide-mouthed bottle containing a saturated solution of iodine in petrol. The patient's skin is shaved prior to the operation, if necessary, petrol being again used instead of soap and water, cleansed with a sponge soaked in petrol, and then swabbed freely three or four times with the above iodine solution. The solution I use has nearly the same strength as the tincture of iodine of the *British Pharmacopoeia*. This solution of iodine causes little or no irritation, except where the skin is very tender, and has very good penetrating and cleansing properties. It stains the skin

[1] *Lancet*, 1907, vol. i, p. 215.

yellow, but the stain does not remain long, disappearing on exposure.

My only excuse for writing this letter is to suggest to the more experienced men in the profession the trial of this method of skin sterilization. Petrol is cheaper than spirit, less irritative, and more volatile. The one great objection against its use in an operation room is its inflammability. The solution of iodine in petrol has to be kept corked, as, otherwise, the petrol will volatilize quickly.—I am, etc.,

Colombo, Ceylon, Jan. 25th. I. David.

THE PARASITE, CANCER.

Sir,—I read with interest and appreciation two lectures on "Unicellula Cancri," by Sir Henry Butlin, who has done good service in once more emphasizing the fact that the parasite of cancer is the cancer cell itself, even though it may not be possible absolutely to identify cancer cells with protozoa, as he has suggested.

The question of priority is of less importance than is the fact that this conception of the cancer cell has been reached independently by other workers. In September, 1905, at the Australasian Medical Congress in Adelaide, I gave an address on cancer and tumour growth, published in the *Australasian Medical Gazette* and in the *Edinburgh Medical and Surgical Journal*, in which I suggested (1) that the relation of the chorionic epithelium to the maternal decidua was essentially that of a neoplasm of restricted malignancy, so far as local infiltration and independence of growth was concerned—the fertilized ovum being for a time definitely parasitic upon the mammalian organism; (2) that the development of cancer was a biological phenomenon *sui generis*, and implied the generation of a new organism; (3) that the cancer process was an invasion of the parent organism by a brood of independent and hostile cells, equivalent to a microbic infection.

Again, in February, 1907, I elaborated these suggestions in an address to the First Australasian Dental Congress, published in the *Australasian Medical Gazette* and in the *Lancet*. I then said:

> Whereas the cells of the healthy animal body are all working for the common good, the cancer cell appears as a seceder from this commonwealth. . . . Whatever the ultimate nature of cancer may prove to be, this at least is certain—that it constitutes an invasion of the organism by a brood of independent and hostile cells, and that, once these cells have made their appearance within the organism, they may undergo a practically indefinite and unlimited multiplication and proliferation. But these are precisely the conditions that go to make up the process of infection, and so we reach the general conclusion that, in a very definite and intelligible sense, cancer is an infective disease—as certainly infective as any disease due to an invasion of the organism by other parasitic cells, whether of bacterial or of animal origin. . . . Although the existence of a specific cancer parasite is at the best doubtful, the existence of the parasite, cancer, is beyond a doubt. . . . The cancer cell is in itself a parasite, and is endowed with that formidable attribute of the more highly pathogenic parasites—the attribute of infectivity.

I then pointed out that, although cancer is an "infective" disease, it is probably not "infectious." I went on to show that a due appreciation of the "infective" nature of cancer tends, not to confuse, but to co-ordinate certain phenomena of tumour growth, such as relative malignancy, which otherwise are hard to apprehend.—I am, etc.,

[illegible] of Sydney, Jan. 15th. D. A. Welsh.

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

Conferment of Degree.

The following degree has been conferred:

M.D.—G. F. Barham.

UNIVERSITY OF ST. ANDREWS.

The Senatus Academicus at a meeting held on February 17th resolved to confer the honorary degree of LL.D. at the public graduation ceremony on July 17th, on Sir Thomas Boor Crosby, M.D., Lord Mayor of London, and Sir John Batty Tuke, M.D., formerly M.P. for the Universities of Edinburgh and St. Andrews.

Public Health AND POOR LAW MEDICAL SERVICES

POOR LAW MEDICAL OFFICERS' ASSOCIATION OF ENGLAND AND WALES.

A council meeting of this association was held at 34, Copthall Avenue, E.C., on February 15th, Dr. D. B. Balding, J.P., presiding.

Statistical Returns.

The Honorary Secretary (Dr. Major Greenwood) reported that an answer had been received from the Local Government Board to the two questions submitted by the Council respecting the statistics required in the early part of last November from Poor Law medical officers: (1) Did the Local Government Board consider that under Article 265 of the General Order of July, 1847, duties such as these were included? (2) In the event of boards of guardians being willing to pay an extra fee for the work, would the upper Board sanction it?

The answer to (1) was in the affirmative, and with regard to (2) the Board expressed its readiness to sanction extra payment for the work if requested by the boards of guardians.

It was thought by the Council that Poor Law medical officers would gain little benefit from this concession, as few boards of guardians could be induced to make the request.

National Insurance Act.

The answer of the Chancellor of the Exchequer to the application for a clause in the National Insurance Act to protect Poor Law medical officers of more than twenty years' service from loss that might accrue to them through that measure in respect to their superannuation was read as follows:

Treasury Chambers, Whitehall,
November 22nd, 1911.

Dear Sir,

With reference to your letter of the 14th inst. I am desired by the Chancellor of the Exchequer to say that the representations which you have put before him have received careful consideration, but inasmuch as the suggestions made in your letter of the 16th inst. relate directly to amending the Poor Law Officers' Superannuation Act, it would seem that the better course was to communicate in the first instance with Local Government Board.

Yours faithfully,
Dr. Major Greenwood. E. Gower.

It was generally considered that this suggestion that the request should be made to the Local Government Board, as it necessitated an amendment of the Superannuation Act, was an evasion. It repeatedly happened in legislation that provisions were put in new statutes to modify, under certain conditions, provisions in existing ones, where special interests required protection, without amending the latter.

Breach of Poor Law Orders.

The Honorary Secretary submitted to the Council the details of a serious breach of the Poor Law Orders of which the Winchester guardians had been guilty. He regretted to say that it had been subsequently condoned by the Local Government Board.

The said guardians had advertised for a medical officer for the Micheldever district, and had therein stated that the officer would only be appointed for three years. Dr. Todd, one of their members, had been elected on the terms of this advertisement, but he was unaware that it was contrary to the Medical Appointments Order of May, 1857. Article 2 of that Order laid down that where a medical officer resided in his district he should be entitled to be appointed permanently. As Dr. Todd resided in his district he was entitled to a permanent appointment. The Winchester guardians were carrying on a crusade against all permanent appointments, wishing to have their officers entirely in their own hands, and although the Local Government Board had at first refused its sanction to the appointment of Dr. Todd for only three years, it had been induced to withdraw its objection. He had written to the Local Government Board on Dr. Todd's behalf, and had received the following answer:

Whitehall, S.W.,
February 6th, 1912.

Sir,

I am directed by the Local Government Board to advert to your letter of the 25th ult., relative to the limitation by the guardians of the Winchester Union of the appointment of Dr. P. E. Todd as Medical Officer of the Micheldever District, to a period of three years.

In reply I am to state that in view of the reasons brought forward by the guardians, the Board have stated that they will not offer objection to the appointment of Dr. Todd for three years. The Board understand that in the advertisement inviting applicants for the post the guardians stated that the appointment was to be for three years.

I am, Sir,
Your obedient servant,
Walter T. Jones,
Dr. Major Greenwood. Assistant Secretary.

The Board had consented to the arrangement of the Winchester guardians because of "reasons brought forward by the

guardians," and because "in the advertisement inviting applicants" the appointment was to be for "three years." In a newspaper report of the meeting of the guardians it was definitely stated by nearly every speaker that the reason was that the Board objected to permanent appointments. The fact of the advertisement made the matter worse, for what right had the Winchester guardians to issue an advertisement which flagrantly contravened Article 2 of the Medical Appointments Order? It was thought by the Council that this was a case of considerable gravity. It threatened that security of tenure that had been enjoyed for many years by Poor Law medical officers. The further point was raised whether the consent of the Local Government Board was accidental, or whether it indicated a change of policy with regard to permanent appointments. It was unanimously agreed that the Honorary Secretary be instructed to write again to the Local Government Board, expressing the Council's dissent from the reasons stated, and asking if such action as that of the Winchester guardians in this matter was to be approved generally in the future, for if boards of guardians acted in a similar manner throughout the country, Article 2 of the Medical Appointments Order of 1857 would become a dead letter. It was also resolved to approach the National Poor Law Officers' Association on the subject, and to request the British Medical Association to take action in the matter.

An Invertebrate Board.

A letter was read from a district medical officer of the Gainsborough Union relating how he had been deprived of his office in order to add his district to a neighbouring district, to induce a medical practitioner to take the two; the latter being a sort of drug in the market that no one would have. The writer did not live in his district, neither did his successor. The Local Government Board had been appealed to, but after expostulating, had consented to the guardians' action. He had been medical officer for fourteen years, and wished to know whether he could recover the deductions from his past salary towards the superannuation fund. It was agreed by the Council that he could recover them; but several members commented on the want of "backbone" shown by the Local Government Board in the matter.

"Equitable" Claims.

Attention was drawn by the Honorary Secretary to a recent meeting of the Wigan guardians, where claim was made by the workhouse medical officer for compensation for loss of vaccination fees and lunacy fees. This had been referred to the Local Government Board, which had written that although the officer in question had no legal claim, there was an equitable claim, and the Board would be prepared to sanction an increase of salary, if granted by the guardians. He pointed out the far-reaching character of this recognition of "equitable claims," if consistently followed. As the matter had been referred to the Salaries Committee of the Wigan guardians, it was decided by the Council to await its report.

DEMOLITION OF INSANITARY HOUSES IN SCOTLAND.

AN important decision has been given by the Local Government Board for Scotland on the question whether houses certified as unfit for human habitation should be demolished or might be utilized for other purposes. The English Local Government Board has already decided that when the local authority had ordered the closing of a building it was not competent for the owner to do anything with that building except reconstruct it fit for a dwelling-house. The point emerged in a case before the Town Council of Ayr, and on being brought before the Local Government Board for Scotland, that authority had taken a different view from the English Board. The Scottish Board states that in administering the clauses of Section 17 and 18 of the Housing and Town Planning Act of 1909 the main consideration is that of health—the health of the occupants of the dwelling-house and of the neighbouring community. If, then, an owner of a house certified as unfit for human habitation determines to put the condemned building to a different use, the local authority has no power to prohibit such use by demolishing the building unless it is "a nuisance or dangerous, or injurious to the health of the public or of the inhabitants of the neighbouring dwelling-houses." In such a case the order prohibiting the use of the building for human habitation will still remain in force, there being no provision in the Act for its determination except by reconstruction or demolition, and thus the primary purpose of the sections referred to will still be preserved. From this decision it is clear that a condemned house may be utilized as a workshop, store, or for any other purpose, except as a dwelling-house, so long as it does not come within the law as dangerous or injurious to health.

Medico-Legal.

PAYMENT OF ACCOUNTS: ACCIDENTS TO CLUB PATIENTS.

NORTH OXON. asks (1) whether a patient, if he wishes, can pay off a recent debt before an older one? He says his senior partner has just retired, and he wishes to know in a case where money is owing from the same patient to (*a*) his predecessor, (*b*) to the old firm, (*c*) to himself, whether the patient can pay his own account, leaving (*a*) and (*b*) for a future occasion? (2) As a club doctor is he bound to attend club patients who have met with accidents and are entitled to compensation under the Workmen's Compensation Acts, and to give without charge certificates for the purpose of those Acts.

*** If a patient of his own accord wishes to pay (*c*) before (*a*) and (*b*) he is entitled to, but our correspondent may not ask him to, and it is questionable whether he may send in accounts for his own attendance, making no mention of the other debts. (2) Under his friendly society contract he is bound to attend such accidents without extra charge, unless, as in case of some mines and works, accidents are specially excepted. But he may charge for all certificates except those required by the club to which he is medical officer—that is, certificates for the purpose of putting him on and off the sick funds of the society.

TENURE OF OFFICE OF SANITARY OFFICIALS.

AT the last meeting of the Executive Committee of the Mansion House Council on Health and Housing a report on the tenure of office of sanitary officials in and around London was received, and after consideration the following resolutions were passed:

This Council are of opinion that it would be in the interests of the public, and lead to the better administration of the laws relating to sanitation, if the medical officers of health in Greater London who devote the whole of their time to public work, and all sanitary inspectors and inspectors of nuisances in London and Greater London respectively, were, after any necessary period of probation, appointed to their offices without limit of time—and if they were not liable to be removed from their office except by the Local Government Board or by their respective councils with the consent of the Local Government Board.

That this resolution be communicated to the Local Government Board with the request that they will give the matter their consideration and take such steps as may seem to them suitable to give effect to this recommendation.

Medico-Ethical.

The advice given in this column for the assistance of members is based on medico-ethical principles generally recognized by the profession, but must not be taken as representing direct findings of the Central Ethical Committee, except when so stated.

MULTIPLICATION OF DOOR-PLATES.

H. S. complains that in a village a mile from his house a neighbouring practitioner has put up a plate on a cottage two and a half miles from his house, and asks our opinion. We have constantly expressed the opinion that there is no justification for putting a door-plate upon a house where there is no bona fide tenancy, save in thinly populated country districts where it may be convenient for a doctor to indicate a place at which messages may be left for him to call for on his rounds.

Obituary.

THOMAS MUNNS WILLS, F.R.C.S.I.,

CONSULTING SURGEON, BOOTLE BOROUGH HOSPITAL.

DR. T. M. WILLS, a well-known practitioner of Bootle, Liverpool, who died on February 7th, aged 70, was the youngest son of the late Robert Wills, of Carrick-on-Shannon, co. Leitrim.

He was educated at Trinity College and Steevens's Hospital, Dublin, and was admitted L.R.C.S.I. in 1870, L.R.C.P.I. and L.M. in 1871, and F.R.C.S.I. in 1874. In 1871 he was appointed House-Surgeon at the old Bootle Hospital, and in 1872 entered upon his duties at the new Borough Hospital. After two years' residence in this institution he began practice in Bootle, and soon afterwards was appointed an Honorary Surgeon of the hospital; he continued to serve in this capacity for about twenty years, when he retired from the active staff, and was made a Consulting Surgeon.

In 1874 Dr. Wills was gazetted Assistant Surgeon to the 15th Lancashire Rifle Volunteer Corps, now the 7th Battalion (the King's) Liverpool Regiment Territorial Force, and was the first from Liverpool, and one of the earliest in England, to pass the examination for surgeons of the Auxiliary Forces; this was in 1876, when this examination was not compulsory. In 1891 Surgeon-Major Wills was gazetted Brigade-Surgeon-Lieutenant-Colonel on the staff of the Mersey Volunteer Infantry Brigade, and in 1894 was granted the Volunteer Officer's Decoration.

Dr. Wills was on the first committee of the St. John Ambulance Association in Liverpool. The ambulance movement in connexion with the County Police originated in a few members of the force being permitted to join the

class of the 4th V.B. Liverpool Regiment instructed by Surgeons Wills and Fleetwood, and since then the work has extended throughout the whole police force in Lancashire. Dr. Wills conceived the idea of utilizing the fire brigade men and horses of the Bootle Corporation in connexion with a horse ambulance instead of the "Ashford" litters then in use at the docks. After repeated applications to the Bootle Council he succeeded in carrying out his project by securing the services of the men and horses, with the result that since 1889 a horse ambulance (generously presented by the late W. A. Matheson) has rendered valuable service in thousands of urgent cases at little extra cost to the borough. We believe that this was the first horse ambulance to be worked by the police or fire brigades in Lancashire.

Dr. Wills was a Mason, and in politics a strong Conservative; he served on the town council for six years, and was Vice-President of the Conservative Association of the Bootle Division of Lancashire for some years. In 1888 he was appointed a Justice of the Peace for the Borough of Bootle. He was for some time a Vice-President of the Lancashire and Cheshire Branch of the British Medical Association. Some years ago he retired from practice owing to failing health. He married, in 1877, Elizabeth Hannah, daughter of the late Surgeon-Major Joseph T. Glover, M.D. (Indian Army), who survives him. He leaves three sons and two daughters; his eldest son is a graduate in medicine of Cambridge University.

THE LATE SIR W. ALLCHIN.

Mr. A. Campbell Stark, M.B., B.S.Lond., writes: In your obituary notice of the late Sir William Allchin, I think inadequate justice was done to his merit as a clinical teacher. The school with which he was associated was a small one, and only those who were privileged to work under him could realize how great were his powers in that direction. His method was to take a case selected for him by his house-physician, and of the nature of which he was entirely ignorant, and to ask a student to investigate it. Then by cross-questioning on the observations made the listeners were led to form a vivid mental picture of the patient's condition, and from that to a diagnosis. The method was peculiar but most effective and instructive, and Sir William was very seldom wrong, although I think he cared little for the name of the disease, but much that we should realize the pathological condition we had to deal with. In these days, when the mass of recorded facts has become so enormous, a teacher who will inculcate principles confers a great boon on his students, and this was Sir William Allchin's peculiar merit.

Medical News.

Sir George Beatson, K.C.B., M.D., will deliver a lecture on Treatment of Acute Appendicitis: When and How to Operate, at the Polyclinic, Chenies Street, W.C., on Tuesday, February 27th, at 5.15 p.m. The lecture will be open to all members of the profession.

An interesting discussion on The Inheritance of Some Human Abnormalities was opened by Dr. Alfred M. Gossage at the February afternoon meeting of the Eugenics Education Society, which was held at the Grafton Galleries on Thursday, February 15th. There are certain abnormalities, said Dr. Gossage, which it would be extremely difficult, if not impossible, to obliterate entirely from the human race, since their abolition involves a ruthless prohibition of marriage for every member of a tainted family, whether normal or otherwise. For instance, both haemophilia and keratosis might be transmitted to their offspring by the normal children of affected persons: and these conditions, therefore, could never be eliminated so long as any member of the family is allowed to propagate. On the other hand, to forbid the marriage of normal people was by no means easy, nor was it always advisable; for in the case of keratosis, for example, the disease does not seriously interfere with the well-being of the patient, and therefore did not justify such high-handed methods of extermination. What was really needed for the well-being of the race was legislation which would control the present wholesale propagation of insanity, idiocy, and disease by the reckless intermarriage of degenerates, and the encouragement of marriage amongst the fit, who at the present moment were just those members of the community who could least afford to have children

Letters, Notes, and Answers.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* British Medical Journal *alone unless the contrary be stated.*

Authors desiring reprints of their articles published in the British Medical Journal are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

Manuscripts forwarded to the Office of this Journal cannot under any Circumstances be returned.

Correspondents who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

Correspondents not answered are requested to look at the Notices to Correspondents of the following week.

Communications respecting Editorial matters should be addressed to the Editor, 429, Strand, London, W.C.; those concerning business matters, advertisements, non-delivery of the Journal, etc., should be addressed to the Office, 429, Strand, London, W.C.

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2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted will be found under their respective headings.*

QUERIES.

Income Tax.

Perplexed has sold his practice, and wishes to know how the sum received from the sale is to be dealt with in his next income tax return; also whether the officer can demand to know the amount paid for the practice, or in what way it is invested.

* The sum received on the sale is not a matter that affects our correspondent's income in any sense, except in so far as, when invested, it may, like any other capital, produce income that will be subject to income tax. No Government officer is entitled to know the amount paid for the practice, nor the manner in which it is invested.

Keloid after Appendicectomy.

M.V.O.M., F.R.C.S. would be very glad to hear of any hopeful treatment for a patient who has four times needed laparotomy for keloid scar and extensive abdominal adhesions following appendicectomy. The scar grows until it splits from central necrosis from anaemia, the adhesions cause increasing dragging pain and sickness. Massage, fibrolysin, waiting to the absolute limit of endurance, bed for six weeks, have all been tried without effect. At the last laparotomy ol. petrolii ʒjss was swabbed over the intestines. This delayed the adhesion formation for some months. Even the stitch holes become keloid.

ANSWERS.

J. R. writes: "H. W.'s" patient is suffering from a neurosis of the 'phobia order to which he cannot give a special name; he has no doubt that the condition would yield at once to treatment by hypnotic suggestion.

Ipswich writes from the same point of view to recommend strychnine and iron, and adds that prevention of constipation is very necessary.

Mr. Bowles, Surgeon, of High Wycombe.

Mr. Macleod Yearsley (London) writes: It may interest "S. D. C." to know that in the Catalogue of the Exhibition of the Royal House of Stuart, held in 1891 at the New Gallery, occurs the following: "374. Glove of Charles I, worn by the King on the scaffold. Lent by V. F. Bennett-Stanford, Esq."

LETTERS, NOTES, ETC.

A Correction.

In Mr. Moynihan's address on the Correlation of Symptoms and Signs in Some Abdominal Diseases, in the Journal of February 17th, the name "Hutchison" (p. 346, col. 1, line 22 from foot) was, we regret, printed for "Hutchinson."

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
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Note.—It is against the rules of the Post Office to receive *postes restante* letters addressed either in initials or numbers.

A Lecture

ON

PRURITUS VULVAE:

ITS ETIOLOGY AND TREATMENT.

DELIVERED AT THE MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, DECEMBER 13TH, 1911,

BY

R. A. GIBBONS, M.D., F.R.C.S.E.,

PHYSICIAN TO THE GROSVENOR HOSPITAL FOR WOMEN, LONDON.

I HAVE chosen the subject of pruritus vulvae for our lecture this afternoon because I think that a careful study of the etiology and treatment will be of the greatest possible value to any who are attending a post-graduate course with a view of benefiting themselves by practical work hereafter.

Pruritus of the vulva is far more common than is generally supposed, because in the milder forms, on account principally of natural modesty, advice is not sought from the family physician, and when the malady has increased, the case may be seen only for the first time by a gynaecologist. It is an affection which, in its severe form, short of jeopardizing life, may be considered one of the most terrible with which any woman may be afflicted, for it gives no peace—no lengthened freedom from irritation or itching. When a paroxysm comes on or passes off there is always the mental strain and anxiety concerning the next which may occur, and in cases which have lasted some time the apparent hopelessness of cure is ever present. In some, unquestionably, death is looked forward to as a happy release, and occurs by suicide. It may truly be said that amongst those who have suffered severely, and have been cured by judicious treatment, will be found the most grateful patients. It is a disease which, once established, is exceedingly difficult to cure thoroughly and completely, whilst the milder forms readily yield to proper management.

SYMPTOMS.

It will be most simple to divide the subject into (1) symptomatic and (2) essential pruritus vulvae. The latter must be considered a neurosis.

The word "pruritus" merely means itching, and of course must be therefore symptomatic of something else. It is a subjective symptom, and may be present in a varying degree. Sometimes it feels as if there were slight smarting accompanying the itching, and sometimes a tingling, burning, or pricking sensation. Perhaps the variety termed "formication," where the sensation is that of thousands of insects crawling over the skin, is the most terrible to bear. The objective signs are usually those of some inflammatory disturbance, as a rule confined at the commencement to the neighbourhood of the clitoris and nymphae, and gradually involve the whole region of the vulva.

In an ordinary slight case of pruritus vulvae there may be little or nothing to observe; but even in the slight cases there is usually some form of irritation about the mucous surfaces of the labia majora, or on the nymphae or vestibule, to be detected if carefully looked for. The amount of itching may be quite trifling, and only occurring occasionally during the day, and especially at night, when the patient is in bed. In the more severe cases of symptomatic pruritus the paroxysms of itching are more pronounced but longer, and are accompanied by well-marked changes locally. The parts feel hot and burning, and, if much scratching has taken place they may be swollen, raw, and bleeding. After a paroxysm is over the surfaces are exquisitely tender in the early stages, and the patient cannot bear the least touch without pain. The attack may begin by a slight point of itching in the neighbourhood of the clitoris or in the vestibule, and very slight friction may for the moment give relief. But the itching recurs and the scratching is repeated, the area of irritation growing larger and requiring more friction to give relief, until finally the field of irritation, which started about the size of a pea, grows sufficiently large to include the whole of the vulva, and sometimes the pubes, leading to gradual wearing away of the hair and changes in the skin of the lower abdomen. As the irritation increases in direction the amount of friction grows in proportion, until finally what has been aptly termed "hysteria of the skin" is developed, and the poor woman scratches herself until she is quite exhausted and the paroxysm is over. It is in these severe cases that so much harm is done to the delicate mucous membrane, for the scratching leads to changes in the tissues which keep up abnormal irritation.

ETIOLOGY.

The more experience one gains, the more one is impressed by the fact that true essential pruritus vulvae must be very rare indeed. In all the cases I have had to deal with I have rarely met with one which I could say was a pure neurosis. By this I mean that the causation of the suffering is located in the spinal centres, and that the changes there lead to the pruritus, which eventually gives rise to no local signs of change in the mucous membrane. According to my own experience—and I have had a fair number of these severe cases, which are, however, by no means common—I have found that in nearly every case a local cause can be discovered, even though it may take a considerable amount of time to ascertain.

The following case quite illustrates what I mean, and shows how careful one ought to be before stating dogmatically that no external cause can be discovered:

A lady aged 58 consulted me in December, 1903, on account of discomfort caused by a caruncle of the urethra. She had a special uterine history. Her period had ceased [illegible] previously. She had had two children, the last born over twenty years ago, and her recoveries from her confinements were satisfactory. She had what she termed "a nervous illness" some years before, and eighteen months before her visit to me she had acute cystitis, when she was laid up for three weeks. There was nothing to find on examination of the abdomen or pelvis, but there was a small fleshy caruncle on the posterior wall of the urethra. I removed the caruncle, and all local discomfort ceased. About three years later she again complained of local pain and discomfort on micturition, and on examination I found a recurrence of the caruncle. I again removed the caruncle, which brought immediate relief. This lasted several months, when she began to complain of frequent attacks of pruritus vulvae, coming on at all hours, but worst during the night, breaking her rest. There was no trace of caruncle left, and the urethral orifice appeared perfectly healthy. There was nothing about the clitoris or nymphae calling for attention. The attacks were becoming more frequent, in spite of all the treatment adopted, until opium in the form of pill was the only drug which brought relief. When micturition took place it frequently was followed by a paroxysm. She could not quite locate the origin of the attacks, but the itching seemed to start from a point between the clitoris and the orifice of the urethra. Here was a case which seemed one of essential pruritus. As she had had two caruncles removed, and an attack often followed micturition, I thought it would possibly throw some light upon the case if the bladder and urethra were carefully examined. Under ether I dilated the urethra and explored the bladder, and then discovered on the posterior wall of the urethra a small, deep, oval ulcer, 1½ mm. long by ⅝ mm. broad. This I touched with the Paquelin cautery and she recovered rapidly, having no more attacks for a considerable time until another urethral ulcer developed. This might easily have passed as a case of essential pruritus had the urethra not been dilated.

In discussing the etiology of this affliction, it may be remembered in the first place that most of the cases met with of true pruritus vulvae are in women who are passing through or who have passed through the climacteric period, that is to say, when the ovarian functions are diminishing or have ceased. Whether there is any connexion between the pruritus and the gradually failing glands, or whether it is merely a coincidence, we cannot positively say in the present state of our knowledge, but it is a fact. Every case must be thoroughly investigated, and in most it will not be difficult to ascertain the cause if seen reasonably early. According to Bronson,[1]

"Of the conditions that act as predisposing causes of pruritus, whether it occurs as an essential disease or is present in some other disease of which it is a symptom, by far the most important is hyperæsthesia. This may be either congenital or acquired, either local or general. It may be employed to [illegible] diseases which affect the [illegible] in the skin. The general diseases producing it may be [illegible] pathic neuroses, such as hysteria and hypochondriasis, other affections of the brain centres, or general nutritive diseases affecting the nervous system secondarily, such as arthritis or diabetes mellitus. In all the cases the primary effect of the general disease is simply to heighten the susceptibility of the peripheral nerves, causing exaggerated sense from the slightest contact. The exciting causes consist of irritations that may be either indirect and conveyed to the

from the interior of the body, or direct, in which case the excitation is produced by local irritants, whether arising from extraneous sources or from sources that are intracutaneous.

In some the pruritus may have started from a slight abrasion due to mechanical injury or excessive coitus, or the delicate epithelium may have been affected by an irritating secretion. In the latter case it will depend on the nature of the micro-organisms attacking the mucous membrane.[2] Some think that the scratching leads to superficial abrasion and later ulceration, which yields an exudate, and that this is carried to the adjacent skin by scratching, which sets up irritation similar to the original. A common cause of severe pruritus is sugar in the urine in cases of diabetes. It is a good rule to examine the urine in every case of irritation of the vulva, in order to see if there be any sugar present, or if the urine be loaded with urates or uric acid, or oxalate of lime crystals. In either case the urine has the power of irritating the mucous membrane and bringing on attacks of pruritus. The mere fact that pruritus vulvae is present should make one think of diabetes, for the two are so commonly associated. Indeed, it is often the gynaecologist who discovers that diabetes is present from the fact that he is consulted on account of pruritus, and is able to advise the patient to place herself in the hands of the family physician. Some are of the opinion that diabetes is the principal cause of pruritus. It induces irritation by allowing the mucous membrane to be constantly covered with urine loaded with sugar. Probably, also, the linen is apt to be so frequently moistened that, unless constantly changed, decomposition of the urine may take place and micro-organisms develop. Diabetic urine, decomposing under the influence of yeast fungus, is very irritating to the skin. Up to the present we know of no micro-organisms which are particularly associated with diabetes, and which may be said to cause pruritus. When certain inflammatory conditions are set up in the mucous membrane, as in gonorrhoea or thrush, the changes which occur in the mucous membrane are due to micro-organisms. It is probable that the continued saturation of the mucous membrane by highly-charged diabetic urine starts such irritation that micro-organisms come to the front. Some are of opinion that this condition of mucous membrane, leading to pruritus, is due to a condition of the blood, for otherwise sugar-loaded water would not of itself set up pruritus. The experiment of allowing a compress saturated with a solution of grape sugar to be placed over the vulva and remain all night has proved that in a healthy woman pruritus has not been established or any harm done. The irritation set up in the delicate mucous membrane of the vulva by sugar-loaded water is analogous to that brought about by highly concentrated urine, or urine loaded with urates or uric acid, or oxalate of lime crystals. The latter undoubtedly prick the mucous membrane with their sharp points, and by this means micro-organisms are allowed to penetrate the epithelium, and set up the irritation which leads to pruritus. This seems to be a reasonable explanation, and therefore one need not look to the blood itself circulating in and about the region of the vulva as a cause. It can only be considered due to the changes in the blood, inasmuch as the urine is affected thereby, and consequently produces actual irritation of the mucous membrane. Seeligman,[3] in an investigation of a large number of cases, found in all a diplococcus, which resembles the gonococcus in appearance, but differs from it in the process of growth, and besides it takes the Gram stain. He considers that this accounts for the pruritus. Saengar[4] is of the opinion that the pruritus of diabetes is haematogenous, and analogous to the pruritus of jaundice. But I think the explanation I have mentioned seems reasonable.

Veit,[5] whose experiment with grape sugar I have quoted, thinks that the irritation is due to some other constituent of the urine besides grape sugar, and points out that men with diabetes suffer from pruritus of the scrotum, probably because the underclothing is continually moistened, leading to softening and irritation of the skin. Although pruritus is so common in diabetes, it is certain that all cases are not accompanied by pruritus, although slight and severe cases of vulvitis may be met with. The remarks with reference to the urine in diabetes apply equally to the urine in nephritis, for it seems to bring about the pruritus by irritating the sensitive mucous membrane. According to Moraczowski, glycosuria is accompanied by an exaggerated elimination of calcium.

It would be simple to deal with all cases of external irritation at once. Pediculi pubis and ascarides may be the cause of severe pruritus. I have seen a case of great severity caused by the former. By the time I saw the patient she was in a pitiable condition, for she had been travelling for three days across the Continent without any means of obtaining relief from any kind of treatment. On discovering the cause, she recovered very rapidly under ordinary treatment for pediculi pubis. Ascarides are rarely a cause of pruritus. They may be difficult to discover, but when once found, the treatment is simple and effective.

Amongst the micro-organisms which are common as a cause of pruritus is perhaps the *Oidium albicans* of thrush and the gonococcus. The latter is certainly the cause in many cases. It leads to an inflammation of the mucous membrane of the vagina, which pours out a more or less continuous discharge, which, irritating the mucous membrane of the vulva, induces the pruritus. I have seen several cases which could be distinctly traced to the gonococcus, in which the pruritus was developed early in the attack of vaginitis, and persisted. In some of these cases the acute symptoms of inflammation may gradually subside, and leave the paroxysm of pruritus unaffected. Although the vaginitis may be due in some cases to the gonococcus, there may be an acute attack of inflammation of the vagina which cannot be traced to the gonococcus, and which leads to pruritus. Passing upwards from the vagina, the cause of attacks of pruritus vulvae may be due to inflammation in the neck of the uterus, or of the endometrium. I say "may be due," for I have nothing which I could call evidence to lead me to state that such inflammation of the mucous membrane of the cervix or uterus certainly caused pruritus. Nevertheless such causes have been mentioned by authors of repute, and I merely call attention to them here.

In addition to want of cleanliness, which ought to be borne in mind as a possible cause of pruritus, any condition which produces discharge may lead to it by its irritating properties on the vaginal mucous membrane. It is in this manner that cancer probably acts. By the extremely irritating effect of the secretion of the malignant uterus, body or cervix, an inflammatory condition is set up which leads to frequent scratching. In like manner, just before, during, and after the ordinary period, a most severe attack of pruritus may be set up in an otherwise perfectly healthy woman. This is doubtless due to some irritating properties of the secretion. Some women have periodical attacks of more or less severe pruritus at the time of the period, and are not bothered with it at other times. Some cases of pregnancy accompanied by pruritus vulvae are most instructive, for they only occur at certain times and at no others. In the latter cases extensive areas of the skin may be affected, and an attack commencing in the region of one of the nymphae may lead to intense scratching over all the lower part of the abdomen. At the very beginning of the attack of pruritus in pregnancy the irritation may be trifling and the scratching may be confined to a small limited area in the vestibule, but if the attack does not quickly pass off the wave of irritation increases to such an extent that finally the patient scratches the whole of the lower part of the abdomen. I have seen large areas of the skin of the abdomen covered with bleeding marks from scratching.

An ordinary attack of eczema, which is quite common in the region of the vulva, may bring on pruritus. It does not always do so, for I have seen many cases of eczema of the vulva with no real pruritus. On the other hand, very slight cases of ordinary eczema of the labia may be the means of producing most severe attacks of pruritus. I have seen most distressing cases of ordinary eczema, which has rendered life almost intolerable in gouty women, and I have observed that the eczema has always started first and the pruritus followed. In some of these cases of ordinary eczema, if one is fortunate enough to cure the patient quickly by treatment, no pruritus develops. If, on the other hand, it is obstinate in yielding to treatment, pruritus may come on.

There is one source of origin of pruritus which ought to be mentioned, and that is the presence of a pessary. Some women are very careless about themselves and are apt to

forget about wearing any support at all. I remember well one old woman who came to the hospital on account of severe pruritus vulvae. The cause was the presence of a pessary which she had worn for many years, and which she had forgotten entirely. On removing the pessary, which was thickly coated, there was ulceration of the vaginal walls from pressure. After the removal of the pessary and proper treatment she lost the pruritus.

Another cause of pruritus vulvae is undoubtedly masturbation. The onset is doubtless due to the irritation caused by the removal of the superficial epithelium in consequence of friction with insufficient lubrication. It leads to the attacks of pruritus in the same manner as a minute crack or fissure of the mucous membrane.

There is one local trouble which you will find mentioned as a common cause of this affection, and that is small varicose veins. I have never been able to satisfy myself that varices produced pruritus, for in association with them I have always found some chronic discharge, which I have put down as the cause of the pruritus. I cannot recollect any case where I have seen small veins alone bring on the attacks.

There is one source of origin of the affection which may be easily overlooked, and which will show the importance of having a thoroughly good light for examination, for apparently it is very slight. It consists of one or more ulcerations, which in appearance may be healthy. These are usually situated round the orifice of the vagina beyond the hymen, sometimes on the hymen itself, called by Matthews Duncan[6] lupus minimus. These little ulcerations heal up with or without treatment, and break out in other parts. They are usually associated with little hypertrophies, such as hypertrophies of bits of the hymen or of the orifice of the urethra. These spots of ulcerations are exquisitely sensitive, and I have elsewhere called attention to them as being a cause of dyspareunia, and also of vaginismus. I consider them of great importance in the etiology of pruritus, especially as they may easily escape detection, and my belief is that in certain cases of so-called essential pruritus they are really the origin of the disease. In some cases I have discovered a small ulcerated surface at the posterior fourchette, much larger than the minute ulcers I have mentioned. The size seems to depend on the amount of time the ulcer has been in existence, for the edges are apt to be slowly extended, but the growth in circumference is extremely slow. I feel sure that many cases of pruritus have these small ulcerations as their starting point, leading to exposure of the terminal filaments of the sensory nerves distributed to the vulva and vagina. If a careful search be not made for them they will certainly be overlooked, and the patient suffers from want of success in the varied treatment. In *Surgery of the Rectum* Sir F. Wallis[7] remarks that the chronicity and great frequency of cases of pruritus ani in the out-patient department of St. Mark's Hospital made him investigate for some possible cause, and that some years ago he made a point of examining every case of pruritus ani both digitally and by means of a speculum. In over 90 per cent. he found a small shallow ulcer situated usually between the two sphincters, more often in the posterior half than in the anterior, and generally near the dorsal mid-line. In some cases there were more than one ulcer, which was usually a shallow, oval livid abrasion, differing markedly and mainly in colour from the normal mucous membrane. I consider this extremely instructive, that in so large a percentage the cause was discovered.

Essential Pruritus.

We now have the other division of the etiology—namely, the essential pruritus. I cannot assert that there is no such condition, but I maintain that it is exceedingly rare. In very nearly all the cases with which I have had to do I have almost invariably been able to trace the cause of the disease. There are, however, two well-marked exceptions which have impressed themselves upon my mind.

One was that of a lady sent to me from the country by her family physician, who told me that he had tried everything he could think of in the way of treatment without any good whatever. The patient, aged 42, had suffered from continuously severe attacks of pruritus, generally commencing soon after getting into bed at night, and sometimes waking her up in the middle of the night. I examined her most carefully, but could find absolutely nothing which seemed abnormal, either in the vulva, vagina, or cervix, uterus or adnexa. There was this peculiarity, that the intense itching seemed high up in the vagina, and that the patient did not scratch, for she found that any pressure or scratching of the vulva did not give the slightest relief. She knew that the intense itching was too high up to be reached, and she therefore bore the irritation as long as she could before using some vaginal douche.

Another case was that of a widow, aged 46, whom I saw in consultation with her own doctor. Her case was similar to the last, inasmuch as the irritation came in severe paroxysms, high up in the vagina. I examined her most thoroughly, and could detect nothing wrong, either in the vagina, uterus, or adnexa. This lady told me that she had the most maddening attacks of itching in the night. She could obtain no relief from scratching, and therefore there was no temptation to scratch, so that the vulva was perfectly normal, and showed none of the usual signs with which we are familiar in the ordinary cases of pruritus.

In both these cases, although I could detect nothing, it is open to anyone to say that possibly had I dilated the uterus or urethra or cystoscoped the bladder, I might have found some cause for the severe attacks of itching. These cases certainly appear as those which might be classified under the term "neurosis." There are certain neurotic patients who experience sexual excitation in the form of itching, which often leads to masturbation, and in them no apparent external cause can be discovered. Such cases are found in asylums and amongst those suffering from nervous affections. In them the centre for the pudendal nerves may be affected so that irritation may be perceived at various parts of the vulva, sometimes at different points of the vestibule, and sometimes in one or other labium. In any case, scratching produces temporary relief, and with it those changes in the tissues which themselves lead to scratching, so that a vicious circle is established. The scratching eases the itching for a time, but the very relief which is brought about is at the cost of minute changes in the tissues which cause further scratching.

Pathology.

The most important point to determine with reference to this is whether it is to be looked on as a purely local disease, or as a neurosis. Some[8] regard it as a sensory neurosis, and that it is a nerve disturbance "without associated appreciable structural change, and the provocative irritation may be either of reflex origin or direct, and may have its seat in any part of the nervous system, from centre to periphery. The tissues remain unaltered throughout the entire course of the malady, except so far as secondary conditions are in some instances brought about by persistent scratching and rubbing."

The sensory nerve supply of the vulva is contributed by the inferior pudendal, the ilio-inguinal, and the genital branch of the genito-crural nerve, as well as by the two perineal branches of the pudic, and the nerve of the dorsum of the clitoris. In any part of the course of these nerves, from the origin onwards, it may be contended that some pathological change takes place which starts the irritation at certain points. The local changes are those with which, in the vast majority of cases which come before us, we have to deal. It will depend much on how long the pruritus has lasted what changes we find. In those which have lasted a long time we shall see those evidences of chronic change in the vulva and its neighbourhood with which those who see these cases frequently are familiar. The skin has lost its freshness, and appears duller in colour than natural. There may be a distinct hypertrophy of the nymphae and labia majora, which feel hard and leathery to the touch, or there may be merely slight oedematous infiltration. If the disease has lasted a considerable time, the appearance of the tissues reminds one sometimes of those soaked in spirit as to colour and consistence—all the elasticity has gone. There are invariably also signs of severe scratching in the fissures, and blood-covered marks all over the affected region, and in some cases regular ulcerated patches. Veit[9] says that "microscopically, in the thicker parts of the skin which show these changes due to pruritus, there is an inflammatory parakeratosis, a picture of subepithelial small-celled infiltration. The formation of keratin is arrested, and in this way desquamation of the horny layers takes place irregularly. The process is distinct from vaginitis, in that the epidermis as a whole, and in its external layers especially, undergoes an even thickening, in contradistinction to the thinning process that takes place in vaginitis." In one case of pruritus vulvae

K. Czerwenka[10] found "hypertrophy of the papillary connective tissue, atrophy of the epithelium, multiplication and distension of vessels, diminution of the glandular cutaneous elements, as well as subepithelial round cells."

These local changes are well described by Webster[11] and by Saenger,[12] and they are taken from the examination of portions of skin removed by operation in intractable cases of pruritus. The clitoris is the most sensitive part of the vulva, and next to that is the preputium clitoridis, the nymphae, and finally the labia majora. Two groups of the genital bodies known as the genital corpuscles of Krause—tactile corpuscles of simple structure, believed by him to be peculiar to the genital organs—are contained in the clitoris. One lies on either side of the central line of the glans, and these are more abundant on the upper surface. At the posterior part of the glans clitoridis, near its junction with the prepuce, there are a few Pacinian and a few Meissner's corpuscles. These nerve terminations are the sensory organs of the vulva.

What we have to refer to is whether these local changes, which for practical purposes may be described as leading to fibrosis of the nerves and nerve endings, and a kind of fibrous degeneration of the skin and subcutaneous tissues, give rise to the pruritus, and are therefore primary, or whether they are due to the irritation caused by the continued friction. Those who have studied this disease will most likely come to the general conclusion that all these changes in the tissues are due to irritation. It must, however, be borne in mind that there are certain cases of intense irritation coming on in paroxysms, with no changes to be observed. My own experience leads me to say that such attacks are merely temporary and do not last. Whenever I have seen a case which has lasted any time, and where scratching has taken place from the irritation, certain changes can always be made out.

It is thought by some to be conceivable[13] that a diminution of the calcium content in the cutaneous tissue in the neighbourhood of the nerve fibres may be recognized as a direct cause of the pruritus vulvae. The relations of urticaria to pruritus establish the importance of the disturbance of calcium metabolism in the pathogeny of pruritus, for urticaria itself, according to Nesser, is comparable to a rupture in the normal equilibrium of metallic ions. The appearance of pruritus under the influence of ingestion of citric or oxalic acid in predisposed persons lends support to the theory of a relation between the diminution of calcium in the tissues and the aforesaid disturbances, for the acids take up this element. The same explanation attaches to the pruritus of icterus, in which the bile acids circulate in the blood.

In the case of so-called essential pruritus one ought to carefully ascertain the state of the organs regulating calcium metabolism. Our knowledge in this direction is, of course, limited, but Parhon thinks it feasible to affirm that among these organs the thyroid gland and the ovary play an important part. The thyroid gland acts as a fixative agent of the calcium, whilst the ovary—the antagonistic gland—acts as a decalcifying agent. According to this hypothesis of a disturbance in calcium metabolism, Parhon inclines to a thyroid deficiency, or excess of function on the part of the ovary.

It is right to mention that there are certain cases when the woman only complains of pruritus vulvae at the time of the period, or occasionally before the menstrual period has commenced. In one case I have seen several times, the patient complained that the sense of irritation which led her to scratch was referred to the vestibule at one time, at another to the labia majora, and yet another, to the clitoris and mons veneris. This condition of temporary pruritus may be referred to probably local congestion of all the parts, brought about by the onset of menstruation. I have known cases where there has not only been pruritus of the vulva, but intense irritation of the mammae, especially the nipples, accompanied by swelling of those glands. Or the pruritus at this time may be due to the fact that just before the onset of menstruation a vaginal discharge occurs. It is, then, of importance to endeavour to find in what way this discharge differs from the ordinary vaginal secretion. This may be done by an exploratory tampon before and after menstruation.

Kraurosis.

I must mention the pruritus associated with kraurosis. This disease has been described by Breisky of Prague and by Lawson Tait. Attention has been devoted to it by Petit and Pichevin, as well as others[14] in France. It must not be confounded with leucoplakia, from which it is distinct, but the two diseases may be met with together. According to Breisky, "Kraurosis vulvae is an atrophic retraction attacking the vaginal orifice, the labia minora, the fraenum and prepuce of the clitoris, and the interior surface of the labia majora. This retraction is accompanied by necrosis of the epidermis and by hypoplasia of the conjunctive tissue, causing retraction and shrinking of the genital organs." In these cases the patient usually complains of persistent and severe pruritus. In cases which have lasted a long time the vulva region shrinks and becomes indurated.

The finger feels as if it were penetrating an inextensive and rigid organ. Often milky-white opalescent spots are seen, having the appearance of leucoplakia. It is then known as white or leucoplakic kraurosis.

Other forms of kraurosis have been described besides the white kraurosis of Breisky. One of these is the red kraurosis (Lawson Tait's kraurosis, inflammatory, vascular, and follicular). Others are: Syphilitic, leucoplakic kraurosis, "senile kraurosis," and "post-operative kraurosis." This last form comes on after removal of the ovaries, and is of importance. With reference to the others, they are laid by some to ovarian insufficiency in the genesis of kraurosis. Some think it is owing to the abolition of the internal glandular secretion or to reflex nervous disorders, and others believe that secretory and nervous troubles may act simultaneously.

Before leaving the subject of the pathology, I should like to state that my own opinion is that the disease arises in many cases owing to the Pacinian bodies, genital corpuscles, or Meissner's corpuscles being denuded of their epithelium; from very slight but irritating ulcers, which could not be made out by the naked eye: or from friction, and therefore may be put down to "essential pruritus." We know how sensitive these bodies are, and when exposed it is conceivable that they may account for the attacks of pruritus.

Prognosis.

This is often a matter of great difficulty. If the patient is seen in the early stages, there will often be no hesitation in giving a favourable opinion as to the future. If, however, the patient has suffered for a considerable time and there are already changes commencing in the skin and mucous membrane, much caution should be exercised, and it is only prudent to see the influence of treatment before saying anything definite as to prognosis. It is perfectly certain that if a case has lasted for a considerable time a cure is not likely to be rapidly effected, especially if the woman is unable or unwilling to follow exactly the treatment recommended.

Treatment.

And now, gentlemen, we come to the practical part of this subject. The etiology and pathology may be very interesting, but what we have to ascertain is the most rapid method of getting the patient well. The number of remedies used in the treatment of pruritus vulvae is legion, and when this is the case, we may be quite sure that we have to deal with a disease requiring much time to be spent upon its treatment, and possibly many alterations in applications and drugs. A careful investigation of each case, and an endeavour to study the etiology may greatly help towards treatment, and this is why causation should be regarded as of great importance. A thorough examination in a good light may enable the cause to be discovered at once, and such an examination should never be neglected. The proof of the great importance of this examination is furnished by the fact that after weeks of treatment by ordinary means, the discovery of a minute ulcer in the vestibule or elsewhere, leading to the application of the Paquelin or electric cautery, may be followed by a rapid and complete cure. I think that the simplest plan of discussing the various means of treatment is to divide the subject into treatment by (*a*) internal remedies, (*b*) by external remedies, and (*c*) operation.

I. *Treatment by Internal Remedies.*

In very slight cases of pruritus vulvae no internal remedies may be necessary, for the remedies which are usually applied externally will be sufficient. But in the more severe cases the nervous system is certain to be more

or less disturbed. In the so-called "Essential Pruritus," where no cause can be discovered, internal remedies are of the utmost importance. But before giving any of them in detail, it is right to say a few words about *diet*.

It is unquestionable that in a certain number of cases dieting seems to be of value, but in most severe cases I have never found that it is of the smallest use. In some cases the patient will at once tell you that certain articles are injurious and apt to bring on an attack, or aggravate the existing condition. Individual experience in such cases is of great value, and ought to be taken into consideration in prescribing. Generally speaking such articles as mustard, curry, pepper, chutney, ginger, or any high-seasoned dishes ought to be avoided. Alcohol should be forbidden, for it certainly tends as a rule to aggravate the condition. In old women, however, it seems to be of benefit sometimes, where they have been accustomed to it all their lives, and where there is much exhaustion.

I remember an old lady who used to have most terrible and exhausting attacks, coming on usually before dinner, when she seemed to be tired and in want of food. She hardly ever took any form of stimulant, but when the attacks became frequent and led to exhaustion, she was of opinion that a small quantity of alcohol was of benefit. At any rate, she did not suffer quite so severely after taking it regularly. I am seeing another old lady now who assures me that on the days she goes without stimulant she feels worse and suffers more from pruritus vulvae. I feel sure, however, that as a rule it is harmful in these cases.

In addition to the foregoing articles I have mentioned, I have known oysters, lobsters, crabs, and, in certain cases, any kind of fish, intensify the attacks. It is a good rule, therefore, in examining the patient for the first time, to ascertain if there is any special article of food or drink which is apt to make the attacks more frequent or more severe. Occasionally tea and coffee seem to bring on attacks, and to render the patient worse, which should be sufficient ground for their exclusion as daily beverages. At the same time I think it highly desirable with reference to any article of food or drink which may be mentioned as a possible cause of increasing the irritation, to make quite sure that it is really the cause, for on investigation in certain cases I have satisfied myself that diet has had nothing to do with the attacks.

Before prescribing for patients suffering from pruritus vulvae it is well to bear in mind that sometimes they may be sensitive to certain drugs, and it is prudent to ask if anything already prescribed has disagreed. I have known belladonna to bring on pruritus, and one patient under my care could never take any form of opium without suffering from pruritus. Some consider these cases as toxic forms. The important point to keep in view in prescribing internal remedies is to endeavour to stop the paroxysm of intense itching, and at the same time to order such drugs as we know will act on the blood and nervous system, and prevent the patient becoming thoroughly run down, for the disease in the long run is a most exhausting one.

In ordinary cases demanding internal treatment I should certainly place bromides first. They have a soothing effect on the nervous system, can be given in fairly large doses and can do no harm. Ten grains of ammonium bromide, increasing the dose as may be deemed advisable, in combination with bark, and sometimes arsenic, may be given three times a day. I have sometimes given large doses of ammonium bromide with good effect in cases where the paroxysms of itching have been frequent and exhausting. Sodium bromide or potassium bromide, or the mixed bromides, may be equally of service, but I have formed the impression that when patients are taking ammonium bromide they are not so apt to become depressed as when taking the other bromides. It is said by some that strontium bromide may be taken for a considerable time without causing a bromide rash; and this bears out my own experience, but it is by no means to be relied on, for I have seen a bromide rash appear soon after giving strontium bromide. If the continued attacks of pruritus seem to be exhausting the patient I have given some bromide twice daily, in the morning and at bedtime, in addition to a pill containing phosphorus, arsenic, and nux vomica, after meals. In certain cases zinc valerianate seems to be of much benefit. The salts of thorium are said to be of service on account of their radio-activity, but I do not know enough of their action to say much about them. If anaemia is marked, iron in any easily digestible form may be given, alone or in combination with manganese and haemoglobin. The main consideration must be to stop the paroxysms of itching by any drugs which we know act on the nervous system, and if one is tried and gives no relief another must be substituted. I have found benefit from the administration of cannabin tannate in doses of from 3 to 5 grains three or four times in the twenty-four hours. Sometimes chloretone, in doses of from 5 to 10 grains three times a day after meals, has given great relief in a certain number of cases, but the effect does not seem to last long, and after a comparatively short time improvement is not maintained. Occasionally sumbul seems to afford relief in milder cases, but in severe forms it may not be of any service. In more than one case I have given aspirin and novaspirin with marked benefit. Either may be ordered three times a day, with direction to take 10 grains if a severe paroxysm comes on. In one very severe case the only drug which seemed to have any effect internally was opium, which I gave in the form of pill containing 1 grain three times a day. This was tried with benefit in a case which was one of the most severe I have ever seen. As a rule opium and its preparations are not well borne, for, although they seem to give temporary relief, the irritation appears to be made worse in the long run; they must, therefore, be used with caution.

Among the many drugs I have used internally I have mentioned the above because they have appeared to do more good than many others, but any nerve sedative may be tried, and sometimes many will have to be tried before one which gives any relief at all is found. Occasionally any of the coal-tar analgesic remedies give relief and may safely be tried for a time. Parhon and Panesco have found calcium chloride of use in pruritus. They consider that a diminution of the calcium content in the cutaneous tissues in the neighbourhood of the nerve fibre may be recognized as a direct cause of the pruritus. If there be a suspicion that the attacks are due to toxic absorption, salol and mercury in small doses may certainly be used with benefit. I believe they act both in the same manner, namely, as an antiseptic to the contents of the intestine. I may mention here that I have not had any benefit from the administration of thyroid gland or of ovarian substance. I have thought that the administration of ichthyol has given benefit. It may be given in 2½ grain tabloids, and of these two may be taken after each meal.

Before passing on to external treatment I must mention the necessity of procuring sleep. A fairly large dose of ammonium bromide, with ½ drachm of the tincture of hyoscyamus may produce refreshing sleep, and in a patient worn out with constantly disturbed nights owing to paroxysms of pruritus vulvae, a soothing draught given three or four nights running is often of the greatest service. As sleep is of the highest importance in treating these cases, whatever drug will give the most refreshing night may be used. Without a fair amount of sleep, women suffering from pruritus vulvae soon show signs of the nervous system being affected by the development of neurasthenia, intense irritability, etc. Morphine should not be given, for as a rule it does not suit these patients. Paraldehyde I have found of great service, commencing with ½ drachm, and increasing if necessary to 2 drachms, in almond mixture. In cases where the patient awakes to find herself scratching, it is a good plan to have the nails cut very short and to wear soft gloves.

Before commencing treatment by external application, it is a good rule to have the vagina thoroughly douched with an antiseptic lotion, which can be omitted in the case of unmarried women, the hair shaved away, the parts thoroughly washed with soap and water, and then to use some other soap. This ensures thorough cleanliness of the skin and mucous membrane before any application is attempted.

II. *Treatment by External Remedies.*

It is natural to find in the treatment of this troublesome affection that all kinds of applications and lotions have been used, and that when one remedy has been of signal service in the treatment of many cases it should be specially lauded. My belief is that success with certain applications much depends on the time the pruritus has lasted and on the general state of the patient. In the

early stages, when the condition is not very troublesome, and it is not considered necessary to order medicine internally, a lotion of carbolic acid made up with spirit and rose water, or with plain water, to be applied immediately the itching begins, is valuable. The strength may begin at 2 per cent., and gradually increase until the percentage of carbolic acid is sufficient to stop the itching without itself causing irritation. It must be impressed on the patient that if she is to get well quickly she must resist the temptation to scratch. There is only one way in which this can be done, and that is by having some lotion at hand which can be used quickly to stop the irritation. If once the patient has given way to the temptation of scratching, nothing will stop her until the paroxysm is over and relief obtained. By the rapid application of whatever lotion is found efficacious the intense irritation is arrested, and the patient will soon learn that the self-restraint, however hard to practise, is of service to her, for the gratification of scratching is only bought at the expense of torn and bleeding skin and mucous membrane. If these cases are seen reasonably early, the secondary changes previously considered are not allowed to take place, for the patient is cured before they commence. In nearly all cases which are seen early much relief is afforded by bathing the parts affected with warm starch and water. It is best to have this about the consistence of ordinary cream. This can be employed every night before going to bed. Some prefer to have this as a sitz bath, and to remain in it for five or ten minutes. Sometimes a bran bath answers the same purpose. Three or four pounds of bran are mixed with boiling water as an infusion. The bran is strained off, and the water added to the warm sitz bath. In some cases a gelatine bath is preferred, or it can be mixed with bran water. In a certain number of cases these baths are excellent, or alkaline ones, containing sodium carbonate, borax, or potassium carbonate. But they are not always well borne, and this is especially the case if there is a tendency to eczema of the vulva, where they must be used with caution. In some cases ordinary soap should not be used in washing, but milk or the yolk of an egg, which forms a lather and does not irritate.

Cocaine, beginning with a 5 per cent. solution and increasing the strength if necessary, is often of great service. It may be commenced at any time, but it must be used with caution where there is any abrasion from scratching on account of the risk of absorption. I have formed the opinion, from frequent use in pruritus vulvæ, that it cannot be continued long, for it seems to set up an irritation of its own. A severe sufferer for whom I prescribed it, told me that it was excellent at first, and gave great relief, but that she felt sure it produced great irritation, and she preferred after a time not to use it.

Kromayer[15] speaks highly of the application to the affected parts of liquor potassæ, which he says acts causally by destruction of the subepidermoidal pruritus vesicles which are the source of the irritation. Solutions of corrosive sublimate sometimes rapidly stop the paroxysms of itching. They may be used sufficiently strong as external applications, beginning with a weak solution, and increasing the strength if necessary, to deaden the sensitive condition of the affected parts, and at the same time weaker solutions may be employed for vaginal injections, as 1 in 2,000 or 4,000. Solutions of lead subacetate are often of use. Any remedy which quickly deadens the sensitiveness of the affected parts will be the most efficacious, because on this rapid action of the remedy in cutting short the paroxysm will its success depend. It is for this reason that certain sprays are useful, such as that of ethyl chloride, ozonic ether and chloroform. They are, however, although useful, not always at hand by day, if the patient is able to go about, and therefore a solution is as a rule more convenient. Sometimes the ordinary eau de Cologne, which is often at hand, may be used if the patient is not within reach of the solutions prescribed. Any soothing evaporating lotion may give more relief than anything else. Equal parts of water and eau de Cologne will make an agreeable lotion, which can be applied on lint which is frequently saturated with the lotion. It is prudent to be sure that there are no ulcerations or excoriations from scratching, for otherwise all spirit applications may cause considerable irritation, which lasts for some time. Occasionally solutions of citric acid or oxalic acid afford relief, and the compound tincture of benzoin, painted over the affected parts, is of great service. In certain cases the action of the preparations of tar is most beneficial. But it is well not to apply them in the very early stages, as they are apt to be not so beneficial as in those cases which have lasted for some time.

In a certain number of cases I have found an application of boracic acid, with white of egg, give great relief. I believe it acts by covering the sensitive parts with a fine layer of albumen. Enough boracic acid to preserve the albumen must be used. One of the most useful applications is menthol dissolved in paroleine. It may be used at the strength most suitable to the patient. It is best to commence with a weak solution, 5 or 10 grains to the ounce, and gradually to increase. If the attacks be at all severe, nothing under 20 grains to the ounce will be strong enough. I cannot speak too highly of this preparation, for it rarely fails to afford relief.

Another preparation which I have had the greatest satisfaction in using where the pruritus vulvæ has lasted for some time is silver nitrate. This may be used in any strength up to 40 grains per ounce, and thoroughly applied all over the part affected.

In severe chronic cases I have painted the whole of the affected parts with the liquor epispasticus, with excellent results. This, of course, entails rest in bed for a time.

Turning now to ointments, we find that there are a very large number employed. In mild cases I usually commence with some bismuth ointment, and if the attacks are frequent, the addition of mercury subchloride, 1 drachm to the ounce, is certainly of use. It is sometimes more soothing if made up with elderflower ointment. This may be applied freely at bedtime, or at any time by day or night. Some patients find that ointments afford more relief than any other kind of application, and therefore it is best to change from one to another as soon as it is evident that improvement is not maintained, or that the ointment prescribed is unsuitable. Cocaine vaseline, 5 to 20 per cent., is often of immediate service, or it can be made up with any other ointment, but the same remarks apply to it as to the solution. Speaking generally, it is most satisfactory to apply soothing ointments in recent cases, and to reserve more stimulating ones for those which have lasted for some time. If the parts are red, irritable, and evidently inflamed, any bland unirritating ointment may be tried. It is unnecessary to mention anything like all the ointments which have been extolled in this formidable affection, but the ones I have derived most benefit from, in addition to those already mentioned, are carbolic, of whatever strength seemed to suit the patient, boracic, conium, chloretone and menthol. Occasionally a plain alkaline ointment, containing sodium bicarbonate, or creta preparata, is most useful, and in certain cases ichthyol, salicylic, naphthalene, and iodine (stainless) ointments are of service.

I must here mention that in those cases of so-called essential pruritus vulvæ where the irritation seems to start high up in the vagina, the most soothing remedies are douches and vaginal tampons. Perhaps the most satisfactory of the whole is a douche of carbolic acid, from 1 part in 60 to any strength which affords relief. Sometimes 1 drachm of liquor plumbi subacetatis to 1 pint of water, plain boracic, or a mixture of sodium bicarbonate and elderflower water, with a little hydrocyanic acid, form excellent douches. Chloretone affords relief in some cases, given in a douche 0.5 per cent. in warm water. The temperature of the water must be regulated according to the patient's inclination. Although hot douches as a rule are agreeable, some prefer the temperature comparatively cool. In some cases where vaginal douching is agreeable, if it takes too long to get the douche ready, then vaginal tampons are often of great service. The patient knows that the more quickly the remedy is used the more speedily the pruritus will disappear. It is easy to saturate a tampon to which a string is attached with any solution, and insert it. I have found sometimes a weak solution of iodine speedily allay the irritation, but any of the above-mentioned remedies may be used.

Powders dusted on are in some cases more appreciated than any other kind of application. As a rule, however, they are not so effective as lotions or ointments. Occasionally I find that patients prefer ointment by night and the application of powders by day, as being more convenient.

Powders should all be triturated to render them as fine as possible, otherwise they are apt to increase irritation. Of these applications, finely powdered boracic acid by itself, or mixed with other powders, is very useful. Starch or French chalk, with zinc oxide and boracic acid, with or without calamine, makes an excellent application. To this may be added chloretone, or finely powdered opium, if some more soothing application is required. In some cases finely powdered calomel will afford relief and rapidly bring about a cure.

I must here mention the injection of Schleich's fluid, composed of eucaine, into the sacral canal. Schubert[16] has written an interesting paper on the subject, citing cases which were successful, but I have not tried this method, and cannot do more than refer to it.

In addition to the foregoing, I may mention the treatment by ultra-violet rays, high frequency current, electricity, the Roentgen rays, radium, and cataphoresis. Time will not permit of my doing more than mention these. I have tried them all, with the exception of the ultra-violet rays. Eltze[17] speaks highly of the treatment of pruritus vulvae by the Roentgen rays, and quotes cases. I confess that I have been disappointed in its use in some cases, but it certainly seems to do good where there are thickened patches of tissue giving rise to constant irritation. Some years ago I tried electricity in hospital patients, and considered that the continuous current was certainly of some benefit in some cases. Cholmogoroff[18] had great success with the galvanic current. Siebourgé (quoted by Veit) recommends the subcutaneous injection of physiological saline solution over the area at which the itching is worst. I have tried this treatment, but do not consider that I have used it sufficiently long to say much about it, although it certainly stops the irritation for a time.

I have formed a good opinion of the treatment by cataphoresis, especially in cases where there is minute ulceration present. Occasionally there is a good deal of reaction after this application, so that it cannot be again used for several days, and sometimes it is best to allow a week or ten days to elapse before repeating it. If a patient presents herself for the first time with severe pruritus vulvae, and with a history of all kinds of treatment, by far the best course to pursue is to let her go to bed and be properly nursed. The parts may be thoroughly covered, so as to prevent friction and exposure to the air, by some suitable application, such as a paste composed of calamine and zinc oxide.

I have derived much satisfaction from the use of pellanthum, which contains zinc oxide and zinc oleate. It can be applied freely, and forms by itself a soothing and adherent film, which can be easily removed. It can be mixed with carbolic acid, menthol, or whatever may be desired, and protects the affected parts from the atmosphere and from the risk of friction and irritation, and this is greatly assisted by complete rest in bed. It is sometimes quite extraordinary how well patients who have been suffering for considerable periods progress if these conditions be carried out.

Supposing that none of the above remedies are of service, some persons who are tired of treatment and long for a change of surroundings, and who can afford it, may wish to try foreign waters. In such cases, Franzensbad, with its moor baths, may prove of benefit; the muriated alkaline waters of Ems, Royat, etc., or the thermal alkaline waters of Vichy. In all these places excellent arrangements will be found for carrying out local treatment, and attention to the general health will be taken into account.

III. *Operation.*

And now we come to the final means at our disposal for treating what, in some instances, proves to be such a formidable malady—namely, operative interference. This method of treatment may be divided into:

(*a*) The application of some form of cautery.
(*b*) The excision of the affected parts.
(*c*) Division of nerves.

(*a*) The application of Paquelin's, or the electric thermo-cautery is of the greatest value in treating those cases where minute ulceration is discovered. Sometimes one application of either cautery may be the means of curing a case which has lasted for many weeks. If there be extensive or large patches of ulceration the cautery may be lightly applied over the whole surface; where there are chronic changes in the skin and mucous membrane of long standing, and no ulceration, I do not consider the cautery as good as the knife.

(*b*) If the cautery has been used and has failed, and the patient shows indications of failing health on account of the constant wear and tear of body and mind, the affected parts should be excised. Should there be one patch in the vestibule or elsewhere which the patient is certain is the starting point of the pruritus vulvae, it can be dissected off, and the edges brought together with catgut. But if there be extensive changes, it will be best to freely remove the whole of the diseased parts, as suggested by Schroeder,[19] including the clitoris, nymphae, and the adjacent parts of the labia majora. During this operation every diseased part must be removed. The remaining tissues are then drawn inwards, and attached to the mucous membrane of the vagina.

The most serious operation of all is the division of nerves, for although theoretically it ought to be excellent treatment, yet practically the operation requires much consideration on account of the possibilities involved. Sir James Y. Simpson is said to have been the first to suggest the division of nerves, but he credits Dr. Burns of Glasgow as being the first to recognize "neuralgia and hyperaesthesia of the vulva, and to cut the pudic nerve for it." According to Hirst[20] the incisions of Burns could not have touched the pudic nerve, and the modification by Simpson of the operation by Burns he considers was still less likely to injure the nerve. Since Simpson's time the pudic nerve has really been resected in some of the later operations, but the disadvantages of this resection are that there is danger of depriving the sphincter ani of its innervation, and so producing incontinence, and of not depriving the vulva of its sensory nerve supply, which has been referred to before. This nerve supply can be cut off by four incisions, two in the groin as for Alexander's operation and two in the buttocks parallel with the ascending ramus of the ischium, beginning just above the tuberosity and extending upwards for 2 in. If the clitoris is involved the dorsal nerve must be resected just above the bifurcation of the pudic nerve into its two branches.

In advising this operation for the patient we must bear in mind that the last state of the woman may be worse than the first, and that, in our anxiety to cure the pruritus vulvae, we must not fail to take into consideration the likelihood of atrophy of all the parts with development of kraurosis vulvae and possibly the occurrence of epithelioma, which is occasionally seen with kraurosis. In the rare cases in which I have been asked for my opinion with reference to this operation for division of the nerves I have decided against it, for I have felt that we have not yet had sufficient experience to speak with certainty of its results and the consequence of the anaesthesia of the vulva following on the operation.

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Remarks
ON
RETROVERSION OF THE UTERUS.

A Paper read before the Hampstead Division of the British Medical Association.

BY

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Backward displacement of the uterus is very common and much has been said and written about it, but, none the less, the condition often presents a problem of considerable difficulty to the careful practitioner. For the sake of convenience, the term "retroversion" will in this paper be used to include cases where retroflexion also exists. This condition is by no means so simple as at first might appear.

Quite apart from the degree of retroversion, there are undoubtedly various kinds of retroversion. How to describe these varieties is by no means easy. For example, it is no uncommon thing to find the uterus to be retroverted one day and anteverted the next. The backward position in this case seems to depend on occasional lack of muscular tone, the uterus standing up when it is in a state of systole and falling back in a state of diastole. This might be described as temporary retroversion and has no importance, except that it teaches us that, as in the old story, a shield has two sides, so in certain individuals the uterus has two positions, and that Dr. A. may diagnose the uterus to be anteverted on Monday and Dr. B. may diagnose it to be retroverted on Tuesday, and both may be right, though they will probably both think each other wrong. Then, again, there is what, for want of a better term, I would call "congenital retroversion of the uterus." There are, I expect, varieties of this condition. In one form, which is by no means rare, the backward displacement is associated with marked shortening of the vagina and often an infantile form of cervix. The uterine body is generally slightly below the normal size. It represents a form of general deficient development of the genital tract. I may say here that in such cases as these there are often no symptoms as long as the woman remains single. Upon marriage she frequently suffers in various ways. Sterility is practically inevitable and generally dyspareunia, but not always. Very often dysmenorrhœa and pelvic pains are complained of, and the patient may become very neurotic and miserable. The sterility is the outstanding feature of the case, and the mental and physical symptoms hinge on this. I believe that a congenital retroversion may exist without any maldevelopment, and in such cases sterility is not inevitable.

Of acquired retroversion there are certainly, in my opinion, at least two well-marked varieties. In the first, the least common, the uterine body is flaccid, lacking muscular tone. It can be pushed up by combined manipulation and anteverted. It is like an inanimate lump: if it is pushed forwards it lies forwards, and if it is pushed backwards it lies backwards.

On the other hand, in cases of acquired retroversion it is much commoner to find the uterus rigid and set in this position. I do not mean to imply that the uterus is fixed in this position by adhesions, because that is much rarer than is often thought. A uterus in the ordinary position of anteversion and anteflexion cannot by manipulation be retroverted and retroflexed because of the natural stiffness of the uterine substance. So, if after childbirth the uterus sets in an attitude of retroversion and retroflexion manipulation will not antevert it, and if raised momentarily into this position by the sound, it dives back into its former position directly the sound is removed. The so-called replacement of such a retroverted uterus with the sound, is often spoken of, but it is clear that unless we have to do with a flaccid and not a stiff uterus, the procedure is a pure farce. In addition, it is convenient for purposes of description to divide retroversion into three degrees—first, second, and third. Another point of importance is to determine whether the fundus of the displaced uterus lies below or above the level of the utero-sacral ligaments; in other words, whether there is or is not associated prolapse.

The first point we have arrived at is that, when it is stated that such and such a person has a retroverted and retroflexed uterus, we have only very imperfectly stated the case. We want to know what is the degree of the retroversion, whether it is probably congenital or acquired, whether the uterus is flaccid or set, whether there is evidence of imperfect development or not.

Symptoms.

In the first place, there can, I think, be no doubt that retroversion in the first degree never causes any symptoms. In the second place, I would say that in the great majority of cases any symptoms which occur are due to the accompanying prolapse of the retroverted body, and that therefore none occur unless the uterine body lies in Douglas's pouch—that is to say, has passed between the separated utero-sacral ligaments. It is quite common to find, however, the uterus displaced to this extent and yet no symptoms exist. I know quite a number of women in whom the uterus appears to be always in this position, and yet they have no pelvic troubles, and lead active and often athletic lives. This fact should never be forgotten. It is none the less true, however, that some women with retroversion and prolapse complain of certain symptoms. Why this is so we do not know. Cases which appear identically alike may in one instance complain of many troubles, and in the other instance of none. This is not dependent on compression by the utero-sacral ligaments, a condition not often seen.

The symptoms that may be produced by retroversion and prolapse are iliac pain, hypogastric aching, sacral pain, and a bearing-down sensation.

Pain in the back is often supposed by women to be due to a displacement of the womb, and, of course, in some cases it may be due to this cause. It is always well to make careful inquiry as to what part of the back this pain is felt. It is hardly possible to assume that the displaced womb can account for pain elsewhere than in the sacral region. When the patient is still more closely questioned it is common to find such a pain located in one or other sacro-iliac joint, and in such cases the pain is far more often dependent on tired, poorly-nourished ligaments, or due to a rheumatic or gouty diathesis than to any uterine condition. Pain in the sacro-coccygeal joint is seldom if ever dependent on a retroverted uterus. A bearing down sensation so commonly complained of and so difficult for the male imagination to fully grasp, is perhaps the most characteristic and common of all the symptoms. Yet is it in no sense diagnostic, because it may undoubtedly be felt and complained of by women whose uteri occupy a perfectly normal position and in whom there is no descent.

It will be seen, therefore, that the symptoms generally attributed to retroversion and prolapse may occur separately or collectively in cases where neither of these conditions exist.

It is obvious that the first question to be answered is whether or not they are dependent on the position of the uterus. If, on examination, the uterus is found occupying its normal position some other cause must be sought for. If, however, the uterus is found to be retroverted, the retroversion may, in spite of this fact, not be the cause of the symptoms. This, to my mind, is of the utmost importance. It is so natural, having discovered the uterine displacement, to at once jump to the conclusion that it explains everything. In many cases it explains nothing.

It may well be asked at this point how it is possible to form an opinion, and whether under these circumstances the symptoms are or are not due to the prolapse. Although I shall deal with this matter more fully under the heading of treatment, I may say that if there are no contraindications to the use of a pessary, and if the conditions discovered are such as to render it reasonably probable that the displacement is the cause of the trouble, the uterus must be pushed up and a pessary introduced. The experimental use of the support should be carefully explained to the patient and every effort made to prevent her from getting an exaggerated notion of the importance or seriousness of the trouble. Many persons go about the world

with a totally incorrect mental picture of what they have been taught to describe as a twisted womb. It is very easy to give a woman a wrong impression; it is very difficult, having once given it, to get it out again. There is no easier way of offending certain women who have undergone much treatment, often extending over many years, than to make light of a displacement which is really unimportant and producing few if any symptoms. We therefore incur a grave responsibility if we exaggerate or overestimate the importance of this condition. I have already mentioned the main, if not the only symptoms, that can reasonably be attributed to backward displacement of the uterus. There are one or two others which I would briefly refer to, not because they are, but because they are sometimes thought to be, dependent on this condition.

I find patients are sometimes told that a retroversion of the uterus causes constipation, and this statement seems to be borne out by the fact that the investigating finger introduced into the rectum feels the uterine body projecting against the anterior wall. I do not believe, however, that this is ever the case. Constipation is so common in women, quite irrespective of the position of the uterus, that the assertion would be very difficult to prove. A strong argument against retroversion being the real cause of the constipation is that intrapelvic fibroids which press against the rectum far more effectually than the unenlarged uterus, do not seem to affect the action of the bowels in the least, at any rate until they have attained a great size. The same is true of a retroverted pregnant uterus.

Again, I would assert that, in my opinion, there are no grounds for the statement that bladder troubles, either in the direction of increased frequency of micturition or in that of retention, are due to a retroversion of a uterus of normal size. These symptoms are met with under the most varying conditions, and, although sometimes the uterus is found to be retroverted, it is not fair to attribute them to the uterine position. The length of the normal uterus is only 3 in., and the antero-posterior diameter of the cavity of the pelvis is over 4 in., so there is plenty of space for it to be in any position it likes. Temporary frequency of micturition, with or without pain, is quite a common complaint, and is often purely neurotic, and so, of course, also is retention.

A flabby, somewhat enlarged uterus, subsequent to a pregnancy, may give rise to an increased menstrual loss, but it is the imperfection of the process of involution, or the lack of muscular tone, and not the position of the uterus, which explains the menorrhagia.

In congenital retroflexion, with imperfect development of the uterus and vagina, it is by no means uncommon for the patient to complain of painful menstruation. But here, again, we must be careful not to assume that the position of the uterus is the cause of the trouble.

Does retroversion cause sterility? is a question that we often have to try to answer. There is strong evidence to support the statement that many women readily conceive with the uterus in this position. There are also good grounds for the statement that in some women it seems to make conception more difficult.

Some women whose pelvic organs are normally placed seem to conceive with the greatest possible ease, others only with comparative difficulty. With those who conceive easily the position of the uterus appears to make little or no difference, whilst with those who conceive with difficulty a retroversion may lead to a period of temporary sterility, which may be overcome by supporting the uterus with a suitable pessary. If, of course, the uterus is congenitally defective as well as retroverted, altering its position will make no difference. The sterility has an origin far more deep-seated than the displacement.

At this point I may briefly allude to sudden or acute backward displacements of the uterus. That such a condition exists is firmly fixed in the public mind, and I think even among the profession the idea finds credence. Lifting a heavy weight, a sudden strain or jar, are supposed to bring this about. If the uterus is in the normal position of anteversion and flexion its displacement backwards as the result of strain or injury I believe to be impossible. The conversion of a partly retroverted uterus into a completely retroverted uterus, or the driving down of the already retroverted uterus deeply into the pelvis, is perfectly possible, and in some cases no doubt does account for a sudden feeling of pain as the result of lifting too heavy a weight. In a great many of these cases the pain produced is the result of muscular or ligamentous strain and has no connexion with the womb at all. There is almost always a firm conviction on the part of the patient and relatives that she has twisted or injured her womb in some way, and it is important to disabuse their minds on this point as speedily as possible. Long periods of invalidism sometimes result from imaginary injuries brought about by overlifting.

Treatment.

We will next consider certain points in connexion with the treatment of this condition. If there are no symptoms then there is no treatment—that is to say, if there are no symptoms that can be definitely attributed to the retroverted position of the uterus. To the orderly or too conventional mind a retroversion is regarded as an anomaly; an outrage on the part of the uterus. But if it causes no discomfort it is clear that any form of mechanical treatment is uncalled for. Supposing, however, that some or all of the symptoms associated with retroversion are present, before we commence treatment, and before even we allude to the condition except in the most guarded terms, we must satisfy ourselves on certain points:

1. As to the existence of the condition.
2. As to the degree of retroversion and prolapse.
3. As to whether the uterus is flabby or firm.
4. As to whether the condition is probably recent, of long standing, or congenital.
5. Whether she is single or married, and whether she has borne children.

What it all amounts to is this. Are we or are we not going to introduce a pessary? It is only by some form of mechanical support or by some form of surgical operation that the faulty position of the uterus can be modified. If the retroversion is well marked, and the fundus lies deep in the pelvis, and the patient is married, and more especially if she has borne children, the experimental use of a pessary is generally indicated, always assuming that she has symptoms.

If a woman has had a child or a miscarriage, and the womb is found to be retroverted, the retroversion almost certainly dates from the event, and if the last pregnancy has occurred some years before and the symptoms are quite recent, it is often wise to have recourse to general treatment, and not be in too great hurry to put in a pessary. If the patient is a virgin we should be very chary in advising the use of a pessary, and not have recourse to it until all other means have failed to give relief. If the vagina is short and the uterus poorly developed a pessary does no good.

Before we introduce a pessary in any case of retroversion we should form a clear idea of what we propose to do. The patient no doubt imagines that by the manipulations and the subsequent introduction of the support the uterus which was retroverted is induced to lie with its body directed forward in the ordinary common and respectable position, and this idea is sometimes, I am afraid, partly shared by the medical attendant. It is true that if, as is sometimes, though rarely, the case, the uterus is flabby in texture it may be raised up and made to lie forward, and may continue in this position after the pessary has been put in. But in nineteen cases out of twenty, although the uterus be pushed up with the fingers and even carried forward by the sound, all that a pessary will do is to overcome the prolapse, raise the fundus up out of Douglas's pouch to a higher level, and convert a third degree of retroversion into a second. If the uterus is set in the position of retroversion and retroflexion a pessary will do no more than what I have just stated.

However, it was the prolapse that caused the trouble, and as the pessary has overcome that and kept the fundus from being forced down low into the pelvis, all that is necessary has been accomplished.

The uterus is normally inclined forwards and the body bent on the neck. The only objection to its being inclined backwards instead of forwards is that it is likely to be pushed down, that is prolapsed, by intra-abdominal pressure, and a kink in the posterior wall instead of a kink in the anterior wall clearly can make no difference.

I have already alluded to the use of the pessary as experimental—that is to say, until the uterus has been

pushed up and a pessary suitable in size and shape introduced, it is not possible to determine accurately whether any or all of the symptoms complained of were due to the position of the uterus. If marked relief to the symptoms follows, as is often the case, then we know that the low-lying retroverted uterus was the cause, but if, on the contrary, no relief is obtained and the pessary employed is suitable in size and shape, then some other source of the trouble must be sought for and the pessary discarded.

If the body of the uterus in addition to being retroverted and prolapsed is markedly tender, rest in bed and hot douching should be employed for a week before any attempt is made to fit a pessary. In nearly all cases the uterus exhibits some tenderness, and pressure on it for the purpose of pushing up causes pain, but in the kind of case I allude to the sensitiveness is extreme, and to push it up without the employment of an anaesthetic would be impossible.

The cradle pessary and the ring pessary are the two kinds which are generally employed. The cradle pessary, often called a Hodge, is usually made of vulcanite, and is, therefore, rigid and incompressible. This increases the difficulty of introduction. The rubber watchspring ring is, as we all know, comparatively easy to introduce, and in those who have borne children is usually the best form to employ. After childbirth the vagina is nearly as wide as it is long, and therefore a ring-shaped instrument fits best. If, as is often the case in those who have had no children, the vagina is comparatively long and narrow, then a cradle pessary is sometimes more comfortable. A further advantage is that a vulcanite instrument is more easily kept clean. Rubber perishes with time and secretions accumulate on depressions and corrugations which form on its surface. None the less, a watchspring rubber ring is generally the best instrument to use. Those filled with glycerine can sometimes be well borne when the ordinary ring causes discomfort.

A 2¾-inch ring may be regarded as the stock size. When the upper edge lies, as it should do, in the post-fornix, the lower edge should reach to within ¾ in. of the urethral orifice, and laterally it should not be so tight as to prevent the tip of the finger being swept round between it and the vaginal wall. By the use of daily douching and the removal of the instrument at intervals of six months, it can be kept clean and free from offence. The more frequent removal of the pessary is rarely desirable.

The question is often asked as to the length of time that such a support must be worn. In some cases unfortunately it is necessary to continue to use the support for many years. As soon as it is removed the old symptoms of backache, bearing down, and hypogastric discomfort return. In others, after an interval, the pessary may be removed without any return of the symptoms. In a few of the less severe cases the uterus may sometimes regain its normal position, and maintain it after the pessary has been taken out.

There are cases in which an operation such as ventrifixation may be advantageously performed instead of making use of a pessary. This is perhaps specially the case in young married women, who otherwise might have to look forward to many years of pessary life, and again in those in whom the vagina is so sensitive as to make it difficult or impossible for them to wear a pessary. In a virgin with a short vagina and a small uterus the operation is contraindicated.

In no case should an operation be performed unless it is clearly proved by the use of a pessary that the symptoms are due to the position of the uterus. A case in which a pessary gives no relief will generally be found to be one in which an operation gives no relief. Of all the operations performed or suggested for the relief of this condition, I believe ventrifixation to be the best.

The very progressive and up-to-date surgeon might well urge that in all cases operative treatment should be adopted and pessaries discarded. I cannot help feeling, however, that pessaries often fulfil a very useful function in these cases, and that there are quite a number of people who still cherish a preference for keeping their abdominal walls intact, in spite of the slight inconvenience entailed by wearing a pessary.

At the present time, however, although the operation is undoubtedly a useful one, it cannot be widely and indiscriminately recommended. I need not here describe the operation in any detail. If the sutures which unite the uterus to the abdominal wall are introduced just above the level of the os internum, the body will be left free to expand if pregnancy should subsequently occur. This being so, there is no particular risk of miscarriage or of any difficulty in the course of labour at term. I have seen quite a number of patients delivered who have had their uteri fixed, and no special difficulty was encountered in the course of delivery. Moreover, after delivery the uterus showed no sign of returning to the retroverted position.

I have endeavoured to make clear my own views on this very important subject, fully realizing the difficulty of the task. It is not simply a mechanical problem which we have to consider. We know too little about the causes and effects of the condition. Still, if I have given you any food for thought and have done something to start a discussion, I have fulfilled my purpose.

OBSERVATIONS ON FOUR SUCCESSFUL CASES OF CAESAREAN SECTION.*

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IT is my desire to bring forward for consideration a series of four cases in which I have performed the operation of Caesarean section. These operations were performed during the past four years, and each of them, I am happy to say, has proved successful in the interests of both mother and child. As I have ceased for some time to take any very active part in obstetrics, these cases are presented by one who must be regarded as a general surgeon rather than an obstetrician. They will not, I trust, on that account prove the less interesting.

The indication for the operation in the first case was the presence of a large fibromyoma which completely blocked the pelvis; in the second, a contracted pelvis; in the third Caesarean section was performed at full term in a woman with a masculine pelvis in preference to the induction of premature labour at an earlier date; in the fourth case an ovarian tumour occupied the pelvis.

The first and second of these cases were fully reported in 1907,[1] so that I shall only give a brief sketch of them. The two later cases have not so far been reported.

CASE I.

This case was first seen in my consulting room on February 23rd, 1906, and was sent to me by Dr. Reid of Bandon as a case of abdominal tumour of a doubtful nature. The patient, Mrs. M., a rather anaemic and delicate-looking woman, aged 38 years, the wife of a farmer, had been married on July 29th, 1905.

History.

Previous to marriage menstruation had been regular but had not occurred since. She had noticed some enlargement of the abdomen for a few months previous to my seeing her; had no morning-sickness or gastric disturbance; had some sensations of "fluttering," but no distinct quickening. Milk was present in the breasts. Dr. Reid had been unable to detect the fetal heart sounds, but found a large solid tumour presenting in the vagina.

A hard tumour was found in the pelvis, felt through the anterior vaginal wall, and extending about 4 in. above the pubis. The cervix was so high up that it could be reached with difficulty on bimanual palpation, the os, which was out of reach, being directed towards the hollow of the sacrum. Another small and partly movable tumour could be felt through the abdominal wall lying a little above the one just described. In addition I was able to detect a general swelling of a softer nature lying behind these tumours and extending somewhat above the umbilicus. This I suspected to be a pregnant uterus. The patient was admitted to the North Charitable Infirmary for observation, and on making a further examination on the following day I satisfied myself that it was a case of pregnancy complicated with fibromyomata. She was sent home and advised to return early in May, the full term of gestation being calculated for about the end of the second week in that month.

Operation.

She was readmitted to hospital on May 7th. The operation was performed on May 12th. The uterus was opened as high up as possible, and a healthy male child extracted. Haemorrhage was temporarily controlled by manual pressure. A large fibromyomatous tumour was extracted from the pelvis with

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some difficulty. The operation was completed by performing supravaginal or subtotal hysterectomy. The tumour was growing in the lower portion of the anterior uterine wall, just above the cervical junction. It almost completely blocked the pelvis, extended several inches above it, and rendered delivery by natural means absolutely impossible.

The patient made an excellent recovery and returned home with her child on June 9th.

CASE II.

Mrs. S., sent to me by Dr. O'Meara, of Skibbereen, was a deformed woman, aged 33 years, height 4 ft. 6 in., with pelvis markedly contracted in the conjugate diameter. She had been married four and a half years, and had a history of three previous confinements. In the first she was delivered by turning followed by craniotomy; in the second she was delivered with forceps of a dead child with great difficulty; on the third occasion she was confined at six and a half months, and the child lived a few hours. The date of the last delivery was April, 1905. When seen by me on December 27th, 1906, she was again pregnant and very near full term.

Operation.

She was immediately admitted to the Victoria Hospital for Women, and I performed ordinary Caesarean section on December 29th, without waiting for the onset of labour, and extracted a living female child. When the abdominal incision was completed, the uterus, owing to the great prominence of the lumbar vertebrae, delivered itself spontaneously through the wound. After the removal of the placenta the uterus showed little disposition to contract, but soon responded to douching with hot saline. The incision in the uterus was sutured with two rows of continuous iodine catgut.

The patient made an excellent recovery.

CASE III.

Mrs. S., aged 44 years, was a woman of healthy and exceptionally robust appearance, with unusual muscular development.

History.

She had been married four years. Two and a half years before my seeing her she had a very severe confinement, and was delivered by version followed by the application of forceps to the aftercoming head: she then sustained complete laceration of the perineum. She was seen by me on January 2nd, 1909. She was then pregnant about seven months, and was sent to me by Dr. Shipsey, of Schull, with a view of having labour induced, so that she might have a living child. This was specially desirable owing to her age, and he did not think, judging from his previous experience, that there was any prospect of one if she was allowed to go to full term.

Her last period had ceased about May 28th, so that the probable date for her confinement would be March 5th. When examined by me the fetal heart was distinctly heard. The pelvis was of the masculine type, and it was clear that delivery of a fully developed fetus would be a matter of extreme difficulty. The rent in the perineum extended through both sphincters and part of the rectum, and there was incontinence of faeces. Considering all the circumstances I strongly advised against the induction of premature labour, and recommended that she should wait till near the end of term and come back for Caesarean section. She accordingly went home, and returned on February 15th, when she was admitted to the Victoria Hospital.

Operation.

On February 28th I performed Caesarean section in the ordinary way and before the onset of labour. The child was a vigorous male.

The patient progressed most satisfactorily, and ten days after the section I performed colpo-perineorrhaphy with most excellent results. Both mother and child left the hospital three weeks afterwards in excellent condition.

CASE IV.

Mrs. D., aged 28 years, was sent to me by Dr. O'Meara, of Skibbereen, for consultation on July 23rd, 1909.

History.

She was a healthy woman, and had married nine months previously. Menstruation had been regular for some months after marriage, but ceased on February 25th. She was seen by Dr. O'Meara in May, who found that she was pregnant, and wrote to say that he had found a tumour in the pelvis which would obstruct labour, and might cause trouble during gestation. I admitted her to the Victoria Hospital for examination, and found her condition as he described, namely, the usual signs of pregnancy at the fifth month, and, filling Douglas's pouch, a rounded elastic tumour, which could not be raised out of the pelvis by making moderate pressure with two fingers through the vaginal wall while the patient was in the genu-pectoral position. The tumour was believed to be ovarian, but as there were no unusual symptoms the woman was sent home with instructions to pay particular attention to the bowels, and to return in two months for further examination, or sooner if any trouble arose.

She came to me again on October 21st. She had been getting on very well, had no trouble with the bowels, but micturition was rather frequent. On examination I found the cervix high up, being displaced backwards and to the left. A large elastic tumour occupied the pelvis, lying behind and to the right of the vagina. The fetal heart sounds were best heard between the umbilicus and the right anterior superior iliac spine. The position of the fetus was easily determined by abdominal palpation: the head lay in the left iliac fossa, the dorsal aspect of the child being directed downwards, forwards, and to the right; the buttocks were felt above and to the right of the umbilicus, so that the long axis of both uterus and child was directed obliquely. As there were no urgent symptoms I again sent the patient home, on the understanding that she was to come up not later than November 21st.

Operation.

She was admitted to the Victoria Hospital on November 19th, having travelled sixty miles by rail. The "waters" had escaped during the previous night, but uterine action had not commenced. The operation was performed at 5 p.m., about two hours after her admission to hospital. The earlier steps consisted of an ordinary Caesarean section and presented no special difficulty. The placenta was anterior, and presented immediately beneath the uterine incision. In this case, as in one of the others, I passed the hand downwards between the placenta and the uterine wall by partially separating them. This, to my mind, is better and more scientific than forcing a passage with the hand through the placenta, as has been done by many operators.

After the removal of a healthy male child the placenta was peeled off. Haemorrhage was temporarily controlled from the placental site and uterine wall by pressure with large gauze pads wrung out of hot saline solution. The pelvic tumour was next dealt with; it proved to be, as was anticipated, a cystic tumour of the right ovary. Considerable difficulty was experienced in raising it out of the pelvis, partly owing to its being impacted, and partly to the great resistance due to atmospheric pressure. The uterine incision was then sutured in the same manner as in the other cases by two rows of continuous suture of iodine catgut placed as follows: The deeper layer passes through the entire thickness of the uterine wall to the margin of the mucosa, not including the latter; the superficial layer is applied by commencing about an inch above the upper extremity of the incision, the stitches being carried about two-thirds of the depth of the uterine wall, and placed so as to invert about half an inch of the peritoneal margin external to the first row. The suture is drawn as tight as possible so as to allow for the rapid shrinkage of the uterus from contraction, and is carried about an inch beyond the termination of the deeper layer, so as to invert the uterine wall for some distance beyond the incision at this end in the same manner as the other.

The patient made a perfectly smooth recovery, and returned home with her son three weeks after the operation, both in a very satisfactory condition.

These are the only cases in which it has fallen to my lot to perform Caesarean section, and all of them have terminated in a satisfactory manner. In Cases I, II, and III I was assisted by my colleague, Dr. N. H. Hobart. In the last case I had what is probably a unique experience for a medical man: My elder son, Dr. William Pearson of Dublin, who was staying with me at the time, acted as my assistant, while my younger son, Dr. C. B. Pearson, administered the anaesthetic.

Cases I and II do not call for any special observations here as they have been fully reported elsewhere. In both the indications for Caesarean section were imperative.

In Case III opinions as to the course of action I adopted will probably differ. Some obstetricians may hold that it would have been wiser to have induced labour at about seven and a half months or at the termination of the eighth month. I am prepared to defend my course of action on the following grounds:

1. I hold that in competent hands the operation of Caesarean section is not more dangerous to the mother than the induction of premature labour, probably less, while it is certainly safer for the immediate life of the child. Moreover, instead of the offspring being born prematurely, it is brought into the world in a mature condition.

2. Owing to the condition of the perineum and rectum the induction of labour in this particular case would have been attended with considerable danger of infection.

3. Both the woman and her husband were extremely anxious that she should have a living child.

4. Owing to her age (44 years) it was not very probable that she would again become pregnant, and she was prepared to take any reasonable risk that would ensure the life of her infant.

In Case IV, owing to the position of the tumour, I thought it wiser not to interfere in the first instance, and as the case was progressing favourably at a later date I did not think it necessary to do so. If the case had been one of pregnancy accompanied with an ovarian tumour situated above the pelvic brim I should certainly have

removed the tumour at the earliest practicable date, as I have done so in a case of the kind without any disturbance to the regular course of gestation.

It will be observed that in the first three cases I deliberately operated before the onset of labour. It was my intention to do so in the last case, and, as already stated, labour had not really set in, although the membranes had ruptured some twelve hours previous to the patient's admission to hospital.

Where the probable date of full term can be calculated with any approach to accuracy, I think it is far better, as a rule, to select a time to operate that will anticipate the onset of labour, as everything can be arranged methodically beforehand. This is an unquestionable advantage in the case of those who, like myself, cannot calculate on being on the spot if suddenly required. In the case of a large lying-in hospital, where there is a resident medical staff, there are some advantages in waiting for the onset of labour. One of these is the uncertainty in many cases of calculating the approximate date for the completion of gestation; another is the greater certainty of having satisfactory uterine contraction after the removal of the placenta. On the whole, I think the advantages of operating at a time selected to suit the operator outweigh these considerations.

Conclusions.

In addition to the four cases of Caesarean section I have just related I have assisted one or other of my colleagues in three others, so that my experience extends to seven cases in all. This is not a very large number from which to make any sweeping deductions. There are, however, a few practical points in which my advice may be of some value to those who have no experience of the operation. These I shall briefly state:

1. The operation is one that may be undertaken with great confidence by any competent operator.

2. The incision should be commenced well above the umbilicus, so that the fundus of the uterus can be easily reached when the abdomen is opened.

3. When making the incision it is well to remember that the abdominal wall is very thin in the middle line, owing to the separation of the recti and the stretching of the aponeurosis. This being overlooked, the operator's knife may easily pass through the parietes in the first incision and wound the uterus, which, though not a serious matter, is inadvisable.

4. The uterine incision should be made as high up as possible. In the first place, because there will be far less haemorrhage from this portion of the uterine wall; and, secondly, because an incision that seems fairly high up when made into the front of the distended uterus will be found very low down when the latter is contracted, and will be much more difficult to suture than one placed higher.

5. When incising the uterus one should avoid opening the membranes until the uterine incision is completed to the required extent, so as to postpone the escape of liquor amnii.

6. It is not advisable to delay in the attempt to arrest the haemorrhage from the margins of the uterine incision by means of compression forceps. It is better to proceed quickly at this stage, and very effective haemostasis can be obtained if the assistant makes steady pressure with the hands on either side through the abdominal wall.

7. If the placenta be found immediately beneath the uterine incision, it is better to pass the hand between it and the uterine wall and separate it to the necessary extent, rather than to tear through its substance.

8. It is advisable, when possible, to grasp the child by the neck from the dorsal aspect with the thumb and two fingers, and extract the head first.

9. When the child is extracted it should be held by a special assistant while the operator places two compression forceps on the cord and divides it between.

10. After the removal of the child the uterus can be easily brought out through the abdominal wound. When this is done the margins of the upper portion of the abdominal incision should be temporarily held together with catch forceps and a large hot compress of gauze placed over it, against which the back of the uterus will rest.

11. If the uterus contracts spontaneously it is probably better to wait for the placenta to separate before removing it, otherwise it may be peeled off.

12. Haemorrhage during this stage and during the subsequent suturing of the uterus can be controlled by the assistant compressing the lower segment of the uterus and the broad ligaments with the hands, or, if found desirable, by employing either a rubber tube or a piece of folded gauze as a constrictor. If the uterus contracts firmly and the incision has been made high up there will be little haemorrhage.

13. If the uterus does not contract readily contraction should be induced, before commencing to suture it, by douching it externally and internally with hot saline or hot iodine solution poured from a jug and by manual pressure exerted on the fundus.

14. It is unnecessary to ligature any vessels in the uterine wall; they can be effectively controlled if the suturing is carried out in the manner already described.

In conclusion, I wish to remark that I did not take any steps to prevent a future conception in the second case, which was the only one in which the question could be entertained. I see no justification for such a proceeding. In my judgement there is no reason why Caesarean section should not be undertaken repeatedly, as has been done in several recorded instances. Again, I do not approve of the suggestion which has been advocated with a view to the repetition of the operation in future pregnancies—namely, to unite the uterus to the abdominal wall. Such a proceeding, in my opinion, would be calculated to interfere with the immediate contraction of the uterus and with its subsequent involution.

I am happy to say that I have no experience of extra-peritoneal Caesarean section, nor can I conceive any advantage that it would possess, while I believe that it has many objections.

Reference.

[1] *Medical Press and Circular*, June 12th, 1907.

THE DIAGNOSIS OF ECTOPIC GESTATION.*

BY

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I propose to consider the subject under three main heads:

1. The diagnosis of ectopic gestation either before rupture or after primary rupture when the ovum is still developing.

2. The diagnosis at the time of rupture, or what may be called the acute cases.

3. The diagnosis of tubal mole and tubal abortion, or the subacute or chronic cases.

This classification is purely a clinical one, but I think it will be found that all cases fall into one or other of these three groups.

Developing Ectopic Gestation.

First, I would lay stress on the importance of the patient's past history.

The patient's age is not of great value, as ectopic fetation may occur at any time during the fertile period, but if a large number of cases are examined it will be found that the vast majority occur between the ages of 20 and 30—that is to say, during the earlier rather than the later years of the fertile period. There is a reason for this, as we shall see later.

The most important point in the past history is that of previous pregnancies. It is very frequently found that the patient has had one or more pregnancies, but that the last has been followed by several years of sterility. Now, it is probable that the implantation of the ovum in the tube is in most cases due to some form of obstruction in the tube. The commonest form of obstruction is undoubtedly that due to salpingitis, and here we have the explanation both of the history of sterility and of the common age incidence. An attack of salpingitis occurs after a confinement, and completely obstructs the tube lumen for the time being. Gradually the tube recovers and becomes pervious again, though this may not occur for some years after the attack of inflammation. As the lumen again becomes pervious it is at first only capable of admitting the passage of a spermatozoon, which is then able to

* Read before the New Cross Medical Society.

reach the ovum. The latter is too large to pass through the tube at the point of obstruction, and so begins to develop in the tube itself, on the distal side of the obstruction. This view is strengthened by the fact that in many cases it is possible to elicit a history of an attack of inflammation following the last confinement.

It is therefore of great importance to inquire into the previous history of all cases.

I have said that this will explain the age incidence also. Salpingitis is relatively uncommon in women over 30 years of age. So this very frequent cause is removed after this age.

The recent history is, of course, of still greater importance. In many, if not in most, cases the patient is impressed by the fact that she is pregnant. Not only that, but in a large number she actually feels that something is wrong, though the sensation is quite indefinite, and she is unable to point to any particular abnormality in the symptoms. This was well shown in a case I once saw.

A woman of 24 had been operated upon a year before for ectopic gestation, and she came complaining of similar symptoms. She was quite certain that she had another ectopic gestation. She had missed one period. On examination nothing abnormal was felt outside the uterus, and the uterus itself was slightly enlarged, so she was sent home. Two months later she was again admitted to the hospital with symptoms of rupture and severe internal haemorrhage. At the operation a three months' fetus was found loose in the abdominal cavity and there was a large rent in the remaining tube.

A case of this nature must, of course, be extremely rare, but it is interesting as showing this sensation of something wrong which led the patient to diagnose her condition in view of her past experience.

Amenorrhoea is present in only about half the cases, so that though it is of great importance when present, its absence by no means excludes ectopic gestation. Where amenorrhoea is not present there is generally some abnormality in the duration or regularity of the periods. Usually the period is shorter than normal, and frequently there are slight shows at frequent intervals, not occurring solely at the time of the expected period.

Pelvic pain is sometimes present, but more often there is merely the indefinite sense of discomfort mentioned above. Now and then, however, the patient describes sudden attacks of colicky pain situated in the iliac region, apparently due to contraction of the tube, or possibly to slight haemorrhage through the abdominal ostium into the peritoneal cavity.

The other signs of pregnancy are present as in uterine cases if the case is far enough advanced, but it must be remembered that most cases terminate during the second month of pregnancy, by which time the definite signs are not likely to be very evident.

When the pregnancy has extended into the later months as a rule there is continual pain on one or other side of the abdomen, and sometimes the reflex symptoms of pregnancy, such as vomiting, are more than usually marked.

On examination in the early months an elastic rounded tumour can generally be felt to the side of and behind the uterus, generally rather tender, but not nearly so much so as in cases of inflammatory masses. One or two observers have actually felt contractions occurring in the tumour, but these are not to be expected, though when they do occur they are, of course, of great value in diagnosis.

The uterus is slightly enlarged, but not so much so as in a normal pregnancy, and it is displaced forwards and slightly to the opposite side. The cervix is usually softened, as in intrauterine pregnancy.

In the later months the uterus is much enlarged, attaining to about the size of a four months pregnancy, and is much displaced laterally. The pregnancy sac generally occupies one iliac fossa, projecting into the side of the abdomen to a height more or less consistent with the date of pregnancy, but it is not as a rule as large as the normal pregnant uterus of the same date, owing to the lack of liquor amnii. At this stage the tumour is almost certain to be fixed, as the pregnant sac has probably burrowed in between the layers of the broad ligament, and is directly attached to the abdominal wall. An exception must be made in those cases where the ovum is lying in a rudimentary cornu; in these cases the tumour may be freely movable. The other cornu is always sympathetically enlarged, and can be felt distinct from it, though connected by a pedicle with it.

Diagnosis.

The conditions which may be mistaken for a developing ectopic gestation are not very numerous.

In the early months a normally pregnant uterus sometimes simulates it, owing to irregular contractions of one or other cornu. I have seen cases in which one half of the uterus was firmly contracted, while the other half was quite relaxed and felt cystic. This condition usually occurs about the third month, and is the more likely to be mistaken for an ectopic gestation because it gives rise to more or less intense colicky pain in the side of the pelvis or iliac region. If left to itself the contractions pass off, and the uterus is felt to be of normal shape again. A small cystic ovary or hydrosalpinx may also feel like a pregnant tube, but here, unless there happens to be an intrauterine pregnancy as well, the uterus will be felt to be of normal size, and the cervix will be firm and contracted. In cases of doubt, where intrauterine pregnancy is present, the normally proportionate increase in its size will be sufficient to exclude ectopic pregnancy if the patient is watched for a while.

In the later months there are more difficulties. I think the most common mistake is to diagnose pregnancy complicated by a fibroid. The appearance in these two conditions is very similar. In both there will be a cystic tumour formed by the pregnant sac situated in the abdomen to the side of the middle line, while a rounded hard tumour, representing the fibroid or the body of the uterus, as the case may be, will be felt occupying the pelvis or the opposite iliac fossa. In both there is almost certain to be a good deal of pain. There are, however, one or two points which may help in the diagnosis. In the case of ectopic pregnancy the fetal parts are sometimes felt unusually distinctly owing to the thinness of the sac wall and the lack of liquor amnii. This is not a very trustworthy sign, as in many multiparae the abdominal wall is very thin and the fetal parts may be felt with extraordinary plainness.

A fibroid tumour is usually incorporated in the wall of the pregnant uterus, but where a pedunculated subperitoneal fibroid exists the diagnosis may be extremely difficult. The history will be of great help. When the pregnancy has developed in the tube and become secondarily implanted in the broad ligament one can usually obtain a history of an acute attack of pain during the second or third month corresponding to the time of the primary rupture.

In cases of doubt the only way to settle the diagnosis is by using a uterine sound and observing the direction and distance to which it can be passed. If it passes into the solid feeling mass, and only for a short distance, the diagnosis of ectopic gestation is certain.

Other tumours, such as an ovarian cyst complicating pregnancy, may simulate ectopic gestation. These are very apt to become acutely twisted during pregnancy and may give rise to the symptoms of rupture of a gestation sac. The diagnosis is not generally difficult as the cystic nature of the tumour will be apparent and the displacement of the uterus is not, as a rule, great.

I saw one very interesting case recently in which a chorion-epitheliomatous growth of the uterus was complicated by a large multilocular lutein cyst of the ovary, so that there was a hard tumour to one side of the pelvis with a cystic mass on the other side reaching up into the abdomen. The resemblance to ectopic was still further increased by the fact that she had a history of five months' amenorrhoea and the size of the cystic tumour corresponded exactly to that of a five months' gestation. She was so ill that an exploratory laparotomy was performed without delay, and the condition I have described found.

ACUTE CASES.

Diagnosis of rupture of an ectopic gestation is not, as a rule, difficult. The sudden acute pain low down in the abdomen or pelvis, followed by collapse from haemorrhage, is usually enough to make the diagnosis certain.

It must be remembered that often very little help is given by the patient's recent history, and she may have had no idea that she was pregnant, though usually, as I have already explained, there is either absence or some

irregularity of the periods immediately preceding the rupture.

There are one or two points to be borne in mind in connexion with ruptured ectopic gestation which may be very misleading if they are allowed to have too much weight in the diagnosis.

The vaginal haemorrhage which always occurs after rupture often does not begin until a day or two after the rupture has taken place, and even when it does begin no pieces of decidual membrane separate for some days. In my experience the separation has generally taken place about the tenth day—too late to be of any assistance in acute cases. The blood which escapes into the abdominal cavity will gravitate to the pelvis and eventually form a firm clot there—a pelvic haematocele—but this clotting is not sufficiently firm to produce a palpable tumour behind the uterus until the third day after rupture, too late again to be of use in an urgent case.

It is generally possible to make out the presence of an enlarged tube behind and to one side of the uterus, though the great abdominal distension and the tenderness over the seat of the rupture may make bimanual examination extremely difficult. However, even if the tube cannot be felt, there is almost always a sense of resistance on the side where the rupture has occurred.

Several acute abdominal conditions may simulate ruptured ectopic gestation. The chief of these are acute appendicitis and rupture of hollow viscera, such as those due to gastric or duodenal ulcers.

With appendicitis the pain is not so sudden in onset, and the patient has almost always been unwell for some days before the acute symptoms started. The pain is usually also rather higher in the abdomen, though it is true that the pain from ruptured ectopic may be considerably above the pelvic brim. Then there is generally some history of intestinal disturbance in the immediate past. The great pallor from internal haemorrhage is absent.

In cases of general peritonitis from whatever cause, the rigidity of the whole abdominal wall is generally sufficient to put out ectopic gestation, for in the latter condition, though the abdomen may be greatly distended, the rigidity is limited to the area immediately over the ruptured tube.

With rupture of gastric and duodenal ulcers, the high situation of the pain, combined with the rigidity of the muscles in the epigastric region, is enough to distinguish them from tubal gestation.

CHRONIC CASES.

In this group I include all cases of tubal mole or abortion and cases of ruptured tube in which a pelvic haematocele has formed.

I admit that many of these latter cases present symptoms so severe as to be worthy of classification with the acute cases, but I prefer to classify them as I have done because the mere fact that the effused blood has had time to clot is some evidence of chronicity, and as a matter of fact the difference of their symptoms from those of the more chronic forms is one of degree only.

The main symptoms of this group are those of pressure, and vary according to the amount of blood extravasated in the pelvis. The history is always of the utmost importance. When a haematocele has followed tubal rupture there is generally a history of acute onset of iliac pain some days previously, which has been accompanied by attacks of fainting and perhaps vomiting. Sometimes there is only one attack of pain, but often there are recurrent attacks extending over several days, the first one usually being the most severe, the patient between the attacks being fairly comfortable.

Haemorrhage from the vagina is almost always present, but does not, as a rule, begin till a day or two after the onset of pain. It is usually not severe in amount, but continuous and very dark in colour. This darkness of its colour is very characteristic. A week or more after the onset of haemorrhage pieces of decidual membrane will be found in the discharge, and they may be recognized by microscopic examination. Sometimes the uterine decidua comes away in one piece, and presents the typical triangular shape of the uterine cavity.

The continuous nature of the uterine haemorrhage is a very important sign—in doubtful cases, I think, the most important. It may last for many weeks after the decidua has been expelled, and only seems to stop with certainty when the clot in the pelvis has been removed by operation. The pressure symptoms supervene about three days after the rupture has taken place. The patient will complain of a sense of weight in the perineum accompanied by obstinate constipation and frequently difficulty of micturition, or in bad cases complete retention of urine.

The general symptoms will depend upon the amount of blood lost. If this is great, there will be pallor and rapidity of pulse-rate; if small, the outward appearance of the patient may be healthy.

In cases of tubal mole and abortion the onset of the pain is not so sudden or definite, and the symptoms are not nearly so severe. Generally there are repeated attacks of colicky pain in the iliac region, gradually giving place to a dull ache either here or deeper down in the pelvis. Vaginal haemorrhage is present as in cases of rupture, and has the same continuous character. The pressure symptoms are less marked. Frequency of micturition is much more common than retention. The general symptoms are less severe, as a much smaller quantity of blood has escaped.

In all cases, whether of rupture or mole, the temperature tends to be raised after the first few days, and to remain above normal for a considerable time while the effused blood is being absorbed. This is due to the liberation of toxic substances in the blood clot and not to infection by micro-organisms, though occasionally infection does take place. The temperature is not as a rule very high, between 99° and 100° commonly, though I have seen it as high as 102° without any sign of infection. It may lead to considerable difficulty in the differential diagnosis.

The physical signs will depend upon the amount of blood that has escaped into the pelvis; in cases of rupture the blood escapes rapidly and collects in Douglas's pouch, forming a rounded tumour behind the uterus and compressing the rectum against the sacrum. The blood tends to encircle the rectum, and rectal examination will reveal two processes extending from the main tumour back to the sacrum on either side, forming a collar round the front and sides of the bowel.

The uterus is generally displaced forwards against the pubes, and may be pushed upwards as well. It is generally possible to distinguish it from the main tumour.

The tumour may extend upwards into the abdomen, reaching sometimes as high as the umbilicus. In these cases the upper outline is dome-shaped, but, as a rule, rather indefinite. Its consistence is soft and boggy at first, but gradually becomes firmer as the clotting proceeds, though it never becomes as firm as that of a fibroid.

In cases of tubal mole and abortion the blood escapes much more slowly, and clots round the tube as it reaches the peritoneal cavity, forming a rounded boggy swelling to the side of and behind the uterus, displacing it towards the opposite side. The mass is generally closely connected to the uterus, and may attain to a considerable size, though not so large as that of a haematocele from rupture. It is usually fixed by adhesions, but not always. I have seen one as large as a clenched fist, which was freely movable in a vertical direction. There is almost always a good deal of meteorism, which makes accurate examination very difficult, and the difficulty is still further increased by the tenderness over the tumour.

Diagnosis.

The main conditions from which diagnosis is to be made are tumours impacted in the pelvis in association with pregnancy, retroversion of a gravid uterus, and inflammatory condition of the appendix and Fallopian tubes, and of the pelvic cellular tissue.

A fibroid or ovarian cyst impacted in the pelvis during pregnancy is usually not easily mistaken for a haematocele, though the onset of symptoms may be very similar. The tumour in these cases is much more definite and uniform in outline. A fibroid is much harder and an ovarian cyst much more elastic than a haematocele. The rectum is flattened out against the sacrum, and there is no tendency to the formation of a "collar" round the bowel. These points and the absence of collapse from loss of blood are generally sufficient to distinguish the condition from haematocele.

Retroversion of the gravid uterus does not give

symptoms until the end of the third month of pregnancy and a history of three months' amenorrhoea is usually obtainable. On the other hand, with a haematocele the period of amenorrhoea is very much less. The haemorrhage with retroverted gravid uterus is irregular and discontinuous. The chief point of distinction is to be found by examination. With retroversion of the uterus the cervix is tilted forwards and upwards, sometimes so much so that it is extremely difficult to reach it with the finger, and the body of the uterus cannot be felt in its normal position, whereas with haematocele, though the uterus may be very much displaced forwards, the cervix will be directed downwards and the body can usually be distinguished above it.

The soft consistence of the tumour and its definite outline are quite different from those of a haematocele.

Inflammatory affections present the greatest difficulties, and in many cases the diagnosis is impossible.

Pelvic cellulitis presents many points of similarity to haematocele, when the inflammatory mass forms behind the uterus. It tends to encircle the rectum in the same way. It is accompanied by febrile disturbance and it usually originates in association with pregnancy. With cellulitis, however, the mass is more diffuse and firmer, and less rounded below, and the uterus, though fixed, is seldom much displaced from its normal position. The history, too, is different. Cellulitis almost always follows either a full-time labour or an abortion, and its onset is much more gradual, and is preceded by rise of temperature, whereas haematocele is acute in onset and the rise of temperature follows the formation of the tumour and seldom reaches to so great a height. An appendicular swelling is situated at a higher level, usually entirely above the pelvic brim, though it sometimes extends into the pelvis. It, again, is less defined. The constitutional disturbance and rise of temperature are greater, and there is generally a history of intestinal disturbance. Occasionally tubal mole or haematocele is accompanied by diarrhoea, presumably from irritation of the bowel by pressure, and in these cases it is difficult to exclude appendicitis.

The condition which bears the closest resemblance to these chronic cases of ectopic gestation is undoubtedly salpingitis. Here not only the physical signs but also the symptoms and history may be very misleading. It is not unusual for an attack of salpingitis to be preceded by suppression of a menstrual period, while the onset of the attack is accompanied by more or less profuse vaginal haemorrhage. This history, together with the physical signs of a mass behind the uterus, is apt to be very confusing, and in some cases I do not think it is possible to arrive at a diagnosis without prolonged observation of the patient.

There are, however, several points of difference a consideration of which may be of great value in assisting in the diagnosis.

Salpingitis usually follows a labour at term or an abortion or an attack of gonorrhoeal vulvitis, and there will generally be a history of one of these. There are, however, cases of chronic salpingitis which remain quiescent for long periods, occasionally lighting up and giving rise to acute symptoms. With these there will be no history of a recent cause, but it is generally possible to obtain a history of a similar attack in the past, or perhaps several similar attacks spread over a period of some years. It must not be forgotten that ectopic gestation may be a sequel to an old attack of salpingitis.

I have said that salpingitis may cause suppression or postponement of a menstrual period. The haemorrhage, when it occurs, is different from that due to ectopic gestation. It is usually much more profuse, and its colour is bright red, and it subsides after a week or ten days. In ectopic gestation the external haemorrhage is not severe, but continues for a long period—sometimes over many weeks—and is very dark in colour. With salpingitis there is also complete absence of a decidual cast. I regard this chronicity of the haemorrhage as the most important sign in doubtful cases.

Both conditions give rise to pyrexia, but that of salpingitis is, as a rule, very much higher than that of ectopic gestation. Of course many cases of salpingitis occur where the temperature never rises to any great height, but these must be regarded as the exceptions.

Signs of pregnancy, if present, are of course conclusive; but it must be remembered that most cases of ectopic gestation terminate very early, before the signs of pregnancy are at all well marked.

There are also one or two points of difference in the character of the tumour of the two cases. With salpingitis the tumour is, as a rule, central, both tubes being affected, and it is usually irregular in outline. Sometimes it is possible to trace the convolutions of the tubes bimanually, though they are generally obscured by peritubal inflammation. On the other hand, a peritubal collection of blood is always single and almost always situated at the side of and behind the uterus. Examination in cases of salpingitis usually causes more pain, but this is not a very reliable feature.

Finally, there is one very important point. In cases of salpingitis the tendency is for resolution to occur quickly under appropriate treatment, and for the tumour to become rapidly absorbed. With haematocele there is also a tendency for absorption to occur, but this process is extremely slow.

I think that it may be safely said that if with a fortnight's treatment the tumour does not diminish in size and there are no signs of the presence of pus, a diagnosis of ectopic gestation may be made with confidence.

To sum up, salpingitis should be suspected in the presence of:

A history of previous similar attacks or of a recent source of infection.
Haemorrhage profuse but not persistent.
Considerable pyrexia.
Tumour irregular, central, and very tender.
Rapid resolution.

And haematocele may be diagnosed where there is:

No history of previous attacks and no recent source of infection.
Where the haemorrhage is slight in amount but persistent.
Pyrexia slight.
A unilateral and not very tender tumour.
Very slow resolution.
Signs of pregnancy in breast, etc.

ALBUMINURIA IN PREGNANCY.

BY

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BROADSTAIRS.

OF all the cases which cause anxiety to the general practitioner, none cause more than those of albuminuria in pregnancy. I have been fortunate, or unfortunate, enough to have had the experience of three such during the past year, and I think that though they are not perhaps startling, they will be of interest. I am thankful to say that the three mothers and two babies are alive and well.

CASE I.

The first was a young woman aged 21 in her first pregnancy. I had vaguely suspected her because she had a puffy and pale aspect, yet I could not find any albumen in the urine at several examinations. One evening towards the end of the ninth month I was called to her in a hurry, and was alarmed to find considerable oedema of the legs and face, and that she was having an acute attack of epigastric pain and headache. She said that she thought she had caught a chill when in the scullery. Labour had not apparently commenced, and I hastened to give her a strong dose of calomel and jalap, and to order a hot pack, finding the urine full of albumen. She vomited the former, but was eased somewhat by a dose of aspirin, which made her perspire freely. Within a few hours I was called hurriedly by her nurse, and before I could get there the child was born, with (as the nurse described) only two violent labour pains, which to my surprise had not caused any laceration of the perineum or elsewhere. She went on quite well until about the sixth day, when she had a severe attack of neuralgia on the left side of the head, and almost complete left hemianaesthesia and some weakness of the left lower limb. She eventually made a quite satisfactory recovery, the anaesthesia taking two or three months to pass off completely.

CASE II.

The second was a delicate primipara aged 38. I was naturally anxious about her, but she had shown no signs of albuminuria. In this case labour came on at the eighth month, and was apparently progressing satisfactorily. Before the os uteri had fully dilated she suddenly had a severe convulsion. Luckily I was on the spot, and was able to give her chloroform immediately. A specimen of urine obtained by catheterization showed large quantities of albumen. She had another convulsion before she had fully come round from the anaesthetic, and with the

help of a fellow-practitioner I performed version and delivered rapidly. The child was dead, and had a lower dorsal meningocele. This patient made a slow but uneventful recovery.

Case III.

The third patient, also a primipara, aged 34, called me to see her at the eighth month for severe epigastric pain. I found a large quantity of albumen in the urine, although none had been present some weeks previously. Some opium quieted down the symptoms, and a fortnight's strict rest in bed, milk diet, careful purgation, and hot baths, considerably diminished the quantity of albumen; and the oedema which she had in her legs went down. In this case, especially as I suspected the pelvis of being of small size, I induced labour at the end of the fortnight by means of the insertion of a bougie; and when labour had progressed far enough for the os to be sufficiently dilated, gave chloroform, turned, and delivered a small living child. Both mother and child have done well, though the convalescence was rather slow.

Recent examinations of the urine from these three cases proved that the albumen has cleared up in all except the last.

I would especially draw attention to two interesting points in these cases: the variability of the presence of albumen previous to the symptoms, and the symptom of epigastric pain.

As a matter of routine I always examine the urine of women who engage me to attend them in confinement, but it would seem that this examination has to be made at fairly frequent intervals to avoid being taken unawares by the advent of albumen. With regard to the sudden onset of pain in the epigastrium, I was put on my guard by my father many years ago, and feel very grateful to him for the hint. It does not seem to be mentioned with much emphasis in books on midwifery or known very widely among practitioners.

Two other cases of albuminuria in pregnancy have come under my notice in recent years. The first was an elderly primipara who had convulsions and lost her first child, but recovered, herself; when, some years afterwards, she asked me to attend her, she went through her labour satisfactorily after being kept on a careful diet after the fourth month, with fairly frequent administration of aperients. The other was a lady whom I saw convalescing from severe eclampsia, and who still showed some partial aphasia, partial blindness in the left eye, and some anaesthesia of the hand. This patient suffers from chronic pyelitis.

Dr. Gowlland of Faversham has published in the *St. Mary's Hospital Gazette*, November, 1911, two terrible cases of haemorrhage, and another case of albuminuria with a fatal ending, all three with albuminuria in pregnancy. I am thankful to say that I have never met haemorrhage complicating these cases, but some years ago I lost an elderly primipara from internal bleeding after confinement, due, I think, to an extensive tear of the os uteri into the peritoneal cavity. I can remember feeling wofully helpless in trying to restore this poor woman, and to check the bleeding.

Dr. Pinniger of this town very kindly gave me the advantage of his help and advice in two of my cases.

CHICKEN-POX DURING THE PUERPERIUM.

BY

BERNARD MYERS, M.D.Edin.,

HAMPSTEAD.

As the occurrence of chicken-pox during the puerperium is fortunately rare, I have been asked by an obstetrician to publish the following case:

A primipara, aged 30, had an uneventful parturition. The puerperium was normal also up to the tenth day. Then a vesicle, containing apparently clear fluid, appeared on the right buttock. In a few hours a second spot was seen upon the right breast immediately below the nipple. These spots were not itchy. The temperature was raised to 99° F.; the patient remained quite well in herself. As a married sister of hers was just convalescent from chicken-pox, I was on the look-out for any evidence of this complaint, more especially as my patient had kissed her sister three days before her confinement. I may mention that her sister was not aware at the time that she was suffering from chicken-pox, but her four children also subsequently developed the complaint, which they undoubtedly caught from their mother.

Twenty-four hours after the two initial spots manifested themselves the patient had a crop of spots on the chest and forehead which were typically chicken-pox. They were particularly itchy. The temperature rose to 101° F. The lochial discharges, which had practically stopped three days previously, now reappeared. In the course of two or three days from the appearance of the first spots the labia majora and breasts were literally covered with pocks. There were several on each nipple. A fair number were also seen on the face, body, legs, neck, ears, eyelids, and palate. Although there were not many pocks on the legs, a good crop was seen on the perineum and around the anus. She looked and felt distinctly ill on the fourth day of the rash; the temperature remained at 101° F.

Fearing that the first spot on the buttock might turn out to be chicken-pox I immediately stopped the child being fed by its mother; it was weaned and brought to another room.

Although much troubled by the intensity and irritation of the spots on the vulva the mother made an excellent recovery without any ill effects. Each spot was treated with 1 in 40 carbolic oil night and morning.

The baby developed a temperature of 100° F. for three days after leaving its mother and showed a tiny papular erythema upon its chest. It took its food well, had no vomiting or diarrhoea, and seemed to be quite undisturbed in any way by the rash, which vanished after four days. Was this an abortive attack of chicken-pox? The little papules came out in crops, and the condition was not like any of the ordinary skin rashes which babies are subject to.

The peculiarities of the case, as far as the mother was concerned, were the predilection of the pocks for the labia majora and breasts, parts which were, one may presume, receiving a more generous blood supply due to her recent pregnancy than would otherwise obtain. The appearance of the first spot on the buttock was unusual. This spot, although at first unlike chicken-pox, subsequently went through the usual changes in a typical manner.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

ABSCESS OF THE SPLEEN COMPLICATING MALARIA.

The report by Lieutenant MacGregor, in the Journal of February 3rd, recalls a case I met with many years ago in India. It was that of a British soldier who had served some years in India, and was much broken down by climate and service.

His final admission to hospital was for "ague," but after some weeks of irregular fever, it developed a remittent character, and was, in fact, of a more or less hectic type. This was long before the days of the microscope as an aid to diagnosis, and the true nature of the complaint was a matter of much speculation. He grew gradually weaker, and then complained of a pain in the left side. This was more or less referred to the base of the lung, but there were no signs or symptoms of pneumonia. Some friction sounds were heard, and it was thought he might have some dry pleurisy about the base of the lung. The spleen was not much enlarged (as made out by palpation), in fact, much less so than might have been expected considering the duration of the fever. He died somewhat suddenly one night, and at the *post-mortem* examination multiple abscesses of the spleen were discovered, which had never been suspected.

The case made a great impression upon me at the time, as I had never heard of a similar one, nor have I since, and, as noted by Lieutenant MacGregor, abscess of the spleen is not generally mentioned in textbooks. I could find no note at that time (it was in 1889 or 1890 at Lucknow). I write entirely from memory, which accounts for my somewhat "scrappy" notes. As a remarkable coincidence I may note that I quoted this very case when discussing rare and unusual cases with a medical friend this morning, only a few hours before reading Lieutenant MacGregor's case in the Journal.

West Kensington, W. Geo. T. Mould, Major I.M.S. (ret.).

NERVOUS RETENTION OF URINE.

With regard to the treatment of nervous retention of urine by injection of glycerine into the rectum, I should like to state that this treatment entirely failed in a recent case. A fortnight ago a married lady who has had two children, and who was curetted seven months ago, and who has been quite well since, consulted me for retention. This was complete, and I had to use the catheter daily. On the fifth day she was examined under chloroform by a gynaecologist. The pelvic organs were found healthy.

There was a slight backward displacement of the uterus, obviously too slight to cause the retention. The displacement was rectified, and a pessary inserted. Three days later the patient was still suffering from complete retention. Having just read Dr. Edwards's note, I injected 2 drachms of glycerine into the rectum; the only effect was to cause thorough action of the bowels. Treatment by bromides and buchu was continued, the catheter being used at bedtime each night, the patient being allowed to live her ordinary life. Three days later the retention passed off. The patient never suffered from retention before, either in her confinements or after curettage or after operation for removal of the appendix. It was obviously a case of nervous retention.

Richmond, Yorks. HUGH M. EYRES, M.B.

OXYURIS VERMICULARIS IN THE VERMIFORM APPENDIX.

A. B., a female, aged 34 years, was admitted to Scarborough Hospital on Sunday night, January 28th, suffering from acute abdominal disease. For eighteen months previously she had been treated at home for gastric ulcer, and under treatment appeared to improve considerably. Twelve months ago she attended the hospital as an out-patient, under the care of Dr. Salter, who advised removal of the appendix; but the patient refused treatment then. On January 28th, after mid-day dinner, she was taken with sudden pain in the abdomen, which she described as "doubling her up." She had no sickness. She called in her doctor, who advised immediate removal to hospital with a provisional diagnosis of perforated gastric ulcer. On admission her temperature was 99.4°, and pulse 100.

On examination she was extremely tender all over the abdomen, the abdominal muscles being rigid. There was slight distension over the lower part of the abdomen. There was no loss of liver dullness, and on being asked to put her finger on the point of greatest tenderness she placed it directly over McBurney's point. A diagnosis of acute appendicitis was made.

An incision was made over the right rectus muscle, the muscle pulled across to the left, and the peritoneal cavity opened into. The appendix was found to be enlarged and acutely inflamed at its tip, and was removed. No drainage was found to be necessary, and the abdominal wall was closed in layers. On slitting up the appendix after operation a most interesting condition was found. Two distinct collections of *Oxyuris vermicularis* were seen towards the base, whilst at the tip there was a small collection of pus under tension with a small concretion. The patient is doing well.

I am indebted to Dr. Salter, honorary surgeon to the hospital, for permission to publish notes of this case.

Scarborough. G. MACDONALD, M.B., Ch.B.Edin.

ACUTE PAROTITIS FOLLOWING THE INDUCTION OF PREMATURE LABOUR.

THIS complication after the induction of premature labour has been previously observed,[1] but must be of sufficient rarity to deserve record.

The patient, who had previously had for some years a chronic oral sepsis—pyorrhoea alveolaris—was a primipara aged 32, who at the thirtieth week of gestation complained of shooting pains in the arms, neck, and throat, and some slight oedema of the legs was observed. Albumen in considerable quantity was found in the urine.

As the condition did not improve under medicinal treatment, steps were taken to induce labour on the morning of February 21st, 1911, under an anaesthetic, by the introduction of bougies into the uterus and packing the cervical canal with gauze.

The patient's temperature before the operation was 98°, and that evening rose to 99°. Labour occurred on the evening of February 24th, and was uneventful. The fetus was stillborn but not macerated.

About three hours after labour the patient became very collapsed, with a very rapid pulse. She was treated by hypodermic injections of pituitary extract, digitalin, and finally ⅓ grain of morphine. Saline was also administered by the bowel, and she had rallied considerably by the next day.

On February 26th the temperature rose to 102°, and there was enlargement and tenderness of the right parotid gland. On March 1st the skin over the gland was distinctly red. On March 3rd an incision was made and a groove director passed up to the centre of the swelling, but no obvious pus escaped; a tube was inserted, and two days afterwards pus discharged freely from the wound and the temperature fell to 100°. The next day the temperature again rose to 102°; the vaginal discharge was offensive, and the patient complained of pain in the calf of each leg.

From this date the patient made a slow but complete recovery, retarded considerably by cystitis, probably due to catheter infection.

A culture taken from the parotid at the time of operation showed the infection to be from a staphylococcus.

A culture from the bladder showed a double infection, namely, *B. coli* and streptococcus.

It will be seen that this one patient presented nearly all the conditions and circumstances that have singly been credited by different theorists with the production of secondary parotitis, namely:

1. Some operative interference with the abdominal or generative organs.
2. A septic condition of the mouth.
3. The administration of an anaesthetic.
4. A dry condition of the mouth. (For nearly twenty-four hours the patient took very little fluid except by the bowel.)
5. A general septic condition, as shown by offensive lochia, the cystitis, and possibly a septic phlebitis of both legs.
6. The administration of opium, or some preparation of it.
7. The circulation of some toxin which might be excreted by the parotid (toxaemia of pregnancy).

The excessive salivation which marks some cases of toxic pregnancy should be noted here.

Norwich. ARTHUR CROOK, M.R.C.S., L.R.C.P.

[1] *Lancet*, April 17th, 1886, S. Paget, quoting J. M. Duncan (one case).

THE VALUE OF ANCHORED DRESSINGS IN SURGERY.

I NOTED the article by Mr. Lynn Thomas on the use of anchored dressings in surgery (BRITISH MEDICAL JOURNAL, February 3rd, 1912), and felt a little interest in the matter, since for the past fifteen and a half years I have used this method in nearly all abdominal cases, and am therefore satisfied as to its utility. But it occurred to me to ask Professor William Thorburn, from whom I gained this hint in 1896, if he could tell me the origin of the idea. He has sent me a communication from which it would be worth while to quote.

It is very interesting to see so old an idea brought into prominence suddenly. The history of things is much as follows: In 1883 when I was Mr. Hardie's house-surgeon, he used to employ very freely the old-fashioned button sutures, obtaining thereby an evenly distributed tension. About this time and before, my late father, who did a good many abdominal sections, especially ovariotomies, used for these, as well as for his perineal operations, perforated bone rods through which the sutures were tied, and which produced the same result of diffused tension. A few years later, when we began to get better operation results, and when it ceased to be necessary to do constant dressings, I began employing, especially over the abdomen, and particularly in such conditions as radical cure of umbilical herniae, gauze pads placed under the sutures such as those described by Mr. Lynn Thomas. I cannot fix any date, but I clearly recollect that when J. W. Smith became Resident Surgical Officer at the Manchester Royal Infirmary (1891) he remarked on the usefulness of the method, and I have certainly practised it for over twenty years. It never occurred to me that everybody else would not do so in similar cases, and I have certainly been in the habit for very many years of teaching it to students as the best method for many dressings. I have certainly not made it so universal as Mr. Lynn Thomas is now doing, and there is this difference, that I have always regarded the sutures over a gauze pad as essentially a means of providing close apposition and diffused tension, and I have been in the habit of putting an over-riding dressing on top of the sutures with a view to covering the points at which they came through the skin. This under modern conditions is probably unnecessary.

In the BRITISH MEDICAL JOURNAL of February 10th there is a further note on the use of this form of dressing by Mr. Jocelyn Swan which will well repay perusal by those interested in the method. I may add that in the radical cure of inguinal hernia in the adult patient I have for the past few years used the anchored gauze pad without the over-riding dressing, and the patients have

found this more comfortable than the usual dressings with spica bandage. In children for the past seven years I have dispensed with any form of dressing after the operation for inguinal hernia.

Manchester. J. HOWSON RAY, Ch.M., F.R.C.S.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

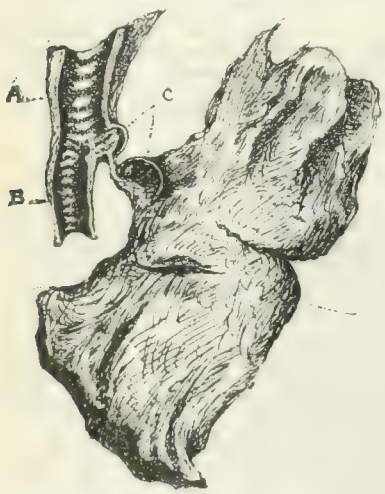
ROYAL UNITED HOSPITAL, BATH.

TRAUMATIC RUPTURE OF THE RIGHT BRONCHUS FROM INTRATHORACIC PRESSURE.

(Under the care of W. G. MUMFORD, M.B.Lond., F.R.C.S.Eng.)

[Reported by A. J. BRUCE LECKIE, M.B., Ch.B.Edin., late House-Surgeon and House-Physician.

J. M., aged 9, was admitted in June, 1910, on account of injuries received by being knocked down by a motor, one of the wheels going over him. When first seen he presented a marked bloated appearance. The whole face was enormously swollen, so much so that the eyes were obscured completely by swelling of the eyelids. The puffy swelling of the face was rendered more ghastly by a slight cyanotic tinge. He was continually pleading to have his eyes opened, and was perfectly conscious in every way. No injuries could be found except a few scratches. No fractured ribs could be detected. There was marked swelling of the tissues of the thorax and abdomen. The swelling was found to give the characteristic crackling of surgical emphysema. The air gradually spread over the whole body, with the exception of the upper parts of the scalp. The crackling could be easily detected in the fingers and toes. Thus the patient presented a remarkable inflated appearance. He only complained of pain in the back. As the condition got worse, considerable dyspnœa made itself evident, the respirations being 38 to 48. The temperature was 97 and the pulse 144 to 148.



Sketch of specimen of right lung, trachea and bronchi from behind. A, Trachea opened from behind; B, left bronchus; C, torn surfaces of right bronchus; D, right lung shrunken with formalin.

As it was obvious that there was severe injury to some portion of the respiratory tract, it was decided that very little could be done. The patient was eased as much as possible by the administration of oxygen and by punctures in the skin to allow the escape of air, which occurred with a loud hissing noise. The patient died the following morning, having lived about eight hours.

At the *post-mortem* examination it was found that air was present not only in the superficial tissues, but in the peritoneal and right pleural cavities. The right bronchus was found completely torn across at its junction with the trachea and attached to it by some connective tissues. No fractures of any bones had occurred.

The condition is a rare one, and could only be expected to occur in children, where the elasticity of the thoracic wall allows of considerable compression. The sketch shows the injury, and was drawn from the specimen. I am indebted to Mr. Mumford, assistant surgeon to the hospital, for kindly allowing me to publish this case.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

NORTH OF ENGLAND BRANCH: NEWCASTLE-ON-TYNE DIVISION.

THE fourth winter scientific meeting of the Division was held on Friday, February 16th, at the Royal Victoria Infirmary, Newcastle-on-Tyne, when sixty medical men were present.

Salvarsan in Syphilis.

DR. R. A. BOLAM dealt with the present position of salvarsan as a proven remedy in syphilis. After recalling the claims advanced in the introduction of the remedy and pointing out the difficulty of achieving sterilization by single massive doses, the present attitude of Ehrlich was discussed. The notable pronouncement that syphilis in man belonged to those diseases which it was not very easy to influence by salvarsan was commended to the notice of the too enthusiastic supporters of the remedy. Numerous accidents after the use of the drug, even in cases where after careful investigation a patient was determined to be a fit subject for its administration, must compel one to consider every case most carefully before advising a patient to submit himself. The risks were considerable; the advantages, except in cases resistant to other medications, for the most part those of rapidity only. Sensory nerve complications undoubtedly occurred, and it was suggested that this feature was becoming apparent by reason of the increased use of the intravenous method. In no instance should the use of mercury be dispensed with, although the period of its exhibition might be somewhat curtailed. No warrant would be found for the routine use of salvarsan. It should be reserved for special circumstances.

Ruptured Cartilage of the Knee-joint.

Mr. COLLINGWOOD STEWART gave a demonstration on ruptured cartilage of the knee-joint. He first dealt with the anatomy of the joint and demonstrated the difference between the internal and external semilunar cartilages. The external was more free, being attached to the capsule in its anterior and posterior portions, while the middle was free, the cartilage being separated from the external lateral ligament by the tendon of the popliteus muscle, which grooved the cartilage. The internal cartilage had a strong attachment to the broader internal lateral ligament. The external cartilage and the space it contained was almost circular, while the internal semilunar and its space was elliptical, indicating that there was antero-posterior movement upon the internal, and rotation only upon the external semilunar. Dealing with the mechanism of the joint, it was shown that when rotation took place the external condyle was held firm on the tibia, and the internal condyle rotated backwards—the external condyle being the pivot. When the joint was flexed the internal condyle was placed upon the posterior part of the semilunar. More movement was permitted between the tibia and internal condyle than between the tibia and external condyle. On examining the position of the limb when these ruptures occurred it was found that in the great majority of cases it was the same. The joint was flexed and then bent suddenly inwards so that all the strain was thrown upon the internal lateral ligament and would tend to separate the inner bony surface of the joint—between these the cartilage would be caught and fractured. The rupture was practically always posterior, travelling forwards so that the anterior end was intact. An analysis of 350 consecutive cases showed that miners and footballers comprised 88 per cent. and the miners alone 65 per cent. External cartilages were seldom ruptured, 3½ per cent. only, and then only by very severe direct injuries. Discussing the diagnosis, the following point swere stated as being nearly always present:

1. History of the injury occurring with the joint in the position above mentioned. This history was said to be of the greatest importance.
2. Locking of the joint. When this was present with the typical history it was absolutely confirmatory evidence.
3. Synovitis following in a few hours.

4. Tender spot on pressure over the attachment of the cartilage.
5. Repetition of attacks, which get more and more frequent, locking and reduction taking place quickly on very slight provocation with a distinct click.
6. In between attacks the joint is functionally normal.

Of these points, 1, 2, 5, and 6 were of the utmost importance, and no joint should be opened unless 1, 2, and 5 were present. With regard to the operation itself, the main thing to be observed was the most rigid antiseptic and aseptic technique, the knee-joint being the most dangerous place in the body for the introduction of sepsis. The functional results of the removal of the cartilage were perfect. The paper was copiously illustrated by diagrams, photographs, and specimens.

Hypertrophy of the Pylorus in Infants.

Dr. J. S. McCRACKEN gave a demonstration on this subject illustrated with slides, for the loan of some of which he was indebted to Dr. John Thomson, who in 1896 first described the condition to them. In relating the symptoms, etc., Dr. McCracken pointed out that as the emaciation was due to actual starvation from obstructed pylorus in an otherwise healthy organism, it was not surprising that this wasting showed certain almost diagnostic features in the face, abdomen, and nature and colour of the skin, which distinguished it from cases resulting from true toxic wasting diseases. Peristalsis was fairly uniform in all cases at slightly over three and a half waves per minute, and in a case under suspicion if one saw a slight pucker of brows and flicker on upper lip recurring about that rate one would probably on gently exposing the epigastrium see the peristalsis. Mothers, though as a rule quick at observing epigastric swellings from other causes, were seldom the first to observe this phenomenal wave. Sometimes peristalsis was fickle; from half an hour to an hour after a feed was, he found, the likeliest time for observing it; in one case, kept under the closest observation, peristalsis was only seen once and that by chance. It was of importance in all suspected cases to find out if there was or was not a lump at the pylorus: and if unable to decide otherwise one was justified in giving an anæsthetic, though cautiously, because in some cases acetone was present; but putting the infant in a warm bath, as suggested by a late resident of theirs, had always been sufficient to soothe the child, overcome muscular rigidity, and allow of a satisfactory and satisfying examination being made. Summing up the symptomatology, vomiting, wasting, and constipation were indications of possible hypertrophy; suspicion ought to be intensified if these occurred in a first birth and male infant. Visible peristalsis and a tumour at the pylorus were the rivets which clinched the diagnosis. Of these two the tumour was the more important; either of the two by itself was an indication for medical treatment; but in the absence of both one was not at the present date ever justified in making a diagnosis of pyloric hypertrophy. The stenosis at the pylorus was only partially due to hypertrophy of the circular fibres; it was augmented by the gastritis in the vestibule and pyloric canal, accumulation of mucus in the vestibule, and probably by superadded spasm; and the last three factors accounted for the complete blocking which sometimes occurred. The cause of this hypertrophy was not yet determined. The aim of all treatment was to promote the passage of chyme from stomach to intestine, and thus permit of absorption. This could be done surgically, but if one relieved gastritis, subdued spasm, and periodically removed the stringy mucus, then in a little time chyme, if free of coarse curd, could in most cases pass naturally through the pylorus: and these points could be attained medically by stomach washing and judicious feeding. This line of treatment should be tried first in all cases, and sensible rules for guidance were given in all textbooks. Unless the patient were *in articulo mortis* one should never despair of any case; but the development of some intuitive instinct towards an early diagnosis of this condition "was a consummation devoutly to be wished" by every one who had much experience in its treatment. In a case under medical treatment, once peristalsis had been seen and a lump felt, one ought never to elicit or feel for either symptom again, and should look to it also that no one else did; all manipulation must of necessity stimulate the very spasm which the treatment aimed at subduing. It was notorious that better medical results were obtained in private practice than in hospital. One authority had pointed out that these cases became "hospitalized"—an indefinable status too often seen in marasmic infants; but probably their being "lionized" accounted for a good many of the disappointments. In Germany good results had been obtained by less washing than we practised, but keeping warm poultices constantly over the epigastrium. "Hypertrophy in the pylorus" had often been confounded with "pyloric spasm in infants," and it was to the work of Drs. Wilcox and Miller that we were chiefly indebted for a scientific differentiation between these two conditions. In pyloric spasm the "ferment activity" was *minus* and the "total acidity" *plus*, while in hypertrophy the reverse conditions pertain. Dr. Miller had drawn up a table setting out the chief diagnostic clinical points, and suggested that as "spasm" was common to both conditions the name "acid dyspepsia of infants" might be substituted for that of "pyloric spasm."

The Dyspepsias of Children.

Dr. RUXTON described the catarrhal dyspepsias of the second dentition, dealing more particularly with "mucous dyspepsia." He laid great stress on the frequency of chronic dyspepsia during the period of second dentition, and pointed out that the subjects of the disease were brought for advice under many and various guises—anæmia, simple malnutrition, worms, pulmonary diseases, etc. After quoting illustrative cases, he described the symptoms first as affecting the digestive tract, and then the constitutional after-results. Those affecting the digestive tract were coated tongue, as if it were smeared with a gum solution, a geographical tongue or simple white coating with prominent papillæ; enlarged tonsils, a poor and fitful appetite, constipation and occasional diarrhœa, probably lienteric in type—all accompanied by mucus in the stools. The constitutional symptoms were wasting, anæmia, restless nights, even somnambulism, attacks of pallor or fainting of short duration, etc. The pathology was then discussed, and the author said that, though he could not dogmatize on the excessive secretion of mucus in the digestive tract being the real pathology, treatment directed to its removal was at least suggestive. Various points of diagnosis having been considered, the treatment by limitation of the carbohydrates and sugar in the diet, and the administration of alkalis was advocated.

Eye Injuries and Compensation.

Mr. T. GOWANS first dealt with the eye injuries most commonly met with in the Tyneside district. He laid emphasis on the necessity of doctors making use of a regular routine in treating trifling injuries, such as foreign bodies lodging on the cornea. In such cases he demonstrated the fact that the patient should be seen again in two or three days' time, so that if there were any tendency to ulceration the ulcer should be curetted and touched with absolute alcohol or tincture of iodine, thus saving the numerous cases of hypopyon keratitis which were all too commonly met with in the wards. He next dwelt on the necessity of early enucleation in cases of perforating wounds of the eye unless distinctly useful vision was retained in the eye, more especially if the ciliary region was involved. Several cases of sympathetic inflammation were shown to demonstrate this point. With regard to compensation, Mr. Gowans pointed out that one-eyed men could, as a rule, become accustomed to their altered conditions if they were under the age of 40 when they lost the eye. In dealing with those cases in which men who had lost one eye complained of the other being affected, it was pointed out that in many of these cases it was due to toxic amblyopia; the man was doing no work and often smoked nearly the whole day, and really was suffering from tobacco amblyopia.

DURING the academic year 1910-11 the degree of Doctor of Medicine was conferred upon 1,021 persons by the universities of France. The numbers were distributed as follows: Paris, 446; Lyons, 139; Montpellier, 130; Bordeaux, 125; Toulouse, 67; Lille, 37; Nancy, 31; Beyreuth, 30; Algiers, 16. These figures do not include 64 university as distinguished from State diplomas—that is to say, degrees which do not give the right to practise—which were delivered in the same period.

Reports of Societies.

ROYAL SOCIETY OF MEDICINE.

Partial Thyroidectomy and Exophthalmic Goitre.

The debate between members of the Medical, Surgical, and Anaesthetic Sections on the subject of partial thyroidectomy under local anaesthesia, with special reference to exophthalmic goitre, was resumed on February 27th. Dr. Frederick Taylor, who was in the chair, initiated the proceedings by suggesting that the meeting might profitably devote its attention to the following points: Cases suitable for operation, methods of operating, the selection of anaesthetics, and the results, both immediate and remote.

Dr. Hector Mackenzie said he regarded Dr. Dunhill's paper as both remarkable and important, for he said he had been treating a number of patients with the milk of thyroidectomized goats in the out-patient department, a course which the speaker did not think the assistant surgeon at any large London hospital would be prepared to undertake. Then a woman arrived who was very ill—presumably Dr. Dunhill had not another goat ready to supply her with the milk—and as she asked for something to be done, he talked over with her the possibility of improvement being effected by operation, and she decided to have the operation. The patient did so well that those who had been attending the out-patient department requested operation on themselves. Dr. Dunhill had, he said, operated upon 230 cases of exophthalmic goitre, and he (Dr. Mackenzie) congratulated him on having had a mortality of only four cases. But he would have been glad to learn more details, for example, as to their condition before and after operation. Dr. Dunhill gave a classification of cases, but he did not say how many cases belonged to each class. It was the lack of detail which made it a difficulty to judge Dr. Dunhill's results. The author stated that in frank complete exophthalmic goitre the response to operative treatment was very prompt and the cure complete if organic heart disease was not present and if enough gland was removed. So it was always open to the surgeon, if a case were not successful, to say heart disease was present, or that sufficient of the gland had not been taken away. Dr. Dunhill appeared to have made very little use of general anaesthesia, and therefore his statements as to anaesthesia would not help very much in that department of the subject. He gathered that the rule in Professor Kocher's clinic was to employ local anaesthesia, but in other parts of Switzerland general anaesthesia was more common. His (Dr. Mackenzie's) experience was that, of cases treated on broad general medical lines, about 25 per cent. made a satisfactory recovery; that another 25 per cent. were much improved but not cured, though they were able to follow their occupation; there were 25 per cent. who were chronic invalids, and a further 25 per cent. who lost their lives from the disease itself. The profession should feel satisfied that the results of surgical treatment were better than that before recommending operation to patients. At his hospital (St. Thomas's) up till 1908 comparatively few of these cases had been operated upon, though there were some. At one time the experience was so bad that for a period no operations were done. But in 1908 the operations were resumed and had been continued to the present date, the number of cases having been 19, of which 6 had died. Of the 13 surviving cases, there had been marked improvement in 4, some improvement in 4, no change in 3, 2 relapsed and were readmitted, and 2 cases were not followed up. The mortality he considered very heavy. There were two deaths shortly after the operation, one two days after the operation, one three days after, one four days after, and one death occurred a year subsequently. In some the operation was ligature of the superior thyroid vessels, in others thyroidectomy. During the last year he had had seven or eight cases operated on by ligature. One of them died within a fortnight, and he did not think the death was due to the operation, though it was not prevented by it. The other patients said they were improved, but cure did not result in any. And how was one to tell that after a time a case would not relapse? One patient was not much improved after even three operations. He thought it was dangerous to operate on any case which was the subject of lymphatism with a large thymus, whatever anaesthetic were employed, and operation should not be done as a last resort, for it was courting disaster. In the light of present experience he did not think operation could ever be regarded as necessary.

Dr. Albert Kocher (Berne) said that in the Berne clinic operations for the condition had numbered 865, on 669 patients. An investigation on 200 glands showed that the change was a more rapid and abundant absorption of the material in the gland follicles, and at the outbreak of the disease there was a qualitative and quantitative change in this material, with marked hypertrophy of epithelium. Both those changes were connected with hypervascularization of the gland. If the disease was progressive, all the stored-up material was absorbed, according to its quantity and the rapidity of its progress, and there was no more storing of the material in the follicles. In the outbreak of the disease there were causes acting through the nervous system, and toxic causes acting through the blood; but the major part of the disease was in the gland itself. He insisted on the following distinctions or classifications: (1) Cases with symptoms of hyperthyroidism only, not progressive; (2) cases of steady Graves's disease; (3) progressive cases after the cause of the disease had gone by. In the progressive cases the other internal secretions were affected, and fatty degeneration of muscles, especially heart muscle. Of the 669 cases, 130 were simple hyperthyroidism, mostly combined with nodular goitre of nearly every size. All except two of these had been cured of their hyperthyroidism, and those two died of post-operative pneumonia. The goitre removed contained a large quantity of rather liquid colloid, in which there was found an unusual amount of iodine. Those cases were all suitable for operation; 539 cases had been operated upon for steadily or periodically progressive Graves's disease. The ultimate results of not more than 360 had been collected so far. Of those, 160, or 45 per cent., were radically cured, and the function of the thyroid gland was now normal. Some of the patients were working hard. More than half the 160 cases were very severe and of long duration; but in some several (up to five) operations were necessary; 149 cases still showed a few symptoms of the disease, but were greatly benefited by the operation. In many of these a second operation resulted in recovery. Thus one could say that in this series the operation had been satisfactory in 86 per cent. of the cases. In 8 per cent. (28 cases) the results were not satisfactory; in some the operation was not carried sufficiently far; 5 per cent. had had recurrences of the disease, but not in such a severe form as the original affliction. There seemed a difficulty in the small portion of the gland left resuming its function. Six per cent. of the cases had since died from other diseases; five patients died of heart-stroke after fright or exertion, or infectious disease, and one succumbed to diabetes. If all cases were operated on shortly after the outbreak of the disease, he thought all the subjects of it might be cured by operation. In preparation for the operation, patients should have a short rest, avoidance of all strain and toxic influences, and a more or less vegetarian diet, with phosphorus administered internally. During this time the patient should be carefully examined for any condition contraindicating operation, with special attention to heart, kidneys, liver, adrenals, pancreas, lymphatic organs, and the blood. Among the elements countermanding operation, he named a constantly irregular pulse, continuing albuminuria of notable amount, constant glycosuria, low blood pressure, the status lymphaticus, high lymphocytosis, marked leucopenia, and slow coagulation-rate of the blood. The form of operation should be decided in each case separately; but in serious cases of long duration there should be the consecutive use of both operations His objections to general anaesthesia were that one could not be certain of sparing the recurrent laryngeal nerve, and the sickness following the operation. It was very important to calm the patient before the operation, not so much by drugs as by mental influence. After operation there was generally a rise of temperature, increased pulse, albuminuria, glycosuria, sweating, and oppression; and the symptoms were often worst after ligation, and especially if antiseptics had been largely used or gauze had to be put

into the wound. In only 4 cases had it been necessary to give a general anaesthetic, owing to lack of self-control on the part of the patients. This persisted for twenty-four hours, passing to coma and death. The *post-mortem* examination revealed fatty degeneration of heart muscle, kidneys, and liver, with circumscribed necrosis, such as had been produced experimentally in the liver after chloroform death. Five patients were lost from pneumonia, 3 from nephritis, 2 from embolism, 4 with status lymphaticus. Most of those deaths were avoidable.

Mr. WILFRED TROTTER said his experience of operation in cases of Graves's disease was not extensive. Most of the problems connected with the disease were far from solution. The object of operation was to deal directly with the disease itself. Regard must be had not merely to the two methods of treatment, but the length and natural course of the disease. The condition of the patient with Graves's disease was a very miserable one, as shown by his willingness to submit to the operation, even though he understood it to be a dangerous one. It seemed justifiable to run the risk when there was a prospect of avoiding years of a very miserable illness. It was difficult to deal with the matter statistically; and all grades of relief were to be met with. To speak of some cases as "slightly improved," others as "considerably improved," and others as "cured," placed a considerable strain on the judgement of the observer. Body weight was fallacious as a guide to condition, as he showed by relating two cases. With regard to mortality, in thyroid operations, excluding exophthalmic goitre, but including some malignant intrathoracic goitres, he had not lost a case from operation, and that was the common experience. But Graves's disease showed a mortality which was, in the early days, heavy, and even now was considerable. But the mortality under any surgeon decreased as his experience grew. He thought a reduction of the mortality to 5 per cent. should be generally possible after operation; then a prima facie case would have been made out for operations on a large scale. His own mortality from the operation had been 10 per cent., and that was based on a strict definition of the disease. He did not refuse to operate because a case was very bad, because it was the worst cases which were most urgently in need of relief, and in which, when the operation was survived, the most brilliant results were achieved. Patients with a small, firm thyroid and marked symptoms seldom showed more than temporary improvement: but it was not a large class, and he had not seen more than three or four examples of it. Mild cases with an abrupt onset and an interval between the physical signs and symptoms were cured by a single operation. One-fourth of his material consisted of these. More than half his material presented the disease in a severe form, and in half those the improvement was permanent and more or less complete. Some, however, needed a second operation. In the remainder the disease could be greatly relieved. Fifty per cent., he considered, were permanently curable by one operation. He had employed chloroform, open ether, ether by intravenous infusion, and local anaesthesia. He was influenced against chloroform as it was more toxic than ether, and no risk, however small, should, he thought, be added to the risks necessarily contingent on the operation. Yet in his earlier cases chloroform was used, and gave satisfactory results even in some of the severest. He used atropine, morphine, and scopolamine, followed by ether. He laid stress on the preliminary use of atropine, because of the tendency to the hyperproduction of mucus, and the anaesthetist should satisfy himself that the drug was acting before commencing the general anaesthetic. He did not agree that the patient should be submitted to several months of medical treatment before operation, as one could estimate the probable course of the disease without waiting so long. In prognosis the most important feature, he considered, was the mental state of the patient, both as to the danger of operation and the final result. Nervousness was part of the disease, but not all subjects of it were frightened; and a frightened patient was the most dangerous of all. Fear acted by precipitating an excess of tachycardia, in which for hours the pulse-rate might be uncountable. In such cases the anaesthetic did not produce a steadying of the pulse, and the least cyanosis from laryngeal spasm might be fatal. His patients were anaesthetized in bed in the ward. Speed in operating he considered of less importance than gentleness in manipulation. A large incision was necessary, and any degree of pulling must be avoided, because of the liability of dragging on the superior laryngeal nerve and the production of cyanosis. Drainage was sometimes necessary when the anaesthetic was ether; otherwise he did not employ it. He had lost two cases from shock: one from acute exacerbation, and one from pneumonia, and he was convinced that by study such cases could be reduced.

Dr. DUDLEY BUXTON dealt with the question of anaesthetics. Dr. Dunhill seemed to have had but a small experience of general anaesthesia, and Professor Kocher seemed to have also lent the weight of his great name to local analgesia. In estimating the value of a method regard must be had to how it was carried out, whether properly or improperly, and whether the quantities used could be called adequate yet not excessive. Certain surgeons expressed their admiration for local analgesia because they were accustomed to work with it, but that was no just argument in its favour, nor, indeed, was it requisite there should be an argument in its favour. It was a very good method when properly carried out, but whether in all cases it would bring about all the advantages claimed for it had yet to be shown. Certainly some patients suffered pain from the performance of the operation but that might be due to failure of technique: and some had insomnia after, which certainly interfered with convalescence. It was said that after general anaesthesia the vomiting was severe, and there was a likelihood of tissue poison—misnamed post-chloroform poisoning. In a fairly large experience of these cases he had not met with those after-effects, and therefore he required more proof of their constant occurrence than did those who in a few cases had lost their patients from tissue poisoning. For many years he employed chloroform, which, of course, was a more powerful drug, in the toxic sense, than ether, but it would do harm mainly when employed as a poison and not when used as an anaesthetic. When overloading the tissues it certainly acted as a poison. The whole question seemed to hang on whether the anaesthetic was properly given and whether there had been proper opportunity of examining the patient beforehand, bearing in mind that he was already toxaemic, and, if that were added to, the life of the patient would be thereby jeopardized. The dangers which were overlooked were those of asphyxia, and that was obviated by his custom of using oxygen *pari passu* with chloroform, pursuing in every case the dosimetric method. The third degree of narcosis should be reached before operating, then there should be a lightening of the intensity. Extreme nervousness was largely mitigated by giving previously to operation scopolamine, morphine, and atropine, as mentioned by Mr. Wilfred Trotter, for then patients passed from the dream-sleep into the sleep of anaesthesia. When those complications were avoided, the anaesthesia presented no more dangers than in any person suffering from autointoxication. He had employed chloroform and open ether, the latter with atropine, scopolamine, and morphine.

Mr. H. J. PATERSON and Mr. JAMES BERRY showed patients very much improved by the operation, preliminary to their speeches at the further debate, which will be held on Tuesday, March 5th, at 5.30 p.m.

PATHOLOGICAL SECTION.

Specimen Mounting.

AT a meeting on February 20th, Mr. S. G. SHATTOCK in the chair, Professor BEATTIE and Dr. R. J. HALL exhibited a series of pathological specimens prepared by the usual methods of Kaiserling, Jores, or Pick, but which, after being passed through fresh methylated spirit, had been mounted in a solution of cane sugar in place of the usual 50 per cent. glycerine mixture. The cost of the mounting fluid was much less than that of glycerine, and the colours become even intensified; light exercised no deleterious action. The precise formula of the mounting fluid was:

Sodium fluoride	80 grams
Chloral hydrate	80 ,,
Potassium acetate	100 ,,
Cane sugar (Tate's cube) ...	... 2.5000 ,,
Saturated thymol water ...	... 8,000 c.cm.

The method had been devised by Mr. R. Frost, of the pathological department, University of Sheffield.

Neurofibromatosis.

The same authors also demonstrated some specimens from a case of neurofibromatosis. The chief feature was the wide distribution of the disease, the cranial nerves, including the optic, being all involved; tumours were present also on the cauda equina. Amongst the peripheral nerves there was a large growth in connexion with the lumbar nerves of one side. In answer to the CHAIRMAN, the authors stated that this was not sarcomatous. The cutaneous lesions were limited to fibromata on the upper and lower limbs. The patient had not suffered from headache; but the optic discs were choked.

Aneurysms of the Pulmonary Artery.

An example of multiple embolic aneurysm of the pulmonary artery was also recorded by the same authors; death ensued from haemoptysis.

Dr. S. TREVOR cited another case of the same disease, and in this instance the pulmonary valve bore vegetations.

Salvarsan Fever.

Dr. HORT and Dr. PENFOLD, in a communication on this subject, observed that the view usually held of the phenomenon was that it was due to bacteria in the salt solution used as the solvent for the drug. Salt solution alone was, in fact, capable of causing fever; so was ordinary distilled water. The fever was not due to an autointoxication arising from cell destruction. The authors did not deny that in certain cases salvarsan fever *might* be caused by the disintegrated products of the spirochaete which had been killed by the germicide. Setting this aside, however, they believed it could be shown that the fever was due, not necessarily to the presence of *bacteria* in the water used, but to the presence of bacterial degradation products. The proof was that bacteria-free distilled water would cause fever if the distillation had been carried out by the ordinary commercial process, whilst distilled water prepared solely in glass vessels did not produce the same result. The water in the first case contained a thermostable fever-producing substance derived, it might be assumed, from disintegrated bacteria: and the authors explained how bacterial contamination arose in the ordinary commercial process of distillation, and what might take place in the intervals during which the apparatus was not at work.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF MEDICINE.

Friday, February 9th, 1912.

Sir J. MOORE, President, in the Chair.

Insanity in Relation to Environment.

Dr. DAWSON, in a paper on the distribution of insanity in Ireland, said it showed no relation to density of population, but corresponded to a considerable extent with that of pauperism, and to a less degree with the rateable value of land. It bore little, if any, relation to the emigration-rate, and none at all to the death-rate, either general or tubercular. On the other hand, there seemed to be some slight correspondence between insanity and criminality as regards their distribution in Ireland, but practically none between insanity and drunkenness; and in general it appeared that alcohol was of comparatively small importance as a cause of insanity in Ireland. Secondary points brought out were that the incidence of pauperism in that country bore little relation to that of poverty, not corresponding to the valuation of the land, nor possessing any close connexion with the amount of emigration; and that criminality prevailed in the large towns, as in England and Wales, while, on the contrary, drunkenness was in greater excess in the rural districts, which was the reverse of what had been found across the Channel.

Clinical Estimations of Blood Pressure.

Dr. NESBITT, in a paper on estimation of blood pressure, said that it might lead one astray if care were not taken to employ trustworthy means of judging it. Instruments in use at present fell into two groups: (1) Those depending on the application of a pad or bag to an individual artery; these could not be regarded seriously as scientific instruments, owing to the number of fallacies involved. (2) Those in which the pressure was estimated by an armlet surrounding the limb—for example, the Riva-Rocci apparatus and its modifications. Though the possibilities of error with these instruments also were numerous, most of them could be guarded against, especially by the use of the auditory and visual methods introduced by Oliver. The question how much thickening and hardening of the vessels interferes with a correct reading of pressure was still debated. It was difficult to believe that it would not introduce a very serious fallacy. The estimation of diastolic pressure by methods based on the maximum oscillation of the index was most untrustworthy, and practically impossible. Attention should also be paid to disturbing factors in the patient apart from disease—that is, the fluctuations of pressure in connexion with the various functions and habits of life were quite considerable, amounting, according to some authors, to a daily variation of 100 mm. Hg. There was a further class of fallacy into which one might fall by the use of these instruments—that is, errors of deduction. For example, low reading of blood pressure did not always mean freedom from vascular disease, and vice versa. Though the method was often of great service in revealing an unsuspected condition, one should never allow it to supplant careful physical examination.

Profession THOMPSON, speaking from the physiologist's point of view, said that a great many of the points referred to in the paper had been corroborated by experiments conducted in his own laboratory. In the hands of an ordinary observer who had not paid special attention to a particular instrument the observations could not be of much use. If one or two simple instruments were selected and studied, readings could be obtained that might be relied upon.

Dr. MOORHEAD said he, for one, could not determine with his fingers whether blood pressure was high or not, and, therefore, if an instrument could do this better than the finger it deserved its place in clinical work. A good deal of stress had been laid on the fact that the condition of the blood vessels interfered with the observations, but he agreed with Russell that if one found arterial sclerosis existed in a very material degree with a low blood pressure, it proved that sclerosed vessels could not require a great compression force to collapse them. He considered the instrument of the greatest possible assistance, provided too much importance were not attached to small variations.

Dr. SPENCER SHIELL said that he had observed that a rise in blood pressure was one of the earliest signs of the onset of eclampsia, and an instrument that could record such a rise was of the greatest assistance.

Dr. DAWSON referred to his experience of various instruments in connexion with the estimation of blood pressure in cases of mental disease. The results of his observations had been that in cases of melancholia and mental stupor there was invariably a rise in blood pressure, but that the fall that was supposed to take place in cases of mental excitement was not so constant.

NORTH OF ENGLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

Friday, February 16th, 1912.

Dr. A. W. W. LEA, President, in the Chair.

Classification in Gynaecology.

Dr. W. E. FOTHERGILL (Manchester) gave an account, from the historical point of view, of the various classifications of the diseases of women which have been used. He believed that the anatomical arrangement now almost universally employed came into use about forty years ago, while the first attempt to introduce the use of main groups based on pathology was made by Berry Hart in 1893. The anatomical system, while doubtless the best that could be used before the pathology of the diseases of women had been investigated, was not suited to modern needs. It interfered with the proper teaching and with the scientific description of the subject, and should be replaced, both in textbooks and in courses of lectures, by a natural classification whose main divisions should be based on pathological features. Six main groups were suggested by him for use in such a system, as it was considered that the ten or eleven divisions used by some authors were too numerous to be remembered easily by students.

Cases and Specimens.

The following were among the exhibits:—Dr. BRIGGS: (1) A small raised ulcer, an early *Epithelioma on the cervix* of the procident uterus of a woman aged 63. (2) Two *Ovarian tumours*, adenomata, fused so completely that they formed one continuous ovoid, 12 in. by 6 in. The fusion must have occurred early; its cause was not yet explained. There had been ascites; no primary growth existed elsewhere; the patient was still well after eight months. (3) A *Chain of fibroids* in each horn of a bicornuate uterus; the total bulk of the tumours was large, and reached the umbilical level during life; both ovaries were apoplectic. There was a blood cyst in the great omentum; one broad ligament fibroid seemed to carry the corresponding ovary on its surface, and might have been classed as ovarian in origin, except for its relation to the ovarian ligament and its own structure. Dr. LEA described a case of *Pyocolpos* occurring in a girl aged 14½ years. This formed an abnormal swelling, reaching 2 in. above the pubes. The hymen was imperforate; per rectum it was obvious that the vagina was much distended. As the girl had suppuration in the glands of Bartholin, drainage was postponed until this healed. When the vaginal incision was made 12 oz. of muco-purulent fluid were evacuated. Infection had no doubt arisen from the suppuration mentioned. Recovery was uneventful. Dr. DONALD: A case of *Haemorrhage from the ovary*. The clinical history was as follows: Married lady, aged 31; one child born in March, 1909, menstruation regular and health good. In November, 1911, sudden and severe collapse, with abdominal rigidity. Two days later retention of urine. On examination a mass the size of a Jaffa orange was felt behind the uterus, rather on the left side. This condition persisted, and on January 19th the abdomen was opened. Mass of blood clot in pelvis continuous with clot in left ovary; specimen showed ovary size of Tangerine orange, containing blood clot, and there was also a separate blood clot. Dr. SHAW, who furnished the pathological report, found cells which he regarded as lutein cells, but no certain evidence of ovarian pregnancy.

MEDICAL SOCIETY OF LONDON.

AT a pathological meeting on February 26th, Dr. J. MITCHELL BRUCE, President, in the chair, the following were among the exhibits:—Dr. FREDERICK LANGMEAD: A case of *Calcification of the pericardium* and primary carcinoma of the liver. Mr. C. M. PAGE: A large *Obturator hernia*. Dr. J. GRAHAM-FORBES: *Spheroidal-celled carcinoma of the appendix* in a boy of 10. Dr. ALEXANDER PAYNE and Dr. F. J. POYNTON: *Appendicitis* produced experimentally by general blood infection. Dr. HERBERT FRENCH: A case of *Malignant disease of the kidney*, with continuous growth extending along the vena cava to the tricuspid valve. Mr. HERBERT TILLEY: The larynx of a man, aged 72, whose right vocal cord was removed for *Epithelioma* in September, 1896, and who died thirteen years later from epithelioma of the other vocal cord. Dr. C. E. LAKIN: An instance of infective *Endocarditis* in an infant aged 7 weeks, and of perinephric tumour in a child aged 4 months. Dr. R. C. JEWESBURY: Two instances of *Cyst of the spleen*, and separate growths from the oesophagus and stomach of one individual.

OXFORD MEDICAL SOCIETY.

AT a meeting on February 16th, Mr. DODDS-PARKER, Vice-President, in the chair, the following were among the exhibits:—Mr. E. C. BEVERS: A case of *Facio-hypoglossal anastomosis* nineteen months after operation. When the parts were at rest no paralysis could be detected, and a few movements could be made voluntarily. A good reaction was produced on faradic stimulation. Dr. MALLAM: A case of *Ulcerative colitis* in a woman aged 35. Various drugs and a variety of medicaments used in lavage had had no effect on the condition. Her weight varied for a long time just over 5 st. An organism isolated from the stools was not agglutinated by the blood serum, so vaccine therapy was not tried. Appendicostomy was performed by Mr. Dodds-Parker. She weighed at the present time 6 st. 12½ lb., was much improved in general condition, and greatly so in the matter of her dysentery. Mr. COUNSELL recorded a case of *Liver abscess* in a young man. It began with slight gastric disturbance, pain, and rise of temperature, developing into a typhoid condition with frequent rigors. Widal's reaction to *B. typhosus*, *B. paratyphosus* B, and *B. coli*, was negative, and a blood culture was negative. An exploratory operation was performed because no improvement was being made, and because of a suspicious tenderness about the umbilicus, but no trace was found of a gross lesion in any organ. The rigors ceased after the operation, but marked anaemia set in, and before death a slight pleurisy, which on puncture of the pleura yielded no fluid. The liver and spleen were continuously large, but no deformation of the former was noticed at any time. At the autopsy the liver was found to contain a large abscess in the centre of the right lobe and a smaller one in the left lobe. Streptococci were found in the pus and in the section of the wall of the abscess. The bowel was normal and no site of infection was found. Dr. TYRRELL BROOKS read the notes of a case of *Malignant endocarditis* which had been in the Radcliffe Infirmary. His symptoms at first were anaemia and a splenic enlargement; subsequently a murmur in the heart was found, which altered slightly, and an aneurysm was discovered in the left iliac artery. A blood culture was made and a streptococcus found, which could not be got to grow. A vaccine from another strain of streptococcus produced great improvement in the symptoms and a considerable lessening of the anaemia. Death occurred after a few days of severe dyspnoea, and at the autopsy was found to be due to miliary tuberculosis, an ulcer in the thoracic duct from an old gland being found. The aortic valve had a plentiful crop of vegetations, the kidneys were of the flea-bitten type, and the spleen, which was very large, had an enormous infarct in it. Most of the organs showed miliary tubercles.

MANCHESTER MEDICAL SOCIETY.

AT a meeting held on February 7th Dr. ERNEST S. REYNOLDS delivered an address, entitled *Medicine as an Art*. Dr. ARNOLD JONES presented a communication on the *Diagnosis and treatment of laryngeal phthisis*. The difficulties of differential diagnosis were pointed out, especially in those cases where the issue was between malignancy, syphilis, and tubercle. Two conditions, not generally recognized as occasionally simulating laryngeal phthisis, were described: (*a*) A persistent post-influenzal laryngitis, and (*b*) a persistent form of laryngitis, which is a rare sequel to an infective epidemic tonsillitis, such as that which occurred in Salford in January, 1911. Three main clinical types of tuberculous laryngitis were described: (1) The aryteno-epiglottic, (2) the chorditic, and (3) the interarytenoid; and it was pointed out that the tuberculous process manifested itself in the larynx in four different ways: (*a*) Infiltration, (*b*) ulceration, (*c*) tuberculoma, and (*d*) miliary tubercle. The writer described two cases of tuberculomata occurring in his own practice. Confirmatory evidence in diagnosis must be sought for: (*a*) By an examination of the lungs for physical signs indicative of tubercle, (*b*) by observations of the evening temperature, (*c*) by ascertaining if the patient was maintaining or losing weight, and (*d*) by an examination of the sputum for tubercle bacilli, followed up, in the event of a negative result, by the inoculation of guinea-pigs with the dried sputum. Other methods, not yet sufficiently established to be reliable, were mentioned—the injection of tuberculin, the Calmette reaction, von Pirquet's reaction, and the reaction of tuberculin on the nasal mucous membrane. Constitutional treatment was of the highest importance, a sanatorium régime being favoured by the writer. Complete and absolute laryngeal rest was the first essential in local treatment. Many cases responded favourably to these measures alone, but if simpler methods did not successfully arrest the laryngeal disease the policy of masterly inactivity and "respectful inaction" must be abandoned, and active surgical intervention might be hopefully undertaken, both with the view of prolonging life and of making the patient more comfortable. The chief surgical procedures mentioned were: The application of Lake's pigment to ulcerations, the removal of infiltrated tissue by punch forceps, and the removal of an infiltrated and

ulcerated epiglottis, followed up in both latter cases by the application of Lake's pigment (formalin 7 per cent., carbolic acid 10 per cent., lactic acid 50 per cent.).

LIVERPOOL MEDICAL INSTITUTION.

THE third Pathological Meeting of the session was held on Thursday, February 15th, Dr. MACALISTER, Vice-Chairman, in the chair. The following specimens were shown:—Mr. G. C. E. SIMPSON: (1) *Lymphadenomatous glands*; (2) a series of *Appendices with concretions*. Dr. NATHAN RAW: (1) *Primary tuberculous glands in the neck* with extension to the lungs: (2) *Aneurysm of aorta* with rupture into the bronchus; (3) *Tuberculosis of body of the uterus*; (4) *Tuberculosis of the heart*; (5) *Melanotic sarcoma of the dura mater*. Mr. ARTHUR EVANS: *Gangrenous ovarian cyst*. Mr. THELWALL THOMAS and Dr. NUTTALL: (1) *Chondro-sarcoma of breast*; (2) *Pylorus after pylorectomy*; (3) *Mucocele of appendix* (two specimens); (4) *Cyst of mesentery*. Mr. K. W. MONSARRAT: (1) *Sarcoma of the thyroid*; (2) *Papilliferous carcinoma of the kidney*; (3) *Fracture of the skull*, and brain injury from a revolver bullet. Dr. BLAIR BELL: (1) *Exfoliation of endometrium during menstruation* (lantern slides); (2) *Bilateral carcinomatous sarcoma of the ovary* (lantern slides); (3) *Rhabdo-myosarcoma of the uterus* (lantern slides). Mr. PAUL discussed the specimens and gave instances of cases of pylorectomy similar to that shown by Mr. Thomas; also of mucoceles of the appendix. He did not think Mr. Monsarrat's case was one of sarcoma of the thyroid. He had seen many cases like it, and felt sure that the sarcomatous appearance was merely due to active proliferation of the normal cells. He agreed with Dr. Blair Bell that the bilateral solid tumours of the ovary shown by him could only be described as carcinomatous sarcomata. Dr. HARCOURT gave an account of the original tumours removed in the case described by Dr. Raw as "melanotic sarcoma of the dura mater." The histological structure of the primary growth which originated in connexion with the optic nerve was gliomatous in character. Dr. MACALISTER spoke of the extreme rarity of tuberculosis of the heart. Mr. R. E. KELLY read a note on the pathology of *Torsion of the spermatic cord*, and showed an illustrative specimen. He stated that the usual form of so-called torsion of the testicle was not a complete twist of the whole organ with its covering of tunica vaginalis, but only torsion of the mesorchium. In these circumstances the latter structure, instead of consisting of a sessile attachment of the epididymis to the parietal layer of the tunica vaginalis, is found to remain in its primitive pedunculated condition; consequently the whole of the twist is limited to the pedicle inside this serous envelope. The specimen shown was obtained from a lad aged 19. The patient was lifting a heavy weight, when he felt something "give" in his groin, and noticed for the first time a lump over the external abdominal ring. He stated that previously to the accident he had a perfectly descended testicle. Pain was never a prominent feature, and he did not come into the Royal Infirmary until six days later, when the lump, which proved to be a twisted testicle, was removed. Mr. THELWALL THOMAS mentioned two similar cases he had met with. In one of these frequent fainting attacks led to the discovery of the condition. He agreed that pain was not a marked symptom in most cases. Mr. G. C. E. SIMPSON and Mr. PAUL also recorded cases with which they had met.

AT a meeting on February 22nd, Mr. ROBERT JONES, President, in the chair, Mr. THELWALL THOMAS described his method of treating *Wry-neck*, and narrated six cases in support of his contention that it gave good results, and did away with the long and tiresome after-treatment, since he used no retentive apparatus. The operation was described as based on the same principle as that for lengthening tendons. Dr. THURSTAN HOLLAND, in a paper on *Radiographic diagnosis of stone in the bladder*, described and illustrated several cases in which an examination by the sound had given negative results, although a stone or stones were found by the *x* rays. Conversely, he showed that when the stone was formed purely of uric acid, the shadow thrown by it might not suffice for diagnostic purposes Dr. G. S. STOPFORD-TAYLOR and Dr. R. W. MCKENNA, in in a paper recording their experiences with *Salvarsan*, analysed some 92 cases. At first they had used the intramuscular injection, but in the later 74 cases had found the intravenous method preferable; no bad results had been noted, but it was important that the patient should be properly prepared. A purgative was given the night before the injection and next morning a light breakfast, the salvarsan being injected five hours after. It was also important to make the solution fresh for each injection, and to use saline solution freshly made of water distilled in glass vessels. With these precautions there had been in most cases no reaction, in a few slight sickness or loose motions from the bowels. Elimination took place by the urine in four or five days after a dose of 0.30 gram, in seven to nine days after a dose of 0.6 gram. In tertiary cases where potassium iodide and mercury had failed they found salvarsan was most valuable. Lesions of the mouth and throat healed rapidly. Iritis was much improved; there was improvement in cases of general paralysis and in the subjective symptoms of locomotor ataxia, but this improvement had not been maintained: destroyed neurones could not be restored. One dose could convert a positive Wassermann reaction to a negative reaction in one month, and this might continue for nine months without further treatment. In some cases a single dose would not change the reaction until combined with mercury. The general effect was always an improvement in general health and well-being. As to dangers, death might be caused by this as by any other potent drug, but they had noticed no deleterious effect on the optic nerve. Three cases had relapsed, so that it was always well to reinforce the treatment by mercury; in all cases a combination of drugs was best. Dr. EVANS agreed as to the need for care in the preparation of the solution; he used for the injection a special needle which required no exposure of the vein. In cases of congenital diseases he had found no effect on the child from injections given to the mother. Dr. F. WILSON said he had used an emulsion of iodipin for injection intramuscularly, and had found some tertiary cases do better with mercury and potassium iodide than on salvarsan.

WIGAN MEDICAL SOCIETY.

A CLINICAL meeting was held at the Royal Albert Edward Infirmary, Wigan, on February 8th, Mr. F. L. ANGIOR, President, in the chair. Dr. R. PROSSER WHITE showed the following cases:—*Acrodermia neuritica: injury to right hand and forearm* four years ago. Present condition: Progressive atrophy of all the constituents of hand and forearm—skin, muscles, and bone: the skin was exceedingly thin and ulcerated in patches, and acutely sensitive. *Dermatitis artefacta* in a girl aged 16 or 17, whose only symptom was the appearance about once a week of one or more bullae on the left arm and shoulder; supposed to rise in the night, and were first seen when she rose in the morning. She was admitted as an in-patient, and treated mainly by suggestion and feeding, and no fresh bullae had appeared. *Molluscum fibrosum* in a woman with warty-looking fibroid growths in the left axilla; also section of one under the microscope. Mr. HARRY HOLMES showed a case of *Tumour of the pituitary gland* in a man aged 27, height about 4 ft., at present nearly blind and suffering from enormous protrusion of both eyeballs; hair scanty and thin; reproductive organs elementary. He had fits of some kind at the commencement of his illness, and then bitemporal hemianopsia. Mr. Holmes referred to the two types of cases due to pituitary tumour. The man had been seen by several surgeons, but operation had not been advised. A case of *Xerosis of the conjunctiva*, the right cornea being now quite opaque and the left rapidly following. That condition, he considered, was due to some general disorder, such as congenital syphilis. The case had been under a variety of treatment—antisyphilitic, thyroid, tuberculin, etc.—but steadily retrogressed.

DR. JAMES ANDREW, a former President of the Royal College of Physicians of Edinburgh, left personal estate in the United Kingdom valued at £9,264.

Reviews.

TUBERCULOSIS OF JOINTS.

Joint Tuberculosis,[1] by Dr. LEONARD W. ELY, of Denver, Colorado, embodies a valuable and suggestive contribution to our knowledge of a difficult subject. For it cannot yet be said that we have reached anything like finality in pathology, diagnosis, or particularly in treatment. Therefore, any fresh views are welcome, for if they prove to be true they must help to advance us, and even if further experience should show that they are fallacious, they may induce us to look at the problem from a novel point of view, and so perhaps discover new facts. There was certainly room for another work on this subject in the English language, for the books of Watson Cheyne and of Senn were written some time ago, and those of Continental writers, such as König and Mauclaire and Dujarier, do not represent British or American practice.

Dr. Ely believes that his investigations into the minute morbid anatomy of the disease and his large clinical experience justify the conclusion that primary tuberculosis can only exist where there is lymphoid tissue such as is to be found in red bone marrow and in parts of the synovial membranes. The red marrow and the epithelioid tissue of the soft parts of the joints disappear with the cessation of function in a joint, and therefore our great object in treatment should be to procure this cessation in cases in which arrest of the disease without total loss of movement is not to be hoped for. We cannot do better than quote his own words:

> An operation that causes the disappearance of red or cellular or lymphoid marrow in the ends of the bones, shuts off the food supply of the bacilli. The bacilli can find no food in yellow marrow, but if a secondary infection be added, the resulting suppuration furnishes the supply of cells peculiarly adapted to the growth of the tubercle bacilli, and tuberculosis invades the yellow marrow also.
>
> I will carry the theory no further; to me it appears to explain almost everything, but its value depends entirely upon the correctness of our hypothesis.

But more evidence is needed before it can be accepted. In applying his theories to practice Dr. Ely advocates fixation and expectancy in children and modified excision (after a brief trial of fixation has failed) in adults. It is, he says, impossible to be sure of removing all the disease except by amputation, and it is not necessary to remove it in uninfected cases. Therefore in adults he removes only a thin layer of bone from each bone, leaving the ligaments and membranes alone. He quotes some strikingly successful instances of this procedure. Dislocation, he thinks, is as effective as ankylosis in abolishing function, and in the hip he achieves this by removing the head or part of the head of the femur. Like most American surgeons, Dr. Ely makes great use of plaster-of-Paris, which appears to be steadily ousting the portative traction splint in the ambulatory treatment of hip disease. Contrary to British practice, Dr. Ely and many other American surgeons apply Lorenz's short plaster spica and allow the child to walk about. We believe that it is absolutely impossible to fix the hip-joint completely with such an appliance, however skilfully applied, and that as it allows weight bearing and a considerable amount of movement it cannot carry out the treatment by fixation upon which the author professes to rely.

Dr. Ely recommends the bismuth paste treatment of sinuses, but makes no mention of the deaths from poisoning which it has caused, and which have brought about the substitution of a paste containing no bismuth. The Bier treatment he thinks most useful for infected sinuses in a more acute stage.

We are surprised to read a recommendation of the forcible correction of the deformity in hip disease, even in the acute stage—a proceeding the dangers of which we believe far outweigh its advantages.

In an appendix Dr. G. B. Webb writes an account of some pathological processes in tuberculosis, and the book concludes with a number of case-histories, many of which are of interest.

[1] *Joint Tuberculosis*. By Leonard W. Ely, M.D., Consulting Orthopaedist to the County Hospital; Attending Orthopaedist to the Children's Hospital, Denver, Col., etc. Bristol: John Wright and Sons, Ltd. London: Simpkin, Marshall, Hamilton, Kent, and Co., Ltd. 1911. (Roy. 8vo, pp. 253; figures 72; plates 1. 12s. 6d. net.)

D

PATHOLOGICAL PSYCHOLOGY.

THE first and second volumes of the *Traité International de Psychologie*,[2] compiled by numerous contributors, whose names alone establish the high authority of this series, have been published under the editorship of the versatile and indefatigable Dr. A. MARIE, of the Villejuif, Paris. In his introduction Dr. Marie says that the guiding principle of the first volume is that the functions of the brain are only comprehensible through the study of their synergic action with the functions of all the other bodily organs. Following this idea the work opens with a philosophical article by Professor Grasset of Montpellier upon the "neuro-biological unity," including a discussion upon the harmony between neurology and psychiatry, general methods, and the importance of social applications and conditions, and in particular marriage, education, and general hygiene. Professor Del Greco of Naples furnishes an historical *aperçu* of mental diseases from Hippocrates to to-day, and then, quite suitably, an essay upon "Psychiatrical Anthropology," by Dr. Marie, follows. This article, which takes up 186 pages, and is very fully illustrated by photographs of the various physical anomalies exhibited by the insane and so-called degenerates, is entirely descriptive, wisely avoids controversial speculations as to the significance and individual value of bodily stigmata, and is based on a very extensive bibliography given at the end of the articles. Two brief articles—the first upon the sulci and convolutions of the brain of the insane by Professor Mingazzini, and the second upon the chemistry of the cerebral substance of the insane as compared with that of the sane by Dr. Marie—are followed by admirable accounts of the alterations of the various bodily functions by Drs. Marie and Dide and Dr. Levaditi of the Pasteur Institute. Histology and histo-pathology is treated by Professor Lugaro of Milan, whilst to Professor Marinesco has been entrusted the architectomy and structure of the cortical cellules. Further articles upon lesions of the cord by Dr. Dide; of the peripheral nervous system by Professor Medéa of Milan; and of the pathological anatomy of the sympathetic nervous system and viscera by Dr. L. Lavastine complete the anatomical part of this volume. As to general psycho-pathology, Professor Marro of Turin, under the heading of *Evolution psychologique humaine à l'école pubère*, gives a general, as distinguished from a clinical, account of the disorders of puberty. The next article, and the only one in this volume contributed by an English writer, is by Sir Thomas Clouston. It is devoted to practical instruction in the examination of patients admitted to asylums. Parenthetically it may be remarked here that printers' errors in the spelling of English words are less frequent than in most French works; but we wonder what the readers of these volumes will make of Professor Clouston's quotation concerning the ideal female voice:

> Ever soft
> Gentle and lord, an excellent thing in women.

Professor Bechterew, of St. Petersburg, carries the objective examination of patients into the exact and methodical investigation of memorial retention, association, and various reaction times; Professor Ferrari deals with the same psychometrical investigations in backward children; whilst Professor Carrarra, of Turin, considers the examination of insane criminals and the criminal insane. Turning to the second volume, which is devoted to clinical psycho-pathology, some idea of its character may be gleaned merely from the classification: Neuro-psychic disorders (Professor Raymond), psychic disorders accompanying organic nervous maladies (Professor Bechterew), general paralysis (Professors Marie and Lhermitte), dementia (Professor Ziehen), dementia praecox (Professors Deny and Lhermitte), degenerencies and psychopathics (Drs. Sollier, Roubinovitch, Colin, and Bourilhel), chronic systematized delusional states (Magnan and Serieux), manic-depressive, periodic, and infectious psychoses (Pilez), mental confusion (Regis and Henard), and psychoses due to exogenous

[2] *Traité international de psychologie pathologique*. Directeur, Dr. A. Marie, Villejuif. Comité de Rédaction, MM. les Professeurs Bechterew (St. Petersburg), Clouston (Edinburgh), Déjerine (Paris), Grasset, Lugaro (Modena), Dr. Magnan (Paris), Piloz (Vienna), Raymond (Paris), Ziehen (Berlin). Tome Premier *Psychopathologie générale*. Paris: Felix Alcan. 1910. (Roy. 8vo, pp. 1028; 353 gravures. Fr. 25.) Tome Deuxième. *Psychopathologique clinique*. Paris: Felix Alcan. (Roy. 8vo, pp. 1000; 341 gravures. Fr. 25.)

toxins (Marie and Riche). It will be noted that almost every one of the writers is a widely known authority upon the subject with which he deals. The result is that the volumes attain a very high standard of excellence as a work of reference. Both volumes are freely illustrated and the bibliography is enormous. When this series is completed it will form one of the most valuable works of reference upon mental diseases in existence to-day.

About two years ago we reviewed a book entitled *Religion and Medicine* by two clergymen and one medical writer, setting forth the work undertaken by the Emmanuel Church, Boston. The medical contributor to that book, DR. ISADOR H. CORIAT, has now written a book called *Abnormal Psychology*,[3] for which he is solely responsible, and which has no relation to the Emmanuel Church movement in the direction of spiritual healing. The author's avowed aims in his present work were, first, "to strip the subconscious of any supernormal ability or power," and those who are conversant with the extraordinary confusion of ideas on this matter and the deification of the subconscious displayed in much American literature will recognize that to do this merely would be to achieve much; secondly, "to limit the subconscious to the mental functions established by brain physiology," making it (that is, the subconscious) synonymous with mental dissociation; and, thirdly, to show how certain functional nervous disorders are due to perversions of this mental dissociation. The author is, of course, a firm believer in the existence of mental activities outside the awareness of the subject—that is, of subconscious or co-conscious mental processes possessed of independent activity when split off or dissociated from the rest of consciousness. In addition to the above he adds as necessary criteria of mental dissociation an impossibility of voluntarily reproducing the dissociation mental state in consciousness and the possibility of its reproduction by artificial methods. In his subsequent discussion the author in the first part of his book reviews in the light of these assumptions, and in interesting though nowhere exhaustive fashion, such phenomena as automatic writing and crystal gazing, sleep and dreams, hypnosis, and Freud's psycho-analytical method; while the second part is devoted to amnesias, paramnesias, and the psychoneuroses. The subject of abnormal psychology is very wide, and the author has very wisely limited himself to summarizing the principal work done in this fascinating field by American and Continental investigators, adding to those personal observations and experiments. This has been done admirably; the reader is brought well up to date; and, where doubt or controversy exists, opposing views are given without prejudice. In the author's hands a deeply interesting subject does not lose in interest, and, as a clearly written, restrained, and sane account of dissociated mental states from the point of view of one who believes in the subconscious, this book may be commended to medical men who have no special knowledge of the subject, and to the general reader.

In reviewing the first edition of Professor WILLIAM WHITE'S *Outlines of Psychiatry*[4] two years ago, we said that it was a capital book, well and clearly written, broadly philosophical in its treatment of the nature of mentality, careful and unambiguous in its descriptions of symptomatological features and clinical categories, and thorough in the instruction given as to methods of examination. At the time we ventured to prophesy that its reading would not be restricted to the limited numbers for whom it was modestly intended by its author—namely, his students—and we see now that its use by teachers of psychiatry in the United States and Canada called for a second edition in 1909, whilst the third edition was issued last year. Even in that brief time important additions have been made to our knowledge of mental diseases, particularly in symptomatology and diagnosis; classification has changed somewhat, some clinical categories having been extended in scope at the expense of others, and a great amount of authoritative literature, demanding attention, has been published. Professor White's third and enlarged edition faithfully reflects this incessant growth and activity in the world of psychiatry. At the same time the addition of new matter, incorporated into the text and not crudely interpolated in the form of foot-notes, has not been allowed to alter the primary purpose of the book as a textbook for students. We warmly commend it to students and others.

[3] *Abnormal Psychology.* By Isador H. Coriat, M.D., Second Assistant Physician, Boston City Hospital; Neurologist to St. Sinai Hospital. London: William Rider and Son. 1911. (Post 8vo, pp. 341; figs. 7. 5s. net.)

[4] *Outlines of Psychiatry.* By William A. White, Professor of Nervous and Mental Diseases, Georgetown University; Superintendent, Government Hospital for the Insane, Washington, etc. Third edition. New York: Journal of Nervous and Mental Disease Publishing Company. 1911. (Med. 8vo, pp. 272. Price 2.50 dols.)

OPHTHALMOLOGY.

THE *Hunterian Lectures on Colour Vision and Colour Blindness*[5] were delivered by Professor F. W. EDRIDGE-GREEN before the Royal College of Surgeons in February, 1911, and have now been published in a book. Lecture I deals with the theory and facts of colour vision and colour blindness, and Lecture II with the detection of colour blindness from a practical point of view. The author first states his theory of vision, which consists essentially in the belief that the visual principle is the all-important material concerned with vision and its modifications. The rods are concerned with the formation and distribution of visual purple only, and have nothing to do with the conveyance of impulses to the brain. This visual purple when liberated by light stimulates the cones, and a visual impulse is set up, while the character of the stimulus differs according to the wave lengths of the light causing it. This is passed along to the brain and stimulates the visual centre, and is then sent to the colour-perceiving centre. If this centre is normally developed we have normal colour vision, if it be underdeveloped we get all the varying degrees of colour blindness. This theory, it will be seen, fully explains why a colour-blind eye differs in no way, microscopically or otherwise, from a normal-sighted eye. The fundamental point is that the visual purple is the essential factor in vision. Anatomical and physiological proofs of this are then given. Lecture II deals with the practical side of the question. The author lays it down that the essential feature about a test for colour blindness is that it should detect the dangerously colour-blind, while it should allow all those whose colour vision—though, perhaps, not quite up to normal—is sufficiently good to prevent their ever making a mistake with a coloured signal to pass. There are many good tests. The author's own lamp is considered by far the best, not only by himself, but also by many who have it in constant use. No test is of any real value which relies on making colour matches, as has been found over and over again by the hopeless inefficiency of the Holmgren test; while the tests which rely on the candidates matching coloured lights is equally inefficient. One of the most delicate tests is the spectrometer, which the author has devised, whereby any portion of the spectrum can be isolated. In this way monochromatic patches in the spectrum can be mapped out with the greatest accuracy, and the examiner is able to see at a glance whether what the candidate calls a monochromatic patch really is so, or whether he includes more than one colour or shade of colour in a patch which to him is monochromatic. This test requires a special apparatus and is not required for ordinary examinations. The lectures explain very thoroughly and well the author's theory and the method of applying the various tests which have been invented by him. His tests are now all but universally adopted, and his theory is gaining adherents in large numbers among those who will take the trouble to investigate the question for themselves.

MR. G. LINDSAY JOHNSON'S *Pocket Atlas and Textbook of the Fundus Oculi*[6] is rather a new style of book. It consists of about 200 pages of text followed by 54 coloured ophthalmoscopic drawings, and one other, a frontispiece by Arthur W. Head, the well-known ophthalmoscopic artist. At the end of the book is an ophthalmoscopic drawing and note book which contains many blank pages with only the outline of the disc and macula given. Attached to it is a red and black pencil intended to be used to delineate the chief characteristics of the eye from

[5] *The Hunterian Lectures on Colour Vision and Colour Blindness.* By Professor F. W. Edridge-Green, M.D., F.R.C.S.Eng. London: Kegan Paul, Trench, Trübner, and Co., Limited. 1911. (Med. 8vo, pp. 76; figs. 9. 3s. 6d. net.)

[6] *A Pocket Atlas and Textbook of the Fundus Oculi*, with note and drawing book. By G. Lindsay Johnson, M.A., M.D., F.R.C.S. With drawings from life by Arthur W. Head, F.Z.S. London: Adlard and Son. 1911. (Cr. 8vo, pp. 213. 10s. 6d. net.)

which a finished coloured picture, fit for publication, may be worked up by any competent ophthalmic artist. The text consists of eight chapters with an appendix; it is illustrated by 45 figures showing various conditions met with in the eye, as well as diagrams illustrating instruments and optics. The ophthalmoscope, retinoscopy, etc., are well described, and mathematical proof is given of many of the problems involved. The anatomy of the ciliary body, choroid, and retina is described in detail, and the rest of the volume is devoted to the various conditions seen in the fundus in health and disease. The text is excellent and the drawings are of great interest and beauty. A book of this size is infinitely more useful than the large atlases published years ago. Here in the space of a pocket-book is given all that is wanted, and in addition it shows the student how he should start in order to produce his own drawings. It is a practical book and will be found most useful.

A Manual of Diseases of the Eye,[7] by CHARLES H. MAY and CLAUD WORTH, has now reached its third edition. The book resembles the preceding editions in size and appearance, but it has been brought up to date. Chapter XXX, on vaccines in ophthalmology, has been written by Mr. S. H. Browning, the Bacteriologist to the Royal London Ophthalmic Hospital. From the first the book has aimed at being practical, and this characteristic is still maintained. The more ordinary conditions are described in detail, while the rare diseases are but lightly touched upon. For a book of this size it is profusely illustrated, not only with woodcuts and process blocks, but also with coloured drawings of the fundus and of certain external diseases of the eye, but some are decidedly better than others. Chapter XXV is a very good one on squint and ocular paralysis, and contains all the well-known ideas of Mr. Worth, whose work on the subject has deservedly received world-wide recognition. Some very good diagrams are given, showing the sort of diplopia produced by paralysis of certain muscles. Chapter XXVIII describes Worth's advancement operation, while Chapter XXXI is concerned with ocular therapeutics and general rules for operations upon the eye. This work has, by its merits, won an established place for itself among textbooks on ophthalmology, and the present edition is well up to date, and is well got up and printed.

Dr. J. E. WEEKS has prepared a *Treatise on Diseases of the Eye*[8] for the medical student and the general practitioner, but expresses a hope that the specialist may find it a useful work of reference. He has been aided in its production by some well-known American ophthalmic surgeons; thus Dr. Souter contributes a chapter on dioptrics; Dr. Douane writes on the movements of the eyes; Dr. Dixon describes his method of localizing foreign bodies; and others have added drawings and descriptions of the special operations which they have personally devised. The first chapter is devoted to a careful, clear, but by no means abstruse account of the embryology of the eye. A general acquaintance with the development of the eye is of fundamental importance to any one who will rightly comprehend its anatomy, its physiology, and its pathology; yet this essential knowledge is generally withheld in the ordinary textbook. Not less necessary is a sound knowledge of anatomy, and the subject is presented in the second chapter. Some beautiful illustrations taken from Motais's work make the complicated relationship of Tenon's capsule sufficiently clear; while an excellent reproduction of a coloured plate by Testut makes possible a comprehensive grasp of the vascular arrangements of the globe. Both these chapters are excellent, and contribute greatly to the value of the book. The third chapter deals lucidly and succinctly with the optical functions of the eye. An explanation of the properties of prisms and lenses is followed by a description of the actual dioptrics of the eye, and finally we find diagrams explaining the physics of retinoscopy and ophthalmoscopy. Possibly there are good reasons for including a chapter on dioptrics, but these simple questions of optics should be already familiar to every medical man who has been through a course of theoretical and practical physics. The more advanced optics of the eye can only be studied in special treatises, and demand considerable mathematical knowledge. However, Dr. Douane has successfully steered between the Scylla of simple physics and the Charybdis of advanced mathematics. Chapter IV is devoted to the examination of the eye, which is treated in a thoroughly practical and exhaustive manner. A misprint has crept in on page 121, when we are told to cover the eye for one to three minutes to detect the light reflex; obviously seconds are intended. Nagel's test for colour blindness and Edridge-Green's colour perception lamp, the best on the market, are not mentioned. The diseases of the eye are discussed in the regular anatomical sequence. This part of the book leaves little to be desired, but a few objections have occurred to us in a careful study of the work. There is room to question the statement that trichiasis is an element in the causation of pannus; in the East many cases may be met with in which most aggravated long-continued trichiasis is associated with a clear cornea, whereas pannus is frequently seen in cases where there is no trace of trichiasis. Again, pannus frequently starts from below and spreads upwards, or starts from above and below and meets in the middle. The use of styles in the treatment of dacryocystitis is open to serious objections, although we are well aware that such an authority as Mr. Priestley Smith still advocates their use. Only recently in a lacrymal sac which had to be removed we discovered a leaden style which had been lost for over a year! The value of long-continued lavage of the sac is not insisted upon, and probing is still recommended. In Römer's recent textbook it is stated, as we believe truly, that not more than 5 per cent. of all cases are cured by probing. We find no mention of Toti's operation in the index or text. Professor Weeks seems to suggest that the xerosis bacillus has some causal connexion with xerosis, but is doubtful whether Schaudinn's *Spirochaeta pallida* is the cause of syphilis of the conjunctiva; he says "in all probability." Surely the specific nature of this organism has now passed the stage of "probability." We cannot agree that solitary tubercle of the choroid is rare, nor can we endorse the recommendation that these cases call for enucleation "to prevent the spread of the tuberculous process." These lesions are usually, if not always, secondary to tuberculosis elsewhere in the system, and yield readily to tuberculin therapy. The whole treatment of the subject of ocular tuberculosis is, to say the least of it, hardly up to date. Professor Weeks urges the use of a mydriatic in refraction, and it is probably true that, as he says, the cases which do not require it are exceedingly rare. Professor Weeks has not been persuaded by Colonel Smith and his American admirers that extraction of the lens in its capsule is a safe method. Except in certain special cases, he will have none of it. In spite of these criticisms, we regard the book as one of the best textbooks of ophthalmology which has appeared in the English language. It is well printed, and the illustrations are excellent, especially the coloured plates. We recommend any practitioner who wishes to improve his knowledge of the eye to get it. When the expense of producing coloured plates is considered, the price is very reasonable. Naturally, the diction is trans-Atlantic, and such ungrammatical expressions as "back of the lens," are all too frequent. There are few misprints, and the index is good.

The *Textbook of Ophthalmology*,[9] by Dr. ERNST FUCHS, of Vienna, has reached its twelfth edition in German, and the authorized translation of it by Dr. ALEXANDER DUANE, of New York, is the fourth edition in English. The translator has added a good deal to it, and comments on certain statements made by the author, with all of which he is not in perfect agreement. These additions mainly concern the chapters on functional examination, motor anomalies, refraction, and operations, but they are always enclosed in brackets and initialed. Many pictures also are

[7] *A Manual of Diseases of the Eye.* By Charles H. May, M.D., New York, and Claud Worth, F.R.C.S.Lond. Third edition. London: Baillière, Tindall and Cox. 1911. (Post 8vo, pp. 485; figs. 336. 10s. 6d. net.)

[8] *A Treatise on Diseases of the Eye.* By John Elmer Weeks, M.D. With 528 engravings and 25 full-page coloured plates. Henry Kimpton. 1911. (Roy. 8vo, pp. 944. Price 30s. net.)

[9] *Textbook of Ophthalmology.* By Dr. Ernst Fuchs, of Vienna. Authorized translation from the twelfth and greatly enlarged German edition, with numerous additions by Dr. Alexander Duane, of New York. Fourth edition. Philadelphia and London: J. B. Lippincott Company. 1911. (Sup. roy. 8vo, pp. 989; figs. 441. 25s. net.)

added. The whole volume is divided into five parts. Part I comprises general physiology, pathology, and therapeutics; Part II the examination of the eye; Part III a systematic description of diseases of the eye; Part IV deals with refraction and accommodation, and Part V with operations. In spite of the large size of the book, certain things are not found in it. One of the worst chapters is that on colour blindness, and although the work of Edridge-Green has been so long before the public, his name is not mentioned, and the old stock theories of Helmholtz and Hering, neither of which account for the facts of colour blindness, are brought up again, just as if no fresh work had been done on the subject. There is a great tendency in this book to perpetuate old and false theories, and to leave severely alone a good deal which might with advantage be substituted for some of the older ideas. The book contains nearly 1,000 pages, and this is rather a pity, as its bulk renders it more suitable for a book of reference than a textbook. We hope that in future editions this will be remedied. It is one of the best known systematic treatises on ophthalmology in existence.

Handbook of Diseases of the Eye[10] is the title of yet another new volume. It is by Dr. H. C. PARKER, of Indianopolis. It was published in Philadelphia in 1910, but we had not received it till recently. It is one of the smaller textbooks intended for students and general practitioners, and not for specialists. It contains about 300 pages only, and in a book so small the subjects are treated of in a rather sketchy manner, and much recent work is not even mentioned. Most cases of scleritis and episcleritis are considered to be tuberculous, and the Calmette and von Pirquet tests are mentioned. The dangers of the former are pointed out, but the von Pirquet test is not described. The book is well illustrated with coloured and black and white drawings, and is effectively got up, but it is too brief seriously to compete with the many excellent textbooks already in existence.

A third edition of *The Errors of Accommodation and Refraction of the Eye and their Treatment*, by ERNEST CLARKE,[11] has appeared; the book is already well known as one of the many treatises on refraction at present in use, and this edition is similar to the preceding ones, but it has been revised and brought up to date. The ordinary refractive errors are described in the usual way, and there cannot be much variety in the discussion of them. We are more or less accustomed to the American method of clipping words, though we had hoped that English authors would escape infection, but here our old friend "hypermetropia" is always alluded to as "hyperopia," which we certainly do not admire. The author is a strong advocate of the ophthalmometer, and considers that "when for some reason a cyclopegic is prohibited, the ophthalmometer is exceptionally valuable, and in fact is indispensable." It is not every ophthalmic surgeon who would speak so enthusiastically of this instrument. He is likewise an ardent advocate of cyclopegics, which he considers necessary up to 50 years of age. The final chapter relates to spectacles and their fitting, and there is also a chapter on squint. The tests for the public services are given in detail.

PHOTOMICROGRAPHY.

THERE is no doubt that apart from the question of expense the chief reason why photomicrography has not come into more general use in scientific illustration is to be found in a lack of sufficient technical knowledge. The results of initial attempts are apt to be discouraging; the prints fail in the characteristic clearness and definitions of a good drawing, and on that account the camera is condemned as unsuitable. This is an error which Mr. J. E. BARNARD seeks to rectify in his extremely able book on *Practical Photomicrography*.[12] He treats his subject with an expert hand, and skilfully leads the way through the apparently intricate maze of microscopic minutia and photographic processes. At the outset he does not deny that a thorough acquaintance with the microscope and the potentialities of its lenses and other fittings is absolutely necessary for success, and he even admits that photographic processes are not always plain sailing if the best results are to be attained, but at the same time he is decidedly encouraging, and the ease and confidence with which he tackles difficulties we have ourselves experienced stimulate a very desirable spirit of emulation. He deals in turn with the application of the microcamera to the various branches of science, and indicates the extent of its usefulness in bacteriology, botany, zoology, metallurgy, etc. Into the intricacies of metallurgical work we cannot follow him, but his methods for biological work are invariably sound. The book is well arranged, and even in the most uncompromisingly technical parts is generally intelligible, and there is an extremely useful chapter entitled "Some Progressive Examples." It deals with a series of test objects arranged to some extent in order of increasing difficulty. For each a suitable stain, mode of illumination, plate, and exposure is indicated, and other details relating to the microscope and camera are noted. The results are shown in a number of beautiful plates which may well serve as a standard of excellence.

NOTES ON BOOKS.

WE were able to speak in very high terms of praise of Dr. MUNRO KERR'S *Operative Midwifery*[13] when the first edition appeared some three years ago. We need now do little more than announce the publication of a second edition, for the book has not undergone any material alteration. In the preface to the new edition the author mentions certain chapters in which changes have been made. One of these is that on symphysiotomy and pubiotomy. In 1908 he was not convinced that symphysiotomy was a better operation than pubiotomy; he now expresses the opinion that while there is very little to choose between symphysiotomy and pubiotomy, on the whole the latter is the better. He lays it down, however, that neither should ever be performed on a primipara, and that neither is suitable for domestic practice. He does not appear to have materially modified his views in regard to Caesarean section—another point to which our review of the first edition directed attention. That the book fully deserves the praise given to it in 1908 seems to be proved by the early demand for a second edition.

Dr. JARDINE'S new book on *Delayed and Complicated Labour*[14] is hardly new, as it is mainly a revision of the corresponding chapters which appeared in his *Clinical Obstetrics*. These constituted the weaker part of that excellent book, and we must confess to disappointment at the result which he has produced by omitting the illustrative cases from his own experience. The issue is a series of chapters of a more or less systematic character embodying the results of his individual experience and the practical recommendations he derives therefrom. The absence of the illustrative material deprives the book of the point and cogency which is the charm of an individualistic study, while it lacks the perspective which the systematic treatise should derive from the review of general experience. So far as it goes the volume is not devoid of merits, but it is not the best that Dr. Jardine is able to give us.

It is our pleasant duty to point out that the textbook on comparative physiology, under the editorship of HANS WINTERSTEIN,[15] is progressing, and that the parts so far issued are of a highly scientific and valuable nature. The work will consist of thirty parts, of which XI, XII, XIII, XIV, and XV are before us. In the articles on the production of light, the formation of shape, the bases of comparative physiology of the nervous system and of the organs of special senses; on the intake, the digestion, and assimilation of food, the physiology of the nervous system; and, lastly, on cytoplasm and the body fluids, the several authors lay their subjects skilfully before the reader.

[10] *Handbook of Diseases of the Eye.* By Harry Caldwell Parker, M.D., Clinical Professor of Ophthalmology, Indiana University School of Medicine. Philadelphia: F. A. Davis Co. London: Stanley Phillips. 1910. (Demy 8vo, pp. 315; text engravings 115; plates 6. 8s. 6d. net.)

[11] *The Errors of Accommodation and Refraction of the Eye and their Treatment.* By Ernest Clarke, M.D., B.S.Lond., F.R.C.S. Third edition. London: Baillière, Tindall, and Cox. 1911. (Cr. 8vo, pp. 238; illustrations 88; 5s. net.)

[12] *Practical Photomicrography.* By J. Edwin Barnard, F.R.M.S. London: Edward Arnold. 1911. (Med. 8vo, pp. 338; figs. 79; plates 10. 15s.)

[13] *Operative Midwifery.* By J. M. Munro Kerr, M.B., C.M.Glasg., Obstetric Physician, Glasgow Maternity Hospital; Gynaecologist, Western Infirmary; Past President of the Glasgow Obstetrical and Gynaecological Society, etc. London: Baillière, Tindall, and Cox. 1911. (Roy. 8vo, pp. 705; 299 illustrations in the text. 21s.)

[14] *Delayed and Complicated Labour.* By Robert Jardine, M.D., etc. London: Henry Kimpton. 1911. (Pp. xvi, 351, with 107 illustrations and 3 coloured plates. 7s. 6d. net.)

[15] *Handbuch der vergleichenden Physiologie.* Edited by Hans Winterstein (Rostock). Jena: G. Fischer. 1910. (Sup. roy. 8vo. In thirty parts; 5s. per part.)

Under the title, *Atlas of Microscopic Diagnosis in Gynaecology*,[16] the Rebman Company has issued an English translation of Dr. JOLLY's excellent "Atlas," which they term the only authorized English translation, but which is not much of a translation, and is certainly not authorized English. As translation it resembles the version of a schoolboy who, knowing a little of the language he is working from, and not much more of his own, boldly sets to work with the dictionary, selecting frequently the wrong synonym, and occasionally attempting to impress the teacher by "style." The description of Fig. 12 (*Erosio portionis papillaris*) begins: "The pushing hither and thither of epithelia and the proliferations of mucous membrane do not occur always within a single plane, nor remain at one level, but may, opportunely, rise above the surface and erect themselves in papillous growths." The maltreatment of the original "gelegentlich" here is hardly worse than that of the innocent "umspültwerden" at Fig. 23 (*Chorionic villi*), where we learn that "within the villi of the chorion blood vessels are formed, and these vascularized chorionic tufts penetrating the decidua sway in the pulsing currents and passioned vortices of maternal blood." It is almost needless to multiply examples of this sort of stuff to show that the Rebman Company ought to deal severely with the reader who passed it; but we shall set a German sentence which occurs under Fig. 30 (*Syncytioma*): "Zunächst bilden sich umschriebene Knoten, welche bald an Ausdehnung zunehmen," alongside its "only authorized English translation": "Then compact nodes form, soon tumescent, dilating, extending." As for the Atlas itself, the selection of preparations by Dr. Jolly is excellent, and the artistic work of Frau M. Ehlers almost beyond praise. The plates are equally good in the German and English editions, and it should have been difficult to spoil so good a book; but by a thoroughly bad text, and by adding a useless inch of paper in each direction and so sacrificing the compactness of the original to a spurious luxury, the publishers have gone a long way towards doing so.

Dr. HARRIS, who has written a book entitled *The Significance of Existence*,[17] seems to have an ambition to reform the universe, which is fallen, he seems to think, on very evil days. He is very cocksure, and who are we that we should venture to differ or doubt? When he tells us that the scope of intelligence is "to bring to bear on a momentary impulse that strives for realization some antagonistic impulses that at the moment are non-existent," we receive the dictum with dutiful submission, in spite of the difficulty of understanding how a non-existent impulse can be brought to bear on a momentary impulse. Dr. Harris tells us that some nations practise patricide. Poor Patrick! He should be warned not to go among those nations; but Dr. Harris does not tell us who they are. Even in this country "society is not what it should be." *It* is spiritless and empty, and *their* predecessors' best energies are spent in *combating* ennui (italics not in original). "The iniquity of Europe is more colossal than that of any generation which preceded it." This is rather a sweeping assertion, and we should like some authority for a statement about the generations that preceded Europe. But Dr. Harris evidently knows. He does not give many references, and those that he gives are a little puzzling. We failed to identify Pally until it dawned upon us that this might be Dr. Harris's rendering of our dear old instructor Paley. It will be seen that in some respects the book is original.

We have received a copy of the *Minutes of the General Medical Council and of its Various Committees for the Year 1911*.[18] The volume, which is the forty-eighth of the series, contains over 800 pages; of this number 530 are occupied by thirty-six appendices containing reports presented to the Council during the year, including two by the National Insurance Committee of the Council. All these matters have already been noticed in the JOURNAL in the course of its reports of the proceedings of the Council and its committees. The *General Index to the Minutes of the General Medical Council*,[19] vols. xl to xlviii, also received, now reaches to 143 octavo pages. This index is a great assistance in looking up references in previous volumes of the minutes of the Council.

[16] *Atlas of Microscopic Diagnosis in Gynaecology*. With preface and explanatory text. By Dr. Rudolf Jolly, Priv. Doc., Chief Physician of the Gynaecologic Clinic, University of Berlin. Only authorized English translation, by P. W. Shedd, M.D., New York. With 52 lithographs in colour, and 2 textual figures. London and New York: Rebman Company. (Pp. 201. Price 25s. net.)

[17] *The Significance of Existence*. By J. Harris, M.D., L.R.C.P. and S. London: Longmans, Green, and Co. 1911. (Post 8vo, pp. 324. 6s. net.)

[18] London: Spottiswoode and Co. 1912. 12s.

[19] London: Spottiswoode and Co. 1912. 2s. 6d.

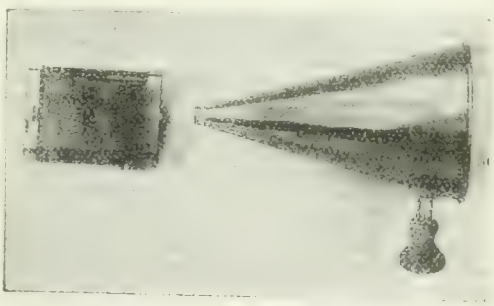
MEDICAL AND SURGICAL APPLIANCES.

An Arm Sling.

MESSRS. MAW, SON, AND SONS, Aldersgate Street, E.C., have recently brought out an arm sling which in most circumstances would probably be found more advantageous to use than leather appliances of this order. In general terms it may be described as consisting of a fan-shaped fold of tissue, connected at its apices by a strap and buckle. Its principle is that of an Esmarch triangular bandage, but full support for the elbow, forearm, and hand are more easily, promptly, and comfortably obtained. It is adjustable to either arm, and though made in two sizes is applicable in the larger of these to almost any length of limb. As usually sent out it is made of black satin, but can be obtained in any colour desired. It is the device, we understand, of the wife of a medical man, and is known as the "Minn sling." The price is 4s. 3d.

An Illuminating Apparatus for Hydrocele.

Mr. G. GREY TURNER (Newcastle-upon-Tyne) has devised an illuminating apparatus for the diagnosis of hydrocele which consists of a cone made of tin, 7 in. long, and with an internal diameter of 4 in. at the large end and ⅝ in. at the smaller. The inside is painted a dull black, and the whole fitted with a wooden handle. The illustration shows the apparatus with a convenient type of electric lamp. When in use the lamp is pressed against one side of the hydrocele, while the small end of the cone is held



directly opposite, and the observer looks into the wide end. A pocket dry-cell electric lamp conveniently replaces the wax vesta, for it gives a better illumination, and may be pressed directly against the scrotum. The object of the apparatus is to supersede the classical roll of paper. It will be found most convenient for class purposes, as a succession of students may view the parts without trouble, there being no necessity to shade the light and no fear of burning the patient. Messrs. McQueen and Sons, of Newcastle-upon-Tyne, are the makers.

Cervical Tube.

Dr. ROBERT WISE showed recently to the Obstetrical Section of the Royal Society of Medicine a cervical tube he uses after dilatation of the uterus to keep the cervix open for purposes of diagnosis and treatment. The tube need not be removed during any discharge, and can be worn by the patient in cases of dysmenorrhoea and sterility if a prolongation of the cervical dilatation is deemed useful. The shape of the tube helps to keep it in the cervix, but to prevent slipping a small gauze plug can be placed in the roof of the vagina against the flange of the tube. The tube is made by Messrs. Arnold and Sons.



A New Form of Bandage.

Messrs. ARNOLD AND SONS have placed on the market a new bandage called the "slipknot," prepared with the addition of india-rubber at both ends. This rubber clings to the skin and prevents the bandage slipping, as is usual with ordinary bandages. The bandage is applied in the following manner: After passing round once, the bandage should be pulled fairly tight, when the rubber will be found to cling to the skin. Only half of the rubber at the terminal end should be allowed to overlap the bandage, the other half to touch the skin, and the remaining portion should be gradually brought down for fastening with safety pin.

THE ESTABLISHMENT OF TUBERCULOSIS DISPENSARIES.

THE following statement has been drawn up by the Finsbury Medical Society with reference to the proposal to establish a Shoreditch and Finsbury Tuberculosis Dispensary:

Statement.

The methods adopted by the promoters of the Shoreditch and Finsbury Tuberculosis Dispensary have caused feelings of apprehension and distrust in the minds of the members of the Finsbury Medical Society.

They have entered a protest against the formation of the dispensary on two grounds:

(1) Personal.
(2) General.

They consider that as soon as a decision was made to establish a dispensary in the neighbourhood a meeting of the whole of the medical profession of the district should have been called, so that the methods upon which the institution was to be worked could have been explained to them, and discussed.

They are aware that a suggestion to this effect was made by a member of the society to one of the most active representatives of the Central Committee for the Promotion of Tuberculosis Dispensaries, but was ignored.

It was only on January 15th they learnt from an outside source that the money had been promised, premises provisionally engaged, and that a permanent medical officer was to be advertised for.

They learnt also with regret that while a local practitioner in Shoreditch had been elected upon the Committee the claims of Finsbury had been ignored, and the only representative of the Borough of Finsbury, apart from the Medical Officer of Health, was a gentleman who is the agent of one of the ground landlords.

A subsequent general meeting of the Finsbury Medical Society was held, which, at the suggestion of the editor of the *Lancet*, was attended by the medical officers of the Paddington and Marylebone Dispensaries.

These gentlemen gave an excellent explanation of the methods of work of a tuberculosis dispensary which was much appreciated by the medical men present.

The members, however, felt that, considering the extraordinary methods adopted by the promoters of the dispensary, they could not give it their support, and a motion was unanimously carried to the effect that they protested against the establishment of the dispensary as at present constituted. At the same time they wish it to be clearly understood that they are in favour of the formation of tuberculosis dispensaries, and consider them as necessary as sanatoriums for the treatment of the disease.

The Medical Society feels that, apart from personal feeling, there are other reasons why they should object to give their co-operation to the Shoreditch and Finsbury scheme at the present time.

When the National Society for the Prevention of Consumption first began to ask for public assistance in promoting tuberculosis dispensaries, there was no "Insurance Act," and no compulsory notification of phthisis. These two factors place the question on quite a different plane.

It is clearly stated in the Insurance Act that some such scheme as a tuberculosis dispensary should be established—and it is therefore necessary to point out that directly an insured person, *or any of his dependents*, is certified to be tuberculous, he can no longer claim "medical benefit," and is at once transferred to "sanatorium benefit"; and the Government in return for contributions which have been paid, have undertaken to provide treatment.

It must be remembered that the term "insured persons" includes all employed persons whose incomes are under £160 per annum, and manual labourers with incomes above that amount.

How far the Commissioners may be induced to alter this limit is extremely problematical, and, so far as we are concerned, is not to be taken into consideration at the present time.

The Chancellor of the Exchequer in one of his speeches made use of the fact that the doctors would be relieved of the treatment of tuberculous cases as an argument in favour of a smaller capitation fee.

While recognizing that the Insurance Act is at present an amorphous mass which must be worked into shape by the Commissioners, we must be prepared for any eventuality.

If the Commissioners decide to recognize the existing tuberculosis dispensaries and finance them, it is probable that the medical officers will be called upon to give expert opinion as to whether a compulsorily certified case is a suitable one for treatment in a sanatorium.

The medical officer of the dispensary may feel it his duty to examine all contacts and so draw numerous young people not yet insurable into the meshes of the dispensary for treatment.

Unless there is protection for us this must inevitably happen.

The diagnosis of phthisis is in the early stages by no means easy even to experienced men of mature years. The dispensary expert is naturally anxious to discover cases, and if some of the so-called stigmata of phthisis are present will be prone to assume the existence of tuberculous disease on insufficient data.

Dispensaries for the treatment of tuberculosis must now be recognized as essential in the treatment of the disease.

All cases of phthisis discovered by local practitioners must be notified to the medical officers of health.

The question to be answered is, Under whose control shall the management of these dispensaries be?—

1. Outside voluntary agency?
2. Municipal control?
3. Local medical practitioners?

So far as the first of these bodies is concerned, after our experience in Finsbury, we do not feel inclined to offer our very cordial support. All the evils attending the abuse of the general hospitals will be perpetuated and exaggerated. The Central Committee for the Promotion of Tuberculosis Dispensaries thinks, on the strength of a large fund obtained from charitable persons, who only look at the one side, that it has a right to plant a dispensary in a district without consulting any one or anybody, and, having done so, writes to the local authority and requests that all cases of tuberculosis may be sent to the dispensary for treatment.

They recognize no authority but their own, have no wage limit, and make but few and inadequate inquiries into the circumstances of the persons they treat. The medical officers must, on account of the meagre salary offered, be young men, who will only use the appointment as a stepping stone to something greater, with no great knowledge of the world, and with no personal interest in the social condition of the district.

Under a municipal scheme the general practitioners would certainly know where they were, and could always bring influence to bear in cases of abuse.

The medical officers of health usually hold their appointments for years, and are, or should be, well-known to the medical men in their borough.

The Insurance Act will give them increased powers.

The third scheme is that the local practitioners should staff the dispensaries themselves with the assistance of a resident medical officer. It is time that the idea that a general practitioner has forgotten all the medicine he ever learnt was exploded.

The society, as we have said before, does not wish in any way to oppose the principle of a tuberculosis dispensary, but is desirous of rendering all the assistance in its power to alleviate the sufferings of the deserving poor and to check the spread of pulmonary tuberculosis. Nevertheless, the profession in Finsbury resents strongly the action of those people who, by attempting to establish a dispensary, in the work of which the local practitioners are to take no part, deprive it of its inalienable right to take its place in the fighting line in the war against consumption.

T. HOBBS CRAMPTON,
President.

J. J. UDALE,
Chairman of Executive Committee.

W. FRANCIS ROE,
Honorary Secretary.

12, Northampton Square, E.C.

Council of the Metropolitan Counties Branch.

The statement has been considered by the Council of the Metropolitan Counties Branch, which, after considering a report from its Medical Charities Committee, adopted the following resolution:

(*a*) That the Branch Council does not necessarily object to antituberculosis dispensaries provided that the following conditions are observed:

(I) That the rules for the management of these institutions are in conformity with the rules, where applicable, approved by the British Medical Association for the management of hospitals and provident dispensaries.

(II) That there is local medical representation on the Committee of Management satisfactory to the local Divisions of the British Medical Association.

(III) That no person who is under the care of a medical practitioner shall receive benefits from the dispensary except with the concurrence of such practitioner.

(IV) That no new dispensary be started without the approval of the local Division of the British Medical Association.

(V) That these dispensaries should be worked by a medical staff elected from local practitioners. That no treatment, therapeutic or preventive, be carried out by the dispensary except in co-operation with an attending general practitioner, and that in every case payment be made for services received.

(*b*) That until these resolutions are incorporated in the rules of management the movement cannot obtain the support of the medical profession.

THE LIFE-HISTORY OF THE HOOKWORM.

[FROM A CORRESPONDENT.]

AT the Imperial College of Science last week Dr. Nicoll gave an account of recent work on the hookworm (*Agchylostoma duodenale*), dealing particularly with the exhaustive monograph by Professor Looss of Cairo, which appeared towards the end of last year.[1] The first part of this monumental work, describing the anatomy of the adult worm in minute detail, was published in 1905. The second part is devoted to a study of the history of the parasite in the free state and in its course towards its final destination.

In introducing his remarks, Dr. Nicoll made brief reference to the author. A pupil of Leuckart's at Leipzig in the early Eighties, he had every opportunity of coming into contact with the most advanced helminthological ideas and methods of that day, and his inaugural dissertation was marked by the same care and ability which characterized all his later work. At the present day he was very generally recognized as the greatest living exponent of helminthological science and a worthy successor of such men as Rudolphi, Diesing, and Rudolf Leuckart.

No man had left a greater mark on helminthology than Karl Rudolphi. His was pioneer work at the very beginning of the nineteenth century. Intestinal worms, it is true, had, even before Linnaeus, been recognized as component parts of the animal kingdom, and not as mere dispensations of Providence, but it was left to Rudolphi to systematize the extremely fragmentary knowledge which existed before his time. That he did his work well was evidenced by the fact that only a relatively small proportion of his observations and descriptions had been found to be untrustworthy.

Rudolphi and Diesing, however, were essentially systematists; to Leuckart belonged the chief credit of introducing the experimental method into helminthological work, at any rate in its practical and economic aspects. Looss had excelled both as a systematist and experimentalist. He was undoubtedly to a large extent the maker of modern helminthology; he had introduced order where formerly great confusion existed. As a systematist he had earned repute by furnishing a satisfactory basis for classifying trematode parasites, and his present work on the hookworm has given evidence of experimental ability of a very high order. The extreme care with which he had investigated every detail, no matter how seemingly trivial, compelled the admiration of every one who had experience of the difficulties of experimental research. Not only had he given in his monograph an exhaustive account of the life-history of the hookworm, but he had made several new contributions to the biology of the nematode worms in general.

It may be well here to add a word of explanation in regard to the unaccustomed spelling of the name *Agchylostoma*. It has appeared in this guise in these columns before, having been used by Leiper (March 23rd, 1907) in the form *Agchylostomum*. The termination *-um* in this case, however, is wrong. The trouble has arisen because Dubini, the originator of the name, erroneously transcribed the Greek word ἄγκύλον. It is still an undecided point in nomenclature whether misspelt or misprinted names shall remain as they are or be corrected according to certain fixed rules. In its correct Latinized form the name would be written *Ancylostomum*, not *Ankylostoma* as we are more accustomed to write it. The Latin *nc* replacesthe Greek γκ, and *-um* the Greek *-a*. It is of interest to note that Looss, writing in English, when not using the name in the technical nomenclatural sense, always intentionally spells the word "Ankylostoma" in accordance with the English usage.

Before going on to the life-history, Looss deals with the systematic position of the worm. It is a strongyle or bursate nematode, and belongs to the family *Agchylostomidae*, the most striking characteristic of which is the fact that the head is bent dorsally. In this family are included three other genera—*Uncinaria*, *Necator*, and *Bunostomum*. The first named is the most closely allied to *Agchylostoma*, and the species of both genera are parasites of carnivorous animals, as opposed to the other two genera, the species of which are parasites of Herbivora. It is interesting to note that the parasites of man include a species from each group. The chief importance, however, of this systematic discussion lies in the fact that Looss prophesies that the life-history of all the members of the family will be found to be essentially the same as that of *Agchylostoma duodenale*. This hypothesis has been confirmed in the case of *A. caninum*, a parasite of the dog, and of *Necator americanus*, and it is a generalization of extreme biological importance. As a further preliminary, Looss discusses the question of specificity of host, a matter which Nicoll himself dealt with at some length in this JOURNAL two years ago (June 25th, 1910). The necessity of this, both from a biological and hygienic point of view, arises from the fact that various observers have regarded other animals, particularly the dog and the horse, as carriers of *Agchylostoma*. This belief has led to some unfortunate misconceptions, and it is absolutely unfounded. The dog, it is true, certainly harbours two species of hookworm, namely *Agchylostoma caninum* and *Uncinaria criniformis*, but these are specifically different from the human hookworm, nor can they be transmuted into it. The horse, again, is never infected with hookworms, but, on the other hand, it is the host *par excellence* of the Sclerostomes, another family of the strongyle worms. Under experimental conditions, it cannot be denied that *young* dogs and monkeys may be infected with the human hookworm, but in nature, so far as present knowledge goes, *Agchylostoma duodenale* is monoxenous, that is to say, it has only one host, namely, man. The errors to which the non-recognition of this fact, and of similar facts in helminthology, has given rise, provide Looss with the opportunity for a lengthy dissertation on the factors which have led to confused ideas of the life-history of the hookworm. His remarks in this connexion are full of significance and worth the earnest consideration of every observer who has to deal with helminthological problems. At first sight he is unnecessarily severe upon medical men and hygienists who have, of necessity, tackled these problems from their point of view, and without any special biological or helminthological training. On fuller consideration, however, his criticism, Dr. Nicoll said, was perfectly just, for in very many cases these observers have retarded, rather than helped, the advance of knowledge. The special problems of helminthology, as of other sciences, demand a special knowledge which is not to be gained in the course of a few months. Looss was an expert of over ten years' standing when he first attacked the *Agchylostoma* problem, and his present work is the result of a further ten years' constant study.

The two most controversial questions in connexion with the life-history of the hookworm have been its alleged heterogenesis and the mode of infection. By heterogenesis in this connexion is understood the alternation of a free-living sexual stage with the parasitic stage, such as undoubtedly occurs in the case of *Strongyloides stercoralis*. The first statements that this occurs in the life-history of *Agchylostoma duodenale* were those of Leichtenstern in 1886, based upon experimental observation. In the same year a recantation was made, but without explanation of the previous error. Five years later Giles, independently, revived the idea, and it is on his work chiefly that the misconception has held ground so long, especially in this country. At the Annual Meeting of the British Medical Association in 1900, Giles, in spite of criticism, maintained the correctness of his observations, and his views received apparent confirmation from the later work of Sandwith, Ozzard, and Smith. Like Giles, Ozzard communicated his observations to a meeting of the British Medical Association as recently as 1909 (Belfast). Looss's work went to press in 1908, so that no mention is made of Ozzard's latest article, but it called forth a rejoinder from Leiper (this JOURNAL, November 6th, 1909). It is curious to note that, with the exception of one or two isolated instances in other countries, this question has perturbed the minds of English hygienists exclusively; and it is equally remarkable that no one in this country categorically denied the correctness of Giles's views before Boycott in 1905, at a meeting of the Epidemiological Section of the Royal Society of Medicine. At that time Boycott had had considerable experience in cultivating *Agchylostoma*, and he gave evidence of being a thoroughly reliable observer; yet, Looss remarks, we find as late as 1907 in Manson's *Tropical Diseases*, in reference to this question, only the

[1] *Records of the School of Medicine, Cairo, IV*, pp. 163–613, plates xi–xix.

statement that "the observations of Giles are supported by Ozzard, Annett, Ross, and Sandwith, but are opposed by Looss." At first sight this statement appears a five to one argument in favour of heterogenesis, but on this matter the opinion of Looss, in Dr. Nicoll's judgement, outweighed that of the others. The error was to be explained in two ways. In the first place, it is a well-recognized fact that *Strongyloides stercoralis* is frequently found associated with *Agchylostoma duodenale*, and it is quite common to find larvae of the former and eggs of the latter in faeces from the same patient. The unrecognized admixture of the two, and the consequent impression that a pure culture of *Agchylostoma* is being dealt with may readily give rise to error. Giles has strenuously maintained that *Strongyloides stercoralis* does not occur in Assam, where he made his observations, but his assertion is open to very grave doubt from the fact that the parasite is known to occur in various parts of India, China, and Indo-China. The second factor which has led to error is the contamination of cultures with free-living non-parasitic nematodes, which are readily attracted by, and find their way into, many forms of decaying organic matter. Their growth and multiplication in experimental cultures would yield the impression of heterogenesis. Both Looss and Boycott have clearly demonstrated that in *pure* cultures of *Agchylostoma* no such phenomenon takes place.

The second question—namely, the mode of infection—has been taken up chiefly by German and Italian authors. Looss's discovery in 1898 that the larvae of *Agchylostoma duodenale* could penetrate the unbroken human skin and so cause infection was at first strongly repudiated, but it has in the course of time gradually worked its way into general acceptance. Looss's original discovery was the result of an accidental self-infection, and the idea at that time was so novel that it is no matter for surprise it received so little credence. It has, however, gained confirmation from many different quarters, yet, although skin infection is generally admitted, it is still held by some that the normal and usual path of infection is through the mouth. This is a view which Looss vigorously opposes, and he brings forward arguments, which Dr. Nicoll considers quite convincing, to prove that skin infection is by far the more common, and that oral infection is *comparatively* infrequent. It is impossible to enter into details of these arguments, which display a high degree of hygienic acumen, but they may be summed up in the statements that the larvae do not withstand desiccation, so that infection cannot be air-borne, that on soiled fingers the larvae will in most cases penetrate the skin before they reach the mouth, and that, as the larvae in water keep to the bottom, infection through drinking water is unlikely, even under primitive conditions.

The course and behaviour of the larvae after they enter the skin provided the subject of another very extended series of observations. Entering chiefly by way of the hair follicles, they bore their way into the dermis, occasionally getting as far as the subcutaneous tissue. There they penetrate the lymphatic vessels, less frequently the cutaneous veins, and are then carried passively to the right side of the heart. Their passage is to some extent checked by the lymphatic glands, in which some of them are arrested and perish. From the heart they are driven to the lungs, where they penetrate the alveolar walls, and so make their way into the bronchi. They then ascend the trachea and reach the oesophagus, whence they finally attain their ultimate destination in the intestine. These details have been very carefully worked out by Looss in a large number of cases, the experimental animals used being young dogs. There is little reason to doubt their accuracy or that the same process occurs in the human subject.

These are the main points of medical importance in this remarkable life-history. To make mention of the numerous matters of general biological interest dealt with by Looss is beyond our scope. The monograph will undoubtedly rank as a classic, and though, probably, the last word has not been said, it may be safely affirmed that there is little to add.

AT a meeting of the Electro-Therapeutic Section of the Royal Society of Medicine on March 15th, a paper dealing with the radio-therapeutic treatment of uterine fibromata is to be read by Dr. Bordier of Lyons, and the presence of members of the Section of Gynaecology will be welcomed.

FAR EASTERN ASSOCIATION OF TROPICAL MEDICINE.

THE second biennial Congress of this Association was held in Hong Kong from January 20th to January 27th, and proved most successful, being attended by no less than 114 members of the medical profession practising in the Far East. Official delegates were present from the Commonwealth of Australia, and the Governments of Ceylon, China, Federated Malay States, French Indo-China, India, Japan, Kiautschou, Netherlands-India, Macao, the Straits Settlements and the Philippine Islands. Dr. J. MITFORD ATKINSON, of Hong Kong, was President of the Congress, and Dr. Francis Clark was Secretary.

The first meeting was opened by an address of welcome from His Excellency Sir FREDERICK LUGARD, G.C.M.G., C.B., D.S.O., Governor of the Colony, and this was followed by the presidential address on the progress of tropical medicine during the past twenty-five years.

Beri-beri.

A whole day was devoted to the discussion of the subject of beri-beri, papers being submitted by Dr. H. FRASER (Kuala Lumpor), Dr. HEISER (Manila), Dr. NOEL DAVIS (Shanghai), Dr. BRÉAUDAT (Saigon), Dr. LEGENDRE (Hanoi), Professor TERUUCHI (Tokyo), Colonel MAKITA (Tokyo), and Dr. TSUZUKI (Tokyo). The question was then referred to a committee, and their report, which was as follows, was adopted by the association with only one dissentient:

> That the accuracy of the opinion of this association, recorded in 1910, has received further and more complete confirmation by investigators in Japan, China, French Indo-China, the Philippine Islands, Siam, Netherlands-India, the Straits Settlements, and the Federated Malay States, namely, that "Beri-beri is associated with the continuous consumption of white (polished) rice as the staple article of diet."
>
> It is therefore again desired to bring this opinion to the notice of the various Governments concerned and to recommend international action.

The following is the resolution adopted in 1910:

> That, in the opinion of this association, sufficient evidence has now been produced in support of the view that beri-beri is associated with the continuous consumption of white (polished) rice as the staple article of diet, and the association accordingly desires to bring this matter to the notice of the various Governments concerned.

Malaria.

Considerable time was devoted to the discussion of matters bearing on malaria, papers being read by Dr. FINLAYSON (Singapore) on malaria as a factor in the etiology of biliary calculi, by Captain NEEB (Batavia) on some remarkable parasites in a case of tertian malaria, by Dr. JUSTI (Hong Kong) on the diagnosis of malarial fever in the absence of parasites from the peripheral blood, by Dr. FINK on blackwater fever in Burma, and by Dr. HATORI (Formosa) on the antimalarial campaign in Formosa. Major JAMES, I.M.S., discussed the classification of the anophelines of Malaya, and also showed (for Dr. Stanton of Kuala Lumpor) a specimen of a biting fly—*Ceratopogon*—parasitic on an anopheline, its proboscis being buried in the abdomen of the mosquito, presumably in search of blood.

Dysentery.

Most interesting papers were submitted by Dr. GAUDUCHEAU (Hanoi) on the multiplication of amoebae in the human intestine, and by Captain VEDDER (Manila) on experiments in regard to the action of ipecacuanha on amoebae, while the surgical treatment of dysentery was dealt with by Dr. MÜLLER (Hong Kong).

Other Papers and Discussions.

Intestinal parasites were dealt with by Dr. KOBAYASHI (Tokyo) and Dr. J. BELL (Hong Kong), while plague pneumonia was discussed from the point of view of preventive inoculation by Dr. STRONG (Manila) and Professor SHIBIYAMA (Tokyo), and bubonic plague in its relationship to rats was illustrated by a series of lantern slides, which were shown and described by Dr. DE VOGEL of Batavia.

Dr. SWAN of Canton gave a summary of the twelve hundred cases of vesical calculus which he has operated on during the past twenty years, while Dr. JORDAN (Hong Kong) described the uses of carbon dioxide snow in the tropics.

The influence of tropical sunlight has been the subject of further researches during the past two years, and these were described in two most interesting papers by Dr. FREER and Major CHAMBERLAIN of Manila.

Dr. DUNCAN WHYTE showed that the physiological standards in regard to the natives of China differ in considerable degree from those accepted for the European races, and it is important therefore to bear these differences in mind in clinical methods.

Dr. FÜRTH (Tsingtau) described some further researches into the etiology of typhus exanthemicus, and Dr. SARAILHÉ (Cochin China) into the etiology of miliary fever. Dr. KOCH (Hong Kong) spoke of the treatment of relapsing fever by salvarsan, Dr. HARSTON (Hong Kong) on the care of children in the tropics and also on the care of the eyesight in the tropics, and Dr. DALMAHOY ALLEN discussed the relationship of the blood pressure to diagnosis and prognosis.

Sanitation and Quarantine.

The last day was devoted to the subjects of sanitation and quarantine, papers being read by Dr. MONTEL (Saigon), Sir ALLAN PERRY (Ceylon), and Dr. FÜRTH (for Dr. Uthemann of Kiautschou). After full discussion and the reference of certain questions to a committee, the association adopted the following report on the subject of quarantine with a view to securing a greater uniformity of action in the ports of the Far East:—

That the resolutions adopted at the last conference be amended to read as follows:

1. To have a definition of the *Status sporadicus* and a common standard for the term "epidemic," when making reports to, or imposing quarantine against each other. The following definitions are submitted for consideration.

Status sporadicus in respect of any communicable disease means the existence in a place, within the next preceding fourteen days, of a case or cases of that disease, not definitely traceable to an imported case.

Status epidemicus: Plague, cholera, small-pox, yellow fever, typhus exanthemicus, trypanosomiasis or other communicable diseases shall be considered to be epidemic in any port, place, or defined locality, when after the first telegraphic report of the appearance or recrudescence of the disease, any weekly report thereafter shall show the occurrence of an average daily number of 3 cases, exclusive of cases imported into or originating in a quarantine station.

2. To circulate weekly returns of plague, cholera, small-pox, yellow fever, typhus exanthemicus, and trypanosomiasis, and also of plague in rodents, among the signatories; also telegraphic reports on the first occurrence of any of these diseases in a clean port or territory.

3. To issue a bill of health to all outgoing vessels proceeding to a port of another signatory. Such bill of health shall *inter alia* state the facts as to the existence and prevalence of quarantinable disease in the port, place, or defined locality, and further shall contain such other information as may be desired or deemed necessary by any signatory to enable such signatory to estimate the sanitary risk from the arrival of the vessel in its (the signatory's) ports.

4. To report by telegram to the country concerned the departure of an infected or suspected ship (as defined by the Paris Convention) which may intend to proceed to any port in the territories of another signatory; and to endorse the bill of health of the said infected or suspected ship with a full account of measures taken to disinfect or otherwise deal with the said vessel.

5. To meet point (2), raised by Dr. Uthemann,* the following procedure is suggested, namely: That in respect of any vessel leaving a plague-infected place or carrying persons or suspected cargo from such a place (a place where there is plague in man or rodents) it is considered that no subsequent disinfection or fumigation should be imposed on the vessel *at any port of call*, if it can be shown (*a*) that the vessel has been properly treated for the destruction of rats and other vermin, (*b*) that approved measures of inspection or examination and personal disinfection and disinfection of effects have been carried out in respect of all persons on board such vessels, and (*c*) if specially objectionable classes of cargo (to be scheduled) have been rejected or properly disinfected before shipment. Provided further that it is understood that no evidence of plague is discovered on board in man or rodent at any port of call.

Exhibition.

The programme of the congress was accompanied by a descriptive guide to Hong Kong, compiled by Dr. Francis Clark, Medical Officer of Health, and by a map of the city of Victoria; the meetings were held in the City Hall, where also a number of most interesting and instructive exhibits had been arranged.

A valuable collection of herbarium specimens of medicinal plants found growing in China was lent by Mr. W. J. Tutcher, F.L.S., and the Chinese Tung Wah Hospital of Hong Kong showed a unique collection of the botanical drugs in common use among the Chinese. This was accompanied by a catalogue containing the Chinese name of each drug, its Romanized name, its botanical name (when known), and the purposes for which it is used in Chinese medicine.

Dr. Swan showed his collection of more than one thousand vesical calculi removed by him at the Canton Hospital, and Dr. Francis Clark showed models, charts, and copies of the public health literature concerning bubonic plague, small-pox, vaccination and revaccination, malarial fever and mosquitos, and beri-beri distributed to the community of Hong Kong.

Messrs. Down Bros. of London and Messrs. Allen and Hanburys, London, showed a valuable assortment of surgical instruments, furniture, and accessories, while the latter firm also showed their Allenbury specialities. Messrs. Burroughs Wellcome and Co. showed their many pharmaceutical products and specialities, and E. Leitz of Wetzlar exhibited microscopes, bacteriological instruments, and apparatus.

Entertainments and Inspections.

Relief from the strenuous work of each day was afforded by ample provision for the social entertainment of the visitors in the shape of at homes, garden parties, dances, dinner parties, a golf match, and so forth, while the sanitary and medical establishments of the colony were duly inspected and their work explained by the respective officers in charge. It was decided to hold the next congress of the association at Saigon, French Indo-China, and Dr. M. L. R. Montel was appointed Joint Secretary with Dr. Francis Clark for this purpose.

* (2) Ways and means to either obtain uniformity in the different Quarantine Regulations or to have the present regulations (especially as regards disinfection) acknowledged and agreed to. The necessity for this is shown by the following instance: During the outbreak of plague in the spring of 1911 steamers running from Dairen to Shanghai viâ Tsingtau had to be fumigated first in Dairen (by a special system of fumigation); two days later, on arrival in Tsingtau, again by means of the Giemsa Nocht apparatus, and once more on arrival in Shanghai (thirty-six hours later) by means of the Clayton apparatus. It is easy to be seen what great inconvenience this causes to trade and commerce.

SCIENCE NOTES.

THOSE who attended the scientific meeting of the Zoological Society of London last week had the unusual experience of listening in succession to two very long papers, which occupied the whole evening. The centre table lacked its usual bright array of skins, feathers, and living animals and presented a cold and forbidding aspect. The appearance of the lantern screen, however, promised something interesting, and that promise was satisfactorily fulfilled.

The first speaker was Dr. Masterman, of the Board of Agriculture and Fisheries, who exhibited a fine series of photographs of salmon scales in illustration of his remarks on the lines of growth as an indication of the age of the fish. It is curious how difficult it is to establish any reliable criteria for telling the age of animals with a fair amount of certainty, and when this becomes a matter of economic importance it often leads to much wasted enterprise. In the case of fishes it is particularly difficult; but within recent years two structures have been discovered to afford a certain amount of help, namely, the otoliths or ear stones and the scales. Both are characterized by the appearance of more or less concentric ringing or ridging. It could hardly have failed that sooner or later these rings should be compared with the rings in the trunk of a tree, and an attempt made to establish some constant

relation between their number and the age of the fish. The comparison has not proved quite so straightforward. On the scale of a fish we find, as a rule, a large number of concentric rings at close intervals. The continuity of the series, however, is broken at certain definite places by depressions or absence of the rings. These are interpreted, and fairly correctly, as periods of rest or stoppage of growth during the winter. Thus each break indicates a winter, and at first sight there should be no difficulty in estimating from this the age of the fish, in years at least. The theory appealed to some to such an extent that tables were constructed whereby an enumeration of the rings would give the age in years and months. The case of the salmon is capable of no such *finesse*. A considerable variety of imperfectly understood factors have to be taken into account. There is the disturbing element of the migration from river to sea, and back again to spawn. During the last period the fish is believed not to feed, and what effect this has upon growth is not completely determined. For that reason and others Dr. Masterman thinks that great reliance cannot be placed upon the "lines of growth" as indicative of the age in the case of the salmonoids. He exhibited a series of diagrams showing the relations between size and apparent age, and remarked that probably the age groups arranged according to size would give a fairly approximate idea of the age of a fish. Dr. Chalmers Mitchell remarked on the fact that if scales were taken from various places along the length of the fish they would be found to show various numbers of lines of growth. To this Dr. Masterman agreed, and added that in his investigations the scales were taken from just above the pectoral fin, an area which was found to yield a fairly average scale. The Chairman (Dr. Smith Woodward) referred to the fact that Cotterell in America maintained that he could identify the species of fish by their scales. Apropos of this, Dr. Masterman instanced the curious observation that English could be distinguished from American salmon by their scales. In the former there is a distinct "nucleus" with no ridges, but in the latter this is absent, the ridges starting right away. This is in correlation with the different life-histories of the two races.

The second paper was by Dr. Lyster Jameson, of the Board of Education, and was also illustrated by interesting lantern slides. It dealt chiefly with the nature of shell repair, and with the origin of pearls in the Ceylon pearl oyster. Very beautiful indeed were Dr. Jameson's illustrations of the process of shell repair. Starting with an initial outpouring of a homogeneous albuminoid substance, the oyster proceeds to secrete conchyolin, in the midst of which calcareous particles occur. These are laid down at first as separate granules arranged in rows, but later they become fused together to form rods. Finally, a nacreous, or mother-of-pearl, layer is secreted, thus completing the process of repair. A similar process can be traced to some extent in the formation of pearls. With regard to the origin of pearls, it may be remembered that Dr. Jameson was one of the first—in 1902—to adduce scientific proof that the larvae of trematode parasites were the specific cause in the case of the marine mussel and the European pearl oyster. Based undoubtedly on this analogy, Professor Hardmann a few years later advanced the theory that in the case of the Ceylon pearl oyster the causal agent in pearl formation was a cestode larva—namely, *Tetrarhynchus unionifactor*. His theory was supported by a certain amount of observational evidence, but Jameson shows that this is capable of different interpretation, and holds that the cause of pearl formation in the Ceylon oyster must be sought for in some other direction. He drew attention to the fact that these larval cestodes were surrounded, not by an epithelial layer but by a layer of connective tissue, which is incapable of secreting calcareous matter. This is entirely different from the condition of affairs in the European mussel (*Mytilus*), in which there is found, surrounding the parasite, a layer of epithelial cells similar to those of the secreting mantle edge. These views were supported by Dr. Nicoll, who remarked that not only scientists, but also Ceylon pearl fishers, would be disappointed at the destructive evidence brought forward by Jameson. He gave a brief summary of the parasitic theory of pearl formation, and mentioned several curious facts in regard to the life-history of the parasites concerned. In the formation of European pearls it seems the parasites belong to a particular genus all the species of which have the unusual habit of spending part of their life between the mantle and shell, and when eventually they do enter the mantle tissues they do not secrete a cyst wall like ordinary trematodes, but allow the mollusc to do this for them. The mollusc, however, carries the process much further than the parasite desires, and so a pearl is produced; but the parasite's life is a forfeit. Contrasted with this the tetrarhynchs do not give rise to pearls so far as known. They pass their larval life, in most cases, in cuttle-fishes; but they are also found in great abundance in the peritoneum of marine fishes. They present a very characteristic appearance in the possession of four long processes covered with a multitude of hooks. Dr. Nicoll considered that if a tetrarhynch had caused the formation of a pearl, remains of these hooks should have been demonstrable in the centre of the pearl. In view of the fact that these had not been found he thought that, if a cestode were concerned in the matter at all, it is not a tetrarhynch but some form without hooks.

LITERARY NOTES.

The *Archives Générales de Médecine*, a well-known periodical which has been in existence since 1823, will henceforth bear the subtitle of *Revue Médico-Chirurgicale des Voies Respiratoires*. The editor-in-chief is Dr. Georges Rosenthal.

Folia Microbiologica is a new periodical for the publication of Dutch contributions to microbiology. It is edited by Drs. M. W. Beijerinck, Delft; A. Klein, Groningen; J. Poels, Rotterdam; J. G. Sleeswijk, Delft; assisted by a staff of permanent contributors. It will contain original articles, primarily by Dutch microbiologists; also general reviews, and reviews of books, but no ordinary references. Contributions from foreigners will not be excluded. The articles will be published in English, French, or German. The periodical will appear at irregular intervals, four to six numbers being published in the year. The office is at 18, Phoenixstraat, Delft.

Writing in the *Canadian Medical Association Journal*, Sir William Osler gives an account of the art collections of the Paris Faculty of Medicine. There may, he says, be faculties with finer buildings, there are some with better laboratories, but there is none of any country with such a history, or with such treasures, artistic and literary, as the Medical Faculty of Paris. And this is as it should be, since in time it out-dates all but Oxford and Bologna, and in long centuries of importance it out-classes all others. The most cherished possession of its magnificent library, second only to that of the Surgeon-General's in Washington, are the twenty-five manuscript volumes of *Commentaries* from 1395 to 1786—incomparable annals, as Corlieu says, written by the hands of the one hundred and ninety-four deans who successively ruled the faculty, and who related in these volumes the important acts of their administrations. There were earlier records, but Dr. Hahn, the learned librarian of the faculty, told Sir William Osler that he did not think that medical instruction was given before 1200, and that the date of the first doctorate was 1270. The Oxford Regius Professor calls attention to a sumptuous work in large quarto issued by Masson et Cie. (100 francs, or £4). It is edited by Noé Legrand, Dr. Hahn's able coadjutor in the library, and published under the care of the present dean, Professor Landouzy. After a description of the buildings and pictures of the present faculty and their gradual evolution, there follows a set of beautiful reproductions of the portraits in the possession of the faculty, many of great artistic, and all of historical, importance. There are fine early pictures of Guy de Chauliac, Pitard, the great thirteenth century surgeon, and many of the men who in the fifteenth and sixteenth centuries made Paris famous—Fernel, Piètre, and Riolan. One above all others is interesting to the historical student, Gui Patin (1601–1672), author of the famous letters which give so life-like a picture of the medical profession in France in the seventeenth century. Then follows a group of about fifty portraits of the celebrated members of the College and Academy of Surgery;

afterwards the portraits of the modern men who have made the school since the fusion of the College of Surgery with the old faculty. There are splendid pictures of Laënnec, Nélaton, and Trousseau. The faculty is very rich in sculptures, of which there are reproductions of more than 100. Among the most treasured possessions of the medical school are the famous Gobelin tapestries, made in 1634. They are in a splendid state of preservation, and are beautifully reproduced. Then follows a description of the various designs, engravings, medals, and the different works of art in the possession of the faculty. It is, says Sir William Osler, a magnificent volume, full of historical interest, and brings for the first time to full light the wonderful treasures of the Paris school.

The custom of going south for the winter, once so much in vogue amongst the upper classes in England and France, has been more or less superseded of recent years by another and stranger fashion—that of seeking a colder climate in which to spend the season of frost and snow. At present every Christmas witnesses an increase in the general exodus towards Switzerland, where winter sports unknown at home can be obtained without difficulty, and people who lead a sedentary life for the rest of the year can indulge for a few weeks in every form of violent bodily exercise. This popular custom, innocent as it appears in itself, is not without certain drawbacks and even dangers, according to Dr. Lucien Nass, who contributes an interesting article on winter sports to the January number of *L'Hygiène*. According to him, the inhabitants of temperate climates are totally unfitted for the strenuous physical exercise in which the natives of Switzerland or Scandinavia can indulge with impunity; and it is the height of folly for persons unused to the continual strain involved by Alpine sports to pit themselves against others who have been bred to them almost from the cradle. A holiday spent in a futile attempt to emulate the feats of a born mountaineer often results in more harm than good, and Dr. Nass is strongly of the opinion that for the ordinary man or woman a milder form of physical exercise is all that is necessary or even advisable. The ideal sport for the winter months is skating—on the ice if possible, but if not, on rollers—for in the practice of this graceful accomplishment every muscle is strengthened and brought into play, and there is less chance of undue strain or over-fatigue than in ski-ing or any other form of exercise. The evil effects of bodily fatigue are also discussed by Dr. André Castex in his advice to singers and public speakers on the care of the voice; whilst Dr. C. Ch. Lefèvre deals with the same subject with regard to school children and their teachers. In addition to the above articles, the present number of *L'Hygiène* contains an interesting account by Dr. Maurice de Fleury of the results of vaccination against typhoid; whilst a short sketch is likewise included of Professor Lannelongue, the friend of Gambetta and other prominent politicians, an obituary notice of whom appeared in the JOURNAL of January 20th.

The history of an old hospital is often an interesting commentary on the history of the whole hospital system. In nine cases out of ten these institutions were originally founded as a sort of general refuge for every form of human misery, and only developed by slow degrees into hospitals in the modern meaning of the word, just as the hospital system itself as we understand it to-day was gradually evolved from the indiscriminate charity of the mediaeval "hospitium." The ancient Hôpital de la Pitié—of which an interesting account was given by Dr. O. Josué in the *Paris Médical* for November 11th, 1911—is a typical instance of the growth and development of one of these old foundations. Founded in 1612 by the magistrates of Paris, in obedience to an order of the Queen Regent, Marie de' Medici, La Pitié was at first intended merely as a refuge for the hordes of beggars who at the time were rapidly becoming a serious menace to the comfort and well-being of law-abiding citizens. The buildings were known as the Hospital of Notre Dame de la Pitié; but for some reason the experiment did not answer, and within a very few years the sole inmates of the establishment were a certain number of orphan children and a handful of infirm old women. At the beginning of the reign of Louis XIV, however, when the poverty of the country was so great that the city of Paris alone contained some 40,000 paupers, an edict, dated April 27th, 1656, was issued authorizing the foundation of a vast general hospital for the relief of destitute persons of every age and sex. For this purpose several of the existing hospitals of Paris were united under one management, the head quarters being fixed at La Pitié, where the directors of the new establishment always met. In addition to the buildings of La Pitié, the new foundation comprised the chateau of Bicêtre and the Salpêtrière (both of which were the gift of the King), the foundling hospital known as "les Enfants-Trouvés," and the three hospitals of Scipion, Saint-Esprit, and Vaugirard. La Pitié itself was utilized as an orphanage, with an annexe reserved as a refuge for fallen women. The latter building, however, was soon invaded by the steadily increasing numbers of homeless poor who thronged the gates of the new hospital, and in 1665, less than ten years after its foundation, the directors were forced to enlarge the hospital buildings in order to provide proper accommodation for their penitents. A little later, in 1672, the latter were removed altogether outside the hospital precincts into a new building known as Sainte-Pélagie, and their vacated quarters were once more absorbed by the hospital. The Revolution, which altered the entire face of old France, changed nothing about La Pitié save its name, which, to the ears of all good *sans culottes*, must have sounded deplorably anti-revolutionary. Known at first as "The House of the Orphans of the Faubourg Saint-Victor," this high-sounding title was soon transformed by the Convention into "The House of the Pupils of the Fatherland," which in 1803 was once more changed into the more modest "Orphan Asylum." This name the hospital was permitted to retain until the year 1809, when the building was selected as a temporary refuge for the patients of the Hôtel-Dieu, which was then undergoing important alterations. The orphans were transferred to another house, and for the first time in its career, La Pitié became a hospital for the sick. For some years it figured as an annexe of the Hôtel-Dieu, and was attended by the staff of the latter hospital; but in 1816 it once more regained its independence, obtained a medical staff of its own, and proceeded, as formerly, to manage its own affairs. For nearly a hundred years La Pitié did good work amongst the sick poor of Paris; but modern hygiene looked askance at the low ceilinged, badly-lighted wards and crumbling staircases of the ancient orphanage, and within the last year the old buildings have been replaced by a handsome edifice built on the most approved modern lines and furnished with all the latest improvements.

On February 6th (as we learn from the *Glasgow Herald*) Mr. Fred T. MacLeod lectured in Edinburgh to the members of the Clan MacLeod Society on "Early Medicinal Practices in the Western Isles." Dealing with the many miraculous cures performed by Saint Columba, as narrated in Adamnan's life of the Saint, he pointed out that one of the centres of St. Columba's activity was "St. Columba's Island" in the north-east of Skye, where vestiges of a religious building remain. The reports of these alleged miraculous cures reaching the ears of a highly superstitious and credulous people and believed in by them, doubtless materially contributed to the success of Columba's work in the West. Passing to the period covered by Martin's well-known work on the Western Isles, published about the year 1700, Mr. MacLeod made reference to the fact that this author, the perusal of whose book led Dr. Samuel Johnson to make his memorable journey to the West, was for several years tutor in the family of MacLeod of Dunvegan. The islanders in his day found in the flowers, plants, and roots at their hands a specific for practically every human ailment. On the other hand, the Dunvegan papers, which have been systematically arranged by the Rev. R. C. MacLeod of MacLeod, contain numerous seventeenth century household accounts, not the least interesting of which is a chemist's bill for the year 1661. The complaints indicated by the items detailed in the old account were the same as those which afflicted the adjacent crofting communities, but the treatment presented was vastly different. In those cases in which the common people were not influenced by superstition and brought to bear upon particular complaints their extensive knowledge of the medicinal properties of roots and plants, the treatment was remarkably effective. It is noteworthy that, notwithstanding the accessibility to-day of modern medical practice, the average age of life in the Western Isles has not increased.

British Medical Journal.

SATURDAY, MARCH 2ND, 1912.

A FIRM AND MODERATE POLICY.

THE State Sickness Insurance Committee appointed by the Representative Meeting last week met on Wednesday, and at once proceeded to carry out its instructions to inform the Insurance Commissioners of the nature of the minimum demands of the profession, and of its firm resolve not to work under the Insurance Act until these have been embodied in the regulations in an effectual and permanent manner with a view to their embodiment in an amending Act.

The letter (see p. 510) which the Committee directed to be addressed to the Insurance Commissioners seems amply to fulfil the conditions prescribed by the unanimous vote of the Representative Body, adopted amid a scene of remarkable enthusiasm. Its terms are plain and not to be mistaken.

There can and will be no drawing back. One good that has come out of recent discussions, and of the disposition to criticize the course of medical affairs during the last nine or ten months, has been that the attention of every member of the profession has been thoroughly aroused, and the issues have been brought home to every medical man in the United Kingdom, and to the household of each of them. The decision has been taken in full knowledge of the facts of the position, and with a full realization of the possible consequences.

If there be among the Insurance Commissioners any statesman, any man who has the width of mind to escape from red tape and to realize the reasonableness, the good sense, and the extreme moderation of the demands formulated, he has a great opportunity.

The moderation of the demands must indeed impress the public, which is well aware that they are regarded by a large section of the medical profession as inadequate, having regard to the great services which must be rendered from the day the scheme comes into force, and in increasing magnitude from year to year afterwards. Those members of the profession, however, who held this view have been content to sink their personal opinions in order that a compromise to which all can subscribe shall be reached.

The Joint Committee of Insurance Commissioners, of which Mr. Masterman, Financial Secretary to the Treasury, is Chairman, though it was not formally notified of the minimum demands of the profession until the receipt of the letter prepared by the State Sickness Insurance Committee on Wednesday and forwarded on the following day, must have been made well aware last week through the ordinary channels of information of the nature of the demands which would be made. On Monday the Joint Committee addressed to the British Medical Association a request to nominate not fewer than twelve medical practitioners to serve on the Joint Advisory Committee by which the Joint Committee is to be guided in drafting the regulations proposed to be made under the Act. This invitation can only be interpreted to mean that the Joint Committee of Commissioners know that the Commissioners have power through their regulations and by representations to the Treasury to provide that the demands of the profession shall be fully and frankly met. The public will so interpret their action. To assume anything else would be to assume that the Commissioners were deliberately wasting public time. The medical members of the Joint Advisory Committee will have no power or authority, and will have no disposition to negotiate with the Commissioners as to any possible attempt to whittle away the substance of the demands. Their duty will be to advise the Joint Committee of Commissioners how the regulations may best be drafted so as to embody the conditions clearly and unmistakably with the view of preventing disputes or misunderstandings in the future. Failing this, they will retire from the Advisory Committee, and the profession will then at once proceed to put into force its own arrangements for meeting the medical needs of the country. On this point also there is no ambiguity and no difference of principle. The task with which in that case the profession will be confronted will not be light. That is fully realized, but the work has already been put in hand, and will be brought to an issue with all speed. This is one service which the speech at the Opera House did us. The threat of the "suspension of medical benefit" was the last bolt in Mr. Lloyd George's quiver. It has fallen short and has served only as a warning to be ready and to stand firm—a warning which has been taken to heart.

But there is still room to hope—some would say to fear—that this task will not be thrust upon us. As has been said, the invitation of the Joint Committee of Commissioners, issued after it had had ample time to consider the unmistakable attitude assumed by the Representative Meeting as stated in the public prints, must be taken to mean that the Commissioners know that they can embody the minimum demands of the profession in the regulations with a view to their ultimate embodiment in an amending Act. If it does not mean this, the invitation is a mere subterfuge or a jest. And neither the time nor the occasion seems suitable for jesting.

The Representative Meeting decided that the Divisions should be asked to nominate medical practitioners to serve on the Advisory Committee, and instructed the Council to select from the list thus obtained the proper number for the purpose. The invitation from the Joint Committee of Insurance Commissioners stated that the intention was to appoint not fewer than twelve medical members of the Joint Advisory Committee but asked for twenty-four names. The State Sickness Insurance Committee, however, considered it preferable that the Association should send in twelve names only, and the Committee is sending a letter to every Division inviting it to choose one person whose name will be placed on the list for selection (see p. 511). The Committee considered it advisable to proceed with this matter at once, and has accordingly asked that the nominations of the Divisions shall be returned not later than Saturday, March 9th. The choice is a matter of considerable importance. It is desirable that the members finally nominated should be well acquainted with the conditions and terms of medical practice in the various parts of the three countries, possessed of a good working knowledge of the Insurance Scheme, and not so prominently concerned in party political strife as to give any colour to a possible charge of party bias. The medical members of the Advisory Committee will, it is stated, be invited to confer with a medical benefit subcommittee of the

Joint Committee of Insurance Commissioners, consisting of the Chairmen and medical Commissioners of England, Wales, and Scotland, and eventually to serve on the national Advisory Committee of the country in which they reside.

DIET AND INTELLECT.

IT used to be thought that fasting purified the spirit and made the intellect clearer. The mind with wings unclogged by the gross appetites of the body was supposed to be more free and nimble. That the intellect is strengthened by fasting we do not believe, though undoubtedly it may be clouded by overeating. On the other hand, fasting has often evil effects on the temper, which undo whatever spiritual good it may do in other ways; and, as regards the intellect, it is a truism that the brain must be fed like any other part of the body. The quantity of food required to keep one in sound condition varies so largely that it is impossible to lay down more than a tentative average standard. The quality is a matter of custom and environment; here, too, no rigid universal rule can be enforced. Bacon's teaching, that whatever a man "finds good of" is *for him* the best, is sounder than any dogmas framed in the laboratory. The notion that fish is in any special sense the food of the brain is a superstition. Vegetarianism suits some, but for the bulk of mankind a mixed diet is the best. This is an empiric truth, not to be upset by any amount of chemical formulae. If we may judge by the general quality of the literature produced by vegetarians, we do not think a Pythagorean diet likely to yield brilliant results in the case of brain workers. Herbert Spencer's experience should be a warning. He practised vegetarianism for a while—and burned all he had written under the inspiration of carrots and cabbages. Doubtless most of us eat too much, and the experiments of Chittenden show on what a comparatively small allowance of food a man can live and work. It must, however, be remembered that the subjects of the experiment were athletic young men in good condition. Nor do we know of any data as to the relation between food and intellectual output.

Such facts as are available show, as might be expected, that men of great intellect have differed, like ordinary people, in the matter of diet. Many men of great intellectual power have been large eaters. Luther, Goethe, and Walter Scott were mighty trenchermen. Charles V shortened his life by gluttony. It is recorded by Boswell that on a certain night at supper Dr. Johnson discoursed of good eating with uncommon satisfaction. "Some people (said he) have a foolish way of not minding, or pretending not to mind, what they eat. For my part, I mind my belly very studiously and very carefully; for I look upon it, that he who does not mind his belly, will hardly mind anything else." We know from the same authority how studiously the sage minded his belly. "When at table," says Boswell, "he was totally absorbed in the business of the moment; his eyes seemed riveted to his plate; nor would he, unless when in very high company, say one word, or even pay the least attention to what was said by others till he had satisfied his appetite; which was so fierce, and indulged with such intenseness, that while in the act of eating, the veins of his forehead swelled and gradually a strong perspiration was visible." The squeamish person who reads these unpleasant details must remember that Johnson had in his days of obscurity known by experience what fasting was, and once, in writing to a publisher, had added *impransus* to his name. The voracity then acquired remained with him when his dinner was no longer a daily problem. Kant took three hours to his dinner, and, like Johnson, gave his whole mind to the business before him. Buffon also sat at table several hours. On the other hand, Napoleon ate very fast, remaining at table only from eight to twelve minutes—a bad habit which caused continual indigestion. This haste led to neglect of the ordinary decencies of the table, the Emperor often using his fingers in place of a fork or a spoon. He even drank out of the dish, and steeped his bread in the sauce. He followed no order in his feeding, passing from side dishes to the hors d'oeuvres and back again to the roast. He would not be trammelled by the established order of a classic meal. He detested underdone meat, preferring fowl, especially fricassee of chicken. He partook with pleasure of potatoes, haricots, lentils, cutlets, grilled breast of mutton, sausage à la Richelieu, and as finer dishes consommé of fowl, vol au vent, and Milanese timbale. He had a weakness for Italian macaroni and Parmesan cheese, and in the way of fish he loved the red mullet of the Mediterranean. At luncheon he often received officials and artists. The dinner, like the luncheon, was a movable feast, being often delayed indefinitely when he was absorbed in affairs. The appointed hour was six, but it frequently was nine or even ten before he sat down. At night something was always kept ready, generally a roast fowl, two side dishes, including ices, which he loved with passion, coffee with cream, chocolate, dessert, and half a bottle of champagne. Charlemagne, although frugal, loved game. On ordinary days, says his biographer Eginhard, there were only four dishes on his table. Besides these there was a haunch of venison, which was always supplied by his hunters, as they knew how much he liked it. Alexander Severus had a passion for hare; Lampridius, his biographer, said that he always had one for his meals. Melanchthon, the disciple and friend of Luther, loved barley soup, gudgeon and other small fishes, and also vegetables mixed with little pieces of meat minced up. Frederick, Emperor of Germany in the fifteenth century, was passionately fond of melon, immoderate indulgence in which brought him to the grave as the result of indigestion. Tasso loved sugared meats baked in the oven, and marchpane and preserved fruits. Henry IV of France used to eat immoderately of melon and oysters; he suffered from indigestion, which he cured by means of Arbois wine. This statement must be taken for what it is worth.

The part played by indigestion in literature and in history is incalculable. It has led to the loss of battles: it has caused many crimes, and inspired much sulphurous theology, gloomy poetry, and bitter satire. Swift attributed his vertigo to a surfeit of fruit. Carlyle suffered from what he called biliousness during the greater part of his life, but Sir Richard Quain, one of his physicians, has left it on record that this was largely due to over-indulgence in gingerbread. Apparently Carlyle considered indigestion an essential part in the make-up of a reformer, for in his critical examination of alleged portraits of John Knox he rejects one expressly on the ground that the individual represented was too obviously "eupeptic."

Genius has its affectations in diet as in other things. Byron lived for long periods on biscuits and soda water. This was with the object of keeping down his tendency to become more fat than bard beseems, to quote James Thomson's description of himself; the author of the *Corsair* and *Childe Harold* felt it due to himself to look as if his passions had con-

sumed him and caused his "too too solid flesh" to melt.

On the whole, it would seem—as far as the evidence goes, which it must be owned is very little—that great brain workers have for the most part been hearty eaters. But the Muses, scientific as well as literary, have been, and will doubtless continue to be, successfully cultivated on a little oatmeal, and there is no diet that will make a great man, though inadequate or improper nourishment may prevent his reaching the full strength of his intellectual power.

THE INSURANCE DEFENCE FUND.

We learn that the Medical Federation, Limited, has issued a circular to members of the profession briefly describing the objects of the Federation, more fully stated by the Secretary, Dr. Devis, at the meeting at Caxton Hall on February 19th, as reported in the Supplement of February 24th, page 240. In this circular there is a paragraph that may be interpreted as challenging the power of the British Medical Association to administer the Defence Fund in connexion with the insurance scheme to which members of the profession have voluntarily contributed and which they have requested the Association to administer. As this statement, if allowed to pass unchallenged, may lead members of the profession to hesitate to make further contributions to the fund, which are urgently needed, and as the explanation given by Mr. Larkin,[1] Chairman of the Organization Committee of the British Medical Association at the meeting of the Federation, may have escaped attention, it appears desirable to state emphatically that the Association is not under the legal disability suggested, and that it is competent to administer a voluntary fund such as that in question, having regard to the circumstances under which it has been raised.

THE HEARTS OF OAK BENEFIT SOCIETY.

A counterblast to the decisions of the Representative Meeting was issued by the Hearts of Oak Society at the end of last week. It must charitably be assumed that it was hastily prepared, for it has no reasons, no facts, and at its highest does not rise above a sort of weak declamation. It is published in the Supplement this week (p. 270). The Executive Council of the society considers the minimum demands of the British Medical Association "unreasonable and extravagant," because the members of approved societies to be hereafter admitted will consist of selected lives. This assertion seems strangely in conflict with the recent report of the same Executive Council recommending the abolition of medical examination on admission. A declaration by a would-be insurer that he is in good health does not constitute him a selected life, and it is an abuse of terms so to call him. The Executive of the society is shocked, or professes to be shocked, by the demand of the medical profession that it should enjoy the elementary principle of jurisprudence that an accused person should be tried by his peers. That the principle should have been questioned shows the unreal topsy-turvy world in which some of the leaders of the friendly societies have been living, and will give the public a measure of the denial of justice which members of the medical profession have had to endure, and have made up their minds no longer to endure, whether under the Insurance Act or outside of it. The Executive Council of the society confuses the right to complain with the right that the complaint shall be heard by a competent tribunal, the prosecution with the court.

GERMAN DOCTORS AND INSURANCE.

Our attention has been called to a letter from Mr. T. C. Horsfall, which appeared in the *Manchester Guardian* of February 5th. Much has been said in this country of the satisfaction of our German brethren with the insurance scheme under which they work. It is well that the true state of the case should be made known. Mr. Horsfall states that German experience proves that if doctors are once placed in wrong relations with insured persons there is great difficulty in getting the relations set right. In proof of this he cites the following instructive case from *Soziale Praxis*, a newspaper which he describes as anxious "that all classes, privileges should be subordinated to the good of the mass of the people." "A case tried on January 10th, 1912, by the Imperial Court, brought by the Remscheid Local Insurance Committee against eight doctors who had been employed by it, shows in what a humiliating position some members of insurance committees are willing to place doctors. The Insurance Committee, in its relations with the doctors appointed by it, had not only assumed the right to impose fines in money and to make penal deductions from salaries, and even, by way of punishment, to order them from place to place, but had also tried to compel them to accredit with their signatures the prescriptions and certificates of a bonesetter (? Heilgehilfe) under the committee. More than this, it placed the doctors under the control of a Dr. Landmann in Eisenach, to whom their prescriptions were sent for examination, with the request that he would tell the committee if its doctors could not prescribe cheaper medicines. On the other hand, in the case of certificates for persons in receipt of pensions who were trying to obtain grants from the Imperial Insurance Office the doctors could not express opinions favourable enough. As a result of this treatment the doctors had felt compelled in 1905 to cease working for the committee, which found itself, therefore, obliged to introduce free choice of doctors. The committee maintained that it had thus suffered a loss of £5,250, and claimed repayment of that amount from the doctors. The Elberfeld District Court decided against the claim on the ground that the Insurance Committee had made the position of the doctors intolerable. The committee appealed against this decision to the Superior Court in Düsseldorf, which decided against the doctors; but the Imperial Court, the court of highest instance, disagreed with the decision of the Düsseldorf Court, and sent the case back to the lower court for a different decision." It must be remembered that Germany has had national insurance for sickness since 1883, and for infirmity and old age since 1889, and that several amending and completing Acts have been passed since those dates. We need not point the moral of the story.

THE ESTABLISHMENT OF TUBERCULOSIS DISPENSARIES.

The proposal by a Central Committee to establish a tuberculosis dispensary for Shoreditch and Finsbury led the Finsbury Medical Society to enter a protest and to obtain the co-operation of the Metropolitan Counties Branch of the British Medical Association in placing the scheme upon a basis satisfactory to the medical profession, and calculated to ensure an efficient working of the institution. Exception is taken to the fact that the decision to establish a dispensary in the neighbourhood was made without consultation with members of the medical profession practising there. At the same time, the society took care to make it plain that the profession in the neighbourhood was in favour of the formation of tuberculosis dispensaries, and in fact considered them as necessary as sanatoriums for the treatment of the disease. The objection was in the main to an outside body, however excellent its motives, taking action without consulting the medical profession. On the general question, it was also pointed out that the provisions of the Insurance Act with regard to sanatorium benefit embraced the establishment of tuberculosis dispensaries, and therefore placed the matter on a new footing, while the introduction of compulsory notification of pulmonary tuberculosis was also a new element. The society

[1] Supplement, February 24th, p. 241.

expressed itself in favour of a scheme under which the local practitioners should staff the dispensaries themselves with the assistance of a resident medical officer. The Council of the Metropolitan Counties Branch, as will be seen from the report elsewhere, has supported the protest of the Finsbury medical men, and has stated that while it does not necessarily object to tuberculosis dispensaries, it holds that no new dispensary should be started without the approval of the local Division of the British Medical Association, that the rules for the management of such dispensaries should be in conformity with those approved by the Association for the management of hospitals and provident dispensaries, and that there should be local medical representation on the committee of management. It held further, that such dispensaries should be worked by a medical staff elected from local practitioners, that no treatment, therapeutic or preventive, should be carried out by the dispensaries, except in co-operation with the attending general practitioner, and that no person under the care of a medical practitioner should be treated by a dispensary except with the concurrence of the practitioner, and that in every case payment should be made for services rendered. The medical profession has long set its face against the random establishment of hospitals and other voluntary medical institutions by ambitious or benevolent individuals or societies without adequate investigation of the needs of the locality, which investigation can only be carried out with the co-operation of the medical profession, always readily given. The profession is supported in this attitude by all who have paid sufficient attention to the subject of institutional treatment to give their opinions weight. King Edward's Hospital Fund for London, to take only one instance, is now engaged in a tedious attempt to remedy some of the evils created by the errors and imprudence of the past.

A DEFENCE OF COSMETICS.

HAMLET says to Ophelia: "I have heard of your paintings, too well enough; God hath given you one face, and you make yourselves another." The use of artificial means of adornment is as old as human vanity; they are described by Ovid, and, long before his day, by the ancient Egyptian writers. The use of such things is not by any means confined to women. Doctors, whose unanimity when they do agree is wonderful, have for centuries condemned with one voice the use of paint and hair dyes as harmful. In all books on diseases of the skin we read of the evil effects of lead and other substances employed for the complexion. Now cosmetics have found a defender in no less a person than Dr. Sabouraud, whose word justly carries weight with all who know what excellent work he has done in dermatology. In a paper on the subject published in *La Clinique* of November 3rd, 1911, he deals with three points of accepted doctrine which he roundly calls "prejudices." The first of these is the notion that painting has an injurious effect on the skin. He holds that now that white lead no longer enters into the composition of cosmetics intended for application to the face it is better to use them when the fingers of decay begin to sweep the lines where beauty lingers, than to leave the complexion to Nature. In proof he points to the beautiful colours and youthful appearance of actresses, which are due solely to the use of cosmetics, and he denies that the skin is in any way injured by these. To which it may be replied that, though we believe there are men who prefer painted ladies, most dislike faces bearing obvious traces of the "beauty specialist's" art, quite apart from any association conjured up by them. Of course it is a matter of taste, and we know that in enamelling there may be a degree of skill which almost conceals art. To the use of cooling creams, with which M. Sabouraud seems to confuse pigments, there is no objection, any more than there can be to toilet vinegar. Another "prejudice" in the eyes of M. Sabouraud is that all hair dyes are injurious. He admits that many hair dyes make the hair brittle, and that the longer they are used the more brittle does the hair become. But he holds that when the dye is used properly and in moderation this effect may be left out of account. He says philosophically that if the hair breaks it will grow again. As regards the alleged constitutional effects of dyes, he has never seen any to speak of, but he admits that oxide of copper of a strength of more than 10 per cent. may cause headache. He has never seen lead poisoning produced even by the old-fashioned dyes. Dyes may, he says, damage the neighbouring skin, but, except in rare cases, the inflammatory symptoms quickly subside. Occasionally a refractory form of eczema may follow, but M. Sabouraud has never seen such a case, and he seems to be inclined to believe that the disease had existed before the dye was used. He holds that serious general poisoning occurs only from misuse or from previous ill-health. That blessed word "idiosyncrasy" counts for much with him. With proper precautions—especially testing the effect on the skin over a small surface beforehand, and the free application of soap to the whole scalp afterwards—hair dyes do not deserve the proscription they have received at the hands of doctors. A third medical "prejudice" against which M. Sabouraud testifies is that depilatories coarsen the hair that grows in the place of that destroyed. He says that this is demonstrably false, as any one may see by experimenting on the skin of his own arms. Hairs become thicker with age, and what is a shadowy down on the upper lip at twenty is a moustache at thirty. If depilatories have been used they are wrongly blamed for the effect of increasing years. But depilatories should not be irritating to the skin, and as almost all contain sulphur they are mostly apt to cause some redness and swelling. But which of us, asks M. Sabouraud gaily, has not occasionally produced dermatitis by preparations of sulphur? He concludes that it does not follow that depilatories should not be employed at all; but they should be used with care.

THE SALE OF SULPHONAL.

AN inquest was held recently at Peterborough in respect of a case in which death had resulted from self-medication with sulphonal, and in the course of the proceedings some remarks were made in regard to the way in which this drug and similar ones are sold, which showed some misconception as to the state of the law on the subject. According to the report in the local paper, the doctor who was called in the case said, "Death was due to an excessive dose of sulphonal. It is not a scheduled poison, but is sold in tabloids to produce sleep, and anybody can buy it. . . . He was of opinion that it should be scheduled"; but in a subsequent issue, in which it is pointed out that sulphonal is already scheduled, he explains that he meant that it should be in Part I of the Poisons Schedule, and that Part II is, to all intents and purposes, merely a cautionary list. It is not very likely that this opinion will be generally shared; up till 1908 sulphonal was not included in either part of the schedule, and could be sold by any one without any restriction; it was then put in Part II, a position which it shares with chloral hydrate, chloroform, mercuric iodide, oxalic acid, ammoniated mercury, etc., and it can only be sold by a registered chemist and druggist, and must be labelled with its name, the word "poison," and the name and address of the seller. These restrictions are by no means negligible, and it will hardly be asserted that sulphonal is a more deadly substance than most of the others just named. If it were to be placed in Part I, with strychnine, corrosive sublimate, prussic acid, and other powerful poisons, there could be no reason for not adding many other substances to the same part: and one effect would be very likely to be that the restrictions on the sale of these dangerous

substances, being applied equally to many less dangerous ones, would carry much less weight as precautionary measures than they do at present.

A VINDICATION OF THE TOP HAT.

IT has long been a maxim of hygiene that the feet should be kept warm and the head cool. Modern fashion in headgear—of the masculine order at any rate—has made it difficult to carry out the latter part of this precept. The top hat is usually condemned as insufferably hot, and might therefore be expected to engender a corresponding heat in the head it covers. It would be an interesting speculation to trace its influence in politics. The top hat, when it was the emblem of a class, played a considerable part in Parliamentary life; *a priori*, therefore, it might be considered to have a favourable influence as tending to cool the head; at any rate since it has ceased to be the stamp of "respectability" and every variety of headgear has become permissible in Parliament, we think it would be found that the bowler hat, and the "fore-and-aft"—that modern symbol for the Phrygian "cap of liberty"—usually cover the hottest heads. Scientific experiment seems to confirm this conclusion. At the recent Hygiene Exhibition at Dresden, there was in one department a display of the various kinds of hats now worn by civilized men, each provided with a thermometer showing the internal temperature when the hat had been worn for some time in the shade. As might have been expected, the leather military helmet held the highest place in respect of heat. Next came the travelling or sporting cap; even when made of light stuff the temperature inside reached 53° C. In the hat of hard felt the thermometer registered 51° C. The soft felt hat when lined gave the same temperature as the hard one; if made of very light material and not lined, only 47° C. Midway came the top hat, in which, even when covered with a large mourning band, the temperature reached only 49° C. The straw hat, lined with silk, was as hot as the felt hat, but when very thin and unlined it registered only 45° C. For coolness the panama stands easily first with a temperature of 43° C. It is said that the quality of the radiations stored up in a hat has an influence as important as their temperature. The rays most likely to affect the human head disagreeably would be stopped or absorbed by a red lining. We commend these scientific records to the special attention of politicians and theologians; the wearing of a soft hat or a panama might help to keep debates and controversies at a moderate temperature. Even the rejected top hat might with advantage be substituted for the more feverish bowler.

THE DECOMPOSITION OF CHLOROFORM.

OUR attention has been drawn to a statement in a recent issue of the *Cape Times*, said to have been made by a medical man in the course of an interview, in which many of the deaths under chloroform in South Africa are attributed to changes in the chemical composition of the anaesthetic during the voyage out or its subsequent storage; and also to an article by Dr. G. W. Bampfylde Daniell in the *South African Medical Record*, in which he strongly opposes such a view. It is well known that if chloroform is exposed to light and air, especially in presence of moisture, it will undergo decomposition to a very appreciable extent; but these are very far from the conditions which prevail in the export of the drug. In the first place, the *Pharmacopoeia* requires the addition of about 1 per cent. of alcohol to chloroform, and this prevents liability to most of the changes that might otherwise occur; in the second place, chloroform is supplied by the makers in full glass-stoppered bottles, and these are, of course, packed in cases for export, and, therefore, all the conditions which might lead to decomposition during the voyage are absent. In regard to subsequent storage, no doubt it would be possible to keep it under conditions favourable to decomposition, but is there any evidence to connect the products of decomposition, carbonyl chloride, hydrogen chloride, or even free chlorine, with the fatal results which sometimes attend its use? On this point Dr. Bampfylde Daniell asks whether the presence of these pungent and irritating gases could escape the notice of the patient or the anaesthetists if in anything like a large percentage, and continues: "If in so small a percentage as not to be noticed, I doubt if there would be anything more to record than unpleasant symptoms such as would follow a diluted irritating gas, or, at most, a varying amount of bronchial irritation."

GUIDES TO LONDON GYNAECOLOGICAL COLLECTIONS.

MR. ALBAN DORAN'S Guide to the Gynaecological Specimens in the Museum of the Royal College of Surgeons of England and the Descriptive Catalogue of the similar collection in University College Hospital, of which Dr. Herbert Spencer and Mr. Lawrence have just prepared a second edition, are works of such a useful but unpretentious kind that the gratitude which they earn is not directly proportioned to the trouble which the authors have had in preparing them. Mr. Doran leads his audience past a series of type specimens illustrating the various forms of gynaecological disorder and furnishes diagrams for their orientation. The University College Catalogue embraces over 900 entries, and includes the necessary clinical notes. In both the arrangement is topographical.

ON February 24th a motion was carried in the Italian Chamber expressing the sympathy of the Italian nation with Great Britain in the loss of Lord Lister, who was described as one of the most illustrious benefactors of humanity.

AMONG those upon whom the Senatus of the University of Aberdeen has decided to confer the honorary degree of LL.D. at the next spring graduation ceremony is Dr. W. Leslie Mackenzie, Medical Member of the Scottish Local Government Board. Among the other recipients of the honour will be Mr. Asquith.

AMONG the candidates selected for election into the Royal Society are Dr. Benjamin Moore, Professor of Chemistry in the University of Liverpool, and Mr. Edward Nettleship, who after winning great distinction as an ophthalmic surgeon, has won another high reputation as an authority on heredity especially in relation to the Mendelian theory.

THE British Association for the Advancement of Science will hold its meeting this year at Dundee on September 4th and following days, under the presidency of Professor Schäfer of Edinburgh. Dr. Leonard Hill has been appointed President of the Section of Physiology, and Professor Elliot Smith of that of Anthropology. Professor Arthur Keith will deliver one of the evening addresses.

THE committee appointed by the Chancellor of the Exchequer to report upon the general policy which should be followed in respect of tuberculosis in the United Kingdom, and the considerations which should guide the Government and local bodies in making provision for treatment in sanatoriums or other institutions, or otherwise, has met from day to day this week. It has prepared a draft report, which will be the subject of consideration at later meetings.

THE Lord Mayor of London (Alderman Sir Thomas Crosby, M.D.) will preside at the annual general meeting of the British Medical Benevolent Fund to be held in the Egyptian Hall, at the Mansion House, E.C., on Wednesday, March 13th, at 4.30 p.m. Among the speakers will be the Right Rev. Bishop Boyd Carpenter, the Presidents of the Royal Colleges of Physicians and Surgeons, the Regius Professor of Physic in the University of Cambridge, Sir John Tweedy, President, and Dr. Samuel West, Treasurer of the Fund.

THE INSURANCE SCHEME.

STATE SICKNESS INSURANCE COMMITTEE.

First Meeting.

THE first meeting of the State Sickness Insurance Committee appointed by the Special Representative Meeting on February 21st was held on February 28th, when there were present:—*England and Wales:* Dr. R. M. Beaton (London), Dr. John Brown (Bacup), Dr. T. M. Carter (Westbury-on-Trym), Dr. S. Hodgson (Salford), Dr. Constance E. Long (London), Dr. R. A. Lyster (Winchester), Dr. E. O. Price (Bangor), Dr. Lauriston Shaw (London), Dr. W. Johnson Smyth (Bournemouth), Dr. D. G. Thomson (Thorpe, Norwich), Dr. D. F. Todd (Sunderland), Mr. E. B. Turner (London), Dr. A. H. Williams (Harrow-on-the-Hill), Mr. D. J. Williams, F.R.C.S. (Llanelly), Mr. E. H. Willock (Croydon). *Scotland:* Dr. J. Adams (Glasgow), Dr. Bruce Goff (Bothwell), Dr. R. McKenzie Johnston (Edinburgh), Dr. J. Munro Moir (Inverness). *Ireland:* Dr. J. S. Darling (Lurgan), Dr. R. B. Mahon (Ballinrobe). *Ex officio:* Dr. E. J. Maclean, Chairman of Representative Meetings; Dr. J. A. Macdonald, Chairman of Council; Dr. E. Rayner, Treasurer.

Apologies for absence for unavoidable reasons were read from the President, Professor Saundby (Birmingham), Dr. F. W. Kidd (Dublin), Dr. R. E. Howell (Middlesbrough), and Mr. R. J. Johnstone (Belfast).

We are enabled to publish the following account of the proceedings in anticipation of the preparation and confirmation of the minutes.

The minutes of the Representative Meeting appointing and instructing the Committee were read.

CO-OPTION OF TWO ADDITIONAL MEMBERS.

The Committee proceeded to consider the exercise of its power to co-opt four additional members. After some discussion, during which it became plain that the general sense of the meeting was that it would be undesirable to exhaust the power of co-option by then and there electing four members, it was resolved that only two should be co-opted. Mr. T. Jenner Verrall, who acted as Chairman when the Special Representative Meeting was in Committee, and Dr. Pearse, of Trowbridge, Chairman of a Subcommittee which has been investigating the question of remuneration, and has nearly completed its work, were co-opted by a unanimous vote.

It was stated that the Association of Registered Medical Women had nominated its President, Dr. Constance Long, and she was co-opted accordingly and afterwards attended; but it appeared that it had not yet been found possible to arrange for the nomination of the other medical woman by the Northern Association of Medical Women.

ELECTION OF CHAIRMAN.

Mr. Verrall was unanimously elected Chairman, on the motion of Mr. E. B. TURNER, seconded by Dr. TODD. At the unanimous desire of the Committee Dr. Macdonald consented to continue in the chair for the remainder of the meeting on this day.

RESIGNATION OF A MEMBER.

A letter was received from Dr. Leigh Day, resigning his position on the Committee on the grounds stated in his letter to the Editor published in the SUPPLEMENT this week (p. 270), and the Committee approved the suggestion that the Chairman of Representative Meetings should communicate with the Representatives of the grouped Divisions by which he was elected to nominate some person to serve in his place.

JOINT ADVISORY COMMITTEE.

Letter from Joint Committee of Insurance Commissioners.

A letter from the Secretary of the Joint Committee of Insurance Commissioners inviting the British Medical Association to suggest names of medical practitioners, including some from England, Scotland and Wales, to serve on the Advisory Committee to advise the Joint Committee of Insurance Commissioners, was read. The letter stated that the Joint Committee proposed to appoint not fewer than twelve medical practitioners who have personal experience of general practice, and asked that not more than twenty-four names might be sent in. Dr. Maclean said that he was informed that it was the intention of the Joint Committee of Insurance Commissioners to appoint a Subcommittee, consisting of the Chairman and medical member of each National Board of Insurance Commissioners, to consider matters affecting medical benefit. The letter was as follows:

National Health Insurance Joint Committee,
Buckingham Gate,
London, S.W.,
26th February, 1912.

Sir,

I am directed to state that the Joint Committee of Insurance Commissioners are engaged in constituting the Advisory Committee to be appointed under Section 58 of the Act, for the purpose of advising and assisting the Commissioners in the framing of Regulations.

The Act provides that in the Advisory Committee shall be included duly qualified medical practitioners who have personal experience of general practice.

It is proposed to appoint, as members of the Advisory Committee, not fewer than twelve medical men possessed of such experience, and the Joint Committee think it desirable that among these should be included medical men who have had personal experience of different kinds of medical practice (especially among the section of the community from which persons insured under the Act will chiefly be drawn) in various parts of England, Scotland, and Wales.

In fulfilment of a promise given by the Chancellor of the Exchequer to the British Medical Association on June 1st last, the Joint Committee will be prepared to give careful consideration to any suggestions which the British Medical Association may desire to put forward of names of medical practitioners, including some from England, some from Scotland, and some from Wales, who are, in the opinion of the Association, qualified to represent in the Advisory Committee the points of view which it is necessary should be taken into consideration in the framing of Regulations. If the Association wishes to suggest names, the Joint Committee will be glad to receive these, to the number of not more than twenty-four, at the earliest convenient date.

I am, Sir,
Your obedient Servant,
(Signed) W. J. BRAITHWAITE,
Secretary to the Joint Committee.

Alfred Cox, Esq., M.B., B.S., etc.,
The Acting Medical Secretary,
British Medical Association,
Strand, W.C.

[We understand that the medical members proposed now to be chosen to the Joint Advisory Committee will be expected to serve also on the advisory committees to be appointed to advise the National Boards of Insurance Commissioners in England, Wales, and Scotland.]

DEFINITION OF THE ATTITUDE OF THE PROFESSION.

The Committee passed to the consideration of the resolutions of the Special Representative Meeting (February 20th–22nd), and considered first the following:

> That this Representative Meeting direct the Council to inform, in plain and unmistakable language, the Commissioners appointed under the Insurance Act, 1911, that unless the minimum demands of the Association be embodied in the regulations to be issued by the Commissioners, in such a manner as shall be effectual and permanent with a view to having the same embodied in an amending Act, it is the intention of the British Medical Association to call upon all its members and upon all other medical practitioners to decline to form panels or undertake any other medical duties which may be assigned to them under the Act, in conformity with the undertaking which has already been signed by over 26,000 medical practitioners.

The Committee considered also certain other resolutions of the Special Representative Meeting, including:

Professional Discipline.

> That all questions of professional discipline shall be decided exclusively by a body or bodies of medical practitioners.

> That the power of considering all complaints against medical men be vested in the local Medical Committee, with the right of appeal to a Central Medical Board to be appointed for that purpose.

Remuneration: Income Limit.

That the policy of the Association be to claim 8s. 6d. as a minimum capitation fee, not including extras and medicine, for members of approved societies, and to claim the recognition of payment per attendance, in which case the fees must be on such a basis as shall be deemed an equivalent by the State Sickness Insurance Committee, with recognition of a £2 maximum income limit.

Dispensing.

That dispensing, as hitherto, should be done or arranged for by the medical practitioner for his own patients, should he so desire, and be paid for at the scale or tariff rate agreed upon for pharmacists by the Pharmaceutical Society.

After discussion the following letter was adopted by the meeting for transmission to the Insurance Commissioners:

LETTER TO INSURANCE COMMISSIONERS.

To the Secretary of the National Health Insurance Joint Committee.

Sir,

I am instructed to inform you that at the Special Representative Meeting of the British Medical Association, held at the Guildhall, February 20th–22nd, the following resolution was unanimously passed:

That this Representative Meeting direct the Council to inform, in plain and unmistakable language, the Commissioners appointed under the Insurance Act, 1911, that unless the minimum demands of the Association be embodied in the Regulations to be issued by the Commissioners, in such a manner as shall be effectual and permanent with a view to having the same embodied in an amending Act, it is the intention of the British Medical Association to call upon all its members and upon all other medical practitioners to decline to form panels or undertake any other medical duties which may be assigned to them under the Act, in conformity with the undertaking which has already been signed by over 26,000 medical practitioners.

I am to point out to you that the minimum demands of the Association mentioned in the above resolution comprise:

1. An income limit of £2 a week for those entitled to medical benefit.

2. Free choice of doctor by patient subject to consent of doctor to act.

3. Medical and maternity benefits to be administered by Insurance Committees and not by friendly societies. In connexion with the question of the method of administration of medical benefit, the Representative Meeting resolved that all questions of professional discipline should be decided exclusively by a body or bodies of medical practitioners, and that the power of considering all complaints against medical practitioners should be vested in the local Medical Committee, with a right of appeal to a central Medical Board to be appointed for that purpose.

4. The method of remuneration of medical practitioners adopted by each Insurance Committee to be according to the preference of the majority of the medical profession of the district of that Committee.

5. Medical remuneration to be what the profession considers adequate, having due regard to the duties to be performed and other conditions of service.

After careful consideration the Representative Meeting resolved that the policy of the Association be to claim 8s. 6d. as a minimum capitation fee, not including extras and medicine, for members of approved societies, and to claim the recognition of payment per attendance, in which case the fees must be on such a basis as shall be deemed an equivalent by the State Sickness Insurance Committee, with recognition of a £2 maximum income limit.

6. Adequate medical representation among the Insurance Commissioners, in the Central Advisory Committee, and in the Insurance Committees, and statutory recognition of a local Medical Committee representative of the profession in the district of each Insurance Committee.

On behalf of the British Medical Association, I am instructed to lay these important points before you and to inform you that they constitute the irreducible minimum demanded by the Association.

Another subject which received the special attention of the Representative Meeting was the question of dispensing. The Association is of opinion that dispensing, as hitherto, should be done or arranged for by the medical practitioner for his own patients, should he so desire, payment to be made according to the scale of prices fixed by the Insurance Committee in accordance with the terms of the Act.—I am, etc.,

ALFRED COX,
Acting Medical Secretary.

British Medical Association,
429, Strand.
February 29th, 1912.

SELECTION OF MEMBERS OF JOINT ADVISORY COMMITTEE.

The Committee resolved to arrange for the selection of twelve members representative of England, Wales and Scotland, and to invite each Division to nominate one person suitable to serve on the Joint Advisory Committee, the Representative Meeting having directed that the Council shall make the final selection from these nominations. It was agreed that these nominations should be returned so as to reach the Central Office of the Association not later than the first post on Saturday, March 9th, in order that the complete list should be circulated to the members of the State Sickness Insurance Committee early enough to ensure due time for consideration before the meeting of the Committee which will be held in the course of that week.

In regard to Ireland, it was resolved to invite the Divisions in that country to make nominations in view of the contingency that the Joint Committee of the Insurance Commissioners may be willing to accept a suggestion to appoint medical members representative of Ireland to the Joint Advisory Committee.

PROVISIONAL MEDICAL COMMITTEES.

A discussion ensued with regard to the following resolution of the Representative Meeting:

That the Council be instructed to make all necessary arrangements for assisting the Divisions and Branches in the appointment of provisional Medical Committees in every insurance area to safeguard the interests of the profession, without prejudice to the question of whether these Committees shall later accept recognition as statutory local Medical Committees.

Several members explained the steps that had already been taken in various localities, and it was resolved that a memorandum on the subject should be prepared and submitted to members of the Committee before its next meeting.

ORGANIZATION OF THE PROFESSION.

The Committee proceeded to consider the question of the organization of the profession to meet the conditions which would arise should the Insurance Commissioners fail to arrange to meet and concede the minimum demands of the profession. The resolutions of the Special Representative Meeting considered in this connexion were:

Organization of Profession.

That the Council be instructed to take steps to organize the profession so as to secure that, failing the provision of adequate remuneration of medical practitioners, and the fixing of a definite wage limit under the National Insurance Act, no medical practitioner shall give medical or surgical treatment to persons insured under the Act under a contract practice appointment held at lower rates than those which may be agreed upon as adequate by the Representative Body, after reference to the Divisions, for attendance upon insured persons, and that no contract practice be introduced into any district against the wishes of the majority of the members in that district. Further, after obtaining the adequate rate, the Representative Body shall insist that before any member of the profession can agree to accept work under a contract appointment, free choice of doctor by patient and of patient by doctor must be granted.

Present Contract Appointments.

That the Council be asked to ascertain whether those practitioners holding contract appointments will place their resignations in the hands of the Council to be used as and when necessary, the result to be considered confidential for the present. That it be an instruction to the Council to intimate at the same time that the British Medical Association is prepared to support any practitioner resigning appointments under these circumstances to the best of its ability, both pecuniary and otherwise.

PUBLIC MEDICAL SERVICE.

Attention was directed to the following resolution of the Representative Meeting:

> That the Council be instructed to direct the attention of Divisions to the desirability of preparing a scheme for a Public Medical Service to be administered by the medical profession in each insurance area.

Instructions were given that a memorandum should be prepared and circulated. Some discussion took place with regard to the Defence Fund instituted under the auspices of the Association, and the need for increasing its amount was pointed out. The action taken by the Medical Federation in the issue of a recent circular to members of the profession was raised and debated at some length. It was pointed out that in this circular there is a paragraph which might be interpreted as challenging the power of the British Medical Association to administer the Defence Fund in connexion with the Insurance Scheme to which members of the profession have contributed. During the course of the discussion the Solicitor made a statement in which he expressed the opinion that it was perfectly competent for the Association, acting as trustee for voluntary donors, to administer such funds for the purposes indicated by the donors. This matter is referred to elsewhere in this issue.

The meeting adjourned at 6 p.m. until Thursday next, March 7th, at 10.30 a.m.

LETTER TO HONORARY SECRETARIES OF DIVISIONS.

In accordance with the instructions of the Committee, the following letter is being issued to Honorary Secretaries of Divisions:

Nomination of Members of Advisory Committee.

Dear Sir,

The State Sickness Insurance Committee appointed by the Special Representative Meeting held on February 20th and 21st met yesterday, and considered the following letter from the National Insurance Joint Committee. The letter is printed at p. 509.

In accordance with the following minutes of the Special Representative Meeting, it now becomes the duty of the Association to nominate suitable representatives of the profession for membership of the Advisory Committee:

Minute 60.—Resolved: That the Association take steps to secure the most suitable representatives of the medical profession upon the Advisory Committee, and for this purpose nominations shall be made by the Divisions and the final selection of names by the Council, and that the Council be instructed to make the necessary arrangements to carry this resolution into effect.

Minute 61.—Resolved: That while the British Medical Association is willing that members of the medical profession shall provisionally join the Advisory Committee, nevertheless it will use its best endeavours to ensure their resignation unless the six cardinal principles have been granted by amendment of the Insurance Act, by Regulation, Order or otherwise, and that it be an instruction to the Council to provide that all practitioners who are supported by the Association for membership of Advisory Committees shall have pledged themselves previously to vacate their seats if elected, should the British Medical Association determine to cease negotiations with reference to the National Insurance Act.

I am instructed to ask you to take such steps as are deemed necessary to bring this matter before your Division, so that the Division may, if it so desires, make a nomination for the Advisory Committee.

In bringing this matter before the Division kindly note the following information:

1. No Division can nominate more than one person. He or she must be a member of the Association, but need not necessarily be resident in the area of the Division.

2. Nominations must be received not later than the *first post on Saturday, March 9th.*

3. The fact that a practitioner is nominated by a Division will be taken by the State Sickness Insurance Committee to indicate that the nominee has consented to act if appointed, and will withdraw from the Advisory Committee in accordance with the latter part of Minute 61 (quoted above) if called upon by the Council to do so.

4. It is competent for the Divisions to nominate for service on the Advisory Committee any member of the State Sickness Insurance Committee which was specially elected by the Representative Body to consider all matters connected with the National Insurance Act. The following is a list of the committee.

Those starred are eligible for nomination to the Advisory Committee as having personal experience in general practice, and would be willing, if appointed, to act.

ENGLAND AND WALES.

Branches.	*Representatives.*
North of England	Dr. D. F. TODD
N. Lancashire and S. Westmorland	Dr. R. E. HOWELL
Yorkshire	
Lancashire and Cheshire ...	Dr. HODGSON Dr. JOHN BROWN
E. York and N. Lincoln ...	Dr. W. L. M. DAY (resigned) Dr. D. G. THOMSON
Midland	
Cambridge and Huntingdon	
East Anglian	
South Midland	
Birmingham	Dr. E. O. PRICE Mr. D. J. WILLIAMS, F.R.C.S.
Staffordshire	
N. Wales	
Shropshire and Mid-Wales	
S. Wales and Monmouthshire	
Metropolitan Counties: N. and E. Metropolitan Group: City, Stratford, S.-W. Essex, N. Middlesex, St. Pancras, and Hampstead Divisions Central Metropolitan Group: Marylebone and Westminster Divisions ...	Dr. R. M. BEATON Dr. LAURISTON SHAW
W. Metropolitan Group: Richmond, Ealing, Chelsea, Kensington, and Watford Divisions ... S. Metropolitan Group: Lambeth, Norwood, and Wandsworth Divisions	Mr. E. B. TURNER Dr. A. H. WILLIAMS
Bath and Bristol	Dr. T. M. CARTER Dr. W. JOHNSON SMYTH
Gloucestershire	
W. Somerset	
Worcestershire and Herefordshire	
Dorset and W. Hants ...	
South-Western	
Oxford and Reading ...	Dr. R. A. LYSTER Mr. E. H. WILLOCK
Southern	
South-Eastern	
Association of Registered Medical Women	Dr. CONSTANCE LONG

SCOTLAND.

Aberdeen, Northern Counties, Dundee and Perth ...	Dr. J. MUNRO MOIR Dr. R. MCKENZIE JOHNSTON
Edinburgh and Fife	
Glasgow and W. of Scotland (4 City Divisions)	Dr. BRUCE GOFF Dr. J. ADAMS
Glasgow and W. of Scotland (4 County Divisions) ...	
Border Counties and Stirling	

EX OFFICIO MEMBERS.

SAUNDBY, Professor ROBERT, M.D., LL.D., 140B, Great Charles Street, Birmingham, *President.*

MACLEAN, Dr. EWEN J., 12, Park Place, Cardiff, *Chairman of Representative Meetings.*

MACDONALD, Dr. J. A., LL.D. (Taunton), *Chairman of Council.*

RAYNER, Dr. EDWIN (Stockport), *Treasurer.*

CO-OPTED MEMBERS.

VERRALL, Mr. T. JENNER, Bath.

PEARSE, Dr. JAMES, Trowbridge.

5. The Chairman of the National Health Insurance Joint Committee, in answer to questions, has stated that the Advisory Committee is likely to commence its sittings in two or three weeks' time: that it is impossible to state how often it is likely to meet, but probably not very frequently: that the travelling expenses of members will be paid by the Government, together with an allowance for out-of-pocket expenses, the amount of which has not yet been settled, but will be on the lines laid down in connexion with Departmental Committees.

I am,

Yours faithfully,

ALFRED COX,
Acting Medical Secretary.

The foregoing letter, with the addition of the following paragraph, has been addressed to the Honorary Secretaries of Divisions in Ireland, the names of the Irish Representatives on the State Sickness Insurance Committee being substituted for those of England, Wales, and Scotland:

It will be noted that the letter from the Joint Committee asks for nominations from England, Scotland, and Wales only, but the State Sickness Insurance Committee, in considering the matter, decided that the Commissioners should be asked to appoint some extra members on the Advisory Committee to represent Ireland. It is felt that as the arrangements which will be laid down in the regulations for medical attendance will probably be adopted in the case of Ireland at a later date, it is most important that some representatives of the Irish profession should be on the Advisory Committee. The Irish Divisions are requested, therefore, to make nominations (governed by the instructions given above) from which the Committee will select the names of Irish representatives to be put forward for the Advisory Committee if the Commissioners decide to appoint such representatives.

IRELAND.

Connaught and S.-Eastern of Ireland ... ... Leinster...	Dr. F. W. KIDD Dr. R. B. MAHON
Munster...	Mr. R. J. JOHNSTONE
Ulster	Dr. J. S. DARLING

Medical Notes in Parliament.

Royal Army Medical Corps.—Mr. Bennett-Goldney asked the number of Regular Army Reservists, exclusive of the Royal Army Medical Corps Regular Reservists, required to complete the establishment of the Royal Army Medical Corps on mobilization, and the number of Regular Army Reservists who have agreed to serve. Colonel Seely replied that as regards the first part of the question, it was not considered expedient to publish present mobilization arrangements. As regards the second part of the question, 1,650 Artillery and Infantry Reservists had been transferred to the Royal Army Medical Corps Reserve, and were now serving.

Medical Practitioners, India.—Mr. H. W. Forster asked the Under Secretary of State for India how many duly qualified medical practitioners there were in India; how many of these were men and how many women; and how many of either sex were in the service of the Government of India. Mr. Montagu answered that as no system of medical registration existed in India it was impossible to give an exact answer to the first part of the question; though approximate figures could probably be obtained from non-official publications. As regards the Government Service, lengthy and somewhat complicated consultation of official lists for the various provinces, and possibly even reference to the Government of India, would be necessary to arrive at the statistics asked for. He should be glad to have the matter investigated to state the result.

Antivivisection.—Last week Sir Frederick Banbury introduced a bill to prohibit experiments upon dogs, and called it the Dogs Protection Bill. It is backed by Mr. George Greenwood and Mr. Field, and has been put down for second reading on Friday, April 19th.

The Daylight Saving Bill. This measure was presented and read a first time on Thursday in last week. Its object is to promote the earlier use of daylight in certain months yearly, and for other purposes relating thereto. It is backed by Mr. Robert Pearce, Sir Edward Sassoon, Sir William Bull, Sir Henry Norman, Sir William Priestley, Mr. Stephen Collins, and Mr. Pirrie. The second reading is fixed for Tuesday, March 5th.

Surgical Appointments (Irish and Scottish Surgeons).—Mr. Ginnell asked the President of the Local Government Board whether he was aware of the exclusion of Irish and Scottish surgeons from some surgical appointments in England on the ground of an alleged inferiority of their degrees; if there was real professional inferiority, whether he will say in what it consisted; and, if the allegation was unfounded, whether the Board would withhold its sanction of surgical appointments made subject to the exclusion complained of within the jurisdiction of the Board. The President of the Local Government Board replied that he was not sure to what appointments the hon. member referred. Perhaps he would be good enough to communicate with him on the subject. Mr. Lynch said did the right hon. gentleman not think that in view of the great disparity of qualifications in the medical service the time had come to institute, at least in regard to State appointments, a uniform examination? Mr. Burns, in reply, said that no notice of the religion of any of the applicants was taken in his department. On their merits only were they appointed.

The Naval Cadet College, Osborne.—In answer to Mr. Hunt, Mr. Lambert stated last week that there was one case of typhoid fever at Osborne, one of bronchitis, two of pneumonia, none of diphtheria. On February 18th seventy-two cadets were on the sick list, almost all suffering from minor ailments. The case of typhoid fever was isolated, and the usual precautions were being taken.

Milk Preservatives.—Mr. Stanier asked the President of the Local Government Board whether "mystin," used as a preservative for milk, was allowed under the regulations of the Board; and whether it contained sodium nitrate and was therefore a danger to a person consuming it. Mr. Burns said that draft regulations had been prepared by the Local Government Board prohibiting the addition of any preservative substance to milk intended for sale for human consumption. Notice of these regulations was given in the *London Gazette* of February 22nd, in accordance with the provisions of the Rules Publication Act, 1893. He was advised that "mystin" contained sodium nitrite (not nitrate), and that this was a drug with a powerful physiological action.

Insurance Lectures and Medical Benefits.—Sir P. Magnus asked the Secretary to the Treasury whether the official lecturers appointed to explain the details of the National Insurance Act had been instructed to inform insured persons as to the conditions under which they could obtain, in cases of sickness, medical attendance from duly qualified practitioners; and whether, having regard to the fact that these conditions were not yet settled, he would consider the advisability of postponing the lectures now being provided at the public expense till such time as should enable the Commissioners to state whether and, if so, under what arrangements the members of the medical profession had expressed their willingness to co-operate in giving effect to the Act. Mr. Masterman said that the official lecturers had been given careful instructions to explain the Act as it stands on the Statute Book. The Act allows alternating in respect of medical benefit—either that it should be given from a panel, with free choice of doctors, or that alternative arrangements should be made by the Insurance Committees or Commissioners, or that medical benefit should be suspended and the money benefit equivalent returned to the insured person.

Supplementary Estimates necessary to be voted before the end of the financial year occupied the Commons on Monday, and some interesting discussions arose. A vote of £10 for House of Commons offices was first considered and after a short time passed; then the Board of Agriculture wanted some £11,500, and considerable discussion arose on horse breeding, small holdings, swine fever, and foot-and-mouth disease. The new President, Mr. Runciman, showed a very liberal attitude as regards the research work of his department, and encouraged the hope that sufficient grants would be forthcoming to make this work much more effective. The vote was finally agreed to by a majority of 103. The Stationery Office vote next came on, and a lively debate was sustained for some time on the extra expense caused by the Insurance Act and the taking over of the telephones, etc. No less than six divisions were taken, and the vote was finally carried over.

Forcible Feeding and Insanity.—In reply to further questions on the case of Mr. Ball, the Home Secretary said that it was not always possible, when the first symptoms of mental disturbance appear, for the medical officer to decide at once that a patient was insane and in need of asylum treatment, and in this case the medical officer for some time was in doubt as to whether there were any definite symptoms of insanity. As soon as this was clear it was in most cases desirable that a patient should be removed to an asylum with as little delay as possible, and this course was pursued in the present case. He had no reason to think that the prison authorities in the discharge of their duty were in any way wanting in consideration for the feelings of the lunatic's relations. While Mr. Ball was in prison the medical officer who was sent from the Home Office to visit him reported that his insanity was not due to his prison treatment. He had made further inquiry, and the medical officer now reported that he had formed the opinion that the prisoner's mental balance was upset by his mind, apparently never a strong one, dwelling continually on the questions of "votes for women" and "political prisoners." He had not yet obtained any information as to Mr. Ball's family history. On the motion for adjournment on Monday, Mr. Lansbury called attention to the case of William Ball, who was sentenced to a term of imprisonment with hard labour for breaking windows at the Home Office, and who, while being subjected to forcible feeding during his incarceration, had developed symptoms of mental derangement. The man, it was admitted, had applied to the prison authorities to be placed in a division where he could have special treatment. He saw the Governor and wrote a petition, but it was not completed and forwarded. After five and a half weeks of forcible feeding the man was allowed to get worse and worse until eventually the prison authorities declared that he was insane. He was taken to a pauper lunatic asylum, though his friends had not been communicated with. Nothing more disgraceful had ever happened in the annals of our prisons. He charged the prison authorities with a set purpose in not calling in any independent medical man to examine this man. Any one knew that before a pauper lunatic could be dealt with the friends must be called up; but in this case no one was called up and the doctors had the impudence to say that this man, who was thoroughly healthy, was not quite mentally right. The man's father, who was 83 years of age and still conducted his own business, emphatically denied any weakness of mind in his son. He added that he had six sons and six daughters, all of whom were healthy and strong, that his own mother was in possession of all her faculties at the age of 93, and that there had never been insanity in his family. He maintained that the House of Commons ought to take into account the humblest man or woman in prison. This man had had a great injustice done to him, and he asked the Home Secretary to give a definite pledge that as soon as he recovered his full capacity there would be a full and impartial inquiry into all the circumstances. Lord H. Cecil said this case, on the face of it, left a serious stain on the prison officials, either for want of skill or for want of humanity, or for both. The man had been slowly driven out of his mind, but when it was realized that something was wrong there had been no change in his treatment, and the forcible feeding had been continued. It was difficult to deal with a man who refused food. He would say that such a man should be allowed to starve himself, but many hon. members would not agree. When the man's mind was failing the prison discipline should be relaxed, and he should have been allowed to have his food from outside. It was a most serious thing to let a man go out of his mind, for the stigma of insanity would always rest upon him. The right hon. gentleman took the point of a very technical character, for because the man had been sentenced to hard labour there could be no relaxation of the prison discipline. That was not the case for Mr. Stead had been removed from the class of ordinary misdemeanants to that of first-class misdemeanants by the Government of the day, almost against his own will. It was open to the Home Office to interfere, and if confidence was to be restored there should be a full and independent inquiry. Mr. McKenna, whilst not admitting the accuracy of the facts as stated by the member for Bow and Bromley, did not complain of the character of the case he had made. He was afraid he could not say the same of the speech of the noble lord, who had taken up the matter merely as a means of making a sort of attack upon the Government, and had devoted no serious attention to mastering the facts of the case. The noble lord's first point was that Mr. Ball was sent to prison for an offence without moral turpitude. He did not know why it should be suggested that the magistrate who had given his attention to the case had taken an erroneous view of the offence and was wrong in giving the prisoner a sentence of hard labour. The prisoner was convicted, he thought, on December 21st, and, on entering the prison, declined to take food. Would the noble lord have suggested that when Ball refused to take food he should not have been fed? He wished to have the answer of the noble lord, who one day might stand in a position of responsibility. Lord H. Cecil said that he would have retained the prisoner without forcibly feeding him until the man's health became affected by his refusal to take food, and then he would have released him. Mr. McKenna rejoined that it would not be so easy to carry out that treatment as the noble lord supposed, or to decide when the man's health was injured, although he was still able to go on starving. Artificial feeding had taken place in many cases without injurious consequences. In one case it was continued for two and a quarter years without the person suffering any injurious results. Refusing to take food was an ordinary symptom of lunacy, and many patients in asylums had had to be kept alive for years by forcible feeding. The prison authorities were reluctant to resort to the process; but, like the authorities of asylums, they had to adopt it when that course was the alternative to allowing the person who was in their charge to starve. In this case forcible feeding was continued until January 29th, and on that day the prisoner said, "I think I have stuck it pretty well," and then he took food in the ordinary way, and continued to do so until he was discharged on February 12th. The right hon. gentleman had not concluded his reply when, it being half-past 11 o'clock, the House stood adjourned. On Tuesday night the debate was resumed by Mr. Lynch, and Mr. McKenna said that with regard to Mr. Ball, no representation was ever made to him to reconsider his case. If it had been he would have considered it on its merits and whether it was a case in which hard labour ought to have been remitted, but, as a matter of fact, no such representation was made to him. As to Mr. Ball's treatment whilst in hospital, he could not agree with those who thought that where a prisoner refused to take food he should be discharged. That would mean a general gaol delivery at the expiration of three or four or five days. He could not see why any prisoner should be allowed to have control over his or her sentence merely because the prisoner chose to break the prison rules. Charges had been made that Mr. Ball's treatment had not been governed by the ordinary rules. He had, upon all the evidence he had been able to examine, perfect confidence in the action of the Prison Commissioners and the officers concerned in the case. He was so confident that he was willing to grant his hon. friend's request that an inquiry should be instituted. He was perfectly satisfied that the result of an independent inquiry by an independent medical man, who, he suggested, should be appointed, not by the Home Office, but by the Royal College of Physicians, would show that there was no ground for the fears and suspicions and alarms suggested by his hon. friend, and would prove that there was not the slightest foundation for the charge of inhuman conduct which had been brought against the prison officials.

A FRENCH Association of Medical Inspectors of Schools has recently been founded. Its objects are to bring into relation with each other all the school doctors of France, to defend their professional interests, and to study questions concerning their functions. The association will hold a congress in May next, at which the following questions will be considered: The organization of medical inspection in France: physical education. The president of the association is Dr. L. Butte, of Paris; the vice-president, Dr. Weigert, of Lyons; the general secretaries, Dr. Meyer, of Paris (who has charge of the relations of the association with the International Association of School Doctors), and Dr. Chapon, of Paris (whose business is with the home affairs of the association). The treasurer is Dr. Fouineau, of Paris. Full information as to the association, or the forthcoming congress, may be obtained from Dr. Chapon, 21, Rue de Louvre, Paris.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

LONDON.

London County Council.

Compulsory Notification of Cerebro-spinal Meningitis and Poliomyelitis.

The Public Health Committee reported to the London County Council on February 27th with regard to the compulsory notification of epidemic cerebro-spinal meningitis and acute poliomyelitis or acute polioencephalitis. As to cerebro-spinal meningitis, the Committee stated that this disease had been compulsorily notifiable in London since March 12th, 1907. During the time that had elapsed since that date, 656 cases had been notified, and detailed information, which might become valuable at any time, had been accumulated. Considerable attention had been given to this disease during recent years in the principal cities of Europe and America, and the Committee regarded it as of importance that in London the continuity of statistical information should be preserved. Acute poliomyelitis was made compulsorily notifiable on September 1st, 1911, and since then 50 cases of the disease had been notified. The diseases occurred principally among children, 11 or 12 per cent. of the cases proving fatal, and infantile paralysis frequently resulting among those who survived.

The Committee recommended that both these diseases should be added to the list of diseases permanently notifiable under Section 55 of the Public Health (London) Act, 1891, and the Council approved of this, and decided that they be so notifiable from and including March 13th, 1912.

The Deputy Medical Officer of Health.

With reference to the Council's authorization of the appointment of a deputy medical officer of health and deputy school medical officer for the County of London at a salary of £1,000 a year,[1] the Establishment Committee reported that thirty applications for the position had been received, and ten selected candidates had been interviewed. In the opinion of the Committee, Mr. W. Butler, M.S.Glasg., M.B.Glasg., D.P.H.Lond., Medical Officer of Health and School Medical Officer for Willesden, was the candidate best fitted for the position, and it accordingly recommended his appointment. In accordance with the standing order requiring three names to be submitted to the Council, the Committee also mentioned the names of Alfred Greenwood, M.D., B.S., B.Sc.Vict.Univ., D.P.H.Irel., L.R.C.P. and S.Edin. and Glasg., barrister-at-law, and William Henry Whitehouse, M.D., B.S.Durh., D.P.H.Edin., barrister-at-law.

The report had not been reached at a late hour, and its consideration was postponed.

The Board of Education and Medical Treatment.

It was reported at the meeting of the Education Committee of the London County Council on February 28th that the Board of Education had expressed its views with regard to the experimental schemes for the treatment of children suffering from suppurating ears through the agency of various nursing institutions, which the Council has carried on in different parts of London during the last three years. The Board stated that it was very desirable that the question of the treatment of minor ailments in the county as a whole should be fully investigated by the Council, and it was reluctant to approve an isolated undertaking of this nature providing for the treatment of one type of ailment in one part of the county. If satisfactory results were to be obtained it was essential that the question should be considered as a whole in close connexion with the Council's scheme of medical inspection, the Council not committing itself in the meantime to isolated experiments which might prove subsequently a source of embarrassment in preparing a general scheme of treatment. For these reasons the Board was not willing on the information before it to sanction a proposed extension of the experiments in Camberwell.

[1] British Medical Journal, January 27th, p. 213.

In reply to this communication the Children's Care Committee stated that unless some such arrangements as those proposed were made many children in the district would be unable to obtain treatment. The Committee recommended that the Board be urged to approve the experiment as a temporary measure, on the understanding that the scheme would be under the supervision of the Council's school medical officer. The Committee also suggested that the Board of Education be informed that the Council would be prepared to consider a general scheme for nursing treatment when a grant as promised on behalf of the Government should have been made in respect of the medical service.

A communication on these lines was ordered to be sent to the Board of Education.

EASTBOURNE.

Princess Alice Memorial Hospital.

At a meeting of the Governors of the Princess Alice Memorial Hospital, on February 23rd, an announcement was made to the effect that it was proposed to entertain at a public dinner on March 16th all the surviving members of the original staff of the institution, and that the Duke of Devonshire had consented to preside. With one exception they are all alive, though none of them is any longer on the active staff of the institution. The last of them to vacate office was Mr. H. D. Farnell. His retirement under the age clause, which has only just taken place, completes the change in the original officership of the institution: other members of the active staff who have retired during the last twelve months are Dr. MacQueen and Dr. Sherwood. Mr. Farnell's retirement was announced at the meeting in question, and the report relating to it stated that to him, as to the other retiring members of the staff, not only the hospital authorities, but the whole town of Eastbourne and its neighbourhood owed a debt of gratitude which could never adequately be repaid. Subsequently a vote of thanks to Mr. Farnell was formally passed, and he was elected to the consulting staff. In moving these resolutions, the Chairman, after dwelling upon Mr. Farnell's high qualities as a surgeon, added: "His sympathy with the poor patients committed to his care—a sympathy almost feminine in its tenderness—has endeared him, not only to them, but to the long succession of doctors, matrons, and nurses, who, during the last twenty-eight years, have witnessed his daily grappling with sickness, disease, and death in the wards and operating theatre of the hospital in which they have been his colleagues and helpers. We owe a debt of gratitude to Mr. Farnell which we can never repay, and we shall do honour to ourselves by placing his name on the list of the consulting staff." In acknowledging the vote of thanks Mr. Farnell mentioned as a somewhat remarkable fact that despite the number of years—nearly twenty-nine—which had elapsed since the institution had been founded and its first professional officers appointed, only one of the latter had passed away; all the rest, he was glad to say, were still in excellent health. Their professional relations in the institution, as outside it, had always been of the pleasantest character, and though there might have been differences of opinion at times, no patient had ever suffered from their existence. He also dwelt at some length on the mental attitude of patients towards those in charge of them and their treatment. He had been continually impressed by two points—their constant gratitude, which though not always verbally expressed was invariably high, and their courage in facing the measures advised. The gratitude of the poor was the best reward that the surgeon could possibly obtain, and the courage they displayed was a constant lesson to those of higher education and intellectual ability.

SOUTH WALES AND MONMOUTHSHIRE.

Cardiff Medical Society.

The Cardiff Medical Society held its annual meeting on February 23rd, when Mr. Mansell Moullin, Consulting Surgeon to the London Hospital, delivered a lecture on duodenal ulcer. Mr. Moullin referred to the large number

of cases presenting all the characteristic symptoms of duodenal ulcer in which no ulcer had been found. It was evident, he said, that the hunger pain was not due to the acid contents passing over a raw surface, and he considered the real cause to be muscular spasm. The lecture was very much appreciated, and Mr. Moullin was warmly thanked for his kindness in attending.

In the evening Mr. Moullin was the guest of the society at a dinner held at the Royal Hotel.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

THE INSURANCE ACT.

Meeting of Munster Medical Men.

A REPRESENTATIVE and well-attended meeting of medical men resident within the area of the Munster Branch of the British Medical Association was held in Cork recently to discuss the position of the medical profession under the National Insurance Act. The following proposal was passed by a large majority:

> That we, the practitioners resident in Munster, decline to form any local committee or to accept any service under the National Insurance Act until the demands of the medical profession, as expressed by the Representative Meeting, are satisfactorily conceded, either by an amending Act or by regulations of the Insurance Commissioners.

The following amendment was proposed but not carried:

> That we agree to co-operate with this Insurance Bill, provided an adequate fee, which is to be fixed by the profession, be accorded for certification.

District Council Refuses to Assist Lecturer.

The Ballinrobe District Council had before them at their last meeting a letter from the Secretary of the Irish National Insurance Commissioners, asking for the co-operation of the Council in the way of providing lecture-halls for one of the Commission's lecturers, who would shortly visit the district to explain and spread a knowledge of the provisions of the Act. After some discussion the letter was marked "read."

Trades Council and Medical Benefits.

At a meeting of the Belfast Trades and Labour Council the following resolution was passed:

> That the Secretary of the Belfast and District Trades and Labour Council be instructed to write the leaders of the different political parties and the Ulster M.P.s to urge them to bring pressure on the Government to pass a one-clause Act restoring the medical benefits to Ireland, as the absence of such benefits will severely handicap the approved societies in Ireland, it being impossible for them to provide any safeguard against malingering and other abuses, owing to there being no control over the doctor. We are also of opinion that the medical benefits are the most valuable benefits in the Insurance Act, and that owing to its higher death-rate these are more needed in Ireland than any other part of the kingdom.

The opinion was freely expressed that without medical benefits the Act in Ireland would be no good.

Dublin Hospitals.

The special committee appointed by the Dublin hospitals to consider their position under the Insurance Act has published in the public press an appeal signed by nine prominent Dublin men, both lay and medical, on behalf of twenty-one hospitals and convalescent homes.

The appeal states that the passing of the National Insurance Act is a matter of such grave concern to the voluntary hospitals of Dublin that it has become urgently necessary to make the position clear to the public and invoke its moral and material support. Briefly stated, the voluntary hospitals of Ireland are threatened with a loss estimated at a large proportion of their annual income. This loss will be due to a decline in the voluntary subscriptions: first, of employers, who must insure their employees against sickness, and who may regard the tax as a sufficient reason for discontinuing, or at all events reducing, their subscriptions; secondly, of insured persons who are compelled to contribute to the State insurance scheme; thirdly, to a decline in the number and amount of legacies, as the Act may possibly affect many testators; and, finally, the hospitals must pay a heavy insurance tax themselves in respect of the large staffs required for their work. Such a loss could only have the result of crippling and perhaps of destroying the system of voluntary hospitals, even if it were accompanied by a substantial reduction in the number of persons requiring hospital treatment. But in Ireland there will be no such reduction because "medical benefits" does not apply, so that the number of out-patients will remain as before. The in-patients also may certainly be expected to maintain their present numbers. Except in the case of consumptives, the Act makes no provision for the treatment of sufferers from serious illness who cannot be treated at home. It must also be taken into account that the Act does not provide for the young and old, those under 16 and over 65, those whose illness is due to their own misconduct, and those who for one reason or another are exempt from insurance. The Act provides that no portion of the sickness benefit payable to an insured person goes to the voluntary hospital if the insured person has "dependents"—a word of very elastic meaning. In the case of Post Office contributors—many of whom will be persons rejected by approved societies, the worst class of lives, and therefore those most likely to require hospital treatment—no portion of the benefit can go to the hospitals even if the contributor has no dependents. The appeal concludes by most anxiously urging the benevolent public, in order to prevent such a calamity, not to relax their interest or reduce their subscriptions or gifts unless and until they are satisfied that the usefulness and needs of the hospitals have abated.

SOUTH CHARITABLE INFIRMARY AND COUNTY HOSPITAL.

The Joint Committee of Management of the South Charitable Infirmary and County Hospital has issued its report for 1911. The statistics of extern and intern departments show that the number of new cases dealt with in the extern was 3,681, the number of attendances being 13,793, while in the intern department 1,265 patients were treated, or a daily average of 80.2 beds occupied. All these figures show an increase in work done over the previous year. The unsatisfactory condition of the medical side of the extern department has for a considerable time occupied the attention of the Housing Committee. Owing to a representation made by the extern staff that additional space should be provided in consequence of the new regulations of the Council of University College, Cork, that all students should attend the extern department lectures, the honorary architect submitted a plan which gave the necessary accommodation by projecting the room outwards, and providing at the same time a small private dressing-room for female patients. The Joint Committee desires once again to thank the staff for their untiring diligence for the welfare of the patients under their charge. The accounts for the year 1911 have been closed, all debts being paid, which is a fixed rule of the hospital. There is a balance due at the bank on general account of £194 9s. 5d. The deficit is a very unwelcome carry forward to a year that will be a very anxious one to hospital managers in consequence of the Insurance Act. Though Ireland has been excluded from medical benefits under the Act, yet the application of the rest of it to Ireland affects so many people through compulsory contributions, that apprehension is felt that insurance contributors will relax their generosity to hospitals on that account, besides which the board will have to contribute under the Act, being employers, as already pointed out. In February Sir Christopher Nixon, Bart., M.D., Vice-Chancellor of the National University of Ireland, went through the infirmary accompanied by the staff, and gave his impression as follows:

> I had the pleasure of visiting the South Infirmary this day. I was greatly pleased with the institution in every respect—its bright, cheery character, the admirable way which the patients are looked after, and its general appearance of efficiency.

SANATORIUM FOR ADVANCED CONSUMPTIVES.

As mentioned last week, a Provisional Committee was appointed at a public meeting held on February 12th to establish, in conjunction with or independently of the Royal Hospital for Incurables, a sanatorium on a suitable site for advanced cases of consumption. A meeting of this

committee was held on February 23rd, when the following resolutions were adopted:

That we, the Provisional Committee appointed at the public meeting held in Rathmines Town Hall on February 12th last, hereby resolve as follows:

That it is desirable to make provision for the reception of advanced cases of consumption in an elevated, open situation, apart from human habitation, in a lightly constructed sanatorium, on the ground of the Royal National Hospital for Consumption, at Newcastle if possible, and, if not, in the grounds of a similar institution.

That, in view of the statement appearing in the Dublin newspapers that the Chancellor of the Exchequer is appointing a committee to report at an early date upon the consideration of a general policy in respect of the problem of tuberculosis in the United Kingdom in its preventive, curative, and other aspects, which should guide the Government and other bodies in making or aiding sanatoriums or other institutions or otherwise, we are of opinion that it would be premature for any public or charitable body to embark in such an enterprise as providing sanatoriums until the Chancellor of the Exchequer's Committee shall have reported.

Antivivisection Meeting.

Last week Mr. W. Crawford Smith, C.E., delivered a lecture in Dublin on "Antivivisection: Its Aims and Objects." He said that opposition was based on three grounds—that vivisection was useless, cruel, and ethically indefensible. Whereas in 1888 the number of animal experiments was 1,069, in 1908 the number had increased to 88,000, therefore inspection was, he said, a farce, as there were only two inspectors for England and one for Ireland. He quoted various statements to show that many of the results claimed by vivisectionists had been found to be illusory. In the discussion which followed one speaker said he was in favour of allowing vivisection under proper restrictions; with regard to its utility they must be guided to a large extent by the opinion of medical men.

Private Patients and Dublin Hospitals.

The Guardians of Kilrush Union recently sued a man for recovery of a sum of £15 for maintenance charge while a patient in St. Joseph's Hospital. The judge is reported to have remarked that if there were any analogy between this hospital and the Dublin hospitals, which were mainly for pauper patients, he had to say that when paying patients came in for treatment the doctor always received his fees. Such a statement only shows that the judge was quite unaware of the way in which the great majority, at least, of the voluntary Dublin hospitals are managed, since the members of the visiting staffs of these hospitals are debarred from making any charge for attendance on or treatment of the patients while in hospital.

The Washing of Milk Vessels.

During an inquiry with respect to a scheme for providing the town of Ballinakill with public sewers at a cost of £537, held last week at Abbeyleix, Queen's County, by the Engineering Inspector of the Local Government Board, it appeared that some dairy keepers were in the habit of washing their milk vessels in a foul stream, into which the sewage from a national school, attended by over a hundred children, discharged. The inspector said he would feel compelled to report this state of things to the authorities, whereupon one of the dairymen explained that he had no alternative except to carry water a quarter of a mile

Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

Proposed Memorial to Lord Lister.

It is fitting that Glasgow, the city in which the late Lord Lister made and put into practice the discoveries which have done so much to alleviate human suffering, should be the first to consider the question of an international memorial. The Lord Provost has taken the first steps in the matter by convening a private meeting of a few leading citizens to formulate definite proposals which will subsequently be submitted to the public.

Royal Edinburgh Asylum.

Physician Superintendent's Annual Report.

At the statutory annual meeting of the Corporation of the Royal Edinburgh Asylum on February 26th, Dr. Robertson gave his annual report for the year 1911.

On January 1st the total number of patients on the register was 758, of whom 12 were absent on probation. On December 31st the number was 753, of whom 10 were absent on probation. The number of admissions was 179, of discharged 120, and of deaths 64. The total population on December 31st had not varied more than 6 in number during the last four years, having been 752 at the end of 1908, and since then successively 752, 758, and 753. The admissions were 179, or 16 less than in the previous year. Only 3 of the 179 were found on medical examination to be in average health and condition, indicating in a striking manner how closely insanity—of the severer types, at least—is associated with physical ill health. Among the causes of insanity, those classified as mental and moral were alleged to be the exciting cause in 26 instances, or 14.5 per cent. of the total admissions. Excessive indulgence in alcohol was recorded as having been the exciting cause in 17.8 per cent. of the total number of admissions. It was alleged to have been the cause in no less than 28.9 per cent. of the male admissions, or more than double the proportion for the previous year. The only explanation that can be offered for this great rise is that it is probably due to the increased amount of drinking which accompanies an improvement in trade and wages, such as occurred last year. Of the admissions, 43 per cent. had suffered from previous attacks of insanity, and in 38 per cent. there was a history of insanity in the families of the admissions. Among the causes of insanity enumerated during the year it is noticed that influenza is absent. For twenty-one years it has never failed to find its victims. It was too much to hope that its capacity for evil is at an end, for it was still with us. It was undoubtedly less prevalent, and had become less virulent of late, and we were apparently developing an immunity to its influence, though, like other infectious diseases, it still finds the young susceptible.

Discharges.

Fifty-three patients were discharged as recovered, and 67 as unrecovered. The recovery-rate was, therefore, during 1911, 30 per cent. of the admissions, a less satisfactory result than in the previous year.

Treatment—Simple Remedies.

Numerous verandahs and shelters have been erected. Rest in bed, simple diet, abundance of fresh air, freedom from worries in the course of a few weeks make a great difference in all those who are run down and exhausted if they have any powers of recuperation whatsoever. Under this simple régime the patient quickly improves in looks, puts on weight, and steadily regains his health and strength. Anxious relations must, however, be patient, for mental recovery comes slowly, and lags behind physical improvement. It appears wonderful that such a simple measure as rest all day in the open air, and others of a similar character, should alleviate the most troublesome symptoms of mental disorder. It is soothing and acts as a sedative—for example, to patients suffering from feelings of irritability and restlessness, just as fractious children are similarly calmed by being taken out of doors: and for insomnia, which is one of the curses associated with mental disease, it is more generally useful than any opiate. One explanation of these results may be that many of these so-called symptoms of mental disease do not necessarily exist at all, but require special conditions to call them forth. They are the reactions or responses of a disordered brain to stimuli received from the outside, and if the environment be adapted to meet the disordered state so as to be non-irritating and soothing, then these insane manifestations cease because they are not elicited. To take, perhaps, a trite example. The furious maniac, the product of the brutal treatment of the past, does not now exist, because the treatment that was necessary to elicit the fury has gone, and in the forward march we are in process of removing the lesser irritations that still exist.

Treatment of General Paralysis: Salvarsan.

Great attention continues to be given to the treatment of general paralysis. Hopes were raised early last year that the progress of this fatal disease might be stayed by the administration of Ehrlich's salvarsan ("606"), even if it did not remove those symptoms, which were the result of permanent structural changes. This hope has not been realized. Immediately after the injection of this remedy there is almost always to be observed a marked improvement of the symptoms, but this only raises false hopes. A similar result has been noted in this disease after many other forms of active treatment. As it is likewise also subject, quite spontaneously, to periods of almost complete remission of the acute symptoms, the greatest care is needed in forming any conclusions as to the results of treatment. European opinion is, however, agreed on this point, that the administration of salvarsan alone will not cure general paralysis.

The system we have employed, while based upon the action of salvarsan, is supplemented by other agencies. Two hours after having injected salvarsan into the veins we draw off some of the patient's own blood and inject the blood serum, still containing the salvarsan in solution, into the fluid surrounding his spinal cord and brain. The remedy is thus brought into immediate contact with the seat of the disease. In the next place, blood serum obtained from a hospital patient who has been treated three days previously with salvarsan for an acute disease is similarly injected intraspinously. This serum contains the antibodies of this disease in large amount, and is believed by some to be more efficacious than salvarsan itself. It is admitted by those competent to judge that there are sound theoretical grounds for the line of treatment we have evolved, and it is satisfactory to report that in the case of three patients who have been thus treated there has followed remarkable improvement and remission of all the acute symptoms. Everyone with extensive experience has seen similar remissions occasionally, but the occurrence of three such cases in one year is very unusual. Time is required to settle the important question whether the progress of the disease has been permanently stayed by these measures or not.

Earlier Treatment and Warnings.

The necessity for the earlier treatment of general paralysis cannot be brought too forcibly to notice. At the stage when a patient suffering from this disease is usually sent to a mental hospital, structural changes have already occurred throughout his brain and nervous system, visible certainly through the microscope and often to the naked eye, which are probably irremediable. But as it is now possible, by means of an examination of the blood, and by lumbar puncture, to diagnose general paralysis with certainty at the earliest stages, it is to be hoped that we shall be given the opportunity of treating it at a period when there is a greater possibility of being successful. Not only in general paralysis, but in all forms of mental disorder, more adequate treatment of the premonitory symptoms or warnings, which are usually numerous, should be attempted. They are not taken seriously enough by the patient or doctor.

Prevention of Insanity.

This would be a greater and more profitable work than even the care and treatment of the actually insane, valuable and necessary as that was. It was formerly believed that once insanity showed itself in an individual, it assumed a worse form in each successive generation, till at the end of three or four generations, idiocy and imbecility developed, and the stock came to an end. We know now that the tendency is all the other way, and is to a reversion to the normal or healthy type. By union also with sound stock the degeneration becomes less evident in each generation, till it is practically eliminated. Even in the first generation under these conditions it may show itself only in one out of a family of four or five members (Mott). It is when unsound stock unites with unsound that greater numbers of the offspring are affected, and we have the progressive degeneration pointed out by Morel fifty years ago. The guiding rules, therefore, for the members of these nervous families are, not to marry young, and not to marry into families with any nervous taint. The crux, however, of the whole problem of degeneration lay in the segregation of the high-grade imbecile, and chiefly those of the female sex. It is hoped that by means of the medical inspection of school children these defective persons will be recognized at an early age, that they will not be lost sight of, and that some powers will be given for their supervision in accordance with the recommendations of the Royal Commission on the Care and Control of the Feeble-minded. Then something more must be done for the prevention of those acquired forms of insanity which are not so much the result of hereditary tendencies as due to avoidable causes, chief among these being alcoholic insanity and general paralysis. While between the ages of 20 and 30 half the insanity that occurs is mainly hereditary, between the ages of 40 and 50 a half is due to the two forms mentioned, which are mainly acquired. For alcoholism it is to be hoped that something much more drastic will be done by Act of Parliament than has ever been attempted in the past.

Deaths.

There were 64 deaths, or 8.6 per cent. of the average number resident. The most important cause of death was general paralysis, which accounted for the deaths of 13 men and 6 women, or for 19 of both sexes out of a total of 64 deaths. Nearly a third of the deaths, therefore, was due to this one cause. One man and 4 women died of consumption during the year. In only one case was it diagnosed on admission.

Two of those who died were over 90 years of age. One had been resident twenty-eight years.

Long Residence.

Three of the patients who died had been resident over forty-three years, a certificate, if one were needed, of the care taken of the insane. One had been no less than sixty-three and a half years at the West House, and she was the oldest patient in Scotland, having been admitted in the year 1847.

Other Matters.

The general history of the institution, personal references, the new Diploma in Psychiatry by the University of Edinburgh, the Asylum Officers' Bill, and the Lunacy (Scotland) Bill were in turn discussed.

Dr. Robertson is to be congratulated on a highly successful year's work, and an excellent report, which one always looks for from Morningside Asylum.

MEDICAL INSPECTION OF SCHOOL CHILDREN.

Two reports on the results of a year's medical inspection have recently been issued—the one by Dr. Buchanan on the East Lothian schools, the other by Dr. Roberts on the schools, now numbering 130, under the jurisdiction of the School Board for Glasgow.

East Lothian.

Dr. Buchanan's first annual report on the results of his medical examination of the school children of East Lothian shows that the number of children who went through the routine examination was 2,075—1,131 boys and 944 girls. The total number of examinations made was 2,471. On the whole, the children in the county were well clad at the time of the examination, though the reliableness of the figures was lessened to some degree by the fact that the majority of the children appeared to be specially prepared for the event. The footgear of the children was generally good. No particular inquiries as to the food supply were made, but from occasional questions, and from observation of the food supplied for the midday meal of the country children, it was obvious that bread and tea took far too great a part in the dietary of the children. The cleanliness of a large number of the children left much to be desired. The mental capacity of the scholars examined was ascertained from the teachers. The tabulated results were:

	Boys.	Girls.
	Per Cent.	Per Cent.
Backward	5.2	4.1
Mentally deficient	0.08	--

Defects of speech were observed in 2 per cent. of the boys and 2.5 per cent. of the girls. One of the most striking facts elicited by the inspection was the widespread decay among the teeth of the children and the practically universal neglect of the condition by the parents. It was very noticeable that children who showed obvious signs of neglect almost always had a very fine set of

teeth, while the teeth of the better-class children were usually decayed. The figures were:

	Boys.	Girls.
	Per Cent.	Per Cent.
No teeth decayed	21.8	15.9
Slight decay	64.1	68.8
Extensive decay	14.6	13.5

Heart disease was found to be comparatively rare, and there were very few cases of tuberculosis.

Glasgow.

The scheme of medical inspection detailed by Dr. Roberts included the re-examination of all abnormal cases; the routine inspection of all children not previously examined in the infant and junior departments, and the examination of cases specially brought to notice by teachers or school medical officers. During the year the staff included the chief medical officer, two permanent assistant medical officers, and fifteen part-time medical officers, in addition to the staff of nurses. Four attendance officers are specially detailed for the examination of boys in a verminous state. The total number of children examined, exclusive of the re-examination of all abnormals, was 23,000. During the year, 6,335 notifications of disease or defect were made to parents. On re-examination of these children 33.1 per cent. were found cured, and 18.3 per cent. improved. The remainder were still under observation. Dr. Roberts refers specially to cases of adenoids and enlarged tonsils with their consequences, and the necessity for treatment as early as possible during school life. Children with infectious skin diseases, such as ringworm, favus, scabies, and bad cases of impetigo, were excluded from school till cured. The proposal to form a ringworm school has been postponed, partly because the average length of absence from this cause was found to be less than is usually stated, and partly because of the difficulty of finding a suitable building for the purpose. A definite improvement since last report was noticed in regard to verminous cases, the worst of which were also excluded from school till cured. The statistics showed that a very large proportion of children suffer from decayed teeth, and parents are usually urged to have bad teeth properly attended to.

Children attending "cripple schools" spend only six hours out of the twenty-four at school, and it is therefore essential that all who are interested in the welfare of the children should take every opportunity of influencing the parents to obtain and aim at, for themselves and their children, a higher standard of healthy living than has been reached hitherto. During the year there were 970 children on the roll of schools for physical defectives, and 942 on those of schools for mental defectives. Last session 511 children were passed into special schools, and of these 272 were suffering from some form of rickets. Tuberculosis came next with 63 cases. As a result of treatment in special schools 267 children were transferred to ordinary schools during the year.

Dr. Carswell reports specially on the mentally defective, Dr. H. Wright Thomson on eyesight inspection, and Dr. Kerr Love on the deaf and dumb.

Correspondence.

THE CHAIRMAN IN COMMITTEE OF THE REPRESENTATIVE MEETING.

SIR,—As one who has attended the Representative Meetings of 1911 as a listener and onlooker, and one who spent a considerable part of Tuesday and Wednesday of last week as a "stranger in the gallery" of the Common Council Chamber at the Guildhall, I cannot refrain from writing concerning the manner in which the Chairman of the Representative Meeting when "in Committee" conducted his arduous work.

The Representatives themselves naturally appreciated the services of Mr. T. Jenner Verrall at something of what they are worth, but the rank and file of the Association in the Divisions little know what they owe to this unique Chairman.

His conduct in the chair was nothing less than magnificent. Always urbane, absolutely impartial, and knowing his own mind and at the same time the proper proceeding, he had that happy power of making himself rigidly obeyed, and yet without raising one atom of ire against himself or his ruling.

If the members of the medical profession, through the deliberations and decisions of this Representative Meeting obtain their just demands—and they will get them if we now all hold together—there will be one person to whom gratitude will be due in no small measure, and that is—Mr. Verrall.

It is because I fear that in *our* struggle *his* work may not receive its full complement of praise I am constrained to write this letter.—I am, etc.,

London, W., Feb. 26th. W. MCADAM ECCLES.

THE PRESS AND THE REPRESENTATIVE MEETING.

SIR,—We, the undersigned, are members of the British Medical Association who were present as onlookers in the gallery at the recent Representative Meeting. It was with surprise and indignation that we heard the unwarranted assumption of the Chairman of the Council that it was from this quarter of the house that the unauthorized reports in the press had originated.

If Dr. Macdonald had suggested that some stranger had gained an entry to the gallery by falsely pretending to be a member of the Association there would have been justification for his remarks. As it is, the satirical reference to the "gentlemen" in the gallery calls for an apology to those of us who were present as visitors at the meeting. We should like Dr. Macdonald to state why the fact of having been or not having been elected as a Representative should indicate a tendency to honourable or dishonourable conduct. There were only ten or twelve men in the gallery during most of the meeting. It would, therefore, have been more logical if, having regard to the numbers, the Chairman of the Council had fastened any responsibility upon those members who were on the floor of the house, but more generous—and doubtless more accurate—to have taken the view that outsiders had gleaned items of information from conversations overheard in the intervals of the sittings. The suggestion to clear the gallery was an insult to the integrity of those members of the Association against whom it was directed, and fortunately met with little support from the meeting.—We are, etc.,

B. SYDNEY JONES.

W. D. MCMURTRY.
Member Wandsworth Executive Committee.

GEORGE SCOTT.
Member Metropolitan Branch Council and Wandsworth Executive Committee.

EDWIN SMITH.
Senior Representative-elect, Wandsworth Division.

REGINALD THORPE.

London, Feb. 26th.

THE DEBATE ON THE INCOME LIMIT IN THE HOUSE OF COMMONS.

SIR,—My attention has been called to a speech of Sir Victor Horsley, published in your issue of February 24th, in which he is reported to have stated that Mr. Smith Whitaker's letter, written in the House of Commons, about which there has been some correspondence, "was either in the possession of Sir Philip Magnus or somebody to whom he had responsibly handed it." Both these statements I denied in a letter to the *Times* of January 4th, which I can only assume Sir Victor Horsley had not seen. At the time when I wrote that letter I did not know, as I distinctly stated, in whose possession the letter was, but since then I have received a copy of it, which I herewith enclose. That letter undoubtedly influenced me and others not to press my amendment to a division, and our decision was reinforced at a subsequent interview with Dr. Addison, one of my constituents, who expressed his agreement with Mr. Whitaker, and strongly deprecated a division on the question.—I am, etc.,

House of Commons, Feb. 27th. PHILIP MAGNUS.

[*Copy.*]

August 2nd, 1911.

Dear Sir Philip Magnus,

I gather that many of our strongest supporters in the House are assured that your amendment cannot be carried, and that it would be unwise to show our weakness and prejudice our case on other points by forcing it to a division. In these circumstances I am sure the profession will feel you have done all you can, even though you allow it to be negatived without a division.

Yours faithfully,

J. SMITH WHITAKER.

SIR,—Yesterday I was gratified to learn from Sir Philip Magnus that he had regained possession of a copy of the letter which I addressed to him in the House of Commons on August 2nd, and that he proposes to forward it to you for publication, a course in which I very heartily concur.

It is unfortunate that Sir Philip Magnus was not in a position to publish the letter at an earlier date. At the time of writing it I did not trouble myself to retain a copy, for it did not then appear to be of the importance which Mr. Boyton, Dr. Helme, Dr. Major Greenwood, and others have recently sought to give to it.

As some of your readers may conceivably not have followed the previous correspondence, and with a view to reducing the possibility of further misunderstanding, may I point out once again that the writing of the letter in question to Sir Philip Magnus was not an isolated incident, and the letter itself must be read in the light of the circumstances in which it was written? I had previously been consulted by Sir Philip Magnus on the subject, and had explained to him that we left ourselves in his hands in the matter, and in the hands of our other parliamentary friends who were acting in co-operation with him. The letter was written in response to representations from a prominent Unionist member to the effect that Sir Philip Magnus was still in doubt as to the view which the Association might take on the subject.

Neither was the letter the final incident, for after receiving it Sir Philip Magnus called me out of the gallery and conferred with me and with one of the Unionist Whips, when, in view of their opinion that perhaps the amendment had better chances than had previously been thought, I concurred in what I understood to be Sir Philip's decision to press it to a division. It appears that this was followed by yet another conference of Sir Philip Magnus and other members, in which Dr. Addison was invited to take part, and that it was in, or even after, this further conference, and without again consulting me, that Sir Philip Magnus arrived at his final decision.

I cannot allow the matter to close without calling attention to the concluding sentence of Dr. Greenwood's letter to you of last week, in which he says that Dr. Helme's statement in regard to this matter was justified. Dr. Helme's statement was:

> "Sir Philip Magnus moved an amendment in the House of Commons which would have given us what we wanted and included the £2 maximum limit as well, but our Medical Secretary, who was in the House during the debate, sent down a private note *asking* that it should not be pressed to a division." (The italics are mine.)

In your issue of February 17th I pointed out that this was not a correct statement of fact, and I gave the facts. Dr. Greenwood's observation, therefore, means that on a question of fact he preferred to take the word of Dr. Helme, who knew nothing of the matter except on hearsay, to my statement, I having first-hand knowledge.

The fortunate circumstance of Sir Philip Magnus being able now to publish the letter will assist your readers in considering whether either Dr. Helme or Dr. Greenwood was justified.—I am, etc.,

Hendon, N.W., Feb. 28th. J. SMITH WHITAKER.

THE PROFESSION AND THE POLITICIANS.

SIR,—Sir Victor Horsley seems to have worked himself up into a terrible passion over his failure to convince the profession that the Insurance Act is a splendid achievement, and that under it all the requirements of the profession are attainable. At this childish display of bad temper I could afford to smile and keep silence, but when in his anger he begins to abuse and threaten the respected Editor of our JOURNAL I feel that I am obliged to intervene and state definitely certain points with which I alone am acquainted; to do so properly will, I fear, take me back some little way in the history of the present agitation.

To begin at the beginning. I have before me as I write the very inept circular, dated December 2nd, 1911, issued by the Council, wherein "reasons" are suggested for the action of the Council in recommending Mr. Smith Whitaker to accept the offer of Deputy Chairman. I have read the circular several times since, and for the life of me I cannot find, even now, any "reasons" of a nature so valid that they have subsequently materialized: at the time I first read it I could find no "reasons" in it at all, and consequently felt angry at what I felt was a gross attack upon the intelligence of the members of the British Medical Association, and I accepted, as many others also accepted, the appointment of Mr. Smith Whitaker as a sacrifice of the interests of the profession to the claims of political expediency, and under this feeling I wrote my letter to the *Times*, which speedily became somewhat famous, owing to the almost unanimous support it received from the rank and file of the profession.

Sir Victor Horsley thereupon immediately took up the challenge on behalf of the Council; so far as I know he had no authority to do so, and therefore he must have been urged thereto by his conviction that he was right and I was wrong.

The next step on my part was taken somewhat hurriedly, namely, the calling of a meeting at Queen's Hall, the object of which was to decide between the complacent view of the Act taken by Sir Victor Horsley and the view which I had reason to believe was held by the bulk of the profession.

I must, of course, assume sole responsibility for initiating the meeting, but obviously the details required assistance from a considerable number of men (I would like to seize this belated opportunity of thanking those who did assist me so successfully), and for the week intervening between the idea and its fulfilment my house was the scene of constant committee meetings, at which I positively assert that politics were not mentioned in any way connected with the meeting; our only desire was to advertise the meeting as widely as possible amongst medical men, and our only fear was lest the hall would not be full. We did in the last few hours wonder whether Sir Victor Horsley would come, but most certainly nothing was said beyond this expression of mild curiosity, and I emphatically deny that politics entered into the arrangements at all. How, or from whom, Sir Victor Horsley heard before the meeting that he was to be howled down I do not know. I can swear that the committee knew nothing of such an intention: and if the intention did exist in the minds of some of those who meant to be present, I can only believe that it arose from his action *re* the Insurance Act, and not from his politics, with which, for anything the committee knew, the whole meeting might have been in sympathy.

I now come to the meeting itself; it became quite obvious that feelings of a very deep nature had been stirred, and the committee naturally felt that these feelings might lead to a good deal of disturbance if they were allowed free play, consequently it was necessary to provide bona fide (not "so-called," as Sir Victor put it) stewards who would keep order; again, no question of politics was ever thought of: order was the only consideration.

Now, Sir, I come to deal with an incident which I should never have published did not Sir Victor Horsley compel me to do so. Let me first deny emphatically that there were any claques in the hall unless the whole meeting can be called one big claque. Passing that by, the course of events was that Sir Victor Horsley attempted to speak from his seat in the hall, but it was at once evident that his action in connexion with the Act had aroused so much feeling that those in his vicinity were not inclined to listen to what he had to say. Sir Watson Cheyne then called him up to the platform and several times made strong efforts to induce the meeting to listen: these were, however, ineffectual, but they were honestly made, and nothing, to my mind, can excuse Sir Victor Horsley's extremely rude remarks to Sir Watson Cheyne, which ran as follows: "Why can't you keep your meeting in order? I want to contradict your lying statements." On his applying the same epithets to me and my statements (in the *Times* and at the meeting) he was remonstrated with by Sir Alfred Pearce Gould, who offered him a seat. I was certainly sorry at first that the meeting refused to hear him; but I would urge that any sensible man might by then have recognized that the feeling was so strong against him that it were better to desist from speech, but his violent and disgraceful language to the chairman and myself entirely changed my feelings, and prevented me from appealing to the meeting. Subsequent events must be appealed to

to decide who was lying; they certainly suggest to my mind that it was not Sir Watson Cheyne nor myself.

Such, Sir, is a plain unvarnished tale of the inception and execution of the idea of the Queen's Hall meeting, and I deny indignantly that from first to last politics had anything to do with the matter. Far different is it with the action of the Council, for I have it in printed evidence of their own Committee that fear of a Government defeat led to the abandonment of one after another of our six cherished principles.—I am, etc.,

London, W., Feb. 26th. FRED. J. SMITH.

P.S.—A lady, who is known to me personally, put the papers on the seats absolutely on her own authority; it was most certainly no part of the plan of the meeting, and had no significance.

SIR,—As one who was present at the meeting in Queen's Hall, I may, perhaps, be permitted to give my impressions. I went having no definite ideas on the subject, which little affects me personally. Only a very few faces were known to me, and, as I sat wondering at the great crowd and the excitement, I tried to understand what it meant.

The disheartening experiences many had gone through—poorly-paid "contract" practice with some, scanty fees with most, and many of these unpaid. Beyond and behind these personal experiences—but they certainly did not look a gloomy lot or as if much was the matter with them then—there existed the knowledge, or tradition if you like, of a whole generation of badly paid (and honest) service, whose crushing effect is continually being increased, owing to greater demands upon our services, and increased cost of examinations and of living, and the competition of free out-patient departments of hospitals. All that is a sealed book to the consultants of the College of Physicians. It is little to them or to any one if a man breaks down in health or loses heart, and drops out, leaving wife or may be a family poorly provided for. How many tragedies of the sort can any doctor of middle age disclose!

This was at the back of the mind of the great crowd, coming from many places, faces unknown at meetings of the Association. That there was a political flavour is true, for during all the vacation two or three of the abusive Tory papers had shown a keen desire to destroy the bill and damage the Government, but that had little to do really with the meeting.

The irony of it is that this strong protest and this emphatic expression of feeling should have been directed against Sir Victor Horsley—I suppose the one man who through all his professional life has striven, and often succeeded, to better the material conditions of practice. A great majority would willingly have heard him, but the Chairman could not keep order.

As to the occasion of the meeting, Dr. Maclean and Dr. Macdonald, who for the moment were acting for the Association and in name of the whole profession, accepted the bill after it left the Commons. They were, I think, justified in this, and that appears to be the meaning of the decision of the Representative Meeting. They made two blunders. First, they issued their letter before the bill had passed the Committee of the Lords; and, next, they qualified their acceptance with many fault-findings. It was then inevitable that Dr. Fred. Smith, or someone, should protest. I do not wonder that they (the Chairmen) kept silence, but the Council should have taken the matter up at once. The President of the Metropolitan Branch was asleep, for he might and should have summoned a meeting of the Branch and given opportunity for Dr. Smith and those of his opinions to express them. The Branch Secretary, with some assistance, wrote letters in reply. But they were without authority and understood not the real issue, and were perhaps wanting in courtesy, and rather increased than allayed the irritation. Sir Victor had to bear the brunt of that. Some day we shall erect a statue in his honour.

As a member of the Kensington Division, I must call attention to the vote on the want of confidence motion (SUPPLEMENT, p. 206). No notice of the motion appeared on the agenda of the recent meetings of the Division, and I do not remember that Dr. Maclean's name was once mentioned. The vote of Kensington should therefore be omitted and the number diminished by 354, still, however, leaving nearly 6,000 wanting in loyalty to their leaders—I am, etc.,

London, W., Feb. 26th. G. CRICHTON, M.D.

SIR,—In your editorial comments of Sir Victor Horsley's letter in the JOURNAL of February 17th, you state that Sir Victor Horsley has not furnished any proof of the assertion that the Queen's Hall incident was inspired by political feeling. Dr. Ian Jefferiss's letter in the same issue is a very good instance of the feeling that prevailed. I was an early arrival at the meeting, and on entering came at once upon a group of men, one of whom was a consulting surgeon who was a fellow-student of mine, who were engaged in a bitter wrangle, the opinions of the majority centring round the statements that "Horsley was a Radical and Addison a rank Socialist." During the greater part of the meeting I was near the front of the hall, and during the fusillade of comments that Sir Victor Horsley's appearance provoked it was patent to any one who was listening that political bias was almost entirely responsible for the most disgraceful scene that it has been my lot to witness in connexion with the British Medical Association.—I am, etc.,

Wimbledon, Feb. 21st. ELWIN H. NASH.

POST OFFICE MEDICAL OFFICERS: THEIR OPPORTUNITY FOR JUSTICE.

SIR,—The National Insurance Act has welded the medical profession. Now we are united we can win our just demands for all kinds of club and contract practice. The best solution is the complete abolition, and the payment for medical services rendered. Already the club and friendly society doctors are demanding more just remuneration. The doctors in Dunfermline have given due notice to end the present contract of 4s. per year with medicine, for 8s. 8d. per year without medicine, with extras for special services.

At the Representative Meeting of the British Medical Association held last week the minimum is 8s. 6d. without medicine with extras. The fee for the post office is 8s. 6d. with medicine. This is too low. I would most strongly advise the Post Office Medical Officers' Association to fall into line with the British Medical Association, and make their demand for at least 8s. 6d. without medicine, and payment for the extras set forth in the Association's demands. In recent years the Postmaster-General has put in new claims for extra work without any payment, and without our consent—in fact, in spite of our just protest. One of the most unjust and obnoxious is that the doctor attends all cases of illnesses and accidents the result of immorality and misconduct, free of charge. I know the postal employees never asked nor expected it. In fact, there is no precedent for it in any of the clubs. It is contrary to morality, and the Government is condemned at the bar of national morality.—I am, etc.,

February 27th. ULTIMATUM.

THE POLITICS OF THE MEDICAL PROFESSION.

SIR,—Your correspondent Mr. Graeme M. Allan has taken needless offence at my allusion to "scrappy newspaper reports," but in making his protest has, in fact, justified me on the main issue. I recently stated in a public speech that I *never* blamed reporters for scrappy or condensed reports, because as an old journalist I knew it did not lie with them to determine the length of their reports in type.

The report of the *Newcastle Daily Journal* from which he gives his extract is certainly a good one, and not one which, had it been specially cited, I should have called scrappy. But it is certainly a condensed and not a verbatim report; and however well a condensation may be made it may easily give rise at special points to unwarranted cavils where readers are anxious to cavil. Now, the main issue raised by you against me was as to whether I asserted that the opposition of doctors to the Insurance Act was *wholly* due to their Toryism. I explained that I had spoken of their political prejudice as largely *entering into* their opposition. This is the issue: and Mr. Allan's angry attack on me does not even recognize what the issue was. Even his own report makes me ascribe to the doctors' politics their "violent and furious" opposition to the Act, not their criticism of

it in the lump. When he calls this an "extravagant assertion" he merely raises the question of his own prejudice.

My charge, put in a number of speeches, was that political prejudice played a large part in medical attacks on the Act, and I repeatedly discussed, without any ascription of prejudice, a number of specific arguments which were not of a "violent and furious" character. For the rest, we have had in your columns the express testimony of Sir Victor Horsley as to the political character of the "violent and furious opposition" to him on the subject.—I am, etc.,

House of Commons, Feb. 27th. J. M. ROBERTSON.

COLLOIDAL SOLUTIONS AND ARTIFICIAL ENZYMES.

SIR,—In your article of February 3rd you quote opinions by Dr. Robin and others on the comparative values of colloid silver and mercury, prepared by electrical and chemical methods. According to Dr. Robin, those colloids prepared by chemical methods are absolutely worthless; in fact he condemns them in forcible language, which he is by no means justified in using. In the same number of the BRITISH MEDICAL JOURNAL I see that you give a report on Collosol Hydrargyrum and Collosol Argentum made by my new chemical method. What seems to me so strange is that your expert has only evaporated these products to dryness, taken up with water and looked at them.

May I point out that colloids (or "collosols" as I call my products) are not meant to be boiled? Whether you can evaporate to dryness and redissolve in water is a matter of small moment. The great, I may say imperative, quality of a "collosol" is that it will kill bacteria under all ordinary circumstances up to, say, 40° C. in the presence of as much as 1 per cent. of common salt (NaCl) without breaking down, that is, losing its essential colloidal properties.

Therefore, I ask, why boil it? Do you boil ammoniated tincture of quinine or carbolic acid, etc., to decide whether they will do what is claimed for them? Any tests made with my "collosols" should be on their germicidal powers, and I ask you to allow me to give the results of some definite and systematic tests I have carried out in this respect. Silver and mercury collosols of a strength of 500 parts per million were diluted down to 50 parts per million with nutrient broth, and 10 c.cm. of this mixture was infected with two loopfuls of a vigorous culture of *B. coli communis*; after shaking, so as to mix thoroughly, streak cultures were made quickly on agar plates, the first within ten seconds, then at two, four, six, eight, and ten minute intervals. These plates were incubated at 37° C. for forty-eight hours and gave the following results:

50 parts per million silver collosol with *B. coli communis*—

After 10 seconds	Growth
After 2 minutes	Growth
After 4 ,,	Growth
After 6 ,,	No growth
After 8 ,,	No growth
After 10 ,,	No growth

50 parts per million mercury collosol—

After 10 seconds	Growth
After 2 minutes	No growth
After 4 ,,	No growth
After 6 ,,	No growth
After 8 ,,	No growth
After 10 ,,	No growth

In each case the blank or control streak gave a vigorous growth.

These experiments were repeated with silver and mercury collosols at the normal strength of 500 parts per million (1 of metal in 2,000 of liquid). In every case the *B. coli communis* was killed within ten seconds, the only growth on the agar plates being those of the untreated control streaks. Several comparative tests were made with the gonococcus grown on agar plates smeared with fresh blood, with the usual precautions. A plate showing a vigorous growth and answering to the typical tests (that is: Gram-negative, no growth on gelatine or agar at 20° C. without fresh blood, but vigorous growth at 37° C. on agar with fresh blood, and displaying the well known diplococcus in pus cells) was swamped with silver collosol for two minutes, after which time streak cultures were taken and transplanted to agar plates smeared with fresh blood as before, for two, four, six, eight, and ten minutes, and incubated in the usual way at 37° C. Result: No growth whatever.

I have carried out many series of experiments similar to this; for instance, with a young vigorous growth of *B. tuberculosis*, I found that with silver collosol at 500 parts per million, it was killed in four minutes. With *Staphylococcus pyogenes*, various *streptococci* and other pathogenic organisms, I find that all are killed in three or four minutes; in fact, I know of no microbe that is not killed in laboratory experiments in six minutes.

How to get at them in the human organism is, I think, a question that medical practitioners are now working out with remarkable success. In proof of this, let me quote a portion of a letter by Dr. C. E. A. MacLeod, which appeared in the *Lancet* of February 3rd. After giving a list of twenty-six different microbic diseases that he has treated with "marked and surprising success," with my collosols, he concludes by stating that "Collosols are quite equal, if not superior, to electrically prepared colloids in clinical effect."

In these circumstances I think I may fairly ask, Why does every expert on colloids begin at once by boiling the sample submitted to him when he is asked to give an opinion on the therapeutic value of the new product? It reminds me of Mark Twain in *The Tramp Abroad*, when he boiled his barometer, thermometer, watch, opera-glasses, and everything he could find of a similar nature.

In conclusion, I may say that I am glad to find that my "collosols" have stood this severe test of boiling, but I must protest that they were never intended to undergo such treatment. My claims are that they will kill all bacteria that I have yet tried within a few minutes; they are non-toxic to the human organism, they are non-irritant in wounds and operative surgery, and, further, they promote a quick healing in cases of cuts and sores.—I am, etc.,

London, W., Feb. 13th. HENRY CROOKES.

*** The samples of the collosols in question which reached us were accompanied by a covering letter in which a good deal was said about the solutions not being affected by addition of electrolytes or by heat, but nothing was said about what Mr. Crookes calls their imperative character of being able to kill bacteria, except a short account of an experiment to prove that "the metal present exercised sufficient antiseptic influence to preserve the organic stabilizing matter contained in the solution."

ATROPINE AND OPEN ETHER ADMINISTRATION.

SIR,—Any communication from the pen of Mr. Bellamy Gardner on the subject of open ether[1] will always be read with interest and profit, but there is one point in his technique to which I feel bound to enter a caveat, and that is the *routine* use of a clip with which to draw forward the tongue. To be of any use, the instrument must be capable of taking a firm hold of the organ, and, however carefully designed Mr. Gardner's clip may be, it must, if effective for its purpose, be liable not only to bruise the part of the tongue within the bite of the instrument, but also to cause sufficient stretching of the tissues at the root of the tongue to cause a good deal of discomfort to the patient for some days after recovery. That much pain may be caused to a patient in this way, I have proof in the fact that patients often complain bitterly of aching in the region of the hyoid bone after the Edinburgh glossotilt has been used. Here no question of injury to the tip of the tongue can arise, but the pain is quite bad enough to interfere with the taking of nourishment, and with sleep.

I do not wish to suggest that these untoward results happen in the skilled hands of Mr. Bellamy Gardner, but I do think that the tongue clip is liable to much abuse in the hands of those not specially trained, and do suggest that it is a mistake to teach students that the routine use of such an instrument is necessary.

For some time I have been practising and preaching the use of the dental prop in every case, whatever the method or drug in use may be. The prop acts as a fulcrum, and, if digital pressure be applied to a spot just below the symphysis mentis by the same hand which applies the mask, the other end of the lever—to wit, the angle of the jaw—is carried downwards and forwards, with a minimum

[1] BRITISH MEDICAL JOURNAL, February 24th, p. 422.

of effort on the part of the anaesthetist. Moreover, this method allows of a larger portion of the patient's face being within observation than does the older method of applying direct pressure behind the angle. If the patient's chin be turned, say, to the right, the anaesthetist's right hand holds the mask and the fingers of the same hand press up the floor of the mouth. This leaves the left side of the face open for inspection in so far as it is not covered by the mask. By the other method the anaesthetist's left hand holds the mask, and its little finger presses forward the angle of the jaw, which means that hardly any of the patient's face remains uncovered. The advantage of the prop is very noticeable in such an operation as the removal of glands from the neck. Its use enables the anaesthetist to keep away from the area of the operation altogether, and avoids the liability on his part to infect the wound or to complicate the operator's task.

While the tongue clip must always form part of the anaesthetist's outfit, I feel sure that the dental prop greatly reduces the number of occasions on which the more severe instrument is called for, and it is my constant task to impress this fact upon the mind of the student.

I should like to add a warning note in connexion with another point in Mr. Gardner's technique. He states that sixteen layers of gauze should be used on the mask, and with this I agree if the induction be carried out entirely by ether. But a common practice in Edinburgh is to induce by chloroform or a mixture, and to change to ether when a light third stage anaesthesia has been produced. Under these circumstances, sixteen layers of gauze are too much, in my opinion, and the application of a mask so arranged to the face of a patient whose blood already contains a considerable amount of chloroform is liable to be followed by a severe collapse within a minute or two. Eight layers are enough with which to maintain anaesthesia in all but the most troublesome cases, and are far less likely to cause trouble at the moment of change.

I need hardly say that with the rest of Mr. Bellamy Gardner's note I am in most cordial agreement.—I am, etc.,

J. Stuart Ross, F.R.C.S.E.,
Instructor in Anaesthesia in the wards of the Royal Infirmary, Edinburgh; Anaesthetist to the Deaconess Hospital, etc.

Edinburgh, Feb. 25th.

AS TO THE NATURE OF THE PARASITES OF LEPROSY AND TUBERCULOSIS.

Sir,—I am obliged to Dr. Robert Craik for his letter to the Journal of February 17th, 1912, in that incidentally it has brought under my notice a serious, and very misleading, slip of the pen which is apparent in the note As to the Nature of the Parasites of Leprosy and Tuberculosis, published in the Journal of February 10th, 1912. In that note I wrote, after referring to the process of chain sporulation in the aërial hyphae of Streptotricheae, that "it is probable also that endogenous spore formation occurs along the length of some of the isolated rod segments." The gravity of my error in writing thus will be appreciated by those who are familiar with the discussion which arose as to whether the Streptotricheae, or ray fungi, belong to the Schizomycetes or to the Hyphomycetes, a question which has to be decided mainly on accurate observation of the method of reproduction. What I had intended was: "It is probable that a somewhat similar process of chain sporulation also occurs along the length of some of the isolated rod segments." Whilst I am not concerned in the defence of a careless error in writing, I would ask your permission to refer to statements previously published on this point, so that there may not be any misapprehension. In my Milroy Lectures for 1910[1] I stated, with reference to the method of reproduction of Streptotricheae that

> special spore-bearing organs are developed, fine aërial hyphae which, erecting themselves from the growth of mycelium, often cause a powdery or cretaceous appearance of the surface. Spores are produced in these aërial hyphae apparently by a process of segmentation. . . . It seems probable, also, that under certain circumstances these spherical spores may be produced along the length of the mycelium as well as in the aërial hyphae.

In an earlier paper by Price Jones and myself,[2] it was stated with reference to the morphology of the Streptotricheae that

> the longer or shorter cylindrical segments formed in the fragmentation of the mycelium probably represent, like spherical spores, more resistant forms; and at a certain stage in cultures of some species these cylindrical segments themselves show a process of chain sporulation.

For the rest, Dr. Craik's letter appears to be superfluous. In the second paragraph of the letter Dr. Craik makes the unfortunate mistake of applying to the genus Sporothrix what appears to be his own interpretation of my description of the morphology of the Streptotricheae, with much resultant confusion. In the third paragraph Dr. Craik proves that what I describe as Streptotricheae are Hyphomycetes, and that they belong to the genus Oospora of French writers. It has been an object of much of the work which has been done by those of us who are specially interested in the Streptotricheae to prove that these organisms are Hyphomycetes; and, as mentioned in my note, the generic terms Streptothrix and Oospora are synonymous.

In the fifth paragraph of his letter Dr. Craik makes the egregious statement that:

> Most of our trouble in medical mycology arises from the fact that medical botanists insist on using the term "spore" for anything that is round.

I can assure Dr. Craik that attendance at a course in elementary "bacteriology" at any of our medical schools would convince him, within an hour or two, of the absurdity of his error in making this statement. Dr. Craik also objects to my application of the name of "spores" to the conidia of hyphomycetes. I can only say that I still prefer the use of the term "spore" in this connexion; but I may point out that when "mycologists" write of "gemmating mycelium," and of "yeast conidia," they do not refer to the process of reproduction which has been described under the name of "chain sporulation."

The concluding paragraph of Dr. Craik's letter, to the effect that "The object of this note is to suggest to English bacteriologists that it is time to abandon mid-Victorian mycology," explains much that was, in what had preceded, unexplainable.—I am, etc.,

Alex. G. R. Foulerton.

The Middlesex Hospital, W., Feb. 24th.

[1] *Lancet*, February, 1910.
[2] *Transactions of the Pathological Society of London*, 1902.

STERILIZATION OF THE SKIN WITH IODINE.

Sir,—May I point out to Mr. I. David that his facts—as stated in your issue of February 24th, p. 465—are inaccurate.

If he will take the trouble to study the literature on this subject he will find that the method of sterilization of the skin with tincture of iodine was originated by me. It is my method which has been so widely adopted and not Grossich's.

The latter used a 10 per cent. solution, which is similar to our liniment of iodine—now named "liq. iodi fort." This solution is apt to produce acute dermatitis, which is not a condition favourable to asepsis.

I have several times pointed out the mistake, but it is evident that there is still some misunderstanding of the facts, and this is my excuse for troubling you again.—I am, etc.,

J. Lionel Stretton,
Senior Surgeon, Kidderminster Infirmary and Children's Hospital.

Kidderminster, Feb. 26th.

THE TREASURY COMMITTEE ON TUBERCULOSIS.

Sir,—As a committee has now been formed for the purpose of advising the Government and local bodies with respect to the sanatorium, etc., provisions of the Insurance Act, would it not be well, before the country is launched in a huge expenditure on this matter, that we have some definite knowledge of what we may hope to gain by it?

In the first place, it is necessary that we have an authoritative pronouncement as to the predisposition to tuberculosis. Does it exist? If so, to what extent is it inherited? Is Professor Pearson's estimate correct that "the intensity of the inheritance is sensibly the same as that of any normal physical character yet investigated in man"?

Again, it has been found by the same worker that "the elder offspring, especially the first and second, appear subject to tuberculosis at a very much higher rate than the

younger members." As the birth-rate still tends steadily to decline, and as legislation of the type of the Insurance Act is hardly likely to encourage an increase thereof, will it not be that with each succeeding generation there will be a constant increase in the percentage of those predisposed to tuberculosis?

While during the last half-century there has been a steady diminution in the mortality from tuberculosis, there has been at the same time a distinct change in type of the disease. The mean age at death has risen; conservative measures are now possible in bone and joint tuberculosis which at one time would have been inapplicable. Asylum officers of many years' standing inform me that they do not now see the virulent type of the disease to which they were once accustomed. Further, in certain asylums, where there there has been no appreciable change of environment, the death-rate from tuberculosis has shown the same trend as that of the general population. What is the explanation? Either the tubercle bacillus has to some extent diminished in virulence, or, what is more probable, we have evolved against the disease. Koch himself was willing to recognize that tubercle, like any other infectious disease which had prevailed extensively, must after a time diminish of itself.

Again, how far will it be possible for us to deal with the problem? Practically every one at some time or another suffers from tuberculosis, so that we can only meet with those cases in which the disease has so interfered with health as to cause the individual to seek medical advice. Let us take the case of phthisis alone. Of individuals in whom the disease is discovered for the first time what percentage can we hope to return to the community fit again? Granting that we may be able to return a considerable percentage, if the tuberculous diathesis is as strongly inherited as some assert, if our cured consumptives marry and have children, and consumptive stocks are prolific, may it not be that although we have satisfied, perhaps rather selfishly, our own emotions and sympathies, we have increased the problem for the generation which is to come after us?

If we are going to deal at all satisfactorily with the problem of tuberculosis, it is necessary that we have the whole truth on the matter, pleasant and unpleasant. If it is agreed that the tendency to tuberculosis is strongly inherited, then there must be no concealment from the general public. The methods of the politician can and ought to have no place in medicine.

The constitution of the committee is hardly one which I think will commend itself to the general medical public. The sanatorium element is much too strong.—I am, etc.,

Lancaster, Feb. 24th. D. W. HUNTER.

THE NEW CELL PROLIFERANT.

SIR,—In answer to Mr. C. E. Walker's letter (p. 464), I should like to state that accurate control experiments were made simultaneously with those in which cell division was induced by auxetics in the ova of *Ascaris megalocephala*. Some of the ova from the same sample were subjected to the auxetic and some were merely treated with water and with salt solution, the other conditions being precisely the same. All those eggs which were treated with auxetic were in the act of division in twelve hours, whereas this occurred in practically none (2 out of more than 500) of the controls. In some cases, therefore, our experience with these eggs differs from that of Mr. Walker, because we have obtained samples which did not divide by themselves; possibly they were unfertilized, although we have no means of proving this last point.

I did not mention in my letter to the BRITISH MEDICAL JOURNAL of February 17th that controls had been made, because I considered that it would have been taken for granted that this had been done as a routine before the experiment was published; and I am rather hurt that Mr. Walker did not take the trouble to inquire about it direct from me before he "exposed" it in the press. Judging by the tone of his letter, and by his scathing review in *Science Progress* of one of our publications, he seems to regard our researches with no good-will. A short time ago, when I asked him for permission to reprint some of the excellent diagrams contained in one of his books, in order to compare them with the division-figures induced in lymphocytes—the only result was a most discourteous reply, containing a flat refusal; all of which makes me think that Mr. Walker, whom I have never seen or with whom I have never been associated directly or indirectly, has not yet realized that we are trying by every means in our power to prove each point by comparative experiment.

Since the fact that cell division can be induced by the products of cell death was published, without seeing the actual experiments, some scientists proceeded to disclaim us, others adversely criticized us, and our progress has been obstructed. In my opinion, it would be much better if they would repeat the experiments, and give a candid description of their experiences. We court criticism based on experiment, but wholesale condemnation without investigation of the facts can serve no useful purpose.—I am, etc.,

Lister Institute, London, S.W., Feb. 27th. H. C. ROSS.

LORD LISTER AND WESTMINSTER ABBEY.

SIR,—In these days of somewhat acute variance among us in certain directions I shall be glad if you will permit me to refer to a subject regarding which I imagine that a difference of opinion will hardly be possible.

Lord Lister, for reasons with which we must all sympathize, has been laid to rest, not among the illustrious dead in Westminster Abbey, where he would so worthily have found an honoured place, but in a quiet suburban cemetery. There must be many, however, as I believe, who will not be satisfied unless at least a bust of our illustrious *confrère* shall be given a place in the venerable abbey, if it is possible to arrange for this to be done.

I imagine it to be probable that the question of such a memorial will already have occurred to those to whom we naturally look for information and guidance in such a matter. In any case, I venture to urge that an assurance would be welcome that the idea will not be lost sight of, and that, if possible, it will in due course be carried into effect.

I take it that there are very many who would esteem it only a privilege and an honour to be allowed to contribute towards the cost of such a memorial.—I am, etc.,

February 20th. AN EDINBURGH GRADUATE OF 1871.

LISTER AND SIMPSON.

SIR,—Although the late Lord Lister got his inspiration from Pasteur's researches, culminating in the magnificent achievement of arresting putrefaction in wounds, there is one more circumstance in connexion with his indefatigable labours that gave him an extra stimulus, if any stimulus were needed to goad such a brain, such undaunted courage, pains and perseverance, on to final victory.

I refer to the pamphlet (*Hospitalism*) by the late Sir J. Y. Simpson, that appeared in the middle Sixties of last century, which I have not seen mentioned in any reference to Lister's stupendous triumph. In that pamphlet Simpson conclusively proved that, whereas death was dealing its deadly vengeance on all compound fractures and amputations in our palatial hospitals, no such mortality, except from shock, occurred in these cases treated in the houses of miners and iron workers, however humble the abode. To this I can bear witness in my own practice in a remote corner of the realm.

Condy's fluid was the only antiseptic then in vogue, and, although I cannot recall many cases of primary union, none of them succumbed to sepsis.—I am, etc.,

Chester-le-Street, Feb. 26th. W. M. RENTON.

LORD LISTER AND THE CATGUT LIGATURE.

SIR,—Although Sir Hector Cameron proves he was justified in using the date 1868, I do not agree that it was the correct date of Lord Lister's first successful catgut ligature experiment.

I graduated in May, 1867—that is a fixed date. I heard the statement I reported before that, and after June did not see Lister for many years. Therefore, no false trick of memory explains the difference; either he made the statement when I say he did, or I invented the story, which is absurd.

If you look critically at the report you reprint, I think you will see it would not disallow earlier experiments, which most certainly were made.

I do not attempt to explain the discrepancy; perhaps Lord Lister's papers may do so. But reading your reprint in the light of my remembrance, it seems to allow a period of failure and disappointment. Men of to-day, used to a perfected technique only, can have no idea of the difficulties our great pioneer had to surmount. I saw some of them.—I am, etc.,

Bournemouth, Feb. 25th. THOMAS FIELDING.

Obituary.

ALFRED HARRY YOUNG, LL.D., F.R.C.S.Eng., M.B., C.M.Edin.,

EMERITUS PROFESSOR OF ANATOMY, VICTORIA UNIVERSITY.

AFTER an illness lasting about three years, Dr. A. H. Young, formerly Professor of Anatomy in the Victoria University of Manchester, died on February 22nd at his home at Didsbury.

Alfred Harry Young was a native at Warrington, his father being a well known chemist of that town. He was born in 1852, and was thus in his sixtieth year. He received his medical education at University College, Liverpool, and then proceeded to Edinburgh University, where he took the degree of M.B., C.M. in 1876. For some time after graduating he remained at Edinburgh in order to gain experience as a demonstrator of anatomy, although even before this, and while he was still a student, he had been designated by Professor Gamgee as Demonstrator of Anatomy for Manchester. In a highly eulogistic letter to the *Manchester Guardian* of February 26th, Professor Elliot Smith relates that Professor Gamgee had gone to Edinburgh to find a demonstrator of anatomy for Manchester, and on asking the advice of Sir James Russell, who was then Senior Demonstrator at Edinburgh, was told that a student named Young, who was just about to sit for his final examination, was more competent for the Manchester post than any of the qualified staff. Professor Gamgee then interviewed Young, and detailed at great length the duties of the post and the stipend offered, and Young then calmly informed Professor Gamgee that he would only undertake a moiety of the work if double the salary were offered, and only on condition that his future in respect of certain appointments were assured. So high was his reputation at Edinburgh that he was designated for Manchester on his own terms, and after graduating and acting for a time as demonstrator at Edinburgh he went to Manchester, and in 1877–8 acted as demonstrator and assistant lecturer in anatomy in the Owens College, under Professor Morrison Watson. After about two years of this work he resigned and became pathological registrar at the Manchester Royal Infirmary. He retained this post for two years, and then for the next two years acted as Medical and Surgical Registrar, and, finally, for one year, as Surgical Registrar only, at the infirmary. Soon afterwards he was appointed Honorary Surgeon to the Manchester Hospital for Consumption and Diseases of the Chest, and in the following year Honorary Surgeon to the Salford Royal Hospital. He took the diploma F.R.C.S.Eng. in 1880, and in the following year was appointed Lecturer in Surgical Pathology at Owens College.

In 1882, when a vacancy occurred in the surgical staff of the Manchester Infirmary, Dr. Young applied for the post, but failed to secure election. This was evidently a source of great disappointment to him. His friends also resented the action of the Infirmary Board in refusing to elect him, and a certain amount of tension resulted, which lasted for some years. Apparently up to this time it had been his intention to devote himself to surgery, and it was largely owing to his insistence that the board of management of the Salford Hospital had been brought to see the necessity of extending the surgical wards of the hospital. Nevertheless, though he still clung for some years to his post at the Salford Hospital, he had always shown a distinct preference for surgical anatomy as distinct from operative surgery. In conjunction with Professor Watson he carried out some original researches in comparative anatomy, which were rendered possible through facilities offered by Messrs. Jennison, the proprietors of the large menagerie at Belle Vue, Manchester. His opportunity came on the sudden death of Professor Watson in 1885, when he was appointed to the Chair of Pathology at Owens College, and was also appointed soon after Dean of the Medical School. Henceforth his work was almost entirely in anatomy, his own research being principally on the marsupials and carnivora. When the Chair of Surgery at Owens College became vacant in 1888 he strongly supported the appointment of Mr. Hare in preference to any of the surgeons of the infirmary staff. This appointment led to the resignation of the infirmary surgeons from all teaching at the college, and for the succeeding four or five years, until the chair again became vacant, the relations between the College and the Infirmary were anything but harmonious. Professor Young was much blamed in some quarters for his action in this matter, and it was freely stated at the time that it was due to his resentment at his own failure to secure election to the infirmary staff when he applied in 1882. Those who knew him best could never believe this accusation. That he was a man of the strongest determination who never hesitated to express his opinions in quiet, though forcible, language every one admits. He was a strong fighter, and respected a strong fighter, but his action in the appointment of a stranger to the Chair of Surgery in 1888 arose from a determination to obtain for Manchester a surgeon who was at the same time a first-rate lecturer, quite regardless of whether he was a Manchester man or not; and, whatever criticisms may have been passed as to Professor Hare's qualifications for the position in other respects, he was certainly one of the clearest and best lecturers in systematic surgery that the college has ever had. Professor Young was far too strong a man to harbour resentment. At one time the students who attended his lectures complained that it was impossible to keep up with him, so that note-taking was utterly out of the question. The writer of this notice, when attending as a student his first year's course of descriptive anatomy, often felt almost in despair during his lectures, and on one occasion ventured to say that "Young tried to hide his meaning in a cloud of words." In some way or other Professor Young heard of this remark, and at the next lecture, with a merry twinkle in his eye, referred to it without naming any one. There was not the slightest sign of reproach, or sarcasm, or resentment in his reference, but rather an expression of sincere regret that he himself felt that his subject, which happened to be the origin and distribution of the cranial nerves, was one on which it was most difficult to lecture in a satisfactory way. But he invited the gentleman who had made the remark about a cloud of words, and whose name he professed not to know, to go to his room afterwards. With some fear and trembling, the student determined to face it out, and went, intending to apologize, but he would hear of no apology. He said he fully sympathized with the difficulty and much preferred to be criticized rather than treated with neglect, and he added that he would be willing and glad to give me, with three or four other students, a demonstration from actual dissections before the lectures so that we might be able to follow better his systematic descriptions. Such handsome treatment of a critical student was not typical of a nature that could harbour resentment, and the splendid course of demonstrations from dissections mostly done by himself will never be forgotten, while the spirit that actuated it utterly disarmed criticism and caused it to be replaced by admiration. He has often been criticized for lecturing to students in their first course on such difficult subjects as the development of the brain, but apart from any theoretical considerations his students often found that his course on embryological development generally made his lectures on structural anatomy not only more interesting, but more easily understood. He was evidently fully alive to the difficulty of his lectures, and did all he could to assist those who cared to be assisted. His remarkable diagrams, drawn offhand on the blackboard, of complex structures and of the distribution of nerves and vessels were unequalled in any of the textbooks. As an examiner he often appeared to be almost teasing his students, his object seeming to be to show not how much they knew, but how much they had to learn, but it almost invariably happened that the student whom he seemed to be putting through the stiffest examination came out best when the results were declared. In his later years he devoted

much attention to the anatomy and development of the blood vessels, and with Professor Arthur Robinson, at one time one of his demonstrators, he wrote the articles on the vascular system and on embryology in Cunningham's *Textbook of Anatomy*.

At different times he acted as Examiner in Anatomy to the Universities of Oxford, London, Birmingham, Liverpool, and Manchester, and also for the F.R.C.S.Eng. and the Conjoint Board; and for some years he represented the Victoria University on the General Medical Council. He also acted for a time as Pro-Vice-Chancellor of Victoria University. Perhaps the greatest testimony to his influence is the amount of original research done by the men who have acted as his assistants at various times, among whom it suffices to mention Professors Paterson (Liverpool), A. Robinson (Edinburgh), and P. Thompson (Birmingham), all of whom would acknowledge that they owe much to his sharp but educating criticism. His own work in anatomy and embryology was distinguished by the clearness and precision he always aimed at himself and equally required from his assistants. For some time he acted as editor of the *Medical Chronicle* and also as editor of *Studies in Anatomy from the Anatomical Department, Owens College and Victoria University, Manchester*, and all the published records of work done by himself or under his direction are characterized by a breath of view that could only come from an unusually accurate balancing of facts derived from both comparative and developmental studies of no ordinary range.

His opposition to the admission of women students into the school of medicine was never entirely removed, and he was never quite reconciled to the new conditions; but, as one of his women students says, "His was a case where opposition to a principle was not incompatible with generosity in teaching." To the students under his care he was always a staunch and considerate friend. As Dean of the medical school he was never tired of hearing their difficulties and advising them, not only in their work, but even in more personal and private matters, and when his distressing illness compelled him to resign his chair in 1909 it was felt that whoever succeeded him would have no easy task to fill his place either as the professor of anatomy or as the adviser and friend of the medical student.

At its meeting on February 26th the Senate of the Victoria University, Manchester, adopted the following resolution:

> The Senate of the University desires to express its deep regret at the death of Emeritus Professor Alfred Harry Young, Professor of Anatomy in the Owens College, and afterwards in the University from 1885 to 1909, and Dean of the Medical School from 1885 to 1902, and to put on record its high appreciation of the services which Professor Young rendered to the University as Demonstrator and Lecturer, and afterwards as Professor, as well as of his work as Dean of the Medical School, and as the Representative of the University on the General Medical Council.
>
> The Senate also records its sense of the great value of his original work, and that of the numerous assistants who were trained by him and worked under him in the quarter of a century during which he was connected with the department. As a result of Professor Young's work the Department of Anatomy came to occupy a leading position among the medical schools of the country.
>
> The Senate tenders to Mrs. Young and the members of the family an expression of deep sympathy with them in their bereavement.

At his funeral, which took place at the Manchester Crematorium on February 26th, the university and the medical profession of Manchester and district were strongly represented, deputations being present from the Manchester Royal Infirmary, the Salford Royal Hospital, the Manchester Hospital for Consumption, and the Manchester Medical Society. Professor Elliot Smith attended as President of the Anatomical Society of Great Britain and Ireland, and among others present from Owens College and the University were the Vice-Chancellor (Sir Alfred Hopkinson), Professor Stirling (Dean of the Medical School), Professor Wild, Professor Johnson, Professor Perkin, Professor Alexander, and Professor Petavel.

DR. E. MARGARET PHILLIPS (Maitland Sanatorium, Oxon.) writes: May I, as an old student of his, try to express my deep appreciation of Professor Young and his valuable teaching? Dr. Young was one of my professors for whom I had the greatest respect, and he stands out in my memory pre-eminently as a lecturer. Under him we received a thorough grounding in anatomy, a sure foundation for later medical studies, and an excellent preparation for practical surgery. His masterly way of linking dry facts, and building up his subject step by step so that the slowest amongst us could comprehend and remember and the quickest yet find plenty of mental occupation, often filled me with admiration. His lectures were an intellectual treat, and he made his subject a most interesting one. The organization of his lectures was distinctly good. His lectures on the brain, in my opinion, were amongst his best, and it was the wonderfully lucid way in which he evolved the description of the brain on the lines of its development which made it so much easier to grasp the construction of the fully developed human brain. I was one of the first of the women students in the Medical School (1900–5), and whatever Dr. Young's opinion on the question of the admission of women, there was no sign of prejudice in his attitude to us as students. He treated us ever with the greatest consideration and courtesy, and was always anxious and willing to give his help. I remember well how warmly and kindly he welcomed me to the Medical School, and how much personal interest and attention he gave to our work. I shall always be glad that it was my privilege to be one of his students.

DR. WILLIAM WRIGHT, the Dean of the London Hospital, writes: As one whose first steps in anatomy were taken under the guidance of the late Professor A. H. Young, and as one who owes him more than can be well expressed, I feel it something of a duty to pay public tribute to his worth and influence. When I entered Owens College as a student nearly twenty years ago the position occupied by Professor Young was singularly enviable, for he had to the full the respect and affection of all his students—a respect born of the admirable lucidity of his lectures, an affection which was the natural response to the unvarying kindness which he showed to all. To those who were privileged to know him intimately he affected a certain cynicism which never failed to amuse, for a warmer-hearted man never lived. In the old days and to medical students the Owens College was Young and Young was the Owens College; what the influence of any one occupying such a position in so large a school was it is not easy to estimate, nor is it made easier when one recalls that no less than four of his demonstrators and students occupy to-day important positions in the anatomical world, carrying on to the best of their ability those traditions and the practice of those methods which were quietly but firmly inculcated many years ago. His influence, like that of all teachers, will continue long after he is forgotten, but even this earlier date, we may be sure, will only be reached when the last of his students shall have passed to his own long rest.

MAXWELL OGILVY-RAMSAY, M.A., M.D.,

HONORARY SURGEON, CUMBERLAND INFIRMARY.

DR. OGILVY-RAMSAY, of Carlisle, died in that city of pneumonia on February 15th, after a brief illness. He was in the prime of life, and in view both of his personal qualities and marked aptitude for surgical work, his loss will be long and widely felt. He was born in Kirriemuir—the village described by Barrie under the title of "Thrums"—in 1864, and before commencing his medical education at Edinburgh had completed an Arts course at the University of St. Andrews, from which he held the degree of M.A. The M.B., C.M., of the University of Edinburgh he received in 1890, and some three years later was admitted to the Fellowship of the Royal College of Surgeons in the same city: meantime he had held appointments as House-Surgeon both at the Royal Infirmary, Edinburgh, and at the Hospital for Children, Liverpool, and had studied for a considerable time at the Rotunda Hospital, Dublin. The M.D. of his university he was granted in 1895, in virtue of a thesis on prevention of sepsis in midwifery. In his choice of this subject he was probably influenced by the fact that shortly after his settlement in Carlisle an opportunity of gaining special experience in obstetrics had presented itself. The Midwives Act being still a thing of the future, a scheme was taken up in Carlisle for the provision of a trained midwife, and for her supervision and assistance in difficult cases by a medical man, and this duty Dr. Ogilvy-

Ramsay fulfilled for many years. He settled in Carlisle soon after his marriage in 1893, and his life there was from the beginning successful. A certain degree of bluntness of speech and brusqueness of manner which distinguished him by no means stood in his way; indeed, they even served to inspire confidence so soon as it was realized that behind them lay thorough kindness of heart coupled with dislike of anything in the nature of cant, and real knowledge of his work, manual dexterity, and coolness in emergency. In 1903 he was appointed to fill a vacancy on the surgical side of the staff of the Cumberland Infirmary, and a year later, on the occurrence of a further vacancy became full surgeon. From that time forward his repute among the public and his professional colleagues had been constantly growing. His qualities as an individual and as a surgeon are, however, best described in a letter from his fellow surgeon, Dr. Lediard, who writes as follows:

His forte was surgery, and it was surgery that drew him into the appointments he held after graduation. As surgeon to the Cumberland Infirmary, Dr. Ramsay built up a reputation of no mean order, and his death comes as a disaster to that institution, for he justified at every point the confidence his patients and his colleagues placed in him. A splendid nervous system controlled and an unalterable coolness pervaded his operative skill, which was attended with brilliant success. Cautious rather than daring, discriminative rather than hasty, it is small wonder that he had reached a high level of surgical confidence in the hospital no less than in the city of Carlisle and in the border land adjoining. A man of few words but eloquent in deeds, he was as sure and gentle in handling tissues as a connoisseur would be with a delicate museum treasure. Such a surgeon would have added strength to any hospital in the world, and withal Dr. Ramsay possessed a modesty and an unselfishness rarely encountered in these pushing advertising days, and he was the first to recognize excellence in others and the last to throw a stone. There is an old Cumberland term, "janick," which embraces a lot, and Dr. Ramsay was "janick" to the core, for no mean nor contemptible action ever soiled his escutcheon, and, as a colleague in the Cumberland Infirmary, he was ever courteous, generous, and fair-minded. Justice was nailed to the mast of the ship in which he sailed, and his tranquillity was superb. It is to be hoped that an effort will be made to place some permanent record of Dr. Ramsay's work in the hospital in some suitable manner.

In his student days Ogilvy-Ramsay attained considerable distinction on the running path and as a football player, and was an active member of the University Artillery Volunteers. In later life he proved a keen golfer, and took such a zest in the game as to be an especially pleasant companion on days off. Of late years, however, increasing occupation made golfing a matter of difficulty, and he had taken up croquet as a fine art. Dr. Ogilvy-Ramsay, whose marriage in 1893 has already been mentioned, is survived by his wife and by a son and a daughter.

The interment took place at Closeburn in Dumfriesshire, on February 17th.

HENRY FITZGIBBON, M.D., T.C.D., F.R.C.S.I.,

CONSULTING SURGEON TO THE ROYAL CITY OF DUBLIN HOSPITAL.

Dr. Henry Fitzgibbon died at his residence, Fitzwilliam Square, Dublin, on February 23rd.

Henry Fitzgibbon, who was in his 71st year, was the son of the late Mr. Gerald Fitzgibbon, Q.C., Master in Chancery, and a brother of the late Lord Justice Fitzgibbon. He received his medical education at Trinity College, Dublin, taking the degree of M.B. in 1866, and the M.Ch. in the following year. He became a Fellow of the Royal College of Surgeons in Ireland in 1881, and was elected President in 1888–9. He was appointed Visiting Surgeon of the Royal City of Dublin Hospital in 1874, and after twenty years resigned in 1895. He was appointed Consulting Surgeon to the same hospital in 1903, a post he held at the time of his death. He was Surgeon also to the Lock Hospital. For many years he was Principal Medical Officer to the General Post Office. Dr. Fitzgibbon was a member of the Board of Superintendence of the Dublin Hospitals, and a Visitor in Lunacy under the Court of Chancery. His life was one of great activity, for in addition to a large private practice he was Medical Referee to numerous life assurance societies, and a member of several medical boards. He was an ex-President of the British Postal Medical Officers' Association. Until recent years, when his health began to fail, he was a well known figure in Dublin, as he used to drive an exceptionally high tax-cart. He contributed to the medical journals various papers on surgical subjects, especially on the treatment of tetanus and fractures.

At a specially-convened meeting of the Resident Executive of the Association of Irish Post Office Clerks, held on February 23rd, the following resolution was adopted:

That we, the Resident Executive of the Association of Irish Post Office Clerks, have learnt with the greatest regret of the death of Dr. Henry Fitzgibbon, so long and so honourably associated with the Dublin Post Office, and on behalf of the members of the Association respectfully offer to Mrs. Fitzgibbon and family the deepest sympathy of the Association in their great sorrow.

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

Appointment.

Dr. Graham Smith has been appointed Lecturer in Hygiene.

Degrees.

The following degrees have been conferred:

M.D.—R. F. V. Hodge.
M.B., B.C.—H. K. Griffith.

UNIVERSITY OF BRISTOL.

The following candidates have been approved at the examinations indicated:

Final M.B., Ch.B. (*Part I.*).—G. F. Fawn, W. P. Taylor.
Final M.B., Ch.B.—E. V. Foss, J. R. Key-Monat, P. Moxey.
D.P.H.—T. J. Williams.

The Services.

THE R.A.M.C. IN RELATION TO OTHER ARMS.

Lieutenant-Colonel F. Wyville Thomson, commanding the 2nd Scottish General Hospital, R.A.M.C. Territorial Force, delivered a lecture to the East of Scotland Tactical Society on the relation of the R.A.M.C. to the other arms of the service. The chair was occupied by Lieutenant-Colonel Sir Joseph Fayrer, Bart., Superintendent of Edinburgh Royal Infirmary, who said that the relations of the R.A.M.C. to other branches were most important, and it was the duty of every officer to recognize and understand them.

The lecturer, in the course of his remarks, said that a most essential factor for success was that the commanders of bodies of troops must work in close conjunction with the medical officers of their commands. In all strategical and tactical movements the medical requirements should receive consideration, so that suitable ground for camps, proper water supply, and sanitary arrangements might been chosen. When an engagement was imminent the administrative medical officer should know the disposition of the troops and the objective, so that the medical units might be properly allotted to given areas. Bad medical tactics could be as great a source of loss and danger as defective fighting tactics. Another important point was intercommunication in the field, particularly with the medical units. To ensure proper knowledge of such details strictly medical manœuvres should form part of the training of every field unit, so that brigades might practise with their field ambulance, or each battalion with a section. In such field exercises co-operation of combatant and medical officers should be practised. Another most important point was with regard to sanitation. In the event of mobilization of the Territorial Force a quarter of a million of men would pass in a few hours from a state of sanitary civilization into that practically of savages. Sanitation as understood in peace time would vanish and the soldier became responsible for the make-shifts, the disposal of insanitary refuse, and the protection of the water supply from contamination. This ought to be taught the soldier thoroughly in peace time, to numbers not larger than companies, so that every man would be aware of the dangers of sanitary transgression.

Public Health
AND
POOR LAW MEDICAL SERVICES.

VACCINATION IN THE ISLE OF MAN.

On February 20th Mr. Ambrose Qualtrough moved in the Manx House of Keys the second reading of a bill to amend the law as to compulsory vaccination by allowing conscientious objectors to vaccination to escape the operation of the law. Dr. Marshall, member for North Douglas, strongly opposed the bill, which, he urged, would be a retrograde step. After a debate, the second reading was rejected by 15 votes to 6.

Medical News.

THE next dinner of the Irish Medical Schools' and Graduates' Association will be held at the Hotel Cecil on Saturday, March 16th, at 7.30 p.m.

DR. W. SIMPSON, of Buckie, Banffshire, was recently presented with a pony and trap, "in recognition of forty years of professional and public services."

H.R.H. PRINCE ARTHUR OF CONNAUGHT, K.G., has consented to become patron of the twenty-seventh Congress of the Royal Sanitary Institute, to be held at York in July next.

SIR RICHARD DOUGLAS POWELL is giving two lectures on the medical aspects of life insurance at the Middlesex Hospital Medical School. The first lecture is announced for this day (March 1st), at 3 p.m., and the second for March 8th, at the same hour.

THE National Organization Committee for the Berlin Congress of Obstetrics and Gynaecology, which is to take place next September, has elected as delegates for the United Kingdom Sir Alexander Russell Simpson, Dr. Herbert Spencer, and Dr. Macnaughton Jones. The latter has also been appointed reporter on the subject of the surgery of the peritoneum.

MR. THOMAS HAYES, clerk to the governors, writes to inform us that the statement which appeared in some newspapers, on February 22nd, implying that St. Bartholomew's Hospital is offering treatment for a weekly payment of £2 is entirely without foundation. No such offer has been made, nor has there at any time been a suggestion of making an offer of the kind.

THE members of the Balneological and Climatological Section of the Royal Society of Medicine will dine together at Pagani's Restaurant on the conclusion of their meeting on March 6th. In order that proper arrangements may be made, those who propose to be present at the dinner are requested to communicate early with the Honorary Secretaries of the Section at 15, Cavendish Square.

THE report submitted at the annual meeting of the West End Hospital for Diseases of the Nervous System on February 23rd stated that the out-patients' attendance had increased during the year by over 18 per cent. (from 25,618 to 30,426), and that the level of the annual income from subscriptions and donations had been well maintained. A small chapel is in course of construction.

The issue of the *Friend of China*, the organ of the Society for the Suppression of the Opium Trade, for February contains a summary report of the Hague Opium Conference, and in a supplement is printed a translation of the international convention settled at the conference. The scope of the convention was indicated in the article published in the BRITISH MEDICAL JOURNAL of February 3rd, 1912, p. 261.

THE report submitted at the annual meeting of the Governors of Queen Charlotte's Hospital on February 26th showed a debit balance on the year of £1,970, which was ascribed to a falling off both in donations and legacies. With regard to the future, it was estimated that the National Insurance Act would entail direct fresh expenditure of £130 per annum, against which there would be no offset, since the majority of the patients treated were not persons who would be entitled to receive maternity benefit.

THE discussion on partial thyroidectomy under local anaesthesia, with special reference to exophthalmic goitre, opened at the joint meeting of the Surgical, Medical, and Anaesthetic Sections of the Royal Society of Medicine on February 27th, was adjourned to a special meeting to be held on March 5th at 5.30 p.m. Among those who will take part in the debate on this occasion will be Mr. Charters Symonds, Mr. A. E. Barker, Mr. Donald Armour, Mr. Walter Edmunds, Dr. J. Blumfeld, Mr. C. H. Fagge, Dr. H. J. Scharlieb, C.M.G.; Dr. G. A. H. Barton, Mr. Rupert Farrant, and Mr. James Berry. Dr. McCardie, President of the Anaesthetic Section, will preside.

THE fifty-sixth annual report of the Royal National Sanatorium, Bournemouth, for the year ending December, 1910, deals chiefly with the income and cost of maintaining the sanatorium, which holds 85 beds fully occupied throughout the year. The rules for consumptives and the hours for meals are also included, and both alike are excellent. There is little to criticize in the medical results of the sanatorium, as no statistics are given of the benefit received, neither is there any mention of tuberculin treatment, both of which might receive attention in next year's report.

THE usual monthly meeting of the Executive Committee of the Medical Sickness, Annuity, and Life Assurance Society was held at 429, Strand, London, W.C., on February 16th, Dr. de Havilland-Hall in the chair. Winter weather always increases the claim list of the society, and, as usual, the sickness claims received in the early part of the year have been very numerous. On the other hand, they have been for the most part of a light nature and of short duration. Since the business commenced in 1884 every year has shown an increase in the reserves, which now amount to over a quarter of a million sterling. From the first it was noted that, although the total sickness experience of the society did not exceed the amount expected and provided for in the tables of contribution, yet the number of members who remained on the funds until they were entitled to only half pay was much in excess of the expectation. It is evident that medical men are less likely to claim sick benefit than those in other occupations, but that a somewhat large percentage of them are liable to very long, and in too many cases permanent illness. For the payment of these permanent cases a big reserve is of course required, and, as the committee has always considered that this is a most important branch of the operations of the society, a large amount of money is at each valuation of the business set aside to make this quite secure. Prospectuses and all further information on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

THE fourth annual report of the King Edward VII Sanatorium, Midhurst (July, 1909, to July, 1910; 1s.) is a very extensive and excellent report of the work done in this sanatorium for twelve months. It is drawn up by the medical superintendent, Dr. Bardswell, assisted by the senior assistant medical officer, Dr. Burra; the pathological report is from the pen of the pathologist, Dr. Radcliffe, and Dr. Bulloch has assisted in the pathological work by experiments in his own laboratory on the various cultures. A few figures regarding the cases admitted and discharged are of interest: 271 patients were discharged during the year—174 males and 97 females. The cases are classified into the three stages of Turban-Gerhardt. In the first stage 91 cases: disease arrested in 56.1 per cent., much improved 31.8 per cent., improved 5.5 per cent., stationary 5.5 per cent., worse 1.1 per cent. In the second stage, 116: 12.9 per cent. arrested, 45.7 per cent. much improved, 20.8 per cent. improved, 6.9 per cent. worse, 9.5 per cent. stationary, 4.3 per cent. died. Stage three, 53 cases: 1.9 per cent. arrested, 20.7 per cent. much improved, 35.9 per cent. much improved, 17.0 per cent. stationary, 20.7 per cent. worse, 3.7 per cent. died. The remaining 11 cases were placed in a fourth group, and in these no tubercle bacilli were found in the sputum at any time. Of 683 patients discharged between 1906 and 1909, 197 were in the first stage, and 88.3 per cent. were well in 1911 and 7 per cent. dead. Of those in the second stage 73 per cent. were well in 1911 and 20.8 per cent. dead: and of those in the third stage 41.7 per cent. were well in 1911 and 53.6 per cent. dead, figures which show that the mortality of advanced cases is high notwithstanding sanatorium treatment. The laboratory report consists of an examination of a few cases of secondary infections treated by vaccines, the results of which are disappointing, as they produced no beneficial effect. There is also a careful examination of von Pirquet's reaction, but the only conclusion that Dr. Radcliffe is able to draw from them is that in a doubtful case a negative result probably means absence of tuberculosis. Malinejac in 1909 stated that it is possible to make a diagnosis of pulmonary tuberculosis in its earliest stages by estimating the total density of the urine and the number of days which this acidity lasts. According to him the activity is much higher in cases of tuberculosis than the normal, and lasts longer. Dr. Radcliffe was unable to corroborate this in the few cases he examined. The report closes with Dr. Bulloch's investigations of cultures from the various strains. A youngish rabbit was inoculated in each case with 0·01 mg. of the culture, and in every case the rabbits increased in weight and remained healthy. An abscess formed at the seat of inoculation in each case. The investigation is completed in fourteen of the strains, and in each case the virulence for rabbits was nil, so that the strains may be put down as human in type. The whole report is well worthy of study. There is a mistake on page 3 of the preface, repeated on page 44, where the figures 14 should read 9.

Letters, Notes, and Answers.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

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CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, London, W.C.; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Office, 429, Strand, London, W.C.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):—
2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

SUFFERER asks for a safe and speedy remedy for soft corns.

R. C. W. asks whether the climate of Vancouver or Victoria, B.C., would be suitable for a case of chronic Bright's disease.

DR. M. RD. GOODING (Bideford) asks for advice in obtaining a good secondhand horse-ambulance of light make, the district being hilly. Only one stretcher is required, and it is to be used in connexion with the hospital.

HOPEFUL is anxious to hear of some one, preferably a doctor, who would take in a girl of 14 who is uncontrollable. She has been at school, but became rather violent and could not be kept there. She is now certified, and in an asylum, but asylum treatment, which she resents most bitterly, does not seem at all satisfactory from a curative point of view. It seems vitally important to find some more hopeful plan. She is as if "spirit-possessed," and cheerful-living Christian influence seems the one hope.

W. F. B. asks for advice in the treatment of a case of recurrent ascites, due to mitral stenosis. The patient is a female aged 55. The first paracentesis was made ten years ago, and diuretin was then administered, and was successful for two years. The ascites then recurred, and she had to be tapped about every three months. She can now only go seven weeks, and the quantity drawn off is 32 pints. In addition to diuretin she has had theocin sodium acetate with digitalis, but they now have no effect. Omentopexy she will not hear of.

G. W. K. C. writes: I find that there is a belief prevalent in this district, and also in other parts of the country, that if a woman who is menstruating touches a piece of meat it will rapidly putrefy. Also that if she goes into a forcing house where young seeds are growing that they will wither. I am told that butchers and gardeners are well aware of this, and that the former will not allow their wives in the shop at certain periods for this reason. Is the myth (as I take it to be) widespread, and whence is its origin?

THE MEDICAL FEDERATION, LIMITED.

DR. C. RAWDON WOOD, M.A., M.D. (Shoreham-by-Sea, Sussex), asks certain questions with regard to the Medical Federation, Limited. He writes: In common with the rest of the profession I have to-day received a memorandum and circular letter from the above company. I note that of its five objects the first two are stated to be: (1) To co-operate with the British Medical Association; (2) to exercise powers similar to those of the British Medical Association. I wish to know precisely what this means. Is the Federation going to connect itself absolutely with the subsidiary position indicated in (1), or is it going to endeavour to do all the Association is doing? If the Federation is going to form a firm and definite alliance with the British Medical Association, and act as a useful subsidiary somewhat in the way that an insurance company acts with the Medical Defence Union, I shall be delighted to join the Federation. But if the Federation is to become an absolutely independent body, acting without reference to the policies and aims of the British Medical Association, and without any definite agreement with the British Medical Association, then I shall have nothing to do with it. Because, failing such definite alliance and agreement, it must become a competing body, and must cause splitting in our ranks sooner or later.

ANSWERS.

INCOME TAX.

DISQUIETED inquires as to the allowance of the £160 abatement in case of a partnership, and as to the fair division of the income tax charge in a case in which the junior partner pays the higher rent, so that a simple proportion would benefit the senior partner.

Suppose the income-tax assessment to be £630 after deducting £40 rent, etc., paid by the senior partner (A.), who has two-thirds share, and £80 rent, etc., paid by the junior partner (B.), who has one-third share. The strictly correct apportionment would be as follows:

Profit before deducting individual expenses, £750.		
A.'s share: $\frac{2}{3} \times$ £750 = ...	...	£500
Deduct A.'s individual expenses...	...	40
A.'s share of the assessment	...	£460
B.'s share, similarly, £250, less £80 =	...	£170

"Disquieted" puts a case in which the junior has £40 taxed income from other sources; in that case he could (1) apply to the surveyor to have an abatement of £160 allowed from the joint assessment, in which event his share of the assessment would be £170 less £160, that is £10; or (2), if more convenient, apply to the surveyor for repayment of tax on £160 on the ground that his total income is under £400. The abatement of £160 is required to be made from the *earned* income as far as possible.

LETTERS, NOTES, ETC.

A MIRACLE OF TO-DAY.

THE age of miracles is not past. A few days ago some newspapers reported the case of a girl who, without human intervention, was snatched from the very jaws of death. For over five long years she had been the victim of consumption and acute diabetes, and had been given up by the doctors. Shortly after the beginning of her illness she had been for nine months in a sanatorium near Reading, but had come home no better; for two months she was an in-patient at St. Bartholomew's Hospital: she was refused admission to a hospital at Hampstead, as her case was considered hopeless; after a stay at a nursing home at St. Leonards, she became an inmate of St. Peter's Home for Incurables. Two years ago she was sent home in an ambulance to die. But she didn't. Numerous doctors saw her, "more than twenty altogether," we are told, but they were able to do little for her. She became blind and deaf and the end was near. One reporter has elicited from the last medical attendant, "one of the best-known doctors and surgeons in the district and a Justice of the Peace," that he left the patient the night before apparently dying. There could be no question about the consumption and diabetes; her pulse had been up to 200, and she had been losing half a pint of blood at a time. But then the strange thing happened.

"I suddenly saw a great light," says the girl, "and heard a voice saying, 'Dorothy, your sufferings are over; get up.' Then two hands clasped mine, touched my eyes in turn, and I was able to see my father and mother. I have no pain whatever now; in fact, I do not feel as if I have had a single day's illness." She got up, called for a dressing-gown, put it on unaided, and ran about the house. The cure was, therefore, speedy and complete. She had her photograph taken. It shows a plump girl with a bouquet of flowers and a roguish grin, and the gentlemen of the press tell us that she is pretty. The miracle must have given satisfaction to the fond parents. The father, it seems, is a working man who has often suffered from unemployment.

Amidst all the wealth of information given, there are certain details wanting, by which, if we were sceptics, we might lay great store; but there is one thing that gives us pleasure, namely, the fact that having lain in bed for five years she at last saw light and got up.

DR. EDWIN ASH (London) writes: In view of the numerous accounts of the so-called "Miracle Case" which have found their way into the papers during the past few days, I should like to make it quite clear that I am not responsible for any publicity which has been given to my name in connexion thereof.

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An Address
ON
THE PRACTICE OF MEDICINE AS A FINE ART.

DELIVERED BEFORE THE MANCHESTER MEDICAL SOCIETY,
BY
ERNEST S. REYNOLDS, M.D.LOND., F.R.C.P.,
PHYSICIAN TO THE MANCHESTER ROYAL INFIRMARY, PRESIDENT.

ABOUT fifty years ago Buckle wrote that wonderful book, *The History of Civilization in England*, and in studying the methods of Cullen, the great Scottish physician, he says:

"Even now and notwithstanding the great steps which have been taken in morbid anatomy, in animal chemistry, and in the microscopic investigation both of the fluids and solids of the human frame, the treatment of disease is a question of art, far more than a question of science. What chiefly characterizes the most eminent physicians, and gives them their real superiority, is not so much the extent of their theoretical knowledge—though that, too, is often considerable—but it is that fine and delicate perception which they owe partly to experience and partly to a natural quickness in detecting analogies and differences which escape ordinary observers. The process which they follow is one of rapid and, in some degree, unconscious induction. And this is the reason why the greatest physiologists and chemists which the medical profession possesses are not, as a matter of course, the best curers of disease. If medicine were a science they would always be the best. But medicine, being still essentially an art, depends mainly upon qualities which each practitioner has to acquire for himself, and which no scientific theory can teach. The time for a general theory has not come, and probably many generations will have to elapse before it does come. To suppose, therefore, that a theory of disease should, as a matter of education, precede the treatment of disease is not only practically dangerous but logically false.

Now the first essential in an argument is to define one's terms. And for a definition of science I again turn to Buckle. In considering the study of moral philosophy he points out that it is not a science, because if studied by induction we arrive at one conclusion; if we proceed by deduction, we arrive at another:

"This difference in the results is always a proof that the subject in which the difference exists is not yet capable of scientific treatmen , and that some preliminary difficulties have to be removed before it can pass from the empirical stage into the scientific one. As soon as these difficulties are got rid of the results obtained by induction will correspond with those obtained by deduction; supposing, of course, that both lines of argument are fairly managed. In such case it will be of no importance whether we reason from particulars to generals, or from generals to particulars. Either plan will yield the same consequences, and this agreement between the consequences proves that our investigation is, properly speaking, scientific. Thus, for instance, in chemistry, if by reasoning deductively from general principles we could always predict what would happen when we united two or more elements, even supposing those elements were new to us; and if by reasoning inductively from each element we could arrive at the same conclusion, one process would corroborate the other, and by their mutual verification the science would be complete. In chemistry we cannot do this; therefore chemistry is not yet a science, although, since the introduction into it, by Dalton, of the ideas of weight and number, there is every prospect of its becoming one. On the other hand, astronomy is a science, because by employing the deductive weapon of mathematics, we can compute the motions and perturbations of bodies; and, by employing the induction weapon of observation, the telescope reveals to us the accuracy of our previous and, as it were, foregone inferences. The fact agrees with the idea; the particular event confirms the general principle; the principle explains the event; and their unanimity authorizes us to believe that we must be right, since, proceed as we may, the conclusion is the same; and the inductive plan of striking averages harmonizes with the deductive plan of reasoning from ideas.

For my definition of art I turn to Ruskin. In a lecture on the unity of art, delivered at Manchester and incorporated in his book entitled *The Two Paths*, he says:

"It would be well if all students would keep clearly in their mind the real distinction between those words which we use so often, 'Manufacture,' 'Art,' and 'Fine Art.' 'Manufacture' is, according to the etymology and right use of the word, 'the making of anything by hands,' directly or indirectly, with or without the help of instruments or machines. Anything proceeding from the hand of man is manufacture; but it must have proceeded from his hand only, acting mechanically, and uninfluenced at the moment by direct intelligence.

Then, secondly, Art is the operation of the hand and the intelligence of man together; there is an art of making machinery; there is an art of building ships: an art of making carriages; and so on. All these, properly called Arts, but not Fine Arts, are pursuits in which the hand of man and his head go together, working at the same instant.

Then Fine Art is that in which the hand, the head, and the heart of man go together. . . . Thoroughly perfect art is that which proceeds from the heart, which involves all the noble emotions; associates with these the head, yet as inferior to the heart; and the hand, yet as inferior to the heart and head; and thus brings out the whole man.

Another definition which has been given is that "Fine arts are such as give scope not merely to manual dexterity, but to genius; as music, painting, sculpture, architecture, etc."

Now, I wish for the purpose of this address to take the liberty of translating Ruskin's word "hand" into the phrase, "All therapeutic means at the disposal of the physician or surgeon"; and these may vary from the giving of a drug to the giving of advice, from massage to the surgical skill required to remove a brain tumour. And I contend that the practice of medicine is a fine art proceeding from the heart, involving the noble emotions of faith, hope, and charity; it has associated with it the head, using all available methods of diagnosis; and the hand, including not only surgery, but all other available therapeutic measures.

Let us first examine shortly what an interval of fifty years—the time of my own life—has done to prove or to uphold Buckle's statement that medicine is essentially an art and not a science. Certainly in the case of chemistry, as Buckle surmised, science has triumphed, and every advance in chemical knowledge shows clearly how much nearer it becomes to the perfect science in which reasoning by induction or by deduction, both lead to the same conclusion. Electricity and all other branches of Natural Philosophy in the same way are more and more approaching the level of true sciences. And if this is the case in the inorganic world, there seems to be hope that it may be so in the organic world, until we approach the most difficult problem of all—the nature of life itself: and hope also that one day the questions of disease and its treatment may become more and more scientific, although they may never be entirely so.

I will give some illustrations, drawn from the progress of the last fifty years, to show how this hope is becoming fulfilled. The germ theory of disease is a big general proposition that certain definite germs are the cause of certain definite diseases. Arguing deductively, we say that the growth of the tubercle bacillus in the body will cause fever, night sweats, wasting, and other symptoms depending on the organ attacked. Or, arguing inductively from particulars to general, we find irregular fever, cough, haemoptysis, wasting, night sweats, and certain physical signs in the lungs, and we say they are caused by the growth of the tubercle bacillus. Again, we put forward the general statement that absence of a functioning thyroid gland will cause the symptoms of myxoedema; and we expect deductively to find the slow mind and speech, the coarse and thickened skin, the falling of hair, and the waxy complexion, with malar flush. Or, finding a patient with these well-known signs, we say inductively that there is a functionless thyroid gland, and that the patient will be cured by the administration of thyroid extract by the mouth. Perhaps you will excuse a personal allusion. The discovery of the cause of the symptoms of the epidemic of arsenical poisoning some twelve years ago was first a piece of very rapid induction (for, as a matter of fact, induction of some simple kind always, consciously or unconsciously, precedes deduction). This was: Here are cases of herpes; I generalized and said, the only drug which causes herpes is arsenic; then by deduction I said these cases are arsenical poisoning. I then started the problem the other way round and took all particulars, the paralysis, the pigmentation of the skin, the herpes, etc., and, arguing inductively, arrived at the same conclusion that they were cases of arsenical poisoning. All these are examples of pure science as definite as are the problems of astronomy; and so I might go on giving a series, ever increasing in number, of other examples in all branches of medicine and surgery. And these achievements have been brought about by observation and experiment aided by the use of new methods and instruments of precision, utilizing to the

full the researches of the physicist, the chemist, and the biologist, without whom we can make no progress.

The pathologist works almost entirely on purely scientific lines, and so does the hygienist, who is to my mind doing the highest work of any department of medicine, fulfilling the old saying that prevention is better than cure. But when we are dealing with the diagnosis and treatment of actual living patients the question of pure science is worthy of some further consideration.

We proceed in our investigations by the methods of observation and experiment. Now, the physician is very strictly limited in the method of experiment, for he must never do anything which may be harmful or unnecessarily painful to his patient. Bacon, in his *Novum Organum*, has compared experiment with the torture of witnesses, but nothing even of a suggestion of torture is permissible in diagnosis or treatment. In observation we watch with attention phenomena as they occur; to experiment is not only to observe, but also to place the phenomena in particularly favourable circumstances as a preliminary to observation. Or, as Mill says, that in observation we *find* our instance in Nature; in experiment we *make* it by an artificial arrangement of circumstances. It is observation to examine a drop of blood to assist in making an accurate diagnosis in some form of anaemia; it is experiment if we first give our patient arsenic and afterwards examine a blood film to see the effect of the drug on the blood cells. It is observation to look at a fractured bone by means of the *x* rays; it is experiment to give a bismuth meal and watch by the fluorescent screen the behaviour of the bismuth in the alimentary canal.

To obtain our information about the condition of a patient we must, then, use every legitimate means, and, if necessary, intensify and add to the power of our special senses by the use of mechanical, physical, and chemical methods. Taste is not now, thanks to the use of Fehling's solution, any more used as a diagnostic method. Smell is aided when by chemical means we produce some diagnostic odour, say in the urine, previously hidden. Hearing is made more conveniently applicable by the use of the stethoscope; and although I have not much faith in various instruments on the market supposed to intensify sounds, yet I have often thought some proper microphonic method would be useful, and I should gladly welcome some form of instrument such as is known in physical laboratories by which certain sounds could be picked out to the exclusion of others. Touch is aided by probes, electrical and otherwise; by instruments of measurement, from tape measures to cyrtometers; by instruments for amplifying and recording movements, such as the sphygmograph and the polygraph, or for estimating blood pressure by the sphygmometer; and in the thermometer we can make accurate the extraordinary uncertainty of the hand in testing a temperature. It is, however, in aiding our vision that we have so many means at our disposal—the microscope, the spectroscope, the polariscope; the *x* rays, the electro-cardiograph, the galvanic and faradic batteries for testing the condition of the neurons and the muscles, and chemical analysis which enables us by visible reactions to judge of the presence of albumen, of sugar, or of free hydrochloric acid.

In the above rapid sketch of the uses of scientific methods in medicine I have not indicated more than a minute fraction of what I think medicine owes to science; moreover, I believe all future progress will be on scientific lines, and on scientific lines only. But this does not, to my mind, controvert the assertion that the practice of medicine is a fine art. And this is the parting of the ways in my argument.

The practice of medicine is, if you like, an art based on scientific methods. To use an analogy which is not perhaps perfect—there was much science underlying and as a preliminary to the painting of Raphael's Madonna, the science of geometry and perspective, of light, and of colours; there is much science underlying the production of a piece of music, but the four single notes of the opening bar of Beethoven's fifth symphony on which the whole work is largely based do not constitute the symphony itself.

I will first consider some of the imperfections and some of the fallacies of so-called scientific medicine. I do this with much misgiving lest it should be thought for a moment either that scientific methods should not be used or that I wish otherwise than to improve these methods. I do so also as a warning to those who most illogically are prepared to base their diagnoses on some one or two observations made by the later scientific methods and are content with diagnoses supplied by a clinical laboratory expert or made by an *x*-ray examination. Any such diagnosis must be entirely subservient to an examination of the patient himself made by the trained special senses of the physician. All this may sound like a platitude, but, unfortunately, I feel that the warning is seriously needed at the present time. The student of medicine, and sometimes his teacher, often forget that the old methods of examining a patient, conducted by the more or less unaided senses, including that very necessary sense, common sense, are just as much scientific methods as examination by the most elaborate chemical or physical methods. They certainly have to be learnt by long years of practice, and have to be done personally by the physician; and I am afraid that of late years I have noticed amongst students a certain tendency to indolence, because, not being able to conduct elaborate scientific methods themselves, they rely for their diagnoses on various reports from experts, and they seem to forget that when they enter into practice many of the elaborate scientific methods are out of their reach. A short time ago I asked a student how he would diagnose a pleuritic effusion. He promptly answered, "By the *x* rays." I then said, "And supposing you were practising in the Isle of Skye, how would you diagnose it?" He said, "I do not know."

It is not necessary to be in the Isle of Skye to be placed in a position where elaborate methods are unavailing, and, moreover, a point very often forgotten, elaborate methods take time and are very costly, and for this very reason are often practically impossible. Now, in this society, medical politics are tacitly forbidden, but under a certain scheme of medical service time will be short and money for special examinations non-existent.

One drawback to the scientific method is that the physician in his practice is dealing with one patient at a time. The hygienist can, as I have already said, work more scientifically, because he is dealing with masses of population, and can more easily check his results. But when one deals with a single person one must remember that no one person is like another, and therefore true scientific method is impossible; the coefficient of error is too enormous. I suppose no two chemical balances and no two measures are exactly the same; but their differences are so slight as to be negligible. But two sphygmograms from different patients can never be scientifically compared; nor even two from the different wrists of the same patient; and, indeed, hardly two taken at different times from the same wrist. The same thing applies to readings of the sphygmomanometer, and equally, of course, to merely feeling a pulse with the finger. And when it is remembered that man differs from man not only in structure but in inheritance and in life-history, it must be conceded that an investigation of his condition can never be a matter of pure science, but merely of science in which there is much surmise. It is owing largely to differences in structure, to imperfect instruments, and to want of experience that *x*-ray examinations may be so fallacious. We could not now do without them, but I could give several cases to show that opinions given and diagnoses resting only on this method have been most harmful in practice. Similarly, I have known most serious mistakes made when entire dependence has been placed on diagnoses made only by bacteriologists, either owing to pure errors or to imperfect methods, or to imagining on the part of the bacteriologist that his results were so scientific as to be incapable of fallacy.

Another fallacy attached to the scientific method is really the logical fallacy of "induction by simple enumeration," and one which I will call the percentage fallacy. If a certain phenomenon is present in 999 instances out of 1,000, one can fairly safely call the phenomenon almost a necessary part of the instance. But if we are dealing with a phenomenon occurring in, say, only 80 per cent. or 90 per cent. of certain instances, reliance on this frequency may, and often does, lead to diagnostic errors, and to errors in treatment. It is unscientific and a stifling of further investigation to say that without syphilis there would be no general paralysis of the insane, even if we can prove

that syphilis has been an antecedent in 90 per cent. of the cases. And because a symptom is present in, say, 80 per cent. of the cases of a certain disease, we must be careful not to exclude that disease because in the particular patient we are examining that symptom is not present. Rarely there is no tachycardia in Graves's disease; and although diarrhœa is only present in about 66 per cent. of cases of enteric fever I have seen the diagnosis excluded because of the absence of diarrhœa. Supposing for the sake of argument that by Cammidge's method the presence of cancer of the pancreas can be excluded in 75 per cent. of the cases tested, let us by all means use this information for what it is worth, but do not let it blind us to the fact that our particular patient may quite well be one of the 25 per cent. in which the reaction is of no account.

A further enormous drawback to the full use of the scientific method I have already alluded to, namely, the strict limitation of the method of experiment in practical medicine. And here I would like to enter a protest against totally uncalled-for methods of examination which may be painful to the patient. I have known of a case of far advanced general paralysis of the insane in which a well-known neurologist insisted on a lumbar puncture and an examination of the cerebro-spinal fluid before he would make his diagnosis.

Von Pirquet's reaction for diagnosing tuberculosis is to me worse than useless; it has so many fallacies that it cannot even be used as confirmatory evidence of phthisis. Once a strong medical man who had recently had an influenzal tracheitis, accompanied, as this often is, by slight haemoptysis, came to ask me where he had better go to live, as he was selling his practice immediately, because having obtained a positive von Pirquet's reaction he found he had phthisis. I told him what I thought of such a method of diagnosis, went into his recent history, his symptoms, and physical signs, gave him a more accurate diagnosis, sent him away for a short holiday, whence he returned to his work as well and strong as ever. Calmette's reaction is even worse, as it may be positively dangerous to the patient, and ought, I think, to be totally condemned as a diagnostic method.

Both in diagnosis and in treatment, one skilled clinician of long experience may be, and often is, much more accurate when not using elaborate scientific methods than is another who is using them. I have known hospital sisters of great experience, using no instrument but the unaided eye, diagnose accurately a malignant endocarditis, a typhus fever, and an acute miliary tuberculosis, when the physician in charge could not satisfy himself of the ailment. The scientific physician in treating a case of pneumonia may pin his faith down entirely to the use of a vaccine, and perhaps deprecate the use of other methods; the more artistic physician may use the vaccine but will most certainly not rely on it only, but on many other means, some of which may seem trifles to the scientist. This want of faith may be due to the present imperfections of the vaccine treatment, which may or may not disappear with the increase of knowledge, but the necessity of the existence of the artist will still remain. In the use of drugs, again, the artist will shine. Take the case of opium; there is an art in knowing when to give it and when to refrain; it is said to be dangerous in cases of bronchitis and in Bright's disease, yet it is just in these two conditions in which an artist can use it with such enormous benefit; and it requires an artist to say which of the numerous hypnotics to the exclusion of all others should be given to any particular patient suffering from insomnia. All this, if you will, is in the nature of intuition or of mere empiricism; that is so, but it is not without enormous advantages to the patient, and it emphasizes the absolute necessity of learning medicine by the bedside as well as in the lecture-room or the laboratory. Medicine must be learnt from the experienced clinician rather than from the skilled scientist, and if I had my way I would allow no one to practise medicine unless he had first resided for at least twelve months in a general hospital.

I will give a few further examples of art in medical practice, and I will first allude to the art of cross-examination, which can only be learnt by personal experience. This art, in which I include the art of the detective, is an absolute necessity in the investigation of disease, and it is because some men do not possess it that they are never a success in medical practice, and without it many blunders are made. I learnt such power as I possess in this direction from repeatedly, some years ago, listening to the cross-examinations of the late Mr. Sidney Smelt, the then coroner for the city of Manchester. It was an education to see him handling either an unwilling witness or an ignorant, stupid witness, or a too voluble witness; the patience he displayed, the way he sorted out the wheat from the chaff, the immediate use he made of a phrase dropped by accident, of the peculiar accentuation of a sentence or even a change of emotion shown by the voice or in the face: and having thus been put upon the track of some new truth, the way in which he followed it up until the truth was revealed was a pure delight to me. Of course, in cross-examination, knowledge of what you are looking for, or of what may be revealed, is necessary, and therefore it cannot be used to the full by the young student, who must learn, as I had to do, by watching the process used by those of greater experience. Scouting without knowledge is useless for obtaining information. If I were in a jungle, I might observe certain spoor, the footprints, the way vegetation was disturbed, the kind of animal droppings, but this would give me no information; it is only the trained shikari who can tell you that a tiger has passed that way.

Again, in the practice of medicine the art of the lawyer is frequently employed. The other day I was asked by one of the laymen on the infirmary board if in considering a certain question at the medical board the presence of a lawyer would be of any assistance to us. I declined the offer with thanks, telling him that we were giving legal advice to lawyers every day in the week. I cannot give instances, but you all know how in both diagnosis of cause of illness and also in the treatment it may be quite necessary that legal matters have to be gone into often with considerable detail.

And the doctor as priest: the man to whom confessions are made when they can be made to no one else, the man who has to blame, and often blame severely, the wrong-doer, and to give praise where praise is due, to encourage the patient in his efforts to reform, to sympathize properly (and what mischief the improper sympathy of the layman does is untold); and this sympathy must not only be for the sufferer in his bodily pain or his mental distress, but also for the relations and friends. And the physician must be able to make his patient believe in him, for without this faith his ministrations may be as nothing. And, finally, the power of instilling hope, even if there is but little left, for by this faith and hope many have reached the end with a feeling of pleasure, and known nothing of the agony of death.

But these things are not science; they are art, and they are fine art, for they require the hand, the head, and the heart.

A COMMON FORM OF HEART DISEASE (AURICULAR FIBRILLATION).

BY

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In the first place I desire to thank you for the honour you have conferred upon me in inviting me to read a paper before the Worcestershire and Herefordshire Branch of the Association.

Your invitation came to me when I happened to be reading the Schorstein lectures by Dr. James Mackenzie on auricular fibrillation,[1] and it occurred to me that this would be a good subject to bring before you, as I have been working at it for the past two or three years. Moreover, it is a subject of which every medical man must have some considerable knowledge and experience.

Auricular fibrillation is a clinical entity. We have all of us met it, although we may not have been aware of the fact. We are in the same position as Monsieur Jourdain in *Le Bourgeois Gentilhomme* when he discovered during his lessons in philosophy that he had been talking prose all his life without knowing it. Auricular fibrillation, for all practical purposes, is a paralysis of the auricles; yet it is not quite a paralysis, the auricles are in a state of

distension, and their power of performing a well co-ordinated act of contraction is entirely lost, yet the auricular walls are not stationary. On close scrutiny they appear to be alive with movement: rapid, minute, and constant twitchings are observed in a multitude of small areas upon their surfaces.

THE RECOGNITION OF AURICULAR FIBRILLATION.

Electro-cardiographic records give the most certain information. I only mention these to dismiss them, because the electro-cardiograph is a laboratory instrument and an extremely difficult one to manipulate.

A simpler method is by taking simultaneous records of the venous and arterial pulses by means of the Mackenzie ink polygraph, or with Mackenzie's modification of the Dudgeon sphygmograph.

Both these instruments I have used for the past two or three years: they require some practice and a little patience, but my house-physicians learn to make records for me in the course of a few weeks: their use, therefore, presents no great difficulty. Still neither of these instruments is an absolute necessity. Auricular fibrillation can be recognized by carefully feeling the pulse and listening to the heart sounds.

The pulse is characteristic. It is continually irregular, the *pulsus irregularis perpetuus*. The irregularity is of a disorderly kind: the strength of the beats and the pauses between the beats are continually changing in an irregular manner.

Rate.

The pulse is not always a true indication of the heart-rate, because frequently many beats are too feeble to be felt at the wrist. As a rule the pulse is rapid, and a curious feature is that the rate tends to be approximately double the normal rate (110–150). In many cases, however, the rate may be 70–80–90, and in patients under the influence of digitalis a rate of 40–50–60 is quite common.

Murmurs.

Auricular fibrillation occurs in cases of disease of the heart both with and without disease of the valves; that is to say, it is met with in valvular disease and in cases of myocardial degeneration (cardio-sclerosis or senile heart) apart from valvular disease. It is quite evident, therefore, that however common auricular fibrillation may be in connexion with valvular disease, the disease of the valve *per se* is of no importance as an etiological factor in the production of the fibrillation. Auricular fibrillation is due to myocardial degeneration and not to valvular disease. Nevertheless valvular disease is often present in these cases, and it is necessary to say a word about the modification of certain murmurs that accompanies this condition.

When a continuously irregular pulse occurs in a case of disease of the aortic valve the characteristic murmurs of aortic stenosis or aortic regurgitation are present and are not modified by the fact that the pulse is irregular.

The case, however, is quite different when there is disease of the mitral valve. If there be mitral regurgitation a systolic murmur conducted into the axilla is present, be the heart's action regular or irregular; but if there be narrowing of the mitral valve—that is, mitral stenosis—the murmur varies according as the heart's action is regular or irregular.

In a case of mitral stenosis if the pulse be regular the murmur is presystolic in time. It is the well-known rumbling, crescendo murmur brought to an abrupt termination by a loud first sound. If the pulse be irregular the murmur is diastolic in time, diminuendo in character, and there will always be a distinct interval between its termination and the first sound. This difference depends upon a change in the action of the auricle when the heart ceases to beat with a regular action and takes on a disorderly rhythm. It depends upon the fact that when the heart is working regularly the auricle is contracting normally, but when the heart becomes irregular the auricle is fibrillating and incapable of co-ordinate contraction.

Summary.

To sum up, for the recognition of auricular fibrillation no elaborate instruments are necessary. The physician has only carefully to feel the pulse and apply the stethoscope to the heart. He may go one step further and take a radial pulse tracing with any form of sphygmograph, and then the disorderly irregularity of the pulse becomes obvious, and he is in a position to say the auricle is fibrillating.

Historical.

How has fibrillation of the auricle come to be regarded as the pathological basis on which depends a continuously irregular pulse?

To Dr. James Mackenzie we primarily owe our knowledge. Dr. Mackenzie first discovered that in venous or jugular pulse tracings a wave which was invariably present in all hearts with a regular rhythm, a wave due to the contraction of the auricle, was constantly absent in patients in whom the pulse was continuously irregular. The absence of the auricular wave in venous pulse tracings indicated that the auricle was not contracting—at all events, was not contracting at its proper position in the cardiac cycle, namely, about one-fifth second before the contraction of the ventricle, and in 1902 Mackenzie[2] assumed that the auricle was paralysed in all cases exhibiting a continuously irregular pulse. Subsequently, however, from autopsies in cases watched for a number of years, he found that the auricles were not infrequently hypertrophied. Such a condition was not compatible with paralysis extending over a period of years, and in 1908 Mackenzie[3] assumed that the auricle was contracting synchronously with the ventricle in these cases of continuously irregular pulses, and he applied the term "nodal rhythm" to these cases, indicating that the stimulus for contraction arose in some place where the auricles and ventricles could be affected simultaneously, namely, in the auriculo-ventricular node.

In 1906 Cushny and Edmunds produced experimental fibrillation in the dog, and drew attention to the similarity in the irregular pulse tracings of the dog and the irregular pulse tracings of Mackenzie's patients. It was not until 1909, however, that Lewis brought things to a final issue. He produced experimental fibrillation in the dog and took graphic records of the jugular and radial pulses. These tracings were shown to Mackenzie, who recognized them as exactly similar to those obtained from his own patients with irregular pulses. Lewis then took electrocardiograms of the fibrillating auricles in the dog, and found certain oscillations were induced by the fibrillation. He then took electrocardiograms of cases similar to Mackenzie's, and found the same oscillations present. In his recently published *Mechanism of the Heart Beat* he very ably proves that in animals and in human beings in whom the pulse is totally irregular the auricles are fibrillating, and his results have been confirmed by other workers.

WHAT ARE THE SYMPTOMS OF AURICULAR FIBRILLATION?

There are practically no symptoms that are peculiar to continuous irregularity of the pulse—that is, to auricular fibrillation—apart, of course, from the symptoms due to the accompanying valvular disease or dilatation that may be present.

In other words, a patient with a continuously irregular pulse may be no more conscious of the irregularity than is another patient of the regularity of his pulse. There may be no symptoms at all, and the patient may be able to perform arduous labour, physical or mental, for many years though the heart remain permanently irregular.

The irregularity, however, hampers the heart's action, and, though the favourable condition may persist for years, symptoms of heart failure arise sooner or later, insidiously or rapidly, the symptoms being dyspnœa on exertion, œdema, cyanosis, etc.

We may say, therefore:

> If no heart failure—no symptoms of the irregularity of the heart.
> If heart failure—symptoms in proportion to the amount of heart failure.

Just as certain patients are liable to sudden attacks of very rapid but regular heart action, attacks we speak of as "paroxysmal tachycardia," so others are liable to paroxysms of very rapid but irregular heart action—that is, paroxysmal fibrillation. The study of cases in which the fibrillation is paroxysmal teaches us something about the symptoms peculiar to the condition apart from those due to heart failure.

As a rule, when the heart departs from its normal rhythm the patient becomes conscious of the change, but when the rhythm is fully established he may be oblivious of any abnormality.

The following case illustrates some of these points, and further shows that paroxysmal fibrillation may occur in a patient previously subject to paroxysmal tachycardia:

A. S., aged 21, electric wire tester, has well compensated mitral stenosis and regurgitation of rheumatic origin. The heart's action is quite regular. She was admitted into the Queen's Hospital on October 19th, 1911, with an attack of tachycardia, in which the pulse was continuously irregular with a rate varying between 120 and 160 per minute. The attack lasted four days, coming to an abrupt termination, leaving the patient quite comfortable with a regular pulse of 80 per minute. During the paroxysm, however, she felt very ill, and thought she was going to die. She had never suffered from shortness of breath, even after considerable exertion, nor from palpitations until January, 1911, when she fell downstairs. Ever since this accident she has been breathless on exertion, and, in addition, has been liable to attacks of "palpitations," similar, so she says, to the attack with which she came into hospital, but of shorter duration. These paroxysms were brought on by any excitement or by exertion. She was conscious of their onset and offset; in her own words: "The heart would give a hard thump and off it would go. Once started it stopped only of its own accord, giving another hard thump before it did so." At the onset of each attack she became excited and breathless, but during the paroxysm she felt quite comfortable so long as she lay down.

The paroxysms that occurred before she entered hospital differed from the one observed in hospital in two respects: (1) They were of shorter duration, varying from ten minutes to about twenty-four hours. (2) The heart's action, and consequently the pulse, was quite regular.

In a paroxysm that occurred on April 21st a sphygmographic tracing showed a regular pulse of 200 per minute during the attack and a rate of 72 per minute immediately afterwards.

THE ETIOLOGY OF AURICULAR FIBRILLATION.

The cases fall into two groups:

1. A rheumatic group. The patients are young; the average of 45 cases with a history of rheumatism was 34.
2. A non-rheumatic group. The patients are past middle age; the average of 22 cases was 58.

In the rheumatic group valvular disease may or may not be present, but if present, mitral stenosis is by far the most common form.

The non-rheumatic group includes that form of heart disease generally known as myocardial degeneration, cardio-sclerosis, or the senile heart. It may be associated with arterio-sclerosis, granular kidney, aneurysm, etc.

PROGNOSIS OF AURICULAR FIBRILLATION.

The prognosis of a case of heart disease with a continuously irregular pulse will be estimated in much the same way as though the pulse were regular. It will depend upon the age, occupation, and social position of the patient. Broadly speaking it will depend upon the amount of work the heart is capable of doing without the production of any symptom of heart failure.

The question is, Should the irregularity be taken into account in prognosis or may it be ignored?

To this the answer is: The condition of the heart responsible for the irregular pulse does of necessity embarrass the circulation, but the amount of this embarrassment differs within wide limits. Thus, Mackenzie has watched cases for over ten years, and on the other hand, he quotes cases in which death has occurred within a few weeks of the inception of the irregular rhythm.

The following is a case of auricular fibrillation which I have watched for seven years:

H. H., aged 58, fitter, first suffered from shortness of breath and oedema of the legs in December, 1904. In October, 1905, he was admitted into Queen's Hospital with oedema of the legs, shortness of breath, irregular pulse, enlarged liver, and ascites. Ever since he left the hospital he has been able to earn his own living; but has had to give up his work eight or nine times, though never for longer than a week.

He has had a continuously irregular pulse ever since his breakdown in 1904. He goes about three months at a time without drugs, and as soon as he feels his breath beginning to fail he comes to the hospital for a further supply of medicine, which in his own word "puts him right again in a few days." He takes tinct. strophanth. mx, tinct. nucis vom. mx, liq. trinitrini mj. He has had no oedema since 1905. His pulse is continuously irregular, its rate about 70 per minute. The lips are always somewhat cyanosed, he can walk for two to three hours at a time at about two miles per hour. The heart is considerably enlarged, there are no murmurs.

It is certainly remarkable that auricular fibrillation should have such a slight effect in disturbing the circulation, for, as we have said, patients with auricular fibrillation may continue in vigorous health and be capable of strenuous mental and physical effort for years.

Fibrillation of the ventricles is quite another matter. It rapidly brings the circulation to a standstill, and is probably the cause of many cases of sudden death. The fact is, the auricles are not indispensable to the circulation of the blood; they are but temporary reservoirs, which accommodate the blood flowing to the heart while the ventricle is in systole. We know that in animals and in human beings alike the auricle may contract synchronously with the ventricle, the contraction of the ventricle may precede that of the auricle, the ventricle may contract at a rate quite different to that of the auricle, and in all cases the circulation goes on unhindered.

TREATMENT.

This form of heart disease is the one which responds above all others to the action of digitalis and its allies and, indeed, it is for this reason that the recognition of the condition is of such importance. It matters not which preparation of digitalis is used. Personally, I use for the most part Nativelle's digitaline granules, $\frac{1}{200}$ grain, and following Mackenzie's advice, I push the drug till the pulse falls to about 50. I stop it, however, earlier if symptoms of excess of the drug occur. These are: Nausea, vomiting, headache, or a general feeling of malaise. When such symptoms arise the drug is omitted for a day or two and then continued in smaller doses, the object being to keep the pulse under 70 beats per minute. Sometimes, however, the patient feels most comfortable with a slower pulse—for example, 50 per minute—and then a sufficiency of the drug is given to keep it at this rate. In any case one must be guided by the patient's own sensations, and it is remarkable how he learns to know the amount of digitalis that suits him best. In a severe case of heart failure I start with one granule of Nativelle's digitaline every four hours, then when the pulse is slow or a reaction present, after stopping it for a day or two, I continue with two granules a day, and later with one, or sometimes with one every other day or one twice a week. It is very noteworthy how patients who have been admitted into hospital with acute symptoms will go to their work and continue at it for prolonged periods so long as they continue to take small doses of digitalis.

When using tincture of digitalis I substitute 15 minims for each granule, so that an acute case is treated at the start with 1½ to 2 drachms a day—that is, 15 minims every three or four hours. It has been said that while marked reaction to digitalis occurs in rheumatic cases of auricular fibrillation, it does not occur in the non-rheumatic cases. It must be remembered that the rheumatic cases occur in younger patients, the average age being 34, while the non-rheumatic cases occur in older patients, the average age being 58. In the latter group, in addition to cardio-sclerosis, all the concomitant degenerations of arterio-sclerosis in other organs are present, and therefore we should not be surprised at the failure of any drug to relieve the symptoms of heart failure in these cases. Be it so or not, many cases of the senile group have responded remarkably well.

The following are two severe cases of mitral disease of rheumatic origin with auricular fibrillation which have responded well to digitalis:

R. A., aged 37, brassworker, had chorea twenty-seven years ago. He has been short of breath for years, but suffered no serious inconvenience till one day in August, 1908, when his breath suddenly failed while he was cycling. He was obliged to give up all work for nine months and spent three weeks of this time in the Queen's Hospital, when he was found to have mitral stenosis and regurgitation with fibrillation of the auricles and consequently a continuously irregular pulse. He has pursued his arduous occupation for nearly three years with three breaks, one of a week, one of a fortnight, and recently one of a month. In each breakdown he is very breathless and cyanosed, the liver is large and pulsating, and the pulse rapid, irregular, and hardly perceptible. During these three years he has taken digitalis more or less constantly, and attributes each breakdown to neglecting his medicine. Be this as it may, he soon recovers on tincture of digitalis 10 to 20 mj three times a day.

G. D., aged 42, omnibus conductor, had three attacks of rheumatic fever thirty-four, twenty-seven, and twenty-one years ago. He has been short of breath for the last twenty-one years, but able to remain at work without interruption until three years ago. He then had a serious breakdown and was unable to work for fourteen months. He was told that he would never work again. He came into Queen's Hospital two years

ago and was found to have mitral stenosis and regurgitation with auricular fibrillation and a continuously irregular pulse. Since his discharge he has done two years' continuous work with one interruption of three months. His work involves standing for many hours a day and constantly running up and down the staircase of an omnibus. He has taken digitalis continuously during these two years and says that he is entirely dependent on the drug.

The following case of myocardial degeneration with auricular fibrillation responded well to digitalis, although the patient was a man of 70 years of age.

J. W., aged 70, metal smith, was admitted into the Queen's Hospital on June 7th, 1911, suffering from shortness of breath, cough, and expectoration of gradually increasing severity for the past four years. On admission there was orthopnoea, cyanosis of the lips and ears, oedema of the legs, a large pulsatile liver, an enlarged spleen, and a rapid, small, continuously irregular pulse. Both ventricles were of large size, but the emphysematous condition of the lungs made it difficult to define the exact boundaries. There was a systolic murmur at the apex, audible in the axilla and at the tricuspid area. After twelve days' rest in bed, without drugs, the oedema had disappeared, but the pulse remained at about 90 per minute. A week later, after taking two granules of Nativelle's digitaline per day, the pulse had slowed to 60 per minute. Coincidently with this slowing the general condition of the patient greatly improved, and five weeks after his admission he left the hospital. All the cyanosis had gone, cough and expectoration had ceased, and the patient was able to mount stairs without any discomfort.

The following is a case of myocardial degeneration with auricular fibrillation in which the patient improved under digitalis in spite of the fact that he had cancer of the liver.

T. H., aged 56, bricklayer, was admitted into the Queen's Hospital on August 23rd, 1911, with carcinoma of the liver and a failing heart, evidenced by shortness of breath, cyanosis, oedema of the legs and back, ascites, and a continuously irregular pulse of very small amplitude, of about 100 per minute. Both ventricles of the heart were enlarged, but emphysema made an exact definition impossible. There were no murmurs. Rest in bed without drugs for six days did not improve the condition of the circulation, but six days later, after having taken 29 granules of digitaline, the pulse was 57 per minute, and of good volume, all cyanosis and oedema had disappeared, and the ascites had diminished. A month later still, on 1 granule of digitaline per day, all ascites had disappeared, and the patient could mount stairs without any discomfort. This improvement in the heart's action has been maintained until the present time, although the patient is losing strength and flesh as the result of malignant disease of the liver.

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THE MANAGEMENT OF CARDIAC FAILURE IN DIPHTHERIA.

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THE rational treatment of all forms of cardiac failure is to remove the cause or causes whenever possible: at the same time to consider the pathological changes in the cardio-vascular system with a view to amelioration of such changes; lastly, to consider the clinical aspect with a view to tiding the heart over the period of stress and preventing or relieving serious symptoms. With regard to the causal factor in diphtheria, it will generally be admitted that the action of the toxin on the heart muscle, resulting in certain degenerative changes, is the main cause of failure. The result of this action, though it can largely be prevented by the early, free administration of antitoxin, cannot be remedied once it has taken place. Unfortunately, in too many cases the antitoxin is not administered until the patient is admitted to hospital, often as late as the fourth or fifth day of the illness. The consequence is that valuable time is lost, and the main cause of cardiac failure may be beyond control. With reference to subsidiary causes, the early loss of appetite which so frequently occurs in diphtheria is a predisposing cause; whilst, on the other hand, the feeling of malaise probably exerts a beneficial influence, inasmuch as it necessitates rest, and so diminishes the heart work. That this point is of some importance seems evidenced by the fact that many patients who are conveyed by ambulance over considerable distances show on admission definite signs of cardiac depression, which pass away after a night's rest. There are, of course, many other factors tending to cause cardiac failure which may come into play in the case of adults suffering from diphtheria, but the main cause is the specific toxin, and it is largely under our control if adequate treatment is commenced early enough.

PATHOLOGICAL INDICATIONS.

Seeing that the changes which occur in the heart muscle are degenerative in nature and are so rapid, they furnish few indications for treatment. It is important to note, however, that in those cases characterized chiefly by failure of tonicity eliminative treatment by purgation and leeching is not only useless, but positively dangerous.

CLINICAL INDICATIONS.

Unfortunately we frequently see cases in which the causal factor has passed beyond our control, and we must rest content with expectant treatment. We therefore attempt to assist Nature in her efforts to promote resistance sufficiently prolonged for the patient to throw off the disease, at the same time guarding against possible complications—thus, by the rational administration of food and stimulant (if required), attention to sleep, and to the excreta, we endeavour to tide the patient over the crisis.

With reference to complications affecting the circulation, undoubtedly the most serious is that type of cardiac failure associated with persistent vomiting. It is so fatal and its early recognition so important that I append a note on its differential diagnosis. When a patient suffering from severe diphtheria begins to vomit after the seventh day of the illness, we must remember that there are several possible explanations; thus, it may turn out that the dreaded cardiac vomiting has supervened, whilst, on the other hand, the vomiting may be due to the onset of scarlet fever. It is not possible to exclude scarlet fever with certainty at the commencement, as it sometimes begins with vomiting, associated with a normal or subnormal temperature. However, a few hours generally makes the diagnosis clear. Measles may also commence with vomiting, and the fact that it is frequently afebrile in its very early stages and not infrequently commences without even coryza or suffusion of the conjunctiva may mislead one, unless a sharp look-out is kept for Koplik's spots.

Serum reaction may commence with an attack of vomiting and cardiac depression (especially the urticarial type of serum rash), but here again the lapse of a few hours generally clears up the diagnosis.

"Cardiac" Vomiting.

The following signs indicate the probability of myocardial involvement:

1. *Certain Types of Faucial Attack.*—When the faucial attack is severe and is complicated by involvement of the naso-pharynx and palate, the probability that the onset of vomiting may indicate commencing cardiac failure is considerable.

2. *Rapidity of the Pulse.*—It is generally recognized that in simple febrile conditions, for every rise in temperature of 1° F. there is corresponding increase in the frequency of the pulse of 10 beats per minute. Whenever in diphtheria the pulse-rate increases out of proportion to the rise of temperature, involvement of the myocardium may be suspected. This sign, which was observed by Dr. Caiger many years ago, is one of the earliest and most reliable indications of threatened failure.

3. *Auscultatory Signs.*—The presence of the extra-systole with or without a consecutive intermission of the heart's action is also important evidence that the heart wall is involved in the morbid process. It carries with it a grave prognosis, when it first appears between the seventh and seventeenth days, but when it commences after the first three weeks its prognostic significance is more favourable. In addition to the above, reduplication of the first sound, followed by accentuated second, is a sign of advanced myocardical disease, as is also marked approximation. On the other hand, shortening of the first sound, accompanied by prolongation of the interval between it and the second sound, is an indication of less advanced disease. Lastly, in some cases in which the function of contractility is depressed, the heart sounds may become almost inaudible.

4. *Anginoid pains* occur, and are strong evidence of myocardial failure. Adult patients voluntarily complain of intermitting pains in the left arm, associated with a sense of constriction in the chest. Small children may suffer from pain during the stage of cardiac vomiting, and it is frequently referred to the abdomen, especially the epigastric region. Its cardiac origin may be suspected when it is relieved by hot applications to the precordial region.

5. *Urine.*—The amount secreted rapidly diminishes, and there may be complete suppression. Albumen may be present. It is commonly averred that albuminuria is an early and characteristic sign of diphtheria. Our experience, however, goes to prove that it is found in the more serious type of case only. It is consequently of less value as a diagnostic sign than is commonly stated.

6. *The Liver* is generally enlarged.

TREATMENT.

Treatment of patients suffering from cardiac failure accompanied by persistent vomiting should be conducted on the following lines:

1. *Position of the Patient in Bed.*—The head should be low to prevent cerebral anaemia, while the foot of the bed should be elevated. This may help retention of the rectal feeds.

2. *Clothing.*—Patients during the stage of cardiac depression become restless and throw off the bedclothes. They should therefore be warmly clad, and for the same reason hot-water bottles should be placed in the bed.

3. *Nourishment.*—All food by the mouth should be stopped and nutrient enemata administered. The rectum should be irrigated twice daily with warm boracic solution, otherwise irritation may be set up, and retention of nutrients become impossible.

Treatment of the Cardiac Depression.

This must be combated by the administration of medicines. Various drugs have been used for this purpose, chief amongst them being strychnine, belladonna, and adrenalin. Since administering them in combination hypodermically we had four successful cases, though, of course, we have also had our failures. The formula used is as follows:

Atropine sulphate	$\frac{1}{100}$ gr.
Strychnine hydrochloride	$\frac{1}{30}$ gr.
Adrenalin chloride solution 1 in 1,000 ...	5 m
Aq. ... ... ad	10 m

To be administered hypodermically every four hours.

That the above-mentioned combination exercised a beneficial influence on the favourable course the cases followed I am convinced, and in this opinion I am supported by Dr. Foord Caiger, who watched the cases with me from the very commencement.

Treatment of Urgent Symptoms.

Thirst.—This is first met by the administration twice daily of small enemata of normal saline solution, whilst teaspoonful doses of iced water may be allowed as soon as the vomiting ceases.

Dryness of the Mouth may be alleviated by the application of such remedies as glycerine and boracic acid, half strength.

Pain is most rapidly relieved by the frequent application of hot fomentations to the precordium.

Constipation.—It may be necessary to obtain an action of the bowels, and it is important to bear in mind that, owing to the serious cardiac depression, all purgatives are contraindicated. For this reason small enemata of glycerine and water are preferable.

CASES OF CARDIAC VOMITING WHICH RECOVERED UNDER THE TREATMENT ADVOCATED.

CASE I.

R. C. M., aged 8 years, was admitted to the South-Western Fever Hospital on October 26th. He had been quite well on October 21st; on October 22nd he vomited and complained of sore throat; and on October 24th swelling of the cervical glands, nasal discharge, and cough were observed.

On admission a deposit of thick opaque membrane completely covered the inner surface of both tonsils and extended to the uvula. There was also general swelling and oedema of the fauces. The cervical glands were much enlarged and rhinorrhoea was profuse. The heart apex beat in fifth interspace in left nipple line. The heart sounds a little sharp and spaced. Pulse 114; 12,000 units of antitoxin were injected and strychnine and brandy administered by mouth. October 27th: The edges of membrane are beginning to curl up, physical signs remain unchanged, no albumen in urine. 8,000 units of antitoxin administered. October 28th: Membrane shows signs of disintegrating; cervical glands less swollen; physical signs in heart unchanged, but albumen one-eighth present in urine. Pulse 96; temperature normal. October 29th: Membrane peeling off. No change to note except that pulse is more rapid, 112. The patient progressed without material change until the evening of November 4th, when he complained of not feeling so well. November 5th: Patient collapsed, inclined to vomit, general condition bad, surface cyanotic and extremities cold. The apex beat was well inside the left nipple line; the first sound showed the characteristic reduplication. Lower border of liver below the costal margin. Only passed 8 oz. of urine; albumen present. Treatment as above. November 6th: Patient vomiting persistently. Tongue dry. Extremities cold. Hepatic enlargement remains. Pulse 130; temperature subnormal. November 7th, 8th, and 9th: Vomiting continuous. Pulse almost imperceptible at wrist. November 10th: Only vomited once. Liver enlargement less marked. November 11th: Vomiting ceased. Tongue moist and cleaning. Pulse 108, much stronger. November 12th: Pulse 96, force good, rhythm regular. Passed 14 oz. of urine. November 13th, 14th, and 15th: No recurrence of vomiting and patient able to take food by mouth in sufficient quantities; felt much stronger. Urine increasing in quantity. November 16th: Complains of "pins and needles" in feet. During the next six weeks the patient suffered from paralysis of the muscles of accommodation, and ocular movements were paralysed, as also were the constrictors of the pharynx, adductors of the larynx, and also the diaphragm. Eventually the patient made a good recovery and was able to leave his bed for a short time on December 28th.

CASE II.

E. P. was admitted on February 27th with the usual history, and a copious exudate on tonsils and uvula. On March 7th she commenced to vomit, and showed the usual signs of cardiac depression, with oedema and dilatation. Rectal feeding was ordered, together with four-hourly injections of the solution of atropin, strychnine, and adrenalin; vomiting ceased after the second day of treatment, but the signs of myocardial involvement lasted for several weeks. Finally, after passing through a severe attack of post-diphtheritic paralysis, she eventually recovered.

CASE III.

W. L. G., aged 3 years and 2 months, was admitted on April 21st. The history was that he had vomited on April 12th, had sore throat on April 20th, and on April 21st swelling of cervical glands. On admission, there was injection of the fauces, an exudation covering either tonsil, and profuse rhinorrhoea; 12,000 units of antitoxin were administered, but the membrane continued to spread. On April 22nd vomiting commenced, and signs of cardiac failure, associated with a dilated left ventricle, appeared; the patient continued very ill for some days, showing most of the signs of cardiac depression above enumerated. Eventually the vomiting ceased and the heart gained in strength, and the patient made a gradual but satisfactory recovery. It is of interest to note that this patient suffered from several attacks of epistaxis, and several petechial spots appeared on the neck.

CASE IV.

A. T., aged 28 years, was admitted on July 3rd with the following history:—June 30th: Headache and sore throat. July 2nd: Cervical glands enlarged. On admission examination revealed extensive exudation covering both tonsils, which were so swollen as to almost meet in the middle line. The exudate also extended to the uvula and soft palate. Submaxillary glands much swollen on both sides. Heart sounds normal. Pulse 76, colour good; 16,000 units of antitoxin were administered. July 4th, 5th, and 6th: Exudation no less, otherwise not any change. July 7th: The patient feels better, the greater part of the exudate has separated. July 8th, 9th, and 10th: No change except that the patient had some difficulty in opening his mouth, in spite of the cervical glandular swelling having disappeared. July 11th: Persistent vomiting since early morning, patient collapsed. Heart sounds very weak, occasional extra systoles present. July 12th: Vomiting still. The apex beat was inside the left nipple line; the heart sounds weak; extra systoles followed by intermission. Some complaints of throbbing and feeling faint. Urine 13 oz., heavy deposit of albumen. July 13th: No more vomiting; pain in arm running down to wrist associated with a sense of tightness across the upper part of the chest; the pulse was intermittent: no extra systoles; impulse no stronger. July 14th: Cardiac action stronger; no vomiting. Heart sounds rather spaced, albumen still present. July 16th: Complained of cardiac pain after an enema. No signs of dilatation; no vomiting; heavy deposit of albumen. July 17th: No more pain; no vomiting; thick deposit of albumen. July 19th: Heart action much stronger, but first sound reduplicated; albumen less. July 22nd: Heart action regular; no albumen; no bad symptoms. July 26th: No albumen in urine: sounds at cardiac apex weak but pure. From this date cardiac action gradually became normal, but the patient did not escape some degree of paralysis.

The above case is one in which the cardiac affection was failure of contractility. It is of importance, as it indicates that recovery from such a grave condition need not be despaired of.

Dr. Caiger has kindly allowed me to use the notes of the above cases.

SUPRARENAL GLAND EXTRACT IN CARDIAC DYSPNOEA AND CARDIAC DROPSY.

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THE practitioner often has to deal with failure of compensation in cardiac cases. Digitalis, strophanthus, convallaria, caffeine—all are useful in their turn; but sometimes one and all may fail us. There is no doubt that strychnine hypodermically is an invaluable remedy in failure of cardiac compensation; that the nitrites are of great service in some cases; that atropine subcutaneously relieves the dyspnoea of others; that potassium iodide is not to be despised as a heart tonic, and that the Nauheim bath treatment, judiciously applied and carefully supervised, does wonders in the early stages of compensation failure.

But there is another remedy which can be relied on in some cases. This is suprarenal gland—the solution of the extract of the gland, used hypodermically or by intravenous injection, or the gland substance, given by the mouth in tablet form.

I have had under my care several cardiac cases in which dyspnoea and dropsy were prominent symptoms, and in which suprarenal gland was administered. I propose here to give a report from my notes on two of these cases only. In the others the action of the remedy in combating the symptoms was maintained. In all, more or less severe dyspnoea was relieved, sometimes by the hypodermic injection of from 5 or 10 to 15 minims of the 1 in 1,000 adrenalin solution (Parke, Davis and Co.), at other times by a 5-grain tablet of the suprarenal gland substance administered by the mouth. When the dyspnoea was not very severe, the dose of adrenalin solution injected hypodermically was from 5 to 10 minims (1 in 1,000 solution), and the 5-grain tablet of the gland substance was halved for each dose by the mouth. In general practice one cannot always make provision for the amount of urine passed by the patient in twenty-four hours to be accurately measured. But where I succeeded in making such provision while my patients were under treatment by hypodermic injections of adrenalin or by the tablets of suprarenal gland substance administered by the mouth, I almost invariably found the quantity of urine increased and the dropsy at least temporarily diminished by the treatment. Sometimes the apparent effect of the remedy in this respect was marked and striking.

The following are notes of the two cases referred to—the one taken as typical of the graver form of disease, that in which the valvular lesion is accompanied by general arterial sclerosis; the other, a milder and uncomplicated case of morbus cordis.

CASE I.

On January 14th, 1905, a railway engine driver, aged 51, applied, with a history of injury to the left arm, supposed to have been caused by a strain while at his work when dragging a heavy weight. A little while afterwards he had felt, first, pain in the left arm, then a sensation of numbness in the arm.

There were no bruises or swelling; the power of grip of the left hand was considerably less than that of the right; the mouth was drawn slightly to one side; the temporal and radial arteries were tortuous and could be rolled under the examining finger; there was a well-marked double aortic bruit.

After some weeks of absolute rest, with an ice-cap to the head during part of the first forty-eight hours, and with the application of warm Droitwich packs to the left arm afterwards, the pain disappeared from the arm, the grasping power of the left hand became almost equal to that of the right, and the mouth was not so noticeably drawn to one side. After a couple of weeks' more rest, the facial muscles appeared to have completely recovered their equilibrium.

When the patient began to go about again he complained occasionally of giddiness and some difficulty of breathing. After twelve artificial Nauheim baths (temperature 100° F., reduced to 95° F.) at first two and afterwards three a week, given shortly before bedtime, he felt so much better that he wanted to go back to his work.

In June, 1905, he could no longer be persuaded to continue treatment, and returned to his duties on the railway. I did not see him again before October of the same year, when, the dizziness and dyspnoea having returned and become very troublesome, the Nauheim baths were used again. At first they again acted beneficially, reducing the increased pulse-rate and relieving the dyspnoea as well as the giddiness. But after about half a dozen baths the patient no longer gave himself the necessary amount of rest; he went out of doors when it was cold weather and over-exerted himself in walking. In place of slowing the pulse-rate, the baths were now found to increase it. I then discontinued them, and during the greater part of October and November tried in turn digitalis, strophanthus, and potassium iodide, with aromatic spirit of ammonia and belladonna tincture; these remedies, as well as the nitrites and trinitrin, failed to give any relief from the troublesome dyspnoea, which was almost constantly present, but which the patient found most trying and irksome at night. Strychnine and atropin in hypodermic injections at bedtime gave some relief. In December dropsical swelling made its appearance, first at the ankles, then higher up the legs, then in the scrotum and abdomen.

On December 15th, at night, extreme dyspnoea called urgently for relief, and I injected 15 minims of adrenalin solution (1 in 1,000) subcutaneously. The quantity of urine passed during the previous twenty-four hours had been barely 6 oz. There was almost immediate relief from the dyspnoea, and that night the patient slept more than five hours consecutively. Early next morning, finding that the dyspnoea was returning, I again had recourse to adrenalin subcutaneously: it was repeated in the afternoon and again at night. When, at the end of twenty-four hours, the quantity of urine voided since the previous evening was measured, I found an increase from 6 oz. to 24 oz. During the following five days I continued the adrenalin treatment, and also put the patient on a saltless diet, tarragon vinegar and celery with tomato being given as relishes with food, in place of salt.

The following table, taken from my notes, shows the increase in the urine (measured at 10 p.m. each day) during the six days of treatment:

December 16th, urine measured	26 oz.
December 17th, " "	37 "
December 18th, " "	49 "
December 19th, " "	51 "
December 20th, " "	111 "
December 21st, " "	125 "

When the patient was seen on the morning of December 22nd it was found that he had had a very good night, having slept for more than nine hours almost continuously, and without any difficulty of breathing. He was able to get up and go about the house before going out of doors again in a bath-chair.

In the following year, when he had a relapse, the adrenalin treatment again relieved the dyspnoea and increased the quantity of urine (measured at 5 a.m. each day) for each twenty-four hours, as the following table taken from my notes shows.

On January 5th, 1906, the urine measured 18 oz. Adrenalin given subcutaneously three times, and continued during the following days (without saltless diet).

January 6th, urine measured	20 oz.
January 7th, " "	43 "
January 8th, " "	116 "
January 9th, " "	102 "

There was again a temporary rally; but towards the end of January there was another severe attack of dyspnoea, with increased dropsical swelling. On February 5th, and again on March 10th, paracentesis abdominis gave some relief, but the symptoms of failure of compensation could no longer be checked after this.

CASE II.

While this case was under treatment I was, on February 14th, 1906, called to see a lady with dyspnoea and commencing ascites. There was in this case a loud mitral, systolic bruit, with failure of compensation showing itself by bronchial catarrh, as well as dyspnoea and swelling of the legs. There was also some swelling of the face. The urine contained albumen. On February 14th I injected hypodermically 10 minims of adrenalin solution (1 in 1,000). This was repeated in the evening, and the patient, who had had no sleep whatever during the previous night, slept for three or four hours. The quantity of urine measured for the twenty-four hours ending at 9 a.m. on February 15th was 29 oz. As the patient could not be brought to restrict herself to either the salt-free diet or to an exclusively milk diet, ordinary diet was continued, and two hypodermic injections of adrenalin (1 in 1,000) were given daily (7 to 10 minims each dose).

Table showing Quantity of Urine Passed Day by Day (measured at 9 a.m.) while under this Treatment.

February 15th, urine measured	29 oz.
February 16th, " "	37 "
February 17th, " "	49 "
February 18th, " "	76 "
February 19th, " "	74 "
February 20th, " "	89 "
February 21st, " "	93 "

After February 21st only one injection of adrenalin was given in the evening, and during the day one tablet of suprarenal gland substance (5 grains). This treatment was continued for four days. On February 25th all dropsical swelling had disappeared from the legs and from the face; there was no longer any albumen in the urine, the quantity of which (measured for 24 hours) was found to be nearly 90 oz. There was no longer any dyspnoea: the patient ate and slept well. She resumed her ordinary house duties.

A CASE OF ANGINAL SPASM OF EXCEPTIONAL DURATION.

BY

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We are so accustomed to look upon angina pectoris as a disease in which the patient either dies or recovers from the spasm in a very short time—certainly under an hour—that a case in which the spasm lasted for a whole night is of sufficient interest to place on record.

The patient was a retired gentleman in his 80th year. Some twenty years ago he had a severe attack of diphtheria which left no evil effects in the way of paralysis, etc. From that time he had no illness worth mentioning, and in latter years especially his health was excellent—in fact, after he was 70 he visited friends both in South Africa and in the United States, and only the year before his death he had a motor run of 100 miles, returning by train the same day, without experiencing the slightest undue fatigue.

His first attack of angina was on June 29th, 1911; other attacks followed on July 3rd, August 16th, September 8th, 9th, and 10th. The last attack was the prolonged one lasting from 9.20 p.m. to 6.25 a.m. Several of the earlier ones were fairly severe, but in each case the spasm soon yielded (less than half an hour).

No signs of cardiac disease were to be detected, the sounds were good and clear, the apex not displaced outwards, and the right heart boundaries normal. The arteries were quite soft and the arterial tension slightly below the average. Urine was normal, with no trace of albumen. There was no respiratory trouble of any kind. He had a hearty appetite, but took a fair amount of exercise, being a good walker.

The last attack began at 9.20 p.m., after he had retired for the night. As it did not yield to amyl nitrite inhalations, I was sent for. I found him in great distress; he was gasping for breath and complained of great tightness in the upper part of the chest. The pain was most severe; it was situated near the upper part of the sternum, radiating up both sides of the neck to the ears, hardly any passing down the left arm. He was propped up in bed, his face slightly flushed, but by no means cyanosed; the pulse very slightly affected in either wrist.

When I saw him he had already inhaled the contents of two amyl nitrite capsules (5 minims each) and taken a dose of carminative medicine, which had previously been of service in relieving flatulence. I gave him a hypodermic injection of ¹⁄₁₀ grain nitroglycerine, and, as this produced no effect, I gave him an injection of scopolamine and morphine (¹⁄₁₀₀ and ¹⁄₂). Again I was disappointed, no improvement following. I then administered chloroform on a Skinner's mask, and he became easier, the spasm passed off completely, and the breathing was deep and peaceful. In about twenty minutes I stopped the chloroform, thinking that the spasm would not now return, but, with recovery of consciousness, it slowly reappeared, and was eventually as severe as before. The only way to give the patient any relief was to resort to chloroform, and this I continued to administer at intervals until 6 a.m., when the spasm relaxed, passing off altogether at 6.25 a.m.; the patient then had two hours' natural sleep. During the night I used nearly a pound bottle of D. and F. chloroform. Except when under the influence of chloroform, there was no relaxation of the spasm from 9.20 p.m. to 6.25 a.m. The sense of impending death was markedly present. The pulse was never markedly affected, at times a little irregular. It gradually increased in rate and became smaller in volume.

The next day he expectorated some plugs of dark-coloured mucus, suggestive of pulmonary embolism; but the most careful examination of the chest revealed no signs of one. A few days later (September 13th) I found a small spot on the right base which was dull on percussion, and where some moist sounds could be heard (the following night he had a slight rigor), but these signs soon cleared up, and when examined in consultation a few days later no traces were found. At the most there were barely six pieces of blood-stained mucus expectorated.

He had no other attacks, and in the next week slowly gained strength, his appetite markedly improved, and he felt altogether better; but the improvement did not continue, he became gradually weaker, and died quite peacefully in his sleep ten days after the prolonged attack. All this time his pulse had been rapid (90 to 100), frequently irregular and intermittent, and always very weak, especially so the last few days. The heart sounds were distinctly heard, but very feeble—especially the first. The temperature kept low, usually 96 to 97, except on the night of the 13th, when there was a slight rigor, the temperature rising to 101.6°, but falling to normal by morning. The day before his death it went up to 99°, but only for a few hours.

It may be suggested that this was a case of pulmonary embolism, and not angina pectoris. But on reviewing the whole case I do not think this to be the correct diagnosis. Against this view we have the absence of any obvious source of the embolus; the previous undoubted anginal attacks unaccompanied by any pulmonary symptoms, the absence of cyanosis or of cough after the attack, as would assuredly have followed an infarction sufficiently large to have given rise to such severe symptoms. I take it that the course of events was as follows—an obstruction in some of the smaller branches of the coronary artery, insufficient in size to cause stoppage of the heart, but which obstruction was to some extent permanent, as evidenced by the subsequent cardiac degeneration. The time taken by the heart in accommodating itself to its reduced blood supply, accounted for the length of the attack. Probably owing to the obstructed coronary arterial flow, there was some stasis in the coronary veins where a small embolus formed, which accounted for the pulmonary symptoms. The coronary circulation probably never became completely re-established, but gradually more interrupted, and so caused the cardiac degeneration which finally brought about death.

RELIABILITY OF THE RESULTS OBTAINED BY THE WASSERMANN TEST ON SERUMS AND CEREBRO-SPINAL FLUIDS OBTAINED POST MORTEM.

BY

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(From the Pathological Laboratory of the London County Asylums.)

THE object of this paper is to record our experiences of the Wassermann reaction as applied to blood serums and cerebro-spinal fluids obtained *post mortem* from cases of insanity at the London County Asylum of Claybury.

We have been engaged upon this work during the past year, and, as our results do not accord with some recent publications on the same subject, Dr. Mott has suggested that we should record the results of our own observations.

In his Hunterian Lecture[1] Major French quoted the findings of Ponfik and Winckler to the effect that, of 101 specimens of serums from cadavera, 59 (that is, 60 per cent.) gave a positive reaction. Further, Luksch[2] states that of 309 *post-mortem* cases a positive result was obtained with the serums in 46 per cent., and he did not from this fact infer that all these 46 per cent. were cases of syphilis. Luksch believes that the occurrence of the Wassermann reaction shortly before or after death does not prove anything, because, in his opinion, serious diseases produce changes in the blood serum which may cause it to yield the reaction in question. This might take place a long time before the close of life. During the course of sepsis, uraemia, or pneumonia such changes were observed very often, even if the patient recovered completely. He considered that the Wassermann reaction was not pathognomonic of syphilis, because under certain conditions, both during life and after death, it might occur in persons who were free from syphilis. For this reason a pathologist was not entitled to diagnose syphilitic changes if the Wassermann reaction was present in the cadaver, and in cases of serious illness the physician must be careful not to rely too much on the reaction. More satisfactory results have been obtained by Nauwerck and Weichert, Schlimpert, Löhlein, and Veszprémi, but these observers have excluded *post-mortem* serums which were not obtained in a fresh condition.

Routine Method adopted at Claybury.

In all cases of death the bodies are placed in the cold chamber and the autopsy is made generally within twenty-four hours. The fluids are withdrawn at the time of autopsy, and if not tested on that day are placed in the ice chamber until the test is made (generally within a day or so), when the serum which has separated is pipetted off and inactivated in the usual manner.

The technique adopted in this research was that of the original Wassermann method described by one of us (J. P. C.).[3]

Results of the Investigation.

A total number of 112 cases have been examined, of which the cerebro-spinal fluid and the blood serum have been examined in 92 cases, the cerebro-spinal fluid alone in 20 cases. With regard to the cerebro-spinal fluid, it will thus be seen that 112 samples were examined, of which 25 were found to give a positive result. Each of these 25 cases

was shown by macroscopic and microscopic examination to be an instance of general paralysis, and in 17 of these cases where the serum also was examined a positive result was obtained. In 8 of these the cerebro-spinal fluid had been examined during the life of the patient with a positive result.

In 3 cases out of the remaining 87 the result of the Wassermann test was not in accordance with the clinical evidence and *post-mortem* appearances.

CASE I.—F. A case of general paralysis. Male, aged 42, dying of general paralysis of the insane and hypostatic congestion of lungs, gave a negative result both with the serum and cerebro-spinal fluid. (This fluid had become turbid from decomposition before the test was made.)

CASE II.—M. A case of general paralysis, gave a marked positive result with the blood serum, but a negative with the cerebro-spinal fluid. This case had given a positive result with the cerebro-spinal fluid during life. Death had been accelerated in this case by an acute meningitis. The fluid was purulent when withdrawn, and was crowded with streptococci and polymorphonuclear leucocytes.

CASE III.—J. A case of insanity (male, aged 68) other than general paralysis. The fluid showed some degree of complement deviation, which, however, was not sufficient to be accepted as a definite positive result. Decomposition had commenced in this fluid at the time of examination. Cause of death, bronchopneumonia.

We will explain later to what we consider these anomalous reactions to be due.

Examination of Blood Serum.

With regard to the 92 cases in which the serum was examined, as already stated, 20 of these were cases of general paralysis, and in only one (Case F.) was a negative result obtained. Of the remaining 72 cases, a positive result was obtained in only 10. Two of these cases died from rupture of a thoracic aneurysm, and there was undoubted evidence of previous syphilitic infection; in both these cases the cerebro-spinal fluid gave a negative result. In 2 of the cases there was found a marked nodular fibrosis of the aorta, which in Dr. Mott's opinion was undoubtedly syphilitic in character. In the remaining 6 cases there was no definite history or signs of previous syphilitic infection. They were as follows:

1. Female, aged 28. Acute melancholia. Cause of death: Pyaemia secondary to stomatitis and gangrenous tonsillitis. Serum: Positive. Cerebro-spinal fluid: Negative.
2. Female, aged 39. Melancholia. Cause of death: Acute ulcerative dysentery. Serum: Positive. Cerebro-spinal fluid: Negative.
3. Female, aged 41. Dementia. Cause of death: Carcinoma of cervix uteri with vesico-vaginal fistula; purulent cystitis and septicaemia. Serum: Positive. Cerebro-spinal fluid: Negative.
4. Female, aged 47. Mania. Cause of death: Tumour cerebri and pulmonary tuberculosis. Serum: Positive. Cerebro-spinal fluid: Negative.
5. Male, aged 57. Senile dementia with epilepsy. Cause of death: Bronchopneumonia. Serum: Positive. Cerebro-spinal fluid: Negative.
6. Female, aged 37. Melancholia. Cause of death: Pulmonary and intestinal tuberculosis. Serum: Positive. Cerebro-spinal fluid: Negative. The brain of this patient showed some evidence of congenital imbecility; and in the light of H. R. Dean's observations[4] our result on the serum may be correct.

In the remaining 62 cases a negative reaction was obtained on the blood serum. We have investigated the histories of these cases as fully as possible, but without finding any notes which would lead us to think that these results are incorrect, except in one case of marked tabes dorsalis, in which the cerebro-spinal fluid two years before death and also *post mortem* gave a negative reaction and the blood serum *post mortem* was likewise negative. In this case there was a history of syphilis contracted twenty years previously.

SUMMARY OF RESULTS.

Cerebro-spinal Fluid (Number of Cases examined, 112).

Number of cases of general paralysis giving a positive result	25
Number of cases of general paralysis giving a negative result	2*
Number of cases other than of general paralysis giving a negative result	85
Number of cases other than of general paralysis giving a positive result	—

* Cases F. and M.

Therefore out of 112 cases in which the cerebro-spinal fluid was examined *post mortem* a correct result was obtained in 110 instances (98 per cent.). Of the 85 cases other than general paralysis only one case gave the slightest evidence of retardation of haemolysis, not sufficient, however, to justify a positive reaction.

Serums (Number of Cases examined, 92).

Number of cases of general paralysis giving a positive result	19
Number of cases of general paralysis giving a negative result	1
Number of cases other than general paralysis examined	72
Number of cases other than general paralysis examined giving positive result	10 (14%)
Number of cases other than general paralysis examined giving positive result (but excluding 4 cases of undoubted syphilis)	6 (8.3%)

If our figures are contrasted with the 60 per cent. and 46 per cent. of positive results obtained by other observers on serums from cadavera, it will be seen that, after deducting the cases of general paralysis from our figures, we only obtained a percentage incidence of 14 per cent., and after deducting from these the undoubted syphilitic cases, we only obtained an apparently anomalous reaction in 8.3 per cent. We are therefore inclined to the opinion that the test, as applied to *post-mortem* material, is a very helpful one—at any rate, as far as the diagnosis of general paralysis is concerned, as well as for evidence of previous syphilitic infection. It is, however, not so reliable as the fluid withdrawn during life. There are limitations to its use, and to these we desire to draw attention.

Lubarsch's objection as to its reliability is based on the fact that such a large percentage of cases after death react positively to the Wassermann test, although apparently not syphilitic. We have not met with that difficulty in our asylum cases to anything like the same extent, though we have obtained a positive result in 8.3 per cent. of cases where a negative result was expected: on the other hand, we have obtained a negative where a positive result was expected. Our attention was first drawn to one of the factors responsible for the unreliability of the reaction in *post mortem* cases by noting that a serum which had at first given a completely negative result and which was being kept as a control became, after a short time, positive to the test. With this alteration in the reaction there had occurred some turbidity of the fluid and growth of micro-organisms. Similar results were found to occur in the case of a cerebro-spinal fluid.

This phenomenon was investigated more carefully by allowing serums and cerebro-spinal fluids, whose reactions to the Wassermann test had been recorded, to decompose at room temperature. We then found that anomalous reactions were frequently obtained; a positive reaction would become a negative and a negative tend to give a positive result. In the case of a perfectly clean and sterile inactivated serum or a cerebro-spinal fluid to which 0.5 per cent. phenol had been added, the reaction would remain unaltered even after the lapse of a considerable period. In one case of ruptured thoracic aneurysm the blood serum removed *post mortem* and inactivated was used periodically as a control for over three months, and at the end of that time showed the same power of complement deviation as when first obtained, and cerebro-spinal fluids from cases of general paralysis and other forms of insanity which were removed *post mortem* and carbolized five months ago are still in use as positive and negative controls.

In order to show that bacteria and their products can materially alter the reaction, we have lately taken known positive and negative cerebro-spinal fluids and inoculated them with laboratory strains of *Staphylococcus aureus*, *Bacillus coli communis*, and *Bacillus pyocyaneus*. At the end of twenty-four hours' incubation the test was again applied, and the strain of *Bacillus pyocyaneus* used was found to have caused a positive fluid to become negative, and a negative to have become positive.

These investigations are as yet quite incomplete, but taken in conjunction with the changes in reaction which have been observed in fluids which have been allowed to decompose, they suggest that certain varieties of saprophytic and pathogenic bacteria or their products may have the power of altering the reaction.

It is to the action of decomposition products that we attribute the anomalous reactions obtained with the cerebro-spinal fluids of Case F. and Case J. already referred to, for the cerebro spinal fluids of both these cases were turbid and full of bacteria when they were examined.

In Case M., however, we are inclined to attribute the failure to obtain a positive reaction to some changes set up

by the streptococcal infection of the meninges which had obviously occurred before death. The cerebro-spinal fluid of this patient had given a positive reaction before death. A known positive cerebro-spinal fluid was inoculated from a culture of this streptococcus, with the result that a considerable degree of haemolysis was obtained.

With regard to the serums giving positive reactions in cases that were not apparently specific, we would explain the anomalous reactions as the result of decomposition of the serum, for we have found that as soon as the serum commences to show any turbidity the reactions will tend to become positive. In some of these cases decomposition had obviously commenced even when the blood was removed from the body.

CONCLUSIONS.

While, therefore, our observations lead us to consider that the reactions on the blood and cerebro-spinal fluid removed from the cadaver before decomposition has commenced will give reliable results, we agree with Luksch that decomposition is liable to alter the reaction, as may also a terminal microbial infection. This change, however, is not confined to the alteration of a negative to a positive result, but may alter a positive into a negative; and we would point out that decomposition may similarly influence the result of the test on fluids and serums removed during life.

To ensure satisfactory results on *post-mortem* material it is, therefore, necessary to remove the cerebro-spinal fluid and blood as soon as possible after death. The serum should be separated and inactivated at once, and the cerebro-spinal fluid should be carbolized, unless the test can be applied the same day. The same remarks apply with regard to the preservation of material removed during life.

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[1] *Verhandl. der deutsch. pathol. Gesellsch.*, 1910, xiv, p. 249. [2] *Lancet*, 1910, vol. ii, p. 204. [3] Ibid., November 11th, 1911. [4] *Proc. Roy. Soc. Med.*, July, 1910. For complete biography see *Syphilis from the Medical Standpoint*, McIntosh and Fildes (Arnold, 1911). [5]

AN ACCURATE METHOD OF ESTIMATING THE VIBRATORY SENSE.

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EGGER in 1899 called attention to the sense of vibration felt when the foot of a vibrating tuning-fork is placed over subcutaneous bony points. The investigations of Bing showed that the sensation is probably conducted upwards in the posterior column of the white matter by fibres which do not decussate. In this country Williamson has shown that the vibratory sense is often lost when other forms of sensation are present. In peripheral neuritis, due to diphtheria, influenza, diabetes and alcohol, it may be lost at an early stage, and it may be an early sign in tabes.

The ordinary method of investigating the vibratory sense does not show the abnormal states which precede its complete or almost complete disappearance. In my investigations I have used the tuning-fork introduced and made by Edelmann of Munich for use in Schwabach's aural test for the absolute bone conduction of hearing. Its vibration frequency is 108.75 a second. Two pieces of steel are attached to the upper portion of the fork, arranged in such a manner that when the arms of the fork are vibrating a small window is seen between them; this disappears when the vibrations of the fork reach a definite amplitude. The moment that the window disappears I apply the fork to the subcutaneous bony point and start a stop-watch. The patient is instructed to give a signal at the moment when he ceases to appreciate the vibration; the watch is then stopped and the time recorded.

By this method on thirty normal individuals I found what period elapses before the sensation disappears at each bony point. The average periods, together with the maximum and minimum, are shown in the accompanying table. In the list there given it is noticeable that the average times over the sacrum and anterior superior spines are considerably less than the time for the other bony points. This is of interest, as Mott and others have found that the vibratory sense may be absent over the sacrum in cases of tabes when still present at the other bony points. This would follow a general depression of the sensation, since it is appreciated over these points less readily than in the other situations.

	Average.	Maximum.	Minimum.
	Seconds.	Seconds.	Seconds.
Internal malleolus	27	35	25
External malleolus	28	38	25
Tibia (middle of shaft, inner aspect)	29	37	25
Anterior superior spine ...	21	25	16
Sacrum	20	23	15
Sternum	30	36	24
Radius (lower end)	33	40	28
Ulna (lower end)	31	42	28

When this test is applied to patients suffering from impairment of the vibratory sensation a numerical ratio to the average normal is obtained which accurately represents the degree of impairment. I have used a graphic method to demonstrate these changes; the height in the accompanying curves represents the time during which the sensation was appreciated. Superimposed in most cases is a normal average curve for comparison.

CASE I.—*Diabetic Neuritis.*

Male, aged 54, suffering from diabetes. Pain and tenderness along the right sciatic nerve was the only evidence of neuritis, both tendo Achillis jerks being present. In spite of this the

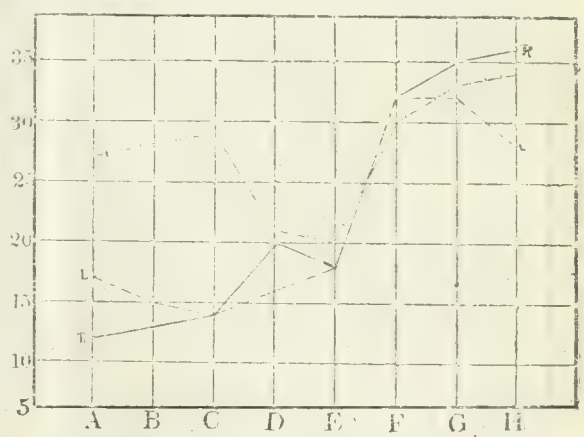


FIG. 1.—Case I. A, Internal malleolus; B, external malleolus; C, tibia; D, anterior superior spine; E, sacrum; F, sternum; G, radius; H, ulna. — | — | — | — Average normal; ——— right side; - - - - - - left side.

vibratory sense was one-half the normal over the tibia and external and internal malleoli of both sides, the right being only slightly more affected than the left.

CASE II.—*Plumbic Neuritis.*

Male, aged 32, suffering from lead poisoning. The right musculo-spiral nerve was markedly affected, the left very slightly.

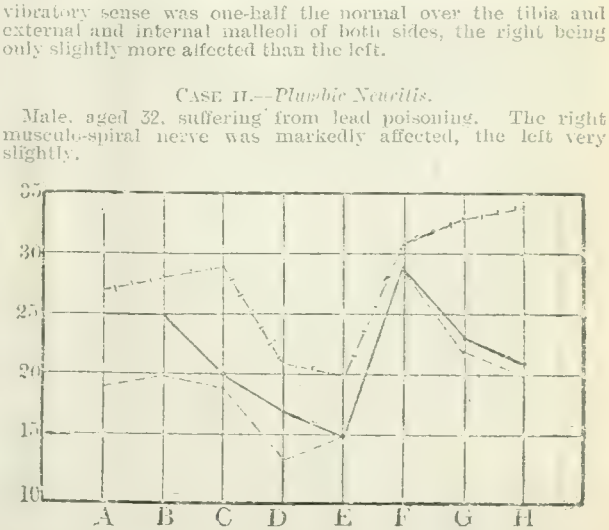


FIG. 2.—Case II. A, Internal malleolus; B, external malleolus; C, tibia; D, anterior superior spine; E, sacrum; F, sternum; G, radius; H, ulna. — | — | — | — Average normal; ——— right side; - - - - - - left side.

The chart shows marked impairment over the radius and ulna of both arms, there being very little difference between the two sides. The legs are affected to a slight extent, although there was no other evidence that they were affected.

CASE III.—*Traumatic Ulcerative Neuritis.*

Female, aged 34. The chart shows that her power of appreciating the vibrations was five-eighths of the normal over the right ulna.

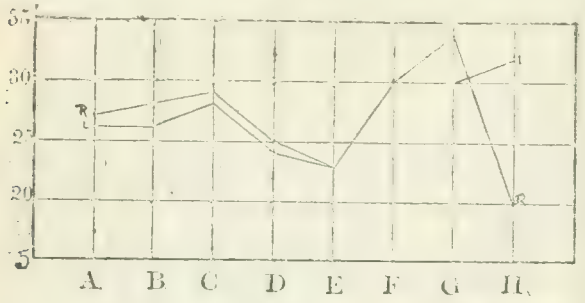


Fig. 3.—Case III. A, Internal malleolus; B, external malleolus; C, tibia; D, anterior superior spine; E, sacrum; F, sternum; G, radius; H, ulna.

CASE IV.—*Tabes.*

Male, aged 54, with the signs of a typical tabetic. The vibratory sense is markedly impaired from the sacrum downwards, while the sternum, radius, and ulna are approximately normal.

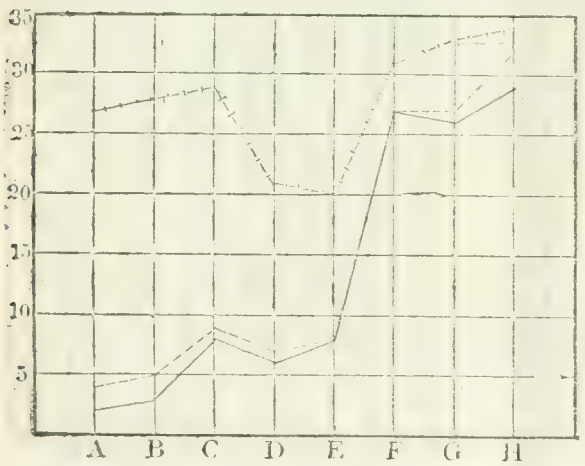


Fig. 4.—Case IV. A, Internal malleolus; B, external malleolus; C, tibia; D, anterior superior spine; E, sacrum; F, sternum; G, radius; H, ulna. — | — | — | — Average normal; right side; — — — — left side.

CASE V.—*Disseminated Sclerosis.*

The chart shows a lesion of a different type to that of the tabetic (Case IV). The impairment of the vibratory sensation is more disseminated, and involves chiefly the right arm and left leg, while the sacrum is normal.

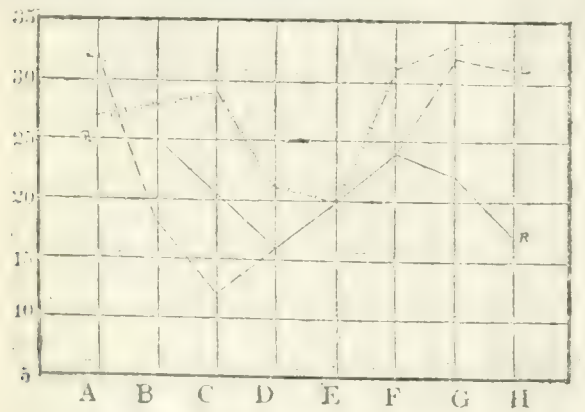


Fig. 5.—Case V. A, Internal malleolus; B, external malleolus; C, tibia; D, anterior superior spine; E, sacrum; F, sternum; G, radius; H, ulna. — | — | — | — Average normal; right side; — — — — left side.

CASE VI. *Spinal Syphilis.*

Male, aged 28. The chart is of the same type as that of the case of disseminated sclerosis, but there is more marked involvement of the vibratory sensation.

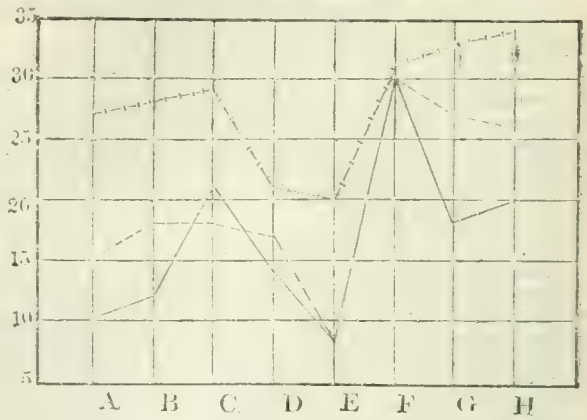


Fig. 6.—Case VI. A, Internal malleolus; B, external malleolus; C, tibia; D, anterior superior spine; E, sacrum; F, sternum; G, radius; H, ulna. — | — | — | — Average normal; - - - - right side; · · · · · left side.

In this paper I have not attempted to discuss in detail the types of curves peculiar to any special disease of the central nervous system, but merely to describe a test by which slight impairment of the vibratory sensation can be recognized. Of its value in the early recognition of organic nervous disease and in the diagnosis between different diseases I hope to bring evidence in a later paper.

I wish to thank Dr. A. F. Hertz, Physician in Charge of the Neurological Department at Guy's Hospital, for his kindness in allowing me to examine the cases under his care.

THE CURATIVE VALUE OF LEISHMANIA CULTURE "VACCINE" IN ORIENTAL SORE.

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Preliminary Note.

THE chronic and obstinate nature of the Oriental sore in general and of the Cambay ulcer in particular is well recognized by all clinicians. The number of remedies and the variety of drugs which have been put forward from time to time as "specifics" for this disease, as also the scanty references on the treatment of this disease in text-books, may be taken as a fair index of the unsatisfactory nature of the therapeutics of this disease. In Cambay, the home of this disease on this side of India, all remedies, both internal and local, have lost repute to such an extent that people take the disease as one to which they have to submit as a matter of course (so long as their lot is cast in Cambay) until merciful Nature brings about a healing in her own time, this being, as a rule, anything between six to eighteen months, or even longer.

In these circumstances it has not been possible in Cambay to test the value of drastic measures (such as curetting of the lesions with sharp spoons and salting the surface so freshened with powdered potassium permanganate), as recommended by Nicolle[1] and Benoit Gonin.[2] Nor has it been possible to persuade patients in Cambay to submit to arsenobenzol injections for what is, after all, a benign malady. The only treatment which can be safely undertaken without the risk of scaring away the patients has until now consisted in the application of some non-irritating antiseptic oil or unguent. And of all these I may here record the efficacy of salol dissolved in olive oil. Salol dissolves easily in olive oil, over 1 drachm dissolving in 1 ounce of the oil. The oil, when rubbed into the skin, is well absorbed and it penetrates the tissues, and has probably some antagonistic action on the parasite without causing the least irritation. I have obtained very good results by applying the oil in the shape of a compress over the lesion before or after ulceration, and, except in those cases in which the ulcers have been already deep at the commencement of the treatment, the result is so satis-

No.	Date.	Name and Age.	Nature of Lesion.	Description of Lesions.	Duration.	Date and Dose of Vaccination.	Constitutional Disturbance.	Observation the Day after Vaccination and Week after Week.
1	Oct. 8, 1911	S. M., aged 20	Ulceration	Three ulcerating sores on both malleoli right foot and inner malleolus left foot. Ulcers covered with unhealthy granulations and foul discharge; margins well defined; base fixed; surrounding tissues consolidated; size, halfpenny	3 months	Oct. 8, 1911, 0.125 c.cm.	Rise of temperature, 100 for 3 hours in the evening	Patient showed signs of healthy granulation.
						Oct. 15, 1911, 0.25 c.cm.	Nil	Ulcers rapidly healed one week after second injection. Scars well defined after 3 weeks.
2	Oct. 11, 1911	R. P., aged 8	Papule	Early lesion; left cheek about the size of a farthing, raised from surface; bright purple colour; surface covered with scales; induration of surrounding tissue fairly marked	2 months	Oct. 11, 1911, 0.125 c.cm.	Nil	Healed with hardly any scar. Spot made out after 4 weeks as a purple mark. Healing 2 weeks
3	Oct. 13, 1911	N. K., aged 21	Papule	Raised from surface; covered with scales; margin not well defined; surrounding tissue indurated; base not fixed; size farthing, on the back left side.	20 days	Oct. 13, 1911, 0.125 c.cm.	Nil	Nil next day; 8 days after first injection shows signs of healing; size smaller.
						Oct. 19, 1911, 0.25 c.cm.	Temperature 100.6 for 6 hours in the evening	Ten days after second injection spot completely flush with skin; cured in 20 days.

factory that after the healing not a trace of the disease is left. The chief drawback in all the cases so treated has been the slow nature of the healing process, two to three months being the usual period during which the lesions have to be attended to carefully from day to day.

In a cutaneous inflammation of a low type such as is seen in Oriental sore the chronicity of the disease may find an explanation in the hypothesis that the parasites in the lesion flourish long, because they do not come into intimate contact with an antibody sufficient in quantity or efficient in quality in the blood serum supplying the part, just as Wright[1] and Leishman[2] have taught as taking place in acne. It is in such a disease as the Oriental sore, where one obtains as a rule a life immunity after one attack, that one would naturally appeal to a suitable specific "vaccine" with the hope of a beneficial result.

In this connexion it may be of interest to note the facts recorded by Nicolle[3] as to the immunity to a living virus conferred by a previous inoculation with a dead culture of the parasite of Oriental sore. Thus, of the two persons, one received, to begin with, an inoculation of a dead culture, a year later an injection with a live culture, and three months later still an infection with a live virus from the sore in a monkey, while the other underwent only the last two operations without the first. Of these two persons the first developed no lesion, while the other developed two lesions at the seat of injection with the live culture, and another lesion at the seat of infection with the live virus. I may also take this opportunity to record the protection conferred by kala-azar infection to infection by the Cambay sore parasite. Thus two cases of kala-azar under the care of Colonel C. Donovan, I.M.S., in Madras, were infected with the virus from the lesion in a monkey (original source human, from Cambay). Of these neither developed any sore, while as a control the virus was efficient to produce a typical sore in a fresh monkey infected at the same time. I desire to express my best thanks to Colonel Donovan for allowing me to do the infection and for observing the effects himself in 1910, and also for his kindness and courtesy ever since.

It is with the object of hastening the process of healing—in other words, of stimulating the mechanism of immunity production—that it was thought desirable to attempt to make a curative "vaccine," much on the same principle as Wright's staphylococcic vaccine in furunculosis. For this purpose massive cultures were obtained in Nicolle-Novy-McNeal medium from the *Leishmania tropica* from an experimental lesion in a *Macacus sinicus*, the original source of the virus being that from a Cambay case obtained early in 1910. When the cultures were at their best—namely, on the seventh day—the fluid, rich in flagellates, was collected and suitably sterilized with glycerine. This is the "vaccine" which has been tried by subcutaneous injection in 3 typical cases of Cambay sores of different ages with a tentative dose corresponding to 0.125 c.cm. of the original culture.

As this dose produced no constitutional or local reaction, a second injection of a double dose was given in 2 of the 3 cases. The rapid way in which the lesions (both ulcerating and non-ulcerating) healed (in about fifteen days) may be a justification for this short preliminary note. The results of these 3 cases are given in the accompanying table from the notes of Dr. Jamietram Vyas, of Cambay, who kindly undertook to treat the cases on the lines indicated above, and to whom I owe my best thanks. A bigger experiment is now in progress, and the results will be published at the earliest opportunity.

From the foregoing I may conclude:

1. 0.25 c.cm. of the "vaccine," and even more, can easily be borne by the patients.

2. There is hardly any constitutional disturbance beyond the rise of temperature sometimes, and that, too, not more than 100.6 for a few hours.

3. The only local effect (in the sore) noticed is a slight itching on the second day of treatment.

4. The healing is uninterrupted and rapid, and this may be roughly put down as about two weeks.

5. Non-ulcerating sores heal without any cicatrix or pigment, while the ulcerating sores leave behind a well-defined shallow depression of uniform depth.

Before concluding I may point out that an attempt is being made to extend the same principle of treatment in a case of kala-azar in Bombay—thanks to the kindness of Colonel C. H. L. Meyer, I.M.S.—from an auto-vaccine prepared out of the patient's own parasite, but with what ultimate result it is difficult to say at present. The result of this and other cases treated similarly will be published in due course.

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[1] Ch. Nicolle, *Archives de l'Institut Pasteur*, Tunis, 1908. [2] Benoit Gonin, *Bulletin de la Société de Pathologie Exotique*, 1911, p. 182. [3] Wright, *Lancet*, March 29th, 1902. [4] Leishman, BRITISH MEDICAL JOURNAL, January 11th, 1902. [5] Ch. Nicolle, *Annales de l'Institut Pasteur*, Paris, 1910, p. 675; and *Bulletin de la Société de Pathologie Exotique*, 1911, No. 3.

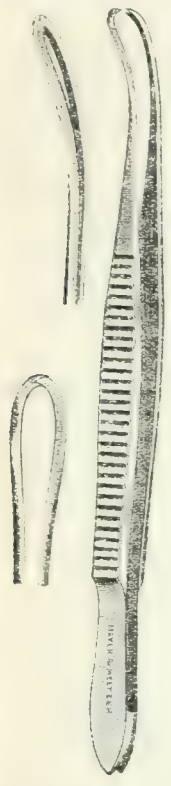
M. WOESTE, leader of the Right in the Belgian Chamber, has introduced a bill supplementing Article 353 of the Penal Code, by punishing all doctors, midwives, or pharmacists, who recommend means of procuring abortion, with imprisonment for one to three years. Moreover, the bill imposes a penalty of imprisonment for six months to three years, together with a fine of from £8 to £120, on any one who either by speeches in public places, or by the sale, or offer for sale even in private, the exposition, advertisement or distribution of written or printed matter, or illustrations of means, instrumental or other, incites to action which may tend to produce abortion, whether such effect has actually followed or not.

WE learn from the *Berliner klinische Wochenschrift* that the number of medical women practising in Germany and of female students studying medicine in the universities has increased with surprising rapidity during the past few years. It was estimated that scarcely more than a round dozen women practitioners were following their profession in the Fatherland in 1900, most of whom had qualified in the Swiss universities. This number increased to 50 in 1908, and to over 100 in 1910. In the same way the number of women medical students at the German universities has increased. In the winter session of 1909–10 there were 371, in the summer session of 1910 525, and in the following winter session there were as many as 557. Berlin University claims 159 of the last-mentioned number.

A METHOD OF ENUCLEATION OF THE TONSILS.

By CHARLES W. M. HOPE, M.D., F.R.C.S.,
ASSISTANT SURGEON, THROAT HOSPITAL, GOLDEN SQUARE, W.

HAVING always been greatly interested in the removal of the palatine tonsil, I have during the last two years been perfecting a *modus operandi* which should have for its object the complete removal of the tonsil with its capsule; the technique of which should be essentially an open surgical dissection of the tonsil out of its bed, capable of being done rapidly and not exposing the patient to the prolonged and deep chloroform anaesthesia necessary in several methods already described.



By my method the tonsil is removed with the capsule intact, and the patient suffers from the minimum of shock. In hospital I use ethyl chloride always, but in private practice C E mixture.

The instruments necessary are two pairs of special forceps, a medium-sized guillotine, a Doyen's gag, and a tongue clip.

The forceps are shown in illustration. They are 8 in. long, and in shape like a pair of cleft palate forceps, but stouter in the blades. The ends are toothed. When open they can be used as tenaculum forceps to grasp the anterior pillar of the fauces, but when closed are used as blunt dissectors; the left hand pair is slightly curved on the flat for the last 1½ in.

The patient lies supine on a table of medium height, and towards the right side of it, without any pillow, and the head only slightly retracted. The anaesthetist stands at the head, and the operator on the right side facing the head. A Doyen's gag is placed between the incisor teeth closed. A good top light illumination is necessary; a head-light must otherwise be used.

When the patient is fully anaesthetized the gag is widely opened and the tongue fully drawn out of the mouth by means of a pair of tenaculum forceps held by an assistant. With the straight pair of forceps in the right hand the operator catches hold of the left anterior pillar of the fauces low down, and pulls it forwards and outwards away from the tonsil. The forceps in the left hand being closed and used as a dissector, a hole is torn with them through the mucous membrane lying between the tonsil and the portion of the anterior pillar held by the right hand forceps. The white pearly capsule at once comes into view lying just beneath the mucous membrane. This opening is deepened for about half an inch; and then, with a steady circular motion the dissecting (left hand) pair of forceps is swept up the front of the tonsil, across the upper pole, and down the posterior side of the tonsil, thus separating it from its anterior upper and posterior attachments. The mucous membrane of the pillars is found to split quite easily at the junction with the pharyngeal surface of the tonsil.

Leaving the left tonsil, the right anterior faucial pillar is now grasped low down with the left hand pair of forceps (previously used as a dissector), and the dissection made as before, with the right hand pair of forceps closed. The tonsils are now free, except on the outer surface and at the lower pole. The tongue may now be released, the forceps put aside, and the separation of the deep surface of the tonsils completed with the index finger. They will be found to strip down quite easily as far as the lingual prolongation, and will be hanging free in the pharynx, attached only by a narrow neck at the lower pole. The patient is turned on the right side to drain any blood out of the mouth, and the operation is completed by passing a medium sized guillotine over each tonsil and dividing the small pedicle at the lower end. I find the guillotine preferable to curved scissors. At first it may be a little difficult to find the tonsils and thread them through the guillotine, this portion of the operation having to be done by the sense of touch only, but practice soon makes it quite easy.

The whole operation on both tonsils and curetting of adenoids can be done in from forty to sixty seconds. The method is rapid, complete, and only one change of instruments is necessary from start to finish.

THE BLIND AND THE CENSUS OF 1911,

TOGETHER WITH STATISTICS AS TO THE CAUSE OF BLINDNESS.

BY
W. C. ROCKLIFFE, M.A., M.B.CANTAB., M.D.DUBL., M.R.C.S.ENG.,
HON. SECRETARY AND TREASURER AND OPHTHALMIC SURGEON TO THE HULL BLIND INSTITUTION; HON. CONSULTING SURGEON TO THE HULL ROYAL INFIRMARY; LATE VICE-PRESIDENT OF THE OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

UNDER the above heading the JOURNAL of November 4th last, reporting the annual meeting at Birmingham, and also *The Blind* of October, both contain an interesting paper by Mr. Bishop Harman, which at once raises a question, to which, for many years, I have been trying (in vain) from many sources to obtain an answer. This is: *When is a person to be considered blind?*—or, in other words, *What amount of defective vision should qualify an individual to be classified as blind?* and so entitle him or her to be not only included as blind in the census returns, but also eligible for one of the many blind charities entrusted to the various committees, to be expended for the "benefit of the blind." In every case the reply has been the same, "That they have no scientific definition of the term 'blind.'"

I therefore read with much pleasure Mr. Bishop Harman's paper, in which he states correctly that, "The census paper failed to obtain anything like a proper enumeration of persons who were *blind for the practical purposes of life*." No one with any knowledge of the blind can take objection to this, especially as some of your readers may recollect, at the London Conference of the Blind, in 1902, in answer to my question to the Registrar-General as to when a person should be considered blind, I was told that he supposed a man was blind "When he could not see"; comment on this is unnecessary.

So far as the education of children is concerned, the Act has it plainly defined that "those who are unable to read the ordinary school type" must attend a blind school. For educational purposes this may, with or without a myope school, be accepted. But cases are within my knowledge of children at blind schools reading the paper to their schoolmates, and of others learning to read the sighted type (which, naturally, is not included in a blind school curriculum) after leaving school. With such cases (which were included in the census as blind) there can be no doubt that the census to be of any statistical value should divide those with imperfect sight into two classes:

1. Blind,
2. Defective vision,

as suggested to the Registrar-General by the deputation who waited upon him; and it is disappointing that he did not think fit to act on their and his own (or his predecessor's) suggestion (made at the 1902 Blind Conference) when compiling the census of 1911.

I have always held that those with defective vision should be divided into three classes:

1. *No perception of light.* These only, *ipso facto*, are "totally blind."

3. *Those able to read the ordinary test type*, namely, $\frac{6}{60}$—that is, can read at a distance of 20 ft. what a normally-sighted person can read at 200 ft.—are not blind.

2. *Includes the intermediate class*, and this is where the difficulty asserts itself. Again a subdivision must be made into—

A. Those who *can* differentiate—that is, count the upheld fingers at varying distances, whom I classify as "partially blind."

B. Those who *cannot* differentiate, but can only see an object (for example, the hand) moving at varying distances from the face.

It is clear Class 1 is blind in every sense of the word, and Class 3 is *not* blind in the true meaning of the term.

Class 2 requires a further definition, and it was on this point that I solicited in my various letters the opinion of those who had funds, etc., placed at their disposal for the benefit of the blind. Alas! no one ventured an opinion, as above stated.

My personal definition of Class 2 has for many years been that those included under the above Section B should be considered blind, and of Section A (the partially blind) *only* those who *cannot* differentiate (that is, count fingers) at a greater distance than 3 ft. should be classified as "blind"; and I based my argument on the practical fact that a basket maker, ship-fender maker, cane chair seater, etc., who could do more than this, could distinguish his rods, strands, and canes, thereby placing his less fortunate fellow-workman at a considerable disadvantage, especially when a bonus at the end of the year was divided in proportion to the wages earned. In Hull we have found this definition most satisfactory, and one on which the "free tram rides" recently granted by our Corporation has been based, without any conflicting opinion: as a matter of fact, only six of the applicants for free tram rides could count fingers even at 3 ft., most having considerably more or less defective sight.

I had some conversation in London with my friend, Mr. Bishop Harman, on this point in May last, and whether our discussion had any weight with his views or no, I cannot say, but I note in his paper he also defines the blind "As those whose vision does not enable them to do more than distinguish fingers up to the distance of 1 metre." This, of course, is practically the same definition as my own.

Those who are classified as "partially blind" (and probably, if young, educated in a blind school) are certainly the class needing assistance at any time, and especially on leaving school, but with the above definition many are ineligible to participate in workshops and funds contributed for the blind. To meet this class, we in Hull admit them to our workshops as journeymen, and further include them in special entertainments, such as summer outings and Christmas distribution of gifts, and also occasionally give them clothing, etc., from our sick benefit branch, but they do not participate in our bonus on wages earned or the full benefits of our sick benefit, etc., branch. All, however (reading Braille, etc.), have the use of the library and our dining-room (where occasionally free dinners are provided), and I would suggest this to other towns as a means of assisting this class as well as of keeping an eye on their moral and spiritual welfare.

Further, I limit the amount of defective vision in those classified as partially blind to those who, although able to differentiate at a greater distance than 3 ft., yet are unable to see more than $\frac{6}{60}$—that is, I exclude from this class those who can see at 20 ft. what a normally-sighted person can readily define, with or without glasses, at 200 ft.

Bearing on this subject, I have it from the Registrar-General that the 1911 statistics of blind persons are not yet available, but that the 1901 census of the blind of the United Kingdom was returned at 32,823, of a population of 41,458,721, or 1.263 per 1,000, and that of Hull as 214 blind in a population of 240,259, or 1.122 per 1,000.

We believe the Hull Blind Institution includes every really blind person in every sphere of life, and the numbers on our list in 1901 was 189, so that with my above definition of when a person ought to be classified as blind, probably 25, or about 10 per cent., of the 214 returned in the census of 1911, should really have been classified as "defective vision" or partially blind. If this is correct, it would reduce the actual number of blind in the United Kingdom in 1901 from 32,823 to 29,543 or thereabouts.

During the twenty-eight years I have been intimately connected with the Hull Blind Institution there have been enrolled on our list 590 persons unable to count fingers (that is, to differentiate) at a greater distance than 3 ft., every one of whom I have personally known and examined, so that the following figures may be taken as fairly accurate and of interest as bearing on this subject.

Of these 590 of all ages (from 4 days to 96 years), 331 were males and 259 females = 590.

The cause of blindness included—

Atrophy of the optic nerve	160
Ophthalmia neonatorum	91
Glaucoma	67
Irido-choroiditis (under which term I include general disease of the tunica vasculosa)	60
Sympathetic ophthalmia	37
Leucoma—	
Inflammatory	32
Traumatic	1
Congenital	2
	35
Shrunken globe	31
Detached retina	18
Retinitis pigmentosa	12
Congenital cataract	5
Microphthalmos	3
Purulent ophthalmia in the adult	3
Pyaemic panophthalmos	2
Congenital amaurosis	2
Kerato-malacia	1
	540
Cause unentered	50
Total	590

Number became Blind.

During the Decades.	From all Causes.	From Complete Atrophy of Optic Nerve.
Age 1 to 10	135	10
,, 10 to 20	42	9
,, 20 to 30	47	16
,, 30 to 40	62	36
,, 40 to 50	85	51
,, 50 to 60	57	22
,, 60 to 70	73	13
70 upwards	47	3
Date unentered	62	—
Total	590	160

I believe ophthalmia neonatorum is generally considered to be the primary cause of blindness. Doubtless in years gone by this was so, but from my above figures it is clear to-day atrophy of the optic nerve ranks first, and much clearly has yet to be discovered in the preventive and therapeutic treatment of these cases. Further, atrophy occurs in the middle decades of life, especially between the ages of 40 and 50, and another point of interest is that death usually follows spinal atrophy in four or five years, while those with cerebral atrophy live to a much longer period, as the following chart shows:

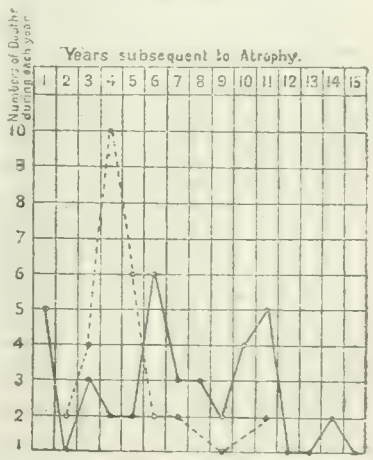


Chart showing number of deaths in the various years following complete cerebral and spinal atrophy of the optic nerve. Of the 10 cases of atrophy occurring during the first decade, which include 3 imbeciles, all died under 10 years. Black line=cerebral atrophy; dotted line=spinal atrophy.

Of the 160 on our books blind from atrophy—

In 1884 there were	37
Added between 1884 and 1894	20
Added between 1894 and 1904	90
Added between 1904 and December, 1911	13

Whether this decrease in numbers during the last seven years is due to recent advanced cerebral surgery I would not say, but it certainly gives the impression that it is not unlikely.

Of the 115 blind afflicted during the first decade of life—

Ophthalmia neonatorum was the cause in		...	91
Atrophy of the optic nerve	,, ,,	...	10
Sympathetic ophthalmia	,, ,,	...	5
Congenital cataract	,, ,,	...	5
Microphthalmos	,, ,,	...	3
Congenital amaurosis	,, ,,	...	2
Congenital leucoma	,, ,,	...	2
Kerato-malacia	,, ,,	...	1

Of the 91 ophthalmia neonatorum, the blind on the Hull Blind Institution books—

Numbered in 1884	55
Enrolled between 1884 and 1894	20
Enrolled between 1894 and 1904	16
Enrolled between 1904 to December, 1911 ..	2
	91

This very satisfactory and steady decrease is undoubtedly due to the information circulated as to prevention.

Of the 37 blind from sympathetic ophthalmia—

From 1884 to 1894	23 were on the books.
From 1894 to 1904...	10 were enrolled.
From 1904 to December, 1911 ...	4 were enrolled.
	37

This decrease undoubtedly is due to the advances in ophthalmic knowledge and treatment.

Of the 82 blind from glaucoma—

From 1884 to 1894...	44 were on the books.
From 1894 to 1904	20 were enrolled.
From 1904 to December, 1911 ...	18 were enrolled.
	82

These figures are most unsatisfactory, as proving that the treatment of glaucoma is not yet perfect.

In conclusion, I would hope that any of your readers who are in a position to give reliable statistics, based on the above lines, will endeavour to do so, and if they will communicate with me, stating the number of the blind at their disposal, I shall be pleased to forward sufficient printed forms to fill in, for the necessary analysis, and at a future time publish the results.

THE CASUALTIES IN TIBET.

BY

R. F. D. MACGREGOR, LIEUTENANT, I.M.S.,

GYANTSE, TIBET.

A SHORT account of some of the wounded who, after the recent fighting between Chinese and Tibetans, came under my care in the Civil Hospital, Gyantse, may prove of interest.

Most fighting took place in the Shigatse Valley, some considerable distance from Gyantse; for this reason the majority of the wounded went to their own villages instead of walking the long distance to the Gyantse Hospital for treatment. In all, seventeen wounded came for treatment, five being Chinese and twelve Tibetans. It was noticed that, while wounds by Chinese bullets did well as a rule, those inflicted by Tibetan bullets were almost invariably septic. This is to be attributed to the lower velocity of the Tibetan bullets, and to their great variety in shape. Sword wounds were in many cases very serious. The Chinese were equipped with Mauser rifles of modern pattern. The Tibetans relied chiefly on their muzzle-loading prong guns, the bullets of which are roughly spherical, usually made of lead and of about 500 bore.

Out of the seventeen cases, only ten were serious enough to merit description, four Chinese and the remainder Tibetans.

CASE I.—M., Chinese male. Bullet wound left side of neck. The wound must have been inflicted by an irregularly-shaped bullet travelling with low velocity. The tissues between the wounds of entrance and exit had sloughed away, leaving a lacerated cavity from which much pus was oozing. The lower part of this patient's face was considerably swollen. The wound, though very septic, ultimately did well.

CASE II.—W., Chinese male. Bullet wound right knee. The bullet entered at the inner side of knee, slightly tearing the semimembranosus tendon, and emerged on the inner side of the patella, forming a sinus about 5 in. long. No important structures had been injured, but healing was very slow.

CASE III.—P. T., Tibetan male. Bullet wound left knee. This was a very bad case. Practically all the tissues on the inner side of the knee had been shot away. The wound was very foul and in part gangrenous, while a considerable amount of pus escaped from the joint and the thigh muscles. His only chance was amputation, but this he refused, so treatment was confined to general cleaning of the wound and clipping away of the affected tissues. He was greatly run down, but, refusing to stay in hospital, went home. This patient can have very little chance of recovery.

CASE IV.—L., Tibetan female. Sword wounds head and hand. The head wound in this case commenced at the upper border of the right eyelid, which was divided, and extended downwards and to the left to the inner canthus of the left eye, dividing *en route* the nasal bone just below its junction with the frontal. In addition, she had other smaller scalp wounds and a badly lacerated hand. All the wounds were septic and it was undoubtedly a very bad case, but she made a good recovery. One finger had to be amputated.

CASE V.—M., Chinese male. Sword wound head and hand. The largest wound extended from the root of the nose upwards for about 6 in., exposing the skull. There was also a deep punctured wound above the right ear. Both these wounds suppurated, as also did his right hand, which showed a ragged wound on the dorsum of the index and middle fingers. Owing to the fact that the edges of the largest wound were undermined the wound was difficult to keep properly clean; healing was slow.

CASE VI.—P., Tibetan female. In this case there were two long, deep wounds of the scalp, one running upwards and outwards from above the left eye, the other on the top of the skull. The edges here were also undermined—almost "sliced," one might say. She made a good recovery.

CASE VII.—S., Tibetan male. Bullet wound back and arm. The bullet entered the back at the level of the angle of the fourth and fifth ribs. The wound of exit was situated in the anterior axillary line at the level of the eighth rib. The bullet then passed through the inner aspect of the upper arm 4 in. above the condyles, the wound of exit being on the anterior aspect of the upper of the same level as the wound of entrance. The biceps muscle was much torn, and there was considerable haemorrhage. As a large amount of pus was escaping from the wounds in the back I slit up the track of the bullet and found that the fourth and fifth ribs at their angles were comminuted. On the fragments being removed the wounds healed rapidly. The patient is still under treatment, as he has very little power in his arm.

CASE VIII.—P. G., Tibetan male. Bullet wound thigh. The bullet passed from above slightly downwards, entering the outer aspect of the thigh at the junction of its lower and middle thirds and emerging on the front of the thigh. Although the wound was a deep one no important structures were damaged, and once the wound became clean it healed fairly quickly.

CASE IX.—J., Tibetan male. Bullet wound of left knee, sword wound of the head. The wound on the front of the left knee was a large lacerated one, destroying the surrounding tendons and causing great swelling of the joint. It was a very similar wound to that mentioned in Case III. Pus was escaping from the joint. The sword wound of the head was very deep; the skull was fractured, and through the fissure a little pus could be seen. The patient died of septic meningitis.

CASE X.—C., Chinese male. Bullet wound right arm. This was the most interesting case of all. The patient was wounded beyond Shegatse, and although in great pain had walked to Gyantse for treatment, a four days' journey. The bullet grazed the right side of the chest and entered the inner aspect of the upper arm, 2 in. below the level of the great tuberosity. No wound of exit could be seen. As pus was escaping from the large ragged wound, it was evident that something was keeping up the discharge. Under chloroform an incision was made downwards from the lower end of the wound, and, after considerable hunting, a bullet was found lying very deep down, somewhat behind the humerus. The upper end of the bone was comminuted, the bullet, a round leaden one about the size of a small marble, showing a ragged projection where it had struck the bone. The patient is still under treatment, and is doing well.

DR. WILLIAM JOSEPH ESSERY, of Southsea, has been appointed a Commander of the Royal Victorian Order.

IT would appear from the annual report of the Yarrow Home for Convalescent Children at Broadstairs that its utility during the winter months as well as other seasons of the year is being increasingly appreciated, for on December 31st there were as many as 83 children on the books. It would appear also that the committee is now working more closely in accordance with the original intention of the founder, and therefore admitting only children whose parents can be considered as belonging to the professional or educated classes but whose means are very limited. The London address of the home is 6, Holborn Viaduct, E.C. Its full title is the Yarrow Home for Convalescent Children of the Better Class, and it is fully endowed.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

THE MIMICRY OF PHTHISIS BY HYSTERIA.

In view of the publicity accorded by the daily press to the illness of a certain young woman and her recovery, which has been called miraculous, it may be interesting to your readers if I furnish a short account of her nine months' stay in this sanatorium.

She was admitted on May 22nd, 1906, her age being 16 years, and her weight 7 st. She remained until January 1907, when she was discharged "in excellent health." The diagnosis made on admission was: "Hysteria: hysterical vomiting; haematemesis, vicarious in origin." There was no question at any time of her being tuberculous. She spent another three weeks here in January, 1908, by invitation of the sister in charge, during which time she was very active and cheerful, taking part in private theatricals got up for the benefit of the patients. At this visit also her lungs appeared perfectly healthy. Her subsequent history would appear to be one of relapse from her previous disease. It is, of course, well established that paralysis of pretty well every sort, complete blindness, deafness, mutism, vomiting, cough, bleeding (often profuse), from any mucous surface may each and all be due to hysteria, and to this alone; and the interesting question remains as to the physical signs in her lungs.

I would point out that in this latter disease a harsh vesicular expiratory murmur; a broken-up, wavy inspiratory, and even expiratory, murmur; limitation of movement, increased vocal fremitus, impaired resonance, and increased voice sounds are all to be met with and to be taken at their true value. I have at the present moment under my care a young woman whose temperature has frequently reached 110°, and whose disease is hysteria, and, I believe, that only. That to call a diseased state by this name may easily be a cover for ignorance or an excuse for superficiality I am well aware, but I am convinced that in this girl's case an excellent opportunity is afforded for the study of this disease in the variations of its physical signs, the multiplicity of its symptoms, and the suddenness and completeness of its resolution.

E. G. MARCH.

Reading. Honorary Medical Officer, Box Grove Sanatorium.

I THOUGHT it might interest you to hear from one of the "twenty doctors" who are reported to have attended the "miracle case." I attended her for about six months in 1908, and paid special attention to her case. The details, which I well recollect, may be of interest. I was called to see her, and found her up and dressed. She complained mainly of pain after food, and vomiting, with general weakness. She gave a history of having been treated for pulmonary consumption in a home at Reading, where they gave her fresh air and a forced meat diet, sometimes "raw." I found her very pale, quite colourless in fact, inclined to be thin, but not wasted. The lungs showed no evidence of disease at all, and the heart was healthy. She had no cough and no evening rise of temperature all the time I was attending her, with the exception of one short spell lasting a few days. Nothing abnormal could be seen or felt in the abdomen. She complained of acute tenderness on pressure over the epigastrium, much less acute, but still present, when her attention was engaged elsewhere. Her mother told me she vomited everything, and at times brought up large quantities of blood.

As she was then taking ordinary food I ordered her to bed on a milk and barley-water diet. For a time the vomiting ceased. After a few weeks she complained that she could not continue the milk, and started being sick sometimes. On several occasions I was informed that she had brought up a pint of red blood, but was never fortunate enough to see it myself. When I insisted on everything being kept for my inspection I was shown, two or three times, a little blood-flecked vomit. She appeared to have no coffee-grounds vomiting, nor any melaena.

Peptonized milk made no difference, so I got a nurse to give rectal feeds twice a day. The patient strongly objected, but after persisting ten days or so she was able to take milk again without it causing vomiting. However, she now began to have violent attacks of pain, usually about 7 p.m. I was sent for many times, usually to find the attack over, and to be told by the patient that she was dying, and that she would be glad to die. I am able to state that at this time there was neither sugar, blood, nor albumen in her urine.

She was always very patient, complained not at all, and appeared to be quite resigned. She seemed to have no hope of recovering. She preferred to lie still with the blinds half drawn, and with her eyes half closed. I considered that she might at one time have shown signs of consumption, that the forced feeding with meat had impaired her digestion, and possibly caused some gastric ulceration. Although called many times, and urgently, because they said she was dying, I never found in her any cause for immediate anxiety, and was, I think, rather blamed by her mother because I insisted on keeping to that opinion. Her pulse, under me, never rose above 100, and was usually under 80. There was never any dimness of vision or deafness.

Of course, much may have happened since 1908, but at that time I am certain she had neither consumption nor diabetes, for I overhauled her many times and thoroughly, being rather puzzled to account for her condition, and being always a little sceptical about the correctness of my own diagnosis of gastric ulcer.

Retford. F. NORMAN HITCHCOCK.

ON THE CARE OF A CASE OF MEASLES.

Now that we seem to be at the beginning of an epidemic of measles, I would draw attention to the importance of special care of the nose and throat in the treatment of that complaint. It has been pointed out by many observers, and is, indeed, a matter of common knowledge, that in this as in other of the acute specific fevers the secretions from the nose and throat are not only profuse but highly septic; and hence it is not unreasonable to infer that many of the complications, especially purulent otitis, bronchitis, and bronchopneumonia, are induced by the direct action of noxious organisms so introduced into the system. The infective principle can be readily absorbed through the tonsils, and the mucus itself, with all that it contains, may be conducted through the Eustachian tube into the tympanum, or drawn downwards into the air passages of the lungs by the ordinary movement of inspiration. Moreover, the entrance of the same tainted secretion into the alimentary canal—for it is invariably swallowed in large quantities—tends to set up poisonous decompositions in the stomach and bowels. Much local disturbance may be excited by this means, and the absorption into the blood stream of the products of this unhealthy fermentation may be the cause of widespread mischief.

It is more than probable that most, if not all, of the inflammatory complications of measles owe their origin to this septic material acting either locally or through the general circulation. I believe that by attention to this matter, not only would the illness be made to run a shorter and more favourable course, but the occurrence of the more serious consequences, such as purulent otitis and meningitis, disseminated myelitis and multiple neuritis, pneumonia, and enteritis, not to speak of the various eye complications, might be made unlikely, if not impossible.

The belief is now widely held that it is to the tonsils and naso-pharynx that we must look for the channel through which infection is conveyed to the general system in a variety of diseases. There can be little doubt that the naso-pharyngeal mucous membrane is not only especially open to an invasion of virulent organisms, but is also the least capable of resisting their attacks. From careful observation extending over many months I have come to realize that in early life a post-nasal catarrh can be readily excited, and, as it does not necessarily give rise to local symptoms, may persist for weeks or months together, quite unsuspected, and be only discovered when the whole body is submitted to systematic examination. Of itself the derangement has little tendency to subside; and a mucous membrane which is already in a state of catarrh—that is, in a state which renders it readily receptive of microbic infection—has poor defensive power and is certain to be profoundly contaminated by the virus.

Some time ago I was asked to attend a case of measles.

The illness had occurred in a boy of 12 years of age whom I had known from his birth and during his visits to town had been often consulted about. The patient, an anaemic subject, had suffered from many attacks of bronchitis which had necessitated strict confinement to his bed, and had also been treated by myself on other occasions for post-nasal catarrh accompanied by violent and distressing cough. The epidemic of measles had broken out at his school, and many of the boys had been seriously ill with the disease and its complications. On account of the known susceptibility of his lungs I looked upon the patient as a bad subject for measles, and was accordingly impressed with the extreme importance of taking every possible step to prevent the further entrance of morbific organisms by way of the nose and throat. The pharyngeal mucous membrane showed the usual condition in measles: the membrane was red and swollen: the tonsils were congested and red, and thick muco-purulent secretion could be seen on the posterior wall. Local treatment of the naso-pharynx was begun without loss of time. Glycerine of boric acid was applied thoroughly to the throat with a brush three times a day, and an antiseptic spray containing 10 grains of resorcin to 1 oz. of normal saline was used to the nostrils every few hours, while the boy inhaled deeply so as to draw the atomized fluid completely through the nasal passages into his pharynx and trachea. The patient had already begun to cough, but, under this treatment the laryngeal irritation never became distressing and very quickly subsided. There was never any sign of catarrh of the air passages of his lungs except that on one visit—the second day of the rash—I detected a few moist clicks at one spot just below the inferior angle of the left scapula: but these quickly passed away and were never renewed. The pharyngeal catarrh also quickly came to an end, and the boy was soon convalescent. The temperature throughout was that of an ordinary attack of measles.

The favourable progress of this case was a great and welcome surprise to the parents, who assured me that they had never before known their son to begin to cough as he had done without his suffering from a severe bout of bronchitis. I cannot help believing that his immunity on this occasion, when all the conditions pointed to an attack of bronchitis of exceptional severity, was due entirely to the attention paid to the nose and throat; and it is only as an inducement to others to adopt the same line of treatment, and not for any special interest in itself, that I have ventured to place this case upon record.

London, W. EUSTACE SMITH, M.D.

AN EPIDEMIC OF MEASLES.

THE village of Hanwell, Oxfordshire, is now having what is almost a unique experience in these days of intercommunication. After a period variously estimated at twenty-seven to forty years since measles last was prevalent here, an epidemic has broken out, and the effects are remarkable. Men, women, and children have been attacked, and in some cases with considerable severity; more than 25 per cent. of the population have been *hors de combat*. The disease was introduced by a youth of 18 who works in Banbury, three miles away, and very quickly spread. The number of adults and adolescents is remarkable: in one house the father, aged 45, two sons, aged 18 and 17, and four younger children have contracted the disease. Among adults the temperature appears to run rather high: one married woman developed 105.2°, and in her brother, aged 25, the temperature reached 104.5°. Up to the present time there have been about 50 cases in a population of 170.

Hanwell, Banbury. WM. MILLIGAN.

THE *Times* announces that the Indian Budget, introduced into the Viceroy's Council on March 1st, provides for the expenditure of £333,000 on provincial sanitation, £40,000 on the Central Hygiene Research Institute, and £33,000 on the School of Tropical Medicine in Calcutta. A sum of £172,000 is allocated to the Madras City waterworks. Sir Guy Fleetwood Wilson, in introducing the budget, stated that the Viceroy (Lord Hardinge), in his first discussion of the subject of finance, had said that his desire was that the improvement of sanitation and the diffusion of education should be the features of his viceroyalty.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

GIBRALTAR BRANCH.

AT a meeting held on September 4th, 1911, Fleet Surgeon O. W. ANDREWS read a paper on Salvarsan in the Treatment of Syphilis. After some introductory remarks, he said his experience was limited to 21 injections administered to 19 different individuals: in only one of those cases had there been any return of the symptoms, and that case was now under treatment for aphonia, attributed to syphilitic laryngitis, and the patient positively refused to undergo further treatment with salvarsan on account of an alleged death which was reported in a lay paper, and which was supposed to have occurred whilst the patient was under treatment by this remedy. The cases treated on board the *Bacchante* were as far as possible taken from amongst those which had proved refractory to mercurial treatment, but in several cases salvarsan was administered to men known to have suffered from syphilis, who wished to undergo the treatment in order that they might enjoy peace of mind by undergoing what Ehrlich described as the "therapia sterilisans magna."

It would seem that the action of salvarsan was largely due to the production of antibodies, which in turn killed those treponemas which had survived the direct action of the drug. That this was in all probability the correct explanation of the action was shown by the following facts:

1. It was reasonable to suppose there were fewer treponemas in an early than in an advanced one, and it was found in that practice a larger dose was required at the beginning than in the later stages; in other words, the dose should be inversely proportional to the severity of the case.

2. If a nursing mother the subject of syphilis, who had a syphilitic infant at the breast, were injected with salvarsan, her milk had a direct curative action on the infant, and this action was attributable to the antitoxin produced in the mother by the death of the treponemas within her blood. Later he would give a case from actual experience which illustrated this action.

3. The great danger in the use of salvarsan in debilitated subjects or in very young children was that they were more liable to be poisoned by the endotoxin set free through the death of the organisms within the body than by the arsenic contained in the preparation.

4. That the action of salvarsan depended on the production of an antitoxin was shown: (*a*) By the fact that it was useless to inject salvarsan as a *prophylactic* against syphilis; it could not act unless there were spirochaetes for it to destroy. (*b*) If serum were taken from a blister produced on a patient suffering from syphilis and who had been treated with salvarsan, this serum had a distinctly curative action on syphilitic affections.

Prior to the introduction of salvarsan, atoxyl was extensively tried as a remedy against syphilis, and was abandoned because its action depended upon a reduction product called para-aminophenylarsenoxyd which was formed, and arsenic was set free; in certain individuals peculiarly sensitive to arsenic optic troubles might arise. That objection did not obtain with salvarsan, but great care was at first exercised in selection of cases, so as to eliminate all those cases showing signs of optic neuritis. As an illustration of the antitoxic action on a syphilitic infant of the milk of a syphilitic mother treated with salvarsan he quoted a case published by Dubot in August, 1910:

A woman, aged 22, suffering from syphilitic roseola in March, 1908, was treated by intramuscular injections of mercurial cream, which were badly borne, then by inunctions of mercury and potassium iodide given by the mouth; she got gradually thinner, and in December, 1909, when already pregnant, only weighed 45 kilos (just over 7 st.). The previous month (November) she had begun to show lupoid syphilitic ulceration in the parotid region, which only yielded to very strong specific treatment and local applications of $AgNO_3$, which left large cheloid scars. These had scarcely healed when others broke out, and so the case went on and ended up by invading the forehead, root

of the nose, and parts around the left eye. On July 4th, 1910, the woman was delivered of a full-term child weighing 2 kilos 950 grams (6.3 lb.) the face of which had the wrinkled, wizened, aged appearance so typical of hereditary syphilis. The infant took the breast badly, cried little and with a very weak voice, and a few days after birth showed a papular rash all over the body, large red papules, and the bullae of erythematous pemphigus on the soles of the feet. Up to July 25th it had only gained 100 grams (that is, 3½ oz.). On this day, as the mother's lesions were getting worse and worse, she was given 50 cg. of salvarsan, and the next day she received a further dose of 45 cg. Twelve days later the lesions had healed completely. From July 28th, that is, three days after the first injection, the child had assumed a perfectly normal appearance. The cutaneous symptoms and the nasal catarrh had completely disappeared, and the infant in three weeks had put on 1,200 grams (that is, 42.3 oz.). The child remained somewhat hydrocephalic. The analysis of the mother's milk did not reveal a trace of arsenic.

The only conclusion, then, that could be drawn from that case was that the mother's milk contained some substances preventing infection and destroying a sufficient number of treponemas to bring about a disappearance of the symptoms. M. Duhot said he intended injecting into this infant from 8 to 10 mg. per kilo of the infant's body weight as soon as its general health allowed of this being done. Some years ago Behring proposed to rear a number of calves which had undergone a process of immunization against tuberculosis on somewhat similar lines to those on which this infant became cured. Fleet Surgeon Andrews had already alluded to a remarkable feature of salvarsan, namely, the rapidity with which it acted. Ehrlich himself recorded a case where a man who was under his care had an attack of syphilitic tonsillitis so bad that he could not swallow anything, and yet who was able to enjoy a roll of bread five hours after receiving an injection of salvarsan. The effect was equally rapid where the bones were affected.

Michaelis quoted a case occurring in a small infant covered not only on the greater part of the face, but also on the limbs, hands, and feet, with a papulo-squamous syphilide, and which, after receiving 0.06 cg. of salvarsan in three days was almost entirely free from skin eruption.

In Fleet Surgeon Andrews's own experience, he had had several cases where there were mucous patches in the mouth, superficial glossitis, all of which lesions were completely healed within a week of an injection of salvarsan.

Although the majority of syphilologists were very much in favour of salvarsan, it could not be denied that there were a few whose opinion carried weight who were opposed to it. Whilst these last were quite willing to admit that it acted much more rapidly than mercury, and in many cases appeared to effect a cure, they would not admit that it had displaced mercury in the treatment of syphilis. Sir Jonathan Hutchinson was sceptical regarding the alleged freedom from danger which Ehrlich claimed for salvarsan, as regards partial or complete blindness, such as had followed in certain cases the use of soamin, arsacetin, and other arsenical preparations, though this freedom from risk of optic troubles was one of the points on which Ehrlich himself was particularly emphatic.

Mr. Ernest Lane was opposed to its use. Dr. Sequeira, reporting in December, 1910, on 34 cases of syphilis treated by salvarsan, said that there had been no symptoms giving rise to anxiety, and in all cases he had seen great improvement as a result of its use. Mr. Campbell Williams described the immediate results of the remedy in inveterate syphilis as nothing short of "magical" when one saw its effect upon cases of a tertiary type which had for years resisted the orthodox mercurial or iodide treatment. Although Mr. Campbell Williams was very enthusiastic in regard to salvarsan, he particularly warned practitioners to pick their cases, and avoid giving it in aged or debilitated subjects, and in all cases he said an examination of the retinae should be made. As was so often the case when a remedy of this sort had been discovered, certain people imagined that they had discovered a panacea. Fleet Surgeon Andrews said he had made notes from the medical papers of cases reported as having been benefited by salvarsan. Although it was first and foremost a remedy against parasitic diseases such as syphilis or relapsing spirillar fever, there were, no doubt, many quite dissimilar diseases capable of being benefited by its use.

For example, Von Bokay had found that chorea was rapidly cured by it—a thing which would not surprise anyone who had seen the good effects of Fowler's solution in that disease. Vincent's angina, which was a spirillar disease, had recently been treated successfully by salvarsan. Sicard had also recently employed it in cases of tabes, but he had been very careful only to employ intravenous injections, and had given it in doses of 30 cg. for a man and 20 cg. for a woman—that was to say, in doses only equal to one-third of what one gave in ordinary cases of syphilis—each injection being limited to 150 to 200 c.cm. of physiological saline solution. The injections in tabes should be made in a series of five or six injections, each one separated from the preceding one by an interval of about ten days. Those syphilitic subjects suffering from tabes reacted best to salvarsan who showed an abundant lymphocytosis of the cerebro-spinal fluid. Patients suffering from general paralysis of the insane were not benefited.

Czerny and Caan had advantageously employed this remedy in cases of malignant tumours under their care at the Cancer Institute at Heidelberg. Cases of cancer considered inoperable had given encouraging results, except in cases of cancer of the floor of the mouth. In the case of cancer of the tongue, even after forty-eight hours, a notable reduction was observed in the size of the tumour. Sarcomatous growths were those *par excellence* which were benefited by salvarsan. Czerny and Caan, as the result of numerous experiments, were of opinion that salvarsan was capable of exercising a certain elective action on the cells of neoplasms, an action especially marked when simultaneously with a subcutaneous, or still better intravenous, injection, part of the dose (say 20 cg.) was injected directly into the tumour, the rest of the dose selected being given either into the gluteal region or intravenously. They gave from 40 to 60 cg. in these cases, and according to the extent and progress of the lesions under treatment repeated the dose. The remedy had been employed successfully in epilepsy by Bogrov, a Russian surgeon. In one case reported by him the fits from being of daily occurrence were rapidly reduced to one in three or four days, and later still further reduced.

Contra-indications.—Fleet Surgeon Andrews went on to say that in a paper dated August 30th, 1911, he read of 5 cases of pernicious anaemia treated by M. C. Leede, 4 of which died in from thirty-six hours to fourteen days. In these cases the injections were undertaken as a last resource: but it was regrettable that the remedy should have been tried in cases of this sort, as there were always people who were ready to attribute death to the remedy and not to the disease. In none of these cases was there a suspicion of syphilis. In several recent cases Luksch had employed salvarsan in the treatment of acute infectious diseases. He had remarked that salvarsan had an inhibitory action on certain micro-organisms, such as the meningococcus, the *Diplococcus lanceolatus*, *Staphylococcus pyogenes*, etc., and that he was able to save the lives of rabbits inoculated with these organisms by a subsequent intravenous injection of salvarsan. He was accordingly led to try the remedy in a case of osteomyelitis of the femur which was *in extremis*. Although a great improvement resulted from the use of this remedy the patient ultimately succumbed. In three cases of purulent cellulitis an injection of 30 cg. of salvarsan gave excellent results, ending in a fall of temperature by lysis and complete restoration of function in the affected limbs.

Framboesia, which, as every one knew, was now thought to be a modified form of syphilis, had proved very amenable to salvarsan, cases having been recently treated with success with it in the West Indies.

Martindale and Westcott had summarized the contra-indications for the use of salvarsan as follows:

(*a*) Severe non-syphilitic retinal and optic diseases; (*b*) severe heart and vascular diseases; (*c*) severe lung affections; (*d*) severe non-syphilitic kidney affections; (*e*) advanced degenerative processes of central nervous system; (*f*) angina pectoris and fevers. Patients who have had one or two attacks of hemiplegia, advanced cases of tabes, or general paralysis of the insane, should never be given an injection. Marked arteriosclerosis and Bright's disease were contraindications.

The Wassermann reaction, according to some, was only removed in 10 per cent. of cases. In conclusion, Fleet Surgeon Andrewes quoted as an instance of complete cure a case of true syphilis which was treated with salvarsan and weeks later contracted a true Hunterian sore.

As regards the method of injection, there were at their disposal three methods: (*a*) intravenous, (*b*) subcutaneous, (*c*) intramuscular. The intravenous method required a good deal of skill, and in experienced hands was painless and safe. The subcutaneous method was simple and effective; it was usually carried out in a situation midway between the spine and the lower end of the scapula. Neutral suspension was employed for the subcutaneous method. Injections were also made in the chest; for men, the site selected was a fold of tissue below the nipple;

in women, a fold of tissue below the mammary gland. The method which he had always employed, and which answered very well, was that recommended by Michaelis, which was as follows:

The powder was dissolved in absolute alcohol ½ c.cm. for each decigram of salvarsan employed, then 10 c.cm. of very hot sterile distilled water was added to this solution in a sterile mortar, then 1 c.cm. of normal sodium hydrate solution (40 grams to the litre) was added for each decigram of the salvarsan powder (mix well and add 3 drops of ½ per cent. solution of phenolphthalein) and titrate with normal acetic acid (60 grams to the litre) until the colour went. Then add just enough normal sodium hydrate solution to just make the solution faintly alkaline. Stir well and inject slowly half of the total quantity (10 c.cm.) into each buttock. The patient should lie on his stomach for at least half an hour after the injection, and the parts should be gently massaged during the injection, in order to distribute the injection as much as possible. The time occupied in injecting each half-dose should be between two and three minutes, if not longer.

If pain followed the injection he injected ¼ grain of morphine hypodermically. Patients should be kept quiet in bed for at least three or four days after the injection, otherwise they were liable to get severe pain in the sciatic nerve and elsewhere. They had always injected in the gluteus maximus, in a situation about half-way between the posterior superior spine and the second sacral vertebra; in that situation there was no danger of wounding either the gluteal or ischiatic arteries.

Meltzer had lately recommended injecting into the sacro-lumbar muscle, a site particularly recommended by him owing to the richness in capillaries of muscular tissue and the intramuscular pressure, both of which favoured penetration of the substance injected. As regards site, Meltzer drew a line between the highest points of the crest of the ilium and the spinous process of the third or fourth lumbar vertebra, and introduced the needle at the level of the junction of the inner and middle thirds of this line; the needle was kept parallel to the spine, and the point inclined upwards and slightly inwards. Meltzer said that injected in this manner there was scarcely any pain, provided that the needle was made to penetrate well into the lumbo-sacral muscle, which was relatively easy unless the patient was very fat.

Fleet Surgeon Andrews had lately written home for a special syringe and a new medium consisting of a mixture of two oils (Graisse de lainé anhydre stérilisée 1 partie, Huile d'oeillette froissage stérilisée 9 parties, suggested by MM. Lévy-Bing and L. Lafaz, of Saint-Lazare Hospital, Paris), by means of which the salvarsan powder is suspended in about 2 cg. of the oil. This method was highly recommended, but he saw no reason why one should adopt it in preference to Michaelis's method.

The statistics published recently of visitors to Karlsbad last season show an increase of 2,500, making a total of 71,000. This figure includes only legitimate "cure-guests," whose average stay was 27 days. Casual visitors numbered some 250,000. The number of English and American visitors remained practically stationary, owing, it is thought, to the bad returns in the month of June caused by the Coronation. Australian visitors showed an increase of 34, South American 145, French 70, Turkish 30, Roumanian 200, Swedish 25, and Austrian 841.

The title of Professor has been conferred upon Dr. Lydia Rabinowitsch-Kempner, of the Pathological Institute attached to the Charité Hospital in Berlin. This is, so far as we are aware, the first instance of a medical woman receiving this distinction in Germany. Professor Rabinowitsch-Kempner is best known by her maiden name of Lydia Rabinowitsch, and acquired no little fame in connexion with her very exact and careful researches on the biology and morphology of the tubercle bacillus. She discovered the acid-fast "butter" bacillus, the acid-fast bacillus of gangrene of the lung, etc., contributed a number of most important observations on the nature of and differences between the bacilli of human tuberculosis, bovine tuberculosis, and avian tuberculosis, and carried out numerous researches of high value in other branches of bacteriology. The resistance to the idea of creating a woman professor in the medical profession of Germany has been stubborn, and it is not too much to state that had Professor Rabinowitsch-Kempner belonged to the other sex her attainments would have long ago secured for her the title which she has now received. We congratulate her on having secured the just recognition of her undoubted ability, and look for still further marks of recognition in the near future.

Reports of Societies.

ROYAL SOCIETY OF MEDICINE.

Partial Thyroidectomy and Exophthalmic Goitre.

The debate between members of the medical, surgical, and anaesthetic sections on the subject of partial thyroidectomy under local anaesthesia, with special reference to exophthalmic goitre, was again continued on March 5th, Mr. J. W. McCardie, President of the Section of Anaesthetics, being in the chair.

Reopening the subject Mr. Arthur Barker said that though he had listened, in Berlin, to Professor Kocher's analysis of his own extensive work, and to the great debate which followed it, and had closely studied the subject since, he did not feel that a strong case had yet been made out for the operative treatment of Graves's disease. That was his confession of faith in regard to Graves's disease, though it did not apply to some thyroid tumours associated with milder forms of thyroidism. Dr. Hale White's admirable way of putting the matter had considerably strengthened his conclusions. It was the effect of the thyroidism as expressed in the nervous system which had to be feared, and the great liability to fatal shock from operations which, without the thyroidism, would cause no shock. Dr. Hale White's analysis of a large number of cases treated medically showed a mortality for exophthalmic goitre of 15 per cent., as against 7½ per cent. among the same number of ordinary people. Mr. Trotter's analysis of his 50 cases gave a 10 per cent. mortality—no improvement on the medically treated cases in Dr. Hale White's list. For most of his thyroid operations Mr. Barker used local analgesia, and he had been well satisfied with it, although in certain cases general anaesthetics, with scopolamine and morphine had been employed. Where local analgesia was employed it should be combined with morphine or some other general sedative, and should be carried out by some one familiar with the details and able to complete the infiltration quickly and efficiently, so as to gain the confidence of the patient. He concluded by paying a warm tribute to the special anaesthetist.

Mr. Charters Symonds said he had not a large experience to record of operations on cases of exophthalmic goitre. Dr. Dunhill's fourth class seemed to contain a good many cases which would generally be regarded as nervous patients with ordinary goitre, and that made it difficult to form an accurate estimate of mortality. It was necessary to distinguish between patients who were nervous and had a goitre and persons who had true hyperthyroidism. The kind of case which the latter had to be differentiated from was that of which he had an instance: A lady aged 40 for some time was thought to have exophthalmic goitre; there were all the symptoms except exophthalmos. Operation was delayed, and he watched her for a considerable time. After a few months the right lobe was somewhat larger, the left diminished, and a localized tumour appeared, and when that was successfully removed she got well. There should be a closer examination of the other organs of the body, and possibly of the blood also: and he counselled a closer association between the physician and the surgeon in this selective function, an aspect which he feared was being rather neglected. He hoped cases would be met with at an earlier stage in the future, and that operations upon them would occupy the same realm of safety as ordinary thyroidectomy. There seemed too great a tendency to operate in a general way, and in some operations frequent performance was necessary to ensure safety. A record of all the operations during the last five years for this condition, with the mortality, would probably cause many to hesitate about operating. One of the chief results of the discussion was likely to be a more correct estimate of the condition of the patient.

Mr. Donald Armour said he had operated upon 26 cases (24 females, 2 males), but had not done it in any case without consultation with one or several colleagues. There was one operative death, and that patient, in the light of more recent knowledge, should not have been operated upon; she was in the last degree of the disease, and had incessant diarrhoea and vomiting, illusions, and great emaciation. It was the only case in which he used local anaesthesia, and that was because she was so restless,

She died a few minutes after the completion of the operation. He had discontinued the operation of ligature, preferring partial thyroidectomy. He removed one lobe and the isthmus, and part of the second lobe if advisable. All rough handling and squeezing of the gland must be avoided. In one case he crushed it, and the pulse rose to 180. Large quantities of saline should be given per rectum for the two or three days following the operation, or subcutaneously, if it was not retained in that way. He used drainage only exceptionally. All the cases except the one which died had been either much improved or were well. With one exception, all the cases had a general anaesthetic.

Mr. WALTER EDMUNDS mentioned that Dr. Dunhill placed in his fourth class cases of adenoma of the thyroid gland with some tremor, some staring of the eyes, and an easily excited heart. These, Mr. Edmunds considered, should be regarded as cases of Graves's disease, for they had both its symptoms and its pathology. Adenomata played a part in well-marked cases of Graves's disease, and he gave examples. Also, the goitre of Graves's disease often consisted of different lobules in various degrees of structural change. He had recently published a series of cases treated by himself and others with milk from thyroidless goats and by other non-operative means, and of the 13 cases so dealt with, 10 were much benefited or quite well, 1 was about the same, and 2 had died. It was doubtful if either of these two could have been operated upon. Probably the reason none of Dr. Dunhill's patients had had tetany was that one or more parathyroids were left intact. He also had noticed what Dr. Dunhill mentioned, that the eye corresponding to the completely removed lobe receded much more than did the other. Unilateral exophthalmos was not very rare: 109 cases were said to be on record. The choice of the anaesthetic should be made on general grounds. The indications for operation he considered to be: (1) Asymmetry of and unequal consistency of the goitre, suggesting an adenoma; (2) the non-yielding of the case to medical treatment; (3) threatened ulceration of cornea.

Dr. SCHARLIEB considered that for these cases chloroform and ether were safe, and that the nervous element and the liability to psychic shock were factors against the employment of local analgesia. Half an hour before giving the general anaesthetic the patient should have hypodermically $\frac{1}{100}$ to $\frac{1}{60}$ gr. of atropine, and the anaesthetist should allow the patient to assume any posture that he preferred, and permit him to get breath after getting to the operating table. One should begin with a mixture of chloroform and ether, or chloroform and absolute alcohol; then a change could be made to open ether or chloroform administered by any dosimetric method. The anaesthesia should be full for the first incision, and then considerably lightened, to be again deepened for the insertion of the final sutures.

Dr. G. A. H. BARTON said that in his experience general anaesthesia in partial thyroidectomies had proved adequate and safe, and since reading Dr. Kocher's advocacy of local anaesthesia some few years ago he had kept a special record of his cases. They only amounted to thirty-three, of which eight were cases of Graves's disease. They were not sufficient to dogmatize on, but so far as they went they supported his view, and a study of them had enabled him to form some tentative opinions as to the best method of general anaesthesia to be adopted. The two main dangers were from circulatory failure in cases associated with Graves's disease, and from asphyxia in cases in which the trachea was compressed. Personally he had not met with the former. He had had eighteen cases in which the trachea had been more or less compressed, in some accompanied by marked dyspnoea and stridor, but had occasion to administer oxygen in five cases only. In none had any real cyanosis developed. A source of minor embarrassment in some cases was a tendency to laryngeal spasm, cough, swallowing, and retching, frequently associated with falling back of the jaw. The position of the head encouraged these symptoms, and they were sometimes due to too light anaesthesia and sometimes to dragging on the trachea during enucleation of the tumour. The method of anaesthesia employed during the earlier cases was generally a slow induction with the C_2E_2 mixture, followed by the use of Junker's apparatus, with chloroform or a mixture. In the later cases he had used injections of scopolo-morphine, with or without atropine and after using a little C_2E_2 to commence with had continued with open ether, given in his own inhaler. Very little anaesthetic was required in these later cases, minor embarrassments were obviated, and the circulation improved; after-effects also were frequently *nil*. Of the 33 cases, 21 were excellent in every way, mostly improving during anaesthesia; 9 developed the minor difficulties referred to, causing a little annoyance but no anxiety; 2 cases had severe haemorrhage, one requiring a saline infusion; in 2 cases oxygen was given for threatened asphyxial complications, in both relieving promptly and efficiently. He considered the best results were obtained by a preliminary injection of scopolo-morphine, followed by open ether and the administration of oxygen on the appearance of the slightest duskiness. Considering the nervous type of patient dealt with and the occasional occurrence of severe haemorrhage, he was of opinion that the balance of advantage lay with general as opposed to local anaesthesia.

Mr. RUPERT FARRANT said that examination of a number of cases of Graves's disease showed there was a definite cycle from thyroid excess to thyroid insufficiency. He looked for hyperthyroidism at the commencement of the cycle, even though it might be very slight. It was impossible to say to what height the hyperthyroidism might attain before it went on to insufficiency. There was a second group in which Graves's disease was associated with other diseases, as shown by Dr. Hale White twenty-five years ago—such as dyspepsia, osteoarthritis, and mental symptoms. Examination of 1,000 lunatics from this point of view revealed a definite thyroid circle, running its course parallel with the nervous and mental symptoms. If hyperthyroidism were recognized one to three years earlier than at present he believed Graves's disease would cease to exist.

Mr. H. J. PATERSON strongly criticized the statement that the administration of a general anaesthetic in goitre cases was unattended with risk. Chloroform in such instances, whether by the open method or by appliances which were supposed to ensure the dosimetric method, he considered unjustifiable. This contention he believed would be supported by hospital records. He pleaded for a clear definition of what was meant by Graves's disease, as many writers included cases in which there was no exophthalmos, and such nomenclature led to misconception when discussing operative results. The symptoms of hyperthyroidism were protean, and were not necessarily present in an individual case. Preparatory treatment by rest, administration of belladonna, and the application of *x* rays as carried out in the Mayo clinic were important. In the practice of the brothers Mayo the operative mortality in cases of exophthalmic goitre was now only 3.9 per cent. The word "cured" was now being used somewhat loosely and unscientifically; it should be applied only to cases which had lost all the symptoms and were quite well.

Mr. H. M PAGE reported his experience in connexion with 25 cases, and expressed his agreement with Dr. Scharlieb concerning the question of general and local anaesthesia. In his last 11 cases open ether was given, with oxygen during the whole time. In only one case was there a real increase of pulse at the end of the operation; in one there was great haemorrhage, but the patient seemed little worse next day.

Mr. BETHAM ROBINSON spoke highly of the intravenous method of inducing anaesthesia, which was not only much better for the patient but rendered the operation much easier. He felt sure some cases had departed somewhat hastily on account of the administration of chloroform.

Mrs. DICKINSON BERRY regretted that the discussion had not thrown more light on the question of how far the general anaesthesia was an additional risk, even when taken well. She recalled two cases, operated upon by different surgeons, in one case chloroform and in the other ether being employed. No anxiety was felt on account of the anaesthetic, though towards the end there was considerable collapse. The anaesthesia was very light, yet both died within a comparatively few hours of the operation. The question arose whether those deaths would have occurred if there had been no general anaesthesia. One patient, a woman, who had a local anaesthetic, only

said afterwards that she did not like feeling the blood running down.

The President spoke of the influence of the thymus in the condition under discussion. Surgeons complained that the preliminary and later injections complicated their work, particularly in operations about the neck, yet in the worst cases the even slight toxic effect of a general anaesthetic should be avoided. He thanked Mr. Berry, in the name of the meeting, for bringing about such an interesting and important three-day discussion.

Mr. James Berry, in concluding the debate, said he did not intend to give his views in detail, as he expressed them at the debate before the Hunterian Society two years ago. His operations for the removal of goitres of various kinds amounted to 670, but those in which he felt justified in operating for true Graves's disease were only 11. It was misleading to include cases simulating Graves's disease in the gross statistics; these latter were very satisfactory for treatment by operation. In most cases of true Graves's disease he had refused to operate. Even at the present time, when our knowledge of the technique had been greatly advanced by the labours of the Kochers in Switzerland, the Mayos in America, Dr. Dunhill in Australia, Mr. Edmunds, Mr. Leedham-Green, Mr. Trotter, and others in this country, much still remained to be done before operating on Graves's disease could be considered as really satisfactory. He strongly deprecated anything like indiscriminate operating for Graves's disease, and to believe that a case of that disease had only to be operated upon to be cured forthwith was a grave mistake. He had been able to collect the statistics of 97 cases which had occurred in various large London hospitals in the last few years, marked examples of the disease. The total number of deaths among them was 16, 12 having occurred within forty-eight hours of the operation. Of the survivors most were reported to have been benefited by the operation, some in a very remarkable manner. But little was known of the ultimate results. In only 10 of the 97 local anaesthesia was used, and in at least 55 chloroform was the anaesthetic. The poor results in this country were probably due to not having operated early enough. On the other hand, the prognosis in early cases was not wholly bad, and many patients recovered completely under medical treatment. If several months of medical treatment did not bring about improvement, the question of operation might reasonably be entertained. The condition of the patient was so miserable that one should not dwell too much on the mere mortality of the operation. His conclusions were: (1) Operations for true Graves's disease must always be regarded as serious, even dangerous; (2) the danger was greatest in acute cases and in advanced cases in which there was degeneration in muscle, especially that of the heart; (3) the danger could be much mitigated by strict precautions before, during, and after operation: during the operation strict asepsis and exact haemostasis were very important; (4) considerable judgement was required in estimating the exact amount of gland tissue to be removed. Hemithyroidectomy seemed often to be the operation of choice. Most patients showed marked reaction a day or two after operation. The most important matter after the operation was the administration of large quantities of fluid, and here local anaesthesia had a great advantage over general, as the patient could at once drink the fluid necessary. Chloroform he objected to. In conclusion, he showed a patient on whom he had operated seven months previously, and who was now very much better, but not cured.

Section for the Study of Disease in Children.

At a meeting on February 23rd, Dr. G. A. Sutherland, President, in the chair, the following were among the exhibits:—Dr. R. Hutchison: A case of *Hysterical vomiting and achylia* in a girl aged 10 years. About two years ago the patient's mother died suddenly; the vomiting set in immediately after this event, and continued in spite of treatment in two hospitals, when the child came under observation at the London Hospital three months ago. She weighed 1½ st., and the skin was dry, brown, and scaly, but there was no visceral disease, though the bowels were somewhat loose and a test meal showed complete achylia. Under treatment by isolation, suggestion, and the use of hydrochloric acid and pepsin the vomiting had entirely ceased, but the nutrition had not much improved. Dr. H. Thursfield: An instance of *Bile-stained teeth* in a boy who had been jaundiced for several months after birth; he had also during the first week of life passed very black stools, and had a purulent discharge from the navel. The two lower central incisors, when erupted, were a vivid yellow tint, and had since become green. The tint varied considerably, being occasionally quite bright and at other times dull. Dr. F. Langmead: A corresponding case of bile-stained teeth. In this case the jaundice began between two and three weeks after birth, and persisted until the baby was 1 year and 3 months old. It was at first accompanied by enlargement of the liver and spleen, but this disappeared rapidly under treatment by grey powder. Apart from the conditions noted, the child's condition at the time was good and there was nothing to suggest syphilis. All teeth when erupted were bright yellow in colour and obviously pigmented by bile, but the colour had now almost gone. Dr. James Taylor: *Athetoid movements* in a girl aged 5½ years. She was a seventh child; of her predecessors, the first two died a few hours after birth, the third, fourth, fifth, and sixth are alive and well. She was born at full term, but "feet first," and black and blue in colour. Dr. Leonard Guthrie: A case of *Transposition of viscera* in a girl aged 12. The heart was on the right side, the apex being in the sixth space, one inch inside and below the right nipple. Hepatic dullness was absent on the right side, but could be made out on the left side from the level of the sixth rib downwards. The stomach resonance was well defined in the right hypochondriac region. The position of the colon was not ascertained. Dr. J. A. Torrens: A case of *Cardiac bruit* in a girl aged 16 years. There was no history of rheumatism and no history of any cardiac disability at any time. She was a well-nourished and well-developed girl. There was no cyanosis or clubbing of the fingers. The heart was not enlarged to percussion, but the *x* rays showed a globular left ventricle of greater density than normal, suggesting some pure hypertrophy. There was a loud systolic murmur at the base, best heard over the aortic area, conducted into the arteries of the neck, but audible over the entire thorax, back and front. The second sound was quite distinct, but there was no diastolic murmur. The murmur was considered by some speakers to be due to a congenital lesion, and by others to an acquired aortic stenosis. Dr. T. R. Whipham: (1) *Arthritis of the shoulder and hip* in a boy aged 14. When 3 years old he was held up by the arms, and after that his right shoulder "grew out" and the arm could not be raised above the horizontal level. Wasting of the shoulder muscles followed, but nothing further was noticed until nine months ago, when he started walking lame on the left leg. There was pain in the left hip and knee at first, but this had subsided, and the patient had never been prevented from doing his work as a house-boy. A radiogram showed absorption of the head of the humerus and displacement of the shaft under the tip of the coracoid process. The shoulder-joint was ankylosed. There was considerable wasting of the muscles around the hip-joint, whose movements were very limited. The femur was shortened, owing to absorption of the head of the bone. Von Pirquet's reaction was negative. The case was considered as most probably one of tuberculous arthritis. (2) *Proliferative osteo-arthritis of the hip* in a youth aged 18. A year ago he began to experience pain in the left groin, only present when the joint was exercised. He walked with a limp, and the left leg was a half to three-quarters of an inch shorter than its fellow. The muscles around the joint were wasted and the trochanter was prominent. The movements of the joint were restricted, and "creaking" was present. A skiagram showed osteo-arthritic changes in the joint. The case was considered by some to be of an infective nature, and the state of his teeth regarded as a possible cause.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Wednesday, February 28th, 1912.

Mr. J. M. Cotterill, President, in the Chair.

On the Treatment of Simple Fractures.

Mr. C. W. Cathcart, in opening a discussion on this subject, said that three methods considered to be rival were at present under discussion: (1) The old immobilization

method involved not only the fixation of the fracture, but also that of adjacent joints, and was based on the theory that such immobilization was essential to healing of the bone. Its disadvantages were the long period of lying-up and the protracted convalescence due to stiffened joints and muscles. (2) The massage and early movement method introduced by Lucas-Championnière, in which, it was held, healing was promoted by the free circulation at the seat of injury, by the prevention of adhesions in joints and of deposits in muscles, and by the maintenance of muscular nutrition. Some objections were the greater time and attention required on the part of the doctor, and its unsuitability in certain cases. But the treatment was simple, and it was possible to instruct relatives and entrust them with it. (3) The immediate operation method, associated with the name of Arbuthnot Lane, secured the accurate apposition and firm fixation of the bones by plates and screws. Its theoretical basis was that the normal shape of the bone was essential to proper function. Its disadvantages were the laceration of soft parts that was apt to take place, the loss of muscular function during wound healing, and the high degree of surgical skill requisite, which was against the general application of the method. Each of these methods had a field of usefulness, and he offered the following points for consideration: (1) A modified immobilization method gave good functional results in most shaft fractures in children; and in shaft fractures in adults (femur excepted) where bony displacement and laceration of soft parts were not great. (2) Massage and early movement gave more rapid results in the previous class of cases, and was the treatment of choice for fractures near or implicating joints except where immediate operation was indicated (see (3)); in shaft fractures without angular or axial deformity, and where complete restoration of length was not essential; also in cases otherwise suitable for operation, but in which it was contraindicated by the patient's age or constitution, by local sepsis of the skin, etc. (3) Immediate operation—reliable technique being essential—was advisable in recent transverse fractures of the patella in healthy adults; in joint fractures where fragments hindered movements; where nerves were involved, or muscle intervened between the broken bones; where muscular attachments were broken off, and could not be otherwise replaced; where there was unavoidable angular deformity, especially in the lower limbs; and in fractures of the shaft of the femur in certain classes of adults where restoration of the length of the limb was of special importance, as in applicants for the public services. The speaker then discussed the best form of treatment in certain special fractures. In Colles's fracture, a proper reduction was important, both for aesthetic reasons, to secure free movement at the wrist. He used an anterior splint, and a posterior one was optional. Employing immediately warm fomentations and gentle massage, and possibly passive movements of the fingers, he advised active movement by the third day, removal of the splint in from ten to fourteen days, and of the sling in three weeks. In this fracture the old immobilization method gave bad results, and operation was seldom called for. In Pott's fracture, massage and early movement, combined with splints, again gave very good results, though operation was occasionally employed. In fractures of the shaft of the femur, while the results were almost always excellent in children, they were much less so in adults, even when Lucas-Championnière's methods were employed. In the latter group of fractures there was certainly room for improvement, and operation might yet be shown to be the superior method.

In the debate which followed Professor ALEXIS THOMSON declared himself a follower of Lucas-Championnière. With regard to fracture of the femur, the extension apparatus of Steinman was more efficacious than any other. Mr. WALLACE said he was also a strong believer in massage and early movement, which had been taught for many years by Professor Chiene. In Colles's and Pott's fractures splints were not necessary to prevent redisplacement; a sling or sandbags were sufficient. Mr. SCOT SKIRVING advised operative methods in fracture of the femur with much displacement. Muscular laceration was avoided by keeping to the fascial planes. Mr. WADE described the routine methods of treatment of fracture in out-patients. Massage and passive movements were practised from the first, and active movements within three or four days. Where patients could not attend frequently to receive this treatment, it was generally possible to instruct relatives in its application. Mr. E. S. CARMICHAEL said that the work of professional masseurs in fractures often required the most careful supervision, and that massage was best carried out by the doctor, though this involved much time. Mr. DOWDEN said that bandages were useless in fracture of the clavicle. The only thing required here was a sling. Shortening often occurred, but allowed a perfect use of the arm. Dr. LANGWILL spoke of the unsatisfactory after-results of fractures. Patients for long after leaving the surgeon's hands were disabled from work. If it were not possible to keep these patients in hospital for the necessary time, they might be asked to return for inspection at stated times. Mr. G. CHIENE said active movement was much more valuable than so-called passive movement. He showed two specimens illustrating functional efficiency in widely-separated fractures of the patella. Dr. PIRIE WATSON said that splints were not important, while massage and early movement were all-important, and could not be started too soon—indeed, they should precede reduction. Massage should always stop short of causing pain. Dr. ORR, Dr. RITCHIE, and Mr. STRUTHERS also spoke, and Mr. CATHCART replied.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF SURGERY.

Friday, February 2nd, 1912.

Mr. R. H. WOODS, President, in the Chair.

Congenital Dislocation of the Hip.

MR. WALTER STEVENSON showed two cases of congenital dislocation of the hip treated by Lorenz's method, together with skiagrams exhibiting the local appearance at different stages of treatment. In the first case, a child aged 3, the final photograph showed the acetabulum to be fairly well arched, while examination of the patient showed that the leg was still held a little in advance and abducted, but this was gradually improving. The patient could now get about very well. Treatment extended over fourteen months. In the second case, a child aged 3½, treatment was continued six months, and the last plaster—a movable one—was still on. Examination of the patient showed that the joint was now in good position.

Mr. W. S. HAUGHTON also showed skiagrams of a case under the same treatment. They demonstrated, he said, that Lorenz's method was safe and satisfactory, but as is had to be done with a considerable amount of strain it wat better that it should be performed by those in the habit of dealing with bone cases. The PRESIDENT said that the series of photographs showed in the clearest possible way the process that took place in the growth of the acetabulum. It was also clear that the method was a scientific one, and an extremely close imitation of normality when the deformity was considered. These cases were very difficult to deal with successfully by the older methods.

Mr. STEVENSON, replying to questions, said that since April, 1910, he had come across seven cases of congenital dislocation of the hip, and in one case of double congenital dislocation the patient was 22 years of age. The patient in this case, however, was well developed and able to get about very well, and it would not have been advisable to have tried any treatment. As to the age of election to treat cases, very few were recognized before they commenced to walk, but the sooner the treatment was undertaken the easier it would be found to get the head of the femur into the acetabulum, and the more likely were the bones to develop into better shape. Tenotomy was necessary in all cases that he had seen, and in the two cases just shown the abductor muscles stood out considerably. Sometimes the muscles were ruptured by the hand, but tenotomy seemed to him a better way. The interval between the stages was guided by the *x*-ray skiagrams, but at first it was advisable to keep the plaster on for a considerable time; however, after six months' treatment it should be changed more frequently.

Abdominal Aneurysm.

Mr. W. I. DE C. WHEELER exhibited two cases of abdominal aneurysm in the region of the coeliac axis. One patient had returned to work fifteen months after operation; the second case was operated on six months ago. Colt's instrument was used in both instances—a cage of 150 in. of gilded wire being introduced in the first, and a

wisp of 105 in. into the second case. The prominent symptoms before operation were intense pain in the back, marked epigastric pulsation, and digestive disturbances. A systolic murmur could easily be detected over the tumour. Mr. Wheeler considered that the pain in the back, which was severe enough to require morphine before operation, was more likely due to the stretching and heaving of the peritoneum of the posterior abdominal wall than to erosion of the vertebrae. This was borne out by a *post-mortem* examination of a third patient, who died of rupture of the aneurysm secondary to intestinal obstruction a week after the introduction of wire. In each of the three cases the pulsation and the pain in the back became more violent for a few days after operation, and then rapidly improved, the pain completely disappearing. At present it would be possible to diagnose an abdominal aneurysm in the man operated upon fifteen months ago from continued pulsation, but otherwise he was in excellent health. The case operated upon six months ago had now little or no pulsation, the systolic murmur had disappeared, and he was apparently cured. The operation should be attended by the most rigid aseptic precautions. In his reply to the discussion the exhibitor agreed with Mr. Pearson's suggestion that the method was not suited to cases in which the aneurysm was fusiform.

THE MIDLAND AND WESTERN COUNTIES OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

AT a meeting at Birmingham on February 20th, under the chairmanship of Mr. CHRISTOPHER MARTIN, a scheme for the establishment of a new medical society reached fruition. In moving a formal resolution for the foundation of the society, Dr. MALINS said that a feeling had long existed that in respect of obstetrics and gynaecology the provinces were not adequately represented. Within the area of the Midland, Eastern, and Western counties there were localities and large towns in which much activity was displayed in the pursuit of obstetrical and gynaecological knowledge; there were also teaching centres and hospitals where much valuable work was done, and a large amount of treatment carried out without due recognition or opportunity of record. Attendance at meetings of London societies was a source of inconvenience; outside that great centre there was a great mass of material which could not be utilized to an extent equivalent to its interest and value. The outcome was that the provinces were not only unduly overshadowed, but those living therein found themselves at a disadvantage in respect of opportunities for the recording of experiences and the exchange of views. This position the new society would remedy. On the proposal of Mr. J. FURNEAUX JORDAN, it was resolved that it should be called the "Midland and Western Counties Obstetrical and Gynaecological Society," it being understood that by omission of the word "eastern" it was not intended to exclude from membership those practising in the Eastern Counties, but merely to avoid unnecessary lengthening of the title. It was also resolved, on the motion of Dr. TENISON COLLINS (Cardiff), that the expressed object of the society should be the promotion of the science and art of obstetrics and gynaecology—one which was particularly appropriate, Dr. Collins suggested, since the idea of the formation of the society emanated from Birmingham, the original home of English gynaecology. The constitution of the society in respect of office-bearers was then determined, and is sufficiently indicated by the following list of those elected:—*President:* Dr. Malins (Birmingham); *Vice-Presidents:* Mr. Christopher Martin (Birmingham), Dr. Walter C. Swayne (Bristol), and Dr. H. T. Hicks (Derby); *Honorary Treasurer:* Dr. C. E. Purslow (Birmingham); *Honorary General Secretary:* Dr. Beckwith Whitehouse (Birmingham); *Honorary Local Secretaries:* Dr. D. C. Rayner (Bristol) and Dr. T. Clare (Leicester). *Members of Council:* Drs. Harman Brown (Coventry), Tenison Collins (Cardiff), Wheaton Hind (Stoke-on-Trent), William Smith (Nottingham), and Dr. Calthrop Williams (Woodhall Spa). A pathological subcommittee, with power of co-option, was also formed, Professor R. F. C. Leith, Dr. J. T. Howetson, and Dr. L. G. J. Mackey being elected thereto for the year 1912–13. A further decision was that the society should be itinerant, and each meeting consist of an exhibition of cases and specimens, and the reading and discussion of "short communications" and formal papers.

HARVEIAN SOCIETY.

AT a meeting on February 29th, Dr. H. J. MACEVOY, President, in the chair, Dr. FARQUHAR BUZZARD, in opening a discussion on *Acute poliomyelitis and allied conditions*, expressed his conviction that acute poliomyelitis would be more generally recognized in its earliest stages if the medical profession had a clear conception of the nature of the disease and were able to form a mental picture of the morbid process underlying it. The cripple bore the same relationship to acute poliomyelitis as did the individual with a pock-mark on his face to varicella or variola. For some years he had been constantly teaching that acute poliomyelitis was one of the acute specific fevers, and that in the medical textbooks of the future it must be removed from the section of nervous diseases and take its proper place with the other acute specific fevers. In describing the symptomatology of the acute stage, he emphasized the importance of examination for paresis in all forms of acute illness in small children when the nature of the condition was not obvious. Pain was frequent not only in the epidemic, but in the endemic cases. He had no faith in Kernig's sign as a clinical test in diseases of the nervous system. In infants the first symptoms often simulated those of other acute specific fevers. Encephalitis was the most closely allied condition, and in the majority of cases depended upon an identical pathological process affecting the higher parts of the central nervous system. Dr. F. E. BATTEN said the experimental production of acute poliomyelitis in monkeys had been carried out by numerous observers in Austria, Germany, France, and America. The virus of poliomyelitis was filterable, would withstand the action of glycerine, and if an organism was ultra-microscopic; the virus therefore had a great similarity to that of rabies. So far only monkeys had developed typical poliomyelitis, but the work of Marks had shown that the disease could be transmitted through rabbits without causing clinical manifestations of poliomyelitis in them. Although epidemics had been known in Europe since 1881, yet during the last decade it had been widely spread over the whole civilized world. During 1910 and 1911 numerous epidemics had occurred in England, but how widely the disease was spread would only be known when there was a more general recognition of the symptoms to which the disease gave rise, and notification was compulsory throughout the country. Dr. GUTHRIE deprecated the practice of testing electrical reactions during the acute stage, more especially in young children, and pointed out the importance of massage and passive movement by the mother when the services of a skilled masseuse could not be obtained. He objected to the use of orthopaedic instruments, on the ground that usually they were much too heavy for the children to carry. Dr. BUZZARD briefly replied.

THE annual report of the Winsley Sanatorium contains the announcement that thanks to the generosity of a donor the sanatorium is quite free from debt. We are not disposed to agree with the medical consultative board that it is not right to give tuberculin in increasing doses to patients not under sanatorium treatment, as this would limit the use of this valuable remedy very considerably. It may be noted that the resident medical officer, Dr. Crossley, is not of this opinion, as he states in his report that it can well be given from a tuberculosis dispensary. Fifty cases had been treated with tuberculin at the sanatorium during the last two years. Twenty-five were given T.R. (bovine) by the mouth, ten B.E. hypodermically, and twenty others, most of them still under treatment, by the same method as the second series. The oral method was given up as being unreliable. The medical officer considers the best way to give tuberculin is to begin with small doses and gradually to increase them. Sufficient time has not elapsed to form any opinion on its efficacy or otherwise. Two hundred and fifty-six cases were discharged during the year; 48 per cent. were fit for some work, 37 per cent. improved, 13½ per cent. did not improve, and 1½ per cent. died.

Reviews.

BACK TO ARISTOTLE.

Of subjects which have given rise to great masses of literature there are few so suggestive of dryness and difficulty as logic. Dr. MERCIER must, therefore, be congratulated on having, in his book entitled *A New Logic*,[1] rendered his treatment of it interesting, and at times fascinating or entertaining. The last quality has indeed been secured by rather merciless ridicule of his predecessors, which perhaps is tactically unwise, though most of us have a secret admiration for uncompromising self-reliance.

Like the founder of logic, Dr. Mercier is in the first place a man of science, in the second a philosopher. Aristotle's treatises were based on elaborate collections and selection of facts, though he by no means parades these researches; the treatises were then collated, harmonized, and corrected with such care that a chronological arrangement of them is now impossible. But the care which he bestowed on them has paid its interest in the permanence of the result; for the history of philosophy is largely the temporary displacement and ultimate restoration of Aristotelianism.

Dr. Mercier's work may be regarded, at least to a considerable extent, as one of these restorations. He attacks, and it would appear with success, the "Traditional Logic" and the "New Logic," but in many of these attacks he has Aristotle actually on his side, while in others the Stagirite eludes him. Since the agreement appears to be unconscious, we may infer that the logic of scientific men in our age bears a striking resemblance to the logic based on science a couple of thousand years ago.

In the "Traditional Logic"—that is, the mediæval travesty of *Organon*—the proposition is analysed as subject, copula, and predicate. For this Dr. Mercier substitutes subject, object, and a ratio between them, adding that the subject must be a substantive or substantival phrase. Now this last point is emphasized by Aristotle in his definition of a proposition, the name for which is also used by him for ratio; nor has the Aristotelian proposition a copula, the difficulties connected with which are acutely analysed by Dr. Mercier. On the other hand, it has not an object, and it has not escaped Dr. Mercier that this word introduces difficulties.

Dr. Mercier holds that the "Traditional Logic" unduly restricts the modes of reasoning, and his analysis of quantity and quality applied to the terms of the proposition is in the highest degree ingenious and skilful. It is clearly the fruit of long and deep reflection, and appears to defeat the enemies whom it attacks. Yet it may be doubted whether Aristotle would in consequence have altered his theory of the syllogism, and its figures. The syllogism means the mating of two propositions so as to produce a third which is identical with neither. Such fertility, according to him, is only possible where the propositions are reducible to the form, "Mortal follows man, man is ascertained of Socrates"; hence "Mortal is ascertained of Socrates," a proposition identical with neither of its parents. Great numbers of arguments which Dr. Mercier shows to be unrecognized by the "Traditional Logic" are easily reducible to Aristotle's formula. Let us try a case: "If the air is too foul to support the flame of a candle, and it requires purer air to support human life than to support the flame of a candle, the air is too foul to support human life." This would run: "Insufficient to support human life follows insufficient to support the flame of a candle; insufficient to support the flame of a candle is ascertained of the air; therefore insufficient to support human life is ascertained of the air." But the merit of having collected and analysed these various modes of arguing is in no way affected by the fact that the real *Organon* escapes Dr. Mercier's criticisms.

In the treatment of inductive reasoning we again find Dr. Mercier on the side of the Stagirite, only what the former calls induction the latter calls example. A particular snake proves venomous, whence one infers that another snake which resembles it externally is also venomous; what makes this reasoning legitimate? Dr. Mercier answers, "Constancy in experience," not of this particular type of snake, but of the association of certain properties with a certain appearance. "The appearance of all bodies is an index to their properties." This formula is identical with Aristotle's doctrine that the form is to be found in the species—that is, external appearance—but involves a capacity; that which is permanently associated with it is its capacity, all else is accident. But when we come to the question, What are properties and what accidents? both authors have to refer us to some other science than logic.

Instances of this agreement of Dr. Mercier's conclusions with those of his great predecessor might easily be multiplied; where a matter was to be settled by hard and accurate thinking, Aristotle rarely left any one else anything to say; but the merit of having rediscovered many a truth, which is Dr. Mercier's, is not diminished by the fact that the founder of the system had worked out the same. Only it is probable that much of the matter which Dr. Mercier has included in logic would have been regarded by Aristotle as belonging to some other study. And, indeed, many of Dr. Mercier's examples show how very narrow is the scope of logic itself and how quickly the help of other sciences has to be invoked. Thus, in the treatment of "explication" we are told that "If he saw her do it he must have been there when she did it" is "an argument that commends itself to the reason as unimpugnably valid." Aristotle would call in the aid of the science of optics.

However, this "newest logic" will greatly aid the cause of clear and sound thinking, and the devotee of Aristotle in any case will earnestly wish it success. Perhaps it may be added that the circumstances of ill health under which it was composed, with which the public is familiar and sympathizes, make it an astonishing achievement.

[1] *A New Logic.* By Charles Mercier, M.D., F.R.C.P., F.R.C.S.Lond. London: William Heinemann. 1912. (Roy. 8vo, pp. 450. 10s. net.)

MEDICINE AND THE CHURCH.

ONE of the most striking examples of the influence of the operation of the mind, the spirit, the soul, or whatever we may choose to call the unknown force which "informs" our tenement of clay, is unquestionably religious faith. We have often pointed out how effectual this may be in the cure of affections that are not organic, especially those belonging to the ill-defined territory of nervous disease, and in the relief of what may be called the by-product of organic disease. On this ground the co-operation in suitable cases of the divine with the physician may be advantageous. We have insisted again and again that the minister of religion must not intrude on the province of the physician, but may help him by removing any existing cause of mental distress which is aggravating the physical ailment, or by inspiring the patient with the faith that we are told will remove mountains. Two or three years ago an organized effort in this direction was made at Boston by the Rev. Dr. Worcester and the Rev. Samuel McComb, Ministers of the Emanuel Chapel in that city. Clergymen were to minister to minds diseased, while for the treatment of any co-existing or underlying bodily complaint the aid of physicians was to be invoked. We believe that this scheme, praiseworthy in its conception, has not been adhered to, the clergymen having embarked on a career of independent practice as healers. This, as we pointed out at the time, is the rock on which such schemes are likely to split. The movement spread to this country, and the ministry of healing formed the subject of more than one discussion at the Lambeth Conference in 1908. Although the subject was kept alive for some time by meetings, letters in the press, and so forth, it seemed to lapse for a time into a state of suspended animation.

Interest in faith healing was greatly quickened by a number of articles which appeared in this JOURNAL on June 18th, 1910. The whole question has for some years been under the consideration of a Subcommittee of the British Medical Association, whose report was published in the SUPPLEMENT of July 15th, 1911, p. 125. As that report has not yet been finally adopted by the Association, any detailed reference to it would be out of place here. In the meantime we may pass in review some notable utterances which have been made by authorities, clerical and medical, in an interesting volume published some

time ago.[2] The book appears under the editorship of Mr. Geoffrey Rhodes, who has taken an active part in furthering the movement for the co-operation of the clerical with the medical profession. A foreword by the Bishop of Winchester puts the case clearly in the following words:

> There is no doubt that scientific medical men are not going to pay attention to evidence of an unscientific character. They will not waste their time over it. Nevertheless, to phenomena duly attested and to evidence scientifically recorded they will give the most scrupulous attention. It is the detailed and accurate collection and classification of facts by those who are trained for the task and expert in its process that must precede generalization upon this new—or shall we call it revived?—branch of therapeutics.

The Bishop, we are glad to note, expresses confidence that the Church will never identify itself with charlatan methods which might delude the poor and ignorant into the superstitious idea that they can be more cheaply and effectively healed by a magic or thaumaturgic ministry than by the knowledge and skill of trained and certificated doctors and surgeons. When, however, the Bishop goes on to say that it looks as if science were only just now awakening to the realization of its possibilities through psychical treatment, and as if the Church had never yet realized to the full its responsibility and its power in ministration to sickness and its influence over the reason and the imagination, we are less disposed to agree with him. The Church was perhaps in old days somewhat too eager to assert its power in ministration to sickness and to exaggerate its influence over the reason and the imagination.

The book consists of an introduction and a number of contributions. In the introduction the editor gives an interesting review of the whole subject. That he clearly understands the relation between the spiritual and the material in this matter is shown by his statement that "the respective spheres of action of the cleric and the doctor have to be mapped out, so that all the efforts of the one may support and never hamper the other." All treatment, he says, whether it be by means of drugs, surgery, or hypnotic suggestion, must necessarily be a matter for the doctor and those working under his immediate direction, and for them only. This well expresses the spirit in which the book is written. We may be allowed to express our gratification that the views which we have often expressed have obviously furnished inspiration to most of the writers and that the BRITISH MEDICAL JOURNAL is freely quoted throughout the volume.

The second part of the introduction consists of communications received from Sir Clifford Allbutt, the Hon. Sydney Holland, and a well-known surgeon who veils his identity under the initials "F.R.C.S." Sir Clifford Allbutt says that strange healings do take place under religious influences, and he adds:

> And at no time in history were miraculous cures more frequent and wonderful than in the Temples of Aesculapius or of Serapis. Modern cures, whether of the Eddyites or at Lourdes, or the like elsewhere, when compared with those of the Roman Empire, fall into insignificance.

In regard to this statement, we venture to submit that the "insignificance" of the modern cures is attributable to the fact that these things are now done in the light of day, and are tested or can be tested in a way with a critical keenness that was not applied to the cures of the Roman Empire. We are in full agreement with Sir Clifford Allbutt, however, when he says that a careful study of all reported cures of a miraculous kind proves that they all—palsies, convulsions, and the rest—are, and have been, cures of one disease and of one only—namely, hysteria. Surely we may here say, with Sir Thomas More: "Marry, this is somewhat!" The cure of hysteria is the cure of a very real disease. That all these cures are wrought by suggestion is what we have always held, but the fact of cure must be credited to the agency by which it is produced. Sir Clifford Allbutt will have no mingling of the medical and the priestly functions, but he hopes for a more intimate understanding and a completer sympathy between the representatives of medicine and those of spiritual agencies. Mr. Sydney Holland, in a short note, says that no one who has been connected with one of our big general hospitals can doubt for a moment the advisability of the collaboration of the physician and the clergyman, each helping the patient from his own standpoint. The relations between the surgeon, the clergyman, and the patient are discussed by "F.R.C.S.," who says that it is especially in the case of a patient suffering from a disease such as cancer, which requires an operation, that "the enlightened clergyman and surgeon may join hands for the good of spirit and body."

Dr. Buttar, in a paper which is a valuable contribution to the subject, attempts to define the position of medicine with regard to spiritual methods of healing, and to inquire how far the results justify the movement. In so far, he says, as the spiritual attitude of the patient conduces to his peace of mind, its assistance would be welcomed by every practitioner of the healing art, but it is not easy to conceive that spiritual influence could have any effect on such a disease as ringworm or on such conditions as congenital malformation, aneurysm, valvular disease of the heart, or strangulated hernia. He lays stress on the difficulty of finding facts that will bear scientific scrutiny. Then—and this a point that must never be lost sight of—a medical man is not infallible, and a condition thought to be cancer, for instance, may turn out to be an inflammatory thickening from which recovery might naturally have taken place. Warts, he points out, may disappear rapidly under many forms of treatment or with no treatment at all. We may add that genuine cancer does in rare cases disappear by some natural process of involution which, unfortunately, is still imperfectly understood. Dr. Buttar rightly says that a careful distinction must be drawn between the cure of a disease and the relief of symptoms. It is here, as we have ourselves often pointed out, that spiritual healing, or suggestion, or whatever it may be called, finds a legitimate place. The abolition of pain, the subsidence of swelling, and other improvements of local conditions are all within the sphere of nervous action; but it cannot be too emphatically said or too often repeated that these things, though affording great relief to the patient, are not to be confounded with a cure of the disease. For ourselves we should welcome any influence that would soothe the suffering of a person dying of a painful disease. Dr. Buttar holds that it is most unwise to countenance untrained laymen in carrying on spiritual healing in the name of the Church, and he warns the Church not to attempt to attract believers by means of thaumaturgic displays of healing which are open to explanation in other ways. This is all sound and sensible, and, as far as the Church is concerned, Dr. Buttar points to a very real danger. He seems to us, however, somewhat to lose sight of the patient in his concern for the medical profession on the one hand and the Church on the other. As long as conditions with which medicine has failed to cope are cured by spiritual agencies, processions, etc., so long will recourse be had to them by sufferers. To say that the phenomena are hysterical and that the cures are wrought by thaumaturgic displays is simply to confess the impotence of medicine and to cover up our ignorance by big sounding words. After all, medicine, even at the present day, is largely groping in the dark. This being the case, our attitude towards anything that promises relief which is not obtainable by following the doctrines of the schools should be one of sympathetic readiness to welcome help from whatever quarter it may come, rather than the self-complacency which asks, "Can any good come out of Nazareth?"

Mr. Stephen Paget urges the point at which we have just hinted—that we are in some danger of forgetting the patient. He says that it is on the edge of time between life and death that the professional spiritual healer loves to perform. He desires to make something happen; he will not take it for granted that nothing will happen. His position, Mr. Paget admits, is logical, and may be held in absolute sincerity. Only, he is bound to tell us what in his experience does happen, and he is bound to tell us of every case of failure or partial failure. It is here, as we have so often had occasion to point out, that the spiritual healer is in fault. The Christian Scientists admit no failures, and their position has at any rate a semblance of consistency

[2] *Medicine and the Church.* Being a Series of Studies on the Relationship between the Practice of Medicine and the Church's Ministry to the Sick. By Sir Clifford Allbutt, K.C.B., F.R.S., A. W. Robinson, D.D., Charles Bircare, M.D., Stephen Paget, F.R.C.S., Bishop of Bloemfontein, Hon. Sydney Holland, Prebendary Fausset, M.A., Jane Walker, M.D., T. B. Hyslop, M.D., Ellis Roberts, M. Carta Sturge, H. G. G. Mackenzie, M.A., M.D. Edited, with an introduction, by Geoffrey Rhodes. With a foreword by the Lord Bishop of Winchester. London: Kegan Paul, Trench, Trübner and Co., Ltd., Dryden House, Gerrard Street, W. 1910. (Post 8vo, pp. 307. 6s.)

in this, that as they hold there is nothing to be cured, there can be no failure if nothing is cured. On the other hand, the guardians of Lourdes and other miraculous shrines freely admit failures, and they explain them by saying that God works as He pleases.

Even they, too, might be more frank in admitting failure. In the JOURNAL of August 20th, 1910, we published some selected cases as to the genuineness of which there seemed to be evidence such as would be admitted in a court of law. From private information we know that one of these—a very striking case, if it could have been accepted as true—has since proved a failure. As far as we know, this fact has not been published. Mr. Paget says, "Till the alleged wonders of spiritual healing and its unpublished failures have been all submitted to keen scrutiny, and to every severest and most searching test that can be devised in science, nobody who knows anything about pathology can take much interest in them." The worst of it is that there is so much upon which science, with the severest and most searching tests, can throw no light and which yet, if human testimony is to be accepted at all, does sometimes happen that we must often be content to acknowledge our ignorance.

Dr. Jane Walker, dealing with the relation of priest and doctor with patient, says the idea of mental influence on disease was first scientifically formulated about twenty-five years ago. This is rather a strange statement in view of the fact that advantage has been taken of the mind cure both by priests and physicians since the dawn of history. The name "suggestion" is comparatively new, but the thing itself is as old as man.

Dr. Hyslop writes on faith and mental instability. He says that "of all the hygienic measures to counteract disturbed sleep, depression of spirits, and all the miserable sequelae of a distrait mind, he would undoubtedly give the first place to the simple *habit* of prayer."

Dr. R. G. G. Mackenzie discusses pretty fully the medical aspects of mental healing. As a considerable proportion consists of extracts from our own columns on the Society of Emanuel and other forms of faith healing, a detailed review of the essay is unnecessary. He sums up his conclusions as follows:

> Medical science has at her command a vast accumulation of clinical material on which she is able to form a clearly reasoned judgement. There is no such thing in medicine as a *chose jugée*, no single verdict ever found but is open to revision if the evidence is satisfactory.

How this is to be reconciled with the statement that medical science is able to form a clearly reasoned judgement on the clinical material that has been accumulated, we do not understand. Nor do we agree with Dr. Mackenzie's further statement that the limits of psychotherapeutics, spiritual or otherwise, are according to our present knowledge sufficiently well defined. We should say that it is just such a definition of these limits that is needed and is, unfortunately, still wanting. He says the unostentatious healthy influence of a cultured Christian gentleman has a potency which no manipulation or ritual is in the least likely to enhance. If he will equip himself with the necessary information as to the patient's actual physical condition, he can set to work to exercise his influence with the knowledge that he will probably effect more, so far as a permanent result goes, than all the self-styled healers. Dr. Mackenzie does not, however, tell us how the cultured Christian gentleman is to equip himself with the information required as to the patient's actual physical condition. If he knows nothing of medicine he cannot do so for himself; he must, therefore, apply to the doctor for the knowledge. Even then, when he is in possession of the knowledge, there is no hint as to how he is to use the influence given him by his culture.

On the Reverend W. Yorke Fausset's essay on Our Lord's Attitude Towards Sickness, which falls within the province of theology, we do not propose to dwell. The same writer in another essay expounds the principles of modern Christian healing. It is interesting, but we cannot say that it is very illuminating. We venture to point out to Mr. Fausset that his history is somewhat shaky when he describes Ambroise Paré as the faithful physician (*sic*) of Louis XIV. The Grand Monarque had a small regiment of physicians, surgeons, and apothecaries in his service, but Ambroise Paré was not of them, for the sufficient reason that he died about half a century before Louis was born.

Mr. Ellis Roberts writes on the Church and Mental Healing. The essay is mainly a discussion on the Lambeth report, which has been sufficiently dealt with in the BRITISH MEDICAL JOURNAL. He takes the view which we have often expressed, that the divine has a place in the sickroom as well as the doctor. But we would add the condition that the patient should ask for, or at any rate consent to, the ministration of the divine, whose intrusion on an unwilling person would be worse than useless. Of the Rev. Arthur Robinson's essay, entitled the Eucharist and Bodily Well-being, it is outside our province to speak. The book ends with essays by the Bishop of Bloemfontein on Prayer and Mental Healing, and Miss M. Carta Sturge on the Metaphysics of Christian Science. As Miss Sturge is driven to the conclusion that such a hopeless confusion of contradictions is scarcely worthy of the name of metaphysics, or of serious discussion, we can only express regret that she should have wasted time in discussing Mrs. Eddy's teaching.

The whole book may, perhaps, be not unfairly described in one sentence as a plea for the restoration of miraculous powers to the Anglican Church. The cynic may scoff or the philosopher may sigh at these pretensions, but the book is to be commended as a praiseworthy effort to bring two professions which minister to the spirit and body of man into harmonious co-operation.

TRANSPLANTATION, HETEROPLASTIC AND HOMOPLASTIC.

IN a monograph on heteroplastic and homoplastic transplantation[S] SCHÖNE brings into line the facts already known through experimental biology, experimental surgery, such as that of Carrel, and even recent work in cancer pathology, regarding the problems of tissue-grafting. These he supplements by numerous carefully planned experiments of his own, chiefly in connexion with skin transplantation. As regards the value of organ-grafting or tissue-grafting from an alien species, Schöne is rather sceptical; he holds that the phenomena of haemolysis and the observations of mouse-tumour inoculation are against it; and from his own experiments he would conclude that not only do heteroplastic transplants always fail to become integral parts of the host, but that these grafts actually exercise a toxic influence on the economy. The only service they can be to the surgeon is that, in replacing a damaged structure, they may be easily organized by the proper tissues of the host.

Homoplastic transplantation is useful to the surgeon and frequently such grafts become incorporated, but according to Schöne's experiments with skin, failures are by no means infrequent, even when the provider and the new host are blood relations. This fact is of considerable importance, as showing the extremely subtle but undoubted biological differences that exist between individuals of the same species, as has been pointed out in recent papers by Bashford and others, on mouse-tumour inoculation. Schöne goes further and shows that, in homoplastic grafting, though to a much less extent than in heteroplastic, a toxic factor has to be reckoned with. He insists on the individuality of an animal's own tissues, on the biological resentment to such as are not autogenous, and he contrasts with the fate of these the invariable success attending grafts taken from other parts of the same animal. At the same time he emphasizes the fact that a tissue such as the skin retains its characters depending on its original position—for example, in the nature and lie of its hairs.

The monograph shows an extensive acquaintance with the literature of the subject, such as might be expected in the case of a surgeon and experimenter of Schöne's eminence. The biliography is valuable.

OPERATIVE SURGERY.

WRITERS of textbooks on operative surgery "for students and practitioners," as the favourite phrase runs, frequently seem to find themselves in the unenviable and uncomfortable position of being in two minds. The writer desires his book to contain the latest operative improvements and

[S] *Die heteroplastische und homöoplastische Transplantation.* Von Dr. Georg Schöne. Berlin: Julius Springer. 1912. (Roy. 8vo, pp. 151, 29 figs., and 1 plate. M. 8; Bound, M. 9.)

advances for the benefit of practitioners, but he cannot tear himself away from the exercises of operative surgery, the ligature of arteries, and the ancient amputations deemed necessary for the student. Dr. A. OBERST'S textbook of operative surgery[4] presents the operations on the extremities in admirably clear and concise fashion with apt illustrations. We do not know any book in which students will be able to grasp more quickly the various amputations of the foot and knee, while the methods of ligature of arteries, the vast majority of which have never been tied by surgeons except on the cadaver, are plainly and in the least possible number of words set forth. The descriptions of operations on the neck, thorax, and abdomen are by no means so well or so amply done. The surgeon called upon to amputate does not think about Chopart and Lisfranc, Carden and Gritti, but contents himself with cutting his coat according to his cloth, making the most of the material left him by the railway smash or the tuberculous sinuses; but when he operates for the removal of tuberculous glands in the neck, or for strangulated hernia, or for intra-abdominal haemorrhage, he is in a fresh field, and has got to be very precise and definite in his movements, and must show respect to the course of vessels and nerves and to the arrangement of muscles. Now the sections of this book dealing with regions are inadequate and scrappy and not quite up to date. For example, sufficient emphasis is not laid on lateral anastomosis of bowel as the method *par excellence* of joining intestine. Murphy's button and circular suture are now almost universally discarded, and yet Dr. Oberst gives them prominence. Then, again, inguinal colotomy, when the gridiron method of dividing the abdominal muscles is used, is a much simpler operation than the author's text and illustration indicate; and we hope that no one will attempt a gastro-jejunostomy on the meagre amount of information he finds in this work. There are some glaring inaccuracies of illustration which we feel bound to point out. The Czerny-Lembert suture of bowel is wrongly figured on page 155; the inner row of sutures should include the mucosa as well as the musculosa and serosa. Then the surgical knot should be shown as a reef knot with the first loop doubled, and not, as on page 5, as a "granny." And, lastly, the picture on page 148 of the mode of curling up the separated sac in Macewen's operation for radical cure of hernia, is incomprehensible but apparently wrong.

NOTES ON BOOKS.

THE scope of *Pharmaceutical Formulas*,[5] the eighth edition of which has recently appeared, is well indicated by its subtitle of "The Chemist's and Druggist's Book of Useful Recipes for the Drug Trade." The latest revision has resulted in the addition of some 400 new formulae, while alterations are also numerous. The preparations range from toilet articles (skin creams, applications for the hair, etc.) to writing inks and varnishes. The chief value of the formulae to medical practitioners will be in the information they give as to the probable composition of many proprietary articles or others of which the formula is not divulged by the maker or vendor.

Readers of fiction are now familiar with the device of making the record of a motor tour the peg on which to hang a love story, but Mr. ARCHIBALD BIRT (Dr. A. B. Brockway) has managed to vary this rather threadbare theme very pleasantly by charming descriptions of Australian life and scenery. His recent novel, *The Locust and the Ladybird*,[6] is a clever combination of guide book and novel, wherein the course of true love runs almost as smoothly as did the the two cars which gave their names to the book. The story, which is written in the form of letters from a busy doctor in Sydney to his sister at home, gives some entertaining pictures of life in New South Wales; and an additional interest is imparted by the many excellent photographs which illustrate the route followed by a party of motorists in quest of fresh woods and pastures new.

[4] *Kurzgefasste chirurgische Operations lehre für Studierende und Aerzte.* Von Dr. Ad. Oberst, I Assistent an der chirurg. Klinik und Privatdozent für Chirurgie an der Universität Freiburg. Berlin: S. Karger. 1911. (Sup. roy. 8vo, pp. 198; mit 232 zum teil farbigen Abbildungen. M.6.20; bound, M.7.)

[5] *Pharmaceutical Formulas.* By Peter MacEwan, Phar. Chem., F.C.S. 8th edition. London: Offices of the *Chemist and Druggist*, 42, Cannon Street. 1911. (Post 8vo, pp. 1056. 10s. net.)

[6] *The Locust and the Ladybird.* By Archibald Birt (Dr. A. B. Brockway). London: Sampson, Low, Marston and Co., Ltd. 1911. (Demy 8vo, pp. 251, illustrations 31. Price 6s.)

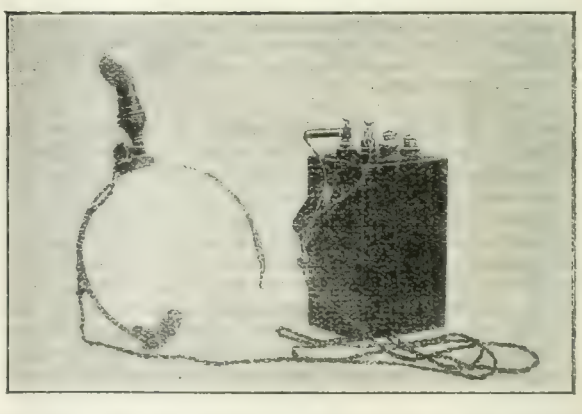
The report of the *Proceedings of the Canal Zone Medical Association*[7] for the half year ending March, 1911, contains some nine papers, each followed by more or less lengthy discussions. Dr. Darling records a case of Oriental sore which originated in Panama itself, and was apparently due to the bite of a tabanid fly. Another is a study by Drs. A. B. Herrick and T. W. Earhart of the bone changes in leprosy, the conclusion drawn being that their characteristic—that is, either progressive distal or concentric atrophy—is of much utility in the differential diagnosis of early cases. Dr. W. E. Deeks gives a brief summary of an investigation by Dr. W. M. James and himself into the etiology of haemoglobinuric fever. It suggests that the condition is due to a ferment generated by all malarial parasites, but only capable of acting as a haemolytic in certain conditions, the precise nature of which remains to be determined.

[7] *The Proceedings of the Canal Zone Medical Association.* Vol. 3, Part 2. Issued by the Quartermaster's Department of the Isthmian Canal Commission, Mount Hope, Canal Zone, Central America. (Medium 8vo, pp. 114.)

MEDICAL AND SURGICAL APPLIANCES.

A Portable Electric Lamp for Retinoscopy.

DR. ALFRED C. NORMAN (House-Surgeon, Sunderland and Durham County Eye Infirmary) has designed a portable electric lamp, suitable for retinoscopy, which he thinks will be found useful in the medical inspection of school children. It has been made from his sketch by Messrs. T. Miller and Co., of 32, Lauriston Place, Edinburgh. It consists of a head band carrying an 8-candle power 4-volt frosted Osram lamp suitable for that purpose. Dr. Norman writes: The diameter of the lamp bulb is 1¼ in.—a size which I have found to give a very sharply-defined shadow. At the base of the lamp-holder is a switch for turning on the current. The connecting cords are long enough to allow of the battery being placed upon the floor behind the patient's chair. The band is so applied to the child's head that the lamp is in the vertical axis of the body, a position which renders retinoscopy of either eye an easy matter. At the anterior end of the head band there is an adjustable hook to receive the



bridge of the trial frames; this prevents the frames from slipping out of place in the case of children with small noses. The whole thing weighs less than 8 oz., and is supplied in a leather case measuring about 8 in. by 6 in. The battery is a 4-volt, 30-ampère hour accumulator, in celluloid case, weighing about 6½ lb., and, when fitted into a wood carrying case, measuring about 4 in. square by 7 in. high. It can be recharged at any garage for 6d. or 9d., but when constant work is to be done it is advisable to have two batteries, so that each can be charged about once a week. I myself have given the instrument a good deal of use, and it has been adopted by an ophthalmic surgeon to one of the county councils. It has so far given complete satisfaction.

The Wassermann Reaction.

Messrs. Burroughs Wellcome and Co. have issued in convenient form and quantity two of the reagents necessary for carrying out the Wassermann test. These are "Wellcome" brand alcoholic extract of guinea-pig's heart (for use as antigen), and "Wellcome" brand haemolytic serum for sheep's corpuscles (for use in the Wassermann and other complement deviation tests).

LITERARY NOTES.

It is announced that it is intended to publish a life of Lord Lister. The President of the Royal College of Surgeons of England, Mr. Rickman J. Godlee, will be glad to receive any letters of scientific interest likely to be of assistance in the preparation of the work. Such documents should be addressed to Mr. Godlee at 10, Wimpole Street, Cavendish Square, W. They will, if desired, be returned after having been copied.

At a meeting of the Royal Institution, held on March 4th, the special thanks of the members were returned to Mr. J. C. Simpson for his present of an original letter from Mr. Riebau, the bookbinder to whom Faraday was apprenticed, giving some account of Faraday's early life.

A new publication, entitled *Annals of Tropical Sanitation*, is to be issued shortly by the Liverpool School of Tropical Medicine. It will be edited by Sir Ronald Ross, K.C.B., F.R.S., with the assistance of Colonel W. G. King, C.I.E., D.P.H., and Professor W. J. Simpson, M.D. It will be published in at least four parts every year. The annual volume will contain at least five hundred pages, and the size of the page will be the same as that of the *Annals of Tropical Medicine and Parasitology*.

At a meeting of the Académie des Inscriptions et Belles-Lettres, held on February 2nd, M. Martha, Professor in the Faculty of Letters of the University of Paris, communicated the results of his long researches on the deciphering and translation of the Etruscan language, to which hitherto no key has been found. Two of the inscriptions deciphered by him relate to medicine. One is somewhat remotely connected with medical practice, and the proposition it expresses would not find favour with many doctors at the present day. It reads as follows: *Fuflunsul pachics vel clthi*, which, according to M. Martha, means, "Wine is the best means of soothing pain." The other, which is written on a leaden plate, seems to be a medical consultation between a healing god and the relatives of an old man of 80 years, who could take nourishment only with difficulty. The remedy ordered is a thick soup made of cereal seeds, washed down with water. We give the statement of the case as translated by M. Martha:

> The father, aged 80 years, feeds himself, alas! in a wretched manner. On account of the weakness which has supervened at the end of the season (or of the disease?) the difficulty is chronic. His food is cut into pieces sufficiently small. Oh supreme majesty! owing to the fact that there is no movement of the jaw the food remains in the obstructed gullet. Alas! by reason of the weakness of the patient, the grandfather walks very awkwardly. As a consequence of two recent falls, alas! the shoulder is a little swollen and the skin is discoloured. His temper, which was good, has become bad, and he gets no refreshing sleep.

Here is the prescription of the divine doctor:

> Be of good cheer. If the powerlessness of the jaw continues: a cereal porridge in sufficient measure. From that moment the act of nourishment will go on well. Should a little morsel accidentally stick in his throat the swallowing of a spoonful of cold water poured in drop by drop will make the passage easy. If the shoulder is swollen and the blood extravasated, let the spot be rubbed with grease and the blood swelling will disappear and the little father will become perfectly amiable.

It is to be hoped that the old gentleman recovered both his power of swallowing and his temper.

There is, perhaps, no more striking feature in the history of the French Revolution than the strange contrast presented by the principal actors of this terrible drama in their public and private capacities. The very men who, as rulers of Paris during the Terror, outrivalled Nero or Caligula in their inhuman ferocity, were for the most part affectionate husbands and fathers, and sedulously practised in the bosom of their families the virtues in which, once away from home, they were so conspicuously lacking. Dr. Charles Esmonet, however, writing in *Le Progrès Médical* for December 9th, 1911, finds an exception to this almost universal rule in the case of Marat, whose blood-stained political career he considers as quite in keeping with his temperament and character as manifested in early life. And yet, like so many of his *confrères*, Marat, until the outbreak of the Revolution, had done nothing to forfeit the right to be regarded as a perfectly upright and honest citizen. His own master since the age of 16, he had wandered half over Europe before he finally settled down to practise in France, and had earned wherever he went the reputation of being an able physician and an honourable man. Part of his prolonged *Wanderjahr* was spent in England, where he lived for ten years and where several of his essays and pamphlets were published; and where, also, he received an honorary degree as Doctor of Medicine from the University of St. Andrews. He appears to have had a flourishing practice in Church Street, Soho; and besides being the inventor of a bougie which he considered invaluable in cases of chronic urethritis, he was extremely successful in his treatment of certain diseases of the eye, thanks to his studies in his favourite sciences—optics and electricity. When, in 1777, he at length returned to France, he sprang at once into fame through his cure of the beautiful Marquise de Laubespine, whom the Court doctors had declared to be dying of consumption, and who was restored to health by a course of Marat's famous "Eau factice antipulmonique," a preparation of lime water and alkali of which the inventor never divulged the secret. This marvellous cure obtained for Marat the post of physician—not "horse doctor," as Carlyle says—to the bodyguard of the King's brother, the Comte d'Artois, and was the means of his gaining an extensive private practice, which he proceeded to turn to the best possible account by charging extremely high fees. He did his work conscientiously, however, and such of his notes as have survived prove that he took great pains over the examination of his patients. But his popularity as a fashionable physician did not last long. From his earliest years he appears to have been of a morbidly jealous and suspicious nature, and a man with whom it was difficult to live on easy terms; and now at the turning point of his career he managed to estrange even the most indifferent of his professional brethren by his discourtesy and his furious diatribes in defence of his own theories. The refusal of the Académie des Sciences to admit him as a member of their body was a cruel blow to his vanity, and little by little he seems to have persuaded himself that he was the victim of the plots and machinations of his colleagues. This mania of persecution coloured the rest of his life. Chance soon gave him the opportunity of avenging first his own and then the people's wrongs, and from persecuted to persecutor was but a step. Like the tiger, Marat, having once tasted blood, could no longer live without it; and it was amidst the acclamations of those whose interests he believed himself to be serving that the execrable "Ami du Peuple," once a cultured and popular physician, perished in the storm which he himself had helped to raise.

The *Chemical World*, the first number of which appeared in January, is intended "to fill a space in the scientific literature of this country which is not at present fully occupied, and present to those interested in the many branches of chemistry an account of progress, in both theory and practice, discussing such other matters as may be expected to influence the future progress of this science." It is edited by Mr. W. P. Dreaper, F.I.C., and published by Messrs. J. and A. Churchill. If we may judge from the contents of the first number, the periodical seems likely to serve a very useful purpose.

Dr. Henry Barnes (Carlisle) asks if any reader can help him to the name of the author of the following lines:

> Glorious your aim, noble is your art
> To war with death and stop his flying dart.
> To trace the source whence the fierce contest grew,
> And life's short lease on easier terms renew;
> But when more powerful ills all efforts brave
> To ease the victim no device can save
> *
> But smooth the lingering passage to the grave.

He adds: "In 1882 I was attending a boy who had a long and distressing illness, during which I had the advantage of a consultation with the late Dr. Hughlings Jackson, and in which, with this help, we had been able

> To trace the source whence the fierce contest grew,
> And life's short lease on easier terms renew;

but when, ultimately, the only thing we could do was to 'smooth the lingering passage to the grave,' I happened to quote some of the lines to the boy's mother in the course of the attendance. She asked me for a copy, which I gave her, and she now writes, after this long lapse of years, to ask me if I can tell her the missing words of the seventh line. I have in vain searched through my library for the quotation, and I shall be grateful if any one can complete it for me, and tell me under what circumstances, and by whom, the lines were originally written."

BRITISH MEDICAL BENEVOLENT FUND.

AT the February meeting of the committee twenty-eight cases were considered and grants amounting to £281 made to twenty-seven of the applicants. Appended is an abstract of the cases relieved:

Daughters, aged 50 and 48, of M.D.Aberd. Means very slender and health indifferent. Voted £2 and application to be reconsidered.

Widow, aged 45, of M.D.Edin. Has been in very poor health since the death of her husband last year, and asks for a little help to meet unavoidable expenses. Voted £5.

Widow, aged 50, of L.R.C.P. Practically unprovided for at husband's recent death after a long illness, but hopes to maintain herself and her children by taking boarders. Voted £10.

L.R.C.P., L.R.C.S.Edin., aged 55. Asks for a little help to tide over difficulties which are quite expected to be temporary. Voted £10.

Widow, aged 46, of M.B., C.M.Aberd. Husband's savings quite exhausted by a long illness ending in death, and, although temporarily earning sufficient to support herself, has incurred heavy expenses owing to the ill health of a daughter, recently deceased. Voted £10.

M.R.C.S., aged 55. Has had bad health for the last ten years and has recently been incapacitated for several months, during which his practice has almost disappeared and unavoidable debts have been incurred. Proposes to make a fresh start in the colonies. Voted £10 towards passage money if emigration is decided on.

Widow, aged 41, of M.B., C.M.Edin. No income; has recently lost her husband after a two years' illness, and has five children to support. Voted £12.

M.R.C.S., aged 84. Only income a small Poor Law pension. Relieved twice, £24. Voted £12.

Daughter, aged 55, of late M.R.C.S. No income, and through failing eyesight is unable to earn more than a few shillings a week, which goes to support not only the applicant but two sisters who are unable to earn their living. Relieved twice, £36. Voted £18.

Daughter, aged 60, of late M.R.C.S. No income, and unable to earn a living on account of a painful deformity. Voted £12.

Widow, aged 56, of L.R.C.P.Edin. No income, and practically dependent on a daughter earning only a few shillings a week. Relieved twice, £20. Voted £12.

Widow, aged 42, of M.R.C.S., L.R.C.P. Since husband's death three years ago has been endeavouring to establish a boarding-house, but has now exhausted her small capital. Three children, aged 13 to 6. Relieved twice, £24. Voted £10.

Widow, aged 52, of L.R.C.S.Edin. No income; endeavours to support herself by nursing, but has no certificate; children unable to help. Voted £12.

Daughter, aged 63, of late M.R.C.S., L.S.A. Supplements a small pension from a charitable society by taking boarders, but finds increasing difficulty in meeting her expenses. Relieved once, £10. Voted £10.

Widow, aged 67, of L.R.C.P., L.R.C.S.Edin. No income, and unable to obtain employment; no children. Relieved four times, £34. Voted £12.

Daughter, aged 37, of late M.R.C.S. Is a nurse by profession, but unable to support herself as such owing to incurable deafness, and is consequently dependent upon uncertain earnings from needlework, etc. Relieved seven times, £63. Voted £10.

M.R.C.S., aged 77. Was appointed doctor to a Medical Aid Association eighteen months ago, but has found it impossible to obtain his salary. Relieved once, £18. Voted £6.

Widow, aged 63, of M.R.C.S. Had a little capital at husband's death some years ago, but lost it in the attempt to establish a boarding-house, and is now quite without means. Relieved once, £12. Voted £12.

Daughters, aged 71 and 64, of late M.R.C.S. Were fairly provided for at father's death, but have lost practically everything through unfortunate investments, and are now living together in a bed-sitting room. Relieved once, £18. Voted £18.

Widow, aged 70, of M.R.C.S. Nursed and supported her husband for several years, and is now dependent for a home on a son-in-law who can ill afford to help. Relieved twice, £20. Voted £10.

Widow, aged 67, of L.F.P.S.Glasg. Has supported herself, with occasional grants from this fund, since her husband's death thirty-eight years ago, but is now dependent on a daughter earning £1 a week as a cashier. Relieved seven times, £72. Voted £12.

Widow, aged 67, of M.R.C.S. Only income a small pension from another charity, and is frequently laid up for months together owing to a chronic affliction. Relieved seven times, £64. Voted £5.

Daughter, aged 61, of late L.S.A. Has supported herself for several years by letting lodgings, but finds increasing difficulties owing to ill health and competition. Relieved three times, £36. Voted £12.

Widow, aged 62, of M.R.C.S. Quite unprovided for at husband's death five years ago, and endeavours to maintain herself by receiving boarders. Children only just self supporting. Relieved once, £12. Voted £10.

Widow, aged 62, of M.R.C.S. Quite unprovided for at husband's death, and dependent on a married son earning a small weekly wage as a shop assistant. Relieved eight times, £94. Voted £12.

Widow, aged 62, of M.R.C.S. No income and health indifferent; children only able to give slight assistance. Relieved thirteen times, £147. Voted £12.

Widow, aged 53, of M.R.C.S. Since husband's death has tried to support herself by taking boarders, and is now in difficulties, which she hopes will be temporary. Relieved twice, £22. Voted £5.

Contributions may be sent to the Honorary Treasurer, Dr. Samuel West, 15, Wimpole Street, W.

THE CARE OF THE RECOVERED INSANE.

THE annual meeting of the After-Care Association, for poor persons discharged recovered from asylums for the insane, was held on February 28th at Queen's Gate Hall, South Kensington, Lord CLAUD HAMILTON, M.P., presiding.

The report of the Council explained that the association had been able to accomplish useful work in finding occupations for persons discharged recovered from asylums. Many of these people were quite capable of following suitable employment, but the anxiety and strain of seeking it for themselves were more than they could undertake at first. During the year applications on behalf of 399 persons were received; of these 221 were women and 178 men. This was a considerably larger number than had been dealt with in any previous year. Some were declined as it was felt they would be unable to bear the strain of ordinary occupations, and therefore did not properly come within the scope of the association's work. An increasingly large number of those who had been assisted, it was gratifying to note, had repaid the whole cost of their outfit or had sent donations. The association had received in subscriptions during the year £1,353 11s., and had expended £942 7s.

The CHAIRMAN spoke in commendation of the work the After-Care Association was doing throughout the country. It was surprising how much was done with the limited income at the disposal of the association. The difficulty of obtaining employment for persons regarded as "tainted with lunacy" must be considerable, having regard to popular prejudices, but it was to be hoped that the public would gradually come to realize that it did not follow, because a person had been at one time in an asylum, that a recurrence of the disorder was to be expected.

Dr. PERCY SMITH, in moving the adoption of the report, described the organization by means of which the association carried on its work, and gave particulars of a number of typical cases which had been helped. He said that if the association had not lent a helping hand these people would have found the greatest difficulty in starting life again.

Dr. C. HUBERT BOND (a Commissioner in Lunacy), in seconding, remarked that among the many factors that caused a patient to break down and require attention, the one that stood out most numerously—perhaps not most importantly—was worry; and of all the varieties of mental worry, lack of employment and its attendant stress was the most prominent. Therefore the association was doing a very important and useful work. It was a godsend to those responsible for the care of the patients in asylums, when they were endeavouring to replant a patient in the world, to know that if no friends of the patient were available the After-Care Association was ready to afford assistance.

The SECRETARY (Mr. H. T. Roxby) appealed to medical superintendents of asylums to become members of the association, and to avail themselves of the organization it provided.

The report was adopted. The re-election of the officers of the association was proposed by Dr. DIXON (Leicester Infirmary), who remarked that the opinion was sometimes expressed that the State, having undertaken the care of the insane, would also make itself responsible for assisting recovered cases to resume the battle of life. For such cases as that, however, personal influence and sympathy were needed, and the After-Care Association through its workers was better able to deal with these people than any State organization in which the personal element necessarily was more or less subordinated. Mr. B. T. HODGSON (a Commissioner in Lunacy) seconded, and the officers were re-elected.

The meeting concluded with a vote of thanks to the Chairman and to Dr. and Mrs. Marriott Cooke, who entertained the members of the association to tea after the meeting.

LONDON SCHOOL OF CLINICAL MEDICINE.

THE annual dinner of the London School of Clinical Medicine (Post-graduate), which is in association with the Seamen's Hospital, Greenwich, was held at Prince's Restaurant, on Friday, March 1st. Vice-Admiral His Serene Highness Prince LOUIS OF BATTENBERG, G.C.B., G.C.V.O., K.C.M.G., was in the chair, and was well supported by a numerous and influential gathering. Over 170 guests were present. Amongst those present were:

Sir Thomas Barlow, Bart., President of the Royal College of Physicians; Mr. Rickman J. Godlee, President of the Royal College of Surgeons; Surgeon-General Sir James Porter, K.C.B., Director-General of the Medical Department of the Navy; Surgeon-General Sir W. Launcelot Gubbins, K.C.B., M.V.O., Director-General of the Army Medical Service; Surgeon-General Sir Arthur Branfoot, K.C.I.E., President of the Medical Board of the India Office; Admiral Sir John Durnford, K.C.B., D.S.O., Chairman of the Commission on the Medical Service of the Royal Navy; Admiral Sir Frederick Fisher, K.C.V.O.; Admiral H. W. Savory, M.V.O.; General the Hon. Sir Reginald Talbot, K.C.B.; Admiral Swinton Holland; Commander G. Hodgkinson, R.N.; Captain A. W. Clarke; and Mr. C. T. Orford Members of the Board of Management of the Seamen's Hospital Society; Sir Henry Burdett, K.C.B., K.C.V.O.; Mr. H. J. Read, of the Colonial Office; Mr. H. F. Heath, C.B., of the Board of Education; Sir Robert Burnett, Sir Frederic Hewitt, M.V.O.; the Hon. Robert H. Lyttelton; Mr. L. A. Bidwell, Dean of the West London Post-Graduate College; Mr. Raymond Johnson; Mr. H. R. Oswald, Coroner for Greenwich; Colonel F. L. Stephenson, C.B.; Lieutenant-Colonel Scanlan; Colonel C. H. Hartt, R.A.M.C., V.D., C.B.; Staff Surgeon C. A. Gayer Phipps, R.N.; Fleet Surgeon R. J. MacKeown, R.N.; Staff Surgeon T. H. Vickers, R.N.; Staff Surgeon A. McCloy, R.N.; Dr. Melvin Graham; Fleet Surgeon P. Bassett-Smith, C.B., R.N., Professor of Bacteriology in the new Naval School; Fleet Surgeon A. Gaskell, R.N., Director of Study and Professor of Hygiene in the new Naval School; Professor W. J. R. Simpson, C.M.G., Lecturer on Tropical Hygiene, London School of Tropical Medicine; Major E. M. Pilcher, D.S.O., R.A.M.C., of the Royal Medical College, Millbank; Dr. Batty Shaw, Dr. York Moore, Dr. F. E. Batten, Mr. Arnold Lawson, Dr. E. D. Macnamara, Dr. A. Butler Harris, Dr. M. G. Biggs, Dr. M. Handfield Jones, Dr. D. Freshwater, Dr. J. H. M. MacLeod, Dr. S. Ernest Dore, Dr. Squire Sprigge, Mr. P. Michelli, C.M.G., Mr. Ralph Glynn, Dr. L. Knuthsen, Dr. David Somerville, Dr. F. E. Taylor, Mr. Herbert Appold Grueber (British Museum); Dr. J. B. Mackenzie, Dr. Kenelm Digby, Dr. C. F. Stebbing, and Dr. Albert Pryse. The staff of the Dreadnought Hospital and the London School of Clinical Medicine was represented by Sir Dyce Duckworth, Sir William Bennett, K.C.V.O., Dr. Frederick Taylor, Sir John Rose Bradford, K.C.M.G., Dr. Guthrie Rankin, Professor R. Tanner Hewlett, Mr. W. Turner, Dr. Russell Wells, Mr. G. N. Biggs, Dr. Wm. Steuart, Dr. Arthur Davies, Mr. R. D. O'Leary, Dr. M. Mackinnon, Mr. E. Rock Carling, Mr. L. V. Cargill, Mr. Richard Lake, Mr. C. C. Choyce, Dean of the London School of Clinical Medicine; Mr. Henry Curtis, Mr. A. J. Walton, Mr. R. E. Bickerton, Dr. W. Fox, Dr. Frederick Langmead, Dr. Gordon Holmes, Sir James Mackenzie Davidson, and Dr. D. W. Carmalt-Jones, formerly members of the staff. The Royal Waterloo Hospital for Children and Women, one of the hospitals affiliated to the school, was represented by Dr. Septimus Sunderland, Dr. W. J. Gow, Mr. H. Pendlebury, Dr. Herbert Williamson, and Dr. T. D. Lister.

After the usual toasts had been duly honoured, the CHAIRMAN proposed "The School." He said: The London School of Clinical Medicine was founded in the year 1906 for the purpose of affording post-graduate students an opportunity of bringing themselves into touch with the most recent developments in medicine and surgery. It was felt that at the Dreadnought Hospital there existed a large supply of clinical material that was lost to medical education, whilst at the same time there was a necessity in London for the further extension of post-graduate teaching. Accordingly the committee of the Seamen's Hospital Society was approached, and, its sanction having been given, the school was founded. It being necessary for the purposes of the school largely to augment the number of members of the honorary medical staff so as to provide additional teachers, the movement readily attracted to itself some of the leading physicians and surgeons of the day, who were gladly welcomed by the then existing staff of the hospital. During the first year's work of the school 68 students attended, mostly, however, for isolated classes, especially in operative surgery. The work has steadily increased from that time onwards, until now most of the students come for many classes, as well as for the operative surgery and clinical teaching of the hospital. Since the school opened in May, 1906, 560 students have been enrolled, and in a number of cases the student has attended more than one session of the school, thus demonstrating his opinion of its efficiency. The students are composed of all classes of medical men, and have included many practitioners in the near neighbourhood of the hospital. Others have come from all parts of Great Britain and Ireland, and already students have been enrolled from Canada, the United States, Peru, Nicaragua, Chili, Brazil, the Argentine, Spain, Greece, Holland, Germany, France, India, Burma, Assam, China, Straits Settlements, Australia, New Zealand, and South Africa. In addition, the school has been well attended by members of the medical services. Numerous R.A.M.C. and I.M.S. and Colonial Service officers have been students, either before or after their entrance to the service. From the very first, naval surgeons seconded for study have availed themselves of the advantages offered by the new school, and within the last eighteen months, owing in large measure to the action taken by the Durnford Commisssion, acting in conjunction with the present Director-General, Sir James Porter, systematic courses of instruction have been afforded to naval surgeons, and have been attended by from twenty to thirty officers annually. It is hoped that in the future an even closer relationship will be established with the Naval Medical Staff following upon the establishment of the new Naval Medical School at the Royal Naval College in Greenwich. The committee and staff of the school are anxious to do all in their power to co-operate with the naval authorities to make the new Naval Medical School a success, and they hope to be permitted to contribute much of the clinical and other instruction necessary to make the curriculum complete and up to date. The close neighbourhood of the Dreadnought Hospital to the Royal Naval College should prove convenient to the students of the Naval Medical School, and every effort will be made to meet their requirements and to provide them with the clinical opportunities which their service requires. The teaching in the London School of Clinical Medicine is in some respects unique, and the instruction afforded is particularly applicable to surgeons in the Royal Navy, because the class of patients admitted to the Dreadnought and the diseases treated there are identical with those met with in the Royal Navy. The Dreadnought Hospital and the Clinical School provides one of the most complete courses of instruction in operative surgery in the kingdom. This is so fully appreciated that the demand is greater than the resources of the school can meet, because it stands alone amongst the medical schools of Great Britain and Ireland in the facilities it possesses for practical instruction in this department of surgery. The clinical material and teaching opportunities of the school are augmented by the affiliation of certain hospitals and the assistance of extramural teachers: thus, the Waterloo Hospital for Children and Women, the General Lying-in Hospital, York Road, and the Bethlem Hospital for Mental Diseases are attached to the school, and teaching is given by numerous members of their staffs. In addition, the Royal Eye Hospital, Southwark, and the London School of Tropical Medicine grant a reduction of fees for students coming direct from the clinical school, and recently some members of the staff of the Miller Hospital at Greenwich have, at the invitation of the School Committee, joined our group of extramural lecturers. The Dreadnought Hospital is especially interesting to naval officers in that, as is most appropriate in a hospital devoted to the interests of the seamen of the Mercantile Marine, the Admiralty has found a home for the principal hospital of the society since its establishment in 1821, first by providing vessels afloat and subsequently by placing at the disposal of the society the old infirmary of Greenwich Hospital. In this building, which has gradually been so extensively altered as to become a modern and fully equipped hospital, the work is now carried on, under the title of the "Dreadnought"—a name which is derived from one of the old wooden fighting ships which formerly served as a floating hospital in the Thames. From what has been said it will be seen that this valuable School of Medicine, like its sister establishment the Tropical School, could not have existed without the kindly co-operation and assistance of the Board of Management of the Seamen's Hospital Society. This body, under the Chairmanship of Mr. Perceval A. Nairne, has taken a deep interest in the formation of the schools, and has

advanced their interests in every way in its power. The hospitals are charitable institutions, supported by a generous public. Every one who realizes what the nation owes the men of the Mercantile Marine should contribute to the maintenance of such excellent and necessary institutions, and although this is not an occasion upon which it is desired to make an appeal for money, it may be hinted to those who are generously disposed, that an addition to the financial resources of the Seamen's Society would be more than welcome, and would assist both the development of the Clinical School and the capacity for increased usefulness of the old Dreadnought Hospital. The medical profession recognizes with gratitude the co-operation and assistance of the Board of Management of the Seamen's Hospital Society in placing the opportunities which the charity affords in the matter of medical education at their disposal.

The toast was responded to by Sir MALCOLM MORRIS, who said the dinner was unique in the numbers present, in the distinction of the guests, and especially in the honour conferred on the school by the presence of Prince Louis of Battenberg in the chair. Speaking of the school and the Dreadnought Hospital, he drew a vivid contrast between the state of things which prevailed in hospitals when he was a house surgeon and their present condition, a revolution due to the genius of the great man who had just passed away, Lord Lister. He referred to the fact that the great advances in surgery coincided more or less closely with the immense changes that had taken place in the navy. After a graceful allusion to the honour that had been conferred on Sir James Mackenzie Davidson, he concluded by paying a tribute to the work done by the Dean, Mr. Choyce, and the Secretary, Mr. Michelli.

The toast of "The Medical Services," including the Naval Medical Service, Royal Army Medical Corps, Indian Medical Service, Colonial Medical Services, which also represents the West African Medical Service, was proposed by Captain A. W. CLARKE. He said that in proposing this toast he would reserve to the last any remarks he might make upon the medical department of the Senior Service. The army had its own medical school at Millbank under the leadership of Surgeon-General Sir Launcelot Gubbins, and military surgeons as a rule returned to their own school for post-graduate study. In addition, however, a fair number of officers had exhibited their keen desire for additional work by taking out classes at the Dreadnought, especially when stationed in its neighbourhood. Some of them had added to the facilities supplied to them at Millbank by taking extra classes of operative surgery with the teachers at the Dreadnought. They were always very welcome visitors to the school. The Indian Medical Service, on the other hand, had no school, and officers on study leave sought those centres of study in which individual members of the corps desired to specialize. The clinical school opened a vast field in which it was possible for the officers of that service to avail themselves of study under many of the leading surgeons and physicians of the day. Arrangements had been made by the Medical Board of the India Office, which was presided over by their most distinguished guest, Sir A. M. Branfoot, and as a result many of his officers had come to the school and availed themselves of the advantages it afforded. The authorities of the school were glad to find that the number of Indian Medical Service officers steadily increased, and hoped that this meant that the work provided in the school met their special needs. The Colonial Medical Service, the greater part of which consisted of the West African Medical Service, was administered from the Colonial Office, and no one, said the speaker, took a deeper interest in that particular branch of the work than his colleague on the Board of Management of the Seamen's Hospital Society, Mr. H. J. Read. The whole of the medical officers who were under the Colonial Office were afforded from time to time opportunities for post-graduate study, and a large number of them came to the schools of this society. Special arrangements were made by which those who applied might be seconded for instruction in ordinary diseases in the Clinical School. Here, again, he was glad to learn, the officers of this service were showing an increasing tendency to join the school, and to rub medical and social shoulders there with the civilian practitioner student as well as with officers of other services and with the members of the staff. The medical officers of the Senior Service he had left to the last, as he desired to finish his speech in coupling with it the name of the present Director-General. As they had already heard from His Serene Highness, a most important departure had been made in the establishment of a new Naval Medical School at Greenwich, and he (Captain Clarke) did but re-echo the opinions already expressed in attributing to Sir James Porter the success with which this school was approaching completion. He was not unmindful that this school was the outcome of the Commission which had lately sat under the chairmanship of Sir John Durnford, also, he was pleased to say, one of his colleagues on the Board of Management of the Seamen's Hospital Society. He took that opportunity, on behalf of the Board of Management of that great corporation, to express their sincere satisfaction that the new school would be so closely allied to the largest of the hospitals of the society—the Dreadnought Hospital at Greenwich. He further desired to assure the Admiralty that the Board of Management of the Seamen's Hospital Society was most anxious to facilitate in every way in its power the working arrangement between the new Naval Medical School and the Hospital, which it was hoped and believed would be greatly beneficial to the Naval Medical Service. The committee of the Seamen's Hospital Society also believed that the new arrangements would serve the interests of that great charity for which the Lords of the Admiralty had always found a home.

The toast was responded to by Sir JAMES PORTER, who said that although they would before long have a Naval Medical College at Greenwich, they would still have to lean heavily on the Dreadnought.

Sir JOHN ROSE BRADFORD proposed "The Guests" in a felicitous speech; the toast was acknowledged by the PRESIDENTS OF THE ROYAL COLLEGES, both of whom spoke of the value to the nation of the health of our sailors and of the valuable services rendered by the school in spreading and advancing knowledge in that direction.

The "Health of the Chairman" was proposed by Mr. WILLIAM TURNER, who spoke of the valuable inventions in naval engineering which the country owed to Prince Louis of Battenberg.

The CHAIRMAN, in acknowledging the toast, said that when he, with some diffidence, accepted the post of First Sea Lord he found that the medical service was within his official province. But he was encouraged by the fact that he had at his right hand his old shipmate, Sir James Porter. He spoke of the importance of the work done by the medical officers who belonged to the noblest of all professions, and said it was a great satisfaction to him to be the President of so important an institution as the London School of Clinical Medicine.

ROCKEFELLER INSTITUTE FOR MEDICAL RESEARCH.

AN account of the history, organization, and equipment of the Rockefeller Institute for Medical Research has recently been issued. It gives a full description, with plans, of the various buildings; here we can only give a bird's-eye view of the institute, its aims, and the means by which it is hoped to attain them.

The Rockefeller Institute for Medical Research was founded in 1901, and was incorporated under the laws of the State of New York. The first Board of Directors consisted of Professors W. H. Welch, T. M. Prudden, C. A. Herter, L. E. Holt, Dr. Hermann Biggs, Professor Simon Flexner, and Professor Theobald Smith. In 1908 the charter was amended by an Act of Legislature increasing the powers of the corporation, and enlarging the scope of its activities. The objects were set forth as being to conduct, assist, and encourage investigations in the sciences and arts of hygiene, medicine and surgery, and allied subjects, in the nature and causes of disease and the method of its prevention and treatment, and to make knowledge relating to these various subjects available for the protection of the health of the public, and the improved treatment of disease and injury. The corporation was empowered to use "any means to those ends which from

time to time shall seem to it expedient, including research, publication, education, the establishment and maintenance of charitable or benevolent activities, agencies or institutions appropriate thereto, and the aid of any other such activities, agencies, or institutions already established, or which may hereafter be established." At a meeting held on October 15th, 1910, the corporation adopted by-laws, and created a Board of Trustees and a Board of Scientific Directors. The functions of these two boards were respectively to hold the property of the institute, and to control the scientific work supported by the annual income.

The affairs of the institute were managed by the original board of directors from 1901 until 1910, when, without change of *personnel*, the board became the Board of Scientific Directors in the reorganized corporation. The financial establishment of the institute was secured in 1901 by the pledge of Mr. John D. Rockefeller that he would give the sum of £40,000 for the support of the institute during a period of ten years. At the end of the first year, Mr. Rockefeller promised the additional sum of £200,000 toward the building of a laboratory and the support of the work for the next nine years. From 1901 to 1904 the funds of the institute were applied only in the form of grants to support the work of investigators in different parts of the world. In 1904, anticipating the completion of its own laboratory, the institute leased a small building, formerly a part of the Nursery and Child's Hospital, at No. 127, East Fiftieth Street, and gave it a simple equipment for research in pathology, physiology, and chemistry. Here the first investigations conducted by the institute were begun, under the direction of Dr. Simon Flexner, who had been elected Director of the laboratories of the institute in 1902. In October, 1902, Mr. Rockefeller gave a site for a larger institute, the cost of which was about £60,000. The formal opening took place on May 11th, 1906. In 1907 the work of the institute was placed on a permanent basis by a gift from Mr. Rockefeller of nearly £525,000 as an endowment fund. In 1910 the scope of the institute was still further extended by the addition of a hospital and isolation pavilion. Mr. Rockefeller gave a sum of £730,000, and in 1911 he gave £185,000 more, as an additional endowment to support the enlarged activities of the institute. In 1907 a farm of about 100 acres with buildings was acquired in Clyde, New Jersey, as a place for the breeding and care of laboratory animals and the supply of farm products.

The authorities of the institute believe that the use of animals for the purpose of advancing the knowledge of disease, its prevention and cure, is well justified on the grounds of humanity and necessity. They also believe that whenever the sacrifice of any animal is required by the welfare of human beings, or of the lower animals, that sacrifice should be exacted with the least possible infliction of pain or distress consistent with the attainment of the object in view. Members of the scientific staff are required to conform to this standard in all operations upon animals, and the chief of each laboratory is held responsible for the actions of his assistants in this regard.

The institute is composed at present of the laboratories and the hospital, the work of which is unified. Their common aim, and the connexion of the different buildings with each other, often admits of the same problems being studied both in their biological or pathological and in their clinical aspects. In the organization of the scientific staff of the institute, the principle has been recognized that the ultimate purposes of medical research and discovery may be greatly served by the study of biological and chemical problems that, as such, may appear remote from medical applications. The laboratories are subdivided as follows: Pathology and bacteriology, chemistry, physiology and pharmacology, experimental biology, experimental surgery. The capacity of the hospital is about seventy beds.

The work at any one time is confined to selected cases that bear upon a limited number of subjects chosen for investigation. The subjects chosen in the first year were acute lobar pneumonia, acute anterior poliomyelitis (infantile paralysis), syphilis, and certain types of cardiac disease.

The Director issues bulletins from time to time informing physicians of the diseases chosen for investigation. While making the fullest use of its opportunities for observation and study, the institute recognizes at all times the paramount right of the patient to receive the most effective treatment within the power of the attending physicians.

Under the By-laws of the Corporation no charge can be made to persons treated at the hospital for professional care or service rendered or for board and lodging. All discoveries and inventions made by any person while receiving compensation from the Institute become the property of the Institute, to be by it placed freely at the service of humanity in accordance with the beneficent purposes of the founder.

The Journal of Experimental Medicine, which was conducted by Dr. William H. Welch at Johns Hopkins University from 1896 to 1905, has been published since the latter date under the auspices of the institute. Since the beginning of 1911 it has been published monthly. It is designed to cover the field of experimental medicine, and is a medium for the publication of work conducted in the laboratories of the institute, or elsewhere under its grants. The *Journal* also accepts contributions of a suitable character from other sources. Under the title *Monographs of the Rockefeller Institute for Medical Research* are published from time to time scientific papers which are so extensive, or require such elaborate illustrations, as to render them unsuitable for current periodical issues. The *Monographs* are published at irregular periods, determined by the available material on hand. The published results of investigations conducted in the laboratories of the institute, or under its grants, are assembled at irregular intervals and bound into volumes designated *Studies from the Rockefeller Institute for Medical Research*.

SCIENCE NOTES.

THE possibility that glass can be penetrated or permeated by certain vapours is a question that has engaged the attention of chemists for some time. At first sight the idea seems opposed to our general notions of things chemical and physical. Of course we are familiar with the fact that certain "vapours," such as hydrofluoric acid, attack glass, while, on the other hand, certain radiations, such as those of light, heat, etc., penetrate glass without difficulty, but it is off the line of general experience and observation to find that the vapours of iodine and bromine are able to penetrate glass, in minute quantity it is true, but to a certain extent nevertheless. The fact was demonstrated by exposing silver foil to the action of bromine, a thin sheet of glass intervening. The degree of penetration was found to be very variable, in some cases as much as 10 mg. of bromine being recovered, in others only 0.1 mg. The permeability was found to be greater when the glass was in the crystallized state. For this note we are indebted to *La Nature* (January 6th, p. 85), which treats the matter very briefly.

MOTOR CARS FOR MEDICAL MEN.

MOUNTAINEER asks any medical man in a hilly country, such as Cornwall or Devonshire, to advise him as to the choice of a car. "I should prefer," he writes, "a small four-seated, with three speeds forward and reverse, gate change, Bosch magneto, etc.; but I want one I can rely on, that will last well, and be fairly cheap to keep up."

THE following figures from the third annual report of the Ayrshire Sanatorium, 1911, are of interest. The phthisical cases admitted from July, 1906, to March, 1911, amounted to 295; 216 of these are tabulated according to the stages of Turban-Gerhardt. Ninety-five of these cases were females, 35 in the first stage, 26 in the second, and 34 in the third; 53 are working, 11 are alive but not working, and 31 are dead. Of the 53 working, 29 were admitted in the first stage, 14 in the second, and 10 in the third. Of the cases that died, 3 were admitted in the first stage (1 died of acute pneumonia), 8 in the second stage, and 20 in the third. Of the 124 male patients, 31 were admitted in the first stage, 42 in the second, and 51 in the third. Fifty-one of these are working—26 admitted in the first stage, 16 in the second, and 9 in the third; 13 are alive but not working, and 57 are dead. Of these latter, 4 were admitted in the first stage, 19 in the second, and 34 in the third stage. An analysis of these figures shows, what is well recognized, (1) that the earlier the disease, the better the chance for the individual; (2) that advanced disease is more fatal in men than in women.

British Medical Journal.

SATURDAY, MARCH 9TH, 1912.

THE DREADNOUGHT POST-GRADUATE SCHOOL.

Elsewhere will be found an account of the annual dinner of the London School of Clinical Medicine. Several causes combined to make the occasion one of exceptional interest and importance. The presence of the First Sea Lord, His Serene Highness Prince Louis of Battenberg, in the chair, gave a stamp to the school of which he is now the President which may almost be counted as an official approval on the part of the Admiralty. Another significant feature was the presence of Admiral Sir John Durnford, Chairman of the Commission on the Medical Service of the Royal Navy. The approval of the services was expressed by the presence of the heads of the three great departments, and that of the medical profession by the presence as guests of the Presidents of the Royal College of Physicians of London and the Royal College of Surgeons of England; this was further emphasized by the presence of many leading physicians and surgeons. Altogether the gathering was a remarkable one, and marked in a striking manner the position which the school has already won for itself in the few years of its existence.

It is needless to rehearse the history of the school; this has already been done in the Journal, and it was admirably summarized in the speech of the Chairman. Since it was opened, in May, 1906, between five and six hundred students have passed through its classes, and it is a testimony to the value of the instruction which it gives that men come there from the most distant parts of the world, as well as from the United Kingdom. It must be peculiarly gratifying to the management and to the medical staff—one of the most brilliant in London—that the value of the school is recognized by practitioners living in its neighbourhood, who take advantage of the large opportunities which it offers of keeping their knowledge abreast of medical progress. By the foundation of the School the Seamen's Hospital Society—to which those who go down to the sea in ships, and the nation, for whose welfare they face every hardship and danger, are already under such heavy obligations—has greatly expanded the scope of its noble work for the benefit of humanity. There have been many difficulties in the way, but these have been overcome by the tact, business capacity, and goodwill of those who have represented the society in the negotiations they have conducted.

The Chairman referred to the establishment of a Naval Medical College at Greenwich. This is the outcome of a recommendation made in the report of the Commission of which Admiral Sir John Durnford was chairman. We may remark in passing that the jealous secrecy with which that report has been kept from the public naturally engenders the suspicion that the Government does not intend to give full effect to its recommendations. We hope that medical members of Parliament will press for its publication. It may not be rash to conjecture that the pigeon-holing of a report which was expected to have a powerful effect in improving the condition of the medical officers of the navy and increasing the efficiency of the service is one of the reasons why that service has recently failed to attract a sufficient number of suitable candidates.

The Naval Medical College, the proposed formation of which was announced in the Journal of October 28th, 1911, will probably be opened in September next. Besides providing quarters for acting surgeons for the first two months of their course, it will supply courses of instruction in bacteriology, hygiene, clinical pathology, and skiagraphy. It will also provide quarters for surgeons who are preparing for the examination for the rank of staff surgeon. These officers will be required to attend courses on the subjects mentioned, but will also be called upon to study the various clinical subjects required for the examination, and for this purpose the Naval Medical College, as Sir James Porter stated, will have to lean heavily on the London School of Clinical Medicine, which, with its own staff and those of the hospitals affiliated to it, will give them opportunities of clinical and practical work they could not otherwise enjoy. The Dreadnought has for many years had no rival in London in the field which it offers for practice in operative surgery on the dead subject. Now it is fully equipped in all other departments as a post-graduate school of the first rank. Lest its connexion with the new Naval Medical College should cause confusion, we wish to lay stress on the fact that the London School of Clinical Medicine opens its doors to practitioners of every kind who wish to furbish up their professional knowledge. It receives medical officers of the army and of the Indian and Colonial Services; that is to be taken as a proof not that it has any exclusively "service" character, but that the value of the teaching given is recognized by men to whom post-graduate instruction is in a peculiar degree necessary. But it should be distinctly understood that it is what the French appropriately call an *école de perfectionnement* in the largest sense for civilian practitioners. The mingling of the diverse elements which compose the School is of itself calculated to enlarge the mental outlook and to widen the sympathies of all.

To every one interested in the advance and diffusion of medical knowledge, with which the welfare of the nation is so closely bound up, the development of the London School of Clinical Medicine must be a matter of keen satisfaction. To the civilizing influence of medicine the British Empire largely owes its existence, and in the growth of knowledge that will enable us to combat disease in climates where the white man still too often finds a grave, mainly lies the hope of the consolidation of that empire. Hence the whole nation has reason to be grateful to the London School of Clinical Medicine and the affiliated institutions which complement its work. To the nation, therefore, it may fittingly appeal for support.

To the profession it makes a special appeal. One of the most striking features in the advance of modern medicine is the evolution of the post-graduate school. It used to be unkindly said of the clergy *initium sermonum finis studiorum*. This cannot be said of the doctor, in whom burns at once what Huxley called the divine thirst for knowledge and the enthusiasm of humanity. It is this thirst and this enthusiasm that lead men to the post-graduate school. Here we wish to touch very delicately on a point which was carefully avoided by all the speakers the other night—the shadow of the Insurance Act hung over them all. But it is a point that must be faced. It is certain that if that Act stands unaltered, the hospitals will be seriously crippled in their power to

afford relief to poor sufferers. The out-patient department will no doubt be the first part of their organization to be retrenched. Before the passage of the Act this contingency might have been regarded by many doctors with philosophic fortitude. But the operations of the Act must change the situation. Unless the administrators of hospitals find it financially possible to maintain the out-patient department for purposes of consultation, the efficiency of post-graduate schools must be seriously impaired. On the maintenance of a high standard of efficiency in the medical profession depends the health of the people. One of the most important factors in maintaining this efficiency is the post-graduate school. If this were to be crushed out by the weight of the Insurance Act, it is not only the poor who would suffer from the lack of opportunities for practitioners to keep themselves thoroughly posted in the latest advances of science; the well-to-do would also be affected, directly or indirectly, by the disadvantages that must follow professional deterioration. We commend this consequence of hasty and ill-considered legislation most earnestly to the attention of those who are charged with the administration of the Act.

THE THESIS.

In the Middle Ages the thesis held a large place in the acts necessary for graduation. Later it became a formality which sometimes degenerated into a farce—a matter one cannot be surprised at when one notes the subjects that were sometimes offered. To take a few examples from the University of Paris in the seventeenth century—we find such subjects discussed before the Faculty as the following: *An quartanae curandae conveniat ebrietas?* (1658); *Utrum Tobiae ex piscis felle curatio naturalis?* (1668); *An qui mel et butyrum comedit, sciat reprobare malum et eligere bonum?* (1670); *Ex qua parte manaverit aqua, quae profluxit e mortui Christi latere perforato lanceae acuto mucrone?* (1692). Then there came a time when the thesis became a product of a special market. In Germany, as we learn from Fischer in his *History of Surgery*, there was in many of the universities in the eighteenth century a regular trade in theses, and there seems to have been a regular tariff. For instance, for a small fee an ordinary thesis in more or less doggy Latin could be got, and the price increased according to the quality of the Latin, the highest "quotation" being for a dissertation in Ciceronian Latin with original observations, if required, and perhaps drawings. In Edinburgh, towards the end of the same century, the writing of Latin theses was a recognized industry. It is said that John Brown, the famous author of the Brunonian System, for some time made a living by writing theses for candidates for the M.D. degree.

The modern French theses vary immensely in quality, being sometimes the medium chosen by a celebrated teacher for the conveyance of his doctrine, sometimes very bald compilations of historical matter having comparatively little relation to medicine. Of the former type we may mention a series by the pupils of Nélaton, who wrote very little in his own name, but was content to have his results and doctrines promulgated by his pupils. Of late years the standard of the thesis has risen considerably in this country, and London has followed the lead of the older universities in requiring an original thesis for some of its higher degrees. Dr. H. D. Rolleston, of St. George's Hospital, has published a little essay which should be of great value to those who have to write theses.[1] It is so agreeably written that it can be read with pleasure even by those who have not to face the ordeal for which it is a preparation. It is interesting to read that the rule which enjoined that theses should be written in Latin was relaxed at Cambridge only so recently as 1858. The objects of a thesis, says Dr. Rolleston, are: "To show how far the mind has been trained. To stimulate the mind, and to make the candidate think, so that he may be qualified not only to deal with problems, but to report logically and intelligibly on what he has observed." He adds that "although it is not a necessary part of every medical man's life to write papers on medical subjects, the elaboration of a thesis if taken seriously is a valuable, though brief, education in this method." Here, of course, it is assumed that the candidate always writes his own thesis; and probably the defence of the thesis in the technical sense against all objectors was a precaution against vicarious thesis writing. We have known of this defence being arranged between a candidate and his official opponents. This was in a foreign university, and the performance was carefully rehearsed beforehand. Dr. Rolleston quotes from Dr. W. W. Keen some practical hints likely to be useful to writers of theses. The distinguished Philadelphia surgeon recommends that when a journal is read its contents should be catalogued for future use by cross entry under various heads. "Thus a case of perforation of popliteal artery by a splinter of bone in fracture of the femur should be indexed under artery, popliteal, perforation of, etc., and under femur, fracture of, perforation of artery, etc. In this way material is stored up for future articles on the causes of perforation of the popliteal artery and on the complications of fracture of the femur." By adopting this method a methodical man could, says Dr. Rolleston, be prepared to write a more or less interesting article on any subject provided it has an accessible literature.

Although Dr. Rolleston's suggestions mainly concern Cambridge, they are likely to be useful to candidates at other universities. In regard to finding a subject, he suggests that from the early days of working in the hospital notes of a suitable subject, such as might be afforded by the occurrence of two or more examples of a rare disease, or of an unusual symptom or complication in a common disease, should be made, and this material could be utilized as a text of statistical study. He insists that the work necessary for a thesis should be begun as soon as possible, for though it is comparatively easy to write while in constant touch with a hospital, it is difficult in private practice. Speaking of the choice of a title, he gives examples of good and bad titles. Indefinite titles, such as "on gastric ulcer" and the like, are inappropriate as they are too comprehensive. We venture to hint that the same remark applies to writers of papers for journals.

A thesis should contain evidences of research of some kind or another. This may be some problem of clinical medicine, pathology, or bacteriology, or a statistical investigation, or an analysis of a group of cases with a review of current opinion. It should not be merely extracted from textbooks, but must have some basis of cases or other evidence of investigation on the part of the writer. When the title has been settled, the candidate should read up the subject and make notes of everything he can find bearing on the matter. The literature can be looked up by reading a full and standard article and utilizing the references. The Paris theses have bibliographies at the end, but far better sources not mentioned by Dr. Rolleston are the great French dictionaries of medicine. For those who may aim at dazzling the examiners by

[1] *On Writing Theses for M.B. and M.D. Degrees.* London: John Bale, Sons, and Danielsson, Limited.

a display of erudition there is Ploucquet's monumental but little-known work, which is a mine of wealth in the way of medical references up to the year 1800.

The Index Catalogue of the Surgeon-General's Library is another useful source. From the notes obtained from a survey of the literature a scheme of the points to be investigated in the cases which are to form the basis of the thesis should be drawn up. Then the notes of fifty or a hundred cases in the registrar's record or in the *post-mortem* book should be abstracted.

Into the details of arrangement and so forth we need not follow Dr. Rolleston. Something, however, may be said about references. The writer of a thesis or a paper cannot be too scrupulously careful in regard to this matter. An error in a date or a name may cause endless trouble to conscientious persons who follow on the writer's footsteps. We have known a laborious search end in a discovery akin to that of the scholar who held that Homer's works were not written by him, but by a man of the same name. We have known a man turned, in the process of transcription, into a museum. After every possible trouble has been taken, the printer's devil will, out of mere malice, change a 6 into a 9 or vice versa, thus throwing the seeker after truth off the track. Lastly, the advice of the dying Oxford scholar, "Verify your references," should never be forgotten. One will then learn to what extent an error may be copied from one textbook to another, becoming disfigured on the way till the original fact or statement is unrecognizable. Every bibliographical searcher at all thorough in his work must have had this experience. It reminds one of the famous example of derivation perpetrated, if we remember aright, by Ménage, who traced the name of Gradasso's horse Alfana (in Ariosto's *Orlando Furioso*) to *equus*. On this piece of perverted etymological ingenuity the following epigram was written:

Alfana vient d'*equus* sans doute
Mais il faut avouer aussi
Qu'il a bien changé en route.

THE BRITISH MEDICAL ASSOCIATION'S INSURANCE DEFENCE FUND.

Occasion was taken last week to enter a strong protest against the assumption made in a paragraph of a circular recently issued to the profession by the Medical Federation Limited, which seemed to challenge the competence of the British Medical Association to administer the Insurance Defence Fund, to which members of the profession have voluntarily contributed, and which the contributors requested the Association to administer. We then stated emphatically that the Association is not under the legal disability suggested, but is competent to administer a voluntary fund such as that in question, having regard to the circumstances in which it has been raised. The matter, as was elsewhere reported, was considered by the State Sickness Insurance Committee at its first meeting, and that Committee decided to take counsel's opinion upon the point. This opinion was before the Committee at its second meeting, on Thursday last, and, as will be seen (p. 571) it entirely supports the protest made last week. The opinion is quite clear that there is no objection to the Association acting as administrator or trustee of a fund raised in the manner and for the purpose mentioned in the circular issued by the Association on July 17th, 1911, since that fund is raised by voluntary subscriptions from members of the medical profession generally, forms no part of the fund of the Association, and bears its own expenses of administration. The Association is not committing a breach of the conditions of its licence from the Board of Trade, and neither that Board nor any member of the Association could, as has been suggested on behalf of the Medical Federation, restrain the Association from so acting. So far, therefore, as the circular of the Medical Federation suggests that the fund so raised cannot lawfully be used to indemnify or compensate members of the profession, it is incorrect and misleading. The Medical Federation has been established by members of the Association belonging to the Bristol Division, acting, no doubt, with the best motives, but with an insufficient understanding of the position of the Association in relation to the Insurance Defence Fund. The Federation, it would appear, is appealing by its circular to all members of the profession, and those copies of its appeal which we have seen have been enclosed in an envelope bearing the name of the British Medical Association. This use of the name of the Association was not, we are advised, justified by the circumstances, and though Drs. Devis and Williamson defend the terms of the circular, its phraseology in other parts is so critical of the powers and achievements of the Association, that the use of the name of the Association is all the more inappropriate. We hope, therefore, that the Federation may see its way to reconsider its position, and to come to an understanding with the Association at an early date. Meanwhile the main point is established that the British Medical Association is undoubtedly in a position to receive further contributions to the National Insurance Fund, and to administer it. We believe that the profession generally will consider that it is the proper body to raise such a fund, and to ask the profession, as it does, for liberal subscriptions in order that it may be in a position to indemnify or compensate practitioners who shall suffer by reason of their loyalty to the profession in certain eventualities. It seems only too probable that such eventualities will arise, unless the National Insurance Commissioners, as we ventured to say last week, take a statesmanlike view of the position, and by their regulations, subsequently to be embodied in an amending Act, meet the extremely moderate demands which the profession has put forward.

SIR FREDERICK TREVES.

Sir Frederick Treves has retired from the Army Medical Advisory Board and from the Nursing Board of Queen Alexandra's Imperial Military Nursing Service, upon both of which he has served since their formation eleven years ago as the result of the recommendations of Mr. Brodrick's two committees on the reorganization of the Army Medical Service and the Nursing Service respectively. Sir Frederick Treves was a member of both these committees, so that his connexion with the organization of medical aid for the army has been long and fruitful. He has indeed investigated the subject very fully in all its aspects, and has made himself personally acquainted not only with the military hospitals of this country, but with military hospitals in all parts of the world where British troops are stationed, with the minor exceptions, we believe, only of Mauritius and Bermuda. During the eleven years he has served on the Army Medical Advisory Board many remarkable changes and improvements have been brought about not only in the Royal Army Medical Corps, but in the Army Medical Service generally. Among these are the centralization scheme for military hospitals, the introduction into the army of what has been called the out-patient system, under which men suffering from slight injuries and ailments are treated in barracks, the establishment of the Royal Army Medical College at Millbank, the reconstruction of military hospitals generally on modern lines, and the grading of orderlies. Sir Frederick Treves is one of those exceptional men who have had the courage and decision of character to retire from active practice to devote themselves to public work while yet in full mental and physical vigour; he is having his reward in a very interesting after-career

during which he has already been able to render great services to the army and to the country. He retires from active work at the War Office now partly probably because he thinks he has served long enough—he was the only original member of the boards who had remained continuously in office. It is thought probable that Sir Anthony Bowlby, who is a member of the Executive Committee of the British Red Cross Society, will be Sir Frederick Treves's successor on the Army Medical Advisory Board. Sir Frederick Treves is also, we regret to learn, about to resign the post of Chairman of the Executive Committee of the British Red Cross Society. Though the work of that office will still call for incessant attention, the organization has been brought to a high pitch of perfection. As far as arrangements for invasion are concerned, the society had at the end of last month raised 1,110 voluntary aid detachments with a personnel of 32,527 trained and certificated persons, all of whom are registered at the War Office. The arrangements for a foreign war in which British troops would be engaged have been very fully worked out, and the plans for the storage and packing of material could be at once set in motion should the necessity arise. The fullest use has been made of the experiences of the Boer war, and the lessons it taught have been well learnt in respect of all that has to do with the prevention of disease in war and the care of the sick and wounded. Sir Frederick Treves retains his connexion with the Convalescent Home for Officers at Osborne, with the King Edward VII's Sanatorium at Midhurst, and with the Radium Institute in London.

TYPHOID INFECTION OF OVARIAN DERMOIDS.

TYPHOID fever is common and ovarian dermoids not rare so that coincidence is not unlikely, and infection of the contents of the dermoid cyst would seem highly probable. This is a grave question, as the presence of grease and hair in a dermoid is a source of danger in itself. If they escape into the peritoneal cavity, they are apt to become cultivating media for germs: whilst, if they are infected by germs when still inside the cyst that produced them, suppuration will be almost certain, and a suppurating dermoid, especially when adherent, involves great dangers, especially during operation. Were it not for adherent infected dermoids and certain malignant tumours, ovariotomy for new growths as a whole would be now one of the least dangerous operations in surgery. Dr. Krivsky,[1] of the Obuchoff Hospital for Women at St. Petersburg, publishes a full report of an instance in which suppuration occurred in an ovarian dermoid, the patient having suffered from an attack of typhoid fever eleven months previously. In the pus was found the typhoid bacillus quite distinct and actively motile. A cyst of the opposite ovary, containing fat and hair, was also removed, but no typhoid bacilli were found in its contents, though, like the fellow cyst, it was surrounded by adhesions. It lay in Douglas's pouch, where the *Bacillus coli* may enter from the rectum, but it is worth remembering that the typhoid cyst, as it may conveniently be called, lay above the brim of the pelvis, with numerous adhesions to small intestine. The clinical history is important. A woman, aged 39, had noticed a swelling in the left side for sixteen years, and it seemed at least certain that at her last confinement about four years previously there was a tumour, which did not interfere with labour. A severe attack of typhoid fever occurred in January, 1910. The tumour grew rapidly larger. In November, 1910, it was found to be hardly movable, whilst the cervix uteri was fixed. The periods had never reappeared since the attack of typhoid fever. There had been no rigors, and, strange, to say, the temperature was not above normal. The patient had sought relief because of the increase of the tumour, which caused pain, aggravated during micturition and defaecation. The operation was performed on November 29th, 1910, and the two dermoids removed. The infected cyst had developed in the left ovary; it contained much fat and hair mixed with grease. Great precautions were taken to prevent the entry of any of its contents into the peritoneal cavity. The dermoid of the right ovary was removed and Douglas's pouch drained with a rubber tube passed into the vagina and covered over with xeroform gauze. The abdominal wound was completely closed, yet pus escaped from a suture track on the fifteenth day. The opening in the posterior fornix was found to have closed and parametritic exudation could be defined. This complication subsiding after free escape of pus, the patient recovered. The bacteriologist will draw his own conclusions from this case. Its gynaecological aspect is of some interest. Krivsky notes that Pfannenstiel made out that 2 to 6 per cent. of ovarian cysts suppurated, principally dermoids. The *Bacillus coli*, streptococcus, gonococcus, pneumococcus, *Bacillus tuberculosis*, staphylococcus, *Bacillus typhosus*, certain saprophytes, and other germs, have all been found in the pus from these cysts. Gorinschin collected 43 cases of suppuration of ovarian dermoids more recently reported. In only one was the infection due to typhoid fever, but Werth has reported another. Last year Vignard of Nantes published a collection of 11 cases of suppuration of ovarian cysts after typhoid fever, including two in his own experience. Dermoids, it seems clear, are not specially liable to typhoid infection. In their earlier stages, when, in these days, they are nearly always extirpated, they are small and non-adherent. Later on, as has been noted above, they are sources of grave complications, especially infection. One remarkable feature in Krivsky's case was the absence of fever not only before but after the operation, though numerous intestinal adhesions had been detached from the infected ovary as well as from the non-infected cyst.

[1] Ein Fall von Typhusvereiterung eines Ovarialdermoids. *Monatsschr. f. Geb. u. Gyn.*, December, 1911, p. 696.

INSPECTION AND TREATMENT OF SCHOOL CHILDREN.

At page 574 of this issue will be found an account of an interview which took place recently between the Education Committee of the Barry Dock District Council and a deputation from the Cardiff Division of the British Medical Association. Quite independently of what may be the eventual outcome of the meeting, both parties seem entitled to congratulation in the matter—the committee for giving a courteous hearing to a deputation whose object was to indict one of its decisions, and the Division for having its views excellently expressed. The committee, moreover, is still further to be congratulated on the fact that it showed itself sufficiently open-minded to resolve that its previous decision must be reconsidered, despite the circumstance that it had already received twenty-five applications for appointment under the terms covered thereby. Those who have submitted their names as candidates will, no doubt, now consider whether it is not their duty to intimate to the Barry Council that in finally accepting or declining appointment they will be guided by the views of the local medical profession. The post in question was that of an officer whose duties would be not only to inspect children in the elementary schools, but also treat by operation and other means the eye, ear, nose, throat, and other complaints discovered among them, and, in addition, act as superintendent of the accident and isolation hospitals maintained by the District Council, and as medical officer of health to the docks authority. The arguments by which the deputation combated the view that this odd collocation of duties could be regarded as either scientifically legitimate or publicly desirable will be found described in some detail at the page quoted. They proved, as a member of the committee stated, "an eye-opener" to himself and many of his fellows, and threw what was for them a new light on the needs of the

situation. It need merely be added, therefore, that in endeavouring to persuade the Barry Council to keep the duties of inspection and treatment apart, the Cardiff Division is merely aiming at giving effect in a particular instance to a resolution at which the Representative Meeting of the British Medical Association had previously arrived. After a thorough consideration of the whole subject, the meeting concluded that if the interests of the children were to be adequately safeguarded and efficacy of treatment secured, the two duties must not be combined. Apart from this, the proposed schedule of duties at Barry included still further combinations of work, and the suggestion of the deputation that probably no man capable of fulfilling all of them well existed in the whole profession is sound; latter-day science does not lend itself to the production of Admirable Crichtons. The prospect of the question being finally settled in a desirable fashion seems at present decidedly good, for so far the committee has, like the Cardiff Division, shown an unprejudiced desire to rule its actions solely by considerations of public interest.

THE HEALTH OF THE COLLIER.

WHILST the evangels of fresh air and sunshine preach a gospel which finds a ready acceptance, we are confronted by the paradox that the health of the worker in the underground darkness of the coal mine is in important respects superior to that of his brother occupied above ground. The returns of the Registrar-General show that not only is the death-rate of the collier below the average—846 compared with 1,000 for all occupied males—but his susceptibility to phthisis is little more than half that of other males. Though his mortality from diseases of the respiratory system is above the average, his mortality from influenza, cancer, diseases of the nervous and circulatory systems, and Bright's disease is below the average standard, whilst the low death-rate from alcoholism, liver disease, and suicide, implies that as a class colliers do not drink to excess. Below the age of 20 and above that of 55 the death-rate of colliers is above the average, but if it were not for the heavy tale of accidents, the occupation of collier would rank amongst those with a low mortality. The death rate of the collier is scarcely half that of the copper, tin, and lead miner. Apparently the efforts made to secure efficient ventilation and hygienic conditions in the dim caverns in which the miners toil have not been without result, and the decreasing mortality of the collier corroborates this view. Whilst the mortality of occupied males has fallen 16 per cent., that of the collier has dropped 21 per cent. The fatalities from accidents also are less. Writing in 1908, the Registrar-General said: "At each stage of life except that beyond the sixty-fifth year there has been a steady decline of mortality from accident since 1870–72." The deaths from fire-damp have shown a gratifying decrease. In the decade 1881–90 of every thousand accidental deaths in coal mines 151 were due to fire-damp; in the years 1900–2 only 66 out of each thousand were caused by fire-damp. Among occupations where risk of death from accident is great that of collier is fourth on the list. It surpassed the risk of accidental death incurred by the railway worker, but does not equal those undergone by seamen, bargemen, and fishermen. And this holds true although a colliery explosion may wipe out of existence a large number of men at one fell swoop.

EXPLOSIONS IN COAL MINES.

AT a meeting of the Manchester Geological and Mining Society, held in the Chemical Theatre of the Manchester University, Dr. J. Harger made some interesting suggestions bearing on the possible reduction that can be made in the percentage of oxygen in the air without rendering it unsuitable for respiration, and yet at the same time making it unfavourable to the occurrence of explosions in coal mines. He started from the statement that neither a candle nor an ordinary oil-lamp would burn in air containing 17 per cent. of oxygen, while a man could do continuous work in such an atmosphere without noticing any difference from ordinary air. No shortage of oxygen was noticed until the percentage was reduced to about 14 per cent., while at 12 per cent. it was very noticeable. Air with only 10 per cent. was dangerous, and with 7½ per cent. life was extinguished, just as a candle was at 17 per cent. The amount of carbonic acid was, of course, far more important, but his experiments showed that air containing 1 per cent. of carbonic acid and only 17 per cent. of oxygen was not unsuitable for human requirements, and, in fact, just as good as ordinary air, though such an atmosphere would not allow of explosions of coal dust. Dr. Harger therefore suggested that the air in mines should be artificially altered so as to contain too little oxygen to favour explosions, but sufficient not to interfere with respiration. He proposed to do this by mixing flue gases purified from all deleterious gases and smoke, in the proportion of 1 volume to 30 volumes of ordinary air, or, in the most dangerous mines, 1 volume to 15 volumes of air, and he thought this could be done with any simple plant without extra machinery. He said that with even 19 per cent. oxygen the danger of explosions would be reduced, but they could, if necessary in dangerous mines, reduce the oxygen to 17 per cent. without any injury to the miners. Considerable doubt was expressed by several speakers at the meeting as to whether in actual practice the reduction of oxygen might not be serious in the effects on men working for many hours at a stretch in such an atmosphere, and, as Mr. Gerrard, the chief inspector of mines for the Manchester district, said, Dr. Harger's suggestions upset all previous ideas as to the value of oxygen in air.

DIET AND INTELLECT.

WE had something to say last week about diet and intellect, and reference was made to the relation between literature and indigestion. By a coincidence we have come across in the *Journal des praticiens* of March 2nd an extract from Bergerat's *Souvenirs d'un Enfant de Paris*, in which an interesting account of the diet of Victor Hugo is given. Speaking of one evening when he dined with him, the poet being then 72 years old, he says: "Victor Hugo has the appetite of an ogre. . . . He eats like a mason of everything the whole time, and he empties his bottle. No coffee after the meal, but a small glass of rum, which he swallows at one gulp." We remember reading a description of Hugo at luncheon in his younger days: he piled all sorts of incongruous things on his plate, and almost rivalled the feat of "Father William" in *Alice in Wonderland*, who "swallowed the bird with the bones and the beak." Hugo's robust appetite may perhaps help to explain what Louis Veuillot called his *âme grossière et violente*. The writer in the *Journal des praticiens* says that vulgarity of ideas combined with a magnificent gift of lyric expression is his dominant feature. Nothing else is required to carry away the crowd. Nothing strikes the self-love of an ordinary reader like the talent of a writer who lavishly scatters about commonplaces clothed in a resplendent form. The public finds its daily thoughts set forth in the language of the gods. Childish truisms are proclaimed in the tone of an oracle. Commonness becomes depth, and a kiss given to a baby is a sublime act. The reader congratulates himself on understanding an author who describes common things as if they were of tremendous import: therefore he says with conviction, That man is a genius. Hugo handled a series of themes which each age from the beginning of civilization has passed on to the other, and to which he has added nothing original. Love, the evanescence of joy, the sweetness of remembrance, the agony of death, are the principal strings of his lyre. In politics he gives us sonorous

generalities about the great heart of the people, the wisdom of crowds, democracy, "progress," and so forth, besides a good deal of rancorous hatred of particular persons. But the lyre had golden strings, though it expressed nothing but the most ordinary sentiments and echoed the feelings and thoughts of every human being undeveloped by reflection and culture. It has been said that Hugo ate like a mason, and that figure expresses the truth. The materials on which he worked were without value in themselves, but well put together, cemented, and built into a solid monument. Too generous nourishment cripples the flight of thought. To acquire the gifts of subtlety, to conceive unsuspected relations—to be, in a word, a creator of new thought—it is necessary, according to the French writer, that one's diet should be spare, or, as he politely puts it, it is well, among those seated at a table, not to be the one who eats most. We suspect him, however, of a secret conviction that a really good writer should be dyspeptic. He cites the case of Joubert, who certainly was an exquisite writer, but left only a small volume of detached thoughts, subtle and suggestive indeed, but hardly entitling the author to a place among the elect of literature. Joubert was the exact opposite of Hugo; he ate very little, and was the victim of indigestion. These, however, are only particular instances. Genius is as little subject to rules in diet as in other things.

A GOOD ANIMAL.

A LECTURE was delivered at the Galton Eugenics Laboratory, University College, on March 5th, by Mr. N. Bishop Harman, F.R.C.S., who chose as the subject of his discourse the consideration of "Some Signs of Physical Degeneracy and their Lessons." After defining degeneracy as the falling off from or failure to attain a standard, he said that a standard of physical development was relative, not absolute; a high average of known attainment, and therefore variable. A race might advance or go back, but in the absence of accurate anthropological data extending over long periods it was almost impossible to determine the existence of a change or its character. It was therefore necessary to examine variation in details, in the growth of organs essential to the whole man, for indications of tendencies. Occurrences due to temporary causes must not be taken as indications of degeneracy, and since variations in particular organs must be the guides it was necessary also to guard against the assumption that the degeneration of an organ necessarily implied the degeneracy of the whole organism. For instance, to a monkey, man might appear degenerate, inasmuch as his tail was withered, yet the loss was in reality a gain, for the tail muscles had been promoted to a higher office, the guarding of the pelvic outlet, and without such a change the upright attitude would be an impossibility. Mr. Harman then proceeded to consider instances of defective development, particularly those which showed strong hereditary tendencies. The lessons of these kinds of physical degeneration, he remarked, could only be learnt when we knew the cause of the defect. Of particular causes we were ignorant, but in general it was proved that disturbance of the nutrition of the embryo was fruitful in the production of anomalies. Happily these sorts of defects were so rare that they could not be considered marks of degeneracy in the race. But there were signs of a steady degeneracy in two sets of organs vital to the well-being of the race, and the fall was marked amongst Western nations. There was good evidence that, coincident with the mental advance of man, there had been a diminution in the provision of teeth. In the ape, the negro, and the white man, brain and teeth were inversely proportional to efficiency. Increase of cunning had reduced the work of the teeth, and the demand of the brain for blood had starved the former; disorders of digestion showed that the balance was unsatisfactory. Worse than this was a degeneracy that threatened the future of the race at the very beginning of life. The evidence of physicians in England, America, France, and even Germany proved a growing disability on the part of white women to suckle their young. Part of this defect was undoubtedly due to external causes; but there was good ground for believing that the decline was a racial characteristic. It was time that the prophets of eugenics lifted up their voices and cried aloud against the evils of these things; for the loss was not only a loss to the infant at the most critical period—it was a moral loss to the entire race; and it was certain that a race of dry mothers would at no distant date be a race extinct. The moral of the whole matter could be summed up in the words of Herbert Spencer: "To be a good animal is the first requisite to success in life, and to be a nation of good animals is the first condition of national prosperity."

TRANSMISSION OF KALA-AZAR BY BUGS.

SIR RONALD ROSS informs us that he learns from Captain Patton, I.M.S., who has been deputed by the Government of Madras to carry out further investigations into the etiology of kala-azar, that he has been able by feeding *Cimex rotundatus* and *Cimex lectularius* on a case of kala-azar in whose blood there was a large number of parasites, to follow the parasite from its unchanged state in a leucocyte through the flagellate stage up to the rounding up of the parasite into its post-flagellate form, as was predicted in 1907 in the annual report of the King Institute for that year. If bugs, which already contained the developmental forms, were again fed on another case of kala-azar or on a monkey (*Macacus sinicus*), the flagellating forms were completely destroyed within eighty-four (? twenty-four) hours, whereas if the bugs were not fed again the development went on and was completed by the tenth, eleventh, and twelfth day after the single feed. This may explain why, in all the previous experiments, Captain Patton was not able to obtain massive infection of the bug or to get its complete life-history. The bugs were then repeatedly fed on the case and not kept long enough after their last feed. It further suggests an explanation why the disease does not readily spread outside the endemic area, as this material obstacle prevents many bugs from becoming infective. These recent observations appear to prove that in the European bed-bug (*Cimex lectularius*) the parasite goes through its complete development as readily as in *Cimex rotundatus*, and that by the seventh, eighth, and ninth day this bug swarms with the parasite in the flagellate stage in masses of rosettes. They make it probable that the parasite of infantile kala-azar, known now to occur along the Mediterranean littoral, also undergoes its development in *Cimex lectularius*. Captain Patton has further found that in *Conorrhinus rubrofasciatus*, the bug suspected by Donovan, and which was bred from the eggs and fed on the case, the parasite degenerates and never flagellates. It would seem, therefore, that this bug has nothing to do with the transmission of kala-azar. All the bugs used in these experiments were bred in the laboratory, and had their first feed on the case. *Cimex lectularius* was obtained from the slums of London. Like *Cimex rotundatus*, it never contains a flagellate. A memoir describing the observations, particularly of the post-flagellate stage, will shortly be published.

HOSPITAL APPOINTMENTS AND DISPENSING.

AT the annual meeting of the subscribers to the Royal Portsmouth Hospital on February 27th there came up for review among many other matters a recent decision of the governors, to which attention was drawn in the JOURNAL of January 13th. The governors had thought it well to annul an old rule of the institution to the effect that those appointed to the senior staff must be medical men not occupied in the conduct of dispensing practices. It

appeared to us that as this rule, though perhaps not one of a very common kind, had worked well at the institution for many years, and as it is better that those who take up surgical or medical appointments at hospitals should have as little of their time as possible taken up by unnecessary labour, the wisdom of the decision was open to question. It was at the same time suggested that if the primary purpose of the annulment was, as seemed to be the case, to enable the governors to retain the services of one particular member of the staff, it might have been better merely to waive it in his favour instead of abolishing it altogether. The same view seems to have been taken by the subscribers as a body, for at their meeting on the date mentioned they accepted by a very large majority a resolution having this effect. The principal plea put forward in opposition was that, as in one portion of the locality served by the Royal Portsmouth Hospital practically all medical men perforce dispensed their own medicines, the governors of the institution were unduly limited in their selection of candidates for appointment to the senior as opposed to the assistant staff. It does not seem, however, that in the past the rule in question ever proved any real obstacle to obtaining the services of men eminently fitted to serve as members of the senior staff of an institution of the importance which must always attach to the principal hospital of a locality such as Portsmouth, and as time goes on any theoretic difficulty of which the rule may be held to be the source, is likely rapidly to disappear. The Royal Portsmouth Hospital, therefore, seems entitled to congratulation, since it has preserved a rule which, despite its age, must certainly be regarded as harmonizing with the spirit and tendency of the present day, and at the same time has been enabled to retain and acknowledge by promotion the services of a medical man whose work while on the assistant staff left no doubt of its value.

A PUBLIC HEALTH DILEMMA AT CHICHESTER.

THE Council of the City of Chichester has for some little time been engaged in a distinctly difficult task, namely, that of endeavouring to fill the vacant post of medical officer of health in a fashion consistent with the somewhat varying views of itself, the ratepayers, and the Local Government Board. The value of the appointment is £150, made up of £125 salary as medical officer of health, and £25 as medical officer in charge of the isolation hospital, and its last occupant was a medical man in practice in the locality. He did not possess any special qualification in State medicine, and the Local Government Board, whose approval of his appointment does not seem to have been invited, made no contribution towards his pay. He fulfilled his duties, however, so much to the satisfaction of the local authority that when he recently resigned his office the council decided in favour of continuing the same system by filling the vacancy on precisely the same lines, and selected from among the seven or eight candidates Dr. Bostock of Chichester, whose appointment was announced in our issue for February 3rd. When this decision was reported to the Local Government Board, that body withheld its approval on two grounds: one being that the selected candidate did not possess a diploma in public health, and the other that apart from this fact it seemed highly desirable for various reasons that Chichester should take the opportunity of throwing in its lot with the Worthing combined sanitary area, and share with it a joint medical officer. A certain number of ratepayers also urged the council to qualify for a grant from the Local Government Board of half the agreed salary of the post by rescinding its previous decision and filling the vacancy by the appointment of a medical man in possession of a D.P.H. In one way and another, therefore, the council found itself practically obliged to reconsider matters, and accordingly held a meeting in committee last week. The net result was in effect an attempt to compromise between the wishes of the Local Government Board and those of ratepayers by rescinding the previous appointment, and substituting for Dr. Bostock a diplomate in public health, subject, of course, to final consideration of the matter by the council at its next public meeting. Meantime, two candidates were nominated, one being Dr. A. M. Barford, who was the second on the list at the previous election and the other Lieutenant-Colonel Elliot, a retired military officer, who was also on the original list of candidates and resides in Bognor. It was the former that the committee decided to recommend to the council for appointment, but as the voting was very close and several members of the council were not present, the final selection remains in doubt. Apart from this, the Local Government Board will still have to be consulted, and it is not improbable that it will maintain its recommendation in favour of Chichester entering the Worthing combination. The Dr. Barford in question resides in Chichester and holds appointment on the staff of its hospital and of the Portsmouth and South Hants Eye Infirmary, and also occupies the position of County Medical Officer to the Isle of Wight. He is, in fact, the medical man who accepted that appointment last year in the circumstances described in our issues for February 15th and March 25th last year.

THE KING has conferred the honour of knighthood upon Dr. W. M. Abbot Anderson, M.V.O., surgeon to the Princess Royal.

THE action of the St. Pancras Borough Council in applying for the addition of leprosy to the list of diseases compulsorily notifiable has caused some quite unnecessary apprehension in some quarters. That there are always a certain number of cases of the disease in this country is well known to all who take any interest in the subject, but there is no evidence that any of them have arisen in this country. Sir Jonathan Hutchinson has stated that no new case originating in England has been recorded or even suspected during the last two centuries. He adds that some fifty years ago he estimated the number at about fifty, and thinks there is no reason to believe that there are more, if so many, at the present time.

Medical Notes in Parliament.

Insurance Act.

Medical Commissioners.

THE MARQUESS OF TULLIBARDINE asked why the Medical Commissioners appointed under the provisions of Section 52 (1) of the National Insurance Act must have had personal experience of general practice; whether there was the same proviso with regard to the Scottish Medical Commissioner and, if not, would he say why a different course had been adopted; and whether the Scottish Medical Commissioners had experience of general practice. Mr. Masterman said, in reply, that Sections 57 and 80 of the Act required that all the Commissioners must have among their members a duly qualified medical Commissioner. In England only was experience of general practice a statutory condition of his appointment: but this condition, though not statutory, was also fulfilled by the Scottish Medical Commissioner, who had many years' experience.

Sick Benefits.

Mr. Meagher asked the Secretary to the Treasury whether, under the provisions of the National Insurance Act, the question of providing relief to sick insured persons would devolve upon the relieving officers of Ireland as well as upon the insurance officials; whether, having regard to the terms of the National Insurance Act as relate to the provision of sick benefits and to the proper supervision of cases, it would be necessary to have weekly inspection of cases; and, if so, whether, seeing that already under the Poor Laws provision was made for weekly supervision of sick cases as well as for immediate action on sudden cases which may arise, the Insurance Commissioners would

appoint Poor Law officers to the positions which might arise under the local committees which would have to be appointed: and whether, having regard to the number of local officers who would be required to safeguard the working of the National Insurance Act, and the cost which such working would entail in the payment of salaries to new officers, the Insurance Commissioners would follow the precedent of the Election Order and appoint Poor Law officers as local officers under the Act for persons other than members of approved societies. Mr. Masterman said that the answer to the first part of the question was in the negative; the rules as to sick visiting would be formed by the approved societies, or (as regards the deposit contributors) by the local insurance committees. With regard to the third and fourth part of the question, the officers of the local insurance committees would be appointed by those committees themselves, and not by the Commission.

National Health Commission.

Mr. Godfrey Locker-Lampson asked the Chancellor whether he had seen a circular letter from the National Insurance Commission stating that certain action had been taken by them in accordance with instructions received from him; whether it was to be understood that the Commissioners were in the position of ordinary Government Departments acting under the instructions of a Minister who took responsibility to Parliament for all their actions and decisions; and whether the Commission had therefore, before taking any important decision or action, to ascertain, and then to carry out, the views of the Chancellor of the Exchequer or the Secretary to the Treasury as the responsible Minister, and were not free to form and to act upon their own views as a Commission. Mr. Masterman said that the answer to the first part of the question was in the affirmative. The position as regards parliamentary responsibility for matter of administration was as stated in the latter part of the question.

Vaccination.

Exemption.

Mr. Stewart asked the President of the Local Government Board if he would state the number of exemptions granted against vaccination in 1908, 1909, 1910, and 1911 respectively; and the number of unvaccinated people in the United Kingdom, as far as could be estimated, at the present moment. Mr. Burns replied that the number of exemptions received by vaccination officers in England and Wales was as follows:

1908	162,799
1909	190,689
1910	230,947
1911 (first half)	119,355

There were no data upon which an estimate of the number of unvaccinated persons in the population could be made.

Ireland.

Mr. Cotton asked the President of the Local Government Board whether the lymph used in cases of vaccination in Ireland was taken from calves which were not afterwards slaughtered, while in England the same Board insisted upon lymph being taken from calves which were afterwards slaughtered and a *post-mortem* examination made with a view to seeing whether such calf or calves were affected with tuberculosis or otherwise. Mr. Birrell replied that the Local Government Board in Ireland, on the recommendation of their bacteriologist, had sanctioned the adoption of a system under which all calves used for lymph production at the National Vaccine Institute, Dublin, should be subjected to the tuberculin test instead of being slaughtered as formerly and a *post-mortem* examination held. It was considered that the new system would be less costly and more efficient, and that the tuberculous foci that might escape detection at autopsy would be at once revealed on application of the tuberculin test. The Board had arranged that the bacteriologist should personally supervise the processes and methods of tuberculin testing and see that they were carefully carried out in the case of every calf the lymph of which was to be used for vaccination purposes. The facts as regards England were correctly stated.

Vaccinations.

In reply to Mr. Touche, the President of the Local Government Board said that, owing to the variety in the fees paid to vaccination officers in different districts, he was not able to indicate the percentage reduction of the remuneration of these officers since 1907, but the number of vaccinations in England and Wales had declined from 695,147 in 1907 to 531,567 in 1910. He was endeavouring to deal with the cases of officers who had suffered serious pecuniary loss.

The "Exmouth."

Mr. Lansbury asked the President of the Local Government Board whether the action of the Metropolitan Asylums Board, in declining to receive boys recommended by the Southwark Board of Guardians on board the training ship *Exmouth* unless they had been vaccinated, had his sanction, seeing that this ignored conscientious objection, as recognized by law, and reinstated compulsion; and, if not, whether he would take steps to restore freedom of conscience to persons under the control of the Metropolitan Asylums Board. Mr. Burns said that he was advised that the Metropolitan Asylums Board had a discretion whether they would admit an unvaccinated boy to the ship.

Infant Mortality.

Mr. Pointer asked the President of the Local Government Board whether the recent material reduction in the vaccination of children, owing to the working of the Vaccination Act, 1907, had been accompanied by a corresponding decline in the death-rate of the infants in England and Wales to the extent of 30 per cent. in 1910 as compared with 1901. Mr. Burns replied that while expressing no opinion as to any connexion between the two phenomena, he might say the facts were as stated.

Tuberculosis Committee of Inquiry.—Mr. Edward Wood asked whether any of the gentlemen appointed to the Committee of Inquiry into the problem of tuberculosis were professors of the veterinary profession; and, if not, whether, in view of the intimate connexion of the problems of human and animal tuberculosis, the Chancellor of the Exchequer could see his way to add such representation to the Committee. Mr. Lloyd George said that the answer to the first part of the question was in the negative. He would bring the hon. member's suggestion before the Chairman of the Committee.

Tuberculosis.—The Marquis of Tullibardine asked the Secretary for Scotland whether the Local Government Board proposed issuing an order in terms of Section 64 of the National Insurance Act before the Committee appointed to report upon the general policy in respect of the problem of tuberculosis had made their report. Mr. McKinnon Wood answered that the Local Government Board for Scotland was empowered by Section 64 to make orders for more than one purpose. It was not in contemplation to make orders dealing with the matters under consideration of the Committee referred to before the Committee had reported.

Sleeping Sickness.—Dr. Chapple asked whether additional evidence existed to show that game in Nyasaland was a reservoir, and *Glossina morsitans* a carrier, of the trypanosome of sleeping sickness; and whether, in view of the evidence so far available and the consequences of delay, fraught with peril to the natives, the whites, their domestic animals, and their trade, he would propose such a modification of the game laws as would enable those who suffered to drive off the game, and with it the tsetse fly, from the vicinity of the villages and transport routes. Mr. Harcourt replied that he was in consultation with expert advisers, the managing committee of the Sleeping Sickness Bureau, on the whole question, and he was not in a position to make any statement at present, but he could promise that there would be no avoidable delay. With regard to the latter part of the question, under Section 19 of the Nyasaland Game Ordinance, 1911, any landowner or his servant, finding a protected animal doing damage, might kill the same, and under Section 30 the Resident might authorize the tribesmen to kill animals, and any person could drive away game.

Infantile Mortality.—Viscount Wolmer asked the President of the Local Government Board whether he could state what was the rate of infantile mortality (children under 1 year) in England, France, Germany, Norway

Sweden, Denmark, Spain, Portugal, Italy, Austria, Russia, New Zealand, Australia, and Canada; and in which of these countries women exercised the municipal franchise. Mr. Burns replied that in most of the countries mentioned in the question the year 1909 was the most recent for which rates of infantile mortality were available. Owing to the wide fluctuations of infantile mortality from year to year, mainly owing to the varying nature of the summer seasons, comparison of the rates in different countries for different years might lead to erroneous conclusions. The rates for 1909 had therefore been stated where possible. For Spain, however, the rate was not available since 1907, for Austria since 1908 and for European Russia since 1904.

Country.	Year.	Deaths Under 1 to 1,000 Births.
England and Wales	1909	109
France	1909	120
German Empire	1909	170
Norway	1909	72
Sweden	1909	72
Denmark	1909	98
Spain	1907	158
Portugal (no information in General Register Office)	—	—
Italy	1909	155
Austria	1908	205
Russian (European)	1904	232
New Zealand	1909	62
Australia (Commonwealth of)	1909	72
Canada (Ontario, Province)	1909	131

The above rates of infantile mortality had been furnished to the Registrar-General by the authorities of the several countries. Comparison of them was, however, vitiated—in some cases probably to a considerable extent—by differences of practice in regard to the registration of still-births. His present information did not enable him to reply to the latter part of the question.

Anthrax.—Mr. Jowett asked whether another death had occurred from anthrax, contracted at the firm of Messrs. Campbell and Harrison, woolcombers, of Shipley, a branch of Woolcombers, Limited; and, if so, what he intended to do in the matter, having regard to the frequent loss of life from this cause at the firm in question. Mr. McKenna said he had received full reports of this case. The man was employed in card grinding—a process which was not dealt with in the regulations and which until recently had not been regarded as presenting specific danger of anthrax. It was evident, however, from the circumstances of this case that measures would be necessary for protecting the workers against any dangerous dust which might be given off during the process, and he was advised that the use of appliances similar to those now being generally installed in the carding rooms of Lancashire cotton mills should form an effective safeguard. Instructions would be given to the inspector to take up the matter at once with the firm in question. On a later day Mr. McKenna informed the House that he had asked the President of the Royal College of Physicians to nominate a gentleman to inquire into the subject.

Asylum Officers' Superannuation Bill.—Sir Charles Nicholson has introduced a bill to amend the Asylum Officers' Superannuation Act, 1909. It is backed by Colonel Lockwood, Mr. Crooks, Mr. Millar, Mr. Harris, and Mr. Nannetti, and the second reading fixed for March 7th.

Asylum Officers (Employment Pensions and Superannuation) Bill. This bill, which must not be confounded with Sir Charles Nicholson's bill, has been introduced by Lord Wolmer, and deals with the hours of employment of officers and servants in asylums and proposes to amend the Asylum Officers Superannuation Act, 1909. It is strongly backed, and has been put down for second reading on Friday, April 19th.

The Abolition of Vivisection Bill was presented on Monday by Mr. Lansbury, who was supported in its introduction by Mr. Keir Hardie, Sir John Rolleston, Mr. Chancellor, Mr. W. Thorne, Mr. John Wilson, Mr. John Taylor, Mr. James Thomas, Colonel Lockwood, Mr. Snowden, and Mr. Albert Smith. The second reading was fixed for March 11th.

THE INSURANCE SCHEME.

STATE SICKNESS INSURANCE COMMITTEE.

Second Meeting.

THE second meeting of the State Sickness Insurance Committee appointed by the Special Representative Meeting on February 21st, was held on Thursday last, March 7th. As the JOURNAL has finally to be sent to press on that day we are able to report only the earliest part of the proceedings.

Mr. T. JENNER VERRALL was in the chair, and the members present were:—*England and Wales:* Dr. R. M. Beaton (London), Dr. John Brown (Bacup), Dr. T. M. Carter (Westbury-on-Trym), Dr. S. Hodgson (Salford), Dr. R. E. Howell (Middlesbrough), Miss Mary H. F. Ivens, M.S. (Liverpool), Dr. Constance E. Long (London), Dr. R. A. Lyster (Winchester), Dr. James Pearse (Trowbridge), Dr. E. O. Price (Bangor), Dr. Lauriston E. Shaw (London), Dr. Johnson Smyth (Bournemouth), Dr. D. F. Todd (Sunderland), Mr. E. B. Turner (London), Mr. T. Jenner Verrall (Bath), Dr. A. H. Williams (Harrow on the Hill), Mr. D. J. Williams, F.R.C.S. (Llanelly), Mr. E. H. Willock (Croydon). *Scotland:* Dr. J. Adams (Glasgow), Dr. Bruce Goff (Bothwell), Dr. R. McKenzie Johnston (Edinburgh). *Ireland:* Dr. F. W. Kidd (Dublin). *Ex officio:* Dr. E. J. Maclean, Chairman of Representative Meetings; Dr. J. A. Macdonald, Chairman of Council.

CO-OPTION.

It was announced that the Northern Association of Medical Women had nominated Miss Mary H. F. Ivens, M.S., and she was co-opted accordingly.

APOLOGIES FOR ABSENCE.

Apologies for absence for unavoidable reasons were read from the President, Professor Saundby; the Treasurer, Dr. E. Rayner; Dr. J. S. Darling (Lurgan), Mr. R. J. Johnstone (Belfast), Dr. Munro Moir (Inverness), Dr. D. G. Thomson (Thorpe, Norwich).

THE INSURANCE DEFENCE FUND OF THE BRITISH MEDICAL ASSOCIATION.

At the conclusion of the account of the proceedings of the first meeting of the State Sickness Insurance Committee, given in the JOURNAL of March 2nd, it was stated at page 511 that the action taken by the Medical Federation Limited, in issuing a circular to members of the profession, was raised, and that during the discussion it was pointed out that this circular contained a paragraph which might be interpreted as challenging the power of the British Medical Association to administer the Defence Fund in connexion with the Insurance scheme to which members of the profession had voluntarily contributed. The Solicitor made a statement in which he expressed the opinion that it was perfectly competent for the Association, acting as trustee for voluntary donors, to administer such fund for the purpose indicated by the donors. The Solicitor was instructed to obtain Counsel's opinion upon the point.

The matter was accordingly placed before Mr. Colquhoun Dill, whose opinion was reported to the meeting of the Committee on March 7th.

The circular headed "Insurance Defence Fund" issued by the British Medical Association on July 17th, 1911, and the circular marked "Private" issued by the Medical Federation Limited in February, 1912, were both submitted to Mr. Dill, and his attention was particularly directed to the following paragraph appearing in the last mentioned circular:

> It [the British Medical Association] can give no guarantee of protection to its members other than one conditional upon the support obtained by a voluntary subscription list, and a perusal of its memorandum will show that no power is reserved to use this fund to indemnify or compensate its members.

The following points with reference to the British Medical Association Insurance Defence Fund were also brought under Counsel's notice, namely:

(*a*) That the contributions to the fund were voluntarily made.

(*b*) That such fund was contributed to by members of the profession entirely independent of the fact of their being or not being members of the Association.

(*c*) That the fund was kept separate and distinct from the moneys of the Association.

(*d*) That all the expenses of working the fund were defrayed out of the moneys thus contributed.

(*e*) That the relationship of the Association to the fund was akin to that of a trusteeship.

Counsel was asked to advise whether the Association was under any legal disability in raising and administering the Insurance Defence Fund or was laying itself open to any peril or risk at the hands of the Board of Trade or otherwise, it being explained that the Medical Federation Limited had suggested that an injunction would lie against, or other restraining influence might be placed upon, the Association by way of legal inhibition in its proposed administration of the fund.

The following is a copy of Mr. Colquhoun Dill's opinion:

Opinion.

I have considered the circular as to this fund issued on the 17th July, 1911, and the circular issued in February, 1912, by the "Medical Federation Limited."

The purposes for which the fund was formed (as indicated in the circular of July, 1911) are in my opinion purposes directed to "the maintenance of the interests of the medical profession," which is one of the primary objects of the British Medical Association. Therefore, subject to the exception next referred to, the purposes indicated by the circular are within the powers of the Association, as stated in its Memorandum, and the Association is entitled to carry them into effect.

The exception is that so far as the purposes in question involve the payment of compensation to individuals the Association is precluded from applying its funds for those purposes.

But there is, in my opinion, no objection to the Association acting as administrator or trustee of a fund raised in the manner and for the purposes mentioned in the circular: for that fund is raised by voluntary subscriptions from members of the medical profession generally, and forms no part of the funds of the Association, and it bears its own expenses of administration.

In so acting, the Association is committing no breach of the conditions of the license of the Board of Trade, and, in my opinion, neither that Board nor any member of the Association could restrain the Association from so acting.

If the circular of the Medical Federation Limited is intended to suggest that the fund so raised cannot lawfully be used for indemnity or compensation, it is in my opinion incorrect and misleading.

I have treated the matter on the footing that the Association itself is administering the fund in question. I should, however, point out, that it is arguable that the trustees or administrators are the members of the Council, and that the Association as a corporate body is not acting in the matter at all, although the fund is raised under its auspices.

T. R. COLQUHOUN DILL.

Lincoln's Inn, 6th March, 1912.

The matter was discussed at some length, and it was decided to invite the Medical Federation to send representatives to the next meeting of the Committee in order to clear up the misapprehensions which existed as to the powers of the Association, and define the future relations of the British Medical Association to the Federation.

REPRESENTATION OF THE PROFESSION IN IRELAND ON THE JOINT ADVISORY COMMITTEE.

The ACTING MEDICAL SECRETARY reported that, in accordance with the instructions of the first meeting of the Committee, the following correspondence had taken place with the Secretary of the Joint Committee of Insurance Commissioners:

February 29th, 1912.

Sir,

Nominations for Advisory Committee.

The State Sickness Insurance Committee of the Association, acting for the Council, considered your invitation to the Association to nominate members for the Advisory Committee, and steps are being at once taken to secure suitable nominations.

In dealing with this matter the Committee felt that the restriction of medical members of the Advisory Committee to representatives of England, Scotland, and Wales was unfortunate, as presumably the Advisory Committee will proceed to lay down Regulations which will govern the future administration of medical benefit generally. Although the Irish Commissioners may otherwise direct it seems probable that medical benefit when provided in Ireland will be administered on lines similar to those laid down in the Regulations now to be considered. It appears to my Committee, therefore, that it is very desirable that there should be on the Advisory Committee some representatives of the general practitioners of Ireland, who, it is suggested, should be in addition to the number of twelve mentioned in your letter of the 26th inst. If this suggestion is approved the Association will be glad to put forward suitable names as representing the general practitioners of Ireland.

I am, Sir,
Yours faithfully,
(Signed) ALFRED COX.
Acting Medical Secretary.

The Secretary, Joint Committee,
National Health Insurance Commission,
Buckingham Gate, S.W.

National Health Insurance Joint Committee,
London, S.W.,
March 5th, 1912.

Sir,

The Joint Committee of the National Health Insurance Commissioners have considered your letter of the 29th ultimo, and take note that the British Medical Association proposes to avail itself of the offer of the Joint Committee to consider suggestions from the Association of names of medical men suitable for appointment as members of the Advisory Committee of the Joint Committee.

On the subject of the appointment of a medical practitioner or practitioners resident in Ireland as members of the Advisory Committee of the Joint Committee, I am to state that the reason for which the Joint Committee did not consider it necessary to include such practitioners was that medical benefit can only be given in Ireland as an additional benefit, and it would rest with the National Health Insurance Commissioners for Ireland, and not with the Joint Committee, to decide under subsection 9 of section 81 to what extent the Regulations adopted with regard to Great Britain should apply in Ireland.

Seeing, however, the desire expressed by the British Medical Association, the Joint Committee will be glad to consider suggestions of names of Irish medical practitioners with a view to the appointment of one or more practitioners as members of the Advisory Committee.

I am, Sir,
Your obedient Servant,
(Signed) W. J. BRAITHWAITE.
Secretary to the Joint Committee.

Alfred Cox, Esq., M.B., B.S.,
Acting Medical Secretary,
British Medical Association,
Strand, W.C.

LETTER TO INSURANCE COMMISSIONERS.

The ACTING MEDICAL SECRETARY reported that the letter settled by the Committee at its meeting on February 28th (BRITISH MEDICAL JOURNAL, March 2nd, p. 510) had been transmitted to the Joint Committee of Insurance Commissioners on February 29th, that its receipt had been acknowledged, but that no reply had been received.

(To be continued.)

OWING to the railway disorganization, the meeting of the Scottish Medical Insurance Council called for March 15th is postponed.

THE Honorary Secretaries of the Sunderland Division announce that Dr. Maclean, Chairman of Representative Meetings, will give an address on The National Insurance Act as Affecting the Medical Profession, at Sunderland, on Friday, March 22nd, at 4.30 p.m. The Annual Dinner will be held at the Grand Hotel at 7.15 on the same evening.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

LONDON.

The Bow Institution.

An institution of a medical character, but somewhat novel purpose, was formally opened at Bow, E., on March 1st by Mr. Burns, in the presence of the Lord Mayor of the City of London. Occupying some five acres of ground, and originally built for use as a workhouse, it has been converted at an expense of about £15,000, into a building to receive from metropolitan and other unions adults who are in need of more nursing or special treatment than they would ordinarily receive in a workhouse, but not sufficiently ill to justify their treatment in an infirmary. The cost of treatment at infirmaries and sick asylums in different unions of the metropolis averages, it appears, 22s. 9d. per head per week, whereas in the "Bow Institution" it is anticipated that the cost will not exceed 12s. 6d. The place, which is capable of accommodating over 600 patients, is the property of the City of London guardians, who are engaging in this new enterprise as the result of a conference with the Local Government Board last year. Its existence and utilization will, it is estimated, not only prove of great benefit to individual members of the poorer classes, but mean a saving to London ratepayers of over £30,000 a year. Mr. Burns, when opening the building and eulogizing its establishment as a wise and economic step, had something to say also as to the future of Poor Law administration in London. The problem was how best to administer the public benevolence given by thirty-one boards of guardians in the metropolitan area to one hundred thousand men, women, and children in the course of a year. He was opposed to the creation for this purpose of new bodies, which would only complicate the problem and lead to extravagance; but the Local Government Board hoped from the multitude of newer counsellors to be able to obtain a little of the older wisdom to assist them in the work of centralizing, unifying, and simplifying the Poor Law administration of London. By linking up public with voluntary charities and private associations more good could be done than if each of these sections of charitable activity were allowed to work by itself. In this matter there was being rapidly evolved a scheme for united London which, without much expenditure but with local help, would enable them to grapple with many problems connected with London's destitution which had been hitherto untouched. The Metropolitan Asylums Board was fast becoming a central authority for dealing not merely with the insane and feeble-minded, but with certain phases of poverty and disease, and owing to the general improvement in public health during the past six years it had been found possible to utilize several of the institutions which they had on their hands for the treatment of sick children. Already by co-operation between the Local Government Board, Metropolitan Asylums Board, boards of guardians, voluntary charities, sanitary authorities, and county and borough councils, coupled with the granting of old age pensions and medical inspection of schools, disease had been sensibly diminished and many allied evils mitigated.

Inspection and Treatment of School Children.

Proposed New Medical Treatment Centres.

At the meeting of the Education Committee of the London County Council on March 6th the Children's Care Committee reported that it had approved certain variations in the number of cases dealt with at the treatment centres controlled by committees of medical practitioners in Islington, St. Pancras, and Hackney. An offer had been considered from a voluntary committee, not wholly composed of medical practitioners, to establish an additional centre in Poplar for treatment on five afternoons a week upon the conditions proposed in respect of other centres. The committee had approved of arrangements with this local centre for twelve months, the number of children to be dealt with being 880 suffering from eye defects and 1,320 suffering from ear, nose, and throat ailments. The Metropolitan Hospital, Kingsland Road, was prepared to undertake the treatment of 500 eye cases and 500 ear, nose, and throat cases a year upon the terms usually offered by the Council, and the Care Committee had agreed to the inclusion of this hospital in the medical treatment scheme as likely to be of assistance in meeting the needs of Haggerston and South Islington. The committee had also accepted the offer of the authorities of St. Cecilia's Home, Commercial Road, Stepney, to arrange for the cleansing of verminous children and for the medical treatment of ailing children. Treatment would be provided for 440 cases (nose, ear, and throat ailments not requiring operations, and external eye diseases), and it would be given in two intercommunicating rooms. A doctor would attend on one half-day a week; his salary would be paid by the Council, and, if 440 cases were treated, the cost of the centre for treatment purposes only would be £104 a year.

The Reorganization of Medical Treatment.

In recommending the Council to ask the Board of Education to sanction these proposals, the Care Committee drew attention to the steps taken by the Council since the autumn of 1911, in accordance with the promise to the Board of Education, with a view to co-ordinating medical inspection and treatment, and to securing the efficiency of the treatment centres. Under the newly-proposed arrangements the following provisions were included:

1. The local committees had agreed that the doctors themselves who performed the work (instead of as heretofore their qualifications only) should be subject to the approval of the Council.
2. Arrangements for the attendance of a lay officer or a nurse to supply information to School Care Committees as to the nature of treatment ordered by the doctors were now in operation at all the existing centres, and it was proposed to extend them to suggested centres.
3. The school doctors and the doctors at the centres would exchange information.
4. The adoption of the proposals now made would give the Council experience of providing treatment at three types of centre, namely, at hospitals, at centres established by local practitioners, and at centres provided by committees which were not composed of medical practitioners.

The committee felt that the Board of Education should be informed of these points and also of the experiment approved at the end of 1911, and put into force on March 1st this year, in the East End of London, in carrying out medical inspection by full-time officers under the supervision of a divisional medical officer, who would work in close co-operation with the Council's officers at the treatment centres. The Board should be asked to sanction the establishment of the proposed additional centres as a matter of urgency, inasmuch as there was special need for the treatment of children in the districts which would be served by the centres. A comprehensive report on the work of medical treatment in London generally would be submitted in October next. The total expenditure involved in the present proposals was £3,565 a year for treatment, and £475 in the first year for apparatus.

The Education Committee decided to send a letter in the foregoing terms to the Board of Education.

Medical Inspection Requirements Satisfied.

The Council has received the following letter from the Board of Education, dated February 21st:

Sir,—With reference to Sir Laurence Gomme's letter of December 12th last, I am directed by the Board of Education to state that, under the code of regulations for public elementary schools, 1909, as modified by the minute of the Board of Education, dated June 25th, 1910, they are satisfied that provision has been made by the local education authority for the medical inspection of children attending the public elementary schools within the area of the authority for the year ending on July 31st, 1912.—I am, etc.,

(Signed) George Newman.

Deputy Medical Officer of Health.

The London County Council, on March 5th, approved the appointment of Dr. William Butler to be deputy medical officer of health and deputy school medical officer, as recommended by the Establishment Committee (British Medical Journal, March 2nd, p. 514).

MANCHESTER AND DISTRICT.

THE MANCHESTER ELECTION AND THE INSURANCE ACT.

IN the South Manchester parliamentary election campaign, in which Mr. P. K. Glazebrook (Conservative) defeated Sir Arthur Haworth (Liberal) the National Insurance Act was one of the principal topics discussed, and as the attitude of the medical profession was frequently alluded to by both candidates, the medical practitioners of the constituency, at a meeting held on Thursday week, decided to issue a manifesto drawing public attention to the effects of the Act on the medical profession in general and on the hospitals. The manifesto contained the following criticisms:

"(1) The Act will cause a very great extension of what is known as contract practice or club practice, which in itself is open to many and grave objections. (2) This extension under the conditions provided will be disastrous, and in many cases ruinous, to the great majority of members of the profession engaged in general practice. (3) The fact that medical practice would have to be conducted under such conditions will necessarily lead to haste and consequent want of care in the treatment of the sick. (4) The general hospitals, which at the present time do a great work in this country, will be financially crippled, while their resources will probably be increasingly taxed, as the tendency will be to invoke their aid in a large number of cases. (5) It will probably be impossible for the hospitals to be continued under the existing system, and some form of assistance from public funds will become necessary and will lead to great changes in their method of administration. (6) Under these circumstances, it is not to be expected that in the future they will be able to obtain an honorary staff as at present, and the relations of the latter to the public, the profession, and the teaching of medicine will be greatly altered. (7) Medical education and the study of medicine in this country will be gravely interfered with by the alteration in the working of the voluntary hospitals. In many cases, such as those of nurses and the employees of medical men and medical institutions, already receiving professional attendance free of charge, the so-called medical benefits under the Act will be wholly illusory. We consider that the Insurance Act was drafted without a full consideration of its relation to the medical profession and to the question of national health, of which the profession is best able to judge."

THE MANCHESTER AND SALFORD PROVIDENT DISPENSARY ASSOCIATION.

At the annual meeting of the Manchester and Salford Provident Dispensary Association, held on February 27th, Mr. J. B. Parkinson, who presided, said that the future of provident dispensaries was very uncertain, as they could hardly expect that persons who had to pay under the Insurance Act would continue to pay to the provident dispensaries for the same thing. As medical benefit would not come into operation at the earliest until January next year, they had still almost a year, and those persons who would come under the Act would be well advised to continue their membership of the dispensaries until they could receive medical benefit from the insurance scheme; after that the association would have to take advice, if necessary in co-operation with bodies in a similar position, as to whether there was any way in which contributions could be made to them either by Insurance Committees or other authorities to enable the provident dispensaries to continue to provide medical attendance for women and children—in most cases the wives and families of persons insured under the Act. The future was therefore uncertain, but he believed there was a prospect of something being done to enable the dispensaries to continue. He further pointed out that the percentage of applicants to the medical charities who were found on investigation to be ineligible for free treatment had fallen from 42 per cent. in 1875 to 4.58 per cent. in 1911, and he attributed this largely to the provident dispensaries, as they had assisted people without loss of independence to provide their own medical treatment without resort to charity.

Mr. Alfred Simpson said he was not without hope that the attitude of the doctors towards the Insurance Act would soon be materially modified. The dispensaries had proved that arrangements could be made with medical men which were quite satisfactory both to those who gave and to those who received.

SANATORIUM PROVISION FOR MANCHESTER.

The Sanitary Committee of the Manchester Corporation at its last meeting received a report from the Medical Officer of Health as to the manner in which the provision for cases of consumption will be effected by the National Insurance Act, and the committee intends to submit to the City Council reports by the Medical Officer of Health and the city architect in reference to a scheme for utilizing the Baguley Sanatorium as a sanatorium for cases of consumption instead of, as at present, for the treatment of cases of scarlet fever and diphtheria. It is understood that for these cases extra provision is being made at the Monsall Fever Hospital. A sanatorium for persons of the same class as those who will come under the Insurance Act is urgently needed, and it is thought that a considerable economy would be effected by this scheme in place of providing an entirely new sanatorium. The Sanitary Committee has reason to believe that the scheme would be approved by the Local Government Board, and would be eligible for a grant under Section 64 of the Insurance Act out of the amount of £1,500,000 which is provided by the Finance Act, 1911, dealing with sanatoriums. The City Council has recently formed a National Insurance Act Committee, of which Alderman Plummer has been appointed Chairman, and the Town Clerk has prepared, for the information of the committee, a report on the provisions of the Act which chiefly affect the Corporation.

BIRMINGHAM.

SIR THOMAS CHAVASSE.

THE General Hospital has suffered a great loss by the resignation of Sir Thomas Chavasse, the senior surgeon. He was appointed Assistant Surgeon to the hospital in November, 1878, and Honorary Surgeon in December, 1881, making altogether over thirty-three years' service to the institution. The following resolution was unanimously carried at a meeting of the Board of Management on March 1st:

> That this board has received with great regret the resignation of Sir Thomas Frederick Chavasse, and desires to record its high appreciation of the very able and courteous manner in which he has performed his duties of honorary surgeon to the hospital for the past thirty years, of the great skill and unwearied attention he has always devoted to the patients under his care, and of the interest he has at all times showed in the welfare of the institution generally. That the resignation of Sir Thomas Frederick Chavasse be accepted with great regret, and that in consideration of the eminent services of Sir Thomas Frederick Chavasse it be recommended to the next annual meeting of the governors that he be appointed consulting surgeon to this hospital.

A subcommittee was appointed to consider what steps should be taken to commemorate Sir Thomas's services to the hospital.

APPOINTMENTS AT THE GENERAL HOSPITAL.

Dr. Leonard Gregory Parsons, M.D., B.S.Lond., M.R.C.P.Lond., has been elected assistant physician to the General Hospital. He is honorary pathologist to the Queen's Hospital, assistant lecturer on pathology in the University, and physician to out-patients at the Children's Hospital. Mr. Ernest Wilson Hird and Mr. W. A. L. Holland have been appointed surgical casualty officers.

ASSOCIATION OF PUBLIC VACCINATORS OF ENGLAND AND WALES.

Annual Meeting.

The annual meeting of this Association was held at the Midland Hotel, Birmingham, on Friday, March 1st.

Hearty thanks were voted to Dr. A. E. Cope (London), the retiring president, for his services. Dr. A. H. Martin, J.P. (Evesham), was elected president for the ensuing year.

The report of the council and balance sheet for the past year were adopted. The finances were considered satisfactory, as the adverse balance at the beginning of the year was followed by a balance in hand at the close of the year.

After the formal business was concluded an address was given by Dr. Drury (Halifax) on some present aspects of the opposition to vaccination. He contended that the opposition to vaccination had been conducted for many years on lines most fierce and bitter by an organized and energetic body of eccentric individuals. The

medical profession had taken this opposition far too complacently, and much mischief had been done almost without let or hindrance. Vaccination itself had withstood the onslaught—indeed, the foundation on which it stood had been strengthened—but in the meantime vaccination as an institution had suffered. No Acts of Parliament had been administered with such laxity as the Vaccination Acts. The administration of the vaccination service should be linked with the great State preventive medicine service. At the time of the windfall to the Anti-vaccination League, in the shape of the Bell-Taylor legacy, there was little or no vitality in that organization. The large sum of money placed at the disposal of the league had galvanized the leaders, and had given a new lease of life to the league. The Antivaccination League could only be fought successfully by a counteracting league. The greatest weapon of defence in the hands of pro-vaccinists was the careful performance of vaccination. Each successful normal vaccination was an indisputable answer to many of the suggestions of the antivaccinator, and was a source of confidence to the frightened mother and her neighbours. Dr. Drury, in conclusion, referred to the so-called Leicester method. An interesting discussion followed, in which the President, Dr. Cope (London), Dr. Stansfield (Reading), Dr. Macartney (Gloucester), Dr. Pullar and Dr. Line (Birmingham), Dr. Bradshaw (Liverpool), Dr. Williams (Manchester), and others took part.

Annual Dinner.

In the evening the annual dinner took place at the Midland Hotel. Dr. Martin presided. After the usual loyal toasts the President proposed "The Association," to which Dr. Cope responded. "The Guests of the Association" was proposed by Dr. Drury.

Professor Saundby, in replying for the guests, thanked Dr. Drury for the kind way in which he had proposed the toast, and the Association for the invitation to him and to his fellow-guests, and he particularly desired to thank Mrs. Drury for the pleasure she had given them by her songs. He did not think there could be any difference of opinion as to the greatness of Edward Jenner, whose merit was recognized by all his contemporaries. He was undoubtedly the founder of preventive medicine, and so long as scientific medicine existed his name would be regarded as that of one of its heroes. Vaccination, however, like surgery, fell into some disrepute about the middle of last century owing to the neglect of what they now called aseptic precautions, and for this reason vaccinators owed a great debt of gratitude to Lord Lister, who had so lately passed away, for having taught them how to make this simple operation free from possible dangers.

Thanks to the exertions of Dr. E. J. Beards (Birmingham), at the head of a local committee, the proceedings of the whole day were most enjoyable and successful.

GAINSBOROUGH.

On March 2nd Bro. J. Horwood, Grand Master of the Nottingham Imperial Order of Oddfellows, and Brother Staten, the General Secretary, addressed a meeting of friendly society members at Gainsborough on National Insurance. The General Secretary discussed the provisions of the Act, and in reference to the medical profession, said the Chancellor had stated that if the doctors refused to work under the Act there was provision for ensuring the working of the Act without them. He strongly deprecated such a threat being made. It had put up the backs of the medical profession. If the doctors came to the friendly societies and said they wanted 8s. 6d., the societies were going to say that it was their own money at present, and the Act allowed them to say that they were not going to have any medical benefit. They would have the 6s. themselves and pay for the doctor when they utilized his services, and that might not be so often as under the other circumstances.

NEWCASTLE.

An address on the Insurance Act was delivered on March 1st by Dr. Rutter, who spoke particularly of the doctors' position under the Act. He pointed out that the Northumberland and Durham miners under their present medical benefit scheme allowed 6s. 6d. per head per year for boys, 13s. for single men, and 19s. 6d. for married men. This latter payment included attention to members of the family up to a certain age. This worked out at 8s. 6d. per head per annum. What the doctors were asking for under the Insurance Act was only this same sum of 8s. 6d. per head. Dr. Rutter also said that those persons who were engaged in casual labour were the class which most needed medical benefit, and, owing to their irregular employment, they were the most likely to fall into arrears of contributions and to lose the benefit of the medical treatment provided by the Act. The great difficulty under which the Act was labouring was the narrowness of the working margin, which was somewhere in the region of 9 or 11 per cent., and it was now generally considered that the Chancellor had underestimated the cost of the bill. As for the patient having free choice of a doctor, this was true to some extent. However, there were some patients who were always ill and whom no doctors wanted, and these would be parcelled out amongst the various doctors. These men would therefore have no free choice.

An interesting discussion followed, in the course of which it was stated that the teachers hoped that the Pensions Fund they already had would be considered sufficient provision for them, and that they would thus be able to escape the Act. Canon Hamar, who presided, said that no one knew quite how the Act would operate, and one great objection to it was that it would lead to endless litigation.

SOUTH WALES AND MONMOUTHSHIRE.

Research in Mental Disease.

At its meeting last week the Visiting Committee of the Cardiff Mental Hospital passed a resolution expressing the opinion that it was desirable that State aid in the shape of grants should be sought for the prosecution of research in mental disorders, such grants to be distributed through the Lunacy Commissioners, as was done in the case of research in public health through the Local Government Board. It was pointed out that such research might be expensive, and since it was of national and not merely of local importance, it was not considered reasonable that local authorities should find all the funds. The results of researches made with the aid of such grants could be published in the official reports of the Lunacy Commission. A further resolution was adopted instructing the Town Clerk to send a circular to the public asylums and registered hospitals of England and Wales with a view to ascertaining whether they were prepared to join in approaching the Commissioners in Lunacy in the matter, in order that the latter might make representations in the proper quarter.

The Barry School Medical Officership.

The Education Committee of the Barry District Council held a meeting on February 28th (1) to consider the applications—twenty-five in number—which had been submitted in response to the council's advertisement for a school medical officer, and (2) to receive a deputation on the subject of the terms of the proposed appointment from the Cardiff Division of the British Medical Association. According to the advertised requirements of the council, the person appointed must be prepared, in addition to undertaking the duty of school inspection, to attend to throat, nose, ear, and eye complaints in connexion with the school clinic, to perform operations and attend the local accident hospital (and eventually to become superintendent medical officer in connexion with accident, infectious diseases, and small-pox hospitals), and perform the duties of medical officer of health and medical officer to the port sanitary authority. Of the twenty-five candidates, two—namely, Dr. P. W. Kent and Dr. J. R. Draper—had cancelled their applications. The deputation, which was introduced by Dr. P. J. O'Donnell, a member of the Barry District Council, consisted of Drs. C. Lewis and Courtenay Millward (Secretaries of the Cardiff Division), Tenison Collins (Cardiff), and E. E. Brierley (Vice-Chairman of the Cardiff Division), with Dr. Rowland Fothergill, who attended as a representative of the central office of the British Medical Association.

The first speaker was Dr. Fothergill, who stated the arguments in favour of maintaining the existing practice

in Barry, namely, that of separating the inspection of school children from their treatment, and of entrusting the latter to private practitioners. Medical men engaged in private practice necessarily possessed wider experience in the treatment of disease than could a man whose duties were confined to school work. The general public also gained by children in the elementary schools being treated by private practitioners, for the experience of disease which such practitioners thus acquired was of advantage in treating corresponding disease in others than elementary school children. If, as seemed likely, the treatment of school children developed into a great national undertaking, its ultimate value would depend on inducing as many members of the medical profession as possible to take part therein. He also dwelt on the lack of elasticity arising from confinement of the work to a small number of public officials. Whole-time officers possessing the necessary ability and experience could not be obtained at low salaries, and education authorities would have to choose between economy and efficiency. Moreover, their appointment created vested interests. For instance, if the authority were dissatisfied with the results obtained and desired to change its system, serious difficulties would be entailed by the dismissal of a special staff. No such difficulties would arise if a number of part-time officers engaged in private practice were employed and the council could adjust the work to its exact requirements. The number of children who had required treatment such as the council proposed to afford during the past year appeared from the annual report to be 330. There were general practitioners in the town capable of affording each form of special treatment involved, and he suggested that the council should consider the question of arranging to pay a fee of 10s. 6d. for each such case, and to provide for eye work in the same way as had the London County Council—namely, by employing eye specialists to attend two and a half hours each week for an honorarium of £50 a year. Dr. Fothergill also answered a number of questions addressed to him on various points more or less connected with the subject.

Dr. Tenison Collins made some observations in reference to the applications that had been received. It seemed to him unreasonable for an authority to expect to be able to obtain the services of a man not only versed in public health work but also competent to take charge of the hospitals, operating therein and carrying out the various special treatments covered in the advertisement, and he doubted if anybody existed who could fulfil all the duties of such a post in a scientific fashion. As all present knew, he had been an operating surgeon for over twenty years, but he would not venture to operate on any part of the body outside his own particular sphere, or even to diagnose any affection of the eyes, ear, or throat. In these days of advanced surgery it took a man all his time to remain competent even in a single branch thereof.

Dr. Courtenay Millward expressed the opinion that if the council did fill the vacant appointment on the terms stated, it would find that the appointee only used the position as a stepping-stone to work elsewhere.

The final upshot was that the committee resolved by 16 votes to 6 to refer the question of the appointment of a school medical officer back to the subcommittee, with instructions to redraft the terms of the advertisement, and submit it at a future meeting.

The Cardiff Infirmary.

The annual meeting of governors of the Cardiff Infirmary (to be known in future as King Edward VII's Hospital) was held on February 28th, the Lord Mayor of Cardiff presiding. The seventy-fifth annual report was presented; a summary has already appeared in this JOURNAL. Reference was made to the effect of the Insurance Act on the subscriptions to charitable institutions. Dr. Paterson expressing the view that the experience of such measures in France and Germany was not to be taken as a guide. In those countries hospitals were State-aided, and the relation of the medical staffs to the hospitals was on a different footing. Colonel Vaughan referred to the change of name from Cardiff Infirmary to King Edward VII Hospital, and explained that this title had been granted by his present Majesty, as the money subscribed for the new wing was subscribed as a Cardiff memorial to King Edward. During the past year the sum of £45,000 had been contributed, the donations ranging from £6,000 to 6d. Colonel Vaughan made a strong appeal to the colliers and other workmen to increase their subscriptions materially. There is no doubt that the amounts collected from workmen are grossly inadequate in the districts about Cardiff. The total amounts last year were £1,900 from Cardiff, and about £2,600 from the colliery districts.

Newport Hospital.

The Mayor of Newport presided over the annual meeting of the Newport and Monmouthshire Hospital on February 27th. Much regret was expressed at the continued illness of Lord Tredegar, the president, and of Dr. Garrod Thomas, the chairman. The report showed that there were 1,388 in-patients and 9,148 out-patients treated during 1911. The income was £8,224 and the expenditure £8,466, making the total deficiency up to date £2,500.

Presentation to a Medical Man.

Dr. F. W. Evans, who has retired after thirty years' practice in Cardiff, was last week the recipient of a pony and carriage, subscribed for by his former patients. Dr. Evans, who was formerly physician to Cardiff Infirmary, has settled down in retirement in the South of England.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

National Insurance Act.

At a largely attended meeting of the medical profession, held in Waterford on February 21st, it was decided to organize all medical practitioners in the area of the South-Eastern of Ireland Branch of the British Medical Association, comprising the counties of Tipperary, Waterford, Carlow, and Kilkenny. After a lengthy discussion a temporary vigilance committee, consisting of ten medical practitioners resident in these counties, was appointed to use every possible means to ensure that no doctor in the country would make individual arrangements with insured persons, or societies, or clubs, not in accordance with the policy of the profession in their respective counties, and that all should sign the following pledge:

> I hereby undertake that I will not accept any club or other contract medical practice or position, except upon such terms as shall be approved by the County Medical Committee representing the entire profession of that county.

A few weeks ago we suggested that, as the result of associating itself with the National Insurance Act, the Women's National Health Association would run the risk of being accused of political or religious partisanship. It appears that this has already proved to be only too true. At the recent annual meeting of the Dublin Centre of the Ancient Order of Hibernians the President claimed for the Order the right to enrol all the Roman Catholic employees of the city, and charged the Countess of Aberdeen's Insurance Society with the use of "official influence in an unfair way" against the existing friendly societies. The Order, he said, "had certain firms under observation," with the object of ensuring that no pressure may be put on employees. "The Women's National Health Association claimed to be non-sectarian, but the majority of the societies which put forward this claim were in reality anti-Catholic." The Irish "organizers" and "lecturers" are travelling about the country, but the public have not been informed of their qualifications, and it does not appear that the instructions issued to the English lecturers are binding on their colleagues in Ireland, as a member of the Dublin Municipal Council and ex-Lord Mayor, an official lecturer to the Irish Insurance Commission, at a recent lecture, while stating that he was precluded from saying anything about politics, proceeded to dilate on the merits of Mr. Lloyd George's Budget.

The Commission on the Milk Supply.

The Viceregal Commission on the milk supply sat in Belfast to take evidence for several days. Dr. Robert Thomson, Chairman of the Public Health Committee, who was the first witness, explained the arrangements made for the inspection of the milk supply. The corporation

had a veterinarian to inspect the cows and cowsheds and a dairy inspector. He complained of the inadequacy of the fines imposed by the magistrates in cases of successful prosecution. About one-third of the outbreaks of disease traced to milk came from dairies inside the city boundaries, and two-thirds from outside dairies; and there had been difficulty in procuring inspection of the latter. Milk purveyors ought to be licensed. A large number of tuberculous cows were brought from Dublin and slaughtered in Belfast; this unjustly raised their statistics.

Dr. Andrew Trimble, Chairman of the Children's Committee, complained that the working classes did not get an adequate supply of good milk. A good deal of condensed milk was used.

Dr. H. W. Bailie, Medical Superintendent Officer of Health, was of opinion that the conditions under which the milk was supplied could be considerably improved. Powers should be obtained to inspect outside dairies; he was in favour of the uniform application of the Dairies, Cowsheds, and Milkshops Order. In 1907 he advocated the licensing of the milk purveyor. Butter and buttermilk should come under the same regulations. With few exceptions, local purveyors were willing and anxious to carry out the regulations.

Mr. McBride, Inspector of Dairies and Cowsheds, said there had been many prosecutions during the year of persons milking with dirty hands. About 25 to 30 cowkeepers had gone out of business during the last five years owing to the conditions imposed. In one outside district 35 owners had refused to allow him to inspect the cowsheds.

Professor Symmers, Pathological Department, Queen's University, Belfast, said that from 1907 to 1710, inclusive, he had examined 519 samples of milk: of these, 273 came from the country and 246 from Belfast. Of the 519 samples, colon bacilli were found in some quantity in 32 (23 from country, and 9 from town). Samples to the number of 190 were examined for tubercle by injection into guinea-pigs. There was only one positive result, indicating that the dairy cows were unusually free from this disease. He believed there was a positive danger arising from the possibility of people being typhoid carriers, but it was too large a task at present to examine every one in the milk trade. Regarding diphtheria, there was a danger in the possibility of a person being a diphtheria carrier. He was not in favour of pasteurization or sterilization of milk. He was strongly impressed with the necessity of the local medical officer of health obtaining powers for inspecting outside dairies.

Mr. James A. Jordan, M.R.C.V.S., City Veterinarian, stated that there were in Belfast some 200 cowkeepers and some 3,400 cows: during this year he had not as yet found a single tuberculous udder: speaking generally, the cowsheds were good and the owners careful.

Mr. Gregg, M.R.C.V.S., said that cows at present were giving less milk than formerly; he attributed this to unsuitable breeding from shorthorn bulls.

Dr. Elizabeth Bell said she had been looking after the children in the babies' clubs under the National Health Association. In some cases the milk was bad and deficient in fat, so that the association gave free milk for a time, and then paid the difference between the prices: last year £66 was thus disbursed. The poor mothers appreciated the advantages, and last year there were 1,000 extra attendances. There should be a guaranteed milk, so that a poor woman would be ensured of getting good milk. In the slum area milk was often very poor and very dirty.

Numerous other witnesses, including some clergymen, from the districts and smaller towns surrounding Belfast, were examined, and many excellent suggestions regarding breeding, the inadvisability of breeding from shorthorn bulls, as it lessened the milk supply, the provision of suitable depôts at railway stations, and many other points, were made.

Royal Hospital for Incurables.

A special meeting of the Board of Governors of this hospital was held on February 27th to consider whether it was advisable, in the interests of the hospital, to proceed with the erection in the hospital grounds of the proposed new pavilion for tuberculous patients. After considerable discussion the following proposal was carried by a majority of the votes of the governors present:

> That it is not advisable, in the best interests of the hospital, to proceed with the proposed erection of a separate sanatorium or other building in the grounds of the hospital for the reception of patients suffering from pulmonary consumption.

This has put an end to the agitation in the neighbourhood of the hospital which has now been going on for about a year, and there is no doubt that if the scheme had been persisted in it would have alienated the sympathies of many of the staunchest supporters of the hospital. Especially at the present time, when all the hospitals of the country are approaching a crisis in their history caused by the Insurance Act, is it necessary to avoid the slightest friction between the hospitals and the public which supports them.

Royal National Hospital for Consumption.

The twentieth annual general meeting of the Royal National Hospital for Consumption for Ireland was held at the Royal College of Physicians on February 29th. The report stated that 436 patients were under treatment last year; of these 339 were discharged, 90 remained in the hospital on December 31st last, and 7 died during the year. The Chairman, in proposing the adoption of the report, said that the ordinary income was not sufficient to meet the ordinary expenditure, and that there were grave fears that the general public might reduce their subscriptions as the result of the Insurance Act; and that if this happened it would tend to neutralize any advantage the hospital might gain from the Act. A system of graduated labour for the patients had been introduced, and also treatment by tuberculin; but it would appear that the results so far pointed to no great advance upon the open-air treatment. It was a mistake to admit cases in an advanced stage of the disease, as more good would be done both to the patients themselves and also to the community if only cases still in an early stage were admitted. One of the members of the medical staff had been appointed to the Commission on Tuberculosis set up by the Government, but only as a representative of the Local Government Board, and he thought it a distinct grievance that no one had been appointed to represent the leading hospital for consumption in Ireland. Sir William Thompson, the Registrar-General for Ireland, said that before the eradication of consumption could be hoped for there must be linked together—first, preventive measures; secondly, tuberculosis dispensaries, as a means of discovering cases in the initial stage; thirdly, the sanatorium; and lastly, and most important of all, homes for advanced cases.

St. Patrick's Nurses' Home.

At the annual public meeting in connexion with St. Patrick's Nurses' Home in Dublin, Lord Plunket, whose mother started the first St. Patrick's Nurse some thirty-six years ago, said that the history of the home was one of steadily increasing usefulness. In 1892 five nurses paid over 16,000 visits: in 1902 fourteen nurses paid over 37,000 visits: and last year twelve nurses paid some 56,000 visits. There was room, he said, for more nurses in the home if the necessary subscription of £60 a year or a donation of £2,000 to the home for the permanent endowment of a nurse were provided. Dr. Robert H. Woods, President of the Royal College of Surgeons in Ireland, said that between the time a patient left hospital and the time he resumed work there was often a long period of convalescence, during which he needed skilled nursing, which was undertaken by the St. Patrick's Nurses. Though the average number of daily visits paid by each nurse was almost twenty, these were not by any means perfunctory, but represented real hard work.

Health of Belfast.

The death-rate for 1911 for Belfast was the lowest on record; a sudden and remarkable rise took place about the end of January. For the last week of that month the rate rose to 27 per 1,000 per annum; in the next week to 31, and in the succeeding week to 41: the average rate for the great towns of England during these weeks was 21.6. There were few cases of zymotic disease, but the mortality from chest diseases was appalling. A form of influenza raged not only in the town, but in the district. The death-rate in January was 17.9: in February, 30.8: deaths from respiratory diseases numbered 226, and from pneumonia 237; the corresponding figures for last year were 120 and 46.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

PRESENTATION TO DR. JOHN FRASER.

ON Tuesday, February 27th, Dr. John Fraser, who recently retired from the position of one of the Lunacy Commissioners for Scotland, was presented with his portrait "in recognition of his long and useful service, devoted to the interests of the insane, and of his professional and public worth."

The presentation took place in the hall of the Royal College of Physicians of Edinburgh, and there was a large attendance. The Master of Polwarth, who was in the chair, observed that it was his good fortune during the whole time of his being Chairman of the Board of Lunacy—ten to eleven years—to have as his colleague Dr. Fraser. It would be out of place to enumerate any of the various changes which were introduced in lunacy administration during that time, but the advance which had been made to the high position which Scotland occupied in lunacy matters was largely due to the fact that their medical Commissioners always encouraged superintendents and asylum authorities to initiate experiments and to carry them out as they thought best, and, when they found the results successful, to use the great influence which they possessed to recommend the adoption of these methods in other places. He went on to speak of the kindly disposition of Dr. Fraser, and said the influence of that must have been great upon all concerned with the care of the insane in Scotland.

Sir Thomas Clouston, in making the presentation, referred to the career of Dr. Fraser. He was a distinguished student in the University, and was afterwards resident in the Royal Infirmary. He afterwards acted as Medical Superintendent of Fife and Kinross District Asylum for ten years. He was then appointed Deputy Commissioner in Lunacy, and later Commissioner. He then alluded to Dr. Fraser's work as Deputy Commissioner in carrying on the scheme begun by Sir Arthur Mitchell for the housing of insane patients in private buildings throughout the country—a scheme which had saved the country between £20,000 and £30,000 a year. The work of looking after the insane was one of great social and great scientific interest, and the men at the head of affairs for looking after the mentally afflicted required to be men with tact, sympathy, and great general social knowledge. Successive Governments had made a most wise selection of those who held these important offices. Insanity was unfortunately attended in the minds of the general public with a certain prejudice, even with a certain repulsion. It was the duty of everybody who had to do with the mentally afflicted to diminish that kind of handicap. Dr. Fraser, by his personal characteristics, helped to diminish the prejudice. When he retired, his friends to the number of about 200, thought something should be done to mark their appreciation of his services to the State, and the great benefit he had been to the mentally afflicted, and to express their personal friendship. The portrait they were presenting represented friendship and comradeship in every part of the world.

Dr. Fraser acknowledged the presentation of the portrait, which is an excellent work by Mr. Fiddes Watt, A.R.S.A., giving a three-quarter length picture of Dr. Fraser.

CAMERON LECTURE BY PROFESSOR SIMON FLEXNER.

Professor Simon Flexner, of the Rockefeller Institute of New York, Cameron Prizeman in Therapeutics of the University of Edinburgh, gave a lecture in the McEwan Hall of the University, on March 4th, on "Specific Local Therapeutics of Infections, with particular reference to Epidemic Meningitis." Principal Sir William Turner was in the chair, and there was a large attendance of members of the Senatus, of the medical profession, of students, and the public.

Sir William Turner said that the Cameron Prize recently awarded to Professor Flexner by the Senatus Academicus of the University of Edinburgh was founded in 1878 by Dr. Cameron, of New South Wales. Its object was to encourage research and discovery in practical therapeutics. In the thirty-five years since its foundation the prize had been awarded fifteen times, including the present award. Pasteur was the first to receive it, and Lord Lister the second. Since that time a procession of distinguished men, chosen as representative men in the subject—it did not matter where they came from as long as they were representative men—had been their Cameron lecturers. Dr. Flexner throughout his career had distinguished himself by his important researches in bacteriology and pathology, and in the study of those infectious diseases which were generally propagated by bacteria.

Dr. Flexner, who was most cordially received, said the subject of the address related to the local specific treatment of infectious diseases, and especially to the treatment of epidemic cerebro-spinal meningitis. The lecturer described the steps by which the antimeningitis serum was discovered and the essential part played in the discovery by the experimental production of epidemic meningitis in monkeys. Thus it was that a test of the serum, equivalent to testing it on man, was rendered feasible; and through this test it was ascertained that it was only when the serum was introduced directly into the inflamed membranes about the brain and spinal cord that it produced its peculiar and specific effects. He described how, after the first successful employment of the serum in the United States in Ohio and elsewhere, during the prevalence of an epidemic, it was sent to Dr. Ker, of the Edinburgh City Hospital, and Dr. W. Robbin, Belfast; after its successful employment in these places, it was offered by the Rockefeller Institute for Medical Research to the world. It had now been employed in many European and Far Eastern, as well as Western, countries. Reports on its use, numbering many hundreds, received from hospitals in many countries, had been analysed, and it appeared that, whereas the average fatality was from 70 to 90 per cent., the fatality of the treated cases by the serum varied from 15 to 25 per cent. The disease in infants was almost always fatal; but now as many infants survived as adults. Moreover, the crippling effects of the disease—except deafness, which might still occur—such as idiocy, paralysis, and blindness, were now nearly unknown. The lecturer then went on to apply the principle of local specific treatment to other kinds of infections of the cerebro-spinal membranes and other parts of the body.

THE ASSOCIATION FOR THE PROMOTION OF THE REGISTRATION OF NURSES IN SCOTLAND.

The annual meeting of the members of the Association for the Promotion of the Registration of Nurses in Scotland was held on February 27th in the Gartshore Hall, George Street, Edinburgh, when a large and representative gathering of the medical and nursing professions of Scotland attended.

The chair was occupied by Lord Inverclyde, the President of the association, who said that it was very gratifying to see so large an attendance, as it showed that the interest in the association was equally large. The chief object of the association was to promote a bill for the registration of nurses, and, owing to the efforts of the association, they were able, conjointly with the English and Irish associations, to agree upon the terms of a bill which was printed and brought forward in the House of Commons. Unfortunately, owing to the pressure of other business last session, the bill was not considered. It was proposed to introduce it again into the House of Commons, and there was every hope that it would receive considerable support.

The Honorary Secretary (Dr. Mackintosh) then read his report, which stated that no progress had been made since the last annual meeting with regard to the bill for the registration of nurses on account of the National Insurance Bill taking up the whole time of Parliament. He continued as follows:

It is gratifying to report that 179 nurses have joined the association during the year, showing that the interest in the work of the association is steadily increasing. The total membership is now 2,270. The passing of the National Insurance Act makes it more necessary than ever that nurses should interest themselves in any legislation which is likely to affect them, either financially or in status, and in order that nurses may appreciate the full meaning of the National Insurance Act as it affects them, in so far as it can be interpreted at the present time, Mr. Dick, the Secretary to the Royal National Pension Fund for Nurses, who is with us to-day, will explain fully in what respect the National Insurance Act will affect nurses, and how they can make arrangements to adequately protect their interests.

The Royal National Pension Fund for Nurses proposes to form a separate section of the fund which will be open to all

women nurses whether members of the pension fund or not. Although the Royal National Pension Fund has no direct connexion with this association, it was thought that this was an excellent opportunity for nurses becoming informed of the provisions of the National Insurance Act as it affects them, seeing there are nurses present from various parts of the country and from the large centres. This is the first occasion, so far as I am aware, that the question has been explained to the nurses in Scotland, and it was thought well to take this early opportunity of placing the matter before them, in order that they may decide whether or not they will join a society which deals specially with their own requirements before the Act comes into force.

The Honorary Treasurer (Dr. J. McCabbin Johnston) submitted the financial statement, showing a balance of £43 13s. 9d.

Dr. Barbour, who moved the adoption of the report, began his remarks with an appropriate simile of three persons who only saw their own side of a three-sided object, but from a higher vantage ground they latterly saw not only their own side but the other two sides. He was not quite sure whether he was describing quite accurately what had occurred during the past two or three years in connexion with the Bill for the Registration of Nurses, and whether the standpoint of Wales did not come in as well as England, Scotland, and Ireland. They had now reached the important point that, instead of having three rolls for the three sections of Great Britain and three bills to go through Parliament, they had now got the satisfaction of having one bill in progress. No bill was ever got through without a great deal of pushing, and he was glad to see an increase in the size of the association, for every nurse would require to put her shoulder to the bill. Parliament expected, and reasonably expected, that when an important movement was on foot there should not only be unanimity on the part of those who were pressing for it, but that expression should be given to a large body of opinion. He was a recent convert to the desirability of registration, his doubt having been that while registration secured professional efficiency it could do nothing to secure what was equally important—the character of the nurse. A great advantage of registration was that it created a standard of efficiency, and the public knew what it was getting when it asked for a registered nurse. The scheme had an advantage, so far as he understood it, over the Midwives Act in this respect—that there would be no prosecution for inefficiency. Again, so far as he understood it, nurses might register or they might not. It did not affect the freedom of the individual. He thought everything that brought them together, everything that did away with the idea of isolation and self-sufficiency, was good, but, of course, they must keep their own individuality as far as possible.

Miss Gill, who seconded, said that all would be glad if the prospects of getting a bill passed were more hopeful, but meantime urged all members to keep the subject well in view. If nurses showed a continued interest and a real desire for a measure of registration, and if the members of Parliament who had helped them in the past, and the honorary officers of the association continued to give their help, success must come in the end.

The report was adopted.

Mr. J. Duncan Miller, M.P., spoke in support of the principles of the Registration Bill, which, he said, was creating a great deal of interest in the country and in the House of Commons. He had been asked to back it this year, and he would be glad to take the place of his late colleague, Sir James Gibson, who did so much to advance their interests. If a bill was to be got through the House of Commons it was necessary to keep agitating and moving. A most important matter to keep in view was that so long as the bill was a private members' bill the House of Commons must be shown that the opposition was either unfounded or could be readily and easily overcome. So long as the bill happened to be a private bill it could be blocked night after night in the House of Commons. It ought to be possible to discuss the matter with the opponents and show them that the feeling in the country was so strong and the course so sound that they ought to give way, and that the bill should be got through as soon as possible. He should like to get the bill, so as to make it one of the most permanent memorials of Florence Nightingale's work. It would be very timely; the bill could be passed at the same time as the London memorial was established. It would make a uniform standard for all who were engaged in the profession. He thought this was a matter which ought to be taken up by the State at a very early moment. He was glad to find that Scotland was properly represented in the bill, and that the Scottish nurses were going to have their share in the representation of council. In pledging himself to advance the prospects of the bill, and hoping to be able to carry his Scottish colleagues and others, he said it was a bill that reflected no political or party bias. It was national, and ought to be regarded in that light. With regard to what Dr. Barbour said, he thought it went a little further in regard to those who might not come up to the standard or maintain the standard, and he quoted the section to show that the register which it was proposed to set up would be one which the medical profession and the public of this country would have absolute confidence in, and would be very much in the interests of the nurses themselves.

Mr. Duncan Miller was cordially thanked, on the motion of the Chairman.

The following motion was then carried:

> That the present Acting Secretary, Honorary Secretary, Honorary Treasurer, and the Executive Committee be appointed to watch the progress of the bill through Parliament, and take such action as they consider necessary in the interests of the members of the association.

Dr. Renton, speaking to the motion, said it was absolutely impossible to carry through any great movement without a certain number of workers. The gentlemen mentioned would feel greatly encouraged by what Dr. Duncan Miller had said. It would give them a feeling of security in going forward and doing all in their power to place their association on a firm footing and secure the bill they wanted.

Mr. Louis H. M. Dick, Secretary of the Royal National Pension Fund for Nurses, then explained the National Insurance scheme as it affected the nursing profession, and what provision nurses could make to protect their interests. An excellent summary of the Act on the points indicated was placed in the hands of the audience by Mr. Dick, and in supplementing the particulars given he proceeded on the assumption that under the Act nurses generally would come within the description of "employed contributors" as defined, and as such be subject to the compulsory provisions of the Act. The contributions, it was pointed out, would be 3d. per week by the nurse and 3d. by the employer, and if out of employment the whole of the contribution must be paid by the nurse. The "separate section" of the Royal National Pension Fund would be open to all women nurses, whether members of the fund or not. Men would not be eligible, whether nurses or not. It would not be carried on for profit, and its constitution would provide that its affairs would be subject to the absolute control of its members. Sickness benefit would not commence until the nurse had made payments for twenty-six weeks.

Sir James Affleck moved a vote of thanks to the Chairman, alluding to the warm sympathy he had always shown and the practical encouragement he had always given.

Lord Inverclyde's brief response brought the proceedings to an end.

Edinburgh Royal Infirmary.

At the weekly meeting of the managers on Monday, March 4th, John Eason, M.D., F.R.C.P.E., was appointed an Assistant Physician to the Royal Infirmary for five years as from April 1st next. There were seven candidates for the appointment.

The Recent Frost and the Glasgow Death-rate.

A report has been submitted by Dr. Chalmers, Medical Officer of Health for Glasgow, to the Health Committee of the Corporation as to the effect of the recent cold weather on the health of the city. Dr. Chalmers states that it rarely happens that an opportunity occurs of observing the effect on the death-rate of Glasgow of sustained low temperatures without the concomitant of fog, so that the experience of the fortnight ending February 10th was of some interest. In the first week of this period 340 deaths were registered, and in the second week 400, representing rates of 22.6 and 26.6 per 1,000 respectively. No rate at all comparable with this had occurred since 1909, when in the forty-eighth week it was 33 per 1,000. In the forty-seventh week of that year the mean temperature was 30.7°, and a precisely similar temperature was recorded in the first

week of the fortnight under review. But in the forty-seventh week of 1909 there was continuous and dense fog extending over several days, and only 4.6 hours sunshine; while in the week ending February 3rd thirteen hours of continuous sunshine were recorded. By contrast 547 deaths were registered in the forty-seventh week of 1909 against 400 for the week ending February 10th. During the 1909 fortnight the deaths from pulmonary diseases alone were equal to a rate of 14.2 per 1,000 living, and constituted 49 per cent. of the total deaths. In the fortnight in question they represented a rate of only 6.4, and formed 28 per cent. of the total deaths. The contrast might serve to illustrate the asphyxiating effect of fog when associated with continued low temperatures.

Correspondence.

LORD LISTER AND THE CATGUT LIGATURE.

SIR,—In his letter in the JOURNAL of March 2nd Dr. Fielding of Bournemouth says: "Although Sir Hector Cameron proves he was justified in using the date 1868, I do not agree that it was the correct date of Lord Lister's first successful catgut experiment." I am, however, quite content that Lord Lister in his writings does agree that it was.

The history of Lister's early experiments in making use of sterilized buried ligatures is as follows: On December 12th, 1867, he tied one of the carotid arteries of a horse with a piece of purse silk steeped in a strong watery solution of carbolic acid, the ends being cut short and the wound dressed antiseptically. I assisted him in the performance of that operation in the old Veterinary College, in Parliamentary Road, in this city. In six weeks the old horse was found lying dead one day in its loose box. Lister was confined to his house at the time with a bad cold; and that evening, at his request, I drove to the Veterinary College, taking with me a large supply of mackintosh cloths and old towels. I cut out the entire soft parts of one side of the animal's neck, and returned to Lister's house with the huge parcel of horse-meat, where we sat up till an early hour in the morning, while, with keen interest and hope, he made his first rough dissection of the part. This keen interest he would hardly have shown if he had satisfied himself nearly a year before, as Dr. Fielding wishes us to believe, by a successful experiment on the carotid artery of a calf, that carbolized catgut was thoroughly reliable as a buried ligature. More detailed and minute examination of the horse's carotid ligatured with silk subsequently confirmed him in the hope "that the antiseptic system would free the deligation of a large artery in its continuity of the two essential elements of danger to which it is now liable—namely, an unhealthy condition of the wound and secondary haemorrhage. Thus encouraged, I felt justified in carrying a similar practice into human surgery." (*The Collected Papers*, vol. ii, p. 65.)

This he did in the case of an old lady in whom he tied one of the external iliac arteries on January 30th, 1868, on account of inguinal aneurysm. I also assisted him on this occasion. Her progress and recovery were most satisfactory, but she died ten months afterwards from the bursting of an aortic aneurysm. On dissection of the artery ligatured ten months previously, Lister found appearances which shook his faith in this form of ligature. He even believed that he saw evidences of a potential abscess in the neighbourhood of the ligature, which was only partially absorbed. He therefore wrote:

> It is clear that if there is any chance of silk, though used antiseptically, giving rise, even in exceptional cases, to abscess in the vicinity of an artery tied with it, this is a serious objection to its employment; and as the near approach to suppuration in the present instance was undoubtedly occasioned by the persistent presence of the thread, the case, while interesting as affording evidence that silk is susceptible of absorption, suggests the expediency of substituting for that material some other substance which can be more readily taken up by the tissues. The use of "animal ligatures" of catgut, leather, or tendon, was long since tried and abandoned as unsatisfactory: but, after the experience which the antiseptic system has afforded of the disappearance, without suppuration, of large dead pieces of skin and other textures, there could be little doubt that threads of animal tissue, if applied antiseptically, would be similarly disposed of. . . . In order to put the antiseptic animal ligature fairly to the test, I made the following experiment: On December 31st, 1868, I tied the right carotid about the middle of the neck in a healthy calf a few days old, the animal being under chloroform. Ligatures of two different kinds were employed at an interval of about 1½ in., the sheath of the vessel being left undisturbed in the intervening part. The cardiac ligature was of home manufacture, composed of three strips of peritoneum from the small intestine of an ox, firmly twisted together into a threefold cord. The distal thread was of fine catgut, called "minnikin gut" by the London makers, etc. (*Collected Papers*, vol. ii, pp. 92 and 93).

This was done during his Christmas holiday at Upton, his father's residence near London. It was, of course, the first time that he had experimented with the catgut ligature.

> The surgeon, therefore, may now tie (he wrote) an arterial trunk in its continuity close to a large branch, secure alike against secondary haemorrhage and deep-seated suppuration—provided always that he has so studied the principles of the antiseptic system, and so carefully considered the details of the mode of dressing best adapted to the particular case in hand, that he can feel certain of avoiding putrefaction in the wound (*Collected Writings*, vol. ii, p. 98).

Dr. Fielding would, however, have us believe that he had made such an experiment on a calf early in 1867, and had referred to it in his class lectures at that time. I was then his class assistant and attended with complete regularity his lectures during that and subsequent winter sessions. Yet I heard nothing of experiments with catgut either in his lectures in 1867 or in my daily conversations with him subsequently, until, on returning from London in January, 1869, he told me what he had done while visiting his father at Upton during the Christmas holiday.

I am sorry to write at such length about what may seem to many a trivial matter; and I do so not with the view of disparaging Dr. Fielding's powers of memory, but really because I believe that historical accuracy regarding great surgical achievements is always of importance.—I am, etc.,

Glasgow, March 2nd. HECTOR C. CAMERON.

THE INSURANCE DEFENCE FUND.

SIR,—The article inserted under the above heading in the last issue of the JOURNAL would appear to call for some reply from us.

That article refers to a circular letter issued by the Medical Federation, Limited, as challenging the power of the "British Medical Association to administer the Defence Fund in connexion with the Insurance scheme, to which members of the profession have voluntarily contributed, and which they have requested the Association to administer," and goes on to state emphatically, "that the Association is not under the legal disability suggested, and that it is competent to administer a voluntary fund such as that in question, having regard to the circumstances under which it has been raised." We request, therefore, that in order to prevent any misconception arising as to the position, objects, and attitude of the Medical Federation, Limited, you will permit us to lay the following facts before the readers of the JOURNAL.

The Medical Federation, Limited, issues no challenge to the British Medical Association in any sense of the words indeed, as stated very distinctly in the Circular Letter above referred to, the Medical Federation, Limited, desire to co-operate with the Association and to augment its power and influence by providing it with the additional powers and organization, which in the present crisis is so much required. Its purpose is not to weaken, but to strengthen the British Medical Association.

At the same time the promoters and members of the Medical Federation, Limited, being as they are most deeply interested in the welfare of the profession, and having studied very carefully and thoroughly the difficulties that surround it, cannot close their eyes to facts, and their policy is that of recognizing and of effectually combating all dangers and difficulties, rather than that of leaving them to be raised by those whose interests are opposed to the profession when it is too late.

They therefore, in the circular letter issued by them, stated that the British Medical Association "can give no guarantee of protection to its members other than one conditional upon the support obtained by a voluntary subscription list, and a perusal of its memorandum will show that no power is reserved to indemnify or compensate its members." This statement they still adhere to. It was made

after mature consideration, and in pursuance of eminent legal advice, and in the conviction that it is better to acknowledge the existence of a difficulty, and then to try and overcome it rather than to ignore it. It was because the promoters of the Medical Federation, Limited, were convinced that the powers reserved by the Memorandum of Association of the British Medical Association were totally insufficient to protect the interests of the profession in a crisis such as the present that they undertook the labour and expense of forming the Medical Federation, Limited, and in forming it they took every care that its objects should be sufficiently wide to enable it to act in the fullest interests of the profession.—We are, etc.,

GEO. SCOTT WILLIAMSON,
Managing Director.
H. F. DEVIS,
Secretary.

Medical Federation, Limited,
Lion Chambers, Broad Street,
Bristol, March 4th.

THE CHAIRMAN IN COMMITTEE OF THE REPRESENTATIVE MEETING.

SIR,—I was also present as a stranger in the gallery at Guildhall during the greater part of the Committee stage on February 20th and 21st, and I desire to endorse all that Mr. W. McAdam Eccles says in the JOURNAL of March 2nd regarding Mr. T. Jenner Verrall's chairmanship. His tact, urbanity, good temper, and absolute impartiality call for the highest praise from every member of the profession in this great crisis. I write as a former Representative and one who, although retired, still takes an active interest in the work of the Association.—I am, etc.,

ERNEST W. WHITE,
Emeritus Professor, King's College,
London.

London, S.W., March 4th.

THE PRESS AND THE REPRESENTATIVE MEETING.

SIR,—I was also an onlooker at the recent Representative Meeting at the Guildhall, and I fully endorse the remarks made by Dr. Sydney Jones and four other members of the British Medical Association. If the suggestion to clear the gallery had been carried I should have only left under protest. It is a pity that the Association has not a little more faith in its members.—I am, etc.,

OSWALD CHALLIS.

London, W.C., March 1st.

SIR,—As an onlooker at the last Representative Meeting, and one who certainly never made, or thought of making, any communication to the press, I hasten to add my name to the disclaimer published in your last issue by several of those who were also present. If it is possible to deny an accusation of the kind "with fine scorn" on paper, I beg herewith to do so. Seeing that there were some two hundred men in the house, the Chairman of Council must have had some reason for making his accusation specifically against the mere handful who were present in the gallery. Can it be possible that he thinks that the moral integrity of one who chances to be a Representative is on a higher plane than that of one who is sufficiently keen to attend the meeting as an onlooker? I wonder if it has occurred to any one that it would save much time and trouble to concoct items for the press without attending the meeting at all. In future, onlookers had better apply for standing room on the floor, as their presence "in the gods" apparently entails loss of moral tone and their right to be treated as gentlemen.—I am, etc.,

C. COURTENAY LORD,
Honorary Secretary Rochester and Chatham Division, B.M.A.

Gillingham, March 5th.

THE PROFESSION AND THE POLITICIANS.

SIR,—Dr. F. J. Smith does not seem aware of the following facts:

1. The Queen's Hall meeting was at any rate partly organized in the Hammersmith Constitutional Club.

2. The stewards were obtained under the same auspices, and one, a well-known Unionist worker in Hammersmith (I know his name), was specially told off to *mark* Sir Victor Horsley. This no doubt is the gentleman Sir Victor refers to in his letter of February 20th.

3. It was freely stated before the meeting that Sir Victor was not to be heard. I myself was told by one member of the Committee "They will not hear Horsley." I have no knowledge of who "They" were, but such accurate foreknowledge is interesting, as also the fact that it was necessary to secure a large number of non-medical stewards.

4. Dr. Keay, who was sitting beside Sir Victor, was rushed at when he rose to speak by one of the stewards and forcibly pushed into his seat.

Comment is superfluous.—I am, etc.,

H. BECKETT-OVERY.

London, S.W., March 4th.

SIR,—When the history of the Insurance Act comes to be written, no discredit can be attributed to the medical profession because its members differed acutely in their opinions. That, however, will be a dark page which records the fact that for the first time in England a section of the profession, regarded by the public as learned, resorted to rowdyism and vulgar abuse as a means of enforcing these opinions. Dr. Smith and his friends who originated the Queen's Hall meeting, have till now been for the most part silent as to the proceedings, but in his letter of last week he makes it plain that he quite approves of the action of the stewards and those who howled down Sir Victor Horsley. Who, by the way, were these stewards? They were not medical men, nor were they picked up casually in the street. For my own part I can only say that I was invited to attend that meeting, that it was thrown open to discussion, and that when I stood up and addressed the chair I was at once roughly pushed down in my seat. I have already stated this fact in the JOURNAL, and had partly expected that some excuse would have been made for the stewards. No excuse was made, and the reason is now evident, as Dr. Smith has made it quite plain from his letter that it was conduct of which he entirely approved.

Standing, as I afterwards did, several minutes on the platform, vainly endeavouring to be heard, I could plainly see that the hissing and hooting came mostly from a comparatively few men in three or four parts of the building. The great majority of those present sat silent. To myself it was evident that the Council had triumphed. I knew that the soul of the profession was sound, and that, however acutely many might differ from the Council, it was only a comparatively few who would care to associate themselves with men who were acting in a most discreditable manner. "Hiss away!" said the late Professor Blackie on a similar occasion: "I always know that I am right when I am hissed at." And so it has proved. Notwithstanding the fact that a considerable number of Divisions sent delegates in place of the Representatives they had themselves chosen, the Representative Meeting has practically endorsed the action of the Council. Their report was accepted and their recommendations but slightly altered. Though these resolutions were arrived at, it is at the same time quite plain that we have not yet reached smooth water, and it is useless to minimize the fact that there is still a wide difference of opinion as to the best means of gaining our points. In these circumstances, it must surely be evident that, if the Association is to gain its ends, in all future discussions there must be clear and cool deliberation, opponents must be treated with respect, and the Association must show its determination once for all to put an end to the rowdyism and personal abuse so unblushingly upheld by Dr. F. J. Smith.

One word more. Dr. Smith tells us that fear of the Government's defeat led to the Council's abandoning one after another of the six principles. I had sat a long time on the Insurance Committee, and it never occurred to me to inquire, nor, I daresay, did it to others, to what political party its members belonged. When the question was forced on us and inquiry was made, it was found that the Council and Insurance Committee were composed almost entirely of Unionists. And these were the men, Dr. Smith tells us, who were willing to sacrifice the welfare of their profession to uphold a Liberal Government! Could unreason go further?—I am, etc.,

J. H. KEAY.

Greenwich, March 4th.

SIR,—As one who was present at the Queen's Hall meeting I can fully endorse all that Dr. Mondy says. The men did not want the time of the meeting wasted by Sir

Victor Horsley's repetitions. They had read his full and oft-repeated explanations both in the lay and medical press. With reference to the accusation that the heads of the profession made no attempt to secure freedom of speech, this is not quite accurate. I really thought the chairman would have had a seizure, so flushed and excited he became from his frantic efforts to secure Sir Victor a hearing. He cried out, or rather shouted, "Do hear Sir Victor! Do hear Sir Victor! Gentlemen, you are spoiling the meeting. You are not afraid to hear him." He did not say this once or twice, but shouted for three or four minutes on end.

Twice his efforts were successful, and he succeeded in getting absolute quiet. Sir Victor used the first occasion to make disparaging remarks upon the convener of the meeting. A more honourable, straightforward man than Dr. F. J. Smith it is impossible to find. The meeting was at once in an uproar. By long and persistent efforts the chairman secured the second opening for Sir Victor, who used this occasion to make sarcastic remarks upon the grammar of the resolution. Now the men whose very livelihood is threatened by this Act were not in the humour for this sort of quibbling, and they showed their resentment by loud and prolonged hissing and shouting, which only subsided when Sir Victor retired. All efforts of the chairman failed to get him a third hearing, but there was nothing political about it.—I am, etc.,

West Malling, Feb. 28th. G. BAYNTON FORGE.

THE POLITICS OF THE MEDICAL PROFESSION.

SIR,—The methods adopted by Mr. J. M. Robertson, M.P., in this discussion are, to say the least, somewhat peculiar; and I do not think they are calculated to improve his reputation. When he says that I have, in making my protest, justified him on the main issue, he is either blinking at facts or putting a construction upon my words which they do not bear. This cool assurance ("the badge of all his tribe") will not, however, carry him far.

Mr. Robertson states that the report of the *Newcastle Daily Journal* is certainly a good one, and not one which, had it been specially cited, he should have called "scrappy." But, as you state, it was this very report upon which the criticism was based; and if it be a very good one, as Mr. Robertson admits, I cannot for the life of me see how it was likely to mislead you, Sir, or give rise to "unwarranted cavils where readers are anxious to cavil." I will go beyond that, and say that the report in question omitted nothing that could have made Mr. Robertson's views clearer. As an experienced journalist Mr. Robertson will admit that it is quite possible to condense the report of a speech in a very drastic manner without exposing the speaker to unfair criticism; and I may point out that it is very rarely indeed that even the utterances of the most eminent statesmen and politicians escape condensation.

Mr. Robertson says the main issue raised by you against him was as to whether he asserted that the opposition of the doctors to the Insurance Act was *wholly* due to their Toryism. It is surely late in the day to introduce the word "wholly"; and I would point out that it was only after a strong protest on the part of many North Country doctors that the Parliamentary Secretary to the Board of Trade ventured to qualify his extravagant assertions. This he did in the following way: First, the doctors were bad politicians. Tariff Reformers, and Tories, hence their violent opposition; afterwards they were panic-stricken, and presumably out of their senses; and at a meeting held a little more than a week ago the doctors' opposition was ascribed to a fit of bad temper.

As to the assertion that my use of the term "extravagant assertion" merely raised the question of my own prejudice, let me state that in controversy it is not fair to attribute motives to one's opponent; but I may add, that Mr. Robertson admitted the extravagance by subsequently modifying his views when he found it expedient to do so. Now, Sir, I do not know what other opinions on this subject Mr. Robertson holds, but it would simplify matters if he were to state them at once "in the lump." He has shifted his ground so often that one scarcely knows just where he stands.

My own view is that at the moment panic-stricken politicians are more in evidence than panicky doctors; and as for angry folk, I may be permitted to remark that Mr. Robertson has justified your criticism—"He evidently has the intolerance of the slightest criticism characteristic of politicians of his type"—or he would not have indulged in such violent outbursts as those which have appeared in your columns.

As for the prejudice which Mr. Robertson lays to my charge, I think it will be found that my letter was free from political bias. I did "nothing extenuate nor set down aught in malice." The letter, with the verbatim extract from my note, afforded Mr. Robertson an opportunity of effecting a graceful retreat from a somewhat undignified position; but if he prefers to flounder in a morass of his own making—well, I am content to leave him there.—I am, etc.,

Newcastle-on-Tyne, March 2nd. GRAEME M. ALLAN.

THE DEBATE ON THE INCOME LIMIT IN THE HOUSE OF COMMONS.

SIR,—I regret that Mr. Whitaker considers it necessary to imply personal animus on my part against himself. He has not the slightest grounds for stating that I "preferred to take the word of Dr. Helme, who knew nothing of the matter except on hearsay, to my statement, I having first-hand knowledge." I expressed no preference either for his or for Dr. Helme's statement, but simply said that in my opinion Dr. Helme's statement was justified in the circumstances. I do not agree that Dr. Helme's statement rested on hearsay evidence. That Mr. Whitaker's letter was not producible at the time is a fact. It is further a fact that Sir Henry Craik, who was present during the debate, had stated that, in his opinion, if a division had been taken on the £2 income limit it would have been a very close one. Sir Philip Magnus had said that he was much influenced by Mr. Whitaker's letter. Therefore I must maintain that Dr. Helme's statement rested on *facts* and not *hearsay*. In my letter I gave due weight to Mr. Whitaker's denial that what he wrote warranted Dr. Helme's suggestion, saying that this "somewhat altered the case," but I cannot admit that personal impressions of what has been written in a letter that cannot be produced preclude another from making reasonable deductions from undisputed facts. Dr. Helme, myself, and many others consider that a division should have been taken on the £2 income limit at all costs, and that the Executive of the Association should have insisted upon it. The copy of Mr. Whitaker's letter published in your issue for March 2nd proves that the writer, if he did not ask Sir Philip Magnus to withdraw his amendment, at least gave full permission, in the name of the profession, for this course to be taken; and Sir Philip Magnus, both in his original letter to the *Times* and in that published in the JOURNAL of March 2nd, emphasizes the fact that the "letter undoubtedly influenced me and others not to press my amendment to a division."—I am, etc.,

London, E.C., March 2nd. MAJOR GREENWOOD.

SIR JAMES BARR AND THE INSURANCE ACT.

SIR,—Sir James Barr, in his letter of February 24th, complains of being puzzled at the title of "Sir James Barr and the Insurance Act" over my letter in the JOURNAL of February 17th. As he himself initiated this discussion by his letter of December 30th, and continued it by a further letter on January 13th, he need not complain of my venturing to intrude a few remarks into the discussion after it had been well established under the above title. The question of racial decadence and the Insurance Act, on which such stress was laid by Sir James, was discussed in that letter of February 17th, so the title was hardly irrelevant. Perhaps a better title would have been "Eugenics and the Insurance Act," and it is interesting to note that the subject under this title has been taken up by the able medical sociologist, Dr. Saleeby.

Sir James infers that I am not a follower of Weismann, because I speak "of the difficulty of the problem dealing with the transmissibility of acquired characters," etc. Is this intended to be a reproach, and does Sir James Barr think that the problem dealing with the transmissibility of acquired characters is settled? If so, he is greatly in advance of those biological experimenters who are trying to elucidate the problem, and recent experiments have constrained even Weismann himself to modify his earlier conceptions.

It is hardly necessary to comment on his forcible reiteration of his antipathetic opinions on the Insurance Act. Time alone will show its effects, evil or good. With regard to the charge of misquotation from Professor Bateson's *Mendel's Principles of Heredity*, it is obvious to any one who compares the two passages given that there is no misquotation. The exact words and sense are given. In order to give the gist of the passage and to save space I simply quoted the second sentence of the passage, and put in, for the sake of clearness, the substantive phrase of the first sentence, which is governed by the demonstrative pronoun "these" of the second sentence. It is curious to note that this simple arrangement for economizing space should by his own confession inhibit Sir James's usual flow of forcible adjectives. The rest of the passage quoted simply amplifies the points I was trying to make in my letter of February 17th—namely, that so far as present knowledge went the phenomena of heredity in man were to a large extent uncertain and irregular, and that it was premature to express strong opinions on so flimsy a foundation.

The facts and the laws of heredity must be reckoned with in the sociology of the future, but I can hardly think that eugenics will advance much by the crude advocacy of Sir James Barr.—I am, etc.

Warrington, Feb. 25th. J. S. MANSON.

SIR,—After the letter of Sir James Barr, two of Dr. J. S. Manson's latest statements call for comment, and two only. The first is embodied in his words, "the *laissez faire* wisdom of that Chinese philosopher"—Lao-tzu—". . . is utterly opposed to a social theory based on Mendelism." If such a statement means anything at all it means that in Mendelism there is found some justification for the delusion of legislative interference which is the obsession of present-day statecraft. That such justification exists or anything remotely resembling it I can only here and now categorically deny.

Secondly, Dr. Manson is good enough—and I am proportionately grateful—to warn me against classification, and apparently resents quite strongly my endeavour to point out that mankind, like all other living races, is composed of two great natural divisions. I use the adjective "natural" for a definite and fairly obvious reason, inasmuch as the classification he objects to is, in fact, effected by natural selection and not by me. "Natural selection," says de Vries, "acts like a sieve." It separates, therefore, the fit from the unfit, the progressive from the degenerate, the intelligent from the less intelligent, and strews the path of progress with the bodies of those individuals whom Nature has destined for elimination, and Socialism, in its wisdom, for survival.

It is, therefore, not improbable that such a basis for practical legislation, embodying, as it does, a general principle which has absolutely no exception throughout the whole range of the organic kingdom, may quite well, as Dr. Manson suspects, prove a formidable barrier to the baseless and misleading speculation with which our present legislators attempt to justify their methods and aims.

Finally, I would point out to Dr. Manson that no stigma is attached to being "a lone voice in the wilderness," especially if the voice be the voice of truth.—I am, etc.,

Wood Green, N., Feb. 19th. A. RUGG GUNN.

*** Although under some obligation to receive a final reply from Sir James Barr should he consider it necessary, we do not feel that this correspondence can be usefully continued.

THE DECOMPOSITION OF CHLOROFORM.

SIR,—The question of danger to life from this cause has been well investigated. During the South African war Dr. Tunnicliffe, I believe, published in the *Journal of the R.A.M.C.* a careful research upon the effects of transport of chloroform from England to the base hospitals, and found no changes occurred in the drug. Messrs. Duncan and Flockhardt, I understand, have samples of chloroform which have been kept for years without any special precaution except exclusion of air and moisture, and these specimens when periodically tested reveal no change. I write from memory, as this matter came prominently before the profession when Pictet's chloroform was vaunted as safer than that prepared by other methods. Further, the records of the observed effects of chloroform which has undergone chemical change with the liberation of phosgene gas show that it is the anaesthetist, the surgeon, and the assistants who suffer more than the patient. When fatalities occur—and some few have been attributed to this impurity—the symptoms are respiratory, and resemble those incident to inhaling chlorine or other irritating vapours. If the impurity is present to such an extent as to produce respiratory spasm, no person administering the drug could avoid detecting it so soon as he had dropped any of the liquid on the mask. If the impurity is very small in quantity, the only result would be bronchial irritation and subsequent bronchitis. Under no circumstances do the symptoms coincide with those of sudden death under chloroform due to overdosage.—I am, etc.,

London, W., March 3rd. DUDLEY W. BUXTON.

ATROPINE AND OPEN ETHER ADMINISTRATION.

SIR,—I am greatly indebted to Mr. Stuart Ross, Instructor in Anaesthesia at the Royal Infirmary, Edinburgh, for his courteous letter commenting upon my article on "Atropine and Open Ether Administration" in the BRITISH MEDICAL JOURNAL for February 24th.

The expression of his opinion on several points is very welcome and interesting, but I do not agree with it. He thinks that the tongue-clip I use to maintain a free airway during ether anaesthesia must cause after-pain because the Edinburgh glossotilt sometimes does so, but these two appliances are different in their action. The tongue-clip has a single pin which passes through the tongue in one spot only near the tip, and its action is exactly similar to that of the tongue ligature which surgeons have used in jaw and palate operations for many years. Only a very gentle hold upon it is necessary to prevent the tongue from falling backwards. It has not in my hands caused after-pain, or I should not use it, nor have the patients had any knowledge that it has been applied.

On the other hand, a tractor on the base of the tongue causes pressure upon surrounding tissues, and I have seen it produce oedema of the larynx which necessitated tracheotomy in a case of enlarged glands on both sides of the neck.

I am thoroughly convinced that a mouth-prop inserted between the teeth or edentulous jaws before any kind of anaesthetic is administered is a most valuable method of retaining an adequate airway and is sufficient for this purpose until the paralysed tongue begins to cause respiratory obstruction. As this obstruction may supervene at any moment throughout anaesthesia, producing an asphyxial factor with laboured breathing, I think it better to prevent the possibility of its occurrence *ab initio* by regularly inserting the tongue-clip directly surgical anaesthesia has supervened.

Mr. Stuart Ross objects to the use of sixteen layers of gauze upon the open ether mask because in Edinburgh chloroform is often used to induce anaesthesia before the ether is added; but as this is a sequence of anaesthetics involving other risks, it requires quite separate consideration.

When I wrote of ether I meant ether, and I rather feel, if Mr. Stuart Ross will forgive the little joke, that another time when recommending the use of some mask or inhaler it would perhaps be better to indicate that it is not intended to hold porridge.—I am, etc.,

London, W., March 2nd. H. BELLAMY GARDNER.

THE NEW CELL PROLIFERANT.

SIR,—Mr. H. C. Ross has apparently not grasped the fact that when I spoke of stopping cell division in the ova of *Ascaris megalocephala* I was not referring to my own experience only, but to the experience of every one who has worked with this material, excepting evidently Mr. Ross. These ova are as unsuitable subjects for testing anything supposed to induce cell division as could be chosen. On the other hand, they supply one of the most easily demonstrated examples of the process of fertilization in the animal kingdom, so as Mr. Ross does not know whether the ova upon which his observations were made were fertilized or not, it is not apparent that he adopted the usual and necessary precaution of fixing some of the

material the rest of which he was going to examine in the living state. As it is common knowledge that these ova will continue to segment for many hours in such media as glacial acetic acid and formalin, the behaviour of Mr. Ross's experimental ova and controls means nothing one way or the other.

I do not see that Mr. Ross's remarks with regard to my personal conduct have anything whatever to do with the effect of his "auxetics" upon the eggs of *A. megalocephala*. His complaints with regard to "scientists" having disclaimed him and criticized him adversely seem to me equally irrelevant. As, however, in making these irrelevant remarks, he also makes definite charges against me, I am unwillingly obliged to take notice of them.

Referring to me, he says:

> A short time ago when I asked him for permission to reprint some of the excellent diagrams contained in one of his books . . . the only result was a most discourteous reply, containing a flat refusal.

I have never received any request from Mr. Ross. Nor have I ever written to him, courteously or discourteously. Some time ago I received a request from Mr. John Murray asking me to lend some illustrations to be used in a book which Mr. Ross was writing. Several letters upon the subject passed between Mr. Murray and myself, all of which were marked "Private." Circumstances were such that I could not give the required permission, but I suggested to Mr. Murray several other sources whence he could obtain far more authoritative drawings illustrating precisely the same details of cell division as those asked for from my book.

Mr. Ross complains of a review which I wrote for *Science Progress* of his book, *Induced Cell Reproduction and Cancer*. An honest criticism of observations and deductions therefrom, the validity of which depends upon the accuracy of equations in which cubic centimetres of solutions, minutes of time, and degrees of temperature are *added* together,[1] could hardly be other than scathing. Moreover, I took the trouble, before writing the review, to repeat several of the experiments by means of which Mr. Ross claimed to have induced mitoses. Appearances similar to those illustrated and described in his book were produced, but neither they nor the illustrations bore the most remote resemblance to mitotic divisions. They are readily explicable as the result of osmotic disturbances, and similar cytolytic results may be produced in the red blood corpuscles of triton, salamander, axolotl, and some other animals, by solutions of sugar of various strengths.—I am, etc.,

Glasgow, March 2nd. CHARLES WALKER.

[1] *Induced Cell Reproduction and Cancer*, chap. v.

SYMBIOSIS.

SIR,—I should like to thank Dr. McCulloch for his reference to the definition of symbiosis made by Dr. McFarland of Philadelphia, who, in my opinion, has undertaken an ambitious task in his book in trying to define this and kindred scientific terms in accordance with their derivations. He seems to take the word *symbiosis* in its literal sense as meaning that two creatures merely live together, and then he subdivides this into various forms, defining *parasitism* as a subdivision, and as essentially meaning that one creature is detrimental to the other. But I think that it is commonly accepted that symbiosis means more than merely "living together," for, in addition, it generally refers to two creatures which essentially are not harmful to one another. Had the word only meant "living together" then I believe that McFarland's arrangement would have been the right one. My object was not to attempt to make accurate literal definitions, but to try to straighten out the commonly accepted meanings of the words. Everyone has heard of the word "parasite," which conveys a general if not very accurately defined meaning, whereas the word "symbiont," which is not nearly so commonly used, generally means a harmless form of parasite. Therefore I suggested that the word "parasite" should be defined in the wider sense, so as to give us working grounds for stating whether a given cell is parasitic or not, and to keep the word "symbiosis" as a subdivision of it, maintaining as far as possible the commonly used meanings of both words. If we are now going to remodel the definitions of scientific terminology in accordance with its literal traduction, I think we shall be landed in a worse muddle than ever.—I am, etc.,

London, S.W., Feb. 27th. H. C. ROSS.

AS TO THE NATURE OF THE PARASITES OF LEPROSY AND TUBERCULOSIS.

SIR,—I accept Mr. Foulerton's explanation that he used the term "endogenous spores" in describing Streptothrix through an oversight. He admits I proved it was a very important oversight. I wish he had made some reference to his use of the same terms in describing Sporotrichum. (Sporothrix, besides being very confusing, is a mere laboratory corruption, and should never be allowed to displace a name known to botanists for one hundred years.) These organisms belong to the *Fungi imperfecti*, and throughout the entire group endogenous spores are unknown.

Streptothrix.—One now understands that this belongs to the Oospora, which are recognized, not by the French alone, but by botanists the world over. Recognizing that the organisms known to them as Discomyces, Nocardia, etc., are properly grouped under the name Oospora, the French bacteriologists discarded the old names and came into line with international botanical nomenclature. Jordan (*General Bacteriology*, 1909, p. 402) refuses to have anything to do with the name Streptothrix, and comments on the confusion of nomenclature. The only way to remedy the confusion is to follow the example of the French.

Sporotrichum.—I understood Mr. Foulerton to compare the streptococcal-like conidia of Streptothrix with the yeast-like conidia of Sporotrichum. In this I was wrong. The superfluous part of my letter was intended to convey that these yeast conidia are blastomycetes, and that blastomycetes have long since disappeared from textbooks of botany, because it is known that they are merely conidial forms, or, if Mr. Foulerton prefers it, pure cultures of spores. The classification of yeasts as blastomycetes is, therefore, obsolete, and there are practical advantages in regarding them as what they are, and not as what they appear to be. Naturally, one wonders why such a classification is still retained by bacteriologists alone. Recent work on the fission yeasts (Schizosaccharomycetes), together with the work for which Mr. Foulerton has justly gained a great reputation, indicates that in a few years our textbooks will be not of "bacteriology," but of "pathogenic mycology."

Hyphomycetes and Oospora.—Mr. Foulerton says I prove that what he describes "as Streptotricheae are Hyphomycetes, and that they belong to the genus Oospora." As a matter of fact, I did not use the term Hyphomycetes because bacteriologists employ it in a different sense to botanists. What I did prove was that if Mr. Foulerton's description was correct, his Streptothrix could not possibly belong to the Oospora.—I am, etc.,

London, W., March 3rd. ROBERT CRAIK, M.D.Glasg.

THE STUDY OF CONDUCT.

SIR,—It is highly necessary that Dr. Mercier should be put right on one point. Both in his letter (published on February 24th) and in a subsidiary correspondence, carried on between us on post-cards, he seems to think that I am intervening without invitation in this discussion. I assure him that my first letter of defence was prompted neither by his book nor by your reviewer's remarks thereon, but only by his first letter to you, in which he publicly imputed certain absurd views to a body of which I am an inconsiderable member, and therefore directly interested, and actually, though very slightly, aggrieved. Dr. Mercier, like Goliath, has been defying all and sundry, from Aristotle downwards, and can accuse no one of interference.

Dr. Mercier cannot get rid of a fallacy by calling it names, such as "quibble." In fact, this particular fallacy sticks to him more tightly than before. He admits that the disputed term, "classing," was mine, and he uses it, in spite of warning, in a different sense persistently—fallacy prepense, naked, and not half so ashamed as it ought to be. I am not sure now whether he has not laid himself open to an indictment for breach of a minor canon, the third minor canon of explication, which deals with "substitution" of terms. They call it, I believe, "passing off" at the Old Bailey.

Dr. Mercier proffers a reference to another work of his —*Sanity and Insanity*. Unfortunately, I have mislaid my copy of this, but in the search for it I have lighted on yet another —*Psychology, Normal and Morbid*. I cannot help thinking that he is not worldly wise in thus aiding his adversary—temporary, and for this and similar occasions only. His friend and proven exemplar, Job of Uz, sighed for one book, wherewith to confute his adversary. Dr. Mercier gives his critics three. These three I have with me—Psychology, Logic, and Conduct. In these books are to be found the following odd bits of teaching: "Empirical or material reasoning is that on which conduct is founded. It is this reasoning which determines our action." "Conduct is action in pursuit of ends, and is composed of acts undertaken to attain ends." "Thought is nothing except as a basis of conduct." "Conduct is founded, not upon doubt and hesitation and suspension of judgement, but upon coherent belief." All of which would seem to show that in Dr. Mercier's opinion conduct has a pretty constant footing in mental process. I must therefore confess to feeling somewhat "matagrabolized" when, in my endeavours to master Dr. Mercier's ultimate conception of the conduct which he wants us to study, I read that in "treating, however, of conduct it is desirable to eliminate, as far as possible, reference to mental states and processes." When Dr. Mercier says that conduct is founded, etc., as above, does he imply that *all* conduct is so founded? If so, how can mental process be eliminated? If he means only *some* conduct is so founded, does it not necessarily follow that there must be two conducts, one essentially connected with mental states and processes, the other essentially disconnected therewith? It is true that he admits that total elimination is not always possible, but the connexion must be minimized. These little points need to be cleared up before one can undertake a profitable study, such as he says we do not think to be feasible or desirable.

As to the first and main issue between Dr. Mercier and ourselves, the cat is now out of the bag, and the end is at hand. Dr. Mercier says explicitly in his last letter that insanity is primarily a disorder, not of mind, but of conduct. We did not, as already said twice, object to the study of conduct, because we well knew that it must be studied, whether we consented or not. But we did object to the study of conduct as set up by Dr. Mercier—conduct which is but a second-hand, made-up bit of goods, arrogating to itself the position and privileges of old-established attributes such as reason, will, etc., and certainly not fit to be "classed" with them. Apparently *mens sana* will now be an obsolete expression.—I am, etc.,

Tichurst, Feb. 24th. H. H. NEWINGTON.

STANDARDIZATION OF PANCREATINS.

SIR,—In view of the very great importance which on occasion attaches to the matter, I think the attention of medical practitioners, and more especially of medical officers in charge of hospitals, should be drawn to the variability that exists in the activity of the pancreatins and pancreatin preparations which are upon the market.

I had occasion recently to examine a number of specimens of pancreatin, pancreatin tablets, and peptonizing powders, and I found that a considerable proportion of them were practically inert. Since pancreatin may be obtained at prices varying from 5s. to 23s. a pound, and as the cheaper would most probably be the one supplied under contracts not restricted, it would seem very desirable to fix some standard to which pancreatin should conform. There is very little difference between the appearance of pancreatinized and non-pancreatinized milk; the test usually applied in England is that of the *United States Pharmacopœia*, but this is not entirely satisfactory. I would therefore suggest that Sorensen's test should be used, and that 0.02 gram of pancreatin, when tested by this method after one hour's digestion, should form amino-acids equivalent to 2 c.cm. of N 5 soda.

Tablets combined with soda should have the addition of a little starch, and be granulated with spirit for compressing. When made in this way no deterioration of the pancreatin takes place.—I am, etc.,

F. F. SHELLEY, F.I.C.,
Chemist to the Society of Apothecaries.
Apothecaries' Hall, Blackfriars, E.C., Feb. 13th.

MOSQUITO DESTRUCTION.

SIR,—I have been interested both in Dr. Elkington's letter on the above subject which appeared in the JOURNAL of January 13th, and also in the experiments conducted by Sir Ronald Ross and Mr. Edie, and which have now been fully recorded in the *Annals of Tropical Medicine and Hygiene*, vol. v., No. 3 of December 30th, 1911.

Dr. Elkington was unable to obtain the same results as Sir Ronald Ross and his co-worker. I write to suggest that this may be due to the fact that, commercially, preparations of potassium cyanide vary greatly in strength. Some time ago I was trying to find a more humane method of killing the pariah dogs which haunted the outskirts of Khartoum than by poisoning them with strychnine. I tried potassium cyanide, and found it frequently almost inert. On reference to our research chemist, Dr. Beam, he informed me of the fact stated above. Indeed, a glance at Messrs. Baird and Tatlock's latest catalogue (1910) will show that the preparations in the market may vary from 40 per cent. to 100 per cent. in strength. I suggest that its failure in Dr. Elkington's hands may be due to the strength, or rather lack of strength, of the preparation he employed. It is evident that in ordering this larvicide it will be necessary to specify the amount of cyanide it must contain, and to be sure that a good sample is secured.

Another matter which may claim attention is concerned with the larvicide recommended by Le Prince, and mention in the paper by Ross and Edie. Dr. Beam prepared some of this larvicide for use in the Sudan, and in the course of his work discovered that Le Prince's original description of its preparation is incomplete. It is *solution* of caustic soda which should be added to the mixture of carbolic acid and resin. Ross and Edie found that the resin did not dissolve readily in the carbolic acid. It has, as Le Prince states, to be added after being well pulverized. Dr. Beam noted that the fine powder is best added by sprinkling it over the surface of the heated carbolic acid. He informs me that the proper preparation of the larvicide can only be reached by experiment. There may be several little points needing attention which require to be learnt by experience. Hence, a simpler form like the cyanide in soap tablets is very desirable, though of course its use is limited to certain types of water collections.—I am, etc.,

ANDREW BALFOUR, M.D.,
Director, Wellcome Tropical Research Laboratories.
Khartoum, Feb. 8th.

POST OFFICE MEDICAL OFFICERS: THEIR OPPORTUNITY FOR JUSTICE.

SIR,—In reply to "Ultimatum" (March 2nd), as a Post Office medical officer—and I feel I express the feeling of the majority of such officers—I congratulate him on his letter. We feel now is the time for unity, and, strong in our good cause, we should demand that the unjust and obnoxious claims put upon us without payment and without consent should be for ever removed.—I am, etc.,

PASTOR.

Public Health
AND
POOR LAW MEDICAL SERVICES.

PRESERVATIVES IN MILK AND CREAM.

NEW regulations under the Public Health (Regulations as to Food) Act, 1907, have been drafted by the Local Government Board with regard to the use of preservatives in milk and cream. The addition of any preservative substance whatever to milk intended for sale is totally prohibited. In respect of cream, the use of boric acid, borax, or a mixture of these, or of hydrogen peroxide in any amount not exceeding 0.1 per cent. by weight is permitted, provided that the cream to which it is added does not contain less than 40 per cent. by weight of milk fat. Should the proportion be under 40 per cent., the prohibition is total. Also forbidden is the addition of any thickening substance to cream or preserved cream. It is proposed that these regulations shall come into force on June 1st, and that on and after January 1st, 1913, consumers of cream shall be further safeguarded by preserved cream being mentioned in all documents, advertisements, and trade lists relating thereto, as either preserved cream (boracized) or preserved cream (peroxidized), as the case may be.

Obituary.

THOMAS PROUDFOOT, M.B., C.M., B.Sc., F.R.C.P.E., EDINBURGH.

EDINBURGH graduates of the late Seventies will be grieved to hear of the death of Thomas Proudfoot, which took place at his residence in Edinburgh on February 27th.

His career was interesting, and his personality no less striking. Born in Edinburgh in 1842, he was educated at the Royal High School, where he came under the influence of MacMillan, a noted teacher of the day. Though the boy's tastes were evidently literary, his father had "views," and, instead of yielding to the lad's desires, ordained that his son should learn a trade. He was in consequence apprenticed to a watchmaker. Accepting the inevitable, young Proudfoot determined to do that which he was forced to do, as well, if not better, than most of his fellows. On the termination of his apprenticeship he went to London to acquire that skill and dexterity in his work which could only be obtained from the specialists—English, French, and Swiss—who then had their head quarters in Clerkenwell. In this locality he gained that experience of life among the working classes on which he based so many of his subsequent opinions: there he became acquainted with the bitterness of life among the poor—a memory which ever after stirred his generous impulses; there he imbibed those socialistic views with which as a young man he was so strongly impressed. But, more than all, he learnt that even amongst these humble folk there were geniuses just as able and heroes quite as noble as those in the higher walks of life. With this experience of life in London he combined a knowledge of conditions abroad, for many of his holidays were spent mostly on foot in exploring France, Switzerland, and Italy.

It was towards the latter part of his career in London that he came under the influence of Darwin and Huxley. To him the great surgeons and physicians of the day were the embodiment of those particular virtues which seemed so essential to lighten the load of human misery. The desire to help in some way became a passion with him, and when, on the death of his father, he found himself the possessor of a modest fortune, Proudfoot felt that the opportunity of his life had arrived. The prospect of financial success in business, then within his reach, weighed as nought with him; all was sacrificed to the attainment of that ideal—that means to an end—which, as a practitioner of medicine, would enable him in some measure to assuage the sufferings of the bodily oppressed.

In 1875, at the age of 33, Proudfoot commenced the study of medicine in Edinburgh. By most of the men of that time he will be remembered as a tall and powerfully built man, with a massive head and a refined and intellectual face. Somewhat casual as to dress and appearance, he was possessed of a cherry optimism which was infectious. Whilst every one knew and liked "T. P.," as he was called, it was reserved to the few to realize what manner of man he was; to them alone were revealed the intensity and sincerity of his purpose. To him the task was a laborious one; its justification was the end in view. When, in 1880, his efforts were crowned with success and he took his degree, Proudfoot felt that he was now free to put in practice those principles which had been his guiding lights.

Appointed soon after his graduation to the charge of a colliery practice in the North of England, he experienced, for the first time, a rude shock to some of his ideals. At the beck and call of every one, he began to realize that gratefulness for his attentions was not a universal characteristic amongst his patients; rather was he met with grumblings and charges of inattention. Against all this he silently girded. Then came a severe epidemic of small-pox. The folk were panic-stricken and afraid; no nurses could be got; no assistance could be obtained. Himself he nursed the sick and dying; himself he carried the dead to the mortuary, and he alone was there to place them in their coffins. It seems strange to think that such things could happen. But he had his reward; for after telling the people in no measured terms what he thought of them, he became a hero in the district and his patients were his slaves.

Soon after, acquiring a practice at Newbiggin-by-the-Sea, he took up golf—not so much with the intention of providing for his own amusement, for he had little spare time on his hands, but rather with the idea of inducing the miners to spend their leisure in this healthful and innocent sport. The links, which he was instrumental in getting laid out, now form one of the attractions of Newbiggin as a holiday resort.

Here occurred the tragedy of his life. Just when things were going well with him he was deeply involved in the affairs of a friend to whose assistance he had gone. The constant worry and anxiety to which he was subjected, and the frequent journeys he had to make when otherwise he should have been resting, so weakened his powers of resistance that on one of these occasions he caught a chill, resulting in an illness which cost him the loss of one eye and threatened for some time to involve the sight of the other. This broke his spirit; for the second time in his life he had had success in his hands, but Fate willed it otherwise.

Realizing that he was no longer physically fit to undertake the arduous duties of so extensive a district, he returned to Edinburgh. Again he found solace in study. In 1889 he took the B.Sc. in Public Health, and in 1892 was elected a Fellow of the Royal College of Physicians of Edinburgh. For some years he acted as Deputy Medical Officer of Health for the Lothians, and was for nineteen years visiting physician to the infectious hospital at Slateford. He was also a Vice-President of the Edinburgh Division of the British Medical Association.

In private life in later years he was somewhat of a recluse. Books were his absorbing interest. Few men had such an intimate and critical acquaintance with English literature. To spend an hour with him was an education, for if he failed to lay his hand on a reference the chances were that he would quote the whole passage verbatim. To those who knew him intimately the interest of his career depended on the fact that here was a man who up to middle age had lived and worked amongst a class with which no doubt the doctor is brought into intimate relations, but not necessarily under conditions which may impress him with its virtues. Dr. Proudfoot knew the working man well, and his love was for the poor: it was in large measure from a desire in some way to alleviate the hardship of their lot that he was induced to enter the profession.

His subsequent experience was such as to lead him considerably to alter his views regarding some of his ideals. He found that despite the labour which he spent in their service he was often charged with neglect: he realized that whilst little consideration was shown him, everything was expected of him. He felt keenly, too, the limitation of his powers, and, always excepting surgery—for the craftsmanship of which he had an unbounded admiration—soon recognized that his ministrations in serious illness were confined to studying the comfort of his patient, and that medicine as a curative agent was of little avail. He had expected to do so much that he was sadly disappointed in being able to do so little. All this reacted on his mental attitude. The cheery optimism of his youth was replaced by a qualified pessimism. For the generous impulses of his early manhood, which found expression in his adoption of a socialistic attitude was substituted in later life the acceptance of pronounced Conservative opinions. It is the experience of many—in his case it was the lesson of his life.

He wrote little, but thought much. As the outcome of his experience he had grave doubts as to the efficacy of vaccination, but whilst holding strong views on this subject he bowed to the judgement of the majority. In other matters he was sometimes quite unorthodox. His opinions, if not always convincing, were listened to with respect, for it was recognized that they were the outcome of honest convictions.

He was a man with a big heart and the gentleness of a woman. No one ever appealed to him in distress without immediate relief. His small fortune was dissipated in rendering assistance to others, so much so that towards the end of his life his own circumstances were straitened. He was unmarried. As in life, so in death, he left what little remained to the cause of charity.

The funeral, which took place at Warriston Cemetery, was largely attended, among the members of the profession present were: Dr. Bramwell, President of the Royal College of Physicians; Mr. Berry, President of the Royal College

of Surgeons, Edinburgh; Professors Caird, Littlejohn, Hunter Stewart, Stockman (Glasgow), and Thomson (Oxford), and Drs. Dewar, Haultain, Ritchie, and Norman Walker, amongst others.

SIR FRANCIS CRUISE, M.D.,

PHYSICIAN IN ORDINARY TO H. M. THE KING IN IRELAND; CONSULTING PHYSICIAN, MATER MISERICORDIAE HOSPITAL, DUBLIN.

SIR FRANCIS CRUISE died on February 26th at his residence in Dublin. He had been ill for some time, but his condition only became serious about a week before his death.

He was born in Dublin in 1834; he entered Belvedere College at the age of 10, where he showed great ability and devoted himself ardently to his studies. In later years he was extremely proud of his election as first President of the Belvedere Union. He afterwards went to Clergowes Wood, and entered Trinity College, Dublin, in 1852. He graduated in Arts in 1856 and in Medicine in 1858. During his course in college he studied under such distinguished men as Professor Banks, Professor Smith and Professor Apjohn. He then studied at the Home of Industry Hospitals and at the Carmichael School of Medicine, where he took an active part in the scientific work of Dr. Robert M'Donnell. At the completion of his hospital studies, as he was run down in health owing to overwork and a severe attack of fever, he went to America with Count Henry Russell, and afterwards spent some time in study at various European schools of medicine.

All this helped to give him his broad outlook upon the world, and on his return he decided to practise in Dublin. Recognition of his ability, however, came slowly; in the first year he received £7 from private patients, in the second £11, in the third £30, and in the fourth £130; his practice then grew steadily year by year. During this time, however, he was not idle: he worked for many years as a teacher at the Carmichael School of Medicine, and in 1861 he took the M.D. degree in the University of Dublin. In the autumn of the same year, on the opening of the Mater Misericordiae Hospital, he was appointed Junior Physician. He was a constant writer on medical subjects, and was the pioneer of the introduction of the endoscope in Dublin, as he is said to have invented the first instrument of the kind which was used in that city. Sir Francis Cruise filled for many years the office of Senator of the University of Dublin and of the Royal University of Ireland from its foundation to its extinction. He was appointed to various responsible offices, including that of Consulting Visitor in Lunacy under the High Court of Chancery. He was President of the Royal College of Physicians in Ireland from 1884 to 1886. In 1896 he received the honour of knighthood. In 1901 the late King Edward appointed him Honorary Physician in Ordinary in Ireland, and in 1905 Pope Pius X honoured him with the decoration of Knight of St. Gregory the Great in recognition of his writings upon *The Imitation*. In 1906 Sir Francis declined the honour of a baronetcy.

Besides devoting a large part of his spare time to literature, he was known in Dublin as an ardent lover of music, and he was himself an accomplished player of the violoncello. He was President of the Instrumental Club, a Governor of the Royal Irish Academy of Music, and has edited many classical works and Irish airs. He married in 1859; the union lasted for more than fifty years, and its golden jubilee was observed a year before the death of Lady Cruise.

THE LATE PROFESSOR YOUNG.—The Anatomical Society was represented at the funeral of Emeritus Professor Young by Professor Elliot Smith, a vice-president, the president, Professor R. W. Reid of Aberdeen, being unavoidably prevented from attending.

WE regret to announce the death of DR. JULIUS PAGEL, Professor of the History of Medicine in the University of Berlin, at the age of 60. He was born at Pollnow, and studied medicine at Berlin, where he graduated in 1876. He began lecturing on medical history in 1891, and was given the title of Professor in 1898. He was the author of an introduction to the history of medicine in the nineteenth century, of a biographical lexicon of the medical practitioners of the nineteenth century, of a work on Deontology (medical ethics). He also edited the works of Henri de Mondeville, and wrote many papers dealing with subjects related to medical history. He was co-editor with Professor Neuburger of a large work on the history of medicine.

Universities and Colleges.

UNIVERSITY OF OXFORD.

DR. JAMES A. GUNN, F.R.S.E., has been appointed to the Readership in Pharmacology. He will have charge of the teaching of materia medica, and will superintend the construction of a new pharmacological laboratory. Dr. Gunn has for several years acted as Assistant to Sir Thomas R. Fraser in the materia medica department of the University of Edinburgh.

UNIVERSITY OF CAMBRIDGE.

Degrees.

THE following degrees have been conferred:

M.B.—A. J. S. Fuller, W. B. Marshall.
B.C.—A. J. S. Fuller.

UNIVERSITY OF BRISTOL.

AT a meeting of council held on Friday last Mr. Ernest W. Hey Groves, F.R.C.S., was appointed Lecturer in Surgery to dental students.

The thanks of council were given to the Bristol Royal Hospital for Sick Children and Women and the Victoria University of Manchester for gifts of valuable specimens to the pathological museum.

CONJOINT BOARD IN IRELAND.

THE following candidates have been approved at the examinations indicated:

D.P.H. (*Both Parts*).—C. Averill, A. D. Clinch, P. D. Bhiwandiwalla, F. Muller-Fonseca, E. E. Goodbody, E. Morton, J. Robinson, P. J. Taaffe, E. C. Thomas.

Obtained honours.

Medical News.

THE KING has been pleased to approve the appointment of the following gentlemen to the consulting staff of the Convalescent Home for Officers of H. M. Navy and Army, Osborne, Isle of Wight, as from November 23rd, 1911: Sir Anthony Bowlby, C.M.G., F.R.C.S.; Surgeon-General Sir Arthur M. Branfoot, K.C.I.E., M.B., F.R.C.S., I.M.S.; Sir James Kingston Fowler, K.C.V.O., M.A., M.D., F.R.C.P.; Mr. George H. Makins, C.B., F.R.C.S.; Dr. H. D. Rolleston; Mr. Charters J. Symonds, M.S., F.R.C.S.; and Dr. James Taylor, M.A., F.R.C.P.

DR. STCLAIR THOMSON has been unanimously elected a Corresponding Member of the Vienna Laryngological Society.

MR. HERBERT HAYNES TWINING has been elected Treasurer of the King's College Hospital in succession to Mr. Charles Awdry.

MR. J. ASTLEY BLOXAM, F.R.C.S., and Dr. William E. Cant have been appointed Knights of Grace of the Order of the Hospital of St. John of Jerusalem in England.

THE Hunterian Society's silver medal awarded annually for the best original essay submitted by a general practitioner has been won by Dr. Arthur Goulston, M.A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P., of Heavitree, Exeter, for his essay on "The Use of Sugar in Heart Disorders."

THE annual dinner of the Chelsea Clinical Society, at which Professor Einthoven will be present, will take place at the Richelieu Hotel, Oxford Street, on Wednesday, March 20th, at 7.45 for 8 p.m. punctually. Tickets, price 7s. 6d., may be obtained from the senior secretary, Dr. Halls Dally, 16, Lower Seymour Street, Portman Square, W.

DR. COLLIER, J.P., Lincoln, on retiring from practice, was presented, as a token of their esteem by many of his patients and friends with a handsome suit and dressing-case. The members of the Lincoln Women's Liberal Association and other friends also gave Mrs. Collier a very beautiful morocco case filled with toilet requisites, "on her resigning her position as local president, after nineteen years of strenuous and invaluable service in the cause of religion, education, and social reform."

THE International Anti-Epilepsy League will hold its annual meeting this year at Zurich on September 6th and 7th, at the same time as the International Congress of Psychology and Psychotherapy, and the meeting of the

Society of Swiss Psychiatrists and Neurologists. The presidents of the business meetings are Professors Tamburini of Rome, and von Monakoff of Zurich; those of the scientific meetings are Professors Forel of Yvonne, and Donath of Budapest. Among the subjects proposed for discussion are the following: A diet poor in salt; and alcoholic epilepsy.

AT the last election to the French Senate sixteen members of the profession were successful. The following is the list of medical senators: Drs. Blanc, Hautes-Alpes; Bol'e, Ain; Borne, Doubs; Cannac, Aveyron; Chauveau, Cote d'Or; Combes, Charente-Inférieure; Dellestable, Corrèze; Denoix, Dordogne; Flaissière, Bouches du Rhône; Gacon, Allier; Gauthier, Aude; Peschaud, Cantal; Peyrot, Dordogne; Rouby, Corrèze; and Vagnat, Hautes-Alpes.

DR. WILLIAM NICOLL will begin a course of seven lectures at the Lister Institute, Chelsea Gardens, on modern aspects of helminthology, on Tuesday, March 19th. The second lecture will be given on March 22nd, and the following lectures on Tuesdays and Fridays (with the exception of Easter week) ending on Tuesday, April 16th. The course is open without fee to medical men, and the lectures, which will be given at 5 p.m. on each day, will deal with the general outlines of helminthology, and with the chief special problems relating to the parasitic worms of man; they will be illustrated by lantern slides.

DR. CHARLES S. BRADDOCK, late Chief Medical Inspector, Royal Siamese Government, has recently stated, according to the *Medical Record*, that the official report for the city of Bankok, Siam, covering the time from October 14th to December 9th, 1911, shows that for the first week of this period there were 14 deaths from small-pox, and that by the last week the number had risen to 74. In a single village of Siam he has seen as many as fifteen or twenty children totally blind from the result of this disease. In the epidemic of 1902 in the north of Siam as many as 75 per cent. of all unvaccinated children under the age of 5 years died from the disease. The adults were immune because they were the survivors of a previous epidemic, and had had the disease. At the present time the Government of Siam is endeavouring to vaccinate all the people, the King and Queen having set the example by being vaccinated. In the village of Tatchin an epidemic broke out some time ago, and before the officials of the Government were notified there were 100 deaths from the disease. The entire population of the village was vaccinated, and since that time there has been practically no small-pox there.

PROFESSOR CLAUS SCHILLING in a recent article (*Berl. Klin. Woch.*, No. 1. 1912) discusses briefly the suggestions made with the object of combating sleeping sickness, and advocates certain measures for adoption in Germany's new colonial acquisition in the Cameroons. After dealing with the geographical distribution of the disease and of the *Glossina palpalis*, etc., in the areas under discussion, he discusses the possibility of stamping out the disease by sterilizing the blood of man affected with the disease by medicinal measures, but admits that apart from the impossibility of detecting every case of the disease in any given area no suitable drug has been discovered. He examines the statistics of the English Sleeping Sickness Commission, which shows that 94 per cent. of all the patients died in spite of all means of treatment, and also those published by Ullrich giving a somewhat better result of atoxyl and arsacetin treatment in the first stage of disease. The English method of depopulating affected areas might have even tended to diminish the frequency of the disease in Uganda, but the recently published experiments of Sir David Bruce suggested that antelopes, and even oxen, sheep, and dogs might serve as reservoirs for trypanosomes. Attempts had been made to turn out the tsetse fly itself by destroying the trees on the borders of rivers and lakes, where the tsetse fly prefers to live. Koch showed that if the fly were robbed of moisture and shade it soon disappeared. Attention must, of course, first be given to the caravan routes. A further suggestion made was that the glands of each individual passing into the colony should be examined by a medical officer attached to the Customs house, and that when suspicion was aroused the contents of the glands or the blood should be examined. Finally he calls attention to the figures of the incidence of the disease in Uganda, and of the actual number of deaths. The number of admissions into the Uganda sleeping sickness hospital was 1,185 in 1906–7, 3,896 in 1907–8, 1,538 in 1908–9, and 590 in 1909–10, while the deaths each year since 1905 were 8,003, 6,522, 4,170, 3,662, 1,782, 1,546, respectively. He suggests that the disease frequency is undergoing a diminution, or, in other words, that the rise in the disease is now being followed by a fall.

Letters, Notes, and Answers.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, London, W.C.; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Office, 429, Strand, London, W.C.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Attiology, London*. The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, London*.

TELEPHONE (National):—
2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

INQUIRER asks if assistants in Irish pauper lunatic asylums have more prospects of being allowed to marry afforded them than those similarly situated in English asylums.

W. A. H. desires to hear of a good English medical work of the style of Osler's *Practical Medicine*, which has been translated into Russian.

URTICARIA asks for advice as to treatment of a most persistent and intense irritation of the skin, with urticaria, in an old man suffering from rheumatism and rheumatoid arthritis.

J. H. W. asks for experience as to the value of *x* rays as a prophylactic after amputation of the mamma for carcinoma, and whether any danger might accrue from the rays themselves.

COUNTRY BIRD asks if there is any danger in drinking water stored in a cistern the inside of which has been painted with red lead paint.

X. would be glad to hear of an address where his wife could obtain rational clothing for use during pregnancy. The so-called "maternity skirt," with its elastic waistband seems very unsuitable. Skirts supported from the shoulder are apparently the only solution.

CAPTAIN D. G. CARMICHAEL, R.A.M.C., writes to ask for information as to the origin of the following surgical expressions. He says: Surgically—(1) Genu varum = "bow-leg"; (2) Genu valgum = "knock-knee." But, according to Dr. Smith's smaller Latin-English Dictionary, 1912, p. 634, the adjective varus-a-um = "having the legs turned inwards—knock-kneed"; and on p. 633, valgus-a-um = "having the legs bent outwards—bow-legged." Thus the Latin words have the exact opposite meaning to their "surgical Latin equivalents"; in other words, genu valgum ought to mean "bow-legged" and not "knock-kneed," and genu varum ought to mean "knock-kneed" and not "bow-legged."

FREQUENT MICTURITION.

X. asks for suggestion as to treatment of a business man, aged 28, who has suffered since infancy from frequent micturition, varying from ten to twenty times in twenty-four hours, usually two to three times at night. There is no nocturnal incontinence, and the urine is normal. Hypnotism has been tried without effect, and also the usual drugs.

GRANULAR PHARYNGITIS.

J. M. would be glad of hints as to the treatment of chronic granular pharyngitis of six months' duration in a motor cyclist who has to be out in all weathers. Iodine and other paints, along with the usual general treatment, have been tried. The patient is an abstainer, and has given up smoking entirely.

HOMES FOR INFIRM LADIES.

T. L. desires to hear of a home where an old lady suffering from incontinence of urine, not bedridden or imbecile, could be taken at a small charge.

P. L. B. asks for a home which would take an elderly lady who has only £4 or £5 a year in addition to the old age pension.

SABRINA wishes to hear of any institution, preferably in the midland counties, where an elderly woman who has gone blind from glaucoma could be admitted at a small charge.

ANSWERS.

C. G.—Instruction is given in the use of the ophthalmoscope at most of the ophthalmic hospitals in London, and these courses usually commence in October, January, and May. In these classes ophthalmoscope cases are shown. For one who simply required practice in all forms of eye disease the best

plan would be to apply to become a clinical assistant to a member of the staff of one of the hospitals when facilities are given for the examination of cases. Particulars of the classes may be obtained by application to the secretary of such institutions as the Royal London Ophthalmic Hospital, City Road, E.C., or the Royal Westminster Ophthalmic Hospital, King William Street, Strand, W.C.

Second-hand Horse Ambulances.

It may interest other members besides the correspondent who made the inquiry to know that the Metropolitan Asylums Board has a number of ambulances, no longer required owing to the introduction of motor traction, to dispose of.

Keloid after Appendicectomy.

Mr. J. S. Kellett Smith, F.R.C.S. (London, W.), recommends "M. V. O. M." to try ionic medication with sodium chloride solution of not less than 2 per cent. strength. Even better results, he says, may be obtained by soaking the negative electrode in sea water.

Putting Salt on a Dead Body.

Dr. Cecil Worster-Drought, B.A., M.R.C.S., etc. (Romford), writes: With regard to "A. Z.'s" query concerning the custom of placing salt on a corpse (BRITISH MEDICAL JOURNAL, January 27th, p. 224), may I quote the following from J. C. Wall's *Devils*? "The devil," Moresinus says, "abhors salt for the very sufficient reason that it is the emblem of eternity and immortality." The salt is placed on the dead body with the idea of keeping off the devil and his evil spirits.

Superstitions Regarding Menstruation.

S. D. C. writes: The superstitions "G. W. K. C." refers to are clearly traceable to the ancient doctrine of "cleanliness" in women as laid down by the Jewish legislature and adopted by the Arabian physicians. See Hooper's *Medical Dictionary*, 1825. See also Ezekiah and Isaiah.

Pathological Specimens.

T. H. L.—In London actual specimens from human beings, as distinct from models, of pathological conditions of the ear, nose, and throat, are obtained by vigilance, diligent research, and patient labour in the *post-mortem* rooms. Specimens obtained in this way generally have a carefully recorded clinical history, and are therefore the more valuable for teaching purposes. They usually are placed in the museums of the medical schools.

Mortality of Nephropexy.

T. L.—The mortality of nephropexy in the hands of surgeons whose asepsis is unimpeachable should not be more than 1 per cent., or at most 1.5 per cent. Edebohls has collected statistics of 836 operations performed by surgeons whose experience was of not less than 15 operations each; the mortality was 1.65 per cent. Edebohls himself reports 193 operations with 3 deaths; more than 60 of these patients had bilateral operations, and in a fourth of them the appendix also was removed. Goelet records 171 operations on 134 patients without a death (Morris, Jacobson, and Rowlands). If the kidney is healthy and the surgeon doubtful as to the propriety of operation, it may be wiser for him to satisfy himself that other treatment, including trial of a well-fitting apparatus, has failed. By other treatment is meant dealing with constipation, dyspepsia, tight corsets, general nervous symptoms. Further, the surgeon must make certain that the mobility of the kidney is not simply an accompaniment of general ptosis and abdominal flaccidity, in which case nephropexy will probably fail. But if there are frequent severe attacks of pain or continuous pain, frequent occurrence of "Dietl's crises" due to kinking or torsion of renal vessels or ureter, hydronephrosis following upon chronic bending of the ureter, extreme degree of mobility preventing the patient going about her usual duties, then operation is called for. It must not be forgotten that many quite healthy women have movable kidneys, generally the right, and they have no symptoms at all, the mobility of the kidney being discovered accidentally.

LETTERS, NOTES, ETC.

Ignition Plugs: A Warning.

Dr. C. Butler Simpson (Filey) informs us that he recently purchased from a person giving the name of A. E. White, some "optima ignition plugs." Being dissatisfied with the plugs, he wrote to the address given, but his letter was returned, marked "Not known." This note and previous communications with regard to ignition plugs suggest that medical men would perhaps be better advised if they purchased these plugs from firms known to them rather than from travelling agents.

Anaesthesia for Submucous Resection of the Septum.

Dr. Stuart V. Stock (Senior Honorary Assistant Anaesthetist, Royal Infirmary, Bristol) writes: I have read with interest Mr. B. Seymour Jones's paper in the JOURNAL of February 24th, and should like to suggest that injecting adrenalin into a patient under the influence of chloroform is unjustifiable. Mr. Jones tells us of the unfavourable symptoms he has noticed, and of his three patients who narrowly escaped death. I can endorse what he says about the evil effects of adrenalin from personal experience, and would suggest that he uses ether and atropine to anaesthetize his patients with, packing the nose with gauze wrung out in a mixture of equal parts, 10 per cent. cocaine and 1 in 3,000 adrenalin.

Small-pox Inoculation.

Mr. James M. McGhee (St. Helens) writes: With reference to your comments in the JOURNAL of January 27th, p. 240, on my offer with regard to the inoculation of small-pox, contained in the January issue of the *Vaccination Inquirer*, kindly allow me to state, in justice to the editor, that I alone, and not he, was responsible for the heading. "The only effective way of meeting the scaremongers." He, I believe, does not share my view as to the non-transmissibility of small-pox by inoculation. He also is of the opinion that the inoculated in prevaccination times were prolific factors in the prevalence of the disease, whereas I believe they exerted no influence whatever. On these aspects of the vaccination question we agree to differ.

Health of Grand Canary.

Dr. W. M. M. Jackson (Las Palmas) writes: Early in the season it was reported in the press that some form of infectious disease was prevalent in this island. May I take the opportunity through your columns of stating that there was no foundation for any such report, and that the season has been and is particularly a healthy one? Visitors and invalids can enjoy the advantages of this beautiful climate under as healthy conditions as can be obtained anywhere.

"A Good Thing for Saturday."

G. C. S. writes: It may prevent some members making a bogus appointment if they know of the following incident that happened to me and others. Last week a Mr. Dunne called on me whilst I was out. He stated that he would call again, and did so. I found a well-set-up, clean shaven, pale-faced man, in a Newmarket greatcoat, about 5 ft. 11 in., who stated that his father was Captain —, who lived at an address in West Kensington. He further told me that they had an invaluable servant, a jockey, who suffered from haemorrhage from the rectum. His father's wish, he told me, was that this lad should be "patched up," if possible, till the end of the steeplechasing in the middle of March. He made an appointment for two days hence, and said he would personally attend with the jockey. As West Kensington is somewhat beyond my normal limits of practice, I ventured to ask why I had the honour of being selected to advise this valuable jockey. The reply was that a mutual friend had suggested my name. I did not pursue this line further. Before leaving, my visitor in the Newmarket greatcoat asked me if I was interested in racing. Having assured him that I was not, he regretfully told me that he had "a good thing for Saturday." I advised him (without fee) that if he was in possession of such a "good thing" it would be well to keep it in the family. The appointment was not kept. Having my suspicions as to the bona fides of this prospective consultation, I mentioned the matter to a medical neighbour, who told me, with much merriment, that he had gone through the same ordeal with a similar result.

The Etiology of Cancer.

Mr. Kenneth Campbell (London, W.) writes: The recent discussion on this subject reminds one of the logical fallacy ridiculed by Molière. The father of a dumb girl wants to know why his daughter is dumb. "Nothing is more easy to explain," says the physician Ignarelle: "it comes from her having lost the power of speech." "Yes, yes," objects the father, "but the cause, if you please, why she has lost the power of speech." Ignarelle is quite ready with an answer: "All our best authors will tell you that it is the impeding of the action of the tongue." We all know that the cancer cell acts as a parasite, but will any one please tell us why it does so?

Injury of the Eyeball or Disease.

Mr. A. A. Bradburne, F.R.C.S.Edin. (Manchester), writes: Major McPherson's paper on this subject (SUPPLEMENT, March 2nd, p. 286) reminded me of a case I saw some years ago. The patient was a young man who for two years had suffered from defective central vision of the left eye, which he attributed to a blow from a football. Recently the right eye had become similarly affected, and he was anxious to know if the same "injury" had caused this further complication. After a thorough examination I advised a visit to a nerve specialist, where my suspicions that it was in reality a case of disseminated sclerosis were confirmed. Had it been a case under the Workmen's Compensation Act complications might have arisen.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page	8	0	0

An average line contains six words.

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NOTE.—It is against the rules of the Post Office to receive *postes restante* letters addressed either in initials or numbers.

SERUM AND VACCINE THERAPY IN CONNEXION WITH DISEASES OF THE EYE.

THE MIDDLEMORE PRIZE ESSAY, BRITISH MEDICAL ASSOCIATION, 1911.

BY C. W. G. BRYAN, F.R.C.S.ENG.,

LATE ASSISTANT IN THE DEPARTMENT FOR THERAPEUTIC INOCULATION, ST. MARY'S HOSPITAL; AND HOUSE-SURGEON, OXFORD EYE HOSPITAL.

I.

THE subject of serum and vaccine therapy in relation to diseases of the eye is one which has received a large amount of attention, and on which a great deal of work has been done during recent years.

The treatment of eye diseases by serums and vaccines differs from similar treatment of disease in any other part of the body owing to the anatomical peculiarities of the blood and lymph supply of this organ.

The cornea and vitreous have in the healthy condition no blood vessels, and are feebly nourished by lymph; the lymph circulation of the intrinsic parts of the eyeball is, however, not free, and this is exemplified by the rarity with which malignant growths of the interior of the eyeball give rise to secondary deposits in glands until the growth by direct spread has extended outside the sclerotic coat.

Again, in those parts of the eye where there is a supply of blood vessels the distribution of the blood in these vessels is constantly varying owing to the unceasing movements of the eye as a whole, and of its various parts—the iris, ciliary body, etc. These movements are of importance when the eye is infected, as they cause the setting free of bacterial substances, toxins, etc., in the blood stream. This subject of autoinoculation will be discussed later in connexion with vaccine therapy.

Immunity against disease due to infection may be acquired actively or passively. Vaccine therapy is concerned in the production of active immunity, serum therapy deals with the production of passive immunity.

VACCINE THERAPY.

Active immunity can be acquired in two ways—either by auto-inoculation by bacterial substances set free in the blood stream from some focus of disease, or by the methods of hetero-inoculation—that is, by the absorption of vaccine, usually injected into the subcutaneous tissues. In disease of the eye auto-inoculation is an unsatisfactory method of producing immunity, owing to the limited blood and lymph flow in the eye, and to the fact that the size of the area of infection, as compared with the body as a whole, is small, and therefore great disturbance of this small area would be necessary to produce any marked auto-inoculation.

In using vaccines it is necessary as far as possible to prevent auto-inoculation by keeping the diseased part at rest, and this is a difficulty with which we have specially to contend in dealing with eye diseases. If auto-inoculation takes place at the time that treatment by hetero-inoculation is being carried out, substances of unknown amount may be set free in the blood stream at unfavourable times, interfering with the regulation of the dosage of vaccine.

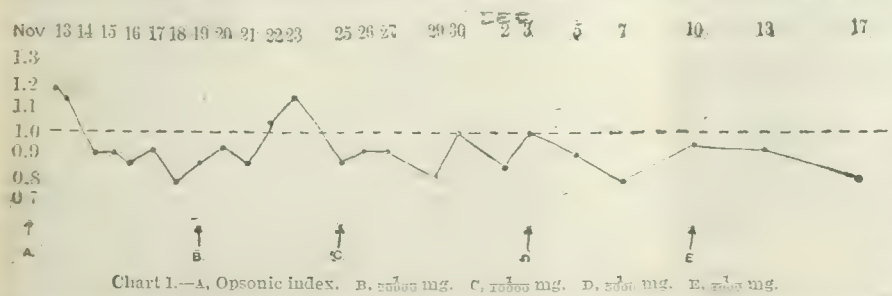


Chart 1.—A, Opsonic index. B, $\frac{1}{50000}$ mg. C, $\frac{1}{10000}$ mg. D, $\frac{1}{5000}$ mg. E, $\frac{1}{2000}$ mg.

Sir Almroth Wright and his disciples have shown by means of the opsonic index that the injection of vaccine into an infected subject causes changes in the blood, changes which vary with the amount of vaccine given. The opsonic index is a means of gauging the amount of opsonin in the blood serum, opsonin being some substance which so acts on bacteria that the phagocytes of the blood are able to ingest these bacteria. Injection of vaccine has as its aim the increase of the opsonins in the blood, but the effect of vaccine on the amount of opsonin, as shown by the opsonic index, varies with the amount of vaccine which is injected.

According to the amount of vaccine given, four effects may be obtained.

1. If a small dose be given to an infected person, no effect may be produced, as shown in Chart 1, of a patient suffering from undoubted tuberculosis. Here doses of tuberculin (bacillary emulsion) varying from $\frac{1}{50000}$ to $\frac{1}{2000}$ mg. were given, and twenty-four opsonic indices taken with no variation greater than would be within limits of normal.

2. A dose which has only a slight effect causes changes in the amount of opsonin in the blood—first, a rapid slight rise of the opsonic index, then a gradual fall to the level at which the index stood before the inoculation.

3. The usual effect of an efficient dose of vaccine is to cause first a fall (this being called the "negative phase") followed by a rise ("positive phase") the index gradually again falling to the level at which it was before the vaccination. A slight variation of this curve is occasionally seen in a small rise, lasting a few hours, occurring before the negative phase sets in.

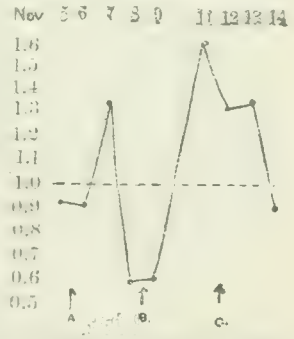


Chart 2.—A, Vaccine. B, Negative phase. C, Positive phase.

4. If an overdose be given, then the only effect is a negative phase lasting a long time, the index gradually rising to near its former level.

With regard to the doses necessary in diseases of the eye, the general statement may be made that larger doses of vaccine are necessary than in treating disease elsewhere, because the blood and lymph flow being limited, a less amount of opsonin will be brought in contact with the diseased area, and also the risk of toxic effect is less, as the area of infection is small.

It has been found that clinical symptoms vary directly with variations of the opsonic index. During the positive phase the patient's general condition improves, as shown by a drop in the temperature in febrile cases and alleviation of symptoms generally; locally also symptoms are relieved. In eye disease pain becomes less, discharge decreases, ciliary injection diminishes, vision improves, etc. Conversely, during the negative phase symptoms are aggravated.

The aim of Wright's system of inoculation is to produce by repeated injections negative phases as short as possible, followed by positive phases as long as possible, the vaccine being reinjected as the positive phase decreases. In this way the disease gradually becomes cured. The dose to produce this effect, at first small, has to be gradually increased in amount. The interval between inoculations varies according to the nature of the disease.

It is possible without the opsonic index to regulate the amount of vaccine by observation of clinical manifestations. In febrile diseases the temperature varies in inverse ratio to the opsonic index, as is shown by Latham and Inman,[1] and, after a suitable dose of vaccine, the temperature falls, rising again when the effect of the vaccine wears off. The vaccine is then repeated.

In eye disease, by direct inspection, we have a ready means of regulating the treatment by vaccines. In disease of the iris, cornea, and sclerotic vascular injection of the conjunctiva decreases after an efficient dose of vaccine, though if a negative phase is produced the injection may,

while the negative phase lasts, be temporarily increased. This is well shown by a case of tuberculous keratitis which was treated by myself, the course of treatment being regulated by the amount of vascular injection. Whenever the eye became inflamed tuberculin was given, and each dose was followed by a period of absence of injection and of photophobia, until finally the condition became absolutely quiescent.

CASE.

R. M. suffered from keratitis for five years. From March to June, 1908, was treated with tuberculin B.E., regulated by observations of the opsonic index; after this treatment was regulated by the amount of conjunctival injection, which, when present, was associated with photophobia.

June 5th. Eyes quiet.
June 10th. Right eye inflamed.
June 11th. $\frac{1}{5000}$ mg. given.
June 14th. Both eyes quiet.
June 22nd. Slight conjunctival injection of left eye. $\frac{1}{5000}$ mg. given.
June 23rd. Both eyes quiet.
June 30th. Much injection of right eye. Photophobia. $\frac{1}{4000}$ mg. given.
July 1st. Slight injection of right eye.
July 2nd. Both eyes quiet.

After July 2nd the eyes showed no more sign of inflammation; corneae continued to clear and vision to improve. Tuberculin treatment was continued until August 26th.

Fromaget[2] mentions a case of tuberculous iridochoroiditis, treated by tuberculin, in which the first four doses were followed by ocular reaction, the fourth also by rise of temperature. Later doses led to marked improvement in local signs and in vision. Here, then, we have an example of negative phases shown by ocular reaction, and one by rise of temperature. The vision also improves during the positive phase as we should expect, and is diminished during the negative phase.

I now propose to deal seriatim with the various infective diseases of the eye which have been treated by vaccines.

TUBERCULOSIS.

Tuberculosis has been treated by vaccine since Koch first introduced his tuberculin in 1890. Disastrous results followed the use of this old tuberculin in the doses recommended by Koch. Treacher Collins[3] mentions the case of a child, aged 9, suffering from tuberculous nodules in the right iris, who was treated by ten injections of old tuberculin, beginning with 1 mg., the dose rising in a month to 7 mg. The original four nodules invaded the whole iris, and the eye was excised.

However, by using smaller doses at longer intervals, good results have been obtained with old tuberculin in eye diseases. De Schweinitz[4] describes two cases of scleritis and keratitis treated by old tuberculin—one case of eight years' standing cured by six weeks' treatment, the other case showing improvement, followed, however, by recurrence.

The general opinion is that the use of old tuberculin is attended by unjustifiable risk, and it has been superseded by less dangerous preparations. Many varieties of tuberculin have been placed on the market, each of which has had its supporters and opponents. It would be unprofitable here to mention more than a few of these products, many of which have been in use for but a short time.

Koch's new tuberculin (tuberculin T.R.) was very largely used, and it was with this preparation that Sir Almroth Wright placed the treatment of tuberculosis on a scientific footing, using small doses regulated by estimations of the opsonic index.

The next variety of tuberculin requiring special mention is the bacillary emulsion; this preparation has been, and is being, used extensively with good results. In a series of cases of ocular tuberculosis which I have treated I used this preparation of tuberculin, and I shall refer to some of my results later.

Mention must be made of the use by R. W. Allen[5] of bovine tuberculin in the treatment of tuberculosis of the eye in human beings. He holds that tuberculosis secondary to phthisis is due to human tubercle bacilli, but that, if secondary to cervical or mesenteric tuberculous glands, the disease may be due to bovine tubercle bacilli. He lays down the following rules:

1. If the disease is primary, commence treatment with human tuberculin, and if no improvement takes place in two or three months, the bovine tuberculin, or a mixture of the two varieties, should be used.

2. If the disease is secondary use the appropriate tuberculin.

Allen claims good results in eye disease from the use of this method.

In recent years the two most important methods of dosage which have been employed in using tuberculin in eye disease are:

1. Wright's method, commencing with a small dose, $\frac{1}{50000}$ to $\frac{1}{10000}$ mg., gradually increasing the dose over a long period of treatment with about ten days' interval between each inoculation, the dosage being regulated by estimations of the opsonic index.

2. Von Hippel's[6] method of treatment with tuberculin T.R., commencing with an initial dose of $\frac{1}{5000}$ mg., repeating the inoculation on alternate days, increasing each time by $\frac{1}{5000}$ mg. until $\frac{1}{500}$ mg. is reached; after this the dose is increased each time by $\frac{1}{500}$ mg. up to $\frac{1}{100}$ mg.; then, by $\frac{1}{100}$ mg. until a dose of 1 mg. is reached. During the treatment the temperature should not rise above 100° F.; if it does so, the previous dose, or a smaller one, is repeated until there is no rise of temperature after the inoculation.

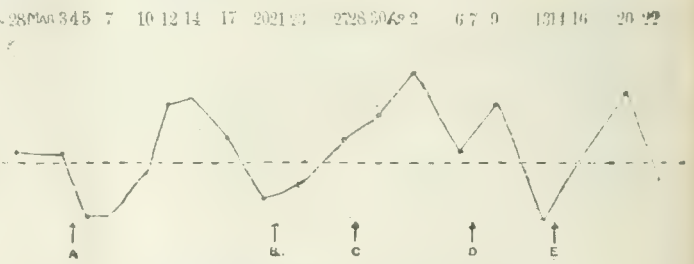
In treating a series of cases at the Oxford Eye Hospital I have used Wright's method, regulating the treatment partly by estimation of the opsonic index, partly by observation of clinical signs and symptoms, temperature, amount of pain and photophobia, effect on vision, and conjunctival injection.

I wish to take this opportunity of expressing my gratitude to Mr. Robert Doyne and the other members of the staff of the Oxford Eye Hospital for their help and encouragement: it was at Mr. Doyne's suggestion that I undertook vaccine therapy while house-surgeon at Oxford, and he not only fitted up a laboratory for me, but gave me permission to make use of all clinical material which was suitable.

Extrinsic Tuberculosis of the Eye.

1. *Tuberculous Conjunctivitis.*—I have treated one case of tuberculous conjunctivitis over a long period with good result.

J. R., aged 61, was first seen in March, 1907, for a lump in the right lower lid of three months' duration; this was removed, but was followed by the appearance in the upper lid of a mass which was treated by caustics and scraping, but continued to increase in size. At the beginning of 1908 the whole of the inner aspects of both lids was covered with fungating granulations, the upper lid projecting over the lower and being thickened to about the size of a hazel nut. Owing to the thickening of the lids the eyeball was hidden, but on raising the upper lid the cornea could be seen, rough and opaque. In January, 1908, a scraping from between the coarse granulations was taken and stained, and tubercle bacilli were found. Treatment by Tuberculin B.E. was commenced in March. The effect of the first five doses on the opsonic index is shown in the following chart.



A, $\frac{1}{5000}$. B, $\frac{1}{2000}$ mg. C, $\frac{1}{1000}$ mg. D, $\frac{1}{2500}$ mg. E, $\frac{1}{1000}$ mg.

Until the end of 1908 the opsonic index was taken regularly and the injections were repeated every ten days, gradually increasing until at the end of the year $\frac{1}{2000}$ mg. was being given. Since that time till the end of 1910 Dr. Coventon, of Oxford, kindly carried on the treatment, and the patient had $\frac{1}{2000}$ mg. every fourteen days. In December, 1910, the conjunctivitis was cured; the conjunctiva was smooth, no injection being present except one small area the size of a pin's head in the upper lid. The thickening had disappeared, the lids being of normal consistency. The eye could be fully opened, and the cornea was smooth and showed only slight opacity at the upper part.

Saxl[6] reports a case of tuberculous conjunctivitis in a woman of 23, treated for two months with tuberculin, and

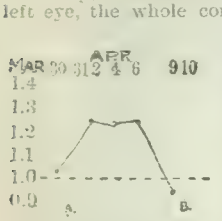
showing improvement. Treatment then ceased, and the condition relapsed. On resuming treatment for a month the condition improved, but afterwards again relapsed and the lids were scraped. Here treatment does not seem to have been persisted in with sufficient patience.

Ormond and Eyre[7] mention a case of tuberculous conjunctivitis in a child suffering from enlargement of cervical glands with sinus. The diagnosis was made certain by removing and microscoping a portion of the conjunctiva, where typical giant cell systems were found. Inoculation in a guinea-pig gave positive result. The patient was treated for eight months with tuberculin with good result, the vaccine being given ever three weeks. Von Hippel[8] reports 3 cases of tuberculous conjunctivitis cured by tuberculin used according to his method. Torok[9] gives the result of tuberculin treatment in 16 cases of eye disease (including 5 cases of tuberculous conjunctivitis) eight of which were cured, and four showed marked improvement.

The results, then, of the treatment of tuberculous conjunctivitis are good provided the treatment be persisted in over a long period.

2. *Interstitial Keratitis.*—I have treated one case of tuberculous interstitial keratitis with excellent result.

The patient, R. M., a boy of 11, had suffered from enlarged cervical glands and phlyctenular ophthalmia since 1901. In February, 1908, active interstitial keratitis was present in the left eye, the whole cornea was steamy, and there was intense ocular injection. The right cornea showed old nebulae and a recent ulcer. Treatment by tuberculin B.E. was commenced in March, regulated by the opsonic index. The effect of the first dose is shown.



A, $\frac{1}{25\,0\,0\,0}$ mg. B, $\frac{1}{10\,0\,0\,0}$ mg.

The patient was treated until August, when $\frac{1}{2\,5\,0\,0}$ mg. was being given. For the first two months treatment was regulated by estimations of the opsonic index; after this, however, clinical signs, onset of redness and photophobia, were sufficient to indicate when a fresh dose of vaccine was required, the administration of vaccine on each occasion being rapidly followed by alleviation of conjunctival injection and pain. Meanwhile the corneae were gradually clearing and vision improving, and treatment was discontinued in August, both eyes being quiet and corneae clear but for old nebulae.

Derby[10] reports 9 cases of interstitial tuberculous keratitis treated with tuberculin with favourable results. Weeks[11] mentions 3 cases treated by von Hippel's method, all of whom recovered.

3. *Scleritis, Sclero-keratitis, Phlyctenular Ophthalmia.*—Nias and Paton[12] have shown the tuberculous nature of most cases of phlyctenular ophthalmia. They examined the opsonic index in a large number of cases, and believed that the condition was due to dead or attenuated tubercle bacilli escaped from a tuberculous focus elsewhere in the body. Allen,[5] however, has found that patients with phlyctenules and episcleritis do not always give Calmette's reaction, and are therefore presumably sometimes not tuberculous. In the majority of cases the patients are children suffering from tuberculous cervical glands, and subject to repeated attacks of scleritis and sclero-keratitis over a long period. In almost every case the condition is associated with some error of refraction, usually hyperopic astigmatism, but the photophobia is such a marked symptom that it is impossible to measure the patient for glasses. These cases react well to tuberculin, and if by this means the eye condition is alleviated, and then suitable glasses are fitted, the treatment by tuberculin, provided there is no obvious focus of tuberculosis elsewhere, can be given up, and the eye trouble does not recur. But, in my experience, if, when the eyes are quiet, the error of refraction is not corrected, there is a great tendency for the keratitis, etc., to recur. The following cases illustrate the effect of tuberculin treatment:

1. N. F., aged 4½. Eyes had been inflamed, with corneal ulcers and phlyctenules, and intense photophobia, for six months. $\frac{1}{25\,0\,0\,0}$ mg. tuberculin B.E. was injected, and four days later both eyes were well except for faint nebulae. Glasses to correct hypermetropia were fitted. Treatment by tuberculin was continued for nine months, as the patient had had tuberculous cervical glands, which almost disappeared under the treatment; during this time there was no further eye trouble.

2. V. D. S., aged 4, came under treatment in May, 1908, for large phlyctenule in left eye. On May 6th $\frac{1}{25\,0\,0\,0}$ mg. B.E. and May 15th $\frac{1}{25\,0\,0\,0}$ mg. were given, followed by gradual improvement. On May 22nd $\frac{3}{25\,0\,0\,0}$ mg. was given, followed by a bad negative phase, as shown by the appearance of an ulcer of the right cornea, with hypopyon; the patient also suffered from fever and malaise. The ulcer was healing on May 30th, and after $\frac{1}{25\,0\,0\,0}$ mg. tuberculin on June 6th the ulcer was quite healed, and both eyes remained quiet.

3. F. B., aged 11, suffered from recurrent attacks of phlyctenular ophthalmia in November, 1907, on February 13th, February 18th, and February 25th, 1908. Corneal ulcer March, 1908. Cultures from the conjunctiva were taken in February, and *Staphylococcus aureus* was grown. The patient had three injections of staphylococcus vaccine prepared from these cultures without any clinical effect. On July 2nd a fresh phlyctenule with conjunctivitis occurred, lasting thirteen days. The same condition set in on July 23rd, and on July 24th $\frac{1}{25\,0\,0\,0}$ mg. of tuberculin was given, and next day the eye was quiet and the phlyctenule had disappeared. On September 19th conjunctivitis set in; $\frac{1}{25\,0\,0\,0}$ mg. of tuberculin was given, and on September 21st the eye was perfectly quiet and well.

Here, then, we have a case in which tuberculin on the two occasions where it was used gave immediate relief to a condition which always before had proved very resistant to treatment. The patient showed no other signs of tuberculosis.

4. G. K., aged 1 year, came under treatment in November, 1908, and from then until April, 1908, suffered from phlyctenular ophthalmia and recurrent corneal ulcers; photophobia during all this time was intense. From April 17th to July 27th, 1908, tuberculin, in doses from $\frac{1}{25\,0\,0\,0}$ to $\frac{1}{10\,0\,0\,0}$ mg., was given, with gradual improvement. In August the eyes were quiet, and refractive error was measured: 3 D of hypermetropia was present. Glasses were worn, and the eyes remained well.

I have treated 17 other similar cases, all with good results, except one, a boy with enlarged cervical glands. In this case, in spite of tuberculin treatment in doses increasing from $\frac{1}{20\,0\,0\,0}$ to $\frac{1}{10\,0\,0\,0}$ mg., and very careful correction of hypermetropia, fresh attacks of phlyctenules continued to occur every few weeks. Derby[10] reports 15 cases of sclero-keratitis treated with favourable results by tuberculin.

Weeks,[11] using von Hippel's method, had 3 recoveries and 2 cases improved of 5 treated.

Hancock and Mayou[13] have treated 4 cases with tuberculin, guiding the treatment by estimation of the opsonic index: the results were good.

Mackay[14] describes a case of keratitis and scleritis of phlyctenular type, later becoming pustular. Treatment by a vaccine of *Staphylococcus aureus* was tried, with amelioration of symptoms, but later a relapse occurred. Tuberculosis was indicated, as the parents were phthisical. Tuberculin, therefore, was tried, and a positive phase, as shown by the opsonic index, was obtained. As I have mentioned, de Schweinitz[4] has obtained a cure in a case of scleritis and keratitis of long standing, using old tuberculin.

Internal Tuberculosis of the Eye.

In internal tuberculosis of the eye we have to deal sometimes with localized lesions of the iris or the choroid, but more often with a generalized tuberculosis of the inner parts of the eye, involving the iris, ciliary body, and the choroid. I have treated one such case over a long period.

M. B., aged 10, first came under treatment in November, 1907, with iritis in the right eye. The vitreous was cloudy, with numerous dustlike opacities, and a few more gross ones. Fundus view poor, but with the appearance of a mass down and out. V. $\frac{6}{12}$. Calmette's test gave a marked reaction in the diseased eye. This test seemed to have a very bad effect, and the eye, immediately after the test was carried out, became gradually worse. Patient was treated with tuberculin from March, 1908, beginning with $\frac{1}{25\,0\,0\,0}$ mg., the dose being gradually increased, until in December, 1908, $\frac{3}{25\,0\,0\,0}$ mg. was being given every ten days. The treatment was continued until October, 1909, and at that date the anterior chamber was occupied by a greyish exudate, there was exudation behind the lens, vision was only "hand reflex," and tension was soft. The dosage of tuberculin was regulated by the opsonic index, there being no clinical indications for guidance. The diagnosis was made certain by a positive von Pirquet's reaction, and a Wassermann test was also done and was negative.

In this case, then, the condition continued quietly to progress despite treatment. Better results than this have, however, been obtained in other hands.

Iritis.

Hancock and Mayou,[13] using Wright's method, report 5 cases of tuberculous iritis successfully treated. Weeks[11] reports a case of conglomerate tuberculosis of the iris cured by von Hippel's method. Shieck[15] commences with

0.002 mg., repeating the dose on alternate days, each time increasing it by 0.001 mg. He has treated 5 cases of tuberculous iritis, which have improved either immediately or after a temporary increase in intensity at the beginning of treatment. Treacher Collins and Lawford[16] mention good results obtained by tuberculin in the treatment of iritis. Clarke and Mayou obtained a cure in a case of tuberculous iritis in nine months, using $\frac{1}{1000}$ mg. every two or three weeks. Von Hippel[8] obtained cures in 23 cases of tuberculous iritis.

Many other cases of tuberculous iritis cured by tuberculin have been reported by Haab,[20] Wolfrum,[23] and Ziegler.[24]

Kerato-iritis.

Derby[10] has treated 6 cases of kerato-iritis with favourable result.

Irido-choroiditis.

Fromaget[17] reports a successful and interesting case. A female, aged 28, with no signs of visceral tuberculosis, for three weeks had had painful irido-cyclitis of the left eye; vision = $\frac{1}{4}$; fundus invisible. Two months of ordinary treatment did not improve the condition. In December, 1909, four injections of tuberculin were followed by ocular reaction, the last also by rise of temperature. In January and February, 1910, nine injections were given, and later more injections. The irido-cyclitis became much better, the vitreous cleared, the vision improved to $\frac{1}{2}$. When the fundus was visible there was seen an atrophic patch in the choroid, evidently a cured tuberculous lesion.

Choroiditis.

Using von Hippel's method, Weeks[11] has obtained improvement in four cases of tuberculosis of the choroid. Ernest Clarke and Wright,[18] using the opsonic index as a control, cured a case of conglomerate tubercle of the choroid with tuberculin. The case was diagnosed by the varying tuberculo-opsonic index. Treatment by mercury and potassium iodide was carried on for the first nine months while tuberculin was being used. W. Kraus and A. Bruckner[26] report two cases of tubercle of the fundus treated successfully by tuberculin. Hay[25] mentions cases of tuberculous retinitis cured or treated with success by means of von Hippel's treatment.

In internal tuberculosis of the eye, then, we find that the results of treatment by vaccine are good, especially where the iris is the diseased tissue. The iris is favourable for treatment because it has a good blood supply. In tuberculosis of the fundus, where the blood and lymph supply are poor, treatment has to be prolonged, and is less certainly successful. It may be mentioned here that in disease of the iris it is necessary to use mydriatics to prevent the formation of synechiae, and, the blood supply in this way being diminished, treatment rather tends to be prolonged, owing to the difficulty of getting sufficient opsonins into the diseased tissues.

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(*To be continued.*)

THE annual report relating to the Nurses' Co-operation, 8, New Cavendish Street, shows that last year's work was satisfactory, the fees received by members of the nursing staff aggregating a higher sum than in any previous year. The sickness and accident insurance policies, for which arrangements were made for the benefit of the staff some three years ago, continue to prove highly advantageous.

An Address

ON

CASES ILLUSTRATING SOME INTRACRANIAL CONDITIONS OF GENERAL INTEREST.

DELIVERED BEFORE THE BRADFORD MEDICO-CHIRURGICAL SOCIETY, OCTOBER, 1911.

BY SAMUEL LODGE, M.D.,

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I PROPOSE in this address to describe some conditions illustrating most widely the diagnosis and treatment of some intracranial diseases which arise independently of local suppuration in the ear, the accessory cavities of the nose, and in the orbit. The cases include examples of intracranial tumour, hydrocephalus, disease of the pituitary body, and others of equally general interest.

Herrick has very truly said that "typhoid fever is not only an imitator of disease, but many diseases imitate typhoid fever." This is illustrated by the following case:

CASE I.—*Extradural Abscess over Both Frontal Lobes, of Traumatic Origin; Pseudo-Typhoid Symptoms: Pott's Puffy Tumour over Right Frontal Region: Operation—Cerebral Symptoms Relieved: Death from Chest Complications.*

A quarryman, aged 21 years, was admitted to the Halifax Fever Hospital on August 15th, 1911, under Dr. Neech. The duration of illness prior to admission was ten days. On admission the temperature was 105.4°, the pulse 92, and respirations 24. Next day the highest temperature was 107.4°, and highest pulse-rate 96. On the third day the highest temperature was 105°, and the highest pulse-rate 84. On the fourth day, on which he was transferred to the Royal Halifax Infirmary, the highest temperature was 99.2°, and the highest pulse-rate 68. Up to the time of his death the evening temperature rarely exceeded 103°, when the morning remissions usually exceeded 2°. During the day the patient lay in a typhoid state, but at night frequently rose from his bed and attempted to leave the ward. He constantly threw off the bedclothes, and complained of there being a bird's nest on the next bed; hypodermics of hyoscin and morphine were required every evening. Splenic enlargement and rose spots were never present. Diarrhœa of "pea-soup stools"[27] was a prominent feature. Incontinence of urine and fæces. On two occasions Widal's reaction proved negative. Until the last week there were no chest symptoms. About the second week after admission to the Royal Halifax Infirmary a fluctuating swelling over the right frontal eminence was incised and pus was evacuated.

Towards the end of the third week the swelling reappeared. Rigidity of the neck muscles, retraction of the head, and Kernig's sign were more pronounced. There was conjugate deviation of the head and eyes to the left and optic neuritis was well marked in both eyes. Some inco-ordination of the arms (dysdiadocokinesia) was present. The right knee-jerk was brisker than the left. Plantar reflexes were flexor in type, and the abdominal reflexes present. Incontinence of urine and faeces. No sensory or motor changes. A history of falling against a fender and bruising the right frontal region, and of suffering from headaches all the summer was now elicited for the first time.

Operation.

On September 5th a scalp-flap, including the pericranium, was reflected with its convexity upward, its centre coinciding with the old incision for the evacuation of the subpericranial abscess. A portion of the frontal bone, oval in shape and about $\frac{3}{4}$ in. long in its largest diameter, was slightly greenish in colour, and presented a narrow but definite fissured fracture of about $\frac{1}{2}$ in. in length. On chiselling away the outer table of the bone in this situation pus escaped from the diploë. The bony opening was enlarged to the extent of 2 square inches. As the pus welled out the pulse and respiration improved. The dura mater was found to be separated from the frontal bone and covered by granulation tissue over a wide area. The pus appeared to be confined in the extradural space. Some of the pus was preserved for bacteriological examination, and was reported on as follows: In films a few diplococci (possibly pneumococci) are found. Culture on agar at 37° C. for forty-eight hours has yielded no growth.

After evacuation of the extradural abscess the typhoid state passed off, the patient no longer required hyoscin and morphine, and now answered questions readily. He became constipated. Towards the end of the fourth week my colleague, Dr. Whitaker, detected serious chest complications, from which the patient died.

Post-mortem Examination.

The bony margins of the skull and the subjacent dura mater disclosed healthy granulating surfaces. On opening the dura the frontal lobes were seen to present saucer-like depressions on their superior surfaces. About the Pacchionian bodies there was inflammatory thickening of the pia mater. Both lungs

were collapsed, and each pleural cavity contained about a pint of opalescent fluid; there were numerous adhesions to the posterior walls and to the diaphragm. The pericardium and heart were healthy; the right lung presented areas of lobular consolidation at the posterior base, where an abscess was found. From this about 1 oz. of pus escaped. The left lung presented much discrete lobular consolidation. The abdominal organs were healthy.

CASE II.—*Tic Douloureux: Extirpation of the Sensory Root of the Gasserian Ganglion: Complete Recovery.*

A single woman, aged 40, had complained of "shooting pains" over the left side of her face for ten years. During the first few years they would occur perhaps about every three weeks. Latterly any movements of the face or jaws would bring on the neuralgia, which was associated with histrionic spasm.

Operation.

On September 26th, 1910, a flap was raised, the dura exposed, and the middle meningeal artery ligated. The second stage was performed on October 1st. Cushing's directions were followed in approaching the ganglion, and Spiller's suggestions for its physiological extirpation acted upon.

After-History.

When shown before this society last November there was a trophic ulcer of the left cornea; consequently, a few days later the anaesthetic lids were stitched together; they were reopened about a month ago. There had been an entire absence of pain since the operation. The cornea is clear and the sight good.



Fig. 1.—Case II. Tic douloureux. Physiological extirpation of the Gasserian ganglion. Showing site of flap incision for Spiller-Frazier operation; and the blepharorrhaphy of the left eye for trophic ulceration of the cornea.

The patient cannot, however, open her mouth widely, and the anaesthetic condition of the left half of her mouth interferes to some extent with mastication.

CASE III.—*Congenital Hydrocephalus: Drainage of Both Lateral Ventricles: Recovery.*

A boy, aged 2¾ years, suffering from congenital hydrocephalus, was unable to walk, talk, or remember anything.

On February 11th, 1910, the right lateral ventricle was opened at a point corresponding with the posterior end of the temporal line—Keen's site of election. A small roll of Cargile tissue was placed in the track of the opening in the ventricular wall. Three months later the left ventricle was drained into the subdural space in the same manner. The boy now talks well, and walks very fairly, and his memory is said to be very good for his age.

CASE IV.—*Internal Hydrocephalus Simulating Tumour of the Right Occipital Lobe: Drainage of the Lateral Ventricle: Recovery.*

A girl, aged 16¾ years, suffering from the general symptoms of cerebral tumour, was operated upon in November, 1908. The chief localizing symptom was left homonymous hemianopsia.

On exposure of the right occipital lobe the cortex ruptured spontaneously, leaving an aperture as large as a sixpenny piece in the posterior horn of the lateral ventricle. The dural flap was left open, and the bone of the osteoplastic flap was removed. It was hoped that this procedure would suffice for efficient drainage of the internal hydrocephalus.

This operation afforded great relief, and a month later the patient was shown at a meeting of the society, where Cushing's method of retroperitoneal drainage by a combined laparotomy and laminectomy was suggested as a suitable supplement to the operation in the event of a relapse, always provided that the patency of the foramen of Magendie had been previously demonstrated.

In September, 1910, the patient's condition was most gratifying. Her mental and auditory powers were excellent; neither the staggering gait nor the ataxy in her arms remained, and in spite of the consecutive optic atrophy and the hemianopsia, the visual field of the right eye had considerably enlarged, and its vision had becoming decidedly keener. The decompressed cranial area was normal in appearance.

CASE V.—*Cranial Nerve Involvement suggesting Tumour at the Cerebello-pontine Angle: Operation: No Tumour Found: Partial Recovery.*

E. B., a woman aged 38, first seen in February, 1908. There was a clear history of syphilis. The infection took place fourteen years ago. For the last four months the left eye had squinted inwardly, and had been inflamed. Deafness of the left ear was noticed shortly afterwards. The eye and ear affections had been preceded by pains in the head and by vomiting attacks. The squint was due to paralysis of the sixth nerve; the inflamed eye to a trophic disturbance of the cornea consequent on a fifth nerve lesion. The ulcer was situated centrally, and soon yielded to treatment. Later on the eyeball was removed, for other reasons, an anaesthetic, of course, being unnecessary. There was loss of all forms of sensation over the area supplied by the fifth nerve. When she opened her mouth the jaw deviated to the left, and the action of the left temporal and masseter muscles was greatly impaired. The left chorda



Fig. 2.—Case V. After operation. A sterilized safety-pin has been pushed through the skin to demonstrate the analgesia still persisting. The paresis of the left side of the face is also well shown.

tympani nerve was involved, as was evidenced by loss of taste on the left side of the tongue in its anterior two-thirds. The muscles supplied by the left facial nerve were paralysed. The left auditory nerve and the glosso-pharyngeal were implicated, as shown by the facts that the aërial and bone conduction of sound were completely lost, and that there was loss of taste over the posterior third of the tongue, and diminished sensibility over the left side of the tongue, pharynx, and palate. The fundus of the left eye and the pupillary reflexes could not be examined on account of the corneal ulceration. The right eye was normal in every respect. The function of the olfactory nerves was impaired, more especially on the left side.

The patient's condition became much worse in the course of the next three months, in spite of vigorous antisyphilitic treatment. She showed signs of uncontrolled emotionalism. There was diminished appreciation of touch, pain, heat, and cold over the left side of the body. The stereognostic sense was exact. Motor paresis was present over the left side of the face and in the upper and lower limbs, which were ataxic. Before she became bed-ridden, Rombergism and staggering to the left had been a marked feature.

Reflexes: Left conjunctival, pharyngeal, and palatal were absent. Right plantar, flexor response; left plantar, extensor response. Right knee-jerk present, left knee-jerk absent. Organic reflexes, incontinence of urine and faeces.

Diagnosis.

Tumour of left cerebello-pontine angle.

Operation.

Left cerebellar fossa exposed. In order to inspect the cerebello-pontine angle it was necessary to remove the outer third of the lateral lobe of the cerebellum, as Frazier recommends. No pathological condition was detected.

After-History.

She is still an out-patient, and has been kept under the influence of antisyphilitic remedies more or less since the date of

her operation three years ago. There is no mental disturbance. Owing to the absence of the left eyeball it is impossible to test the function of the sixth nerve; that of the motor and sensory roots of the facial nerve of Wrisberg, and that of the motor root of the fifth has greatly improved. She now hears a little; and, though there is still loss of the sense of taste on the posterior third of the tongue, the pharyngeal and palatal reflexes can now be elicited.

CASE VI.—*Tuberculoma of Cerebellum.*

A girl, aged 12, was admitted to the Royal Halifax Infirmary on January 7th, 1907, suffering from double optic neuritis and the cerebellar syndrome. Removal of a tuberculoma occupying a large area of the left lobe of the cerebellum completely relieved her of headaches and projectile vomiting. Later on she had a relapse, and was again relieved by the removal of a large tuberculoma of the right lobe. She retained her sight until her death, which took place six weeks later from tuberculous meningitis.

CASE VII.—*Cerebellar Tumour.*

The patient was a young man suffering from double mastoid disease and the cerebellar syndrome. Cerebellar abscess was diagnosed. At the operation, after trephining, a small dural opening was made, and a pus searcher used. The tumour was missed. The patient died. The photograph of the brain shows the tumour *in situ*.

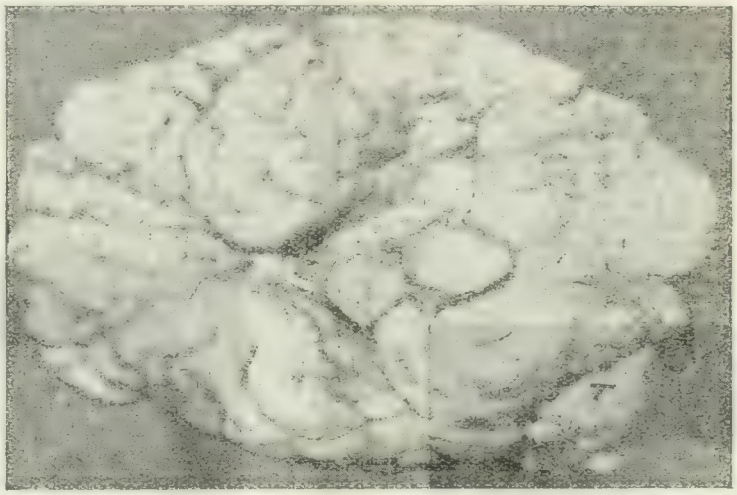


Fig. 3.—Case VII. The tumour is seen where the cortex of the right lobe of the cerebellum has been removed at the autopsy. The tumour is indicated by a T.

This case demonstrates the importance of using a knife instead of a pus searcher, and of making a large dural flap under similar circumstances. The searcher had penetrated the tumour.

CASE VIII.—*Tumour of the Fourth Ventricle.*

A man, aged 25, was seen in consultation with Dr. Cunliffe, who has very kindly permitted me to furnish this report.

The patient's father and his paternal aunt had been epileptics, the former a heavy drinker. His mother has had twenty children, of whom only eight are living. The patient himself, though a small child when born, was not premature, and appeared to be normally intelligent until, when 4 years old, he went to school. He never attained the second standard. At 10 he became a "half timer" at the mill, and at 13 was apprenticed as a picket maker. During his apprenticeship headaches occurred frequently, and he would often lie in bed without food or drink for periods, broken at intervals of two or three days, when he would get up in a dazed condition and appease a ravenous appetite before returning to bed. Gradually growing worse, at the age of 21 he was discharged for inefficiency. Finally, becoming quite uncontrollable and filthy in his habits, he was sent to Clayton Workhouse, and on October 1st, 1911, was admitted to the hospital. There he was dull mentally, had often to be roused to eat, and would never willingly leave his bed. At first he would take liquid food, and, with a little persuasion, solids; but dysphagia, a marked feature of his illness, continually increased, and towards the end he could be induced to take liquids only with difficulty. He had never vomited; for several months before death there was glycosuria and incontinence of urine and faeces.

The patient, who was very emaciated, had a pulse-rate never below 78, and a subnormal temperature. When asked a question, he would repeat it, and show some hesitancy in answering it. The head was held rigidly fixed by the tense cervical muscles; there was conjugate deviation of the head and eyes to the left, coarse nystagmoid movements on looking to the right, double optic neuritis with pupils equal in size but without reflexes. The facial sensations and muscular actions were normal, palate and tongue movements natural. The stereognostic sense of the hands was good, and the arms were ataxic. His gait had been ataxic, with a tendency to fall forward. The sensibility to touch, pain, and temperature was absent below the level of the fifth lumbar vertebra; there was a marked kyphosis of the spine over the lower cervical and upper dorsal region, and a bedsore over the sacrum. The legs were paralysed and rigid, the plantar reflexes extensor in type, the knee-jerks absent.

The question of a decompression operation in the suboccipital region was raised, only to be rejected owing to the grave condition of the patient and the probable existence of multiple lesions.

Necropsy.

On making a partial *post-mortem* examination, we began by exposing the spinal cord from the second cervical to the fourth dorsal spine: the dura mater appeared distended; the arachnoid though oedematous was of usual translucency, the pia mater and cord healthy. When the brain was removed both the anterior and posterior subarachnoid cisterns were greatly distended with clear fluid. Through the tense transparent wall of the posterior cistern we saw a chocolate-coloured tumour. The tumour, of the consistence of a well-set jelly, separated the floor of the dilated fourth ventricle from its roof; it protruded into the Sylvian aqueduct and extended backwards 45 mm. into the posterior cistern. The largest vertical measurement was 23 mm. The microscopical report showed the tumour to be a papilloma. The brain showed some flattening of its convolutions (probably the result of the internal hydrocephalus set up by the tumour).

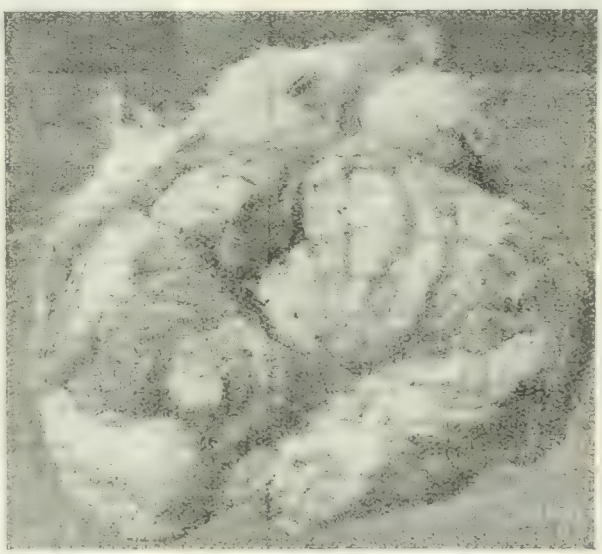


Fig. 4.—Case VIII. Papilloma of the fourth ventricle. The letter T indicates the tumour. The specimen was unfortunately compressed in the process of hardening.

The absence of vomiting is remarkable, but not exceptional. The presence of glycosuria is said to be more frequent in cysticercus infection than in tumour. We regret that we did not examine the whole of the spinal cord, as Dr. Grainger Stewart has published a case in which papilloma of the fourth ventricle was associated with secondary growths in the subarachnoid space of the spinal cord.

Drs. Taylor and Collier have shown that in compression myelitis, headache and vomiting may be singly or together associated with optic neuritis in cases where pathological examination has not revealed any intracranial disease.

The remaining cases illustrate some diseases of the pituitary body.

Monsarrat, quoting Cushing, says: "Two conditions, one due to a pathologically increased activity of the pars anterior of the hypophysis (hyperpituitarism), the other to a diminished activity of the same epithelial structure (hypopituitarism), seemed capable of clinical differentiation. The former expresses itself chiefly as a process of overgrowth—gigantism when originating in youth, acromegaly when originating in adult life. The latter (hypopituitarism) expresses itself chiefly as an excessive, often a rapid, deposition of fat, with persistence of infantile sexual characteristics when the process dates from youth,

and a tendency towards a loss of the acquired signs of adolescence when it first appears in adult life. Experimental observations show not only that the anterior lobe is a structure of such importance that a condition of apituitarism is incompatible with the long maintenance of life, but also that its partial removal leads to symptoms comparable with those which we regard as characteristic of lessened secretion in man.

"A tumour of the gland itself, or e arising in its neighbourhood and implicating the gland by pressure, is naturally the lesion to which one or the other of these conditions has heretofore been attributed, though it is probable that over-secretion from simple hypertrophy or under-secretion from atrophy, will be found to occur irrespective of tumour growth when examination of the pituitary body becomes a routine measure in the *post-mortem* examination of all cases in which the conditions suggest one or the other of the symptom-complex described. When due to tumour surgery is the treatment that these conditions demand, and at present there are reasonably satisfactory ways of approaching the gland; but clinicians and surgeons must clearly distinguish between the local manifestations of the neoplasm due to involvement of structures in its neighbourhood other than the hypophysis, and those of a general character from disturbance of metabolism due to alterations of the hypophysis itself."

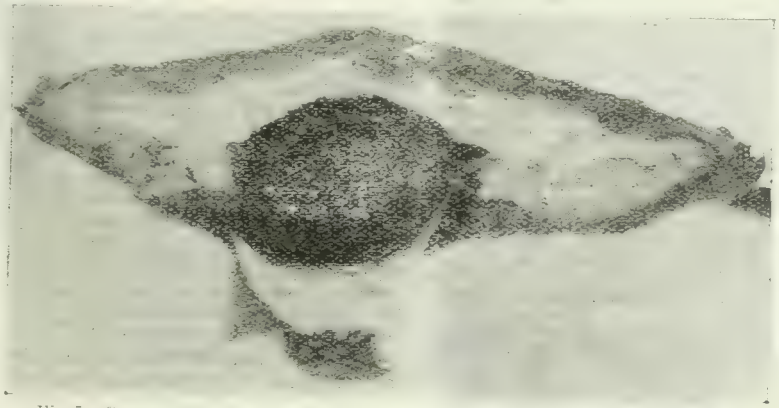


Fig. 5.—Case VIII. Coronal section through the fourth ventricle; the tumour and the ventricular ependyma are pigmented. During the process of hardening the specimen was greatly compressed unintentionally.

HYPERPITUITARISM.

I will now refer to 5 cases of hyperpituitarism.

CASE IX.

The first patient was a married lady aged 43, who consulted me in June, 1907. For the previous fifteen months there had been gradual failure of sight and pain in both temples. Dr. Halliday, whose patient she was, informed me that during her present illness she had recovered from a ptosis of one eye.

She could detect movement of the hand at half a metre's distance with the right eye, and count fingers at a distance of 6 metres with the left. There was bitemporal hemianopsia and primary optic atrophy. As far as I am able to recollect the degree of acromegaly was not very pronounced. About a month later a cystic tumour of the hypophysis was operated upon by the temporal route. Through the courtesy of the surgeon in charge I was present



Fig. 6.—Case X. Acromegaly and gigantism.

in the four subsequent cases the patient's blindness was imminent, and the acromegalic syndrome ingravescent.

CASE X.

The second patient was a middle-aged woman, seen in 1909, in consultation with my colleague, Dr. Wright, who permitted me to make a *post-mortem* examination, and has very kindly allowed me to refer to the case. The acromegalic syndrome had existed since 15 years of age, hence the degree of gigantism well shown in the photograph. She was over 7½ ft. in height. The bones of the skull showed a remarkable increase in size of the diploëtic cells, and the outer and the inner tables had lost their hard character, so much so that the squamous portion of the temporal when divided could be torn between the fingers. The mastoid cells, the accessory nasal sinuses, the turbinated bones, the septum nasi, the tongue, larynx and trachea, were all much enlarged. The loss of density in the cranial bones probably accounted for the unusual clearness of the sella turcica, shown in the radiogram of this patient's skull.

CASE XI.

The third patient was a woman aged 38, who was admitted to the Royal Halifax Infirmary on January 10th, 1910, complaining of headache, loss of sight, thickness of speech, and increase in size of jaws, hands, and feet.

The family history was good and apparently had no bearing on the case. She had always regarded herself as a healthy woman up to nine years ago, when menstruation ceased and she thought she was pregnant, but she has not menstruated since. For twelve months she had noticed that her eyesight was gradually becoming weak, and this was associated with headache. She dated her present illness from the onset of the failing eyesight, when she discovered she could not see people and things on either her right or left side without turning her head; she also noticed that the sight of the right eye was much worse than the left. During this time she had had "indigestion pains" across the abdomen, and feelings of numbness and tingling in the arms and legs. She had altered in her manner, from being a bright and active girl, she now felt tired, and does not wish to be disturbed. She had a peculiar, but indescribable, smell in the nose, and at times broke out into hot sweats, which grew cold, and were followed by shivering and the seeing of strange objects moving about the room. She had become much stouter, and her jaws, hands, and feet had increased in size. There was some difficulty in mastication, owing to the failure of the teeth to meet. The bowels were very constipated. There was no history of polyuria or glycosuria.

Physical Examination.

A very well nourished muscular woman, slightly anaemic, with dusky complexion. The head is large, the face massive and ovoid in shape; the supraorbital ridges and malar bones are prominent; the nose is broad; the lower jaw projects well forward. The lips are thick and unsightly; the teeth are large and separated by intervals; the tongue is bulky. The ears are big and the hair very coarse. The hands are large and slightly spade-shape; the fingers thick and the nails broad. The feet are similarly affected to the hands, and flat-foot is present. The thorax is barrel-shaped, the sternum and clavicles enlarged, and the characteristic sloping of the shoulders, with prominence of the upper spine, is present. The soft tissues of the whole body feel dense. The voice is low pitched and muffled, the mental cerebration laboured. The sense of smell is less acute on the right side. There is no perception of light in the right eye, the pupil is normal in size, and the consensual reflex is present. Visual acuity in the left is $\frac{6}{9}$. The pupillary reflexes are normal; perimetric examination shows temporal hemianopsia and concentric contraction of the visual field. The ocular movements of both eyes are normal, and the discs present the appearance of primary optic atrophy. The other cranial nerves are unaffected.

A lateral radiogram of the skull showed distinct enlargement of the sella turcica. The blood, urine, and cerebro-spinal fluid were normal.

Operation.

After narcosis, induced by chloroform, a laryngotomy tube was inserted; anaesthesia by ether and chloroform was subsequently maintained through the laryngotomy tube. A sponge was introduced into the pharynx, and a second one into the post-nasal space to prevent entrance of blood; both nares were plugged with cotton-wool soaked in 20 per cent. adrenalin solution.

An osteoplastic flap was made by a skin incision, commencing at the internal tarsal ligament of the left eye and carried in an arched manner over the bridge of the nose to the same ligament on the right side and downwards along the side of the nose, passing just below the anterior nasal spine of the superior maxilla, along the upper lip to the left ala nasi. By means of a bradawl a hole was bored through the right and left nasal processes of the superior maxillae, piercing the septum on its way. A Gigli saw was passed through these openings and the bony bridge of the nose sawn through in an upward direction. By means of Asch's forceps the septal cartilage was next separated from its attachment to the vomer and perpendicular plate of the ethmoid, and the osteoplastic flap completed and turned on to the left side of the face.



Fig. 7.—Case XI. Appearance of patient at 33 years of age, five years before operation

The osseous septum was separated from its upper and lower attachments by means of a nasal saw, and was totally removed. The anterior wall of the cavum sellae, now exposed, was perforated by means of Watson-Williams's sphenoidal sinus forceps. This opening was gradually enlarged by means of forceps, and the entire wall, together with the sphenoidal septum, was removed. After a short interval to allow of the cessation of haemorrhage, the seat of the sella turcica was removed by a chisel and nibbling forceps, and the dura was seen projecting into the sinus. Palpation revealed a cystic tumour of the hypophysis about 1 in. in diameter. The wall of the cyst was incised, and about 1 oz. of blood-stained serous fluid escaped: the interior of the cyst was explored digitally and with a curette, but no solid matter was removed. A drainage tube with gauze was inserted into the cyst cavity, passing through the right nostril, and the osteoplastic flap sutured in position. The plugs were removed from the post-nasal space and oro-pharynx, as was also the laryngotomy tube.



Fig. 8.—Case XI. Acromegaly.

The whole proceedings had lasted one hour and a half, and the patient at the end of the operation was suffering markedly from shock, and although the usual methods to combat this condition were employed, she died nine hours later. Permission for *post-mortem* examination could not be obtained.

Case XII.

The fourth patient was a single woman, aged 53, admitted to the Royal Halifax Infirmary on September 12th, 1910. The acromegalic deformity is well depicted in the photograph, but it does not express the mental deterioration and the degree of general toxaemia which the hyperpituitarism had produced. She was fairly philosophical about her rapidly increasing blindness due to optic atrophy, and the "blinker sensation" due to the bitemporal hemianopsia, but she implored us to relieve the neuralgic pains in her head, which, she assured us, were unbearable. During the next few days she became more stuporose, and her appearance was cachectic.

Operation.

First Stage.—Free access to the cavum sellae was obtained by elevation of the nose, as suggested by Kanavel.

Second Stage.—Large pituitary cyst evacuated. Even after the first stage the stuporose condition increased very rapidly, and she died three days after the second operation, apparently from the pituitary cachexia of Tamburini.* An autopsy could not be obtained.

Case XIII.

The fifth patient was a married lady, aged 27, who consulted me in July, 1910. She had suffered from frequent headaches, aching pains behind her eyes, and a sensation of wearing "blinkers" for three months. Face is slightly acromegalic. She thinks that her large hands and feet are a family peculiarity; this is not surprising as she is a member of a large family, all of whom are, like herself, tall and well built. Speech, smell, taste, and genito-urinary system unaffected. Knee jerks brisk. R.V. $\frac{6}{12}$, L.V. $\frac{6}{12}$. Both visual fields: Bitemporal hemianopsia and a large central scotoma for red and green. Both discs pale on the temporal side.



Fig. 9.—Case XII. The strong and thick hair and hirsute face of this patient contrast markedly with the thin and brittle hair of the subject of myxoedema.

A month ago her medical attendant, Dr. Skeels, kindly furnished me with the following report:

Since you last saw Mrs. O. she has very much improved. Her facial appearance is about the same, hands and feet a trifle larger. She expresses herself as "being very fit." Leads quite an active life and plays golf frequently. Her sharpness of vision is certainly much improved and her bitemporal hemianopsia has to a large extent cleared up. Menstruation ceased about the time you saw her and her breasts began to secrete milk copiously; about a month ago menstruation was re-established. Her breasts still secrete milk about the same.

Sternberg in his book on acromegaly quotes Fazio's case of a patient in whom galactorrhoea had existed for four years.

Prognosis and Treatment of Hyperpituitarism.

1. Partial hypophysectomy is indicated in all acute cases of acromegaly. The number of successful operations is now considerable, and acromegaly is rarely, some authorities say never, caused by malignant growths.

2. In chronic cases of acromegaly, with considerable remissions and an absence of eye changes, the patients should be encouraged with the hope of a possible cessation of the disease (Sternberg); and symptomatic treatment should be adopted; and, should eye changes occur in the chronic form, Cushing's intermuscule-temporal method of decompression is indicated to avert the onset of blindness.

3. A decompression operation would be the correct procedure to adopt if the patient's disease had reached the cachectic stage.

Course of Hyperpituitarism.

Acromegalic patients may live thirty years or more. Thanks to the labours of the pioneers in this branch of surgery we need no longer say, in the eloquent words of West, speaking of another disease, that "we come to the sick chamber day by day to be idle spectators of a sad ceremony, and leave it humbled by the consciousness of the narrow limits which circumscribe the resources of our art."

Hypopituitarism.

The two subsequent cases are illustrative of some of the features of the symptom-complex associated with hypopituitarism—Fröhlich's syndrome.

Case XIV.

The first patient, a single lady, aged 32, first consulted me on October 20th, 1902. Duration of symptoms, one year. Her memory was very poor and her speech not so good as it had been. She suffers at intervals from violent headaches, after which her sight is worse. She looks very stout; has gained 2 st. in weight. R.V. $\frac{6}{5}$; L.V. $\frac{6}{5}$. Visual fields: Bitemporal hemianopsia. Ophthalmoscopy: Primary optic atrophy. As she did not improve in spite of vigorous antisyphilitic treatment, a decompression operation was advised. I did not see her again until six years afterwards, when, though blind, she was mentally bright and free from headaches, though still very stout.

Case XV.

The second patient was a single lady, aged 40, who in May, 1906, complained of failing sight of five months' duration; and a sensation as if she had "blinkers on"; that when reading she has to wait for the print to appear; and that severe headaches are of frequent occurrence. By turning her head she could see $\frac{6}{5}$ with the right eye, and $\frac{6}{5}$ with the left. Right disc, hyperaemic. Left disc, inner margins swollen. Both fields of vision, temporal hemianopsia. She cannot distinguish the difference "between a shallow step and a deep one," when walking. She is very thirsty, always very sleepy; and when the headaches are severe she feels dizzy and sickly. She never vomits. Amenorrhoea was noticed when the headaches began. She is getting very stout. A decompression operation

* Where the glandular elements have undergone atrophy or malignant degeneration.

was recommended. My advice was not complied with. Vigorous antisyphilitic treatment was adopted, and, no benefit accruing, was given up.

Four years afterwards I made the following notes as to her condition: Headaches were no longer constant, but the sight has always been worse after an attack. Her features are not acromegalic; her gloves are still of the same size; her boots a size larger. Is much stouter than she was; she looks bright. Amenorrhoea still present. Smell, taste, and hearing are normal.

R.V. $\frac{\text{2–3 metres}}{\text{Fingers}}$ (on the nasal side).

L.V. No perception of light.

R. Hemianopic pupillary reaction.

Ophthalmoscopy: Right and left discs—consecutive optic atrophy.

When seen a month ago, R.V. $\frac{\text{1 metre}}{\text{Fingers.}}$

Headaches no longer trouble her.

Prognosis and Treatment.

1. If there be only symptoms of hyposecretion, as in Madelung's case, in which the syndrome developed after a gunshot wound of the base of the skull involving the sella turcica, symptomatic treatment should be adopted and an encouraging prognosis given as to duration of life.

2. If the tumour syndrome be also present at least a decompression operation is indicated.

Before concluding this address I would strongly urge the advantages of a suboccipital decompression operation as a palliative measure in all diseases, irrespective of their etiology, in which such symptoms as headache, optic neuritis, and vomiting are aggressive features; though in less severe conditions—milder cases of Bright's disease for example—treatment by lumbar puncture might suffice. I believe, with others, that the dura mater, stretched like the sclerotica in glaucoma, is the predominating factor in the production of headache; and that the optic neuritis, and frequently the vomiting, is almost invariably due to an obstruction to the escape of cerebro-spinal fluid. This, again, is parallel to the locking of the filtration angle in glaucoma.

Time will not permit me to dilate upon the presence of optic atrophy in hyperpituitarism and that of optic neuritis in hypopituitarism, so I will conclude by thanking my colleagues of the Royal Halifax Infirmary for their valuable assistance on many occasions; and Dr. Pollard, our late Senior House-Surgeon, for much help in the collection of the material for this address; and Mr. Wrathall, of the same infirmary, for the photographs and radiograms. I am greatly indebted to Professor Hochenegg and to Dr. Exner for kindly adding details of some of Professor Hochenegg's unrecorded cases when sending me the reprint of Dr. Stumme's paper. Professor Halstead's paper on the Operative Treatment of Tumours of the Hypophysis has been of the greatest assistance to me, and no less so have been other brilliant communications of our American *confrères* on the Pathology and Surgical Treatment of Diseases of the Hypophysis.

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A Fourth Report

OF

EXPERIENCES WITH SPINAL ANALGESIA IN REFERENCE TO 2,354 CASES.

By ARTHUR E. BARKER, F.R.C.S.,

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SOME years ago I published in this JOURNAL[1] all the cases, without exception, in which spinal analgesia had been employed in my own hospital work, with a view to a study of its merits or demerits. Every one was carefully noted by officers specially appointed for the purpose in tables recording all those points upon which information was then considered to be particularly needed. Since then the procedure has been adopted in a large number of cases, and more and more frequently by all the surgeons of our hospital, some more and some less. One of our junior anaesthetists, after due study and observance of the details which had been found needful, has lately qualified himself to undertake this branch of anaesthetics, and all our operators, who for one reason or another do not wish in any particular case to carry out the procedure themselves, can now have it well done for them. Every effort has been made to secure uniformity of method in following the principles and details suggested in the papers referred to, and in recording the cases. All this has resulted in the accumulation of a further series dealt with in precisely the same way. Taken with those already published from the same institution, they offer an opportunity for further study of the procedure. But besides, I am permitted to refer to the experiences of several surgical friends who have adopted the same principles and closely followed our ritual in large numbers of cases in their own hospitals, and have kept their records scrupulously on the same plan. Digests of these they have kindly furnished me with.

The figures to be now reviewed embrace the following: (1) Cases at University College Hospital, including my own first 300 and 475 since done by myself and Dr. Felix Rood, our Junior Anaesthetist, who has lately relieved me of a good deal of the labour in my own cases, and has used the procedure largely for our other surgeons as well. (2) Those of the Military Hospital at Millbank, at the hands first of Majors C. Spencer, J. H. Houghton, and O'Shea, R.A.M.C., and later of Major Pilcher, D.S.O. (3) Those at the Cambridge Hospital, Aldershot, done independently by Major J. H. Houghton. (4) Those at the Military Hospital, York, by Major C. Spencer himself. (5) The cases at the Dreadnought Hospital under the care of Mr. L. McGavin and his assistants. To all these gentlemen I owe the most cordial thanks for kindly supplying me with a digest of their tables and allowing me to make the present use of them; also to Dr. Rood for an abstract of our joint records. To Mr. McGavin I am particularly indebted. The figures he has kindly supplied to me are abstracted from a paper by him now in the hands of the editor of the *Practitioner* for early publication, for whose courtesy in sanctioning their present use I am very grateful. Mr. McGavin's paper is sure to be most interesting and valuable, giving many details of his cases as it will do, and also his independent opinions, though working on exactly the same lines. It embodies his own work and that done under his supervision by his assistants, Mr. O'Leary and Mr. Gwynn Williams, previously my own House-Surgeon before going to the Dreadnought Hospital, and now returned to us as Surgical Registrar.

Since August, 1908, I have not thought it desirable to publish my own further experiences in this field, for two reasons, though strongly urged to do so. In the first place, further relatively small series would prove nothing that is not already known. In the second, it seemed more to the point to give time for a number of serious *individual* workers to complete substantial groups of cases *dealt with on exactly the same lines*, which might be fairly combined into a large homogeneous collection from which conclusions could more safely be drawn as to mortality and other drawbacks than from each separately. Such a homogeneous record is now offered (for as much as it is

worth), for all those who have furnished their experiences have worked together, first, at our own hospital, and then independently, though on precisely the same plan and with the identical instruments and solutions at their own.

Moreover, all our collaborators have done their work in public institutions before colleagues, residents, students and visitors, subject to criticism—adverse and favourable—with every conceivable check on undue enthusiasm or carelessness.

Again, the series now combined are from the practice of surgeons who employ all kinds of anaesthetics, general, local, and spinal, and, in our own case, that most recent innovation, the intravenous ether narcosis, first devised by Professor Burkhardt, of Würzburg, and put in practice very successfully for us by Dr. Rood; and are, therefore, qualified to contrast them one with the other. I venture to think that all the questions as to the relative values of the different anaesthetics can only be safely threshed out in public hospitals dealing with large numbers of patients, in which competent observers *employ them all* under every form of scientific control and the wholesome check of publicity; and that the less we hear of private unchecked excursions into this domain, with statements about small numbers, not published, the better. In my own work, not one-third of my patients are operated on so far under spinal analgesia. In many, local and regional analgesia are employed, and in the rest one or other form of general anaesthesia.

The method employed for all these cases of spinal analgesia followed the general plan formulated by Professor Bier, its talented inventor, but modified in some, as I believe, important particulars.

The solution for injection was devised by myself at the outset under the conviction, supported by many experiments (see Reports I and II, BRITISH MEDICAL JOURNAL, 1907 and 1908), that the specific gravity of the fluid suspending the drug played an important part in its localization within the dural canal. This conviction is now shared by all who have worked with me, and is borne out by their own experience since. This injection fluid consists of stovaine 5 parts, glucose 5 parts, and distilled water 90 parts, all by weight. It is as nearly as possible isotonic with the blood, and has a specific gravity of 1023, as against that of the cerebro-spinal fluid, which is 1007. Injected slowly through the hollow cannula into the dural sac it remains, being heavy and slightly viscid, to a large extent unmixed with the cerebro-spinal fluid, and seeks in a thin stream the lowest level it can find, where it pools and continues for a long time undiffused, as proved by experiment. By adjusting the patient in the lateral position, with the head and shoulders well raised on a properly designed bolster, it is possible to bring this or that vertebra to the lowest part of the curve between the head and the pelvis, estimated from the horizontal. The nerve roots of the dependent side at the bottom of the curve will then be immersed in the heavy analgesic fluid as well as those caudal to them, over which the injected compound has run. If the patient continue to lie on the side without movement the roots on the upper side continue to be for a long time unaffected. This is proved by the fact that I have been able on a man preserving the lateral position to amputate the leg next the table without any pain, while sensation and motion remained intact (as tested by skilled observers) in the other uppermost limb. But if a patient injected in the lateral position be subsequently turned over on the back the heavy fluid finds its way between the *ligamenta denticulata* across to the opposite roots, and a double-sided anaesthesia results, which, however, remains to the end more profound and more extensive on the side which has been dependent while the injection was taking place. That this is not a complete "cut off" of a segment of the cord itself (at all events at first), but only an effect upon the uncovered roots after they leave the cord, is evident from the above and from other observations.

When the injection is made in the sitting position the heavy compound runs into the sacral part of the dural sac and the analgesia is limited to the parts supplied by the sacral nerves, the lumbar plexus being usually unaffected, and we employ this position for perineal and anal operations. A fluid of less specific gravity than that of the cerebro-spinal (1007) would, of course, rise and possibly spread into the cranial cavity. This was proved long ago by Klapp in his experiment on dogs shewn at the Congress of German Surgeons in Berlin, with cocaine dissolved in a light oil injected into the lumbar sac. At that time I saw one of these dogs quite happy and able to walk, but anaesthetic from the tip of his ears to the tip of his tail, only the sensory roots (the uppermost in this case) being affected by the light fluid, as it spread from the lumbar to the cervical region. It is curious that in Bier's clinic, where these experiments were done, it has since been denied that gravity can play a useful part in the procedure, as I and my friends believe has been proved by the experiments referred to in my second paper and in actual practice.

The average dose of stovaine in the cases now grouped was 5 centigrams—that is, 1 cubic centimetre of the 5 per cent. solution. Very rarely was this raised to 6 centigrams, often it was reduced to 4 or even 3. Abroad some very much larger doses of stovaine have been employed, up to 7.5 cg. and more, quite unnecessarily, and often with bad effects. In only one or two of our earliest cases were any of the adrenal derivatives or their synthetic equivalents made use of. I soon became confident that they are unnecessary, and that if they do produce ischaemia of the roots or cord, which is claimed, they are dangerous. Biberfeld's experiments on animals support this view. Even some surgeons abroad who formerly employed them in the belief that they prolonged the analgesia, which is very doubtful, appear now to regard them as useless, and probably injurious, in spinal, though of undoubted value in local analgesia.[2]

Except for perineal and rectal cases, the lateral position has been the rule, and great care was taken in regulating the curve of the spine, with the head raised on a small hard bolster made for the purpose of a definite height. In the case of men with broad shoulders and narrow pelvis, the latter was also raised from the horizontal table about 1 in. by means of a padded board. In women with narrow shoulders and broad hips this was not found to be necessary in most cases, but in all the head was carefully raised. Too much stress cannot be laid upon these points, and they are not so easily learnt.

In every case the same pattern of instruments was used, and they were *kept apart* for spinal analgesia *and for it alone*, and specially sterilized before and after use in each case. They were the 2 c.cm. "Record" syringe fitted with Bier's hollow needle which I have had made in hard, pure nickel. This metal is nearly as hard as mild steel, and does not corrode in boiling. It takes a good sharp point, and though it may bend with rough handling, is too tough to snap. My own fine nickel cannula open to its point and blunt to go through the lumen of the needle completes the outfit, which is stocked in metal boxes by Krohne and Sesemann. The hollowed-out point of the injection needle must be always kept sharp, otherwise it will not penetrate the dura, which is not tense when the patient is lying down. The sharpening of the needle should be done on a smooth emery wheel of the diameter of 1 cm. This gives its opening the correct concavity and obliquity without making it too long. If the needle, moreover, is blunt, it may first press the posterior wall of the dural canal against the anterior, and then penetrate both walls at once as they rest upon the vertebrae. In such a case the injected fluid will only partially enter the dural canal or be discharged beyond it. This is almost certainly the cause of failure in some cases of which we hear. Another reason of ill success is that the oblique opening of the hollow injection needle may penetrate for half its length through the dura, causing only a crescentic puncture. Part of the lumen of the needle, especially if the point be too long, will then lie outside of the dura and part within, a small flap of dura half filling the opening in the needle. This can be well seen if one of these trocar needles be pushed so that only half its point penetrates a sheet of notepaper. If the needle has thus only half penetrated the dura the cerebro-spinal fluid may run out in drops, but if any liquid is injected it will impinge against the little flap and run out of that part of the needle opening outside the dura and not into the dural sac, failure being the result. For this reason when only a few drops of fluid escape by the needle it should always be turned round on its axis once or twice without pushing it further in. This will have the effect of turning the little flap aside and the slight pressure of the fluid within the canal will force the dura outwards on the needle until the

whole of its opening is within the canal. To further ensure the delivery of the fluid within the dural sac I have devised the little central cannula which is fitted on the nozzle of the syringe before the stovaine-glucose solution is sucked up through it from the ampoule. This is pushed through the lumen of the needle from which the cerebro-spinal fluid is flowing and when "home" its open end is exactly long enough to project just a millimetre beyond the hollow needle point. This will push the little flap aside and deliver the fluid beyond the point of the needle.* But though we employ this cannula, the hollow trocar needle should in all cases be turned on its axis after it has punctured the dura in order to turn the little flap aside, otherwise there is a danger of the cannula impinging on the flap and pushing the dura off the end of the needle and delivering the injection outside the canal. But with these precautions taken the failures to get the injection into the dural canal have been in our cases in the last few hundreds under 0.5 per cent. (vide Table). In my own first 50 cases before I had adopted them they were 6 per cent.

The syringe is filled from the ampoule through the slender cannula to the extent of circa 1½ c.cm. It is then turned point upwards, and all bubbles are driven out with the excess of fluid until only the exact dose (= 1 c.cm.) is left. There has evidently been an impression current that each ampoule holds exactly the required dose. This is absolutely wrong, and has, I know, led to dangerous overdoses. Each ampoule holds nearly double the required amount, to allow of loss in filling the syringe and subsequently dislodging of air bubbles. *The exact dose must always be measured in the syringe, and no other way.* The five divisions with which each cubic centimetre of this particular 2 c.cm. "Record" syringe is marked correspond each to 1 centigram of stovaine in our 5 per cent. solution of the drug, so that 1 c.cm. of the solution contains the average dose=5 centigrams.

In introducing the hollow needle the aim of the operator should be in every case to strike the dural sac *exactly in the middle line.* Moreover, the needle in entering the sac should always have its opening turned towards the patient's head. (This opening corresponds to a slot in the collar of the hilt.) If the point enter in this way with its greatest breadth transverse to the cauda equina it will simply push aside any of its strands if they are touched at all. If entered with the opening turned to either side, the fine point might possibly penetrate a nerve bundle if this happened to be tense. But the chance of pricking a nerve floating loose in fluid is small indeed, and where it has occurred the strand has probably been touched not in the middle line of the sac but at its lateral aspect, where it is more or less anchored; moreover, the aperture of the needle has probably been turned sideways. Another reason why the opening of the needle should be directed upwards is that no loose nerve strand can be floated into it by the escaping cerebro-spinal fluid in that position and so block the outflow. Be this as it may, it is usually noticed that when the first few drops of fluid come away slowly the turning of the needle is followed by a rapid stream.

There is much to be said in favour of only using glucose-stovaine solutions which have been quite recently prepared. It is conceivable that even in a sterilized form in sealed Jena glass ampoules the compound may in time undergo some mutations or transformations rendering it more or less inert or even harmful.† With this possibility in view I have long avoided keeping any large numbers of filled ampoules in stock, and have insisted on having the compound freshly made and stored in sealed Jena glass ampoules only in such numbers as will ensure their being used up in a couple of weeks or so. In hospital where they are in daily use this is easy, for they are prepared every week or so by our pharmaceutist. But, as a matter of fact, any one can obtain by post from him for private work a few freshly prepared at a trifle over cost price.

Working with these fresh preparations we have obtained more constant, safe, and in every way more satisfactory results than formerly when filled ampoules were obtained in large numbers from other sources and stocked for long periods.

The method which I devised a couple of years ago for preparing the stovaine-glucose solution with accuracy as to strength and transferring it sterile into sterilized Jena glass ampoules has since been carried out for our use by Mr. R. Bennett, the pharmaceutist to the hospital, and has proved simple, speedy, and satisfactory. All that is required is an accurate balance, pure drugs, fresh distilled water, and two small Jena glass beakers 2½ in. in diameter, which, when about half full, hold 100 c.cm. The oblong Jena glass ampoules (2 c.cm.) are made and stocked by the firm Ulbrich of Jena, and cost only 2s. 6d. per 100.

If two dozen, say, are to be charged at one time they are put in one of the Jena glass beakers with *distilled* water, their open ends down, their sealed ends upwards, and are boiled for a quarter of an hour, the beaker being placed in a special boiler made on my own design by Krohne and Sesemann. This is then allowed to cool, when the ampoules will be found full of water. In the meanwhile 45 grams of distilled water are weighed into another similar beaker and 2.5 grams of Merck's pure glucose are added and boiled for ten minutes, and then cooled to the original temperature (15° C.) and again weighed. The weight lost by ebullition is replaced by boiled distilled water. Then the stovaine (2.5 grams) is added and the beaker is placed in the central hole of the sterilizer.

The ampoules are now picked up with sterile forceps and arranged with their open ends downward in holes in the plate which supports the beaker in which the solution has been prepared. The sterilizer should have an inch deep of distilled water at the bottom. It is now covered and boiled for ten minutes or a quarter of an hour. When the cover is removed the ampoules will be found empty, as the water within them is driven out of their unsealed lower ends by the boiling, and the solution of stovaine and glucose in the beaker will be at boiling point. The ampoules are then lifted with sterile forceps and quickly inserted into the solution in the beaker, open end downwards. The cover is again put on, and the sterilizer is kept boiling for a few minutes longer and then allowed to cool. When the cover is now removed the ampoules will be found to be full of the stovaine-glucose solution, and their open ends are then sealed in a spirit lamp. If this simple procedure is accurately carried out the strength of the solution is secured with certainty, and the compound is transferred absolutely sterile into the ampoules automatically within the sterilizer. N.B. See that the sterilizer does not boil away all its water.

The principles and details of technique for carrying out spinal analgesia alluded to above are now well understood by those whose results are here grouped together for study. And we are all agreed that the more experience the administrator has accumulated the easier and more certain the procedure becomes for patient and operator and the less is heard of subsequent headache and sickness. When a patient has had two or three attempts at puncturing instead of one and has, to use a common phrase, "been fussed," he or she, especially if neurotic, is likely to have some headache a day or two after operation, more rarely after an interval of some days. Those who have had only the necessary preparation and have been quietly and skilfully dealt with probably will not. And the same may be said of sickness and nausea. Another important factor in their after-comfort is gentle lifting off the operating table without jolting or disturbing the level of the spine and its relation to the head. Too much stress cannot be laid upon this point. At all events, unpleasant sequelae are less and less seen as we gain in experience and that confidence which here as elsewhere communicates itself to our patients. When placed quietly in bed the patient's head and shoulders are slightly raised for the first day. In a few cases the drugs used in the same way were tropacocaine and novocain, but they appeared to offer no advantages over stovaine, and were given up.

That spinal analgesia is not suitable for every part of the body is admitted by all who have used it most freely. And this notwithstanding the work of Professor Jonnesco, who claims that he can operate on any part with its aid. From the experience of the 2,354 cases recorded here it

* I have lately seen one of these little cannulae, purporting to be mine, made with a closed end and a lateral opening short of the point which could only discharge the solution outside the dura in many cases. It was hopelessly wrong; it should be open to its end.

† This paper had been long written and ready for press when I saw in Mr. Owen Richards's admirable paper that "a number of insufficient anaesthesias were certainly due to decomposition of the solutions" used in his series of cases, for which changes he gives very satisfactory reasons.

seems to be suitable in practised hands for most conditions seated below the diaphragm, and to them to offer many marked advantages, both for patient and surgeon during and after operation, especially complete muscular relaxation and quietude. Personally, from what has been seen, I am inclined to except from its use cases of extreme asthenia due to carcinoma, and of advanced toxaemia depending upon septic peritonitis or obstruction, especially in later life. (In all cases of obstruction the stomach should, of course, be washed out and emptied before operation.) With experienced administration general anaesthetics probably do not involve at any rate more *immediate* risks for the patient, though perhaps they are followed subsequently by greater dangers from their after-effects on internal organs already damaged by toxaemia. But this is not the universal opinion abroad among those of large experience. Indeed, some say that they regard the conditions referred to as peculiarly claiming the spinal procedure. One thing is clear at all events, that is, that these conditions of extreme toxaemia and asthenia are intrinsically very dangerous under any form of anaesthesia, and will always add to the mortality of any particular procedure employed, be it general, spinal, or other.

It is clear that a much more extended study based upon homogeneous records is demanded, and to that end this present limited contribution, which has at least the merit of uniformity of procedure and principle, is now offered. The whole question for or against spinal analgesia requires to be treated, in my opinion, in a non-polemical way. It is not ripe for any other treatment. It has gone far enough to justify an extended trial by those, and only those, qualified to test its possibilities after painstaking study, but its place in our surgical armamentarium is as yet by no means fully and finally established. We may look forward in the wonderful evolution of synthetic chemistry to the discovery of some new drug which shall act on the naked nerve roots without producing any unpleasant general effects. So far no drug has been found to be free from risk, however introduced into the system. But if those more recently discovered have shown a great advance in this respect over cocaine we are justified in hoping that our present agents may be replaced by others less open to objection, and that our methods of employing them may be improved. It is obvious that the whole subject of anaesthetics is still in a state of evolutional flux in spite of many decades of most conscientious research, and no one can foretell its ultimate position. One thing is clear: that is, that chloroform and ether—those magnificent gifts to humanity—are having their former paramount position, as hitherto employed, challenged on all sides. They have been replaced to the extent of at least 20 per cent. of all operations by the perfectly innocuous local infiltration analgesia of Schleich and Braun applied to nerve endings. This again has led on to the equally harmless and often more convenient application of drugs by injection into and around nerve trunks in regional analgesia, and this by a process of natural evolution to the application of the same drugs to the naked nerve roots further back within the dural sac by Bier's ingenious, if not wholly innocuous, method of spinal analgesia. Moreover, the inhalation methods of administering volatile anaesthetics are on their trial, and infusion of various anaesthetics through the veins is challenging their place with more or less encouraging results. Their supremacy is also being invaded by the *general* narcotics introduced hypodermically, such as scopolamine and morphine. The number of anaesthetic drugs is increasing rapidly almost every day, and the most diverse modes of employing them alone or combined are being devised. Who shall say what direction all this strenuous effort will ultimately take? For an end to it let us hope, in the interests of patient and surgeon, there will never be. Those of us who have upon us the heavy responsibility of many surgical operations will do well to encourage this praiseworthy endeavour by all means in our power, lending what experience we may have to elucidate the many points in a very complex problem which still remain dubious.

Of Braun's modifications of Schleich's local infiltration and regional analgesia I will only say here that they are certain to be more and more widely employed as years pass. My own experience of these methods for more than twelve years has steadily increased my confidence in them, and, I am glad to say, this confidence has communicated itself to many assistants, so that we now have numbers of the younger men quite familiar with their principles and details, and practised in their uses. Spinal analgesia—which doubtless has its risks—may have to be restricted, but these harmless methods are certain to be extended even to some of the larger operations. If it is possible to make use of them for such serious conditions as thyroid tumours, many of which I have removed under local infiltration analgesia most comfortably for the patients and myself, it must be possible to extend the method very widely indeed. And this is being done in our hospital and in others too. Knowledge, practice, great care, and some skill are required to do the thing well, but these are worth acquiring at some expense of time and patience. The risks, immediate and remote, of some of our older forms of anaesthesia are well known, and can be avoided by employing local and regional analgesia, which are harmless in trained hands; surely, then, they ought on every principle to be avoided.

The first point to be noticed in regard to our combined figures refers naturally to mortality immediate or delayed. Of our 2,354 cases, 3 have died soon after the dural injection in a way to throw suspicion on the procedure. Two were in my own personal experience, and have been already reported in the BRITISH MEDICAL JOURNAL, August 22nd, 1908. Each was in a desperate condition to begin with, and occurred at a time when the limitations of spinal analgesia were far less understood than at present, and they suggested restrictions which have since been adopted. Neither would now be submitted to spinal analgesia, and very probably they would have succumbed under any form of anaesthesia. The first case was that of an old and very decrepit man, suffering from extensive carcinoma of the stomach and its lymphatic glands, and, as it turned out, with large secondary deposits in the liver besides. My exploratory operation, which involved a good deal of manipulation, was followed by severe shock, and he died soon after removal to the ward. The second was that of a middle-aged woman, with extreme distension of the intestines, and toxaemia from prolonged obstruction due to carcinoma of the sigmoid flexure. She died five hours after the completion of a short circuit, during which much handling and dragging of the intestines was necessary. In these two cases I believe the anaesthetic, at all events, contributed to the fatal issue. One other death took place soon after injection by Dr. Rood for one of our other surgeons. It was one of acute obstruction, with stercoraceous vomiting. Soon after analgesia was induced the patient vomited, and the larynx was flooded, producing fatal asphyxia. It is open to question whether this case should be included in our mortality figures at all. Except these, there are no deaths in the whole series of 2,354 cases which could be in any way put down to the spinal method of anaesthesia. It appears, then, that the only mishaps have occurred among the most serious abdominal operations. There have been none of those distressing cases familiar to all surgeons of any experience, in which the anaesthetic has been given for some comparatively trifling condition, and death has followed in no way connected with the ailment or even before any operation had been begun. But decrepitude, advanced carcinoma, and toxaemia from obstruction, alone or combined, will always be formidable factors to face with any kind of anaesthesia. Among the other abdominal operations, which amount to more than half of all, there have been no serious mishaps; and this, notwithstanding that there were many grave cases among them, such as gastro-enterostomies, perforated gastric ulcers, excision of large tracts of intestine, and quite a large number of acute cases of appendicitis, for which our method appears to be peculiarly suitable. But for the class of extremely bad cases referred to above, and especially for conditions high up in the abdomen, I have personally for the last couple of years avoided spinal analgesia. I have felt that it is easy to bring discredit upon a new procedure, possibly of great value, by forcing its use at the outset too far, and that if a sufferer has to face grave risks under an anaesthetic it is better for him, when a doubt exists as to which is best, to take the more or less well-known dangers of general inhalation anaesthesia. Otherwise the propor-

tion of abdominal cases to others has not fallen; it remains just over 50 per cent. The method is seen at its best when used for conditions below the umbilicus, especially in pelvic and perineal cases. For advanced strangulated hernia with great debility and prostration, especially in old people, I am still strongly of the opinion, expressed long ago, that local infiltration analgesias should be employed in preference to other forms of anaesthesia, and it is satisfactory to note that this view is more and more gaining ground in our hospital among those who are competent to induce local analgesia. It is peculiarly suited to such cases if correctly done, and, as it is without danger, it ought with them at least to be the rule, and the more dangerous methods of preventing pain should be abjured as a matter of course.

Of permanent nerve lesions we have seen nothing in our whole collection of cases, even when followed up for long periods.

Transient diplopia was complained of in three cases. In one it was so slight and fleeting that it could only be substantiated by our ophthalmic surgeon. The other two were somewhat more marked, but were soon quite well.

Faintness, or more rarely retching, on the operating table, and headache and vomiting in the wards, were noted in a considerable number of cases. These were mostly very transient. Many of the headaches were quite slight, and would not have been noted in the clinical records had not special inquiry been made. In a few cases they were severe—about 2.5 per cent. *inside* table—but never permanent. It is hard to express their frequency in exact figures; but headaches in all degrees from the slightest to the worst were noted in those long series accurately kept in about 20 per cent. Nausea or vomiting on the operating table was noticed in 10 per cent. and in the wards in 6.3 per cent. Subjective phenomena are proverbially difficult to test by any known standard. One man has a headache and says nothing about it, another has perhaps a very trifling one and makes as much of it as he can, though when not under direct observation it may appear to make but little difference in his enjoyment of life. I venture to think that in future records we ought to give up special inquiries on this point, and only ask generally "How are you?" only noting obviously severe and troublesome pains in the head or back.

In conclusion, it must be insisted again that none of these "Reports" are put forward in strong advocacy of the method, which I venture to think would be premature. They are nothing more than an attempt to elucidate a difficult subject seriously and dispassionately, and to furnish data for further inquiry, if such be considered desirable. My own attitude towards spinal analgesia now is very much the same as that of Professor Müller of Rostock, stated in a full debate on the subject at the congress of German surgeons, some 800 being present, in Berlin at Easter, 1910.[2] His view was that having employed it in over 2,000 cases he would be sorry to dispense with it; that it obviously had its defects probably owing to lack of uniformity of procedure. This last view is particularly my own. It appears to have been employed by too many in a somewhat haphazard manner; often as though the puncture was the only difficulty and the quality and the quantity of the drug and the position of the patient only a secondary consideration. For this reason I have only recorded the experiences of surgeons permeated by the same ideas and who have mutually agreed to record their cases on the same plan. It may be noted that Müller, like ourselves, has always used stovaine. It is also worth while adding that in the discussion referred to several of the ill-effects are attributed to the employment of the adrenal compounds so widely popular as an adjunct in these cases in Germany. It is incomprehensible to me why they are ever used at all in spinal analgesia, though, of course, they are invaluable in the local and regional method. It is doubtful if the effects of spinal analgesia are in any way prolonged by the addition of adrenal compounds. At any rate it is possible to operate on the abdomen for two hours in many cases without them.

POSTSCRIPT.

Since the above record was written, and while waiting for the last few cases to be added up to the end of 1911, a paper has appeared by Mr. Owen Richards in the BRITISH MEDICAL JOURNAL of December 23rd, 1911, invaluable for its straightforward analysis of 500 consecutive cases of spinal analgesia. These were done in one hospital in Cairo at the hands of many, apparently, not specially trained men, on different lines and with varying drugs and solutions. His experiences are, therefore, of special value and well worthy of study. My object in this report has had a different aim from his, as can be seen. It has been rather to show what results would be obtained were the

Table showing the Results at Five Hospitals working on exactly the same Principles and Technique, and with the same Instruments and Solutions carefully prepared. In the last Column the Cairo Results are given. Here the Principles, Technique, and Solutions were not always the same: some of the Solutions were decomposed.

	Barker at Univ. Coll. Hosp. Published B.M.J., Aug. 22, 1908.		Majors Spencer, Houghton, Shea, Pilcher, at Millbank Military Hosp.		Major Spencer later at York Military Hosp.		Major Houghton, later on, Gold Coast, and at Aldershot Military Hospital.		McGavin, Williams, O'Leary, at Dreadnought Seamen's Hospital.		Barker and Rood, Univ. Coll. Hosp., Aug., 1908, to Dec. 31, 1911.		Totals and Percentages of Our Combined Tables.		Richards, at Cairo, Egypt, B. M. J., Dec. 23, 1911.	
Abdominal operations..	143		189		26		140		418		267		1,188		185	
Other operations ...	152		196		24		160		426		208		1,166		315	
Total	300		385		50		300		844		475		2,354		500	
Failure to enter dural sac ...	5	1.6	2	0.5	0		0		3	0.35	3	0.6	0.5		12	2.4
Injection with no analgesia following	6	2.0	Not recorded		0		0		0		0		0.3		38	7.6
Injection with too short an analgesia	12	4.0			0		8		13	1.5	2	0.4	1.7		18	3.6
Chloroform used to complete the operation for all the above causes	25	7.9	17	4.4	2	4.0	8	2.6	34†	4.28	16	3.3	4.2		68	13.6
Fatalities	2	0.6	0		0		0		0		1	0.2	0.1		3	0.6
After effects:																
Severe headache ...	Not sufficiently recorded		Not sufficiently recorded		2	4.0		1.3	5	0.59	19	4.0	2.5			16.0
Slight headache					21	42.0		59.0	69	8.17	85	17.8	26.7			40.0
Nausea on table... ...					9	18.0		19.0	22	2.6	3	0.6	10.0			
Vomit in ward					6	12.0		10.0	7	0.8	12	2.5	6.0			2

* 4 in first 100; 2 in second [illegible].

† As these two points are not entered in the Millbank tables, I have calculated the final percentages without the Millbank figures on the remaining 1,967.

‡ 21 were abdominal.

§ Calculated from the percentages given, excluding the first two earlier columns, which were not full enough.

mode of procedure, the drugs and solutions, the same in a long series of cases conducted by surgeons seeing eye to eye. Assuming, as we are bound to do, that his and all the other records involved have been kept in good faith and with equal care, they offer an opportunity for contrast which may be availed of without any wish to make too much of the differences between them.

On the question of the gross mortality or first risk from spinal analgesia, both series are not conclusive. Mr. Owen Richards has frankly recorded three deaths (0.6 per cent.) soon after the procedure. But when the nature of these cases is examined no fair critic could assert that the results were certainly and altogether due to the anaesthetic. The same might be said of my own two fatalities, and almost positively of Dr. Rood's. All were in a desperate condition to begin with. Still they are there, and every surgeon must form his own opinion as to whether they would have survived after any method of anaesthesia. All of them but the last occurred in the early days of a method whose limitations were as yet imperfectly known. In the work of our collaborators, which commenced later when some experience had been obtained and the plan of recording the cases was better developed, it will be seen that there were no fatalities, nor were there in our own after 1908 if we exclude the case of stercoral flooding of the larynx and suffocation in Dr. Rood's experience, as I think may safely be done.

In classifying the technical drawbacks to spinal analgesia as he found them (see table), Mr. Richards places inability to enter the dural canal first with 12 in 500 cases, or 2.4 per cent. The reasons given appear perfectly adequate —that is, faulty needles and wrong direction of puncture. He next mentions that in 38 cases (7.6 per cent.), after reaching the dura and obtaining a flow of cerebro-spinal fluid, the injection was followed by absolutely no effect. The explanation for this is, I suggest, sound and not far to seek (see above). Then there were 18 cases (3.6 per cent.) in which after injection the analgesia was so imperfect that chloroform had to be given. According, then, to his figures, the technical drawbacks to analgesia in his 500 cases, including the 12 failures to enter the dura, were 68, or 13.6 per cent.

In arranging our own collection of 2,354 cases in the same way (*vide* table), it will be seen that there were 13=0.5 per cent. failures to enter the dura in 2,354 cases, of which 3 belong to my own first 100 cases; there were 6=0.2 per cent. of absence of any analgesia on injection, of which 4 occurred in my own first 100 cases, 2 in the next 200, none since. Then there were 100 cases in which after injection the analgesia was insufficient for the completion of the operation=4.2 per cent. So that the technical drawbacks in our 2,354 cases which required the administration of a general anaesthetic (often only a drachm or two), and including failures to enter the dural sac, were in the gross 100=4.2 per cent. Of these, 14 occurred in my own first 50 cases.

The differences on all these points may be said to be small, but as far as they go they seem to support the view that a definite ritual with the same heavy solution, carried out by men who have worked first cordially together and then independently, is more likely to give uniform and better results than where there have been less uniformity of technique and different solutions, instruments, etc.

If any concrete proof of this were necessary, it is offered to us in the accompanying table, which shows Major Houghton's series to be the best of all those given, probably because he had more opportunity of studying the methods in the work of others before employing it himself. He was, with other officers of the Royal Army Medical Corps who followed him, appointed by the War Office specially to assist me at University College Hospital in recording these cases at a time when, in the second hundred, I had more or less got over the first difficulties and failures, and had devised the solutions since used. Then at the Military Hospital, Millbank, he assisted Major Spencer, who had also been much with us. Subsequently, on the Gold Coast and at Aldershot, he worked independently with accumulated experience, with the results shown in the table. It is interesting to note that on the Gold Coast he was obliged to make his own solution fresh, and fresh on account of the climate, and with the best results. Our own results since 1908, when we might be said to have passed the "tyro" stage, point to the same conclusion.

Mr. Richards's paper, if I may be allowed to say so, appears to me most useful and admirable. He does not yet, to be sure, endorse the opinion expressed above, and held by all those whose results are here tabulated—that the specific gravity of the compound injected plays an important part in the success of spinal analgesia; but perhaps that is to come. But he furnishes strong evidence of the necessity of freshly and carefully prepared solutions, for which I have long contended and provided.

REFERENCES.
[1] BRITISH MEDICAL JOURNAL, March, 1907; February, 1908; August, 1908. [2] Debate at Congress of German Surgeons held in Berlin, 1910.

SUBDURAL ABSCESS, THROMBOSIS OF THE LATERAL SINUS, AND DIFFUSE OSTEO-MYELITIS OF THE SKULL BONES TREATED WITH VACCINES: RECOVERY.

BY T. HARRISON BUTLER, M.D.OXON.,
HONORARY OPHTHALMIC SURGEON TO THE COVENTRY AND WARWICKSHIRE AND TO THE WARNEFORD, LEAMINGTON, AND SOUTH WARWICKSHIRE GENERAL HOSPITALS.

THE following case, which was under my care while I had charge of the Aural Department of the Coventry Hospital, presents features of such unusual interest that I have no hesitation in recording it.

T. W., a male aged 25, came up on February 8th, 1909, complaining that he felt very ill, and had a severe headache. His condition was so serious that he was at once admitted.

History.

He has had a foul-smelling otorrhoea on the right side as long as he can remember, which he has completely neglected. Three days ago he vomited once. Violent earache and much headache came on at the same time. He has felt more ill every day, and "hardly knows how he got to the hospital." No history of rigors.

Present Condition.

The patient is obviously very ill; temperature 100°, pulse 100. He has otorrhoea on the right side, which is very offensive. The right meatus is full of pus and is blocked by polypi. There is tenderness at the tip of the mastoid, but none over the antrum or the emissary vein. The left ear shows no sign of present inflammation, but the drum is thickened and retracted from old chronic disease. The patient is moderately deaf in both ears. No tenderness in the neck over the course of either jugular vein.

In the absence of any very definite signs it was decided to watch the patient for a few hours before opening up the mastoid, but chloroform was given and all the polypi and granulation tissue was removed from the ear with snare and curette.

February 9th. The ear has ceased to discharge and is sweet. The patient vomited twice (9 and 9.30 p.m.). Temperature 100°, pulse 90. There are no signs of cerebral irritation; the patient is quite lucid in his mind; headache bad at intervals. No squint, pupils normal in size and reaction and equal in size. V.R. ⅝ partly, V.L. = ⅝ all. There is no optic neuritis.

February 10th. The patient's temperature ran up to 104° in the night, with a rigor; vomited once. Headache better.

February 11th. There is a little stiffness in the muscles at the nape of the neck. Seems very ill indeed. Diagnosis made of subdural abscess, with possible thrombosis of the lateral sinus. Ear now sweet, no otorrhoea.

First Operation.

The radical mastoid operation was performed by Zaufel's method. The bone was so hard that two gouges were broken before the small, deeply-seated antrum was exposed. The tegmen of the antrum was found as a loose sequestrum blocking the aditus. The antrum and subdural space contained about two drachms of thick pus. The dura was freely exposed, the bridge cut down and the middle ear curetted. A meatal flap was turned back above and below, and a large rubber tube placed in the antrum and brought out by the retro-auricular incision. As pus had been found the lateral sinus was not exposed. The patient stood the operation, which lasted about an hour, well.

After-History.

The result of the operation was disappointing. The patient felt better, but his pulse-rate increased to 120, and his temperature became pyaemic in character, ranging from 97° to 103°. The headache ceased, but there was pain and tenderness about 2 in. behind the tip of the *left* mastoid and at times in the left posterior triangle of the neck. This tenderness on the opposite side introduced an element of doubt into the diagnosis. Was

the left lateral sinus thrombosed? If so, had the thrombus spread from the right side, or was it a primary condition? On February 14th and 16th there was a slight rigor, which strongly suggested sinus thrombosis. Antipneumococcus serum was injected on the 17th, and polyvalent staphylococcus serum on the 18th and 19th. The general symptoms of toxaemia were so slight that it was thought that the infection was most probably staphylococcal. As a matter of fact, an examination of the pus obtained from the lateral sinus showed that the causal micro-organisms were the *Staphylococcus pyogenes albus* and Hoffmann's bacillus or a similar micro-organism. These injections had no obvious effect. On the 19th there was slight twitching of the left side of the mouth and tenderness along the *left* jugular. An examination of the left ear showed no signs of any recent disease; no optic neuritis. It was decided to expose the right lateral sinus.

Second Operation.

Under chloroform no thickening of either jugular could be detected. Before the lateral sinus was exposed over ½in. of sclerosed bone had to be cut away, and two more gouges were sacrificed. With the greatest difficulty (owing to the intense hardness of the bone) the sinus was exposed along about an inch of its course. It was full of fluid stinking pus. As there had been some twitching of the left side of the body, and the exposed dura was bulging, it was incised, but nothing escaped. This proceeding was, I think, an error, but no harm resulted. The pus was collected and a vaccine prepared by the Clinical Research Association. At the end of the operation the patient's condition was too precarious to allow ligature of the jugular to be carried out. The result was eminently satisfactory; the patient's condition rapidly improved, although his temperature did not fall much and his pulse remained rapid. The pulse became stronger and regular and he felt much better. His tongue rapidly became clean.

Five days later the vaccine arrived, and was at once used. An increasing dose was given daily, and each was followed by an evening rise of temperature. The following doses were injected: 25 millions, 50 millions, 75 millions, 100 millions, and 125 millions. After the fifth dose symptoms like those of serum disease appeared, skin rashes and joint pain, so the treatment was discontinued. On March 7th the temperature sank to normal. The mastoid wound was healing rapidly. It had been irrigated daily with boracic lotion and hydrogen peroxide and packed with iodoform gauze.

March 10th. The patient's temperature began to rise again, and he received an injection of 175 millions of vaccine.

March 16th. A swelling appeared over the inner aspect of the right tibia, which was red and tender. This did not go on to suppuration, but rapidly got well.

March 20th. The temperature is gradually falling to normal. There was a little diarrhoea with bloody stools. The wound has almost healed.

The patient now appeared likely to make a good recovery, but further complications soon appeared. The temperature became normal, the patient seemed perfectly well, but a swelling appeared over the left squamous part of the temporal bone. This eventually fluctuated, and the patient was anaesthetized and the scalp incised. Nearly the whole of the squamous portion was found loose as a sequestrum and was removed. The skull bones were necrosed all round and a probe could be passed down to the dura in every direction. The dura was exposed over an area of about one square inch and was bathed in pus. The patient, however, declared that he was perfectly well, and his temperature was normal. There were no signs of meningitis. No sooner had this wound healed than a fresh swelling appeared. It was incised, and again bare bone, riddled with holes and widely necrotic, was exposed. The process was repeated until hardly a square inch of his skull escaped. In all, he had *twenty operations*, and often had six or seven tubes in his head, draining pus. All the time he remained perfectly well. After a full year's treatment in hospital he was discharged hale and hearty, and returned to his work as a fitter at Worcester. Before doing so he was two months at a convalescent home, and the last time I saw him he looked the picture of health.

The question may be asked, Is this case an example of the triumph of vaccine therapy? It is at least extraordinary that a man with such extensive osteomyelitis of his skull should remain in perfect health, with no temperature, and no sign of any cerebral irritation. Mr. Leedham-Green, who saw the case, said he had never seen one like it, and I have never heard of one. In Tilley's book, *Diseases of the Nose and Throat*, a skull is figured on page 188 which gives some idea of the condition of my case, although fortunately his skull was not quite so bad.

THE department of public health in Queensland has commenced this year a campaign in Brisbane against mosquitos, the main object in view being the abolition of dengue fever and filarial disease. The co-operation of all householders is being sought by circulars and visits from officials from the public health department instructing them how to abolish breeding places on their premises and exclude adult mosquitos from their houses.

NASAL OBSTRUCTION DUE TO OSTEOMATA OF THE POSTERIOR NARES.

By F. P. STURM, M.Ch.,

LEIGH, LANCS.

OSTEOMATA of the nasal cavities are so infrequently met with that they constitute the rarest of all the varied causes of nasal obstruction. Cases have been reported by Stein, Ballenger, and Boenhaupt, but nothing definite is known as to the etiology of the condition. Iodides are stated to be of value in cases with a specific history (Ballenger). The following is the single instance of the condition with which I am personally acquainted.

A boy aged 11 was sent to me by Dr. M. J. Halton for operation on account of deafness and complete nasal obstruction. The septum and turbinates as viewed by anterior rhinoscopy were apparently normal. Both drumheads were retracted and immobile; tuning-fork tests revealed typical conductive deafness. The tonsils were enlarged; the naso-pharynx was packed with suppurating adenoid masses which occluded the Eustachian tubes and rendered it impossible to obtain a view of the posterior nares by means of the rhinoscopic mirror. A former operation by another surgeon, four years previously, had lacerated the soft palate, and torn the right half of the uvula completely away. There was no history of syphilis or tubercle.

Under a general anaesthetic the ragged edge of the palate was trimmed, the remains of the uvula removed, the tonsils enucleated, and the adenoids curetted away. Digital examination



Posterior rhinoscopic image.

then revealed a dense bony enlargement of the posterior end of each inferior turbinate. These growths completely occluded the upper respiratory passages, and all but met in the middle line behind the vomerine plate. Each was of the size of a cherry, and of such ivory denseness that neither spokeshave nor saw was able to make the slightest impression, though repeated attempts were made with both these instruments and with posterior nasal forceps. The result of the operation has been that the deafness has completely disappeared and the general health greatly improved, as would naturally follow the removal of suppurating adenoids and diseased tonsils, but the nasal obstruction remains, and will almost inevitably result in the recurrence of the adenoids.

If this case comes up for operation again, or in any similar case, one would be inclined to attempt the removal of the bony tumours by means of a long-bladed gouge or chisel introduced by way of the anterior nares. The accompanying illustration is a sketch of the posterior rhinoscopic image made two months after the operation.

NOTES ON ARTHRITIS.

BY

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THAT there is a very real difficulty in making a satisfactory classification of the various forms of arthritis is recognized by most writers on the subject, and in practice there is sometimes still greater difficulty in placing a particular case so as to conform to the academic connotation of any particular type. The difficulty suggests that the customary classification is an artificial one and does not correctly represent this form of disease. There is nothing strange in different micro-organisms causing very similar symptoms, and, in fact, *a priori*, it is more remarkable that these primitive vegetable organisms when planted in the body should evoke such dissimilar and characteristic symptoms in the host as many of them do. It is, then, not difficult to see that any classification based on symptoms or morbid anatomy must be a confused one. When the bacteriology of arthritis is more complete, it will be an easy matter to picture clearly the arthritic changes produced by infection in general, together with the peculiar phenomena associated with infection by certain bacteria in

particular. My own view is that the vast majority of all cases of arthritis are due to the action of a micro-organism, that different micro-organisms are capable of producing lesions which are clinically identical, and that, regarding the body as a tube, the infection is caused by an entry being effected through some part of the surface of the tube by a micro-organism not necessarily dissimilar to the ordinary bacterial flora of that region of the body.

Diathesis I do not ignore, but I interpret that term, prolific in faction, as meaning the constitutional proneness of an individual for a particular infection—in other words, his suitability as a culture medium for any particular micro-organism, and the importance of even slight differences in the constitution of culture media is fully appreciated by workers in bacteriology. It is impossible to do the smallest work in bacteriology without appreciating that the soil as well as the seed has to be reckoned with. An abnormal deficiency in bacteriotropic substances would also as a constitutional peculiarity be included under diathesis.

I will now refer to some cases illustrating the above views. Many of the patients have been shown at the clinical demonstrations held at the Cheltenham Hospital during the summer months.

CASE I.

On January 2nd, 1911, I was asked by Dr. Hebblethwaite to see with him a Mr. T., who gave the following history: He had been a robust man up to three and a half years ago, when he had an attack of appendicitis, for which he was operated on. At that operation an abscess had been found and drained, but it had been considered inadvisable to hunt for the appendix, which had accordingly been left behind. One month after the operation he had experienced some abdominal pain, for which he saw his surgeon, who did not consider it of importance, and the pain soon passed off. About six months after the operation he began to have pains in his joints, which became swollen and tender. The knees were first affected, then the fingers, wrists, and shoulders. During the next three years he suffered increasingly from arthritis. He received active medicinal treatment, and was also treated at two spas with waters, baths, and packs to the liver. In spite of this he grew no better, but rather the worse, and in January, 1909, he could with difficulty rise from his chair.

At the time of our examination his wrists and knees were so acutely tender that he dreaded shaking hands, or any jolt to his bed. His fingers showed well marked ulnar flexion. There was present definite tenderness in the right iliac fossa, and the lower part of the right rectus was kept contracted, there was also tenderness on the right side on rectal examination. Dr. Hebblethwaite and I agreed in the opinion that there was present an old appendix abscess, and that the joint affection was a septic arthritis. Two days later Mr. Arthur Cardew operated, and after much trouble in getting through old adhesions, he found a deeply buried abscess in the vicinity of the appendix. The abscess was drained and the appendix was removed. Cultures were made direct from the abscess immediately it was exposed, and growths of *Bacillus coli communis*, and of *Diplococcus pneumoniae* were obtained. A vaccine was made from each organism. After the first inoculation the wound, which had nearly closed up, became painful, and the temperature rose. The wound was reopened on January 21st, and pus was again evacuated. The wound was then kept from closing by gauze plugs until no local reaction was caused by the vaccines. The inoculations were continued by Dr. Hebblethwaite for six months, and the joints steadily improved. In September I had the pleasure of seeing him walking about Cleeve Hill, and his joints are now almost normal. He occasionally gets a twinge, however, to remind him of past events. In this case we were fortunate in obtaining an exceptionally trustworthy anamnesis owing to the patient being a very intellectual man, who had, for amusement, studied medicine so far as to be within one examination of obtaining the M.B. degree just before his illness began.

CASE II.

G. G., aged 30, a poulterer, was on December 31st, 1910, dressing turkeys, when he injured the middle finger of his left hand. The finger became septic and an abscess was opened at the Cheltenham Hospital by the house-surgeon. The finger cleared up in a few days, but two days later his left knee began to swell. This was followed on the next day by swelling of the right knee and both ankles. Later his wrists were involved, and as he did not improve under salicylates and looked ill, he was admitted to hospital on February 8th, 1911, under my care. A culture was taken from his blood, 50 c.cm. being run off from his median basilic vein direct into a flask containing 50 c.cm. of sterile broth. The flask was incubated and a growth of a staphylococcus was obtained, from which a vaccine was prepared. An inoculation of 100 million was followed by marked improvement, and after two inoculations the patient was well enough to be transferred as an out-patient. He was inoculated once a week, and by the end of March he felt so well that he ceased to attend, although told to do so for some time longer. He turned up again in the following September with the statement that the joints had kept well up to the previous week. He was again inoculated with the same vaccine and urged to continue attendance if he wished to escape permanent arthritis. As before he improved under inoculations of vaccine, which were increased to 500 million. On December 1st his joints were almost well, and he again ceased to attend. Since that time I have not seen him. He will very probably have a relapse.

CASE III.

C. L., aged 28, held an exceptionally fine record as an athlete in boxing, swimming, and football. He had enjoyed robust health until August, 1910, when he began to have a discharge from his left ear, attributed by him to the effects of long diving. In the same month he developed acute arthritis, and was admitted to the hospital in the town where he then resided as suffering from acute rheumatism. He was treated in hospital for seven and a half weeks. On his discharge from hospital he felt very weak and failed to recover his strength. In the following October Dr. Hebblethwaite asked me to see him, he having already diagnosed septic arthritis due to aural infection. The patient was weak and wasted, suffering with pains in his knees, ankles, shoulders, and wrists, with attacks of vomiting, giddiness, and headache, and a small purulent discharge from his left ear.

He was admitted to Cheltenham Hospital under me on October 28th, and I asked my colleague, Mr. Norman Pike, to take charge of the aural treatment. This he kindly did, and on three occasions he removed small polypi from the middle ear through a small perforation in the tympanum. Cultures were made from the aural discharge, and on November 28th he was given 400 million of an autogenous vaccine of *Staphylococcus pyogenes aureus*. This caused oedema in the external auditory meatus, and such acute pain in the ear as to require a hypodermic of morphine. There was also some oedema over the mastoid process. Smaller doses were given in future, and by December 9th the ear was quite free from all discharge, the joints had ceased to be painful, and the patient had increased in weight from 10 st. 7 lb. on admission to 11 st. 5 lb. He was transferred to the out-patient department on December 15th and continued to be inoculated with vaccines until February, 1911, when he was in sound health, weighed nearly 13 st., had no joint trouble, and enjoyed his strenuous labour at an engineering works.

The auditory improvement I am not concerned with, but the crippling produced by this local lesion and the improvement following its treatment was very striking.

CASE IV.

H. E. came to the out-patient department of the Cheltenham Hospital on August 7th, 1911, complaining of joint trouble from which she had suffered for the previous ten years. The fingers of the right hand were the first to be affected. Both wrists were firmly ankylosed, the fingers of the right hand were fixed in a position of flexion at the first interphalangeal joints, the left hand was very weak, but was less deformed; she complained of acute pain in these joints, and also in her right ankle. Both nostrils were noticeably patulous, and the inferior turbinals were atrophied. She admitted having had a nasal discharge for about twenty years. Both anterior nares yielded a pure culture of Friedländer's bacillus. A vaccine of this organism was made, and inoculations were given in doses increasing from 100 to 500 millions weekly, and no other treatment was given. The joint pains became remarkably less and then ceased, so that she was able to resume sufficient house work to earn her living. The deformity and ankylosis remains, and will, I fear, be permanent; but I intend to see if injections of fibrolysin will lessen the fibrous ankylosis which is present.

CASE V.

A man, X., was admitted to Cheltenham Hospital complaining of acute rheumatism. His knees were swollen, and he had pain in several other joints associated with profuse sweating and rise of temperature. On examination a purulent urethral discharge was found. The patient professed his astonishment at this discovery, and stoutly maintained that he was quite unconscious that he had any urethral disorder, and could not explain how such had occurred. The gonococcus was present, and with local treatment the arthritis subsided.

CASE VI.

At the same time there was present in the ward a policeman, W. B., with acute rheumatic fever and endocarditis. He had been treated outside by Dr. Hugh Powell with salicylates and also with quinine. On admission I tried pushing sodium salicylate to 300 grains a day, with twice that amount of sodium bicarbonate, without effecting any improvement. I then obtained from a culture from his blood the *Diplococcus rheumaticus*, and under a vaccine of this he made a good recovery both of his endocarditis and of his joints, and Dr. Hugh Powell tells me that he is in good health, and has not been absent from his duty as a policeman for ill health since his return to duty last summer.

In a case somewhat similar to that of X., I was consulted by a lady who developed a severe arthritis in one knee a few weeks after her marriage. She attributed it to sleeping in a damp bed during her honeymoon. A vaginal examination was refused, but I felt satisfied by the clinical symptoms that the blame might be more justly attributed to the *Micrococcus gonorrhoeae* than to the humidity of the bedclothes.

That gonorrhoeal arthritis may closely simulate rheumatic is well recognized, but it is important to remember

that the secondary infections of the urethra and vagina may also cause arthritis.

The case now to be described was a patient of Dr. Conder, and the only part I had in the case was the preparation of the vaccine employed.

CASE VII.

J. E., a man aged 65, had spent the last forty-five years of his life in India. For the past twenty-five years he had trouble in his right knee in the nature of attacks of acute pain and swelling. These attacks had become more frequent and more severe in the previous six months. He had at times also pains in the left knee, elbow, and wrist, and in the right shoulder, ankle, and great toe, but not recently. On April 29th, 1911, Dr. Conder found the right knee to contain fluid and to be 1½ in. larger in circumference than the other. With a syringe he removed 2 oz. of purulent fluid, the pus cells of which were almost entirely polymorphs. There were also present in the fluid cocci in pairs and short chains. A culture showed a good growth of a Gram-positive diplococcus noncapsulated. On May 4th another ounce of fluid was removed from the same joint and yielded the same organism. On May 2nd the patient's opsonic index to this coccus was 0.89; on the same day he was given 100 million of his autogenous vaccine. After this he felt better, and on May 14th his opsonic index was 1.59: as there had been no visible reaction in the joint he was given the same day 250 million of his vaccine. This proved too large a dose: the day following he felt seedy, his temperature rose to 103° F., and he experienced for the next five days the most acute pain in both shoulders, ankles, wrists, and right great toe. On May 19th his opsonic index was 0.78. On May 26th he was given 150 million of vaccine, and as this dose gave satisfactory results it was adhered to. He had injections about once a week until September. The knee and other joints quite cleared up, and he started touring on the Continent, but took with him some vaccine in order to have an inoculation once a month as a preventive of further attacks, which he has not since had.

Now, in the cases set out above I am quite aware that I am describing no new thing; similar cases of great interest are to be found in Mr. Howard Marsh's book on *Diseases of the Joints and Spine*, but they do not receive the general attention they deserve. I am firmly convinced that every case of "rheumatoid" arthritis is due to a microbic infection; and, though I do not say that at present the infection can always be found, I contend that the more closely early cases of so-called rheumatoid arthritis are investigated the larger will be found the proportion of those in which a definite infection can be traced. If no local site of infection can be detected, the blood ought to be cultured. Mr. Peter Daniel, on page 140 of his instructive book on *Arthritis*, published this year, expresses an opinion in agreement with the above:

> Schüller claims that his dumb-bell bacillus is the cause of the affection. The whole of my experience points strongly against a definite cause of this kind, and is in favour of a multiplicity of bacterial processes. Clinical investigation and treatment has led me to attribute most importance to genital infection as a cause of rheumatoid arthritis.

Cases such as described above, if treated with sodium salicylate, guaiacol carbonate, or hydrotherapy in all its branches, degenerate into the forms of joint deformity, which have for years been the subject of treatises on acute rheumatism, chronic rheumatism, rheumatoid arthritis, osteo-arthritis, arthritis deformans, etc. Unfortunately, the complete investigation of these patients demands much time and labour, and on that account the hospital patient is frequently more fortunately circumstanced than his more affluent neighbour. But if fortune is propitious and the labour is successful, the resulting satisfaction to both patient and doctor is by no means small.

DR. ALFRED HOLLIS, of Freshwater, Isle of Wight, was on February 19th presented with a testimonial from the inhabitants of the three neighbouring villages in which his work had lain—Freshwater, Yarmouth, and Totland Bay—accompanied by gifts of a silver coffee and tea set. The testimonial was read by Lord Tennyson, and Lady Tennyson was one of those who presented to Dr. Hollis, on behalf of the bodies they represented, the portions of the service contributed by them. An additional presentation has since been made by a local lodge of the Order of Foresters. Before the presentations were made Lord Tennyson said that no one had been asked to subscribe, the gifts being freewill offerings, and, like the testimonial, the outcome of the true, deep, and genuine affection in which Dr. Hollis was held. Dr. Hollis, who became L.S.A. in 1857, M.R.C.S. in 1868, M.B., C.M.Edin. in 1869, and M.D.Edin. in 1873, was at one time President of the Isle of Wight Branch of the Association.

BORACIC ACID POISONING.*

BY

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I HAVE ventured to bring these notes before you this evening because boric acid is in such general use with the profession that any case where toxic effects are produced must be of interest to us all. I have looked up the literature on this subject, and cannot find much recorded, hence it will, I think, be of additional interest.

In the BRITISH MEDICAL JOURNAL of 1901 I find a reference to 4 cases, 2 of which were fatal.

Rinehart records the two following cases of poisoning by boric acid:

(*a*) A man aged 38 years had posterior urethritis, and he was treated with a weak solution of $AgNO_3$ locally, and 5 grains of boric acid was given by the mouth every four hours. Two days later there followed extreme weakness, an erythematous rash with papules and vesicles on the backs of the hands, and a very weak pulse. These symptoms subsided on withdrawing the drug, but reappeared on resuming it. Rinehart says he thinks that it would have ended fatally had it not been detected early.

(*b*) A man aged 50 years had a suprapubic lithotomy performed, and the bladder was washed out with a saturated solution of boric acid; also 5 grains of boric acid was given by the mouth every four hours. Ten days later an erythematous rash appeared, which later scaled, and crusts formed on the rash. The skin thickened and became infiltrated as in eczema; weakness and albuminuria were prominent symptoms; feeble pulse.

Wood of Philadelphia reports two fatal cases. In these nausea, vomiting, an erythematous skin eruption and fatal collapse occurred. The details of these cases are not given (vide BRITISH MEDICAL JOURNAL, 1901, vol. ii, EPITOME, page 91).

These cases suffice to show us that it is very advisable to be on our guard when ordering a drug we have been accustomed to use so freely until we almost think it innocuous.

The following is a report of the case I have observed:

A. G., aged 23 years, was sent to me from Canton on July 5th, 1911. He had been ill with dysentery on and off for ten months past, and the present attack commenced three weeks before admission. He stated that he had been passing a large quantity of blood in his stools, but there was not much at the time he came in. There was much blood-stained mucus: I frequently searched it for amoebae, but I could not find any.

On admission he was put on a mixture of magnesium and sodium sulphate, ½ oz. every four hours. After two days he had a single rectal wash of boric acid and warm water to ease the straining. At this time he was passing 10 to 13 stools daily, consisting of almost pure blood-stained mucus.

On July 8th he was put on tinct. opii ♏ xxx, pulv. ipecac. gr. xxx, diminishing the dose each day. On July 16th (the tenth day) as he had not improved he was put back to the magnesium and sodium sulphate solution, and in addition a rectal wash of boric acid (saturated solution) and water, ½ pint each, was given night and morning. This immediately lessened the number of stools, and the wash was continued as long as I found mucus. I saw the wash each day, and apparently all was returned on each occasion.

This treatment was continued for over three weeks, and the patient was rapidly improving, taking his food well, and up and about; on the day before the onset of the symptoms of poisoning he only passed two stools in addition to the rectal washes.

On August 9th the patient was up and about, was taking his food well, and there was no elevation of temperature.

On the morning of August 10th I found him in bed with a rash covering the whole body, very like a bromide rash, generally scattered, but on the extensor surfaces the papules were gathered more thickly, erythematous in character, disappearing on pressure, not at first hard, although each papule could be distinguished. I at once recognzied it as a drug rash, and ordered the rectal injections to be discontinued and only plain water to be used. In the afternoon of the same day he became very restless and inclined to be noisy, so much so that later in the day he was put into a separate ward. On the next day he was more thickly covered, especially on the extensor surfaces and the face, and the spots were more shotty and hard, with a tendency to become purpuric. He was quite delirious, and the pulse very feeble; he could not sleep, and a dose of paraldehyde had no effect. On the morning of August 12th the rash was quite purpuric with hard shotty papules; he was quieter, through weakness. He slept after a dose of chloral, and later took some food. Next day the spots were becoming clearer, but still hard and shotty. His mind was quite clear and he was taking food well. He continued to improve, but on the morning

* Read at the Annual Meeting of the Hong Kong and China Branch of the British Medical Association.

of August 14th the eyelids were very puffy. There was no albumen in the urine. On August 18th the spots were scaling, but still hard generally; in a few places a little serum escaped, and in others pus, evidently due to infection by scratching with his nails.

By August 20th the colour of the rash had faded considerably, but the papules were still hard and shotty. The general health of the patient was better; he was anxious to get back to his home as his wife had been confined whilst he was in hospital; he left for Canton this day.

I heard from his doctor that after a few days' rest at home he was able to return to his work, and as he has not seen him since he presumes all is well.

This case illustrates the sudden onset of symptoms without any warning. It shows also the long duration of the rash after all drugs had been stopped, the delirium that accompanied the poisoning, the weakness of the pulse and danger to life if not recognized at once and stopped, as illustrated in Dr. Wood's cases in Philadelphia. The case shows also the possibility of mistaking the hard shotty papules for variola in its later stage, and also shows the inadvisability of anyone out of reach of skilled medical advice using boric acid rectal injections for dysentery. In this case no boric acid was given by the mouth, and it illustrates the rapidity and ease with which boric acid solution is absorbed by the bowel.

A CASE OF VEGETABLE GASTROLITH.

BY

PEVERELL S. HICHENS, M.D.Oxon., F.R.C.P.Lond.,
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AND

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The patient, a young woman of 24, made her appearance at the out-patient department of the Northampton General Hospital in May, 1911, complaining of pain and a sinking feeling in the stomach and vomiting for the past month. No blood had been vomited. She gave no history of any peculiar habits in her eating.

On examination she was found to have a large tumour running across the epigastrium. It was of a peculiar character, being smooth, hard, and rounded, both above and below. The lower edge reached to the umbilicus. The tumour filled up the whole space between the angle of the ribs. It was freely movable on respiration, and on deep inspiration the examining hand could be slipped above the rounded upper limit of the tumour and hold it down.

Many speculations were made as to what the mass could be. Amongst them an anomalous floating kidney was suggested, but, on the whole, the most likely diagnosis seemed to be a floating liver, causing gastric symptoms from the displacement

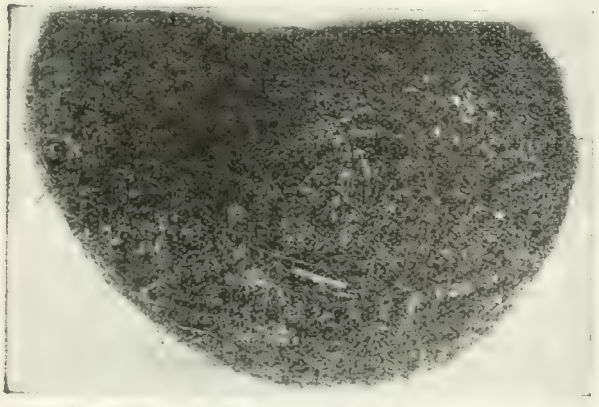


Fig. 1.—Mass of cocoanut fibre removed from stomach.

of the stomach. Against this diagnosis was the fact that there was apparently a finger-breadth of liver dullness at the fifth right rib, with resonance above and below it.

An exploratory operation was considered, but it was postponed, and the patient recovered entirely from her symptoms with rest in bed in the hospital and a light diet, the tumour, however, remaining as before.

Acting on the supposition of the tumour being a floating liver, she was given a suitable abdominal belt before leaving the hospital on June 24th.

Nothing more was heard of the patient till early in August, when Dr. A. W. Moore, her medical attendant at Stony Stratford, wrote to tell us that the most startling developments had taken place. She had been seized again with very acute pain in the abdomen, with rigidity, distension, a rapid pulse, and constant vomiting. An enema was given, and two masses, like pieces of a doormat, came away, one the size of a turkey's egg and one the size of a pigeon's egg. It then transpired, on a cross-examination of the patient, that she had been in the habit of eating wood and the fibre on the outside of cocoanuts.

Four months ago she went to a fair and secured a cocoanut at a cocoanut-shy, and ate, not only the interior, but the fibre from the outside. Dr. Moore considered that the acute attack of pain was due to the passage of the two masses of fibre through the pylorus and along the small intestine, accompanied by the formation of a temporary intestinal obstruction. Before the passage of the fibre, he and Dr. Bull, who had also seen her, had come to the conclusion that the tumour was connected with the stomach.

The patient was readmitted into the hospital, and was operated on by Mr. Odgers. The stomach was opened by a longitudinal incision, and a large tumour, consisting entirely, apparently, of matted cocoanut fibre, was removed from it. The tumour completely filled the stomach, and formed an exact cast of it. It is shown in the accompanying illustration. The weight of the tumour was 1 lb. 2½ oz. Mixed with the tumour was a good deal of fat and gastric juice. It is interesting to note that the walls of the stomach seemed quite healthy and uninflamed, and not at all irritated by their embarrassing inmate. The patient made an uninterrupted recovery after the operation, and has so far remained well since.

On thinking over this curious case, the most extraordinary thing about it was the power that the stomach retained of digesting food quite well while it was entirely filled with this great tumour of cocoanut fibre. When the patient made her first stay in the hospital she was up and about, and digesting perfectly well an ordinary mixed diet for three weeks before she left. This fact, combined with the absence of all history of her peculiar dietetic habits, seemed to conclusively negative the diagnosis of a stomach tumour which was entertained, only to be set aside.

A reference, however, to the subjoined literature shows that the same anomaly has been observed before. While masses of hair in the stomach have been found not infrequently—Dr. Butterworth[1] collected 42 cases from the literature in 1909—vegetable "gastroliths" appear to be very rare.

In 1854 Dr. Quain[2] reported a case very similar to ours for Dr. Bucknill to the Pathological Society:

> This patient was a young man, aged 22, an epileptic. For some time he had been in the habit of eating gravel, rags, and dirt, and had slight attacks of diarrhoea from time to time, "by which he got rid of them easily." No epigastric tumour was ever observed, the patient dying of acute peritonitis. "At a *post-mortem* examination there was a perforation of the lesser curvature of the stomach the size of a shilling, and within the stomach a mass, 4 lb. in weight, composed almost entirely of cocoanut fibre and bits of string. "It is very remarkable that he appeared to be in his normal good health, took and digested all his meals, and was well nourished, with all this stuff in his paunch."

In 1861 Dr. Capelle[3] reported the case of a woman in whom a diagnosis of gastric carcinoma had been made. This she discredited by vomiting a large foreign body composed of vegetable débris. In 1881 Dr. Langenbach[4] removed by operation a gastrolith consisting of starch, fat, and amorphous material. This is figured in his paper, and is a cast of the stomach like our own specimen. This patient has been in the habit of taking "Nuss blätter-thee." In 1888 Dr. Kookver[5] described a similar specimen found *post mortem*, and in 1896 Dr. Schreiber[6] removed by operation a "phytobezoar" composed of Schwarzwürzel roots. The plant is said to be a popular remedy in Germany.

In the ruminants concretions are commonly found in the first or second stomachs. These are either so-called "fodder balls" composed of vegetable fibre, or hair balls. Similarly in the antelope and camel occur "bezoar stones," which are supposed to be famous antidotes.

Dr. Butterworth, in his paper on "hair-balls," finds, from the cases he has collected, that epigastric pain is the only constant symptom; vomiting occurs at some time in most cases; haematemesis is rare. Dyspepsia and an abdominal tumour are the two earliest symptoms as a rule. With regard to diagnosis, out of 33 cases, in 5 only was the condition correctly determined. In others the following were thought of: Cancer of the stomach, displaced spleen, floating kidney, faecal impaction in the transverse colon, and omental tumour. In Dr. Still's case[7] the conditions discussed were enlarged spleen and lymphosarcoma or a tuberculous infiltration. Of Dr. Butterworth's 33 cases,

16 recovered after an operation, 1 died; of cases not operated upon, 6 died of peritonitis and 10 of inanition.

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Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

A POSITION OF THE THORAX FAVOURING APICAL DIAGNOSIS.

I HAVE on several occasions found that patients placed in the attitude shown in the photograph—a kind of "stoop-down-to-lace-your-boots" posture — give accentuated auscultation and percussion sounds in early tuberculous mischief at the pulmonary apices. The assumption of this position allows the soft parts of the supraclavicular and infraclavicular regions—the latter a space between the deltoid and the clavicular portion of the pectoralis major muscles—to "drop in." The raised thigh, causing abdominal pressure, will push the diaphragm and lungs upwards, hence favouring an elevation of their apical portions. The bending forwards of the head—practically by its own weight—renders the depressor muscles lax, thereby causing "the roof" of the clavicular regions—platysma and cervical fascia—to become less tense, the latter being "pulled down" nearer the pulmonary apices by its deeper attachments. This posture is also serviceable in middle-lobe diagnosis, since the "auscultation triangle"—that is, the space between trapezius, latissimus dorsi, and rhomboideus major muscles—is widened, due to the pulling outwards of the inferior angle of the scapula, whereby the muscular thickness that usually abounds in this neighbourhood is considerably lessened.



Barton-on-Humber. CHARLES A. BECK.

ANAESTHESIA FOR SUBMUCOUS RESECTION OF THE SEPTUM.

WITH regard to Mr. Seymour Jones's note in the JOURNAL of February 24th, p. 421, advising the use of cocaine and adrenalin by submucous injection to procure anaesthesia in septal resection, may I say that I tried this method (substituting eucaine for cocaine) and gave it up years ago? The addition or use of a general anaesthetic in this operation is not necessary, certainly not in more than 2 per cent. of the cases. One can procure in five minutes absolute and safe anaesthesia lasting an hour by Freer's simple method: Dip *small* cotton-tips in 1 in 4,000 or 1 in 5,000 adrenalin solution, pick up on these a few crystals of pure cocaine hydrochloride and rub on the mucous membrane. Have the cocaine weighed in 1-grain packets—more than 2 grains are seldom necessary. Only once in about 100 cases of septal resection have I required a general anaesthetic, and that was in a lad who fainted whenever a nasal speculum was introduced into his nostril. Anaesthesia by submucous injection is rarely necessary for any intranasal operation. What Dr. Walker Wood says in the JOURNAL (vol. ii, 1911, p. 1059) on this matter I can quite endorse.

Hamilton. JAMES ADAM, M.D.

TREATMENT OF PRURITUS VULVAE AND ANI.

DR. GIBBONS, in his very interesting lecture on pruritus vulvae and its treatment, makes no mention of urotropin, a drug which I have found of extraordinary value in these conditions. The notes of the following two cases will demonstrate its value in these very unpleasant and distressing conditions:

1. A lady, for whom I removed a broad ligament cyst, developed a most severe pruritus of the vulva, the irritation being extreme—so much so, that she scratched the parts until they bled. Careful examination of the vulva and vagina was made, but there was nothing to suggest a local cause. The urine was examined, and no abnormal product found. Various remedies were tried, but with little avail. I then prescribed urotropin, gr. 10 three times a day in water. Within a few days the itching entirely ceased, and the accompanying dermatitis disappeared. She has had no recurrence since this attack three years ago.

2. A man consulted me about intolerable itching of the anus and scrotum. He had been treated by several doctors, and had had a host of remedies tried, but all to no good. I examined the rectum, faeces, and urine, but could find no clue to its origin. As the intolerable itching was preying on his mind and medicinal remedies had failed, I dissected up the skin around the anus, after Sir Charles Ball's method. This promptly gave him relief, but it only lasted for a short time. Some weeks after the operation he wrote me to say the itching was as bad as ever. I then prescribed 10 gr. of urotropin three times daily in water, and also directed him to smear the parts with ung. metallorum. Almost at once the itching ceased, and has not returned up to the present—a period of two years.

Several other cases have had the same happy result, and, though I do not say this is a panacea for all cases, yet it is well worthy of a trial when careful examination of the parts has failed to reveal any definite cause.

C. E. CAMPBELL-HORSFALL, M.B., Ch.B. Vict. Univ.
Newquay.

MORTALITY AFTER OPERATIONS FOR APPENDICITIS.

THANKS to the promptitude with which medical men have cases of appendicitis operated on, the mortality is very much less than it used to be. Looking over the last 281 cases operated on in the quiescent stage, I find that no death occurred from the operation. A case of sudden death took place three weeks afterwards, but this is fortunately a very exceptional occurrence at so late a stage.

The last 93 cases of appendicitis with abscess formation, which were all operated on promptly, recovered. One case which was not operated on until septic absorption had taken place to a considerable extent died. It is satisfactory to find that the number of cases of general peritonitis sent to be operated on has greatly diminished during the last three years, and when sent they are at a much earlier stage, and recovery, therefore, is much more certain. Where patients have passed the third day of their illness the mortality is very high; when operated upon on the first or second day the mortality is frequently as low as 2 per cent.

This improvement is greatly helped by patients being brought to hospital or homes in the sitting-up posture, and also being operated on and nursed as nearly as possible in the Fowler position. Saline rectal infusion has been a powerful aid in diminishing the mortality.

J. CRAWFORD RENTON, M.D.,
Surgeon, Western Infirmary, Glasgow.

THE late Sir Henry Trentham Butlin left estate valued at £90,996.

UNDER the will of the late Miss Helen Swindells of Birkdale, Lancashire, the following institutions receive bequests to the amount set against their names: The Cancer Research and Pathological Department of the University of Manchester £5,000, Manchester Royal Infirmary £4,000, St. Mary's Hospital and the Hospital for Consumption and Diseases of the Throat £3,000 each, the Children's Hospital, Pendlebury, the Northern Counties Hospital for Incurables, and the Devonshire Hospital, Devon, £2,000 each, and the Southport and Birkdale Nursing Society £1,000.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

EAR AND THROAT HOSPITAL, BIRMINGHAM.

ABSCESS IN THE MIDDLE LOBE OF THE CEREBELLUM AND IN THE RIGHT TEMPORO-SPHENOIDAL LOBE.

(By WILFRID GLEGG, M.D., M.R.C.P., Assistant Surgeon.)

THE following case is of some interest on account of the deep situation of the abscesses in the brain.

The patient was a man aged 33, a jeweller by trade. He attended the out-patient department of the hospital at the end of January, 1911, with chronic otorrhoea in the right ear and a polypus. The discharge had persisted since childhood. The polypus was removed, and he was advised regarding further treatment.

At the end of November he was sent to the hospital by his doctor, and was admitted as an in-patient. He had been ill for a week before admission with pain in the right ear, deafness affecting both sides, general malaise, and attacks of vomiting. His temperature on admission was 100 F., and his pulse 108. There was discharge from the right ear, absence of the membrana tympani, and granulations in the tympanum. There was slight tenderness on pressure behind the ear. The C and C^2 forks were not heard on either side by air or bone conduction. The vestibular reaction was present on both sides but was less readily induced in the right ear. He could hear only a loud voice at a distance of one foot. On the left side there was evidence of former middle-ear suppuration, but the deafness on this side had been noticed first at the beginning of the present illness. There was right optic neuritis. A herpetic eruption on the right upper eyelid suggested irritation of the first division of the fifth nerve, and limitation of the outward movement of the right eye was noted at a later stage from paresis of the sixth nerve.

The day following admission a radical mastoid operation was performed on the right side. Pus was found in the mastoid antrum, and in the mastoid cells between the osseous meatus and the bulb of the lateral sinus. Unfortunately the wall of the lateral sinus was injured, and the packing required to stop haemorrhage prevented further procedures.

Four days later, as symptoms of septicaemia persisted, the internal jugular vein was tied, and the lateral sinus opened up. A white thrombus was removed. The posterior and inner walls of the mastoid antrum were cut away and an extradural abscess opened. The pus escaped along sinus forceps passed between the dura and the posterior surface of the petrous bone. A drainage tube was inserted and retained for five days until the temperature became normal.

The wound, after discharging freely, became dry and appeared to be healing. The patient's general condition then improved; he heard much better and took his food well. At this time the knee-jerks were found to be increased slightly, and there was an extensor plantar reflex but no ankle clonus. Kernig's sign was absent. There was spontaneous nystagmus on turning the eyes to the right. A fortnight after the last operation he became ill again and had several attacks of purposeless vomiting. The spontaneous nystagmus disappeared. Pain was complained of in the back of the head at the level of the nape of the neck. On December 22nd the cerebellum was explored from behind the lateral sinus, and then the right temporo-sphenoidal lobe, with negative results. Consciousness was not regained.

At the *post-mortem* examination a circumscribed abscess about 6 mm. in diameter was found within the middle lobe of the cerebellum. A second abscess was present in the right temporo-sphenoidal lobe immediately adjacent to the cerebellar abscess. The tentorium between was intact. There was slight oedema at the base of the brain and some excess of cerebro-spinal fluid, but no definite signs of meningitis.

I am much indebted to Mr. Porter, the House-Surgeon, for assistance in obtaining these particulars of the case.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

BATH AND BRISTOL BRANCH.

Bath, Wednesday, February 28th, 1912.

DR. G. PARKER, President, in the Chair.

Decompression in Ordinary Practice.

MR. CHARLES A. BALLANCE, in opening a discussion on this subject, said that increased intracranial pressure was common to many morbid conditions occurring in the skull, and was the one common factor which made them more formidable than similar morbid conditions occurring elsewhere. This increased intracranial tension could, in many cases, be effectually relieved by operation. Nature effected cerebral decompression in certain circumstances: in hydrocephalic children the sutures gaped and uniform expansion of the skull occurred; in some cases of tumour absorption of bone from local pressure occurred, and when the inextensile capsule had been destroyed considerable relief to the pressure symptoms had been known to follow. Separation of the sutures could not be brought about by art. The methods of effecting cerebral decompression now available were: (1) Removal of a moderate quantity of fluid through a cannula from the subarachnoid space, as in lumbar puncture. (2) Continuous drainage of cerebro-spinal fluid through a small tube, either into another cavity or externally. (3) Decompressive craniectomy, an opening being made through the inextensile wall of the cranial cavity by removing bone and dura over an area of 2 square inches or more, through which free drainage of fluid could be established or a hernia cerebri might be allowed to occur. That would relieve the general intracranial pressure, even if the exciting cause could not be removed. It was not the mere bulk of a haemorrhage, an abscess, or a tumour which was the cause of the increased intracranial tension, but it was the increase in the amount of cerebro-spinal fluid which was induced by the presence of a foreign body. The acute symptoms, as a rule, arose, not from local but from general pressure, as was shown by the frequency of death from failure of respiration. Decompression by craniectomy averted all the dangers of general pressure, as was proved by the many instances in which recovery had ensued, though respiration had been re-established only on completion of the operation. There were two main divisions of the subject: I. Cerebral decompression for injury. II. Cerebral decompression for disease. I. *Decompression for Injury.*—Intracranial haemorrhage from injury might occur in such amount that life was immediately threatened; in these cases deepening coma was the dominant symptom, the increase of intracranial pressure was rapid, and operation was urgent. The chief varieties of such haemorrhages were: (1) *Extradural haemorrhage* from rupture of the middle meningeal artery. This was familiar to all, and nothing further need be said of it here. (2) *Intradural haemorrhage: (a) Of the newly-born*, occurring from pressure on the skull during birth. If not immediately fatal, such haemorrhages might cause various nerve disorders. Cushing had drawn attention to the surgical relief of this condition; his paper should prove a stimulant to much good work in this direction. Operation of a similar type was required for the pulsating subcutaneous tumours which sometimes resulted from injury to the head in young children. They might be pulsating haematoma, pulsating meningocele, or pulsating encephalocele. *(b) Intradural haemorrhage* from injury in later life. Of this the common examples were fracture of the base, injury to a sinus, fracture of the vault. (Cases of successful intervention in all these conditions were related.) (3) *Remote effects of injury* calling for decompressive operation. Only one of these conditions was noticed in detail, namely, blood cysts with so-called false membranes in the meninges (subdural space), resulting from haemorrhage. In these cases the original effusion of blood might be moderate in amount or, at any rate, did not give rise to increasing coma or other alarming symptom. The effused blood became encysted and, like a blood

collection in the tunica vaginalis testis, might continue to increase slowly in size. The signs of pressure on the brain were intermittent, the brain became accustomed to the presence of the cyst, and the patient was apparently well. From time to time a small fresh haemorrhage occurred, and then the symptoms recurred. Bearing in mind that in almost all serious head injuries blood was effused into the cranial cavity, it might well be that in certain cases of *intermittent headache, intermittent paralysis*, or *intermittent insanity* subsequent to head injury the lesion present was subdural haematocele, a condition certainly remediable by operation. (Prescott Hewett's case, and some cases of successful intervention from the lecturer's practice, were related.) (4) *Haemorrhage into the subarachnoid space* and into the brain itself also occurred in injuries causing laceration of the brain, even though no fracture of the skull had occurred. The extravasated blood caused increase in the cerebro-spinal fluid. The patient remained for days or longer in the state of cerebral irritation; conscious only when roused, curled up in bed, restless, sleepless, and irritable. In such cases great relief was afforded by lumbar puncture. An instance was related. II. *Decompression for disease.*—(1) *Apoplexy:* In this emergency acute compression and laceration of the brain occurred; the patient did not die from loss of blood but from pressure on the brain. The pressure was both local, from the pressure of the extravasated blood, and general, from the increase of cerebro-spinal fluid caused thereby. Lumbar puncture had been done in cases of acute apoplexy with apparent benefit. Certain cases of chronic apoplexy had been submitted to operation and the clot removed, but in the *acute stage* only one attempt had, so far as Mr. Ballance was aware, been made to relieve the pressure by a craniectomy. It seemed to him that the indication to operate was in these cases clear. Dangerous pressure on the brain, the cause of coma and arrest of respiration, would be relieved, the symptoms produced by local pressure would be relieved at once, and no further local damage would occur. The operation would be simple: the patient need not even be disturbed: the preparation of the site of operation would be quite easy. The craniectomy need not be large: the incision in the brain should be behind the fissure of Rolando and above the fissure of Sylvius, and it should be made through the summit of a convolution. The effused blood would escape through the incision, and, as the ruptured vessel was commonly a small one, no further bleeding would be likely to occur; in any case a strip of ribbon gauze soaked in adrenalin solution and passed through the incision in the brain would arrest it. (2) *Decompression for hydrocephalus:* Lumbar puncture often failed because the foramina in the roof of the fourth ventricle were blocked by adhesions. Drainage of the lateral ventricles into the subdural space might be effected by means of a platinum tube passed into the descending cornu of the lateral ventricle. Continuous drainage was essential for decompression, and hence even frequent tapping through the anterior fontanelle was of no permanent service. Drainage of the fourth ventricle necessitated an occipital craniectomy extending downwards to the foramen magnum. (A successful case published by the late Alexander Bruce was related.) An indirect method of decompression was ligation of both common or both internal carotid arteries. It acted by diminishing the secretion from the choroid plexuses, but as a rule was only to be thought of if the head continued to enlarge after subdural drainage had been established. (3) *Decompression for meningitis:* In meningitis serosa from local disease of the cranium and from insolation lumbar puncture, single or repeated, might effect a cure. In suppurative meningitis remarkable recoveries had followed decompressive craniectomy. In suppurative meningitis the infection rapidly spread in the course of the stream of cerebro-spinal fluid over the hemispheres and down the spinal theca. It might be that irrigation of the subarachnoid space from the lateral ventricle and out through an opening made in the lumbar theca might prove useful in some of these desperate cases. In tuberculous meningitis surgery had not yet gained many victories, but they might well hope that, as knowledge increased, better results would in the future be obtained from surgical intervention. (A case from the lecturer's practice was referred to in which recovery from pronounced symptoms of tuberculous meningitis followed operation limited to the removal of local tuberculous disease of a cranial bone.) (4) *Decompression for brain abscess:* As he had elsewhere very fully dealt with the treatment of brain abscess, it would not be further discussed here. Decompression and evacuation of pus from the brain was one of the great triumphs of modern surgery. (5) *Decompression for brain tumour:* Decompression relieved the symptoms which depended on increased intracranial tension—notably the headache and the optic neuritis; the patient was made comfortable and comparatively safe, and his sight was saved by a decompressive operation done in time. The best results were obtained when the decompression was made over the site of the tumour, but if the syndrome symptoms were present alone localization symptoms should not be awaited, but decompression should be done as soon as optic neuritis was present. (Ten cases of brain tumour from the lecturer's practice were related and commented upon, illustrating the diagnosis of brain tumour and successful and unsuccessful operations.) In conclusion, a decompressive operation should, he would say, be done: (1) *In certain cases of injury to the head*, especially (*a*) in fractured base, and (*b*) in those cases in which, after apparent recovery from an injury to the head, there were intermittent symptoms, such as headache, insanity, or paralysis. In these cases the lesion was often ingravescent subdural haemorrhage. (2) In selected cases of *apoplexy* in the acute stage. (3) *In tumour of the brain* decompression should be done before vision was lost from optic neuritis or the mind was wrecked by hydrocephalus or constant suffering. The tumour when localized should be removed, but in all infiltrating tumours simple decompression was the method of choice. No patient should be allowed to die from mere increased intracranial tension, and no patient should be allowed to become blind from optic neuritis. The increased intracranial tension was the one point of the disease which was always vulnerable to surgical attack, and, whether localization diagnosis was possible or not, decompression should be carried out without delay. *Deepening coma*, in recent injury to the head and in apoplexy, *intermittent symptoms*, after apparent recovery from head injury, and *optic neuritis*, in cerebral tumour, should lead the surgeon to take prompt action. In this way many lives would be saved, and much suffering averted, but success would not always be obtained, for, as Caesar said, "Et ad subeundum periculum, et ad vitandum, multum fortuna valet."

Sir DAVID FERRIER said he believed that he himself was the first to advocate operations on the brain itself, basing his recommendations on the results obtained on animals, under strict Listerian precautions, in conjunction with his colleague, the late Professor Gerald Yeo, nearly thirty years ago: and he took an active part in the first operation for the removal of cerebral tumour, which was performed by Mr. Godlee, the present President of the Royal College of Surgeons, on a case under the care of the late Dr. Hughes Bennett. In that case the patient, though the operation was at first apparently successful, died from secondary complications, but it attracted the attention of the profession to the possibilities opened up for cerebral surgery. He was, perhaps, more sanguine then as to the benefits likely to result from the surgical treatment of cerebral tumours than the experience of the last twenty-seven years had altogether justified. This, however, was not the fault of the surgeons, for they had so perfected their methods that they always deserved, if they could not always command, success. The difficulties were in the nature of the disease itself, for only a relatively small proportion of cerebral tumours —7 per cent. to 10 per cent.—were amenable to operation, and even this proportion would be reduced if they were to exclude the diffuse tumours from the operable category. The mortality, even in the operable cases, was, however, very great, and only a very small proportion of those operated upon could be said to have been cured in the sense of having been restored to complete health and usefulness. Desperate diseases, however, required desperate remedies. The question which had been so ably put before the meeting by Mr. Ballance was whether, even in cases of cerebral tumour which they could not hope to remove, they could give greater relief by surgical measures than by any other form of treatment. Inasmuch as the danger, and sooner or later the fatal effect, of a cerebral tumour was

due, for the most part, to the increased intracranial tension which it caused, it would seem the most rational procedure to relieve this by a decompression operation—that is to say, free opening of the skull and incision of the inextensible dura mater: and, as a matter of fact, experience had shown that all the general symptoms of cerebral tumour frequently disappeared as if by magic on this being done. In particular the optic neuritis, which, if allowed to continue, might result in optic atrophy and incurable blindness, practically always disappeared after a decompression operation; and this was one of the great reasons for operation as soon as the symptoms had declared themselves. He (Sir David Ferrier) said he would not go into any details as to where the opening should be made, as this had been so thoroughly dealt with by Mr. Ballance himself. He thought, however, that opening the skull and dura mater was attended by greater risks in the case of cerebral tumours than under other conditions; and the same was true of lumbar puncture, which, under ordinary conditions, was performed practically every day without risk for purposes of diagnosis. He had never seen a case of apoplexy—apart from traumatic haemorrhage—treated by decompression, but Mr. Ballance had advanced many reasons for considering it advisable, and these were deserving of serious consideration. He referred to some of the cases which Mr. Ballance had reported, and thoroughly approved of the measures he had resorted to for their relief, which had often proved of a permanent character.

Dr. Michell Clarke said that they were much indebted to Mr. Ballance for coming down to speak to them on a subject of which he had such a large experience and on which he was a recognized authority, and also to Sir David Ferrier, a chief pioneer in the localization of diseases of the brain, and whose researches lay at the foundation of the modern surgical treatment of intracranial tumours. He felt that there was nothing to be added to what Mr. Ballance had told them as to the value of decompression operations in intracranial disease. With regard to trephining for apoplexy, it was possible that a new field for surgery would be found in cases of large cerebral haemorrhages in the region of the internal capsule. It would, however, be necessary to be sure of the diagnosis from thrombosis, which in some instances was by no means easy, and also to carefully select the cases. With regard to intracranial tumours, in which his experience of decompression operations almost entirely lay, there could be no doubt of the relief afforded to the sufferers by what was now a safe operation. He thought, however, that every effort to arrive at an exact localization of a growth should be exhausted before an operation for simple decompression was resorted to; not that the latter should be unduly delayed, but that it should always be borne in mind that their chief objective in cerebral tumour should be its removal. There might be a danger that the ease with which a decompression operation could be done and the relief offered by it might lead them to relax their efforts in arriving at an exact localization. In his experience localization was more difficult if a decompression operation had been done first. As to the seat of election for operation, he preferred the occipital site, and would always avoid the left side of the cranium if possible. Sometimes by a fortunate chance a decompression operation resulted in the discovery of a tumour, as in a case of his own, in which trephining was done over a tender spot on the skull, which constituted the only localizing sign, and resulted in the successful removal of a large tumour. The net result of operations for cerebral tumours, as regarded *restitutio ad integram*, had undoubtedly disappointed the hopes that were raised when these operations were first undertaken.

Mr. Richardson Cross said the experiments and investigations made by Sir David Ferrier on the functions of the different brain areas, followed by the clinical work of himself and other physicians, had led to splendid results at the hands of Mr. Ballance, Sir Victor Horsley, and other surgeons. If the actual cures after operation were even less numerous than they were, the effort to relieve would still be advisable; for alleviation of serious symptoms followed apparently in a large majority of the cases. In cerebral tumour, inflammation and abscess, the classical symptoms depended upon intracranial pressure, and the surgical tension here required relief, just as it was needed in periostitis or glaucoma. Severe headache and vomiting caused great distress to the patient, while the optic neuritis was, as a rule, sooner or later followed by impairment of sight. Moreover, mental symptoms might also develop, and decompression by relieving tension should relieve all these symptoms and in certain cases it might be the first step in a cure of the disease. He would not be too hasty in recommending operation for double optic neuritis only; many such cases, especially in young patients, cleared up and got well; but where vomiting was present and with it when sight was beginning to fail, one could see the importance of relieving the intracranial pressure. The question remained, What was the extra risk to the patient's life or comfort that followed operation? If decompression was an absolutely safe procedure in competent hands, it should probably be resorted to much more often than was at present the case. He wished to draw attention to the importance in any case of intracranial mischief of the localizing value of the eye symptoms—the state of the extraocular and intraocular muscles, any prominence of an eyeball, and particularly to the field of vision which, taken by delicate light and colour tests, might show early symptoms of pressure on the visual tracts.

Dr. G. H. W. Almond advocated decompression in certain forms of cerebral oedema. Alexander had performed fenestration on certain cases of chronic epilepsy with some favourable results. Lumbar puncture was sometimes successful in acute oedema, but not always. In such cases decompression should be performed. He related the case of a woman of 55 who died in coma following status epilepticus. She had had periodic sick headache for years. With the gradual addiction to alcohol her kidneys became granular, and an epileptiform nature was gradually assumed by her attacks. Eighteen hours before death she suddenly developed a condition of status epilepticus. She had over 100 fits, and died in deep coma, her pupils being pinpoint, and breathing Cheyne-Stokes. The membranes of the brain were intensely oedematous, and several ounces of free fluid dripped away. There were signs of old tuberculosis in the lungs and pleura, and the kidneys were more or less granular. All the usual remedies were unavailing.

Reports of Societies.

ROYAL SOCIETY OF MEDICINE.

Clinical Section.

Friday, March 8th, 1912.

Mr. W. G. Spencer, Vice-President, in the Chair.

Fibrinous Discharge from the Nose.

Dr. A. M. Gossage read a paper entitled "A Family with Fibrinous Discharge from the Nose." He pointed out that fibrinous rhinitis was not very uncommon in children. According to Lambert Lack it was commonest in early childhood, and was ushered in by slight malaise, which was not sufficient to cause the child to lie up and only lasted for a day or two. There was a nasal discharge associated with fibrinous or membranous exudation on the nasal mucous membrane, which persisted for six to eight weeks, and then cleared up, leaving no sequelae. In nearly all the cases bacilli indistinguishable from the Klebs-Loeffler bacillus could be found, but, although the disease was infectious, it did not seem to give rise to true clinical diphtheria. True diphtheria, of course, invaded the nostrils not infrequently, and gave rise to a severe illness with formation of membrane in the nose. A farther type of membranous formation in the nose had been described by Baumgarten. A strong baby girl was noticed from birth to have crusts about the nose. With a probe and wool a long thin tube, like parchment, could be obtained from the nostrils, which took three to four days to re-form. At the age of 3 years a bad smell was noticed, and after four years typical ozaena had developed. When the child was 2 months old the nose was washed out with iodo-glycerine, and after this no more tubes were formed, but occasionally there were slight crusts; later even these disappeared. The mother suffered from ozaena, but there was no other abnormality in the family; a twin sister was

quite normal. Baumgarten further stated that he had met with two other similar cases: tube formation in early infancy and development of ozaena about the fifth year of life. He considered that ozaena was frequently inherited, chiefly from mother to daughter, and was much commoner in women. Dr. Gossage had recently come across a remarkable family, several members of which had a persistent fibrinous discharge from the nose. The condition was first noticed at birth, and apparently persisted throughout life. It caused no impairment of health, the bronchitis from which the first member he had seen was suffering having been probably an accidental concomitant. There was only very slight discomfort, though there was a tendency to the development of a bad smell if the nostrils were not kept clear. In no case, however, was there any sign of ozaena. Specimens of the discharge, which usually took about twelve hours to re-form, were obtained from the father and two of the children, and in all cases were found to be a more or less complete fibrinous cast of the nostrils. Dr. Ross had kindly examined the discharge and reported as follows: Film preparations showed polymorphonuclear cells embedded in a network of fibrinous matter. The organisms present were bacilli, diplococci, and short diplo-bacilli; no evidence of *Bacillus diphtheriae* or *Bacillus xerosis*. Attempts to embed in paraffin and cut sections failed owing to the friability of the material. One of the boys had been taken into the hospital for twenty-four hours, but, unfortunately, had no discharge during that time. The nostrils had been examined on several occasions and nothing abnormal could be seen except once, when some fibrinous exudation was found over one lower turbinate bone. At least four generations had been affected, and males and females were attacked equally. Of the children of affected persons with normal mates, roughly half were affected and half normal. This suggested that the inheritance afforded another example of Mendelism in human beings, and that the abnormal condition was dominant to the normal. Unfortunately, there was no record of any offspring from the normal members of the family, so that it was impossible to say whether all their children were normal, as would be expected. It was a matter of great interest to find a fibrinous exudation on a mucous membrane resulting from a congenital abnormality, and not from some infective inflammatory process. He had not been able to find any record of a similar condition in medical literature.

Ruptured Intestine.

Mr. WILFRED TROTTER communicated a note on a case of ruptured intestine, with especial reference to the mode of production of the lesion. The case was one which appeared to throw some light upon a subject about which there had been some controversy—namely, the mechanics of the production of traumatic rupture of the intestine.

The patient, a youth aged 18, was admitted to the University College Hospital during the evening of August 30th, 1910. Some hours earlier, in the course of his work as a navvy, he was caught between the buffers of two ballast wagons and severely crushed. The wagons being a good deal lower than ordinary railway trucks, the buffers caught him over the lower half of the abdomen. He was held by them for a few moments under severe pressure.

Operation was undertaken somewhat less than twenty-four hours after the accident. Separation of the intestinal coils revealed a segment of ileum lying to the left of the spine against the posterior abdominal wall, and showing an opening half an inch across, which was discharging semi-solid faeces of a green colour. Examination of the damaged loop showed at once that suture was not possible. Enterectomy was therefore done, and the bowel united end to end.

The features of the injury could be well seen in the specimen shown, which preserved most of the appearances visible at the operation, and in a drawing. For a distance of about 2 in. the peritoneum of the bowel had been torn through and had shrunk back. Through this opening the tube of mucous membrane had protruded, after being torn away from the outer coats. In the most prominent part of the prolapsed mucous membrane was a round opening, the size of a sixpence.

The appearances seemed to show that the lesion was produced by a true bursting of the intestine. Traumatic rupture of the intestine had been attributed, and no doubt was due, to the action of one or other of three different mechanisms—namely, crushing, laceration, and bursting. There was no doubt that one or other of the two former caused the lesion of the bowel in many cases. Upon the third, however, a good deal of doubt had been thrown, and some authorities were inclined to question whether it ever was a cause of rupture. Experiments had shown that when the abdomen was compressed the pressure within the bowel, as might have been expected, was not increased above the general intra-abdominal pressure, and that therefore there was no tendency for bursting of the bowel to occur. When, however, a loop of bowel was not supported by the general intra-abdominal pressure—when, that is to say, it lay at a hernial opening or within a hernial sac—rupture was likely to occur if the abdomen was violently compressed. It had been shown comparatively recently that the influence of a hernia in predisposing to the occurrence of rupture was an important one. While admitting this, he was not prepared to agree that bursting could occur only in presence of a hernia. None such was discoverable in his case. It seemed, however, that bursting might be brought about in another way. If a loop of bowel were caught between the compressing force and the spine in such a way that both limbs of the loop were occluded, the contents of the latter might be put under such pressure that bursting occurred. Some such mechanism as that appeared to be the explanation of the state of affairs found in his patient.

SECTION OF ANAESTHETICS.

AT a meeting on March 1st, Dr. MCCARDIE, President, in the chair, Mr. ROOD, after describing his own and other methods of conducting *Ether infusion anaesthesia*, said that he had now employed his own method in 136 cases, and had had practically no bad after-results. Only 6 patients vomited, and 3 of these had swallowed blood. Mr. C. M. PAGE, in a paper on *Hedonal infusion anaesthesia*, said that in 530 cases reported from Russian clinics, death was in no instance attributable to the anaesthetic. In these the infusion was interrupted. In his own cases, which numbered 75, the drug was infused *continuously* from a special tank, and a 0.75 per cent. solution of hedonal in normal saline was employed. In all instances good anaesthesia was obtained. The largest amount of solution infused in any one case was 2.000 c.cm., the smallest was 40 c.cm. The anaesthesia obtained was steady and associated with great muscular relaxation. The patient usually remained sleeping for six to eight hours after the operation was finished. The only danger likely to arise during the anaesthesia was cyanosis, either from obstruction to the air passages or from a too rapid dosage. The solution should be allowed to run in at the commencement at a rate of 50 to 100 c.cm. per minute. Mr. BARRINGTON WARD reported the first case of death during hedonal anaesthesia in this country. The patient was a girl aged 8, of fair size and development, and, so far as could be determined, quite normal except for tuberculous glands in the neck and enlarged tonsils. The method used was that described by Mr. Page. The injection was normal, the left saphenous vein being selected. The operation was commenced ten minutes after the commencement of anaesthetization, and at that time 300 c.cm. of a 0.75 per cent. hedonal solution had been used. The child was of a good colour and not at all deeply under. After another twenty minutes the skin stitches were being put in when, without any warning, the patient stopped breathing. The colour remained good, and there was no respiratory obstruction whatever. Efforts at resuscitation were made by artificial respiration, bleeding, injection of strychnine, atropine and ether, massage of the heart through the abdomen, but, unfortunately, without success, though they were persisted in for an hour and a half. During the actual period of operative procedure another 200 c.cm. of the 0.75 per cent. hedonal solution had been used, making a total of 500 c.cm. used from the commencement of the administration until the respiration failed. *Post mortem* there was an enlargement of lymphoid tissue generally all over the body. The thymus was distinctly enlarged. The heart was not abnormal in colour, but it was dilated, and on subsequent microscopical examination exhibited fatty degeneration. The dose administered was not excessive for the age and weight of the patient, and in the other cases, 20 or 30 in number, he had had no trouble or anxiety. The PRESIDENT said the section was indebted to Mr. Barrington Ward for the clear account he had given of a fatal case under hedonal. He only wished equally good reports of all fatalities during anaesthesia were furnished, for

then more would be learnt about the causes of such fatalities In the subsequent discussion Mr. BARTON held that infusion anaesthesia offered, in ordinary cases, better results than did scopolamine, morphine, and open ether. Dr. HAROLD LOW regarded the anaesthesia obtained under hedonal as perfect, but did not think that either infusion methods would become a routine measure. Dr. SILK pointed out the not uncommon difficulty in finding a suitable vein, the importance of the anaesthetist being at the head of the patient, and the danger of a possible clot being washed into the circulation, but thought the infusion method might be found useful when shock was specially to be anticipated. Dr. BLUMFELD, in view of the length of time the induction of anaesthesia took in ether infusion, advocated a stronger solution than 5 per cent. The PRESIDENT thought that in these new methods anaesthetists possessed an addition to their armamentarium which might be useful in selected cases for operations on the upper part of the body, just as spinal anaesthesia was specially applicable in certain cases in the lower half of the body. In his reply, Mr. ROOD pointed to the absence of after-sickness and bronchitis as great advantages. Mr. PAGE, also replying, said the advantages of hedonal over ether infusion was, he thought, greater simplicity of the apparatus necessary. The solution could also be run in at a higher temperature than was possible with the ether method. Hedonal was also said to be less irritating to the tissues than ether, and as it was excreted by the kidneys there was no irritation of the lungs: being but slowly excreted, less fluid had to be injected to maintain anaesthesia.

LARYNGOLOGICAL SECTION.

AT a meeting on March 1st, Dr. STCLAIR THOMSON, President, in the chair, the following were among the exhibits:—Dr. STCLAIR THOMSON: (1) A specimen of *Epithelioma of the larynx* removed *post mortem* from a man aged only 23. (2) A case of *Combined tuberculosis and syphilis of the larynx* in a woman aged 43. The patient had no physical signs in the chest, but the Wassermann reaction was positive, and tubercle bacilli had been found in the sputum. Dr. H. J. DAVIS: (1) A case of *Double abductor paralysis* in which he proposed to perform thyrotomy with the object of removing completely the left arytenoid and vocal cord. The majority of those present favoured tracheotomy in this case. (2) A patient, aged 41, whose vocal cords had been destroyed by a cut throat; but a growth of granulation and cicatricial tissue had taken their place, and he was capable of a fair amount of phonation. (3) A case of *Functional aphonia* in a child aged 6, following tracheotomy at the age of 2 years; faradization and tonics had brought about a cure. Mr. G. WILKINSON: A case of severe *Epistaxis* associated with multiple hereditary telangiectases in a man aged 62; the haemorrhage proceeding from the septum had been controlled by cauterization. Mr. W. G. HOWARTH: A case in which an intrinsic carcinoma of the larynx had been removed under *Hedonal infusion anaesthesia*, to bring to notice the great advantages that this method of anaesthesia afforded in laryngeal operations. Mr. C. W. M. HOPE: A case of *Herpetic vesicles* affecting the mucous membrane of the soft palate.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on February 20th, Dr. S. LODGE in the chair, Mr. BASIL HUGHES, in a paper on recent advances in the *Diagnosis and treatment of syphilis*, said that the first essential was an early diagnosis. The Hunterian chancre might be difficult to find, atypical or modified by the presence of soft sore or other mixed infection. Microscopical examination by means of the Indian ink method for the demonstration of the spirochaete was of great assistance. The presence of indurated glands in the groin was also of great value. Wassermann's reaction he regarded as all-important in the diagnosis of syphilis. He made use of Dr. d'Este Emery's method, which had been found to give an accurate result in 98 per cent. of cases. He then demonstrated the method of performing the reaction. This had a very important bearing on the treatment of early cases. If positive, the chancre could be excised before the infection became general. Wassermann's test was also valuable in cases such as ulcer of tongue, gumma of certain muscles, gummatous adenitis of the groin or axilla, tertiary laryngitis, gumma of the tonsil. Tabetics invariably gave a positive Wassermann reaction. In general paralysis of the insane the cerebro-spinal fluid was also positive—a condition which did not obtain in either tabes or gummatous disease of the central nervous system. Prophylaxis did not receive the attention it deserved. The State should undertake more responsibility in the matter. A strong plea was entered for the more complete treatment of venereal disease in charity-supported institutions, Government subsidies being urged should the funds for that purpose fail. In respect of mercurial treatment it was desirable to get the patients under its influence as rapidly as possible by inunction of intramuscular injection. Tolerance was aided by decoct. sarsae co. Throughout any course of treatment, control by the Wassermann test was necessary. Treatment should be continued until the reaction remained negative for twelve months after the treatment had been stopped. In respect to salvarsan, he had used it in 100 cases during the last two years. He relied mainly on the intravenous method, and firmly believed that the dangers of the drug were entirely due to neglect in the avoidance of cases in whom gross lesions of the fundus oculi, of the heart, of the chest, or of a septic character were present, or to neglect in the careful administration of the drug, which should be injected in a state of perfect solution and of proper alkalinity. The solution must not be spilled in the wound, and a second dose should not be given soon after the first. With these precautions most of the after-results could be avoided. The most important of these were: A metallic taste in the mouth, headache, vomiting, diarrhoea, rise of temperature, albuminuria, skin rashes, and rigors. A single dose was rarely sufficient. The State or the municipalities should provide facilities for the performance of the Wassermann test of the same kind as those provided in relation to diphtheria, typhoid, and phthisis.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

AT a pathological meeting on February 16th, Mr. H. LITTLEWOOD, President, in the chair, Mr. R. CATTLEY and Mr. A. S. GRÜNBAUM, speaking of the genesis of chronic arteritis, said that in *Syphilitic arteritis* the earliest manifestation was an irregular hypertrophy of the internal elastic lamina, which was quickly followed by a hypertrophy of the muscular coat. A proliferative thickening of the endothelial and subendothelial tissues occurred antecedent to marked degeneration of the muscular and elastic elements. Dr. HELEN G. GRÜNBAUM and Mr. A. S. GRÜNBAUM read notes on further experiments on the treatment of inoculated *Rat sarcoma* and on the accompanying blood changes. In a previous communication the limit of size in which a cure could be effected was placed at 1.5 cm. diameter. By the addition of adrenalin, tumours of much larger size could be cured. In susceptible animals the antihaemolytic power of the serum to cobra venom was diminished, so that an examination of the blood would permit of prediction whether an animal could be successfully inoculated. By reducing their antihaemolytic power, refractory animals might be rendered susceptible. The following were among the exhibits: Mr. H. LITTLEWOOD: Gall stones removed from a case of *Suppurative cholecystitis* in the third week of typhoid. The typhoid bacillus was germinated in the pus. Dr. C. OLDFIELD: A specimen of haemorrhage into the ovary which had produced signs and symptoms resembling those of ectopic gestation. Dr. A. L. WHITEHEAD and Dr. M. J. STEWART: A malignant tumour of the lacrymal gland, showing the presence of both squamous and columnar-cell carcinoma. Mr. H. COLLINSON and Dr. M. J. STEWART: A *Scirrhus of the breast*, showing fibrosis of the perivascular lymphatics in the surrounding fat. The patient had lymphatic oedema of the arm. Dr. M. J. STEWART: The organs from a case of partial *Transposition of viscera*. The stomach and spleen only were transposed, while the left lobe of the liver showed marked hypertrophy. Dr. W. H. MAXWELL TELLING, Mr. J. F. DOBSON, and Dr. M. J. STEWART: Preparations from a case of *Epithelioma of the cheek*, regarded as a result of *x*-ray treatment.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on February 16th, DR. FREELAND FERGUS, President, in the chair, DR. ANDREW WILSON read a short note on 3 cases of *Scotoma scintillans* occurring as a symptom of migraine, and showed an unusually large lacrymal sac excised on account of *Dacryocystitis*. DR. A. J. BALLANTYNE showed a case of *Concomitant strabismus* which had followed a fracture of the vault of the skull in the frontal region; the strabismus was not due to injury to any ocular nerve or muscle, but had been latent at the time of the accident, and had developed in consequence of the occlusion of the eye by dressings during the healing of the fracture. DR. LEWIS MCMILLAN read notes of a case, a boy, aged 8 years, in whom *Orbital cellulitis*, occurring as a sequela to scarlet fever, had necessitated enucleation of the affected eye. DR. BROWNLOW RIDDELL showed a patient with *Choroideremia*, or gyrate atrophy of the choroid and retina. DR. LOGAN TAYLOR, in a communication on malignant intraocular tumours, based on cases treated in Glasgow Eye Infirmary during the past three years, dealt specially with the so-called glioma or *Neuro-epithelioma*. After discussing the lymphatic connexions of the eye and the paths along which the spread of the tumour might occur, he urged that, having regard to present knowledge of the pathology of these growths, more extensive operations for their removal should be carried out in all cases, and as early as possible. The procedure recommended was complete exenteration of the orbit with division of the optic nerve at the optic foramen. DR. H. LEASK showed 2 cases of penetrating injury in which the foreign body was shown by radiograms to be still in the eyeball or orbit after the lapse of many years, and read notes of a case of *Intraocular tumour* secondary to a scirrhus of the breast. DR. W. B. I. POLLOCK gave a demonstration of specimens of glioma retinae.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on March 1st, MR. W. MCADAM ECCLES, President, in the chair, MR. F. L. PROVIS, in a paper on *Pain in the female iliac region*, said displacement of the uterus was its most common cause. Palliative measures failed to relieve these cases; surgical treatment was necessary so as to prevent involvement of the appendages. Ventrifixation he thought the best operation. Dysmenorrhoea other than spasmodic was either congestive or inflammatory, and pain referred to the ileum was common. Frequently no alteration of the ovary could be found, except tenderness; in such cases there was probably an ovaritis, or ovarian neuralgia. It was a neurosis or neurasthenic condition. The fact that in many a slight enlargement of the Fallopian tube could be made out pointed to a possibly inflammatory origin, and the cases should be treated as such. In a very few cases only was removal of the ovary justifiable. He next considered alterations in the position and relations of the broad ligaments whereby they tended to obstruct the entrance of the pelvis; or by becoming adherent to the gut obstructed the passage of faeces. It was a true proptosis, and he considered it of fairly frequent occurrence. It necessitated operative interference with subsequent abdominal massage. THE PRESIDENT said that pain in the iliac region was occasionally found in middle-aged stout males as an indication of digestive troubles. In young women it was not infrequently seen with spinal curvature. The patient often significantly placed the fingers of the hand over the right iliac fossa, and the thumb towards the right sacro-iliac synchondrosis. In these cases he thought the scoliosis secondary to some pelvic trouble. DR. MANSELL MOULLIN said the particular condition spoken of by Dr. Provis was well known, and capable of exact diagnosis. The difficulty began when none of these conditions was present. Yet the patient might be a confirmed sufferer, her life rendered almost intolerable by constant aching pain, and we wanted to know the cause of it. He had little doubt that pain was ovarian; it only occurred during reproductive life. He considered it possibly due to the development, growth, and enlargement of the Graafian follicle and its final rupture—pain analogous to that associated with the eruption of a tooth.

Reviews.

THE GRAPHIC REGISTRATION OF HEART SOUNDS.

EXPERIMENTAL researches into the mechanism of cardiac and vascular movement have of late years been pursued in every physiological laboratory, and the graphic methods of recording these movements have been developed to an extent which would seem marvellous to former generations. Still more astonishing would it appear if the familiar sounds of the heart could also be represented by fixed and definite tracings. Many attempts have been made in this direction, and already a certain amount of success has been achieved.[1] DR. HEINRICH GERHARTZ of Berlin claims to have devised a method whereby trustworthy results can be obtained and many of the obvious sources of error minimized. Incidentally he makes mention of the systems used by other observers, and appends a most voluminous bibliography which cannot fail to be of great use to those who may be working in the same field.

His apparatus, too elaborate for detailed description, consists essentially of a conical tube for collection of the heart's sounds, a vibrating membrane by which the waves of sound are received, the vibrations so produced being communicated to a tiny mirror connected with the membrane, which in turn throws a pencil of light upon a sensitive film, rotating on a drum. The excursions of the mirror are thus photographically recorded, and the little mirror is ingeniously suspended in a magnetic field, by means of which it is steadied. The obvious criticism of such a method has not escaped its inventor, and he provides for the elimination of the vibrations set up by the apex beat by what he terms the "open system," removing the instrument from actual contact.

The sounds of the normal human heart are not, as a rule, of sufficient volume to give more than a slight tremor by this method; but by means of an ingenious arrangement of the mirror on a lever the tracings can be magnified and present a sufficiently constant form to enable them to be recognized as forming a part of the tracings of the apex beat obtained by cardiography. Dr. Gerhartz enters very fully into the analysis of the tracings of the sounds and of the movements respectively, and by elimination of those produced by the apex beat he is enabled to gauge the duration and number of the vibrations set up by the first and second sounds respectively. His tracings confirm those obtained from movements, and show very distinctly the shortening of the diastolic period during active exercise.

Comparison with the indications of the electrocardiogram also tends to confirm the correctness of the tracing produced by sounds alone. The extreme delicacy of the apparatus employed and the liability to error in its adjustment are fully admitted. Many interesting tracings have, however, been secured in cases of valvular disease, which may point the way to further elucidation of the exact causes of the morbid sounds and to a clearer demonstration of the modification produced by valvular defects, in the movements of the heart wall. The ingenuity of the apparatus employed and the careful analysis of the results obtained by it deserve warm recognition, and all who are engaged in cardiac research will study the very numerous tracings and illustrations with more than ordinary interest as opening up a new field of investigation which may add largely to the practical value of the knowledge that has accumulated during the last ten years.

BACTERIOLOGY IN BOMBAY.

DR. SURVEYOR'S *Report*[2] on the work of the Bacteriological Department of Grant Medical College, Bombay, during

[1] *Die Registrierung des Herzschalles*. Graphic studies by Dr. Heinrich Gerhartz of Berlin. Berlin: Julius Springer. 1911. (Roy. 8vo, pp. 165; figs. 195. M.8.)

[2] *Report on the Bacteriological and General Research Work, with Some Observations on Malaria in relation to Splenic Enlargement and the Treatment of the Crescentic Stage*. By Dr. N. F. Surveyor, M.A., M.D.Bom., M.R.C.P.Lond., Professor of Bacteriology Grant Medical College, and Honorary Physician to the Jamshedji Jijeebhoy Hospital. (From the Framji Dinshaw Petit Laboratory and Bacteriological Department, Grant Medical College, Bombay.) Printed at the Government Central Press, Bombay, 1912.

the years 1909 and 1910 contains many matters which are worth noting.

He finds that the cockroach is a carrier of living tubercle bacilli; they are found not only in the faeces of cockroaches fed on tuberculous sputum, but in insects caught in the precincts of a hospital where tuberculous patients are treated. He discovered also in the faeces of the cockroach the larval form of an echinorhynchus which in its adult form inhabits the alimentary canal of the pig, and is found occasionally in human beings. In India agar tubes rapidly become mouldy, especially in the rains, but he finds that this can be prevented by keeping them in jars together with a test tube containing chloroform, and the same device preserves sterilized dressings. The best means for sterilizing the skin and the hypodermic syringes used for vaccine treatment is a saturated solution of mercury perchloride in chloroform, but the syringe must be of the all-glass type. He was able to cultivate successfully a streptothrix of white mycetoma from two cases imported to Bombay from Cutch, on agar with the addition of glycerine 6 per cent., and glucose 2 per cent., but no growth occurred on agar containing maltose, lactose, or glucose alone. Ordinarily the streptothrix of mycetoma grows easily on simple agar. The cultures were intended to be used as vaccines, but no opportunity for their employment occurred. However, from an ulcer of the forearm of a European nurse, which had resisted ordinary treatment for two years, he cultivated a streptothrix, and after six injections of the vaccine the ulcer skinned over completely. He describes a simple and ingenious apparatus for determining the motility of the *B. dysenteriae* of Shiga. The principle of the apparatus is the transference of sterilized fluid from one Lister flask to another by capillary attraction, the tape being inoculated midway, and the test of motility is to ascertain whether the bacilli can make their way against the stream to the upper flask; the result was negative. He has used vaccine treatment in a large number of cases, and reports good results in nine cases of asthma treated with a vaccine prepared from the diphtheria bacillus. He prefers Calmette's reaction to von Pirquet's for the diagnosis of tubercle, and seems to have met with no such unpleasant results as have caused it to fall into some disfavour here. He uses antistreptococcic or antistaphylococcic vaccines in the treatment of tuberculous phthisis with fever, but when the temperature has become normal he uses very small doses of tuberculin, and reports favourable results; the doses varied from $\frac{1}{2000}$ to $\frac{1}{2000}$ mg. Of the hepatic abscesses he examined when uncontaminated, 18 out of 22 were sterile.

His observations on the epidemic of pernicious tertian fever that occurred in Bombay in the years 1908 and 1909 tend to show that the absence of enlargement of the spleen is unfavourable, and that picric acid in 2-grain doses is superior to quinine in the treatment of the crescentic stage.

The report shows that much good scientific work is being done in the laboratory of the Grant Medical College, and that the most recent applications of bacteriology are available for the treatment of disease in the great hospital of that city.

MINOR SURGERY.

MR. LEONARD A. BIDWELL'S work on *Minor Surgery*[3] is one of the volumes of the series called London Practitioners' Manuals, a series which apparently bids for favour amongst men already in practice. This book is an amplification of the author's lectures on minor surgery, delivered at the West London Post-graduate College. He interprets the term with considerable freedom, for we find that several of the gravest acute conditions of surgery usually regarded as "major," such as suprapubic cystotomy, trachcotomy, the operations for appendix abscess, and strangulated hernia, are included. The description of these procedures is necessarily short, and therefore inadequate, and their inclusion seems to detract from the merit of the book, as no practitioner would think of performing these operations with only the information here obtained. We are glad to observe that the author lays down very strict rules in the performance of the operations of minor surgery, especially in his strong insistence on asepsis. Asepsis and care are of as much importance in little things as in big things, and to the patient his disease or injury, or the operation for its relief, is always a big thing, and minor surgery well done is a great source of satisfaction to both patient and doctor. The range of minor surgery is always widening. It is no longer limited to opening abscesses, scraping sinuses, and taking off fingers. The application of carbon dioxide snow in naevi and rodent ulcer, the intravenous administration of salvarsan, and diagnostic spinal puncture are operations of minor surgery which belong to strictly modern development. None of these is omitted from this little book, and, indeed, there is much more which we must invite the reader to find for himself. The book, then, we can most cordially commend to practitioners of any school. They will find in it very many helpful suggestions, timely hints, as well as clear recognition of the fundamental principles upon which all sound surgery is based.

[3] *Minor Surgery.* By Leonard A. Bidwell, F.R.C.S., Surgeon to West London Hospital, Dean of Post-graduate College, etc. London: University of London Press, Hodder and Stoughton, Henry Frowde. 1911. (Dbl. fcap. 16mo, pp. 286; figs. 88. 6s. net.)

DR. WALTER T. DANNREUTHER tells us in the preface to his book, *Minor and Emergency Surgery*,[4] that it has been "written expressly for the members of a resident staff; for the interne's guidance when acting independently; to assist the ambulance surgeon in emergencies, to simplify practical work for the junior, and to aid the senior in some of his predicaments." Let us say at once that the achievement falls very far short of the author's ambition. The hospital interne who consults this book in the expectation of finding good guidance in minor work and sound advice for emergencies will be disappointed. It is written in scrappy, loose, unscientific style, with a few good but really superfluous illustrations. We cannot understand what place there is in such a work for a section on the sequelae of fractures, or for a short discussion, not wholly accurate from the pathological point of view, on the causes of fibrous union of fractured patella and olecranon. Nor is there any good reason for sweeping aside the classical six degrees of burns of Dupuytren and substituting the author's three. Some of the advice given is of doubtful validity; for example, paracentesis abdominis is recommended to be performed in the sitting position and in the middle line. We should have supposed that experience proved that this operation is best done when the patient is recumbent and the puncture made in the flank. When a medical prescription appears in a book in a Latinized form we expect due regard to be paid to accuracy of case, particularly the genitive; but Dr. Dannreuther's Latinity would shock a school boy, who could tell him that the genitive of the Latin words for "starch" and "alcohol" is not "amylis" and "alcoholis."

[4] *Minor and Emergency Surgery.* By Walter T. Dannreuther, M.D., Surgeon to St. Elizabeth's Hospital and to St. Bartholomew's Clinic, New York City, etc. Philadelphia and London: W. B. Saunders Co. 1911. (Demy 8vo, pp. 226; figs. 32. 6s. net.)

DISEASES OF THE SKIN.

THE last volume (IX) of ALLBUTT'S and ROLLESTON'S *System of Medicine*[5] is devoted entirely to diseases of the skin. The field of dermatology has been divided up among a number of contributors, who have dealt with the numerous morbid conditions in an able and thorough manner. Where the quality is so good and sustained throughout, it would be invidious to select any one article for particular examination. In all the sections the subjects have been brought up to date, and useful bibliographies appended, which cannot fail to be of great help to those consulting the book. Careful perusal of the volume leads to the conclusion that it will appeal to trained dermatologists, as many of the diseases dealt with have been reviewed historically and their evolution clearly made plain—important points in so involved a department of medicine as dermatology. So much for the text. But when we turn to the illustrations that is another story. Some of the figures are poor, indeed several have very little value.

In issuing the volume on the practical results achieved in the domain of venereal and cutaneous diseases,

[5] *A System of Medicine.* By many writers. Edited by Sir Clifford Allbutt, K.C.B., etc., and Humphry Davy Rolleston, M.D., etc. Vol. IX. London: Macmillan and Co. 1911. (Med. 8vo, pp. 869; 2 plates; 178 figures. Price, 25s. net.)

[6] *Praktische Ergebnisse auf dem Gebiete der Haut- und Geschlechtskrankheiten.* Edited by A. Jesionek. Wiesbaden: Bergmann. 1910. (Sup. roy. 8vo, pp. 573. 18s.)

Professor JESIONEK, of Giessen, and his collaborators have done a service to these branches of medicine, for it is very necessary that stock should be taken from time to time in order to scrap exploded ideas and preserve what is of value. Such a process is all the more necessary considering the enormous amount of attention that is being given all over the world to these special departments. Taking the volume as a whole the work has been well done, the subjects dealt with being gonorrhoea, *x*-ray and radium therapy, arsenical therapy, the general treatment of skin diseases, the toxic exanthemata, the relations of diseases of the skin and diseases of other organs, the Wassermann reaction, the struggle with venereal diseases, leukaemic diseases of the skin, and eczema. These are thoroughly reviewed, and a very complete bibliography is attached to each section. In addition, at the end of the volume there is an alphabetical list of authors. Altogether the idea is a good one, and it has been well carried out by the various contributors. The practical value of the book as a work of reference is very great.

THE INDIVIDUALIZATION OF PUNISHMENT.

THE brain of this foolish-compounded clay, man, cannot vent anything that tends to prolixity more than criminologists invent, or is invented on them. They are not only prolix in themselves, but the cause of prolixity that is in other men. Here[7] the treatment of a small department of penology, which is itself but a province of criminology, is spread over a bulky volume of more than 360 pages, of which 38 are devoted to prefaces and introductions by various hands.

> If a man could ensure
> That his days would endure
> As of old, for a thousand long years,

he might be glad to beguile the tedium of such a prolonged existence by reading a work like this; but in these days of abbreviated life one is obliged to ask whether the individualization of punishment—that is to say, making the punishment fit the criminal rather than the crime—cannot be understood without going back to the communal punishment of barbarous tribes, the provisions of the Salic law, and the discussion of what Boswell calls the excruciating problem of free will and determinism. The consequence of diluting the subject in this overwhelming flood of words is to render it at once insipid and innutritious. We must hunt for the needle of positive teaching in a haystack of accreted and not very relevant matter, and when we have found it, it amounts to this: that the duration of the sentence should depend on the character of the crime, but the nature of the punishment inflicted during the sentence should depend on the character of the criminal. This is all very well, but we are not told how the character either of the crime or the criminal is to be estimated. Murder is murder, whether it is committed from jealousy, from revenge, from greed, or from other motive. Is its character the same or different in the several cases? And how is the character of the convict to be known? and if it can be known, what elements in it are to determine the nature of his punishment? Is the prisoner who is neat and vain of his personal appearance to be dressed unbecomingly and kept dirty? Is the methodical man to be compelled to adopt irregular habits? M. SALEILLES classifies criminals according to their "psychological nature." Whether this is the same as character he does not tell us, but presumably it is: and he discovers three classes: "The one is that of the origin or source of the criminality—such as atavism, degeneracy, influence of the environment . . . the second is that of the type of criminality; such are the wanton, the crooks, the depraved, and many others. . . . Finally, for each of these types, there are those amenable to reform and the incorrigible." Most people would see in this classification, not three classes, but four; but, granting that they are but three, the mind contemplates with awe the spectacle of a judge deciding the question of imprisonment or penal servitude by considering whether the criminality of the convict is due to atavism, to degeneracy, or to the influence of environment; whether the prisoner is a wanton, or a crook, whatever that may be, or is depraved. This may be very good criminology, and, as Professor Gabriel Tarde and Professor Roscoe Pound unite in high appreciation of Professor Saleilles, we suppose it is, but it only confirms us in our suspicion that criminology is a most unpractical science, and criminologists most visionary people.

[7] *The Individualization of Punishment.* By Raymond Saleilles, Professor of Comparative Law in the University of Paris. With Introduction. Translated by Rachel Jastrow. London: Heinemann. 1911. (Demy 8vo, pp. xliv, 322. 16s. net.)

HEALTH AND EMPIRE.

MOST people think parochially, few imperially. More particularly is this true in matters relating to the health of the empire. Dr. FRANCIS FREMANTLE is one of the few, as is amply shown in his volume, *A Traveller's Study of Health and Empire*,[8] which he has appropriately dedicated to that statesman-pioneer of empire, the Right Hon. Joseph Chamberlain.

"Health to a nation is as vital as good material to an engine, as exact alloy to a coin," and "Health is possible without education, but education is impossible without health. And so, for mere national efficiency, the public health is of all things most important," are sentences which serve to act as texts for the lessons with which the volume is filled.

The author gives us a world-wide survey of matters relating to health and disease, well written and marked by plenty of sound common sense. He tells of the efforts being made to combat disease in India, China, Japan, and the United States.

Very interesting are the accounts given of the plague in India, and of the Pasteur Institute at Kasauli under Colonel Sir David Semple, and incidentally a well-merited tribute is paid to the pioneer work of Haffkine. It is probable that few of us at home fully realize or appreciate the enormous amount of work in the line of preventive medicine and of bacteriological investigations which is being carried on, often with but too little official recognition, in our Far Eastern possessions: to all such Dr. Fremantle's book will be most instructive. The direct commercial value of such institutions can, as Dr. Fremantle writes, hardly be exaggerated, and he makes the suggestion that "a brief account of comparative animal and vegetable pathology, and some practical experience of a herbarium and a veterinary hospital" should be included in the instruction given in academic centres to those seeking the higher medical degrees.

A very interesting chapter is that dealing with the Red Cross Society in Japan and its relations to the Army Medical Corps both in war and peace. There are lessons we may learn from this practical nation. What is most striking is the great public interest taken by all classes of Japanese in the Red Cross movement, and their unbounded patriotism. A continuous, steady effort, and no mere spasmodic enthusiasm when war is imminent.

The book is of interest for all classes of readers, and it may be particularly commended to the notice of the anti-vivisectionists and to some politicians: it will afford much food for reflection. Politics, Eastern religions, national characteristics are among other subjects interestingly dealt with and discussed.

The real aim of the book is to show the necessity for viewing the health of the empire as a whole, for imperial health is an imperial asset. A plea is advanced for the formation of an imperial general staff to attend to all such matters, to co-ordinate information received from all parts of the empire and to render such information quickly and easily accessible. Such information is shown to be of enormous economic as well as scientific value.

[8] *A Traveller's Study of Health and Empire.* By Francis Fremantle, County Medical Officer of Health. London: John Ouseley, Limited. 1911. (Med. 8vo, pp. 381; 16 illustrations. 7s. 6d. net.)

THE PREVENTION OF DESTITUTION.[9]

THE report of the proceedings of the public health section of the National Conference on the Prevention of Destitution, held at the Caxton Hall last May and June, contains some extremely valuable material on various questions at present exercising the medical profession. In the prefatory statement we are told that it is officially estimated that from one-third to one-half of all the public expenditure in the relief of destitution is due to sickness, and one-seventh of it to tuberculosis alone. So far as statutory form goes,

[9] *National Conference on the Prevention of Destitution, 1911: Report of the Proceedings of the Public Health Section.* London: P. S. King and Son. (Pp. 238. 2s. 6d. net.)

the powers available to public health authorities for the prevention of disease appear to be ample, but experience shows that much that is merely optional is not put in force, and even what is nominally compulsory is often not in existence. There are in England and Wales about 1,800 local sanitary authorities, which, together with the county councils, have about 1,500 medical officers of health. Out of these about 350, including those of London, the county councils, and county boroughs, are salaried full-time officers, while about 400 are private practitioners receiving stipends of £3 to £30 a year. Out of the 1,800 local health authorities only about 700 have any sort of hospital provision of their own for infectious diseases, but the 700 municipal hospitals have over 25,000 beds, which is more than those provided by all the endowed and voluntary hospitals put together. They receive about 100,000 patients a year, and, as they can legally provide for every kind of disease, some of them are beginning to admit patients suffering from accident, tuberculosis, measles, whooping-cough, and so on, and a few are opening out-patient departments for tuberculosis, ringworm, and various skin diseases. A return is given showing the number of health visitors in the kingdom, and it appears that in February, 1911, there were 471 salaried visitors, of whom 350 were paid entirely out of the rates, and 964 voluntary health visitors.

It would be invidious to pick out for special notice any single paper read before the Conference. Perhaps the subjects of most immediate interest at the present time were the medical treatment of school children, sickness and invalidity insurance, and the discussion on the need for a unified medical service, but great interest was shown in the question of the administrative control of tuberculosis and the work of the public health authority in relation to birth and infancy. The papers were of an unusually high order of merit, and many of them bore evidence that they had cost the writers a considerable amount of time and trouble in the collection of statistics. The book is well worth getting, as it contains much of permanent value.

NOTES ON BOOKS.

TILLMANNS'S well-known textbook on surgery[1] has reached its ninth edition and deserves its well-earned popularity. This edition is considerably enlarged and improved. The text includes numerous references and quotations from other works, but some of the descriptions are surprisingly brief—for example, that of Paget's disease of the nipples is condensed into thirty lines. The surgery of the stomach, intestines, rectum, and anus is carefully handled and is sufficiently detailed. The same applies to the chapter on hernia. The illustrations are numerous and many of them are coloured. Some are somewhat primitive, but serve their purpose well. The book will be found one of the best textbooks for general reading, both for students and practitioners. It does not render special works superfluous, but serves as a safe groundwork. The index is weak, which is a pity for a book of this size and importance.

Mr. G. SUTHERLAND THOMSON'S *Milk and Cream Testing*[2] is a work in which the author's intentions are clearly much better than his performance. In an introduction from another pen it is stated that "the ideal conditions of theory and practice are combined in every chapter and in every line," and that the author "has conferred an incalculable benefit upon the dairy industry throughout the world by the publication of this little book"; but a study of the text quite disappoints the expectations thus aroused. The author is entirely in favour of the application of sound scientific knowledge to all stages of dairying; but he fails to give clear and definite information on nearly every subject discussed. The book may do some service in directing the attention of persons connected with dairy industries to the need for more knowledge than many now possess.

Volume v, No. 3, of the *Annals of Tropical Medicine and Parasitology* contains some highly-instructive and interesting articles by workers of the Liverpool School of Tropical Medicine and others. Professor Sir Ronald Ross and Mr. Stabb contribute a paper on statistical error, Dr. Seidelin a paper on some blood parasites in reptiles, Dr. Graham a paper on an investigation of the effects produced upon the excretion of urinary pigments by salts of quinine, and Dr. Yorke an article on the passage of haemoglobin through the kidneys; Dr. Wise gives the results of an examination of the city of Georgetown, British Guiana, for the breeding places of mosquitos, and Dr. Robert McCarrison records a second series of experiments dealing with the transmission of goitre from man to animals. Dr. Stephens has a note on a new species and genus of monostome fluke, and there are further articles on human trypanosomiasis and spirochaetes and on a new blood-counting pipette. Much useful information will be found in the volume.

The task imposed on Mr. H. H. STEPHENSON, the editor of the new publication, *Who's Who in Science*,[3] was certainly formidable, for the book purports to give an account of every person who has attained distinction in any branch of science, irrespective of nationality. The result is a volume containing some 4,000 short biographies, which include those of men more or less distinguished in connexion with medicine and surgery. Their number is indeed large as compared with adherents of other branches of work. The impression is left, however, that so far as Great Britain is concerned the inspiration as to the choice of names was not always happy; and the fact that the Swiss list, though longer than that of France, contains the names neither of Kocher nor Roux tends to produce a similar impression. Nevertheless, this book of reference will doubtless prove highly useful to a large number of persons.

[1] *Lehrbuch der speziellen Chirurgie.* Von Geheimer Medizinal Rat Professor Dr. Hermann Tillmanns. Ninth edition, enlarged and improved, freely illustrated; in 2 vols. Leipzig: Veit and Co. 1911. (Sup. roy. 8vo. Price M. 55.)

[2] *Milk and Cream Testing and Grading Dairy Products.* By G. Sutherland Thomson, F.R.S.Edin., B.D.F.A. Diploma, and N.D.D. With an introduction by Samuel Lowe. London: Crosby Lockwood and Son. 1911. (Post 8vo, pp. 224; 72 illustrations. 4s. 6d. net.)

[3] *Who's Who in Science* (International), 1912. Edited by Mr. H. H. Stephenson. London: J. and A. Churchill. (Demy 8vo, pp. 325. Price 6s. net.)

MEDICAL AND SURGICAL APPLIANCES.

Arm Slings.

THE Sanitary Wood Wool Company, of Thavies Inn, E.C., has brought to our notice an arm sling to which they think might be applied the description given of the "Minn sling" at page 497 of our issue for March 2nd. The term there applied, however, was "fan-shaped," while the shape of the sling forwarded by the firm in question is strictly triangular, and differs from a ready folded Esmarch sling only in the fact that the extremities are drawn out into narrow bands sufficiently long to allow of their being crossed behind the shoulder blades, then brought forward round the waist, and there tied or buckled together. On the other hand, the two slings closely resemble one another in being easily applicable to either arm and in the firmness and sufficiency of the support they supply to an injured arm. The Wood Wool Company's sling was brought out, it appears, some ten years ago, and costs, with buckle attachments, when made of calico, 1s. 3d.; and 3s. when made of black satin. It is known as the adjustable arm sling.

Ammonium Chloride Inhalation.

Messrs. Burroughs Wellcome and Co. have recently brought out an ingenious appliance for use in connexion with their vaporole ammonium chloride inhaler. Its object is to permit of the vapour being inhaled through the nares and expelled through the mouth, as well as vice versa. This is effected by the provision, not of bulbs for insertion into the nostrils, but of a kind of glass funnel with flanged edges, so shaped as to fit the configuration of any face and yet permit of the vapour passing freely. The plan is both cleanly and sound, and the attachment renders still more useful an inhaler which from the beginning offered distinct advantages over many of its congeners in respect of facility of use and constant neutrality of the vapour supplied.

MEDICINAL AND DIETETIC PREPARATIONS.

Concentrated Diphtheria Antitoxin.

MESSRS. BURROUGHS WELLCOME AND CO. are issuing a preparation of concentrated diphtheria antitoxin. It is prepared according to the latest methods of salt precipitation. On account of its concentration large doses can be given in comparatively small volume. It is issued in hermetically sealed phials of 1,000, 2,000, 3,000, 4,000, and 5,000 Ehrlich-Behring units, each 1,000 units being contained in 1 c.cm. or less of fluid.

RADIUM EMANATION (NITON) IN THE BATH WATERS.

THERE hangs in the grand pump room at Bath an original *Punch* drawing by Mr. E. T. Reed, portraying the disgust of Beau Nash (otherwise Bone Ash, or calcium phosphate) on finding that, in spite of the most stringent and exclusive rules, Monsieur Radium, a little parvenu, is also present in the thermal springs of Bath. Evidently the drawing commemorates the investigations of ten years ago by the Hon. R. J. Strutt, who found a trace of radium in the iron deposits left by the waters of the hot springs as well as in the water itself. That was the first episode in the new scientific investigation of the hot mineral waters which, for hundreds of years, if not from the fabulous days of Bladud, have been famous for their healing properties. The second episode took place as recently as March 11th, when Sir William Ramsay, who devoted his holidays last Christmas to a thorough study of the wells, presented his report thereon to a public meeting of the Bath Corporation and citizens.

Bath made the most of the occasion, evidently realizing its bearing upon the projected extension of the baths. "The *élite* of Ba—th." to infringe the copyright of Angelo Cyrus Bantam, Esquire, were assembled in the grand pump room. The medical profession was strongly represented. Among those on the platform were Sir James Mackenzie Davidson, Dr. R. J. H. Scott, Chairman of the Bath Division of the British Medical Association, and Dr. James Taylor, of Bristol, together with the Mayor (Alderman Forder Plowman) and other public men.

It was a far cry from Sir William Ramsay's extremely technical exposition of the contents of the waters to an old poet's analysis, also to be found in the pump room:

> With sulpher fylde, and other things,
> Wylde fyre, saltgem, salte peter eke,
> Salte armoniake, salte alchime,
> Salte commune, and salte arabecke.
>
> Salte niter mixid with the rest. . . .

But perhaps the "wylde fyre" is a prophetic description of Sir William's "niton," which he finds in remarkable volume in the gas of King's Well.

Sir WILLIAM RAMSAY recalled the fact that it was in the escape from this King's Well that Lord Rayleigh, soon after his own discovery of helium, found this lightest of gases to the amount of 12 volumes in 10,000. But helium, forming no compounds, had no therapeutic action, and, in spite of this discovery, the reason for the beneficial effect of such waters remained obscure. The ordinary chemical analysis of the Bath waters, as in the case of certain other spas, revealed few remarkable constituents. Some mineral waters contained sulphur, others were ferruginous, a few gave lithium, which might have some medicinal action, probably on calculus, while certain of them, including those of Bath, had a trace of arsenic. Otherwise the only unusual constituents of the Bath waters, as given in the recorded analyses, were small quantities of strontium, of lithium, and a trace of bromine. It was not easy to see how water containing in the main ordinary sulphates of calcium, of sodium, of potassium, and carbonates of calcium and magnesium, could possess very marked medicinal properties. This problem, however, came near elucidation when he found, in collaboration with Mr. Soddy, that helium was one of the products of radium change, and that its presence in the water was an indication that radium had been concerned in its production. If helium were present, radium was either in the water or the water had been in contact with radium.

NITON (RADIUM EMANATION).

Sir William proceeded to give a summary of the chemistry of radium, which the frequent expression of his individual opinion made more than usually interesting. The advent of radium, he said, had compelled a revision of current ideas of an element: it was no longer the final, unresolvable material. Chemists of note had always made a reservation in this matter, and such a reservation was a just one. Radium, although an element, changed into other elements, one of which was helium, and the other, consisting of that which was left of the radium after the helium or the alpha particle had been shot out, was the radium emanation, or, as he preferred to call it, niton. The emanation must be regarded in a certain sense as an element. It behaved as a form of matter, had some stability, and lasted for a definite time; and since the mapping out of its spectrum and the investigation of its atomic weight, which corresponded to that of radium less the atom of helium, it was better called "niton," from the Latin word meaning "to shine." Like argon and helium, this gas was inert, forming no chemical compounds, and its life, which in order to avoid the infinitesimal was expressed in half-periods of decay, was 3.86 days. It was much more potent, weight for weight, than radium. It could be converted into a liquid at an ordinary temperature by compression alone, and the liquid could be seen in a tube with as fine a bore as that of a clinical thermometer. On cooling it froze into a kind of ice, and made the glass or silica in which it was confined glow like a miniature arc light. Its products were mainly solids, radium A, B, C, and D, which were probably of the nature of metals.

The waters at Bath contained a trace of radium and a considerable amount of niton. The most satisfactory way of expressing the value of the niton was to give the amount of radium with which it would be in equilibrium. It was necessary to keep in mind the fact that radium had a very slow period of decay and niton a very fast period. If a solution of radium were freed from niton by boiling, it would be possible to boil all the gas away, but the radium would begin to gather niton again. This process of accumulation, however, would only go on to a certain point, that point being 0.6 c.mm. of niton. The reason why the accumulation could proceed no further was because the niton itself was decomposing and changing into radium A, B, C, and D, with the consequence that after about thirty days the radium would have produced as much niton as it could. When the rate of production was equal to the rate of decay there was a condition of balance, and the figures which Sir William produced gave, not the amount of niton, but the amount of radium with which niton would be in equilibrium. For the purpose of a standard, he thought it desirable to give the results as though the water contained the actual radium, even though none were present, but only niton.

Weights of Radium Capable of Forming the Niton Present in a Million Litres of Water or Gas.

Niton (radium emanation) in King's Well	1.73 mg.
Niton (radium emanation) in Cross Bath	1.19 ,,
Niton (radium emanation) in Hetling Bath	1.70 ,,
Niton (radium emanation) in gas from King's Well ...	33.65 ,,

The amount of radium in the water of King's Well was 0.1387 mg. per million litres, perhaps equal to a grain or two of salt in a quarter of a million gallons. He expressed himself greatly surprised at the amount of niton which issued from the gas at King's Well. The figure in a million litres was 33.65 mg., not of radium, but of emanation in equilibrium with that amount of radium.

Gases of the Bath Waters.

Density of the water from King's Well ...	1.0166
Osmotic pressure, equivalent to that of a salt solution containing per litre ...	1.09 gram NaCl
Volume of gas in 24 hours from	
King's Well...	4.927 litres
Cross Spring	218 ,,
Hetling Spring (estimated)	218 ,,
Analysis of gas (King's Well), parts per 10,000:	
Carbon dioxide	360
Nitrogen, etc.	9.640
No oxygen; no hydrogen; no marsh gas	

The nitrogen contains:	C.cm. per 10,000 parts.
Argon	73.63
Neon	23.34
Helium	2.97

From all three wells in 24 hours:	
Argon	39 litres
Neon	12½ ,,
Helium	1½ ,,

Gases dissolved in pump room water:
The water contains 18.5 volumes of gas per 1,000 of water.
Composition (allowance having been made for aëration):

Carbon dioxide	6.9 volumes
Nitrogen	11.6 ,,

In commenting upon these figures, Sir William said that it was very curious that while radium emanation present in the water had the power of decomposing it into oxygen and hydrogen, yet there was no oxygen in the gas of King's Well. He confessed himself unable to account for it and did not know where it had gone. He tested the gas very thoroughly for hydrogen and marsh gas and found neither to be present. The total volume of gas, which fluctuated somewhat with the barometric pressure as well as with the amount of pumping, reached the very considerable figure of over 5 cubic metres in twenty-four hours. The amount of neon present was astonishing. While the argon in the gas had only the ratio of 0.78 as compared with the amount of argon present in an equal volume of atmospheric air, the amount of neon was 188 times greater in the gas collected from King's Well than in air, and the helium on a similar basis was about 73 times greater. He suggested that neon now had its commercial uses, and that it could be separated without difficulty from the bath gas if there proved to be a sufficient demand. The immediate point of interest was that neon and helium arose out of the decomposition of radium, or of one of its products below ground where the gases were generated.

Comparisons with Other Waters.

It was difficult, Sir William proceeded, to compare the radio-activities of various waters over a wide area. The measurements at Continental spas were carried out by means of an arbitrary unit, and the absence of a uniform standard made proportionate estimates out of the question.

Comparison with Buxton.

BATH—	Niton, Mg. per Million Litres.
King's Well (water)	... 1.73
Hetling Well (water)	... 1.70
Cross Bath (water)	... 1.19
Gas from King's Spring	... 33.65

BUXTON—	Niton, Mg. per Million Litres.
Hospital Natural Baths (water) ...	... 0.83
Crescent Pump Room (water) ...	... 0.83
Gentlemen's Natural Baths (water) ...	... 1.1
Buxton natural gas	7.7 and 8.5

The niton in the natural gas, therefore, was four times greater in Bath than in Buxton. As a result of some intricate calculations with the gas in the case of the wells at Bath, he affirmed that in the daily output of 5,363 litres the niton was equal in effect to the gas produced from one-fifth of a milligram of radium.

These figures appeared ridiculously small, but considerable changes had been produced by radium in comparable quantities, and the effect of radium was due to radiations of exceedingly great intensity and very penetrating. Only the previous week, in the *Comptes Rendus* of the Académie des Sciences, a chemist, making experiments with a particular kind of mould, found that if a weight of manganese equal to only half a millionth of the amount of ash were added that mould would double in weight within a certain period, and if this infinitesimal quantity were omitted it would not. Another example was afforded by myxoedema, which was due to deficiency of thyroid gland secretion. Thyroid secretion was proved to contain arsenic and iodine, yet none of us were aware of taking either of these substances in our food. Nevertheless, they must be taken, otherwise the thyroid gland would not secrete a suitable material, and the result of that lack would be myxoedema. The amount of arsenic and iodine was ridiculously small, but physiologically intense.

Employment of Bath Waters and Gas.

The final considerations related to some methods of more effectively employing the waters and the natural gas as a therapeutic agent. Experiments on mice and kittens which he had made in conjunction with Dr. Stevenson of University College Hospital, made it plain that after the administration of a solution of niton, either with food or by means of an injection, the gas was chiefly breathed out of the organism, little trace of it remaining after three hours, and none at all after twelve. No physiological effect was noted in these experiments save, in the case of the kittens, some inflammation of the mucous membrane of the stomach. Evidently niton had a certain corrosive action, but not within the limits of such small quantities as would be available in the Bath waters. He thought that the beneficial action would be more vivid if the natural gas escaping from King's Well could be injected, for the gas was much richer in niton than the water. Already there was in employment at Bath an ingenious spraying arrangement for throat affections. It was fed with air, or with air and steam, carrying with it the natural water. He suggested that the gas be used for the purpose, thus enlisting an agent more than twenty times as potent. The spray produced by forcing the gas under pressure through the water could be employed directly against the skin, and might prove efficacious in the treatment of local rheumatism. The chances of absorption would be increased if the patient were insulated and connected with the negative pole of a battery, but he advised caution in any arrangement for breathing such a spray, although the effective absorption by the lungs would no doubt be rapid.

An increased skin absorption might be effected by placing the patient in an electric bath and connecting him with the negative pole of a battery of 100 volts potential, the other electrode being placed in the water. The electrons or the negative electricity from the disintegration of the niton became positively charged in the discharging process, and would therefore be attracted by a negatively charged body. Thus, on the same principle as in ionization, the patient would attract these positively charged particles, and their concentration on his skin would most likely be followed by entrance into his organism. Even if the niton in the bath amounted to $\frac{1}{1,000}$ mg., and the whole of it were absorbed by the patient, no apprehension need be felt as to possible danger. The apparatus, he added, would necessitate the substitution of continuous for alternating current, seeing that the latter, while producing electrical stimulus, prevented by its rapid reversal any concentration of niton on the skin.

Would it be possible for patients to breathe niton? The total quantity available in the gas from King's Well in twenty-four hours was the equivalent of about 0.17 mg. of radium, and would represent a little more than the thousandth of a milligram per cubic yard in a room of 15 cubic feet. The ventilation would be defective, he feared, if it were arranged for the niton to accumulate in a room in which people would assemble to breathe it, and some spraying method would be preferable.

Questions.

He was asked whether it could be said that the water was saturated. He replied in the affirmative. The gas coming from the water contained much more niton than the water itself, and therefore the water contained as much niton as it would hold at the very high temperature of about 120 F., to which it was raised in Nature's cauldron. It was saturated in the sense that while there was a tiny amount of emanation in the gas and an enormous amount of nitrogen, the former was taken up to the full extent possible.

Another question related to the daily value of radium in Bath. About £6 worth, said Sir William Ramsay, was contained in the hundreds of thousands of gallons of water that daily went down into the Avon. But it was not wealth, because it could not be got out. It could be used but not extracted. Asked whether it would be possible to separate the niton from the natural gas, he replied that it would, but he thought on the whole it would be cheaper to buy some radium, separate the gas from it as it accumulated, and use that for mixing with the water.

Vote of Thanks.

In proposing a vote of thanks to Sir William Ramsay, Alderman C. BRYAN OLIVER, Chairman of the Baths Committee, referred to the lustre of the drinking glasses—"a number of yellow-looking tumblers," as Dickens called them. He elicited from the scientist that this was due, not to the iron in the water as hitherto supposed, but entirely to the radium. Even the discoloured appearance of the baths had now a new preciousness. Dr. SCOTT seconded the vote of thanks, and said that a most valuable line of work had been pointed out to the medical profession of the city. Sir JAMES MACKENZIE DAVIDSON in supporting the motion, remarked upon the German investigations into the effect of radium emanation upon rheumatism and gout. With an appropriate eulogy of Sir William Ramsay's investigations by the MAYOR the proceedings concluded.

THE REPORT OF THE CHIEF REGISTRAR OF FRIENDLY SOCIETIES.

THE annual report of the Chief Registrar of Friendly Societies for the year ending December, 1910, contains some statistics that are of interest in connexion with the National Insurance Act. Though the report is for 1910 it is dated November, 1911, and makes reference to certain matters relating to 1911.

The new societies registered during 1910 numbered 1,026, including 94 new friendly societies and 402 new branches of friendly societies, 143 working men's clubs, 204 industrial and provident societies, and 24 trade unions, with various other societies. No less than 558 friendly societies and branches were removed from the register during the year, some of them at their own request and others compulsorily. The extent of the work of the office of Chief Registrar is shown by the fact that the total annual returns received in 1910 number 31,223, of which 6,061 were from friendly societies, 141 from friendly society orders, and 18,232 from branches of orders. The total number of branches of orders at the end of 1910 was 18,429.

Friendly Societies.

The collecting societies are evidently one of the most important classes, for, although they are relatively few in number (52 in England, 6 in Scotland, and 2 in Ireland), they represent a membership of 6,829,000 persons, their income exceeds £3,208,000, and their accumulated funds are £9,117,000. By far the largest are the Liverpool Victoria Legal Friendly Society with 2,615,258 members and the Royal Liver with 2,394,166. The average contribution in the collecting societies is about 8s. 7d. a year, and out of every £1,000 outgo, £511 is applied to management expenses, £444 in sums at death of members or their children, £4 in sickness pay, £35 in other benefits (mostly endowments), and £6 in other payments (chiefly cash bonuses). The extremely high proportion of the expenditure that goes in management expenses, 51 per cent., is, of course, due to the cost of the house-to-house collecting of contributions, and members are apparently quite willing to submit simply for the sake of the convenience; in spite of this high cost, the returns of a large number of societies show a deficiency in the management funds, which have been met by applying the benefit funds towards the cost of management.

With regard to the quinquennial valuations, there were 3,464 returns sent in from friendly societies and branches, 804 being from friendly, collecting, and specially authorized societies having a total membership of 5,904,093. Of these societies, 521 showed deficiencies that amounted in the aggregate to £1,707,653, and 283 had surpluses amounting to £997,853, so that there was a net deficiency of £709,800. From this it will be seen that 65 per cent. of the societies had deficiencies and only 35 per cent. surpluses, and, taken collectively, the societies were in a position to pay only 19s. 8d. in the £ of their future liabilities. It is stated that in most cases where deficiencies were shown they had arisen from premature distribution of cash bonuses or increase of benefits which the society was not in a position to afford.

The approximate average age of the members was 30 years, no fewer than 1,360,617 members being under 15 years of age, and only 175,358 over 65 years of age. The last figure is of interest in connexion with Clause 15 (2) (*c*) of the Insurance Act, under which the British Medical Association agreed to attend, at the same rate as insured persons, those existing members of friendly societies only who at the commencement of the Act will be over 65 or permanently invalided and so not able to become insured persons, though their societies are still liable to provide them with medical attendance during their lives. After the insertion of this subsection in the Act, the Government agreed to admit to insurance on special terms persons over 65 who are engaged in some employment within the meaning of the Act, so that the figure 175,358 must be reduced, probably to about 130,000, in order to estimate the number of persons to whom the subsection will apply. To this, however, must be added the permanently invalided under 65 years of age, and making an estimate from figures that are available from a few societies, these will, perhaps, reach 60,000 or 70,000. Roughly, therefore, it may be expected that the subsection will apply to a total number of about 200,000, or 1 person to every 75 of the insured. This number will, of course, rapidly diminish, insomuch that in five years it will probably be not more than 70,000 to 80,000, and in ten years probably not more than 20,000 to 30,000, while in twenty years extremely few will remain.

In 522 instances, or 65 per cent. of the total number of valuation returns, the valuers have compared the actual cost of sickness claims with the estimated cost according to the standard sickness tables. The cost, estimated from the tables, was £547,510; but the actual cost was £567,231, or 3.6 per cent. more than the anticipated cost. In some cases the actual cost was as much as 85 per cent. more than the anticipated cost, while in others it was 66 per cent. less. Only 15 per cent. of the societies used the sickness tables of the Manchester Unity, which the actuaries of the National Insurance Act used, and as these tables show a higher sickness expectation than other tables for every age except children, it is evident that this was a far safer standard than the great bulk of the friendly societies themselves take.

Five schemes were registered under the Workmen's Compensation Act for arrangements between workmen and employers, all of them being administered by the Bristol Channel Ports Mutual Friendly Society. Under these schemes the workmen pay 4s. 4d. a year and the employers not less than 12s. 6d. per £100 gross wages paid, the object of the scheme being partly to prevent litigation about claims and partly to provide a larger amount in case of accident than the Compensation Act itself would allow.

Trade Unions.

The total number of trade unions was 638, with a membership of 1,957,904, an income of £3,042,421, an expenditure of £3,158,698, and total funds amounting to £5,886,272. Fully two-thirds of the members belonged to the 43 leading unions, of which the largest is the South Wales Miners' Federation with 141,089 members, the next in order being the Durham Miners' Association with 117,318, and the Amalgamated Society of Engineers with 107,140. The last named, though it is only third on the list in number of members, has by far the greatest income and accumulated funds. Of the 24 new unions registered in 1910, 7 were unions of employers. About 80 of the unions, with a membership of nearly 200,000, have definitely decided to join the "approved" section of the General Federation of Trade Unions, with a view to becoming approved under the Insurance Act. The benefits given under the Act are, of course, very different from those provided by the unions, and the following statement of the way in which the funds of the trade unions are spent will allow of a comparison: Out-of-work pay amounts to 29.9 per cent. of the total expenditure, dispute pay 8 per cent., sickness pay 13.9 per cent., superannuation 11.5 per cent., sums at death 4 per cent., accident pay 3.3 per cent., other benefits 3.3 per cent., contributions to other unions 3.6 per cent., other expenditure 3.2 per cent., and management expenses 19.3 per cent. Only comparatively few local branches provide medical attendance, and these generally keep the medical funds separate. It may be noted that the management expenditure in the National Insurance is reckoned at

General Summary of the Societies dealt with by the Chief Registrar.

	No. of Returns.	Members.	Funds.
			£
Ordinary friendly societies	6,368	3,526,639	20,987,352
Orders and branches	20,728	2,703,607	27,167,535
Collecting friendly societies ...	63	6,829,164	9,117,347
Medical societies	85	323,755	59,937
Shop clubs	8	13,365	1,347
Benevolent societies	73	29,965	360,507
Working men's clubs ...	1,142	294,005	425,239
Specially authorized societies ...	192	78,175	814,146
Industrial and provident societies ...	3,110	2,777,513	60,597,446
Trade unions	638	1,957,904	5,886,272

about 14 per cent., this comparatively low figure being due to the facts that there will be no cost for collecting contributions, and that the cost of audit and valuation will be borne by the Treasury.

In addition to numerous other societies may be specially mentioned the Post Office Savings Bank, with 7,913,295 depositors, and deposits amounting to £186,236,185; the Railway Savings Banks, with 67,614 depositors and £6,362,209 deposits; and the Trustee Savings Banks with 1,804,895 depositors, and £64,458,540 deposits. The grand total of Registered Provident Societies and Savings Banks, including all the above-named societies and others, shows a membership of 29,226,926, and funds of £459,753,790.

Dominions and Colonies.

An appendix to the report gives some account of friendly societies in the Dominions and Colonies. In Australia there are 184 separate societies and 4,264 branches, with total membership of 389,054 and funds £4,850,682; while in New Zealand there are 44 societies and 567 branches, with 64,428 members and funds £1,266,297. It is interesting to note the comparatively large proportion of the expenditure of the societies on medical attendance and medicines. Taking the friendly societies proper in New South Wales, their total expenditure was £378,168, of which sick pay accounted for £105,832, funeral benefits £25,706, medical attendance and medicines £122,327, management expenses £49,831, the balance being for other items of expenditure. The amount for medical attendance and medicines represents an average cost of £1 4s. 7d. per head of mean adult membership entitled to benefit, while sick pay only averaged £1 1s. Somewhat similar figures are given for Victoria, where sick pay amounted to £131,034, funeral benefit £28,880, and medical attendance and medicines for members and their families cost £130,500. In Queensland also the amount for medical attendance and medicines averaged almost the same per member as in New South Wales. The fees paid to the medical officers are not stated, but it appears that the sums of £1 4s. 7d. in New South Wales, and only slightly less in Queensland and Victoria, paid for medical attendance and medicines are the annual average per family of the members: some of it may be for hospital treatment.

In Canada (Ontario) the medical attendance cost only £14,406 for 99,411 members, which is less than 3s. per head per year. This is evidently for members only, no provision being made for families, as it is generally in Australia. In the Bahamas, where there are 160 societies with a membership of about 8,000, two curiously primitive customs prevail. The societies justify their title to the name "Friendly Societies" by the fact that in nearly every society there is a rule compelling two members to take care during the night of any member who is seriously ill, while in the day the Sick Committee visit or other members are sent to render assistance, the members who perform these services being chosen in order from the list. Another custom is to charge all members the same contribution whatever their age at entry, and only very few societies require a higher entrance fee from persons joining after the age of 40. The risk thus incurred is met by simply reducing the sick pay whenever the managing committee thinks the cash in hand has been reduced to a dangerous degree. Actuarial tables seem hardly to be understood by most of the officials of the societies.

SCIENCE NOTES.

AMONG the most remarkable developments of biology in recent times, those connected with the artificial fertilization of the ovum and the cultivation of mature cells in artificial environments must take a foremost place. Loeb has not yet fully succeeded in revolutionizing our views in regard to the fundamental conditions of life, nor have any of his fellow-workers been able to demonstrate that the essential cell can arise in a manner other than that in which Nature has presented it to us. Nevertheless, it may be that we are at the dawn of a new biological era, in which we may possibly have to revise all our doctrines connected with living cells. The work of Harrison and Alexis Carrel has materially contributed to bringing about this change. They have succeeded in cultivating cells which belong to the body outside the organism, and they claim that the characteristics of the initial cells is maintained in the cultures. They worked with normal cells of various animals, both in mature and in embryonal stages, and also with the cells of malignant tumours. It is noteworthy that these studies appear to have been undertaken more in order to establish new facts regarding malignant cells than to further knowledge of the actual biology of the various cells. Dr. S. Hadda, working in Breslau, has made some interesting observations in this direction, which are worthy of record, even if the deductions which may be drawn from them are not of far-reaching importance.[1] He started his series of experiment with cells taken from fowl embryos 14 days old. Of 105 cultures, 73 grew, while failure in 4 was attributed to faulty technique. The growth was most constant with cells of the skin and spleen, and least so with those of the brain. He then turned his attention to adult dogs, with which he obtained less good results. Only 8 of 35 cultures showed the characteristics looked for. On the other hand, he got 11 positive results out of 27 when working with rabbit tissues. The culture medium selected was that recommended by Carrel, namely, the plasma of the animal whose tissues are to be cultivated or that of another individual of the same species. The necessity of the exclusion of air and of rapidity of work are details which need scarcely be mentioned here. On turning his attention to human malignant cells, he met with failure, both with cases of carcinoma and of sarcoma, and noted that after the coagulation of the plasma had taken place, a subsequent liquefaction occurred. This was also found in dealing with normal human cells. Other investigators have noted this, and have ascribed to it the failure to cultivate cancer cells. Hadda found a means of overcoming the subsequent liquefaction of the medium, namely, by adding to the specific plasma the plasma of the rabbit, but even in this no growth ensued. The cells of rabbit grew well in a mixture of fowl and rabbit plasma. Carrel claims to have succeeded on rare occasions in his attempts with human malignant cells. Hadda, however, failed in each attempt with human cells, both normal and pathological. While he regarded the phenomena in the medium as true growth of cells, he failed to recognize anything approaching a retention of the cell arrangement of the original tissues from which the cells were derived. He describes the growth as quite irregular. He mentions a point of interest and importance which he has not yet included in his series of experiment. It is the behaviour of the cultured cells after they have been reintroduced into the organism of the animal from which they have been obtained or one of the same species. The fact that the growth only takes place in continuity with the piece of tissue implanted into the medium, and does not extend to cells which have become detached from the central piece, is significant.

On the occasion of their March meeting, the members of the Roentgen Society paid a visit to the City and Guilds Technical College in Finsbury and inspected in the basement the large copper coils which Professor Silvanus Thompson has had constructed with a view to furthering his investigations upon the physiological effects produced by an alternating magnetic field. As long ago as 1888 Lord Kelvin declared the senses to be more than five, and suggested a "magnetic sense." It was Kelvin's work that started Professor Thompson upon his investigations and led to his own recent communication to the Royal Society, followed up by later experiments on a more elaborate scale. Finding that with a large coil of copper wire connected with the electric mains certain visual effects were produced, he had two copper coils connected, each of which weighed a hundredweight and constructed of 10,000 magnetic lines per square centimetre. These were traversed by an alternating current, thus producing a magnetic field, and the head of the observer was placed between them, either longitudinally or with a coil at each temple, or vertically down the axis of the head. The effects, which may be presumed to be subjective, seem to vary with the observer. Professor Thompson himself states that he sees faint and pulsating or flickering whorls of a light bluish tint, not well defined nor equal over the whole range of vision, but somewhat brighter in the periphery than at the centre. The sensation exists in the daytime as well as in the dark, and the flicker superposes itself upon the surrounding objects.

[1] S. Hadda, *Berl. klin. Woch.*, No. 1, 1912.

Various members of the Roentgen Society who had had the opportunity of placing their heads between the coils were invited to describe their experiences. One medical man said that with his eyes closed he saw a "fluorescence" which affected him chiefly at one side: another had seen two flickering rings just above the level of the eyes, more clearly visible when the eyes were shut than when they were open: another's impression was of rapidly revolving circles having a golden rather than a bluish luminosity, and appearing to come, not from the retina, but from some distance away. Perhaps the concisest description of the appearance was given by Mr. A. A. Campbell Swinton, who said that what he saw was the visual equivalent of a buzz. Two observers, one being Professor F. W. Mott and the other an assistant of Professor Thompson, have declared themselves to be unable to see any effect whatever. Professor Thompson states that the appearances are much more evident if the sides of the head are placed next the coils than with the impulse going from front to back, and in both these directions they are clearer than with the head placed vertically between the coils. Can the magnet stimulate the nerves of hearing as well as sight? Unfortunately the noise in the generating room masks any such subjective effect, supposing it to exist. The only other phenomena are nausea or vertigo, which may come on after half an hour, and some people have noticed a slight taste in the mouth. The effects are undoubtedly due to electrical currents induced by magnetism, but Professor Thompson, who disclaims any pretension to be a physiologist, would not hazard a conjecture as to whether these electrical currents stimulate the actual nerve terminals in the retina or are more deeply seated. It appears that, to some extent, he has been anticipated by d'Arsonval of Paris, who in a verbal communication to the Société de Biologie, of which Professor Thompson was unaware when he began his own investigations, stated that a coil traversed by powerful alternating currents, but of the low frequency of 150 a second, would give rise to interesting phenomena, including "an appearance of light in the eye."

LITERARY NOTES.

MESSRS. JOHN WRIGHT AND SONS, Limited, Bristol, will shortly publish an *Index of Differential Diagnosis of Main Symptoms*, edited by Dr. Herbert French, Assistant Physician to Guy's Hospital. We have received an advance copy, and are informed that the work will be ready for delivery to subscribers in a week or ten days unless the coal strike continues. In the preface it is stated that the book "aims at being of practical utility to medical men whenever difficulty arises in deciding the precise cause of any particular symptom of which a patient may complain. It covers the whole ground of medicine, surgery, gynaecology, ophthalmology, dermatology, and neurology." It is a complementary volume to the *Index of Treatment* issued by the same publishers. Among the contributors are Dr. W. C. Bosanquet, Dr. A. E. Garrod, Dr. A. F. Hertz, Dr. Robert Hutchison, Sir Malcolm Morris, Dr. F. J. Smith, Dr. Frederick Taylor, and Dr. Hale White. The work is copiously illustrated by coloured plates and other drawings.

Georg Thieme, of Leipzig, announces the early publication of the collected writings of Robert Koch under the editorship of Professor G. Gaffky, Director of the Berlin Institute for Infectious Diseases; Professor E. Pfuhl, and Professor J. Schalbe, of Berlin. The work will be issued in three volumes, with 194 figures in the text and forty-five tables.

The *Arena* is the title of a new monthly periodical the aim of which is to appeal to the public school and university men as such, and to deal with all subjects likely to interest any one who is, or has been, associated in any capacity with these institutions. It is written by, and for, public school and university men.

Dr. Percy Rose writes with reference to the lines as to which Dr. Henry Barnes wrote in the JOURNAL of March 9th:

"It would be gratifying to ourselves if the lines quoted in last week's Literary Notes were a poetical appreciation of the personal services of the medical profession, but, unfortunately, they refer to mere books.

"They occur in the *Library* by George Crabbe and are as follows:

> There PHYSIC fills the space, and far around,
> Pile above pile her learned works abound:
> Glorious their aim—to ease the labouring heart;
> To war with death, and stop his flying dart;
> To trace the source whence the fierce contest grew,
> And life's short lease on easier terms renew;
> To calm the phrensy of the burning brain;
> To heal the tortures of imploring pain:
> Or, when more powerful ills all efforts brave,
> To ease the victim no device can save,
> And smooth the stormy passage to the grave.

Crabbe was no expert in the art of medicine, and books were his first love both for reading and for the joys of mere possession:

> . . . . first he paper'd all the row,
> And placed in order, to enjoy the show:
> Next letter'd all the backs with care and speed,
> Set them in ranks, and then began to read.

In his early trials, disappointments, and failures as a medical practitioner at Aldborough he turned to these consolers:

> Where all our griefs in others' strains rehearse,
> Speak with old Time, and with the dead converse;

In this frame of mind, coupled with a faculty of rhyme the *Library* was conceived. Forsaking medical practice, and bringing this with other poems to London, he was fortunate enough to secure the patronage of Edmund Burke, after waiting many weary months. Burke recognized genius in the lines, took the poet to his own home, where the work was completed in his library at Beaconsfield. From that day Crabbe's success was assured. He took orders, patronage and preferment made his path easy, and he died at Trowbridge some fifty years later, after nineteen years' service as rector of that parish. His memorial in the church there extols him as a minister and magistrate, but his connexion with the medical profession obtains no recognition. Crabbe's early experiences left him with very little to say in favour of his first profession. Though a voluminous writer, he devotes a bare twenty lines to The Worth and Excellence of the True Physician, and even then could not refrain from the Parthian shot contained in the last four words of the following couplet:

> Helpers of men they're called, and we confess
> Theirs the deep study, theirs the lucky guess;

But he gives some 200 lines to the advertising physician and the boastful Quack, while his fierce description of the parish doctor

> Who first insults the victim whom he kills:
> Whose murd'rous hand a drowsy Bench protect,
> And whose most tender mercy is neglect,

is still as grating as the angry waves on the shingle beach of Aldborough. We are, however, entitled to claim that only as a member of our profession was Crabbe enabled to obtain that early insight into the homes of the poor, which with his marvellous powers of observation and description resulted in his unrivalled poetic tales of the villagers of England. Aldborough in recent years honoured our profession and itself by electing Dr. Elizabeth Garrett Anderson to the position of Mayor, but evidence of its association with George Crabbe are not easy to find. Inquiries at the library there showed it did not possess a copy of his works. A few manuscripts lying loose in chests in the Moot Hall gave occasional references to his family, while a bust and tablet hidden in the parish church is the only testimony to its one-time poet, apothecary, and priest."

Mr. L. M. Griffiths has written an interesting account of the Bristol Medical Library. The library of the Bristol Medico-Chirurgical Society was formally opened on January 5th, 1891. By the aid of gifts of money and books (including a large donation from the British Medical Association) a start was made with over a thousand volumes and seventy-nine current journals. Later an arrangement for a joint library was made with University College, which did much to make the scheme a success and contributed greatly to the convenience of the members. Through the influence and energy of Greig Smith, the first Chairman of the Committee, nearly all the books belonging to the Infirmary and Hospital were added in 1894, and later the books from the Museum and Library were passed on by the city authorities to the reconstituted "Bristol Medical Library."

ROYAL COMMISSION ON VIVISECTION.

FINAL REPORT.

THE Final Report of the Royal Commission on Vivisection was issued on March 12th. It is a Blue Book of 139 pages, and only a general outline of its contents can be given now. It will be considered in detail in later issues. It consists of an introduction giving a general statement of the manner in which the subject is dealt with; an exposition of the existing law, summarizing the history of legislation on vivisection; the Act of 1876; colonial and foreign law; the administration of the Act in Great Britain; criticisms by witnesses (Mr. Stephen Coleridge, Miss Lind-af-Hageby, Lieutenant-Colonel Lawrie, I.M.S., and Mr. J. W. Graham), and the conclusions of the Commissioners thereon. The Commissioners next discuss the progress of science and the results of experiments on animals. They consider generally the progress of medical science in recent years and the question whether valuable results have been attained by the practice of experiments upon animals. They discuss the influence of experiment on the advance of physiology as a pure science; physiological discoveries which are stated to have been of immediate advantage in the practice of medicine and surgery.

Medicine.

It is pointed out that the practice of medicine depends on physiology, on pathology, and on pharmacology and therapeutics. Witnesses of eminence and experience, say the Commissioners, have testified to the necessity of experimentation on animals in building up these basic sciences. Reference is made to the evidence of Sir W. H. Power, Sir Lauder Brunton, Dr. Frederick Taylor, Sir Douglas Powell, and Sir William Osler, as to the utility of such experiments in the successful treatment of disease. In regard to drugs in particular, it is said that very full evidence had been laid before the Commission by Professor Cushny, Sir Lauder Brunton, Professor Fraser, and Professor Dixon. The report says:

"Of drugs introduced during the last forty years it was stated that one only, namely, pilocarpin, was introduced as a result of clinical observation; all the rest are stated to have been introduced as a result of animal experimentation. Among these new drugs may be mentioned:

"1. Soporifics, such as chloral, sulphonal, veronal.

"2. Local anaesthetics, such as cocain, eucain, stovain.

"3. Analgesics and antipyretics, such as antipyrin, antifebrin, phenacetin, exalgin.

"4. Physostigmin (or eserin) derived from the Calabar bean, which, by its action on the pupil, relieves the painful disease of the eye known as glaucoma.

"5. Amyl nitrite and other nitrites employed for their properties in dilating the blood vessels in the painful disease of angina pectoris.

"6. Diuretics such as caffein, theobromin, and diuretin, which increase the secretion of urine; and urotropin, employed to disinfect the urinary tract.

"It has also been stated that animal experimentation is necessary for the standardization of certain drugs, with a view to determining the precise strength and physiological effect of any dose of any particular drug."

Surgery.

Under the head of surgery, it is said that the great advances made during the last forty years are universally recognized. With regard to this special reference is made to the evidence of Sir Henry Morris, and Sir Victor Horsley is cited. The complete transformation of the methods of surgical practice has, says the report, been attributed to the following causes: (*a*) The antiseptic or aseptic method; (*b*) the introduction of anaesthesia; (*c*) improved technique with regard to ligatures, sutures, etc., and greater knowledge in reference to the extent to which the various internal organs of the body can withstand surgical interference. Dealing with the first two factors as being of the greatest importance, and as affording the necessary conditions for the working out and the success of the improved technique, the Commissioners proceed to inquire how far this enormous improvement in man's power over diseased conditions is to be ascribed to experiments on animals. With regard to antiseptic and aseptic methods, the Commissioners quote the evidence given by Sir Henry Morris on behalf of the Royal College of Surgeons of England. He deemed experiments on living animals an essential mode of investigation, while fully admitting that other modes of research were employed, and that it was impossible to separate the advantages derived from each particular source. He referred to the evidence of Lord Lister before the Royal Commission of 1875, wherein he stated that he could not have made his way in the subject of antiseptics without the assistance he had derived from experiments on the lower animals. Lord Lister had been led to regard the infection of wounds as due to putrefaction of the discharges, and following Pasteur he traced putrefaction to the presence of bacteria, and sought for means to exclude them from wounds.

The Commissioners go on to say:

Lord Lister, in his earliest method, attempted to exclude all such organisms in the following ways. The skin of the patient and the hands of the operator were cleansed by strong antiseptic lotions. The instruments were sterilized by soaking in similar fluids, and the access of germs to the wound from the air during the operation was to be prevented by means of a fine spray of carbolic acid solution constantly playing on the wound. In order to exclude the air, the dressings of the wound, which were also soaked with antiseptics, were sealed by some impervious material. In consequence of further researches and experience, some modification of the technique first introduced by Lord Lister occurred, and the evolution of the aseptic method resulted. It was recognized that the number of pathogenic micro-organisms contained in ordinary air was insignificant in comparison with the numbers on the skin of the patient or on the hands of the operator, so that it became possible to omit the carbolic spray since its use was founded on a theory which was physically impossible. The irritating effects of the various antiseptics on the tissues were found to interfere with the processes of healing, and in some cases to give rise to symptoms of poisoning in consequence of their absorption into the system. Their use was, therefore, confined to the cleansing of the patient's skin and of the surgeon's hands. It was found that exposure to boiling water was an infallible means of sterilization, and this method was, therefore, introduced for the same purpose in the case of instruments and dressings instead of the soaking in antiseptic solutions which had been previously employed. At the same time scrupulous means were now taken for the avoidance of any accidental contamination of the wound. The operation was carried on with as scrupulous care and with the same technique as the bacteriologist employed when he was isolating one organism from another, and the operation being finished the wound was closed, covered with aseptic dressings, and the processes of repair were observed to proceed without check, so that on removing the dressings at the end of ten days, complete recovery was often found to have taken place.

Certain witnesses have emphasized the distinction between the antiseptic and the aseptic methods, and have pointed out that the late Mr. Lawson Tait and others successfully used what is now known as the aseptic method at a time when most surgeons were using the antiseptic method, but both methods are clearly traceable to the recognition of the need of cleanliness in surgery, and neither can be dissociated from the work of Lord Lister, as founded on Pasteur's researches on the origin of putrefaction and septic disease. The spray which formerly was regarded as necessary is now an abolished thing. Aseptic surgery has superseded antiseptic surgery. Subsequent experiments by Koch led to the distinction between pathogenic and non-pathogenic bacteria and the recognition of the part played by chemical products of bacteria in the causation of disease. It is also true that Semmelweis before 1850 had attributed the blood poisoning then so common after childbirth to putrid infection, and had urged cleanliness in the lying-in room as the means of preventing it. The importance of his doctrine, though not generally admitted during his lifetime, alike in surgical wards and in maternity departments, had not escaped the attention of his contemporary Haller, of Vienna.

The pain of the operation itself under former conditions was only part, and often the smaller part, of the total pain suffered by the patient. So long as suppuration regularly attended the healing of wounds, even a simple case like the removal of a breast for cancer, or the amputation of a limb, might require painful dressings for several weeks. At the present time only one or two dressings are usually requisite pending the healing of the wound in the course of a fortnight. The pain of an aseptic wound, which does not usually last longer than about forty hours, is, in the words of Sir Victor Horsley, "a perfectly tolerable pain." After that, in the healing, there is little or no pain. Aseptic surgery has, in this way, saved an amount of pain which is incalculable.

Dealing with anaesthesia it is said: "The introduction of anaesthesia not only rendered it possible for the surgeon to undertake more extensive operations, but also allows him to proceed leisurely about the task and devote his whole attention to the observation of all the minute details which make for success. For the production of anaesthesia during an operation the anaesthetics usually employed are chloroform or ether. The discovery of anaesthetics owes

nothing to experiments on animals. Thousands of experiments have, however, been made on animals with a view to elucidate the mode of action and the methods of preventing danger from the use of anaesthetics. No general anaesthetic appears to be entirely free from risk. A number of deaths still occur in each year as a result of the administration of anaesthetics, deaths which it is hoped may be prevented by a more exact knowledge of the action of these substances. Dr. Dudley Buxton stated that although the actual discovery of anaesthesia was not due to experiments on animals, our knowledge of the precise action of anaesthesia is entirely due to such experiments, and evidence was presented by Sir V. Horsley and by Dr. Waller intended to show that, as a result of such experiments, certain methods had been introduced for the administration of chloroform free from the risks attendant on administration in the way which has been usually employed. These witnesses anticipated that, by the use of improved methods, there would be a considerable reduction in the number of cases of death from the anaesthetic itself. The risks and certain other disadvantages attendant on the use of respirable anaesthetics have led to a search being made by animal experimentation for safer methods of abolishing the pain attendant on such operations. The introduction of such methods of local anaesthesia as the subcutaneous injection of cocain or eucain, and the injection of stovain into the spinal canal, are claimed as the result of such researches, also the employment of subcutaneous injections of morphia mixed with hyoscin for the production of a state of general anaesthesia."

Improvements in Technique.

In regard to improvement in technique, it is said that "the power of controlling the conditions of the operation placed within the hands of the surgeon by the introduction of anaesthesia and of the aseptic method has rendered it possible for him to interfere frequently with organs and to employ operative procedures which, in the absence of these methods, would have been impossible. In the elaboration of such new operations and operative procedures resort has often been had to experiments on animals."

Infectious Diseases.

Proceeding to dicuss infectious diseases the Commissioners say: "During the last forty years great progress has been made in regard to the knowledge and control of infectious diseases. The Royal Commission of 1875 in their report drew attention to the commencement of researches having for their object the production of communicable disease in the lower animals, with a view to studying their nature and cause, and thus, if possible, arriving at means for preventing their occurrence or spread in man. That report dealt with experiments under three categories, the first relating to physiological operations, the second to the administration of drugs and poisons, and the last to the subject now under consideration. Sir John Simon was the first to advise the Government Health Department, then the Privy Council, and later the Local Government Board, to make systematic use of experiments on animals for the elucidation of disease which threatened the public health. This was in 1865, and from 1870 to the present time there had been a special annual grant from the Treasury for the purpose."

In the case of each infectious disorder, attempts were made to determine:

1. The nature and the life history of the micro-organism which caused the disease.
2. The conditions under which such organism can live and be destroyed.
3. The circumstances which determine its virulence.

The Commissioners, after referring to researches on these subjects, and on the production of immunity, pass in review the work that has been done in tuberculosis, plague, malaria, yellow fever, hydrophobia, sleeping sickness, diphtheria, tetanus, dysentery, Malta fever, and snake poison. They next deal with the work of public health authorities and the diseases of animals. Their remarks on these subjects will be summarized in a later issue. At present, want of space prevents our giving more than their conclusions. These are as follows:

Conclusions.

"It will be apparent from the foregoing analysis of the evidence brought before us that we have made full inquiry into the practice of subjecting live animals to experiments by vivisection and otherwise, as regards:

(*a*) The recent progress of medical science; and
(*b*) The practical results that have been obtained.

We have received evidence from persons eminent in physiological, pathological, and sanitary science who have testified to their belief that knowledge has been acquired in regard to the vital functions, the causes of disease, and also in regard to means for their prevention and cure, which, in their opinion, but for such experiments, could not have been acquired. We have, on the other hand, heard many witnesses, some of them having medical qualifications, who have disputed that valuable knowledge has been obtained by such experiments, maintaining that this knowledge has been erroneously attributed to such experiments, or who contended that success has not attended the application of the knowledge to the preventive or curative treatment of disease.

"Having regard to the witnesses who have appeared before us and to the evidence which we have received, there can be no doubt that the great preponderance of medical and scientific authority is against the opponents of vivisection. This is more markedly so now than was the case before the Royal Commission of 1875.

"On these questions, and apart altogether from the moral and ethical questions involved in the employment of experiments on living animals for scientific purposes, we are, after full consideration, led to think:

"1. That certain results, claimed from time to time to have been proved by experiments upon living animals and alleged to have been beneficial in preventing or curing disease, have, on further investigation and experience, been found to be fallacious or useless.

"2. That, notwithstanding such failures, valuable knowledge has been acquired in regard to physiological processes and the causation of disease, and that useful methods for the prevention, cure and treatment of certain diseases have resulted from experimental investigations upon living animals.

"3. That, as far as we can judge, it is highly improbable that, without experiments made on animals, mankind would at the present time have been in possession of such knowledge.

"4. That, in so far as disease has been successfully prevented or its mortality reduced, suffering has been diminished in man and in lower animals.

"5. That there is ground for believing that similar methods of investigation if pursued in the future will be attended with similar results."

PAIN.

The question of pain in experiments on animals is considered under the heads of anaesthetics, inoculations, and miscellaneous questions, in which are included pithing, experiments on fish, and experiments for demonstration. The following are the conclusions of the Commissioners:

"After full consideration we are led to the conclusion that experiments upon animals adequately safeguarded by law, faithfully administered, are morally justifiable, and should not be prohibited by legislation.

"As regards the different classes of animals used for experiments and the possibility of making discrimination between them for such purpose, we are again confronted with a delicate question of relative ethics. Here, again, there can be little doubt that the general moral sense of civilized mankind would be prepared to make such differentiation and would regard with quite a different degree of reprobation the like treatment for such purpose of one of the domesticated animals on the one hand with that of cold-blooded or indeed verminous or destructive animals on the other hand. The *differentia* in such case would probably be found to consist in the degree of association with, or of affinity or utility to, man.

"We feel that recognition should be accorded to the reality and worthiness of such underlying sentiment which would secure a special reservation for animals coming within the aforesaid limits. Thus we think that the higher apes (anthropoid) and the dog and cat present claims for special consideration, and with these claims we deal subsequently in our report."

RECOMMENDATIONS.

The following is a summary of the recommendations of the Commissioners regarding the various points submitted to their consideration:

First, in regard to the Act and its administration, they say that they have come to the conclusion that the present system, although open to adverse criticism which has been indicated, has nevertheless been so worked as to secure a large degree of protection to animals subject to experiment and at the same time so as not to hamper or impede research. Such a system, to which all the parties affected have by long experience become habituated, should not, in our opinion, notwithstanding its imperfections, be lightly thrown away. They thought it capable of improvement, and have made several recommendations calculated, in their opinion, more effectually to secure the objects aimed at by the Act. It will be for the Secretary of State and his legal advisers to decide whether these recommendations can be carried out by departmental requirements, which it is in his power to add under the existing law. Should he be advised that he has not adequate powers for the purpose, they should, in our opinion, be provided by fresh legislation.

The following are their recommendations:

Inspection.—They are of opinion that in order to secure adequate inspection the existing number of inspectors should be increased. They further think that with a view to concentrate the work and facilitate inspection it is desirable that, as far as possible, the issue of licences should be limited to those places which are in connexion with universities or other public authorities or institutions. The inspectors should be sufficiently numerous, and should have at their command ample time to afford to the public reasonable assurance that the law is faithfully administered. This might be effected by appointing a sufficient number, either of whole-time or part-time officers. They are inclined to think, having regard to the present number of licensed premises and experiments, that there would be an adequate increase of inspection if, in place of the existing arrangements, the Chief Inspector were a whole-time officer, and if in addition to him there were three whole-time inspectors for Great Britain.

Assuming that it is not thought practicable or desirable to appoint whole-time officers, but that the services of inspectors in the active practice of their professions should be retained, they think that arrangements should be made to secure a sufficient number of such inspectors who could give such time to their duties as would be equivalent to the services of the four whole-time men. It is essential that the inspectors should be qualified medical men of such position as to secure the confidence both of their own profession and of the public. As to Ireland, they think that, having regard to the comparatively small number of licensed places and of experiments carried out under the Act in that country, sufficient inspection can be obtained by the services of one or more part-time inspectors.

Use of Curare.—In regard to curare, they say that some of them are of opinion its use should be altogether prohibited, but they are all agreed that if its use is to be permitted at all, an inspector or some person nominated by the Secretary of State should be present from the commencement of the experiment, who would satisfy himself that the animal is throughout the whole experiment and until its death in a state of complete anaesthesia.

Experiments for Demonstration.—With regard to experiments performed by way of demonstration in medical schools, hospitals, or colleges, we think that the provisions of the present Act are sufficient, subject to the suggestions made in Paragraph 118 of the report. (See below, under the heading "Experiments on Dogs and Certain other Animals.")

Manual Dexterity.—It is pointed out that the evidence as to the necessity or desirability of experiments on living animals for the purpose of attaining manual skill which might hereafter be useful in operations on human creatures was conflicting. The Commissioners are therefore not prepared to recommend any alteration of the existing law in this respect.

Serums and Vaccines.—The Commissioners have considered the question as to whether the production of serums and vaccines for commercial purposes ought to be brought within the provisions of the Act of 1876, and they have come to the conclusion that it ought not. In the interests of the public there may well be grounds for holding that the production of serums ought to be under regulation and inspection, but they do not think that it should be dealt with in an Act which deals with experimental research. Operations for gain, such as the production of serums and the castration or spaying of animals to improve their market value, stand on a different footing from operations for the advancement of knowledge, and require to be dealt with under wholly different conditions. They note that Section 1 (*c*) of the Protection of Animals Act, 1911 (1 and 2 Geo. V. c. 27), makes it an offence, punishable with six months imprisonment, "to subject or cause to procure, or being the owner permit to be subjected any animal to any operation which is performed without due care and humanity."

Experiments on Dogs and Certain other Animals.—As to the use of dogs and other specified animals, they say they have already adduced reasons which lead them to justify a differentiation in the use of certain animals from that of others for the purposes of scientific experiments. Such discrimination, though admittedly difficult, they attributed on ethical grounds to the degree of association with or affinity or utility to man, and in this connexion they referred especially to the case of dogs and the higher apes.

They realize that the exclusion by law of any particular class of animals may be objected to as logically untenable, and in view of the continuity of the animal series that it is by no means easy to draw a sharp line of demarcation between an exempted and an unexempted class. They proceed:

> But precedents are not wanting, even in law, for making some such attempts. Thus, the general law precludes the employment of dogs for purposes of traction in this country, whereas in several Continental countries they are habitually employed for such purposes. Even in the Act of 1876 an attempt is made in Section 5, entitled "Special restrictions on painful experiments on dogs and cats, etc.," to effect some such discrimination. This clause (which led to the granting of Certificates E and F) deals with cats somewhat differently from the way in which it deals with horses, asses or mules, which are the other animals selected in the Act for special treatment. Thus, dogs and cats may, if anaesthetized, be the subjects of experiments under licence only, but may not be used for experiments without anaesthesia unless a certificate is given by one or other of the scientific authorities named in the Act, stating for reasons specified that the experiment will be necessarily frustrated unless performed on a dog or cat. On the other hand, no experiment, even with anaesthetics, may be made on a horse, ass, or mule, unless a licensee is armed with a certificate in similar terms from one or other of the authorities named.
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> Thus at the present time the law makes a distinction between some animals and others for the purposes of the Act, and discriminates between dogs and cats on the one hand, and horses, asses and mules on the other. No specific mention is made of any other animal (except that invertebrata are excluded from the purview of the Act), and no animal is altogether exempted from scientific experiment. For purposes of demonstration any animal (including cats and dogs) may, under Section 3 (Certificate C), be employed under anaesthetics, but in the case of the horse, ass or mule a further Certificate F would presumably be necessary for the employment of such animal for demonstration purposes. The representations made to us for the complete exemption of any class of animal from all experiments under the Act have been strongest in the case of dogs. On the other hand, many of the scientific witnesses have represented strongly the case for the employment of dogs for certain experiments and demonstrations.
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> In view of the variety of practice and the divergence of opinion as to the necessity of employing dogs for experimentation and demonstration, we find some difficulty in deciding upon this important question. Some of us regard the provisions of the existing law as sufficient, some of us would prefer that in the case both of experimentation and demonstration the further special protection given to horses, asses, and mules should be extended to dogs, while some of us would exclude the use of dogs altogether. But if any alteration is made in the existing procedure, the majority of us would agree that the special enactments now applicable to horses, asses, and mules might be extended to dogs, and also to cats and anthropoid apes.

Pithing. The Commissioners are of opinion that no lesser operation than a complete destruction of the brain or decapitation should be accepted as equivalent to the production of complete anaesthesia. They also think it desirable that the operation of pithing a warm-blooded animal with a view to an experiment should be conducted only by a licensed person, and that the operation should be performed under an adequate anaesthetic.

Cold-blooded Animals.—They carefully considered the suggestion that all cold-blooded animals should be exempted from the operation of the Act, but having regard to the limited knowledge which at present obtains as to the capacity of suffering in such animals, they do not make such recommendations.

Licences and Certificates.—In regard to this point the Commissioners say:

With regard to licences and certificates we have given very careful consideration to the various suggestions made as to alteration in their form or in the method of granting them, and have come to the conclusion that inasmuch as the present system, according to the judgement of the majority of those witnesses who possessed the knowledge and the opportunity for forming a trustworthy opinion on such a point, has on the whole worked efficiently, no change is necessary or desirable, but we desire to add that in our view it is of the highest importance that the responsibility of the Secretary of State should be in all respects maintained, and we are therefore strongly of opinion that no certificate should be available until the applicant has received notice that it has not been disallowed by the Secretary of State. We understand that this is the practice at the present time, and we recommend that a condition to this effect should be annexed to every licence as well as endorsed on every certificate.

As to granting licences and certificates to foreigners temporarily resident in England, we are informed that the present practice of the Secretary of State has been to direct that such licences and certificates shall only be granted to such persons on condition that they should perform experiments only under the supervision of the head of some particular laboratory, who is responsible for the due observance of the provisions of the Act. In our opinion this restriction is wise, and we recommend that the above condition should be attached to all licences and certificates granted to foreigners.

We have noted that it is the practice of the Home Office to supplement the provisions of the Act by attaching various conditions to licences or certificates. Where the animal is allowed to recover from the anaesthetic and there is a wound to which it is practicable to apply antiseptics, the following condition is inserted in the licence:

That the animals experimented on under Certificates . . . be treated with strict antiseptic precautions, and if these fail and pain results, that the animals be immediately killed under anaesthetics.

Where the use of an anaesthetic is dispensed with unless it is obvious that pain could not ensue from the procedure contemplated, and in some cases where the animal is allowed to recover from the anaesthetic but the antiseptic condition is inapplicable, the following condition is inserted:

That if an animal, after and by reason of any of the said experiments under the said Certificates . . . is found to be in pain, which is either considerable in amount or is likely to endure, and if the main result of the experiment has been attained, the animal shall be immediately killed under anaesthetics.

We think it is well that the fact that such conditions are attached should be generally known, but we are of opinion that additional safeguards against pain might be provided without interfering with legitimate research, and we therefore recommend:

(1) That an Inspector should have power to order the painless destruction of any animal which, having been the subject of any experiment, shows signs of obvious suffering or considerable pain, even though the object of the experiment may not have been attained: and

(2) That in all cases in which in the opinion of the experimenter the animal is suffering severe pain which is likely to endure it shall be his duty to cause its painless death, even though the object of the experiment has not been attained.

The above conditions should be attached to certificates.

Summing up this subject they say:

"We regret that we cannot recommend any further extension of the 'pain condition.' We are anxious, as far as possible, to prevent or to limit animal suffering in every case. We have recommended that there should be increased inspection, that wide powers should be given to inspectors to order the painless destruction of any animal under experiment, and that in future, although the object of the experiment has not been attained, no animal should be allowed to live in severe pain which is likely to endure. But we do not feel justified in recommending that, when the object of the experiment has not been attained, an experimenter should in all cases be required to destroy the animal immediately it exhibits signs even of severe pain, which might in some cases be only momentary.

"We are satisfied by the evidence that in the great majority of the experiments under the Act the animals do not exhibit any symptoms suggestive of severe pain, and to require the immediate destruction of an animal as soon as it exhibits such symptoms might, in our opinion, put an insuperable obstacle in the way of investigating many widespread diseases (afflicting both men and domesticated animals) with respect to which further knowledge as to their nature and treatment is in the interest of humanity urgently required.

"It must not be forgotten that it is in the case of diseases which are naturally painful when they attack men or animals that experiments are most likely to involve pain to animals which are experimentally infected: as examples we may instance cancer, cholera, plague, tetanus, rabies, and snake bite.

"We are compelled to accept the weighty evidence given before us to the effect that the study of animals experimentally infected with some of these diseases has given us knowledge which has been instrumental in saving much mortality and suffering both in man and animals, and we believe that discoveries already made in this way justify the hope that by the same methods knowledge may yet be extended regarding the means of preventing or curing other most painful diseases which are at present scarcely or not at all amenable to treatment. And, finally, we feel that as long as public opinion sanctions the infliction on animals of pain—which is not only severe but of long duration—in the pursuit of sport, and in carrying out such operations as castration and spaying, or in the destruction of rabbits and of rats and other vermin by traps and painful poisons, it would be inconsistent and unreasonable to go further than we have already gone in limiting experiments which are designed to result and, according to experience, will probably result in preventing or alleviating great human or animal suffering."

An Advisory Body.—As to an advisory body, the Commissioners endorse the views of the Commission presided over by Lord Cardwell in 1875, that:

In the administration of the system generally, the responsible Minister would, of course, be guided by the opinion of advisers of competent knowledge and experience, but we think it is inexpedient to divide the responsibility of the Secretary of State with that of any other persons by statutory enactment, and we recommend that his advisers should be from time to time selected and nominated by himself. Their names should be made known to the profession and to the public.

They think that the practice followed by various Home Secretaries for nearly thirty years of obtaining professional advice as a guide in the exercise of their powers and discharge of their responsibility is a reasonable and proper practice, but in their opinion the recommendations of the Commission of 1875 should be strictly followed.

These advisers should, as regards Great Britain, be selected by the Secretary of State from a list of names submitted to him by the Royal Society and by the Royal Colleges of Physicians and Surgeons in London. No person so selected should be the holder of a licence, and the names of all persons so selected, as well as the names of the scientific authorities under the Act, should be published. The adoption of this suggestion would involve a discontinuance of the present practice of reference to the Association for the Advancement of Medicine by Research.

With regard to Ireland, where heretofore there has been no Advisory Body, the Commissioners think that the Chief Secretary should be advised by a body chosen upon analogous lines.

Records of Experiments.—In regard to this point, the Commissioners are of opinion that in certain cases immediate or special records or reports of results should be furnished to the Home Office by licensees.

Summary of Recommendations.

The various recommendations are recapitulated as follows:

1. An increase in the inspectorate.
2. Further limitations as regards the use of curare.
3. Stricter provisions as to the definition and practice of pithing.
4. Additional restrictions regulating the painless destruction of animals which show signs of suffering after experiment.
5. A change in the method of selecting and in the constitution of the Advisory Body to the Secretary of State.
6. Special records by experimenters in certain cases.

The report is signed by Mr. A. J. Ram (Chairman), Sir William Church, Sir John McFadyean, Sir Mackenzie Chalmers, Dr. W. H. Gaskell; and also by Colonel Lockwood, Sir William J. Collins, and Dr. George Wilson, subject to reservations contained in memoranda, an abstract of which will be given later.

The two main points upon which they dissent from the report are, first, as to securing by Statute that undivided responsibility of the Secretary of State which was recommended by the previous Royal Commission, but which the Act of 1876 failed to establish, and secondly, as to placing a statutory requirement upon an experimenter painlessly to destroy an animal which has been experimented upon when obvious suffering has supervened. Both points lead up to and in their opinion necessitate amendments of the law.

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VIVISECTION VINDICATED.

Elsewhere will be found a preliminary summary of the Report of the Royal Commission on Vivisection which was issued on March 12th. It is necessarily confined to the most salient points: there are several others which require close attention and with which we propose to deal in detail later. The document is one of the highest importance to the medical profession and to all interested in the progress of science. The conclusions set forth therein have not been arrived at hastily, for the Commission was appointed on September 17th, 1906. The Commission was charged "to inquire into and report upon the practice of subjecting live animals to experiments, whether by vivisection or otherwise, and also to inquire into the law relating to that practice and its administration; and to report whether any, and if so what, changes are desirable." In discharge of this duty the Commission has held more than seventy meetings and examined many witnesses, and has received a large amount of documentary evidence. In this way the Commission has had the opportunity of considering every aspect of the questions covered by the terms of reference and every shade of opinion held as to experiments on living animals. The evidence before it—which is contained in four previous reports, full abstracts of which were published in the Journal as they appeared—includes, in the words of the Commissioners, "that of representatives of the Government Departments which either administer the existing law or carry on researches under its provisions; of the principal scientific, physiological, and medical bodies; and of the leading universities in the United Kingdom, as well as of numerous private practitioners, medical and veterinary, and representatives of the various vivisection and humanitarian societies which have in recent years occupied themselves with the protection of the interests of domestic and other animals."

The Commissioners in their report, dealing with the administration of the Act of 1876, state that no legal proceedings have been instituted under the Act either by the Home Office or by any individual. Since 1876 licences have been withdrawn in only four cases. During the same period of thirty years some sixty cases of minor importance—described by Sir William Byrne as being trivial and technical in their nature—have come under the notice of the Home Secretary. In view of these facts it is not surprising that the charges against the administration of the Home Office after careful examination are generally dismissed as unjustified. To quote the words of the report, "these twelve charges of Mr. Coleridge's are the outcome of a ten years' investigation of the administration of the Act by the Department conducted by an acute and indefatigable critic, supported, as he told us, with ample funds." They have indicated certain points in which they think that the administration of the Home Office may be open to criticism, but they are of opinion that on the whole the working of the Act has been performed with a desire faithfully to carry out the objects which its framers had in view.

Dealing generally with the antivivisectionist witnesses—among whom, besides Mr. Coleridge, they name Miss Lind-af-Hageby, Mrs. Cook, Lieutenant-Colonel Lawrie, and Mr. J. W. Graham who gave evidence on behalf of the Parliamentary Association for the Abolition of Vivisection—the Commissioners state that, after careful consideration of the cases cited by them, they have come to the conclusion that these witnesses have either misapprehended or inaccurately described the facts of the experiments. They also state that, as far as they can judge, they believe that holders of licences and certificates, with rare exceptions, have endeavoured with loyalty and good faith to conform to the provisions of the law. They add—and we hope the utterance will be taken to heart by the fanatics who propagate falsehoods as to vivisection—that "the harrowing descriptions and illustrations of operations inflicted on animals, which are freely circulated by post, advertisement, or otherwise, are in many cases calculated to mislead the public, so far as they suggest that the animals in question were not under an anaesthetic. To represent that animals subjected to experiments in this country are wantonly tortured would, in our opinion, be absolutely false." We hope Mr. Stephen Coleridge in particular, whose chief controversial stock-in-trade is this misleading use of the word "torture," will lay this carefully weighed statement to heart. Those who keep "shops" of which it may be said the windows are dressed with lies, all the more vile since they pander to hysterical sensationalism and appeal to the most ignorant of the people, come within the scope of the same condemnation

There are several points which we must leave for closer analysis and comment in further articles. We need only say here that it may on the whole be anticipated that the recommendations will be accepted by the general body of the profession. Provided the inspectors chosen are men conversant with the aims and methods of scientific research, an increase in their number can only be beneficial as safeguarding investigators from calumny.

As regards curare—the "hellish woorali" of Tennyson who, we believe, lived to regret having written the verses in which the words occur—it is so little in use that it seems hardly worth while limiting it further. We agree with Sir Victor Horsley, who sees no objection to an inspector being present in all cases in which it is administered, provided that the convenience of the investigator is safeguarded.

As regards the exemption of dogs from experiment—a matter which has within the last few days been brought before the House of Commons by Sir Frederick Banbury and Mr. Lockwood—the Commissioners were unable to come to a unanimous conclusion. The proposal is, as they admit, "logically untenable," and we hold strongly that sufficient evidence was advanced in favour of allowing the law to remain as it stands. This and the other recommendations will be more fully discussed later.

We cannot leave the subject without referring to the fact that Lord Cromer has felt compelled by advancing years and failing health to retire from the position of President of the Research Society. His name has been as a tower of strength in the protection of scientific investigators from the slander and obloquy of the opponents of animal experimentation. He has been made the target for much unscrupulous and virulent abuse, which he has borne with the quiet fortitude of a man whom long experience as an administrator has made invulnerable to such assaults.

The medical profession owes him a deep debt of gratitude for the service he has rendered to the cause of truth. He is emphatically a strong man and his place as President of the Society will be very difficult to fill. His last act is entirely worthy of him. His assurance that the report of the Commission is an eminently judicial document cannot fail to carry great weight with the public, especially, to use his own words, with that very large section of the community which has not taken any part in the controversy which has raged over this subject, but which wishes to be informed of the true facts of the case. We doubt, however, whether the report will be welcomed, as Lord Cromer says it ought to be, by the opponents of vivisection, for, in Gladstone's famous phrase, it "smashes, shatters, and pulverizes" their case.

In other respects it leaves things very much as they are, and if the recommendations are embodied in a new Act will not seriously hamper research if they are carried out in a reasonable spirit. The report is, on the whole, a complete vindication of vivisection.

THE TREATMENT OF FRACTURES.

THE subject of the management of fractures of bones has waited long for adequate consideration by surgeons. Here and there some of those who from the nature of their work have paid more than the average attention to it have called for modifications of the routine treatment; but their doctrines have to a great extent fallen on dry ground, and methods are still widely in vogue which would be admitted by those who practise them to be associated with long disability in many cases and permanent crippling in not a few.

Up to within quite recent times the routine hospital method consisted in the application of splints, and their retention in place to the end of a period believed to be that required for firm union. An exact reduction of the displacement was practically never obtained, and in most instances not expected. When splints were removed there remained more or less extensive adhesions and infiltration of the soft parts, together with wasting of the muscles from disuse, which extended the period of disability many weeks, and often not weeks but months. With what may be called the renascence of surgery questions began to be raised here and there as to the adequacy of this routine treatment, but the attention of surgeons in general was more directed to the many new fields opened up by the genius of Lister, and it is only within comparatively recent times that the subject of fracture treatment has been adequately discussed.

The new methods of treatment that have been introduced have been designed to obviate the one or the other of two defects chargeable against the existing routine—the one, imperfect reduction of bone displacement: the other, the associated lesions of the soft parts. Lister himself was largely instrumental in introducing the method of bone suture with the object of obtaining an exact reposition impossible or difficult in certain fractures. The method was introduced to remedy failure of bone union known to be a comparatively frequent event in a certain small class of fractures. The indications for this and other operative procedures have been greatly extended by those who look upon exact restitution of outline as a matter of capital importance; to the extent of advocating open operation in a majority of cases, at any rate in a majority of the fractures of the lower limb. The names of Lane in this country and Lambotte on the Continent are those principally associated with the development of these methods.

The first attempts to deal with disability arising from lesions of the soft parts took the form of massage and forcible breaking down of adhesions following the period of splint retention. In the form in which these methods were first employed the results were disappointing and the treatment was painful and distressing to the patient and wearisome to the surgeon. The systematic application of vigorous massage and forcible movement hastened recovery in many a case, yet its imperfections raised the question whether the disability which it was designed to remove was really an inevitable consequence of a broken limb. A negative answer to this question was soon forthcoming. Lucas-Championnière and others maintained that if attention was devoted to the structures responsible for the function of the limb *from the beginning* the long convalescence after union could be greatly shortened or avoided altogether.

In the face of the advocacy of these new methods by these two schools and the publication of results, one thing at least has become quite clear—that a radical change in the older methods of treatment is overdue, and that the practice and teaching on the subject require thorough reformation. We are led to make these observations at this moment in anticipation of the report of the Special Fractures Committee of the British Medical Association by the recent publication of a book by Mr. James B. Mennell, entitled *The Treatment of Fractures by Mobilisation and Massage*.[1] Its perusal may lead other surgeons to make further contributions to the mass of materials and opinions the Committee has, we understand, already collected.

Mr. Mennell advances high claims for the methods with which the name of Lucas-Championnière is particularly associated, and is evidently able to speak from a large personal experience of their application. He attacks the old methods of immobilization, and summarizes certain evidence which goes to show that some movement is essential to the formation of satisfactory callus, and that this callus ossifies more quickly when massage and mobilization are employed. He holds that under the old methods of treatment the functional condition of the limb was greatly sacrificed with a view to obtaining an ideal restitution of outline which was usually unattainable by these means. It is claimed that massage and mobilization are of value in every stage of fracture treatment. In the first stage the effect of massage is to relieve pain and to relieve spasm, and it paves the way to a reduction of deformity with more perfect apposition than can be obtained by any method short of open operation.

Mr. Mennell inveighs against forcible massage; the massage from which he claims to get his results is little more than a light stroking of the limb applied in definite directions without causing pain. He applies to this form of massage the term "glucokinesis." The hope may, by the way, be expressed that his methods are more correct than his etymology. In his view the trained masseuse of the present day is much too forceful a person, who often inflicts torture without producing commensurate benefit. The passive movements which Mr. Mennell employs and advocates are also of an exceedingly gentle character, stopping short of the infliction of pain, and avoiding any movement which may tend to reproduce deformity. The fixation apparatus recommended for use with these methods is of the simplest character, and is kept in position for short periods

[1] *The Treatment of Fractures by Mobilisation and Massage.* By James B. Mennell, M.D., B.C.; with an introduction by Dr. J. Lucas-Championnière. London: Macmillan and Co., Ltd. 1911. (Med. 8vo, pp. 472; figs. 67. Price 12s. net.)

only. "The correct use of splints," he says, "is to leave them in position until union is sufficiently firm to allow of the most gentle movement without displacement. The use of splints for four days will prove sufficient for the majority of fractures, a week for the remainder, except possibly for fractures of the femur where there has been great displacement, and consequently tearing of the periosteum." While insisting on the efficiency of the methods he advocates for the ordinary run of cases, Mr. Mennell, and, indeed, M. Lucas-Championnière himself, disclaim any prejudice against operation; on the contrary, operation is advised when gross deformity persists, when a deformity interferes with the function of a limb, if there is persistent deviation of axis, and if shortening in spite of perfect use is disadvantageous to the patient.

Mr. Mennell writes with conviction and enthusiasm on his subject, and the appearance of his work will compel the attention of English surgeons to the methods of Lucas-Championnière—an attention which has not hitherto been adequate. The essential and attractive feature of these methods is that they aim at the prophylaxis of all those various functional disorders hitherto commonly associated with fracture, which make its treatment so lengthy and tiresome. At its highest the claim is that the limb is functionally perfect at the time when union is sound and that restitution and union are both facilitated.

There is no essential antagonism between these methods and the other newer method of treatment—the operative. Some enthusiastic advocates of open operation would have surgeons operate on most of their fracture cases. Before this doctrine is accepted there will have to be further proof that minor degrees of incorrect alignment prejudice the functional result. It has been proved to demonstration that the functional result is highly prejudiced by certain complications in the soft parts, which are very commonly associated with fracture of the bones. Those surgeons, therefore, who are attacking these complications are attacking an admitted evil. Those who operate to reduce slight deformities have yet to show good reason for their practice. All surgeons now believe that operation may be called for under certain conditions in simple fractures, and that it has a permanent place in their treatment, but to advocate it as a routine is to greatly overstate its indications.

Mr. Mennell's book teaches the necessity for a thorough investigation into methods of fracture treatment. It is a subject of great public importance, especially to the industrial classes, and we look with confidence to the committee appointed by the British Medical Association to give to the profession a much-needed lead in the matter.

THE TROPICAL DISEASES RESEARCH FUND.

In spite of all that may justly be said as to the supineness of the British Government and British officials in the matter of scientific research, there are good grounds for national pride in the way in which the British Empire took the lead, and is continuing to hold a leading place, in the study of tropical medicine and hygiene. It is very obvious that there was an obligation on us to take this position, for no other State has dominions so extensive within the tropics and the subtropics. The impetus given during Mr. Joseph Chamberlain's tenure of office as Secretary of State for the Colonies to the study of the administrative problems involved has not died away. It was consolidated by the establishment of the Schools of Tropical Medicine in London and Liverpool, and the Colonial and Indian administrations are now more or less thoroughly imbued with the idea that the prevention of the appalling rates of sickness, death, and invaliding which used to prevail is a matter of skilful and painstaking administrative work resting on the safe basis of sound scientific observations and experiment. By nobody has the truth of this been recognized more fully than by the present Secretary of State for the Colonies, Mr. Lewis Harcourt, who by his decisions and by several recent speeches, in which a light touch has not concealed a serious purpose, has shown that he fully recognizes the far-reaching importance of this part of the interests committed to his official care.

Some of the work which is being done directly under official auspices is described in the report for 1911 of the Advisory Committee for the Tropical Diseases Research Fund, which was issued last week. This Committee was appointed by the Secretary of State for the Colonies in 1904. Its Chairman is the Right Hon. Sir J. West Ridgeway, who has had administrative experience in India, Ceylon, and South Africa; and among the ten other members of the Committee the medical profession is represented by Sir Thomas Barlow, Sir J. Rose Bradford, Colonel Sir David Bruce, Sir Patrick Manson, Sir A. M. Branfoot, and Sir Ronald Ross. The Committee had in 1911 an income of £3,345, derived partly from grants voted by the Imperial Government (£1,000) and the Government of India (£500), and partly from contributions made by Dominion and Colonial Governments. Expenditure exceeded income by £450, the deficit being made up from an accumulated balance, and the Committee calls urgent attention to the necessity for supplying it with larger funds to deal with the many important questions calling for further research.

Appended to the report are the answers received from various Colonial Governments to a request for information as to the work in Colonial laboratories, and the Committee expresses its appreciation of the high standard of the work which is being done in these laboratories, work which shows the increased interest in research taken by the officers in charge. The experiment of setting up these laboratories, it is added, has fully justified itself, and deserves all possible encouragement. Reports are given also from the London and Liverpool Schools of Tropical Medicine for the year ending October, 1911, from the Professor of Protozoology in the University of London (Mr. E. A. Minchin, F.R.S.), and from Professor Nuttall, on the work done by the research student in entomology and in the Quick Laboratory of the University of Cambridge.

The reports from Colonial laboratories, though they do not deal solely with laboratory research strictly speaking, all illustrate the application of the scientific methods of the laboratory to hygiene and clinical medicine. The association is so close and the calls made by the public health administration and by the hospitals for assistance are so numerous that not a few of the directors lament that the fulfilment of their duties in these directions absorbs so much time that research work suffers. In fact, there is a call all through the report and appended memoranda for more money and more men to follow up the innumerable new tracks which are constantly being discovered, but cannot be adequately explored by the force available.

Not a few of the investigations reported to the

Committee, including those made by or under the direction of Professor Minchin, have already been recorded or noted in the JOURNAL. Among other matters of interest reference may be made to the observations of Dr. Castellani, Director of the Clinic for Tropical Diseases and the Bacteriological Institute, Ceylon, on a bacterium isolated from the intestinal contents in four cases of fever of obscure origin in which the results of all the investigations for the usual infections such as typhoid, paratyphoid, malaria, Mediterranean fever, etc., were negative. Dr. Castellani considers that this bacterium, to which he has given the name *Bacillus asiaticus*, is different from any other intestinal micro-organism. He isolated two varieties: one from two cases of protracted, rather low, intermittent and remittent fever, the other from two patients at first considered to be suffering from prolonged attacks of typhoid fever. Specific agglutinins were present in the blood in all the cases, the agglutination slowly decreased after the fever was over, and the blood of the patients did not agglutinate any other micro-organism. From experience in eight cases of yaws Dr. Castellani is enabled to express the opinion that salvarsan will be found of great benefit in that intractable disease.

The reports for the year ending September 30th, 1911, by Dr. A. T. Stanton, Acting Director of the Institute for Medical Research of the Federated Malay States (Kuala Lumpur), are chiefly concerned with an account of a chemical and physiological investigation of the relation of polished rice to beri-beri. Fowls fed on white polished rice known to have been associated with outbreaks of human beri-beri were found to develop a form of polyneuritis clearly analogous to beri-beri in its clinical manifestations and pathological effects, and were accordingly used as experimental animals. One of the conclusions which Dr. Stanton draws is that the harmful influence of white polished rice is not due to the existence in it of a poison developed after milling, but to a default in respect of some substance of high physiological importance essential to the maintenance of health. Other researches made in association with Mr. Barrowcliff, Assistant Government Chemist, made it probable that the substance is an organic acid, but the investigation of this point was not complete when the report was issued. As a practical test of whether a rice has been overmilled, the use of the phosphorous pentoxide standard is recommended, as no rice which yielded a phosphorous pentoxide content of 0.4 per cent., as estimated on the undried material, was found to be associated with human beri-beri or polyneuritis in fowls.

The report from Fiji is by Dr. Bahr, the delegate of the London School of Tropical Medicine, who, while acting as Honorary Pathologist to the Colonial Hospital, Suva, did a large amount of routine work and made special investigations with regard to dysentery and filariasis and elephantiasis. A report by Dr. Lynch, Chief Medical Officer, on an outbreak of dengue, is appended. The report from Jamaica, by Dr. D. J. Williams, Medical Superintendent of the Asylum, Kingston, is chiefly concerned with the occurrence of pellagra, which has been recognized in the asylum for the past twelve years. The observations do not conflict with the suggestion that the disease is disseminated by sand-flies. Dr. L. Nicolls contributes an interesting and well-illustrated report from the laboratory in St. Lucia (Windward Islands). He describes a fly which occurs in relation with ulcers, and is therefore known as the ulcer fly, and advances evidence tending to show that its prevalence is associated with the dissemination of yaws. He also reports the results of experiments with the small but prolific "millions" fish, a natural enemy of the mosquito. The reports from the Government Bacteriological Department, British Guiana, are by Drs. Minett and Wise. In a joint report they record certain experiences in the treatment of leprosy, which are commented on elsewhere under the head of British Guiana. The former has a note on unclassified fevers, many cases of which are to be attributed to heat exhaustion occurring in persons debilitated by repeated malarial attacks. The report from the Nairobi Laboratory, East Africa Protectorate, contains descriptions of certain trypanosomes found in the dog, horse, and the monkey, but the experiments were not completed at the time the report was made.

These notes will be generally held to justify the statements with which they were introduced: that much good work is being done, but that for its full development large resources and more workers are needed.

THE INSURANCE COMMISSIONERS AND THE ASSOCIATION.

A REPLY has not yet been received from the Joint Committee of Insurance Commissioners to the letter addressed to it on February 29th, informing the Commissioners "that unless the minimum demands of the Association be embodied in the Regulations to be issued by the Commissioners, in such a manner as shall be effectual and permanent, with a view to having the same embodied in an amending Act, it is the intention of the British Medical Association to call upon all its members and upon all other medical practitioners to decline to form panels or undertake any other medical duties which may be assigned to them under the Act." Some uneasiness is naturally felt at the absence of a reply, and though it may be true that the Commissioners may find some difficulty in dealing adequately with the points raised in the Association's letter, and may be under the necessity of giving them very full consideration before formulating a reply, a prolongation of the period of suspense will not conduce to a feeling of confidence, but rather tend to increase the sense of injustice which has already caused so much irritation. This is not likely to be diminished by the cavalier manner in which the Welsh Commissioners have invited the provisional Welsh National Medical Committee to send up at a few days' notice a list of ten names from which the Commissioners would select five persons to serve on the Advisory Committee for Wales. A meeting of the Executive Committee of the provisional Welsh National Committee was held at Shrewsbury on Wednesday to consider the application. It was felt that the Executive Committee was not in a position to select the names of members to be nominated to the Advisory Committee for Wales without consulting the Welsh Divisions of the British Medical Association, and the Secretary was instructed to write to the Welsh Commissioners to this effect, adding that it would probably be possible to transmit the names of those selected in about a fortnight. It was arranged that each of the eight Divisions in Wales should be asked to select one name. A strong feeling was expressed that the five members of the Welsh Advisory Committee should not be selected haphazard from a list of ten by the Welsh Insurance Commissioners, more especially as the Medical Commissioner had been a medical officer of health in England, and could not therefore be acquainted with the conditions of medical practice in Wales. It was laid down as a guiding principle that the five names transmitted to the Welsh Commissioners should be those of medical men representative both of the several parts of the Principality and of the various classes of practice which would be affected by the Insurance Scheme. The five classes of

practice for the representation of which it was considered necessary to provide were colliery practice, practice in steel and tin plate industrial districts, friendly society and Poor Law practice, private practice in industrial districts, and private practice in agricultural districts. The final selection will be made on this principle after the nominations of the eight Welsh Divisions have been received.

THE INSURANCE COMMISSIONERS AT WORK.

A WHITE paper (Cd. 6095)[1] has been presented to Parliament containing a brief statement of the preliminary steps taken with a view to bringing Part I of the National Insurance Act, 1911, into operation. The Act having provided for the constitution of National Commissions for England, Scotland, Ireland, and Wales and for a Joint Committee for the United Kingdom as a whole, the powers to be exercised by the Commissioners have been divided between the several bodies in the manner set out in the Regulations, which took effect on December 28th, 1911 (SUPPLEMENT, January 20th, p. 59), and February 21st, 1912 (SUPPLEMENT of this week, p. 313). The main principles on which the division of powers was made to assign to the Joint Committee all questions involving actuarial considerations of all matters with regard to which uniformity of practice throughout the United Kingdom is regarded as essential. Matters in which absolute uniformity may not be essential, though the action of the respective bodies of Commissioners will require to be co-ordinated, will be vested generally in the several bodies of Commissioners. All other matters will, as far as possible, be left to be dealt with by the several Commissioners independently. With regard to medical benefit, it is stated that the Joint Committee has appointed a Departmental Subcommittee, which has already held several meetings. It has had under consideration a preliminary report on the matters to be dealt with by the regulations to be made for medical and sanatorium benefit. These regulations will cover the entire arrangements to be made by the Insurance Committees for the medical treatment of insured persons, and are, it is stated, necessarily of a complex character, requiring careful deliberation. The Committee has also under consideration the question of the information to be issued to the public as to the provisions of the Act in respect to medical benefit and its administration. The desirability of issuing leaflets on the subject had also been discussed.

THE HONOURABLE HO KAI, C.M.G.

THE bestowal of a knighthood upon Ho Kai, M.B., C.M.Aberd., M.R.C.S.Eng., Barrister-at-Law, will be received both by the the Europeans and Chinese in Hong Kong with great satisfaction and pleasure. Ho Kai has for the past thirty years played an important part in the public life of the Colony, and in many ways benefited the community. On his arrival in England Ho Kai spent some time at Palmer House School, Margate, before he commenced the study of medicine at St. Thomas's Hospital Medical School, and afterwards he proceeded to the University of Aberdeen for the completion of his studies. During the period of his medical studies he also "ate his dinners" at Lincoln's Inn, and in the short period of five years obtained not only his medical degree and diploma, but also succeeded in obtaining admission as a barrister to practise in the English Courts. He returned to Hong Kong shortly afterwards, and took an active part in almost all the important developments of the Colony. In the field of medicine he succeeded in accomplishing a great and lasting work. Ho Kai married an English lady, Miss Alice Walkden, but to the great grief of a wide circle of friends, she died a few years after her arrival in Hong Kong. In memory of his wife, Ho Kai founded and endowed the Alice Memorial Hospital in Hong Kong, and handed the management of the affairs of the hospital over to the London Missionary Society, of which his father, the Rev. Ho Tsun Shin, was an active member. The opening of the Alice Memorial Hospital, with a European staff of surgeons and physicians, gave the Chinese an opportunity of being treated by modern methods of surgery and medicine, a benefit the large number which flocked to the hospital as soon as it was opened seemed to appreciate. The early members of the staff were Dr. (now Sir) Patrick Manson, Dr. William Hartigan, Dr. Jordan, and later, in 1887, Mr. James Cantlie and Dr. T. C. Thomson. A further benefit, however, to the Chinese was inaugurated in 1887, when the "College of Medicine, Hong Kong," was opened. A complete course of medical study, extending over five years, attracted Chinese students, and in 1902 the first diploma was granted. The famous President of the Chinese Provisional Government, Sun Yat Sen, was the first student on whom the diploma was conferred, and the college has every reason to be proud of having had within its walls the most humane of patriots who ever served any country. The success of the College of Medicine, due to the efforts of the several medical and scientific men who taught for years without pay or reward, stimulated the residents and Government of Hong Kong to widen the sphere of teaching to Chinese and others, and to found the University of Hong Kong in which the college of Medicine is now incorporated. Sir Ho Kai on his arrival in Hong Kong from England practised medicine, but in 1882, when called to the Bar, he gave up medical practice, and devoted himself to legal work. He proved a valuable member of the Sanitary Board, and for twenty years has been a prominent member of the Legislative Council. Amongst his manifold engagements, Sir Ho Kai found time to lecture on Forensic Medicine in the College of Medicine—a chair he was eminently fitted to fill by his medical and legal training. In 1902 Ho Kai was created a C.M.G., and his knighthood is a well-timed honour bestowed upon one who has given his time and great talents to the public good. We heartily join in congratulations to Ho Kai upon his knighthood.

TUBERCULOSIS AND PUBLIC TELEPHONES.

IN view of the importance of removing any possible source of infectious disease, the Postmaster-General some time ago requested Dr. Spitta, of St. George's Hospital and bacteriologist to the King, to undertake a thorough investigation to determine the possibility of the communication of tuberculosis through the use of telephones, and especially of those in public call offices. For this purpose a number of telephones which had been in use at busy call offices in London for various periods, and had received no special cleansing treatment other than that normally given to such telephones, were handed over to Dr. Spitta for examination. In accordance with the method usually followed in such investigations, washings were prepared from the mouthpieces of the telephones, and tests were made in each case by the inoculation of guinea-pigs to ascertain the presence of tubercle bacilli. Dr. Spitta's report on these experiments showed that the results were most satisfactory and that the mouthpieces examined were free from tubercle bacilli. The telephones which were used in this investigation had been removed from call offices in post offices, railway termini, meat markets, and other places of general resort. In order to remove any possible doubt as to the exhaustive nature of these experiments the Postmaster-General, on Dr. Spitta's advice, decided to have further experiments made with telephones which were known to have been exclusively used by persons suffering from pulmonary tuberculosis. For this purpose it was arranged that telephones should be fitted in the wards of a sanatorium and used only by patients in

[1] This number identifies the document, and if given to a bookseller ought to enable him to obtain it in the ordinary course of trade from the official publishers. Most other official documents bear such an identifying number.

different stages of pulmonary tuberculosis, and that the instruments should be used in this way for varying periods of time and should not be cleaned or disinfected during the course of their experimental use. These telephones were forwarded to Dr. Spitta at intervals, with all necessary precautions to prevent any alteration in their condition, and were subjected to the same bacteriological experiments as the telephones previously removed from public call offices. The investigations were continued during the year 1911, and the Postmaster-General has received a final report from Dr. Spitta showing that the results have been entirely negative. Dr. Spitta states that he is of opinion, in view of the whole course of the experimental work, "that the transmission of tuberculosis through the medium of the telephone mouthpiece is practically impossible." These results are supported by an independent inquiry initiated some time ago by the American Government as to the condition of public telephones in the United States. As statements are published from time to time as to the possible transmission of tuberculosis by the use of telephones, the Postmaster-General is glad to be able to announce the satisfactory results of these experiments. They fully confirm the results of work carried out by Dr. Klein, of St. Bartholomew's Hospital, in 1905, at the instance of Dr. Collingridge, the City Medical Officer of Health, who caused a number of telephones in use at call offices of the National Telephone Company to be removed for bacteriological examination. Some alarming public statements as to the possibility of infection had been made at the time, and Dr. Collingridge thought it his duty to investigate the subject. As a result he arrived at an identical conclusion: that there was no real risk in the use of telephones at public call offices, and that the alarm which had been raised had no foundation in fact.

HOSPITAL CLINICAL LABORATORIES.

SOME two years ago the authorities of St. George's Hospital made a slight alteration in their method of keeping accounts between themselves and the attached medical school,[1] and instead of making all payments found to be due out of the Discretionary Fund at their disposition, charged to the general fund of the hospital the amount credited to the school as a return for pathological work undertaken by it on behalf of the hospital. This sum was shown in its accounts when making application to King Edward's Hospital Fund for London, and the propriety of the amount thus entered was questioned. An investigation followed in which each party maintained its view, and which ended in the King's Fund deciding in favour of its own after a somewhat futile attempt to compare the expenditure on pathological work at St. George's Hospital with that of other institutions. The net outcome was that at the distribution meeting of King Edward's Fund held last December,[2] it was announced that St. George's Hospital had submitted no application for an award for the current year, and also that the grant contingently made for the previous year had been annulled. A further result was that at the corresponding meeting of the Metropolitan Hospital Sunday Fund,[3] which was held shortly afterwards, this fact was mentioned, and it was suggested that the fund ought to fall into line with the authorities of the King's Hospital Fund in the matter. The discussion which followed ended in a decision that payment of the grant proposed by the Distribution Committee should depend on a report which the Lord Mayor of London promised to supply after a personal investigation of the matter. This promise Sir Thomas Crosby duly carried out, and his report was read at a special meeting of the governors of the Fund on March 7th. It was to the effect that he had examined the expenditure involved by the maintenance of the bacteriological and pathological departments of the school, the amount of work which they did for the hospital, and the proportion of the total expenditure on each bed represented by the sums credited to the school for inquiries of a bacteriological, pathological, and chemical character. He had also examined statistics obtained from other hospitals relative to their own expenditure in the same direction. The result was that he was convinced that the amount expended at St. George's Hospital on the investigations in question was not excessive in itself, and did not represent a larger cost for each occupied bed than the corresponding expenditure at many other London hospitals. The latter fact was, however, difficult to show in precise figures, because the fashion of keeping the accounts relating to pathological and bacteriological work varied at different institutions, the items included or excluded being not always the same. Sir Thomas Crosby also pointed out that at St. George's Hospital all reports upon material sent for examination were furnished personally by the officers in charge of the bacteriological and pathological departments, and not by students, house-physicians, or house-surgeons, and that the work done included a variety of chemical examinations, the preparation of vaccines, and the care of the museum, which was the property of the hospital itself. He also added that the investigations under consideration involved processes which could only be efficiently carried out by skilled and highly trained officers, who must be paid appropriate salaries, and that they were essential to the proper diagnosis and treatment of the patients in the hospital, and quite as necessary to their welfare as that performed in the electrical, x-ray, and other departments. A short discussion followed the reading of the report, and ended in its acceptance, and in a vote of thanks to Sir Thomas Crosby for the trouble he had taken in the matter. During its course Sir Dyce Duckworth and other speakers emphasized the fact that money spent on clinical laboratories, whether paid out of the ordinary or discretionary funds at the disposition of hospital authorities, was spent entirely for the benefit of patients, and that any belief that it went towards the education of medical students was entirely erroneous. Sir William Church also pointed out that there had never been any accusation against the hospital authorities of having done anything which was improper.

THE BALFOUR PROFESSORSHIP OF GENETICS.

IN a letter to the Vice-Chancellor of Cambridge University Lord Esher has made the interesting announcement that an anonymous benefactor has placed in Lord Esher's hands a sum of £20,000, for the purpose of endowing a professorship at Cambridge in connexion with the experimental study of heredity and of development by descent. He states that towards the end of last year a meeting was held in Mr. Balfour's house in Carlton Gardens of a few representative members of the University of Cambridge interested in the subject. At this meeting a short paper written by Mr. Balfour in July, 1910, dealing with the endowment of the study of genetics in the University of Cambridge, was considered. It is stipulated that the new chair shall be called the Balfour Professorship of Genetics and that the first appointment shall be made jointly by the Prime Minister and Mr. Balfour. It is also stipulated that the regulations governing future appointments to the chair and the functions of its incumbent shall be submitted through Lord Esher to the anonymous benefactor before the endowment fund is placed in the hands of the University. The benefactor is also willing to furnish such funds as may be necessary to provide and equip a small station at Cambridge for the use of the professor, should such a course be considered desirable after careful examination of the methods likely to be most satisfactory for the purposes of research in the domain of genetics. In 1908 the

[1] BRITISH MEDICAL JOURNAL SUPPLEMENT, December 24th, 1910, p. 365.
[2] BRITISH MEDICAL JOURNAL, 1911, vol. ii, p. 1672.
[3] BRITISH MEDICAL JOURNAL, 1911, vol. ii, p. 1709.

teaching of genetics at Cambridge was entrusted to the professor of biology, Mr. William Bateson, now director of the John Innes Horticultural Institution. In 1910 Mr. Bateson was succeeded by Mr. R. C. Punnett. The stipend of the holder of the chair of biology was largely provided by the munificence of an anonymous donor, and it is understood that this benefaction would have been exhausted within the next year or two. The munificent offer now made will establish the teaching of genetics at Cambridge on a permanent basis.

THE MEDICAL SOCIETY OF LONDON.

The 139th anniversary dinner of the Medical Society of London took place on March 6th and was attended by the presidents of nearly all kindred societies in the metropolis as well as by those of the Royal College of Physicians and the Royal College of Surgeons. In proposing the toast to "The Medical Society of London," Dr. Mitchell Bruce, who was in the chair, said that in view of the exhaustive historical orations which had been delivered on previous like occasions it was hopeless for him to attempt to be original. As a personal experience, however, he could record the fact that previous to his election to the position of President of the Society he had been somewhat of an outsider in its affairs, and that since he had had occasion to attend all debates he had been continually impressed by the keenness shown thereat and the evidence of a real desire to advance both medicine and surgery. If that spirit were maintained in the years to come, success was assured. The average attendance at meetings was forty, and the society's financial position was happy. Its loss in eminent men had recently, however, been very heavy, for it included Dr. Pavy, Dr. Hughlings Jackson, Sir William Allchin, and the immortal Lister, who was elected a Fellow in 1878, Orator in 1892, and later on an Honorary Fellow, and so remained until his death. Mr. Bland-Sutton, with whose name the toast was coupled, described the society as floating buoyantly on the sea of success. It was a fact on which he could congratulate its Fellows, since they were strong on maintaining its autonomy, instead of following the example of other like bodies and allowing it to be decoyed into the harem of the Royal Society of Medicine. The toast to "The Guests and Kindred Societies" was coupled by its proposer, Dr. T. B. Hyslop, with the names of Mr. R. J. Godlee, President of the Royal College of Surgeons, and that of Lieutenant-Colonel Sir W. B. Leishman, R.A.M.C., President of the Society of Tropical Medicine and Hygiene. In the course of his reply, Mr. Godlee, in referring to the death of his distinguished uncle Lord Lister, stated that the latter had expressed a desire that the books in his possession should be given to the Medical Society of London after a choice from among them had been made by certain relatives. Among the books were a considerable number of seventeenth and eighteenth century publications, so that the gift would form a useful addition to the Society's library. The two final toasts were to "The President," which was submitted by Sir Lauder Brunton, F.R.S., and to "The Honorary Secretaries," Dr. Carr and Mr. Corner, to whose work, as well as that of the Registrar, Mr. Bethell, a very warm tribute was paid by the President.

SHETLAND PATRONYMICS.

The origin of British names, always a question of considerable interest, often affords a striking proof of the mixture of races from which the modern Briton has sprung. This constant intermingling of alien blood is very strongly marked in Scotland, where Celt and Saxon, Norseman and Pict has each in turn left his trace on the nomenclature of the Scottish people. An interesting example of the evolution of a British surname is furnished by the family tree of Dr. R. Cunyngham Brown, the new Deputy Commissioner in Lunacy for Scotland. Dr. Cunyngham Brown, who is a son of the late Rev. Robert Brown, a native of Paisley, and nephew of the well-known Rev. Joseph Brown, D.D., of Glasgow, is descended, on the mother's side, from one of those ancient Shetland families so charmingly portrayed by Scott in *The Pirate*, who appear to have been the very last in the British Isles to conform to modern ways and adopt a fixed patronymic. In "this ultimate dim Thule" old customs die hard; and the habit of using the baptismal name of the father as the surname of the children survived almost to our own times and is apt to prove a fruitful source of confusion to historians. Thus, we find that Dr. Cunyngham Brown's maternal ancestors, the Hoseasons of Aywick, were descended from a certain Sjovald of Aywick, who was succeeded by his son Laurence Sjovaldson, who in his turn gave place to a son called John Laurenson, Fowde (or Lawgiver) of the island of Yell, under Earl Patrick Stewart, at the beginning of the seventeenth century. In the next generation the family name becomes Johnson, and some years later is transformed into Andrewson by Hosea (pronounced Osie, a corruption of Oswald) Andrewson of Aywick, whose great-grandson, James Hoseason, was the grandfather of Dr. Cunyngham Brown. It will be seen, therefore, that for nearly 300 years the property of Aywick was in the somewhat unusual position of being held by the same family, of whom no more than three members bore the same surname.

POSTAL DELAYS.

A notification has been received from the Post Office to the effect that owing to the suspension of trains due to the coal strike there may be unavoidable delay in the delivery of newspapers and periodicals and of all classes of correspondence. Every effort will be made to dispatch this and subsequent issues of the Journal during the strike at an early hour, but members will be good enough to take note of the official Post Office notification.

Dr. T. Arthur Helme has resigned the office of Honorary Treasurer of the National Medical Union.

We regret to have to record the death, after a short illness, of Sir Richard Brayn, Home Office expert in lunacy, and formerly medical superintendent of Broadmoor Asylum. We hope to publish some account of his career in an early issue.

The relatives of the late Lord Lister wish to offer their sincere thanks for the many letters and messages of sympathy which they have received from public bodies and from private individuals in this country and abroad, and to express their appreciation of the honour which has thus been rendered to his memory. They make this acknowledgement fearing that some of the messages may inadvertently remain without particular answers.

The Princess Henry of Battenberg has consented to become a vice-patron of the Chelsea Hospital for Women.

At the quarterly meeting of the governors of the London Hospital on March 6th it was announced that, as it was impossible to foresee what would be the precise effect of the Insurance Act upon the finances and work of the hospital, the authorities had resolved that no change in its system should be made for one year after the benefits of the Act had come into force, and that at the end of that time the question of any modification should again be reconsidered in the light of the actual experience thus acquired.

THE INSURANCE SCHEME.

STATE SICKNESS INSURANCE COMMITTEE.

Second Meeting.

(Continued from page 571.)

THE following is a continuation of a report of the meeting of the State Sickness Insurance Committee on March 7th, which could not be completed last week (pages 570–571):

WOMEN ON THE JOINT ADVISORY COMMITTEE.

A communication was received from the President of the Association of Registered Medical Women, Dr. Constance Long, stating that that association had been invited by the Joint Committee of Insurance Commissioners to send in the name of three or more medical women for appointment upon the Joint Advisory Committee, and that the Association of Registered Medical Women had nominated Dr. Constance Long (London), Miss Mary H. F. Ivens, M.S. (Liverpool), and Dr. A. Mercer Watson (Aberdeen). The association had further decided that the names should not be forwarded to the Joint Commissioners until they had been reported to the State Sickness Insurance Committee of the British Medical Association. Dr. Constance Long stated that the nominations had been made on the clear understanding that the members nominated had, in the terms of the resolution of the Representative Meeting, pledged themselves to vacate their seats on the Advisory Committee should the British Medical Association determine to cease negotiations with reference to the National Insurance Act. After hearing this statement the Committee approved the nominations.

REMUNERATION.

A subcommittee on remuneration was appointed consisting of Dr. J. Adams (Glasgow), Dr. R. M. Beaton (London), Dr. S. Hodgson (Salford), Dr. James Pearse (Trowbridge), Dr. D. F. Todd (Sunderland), with the chairman, Mr. T. Jenner Verrall.

This subcommittee was instructed to report generally upon the subject of remuneration, and in particular on the data received at the central office from many medical men in response to the appeal for such information. This subcommittee was also instructed to report on various motions by Divisions on the subject, referred by the Representative Meeting.

CO-OPTION.

It was resolved not at present to exercise further the power of co-option possessed by the Committee. The Committee has power to co-opt two other members, and it was considered that circumstances might arise in the future, not at present possible to foresee, which would render it desirable to co-opt members possessing special information on various subjects.

ADMINISTRATION OF MEDICAL BENEFIT.

The following resolution of the Special Representative Meeting (February) was read:

> That this meeting urge the Council to take every step to secure that medical benefit shall not be under friendly society or Insurance Committee control, but be administered for insured persons by the Insurance Commissioners.

A member of the committee urged that the Association should approach the Insurance Commissioners directly, and independently of the Joint Advisory Committee. After discussion it was resolved to postpone the further consideration of this minute and of the suggestion.

ORGANIZATION OF THE PROFESSION.

The Committee proceeded to consider the following minute of the Representative Meeting:

> That the Council be instructed to take steps to organize the profession so as to secure that, failing the provisions of adequate remuneration of medical practitioners and the fixing of a definite wage limit under the National Insurance Act, no medical practitioner shall give medical or surgical treatment to persons insured under the Act under a contract practice appointment held at lower rates than those which may be agreed upon as adequate by the Representative Body after reference to the Divisions for attendance upon insured persons, and that no contract practice be introduced into any district against the wishes of the majority of the members in that district. Further, after obtaining the adequate rate, the Representative Body shall insist that before any member of the profession can agree to accept work under a contract appointment, free choice of doctor by patient and of patient by doctor must be granted.

Reports on the general subject of the plan of campaign for the future, on the steps taken in the metropolitan area with regard to the lines on which provisional medical committees might best be formed, and on the relation of the areas of the Branches and Divisions of the British Medical Association to insurance areas were read. A discussion took place, during which it was made evident that the adjustment of the Association areas to insurance areas would involve a good many practical administrative details, and the Acting Medical Secretary was directed to bring up a report at the next meeting of the Committee based on the principle that provisional committees, including non-members, shall be formed in each Division, in co-operation where deemed desirable with the Branch Council, without reference to the areas to be covered by statutory medical committees, except in so far as these provisional committees may be asked to advise as to the formation of statutory committees.

INSTITUTIONAL TREATMENT.

A preliminary report by the Hospitals Subcommittee on the minute of the Representative Meeting referring to the Council for consideration the subject of institutional treatment, together with motions of which Divisions had given notice, was read, and it was resolved to discuss the matter further at an early meeting when the report of the Hospitals Subcommittee had been considered by the Hospitals Committee.

PUBLIC MEDICAL SERVICE.

The following resolution of the Representative Meeting was read:

> That the Council be instructed to direct the attention of Divisions to the desirability of preparing a scheme for a Public Medical Service to be administered by the medical profession in each insurance area.

After a brief discussion of this subject the Committee resolved to continue its consideration along with the report on the medical organization of the profession, to be presented to the next meeting of the Committee.

The meeting adjourned at 6 p.m.

Third Meeting.

The third meeting of the State Sickness Insurance Committee was held on Thursday, March 14th, at 10.30 a.m.

We are compelled to defer the publication of the report of the further proceedings of the Committee on that day until our next issue.

THE ASSOCIATION AND ITS MEMBERSHIP.

A RUMOUR is floating about, and as we gather is being sedulously propagated in certain quarters, that the membership of the British Medical Association is dwindling. It is not difficult to conjecture how this rumour has arisen; it may be taken as an illustration of the words of the poet that the wish is father to the thought. Sir Clifford Allbutt, at a meeting of the British Medical Benevolent Fund held at the Mansion House, on March 13th, pointed out that the Insurance Act would make such a serious difference to doctors that in a few years practices would be unsaleable. Doubtless there are what Carlyle called "official persons" who would like to persuade themselves and the public that the Association, which has striven so vigorously to safeguard the interests of the profession threatened by that well-meant but badly-digested measure, is becoming weaker in numbers. It may therefore be of interest to the Government as well as to the profession to make known the true state of things, as shown by hard figures, of the accuracy of which there can be no question. At the end of 1910 the wastage from deaths, resignations, and other causes, was 661; at the end of 1911 the corresponding figures were 716, showing an increase of only 55 on an increased membership of about 4,000 on the year. Turning to the figures for the present year, the increased membership up to the present time is 1,019, as compared with 610 in the corresponding period of 1911. These facts speak for themselves. The Association has never been in so flourishing a state as it is at the present time.

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

Insurance Act.

Sanatoriums for Scotland.

THE MARQUESS OF TULLIBARDINE asked the Secretary for Scotland whether the Local Government Board proposed issuing an Order in terms of Section 64 of the National Insurance Act before the Committee appointed to report upon the general policy in respect of the problem of tuberculosis had made their report. Mr. Masterman answered that in accordance with Section 64 (1) of the National Insurance Act the proportion of the total sum available in accordance with that section for providing or maintaining grants to sanatoriums and other institutions which was allocated to England, Scotland, Ireland, and Wales respectively would depend upon their populations as shown in the census of 1911. The allocation of the sum so available for Scotland would rest primarily with the Scottish Local Government Board, and he understood was now under its consideration. The Marquess of Tullibardine asked the Secretary to the Treasury what proportion of the £1,500,000 available for the purpose of providing sanatoriums would be available for Scotland; and whether it would be allocated among counties and burghs on the basis of population, or whether it would be pooled. Mr. Masterman replied that, in accordance with Section 64 (1) of the National Insurance Act the proportion of the total sum available in accordance with that section for providing or maintaining grants to sanatoriums and other institutions which was allocated to England, Scotland, Ireland, and Wales respectively would depend upon their populations as shown in the census of 1911. The allocation of the sum so available for Scotland would rest primarily with the Scottish Local Government Board, and he understood was now under their consideration.

Maternity Benefit.

Mr. Rowntree asked whether under Section 8 (6) of the National Insurance Act an insured woman was entitled to sickness benefit in respect of her confinement for four weeks, even if she was not incapable of work during the whole of that period. Mr. Masterman replied that an insured woman would receive maternity benefit of 30s. on confinement. An insured married woman would receive sickness benefit for so long as she was incapable of work. The Factory and Workshop Act, 1901, prohibited the employment in a factory or workshop of any woman within four weeks after childbirth; but if the woman was certified to be incapable of work for a longer period she would continue to receive sickness benefit.

National Health Commissioners.

In reply to Mr. Amery, the Secretary to the Treasury said that a circular was issued some weeks ago through the Income Tax Department inviting members of the outdoor staff of that department to apply for appointments under the National Health Insurance Commissioners, and a number of the outdoor staff did in consequence apply for such appointments. Twenty of the applicants were recommended to the Insurance Commissioners, who had these applications with others under consideration, but had not as yet made any appointments therefrom. Two of the persons appointed to the higher staffs of the Commissions were surveyors of taxes who had previously been at work upon the bill in the Treasury.

Operation of Act.

Mr. Fred Hall asked the Secretary to the Treasury whether he was now in a position to state the date on which it was proposed that the National Insurance Act should come into force; whether such date would relate to the whole of the United Kingdom; and, if not, whether the working of the measure would be suspended in those districts which had shown themselves to be not yet ready for its provisions. Mr. Masterman replied that he knew of no reason why the health insurance part of the National Insurance Act should not come into operation on the date given in Section 115 of the Act—namely, July 15th, 1912.—It was not intended that the date should vary in different parts of the United Kingdom. The Board of Trade as at present advised proposed to bring the unemployed insurance part of the Act into force on July 15th next for the United Kingdom as a whole.

Insurance Commission Appointments.

Mr. Harry Lawson asked whether any appointments from outside the Civil Service had been made to any particular posts under the Insurance Commission that had not been notified to the newspaper Press, in accordance with the terms of the circular issued by Sir Robert Morant, dated December 14th, 1911. Mr. Masterman said that the appointments made by the Commission with previous occupations were shown on page 8 of the White Paper, Cd. 6095. Certain legal and actuarial appointments in England and Ireland; the private secretaries of the Chairmen; in England one and in Wales three emergency appointments were made from outside the Civil Service under conditions which he had already explained in the debate of February 29th. All the remainder have been made from the Civil Service (in one case an ex-Civil servant). The Commissions were now considering the best method of dealing with any further appointments that might be required outside the Civil Service. Asked why these appointments were not notified, he said, so far as the appointments connected with Sir Robert Morant were concerned, two gentlemen were at work in the Insurance Commission before the statement was made. They were emergency appointments.

Sanatorium Benefit.

Mr. Lynch asked the President of the Local Government Board whether his attention had been directed to the correspondence between the Chairman of the Committee on Tuberculosis and Professor Karl Pearson, who wrote that it would be waste of time to prepare and submit a memorandum; whether he had considered the complaint of Professor Karl Pearson that the Committee was not sufficiently representative on the side of pathology, of clinical knowledge, and of the science of statistics; and whether, in view of the importance of the questions that would be considered—as, for instance, the allotment of sums of money to sanatoriums and to research work respectively—and of the necessity of obtaining the advice of the highest scientific authorities on tuberculosis, he would entertain the suggestion of increasing the strength of the Committee in the directions indicated. Mr. Masterman said that the answer to the first two paragraphs was in the affirmative. The composition and size of the Committee on Tuberculosis and Sanatorium Benefit were determined by the necessity of securing upon it representatives of each of the various Government departments involved, together with gentlemen practically concerned with various types of sanatoriums. The special subjects referred to in the question would be dealt with by obtaining assistance from expert witnesses. The Chairman of the Committee had already taken the requisite steps for this purpose, which included among them the request made to the distinguished scientist already referred to.

Poor Law Administration.

On Monday last, when the vote on account for some thirty millions for the Civil Service was before the House of Commons, Mr. Jowett started an important debate on the work of the Local Government Board.

Mr. Jowett described the President, Mr. John Burns, as a cheery and optimistic person, a very Mark Tapley in the political world. He did not share the satisfaction felt by the right honourable gentleman, who told them that the number of persons in receipt of Poor Law relief was continually diminishing. This diminution was due to causes for which they could hardly give him credit. He had held his present position during a time of unparalleled prosperity. Another cause of the recent diminution was the giving of old age pensions, but the President of the Local Government Board had no right to remain satisfied because old age pensions had removed from the list a number of people in receipt of outdoor relief. A further influence, to which he took the most serious objection, was the discouragement by all kinds of methods,

direct and indirect, of the granting of outdoor relief. This policy, generally known as "the Whitechapel system," put before the poor the alternative of the workhouse or no relief at all. The result of this system was indicated in the return which was made to the House of the number of deaths from starvation, which showed that in 1910 there were 119 such deaths, and that 11 of them took place within the boundaries of the union which had given its name to the system. It was the desire of the Local Government Board to extend this system, and the President was proposing to issue a new Order which would have this effect throughout the country. If this Order became operative, the result, as he understood it, would be that no Poor Law authority would be enabled to take advantage of the modified conditions under which outdoor relief could now be granted unless the Local Government Board approved. That was a centralization proposal to which many objected. The effect of the tightening up of the conditions under which outdoor relief was granted had been not only to increase the cost of Poor Law relief, but also to increase the amount of unrelieved destitution in the country. After quoting statistics and cases illustrating the views he held, he concluded with a very earnest appeal against any general adoption of the Whitechapel system.

Mr. Lansbury followed with a general criticism of the work of the Board, and especially complained of the waste of money in dealing with children, who were still underfed, underclothed, and badly housed. As regards Hollesley Bay Colony, he defended the system of labour colonies. He wished to see a uniform system of Poor Law contracts adopted in London, and in order to get a common method of certifying lunatics, and suggested that the salary of the medical officer should include the certifying of lunatics.

Mr. Hills, who followed, said that the present Poor Law administration had not a single friend in the House except the President of the Local Government Board.

Mr. Crookes spoke against the strict enforcement of the destitution test, and advocated very strongly the freer use of outdoor relief, in order to save the home and prevent the breadwinners sinking to the lowest depths.

After useful speeches by Lord H. Cavendish-Bentinck, Lord A. Thynne, Sir J. Spear, and Mr. Richardson, Mr. Long, as an ex-President of the Board, expressed his profound regret that this might be the only opportunity this session of discussing the Poor Law problem, which was of such vast importance to the mass of the people. He called upon the Labour party to act with more vigour and more independence. He warned the House of the danger of too liberal outdoor relief, but he thought it should be used so as to prevent the manufacture of paupers. He was not sure that the transference of the children from the Poor Law to the education authority was the wisest course, but he was in favour of experiments being made by Unemployment Committees, and he was sorry that Mr. Burns seemed to take an opposite view. The treatment of the feeble-minded and vagrants urgently demanded attention.

Mr. Burns, in his reply, said he was disappointed with Mr. Long's criticism, and deplored the absence of opportunity for discussion on Poor Law problems, but that was not the fault of either Mr. Long or himself. It had been suggested that there had been an attempt on the part of the Local Government Board to restrict the number of recipients and the amount of relief given. His reply was that the contrary was the case. By order, by circular, by inspection, and by advice, he had urged adequacy of relief. There was no evidence that any bodies other than the guardians wished to undertake the duty of administering poor relief, and, as no one had asked for the creation of new bodies, he, as a practical, simple, energetic man, had been bound to utilize the existing means. One speaker that day said: "The President of the Local Government Board, by a wise system of co-operation, had done a great deal." That was true. Some members might think that immodest of him, but modesty was only for those that had no beauty. An enormous amount of poor relief had been done in the past, and more was being attempted. To the right hon. gentleman who had said "We must be careful not to manufacture paupers," he would point out that many attempts to grapple with the problem had been made in the last century. Between 1800 and 1840 generous outdoor relief was tried, and it was found that, instead of diminishing pauperism, it invariably increased it, acting as a bonus in favour of low rates of wages, and ending in universal demoralization, and in some parishes producing actual bankruptcy. The second attempt was the institution of indoor relief, which was not agreeable to many and was not sufficiently discriminating in the treatment of cases. A third attempt was made in later years by starting relief works. These, it was admitted, not only did no good, but stereotyped the casual conditions of employment which they were supposed to remedy. The most recent attempt had taken the form of the establishment of labour colonies. He had visited every labour colony in the world except one in Switzerland. Labour colonies were not economical: they were not deterrent, for experience showed that from 90 to 95 per cent. of the persons who had been in them returned in a worse condition than they were before; and morally, mentally, and industrially men were worse by reason of their stay in one of those colonies. That was the experience which he had gathered in America, Germany, France, and elsewhere. In regard to the care of the feeble-minded, pending legislation on the initiative of the Home Office, he had done his best to get local authorities to act in combination in the matter. To deal with vagrancy was a task only partially within the jurisdiction of the Local Government Board: but in regard to that portion he had taken London as the most fruitful area for experiment, for London was the rendezvous at some time during the year of 75 per cent. of all the habitual vagrants in the country. Much to the regret of some timid reformers, twenty-eight casual wards to which vagrants resorted had been taken from the administration of boards of guardians and handed over to the Metropolitan Asylums Board, so that a register of vagrants might be kept, and means might be devised to reinstate the better men among them in the industrial sphere, and preventive measures might be adopted in regard to others. There were now about 100 children over 3 years of age in London workhouses, all the others having been removed to more suitable homes and institutions. In England and Wales thirty-seven boards of guardians intended to do what had been so successfully done in London, and the Poor Law Children's Association had no criticism to make of the means by which the Local Government Board was rapidly accelerating the removal of all children over 3 years of age from the workhouse. The guardians had it within their power to increase the amount allowed for boarding-out children, and he admitted that 2s. 6d. a week for the foster-mother for the maintenance of a child was insufficient. But it was not money alone that governed the boarding-out of children in cottage homes. They were generally well treated: they were not overworked; and, in the opinion of the larger number of lady inspectors, there were very few instances of cruelty or brutality. Where a man and a wife had no children, the money, although, perhaps, it might not be sufficient, was not a consideration at all: it was the human element, the elevating effect of the child, which was worth more than the 2s., 3s., or 4s. a week paid for it, and he was delighted to say that an increasing number of people, rich and poor alike, were adopting Poor Law children. If he had his way he would make it compulsory for a woman who kept more than two cats and one dog to adopt a Poor Law child, to which she could divert some of the affection, a great deal of the cash, and nearly all the wasted sentiment that many people expended on animals to an extent that was absurd. Like the hon. member for Poplar, he was a member of a very large family, and if his mother had received 2s. 6d. a week for the first child and 1s. for each succeeding one she would have been better off than the average agricultural labourer who had to maintain his wife and family and pay his rent. The statement that 2s. 6d. was insufficient must be qualified by the facts he had mentioned, and unless some limit was put on outdoor relief there was a possibility that it might be considerably in excess of the average wages of the agricultural labourer in the district in which children were boarded out, so that the effect would be to diminish the spirit of independence and to do more harm than good. The number of children over 3 years in workhouses at present was something like 8,000, or 12 per cent. less than last year, and 25 per cent. less than three years ago. If the country guardians would do what London

had done there was no reason why in three years' time the same result should not be achieved. The average Poor Law boy in Poplar Poor Law school cost 19s. a week, or 3s. 6d. a week more for maintenance than the average wage of the agricultural labourer with a wife and five children. The cricket fields, the tennis courts, the opportunities for games, the baths, the comforts of the Poor Law child were infinitely better than at many of the best public schools. What was the effect of this system of education on the boys? Out of 12,000 boys and girls turned out from the Metropolitan Poor Law schools in ten years, only 48 were returned to the guardians for inability to earn their living or for bad behaviour. In 1851, only ten years before the hon. member for Woolwich was badly treated by the board of guardians, it cost £5 6s. 5d. to maintain a pauper per annum; it now cost £17 0s. 11d. To say that the new Poor Law Order was an attempt to apply the Whitechapel system of in and out relief to all the unions was an absurd travesty of the facts. In the last six or seven years the out-relief per recipient had increased from £4 9s. to £9 15s. But unless the power given to guardians by the new Order prevailed there would be an opportunity for guardians in some cases to do as they liked. It would not be the Whitechapel system that prevailed, but the opposite. With a more rigorous system of administration, Poplar was spending less on relief than last year, £45,000 less than five years ago, and £61,000 less than six years ago, and Poplar in that period had reduced its paupers from 11,657 to 7,000. Old-age pauperism, 70 years or upwards, had been diminished by the following percentages: In three years it had gone down 21 per cent. indoor, 95 per cent. outdoor; and 75 per cent. of the total decline in three years was due to pensions mitigating pauperism, diminishing the number of actual people in receipt of outdoor relief, and, better still, laying hold of the increment of potential paupers, taking them from the workhouse, and making them honourable, independent recipients of State bounty without any association with the Poor Law. In pensions, sanitary grants, road boards, Development Commission grants, feeding of children, and medical inspection the Government was to-day spending 15 millions more money in dealing with pauperism and cognate problems than three years ago. He had listened to all the criticisms of hon. members, and where they could be reasonably adopted without pauperizing the people and over-burdening the ratepayer he would do his best to adopt the suggestions. Where they could get in an inclusive salary the Poor Law officer to certify lunacy he believed it should be done, and he was engaged in doing this wherever it could be arranged. In respect to the relief to children, it was true that there had been overlapping, but he believed that it would soon cease. No suggestion had come from the County Council as to overlapping, or as to how the waste of money should be stopped. The children got more food and more meals now than they might get under the suggestion of the London County Council, with its cheese-paring habits and economical policy in the matter of trams and other things. He admitted, however, that the overlapping ought to be stopped and the waste of money prevented, with a due regard to making the parents help their children. There should be fewer authorities to deal with the matter than was the case now, and he was working in that direction. He had given the facts and figures in regard to Hollesley Bay, and he had shown how the money had been voted and spent. In his judgement, however, the money spent on Hollesley Bay and other labour colonies did not warrant voting much more public money for the support of these labour colonies. They had been provided with ample money and with cottages where necessary, and had enjoyed many privileges and concessions. The result was that at the end of five or six years £160,000 had been spent on Hollesley Bay; 7,000 men had passed through the colony, and, apart from those emigrating, only nineteen had secured employment on the land. The time had arrived when even those who supported Hollesley Bay would admit that the colony must be put to a purpose which would be quite as good and in some respects more useful.

The debate was interrupted at this point to allow private business to come on, and afterwards Mr. Ormsby Gore and Mr. C. Bathurst spoke, and the vote was passed without a division.

Vivisection.—Mr. Snowden asked whether the Dr. Klein, who conducted experiments in regard to rat plague in Suffolk in October, 1910, was the same Dr. Klein who gave evidence before the Royal Commission on Vivisection on October 28th, 1875, and stated that he had no regard at all for the sufferings of the animals on which he experimented; whether he was the Dr. Klein who experimented upon thousands of animals, such as pigs, rabbits, horses, guinea-pigs, rats, cats, monkeys, calves, cows, and mice, and had described his experiments in various reports to the Local Government Board; whether he was still employed by the Board; and, if not, when his engagement terminated. Mr. Burns said the reply to the first and second inquiry was in the affirmative. He might observe, however, that Dr. Klein stated in 1875 that the evidence, as printed, did not express his real intentions. He might also point out that any experiments carried out for the Local Government Board had been subject to the condition that no experiments on living animals were to be conducted at the cost of the State without the employment of anaesthetics in the case of painful operations, nor without a report from time to time explaining the object of any such experiments and showing the necessity for the purposes of discovery. The only connexion which Dr. Klein now had with his Department was that he acted as an occasional consultant in regard to the examination of doubtful specimens of suspected plague material.

Appropriately enough, on the evening of the day on which the report of the Royal Commission was published, a short debate on vivisection arose in the House of Commons. It happened that the votes were agreed to rather early, and Mr. Wheler's motion on the cost of living was ruled out of order, and just before 8.30 Sir F. Banbury was able to move "That in the opinion of this House no operation for the purpose of vivisection should be performed on dogs." The hon. baronet said he was not opposed to vivisection on other animals, but his contention was that the dog, as peculiarly the friend of man above all other animals, should be immune from the torture of experiments. He quoted from the report of the Royal Commission to show that there was not a consensus of opinion among eminent surgeons and physicians that it was either right or necessary to use dogs for this purpose. Colonel Lockwood seconded the motion. As a member of the Royal Commission, he said that he was one of those who objected to dogs being used for the purposes of vivisection. He laid stress on the fact that the evidence submitted to the Commission showed the wide diversity of opinion prevailing among doctors and scientific men as to the need for carrying out experiments on dogs. He maintained that the evidence of distinguished physiologists went to show that, though the House might be slightly in advance of scientific opinion if they passed the resolution of the hon. baronet, the great preponderance of opinion was in favour of exempting dogs. The House would, in his opinion, be acting well within its province if it adopted the resolution. Mr. McKenna said that a Royal Commission had been investigating this subject for six years, and its report had appeared for the first time that morning. He had only had an opportunity of perusing that report very cursorily, and he told the House at once that the motion placed him in great difficulty, for he was asked to agree to an expression of opinion which would lead to a reversal of the policy of his predecessors for a great many years past. If he could be convinced upon the evidence, considered in the light of such advice as he could obtain from the experts at the Home Office, he did not know that he should hesitate to support a bill having for its object the carrying out of the hon. baronet's policy. To accept or reject the motion would be to prejudge the report of the Royal Commission. He hoped the hon. baronet would not press his motion, but, if he did, he could neither vote for nor against it. Whatever decision the House came to, it should be understood that the motion only dealt with the limited question whether dogs should or should not be excluded from vivisection. Mr. Guinness said the evidence was overwhelmingly in favour of dogs being allowed to be the subjects of vivisection subject to the present restrictions. Whilst the hon. member was speaking attention was called to the fact that forty members were not present, and, as a quorum was not made within the required time, the House stood adjourned at 20 minutes past 9 o'clock.

University of London.—Sir Philip Magnus asked whether the Government had made itself responsible for the housing of the University of London throughout its history: whether in the Treasury Minute, dated February 16th, 1899, the liability to provide a dignified and suitable home for the university, and also to make such provision as might thereafter be needed for the full extension and development of the university under the Statutes and Regulations made by the Commissioners appointed by the Act of 1898, was acknowledged; and what steps His Majesty's Government proposed to take in the matter, in view of the present unsatisfactory accommodation for the university as disclosed in the Report of the Royal Commission on University Education in London issued on December 15th, 1911. The Prime Minister said that the Government had, as a matter of fact, provided accommodation for the London University throughout its history. The Treasury Minute cited was written before the removal of the old university to South Kensington, and referred to the possibility of an arrangement, which was actually carried out, between the authorities of the Imperial Institute and the Treasury. It must not be construed as admitting liability on the part of His Majesty's Government to provide for all possible requirements of the university in the future. The recent report of the Royal Commission pointed out that the university must depend to a large extent upon private endowments for its full development. The Government did not think that it would be opportune to take any step in connexion with the present accommodation for the university before the final report of the Royal Commission had been issued.

The Prime Minister, in answer to a further question, said that he believed that a large number of public bodies ready to contribute towards the establishment of a building for the university were only waiting to see what action the Government would take.

Sick Absences in Postal Service. In reply to Mr. Dawes the Postmaster-General said that his attention had been directed to the number of sick absences, due mainly to nervous complaints, among the female counter clerks and telegraphists during the year 1911. He was glad to say that, apart from a small proportion of the staff who required prolonged sick leave, the general health during 1911 of the female counter clerks and telegraphists employed in the East Central District was satisfactory in spite of the excessive heat experienced last summer. The amount of sick leave due to nervous ailments represented rather less than 14 per cent. of the total sick absence. The figures 52 and 50 quoted by the honorary member included, out of a staff of 195, some other officers than counter clerks and telegraphists, and were overstated by about 20 per cent. Five officers were added to the reserve staff during 1911, and the question of creating a further additional appointment was under consideration. He did not think a further inquiry was necessary.

Osborne College.—In reply to Mr. Hunt, Mr. George Lambert said that there were thirty-two cases of boys under medical treatment at Osborne College on March 3rd, 1912. Of these, one was a case of enteric fever, now convalescing; three cases of pneumonia: one of chicken-pox. There were twenty-seven minor diseases and injuries. There were no cases of diphtheria or bronchitis.

Outdoor Medical Relief Treatment.—Lord Henry Cavendish-Bentinck asked the President of the Local Government Board whether, in cases where treatment of children was prescribed by school medical officers and the parent was unable, by reason of circumstances, to pay the cost of such treatment, the board of guardians was bound to provide such treatment for the child if it was not undertaken by the education authority; and whether he would, by circular or otherwise, call the attention of boards of guardians to their duties in this respect: and whether the cost, if defrayed, would be medical relief which did not disfranchise the parent. Mr. Burns replied that it was the duty of boards of guardians to relieve destitution, and, as pointed out in the circular to guardians on the administration of outdoor relief, a person may properly be regarded as destitute who was unable to provide for himself the particular form of medical attendance or treatment of which he was in urgent need. The principle would appear to him to apply to the case of children who needed medical treatment which the parent was unable to provide. He realized that the relative position of the boards of guardians and the local education authorities in this matter was one of some difficulty, and he had already had the matter under consideration. He might add that medical relief of the kind referred to afforded by boards of guardians would not involve disfranchisement of the parent. In answer to Sir A. Markham, who asked what steps were being taken in view of the breakdown of the Poor Law, Mr. Burns said that he had satisfied himself that the authorities concerned were taking proper and necessary steps to meet the improbable contingency referred to. He denied that there had been any breakdown or hungry children. He was keeping his head. Some of the newspapers were not.

Education (Administrative Provisions) Bill.—A bill to amend the provisions of the Education (Provision of Meals) Act, 1906, was presented on February 19th by Mr. Wardle; it is supported by Mr. Ramsay Macdonald, Mr. Barnes, Mr. Clynes, Mr. Charles Duncan, Mr. Keir Hardie, Mr. Arthur Henderson, Mr. Jowett, Mr. Crooks, Mr. Tyson Wilson, Mr. George Roberts, and Mr. Parker.

Factory and Workshop Act.—Mr. Ramsay Macdonald asked for the number of fatal accidents in places under the Factory and Workshop Act during each of the years 1909, 1910, and 1911, and the number of non-fatal accidents for the same period. Mr. McKenna: The number of accidents reported to the Factory Department in each of the three years was as follows:

	Fatal.	Non-Fatal.
1909	916	116,554
1910	1,060	128,470
1911	1,182	148,735

The number of factories and workshops on the register which were unvisited in each of the three years respectively was as follows:

	Factories.	Workshops, Including Men's Workshops.
1909	22,882	44,267
1910	22,940	32,729
1911	22,094	35,856

He should add that heavy demands were made on the staff in each of the three years, and especially in 1911, in connexion with inquiries by Departmental Committees and other special inquiries, which considerably diminished the time available for inspection. The number of factories and workshops on the register in 1911 showed an increase of about 4,000 on the figure for 1909.

Animal Diseases. In answer to questions put by Captain Murray, Mr. Stainer, and others, the President of the Board of Agriculture said that he did not think that the occasion had arisen for the appointment of a Departmental Committee on Anthrax. Careful and continuous investigations were being carried on by the Veterinary Staff of the Board, and he thought that for the present they might be content to await the issue of their investigations and the results of the operation of the Anthrax Order of 1910, which had been in force for little more than twelve months. With regard to carrying hides separately that come from a country where foot and mouth disease exists, a Departmental Committee was at present considering whether any further measures could be adopted to prevent the recurrence of outbreaks of foot and mouth disease. He thought it would be desirable to postpone any legislation that might be necessary in this connexion until the Committee had reported. With regard to experiments on animals affected with tumours no such experiments were at present contemplated by the Board. He understood, however, that experiments with malignant tumours in animals were carried out by means of the Cancer Research Fund. The Board had not issued any information on this subject.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

LONDON.

London School of Tropical Medicine.

A meeting in support of the London School of Tropical Medicine was held at the Mansion House on February 28th. The Lord Mayor occupied the chair, and among those present were Lord Sheffield, Sir George H. Reid (High Commissioner of the Australian Commonwealth), Admiral Sir John Durnford, Sir Patrick Manson, Sir Dyce Duckworth, Sir William Church, Professor T. Anderson Stuart, and Dr. F. M. Sandwith.

Mr. Lewis Harcourt, Secretary of State for the Colonies, said that no one was better equipped than he was, by personal and official knowledge, to assure those present how worthy of support was the London School of Tropical Medicine. It was his painful duty to receive day by day telegrams from all our tropical possessions telling of sickness, danger, and death amongst the gallant band of men who throughout the empire were laying the sure foundations of the *Pax Britannica* by their admirable administration of law, equity, justice, religion, medicine, civil rights, and good fellowship. They were exposed not only to the familiar diseases of temperate climes, but to the pestilences of torrid zones, known too well by their results, but known too little in the domain of prophylaxis and of cure. Malaria, blackwater fever, yellow fever, plague, cholera, leprosy, sleeping sickness, were all at hand, and hungry to claim their toll. The most and the best that could be done for the victims was to give them specialized treatment when they could be got home, or to provide opportunities for specialized research, which might hasten the discovery or perfection of curative methods. The London school was founded thirteen years ago, under the auspices of one of his most distinguished predecessors, Mr. Chamberlain, and it was no exaggeration to say that there was no subject of his administration in which he was more devotedly interested than that of tropical medicine. A few days ago he wrote to Mr. Chamberlain, telling him of this meeting, and he had received the following reply: "I am glad to hear you are supporting the London School of Tropical Medicine. Much has been done in recent years in this respect, and much more remains to be done. In no direction has the advance of science been more noticeable than in the endeavours to make our tropical countries more healthy. I do not think that anything given to this object will be thrown away, and all who take an interest in our Colonies must see that these diseases, which are special to tropical climates, are the great obstacle at present to their development. I hope that your appeal will meet with a generous response, for the success of our tropical Colonies depends largely upon the research which is being carried on, and which has every prospect of great results in the future, if adequate means are forthcoming." It was right to say, Mr. Harcourt continued, that the inception of the scheme was due to the genius and foresight of Sir Patrick Manson. But its success had also been greatly due to the indefatigable labours of the Chairman of the Board of the Seamen's Hospital Society, Mr. Perceval A. Nairne. Mr. Harcourt proceeded to give some account of the work of the school. During the twelve years of its existence it had trained, he said, 1,300 students. Nearly 500 of these had passed into the service of the Dominions and Crown Colonies, and many men in the Colonial Service suffering from tropical diseases had profited by admission to the wards of the hospital. He believed that something like forty Colonial officials had been under treatment during the last two years. He was happy to be permitted to state that the Treasury were prepared to contribute a donation of £500 to the purposes for which they were appealing that day. The Treasury in recent years had been giving £8,000 a year, in addition to various capital donations, in aid of the different branches of the work. Nor had he made any mention of the very large sum—approximately £50,000—which had been spent during the last five years in the investigation and suppression of sleeping sickness in Uganda. As Uganda received large annual subventions from the Treasury, that expenditure had fallen in large measure on Imperial funds.

Sir Patrick Manson read a report on the progress of the school, and, on the motion of Lord Sheffield, seconded by Mr. Arthur Lamparl, the following resolution was submitted and carried unanimously:

> That the work of the London School of Tropical Medicine is worthy of support, and urgently needs extension and endowment.

It was announced that the contributions, including the grant from the Treasury, amounted to £2,293, and to this sum must be added £250 given by a gentleman present after the close of the proceedings.

London County Council Education Committee.

Open-air Schools.

The Education Committee of the London County Council reported on March 12th that it had had under consideration the policy to be pursued with regard to open-air schools, and had decided that, having now passed the experimental stage, they should be placed on a permanent basis. The first open-air school was held at Bostall Woods in 1907, and in view of the great improvement in the health of the children who attended it was decided to extend the experiment to three schools for 1908. In 1911 the schools were continued a greater number of weeks than in previous years—in one case the school was held during the whole year.

The favourable medical reports upon the open-air schools held during the year 1908 had been confirmed in successive years. It was evident that children suffering from debility, anæmia, etc., and consequently unable to benefit from the instruction in ordinary schools, could be restored to take their places in their classes. The physical and intellectual improvement shown was very remarkable, and the committee had come to the conclusion that these results were due in a large measure to the course of instruction given under open-air conditions.

In regard to the extension of open-air schools, playground classes would have a material effect in reducing the number of children who required the régime of the open-air school. The medical officer, however, stated that there was a large number of children in London elementary schools suffering from some specific condition requiring such treatment, and presumably there would always remain an appreciable number of these. At the same time, the committee pointed out that there were two great difficulties in the way of any considerable extension of the system of open-air schools: one was the extreme difficulty of obtaining sites, and the second the cost, which was very high as compared with that of ordinary schools. The average cost per head of average attendance for nine months at open-air schools was £14 7s., and at ordinary schools £1 9s. Having regard to these circumstances, while the principle of holding a limited number of open-air schools should be approved, any extension of the system should be very gradual. When the playground classes were in fuller operation, and more use was made of existing opportunities of open-air work, it would be possible to gauge the amount of special provision still necessary.

Duties and Remuneration of Medical Officers of Special Schools.

On March 13th the Education Committee had under consideration the duties and remuneration of the local medical officers appointed to the residential special and industrial schools and places of detention in the county of London. The Special Schools Subcommittee stated that at present the duties required of the medical officers varied considerably at the different institutions, and a larger degree of uniformity was desirable. The following list of duties had therefore been drawn up:

1. To attend the school at least once every week on a fixed day and hour and at such other times as may be necessary, and to enter the visits in a book kept for the purpose.
2. To examine the children on admission and make the necessary entry on the medical card.
3. To attend any cases of illness amongst the children and residential staffs, to make notes on cards kept for the purpose, particulars regarding all serious cases of illness, and the treatment prescribed.
4. To vaccinate any child when it may be found necessary.
5. To furnish monthly medical reports to the school medical officer.

6. To furnish any other reports or certificates that may be required to the school medical officer.

7. To give immediate notice to the coroner of cases of sudden or violent death or cases where the local medical officer does not feel justified in giving a death certificate of any inmates, and to report the circumstances to the school medical officer.

Consequent upon the revision of the duties of the medical officers, and also upon the fact that in the past there had been no common basis for fixing their remuneration, the subcommittee had drawn up a scale applicable to residential schools and also one suitable for places of detention, where the conditions differed to some extent.

The subcommittee recommended that in future a payment of £30 per annum be made to local medical officers attached to each of the residential special and industrial schools, to cover the performance of all duties required up to a total number of persons of 30 (including children and staff), and that for each person beyond 30 an extra payment be made at a rate of 8s. a head per annum. If the proposed scale were brought into operation at once the additional cost would only be £3 13s. per annum. Nevertheless, the subcommittee was of opinion that in cases where the present amounts paid to doctors were lower than the revised scale, those amounts should be raised to the scale as from April 1st, 1912, on account of the additional duties imposed, but that those salaries which were higher than the proposed scale should remain unaltered so long as the positions were held by the present medical practitioners. The revised scale should apply to future appointments.

The conditions at places of detention were not quite comparable on account of the large number of children passing through them, and the comparatively short period of their stay there. The subcommittee, however, was of opinion that the basis of payment, as far as possible, should be the same—namely, £30 a year for the first thirty children and staff, with an additional 8s. a head per annum for each additional unit up to the extent of the recognized accommodation. It would be necessary to make payments in respect of medical certificates required, and the subcommittee proposed that in respect of these additional services payments at the rate of £40 a year should be made for each 1,000 children passing through the institutions. Although an exact comparison could not be given, it might be assumed that the expenditure would not be more under the proposed arrangements.

In some cases the salaries at present paid to the medical officers included the supply of all necessary drugs, but in the majority of cases the cost of drugs was borne by the Council. This want of uniformity could not be considered satisfactory, and the subcommittee advised that in future the Council should defray the cost of all drugs. In the case of the more expensive drugs and those which were likely to deteriorate in quality, it was desirable that the doctor's prescription should be made up by local chemists, but there was no reason why the cheaper and more common drugs should not be kept in suitable places on the school premises. A dispensing cupboard should, therefore, be provided at each institution.

The Education Committee approved resolutions embodying these proposals.

Dental Treatment in Marylebone and Fulham.

The Children's Care Subcommittee reported that it had received an offer from the Board of Directors of the St. Marylebone General Dispensary to undertake the dental treatment of children. The dispensary was centrally situated for a number of schools, and the subcommittee recommended that arrangements be made for the dental treatment at this dispensary of children of 6, 7, and 8 years of age on three half-days a week, to be increased to four if necessary. An offer from a local committee at Fulham to provide dental treatment had also been received, and the subcommittee proposed that it be accepted, treatment to be provided on four half-days a week for children of 6, 7, and 8 years of age, and for an average of eight to ten cases a half-day to be sent to the centre by the Council. Assuming that an average of eight new cases a day was maintained, treatment would be secured for 1,400 children annually at each centre, and the maximum cost of each centre would be as follows:

	£
Salary of dentist (four half-days a week) ...	200
Salary of anæsthetist (one half-day a fortnight)	25
Capitation payment on 1,400 cases	140
Nurse on four half-days a week	40
Salary of inspecting dentist (one half-day a fortnight)	25
	430

An organizer to make appointments for the children and follow up the cases would also be necessary, and would cost £100 a year for the two centres. With the provision of apparatus, which would remain the property of the Council, the cost of the two schemes would be £1,000.

The Committe decided to accept both proposals.

Proposed Medical Treatment Centre in Poplar.

In consequence of the announcement that the London Education Committee has accepted the offer of a voluntary committee not wholly composed of medical practitioners to establish an additional medical treatment centre in Poplar, the Poplar Medical Union has issued a circular letter to its members recommending them not to accept service under this committee, but to refer the matter to the committee of the Union which is making investigations. We are informed that the members of the Poplar Medical Union adhered last year to the principles of the scheme drawn up by the Joint Committee of the Metropolitan Divisions of the British Medical Association. The chief point of divergence between this scheme and that now favoured by the London County Council was, we are informed, the question of the provision of suitable premises, which, it was contended, should be provided by the London County Council.

LIVERPOOL.

School of Tropical Medicine.

Sir William Lever, the Chairman of the Liverpool School of Tropical Medicine, and Lady Lever were entertained at dinner on February 29th by the staff of the school on their return from their recent visit to South Africa. The Lord Mayor of Liverpool (the Earl of Derby, G.C.V.O.), who is a Vice-President of the school, presided, and among those invited to meet the guests of the evening were Sir Ronald Ross, Sir Edward Russell, Professor R. Newstead, Dr. J. W. W. Stephens, Professor J. L. Todd, Professor E. W. Hope, Professor R. Caton, and Drs. J. O. Wakelin Barratt and T. R. Bradshaw. In proposing the toast of the evening, "Sir William and Lady Lever," the Lord Mayor said he occupied in Liverpool the two high places of Lord Mayor and Chancellor of the University, and in that dual capacity he welcomed Sir William and Lady Lever. He would say one word as Chancellor of the University. When the late Sir Alfred Jones left them he did not think a happier choice could possibly have been made than in selecting Sir William Lever to succeed him. Sir Ronald Ross, in supporting, said Sir William Lever took up the chairmanship of the school two years ago, when it was prosperous, and had increased that prosperity; now they were one of the leading schools of the country. Sir William Lever, in responding, reminded them that any reflected light came from his predecessor, Sir Alfred Jones, who was the founder of the school. He desired to thank Sir Ronald Ross, Professor Newstead, and others in the school for the assistance they had given him and also the vice-chairman (Mr. T. C. Danson), who knew the work of the school, and had helped him generously and whole-heartedly. The one desire of every one who worked in the school was to forward the work of science in tropical countries, and make those countries more habitable for the white man. He had never been connected with an institution which had a higher tone amongst its workers, and he did not think it was out of place to mention Sir Rubert Boyce, whom they missed very much. Each succeeding year the school must become a training ground for young doctors to go out to distant parts of the world to carry knowledge of sanitation as the best means of healthy living, and it was that phase of the work of the Liverpool School they were entering upon at present. In conclusion, Sir William announced that a telegram had been received from the King of the Belgians, giving a subscription of £500 towards the work of the Liverpool School of Tropical Medicine.

Mr. F. T. Paul.

Arrangements have been made to present to Mr. F. T. Paul the portrait of himself, which has been subscribed for by his friends and colleagues, on his retirement from the active staff of the Liverpool Royal Infirmary, and painted by Mr. Hall Neale. The presentation will take place at a dinner to be held at the Exchange Hotel, Liverpool, on Wednesday, March 27th. Those desirous of attending are requested to communicate with one of the honorary secretaries, Mr. T. C. Litler-Jones, 1, Abercromby Square, and Dr. Hubert Armstrong, 7, Rodney Street.

MANCHESTER AND DISTRICT.

THE MANCHESTER CORPORATION AND THE INSURANCE ACT.

A REPORT has been issued by the Town Clerk of Manchester showing the effect that the National Insurance Act will have on the employees of the Corporation. At the end of last September there were 8,584 members of the Thrift Fund, to which payments are compulsory, and of these, 6,350 would come under the provisions of the National Insurance Act. The Act does not repeal or affect the local Act of Parliament under which the Thrift Fund was established and is now regulated, and that fund will have to be continued, as it can only be modified by an amending Act of Parliament. The question is now under consideration whether it will be expedient for the Corporation itself, or for the employees of the Corporation who come within the Insurance Act, to make application to be formed into an approved society, either alone or in combination with other bodies. The alternatives to this would be for each employee to join any approved society independently or to become a deposit contributor.

THE MANCHESTER WAREHOUSEMEN AND CLERKS' PROVIDENT ASSOCIATION.

Seeing that close upon 100 medical men of Manchester and district are now acting as medical officers to the Warehousemen and Clerks' Association at a capitation fee for medical attendance and medicine of 4s. a year, the action of the association with regard to the Insurance Act will be of some importance. It appears from the annual report of the directors, which has not yet come before the annual meeting, that the board recommends that the association should seek to become an approved society under the Act, and that subscriptions of present members who come under the Act should be reduced by 6d. a month. The directors state that on account of the fact that over 90 per cent. of the members receive salary during a part or the whole of sickness, the proportion of the 2s. a month contribution going to cover sickness claims is approximately only 1d. a month, and to relieve the members of paying this 1d. a month the present sick payments will have to be cancelled altogether, and members would simply receive the sick benefits granted under the State scheme. The only practical relief that can be given will come by transferring members who come under the provisions of the Insurance Act to the State's medical provisions, and this will relieve the voluntary contributions of 6d. a month. Consequently, the directors submit a scheme whereby present members coming under the Act will be able to continue their voluntary membership at a reduction of 6d. a month in the subscription rate, and receive all the present benefits of the association, with the exception of the ordinary and special medical attention now granted, and with the further provisions that no sick benefit shall be granted for the first six working days a member is away sick. It is recommended that this benefit shall commence as from the seventh working day after that on which the applicant was last able to follow his occupation, and shall then be payable for a period of not less than the three following working days. Members coming under the Insurance Act and preferring to continue the present rate of subscription can receive all the present benefits, including the ordinary and special medical benefits. The following statement is of special importance to the present medical officers:

> With regard to members who do not come under the provisions of the State scheme, it is just possible that, on account of the decrease in private family practice in which the medical practitioners may be involved, they may not be willing to contract for medical attention except on considerably higher terms, and it is therefore proposed to do away with contract service at the end of this year, and to substitute another scheme.

It is further stated that two-thirds of the present total membership will probably be compelled to come under the State scheme, and in order that these persons may receive the maximum amount of benefit from the State the directors recommend that the association should become a fully approved society under the Act.

It may be noted that a considerable number of the members of the Warehousemen and Clerks' Association are men in a good position financially, and, though it is quite true that the sickness rate is generally low, the capitation fee of 4s. is quite inadequate. Nevertheless, the medical officers have not hitherto united to demand a higher capitation fee, though several attempts have been made by the local Divisions of the British Medical Association to urge on them the importance of a united stand on the matter.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

DEPUTY COMMISSIONERSHIP IN LUNACY.

DR. ROBERT CUNYNGHAM BROWN, at present medical officer of His Majesty's Prison, Birmingham, has been appointed by the Secretary for Scotland to fill the vacancy in the office of Deputy Commissioner in Lunacy for Scotland caused by the death of Dr. J. F. Sutherland. Dr. Cunyngham Brown was until recently deputy medical officer in His Majesty's Prison and State Criminal Lunatic Asylum, Parkhurst, and before his entry into the prison service was pathologist to the County Asylum, Chester, and resident clinical assistant to the National Hospital for the Paralysed and Epileptic, Queen Square. He acted as special commissioner of the BRITISH MEDICAL JOURNAL to report upon the family care of the insane in Scotland, Belgium, France, Germany, and Holland. He also reported to this JOURNAL upon the conditions obtaining among the outdoor pauper lunatics in various districts in England and Wales. His reports were published in the BRITISH MEDICAL JOURNAL of 1905, and the wide acquaintance with the subject which he then showed led to his being called to give evidence before the Royal Commission on the Care and Control of the Feeble-minded. Dr. Cunyngham Brown, like a good many other men who have won distinction, is a son of the manse, his father, Dr. Robert Brown of Paisley, having been a minister of the United Presbyterian and English Presbyterian Churches. On his mother's side he is of Shetland descent from the family of Hoseason, otherwise Osieson, of Aywick.

DUNFERMLINE MEDICAL MEN AND FRIENDLY SOCIETIES.

A meeting of representatives of friendly societies in Dunfermline was held on March 8th, to consider their position in connexion with the medical men. The doctors in Dunfermline intimated an increase in their terms for medical attendance of exactly double what they originally charged. The friendly societies threatened to invite other doctors to the town to carry on the work. At the meeting it was reported that a deputation had waited upon Dr. C. F. Knight, Edinburgh, who informed the deputation that he could easily obtain medical men to take up the duties. It was intimated that one of the doctors whom he could send to Dunfermline would be a surgeon, and also that a doctor in practice in Glasgow had already offered his services. The representatives present unanimously agreed to recommend to their respective societies that two doctors be brought to the city. The new doctors will be ready to commence duty in Dunfermline at the end of this month, when the contract with the Dunfermline doctors expires. Dunfermline is the first town in which the doctors have refused to work under the old terms. They are to be highly commended for the step they have taken.

THE MORISON LECTURES.

The Morison Lectures before the Royal College of Physicians of Edinburgh were given on February 26th and 28th, and on March 1st, the subject being Certain Aspects of Ataxia, by Dr. J. J. Graham Brown. After some introductory remarks, he gave a description of the general arrangements in the peripheral and in the central nervous system, which form the apparatus for co-ordination of muscular movements, and the disturbance of which causes ataxia. He then described the various functions of the spinal cord in relation to co-ordination, devoting special attention to reciprocal innervation, synergia, tonus, and in particular the reversal effect of Uexküll, which he considered to be of essential importance in connexion with co-ordination and its disorders. The pathology of tabes, in so far as it concerned the ataxic symptoms of that disease, was then briefly described. In so far as muscular sense is

concerned, the lecturer held that its important components were the impressions conveyed by the afferent fibres from the muscle spindles and from the tendon organs of Golgi. These structures were described in some detail, and it was suggested that the adequate stimulus in connexion with the muscle spindles was probably the action current in their fusal fibres. The lecturer then alluded to the atrio-ventricular bundle of His, pointing out similarities in its structure to that of the muscle spindle. He strongly urged his belief that the atrio-ventricular bundle was in reality a mass of specialized spindles, the function of which was to act as receptors of a local reflex system for the rhythmic control of the cardiac contraction.

The second lecture was devoted to a study of the clinical aspects of muscular sense, of its performances, and of the results of its loss—ataxia and atonia. The various bedside methods used for testing muscular sense were submitted to analysis, and their advantages and disadvantages stated. After some remarks on the influence of practice and attention on conditions causing ataxic movement, the lecturer described the paths by which muscular sense impressions were conducted up the spinal cord and towards the higher centres.

The third lecture was devoted to an examination of the afferent stimuli, other than those of muscular sense, which are used in co-ordination and equilibration—the vestibular neurones, etc., and to the paths by which all these impressions pass to the cerebellum. A description was then given of the neurotic arrangements in the cerebellar cortex and its nuclei. Finally, the co-ordinating functions of the cerebellum were considered, and the clinical results of lesion of that structure detailed.

ODONTO-CHIRURGICAL SOCIETY OF SCOTLAND.

The annual general meeting of the Odonto-Chirurgical Society of Scotland was held in Edinburgh on March 8th, when, on the recommendation of the council, office-bearers were elected for session 1912–1913. Later, Mr. Hodsdon read a paper on the early recognition of surgical affections in the mouth, and Mr. G. W. Watson, L.D.S., gave a communication, entitled Notes of a Maxillary Tumour Associated with Impaction of the Right Canine. The membership of this important society now stands at 93.

The annual dinner was held in the Caledonian Station Hotel in the evening, with Mr. J. Douglas Logan, the President, in the chair. There was a good attendance of members, and among the guests were the President of the Royal College of Surgeons of Edinburgh (Dr. George A. Berry), Mr. Hodsdon, the Dean of the Edinburgh Dental Hospital (Dr. Guy), the President of the Glasgow Odonto-Chirurgical Society, the President-elect of the British Dental Association, the Edinburgh representative of the BRITISH MEDICAL JOURNAL, and others. After an excellent dinner, the usual loyal toasts were given from the chair, and that of "The Imperial Forces," proposed by Mr. A. Naismith, L.D.S., was responded to by Major Marshall, I.M.S. Mr. Hodsdon, who proposed the toast of "The Odonto-Chirurgical Society," spoke of the vast number of unqualified dentists, variously estimated at from 20,000 to 25,000, whilst somewhere about 5,000 were on the *Register*. The dentists wanted protection. What the Odonto-Chirurgical Society was doing, among other things, was to let the public know that there were people who studied dentistry scientifically, and could treat it in a totally different way from other people. He warned the dentists to have nothing to do with contract practice. It had been bad for the medical profession, and it would be probably worse for them. The effect of present legislation would tend to lower the status of the medical profession. The President, in reply, remarked that inquiry into the food of the working-classes revealed some startling and deplorable facts, showing that the diet of the masses had undergone a great change of recent years, and that they were indulging in a non-nutritious, unwholesome, and pernicious system of feeding. The enormous quantities of tinned meat, tinned fish, and tinned fruit imported, besides the large quantity manufactured in this country, were referred to, as well as the unsatisfactory and deleterious effects of such feeding on the teeth, and the danger of the continued absorption of small quantities of tin. Dr. G. J. Goldie gave the toast of "The Edinburgh Dental Hospital and School," and Dr. Guy, in replying, referred to the debt the dental profession owed to the researches of Pasteur and Lister. The toast of "The Royal College of Surgeons" was given by Mr. C. Rees Price, L.D.S., and the President (Mr. Berry) replied. The toast of "The Guests" was given by Mr. T. W. Davie, L.D.S., and Dr. Boddie replied. Dr. W. T. Finlayson gave "The Health of the Chairman." Some very good music added to the pleasure of the evening.

LEITH MEDICAL PRACTITIONERS.

The medical men residing and practising in Leith have formed themselves into an association "to promote and safeguard the interests of the medical profession." This implies no antagonistic spirit towards existing organizations, but is rather for their support, the purpose being to provide locally the means of attaining a common course of action in various medical matters. Every doctor practising in the burgh has joined the association.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

DR. J. WALTON BROWNE.

THE Board of Management of the Royal Victoria Hospital, Belfast, has received with great regret the resignation, under the age regulation, of Dr. J. Walton Browne, Senior Surgeon to the institution and Chairman of its medical and surgical staff. Dr. Browne has now completed thirty-seven years' service as surgeon; he had previously been house-surgeon. Since the death of the late Professor Cuming, he has been re-elected annually by the Visiting Medical Staff as their chairman. Dr. Browne's reputation and name are household words throughout Ulster; he has endeared himself to generations of students, and his skill as a prompt and experienced surgeon is well known. From his long connexion with the medical school, his retentive memory, and his keen observation, he has been an encyclopaedia for his juniors to consult as regards the older men, former students, past crises in local medical history, and in general surgical knowledge: occasionally some innovator has been told that his discovery has been already discovered, and would be found in some books on surgery now out of date, or in the BRITISH MEDICAL JOURNAL about the year of Queen Victoria's first Jubilee. Although Dr. Browne retires from the full active work at the hospital, it is gratifying to his many friends that he is still in full mental and bodily activity, and that the benefit of his ripe experience will be at the service of the hospital as consulting surgeon. In the wards of the hospital his cheery voice, his light but concise clinical teaching, his ever-present aid to the young surgeon, his valuable and estimable professional work will all be missed, and their absence will leave a void with colleague and student. It is the sincere wish of all that "Jack Browne" may long enjoy the rest and honour that he so well has earned, and that many years of useful activity lie before him.

NATIONAL INSURANCE.

At a general meeting held in the Ancient Concert Rooms, Dublin, last week, in furtherance of the objects of the Irish Health Insurance Society, Lady Aberdeen said that the society founded its claims for support on the fact that it was being formed by persons who had given a great deal of thought and time and labour to health work in Ireland for several years, and who were very deeply concerned in making any legislation passed for the object of promoting public health successful. She drew special attention to the sanatorium benefit of the Act, which would begin as soon as the Act came into operation, and which, she said, would enable the local Insurance Committees, which were to be formed for every county and borough, to give free sanatorium treatment to all insured persons and their families, whom they thought would benefit thereby.

OPENING OF NEW WARDS IN THE ROTUNDA HOSPITAL.

On March 6th, on the invitation of Dr. Jellett, Master of the Rotunda, the Governors of the Rotunda Hospital, and a number of medical men inspected the new wards which have been opened recently. A little more than a year ago the Master drew the attention of the governors to the overcrowding of the existing labour wards. The number of

patients has increased from 1.599 in 1890 to 2.596 in 1911. The nursing staff had likewise increased, and the wards were too small for the amount of work performed in them. The board appointed a special committee, which was satisfied after careful consideration that a change in the labour wards was urgently necessary, and came to the conclusion that the future status of the hospital was intimately involved with its labour ward system. It strongly recommended that, in accordance with the Master's suggestions, one of the two larger wards in the top story of the Thomas Plunket Cairnes Wing (which, prior to the erection of the annexe for nurses, had been used as a nurses' dormitory), with the three small rooms beside it, should be formed into a distinct unit for the reception of maternity patients, separate from the lying-in wards. The work was sanctioned and put in hand at once, but, owing to strikes last year, the completion of the wards was delayed for several months.

The suite of wards includes waiting and labour wards, an isolation labour ward, with clerical room, dressing room, and kitchen. The floors are white mosaic and the walls pale green mosaic for a height of 8 ft.; above that the walls and ceilings are enamelled white. There is a hot water heating system, and hot and cold sterilized water is laid on. The wards have been fitted with electric light, and the entire equipment is of the most approved description, as the governors consider it essential that the design should be carried out in such a manner that the improvements will rank with the best of their kind in Europe.

Health Exhibition.

Last week a Health Exhibition, held in connexion with the Women's National Health Association, was opened at Blackrock, near Dublin, by Lady Aberdeen, who, in her opening address, said that the original Tuberculosis Exhibition, which had travelled over all parts of Ireland, had now grown till she thought she was justified in calling it a Health Exhibition. It still, however, had a large and interesting section on tuberculosis. Although the death-rate from this disease was highest in Ireland, still it was decreasing at a greater rate there than in any other country in the world, and that fact should urge people on to adopt the simple principles of health, by which so much had already been done, especially in the bringing up of children, the association believed that its success had been the result of its appeal to the women of Ireland. Referring to the Town Planning Section of the exhibition, Lady Aberdeen said it was with pleasure that she had seen some of the new houses which had been built recently by the Urban Council, and also the plans which had been made for the recreation ground for children.

Professor McWeeney gave a lecture on "Tuberculosis," in the course of which he said that in Ireland 10.000 people died yearly from one form or another of this infectious disease, and that many of the cases were preventable; most of the deaths occurred between the ages of 15 and 35—in other words, during the prime of life. He also spoke of emigration and insanity as the other two most important factors in the loss of population, and mentioned the part played by tuberculosis in the production of insanity. In dealing with the methods of prevention and cure, he said that improved housing of the working classes, the general establishment of tuberculosis dispensaries, the medical inspection of schools, and the provision of well-ventilated and properly warmed schoolrooms were amongst the most important preventive measures. Hospital accommodation for advanced and infective cases was another crying need. In view of the danger to young children of drinking tuberculous milk, local authorities ought to make full use of their powers under the Tuberculosis Prevention Act of 1908 to discover and trace to its source all tuberculous milk coming into their districts.

In a lecture on "Domestic Animals in Relation to Public Health," Professor Mason, M.R.C.V.S., dealt with tuberculosis, actinomycosis, glanders, anthrax, tetanus, diphtheria, measles, scarlatina, and ringworm. The Rev. C. O'M. Lawless, C.C., lectured on the subject of the "Elimination of Slums." The Chairman, in proposing a vote of thanks, said that the urban council had erected 205 houses for the working classes, which exceeded the number erected in any other town of its size in England or Ireland.

British Guiana.

Public Health Report.

The report of the Surgeon-General of the Colony of British Guiana for the year ending March, 1911, has been lately issued.

Medical Staff.

The Government Medical Staff numbered forty, besides one medical magistrate, three private practitioners in charge of Government dispensaries, and a private practitioner who acts as Police Surgeon.

Public Medical Institutions.

Public Hospital, Georgetown.—This institution has accommodation for 291 males and 245 females. The total number of admissions during the year was 11.059, and 41,908 out-patients. There was a death-rate of 11.7 per cent. of the total number treated. The death-rate amongst children under five years of age is 18.9 per cent. This high mortality the Resident Medical Officer attributes to a large extent to malnutrition consequent on improper feeding. The death-rate from pneumonia continues high; out of 456 cases treated, 203, or 44.5 per cent., died; out of this number 51 died within 24 hours of admission.

In the public hospitals at New Amsterdam, Duddie, Bartica, and the North-Western District, over 5.000 patients were treated.

Lunatic Asylum.—There were 460 males and 275 females in the asylum on April 1st, 1910, 72 males and 78 females being admitted during the year. The mortality-rate was low (6.8 per cent.) on the number of cases treated.

Public Dispensaries.—At these institutions 26.372 patients were treated.

Public Leper Asylum.—There were 299 males and 123 females treated in the asylum during the year, with a death-rate of 15 per cent. for males and 19.3 per cent. for females on the number of cases treated. There were 4 cases discharged as cured, the result of the nastin treatment. The nastin treatment was continued during the year. Judging from the bacteriological reports, the clinical and physical appearances, a large number of the inmates have benefited greatly by the treatment.

Vaccination.

In all, 2.289 persons were vaccinated, of which 1,935 were either successful or insusceptible.

Health of the Colony.

It is stated that the colony was free from any dangerous infectious or contagious diseases during the year.

Death- and Birth-Rates.

The death-rate for the whole colony was 34.4 per 1.000, and the birth-rate 27.5. The mortality amongst children under one year is far in excess of what it should be: in the year under review it was 235 per 1.000. The mean for the past five years was 210 per 1,000.

Tuberculosis.

Tuberculosis was the cause of 6.8 per cent. of the total mortality of the colony, and in Georgetown 8.8 per cent. A lady visitor has been specially appointed in Georgetown by the Society for the Prevention and Treatment of Tuberculosis, who visits the cases under treatment, gives advice as to the means to be taken to prevent the spread of infection, and endeavours to persuade those afflicted to take advantage of the tuberculosis ward at the Public Hospital, Georgetown.

Ankylostomiasis.

On the sugar estates steady progress was continued in the measures which have now for some time been advocated for the treatment and prevention of this disease, (1) by the erection of latrines, (2) the systematic examination of all the newly-arrived immigrants and of persons suffering from anaemia or showing the least sign of being infected with the ankylostome parasite, (3) the treatment and constant observation of all known infected cases. The introduction every year of a large number of ankylostome-infected cases amongst the East Indian immigrants, between 70 and 80 per cent., is a very serious factor in preventing not only much better results, but also the

eradication of the disease. There were 413 cases treated in the public hospitals, with 50 deaths.

Bacteriological Department.

The bacteriological department in British Guiana is fully equipped and is doing much useful work. The total number of examinations made during the year was 4,481.

Special investigations were made in connexion with:

(a) Benzoyl Chloride in Leprosy.—After March, 1910, various modifications of Professor Deycke's treatment by nastin injections, alterations in dosage, frequency of injection, and site of injection were tried, but the results were in most cases very indefinite and inconclusive. Since October, 1910, 70 patients have been treated by injection of benzoyl chloride, which acts as a solvent on the fatty capsule of the bacillus, and thus leaves it open to phagocytic destruction. The first injections were of benzoyl chloride in olive oil, but this latter was found to take up water in the damp climate, and the benzoyl chloride decomposed. One of the heavier oils of the paraffin series was then used, and apparently no decomposition takes place. The strength of the injections used has been 2½ per cent. and 5 per cent., 1 c.cm. of which was injected weekly into the muscles of the forearm. The cases treated were not in any way selected, several cases of the anaesthetic type, in which the bacilli are seldom found, being included. Of the cases treated, 17.1 per cent. showed slight or no destruction, 32.8 per cent. medium destruction, 14.2 per cent. advanced destruction, 12.0 per cent. very few bacilli, 37.1 per cent. no bacilli, and 4.2 per cent. died. Experiments are still being carried on.

(b) Red Mangrove Bark in Leprosy.—Another special treatment being carried on under the care of the bacteriologist was the red mangrove bark treatment of leprosy. Owing to favourable reports from Trinidad on this treatment six cases were treated, but no effect on the nodules, either clinically or bacteriologically, was observed, in a trial extending over six weeks.

(c) The Chlorine Water Treatment of Ankylostomiasis was another subject of special investigation. The conclusions arrived at are summed up as follows:

1. Chlorine water treatment as an anthelmintic is of very doubtful efficiency.
2. The blood estimations carried out do not indicate any marked improvement in the patient's general condition.

(d) Pyocyaneus.—This organism, comparatively rare in England, is of frequent occurrence in British Guiana. During the year which the report covers upwards of thirty specimens have been isolated from a variety of cases. The true *B. pyocyaneus* has been isolated from vat warers, and in the analysis of sixty samples of milk its presence has been detected in four. The frequency with which *B. pyocyaneus* occurs in cases with suppurating filarial glands is rather remarkable, seven out of the thirty cases showing this coexistence. The glands of ten showed a greenish tint, due apparently to pyocyanens. The organism must have a great aptitude for migrating about the body to find a suitable midus, as in no case investigated had the glands broken down or ulcerated through the skin, so that the possibility of external infection was remote.

Appended to the report are a series of statistical tables, and also reports from the medical officers in charge of the various districts.

Special Correspondence.

PARIS.

Medical Wards of the Paris Hospitals.—Tuberculin Cutaneous Reaction.—Muscular Contractions in Pleurisy.—Diagnosis of Chronic Appendicitis.—Epidemic of Measles.—Aërophagy.—Salvarsan.

A VISITING practitioner or a post-graduate may certainly spend some time advantageously in the medical wards of the various hospitals in Paris; the variety of cases is enormous, and the observation of French methods of treatment may afford useful information. Medicine is more specialized than at home, and on visiting certain wards of a medical service, instead of finding every kind of disease in the ward, one frequently finds practically only heart disorders, or "lung conditions." Each chief usually has special days for consultations: in other words, days with a service corresponding somewhat to out-patient practice in British hospitals. At the Laennec Hospital every Friday at 10 a.m. Professor Barié, whose reputation as a heart specialist is well-known, and whose new book on the heart and its affections is a standard work on the subject, holds a consultation limited to cases of cardiac disorder. To see cases of diseases of the lungs the visitor should pay a visit to Dr. Le Gendre's wards in the Laribosière Hospital. The different stages of phthisis can be studied, as the wards are very large and there is usually a great number of such cases under treatment. French therapeutics can also be noted in this service, as Dr. Le Gendre is a high authority on materia medica, and has the great faculty of being able to prescribe drugs to the best advantage. At the Salpêtrière Hospital Professor Marie, who has charge of the wards in which organic and functional nervous diseases are treated, gives lectures on the various diseases, with demonstration of the patients, limelight projection of microscopical section of the cord or nerves, and lately with cinematograph projections, so that these Saturday morning lectures are most interesting, clear, and instructive. Professor Babinski has wards at the Pitié Hospital, and, needless to say, the demonstration of nervous cases by so high an authority is excellent. The consultations for outdoor patients in this case take place on Wednesdays at 10 a.m. The wards and consultations conducted by Dr. Mathieu at the Saint Antoine Hospital give the visitor an excellent idea of the predominating maladies of the digestive system found in France, and also of the treatment adopted by so high an authority.

At a recent meeting of the Society for Scientific Study of Tuberculosis, Drs. Bernard and Baron brought forward statistics as to the value of the tuberculin reaction in diagnosis. The observations concerned 170 cases on which the cutaneous reaction with Mantoux standard solution had been employed. In 122 of the 170 cases the reaction was markedly positive, and in all these the patients were tuberculous, but their general health was fairly good. In 46 cases the reaction was negative, but the patient's general condition was poor, and tubercle bacilli were present in marked degree; if the general condition improved temporarily the tuberculin reaction was found to be positive though feeble. From their findings in these cases, the authors were inclined to attribute definite importance to the prognostic value of the tuberculin reaction.

At the Medical Society of the Hospitals Dr. Raymond recently described an accessory diagnostic sign in pleurisy with effusion—rigidity of the spinal muscles in the lumbar region beginning just below the twelfth ribs. He pointed out that in inflammation of the meninges reflex contracture of the muscles of the neck occurred; in peritonitis reflex contraction of the abdominal wall. To make out this sign the patient must sit straight up in bed, but not lean forwards, and then both by inspection and palpation the rigidity and hardness of the spinal muscles on the affected side can be made out. Frequently when physical signs of effusion are not present owing to insufficient exudate, an exploratory puncture will reveal the presence of fluid. If the pleurisy becomes bilateral, as is so liable to happen with basal pleurisies, rigidity of the spinal muscles on the opposite side becomes apparent.

Mr. Walther, at another meeting of the same society, pointed out how easily chronic appendicitis might be overlooked. Two cases were cited in which dyspeptic symptoms were accompanied by loss of weight and a persistent hacking cough, accompanied by mucous expectoration. Absolutely nothing was found in the lungs, but there was some tenderness in the right iliac fossa. In both cases appendectomy was performed, and not only did the patients gain considerably in weight, but the previous obstinate cough disappeared completely. Mr. Walther advised removal of the appendix in many cases of incipient phthisis, as the patient was thus frequently relieved from anorexia and constipation, and a noticeable improvement in the general health, accompanied by increase of weight, often followed.

During the seventh week of 1912, 31 deaths from measles were recorded. At present there is a somewhat serious epidemic in and around the city, the total cases reported during January numbering 1,426 in Paris and 218 in the suburbs. The following are the figures given for the last three years:

	Paris.	Suburbs.
	Cases.	Cases.
January, 1910	1,269	365
January, 1911	275	47
January, 1912	1,426	218

Professor Hayem read an interesting report on aërophagy or the swallowing of air at the Society of Medicine, and classified the patients under two headings:

1. "Sialophages," or those patients who, on account of dyspeptic troubles, continuously swallow saliva, which is flowing in abnormal quantity, and swallow air at the same time.

2. "Aërophages," who by a reflex action swallow mouthfuls of air, and thus dilate the stomach with air. This condition is met with in functional nervous cases, and especially neurasthenia and hysteria. This disease, or derangement, was first described in the horse, and M. Picus, who investigated the subject in this animal, confirms the correctness of Professor Hayem's classification. M. Picus has invented an instrument for adjustment in aërophagy in horses, the appliance being so arranged that it acts on the muscles antagonistic to deglutition.

Recently another series of cases treated by salvarsan was reported by Drs. Terson and Dupuy at the Society of Military Medicine. The statistics cover 130 injections given to 50 patients. Of 38 syphilitic cases 30 were cured without any unfavourable after-effects. Ninety-two injections were followed by no ill effects, but in 38 injections some abnormal phenomena were observed. In 1 case there was furuncle of the arm and 4 patients complained of severe headache after injections. In 6 cases injections produced vomiting and in 6 others diarrhoea occurred. In 3 cases albumen appeared in the urine and lasted for several days. Syncope appeared in 2 cases, but no after-effects were apparent.

Correspondence.

HYPODERMIC MEDICATION BY NURSES.

SIR,—May I ask through your columns why the modern nurse should wish to go about with a large assortment of hypodermic tablets in her armamentarium?

I had one of those superior beings employed in a case some time ago. She possessed a very fine case of hypodermic (or should it be hypodermatic?) remedies. Included were such potent drugs as strychnine, digitalin, atropin, morphine, and last, but not least, hyoscin.

Off her own bat, so to speak, she administered one night a hypodermic injection of strychnine, although I had told her not to do so, and had explained to her that my conception of the action of strychnine on the heart was not that generally held, which I looked on as a direction. Her excuse was that the oxygen cylinder had leaked during the night, and that the injection did good.

I asked her under what circumstances she would feel inclined to administer hyoscin. She answered with some acerbity that she would not give it in the present case, which was wise, as the case was one of progressive heart failure with cyanosis.

The point I want to make, however, is that such dangerous—one might say two-edged—remedies should not be in the hands of even such a superior person as the modern nurse, but should be reserved to the medical attendant.

Admiring friends should be able to find a more suitable present for nurses' birthdays and other occasions worthy to be marked with a white stone.—I am, etc.,

February 28th. G. P.

COLOUR DIFFERENTIATION AND COLOUR OF THE EYES WITH THE ANTIENTS.

SIR,—The remarks embodied in Dr. Beaumont's paper in the JOURNAL of January 13th are of interest to the student of language, ethnology, and evolution. The primitive languages are wanting in definitions as regards colours, probably due as much to want of facility in expression as to want of appreciation. Further, it was not necessary to be so definite in denoting and connoting objects and properties as nowadays, when everything is highly differentiated. Homer, with his κυάνος, whether blind or colour-blind, had not to deal with modern "coal tar" and its allied colour derivatives.

The Gaelic language affords some parallels to the old Greek in the matter of colour differentiation. In Gaelic the adjective "glas" is used much the same as γλαυκός in Greek (vide Liddell and Scott). In the older language, as a general term, it seems to mean "gleaming," as in the epithet applied to the Gael as a warrior, "Gael glas," the apparent origin of the "Gallow glas" (Irish man-at-arms) of English writers of Irish history.

In connexion with the colour of the eyes it denotes "grey," while in landscape objects it denotes "green." I am indebted to Professor MacKinnon, of the Celtic Chair in the university here, for the following notes on the subject:

"With the old Gaelic writers the most admired colour of the eyes was 'glas' (grey). The exact shade was often fixed by a simile attached to the epithet, and the favourite was the hyacinth. In a very old tale the eyes of a lady whose beauty was proverbial are described thus:

> Ba glaissigtir fri baghai cechtar a da sulu.
> (Was as 'glas' (grey) as hyacinth each her two eyes.)

According to an old writer, Columba's eyes were 'glas.' Upon what authority I know not.

"It is common in Ireland, I believe, to speak of the 'grey' eye as 'glas' still. But in Scotland nowadays, and I believe for a good while back, our favourite colour is blue (gorm). I cannot recall a Scottish Gaelic love-song in which the eye is described as 'glas.' It is always 'gorm' with us.

"Black eyes are also admired, and an eye 'like the sloe' is frequently praised in our modern Gaelic love-songs."

The professor's remarks bear out the development in nomenclature, if not an actual change in racial characteristics down to modern times.—I am, etc.,

Edinburgh, Jan. 17th. JAMES CAMERON.

THE TREASURY COMMITTEE ON TUBERCULOSIS.

SIR,—Insufficient attention has, I think, been paid in this country to a modern conception of tuberculosis based upon the examination of large numbers of children by inoculation tests. Hamburger, of Vienna, found a positive reaction in over 90 per cent. of children at the age of 11. Upon this and confirmatory observations by others, he wrote that tuberculosis is "a true children's disease. Just as everybody goes through measles in childhood, so can we say to-day, almost everyone acquires tuberculosis—mostly during the years of childhood."[1] Dr. J. Kerr concluded:

> So tubercle seems always present, one might say, in the blood. Some slight traumatism of a joint, whether hip or finger, and it may declare itself at the seat of injury, to vanish speedily again if the tissues are given a good chance by physiological rest.[2]

I do not know of any inoculation tests on a similar scale by English observers: the following table presents the results of various central European and one Japanese worker:[3]

Author.	Age of Children (Years).	Positive Reaction (per cent.).
Von Pirquet (Vienna)	10—14	68
Hamburger (Vienna)	11—14	94
Moro (Munich)	10—14	60
Petruschky (Dantzic)	7—14	74
Müller (Berlin)	10—14	53.7
Engel and Bauer (Düsseldorf)	13—14	53
Nothmann (Düsseldorf)	12—14	84.5
Ito (Fukuoka)	13—14	48.6

I was not aware that any scientific worker took Professor Pearson's study of the statistics of pulmonary tuberculosis seriously. Perhaps I may remind Dr. D. W. Hunter that so distinguished a biologist as Mr. Bateson has already concluded that the whole biometrical outpouring is quite valueless, and that a later generation will wonder that it ever obtained a hearing.

Hamburger[4] has recently compared tuberculosis with

[1] *Muench. med. Woch.*, 1908, No. 52; 1909, No. 9.
[2] *School Hygiene*, 1910, No. 1.
[3] Ibid., 1911, No. 6, p. 348.
[4] *Zeitschrift für Schulgesundheitspflege*, 1912, No. 2, p. 121.

syphilis. Tuberculosis has three stages; the tertiary stage is the pulmonary affection. Every human being has a predisposition towards tuberculosis, and 95 per cent. of school children are infected. Infection usually occurs from man to man, and most generally during childhood. If infection takes place during the first year of life, the disease will become manifest at some age or other (80 per cent. of such early infected cases will die); if infection occurs after the first year of life, tuberculosis generally remains latent. It has a marked tendency to recur especially after measles, whooping-cough, and influenza. Prognosis depends (1) upon the age of the child; (2) upon the hygienic conditions, and particularly as to whether the parents are well or badly off.—I am, etc.,

London, W., March 2nd. M. D. EDER.

SIR,—The Chancellor of the Exchequer has done an excellent thing in so promptly appointing a committee to carry out the recommendations of the Royal Commission on human and animal tuberculosis; but to my mind the reference to this Committee is faulty, inasmuch as the framers seem to have had in their minds only the prevention and treatment of pulmonary tuberculosis. The reference ignores the far larger issue upon which the report of the Royal Commission lays such stress—namely, the causation and prevention of the various tuberculous affections which owe their origin to infection by the bacillus of bovine tuberculosis.

I think it is the accepted opinion now that, speaking broadly, the bovine tubercle bacillus is responsible for all the various tuberculous diseases other than pulmonary tuberculosis, and that the latter is caused by infection by the tubercle bacillus of human origin. If we accept this view of the position, we have two sharply defined classes of disease to deal with, differing in their causation, and requiring totally different methods for their prevention and treatment.

The point I wish to make is that it is impossible for this Committee to consider adequately such a mixed question and to report in a reasonable time. It is a question of vast importance to the nation, and the work set before the Committee should be thoroughly done; therefore I suggest that this Committee should be allowed to pursue its investigations according to the reference, and that another committee should be appointed to take into consideration the causation and prevention of those tuberculous diseases which the report of the Royal Commission conclusively proved to be due to infection by the bacillus of bovine origin. The Commissioners time after time insist that milk from tuberculous cows is responsible for the tuberculous diseases—other than pulmonary tuberculosis—in the human subject.

Sir John McFadyean, Principal of the Royal Veterinary College, London, estimated that 20 per cent. of the adult cows in England are tuberculous. If I may indulge in a slang term, the remedy hits us in the eye. Eradicate tuberculosis from our dairy cattle, set up a thorough system of dairy inspection, together with a proper supervision of the milk supply, and we shall practically empty our children's hospitals, and the death-rate from tuberculous diseases will be reduced almost to the vanishing point.—I am, etc.,

Hedon, March 3rd. T. READMAN.

LORD LISTER AND THE CATGUT LIGATURE.

SIR,—If no claim of priority or collateral work is made against Lord Lister he will be fortunate, and the dates assigned to his work will not matter and my letter will be forgotten; if otherwise, it remains a simple statement of a distinct memory of an incident which shows Lord Lister was engaged with this subject before he thought it necessary to put his experiments on record.—I am, etc.,

Bournemouth, March 10th. THOMAS FIELDING.

THE LATE DR. HUGGARD OF DAVOS.

SIR,—We desire to give effect to the widely expressed wish that a suitable memorial should be raised to the late Dr. Huggard. The object we have in view is twofold—first, to place in the Queen Alexandra Sanatorium (an institution which largely owes its existence to his self-sacrificing philanthropy) a memorial tablet, if possible with a medallion portrait of Dr. Huggard; and secondly, to create a Huggard Benevolent Fund in aid of British invalids at Davos who are in need.

We believe that it is not generally realized how many of the patients who go there fail in their pursuit of health through lack of means. The proposed fund will be invested in the names of trustees, and the income spent under the management of a carefully appointed local committee. It would be administered in close connexion with the institution known as the English Nurses' Home, with which it may, if events prove it to be expedient, be afterwards incorporated and united.

We are confident that a memorial on these lines is not only the most fitting tribute that can be paid to the memory of one who lived so much for others, but it is that which would have given the greatest satisfaction to Dr. Huggard himself.

Subscriptions should be sent to Edward C. Simmons, Esq., at 74, Cheapside, London, E.C., or the London Joint Stock Bank, 120, High Holborn, crossed "Huggard Memorial Account."—We are, etc.,

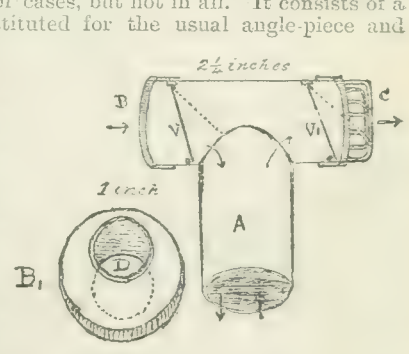
BALFOUR OF BURLEIGH
HENRY ANGST
(British Consul-General, Zurich)
ARNOLD F. BILL
J. MITCHELL BRUCE
W. J. SCUDAMORE EMERY
B. HUDSON
(British Consul, Davos)
GERALD F. MCGAREL HOGG
ROBERT W. PERKS
R. DOUGLAS POWELL
EDWARD C. SIMMONS
D. A. F. VESEY
E. S. WOODS
(English Chaplain, Davos)
H. C. WEINCH.

74, Cheapside, London, E.C., March 7th.

ATROPINE AND OPEN ETHER ADMINISTRATION.

SIR,—Dr. Bellamy Gardner's description[1] of the open method of giving ether is as interesting and practical as are all his communications relating to anaesthesia. But on the point of economy of ether used I should like to ask him if he has ever calculated the quantity as compared with the usual closed method, because this becomes a quite important point in small institutions where strict economy has to be practised.

There is no doubt that even with the greatest care, not only is a larger quantity of ether evaporated, but the atmosphere soon becomes heavily charged with the vapour. In an endeavour to obviate these disadvantages, I must plead guilty to having devised yet another addition to the anaesthetist's armamentarium, and have found it, during the last three years, answer its purpose very well in a large number of cases, but not in all. It consists of a T-piece, to be substituted for the usual angle-piece and bag. At either end of the cross piece are light mica valves, V and V_1; working on hinges from the top, as shown in the sketch. The end B is closed, except for an aperture placed excentrically; over it fits a cover with milled edge having a similar aperture in a corresponding position, the cover revolving easily. When it is in position as B_1, the inlet D is at its smallest size; by rotation it can be enlarged till both apertures coincide. The same effect could be obtained by means of a diaphragm, but would not be so easy to keep clean. Air is inhaled at B, more or less as required, passes over the ether chamber and the exhalations escape at C, which



[1] BRITISH MEDICAL JOURNAL, February 24th, 1912, p. 422.

terminates in a little cage to protect the mica valve. Each inspiration and expiration is marked by a distinct "click" of the valves, the force and regularity being a good indication of the breathing both to the administrator and the surgeon. The end C can be directed away from both of them.

I generally induce anaesthesia with nitrous oxide gas and the bag in position, giving ether moderately till breathing is regular, then remove the bag and substitute the T-piece, turning ether on rather more at first. The amount of air admitted and ether used can then be nicely regulated, but the pointer must *generally* be at about 3. If the inhaler is warmed, the less need the ether chamber be opened. The quantity of ether used is very slightly in excess, if at all, of that required by the closed method. The effects on the patient are as good as in the open method, but there is, of course, a limit to the proportionate strength of vapour inhaled, so that for some strong men it will not always answer for long, but at any moment the bag can be replaced and some rebreathing allowed. A mouth prop can always be used if necessary, and I have occasionally had to fix the ring tongue-clip employed by Dr. Bellamy Gardner.

The little apparatus was made for me by Messrs. Mayer and Meltzer.—I am, etc.

WALTER GRIPPER.
Anaesthetist to the Carshalton District Hospital.

Wallington, Feb. 27th.

ACTINOMYCOSIS.

SIR,—In the reports of the cases of actinomycosis of the lung which appeared in the BRITISH MEDICAL JOURNAL for February 10th and February 17th no mention is made as to whether any examination of the nose and accessory sinuses was made. In June, 1911, in conjunction with Mr. Edgar Stevenson, I published a case of actinomycotic meningitis due to sphenoidal sinus suppuration, causing death four days after excision of the right eye (*Ophthalmoscope*). In this case the patient was admitted for panophthalmitis following injury, and four days after excision of the eye died of meningitis.

At the *post-mortem* examination extensive disease of the sphenoidal sinuses was found, both sinuses communicating freely with the base of the brain. The organism was found to be actinomyces, and the cause of the meningitis was undoubtedly due to extension of disease from the sphenoidal sinuses.

In looking up the literature on the subject, though I found plenty of reported cases of actinomycotic meningitis and actinomycosis of the lung, I could find no mention of a nasal examination having been made. After my own case I have wondered if, in all probability, some at least of the other many cases of actinomycosis may not also have been due to undiscovered accessory sinus suppuration, and I think it would be of interest if in future cases of this rare disease writers would make a point of examining the nose.—I am, etc.,

Liverpool, Feb. 18th. ADAIR DIGHTON.

THE PATHOGENIC PROTOZOA.

SIR,—The deep importance of all that concerns pathogenic protozoa leads me to ask you to publish this note based on the interesting review of v. Prowazek's work in your issue of February 24th.

As regards *Molluscum contagiosum*, I would strongly urge all who have facilities to place the pearly growths removed with cleanly care and slightly broken up by needling in tap-water in cupped slides in moist chambers made of pairs of Petri dishes containing moist filter paper. The preparations can be at room temperature at night and at blood heat by day. Whatever other forms the protozoon may assume I am convinced that the molluscum corpuscles are not "reaction products," although it is very difficult to reproduce the exact conditions in which they assume the striking vital processes I described in 1895. The preparations should be examined frequently during the first five days. The plastic bodies with streaming protoplasm described in Part II of my *Protozoa and Disease* can readily be found.—I am, etc.,

London, W., Feb. 25th. J. JACKSON CLARKE.

THE NEW CELL PROLIFERANT.

SIR,—With regard to the scientific points in Mr. Walker's letter (p. 582), the facts are (1) that the ascaris eggs used by us did not often divide in water or in salt solution, but that they did divide very frequently under the same conditions in solutions of auxetics: and (2) that human white blood cells never divide on plain jellies, but that they do divide very frequently on auxetic jellies. From these and other facts we infer merely that these auxetics in some way bring about cell division, and we are seeking to follow this clue as far as it will lead us. But we do not say that no other substances or processes are also favourable to cell division, and if other substances and processes are favourable to cell division, the fact will not invalidate our work.

Mr. Walker says that the induced division of lymphocytes does not resemble mitotic division. I cannot help that; I have described merely what we have seen. But the matter can be, and has been, discussed at length. He states that he has repeated some of our studies and cannot agree with our interpretations. The technics are very difficult, and therefore I would rather not accept his opinion until I know for certain that the procedure used by him is the correct one, and that it has been used with a genuine wish to succeed. We ourselves have succeeded after innumerable trials.

About his refusal to let me use his plates, my publisher wrote to him on my behalf, and, of course, I became acquainted with the nature of his reply. As I have said, I consider it to be a discourteous refusal. From this I judge that Mr. Walker is not favourably inclined towards our work, and I am very sorry to have to arrive at this opinion.

I may add that J. Loeb himself has recently stated, in a paper in the *Popular Science Monthly* (January, 1912), that "All agencies which cause a definite type of cell destruction—the so-called cytolysis—cause also the egg to develop, as long as their action is limited to the surface layer of the cell." It is with the substances produced by cytolysis that we have for some years past been inducing cell division, and it was with these self-same "auxetics" that we induced the development in the eggs of *Ascaris megalocephala*.—I am, etc.,

London, S.W., March 12th. H. C. ROSS.

THE PROFESSION AND POLITICIANS.

SIR,—It was not originally my intention to intervene in this discussion, and I only do so now because Dr. Beckett-Overy has made so many grave misstatements in his short letter that I think they deserve refutation at the hands of the person responsible for the internal arrangements of the Queen's Hall meeting.

In the first place he says that the meeting was partly organized from the Hammersmith Constitutional Club. This is incorrect. The only member of the Executive Committee who is also a member of that club is myself, and I can authoritatively state that no meeting connected with the Queen's Hall meeting was held within its walls. I plead guilty to having used the club notepaper to make notes upon, and I may possibly have written a letter or so from there, but that is the sole extent to which the Hammersmith Constitutional Club is interested in it. It would be as reasonable to charge the organization of the meeting to any other club or institution to which any other member of the Executive Committee might happen to belong. To add to the exquisite humour of Dr. Beckett-Overy's suggestion may I say that Dr. David Walsh, the secretary to the whole committee, is a member of the National Liberal Club, and conducted much of the correspondence from within its august portals?

Not satisfied with saddling the members of the Hammersmith Club with the organization of the meeting, Dr. Beckett-Overy further suggests that it was responsible for obtaining the stewards. This is again incorrect. The facts are as follows: I arranged with my friend Mr. Wilfrid Travers (who is not a medical man) to supply me with a certain number of men who were in the habit of stewarding large meetings to act as chief stewards. This arrangement was made in Mr. Travers's offices at Westminster, and had nothing whatever to do with the Hammersmith Constitutional Club. In addition, I caused

a circular letter to be sent to the Dean of each metropolitan hospital asking for students to act as stewards under the direction of the trained men whom Mr. Travers selected. The result was that eighty medical men and students offered their services, which were utilized under the circumstances related above.

With regard to his third statement, I have no knowledge. If Dr. Beckett-Overy will have the courage to publish the name of the member of the committee who told him "They would not hear Horsley" I may be able to say more about it. Assuming it to be correct, it is to be doubted whether it was anything more than an expression of opinion on the part of the individual member; but if Dr. Beckett-Overy suggests that any of the committee instigated or organized the "shouting down" of Sir Victor Horsley I indignantly repudiate it. With reference to any particular steward having been "told off" to "mark" Sir Victor Horsley Dr. Beckett-Overy is again misinformed. The committee were not aware that Sir Victor was coming, and even if they had been they were not in a position to know in what portion of the hall Sir Victor Horsley would take his seat. Moreover, the chief steward in charge of that section was a gentleman who did not even know Sir Victor Horsley by sight

I regret that it has become necessary to prolong this controversy, but I think the organizers would be unfair to themselves did they not contradict the mass of absurd statements that Dr. Beckett-Overy has strung together. The proofs of the truth of the statements I have made in this reply I am prepared to produce in the columns of the JOURNAL, should the accuracy of what I have written be impugned by Dr. Beckett-Overy or any one else.—I am, etc.,

PERCY C. RAIMENT.
Honorary Secretary, Executive Committee, Queen's Hall Meeting.

Brook Green, W., March 9th.

POST OFFICE MEDICAL OFFICERS: THEIR OPPORTUNITY FOR JUSTICE.

SIR,—I was glad to see "Pastor's" letter: I feel confident that the majority of such officers are ready to support the Secretary (Dr. Giddings) of the British Postal Medical Officers' Association. May I urge the members to write at once to the Secretary, Hillsborough House, Mansfield Road, Nottingham?

In recent years the Postmaster-General has imposed several important conditions on the Post Office doctors which are most objectionable and unjust. In fact, I cannot conceive of the Postmaster-General in his private capacity, or any ordinary man of business integrity, asking a doctor to undertake onerous extra work without fair payment and with hearty consent. The Government recently has sought to improve the conditions and payment of all departments of the Post Office service. The doctors alone are to be exploited.—I am, etc.,

March 11th. JUSTITIA.

STANDARDIZATION OF PANCREATINS.

SIR,—I should like to endorse the plea made by Mr. Shelly for standardization of preparations of pancreas, but chiefly on therapeutic grounds.

I have been repeatedly asked to see patients in consultation who had been taking pancreatic extracts of various kinds, often for considerable periods, without receiving any benefit, but when I have prescribed for them a preparation which laboratory experiments had shown to contain active ferments their indigestion has disappeared, they have put on weight, and analyses of the faeces have shown a diminution in the amount of unabsorbed food.

A few years ago I tested samples of all the commercial preparations of pancreas that I could meet with, and was surprised to find what a large proportion were inert, others had more or less proteolytic and amylolytic power, but there were very few that possessed marked fat-splitting properties.

I am quite sure that if a method of standardization were adopted, not only for proteolytic enzymes but also for starch and fat-splitting ferments, which are equally important clinically, much more satisfactory and uniform results would be obtained in cases of "intestinal indigestion," pancreatic insufficiency, etc., than is now the case.—I am, etc.,

London, W., March 9th. P. J. CAMMIDGE.

Obituary.

JOHN CHAUNDY CLARKE, M.R.C.S., L.S.A.,

MORLEY.

THE death of Dr. J. C. Clarke removes a striking figure from among the practitioners of Morley, and, indeed, of Yorkshire. He was born in Derbyshire in 1840, and received his medical education at Guy's Hospital, taking the diploma of M.R.C.S. in 1863, and that of L.S.A. in 1868. He went to Morley in 1863 as assistant to the late Dr. Ellis, after a time removing to Gildersome to start on his own account. On the death of Dr. Ellis he returned to Morley, and in 1874 took Bank House, where he lived and practised for thirty-one years, and here most of his children were born. His energy and abilities in course of time brought him a large and scattered private practice, which consequently entailed riding many miles every day. In addition to this, he became the medical officer to various life assurance offices, as well as to most of the neighbouring mills and collieries. Skilful, manly, and sympathetic (the last gift being especially marked in him), his advice and example were a blessing to his patients and those assistants who were fortunate to come under his influence. It will be a long time before the memory of "Old Clarke," as he was often familiarly and affectionately called, passes away. Retiring from the greater part of his private work in 1905, and leaving his practice in the hands of his second son, who had been for some years in partnership with him, Dr. Clarke removed to a house on the outskirts of Morley, but still retained his appointment of factory surgeon. This work he was doing up to and on the day of his death. The end came peacefully in the afternoon of February 21st, from heart failure. He died, as he wished to, almost suddenly, and whilst still in harness. Dr. Clarke was twice married, and leaves a widow and eight children. He was buried on February 26th in the churchyard of St. Peter's, and all Morley showed, by drawn blinds, flowers, and, where possible, actual presence at the grave, their respect and affection for John Chaundy Clarke.

C. W. A.

RICHARD DILL, M.D.EDIN.,

BURGESS HILL.

DR. RICHARD DILL, formerly a very well-known figure in Brighton, died at his residence at Burgess Hill, Sussex, on February 24th, in the 90th year of his age. He had been resident in that place for some twelve years, and both before and after settling there as a retired practitioner had helped greatly to promote its interest by advocacy of the hygienic and other attractions of the locality. His active life was passed at Brighton, where he co-operated in one of the most important practices in the town during the greater part of the last fifty years of the nineteenth century. He was of mixed Irish, Scottish, and English blood, his father being a descendant of a family which settled in Ireland at an early date in English history, and his mother one of two sisters, the last representatives of the Gordons of Glenbucket.

His professional education he acquired at Edinburgh University, where he became M.D. in 1845. On completion of his studies, there was at first some question of his remaining permanently in Edinburgh under the auspices of Simpson, one of whose favourite pupils he had been. In the event, however, he went on an expedition to China, remained there for some time, and, on his return, decided to join an uncle who was already in practice in Brighton. The decision proved not unwise, for he prospered greatly in Brighton, and, though some of his friends considered he would have done better still if he left that place for the metropolis, he remained faithful to it to the end of his professional career.

During a considerable proportion of his time in that town he had the pleasure of having associated with him in his work one of his own sons, Dr. J. F. Gordon Dill, a former Chairman of the Brighton Division of the British

Medical Association, and at the present time Senior Physician of the Sussex County Hospital. Dr. Richard Dill, who celebrated his golden wedding some six years ago, is survived by his wife, by two sons, one of whom has already been mentioned, and by two daughters. Another son, who died some years ago, was also a medical man and an officer in the Royal Army Medical Corps.

WE record with deep regret the death of CHARLES PARNHAM SKRIMSHIRE, M.R.C.S.Eng., L.S.A., who passed away on February 22nd at Sand Haven, St. Paul's Road, Weston-super-Mare. Death was due to hemiplegia and cardiac failure. Dr. Skrimshire, who was the fifth son of the late Dr. George Skrimshire, of Holt, Norfolk, was born on October 15th, 1844, and was one of four brothers who followed their father's profession. He studied medicine at St. Bartholomew's Hospital, London, and was senior scholar of his year. He had an eminent and successful medical career in Wales, first at Llanelly, near Crickhowell, as partner with the late Dr. W. F. Tuckett, to whose practice he eventually succeeded, and one of whose daughters he married. After between eight and nine years in practice at Llanelly he removed to Blaenavon, Monmouthshire, where for eleven years he was head doctor for the Blaenavon Iron and Steel Company, and he then retired to private practice in the same town. On account of failing health he finally retired in November last and went to reside in Weston-super-Mare in the hope of some years of quiet yet useful service. During his career he held the following appointments: Medical Officer of Health for Brynmawr Urban District Council and Llanelly Rural District Council; Medical Officer to the Crickhowell Union; Public Vaccinator for Brynmawr and District; Medical Inspector of Factories for the Blaenavon Company. He was a member of the British Medical Association, and formerly held the position of President of the Eastern Valley Medical Association. Dr. Skrimshire was earnest in everything he undertook, and had a distinguished career as a Volunteer, being late Brigade-Surgeon of the South Wales Volunteers Infantry Brigade, Surgeon-Lieutenant-Colonel (V.D.) 1st Brecknockshire Volunteer Battalion South Wales Borderers, and was granted the Volunteer Decoration for long service. He was a prominent Freemason, having held the position of Worshipful Master of the Kennard Lodge. He leaves a widow and four sons and three daughters: the eldest son is Head Master of the English High School for Boys in Constantinople, and his second son the former well-known Welsh International Rugby football player, now in South Africa.

WE regret to announce the death of Dr. ARMAUER HANSEN, of Bergen, the discoverer of the bacillus of leprosy. The discovery was made so long ago as 1871. Born at Bergen in 1841, Dr. Hansen was appointed Physician to the Lungegaard Leper Hospital there in 1869. He studied microscopy and dermatology at Bonn and Vienna in 1870 and 1871. In 1881 he was appointed Director of the Lungegaard. Dr. Hansen took an active part in the organization of leper hospitals in Norway with the view of segregating lepers; but the segregation was never, we believe, made compulsory. At any rate, in the mid Eighties we remember seeing obvious lepers mingling freely with crowds in the street. Dr. Armauer Hansen was a man of unassuming manners and amiable character. He was a son-in-law of Danielssen, author of what was once regarded as the classic work on leprosy. Dr. Armauer Hansen was in his 71st year.

WE regret to announce the death, on March 2nd, at his residence, Upper Norwood, of Dr. G. STANLEY ELLIOT. Dr. Elliot, who was the son of a well-known surgeon in Exeter, had two brothers in the medical profession. He was born in Devonshire in 1844, and received his medical education at the Worcester Infirmary and in Edinburgh. He took the diplomas of L.R.C.P. and L.R.C.S.Edin. in 1867; he held consecutively the post of House-Surgeon at Salop Infirmary, Assistant Medical Officer at Colney Hatch Asylum, at Worcester County Asylum, and at Coton Hill Institute for the Insane. He was appointed Medical Superintendent to the Metropolitan Asylums Board Asylum at Caterham in 1879, from which post he retired on a well-earned pension in 1901. He had become M.R.C.P.Edin. in 1873 and F.R.C.S.Edin. in 1879. Dr. Elliot was a man of wide culture, had read and assimilated much, travelled extensively, and possessed a keen insight into the characters of men. His courteous bearing and honourable conduct endeared him to every one; he had no enemies but many friends, by whom he was much beloved, and who were proud to minister to him during his last long illness. He suffered from grave heart disease with complications, which made him an invalid for several years, and which ultimately proved fatal.

After life's fitful fever he sleeps well.

THE death has occurred at his residence at Lee, Blackheath, of Lieutenant-Colonel G. W. MCNALTY, C.B., a Fellow of the Royal College of Surgeons of Ireland and M.D.St. Andrews, who, after serving some thirty years in the army, retired with the rank of Brigade-Surgeon-Lieutenant-Colonel in 1892. During his career, which was one of considerable distinction, he gained an exceptionally large experience of war operations, though not always in the capacity of an officer in the Army Medical Department. On two occasions he served with foreign troops—first, as Medical Officer of the English ambulance during the Franco-German war of 1870–1, and next as Commissioner and Chief Surgeon to the National Aid Society in the Russo-Turkish war of 1876–7. He was also present at all the principal engagements during the Ashantee war of 1873–4, the Afghan war of 1878–80, and in the first Egyptian expedition in 1882. While in India he was an Honorary Surgeon to the Viceroy, and received the Companionship of the Bath at the Diamond Jubilee. At the time of his death he was in the 75th year of his age.

BRIGADE-SURGEON HENRY ELMSLEY BUSTEED, Madras Medical Service (retired), died in London on February 1st, aged 79. He was born on December 4th, 1832, took the M.D., Queen's University, Ireland, in 1854, and the M.R.C.S. in 1855, and entered the Indian Medical Service as Assistant Surgeon on August 4th, 1855. He served with the Horse Artillery in the Indian Mutiny, and took part in the relief of Lucknow, the relief of Cawnpore, and the operations against the Gwalior contingent, receiving the medal with a clasp. In 1861 he was appointed Civil Surgeon of Cuddalore, the civil station attached to the ancient Fort St. David, and in 1865 entered the Madras Mint as Assistant Assay Master, and in the Mint he spent the rest of his service. In 1870 he was transferred as Deputy Assay Master to Calcutta, and in 1872 was appointed Assay Master, a post which he held, occasionally acting as Master of the Mint, until his retirement, with a step of honorary rank, on June 1st, 1886. He became Surgeon on August 4th, 1867, and Surgeon-Major on July 1st, 1873, but rose no higher in the service, as medical officers employed in the Mint were then not eligible for further promotion. Even now, they are debarred from promotion to the administrative grades. He received the C.I.E. on January 1st, 1887, after his retirement. He will be best remembered, however, as the author of that charming book, as Lord Curzon called it, *Echoes of Old Calcutta*. First published in 1882, subsequent editions were issued in 1888 and 1897, and a fourth, rewritten and considerably enlarged, in 1908. He also published, in 1903, a pamphlet, *The Serampore Portrait: Is it Madame Grand?* afterwards incorporated in the fourth edition of *Echoes*, in which he conclusively proved that the famous picture in the Baptist Mission, Serampur, long supposed to be a portrait of the lady known successively as Mdlle. Noel Werlée, Madame Grand, and Princesse de Talleyrand, was in reality a picture of a Danish princess.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are: Dr. E. Caventou, sometime President of the Paris Academy of Medicine; Dr. V. P. Ivanovsky, formerly Professor of Pathological Anatomy in the Army Medical Academy, St. Petersburg; Dr. Emil Stoficlla d'Ata Rupe, Emeritus Professor of Internal

Medicine in the University of Vienna, aged 76; Dr. Dittmar-Finkler, sometime Professor of Hygiene in the University of Bonn, in his 60th year; Dr. Hermann Jastrowitz, of Berlin, a well-known authority on mental diseases, aged 72; Dr. A. Negri, Lecturer on Bacteriology in the University of Pavia, known by his researches on rabies, on the prophylaxis of malaria, and on the protozoa; Dr. E. Cestan, Professor of Clinical Surgery in the Medical Faculty of Toulouse; Professor Heinrich Ehlers, who was for a long time head of the Gynaecological Clinic of the Duke's Hospital at Brunswick, in his 72nd year; and Professor D. W. Reye, for many years Director of the Hamburg Asylum for the Insane, in his 80th year.

Universities and Colleges.

UNIVERSITY OF LONDON.

MEETING OF THE SENATE.

A MEETING of the Senate was held on February 21st.

Charles Graham Medical Research Scheme.

Dr. Charles Bolton, D.Sc., F.R.C.P., was appointed for a period of one year from January 1st, 1912, Director of Research under the Charles Graham Research Scheme.

Grants by the Goldsmiths Company.

The cordial thanks of the Senate were voted to the Worshipful Company of Goldsmiths for their recent generous gifts of £10,000 to the building fund of King's College for Women, £5,000 to the Endowment Fund of Bedford College, and £1,000 to the building and equipment fund of the chemical laboratories at University College.

Amendment of Regulations in Medicine for Internal and External Students.

It was resolved that Sections V and VI of the regulations with regard to exemptions in medicine (Red Book, September, 1911, p. 147) be amended to read as follows:

(v) Students who have passed an Intermediate Examination in *Arts*, Science, or Agriculture, with Chemistry, or Physics, or Botany and Zoology, will be exempted at the First Examination for Medical Degrees from examination in the subjects in which they have passed, provided that they have completed the required Courses of Study.

(vi) Students who have passed the *B.A.* or B.Sc. Examination, with Physics, or Chemistry, or Botany and Zoology, will be exempted at the First Examination for Medical Degrees from examination in the subjects in which they have passed, provided that they have completed the required Courses of Study.

The foregoing amendments were adopted, *mutatis mutandis*, for External Students.

(Note.—The words in italic are those inserted in the Regulations.)

Appointment of Representatives.

The Chancellor has appointed Sir James Barr, F.R.C.P., to be representative at the Court of the University of Liverpool for the remainder of the term of three years ending December 31st, 1914.

Professor W. D. Halliburton, F.R.S., has been appointed by the Senate a member of the Committee of Management and of the Medical School Committee of King's College Hospital.

University Students in Physiology.

A university studentship in physiology will be awarded to a student qualified to undertake research in physiology, and will be tenable in the Physiological Laboratory of the University or of a school of the University. Applications must be received by the Principal on or before May 31st.

Training Course for Lectures.

In connexion with the training course for lectures arranged by the University Extension Board to be held during the summer terms, 1912, Dr. H. H. Hulbert will deliver four lectures on the management of voice.

UNIVERSITY OF MANCHESTER.

Extension of the Physical Laboratory.

PROFESSOR ARTHUR SCHUSTER, Honorary Professor of Physics, opened the new extension of the Physical and Electro-technical Laboratories of the Manchester University on March 1st. The Vice-Chancellor (Sir Alfred Hopkinson), who presided, said that the building, which was opened about twelve years ago, owed its present form to plans drawn by Professor Schuster after seeing what was done in other countries, and at the time they thought it was the last word in the building and fitting up of a physical laboratory. Since then the work had grown enormously, and the extensions were intended to consolidate in one building work which had hitherto been separated, and to provide further accommodation for special research.

Before declaring the building open, Professor Schuster said that when he joined the staff in 1882 the great possibilities of the practical applications of electricity were just beginning to be realized. Evening classes in the subject were commenced, and shortly afterwards a small dynamo house was obtained. As to the technical instruction supplied by the university, there was a special faculty of technology at the municipal school, and the division of the teaching between that and the faculty of science was perhaps not altogether logical, but the two institutions had grown up independently, and, though there was a great deal of talk of overlapping, he did not think in this case that it implied waste. The best adjustment that could be provided was not by a strict definition of what was to be taught in one building or another, but by a cordial and friendly intercourse between the teachers themselves, and by an interchange, where advisable, of students between the classes of the two institutions. He had been much disappointed to find that many students who might have a prosperous career if they would go abroad did not do so. There was a great field for students of physics in India and the Colonies. There were numerous good appointments in the meteorological and physical departments of the universities of India which might fall to many of their good men.

Mr. J. W. Beaumont, the architect of the new building, presented a gold key to Professor Schuster, and a hearty vote of thanks was passed, to which Professor Schuster responded.

On the same occasion the honorary degree of Doctor of Science was conferred on Mr. S. Z. de Ferranti, President of the Institute of Electrical Engineers, and one of the pioneers of electrical engineering in this country.

The main building of the laboratories was opened by Lord Rayleigh in 1900, and the extension consists of two wings on the north and west sides of the dynamo house. The ground floor is devoted solely to electro-technical work, the electro-chemical work being carried on in its old quarters. The first floor of the west wing includes a large lecture room, while the same floor of the north wing provides a number of small research rooms intended mainly for Professor Rutherford's researches in radio-activity, which require a certain amount of isolation.

UNIVERSITY OF BIRMINGHAM.

MEDICAL FACULTY.

PROFESSOR PETER THOMPSON has been appointed Dean of the Medical Faculty, in succession to Professor Gilbert Barling, who has held the office with great success ever since the retirement of Professor Windle, over seven years ago.

SOCIETY OF APOTHECARIES, LONDON.

Association of Certificated Dispensers.

THE sixth annual meeting of this association was held in the Court Room of the Apothecaries' Hall, Blackfriars, E.C., on Thursday, March 7th. Mr. Montagu Smith, Lewisham Infirmary, presided.

The financial statement showed a net credit balance of £81 11s. 10d., and the annual report a steady increase in the membership, now over 500, the largest association of dispensers in existence, large numbers having joined for protection against the unsettling tendencies of the Insurance Bill. The Committee and Honorary Secretary have taken care that the interests, rights, and privileges of the members were brought to the notice of every member of the House of Commons, and deputations had been received by members of the Government, resulting in a special clause being added to the dispensing clauses for the benefit of holders of the Hall certificate. A petition had been forwarded to the Privy Council with reference to powers given to the Pharmaceutical Society under Section 4, Subclause B, of the Poisons and Pharmacy Act (1908), to make a by-law. A bill proposed by the Society of Apothecaries with the object of bringing the certified dispensers and the examination more into line with modern requirements, introducing, amongst other matter, a preliminary examination in general education, period of training, an age limit, title, registration, and other improvements, will be submitted to Parliament at an early date. Many members were successful in securing dispensing appointments in the public services, and a large number temporary or permanent berths through the employment agency kept by the Honorary Secretary. The members of committee were re-elected, and the name of Dr. C. Addison added to the list of patrons. Mr. Derbyshire, of the Royal General Dispensary, was appointed an Assistant Secretary. Votes of thanks to the Master and Wardens for the use of the court-room, the Chairman, and Honorary Secretary terminated the business.

UNDER the will of the late Mr. George Hablo, the Manchester Hospital for Consumption and Diseases of the Throat and Chest receives a sum of £5,000 for the endowment of a ward.

THE Bombay correspondent of the *Times*, telegraphing on March 6th, states that Mr. Ratan Tata has offered £1,000 annually for ten years for a crusade against tuberculosis. The idea has received the approval of the Government of India, and the support of the Bombay Municipality and the millowners is anticipated. Phthisis is especially prevalent among the *purdah* women.

No exemption in General Biology at the First Examination for Medical Degrees will be granted to Students who have not passed an Intermediate Examination in *Arts*, Science, or Agriculture, or the B.Sc. Examination, with Botany and Zoology.

Medico-Legal.

CONTRACT WITH LOCUMTENENTS.

The question of the amount of notice to which a locumtenent is entitled was raised by an action tried in the Clerkenwell County Court on March 4th. In this case, according to the report in the *Times*, the plaintiff claimed £19 4s. as salary for four weeks and four days, and £7 4s. as the sum equivalent to board and lodging for the same period. He had been engaged, he said, to act as locumtenent for a period running from November 30th to January 16th in return for four guineas a week and board and lodging, but about a fortnight after commencing his work he fell ill, and had to take temporary rest; on returning to his duties, however, the defendant refused to allow him to complete his contract. Pleading his case on his own behalf, the plaintiff argued that his claim was justified because the relation between locumtenent and employer was that of master and servant. At any rate, there was not any general custom of contrary effect in the professiou, nor any established rule, as testified by the defence, that a locumtenent was dismissible at 48 hours' notice. Each medical agent had his own rules, and these varied. If the principal were ill a locumtenent was engaged for an indefinite period, and if engaged by the day was engaged at the rate of a guinea a day.

For the defendant, evidence was given by a medical agent, to the effect that there was a custom in the profession that 48 hours' notice would terminate such an engagement as that of the plaintiff; and the defendant, giving evidence on his own behalf, stated that he had been engaging locumtenents for many years, that they were engaged for so much a day, and were never entitled to more than 48 hours' notice. It was also argued on his behalf that though locumtenents were usually paid weekly, this was only for convenience, because, strictly speaking, their contracts were temporary and only for so much a day, and that by established usage of the medical profession a principal was entitled to dismiss a locumtenent at practically a moment's notice.

His Honour, in giving judgement, said that the plaintiff fell ill and another locumtenent had to be engaged. The plaintiff took up the position with regard to the principal that "although you have to pay somebody else, you must pay me as well." That was what the claim in the case was. It seemed to him impossible to accept that conclusion. The principle of the law of master and servant—that illness did not interfere—did not apply to the case, and judgement must be for defendant, with costs. The plaintiff had a right to appeal if he wished to do so.

It is to be noted that, as reported by the *Times*, the judge in this case does not seem to have given any direct answer to the question of the amount of notice to which a locumtenent is entitled, and still less to the converse question of the amount of notice that a principal is entitled to receive.

The two points can be safeguarded, of course, by the wording of the contract signed between the locumtenent and principal, but it is common for principals to entrust their work to locumtenents with whom they have no formal contract, and for locumtenents to commence work on merely verbal arrangements. It seems certain that if locumtenents believed that they were subject to dismissal forthwith the number of candidates for such appointments would be fewer than it is, and that if principals believed that their locumtenents were entitled to give up their positions at their pleasure in the same way, they would leave home with even less tranquil minds than is at present the case.

Public Health

AND

POOR LAW MEDICAL SERVICES.

HOUSES UNFIT FOR HABITATION.

Action by the Scottish Local Government Board.

In connexion with the administration of the Housing, Town Planning, etc., Act, 1909, the Local Government Board for Scotland has just issued an order and explanatory circular with respect to the procedure for closing dwelling-houses unfit for human habitation. The procedure, as prescribed by Sections 17 and 18, has given local authorities considerable anxiety during the past year, leading in some cases to troublesome legislation both in the supreme and inferior courts. The Board sympathise with local authorities which are met by legal difficulties of a purely technical character in administering the Act, and accordingly, in its circular, draws special attention to certain points that have come under the review of the courts.

First, as regards the issue of notices, the Act prescribes that "notice of a closing order shall be forthwith served on every owner of the dwelling-house in respect of which it is made." The Board refers to a recent case before the sheriff at Airdrie, in which objection was taken on the ground that the proceedings of the local authority were inept in respect that every owner had not been served with a notice. It appeared that in the sense of the Housing Acts all the owners were not known, since "owners," as defined by Section 49 of the Housing, Town Planning, etc., Act, include mortgagees. One of the parties who had not been served with a notice was shown to be in possession under a decree. Others were also interested in the subject. It was agreed that it was not reasonably possible for the district committees to discover mortgagees, etc. The local authority quite innocently might serve on one person with only a small interest, while one with a large interest might be omitted. With a view to avoid any question arising out of the failure to include every owner in the address, the Local Government Board has amended the form of its order, so that the address shall be "to A. B. (say) and others, owner or owners of the dwelling-house" in question.

Another point with regard to the Board's form of closing order was stated very fully by the Lord President of the Court of Session on December 21st, 1911, when advising in the case of Kilpatrick *v.* the Local Authority of Maxwelltown. The question in that case was whether the closing order was inept in respect that it failed to disclose with sufficient specification the grounds for making it. The Board's form is somewhat similar to that issued by the English Local Government Board, and is, as his lordship said, really an echo of the Act itself. It contained no provision for specifying the defects. While, therefore, the Court held that it was not necessary to determine that the closing order was inept on these grounds, Lord Dunedin was of opinion "that it might be well if the Local Government Board considered whether they might not, to a certain extent, amend the form with that in view," so that, "in serving the order, there should be some reference added as to what the grounds of defect of the house consist in." The Board has accordingly amended the form to give effect to his lordship's suggestion.

Another interesting point, raised both in the Maxwelltown case and in the case of Johnstone's Trustees *v.* the Special Committee of the Corporation of Glasgow, was whether the expression "dwelling house" in Section 17 of the Act of 1909 meant and included a whole tenement. In the Maxwelltown case the tenement comprised four dwelling-houses, in the Glasgow case some forty odd houses. The question was whether, as in the Glasgow case, it was necessary to pronounce (say) some forty-one closing orders. The Court of Session held that the expression "dwelling-house" may include a whole tenement, and, therefore, a separate closing order for each house was unnecessary.

In conclusion, the Board in its circular warns local authorities of the necessity of retaining the note to its prescribed forms giving particulars of the statutory provisions as to the right of appeal possessed by owners of dwelling-houses affected, and cite the English case of Rayner *v.* Mayor, etc., of Stepney, where the omission of the note led to an injunction of the High Court being granted restraining further proceedings on the ground that the notice served did not inform the owner of his right of appeal to the Local Government Board. In Scotland, however, this appeal is to the sheriff, and by an Act of Sederunt dated November 4th, 1910, the Lords of Council and Session determined the rules of procedure in appeals to the sheriff, which should be carefully observed.

Medical News.

Lord Haldane will preside at the annual meeting of the County of London Branch of the British Red Cross Society to be held at Grosvenor House, on March 27th, at 4 p.m.

Lord Rosebery will preside at the annual meeting of the Royal National Hospital for Consumption, Ventnor, which will be held at 18, Buckingham Street, Strand, on Thursday next, at 4 p.m.

The Royal Dental Hospital, Leicester Square, has received donations from the Grocers Company, £100; from the Drapers Company, £10 10s.; from the Armourers and Brasiers, £5 5s.; and an annual subscription of £5 5s. from the Carpenters Company.

The annual meeting of members and subscribers of the London Medical Graduates' College and Polyclinic will be held at the College, 22, Chenies Street, W.C., on Friday, March 22nd, at 5.15 p.m. Mr. James Cantlie, F.R.C.S., will take the chair.

A lecture on the connexion between hydrographical and meteorological phenomena, will be given by Professor Otto Pettersson at a meeting of the Royal Meteorological Society to be held on Wednesday, at 7.30 p.m., in the Institution of Civil Engineers, Westminster.

The firm which has been familiar to many generations of medical men as makers of Ward's adjustable couches has now become John Ward, Limited, and has its showrooms at 245-7, Tottenham Court Road. Its new catalogue, which has as frontispiece a picture of a sedan chair supplied to Windsor Castle by the firm in the reign of George II, gives a good idea of its principal manufactures, and also information as to the department from which furniture for invalids is issued on hire.

At a meeting of the Council of the North of England Branch on March 8th the Honorary Secretary, Dr. Todd, made a statement, and it was agreed to form provisional Medical Committees. It was proposed that county boroughs should make their own arrangements, but that in county areas where the Division was not coterminous

with the insurance area the arrangements should be referred to the Contract Practice Committee.

THE Lumleian Lectures on Some Moot Points in the Pathology and Clinical History of Pneumonia, which were to be delivered by Dr. Percy Kidd, before the Royal College of Physicians of London, on March 21st, 26th, and 28th, are unavoidably postponed until May 30th, June 4th, and 6th.

THE next biennial health conference and exhibition is to be held at the Royal Horticultural Hall, Westminster, commencing on June 24th. It is being organized by Miss R. V. Gill, 35, Ludgate Hill, E.C., in co-operation with the National Health Society, and in addition to H.R.H. Princess Christian Schleswig-Holstein, has as patrons a large number of representative members of the medical profession. Admission will be free to all public workers who apply for tickets before the opening day.

MR. HENRY HORSLEY, Croydon, Consulting Surgeon to the Croydon General Hospital, on his entering his fiftieth year of active work in the town, was presented with a silver salver and a cheque, as a token of esteem and affection by numerous personal friends, and the committee and past and present members of the hospital staff. There was a large and representative gathering at the Croydon General Hospital on the occasion, the presentation being made by Sir F. Edridge, Chairman of the hospital.

THE Home Office has published a new edition of the list of the names, addresses, and districts of Certifying Factory Surgeons in England and Wales, revised to December 31st, 1911, and a similar list for Scotland has also been published. Copies can be obtained at the price of 1s. each, either directly or through any bookseller, from Messrs. Wyman and Sons, Ltd., Fetter Lane, London, E.C., and Messrs. Oliver and Boyd, Tweeddale Court, Edinburgh.

THE trustees of the Samaritan Fund at St. Thomas's Hospital are making an earnest appeal for contributions thereto, its income being relatively small as compared with the size of the institution served by it. In the fifty-ninth annual report they make out a good case for additional support by showing that the rapidity with which beds can be set free by the discharge of patients in an early stage of convalescence considerably depends on the work of the fund. Its secretary is Mr. Sidney Phillips.

THE Taylor Memorial Home of Rest, which was opened in June, 1910, for the reception of women suffering from incurable malignant disease, was a small house near the Birmingham and Midland Women's Hospital, and had accommodation for only 5 patients. New premises were opened by the Bishop of Birmingham (Dr. Russell Wakefield) on March 9th, and the larger building will afford accommodation for 20 patients. This has been fitted up at a cost of nearly £1,000, towards which a sum of £600 has already been received.

THE Second National Conference on the Prevention of Destitution will be held at the Caxton Hall, Westminster, from June 11th to June 14th. The conference is being organized on lines similar to those of last year, but its scope is to be somewhat extended. It will be divided into five sections: (1) Public Health; (2) Education; (3) Unemployment and Industrial Regulation; (4) Housing; (5) Crime and Inebriety. Among the discussions to be arranged is one on the administration of sanatorium benefit. Further particulars can be obtained from the Secretary, 37, Norfolk Street, Strand, W.C.

WE are asked to state that hospitals in the County of London, or within nine miles of Charing Cross, desiring to participate in the grants made by the King Edward's Hospital Fund for London for the year 1912, must make applications before March 30th to the Honorary Secretaries, 7, Walbrook, E.C. Applications will also be considered from convalescent homes which are situated within the above boundaries, or which, being situated outside, take a large proportion of patients from London. Applications will also be considered from sanatoriums for consumption which take patients from London, or which are prepared to place beds at the disposal of the Fund for the use of patients from London hospitals.

IT is announced that an optical convention is to be held in London next June. The project includes the holding of an exhibition of optical instruments and appliances of every kind, ancient and modern, with a special view to bringing out the performances of British workers in this direction. The President of the Board of Education, in response to a memorial signed by the presidents of nearly all bodies the work of whose members entails dependence on optical appliances, including the President of the Royal Society and the professors of physics at Oxford, Cambridge, and other universities, has given permission for the exhibition to be held at the Science Museum, South Kensington.

Letters, Notes, and Answers.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, London, W.C.; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Office, 429, Strand, London, W.C.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London*. The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, London*.

TELEPHONE (National):—
2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

G. G. desires to hear of a hospital or establishment in the North of England where a patient in rather poor circumstances could be treated by electric light baths for rheumatoid arthritis accompanied by much pain.

W. H. writes: Mr. Balding, L.D.S., has kindly drawn my attention to a paper in the *British Dental Journal* of January, 1912, p. 4, on "The Relation of the Thyroid Gland to Dentistry." It is stated here that the administration of this gland makes the secretions poured into the mouth alkaline; and hence prevents the acid erosion and decay of the teeth. Would any medical man kindly say if he has had any experience of this use of the thyroid: how soon it causes alkalinity; and if this reaction lasts long after discontinuing the drug?

ANSWERS.

VALGUM AND VARUM.

DEPUTY SURGEON-GENERAL J. J. DENNIS, R.N., writes: With reference to Captain Carmichael's query *re* bow-leg and knock-knee, I asked the same question in the JOURNAL some years ago and was told that the meanings had become transposed.

ASYLUM ADMINISTRATION IN IRELAND.

A MEMBER (Ireland).—General rules and regulations for the management of district lunatic asylums in Ireland were issued by the Lord Lieutenant and Privy Council in Ireland in 1894. Under Rule LVII, dealing with the duties of "assistant medical officer," we find that he "shall devote his whole time to the duties of his office." "He shall be responsible to the resident medical superintendent for the performance of his duties." "In the absence of the resident medical superintendent he—the senior, if more than one—shall act as superintendent." Rule XXXIII, dealing with the duties of the resident medical superintendent, provides as follows: "He shall devote his whole time to the duties of his office, and shall not engage in any professional or other business except that of the asylum, but nothing in these rules contained shall be construed to prevent the resident medical superintendent from accepting consultations in cases of mental disease, unless in the opinion of the inspectors such consultations shall interfere with the efficient supervision of the asylum." Section 9 of the Local Government (Ireland) Act, 1898, enabled Asylum Committees to draw up their own regulations, subject to the approval of the Lord Lieutenant and Privy Council. A rule, or absence of a prohibitive rule, enabling the assistant medical officer to undertake general consultations in the case in point may have been made, but it is extremely improbable. The regulations are practically the same as those issued by the Privy Council. The assistant medical officer "shall devote his whole time to the duties of his office," "be responsible to the resident medical superintendent," and "perform such duties as the resident medical superintendent may assign to him; the senior shall act as resident medical superintendent in the latter's absence." In the same way the resident medical superintendent "shall devote his whole time to the duties of the office, shall not engage in any professional or other business, except consultations in cases of mental disease." He may also visit any person at the request of the Lord Lieutenant, Lord Chancellor, the Prisons Board, Inspectors of Lunatics, inquiring into their mental condition, etc." Such rules are found in all the regulations throughout Ireland, and it would seem contrary to both the letter and the spirit of the regulations for an "assistant medical officer to engage in practice outside asylum by taking consultations in cases that are not of a mental nature." When acting as resident medical superin-

tendent he presumably comes under the same regulations, and this officer could not allow his subordinate to do what he himself is not allowed to do. Of course, occasional and exceptional emergencies may occur which are a law unto themselves.

LETTERS, NOTES, ETC.

DR. ERNEST F. BALLARD (Somerset and Bath Asylum, Wells) writes: In the JOURNAL of February 24th Dr. Johnston Abraham, in an interesting article on latah and amok, states that there is no satisfactory explanation of these phenomena. I would like to suggest that these conditions are simply manifestations of a widespread hysteria. Hysteria is regarded as a hereditary anomaly of the nervous system, and is one of the best examples of similar heredity. Since certain families are victims of this diathesis there seems no reason why the same abnormality should not be exhibited by races of mankind. In fact, the prevalence of hysteria among the Latin races is well known. The actual attacks of latah would appear to be minor hysterical paroxysms, which are excited by similar causes. The course of the affection in Malays, and its results, are quite compatible with an identity with hysteria. Moreover, the temperament of the Malay, as described by Dr. Abraham, is essentially that of the hysteric. Again, latah, like hysteria, is commoner in women, and after puberty. One knows that some hysterics are able to control their disposition to paroxysms and various morbid episodes, and Dr. Abraham states that a few subjects of latah "are said to have cured themselves by determination not to succumb." Amok may perhaps be regarded as a major paroxysm of hysteria, without convulsion. Emotional origin, aura, and clouded consciousness are characteristics of both conditions. The special form taken by these attacks in Malays is perhaps due to the inherent savage brutality of the race, illustrated, for example, by the custom of "head hunting," which coexists with a fair degree of civilization. In view of these points I submit that it is unnecessary to attribute latah and amok to opium, hashish, betel chewing, climate, etc., as some people have done.

THE SELBORNE SOCIETY.

MR. WILFRED MARK WEBB, F.L.S., Honorary General Secretary (42, Bloomsbury Square, London, W.C.), writes: I have read the very appreciative notice which you were good enough to give of the Gilbert White Exhibition, and it has occurred to me that some of your readers might care to hear what the Selborne Society is and does. It was constituted in the year 1885. At first it occupied itself more especially with the amenities, and since that time several other societies—such, for instance, as the National Trust—have come into existence and undertaken certain of its objects. As is right, it perpetuates the memory of Gilbert White, and its first intention now is to encourage the study of natural history. Through the Bird Sanctuary Committee of the Brent Valley Branch, it interests itself in attracting and providing nesting sites for wild birds, while a very necessary Plant Protection Section has recently been brought into existence. There are at the present 3,000 members, and, as the subscription (which includes *The Selborne Magazine*) is 5s. a year, many more are required if the society is to realize all its possibilities.

FREE TELEPHONES AND MEDICAL MEN.

DR. HENRY M. HARRISON (Dublin) writes: It may not be out of place to draw the attention of the general practitioners of Great Britain to a very feasible claim which they may make from the State—namely, that of a free telephone.

The Medical Commissioners and our representatives on the local Insurance Committees will doubtless aim at increasing the efficiency of contract work and otherwise bring it more into line with better-class private practice, and I think that much might be done in this direction if arrangements were made whereby every medical man engaged in State insurance work was supplied with a free (or at least partly free) telephone. The patient or patient's friends could make use of any convenient telephone, such as that of their local chemist, their business place, a shop, or one of the many public call offices, and they could thereby save much valuable time and inconvenience, and possibly expense, in communicating with their doctor.

A gentleman widely connected with the organization of contract work under the Act assures me that "the telephone will prove much more useful to the doctor than his assistant," and he also points out that the new class of patients now to be provided for will expect to be kept in touch with their doctor on lines similar (if not improved) to those they have enjoyed in the past, and that their example will be rapidly taken up by their more humble "associates."

Of course I can conceive how in some cases a doctor's services might be called upon for too trivial a complaint, particularly when it will cost the patient nothing; but in all such cases it will be open to the doctor to report the case to the local Insurance Committee, with a view to getting the patient put on to some colleague's list as an "undesirable patient," which designation will doubtless be sufficient punishment for the guilty patient, and, moreover, deter many others from running a similar risk.

I do not suggest that the matter should be taken up by the British Medical Association with the object of having any reference to it inserted in the scheme, but I think it should be left to local option, and, if approved of by the local committee, it might then be taken up by the Association and the Government, asked to sanction the claim on the score of increasing the efficiency of its medical service. In any case, if we are united in our demands, there is nothing connected with the true efficiency of the service that is beyond our reach, for in all such demands we shall have the nation on our side.

FRUMENTY (FURMETY).

DR. ALFRED EDDOWES (London, W.) writes to suggest a cheap and excellent food for the poor—the old-fashioned frumenty or furmety. He recommends it strongly to those who are charitably distributing food among the most needy at the present time. Clean, unground, wheat is placed in a bowl of water or milk, or a mixture of both. The whole is kept warm (not hot) for twelve to forty-eight hours until the grains of wheat swell up to about double their ordinary size. Sufficient for a meal is then heated or boiled as it is required. If well managed the wheat swells and begins to sprout—in other words we produce a malted whole-wheat flour, which with milk and a little salt—or perhaps sugar for children—forms an ideal food. For adults the old-fashioned cooks usually flavoured it with allspice.

DIET IN SCHOOL.

A CONFERENCE on Diet in Schools is to be held at the Guildhall on Monday, May 13th. The Right Hon. the Lord Mayor (Sir Thomas Crosby, M.D.) will preside at the opening session. The committee is: Head Masters' Conference (Mr. F. B. Malim, Head Master of Haileybury), Head Mistresses' Association (Mrs. Scott, Godstowe School, and Miss Young, Secretary), Medical Officers of Schools Association (Dr. C. E. Shelly, President), Private Schools Association (Mr. A. H. Ozzard, Raleigh College), Association of University Women Teachers (Miss J. Watson), Parents' National Education Union (Miss Helen Webb, M.B.), Child Study Society (Dr. Eric Pritchard and Mr. W. J. Durrie Mulford, Honorary Secretary), the British Medical Association (Dr. Robert Hutchison); the Incorporated Association of Head Masters and Preparatory Schools Association have not yet made their appointments; Dr. Clement Dukes (Honorary Consulting Physician, Rugby School), Dr. M. D. Eder (Editor, *School Hygiene*), Mr. David Forsyth, Professor R. A. Gregory (Editor, *School World*), Mrs. Stanley Hazell, Mr. H. Holman, M.A. (Editor, *Child Study*), Dr. T. N. Kelynack (Editor, *The Child*), Professor F. Murison, M.A., LL.D. (Editor, *Educational Times*), Miss Mullins, Mr. W. E. Mullins, M.A., Mr. A. T. Simmons (Editor, *School World*), Mr. Francis J. Storr, M.A. (Editor, *Journal of Education*), Dr. J. Odery Symes (late Medical Officer, Clifton College), Dr. J. Sim Wallace, L.D.S., Mr. W. L. Thompson (Editor, *Secondary Education*). The subjects to be discussed are the following: Diet as a factor in physical, intellectual, and moral efficiency: existing methods; the main lines of reform: instruction in the elements of physiology and personal hygiene: problems of institutional feeding; training in institutional management. It is proposed to call a further conference to consider the feeding of elementary school children and those in charitable institutions. Full particulars may be obtained from the Secretary, Mr. Charles E. Hecht, National Food Reform Association, 178, St. Stephen's House, Westminster.

THE ADMIRAL AND THE SURGEON.

THE *Boston Medical and Surgical Journal*, on the occasion of the recent death of Admiral Robley D. Evans, recalled a story of the time when this gallant officer, then a midshipman, was seriously wounded in the assault on Fort Fisher during the Civil War. He was carried back to his ship, and laid bleeding in a bunk in the surgery with a shattering gunshot wound of the leg. After examining him, the ship's surgeon turned his back and began to lay out his instruments for amputation. "What are you going to do?" queried Robley. "Cut off your leg," said the surgeon. "Like hell you are!" said Robley. And the surgeon, turning round, looked down the barrels of two six-shooters and at Robley peering over the edge of his bunk. Admiral Evans walked on that leg to the end of his days. In this instance the logic of facts seems to have justified the admiral in his defiance of surgery.

LONDON SCHOOL OF CLINICAL MEDICINE.

BY an inadvertence, for which we wish to express regret, the name of Sir Malcolm Morris was omitted from the list of members of the staff of the London School of Clinical Medicine, which was published in a report of the annual dinner in the JOURNAL of March 9th, p. 559.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

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An Address

ON

THE PHYSICIAN AND THE PATHOLOGIST ON HEART FAILURE.*

BY

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IN my youth it was a common jest to ask what N. or M. died of, the witty answer being "shortness of breath of course." The jest has vanished, but the platitude remains, with some alteration of the formula, which, instead of "shortness of breath," now runs "of heart failure." In the obituary notices of our current journals we read daily of these deaths by the half-dozen, that N. or M. died of "heart failure"; and the vogue of appendicitis is threatened. Now, do we owe this new fashion to the physician or to the pathologist? for it is often worth while to examine the straws floating in the wind: we may learn something from some of them. Is this a parrot phrase put up as a kind of shorthand between the doctor and the registrar of deaths? or does it, like appendicitis, signify a fresh point in pathology, claiming its catchword? Does the phrase mean that a snap of the heart stopped the whole machine, otherwise capable of working on, as a snap of a connecting rod may stop the engines of the *Olympic*? or does it mean that the heart was the *ultimum moriens*, and that, so long as this central organ held to it, death was kept at bay? In this case to say that one died of "heart failure" is surely as empty a truism as to say that he died of "shortness of breath." On the other hand, as it is true that we have of late years learned more—much more—of the heart's work and of its diseases, both on the clinical side and on the side of pathology, so the new phrase may be a shadow thrown by some shift of position—whether clinical or pathological—in our view of the heart and its functions. Four or five years ago, when engaged on an article on the treatment of heart disease for Musser and Kelly's *System of Therapeutics*, I was brought closer to this problem, and found the answer so difficult that it has occupied much of my attention since; and to-night I ask you to help me towards some solution of it.

Now, if I appeal to a clinical physician, asking him what he knows about "heart failure," I shall get a ready answer; I shall hear of many a case of sudden and mortal stoppage of the heart; of heart failure in infectious; of cardiac dilatation and defeat under high pressures, venous or arterial; of senile decay, so corroding the heart that it can work no more; of angina pectoris; of aortic regurgitation, and so forth—his data are in plenty; his opinions decisive. And likewise, when I betake myself to the pathologist, I find him no less ready for me: from him I hear of fatty degeneration; of "cardio-sclerosis"—whatsoever this may mean; of rheumatic, diphtheritic, and such-like myocarditis; of fibroid disease of the ventricular walls; of sapping of the *a–v* bundle, and so forth; data again in plenty, opinions decisive. But when I desire to link up the two classes of information; when I confront the physician with the pathologist and seek to correlate the times, periods, and modes of disease and death the one with the other, I find myself but little nearer to practical guidance than I was before. Of course, we all know that a "fatty" heart is not so good as a sound one: we all know that a senile heart will not sustain the attack of influenza like a young one; we all know now that damage of an *a–v* bundle may disconcert the rhythms; but when we ask the physician to draw some parallel in the living patient between the formidable modes of decay described by the pathologist; how and when these degradations are manifested; how, in the long course of cardiac decay, the imminence of sudden death is to be foreseen and provided against; or how, indeed, we are to know that any such process is at work at all; or, lastly, how in a case of known heart disease the degrees of its advancement and of the cardiac reserves are to be noted and tested—then the physician retires from the argument. And so with the pathologist: when we show him a heart from a case of sudden death he will confidently demonstrate to us on the specimen why a heart so diseased could not have gone on; if beside this one we place another heart—still more diseased, it may be—and tell him that the possessor of this heart lived for long enough, and perhaps in the end died of something else; or if we show him another heart in which, by the poison of rheumatic fever, the tract of Tawara was eaten away, and yet, notwithstanding, there was during life no dissociation of auricle and ventricle, he in his turn retires from the argument, saying that he is not concerned with clinical conundrums. Thus we have the physician and the pathologist trotting each on his own side of the hedge, each intent upon his own scouting and his own bearings, and neither able as yet to reconcile his own observations with those of his comrade, both of them being perhaps a little too indifferent to the need of mutual counsel and comparison.

Whether it be, then, for lack of mutual co-operation or because of the perplexities of the subject, the interpretation of cardiac pathology in terms of clinical medicine so far from becoming clearer has darkened, and the intricacies of the path have become more baffling. Our fathers, knowing less of the entanglements of the subject, and newly provided with a collection of the blunter facts of morbid anatomy, took the matter more easily. That people died suddenly of heart disease was for them an old story; when, therefore, they were introduced to diseases of the valves of the organ, and to coarse lesions of its substance, their difficulties were almost solved. The patient is dead, here is the lesion which caused his death; what more does one want? But, as pathology became more and more curious, these simple solutions became less and less acceptable. Kirkes, Bence Jones, Wilks, Fagge, T. H. Green, and many others with them, began to demur. In the dead man they may have discovered lesions enough, and apparently more than enough, to cause his death, but the man had died suddenly, and the lesions under demonstration were of long standing, or in a series of such cases were very various in seat and nature. Again, in a series of such cases valves were diseased and not diseased; kidneys were diseased and not diseased; atheroma was considerable and inconsiderable; the ventricles were dilated or were not dilated; the myocardium was in extreme decay or virtually normal; and its lesions were now focal, now diffused. Thus gradually it dawned upon the pathologist that the problems of cardiac failure were not so simple as in the rise of morbid anatomy had been supposed; and upon the physician, that his clinical methods were fallible indeed, far more so than had been supposed during the rise of stethoscopy. By what system of compensations was it that the same heart could be at once fairly competent clinically and yet pathologically the seat of old and intimate decay? By what system of compensations could a heart go on fairly well, or indeed without suspicion, while its structure was being undermined? Surely there ought to have been some stage of incompetency or at least of falter before the sudden collapse?

In no organ is this lack of concord between the signals of life and death so disconcerting as in the heart. In all living structures there is a factor of safety, that potential which in the heart we call reserve, but in none, perhaps, is it so capacious as in the heart. Yet of this reserve, of what the heart can do in case of need, we have no scientific measure; the microscopist cannot detect it, the clinician has no valid tests for it. At one time it maintains a defective heart; at another time it betrays a heart which, to all appearance, if not impeccable was at any rate not plainly corrupt. So more thoughtful observers began to put the matter more cautiously, and to say that "when a patient succumbs to heart failure certain degenerative changes are *usually* found in the myocardium and vessels, and these are *supposed to* account for the heart failure." Evidently even yet some more refined investigation into the phases and intricacies of cardiac qualities must be instituted if these apparent caprices, clinically speaking, of the heart of man are to be explained, computed, and foreseen. "Heart failure" is evidently a very composite notion—one which must be submitted to a no less penetrating analysis. We begin to learn that in the heart, as we learn in less striking ways in other forms of organized matter, that complexity of structure and conditions mean

* Read before the Chelsea Clinical Society on March 12th, 1912.

not less but more stability: that equilibrium endangered in one direction, or in more than one, may be supported by readaptations of other factors of the concert; so that the organ, if it may not be restored to its pristine capacities, may be steadied into some tolerable adequacy such as, under favourable circumstances and within limits not too wide, to preserve it from default. The heart of an active undergraduate slightly and temporarily impaired by a sharp catarrh may by the stresses of rowing become gravely harmed and give rise to unmistakable clinical symptoms, while a senile heart far more radically vitiated may amble comfortably along the serener paths of tranquil old age. *Non intelligitur quando obrepit senectus.*

To pass from these general reflections into more concrete observations, we may begin either with the clinical or the pathological side: as the clinical side is the field of practice, let us begin there; remembering how Goethe taught us that the general is always to be found in the particular. In the clinical field we shall first be impressed by the part of the heart in almost all diseases, and under conditions such as anaesthesia. In infections we know that the heart is concerned in three ways: in some of them it is directly attacked; in others it seems to suffer rather from a general depreciation in common with other parts and tissues, an impairment due apparently to pyrexia or to some more diffuse effect of the specific poison; in others, again, from a dissociation from its peripheral complement, from a loss of tone in the "peripheral heart," so that it beats the air in vain. Now, for these different conditions have we any crucial symptoms by which to distinguish them? Have we in a particular case any criterion by which, for instance, in an infectious disease, we can discriminate myocardial lesion, myocardial enfeeblement of a more general and temporary kind, and slackening of the peripheral circulation? Moreover, these several factors overlap each other, cross each other, and supplement each other inconstantly, and in degrees of which appreciation seems very difficult. Nay, we are well aware that in infections—as in diphtheria, scarlet fever, rheumatic fever, pneumonia, etc.—a diagnosis of direct attack upon the myocardium is usually, perhaps, beyond our methods; if in rheumatic fever dilatation is not an infrequent accompaniment, in other infections, as in diphtheria, it is at least frequently absent. And in chronic myocardial deteriorations is it too much to say that in the majority of cases of sudden or rapid death the underlying condition is not detected till once for all on the *post-mortem* table?

From and since my student days attention to cardiac disease has taken various directions, dependent on the various improvements of our means of diagnosis. As a student I witnessed the developments of auditory diagnosis—methods which certainly served to detect many cardiac diseases, such as pericarditis and mitral stenosis, not decisively demonstrable before. Then, by the efforts of Sansom, Ewart, Lees, and many others, especial emphasis was laid on percussion as a means of measuring the dimensions of this chamber or of that—a method by later disciples pushed to extravagant lengths or used with indiscriminate assurance. The sphygmograph came next, and from it more was expected than it could give; though twenty years later it was restored to practice by James Mackenzie with largely developed powers; still even thus improved the instrument could tell us only certain things, chiefly facts about rhythm—facts important enough, but, excepting occasionally in respect of pulsus alternans or dissociatus, throwing little light upon myocardial values. Meanwhile pressure gauges were to open out the way for us. Inventors made and improved these instruments, and much was attained in measurement of maximal and minimal pressures and of pulse amplitudes; but after a while we found that we were, perhaps, as far as ever from appreciating the states of cardiac reserve; as much as ever in cardiac disease we were taken by surprise by sudden deaths. Again, the *x*-ray method, and at this moment the method of the electrocardiogram, are, or were, to place in our hands tests of myocardial dynamics; but hitherto we have had to be content with facts which, however interesting, do not give us the intimate criterions which we desire; for cardiac potential we are still without any gauge.

From these introductory remarks, gentlemen, you will infer, and infer correctly, that I do not intend to dwell upon what I may call broadly Valvular diseases of the heart. In the valvular diseases we can often, generally perhaps, form some approximate forecast: the conditions are more frankly mechanical: in some of these cases the myocardium may count for much, but generally speaking it is the static structures rather than the dynamical potentials which determine the issue. If in a few instances, as in aortic regurgitation, the heart may drop out without warning, yet as a rule valvular diseases of the heart do not end suddenly; as a rule we may rely on it that a comparatively intact muscle will fight with fairly good reserve forces till defeated by accumulating venous stresses, and by those regional falls in velocity often known by the rather inept term of "backward pressure." And of these shortcomings we have for the most part no insufficient indications in symptoms and signs.

From the bearing of my essay it will appear that in the class of cases to be discussed I can say little about symptoms: for my point is that, even in the gravest cases of myocardial lesion, symptoms may be none; still, there are a few remarks of a critical kind to be made concerning alleged or occasional symptoms. Moreover, the problem of sudden death—that is, of absence of symptoms during the main run of a myocardial lesion, even to an extreme period—is not materially altered, if we include certain other cases in which, indeed, some symptoms did precede death, but did not put in an appearance till the lesion was far advanced. Dyspnoea, for instance, or falterings in the pulse, or, again, syncopic phenomena, if they appear at all, may not, and commonly do not, appear till the malady has entered upon its final stage: so that the issue is removed by but one step from a sudden death.

But, before considering these admittedly late and almost irremediable symptoms, let us dwell for a few minutes upon any symptoms or signs from which more timely warning may be obtainable, such as dislocation or readaptation of the chambers; murmurs, unless as superfluous signs of demolition, we may disregard. Hypertrophy of the ventricles is so alien to intrinsic degeneration of the myocardium that we may pass it over; but in passing I would say that the alleged intrinsic instability of hypertrophy—say of the left ventricle—apart from the general instability of the diseased individual so affected, seems to me to lack any serious proof. Apart from the causes and conditions of the hypertrophy in the particular case, I know of no evidence that the mere hypertrophy depends upon any encroachment on the normal reserves of the heart. So far as evidence yet goes, a hypertrophied myocardium is as good as a normal muscle; if the need for it be temporary, the part will recede to its normal dimensions, as if no such change had ever taken place; nor does a persistently hypertrophied myocardium stand at any intrinsic disadvantage. Whatever essayists may argue, we do not *know* that it is more easily fatigued, or more liable to degenerative disease; it stands at the disadvantages in which all parts of an embarrassed organ are involved, and no more.

Dilatation we cannot dismiss so readily. It is true that there is nothing very stealthy about a dilatation which is an accommodation for an excessive output or residuum; and, indeed, we need not take alarm at a dilatation significant of a loss of tone, if we have reason to believe that it depends on this only, and not upon a textural dissolution. If, however, it be a result of myocardial disintegration—as, for instance, in a heart of fatty infiltration in an obese person—a state which is nearly always associated with an unknown amount, often considerable, of fatty degeneration also, then we may well be anxious. Unfortunately, in these persons, with their brawny chests, an accurate delineation is not often practicable. But here we have to halt, or even to return upon our steps; the wall of an enfeebled heart, so the unwary would say, must yield, and yielding signify to the careful observer an increasing dilatation. So it would seem, no doubt; but so it is not—not as a rule. It is a strange thing, but one too generally acknowledged to need arguing here, that more often than not a degenerate ventricle does not dilate; not rarely it diminishes in bulk. There is no direct relation between dilatation and tissue change.

I am disposed to mistrust too ready a resort to logical explanations by severance of one cardiac factor from another; still it would seem as if the endowment of tonicity might maintain in position even a decayed—an extremely decayed—ventricle. Of the explanation there is much

doubt; of the absence of dilatation in such cases, even in the majority of them, there is no doubt. And it is still more certain that dilatation is no gauge of the histological condition of the myocardium: in some cases, as in acute rheumatism for instance, an impaired ventricle may be attended with dilatation; in others, as for instance in diphtheria, no such correlation may be found, usually is not. The difference may lie in a contrast between focal lesions and diffuse. A wider percussion area after effort is a test full of fallacies. We cannot admit, then, with the Leipzig school, that dilatation is any measure of the quality of the myocardium.

If, then, the delineations of the heart's dimensions which we obtain by percussion, or even by *x* rays, give us no constant or trustworthy criterion, what of auscultation? Well, we are but little better off. The textbooks complacently repeat that feebleness of the apex beat, falling off in the tone of the first sound, and prevalence in the same area of a thin acute second sound, are signs of myocardial degeneration. So they may be; but they are neither obligatory nor, when present, conclusive. In cases of atherosclerosis, with substantial myocardial deterioration, the impulse may be increased, usually it is not reduced: the sounds also may be good enough, or a snappy second may signify no more than a stiffened aortic valve, a condition of no great relative importance. Yet such patients often die suddenly, and at the necropsy the left ventricle may be stuffed with callosities, and the muscular largely supplanted by connective fibre. The contrast of small pulse and full apex beat need mean no more than a large area of vaso-constriction. And, as to defect of impulse and defect of sound quality, let any experienced auscultator ask himself how often he has found himself misled by ill definition of an apex beat, by a poor first sound and a thin second—severally or even together—in patients who were little or none the worse for the peculiarity. Among scores of such instances I recall two, both in men approaching threescore and ten. One of them had been reduced in health by business mishaps and by a gall-stone abscess; the other after many years of keen and arduous work was out of heart and anaemic. Neither was obviously emphysematous: yet in both the cardiac impulse was but feebly perceptible, if at all; the first sound was poor, the second thin and extensive. In both cases anxious consultations were held with "cardiac experts," and in both a diagnosis of cardiac degeneration was pronounced with little hesitation. The one lived thirteen years afterwards, and died at the age of 83 of some incidental illness; the other ten years later, at the age nearly of fourscore, is still giving his distinguished services to his country. These out of a many such, prove that a fagged or anaemic patient may without any grave affection of the heart nevertheless present for a while the defects of impulse and the quality of sounds which in another might truly signify such a flaw. These equivocal physical signs, then, are not criterious.

To turn from signs to symptoms. Syncopic or vertiginous phenomena often accompany cardiac default; but, whether from dyspepsia, slight labyrinthine disturbance, vasomotor atony, or other obscure cause, we are too familiar with this kind of symptom to rely upon it as crucial in the diagnosis of failing heart. If it be added to other signs and symptoms of heart disease, it may indeed enter, and enter gravely, into a diagnosis as cumulative evidence; but taken alone, or indeed without strong corroboration, it is a very equivocal item.

But surely by the pulse we ought to be able to make a fair inference concerning the state of the heart. Yet even here again we are baffled. It has, indeed, been asserted again and again that the profounder changes in the myocardium are betrayed by an irregular pulse; but as our experience of cardiac disease has widened we have learnt that in the rhythms we have rarely any criterion of cardiac values. Impairment of certain tracts should, so we think, be betrayed by altered rhythms, but we have no definite guide even here; we have learnt by autopsy that even the tracts of Tawara may be seriously undermined by an infectious disease without derangement of rhythm, so likewise may the nervous masses in the coronary sulcus. I think I may rely on a general agreement—an opinion definitely expressed by von Leyden, Bäumler, Ebstein, and many others—that in the pulse we have no guide to myocardial damage, acute or chronic. Positive variations of the pulse may mean little; and under the cover of normal rates, rhythms, and pressures decay may progress to the utmost. Notwithstanding there are two variations of the pulse which, when present, are ominous; these are a persistent rise of rate, and the pulsus alternans. On pulsus alternans I will not dwell, for Professor Wenckebach, Dr. Mackenzie, and Dr. Lewis have reinforced the lesson that this change is, if not invariably yet generally, a herald of myocardial defect. However, as the sign is no common feature of such defect, but a rare one—one far more often absent in failing myocardium than present—it is as a clinical criterion inconstant. Nevertheless, we shall remember Dr. Mackenzie's warning that, if imperceptible to the finger, it may be revealed in a sphygmographic tracing. The only exception to its significance as a note of disease is an occasional appearance of it under the action of some poisons. The researches of H. E. Hering[1] on the causes of pulsus alternans, if not strictly relevant, are so interesting that one is tempted to mention them here. The phenomenon depends, so it appears, on variable refractory periods of the fibres, some fibres being late in response, so that partial asystoles are summed up in rhythmical recurrence. Thus vagus stimulation, by slowing beats, may reduce pulsus alternans and substitute a continuous hyposystole, though occasionally it reinforces it. Such interferences suggest that between the myocardial fibres there are some obscure differences—at any rate, in certain hearts. The accelerans, on the other hand, as it quickens the rate, may increase the alternation or make it manifest by modulations of the refractory discords. Thus the cardiac nerves can not only influence the systolic volume directly, but, by modulating the refractory phases, also indirectly.

In another way the pulse may signify decay of the myocardium—namely, by a persistent change of rate, whether of acceleration or of retardation; though here, again, we have not a constant but an inconstant criterion. We have seen, or shall see, that the tract of Tawara may be profoundly marred without perceptible effect on the pulse: and it is common experience that a normal rate of pulsation is consistent with profound depravation of the left myocardium at large. Notwithstanding it has been strongly impressed upon me that a permanent change of rate is ominous of failing heart. On bradycardia, or again on tachycardia, I need not insist—these conditions are better and better recognized every day; I will insist rather on the less emphasized sign of simple acceleration. Let the pulse of a certain man be known as habitually 70, at rest 65–70: and let this pulse-rate be found to have become habitually ten more—that is, 85–90, on slight movements rising to 100 and over; and let this change show no substantial alteration under prolonged rest, let it fall, that is, under whatsoever rules of tranquillity of mind and body, never below 80–85; then heart failure is in the offing. If, moreover, with this acceleration there be attacks of faintness, or of slight dyspnoea on moderate effort, the failure of the heart's muscle is at hand; and but little amendment can be promised. Of course, before a final opinion is given, any possible nervous influence will be estimated; and the influence of coffee, tea, tobacco, and the like be eliminated, for in later life such agents often become less well tolerated. Two or three cases of this significance have impressed themselves on my memory: one of them in a patient of Dr. George Johnston, of Ambleside, a country gentleman of advanced years, but for his years of great activity, both of mind and body. In climbing over a stone wall into his own park he was aware of some little faintness, which might well have been a transient affair of little importance. However, he was persuaded to send for Dr. Johnston, who found his pulse at a continuing rate of 100–110. It seemed to the patient and his friends that to keep a vigorous man with all the appearance of health permanently at rest, or only to allow him to drive out in his carriage, was a serious decision. I saw him with Dr. Johnston twice at an interval of twelve months; and in spite of the demurs of his friends, who hinted at hypochondriasis or neurasthenia—neurasthenia does not come on in the later life of persons previously healthy—I could not but support Dr. Johnston's injunctions: for if during complete rest the pulse-rate were reduced under 100, or might fall even to 80, on exertion it returned to the higher numbers. Gradually, in the course of the next eighteen months, syncopic sensations at stool or under any more consider-

able effort, increased upon him, further and more ordinary symptoms of cardiac failure set in, and he succumbed without any abiding amendment. But here again, as with pulsus alternans, we have no criterion; acceleration of rate in myocardial breakdown is an inconstant phenomenon, and in certain peripheral relaxations may appear without any myocardial disease.

Of the many other and more familiar symptoms of heart failure, such as dyspnoea, slight oedema, slight albuminuria, cyanosis of ears and lips, fullness and tenderness of the liver, pulmonary crepitations, arrhythmia perpetua, etc., I need not speak: more or less sudden heart failure is frequent without any of these features; and in any case they usually signify late phases of the malady and speak only too plainly for themselves. Of the many symptoms to be discounted, I will refer only to arrhythmias pertaining to the extrasystolic kind, which in some cases are, to the inexperienced observer, terrific. One of the worst of these clumsy, bustling hearts I examined some time ago with Dr. Davies, of Histon, in an elderly gentleman, who, after a little careful treatment, was safely permitted to go about his business; and now I often see him engaged in public or social concerns, apparently without disablement. Another case, almost as troublesome, I witnessed about ten years ago in a gentleman, now living, then some 78 years of age; at Homburg he made a good recovery from some gouty conditions, and his heart practically recovered its steadiness. Almost as I write, he has, on the borders of fourscore and ten, successfully weathered an attack of genuine influenza. In these and such cases the heart may never recover its normal rhythm, but no harm may come of the disorder. The symptom group of every such case must, of course, be sifted carefully, for, on the other hand, in pneumonia or diphtheria a dropped beat may be the first presage of heart failure.

Sphygmomanometrical observations have proved, so far, to be of no use in the detection of myocardial disease. That under prolonged high arterial pressures the heart may be defeated is true enough; but this is not a myocardial decay. A test of blood velocity, which is probably always reduced, would be more trustworthy.

From the electrocardiogram we may in time get more definite hints. In general as age advances the ordinary height of the F(T) wave diminishes in relation to J(R), and in the dying heart it disappears altogether. It is premature, however, to say that from this variation a criterion of the state of the myocardium can be obtained: still a waning of this wave, and still more a negative oscillation, may prove to have a definite pathological significance, especially if the pauses are protracted. On the other hand, a persistence or recurrence of the juvenile type in adult life signifies a nervous factor. Fibrillation of the auricle no doubt signifies decay of the part: fibrillation of the ventricle may be one of the modes of sudden death, but is hardly consistent with survival.

I must not occupy your time with a discussion of the various devices for testing cardiac reserve proposed by Katzenstein, Graupner, and others: suffice it to say that, while some of them are inconvenient, none is effectual or even approximately indicative of the available capacity of the heart under observation.

Thus baldly I have tried to show from the point of view of the physician how indefinite, how inconstant, how obscure, are the symptoms and signs of myocardial insufficiency; let us see, then, what the pathologist has to say—if he with his scalpel and probe can offer us more definite measures of cardiac capacity. We shall say to him, surely you ought to discover why the patient died? why his heart or that man's heart broke down without warning? or in any case what was the critical point at which its resources could no more avail? But too often in his turn the pathologist gives the same uncertain sound. In this heart he found too little to account for death, in that too much—the patient had no business to have lived so long. On grounds as insecure as those of the physician, he finds one heart which, with comparatively little or even no evidence of decay (Cabot), surrendered at the first summons, or during life was obviously insufficient: and, conversely, another which by the very extent and chronicity of decay testified to the long period during which it had managed with silent tenacity to wage an unequal fight. From the side of morbid anatomy, then, the want of parallel, of apparent correlation, between the physician and the pathologist lacks nothing of its emphasis.

But, at the outset of this side of the matter, I would with all due deference suggest that in many a report from the *post-mortem* chamber to the wards the histological changes described are consistent with, or even declare rather the effects of the decomposition of death than of living disease. I have had to discard many a note recording blurred striation, nuclear alterations, "hyaline" change, etc., when without any record of date after death, or of the state of the atmosphere. Indeed, so regular is the tendency in the viscera to a focal distribution of their lesions that one may wisely—I will not say reject, but regard with caution, all reports of diffuse and uniform myocardial disintegration, as suggestive of *post-mortem* decomposition.

Of the kind of detriment called "fatty degeneration" opinions of late have undergone some fluctuation; but the term, for a while discarded, seems to be returning into use, though with some difference of interpretation. The distinction between fatty degeneration and fatty infiltration still holds its ground, though the extremes are rare, and between them lies every grade of transition. If in the obese heart much of the fat is to be traced to an interfibrous penetration, yet on the other hand in very few such hearts is this penetration unaccompanied with definite deterioration of the muscular fibres themselves. And if in "fatty degeneration" the droplets of fat may be but particles of unassimilated nutriment rather than a disintegration of muscle cell, or a metamorphosis of albuminous structures into fat, and if we cannot say that fatty degeneration alone is a myocardial regress in yet this delay of absorption and assimilation seems to signify some alteration of chemical change, if in rate only, and if so to be not without some modification of muscular energy. Aschoff does indeed go so far as to think this fatty manifestation may signify an excess of physiological activity. It is certain at any rate that, in the midst of it, the fibres and their striations may still be well defined (Aschoff, Lubarsch, and many others). In diphtheria beside the fatty deposits the muscle fibres are also obviously diseased. In old hearts with coronary sclerosis Kent's bundle itself may be thoroughly "fatty," yet with no apparent heart failure. On the other hand, in some toxic cases it would seem that the "fatty" state may be established in twenty-four to thirty-six hours. However, what I have to emphasize is the agreement that even well-marked fatty deposits, severe and diffused, may take place without any clinical evidence of heart failure. In this context, then, pathology can provide us with no criterion. That, as I have recently seen stated, the "fatty heart" is to be known by dilatation or by irregularity of rhythm cannot be maintained; these coincidences are quite inconstant.

In no circumstances is our lack of any criterion of cardiac capacity and of cardiac stability more painfully manifest than in the acute infections. Again and again, in such diseases as diphtheria, young and promising lives are cut short by heart failure without any more definite warning than the vague forebodings cast by the shadows of such cases gone before. The young man or young woman may be going on well, so far as clinical observation can tell us, and yet be within a minute of eternity. Sometimes a persistent increase or retardation of pulse-rate may hint at the danger; but more often there is no such sign of peril. Now, a heart to shut up in this way must have been gravely affected for some little time before. Again, after an infection as mild as a "common cold," more probably after an influenza, the patient has no warning that his convalescence is incomplete until he engages in some effort, such as a game of football, and then finds himself invalided for many a month to come. Without any clinical manifestation his heart had been the seat of occult disease. Here, again, our only guide is crude experience; we have no criterion. Tanaka[2] points out how remarkable it is that a "heart often functions well up to the moment of sudden death," yet after death the myocardium reveals disease both extensive and profound. The ventricle may or may not be dilated. In rheumatic myocarditis (Romberg, Cowan, Carey Coombs) sudden heart failure is less common, and usually is so combined with valvular lesions and dilatation that clinical symptoms are not wanting. Interesting as it is from a histological point of view, I must not in this context dwell longer upon it. Nor do

the distinctions, definite or transitional, demonstrated by Dr. Coombs and others, between acute interstitial and parenchymatous myocarditis much concern us here. We will pass on to chronic myocarditis.

In so-called "chronic myocarditis," again, probably not strictly an inflammation but partaking rather of an atrophic or degenerative nature, we find no closer correlation between the clinical and the pathological series. Cabot in a remarkably able report[4]—one in which he compared clinical and pathological notes taken independently—says that he has quite given up attempting to diagnose chronic myocarditis; "in it diagnosis is a mere matter of luck. It has no clinical symptoms, no characteristic physical signs." So this point needs no farther labour.

Let us proceed, then, to fibrosis of the myocardium, an alteration which an eminent student of heart disease but a few weeks ago assured me was of great clinical importance. I demurred to this, for not only am I of opinion that this fibrous invasion may be wholly without clinical correlations, but, indeed, that we have not to spend much regret upon this indifference. Many years' experience has convinced me of the truth which Cabot[4] has lately reiterated—namely, that "not infrequently gross fibrosis of the myocardium is found in hearts which had been perfectly efficient during life." Dr. Hale White also says of a fibroid heart that it is practically undetectable. This paradox is true of both forms of cardiac fibrosis—of the diffuse form described by Dehio[6] in 1899, and the focal form, in which the wall of the heart, especially of the left ventricle, is beset with callositics. These callous nodules or lumps were at one time attributed only to local ischaemia due to a closure of a coronary branch, by infarct or by sclerosis. Histologically, however, they do not essentially differ from myocarditic effects of other origin; moreover, recent research has demonstrated many a callus, towards which its particular coronary branch was open.[7] But these nodules, often old foci of toxic myocarditis, are not always to be found simply by slicing the ventricular wall with a knife: sections must be made and stained. Conversely, Kanthack and I, in investigating the effects of coronary disease on the heart, demonstrated on more than one heart that these arteries might both be blocked by atherosclerosis and yet the myocardium be normal enough for the age of the patient. Diffuse or dystrophic myocardial fibrosis Dehio attributed to venous stagnation, comparing such hearts with "cardiac kidneys" and the like; and it is true that fibroid ventricles are often dilated. Still, I have examined many hearts presenting this fibrosis in which evidence of venous congestion was not obvious. However, I must not occupy time on these points of pathology; suffice it to say that cardiac fibrosis, so far from being a cause of cardiac failure, seems not infrequently, as in hypertrophy with dilatation, to have some conservative value. Connective fibre is a less resilient tissue, and its elastic limits are narrower; but within them it is tougher. Syphilitic fibrosis is, of course, another matter; any effect this variety may have on the cardiac function depends on its site. "Cardio-sclerosis" may seem to be germane to this part of the argument; but I never succeeded in ascertaining from Huchard, or from his disciples, what the term signified. It seems to have been adopted rather for logical symmetry than for the complexities and elusiveness of Nature; and if it ever had any meaning at all it was as a cover for several different conditions. With fibrosed hearts, then, patients may, as Dr. Hale White says, die suddenly; but we have no criterion of its presence, nor can the pathologist tell us how or when it causes death, if indeed it does cause it; which is doubtful.

But, as time presses, let us now pass on from the histological nature to the sites of lesion. Is it less the nature than the position of a breach of continuity which determines the mortality? Here again I fear the answer of the pathologist is still equivocal, though it is true that closer methods of observation may prove more enlightening. The lesion, or the critical lesion, may be overlooked: for instance, Falconer and Duncan,[8] beside valvular lesions in a certain heart, found diffuse lesions in the right auricle (less in the left), while, save for a slight perivascular lymphocytosis, the ventricular muscle was normal.

In respect of site our thoughts turn promptly to the tract of **Tawara**, and perhaps to Wenckebach's area about the superior vena cava, for we must not be content to say that lesions in this area set up disorders of rhythm only. We readily suspect, in such a concert as the function of the circulation, that rhythmical discord may abut upon and issue in defective work. At first sight it seems that if scattered focal lesions—such as those described by Carey Coombs, Poynton, and others—might come short of gravely disturbing conduction, yet that such a check must follow a more diffuse and general invasion of these structures, for ventricular automaty, detached from the cardiac system, is certainly less effectual. Syphilis, by its proclivity for the septum, especially menaces Tawara's tract. Now some observers are of opinion that this tract, whether by its looser texture or by its peculiar blood supply by a twig from the right coronary artery, has in its disease some independence, be it more or less, of the rest of the heart.[9] Spots of haemorrhagic and leukaemic exudation, aortic rheumatic foci and the like are found not infrequently in this tract, especially in the left limb of it, when absent in other quarters of the heart. Tanaka insists, as I have done, on the curious maintenances of heart function and of medical confidence in not a few cases in which the myocardium or conductive tract proved to be in extremes of fatty degeneration, until in a moment death brought all to an end. This, he says, as Dr. Hugh Anderson has illustrated in the cat, is especially characteristic of old hearts, as contrasted with young ones.

But we must not, I think, make too much of this alleged independence: decay proceeds as often from the myocardium to the bundle and knot, and often, as Dr. Coombs has shown, both tracts and myocardium, if unequally affected, are attacked simultaneously. Saigo[10] examined 100 hearts from this point of view, and concluded that rheumatic nodules do often arise especially in the bundle; that regressive processes also—such as fatty vacuoles—come early in it; but that in brown atrophy and fibrotic hypertrophy the bundle may be involved, or may be free or nearly so. Lubarsch,[11] again, investigated 500 hearts on this complicated problem; in many he found changes, such as acute rheumatic nodules, predominant in and about the tract, especially the left limb of it. Brown atrophy he found to occur in both, if in unequal degrees. Lubarsch's observations may be summed up thus: In moderate focal fatty myocardium the limb of Tawara's tract may be quite free; or in extreme and widespread focal fatty myocardium the *a–v* bundle may be very slightly affected; or fatty change may be quite isolated in it, even the papillary muscles being free (but this is rare); or fatty change may be marked and extreme in the *a–v* tract, with very slight myocardial affection, say slightly in the papillary muscles only; or fatty change, moderate or much, may be practically alike and equal in both myocardium and bundle; and finally, Lubarsch thinks these variations are dependent upon vascular conditions, such as local retardations of blood velocity.

In Tanaka's cases of diphtheria the bundle was five times more, three times less, and four times equally affected with the rest of the musculature. "Only once was an almost isolated bundle-affection found." But in the bundle the changes are more diffused than in the rest of the myocardium. "But, he concludes, a sudden failure of the heart can also come about without essential lesion of the bundle; indeed, occasionally arrhythmia appears without any marked degeneration of the bundle."

I make no excuse for dwelling at this length on the pathological relations of the bundle and the myocardium, for in these might lie some explanation of the obscurity of the causes of continued cardiac function on the one hand and of sudden cessation of it on the other; but the interpretation is not yet. In some cases, it is true, the proper symptoms of dissociation are present, but in some they are absent; and as yet we have no histological elucidation of this inconstancy. In one of Lubarsch's cases, in which dissociation was complete, after death, while in the myocardium were found large focal callosities, in the bundle were only small ones, with some fresher spots of exudation and minute haemorrhagic points, none of them extensive enough to rupture continuity. On the other hand, many cases are published (by Reinecke and others[13]) in which, under what seemed distinctly to be complete demolition of the bundle, there was during life no dissociation. In one case[12] the whole bundle was calcified;

in others in which the tract seemed broken up dissociation was often incomplete; and sometimes there was only simple retardation. If one limb is affected there may be incomplete dissociation. In a few cases tachycardia has been observed. Dr. Coombs's researches, again, make it probable that acute rheumatic or septic toxins may far invade the tract without any characteristic symptoms during life. I will consider presently how far intrinsic and extrinsic causes (bundle, vagus, bulb) must co-operate; or, again, how far chemical perversions may be concerned in arrests of the heart.

I have alluded more than once to the part of the nerves in cardiac function, and so in the clinical surprises which we are discussing; but the nervous coefficients in these functions are very dark. Is it by means of nervous influence that a heart which is the seat of advanced disease may be carried along so far and so efficiently as again and again to deceive the clinical observer outright? We know that the heart is thickly beset with nervous fibres and ganglia, that the plexuses are motor in function, and that much, if not all, of the harmony of the circulation must depend, and intimately depend, on their integrity; but our new interest in Kent's and Tawara's tract has diverted research from these nervous governors. We may destroy aortic cusps without heart failure, we may poison the myocardium into extreme fatty change without immediate heart failure; but if with the soundest myocardium we cut the vagi, or even cut one only, the organ is promptly stopped—at any rate in dogs and cats.[14] Kronecker's experimental determination of a nervous co-ordinating centre in the upper third of the interventricular septum is well known. A needle puncture here (in the dog) produces fatal delirium cordis, a result not to be obtained by punctures anywhere else. But on inquiry it seems that the morbid histology of the nervous cells and fibres of the heart is very little understood; even their normal anatomy is vague, and the pathological records are very dubious. Our methods may be inadequate, but hitherto the allegations of morbid changes in the nerves do not amount to proof. Vagus alterations have been reported, but on scanty evidence; yet if these nervous strands and centres deteriorate, and we cannot suppose them to be immune to the lot of all organized structures, their irritation or decay may account for a waning cardiac reserve, and for unexpected heart failure, even in cases in which muscular degeneration may be inconsiderable. Romberg, Krehl, Rosenbach, all turn for explanation of the paradox of endurance, and of deferred crisis in degenerate hearts, not exclusively to the "immanent properties" of the organ, but also to its nervous endowments, and especially to its ganglionic integrity. Whatsoever our opinions on the rather academic controversy between the neurogenists and the myogenists, we shall not forget that the nervous system of an organ, such as the heart, is not only the conductor of its co-operative and harmonious concert, but also an instrument of its development. To Professor Langley we are chiefly indebted for such knowledge as we possess of the sympathetic system, and he tells us that although the ganglionic cells of the heart comport themselves differently from sympathetic cells, yet that such ganglia die rapidly if deprived of nutriment—as, for example, in animals bled to death. Oxygen may be more important to them than to nervo-muscular tissue, although they have a greater resistance to deprivations of oxygen than has the central nervous system.

And beside the intracardial nervous structures we have also the extracardial, the vagus and the bulb; not to mention those psychical influences which on the heart are supposed to have a peculiar potency. One would guess that a heart failure attributable to these influences is a cortical disturbance propagated through the vagus.

Again, the vasomotor system has degrees of reinforcement or default of which we have little notion. We do know that many a death attributed to the heart was due to a failure of the "peripheral heart," to a relaxation in large vasomotor areas. The "weak hearts" of women are often thus to be explained; their peripheral vessels are slack and labile. One is tempted, contrary however to present evidence, to daily with the hypothesis suggested by Henle, and ingeniously advocated by Hasebrock and Grützman,[15] that the peripheral heart—the muscular arteries and capillaries—act not so much as a break on the central propeller, but serve rather as forwarding machinery, a subsidiary means of propulsion.

And there is a side of vascular dynamics which is not fully realized—namely, the reciprocation of the several areas; or it is realized only between the splanchnic and the encephalic; yet these fluctuations are ubiquitous and incessant. If the warm hand be placed between the thighs, and the pulsations felt for a few minutes, the oscillations of vascular volumes, independent of respiration, will be clearly perceptible. And Müller[16] and Weber have shown that areas are very independent, and often conflict, and such pressure interferences must have their echo in the heart; if in an area dilated for work velocity is not to fall, there must be an equivalent and harmonious constriction elsewhere, or the heart will have to make up the difference. Even to move a limb determines at once an afflux of blood thither.

Once more, we have to remember the chances of sudden death by fat embolism, nerve toxins, pulmonary embolisms, and so forth; or possibly, as suggested by Dr. Hawkins-Ambler, by increases of the specific gravity of the red corpuscles. There are probably many subtle agents of which we have no idea, but which enter, alone or accompanied, into these nice poises of life; and alterations in molecular constitution invisible even to the "ultramicroscope." An old rubber band may to the eye present no change, but on use its loss of elasticity will become quickly apparent, and it will die suddenly. The heart of Dr. Hugh Anderson's elderly cat could not withstand the vagus inhibitions to which the young cat reacted indeed plainly, but which it withstood with security. There is a world within the visible features—a world of surface tensions, osmoses, reaction potentials, viscosities, differential pressures, etc., of which we know little. If we apply cold to the sinus area, we retard the rate of the whole heart; if heat, we accelerate it, as in fever; yet to the eye there is no tissue change, and to other parts of the heart such applications of heat or cold are apparently indifferent.

Still, if sound and not too old, the heart, as Sir James Goodhart has insisted, will stand almost anything; no combination of adverse factors will kill it. The distinctions, therefore, urged by Merklen, Hoffmann, Rosenbach, and others between anatomical and functional cardiac integrity are pushed too far; there can be no function without correlative molecular motions, and if the function continues irregular, the corresponding molecules cannot have returned to their normal pattern; there must be some dislocation, and this may be permanent—a "new set." For instance, I am told that if a piece of steel be fatigued by repeated blows, even to the point of fracture, although to the microscope no molecular alteration may be visible, yet a permanent molecular dislocation may be detected by a change in its electric conductivity. Perhaps we also some day may be enabled to gauge an old, a fatigued, or a poisoned heart by the test of electric conductivity. Now, if its texture has got a permanently new set, the heart is no longer sound, whether the intimate alterations be visible or invisible.

Another curious point about cardiac reserve, or what we think to be such, is that it is trainable. A man in training seems to have many times the reserve, the cardiac reserve, of one out of training. In athletic training the heart probably grows larger with its skeletal kindred, and therewith probably also the tone of its motor ganglia and of peripheral vascular system, and the capacity of the lungs are also developed. In Cambridge an old boatman readily tests an oarsman for staleness by drawing a finger down his cheek and noting the persistence of the ruddy line. Moreover, training is not a mere matter of heart and lung endurance; the acquired economy of the skeletal muscular groups must count also for much. We cannot analyse all these manifold factors. In some elderly persons the skeletal muscles seem to have been relatively too good; the heart was not able quite to follow them.

Then there is the world of chemical reactions in the heart: the ionic motions and substitutional interchanges of which we know little; but, from the behaviour of salt perfusions, they must be of the most intimate kind. The little we know we owe to such researches as those of Dr. Walter Fletcher and Mr. Barcroft. Dr. Gaskell showed years ago that to perfuse the heart with even a very weak solution of lactic acid is to stop it in diastole; a reaction due

to mere acidity, to the positive ion H. Stronger solutions drive it into rigor. Dr. Fletcher has shown that by a previous application of oxygen these effects can be prevented. The mammalian heart lying after death in an atmosphere of oxygen does not become acid, or but slightly so; and after perfusion with oxygenized Ringer's solution, even some hours after, no trace of lactic acid appears. Dr. Fletcher has shown me how many occult flaws there may possibly be in the balance of colloidal mechanisms in the cardiac muscle: and more than this—that the heart may have abundant fatty deposit in it, and yet the muscle cell on the motor side be intrinsically intact, and prove no more vulnerable than one histologically normal; and this he illustrated by the figure of an engine clogged with dirt and grease, which notwithstanding may do better work than another engine bright and clean but with tight bearings, or an unseen crack in its cylinder. When beyond unequal metabolisms we pass into the region of toxic influences we recognize again how near the edge our gyroscope may be revolving.

Finally we know that the heart's balance depends on that of many other parts also; the gaseous exchanges are not in the myocardium only, not even in the lungs only: they are burning in every muscular area, in every viscus. Thus, even if the haemoglobin be constant in quality and quantity, if velocity begins to fall we are in a vicious circle; velocity—which means oxygen exchange—slows down in every organ, especially in those which, beside the lungs, have a double capillary machinery, such as the liver and the kidneys; in these areas we very soon find evidences of stasis. And retardation in the lymph system also is not to be forgotten. Such defaults as these may for whiles mass or neutralize each other, but when at some unhappy moment a summation of adverse alternating conditions comes about—capillary retardations in the viscera, tissue calls, lymph pressures, vagus and vasomotor waves, psychic thrills—in such cases as these, cases not without their prior forebodings, we shall not be at a loss to comprehend at last the suddenness of death. But the riddle, which I have done so little to read, is the frequent suddenness of death in one who scarcely having known illness expires under no extraordinary effort; or in the peace of his own bed or elbow chair passes silently away.

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At the annual meeting of the board of governors of the Wolverhampton and Staffordshire General Hospital, held on March 12th, Dr. John Grout was elected a Vice-President in recognition of the valuable and memorable services rendered by him in connexion with the King Edward VII Memorial.

THE late Lord Wandsworth, a member of the firm of Stern Brothers, bankers, has bequeathed £10,000 to be used for medical research "as my old friend and doctor Sir William Bennett shall decide is best"; £5,000 to the Belingbroke Hospital, Wandsworth Common; £1,000 each to the London Hospital and to St. George's Hospital, and £500 to the Hospital for Cancer, Fulham Road. After the payment of certain sums the residue of the estate, which it is estimated will exceed £1,000,000, has been left for the foundation of an orphanage to bear Lord Wandsworth's name.

THE third International Medical Congress on Accidents will be held at Düsseldorf in August (6th to 10th). Among the subjects proposed for discussion are the present state of the law as to compensation for accidents in different countries and the question of insurance against industrial diseases; the importance of early treatment directed to the restoration of functional disturbance after accidents; vascular disease and accidents; arthritis deformans and accidents; the influence of accidents on the origin and increase of tumours; methods of examination in cases of injury after accident. Communications relative to the Congress should be addressed to Professor Liniger, Düsseldorf.

A Post-Graduate Lecture

ON

THE ESTIMATION OF HEART POWER:

AND THE TERMS

BLOOD PRESSURE; HYPERTENSION; HYPERPIESIS; HYPERTONUS.

BY

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GENTLEMEN,—A request made by some of you that I should give a clinic on the present position of "blood-pressure" was communicated to me, and I of course at once expressed my willingness to speak to you on the subject.

At the outset permit me to say that, in the consideration of many clinical problems, the accuracy of our first step often determines the accuracy of our further steps, and of the conclusion we ultimately arrive at. As illustrating this proposition I would impress upon you that it is necessary to realize that, when we as clinicians feel the radial pulse, the initial and primary object in doing so is to obtain information as to the vigour or strength of the heart. The second object is to gain some knowledge of the condition of the channels through which the blood is propelled. As directly bearing upon our subject I recall to you various terms used in relation to it.

BLOOD PRESSURE.

This term means the pressure exercised by the blood inside the vessel, and the driving power of the heart is judged of by the estimate we form of this pressure of the blood upon the arterial wall. In much recent writing the term unfortunately is used to indicate, or as a mere synonym for, haemomanometer readings. Whatever the blood pressure be inside the artery it represents in some measure the power with which the blood is driven out of the left ventricle. This is the plain and fundamental fact, and this is the reason why the examination of the pulse occupies such an honoured place in our clinical methods. Other words are, however, in use in the study of this same problem of heart power.

HYPERTENSION.

The term "hypertension" is at present in common use, and has, I think, been popularized by the French school. In past years high and low tension pulses were spoken of. The word "tension" applied in this way was, however, long regarded by critical clinicians as unsatisfactory. The question always was whether it merely meant the amount of pressure exercised by the blood on the arterial wall or the taut state of the wall caused by the pressure, combined with changes in the wall itself. So far as I am able to see, the use of the term "hypertension" in no way answers the old question, although in many quarters it is treated and used as a "blessed word" and placed above the zone of criticism. Other clinicians steadily abstain from using the word "tension," in any of its possible meanings, as applied to the pulse, and with this attitude I am in complete accord. Without clear thinking and the use of suitable words the confusion which surrounds this subject will continue.

HYPERPIESIS.

The term "hyperpiesis" has been introduced by our veteran clinician, Sir T. Clifford Allbutt. Etymologically it means excessive pressure, and throws no light on the problem of how much is blood pressure and how much is arterial wall. If it carries with it the idea of fullness, the question at once arises of the relation of fullness to pressure. In measuring arterial pressure with the haemomanometer, the question remains, Are we measuring the pressure wave only, or are we not also measuring vessel wall?

HYPERTONUS.

The only other word I need refer to is "hypertonus." I am commonly regarded as having definitely applied it to an arterial condition. It means a contraction of the muscular

coat of arteries over and above the normal or average tonus. For many years, before the haemomanometer came into use, I had watched the occurrence of this over-tightening up of the arteries and the relaxation of the over-tightening. It is a clinical phenomenon which is as certainly present and is as easy of recognition as any phenomenon appreciable by the senses.

ARTERIO-SCLEROSIS.

I must next ask your attention to the term "arterio-sclerosis." It was introduced almost as another word for "atheroma." The thickened radial arteries which are so commonly met with clinically are, however, only rarely atheromatous—the thickening is due to hypertrophy of the middle, that is the muscular, coat. This thickening may occur with hardly a trace of atheroma, and most of the arteries with a muscular coat may be so thickened. It is a very common condition.

THE HAEMOMANOMETER.

The modified Riva-Rocci haemomanometers all have an armlet, which is usually applied to the upper arm. The bag encircling the arm has air pumped into it until the pressure has stopped the pulse wave, as indicated by the disappearance of the radial pulse at the wrist. The pressure in the bag is shown by a U-shaped mercurial manometer, or by a spirit manometer as introduced by Dr. George Oliver, or by a neat little mercurial manometer recently introduced by that ingenious physician. It does not really signify what manometer is used, for they are, of course, all carefully standardized, and either of the two latter is easily carried about. The armlet is practically the same in all.

THE CLAIM.

The armlet when applied to the upper arm obliterates by pressure the lumen of the brachial artery. This artery when perfectly normal is so thin-walled that when empty it collapses by its own weight. In this condition of artery the pressure required to close the vessel corresponds with the blood pressure inside the vessel. This physiological fact was taken up by some distinguished physicians who maintained that, no matter what pathological changes might be present in the artery compressed, this instrument recorded blood pressure—that is, recorded the same pressure as would be recorded were a cannula inserted into the artery and attached to a manometer.

THE AUTHOR'S POSITION.

My contention has been and is that when the artery wall is thickened the thickening increases the resistance to compression, the resistance then becoming *blood pressure plus vessel wall*.

The difference between the thickness of the normal brachial artery, which, as I have said, collapses by its own weight when empty, and an artery thickened by sclerosis—that is, by muscular hypertrophy—is great. In addition, however, to the muscular thickening, the thickened muscular coat retains the power to contract and to relax. When it contracts the wall becomes still thicker, and the lumen becomes still smaller. Now I submit to your common judgement that, when you put the armlet over such a thickened vessel, you have not only to overcome the resistance of the blood pressure, but of the hypertonic vessel wall in addition. The phenomena have passed from the physiological to the pathological, and therefore to the clinical.

As it is true that the thick-walled vessel requires greater force to obliterate its lumen than the thin walled vessel requires, it follows that when the thick muscular coat contracts beyond its normal *tonus*, the vessel wall is further thickened, and the lumen is further diminished, so that still greater pressure is required to obliterate the lumen and to stop the pulse wave. The *hyper*-tonically contracted sclerosed artery is more resistant to pressure than the tonically contracted one.

THREE FACTORS IN HAEMOMANOMETER OBSERVATIONS.

It thus follows that in taking haemomanometer observations three factors of clinical importance have to be considered, namely, (1) blood pressure; (2) structural changes in the wall of the artery; (3) hypertonus of the muscular coat. Upon the correctness of your estimate of these separate factors will depend the correctness of your conclusions, and will determine the real value that this instrument will be in your clinical work. If you take its readings as only giving the first factor, namely, blood pressure, you will make the most appalling and disastrous mistakes, and I have known such to be made.

RECENT EXPERIMENTAL WORK.

I am aware that this subject can appear so clear to you, and my reasoning be so convincing, that further evidence may be regarded by you as unnecessary. But the fact remains that my contentions have not yet met with universal acceptance, and to help the conversion of our doubting friends I may tell you of some recent experimental work on the subject.

In the first place I shall refer to Dr. J. C. Janeway, of New York, who, I think, wrote the first book on blood pressure after the haemomanometer came into common use. He was a pure blood pressurist, and held that there was no evidence that the condition of the arterial wall affected haemomanometer readings, that the readings always meant blood pressure and nothing else.

He has recently taken up the question experimentally, in conjunction with Dr. E. A. Park, using arteries taken from freshly killed cattle for the purpose. It is interesting to find from the record of these experiments[1] that jointly they are satisfied that *hypertonus in normal arteries* may represent a pressure of 51 to 68.5 mm. of Hg. This is a large rise from the previous zero, and it is acknowledged that the effect of hypertonus had been overlooked—not of course by me, either clinically or pathologically! They say, "We must acknowledge that Russell has called attention to a hitherto *insufficiently recognized* influence of arterial contraction on our clinical readings." They would have been more correct had they said *totally unrecognized*. In the sentence immediately preceding this halting acknowledgement the statement is made that "it seems to us reasonably proved that Russell's contention that hypertonic contraction of the arteries and not high blood pressure is the cause of the high readings obtained with clinical instruments has no basis in fact." I am entitled to claim that when my work is criticized it should be presented accurately, and the sentence just quoted misrepresents my contentions, and indeed has "no basis in fact." My critics have not acquainted themselves with my work as they ought to have done, seeing my book was in their hands. They overlook the clinical and pathological fact upon which I based my contentions—namely, that the structural change present in the majority of the thickened arteries, recognized as such during life, was hypertrophy of the tunica media. I suggested that the term "arterio-sclerosis" should be confined to this condition, as it was the commonest form of thickening in radial arteries, and had no resemblance whatever to atheroma. It is clear that my critics have entirely failed to realize the significance of that contribution to clinical and pathological knowledge. They are entitled, perhaps, to confuse atheroma with other arterial thickenings, but they are not entitled to represent me as doing so. Having failed to note the significance of my pathological findings, they also failed to grasp the contention that arteries with such a thick muscular wall presented much greater resistance to compression by the armlet of the haemomanometer than normal arteries present. The further point they have also, as a consequence, missed—namely, that the hypertrophied tunica media retained its power of passing from tonus to hypertonus, and that hypertonus in such an artery leads to further thickening of the wall and to diminution in the size of the lumen, and consequently to still greater resistance to compression by the armlet. My critics have acknowledged that the hypertonus of a normal artery may give an increase of pressure of from 50 to 68 mm., but they will also find that when hypertonus is present in an artery with a hypertrophied muscular wall the resistance is greatly added to. I may mention that arteries with such walls as I describe will not be found in cattle; they must be sought for elsewhere.

My critics, however, have experimented not only with normal but with atheromatous and calcareous vessels, and speak of these changes as arterio-sclerosis. The use of the term "arterio-sclerosis" for all arterial thickenings and degenerations is deplorably inaccurate, and the matter under discussion will not be satisfactorily settled until totally different pathological processes cease to be called by the same name. Clinicians must accept the fact that

the thickened arteries, with which they so frequently meet, are not usually atheromatous, but are thickened as I have indicated and act as I have indicated. The atheromatous vessels used for the experiments were suspended in a glass cylinder, and the compressing medium was water introduced into the cylinder. It is shown that the water picks out the unaffected portions of such arteries, and compresses the artery at these points, and on this observation it is contended that *arterio-sclerosis* (which in the vessels used clearly means atheroma) has no effect in making the vessel more resisting to pressure. The observation so far as atheromatous arteries are concerned is correct, and is in harmony with our pathological knowledge of the scattered and patchy character of the lesions in atheroma, but a grave mistake is made in not allowing for the difference between the experimental method adopted and the clinical method. The observers might have seen, that, while a water-jacket would necessarily pick out and compress the smallest normal areas in the course of an atheromatous vessel, the armlet assuredly bridges over such areas unless they are extensive. No doubt the pressure exercised by the compressed muscle of the arm is spoken of as "fluid pressure," but to be led into experimental or clinical error by the use of this term, in a matter of this kind, is not reasonable. Muscle is not fluid in the sense in which water is fluid! The same method has been used by other experimenters, but Drs. Janeway and Park are the first to find that normal arteries when hypertonically contracted may add over 60 mm. to the pressure required to obliterate them. From this observation the authors of it must see that the conclusion is unavoidable, that the muscular thickening, to which I hold the term "arterio-sclerosis" ought to be confined, must add to the resistance to compression, and that when hypertonus is also added there is a great additional resistance offered to the air-bag.

I may state, what I have stated elsewhere, that in this condition the thickening is uniform and not patchy. It is, perhaps, also necessary to state that the hypertrophied muscle of an artery wall may lose its tonus, as the hypertrophied wall of a left ventricle may, and when it does so it relaxes, and resistance is then, of course, lowered. Thickness and tone of wall and size of lumen must always be considered together, if accurate understanding is to be reached.

In the BRITISH MEDICAL JOURNAL in 1908 I published observations made on a thickened brachial artery, obtained shortly after death, tested by means of an air-bag, and found that it indicated a pressure of something over 100 mm. Hg. and I do not think that this is the limit of resistance of the arterial wall.[1]

In July, 1911, Dr. Leonard Findlay published an interesting series of observations on brachial pressure, as compared with digital pressure at different ages.[2] The digital pressure was measured by Gaertner's tonometer. In early life there is little difference between them—that is to say, the blood pressure is much the same in the finger as in the brachial artery. As life advances, however, there appears a marked difference between the two, until between 40 and 50 years of age there may be a difference of 88 mm. Hg. In cases of Bright's disease this difference between brachial and digital artery pressure may reach 100 mm. Hg. He thinks the explanation is to be found in the arterial hypertonic contraction. He also experimented on cats with adrenalin and found that the *difference* between the carotid and the paw pressure rose from 50 to 140 after adrenalin injection. His explanation is that "the constricted arteries cut off the pressure wave," that the pressure wave is different in rigid and in elastic tubes, and that when "arteries are more or less sclerosed, or in acute Bright's disease where the arteries are tonically contracted, the elasticity of the vessel is diminished and more nearly approaches the character of a rigid tube."

Experimental work is thus confirming my clinical and pathological contentions.

Illustrative Cases.

I next ask your attention to three cases which illustrate how valuable and interesting haemomanometer observations are when properly interpreted.

CASE I.—*Cerebral Symptoms due to Hypertonic Contraction.*
This patient was under my care in Ward 27 in September, 1910. The phenomena she then presented consisted of cerebral symptoms whenever the arterial pressure rose, as it could do, from 200 to 260 or 290 mm. I showed her to the post-graduates, and her case is recorded in the *Lancet* of December 3rd, 1910. I had lost sight of her, so that her being here now has been quite fortuitous so far as we are concerned. She has kept fairly well, but is threatened with a return of her symptoms, and whenever these threaten there is an associated rising of her brachial pressure. At present her pressure keeps about 200 mm., but as soon as it begins to rise she develops cerebral symptoms which are promptly removed by the administration of a vaso-dilator. If left alone the pressure can rise from 200 to about 300 mm., and we are asked to believe that this is the result of a variation in this woman's heart power. As a matter of fact, what happens is that her brachial artery becomes markedly hypertonically contracted, and it is this which gives the high reading; when the artery is relaxed by erythrol the reading rapidly falls to 200 again. It is this recurrence of hypertonic contraction which is this patient's danger. It is not any variation that the hypertonus may lead to in stimulating the left ventricle to increased effort that is the essence of the clinical phenomena. It is not a heart instability, it is a vessel instability; and, if we miss that, we miss the essential factor in the whole series of phenomena which the case can present; we fail to understand the case, and what we fail to interpret aright we cannot treat aright.

CASE II.—*Arterial Thickening due to Syphilis.*
I next show you a man aged 40 who was admitted on account of severe and constant headache, and who had syphilis three years ago. His radial and brachial arteries were somewhat thickened, and his brachial pressure varied between 140 and 150 mm. The pulse wave was small and feeble; there was no heart enlargement discoverable by percussion; the heart impulse was feebie and the sounds were very faint, the first sound at the apex and over the right ventricle being barely recognizable. He was anaemic, with a red blood count of 2,560,000 and 46 per cent. of haemoglobin. He was put on large doses of potassium iodide. The headaches soon yielded to this treatment; at the same time the changes in his arteries and in the vigour of his circulation were of particular interest, for one does not often have the opportunity of following the changes as we had in this patient. When he had been taking the iodide for some time the arteries became quite perceptibly softer and larger, and along with this the pulse wave became larger and fuller, and the first sound of the heart came out clearly and definitely. These phenomena were as definite to my house-physicians as to me. With these marked changes in the circulatory phenomena there was, however, no change in the haemomanometer reading.

I have seen this kind of thing before, and the interesting clinical facts which are to be noted in such cases are: (1) That the hypertonic thickening of the vessel has yielded; (2) that the power of the left ventricle has been restored, and the pulse has become larger and stronger; and (3) that there has been no change in the haemomanometer reading. No one who still claims to know anything about the pulse as measured by the finger would for a moment doubt that there had been a marked increase in heart power in this patient. Such an increase was confirmed by the change in the character of the first sound and of the impulse. Yet there was no change in haemomanometer reading; and there ought to have been, did this instrument record blood pressure and blood pressure only.

From my standpoint, the explanation is that what was gained in heart power was balanced by the relaxation of the hypertonus. That is to say, if the blood pressure rose 60 mm. it was balanced by a loss in the resistance of the vessel wall of 60 mm.

Again you see how entirely misleading this instrument will be if you take it as the measure of heart power in your clinical work, and yet how interesting and valuable it is when you learn to interpret its records aright. I shall not detain you by showing you other cases; but I should like to tell you about a medical friend whom I saw a few days ago, as he illustrates another aspect of the subject we have been considering.

CASE III.—*Angina Pectoris Minor with Hypertonic Spasm.*
A few months ago this friend consulted me about a recurring pain in the left chest over the precordia and posteriorly. It was difficult to be quite satisfied as to the meaning of this pain, for the heart was perfectly sound and the brachial pressure was only 125 mm.; the vessels were soft and the pulse regular and of good volume. He, moreover, was a strong cyclist, and his cycling did not make things worse, nor did it bring on the pain. With treatment he got relief for three months, but the pains had returned; they were more severe and very perturbing, as they came on at unexpected moments, and when they supervened he had to stop what he was doing. There was a suggestion of the pain going down the left arm. He was anxious that I should not think his symptoms merely fanciful. The pulse was 80 and the pressure 125 mm., the heart sounds were clear and closed. After the examination we sat talking for some

time, when he told me that an attack was coming on. His colour did not change, but he leant forward, resting his elbows on his knees, and was evidently considerably distressed. I again felt his pulse and found it distinctly smaller, and instead of beating 80 it was only beating 60. I asked him to take his coat off, and on taking his pressure found it had risen from 125 mm. to 145 mm.

This observation, to my mind, at once settled the question of diagnosis. This was a true angina pectoris minor, a condition I described years ago. My interpretation of the phenomena is that the state of the vessels, as revealed to the finger, and shown by the rise in the haemomanometer pressure from 125 to 145 mm., indicated that a hypertonic spasm had taken place: that this increased the pressure in the aorta, and thereby perturbed the heart, which, instead of being accelerated, was slowed down from 80 to 60 beats per minute. To speak of this as a neurosis almost always suggests that the symptoms are either fanciful or that the condition is mainly determined by a mental and central influence; and no men more warmly resent this view when applied to themselves than medical men do. Personally I interpret the phenomena as being determined by peripheral conditions and not by central ones. To me this is a vessel irritability, and its successful treatment lies in the removal of the cause keeping up that irritability. In this particular case the cause was probably tobacco.

Again I point out to you that the variation in haemomanometer reading was due to change in the vessel wall (the brachial artery); a mere increase of heart power represented by 20 mm. would not give rise to such symptoms. My patient could, I doubt not, stimulate his heart by cycling above that and without discomfort, but the moment a general angiospasm occurs the symptoms appear. It is always a question whether or no the coronary arteries participate in the spasm, but the practical fact is that if you counteract the general angiospasm the symptoms disappear. Your patient is cured when you have removed the tendency to this hypertonic spasm. The foundation fact is the vessel spasm, for the moment you relieve that the symptoms disappear: the spasm affects the brachial as well as the smaller arteries, and, I repeat, the haemomanometer gives you the record of it, when the vessels are normal as well as when they are sclerosed.

There are always the three factors to keep in mind—namely, blood pressure, structural change in the vessel, and hypertonus. There is no escape from the exercise of discretion and judgement when using this instrument, and those are the points; the significance and value of each have to be determined in every individual case. The instrument has opened no *royal road* to the determination of the all-important question of heart power, as we are called upon to judge of it clinically.

REFERENCES.

[1] Janeway and Park, *Arch. of Int. Med.*, November, 1910, vol. vi, p. 586. [2] Leonard Findlay, *Quarterly Journ. of Med.*, vol. iv, No. 16, July, 1911. [3] W. Russell, BRITISH MEDICAL JOURNAL, 1908, vol. ii, p. 1076. *Arterial Hypertonus, Sclerosis, and Blood Pressure* (Green and Sons).

UNDER the will of the late Mr. Alfred Bell of Newcastle, who died on November 25th last, the Royal Victoria Infirmary, Newcastle, and the Hull Royal Infirmary each receive a sum of £2,000, and Ingham Infirmary, South Shields, one of £1,000.

THE Yellow Fever Bureau *Bulletin* for January, 1912, contains a reprint of an interesting report on the yellow fever in Mérida by Dr. Mario G. Lebredo, Director of the Duque Laboratory of Investigations, Havana. After careful and prolonged study, Dr. Lebredo has come to the conclusion that there is an endemic focus of yellow fever in the Gulf of Mexico, that Mérida is to be considered as a seriously infected locality, and that because of the close contact, the lack of effective defences, and the short time since the last outbreak, Campeche is to be considered as suspicious. He believes also that persons coming from Quintana Roo should be watched by the Mexican sanitary authorities, who, by a careful study of the fevers affecting soldiers, might gain some insight into the histories of the past epidemics occurring at Mérida and Campeche. He recommends that Vera Cruz, and other ports in the Gulf where cases may arrive in the infective state, should establish a sanitary organization to observe and study all suspicious cases in order finally to determine the best methods for the complete and final eradication of the disease.

SERUM AND VACCINE THERAPY IN CONNEXION WITH DISEASES OF THE EYE.

THE MIDDLEMORE PRIZE ESSAY, BRITISH MEDICAL ASSOCIATION, 1911.

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(*Continued from page 592.*)

II.

DISEASES OF THE EYE DUE TO PYOGENIC ORGANISMS.

In treating tuberculosis by vaccine, it is necessary to use a "stock" vaccine, whereas, in dealing with other infections, in most cases it is possible to prepare a specific vaccine from cultures of the infecting organism obtained from the patients to be treated. It is advisable to use a specific vaccine in most cases, but it seems to be unnecessary in cases of infection by staphylococcus. Here a mixed stock vaccine, prepared from cultures of *Staphylococcus aureus*, *citreus*, and *albus*, is usually efficient; if the use of such a vaccine is not attended by improvement in a reasonable time, a specific vaccine should be prepared. Again, in disease due to gonococcus, owing to the difficulty of preparing a vaccine, stock vaccine must usually be used, and gives quite satisfactory results.

Polyvalent stock vaccines have been used in infections due to pneumococci and streptococci, but the best results are obtained by the use of specific vaccines, as there are many different strains of these organisms.

In taking cultures from eye diseases for the purpose of preparing vaccines, it is advisable in most cases to use as culture media serum or blood agar, as many of the bacteria which commonly affect the eye grow well only on these media.

The vaccine is prepared by making an emulsion, by shaking, of the bacteria in 0.85 per cent. sodium chloride solution, and standardizing by mixing a portion of the emulsion with a portion of blood (which normally contains 5,000 million of red cells to the cubic centimetre), and counting fields of bacteria and red cells on a microscopic slide. In this way the number of bacteria per cubic centimetre is estimated. The emulsion is then sterilized at a temperature of 58° C. for thirty minutes, and finally diluted to a convenient strength in 0.5 per cent. phenol.

I will now deal with the vaccine treatment of the various regions which come within the province of eye surgery.

External Infections.

1. The lacrymal sac.

The lacrymal sac is liable to acute and chronic inflammations. The acute inflammations are usually due to streptococci, and, as stock vaccines are unreliable, there is not time, as a rule, for vaccine treatment. I have treated acute lacrymal abscesses with stock streptococcus vaccine, combined with ordinary surgical treatment, but have not been satisfied that the vaccine influenced the course of the disease.

The most important variety of chronic inflammation is that due to infection by pneumococcus. The chief dangers of this disease are—first, that abrasions of the cornea may become infected and severe ulcers be produced; and, secondly, that any operation carried out on an eye with such infection of the sac is attended with grave risk of sepsis. The region of the lacrymal sac is well supplied with blood, and infections react well to vaccine treatment.

Very Chronic Inflammation of the Lacrymal Sac Cured by a Specific Pneumococcus Vaccine.

W. T., aged 66. Right eye amblyopic. Attended first November, 1905, with left cataract and suppurating lacrymal sac. The sac was washed through regularly without relief, so in August, 1907, the sac was extirpated, leaving, however, a sinus. Ordinary treatment by scrapings and antiseptics did not affect the condition, cultures of pneumococcus being obtained in February and April, 1908, making operation for the left cataract impossible. Treatment by a vaccine prepared from the pneumococcus cultures was carried out from May 2nd to August 3rd. The opsonic index was regularly taken and an inoculation given every ten days, commencing with 10 million and gradually increasing to 50 million. After the latter dose, however, a negative phase was produced, followed, however, by

a rise of the index to 1.76 on June 9th. From June 12th until August 3rd 30 million were given every ten days. Cultivations on serum agar taken on July 6th and August 3rd gave no growth of pneumococcus, so on August 7th a left preliminary iridectomy was performed, followed by cataract extraction on October 6th, with no unfavourable symptoms after either operation. In December vision with glasses = $\frac{6}{9}$.

In this case, then, pneumococcus infection of more than two years' duration was cured in two months by vaccine, enabling operation to be performed without risk.

Chronic inflammations of the lacrymal sac offer a hopeful field for treatment by vaccines. Next in frequency to pneumococcus comes staphylococcus as infecting organism, and such cases can be treated with success by doses of 100 to 500 million of stock vaccine repeated once a week: R. W. Allen[1] has treated successfully cases of dacryocystitis due to streptococcus by means of vaccines.

Diseases of the Lids.

Staphylococcus.—*Staphylococcus aureus* is the cause of many varieties of chronic or recurrent disease of the lids, and such disease can be cured by vaccine in doses of 100 to 1.000 million. Blepharitis is due to such infection, and is usually associated with an error of refraction. Cases may be cured by means of staphylococcus vaccine, and if the refractive error be corrected there is no tendency to relapse.

A. B. for twelve months suffered from blepharitis, which did not improve under ordinary treatment, though his hypermetropia (+3 D.) had been carefully corrected. Cultures showed *Staphylococcus aureus* to be the causative organism. For two months the patient was treated with stock vaccine, an inoculation being given every ten days, commencing with 100 million, gradually increased to 250 million. A month later the lids were practically normal, only very slight thickening of the lid margins being present.

Chalazions and hordeola show great tendency to recur frequently in some patients; cure can be obtained by a three months' course of treatment by staphylococcus vaccine.

Mayou[2] has given the results of treatment by vaccine in infections due to staphylococci. He used doses varying from 500 to 2.000 million, regulated in most cases by the opsonic index. He reports four cases of acute sties associated with phlyctenules and corneal ulcers, in one of which a complete cure was obtained; in the other three there was temporary relief, followed by recurrence. A case with boils and sties on lids of one month's duration was given two doses, 500 million and 1.000 million, and was cured in a month. No recurrence six months later. He quotes also cases of sties and recurrent tarsal cysts cured by one inoculation.

Doyne[3] has described a variety of recurrent and obstinate conjunctivitis due to infection of the Meibomian glands with staphylococcus and he reported a case cured by vaccine. The patient had for many months suffered from attacks of conjunctivitis every week or ten days. Staphylococcus was grown from secretion expressed from Meibomian glands, and a specific vaccine prepared. Treatment was carried on for three months, and no fresh attack occurred. Later there was a relapse, so treatment was resumed for a short time. Four months later he had had no further attacks.

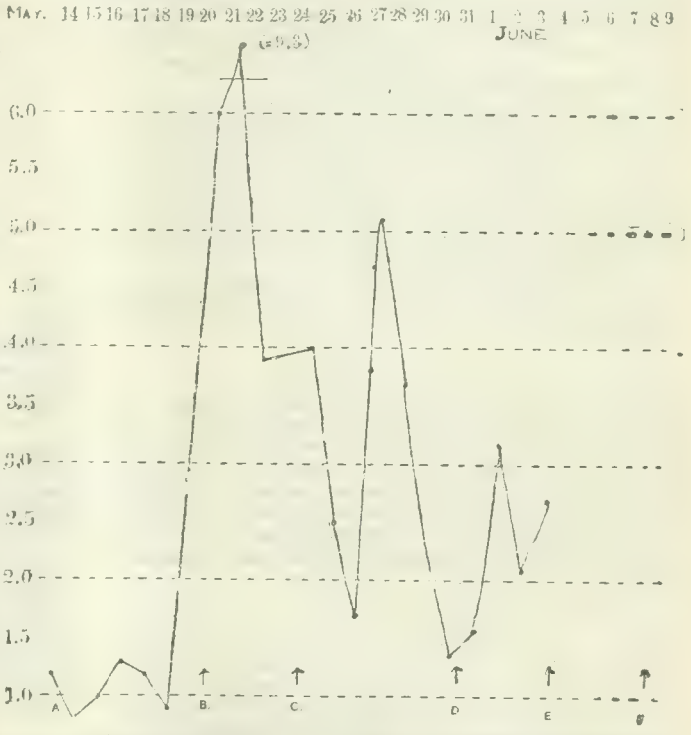
Conjunctivitis.

Many varieties of acute conjunctivitis clear up so rapidly with antiseptics that there is no indication for further treatment. Allen,[1] however, recommends the use of vaccines in the treatment of conjunctivitis due to pneumococcus, streptococcus, *Bacillus coli*, and *Bacillus pyocyaneus*.

Acute gonococcal conjunctivitis is a disease of grave prognosis, and here vaccine is of great value. Of two severe cases which I have treated, in one a cure was obtained in ten days, in the other no apparent benefit resulted.

W. H., a middle-aged man; no history of infection; attended May 13th, 1908, the right eye having been bad four days. Much discharge and chemosis; cornea, ditch ulcer inner side, ring of disturbed epithelium all round rest of cornea at periphery, and greyish lines of infiltration at central parts. Vision less than $\frac{6}{60}$; tension full. Smears and cultures of gonococci obtained. May 14th: Right eye, cornea more infiltrated. Left eye infected, chemosis and discharge, yellow ulcer all round cornea, and three infiltrated spots more centrally placed. May 15th: Right eye better. Left eye, ulcer larger, cornea infiltrated. May 16th: Right eye, corneal ulcer healed. Left eye, less chemosis. May 22nd: Left corneal ulcer healed. May 23rd: No discharge from either eye—still slight conjunctival injection. May 31st: Both eyes perfectly quiet. June 9th: Vision in each eye normal. Depressed scars round both corneae.

The details of vaccine inoculations and opsonic indices are shown in chart form.



A, 1.2 million; B, 1.2 million; C, 1.5 million; D, 1.5 million; E, 2 million; F, 1½ million.

Here, then, very small doses of vaccine were followed by a most excellent clinical result. During the treatment frequent irrigation of the conjunctival sacs with antiseptics was carried out, and eserine was used with the object of increasing the blood supply of the cornea.

A boy, aged 12, on admission had acute gonococcal conjunctivitis of two days' duration, and the cornea was steamy. A large ulcer appeared at the centre of the cornea, and perforated; the iris prolapsed and vision was lost. Three doses of 1 million each and three of 1½ million each of gonococcus vaccine were given. Vaccination appeared to have no good effect in this case.

I have treated three cases of gonococcal ophthalmia in new-born infants with doses of ½ to 1 million of vaccine; the disease became cured in each case without infection of the cornea.

Rubbrecht[4] reports a case of systemic gonorrhoea with conjunctivitis and keratitis in which three doses of gonococcus vaccine (5, 7½, and 10 million) were given with excellent results. There was no corneal ulceration, but when the conjunctivitis was well three attacks of peripheral keratitis occurred, extending over a period of one month. Weeks[5] recommends doses of 2½ to 50 million of polyvalent gonococcus vaccine, but has found it of little value in acute infections. I think he has used too large doses and has produced negative phases, from which there is not time for recovery in acute cases. McKee has treated with vaccine 3 cases of metastatic gonococcal inflammation of the conjunctiva with success.

We see, then, that in acute gonococcal conjunctivitis, if the treatment be commenced before the internal parts of the eye are affected, good results may be obtained with vaccine, but it is necessary to use very small doses repeated at short intervals, the object being to avoid as far as possible negative phases, and to obtain only rapid and repeated positive phases. Every effort must be made to increase the blood supply of the cornea and to wash away discharge frequently. Free discharge is to be looked on as

useful, as it is by this means that opsonins are brought through the diseased tissues.

Chronic Conjunctivitis.

Of the more chronic forms of conjunctivitis, Parinaud's conjunctivitis, according to Sinclair and Sherman,[6] is probably due to *Staphylococcus albus*. I have treated one case with staphylococcus vaccine for some weeks, but was unable to make out any good effect from the treatment.

Cases of conjunctivitis due to the diplobacillus of Morax, and others due to Friedländer's bacillus, have been benefited by vaccine treatment. It is difficult to prepare a vaccine from the diplobacillus owing to its delicate growth; cultivation on peritonitic serum agar has given the best results in my own experience.

Case.—A. C. for ten years had suffered from chronic conjunctivitis. In June, 1908, the conjunctiva gave pure cultures of Morax's diplobacillus, from which a vaccine was made. For five months treatment was carried on, commencing with 10 million and increasing to 50 million, with benefit. There was marked improvement for ten days after each dose, and at the end of treatment the eyes were healthy, except for slight crusting at the outer canthi. Clinical symptoms were sufficient for regulating the dosage in this case.

Allen[1] recommends 100 million of vaccine every two or three weeks in obstinate cases of diplobacillary conjunctivitis.

Phlyctenular Ophthalmia.

As I have mentioned, in dealing with tuberculosis, most cases of phlyctenular conjunctivitis would seem to be of tuberculous origin, although frequently *Staphylococcus albus* can be cultivated from the conjunctival discharge, but should be regarded as a secondary infection. Mackay[7] has used staphylococcus vaccine for phlyctenular conjunctivitis. Reporting a case of phlyctenular keratitis and pustular episcleritis of long standing and many recurrences he claims a good result.

Ulceration of the Cornea.

I have dealt with the treatment of gonococcal keratitis associated with conjunctivitis. I will now mention other corneal infections which have been treated by vaccines.

1. *Staphylococcus.*—Staphylococcal ulceration of the cornea is a severe disease, but by no means so severe as the ulceration due to some other organisms mentioned later. Vaccine treatment has given good results. The bacteriological diagnosis must first be made by taking scrapings from the growing margin of the ulcer and planting on serum or blood agar; if staphylococcus only grows we know that it is the primary infection, and not merely an added infection secondary to some more virulent organism.

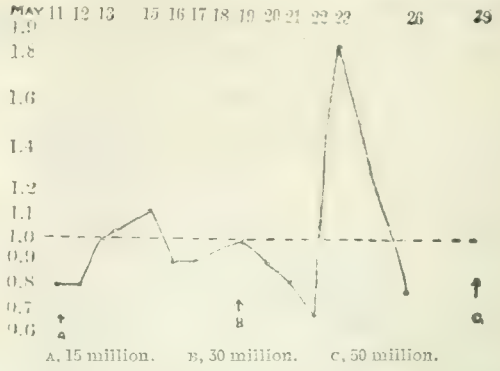
Grey Edwards[7] reports three cases of hypopyon ulcer treated by staphylococcus vaccine. The first, an acute case, rapidly recovered after one dose of 250 million; the second, a chronic ulcer, recovered after one injection of 100 million; the third case, also a chronic hypopyon ulcer, after three injections, likewise recovered. In all three cases treatment by subconjunctival injection of mercury bicyanide was carried out.

Mayou[9] mentions a case of neuroparalytic keratitis with a hypopyon staphylococcus ulcer, which was cured three months after receiving an injection of 500 million of staphylococcus vaccine.

The most severe forms of ulceration of the cornea are those due to pneumococcus and streptococcus.

2. *Pneumococcus.*—Acute ulcer of the cornea due to pneumococcus is the commonest form of "hypopyon ulcer," and is usually associated with similar infection of the lacrymal sac. Treatment by vaccines has been followed by a fair measure of success, but it is necessary to begin the treatment early, as the disease usually progresses rapidly. Immediately the diagnosis is made 25 millions of polyvalent stock pneumococcus vaccine should be given; cultures of the patient's own organisms should be planted, and a specific vaccine made as rapidly as possible. Twenty million of this is a suitable dose to commence with, but may be increased in four or five days, the treatment being regulated by estimations of the opsonic index and clinical appearances. The following case, an example of so-called "ulcus serpens," shows the good effect that may be obtained by the use of vaccine.

S. I., aged 64, attended May 11th, 1908, with pain in the right eye of four days' duration following a slight injury. Eyes "watery" for years. Right eye showed deep and superficial conjunctival injection, chemosis, and a small hypopyon. Tension full. Lacrymal regurgitation of muco-pus. Near the margin of cornea was a grey infiltrated ulcer, and the whole cornea was steamy. Scrapings from the ulcer showed pneumococci.



A, 15 million. B, 30 million. C, 50 million.

The case was treated with a stock pneumococcus vaccine, as shown in the chart, the opsonic index being frequently taken. The condition rapidly improved; on May 12th the hypopyon had disappeared, on the 20th the ulcer had healed, and on the 22nd the eye was quiet. The discharge from the lacrymal sac became clear.

It will be seen that the first dose slightly raised the opsonic index, and that the increased dose of May 18th gave a negative phase, followed by a high positive phase. During the negative phase for one day the eye was more inflamed.

Another case treated with the same stock vaccine gave no good result, but it was from the beginning much more unfavourable.

T. I., aged 77; eye had been bad for four days following an injury. On admission one-third of the cornea was occupied by a sloughing ulcer. Large hypopyon. Cultivations of pneumococci obtained. The whole cornea sloughed and perforated six days after admission, and the iris prolapsed. On the day after admission 25 million of stock pneumococcus vaccine were given.

Two other varieties of pneumococcus infection of the cornea are described:

A. *The Hypopyon Keratitis of Children.*—Stephenson[8] has found pneumococci in four out of seven cases as a mild infection commencing in an ulcerated phlyctenule. In these cases my own results would show that tuberculosis is nearly always the primary cause, though staphylococci and pneumococci are sometimes present as an added infection. In such cases treatment by tuberculin gives good results.

B. *Keratomalacia*, a form of gangrene affecting the cornea in children enfeebled by wasting disease. The outlook for vaccine treatment in such cases is unfavourable.

3. *Streptococcus* is the cause of a very virulent form of hypopyon ulcer. The following case illustrates the rapid course of the disease:

S. S., aged 63, having had chronic conjunctivitis for six months, came to hospital with history of acute pain in the left eye for three days; no injury. Condition on July 27th, 1908: Muco-purulent discharge, much chemosis, superficial and deep injection. Deep ulcer 3 mm. in diameter at centre of cornea, with sloughing base. Large hypopyon. Streptococcus was grown. Condition rapidly became worse, the whole cornea sloughed and perforated, and the eye was excised on August 10th. In this case, on admission 5 million stock pneumococcus vaccine was given; next day 5 million polyvalent streptococcus vaccine; four days later 10 million of a specific vaccine prepared from the culture obtained on admission; five days later 20 million of the same specific vaccine.

A variety of acute streptococcal infection is the pseudo-membranous ophthalmia of infants. Toxaemia is intense, and death is the usual result. Vaccine in small doses should be tried in such cases, but I know of no recorded results.

De Schweinitz[14] reports the recovery of a hypopyon ulcer. A vacine was prepared from cultures of streptococcus obtained from the anterior chamber, and three doses (50 million, 100 million, and 100 million) were given. We see, then, that few cases are on record of acute pneumococcus and streptococcus ulcers cured by vaccine. I

believe these cases are so acute that they offer a more hopeful field for the use of serums than vaccines. With serum treatment many good results have been recorded. Ulcers of the cornea may be due to other organisms—*Bacillus coli*, diplobacillus, etc.—but I can find no records of such cases treated by means of vaccines.

As an accessory to vaccine treatment, the local light treatment by cadmium-zinc lamp, described by Hertel,[9] is valuable. He claims that the treatment causes (i) direct bactericidal action; (ii) indirect effects—conjunctival and ciliary injection, oedema, and cellular infiltration of the cornea.

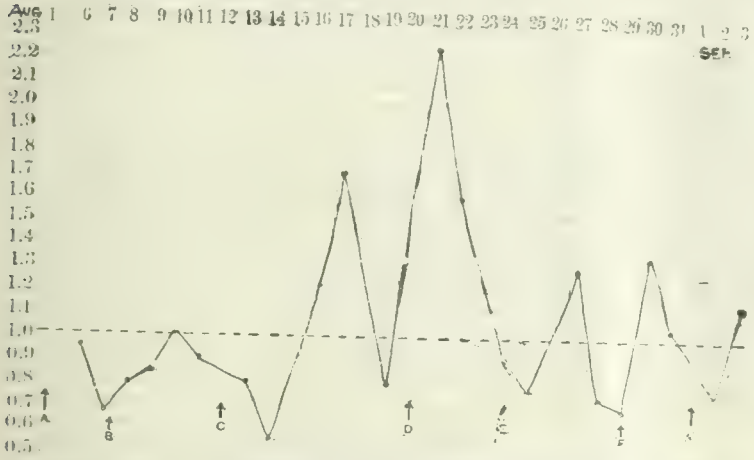


Chart 7.—Case E. P. A, 10 million of "stock" streptococcus vaccine. B, 5 million of specific vaccine; C, 15 million ditto; D, 10 million ditto; E, 12 million ditto; F, 15 million ditto; G, 20 million ditto.

Here, then, we have a means for producing (1) increased passage of serum to the diseased part, (2) increased local leucocytosis, (3) autoinoculation. If we raise the opsonic index by vaccines, such treatment should give even better results than in the hands of Hertel using the light alone (25 cures out of 47 cases of serpent ulcer of the cornea).

POST-OPERATIVE INFECTION.

In post-operative infection excellent results have been obtained with vaccines. Cultures must be taken from the wound, and a vaccine used as early as possible. Staphylococci, streptococci, and pneumococci are the commonest infecting organisms.

Staphylococcus.—Maddox[10] reports an infected case of cataract extraction, with pus along line of incision; vitreous grey and turbid, and iris "rotten-looking." Injection of staphylococcus vaccine gave rapid improvement, followed by cure.

Streptococcus.—I have obtained a very striking result by vaccine in a case of late post-operative infection by streptococcus.

E. P., July 13th, 1908: Lids healthy. Right preliminary iridectomy performed. July 19th: Much ciliary injection. The inflammation became rapidly worse, with intense chemosis, the edges of the incision oedematous, iris discoloured, and a hypopyon developed. Cultures from wound showed pure growth of streptococcus. July 22nd: Increased ciliary injection and hypopyon. July 23rd: Less chemosis. July 24th: Hypopyon disappeared, injection and chemosis less. July 29th: Aqueous clear.

August 8th. A small hypopyon reappeared, lasting until August 14th. The inflammation gradually subsided, and the eye became quiet by August 23rd. Extraction and needling were performed later, without complication, and vision $\frac{6}{9}$ was obtained.

I give the details of treatment and opsonic indices in the above chart.

We see, then, that vaccine treatment is of great value in post-operative infections, the prognosis of which has been so bad in the past.

Internal Infections.

In internal disease of the eye due to pyogenic organisms the obtaining of a bacteriological diagnosis is difficult. The disease may be primary or secondary to a focus elsewhere in the body. Lesions of the eye secondary to disease of other parts have been described by Holmes Spicer,[11] and may take the form of irido-cyclitis, retinal abscess, or retinal phlebitis. Such cases may be secondary to skin abscesses, puerperal infections, pleuropneumonia, etc., and the causative organisms are usually staphylococci or streptococci. Another variety of metastatic infection is irido-cyclitis secondary to pyorrhoea alveolaris (Adams[12]), where staphylococcus or pneumococcus is the infecting agent. In all such cases vaccines can be used with good hope of success, cultures being obtained from the primary focus of disease.

On the other hand, in internal infections of the eye without obvious lesions elsewhere the difficulty arises of obtaining cultures of the causative organism and making a bacteriological diagnosis.

However, in cases of irido-cyclitis cultures have been made from the aqueous after paracentesis by Mayou,[3] and he reports a case in which *Staphylococcus albus* was grown, and the irido-cyclitis cured by vaccine, using doses of 1.000 million. Two other similar cases of irido-cyclitis treated by staphylococcus vaccine are recorded by the same author, one being cured, the other relieved. Weeks[13] records two cases of gonococcal iritis treated by stock vaccine with success, and he mentions two similar cases treated by C. A. Oliver, and one, recorded by Posey, of severe gonococcal uveitis which improved. Streptococcus has been cultivated by other workers from the anterior chamber in cases of irido-cyclitis.

The general rule must be laid down that larger doses of vaccine are necessary in internal diseases of the eye owing to the peculiarities of its blood supply.

Lastly, mention may be made of a result obtained by Trantes,[15] who used cow-pox vaccine in a case of trachoma with resulting cure; the experiment was suggested by the observation of a case of trachoma which became well after an attack of small-pox.

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A CASE OF ADDISON'S DISEASE TREATED WITH TUBERCULIN.*

BY

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A WELL-EDUCATED and intelligent lady, aged 34, unmarried, consulted me in April, 1907, under the following circumstances.

Two years earlier, when in good health and having had no serious illness, she began to ail and has got gradually worse. She complained of lassitude and want of strength, whereas she was formerly fond of getting about and of occupation; said she had no appetite, but forced herself to eat. She had frequent headaches and suffered from constipation, varied during the last six months by a few attacks of diarrhoea; also had backaches (lumbar), which have been more frequent since last winter. She suffers from post-nasal catarrh, and the throat is sometimes sore, but she has no cough. Used to sing much, but has gradually discontinued it during the last two years; formerly could cycle 20 miles, but gave this up last summer. The hands and legs had been

* A paper read at Bath, April 28th, 1909, at the meeting of the Bath and Bristol Branch of the British Medical Association. Postscript added May 1st, 1911, and March 7th, 1912.

shaky for about two years, and the temper was getting irritable. She complained much of nausea, without vomiting, dating from six months back. It came on at any time and was not related to food. Sometimes when walking there was a feeling of unreality, and a sensation as if she would stagger at any moment. She fainted a few mornings since for the first time. Latterly there had been much mental depression. A month ago she first noticed a mottled brown appearance of the skin on the thighs, and later herself and friends had remarked it round the mouth and in other spots. There had been a dull pain, not always present, between the clavicle and the right breast, since last winter only. For many years the right knee had been painful after exercise.

It will be noticed that some of these symptoms were quite recent, and all except the last appeared since two years before. At that time a younger sister, to whom she was much attached, died at Mentone of phthisis after ten years' illness. The patient nursed her a good deal during the earlier part of the time, and went out to Mentone to be with her just before the end. Felt the shock very much, and dates her own illness from that event. Eighteen months ago she consulted a doctor, who said that her organs were quite sound, that she had nervous breakdown, and advised her going abroad. This was not practicable, and she got worse instead of better; has tried iron and other tonics without effect.

With the exception of the sister who died there is no immediate family history of tuberculosis. Her father is English, her mother a native of Guernsey; two brothers and one sister are alive, all in fair health.

Condition when First Seen.

On examination the patient is a tall, well nourished, somewhat sallow brunette, of naturally alert temperament. The pulse varies from 76 to 84, is feeble, and occasionally a little irregular. The tongue is furred at the back; there is little or no tremor. She is of abstemious habit.

The throat, although patchy and not quite healthy in appearance, shows no marked abnormality. No physical signs of disease were elicited by the usual examination of the thoracic and abdominal viscera, and examination per vaginam, digital and specular, also gave negative results. Menstruation began at 14, was regular until a year back, lasting five days, but since then the intervals are fourteen days only. The urine is normal in quantity and colour, acid, specific gravity 1020, no albumen or glucose, slight cloud of mucus, no bacterial turbidity. Ocular, plantar, and tendon reflexes are normal.

There is a decided fine tremor of hands and legs, but no tenderness. No enlargement of thyroid, or thrill, or exophthalmos. There is an enlarged and prominent node at the junction of the second rib and cartilage on the right side, very slightly tender; this is the seat of the pain referred to, and is believed by the patient to be recent. The body is well nourished, weight 9 st. 2½ lb., muscles remarkably firm in contrast with the feebleness complained of. Hand grips decidedly feeble—subsequently measured by consultant as one-third normal. The right leg is 1½ in. shorter than the left, measuring from the anterior superior iliac spine to the external malleolus; the shortening is between hip and knee, and on inspection the pelvis is tilted to the right; movements of the knee and hip joints are perfect, but the ache experienced in the right knee after exercise was felt also after the examination.

An abnormal body odour which used not to exist is now, at times, perceptible to others. The recent brown pigmentation of the skin is most noticeable in irregular patches on the chin, lower and upper lips, sides of nose and forehead (very recent there), upper and inner parts of thighs, on buttocks round anus, on neck, forearms, and shoulder (ring round exposed portion); it is traceable on mucous surfaces of mouth, conjunctivae, and genitals, and on palmar as well as dorsal aspect of hands. It appears to be diffuse or general, but deeper in places, and is noticeably interrupted on thighs, backs of knees, and some other parts by oval and irregular patches of leucoderma. Although the patient is a brunette, she is confident that until recently the normal tint of her skin was nearer that of the light patches than the rest.

A blood examination showed over 100 per cent. haemoglobin, erythrocytes normal in number and shape, polynuclear leucocytes 4,200, no abnormal cells. The opsonic index to human tubercle, carefully determined in my own laboratory, was 0.80, two days later 1.00, but heated serum index (thermo-stabile opsonin) was 0.40. The slight variation from normal in the total opsonin index can hardly be called significant, but the thermo-stabile opsonin index is. A heated serum index of 0.0 is quite consistent with tuberculosis, but I have never found a high one—anything like as high as 0.40—in a case that was not undoubtedly tuberculous or highly suspicious. The post-nasal mucus was free from tubercle bacilli; and this I have found to be the case in several cases of post-nasal catarrh which I have treated with tuberculin with marked benefit.

Although I embarked on this case with a strong disposition to look for latent or early phthisis, the clinical picture and history as above disclosed did not seem as a whole explicable by any diagnosis but that of Addison's disease, of tuberculous origin, with the most objective symptom—pigmentation—quite recent, and with possibly tuberculous foci outside the suprarenals also. We have the initial mental shock, the tuberculous contact, the slow progressive character of the early stage, the myasthenia without muscular atrophy, nausea without ascertainable cause, occasional diarrhoea, fine tremor, signs of feeble circulation, progressive debility, languor and depression, the absence of any other organic disease to account for this group of symptoms, and, finally, the later onset of the pigmentation to clinch the whole. If we look upon this last as simply patches of leucoderma in a naturally dark skin, with heaped-up pigment near the margins of the cleared areas to give the darker effects, we are left without explanation of the accompanying group of symptoms. The patient's own evidence and the occurrence of mucous and palmar pigmentation stamp the deposit as pathological; and, moreover, the hairs on the lighter areas are normally pigmented and not bleached, as in ordinary cases of leucoderma. If we suppose tuberculosis with pigmentation but with suprarenals unaffected, we are at a loss to locate the lesions beyond the node of the second rib and the very doubtful knee or hip symptom dating from childhood, and again find in them nothing to account for the very grave condition of illness undoubtedly present. Other known causes of pigmentation are either absolutely excluded or exceedingly unlikely. On the known fact that the great majority of cases of Addison's disease which have been examined *post mortem* show tuberculous lesions in the suprarenals and on the apparently early stage of this case, I proposed to try tuberculin treatment supplemented by suprarenal extract. On April 12th I took the patient to Dr. H. D. Rolleston for an opinion, and he could suggest no alternative diagnosis and endorsed the treatment with suprarenal extract. He drew my attention to notes of many cases of tuberculosis with pigmentation, and also to the recognition by French physicians of a condition described as "Addisonism"—that is, a clinical picture agreeing with Addison's disease, but with symptoms mild in degree, and lacking the *post-mortem* confirmation of suprarenal lesion, therefore presumably differing only in degree, and possibly offering a less unfavourable prognosis. We cheered the patient with this and with the fact that the arterial pressure as taken by Dr. Rolleston was 120 mm. mercury. As regards tuberculin, he agreed that I might try it, and I saw Sir A. Wright the same afternoon; he strongly recommended me to try tuberculin, and also pointed out two or three cases of obvious tuberculous lesions with pigmentation amongst his out-patient records.

As regards blood pressure, my Riva-Rocci gauge was at the instrument-makers at this time, but soon after and many times since I found the pressure to vary little, 110 to 115 mm. on the first four occasions and much the same since; 103 was recorded on two occasions each after a few weeks' absence from treatment; 118 also twice, first in June, 1908, and again in September, about which time the most marked improvement set in. Since certainly in some fatal cases of suprarenal disease the blood pressure does not fall markedly until within a short time of death, the absence of an abnormally low pressure in this case does not tell against the diagnosis.

The patient was left in Bath under my care, and has been under treatment for two years (April, 1909) with three intervals of a few weeks spent at her home. On April 15th, 1907, the first injection of $\frac{1}{1000}$ mg. T.R. human was given, the opsonic index being 1.05. Next day patient felt worse, the pain in the rib had increased, and there was a little diarrhoea. Thirty-two hours after injection the opsonic index rose to 1.48. Such a response, provided it is based on careful uniform determinations in one's own laboratory, has been in my experience, which on this point is entirely confirmatory of Sir A. Wright's, of great value in confirming the existence of a bacterial infection, and, in hopeful cases, of foreshadowing improvement. Several scores of indices have been subsequently taken in this case for the sake of research and in the hope of controlling the inoculations, but they may be disposed of by saying that the index was very rarely above normal or below 0.8, and that after a short time it was noticed that the patient's serum acquired the power of agglutinating the erythrocytes of the emulsion used (generally mine and my assistants's). This phenomenon, which cannot fail to strike the eye of the operator by the curdled appearance of the mixture of corpuscles, bacterial emulsion and serum in the pipette, sometimes before, sometimes after the fifteen minutes' incubation, interferes markedly with the accuracy of

the index determinations (see Fleming's paper in *Practitioner*' May, 1908). My patient's serum would retain this property for months in succession and then lose it.

The pain in the rib ceased on the second day after the first inoculation, and returned only at rare intervals and in a very transient manner. On the ninth day the nausea was reported as almost nil, occurring only once or twice in a slight degree. The asthenia and depression was still very marked on the fourth day, but on the ninth the notes read, "On the whole, decidedly better." The effects, if any, of a first injection of bacterial vaccine being very important to observe, administration of suprarenal extract was deferred until the above notes were recorded. Fifteen grains daily were then given for a period of three months, and as the tuberculin injections were at first at intervals of ten days or more, it was fairly easy to form a judgement as to their relative effects. At first the suprarenal extract was thought to have some influence in preventing the return of nausea, but at the end of three months, no noticeable result appearing attributable to this remedy, it was discontinued.

The dose of tuberculin was after a time increased to $\frac{1}{1000}$ mg., and this was eventually given weekly for several months. During the first year, at any rate, almost every injection produced some malaise for twenty-four hours; afterwards this effect passed off, and larger doses given at intervals of four days were tolerated well with good results, whilst for the last two months doses up to $\frac{2}{100}$ mg. have been given every fourth and lately every second day. Slow but sure progress was apparent from the first, and this was sufficient to ensure the patient's return to Bath after two or three home visits of a month each, during which the improvement was scarcely maintained. The asthenic symptoms, and rarely nausea, were still complained of, but about six months ago much more rapid improvement set in, the patient began to say she felt more like her old self, and contemporaneously with this it became apparent that the patches of leucoderma were getting larger and running together, and that fresh areas of clearance were presenting. A photograph was secured last September, and another was taken last week. On comparing them this point will be easily recognized.

The present condition (April, 1909) is that the pain in rib, after becoming less and less frequent, has not been felt for three months; the knee still aches after walking, but long walks are taken without fatigue; the hand grips are normal; there are no attacks of nausea or diarrhœa; the mental depression has within the last six months entirely disappeared; the tremor and staggering disappeared eighteen months ago; there have been no more syncopal attacks; the bodily odour is gone; the catamenial intervals have become normal; and the post-nasal discharge, which used to fill half an egg-cup each morning, is less than half this quantity.

Turning from clinical to economical considerations, the improvement will be more readily credited. The mother having lost one daughter from phthisis after all sorts of treatment, wished this one to remain at home and take her chance under good climatic conditions when she learnt the usual disappointing results of our ordinary therapeutic measures in Addison's disease. At each home visit of the daughter the mother became more willing that the tuberculin treatment should be continued, and now writes me that the patient is "quite her own old noisy self again," and consents to a still further extension of the treatment if I think it necessary. The patient, however, feels quite well enough to resume her old life and home duties, and it is so arranged. She objects to take tuberculin by the mouth or hypodermically without my supervision, and will resume the trial of suprarenal substance. As in a favourable event the case will pass out of my hands, it seems a fitting time to record it. As to prognosis, I am not able to say a word.

Postscript, May 1st, 1911.—At the discussion on the above paper no one questioned the diagnosis. In conversation Mr. Pagan Lowe remarked to me that, whilst thoroughly agreeing with the diagnosis, he would like to know the further history of the case in, say, two years' time. Feeling myself that much of the interest lay in the future, I decided to suspend publication. I now publish the paper as read, and am able to add the following note, having just had an opportunity of examining the patient during a short visit to Bath:

The second trial of suprarenal extract was terminated, like the first, after a couple of months, as it was thought to disagree, and no definite favourable effect was noticed. By September, 1909, the patient was definitely not so well, and returned to Bath for four months, during which she had thirty-four inoculations of $\frac{1}{1000}$ mg. T.R. She returned home very well in January, 1910, and since then has paid only three short visits to Bath:—March 28th to April 7th, 1910; November 14th to December 20th, 1910; and April 6th to 25th, 1911; receiving six, twelve, and four inoculations at the several visits. For the past fifteen months, therefore, she has remained in good health and spirits, has taken her full share in somewhat anxious household duties, and her general condition has decidedly improved instead of showing a tendency to fall back. Present condition (April 25th 1911): Pulse 72, now and then a little irregular; no bruit; blood pressure 108 mm.; no nausea, no tremor; hand grips normal; weight 9 st. 8 lb. Rarely has headaches, and gets about as of old. Has had a trying winter with nursing, etc. There is not much change in the outlines of the lighter areas (that is, a photograph would resemble the second of the two former ones), but there is a noticeable further general lightening of the pigmentation, so that friends tell her the face is much less dark than even a year ago. Palmar pigmentation, and that of the oral and conjunctival mucous surfaces, can no longer be traced.

Postscript, March 7th, 1912.—The patient remains quite well, and little further change has taken place in the details of the pigmentation, which is, however, generally lighter.

The cure has not suffered interruption in spite of the anxious home conditions occasioned by the illness and death of the patient's father.

Photographs sent by the author show the pigment change, but are not sufficiently strong to give satisfactory reproductions.]

STATISTICS OF A SERIES OF EIGHTY-SIX CASES OF PNEUMONIA, WITH A NOTE ON ALCOHOL IN THE TREATMENT.

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It would doubtless be interesting if general practitioners were to record series of cases of the more common ailments occurring in their practices, for I am sure that there are many important factors that may be observed and notified as being useful and helpful from a point of view of diagnosis and treatment as it presents itself to the general practitioner, and to compare them with statistics as given in textbooks, which, as a rule, are statistics of cases seen and treated in hospital practice, and thus it becomes interesting to know whether cases treated in general practice and hospital practice give similar results, or whether they differ very materially, and whether one may deduce any points which would account for the different results obtained, if there are any. With this object in view I beg to record a series of cases of pneumonia which have occurred in my practice. The cases, which were of the lobar type, are 86 in number, and are tabulated as follows:

Eighty-six Cases—54 Males and 32 Females.

Age.	No. of Cases.	No. of Deaths.	Percentage.
Under 10 years of age	10	3	30
Between 10 and 20 years	11	1	9
Between 20 and 40 years	39	9	23
Between 40 and 60 years	21	7	33
Over 60 years of age	5	3	60
Total	86	23	26

From these facts it will be seen at once that the disease is more common in males than females, and it occurs more frequently between the ages of 20 and 40, and that the mortality-rate increases with each decade, with the exception that the rate of mortality under 10 years of age is high, but the highest being over 60 years of age, it being at that period over 60 per cent. The average mortality-rate in the series is 26 per cent., and this compares favourably with the statistics given by Professor Osler in his *Textbook of Medicine*. Professor Osler says: "Hospital statistics show that the mortality-rate ranges from 20 to 40 per cent. Of 1,012 cases at the Montreal General Hospital the mortality was 20.4 per cent. Of 3,969 cases treated at the Charity Hospital, New Orleans, the death-rate was 38 per cent. Our mortality at Johns Hopkins Hospital was 25 per cent. in the whites and 30 per cent. in the coloured. In 704 cases at the Pennsylvania Hospital the mortality was 29 per cent., and at Boston City Hospital it was 29 per cent. in 1,443 cases. The mortality-rate in private practice varies greatly. R. V. Howard treated

170 cases, with only 6 per cent. of deaths. Fussen has recently reported 134 cases, with a mortality of 17.9 per cent. According to the analysis of 708 cases at St. Thomas's Hospital the mortality progressively increases from the twentieth year, rising from 3.7 per cent. under that age to 22 per cent. in the third decade, 30.8 per cent. in the fourth, 47 per cent. in the fifth, 51 per cent. in the sixth, and 65 per cent. in the seventh decade."

There are one or two points observed in connexion with this series of mine that are of interest, one being the direct infectious nature of pneumonia, there being two well-marked instances occurring in different members of the same family, three members in each case having the disease within a few days of each other, the later ones having been nursing and in attendance upon the earlier ones. In one instance one died and two recovered, and in the other instance the three died. I may say that in this latter instance I have reason to think that the disease was of a septic type, and the subjects were bad ones, being very delicate and of weakly constitution.

The other point I wish to make note of is about the value of alcohol in the treatment of pneumonia. It is held by many medical men that alcohol should form a part of the routine treatment of this disease, and formerly I may say that I held that view, and I prescribed alcohol much more than I have done latterly, and I have divided my series into two parts—those of my former treatment and those of my latter treatment—and on comparing the results I am convinced that it is unwise and unnecessary to prescribe alcohol in every case of pneumonia, for it is possible that it may, and does, do more harm than good in many cases.

The result in each category is as follows:

First Series.—36 cases with 14 deaths, or 38 per cent. mortality.

Second Series.—50 cases with 9 deaths, or 18 per cent. mortality.

The result in the second series will be seen to be much more successful, and if one excluded the three cases above referred to, as being of an exceptionally septic nature, the number of deaths in the second series is reduced to six, and the mortality-rate reduced to 12.7 per cent. It may be argued that this is a mere coincidence, but, in my opinion, it is something more; but, admitting it to be a coincidence, the fact remains that the result is better without the routine treatment by alcohol. I would mention that I have not excluded alcohol entirely, but in cases showing signs of cardiac failure by increase in pulse-rate and weakness thereof, I would prescribe alcohol, but would never rely upon it without other cardiac stimulants—namely, strychnine, digitalis, ammonia, etc., but my observation was this, that cases requiring alcohol generally proved fatal notwithstanding.

Another point of great interest is this. Four of the cases in this series occurred in persons I knew to be heavy drinkers—three men and one woman—and it is held by many if not most medical men that it is dangerous suddenly to withhold alcohol from any one accustomed to taking it, especially if that person is the victim of any disease, such as pneumonia particularly, but the result in these four cases (the number is small, I admit) is sufficient proof that this belief is fallacious, for those were treated without any alcohol at all, and the four cases recovered; whereas I firmly believe that had alcohol been administered, they would in all probability have developed delirium, and the result very likely would have been different to what it was, for it is possible that in cases of delirium accompanying pneumonia, the delirium may be as often caused by the alcohol administered as by the disease.

In conclusion, I would say that having regard to the fact that alcohol is of very little help, if any, in the treatment of pneumonia, and that it is expensive, and inasmuch as many patients and their friends are poor and can ill afford to spend money on an article which is of very doubtful value, to say the least, it behoves us as a profession to be very sparing in prescribing it, and only to do so when absolutely necessary, and when considered likely to be beneficial, at the same time bearing in mind that one has a duty to consider the economic side, and to remember that the money so spent could be turned to better account on other articles of nutriment which would be of greater benefit and help in combating the disease, and in securing the recovery of the patient.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

SWEETS IN CHILDHOOD: SUGAR CANE.

In a previous communication the physiological necessity for sweets (or sugar) in childhood, and also the possible pathological effects arising therefrom have been alluded to. It was then pointed out that it was necessary in order to obviate the lactic fermentation of sugars in the mouth, and especially cane sugar, that they should be combined with a weak organic acid in order to induce reflexly a greater flow of protective saliva, and also to precipitate the mucin which in its viscous form binds the sugar to the teeth.

The example of native children eating large quantities of sugar cane is frequently quoted as evidence that cane sugar cannot be productive of dental caries since such children have for the most part quite healthy teeth. A sample of fresh sugar cane has recently been received from Fiji (in a hermetically sealed case), and has been tested with a view to ascertaining its possible effect on the teeth. The tests applied were those which have previously been used in connexion with a large number of other foodstuffs, and the results of which have recently been published in the author's *Prevention of Dental Caries and Oral Sepsis*.

The following are the observations as regards sugar cane:

1. The juice of the sugar cane is markedly acid.
2. The saliva induced reflexly by the mastication of cane sugar was collected by means of the cannula and segregator from one side of the mouth; it amounted to 3.5 c.cm. per minute or 7 c.cm. for the whole of the glands. The alkalinity of the saliva was 0.94 unit (c.cm. $\frac{N}{50}$ NaOH per c.cm., or an alkalinity index of 6.58. This is about six times that invoked by bread and butter.
3. The débris remaining in the mouth and on the teeth was collected and incubated for twenty-four hours and at the end of that time showed a mean alkaline reaction of 0.51 units, thus placing it between apple (0.3) and orange (0.5) from a protective point of view.
4. The sugar cane is, of course, very fibrous, and it has been suggested that immunity to caries may be due to this fact. It may be so to a certain extent, but is more likely due to the acid reaction of the juice. For instance, (*a*) sugar cane was masticated thoroughly, including the fibres, and débris collected and incubated: the alkalinity developed was equal to 0.26 unit; (*b*) sugar cane was imperfectly masticated, but the juice thoroughly sucked out, and the reaction of the incubated débris again estimated, when it amounted to 0.37 alkalinity unit; whereas a 10 per cent. solution of refined cane sugar (that is, minus its acid) gave rise to an acid formation of 0.1 unit.

It would therefore appear that more protection is afforded from the acid juice than from the fibrous elements, which are distinctly "woody" and devoid of flavour and, therefore, of any reflex stimulating effect upon the salivary glands.

H. P. PICKERILL, M.D., M.D.S.
Dental School, University of Otago, New Zealand.

A METHOD OF REDUCING DISLOCATION OF THE JAW.

On March 11th a young woman was brought to me for the fourth time with dislocated jaw. On each of the three previous occasions reduction had been accomplished, though with considerable difficulty, in the usual fashion as described in the textbooks and lectures. On trying the same proceeding on this occasion, I hurt both my thumbs considerably, but could make no impression on the dislocation. I therefore tried the following plan, which suggested itself to me: Standing *behind* the patient, with the patient's head against my chest, I placed the right thumb in the mouth far back on the right side, at the same time grasping the chin with the left hand. I found I could then readily depress the jaw with the right hand, and the left guided the right condyle into its socket. Reversing hands, I did the same on the left side without any trouble.

This procedure is so much more easy, direct, and certain than the textbook method that I think it scarcely possible that it has not been used by someone before myself. At all events, I can recommend it confidently.

Harston, Cambridge. W. J. YOUNG, M.R.C.S., L.R.C.P.

THE MANAGEMENT OF CARDIAC FAILURE IN DIPHTHERIA.

In Dr. Coghlan's interesting paper on the "cardiac vomiting" of diphtheria, he alludes to encouraging results that he has had from the administration of atropine, strychnine, and adrenalin hypodermically. I have used this method in a large number of cases during the last seven years—though not always employing atropine, and sometimes using morphine—with very good results indeed. But the dosage of the strychnine and adrenalin combination, which is the chief element, may, even in young children, be far more liberal than Dr. Coghlan suggests. A child will stand $\frac{1}{4}$ grain of strychnine and the same amount of hemisine or adrenalin every two hours until the urgency of the symptoms abates, when the dose may be lessened.

There is, too, positive advantage in giving the adrenalin frequently, and it may well be remembered that, as these cases are really in great part cases of suprarenal insufficiency of acute origin, it is only rational to suppose, what is indeed the fact, that they easily support considerable doses of suprarenal extract. On the other hand, the cases with slow pulse—some at least of which are cases of heart-block, as has been lately shown—do not call for such active treatment with adrenalin. When experience has extended over a term of years, it is realized that these cases of "cardiac vomiting" in diphtheria really fall into different categories, with differing incidence of the poison on different organs; and the treatment has of necessity to be varied.

London, W. F. G. CROOKSHANK.

TUMOUR OF THE PONS: EARLY FATAL RESULT.

In the following case a diagnosis of tumour of the pons was made, but I shall be glad to have suggestions as to an alternative diagnosis.

On February 12th her mother spoke to me about E. B., aged 22, saying she was passing very large quantities of water and having to get up two or three times in the night to do so. She complained of thirst and had some headache; her periods had always been regular every twenty-six days, and the loss very profuse. She was slightly anaemic, but seemed very bright and cheerful. She had pronounced wasting of the adductor muscles of the right thumb. The urine was of a low specific gravity, and contained no sugar or albumen. Thinking it was probably a neurotic condition I gave her a tonic of nux vomica and dilute hydrochloric acid.

Within ten days her headache had quite gone, and the thirst nearly so, although the quantity of urine remained much as before. On February 27th she drove out with a friend to a farm five miles away, and from there walked on three-quarters of a mile to another house for tea. She walked back to the farm immediately after tea, and almost at once complained that the marmalade she had just had tasted very nasty. Her friends, seeing that she looked faint, went to assist her outdoors, but before they could do so she collapsed on the floor. As she did not "come round" or speak again, they made up a bed for her in a milk float and drove her home, calling for me at my house on the way.

On arrival home she opened her eyes slightly once or twice, and at first nodded and smiled in answer to repeated questions, but almost at once passed a large quantity of water under her and relapsed into total unconsciousness. She retched several times and vomited a little on her way home and during the night. The vomit was ropy mucus and bilious, but quite without smell. The pupils were equal and slightly dilated. The corneal reflex was present, but no light reflex. The heart sounds were normal, pulse 82, and respirations regular and quiet.

During the night she passed water under her several times. The next morning her breathing was more laboured and quicker. She was slightly flushed and had been perspiring a good deal.

I got Dr. Couper of Blaby to see her with me in the afternoon. By then her respirations had become far more rapid and difficult; she was exceedingly flushed and perspiring very freely, the pulse 120, the temperature 103°, and the pupils as before. The knee-jerks were absent, the plantar reflex extensor and exaggerated. The right arm, which she had not moved since arriving home, showed some rigidity but no paralysis. She was buttoning and unbuttoning her nightdress with the left hand. We drew off a sample of urine and again found no sugar or albumen. After considering all possibilities we diagnosed the case as one of a tumour of the pons.

By the time we had finished the examination her respirations had taken on a Cheyne-Stokes type. She died that night at 7.30. A necropsy was refused.

Her family history was unimportant, save that her mother had hip joint disease as a child. The patient herself had never been ill except for a short attack of laryngitis seven years before.

C. M. L. COWPER, M.R.C.S., L.R.C.P.

Peatling House, nr. Leicester.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

STAFFORDSHIRE BRANCH.

Stafford, Thursday, February 29th, 1912.

W. D. SPANTON, F.R.C.S., President, in the Chair.

Cases.

DR. MILNES BLUMER showed (1) a little girl treated for a naevus of the lower lip spreading to the mucous membrane with three applications—each exposure lasting forty seconds—of CO_2 snow. The cosmetic result was seen to be extremely good. (2) A youth upon whom he had performed abdominal section on four occasions in the course of eight months. The first operation was for intestinal obstruction, and revealed a volvulus, due to a band, of the small intestine. Murphy's button was used, and the second operation was for rupture of the bowel at the site of the anastomosis. An artificial anus was quickly made, no attempt being feasible, on account of the condition of the patient, to clean the peritoneal cavity. A week later lateral anastomosis was done. The fourth operation was again for intestinal obstruction, due to adhesions. The scar left is very satisfactory and shows no sign of yielding. The case was discussed by the PRESIDENT and DR. HARTLEY.

The Diagnostic Value of Pain.

DR. HODDER read a paper on this subject. After introductory remarks, he briefly traversed the grammar of the subject by differentiating pain into direct or cerebro-spinal, and referred or sympathetic pain, and correlating with the latter the other reflex phenomena on the sensory-motor and organic sides. The importance of the careful study of the distribution of pain was insisted on, and the necessity for an accurate knowledge of nerve paths in the interpretation of painful symptoms. Cases were described bearing out these principles, particularly one in which cervical pain was the earliest symptom of apical tuberculosis. Reference was also made to the wide radiation of pain from an often insignificant focus in the neurotic type of patient, in whom all the nerve centres are in a state of irritable weakness, so that a stimulus affecting one may set numerous others responding, so making more difficult diagnostic problems. In conclusion Dr. Hodder drew attention to the value of the study of pain in the region of prognosis, where, more than elsewhere, the physician was drawing a bow at a venture. A short discussion followed, in which the PRESIDENT, DR. LOWE, and MR. LUCAS took part. DR. HODDER briefly replied.

Bedside Manners.

DR. C. M. MITCHELL read a paper on "Bedside manners of eminent London consultants." He dealt with various picturesque, interesting, and characteristic features of many of our foremost physicians and surgeons in their relationship with their patients. He pointed out that careful consideration for the "personal equation" as regards the individual and scrupulous regard for the interests of the medical attendant was almost invariably in evidence in a conspicuous degree. In the course of a chatty consideration of the subject, it was suggested that a close sympathy with the individual and with the medical man was worth cultivating, as adding to the satisfaction of the sufferer and more cordial relationship between the members of the profession. The paper was discussed by the PRESIDENT, DR. CHARLES REID, DR. LOWE, DR. HATTON, and DR. CRIDLAND.

Specimens.

DR. COOKSON described an interesting case of cerebellar tumour of a tuberculous nature, and showed the carefully mounted specimen. The diagnosis at first was very obscure, and the case for some time was thought to be hysterical. DR. LOWE and MR. LUCAS discussed the case. DR. COOKSON also showed some interesting varieties of gall stones.

Reports of Societies.

THE ROYAL SOCIETY.

Thursday, March 14th, 1912.

Sir ARCHIBALD GEIKIE, K.C.B., President, in the Chair.

Intra-vitam Staining.

PROFESSOR DR. E. GOLDMANN, of the University of Freiburg, Baden, communicated a paper on a new method of examining normal and diseased tissues by means of *intra-vitam* staining. The author stated that his original method of *intra-vitam* staining by injection of trypan and isamin blue has been greatly advanced in the following points:

1. Exact dosage for subcutaneous and extravenous work.
2. A large number of newly discovered stains which, though of varied chemical constitution, yet react in manner of trypan and isamin blue.
3. Improved fixation methods for embedding vitally stained specimens in paraffin. Report on new counterstains permitting of specific differentiation amongst constituent cells of connective tissue.
4. Comparative histological work on frogs, mice, rats, etc.; striking similarity ascertained in morphological structure and physiological activity of cells, such as Kupffer cells of liver in all animals hitherto examined.
5. Further studies of normal tissue vitally stained: *(a)* Closer investigation of the placenta, proving that the same fetal placental cells which absorb the vital stain, control the distribution of glycogen, fat, and other substances requisite for fetal nutrition. *(b)* Pyrrhol cell. Different behaviour in newborn and adult, chief seat of production, *taches laiteuses* of omentum and bone marrow.
6. Studies in diseased tissues vitally stained: *(a)* Experimental tuberculosis production in mice by intraperitoneal injection of avian and bovine bacilli. Fundamental difference between the two types in mode of dissemination and relation to the vital stain. *(b)* Healing of wounds. *(c)* Muscular trichina and intestinal worms. *(d)* Malignant growths, with their specific reaction on "Pyrrhol cell."

The Effects of Ultra-violet Rays on the Eye.

Dr. E. K. MARTIN read a paper on this subject, in which he described three lines of investigation he had carried out, in each case on rabbits:

1. *Absorption.*—Using an iron arc as the source of light and a quartz spectrograph, the absorption of the media of the eye was found to be as follows: Cornea: All rays of wave lengths less than 295 $\mu\mu$ are cut off completely. Lens: Absorption commences at 400 $\mu\mu$ and is complete beyond 350 $\mu\mu$. Vitreous: Shows a broad absorption band with ill-defined margins extending from 280 to 250 $\mu\mu$. All the media were found to be uniformly permeable to rays between the wave lengths 660 to 400 $\mu\mu$.
2. *Repeated Exposure of Eye to Light containing a High Proportion of Ultra-violet Rays.*—The source of light was a mercury arc enclosed in a quartz tube (Kromayer lamp). A series of animals were exposed at repeated intervals during from three to twelve months. They showed marked inflammatory reaction in the cornea and conjunctiva, and in one case a proliferation of the cells of the anterior lens capsule.
3. *Transmission of Haemolysins to Aqueous Humour after Exposure of Eye to Short Wave-length Rays.*—The aqueous of animals sensitized to the blood of another species has no power of haemolyzing red blood corpuscles of that species. After exposure of the eye of such an animal to the quartz mercury-vapour lamp, the aqueous became actively haemolytic and remained so for a period not as yet determined, but in any event longer than the duration of the resulting inflammatory changes.

Radium in Carcinomatous Tumours.

Dr. W. S. LAZARUS-BARLOW said the evidence he had previously advanced that acceleration of electroscopic leak might be produced by the residue of carcinomatous tissue after its extraction with ether and subsequently with water, or after extraction with acetone, had been criticized on the ground that the results were small and possibly explicable by alteration in capacity of the electroscope occasioned by introduction of the substances within it. The subject was therefore reinvestigated with an electroscope of constant capacity in which a fixed wire grating separated the portion containing the gold leaf from the portion into which the substances were introduced. Twenty-seven samples of primary carcinoma, 8 of secondary carcinoma, 2 sarcomata, and 5 normal livers and lungs were examined under these conditions, and the original conclusion was confirmed. Seven of the above specimens were also boiled with HCl and set aside for four weeks in sealed flasks, and at the end of that time were examined in an emanation electroscope for radium emanation. The results were as follows:

Reference Number.	Leak in Constant Capacity Electroscope (N.L. = 1).	Divisions per Minute Due to Emanation (Emanation Electroscope).
Normal liver (437)	.94	0
Primary carcinoma (697 G)...	1.06	.004
" " (147 C)...	1.20	.004
" " (791) ...	1.48	.068
" " (793) ...	2.24	1.373
" " (697 C)...	21.28	153.5
Secondary carcinoma (440)...	1.29	.292

Compared with a standard Ra solution these values indicate amounts of radium varying from 0.188×10^{-9} mg. to 2.73×10^{-9} per gram of dried acetone-extracted carcinoma. The reagents were then tested and found radium-free; care was taken to avoid possible contamination with radium, and none of the patients in whose cases radium was found had been treated medically with radium in any way or form.

Estimation of Opsonic Index.

Mr. CHARLES RUSS, M.B., described an improved method for opsonic index estimations involving the separation of red and white human blood corpuscles. He said that the opsonic process had been found inaccurate, and almost abandoned. Its liability to error depended chiefly upon the large variation in bacterial content of the leucocytes. This variation made the "error of random sampling" liable to be large (Greenwood and White), and this purely mathematical error had doubtless been at times responsible for the apparent differences of opsonin when contrasting two serums (normal and diseased). By repeatedly estimating the opsonin of a normal serum, in which all the materials were the same, I found the deviation from the mean was liable to be large. From general considerations this "content variation" was presumed to depend upon an uneven distribution of bacteria amongst the leucocytes. A scrutiny of the old method showed two serious defects, namely:

(1) Presence of 500 useless red corpuscles to every leucocyte (hindering access of bacteria to leucocytes, and their even mixture).
(2) Sedimentation of the opsonic mixture during incubation (also hindering access, etc.).

To remove these defects (1) the leucocytes were separated in bulk from the red corpuscles in human blood by an extension of Dr. Ponder's work on leucocytes, and used for the improved process; (2) the opsonic mixture was kept in rotary motion during incubation by a suitable mechanism. When repeated tests were made with the same materials by the improved method there was a largely reduced liability to error. This affected both the average and maximum deviation from the mean value. The observed errors by the improved method were one quarter the magnitude of those by the old process, the conditions of experiment being almost completely comparable.

A Clinical Study of Experimental Fever.

Drs. E. C. HORT and W. J. PENFOLD recalled that in 1911 they showed that ordinary distilled water and solutions in it of salt frequently exhibit pyrogenetic properties as the result of contamination with a hitherto undescribed body. This substance appears to be an extractive in water or saline of bacterial protein, but its presence bears no relation to the number of micro-organisms demonstrable at the time of injection of liquids containing it. It is heat-stable, is of small molecule, and will pass the ordinary bacterial filters. It had now been shown that the existence of this contamination to a great extent vitiated deductions drawn from previous work on the causation of fever after injection of a variety of substances dissolved or suspended in water or saline. Water fever, salt fever, fibrin ferment fever, protein fever, tissue fever of various kinds, and sugar fever were generally regarded as different types of fever depending on the

injection of substances credited with the possession of specific pyrogenetic functions. In each case water or saline had been the injection medium. The authors showed by a series of charts that the unsuspected presence of the contamination referred to was an important determining factor in the production of many of these types of fever. Control charts showed that the injection of salt, fibrin ferment, glucose, lactose, saccharose, and tissue extracts of various kinds in water innocent of this contamination did not produce fever. They concluded therefore: (1) That the establishment as separate entities of these various types of fever no longer rested on secure ground. (2) That future advance in the experimental study of fever was not possible unless precaution be taken to ensure that the water or saline used for injection was free from the fever-producing body described.

Effects of Drying Non-sporing Bacteria.

Mr. S. G. SHATTOCK and Dr. L. S. DUDGEON reported certain results of drying non-sporing bacteria in a charcoal-liquid-air vacuum. The bacteria used comprised *B. coli*, *B. typhosus*, *Staphylococcus pyogenes aureus*, *B. pyocyaneus*. Cultures in peptone water were inoculated to slips of glass, and after being allowed to dry in the air were transferred to test tubes, from which the air was exhausted by means of a motor pump, the vacuum being completed by Sir James Dewar's charcoal and liquid-air apparatus; the use of mercury was avoided. The results were compared with those obtained by simple air-drying. The action of light was excluded during the experiments. *B. typhosus* and *B. coli* died both *in vacuo* and in air-dried slips within five days. *S. pyogenes aureus* persisted considerably longer under both conditions. The interest centred round *B. pyocyaneus*. Air-dried films did not survive beyond nine days. The slips kept *in vacuo* were alive at seven months, and the authors were ascertaining how much longer this bacterium will live *in vacuo*. *B. pyocyaneus* was submitted *in vacuo* to the action of heat, and also to the sun's rays (the sealed vacuum tubes being submerged in water). Its resistance to these agencies, in the dried state, *in vacuo*, was not materially, if at all, increased. The bacillus was killed, moreover, by the action of ultra-violet rays on being removed from the vacuum and treated in an atmosphere of nitrogen. So far as the possibility of interplanetary bacterial life is concerned, it was evident that bacteria in the fully dried state, if free in the interplanetary vacuum, would be killed by the solar light. And as Sir James Dewar's experiments had demonstrated that the ultra-violet rays will kill undried bacteria whilst in the frozen condition at the temperature of liquid air, there was little to support the hypothesis that the living protoplasm on the earth originally immigrated from interplanetary space in a free or unincluded condition—that free, particulate life had entered the earth's atmosphere, as a result of light propulsion, from extramundane space.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF OBSTETRICS.

Friday, February 16th, 1912.

Dr. A. J. HORNE, President, in the Chair.

Cancer of the Stomach simulating Ovarian Cyst.

Dr. H. JELLETT showed a specimen of cancer of the stomach which had simulated ovarian cyst. The patient, aged 64, had had six children, the last pregnancy being in 1888. On admission to hospital in January she complained of pain in the abdomen, which for the last six months had been getting larger. The physical signs were: Uterus small and atrophied, the abdomen contained a semi-cystic tumour about the size of a seven months pregnancy, and there were some nodules in the right iliac fossa. There were no gastric symptoms. On opening the abdomen a swelling the size of a football—tense and covered with large veins—was discovered. It was attached to the liver above, and below it lay the transverse colon and small intestines. There was a firm adhesion between the abdominal wall and the tumour on the left side. A couple of hard nodular masses were to be felt to the right of the tumour in the right iliac region of the right kidney. It was found impossible to do anything, and in about a week after the operation the patient died from heart failure. At the *post-mortem* examination it was found that the tumour was a malignant growth originating in the stomach. Dr. KIRKPATRICK said that in respect of malignant disease of the stomach producing no gastric symptoms he had heard of four such cases this year. In one of those patients practically the whole stomach was involved, yet the patient presented no gastric symptoms. He had recently seen the stomach of a patient who had been under treatment for some time, and when the abdomen was opened it was found that there was a malignant tumour of the pylorus. It was, he thought, well to remember that malignant disease of the stomach might occur and reach an advanced stage without showing any signs of gastric trouble. The PRESIDENT asked if the tumour was more on the left side than on the right. Dr. JELLETT, in reply, said that the tumour filled the whole abdomen, the liver being displaced and rotated.

SECTION OF SURGERY.

Friday, March 1st, 1912.

Mr. R. H. WOODS, President, in the Chair.

Extirpation of the Larynx.

THE PRESIDENT showed a woman, aged 32, from whom he had extirpated the larynx and a segment of the gullet for a post-cricoid carcinoma on December 26th, 1911. He had tried to restore the continuity of the gullet so as to permit closure of the wound, but the inevitable cicatrization prevented this. He had, therefore, devised an apparatus which not only permitted deglutition with entire comfort to the patient, but also enabled her to talk, except at meal times, with perfect freedom and good tone.

Gastro-jejunal Ulcer.

Mr. W. PEARSON described a case of gastro-jejunal ulcer in a patient who, two years previously, had been operated on for a perforated duodenal ulcer, and on whom, seven months later, a gastro-jejunostomy had been performed for recurrence of symptoms. The resulting relief lasted only two months. Then symptoms suggesting a return of the ulcer appeared, and had since persisted. At the operation two gastro-jejunal ulcers were found, and three portions of silk sutures, which had been employed in the gastro-jejunostomy fifteen months previously, were removed from the junction by the transgastric route. Mr. GUNN said he remembered the patient and was not satisfied as to the cause of the ulceration. The man drank a good deal, and was careless as to the quantity and quality of his diet, which probably had something to say in his condition. Ulcers as a sequence of gastro-jejunostomy were, he thought, more rare than the ½ per cent. suggested by Mr. Pearson's statistics. Mr. WM. TAYLOR was of opinion that many such cases resulted from imperfect technique. The removal of too much mucous membrane very often gave rise to the condition, and the presence of Murphy's button in former days largely contributed to the number of cases. He would be slow to say that the use of silk had anything to say in the production of such a condition, but perhaps haematoma may have an influence on the formation of gastro-jejunal ulcer. He did not think that jejunal ulcers developed with anything like the frequency mentioned. In one case, where he felt certain of jejunal ulcer, he opened the abdomen, but found everything all right. Mr. PEARSON, replying, thought it was difficult to accurately estimate the incidence of such ulcers, owing to the fact that the symptoms to which they gave rise were very much the same as those felt previous to operation, and patients, therefore, concluded that the operation had made no improvement, and did not come back for further treatment. Attention had been drawn to the fact by writers that gastro-jejunal ulcers were rare in America, and this was attributed to the better technique. Silk, even in the outer sutures, might give rise to the condition. The apposition of the mucous membranes was also of importance, as the more accurately they were placed the less chance was there of ulcer formation. In reply to Mr. Cahill, he said that in respect of administering alkalis the most scientific method was to analyse the gastric juice. In the present case from 5 to 10 grains of sodium bicarbonate had been given, and no ill effects had manifested themselves. He had no experience of vaccines in such cases, but if there was any local cause for the condition he would not anticipate a cure by this means.

MEDICAL SOCIETY OF LONDON.

Monday, March 11th, 1912.

Dr. Mitchell Bruce, President, in the Chair.

X-rays in the Diagnosis of Hydronephrosis.

Mr. Thomas Walker read a paper on this subject. The means of diagnosis of hydronephrosis and their practical value were shortly stated. Hydronephrosis presented two clinical stages—the first, in which symptoms alone were present, and the second, in which a swelling was found in the loin. The functional value of the kidney in the second stage was greatly impaired, and after relief of the obstruction the kidney did not return to its normal state. In the first stage there were two groups of cases. In one there was an obvious cause of hydronephrosis present (ureteric calculus, movable kidney), in the other no such cause could be demonstrated (hydronephrosis due to valves, stenosis, aberrant vessels). The symptoms of commencing dilatation in these groups were discussed, and it was stated that they were variable and of little diagnostic value. Dilatation of the kidney was seldom diagnosed before a palpable tumour appeared in the loin. Exploratory operation was too serious a method for adoption in all cases. The *x*-ray diagnosis consisted in (*a*) finding an increase in the shadow thrown by the kidney. In early dilatation special measurements must be made in a fixed position in order to recognize the enlargement; (*b*) pyelography, which consisted in filling the pelvis of the kidney with an innocuous fluid opaque to the *x* rays (collargol) and obtaining a radiogram. The dilated pelvis was less sensitive to distension than the normal pelvis. Commencing dilatation was shown by clubbing and elongation of the calyces, and the pelvis became globular. The angle of union of the renal pelvis and ureter was shown by pyelography, and kinking could be demonstrated. The ureter, pelvis, and upper renal calyx should be in a straight or slightly curved line. The angle formed by the ureter, pelvis, and lower calyx should be wide. The position of the obstruction was shown by a stone shadow, a kink at the junction of the ureter and pelvis, or the shape of the collargol shadow. Illustrations were given of the value of pyelography in the diagnosis of commencing dilatation of the kidney in ureteric calculus, of persistent dilatation of the kidney after relief of obstruction, of the presence or absence of dilatation in movable kidney and after nephropexy, of kinking of the uretero-pelvic junction, and in the demonstration of an actively contracting ureter in hydronephrosis due to movable kidney, and the diagnosis of hydronephrosis due to aberrant renal vessels.

The X-ray Examination of the Urinary Tract.

Dr. W. Ironside Bruce read a paper on this subject. He pointed out that the success of such examinations was dependent upon (*a*) the mode of application, and (*b*) accurate interpretation of the results, which could only be obtained by combining the experience of the radiologist with that of the clinician. Shadows of even familiar objects might be quite unrecognizable, for distortion was easily produced. A ready recognition of anatomical points was necessary. Further shadows of calculi had to be differentiated from those cast by other objects, such as calcified abdominal glands. In the method employed by him and his collaborators at St. Peter's Hospital the *x*-ray tube was placed in all cases in a definite anatomical relationship to the part examined, a manœuvre which resulted in a radiogram which was symmetrical, familiar to the observer, and permitted of shadow relationships being used as a means of diagnosis. The application of the method was shortly as follows: The patient was placed face downwards on a canvas couch, the tube being arranged underneath it. The anode of the tube was centred accurately by a mechanical contrivance opposite the spine of the second lumbar vertebra, a pad or compressor being placed under the abdomen, the patient allowing his weight to rest upon it. Whenever possible exposure was made while a full inspiration was maintained. The relative position of the ureters and pelves of the kidneys in such views had been ascertained by securing radiograms in a like manner, after catheterization of the ureters with catheters opaque to the *x* rays and injection of the renal pelves with collargol. Photographic representations were indispensable. Some preparation of the abdomen was necessary to get the best results, starvation being better than purgation, which frequently produced gas, leading to confusion. The quality of the radiograms should permit an outline of the kidney to be seen, the bones should be clearly definable, and the margin of the psoas muscle easily made out. Dr. Bruce then showed how this method was applicable to the radiography of various abnormalities of the urinary tract, illustrating his remarks by lantern slides of radiograms taken from particular cases.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

Thursday, March 14th, 1912.

Mr. J. B. Lawford, President, in the Chair.

Mr. Herbert, in a paper entitled *A distinctive conjunctival papule*, described a somewhat prominent, defined, painless, papular swelling, which was found on the interpalpebral ocular conjunctiva; it was fairly common in India and apparently rare in Europe. It occurred in adults, chiefly in males, and most often at the inner side of the cornea. It was generally of a pale pink colour, paler than the immediately surrounding injected conjunctiva, and there were a few enlarged blood vessels running to it. It might stain feebly with fluorescin and last two or three weeks only, or considerably longer. Its chief histological features were great epithelial proliferation, more or less inflammatory infiltration, and elastic tissue degenerative changes. In the more active cases the epithelial cells were much enlarged, and multinuclear epithelial giant cells were to be found. Where epithelial down-growths were unable to form, owing to firm supporting fibrous tissue, the nutrition of the epithelial mass was served by the penetration of thin-walled blood vessels into it.

Conical Cornea.

Mr. Worth, in a paper on the operative treatment of conical cornea, described a new operation for this condition. He said that in most cases which needed operation there was a very high degree of myopic astigmatism, sometimes as much as 15 or 20 dioptres, with little spherical error, and even with the most accurate combination of correcting lenses vision was usually very poor. The instruments required for his operation were a platinum thermo-cautery and spirit lamp, and a broad needle and spatula for tapping the anterior chamber. The platinum cautery had a flat surface of an elongated oval shape. The eye was cocainized and a drop of eserine instilled. A spot was selected on the cornea in the meridian of greatest curvature, nearly midway between the summit and margin of the cornea, but very slightly nearer the summit. The cautery was heated in the spirit lamp and held over the eye until it almost ceased to glow in daylight. It was then applied to the cornea at the selected spot with its long axis at right angles to the meridian of greatest curvature. It should only be left in contact with the cornea for an instant; two or three applications were usually required, the cautery being heated each time. A cavity should be made about 4 mm. long and 2 mm. wide, with steep edges and extending nearly down to Descemet's membrane, but very great care should be taken to avoid opening the anterior chamber. Descemet's membrane appeared to be more resistant to burning than the substance of the cornea, or perhaps the aqueous protected it in the same way as water protected a tin kettle. With care the cauterization could be continued until the membrane was seen bulging at the bottom of the wound. Then the anterior chamber was tapped near its periphery and the aqueous evacuated. The anterior chamber was tapped near its periphery on each of the following three or four days, and after that on alternate days, until the ulcer had healed. The main points of the operation were: the dangers of a communication between the wound and the interior of the eye were avoided; the frequent evacuation of aqueous promoted rapid healing of the wound and greatly increased the effect of the operation; by concentrating the effect of the operation chiefly upon one meridian and so reducing the myopic astigmatism better visual results were obtained than could otherwise be hoped for; no subsequent iridectomy was required. Mr. Worth said that the operation was so safe and satisfactory that he would not hesitate to recommend it in a case of non-progressive myopic astigmatism of extremely high degree.

Allantoin.

Mr. W. H. Brailey, in a paper, entitled "A New Cell Proliferant," drew attention to this drug. Its action was not that of an antiseptic. So far from that being the case, it actually encouraged the growth of organisms, but its great use was that it encouraged the proliferation of the cells of the tissues. He mentioned the case of a small corneal ulcer, which, after cauterizing and the application of various remedies, did not get well. Drops of allantoin quickly caused a marked improvement. He mentioned several similar cases, and explained the beneficial action of the drug by its causing the cornea to receive extra nourishment. He considered that the drug was well worth a trial in all cases of long-standing keratitis and possibly scleritis.

Chronic Glaucoma.

Mr. Zorab, in a paper on the relief of tension in chronic glaucoma, gave a preliminary report on a new operation. After briefly reviewing the existing operations, he indicated that the guiding principle in each was drainage of the interior of the globe. He then went on to describe his own procedure, based on the same guiding principle. He described two methods, of which the second was, in his opinion, the better. Originally he passed a threaded needle subconjunctivally into the anterior chamber, piercing the sclerotic coat at the angle. The needle was then brought out at a corresponding point through the angle and out again subconjunctivally. The ends of the silk were cut short and a little manipulation ensured their being covered by conjunctiva. He found, however, that the conjunctiva was very frequently torn by the fixation forceps, and also there was some risk of pricking the iris and lens capsule with the point of the needle. Acting on the suggestion of Mr. J. F. Bullar, he modified the operation thus: A large flap of conjunctiva was raised—at the upper part of the globe for choice—leaving a crescentic attachment along the limbus. A small incision was then made under this flap into the anterior chamber. A piece of sterile silk thread, about one-third of an inch long, was doubled on itself, and the loop was pushed gently through the sclerotic incision into the chamber. The conjunctival flap was then replaced and stitched in a couple of places, great care being taken to see that the distal ends of the bight of silk did not come near the margin of the conjunctival incision. Mr. Zorab claimed for this procedure that it was quite devoid of manipulative risk, that it established efficient drainage, which promised to be permanent, and that it was simple to perform. The only danger, in his opinion, was from sepsis, but he did not regard this as being any greater than the other operations involving opening the eyeball. The greatest emphasis was laid on ensuring a complete covering of the silk by healthy conjunctiva. As the oldest case only dated back to July, 1911, he was careful to state that the operation was only on trial, but he was firmly convinced that it held out good promise. He had so far restricted it to cases of chronic glaucoma, as acute cases did well with iridectomy.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

Thursday, February 22nd, 1912.

Dr. William Dawson, President, in the Chair.

Myxoedema and Insanity.

Dr. G. F. Barham, in a paper on insanity with myxoedema, said the conception of the etiological significance of myxoedema in reference to the mental disorder known as insanity of myxoedema had been much modified since hypothyroidism was regarded as the principal causal factor. The question to be answered was to what extent were the symptoms of insanity occurring with myxoedema influenced during the recovery from that disease under thyroid treatment. It was uncommon to see in an asylum a case showing only the apathy and the volitional and memory defects of simple myxoedema: mostly there were insane ideas indicating a more complicated process. The mental symptoms were often examples of manic-depressive insanity, or dementia praecox, or they might show dissociation or other mental processes underlying hysteria. As an illuminating case he related that of a married woman, aged 34, who was the survivor of twins, and in whose family there were several instances of insanity.

She was married eleven years, and in that time bore eight children. Following the third confinement she had symptoms of myxoedema, with terrifying dreams and visions. She made a fair recovery. After the four succeeding confinements there was always great prostation and debility, with severe head pains, insomnia, and loss of appetite. She also took to spirit drinking, and showed various unfounded suspicions. Physically she was in poor health, and the extremities were cold and pale, but there was no organic disease of any organ, and the reflexes were normal. The life of the patient was deeply influenced by certain incompatible emotional factors at conflict with one another.

He contended that, though under thyroid treatment the patient appeared to recover, so that she was able subsequently to remain outside an asylum, the abnormal mental state was an indication of the independent progress of the psychosis. He therefore concluded that the prognosis of insanity with myxoedema was not so favourable as had been frequently thought to be the case. The subject was discussed by Dr. Stansfield, who narrated the case of a woman who married at the age of 20 and had four children. The symptoms of myxoedema were first noticed at her fourth pregnancy. Phosphorus had been given under the prescription of specialists, and a bad prognosis was given. This was in 1888, and it was decided to treat her with glycerine extract of sheep's thyroid, as suggested by Dr. George Murray of Newcastle. The reaction was remarkably good, and she was eventually discharged recovered. Three years later she again became pregnant, and the birth was premature at the sixth month. For two years following she had mild psychasthenia, from which she recovered. Dr. J. R. Lord said his own experience agreed with that given by Dr. Barham, and supported the prognosis he had given. In his cases there had nearly always been considerable general arterio-sclerosis with, in some cases, alcoholism as a secondary factor. Psycho-analysis could not be undertaken in every case, as it required too much time. Dr. Eden Paul remarked that many cases of hypothyroidism, as the general practitioner was well aware of them, did not now come under the notice of the psychologist; they were treated by thyroid extract by the doctor. Those were the cases which justified the favourable opinion when so treated which was found expressed in general medical literature. The very fact that such a case came under the notice of the asylum medical officer showed that thyroid treatment had failed to remedy the condition. Dr. Barham, in reply, stated that in the cases of the kind in that asylum he had not noticed arterio-sclerosis. There was one case now in the asylum, but her mental symptoms were much too acute to permit of any investigation.

Forced Feeding.

Dr. David Blair (Lancaster), in a paper on forced feeding, set forth his experiences in keeping alive by forcible means patients, chiefly female, who uniformly resisted to their utmost every attempt at compelling feeding and the other necessary functions. In one such case the patient was kept alive for nine years, and he paid a tribute to the devotion of the nurses over such a long period. The question was discussed by a number of members, and the comparative merits of nasal and oesophageal feeding were debated. The latter form was considered the more rapid, while the former was preferable for the most violent type.

LIVERPOOL MEDICAL INSTITUTION.

At a meeting on March 7th, Mr. Robert Jones, President, in the chair, Mr. Thelwall Thomas, in a paper on the *Diagnosis and treatment of calculi in the ureter*, analysed 17 cases on which he had operated. The most marked symptoms were pain, haematuria, and pyuria. Pain had been present in all the cases, and in most there was aching pain, often shooting into the testicle, sometimes unilateral, but not always felt on the side on which a calculus was found by the *x* rays. In 11 the pain had been intermittent and colicky. Haematuria was present in 10 of the cases, in some of these in very small amounts. Pyuria was present in about half the cases, in some along with haematuria, in 3 cases there had been neither haematuria nor pyuria. The most reliable indication was the presence of

well-marked shadows on the radiogram in the line of the ureter, but even this was not absolute in the lower inch or so of the duct. In such cases the cystoscope helped. The ureteral bougie had been used, but it might pass beyond a stone, and so lead to wrong conclusions. The exhibitor had found no treatment which aimed at dissolving the calculi of any use, though large quantities of fluid might, by washing the stone through the ureter, lead to its expulsion. In operating he preferred and recommended the iliac route for all cases. In the discussion that followed, Mr. F. T. PAUL said he had found laryngeal forceps useful in seizing the calculi, and showed some devised by him with a long flexible shaft and alligator jaws. Dr. T. HOLLAND emphasized the need for a radiographic examination on the day of the operation, as the stones moved and might disappear. Dr. O. T. WILLIAMS read an abstract of a long and elaborate paper by himself and Dr. MILDRED POWELL on the *Treatment of diabetes mellitus*, which included charts compiled from daily observations for months by Miss Powell on patients in the Royal Infirmary. In the study of the cases treated by diastase there was an obvious action on nitrogen or carbohydrate metabolism or on the organic acids; throughout the whole series of cases there were small changes in reactivity of the urine to different indicators, whether the diastase were given in liquid or solid form or in capsules insoluble in the stomach; but the changes were not due to the ferment. The charts showed that the most successful cases had been treated by limited amounts of carbohydrate diet varying with the needs and idiosyncrasies of the patient; in some cases the urine had become sugar-free, body weight was gained, and acidity diminished under a dietary where oatmeal was given up to 8 oz. per day.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on February 29th, Dr. ERNEST KNIGHT, President, in the chair, Mr. E. F. FINCH, in a paper on the *Treatment of fractures*, based on an analysis of 200 cases of fracture of the long bones treated at the Sheffield Royal Infirmary during the five years 1906 to 1910, said that "setting" should be more often controlled by the skiagraph and *x* rays used more often in making a diagnosis, particularly in injuries in the neighbourhood of joints and in the carpus and tarsus. The functional result was more important than the anatomical, so the lines of strain and movements required must be kept in view rather than the anatomy. One should endeavour if possible to anticipate disabilities likely to occur after the injury, and to preserve the alignment of the bone. This latter point was of importance in the prevention of traumatic osteo-arthritis, which condition was present in 18 per cent. of the cases. All fractures of the vault of the skull should be subjected to operation. In the neighbourhood of the shoulder joints the treatment should be either by axillary pad or by extension with full abduction of the arm. In the elbow-joint region, the forearm should be first supinated fully and then flexed fully. Passive movement should be delayed for two weeks. Active movement could be allowed after the fifth day. Fractures of the shaft of the humerus were best treated by a double wedge splint. Colles's fracture should always be disimpacted, either by manipulation, wrench, or operation. The treatment of fracture of the femur up to 14 years, judging by results, was satisfactory. After this age the question of operation should be seriously considered. Fractures in the neighbourhood of the hip-joint were more common than was supposed, and gave rise to various degrees of coxa vara. In the neighbourhood of the knee-joint the results following treatment by extension were the best. Spiral fractures of the tibia must be operated on to get good results. In a Pott's fracture the backward displacement must be especially corrected. Mr. F. A. HADLEY alluded to the disasters, due entirely to the method of treatment, which might occur when cases had to be dealt with under unfavourable circumstances in less than twenty-four hours. In such some of the older methods were the safest. In operative cases the surgeon often encountered difficulty, after reaching the bone, in doing anything useful. The greatest value of open operation lay in the removal of bone fragments and blood clot from the soft tissues. Very often simple suturing of the periosteum was all that was required. Plates so often had to be removed that he preferred to do without them unless they were absolutely necessary. Dr. D. GRAY NEWTON showed a new truss for movable kidney designed and made on the cross action principle.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on February 21st, Dr. F. H. JACOB, President, in the chair, a discussion was held on the question, *Is the removal of glands in malignant disease worth while?* In opening it Dr. A. STANLEY GREEN said that extensive operations, involving the removal of large glands and fascial sheaths, together with the original growth, were now the order of the day. Surgeons lost sight of their cases, but as a practitioner he was forced to the conclusion that a case was hopeless as regards permanent cure when enlarged glands were present. The use of a microscope in the operating theatre was not an infallible guide as to the malignancy or otherwise of a growth. The best results were obtained when the glands were not palpably affected; and when, as in the breast, the growth and glands could be removed in one mass the results were encouraging. But removal of the glands at a second operation was generally a futile procedure, because some of the lymphatic tracts were almost certain to be left between the two operations. When a further operation was performed for the removal of recurrent glands, the results were sometimes absolutely disastrous. Nevertheless operation offered at present the only known chance of cure, for *x*-ray treatment and radio-therapy were at best only palliative. Dr. F. H. JACOB agreed that *x* rays and radium only retarded growth. Mr. W. M. WILLIS thought that the whole operation for cancer of the breast should be reviewed, and that more consideration should be given to the duration of the disease and the size of the glands. Operation sometimes seemed to light up the cancer. In the oral region the enlargement of glands was often due to sepsis. Each region must be considered separately, and even where the glands were not felt to be enlarged, yet it was advisable to remove them. Dr. SARAH GRAY said that removal of glands was less favourable in rapidly growing cancer than in more chronic cases. Mr. C. H. ALLEN remarked that formerly mere excision of the growth in epithelioma of the lip was considered sufficient, but better results were obtained by thoroughly removing the glands at the same time. Mr. W. T. ROWE thought that better results were obtained in tongue cases when the glands were removed as well as the growth; moreover, if recurrence did take place in these cases, it generally occurred in the internal organs and not in the glands. Mr. A. M. WEBBER agreed with the last speaker, and said that it was a benefit for the patient to be spared a hideous death from sloughing glands. Dr. C. H. CATTLE said that epitheliomata were of a less malignant type of cancer than carcinomata; also that the glands were less affected in slow-growing cancers such as scirrhus of the breast. In his reply Dr. GREEN said that in his experience patients dying from internal secondary deposits suffered more than those whose glands had not been removed.

BRIGHTON AND SUSSEX MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on March 7th, Mr. T. H. IONIDES, President, in the chair, the following were among the exhibits:—Mr. H. H. TAYLOR: Two men on whom he had performed *Trephining of the sclera* for glaucoma with satisfactory results. Mr. G. MORGAN: A girl of 6 years of age who showed a great enlargement of the external malleolus of the right fibula. Shortly after birth it was noticed that the right fibula at its lower end was larger than the left, but this had not been seen to make any progress till about six months ago. The swelling was not painful or tender, and there was no sense of yielding on pressure. The *x* rays showed a complete hypertrophy of the whole malleolus, and not an overgrowth of any one part as in an exostosis. The general opinion was that an exploratory incision should be made to ascertain its nature. Mr. G. BATE: A uterus removed for *Inveterate prolapsus uteri*. The interest of the specimen centred round the fact that fifteen years ago a double oöphorectomy had been performed for fibroid growth. The organ showed a complete

atrophy of the fibroid tissue. Mr. MALLAM: A *Parenchymatous goitre* in a man of 60; it had commenced when he was about 40 years of age, and had gradually increased till five years ago; since then it had remained stationary and was not causing any symptoms. The treatment had consisted in the administration of thyroid extract and painting with iodine, with no result.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

AT a meeting on March 8th, Professor A. BOSTOCK HILL in the chair, Dr. A. K. CHALMERS, in a paper on the *Relation of Local Authorities to the National Insurance Act*, said that that measure might be regarded as providing for a large part of the adult community of both sexes a scrutiny similar in its character to that which was already yielding hopeful results in the movement for the reduction of infant mortality and for the detection of disease among children of school ages. For the first time in our history an opportunity would be provided for obtaining information of the age incidence of disease during its currency, and this information could scarcely fail to carry with it a suggestion of methods for reducing the prevalence of disease generally. It would thus happen that in the future an importance would come to be attached to weekly returns of sickness similar to that at present accorded to weekly returns of deaths. He did not think that it was very apparent how any deficit in the amount available for medical benefits might arise, so that the probability was remote of the Treasury or the county or county borough authorities being called upon to make up such deficit. An important point for local authorities to consider was how far medical benefit was available for the treatment of infectious diseases, and he looked forward to a considerably increased demand on the hospital accommodation provided for the common infectious diseases of childhood when the opportunity arose for extending the additional benefits of the Act to the families and dependants of insured persons. Measles would have to be isolated for the prevention of sequelae, and whooping-cough to prevent its spread. The extension of sanatorium benefits to dependants would be an advantage to sanitary authorities, most of whom had displayed no eagerness in providing for consumptives the facilities of hospital treatment, the reason being that they were not yet convinced that as an administrative weapon it was a dominant factor in reducing the prevalence of tuberculosis. Referring to Section 63, which penalizes those sanitary authorities whose neglect can be shown to have caused excessive sickness, Dr. Chalmers expressed a doubt as to the practicability of putting it into force, among other difficulties being the impossibility of assessing a normal sickness rate. Dr. A. H. BYGOTT hoped that medical officers of health would dissociate themselves from any agitation against the Act and regard it as a first line of defence against disease. Dr. E. W. HOPE thought that every medical officer of health would welcome any measure tending, as the Insurance Act did, to improve the public health of the country. He doubted, however, whether it was possible to make more progress in the direction of improvement than was being made at present. Dr. R. A. LYSTER pointed out that as sanitary authorities had been deliberately kept out of the Act, they might make that an excuse for not doing anything which the Act enabled them to do. Mr. F. E. FREMANTLE considered that if county councils were to be consulted by the Insurance Committees then the proportion of county council representatives on the committee should be considerably increased. Dr. MCCLERY attached great importance to the preventive side of the Act, and was sure that, as more knowledge was gained of its provisions, it would be found by medical officers of health to be of considerable value. Dr. HERBERT JONES agreed that Section 63 might be found of great value in those districts where the authorities were reluctant to carry out sanitary reforms. Dr. E. H. T. NASH considered that, having dealt with the people in the mass, there was now an enormous amount to be done with individuals. He emphasized the importance of dealing with pre-tuberculous cases. Dr. BOSTOCK HILL feared that in rural districts there would be difficulties in administering the penal section of the Act. He agreed that the people would demand treatment, and it would have to be provided for them.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on March 1st, Dr. J. GALBRAITH CONNAL in the chair, Dr. LEONARD FINDLAY showed a case of *Myotonia* in a man; it presented no history of heredity nor of neurosis, but was in other respects a typical case of Thomsen's disease. Professor WALTER K. HUNTER read notes of a case which he described as one of *Elephantiasis* occurring in this country. The patient was a woman, aged 61, in whom swelling of the legs had begun about thirty years ago, subsequent to repeated attacks of erysipelas. For many years the swelling had been so considerable as almost to prevent walking, and ulceration had occurred in various parts of both legs. On admission to Glasgow Royal Infirmary in October, 1911, the patient suffered also from marked ascites with splenic enlargement, no apparent pulmonary or cardiac valvular disease, but slight albuminuria. Within the following four weeks the abdomen was tapped thrice, but on each occasion the fluid rapidly reaccumulated, and the patient died on November 26th. *Post-mortem* examination showed fatty degeneration of the cardiac muscle, dense perihepatitis and perisplenitis, great enlargement of the spleen, slight congestion of the kidneys, the capsules of which were adherent, and enlargement of the retroperitoneal glands. Microscopic examination by Dr. J. K. McNicol revealed marked multilobular cirrhosis and fine monolobular cirrhosis of the liver, thickening of the spleen capsule and trabeculae, catarrhal nephritis and hyperplasia of the lymph nodes of the retroperitoneal glands. Sections of the skin of the lower limbs showed hyperplasia of the subcutaneous tissue, but no thickening of the epidermis nor unduly fibrous condition of the cutis vera. Dr. J. A. WILSON, in a paper on *Keratitis as a cause of myopia*, analysed a series of 100 cases of corneal opacities; he found myopia in 69 per cent., and the average amount of myopia was a little over 3 D. The keratitis that produced the opacities was, with striking frequency, said to have followed measles. A few of the cases seemed to be due to ophthalmia neonatorum, and among those affected at an older age were some due to interstitial keratitis. In 21 cases there were opacities in one eye only, and of these 21 eyes 13 were myopic. In the 10 most pronounced cases in this section there was a total of 38 D. of myopia in the 10 nebulous eyes and only 1.5 D. of myopia in the 10 non-nebulous eyes of the same cases. The speaker then considered three possible ways in which alteration in the structure or mechanism of the eye might effect this result: (1) By stretching of the posterior segment of the globe as in ordinary myopia; (2) by increased curvature of the cornea; and (3) by yielding at the sclero-corneal junction. He found some evidence of change at the fundus; a fair proportion presented increased curvature of the cornea sufficient to account for the myopia, others presented slight increase, but not sufficient to account for the myopia, while others showed flattening of the cornea. There was also evidence in some cases of yielding at the sclero-corneal junction. The condition as a whole resolved itself into an inequality between the intraocular pressure and the resistance offered thereto. The treatment was discussed with this finding kept in view.

ROYAL SOCIETY OF MEDICINE.

SECTION OF ANAESTHETICS.

IN our report of the discussion regarding ether infusion anaesthesia (BRITISH MEDICAL JOURNAL, March 16th, p. 611), the accidental omission of a word entirely altered the meaning of a sentence which was intended to represent the views expressed by Mr. G. A. H. Barton. The opinion that he really expressed was to the effect that ether infusion anaesthesia offered, in ordinary cases, no better results than did scopolo-morphine and open ether. The point which he had more particularly in mind at the moment was the statement made by Mr. Rood that he had had practically no bad after-results in the 136 cases in which he had employed ether infusion anaesthesia. The claim on behalf of ether infusion anaesthesia represented by this statement could, Mr. Barton holds, be equally well made in respect of the scopolo-morphine and open ether sequence, for in his experience, since he began using this combination, after-effects have been almost abolished.

Reviews.

THYROID, PITUITARY, PINEAL, AND SUPRARENAL GLANDS.

E. von Cyon has published a book on the physiological importance of thyroid, pituitary, pineal, and suprarenal glands[1] which he dedicates to his old master in physiology, Edward Pflüger. The work commences with a prefatory chapter on the heart, the ear labyrinth, and hypophysis. The author then describes the details of a series of experiments carried out by him on the horse, dog, and rabbit to determine the function of the thyroid, pituitary, pineal, and suprarenal glands. These experiments were of a twofold nature. First, he injected into the vena jugularis a solution in glycerine or water of the active substance of the gland in question. Secondly, he exposed the gland and subjected it to mechanical pressure and electrical stimulus, noting carefully in each case the symptoms arising from such treatment and recording tracings of the pulse. Compression of the aorta was another method used to excite the gland. In the case of the suprarenal the experiments were limited to the injections. His conclusions are as follows:

1. *The thyroid gland* has a chemical as well as a mechanical function.

(*a*) It manufactures a substance (iodothyrin) which controls the nervous apparatus regulating the heart, and also, when present in the circulation, has the power of eliminating various substances from the organism which have a deleterious effect on the nervous system.

(*b*) The thyroid can also act as a protector against congestion of the brain in cases of suddenly increased activity of the heart or sudden contraction of the peripheral vessels. This power is due to its large vascular capacity, which permits it to control, to some extent, the circulation of the blood to the brain. Iodothyrin counteracts the paralysing effects of atropin and nicotin on the vagus.

2. *The pituitary gland* also acts mechanically and chemically. It is an autoregulator of the intracranial blood pressure, and acts in conjunction with the thyroid in guarding the brain against undue congestion. The glandular portion of the pituitary manufactures two substances, the most important of which the writer has named "hypophysin." This substance has the power of increasing the action of the heart. The injection of pituitary extract into the vein caused a diminution of pulse-rate with an increase of strength. At the same time the blood pressure rose. This condition would sometimes last for hours. This view regarding the blood pressure would seem to coincide with Schäfer's later views, but the author thinks that Schäfer has missed the important action of hypophysin in slowing the pulse-rate and increasing its strength. Schäfer's latest work on the subject of this gland, published in Bern, was written before he saw von Cyon's book. Hypophysin is also a powerful antagonizer to the action of atropin and nicotin on the vagus. It has not, however, the power of counteracting an already existing vagus paralysis caused by these drugs. Probably it can also protect the organism from poisonous products formed in the system. By means of its chemical activity, the pituitary regulates not only the sympathetic and vagus systems, but also the metabolism of the tissues and glandular secretion. Further, it influences powerfully the development and growth of the tissues, especially the osseous system. Destruction or removal of the gland means death to the individual.

3. *The pineal gland* acts for the most part mechanically only, and regulates the cerebro-spinal fluid flowing to and from the aqueductus Sylvii. To this end it works in conjunction with the pituitary. A very slight electrical stimulus caused the pineal gland to contract visibly without appearing paler in colour, so that the diminished size would not seem to be due to the contraction of blood vessels. The author ascribes it rather to the presence of striated muscle fibres in the gland, which he and others have observed. He noticed that these fibres were arranged in like manner to those of the heart.

4. *Suprarenal gland.* The injection into the vein of the active substance of this gland produced a marked excitation of the sympathetics of the heart and vascular system (accelerantes and vaso-constrictores), and paralysed the vagus and depressor: it must therefore be considered as antagonistic to iodothyrin and hypophysin. There was an enormous rise in the blood pressure, which von Cyon attributes to an excitation of the whole vaso-constrictor nervous system belonging to the cerebral centres, as well as of the ganglia of the rest of the vascular system. This is in contradistinction to Schäfer and Oliver's view that it is caused by direct stimulus of the muscles of the heart and arteries.

A number of graphic tracings are given, principally relating to the blood pressure and the action of the heart, to illustrate the experiments.

Although the author is not treading altogether new ground, his book may be considered as affording a valuable confirmation of and addition to facts already described by other physiologists, especially with regard to the pituitary and pineal glands, whose actions have been less exhaustively studied by other workers. In addition to its scientific value, it may also have an important practical bearing on disease.

[1] *Die Gefässdrüsen als regulatorische Schutzorgane des Zentralnervensystems.* Von E. von Cyon. Berlin: Julius Springer. 1910. (Roy. 8vo, pp. 391; text figs. 117; Taf. 8. M. 14.)

A HISTORY OF CANCER.

ONCE more the cancer lore and the cancer wisdom of all the ages is covered in the 1328 pages of this, the second, volume of WOLFF's monumental work, "Cancer from Early to Modern Times."[2] Whereas the first volume was general in nature, the present is special in that it treats of all the forms of the disease characteristic of the different parts of the body. The two volumes together form one of the most exhaustive, and certainly one of the very best, histories of the growth of the knowledge of a disease ever compiled. The reviewer has read it page for page from beginning to end with never-failing interest and admiration, but the duty has occupied him nearly a year, for it is a volume for consultation rather than for perusal as a textbook. It must, from its nature, become and long remain the standard book upon those aspects of cancer of which it treats, and should be upon the library shelves of every physician, surgeon, and pathologist who makes any claim to a scientific interest in malignant disease. It is impossible to review adequately, or even outline, the contents of a volume of such wide compass dealing not only with every possible and impossible hypothesis of the nature and cause of cancer as it affects the individual organs or different parts of the body, but also with the advance of knowledge as regards clinical course, diagnosis, and relative frequency. Even the recent submission of some of the problems of cancer to animal experiment comes in for review. While Dr. Wolff is throughout an impartial historian of the follies, errors, and real advances of the past, he at the same time suspends his judgement upon many matters, either because they are still subject to doubt and discussion, or too recent to permit of ultimate valuation.

Naturally the volume is not addressed to readers wishing to acquire elementary information, but presupposes a full knowledge of malignant disease both from the clinical and pathological standpoints, and to such readers who peruse it, or occasionally consult its pages, it must prove alike instructive and informing. The references to the literature number over 10,000, the author having himself consulted the original sources and verified them. The general arrangement in chief sections, each having several subsections, is admirable, as is also the printing of each chapter in numerous brief paragraphs. This arrangement, the exhaustive table of contents, and the full indices of names and subjects greatly enhance the value of the book, and facilitate ready reference. We can only endorse the high opinion formed on reviewing the first volume in the JOURNAL, May 7th, 1907, p. 1061, and wish Dr. Wolff the opportunity and the means necessary to complete the volumes he promises upon general statistics and treatment.

[2] *Die Lehre von der Krebskrankheit von den ältesten Zeiten bis zur Gegenwart.* Von Sanitätsrat Dr. Jacob Wolff. II Teil. Mit einer Abbildung im Text. Jena: Gustav Fischer. 1911. (Sup. roy. 8vo, pp. lxvi—1261. Price M. 36; bound, M. 39.)

THE HUMAN LABYRINTH.[3]

THE physiology of the human labyrinth to-day, quite as much as in the past, perplexes the philosopher, the moralist, and the scientist. It is somewhat elusive. Mr. SYDNEY SCOTT'S monograph, entitled, *The Physiology of the Human Labyrinth*, deals only with the labyrinth of the human ear, which occupies an area in size no greater than that of an average monkey nut.

The compression of the title is symptomatic. Within a couple of dozen columns, measuring 5½ by 3 ins., Mr. Sydney Scott has compressed a remarkable amount of valuable information of a historical nature about the internal ear. He deals successively with the general anatomy and topography of the labyrinth, the early experimental researches on the cerebellum and the labyrinth, with the clinical physiology, the microscopic anatomy, the experimental physiology, with the observations in the human subject; with the effects of caloric, rotatory, and galvanic stimuli upon the organ; with the results of the ablation of one labyrinth, and concludes with an account of the cochlear system. This compression is doubtless explained by the fact that the monograph is a reprint of the Arris and Gale lecture delivered before the Royal College of Surgeons of England two years ago. The lecture, as a note at the end of the monograph states, was illustrated by lantern slides of photomicrographs, charts, and diagrams. Doubtless it was the intention of the author to republish his lectures as it was delivered. The introduction of some of the diagrams would have considerably assisted in making the lecture in print intelligible to a larger number of readers who are not otologists but are desirous of keeping in touch with the progress of otology.

Within recent years a considerable amount of research work has been done in order to throw light on diseases affecting the labyrinth of the ear. It is a most difficult subject to understand or to write about in a way that appeals to the average reader. In fact, it would seem that the reader must be not only an otologist and an anatomist and a physiologist, but also a physicist, in order to enter into the conflicting theories. It would be difficult to find a person combining all these qualifications, and this, perhaps, explains the useless controversies which have arisen. To the otologist Mr. Scott's summary of the work done within recent years will be of service, but to the general reader the work may not appeal, owing to the lack of expansion to which we have referred. The author has not made the most of his material, which represents a large amount of patient literary research. A few annotations would have been helpful. The general reader will find himself left to infer from the context the meaning to be attached to such a term as "dysdiadokokinesia" (Babinski). A few brief prefatory sentences indicating the aim, the scope, and the limitations of the lecture would have been of considerable assistance to the reader in following the argument. Monographs such as this are undoubtedly of great help to literary investigations and research; it is for that reason we have criticized the title, which should always be fully explicit of the contents of a monograph; but, apart from this criticism, we have nothing but praise for the work.

CHEYNE AND BURGHARD'S SURGERY.

THE first edition of CHEYNE and BURGHARD'S *Manual of Surgical Treatment*[4] was published in 1899, and although alterations have been made in the text of successive impressions, no new edition has appeared until the present just published. The authors have called to their assistance Mr. T. P. LEGG and Mr. ARTHUR EDMUNDS, to whom they express their obligations.

This textbook has obtained for itself a position of importance and popularity in surgical literature, and deserved the complete revision which has been given to it. It is hardly necessary to remind surgeons that it contains much more than a bald statement of methods of treatment. Some account is given in every case of the symptoms and pathology of the condition.

The first volume treats of infections, wounds, tumours, and deformities; in other words, of general surgery. We can testify to the complete revision of the text. Some alternatives in treatment which do not receive mention are worthy of the authors' consideration. In the application of skin grafts to an ulcer it is not essential to success that the granulations should be removed if the ulcer is healthy, nor is it necessary to cover the grafts with protective or any other impermeable material. A sterile gauze dressing left in position for five days is one of the simplest and best dressings. In discussing the treatment of perforating ulcers of the foot, the method of nerve stretching deserved mention. In the discussion of the treatment of tetanus the method suggested of using antitetanic serum is open to criticism. The authors advise a bilateral trephining in the frontal region, and the injection into the hemisphere of 5 c.cm. of the serum on each side. We were under the impression that surgeons had abandoned intracranial injections of the serum, and we are not acquainted with any clinical records which prove its superiority over that of injection into the spinal theca. Most surgeons would hesitate to inject 10 c.cm. of serum into the cerebral substance and submit the patient to bilateral trephining without strong evidence of the efficacy and necessity of the procedure.

The authors maintain the superiority of antiseptic methods in the treatment of operation wounds over aseptic technique. While there is no denying the excellent results which may be obtained by the antiseptic methods recommended there are two statements on page 153—first, that aseptic technique is "troublesome," and, secondly, that "the results obtained by it are not so good as that (*sic*) obtained by using antiseptics"—which we submit cannot be substantiated.

It is stated on page 100 that the iodine method of skin preparation possesses no advantage over carbolic acid and is "apt to leave the skin tender and easily irritated by the dressings, whilst it also leaves a collection of old epithelium beneath which bacteria may spread into the wound after operation." All and each of these statements is open to question. Some surgeons will also dissent from the writers in their use of wet towels around the operation area, in their leaving the forearm uncovered, and in their employment of 1 in 20 carbolic solution and 1 in 20 carbolic solutions containing one five-hundredth part of corrosive sublimate for disinfecting the hands. Many surgeons, we fancy, would fear that the skin of their hands would rebel after half a dozen or even fewer successive operations.

The new methods of treatment introduced in this edition are too many to enumerate. The description of intravenous injection of salvarsan is welcome, as also the method of using carbonic acid snow for naevi.

The chapter by Dr. Silk on anaesthetics and that by Dr. Emery on the examination of the blood are alike excellent. Dr. Emery's article contains more than its title suggests. It includes a description of Wassermann's reaction, and the use of vaccines including tuberculin.

"Cheyne and Burghard" is a household word among British surgeons, and the new edition will certainly add to the number of its admirers.

TEXTBOOKS OF CHEMISTRY.

THE preparation of a new edition of PERKIN AND KIPPING'S *Organic Chemistry*[5] has been made the occasion for a thorough revision of the whole work. The consequent increase of about fifty pages is not due to the introduction of new sections, but to the general extension of the text. The matter formerly given in an appendix is now amplified and included in the body of the book, which consequently contains five more chapters than formerly. Recent theories and nomenclature are given, and in a science which develops so rapidly as organic chemistry this is of much importance. This textbook is one of the best known and most widely used on the subject, and the new edition will maintain its reputation. Medical students will find it well suited to their requirements.

[3] *The Arris and Gale Lecture on the Physiology of the Human Labyrinth*, delivered before the Royal College of Surgeons of England on March 18th, 1910, by Sydney Scott, M.S., M.B.Lond., F.R.C.S.Eng. Reprinted from the *Lancet*, June 11th, 1910. Cambridge: W. Heffer and Sons, Limited. 1911. (Demy 8vo, pp. 24. 2s. net.)

[4] *A Manual of Surgical Treatment*. By Sir W. Watson Cheyne and F. F. Burghard. New Edition, entirely revised and largely rewritten with the assistance of T. P. Legg and Arthur Edmunds. Vol. I. London: Longmans, Green, and Co. 1912. (Roy. 8vo, pp. 574; 222 figs. 21s. net.)

[5] *Organic Chemistry*. By W. H. Perkin, Ph.D., Sc.D., LL.D., F.R.S., and F. Stanley Kipping, Ph.D., Sc.D., F.R.S. Entirely new edition. Parts I. and II. London and Edinburgh: W. and R. Chambers, Limited. 1911. (Cr. 8vo, pp. 695; figs. 26. 7s. 6d.)

Although the progress of research does not add accumulations of new facts to the domain of inorganic chemistry as rapidly as is the case in the organic branch of the science, recent years have seen great changes in the former, owing to the discovery and application of new laws, and there arises a need for textbooks in which not only the facts are up to date, but in which the whole way of dealing with the subject shall be in accordance with modern conceptions. In his *Textbook of Inorganic Chemistry*,[6] Dr. GEORGE SENTER has endeavoured to meet this want. The subject is dealt with from the elementary stage up to a point about corresponding with what is required for a B.Sc. degree, while much of the matter is necessarily the same as in older books: it is an advantage to have, for example, the principles of chemical equilibrium or the electrolytic dissociation theory kept in view in all the descriptions of reactions. The author states that in the arrangement of the matter he has been guided by his own experience as a teacher; the theoretical part is distributed throughout the book, each theory being discussed after the chief facts on which it is based have been presented. The matter is clearly put and the arrangement appears good. The book should prove thoroughly useful to students who do not wish to have to unlearn erroneous views obtained from books written from a point of view which later investigations have caused to be modified or abandoned.

NOTES ON BOOKS.

THE *Medical Register* for 1912,[7] which has been issued this week, contains 40,913 names, a net increase of 430 over the number in the volume for 1911. The number of names added by registration during the year was 1,042, and the number restored 81. The number of registrations in England was 530, in Scotland 339, in Ireland 173. These figures may be compared with the averages for the last twenty-four years and the last five as follows:

	Average for last 24 years.	Average for last 5 years.	1911.
Registrations—			
England	652	545	530
Scotland	467	409	339
Ireland	156	167	173
Total	1,275	1,121	1,042
Restored	87	104	81

These figures, of course, do not show the number of newly registered medical practitioners who have remained to practise in the three countries, nor the number who have entered the military services or settled in practice in the Dominions and Colonies or abroad. The number of names removed from the *Medical Register* during 1911 on evidence of death was 579, which is very near the average (575) for the last twenty-four years, but a good deal below the average (642) for the last five years. The number of names removed on ceasing to practise was 4, but the number removed under Section XIV of the Medical Act (1858) was 104. This is the section which authorizes the Registrar to remove the name of a practitioner if a letter of inquiry sent to his address on the *Register* remains for six months unanswered. That the number of names removed for this cause should have been so large is surprising, having regard to the fact that two contested elections for Direct Representatives of England and Wales on the General Medical Council took place in 1911. The report made by the Registrar in connexion with the election last November stated that at the election in May 365 letters were returned through the Dead Letter Office, but that eventually the number of practitioners with whom the Registrar failed to get into communication was only about 75; nevertheless, at the election in November 296 letters were returned through the Dead Letter Office. The number of names removed under Sections XXVIII and XXIX, which refer to names of members struck off the list of a licensing corporation or erased from the *Register* by the Council, was 6.

The Sixth Report on Plague Investigations in India, being Plague Supplement I of the *Journal of Hygiene*,[8] contains some very interesting papers, and is a continuation of the previous work done by different members of the Commission. Amongst other papers there is a very touching obituary notice of Major Lamb, I.M.S. It is sad to think that a man of such promise should have been carried off at the early age of 41; as the author of the notice says, the Indian Medical Service and science generally have been robbed of a most ardent worker. There are two papers on statistical investigations of plague in the Punjab by Mr. Greenwood, which should be very useful to workers at the subject in the future. In addition there are a valuable report on investigations into plague vaccines by Dr. Sydney Rowland, and further articles on fleas and rats.

[6] *A Textbook of Inorganic Chemistry*. By George Senter, D.Sc.Lond., Ph.D. London: Methuen and Co., Limited. 1911. (Post 8vo, pp. 593; figs. 90. 6s. 6d. net.)

[7] London: Published and sold for the General Medical Council by Spottiswoode and Co., Limited, New Street Square, E.C. (Price 10s. 6d.)

[8] Cambridge: At the University Press. London: C. F. Clay, Manager. 1912. (Imp. 8vo, pp. 206; plates 14. 7s. net.)

MEDICAL AND SURGICAL APPLIANCES.

Stethoscopic Chestpiece.

DR. LAURENCE M. ROUTH (London) writes: Occasion often arises when it is necessary to auscultate the back of the chest in the recumbent position without unduly disturbing the patient or to listen to the heart sounds at the apex without removing the corsets. Difficulty is then frequently experienced in putting the chestpiece of the stethoscope in position without allowing the rubber tubing to come in contact with the clothes. The accompanying woodcut shows a revolving chestpiece made for me by Messrs. Krohne and Sesemann. The bellpiece is capable of revolving through over 90 degrees on either side. In the position shown in the woodcut auscultation is considerably simplified when only a small space is available. The dotted line shows the normal position for ordinary purposes. The chestpieces can be obtained from Messrs. Krohne and Sesemann, Duke Street, W.



MEDICINAL AND DIETETIC ARTICLES.

Iodine Tubes.

WE have received from Messrs. R. Sumner and Co., Limited, of Liverpool, samples of their sealed tubes containing iodine and potassium iodide for the extemporaneous production of tincture of iodine. Tincture or solution of iodine is now used to a considerable extent as an antiseptic in various ways, and these tubes are intended to obviate the necessity of carrying about a liquid capable of doing much damage if spilt, and at the same time to ensure that the tincture is freshly prepared and of full strength. The tubes contain sufficient to make half an ounce or one ounce of the tincture on adding the contents to the requisite quantity of rectified spirit. It is suggested that they may also be used for preparing an aqueous solution for irrigation purposes; in this case, however, the strength of the solution appears to be less certain, since the amount of potassium iodide necessary to produce the official tincture does not suffice to make the whole of the iodine dissolve in water, and practical trial showed, in fact, that a portion of it remained unaffected.

Dry Emulsion of Cod-Liver Oil.

A preparation of cod-liver oil, with casein, carbohydrates, hypophosphites of lime and potassium, and other salts, in the form of dry powder, has been put on the market by the Eisner-Mendelson Company, New York, under the name "Decodol." Our analysis of a sample of this sent by the English agents, Messrs. Thos. Christy and Co., London, showed the presence of 29.3 per cent. of protein and 27.4 per cent. of fat. This combination is intended to be mixed with milk or other fluid when taken; experience will show how far this way of administering cod-liver and the other ingredients may be acceptable to children or invalids, but it can at least be claimed that the preparation consists of nutritive materials in a very concentrated form.

Salvarsan.

Arseno-benzol, or salvarsan, as hitherto supplied, requires a somewhat troublesome process of preparation before it can be administered. Messrs. S. Maw, Son, and Sons, London, E.C., agents for the preparation, have submitted to us a sample of a creamy suspension of the salvarsan in an oily medium, which is sold under the name Joha. It is contained in small sealed glass vessels, each holding 1.5 c.cm., this quantity containing 0.6 gram (10 grains) of salvarsan. The material is stated to be sterile and to keep indefinitely without deterioration.

Nova et Vetera.

ANATOMY IN SCOTLAND.

THE University of Edinburgh has long been the "sapient nurse" of anatomy. From its dissecting rooms have gone forth many teachers during the last century and a half, and at the present day chairs of anatomy in the United Kingdom and the Colonies are to a large extent occupied by Edinburgh men. It is not surprising, therefore, that the first Sir John Struthers Anatomical Lecture, delivered by Professor Arthur Keith in November, and now reprinted from the January number of the *Edinburgh Medical Journal*,[1] should be largely devoted to workers who made the Edinburgh School of Anatomy famous throughout the world. Professor Keith, who took for his subject anatomy in Scotland during the lifetime of Struthers, 1823–1899, points out that the lifetime of Struthers covers one of the most progressive periods in the history of human anatomy. When he began the study of medicine at Edinburgh in 1841 the majority of anatomists were followers of Paley, the theologian. The development of the human embryo was almost unknown; the body was supposed to consist of "textures" and "humours"; the deeper and more vital parts were supposed to lie beyond the surgeon's endeavour; fossil remains of man were unknown. Struthers lived to see all these things changed. One by one the anatomists became followers of Darwin; little by little the human embryo became known, and its stages modelled; under the microscope the "textures" were slowly resolved into vital units or cells. The discovery of anaesthetics and of antiseptic methods made even the deepest parts of the body accessible to the surgeon's knife and to direct investigation. From time to time discoveries were made of fossil remains which extended the origin of man further and further into the past. In short, a revolution had taken place in human anatomy, and in that revolution Scotland played a part, one of the foremost champions of the "new learning" being Sir John Struthers. In 1841 the Scottish anatomists were centred in Edinburgh. Only Berlin and Paris could show a group of workers who could stand comparison with the men then in the Scottish capital. In the university were Charles Bell, a "surgeon by profession but an anatomist at heart": Alexander Munro, the third of his historic line; outside the university there were Robert Knox, Allen Thomson, and John Goodsir, who in that year was appointed conservator of the museum of the College of Surgeons. Professor Keith proceeds to give some interesting sketches of these men. Charles Bell, who died in the following year, had conducted a private school of anatomy in London, and had made a reputation as an anatomist by his discoveries in the nervous system. Professor Keith says:

> His merit lies not in making a reasonable guess as to the function of cerebrum, cerebellum, double nerve roots and double nerve supply, but that in having made this guess from his knowledge of human anatomy, he proceeded to test its truth on the bodies of other animals by dissection, and above all by experiment. His reputation as a discoverer does not rest on a quibble as to who discovered the exact function of the nerve roots, but on the fact that he was the first man that realized that the anatomy of our brain and nerves would be explained.

It may be interesting here to quote Charles Bell's letter to his brother George,[2] in which, while giving an account of the first dawn of his discovery in his mind, he summarizes his first series of experiments on the roots of the spinal nerves. Writing on March 12th, 1810, he says:

> I write to tell you that I really think I am going to establish my Anatomy of the Brain on facts the most important that have been discovered in the history of the science.
>
> You recollect that I have entertained the idea that the parts of the brain were distinct in function, and that the cerebrum was in a particular manner the organ of mind, and this from other circumstances than what I am now to detail to you.
>
> It occurred to me that as there were four grand divisions of the brain, so were there four grand divisions of the spinal marrow; first, a lateral division, then a division into the back and forepart. Next it occurred to me that all the spinal nerves had within the sheath of the spinal marrow two roots—one from the back part, another from before. Whenever this occurred to me I thought that I had obtained a method of inquiry into the function of the parts of the brain.
>
> Experiment 1.—I opened the spine and pricked and injured the *posterior* filaments of the nerves—no motion of the muscles followed. I then touched the *anterior* division—immediately the parts were convulsed.
>
> Experiment 2.—I now destroyed the posterior part of *the spinal marrow* by the point of a needle; no convulsive movement followed. I injured the anterior part, and the animal was convulsed.
>
> It is almost superfluous to say that the part of the spinal marrow having sensibility comes from the cerebrum; the posterior and insensible part of the spinal marrow belongs to the cerebellum.
>
> Taking these facts as they stand, is it not most curious that there should be thus established a distinction in the parts of a *nerve*, and that a nerve should be insensible? But then, as the foundation of a great system, if I can sustain them by repeated experiments, I am made, and a real gratification ensured for a large portion of my existence.

On December 6th Bell again writes to his brother:

> I am making experiments through the galvanic apparatus to try how far the action of nerves and muscles will agree with the divisions of nerves which I have made by dissection. The apparatus I use is very simple. I have a zinc probe and a silver probe. By placing these in contact with the nerve and the muscle and bringing their ends together, the part is convulsed. Now, you know, what I hope to prove is, that there are two great classes of nerves, distinguishable in function, the one sensible the other insensible!

Robert Knox is chiefly remarkable, not so much for his many valuable researches in human and comparative anatomy as because he was the chief agent by which a revolution was effected in the minds of Scottish anatomists concerning the nature of the human body. He had been a surgeon in the army, and when he retired he visited Paris, where he found Cuvier and Geoffrey St. Hilaire at the high tide of their fame. He learned to view the human body not as a special creation, but as part of that great plan on which Nature had fashioned all vertebrate animals. It was no longer the aim of the anatomist to discover the functional significance of parts, but to ascertain the plan on which the body was formed and the type from which its individual parts had been evolved. Knox scoffed at the orthodox school of Scottish anatomists, and when the tragedy of his life came and he had to leave Edinburgh under a cloud, it is to be feared there were few among his brethren who mourned his eclipse.

Munro Tertius held the chair of anatomy in the university for forty-eight years. He is generally said to have been a very dull man, who was content to read the lectures of his predecessors, sometimes with an undesigned comic effect. Dr. Keith shows that this judgement does something less than justice to the man, who had, in fact, outlived his period and did not move with the times.

Of the younger generation, only three come into the purview of Dr. Keith's lecture. These are Allen Thomson, Hughes Bennett, and John Goodsir. The others were John Reid, James Young Simpson, William Sharpey, T. Wharton Jones, Harry Goodsir, Hugh Falconer, Edward Forbes, Martin Barry, and W. B. Carpenter. All these except Allen Thomson were pupils of Knox. Sharpey founded the School of Physiology at University College, London, and influenced Michael Foster and Burdon-Sanderson, the founders of the Physiological Schools at Cambridge and at Oxford, and also Lister, whom he was the means of bringing within the sphere of Syme. Another of his pupils was Professor Schäfer. Wharton Jones was the teacher of Huxley—"the earliest and the best," as Huxley himself declared—and his influence may also be seen in some of the early researches of Lister on the circulation in the web of the frog's foot and on the early stages of inflammation.

Allen Thomson was the first in Scotland to take up the study of embryology, and forty years after the publication of his early work on the development of the human embryo His of Leipzig found his records among the few which had an abiding value. Martin Barry was the first who recognized the spermatozoa within the mammalian ovum and noted the first changes which follow fertilization. Like Francis Balfour, who was the greatest British embryologist of last century, Barry was a noted Alpine climber. Hughes

[1] *Anatomy in Scotland during the Lifetime of Sir John Struthers (1823–1899).* Being the first Sir John Struthers Anatomical Lecture delivered at the Royal College of Surgeons of Edinburgh, November 17th, 1911. By Arthur Keith, M.D., LL.D Aberdeen. Reprinted from the *Edinburgh Medical Journal*, January, 1912.

[2] *Letters of Sir Charles Bell, K.H., F.R.S. L and E.* Selected from his correspondence with his brother, George Joseph Bell. London, 1870. Pp. 170, 171.

Bennett, though he did not introduce the microscope into Edinburgh, was the first in Scotland to realize that it was a powerful instrument of medical research, and essential for a right understanding of the structure of the body in health and disease. Although the centre of the movement of histological discovery was at Berlin, where Johannes Müller was then Professor of Anatomy, having among his assistants Schwann and Schleiden, the discoverers of the cell doctrine, Dr. Keith points out that the real pioneer was William Hewson, who taught anatomy in London with William Hunter in the eighteenth century. He adds that if Hewson was the pioneer in anatomical microscopy, the pioneer in embryology was William Harvey. Here, then, we have another example of what has so often happened in the history of science—that a movement begun in England was taken up and furthered in Germany and then reimported as a new thing into the country of its birth.

Unlike the men who have been mentioned, John Goodsir found his inspiration in his native land with his own eye and his own brain. He began his investigations by studying in the Firth of Forth the marine invertebrates, the animal forms which take the inquirer nearer the secrets of life. He made many discoveries, including the identification of sarcinae as a cause of vomiting, and the power of creosote to destroy them. When he was appointed to the chair of anatomy in 1846 he surveyed in his inaugural address the whole province of anatomy and the various periods of progress, but when he came to his own period, beginning with the introduction of the microscope in 1830, he confessed that the future progress of the science was obscure. Yet already movements were on foot which materially altered the course of anatomy. The first draft of Darwin's *Origin of Species* was written in 1841. Knox's specimens came into the possession of Struthers, who from the beginning was fascinated by the significance of vestigial or rudimentary structures. The supracondyloid process had been recognized by Knox in 1841 as the reappearance in man of a structure which occurred constantly in many animals. All through his life Struthers made observations on this process, issuing them as papers in 1848, 1854, 1858, and 1881. His inquiry opened out to him not only a series of new observations on the anatomy of the human arm, but he also realized that in this small and apparently insignificant thing lay hidden much of the past history of man, and that it could be read by him who had eyes to see. By 1863 he had become an adherent of the Darwinian movement.

Surveying Scotland at the close of the life of Sir John Struthers, Professor Keith points out how amazingly the study of the human body had progressed. Edinburgh still stood first, but Glasgow, Aberdeen, St. Andrews and Dundee had also become centres of anatomical research. When in 1889, after twenty-six years of strenuous life, Struthers retired to Edinburgh to renew his early associations, he had established at Aberdeen a fully-equipped school of anatomy, and inspired a band of young anatomists. In Edinburgh the University and Extramural Schools continued in their prosperity. Turner succeeded Goodsir in 1867, and by the end of the century he had become the father of the largest family of anatomists the world has ever seen. We need only mention Morrison Watson, who went to fill the chair of anatomy at Manchester; Sir James A. Russell, Inspector of Anatomy for Scotland; D. J. Cunningham—"a man framed in Nature's most liberal mood"; Cossar Ewart; Alfred H. Young, who succeeded Morrison Watson; Johnson Symmington, now Professor at Belfast; Arthur Thomson of Oxford, David Hebburn of Cardiff, A. M. Paterson of Dundee, and afterwards of Liverpool; Arthur Robinson, who now holds his chair; James T. Wilson of Sydney, Robert Howden of Newcastle, T. H. Bryce of Glasgow, A. W. Hughes of Cardiff, James Musgrove of St. Andrews, Edward Fawcett of Bristol, R. J. Berry of Melbourne, David Waterstern of King's College, London. Such a scientific progeny is in itself the highest testimony to Sir William Turner's energizing power as a teacher. The direction which research took among the anatomists of Scotland during the last four decades of the nineteenth century was determined by the ideals and traditions of Knox and of Goodsir, moulded and tempered by the discoveries of Darwin. From 1860 onwards the anatomists of Scotland came more and more under the influence of the evolutionary movement. Through the period 1860 to 1899 craniology was a subject of study and research at Glasgow, Aberdeen, and Edinburgh. Towards the end of the century Turner's memoirs on the osteology of the races of mankind began to appear, among them being the craniology of the people of Scotland, issued in 1903. By the end of the nineteenth century Scottish anatomists had begun to realize the necessity of making an anthropological survey of their own people and of seeking to analyse the various racial ingredients out of which the modern Scot has been evolved.

A survey of the work done in anatomy during the lifetime of Sir John Struthers shows that the study of form became more and more prominent while that of function came to have quite a secondary place. From the day he began to lecture on anatomy at the Edinburgh College of Surgeons in 1845 until his death in 1899 he fought continuously and courageously for freedom to teach and to investigate, for the progress of research and true knowledge and of medicine and medical education, for liberty of thought, for the rights of institutions, and for the rights of women. Professor Keith ends with an expression of his intellectual debt to Sir John Struthers and a kind of apologia for his own career. He says, for instance, that when he came to teach anatomy at the London Hospital he began to doubt whether his teaching of research was really the best to adapt students for their life work. "They had to deal with cases of appendicitis. I could not explain to them why the appendix was present in the body, nor why it was placed in the loin and shaped as a narrow blind tube. They saw cases of diseases of the antrum of the mastoid, and yet, although the shape and position of this small cavity could be described with accuracy, no hint as to why it was there and what function it served could be offered. They had to examine patients with the accessory chambers of the nose full of pus, but why such large air chambers should exist in man could not be explained. They daily saw children with enlarged tonsils or with adenoids, but we could not tell them why these structures were placed in the throat, nor give an explanation of their anatomy. They saw the gall bladder opened for the removal of gall stones, but I knew nothing of its functions nor of its anatomical meaning. They saw the prostate being removed for disease, but the reason of its existence in the human body was not thought of. Even with such vital and well-known organs as the heart and lungs, we could offer our students no satisfactory explanation of their shape, of the manner of their fixation, of the arrangement of their musculature, nor of the peculiarities in their nerve and blood supply." When, however, he became acquainted with the work of the anatomists who led the way at the end of the eighteenth century—the Hunters, the Munros, and the Bells—he found their efforts were directed to answer these very questions. While they studied anatomy to understand the meaning and function of the parts of the body, we at the beginning of the twentieth century were studying anatomy to describe form. It was men like Cuvier, St. Hilaire, and Lamarck who killed the study of function. The movement started by them, elaborated by Owen, and transformed by Darwin, became domiciled in Scotland for the greater part of the century. That movement was prolific in its result; it laid our knowledge of the human body on the sure foundation of comparative anatomy. Professor Keith says it seems to him that the time has now come to look to the future. In recent times the problems of human anatomy are yielding most readily to those who use the experimental method. The modern anatomist, if he is to help in solving the problem of the human body, must avail himself of the methods of the physiologist; he must study the living as well as the dead body. He has to seek assistance in embryology, in comparative anatomy, and in those experiments of which disease makes man so often the subject. Anatomists must reconsider their methods and their aims; they have to study function, which is the key to form.

The history of anatomy shows that it has passed through various stages. The eighteenth century workers sought to explain function by structure. Then came a school which concerned itself with form to the exclusion of function. Now we have to turn back and study function. For this study we are equipped with far more powerful means than the knife and forceps, which was all the Hunters and Bells had, and even the microscope, which

gave such an expansion to anatomical research. Now we have to use the full armoury of experimental research.

We have given here a mere outline of Professor Keith's interesting and suggestive address. We recommend all who are interested in the progress of anatomical science to read it for themselves.

THE BRITISH MEDICAL BENEVOLENT FUND.

THE annual meeting of the British Medical Benevolent Fund was held this year at the Mansion House on March 13th, on the invitation of the Right Hon. the Lord Mayor, Alderman Sir Thomas Crosby, M.D. Owing to his detention at the Guildhall, the Lord Mayor was unable to be present at the beginning of the meeting; the chair was, therefore, taken temporarily by Sheriff BRIGGS, who, after briefly initiating the proceedings, called upon the Treasurer of the Fund, Dr. Samuel West, to present the report and accounts, which had been distributed and were taken as read.

The Work of the Fund.

Dr. SAMUEL WEST then delivered an address, in the course of which he said that the objects of the Fund were, first, to make grants of money to distressed members of the medical profession, their widows and orphans; and, secondly, to provide annuities for such after they had reached the age of 60 years. The Fund was not a provident society—that is, not a society in which the benefits were limited to subscribers. It was a general charity; its doors were open without restriction to all qualified deserving cases, the only passwords being poverty and distress. The mode of application for relief was extremely simple. A letter to the secretary would bring a form, and the form, duly filled up, would come in ordinary course before the committee, and the grant, if the case were suitable, would be made. Due inquiry was made into all cases, but there was no publicity and no canvassing. But, of course, no canvassing meant the loss of a great opportunity of advertisement. Hence the Fund depended on its friends to make up for that want by an active propaganda among those who could help it. An indirect advantage of the Fund was that it acted as a great check upon imposture, since it made inquiries not only when applications for relief were made to itself, but also if desired when they were made to individual members of the profession. The cases of distress which came under observation fell into two groups—those in which the distress was of a temporary character and temporary relief was required, and those in which the causes were permanent; for example, old age or ill-health, so that the grant once given had to be continued, and practically amounted to an annuity. As soon as these recipients reached 60 years of age they passed automatically on to the annuity list, so that the Annuity Department of the Fund acted as a relief to its Grant Department. The annuities were paid from income on invested property. All the legacies of recent years had been invested and put into trust securities, and the income served to support 131 annuitants at the present time. The amount of each annuity was small—£20. It could not be raised above that sum owing to the operation of the Old Age Pensions Act. The Annuity Department was the backbone of the Fund, for, come what might, the annuities, at any rate, were provided for. The Grant Department was for the purpose of relieving those below 60 years of age, and into this department came many of the most distressing cases. A young medical man, for instance, was struck down by sudden illness, which killed him after lasting long enough to exhaust all the savings of the family. He died, and left a widow and children, without any fault of his own, unprovided for. The Fund stepped in and helped them. The grants made in such cases were unfortunately small—£12 or £18 a year—and it rested with subscribers to enable the Fund to make them larger. The Fund could not give more than it had got. It did not hoard up money, but could not run into debt. How much it could give in any particular year depended on how much it could get in the way of subscriptions and donations. In short, the Grants Department was a constant source of anxiety to the committee. At the present moment there was a balance in hand, because subscriptions came in just now; but in the lean months of the year—July, August, September, and October—they very often had no money at all. It had happened more than once in the last few years for the committee to find a long list of distressing and deserving cases, and not only to have no money in the bank, but an actual deficit. The third department of the Fund was the Guild, which owed its origin practically to Lady Tweedy, and was the ladies' branch of the Fund. The Fund gave money, and the Guild gave much else. It had only been established two and a half years, but had made very satisfactory progress. It began its work by supplementing the grants made to beneficiaries with clothes and boots and help in sickness and emergency. Last year it was able to give a short holiday to some who required it. The special direction in which it was developing was that of education and training. A concert was given which was most successful, and provided the means of purchasing two presentations for boys to St. Anne's School. Other children and young people had been helped by schooling and training, by which means they would be placed in the position of earning their own livelihood afterwards. This was the best investment of charitable money, for it enabled the beneficiaries to become self-supporting, and to preserve their independence and self-respect. In respect to financial administration, the accounts of the Fund were strictly audited every year by chartered accountants, and the working expenses only just exceeded 5 per cent. There were very few charities which could say the same. Dr. Samuel West then ended his address as follows: Let me, in conclusion, say that, from intimate knowledge and personal experience now extending for many years as treasurer, I can vouch personally for the excellent work that the Fund is doing. On the ground of the necessity—the absolute need for such a Fund as this, and the excellence of its work and the economy of its administration, and on the soundness of its financial position—I feel that I can appeal with confidence for increased support, not to the profession only but also to the public, to whom the profession renders such great, and often undervalued, services.

Adoption of the Report.

The adoption of the report was moved by the Right Rev. Bishop BOYD CARPENTER. The privilege of doing so was, he indicated, one which he had a right to accept, because, apart from the fact that everything concerned with humanity had a right to appeal to those belonging to his own profession, there was a kind of freemasonry and interdependence between the three learned professions. How this came about was then described in a very interesting speech which included a consideration both of the characteristics differentiating the learned professions from other occupations and of the circumstances which place professional men at a certain disadvantage as gainers of their livelihood in a world which for the most part conducts its affairs on strictly commercial principles. It was true that there had been great lawyers who had amassed large fortunes, and it was true that there had been great physicians who had died wealthy men, but it was not true that the average lawyer made a great fortune, and still less was it true that the average medical man was able to make anything approaching a fortune. His was not an occupation in which money was the end, nor as a rule did it tend to the amassing of money. A man starting a medical career started it with the handicap of an expensive education, and with a risk very much like that of which a captain of a ship must be conscious when commencing a voyage. Many of those present must have remembered when travelling by sea how thin was the separating wall between themselves and the vast destructive ocean, and many a doctor must have often said to himself "how thin and frail is the wall which separates me from disaster and misfortunes." It was only necessary to consider a few of the stories outlined by the record of "cases helped by the Fund" for his auditors to understand what he meant. The medical profession stood for the greatest good which one man could do for his neighbour: it stood, in short, for service—service nearly always rendered with a spirit of devotion, kindliness, and patience. Therefore, my friends, the Bishop concluded, I commend with all the warmth I can to your generosity to-day the cause of this medical charity. It means that we are ready to show that we recognize that the men who have been working for our health are those who ought to have from us some con-

sideration, some care, some generosity, yes. I was going to say liberality and gratitude, shown to them in their later years and in their dark hours.

Sir T. Clifford Allbutt, in seconding the motion for the adoption of the report, expressed the general appreciation of the eloquent and interesting way in which Bishop Boyd Carpenter had laid before the meeting not only the claims of the medical profession, but also its merits; he had done so in a fashion which for more than one reason could not well be imitated by any of those who were themselves engaged in the practice of medicine or surgery. Still, he himself, as one engaged chiefly in consulting work, might speak a little more freely than could any one engaged in the rough and tumble of general practice. It would, perhaps, not be unfair for him and for others in the same position to express their very strong feeling of the honour and self-devotion of their colleagues in general practice, especially those in the humbler kinds of general practice; they brought talents of a high order to bear upon work which was somewhat thankless, but which nevertheless they performed devotedly, knowing that they had other duties of a higher kind in which they would find their reward. The speaker confirmed what the Bishop had said as to the expensive nature of a professional education, and pointed out to what a great extent the conduct of practice depended upon the presence and acts of the medical practitioner himself, whereas in other professions the work could be largely deputed. This fact made the practice of medicine an occupation of a particularly trying kind. He also pointed out how great were the difficulties lying in the way of a medical man insuring himself adequately if he had at the same time to provide for a family and for the education of his children. Many had so far looked to the sale value of their practices as a kind of insurance, but recent events had probably rendered many, if not most, practices, unsaleable. He recorded some experiences of his own in connexion with a society of the same kind in the West Riding of Yorkshire, and stated that they had impressed upon him how extremely important it was that there should be a fund sufficiently large to give reasonable assistance to medical men unexpectedly overcome by long illness or death. They had also impressed upon him the tenderness with which the investigations necessary should be conducted, and for that reason he was especially glad to hear of the Guild now working in connexion with the British Medical Benevolent Fund. Ladies could form a just estimate of the sort and amount of assistance that was required in any case given probably better than any one else. Finally he pointed out that those who gave to the Fund could be certain that they would do no harm thereby. When one asked people to give money to this or that object, they said, quite properly, that they must consider the matter very carefully, because in so many cases if one did a certain amount of good there was yet a fear of doing harm indirectly by giving doles: but, concluded Sir Clifford Allbutt, "it may be safely said that every sovereign that is given to this society does its full measure of good; not a 6d. of it does harm to anybody, so conscientiously and economically is it managed. I am sure that on account of the personal supervision which is given every sovereign is worth 30s. or even two sovereigns, because money could not be given for a better cause or for a higher purpose."

Sir Thomas Barlow also spoke in support of the resolution. It was, he said, perfectly well known to everybody who knew anything at all about medical practice that medical men at every stage did an enormous amount of work, especially for the poor and for those who were on the border-line—work which brought no remuneration. It might be admitted that such work did the medical man good, since it gave him experience; but if the public in general profited by that experience, surely it was fitting that some return should be made. As for the work done by the Ladies' Guild it was the keystone of the arch of the Fund's work and enabled the ground to be covered much more effectively and completely than when only doles were given. There was then no finality in the work, but now the Guild found out exactly where the shoe pinched and where the need was, and immediately and without the smallest delay set the wheels going to try and put things right. Some of the ways in which the Ladies' Guild helped were so very homely that one was ashamed to speak of them, and yet one had no business to be ashamed because the results made up the sum total of the ordinary comforts of life. In short, the Guild was doing its work judiciously, thoughtfully, and economically, and in the closest possible relationship with the other departments of the Fund. Those who subscribed could, as Sir Clifford Allbutt had said, be certain that their money would be well administered. The working expenses had been reduced to the very minimum, and the amount of conscientious, thoughtful, and kindly services put into the work of the Fund was beyond all praise.

The Right Hon. the Lord Mayor then put the resolution. It needed no words of his, especially after the brilliant appeal by Bishop Boyd Carpenter, to commend the subject to the careful attention of those present. "There can be no doubt," he said, "that the medical profession is called upon to do a great deal of work immediately, on emergency and otherwise, and all for nothing. I know of scarcely any other profession undertaking such a duty."

The report was then unanimously adopted.

Vote of Thanks to the Lord Mayor.

A vote of thanks to the Lord Mayor was then moved by the President of the Fund (Sir John Tweedy). It was the first time that a meeting of the Fund had been held at the Mansion House, though not the first time that the Fund had had the benefit of the support of a lord mayor, for three years ago, when the annual meeting was held at the College of Physicians, Sir George Truscott, the Lord Mayor at that time, made a very powerful and sympathetic appeal to the public to support the Fund. Speaking of the present, Sir John Tweedy congratulated Sir Thomas Crosby on the high distinction which he had attained in the City of London. He has been raised, he said, to the Chief Magistracy of this great city; and he has attained this eminent municipal and civic distinction as a hard working doctor. There are many members of our profession who attain distinction in other walks of life, but, unfortunately, it is generally found that they have given up their profession in order to follow these other walks. Sir Thomas Crosby, however, saw patients to my certain knowledge, to within a day or two of his taking up the office of Lord Mayor. Sir John Tweedy also made allusion to Lady Crosby. A few weeks ago she had taken the chair at a meeting in the West End, at which was inaugurated a movement likely to prove of the most valuable kind. This was to organize the administration of the Guild's work throughout the various divisions of the metropolis. Progress had already been made, and before long London ladies would, he had no doubt, have removed from London an existing reproach, that is, that up to the present time the Fund had not in London done as much as had been done in some extra-metropolitan cities, like Liverpool and Edinburgh.

The vote of thanks was seconded by Mr. Rickman Godlee, who in the course of his remarks said that it would be a good thing if people not only revised their wills from time to time, as they were urged to do by the community to which he belonged, but if they also revised their subscription rates. At any rate that was what he himself, who hitherto had only been a comparatively small subscriber, intended to do forthwith after what he had heard that afternoon, and he hoped that others would do likewise.

The vote of thanks was then put by Sir John Tweedy and carried unanimously.

In acknowledging the vote, Sir Thomas Boor Crosby said that he could endorse very well all that had been said by every previous speaker. He could speak, too, of the labours of professional work in his own early days. "The last time I spoke of them was in addressing an audience of many hundreds of young cadets in the Guildhall, and it crossed my mind to say it—and I will say it to you now—that in my early days I worked seven days a week, and frequently one or two nights. What do you trades union people and public agitators think of that? I threw down the challenge then, but the gauntlet has not yet been taken up." There was one thing which made the underpaid profession of medicine palatable to those who worked therein: that was the mental satisfaction which came to a man when he saw that he was being successful in the treatment and management of some dire disease. That alone had many and many a time consoled the speaker for hours and hours spent out of bed. It was a grand point

in medical work, and helped thousands and thousands of medical men to bear the burden of their tasks without grumbling.

The meeting then terminated.

THE COMPOSITION OF CERTAIN SECRET REMEDIES.*

SOOTHING SYRUPS FOR INFANTS.

In a previous report the results of the analysis of various proprietary "teething powders" for infants were given. "Soothing syrups" also are very largely used, and are probably purchased usually as "syrup of aniseed," etc., or compounded in accordance with some domestic recipe. There are, however, a certain number of proprietary preparations of this class which have a large sale. The following are reports on a selection of such preparations.

MRS. WINSLOW'S SOOTHING SYRUP.

This much advertised preparation is supplied by Curtis and Perkins, New York and London, at 1s. 1½d. per bottle, containing 1½ fluid ounces.

In a circular enclosed in the package it is stated that:

Mrs. Winslow's Soothing Syrup, for children teething, greatly facilitates the process of teething, by softening the gums, reducing all inflammation,—will allay ALL PAIN and spasmodic action, and is SURE TO REGULATE THE BOWELS. Depend upon it, mothers, it will give rest to yourselves, and RELIEF AND HEALTH TO YOUR INFANTS.

We have put up and sold this article for over sixty years, and *can say in confidence and truth*, of it, what we have never been able to say of any other medicine—NEVER HAS IT FAILED. IN A SINGLE INSTANCE, TO EFFECT A CURE, when timely used. Never did we know an instance of dissatisfaction by any one who used it. On the contrary, all are delighted with its operations, and speak in terms of highest commendation of its magical effects and medical virtues. . . .

This valuable preparation is the prescription of one of the MOST EXPERIENCED and SKILFUL NURSES in America, and has been used with *never failing success*, in THOUSANDS OF CASES.

The following statement appears on the label:

This Preparation contains no Poisonous Ingredient and may be used with Perfect Safety.

A few years ago, however, the package used to bear a statement that "this preparation contains, among other valuable ingredients, a small amount of morphine," and the presence of morphine to the extent of about 0.08 grain per bottle was proved in court in cases where unqualified persons were prosecuted for selling the syrup. The labels now in use do not contain any such statement, and the analysis shows that morphine is not now present. But the extracts quoted above, as to the article having been sold for sixty years, and to the prescription of a nurse, are such as would lead any one to suppose that its composition is now what it has always been.

The directions on the label are:

For a child under one month old, 6 to 10 drops; three months old, half a teaspoonful; six months old and upwards, a teaspoonful three or four times a day. For Dysentery, repeat the above dose every two hours, until the character of the discharges is changed for the better.

The syrup was of a straw colour, and flavoured with aniseed. Analysis showed it to contain, in 100 parts by measure:

Potassium bromide	...	2.0 parts
Alcohol	...	4.3 parts by measure
Essential oil (anise)	about	0.1 part
Sugar	...	56.5 parts

Emodin was present in small quantity. This substance may be derived from several drugs—for example, senna, rhubarb, cascara sagrada, etc. The evidence which was obtainable pointed to senna as the drug from which it was derived in the present case. A syrup containing 1.2 per cent. (by measure) of the syrup of senna of the *British Pharmacopœia* was of the same depth of colour and showed about the same proportion of emodin, and agreed in other respects also. No alkaloid was present. The essential oil may have contained a little oil of dill or caraway, the quantity being far too small to be separated. There was some evidence of about 2 per cent. of glycerine, but in presence of so much sugar this could not be positively proved.

WOODWARD'S GRIPE WATER.

This preparation is supplied by W. Woodward, Limited, Nottingham, at 1s. 1½d. per bottle, containing 5 fluid ounces. It is thus described on the label:

Woodward's Celebrated Gripe Water, or Infant's Preservative, without Laudanum, for all disorders of children, viz.: Convulsions, Gripes, Acidity, Flatulency, Whooping-Cough, and the distressing complaints incidental to Infants at the period of Cutting their Teeth, allaying the pain, giving instant relief, and rendering this crisis perfectly mild and free from danger.

The directions are:

For an infant, half a teaspoonful; two months old, one or two teaspoonfuls. The dose may be gradually increased.

Analysis showed it to contain, in 100 parts by measure:

Sodium bicarbonate	...	1.08 part
Essential oil	... about	0.03 ,,
Alcohol ...	...	3.8 parts by measure
Sugar ...	...	20.5 parts

No alkaloid was present. The essential oil appeared to be chiefly oil of caraway, with a little oil of dill, and possibly also of anise.

ATKINSON AND BARKER'S ROYAL INFANTS' PRESERVATIVE.

This mixture is supplied by Robert Barker and Son, Manchester, at 1s. 1½d. per bottle, containing 1½ fluid ounces.

In a circular wrapped round the bottle, this medicine

Is recommended to all Parents, Nurses, and others, who are entrusted with the management of Children, as a Medicine of real and approved efficacy, in preventing and removing those disorders to which Children in their early infancy are most liable, principally proceeding from a redundancy of acidity in the first passages, as Wind, the Watery and Dry Gripes, Convulsions, the Frog, &c., to which so many children fall victims, but which may in general be prevented by the use of this Medicine. It is also happily calculated for allaying those excruciating pains which Children suffer in Cutting their Teeth, and will, by being judiciously used, render this operation of nature perfectly mild and free from danger. It is also equally efficacious in many other disorders to which Children are liable, as the Rickets, Whooping Cough, Measles, &c. . . .

The directions as to dose are:

Children up to a month	...	5 to 10 drops in warm water
,, 1 to 3 months	...	10 to 20 ,,
,, 3 to 6 months	...	20 to 30 ,,
,, 6 to 12 months	...	60 drops, or small teaspoonful
,, 12 mths to 3 yrs	...	100 ,, or moderate-sized teaspoonful

Analysis showed it to contain, in 100 parts by measure:

Potassium bicarbonate	...	1.75 parts
Magnesium carbonate ...	...	5.45 ,,
Essential oil ...	... about	0.06 ,,
Alcohol	...	7.0 parts by measure
Sugar	...	9.9 parts
Colouring matter	...	trace

No alkaloid was present. The essential oil appeared to contain oils of caraway, dill, anise, and almond. The colouring matter did not appear to be of vegetable origin, but showed a yellow colour in alkaline and a pinkish in acid solution, thus agreeing with certain coal-tar dyes.

MRS. JOHNSON'S AMERICAN SOOTHING SYRUP.

This syrup is now supplied by Barclay and Sons, Limited, London; according to statements in a circular accompanying the bottle, it was formerly made by a Mrs. Jane Johnson. A 1s. 1½d. bottle contained about 70 minims.

It is stated in the circular that

This remedy has given relief to thousands of children when suffering from the pains of teething. As soon as the Syrup is rubbed on the gums the child will recover, being as innocent as efficacious, and so pleasant that no child will refuse to let its gums be rubbed with it. When infants are at the age of four months, though there is no appearance of teeth, one bottle of the Syrup should be rubbed on the gums to open the pores. Parents should never be without the Syrup in the nursery where there are young children; for if a child wakes in the

* Previous articles of this series were published in the following issues of the BRITISH MEDICAL JOURNAL: 1904, vol. ii, p. 1585; 1906, vol. ii, pp. 27, 1645; 1907, vol. i, p. 215; vol. ii, pp. 24, 163, 209, 393, 530, 1653; 1908, vol. i, pp. 833, 942, 1373; vol. ii, pp. 85, 505, 1022, 1110, 1195, 1285, 1566, 1697, 1875; 1909, vol. i, pp. 31, 909, 1128; vol. ii, p. 1419; 1910, vol. i, pp. 151, 213, 393, 1005, 1063, 1120; vol. ii, pp. 982, 1350, 1928; 1911, vol. i, pp. 26, 91, 823, 1324; vol. ii, pp. 32, 77, 456, 767, 854, 1545; 1912, vol. i, p. 26, 141, 318, 433.

night with pain in the gums, the Syrup immediately gives ease, by opening the pores and healing the gums, thereby preventing Convulsions, Fevers, etc.

The directions on the label are:

Rub the gums with the Syrup two or three times daily for several minutes.

The syrup was of a deep reddish-yellow colour, and had a strong flavour of saffron. Analysis showed it to contain in 100 parts by measure:

Sodium chloride	5.66 parts	
Hydrochloric acid (*B.P.*) ...	2.33 parts by measure	
Reducing sugars, calculated as glucose	66.6 parts	
Extractive, colouring, etc., about	5.0 ,,	

A little alcohol was present, but the amount was not determined. The reducing sugars appeared to be present in the form of honey, representing about 85 parts of this; the extractive was partly derived from saffron, and would include the non-saccharine constituents of the honey.

REPORT OF THE VIVISECTION COMMISSION.

Reservation Memorandum.

A brief summary of the Report of the Royal Commission on Vivisection was given in the Journal of March 16th. It was there stated that the report was signed by Colonel the Right Hon. A. R. M. Lockwood, C.V.O., M.P., Sir William J. Collins, and Dr. George Wilson, subject to reservations contained in Memoranda. One of these is signed by the three members of the Commission just named; a further "reservation memorandum" is submitted by Dr. George Wilson. We can only find space for an abstract of the former of these documents in this number of the Journal; we hope to deal with Dr. Wilson's Memorandum in a later issue.

Colonel Lockwood, Sir William Collins, and Dr. Wilson begin by saying that it was not until almost the last sitting of the Commission that it became manifest that there were certain matters upon which they were unfortunately not in agreement with their colleagues.

A cleavage of opinion was then disclosed in regard to some points upon which there had been previously reason to believe that, even if unanimity were unattainable, a majority of the Commission might have been found to be in agreement.

They go on to say:

We have signed the foregoing report, in the preparation of which we have borne our part—even though we could have wished that some portions of it had been differently expressed—and we have endeavoured to limit as far as possible the reservations which we are now compelled to make.

There are, however, certain conclusions and recommendations of a fundamental nature upon which we find it impossible to concur with our colleagues, and in reluctantly withdrawing our support from them we must leave these particular conclusions and recommendations to rest only on the authority of a bare quorum of the Commission. We believe that, for the reasons which we shall proceed to adduce, the conclusions and recommendations which we support are not only warranted by the weight of evidence but are more in harmony with the whole trend and tenour of the Report, which we have signed, than are those which have received the approval of our colleagues.

The two main points upon which they dissent from the report are, first, as to securing by statute that undivided responsibility of the Secretary of State which was recommended by the previous Royal Commission, but which the Act of 1876 failed to establish; and, secondly, as to placing a statutory requirement upon an experimenter painlessly to destroy an animal which has been experimented upon when obvious suffering has supervened. Both points lead up to and in their opinion necessitate amendments of the law.

Amendments of the Law.

They state that by their reference they were directed to report not only upon the practice of vivisection but also "whether any and if so what changes are desirable" in the law relating to experiments on living animals and its administration. They think that the evidence received calls for a wider review and more critical examination of the provisions of the Act of 1876 as well as for more extensive modifications thereof than are involved in the suggestions and recommendations offered by their colleagues.

They think that the weight of evidence is opposed to the view that only administrative modifications are required in order to give effect to the changes which experience proves to be desirable, and, indeed, they doubt whether even such modifications as are suggested in the report can be adequately carried out without legislation. They add that the report justly states that there was "a considerable conflict of opinion" as to the working of the present Act, but with the exception of two or three witnesses, they cannot recall any of those who appeared before the Commission who expressed unqualified satisfaction with the provisions of the present Act, and the procedure thereby entailed. Criticism of the statute proceeded alike from those who are in favour of and those who are opposed to experiments on living animals for scientific purposes. Due weight is given in the report to the change of medical and scientific authority, as exhibited in evidence, in regard to the practice of vivisection. Not less remarkable, however, they say, is the change which has taken place (so far as they could judge from the evidence received) in the attitude of such authority towards the desirability and practicability of legislation for the control and regulation of the practice. Thus, before the Royal Commission of 1875, Lord Lister considered such legislation to be superfluous, and felt that it would be a blot on the profession. The late Sir Michael Foster saw no necessity for legislation. The late Sir J. Burdon-Sanderson held a similar view; he deprecated inspection as being liable to lead to a spirit of opposition, or as tending to concealment; and, further, he believed that no inspection would give any guarantee whatever as to what happened when the Inspector was not present. Other medical and scientific witnesses before the previous Commission similarly objected to legislation as being unnecessary or impracticable.

Colonel Lockwood, Sir William Collins, and Dr. George Wilson proceed to say:

Such fundamental objections to legislation for the restriction and control of vivisection were, however, not largely held by the majority of those favourable to the practice who appeared before us. It is true that Dr. (now Sir William) Osler, who had had experience in the United States of America, where there is no legislative restriction, as well as in this country, felt "that the matter could be left safely in the hands of the men who are in charge of the physiological laboratories and the scientific men of this country," and regarded legislative restriction as "a standing insult to the humanity of these men." Dr. Pembrey held that "the limitations of the Act are against research," and Sir Lauder Brunton regarded the present law to a certain extent as a stop to science. Criticism of the present law of a less fundamental character, however, was vouchsafed by numerous witnesses. Dr. Starling, while not advocating abrogation of the Act, yet complained of the complicated list of different certificates and licences required under the present law. Professor Langley criticised the complicated character of the statutory certificates and suggested amendments in the Act. Dr. Dixon, while thinking some legislation and a system of licensing desirable as giving security to those who practise vivisection and to the public, was nevertheless desirous of abolishing all certificates, thus simplifying the present complicated system, and can hardly be cited as in favour of the Act as it is. Dr. Cushny's satisfaction, too, was tempered by a desire for some alteration of the statutory requirements in regard to certificates.

While Sir Henry Morris, it is true, would be satisfied with small amendments of the Act, Sir Victor Horsley, though agreeing with Lord Lister that the Act is superfluous, nevertheless, in deference to the public demand, approved of a system of licensing by the Home Secretary and of the registration of places where experiments are carried on. He, however, objects altogether to the present system of statutory certificates, which he regards as so faulty that it should be abolished. He suggested a simpler form of application for licence, and made numerous proposals for amending the Act, the drafting of which he considered to betray ignorance of physiological conditions. Sir John Bradford held that the statutory certificates gave rise to grave misconception in the minds of the public as well as inconvenience to experimenters and was in favour of simplification. The Inspectors under the Act, Dr. Thane, Sir J. Russell, and Sir Thornley Stoker themselves proposed specific amendments, and Sir J. Russell stated that licensees have great difficulty in understanding the law especially in regard to certificates.

In view of the "adverse criticism" to which the Report justly admits the present system to be open, and to the strictures passed upon it by those familiar with its working, we are unable to agree with our colleagues "that inasmuch as the present system, according to the judgement of the majority of those witnesses who possessed the knowledge and the opportunity for forming a trustworthy opinion on such a point, has on the whole worked efficiently, no change is necessary or desirable."

The Report further shows that among opponents of vivisection there was not less diversity of opinion in regard to the present law, some advocating statutory prohibition of vivisection altogether—others a repeal of the existing Act. Others again suggested amendments of the Act of 1876, with a view to obtain greater protection for animals by additional inspection and

otherwise, but none approved of the scope and provisions of the Act of 1876.

The Report sets out the reasons for thinking that valuable knowledge has resulted and may result from experimental investigations on living animals. We have after weighing the ethical and moral considerations stated our view that such experiments, adequately safeguarded by law faithfully administered, are justifiable and should not be prohibited by legislation. We have considered the suggestion of leaving to the operation of the ordinary law, as now amended and consolidated by the Protection of Animals Act, 1911, cases of alleged cruelty in connection with medical, physiological and scientific investigations—that is to say, the repeal of the Act of 1876. After much deliberation we think that in the interests of the animals themselves, even apart from other considerations, some form of special legislation is on the whole desirable.

Undivided Responsibility of the Secretary of State.

Under this head it is pointed out that the Royal Commission of 1875 recommended that only persons licensed by the Secretary of State should be permitted to experiment upon living animals, and that such licensees should be bound by conditions whose object should be to secure that suffering should never be inflicted in any case in which it could be avoided, and be reduced to a minimum where it could not be avoided altogether. All such experiments, whether for original research or for demonstration, were to be under the control of the Secretary of State, and they added: "We think it is inexpedient to divide the responsibility of the Secretary of State with that of any other persons by statutory enactment."

Colonel Lockwood, Sir William Collins, and Dr. Wilson state that, agreeing as they do with these recommendations of the previous Commission, they regret that the Act of 1876 failed to give effect to them. That Act did not receive very prolonged parliamentary consideration. The bill was read a second time in the House of Commons on August 9th, and passed through its subsequent stages, including the Royal Assent, by August 15th. It introduced a dual jurisdiction in regard to the permits to be granted to experimenters upon living animals. After enacting certain provisions with regard to the use of anaesthetics, demonstrations to students, killing the animals before the return of consciousness, repetitions of experiments, and the use of certain domesticated animals, the Act proceeds to provide for the waiving of all these restrictions on the strength of statutory certificates granted, not by the Secretary of State, but by the holder or holders of certain specified offices in scientific or medical institutions mentioned in the Act. As Sir William Byrne, of the Home Office, put it, "That is the framework of the Act—to lay down a number of very strict conditions, and then to allow all except three to be removed by certificate." There was thus, they say, introduced into the Statute the intervention of certain outside authorities in derogation of the undivided responsibility of the Secretary of State. They think that the distinction between *Licences—granted by the Secretary of State* and subject to all the restrictions in the Act, chiefly for the protection of animals, and *Certificates—granted by the scientific authorities* which waive the aforesaid restrictions—needs to be accentuated. It is true that the Secretary of State may disallow or suspend any certificate at any time, but unless he intervenes within one week after the certificate signed by the scientific authority or authorities has been forwarded to him, it becomes available. Disallowance of a certificate by the Secretary of State is, they were informed, of the very rarest occurrence. In recent years the practice has been to notify certificated persons that the certificate is not to be deemed available until the Secretary of State has intimated that it has not been disallowed. This power had, according to Professor Schäfer, who gave evidence before them as well as before the Commission of 1875, been illegally assumed by successive Home Secretaries. He contended that the authors of the Act intended that the grantors of the certificates and not the Secretary of State should be responsible to the public.

This derogation from the undivided responsibility of the Secretary of State in the matter of certificates was, they say, emphasized by Sir William Byrne, who appeared before the Commission on behalf of the Home Office. He laid stress on "a very important difference" between licences and certificates, the former being *recommended* by the scientific authorities and the latter being *granted* by them. Thus in the case of a certificate dispensing with the use of anaesthetics he said "it is not the Home Office that excludes the use of anaesthetics, it is the learned authority that signs the certificate that excludes them"; and again he said "the Secretary of State has not to decide whether an operation is painful or not. . . . his attitude is that he himself has no power to decide what is pain and what is not"; and again "the learned authorities have exclusive authority to grant the certificates."

They think that difficulty and confusion would have been obviated if the Legislature had followed strictly the recommendation of the Royal Commission of 1875 in this regard. They think the present method of certification not only unnecessarily complicated but an undesirable departure from the principle of undivided responsibility of the Secretary of State, which they concur with the previous Royal Commission in desiring to see established.

In the report attention is drawn to the difference between the recommendations of the Royal Commission of 1875 and the provisions of the Act of 1876 in regard to the undivided responsibility of the Secretary of State in reference to several charges made against the Home Office, and the opinion is expressed that it would have been well if the complete recommendations of the Royal Commission had been carried out. Their colleagues insist that in their view "it is of the highest importance that the responsibility of the Secretary of State should be in all respects maintained."

The question, it is said, is closely related to that of the appointment of competent persons to advise the Secretary of State in regard to the nature of the experiments to be performed by licensees under the Act and as to the relaxation by certificates of the requirements of the Act for the protection of animals from suffering.

They of course agree with the previous Commission in recognizing the need for the Secretary of State to call to his aid professional advisers of competent knowledge and experience. Again they endorse the recommendations of the Commissioners of 1875 that these "advisers should be from time to time selected and nominated by (the Secretary of State) himself," and that "their names should be made known to the profession and to the public." The Commission is unanimous in stating that "in our opinion the recommendations of the Commission of 1875 should be strictly followed." They are at one in desiring to maintain the responsibility of the Secretary of State, but inasmuch as the present Act divides that responsibilty by statutory enactment in regard to certification, they dissent altogether from their colleagues when they state they have "come to the conclusion that . . . no change is necessary or desirable." They are indeed unable to reconcile this finding with the rest of the report.

The undivided responsibility of the Secretary of State then being established by law, they think that the advisers might be selected and nominated by him from a list submitted to him either in the way suggested in the report or from the holders of the offices named in Section 11 of the Act of 1876. In any case, the selection should be personal and not merely *ex officio*, and the names duly published. They agree with their colleagues in deprecating certain suggested relaxations of the law, and concur with the suggestions made with a view to afford further protection to animals experimented upon and to provide more efficient inspection. They nevertheless think that much could be done to simplify the present cumbrous system of certification and at the same time to secure that undivided responsibility of the Secretary of State which the Royal Commission of 1875 recommended, which this Commission endorsed, but which the Act of 1876 failed to establish.

That system of certification of which complaint was made is indeed the result of attempting to divide the responsibility of the Secretary of State with other persons indicated in the statute. Such amendment in the law as they advocate has the twofold advantage of simplifying procedure and at the same time concentrating responsibility.

The Commission was further unanimous in recommending a discontinuance of the present practice of consulting the Association for the Advancement of Medicine by Research; in the opinion of the signatories to the Memorandum that practice instituted needless additional derogation from that undivided responsibility of the Secretary of State which they desired to secure. If the recommendations of the Commission of 1875, as endorsed by them, were strictly followed, the advisers to be appointed would supersede not

only the Association for the Advancement of Medicine by Research (which the Secretary of State has never been under any obligation to consult), but also the scientific authorities named in Section 11 of the Act, so far as their assistance—other than as certificating authorities—would be required under the simpler system of licensing which they advise. All licences and certificates (or such conditions attached to licences as would take their place) would then be granted only by the Secretary of State himself, after the applications had been fully reported upon by the competent advisers whose names would be known to the public.

Painless Destruction of the Animal when Suffering Ensues.

Colonel Lockwood, Sir William Collins, and Dr. Wilson proceed:

The undivided responsibility of the Secretary of State being secured, and due provision made for expert advice on the one hand and adequate inspection on the other, the object of such special legislation as we are led to support should be to require that all experimental investigations on living animals should be either painless or unaccompanied by any real or obvious suffering. We think that if in the course of scientific investigation the pursuit of knowledge leads to the infliction of real or obvious suffering it is right that the pursuit should cease rather than that the infliction of suffering should continue. Within these limitations the evidence shows that a large and legitimate field for research upon living animals is included, and we do not recall any really fruitful results obtained by any experimenter who appeared before us which would have been seriously prejudiced by such limitations. The weight of evidence in this direction is very remarkable.

After quoting portions of the evidence of Dr. Starling, Dr. Cushny, Mr. Stockman, Sir David Bruce, Sir W. H. Power, Sir Lauder Brunton, Sir Henry Morris, Dr. Martin, and Dr. Langley, the signatories of the Memorandum say that the evidence appears to them to be conclusive that such experimental investigation upon living animals as is now generally deemed essential or necessary, can be performed either painlessly under anaesthetics or under an imperative requirement that should obvious suffering result the animal shall be forthwith painlessly killed. The present Act does not require this. In justification of this they quote some evidence given by Dr. Thane, who, in reply to the following question: "If you found an animal on one of your inspections in that state of suffering should you order it to be killed?" replied, "I should certainly require it to be killed." Dr. Thane, they say, here contemplated the exercise of a power which the statute does not give. The signatories of the Memorandum think that the inspectors should be armed with such power by law, and that a similar statutory duty should rest upon every licensee. They add that it is chiefly from the evidence given by the inspectors that they have heard of experiments in which pain and suffering have ensued. They say:

Prior to 1905 the Home Office Returns purported to distinguish between "painful" and "painless" experiments, but this distinction is now abandoned as being unsuccessful or even misleading. The difficulty of making the distinction is especially encountered in the case of inoculation experiments, the number of which has greatly increased in recent years.

A "condition" has, it is true, been attached to certain certificates in the following terms:—

"That if an animal, after, and by reason of, any of the said experiments under the said Certificates ——— is found to be in pain which is either considerable in amount or is likely to endure, *and if the main result of the experiment has been attained*, the animal shall be immediately killed under anæsthetics."

As pointed out in our Report, by the insertion of the words which we have italicised "it will be seen that the animal need not be killed though in considerable pain—considerable and likely to endure—*if* the main result has not been attained. Thus official sanction is given in terms to keeping an animal alive for an indefinite time though suffering considerable pain, at the sole discretion of the operator."

The Secretary of State particularly invited the Commission to express an opinion in regard to the "Paid Condition" and especially with reference to the propriety of retaining or eliminating the words "if the main result of the experiment has been attained."

We agree with our colleagues that such a "condition" in such terms is indefensible, and we are clearly of opinion that the proper remedy to apply is to insert in the Act an imperative requirement upon every licensee forthwith painlessly to destroy any animal in which signs of obvious suffering have resulted.

We are unable to appreciate the position taken up by our colleagues on this question. They urge the necessity for "additional safeguards against pain" and they recommended that:—

"An Inspector should have power to order the painless destruction of any animal, which, having been the subject of any experiment, shows signs of obvious suffering or considerable pain, even though the object of the experiment may not have been attained."

They accordingly recognize the principle that in the case of any experiment the requirement of immediate destruction upon the appearance of signs of obvious suffering may be enforced. We recommend that this be a statutory requirement upon the experimenter in every such case.

Our colleagues, however, introduce a different "condition" in such cases for the experimenter to that which they would place upon the inspector, viz.:—

"That in all cases in which in the opinion of the experimenter the animal is suffering severe pain which is likely to endure it shall be his duty to cause its painless death, even though the object of the experiment has not been attained."

Here it will be observed the discretion of the operator and the likelihood or the unlikelihood of the severe pain enduring (for some undefined period of time) are introduced. In our judgement confusion and complexity would arise by thus laying down a different formula applicable to the inspector from that obtaining in the case of the experimenter. Conflict of opinion and jurisdiction would be the not improbable result.

In justification of their recommendation our colleagues go on to say:

"But we do not feel justified in recommending that, when the object of the experiment has not been attained, an experimenter should in all cases be required to destroy the animal immediately it exhibits signs even of severe pain which might in some cases be only momentary."

Here they appear to reintroduce the consideration of whether the object of the experiment has been attained or not, which they previously discarded alike for the inspector and the experimenter. We cannot contemplate the sanction of any such procedure in which either an animal is knowingly and intentionally to be kept for an undefined period in severe suffering if the experimenter thinks (perhaps erroneously) that such endurance will not be prolonged or in which he is authorized to allow the severe pain to continue in the problematical expectation that some result may accrue. We are unaware of any "weighty evidence" which justifies such recommendation.

The signatories of the Memorandum agree with their colleagues in strongly holding:

"that limits should be placed to animal suffering in the search for physiological or pathological knowledge, though some have contended that such consideration should be wholly subordinated to the claims of scientific research, or the pursuits of some material good for man."

They endorse the views of the former Commission that:

"the object of the conditions should be to ensure that suffering should never be inflicted in any case in which it could be avoided, and should be reduced to a minimum where it could not be altogether avoided."

They therefore recoil from the suggestion that an experimenter should be authorized to protract the life of an animal in obvious suffering, or "which exhibits signs even of severe pain." Official sanction to any such procedure is out of harmony with the whole spirit of the report and of the other recommendations which it contains; it would, they believe, create "serious misgiving in the minds of the public," similar to that which the licensing of certain experimenters was "calculated to create." They accordingly recommend the insertion in the Act of a requirement upon all experimenters in every case in which obvious suffering has supervened forthwith painlessly to destroy the animal. It would then be the duty of the enlarged inspectorate, which we agree in recommending, to see that this statutory requirement is duly enforced.

In sum, the fundamental principles upon which any special legislation should be based should, in their opinion, be such as to secure:

(1) That all investigations upon living animals of an experimental nature by way of operation, inoculation, or infection, etc., shall only be conducted under the sanction and undivided responsibility of the Secretary of State, aided by skilled advisers, and exercising control and supervision by an adequate staff of inspectors.

(2) That all such investigations which, in the absence of anaesthesia would be likely to cause pain or suffering, shall be conducted under adequate anaesthetics, skilfully and humanely administered, or if the nature of the investigation render this impracticable, then that on the supervention of real or obvious suffering, the animal shall be forthwith painlessly killed.

Other Questions.

There are one or two minor questions also on which the signatories of the Memorandum are not in concurrence with the findings of the report.

(a) *Serums and Vaccines.*—Although the Act of 1876 by its preamble purports to extend the law relating to cruelty to

animals to "the cases of animals which for medical, physiological, or other scientific purposes are subjected when alive to experiments calculated to inflict pain," they were informed by Mr. Thane that the law officers had advised that the processes of obtaining serums and vaccines for commercial use do not come under the Act as not being "experiments." No definition of the term "experiment," however, is given in the Act. Mr. Thane and Dr. Martin favoured the view that the preparation of such products should be brought under the control and responsibility of the Government.

As stated in the Report, private premises have been registered under the Act for the purpose of testing and standardizing drugs manufactured on a large commercial scale. The procedures leading to the experimental preparation of various serums have also been subject to the provisions of the Act. In their opinion, if it be desirable to require registration, inspection, etc., under the Act in the case of the experimental production of serums and vaccines, it is idle to suggest that similar procedures, involving the use of living animals in a similar way should be exempted from such control if the object happen to be commercial rather than scientific. From the point of view of the animal such precautions are not less necessary, and from the point of view of mankind such supervision may be deemed more necessary.

They do not share the doubt of their colleagues that the production of serums and vaccines for commercial purposes involving the use of living animals falls outside the scope of their reference. They accordingly recommend that the law be made applicable to the case of the production of commercial serums and vaccines so far as living animals are utilized for such purposes.

(*b*) *Qualification of Inspectors.*—They think that persons qualified in veterinary medicine and science ought not to be deemed ineligible for any of the inspectorships as would appear to be implied by Paragraph 113 of the Report.

(*c*) *Reports of Results of Experiments.*—They agree that the Secretary of State should use the power he has under Section 9 of the Act of 1876, and that he should direct licensees to report to him the results of their experiments. They think, however, that such reports should be the rule and not the exception, or in particular cases only, as the Report seems to contemplate.

CO-OPERATION BETWEEN DOCTORS AND CLERGYMEN.

WE have received the following communication, dated March, 1912, for publication. We leave the responsibility for the findings set forth in this document to the committee, of which, as stated therein, the Dean of Westminster is chairman.

A conference of prominent members of the clerical and medical professions was held in London in October, 1910, to consider the asserted results and the rapid development of so-called "spiritual" or "faith-healing" movements.

A special committee, representative of both professions, was then appointed to consider and report upon the possibility and the best methods of closer co-operation between the two professions in their respective spheres.

This committee held twenty-two sessions in the course of last year, and had the advantage of personal interviews with, and replies to their inquiries from, many eminent medical practitioners—some of whom had made the relation of mind to body their special study—and from clergy throughout the country. They also had the evidence of many persons associated in one way or another with so-called "spiritual" or "faith healing."

The following preliminary conclusions or findings of the committee were unanimously adopted by the conference again convened in October, 1911. An enlarged permanent committee of clergy and medical practitioners was then appointed to continue investigations: to promote all legitimate co-operation between the two professions: and, so far as may be, to influence opinion and correct false impressions in regard to irregular and unqualified attempts at "healing" in the name of religion.

Of this permanent committee the Right Rev. Herbert E. Ryle, D.D., Dean of Westminster, has consented to act as chairman.

Findings of the Committee.

1. That, after careful and extensive inquiry, there is not sufficient proof of any general or frequent failure (as has been alleged) of cordial relations between the medical practitioner and the minister of religion in their respective ministrations to the same sick person. Such cases are exceptional and rare.

2. But that there is room for more co-operation between the two professions, within clearly defined limits, with a view to the alleviation of physical through the mental or spiritual conditions of the patient.

3. The clergyman may be of great assistance in certain cases by reinforcing through his spiritual ministrations the faith, hope, courage, and strength of the patient.

4. The ministrations of the clergy may be of most direct assistance—

(*a*) In preparing for operation.

(*b*) In such nervous or mental cases as are specially open to benefit from religious influences.

(*c*) In dealing with certain vicious propensities.

5. That any attempt on the part of the clergy to enter into competition with the medical practitioner by any separate and independent treatment of the sick is to be strongly deprecated, not merely on practical, but also on religious grounds. For there is a serious danger lest the association of physical healing with the work of the ministry should divert attention from the primary purpose of that ministry, and prove injurious to individual faith.

6. The medical practitioner should realize that—

(*a*) By encouraging the legitimate ministrations of the Christian Church he will most effectively prevent resort to undesirable forms of suggestions.

(*b*) In certain cases patients can be approached from the spiritual side when ordinary methods of medical suggestion are more difficult to apply.

(*c*) Such cases are more often of the nature of functional disorders, minor obsessions, or vicious habits; although there is evidence that even in organic diseases subjective symptoms (for example, pain) may occasionally be relieved.

(*d*) The calming and strengthening effects of spiritual ministrations may be a valuable auxiliary to ordinary medical methods.

SCIENCE NOTES.

CHAMBERLAIN AND VEDDER have an interesting paper in the *Philippine Journal of Science* for November, 1911, on the effect of ultra-violet rays on amoebae and the use of these radiations for the sterilization of water. The authors believe that their experiments, taken as a whole, undoubtedly demonstrate that in a water supply the amoebae, whether motile or encysted, may be killed by a comparatively short exposure to ultra-violet rays. Balantidia also appear to be destroyed by the same agency. Such facts, the authors therefore think, afford a very potent argument in favour of the use of these radiations in the practical sterilization of water in the tropics. They intend shortly to determine whether the rays are fatal to amoebae and other protozoal parasites under the conditions obtaining with the commercial sterilizer in practical use. In a paper communicated recently to the Royal Society by Professor W. M. Thornton of Newcastle-on-Tyne he reported some observations on the rate of inhibition of bacteria by electric currents. The electrical conductivity of bacteria, he said, was measured by observing their orientation when an alternating electric current was passed through a series of saline solutions of graded conductivity containing them. There was no orientation when the conductivity of the liquid was the same as that of the bacteria. The values found ranged from 35 to 350 ohms per centimetre cube, and depended upon the nature and state of the culture medium. The result of subculturing in broth was found to be that the conductivity of the bacteria increased at each step, reaching a steady value at about the fourth subculture. Tap water containing *B. coli communis* could be completely sterilized by direct currents in several hours at 0.2 ampere sq. cm. Alternating currents sterilize water nearly if not quite as well as direct currents having the same current density. In order to obtain well-marked and consistent results it was necessary to use high-current densities and to have a form of cell with a thin film of liquid which could be readily cooled. Milk was curdled by direct current at the positive pole and thinned at the negative pole. Milk could be sterilized without curdling by passing alternating currents, the effects being largely thermal. The cause of the marked bactericidal action of light was suggested to be syntony between it and the frequency of electronic rotation in the atoms of protoplasm.

LITERARY NOTES.

THE *Edinburgh Medical Journal*, speaking of Lord Lister, says:

> No survey of Lister's life would be complete or honest which failed to refer to his attitude towards the great problems of existence, to Life, and Death, and After. His attitude to these questions, like that of Newton and of Pasteur, and of others whose genius has plumbed the abysses of being or "outsoared the shadow of our night," was one of childlike humility and confidence. He still looked to things eternal, and walked humbly with his God. He held the blessed hope of everlasting life, and believed in a happiness beyond the grave. Lister is not dead.

This brings to mind an interview which the writer of these notes had with Lister many years ago, in which the question of the survival of the soul after death was discussed. The tone of deep conviction with which he quoted the words of Tacitus, "*Animae heroum non extinguuntur*," was most impressive.

It is only of comparatively recent years that the public conscience has been fully aroused to a sense of the frightful evils attending the unchecked spread of consumption, but every effort is now being made to make up for lost time. There has even been an attempt to eliminate this terrible disease entirely by the simple process of removing the children of tuberculous parents from their tainted homes and bringing them up in healthy surroundings, but, excellent as are the immediate results of this experiment, there seems reason to believe that we have not yet arrived at the final solution of the problem. Drs. Etienne Burnet and Léon Tarassevitch, whose most interesting account of "Tuberculosis Amongst the Kalmuck Tartars" appeared in the February number of *L'Hygiène*, have been convinced by their observations amongst the nomad tribes of the Russian steppes that the dwelling in constant contact with infection breeds in many cases a certain immunity, and that, on the other hand, persons who have been reared in an absolutely untainted atmosphere are peculiarly susceptible when exposed to infection. The wandering tribes of Kalmuck Tartars are a typical instance of the devastating effects of phthisis introduced into virgin soil. Fifty years ago, when these primitive inhabitants of the steppes were almost completely isolated from the rest of mankind, tuberculosis was practically unknown amongst them; and even now they do not suffer from it save when brought into contact with more civilized races. Consequently there is a far higher average of phthisis amongst the Kalmuck men who mix more frequently with the Russians than amongst Kalmuck women, and this despite the fact that the former live almost entirely in the open air and the latter spend their days in dirty, badly ventilated, and badly lighted huts. Moreover, the ravages of consumption are so deadly amongst Kalmuck children of either sex who have been sent to school in Astrakhan, that the school for Tartar girls formerly existing in that city has actually been closed, and a similar fate threatens to overtake the college for boys, which it is proposed to transfer from its present situation in the city to the steppes. A still more conclusive proof of the origin of consumption amongst the Kalmucks and the terrible results of its introduction amongst them is the fact that nowhere is it so rife as at Tchilguire, where the contact between the two races is very close, and the Kalmucks are allowed to intermarry with the Russians, a doubtful blessing for which they pay a very heavy toll. It is obvious, therefore, that the proposal to safeguard the rising generation from consumption by isolating it from every breath of infection leaves much to be desired, since the natural and logical result can only be to deprive it of the partial immunity which in reality constitutes its chief means of self-defence. Other articles contained in the February number of *L'Hygiène* have been contributed by Dr. Maurice de Fleury, who writes on the cause and effect of anaemia in young girls; by M. Emile Gautier, who has given a short account of the latest disinfectant, hypochlorine; and by M. Henri Meurisse, who gives some valuable advice concerning that dangerous delicacy, the mushroom.

Writing in the *Aberdeen Daily Journal* about the second volume of a *Miscellany* issued by the New Spalding Club, which contains a continuation from 1631 to 1700 of the list of Aberdeen burgesses compiled from the Minutes of Council by the late Mr. Alex. M. Munro, "K. J." says he was surprised to find the following entry:

> 1641.—August 30. Dr. William Hervye, physician to the King; Hadrian Mitcalff, apothecary to the King; and Mr. Alexander Middletoun, sub-principal of King's College. G. [Honorary burgesses.

William Harvey was admitted an honorary burgess of Aberdeen on August 30th, 1641. What business, K. J. asks, brought William Harvey to Aberdeen? He was then 63 years of age. It is impossible to conclude that he undertook the long and tedious journey from London to Aberdeen simply to quaff the ever-hospitable cup of Bon-Accord with Provost Alexander Jaffray, the Baillies, and Council of the braif toun. Charles I was in Edinburgh presiding over the Parliament. Harvey, although taking no part in the dangerous politics of his time, was deeply in the secret confidence of the King, and, K. J. thinks, went to Aberdeen seeking advice on His Majesty's behalf from Dr. John Forbes of Corse, the ablest man on the side of Scottish Episcopacy, and other friends in the north. He goes on to say:

> Fifteen years ago one of our budding historians, a man who has since done some excellent and careful work, wrote and issued a privately printed booklet entitled *Aberdeen Royal Physicians*. Fortunately, the edition was very small, for it contained several errors, the greatest of which was the assignment as Physician-in-Ordinary to the Court of James I and James VI of a man who was not of Aberdeen, possessed no degree in medicine, never held a Court appointment, and died very young in the East Indies, where he served as surgeon of an Indiaman. When the name of David Chamberlayne is eliminated from the place in the booklet which it should never have occupied, the British Solomon is left in the sad plight of having no Aberdeen doctor attached to his Royal Household at any period of his long reign. Yet he had at least three. Maister Gilbert Skeyne, doctor in medicine (fourth son of James Skeyne of Westercorse, notary in Aberdeen), who had been Professor of Medicine in King's College, was, on June 16th, 1581, appointed medicinar to his Majestie. Skeyne's tracts, *Ane breve descriptioun of the Pest*, Edin. 1568, and *Ane brief descriptioun of the qualities and effectis of the well of the woman hill beside Abirdene*, 1580, are well known by the reprints presented to the members of the Bannatyne Club by James Skene of Rubislaw in 1860. He retired from practice in 1593, and died in 1599.

Then K. J. adds that Dr. John Craig,

> an Aberdonian, who taught logic and mathematics at Frankfort-on-the-Oder (1579–82), where Dr. Duncan Liddel met him, was appointed Physician-in-Ordinary to King James, but did not live to accompany His Majesty to England.

His successor was unknown to K. J. until, happening to search the Treasury Rolls of England of the period for something else, he came upon the name, "James Chalmers, Physician to the King."

> From these records it appeared that about 1619 the physician and Adrian Metcalfe, the King's apothecary (the burgess of 1641), travelling with several attendants in rural Oxfordshire, came to a village inn, where they demanded refreshment. The innkeeper had not expected visitors of distinction, and Chalmers, dissatisfied with what was set before him, became enraged, and ordered his attendants to take down the sign-board of the inn and burn it. While the consequent disturbance was going on a county squire rode up, and, learning the cause of it, turned to Chalmers and said: "Sir, I have travelled in your country for three days and three nights without being able to obtain food or shelter, or even a fit stable for my horse."

Immediately on the physician's return to London he haled the Oxfordshire gentleman before the Star Chamber, accused of insulting his most sacred Majesty King James by casting false reflections on his native country. Several stages of the process are noted in the records, but the decision is wanting. Notwithstanding this not very creditable incident, K. J. continues, the King's Physician must

> have been a good doctor, otherwise he could not have gained the appointment. He located him in Munro's first list of burgesses (1399–1631), *New Spalding Club Miscellany*, vol. i, admitted honorary burgess, 1617; again in the second list in 1634, when Robert Brebner is made a burgess of guild at his request, but in neither instance are any local antecedents mentioned.

In Dr. Littlejohn's Sheriff Court Records he found Chalmers mentioned repeatedly in relation to business of a kind that made his local origin reasonably certain. K. J. goes on to say:

> From the times of the first Stuart King of England to the present days of King George V, there has always, with but few intervals, been an Aberdeen doctor upon the staff of Court physicians. With the single exception of the metropolis itself, no city in the kingdom has been equally honoured.

British Medical Journal.

SATURDAY, MARCH 23RD, 1912.

NASCENT IODINE IN LUPUS AND LARYNGEAL TUBERCULOSIS.

IN the course of the last two years several reports have been published in the Scandinavian and German medical press dealing with the treatment of lupus and laryngeal tuberculosis by nascent iodine. The fact that iodine is most powerful as an antiseptic when in the nascent state led the Swede, Dr. Pfannenstill, to give an iodide by the mouth and ozone by the inspired air, on the assumption that iodine would be set free and would act as an antiseptic on the tissues of the respiratory tract. Clinical tests of the method began at a hospital in Malmö in November, 1908, when Dr. Pfannenstill gave 0.5 to 4 grams of sodium iodide daily by the mouth in doses not exceeding 2 grams at one time. Ozone obtained by electrical means was allowed to escape freely into the room, or to pass through a tube opening a short distance from the mouth of the patient, who was thus kept in an atmosphere charged with ozone for several hours a day. In spite of several difficulties and interruptions in the treatment owing to imperfections of the ozone plant, recovery occurred in the two cases of laryngeal tuberculosis and the two cases of lupus of the nose in which this treatment was first adopted. In the Scandinavian press Dr. Pfannenstill's publication[1] roused much interest as well as criticism which raised the questions: (1) Is free iodine really set free in the tissues? and (2) Is every case of ulceration reported as cured by this treatment tuberculous and not syphilitic? No direct answer to the first question is as yet forthcoming, but the fact that iodides and ozone given separately have no therapeutic value certainly suggests an affirmative answer. The failure of iodides alone to affect ulcers of the larynx also points to their not being syphilitic, and in a number of successful cases more recently reported Wassermann's reaction was negative. Pfannenstill's method was soon tested at the Swedish sanatorium, Säfsjö, by Dr. Tidström, and in Stockholm by Dr. E. Stangenberg, and their observations were reported at a meeting of the Swedish Medical Society in January, 1911.[2] Tidström reported 12 cases of laryngeal tuberculosis and 1 case of pharyngeal tuberculosis thus treated. In 9 cases, including the case of pharyngeal tuberculosis, the disease was cured; in 2 it was much improved, in 1 it was slightly improved, and in 1 it was unaffected. In the two latter cases the patients were in the last stage of phthisis. Stangenberg's report was less favourable; of 4 selected cases of laryngeal tuberculosis, only 1 showed marked improvement after the treatment, which was supplemented by excision. In the discussion which followed, it was pointed out that the conflicting results which these two series of observations presented might be accounted for by differences in the technique employed, and by the fact that the treatment was ambulatory in many of Stangenberg's cases.

While this treatment, therefore, in laryngeal tuberculosis is still *sub judice*, much more satisfactory and unequivocal results have been obtained in the treatment of lupus cavi nasi. Adopting Pfannenstill's suggestion that a solution of hydrogen peroxide should be substituted for ozone, Dr. Strandberg, of the Finsen Institute in Copenhagen, gave 3 grams of sodium iodide by the mouth daily, distributed in six doses, and inserted fine gauze tampons into the nose, care being taken that the gauze should be in as close contact as possible with the diseased tissues. The gauze was kept soaked with the solution of hydrogen peroxide, which the patient was taught to instil with a pipette several times a day till it could be felt trickling down the pharynx. As the production of nascent iodine is favoured by the presence of an acid medium the following solutions were used: (1) 100 grams of a 3 per cent. solution of hydrogen peroxide *plus* 5 grams of acetic acid; (2) 100 grams of a 1.5 per cent. solution of hydrogen peroxide *plus* 50 cg. of acetic acid. During the first few days of the treatment the stronger solution was applied until a marked reaction with swelling of the mucous membrane appeared. Then the weaker solution was used until the ulcers were healed, and the swelling and infiltration had disappeared. Dr. Strandberg's report[3] dealt with the first 13 patients treated in this way till the end of October, 1910. In the 10 cases in which Wassermann's and von Pirquet's tests were applied, the former was negative and the latter positive. In the remaining 5 cases the disease was also undoubtedly lupus, not syphilis. The disease was completely cured in 9 cases, and in only one case in which the disease was confined to the vestibulum, and had not spread to the nasal mucous membrane, was the treatment ineffective. It was thought that this failure might be due to the fact that the patient was very lax in carrying out her instructions. The rate of recovery bore no relation to the extent of the disease, for it was cured in sixteen days in a case presenting much infiltration, ulceration, and granulation of the mucous membrane, whereas in another with far less extensive and active disease, eighteen days were required to cure the right, and three months the left side of the nasal cavity. In 2 cases hydrogen peroxide was applied without the administration of sodium iodide, but this seemed to aggravate the disease. The administration of sodium iodide alone was also found to be futile. Hitherto the treatment of lupus cavi nasi which has given the best results at the Finsen Institute in Copenhagen has been a combination of galvano-puncture, painting with iodine, and the application of mercury perchloride on tampons. This procedure is difficult and tedious, and relapses are frequent. The advantages of Pfannenstill's method are numerous, for it is more sure and rapid, and it involves less destruction of the tissues. It also brings within reach of treatment minute and remote foci of disease which must often be overlooked in treatment by galvano-puncture. More recently Dr. Strandberg has published[4] 104 cases treated by Pfannenstill's method: 12 out of the first 15 patients were discharged cured, and the disease had not relapsed in 8 patients seven to twelve months afterwards; in the 4 cases in which a relapse occurred it appears that the patients were discharged too early, the disease probably being then still active. Between October 25th, 1910, and July 1st, 1911, 78 patients were

[1] *Hygiea*, Nos. 5 and 6, 1910. Also *Transactions* of the Malmö Medical Society, February 10th and April 14th, 1910.
[2] *Transactions* of Svenska Läkaresällskapets Förhandlingar, January 1st, 1911.
[3] *Berl. klin. Woch.*, No. 4, 1911.
[4] *Berl. klin. Woch.*, No. 39, 1911.

treated; of these, 70 were women and 8 were men' the ages of the patients ranging from 8 to 60 years. In 64 cases the disease was bilateral; in 73 cases lupus of the skin was also present. Wassermann's reaction, taken in 74 cases, was invariably negative. Von Pirquet's reaction, taken in 68 cases, was invariably positive. The analysis of the results shows that 13 patients were still undergoing the treatment which had effected considerable improvement in every case, that 19 had returned home before the completion of the treatment, that 38 had been discharged cured.

The duration of the treatment is two to three months, and it is therefore contraindicated for those patinets who cannot devote this period to the treatment. Patients can, however, shorten the period of treatment by two to three weeks by conscientious co-operation with the physician. Cases of old standing react as well to the treatment as early cases, and a case is recorded in which complete recovery took place in three months after various other methods had been employed over a period of twenty years. In no case was iodism observed, and latent phthisis never became active; but phthisis which was already active became aggravated, and the treatment was therefore not prescribed in such cases. The technique of the treatment has undergone several modifications, and is probably not yet perfect. Dr. Strandberg finds that hydrogen peroxide is more effective in the presence of a small quantity of iron perchloride and hydrochloric acid than in the presence of acetic acid. The nasal cavity is cleared of crusts and débris by the preliminary application overnight of a 1 to 2 per cent. solution of alsoldermorphil on a tampon. The gauze used should consist of small strips free from all starch, and should be renewed twice a day by the physician; the patient should drip the solution of hydrogen peroxide on to it every ten minutes. Lupus of the hard palate[5] has also been successfully treated by this method, a false palate being made, between which and the true palate a layer of gauze soaked in a solution of hydrogen peroxide was inserted.

The success attained at the Finsen Institute in Denmark in lupus cavi nasi by this method led to its application to cutaneous lupus.[6] As it was found that much of the diseased tissue lay too deep to be affected, the production of nascent iodine in the tissues by electrolysis was attempted; for iodine is set free at the positive pole when an electrical current is passed through even as dilute a solution of sodium iodide as 1 in 270,000. Experiments with calf serum showed that the reaction in this medium was somewhat inhibited, but that it still took place if the solution of sodium iodide was as strong as 1 in 30,000. The efficacy of the starch test for free iodine in the tissues was tested on a rabbit, into the ear of which a solution containing starch and sodium iodide was injected. After the ear had been well massaged the positive pole, consisting of a platinum iridium needle, was inserted into the ear, while the negative pole of the battery was placed on the rabbit's hind leg. Almost as soon as the current was started a marked blue coloration appeared at the positive pole and nowhere else. This experiment was controlled by its repetition with starch but no sodium iodide in the ear, when no blue coloration appeared. The rabbit was now given 50 cg. of sodium iodide through a stomach tube, and ten minutes later the starch reaction appeared in the ear. The feasibility of producing nascent iodine in the tissues was thus proved; but as 50 cg. of sodium iodide in the rabbit corresponds to 20 grams in man, the dosage is far too high for practical purposes. Further experiments on the rabbit showed that a dose as small as 7 cg. gave a marked positive reaction on electrolysis one to two hours after its administration by the mouth, this dose corresponding in man to 3 grams, which are usually well tolerated. By passing an electrical current through solutions of sodium iodide in human and rabbit serums, it was found that rabbit's serum had greater powers of inhibition on electrolysis than human serum, the most dilute solutions of sodium iodide which gave a positive starch reaction being 1 in 7,000 and 1 in 13,000 respectively. Further observations were made on man by giving 2 grams of sodium iodide by the mouth over a period of one hour, and withdrawing 50 c.cm. of blood an hour later. The serum was found to give a positive starch reaction after a current of 20 milliampères and 65 volts had been passed. But *in vivo* such a strong current would cause great pain and tissue necrosis. A smaller current was therefore indicated, and by increasing the dose of sodium iodide to 3 grams, a positive starch reaction in the serum was obtained by as small a current as 2 milliampères. This current is quite painless and causes no appreciable necrosis. The following procedure is adopted in cases of lupus of the skin. The patient is given at least 3 grams of sodium iodide by the mouth in one or two successive doses about two hours after a light breakfast which has consisted of bread and tea or coffee. In one hand he holds the negative pole, which consists of a metal plate covered by wet cloth. The positive pole, which consists of a fine platinum iridium needle, is inserted into the skin, and a current of 3 to 4 milliampères and ·65 volts is passed. The current should be slowly broken before the withdrawal of the needle to avoid painful stimulation. The needle is kept in the tissues for about three minutes at a time without inconveniencing the patient much. By this procedure lupus can be attacked at a considerable depth, for iodine is set free along the whole course of the needle, whereas a very limited surface is treated at one time. This difficulty is met by the construction of a positive pole consisting of a plate, on to which fine needles are soldered at a distance of half a millimetre from each other. This treatment is somewhat painful, but the operator can make twenty to thirty punctures at one sitting.

Detailed reports of 5 cases of lupus of the skin treated by the above method are given. In 2 cases the patients made a complete recovery: in the remaining 3 cases great improvement had been effected, and the patients were continuing the treatment. No necrosis of the tissues occurred, and the puncture wounds healed rapidly, being covered by smooth, soft scar tissue. Local anaesthesia was not employed, as it was considered advisable to simplify the procedure to the uttermost in its experimental stage: but, as the treatment is painful, local anaesthesia will be employed in future. No toxic symptoms followed the administration of sodium iodide, although the dose of this drug had to be raised in 2 cases from 1 and 2 grams respectively to 3 grams before the beneficial action of the electrolysis became evident. Although this treatment has not yet emerged from the experimental stage, the results already obtained point to its being a valuable remedy, especially in cases of lupus unsuited for excision, and where Finsen light is unable to penetrate deeply enough.

[5] Schimmann, *Berl. klin. Woch.*, No. 40, 1911.
[6] Axel Reyn, *Hospitalstidende*, No. 40, 1911; and *Berl. klin. Woch.*, No. 42, 1911.

THE MAN WITH THE MUCK-RAKE.

It may be taken as a striking testimony to the sterling value of the work by hospitals that there is nothing which newspapers of the baser sort seem to find a more attractive lure than the headline "Hospital Scandal." It is true the "scandal," even when set forth with all the arts of cheap sensationalism, may usually be described as much ado about nothing. That mistakes sometimes happen, that isolated examples of carelessness or neglect do occur, is only to say that the men and women who devote themselves to the care of the sick poor are human. Taking into account the conditions under which the work of a hospital has to be done—the pressure of numbers who have to be attended to, the variety and difficulty of the problems and the speed with which they have to be dealt with, the exacting nature of the demands thus made on the mental and bodily energies—the wonder is that "scandals" are so few. The wonder is all the greater since hospitals carry on their work in a fierce light of publicity, and literary scavengers are always prowling about to pick up some bit of garbage. These men are, like Falstaff, labouring in their vocation, and, unsavoury as it is, we need not say anything about them as long as they do not make up for the lack of matter by inventions. They usually confine themselves to occurrences which, though deplorable in themselves, are either inevitable accidents, errors of judgement on the part of hospital officials, or necessary consequences of the shortcomings of the Poor Law. Then we have the "Red Catechism," which says that doctors make "experiments" on patients in hospitals. This may be excused on the score of ignorance, but stories have been written by people who ought to know better in which charges amounting to human vivisection are freely made against surgeons. These things are so obviously the outcome of prejudice that they defeat their object by exaggeration.

It has been reserved for Mr. George Trelawney, an author whose name is new to us, to make a peculiarly cowardly attack on a class of hospital which has proved itself of the greatest use in places where the advantages of large institutions for the care of the sick poor are not available. The cottage hospital is essentially a modern development of medical charity, and it is one which, in view of the conditions in which it carries on its beneficent work, might have been thought safe from the assaults of the scandal-monger. Yet it is the cottage hospital which is chosen for the objective of an attack all along the line by the writer to whom we refer.[1] Of course he professes to be inspired by the highest motives and, like Brutus, to speak only of that which he knows. We do not hint a doubt as to the honesty of his intentions, but we do say that the whole tendency of his book is misleading. Either his simplicity has been imposed upon, or, like so many who call themselves philanthropists, he is too ready to believe evil of persons and institutions that are doing good work in the eyes of the world.

Out of the questionable materials supplied to him from what he calls "reliable sources," supplemented by "personal investigation," he has made a story obviously designed to tickle the ears of the groundlings. The book has no literary merit: its sole appeal is to those who delight in morbid sensationalism. The merest outline of the story will suffice to show its character. The scene is laid in Rebley, which is described as "an old isolated and well-watched little town where visitors are as scarce as great auks, and where a new arrival is duly registered at the local Government offices to give proof that he or she has just claim to be considered worthy of the honour of being inscribed upon the list of inhabitants." To the cottage hospital of this remarkable town there comes a new house-surgeon consumed with reforming zeal, which at once brings him into conflict with the medical staff, the secretary, and the matron. The doctors are careless and incompetent; the nurses neglect their patients, even when dying, and spend their time in what a patient calls "canoodlin'," which is defined as "a loving up an' kissen fellers as they gets in ter supper with 'em." The food is badly cooked and served; the drug supply is of the poorest kind; the surgical instruments are worn out and unfit for use. There is no order or discipline. The hospital is used by the doctors as a place of assignation with the nurses. The stimulants intended for the patients are used for drunken orgies, in which the nurses as well as the doctors take part. The out-patients are treated with revolting brutality, and it is plainly implied that an indecent assault is committed by one of the doctors on a girl. An operation of the utmost gravity is performed by a surgeon when drunk, naturally with a fatal result. But what does it matter? The doctor says they do not need to be too particular in these matters as the coroner is a friend of his. Besides, has he not "gained the respectful attention of the local political magnates, who kept a watchful eye upon him with a view to future parliamentary candidature"? And so things go on till the catastrophe comes in the form of the death of a nurse as the result of an abortion procured by the same surgeon, who had been her lover. This man, who, it turns out, has long made a lucrative trade of abortion, avoids the gallows by taking poison.

Of the corruption of the hospital board, whose chairman is the butcher who supplies the meat, and which comprises among its members the hospital baker, grocer, wine merchant, provision dealer, greengrocer, coal merchant, linen draper, and laundryman, nothing need be said. Practically every one connected with the institution is dishonest—excepting the virtuous house-surgeon. And that Galahad receives the visits of the "heroine"—the chaste victim, it should be said, of the abortion monger who is the chief villain of the book—in his room at night, and the natural result follows. The incident as told may serve as an example of the style of that austere *censor morum*, Mr. George Trelawney:

"Kargill was no longer master of himself. He no longer cared what happened. The passion of his love seemed to be bursting his heart. 'My darling,' he whispered, his blood on fire, his voice choked with the violence of his emotion. She fell on her knees in front of him in an attitude of utter abandon. He bent forward, and once again her arms were around his neck, her burning kisses on his lips, her voluptuous form half-supported between his knees. Long deep sighs escaped each of the lovers in turn. Neither of them spoke. It seemed as if they understood each other's feelings with that perfect comprehension which is only possible at moments of great joy or deep sorrow. As children of exultant Nature they entered into the fullness of life and love." Notwithstanding this lapse, the house-surgeon confounds his enemies and shakes the dust of the hospital off his feet.

This is not the only passage of the book which reeks of the lowest kind of so-called "realism." One

[1] *In a Cottage Hospital: A Novel.* By George Trelawney. (London: T. Werner Laurie.)

description of a girl admiring her charms in a large mirror is strongly reminiscent of a passage in *Nana*, and some of the scenes of hospital life at Rebley recall the touch of the crudest of Zola's imitators. These are merely tricks to attract notice to a worthless book, but they serve to show the class of reader for whose delectation it is intended.

To treat such a production seriously would be an insult to the intelligence of the public. It is unthinkable that such things should occur in a hospital in a small town of which the author himself says: "In such a self-contained little place half the town would have got out of bed if a stray pig had run down the main street." Yet in this place we are asked to believe that there is a hospital which, with the exception of one just man—who falls easily when temptation comes—is simply an "abode of love," with drunkenness, corruption, and every form of cruelty superadded! That there may be occasional abuses even in cottage hospitals need not be denied, but an institution in which such a state of things prevailed as is here portrayed simply could not exist. And we are asked to believe that the Rebley Hospital is not a solitary case. The book ends with the calumnious assertion, conveyed with the solemnity of italics: "Reader, there is many a Rebley Hospital in England to-day!" The author seems to have gathered together all the "scandals" that have ever occurred and discharged the putrid mass into one little hospital in a small town. He has acted in the spirit of the cynical maxim, "Throw mud enough and some of it will stick." The book is disgraceful to the man with the muck-rake who wrote it. Nor does it reflect any credit on the publisher, to whom, we presume, is due the idea of the suggestive picture on the cover of a simpering nurse represented arm in arm with a man whom we suppose to be meant for a doctor.

SOOTHING SYRUPS.

THE report, published this week, on the analysis of certain proprietary syrups sold for administration to infants when cutting teeth, and at other times, shows that three out of the four examined depend in large measure for their properties on anethol or carvone. Now anethol and carvone are principal constituents of our old friends the essential oils of anise, dill, and caraway. Two of the three syrups are alkaline, sodium bicarbonate being used in one case, and a mixture of potassium bicarbonate and magnesium carbonate in the other. The third contains potassium bromide. The other syrup examined is directed to be rubbed on the gums, after which it is of course swallowed gradually by the child; this is a preparation of hydrochloric acid, common salt, saffron, and honey. Perhaps the most noteworthy point in connexion with these preparations is that one of them, claiming to have had a large sale for sixty years, is not now of the same composition as formerly. At one time this preparation contained morphine, as was proved in courts of law on several occasions when proceedings under the Pharmacy Acts were taken against unqualified persons for selling it, and in fact the presence of morphine was admitted by a statement on the package. Now, however, as our analysis shows, it contains no morphine, but potassium bromide. Which of these two is the more unsuitable for giving to infants of a few weeks old is, for the moment, not the question; the alteration of the composition of a medicine which continues to be sold under the old name and with statements as to its having been made for sixty years, shows how utterly the public is at the mercy of the proprietors of such preparations, who are at liberty to omit or add ingredients, or to alter the composition as they please. In previous reports on other classes of preparations several cases have been mentioned in which different bottles of the same nostrum have shown wide differences in composition, in some cases due apparently to gross carelessness in the compounding. Compulsory declaration of the chief constituents on the label, with consequent penalties whenever misstatement could be proved by analysis, would put such nostrums more nearly on the same footing as other drugs. It is evident that nothing less than this can protect the purchaser against arbitrary or careless alterations in composition.

PETROLEUM AND THE PUBLIC HEALTH.

AN illustrated pamphlet entitled *The Coming of Petroleum*[1] has reached us at a moment which lends it additional interest. It gives a full account of petroleum, the fashion in which it is obtained, the work it is capable of performing, and the part which it is destined to play. Summed up, the view of the writer would seem to be that the subterranean collections of petroleum are relatively quite as great as those of coal, though possibly more difficult to discover, and that just as muscle force gave way to steam power in the early nineteenth century, so will coal within a few years give place to petroleum as the immediate source of power and heat, and as the primary and perhaps direct source of artificial light. The grounds for this opinion are, of course, largely speculative, and on the subject of what would be the effect on the public health of the substitution of petroleum for coal the author is entirely silent. There would seem, however, no reason, on the whole, to anticipate that such effect would be of an undesirable kind. Petroleum, indeed, as used in motor-driven vehicles may already fairly claim to have been a factor in the improvement during the last few years of the health statistics of large towns, since by lessening the number of horse-driven vehicles it has helped to diminish the amount of dirt and dust in the streets and the number of fly-generating centres represented by collections of manure. It is true that deleterious properties have been ascribed to the fumes given out by automobile engines when controlled by careless chauffeurs, but the imperfect combustion of petroleum and consequent causation of fumes is not a necessary feature of its use. It can hardly be doubted, too, that disuse of coal as a source of domestic heat would prove advantageous, rendering as it would the air of towns much purer and lessening the number of dense fogs. Whether abandonment of the use of open grates would be of advantage is another question. Despite the waste of fuel which they spell and the circumstance that on a really cold day it is impossible to sit in the centre of a room of any considerable size and yet be comfortably warm, and despite the still more important fact that rooms warmed by coal fires usually connote extremely cold passages, the case for the open grate in this climate rests on good grounds. Still it is by no means unassailable. The cheeriness supposed to be furnished by an open fire is largely a matter of sentiment, and the use of open fires, though an easy, is by no means the only way of securing effective ventilation. Indeed the open grate would probably have been already largely displaced in this country had it not been for the unfortunate disposition of architects to follow the easiest path by using hot water coils, thus heating the air already present in the room, instead of arranging for the introduction to rooms of air already warmed. Central heating on the latter system is perfectly possible, and the comfort and healthiness of houses thus furnished is undeniable.

SCOTTISH MINING VILLAGES.

IT has hitherto been regarded as incumbent upon all large industrial and commercial concerns carried out in parts of the country away from towns and villages to provide housing accommodation for the workpeople. This circum-

[1] *The Coming of Petroleum.* Issued by Curtis, Gardner and Co., Limited, South Place, Finsbury, London. (Demy quarto, p. 64. 2s. 6d.)

stance makes the report of Dr. J. C. McVail,[1] undertaken at the request of the Local Government Board of Scotland, interesting, since he is able to contrast the mining villages of Stirlingshire and Dumbartonshire, and to show the improvements which have taken place during the last few decades. The report deals with 12,276 persons employed in coal mines in 1908: when the wives and children are included, the numbers rise to 42,000. For these people 7,468 houses are required—on an average about five persons for each house. "A typical colliery village consists of one or more rows of one-story brick or stone and slated houses opening on a private roadway for cart traffic, with a surface channel for drainage beyond the roadway, pillar wells at intervals beside the channel, a series of blocks of outhouses beyond it, and small gardens or clothes-drying greens on the further side of the outhouses." The houses may be built in squares along the side of a highway, or isolated in small groups on a moorland, the surface channels being only a few feet from the front doors of the dwellings, or they may be non-existent. A collier's house in some instances consists of only two compartments —a room and kitchen, with connecting door between. Although all plans for new buildings have to be submitted to the district committees of the county councils, yet, invaluable as their by-laws are, they have hitherto not compelled owners to erect coal-houses, washhouses, or scullories, nor to supply water within the houses, nor have they sought to regulate the dimensions of the living and sleeping rooms. Of 873 houses built under these by-laws, 22, or 2.5 per cent., are houses of one apartment; 735, or 84.2 per cent., are houses of two apartments; 100, or 11.5 per cent., have three apartments, and 16, or 1.8 per cent., four apartments. It is only right to add that since 1904 no one-roomed habitations have been built. In 7.9 per cent. of the 873 houses, baths have been provided; these are nearly all three-roomed houses; the baths are only supplied with cold water, but hot water can be obtained from an adjoining clothes boiler. The set-in beds, which have been a common feature in the houses of the working classes in Scotland, are gradually disappearing, their place being taken by the healthier open iron bedstead. In some of the mining villages reported upon the houses date back to 1770. Many of the old houses are damp. One of the greatest nuisances in mining villages is the privy ashpit, or midden. There is no reason why in mining villages ashpits should not be as regularly cleaned out as they are in most towns. It is simply a question of expense. Since those who receive the benefits consequent upon frequent and regular removal of the filth ought to help to defray the cost, the expenses might be divided between the colliery employers, who are the proprietors, and the occupiers. It is cheaper to prevent than cure disease. An epidemic of enteric fever in a mining village is a costly matter. In some of the colliery districts there is now a daily removal of the refuse by the proprietors. Many colliery owners feel that if they wish to attract a good class of workmen they must provide them with adequate house accommodation. Self-respecting miners will no longer live under the conditions of former times. Bad tenants by their destructiveness not only make bad houses worse, but they set up a vicious circle which, once started, it is difficult to control. The water supply to mining centres is frequently a difficulty. In many instances the drinking water is pumped up from the mines. One of the drawbacks to this as a source of supply is that during a strike there may be great difficulty in getting water for the houses. The average rent for one-roomed houses is £2 14s. 9d. a year; for a house with two apartments, £6 1s. 4d.; a three-roomed house is rented at or about £10 9s. 5d., a four-roomed house £16 3s., and a house with more than four apartments £17 2s. 6d. The colliery owners deduct the rents from the men's wages. It cannot be said that the rents are high. Dr. McVail pleads for the erection of two-storied buildings which would give a kitchen and sitting-room on the ground floor with two bedrooms above, such as are found in many of the mining villages in England. It costs about £120 to build a miner's house if built of brick, £20 more if built of stone, and for this a weekly rent of 3s. 3d. would be required, or £8 9s. per year. One danger to be guarded against in all mining villages is overcrowding. This applies to men who have large families, and also to persons who take in lodgers. Every inducement in the way of good housing accommodation should be given to miners, so as to make their homes not only attractive but healthy; and since in the Coal Mines Bill (1911) a prominent place was assigned to the necessity of baths for miners at the pithead on leaving work, baths should find a place in all miners' houses erected in the future.

[1] *The Housing of Miners in Stirlingshire and Dumbartonshire.* By John C. McVail, M.D., LL.D. Glasgow: Robert Maclehose and Co. 1911. (Post 8vo, pp. 71; figs. 22.)

"ONOMATOMANIA."

THERE is in the case of all men some natural attitude into which they fall when they are not, so to speak, on parade; each has some habitual gesture or some trick of the physiognomy, the hands, or other part which is a characteristic of the individual, and, in fact, a part of his personality. There are even unconscious actions which may be regarded as more or less distinctive of classes. There is the rustic who scratches his head, the horseman who whips his riding-boot, the thinker who finds inspiration in fingering his beard, stroking his nose, or tearing paper to pieces, the heavy dragoon who tugs at his moustache, the bored listener to a dull lecture who draws sketches on blotting paper, the swaggerer who, in Castlereagh's immortal phrase, "comes down to the House like a crocodile, with his hand in his breeches pocket." These mannerisms are so habitual that, by a sort of Leibnitzian *harmonia praestabilita*, they often become necessary accompaniments of the operation of the intelligence. Every one knows the story of Scott's school-fellow, who kept the head of his class as long as he could finger a particular button of his waistcoat, and lost his pride of place when the future Sir Walter, putting his keen observation thus early to practical use, cut off the button. Science has given the name of "manias" to these unconscious tricks, and does not disdain to classify the most trivial of them under that imposing head. It is stated, but with what truth we cannot say, that at a recent congress of neurology a paper was read in which the movement by which the growing lad caresses the first shoots of "valour's excrement" on his upper lip was labelled *moustachiostrepsomania*; the habit of twirling the cane seen in old drum-majors, *strepsorhabdomania*; that of putting the little finger into the ear, *otodactylomania*. Then we have "stomato-dactylomaniacs," who put the finger in the mouth; "onychophagomaniacs," who bite their nails; "harmonio-maniacs," who drum with their fingers on window-panes or tables; and "trepodomaniacs," who nervously move their legs. Of this last "mania," a marked example was seen in the late Lord Salisbury, whose intention of taking part in debate was manifested by a peculiar jerking of one foot as he sat with one knee over the other listening to the speech to which he was to reply. Innumerable "manias" which remain unclassified may be seen in Parliament. Mr. Balfour in speaking seems to be striving to pull himself up by the lapels of his coat: the only sign of emotion shown by Disraeli was a rapid look at the clock when the attack of his opponent was hottest; others make much play with an eyeglass, with a bundle of papers, with their hands, and with various parts of their attire. These things are as much meat and drink to the caricaturist as it was to Touchstone to meet a fool. In fact they are sometimes invented to give character to the portraiture. We believe the straw which *Punch* always represented Palmerston as chewing was an artistic

fiction. But are such things worth cataloguing and naming as "manias"? To any who may think it important that this should be done we venture to suggest that "onomatomania"—the mania of naming things—should be added to the list.

POST-ANAESTHETIC HALLUCINATIONS.

IT is only necessary to have been under the influence of a general anaesthetic to realize the strange jumble of sensations which crowd upon one during the return to consciousness. Bevan Lewis says that to one who is being anaesthetized it is "obvious how the environment crowds in upon one more and more, and how the ego, or personality, enslaved by its power, finally feels that thought itself is succumbing to its resistless advance." But the enslaving of the ego by the anaesthetic is a mild process compared with the letting loose, as from a Pandora's box, of the instincts, emotions, and passions of which that ego is composed, when, still intoxicated with the drug, the unconscious subject first wakes with all his higher inhibitory centres crippled, if not dormant. The administration of an anaesthetic is such an everyday, routine affair that doctors give little attention to the patient after the signs of returning consciousness have assured them of his recovery. But the sisters and nurses could tell many realistic stories of the hallucinations of their recovering charges. Some are violent, some sing, some talk and shout incoherently, some try to get out of bed and are more or less unmanageable, whilst delusions of various kinds flit like spectres across the path to conscious sanity. Recently Mr. Moser, a dental surgeon, was accused by a woman of misconduct after she had been anaesthetized with nitrous oxide. Mr. Moser sued the patient and her husband for slander and libel, and was awarded £600 damages. The jury characterized the charges as gross fabrications from beginning to end, and Mr. Justice Horridge, who tried the case, in agreeing with the jury, made some strong comments on the necessity of putting a stop to such accusations, and granted an injunction to prevent a repetition of the slander and libel. The judge advised the jury that if they thought that the plaintiff was entitled to damages to make them moderate, having regard to the position in life of the defendants; but that the sum awarded should be such as would entitle him to say that there was not a scrap of evidence against his character. This is satisfactory. But the case has its lesson for medical men. It is quite possible for a woman who has hallucinations after being anaesthetized, to make a false charge against the attendant. Doctors, in one respect, have the advantage over dentists. The nurse, who is nearly always present when a patient is anaesthetized, is an even safer protector than another medical man, against the possibility of such an accusation. But circumstances might occur where, the operation or cause for the anaesthesia being over, a medical man might be left alone with a recovering patient. If he is wise, the medical attendant will not incur the responsibility of such a vigil. In ninety-nine cases he will win gratitude for his attentions: in the one case of the hundred he may have flung at him accusations odious enough to blast his career for ever, and wicked enough to cause him untold anxiety, worry, and expense.

DR. LATHAM OF CAMBRIDGE.

DR. LATHAM, Consulting Physician to Addenbrooke's Hospital, Cambridge, and late Downing Professor of Medicine, is about to retire after practising in Cambridge for over fifty years. Last week two presentations were made to him—the one from friends in the university and town, and the other from the medical men of Cambridge and district and other medical friends. The first-mentioned presentation was made in the hall of Trinity Hall on March 15th. The Master of Trinity Hall presided, and the presentation was made by the Master of Peterhouse, who said that their friendship began when Dr. Latham was attending St. Bartholomew's Hospital. That was over half a century ago, and since then he and many others had learnt to honour Dr. Latham as a physician and as a friend, the one inseparable from the other. All present knew the distinction to which Dr. Latham had attained as a physician, and as a writer and speaker on medical subjects, and all knew also how he had helped them in many a critical hour and in many a season of grave anxiety. In his retirement he would be able to look back on a past of which any man might be proud. Of Mrs. Latham, to whom a presentation was also to be made, the Master of Peterhouse said that she not only came of a family in which there were two of the greatest administrators the British Empire had known, but was herself an administrator, in whom, after her withdrawal from the headship of Girton, many like herself had found wise counsel as well as kindness and hospitality. The presentation to Dr. Latham took the form of a large silver tray bearing the inscription, "Petro Wallwork Latham, M.D., dono dederunt amico amici medico officiis devincti MCMXII"; that to Mrs. Latham of a diamond pendant brooch. Dr. Latham, in reply, said that it was with considerable hesitation that he had relinquished his appointment as assistant physician to the Westminster Hospital to become physician to Addenbrooke's Hospital, but the work there for thirty-six years had been a source of great gratification to him. He had always striven to maintain the reputation of the hospital, and to extend its usefulness. He recalled how, after acting for six years as deputy to Dr. Fisher, then Downing Professor of Medicine, he was, on Dr. Fisher's death in 1874, elected to the professorship, and for twenty years he had discharged to the best of his ability the duties of this responsible office. Dr. Deighton, as a late student of Professor Latham and afterwards his colleague at the hospital, recalled many incidents of kindness during the past thirty years. He dwelt upon Dr. Latham's boundless energy, which years seemed hardly to have touched, and on his geniality, and concluded by moving a vote of thanks to the Honorary Secretary to the fund, Dr. A. Miller. The motion was seconded by the Mayor, and Dr. Miller, in reply, said that the response to the appeal for the fund to make the presentation had been ready and immediate. The vote was unanimously carried, and the meeting terminated. The second meeting was held in the Combination Room of Gonville and Caius College on March 14th, when Dr. Latham was presented with a pair of silver entré dishes and a parchment scroll containing the names of the medical men of Cambridge and district and other medical friends who had subscribed. The meeting, which was well attended, was presided over by Sir Clifford Allbutt, who in a very interesting speech spoke of Dr. Latham's distinguished career since the time when they were undergraduates together at Caius. Dr. Latham's reply, in acknowledgement, was equally interesting. Dr. Beverley of Norwich and Professor Sims Woodhead also spoke.

LUNG DISEASES AMONGST QUARRYMEN.

THE report by Dr. James Wheatley, County Medical Officer of Health for Shropshire, contains interesting and valuable information. For 600 years work has been carried on in the Grinskill quarries, but at the date of the report one quarry alone was being worked, and only from twenty to twenty-five men were employed, of whom five were stonemasons. The stone contains 95.4 per cent. of silica. On microscopical examination the particles of stone are found to vary from $\frac{1}{150}$ to $\frac{1}{2500}$ of an inch in diameter. Some of the particles are rounded and transparent, others are sharp and angular. The stone is quarried by cutting deep gutters into it by means of picks. On their removal the large blocks of stone, after a preliminary dressing by hammers and picks, are taken to sheds, where they

are further dressed by a steam mason, consisting of a number of chisels, under which the blocks are passed backwards and forwards, or they are finished by hand, each stroke of the hammer and chisel giving rise to clouds of dust. The amount of dust given off varies according as the surface of the stone is kept moist or dry. Although in the quarries the work is carried on in the open air, Dr. Wheatley found that in guttering the stone considerable quantities of dust are inhaled, as the men have to lean forward and bend closely down upon their work. As the quarrymen have good homes, live in a healthy district, receive wages above the average working population, and are on the whole a temperate class, the high mortality-rate from phthisis amongst them must be largely the result of their occupation. Some of the men retire from the quarries and stone work after a few years. Most of the men in the district who are alive after 60 have not worked exclusively in stone. Taking the average annual death-rates from phthisis per 1,000 for thirty-one years, quarrymen give 7.94 and masons 16.71, whereas the death-rates of males over 20 years of age from phthisis in the same district are only 1.47, a figure which compares most favourably with the phthisical death-rate of males over 20 years of age for 1901 in England and Wales, which was 2.37. The high death-rate from phthisis of stoneworkers, which is seven times greater than that of other people of the county, can only be explained by the dusty nature of the occupation. The numbers upon which the inferences are based are rather small. The average age at death of stoneworkers dying of phthisis was 46.3, while that of other males over 20 dying of phthisis in the same area was 40.4 years. The higher age at death of stoneworkers is an interesting fact, but taking all causes of death into consideration, non-stoneworkers have a longevity greater than that of stoneworkers by fully ten years. The opinions of Sir Thomas Oliver, Dr. Haldane, and Drs. Summers and Collis as to whether stonemason's phthisis is or is not tuberculous are reviewed. It is interesting to know that as there is no excess of phthisis among the wives of the Grinskill quarrymen and stonemasons, it would seem as if infection did not exist to any extent. To prevent lithosis among stoneworkers Dr. Wheatley recommends that means should be taken to diminish the amount of dust by watering the stone, that the inhalation of dust should be prevented by the use of respirators or otherwise, and that the men should submit periodically to medical examination, so that disease detected in an early stage may be at once dealt with.

THE BACTERIOLOGY OF TYPHOID FEVER.

A NEW element has entered into the etiology of typhoid fever—namely, an anaërobic bacillus. It is remarkable how much views with regard to the etiology of typhoid fever have changed during the course of the last few years, and if the importance of this new factor is confirmed it may lead to further modifications. Loris-Melikov[1] is the author of this new discovery. He tried the experiment of planting some faeces from a typhoid patient in broth containing bile and a piece of boiled white of egg. In this a deposit formed, with some of which a glucose-agar medium was inoculated. In a few days small transparent colonies made their appearance, and these were found to consist of non-motile, Gram-positive, sporing bacilli, which are strictly anaërobic, and grow well only at a temperature of 37° C. In view of the probably large number of undescribed anaërobic bacteria which may occur in the human intestine, such a finding is not remarkable, but the sequel is distinctly interesting. By injecting cultures of this organism into various animals it was found that it has a specific action on lymphoid tissue, and in particular on Peyer's patches in the intestine, on which it exercised a distinctly necrotic action. Unmistakable swelling and ulceration were the result. This is decidedly curious, and will undoubtedly lead to further investigation. Still more curious is the fact that these bacilli were found only in faeces from typhoid patients and not in normal stools. Of equal interest is the fact that they were agglutinated by typhoid patients' serum in a dilution of as much as 1 in 100. Loris-Melikov considers that this organism has a local necrotic action, and that it adds to the septicaemic effect of the typhoid bacillus; his researches and results naturally raise the question, Is the *Bacillus typhosus* Eberth, after all, the real and only cause of typhoid fever?

[1] *C. R. Soc. Biol.*, lxx, 1911, p. 865.

PHARMACISTS AND COPIES OF PRESCRIPTIONS.

THE question whether the pharmacist should furnish the doctor's patient with a copy of his prescription was debated at a recent meeting of the Western Pharmacists of London, when a number of physicians were present by invitation. Mr. J. D. Marshall opened the discussion by reading some letters he had received from medical men, who were unanimous in expressing dislike of the practice. Dr. J. Mitchell Bruce wrote that, since the purpose for which such copies were required was usually that the patient might hand them to his friends, the custom encouraged the spirit of quackery, or the suiting of a disease to a remedy instead of a remedy to a disease. The use of a prescription by any person other than the one for whom it was originally drawn up was reprehensible. Mr. Marshall declared that, for his own part, he refused to give the copies, whenever possible. There were circumstances in which copies might legitimately be given, but, broadly speaking, the practice was not one to be encouraged—first, in the interests of the patient and his friends, and, secondly, in the interests of the doctor. The chief offenders in the matter of asking for copies were ladies, who liked to pose as amateur doctors and to dispense among their friends the medicine that had done them good. Sometimes a request for copies was quietly made by one of the parties in a pending *cause célèbre*. Another frequent excuse for such applications was a change of medical man. Mrs. A. some time ago consulted Dr. B., who prescribed a certain medicine: afterwards she requested the pharmacist to show a copy to Dr. C., who was now attending her. The speaker never gave such a copy unless Dr. C. had the permission of Dr. B. He thought that medical men had unwittingly assisted the "wholesaling" of prescriptions by allowing the use of the compressed form of medications and made-up drugs. Sir W. Abbot Anderson, one of the guests, said that the question resolved itself into a matter of copyright. So long as doctors in this country, unlike their American colleagues, had no copyright in their prescriptions, they were powerless to protect themselves. He intended in future to have a printed notice on his prescription papers to the following effect: "In the interests of the general public, I desire that no copy of this prescription shall be given by the chemist dispensing the same." Dr. Phineas Abraham thought the chief sufferers from the practice were the doctors; and, secondly, the patients, who frequently did themselves injury. He instanced the case of the wife of a patient who, noting the beneficial effect of an ointment prescribed for her husband's eczema, applied it liberally upon herself, with the result that severe dermatitis ensued. Dr. Harold Dixon pointed out that whether the prescription belonged to the doctor or the chemist, it certainly did not belong to the patient. In spite of Sir Abbot Anderson's reminder of the Scotsman who refused to pay the two-guinea fee for the doctor's advice, saying, "I'll no' tak your advice, I'll tak your medicine," he contended that the fee was essentially for the advice and not for the prescription, which latter was merely an instruction to the pharmacist. The pharmacists present also put forward their point of view, and incidentally urged that all prescriptions should be given

on a printed form, dated, and that a definite direction that the medicine was not to be repeated after a certain length of time should appear on it. Any member of the Pharmaceutical Society would respect such an injunction. One pharmacist was found to urge that the patient had not only a legal but a moral right to a copy, provided no question of poisons was involved, but he made an exception in the case of a prescription dictated by the doctor over the telephone. In such an instance the doctor probably had reasons for not giving a written formula, and the dispenser accordingly would decline to furnish a copy.

A MEDICAL "WHO'S WHO."

Circulars would seem to have been distributed widely during the last week or two asking medical men to supply particulars about themselves for publication in a book, to be published at half a guinea, with the title *The Medical Who's Who, 1912*. The circular sets out with the statement that "there is to-day no work of reference existing which deals adequately with the medical profession," a statement with which we cannot agree; nor can we accept the implication that the proposed new annual will deal adequately with the medical profession, if, as is to be gathered from the covering letter dated March, the *Medical Who's Who* is intended to give information "concerning the leading medical practitioners in London and provincial centres, as well as particulars regarding specialists and consultants." A medical directory which does not contain the names of all registered medical practitioners cannot in our judgement be described as adequate. The profession, of course, has nothing directly to do with rivalry among publishing houses, but the *Medical Who's Who* may be distinguished from other medical directories by the fact that it would appear to be intended to contain only a selected list of practitioners. If this assumption be correct, the proposed new publication will not, we believe, have the sanction of the medical profession, and we would advise all medical practitioners who receive the circular to refrain from filling it up until at least this point is cleared up.

INSURANCE COMPANIES AND MEDICAL CERTIFICATES.

An instance of the way in which some insurance companies seem to go out of their way to place members of the medical profession in an invidious position is afforded by a communication from the General Accident Fire and Life Assurance Corporation, Ltd., to a policy holder in reference to a servant who was incapacitated. The company asked for a form to be filled in by the doctor attending the servant, adding, "We hope no fee will be asked for completing this paper, but we would mention that any such charge falls to be paid by the injured party, no liability attaching the assured in this direction." Why a company should expect the medical profession to do work for nothing, in order to facilitate its business and no doubt to help it to ask lower premiums, is not apparent. If it requires certificates it should arrange either to pay for them itself or make it plain to the assured person at the time the policy is issued that he will be expected to furnish them.

Dr. Just Lucas-Championnière, who was one of Lister's first disciples, and who introduced his principles and practice into France, has been elected a Member of the Académie des Sciences, in succession to the late Professor Lannelongue. Membership of the Institute is the highest honour to which a man of science can aspire in France. M. Lucas-Championnière is Surgeon to the Hôtel-Dieu and a Member of the Academy of Medicine, and last year was President of the International Surgical Society.

THE INSURANCE SCHEME.

STATE SICKNESS INSURANCE COMMITTEE.

Third Meeting.

(*Continued from page 693.*)

The third meeting of the State Sickness Insurance Committee was held, as briefly mentioned last week, on March 14th. Mr. T. Jenner Verrall was in the chair, and the members present were: *England and Wales:* Dr. R. M. Beaton (London), Dr. John Brown (Bacup), Dr. T. M. Carter (Westbury-on-Trym), Dr. S. Hodgson (Salford), Miss M. H. Frances Ivens, M.S. (Liverpool), Dr. Constance E. Long (London), Dr. R. A. Lyster (Winchester), Dr. James Pearse (Trowbridge), Dr. F. M. Pope (Leicester), Dr. E. O. Price (Bangor), Dr. Lauriston E. Shaw (London), Dr. W. Johnston Smyth (Bournemouth), Dr. D. G. Thomson (Thorpe, Norwich), Dr. D. F. Todd (Sunderland), Mr. E. B. Turner (London), Dr. A. H. Williams (Harrow on the Hill), Mr. D. J. Williams, F.R.C.S. (Llanelly), Mr. E. H. Willock (Croydon). *Scotland:* Dr. J. Adams (Glasgow), Dr. Bruce Goff (Bothwell), Dr. J. Munro Moir (Inverness). *Ireland:* Dr. J. S. Darling (Lurgan), Mr. R. J. Johnstone (Belfast). *Ex Officio:* Dr. E. J. Maclean, Chairman of Representative Meetings; Dr. J. A. Macdonald, Chairman of Council; Dr. E. Rayner, Treasurer.

Apologies for absence for unavoidable reasons were received from the President (Professor Saundby), Dr. R. E. Howell (Middlesbrough), Dr. R. B. Mahon (Ballinrobe), and Dr. F. W. Kidd (Dublin).

We are enabled to publish the following account of the proceedings in anticipation of the preparation and confirmation of the minutes.

New Member.

It was reported that Dr. F. M. Pope, of Leicester, had been elected a member of the committee by the same constituency as had elected Dr. Leigh Day, resigned.

Correspondence.

A number of letters from members making suggestions to the Committee were read and dealt with, in some instances by reference to subcommittees.

Manifesto to the Public.

The following minute of the Special Representative Meeting in February was considered:

> That a manifesto on the lines of that drawn up by a committee of the South-Western Branch stating the objections of the profession to the Act, but carefully elaborated and verified, be prepared for presentation to the press, members of parliament, deans of medical schools, university tutors, and head masters of public schools.

Dr. Beaton, Mr. E. B. Turner, and Dr. Lauriston Shaw were appointed a subcommittee to draft a manifesto for the consideration of the Committee with a view to its issue at an appropriate time.

Nominations to Joint Advisory Committee.

Some discussion took place as to the principle which should be followed in selecting names from the list of nominations received from the Divisions in England, Wales, and Scotland. Regret was expressed by several members that no reply to the letter addressed to the Joint Committee of Insurance Commissioners on February 29th (Journal, March 2nd, page 510) had been received, and it was resolved that the policy of the State Sickness Insurance Committee should be to arrange direct negotiations with the Insurance Commissioners as and when in the opinion of the Committee occasion arises. The Committee having taken into consideration the fact that the number of registered medical practitioners resident in the three countries was in round numbers in England 24,000 in Scotland 3,900, in Wales 1,370, resolved to nominate twelve persons for England, Scotland, and Wales in the following proportion: Nine for England, two for Scotland and one for Wales.

The Committee had before it the nominations made by the Divisions in England, Wales, Scotland and Ireland, of members to serve on the Joint Advisory Committee to be appointed by the Joint Committee of Insurance Commissioners. It appeared that 47 nominations had been received from England, 5 from Wales, 10 from Scotland, and 3 from Ireland.

For the convenience of the Committee the 52 practitioners nominated by Divisions in England and Wales were arranged in the eight groups of Divisions formed for the purpose of the election of members of the Council by Representatives at the Annual Representative Meeting.

Attention was called to the desirability of selecting members who had experience of various types of practice.

The following is the result of the voting, the names being arranged in alphabetical order:

ENGLAND.

Group of Divisions.

Dr. R. M. BEATON ...	Metropolitan Counties—North and East Metropolitan Group: City, Stratford, South-West Essex, North Middlesex, St. Pancras, and Islington and Hampstead Divisions. Central Metropolitan Group: Marylebone and Westminster Divisions.
Dr. T. M. CARTER ...	Bath and Bristol Branch. Gloucestershire Branch. West Somerset Branch. Worcestershire and Herefordshire Branch. Dorset and West Hants Branch. South-Western Branch.
Dr. S. HODGSON	Lancashire and Cheshire Branch.
Dr. J. A. MACDONALD ...	Bath and Bristol Branch. Gloucestershire Branch. West Somerset Branch. Worcestershire and Herefordshire Branch. Dorset and West Hants Branch. South-Western Branch.
Dr. J. NEAL	Birmingham Branch. Staffordshire Branch. North Wales Branch. Shropshire and Mid-Wales Branch. South Wales and Monmouthshire Branch.
Dr. D. F. TODD	North of England Branch. North Lancashire and South Westmorland Branch. Yorkshire Branch.
Mr. E. B. TURNER ...	West Metropolitan Group: Richmond, Ealing, Chelsea, Kensington, and Watford and Harrow Divisions. South Metropolitan Group: Lambeth, Norwood, and Wandsworth Divisions.
Mr. T. JENNER VERRALL	Bath and Bristol Branch. Gloucestershire Branch. West Somerset Branch. Worcestershire and Herefordshire Branch. Dorset and West Hants Branch. South-Western Branch.
Dr. A. H. WILLIAMS ...	West Metropolitan Group: Richmond, Ealing, Chelsea, Kensington and Watford, and Harrow Divisions. South Metropolitan Group: Lambeth, Norwood, and Wandsworth Divisions.

SCOTLAND.

Dr. JOHN ADAMS	Glasgow Southern Division. Glasgow Central Division. Glasgow Eastern Division.
Dr. J. MUNRO MOIR ...	Northern Counties of Scotland Branch. Aberdeen Division.

WALES.

Dr. E. O. PRICE	Denbigh and Flint Division. North Carnarvonshire and Anglesey Division. South Carnarvonshire and Merioneth Division.

At its meeting on March 7th the Committee had received a letter from the Secretary to the Joint Committee of Insurance Commissioners (BRITISH MEDICAL JOURNAL, March 9th, p. 571) stating that, in response to the desire expressed by the British Medical Association, the Joint Committee would be glad to consider the names of Irish medical practitioners with a view to the appointment of one or more practitioners as members of the Advisory Committee. The following members were accordingly elected for nomination:

IRELAND.

Dr. J. S. DARLING ...	Portadown and West Down Division.
Dr. A. P. B. MOORE ...	Belfast Division.

THE INSURANCE DEFENCE FUND AND THE MEDICAL FEDERATION LIMITED.

A deputation from the Medical Federation Limited, consisting of Dr. H. S. Devis, the Secretary, Dr. G. Scott Williamson, Managing Director, and Mr. Wansbrough, solicitor, was received, and its members made statements as to the objects of the promoters of the Federation, its constitution and legal position and its relation to the British Medical Association. It was stated that the Federation was not conceived in any antagonism to the Association, but with a desire to assist the Association in raising a defence fund. In the discussion it was pointed out that nevertheless the course taken by the Federation was calculated to embarrass the Association, and to militate against the success of the Insurance Defence Fund to which the Association had asked members of the profession to subscribe. The Chairman pointed out that in view of this and other facts it was necessary to define clearly the relations of the Association and of the Federation, especially on the financial side, and that the Federation should furnish the Association with a definite statement as to the prospects and proposals of the Federation, and the way in which it was suggested that it might act with the British Medical Association.

PROVISIONAL MEDICAL COMMITTEES.

The instruction of the Representative Meeting with regard to making arrangements for assisting Divisions and Branches in the appointment of provisional medical committees in every insurance area to safeguard the interests of the profession without prejudice to the question whether these committees should later accept recognition as statutory local medical committees was further considered, and a draft memorandum dealing with all the points which it was thought probable would at present arise was approved for circulation to honorary secretaries.

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

National Insurance Act.

Insurance Commissioners and the Medical Profession.

SIR PHILIP MAGNUS on Wednesday asked the Secretary to the Treasury if he could state the present position of the negotiations between the Insurance Commissioners and the representatives of the medical profession; whether any reply had been sent to their letter of February 29th, embodying the conditions under which they are prepared to co-operate in the working of the Act; and whether the Commissioners will issue such regulations as will enable them to give effect to the requirements of the medical profession as set forth in their letter.

Mr. Fell asked the Secretary to the Treasury if any progress had been made in the negotiations with the doctors as to their working under the National Insurance Act; and if the points which they have asked will be agreed to by the Insurance Commissioners.

Mr. Masterman said: The British Medical Association have availed themselves of the opportunity afforded them by the Commissioners to recommend practitioners experienced in general practice for appointment as members of the Advisory Committee, and the gentlemen so recommended will be appointed on that Committee. The letter of February 29th has been acknowledged. No regulations have, however, yet been considered by the Joint Committee on this matter, as they recognize that this is essentially a subject in which the advice and assistance of the Advisory Committee are desirable.

Sir P. Magnus asked when a reply was likely to be sent and whether the Commissioners or Health Committees had power to grant the requirements of the medical profession.

Mr. Masterman said: I do not know that any reply will be sent except an acknowledgement of the letter, because members of the British Medical Association are going to be appointed on the Advisory Committee which will have to consider the whole question.

Suspension of Medical Benefit.

Three weeks ago Mr. Masterman, in reply to a question by Sir Philip Magnus, stated that "the Act allows . . . that alternative arrangements shall be made by the Insurance Committees or the Commissioners, or that medical benefit shall be suspended or the money equivalent returned to the insured person."

On Wednesday last Sir Philip Magnus asked the Secretary to the Treasury whether, in the event of the Insurance Committees or the Insurance Commissioners being unable to satisfy the requirements of the medical profession and consequently deciding to adopt the alternative proposal of the Act—namely, to suspend medical benefit and to return to the insured person the money equivalent to such benefit—the insured person will be free to use the money for any purpose he may think fit; and, if so, whether the insured person would necessarily receive under the Act any medical benefit whatever.

Mr. Masterman said: If the normal scheme of medical benefit laid down in Section 15 is not carried out, not one, as suggested by the honorary member, but several alternatives are provided by the Act. These include power for the Commissioners themselves to authorize the local Insurance Committees to make other arrangements for providing medical benefit, or for themselves making such arrangements as they think fit, or for suspending medical benefit for any period, and paying to each insured person an equivalent sum. Even if the last course were adopted the insured person would be free, though not compelled, to make his own arrangements for medical treatment.

Mr. Fell asked if the appointments that were being made under the National Insurance Act were being made provisionally, and were subject to determination if no agreement was come to with the doctors who were to work the Act.

Mr. Masterman answered in the negative. The coming into operation of the Act was not dependent upon any agreement that might be made with representatives of the medical profession.

Mr. Fell asked what was the use of the appointments if those who were going to carry out the Act refused to do so.

Mr. Masterman said: I do not in the least understand that question. The appointments are made in all the four kingdoms, and in Ireland there is no suggestion of medical benefit. If necessary the Act will go on without medical benefit.

Sickness and Disablement Benefit.

Mr. Chiozza Money asked what was the margin in respect of the sickness and disablement benefits provided by the statutory contributions under the National Insurance Act.

Mr. Masterman said that the margin contained in the premium of 7d., according to the last report of the Government actuaries, was 0.42d. for men and 0.53d. for women. The weekly contributions for sickness and disablement benefits were given as 3.17d. for men and 2.55d. for women. Treating the margins as applicable to these benefits, therefore, they represent additions of 13 per cent. for men and 21 per cent. for women.

Asked if that percentage was based on an allowance of 4s. 6d. per head for the doctors.

Mr. Masterman replied that the actuarial statement, as far as medical benefit was concerned, was an allowance of 6s. per head. He thought there was no separation as regards drugs.

Sanatorium Benefit.

The Marquess of Tullibardine asked whether any part of the contribution payable by the workman, the employer, or the State under the National Insurance Act was available for the provision of sanatorium benefit for the wives and children of insured persons; and, if not, how was such treatment to be provided?

Mr. Masterman said that under Section 17 (1) Insurance Committees could extend sanatorium benefit to the dependents of insured persons. In such cases the cost of their treatment might be met from the general funds available for sanatorium benefit. These included the sums specified in Section 16 (2) (*a*), which were contributed jointly by employers, employees, and the State, the sums specified in Section 16 (2) (*b*), which were contributed by the State, and any further sums which might be provided under Section 17 in equal moieties by the State and local authorities.

Chief Commissioner for Scotland.

In reply to Mr. Watt, the Financial Secretary to the Treasury stated that the Chairman of the Scottish Commission (Mr. Leishman) was appointed as an established civil servant at a salary of £1,800 per annum. He was qualified by a long and varied experience of business and of public work. At the time of his appointment he was occupying the position of honorary treasurer of the city of Edinburgh. He was strongly recommended by men well qualified to speak, and he regarded it as fortunate that the Government had been able to obtain the services of so able an officer. He had not inquired as to his income before his appointment, nor did he propose to make such an inquiry.

Housing in Town and Country.

On March 15th an interesting discussion arose when Mr. Griffiths-Boscawen moved the second reading of his Housing of the Working Classes Bill. The mover showed that both in town and country the Housing Acts so far had done little good, and that at the present time there existed in cities and on the country side appalling instances of bad housing associated with a high death-rate and a miserable population. He asserted that the condition of the country districts had been made worse by the passing of the Housing and Town Planning Act. Under that Act increased powers were given for closing insanitary houses, but when the houses were closed no fresh houses were built. Under the Housing Acts 116 cottages had been built by local authorities in the last three years, and 1,344 houses had been closed. The state of housing called for very drastic treatment. Some persons blamed the local authorities for the inefficient working of the Housing Acts. He admitted that there were some local authorities who neglected their duty, and that there were vested interests occasionally which prevented the Housing Acts from being put into force. While the President of the Local Government Board had always shown an anxious sympathy to help forward proposals towards bettering the present condition of affairs, he maintained that from the House of Commons point of view the Local Government Board itself was the most inefficient body ever known. Its red-tape delays were appalling; it was the true Circumlocution Office. If a local authority refused to do its work the Local Government Board could only proceed by mandamus, which the Chancellor of the Exchequer had described as "the clumsiest, rustiest weapon in the whole armoury of British law." The bill proposed that the Local Government Board should have power, after application to the Court, to act in case of default by the local authority and to charge the expense to the locality. His bill proposed practically to set up a new housing department—a housing commission composed of experts in urban and rural housing and in the duties of medical officers of health, who would go about the country and see where action ought to be taken, and if it was found impossible to get the local council or four ratepayers to take action under the Act of 1909, to take action themselves. He proposed that State aid should be given for slum-clearances and for building houses in the country, as was done under the Irish Labourers Act. He contended that under his bill the work could be done more cheaply and more efficiently than under the existing law.

Mr. C. Bathurst supported three parts of the bill very strongly. The first was the establishment of a Housing Department of the Local Government Board superintended by an urban and rural housing expert, and by a gentlemen possessing the qualifications of a county medical officer of health. The second was a grant-in-aid from the Exchequer towards removing the deadlock which existed owing to the reluctance and inability of rural district councils to take action. The third was Clause 6, which dealt with the relaxation of by-laws with the approval of the Local Government Board in districts where those by-laws were clearly standing in the way of an improvement of housing conditions. The main opposition to the bill would be against the grant-in-aid, but he quoted the experience in

Ireland as conclusive in favour of this course. There it had been made a national question, and it would have to be treated on the same lines in this country.

Mr. Wedgwood moved that the bill be read a second time that day six months and ridiculed it as the first-fruits of Tory democracy, a bad bill rich in its badness. It opened with a new department: more jobbery, more fat salaries for cadets of landed families, a new branch of the Local Government Board, although that Board could not manage the business.

Mr. Dundas White seconded the amendment, and condemned the bill, which was supported by Mr. Sutton and by Mr. W. H. Forster. After several other speeches,

Mr. Burns defined the attitude of the Government to the measure. He said that the Local Government Board had done a great deal in the direction of housing reform, and he was very grateful to everybody who had spoken and to reformers generally for the steps that they were taking to give increased prominence to this social problem. But it was so generous to be philanthropic with other people's money and to ask for a dole of £500,000 to-day, to be followed up by one of £1,000,000 next year and £1,500,000 the year following. They were not justified in pulling up the Housing Act, which was only two years old, and had hardly set its roots in the ground, to see how far it had grown. It had been said that the Local Government Board had done nothing in the last six years with regard to housing loans and schemes, and great play had been made with what had been done in Ireland, but the £7,500,000 was spent there under totally different conditions. Local authorities in England and Wales, without a subsidy from rates or taxes and charity rents, had spent as much per annum by ratio. He deplored the lack of energy of local authorities, both urban and rural, but it was not true to say that nothing had been done with regard to rural housing. From 1890 to 1909, before the passing of the Act, only eight rural councils took action, in the last two years thirty-five had acted, and that was almost in the last fifteen or sixteen months, because they had not known what their power was. In fifteen months the rural district councils had issued 17,000 notices for the repair of houses; apart from repair work, there had been in the last three years 13,000 representations to the rural district councils, of which 9,000 were last year; for closing, demolition, and repair 20,000 separate actions had been taken in rural areas in the last two years. It was said, "It is true you have built more houses in the rural areas, but what is the good of that when you have closed 1,344?" That was not the fact. Closing orders were issued against 1,344, all of which, with the exception of 126, instead of being demolished, had been put into a condition of habitable repair. With regard to the two main principles of the bill, he ventured to predict that before five years had passed there would be strong resentment in all quarters of the House and the country at the power of the Imperial Parliament in relation to local authorities being interfered with and superseded by *ad hoc* Commissioners, who had neither the knowledge nor experience of the Department, and would be outside its authority. It had been stated that under the Liverpool improvement scheme 75 per cent. of the dispossessed people had been rehoused on the spot, and that the criminal statistics had fallen in consequence. The criminal element was in the 25 per cent. that had gone elsewhere. Dr. Hope, the Medical Officer of Health for Liverpool, and one of the finest officers in the kingdom, had in fifteen years enormously reduced the mortality from typhus, typhoid, phthisis, and other diseases; were hon. members going to supersede his splendid work by some gentleman from London who knew as much about Liverpool as a dog did about his parents? The only way in which the House could act was through the local authorities. The 25,000 local authorities in England and Wales were all increasingly suspicious of Commissioners. The proposed annual grant of £500,000 ought not to be set up on the motion of a private member. There were 1,250,000 men in the United Kingdom engaged in the building trade, and over £100,000,000 in wages or profits taken by masters and men. What was the good of half a million—less than one-half of 1 per cent.—on an industry that employed so much capital? Charity rents from rates or taxes were nothing more nor less than a bonus in aid of low wages, and would be used and exploited by unscrupulous employers of labour to that end. At the present moment private landlords, co-partnership associations, and co-operative associations were extending their influence through urban areas into the rural districts. If they gave a blank cheque in favour of housing schemes they would discourage all this enterprise which was covering the whole kingdom. These bodies would wait until a grant came, and the result would be disastrous upon all aspects of the housing problem. In the rural districts the councils were building on economic lines. But under the Small Holdings Acquisition Act he found that in twelve years the London County Council sanctioned eighteen loans, that two borough councils sanctioned thirty-three loans, so that for fifty-two cases there was less than £10,000. In England and Wales during the same period there were 922 houses at a cost of £210,000, and one district—Ilford—had built 40 per cent. of the total number of houses while receiving about 45 per cent. of the money. Of the 119 men in Ilford who had redeemed their houses under the Act, 20 to 25 per cent. had acted as sellers again, because they had to quit the district in order to follow their work. The mobility of labour in this country was forgotten, but this bill was based on the permanency and not on the mobility of labour. In advising the House as to the course it should take, he showed that it was only by the aid of a responsible Minister that an amending bill to remove defects could be pushed forwards. This bill, then, could not get any further forward. There was another reason. The Chancellor of the Exchequer, in deference to the views of all sections of the House, had instituted a Committee to revise the subventions from the Imperial Exchequer to the local authorities and to examine the question whether there should or should not be a subsidy for housing in rural or urban areas, and for water supply and drainage, the central authority making some contribution to the local authority. That was the way in which this question ought to be handled—namely, on the initiative of a responsible Minister. He viewed the bill as an indication on the part of the House of Commons of a desire for something more to be done in the direction of housing reform, and he construed the criticism of his department as being due to a desire to strengthen its power and authority. He would, therefore, ask the House to do no more than to give a second reading to the bill, keeping it, however, within its control.

After a short speech by Mr. Bonar Law, Mr. King rose to continue the debate, but the closure was granted, and the amendment to put off the second reading was negatived and the bill read a second time without a division. Mr. Booth, representing the opponents of the bill, moved that it be committed to a Committee of the whole House. This was defeated by a majority of 29, amid Opposition cheers, and the bill will go to a standing Committee.

Public Health (Sewers and Drains) Bill. This bill proposes to amend the Public Health Acts with respects to sewers and drains. It was presented by Mr. Harmood-Banner, supported by Sir Thomas Roe, Sir Charles Nicholson, Mr. George Thorne, Sir Alfred Cripps, Sir Luke White, Lord Alexander Thynne, Mr. Hamar Greenwood, and Mr. Middlebrook, and put down for second reading at an early date.

Dogs' Protection (No. 2) Bill.—This is a second bill to prohibit experiments upon dogs. Presented by Sir Frederick Banbury, it is supported by Mr. George Greenwood and Mr. Field, and will be put down for an early second reading.

Inebriates Bill.—This is a Government bill to consolidate and amend the law relating to inebriates. Presented by Mr. Ellis Griffith, it is supported by Mr. Secretary McKenna, and will be brought on for second reading as soon as possible.

A CORRECTION.

By an unfortunate clerical error in proof a sentence was appended to the report of the question and answer in the House of Commons on anthrax, published in the JOURNAL of March 9th, p. 570, which did not belong to the subject. The sentence related to an answer to Mr. Lynch, who inquired whether the Home Secretary was in a position to make a statement as to the person or persons it was intended to appoint to make the investigations promised into the circumstances of William Ball at Pentonville Prison.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

MANCHESTER.

MEDICAL ATTENDANCE AFTER NEXT JULY.

ATTEMPTS are now being made in several districts about Manchester by large works and various societies to obtain men to undertake medical attendance on their workpeople or members for the six months' interval that will elapse from the commencement of the Insurance Act in July to the time when insured persons will first become entitled to medical benefit—that is, January 15th, 1913. Those societies and works that have medical officers at present are expecting them to continue their present contracts until January, 1913, receiving payment as at present until the medical benefit under the Act actually comes into operation, when, if panels are formed, the present contracts, as far as the insured are concerned, would automatically come to an end. But numerous other societies—such as trade unions and combinations of works that have no medical officers at present—are intending to apply to become approved societies, and wish their members or workpeople to have the right to medical attendance at once, as soon as their contributions to the insurance fund commence, without the initial waiting period of six months. That, at any rate, is the explanation given, and in their circulars asking medical men to state on what terms they will undertake the work, it is distinctly stated that the contract is only to be for this six months, until the Insurance Committees are actually providing medical attendance. But it is impossible to avoid feeling that there are other motives behind this movement. There is a widespread idea among the officials of works and societies that, though a sufficient number of doctors to form a satisfactory panel may not be found in many districts, the societies may still be able to find sufficient doctors to serve their own purposes, especially if they give them a special appointment of some value. It would seem that to accept any of these proposed appointments on any terms whatever would tend to defeat the policy of the British Medical Association, which is not only to obtain an adequate fee but to escape once for all anything like friendly society control, or, what comes practically to the same thing, control by approved societies.

THE WAREHOUSEMEN AND CLERKS' PROVIDENT ASSOCIATION.

At the annual meeting of the Manchester Warehousemen and Clerks' Provident Association held last week, the recommendation of the Board of Directors that the association should apply to become an approved society under the Insurance Act was carried unanimously; but when the meeting came to discuss the other recommendations of the directors as to four proposed new schemes of contributions and benefits, a scene of disorder commenced which lasted nearly three hours, the speakers having the greatest difficulty in obtaining any consecutive hearing. The chief proposal was that the present contribution of 2s. a month should be reduced by 6d., so that each member would pay 1s. 6d. a month as a voluntary contribution, in addition to the 4d. a week paid to the State scheme. For the reduced contribution of 1s. 6d. to the association, members would get all the present benefits except medical attendance, but it was proposed that the association should pay no sickness benefit for the first six days of sickness, though otherwise sickness benefit would be payable as usual provided that the member was not in receipt of salary. The secretary said that the State would relieve the association of the duty of providing medical attendance, and this relief represented the 6d. which it was proposed to take off the monthly subscription. Great opposition was expressed to the proposal not to pay sickness benefit for the first six days' sickness, and it was argued that the reduction of the monthly subscription by 6d. was not enough, and that in fact the 2s. a month now paid ought well to cover both the association and the State benefits in view of the contributions of employers and the State. The secretary explained that if the proposal were not adopted the members could as an alternative continue to pay the present 2s. a month in addition to the State 4d. a week, and receive the medical attendance provided by the association, but the directors proposed to abolish the present contract system with the doctors and allow members to call in any doctor they liked, and his fees would be refunded to the members if they did not exceed 3s. 6d. a visit. The members would also be entitled to specialists' attention which might not be provided under the Insurance Act. After a long and excited discussion the proposal of the directors was rejected, not a single hand being held up in its favour. The other proposals of the directors referred to the formation of a section for junior members, a scheme for new members, and another for members receiving a salary of over £160 a year; but all the recommendations were rejected by overwhelming majorities.

It would appear that the directors had felt that the members would welcome free choice of doctors, who would be paid per attendance rather than on the present contract system. In the alternative scheme, however, under which members would continue their present subscription of 2s. a month in addition to the State contribution of 4d. a week, they would be entitled to medical attendance from both sources at once—that is, both from the association and the national insurance—and it was not explained how this was to be arranged. It would seem as if it were contemplated, though this was not stated, to take advantage of Clause 15 (3) of the Act, under which members might be "allowed" to make their own arrangements for medical attendance with their own private doctors, receiving a contribution from the Insurance Committee towards the cost, and in that case the association would pay anything more required to meet the doctors' bills, including attention by specialists, and provided that the doctors' fees did not exceed 3s. 6d. a visit. An arrangement of this sort would relieve the national insurance of having to pay more than 6s. a year, as anything more than this required to meet the doctors' bills would be paid by the association. But as already stated, the meeting would hardly listen to any of the directors' proposals, and came to an end in some confusion.

BIRMINGHAM.

THE QUEEN'S HOSPITAL.

THE committee of this hospital states in its annual report that it is unable to estimate with any certainty what effect the National Insurance Act will have on the finances of the hospital, but calls the attention of subscribers to the outstanding fact that, whatever happens ultimately, the annual expenditure will not be decreased by the new Act, but will in all probability be increased. The Act as passed leaves the voluntary hospitals in a very uncertain and unsatisfactory position. It will not reduce the number of in-patients, because it makes no provision for the treatment of serious illness; nor will it appreciably reduce the out-patients, the majority of whom are married women, children, and other uninsured persons. The number of in-patients in 1911 was 3,172, and of out-patients 39,743. The expenditure was £16,251, being an increase of £214 on 1910. The balance of expenditure over income at the close of the year was £5,016 19s. 10d., as compared with £5,200 in 1910. The endowment of the hospital—about £40,000—is not large, the income from investments being only about £1,900. The adverse balance in the accounts during the last two years has been liquidated by a transference of cash from the suspense account to the current account.

The committee reported that 260 cases had passed through the almoner's hands, and had been dealt with to its satisfaction. The actual work done had been of great benefit to the patients, and indirectly to the general community. The assistance recommended for the cases was provided by the Charity Organization Society, and to a smaller extent by the City Aid Society and other institutions. Several members of the committee had subscribed the amount of the almoner's salary, so the experiment had not increased the annual expenditure. There was no reason to suppose that any considerable financial saving had been made to the hospital, and the question whether the work of the almoner should be continued, and the cost of it added to the standing charges of the hospital, had been deferred until a further report on the work done has been received.

BIRMINGHAM HOSPITAL SATURDAY FUND.

The total receipts for the past year amounted to £21,940, and were £1,564 in excess of the previous year's collection, being the largest increase recorded for fourteen years. The number of contributing firms of manufactories and industrial establishments was 2,224, as compared with 2,188 in the previous year. In October last £10,000 was voted for distribution among the medical institutions of the city towards the cost of the free work they do. The Hospital-Saturday Fund has three convalescent homes of its own. At Tyn-y-Coed, Llanrhos, near Llandudno, the convalescent home for men, the number of patients admitted during the year was 1,315, as compared with 1,230 in the previous year. At Marle House, Llanrhos, the women's convalescent home, there was also an increase, the number being 1,397, against 1,388. At the Red House, Great Barr, the convalescent home for children, 577 children and 143 women were admitted, as compared with 615 children and 110 women in the previous year. The total number of patients, therefore, was 3,432, as against 3,343 in 1911.

LONDON.

SITE AND SENATE HOUSE FOR THE UNIVERSITY OF LONDON.

IT was announced on March 15th that a friend of the University of London, who desired to remain anonymous, had offered to Viscount Haldane, the Chairman of the Royal Commission on University Education in London, a contribution of £100,000 towards the acquisition of the site of which, as announced in our issue of February 24th, p. 451, the Duke of Bedford had offered the option for the purpose of providing a suitable home for the University. The site, which is immediately north of the extension of the British Museum, fulfils one of the conditions laid down by the Commissioners, inasmuch as it is in a central position. The Drapers' Company has offered to erect a senate house and administrative offices to form a distinct portion of the new buildings for the University of London, as proposed in the report of the Royal Commission dated December 15th, 1911, at an approximate cost of £60,000, provided that a suitable site is acquired, and the other buildings referred to by the Royal Commission as necessary for the University head quarters are otherwise provided for within a reasonable period.

BRITISH RED CROSS SOCIETY.

The County of London Branch of this society is desirous of establishing divisions in all the Metropolitan boroughs, and St. Marylebone has the credit of being the first borough which formed Voluntary Aid Detachments in connexion with the ambulance classes which have for years been held at the Polytechnic in Regent Street. On the evening of March 14th one men's detachment and five women's detachments were officially inspected by Colonel W. G. A. Bedford, C.M.G., R.A.M.C., the recently-appointed principal medical officer of the London Division, and also by Colonel Valentine Matthews, V.D., the County Director of the London Territorial Force Association. After the inspection a display took place in the large hall of the recently reconstructed Polytechnic, which was well attended by the public, who filled the spacious galleries. The detachments acquitted themselves well in various first-aid tests, in forming a stationary hospital of eight beds, and in treating "wounded" scouts, who were conveyed on improvised stretchers and chairs to the hospital beds or to an ordinary country cart in which the stretchers were cleverly slung. Improvised filters were also prepared from sheets and sacks supported by the poles of the stretcher-bearers, and an improvised operating tent was erected, and the patients were fed with materials cooked on an improvised fireplace. The whole arrangements were under the control of Colonel James Cantlie, whose skill in ambulance work is well known. Praise of the various arrangements was universally accorded by Mr. J. Lynn Thomas and other county directors who were interested spectators. Laudatory speeches were made by Sir Frederick Treves, the Mayor of St. Marylebone (Mr. E. R. Debenham), and others.

We are given to understand that it is by no means difficult to form voluntary aid detachments of women, but that men seem to be shy in coming forward for this work. More medical men, too, are required to act as commandants of the detachments, and, judging by the enthusiasm witnessed at this display, and at other inspections which have lately taken place in London, it seems safe to recommend this work to those who have a little spare time, and who wish to feel that they are taking part in a patriotic endeavour to help the War Office. During the last two years some forty-five detachments have been raised in London, besides those formed by the City of London, which has a special branch of its own. As stated in a recent issue, there are already in England, Scotland, and Wales more than 1,100 voluntary aid detachments, with a total membership of over 9,382 men and 22,778 women. Those who desire to know more about the Red Cross movement in London can obtain all information by writing to the County Secretary of the Red Cross Society at Craig's Court House, Whitehall.

SOUTH WALES AND MONMOUTHSHIRE.

KING EDWARD VII HOSPITAL, CARDIFF.

AT a meeting of the Board of Management on March 13th General Lee was re-elected Chairman.

A discussion took place as to the advisability of establishing a nursing staff for private work; the medical board and the nursing committee had recommended that such a course should not be taken. Colonel Vaughan thought that a private nursing staff would be useful and profitable, and eventually it was decided to discuss the question further.

The committee decided to close the present children's ward temporarily and to open twenty-five beds in the new wing. Colonel Vaughan announced a donation of 4,000 guineas by a gentleman as a thank-offering for the recovery of his mother, and said that, in spite of the Insurance Act, the board intended to open every bed possible, and was enabled to do so chiefly by the generosity of half a dozen people. In this connexion the board decided to ask Mr. William James Thomas to open the new pathological block as some recognition of his munificent gifts to the infirmary. The board also decided to continue the system under which each patient who can do so pays 6d. a day as an in-patient and 3d. for registration as an out-patient. These small amounts mean an income of more than £1,000 annually. The members of the board inspected the new wards now completed and furnished.

It is interesting to note at this time that these wards have been very largely provided and equipped by the generosity of people interested in collieries, although letters have lately appeared in the local press accusing the coalowners of leaving the infirmary to beg for funds from the workmen. The donations of Mr. W. J. Thomas alone amount to about the same sum as is contributed by colliery workmen in four years.

Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

THE INSURANCE ACT MEDICAL BENEFITS.

THE Irish National Trade and Labour Benefit Society, recently established under the Insurance Act in co. Wexford, has held a number of public meetings during the week, at each of which strong resolutions were passed unanimously demanding an extension of the medical benefits to Ireland.

REGISTRAR-GENERAL'S RETURNS.

According to the Registrar-General's returns for the last quarter of 1911, recently published, there were 23,875 births, equal to an annual rate of 21.8 per 1,000 of estimated population. The highest rate was 29.1, for Dublin county borough, and the lowest 17.1, for Dublin county. The birth-rate in Ireland is 0.2 below the average rate for the corresponding quarter of the ten years, 1901–1910. The deaths are 660 below those registered in the corresponding quarter of the previous year; they number 17,025, representing an annual rate of 15.6 per 1,000, and are 0.8 below the average for the fourth quarter of the ten years, 1901–1910. The death-rate varies from 11.4 in Mayo to 23.8 in

Dublin county borough. According to the returns obtained from the Royal Irish Constabulary and the Metropolitan Police, who acted as enumerators at the several Irish seaports, 4,791 persons emigrated. Compared with those for the corresponding quarter of 1910, the returns of pauperism furnished by the Local Government Board show a decrease of 2,422 in the average number of workhouse inmates on Saturdays during the quarter, and a decrease of 14,622 in the average number of persons on outdoor relief. These figures show a combined decrease of 21.9 per cent. under the average of the corresponding quarter for the last ten years. The annual marriage-rate (4.8 per 1,000 of the population) represented by the marriages registered during the third quarter of 1911 is 0.1 below the average for the corresponding quarter of the preceding ten years.

Royal Victoria Eye and Ear Hospital, Dublin.

The original plans for the Royal Victoria Eye and Ear Hospital, Dublin, provided for 120 beds for intern patients; but the funds did not allow of the whole being completed at once, and when the hospital was opened eight years ago it contained only 82 beds. The special dispensaries for extern patients were opened at the beginning of last year, and since then there has been an average daily attendance of over 150 extern patients. During the last year there has been a daily average of more than 82 patients in the hospital, and temporary beds have been used. The board has now decided to make a further addition to the hospital, which will provide 18 more beds at a cost of about £5,000. It seems a pity that the good work which is being done in this hospital for the sick poor from all parts of Ireland should be hampered by the want of sufficient support from the charitable public. It ought to be possible, as the result of a special appeal, to obtain the additional £4,000 necessary to enable the hospital to be completed according to the original plan.

Vaccination Defaulters.

At the last meeting of the board of guardians of the North Dublin Union a town councillor stated that, notwithstanding the resolution passed by the guardians deciding not to prosecute vaccination defaulters, notices had been sent out from the doctors to at least one hundred residents in his ward threatening prosecutions. The Clerk said the Local Government Board had been asked to give their sanction to that resolution, but had not done so yet. There could be no prosecution until the board of guardians gave the order, and, as he was the executive officer, the board might rest assured that prosecutions would not take place.

Medical Fees in Workhouses.

Recently the Ballymahon Board of Guardians charged a paying patient in the workhouse hospital, in addition to the usual hospital charges, a special fee of £1 1s. for the attendance of a second doctor in consultation with the medical officer of the workhouse in his case. After recovering the patient paid the hospital charges, but refused to pay the special fee for consultation. The guardians laid the facts before the Local Government Board, which has written stating that, according to Section 4 of the Act 25th and 26th Vict., chap. 83, the amount chargeable in such cases cannot exceed the special average cost of maintenance and medical treatment, and therefore the proposed special medical fee was an illegal charge.

Stewart Institution for Imbecile Children.

At the annual meeting of the council of this institution the Medical Superintendent reported that at the commencement of the year there were 74 boys and 45 girls in the imbecile department, and that since then 9 boys and 6 girls had been admitted and 11 boys and 3 girls had been discharged, while 3 boys and 2 girls had died, leaving a total in the department of 69 boys and 46 girls—in all, 115 inmates. Dr. Walter Smith, in seconding the adoption of the report, impressed upon the voters the propriety of voting for cases in which there was a chance of cure rather than for impossible and hopeless cases, as if the institution were filled with hopeless cases it would not be doing the work originally intended.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

Society of Antiquaries of Scotland.

At the monthly meeting of this society on March 11th Mr. R. Scott-Moncreiff read a paper on the incorporation of the surgeons and barbers of Edinburgh. From 1505 to the beginning of the seventeenth century the two crafts existed as one corporate body, possessing the same rights and privileges; then dissension arose between them, the surgeons aspiring to higher social rank. Being in the majority in 1648, they passed an Act excluding barbers unless they qualified in surgery, and the next year the town council, finding that the scarcity of barbers in the city obliged the citizens to resort to the suburbs to be "trimmed and barberized," warned the surgeons that they must admit a sufficient number of barbers into their corporation. This was done, but in 1694 the surgeons obtained a new gift under the Great Seal, conjoining with them the apothecaries, and ignoring the barbers. This was confirmed by Act of Parliament in 1695, but in 1718 the barbers raised an action for the restitution of their rights, but the decision, after prolonged pleadings, while leaving them members of the corporation, considerably restricted their privileges. Special reference was made to two interesting points in the original incorporation, the first being the necessity for the applicants for admission to be well versed in astrology, as well as anatomy, so as to be able to bleed properly, and the second the monopoly of making and selling aqua vitæ, which was secured to the members of the corporation. At the same meeting Mr. Cash made mention and showed photographs of the St. Fillans "curing stones," which are still kept at the mill, formerly called St. Fillans Mill, of which it is recorded that "it goes well all the year round except on St. Fillans day." The stones are kept in a recess in the wall, and are smooth, water-worn pebbles, some of them having obviously served as socket stones for the spindle of the small upper millstone of former times. It was the privilege of the matron of the mill to carry them abroad for use by rubbing the part of the body affected with the particular stone efficacious for that part. The villagers used to assemble on St. Fillans day annually to bed St. Fillans curing stones on fresh straw, and an old man told the late Dr. Macmillan that he had seen this done. In another paper Mr. James Ritchie gave an account, with photographs and slides, of the memorials of the widespread panic caused by the resurrectionists of the early part of the nineteenth century, which still remain in the churchyards of different parish churchyards of Aberdeenshire in the shape of watchhouses, mortsafes of various kinds, and public vaults.

Correspondence.

THE MUSEUM OF THE ROYAL COLLEGE OF SURGEONS, ENGLAND.

Sir,—With your kind permission, I should like to draw the attention of the readers of the British Medical Journal to certain improvements which are being effected in connexion with the Museum of the Royal College of Surgeons of England. The following letter, which is self-explanatory, is being issued by the President of the College to ophthalmic surgeons throughout the country. It is possible, however, that medical men who are not specially in ophthalmic practice may be able to help with the object mentioned in the letter.

Royal College of Surgeons of England,
Lincoln's Inn Fields, London, W.C.,
March 25th, 1912.

Dear Sir,

The Council of the Royal College of Surgeons of England have lately resolved to revise completely that part of the Museum which illustrates injuries and diseases of the eye, and has entrusted the revision to Mr. Stephen Mayou, F.R.C.S.

The methods of preservation and mounting of specimens have improved so much since the present collection of eye preparations was made by Mr. Charles Bader in 1860-1862

that it will be necessary to replace the majority of existing specimens.

As President of the College, may I ask you to assist the Council by presenting to the Museum such specimens as may help to give a complete representation of the Pathology of the Eye and of the various structures accessory to the function of vision?

Preparations should be forwarded to the Conservator of the Museum, who will acknowledge their receipt and report on them if desired.

I am, Dear Sir,
Yours faithfully,
(Signed) R. J. GODLEE,
President.

The Council of the College has also resolved to establish a medico-legal collection in connexion with the Museum, there being at the present time no standard collection in England. The scheme of classification which is to be adopted for this collection is that elaborated by Sir Henry Littlejohn and Professor Harvey Littlejohn in connexion with the museum attached to the department of forensic medicine in the University of Edinburgh. The scheme of classification is as follows:

I. Specimens illustrating sudden or unexpected death from natural causes—for example, conditions of the heart, brain, stomach, and intestines, larynx, etc. (latent disease).
II. Deaths from mechanical violence.
  (*a*) Rupture of organs.
  (*b*) Wounds:
    Contusions.
    Incised (cut throat).
    Stabs.
    Lacerated.
    Wounds of genital organs.
  (*c*) Injuries and results of violence to brain.
  (*d*) Fractures:
    Skull.
    Long bones, etc.
III. Death from asphyxia.
  (*a*) Drowning.
  (*b*) Hanging.
  (*c*) Strangulation.
  (*d*) Choking.
  (*e*) Overlaying—enlarged thymus gland.
IV. Specimens illustrating identity and *post-mortem* conditions—for example:
    Tatto marks.
    Malformations.
    Finger prints.
    Foot prints.
    P.M. digestion of stomach.
    ,, discolorations and changes.
    ,, injuries.
    Adiposis.
    Mummification, etc.
V. Specimens illustrating:
    Pregnancy.
    Delivery—injuries, etc.
    Abortion.
    Rape, virginity, etc.
VI. Death from burns.
VII. Death from firearms.
VIII. Infanticide.
IX. Effects of poisons.
X. Specimens of all chief poisons.
XI. Weapons of various kinds.
    Photographs.
    Microscope slides of various kinds in relation to all the above.

There are already, in various parts of the Museum, specimens which illustrate some of the sections included in the above list, but as regards the majority of these the College must depend on the public spirit and generosity of medical men. This letter is written in the hope that your readers may be induced to help in building up this most needful collection.

The Conservator of the Museum will gladly answer inquiries regarding the projected medico-legal collection, and acknowledge the receipt of specimens.

There is another department of the Museum which is altogether dependent on medical men—namely, that which illustrates the development and growth of the human embryo and fetus. In recent years the methods of preservation of such specimens have become so much more satisfactory that it will be necessary to replace some of the present specimens and to add many others.

The Conservator will gladly acknowledge the receipt of such specimens and give a descriptive account of them if the donor should so wish. It is of the utmost importance that the full history relating to the age of such specimen should be known.

You will render the Museum of the College a service if you will be so good as to bring these matters before your readers.—I am, etc.,

A. KEITH,
Lincoln's Inn Fields, London, W.C., March 19th. Conservator of the Museum of the Royal College of Surgeons of England.

THE TREASURY COMMITTEE ON TUBERCULOSIS.

SIR,—However true the conclusion may be which is arrived at by the statistics quoted by Dr. Eder, that 95 per cent. of children are infected with tuberculosis, the statement is apt to cause confusion in some minds. Tuberculosis in the adult almost invariably means pulmonary tuberculosis, and the human mind, consciously or subconsciously, when tuberculosis is referred to in children, frequently, transfers its idea of tuberculosis in the adult to that of the child.

Whether von Pirquet's test is or is not reliable as a test of infection, tubercle bacilli must be so common that they can scarcely fail to have entered the bodies of all children beyond a few months of age, and in the majority of instances probably have been in sufficient quantity to produce a local reaction to their presence. Yet it appears to me that to associate such a local infection with development of disease in later life would be a mistake. Infection of the lungs in young adults is obviously a distinct infection, occurring, as my fellow-student, Dr. H. J. Campbell, pointed out years ago, at the position in the lungs of most marked air stasis—that is to say, where tubercle bacilli entering by the air find a resting place.

In children, as is well known, infection of the lungs occurs chiefly through the medium of the bronchial glands, and when the disease invades the lung from the glands it almost invariably spreads rapidly and is soon fatal. If Dr. Eder and others are correct, that 95 per cent. of children have been infected with tuberculosis, the majority of those will have been infected in the bronchial glands. Should, however, tuberculosis of the lungs develop after school age, or in the last two or three years of school age, the infection will be quite distinct from any which may have taken place in the bronchial glands.

Dr. Eder mentions what is so often stated to be the case, that tuberculosis frequently follows measles. My *post-mortem* experience leads me to believe—though I have not especially investigated the point—that the frequency of the association is overstated. It has sometimes occurred to me that bronchial dilatation—a not uncommon sequence of measles which is often diagnosed as tuberculosis—may partly account for the oft-repeated statement. It may be added that measles is so common that in most fatal cases of acute or subacute tuberculosis of the lungs in children we may expect the disease to have been previously present. Measles complicated by bronchopneumonia shares with every other inflammation within the chest the liability to disturb and spread any tubercle bacilli which may be present in caseous bronchial or mediastinal glands. Apart from this, however, the influence of measles in aiding infection, to me, is not clear.—I am, etc.,

March 15th. THEODORE FISHER.

LEPROSY IN THE UNITED KINGDOM.

SIR,—With reference to the remark on page 568 of your issue of March 9th to the effect that no case of leprosy originating in England has been recorded or even suspected for the last two hundred years, I beg to bring your attention to the statement on page 650 of Abraham's chapter on leprosy in Allbutt and Rolleston's *System of Medicine* "that the last indigenous leper was seen in the Shetland Islands in 1798 and (that) a case occurred in Edinburgh in 1809."

Moreover, we are informed on page 656, with reference to "Instances of transmission in leprosy-free countries":

> The most important case of this kind yet known in this country is that recorded by Dr. Hawtrey Benson in Dublin. An Irish soldier returned from India with fully developed leprosy. For a year and a half his brother slept in the same bed with him, and he wore the leper's clothes after the latter's death. Three years later this brother, who had never been out of the United Kingdom, manifested leprosy and died of it. The diagnosis was confirmed by medical men well acquainted with the malady, and we may accept the case as conclusive. Similar instances, perhaps not quite so free from doubt, have also been recorded by Drs. Liveing, Rees, Atkinson, and others.

Dr. Abraham has, moreover, under his observation another case of leprosy, a young man of 20, who has never been out of the United Kingdom, and who contracted the disease from his parents, who were both lepers. The parents no doubt got infected in Poland, their native land, but developed leprosy in England.

There is no doubt possible that leprosy is contagious, though to a very slight extent, as experiments on animals clearly show. At the last Lepra Congress in 1909 the British Section held a special meeting and passed, amongst others, the following resolutions, namely:

I. Leprosy is spread by direct and indirect contagion from persons suffering from the disease.

II. Leprosy is not due to the eating of any particular sort of food, such as fish.

* * * * *

VI. Compulsory notification of every case of leprosy should be enforced.

Definite cases, showing the spread of leprosy in families, starting from a single case, are described in Kuebler und Kirchner's book, *Die Lepra in Russland. Ein Reisebericht. (Klinisches Jahrbuch.* Jena, 1897.)

Therefore, it cannot but be admitted that the St. Pancras Borough Council were justified in passing the resolution they did.—I am, etc.,

London, S.W., March 11th. H. BAYON.

MOSQUITO DESTRUCTION.

SIR,—In reference to the letter of Dr. Elkington, of Brisbane,[1] stating that potassium cyanide in a strength of 1 in 15,000 of water failed to kill mosquito larvae, may I point out that I have failed to kill coleoptera by the vapour of hydrocyanic acid in an entomological killing bottle. I have also[2] observed that paramoecia can live for about fifteen minutes in 0.3 N solution of hydrocyanic acid (0.8 per cent.); for these protozoa hydrocyanic acid possesses only about one three-thousandth of the toxic power of the mineral acids.

Hydrocyanic acid cannot be depended upon to produce a lethal effect upon invertebrata comparable to that exerted upon mammalia.—I am, etc.,

Liverpool, Feb. 19th. J. O. WAKELIN BARRATT.

THE MAKING OF PHOTOMICROGRAPHS.

SIR,—The remark in your review (p. 496) of Mr. Barnard's book on *Photomicrography*, as to the frequent failure of prints as regards clearness and definition, has suggested my giving a hint, as an old worker at this branch, to others.

I may say that a good many years ago I used to do a good deal of photomicrography for medical friends, who were pleased with my results—my late friend, Sir Douglas Maclagan, was especially complimentary on results.

My plan is the following: Get, of course, as sharp a focus as possible, using a magnifier of low power on the focussing screen, and do not on any account try to get a large-sized negative at once. Using a rather slow plate, with as little grain as possible, and presuming that an eyepiece is used on the microscope, get the plate at such a distance from the eyepiece that the resulting negative will be 1 in. or 1.5 in. in diameter. After developing and fixing this, and seeing that it is free from fog, take a contact transparency (positive) from it, either on a fine make of lantern plate or with transparency carbon tissue. From this positive make a negative by means of a lantern to a diameter of double—perhaps more—also on a lantern or other grainless plate, and if this is not sufficiently large repeat the process by taking another transparency and re-enlarging. This may seem complicated and troublesome, but it is well worth the trouble. By this method I have had prints of 1,024 diameters and more with very great definition and clearness. Though, of course, the exposure is longer for a slow and grainless plate, I consider that it is compensated for by the clearness for the future enlargement. I am, etc.,

North Berwick, March 5th. JOHN COCKBURN.

[1] BRITISH MEDICAL JOURNAL, January 13th, p. 106.
[2] *Proc. Roy. Soc.*, vol. lxxiv, p. 100.

THE PROFESSION AND THE POLITICIANS.

SIR,—Mr. Raiment charges me with grave misstatements, but he has put his own interpretation on the facts I mentioned. In one particular he corroborates both my first and second statements, for Mr. Wilfrid Travers is one of the keenest and best Unionist workers in the West of London. Mr. Mackinnion, another of the stewards, is also a frequent worker in the same cause in Hammersmith. Whether they are members or not of the Constitutional Club there, they certainly organized their stewards under such auspices.

As the point at issue seems to be missed, may I briefly state it?

Dr. F. J. Smith and many of those associated with him in the organization of the Queen's Hall meeting, and also of the British Medical Association Reform Committee, have accused the Council in general (of whom two-thirds are Unionists) and Sir Victor Horsley in particular (a private member of Council and not on the committee which carried out the negotiations) of deliberately sacrificing the interests of the profession for political reasons. This is as serious a charge as can possibly be brought against any man. Persons who make such a charge should be careful to suppress any political animus they may have. Many of us know this has not been done, and whilst I quite admit that Mr. Raiment's ingenuous interpretation of the course of events may exonerate him and others from deliberately provoking the feeling which led to the deplorable scenes at the Queen's Hall, nevertheless the statements and actions did arouse strong political feelings, which resulted in such scenes.

As to the actual facts being as I stated, I am prepared to obtain affidavits.—I am, etc.,

London, S.W., March 18th. H. BECKETT-OVERY.

*** It is suggested to both sides that the prolongation of this controversy does not seem calculated to produce any further elucidation of the matters upon which opinions differ.

THE PRESS AND THE REPRESENTATIVE MEETING.

SIR,—It is very unfortunate that offence should have been taken at the request of the Chairman of the Representative Meeting "that no one in the gallery should communicate the proceedings to the press." I am quite sure that no one meant to offend. I understood the request as a general warning, knowing quite well at the same time that the alert press would manage to have a report of some kind. I was informed on the Wednesday that the report had been obtained by overhearing the discussion of the meeting in one of the dining rooms. This was quite a feasible way. We have from the beginning of our meetings been too much inclined to be secretive, and for no valid reason. We as a profession are asking from the Government and the public only what we consider our just rights, and we will attain those more readily by making the public conversant with them. The official report supplied to the press at the end of the Representative Meeting was excellent, only it must be remembered that the lay press in these days will not wait for a couple of days for any report, however excellent.—I am, etc.,

Hawick, March 12th. J. R. HAMILTON, M.D., etc.

*** Dr. G. Baynton Forge (West Malling, Kent), who was one of those in the gallery during the Representative Meeting in February, desires to associate himself with the disclaimers published in the JOURNAL of March 2nd and 9th.

HYPERMETROPIA AND HYPEROPIA.

SIR,—An essential qualification of a reviewer is that he should be more or less acquainted with the subject he reviews, and, at any rate, know its history.

Your reviewer in reviewing the third edition of my book on *Refraction of the Eye*, says: "We are more or less accustomed to the American method of clipping words, though we had hoped that English authors would escape infection, but here our old friend 'hypermetropia' is always alluded to as 'hyperopia.'" The correct historical facts are as follows:

The terms "emmetropia," "hypermetropia," and "brachymetropia" were originally suggested. At the

Heidelberg meeting in 1859 it was agreed that "myopia" was more universally used, and therefore the better word for "brachymetropia," and Helmholtz suggested that, this being so, *hyperopia* was better opposed to myopia than the longer word, and moreover coincided with the word first suggested by Ruete, namely "Uebersichtigkeit." In spite of Helmholtz and a few adherents, Donders strongly advocated the use of the longer word, and prevailed, and until quite recently "hypermetropia" has been generally used.

This history clearly proves that those who use the shorter word are not necessarily infected "with the American method of clipping words."—I am, etc.,

London, W., March 11th. ERNEST CLARKE.

Obituary.

SIR RICHARD BRAYN, M.R.C.S.Eng., L.R.C.P.Lond.,

HOME OFFICE EXPERT IN LUNACY, LATE MEDICAL SUPERINTENDENT, BROADMOOR ASYLUM.

SIR RICHARD BRAYN died at his residence in Southsea, after a short illness, on March 12th. He was the son of Mr. T. G. Brayn, of Market Drayton, Salop, and was born there in 1850. His earlier education was private, and he entered King's College in 1870. He had a distinguished student's career, taking the Junior Scholarship in 1871 and later the Second Year Scholarship, and finally the Senior Scholarship, besides being Prizeman in many subjects. He studied under the late Sir George Johnson and the late Sir William Fergusson, amongst others. After obtaining the diploma of M.R.C.S. in 1873, and those of L.R.C.P. and L.S.A. in the following year, he went for a voyage to South Africa and then entered the Prison Medical Service, being appointed in the year 1875 Assistant Surgeon to H.M. Convict Prison, Portsmouth, subsequently becoming Assistant Surgeon at H.M. Prison, Millbank. In 1879 he was appointed Medical Officer at H.M. Prison, Pentonville; his abilities in this more responsible charge were quickly recognized, and on the retirement of Dr. Campbell he was promoted, in August, 1882, to be Medical Officer of H.M. Prison, Woking, then the invalid convict prison, he also having charge of the insane convicts at this establishment. In 1889, on the death of Mr. Power, Dr. Brayn became Governor and Medical Officer of the female convict prison at Woking. Always taking the keenest interest in mental diseases, more especially in connexion with criminality, his prison career afforded him special facilities for this study, especially whilst he was at Woking. His shrewd common sense and sound judgement, together with the administrative powers he had displayed, marked him out for the office of Medical Superintendent of Broadmoor Criminal Lunatic Asylum when Dr. Nicolson was appointed Lord Chancellor's Visitor in Lunacy in 1896. In this important and arduous position, which he held for over fourteen years, Dr. Brayn established a reputation as an expert in criminal lunacy second to none; his independence of mind and courage in expressing his opinion commanded universal respect, and in consequence he was largely consulted by the Home Office in the many intricate and difficult questions which so frequently arise in that department. During his tenure of office at Broadmoor a considerable extension of the asylum was erected under his immediate supervision with most excellent results.

His administrative qualities were of the highest order, and he managed this important asylum with conspicuous success. The responsibility and anxiety attached to the post latterly began to tell on his health, and in 1910 he felt that it was time to relinquish much of his work: accordingly he retired from the superintendency in the latter part of the year 1910, although he retained his connexion with the asylum as an active member of the Council of Supervision, and continued to act as expert adviser to the Home Office until the time of his death. He received the honour of knighthood in the Coronation year.

He married Laura, daughter of the Deputy Inspector-General Fyscher Negus, R.N., who survives him, as also do one son and a daughter. A man of wide experience and knowledge of his special subject, always working hard at whatever he had in hand, he was also a keen lover of country life and sports, and, although not an extensive contributor to medical journals or societies, his official reports were always clear and cogent, bearing the impress of firm conviction. His loss will be very greatly felt by his many intimate friends and colleagues.

DR. DAVID NICOLSON, C.B., writes: Sir Richard Brayn joined the prison service as my colleague in 1875, and since that date I have been much associated with him both officially and personally in various capacities. He succeeded me as Medical Superintendent of Broadmoor Asylum, and during the past five and twenty years we have together held statutory medical inquiries on behalf of the Home Office in many cases where the death sentence had been pronounced. I learnt to have the greatest respect for his judgement and skill in dealing with this important class of cases, and I know that the Home Office placed the highest value on his opinion. To me his death is a loss of an old friend, for whose excellent qualities I had the greatest esteem.

COLONEL LAMBKIN, A.M.S.,

LATE LECTURER IN SYPHILOLOGY, ROYAL ARMY MEDICAL COLLEGE.

COLONEL F. J. LAMBKIN died on March 8th at Bloemfontein aged 53. He received his medical education in the school of the Royal College of Surgeons of Ireland, and obtained the diplomas of L.R.C.P. and S.I. in 1880. He entered the service in 1881 and was promoted Major in July, 1893: Lieutenant-Colonel in July, 1901; Brevet Colonel in May, 1906: and substantive Colonel in April, 1911. He served in the South African war 1899–1902, taking part in the relief of Ladysmith, including the actions at Colenso, Spion Kop, and Vaal Kranz. He was also present during the operations in Cape Colony from November, 1900, to May, 1902. He received the Queen's medal with four clasps, and the King's medal with two clasps. In 1905 he was specially employed on the Army Head Quarters Staff, India, as Syphilologist, and subsequently became Lecturer in Syphilology at the Royal Army Medical College, London. At the time of his death he was Assistant Director of the Medical Service at Bloemfontein. Colonel Lambkin was best known to the profession for his work in connexion with the treatment of syphilis; he made many observations on the use of intramuscular injections of mercurial preparations, and his publications had much to do with extending the use of that method. Later he wrote on the use of arylarsonates in the treatment of syphilis. In 1907 he went to Uganda on a special mission for the Colonial Office to inquire into the ravages caused by syphilis among the population in that country. Colonel Lambkin contributed several papers on the treatment of syphilis to our columns, and was the author of the article on the treatment of syphilis in Power and Murphy's *System of Syphilis*.

THE LATE LORD LISTER.

THE Council of the Royal College of Surgeons of England at its meeting on March 14th adopted the following memorial minute:

MEMORIAL MINUTE.

By the death of Lord Lister, P.C., O.M., F.R.S., F.R.C.S.Eng., etc., on February 10th, 1912, Surgery has lost her most brilliant student and her greatest master, England one of her most famous sons, the world one of its most illustrious citizens.

He raised Surgery from a dangerous and precarious practice to a precise, safe, and beneficent Art, and in doing so his name became renowned throughout the civilized world. His methods have been adopted in every clime and country, and the benefits which flow from his discoveries are blessings conferred upon every race of mankind. His perspicacity, his natural insight, his fertility of resource, his power of close and discriminating observation, his philosophical reasoning, his inflexible pursuit of truth, his steadfastness of purpose, his capacity for taking pains, his unwearied patience, and his undaunted efforts to triumph over difficulties, stamped him as a great example of true and scientific genius.

The human sympathy which caused him to deplore the great mortality due to infective surgical disease, his solicitude to prevent suffering and premature death, his patient and unceasing labour to overcome them, and his gratification at the ultimate success of his efforts to ameliorate

pain and prolong life eminently distinguished him as a great philanthropist.

His gentle nature, his deep compassion, his courteous and dignified bearing, his imperturbable temper, his resolute will, his indifference to ridicule, his tolerance of hostile criticism, combined to make him one of the noblest of men.

His work will last for all time, its good results will continue throughout all ages, humanity will bless him for evermore, his fame will be immortal.

In the fullness of years, after a glorious and satisfying career, crowned with great and various honours, having witnessed the successful completion of his work, the gentle hand of death laid hold upon him, and Lister passed from among us.

His funeral was a vast and striking testimony to the greatness and the usefulness of his life. His body perisheth, but the influence of his mind will continue everlastingly.

MEMORIAL TABLET.

It was decided to place a memorial tablet in a suitable and conspicuous position within the college, to serve as evidence to future generations of the honour, respect, and reverence in which the great founder of aseptic surgery was held by his contemporaries and immediate successors.

MANUSCRIPTS AND SKETCHES.

A letter was read from the solicitors to the executors of the late Lord Lister that under the terms of his will he requests that his nephews, Rickman John Godlee and Arthur Hugh Lister, shall arrange his scientific manuscripts and sketches, destroying or otherwise disposing of such as are of no permanent interest, and he bequeaths his said manuscripts and sketches when so arranged to the Royal College of Surgeons of England.

Public Health AND POOR LAW MEDICAL SERVICES.

AMALGAMATION OF OFFICES.

AN account was given in the JOURNAL for January 20th of a meeting of the Edmonton District Council at which a proposal was considered to publish an advertisement indicating that the offices of medical officer of health and school medical officer had been amalgamated, and inviting applications for appointment as senior and assistant medical officer respectively. The Local Government Board had expressed its approval of the amalgamation in view, but saw in that project no reason for declaring the office of medical officer vacant. The local medical profession had lodged a petition with the council deprecating the proposed advertisement, on the ground that Dr. Lawrence, the existing medical officer of health, was a man with whom they had always been able to work amicably. The meeting ended in a decision to consider matters again after the whole question had been discussed at a meeting of the council in committee on February 27th. This reconsideration took place at a meeting of the council on March 12th, and ended in a resolution to inform the Local Government Board that the council proposed to appoint Dr. Lawrence as medical officer and school medical officer at a salary of £450, and Dr. Rock, the present school medical officer as assistant medical officer at a salary of £300. During the debate, which was one of an exceedingly animated nature, an endeavour was made to persuade the council to adhere to the original proposal. The latter was characterized by several members as a proposal which merely concealed an intention to endeavour to get Dr. Lawrence replaced by some one else, despite the fact that he had always fulfilled his duties in a creditable manner. One member went so far as to say that while he did not know of a single charge that had ever been proved against their M.O.H., he had been present at meetings of the Sanitary Committee at which the M.O.H. had been bullied and insulted. This, he indicated, was not because Dr. Lawrence had failed in his duty, but because he had given offence in such way as summoning some one or other for letting a house which was damp and unfit for occupation. It was these men and their friends who were now trying to oust him out of his job.

SINCE July, 1911, a service of preventive vaccination against typhoid fever has been at work at the Hôtel-Dieu, Paris, under the direction of Professor Chantemesse. Vaccine is delivered free to practitioners who apply to the laboratory of hygiene of the faculty.

Medical News.

SIR WILLIAM MACEWEN will give an address on Lord Lister at the meeting of the Royal Institution of Great Britain on Friday evening, June 7th. Among other Friday evening discourses to be given at the Institution after Easter is one by Professor W. Stirling on the Gaumont speaking cinematograph films, and another on the use of pedigrees, by W. C. Dampier Whetham.

THE annual meeting of subscribers to the Cremation Society of England will be held at 20, Hanover Square, W., on Wednesday, March 27th, at 3 p.m.

WE are asked to state that the name of Professor Henri Hervieux, M.D., Laval University, Montreal, was accidentally omitted from the Canadian nominations to the Council of the Section of Therapeutics of the International Congress of Medicine to be held in London next year.

SIR RONALD ROSS, K.C.B., M.D., will deliver the Oliver-Sharpey Lectures on recent researches on malaria before the Royal College of Physicians of London on Monday, April 29th, and Tuesday, April 30th, at 5 p.m. on each day. The first lecture will deal with nosology and the second with endemiology.

A DISCUSSION on the therapeutic value of alcohol will be held by the Hunterian Society at the London Institution on Wednesday, March 27th, at 9 p.m. Sir Victor Horsley will open the discussion, and Sir Lauder Brunton, Professor Cushny, Drs. F. J. Smith, Stoddart, Goodall, and others are expected to speak at this or an adjourned meeting. All members of the profession are invited to attend.

THE meeting of the Medico-Psychological Association of Great Britain and Ireland for the March quarter was held at the Long Grove Asylum, Epsom, at the invitation of Dr. Hubert Bond, and was preceded by luncheon at which the leading members of the Asylums Committee of the London County Council were present. In the course of the proceedings great regret was expressed that the selection of Dr. Bond for the important position of Commissioner in Lunacy entailed the loss of his services by the County Council as a superintendent medical officer, and by the Medico-Psychological Association as one of its general secretaries. A visit was also paid to the admission hospital, the villas, wards, and various departments of the asylum. In the afternoon some papers were read, of which an account will be found at page 673.

THE spring dinner of the Irish Medical Schools' and Graduates' Association took place on the eve of St. Patrick's Day, and was, as usual, very well attended. Dr. H. Macnaughton-Jones, president of the association, was in the chair, and had as croupiers Dr. M. J. Bulger, chairman of council, Dr. J. J. O'Hagan, vice-chairman of council, Dr. W. P. Cockle, honorary treasurer, Drs. W. J. Corbett and Campbell Boyd, the two honorary secretaries, Dr. Shepherd Boyd, honorary provincial secretary, and Dr. Gilbert Richardson. In acknowledging the toast to "The Guests," and in reference to a wish expressed by its proposer, Dr. Douglas, that medical men would in future take a more prominent part in public affairs, Sir Thomas Boor Crosby said that the medical profession had never taken its proper stand in municipal or parliamentary life. As a class they were the best educated men in the kingdom, and if they would only take the trouble to get elected to urban, borough, and city councils they would soon find themselves leading members thereof. In such positions they could assist materially in dissipating the ignorance which was really responsible for the paltriness of the salaries sometimes offered to members of the noblest of professions. For many years he had himself been the only medical man on the Corporation of the City of London, and had often had opportunities of throwing a right light on the medical posts within its gift. He had had some hesitation in accepting the high office of Lord Mayor, but after considering the question in all its aspects had decided to accept that position for the sake of the profession to which he belonged, and to which he was deeply attached. The fact that he had held such a position would be a standing proof that a medical man in actual practice could not only attend at the bedside of the sick, but also play as useful a part in deliberations on public affairs of the highest importance as any other member of the community. In the course of the evening it was mentioned that the membership of the association now numbered 620.

Universities and Colleges.

UNIVERSITY OF BRISTOL.

THE following candidates have been approved at the examination indicated:

SECOND M.B., CH.B.—A. B. Bodman, J. W. Gilbert, W. K. A. Richards, D. G. C. Tasker, E. S. White.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary Council was held on March 14th, Mr. R. J. Godlee, President, in the chair.

The late Lord Lister.

A memorial of appreciation of Lord Lister's achievements (see page 705) was directed to be printed in the Council's minutes, and a vote of condolence with the members of the late Lord Lister's family adopted.

Central Midwives Board.

The thanks of the Council were given to Mr. C. H. Golding-Bird for his services as representative of the College on the above board.

National Insurance Act.

The President reported that the committee on the National Insurance Act had held meetings on February 6th and 26th, and a joint meeting with the committee of the Royal College of Physicians and representatives of the Society of Apothecaries at the Royal College of Physicians on March 5th, and that at this joint meeting the following resolution was adopted:

> That the medical faculties of the universities of England and Wales be invited to send each a representative to join with the committees appointed by the Royal Colleges of Physicians and Surgeons and representatives of the Society of Apothecaries in endeavouring to safeguard the interests of their graduates, licentiates, Fellows, and members in so far as they may be affected by the National Insurance Act.

The President stated that he had received letters expressing appreciation of the attitude adopted by the Council in reference to the National Insurance Act.

Two Hundred and Fiftieth Anniversary of the Formation of the Royal Society.

The President was appointed as a delegate to the celebrations on July 15th, 16th, 17th, 1912, of the above society.

Bicentenary Festival of the Medical School of Trinity College, Dublin.

The President and Mr. C. Mansell Moullin, one of the Vice-Presidents, were appointed as delegates to the above festival.

International Historical Congress.

Sir John Tweedy was appointed to represent the College on the General Committee of Organization of the above Congress, to be held in London in 1913.

Method of Conducting Examinations.

A letter of February 28th, addressed to the President by Dr. Arthur Dean Bevan of Chicago was read. It stated that the members of the American Medical Association were greatly pleased with Mr. Hallett's address on methods of conducting examinations for licences to practise medicine, and thanking the President for having sent him to the conference.

Medico-Legal.

DEATH CERTIFICATES AND THE PATIENT'S CONFIDENCES.

E. M. G.—A practitioner is required by the Births and Deaths Registration Act, 1874, to give a certificate "stating to the best of his knowledge and belief the cause of death." If he has reasonable grounds for believing the cause was syphilis, he would appear to be bound to state it; but the Registrar-General recognizes a number of alternative terms—see *Manual of the International List of Causes of Death* (London: His Majesty's Stationery Office, 1s.), page 8, paragraph 37. Whether it is a libel to inform a wife that her husband is suffering from syphilis or gonorrhoea must depend upon circumstances. As a rule, the duty of the medical practitioner is towards the patient, and, after fully stating the facts to the patient, the matter should be left to his or her own conscience. If, in the other alternative, the case came to trial, the decision would no doubt depend upon circumstances. A recent case bearing upon this point was heard in 1902. The defendant was called in to attend the plaintiff, who was a barmaid at an hotel, and was requested by the manager to see her. As a result of his examination, he informed the housekeeper and the employer that the girl was suffering from venereal disease. Subsequently he made a similar statement to a man who represented himself to be the husband of the plaintiff, though this was shown later not to be the case. It was alleged that he had also made a communication to another barmaid, but this the defendant denied. The judge ruled that the communications to the manageress and the employer, and to the man who represented himself to be the husband, were privileged, but left it to the jury to decide on the evidence as to the communication to the other barmaid, and they found a verdict for the plaintiff with £75 damages.

Letters, Notes, and Answers.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, London, W.C.; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Office, 429, Strand, London, W.C.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London*. The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, London*.

TELEPHONE (National):—
2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

X. asks for advice in the treatment of a patient in the third month of gestation who is troubled with violent flatulence (oral). It comes on especially about 7 p.m., and lasts till sleep, and is accompanied by violent shivering. The patient is healthy otherwise, and can usually retain all meals except supper. Sodium bicarbonate, salicylates, bismuth, valerian, and adrenalin have been tried for six weeks without much success.

R. J. B. desires to hear whether the Hastings Truss Company of Philadelphia has an agency in this country, and, if so, the address.

COLLIERS, STRIKES, AND MEDICAL ATTENDANCE.

COLLIERY DOCTOR (Scotland) writes: (1) Is it usual during a miners' strike that the weekly payment of 3d. per man for the doctor should be stopped? The doctors here pay a commission of 5 per cent. to the clerk for collecting the fees. Is this usual elsewhere? (2) It is the custom for managers and clerks with their families to be attended free of charge. Is this the case in other places? (3) In the event of the miners refusing to pay the 3d. per week per head after the Insurance Act comes into force, what is to be done with the view of enforcing the doctors' demands? (4) Is there no way whereby the doctor might be paid this 3d. per man except through the colliery office? (5) Who has the legal right to order a miner to go to see the medical referee? (6) I give a man a certificate to say that the workman is suffering from beat knee. He is sent by train seven miles to see the medical referee, who is paid 5s., which is refunded by the Miners' Union.

*** The following answers are given for the information of our correspondent, but must not be taken to have any official authority:

1. It is usual during a miners' strike for the weekly payments to the doctor to be stopped. In some cases, however, the belated payments are collected by instalments as arrears, after the miner resumes work at the end of the strike. It is customary in some places to pay a small commission to the clerk or to a committee of workmen for collecting fees.

2. It is not the custom for a manager to be attended free but it is occasionally customary for a clerk to be attended, by paying through the office as an ordinary miner, but this does not include families. An ordinary underground working manager ranks as a miner, and therefore gets his medical services as such.

3. It has been decided that 8s. 6d. is the minimum per capita rate that a doctor should undertake contract work for, but, of course, the 3d. per week referred to in this question includes attendance upon wives and children. This latter is a matter that will have to be arranged later by colliery doctors either through the miners' union or otherwise, but cannot be insisted on, meantime at least, so there is no question of "enforcing" in the business.

4. It is not thought likely that the colliery office will be one of the channels through which the colliery doctor will be paid after the Act comes into force. He will be paid through one of the recognized channels under the Act—such as an approved society—unless, of course, medical benefits are altogether removed from the Act, and then the insured person will have to be tackled himself; here enforcing may come in.

5. The only person who has a right to order a miner to go before a referee is the arbitrator, namely, the Sheriff in

Scotland, and that only after medical evidence in a court case is conflicting. Most of the references to a referee, however, are by mutual arrangement between master and man. An employer has the right to dispute a certificate of a certifying factory surgeon and to send the workman before a referee with a view to getting the latter's opinion upon the matter.

6. This question—if it be one—is rather involved and is more or less, surely, a statement of fact, unless it refers to what is mentioned in No. 5—the employer disputing the certificate of a certifying factory surgeon and sending the man before a medical referee. The medical referee is, according to statute, paid £2 2s. (not 5s.) for a first reference and a certifying factory surgeon 5s. usually for certificates of "beat knee" and such like.

Prostatectomy.

M. C. asks for any clinical data concerning the after-effects of enucleation of the prostate, as to whether the urine becomes quite normal, and after what interval, also whether urination is of normal frequency. Is there much pain for the first few days after the operation? What is the usual time required for convalescence? Is the operation to be advised in a case in which the amount of residual urine is only 3 oz.?

ANSWERS.

Colliery Surgeon.—In Greer's *Industrial Diseases and Accidents* "beat knee" is stated to be inflammation of the bursa over the patella, and it is added that miners are specially liable to this trouble. We cannot, of course, give an opinion on the diagnosis.

Dr. H. J. Thorp (Ipswich) writes: In reply to "Urticaria," the itching may be allayed by daily warm bath, temperature 95° to 100°, and the use of carbolized vaselin. Internally: Sodae iodi grain v, liq. arsenicalis m v, in a little milk, three times a day after meals.

Mr. A. V. Kenah, chartered accountant, Vancouver, writes from Brighton in answer to "R. C. W." (British Medical Journal, March 2nd, p. 528), to say that Vancouver has a dry summer but wet winter. Victoria has considerably less rainfall in the winter, but more wind and is cold at nights. He suggests that our correspondent should write to the Agent-General for British Columbia, Salisbury House, London, E.C., for data regarding rainfall, etc., for both of these places.

Soft Corns.

H. J. T. writes: In reply to "Sufferer," if there is any inflammation about soft corns, they should be treated with boric lotion on lint. If chronic, by an application of acid salicylic, 30 parts; ex. Indian hemp, 5 parts; flexile collodion, 240 parts.

Dr. Jas. P. Bolton (Nottingham) writes: Tincture of iodine is an excellent application for soft corns. A small piece of cotton-wool should be worn between the toes.

X Rays as a Prophylactic.

Dr. G. Gilbert Scott (London) writes in answer to "J. H. W." (March 9th, p. 587): On account of the beneficial effect of *x*-ray treatment on local recurrence after amputation of the mamma for carcinoma—the correct technic being used—the treatment should certainly be used as a prophylactic. It is impossible to state definitely its value as yet, but with our present knowledge it should certainly be used. Dosage is important: The axilla to xiphisternum; also an area posteriorly in region of the angle of the scapula should receive at least twelve doses. Of course *x* rays can only prevent superficial recurrences, not intrathoracic deposits. An aluminium filter of suitable thickness will prevent all dangerous irritation of the skin.

LETTERS, NOTES, ETC.

Morphine Poisoning.

Dr. D. M. Macdonald (Leven, Fife) writes: When I wrote in your issue of February 3rd that Condy's fluid was used in the above case I meant exactly what I there and then stated. May I ask Dr. Barker Smith a question: Does he seriously contend that potassium permanganate has chemically any specific advantage over sodium permanganate (Condy's fluid) as an oxidizing agent for morphine? It has been generally accepted that the permanganate action was purely that of a *local* antidote, and when Dr. B. Smith cites the case of Dr. Moore, who took 3 grains of morphine followed by 4 grains of permanganate, he meant, I take it, to illustrate and confirm that. Now, it may be remembered that the particular infant when first seen had had the morphine four hours and that all the symptoms of absorption were present. One could appreciate the use of stomach lavage with permanganate since morphine is secreted in the latter organ from the circulation, but I was, and still am, sceptical of the efficacy of bowel lavage with permanganate, and apparently Dr. Smith, in spite of "past and laborious work," is not prepared to maintain that permanganate under such conditions can be truly described as a physiological antidote.

Dr. Stephen G. Longworth (Melton, Suffolk) writes: The letter under the heading "Morphine Poisoning," by Dr. J. Barker Smith, in the issue for February 17th, referring to the internal administration of potassium permanganate with a view to its subsequent oxidizing action, leads me to record this brief note of a case of asylum dysentery in which a line of treatment was adopted as recommended by Professor L. Rogers, I.M.S., and referred to in an annotation in the British Medical Journal for September 16th, 1911. It consisted in the administration of pills of potassium permanganate 2 grains, keratin-coated in order to delay solution until reaching the intestine, and administered every quarter hour for three hours, and then half hourly until the motions become green-coloured, which usually (according to Professor Rogers) happens within twelve hours, indicating oxidation of the bile. The patient with whom I tried this treatment was a young imbecile girl with a very acute attack; the motions were of the typical slimy "blood and mucus" character. On examining the stools on the day following the commencement of the treatment, numerous small dark pellets were observed mixed with the motions which had undergone no change. These pellets proved to be the pills which had passed through unaltered, and on crushing yielded the characteristic colour of the permanganate salt. The pills had been freshly prepared with kaolin ointment as excipient, and coated with fresh keratin solution.

Twins.

Pastor writes: What appeared to me as an unusual and interesting case took place this month, and I have been urged to report it: After delivering a lady of a small child (by forceps and chloroform), delay with afterbirth caused *post-partum* haemorrhage. I gave ergot and introduced my hand and took away the placenta, felt all round for a second child, washed out, and left the case. Two days afterwards I was sent for, and found the lady in labour again, when I delivered another small child. All are doing well. I think there must have been at first an hour-glass contraction with the second child above.

Putting Salt on a Dead Body.

Dr. Howard Distin (Enfield) writes: Quite recently I attended a woman in poor circumstances dying of dropsy. When I visited her after death I noticed a large plate of salt on her abdomen. On inquiry, I was told quite seriously it was put there to keep the body from bursting!

Boric Acid.

Dr. F. Pryce Jones (Newtown, Mid-Wales) writes: In connexion with the paper on boracic acid poisoning (British Medical Journal, March 16th, p. 605), I recollect the following: A healthy infant about 6 months old began to waste rapidly, and before long haemorrhages of the mouth and bowel occurred several times. I found that the child was given a comforter to suck very frequently, the same being freely smeared with borax and honey. This being stopped, the infant speedily recovered.

Gastrolith.

Dr. F. Pryce Jones (Newtown, Mid-Wales) writes: If the writers of the paper, A Case of Vegetable Gastrolith (British Medical Journal, March 16th, p. 606), will refer to the *Lancet* of February 4th, 1899, they will see a case reported of a woman who had been eating rags, and developed gastric symptoms; later an abscess formed in the umbilical region. When the abscess broke, a strip of coarse cotton material 9½ in. long was removed, and recovery ensued.

Arthritis.

Mr. C. Gordon Watson (London, W.) writes: I have read with much interest an interesting article by Dr. J. Rupert Collins in your issue of March 16th, p. 603, on some cases of infective arthritis, in which he demonstrated the primary focus of infection and the infecting organism, and obtained a cure for the arthritis by means of the appropriate vaccine, and I was particularly interested in Case VI. in which he demonstrated an organism in a case of acute arthritis and endocarditis, which he describes as the *Diplococcus rheumaticus*, and in which he cured the patient by means of a vaccine made from this culture. I should be interested to know if Dr. Collins has preserved this culture, or if he has made any experiments with a view to reproducing acute arthritis and endocarditis in animals. If Dr. Collins would be kind enough to supply me with a sample of this culture, I should be very pleased to carry out investigations on these lines. Hitherto few pathologists have been able to confirm the researches of Drs. Poynton and Paine in this direction, and it would be a pity to miss an opportunity like this if Dr. Collins has not already availed himself of it.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

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Note.—It is against the rules of the Post Office to receive *postes restante* letters addressed either in initials or numbers.

A Lecture
ON
SKIN RASHES IN CHILDREN.

DELIVERED AT THE MEDICAL GRADUATES' COLLEGE AND POLYCLINIC.

BY

J. L. BUNCH, M.D., D.Sc., M.R.C.P.,
PHYSICIAN IN CHARGE OF THE SKIN DEPARTMENT, QUEEN'S HOSPITAL FOR CHILDREN.

THE nomenclature and classification of skin diseases has always been a more or less well deserved subject of reproach to dermatologists, and even at the present day there are still grounds for criticism. The old-fashioned grouping of skin diseases, according to their anatomical appearances, into papular eruptions, vesicular eruptions, and so on, had the merit of simplicity, but it grouped together diseases which are entirely dissimilar without giving any indication of their nature or causation. Modern classifications which try to group all skin diseases according to their origin—microbic, parasitic, nervous, or otherwise—are perhaps a step in advance: but the weakness of such classifications is that there is a considerable number of skin affections to which no place can be assigned, and which must therefore come under the heading of unclassified diseases. This applies even in such a small branch of dermatology as the rashes of children, and I shall therefore only deal with some of the common rashes which you are constantly meeting with, and call attention to some of their less common features, without any formal attempt at classification.

A medical man in active practice must necessarily have an acquaintance with the ordinary rashes of children, and especially a more or less accurate knowledge of the eruptions of the acute specific fevers. And yet mistakes are sometimes made, and I have seen a belladonna rash diagnosed as scarlatina, a bullous urticaria as varicella, a copaiba rash as measles, a pustular syphilide or an impetigo contagiosa as small-pox, while on the other hand I have known a case of typhoid fever with prominent intestinal symptoms sent into hospital as a case of appendicitis for immediate operation, a well-marked rose-red rash having been overlooked.

Even in the case of diseases so commonly met with as these there is often good excuse for a wrong diagnosis by any one who is not a skin specialist. Such is especially the case when the exanthem is not accompanied by any well-marked constitutional symptoms, and there is no history of the patient having been exposed to infection, or when the eruption is anomalous or coexists with some antecedent skin disease for which the patient is already under treatment. Of course these ill-defined, mild forms of zymotic disease are a great danger to the community, and may, if unrecognized, mean almost ruin to small private schools, and even to much larger institutions, when an epidemic has been allowed to originate and spread unchecked. Some of the contagious diseases, such as ringworm, even in the old days, before the universal use of x rays, were capable of producing almost as great a scare in small boys' schools. Ringworm is, however, becoming rare among the better classes, but again this summer I have seen cases of tinea cruris in boys from one of our best known public schools, where the disease had been allowed to spread through the carelessness of the school authorities.

Although the general characteristics of the infectious fevers are well known, it may not be out of place to call attention to some of their less well-defined and anomalous characteristics. In scarlatina the invasion is usually sudden, and in children may be marked by the occurrence of convulsions. The temperature rises rapidly, and may in the course of a few hours reach 102 or 103° F. The fever does *not* diminish after the appearance of the rash, which occurs during the first twenty-four or forty-eight hours, and is marked by exacerbations in the evening and remissions in the morning. In fatal cases hyperpyrexia with a temperature of as much as 108° occurs, and is accompanied by delirium or nervous depression. The rash makes its appearance first on the trunk, and spreads from the chest and abdomen to the arms and thighs and legs, but the face may escape entirely. To the touch there is often a feeling as of minute elevations in the neighbourhood of the hair follicles, but the punctiform appearance of the rash may be well marked even when the skin feels quite smooth. The rash is usually said to be scarlet, but is really of rather a deeper and duller tint, and in severe cases is accompanied by minute haemorrhagic spots which disappear on pressure. Another abnormality of the exanthem is the occasional excessive prominence of the papular lesions, which give the rash rather the appearance of that of measles than scarlet fever. Again, in some cases at the height of the eruption very numerous small vesicles make their appearance at the anterior axillary folds, or on the chest and abdomen, and these vesicles are found to contain a minute drop of cloudy fluid. On the other hand, in some instances the rash is so indefinite that it is entirely overlooked or misconstrued, and cases are said to occur in which the rash is entirely absent and the disease only recognized by subsequent peeling or albuminuria, or by the occurrence of scarlatina in other members of the family. In most cases, however, there is a certain amount of sore throat, and this is often one of the first symptoms, and may give a clue to the diagnosis when other symptoms are quite indefinite. Some cases of scarlatina are complicated by diphtheria, and in them the Klebs-Loeffler bacillus can, of course, be demonstrated, but it is important to remember that in some 10 per cent. of cases the two diseases coexist.

Mistakes in diagnosis usually take the form either of overlooking the rash altogether or of mistaking it for erythema scarlatiniforme, measles, dermatitis exfoliativa neonatorum, or a drug eruption, especially that caused by belladonna.

Erythema scarlatiniforme may be distinguished by the eruption being less punctiform but more diffuse and uniform, by the greater persistence of the rash and its tendency to recur, and by the absence of throat symptoms.

Measles eruptions are sometimes very like scarlet fever, but in the former the face is involved early, in the latter often not at all. In measles the spots are macular rather than punctiform, with a tendency to a crescentic outline, due to small portions of normal skin intervening between the irregular erythematous areas. Moreover, the rash of rubeola is preceded by four days of catarrhal symptoms, and may be accompanied or preceded by the appearance of small bluish-white spots situated on a red base on the buccal mucous membrane opposite the molar teeth. Dermatitis exfoliativa neonatorum is a rare form of pemphigus neonatorum, due to streptococcal infection, and characterized by definite desquamation over considerable areas, which is seldom accompanied by the sore throat, fever, and albuminuria of scarlatina, and, with reasonable care, should not be mistaken for it.

Drug eruptions, and especially belladonna rash, are sometimes of an erythematous character, which closely simulates scarlatina, but they are less punctiform in character, more diffuse, are unaccompanied by the sore throat and constitutional symptoms of the infectious fever, and are frequently associated with dilatation of the pupil and a pricking sensation of the affected skin.

A rash very similar to that of scarlet fever sometimes makes its appearance as a prodromal eruption in small-pox, and especially in the milder forms of the disease. It is scarlatiniform in character, but only of short duration, and generally disappears within forty-eight hours. This rash generally shows itself on the second day, when the constitutional symptoms of headache, vomiting, and pain in the back are well marked. The small-pox rash, of course, makes its appearance on the third day of illness, and then these symptoms often diminish or disappear. Of the appearances and characteristics of the typical small-pox eruption I do not propose to say anything, as it is sufficiently familiar, but every one is not equally well acquainted with some of its anomalous forms. Of these the most unfavourable to the patient is the appearance at the end of the incubation period, when the true rash appears or should appear, of a petechial eruption. The petechiae and ecchymoses are not raised above the level of the skin, and at first they disappear on pressure. They may lie in the spaces between the vesicles of the ordinary small-pox eruption, and the fluid in these vesicles then often becomes

stained with blood and the contents haemorrhagic. The petechiae are quickly followed by definite purpuric lesions, of a purple or dark-red colour, which do not disappear on pressure, and are diffusely scattered over the limbs and trunk. The purpuric patches generally spread to the face, which becomes swollen and puffy. The patches sometimes take on a still darker tint, and the pustules contain a mixture of pus and blood. Haemorrhages also occur from the mucous membranes, the patient becomes intensely prostrated, and death almost invariably occurs.

Such severe cases are not often seen nowadays, indeed the tendency of the disease seems to be towards a milder type, and you may remember an epidemic of small-pox in America some years ago in which the mortality among many thousands of vaccinated and unvaccinated cases in the United States during the first three months of 1901 was not much over 1 per cent. This epidemic was of a mildness absolutely unprecedented, and we can only hope that the next epidemic in England, which is certain to come in time, may be marked by an equal want of severity.

The differential diagnosis of small-pox is of some interest, as it is so often mistaken for varicella, pustular syphilis, bromide eruptions, and impetigo contagiosa. The most frequent mistake is to confuse it with varicella. In varicella there are not the same initial symptoms so characteristic of a well-marked case of variola, but the initial symptoms are either absent or so modified in mild cases of small-pox that a diagnosis has to be made from the appearances of the rash. In varicella the eruption consists of distinct vesicles, containing clear fluid, which are unilocular and easily ruptured. They are rather soft to the touch, variable in size, from a millet seed upwards; they may be seen in every stage of development, and first make their appearance on the back and parts of the body covered by clothing. They make their appearance in crops, and in two to four days become covered with a crust, which is brownish in tint, and, when it falls off, leaves a red rather than a pigmented spot, which passes into a very superficial temporary scar. Umbilication is rare, and only occurs from drying up of the central contents.

On the other hand, the small-pox eruption at first consists of hard, shotty papules which show themselves on the face, and afterwards on the trunk and limbs and hands, but most abundantly on the uncovered portions of the body. The papules soon develop into vesicles, and then into pustules with dense, cloudy contents. They are often umbilicated, are multilocular and not easily ruptured, become covered with a thick scab which falls off, leaving a pigmented spot with some amount of pitting. These various changes in the papule usually take place in ten to fourteen days; in mild cases the time may be somewhat shorter.

When the prodromal symptoms are well marked, and the initial eruption abundant and typical, there is little difficulty in making a diagnosis; but in mild, sporadic cases of small-pox all the above points of difference should be taken into account, and, in any very doubtful case, the patient isolated for a few days, when the nature of the illness will make itself sufficiently clear.

A pustular syphilide may, especially when the initial lesion cannot be determined, easily give rise to a suspicion of small pox. In both diseases there is initial fever, with prodromal joint and back pains and headache, and in both a papular eruption which becomes pustular. But in the syphilide the course of evolution in the rash takes longer. There is more definite induration at the base of the lesions, which are often polymorphous and in places tend to ulceration. The eruption of syphilis comes out in successive crops instead of at one time, and is usually accompanied by sore throat and enlarged supratrochlear or suboccipital glands. Of course, the discovery of a primary chancre, whether of the tonsil, mamma, or elsewhere, would make the diagnosis conclusive. It is hardly worth while to discuss the differential diagnosis from bromide and other drug eruptions, or from impetigo contagiosa, for, with ordinary care, such mistakes should never arise.

In connexion with the prevention of small-pox by vaccination, some rather interesting developments are at times met with in children.

Vaccinia, or cow-pox, when artificially induced in the human subject by inoculation, is, of course, in most cases protective against small-pox, and usually runs a mild and normal course; but it may be of interest to call attention to some anomalous results of such inoculations. Perhaps the most unusual of these is, instead of the ordinary pustule, the formation of a granuloma. This has been described most frequently by American authors. After the vaccine vesicle has been partly developed it ruptures, and the lesion takes on an indurated granulomatous appearance, somewhat allied to that of botryomycosis, which may persist for some weeks without undergoing involution and without marked change in its characteristics. The peculiar fact about such developments of the vaccination vesicle is that they are *not* protective against small-pox. They disappear like an ordinary vaccinia with simple antiseptic treatment, leaving slight scarring.

At the other end of the scale are those very severe reactions which are accompanied by acute phlegmonic inflammation and sloughing and well-marked constitutional disturbance, and, when the lesions become generalized, seriously affect the general health, and may even cause death. Quite apart from the ordinary vesicles which develop as a result of vaccination, and even preceding them, certain skin eruptions may occur as a result of the toxaemia produced by the vaccine virus. The morbilliform rash which is sometimes produced by injecting diphtheria antitoxin is, of course, well known, but the rash which follows vaccination in the first two or three days is rather of an urticarial character, with the usual appearance of this disease, or resembles a local or general erythema or an erythema multiforme. When the rash is of the nature of an erythema multiforme, it may be associated with the presence of vesicles or bullae, but these are only of a transitory character and soon disappear. Most of the bullous eruptions which appear two or three weeks after vaccination are usually forms of bullous impetigo contagiosa, due to a secondary streptococcic infection. A week or so after vaccination, absorption of the virus may produce a purpuric or erythematous eruption, and, as sequelae of vaccination, psoriasis, eczema and other skin diseases have been described, but I think it doubtful how far they have any connexion with the vaccination. I have recorded cases of lupus vulgaris appearing on a vaccination scar, and cases of syphilis and leprosy are also said to have occurred from inoculation of these diseases at the time of vaccination, but again it is impossible to prove that the wound has not become contaminated secondarily. If such cases have occurred, they were unquestionably due to gross carelessness on the part of the operator, and are hardly likely to recur at the present time. Pemphigoid lesions might result from the use of calf lymph, inasmuch as such lesions do occur in cows and might conceivably be conveyed to the human being with the lymph, and cases of acute pemphigus have undoubtedly occurred in butchers and others who have to do with cows, probably as a result of inoculation. True erysipelas, with the typical fever, constitutional disturbance and rapidly spreading inflammation of the skin with a sharp-cut edge, has been said to occur as a result of a mixed inoculation at the time of vaccination, but again it is difficult to be sure how many cases have resulted from secondary infection at some period following vaccination. Generalized vaccinia is of very infrequent occurrence, and more than sporadic cases seldom occur. The eruption is either sporadic, in which case a few vesicular lesions occur around the point of inoculation, or the eruption may become partly or entirely generalized, an extensive pustular rash spreading over the body a week or more after vaccination and continuing to spread for a month or so longer. If very extensive it may cause the child's death.

Epidemic generalized vaccinia is still more rare, but such an epidemic of unusual severity was recorded by Hill and Ross in the *Journal of Hygiene* in 1910. The epidemic involved 426 cases with 31 deaths, and of these cases 363 and 28 deaths occurred in the cool districts of Natal, while 62 cases and 3 deaths occurred in warmer districts. The cases in the epidemic may be classed in three groups:

1. In 20 per cent. a generalized eruption, apparent all over the body from the fourteenth to the twenty-eighth day after vaccination, and, in many cases, after the scab had fallen off.

2. In 75 per cent. secondary vesicles made their appearance round the original vesicle on about the eighth day, followed by

crops in various parts of the body for the next two months, and in certain cases even for three months.

3. In the remainder the eruption followed one of the preceding types, then subsided altogether, to reappear a month or so later, after some ailment or some lesion, such as a burn.

In the first group the eruption appeared as small macules, which were surrounded by a slightly reddened area, but the hard, shotty feeling, which is characteristic of the small-pox papule, was absent. The macules became papular, and in two or three days vesicular umbilication was frequent, and on about the eighth day they became pustular, and secondary fever set in. The eruption appeared also on the mucous membranes of the mouth, gums, palate, and pharynx. The lesions were, as a rule, more abundant on the vaccinated than the unvaccinated area, and were especially well marked on the forehead, neck, and scalp. On the front of the neck the lesions often tended to become confluent. The rash was often extensive on the thighs, less on the chest and back, and still less on the palms of the hands and soles of the feet, and scanty or even absent from the abdomen. The general appearance rather suggested small-pox, the temperature was high, and the children, in severe cases, got gradually weaker and weaker, and died either of exhaustion or some intercurrent affection, such as enteritis, bronchitis, or bronchopneumonia. Death occurred usually in the later stages of the disease, some as early as five weeks after vaccination, some as late as three months.

A calf was inoculated with some lymph from the vesicle on one of the children's feet, and typical but not very extensive vesicles resulted. The lymph was obtained from one source only, and about 75 per cent. of the individuals who suffered were vaccinated from a packet of tubes bearing one number, which would seem to indicate that the contents of the packet came from one calf. The total amount of lymph, however, was taken from six calves, and this would seem to indicate a particular factor inherent in the strain of lymph rather than in the reaction of any particular calf.

I have already drawn attention to the fact that nearly six times as many cases occurred in the cool districts of Natal as in the warm, and this may perhaps be accounted for by some change which took place in the lymph when exposed to a higher temperature.

So far I have dealt with diseases which are well recognized as infectious, but I shall now say a few words about a skin disease which is not more than mildly contagious, but of which I seem to have seen more cases last summer than usual. I mean pityriasis rosea.

Although a well-marked case of this disease is fairly straightforward and easy of recognition, the less well-defined cases may easily be mistaken for seborrhoeic eczema, psoriasis, tinea circinata, or the maculo-papular scaly syphilide. The eruption is sometimes discrete, frequently confluent, irregular or circinate in outline, slightly raised or scaly, and of a pale pink or reddish colour. The patches are most abundantly situated on the trunk, and may not number altogether more than twenty or thirty, or they may cover practically the whole of the chest, abdomen, and back, and also be present on the limbs. They vary in size from a pea to an inch or more in diameter, and may either attain their full size and number in a few days, or increase slowly during a period of a week or two, showing themselves irregularly one after the other or in several distinct crops. Some of the larger patches spread peripherally and clear up in the centre, so as to form circinate lesions of varying size, becoming, as they tend to fade, of a salmon-pink colour. After the rash has been present several days, some such circinate patches are generally found, very slightly raised above the surface, but with a well-marked scaly surface. Small patches often tend to coalesce, to form larger lesions, which again clear up in the centre and spread peripherally. The face is rarely involved, but the neck, chest, arms, and thighs all tend to be affected. Subjective sensations are uncommon, and at the most there is slight itching when the patient gets at all hot.

A peculiarity of the disease, which is quite characteristic, is the appearance in many cases of a so-called "herald patch," which is larger than the other subsequent patches, and precedes them by a week or ten days. It is of the same colour as the succeeding generalized eruption, but may be more well defined and somewhat more scaly. The disease is almost equally common in both sexes, and may appear at any age; it is said to be less frequent in individuals of dark hair and complexion, but I am not myself convinced of this.

Although no ringworm fungus or other parasite has ever been found in the disease, it is, as I have already stated, in my opinion undoubtedly parasitic, and probably mildly contagious, inasmuch as more than one case in the same family has been recorded by several observers. Microscopic examination does not help us much, except to show the absence of ringworm fungus, and a diagnosis cannot be made from microscopic sections alone. But apart from the absence of ringworm fungus in the scrapings, a distinction from tinea circinata can often be made clinically from the fact that the lesions of pityriasis rosea are rarely so circular as those of tinea circinata, and the peripheral border is not so sharply marginate, while the centre does not tend to clear up so thoroughly as in cases of body ringworm. Also, the lesions of tinea circinata are much more frequently found on the face than those of pityriasis rosea.

In psoriasis the distribution is also different, and the elbows and knees and scalp are much more frequently affected, the scales are thicker and more adherent, and the edges of the patches are sharper and more defined.

Seborrhoea may closely simulate pityriasis rosea, but the scalp or eyebrows are frequently involved in seborrhoea, the scales are more greasy, and its evolution is slower.

The maculo-papular syphilide, for which pityriasis rosea is so often mistaken, differs in that there is more definite infiltration, the lesions are somewhat darker in tint and occur more frequently on the palms and face, while there is usually corroborative evidence of syphilis to be found elsewhere.

As regards treatment, a soap and water bath every day, or, if there is any itching, a starch or alkaline bath, should precede the application of any lotion or ointment. An excellent lotion may be ordered of glycerini acidi carbolici mx, sodii bicarb. gr.x, boracis gr.v, aq. dest. ad ʒj; or liq. sodae chlorinatae mxxx, spt. lavand. ʒij, aq. dest. ad ʒj. If an ointment is preferred, a weak sulphur or salicylic ointment, containing 15 grains of either or both to the ounce of vaseline, may be ordered; or an ointment containing yellow oxide of mercury and resorcin may be made up with lanolin and lard. Under such treatment the disease tends to disappear in about a month.

Many even of the common rashes which occur in children have been of necessity omitted from this paper, and I can only hope that some of the features in children's rashes to which I have tried to draw attention may prove of slight assistance or interest to some one in practice.

THE late Sir Joseph Dalton Hooker, O.M., M.D., the famous botanist, left estate of the gross value of £36,861, of which £32,380 is net personalty.

THE usual monthly meeting of the executive committee of the Medical Sickness, Annuity, and Life Assurance Society was held at 429, Strand, London, W.C., on March 15th, Dr. de Havilland Hall in the chair. The amount of sickness pay disbursed in the early months of the year is always much greater than the amount required in the summer and autumn, and so far the experience of 1912 is about normal. The number of new sickness claims received has been rather large, but, being for the most part of short duration, they have not caused a more than usually heavy expenditure. The committee examined the draft of the annual report for 1911. The business of the society during last year was exceptionally good, and produced a considerable increase in its financial stability. The invested funds now exceed a quarter of a million sterling. The number of new entrants has grown with the age of the business, and the number obtained in 1911 was, with one exception, the largest secured during any previous year's working. The number of sickness members who attain the age of 65 years and, in accordance with the rules, then go out of benefit necessarily grows year by year. A substantial bonus is paid to each of them, and by a recent resolution of the committee a bonus is paid to the representatives of those sickness members who die before attaining the age. Many letters received at the office show that these bonuses are very much appreciated. Prospectuses and all further particulars on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

A CASE OF LATE SYPHILITIC GLOSSITIS TREATED BY SALVARSAN (EHRLICH-HATA).

[WITH COLOURED PLATE.]

BY SIR MALCOLM MORRIS, K.C.V.O.,

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In the case of severe late syphilitic glossitis reported below I was fortunate enough to obtain an excellent drawing in colour of the tongue immediately before treatment by salvarsan, as well as others depicting the condition on the ninth, nineteenth, and fortieth days after treatment. On this account, and also because the case is a striking example of rapid improvement effected by a single dose of salvarsan in a condition which had proved refractory to the regular and protracted exhibition of mercury, it appears to me to deserve publication.

The patient, a male aged 40, had a chancre on the penis, with buboes, in February, 1902, and later in 1902 there was a secondary eruption on the face. In August, 1904, an ulcer appeared on the inside of the lower lip. About a month later lesions on the tongue were noticed, the tongue beginning to swell and to become fissured. From that time until the autumn of 1911, with occasional abatements, the glossitis got gradually worse, the tongue becoming more swollen and the fissures deeper; in October, 1911, it began to split at the tip. All this time the patient had been taking small doses of hydrargyrum cum creta.

When the patient came to me, on November 1st, 1911, the tongue was eroded and painful, and its surface irregular and lobulated. It was so swollen that it could only be protruded with difficulty, and the teeth could not be seen. There were deep fissures, and at the tip it was split completely through. Ulcers were present both on the tongue and on the lower lip. The Wassermann reaction was positive. On November 18th 0.6 gram of salvarsan was injected intravenously by Dr. Henry MacCormac, the saline being made from water distilled twenty-four hours before use. There was very little general reaction on the day of the injection, but there was marked swelling of the lower lip. On the second day the patient felt very sick and uncomfortable, and his temperature was 102° F., but it fell to normal in the evening and remained so. On the tenth day after the injection the tongue was less swollen and not so painful; by the twelfth day the ulcers had disappeared. During December the fissures began to heal, those at the base in the direction of the tip, the cleft at the tip in the direction of the base. By January 15th, 1912, the fissures were entirely healed and the tongue had returned to its normal size. The erosions also healed; there is now no soreness, and the patient is able to eat with comfort. An eruption on the scrotum and perineum which had persisted for four or five years, and a slight lesion on the left hand, have entirely disappeared, and the general physical condition has greatly improved. The patient is now taking small doses of mercury by the mouth.

REMARKS.

I know of no other remedy, or combination of other remedies, which is capable of producing so rapid a disappearance of severe and long-standing lesions as was brought about by salvarsan in this instance. The case appears to me to be worth consideration at a time when there are some signs of a reaction against the new specific. At first, in some quarters, its claims were admittedly put too high. In some cases marked improvement is followed by relapse; in others, though not in many, the disease shows itself obdurate to the remedy; in yet others it has evoked unfavourable symptoms. That such experiences should cause a backward swing of the pendulum was only to be expected. The phases through which tuberculin has passed furnish a warning against the folly of extremes. In that instance the disappointment of exaggerated expectations produced a reaction which led to the undeserved neglect of a valuable agent, and it is only now that tuberculin is finding its true place in the diagnosis and treatment of tuberculosis. That salvarsan is an infallible specific, or that it should be employed promiscuously in syphilis, no one will now maintain. For cases in which there are certain complications or sequelae, such as advanced pulmonary tuberculosis, severe diabetes, grave disease of the liver and kidneys and other abdominal viscera, liability to haemorrhage, pronounced cardio-vascular change, or lesions of the central nervous system, its unsuitability is admitted. In some of these conditions it is doubtless defective elimination, owing to disease of the eliminating organs, that explains the unfavourable results; and the fact that when injected intravenously salvarsan is excreted in the urine much more rapidly than when injected intramuscularly or subcutaneously, is one of the reasons why the first of these methods is preferable to the other. Further advantage of the intravenous methods is the absence, as in the present case, of severe local pain, of infiltration at the site of the injection, and of sloughing of the skin. The general reaction, too, is usually less severe, and seldom lasts longer than the twenty-four hours to which it was limited in this instance.

The case also illustrates the greater amenability to salvarsan of tertiary than of secondary syphilis. It is in the secondary rather than in the tertiary stage that the disease sometimes fails to respond to the remedy. It will be noticed that the striking results described were produced by a relatively small quantity of salvarsan. Some of those who have had most experience with salvarsan have given 1.5 or 1.8 grams, in three fractions distributed over a period of several weeks: and in treating cases in the secondary period, free from any counter-indications, a more vigorous use of the remedy than was necessary in this case would no doubt be desirable. But in respect of dosage, it is too early yet to lay down any rigid rule. It is still necessary to feel one's way cautiously. The reports that have recently been published of fatalities following the administration of salvarsan form, it is true, but an infinitesimal proportion of the great multitude of cases in which it has been employed with safety and with marked benefit. They do not justify the neglect of a potent remedy because it is not entirely devoid of risk, but they do suggest the necessity for caution. It is well to be reminded that heroic measures might easily end in disaster. From one danger, however, which was not unreasonably apprehended as the result of experience with atoxyl—that of damage to the optic nerve—salvarsan appears to be free. Ehrlich, in his *Experimental Chemotherapy of Spirillosis*, states that not a single case of blindness in connexion with salvarsan has been reported to him, and declares that after penetrating research he has been unable to run a single one of these rumoured cases to earth. Wechselmann, who has maintained towards salvarsan a judicial attitude which has not been observed by all who have extensively used it, has testified that in upwards of 1,200 cases in which he had used it at the time of writing, he was unable to find any trace whatever of injury to the optic nerve. In the few cases in which other syphilologists have reported optic nerve changes it is, of course, possible that the disease rather than the remedy was responsible for the mischief.

In supplementing salvarsan with mercury I am following the plan which has all along commended itself to me. Leredde argues brilliantly against the combination, although it has received the imprimatur of Ehrlich himself, and is supported by the high authority of Neisser. To Leredde's contention that, in practice, the association of the two specifics will end in the ineffective use of both, I am unable to subscribe. At present we know too little of the precise mode of operation of either mercury or salvarsan to be justified in asserting that they have no complementary action. On the other hand, it is obviously true that by combining the remedies they can both be employed well within the margin of safety. When by lapse of time it has been proved that the effects of salvarsan are permanent, we shall be justified, in suitable cases, in relying upon it alone. Until then the prudent course, in my judgement, is to follow it up with moderate doses of mercury. The further treatment, if any be required, must be determined by the course each case runs, and the result of further applications of the Wassermann test.

SIR MALCOLM MORRIS: SYPHILITIC GLOSSITIS TREATED BY SALVARSAN.

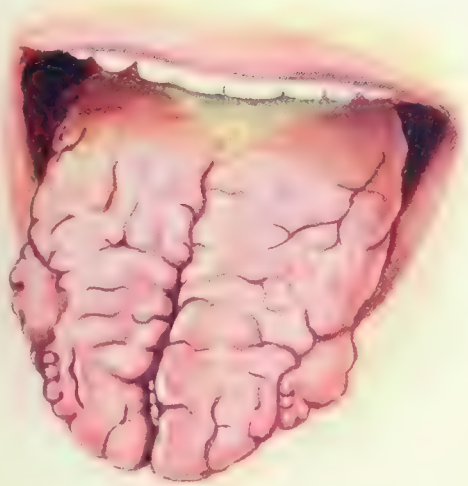


Fig. 1.—Condition before Injection.



Fig. 2.—Ninth Day after Injection.



Fig. 3.—Nineteenth Day after Injection.



Fig. 4.—Fortieth Day after Injection.

SIXTEEN MONTHS' EXPERIENCE OF SALVARSAN.

BY

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AND

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WE have been using salvarsan since October, 1910, when Professor Ehrlich kindly placed some at our disposal for experimental purposes. From the first we have been much impressed by its effect on syphilitic lesions, and we venture to present the following synopsis of our results.

We have treated altogether 92 patients, almost all of whom were private patients. Eleven of them received two injections, and one patient three injections, making a total of 105 injections in all. Seventy-four of our patients received intravenous injections, and 18 were treated intramuscularly. Of the latter, 5 received an injection of the neutral emulsion, and in 13 the salvarsan was injected rubbed up in sterile olive oil.

Of the 11 patients who had two injections, 8 had two intravenous injections, 1 had two intramuscular administrations, and 2 had an intramuscular and an intravenous injection. One of these had an intramuscular injection in neutral emulsion, followed ten months later by an intravenous dose; and the other had an intravenous injection, followed about eight weeks later by an intramuscular injection in oil.

The patient to whom we administered three injections received them all intravenously.

The Sex of the Patients and the Stage of the Disease.

Eighty-three of our patients were male and 9 female; 41 were in the primary and secondary stages, 45 were in the tertiary stage; there were 2 cases of incipient general paralysis of the insane, 2 of locomotor ataxia, 1 of sclerosis of the cord following transverse myelitis, and 1 of congenital syphilis.

Dosage.

As a rule we administered a full dose of 0.6 gram; 5 of our patients received 0.5, 4 received 0.45 gram, for the initial dose; one 0.4 gram, and 9 received an initial dose of 0.3 gram. Of those receiving two doses, 7 received 0.6 followed by 0.3, one received 0.45 followed by 0.3, three received 0.6 followed by 0.6 gram. The patient who received three injections had 0.3 gram on each occasion.

The Reaction.

Intramuscular injections in neutral emulsion are very painful, and require to be followed by the administration of morphine. Intramuscular injections in oil are not very painful at the time of administration, but in three or four days there is sometimes considerable swelling with redness and tenderness on pressure over the site of the injection.

There has been much discussion as to the reaction which follows an intravenous injection. We have fortunately never seen any of these alarming reactions of which so much has been made by some of the critics of salvarsan, and we attribute our immunity to the careful preparation of our patients, the technique of the administration, the after-treatment of the patient, and the fact that we make our solution with saline solution freshly prepared and sterilized immediately before each operation.

The evening before treatment each patient receives a purgative; in the morning breakfast is restricted to a cup of tea or cocoa and a slice of toast, and about five hours afterwards the dose is administered. After the injection the patient is returned to a warm bed and receives nothing except a sip of water for four or five hours. By following this line of treatment we have found that some of our patients have had no reaction at all more than a little sickness or a slight looseness of the bowels. We still hold that in some measure the reaction is related to the acuteness of the disease, and we should expect a patient with a florid secondary eruption to give a more severe reaction than an old tertiary case with an ulcer of the leg; but we have never seen any of these fulminating reactions with frequently repeated rigors, hyperpyrexia, and profound and alarming prostration.

Elimination of Arsenic.

After an intravenous injection arsenic is discoverable in the first urine voided. A dose of 0.3 gram administered intravenously disappears completely from the urine on an average in four to five days, while a full dose of 0.6 gram is eliminated in from seven to nine days. Some of the arsenic is undoubtedly eliminated by the gastro-intestinal mucosa, as we have discovered it in the stomach contents after vomiting.

In comparison with this rapid elimination the persistence of arsenic in the system after an intramuscular injection is very remarkable. We have found definite traces of arsenic in the urine of a patient twelve weeks after an intramuscular dose of 0.3 gram in olive oil. In this case the patient was a man of feeble physique and slow metabolism, but in all cases we have found that whereas a dose of salvarsan given intravenously is rapidly discharged from the system, the disappearance of an intramuscular dose is a matter of weeks, and may be months.

The Effect on the Lesions.

Primary Sore.—In some cases the effect on the primary sore is almost immediate, there being a definite improvement visible the day after the injection. An ulcerated chancre will cicatrize in from four to seven days, but if the chancre is a large one and the induration very considerable, ten to twelve days may be required for its healing. In some cases the induration will persist for a few weeks after an injection, though the superjacent and surrounding tissues appear normal. In all cases our experience has been that the primary sore is more rapidly influenced by salvarsan than by mercury.

Secondary Lesions.—The effect of salvarsan varies with the nature and type of the secondary lesion. The roseolar eruption will disappear within a week after an intravenous dose, and we have seen an almost equally rapid result follow an intramuscular dose. The maculo-papular eruption, however, recedes somewhat more slowly, but, as a rule, has disappeared in from ten to twenty-one days. No lesions yield more quickly than the mucous patch and the condyloma. Many mucous patches will disappear from the buccal pouches and the isthmus of the fauces in forty-eight hours, and condylomata will wither up in two to three days. The characteristic headache of the secondary stage vanishes in most cases within twenty-four hours; but in a recent case of a young lady with an extragenital chancre there was an attack of periostitis of the frontal bones three days after the injection. The generalized adenitis is the slowest of the secondary symptoms to recede; it may persist for several weeks after all other outward symptoms have disappeared.

Tertiary Stage.—In this stage salvarsan is of great value, and will cause ulcers that have resisted the action of mercury and the iodides to heal up rapidly. For this reason it has been suggested, especially by the French school, that salvarsan is a cicatrizing rather than a spirillocidal agent. But the truth probably is that it combines both properties. The difficulty of causing advanced ulcerative processes in the mouth and throat to yield to treatment is well known. Here salvarsan is of supreme value, and among the cases which we shall quote shortly we have a remarkable example of this fact. Syphilitic affections of the organs of special sense are also much benefited by salvarsan. Two of our cases had syphilitic iritis at the time of injection, and quickly got rid of it; while in one case there was an extraordinary improvement in the hearing of a patient, who, the day after the injection, was able to hear the church bells, which she had been unable to do for many months before. Unfortunately, however, this improvement was not permanent.

Parasyphilitic Disease.—Our experience has been that salvarsan can produce a marked amelioration of symptoms. In the two cases of incipient general paralysis we have treated there was for a time an improvement in the speech of the patients, but this was not maintained. One of the patients was able to return to work for several weeks after receiving an intravenous injection, but he subsequently relapsed. In tabes, salvarsan has in our experience of two cases been more effective, and has caused the disappearance

of lancinating pains, gastric crises, and at the same time improved the patient's power of balancing himself.

We are not sanguine enough to persuade ourselves that salvarsan can restore to its original condition a degenerated neuron; but there is no remedy known to us which has that beneficent property, and the impotence of salvarsan in this direction is not peculiar. But we are convinced that if every case of syphilis in its early stages were treated vigorously with salvarsan there would be fewer patients who would drift into the living death of general paralysis or the crippling ataxia of tabes.

The Effect of Salvarsan on the Wassermann Reaction.

In the Wassermann reaction we have a guide of considerable value as to the adequacy of antisyphilitic treatment. In some cases a single full dose will convert a positive into a negative reaction in three weeks to a month from the time of its administration.

In one of our earliest cases, where the patient received 0.45 of a gram intramuscularly, the Wassermann reaction became negative and remained so for nearly nine months. During these months the patient had no other treatment but was kept under regular observation. A clinical relapse, evidenced by some periostitis, coincided with a return of the reaction to positive. He then received an intravenous injection of 0.6 gram followed by a series of intramuscular injections of grey oil, and the Wassermann reaction became negative again.

In some cases a single injection of salvarsan will not convert a positive into a negative reaction, but a second injection will bring about this change. In our experience a rapid change from the positive to the negative is more likely to occur if the patient, in addition to salvarsan, has had either a preliminary or a subsequent course of vigorous treatment with mercurial inunction or injections. This fact supports the practice which we invariably follow now—namely, a combined treatment with salvarsan and mercury.

The General Effects of Salvarsan.

As salvarsan is an arsenical compound we would expect to find its administration followed by some of the tonic effects of that drug, and our experience has been that there has always ensued a considerable improvement in the patient's general health. The skin becomes clearer, the lips and conjunctivae become more red, and there is almost always an increase in the patient's weight and a remarkable sense of well-being.

Contraindications.

We have denied salvarsan treatment to only two patients who were referred to us for treatment. One was a case in which severe glycosuria complicated the syphilitic condition, and the other was a patient with an extensive weeping eczema.

We have administered it, of course with all due precautions, to two patients with well-compensated mitral incompetence, to two pregnant women, and to a patient passing 5 grains of sugar in the ounce of urine. These patients did not cause us an extra amount of anxiety, and were all greatly benefited by the treatment.

Dangers.

There is an unfortunate idea about, even in professional circles, that salvarsan is a very dangerous remedy, whose use may lead to fatal results and serious disaster to the optic nerve. Like all potent remedies, salvarsan, if improperly administered, may bring about death; but we are firmly convinced that the dangers of its use have been grossly exaggerated. It is a hard thing to suggest that international politics can produce prejudice against a scientific discovery, but we cannot forget that reports of disaster from the use of salvarsan emanated from France before a single dose of salvarsan had been administered in that country. And, further, more fatal accidents would seem to have followed its use in France than anywhere else.

The fatal accidents have been due either to large overdoses, the choice of unsuitable cases, or errors in technique.

In the first 40,000 injections there were 23 deaths, or 0.05 per cent. It has been estimated by Browning and Mackenzie that over one million doses have now been administered, and the mortality per cent. is infinitesimal. As with the administration of anaesthetics, so with salvarsan: careful administration reduces the danger to a minimum; careless or haphazard administration means disaster. The consensus of the best recent opinion is that salvarsan has not the slightest deleterious effect upon the optic nerve.

The Question of Relapses.

Syphilis is a disease which, under any form of treatment, is characterized by long periods of quiescence and unexpected relapses. Of the cases we have treated, excluding those in which the nervous system was affected, three only have shown any further symptoms after the injection of salvarsan. These facts alone we regard as a proof of the supreme value of the remedy as an antisyphilitic.

Since June of last year we have followed the routine practice of reinforcing the action of salvarsan by following it with a course of inunction with mercury or the intramuscular injection of grey oil. Our reason for this was not any distrust of the remedy, but a recognition of the principle that in dealing with a serious malady, such as syphilis, it is best to make assurance doubly sure. It must not be forgotten that a spirochaete may be lodged in a thrombosed blood vessel or surrounded by fibrous tissue in such a way that an intravenous dose of salvarsan cannot reach it. This spirochaete may lie dormant for a long time before resuming activity, but if the salvarsan injection is followed by mercurial treatment the mercury may ferret out the concealed micro-organism and destroy it. We regard the combined treatment as the best.

General.

Every case treated has responded to salvarsan. In only one—a case of ulceration affecting the cartilage of the nose—was this response delayed. In this case we had given an intramuscular injection in oil, and absorption was very slow: but on administering potassium iodide, which had been previously given without result, there was a rapid improvement, and a second intramuscular injection completed the healing process.

In two cases there was a very slight herpetic outbreak after the injection. One was after an intramuscular injection in neutral solution, and was characterized by the appearance about three weeks later of a few abortive herpetic vesicles in the temporal region. The other occurred about a week after an intravenous injection and affected the chin. It also was very slight.

The following cases will suffice to indicate the remarkable properties of salvarsan:

CASE I.

A ship's captain, aged 51, sent by Dr. Popert, of Southport. Primary infection twenty-seven years ago. When seen by us he had been suffering from extensive ulceration of palate and throat for nearly a year. He had had much treatment with mercury and potassium iodide, and in January, 1911, had received in London an intramuscular injection of salvarsan.

On examination he presented the appearance of a man in the last stages of malignant disease. He was much emaciated, his complexion was a dirty sallow colour, his lips were pale, and he was extremely feeble. The fetor of his breath was intense, and pervaded the whole room. There was extensive ulceration of the palate and posterior pharyngeal wall. Swallowing was extremely painful.

On September 11th, 1911, he received an intravenous injection of 0.6 gram of salvarsan. The following day he expectorated a piece of necrosed bone measuring about 1 in. by ½ in. On September 13th the ulceration of the palate had assumed a healthier appearance, he could swallow with more ease, and felt better. On this day we excised the encapsulated remainder of the intramuscular injection which had been administered in London eight months before. This consisted of a mass of necrosed tissue situated between the inner border of the left scapula and the vertebral column. It measured about 3 in. by 2 in., and the walls of the capsule, which consisted of necrotic muscle fibres, were about ⅛ in. thick. The contents of the cavity were 1 to 1½ drachms of emulsion of salvarsan. This case illustrates one of the disadvantages of the intramuscular method of injecting salvarsan, and the fact that the salvarsan emulsion was lying encysted there explains why he had derived little, if any, benefit from that injection. The following day he passed out of our care into that of Dr. Popert, who kindly reported on November 23rd that the patient had made an uninterrupted recovery, the ulceration of the palate and pharyngeal wall had healed, the only defect being a tiny hole through the soft palate.

This was a case in which both mercury and potassium iodide had failed, and where salvarsan, too, had been administered without benefit through encapsulation of the

injection. We believe that in this case the intravenous injection of salvarsan saved the patient's life.

CASE II.

A doctor, aged 34, sent to us by Mr. Craig Dun. The primary infection was in January, 1908, and, in spite of treatment carefully carried out from the beginning, there was early ulceration and repeated relapses. He had been treated with hydrarg. cum creta by the mouth and intramuscular injections of grey oil in the most thorough fashion, but, in spite of this, his history was one of constant relapses, and from the time of infection he was rarely free from some manifestation of the disease. He was referred to us in March, 1911. His chief symptom then was nocturnal headache, sufficiently severe to prevent him from sleeping, with boring pains in the bones of the face, also worse at night. He gave a well-marked positive Wassermann reaction.

On March 27th, 1911, at 12.30 p.m., we administered an intravenous injection of salvarsan. He kindly made notes for us of his subsequent progress, from which a quotation may be of interest:

"At 6 p.m. and 9 p.m. the bowels were moved. The usual headache, which started between 8 p.m. and 10 p.m., never arrived, and I fell asleep waiting for it. March 28th. Woke this morning with sense of relief; ate breakfast, and swallowed with no discomfort whatever."

It seems almost like a fairy tale, but from that day till December, 1911, when we last saw the patient, he had no further headache nor any other symptoms of syphilis. In May he gave a negative Wassermann reaction, but it had changed to a slight positive in December, 1911, and on that account we gave him another full injection of 0.6 gram.

He promised to let us know at once should there be any further symptoms, and, as we have not heard from him, we take it no symptom has appeared.

CASE III.

A ship's captain, aged 43. Primary twelve years ago, and had had no objective symptoms for eleven years. About fifteen months before he was seen by us he had a temporary paresis of the right arm and of his speech centre. When seen by us in October, 1911, the knee-jerks were absent; he had lancinating pains in the legs, the Argyll Robertson pupil, and the other cardinal symptoms of locomotor ataxia. Wassermann reaction positive. On October 21st he received an intravenous injection of 0.6 gram.

On October 25th he volunteered the statement that he felt much better, and was more certain of his legs. He had had no lancinating pains since the day after the injection. He had to return to sea, and was instructed to carry out mercurial inunction. On December 27th he returned, and reported that he felt very much better. He had lost all pains in the legs, though there had been a slight return after he had been exposed for forty-eight hours on the bridge in a storm. His speech had improved, his gait was better, he had more control over his limbs, and said "he could dance the Highland fling." Wassermann reaction being, however, still positive, we gave him on January 2nd, 1912, another injection of 0.6 gram.

CONCLUSIONS.

1. In salvarsan we have a unique and potent remedy for the lesions of syphilis.

2. It is a remedy that is efficacious at every stage of the disease.

3. It can bring about healing in lesions that have resisted mercury and the iodides.

4. The ideal treatment is a combination of salvarsan and mercurial treatment, beginning with an intravenous injection of salvarsan, and following it with vigorous mercurial treatment, and, if necessary, repeating the salvarsan injection. Treatment should be controlled throughout by the Wassermann reaction.

5. If properly administered to suitable patients there is no more danger attendant upon the administration of salvarsan than on the use of any other powerful remedy.

6. The intravenous injection is better than the intramuscular one.

7. Though Ehrlich's original idea of accomplishing the complete destruction of every spirochaete in the body by a single injection has not been fulfilled, he has given us in salvarsan the most powerful antisyphilitic remedy that has been discovered in our time.

THE Australian Institute of Tropical Medicine has been granted an increased endowment by the Commonwealth Government. A grant of £4,000 a year has been made from January 1st, 1912. This will permit the immediate erection of new laboratories and the enlargement of the staff, thus enabling the institute to widen the scope of its work.

CASES OF CHRONIC PURPURA WITH AND WITHOUT CUTANEOUS LESIONS.*

BY

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THE existence of purpura haemorrhagica as an acute transient disease is well known and recognized. Another type—a chronic form in which the lesions continue for months or relapse again and again—has attracted less attention among English writers,† and it is the object of the following paper to record three of these rarer cases.

The occurrence of such cases has been recognized, particularly by French physicians, ever since a paper on the subject by Racle in 1844.[1] Bensaude and Rivet, who had been making observations for some years, summed up their experience in a most excellent paper in 1905.[2] They recorded the histories of 14 cases personally observed, and of 20 other cases which they had collected from medical literature. The continued form is the rarer, the intermittent the more common; in the latter the attacks are sometimes preceded for months or years by frequent isolated haemorrhages. The duration of such cases may be as great as twenty years, and the intervals between the crises may vary from a few months to, in one case, seventeen years. The termination is variable; 5 of Bensaude and Rivet's own cases and 4 of those they collected ended in death.

As regards diagnosis, Bensaude and Rivet point out that whereas haemophilia is congenital and hereditary, chronic purpura haemorrhagica is neither. In haemophilia the blood shows a considerable diminution in coagulability, but the clot once formed contracts; in chronic purpura haemorrhagica coagulation takes place normally, but the clot does not contract. Further, in haemophilia there is no considerable diminution in the number of blood platelets; in purpura haemorrhagica this is a marked feature.

E. H., aged 46, was admitted as an in-patient at the Bristol Royal Infirmary on January 24th, 1902, under the care of Dr. Shingleton Smith, to whom I am indebted for permission to record the case. She was suffering from pains in the stomach and limbs and bleeding from the mouth. There was no family history of bleeding. Fourteen years previously she had had bleeding from the mouth and a purpuric rash on the skin, an attack which came to an end in about a week. Since that time she had repeatedly suffered in the same way, having had, as far as she could remember, an attack every year. The present one had begun two days previously with bleeding from the nose and mouth, and spots on the trunk and limbs. On examination, it was found that there were numerous discrete purpuric spots scattered over the whole surface of the body; they were mostly small, but on the deltoid region of the right arm many confluent spots made a discoloured area as large as a five-shilling piece. Numerous petechiae were present on the inner surface of the lips, on the fauces, and on the posterior pharyngeal wall. There was no vomiting, and no blood with the motions. The abdomen was normal and the liver and spleen were not enlarged. The urine contained a trace of albumen, but no blood. No fever was present. The patient rapidly got well, and went out in a little over a week. I have ascertained lately that the attacks recurred at intervals during the following five years and then ceased. The disease thus lasted for nineteen years.

J. B., aged 17, was admitted to the Bristol Royal Infirmary under my care on October 3rd, 1904, suffering from pneumonia of four days' duration. No previous illness of any note had occurred; and, in particular, he had never suffered from bleeding, nor was there any family history of bleeding. The lower lobe of the left lung was found to be consolidated. The temperature fell by crisis on the seventh day, and the pulmonary condition rapidly cleared up. During the fever the urine contained a trace of albumen, but no blood. On October 10th the boy vomited, had pains in the cervical region of the spine, and was found to be unable to straighten either arm—a condition caused apparently by contracture of the flexors of the elbow-joints. The biceps and triceps jerks could not be obtained, the knee-jerks and plantar reflexes were normal. The flexion of the arms lasted a week, until October 17th, and then slowly disappeared. On October 23rd an extensive purpuric eruption appeared on the legs and thighs, and the lower end of the right thigh became tender on palpation, but was not swollen. No leucocytosis was present. On October 25th there was some abdominal pain and vomiting, and the urine became smoky in colour and contained blood corpuscles. No renal casts were present. The purpuric rash slowly faded, no fresh spots appeared, and the urine contained, day by day, less blood, so

* A paper read at a meeting of the Bath and Bristol Branch on October 25th, 1911.

† For example, it is not mentioned by Mackenzie in Allbutt's *System*.

that on November 22nd—the date of his discharge—only a few red blood cells could be seen in the urine after centrifugalization.

During the year 1905 the boy remained well. He was readmitted on January 18th, 1906, with a slight bronchitis. The urine was free from blood and albumen, and no purpuric rash was present. On January 25th an eruption—partly erythematous, partly purpuric—appeared on the legs and thighs, and there was a second crop on February 3rd. He went out on February 15th quite well. He was again admitted on March 21st, 1906, passing blood in the urine. No renal casts were present. The haematuria soon cleared up, and he went out on April 7th. There has been no recurrence since that date.

The purpura in this case was intermittent, that is, it consisted of two haemorrhagic crises, separated by a year of good health.

I have not seen any record of the occurrence in cases of purpura of the peculiar contracture of the flexors of the elbows which this boy presented; it may have been due to haemorrhage into the spinal theca.

The origin of the purpura was most probably an abiding pneumococcic infection. It is well known that a purpuric eruption may complicate pneumonia, generally in the form of petechiae, and, exceptionally, pneumococci may be found in the blood in cases of purpura without pneumonia. The following is an instance:

Thomas G., aged 53, was admitted to the Bristol Royal Infirmary, under my care, on May 18th, 1911, suffering from purpura. Three weeks previously he had "caught cold," and, a week subsequently, spots came out over the body. It was found that the whole surface of the trunk and limbs were covered by purpuric spots, varying in size from a pin's head to a five-shilling piece. No bleeding was taking place from any internal surface; the eruption was confined to the skin. There were a few rhonchi to be heard at the bases of the lungs, but no physical signs of pneumonia. The temperature was 100° on the day of admission, normal subsequently. The red blood cells numbered 4,850,000 per c.mm., haemoglobin 80 per cent., white blood cells 7,812 per c.mm.; a differential count gave polymorphonuclears 75 per cent., small lymphocytes 20 per cent., large lymphocytes 4 per cent., and eosinophiles 1 per cent. A blood culture on May 19th, by Professor Walker Hall, showed the presence of pneumococci, and on May 23rd they were again found "degenerating." The purpuric rash faded, no new spots appeared, and the man went out on June 7th.

The man was again an in-patient of the Bristol Royal Infirmary, under the care of my colleague, Dr. Charles, from November 20th to December 5th, 1911, suffering from a recurrent attack of purpura. Only the legs were affected. The bacterial content of the blood was not determined. The disease has thus lasted in his case at least six and a half months.

Here, the only symptom of the pneumococci invasion was the purpuric rash, which was confined to the skin. Invasion by pneumococci may thus cause pneumonia or purpura, or both phenomena; if both, the purpura may occur at the same time as the pneumonia, or subsequently; and it may recur and so become of the chronic type, as in the case of the boy whose case is recorded above.

The haemorrhages in the cases recorded by Bensaude and Rivet were various in seat, but in no one were cutaneous lesions absent. In one case, however, spontaneous cutaneous haemorrhages were absent during more than a year, though epistaxis and haematemesis took place, and ecchymoses occurred on traumatism. In one case of Owen's,* cited by Pratt,[3] a girl aged 11 "had haemorrhages for twelve months, first from the bowels, then from the nostrils, and afterwards from the left ear. There was no history of bleeders in her family, no arthritis, and no purpura."

In a case of Osler's,[4] a patient who for six years suffered from recurring gastro-intestinal crises—colic, vomiting, and diarrhoea—with fever, delirium, and erythema multiforme, had no skin lesions for two years with the attacks.

Pratt concludes from such evidence that "there are some cases of the haemorrhagic diathesis which present the clinical picture of purpura haemorrhagica, except that cutaneous haemorrhages are absent. There is no hereditary or congenital tendency to haemorrhage, and hence they cannot be classed under haemophilia." The following is an instance of this very rare form:

Annie B., aged 18, came under my care in January, 1904, suffering from a painless profuse haematuria, which had begun suddenly without known cause a few days previously. There was no family history of bleeding, and the girl had previously enjoyed fair health. The urine, of normal amount and passed at the usual intervals, was bright red in colour owing to intimately mixed blood. No renal casts were seen on microscopical examination. The temperature was normal. On examination, a movable, slightly tender, right kidney was discovered. As the haemorrhage persisted, and as it seemed possible that the blood was coming from the right kidney, my colleague, Mr. Paul Bush, kindly saw the patient with me, and subsequently took her into his ward at the Bristol Royal Infirmary for further observation, and possibly operation. The blood in the urine was found to be inconstant in occurrence; it varied in amount, and on some days was absent. On April 29th the patient vomited, and the vomit was streaked with blood. This was the only occasion on which haematemesis occurred in 1904.

On May 4th the right kidney was explored by lumbar incision. It was absolutely normal in appearance, and neither neoplasm nor stone was there. Nephropexy was performed. The haemorrhage persisted in much the same fashion as before the operation. In June the bladder was examined with the cystoscope, with negative results. In the late summer and early autumn the haemorrhage very gradually ceased, and the patient went out in October.

In January, 1905, there was a recurrence of the haematuria, and the girl was again an in-patient for a month. During the rest of the year 1905, the year 1906, and the year 1907 until October, she remained fairly well, though having slight haematuria from time to time—not enough to make her keep her bed.

In October, 1907, an acute haemorrhagic crisis occurred; large quantities of bright red blood came from the rectum and in the urine. The rectal blood was passed partly independently of the motions, partly covering them, it was not mixed with them. After the haemorrhage had lasted some days, turpentine in 20 minim doses was given every two hours, with the result of stopping the bleeding. The slight intermittent haematuria persisted until January, 1908, when another haemorrhagic crisis occurred; she vomited blood, passed bright red blood per rectum, and in the urine in large quantities. Turpentine again stopped the haemorrhage. The patient nearly died in each of these attacks.

A few weeks subsequently I found by Wright's tubes that the coagulability was normal. Liq. arsenicalis in 5 minim doses ter die was now given, and its administration persisted in. The haematuria gradually lessened, and ceased within a month. The drug was then given during the first week of each month for the following eighteen months. The patient found at first that if she did not take the medicine the haemorrhage recurred, though in slight amount; later on, that she could safely leave it off. There has been no recurrence since July, 1909.

On reviewing the details of this case, it is seen that three haemorrhagic crises occurred in the course of four years—in the first haematuria, in the second haematuria and rectal haemorrhage, in the third haematuria with gastric and rectal haemorrhage. These attacks were not isolated—haematuria of variable degree was almost constantly present in the intervening periods and followed the last attack. No haemorrhage took place in the skin, or from the nose or mouth or pulmonary tract, and menstruation was normal in amount. The coagulation time of the blood was normal. Turpentine controlled the violent outbursts of bleeding; and arsenic, apparently, brought about a cessation of all symptoms. These phenomena may be grouped together, with a diagnosis of chronic purpura without cutaneous haemorrhages.

I did not observe whether the blood clot did or did not contract, nor were any observations made on the number of blood platelets.

Chronic purpura of Henoch's type is not common, but cases of the purely haemorrhagic variety, such as are recorded above, are probably still rarer. Their recognition, however, is of practical importance, as it seems possible, at least in some cases, to bring about a cure of the condition.

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[1] Raele, *Annales des maladies de la peau et syphilis*, 1844, t. ii. [2] Bensaude and Rivet, Les formes chroniques du purpura hémorrhagique, *Arch. gén. de méd.*, 1905, t. 195, i, pp. 193–216. [3] Pratt, in *System of Medicine*, ed. Osler and McCrae, vol. iv, 1908. [4] Osler, On the Visceral Complications of Erythema Exudativum Multiforme, *Amer. Journ. of Med. Sci.*, vol. cx, 1895.

* The reference is not given by Pratt.

AN exhibition organized by the Coal Smoke Abatement Society was opened at the Agricultural Hall, Islington, on March 23rd. Though a considerable proportion of the exhibits are illustrative of modern methods of diminishing the emission of smoke by factories, a large number are of domestic interest. The Gas Light and Coke Company, for instance, shows various ways in which the direct use of coal for household purposes may be avoided. The defects of early appliances for this purpose have stood in the way of the use of gas for warming and cooking purposes, but more recent methods are very much superior. The exhibition includes some striking models illustrative of the amount of soot that falls annually in London, and of the detriment caused to public buildings by the acids evolved by imperfect combustion of coal.

LEISHMANIA DONOVANI AND LEISHMANIA TROPICA.*

BY R. ROW, M.D.LOND., D.SC.LOND.
(From F. D. Petit Laboratory, Byculla, Bombay.)

In 1904, a year after the discovery of the Leishman-Donovan body by Leishman[1] and Donovan,[2] Rogers[3] grew this parasite for the first time in culture, and demonstrated its various developmental forms up to its flagellate stage. The results obtained by Rogers in Calcutta were confirmed subsequently by Chatterjee,[4] Leishman and Statham,[5] Christophers,[6] and others. All these cultures were made in citrated blood with a variety of additions and modifications, but were not apparently available for successive cultures, the culture dying in the course of a week or two, although in one instance Leishman and Statham[7] have recorded a successful subculture.

To Ch. Nicolle[8] of Tunis belongs the credit of perfecting a technique by means of which it is possible to keep up indefinitely a series of successive cultures in a medium which is practically uniform in composition and available in any quantity. This medium has replaced in *Leishmania* culture work the original Novy-McNeal medium, in which Nicolle himself grew his first cultures of the *Leishmania* of infantile kala-azar of Tunis. It is not necessary to describe the details of preparing this well-known medium beyond stating that it is a simple agar without peptone or meat extract containing 25 per cent. rabbit's blood, and when prepared according to the formula[8] given by Nicolle,[9] has a fair amount of condensation fluid in which these parasites grow when planted. It is in the same medium that Nicolle cultured *Leishmania tropica* for the first time from material derived from Oriental sores in Tunis in 1908. Later, Row[10] cultivated independently the parasite of Oriental sore of Cambay (India) in dilute human blood, and described the various developmental stages of the parasite up to the fully formed herpetomonas-like flagellate. Although this medium answers well for developing the various stages of this parasite as well as that of kala-azar (India), as will be seen presently, it is found difficult, from a practical point of view, to keep a regular supply of it in a constant, fresh, and sterile condition, such as would be available for successive cultures. It is on this account, I believe, that, as I stated in my last memoir[11] on this subject, I had failed to keep up a serial culture of the parasite. However, since reading this paper before you, I have again persevered with this attempt, but for success I have had to make use of the Nicolle-Novy-McNeal medium for continuation of successive cultures. Of late years the study of *Leishmania* cultures has been so repeatedly undertaken, and by so many workers all over the world, as you will see by a reference to the *Kala-Azar Bulletin* before you, that I felt a certain amount of hesitation to come before you with the same subject again, but the following one or two considerations may justify my doing so.

In the first place the parasite of Indian kala-azar has been pretty frequently cultured in the Novy-McNeal medium, and also in Nicolle-Novy-McNeal medium, both in India and in England, but always unsuccessfully (except in the one case of Leishman and Statham above referred to), and this constant failure to culture by workers in India on the Indian kala-azar in the Novy-McNeal-Nicolle medium, and also the like failure of Nicolle in culturing the Tunisian parasite of the infantile kala-azar in the medium recommended by Rogers, as also the failure to infect animals with the *Leishmania donovani* of Indian kala-azar, had led to the suggestion that there may be, after all, two species of this kala-azar parasite—one the Indian and the other that of infantile kala-azar. In the face of this suggestion it may be of interest to note that from the material of a splenic puncture in a case of kala-azar at present in the Jamsetjee Jeejeebhoy Hospital in Bombay, I have succeeded in growing in successive culture (four generations up till now) in the Novy-McNeal-Nicolle medium in the same way as I have done with the parasite of the Oriental sore of Cambay, thanks to Nicolle's technique. Not only is it, then, possible to obtain the cultures of the Indian *Leishmania donovani* just as those obtained by Nicolle with the *Leishmania infantum*, in the Novy-McNeal-Nicolle medium, but also, contrary to Nicolle's observation, I find no difficulty in obtaining good developmental forms and flagellates in the citrated blood (2 per cent. sodium citrate in 0.8 per cent. NaCl). The result of the experimental infection in the monkey is being watched with interest, as a positive result would once for all remove one of the strong grounds for the supposition of the two parasites of kala-azar being distinct, and this result will be communicated at the first opportunity.

Further, it may be noted that these cultures, grown in identical conditions from the two different parasites, may help us to decide the identity or otherwise of our Indian parasite from those of North African and Mediterranean variety, and even to bring out further differences, if any, of the two kinds of *Leishmania* producing such two clinically different types of disease in India.

Secondly, it had been pointed out by myself[10] and other workers that one of the points of difference between the *Leishmania donovani* and *Leishmania tropica* is the temperature conditions, the former thriving best at a lower temperature than the latter. In the light of the present observations, however, I find there is no need to lower the laboratory temperature to 22° C., as recommended by Rogers for his acidified citrated blood medium, nor for the range found best by Nicolle[8] in Tunis, namely, 18° to 22° C. I find that the laboratory temperature in Bombay at all times of the year—including the hottest day of October or May, 28° to 32° C.—is quite good for *Leishmania tropica*, and that these as well as *Leishmania donovani* also do well during December and January temperatures, namely, 26° to 28° or 30° C. On the other hand, a lowered temperature, 18° to 20° C., in the ice box decidedly retarded the development of my culture of *Leishmania donovani*, so that what took place in four or five days took quite eight to ten days in the ice box at 18° to 20° C.

Thirdly, I find that my observations harmonize with those of Nicolle, inasmuch as that *Leishmania donovani* and *Leishmania tropica*, when planted in Novy-McNeal-Nicolle medium, develop practically in the same manner. I find no necessity of citrate nor of acidification[12] for my cultures, as recommended by Rogers. Acidification in a few tubes of my experiment has had a decidedly harmful effect on a vigorous growth; at any rate, it has been so with the few observations I have made on this point, and I have no intention just at present to test the utility or otherwise of the acid, as the cultures made in the plain Novy-McNeal-Nicolle medium are abundant and vigorous, as you will see from the living specimens under the microscope.

One other point of some difference, seen in the light of my present observation, to those already recorded by Nicolle and other observers, is in reference to the time limit. I find that for *Leishmania tropica* of the Cambay sore, from the fifth to the eighth day is the time when the parasites are at their best. They show decided signs of degeneration about the fifteenth day, and by the twenty-fifth day they are so far gone that I should not recommend this period for a reculture. The rosettes make their appearance soon after the flagellates are fully formed, and are fairly tired of dividing and subdividing, and I have seen them as early as the third day in subculture, but they are best seen, as stated above, between the sixth and eighth days. (Nicolle's cultures commence to grow about the seventh day, are abundant on the fifteenth, and live for six weeks.[8]) I believe the same rule applies to *Leishmania donovani*, but I am not able to give definite figures on this point, as I am engaged now with only young cultures, of which I have now reached the fourth generation, and my observations on this point are at present incomplete.

Comparison of Cultures of Leishmania Donovani (India) and Leishmania Tropica Grown in Dilute Human Blood up to Flagellation.

Leishmania donovani grown in (non-acidified) diluted human blood (four times citrated saline) shows nothing different from what has been observed previously by other workers on this subject, and if I may compare these changes with those taking place in the same medium for *Leishmania tropica* in the early stages of development I

* Read at a meeting of the Bombay Branch of the British Medical Association on January 4th, 1912.

find nothing beyond a slower growth and a growth more or less in all dimensions than in any one particular direction. Thus in a twenty-four hours' culture of *Leishmania donovani* the best attempt at elongation results in the production of an ovoid body. One other feature noticeable, even at this early period, is the presence of a large number of fine vacuoles in the body protoplasm of the parasite, while, as I pointed out elsewhere, the parasite *Leishmania tropica* becomes distinctly oval or oat-shaped, pointed at one extremity and larger, and even in twenty-four hours shows distinct signs of division; it also looks less spongy. After this stage, from the third till the fourth day or longer the preflagellates of both the parasites grow more in the longitudinal direction and at last go into flagellates; the only difference noted, even here, is the slow nature of growth of *Leishmania donovani* and the stunted appearance of the flagellates in comparison with those of *Leishmania tropica*. All these cultures were grown at the laboratory temperature, 26° to 30° C. These slight differences, as I pointed out, may be only apparent and not real, and may be attributable to the slight differences of the culture medium, and this is why it is important to study the cultures of the same age grown in the same medium—for example, the Novy-McNeal-Nicolle medium.

Growth of the Parasite in Novy-McNeal-Nicolle Medium.

Here are the specimens of the growth of the two parasites in a five days' culture at the same temperature of the laboratory, and I think it best to compare the figures of the parasites drawn with the same magnification (Zeiss $\frac{1}{12}$ apochromat and No. VI eye-piece) with the aid of camera lucida. I think this is far more instructive than any amount of description. I may, however, summarize the differences as follows:

1. Abundance of the growth of *Leishmania tropica* during the same period compared with that of *Leishmania donovani*. It is clear that the latter is more delicate and offers greater resistance in artificial cultures than the former.

2. The size of *Leishmania donovani* is distinctly smaller than that of the other of the same age.

3. The posterior extremity of *Leishmania donovani* is distinctly more pointed than that of any other.

4. The abundance of fine vacuoles in the fully formed flagellates of *Leishmania donovani* in comparison with those of *Leishmania tropica*.

5. At certain stages of development *Leishmania tropica* is characterized by the appearance of fine chromatin particles distributed in the body of the parasites, just as *Leishmania donovani* is hollowed out by the presence of fine vacuoles.

These last two, however, may be purely accidental.

Post-flagellate Stage of Leishmania tropica.

In a former communication[11] I had pointed out that I found it impossible to obtain serial culture of these parasites, and nothing definitely could be made out after the parasite had once gone into the flagellate stages. Since reading this paper, however, I have succeeded, as stated above, in obtaining successive culture of this body in Novy-McNeal-Nicolle medium, and have now reached the twenty-fifth culture. No better conditions seem to be required than this for studying the post-flagellate stages. The culture is rich in flagellates about the fourth day; and even by this day small rosettes seem to come into view. It appears that after the flagellates have divided and subdivided a time is reached when the parasites find it impossible to continue this mode of multiplication, and the first thing observed is a tendency for the flagellates to agglomerate together and form smaller or larger rosettes. These are formed by the flagellates grouping themselves round a centre, a centre of attraction, with their flagella or their anterior extremities directed towards this centre, so that a colony of these agglomerated flagellates is so aptly described as a rosette by Nicolle. It is possible to see a small rosette consisting of six to eight flagellates, but the rule is to find rosettes of enormous size—about the sixth day of culture—made up of countless numbers of flagellates radiating from the centre. Once the rosette is formed, by some subtle influence the individual flagellates begin to fatten, so that each individual appears like a still amœboid mass, the nucleus, the micronucleus, and the vestige of the flagellum being still quite clearly made out. This may come about even as early as the fifth day, and then the parasite shows a fair number of fine chromatin particles. For further changes, however, older cultures, such as those of fifteen to twenty days, are required. In these it is not difficult to demonstrate a differentiation of the protoplasm of the amœboid body into definite lumps of more deeply-staining material embedded in a lighter matrix, and from these seems to be derived a mass of what ultimately turn out to be the ⊙ bodies of the parasite. Thus it would appear that even in cultures the original body stage is brought about. In some specimens, however, the division of flagellates into flagellates seems to be persevered in with such a pertinacity that, even when the flagellates fail to divide to reproduce their own former selves, flagellates of a stunted nature are produced, and even these stunted progeny of the original flagellates, though not much larger in size than that of the body described above, still continue to retain the vestige of the flagellum, as seen in the figures shown. How far these last contribute to form the ⊙ bodies by dropping off the vestige of the flagellum, and to what extent the others described above contribute to the same end, is more than I can say at present.

The post-flagellate stages of *Leishmania donovani* are now being studied, but up to now my cultures have not grown strong enough to stand the test of being watched beyond ten days. The development up to ten days is shown to you both in the plates and in the specimens.

Should the post-flagellate development of the *Leishmania donovani* correspond with that of *Leishmania tropica* described above, it is needless to say that the two parasites run very close to each other in morphology and physiology outside the human body. It is remarkable that bodies so closely allied should be productive of such colossal clinical differences when they enter and get a foothold into the human system.

Before concluding I desire to express my deep sense of gratitude to Colonel C. H. L. Meyer, I.M.S., for his kindness in letting me have the material for work, and also for allowing me free access to the case of kala-azar under his care. But for this kindness this work could not have been undertaken. I also take this opportunity to thank Dr. Velankar, Dr. Date, and Dr. Soparkar for working with me at considerable self-sacrifice and personal inconvenience during the Christmas holidays, when this work had to be pushed, on account of the unique opportunity for work offered by this kala-azar case under the care of Colonel C. H. L. Meyer at the Jamsetjee Jeejeebhoy Hospital in Bombay.

Many microscopical slides and plates were shown, but owing to want of space they could not be embodied in this place.

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AT a special meeting of the West London Medico-Chirurgical Society on Friday, April 12th, at the West London Hospital, there will be demonstrations and a discussion on rheumatoid arthritis. The demonstrations will commence at 8 p.m., and will include the exhibition of cases illustrating: (1) Causation, (2) joint lesions, (3) trophic lesions, (4) skin affections, (5) eye affections: (6) diagnosis from (*a*) tuberculous joints, (*b*) neuropathic joints, (*c*) osteo-arthritic conditions, (*d*) gonococcal arthritis, (*e*) syphilitic arthritis. Skiagrams illustrating: (1) Changes in cartilage, (2) changes in bone, (3) deformity. Museum specimens, illustrating: (1) Lesions of cartilage, (2) lesions of bone, (3) lesions of soft tissue. Bacteria illustrating: (1) Oral sepsis, (2) alimentary infection, (3) genital infection. In the discussion, which will commence at 9 p.m., the following will take part: The President (Mr. Wm. McAdam Eccles), Dr. F. J. Poynton, Dr. T. J. Horder, Dr. Reginald Morton, Mr. Lloyd Williams, Mr. W. J. Midelton, Dr. Bernstein, Dr. F. S. Palmer.

EPITHELIOMA OF HAND AND GLANDS: REMOVAL OF TWO FINGERS AND THE GLANDS.

BY RUSHTON PARKER, M.B., B.S., F.R.C.S.,
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IT is a question how far the following case resembles those of soot, paraffin, and allied cancers. The man's occupation associates him with the distillation of coal, but the effect of the products, if any, in promoting the growth of epithelioma in his case is as mysterious and unexplained as that of soot in cases of chimney-sweep's cancer of the scrotum. Cases of this quality have often run a very mild course, and have enjoyed an immunity from return, after even repeated operations, that has rarely been equalled in epithelioma of the limbs unassociated with soot, paraffin, and coal.

A strong man, aged 54, caretaker and worker in the gas-works, Menai Bridge, North Wales, entered my ward at the Liverpool Royal Infirmary in May, 1905, for a painful ulcerated epithelioma of three years' duration on the back of his left hand, over the metacarpo-phalangeal joints of the fore and mid fingers (Fig. 1). It had started in the latter situation, had for months prevented him from working, and was found on probing to have eroded the bones and ligaments of that joint. The lymph glands at the elbow and in the axilla also were enlarged.



Fig. 1.—May, 1905.

On May 27th the disease was removed by amputating the fore and middle fingers with half of each metacarpal bone. Pain ceased after the operation. Twelve days later the enlarged glands at the elbow and axilla were removed. All the wounds healed simply, and he went home after four weeks, resuming work, which continued for eight years.

In April, 1911, he came again to hospital for a rodent ulcer of the left temple near the eye. He was taken into Mr. Bickersteth's ward, where the growth was excised by Mr. F. Jeans on April 15th. After healing, *x*-ray treatment was applied to the scar

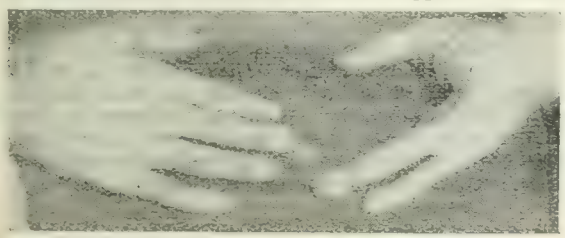


Fig. 2.—May, 1911.

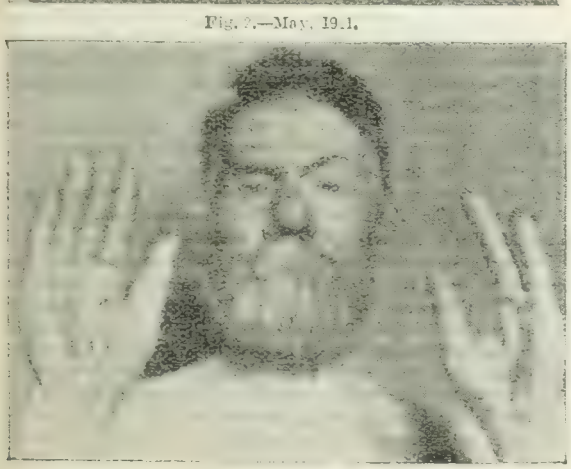


Fig. 3.—May, 1911.

and neighbourhood for a few weeks. On my return after absence from home I was informed of his presence, and went to see him on May 15th. With the permission of my colleagues photographs were taken by Miss Irven at the Royal Infirmary on May 16th, (Figs. 2 and 3), and he went home on May 20th.

He is deeply grateful for the preservation of his thumb and two fingers, with which he can perfectly do all that is required of his left hand. He has not lost a day's work in the interval of nearly eight years.

A section of the later growth has been made in the University laboratory, and reported on by Mr. Mackarell, pathological assistant. It shows in perfection a rodent structure of the variety containing small cell-nests. I much regret that no microscopical preparation or report of the disease in the hand and glands can be found.

Sequel.

Some months after this man's return home I learnt that he had not been there a week before he had to take to his bed on account of pain in the mid-dorsal spine with gradual loss of power and sensation in his lower limbs. It seems that his pain began even before he left home in April, but he never told me of it, and when he returned home again in May he expressed himself as strong and well. The paraplegia increased and became complete, though the pain lessened. In June fresh growth appeared at the seat of the rodent ulcer, and he died of exhaustion on July 11th, 1911. The diagnosis was that of "malignant deposit affecting the spinal meninges and the cord itself."

These particulars, sent to me by Dr. John Roberts of Menai Bridge, were obtained from the patient's medical attendant, Dr. J. M. Thomas of the same place, to both of whom I am indebted for the information.

The eventual fatality does not detract from the success obtained with the hand and glands of the upper limb, and I regard it as a very encouraging example of conservative practice.

ON ACUTE POLIOMYELITIS (HEINE-MEDIN'S DISEASE).*

BY R. MORTON HEWITT, B.A., M.D.DUBL.,
SANDOWN, I.W.

I WISH to record a couple of cases of acute poliomyelitis, or Heine-Medin's disease, which illustrate two separate forms of the disease, that is, the spinal and ataxic types. I have not had the advantage—a questionable one from the patient's point of view—of studying the morbid anatomy of this disease, but from the researches of others it appears that we must take it: (1) That the lesions should no longer be considered as limited to the anterior cornua but are diffused throughout the central nervous system; (2) that so far bacteria have not been demonstrated; (3) although the bacillus of acute poliomyelitis has not been isolated, Flexner has shown that the virus or infective agent can pass through a Berkefeld filter, and the filtrate has subsequently infected monkeys, though the incubation period of monkeys was longer with a filtered than with an unfiltered virus, varying from five to twelve days; (4) the disease has been communicated by means of an emulsion made from the spinal cord of an acute case; (5) this infective agent has been shown to retain its virulence for a long time outside the organisms of animals, to be fairly sensitive to heat (twenty minutes at 50° C. destroying the virus) and insensitive to cold (a virulent emulsion kept at freezing point for eleven days did not lose its activity to any marked extent).

Now how does the virus penetrate? Flexner and Leiner[1] point out the probability of the naso-pharynx being the point of entry. They produced paralysis in monkeys by scarifying and then rubbing the nasal mucosa with the active virus, the disease appearing in from five to eleven days; but the faculty of penetration does not appear pronounced, as Levaditi[2] was unable to infect his monkeys either by painting the naso-pharynx or by placing plugs soaked in the virus in the nasal fossae. In cases of Heine-Medin's disease the nasal mucosa has been shown to contain a virus capable of transmitting the infection to animals. The virus has not been found in the urine, faeces, kidney, or intestinal mucosa.

Although epidemics were noted in Scandinavia as far back as 1881, Medin of Stockholm was the first to give precise information on the subject. He was followed by many other observers from many lands. The analysis of these epidemics shows: (1) They occur at the end of the summer and in the autumn. (2) Neither defective hygienic conditions, poverty, nor overcrowding favour the extension of the disease.

*Read before the Isle of Wight Division of the British Medical Association.

Medin adopted the following classification of the disease: (1) Spinal; (2) ascending or descending paralysis (simulating Landry's paralysis); (3) bulbar; (4) cerebral; (5) ataxic; (6) polyneuritis; (7) meningeal.

My experience is limited to the spinal and ataxic forms—three cases of the former and one of the latter. Of the former, two followed the classical description of infantile paralysis in the early Nineties. The paralyses were limited to groups of muscles—in one case of both legs and in the other of arm and leg on the same side, but in neither case was there complete paralysis of arm or leg. One case has completely recovered (after four months); the other has still considerable loss of power in the arm. The third case presented some unusual features.

The patient, a girl, aged 12, and, as in each of my four cases, with fair hair and complexion, was of active habits and of more than average intelligence. I was called to her on September 25th, and found her with temperature 102.4°, pulse 110, complaining of headache and pains in the back; in fact, presenting a picture usually seen in influenza cases. She said that on September 22nd she did not feel well and her "right arm felt limp." This passed off, but on September 24th she felt "achy all over, most in her back." There were no throat symptoms. On September 26th, temperature 102.6°, with condition unchanged. September 27th, temperature 99.8°; right arm found completely paralysed. September 28th, temperature 98.6°; left arm partially paralysed. September 29th, paralysis of left arm increased and both legs affected.

October 1st, temperature and pulse normal. Both arms completely paralysed except movement of fingers of left hand. Extensor paralysis of both legs. Knee reflexes absent. Marked ptosis of left eyelid. Constipated. No bladder symptoms. Acute paroxysms of pain occurring regularly every two hours day and night. Pain referred to first and second lumbar vertebrae. These paroxysms continued with little variation for three weeks, being, apart from paralysis, the prominent feature of the case. Drugs at first gave no relief, morphine gr. ¼ giving about a three-hour interval with sleep. I then put her on phenalgin gr. 2½ every two hours. This seemed to have immediate result; the paroxysms became less severe, with longer intervals between, being four and then six hourly. Finally, in the middle of the fourth week the pains stopped altogether. I started massage during the eighth week, and electricity the week following. The patient has made steady improvement up to date, the left side progressing more favourably than the right. She has good use of the left arm and hand, and can walk a considerable distance, though slowly. Knee reflexes still absent.

Since writing these notes on January 20th the case progressed favourably with massage daily and electricity twice a week, generally in form of Schnee baths with a current up to 45 milliampères for twenty minutes. On February 12th, while having one of these baths, the current being 17 milliampères and duration three minutes, the patient gave a scream and had a typical epileptic fit lasting about four to five minutes, recovering in the usual manner. She was in her usual state that afternoon and there has been no recurrence (February 24th). The improvement in the paralysed muscles has continued and the patient is in good health. There was no history of epilepsy in the family. While attending to the fit the electric current was not shut off, so I tested it myself and found nothing wrong; the makers also tested the instrument (a Davon table) with the same result. I can find no record of epilepsy associated with Heine-Medin's disease, and so consider this case worth noting.

The fourth case was of the ataxic type, the prominent feature being very irregular high temperature.

I was called to the patient, a bright girl 8 years of age, on November 20th, and found her presenting the same condition as I described in Case III, temperature being 102.4°, pulse 120. Her throat was red and inflamed. I was informed that for the previous fortnight she had looked "peaky and liverish," and during the last week seemed disinclined to run or play and complained that her dancing lesson made her feel sick and giddy. On the 16th she went out to tea, but drove home feeling sick and giddy. On the 20th she complained that she could not get warm, and after tea burst out crying and was carried to bed as she could not walk. She cried when lifted or turned in bed. Her condition remained about the same for the next four or five days, when I observed on getting her out of bed a distinct ataxic gait especially noticeable in the left leg. Knee-jerks rather active. No nystagmus, paralysis, loss of sensation, or inco-ordination in arms or hands. Throughout the illness constipation was a particularly troublesome feature. This ataxia increased until the patient became too weak to test her, and the temperature took on a higher range, varying from 99° to 104°, often in less than two hours. Antipyretic drugs and sponging had a very temporary effect. On November 29th a punctate erythematous eruption appeared, fairly general in distribution but most marked over pressure points. This rash I took to be merely another expression of general toxaemia rather than specifically associated with the disease, and it is noteworthy that I have thus far met with no case of herpes, but at Penryn in Cornwall Dr. Hopper observed 16 cases of herpes zoster during the epidemic of poliomyelitis, and points out that in no other space of time have so many cases occurred together in the district, and queries the relationship between the two diseases. The heart began to fail about this date, with symptoms of dilatation, intermitting at times as often as 1 in 4. The tongue remained wonderfully clean, but the breath was most offensive. With the exception of a trial of urotropin, the treatment was purely symptomatic. The urotropin, two doses of 10 grains with eight hours between, was followed by delirium and motor restlessness. This yielded immediately to a 5 minim dose of liq. morphinae and a withdrawal of the drug. The following day I again gave two doses of urotropin with a similar result, after which I discontinued its use. During the latter stages the heart gave me most trouble, but a Nativelle's digitoxin pilule, $\frac{3}{200}$ grain once a day, aided by a good deal of stimulant, tided the case over. She had an uninterrupted convalescence, but at present (January 20th) the ataxia is still marked, and there is some loss of power in the muscles of the leg. She has been massaged for the past three weeks.

The Source of Infection.

I went carefully into the possibilities in each case, and there appeared to be no evidence of contact, direct or indirect, between these four cases, and I came to the conclusion that the disease arose from a common origin. Whether this was (1) a dust infection or (2) fly-borne it is difficult to say. All the cases occurred in families living amongst good surroundings and in every possible comfort—no overcrowding, faulty sanitation, hermetically-sealed windows, or other aids to disease could be noted. Personally I am inclined to consider the dust infection theory the more probable. The year 1911 was exceptionally dry and hot, and possibly the increased throat infections which some of us have noted may be due to the increased dissemination of dust infections by the ubiquitous motor car. In each of my cases brothers or sisters, or both, were in direct contact with the patient up to the diagnosis of the disease without contracting the same, but I notice that in the epidemic at Stowmarket[3] there were three cases in one house, and in two other houses two cases. Three of my cases began during the hot dry weather, the other immediately after a heavy rainfall, followed by a drying wind. In no case was any increase of the house-fly pest observed.

Does the disease come from a common cause, or is it directly communicated from an antecedent case? Is it carried by a third person or by infected objects as in scarlet fever? I submit that the evidence in favour of contact transmission is slight. It is not common to find more than one case in a family. It has not been found to spread in hospitals, although isolation precautions were not taken. On the other hand, Levaditi[4] records a case of a lady taking some drawings of a convalescent patient and herself being attacked shortly afterwards with similar symptoms. Wickman[5] records cases where the disease has been for two or three years in succession in the same house: Krause,[6] cases of people coming to live in a contaminated house and contracting the disease themselves.

Prognosis.

(*a*) Mortality is variously estimated from 12 to 20 per cent., and has a direct ratio to the age of the patient, the older the more fatal. Most deaths occur during the first week, mostly about the fourth or fifth day, the bulbar and Landry types being the most fatal.

(*b*) It is certainly a fact that if a muscle reacts to faradism it will recover, but the contrary is by no means certain. If the motor cells in the anterior cornua are destroyed, then—apart from nerve transplantation which may benefit—the muscles must become useless. But as long as the cells are not actually destroyed, although the muscles may not react to faradic or galvanic currents, the prognosis is more hopeful. In the spinal case cited above I got no reaction in the muscles of the right index finger and thumb after a lapse of over thirteen weeks. There is still no reaction in the extensors of the wrist, and this after two months' massage and electricity, the latter in varying forms, faradism, combined current, and Schnee baths, but there has been steady progress and so far no period at which the patient was at a standstill. A point of treatment in this respect is the necessity of avoiding over-stretching of paralysed muscles. In this case I have applied a curved splint to over-extend the wrist and so avoid stretching of the extensors and shortening of the flexors, the splint being frequently removed for massage and adjustment, and the wrist supported when the splint is taken off and not allowed to drop, for any stretching of

these paralysed muscles which are tending to recover disables them again. An excellent article by Dr. Wittek (Graz) deals with this matter in detail.

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ACUTE ANTERIOR POLIOMYELITIS IN SOUTH-WEST NORFOLK.

BY G. F. CROSS, M.B.DUNELM.,

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As several outbreaks of acute anterior poliomyelitis have occurred during the past year in various parts of the country, a short account of ten cases that occurred in this district may possibly be of some interest.

Locality of Outbreak.

The outbreak occurred at the end of September in the Downham Rural District, which is situated in South-West Norfolk, and embraces both upland and cultivated fen land, and the part of the district affected borders on the county of Cambridge. All the cases occurred within a radius of six miles of Downham Market.

During the months of July and August several cases of this disease were noted in the adjacent parish of Littleport, in the Rural District of Ely.

Age Incidence.

The ages of those attacked, and the districts in which the cases occurred were as follows:

Group I (Southery)—

Case I	6 years
Case II	11 months
Case III	1 year
Case IV	8 years

Group II (Barroway Drove)—

Case V	2½ years
Case VI	3 years
Case VII	1½ years
Case VIII...	1½ years

Group III (Crimplesham)—

Case IX	2½ years
Case X	1¼ years

Mortality.

Of the above 10 cases 2 died, the second child dying some two months after the acute stage of bronchopneumonia.

Previous to this outbreak another child had died of pneumonia, in the neighbourhood of Southery, with suspicious symptoms of acute anterior poliomyelitis, but which I was unable to verify.

Transmission of the Disease.

I think the following facts will aid in showing the infectivity of the disease. Although there seems to have been no connexion between the three groups, there is distinct evidence of contact in several of the cases.

GROUP I.—All the cases lived in that part of the district which is in close proximity to a part of Littleport parish where there had been cases of a similar nature. In Case I the father had attended Littleport market. The mother of Case II had been helping to nurse Case III for ten days before her own child was taken ill. Case IV attended the school in Littleport parish, and had visited on more than one occasion a house in this parish where there had been 3 cases with 1 death.

GROUP II.—These cases lived in Barroway Drove, which is some eight or nine miles from Southery. There is little or no intercommunication between the parishes. All the cases attended the same school. Cases VI and VII were in the same house, and Case VII was taken ill a week after Case VI.

GROUP III.—These cases lived at Crimplesham. This village is in a different direction about nine miles from Southery and five from Barroway Drove. Case IX lived next door to Case X. The parents were relatives and were constantly in each other's houses.

Cerebro-spinal Fluid.

From Case V I took some cerebro-spinal fluid, and the result of the bacteriological examination was as follows:

The fluid is fairly alkaline and fairly albuminous; it gives a normal reduction with Fehling's solution. The centrifugalized deposit is small in amount and contains a few blood discs and leucocytes, the latter practically all of the lymphocyte type, and but little in excess of the normal. Neither tubercle bacilli nor pyogenic micrococci are detected in the centrifugalized deposit. The media inoculated with this specimen only show a few bacillary organisms which do not conform to any of the known pathogenic types, and are most probably of extraneous origin.

The following are the notes of the cases, kindly supplied me by the doctor in attendance:

GROUP I.

CASE I (Dr. E. G. Wales).

J. J., aged 6, Hilgay Fen. Had been ailing three days with a "cold." On October 7th was noticed to be helpless in arms and legs. This was complete on October 8th. When I saw him the child was lying on his back in bed quite helpless, colour natural, breathing natural, no pain, no vomiting, no retraction of head. He could not raise his head from the pillow or move a limb. Knee-jerks abolished, pupils contract moderately, no movement on tickling soles of feet, no anaesthesia, no *tache cérébrale* or Kernig's sign, no rash. He could swallow liquids. Temperature 100°, pulse 86, regular. Back tender all along spine. On October 9th he began to breathe with difficulty, turned cyanosed and died at 10 a.m.

There were several other children in the house, but none were affected. No connexion with Littleport except that the father had been going to Littleport Town at intervals. A week previous a child on Ten Mile Bank died from acute pneumonia which might have been secondary to acute poliomyelitis. He was helpless and moribund when seen, with both lungs intensely congested. Father a travelling baker who visits all the houses in the neighbourhood.

CASE II (Dr. Glenfield Martin).

V. L., aged 11 months, Southery Ferry. For a fortnight previous the mother had frequently visited the house of Case III and had nursed the child. Taken ill on September 18th with fever and bronchitis. The mother noticed some paralysis and that the stools were very offensive. Seen by Dr. Martin on October 2nd. Signs typical of acute anterior poliomyelitis. Paralysis of left leg. The offensive stools could not be affected by medicine.

Later in December he reports: "Tibial muscles of left ankle are paralysed and wasted. If foot were not kept in a splint it would become deformed (nature of valgus). Three other children in house all well. Prognosis is fair but hardly as good as two months ago."

CASE III (Dr. Hutt).

A. L., aged 12 months, Southery Ferry. I first attended the child on September 12th. The mother thought the right shoulder had been damaged by undressing the child. Temperature 102°, neck somewhat swollen, and did not seem to be able to keep the head in any position long. Deltoid (right) paralysed and perhaps other muscles. September 14th, temperature normal, paralysis right upper arm and both legs, adductors most marked. Present condition, January, 1912: Right leg much improved and arm very fair movement, left leg some slight shortening and foot in marked talipes and equinus position. Adductors (thigh) and peronei still useless.

CASE IV (Dr. Martin).

B. J., aged 8 years, near Southery Ferry. Previous to being taken ill had visited a house in Black Horse Drove, where there had been three cases of illness (one fatal). Was first taken ill on October 5th, with fever and bronchitis. On October 11th, when first seen, had pyrexia and headache. On October 15th slight paralysis, well marked the following day. Tenderness of affected limbs (both legs), muscles of trunk also affected, tenderness and pain at back of neck. Stools highly offensive. At first apparently no progress, but lately the progress has been good. Weakness of the flexor muscles of both thighs, no deformity although some rigidity. This case was subsequently notified for tuberculosis.

GROUP II.

CASE V (Dr. Wales).

F. B., aged 2½ years, Barroway Drove. Brought to surgery with symptoms of meningitis on October 22nd. Had a convulsion on night of 20th. No vomiting, fretful, sleepless. Temperature 104°, pulse 130, regular. Pupils equal and react. No paralysis of limbs. Slight retraction of head, cannot sit up, cries when touched. Rapid improvement under treatment. Temperature normal on 24th, when slight internal strabismus of left eye was noticed. By 30th was much better, taking good food, sleeping well. Internal strabismus (paralysis left external rectus—third cranial nerve) more marked. Several other children in house all well.

CASES VI AND VII (Dr. Wales).

A. W., aged 3 years, Hooten's Row, Barroway Drove. Seen on October 24th. Had been ailing two or three days, became paralysed in all limbs and back. Temperature normal, pulse 120, breathing normal, no pain, can move feet if soles are tickled, but not legs. November 1st, Dr. Cross visited with me

and made a lumbar puncture. In January this child much improved, but cannot use right leg.

(A. B., aged 1½ years, occupying the same room, became ill with loss of power in back, cannot sit up and cries if "bent." Temperature normal, limbs unaffected.

Case VI died in January from bronchopneumonia.

CASE VIII (Dr. Cross).

A. J. S., aged 1 year 8 months, Barroway Drove, near Case V. Mother noticed for a week previous that he fell about, and attributed this to some new boots.

On October 31st he fell down and could not get up again. On November 1st visited and found child lying on sofa. Temperature 101.4°, restless and fretful, breathing natural. Any attempt to straighten limbs caused child to cry out. Rigidity of muscles of neck, and spine slightly arched. Bowels constipated. Two days afterwards temperature was normal and child appeared better. Left leg appeared useless. The child gradually got better, and after four weeks was able to sit up and crawl about.

Present condition: Can stand with assistance, but cannot control the left leg, which is slightly wasted. No shortening. Health otherwise good.

GROUP III.

CASE IX (Dr. Wales).

S. S., aged 2½ years, Crimplesham. Taken ill November 5th. On 6th temperature 103°, no definite symptoms, was thought to be a stomach attack. Seen on the 8th. Temperature 101°. Crying about aching in arms, difficulty in arm movements, moved legs freely. Left arm gradually became quite paralysed and remained so. The acute illness lasted five days.

CASE X.

A. R., aged 1 year 3 months, Crimplesham (living next door to Case IX). Mrs. R. had been backwards and forwards. Became ill about November 15th. A very indefinite illness, fretful and refuses food. Declines to be "sat up," and keeps back rigid, lies on back passively and cries if moved. On November 28th all symptoms have disappeared except for weakness and rigidity in back.

REMARKS.

There had been no abnormal amount of sickness in the district, and very few cases of infantile diarrhœa.

Four of the cases lived in good farmhouses with well-to-do parents, three in good cottages, and there were only two houses in which the sanitary conditions were unsatisfactory.

Eight of the cases were in the fen, some being a good distance from the high road, and were therefore not subject to any unusual amount of dust.

There were no known cases of paralysis in animals or fowls on the various premises.

Flies and other insects were abundant, and in three of the houses there were undoubtedly a number of fleas.

With the exception of Cases III and IV there were other children in all the houses, but in only one house was there more than one case.

SERUM AND VACCINE THERAPY IN CONNEXION WITH DISEASES OF THE EYE.

THE MIDDLEMORE PRIZE ESSAY, BRITISH MEDICAL ASSOCIATION, 1911.

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(*Concluded from page 661.*)

III.

THE SERUM TREATMENT OF DISEASES OF THE EYE.

Serums, antitoxic and antibacterial, have been used very extensively in treating cases of eye disease, and may be divided into two classes—those which have a specific action and those which are non-specific (the so-called "paraspecific serums").

Serum has usually been injected either into the subcutaneous tissues, the most frequently used and safest method; into muscular tissues; or into the blood stream, the method by which the most rapid effect is obtained. It has also been given by mouth and by rectum. Darier[1] concludes that serums given by mouth immunize but exert no bactericidal effect.

Specific Serums.

1. *Diphtheria Antitoxic Serum.*—As in diphtheria elsewhere, so in diphtheria of the eye extremely good results have been obtained by the use of this method of treatment. Sydney Stephenson[1] has reported cases successfully treated in this way. The dose should be 2,000 to 10,000 units, and at least two doses are usually necessary. In membranous conjunctivitis due to the Klebs-Loeffler bacillus the Roux serum is valuable; Axenfeld[2] has analysed the results obtained and reports favourably. In corneal diphtheria the serum is less effectual, and this is due to the fact that, though the serum does overcome the toxic effects of the *Bacillus diphtheriæ*, the severity of the corneal complications depends on the mixed nature of the infection from the presence of the ordinary organisms of suppuration, staphylococci, streptococci, pneumococci, etc.: the serum has only a non-specific effect on these organisms. In such mixed infections Römer's antipneumococcus serum and polyvalent antistreptococcus serum are of use. Post-diphtherial paralysis of eye muscles: Aubineau[21] reports a case of paralysis of accommodation cured by injection of antidiphtheria serum. Three relapses subsequently occurred, each of which yielded to the treatment. Four doses (10 c.cm., 20 c.cm., 30 c.cm., 60 c.cm.) were given in this case.

2. *Tetanus Antitoxic Serum.*—This serum, of the same nature scientifically as antidiphtheria serum, is of value in treating tetanus having its primary point of infection in the eye. Such cases are rare, but Ellis has had two recoveries of three cases treated. Lewis also has reported the recovery of a case. Diphtheria and tetanus are the two diseases due to organisms possessing an extracellular toxin, and for this reason are especially suitable for the use of specific antitoxic serums. Specific serums have been prepared and used in infections by many other organisms with varying results. Possibly the benefit obtained in some cases does not depend on the specific nature of the serum as it does in diphtheria and tetanus. As I shall mention later, in infections due to the ordinary pyogenic cocci excellent results have been obtained with non-specific serums.

3. *Specific Antipneumococcus Serum.*—Many methods of preparing antipneumococcus serum have been employed. Kornel Scholtz finds that the serum produced by infecting an animal with one culture of pneumococcus usually has no effect in agglutinating other cultures of that organism: these experiments demonstrate the existence of different strains of pneumococci. It is impracticable in clinical medicine to prepare a serum by immunizing animals to cultures obtained from individual patients, and therefore the employment of a polyvalent serum, prepared from many strains, becomes necessary. The best known polyvalent antipneumococcus serum was that of Römer. Römer[4] has lately modified the method of preparation of his serum, and has introduced a new serum on the lines of Bail's antiaggressin-containing serum: using this new serum, he reports success in the treatment of pneumococcal ulcers of the cornea.

4. *Antirheumatic Serum.*—Rosenthal claims good results in rheumatic iritis by the use of a specific antibacterial serum prepared by immunizing animals against the *Streptococcus rheumaticus*. The results have not been corroborated, and Darier[1] says better results are obtained in such cases by using Roux's serum.

5. *Antistreptococcus Serum.*—Polyvalent antistreptococcus serum has given occasional good results in streptococcal infections of the eye, but the results are not constant owing to the enormous number of strains of streptococcus which have been demonstrated. Recent methods of analysing the strain infecting any particular case by means of the sugar reactions may make possible the use of antistreptococcus serum prepared with a corresponding strain. Snell[1] reports a case greatly benefited by antistreptococcus serum. The patient had suffered from suppuration of the lids of the right eye for seven days, the temperature was 103°, delirium was marked, and the general condition grave. Streptococci were found in pure culture. Three injections, each of 10 c.cm. of polyvalent antistreptococcus serum, were given over a period of forty-eight hours. On the following days the temperature was subnormal, delirium abated, and eventually a cure resulted. On the other hand, Lawson[1] found antistreptococcus serum of no use in a case of acute streptococcus infection of the cornea.

Antigonococcus Serum.—An antigonococcus serum has been prepared by Rogers and Torry by injecting living gonococci into the peritoneum of sheep. Knapp[1] reports results of the use of this serum. He has found it of no

value in conjunctivitis, but in treating four cases of gonococcal iritis he has had three cures, the result in the fourth case being indefinite.

Antistaphylococcus Serum.—At various times serums obtained from animals by immunizing them against staphylococci have been employed, with no results of value. As we have seen, staphylococcal infections are most favourable for the employment of vaccine.

Eye affections due to the diplococcus of epidemic cerebro-spinal meningitis are not unknown, and in these cases Flexner's serum has been found to be of value.

The results, then, of the treatment of eye diseases by specific antitoxic and antibacterial vaccines are promising but uncertain, and a method of treatment giving more constant results has been looked for. Great attention has been given to the use of non-specific (so-called "paraspecific") serums.

Non-specific Serums.—Darier[8] carried out an extensive search through the columns of *La Clinique Ophthalmologique*, and reported his results and conclusions in a long paper; his paper largely is an exposition of the value of paraspecific as opposed to specific serum-therapy, and he shows particularly the value of the Roux serum in treating disease other than diphtheria. The following infections were inquired into: Pseudo-membranous conjunctivitis, infective corneal ulcers, parenchymatous and scrofulous keratitis, iritis and irido-cyclitis, traumatic and post-operative infections. Except in the case of diphtheria and tetanus, paraspecific serum treatment has given better results than specific serums, that is, the antistreptococcal serums, the antipneumococcal serums of Römer, and the antirheumatic serum of Rosenthal.

In the majority of ocular infections the result is the same whether one employs the serum of Roux, antitetanic serum, antirheumatic serum, or Deutschmann's yeast serum. It is found that every antitoxic serum acts in two ways: in addition to its specific action on the disease against which it has been prepared, it also possesses the property of bringing to every organism invaded by any infective agents some elements of general defence, capable of neutralizing or of attenuating to a greater or lesser degree the majority of the morbid symptoms caused by the said infection.

Roux's serum has been, perhaps, most extensively used as a paraspecific serum, and very many infections of the eye have been treated thus. Alexandroff[9] advises its use in 10 c.cm. doses, and as many as four doses may be necessary.

Conjunctivitis.

Excellent and permanent results have been obtained in infective conjunctivitis by Alexandroff,[9] and by Darier,[11] who has treated simple purulent conjunctivitis, gonococcal conjunctivitis, and pseudo-membranous conjunctivitis. Fromaget[13] reports two cases of purulent ophthalmia with false membrane due to pneumococcus cured within forty-eight hours by injections of anti-diphtherial serum.

Ulceration of the Cornea.

Here also good results have been obtained. Darier, in 1903, was the first to use Roux's serum paraspecifically in a case of staphylococcus conjunctivitis with ulceration of both corneae; the ulcers disappeared with scarcely a trace of scar. Since that date the same author has reported good results with pneumococcal[13] and other varieties of hypopyon ulcer.[11] Monbouyran[12] reports six successive cases of hypopyon ulcer cured by Roux's serum, using 10 c.cm. about every three days. Alexandroff[9] treated a case of serpent ulcer in a woman aged 42. There was no lacrymal disease. Under ordinary treatment the condition became worse, so 10 c.cm. of Roux's serum were given, and the case improved. Two further injections were followed by recovery, and two years later vision was normal.

Post-operative and Traumatic Infections.

Teulières[15] reports good results from the use of Roux's serum in infected wounds and perforations leading to irido-choroiditis and traumatic cataract. Alexandroff,[14] Darier,[11] and other authors have used it with success in post-operative infections.

Darier[11] describes a modification of the use of anti-diphtheritic serum. He follows its use by that of collargol injections in gonococcal cyclitis, septic corneal ulcers, panophthalmitis and septic wounds, and claims that the results are better than those obtained by the use of Roux's serum alone. He believes the effect obtained resembles that of a specific serum, but I think we ought rather to consider it as a treatment by autoinoculation, the collargol by its toxicity producing reaction which causes autoinoculation, by which means the patient may produce in his serum a great variety of protective substances.

Exophthalmic Goitre.

Mention must be made of Burkard's[16] experiments. Using antidiphtheritic serum in four cases of exophthalmic goitre, he reports three cases relieved. The results resemble those obtained by many methods of treatment, where rest of the patient commences only at the same time as the special method of treatment, and it is rather to the rest that the relief of symptoms is due.

Deutschmann's Yeast Serum.

Deutschmann[17] introduced a paraspecific serum for which excellent results have been claimed in many forms of eye disease. The serum originally was prepared by feeding rabbits on yeast in ascending doses, the serum of these rabbits being then injected into patients suffering from staphylococcus, pneumococcus, streptococcus, or other infections. Later the method of preparation underwent modification, and Deutschmann,[18] in August, 1908, described before the British Medical Association two modifications of his serum, prepared from horses, for human use:

1. Deutschmann's serum, consisting of the serum of horses fed on yeast and trikresol; this serum is obtainable in 2 c.cm. bottles.

2. Deutschmann's Serum E, which is the active serum precipitated and redissolved. It is of double the concentration of (1), and possesses the merit of never producing serum sickness.

Dosage: In children 1 to 2 c.cm. is given as a dose. In adults 2, 4, 6, or 8 c.cm. should be given two or three times weekly (occasionally more often), regulating the dose by the effect on temperature (which rises after an overdose) and clinical symptoms of the local disease.

It is given as an intramuscular injection; but, if this is for any reason impracticable, has good effect when administered per rectum.

As a curative measure Deutschmann has used his serum with good results in perforating wounds, hypopyon keratitis, post-operative infections, recurrent iritis, acute purulent irido-cyclitis, gonococcal infections, and in a case of sympathetic ophthalmia, in which, in spite of the fact that the exciting eye was not removed, a cure was obtained. Deutschmann and Neunhardt report the cure of a case of severe metastatic panophthalmitis due to endocarditis probably of gonococcal origin.

Deutschmann's results have been corroborated by many workers. Caravaria of New York has had success in septic wounds, rheumatic iritis, acute purulent irido-cyclitis, ulceration of the cornea following a burn, phlyctenular pannus, and post-operative irido-cyclitis in a patient suffering from diabetes. Cases of hypopyon keratitis healed rapidly with very slight opacity remaining. Darier[8] reports favourably, as does Schwalbach[20] in recording a severe case of inflammatory exophthalmos cured rapidly by the use of Deutschmann's serum; two relapses occurred, but each disappeared after a further dose of serum.

Von Hippel[21] has treated forty cases and gives his results. He obtained success in ulcus serpens, iritis plastica, and non-tuberculous iritis serosa. On the other hand, he found it useless in severe affections of the vitreous body. In the hands of certain other workers, however, no good has resulted from the use of Deutschmann's serum. Schmidt Rempler has been able to see no curative effect in severe hypopyon keratitis, and Napp[22] of Berlin has likewise obtained no success with this treatment. W. Zimmermann[23] lays great stress on the importance of using Deutschmann's serum early, and demonstrates its use in pneumococcal ulcers, iritis, and post-operative infections. He also advocates its use as a prophylactic against infection in perforating wounds and in operations on decrepit individuals, etc.

We see, then, that for a great variety of infections the use of Deutschmann's serum is upheld by many authors, but the nature of its action is unknown. The more likely

explanation is that of Neisser and Guerrin, who consider it a leuco-stimulant.

Non-specific antitoxic serums are, then, of great value in eye infections, and their action corresponds probably with the action of normal horse serum, the use of which was advocated by Horder.

Römer's Jequiritol Serum.

Römer employs a serum to counteract the excessive reaction which follows the use of jequiritol for pannus. The serum may be given subcutaneously or locally into the conjunctiva; the former method is preferable. Also, to avoid the occurrence of dacryocystitis from jequiritol, the serum may be instilled into the lacrymal sac before using the drug.

Coley's Fluid.

Cases of sarcoma of the antrum and orbit can be benefited by Coley's fluid containing the toxins of streptococcus and *Bacillus prodigiosus*, and cases treated thus have been recorded by Jack, de Schweinitz, Brandoux, Coley, and Weeks.

Syphilis.

The relation of serum treatment to syphilis of the eye must be mentioned. No antisyphilitic serums of any clinical value have been obtained up to the present time. The Wassermann serum test and its modifications have a close relation to the general treatment of syphilis by mercury, etc., in regulating the duration of such treatment.

Sympathetic Ophthalmia.

There is some promise of success in the treatment of this condition by means of serum. Santucci[25] has reported some experiments on animals, as the result of which he believes that there is a cytotoxin for the organ of vision which by its appearance may cause the attack of sympathetic ophthalmia. Three series of experiments were carried out:

1. One eye of an animal was enucleated and an emulsion prepared from it, which was injected under the skin and conjunctiva of another animal, A.
2. The serum of the animal A was inoculated into another individual of the same species.
3. One eye of an animal was badly damaged and allowed to shrink, then enucleated, and emulsion injected under the skin and conjunctiva.

Results.—1. After three injections, keratitis, iritis, and three nodules of exudate in the anterior chamber were set up. These gradually disappeared and the eye returned to its normal condition. Another injection was made and the other eye was attacked by similar inflammation. No result followed the subconjunctival injection.

2. Experiment negative.

3. Intense iritis set in after the subconjunctival injection, pointing to the development of an autocytotoxin.

These experiments would show that there is formed in a damaged eye a toxin which is absorbed into the blood stream and gives rise to the formation of antitoxin. If the amount of toxin is small the antitoxin formed can deal with it, but if it is large and the amount of antitoxin formed small an attack of inflammation in the uninjured eye may be caused. If, therefore, an animal be immunized by injecting into it eye emulsion the serum of this animal may be used as a curative agent in cases of sympathetic ophthalmia.

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Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

CULTIVATION OF TRYPANOSOMA RHODESIENSE.

YOUR readers might like to hear that *Trypanosoma rhodesiense* is cultivable in a modification of Nicolle's medium. The proliferation is very abundant at 25° to 27° C., and posterior nuclear forms are fairly numerous. I cannot entirely exclude the possibility of contamination with *T. lewisi*, derived from the rats from which the cultures have been made: but *Herpetomonas* forms have not been seen and the characteristic type of *T. lewisi* is not present.

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CASE OF MORPHINE POISONING.

ON February 3rd Dr. Macdonald, of Leven, reported the accidental administration of ¼ gr. morphine suppository for a glycerine one to an infant 4 months old, and mentioned the irrigation of the bowel with Condy's fluid as part of the treatment adopted. On February 17th Dr. J. Barker Smith commented on this, and urged the value of potassium permanganate in "breaking up morphine, quinine, cinchona salts, and uric acid."

My own experience was as follows: I was called on February 28th last at 7 p.m. to see a male infant of 7 months which could not be roused, and "made a strange noise" in breathing. I found the child comatose, with pinpoint pupils, and shallow, strident respiration.

The mother told me she inserted a glycerine suppository at 2 p.m., and sent the child out in its perambulator. It was sound asleep on its return, and later in the evening she became anxious about its breathing, and was not able to rouse it. I found the suppositories were morphine, 1 gr. in each, put up in a small tin box by a well-known firm, and identical in general appearance with the glycerine.

I had about 4 gr. of potassium permanganate with me, and I injected half of this with some 6 oz. of water into the rectum, which I found empty, and the remainder I dissolved in 4 oz. of water and siphoned into the stomach. I also gave a subcutaneous strychnine injection, and followed up these measures with oxygen, brief immersions in a warm bath every hour, and continued artificial respiration.

At midnight the infant had two attacks of thoracic rigidity and quickly increasing cyanosis, like the initial period in the epileptic fit. By 2 a.m. the general condition had distinctly improved, and the stridor was gone: there were signs of recovering reflexes; a little fluid was expelled from the rectum; it moved its arms about and attempted to cry. Thereafter its recovery was so rapid that by 11 a.m. it appeared quite well, with a normal temperature, and looking bright and alert as usual. Urine had been passed freely, the pupils were normal, and the tongue moist.

Throughout the pulse ran about 90 to 100, and was of good force and volume. It was really weaker twenty-four hours later, and the extremities were inclined to be cold. I noticed frequent oscillatory movements of the lower jaw during the narcotism. The muscular action was never totally relaxed, for the prehensile grasp of the hands was always evident. The reflex sucking effort was among the earliest signs of improvement. The baby, which is breast-fed and just commencing dentition, is very strong and well developed.

Nearly six hours passed between the introduction of the suppository and the beginning of the treatment, and Dr. Macdonald conveys in his note a question as to the relative toxicity of the drug when given per rectum, and, *a fortiori*, my own case suggests the very same question, apart altogether from the value of antidotal measures.

WALTER DICKSON, M.D.Edin.

Hungerford, Berks.

ANAESTHESIA FOR SUBMUCOUS RESECTION OF THE SEPTUM.

THE method that I have found most useful, after trying packing, injecting, and Freer's methods, only to discard them as unsatisfactory or dangerous, is to paint the septum

every two minutes for twenty minutes with a mixture of equal parts of adrenalin (or epinine) and a 10 per cent. solution of cocaine. This gives an excellent anaesthesia, or if, as I more usually prefer, the patient is then given a general anaesthetic in the sitting up position, ensures a practically bloodless operation.

London, W. MACLEOD YEARSLEY, F.R.C.S.

LARGE VESICAL CALCULUS.

ON March 16th, 1911, a phosphatic vesical calculus, weighing 9½ oz., was removed from the bladder of an adult male of 40 years of age. He presented himself at the Victoria Hospital, Bangalore, with a number of sinuses between the umbilicus and symphysis pubis, through one of which the stone in the bladder was felt by a probe. The bladder was opened above the symphysis pubis and the stone extracted. The patient, who was in a very delicate state of health, made an uneventful recovery, and left the hospital on June 8th, 1911. This is the largest vesical calculus removed in this hospital.

Bangalore. T. V. ARUMUGUM, M.B., C.M., Medical Officer.

OESOPHAGEAL STRICTURE OBSTRUCTED BY A FOREIGN BODY.

THE following case appears worthy of record:

J. C., aged 30, in October, 1908, swallowed by misadventure a solution of caustic soda. This resulted in a fibrous stricture of the oesophagus at the diaphragmatic end. Since then he has suffered from several attacks of complete obstruction, which have been relieved by the passage of bougies. In August, 1911, I passed several bougies, the largest of which was 8 mm. in diameter.



On November 19th, 1911, the man came to me again, complaining of regurgitation of all food and liquids. On this occasion I passed the 8 mm. bougie as before, but on the following day he stated he was no better. On now passing the instrument and withdrawing it I found the foreign body transfixed by and attached to the bougie. It proved to be the heart of a chicken, which, measured from its upper border, was lodged 17 in. from the mouth. The patient was unaware of "anything sticking in his throat," but he informed me that he had taken chicken broth on the evening of November 18th—after having had too much beer. A length of the bougie, measuring 5.5 cm. from the lower border of the foreign body, had been passed through the latter into the stomach. The heart measured 3.4 cm. in length and 1.6 cm. in greatest width; 1.7 cm. of its length (the upper half) was perforated, but the lower half was not perforated by the bougie. The greatest diameter of the part not perforated was 1.5 cm.

The points of interest in the case are:

1. The absence of symptoms (apart from obstruction) on the lodgement of the foreign body, and the fact that the patient was unaware of its presence for three days.

2. The amount of dilatation possible at the seat of stricture, the lower half of the heart (apex downwards) being probably engaged in the stricture.

3. The method of removal.

Burnley. S. T. BEGGS, M.D., B.Ch.

GASTRO-INTESTINAL HAEMORRHAGE IN A NEWBORN INFANT.

AS suggested some time ago in the BRITISH MEDICAL JOURNAL, I send notes of a case of gastro-intestinal haemorrhage in a newborn infant, with recovery, and the treatment adopted.

Mrs. C. was confined at 4 p.m. on September 6th, 1911. The labour was perfectly normal. This was her fourth confinement. The child—a girl—looked strong and healthy, and weighed 8 lb. No family history bearing on the case can be obtained.

At 7 a.m. on September 7th the nurse noticed the baby making a gurgling sound, and found her bringing up clotted lumps, "like liver," and then bright red blood. The bleeding ceased in a few minutes, but returned an hour later, and I was sent for. I found the child blanched and pulseless, the extremities cold, and every symptom of approaching death. The bedclothes and bedding seemed soaked with blood, but the bleeding had ceased. I gave her at once 5 minims of Messrs. Duncan, Flockhart, and Co.'s vaso-constrictine (1 in 1,000), which she retained, and thereafter 2 minims every hour for twelve hours. She brought up a little dark-coloured blood at 12, 3, and 7 p.m. No further blood was vomited. Her general condition improved through the night. On the morning of September 8th she passed a large motion of meconium with a considerable amount of bright red blood. At 3 p.m. she passed another large motion with several small clots and still streaked with bright red blood. After this the motions were for three days tarry, with small clots, but then became quite normal in every way.

The vaso-constrictine was continued at increasing intervals and in reduced doses for twenty-four hours after the last trace of blood appeared in the motions. The diet consisted of iced wine whey till the mother's milk was available. For a week this also was iced, and given in small quantities at frequent intervals. Thereafter she was put to the breast. In two weeks she gained 2 oz. in weight, and in three weeks 6 oz. At four months she weighed 14 lb. 2 oz., and is at the present time a fine healthy child.

Clapham Park, S.W. A. DINGWALL, M.D.

ANCHORED DRESSINGS.

SOME time ago I recommended the use of the subcutaneous catgut suture for drawing together the skin in closing abdominal incisions. Continued use of this method showed that in a certain proportion of cases there was some oozing of serum from the wound. This moistened the skin along the line of the incision together with the two or three uppermost layers of the gauze dressing. In a few of these moist cases a little superficial suppuration occurred and delayed the union of the skin edges for a few days. The infection doubtless came from the skin itself, and trouble of this kind does not seem to occur if the skin remains dry. To prevent the oozing of serum the following plan was adopted.

After the peritoneum has been closed with continuous catgut, three or four silkworm gut sutures are inserted, so as to include skin, fat, and fascia. They are left untied. The fascia is then united with chromic catgut or silk, and the skin edges are drawn together with subcutaneous catgut. The gauze dressing is then folded so as to form a narrow pad a little longer than the wound, about an inch and a half wide, and about three-quarters of an inch thick. This pad is laid over the incision and the silkworm-gut sutures are tied over the pad pretty firmly. Ten or twelve days later the silkworm sutures are cut and removed with the gauze pad. The skin is then seen to be healed and the subcutaneous catgut which united it has been absorbed.

Since this plan was brought into use about a year ago there has been no oozing of serum, no moist dressings, and no delayed healing of the skin. The pressure of the gauze pad tied down with the silkworm sutures keeps the wound dry. The pad also prevents the sutures from cutting into the skin, and it seems to serve this end better than the bits of rubber tubing which are threaded on to silkworm sutures by some surgeons.

Plans of the kind here described[1] are now being used and written about by general surgeons under the name "anchored dressings," and I would add my testimony, after several months' trial, as to the way in which they meet the special case of abdominal incisions. Needless to say, they have the additional advantage of preventing the dressing from shifting.

Manchester. W. E. FOTHERGILL, M.A., B.Sc., M.D.

[1] BRITISH MEDICAL JOURNAL, February 3rd, 1912.

Reports of Societies.

EDINBURGH OBSTETRICAL SOCIETY.

Wednesday, March 13th, 1912.

DR. HAIG FERGUSON, President, in the Chair.

Ovarian Transplantation.

DR. H. S. DAVIDSON described three cases in which he had transplanted ovarian tissue. He chose patients in whom the ovaries had to be removed along with the tubes for double tubal disease. The ovaries were kept in normal saline at blood heat, and two slices of the less abnormal gland were placed in a bed in the rectus abdominis. In the first case the ovarian grafts were soon absorbed, and the usual menopausal symptoms supervened. In the second case menstruation returned and was present for six periods. Then it stopped and was followed by profuse leucorrhœa. The patient put on weight, and exhibited no menopausal symptoms. A hard lump was to be felt in the rectus muscle after the operation. In the third instance menstruation started again in October, 1911, and had recurred each month since that time. The general health was much improved. The method, it was suggested, gave a good chance of freeing the patient from pain, without the dread of the severe symptoms often associated with an early menopause. In all cases, unless when there was a chance of conception occurring, when intraperitoneal grafting should be adopted, the uterus should be removed along with the appendages. The transplanted ovarian tissue was never tender to pressure. DR. BARBOUR asked if the return of haemorrhage after operation was to be looked on as menstruation. After removal of the ovaries haemorrhages might recur for a year or so. Could one expect internal secretion from a piece of ovarian tissue grafted in muscle? Was its formation not dependent on the ripening of the Graafian follicle? The removal of ovaries was not invariably followed by severe symptoms. DR. BALLANTYNE thought the three cases added evidence that ovarian secretion was formed by grafts and could be utilized by the body. The transplantation of a large segment of ovary into the uterus so that impregnation might occur was an important problem, though hitherto the experimental results in animals had been negative. DR. HAULTAIN said he had followed Dr. Davidson's cases, and had been much struck with the results in the last two instances. It was important to find out whether the menopausal symptoms were equally kept off if menstruation were not re established. If so, then it was better also to remove the uterus, as he had seen nine cases of malignant disease of the uterus after removal of the ovaries. The symptoms of the early menopause were much exaggerated. They were severe in less than 10 per cent. of cases. In asylums only 1 in 200 patients was without ovaries. After double oöphorectomy, there was no danger, and there might be benefits, in grafting pieces of ovary into the rectus muscle. MR. SCOTT CARMICHAEL described his experimental results on ovarian grafting. He thought that grafts ultimately degenerated, but they minimized the acute onset of the menopausal symptoms. Ovarian transplantation would not be of great value in the human subject. DR. CHURCH said that the removal of ovaries might lead to osteomalacia. The PRESIDENT said it was not to be assumed that menstruation invariably stopped after the ovaries were removed. The partial resection of ovaries was very unsatisfactory, as the remaining part was very liable to undergo cystic degeneration. Hence it was of great advantage if ovarian tissue could be transplanted. Though it ultimately became functionless, it afforded a method by which the patient might be let down gently. In severe menopausal symptoms the internal administration of ovary was helpful, and the transplantation method was even better.

Lateral Incision of the Perineum.

DR. R. ROBERTSON read a communication on lateral incision of the perineum and its immediate repair after labour. If the perineum were allowed to tear, the bruised tissues might not heal well after immediate stitching, and the laceration was often mainly high up in the vagina, and often gave rise later to rectocele.' His practice in primiparae was to apply forceps when the os was fully dilated, pull on the head, cut the perineum on the right side for about two inches up the passage, and then gently extract the head without pressure on the urethra. The edges of the wound were caught with artery forceps, and a wool plug, soaked in lysol, was placed in the vaginal roof. The stitching was done in layers with catgut and silkworm gut, and when it was completed the placenta was separated. The union was always complete, and no prolapse of the anterior vaginal wall occurred. He had never had to use the catheter after delivery. He advocated immediate repair of the torn cervix, which gave rise to so many of the minor gynaecological ailments. DR. KEPPIE PATERSON said that when he had to deal with a tear of the perineum, two or three silkworm sutures had been sufficient to secure good apposition. DR. HAULTAIN said he had tried the operation in former years, and then had given it up. A central posterior incision more closely resembled a natural tear, and did not cut the fibres of the levator ani transversely. DR. RITCHIE said he should not change his present attitude. In his experience immediate repair of a rupture was followed by good results. DR. FORDYCE said forceps should, whenever possible, be avoided in primiparae. The operation of lateral incision had a place; if it was done late, it might save the anus. He had seen severe haemorrhage from the lateral wound. DR. WATSON preferred to place three silkworm gut sutures in the perineum before it tore. If no rupture occurred, they were readily withdrawn; if it occurred, they were tied. After DRS. YOUNG, NICHOLSON, and BOWIE had spoken, the PRESIDENT said that lateral incisions were better than posterior, as they were farther removed from the anus. The wound should be made with a bistoury in preference to scissors. DR. ROBERTSON, in reply, said that the detachment of fibres of the levator ani from the symphysis was prevented by making a lateral incision, hence cystocele did not occur, and the sphincter ani was not stretched, hence haemorrhoids were not so liable to develop.

X-Ray Measurements of Pelvic Brim.

DR. A. MCKENDRICK and DR. J. YOUNG gave a demonstration of an *x*-ray pelvimeter and its capabilities and use, the former dealing with the *x*-ray and mathematical aspects, and the latter the anatomical. The measurements afforded of the transverse diameter were stated to be absolutely exact, while that of the conjugate was in a small percentage of cases liable to an error of not more than one-tenth of an inch.

ROYAL SOCIETY OF MEDICINE.

CLINICAL SECTION.

Wednesday, March 20th, 1912.

DR. SAMUEL WEST, Vice-President, in the Chair.

Electro-cardiograms.

PROFESSOR EINTHOVEN (Leyden) gave a demonstration based on observations of the movements of the heart by means of electro-cardiograms. This was illustrated by lantern slides of the records of actual cases. He pointed out that muscular contraction and action current are dissimilar, but related to one another. Contraction is a mechanical action, but action current an electrical phenomenon. Electro-cardiograms show that the pulse is an imperfect guide to cardiac action. Differences in magnitude of the pulse do not necessarily correspond to differences in the strength of the contractions of the heart. The ventricles might contract forcibly and yet a feeble or no pulse be produced by that contraction, because at the time the left ventricle is insufficiently full. This is the case when the ventricular contraction is not preceded by a contraction of the auricles. It could be shown that in auricular fibrillation the irregularity of the pulse is not caused by irregularity of the ventricular systoles, but by irregularity of those of the auricles. The *pulsus alternans*, in which every second beat is small and feeble, is probably explained by slight changes in the strength of the ventricular contractions. A negative auricular effect, as shown on the electro-cardiogram, is probably quite as valuable as a positive one. Tachycardia may exist and be demonstrable by the electro-cardiogram, but the pulse may not be rapid. The work of the heart cannot be judged by the pulse. By experiments on dogs, by which he had estimated the

ventricular pressure, he had shown that this was related more nearly to the electro-cardiograms obtained than to the state of the pulse. The differences in the degree of contraction of the heart may be small, while the differences in the size of the pulse may be very great. It is possible to judge the condition of the heart muscle with greater accuracy by means of the electro-cardiogram than by pressure curves obtained from the pulse.

Dr. Florence Buchanan gave a demonstration of certain experimental observations which she had made on the heart movements of hibernating animals by means of electro-cardiograms. In eleven dormice she had found that during awakening from hibernation there was dissociation of the auricular and ventricular contractions. Apparently, when the animal was in its deepest sleep only the ventricles were beating. When the ventricular frequency increased to about 40 per minute auricular extra-systoles started, at first slowly and irregularly. These gradually increased in frequency and became more regular until the ventricular effects and the auricular extra-systoles were equally frequent. At the time during which the auricular effects were overtaking those of the ventricles some of the latter were dropped, giving records like those of complete heart-block produced by vagus stimulation in other mammals. True auricular systoles only became visible as the season advanced or as the number of times the animal was roused increased, and had never occurred while the ventricular frequency was less than 58 per minute. Experiments on bats served to show that evidence of heart-block, complete or incomplete, was likely to be forthcoming in those animals during hibernation.

Dr. James Mackenzie said that electro-cardiograms had afforded means of accurate diagnosis in cardiac disease, and had led to great advances in our knowledge of many obscure affections of the heart. Some years ago he had attempted to explain certain forms of arrhythmia by ascribing them to contractions starting in unusual positions, and it had been very gratifying to him when Dr. Lewis had demonstrated by electro-diagrams that the auricle in such cases had gone into fibrillation. The method had also explained some cases of tachycardia when the auricles were beating faster than the ventricles. It had helped with regard to the management and treatment of patients. He regarded the *pulsus alternans* as a condition which was not rare, but always of very grave significance.

Dr. Thomas Lewis paid a high tribute to Professor Einthoven's work. He said that the profession was indebted to Professor Einthoven for a perfected instrument and for a method of unrivalled precision. It had given almost entire corroboration to the findings by the method devised by Dr. James Mackenzie—that of analysis of venous pulse curves, which could be applied by all who practised medicine. He illustrated his contention by reference to the interpretation of such irregularities of the heart's action as were produced by premature contractions or extra-systoles and by heart-block. It was but rarely that the galvanometer failed to disclose the nature of a disordered heart action. Usually its answer was immediate and decisive. Dr. James Mackenzie had referred to auricular fibrillation. Among the first electro-cardiograms of this condition were those taken by Professor Einthoven, and it was his instrument which introduced the profession to auricular fibrillation as a clinical phenomenon. It was indebted to the galvanometer for its knowledge of origin of the site of the heart-beat. It had shown that in pathological states other centres of impulse formation were active in the muscle, and it had located these centres in a remarkable fashion. The new method had very materially advanced knowledge of paroxysmal tachycardia: it had shown that those crises arise, not as the result of simple disturbances in innervation, but as an outcome of new and rhythmic impulse formation in parts of the heart remote from the pace-maker. It had transpired that the galvanometer could detect not only functional disturbances of the main auriculo-ventricular bundle, but also similar defects in its main branches. A great deal of evidence was now forthcoming in support of Professor Einthoven's original contention, that the relative weights of the two ventricles could be estimated by this means. It would be needless for him to emphasize the importance of these observations. Electro-cardiography was a growing science. Instruments were being installed in all lands where pathology and clinical medicine were actually studied. The value of the method had received immediate and universal recognition.

Curves were shown to illustrate the various points.

Sections of Obstetrics and Gynaecology.

At a meeting on March 7th, Dr. W. E. Fothergill, in a paper on the *Classification of the diseases of women*, described the disadvantages of the usual anatomical method of classification, and the necessity for some new arrangement of groups of diseases based on pathological resemblances and differences. The anatomical plan was often badly and illogically applied. Thus symptoms were often described as diseases of one organ or another, and real morbid conditions often placed under a wrong heading: "Cystocele" and "rectocele" were often called "diseases of the vagina," whilst "prolapse" and retroversion were misplaced amongst "diseases of the uterus." All four should be classed under abnormalities of the pelvic connective tissue. The writer referred to primary genital tuberculosis, and pointed out the inconvenience to the student in finding stray paragraphs on this subject scattered through his textbook. Similarly with regard to gonorrhoeal and septic infections. The important feature of a disease was not its symptoms and signs, its cause or its treatment, but its nature or kind. When a student decided that a gynaecological trouble was a disease, say, of the vagina, he was generally wrong, and if he was right he was no wiser, no nearer a complete diagnosis. When, however, he discovered that a condition was the result of infection, a result of injury, or a new growth, much valuable information about the case was gained. The writer suggested the following main groups, both for clinical teaching and for systematic work:—(1) Developmental errors: (*a*) congenital; (*b*) at puberty. (2) Vascular changes. (3) Mechanical lesions. (4) Results of infection. (5) Progressive conditions: new growths, overgrowths, cysts. (6) Retrogressive conditions. Any arrangement with main divisions such as these had many advantages in teaching. It was logical and complete, there was no cross-classification, and the groups were mutually exclusive. They were already familiar to the student through his pathological work, and they were few enough to be easily remembered.

Section of Surgery.

At a meeting on March 12th, Mr. Clinton T. Dent in the chair, Mr. John Murray described a case in which a *Calculus of the pancreas* had been removed by operation. The first symptoms commenced twenty-two years ago, and consisted of attacks of epigastric pain lasting about two hours, unaccompanied by vomiting. These symptoms continued on and off for seven or eight years, when for two years the patient was practically free from pain. The attacks then became more frequent, and were sometimes accompanied by vomiting, jaundice, and cardiac irregularity. A diagnosis of gall stones was made and a cholecystotomy performed. A stone was found in the ampulla of Vater, but whilst enlarging the wound the stone disappeared, and it was thought to have slipped into the duodenum, so the wound was closed. At the end of six weeks another attack occurred, epigastric pain accompanied by vomiting and jaundice, the scar broke down, and a quantity of bile escaped. The abdomen was opened and a stone found in the same position, and was removed by turning the second part of the duodenum to the left. The stone proved to be a pancreatic calculus 12 mm. in diameter, the nucleus of which was denser than the exterior. This was the first time on record that a pancreatic calculus had been removed by this route. Mr. Cuthbert Wallace, in a paper on *Multiple growths in the great gut*, recorded a series of cases of carcinoma of the colon associated with another growth below or with polypi simple or malignant in nature. He divided his cases into four groups, and offered the following points for discussion: Whether the polypi below a malignant growth were produced by implantation of cells broken off from the mass and carried down by the faeces, and whether the polypi above the growth were produced by a regurgitant flow of faeces carrying up malignant cells. When two carcinomata were present in the large intestine, whether the upper one was always the primary and the second produced by implantation of malignant cells. Mr.

GORDON WATSON thought that multiple polypi were usually a precursor of carcinoma. He recalled a case in which no polypi could be seen by the sigmoidoscope, yet *post mortem* three months later numerous polypi were found growing from the large intestine below the growth. Mr. SYMONDS said that in the majority of cases no polypi occurred below a carcinoma of the large intestine. He had seen a case in which numbers of polypi had disappeared spontaneously. Mr. W. G. SPENCER, described the case of a boy, aged 5 weeks, who was admitted suffering apparently from hydrocephalus internus, and exhibited marked *Intracranial tension*, rigidity, frequent vomiting, and screaming fits. With the object of making a communication between the cerebral ventricles and the subdural space, the skull was trephined, when all the fluid was found in the subdural space. In order to afford an escape for the fluid, several attempts were made to drain it into the subcutaneous tissue. Finally, a communication with the nose through the ethmoid plate was set up, so as to produce the condition causing cerebro-spinal rhinorrhoea which has followed accidents. This gave relief from tension until the child's death some months later, when it was found that the cerebral ventricles had ruptured into the subdural space, and the membranous sac representing the cerebral cortex had collapsed. In a note on *Multiple fibromata of the tunica vaginalis*, Mr. G. H. MAKINS described the case of a man, aged 26, who as long as he could remember had had a lump behind the right testicle. It had gradually increased in size, and was dissected away from the testicle, and proved to be multiple fibromata growing from the tunica vaginalis. The cases that had been recorded were those of single fibromata, which were often of large size and enveloped the testicle. The testicle had often been removed with the tumour, which was quite unnecessary. The cause was usually ascribed to some injury, but in this case no such history could be obtained.

PATHOLOGICAL SECTION.

AT a meeting on March 19th Dr. C. RUSS made a communication describing a *Modification in the technique for opsonic estimation*, by which some degree of diminution in the sources of error was effected. The author rigidly excluded the presence of red cells, which he thought hindered the opportunity of the leucocytes for bacterial ingestion. The white cells were collected by allowing them to fix themselves, from the blood, to the sides of a small glass chamber, from which they were afterwards washed off with salt solution. In order to equalize the opportunity for ingestion, moreover, the capillary tubes containing the mixture of leucocytes, serum, and bacteria were kept slowly revolving in the incubator—not on their long axis, but radially, set as the spokes of a wheel. Using staphylococcus as the bacterium, there were variations even by this method in the number of micro-organisms ingested by individual cells, ranging from zero to 14; under the ordinary method the maximum number ingested was considerably higher. Dr. H. W. CROWE gave an account of the *Incidence of streptococci* in urine, based on extensive bacteriological examination of the urine from healthy persons, and in various kinds of disease. None of the urine was withdrawn by catheter, and it might be objected, therefore, that the bacteria found were furnished from the urethra. The urethra was flushed out by allowing a certain amount of urine to pass first, and the rest was received for examination. In a certain proportion of cases it was sterile. In the other cases it contained one or more of four different bacteria. The best known, so found, was the urethral streptobacillus of Pfeiffer, which occurs in the normal canal. The other micro-organisms comprised two forms of coccus and a diphtheroid bacillus. Dr. H. C. ROSS recorded some observations on the *Mitotic figures* induced in lymphocytes. When treated with extracts of dead tissue or with creatin, etc., the appearances, which were very evanescent, were interpreted, not as being degenerative, but indicative of an anomalous mode of mitosis; the chromosomes, in place of being confined to the central parts of the cell, became disposed at the periphery. Dr. W. NICOLL described the *Condition of the blood* in dogs which he had infected with the larvae of *Ankylostoma caninum*. The disease was particularly well known in America, and produced anaemia in the dog. The work of the author showed the anaemia to be of the secondary type, and due to the haemorrhage from the gut. No eosinophilia was observed in the dogs experimentally infected, although this was present in the natural disease.

OXFORD MEDICAL SOCIETY.

AT a meeting on March 8th, Mr. ANGLIN WHITELOCKE, President, in the chair, Mr. L. W. SEYMOUR, in a paper on *Epidemic plague in India*, based on his own experiences as a medical plague officer during two severe outbreaks (1897–98) in Scinde, said that in the second epidemic he had obtained a 75 percentage of recoveries by the administration of a mixture of carbolic acid and quinine internally with continuous soakage of the glands externally with carbolic oil (1 in 30) on lint. In addition to his own experience of success with carbolic and quinine through a course of many years in all classes of septic and infective diseases, and as giving rationality to this treatment, he referred to the fact that Kitasato had found that growth of the bacillus did not occur in cultures after exposure for one hour to a 1 per cent. solution of carbolic acid (roughly 4 minims to the ounce), and that, in his experience, the addition of the quinine produced an intensive effect. The extension of plague seemed undoubtedly to depend more upon place infection than on direct transmission from person to person.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on March 20th, Dr. F. H. JACOB, President, in the chair, Drs. PERCY E. and STANLEY TRESIDDER read a joint paper on the *Treatment of syphilis by salvarsan*. The treatment should not be employed in persons suffering from severe concomitant constitutional diseases, such as diabetes, tuberculosis, and cardiac disease, nor in debilitated and old or very young subjects. They used the intravenous method, giving two injections within a fortnight, and followed them by a course of mercury. The patients were kept in bed for twenty-four hours before and forty-eight hours after the injections. As a rule, there was a slight rise of temperature, accompanied by general malaise; but these symptoms soon passed off and generally the patients were quite recovered about six hours after the injection. The diagnosis should always be confirmed by a Wassermann test, and this test should guide the subsequent treatment. As a rule, a "partial positive" test was obtained six weeks afterwards, and a further course of mercury soon turned this into a negative Wassermann reaction, and all the symptoms of syphilis disappeared. The immediate results were especially marvellous in cases of skin and mucous membrane lesions. In cases of congenital syphilis the suckling mother was injected, and, although her milk contained no arsenic, yet the syphilitic symptoms rapidly disappeared in the child. They had now employed the drug in nearly 100 cases during a period of over a year. They injected 0.6 gram, and had never had an alarming symptom.

LIVERPOOL MEDICAL INSTITUTION.

AT a pathological meeting on March 14th, Dr. PATERSON in the chair, Mr. ADAIR DIGHTON showed a large *Osteochondroma* removed from the auricle under cocaine anaesthesia. It was of interest on account of its huge size, and also because it was diagnosed, previous to removal, as epithelioma. Mr. BICKERSTETH read a note on three specimens of *Breast tumour*, which he considered to be fibroadenomatous in character. The cystic nature of some specimens was due to haemorrhages, which might cause a rapid increase in the size of the tumour. The exhibitor laid stress on the importance of macroscopic pathology as well as microscopic, and referred to old writers who had described these tumours accurately. Mr. PAUL said the adenomatous tumours of the breast commenced in two ways—one as a periacinous growth and the other an intracystic vegetation. The former developed into the fibro- or myxo-adenomata, and the latter into the cystadenomata. Though the two when fully grown might show points of resemblance, they could always be distinguished from each other, and were really essentially

different, more so even than acinous and duct cancer. Dr. ERNEST GLYNN, in a note on the *Detection of anthrax in industrial material*, pointed out that the disease appeared to be spreading among domestic animals, and consequently a larger number of agriculturists were becoming infected. It was difficult to demonstrate anthrax spores in industrial material; two methods were commonly used, namely, agar plate cultures and inoculation of guinea-pigs. The latter method seemed the better, and by its means anthrax spores had been found in 21.5 per cent. of 141 samples of raw hides, wool, etc., examined. Dr. BLAIR BELL described a new clinical method of estimating the amount of *Calcium excreted in the urine*. It consisted in centrifuging and measuring the amount of calcium oxalate precipitated by oxalic acid, the phosphates being dissolved with acetic acid in a calibrated tube. The estimation was made by comparing the amount precipitated from the urine with that obtained in a similar manner from an artificial standard urine containing a known quantity of calcium. Sir JAMES BARR said that the profession was very much indebted to Dr. Blair Bell for the great amount of work which he had undertaken in order to determine clinical method for accurately estimating the amount of lime in the urine. This apparatus, which he now showed, would fulfil all the necessities of clinical work in respect of estimating the lime salts in the urine. His own method for estimating the amount of lime in the urine was a very simple one. He took an ounce of urine, neutralized it with a little ammonia, then added concentrated solution of oxalic acid with 5 per cent. of strong acetic acid. This precipitated the lime as calcium oxalate, and all the phosphates were dissolved by the acetic acid. With some experience the eye soon recognized what was normal and what was abnormal. He also showed that the excretion of lime by the kidneys was much greater than was usually supposed. Dr. H. R. HURTER expressed surprise and satisfaction that the results obtained by Dr. Blair Bell's method had been shown to coincide so closely with quantitative chemical estimations. He suggested the possible employment of a saturated solution of sodium sulphate as an alternative reagent for precipitating the lime salt.

A CORRECTION.

In the account of the paper on the treatment of diabetes mellitus read by Dr. O. T. Williams and Dr. Mildred Powell at the meeting of the Liverpool Medical Institution on March 7th, and reported in the JOURNAL of March 23rd, it was stated (p. 674, lines 21 to 23) that "In the study of the cases treated by diastase there was *an* obvious action on nitrogen or carbohydrate metabolism," etc. The report should have stated that "there was *no* obvious action," etc.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on March 1st, the President in the chair, Dr. J. B. HELLIER, in a paper on *Vesicular mole*, described two cases in which excessive vomiting in pregnancy had been due to such cause. It was sometimes very difficult to distinguish the malignant form at an early stage from the benign form, the proliferation of the trophoblastic layer in the two forms respectively being one of degree rather than of kind. Mr. WALTER THOMPSON described a case on which he had recently operated successfully for *Chorion-epithelioma* following vesicular mole. Dr. T. CHERTON showed a child aged 3, in whom obliteration of the hepatic veins had produced rapidly recurring ascites. This was finally treated by incision, and recovery occurred with dilatation of the superficial abdominal veins. Mr. J. F. DOBSON showed a gall-stone removed from the ileum where it had produced acute intestinal obstruction, and also gall bladders which had been in fistulous communication with (*a*) the colon and (*b*) the duodenum. Mr. MICHAEL A. TEALE showed two sisters, each of whom had *Congenital dislocation of the lens*.

MANCHESTER MEDICAL SOCIETY.

AT a meeting on March 6th, Dr. E. S. REYNOLDS, President, in the chair, Dr. W. FLETCHER SHAW, in a paper on the *Treatment of placenta praevia* based upon 100 consecutive cases, said that the best treatment for both mother and child was to leave Nature alone, provided the haemorrhage was not very great and the doctor could remain in the house until the labour was over. If the haemorrhage were more severe, manual dilatation of the cervix, followed by rapid extraction of the child with forceps or version, gave the best results. Simple podalic version gave excellent results to the mothers, but generally sacrificed the child. Packing, Champetier de Ribes's bag, and Caesarean section he did not advocate for this condition. Dr. C. PAGET LAPAGE, in a paper on certain forms of *Fever of obscure origin* in infancy and childhood, drew attention to otitis media as one common cause thereof. Fever, when due to blood diseases and Hodgkin's disease, might be either acute or chronic with exacerbations, and in these cases there might be no evidence of the cause until the blood was examined. Infection of the genito-urinary tract with the *Bacillus coli communis*, either as an acute pyelitis or in a less severe form, was a very important cause, and its existence pointed to the need of careful examination of the urine in infants. Other causes were gastro-intestinal disturbances, such as chronic intestinal indigestion, recurrent fever due to excess of carbohydrates, and even over-feeding with breast milk.

UNITED SERVICES MEDICAL SOCIETY.

AT a meeting on March 13th, Major WAGGETT, R.A.M.C. (T.), in the chair, Fleet Surgeon A. GASKELL, R.N., in a paper on *Dust traps* and their dangers on board ships, said that since a ship of war was necessarily overcrowded in point of cubic space per man, the dangers that were represented by dust were even greater on such ships than on shore. There should be a close study of hygiene by the officers of the constructive branch of the navy in order that corners and parts difficult to keep clean should be as far as possible eliminated during the building of the ship. The old rough "cork-paint," which in the past was so freely used as a covering of metallic surfaces, was a great dust collecter, but was not in evidence in the most modern ships. The material used at present in covering steel decks and the method followed of laying it were, however, fruitful causes of accumulations of dirt, dust, and damp. He suggested the substitution of asphalte or some other similar material. One point for satisfaction was that ships were now being fitted with disinfectors. They might also be fitted with some form of vacuum cleaner.

HUNTERIAN SOCIETY.

AT a clinical meeting at Guy's Hospital on February 28th the interesting proceedings included an *x*-ray demonstration in the medical radiography department by Dr. A. C. JORDAN. The cases shown included that of a woman of 32 who, owing to the nature of her pain, was thought to be suffering from gall stones. It was found, however, on *x*-ray examination after a bismuth meal, that the pain was due to a duodenum which was greatly elongated and distended to more than double the normal diameter by kinking at the duodeno-jejunal junction. The duodenum was observed contracting vigorously for seven or eight minutes before it finally succeeded in expelling a portion of its contents into the jejunum through the kink. Subsequent examinations revealed the fact that there was great stasis at the lower end of the ileum, amounting to more than twenty-six hours; this stasis caused the lower coils of the ileum to be dragged down with the caecum into the lowest part of the pelvis. The jejunum was thus pulled upon, with the production of the duodeno-jejunal kink already described. Thus the duodenal distension was shown to be secondary to the stasis in the ileum.

HARVEIAN SOCIETY.

AT a meeting on March 14th, Dr. H. J. MACEVOY, President, in the chair, Dr. R. H. COLE defined *Hypochondriasis* as a subjective state of ill health which was more or less chronic, and was out of all proportion to any disorder of the bodily mechanism. The hypochondriac was one who was painfully conscious of his organic sensations, these

dominating his personality to the detriment of impressions from without. The conducting medium of the sympathetic system had not been found to be defective, and he questioned whether the condition was the result of toxins, or was due to an anomalous constitution of cortical neurones, possibly those connected with the visceral representation in the Rolandic area of the brain. The speaker's remarks were based on a study of 50 of the graver cases that had been under his close observation; most of these cases required certification, owing to disorder of conduct dependent on illusions or delusions. These cases all belonged to one of the two classes of hypochondriacal melancholia or hypochondriacal paranoia, and were not associated with any obvious bodily disorder. The milder paranoiacs derived benefit from change of surroundings, but the melancholics required rest and quietude. Forcible feeding was resorted to in all cases of refusal of food. Mr. V. Z. COPE, in a paper on *Latent surgical disease* described the condition as one manifested by derangement of function, alteration in physical characteristics, or simply pain. Function varied normally within such great limits that early changes due to disease were easily missed. Alterations in size and shape of internal organs were not detected early unless important structures were subjected to pressure; pain was an inconstant symptom, inasmuch as viscera supplied by the sympathetic system were not sensitive to ordinary stimuli. Latency was a feature of acute disease, both at its inception and again after the acute stage; the early symptoms of an acute appendicitis might correspond to an advanced pathological process, and the condition sometimes appeared quiescent even when an abscess had formed. Chronic infections of mucous membranes which were furnished with diverticula and crypts frequently gave no symptoms except by occasional exacerbations, which were mistaken for reinfection; nasal sinusitis and chronic gonorrhoea were cited as examples. The chronic granulomata and neoplasms were the common classes of disease which remained latent. Tuberculosis was especially prone to give no symptoms when it attacked the peritoneum or kidney: syphilis was frequently latent for long periods, and he had seen a case of actinomycosis of the appendix which gave rise to no abdominal symptoms. Carcinoma of the colon and rectum was commonly latent for a very long period, and so too was carcinoma of the cervix. Duodenal ulcer sometimes gave rise to no pain of any description; the first sign might be a severe haemorrhage or general peritonitis. All the remarks made in the paper pointed to the important conclusion that first symptoms often meant long-standing disease. The practical consequences of such conclusion were obvious.

LONDON DERMATOLOGICAL SOCIETY.

AT a meeting held on March 19th Dr. MORGAN DOCKRELL, in a paper on *Lichen and lichenification*, deprecated the loose nomenclature used by writers on these subjects, and gave a historical sketch of the use of the terms from the time of Hippocrates. The word "lichen" was derived from the Greek, and, like some other words used in dermatology, was originally a botanical term. In the past the word "lichen" and its modifications had been used to describe many skin eruptions, but the term should now be restricted to one disease. The use of the name "lichen acuminatus" to designate pityriasis rubra pilaris had only led to confusion. He also deprecated the use of the term "lichenification," which seemed to imply some relationship to "lichen planus." It was really used to describe a phase which occurred in many diseases, but was distinctive of none; it consisted generally of a red thickened patch, the result of chronic inflammation, in which the normal markings of the skin were unduly emphasized and enclosed glistening angular surfaces somewhat suggestive of the burnished surfaces of the papules of lichen planus.

MESSRS. DE DION BOUTON have recently issued a pamphlet entitled *The Doctor and the Car*, containing reprints of a large number of letters addressed last year to the editor of the *Autocar* in response to a request that medical users of automobiles would supply him with an account in detail of their experiences as to the cost of upkeep and use. The pamphlet also gives a list of the names and addresses of over 900 medical men who use the cars of the firm.

Reviews.

PREHISTORIC JAPAN.

EVERY book which contains a clearly written account of an author's researches, especially when these are directed towards laying bare the early history of an interesting people, must appeal not only to the expert, but also to the general reader. In his *Prehistoric Japan*[1] Dr. NEIL MUNRO has written an important and an interesting book on the early history of the Japanese; it is based chiefly on the explorations he made of the ancient refuse and shell strata which mark the settlements of the very early inhabitants of Japan. In the various layers of the refuse deposits, the total depth of which was often 8 ft. or more, Dr. Munro discovered well-worked flints (neoliths), fragments of pottery, and other remains of a primitive people, thus carrying the history of Japan back to a period about 5,000 years ago. Traces of these early Japanese settlements are extremely numerous; some 4,000 of them are already known. In the course of his excavations Dr. Munro was able to settle definitely who these neolithic inhabitants of Japan were. He unearthed in and beneath the deepest strata human remains which possess characters definitely assigning them to the Ainus, of whom some 17,000 still survive in the North Island (Yezo), and in the Sakhalin and Kurile Islands. It may be affirmed with certainty, on the evidence produced by Dr. Munro, that the neolithic inhabitants of Japan were Ainus. They belong to a primitive race, essentially Mongolian in nature, and yet with other features, such as their extreme hairiness, which show that they are related to the more primitive inhabitants of North-Eastern Europe.

Britain and Japan have much in common. The one is visible from the western shore of Europe; the voyager between Corea and Japan finds land in sight all the way. The story of the settlement of each island is a prolonged series of invasions from the opposite continental shores. The Yamato people, the ancestors of the modern Japanese, began to arrive in their future home somewhere between 1000–500 B.C., carrying with them a civilization of the bronze age. They made their footing good much in the same way as the invaders of Britain did—by extermination and by intermarriage. Their language replaced the native speech. The conquering race brought an elaborate burial system with them—the same system as was brought to Britain by the races which built the dolmens, barrows, and other stone sepulchres. Much of the past history of Japan has been learnt from the objects found in these ancient tombs. Even at that early date the artistic instincts of the Japanese are apparent.

The pall of darkness which hung over prehistoric Europe is being gradually dissipated. It is not so long ago since we were content to begin the history of the British people with an account of the races who built the barrows; now we can trace man's history in Britain almost to the close of the Pliocene period, or, according to some, to a still earlier date. Dr. Munro is fully alive to the fact that the history of Japan does not begin with the men who lived on the neolithic refuse sites; he has searched older formations and deposits and found traces of palaeolithic man in Japan. Hitherto our eyes have been too steadfastly fixed on Europe during our prehistoric researches; we now want to know what the rest of the world was doing in those early times. We see from Dr. Munro's account that in the neolithic period Japan was widely inhabited by a people of a considerable civilization, and we cannot doubt that this was also true of the neighbouring continent. We realize, too, that East and West the same processes were then at work as we see in the world of to-day—namely, one race conquering and expanding, another losing and diminishing. The law holds true of all times; it must also be that the conqueror of yesterday becomes the conquered of to-day.

ACROMEGALY.

DR. MARK'S book on *Acromegaly*,[2] a disease from which the author is himself a sufferer, is both interesting and remarkable—interesting in that the work contains a very

[1] *Prehistoric Japan.* By Neil Gordon Munro, M.D. Edinburgh: William Bryce. (Pp. 705, 421 figures, 2 charts.)

[2] *Acromegaly: A Personal Experience.* By Dr. L. P. Mark. London: Baillière, Tindall, and Cox. 1912. (Med. 8vo, pp. 163; 1 plates. Price 7s. 6d. net.)

detailed account of the symptoms of this rare disease, and remarkable that one who from his narrative has suffered nearly continually for the last thirty-two years should be able to continue his avocation. The author gives a table of his family history, numerous members of which suffered from tumours, but none from acromegaly or gigantism. The first signs of the disease presented themselves at the age of 24, and as the author is now 56, the case is one which would at the present time be included under Sternberg's definition of benign acromegaly. The author has suffered from most of the symptoms associated with this disease, but lays particular stress on a triad of symptoms—namely, faceache, headache, and what he calls the acromegalic state. The faceache was always on the left side, and was always brought on by cold winds, and the headache has been constantly present during some time of the day for the last twenty-five years. By the acromegalic state the author means a general feeling of drowsiness, intense fatigue, and intolerance of all sounds or light, associated with giddiness, shortness of breath, which becomes irregular on any exertion, but without loss of mental power. At this time also the author considers his face, hands, and feet enlarge, but decrease in size when the "state" has passed off. The author does not seem to have suffered from hemianopsia, but hypermetropia and astigmatism were well marked at one time in both eyes, but decreased as years passed, and disappeared in the right eye altogether, but only to return. This is an uncommon occurrence, but has been noticed before by Schlesinger and others. It is unnecessary to go into detail of the various other symptoms, such as nasal troubles, aural affections, lacrymation, and the like, as they are all well known in connexion with the disease, but it may be noted that glycosuria, so frequently present in acromegaly, has never been found. We may, however, note that enlargement of the tongue, which the author states he has not seen mentioned in any English textbook of medicine, finds a place in Allbutt and Rolleston's and Osler and Macrae's *Systems*. There are some excellent photographs showing the gradual progress of the disease during the course of years; a radiogram of the right hand, in which the stalactites over the phalanges are well shown; and an equally excellent radiogram of the skull, showing the enlarged sella turcica. Mention may be made of an interesting photograph of the statue of a woman in Rheims Cathedral, evidently suffering from this disease. Dr. Abraham adds a note on the hairs, Dr. Jones on the condition of the feet, Mr. Yearsley on the ears, and Professor Keith a tracing of various measurements of the head. It has been frequently stated with reason that medical men are not good diagnosticians of their own complaints; and if evidence were wanted, we have it here. The author suffered from the disease for nearly twenty-five years before he discovered what was obvious to many of his medical friends. We have read this book with much interest, and can warmly recommend it to medical men desirous of obtaining a knowledge of the disease. We sympathize with Dr. Mark in his affliction, and at the same time express our admiration of the fortitude with which he has borne his sufferings.

CHEMIOTHERAPY: SALVARSAN.

To those who are interested in chemiotherapy, particularly in its application to syphilis, the volume of the Oxford Medical Publications, by Professor EHRLICH and Mr. J. E. R. MCDONAGH, on "*606*" *in Theory and Practice*,[a] will specially appeal. The work gives an accurate and painstaking account of Ehrlich's theories which culminated in the discovery of the properties of "606." The number applied to the drug is testimony to the perseverance of the investigators, for the powder now known as "salvarsan" was the 606th preparation investigated before satisfactory results came. The chemical term showing its constitution is given, but its mode of manufacture is not told in this work. The drug must be used in a particular way to obtain its effects. As with other arsenical compounds, toleration may be acquired if the administration is by small doses over a lengthened period. It is necessary, therefore, for the dose to be lethal to the spirochaetes and the *therapia magna sterilisans* obtained at once. Salvarsan is now generally administered intravenously. The subcutaneous and intramuscular methods are painful, and in the first case the drug may become bottled up in the tissues, while in the second its absorption into the circulation is too slow, and amounts to a continuous exhibition of a small dose from a central dépôt. The constitutional effects are fully described, and tables of the rate of elimination are included in the text. The accidents which may occur are treated categorically, and it is interesting to find that Ehrlich and his assistants have not been able to track to their origin the stories of grave nervous lesions alleged to be due to this drug. Their position is that of experimenters in a wide field, and they admit freely that they do not know, and cannot know, the varied effects produced by salvarsan under many different conditions. The experience of many thousands of cases has shown them quite clearly that the drug is parasitotropic for the *Spirochaeta pallida*, and that it is not organotropic for the human being under ordinary conditions. The destruction of a large number of spirochaetes will set free in the circulation their toxins and the immediate effect of a sufficient dose of salvarsan will in the human organism be that of the action of the arsenic *plus* the liberated poisons. This is indicated by the rise in temperature, sickness, vomiting and diaphoresis, which occur within a few hours, but generally pass off within the next twenty-four hours. The authors repudiate the suggestion that one dose is sufficient, and their most recent directions are to repeat the maximum dose of 0.6 gram in seven days if the case seems to demand it. This is quite in accord with our own experience. We have known a number of cases where the Wassermann reaction was markedly positive fourteen days after a full dose of salvarsan. The explanation offered is that in less vascular parts of the body most favoured by the *Spirochaeta pallida* the quantity of the drug is insufficient to destroy the organism completely, though its activity may be diminished. The exhibition of a second dose is, therefore, well calculated to complete the cure. The effects on the nervous system are dealt with elaborately; every case is discussed on its merits. For the most part, the symptoms are considered to be syphilitic manifestations pure and simple, and not the effects of the drug; many of them have been effectively treated by a repetition of the dose. The authors seem disposed to think that mercurials and iodides are not to be laid aside permanently, as they suggest: for example, that where a neuro-recurrence takes place involving the optic or auditory nerve, it may disappear with vigorous mercurial treatment. We most heartily commend this volume to the notice of all sections of the profession, as it is a succinct account of this method of treatment, and a notable contribution to the literature of a subject which has probably provided a theme for more discussion than any other in the history of medicine.

We have already noticed in the JOURNAL of December 9th, 1911, p. 1565, the German edition of EHRLICH and HATA'S work on experimental chemiotherapy of spirilloses. A translation of the book by Mr. A. NEWBOLD and Dr. ROBERT W. FELKIN has now been published.[1] The work consists of details of the labours of Ehrlich and his many collaborators in establishing the experimental basis of the chemiotherapy of spirilla, written by Dr. Hata. The experiments were made first in relapsing fever, then in spirillosis of fowls, and, lastly, in syphilis of rabbits, and were conducted with various substances, some aniline dyes, and a long series of arsenic compounds, until finally the famous "No. 606" was reached. There are also three short papers on different branches of chemiotherapy by other workers: and the third division of the book is taken up with Ehrlich's contribution. Ehrlich's paper shows that his discoveries in chemiotherapy have not been the result of blind groping in experimental darkness, with here and there chance illuminating gleams; they are the result of lifelong devotion to the elucidation and chemical explanation of a principle. In chemistry the law applies, *Corpora non agunt nisi liquida*, so in chemiotherapy, he argues, may we not say, *Corpora non agunt nisi fixata*, which

[a] "*606*" *in Theory and Practice*. By Geheimrat Professor Dr. Paul Ehrlich and J. E. R. McDonagh, F.R.C.S., Surgeon to Out-patients, London Lock Hospitals. London: Oxford University Press; Henry Frowde; Hodder and Stoughton, 1911. (Roy. 8vo, pp. 144. 7s. 6d. net.)

[1] *The Experimental Chemotherapy of Spirilloses*. By Paul Ehrlich and S. Hata. Translated by A. Newbold and revised by Robert W. Felkin, M.D., F.R.S.E., late Lecturer on Tropical Diseases, Edinburgh Medical School. London: Rebman, Limited. 1911. (Roy. 8vo, pp. 181; 34 tables, 5 plates. 12s.)

dictum may be read that parasites can only be destroyed by those materials for which they have a certain affinity thanks to which they are "anchored" by the bacteria.

EMBRYOLOGY FOR OBSTETRIC STUDENTS.

TREATISES on embryology are usually expensive, and they contain much which is of no direct value to the medical student. Yet the doctor in the most limited sense of that word cannot dispense entirely with science. This truth applies to obstetrics and gynaecology as much, if not more, than to any other branch of the healing art, as they require the co-operation of the sciences of embryology and pathology. For these sciences make up the grammar of reproduction, development, and disease incidental to generative physiology. Dr. R. W. JOHNSTONE has therefore rendered a service to the obstetric student in preparing his *Outlines of Early Development*,[5] which is really a grammar of its subject. It bears the *imprimatur* of Sir HALLIDAY CROOM, who in a preface certifies that the manual is a concise and careful sketch, and has been written at his request. The early development of the ovum is made as clear as possible, so that when the student reads about chorionic villi, syncytium, and trophoblast he, recalling this instruction, may understand fairly what those words signify, or may recall his elementary knowledge by a brief glance at a work of reference. Book knowledge is, unfortunately, all that he can rely upon, as it is only the specialized embryologist and pathologist who can acquire a practical knowledge of the subject in question. Dissections of the heart and specimens showing valvular disease, also preparations of the popliteal artery and aneurysm of that blood vessel are always available; the student can inspect them with his own eyes, and the "post-graduate" can look them up in a museum. But both must take a great deal on trust when they face embryological questions. Hence the value of Dr. Johnstone's work, which is a clear summary of the researches of embryologists. The development of the placenta and the nature of the villus is clearly set forth, and the elements of the decidua explained more lucidly still, which is satisfactory, as the student must learn why chorionic villi should be sought for in blood clots removed from Douglas's pouch, and must understand that an extremely malignant disease of the uterus is observed after the puerperium, or in association with vesicular mole, or even independently of gestation. In other words, he will acquire a fair idea of what is meant by the word "chorion-epithelioma." Lastly, in regard to that disease, we are reminded that most of the diagrams in the *Outlines* are good; but we think that a few more should be given. They would promote the mental digestion of the crowd of names inextricably associated with embryology in general and the histology of the placenta and decidua in particular. The diagram of a section through the placenta and adjacent uterine wall, at p. 21, is very clear; but Fig. 13 should be accompanied by a good big diagrammatic sketch of a villus and the contiguous decidual structures seen in vertical section, so as to throw more light on the relations of Langhans's layer, syncytium, and decidua, a sketch such as is to be found in Hart and Barbour's *Manual of Gynaecology*. Whilst commending Dr. Johnstone's manual to the student, we may add that it should prove useful to experienced obstetricians and gynaecologists as well, as they have little time for scientific study, and may well be pardoned if they fail to remember all the intricacies of embryology.

HYGIENE ON THE INDIAN FRONTIER.

LIEUTENANT-COLONEL HEHIR has compiled an extensive work on *Prevention of Disease and Inefficiency*,[6] to which General Sir O'M. CREAGH, Commander-in-Chief in India, has contributed a short preface. The work begins with an introduction of thirty-nine pages, the first section of which is headed "Brief sketch of the physical geography of India and its frontiers." Some of the subsections hardly seem to be covered by this heading—for example, "An epitome of the history of our campaigns a desideratum," "Work of Japanese medical officers in Manchuria." The statistics on page 32, which are presumably intended to show how the health of the British soldier in India has improved with the advance of sanitation in recent years, might well have been brought up to a later date than 1906, a very considerable reduction in the incidence of disease having been effected since that year.

Part I deals mainly with physical training and marching. "Combined Training, 1905," to which frequent reference is made, is now obsolete. Part II contains a lengthy survey of "General Hygiene," under which is included the sanitation of cantonments, barracks, and camps. The sections on the examination and purification of water are hardly as complete as one would expect in a work of this size, while those on air and the cooking of food contain more physiology than is quite necessary in a work on hygiene. Part IV is headed, "Prevention of disease in peace and frontier warfare in India." The introduction opens with a summary of sanitary regulations recently introduced in the home army, and devotes a good deal of space to the Japanese Medical Service during the war in Manchuria. A very full description, occupying some 150 pages, is given of all the diseases which may befall a soldier. In future editions this portion of the work might with advantage be curtailed by omitting matter such as the differential diagnosis of typhoid and typhus fever on page 505.

Part V is headed, "Medical Statistics in Indian Frontier Warfare." It consists of two pages stating the desiderata in preparing medical statistics in any campaign and one on the collection of medical statistics in the Japanese army. Part VI—"The Sanitary Service in Indian Frontier Warfare"—appears to have been written as a lecture. It sketches out the sanitary organization of the army and the duties of the various appointments in the medical service during the war; one third of the matter is devoted to a sketch of the Japanese medical organization in war. An appendix contains some statistics of Indian frontier campaigns as well as some from the Japanese army during the late war in Manchuria.

Lieutenant Colonel Hehir has attempted to deal very fully with the problems involved in the prevention of disease and inefficiency; he has produced a work which should be of service to the non-medical officer who has to face some problem in sanitation and requires some help to assist him in determining his line of action. Medical officers now receive a sound training in sanitation before joining for duty, and this book is hardly likely to offer them much attraction.

In future editions a proof reader might be employed before the work is issued to the public.

NOTES ON BOOKS.

THE three concluding volumes for the year 1911 of the quarterly publication known as *International Clinics*[7] contain between them some seventy-five papers. The vast majority of the contributors are American physicians or surgeons, and are for the most part bearers of well-known names. Between them they cover practically nearly all departments of medicine and surgery. The papers all have this in common, that they are written mainly from the clinical standpoint, and the width of the ground covered is almost sufficiently indicated, perhaps, by the titles of the sparse contributions by British authors. Sir Dyce Duckworth writes on empiricism and modern medicine; Sir James Burnet of Edinburgh on enuresis with special reference to its causation and treatment; Dr. Edward Turton of Hull on the causes and the principles of the treatment of constipation; Dr. J. W. Ballantyne of Edinburgh on morbid pregnancies under hospital treatment; and Professor Robert Jardine of Glasgow on the retraction ring as a cause of obstruction in labour. One paper is by Dr. I. L. Nascher, who is described as special lecturer in geniatrics at Fordham University. We do not pretend to know in what way this term as spelt could possible be pronounced so as to correspond in any wise with ancient usage, but its

[5] *Outlines of Early Development for Obstetric Students.* By R. W. Johnstone, M.A., M.D., F.R.C.S.Ed., M.R.C.P.Ed., Assistant to the Professor of Midwifery, University of Edinburgh; Obstetric Physician to the New Town Dispensary, etc. With a Preface by Sir J. Halliday Croom, Professor of Midwifery, University of Edinburgh. Edinburgh: John Currie. 1911. (Med. 8vo, pp. 23; 15 drawings. 1s. 6d. net.)

[6] *Prevention of Disease and Inefficiency, with Special Reference to Indian Frontier Warfare.* By Lieutenant-Colonel Patrick Hehir, I.M.S., M.D., F.R.C.P.E., F.R.C.S.E., F.R.S.E., D.P.H.Camb., D.T.M. Liv.Univ. Second edition, enlarged. Allahabad: Pioneer Press. 1911. (Sup. roy. 8vo, pp. 675; 87 illustrations.)

[7] *International Clinics.* A Quarterly of Illustrated Clinical Lectures and Original Articles. Edited by H. W. Cattell, A.M., M.D., with the assistance of many collaborators. Twenty-first series. Vols. ii, iii, iv. Philadelphia and London: J. B. Lippincott and Company. 1911. (Roy. 8vo, pp. 306, 314, 351. Four vols. a year. Price 35s. net.)

existence is interesting as showing that the possibilities of specialization in medicine are not yet exhausted. This latest addition, however, must be a somewhat depressing occupation if the mental attitude of the old towards life and death is commonly that indicated in Dr. Nascher's paper on senile mentality, a point on which many readers will have their doubts.

The small volume entitled *The Indian Medical Service*[8] may be regarded as being of a semi-official character, since both its authors, Majors B. G. SETON and J. GOULD, are in the Indian Medical Service and attached to the head quarter staff. It summarizes under suitable headings all regulations affecting the present and future of members of this service, and since much of the information supplied can otherwise only be obtained by searching through various official publications the book should undoubtedly prove useful both to those who are already officers in the service and to young medical men who still have their careers to choose. Its pages are interleaved, and the information can thus be kept up to date.

The sixteenth volume of *The Collected Papers of the Institute of Physiology*[9] at University College, London, is edited by Professor STARLING and bring together some twenty-five papers relating to work carried on at or in connexion with the Institute. Though they all practically belong to what may be described as the higher physiology, a direct clinical interest attaches to a certain number. Cases in point are the paper on end-to-end suturing of arteries by Archibald Smith, which originally appeared in our own columns, and one or two papers dealing with various visual phenomena first read by Edridge-Green at annual meetings of the British Medical Association. At the beginning of the volume is placed the obituary notice of the late Dr. W. Page May, which appeared in our columns shortly after his lamented death in January, 1910.

Modern Medical Opinions on Alcohol[10] consists of fourteen lectures by medical men, among whom are Sir Frederick Treves, Sir Thomas Barlow, Sir James Crichton-Browne, Sir Victor Horsley, and the late Sir Andrew Clark. All medical aspects of the temperance question are touched, and in most cases with commendable moderation, though Dr. Saleeby states that he has brought into the world children born drunk! There are useful suggestions for the treatment of inebriety, the essay of Dr. Ettie Sayer on the prevention and cure of intemperance being one of the most valuable in the book. Sir Thomas Barlow speaks hopefully of the reclamation of female inebriates, and lays stress on the absolute stoppage of alcohol in attempting to cure the drinker. The book should prove of value to all interested in the medical aspect of the temperance question, and to any who have to treat inebriates.

The Prussian Minister for educational and medical affairs has caused to be published a primer of first aid[11] prepared by Dr. GEORGE MEYER, under the direction of a large committee. It is intended for circulation amongst the public, and therefore contains a preliminary section dealing with elementary physiology and anatomy. A short course of ambulance instruction is sketched, and work is assigned for each meeting of the class. The illustrations are plentiful. They are chiefly photographs, and show very clearly the various modes of carrying a patient, the application of simple apparatus for treatment of wounds and fractures, and the devices for control of the main arteries. The text contains a good deal of sound advice for the care of the health of the ambulance worker himself, and also instructions for arrangement of the sick-room. There are some pungent remarks on over-indulgence in wine and beer and tobacco. The book is of convenient size for carrying in the pocket. It possesses also a full index.

[8] *The Indian Medical Service.* By Majors B. G. Seton, V.H.S., I.M.S., and J. Gould, M.B., I.M.S. Calcutta and Simla: Thacker, Spink, and Co. London: W. Thacker and Co. 1912. (Post 8vo, pp. 71. 7s. 6d.)

[9] The Institute of Physiology, University College, London. *Collected Papers*, vol. xvi. Edited by Ernest H. Starling, M.D., F.R.S., F.R.C.P., Jodrell Professor of Physiology. (London: University, 1912. Cr. 4to.)

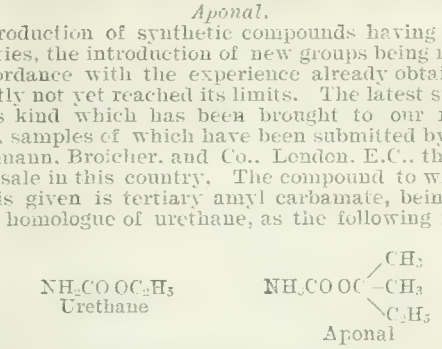
[10] *Modern Medical Opinions on Alcohol.* A Series of Lectures by well-known Medical Men. London: C.E.T.S., 4, Sanctuary, Westminster. 1911. (Cr. 8vo, pp. 129. 1s. net.)

[11] *Nothelferbuch: Leitfaden für Erste Hilfe.* Herausgegeben von der Medizinalabteilung des Königlich Preussischen Ministeriums der geistlichen, Unterrichts- und Medizinal-Angelegenheiten. Mit zahlreichen Abbildungen im Text. Berlin: August Hirschwald. 1911. (Post 8vo, pp. 160. M. 2.)

MEDICINAL AND DIETETIC ARTICLES.

Aponal.

THE production of synthetic compounds having hypnotic properties, the introduction of new groups being regulated in accordance with the experience already obtained, has evidently not yet reached its limits. The latest substance of this kind which has been brought to our notice is aponal, samples of which have been submitted by Messrs. Widenmann, Broicher, and Co., London, E.C., the agents for its sale in this country. The compound to which this name is given is tertiary amyl carbamate, being thus a higher homologue of urethane, as the following formulae show:



Aponal is a white crystalline substance, practically insoluble in cold water and in dilute acids or alkalis, more soluble in hot water, easily soluble in alcohol. It is stated to be a mild hypnotic, causing light sleep after about twenty to thirty minutes, and leaving no drowsiness after waking. It is also supplied in tablets of 1 gram (15 grains) each.

Digalen Tablets.

The physiological action of amorphous digitoxin (digalen) was discussed by Dr. Legge Symes in an article published in the BRITISH MEDICAL JOURNAL of November 18th, 1911, and the preparations of this substance made by the Hoffman-La Roche Chemical Works, Limited, have been the subject of several notes in the JOURNAL. The company has now sent us specimens of digalen tablets; each tablet is said to correspond to 8 minims (0.5 c.cm.) of digalen. They are a convenient form for administering the drug, and are readily soluble in warm water.

Chologestin.

Messrs. Thomas Christy and Co. (London, E.C.) have submitted a sample of a mixture prepared by an American firm, put forward under the name chologestin. The formula is given as sodium glycocholate 2 grains, sodium salicylate (natural) 2½ grains, pure pancreatin 5 grains, sodium bicarbonate 5 grains in each tablespoonful, with aromatic and carminative agents. The mixture is an elegant and palatable preparation; it is intended for administration in cases of intestinal putrefaction, hepatic insufficiency, gall stone, etc. A combination of the active ingredients is also supplied in the form of coated tablets, under the name tablogestin.

Rusks.

We have received from Mr. Emil Pauly, London and Homburg, a sample of the digestive rusks which he supplies in three varieties—plain (unsweetened), medium, and sweet. The sample sent was the medium, or slightly sweet, variety; our analysis showed these rusks to contain 11.4 per cent. of nitrogenous constituents, 2.6 per cent. of fat, and 34.0 per cent. of matter soluble in water. They are crisp throughout without being unduly hard.

MEDICAL AND SURGICAL APPLIANCES.

Subcutaneous Medication.

A METHOD of introducing medicaments and vaccines subcutaneously which has been recently introduced by Messrs. Allen and Hanburys merits attention, even though applicable only to fluids which can be put up in ampoule form. In this case the "ampoule" or section of glass tubing has both its ends drawn out and besides storing the fluid to be used is made to play the part of the barrel of a syringe. With this object the upper end of its cavity is occupied by a substance which acts as a plunger when the upper drawn-out end is nicked off with the file provided and a metal rod inserted into the opening and pushed down. Correspondingly, the lower drawn-out end serves for the attachment, when its extremity has been nicked off, of a sterilized needle which is supplied with the ampoule in an hermetically sealed glass tube. To enable the piston-rod to be driven home easily there is provided a small metal sheath, which fits round the lower end of the ampoule, and in virtue of its projecting flanges acts as a finger grip. The whole device seems thoroughly practical, and is worth noting since its facilitates the hypodermic injection of fluids on aseptic lines. The name given to the device is the "Hyposol" Ampoule-Syringe. The prices of the hyposols vary according to the contents of the ampoules, but are not materially higher than those of ordinary ampoules containing the same fluids.

CERTAIN PHASES IN THE EVOLUTION OF MAN.

ABSTRACT OF THE HUNTERIAN LECTURES DELIVERED BEFORE THE ROYAL COLLEGE OF SURGEONS IN FEBRUARY AND MARCH, 1912.

BY

ARTHUR KEITH, M.D., LL.D., F.R.C.S.,

CONSERVATOR OF THE MUSEUM AND HUNTERIAN PROFESSOR.

THE ANTIQUITY OF MODERN MAN.

PROFESSOR KEITH commenced his series of lectures by stating that on October 7th of last year he received a letter from Mr. J. Reid Moir of Ipswich informing him that there was being forwarded to the museum of the College the remains of a human skeleton discovered beneath stratum of undisturbed chalky boulder clay at a sandpit belonging to Messrs. Bolton and Laughlin. The skeleton had been exposed by the workmen on the vertical face of the pit, so that Mr. Moir and those with him were able to study closely its relationship to the overlying and underlying strata. The bones lay at the junction of two formations, weathered chalky boulder clay above and mid-glacial sands below. Between the human remains and the surface were 4 ft. of a formation belonging to the deepest layers of the chalky boulder clay series. There could be no question of burial, for the various horizontal lines and markings were continued across in the strata above the bones, showing that they were in the condition in which they had been originally laid down. The person to whom the skeleton belonged had clearly lived before the overlying strata were formed, but there is some question as to the exact age of the overlying strata. Mr. Moir, who is familiar with the geology of the district, unhesitatingly assigns them to the chalky boulder clay, and this is also the opinion of the veteran geologist, Mr. W. Whitaker. Mr. John E. Marr, of Cambridge University, although regarding the overlying layers as belonging to the boulder clay formation, is of opinion that they might have "slipped" or been moved to their present position subsequently to the glacial deposition of the great sheet of chalky boulder clay, which marks for us the period of maximum glaciation. In the meantime we may safely regard the Ipswich skeleton as of very great antiquity, the balance of the evidence assigning him to the temperate period which preceded the time of greatest glaciation. In the opinion of those best qualified to judge, the major part of our river valleys have been excavated since the chalky boulder was deposited by the great ice sheet.

Before proceeding to examine the condition of the skeleton and the characters of the separate bones it will be convenient to see how the Ipswich man compares in point of age with other ancient human remains found in England. The only one which stands a comparison in point of age is the Galley Hill man. His remains were found in the 100-ft. terrace of the Thames Valley, the terrace being part of an ancient bed of the river. Mr. W. Whitaker has pointed out that the 100-ft. terrace rests on the boulder clay at Upminster, Essex, and that therefore the boulder clay formation is older than the 100-ft. terrace, and that consequently the Ipswich man belongs to a much earlier date than the Galley Hill man. Mr. Moir is able to supply very convincing evidence that this is the case. The flint implements found in the 100-ft. terrace are of a very high order of workmanship, and are assigned—if one may speak of cultures at this early date—to the Chellean and also to the Acheulean civilization. The Galley Hill man belonged to a very high flint civilization—probably the Chellean or, according to M. Rutot, an even earlier stage of culture. Now the flint implements which Mr. Moir has found in the boulder clay (the ice sheet caught them up from the land surface on which they lay) and in the mid-glacial sands which lie beneath the boulder clay, and in which the Ipswich skeleton was partly imbedded, are of a more primitive type; yet they are unmistakably the workmanship of beings showing an intelligence and skill beyond that shown by the aboriginal Tasmanians. The culture of the mid-glacial sands is very much more primitive than that of the 100-ft. terrace, and therefore presumably much earlier. It was fortunate that one with Mr. Moir's experience was near when the skeleton was exposed. He saw at once that the bones were too fragile to be removed, and, with Messrs. Bolton and Laughlin's consent, had the overlying strata cut away, and the layer containing the bones dug out in blocks. It was these blocks which were forwarded to the museum. By infiltrating them in a solution of gelatine it was found possible to expose—slowly and with great patience—the fragmentary remains of the skeleton on the upper surface of each block, thus leaving the bones attached to the underlying mid-glacial sands. By arranging the blocks it was possible to reconstruct the exact position of the skeleton. The skeleton was placed on its right side, in a crouched-up posture, with the thighs flexed against the body and the legs folded against the thighs, whilst the head was bent forwards and downwards, so that it rested between the left shoulder and the knees. The skull would have been very poorly represented had it not been that its interior was filled with glacial sand and loam, which formed a solid resistant and accurate cast of the cranial cavity. The third frontal convolution is especially well marked, and from the cranial cast accurate estimates can be formed of the main dimensions of the head. All the skeletal bones of a cancellous nature had disappeared in the surrounding strata. In the matrix one could see dimly the outlines of vertebrae and other spongy bones, but it was impossible to delineate them, so gradually did they fade into the surrounding matrix. The densest parts of the shafts of the long bones were best preserved, and it was noted that it was those parts of the skeleton which lay in the mid-glacial sand which remained; of the parts lying within the weathered boulder clay only the most imperfect fragments were preserved. Roots of plants had reached the skeleton and no doubt played a part in its destruction.

As regards the sex of the skeleton there can be no doubt; all the features preserved show it to be that of a man. His height is estimated to have been about 5 ft. 10 in. (1.780 m.). Except the Cromagnon race, all Paleolithic men yet known are of a low stature.

Professor Keith admitted that on his first examination of the remains he was grievously disappointed. The discovery at Galley Hill showed that the modern type of man was very ancient. He was not prepared, however, to find beneath the chalky boulder clay a man of the modern type; yet in teeth, in skull form, in the leading features of the skeleton, the Ipswich man does not differ in build of body from the men of to-day. Every one starts away in life with the conviction that the evolution of man is a recent event, and must have proceeded in orderly sequence from a lower stage to a higher. There can be no doubt that the Neanderthal type is lower than the modern type of man. It was expected that the Neanderthal type would disappear and be succeeded by the modern type. Experience, however, does not often justify *a priori* opinions. The discovery at Ipswich runs counter to expectations. It was expected that a Neanderthal type would be found under the boulder clay, but what was found was a modern one.

The discovery did not come as a surprise to many expert anthropologists, such as Professor Schwalbe of Strassburg, Professor Sergi of Rome, and M. Rutot of Brussels. The Chellean and Acheulean cultures, to the first of which the Galley Hill man probably belonged, precede the period of Neanderthal man—the Mousterian period. The Galley Hill man, who is of the modern build of body, lived in England long before Neanderthal men lived in France and Central Europe. Mr. Moir has pointed out that the flint implements of the Chellean period and also of the Acheulean are of a much higher order of workmanship than the Mousterian implements of Neanderthal man, and that there was reason to anticipate that the Chellean workmen would prove to be of a superior race. Indeed, when he was informed that the skeleton he had sent was of the modern type, Mr. Moir seemed in no way surprised. The workmanship of the flints from the mid-glacial sands were, in his opinion, quite in keeping with such a type.

Although the skeleton is of the modern type it must not be thought it carries no marks of antiquity on it. The condition of the bones is not unlike that of fossil bones found in the mid-glacial sands. They are light in weight, chalky in colour and texture and not highly mineralized.

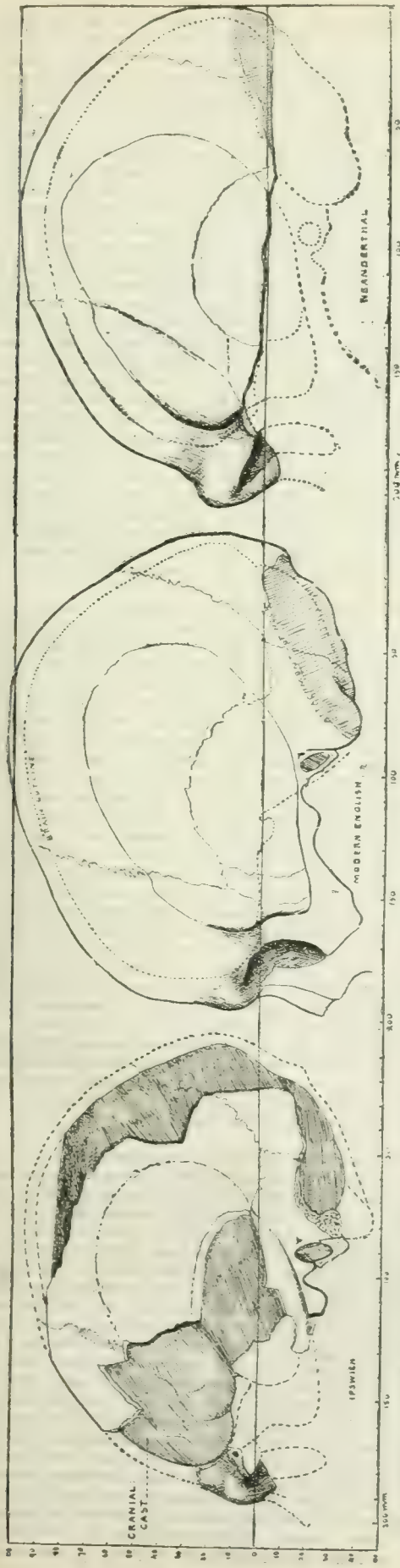


Fig. 1.—Profile drawing of the Ipswich cranium. The intracranial mass forms a cast of the brain on which the third frontal convolution is well marked. The frontal and occipital bones are fragmentary. (Two-fifths natural size.)

Fig. 2.—Modern English cranium. It is oriented on the same plane as the Ipswich cranium and drawn to the same scale as the Ipswich skull, so that their dimensions may be compared. (Two-fifths natural size.)

Fig. 3.—Profile of the Neanderthal cranium treated in the same manner as the English cranium. (Two-fifths natural size.)

Yet when a fragment is placed in 5 per cent. of hydrochloric acid it crumbles away in a manner exactly similar to bones from early Pleistocene formations, whereas all the other ancient human remains which were available for experiment possess enough of their original animal matter to retain their form when submitted to the acid test. The chief evidence, however, that we are dealing with a new type is to be found in the peculiar leg bones, especially the tibia. Hitherto our attention in studying ancient man has been directed too much to the skull. It is very probable that the tibia, being so closely associated with the human manner of walking, will serve to distinguish various stages in man's evolution. In many features the tibia of Neanderthal man recalls the same bone in the gorilla, but it is differentiated from the simian form by possessing a definitely marked anterior border or shin. In other palaeolithic races, and in all other human races, the anterior border or shin of the tibia is prominent and sharp. The shin of the Ipswich tibia is quite peculiar and unlike any form yet seen. In place of a sharp shin there is a flat surface which gradually becomes continuous with the convex inner surface of the bone. The shin is represented by a mere line which separates the anterior from the outer or muscular surface. The significance of this feature is unknown; it certainly does not represent a pathological condition, but is evidently due to a peculiarity in the gait of the individual. It is likely to prove a sure character of the Ipswich race and represent a stage in evolution. There are certain other peculiar features in the skeleton—especially in the humerus, but the imperfect preservation of that bone leaves some doubt as to their exact nature.

The teeth have short and widely spread roots and are small in size, even when compared to those of modern European races. The upper wisdom tooth is peg-shaped, thus showing an extreme degree of reduction. The crowns of the teeth are so worn that the dentine is deeply exposed and excavated. In early man we expect the teeth to be primitive in form and size, but a little reflection will show that this is not necessarily the case, for in the chimpanzee the upper wisdom teeth are often greatly reduced in size and development.

The head is of moderate dimensions: maximum length 192 mm.; maximum breadth 144 mm.; proportion of breadth to length 75 per cent.; height above ear-passages 110 mm.—a very low measurement. The forehead is retreating, but the eyebrow ridges are only of moderate development. The cranial capacity is estimated to have been about 1,430 c.cm.—about 70 below what may be expected of a modern man with a stature of 5 ft. 10 in. The peculiarity of the head is the low, flat, wide crown. The greatest width of the skull is also situated nearer the posterior end than in modern races. In these two characters—the lowness and flatness of the crown of the head and in the posterior position of its greatest width—the Ipswich skull somewhat resembles the Neanderthal type. But the other characters are very different.

The interest of the Ipswich man is the modernity of his build. In this respect he agrees with the Galley Hill man, and yet in the form of head and in the features of their skeletons these two differ very materially. They are both modern in type although very ancient in date, and represent two races which are sharply differentiated from each other and very distinct from the more primitive Neanderthal race.

The Ipswich and Galley Hill remains are not the only discoveries of very ancient man in England. In 1885 Mr. Henry Prigg described in the *Journal* of the Anthropological Institute a fragment of a human skull found near Bury St. Edmunds in a deposit of brick-earth 7½ ft. from the surface. In the same strata were found remains of the mammoth and also paleolithic flints which Mr. Reginald Smith informed Professor Keith may be safely assigned to an early date in the Acheulean period. We are therefore dealing with a fragment of a man who probably lived at a later date than the Galley Hill man, but at an earlier date than the period of Neanderthal man in France, who belongs to the Mousterian period. From Dr. Allen Sturge Professor Keith had learnt that this fragment of a human skull described by Mr. Prigg was still preserved in the Moyses Hall Museum, Bury St. Edmunds, and, through the courtesy of the chairman of that museum and of Mr. H. R. Barker, the Honorary Curator, he had been allowed to make a minute examination of this

historical fragment. It consists of a part of the roof of the skull—sufficient, when examined by modern methods, to yield fairly accurate results as to the original head form. The thinness of the bones and their form show at once that we are dealing with an individual of the modern type. There is nothing to suggest the Neanderthal race. The fragment, as Mr. Prigg suggested, is probably part of a woman's skull of rather less than average dimensions. The forehead was vertical, the top of the head wide, flat, and low, and the muscles of mastication small, yet there can be no doubt of the antiquity of the fragment. The condition of the bone shows that it is contemporaneous with the brick earth. The antiquity of this fragment may be roughly pictured when it is stated that the neighbouring valley of the Lark has been deepened by about 100 ft. since the human and mammoth fragments were washed pell-mell into the pit of brick-earth in which they were subsequently found.

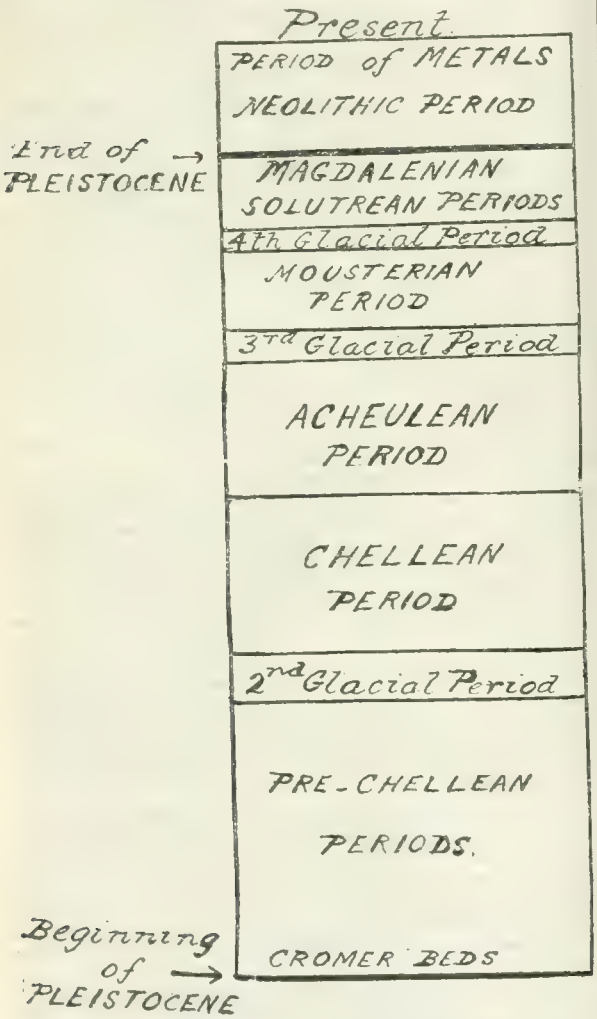


Fig. 4.—Table showing the main periods into which the Pleistocene or Quaternary epoch has been divided.

THE RELATIONSHIP OF NEANDERTHAL MAN TO MODERN RACES.

At the present time there are two opinions as to the relationship of Neanderthal man to modern races of mankind. The majority of modern anthropologists are of opinion that Neanderthal man gradually shed his simian features and became transformed into the modern type of man. The minority, however, believe that such a transformation is impossible, and that Neanderthal man became extinct, leaving no progeny behind him. Although the lecturer had at one time supposed that the transformation of the Neanderthal to the modern type was possible, the evidence which had accumulated in recent years had compelled him to abandon this view. All the discoveries of this peculiar race, which have been made so abundantly in France during recent years, belong to a comparatively late phase of the Pleistocene period—a period which apparently corresponds to the formation of the lowest terrace of the Thames valley and the erosion of the buried channel of the river. Long before that period, not only in England, but also on the Continent, men of the modern type existed. All the evidence which indicates the early existence of the modern type of man is now being unjustly discredited. There was the famous case of the human mandible (Moulin Quinon) which Boucher de Perthes, the founder of our knowledge of palaeolithic man, discovered near Abbeville, in the valley of the Somme in 1863. The chief objection to it is that it so nearly approaches the modern type, and that it contained a percentage of gelatine. Yet Boucher de Perthes took it with his own hand from a deep and old stratum which we now know—thanks to the researches of M. Commont—to belong to an age which precedes the Mousterian or Neanderthal period in France. The mandible is of the type we should expect in the race to which the Ipswich skeleton belongs. It is almost identical to a mandible found in a coprolite pit at Foxhall, near Ipswich, in 1855. This mandible afterwards passed into the possession of Dr. Robert H. Collyer. The lecturer had been unable to trace the fate of this valuable specimen; it was very important to obtain its recovery, because it probably lay in the mid-glacial sands—the same formation as yielded the Ipswich skeleton. Several of the Pleistocene crania found in France were pre-Neanderthal in date and yet were of the modern type. One of these was the fragment of a skull found in a volcanic formation at Denise.

Italy, like England, had yielded no trace of Neanderthal man. The cranium found in an early Pleistocene stratum at Olmo, Tuscany, was exactly of the Galley Hill type. The most remarkable and best authenticated of all discoveries of man is that made at Castenedolo, near Brescia, Lombardy, by Professor Ragazzoni between 1860 and 1880. In that region the Pliocene strata are well represented. Professor Ragazzoni when he discovered these remains was studying and collecting Pliocene shells and was familiar with the strata and with all the criteria of geological evidence. In strata belonging to an early Pliocene age and in conditions which showed that these strata had never been disturbed, he found—in a period of twenty years—parts of four human bodies, one the almost complete skeleton of a woman. Professor Sergi, who described these remains, describes them as being of the modern type. Recently Professor Keith had been in correspondence with Professor Sergi and it was impossible to break down or find a flaw in the evidence which assigns these Castenedolo individuals to an early date of the Pliocene period. Anthropologists turn away from this discovery because it runs contrary to all their preconceptions concerning the date and manner of man's evolution.

It was thus plain that long before the Mousterian period, when Central Europe was inhabited by Neanderthal man, races of the modern type were in existence, not only on the Continent, but also in England. Neanderthal man apparently never reached England.

ANCIENT MAN AND MODERN ANTHROPOIDS.

During the greater part of the Pleistocene or Quaternary period there were at least two very different kinds of men in existence in Europe—man of the Neanderthal type and man of the modern type. At what point of geological history these two kinds of man had been evolved from a common stock there is as yet no evidence, but a good deal of light could be thrown on the problem by a study of the African anthropoids—the gorilla and chimpanzee. Although these modern anthropoids did not stand in the line of human descent, there could be no question that their ancestral stock did, for the resemblances between man and the African anthropoids were so many and so close that they can only be explained by a common origin. Although the African anthropoids were related to man by only a distant and very ancient cousinship, they undoubtedly represented the common ancestral stock much more closely than man did, and it was therefore possible to obtain, by a close study of modern anthropoids, some clue to the manner in which evolution worked in the very primitive forms of man. Pleistocene man in Europe presented a condition exactly parallel to what is seen to-day

among African anthropoids. The great, strong, brutal, surly gorilla exemplifies Neanderthal man; the more finely moulded, less brutal, nimble-witted chimpanzee, divided into a number of races, represents the modern forms of man. It is not to be supposed that there is any direct relationship between the human European and African anthropoid counterparts—in the one case both are men; in the other both are anthropoids. In the evolution of man and anthropoids similar physiological or evolutionary processes have been at work. In Neanderthal man the teeth are big, the muscles of mastication strong, the various bony processes of the skull from which these muscles take their origin greatly developed, while the skull is widely and strongly hafted to the neck. The gorilla shows similar characters. The various chimpanzees, like modern races of mankind, exhibit a strong tendency towards a reduction in size and development of teeth with a corresponding lessened growth of the muscles and apparatus for mastication. At birth the skulls of gorillas and chimpanzees are very much alike: the chimpanzee, as it grows up, stands still at a certain point of brutalization, while the gorilla presses on to the ultimate limit. It will, no doubt, be found that at birth the skulls of modern and Neanderthal man are very similar. Our present ignorance of the conditions which regulate our growth and development prevents us from explaining the occurrence of these similar processes in human and anthropoid races.

In acromegaly, the remarkable human disease which is believed to be due to an enlargement of the pituitary gland, characters recalling the peculiar features of the gorilla and Neanderthal man appear in the subject of the disease. It was highly probable that the immediate causes which produced these divergences in characters of skull and teeth might be due to the effects of internal secretions. By the courtesy of the authorities of Charing Cross Medical School Professor Keith was able to show the skull of a boy[1] who was the subject of a remarkable disease. On one side the teeth were large, and the jaws, bones of the face, and muscles of mastication were massive and overgrown, while on the other side the teeth were of normal size, and growth in the jaws had proceeded at a normal rate. Here Nature had produced just such an experiment as would throw light on the differentiation of the racial characters under discussion, and it was from a study of such cases that assistance was likely to be obtained in solving such problems. Professor Keith regarded the more brutal forms—Neanderthal man and the gorilla—as the more primitive, and therefore ancestral, forms; but it was possible that the ancestor may have been of an intermediate type, and that divergence occurred by the chimpanzee changing in one direction and the gorilla in another. Similarly, the human stock from which modern and Neanderthal man have sprung may have been of an intermediate form. There can be no doubt that Neanderthal man represents a primitive and yet a specialized type.

The structural differences between the gorilla and chimpanzee were undoubtedly greater than between Neanderthal and modern man. Yet the fact remains that there is no absolute criterion which distinguishes the brain of the gorilla from that of the chimpanzee. It is true, as Professor Elliot Smith has shown in his descriptive catalogue of the collection illustrating the comparative anatomy of the brain in the College museum, that, as a rule, the gorilla brain is larger and more human in its arrangement of convolutions than that of the chimpanzee, yet it was also to be kept in mind that in many cases they could not be distinguished. The marks which distinguish the gorilla and chimpanzee are the teeth, the nose, the ear, and greater size of body, but the chief difference really lay in the fact that the gorilla shows several well-marked adaptations in its feet, thigh, and pelvis, for using its lower extremities for independent support and progression. The hands and feet of the chimpanzee are climbing and supporting structures. In the gorilla they are spatulate, and formed on a plan which makes a near approach to the human form. Of the various existing anthropoids there can be no doubt that the gorilla shows the greatest assemblage of human characters.

(To be continued.)

[1] Described by the late Mr. Barwell, *Trans. Path. Soc.*, 1881, vol. xxxii.

THE CARE AND CONTROL OF INEBRIATES.

A BILL has been introduced into the House of Commons by Mr. Ellis Griffith, Parliamentary Secretary of the Home Department, and supported by the Home Secretary, to consolidate and amend the law with regard to the care and control of inebriates. It is the outcome of the deliberations and recommendations of the Departmental Committee which sat in 1908, and is a distinct advance on the existing law.

Before proceeding to the consideration of the bill, it seems desirable to give a brief sketch of the history of legislation which has culminated in the present measure.

Somewhere about 1860, or between that date and 1870, public opinion became impressed by the increasing prevalence of habitual drunkenness and by the large amount of domestic misery and poverty, lunacy, and waste of economic life value, that resulted from the unrestrained habits of those who were the victims of the condition. The closer clinical study of inebriates led to the conclusion that many of them were quasi-insane, and all of them the victims of a constitutional peculiarity; a great impetus was thus given to the demand for some special legislation for their control and treatment. At that time there was no power to interfere with the liberty of an inebriate unless he committed some offence against the law. Inebriates who were able to avoid public offences could therefore continue to be a cause of anxiety, and often serious distress, to their families before definite lunacy gave power to control them, or until death gave permanent relief. Those inebriates who rendered themselves liable to punishment by committing offences against the law were fined or imprisoned as often as they presented themselves before the courts—a course which after years of trial proved futile as a method of reform and useless as a means of protection. The futility of short sentences of imprisonment was widely recognized among prison authorities, visitors of prisons, and magistrates, who saw the same drunkards coming habitually before them in no way improved by the short periods of imprisonment.

THREE DEPARTMENTAL COMMITTEES.

A widespread feeling of discontent at existing conditions led to the appointment of the first of three separate committees which have on three occasions taken the whole question of legislation for inebriates under consideration, reporting in each instance on the necessity for such legislation, and indicating the lines upon which it should be designed. Each committee declared without hesitation that proper powers for the control and treatment of inebriates were necessary, and all three advocated, with little variation in detail, certain definite provisions which they considered essential.

The Select Committee of 1872, under the chairmanship of Dr. Donald Dalrymple, M.P., reported that it was shown by the evidence that many habitual drunkards acquired or were the subjects of a morbid condition that rendered it impossible for them to abstain or drink moderately, and that such persons caused many evils and were dangerous to the community. This committee recommended a system of sureties and detention for considerable periods in private institutions for those who could pay or in institutions maintained by the State and local authorities for those unable to contribute. The bill presented to Parliament as the result of the labours of this committee consisted of two parts, both of which dealt with inebriates who were not criminal or who were not necessarily criminal. Part I ("Voluntary") contained provisions applicable to inebriates able to pay for treatment and willing to enter retreats on their own initiative; Part II ("Compulsory") contained provisions applicable to persons who refused to be placed out of reach of drink or refused to take advantage of any means calculated to exercise restraint on their habits. Public opinion, however, at that time was not ripe for even such a measure as this, and in consequence the Habitual Drunkards Act (1879) entered the Statute Book shorn entirely of Part II. The Act as it became law authorized the establishment of retreats, but required that a person must voluntarily consent to enter such an institution before he could be detained therein. The Act made no provision for contributions by the State or local authorities towards the maintenance of these institutions.

After the Act of 1879 had been in force for some years

public attention was again drawn to the insufficiency of the existing law, to the large number of habitual inebriates untouched by it, and to the number who, in consequence of their habits, were constantly before the magistrates, and as constantly being sent to prison and released after serving a short sentence. It was pointed out that by limiting the control of inebriates to those who voluntarily submitted themselves to treatment, thus allowing all to escape control who refused to submit to it, the Act of 1879 failed, inasmuch as it was inapplicable to the majority of inebriates, and was therefore ineffectual.

Further discussion and representations, for which the British Medical Association was to a great extent responsible, resulted in the appointment of a second Departmental Committee in 1892, which reported strongly in favour of amended legislation in the following directions: (1) Greater facility for entering retreats to be afforded non-criminal inebriates who could be induced to consent to detention; (2) provision to enable the compulsory committal to retreats under certain conditions of non-criminal inebriates who refused to consent to detention; and (3) power to commit to suitable reformatory institutions persons who by reason of drunkenness brought themselves within the criminal law, or who were repeatedly convicted of drunkenness by magistrates at petty sessional courts. The report of this second committee led to the passing of the Act of 1898, which embodied the first and third of the above recommendations but ignored the second. The Act of 1898 extended the scope of the Act of 1879 in its application to persons who were willing to enter retreats voluntarily, and enabled compulsion to be applied to two other classes—namely, (*a*) habitual drunkards who were convicted of indictable offences, and (*b*) habitual drunkards who, without committing serious crimes, were perpetually being fined or imprisoned for comparatively trivial offences resulting from drunkenness. The two extremes were therefore provided for—persons who were willing to go under treatment and persons who were criminal or repeated offenders, but no power of dealing with inebriates who were not law breakers and who refused to enter institutions was provided. During the ensuring ten years many retreats were established for voluntary cases under the Act of 1879, and a fair number of reformatories for committed cases under the Act of 1898. These ten years of fairly steady work brought into prominence certain difficulties in the administration of both Acts, especially in regard to the establishment and management of reformatories and to the conditions governing the committal of inebriates to control and treatment. So urgent did some of these difficulties become that failure of the whole work seemed possible unless defects in existing legislation could be remedied.

With a view to discovering how far apparent difficulties were real, and if real, how far removable, the whole question of legislation for inebriates was again made the subject for an inquiry. A third Departmental Committee under the chairmanship of Sir John Dickson-Poynder (now Lord Islington) was appointed in April, 1908, to "inquire into the operation of the law relating to inebriates and to their detention in reformatories and retreats, and to report what amendment in the law and its administration are desirable." This committee reported to the Secretary of State in December of the same year, and submitted certain recommendations. The most important were:

(*a*) For non-criminal inebriates: (1) That an extension of the voluntary principle was desirable, inebriates being permitted as a preliminary measure to enter into a legal obligation to abstain from intoxicants; (2) that certain improvements in the condition governing the licensing of retreats and their subsequent management were desirable; (3) that a system of voluntary and compulsory guardianship should be designed for the control of inebriates; (4) that power should be given to relatives, friends, or guardians to apply for the compulsory committal of an inebriate to a retreat.

(*b*) For criminal and recidivist inebriates: (1) That conditions now governing the establishment of reformatories should be amended; (2) that greater facilities should be provided for the early committal to reformatories of recidivist drunkards; (3) that facilities should be provided for the committal of inebriates guilty of less serious criminal offences direct to reformatories from petty sessional courts.

When it is realized that each of these committees was composed of different persons, and that twenty years elapsed between the first and second and thirty years between the first and third, the unanimity of their findings is extraordinary and very instructive. It seems safe to conclude that there can be little wrong with the mode and conduct of a work which came into existence as a result of one inquiry, and has been confirmed by the recommendations of two subsequent committees. For the control and treatment of private non-criminal inebriates each committee advocated the provision of powers to facilitate the establishment and managements of retreats, and each laid stress on the desirability of placing the least possible difficulty in the way of persons who desire to submit themselves to control. The first and third committees advocated a system of legal guardianship to be exercised by friends over the person of an inebriate. All three committees recommended that power to commit an inebriate to control in a retreat on the application of friends should be given to a properly constituted court. In addition the third committee recommended a form of legal pledge to abstain from intoxicating liquor, and a provision to enable an inebriate to apply voluntarily for an order of guardianship. Concerning the criminal and recidivist inebriate, all three committees agreed as to the uselessness of small fines and short terms of imprisonment as remedies for habitual drunkenness, and as to the necessity for the special treatment of such persons. All three were in accord as to the establishment of reformatories, only showing some variation as to by whom and at whose cost these institutions shall be established. The third committee, having the advantage of ten years' experience of the control of criminal inebriates in reformatories to guide it, recommended many important improvements in the existing law, designed to make it more effectual and more easily applicable. An Act of Parliament followed each of the two early committees, the second Act being a distinct advance upon the first. The bill now before Parliament incorporates the powers of the first and second Act, and contains provisions in accordance with the recommendations of all three committees, which will turn incomplete legislation into something approximately complete.

Inebriates Bill, 1912.

Bearing in mind the foregoing history of legislation the bill now presented to Parliament is not in any sense experimental, but the product of experience and careful deliberation. The powers already possessed in the two main Acts of 1879 and 1898 are re-enacted with improvements, and considerable advance is made towards filling up those gaps that have hitherto rendered the proper treatment of inebriates exceedingly difficult and unsatisfactory.

The bill is divided into two distinct parts, the first being designed to deal with persons who are inebriates without being guilty of offences, and the second with inebriates who are convicted of crime, or have done things that militate against decency and order. Part I should be of great assistance to the physician, and Part II helps to strengthen the hands of those persons who have to deal with criminals and recidivists.

Part I.

Up to the present all persons who have been called upon to treat medically, or act in the capacity of friends to, an inebriate have often realized the hopelessness of their task; the only thing possible was to ask him to commit himself to institution care—an extreme measure to which comparatively few could be induced to consent. Further, many persons have been encountered who needed moderate restraint only, persons for whom seclusion in an institution was either too severe a measure or impossible to consider for other reasons.

The new bill provides for both milder and stronger measures than the voluntary application for admission to a retreat, the only means available under the existing law, the aim being to deal with persons earlier in their career and continue existing methods further. Should this bill become law the voluntary principle will be extended and the compulsory principle added, thus commencing with the mildest measures that may prove useful, and passing later, should these fail, to those that are stronger and more serious.

Clause 1 of the bill deals with purely voluntary action on the part of an inebriate, it enables him to sign a legal

pledge before a justice of the peace to abstain from intoxicants without applying any other restriction to his freedom of action. Should this fail, he can then apply voluntarily for the appointment of a guardian, who will be given the following powers:

(*a*) To prescribe for the inebriate a place of residence either in the house of the inebriate or in that of the guardian, or in any other place where the guardian happens for the time to be;
(*b*) To deprive the inebriate of intoxicants and to prevent him from obtaining them; and
(*c*) To warn persons dealing in intoxicants and other persons against supplying any intoxicants to the inebriate.

In the event of voluntary guardianship proving useless, the inebriate can then apply for admission to a retreat under the same conditions that now govern such action. Should any inebriate refuse to take advantage of all or any of these voluntary methods, or, having taken one or other of them, fail to keep his pledge, prove uncontrollable by his guardian, or incapable of being dealt with in a retreat to which he has been admitted, he may be proceeded against under the compulsory powers in the bill.

Clause 5 provides that:

Any relative or friend of an alleged inebriate, and where a voluntary guardian of an inebriate finds the powers exercisable by him as such insufficient to enable him to exercise proper control over the inebriate, such guardian may make a private application by petition to a judicial authority for an order appointing a guardian (in this Act referred to as a judicial guardian) or committing him to a retreat:

Provided that if the petition is not presented by a relative of the alleged inebriate or by a voluntary guardian, it shall contain a statement of the reasons why the petition is not presented by a relative and of the connexion of the petitioner with the alleged inebriate and the circumstances under which he presents the petition.

The petition must be accompanied by a medical certificate as to the condition of the inebriate (or by a certificate of refusal to submit to examination) and by a statutory declaration signed by the petitioner and at least one other person to the effect that the person against whom the order is proposed to be made is an inebriate within the meaning of the Act. Upon the presentation of the petition and such documents as aforesaid the judicial authority shall either visit the alleged inebriate or summon him to appear before him to show cause why an order should not be made against him. The proceedings before the judicial authority may be conducted in private, if privacy is desired by the alleged inebriate, and both petitioner and patient may be legally represented. If the judicial authority is satisfied he may make an order for appointing a judicial guardian or committing the inebriate to a retreat for any period not exceeding two years: the words "judicial authority" as used here meaning any judge in county courts, any police or stipendiary magistrate, or any justice specially appointed for the purpose of the Lunacy Act, 1890. Certain safeguards, powers of appeal, and other details appear in the bill to complete the clause referring to compulsory committal, but the above are the main provisions.

This power of compulsory committal will remove the main difficulty that has prevented the extensive use of previous legislation; it is absurd to expect inebriates, who do not realize their condition, to commit themselves to control—such surrender requires an amount of moral courage and an effort of will that can hardly be expected of one who is acknowledged to be incapable of managing himself or his affairs. The Departmental Committee of 1908 summed up the matter as follows:

We fully appreciate that the application of compulsory powers to persons who have committed no public offence is a strong step to take, but we are convinced that great and widespread distress is caused by such persons, and that power to deal with them compulsorily is urgently needed. We have failed to find satisfactory reasons against the constitution of such powers. It must be remembered that very few inebriates take advantage of the existing "voluntary" powers except under moral pressure, which virtually amounts to compulsion, and that the alternative to interfering with the liberty of the inebriate, is permitting the inebriate to interfere with the liberty of other people.

And again:

Although we have no means of ascertaining why all such provisions were omitted from the existing Acts, we assume that the reasons probably were: (1) That public opinion was not deemed ripe for such enactments; and (2) that the compulsory provisions were not sufficiently definite to ensure proper protection against possible abuse. We have taken both these objections into consideration, and with regard to the first, the course of recent legislation shows that the Legislature does not now hesitate to enforce restrictions on the liberty of persons whose unchecked vagaries are clearly contrary to the public weal. With regard to the second objection, it is to be remembered that the same dread of abuse was felt with respect to the detention of lunatics, a dread that experience has shown to be without foundation. . . . Moreover, we have combined with the recommendations of compulsory powers, a further recommendation to extend the principle of voluntary submission far beyond its present limits, and to give the inebriate in every case the option of voluntary submission before the application of compulsion.

The provisions now in force with regard to retreats under the Act of 1879 as amended by that of 1898 are re-enacted for the most part in the new bill, but some important changes are made in details. Up to the present retreats have been licensed by local authorities, and subsequently inspected and controlled by the Secretary of State. This unsatisfactory dual responsibility is to be removed in future, the power of both licensing and control being vested in the Secretary of State.

At present any person can open and conduct a home for inebriates without obtaining a licence and without being subjected to control or inspection. This also is to be altered by the new bill, which requires licences to be obtained for such institutions.

Part II.

Part II of the bill, dealing with the inebriates who are also guilty of offence, is of more interest to the criminologist than to the physician.

In the main the powers enabling judges and magistrates to commit inebriate offenders to reformatories contained in the Act of 1898 are re-enacted in the present bill, with amendment in many details to facilitate procedure. As the law now stands, a so-called criminal inebriate—that is, one who is convicted of an assault or has committed wilful damage, or has neglected a child—cannot be committed to an inebriate reformatory from a court of summary jurisdiction; he must be sent to assizes or sessions, with consequent delay, inconvenience, and expense. The new bill remedies this difficulty by providing that any inebriate convicted of any offence punishable on summary conviction with imprisonment, or of any indictable offence which a court of summary jurisdiction has power to deal with summarily, may be committed to a certified inebriate reformatory without indictment to higher courts.

In the case of an inebriate person convicted of drunken and disorderly conduct, the procedure is also simplified, in order to remove difficulties now met with whenever magistrates endeavour to use the Act. The new bill renders it unnecessary in future to prove four convictions for drunkenness against an inebriate within twelve months, and it also removes the existing necessity for obtaining the consent of the inebriate to be dealt with summarily. To avoid sentences of too long duration being inflicted, before shorter ones have been tried, the new bill limits the power of magistrates to inflict any period longer than six months in the first instance; subsequent sentences being for not less than one, or more than three, years. A new system of rules for persons under probation has also been devised, which may be used by magistrates in lieu of committal to a reformatory or to prison, and all persons released from reformatories after sentence has been served are released on twelve months' probation. This should enable the managers of reformatories to keep in touch with discharged cases, and exercise much more efficient after-care than they have hitherto found possible.

Without going into too minute details, these are the main points regarding persons who may be dealt with as inebriate criminals or offenders.

Certain important alterations have been made in the conditions that govern the establishment of both certified and State inebriate reformatories; these, however, need not be considered in detail for present purposes.

There is one other important matter that requires notice. Hitherto no legislation for inebriates has included persons who become helpless and degraded by the excessive use of narcotic or stimulant drugs, or preparation other than alcohol. Although violence, crimes of passion, and offences generally are less among drug takers than amongst alcoholic inebriates, drug takers frequently bring disgrace upon their families and reduce to poverty all who are dependent upon them for support; they also become

subject to ill health or mental or moral depression, which not infrequently results in suicide. As the law now stands there is no power to deal with such persons either for their own good or for that of the community. This omission has been remedied in the new bill by the definition of "inebriate," which now stands as follows:

The expression "inebriate" means a person who habitually takes or uses any intoxicants, and while under the influence of such intoxicants, or in consequence of the effects thereof, is at times (*a*) dangerous to himself or dangerous or a cause of terror to others; or (*b*) a cause of serious harm or suffering to members of his family or others; or (*c*) incapable of managing himself or his affairs. The expression "intoxicant" includes any intoxicating liquor, and any sedative, narcotic, or stimulant drug or preparation.

Whatever else the bill may contain it certainly presents a well-thought-out attempt to deal with the private non-criminal inebriate and the inebriate offender by a graduated mode of procedure, beginning with measures of the mildest character, and not increasing their stringency until those milder methods are found to be ineffectual.

LITERARY NOTES.

WE have received from the publisher, Georg Thieme, of Leipzig, the collected writings of Robert Koch, the early publication of which was announced in the JOURNAL of March 16th. The work, which is edited by Professor Schwalbe, with the co-operation of Professors Gaffky and E. Pfuhl, is in two handsome volumes, the second of which is in two parts. They are beautifully printed, and contain 194 illustrations in the text, and 43 tables. A fine portrait of Koch forms the frontispiece to the first volume. A picture of the monument to his memory in the Berlin Institute for Infectious Diseases is the frontispiece of the first part of the second volume. Koch's work as recorded in these collected writings will be a *monumentum ære perennius* to the memory of the great scientist. We congratulate the editors on their zeal and success with which they have discharged this work of piety, and the publisher on the satisfactory manner in which he has presented the result of their labours.

The sixteenth volume of the second series of the *Index-Catalogue of the Surgeon-General's Library, U.S. Army*, issued in Washington in September, 1911, extends from Skinko to Stysanus. The volume includes 9,890 author titles, representing 4,670 volumes and 10,786 pamphlets. It also contains 3,892 subject titles of separate books and pamphlets, and 24,135 titles of articles in periodicals. The library now contains 176,690 bound volumes and 315,494 pamphlets.

The question of clothes is one in which almost every normal human being takes a more or less active interest. It is, of course, a recognized fact that they exercise a very decided influence for good or for evil upon the average mind; and that a man, for instance, who goes about for days unshaven in a suit of pyjamas is hardly likely to be at his best either mentally or physically. Mrs. Scharlieb, whose excellent article on the morals of the young has appeared in the March number of *The Child*, comments upon the bracing effect of neat and suitable clothing upon the character of the growing boy or girl. "Looked at from one point of view," she remarks, "clothes merely serve to defend the body from heat and cold, and to afford that adequate covering demanded by one phase of civilization. Looked at from a slightly different point of view, clean, suitable, and pretty clothes are a real help to morality, whereas dirty, untidy, and ragged clothes, by lowering self-respect, constitute a real hindrance." Another writer in the same number of *The Child*—Miss Alice M. Burn—goes a step further and declares bad clothing to be at the root of the defective physique which is unhappily only too common amongst the children in our elementary schools. "I know of no other condition," she says, "not even excepting bad housing and bad feeding, which, taken alone, is responsible for so much impaired vitality, and consequent low standard of physique. I would carry my statement even further: All other conditions remaining unchanged, rationally clothe a child from infancy and bring it under the influence of physical movements, even such as our elementary schools provide, and better racial results will be obtained than by the correction of any other one deteriorating influence." Almost as serious as the dangers arising from deficient or irrational clothing are the evils arising from eyestrain in school children. The March number of *The Child* contains an interesting article on this important subject, by Dr. David McKail, who strongly recommends the adoption of prophylactic measures in order to check the increase of defective vision amongst children of all classes in this country; whilst Dr. Haldin Davis has contributed a most interesting account of the treatment of ringworm, and Mrs. W. F. Lofthouse gives a charming description of the good work accomplished by the Free Kindergarten amongst the babies in the Salford slums.

We have received a copy of the March number of the *Anti-Suffrage Review*, a magazine published under the auspices of the National League for Opposing Woman Suffrage. It contains a full account of the great anti-suffrage meeting held at the Albert Hall on February 23th. The President of the League is Lord Cromer, and among the members of the Executive Committee are Mrs. Frederick Harrison, Lady Robson, Mrs. Humphry Ward, Lord Curzon of Kedleston, and Lord Northcote.

Dr. Henry Barnes (Carlisle) writes: My inquiry as to the authorship of certain lines published in the JOURNAL of March 9th has elicited an interesting reply from Dr. Percy Rose, and I have also received several replies to the same effect from correspondents in different parts of the country, so that I think the inquiry has excited some amount of interest. In none of the replies, however, are the lines given as I quoted them, and there can, I think, be no doubt that they have been taken from Crabbe's poem, and modified so as to be applicable to a gathering of medical men rather than to books on medicine, which was Crabbe's intention, and the alteration can hardly be regarded as an improvement. In the last line the subjunctive "But" has been substituted for "and," and the word "lingering" for "stormy." I have to-day looked up an edition of *Crabbe's Poetical Works*, edited by his son and published in 1834, and I find an interesting footnote referring to the last line which bears upon our rule of conduct in smoothing "the stormy passage to the grave." The note is as follows:

Sir Henry Halford, in his "Essay on the Influence of Disease on the Mind," has the following striking passages on the conduct proper to be observed by the physician in withholding, or making his patient acquainted with, his opinion of the probable issue of a malady manifesting mortal symptoms. "I own, I think it my first duty to protract his life by all practicable means, and to interpose myself between him and everything which may possibly aggravate his danger. And unless I shall have found him averse from doing what was necessary in aid of my remedies, from a want of a proper sense of his perilous situation, I forbear to step out of the bounds of my province, in order to offer any advice which is not necessary to promote his cure. At the same time, I think it indispensable to let his friends know the danger of his case the instant I discover it. An arrangement of his worldly affairs, in which the comfort or unhappiness of those who are to come after him is involved, may be necessary; and a suggestion of his danger, by which the accomplishment of this object is to be obtained, naturally induces a contemplation of his more important spiritual concerns. If friends can do their good offices at a proper time, and under the suggestions of the physician, it is far better that they should undertake them, than the medical adviser. But friends may be absent, and nobody near the patient, in his extremity, of sufficient influence or pretension to inform him of his dangerous condition; and surely it is lamentable to think that any human being should leave the world unprepared to meet his Creator. Rather than so, I have departed from my strict professional duty, done that which I would have done by myself, and apprised my patient of the great change he was about to undergo. . . . Lord Bacon encourages physicians to make it a part of their art to smooth the bed of death, and to render the departure from life easy, placid, and gentle. This doctrine, so accordant with the best principles of our nature, commended not only by the wisdom of this consummate philosopher, but also by the experience of one of the most judicious and conscientious physicians of modern times—the late Dr. Heberden—was practised with such happy success in the case of our late lamented sovereign (George the Fourth) that at the close of his painful disease 'non tam mori videretur (as was said of a Roman Emperor) quam dulci et alto sopore excipi.'"

Writing in *Nature* of February 15th, Mr. H. S. Rowell states that Thomas Young, more particularly famous as the founder of the wave theory of light, matriculated at Göttingen on October 29th, 1795, and took the doctor's degree there in medicine on April 30th, 1796. This fact, says our contemporary, is little known, even among Young's admirers. Indeed, it had escaped the knowledge of the Göttingen authorities. With the view of perpetuating Young's memory in Göttingen, Mr. Rowell brought the matter before the notice of Dr. E. Riecke,

Professor of Experimental Physics at Göttingen. Professor Riecke placed the matter in the hands of the Pro-Rector, Geh. Rat Professor Dr. W. Voigt, who instituted inquiries as to the place of Young's abode. It was discovered that Young had lived in the building which later became the Physikalisches Institut, and is now the Institüt für angewandte Mechanik und Mathematik. It is a pleasing coincidence that in this same building Gauss and Weber did their work on the first electro-magnetic telegraph. Shortly before Christmas, as a result of Professor Voigt's representations to the magistrate of the town, a neat little tablet to the memory of Thomas Young was affixed. This tablet is in appropriate proximity to that in memory of Gauss and Weber. It may be added that there is a tablet on 48, Welbeck Street, W., commemorating Young's residence in that house.

SCIENCE NOTES.

NOTES were published recently on the results of historical researches by Mr. W. Sedgwick and Sir John Moore tending to controvert the opinion often heard in conversation that the climate of the British Isles has changed in recent historical times. A lecture delivered by Professor Otto Pettersson, Director of the Hydrographical Station at Bornoe, Sweden, at a recent meeting of the Royal Meteorological Society, while not disproving the contention that the British climate is much the same in its variability, as it was four or five hundred years ago, contained some evidence that the climate of the Baltic countries had changed its character in some respects during the last six or seven hundred years. Professor Pettersson began his lecture, which was on the connexion between hydrographical and meteorological phenomena, by maintaining that the mediaeval age was characterized by frequent violent climatic changes, which seem to have culminated in the thirteenth and fourteenth centuries, when hot summers, accompanied by droughts, which nearly dried up the rivers of Europe, alternated with cold summers and excessive rainfall. In some winters violent storm floods occurred which entirely remoulded the coasts of the North Sea, while in others the frost was so severely that the entire Baltic and sometimes even the Kattegat and the Skagerak were frozen. He considered that such phenomena must be ascribed to alterations in the oceanic circulation caused by the influence of the moon and the sun. Experiments carried on during the last four years at Bornoe had shown that the inflow of the undercurrent from the North Sea into the Kattegat, which brings the herring shoals in winter to the Swedish coast, was oscillatory, the boundary surface of the deep water rising and sinking from 50 ft. to 80 ft. about twice a month. The phenomena was governed by the moon's declination and proximity to the earth. From astronomical data Professor Pettersson concluded that the influence both of the sun and of the moon upon the waters or the ocean in winter about the time of the solstice must have been greater 600 to 700 years ago than at the present time, and that this caused a more intense circulation; evidence of this was afforded by the fact that the migrations of the herring—which now only reaches as far as to the Kattegat—in those centuries extended into the Baltic. The bank water or deep water of the Kattegat in winter time must then have attained a higher level, and entered the Baltic through Oresund. The surface layer must have been thinner: and as a thin surface layer was much more easily cooled in winter and heated in summer than a thicker one, the controlling temperature influences of the ocean must have been different at least in northern and north-eastern Europe. In mediaeval time the climate of these regions must have had, on the whole, a more continental character than now. In conclusion he showed that the hypothesis first proposed by A. W. Ljungman in 1879, that the periodicity of the great secular herring fishery of Bohusland should agree with that of the sunspots, was not incompatible with the phenomena he had described, since the fourteenth century was noted in Chinese annals as an epoch of maximum solar activity, and since the sunspot frequency curve of Wolfer could be reconstructed by harmonic analysis, using the moon's apside and nodal period as the basis of the analysis.

We had occasion a few weeks ago to notice the publication of a short book on *Ancient Types of Men*, by Professor Keith, the accomplished curator of the Museum of the Royal College of Surgeons in England. We have now to welcome another small volume, *Prehistoric Man*,[1] by Dr. W. L. H. Duckworth, University Lecturer in Physical Anthropology, Cambridge. The two books deal with the same subject, but in different ways. Professor Keith begins with the less remote, neolithic man, and works backward to the most remote man, or ancestor of man, the ape-like man of Java; Dr. Duckworth reverses the order. Professor Keith's book is the better written, the easier to read, the work of a practised expositor; Dr. Duckworth's is the more technical, more detailed, and so judicial and free from dogmatism as to be a little likely to confuse the newcomer to the subject. Both books should be read, but in the order of their publication. Professor Keith's rapid comprehensive summary could hardly be surpassed as an introduction to the subject; as Herbert Spencer wrote in his *Principles:* "A preliminary conception, indefinite but comprehensive, is always useful as an introduction to a complex conception—cannot, indeed, be dispensed with." Not that Professor Keith's book is indefinite, but it gives the preliminary comprehensive conception Spencer had in mind. To say of a book that it leaves the reader nothing to unlearn is often not praise but the most damning criticism. Lacking the preliminary comprehensive conception, the mind is confused and the critical faculty cannot operate. Dr. Duckworth has allowed himself to be embarrassed by his intimate personal study of the subject and his wide acquaintance with its extensive literature, its numerous and even bitter controversies. On the other hand, the subject is so new, the facts so few, so difficult of interpretation, and so liable to various interpretations, that his suspension of judgement is undoubtedly fully justified. He counsels an attitude of suspense even as to Klaatsch's "diphyletic" theory of human descent, a theory that Professor Keith almost scornfully rejects—the theory of a double evolutionary origin of modern man from an ancestor common to the orang-utan (Asiatic anthropoid) and from an ancestor common to the gorilla (African). Dr. Duckworth finds some justification for it in the theory of the diphyletic origin of the horse and swine. He concludes that "the diphyletic scheme may yet be modified to such an extent as to receive support denied to it in its present form." Again, in the concluding section of his book, Dr. Duckworth, after enumerating the various views as to the descent of man which he had stated more fully in the preceding pages, says:

> The impossibility of summing up in favour of one comprehensive scheme will be acknowledged. More research is needed; the flatness of a cranial arc is but one of the many characters awaiting research. . . . Till comparatively lately the erect attitude was supposed to have been acquired less recently in human evolution than the characteristically large brain. Then that opinion was exchanged for wonder at the disproportionately large amount of space provided for the brain in the man of Neanderthal. The tableau is changed again, and we think less of the Neanderthal type and of its lowly position (in evolutionary history). Our thoughts are turned to a much more extended period to be allotted to the evolution of the higher types. Adaption to climatic influences, the possibilities of degeneracy, of varying degrees of physiological activity, of successful (though at first aberrant) mutations, all demand attention in the present state of knowledge.

These quotations are a fair sample of Dr. Duckworth's method, of its strength and its weakness. His book is inspired throughout by a true scientific spirit and should be studied carefully.

MOTOR CARS FOR MEDICAL MEN.

MOTOR-CAR BODIES.

DR. J. R. JOHNSON (Richmond Hill) writes: What is the experience of medical men using "double-purpose" bodies on their cars?

1. Are they a success?
2. What horse-power chassis is it advisable to use with them?
3. Do the double-purpose bodies rattle?
4. Who are the best makers and what ought to be a fair price to pay for a double-purpose body?
5. What width of seating is it advisable to employ?

In some models I have inspected very insufficient room is provided, and although advertised as being constructed so that entrance can be made on either side, entrance on the driving side was practically impossible.

[1] *Prehistoric Man.* By W. L. H. Duckworth, M.A., M.D., Sc.D., University Lecturer in Physical Anthropology, Cambridge. (Cr. 8vo, Figs. 28, pp. 164. 1s. net). Cambridge: At the University Press. 1912.

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THE INSURANCE DEFENCE FUND.

The answer of the Chairman of the Joint Committee of Insurance Commissioners to the questions put to him in the House of Commons last week by Sir Philip Magnus may be interpreted to mean that he hopes that the Insurance Commissioners may find it possible to meet the demands of the medical profession by regulations to be made under the Act. The British Medical Association so far shares this hope that it has nominated members to serve on the Joint Advisory Committee to be appointed by the Insurance Commissioners, on the distinct understanding, of course, that the members are pledged to vacate their seats should the British Medical Association determine to cease negotiations with reference to the National Insurance Act. There appears, therefore, to be a desire for a truce, but it must not be a one-sided arrangement, and the body calling itself the Liberal Insurance Committee may fairly be invited to restrain its lecturers from making provocative speeches against the medical profession in the course of their mission to explain the advantages of the insurance scheme to audiences up and down the country.

To many it will seem that, with the best will in the world, an early favourable solution by way of the discussions which are now to take place will present great difficulties, even should the Treasury assume a more sympathetic attitude than it displayed when it gave its now historic instructions to the Government actuaries last May. For some of those who hold this view an amending Act is a possible means of meeting the situation; but even assuming a large assumption—a readiness on the part of the Government to introduce and pass an amending Act, the present state of parliamentary business will not encourage them to proceed. The profession has the advantage this week (Supplement, page 353) of reading the address delivered by the Chairman of Representative Meetings before the Sunderland Division on March 22nd. Dr. Maclean took occasion to review the present situation and to discuss the advice which, apart from the question of pending negotiations, the newly-appointed State Sickness Insurance Committee tenders to the Association and to the profession.

It is clear that the profession may have before long to face a situation brought about by the failure of the Insurance Commissioners to meet its demands. In that case the Commissioners would have the choice of several possible courses, but practically they seem to reduce themselves to two—a whole-time medical service, or the suspension of medical benefit, the pecuniary equivalent being handed over to the insured person. Without entering into the merits of this question and judging from the utterances of Ministers alone, it seems clear that they recognize that the first alternative would present difficulties practically insurmountable, and that it is the latter which is favoured as a last resort. It would be a confession of failure, but it might be selected as the line of least resistance. If it were taken the Insurance Commissioners would doubtless throw the whole weight of their influence on the side of the friendly societies, which would be left free, with increased numbers and larger funds, to endeavour to impose on the profession conditions as hard and far more wide-reaching than even before.

This result the profession is determined, whatever happens, shall not be brought about; but to succeed in the struggle that would ensue it will be absolutely necessary that the profession shall be prepared with an adequate defence fund, and with an alternative scheme for providing medical attendance and treatment for the classes which cannot be expected to make adequate provision except on a provident basis. Such a scheme was drafted some years ago and very fully discussed by some of the Divisions, many valuable suggestions being made. The details were carefully worked out, and the scheme with the safeguards it contained was approved by the Association.

Dr. Maclean was able to state that the State Sickness Insurance Committee of the British Medical Association would, at the earliest possible moment, send to the Divisions a scheme for setting up a Public Medical Service adapted to the conditions which would arise should the negotiations now to be begun finally break down. He said that to a large extent success or failure would be determined by the attitude of the present holders of club appointments and of the honorary staffs of voluntary hospitals, and that the same loyal support was expected from both. But he also pointed out that the Association had no right to ask club doctors to bear their share in the fight, which would be the brunt of the battle, unless it was prepared through its Insurance Defence Fund to give pecuniary support to men who suffered pecuniary loss through their loyalty to the principles enunciated by the Association.

In the circular recently issued by the State Sickness Insurance Committee to the Honorary Secretaries of Divisions with regard to the formation of provisional Medical Committees, it was pointed out that the local canvass it recommends should include an application to all practitioners to guarantee as much as they can afford to the Insurance Defence Fund. It would appear to be preferable that guarantees should be given to the Central Insurance Defence Fund through the local committee. A large central fund is necessary, so that the Association shall be in a position to support local effort and supplement local funds in those districts where the need may prove to be greatest. Further, whilst subscriptions to local funds are very desirable, there is another reason why the profession should contribute to the central fund; it is that the central expenses have been and still are very large. Included in the expenditure that must be met from the central fund are the employment of extra staff for the formation of a register of the profession, for the issue of circulars both to the profession and to Parliament, and for the administration of the fund itself. There is, in addition, the payment of expenses in connexion with the numerous and very frequent meetings of the committees and the organization of deputations. Altogether the Association has already spent more than £8,000 in this way over and above its normal expenditure. The State Sickness Insurance Committee is able to give to all who contribute to the Defence Fund the absolute assurance

that they may do so with the utmost confidence that it can and will be administered under the auspices of the Association for the purpose for which it is intended. This is an occasion for determination and, if necessary, personal sacrifices. Generous support of the Defence Fund is one of the ways in which the more fortunate members of the profession may show their sympathy and solidarity with the whole profession. But it is an occasion for every man to do what he can, and we have recently seen an offer from a country practitioner residing in a district of England where they are more disposed to boast of their wisdom than of their wealth to make himself responsible for £100. If this spirit is shown by others whose opportunities are greater, the fund at the disposal of the Association would in a few weeks be so large that the apprehension naturally felt by the holders of some club appointments would be set at rest.

THE FISH SUPPLY OF GREAT BRITAIN.

LAST week Professor D'Arcy W. Thompson gave an evening address at the Royal Institution on the history of the North Sea fisheries. As a lecturer Professor Thompson is at once dramatic and impressive, and is careful not to let statistics and technical details, which in the case of fisheries are apt to be unwieldy, obtrude themselves too much, and so obscure the main theme. The subject at first sight appears too formidable for an hour's treatment, but by a skilful manipulation of lantern slides the lecturer was able to bridge over many of the gaps which otherwise would have required lengthy exposition.

In a brief summary of early times Professor Thompson mentioned the debt which the fisheries of this country owe to the Dutch and Frisian fishermen of the eighteenth century, and instanced the fact that not a few of the implements still in use amongst our fisher people are exact replicas of those used by the Dutch two hundred years ago. The North Sea, its physical peculiarities and their relation to the fishing grounds, were strikingly illustrated. The gradual shelving of the bed of the sea from the north to the south, forming in its southern part a great plateau which extends across from Britain to the Continent, was clearly shown in a series of charts. It is on this great southern plateau that the bulk of the fishing is prosecuted. The rich Dogger Bank forms an elevation projecting from this plateau.

In reviewing the nature of the fishing and the catch, Professor Thompson sketched the various methods in vogue at the present day—the line fishing, the drift net, the various trawls, etc. The remarkable change from small private fishing boats to large steam trawlers was shown by appropriate illustrations. This rapid change has introduced a serious administrative problem—namely, the safeguarding of the interests of the fishing populace, which still relies on small private enterprise. It was partly on their account that the statute was enacted which forbids trawling operations within a distance of three miles from the coast, a statute, however, which has the further aim of preventing the destruction by the trawl of certain small immature fish which frequent the inshore waters.

With regard to the nature of the catch, it is remarkable how greatly our food fishes differ from those of the markets of Southern Europe. In the North Sea our staple fare consists of the cod, haddock, plaice, dab, halibut, and herring, members of the cod, flounder, and herring families. In the Mediterranean these are replaced by members of the spiny-finned tribe, the mackerel, mullet, bream, and a host of others. Professor Thompson was speaking exclusively of the North Sea fisheries, for on the South Coast, and even on the West, we are familiar with quite a number of the spiny-finned food fishes (*Acanthopterygii*). It must not be forgotten, although this point was not emphasized by the lecturer, that the fishes of the North Sea differ considerably from those of the West and South Coasts. Thus, in the former, the mackerel, horse mackerel, sea bream, John Dory, and pilchard, although they are met with, are not common, and are rarely marketed; whereas, on the South Coast, they form a considerable part of the market. On the other hand, the haddock, which is *par excellence* the staple commodity of the eastern Scottish fish markets, is rarely found on the southern and western coasts. Here its place is taken by the whiting, and to some extent by young saithe and lythe or pollack. Another feature which the lecturer did not enlarge upon was the enhanced value of the skate fisheries. Twenty or thirty years ago or more the nimble sixpence would have purchased a large skate; now it is sold at almost as much per pound. There are other instances, too, of the enhanced value placed upon certain fishes. Half a century ago large catches of turbot and other valuable fishes could only be disposed of as manure. To-day increased railway facilities have opened up a very wide market for such fishes, and in consequence their intrinsic value has increased enormously. The whole aspect of affairs has, in fact, as Professor Thompson remarked, been changed by the advent of steam trawling and improved railway service. Some idea of the enormous extent and commercial value of the fisheries was given in figures and diagrams. It has been a common cry that unrestricted fishing will eventually depopulate the North Sea. Judging by statistics, however, in most cases there is no sign of such an event, and in this respect Professor Thompson's views coincide with those of his illustrious predecessor on the Fishery Board, Professor McIntosh of St. Andrews, whose dictum, familiar to most fishery experts, "There is nothing that man can do which will depopulate the sea of its fishes," remains unshaken in the majority of cases. There is one serious exception, however, namely, the flat fishes (*Pleuronectidae*). From Professor Thompson's figures it is obvious that, although there are annual variations of considerable extent in the case of most fishes, there is a steady increase in the number of fish marketed. Yet flat fishes, plaice and soles especially, show a distinct and continued falling off, and it would appear as if some legislative measures might be necessary to maintain the supply of such fishes. The more circumscribed habits of the flat fishes in general, and especially in breeding, expose them to greater dangers than their more nomadic brethren the Gadoids.

These are the main facts concerning the North Sea fisheries, and it would be wearisome to discuss here in detail the large mass of statistics on these points accumulated by the Fishery Board during the course of the last thirty years. The fisheries not only of the North Sea, but also of other parts of our coasts, represent an asset of great national importance, and the cordial reception which was accorded Professor Thompson's address is evidence that the matter receives a fair share of public interest and attention.

DOMINION REGISTRATION IN CANADA.

THE Legislature of Quebec has passed the "enabling clauses," giving effect to the Canada Medical Act so far as the Province of Quebec is concerned. The necessary legislation passed the British Columbia Legislature in the present session. Eight of the nine provinces have now passed the necessary legislation. The only province which has not taken action is Ontario, but the Ontario Medical Council is also in favour of similar action through its Legislature, and is now seeking to have a bill passed at the session which has just opened. The draft of an Act has been submitted by the Ontario Medical Council to the Attorney-General, which will in due course be placed before the Council, and if approved will be embodied in a bill. In that case its passage would follow automatically.

If Ontario takes the expected action, a meeting of representatives of all the medical councils of the Dominion will be convened at Ottawa during the coming summer or autumn, when the Dominion Medical Council, authorized by the Canada Medical Act, will be formed. As it is confidently expected that Ontario will be in line with the other provinces of the Dominion before the summer, there will then be no obstacle in the way of giving effect to what has long been known among the medical profession of Canada as the "Roddick Bill."

This bill, aiming at the establishment of one set of examinations and one standard of qualifications for the practice of medicine in Canada, in place of the different examinations and varying standards of the individual provinces, was introduced in the Canadian House of Commons in 1902 by Dr. Roddick, then representing St. Antoine Division, Montreal. The bill was passed, but owing to objections raised to certain features by provinces jealous as to their existing rights, it was found impossible to give effect to the Act.

In his address as President of the British Medical Association at its Annual Meeting in Montreal in 1897, Dr. Roddick touched on this subject, and explained that when the British American provinces became federated in 1867, under the British North America Act, the governance of educational matters was taken away from the Federal authorities and handed over to the provinces, each to look after them in its own way. "In consequence we have since," he said, "had a curious complexity of medical legislation, there being practically no uniformity amongst the provinces in regard to standard of study or qualifications for practice. Each province has its own medical board or medical council, as the case may be, which has the power to grant licence to practise either after examination or on simply presenting the diploma of certain recognized universities." In this way a Chinese wall had, he said, been built round each province, and the frontier was carefully guarded, so that it was unsafe for a medical man to pass from one to the other unarmed with a licence, because of the risk of fine or even imprisonment. Two remedies, he said, had been suggested: Either the establishment of an examining board in each province with a uniform standard of matriculation and curriculum; or, secondly, a Dominion governing board. It is the second recommendation which has been adopted.

About two years ago a meeting of representatives of the provincial medical councils was held in Montreal, when Dr. Roddick succeeded in securing the consent of all to certain amendments which he proposed to the original Act. These amendments, removing earlier objections, were embodied in a bill which was passed during the session of the Dominion Parliament in Ottawa in 1911. It is part of the Act as it now stands that the provinces give their assent to the principle of the Act through a bill passed in their own Legislatures, and it is this step which has now been taken by all the provinces save one.

When the Dominion Medical Council is finally formed, it will be possible for a medical practitioner, having passed the examinations prescribed by it, to practise in any province of Canada, instead of, as at present, only in the province or provinces in which he has satisfied the requirements of the respective provincial medical councils. The Dominion Medical Council will have full authority over the purely professional subjects, while the provinces will probably exercise authority over the non-professional subjects of the examinations.

Dr. Roddick has occupied himself for fifteen years or more in promoting this reform, and it must now be a matter of great satisfaction to him that his unremitting labours on behalf of the profession are crowned with success. So soon as all the provinces have consented, he will feel that his work in this direction is at an end, since it is the Minister of Agriculture who, according to the terms of the Act, will supervise its operation.

DISPENSING.

IN a letter on dispensing, which is published in the SUPPLEMENT of this week, from Mr. Tocher, ex-president of the British Pharmaceutical Conference, it is pointed out that the reference to the Pharmaceutical Society in the minute of the Special Representative Meeting is open to some criticism, on the ground that the society has no more power to impose its will on pharmacists with respect to tariff rates for medicines than the General Medical Council has to impose its will on medical practitioners with respect to medical fees, and it is quite possible, as Mr. Tocher suggests, that neither the Pharmaceutical Society nor its Council will even desire to suggest a tariff for pharmacists. A more suitable body for suggesting a tariff might be the British Pharmaceutical Conference, which ought, perhaps, to have been the body mentioned in the minute of the Representative Meeting rather than the Pharmaceutical Society. There is, however, no question of any power to impose a tariff on pharmacists. Neither the Pharmaceutical Society nor the Pharmaceutical Conference, nor any other body can do more than suggest, and use a certain amount of influence to persuade, pharmacists to require the institution of any particular tariff, just as the British Medical Association can only suggest and use its influence with medical practitioners about medical fees. Mr. Tocher quite correctly states that, technically and legally, the final decision as to tariffs is a matter for arrangement between pharmacists on the lists and the Commissioners, just as the final decision as to medical fees will, in the same sense, rest with the doctors who are willing to go on the panels. In actual practice, however, the local Medical Committees, acting in agreement with the Representative Meeting, will, no doubt, endeavour to apply certain principles in a uniform way throughout the country. In the same way the Representative Meeting considered it likely that some representative body of pharmacists would be certain to endeavour to obtain uniformity in the scale of charges to be made by local pharmacists for medicines, and it matters little whether that body be the Pharmaceutical Society or the Conference or any other organized body of pharmacists. It may be that pharmacists are not so fully and completely organized under any representative body as the medical profession is under the British Medical Association; but the Representative Meeting, while claiming the right of medical practitioners to continue dispensing as at present, wished to make it plain that they would not be

guilty of underselling the pharmacists, but would be willing to adopt the same scale of charges as pharmacists generally consider reasonable for medicines supplied to the insured. Some misconception seems to have prevailed as to the attitude of the British Medical Association on the question of dispensing by medical men. At the Special Representative Meeting held last May it was resolved "that in any insurance service the provision for the supply of material requirements should be kept separate from that for the provision of medical services." This resolution had previously been submitted to the Divisions, and 117 voted for it, while only 10 voted for the suggestion that material requirements (medicines, dressings, etc.) should be provided by the medical practitioner under the same inclusive fee or rate as professional services. This resolution of the Representative Meeting has frequently been wrongly interpreted as meaning that the profession was willing and desirous to give up dispensing; though that may be true in certain districts, it is not true as regards the great bulk of general practitioners. The objection of the Representative Meeting was not to dispensing, but to supplying material requirements at the same inclusive fee as professional services. There is a far too common impression among the working classes that what they pay when they visit a doctor is simply for the medicines they receive. The suggestion, too, has been made that club doctors receiving an inclusive fee for attendance and medicines are under some temptation to use cheap drugs in order to keep down their expenses: it may be true that the club rates would not cover any extensive use of the more expensive remedies, but it is the experience of most club doctors that cheap drugs are often of little value, and fail in the long run to shorten illness, a failure not only contrary to the guiding principle of the medical profession in all countries and ages, but calculated to increase the work of the doctor. It was to meet these points that the resolution of the Representative Meeting of last May was passed. The intention was by no means the same as Mr. Lloyd George's idea of a complete "separation of the drugs and the doctors." That has never been advocated by the Representative Meeting. It happens too often that any prescription given to patients is used time after time when it is perhaps out of place, and is often handed round to neighbours and friends and used for all sorts of diseases which may really need very different remedies; and it is as much in the interests of the public as of the profession that the Special Representative Meeting passed the resolution quoted by Mr. Tocher. The argument that the insured should have free choice of pharmacist, in the same way as they have free choice of doctor, may be accepted when there is need for them to go to any pharmacist; but if a patient does not trust his medical attendant to give him proper medicines, he should choose another doctor. Many, if not most, of the insured, we are convinced, will prefer to obtain their medicines direct from the doctor himself, not merely on the ground of the saving of trouble in having to go to both doctor and pharmacist, but because they have greater confidence that they are getting exactly what the doctor wants them to have. The profession has no desire to interfere with any established right of pharmacists, but it will strongly resent any attempt by pharmacists to usurp what is the undoubted right of medical men to dispense their own medicines, when they think proper, for their own patients.

INTRA-VITAM STAINING.

THE publication of Ehrlich's results with salvarsan has been followed during the last few months by numerous papers from Continental laboratories dealing with the effects of various chemical substances on malignant growths and certain other diseases. Last January we had occasion to consider at some length Wassermann's experimental injections of a compound of eosin and selenium, and to discuss the significance of the suggestive results achieved. Last week a brief report was published of a paper communicated to the Royal Society, by Professor Goldmann of Freiburg, on a method of examining normal and diseased tissues by means of *intra-vitam* staining. This method, at which he has been working for a considerable number of years, is sufficiently interesting to make it worth while to add some particulars to the rather bald statement in the report. Professor Goldmann injects, either subcutaneously or intravascularly, such dyes as trypan-blue, benzopurpurin B, diamin-blue BB, diamin-black BH, vital Neu Rot, vital Neu Orange, vital Neu Gelb, and Dianil Blau R. It appears that cell plasma which attracts fat and lipoid stains also shows a marked tendency to vital stains; but it is to be noted that the pyrrhol cells—cells thus named from their property of absorbing the so-called vital stains—are only stained so long as they are unimpaired, whereas during their transformation or disintegration their power of attracting the fat stains increases. Professor Goldmann appears to have established that by means of the stain it is possible to distinguish the reticulum cell of lymph glands, spleen and bone marrow, the interstitial cell of the testicle, the follicular cell in the maturing Graafian follicle, the cortex cell of the suprarenal, the epithelial cells of the choroid plexus, and the epithelial lining of the convoluted tubes of the kidney. The behaviour of the placenta to the stain is remarkable. When pregnancy occurs in the stained animal the colour leaves the skin and is concentrated in the uterus. In the early stages, when as in the rat and mouse development is slow, and dependent only upon exuded maternal blood, peritoneal pyrrhol cells migrate into the uterine wall, penetrate the primitive placenta, and cast off vitally-stained granules which are taken up by the fetal cells. Once the placenta has attained maturity the stain appears in the giant cells, in the fetal cells constituting the barrier between the maternal blood spaces and the endothelial lined capillaries of the fetus and in the yolk membrane. The embryo, however, remains colourless. The same fetal cells that absorb the vital stain also store glycogen, fat, and haemoglobin before they pass into the fetal circulation. In wounds produced in the skin, liver, and kidney, the pyrrhol cells appear after the initial emigration of leucocytes. Phagocytosis of the leucocytes takes place by the pyrrhol cells, which stretch into and become the spindle cells of young connective tissue. The activity of the pyrrhol cell is prominently displayed in the surrounding of parasites, such as the trichina and other worms. Professor Goldmann has found it possible also to demonstrate the fundamental difference in the distribution of the avian and bovine bacilli of tuberculosis when introduced into the peritoneal cavity of the mouse: bovine bacilli, he says, pass to the lung along the blood stream through the thrombosed portal veins, whereas in the avian variety the dissemination is effected by the lymphatics. In non-inflammatory necrosis of the liver—as produced, for instance, by icterogen, an arsenic compound of the series which includes salvarsan—vitally stained pyrrhol cells migrate from the peritoneal cavity along the liver lymphatics, and assist in the repair of damage. Professor Goldmann demonstrated specimens of malignant growths, showing that the pyrrhol cells collect in large numbers around the growing tumour, and penetrate it along the blood channels of its lobules. In the interior of the tumour most of the cells succumb. Professor Goldmann regards their appearance as a specific local reaction induced by the tumour cell, and contends that it is the pyrrhol cell alone that is so attracted in the absence of inflammatory agents. Experiments on mouse tumours by means of agents which damage the liver show that the cells absorb the degeneration products. The

tumour evidently suffers through the application of these substances, and Professor Goldmann concludes "it does not seem improbable that the pyrrhol cell is also active in transporting substances to the tumour, which impede, and in many cases stop its growth."

VOICES OF THE DEAF.

THE current issue of the *Albion Magazine*[1] which is published in the interests of the deaf, contains some interesting observations by Dr. Norman Porritt on the vocalization of people who are more or less markedly deaf. As a deaf person is above all things sensitive and afraid to draw attention either to himself or his failing, he gets into the habit of modulating his voice, and unconsciously adopts a too subdued tone in speaking. This is a danger against which many deaf persons are not sufficiently alert, and if a deaf person is not watchful he may practically lose his voice as well as his hearing. Even with the help of the best medical treatment he may not be able to retain the latter, but he ought at least to be able to preserve the former. To this end he should avoid the enticing habit of speaking in his throat, and should be at pains not only to articulate clearly, but to open his mouth and enunciate his words distinctly and even emphatically. He should not be afraid of speaking out. As a useful exercise for the deaf in this respect, reading aloud so as to be heard distinctly in a large room by people of normal hearing is recommended. This advice is worth noting by those who have to deal with deaf people either as friends or as medical advisers, for it must be a matter of common observation that it is as difficult to understand some deaf people as it is to make them hear. The fact is that all human beings tend to attune their voices by the amount of sound in their vicinity, and in the absence of any external sound gauge the desirable pitch by the sound of their own voices. In the case of deaf people all external vibrations produce more or less muffled sounds, while since those of their own voices reach their hearing organs practically unimpaired they cause a relatively great noise. The result is that the deaf man is handicapped in gauging the tone of his voice, and tends to think that he is speaking much more loudly than is really the case. Hence he often gives his friends and others who have to converse with him an unnecessary amount of trouble by making it difficult to hear what he has to say as well as to make him hear. Similarly the deaf man sometimes puts himself at an unnecessary disadvantage by commencing a conversation with a stranger in what is really a very low tone, and thus inducing his auditor to drop his voice likewise.

LISTER'S ABLUTIONS.

WE know that there are superior persons who think that washing is a superstition, and that an unbroken covering of dirt on the skin is as a coat of mail against invasion by microbes. They may perhaps quote the testimony of Sir Ernest Shackleton, who says that though he and his companions were unable to wash for several months, they suffered no ill effects from this enforced abstinence from the lustrations generally deemed necessary by civilized man. But then they were in good condition, and apparently lived in an atmosphere free from microbes, inasmuch as they remained free from colds, influenza, and other affections often attributed to a low temperature, till they returned to regions where micro-organisms flourish. We know that Walker, the eccentric author of the *Original*, held that a healthy skin is sufficient by its own action to protect itself against dirt. He has had few followers, however, except among the great unwashed, who as a class are the chief distributing agency of infectious disease. It is surely a curious irony of fate that the man who devoted his life to the extermination of harmful microbes, and who was the inventor of the most elaborate ritual of physical purity, should be claimed as an apostle of the gospel of dirt. The *Scotsman* has printed a silly story in which Lord Lister is made to say that he never bathed, never washed, and had not used water for years; he only rubbed himself with dry towels. We can only regard this as a mystification. It is well known how quickly an accretion of legends grows around great names, and Sir Hector Cameron did right in destroying this particular one before it had time to become hardened into the incrustation of lies which forms so large a part of what passes for history. As an intimate friend of Lord Lister for the last fifty years who knew his personal habits well, Sir Hector asserts emphatically that the story is most absurd, baseless, and untrue. He goes on to give what is probably the origin of the legend: "I remember once hearing him, in the course of a lecture to a students' medical society, state that he disapproved of surgeons performing prolonged ablutions of their own hands and of the skin of the part of the patient's body to be operated on, before applying a watery solution of carbolic acid to both. He objected to the natural grease of the skin being removed first by the soap and water, because he knew that carbolic acid has a very strong chemical affinity for oils and grease of every kind, and only a weak one for water. He therefore held that if the skin of the patient and of the surgeon's hands be treated with a watery solution of carbolic acid without previous washing, the penetrative power of the acid was much greater, since it tended to part from the water, which held it weakly, and flew to the somewhat greasy skin, with which it had a stronger affinity. He then said 'I, therefore, never wash my hands—' but the rest of the sentence was drowned by the laughter and applause of the students. When these were finished, he also finished his sentence—'I, therefore, never wash my hands immediately before operation, but trust entirely to soaking them for a little in a saturated solution of carbolic acid.'" The growth of legends is always interesting, but we may be grateful to Sir Hector Cameron on other grounds for having so effectively cleared the memory of an illustrious man from a foolish misunderstanding which might easily have become fossilized into an injurious tradition.

ANDRE LEVRET.

A CORRESPONDENT has asked for a sketch of the career of Levret, the famous French obstetrician of the eighteenth century. Like many men who have helped to further the progress of the healing art, the best record of his life is in his works. André Levret was born in Paris in 1703, and, having become initiated into the art and mystery of surgery, soon acquired considerable reputation. He had the good luck to win the confidence of Samuel Bernard, a wealthy man, who attached him to his person, and on his death left him a sum of £4,000, in addition to an annuity. This allowed Levret to follow his bent without the hindrance of money troubles. He devoted himself to obstetrics, in which he gained such a reputation that pupils came to him from all parts of Europe. Among his patients were the most distinguished ladies of Paris society, and he was accoucheur to the Dauphiness, mother of Louis XVI. Levret is said to have been the first to direct attention to the implantation of the placenta at the internal os and to explain the haemorrhage due to that condition. He demonstrated the causes which favour or hinder the delivery of the placenta and the procedures to be employed in such circumstances. He was a great inventor of instruments, among them being a forceps for the removal of the ovum or the placenta in cases of abortion in the early months. He did not confine himself to midwifery, but was a surgeon of sufficient eminence to be elected a member of the Royal Academy of Surgery of Paris. He invented scissors with concave

[1] *The Albion Magazine*. Edited [illegible]. Vol. iv. January-March, 1912. Page 54.

cutting edges for the excision of the uvula: devised a procedure for the removal of polypi of the nasal fossae and of the uterus by ligature instead of by evulsion; cured hydrocele by the use of irritating injections. He presented to the Academy of Surgery memoirs on these subjects and on hernia of the bladder. In addition to these contributions to medical literature he was the author of a work on the causes and accidents of many difficult labours, first published in 1747, which ran to a fourth edition published in 1770. To this last edition was joined a small supplementary essay which had already appeared in 1751. This was a reply to criticisms on his first work which appeared in the *Journal des Savants* in 1749. Other works are: Observations on the Radical Cure of Several Polypi of the Womb, of the Throat and Nose, by New Methods (Paris, 1749); Explanation of Several Figures on the Mechanism of Pregnancy and Delivery (Paris, 1752)—the figures show the different degrees of dilatation of the womb; the Art of Midwifery Demonstrated by Physical and Mechanical Principles (Paris, 1753, 1761, 1766)—this remained a textbook for a long time, and was translated into various languages; An Essay on the Abuse of General Rules and against the Prejudices which stand in the way of Progress in the Art of Midwifery (Paris, 1766); a Treatise on Difficult Labours (Paris, 1770), in which the application of the forceps, its shape, etc., are fully discussed; Observations on the Suckling of Infants (Paris, 1781), a German translation of which was published at Leipzig in 1785. Levret seems to have been a man of sturdy independence of character, for it is recorded that when he was called to Court to attend the Dauphiness, the Dauphin said to him, "You must be pleased, M. Levret, to deliver the Dauphiness. That will make your reputation." To which Levret answered quietly, "If my reputation were not already made I should not be here." Levret died on January 22nd, 1780.

CURIOSITIES OF THE THESIS.

In an article entitled "The Thesis," which appeared in the JOURNAL of March 9th, some specimens of the subjects chosen for the inaugural dissertation for the degree of Doctor of Medicine in the old University of Paris were given. A few others may amuse our readers. The knotty question whether the fetus resembled the father more than the mother is said to have been discussed by a candidate as far back as 1376; the date may perhaps be considered doubtful. In 1612 we find a candidate arguing that sexual intercourse both produces and stops disease, and another in 1616 discussing whether sexual intercourse is proper for the jaundice of lovers. Is this the jaundice of jealousy? The temperance question was before the medical world in the seventeenth century, for in 1622 we find a thesis on the wholesomeness of water as compared with wine. The question whether heroes are born in the tenth month (1637) might interest the modern eugenist. In 1644 the subject propounded for debate was whether baldness is a result of excessive venery. Bald men nowadays say that the loss of hair is the consequence of overaction of the brain which draws nutrition from the scalp, but there are scoffers who regard this explanation as about as valid as Falstaff's statement that he had lost his voice by singing anthems. A curious question discussed in an affirmative sense by one du Cerf in 1704 is whether man originated from a worm. Is this an early glimpse of evolution? In 1711 de Jussieu held that the maternal blood does not supply nourishment to the fetus. There is a sort of adumbration of very modern views in the thesis upheld by J. F. Leaulté to the effect that the testicles are of great importance in stimulating fertility of mind. The question of the therapeutic use of music was discussed in 1624. The ungallant thesis that woman is an imperfect work of nature was defended in 1646. In 1743 a candidate deals with a question which has been debated by Mr. Andrew Lang and several other modern writers—whether men of letters should marry. The examples we have quoted are taken, as we have said, from a list of theses presented for the doctor's degree. But the thesis was a sort of intellectual duello all through the Middle Ages. It used to be the custom for scholars to go about to various universities offering challenges to all and sundry to debate *de omni scibili*. The Admirable Crichton furnishes a notable instance. In Paris he had posters stuck on the doors of all the colleges announcing his readiness to discuss any subject with any opponent in prose or verse, in Hebrew, Syriac, Arabic, Greek, Latin, Spanish, French, Italian, English, Dutch, Flemish, or Sclavonic. He acquitted himself so well that the President of the College of Navarre, where the debates were held, presented him with a diamond ring and a purse of gold. His success was equally brilliant in Rome, Venice, Padua, and elsewhere. James Crichton was born in Scotland in 1560 and educated by George Buchanan with his other pupil, James VI of Scotland (James I of England), whom he boasted he had made the wisest fool in Europe. The accounts of Crichton's learning and debating powers are doubtless grossly exaggerated; they rest mainly on the authority of that very uncritical writer, Thomas Urquhart. The challenge to all comers to debate any question survived into the eighteenth century, for it is on record that Oliver Goldsmith "disputed his way" through Europe. It is not likely that poor "Goldy," who "talked like poor Poll," would have been very brilliant as a debater. It is more likely that he took advantage of an almost extinct custom that any one throwing down the gauge of battle at a college or university should be entitled to bed and supper. Probably by that time academic persons were glad to shut the challenging disputant's mouth on such easy terms. An amusing instance of the misadventures to which those who challenged the learned to debate is related in the life of Sir Thomas More:[1] "When an arrogant fellow at Bruges had given it out that he would answer whatever question could be proposed to him in any art whatever, More caused to be put up, '*utrum averia capta in Withernamia sunt irreplegiabilia*,' adding that there was a person in the retinue of the English Ambassador who would dispute with him on the question. These law terms were worse than Coptic to the braggadocio, who knew not what reply to make and was laughed at." It is curious to read that the thesis presented by Walter Scott for admission to the Scottish Bar was *De cadaveribus damnatorum*, in which he discussed how the bodies of executed criminals should be disposed of, and it is a gruesome coincidence that the thesis was dedicated to the great hanging judge Braxfield, the original of Stevenson's Weir of Hermiston.

A SCHOOL CLINIC.

DR. R. TRIBE, Medical Officer to the Deptford School Clinic, has reprinted from *School Hygiene* a paper on the result of treatment at the Poplar School Clinic, in which the work done between December, 1908, and December, 1910, is reviewed. However laborious it may be to record and present the statistics of such a clinic and to explain the difficulties, trivial as well as great, which had to be encountered, it is certain that it is almost imperative at the present time to do so, for information is needed as to the best methods to adopt in the treatment of school children found defective upon inspection. The author has succeeded in making clear that a very large amount of patient and successful work has been accomplished, but he has not given as much information as could be desired

[1] *Memoirs of Sir Thomas More*, with a new translation of his *Utopia*, his *History of King Richard III*, and his Latin poems. By Arthur Cayley, the younger, Esq. Published by Cadell and Davis, Strand, London. 1808. Vol. i, p. 247.

towards the solution of the problems raised. He begins with a short paragraph headed "Organization," which tells us little, except that all dressings and treatment were carried out by a nurse who was allowed to do this work within the school buildings, an arrangement which, it is stated, ensured the regular attendance of the children and occasioned a minimum of interruption to their studies. We are not told how many hours of the doctors' time the examination entailed or how many of the nurses. Nothing is said of the expenses of the scheme, either in organization or in drugs. There follows an analysis of 201 cases out of a total treated of 450. It would be better in any future report to avoid any selection of cases and to include all in the statistics. Of the 201 cases, 94 are described as cured and 21 as benefitted, while 67—a surprisingly large number, when we consider that the report embraces a period of two years—are still under treatment. Dr. Tribe then describes the effects of treatment under the headings ear disease, throat and nose, anaemia and debility, skin, tuberculosis, eyes, and general ailments, and finds place for a few general deductions. Under the heading "Conclusion," he writes: "Perhaps the chief lesson is the great value of a school clinic in co-operating with all the work done for the child, the country holiday, the home conditions of poverty, the choice of a career on leaving school, the need for feeding the necessitous, and the relation of physical fitness to educational efficiency." With this we heartily agree. It is information on all these points which is especially desirable, and yet not one of these important matters is mentioned in the body of the article. The paper seems to us to suggest the advisability of instituting in such clinics a combined and organized inquiry into these points upon lines selected and arranged beforehand.

LIFE ASSURANCE AND ABSTAINERS' LIVES.

The report of the directors of the Sceptre Life Association contains the usual comparison between the mortality of its abstaining and non-abstaining policy holders. In 1911 in the general section the mortality was 77.78 per cent. of that expected; that is to say, there were 105 out of 135 expected deaths. In the temperance section 51.11 per cent. of the expected deaths occurred, or 69 out of 135. For the last 28 years the percentage of actual to expected deaths has been in the general section 79.70; in the temperance section 52.45. It is necessary to remember that the comparison is not between the average man and woman. It is between insurable abstainers and insurable non-abstainers; that is to say, between those in whose expectation of life examiners found no flaw. Both classes are the company's choice of safe, insurable, profitable lives. It is as if men started on a race, the race of life. The essence of a race is a fair start. This the competitors get. As Sir Thomas Whittaker says of the United Kingdom Temperance and Provident Institution, "the policy-holders in the respective sections are of similar social status, and are engaged in the same occupations. They live in the same towns, often in the same streets, and have similar incomes. So far as it is possible for the most careful observers, after full opportunity and experience, to say, the people are precisely the same in all important and essential particulars, with the single exception that those in one section are abstainers and those in the other section are non-abstainers." At the start all are examined, and only the fit and strong are allowed to start. The abstainers last better and go further than the non-abstainers. During the race some of the non-abstainers may take more drink than is good for them. A runner on the cinderpath would forfeit sympathy if he lost a race from such a cause. If he handicaps himself during the race, well, that is his own look-out, and he must abide by the result. Moreover, it is difficult for any but a moderate drinker to get insured. The examining doctor is alert, and the man himself must make a declaration of sobriety in the proposal which is the contract between him and the company. The exceptions to the rule that each individual among the non-abstainers was strictly sober and temperate when he received his policy are too few to invalidate the conclusion that among insurable persons total abstinence tends to longevity.

A PUBLIC HEALTH DILEMMA AT CHICHESTER.

At a meeting on March 15th the council of the City of Chichester with a view to emerging from the difficulties it has experienced in meeting the somewhat opposing views of itself, a section of the ratepayers, and the Local Government Board (British Medical Journal, March 9th, p. 568), definitely rescinded the appointment as Medical Officer of Health previously made and selected for the appointment Dr. A. M. Barford. Possibly, therefore, its problem is now solved; still, apart from the desire of the Local Government Board for an arrangement of a different kind, one small difficulty would appear to remain—that is, that Dr. Barford, when thus appointed, was still county and school medical officer for the Isle of Wight, as well as the holder of a specialist appointment on the staff of a Portsmouth hospital. It is true that just before the voting took place one of the Chichester councillors reported that Dr. Barford had told him that he was resigning the Isle of Wight appointment, but, curiously enough, at a meeting of the Isle of Wight County Council, which is reported in the *Isle of Wight County Press*, and appears to have been held during the same week, its chairman indicated that he had received information that Dr. Barford was about to comply with the requirements of that council by taking up his residence in the island forthwith. At this Isle of Wight meeting the question was brought up by Mrs. Russell Cooke, who said that she understood that Dr. Barford's work was in itself quite satisfactory; but, on the other hand, it was extremely unsatisfactory that their medical officer should reside in Chichester. They never knew where their medical officer was to be found; he might be in the island and doing his work, but he was not properly in touch with the central office of the Education Authority. They all knew of the controversy that took place over the dismissal of Dr. Gibson from his appointment, but it seemed to her they had fallen out of the frying-pan into the fire. Another councillor said it was rather a bad time to bring the matter forward, for recently the Education Authority had had to deal with what was practically a strike among medical men, since the medical journals would not insert the council's advertisements, practically saying "because you will not have Dr. Gibson, you shall have nobody else." This statement appears to be the speaker's gloss on the fact that when last year it became generally known that the Isle of Wight County Council proposed to supersede an officer who had rendered excellent service unless he agreed to accept more work at a lower salary, the *Lancet* and the British Medical Journal declined to insert an advertisement of the appointment, while of the twelve candidates who had sent in their names in due course, all but three, namely, Dr. Barford and two others, cancelled their applications.

At the third International Laryngological Congress held in Berlin in September, 1911, it was resolved that ozaena should form the subject of a collective investigation, the results of which should be presented to the next meeting of the Congress, which will take place at Copenhagen. An executive committee, consisting of Professors Rosenberg, Grabower, and Alexander, of Berlin, was appointed to institute and direct the work. It was agreed that a laryngologist should be appointed in every country to carry out the investigations.

THE INSURANCE SCHEME.

STATE SICKNESS INSURANCE COMMITTEE.

Fourth Meeting.

The fourth meeting of the State Sickness Insurance Committee was held on March 21st. Mr. T. Jenner Verrall was in the chair, and the members present were: *England and Wales:* Dr. R. M. Beaton (London), Dr. John Brown (Bacup), Dr. T. M. Carter (Westbury-on-Trym), Dr. S. Hodgson (Salford), Dr. R. E. Howell (Middlesbrough), Miss M. H. Frances Ivens, M.S. (Liverpool), Dr. Constance E. Long (London), Dr. R. A. Lyster (Winchester), Dr. James Pearse (Trowbridge), Dr. F. M. Pope (Leicester), Dr. Lauriston E. Shaw (London), Dr. W. Johnston Smyth (Bournemouth), Dr. D. G. Thomson (Thorpe, Norwich), Dr. D. F. Todd (Sunderland), Mr. E. B. Turner (London), Dr. A. H. Williams (Harrow on the Hill), Mr. D. J. Williams, F.R.C.S. (Llanelly), Mr. E. H. Willock (Croydon). *Scotland:* Dr. J. Adams (Glasgow), Dr. Bruce Goff (Bothwell), Dr. J. Munro Moir (Inverness). *Ex Officio:* The President (Professor Saundby), Dr. E. J. Maclean, Chairman of Representative Meetings; Dr. J. A. Macdonald, Chairman of Council.

Apologies for absence for unavoidable reasons were received from Dr. F. W. Kidd (Dublin), Dr. E. O. Price (Bangor), and Dr. J. S. Darling (Lurgan).

Regulations of Commissioners.

A Regulations Subcommittee was appointed to consider all matters to be dealt with in the Regulations of the Insurance Commissioners, with the exception of questions of remuneration, which had already been referred to the Remuneration Subcommittee appointed by the Committee at its meeting of March 7th. The following were appointed to the Regulations Subcommittee: Dr. R. M. Beaton, Dr. J. A. Macdonald, Dr. Lauriston Shaw, Mr. E. B. Turner, and Mr. Verrall.

Organization of the Profession.—Public Medical Service.

The Committee again considered Minute 54 and resolved that the concluding paragraph, which is as follows:

> Further, after obtaining the adequate rate, the Representative Body shall insist that before any member of the profession can agree to accept work under a contract appointment free choice of doctor by patient and of patient by doctor must be granted.

should be considered along with Minute 59, which was as follows:

> That the Council be instructed to direct the attention of Divisions to the desirability of preparing a scheme for a Public Medical Service to be administered by the medical profession in each insurance area.

The model rules for a public medical service prepared in 1909 and then sent to the Divisions was referred to an Organization Subcommittee for consideration, and report in connexion with Minute 54 (part) and 59 quoted above. The following members of the Committee were appointed members of this Organization Subcommittee: Dr. John Brown, Dr. R. E. Howell, Dr. Constance Long, Dr. R. A. Lyster, Dr. Pope, Dr. E. O. Price, and Mr. Verrall.

Insurance Defence Fund.

The Committee considered the following minute of the Representative Meeting:

> That the Council be instructed to report to the Divisions as to the best means of acquiring the powers necessary for raising funds, and using them for the purpose of indemnifying members against financial loss owing to the action of the Association.

After a brief discussion the Committee, acting under the advice of Mr. Colquhoun Dill and Mr. Hempson in respect of the Insurance Defence Fund, expressed the opinion that it was not necessary to seek any such fresh powers as the minute suggested.

Joint Action with Other Bodies.

It was reported that conferences had taken place between the Committees appointed by the Royal College of Physicians of London, the Royal College of Surgeons of England, and the Society of Apothecaries of London, and that at a joint meeting on March 5th the representatives of the three bodies had resolved to invite the medical faculties of the Universities of England and Wales to send representatives to a meeting which was to be held on that day (March 21st). The object of the meeting was to safeguard the interests of graduates, licentiates, and fellows and members of the several universities and colleges in so far as they might be affected by the National Insurance Act. The State Sickness Insurance Committee adopted a resolution welcoming the co-operation of these bodies, and declaring its readiness to meet their representatives in conference if and when occasion arose.

Co-option.

On the motion of Dr. Todd, seconded by Dr. Howell, the Committee co-opted Mr. J. Neal (Birmingham), one of those selected by the Association for nomination to the Joint Advisory Committee, to be a member of the State Sickness Insurance Committee.

Medical Notes in Parliament.

[From our Lobby Correspondent.]

National Insurance Act.

Medical Benefit.

Mr. Cassel asked the Secretary to the Treasury if he would state what would be the position of an insured person during the prescribed time within which he had the option of joining an approved society or becoming a Post Office contributor; by whom would his benefits be administered if he felt ill during such period; and from whom would he receive sick pay.

Mr. Masterman said that it was not the present intention of the Commission to prescribe a longer period for this purpose than the minimum waiting period for sickness benefit. The last part of the question did not, therefore, arise.

Mr. Cassel asked the Secretary to the Treasury when a member of an approved society attained the age of 70, and ceased to pay contributions, could the society still be liable to make the same payments or any payments in respect of such member to the Insurance Committee to provide medical benefits; if not, from what source would the doctor and chemist be paid for medical benefit for such member.

Mr. Masterman replied that the payments made by an approved society to an insurance committee for medical benefit would be made on account of all the members of a society, and not of any particular member. They would be paid out of the funds of the society as built up by the contributions made in respect of all the members and the reserves accumulated in respect of them.

Workmen's Medical Funds.

Mr. Richards asked the Chancellor of the Exchequer if he had received an application from the workmen's medical funds of Monmouthshire that a representative acquainted with workmen's medical funds should be appointed upon the Advisory Board of the National Insurance Act Commissioners; and whether he proposed to grant such representation. Mr. Masterman said that the answer to both parts of the question was in the affirmative.

Unemployed Benefits.

Mr. William Thorne asked whether all workmen in insured trades under the National Health Insurance Act, Part II, would receive benefit in circumstances similar to those at present existing, whereby many thousands of workmen are thrown out of employment through lack of fuel and material, as a result of the mining industry dispute, although themselves not in dispute with their employers. Mr. Robertson said that workmen not themselves engaged at a coal mine who were thrown out of work as a consequence of a dispute affecting coal miners in the circumstances mentioned in the question would, generally speaking, not be disqualified for receipt of unemployment benefit under Part II of the National Insurance Act. The decision, however, as to the qualification of any person would rest with the courts of referees or the umpire, and not with the Board of Trade.

Pure Milk Supply.—In reply to Mr. Crumley, the Chief Secretary for Ireland said that the Local Government Board had no reason to believe that the boards of guardians, the controlling authorities of workhouses in Ireland, were not exercising due supervision over their respective milk supplies. In any case the responsibility of inspecting the premises of milk vendors primarily devolved on the various sanitary authorities.

Vaccination and Vaccination Officers.—A short debate arose on Monday at question time between Mr. Peto and Mr. John Burns. The former wanted to know if the Local Government Board would state the dates of communications from Mr. A. T. Emmerson, one of the vaccination officers for the South Shields Union, with regard to his loss of income in consequence of the Vaccination Act and Order, 1907, and what action, if any, had been taken with regard thereto; and whether this officer's total loss now amounted to over £100, and in consequence of such loss he was placed in financial difficulties. Mr. Burns said he had received only one communication from this officer with regard to his loss of income, and this was on September 29th, 1910. He communicated with the guardians, who thereupon increased his fees. According to the figures, the total diminution in Mr. Emmerson's earnings as vaccination officer, as compared with his average earnings in the five years 1903–7, was about £120. Towards this the guardians had awarded him gratuities amounting to £50 7s. 8d. before they increased his fees, and had appointed him to the additional offices of deputy registrar of births and deaths and infant protection visitor. His new scale of fees began to operate in 1911. His income from vaccination fees in that year was about £132. He had no information as to the amount of his receipts from the other offices. Mr. Peto then asked if a gratuity of £50 was adequate compensation for the loss of an income of £120. Mr. Burns replied that the £120 referred to should really be reduced to £103 by the diminution of births. Beyond that, this officer had had the birth fees increased from 3d. to 4d. and the vaccination fees from 9d. to 11d. This gave him an increase of £40 or £50, and in addition he had been appointed to other offices—an excellent way of meeting this grievance—and for this, of course, he would receive extra remuneration. Mr. Peto then asked how many vaccination officers had written that they had applied to their boards of guardians for a gratuity in respect of their past losses in consequence of the Vaccination Act and Order, 1907, and for an increase in the bases of their remuneration with regard to the future, and that such application had been refused: and in how many of such cases the Local Government had, after communicating with the boards of guardians concerned, informed the officer that his case, in the opinion of the Board, was not one in which they could interfere. Mr. Burns said the answer to the first part was fifty-four, and to the last part of the question 6. Mr. Peto also asked for the results of the communications made to boards of guardians after the debate of August last, and Mr. Burns said that he had written to eight boards of guardians as indicated in the question. Two of these boards agreed to pay amounts somewhat less than those suggested, and their proposals had been sanctioned. In other cases correspondence was still proceeding.

The Health Resorts and Watering Places (Scotland) Bill seeks "to empower local authorities in Scotland to impose a rate for advertising health resorts and watering places." It was presented by Mr. Munro Ferguson, supported by Sir George Younger, Sir Henry Dalziel, and Captain Waring, and will be read a second time at an early date.

University of London (New Site).—Sir Philip Magnus asked whether the Government had appointed a trustee or trustees in connexion with the proposal for providing a site in Bloomsbury for the head quarters of the University of London; and whether the Senate of the University had been informed of the proposal and had expressed any opinion thereon. The Prime Minister said that the Government had not appointed a trustee or trustees for the purposes described. A body of trustees was, however, being constituted, one of whom was a member of the Government, to receive gifts offered in connexion with the recommendations of the Fourth Report of the Royal Commission on University Education in London. A generous gift had been made on condition that a particular site was acquired. The question of its suitability was one affecting the future organization of the university, a matter on which the Senate had found itself unable to offer any evidence to the Royal Commission.

Vivisection Commission.—Dr. Chapple asked the Secretary of State for the Home Department if he would give the cost of the Commission on Vivisection; and whether he would consider the advisability in future reports of abstracts of evidence giving the substance only instead of verbatim reports of question and answer being printed, and of the whole being put up in octavo size and book form. Mr. McKenna said that the expenditure had amounted to about £5,674. He feared that mere abstracts of the evidence would not have satisfied the persons and societies who were keenly interested in the subject of vivisection. The question of printing reports was mainly one for the Stationery Office; but he might point out that the number of volumes would be greatly increased if the use of the existing double-columned foolscap page were discontinued.

Insanity (Ireland).—In reply to Mr. Ginnell the Chief Secretary for Ireland stated that the number of persons during the five years 1906–1910 (the latest date for which information was available) in Ireland, certified by medical practitioners as insane, who were released as sane (recovered) within twelve months from District and Auxiliary Asylums was 5,506. The cost to asylums in respect of these persons could not be given, as the record of their cost was not kept distinct from that of the other patients. The Local Government Board had not made a rule that no fee should be paid to the examiner unless he gave a certificate of insanity. The majority of admissions to Irish public asylums were effected under the 10th Section of the Act 30 and 31 Vict., cap. 118. The payment of the fee in such cases was regulated by the 14th Section of the Act 38 and 39 Vict., cap. 67, which left the matter at the discretion of the committing magistrates.

Blackpool Small-pox Hospital.—Mr. Sutton asked the President of the Local Government Board whether he had been asked to sanction the conversion of the small-pox hospital maintained by the borough of Blackpool and the districts of Fylde, Preston, and Garstang, into a sanatorium for tuberculous patients on the ground that it had never once been used since its erection ten years ago; if so, whether he had given the consent requested; and whether the result of the neglect of vaccination, through the Vaccination Acts of 1898 and 1907, had been to make small-pox liability less than had ever before been known in Great Britain. Mr. Burns said that with regard to the first part of the question he had received an application from the joint board who maintained the hospital referred to for an Order to empower them to treat cases of pulmonary tuberculosis at the hospital, and a local inquiry was held in regard to it. The inspector who visited the site of the hospital reported that it was not suitable for the treatment of pulmonary tuberculosis, and he had informed the joint board that he did not propose to make any Order in the matter. With regard to the second part of the question, he preferred to express no opinion.

Vaccination (Ireland).—In reply to Mr. Clancy, the Chief Secretary stated that the use of arm-to-arm lymph was not largely resorted to by certain doctors in Ireland. In the year ended March 31st, 1911, the Poor Law medical officers in Ireland as public vaccinators performed upwards of 80,000 successful vaccinations, for which purpose they requisitioned and procured from the Vaccine Department of the Local Government Board 115,000 tubes of glycerinated calf lymph. As each tube contained sufficient lymph for at least one vaccination, it was obvious that humanized lymph could only have been used in a few odd cases. The Local Government Board distributed gratuitously the requisite supplies of glycerinated calf lymph for public vaccinations, and so far as it was aware no further action was necessary on its part to secure the universal use of this form of lymph in Ireland.

Health of Telephone Operators.—Mr. William Thorne asked the Postmaster-General whether he would state what were the terms of reference given to the medical officers who reported on the conditions of telephone working; and whether the report as published contained the whole of the conclusions submitted to him by the medical committee. Mr. Herbert Samuel replied that the terms of the reference were as follows: "To inquire whether the conditions of working of telephone operators are such as are likely to be prejudicial to the health of the operators; and if, in their opinion, the work as at present carried on is unduly trying to girls and women such as those selected for employment in the service, to report, in consultation with one of the practical officers of the department who would be nominated for the purpose, what remedial measures are practicable and advisable." The report as published contained the whole of the conclusions submitted to him by the medical committee.

Industrial Poisoning Cases.—Mr. Ramsay Macdonald asked for the number of cases of industrial poisoning reported in 1910 to 1912. Mr. McKenna said the cases of industrial poisoning by lead, mercury, arsenic, and anthrax in factories and workshops notified under Section 73 of the Factory Act numbered, in 1910, 573, of which 48 were fatal: in 1911, 755, of which 44 were fatal; in January of this year, 42, of which 7 were fatal. There had been no cases of phosphorus poisoning since 1909. Cases of industrial poisoning from other causes and in other industries were not required to be notified to the Home Office.

Small-pox and Vaccination. Mr. Courthope asked the President of the Local Government Board whether he had received communications from boards of guardians with reference to the danger to the community of an outbreak of small-pox, owing to the increasing tendency of parents to procure exemption from vaccination for their children: and what steps he proposed to take in the matter. Mr. Burns replied that the guardians of the Wirral Union passed a resolution expressing the view indicated in the question, and sent a copy of the resolution to the other boards of guardians in England and Wales. About eighty of the other boards, some 650 in number, had informed him that they had passed a similar resolution. He did not at present think it necessary to take any steps in the matter.

Osborne Naval College. Mr. Burgoyne asked the First Lord of the Admiralty whether it was the intention of his Board to abandon Osborne as a training college, owing to the constant ill health amongst the naval cadets there. Mr. Churchill replied that there was no foundation for the allegation contained in the hon. member's question. Excluding epidemic diseases, the average number on the sick list daily during 1911 was seven, or under 2 per cent. The epidemic diseases were not attributable to the buildings, and the number suffering from these diseases were not greater than was to be expected in boys of that age.

Deaths from Uncertified Causes. Mr. George Greenwood asked the Secretary of State for the Home Department if he would state the number of deaths of which the causes were not certified in England and Wales in each of the five years 1907 to 1911, inclusive. Mr. Burns said that the number of deaths from uncertified causes were as follows:

1907	7,596
1908	7,477
1909	7,021
1910	6,658
1911 (provisional)	6,666

The term "uncertified cause" here signifies a cause of death not certified either by a registered medical practitioner or by a coroner after inquest.

Milk Tests. Mr. Mount asked the President of the Local Government Board whether he was aware that samples of milk for the purpose of testing for tuberculosis had been of late taken from churns arriving in London without first mixing the milk: and whether, in view of the fact that this abstraction of the cream would prejudicially affect the milk if it were afterwards tested for fat, he would give instructions that no samples should be taken in future until the milk was properly mixed. Mr. Burns said that he was advised that the method of taking the samples was such that the percentage of fat in the milk was not likely to be altered to any material extent.

Milk Preservatives.—In reply to Mr. C. Bathurst the President of the Local Government Board said that the draft regulations which he had had prepared proposed to prohibit the use of formalin in cream, but not to prohibit the use of boric acid, borax, or a mixture of those preservative substances, provided that a full declaration of the presence of the preservative and the amount added was made in the manner prescribed by the regulations. The considerations which had been taken into account in framing the draft regulations in question were dealt with in Dr. Hamill's report to the Local Government Board respecting the use of preservatives in cream.

Asylums Officers. Mr. Rowlands asked whether any alteration had taken place in the hours of labour and other conditions of the asylums officers since the Report of the Select Committee of 1911: and, if not, whether it was the intention of the Government to promote legislation to carry out the improvements recommended. Mr. McKenna said that he was informed by the Commissioners in Lunacy that, although in certain asylums there had been some reduction in the hours of duty and some alteration in the other conditions of asylum officers' service, there had been no general alteration in these respects since the Report of the Select Committee. The Government could not undertake to promote legislation on the subject. The bill which was considered and amended by the Select Committee had been reintroduced this session.

Vaccination of Soldiers.—Mr. George Roberts asked the Under Secretary for War if it had been decided that, when soldiers were admitted to hospital suffering from the effects of vaccination, the disability might be considered as sickness caused by military service: and, if so, would he consider the advisability of reducing the extent and expense of liability to disablement by vaccination by conceding to soldiers the right of exemption on the ground of conscientious objection. Colonel Seely said that the reply to the first part of the question was in the affirmative, and to the second part in the negative.

Sleeping Sickness (Nyasaland). In reply to Dr. Chapple, the Secretary of State for the Colonies said that the total number of cases of sleeping sickness recorded in Nyasaland up to the end of 1911 was 57, of which 21 were known to have died. He was not in possession of any statistics to show how many domestic animals had died from trypanosomiasis, and he was not aware that any trade routes had been closed. It should not be assumed that a relaxation of the big game laws was in the interest of humanity and commerce—that was to say, that the presence of the large wild animals, and of those alone, was prejudicial to human life and to trade, presumably by their bringing the tsetse fly with them. It had not been shown that if these animals were to disappear the fly would disappear also; and in any case many animals would remain on which the fly could feed. In the island of Principe, where the fly abounded, there was no big game. The Governor of Nyasaland was in communication with Sir David Bruce, who was at work in his laboratory in the sleeping sickness area in the protectorate, and had been instructed to furnish him definite recommendations as to preventive measures of any kind as soon as Sir D. Bruce was in a position to make them. He should not hesitate to take any steps, however drastic, so soon as their necessity was proved.

Plague in India.—Mr. Chancellor was informed last week by the Under Secretary that the latest return of plague mortality was for the month of January, 1912. The deaths were 49,229, against 91,434 in January, 1911. The areas most affected were in the United Provinces of Agra and Oudh, the Hyderabad State, and the Bombay Presidency. As far as could be judged at present, the disease was less virulent than in the preceding year, but there were still two months before the period of maximum intensity would be reached.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

LEEDS.

THE GENERAL INFIRMARY.

THE twelve months ending December 31st, 1911, which is the period covered by the annual report submitted to a meeting of subscribers held on March 14th, has been a period of strenuous work and of considerable anxiety to those interested in the welfare of the General Infirmary at Leeds. In the first place, it will be remembered that the disastrous fire which occurred towards the end of 1910 put the whole of one block, containing upwards of ninety beds, out of use. It was decided to make extensive structural alterations in this block to render it more accessible, easier to work, and better lighted. The result of this was that for nearly twelve months, and for about nine months of the period covered by the report, the pressure on the remaining beds of the infirmary, always high, was seriously increased. It is true that accommodation was found for a considerable number of beds in small rooms, not originally designed for wards, but "differentiated through force of circumstances" so as to act in that capacity, but it is to be hoped that the infirmary will not again be subjected to such a degree of strain as has been experienced during the year 1911. The alterations in the new block, which have been described in this column already, have proved very satisfactory.

From a study of the tables presented at the annual meeting and printed along with the annual report, it is seen that the total number of in-patients treated within the walls of the infirmary during the year 1911 was 7,524. The total number of admissions was 7,124, which was 370 less than during 1910. The medical patients have increased by 59 and cases of accidents by 108. Of general surgical cases there were admitted 223 fewer than during the previous year. The number of eye cases was less by 251 and of ear cases by 50.

In consequence of the provision of emergency accommodation for beds as described above, but more especially as the result of the margin of unoccupied beds being very small, the average daily number of patients in the infirmary showed a diminution of only 3, being 374, as against 377. The number of deaths was 525: when the number of deaths occurring during the first forty-eight hours is deducted the death-rate works out at 4.8 per cent. The out-patients amounted to 47,865, a decrease of about 3,350: but, on the other hand, the total number of attendances of patients in the out-patient department has increased from 203,958 to 217,034.

In proposing the adoption of the annual report and balance sheet, the Chairman of the meeting, Mr. Charles Lupton, commented on the work of the past year, calling attention to the pressing necessity that existed for an increase in the accommodation at the infirmary. He said that the changes in the infirmary which it was hoped would prove a worthy memorial to the late King Edward might be considered under two heads. There was, in the first place, the reconstruction of the wards, which, indeed, had been going on for some time, and which would have to continue until all the wards had been completely overhauled. This was an expensive but a necessary proceeding, rendered imperative by the fact that the infirmary had been in continual use for more than forty years, and that the views which prevailed at the time the infirmary was opened for the reception of patients had undergone considerable alteration and development during that time. In the second place, there was the demand for extension, and this necessitated the acquiring of land adjoining the present buildings. The sum of £150,000, which had been mentioned as necessary for the carrying out of these ideals, was the smallest amount which would enable the plans to be entered on with any hope of their being carried to a successful conclusion. Of this sum there still remained to be collected about £40,000, and Mr. Lupton again appealed to the public of Leeds and of Yorkshire to come to the assistance to the Board of Management.

The changes in the staff were referred to. Owing to the death of Dr. Trevelyan following so soon on the decision of the board to appoint a third assistant physician, two appointments had to be made within a comparatively short period to the assistant staff. To these positions Dr. Watson and Dr. Veale were appointed in succession. In consequence of the rearrangement of the special departments dealing with the diseases of the eye and ear, a new appointment to the department for the diseases of the ear, nose, and throat had been created, and to this position Dr. Bain had been elected.

In the report comment was made as to the working of the system of lady almoners, which was established in 1910 in conjunction with the public dispensary and the Hospital for Women and Children. By the work of these almoners much assistance and guidance have been given to the patients, and the directions of the surgeons and physicians, more especially of those in charge of out-patients, have been more effectually carried out than formerly. It is also stated that the board have under consideration the establishment of a separate department for massage and for physical exercises. This must involve the provision of extra accommodation, and cannot be undertaken until the proposed extensions are carried out.

MANCHESTER.

THE MANCHESTER SCHOOL FOR MOTHERS.

SOME few weeks ago the Manchester School for Mothers decided to advertise for a medical officer to devote his whole time to the work of the school, but the local Divisions of the British Medical Association considered that the conditions of the appointment were such as might interfere with the work of general practitioners, and a Warning Notice was inserted in the JOURNAL. The Medical Subcommittee of the school, however, had an interview with a deputation from the Joint Committee of the Divisions of Manchester and Salford, and as a result the conditions of the appointment were altered in a way that was considered satisfactory, and the Warning Notice was then discontinued. The work done by the school was well described in the report of the managing committee to the annual meeting of subscribers, which was held in the Lord Mayor's parlour last week. It was stated that four schools had been opened in Ancoats, Hulme, Openshaw, and Collyhurst, at which mothers were provided with meals and received advice on all matters connected with the feeding, care, and clothing of their infants. During 1911 there were 3,238 attendances at lectures, 6,530 dinners were provided, and 8,457 visits were paid at the homes of the mothers by the permanent staff and voluntary workers. The arrangements about any visits by the salaried medical officer who is to be appointed are such as ought to guarantee that there will be no interference with any medical practitioner in attendance, and no inducement to mothers to trust to obtaining free medical attendance from the school in preference to calling in a private medical attendant. It was stated that the school would require about £900 during the coming year in order to carry out the work it proposed, and only about £360 had been promised in subscriptions. About £1 was required to provide for a mother and baby in a year, and before it would be possible to extend the operations by opening out the six other branches proposed a further sum of £1,000 would be needed. Dr. Hutton, the vice-chairman, contrasted the infant mortality-rate of St. Anne's, which was 90, with that of some parts of Manchester, where last year the rate had reached 216. One of the most potent causes of this was poverty and the School for Mothers tried to remedy that to some extent by providing meals for the mothers. There can be no doubt that good work is being done by the school, and its desire to work in full harmony with the medical profession of the district is shown by the fact that it has invited the Joint Committee of the Divisions to nominate a medical representative on its Medical Subcommittee, an offer which has just been accepted.

SCHOOL CLINICS.

A conference on school clinics was held last week in Manchester under the auspices of the Manchester University Settlement, the chair being taken by Mr. W. F. Lane Scott, of the Manchester Education Committee. The chairman said there was no immediate prospect of school clinics being established for Manchester, chiefly

because of the lack of any Government grant for the purpose. He had no information as to whether the children would really benefit by clinics in Manchester, seeing that there were already five hospitals freely open to children where they could get the very best talent for medical and surgical attendance, and he wondered whether that same talent would be at the disposal of any smaller institution like a school clinic. Two papers were then read, one by Dr. Lewis Williams, the medical superintendent of the Bradford Education Committee, and the other by Mr. W. Jones, the borough dentist of Cambridge, describing the work done by clinics at Bradford and Cambridge respectively. A resolution was proposed by Dr. Mumford, seconded by Dr. Vipont Brown, and carried, urging the desirability of providing fuller facilities for caring for the health of children than at present existed in Manchester.

The Manchester Education Committee is responsible for the teaching of nearly 140,000 children, about 80,000 of whom go to municipal schools, 37,000 to Church of England, 20,000 to Roman Catholic, and 3,000 to Jewish Schools. There are over 400 elementary schools, and the total cost is something like half a million sterling a year. The actual teaching in the year 1910 cost about £315,000, and there were over 3,700 men and women teachers, about two-thirds of whom are in the municipal schools and the rest in the non-provided schools. Towards the cost the ratepayers provided £263,000, the annual Government grants were £111,000, while fee grants amounted to £50,000, and grants in aid to £43,000.

LONDON.

SITE AND SENATE HOUSE FOR THE UNIVERSITY OF LONDON.

LORD HALDANE, Chairman of the Royal Commission on University Education in London, and Government representative on the body of trustees to be constituted for receiving gifts in connexion with the recommendations of the fourth report of the Royal Commission, has been informed by Sir Francis Trippel that the trustees of Bedford Estate have offered a reduction of £50,000 in the price of the site north of the British Museum, and that the Duke of Bedford will make a personal contribution of £25,000 towards the acquisition of this site. Sir Francis Trippel holds an option from the Duke of Bedford for the purchase of the site, and has undertaken, acting in an honorary capacity, and bearing all incidental expenses, to raise £1,000,000 for the erection of such new head quarters for London University as will be worthy of the capital of the Empire. It was announced on Monday that a "Friend of London University," who desires to remain unknown, has intimated to Sir Francis Trippel his willingness to give £70,000 towards the purchase of the site. With another gift of £50,000 announced on March 28th the total sum subscribed is now £355,000. At a meeting of the Senate of the University of London on March 20th, the Vice-Chancellor, Sir William Collins, M.D., said that no communications had been received at the university from the Government, the Royal Commission or the Chancellor on the subject of the appointment of trustees to carry out the scheme for the removal of the head quarters of the university to a site to the north of the British Museum. He had written to the Chancellor, Lord Rosebery, stating that the Senate, being the governing and supreme body of the university, had a right, at least, to be consulted before the Government, a Royal Commission (vested only with advisory powers), or even its Chancellor committed the university to the transfer of its quarters to a new site. He had received no reply from the Chancellor, and, in view of the procedure adopted, desired to resign his office as Vice-Chancellor. On the motion of the Chairman of Convocation, seconded by Dr. Waller, the Vice-Chancellor was asked to reconsider his decision, and consented to do so. It appears that on the same date Lord Rosebery had written to Sir William Collins from Edinburgh stating that he was not aware that any site had been definitely fixed for the new University building, and that he supposed that the most that had been done had been to receive offers of money for the site to be offered to the University. Lord Rosebery added that he had been asked by word of mouth to be a trustee for any sums, and he had not hesitated in accepting, as it was evidently for the benefit of the University that money should be collected for it. He recognized that nothing could be done with regard to moving the University without its consent, and as Chancellor he had committed no one to anything, except so far as concerned himself to acting as trustee for certain sums collected for the benefit of the University of London. In another passage in his letter Lord Rosebery said that he did not feel his dignity to be impaired by the fact that he did not receive any special notification of the sums subscribed, though it might have been proper to inform him, and he doubted if it entered any one's head that the University would object to money being collected for it.

NEW INSTITUTE OF PHARMACOLOGY.

The second portion of the Medical Institute at University College, Gower Street, to be devoted to Pharmacology, will, it is hoped, be ready for occupation by the beginning of the October session. The building is to adjoin the eastern wall of the present Institute of Physiology, and is to be about half its size. It will consist of a lecture room and a students' laboratory providing accommodation for 100 students, a number of research rooms, and other conveniences. The whole will be completed by the erection of an Institute of Anatomy on the west side of the Institute of Physiology.

SOUTH WALES AND MONMOUTHSHIRE.

THE COLLIERS' STRIKE.

THERE is probably no part of the country in which the effects of the coal strike are more felt than in the counties of Glamorgan and Monmouth, where practically every one is in some way dependent on the raising of coal for his means of livelihood. The medical profession engaged in colliery practice suffer loss of income while the strike lasts, and when work is resumed arrears of pay are not always made up. Apart from the loss of income, however, there is, in this strike for a minimum wage, another factor which is causing colliery practitioners some uneasiness, namely, what will be the effect on the aged and less efficient workmen? The opinion of many coalowners seems to be that, if a minimum wage is to be paid to every man who goes down a pit, it will be essential that every workman shall be physically fit to earn at least the minimum wage. Many real colliers, as distinct from those who have taken to cutting coal after years of other forms of employment, are still expert workmen at the age of 65. These men have worked underground from boyhood, and can easily earn more than the minimum wage asked for. But there is a large number of men in every pit who at the age of 60 are done up. Many suffer from disease, and many are partially disabled, but are kept on largely for the sake of their former good work. It is thought possible that one result of a statutory minimum wage would be the discharge of old men and others suffering from any physical disability. In that case, since it is not believed possible that an age for retirement could be fixed which would be fair to all, apparently the only means of weeding out the unfit would be a medical inspection of all those employed. In the coal trade this has never yet been done, and consequently men with aneurysms, aortic disease, ruptures, etc., may be engaged by the manager. Under a system of medical examinations most of these diseases would be detected, and many of the men would probably be refused employment. What, then, would happen if medical examinations were to become the rule cannot be foreseen.

ALLEGED SELF-MUTILATION.

A case of considerable medico-legal interest was heard at the Glamorgan Assizes at Cardiff last week. A man who had been a miner sued Mr. D. A. Thomas, ex-M.P., and the *Western Mail*, Limited, for damages for libel. The libel was said to be contained in a paragraph which alleged, as an example of the lengths to which some men would go, that the plaintiff had placed his legs on the Taff Vale Railway in order to obtain insurance money. The case had been twice tried in 1905, and it was stated that the plaintiff had sued the railway company, the jury disagreeing at the first and finding against the plaintiff at the second trial. The plaintiff in the present action for libel denied that the jury had found as alleged in the paragraph above, and the whole case was therefore gone

into again, the result being a verdict for both defendants. The plaintiff alleged that a jolt of the train, as he was placing his umbrella on the rack, threw him against the off door, which was improperly fastened. He fell out and struck against a mineral train on the other line, rebounding into the four-foot way. Two trains came along the rails near which he lay, and the second of them cut off both legs. The evidence for the defence was to the effect that the plaintiff was shown to have been short of money, and yet purchased a second class ticket. The guard was certain that no one occupied the second class carriage out of which he alleged he had been thrown, and no door was open. The man who found plaintiff was given clean handkerchiefs by the plaintiff, who showed him how to put them on. On arrival at Cardiff Infirmary the plaintiff told the surgeon that he wished both legs to be amputated between the ankle and the knee. There were otherwise no scratches or bruises on plaintiff, except a slight one over the left eyebrow. He had told his landlady before starting from home that he had dreamt that he would have his legs cut off. In his possession were several papers with accident coupons filled up. One of the coupons stipulated that to make good certain claims both legs must be amputated between the ankle and the knee. The jury found a verdict for the defendants.

Cardiff Waterworks.

A discussion on the development of Cardiff waterworks will be opened at a provincial sessional meeting of the Royal Sanitary Institute at Cardiff on Friday, April 12th, by Mr. C. H. Priestley, M.Inst.C.E., waterworks engineer to the city. The discussion will commence at 5 p.m. in the City Hall. On the following day a visit will be paid to the Cardiff reservoir in the Taff Fawr Valley, Brecon-shire. Further particulars can be obtained from Dr. E. Walford, M.O.H., Cardiff.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

Dunfermline Doctors and the Friendly Societies.

In view of the fact that the local medical practitioners have resolved to increase the tariff to members of friendly societies, the societies have proposed that two new doctors should be brought to Dunfermline, and representatives of the societies applied to Dr. Knight, Honorary Organizing Secretary of the National Insurance Medical Association, who agreed to secure the services of two doctors whenever required. As there seemed to be an impression that Dr. Knight holds an official appointment under the Government in connexion with the Insurance Act, the Secretary of the Dunfermline Lodge of Oddfellows wrote to Dr. Balfour Graham, Honorary Secretary of the Fifeshire Branch of the British Medical Association, for information on the subject. Dr. Graham communicated with the Secretary of the Scottish Insurance Commission, who replied that Dr. Knight holds no appointment under the Commissioners, and that the association of which he is honorary secretary has no connexion with the Insurance Commissioners. Dr. Balfour Graham also communicated with the Joint Committee of Insurance Commissioners in London, and the secretary of the committee replied in the following telegram: "Dr. Knight has no connexion, official or otherwise, with the Insurance Commissioners."

Bequests by Lord Lister to Edinburgh University.

At a meeting of the senators of the University of Edinburgh held last week it was intimated that the late Lord Lister had bequeathed to the university the Insignia of the Prussian Ordre pour le Mérite and of the English Order of Merit, the medals received since his studentship from the Royal Society and other learned bodies, diplomas, etc., conferred by scientific bodies, and various honorary gifts and distinctions, including the caskets containing the freedom of the Cities of London, Edinburgh, and Glasgow, and of the Merchant Taylors' Company, the trowel presented to him when opening the new nurses' home at Montreal, together with his portrait in oils. The court resolved to record their high appreciation of his lordship's bequest as a testimony of his affection for the university and city in which he began his professional career, and of his having chosen the University of Edinburgh as the depository of these memorials of his fame and of his place in history as one of the great benefactors of mankind.

Glasgow Hospital Sunday Fund.

At the eighteenth annual meeting held last week the secretary and treasurer reported that, though the number of churches and Sabbath schools contributing to the fund was slightly smaller than in the preceding year, the total income—£4,759—showed an increase of a few pounds. Of this sum, £4,550 was set aside for the infirmaries, and, as in previous years, was allocated in proportion to the number of fully occupied beds in each infirmary. The Royal Infirmary, with 618.3 beds, accordingly received £2,015 8s. 8d.; the Western Infirmary (529.55 beds), £1,726 3s. 6d., and the Victoria Infirmary (248 beds), £808 7s. 10d. The ordinary income of each of these hospitals fails to keep pace with their increasing expenditure, and the excess of ordinary expenditure over ordinary income was in the case of the Royal Infirmary, £17,709; the Western Infirmary, £15,594; and the Victoria Infirmary, £6,071. As the Hospital Sunday Fund fluctuates somewhat from year to year, it was suggested that a capital fund be established by legacies and donations. In moving the adoption of the report, the chairman, Sir James Bell, who originated the fund in 1894, pointed out that, in view of the disturbing circumstances attending the introduction of the Insurance Act, the increase in the contributions of the general public was very gratifying. A great deal had been said about the future of hospitals under the Act; but it was certain that, though the Act might vary the incidence of payments, the great general hospitals would still have to bear the brunt of the sickness which was constantly existing in a great community like Glasgow. Money had to be obtained, and an excellent way was through the church plates of the various Christian bodies of the community.

Honorary Degrees at Glasgow.

The University of Glasgow has resolved to confer the degree of LL.D. upon Sir Hector C. Cameron, M.D., Emeritus Professor of Clinical Surgery in the University and formerly Assessor of the Senate on the University Court, and Dr. Donald J. Mackintosh, M.V.O., Medical Superintendent of the Western Infirmary, Glasgow. The degrees will be conferred on June 23rd.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

Irish Census Returns.

In May last a general summary of the new census returns for Ireland was published by the Registrar-General and the Census Commissioners. More specific details for each county are now in course of issue. The first report, which has just been published, includes returns from Wicklow, Cavan, Leitrim, and Clare—that is, one county from each of the four provinces. In all of the four counties there has been a decrease of the population since the census of 1901. In Wicklow the decrease, 113, is very small; in the other three it is considerable—6,368 in Cavan, 5,761 in Leitrim, and 8,102 in Clare. But, in view of the fact that the total decrease in the population during the decade is the smallest on record since the census was instituted, these figures are not so bad as they appear at first sight, and bear out the belief that the decline in population has been checked to a remarkable extent. Only one county, Wicklow, shows an increase in the total number of emigrants for the decade, and here it is little more than 100. In Cavan the decrease is nearly 3,000, in Leitrim the figures have declined by 1,500, and in Clare there were between 4,000 and 5,000 fewer emigrants. In all the counties the number of persons receiving Poor Law relief has diminished during the decade by 300 in Wicklow, nearly 600 in Cavan, while in Leitrim and Clare the number is almost halved.

ANTIVIVISECTION SOCIETY.

The annual meeting of the Irish branch of the National Antivivisection Society was held last week in Dublin. The report for the year stated that £143 3s. 11d. had been collected, and that there were now four divisions of the Irish branch.

The Chairman stated that he could not approve of doing evil that good might come, and since pain was an evil he considered that the inflicting of it, except for curative purposes, was unjustifiable. Dr. Charles Reinhardt said that on the Royal Commission upon Vivisection there was a preponderance of members in favour of vivisection, and that many antivivisectors objected at the outset to the constitution of the Commission. He said that after careful consideration of the recently issued report he had come to the conclusion that on the whole it was much more satisfactory to antivivisectors than was to have been expected. In considering the antivivisection movement, Dr. Reinhardt spoke of the question of affinity between ourselves and the lower animals. It had been found that our bodies were composed of individual cells that were identical with those of the bodies of the lower animals. Each of these cells was capable of a certain amount of rudimentary brain power. It could feel and remember. It could react to an injury, and had the power to avoid a subsequent injury of the same kind. There was then an affinity between us and the lower animals which forbade us to make use of them for some mere speculative gain to man. In the inoculation method there was a fallacy. Health was a positive force. The vivisectionist believed that he was going to find a specific for disease. But his belief was not within the bounds of probability. Disease was the hand of Nature pointing to us some breach of her laws. If a specific were found for a disease, the consequence could not be removed without also removing the cause. Even if a specific could be discovered for that dread disease of cancer, he thought it would be an unmitigated misfortune to the race. Whatever was the cause of cancer, it was disobedience to Nature's law, and if a specific was found which would destroy individual cancer, and the cause of cancer remained unknown, then sooner or later the vigour and health of the whole human race would be undermined and vitiated.

RESEARCH DEFENCE SOCIETY.

A drawing-room meeting, under the auspices of the Ladies' Committee of the Dublin branch of the Research Defence Society, was held last week in Dublin. Professor Campbell Geddes, Professor of Anatomy in the Royal College of Surgeons in Ireland, delivered an address entitled, "Why Experiments on Animals are Necessary," to a large audience.

ROYAL VICTORIA HOSPITAL, BELFAST.

Owing to the retirement of Dr. J. Walton Browne, senior surgeon, owing to the age limit, Professor Sinclair, F.R.C.S.Eng., becomes senior surgeon, and Mr. Robert Campbell, F.R.C.S.Eng., who has been assistant surgeon and surgeon to the out-patients for twelve years, on March 21st was appointed to the vacant full-visiting surgeonship; and Mr. Howard Stevenson, F.R.C.S.I., was appointed to the vacant assistant surgeonship. Mr. Stevenson, who served with distinction as surgical registrar and surgical tutor, and also holds the post of surgeon to the Ulster Hospital for Children and Women, comes well qualified and experienced for the larger sphere. He is heartily welcomed by his new colleagues.

PHYSICIAN TO THE KING IN IRELAND.

The King has been pleased to appoint Sir John William Moore, to be one of the Honorary Physicians-in-Ordinary to his Majesty in Ireland, in room of Sir Francis Richard Cruise, deceased.

DUBLIN HOSPITAL SUNDAY FUND.

The thirty-eighth annual report of the council, which was read at the meeting of the Dublin Hospital Sunday Fund last week, stated that collections were made on November 12th, 1911, in 280 places of worship: ten congregations which had collections in 1910 did not have them in 1911, but on the other hand eight new congregations sent in collections. The amount contributed to the fund in 1911 was £3,454 6s. 9d., being an increase of £113 9s. as compared with 1910. The Hospital Football Match, played on January 13th, 1912, realized the sum of £100 for the benefit of the Fund. The expenses amounted to 6.61 per cent. of the total sum collected. Sir John Moore, in proposing the adoption of the report and statement of accounts, said that he believed the Fund had been of the greatest use to the hospitals, and had led to improvement in every direction as regarded the management of the institutions. Regret was expressed that the Roman Catholics had not seen their way, so far, to advocate this cause in their churches, though three-quarters of those whom the Fund relieved were of their denomination.

IRISH NURSES' ASSOCIATION.

At the annual meeting of the Irish Nurses' Association, held last week in Dublin, the National Insurance Act was discussed, and one of the instructors addressed the meeting. It was decided to hold another meeting early in April to arrange what steps should be taken towards forming a friendly society for nurses. This meeting will probably be held on April 6th.

Special Correspondence.

PARIS.

Intramuscular Injections of Mercury in Puerperal Septicaemia.—Haemolytic Properties of Splenic Extract.—After-effects of Salvarsan on the Auditory Nerve.

M. SOULIGOUX read an interesting paper at a recent meeting of the Paris Surgical Society on the value of intramuscular injections of mercury cyanide in septicaemia, especially puerperal septicaemia. His experience with collargol, electrargol, and other drugs was unsatisfactory, and in preference he employed the following solution with good result: Mercury cyanide 0.01 gram, stovaine 0.01 gram, distilled water 1 c.cm. Seven such injections are given, one each day for a week, and the patient is kept at rest in bed and ice is applied to the abdomen. Should symptoms of mercurial poisoning appear the mercury is stopped and injections of normal saline solution given instead. The number of patients thus treated was 148. Death occurred within forty-eight hours and before treatment could have had effect in 4 cases, and 3 patients died in spite of treatment; the remaining 141 patients recovered.

Considerable attention has been given lately to some research work carried on in various laboratories in Paris on the haemolytic properties of the extract of the spleen. Dr. Chabroll reported experiments from which he drew the conclusion that the fresh extract has special haemolytic properties; but Dr. Charles Foix, on the other hand, finds that fresh extract of dog's spleen is inactive towards the red corpuscles of the dog. After forty-eight hours slight haemolysis was produced when proper precautions were not taken, but this was not a true haemolysis, as it was unaffected by heating at 55° C. and by addition of complement. Moreover, the solution became markedly acid and contained many microbes. Aseptic extracts were then prepared, and with them no haemolysis occurred after three days.

At a recent meeting of the Medical Society of the Hospitals Dr. Milian read a paper on the after-effects of salvarsan on the auditory nerve. He stated that specific affections of the ear were cured in several instances, but that in his observations of 1,200 cases treated with salvarsan 7 cases showed symptoms of deafness, usually unilateral, sometimes accompanied by vertigo and ringing in the ears. This condition came on about twenty-four to thirty-six hours after the injection, and lasted for five or six days. The above phenomena were probably due to toxic causes, but might be merely the result of congestion of the internal and middle ear.

VIENNA.

Medical Statistics in Austria.—Yearly Expenditure of the Board of Health.—A Generous Gift.

THE official record of the number and distribution of doctors in Austria last year has now been issued, and from it we learn that at the end of 1911 there were 13,264 doctors of medicine on the register in this country. In

other words, these figures represent an increase of sixty-two (0.47 per cent.) in the total number of names on the register as compared with the number entered in 1910, whilst the increase in previous years has never been nearly so high. The considerable increase is explained by the fact that during the last six years the number of medical students in Austrian universities has actually doubled itself, and it may safely be predicted that the output of doctors during the next decade will be twice as large as the demand caused by the increase in the population and the gaps made by death in the medical ranks. Last year the proportion of doctors throughout the whole empire was 4.60 for every 10.000 inhabitants; and it may be remarked in passing that whilst there is a dearth of practitioners in the country districts, where their numbers have sunk some 3 per cent., the towns, on the contrary, are overcrowded with medical men. Graz, Lemberg, and Cracow are particularly rich in doctors, whose numbers have increased from 5 per cent. to 9 per cent. during the last year, and Vienna and Prague are in the same condition. In Vienna there are 14.9 qualified doctors for every 10.000 inhabitants, whilst in Prague there are 17. Graz 19.7, Lemberg 19, Cracow 21.6, Innsbruck 24, and Olmütz 27. It is interesting to note a corresponding increase in the number of medical women, of whom there are from 100 to 200 more than in the preceding year, and who now form 7½ per cent. of the total number of registered medical practitioners in this country. There is also an increase of 4.6 per cent. in the number of specialists. The growing popularity of this particular form of practice is proved by the fact that out of the total number of doctors in Austria only 34 per cent. are general practitioners; 28 per cent. are on the staffs of hospitals (as professors, assistants, etc.), and the remaining 38 per cent. are specialists. It is only fair to add, however, that many of the so-called "specialists in the diseases of women and children" (a favourite combination amongst Austrian doctors) do a fair amount of general practice in addition to their specializing, so that the proportion of real specialists is not so alarmingly high as might be supposed from the above figures. Nevertheless, the city of Vienna alone possesses nearly fifty otologists and rhinologists: and specialists abound even in the smaller towns in consequence of the rapid increase in the number of new hospitals which are being erected all over the country.

The expenditure for the preservation of the public health during the coming year has been reckoned by the Ministry of the Interior to amount to 4.200.000 kronen, or about £200,000. There are in all 494 medical officers of health under the Ministry, their distribution depending upon the density of population and the industrial importance of the different districts; and the salaries of these officials alone amount to two million kronen (about £90.000). With regard to the various establishments kept up for the maintenance of the national health, the two institutes for the manufacture of cow's lymph cost 70.000 kronen a year, the serotherapeutic institute costs 186.000 kronen, and the seven institutes for the examination of foodstuffs together require some 350.000 kronen. Moreover, a sum of 1,600.000 kronen (£70,000) is to be devoted to the prevention of infections, pandemics and epidemics, particularly malaria, pellagra, and tuberculosis. This sum is 25 per cent. higher than last year's outlay, as the Ministry is anxious not to be hampered in its work in this direction. The chief point of interest in the eyes of the profession, however, is the constant lack of duly qualified medical men to fill the posts of medical officers of health. This is hardly surprising, as the pay is not very high, and the work is extremely arduous, so that under present conditions even private practice offers better chances. The only possible means of attracting a sufficiency of properly qualified men into the service is to increase the rate of pay, and at present this is a measure to which the Government will not consent.

The constant complaints concerning the lack of hospital beds for children has led to a grant of three million kronen (£150,000) being bestowed upon the Jewish community in Vienna. This handsome legacy is the gift of Herr von Gutmann, who wishes it to be devoted to the building of a hospital for children of all creeds. The proposed establishment is to contain 150 beds, and will be supported partly by Herr von Gutmann's grant and partly by other already existing funds.

Correspondence.

THE PHYSICIAN AND PATHOLOGIST ON HEART FAILURE.

Sir,—There are two very interesting and instructive addresses in your last issue on the above subject by Sir Clifford Allbutt and Dr. W. Russell. In studying the question of heart failure Sir Clifford Allbutt might have left the pathologist out of account and have assumed the rôle of physiologist with advantage. He might thus have got a little closer to the solution of the problem which he has tried to elucidate. It is true that he has referred to the work of Gaskell, Fletcher, and Barcroft; but even now there is admirable work, whether known to Sir Clifford Allbutt or not, going on at Cambridge on somewhat similar lines by George Ralph Mines.[1] This work will help to get rid of those vague and nebulous hypotheses about contraction stimulus to which we have been treated of recent years, and the nature of which has never even been hinted at by those gentlemen who have advanced such views. No doubt a diseased heart will succumb much more readily than a sound one, but it is very fortunate that even a diseased heart will stand a good deal of tinkering.

Sir Clifford Allbutt thinks that sphygmomanometrical observations are of no use in the detection of myocardial disease, but "a test of blood velocity, which is probably always reduced, would be more trustworthy." He does not tell us how the velocity is to be measured, nor whether he refers to the velocity in the arteries, capillaries, or veins. So long ago as 1883 I showed the varying effects of pressure and velocity. In my Toronto address in 1906[2] I showed that capillary and venous velocities could be measured, and how the arterial velocity could be fairly accurately estimated from the fall in the pressure gradient. This involves accurate measurements of the systolic and diastolic pressures. If Dr. Russell be correct in his estimates as to the great pressure which is required to obliterate a thickened or selerosed artery, then due allowance must be made for such resistance in calculating the pressure gradient. In cases of arterio-sclerosis there should be no great difficulty, as Dr. Russell seems to find it easy to overcome hypertonus by the use of erythrol-tetranitrate. In cases of atheroma of the brachial artery, if you use a very wide cuff there surely should be some healthy portions of the artery that would not be bridged over and which would not offer much resistance to pressure.—I am, etc.,

Liverpool, March 25th. James Barr.

Sir,—Many who were present at St. George's Hospital when Sir Clifford Allbutt gave his exhaustive and interesting address on the above subject, which appears in your issue of March 23rd, must have remembered that they were assembled near the spot on which John Hunter, leaving a meeting held in the hospital in some excitement, knowing the injurious influence exercised by such emotion in provoking his attacks of angina, succumbed to heart failure.

Fully as Sir Clifford Allbutt dealt with the question of neural influence in such conditions, in an aside which he uttered and which does not occur in the published address, he remarked, with apparent approval on the part of the meeting, that the question of a neural or muscular origin of cardiac motion was an "academic question," that is, curious rather than important.

I am glad I was not especially called upon by the chairman to join in the debate, fully appreciating as I did the difficulty of saying anything particularly illuminating on the subject which was not more or less of common knowledge. Had I spoken, however, I should respectfully have taken exception to Sir Clifford Allbutt's estimate of the importance of the question of the essential nature of cardiac movement.

The functional unit, I am prepared to admit, is complex, if I may, without apparent contradiction, speak of the complexity of a unit. It consists in that expression of force

[1] The Relation of the Heart-beat to Electrolytes and its Bearing on Comparative Physiology, *Journal of the Marine Biological Association*, October, 1911.

[2] The Circulation Viewed from the Periphery, British Medical Journal, 1906, vol. ii, p. 401.

which results from the combined action of a specific cell and its relation to innervation and blood supply. The effect of discord in this complex unity may be sudden or gradual. John Hunter, still young in mental power but elderly in years, and old as regards the heart itself, with its calcified coronaries and liability to angina under circumstances demanding sudden adaptation to effort or emotion, died suddenly of heart failure. The relation here between the neural demand for organic adaptation and the muscular failure is manifest. The cause of death was the failure of the specific cell to respond to the demand for increased action. It was, in all probability, in this case the pace that killed.

But, without such emotion, demand on the specific cell in excess of adaptability may be equally fatal and as suddenly so. Had Hunter been walking up a hill or lifting a weight in an effort exceeding the adaptability of the cardiac muscle cell to the demand made, the effect would have been the same. Had he been sitting still or lying in bed, and from some variation in blood distribution a momentary demand for adaptation to increased effort had been made upon that perpetual weight-lifter the heart, death might have been equally sudden.

But apparently healthy and younger muscle, as in the runner and swimmer, may fail in adapting itself to demand and the last straw, added by a momentary failure to distribute the weight in the circulation, may close the scene with tragic suddenness, such failure to distribute being due to a breakdown in vasomotor adaptability.

I shall not occupy your valuable space by dwelling upon the depressant influence on the nervous system and the specific cell of toxaemic conditions of blood. The pneumonic, the fevered, the exhausted, and the drugged die poisoned, under circumstances in which demand beyond adaptability is made on the specific cell. But increasing demand may be progressive and gradual, and failure likewise gradual and progressive, when the slowly manifested evidence of such failure in dilatation and stagnation become apparent. The failure of the specific cell—of the instrument—which is only one of the factors in the functional unit, must be due to defect in its nutriment or innervation. The uninnervated functioning of a specific cell, which is sometimes imagined and preached is as unthinkable as the existence of such a cell without blood supply, His's embryonic chick notwithstanding.

Whatever functions be assigned to a specific cell, whether it be the production of a digestive ferment, the excretion of waste, or the contraction of muscle, it is conditioned in the exercise of such function by the state of the other factors in the functional unit.

It is by the recognition of the complexity of this unit, of which the neural element is so important a factor, that I would suggest we are likely to attain to more satisfactory views of the nature and cause of heart failure, to a rational management of the condition when threatened, and to an explanation of some apparent contradictions in the pathological findings.—I am, etc.,

London, W., March 25th. ALEXANDER MORISON, M.D.

SIR,—In your last issue Sir Clifford Allbutt publishes an address on the Physician and Pathologist on Heart Failure. It is indeed a dark picture which he paints, steeped in melancholy tones. Let any reader peruse his article and admit the statements that it contains, and he will lay down this number of the JOURNAL with the sad conviction not only that prognosis in heart affections is impossible, but that any endeavour to disperse the gathered clouds is foredoomed, and that the source of heart failure will remain unknown.

The two chief schools have failed. To the questions of Sir Clifford morbid anatomists return him no answer, and those who employ the timeworn methods of percussion and auscultation are equally silent. "If, then," says Sir Clifford, "the delineations of the heart's dimensions which we obtain by percussion . . . give us no constant or trustworthy criterion, what of auscultation? Well, we are but little better off." But there is a third school of the clinicians who attempt a closer study of the morbid physiology of the *living* heart.

What is heart failure but perverted or submerged function? And how can we ever hope to solve the riddles of Sir Clifford till we are prepared to study, and study on a large scale, the action of the moving organ which one day is to cease beating? I earnestly declare my conviction that the chief problems of heart failure will be solved, nay, are being solved, by this method, and that the time is present, not to recount the failures, but the successes of those graphic investigations which form a part of it.

On the list of failures which Sir Clifford cites are examples which have no right there. Speaking of the morbid anatomist he says, "or if we show him another heart in which, by the poison of rheumatic fever, the tract of Tawara was eaten away, and yet, notwithstanding, there was during life no dissociation of auricle and ventricle. . . ." Did such a case ever occur? If so, I do not know of it. And again, "many cases are published (by Reinecke and others) in which, under what seemed to be complete demolition of the bundle, there was during life no dissociation." I challenge this statement without reserve, and affirm that in no case has discontinuity of the bundle been proved in published reports, where conduction was shown to exist within a reasonable time of death.

Further, Sir Clifford Allbutt speaks of arrhythmias "pertaining to the extrasystolic kind," and cites a group in which they may be harmless, but later he speaks as follows: "The symptom group of every such case must, of course, be sifted carefully, for, on the other hand, in pneumonia or diphtheria a dropped beat may be the first presage of heart failure." True, but the "dropped beat" of acute affections is usually due to a different phenomenon, namely, heart-block, and the recognition of this cannot be accomplished by sifting the symptoms, whereas it is at once accomplished, and with certainty, by graphic methods.

Who cares for the authority of Leyden, Bäumler, or Ebstein, to whom the differentiation of the simplest irregularities was unknown, when they state "that in the pulse we have no guide to myocardial damage"? Indeed, their very statement is now false. Who cares whether in any instance a lesion can be found to account for an irregularity? The irregularity itself is evidence that the cardiac muscle has suffered functional change. It must be fairly analysed, and this analysis can now be made. Heart-block, extrasystoles, auricular fibrillation, pulsus alternans, etc., can be identified with certainty, and their pathological significance will soon be fully known if the analysis is made in all cases of irregularity. It will not be known if Sir Clifford's views prevail and deter such investigation.

I come to a crucial question, one for which Sir Clifford seeks a reply: To what can we ascribe sudden death in a heart patient, in whom recovery has been generally expected? He has no answer which satisfies. The methods of the new school are young, but I venture to predict that if that question is again asked in a few years only, the new school will be ready with its answer. And that answer is contained in Sir Clifford's own writing: "Fibrillation of the ventricle may be one of the modes of sudden death, but it is hardly consistent with survival." Graphic methods have isolated three stages of perverted auricular action—the production of extrasystoles, of paroxysmal tachycardia, and fibrillation; they have isolated the two first stages of the same process in the ventricle, and the third, being incompatible with life, has not been caught; yet precisely those patients in whom the third stage is expected fall dead, when to the old school such death is least anticipated. We know that ventricular fibrillation terminates many experiments in animals; death has so far hidden its demonstration in man, but the danger signs which give warning of its imminence may be seen; closer study, wider study by more workers, is needed to ascertain their exact value.

Sir Clifford Allbutt has done great service to English medicine in the long course of his distinguished career. Disparagement of new methods at this stage of their development may cripple them. The new school requires additional and active members; it asks the sympathy and support, not only of Sir Clifford, but of all leaders of English medicine.—I am, etc.,

Cardiographic Department, University College Hospital, March 24th. THOMAS LEWIS.

LEPROSY IN THE UNITED KINGDOM.

SIR,—In the letter signed by Dr. H. Bayon there are inadvertencies, to which I must ask you to allow me to direct attention. Dr. Bayon is advocating the desirability

of a compulsory registration of lepers in England, and in doing this he attempts to confute the statement which has been made that no instances have been verified during a long period of any cases as originating in England. In order to prove his point he quotes cases, and apparently takes for granted that the expression "England" includes the whole United Kingdom. Now, it is no mere quibble to remind him that this is far from being the case. It is well known—and I have myself mentioned it many a time—that one or more cases of quasi-indigenous origin have occurred in Ireland and in the North of Scotland. It is a fact that it was in these districts that leprosy, as regards the United Kingdom, lingered latest, and it is one of the arguments by which my belief that leprosy is merely a dietetic modification of tuberculosis is supported.

Dr. Bayon mentions cases (exceedingly few) as originating in Ireland and in the Shetland Islands, whilst he gives but one as originating in England itself. The subject of the last case had resided all his life in England, but both his parents, who were also lepers, had lived in Poland, and were supposed to have acquired the disease there. Their son's malady was therefore quite as likely to have been the result of inheritance as of contagion, and there is no hint that the disease spread further. On the whole, then, I think I am entitled to say that Dr. Bayon's cited facts support the conclusion that no proven cases of leprosy have originated in England within recent years.

My assertion as regards sporadic cases of leprosy is that they may originate and may be followed by others of apparent contagion wherever the conditions render likely the consumption of ill-cured fish. These conditions occur wherever fish is remarkably abundant whilst other forms of animal food are scarce or dear, good salt deficient, or the religious usages of the district more or less discourage the employment of other forms of animal food. It is under one or other of these heads that I seek to explain the very rare cases which yet occur in Ireland, in Switzerland, and other places where we still occasionally hear of it.

The fact that in none of these places do these sporadic cases—although, as a rule, for long undiagnosed and unsuspected from the beginning—form the centre of any leprosy epidemic is, I think, an emphatic disproof of the theory of contagion.

We have always plenty of cases in England as well as in the rest of the United Kingdom which might easily prove centres for an outbreak of leprosy, and the fact that they never do so is, I think, an emphatic refutation of the contagion hypothesis and the asserted desirability either of compulsory registration or of the institution of asylums for segregation.

If, as I contend, neither isolation nor registration are necessary, it is not difficult to see that they are unjust, and, in the case of leprosy, cruel. The word "leprosy" carries with it, in the popular imagination, such a frightful amount of exaggeration that it is much to be desired that it should be entirely disused: and the facts, if viewed in a common-sense way, would, I am sure, thoroughly justify this being done. It is unwise to attempt to base important practical conclusions upon facts which are, at best, very few in number and most of them somewhat doubtful.—I am, etc.,

Haslemere, March 23rd. JONATHAN HUTCHINSON.

SIR,—Dr. Bayon has done me the honour to quote from an article of mine on "Leprosy," and to mention a case in which I am interested, which is now under the care of Dr. Woodyatt at the Whitechapel Infirmary. He does not, however, inform you that the two cases alluded to are practically the only ones undoubtedly known during the last forty years in which there is authentic evidence of the disease having manifested itself in a subject who has not spent some time in a country where leprosy is endemic. Any one who has made himself acquainted with the facts concerning the disease in Great Britain and Ireland must be aware that although we have always with us a certain number of lepers—probably, at any one period, not less than fifty—we can find no evidence of any actual spread of the disease. As far as I have been able to discover, all the patients have either been colonists or have spent some time in a leprous country—that is, they have contracted leprosy abroad; and in the large majority of the cases—since their arrival in this country—no precautions whatever have been taken as regards contagion to others. If leprosy were the actively infectious malady that it is in the popular mind—and apparently in the minds of some of our medical officers of health—we should surely meet, occasionally at any rate, with some "indigenous" cases—some instances, in fact, where persons who have never been out of the country, but who may have been associated with an imported leper, have contracted the disease; but as a matter of fact, if we exclude the above two exceptional cases, we can, so far, find no valid evidence of anything of the kind.

I cannot, indeed, agree with Dr. Bayon that "the St. Pancras Borough Council were justified in passing the resolution they did." However advisable and necessary stringent measures, notification, etc., may be in places where leprosy is endemic or where it shows signs of spreading, such measures, in the interest of the public health, are not at present called for in this country. It might certainly be useful to a keen pathologist to know where the cases are, and where material could be obtained for further study, but with reference to the idea that the stray leper in this country is a serious source of danger to others, notification is quite unnecessary. As I have remarked elsewhere:

> When the carriers of such easily communicable diseases as tuberculosis and syphilis are allowed to go freely about and to engage in any or every occupation, it would appear, to say the least, somewhat redundant to unnecessarily penalize the poor sufferers who are afflicted with leprosy. The official stamp of danger which notification would imply would doubtless further enhance the popular fear of its contagion, and render the burden of the unfortunate leper still more hard to bear.

—I am, etc.,

London, W., March 25th. PHIN. S. ABRAHAM.

KALA-AZAR.

SIR,—I see in the JOURNAL of February 17th, on page 386, a small paragraph that Surgeon-General Rannermann, of Madras, has cabled to Sir R. Ross, of Liverpool, of Captain Patton's discovery of the complete development of the parasite of kala-azar in Indian and European bed-bugs. This discovery seems to harmonize with the observations of Wenyon[1] and of Franchini,[2] and is practically the same thing as obtaining developmental forms of the parasite in a haemoglobin-containing medium found in the digestive tract of blood-sucking insects who retain the blood (sucked) for several days. In other words, the culture takes place in a living tube, just as one can show this taking place in a test tube containing haemoglobin solution, even extraneous contamination within certain limits being no bar. The developmental forms of both *Leishmania tropica* and *Leishmania donovani*, as they take place *in vitro*, were demonstrated by me[3] on January 4th at a meeting of the Bombay Branch of the British Medical Association, in their complete cycle—namely, from ⊙ body to flagellate and from the flagellate back to ⊙ body. However interesting the parallelism of development of these parasites, whether in the bug, mosquito, or in glass test tube, may be, the important point in the study of the etiology of the diseases produced by these parasites is whether it is possible transmit the disease in susceptible animals with the aid of the ⊙ bodies obtained from the flagellates. Let us hope this will soon be demonstrated, and the real culprit caught and condemned.—I am, etc.,

Bombay, March 2nd. R. ROW.

PROGNOSIS IN CASES OF CHRONIC ARTHRITIS

SIR,—Many of us will have read with much interest and pleasure the excellent address by Dr. Fred. Gardner on prognosis, published in the JOURNAL of February 10th, and probably most of us would endorse his opinion that "optimism in prognosis is not only our pleasant privilege, but our bounden duty." Will you allow me to emphasize this in one large group of cases, and to put in a word of warning against a wrong form of optimism under certain conditions that I have become familiar with?

As regards the first, is there not in the profession generally too much pessimism in the prognosis given in

[1] Wenyon, *Parasitology*, October, 1911, vol. iv., No. 3.
[2] G. Franchini, *Lancet*, November, 1911; and *Malaria e Mal. di paesi Caldi*, Roma, 1911, ii. 235.
[3] R. Row, paper read before the Bombay Branch of the British Medical Association, January, 1912, and published in this issue of the JOURNAL (p. 717).

that large group of cases at present grouped under the term "rheumatoid arthritis"? It is an almost daily experience during the summer months for me to see a patient with some form of chronic arthritis, and to be told at the very beginning of our interview, "I know that I can't get well, but I don't want to get worse if I can help it." The more doctors these unfortunate people have seen the more hopeless they are, and there must be many thousands of these people who, after making intermittent attempts to get well, have given up even these attempts in despair, and are content to remain more or less crippled and incapacitated for work or pleasure, seeking only relief from one symptom—pain. There is no doubt, I fear, that the hopeless prognosis has come too often from the doctor. If it were arrived at after long and sustained efforts (1) to ascertain the causes of the arthritis and (2) to remove these causes had proved unavailing, one might not seriously quarrel with the pessimism of doctor and patient. But in a large number of cases the hopeless prognosis has been pronounced almost as soon as the patient first consulted the doctor, and only half-hearted and intermittent attempts have been made to get permanent improvement. The bad prognosis, by destroying hope and paralysing sustained effort, has brought about its own fulfilment. The battle is lost because no really vigorous attempt is made to win it. Factors such as local sepsis, especially oral sepsis; morbid conditions of stomach and bowel, imperfect elimination of waste products, faulty habits, defective oxidation due to imperfectly ventilated rooms, faulty environment, etc., are allowed to continue, or only one or other of these factors is removed, and the whole energy of doctor and patient is concentrated on getting relief from pain. No sustained attempt is made to remove the causes of the complaint.

The reason for this is, I am sure, in many cases, hopeless views prevalent with regard to many chronic diseases, and especially regarding the various forms of arthritis. The only chance one has of obtaining a cure is to get the patient to make a sustained effort for a considerable time, correcting all faulty habits, learning new and good ones, and maintaining the latter not for a few weeks, but permanently. How can one induce a patient to do this unless one is hopeful, and able to inspire the patient with hope, and sustain that hope in and through the bad days that are sure to come and to recur again and again? Of course, I am assuming that the doctor is doing his part, and has taken the trouble to go over the case thoroughly so as first to ascertain, and then remove, *all* the factors which have led to the chronic morbid condition. If this is not done a good prognosis is not justified—in fact, it is almost cruel: but if it is done, a hopeful prognosis is surely "a pleasant privilege, and our bounden duty."

Now for the second point. Both at home and in Egypt I have come across a fair number of people with chronic arthritis, or so-called rheumatism, who have been sent away from England and told that if they came to Egypt for the winter they would probably get well. They are told that warm dry air is all they want. In the warm air and sunshine—no doubt absence from work and worry, and the exhilaration of fresh interesting surroundings help—they feel and seem better; especially pain is lessened. They spend some weeks or months here relying simply on the climate, and then return home to find themselves in a month or two not a bit better than they were before leaving England. The good prognosis is cruel in this case because it is unjustified. There can be no doubt that sunlight, sun warmth, and fresh dryish air in the winter months are most desirable for many forms of arthritis; but these alone will not produce a cure, and to send people to Egypt with, say, oral sepsis, bacilluria, chronic intestinal catarrh, and with faulty habits of eating and drinking, and to let them think that without changing their habits and conditions they can be cured by climate only, is cruel to the patient and injurious to the reputation not merely of the individual doctor, but of the profession.

What one says of Egypt applies to other health resorts. Climate, in the vast majority of cases of chronic disease, is only one factor for good, even though it is a large factor, and a patient should not be led by careless language to think otherwise.—I am, etc.,

Helouan, Egypt, Feb. 17th. R. ACKERLEY.

THE STUDY OF CONDUCT.

SIR,—Let me hasten to assure Dr. Newington that I bear him no grudge for intervening in this discussion. Quite the contrary; any one who does me the service of treading on the tail of my coat earns my unfeigned gratitude.

For the rest, I am rather puzzled to know what are now our differences, and on what points Dr. Newington requires enlightenment from me. He quotes from my books certain statements to the effect that conduct is founded on mental states and mental processes, and he asks how, if these statements are true, mental process can be eliminated from the study of conduct. It seems to me easy enough. The running of trains is founded on the expansion of steam, but I see no difficulty in studying the times, the punctuality, the routes, the service of trains, without making any reference to the expansion of steam. The movements of troops depend on reasons that commend themselves to the War Office; but the daily papers have no difficulty in describing the movements of troops without reference to these reasons. To give an illustration more germane to the matter, it may be that the inability of my friends to appreciate the distinction between mind and conduct provokes in me such unseemly hilarity that I am constrained to recover my sobriety by taking the train to Peebles on the first wet Sunday, and there reading the Lamentations of Jeremiah. In order to make this journey I must first come to a decision or determination to do so, and in coming to this decision I am influenced by certain reasons. The reasoning and the determination are mental facts: they pertain to the province of psychology. But making the journey, looking up the time-tables, going to the station, taking my ticket, boarding the train, getting out at my destination—these are facts, not of mind, but of conduct. They belong, not to psychology, but to praxiology. They are determined, no doubt, by mental processes, but they are not themselves mental processes: they are bodily acts; and I see no more difficulty in studying the act apart from the motive that prompts it than I see in studying the cart apart from the horse that draws it.

Dr. Newington objects, if I understand him aright, that it is impossible or useless to study conduct systematically, because conduct is dependent on mind, and if we study mind that is sufficient. We have then to all intents and purposes, studied conduct. My answer to this is that we cannot study the minds of others at all except through the medium of their conduct. No one can see or hear what is passing in the mind of some one else. We can know, or rather we can guess, what is passing in the minds of others by no possible means except by watching what they do and listening to what they say—in other words, by their conduct. The current notion is that we are to judge a person's sanity or insanity by the state of his mind, and it is forgotten that the state of his mind cannot be known or conjectured except from his conduct. I say that we can judge of insanity by conduct alone without going behind conduct to the state of mind that prompts it. I say that there are heaps of disorders of mind that are compatible with sanity, and do, in fact, exist in sane persons—in persons who are adjudged to be sane because, in spite of the disorder of their minds, they exhibit no disorder of conduct. I say that we can, and do, and ought to judge of insanity not by what people think or feel, but by what we see them do and by what we hear them say.

Of course I shall be told, with that delightful inconsequence that distinguishes the alienist physician, that I deny there is any disorder of mind in insanity, or any need on the part of the alienist to study mind or its disorders. To this I reply that I was the first to point out to alienists the importance of studying normal psychology; and I was the first alienist to write a book on psychology specially adapted to the purpose and needs of the alienist. But I maintain that the systematic study of the normal and morbid mind does not relieve us from the duty of studying systematically normal as well as morbid conduct; that the two subjects are distinct and different, as any one may satisfy himself by comparing my book on *Psychology* with my book on *Conduct*; and that, of the two, the study of conduct is the primary, the more immediately and pressingly important, to the student of insanity.

Dr. Newington discovers that the cat is out of the bag; that is, that I hold that insanity is primarily a disorder,

not of mind, but of conduct. The animal has, in fact, been at large and clamouring for recognition for more than twenty years, but my colleagues have only just, it appears, become aware of his existence. They now, at last, "well know that conduct must be studied," but they "did object to the study of conduct as set up by Dr. Mercier." Dr. Newington means, of course, that they objected to the study of conduct as they supposed I was going to set it up; for they never gave me the opportunity of explaining my views. My proposal was not seconded, was not discussed, was not explained. It was damned at a venture. I hope I am not uncharitable, but I cannot help surmising that Dr. Newington's belated conversion to the importance of studying conduct is not altogether unconnected with the facts, that the publication of my book shows that the study is practicable, and that the adoption of the subject by the College of Physicians shows that it is respectable. I surmise that Dr. Newington, when he says he is slightly aggrieved, really means that he is a little ashamed of the obscurantist attitude of the Medico-Psychological Association, and is trying to explain away its opposition. It is odd that for twenty years I have been the voice of one crying in the wilderness, and now it appears that I am preaching to the converted. However, *litera scripta manet*. The doctrine is recorded in my *Sanity and Insanity*, published twenty-two years ago. The refusal of the Education Committee to entertain the doctrine is recorded on its minutes. The syllabus that the Committee adopted remains on record. The debate at the Association remains on record. Them there facts is stubborn things. We may now, I trust, place on record one thing more—that we are all agreed that the systematic study of conduct is both practicable and desirable; and I have no doubt whatever that, in another twenty years or so, we shall all regard it as a truism that insanity is a disorder, primarily, not of mind, but of conduct; and we shall all deny that we ever held any other opinion. I trust Dr. Newington will live to see the day, and I wish him, till then and afterwards, every happiness and good fortune—and a little more readiness to adopt new ideas, even if they emanate from your obedient servant,

London, N.W., March 11th. CHAS. MERCIER.

THE "MEDICAL WHO'S WHO."

SIR,—Our attention has been drawn to a paragraph in your paper referring to the above, in reply to which we have to state that the word "adequate" is used in the sense that no work exists to-day which gives, in our opinion, full and detailed particulars of medical practitioners. It is certainly not our intention to suggest that any of those books published in connexion with the medical profession are not representative in character or do not adequately cover the ground it is intended they should cover.

Your presumption that the *Medical Who's Who* is to contain only a selected list of practitioners is not correct, although we must confess that your impression is helped by the fact that the covering letter sent out with our circulars is so worded as to possibly create this impression.

We are therefore making the necessary alterations to our letter to remove any possible misunderstanding on this point. As a matter of fact we have been and are communicating with all medical practitioners on the *Register*, inviting them to send us the necessary particulars for our work, the invitation being free from conditions of any kind. Where particulars are not sent us we are, of course, unable to accept any responsibility for non-inclusion.

The work has already received very great support, and we are using every endeavour to make it as complete as possible.

In conclusion, let us say that we have entered on this undertaking with a full knowledge and keen appreciation of the necessary etiquette which surrounds the medical profession.

We trust that in fairness to us you will find room for this letter in your next issue.—We are, etc.,

THE LONDON AND COUNTIES PRESS ASSOCIATION, LTD.
(G. H. Cook, Managing Director.)

London, W.C., March 26th.

HYPODERMIC MEDICATION BY NURSES.

SIR,—Your correspondent "G. P." ought to write over his name. His letter, however, should suggest action and not mere notice. Nurses are generally acting the part of unqualified practitioners. The amount of business lost by the profession through them is incalculable. This is the direct outcome of the ridiculous curriculum allowed them. Their heads are turned—and no wonder they should be—with the little knowledge they are fermenting with. I know a Jubilee nurse who does a respectable fraction of the practice of a large district. Would it be possible for the General Medical Council to send down a man to investigate matters on the spot? The other course is too costly.—I am, etc.,

Cashel, Ireland, March 19th. THOMAS LAFFAN.

EXPLOSIONS IN COAL MINES.

SIR,—On page 566 of the issue of March 9th I notice some very interesting suggestions by Dr. Harger for the prevention of explosions in coal mines.

In short, Dr. Harger's method is to reduce the oxygen in the mines below that proportion which will support the combustion of candles and oil, but not below that which will easily support life.

I presume that his experiments have been carried out in the laboratory. But has it occurred to him that coal mines are dark, and the usual illuminant is from oil burnt in the safety lamp? I am not aware that electricity is in general use in coal mines yet, and owing to the danger of sparking at the terminals or switch contacts, I should imagine that electric lamps are not very well suited to those "dangerous" mines where his suggestions would be of incalculable value.—I am, etc.,

Bingham, Notts., March 17th. EDWARD BIGG.

A NATIONAL HEALTH WEEK.

SIR,—Will you grant me a few lines of your space to call the attention of those specially interested in public health to the work which is now being done in connexion with a National Health Week?

The main point underlying the idea is that the time has nearly approached when, if there is to be any further marked advanced in the hygienic condition of the people, the public conscience must be stirred as to the importance of personal hygiene; for example—cleanliness, rational feeding, and matters of this kind. There is not the slightest suggestion that in instituting a Health Week any criticism is to be made of the work done by the recognized sanitary authorities, the whole idea being that what is done will be supplementary to their work.

For a Health Week to be a success it is necessary for all who are interested in matters hygienic to give any aid they can to the project, and it is obvious that in those towns and districts where a Health Week is being observed, great help will be rendered to the movement if the medical profession generally give a strong support to the movement.

The main idea, therefore, of the celebration is to try and arouse an interest in the private individual in matters concerning his own and his family's health, to lead him to understand what infant mortality means and how it can be dealt with; to let him see how necessary it is for private effort to be added to public, in order that the great scourge of consumption may be properly dealt with. This and many other problems now awaiting solution can only be effectively dealt with by the whole-hearted co-operation of the private citizen.

I desire particularly to emphasize the view that we are not forming any new society. We are not clashing with any existing institute or authority. The committee is, in fact, mainly composed of officers of the leading health societies, nominated by those societies as their representatives. Any local Health Week celebrations will be under the control of a local committee, in which it is hoped that all sorts and conditions of people will join.

The first Health Week will begin on Sunday, April 28th. The extent to which it is observed will depend entirely on local conditions. It is hoped that the clergy will lend their aid by dealing with the subject in some way in a sermon on that day, and that other forms of celebration, such as towns meetings, lectures, or exhibitions, will subsequently take place.

As has been pointed out, we have no desire to do anything that may be termed sensational, but desire by steady and continued work to lead the public, not only in 1912, but in future years, to bear in mind what can be done by a united effort, in removing those hindrances to the enjoyment of good health which are still only too evident.—I am, etc.,

A. BOSTOCK HILL,
Chairman of the National Health Week Committee.

14, Temple Street, Birmingham, March 25th.

MOSQUITO DESTRUCTION.

SIR,—A typewriting error occurred in my letter of November 29th, 1911 (BRITISH MEDICAL JOURNAL, January 13th, 1912, p. 106). The strength of potassium cyanide advised by Professor Ross, and used in our observations, was 1 in 300,000, not one in three millions, as inadvertently stated.—I am, etc.,

J. S. C. ELKINGTON.
Commissioner of Public Health.

Brisbane, Feb. 19th.

Obituary.

THEODORE LEIGHTON PENNELL,

M.D.Lond., F.R.C.S.Eng.,

C.M.S. MEDICAL MISSION, BANNU, N.W. FRONTIER, INDIA.

THE Medical Mission Department of the Church Missionary Society has received telegraphic information of the death from septicaemia on March 23rd of Dr. Pennell of Bannu.

T. L. Pennell was a man not easily forgotten by any who had the privilege of coming in contact with him, whether as a student or as a missionary. He was over 6 ft. in height and of striking personal appearance, and his conspicuous abilities marked him out as one who would take the lead wherever his lot might be cast. Dr. Frederick Roberts said of him, writing on January 2nd, 1891, "Mr. T. L. Pennell has been the most distinguished student of his year, and is in every respect a noble character"; and Sir Thomas Barlow, writing at the same time, said, "He has taken a distinguished place in his collegiate course, and, what is of more importance, in the medical degree examination in the University of London he has taken a very good position indeed." The following record of the distinctions which he obtained show that the opinions expressed were more than conventional testimonials. In 1885 he obtained the Medical Entrance Exhibition at University College, London, and in 1889 he secured the Atchison Scholarship, the Bruce Medal, and the Liston Medal. In 1890 he obtained the Atkinson-Morley Scholarship and the M.B. degree with honours, scholarship, and gold medal. In 1891 he took the M.D. degree and obtained the gold medal, and in 1892 he became F.R.C.S.Eng. This examination record in itself betokens no small ability, and when it is realized that all this was attained without any appearance of strain or stress the tribute to his powers is all the greater.

How it came about that Pennell took up the missionary course and afterwards went abroad as a missionary may be told very briefly. His father was a gifted medical man and practised in Brazil, but he died whilst his only son was an infant. The boy's education was therefore in the hands of his mother, who was proficient as a linguist, and who devoted her whole life to the education and encouragement of her son in all his various experiences. The work of a missionary was set before him from boyhood as the highest career which he could undertake, and lives of great missionaries and explorers deepened the missionary enthusiasm which had been implanted by his mother's training. He longed to go abroad with the least possible delay, and it was his mother's prudence which led him to take up the medical course. After his schooldays were over at Eastbourne College he entered University College, London. His career there was one of unbroken successes, as has been already stated, but, in addition to his professional work, he was Secretary of the University College Christian Association, which he represented on the Medical Prayer Union, and also took a prominent part in the University College Working Lads' Institute. In 1892 he went out to India as an honorary medical missionary under the Church Missionary Society, and was at first appointed to the existing Medical Mission at Dera Ismail Khan. In 1893 he was transferred to Bannu, on the North-West Frontier of India, where he had the responsibility of opening up a medical mission.

Bannu has a position of strategic importance when viewed as a means of influencing the "wild tribes of the Afghan Frontier"—a phrase which formed the title of a fascinating volume by Dr. Pennell, to which a preface was written by Lord Roberts, whose interest in the work is a good indication of its importance. It was to influence these tribes that Pennell gave his life, and he became the best friend of a very wide circle drawn from very diverse surroundings. From very small beginnings he developed a splendid hospital work, having in-patient accommodation for 90 patients, with a total number of 1,309 in-patients during 1910 and 67,294 visits of out-patients. He did a considerable amount of operative work, including about 300 operations for cataract in a year, and his wards were often filled with tribesmen who had fought with one another, and who found themselves when wounded occupants of the same ward in a Mission Hospital. Some of his happiest experiences were during visits paid to the surrounding tribes, among whom he was always welcome, and he gained their confidence so largely that he would go where few others would have dared to venture. The Government of India recognized his work and influence by conferring upon him in 1903 the Kaisar-i-Hind medal of the second class, and in 1910 the Kaisar-i-Hind medal of the first class.

His friend, Dr. Arthur Neve, also a Kaisar-i-Hind medallist, recently told the following story of a visit to Dr. Pennell's district. He said:

> I remember bicycling out from Bannu one night, and when I got, perhaps, a little beyond the frontier I came across men with guns and began talking to them. Presently I said, "I come from the hospital." "What hospital?" "Dr. Pennell's hospital." "You must come and stay with us for the night. We will make all your food; we will make you comfortable; of course he is our friend." I have been told by a military man in high position in India that Dr. Pennell is worth a couple of regiments to the British on that frontier any day.

Besides his medical work Pennell was a keen educationalist, and had charge of a large boys' school. He was a strong believer in the value of athletics in the development of character, and the boys of the Bannu High School have obtained a great reputation for athletic prowess. On one occasion Pennell took the school football team for a tour in North India, playing matches with the various mission schools and colleges which they visited. This is a side of mission work which is not often known, but it is worthy of note that some of the most successful educationalists in connexion with missions have recognized the fact that especially amongst the Indian races the proper use of athletics has served to strengthen the moral backbone, which is often conspicuously weak, and has been an important auxiliary to Christian teaching.

Dr. Pennell's mother accompanied him to the mission field, and devoted herself there, as she had previously done at home, to the support of the various works in which her son was engaged. Like him, she desired to identify herself with the country to which she had gone, and largely on her account Dr. Pennell did not return to England until he had been nearly sixteen years in the field. After the death of his mother in 1908 he married Miss Alice M. Sorabji, B.Sc.Bombay, M.B., B.S.Lond., who heartily shared in his medical work, and the building of a special zenana ward had been decided upon only last week in order that the efficiency of this branch of the work might be increased. These notes might fitly close with an extract from an address presented to Dr. Pennell by the citizens of Bannu, Mohammedan and Hindu alike, on his return to England in 1908. It is as follows:

> As a medical man we cannot too highly praise your selfless devotion to our welfare. Without regard to any inconvenience to yourself you have been ready to attend to any call, whether from rich or poor, at all hours of the day and night. The arrangements in the Afghan Mission Hospital for the indoor patients are excellent, and the outdoor patients are treated with no less sympathy and kindness.
>
> In order to be able to freely mix with us you have ever since your coming here adopted the costume of an Afghan. You have been joining our social gatherings, you have been moving amidst us as if you were one of our own kith and kin. Above all we appreciate and cannot too highly admire your efforts in bridging over the gulf that divides the Europeans and the Indians. It is the men of your stamp that are mostly needed.

We cannot sufficiently praise the manifold qualities of your head and heart, but suffice it to say that your purity of character, nobleness of mind, and broadness of sympathies have made a home for you in the heart of every Hindu and Mohammedan, rich or poor, young or old. To see you is to love you, and to know you is a pleasure. We bid you adieu, and pray for you a happy voyage home. We shall be fondly looking for the day when we shall welcome you back in our midst.

His loss might well be spoken of as irreparable, but it is hoped that this story of the influence of one medical man upon a large territory in one of the outposts of the British Dominions may lead other medical practitioners to consider the possibility of entering a service in which the highest gifts may be used to the best advantage.

A telegram received by the Church Missionary Society on March 25th, makes the following appeal: "Publish widely Frontier appeals England fill gaps in fighting line." The Church Missionary Society will be glad to hear from any medical men who, imbued with the spirit of Dr. Pennell, would like to follow in his footsteps.

Mr. DEVEREUX MARSHALL writes: Theodore Leighton Pennell and I entered University College, London, as students in October, 1885. He had previously passed the Preliminary Scientific examination of the University of London, and in October of that year he obtained the highest entrance exhibition. We got to know each other within the first few days, and thus commenced a close friendship which lasted unimpaired until the day of his death. His ability to do well in examinations was marvellous. It was seldom that he ever entered for one without coming out at the head of the list. The number of medals and prizes which he obtained could certainly not be held in memory by even his closest friends. Yet, in spite of this, he was not by any means a plodder who obtained distinction solely through hard work at medical subjects. He always had plenty of time for everything, and I never remember his looking pale and worried by overstudy. Physically he was not particularly strong, but the amount of work he could get through was prodigious; yet it never disturbed him, and he was one of those who appeared able to grasp a subject in detail before most of his contemporaries were able to get hold of the bare outlines. He always found time for work outside that which was strictly professional. He was a keen entomologist and botanist, and from the very first took charge of the destinies of the Students' Christian Association, and made it flourish in his day. When about half-way through his student days, he had an eye on the working lads in the Euston Road district, and, with the aid of a few others, started and worked a boys' club and gymnasium, which for years continued to be a counter attraction to the streets for the lads who joined it. For the management of this he was almost entirely responsible, and that at a time when final examinations were looming very large on the horizon. This did not worry Pennell in the least; he went up for them at the earliest possible time and seldom came away without an exhibition or gold medal to show for it, and finally he obtained the gold medal at the M.D. A year later he became an F.R.C.S.

It was impossible to imagine that he could have anything but a distinguished career no matter where he went, but he at once decided that he should spend his life in the mission field, and offered himself to the Church Missionary Society.

His devotion to his mother was remarkable, and I am quite certain that nothing would have induced him to leave her. The solution of this difficulty was found in their both going together to Afghanistan in 1893. There for fifteen years they worked together without either of them ever coming home. At the end of that time he came home for a short time in the summer, and then underwent an operation for the removal of a loose cartilage in his knee. To his great sorrow his mother died quite suddenly, while he was in England. Shortly afterwards he married in India; he returned again about two years later with his wife (who was an M.B. and B.S.Lond.) on sick leave, he having had a most severe attack of enteric fever. I last saw him in the summer of 1910, when he was convalescent, but he bore the traces of the hard life he had lived. There are others who are better able than I am to describe his work in India, and that I will not attempt, but we knew enough of each other to mutually watch our progress, and many a time have we consulted together by letter on strange cases which we have come across. There are a few men we have all known who have made the world brighter and happier by their lives, examples, and friendship. Pennell was one of those, and his influence for good was fully recognized by the Government of India, by thousands of natives, as well as by his friends in England. The loss of such a man as Pennell is a very serious matter indeed, not only to his intimate friends, but to the world at large.

Dr. S. H. SNELL, of Christchurch, who was a fellow-student of Dr. Pennell's at University College, in the course of a tribute to his memory, writes: In those early days the deeply religious bent of Dr. Pennell's mind was plainly shown, and he formed and took a deep interest in a working boys' club in Tottenham Court Road. A great deal of his spare time and cash were devoted to these objects, while on himself and his clothes he spent little, so that he had the reputation of being a poor man, though this, I understand, was really not the case. In residence as House-Surgeon, etc., in University College Hospital he was very highly respected, though, like all men who are known to be "religious," was subject to a little good-humoured chaff at times. Twenty years passed over our heads. I heard rumours of his magnificent work, saw an occasional letter from his pen, and then appeared his work, more interesting than any novel, *Among the Wild Tribes of the Afghan Frontier*. One day, at a garden party at Guy's Hospital the summer before last, I saw a man, bearded and bronzed and thin, walking with a Parsee lady. We looked and recognized each other. This was Dr. Pennell and his wife, who shared his life's labour with him. A grip of the hand, a ten minutes' eager talk, a promise to meet in a few days, which was accidentally prevented, and now all that is over for ever, and only the memory of pleasant friendship and eager, strenuous student days together remains. That so talented a man, who could have attained to any position in England, should devote his life in such a way is proof of his wonderful faith, and even those of us who cannot share those ideals must reverently admire and respect the unselfish devotion of his life to a great and noble cause.

Dr. WILLIAM HENRY BARNETT, who, like Dr. Pennell, died of septicaemia at Bannu on March 20th, at the age of 32, was in his first period of service in the mission field, where he was the colleague of Dr. Pennell. As a student at St. Bartholomew's Hospital he had a successful career, and made many friends, and at the end of his course he graduated M.B., B.S.Lond. in 1905. He served two appointments before going abroad, first as House-Surgeon at the Macclesfield General Infirmary, and later as House-Physician at the Radcliffe Infirmary, Oxford. He had already done useful work in Bannu, and he will be greatly missed. He married on September 26th, 1910, Miss P. L. Hockin.

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

The following degrees have been conferred:

M.B.—A. H. Richardson, C. A. Dottridge, R. M. Miller.
B.C.—A. H. Richardson, C. A. Dottridge.

UNIVERSITY OF LONDON.

LONDON (ROYAL FREE HOSPITAL) SCHOOL OF MEDICINE FOR WOMEN.

THE Council has received the sum of £1,500 from an anonymous donor to clear off the debt upon the building.

The Council also received from Mr. H. M. Phipson the sum of £100 to endow a prize in pharmacology in memory, and to bear the name, of the late Dr. Edith Pechey Phipson.

The Gilchrist Studentship for Women of £100 has been awarded by the University of London to Miss Cicely M. Peake, M.B., B.S.Lond., a former student of the school.

The St. Dunstan's Medical Exhibition, value £60 per annum for three or five years, and the School Scholarship, value £30, will be awarded on the result of an examination to be held on May 28th and following days. Forms of entry must be sent to the Secretary of the School, from whom all particulars can be obtained, before May 20th.

UNIVERSITY OF LIVERPOOL.

THE following candidates have been approved at the examinations indicated:

SECOND M.B., CH.B.—*Part I:* H. G. Bywater, B. J. Doyle, J. L. K. Pearson, R. Rimmer. *Part II:* G. D. Harding, B. Williams.

FINAL.—*Part I:* Maud E. Bateman, F. A. Belam, R. W. Greenall, A. V. Glendinning, E. B. Marsh, A. C. Mooney, H. S. Pemberton. *Part II:* D. H. Clarke, Kate M. Cowe. *Part III:* Ethel M. Baker, R. C. Crooke, A. A. Dear, I. C. Edwards, T. B. Evans, N. P. Laing, J. Loudon, G. W. Mooney, H. Pearce, H. G. Roberts, J. A. Tobin.

* Second-class honours.

UNIVERSITY OF BIRMINGHAM.

THE following candidates have been approved at the examinations indicated:

D.P.H.—*Part I:* R. W. Briggs. *Part II:* E. J. Boome.

UNIVERSITY OF DURHAM.

THE following candidates have been approved at the examinations indicated:

FIRST M.B.—*Elementary Anatomy and Biology, Chemistry and Physics:* R. V. Brew, W. J. H. Brown, A. Cudlip, C. W. Morris, H. A. Newton, A. E. Boone. *Elementary Anatomy and Biology:* J. Brunswell, Dorothy Butcher, Mary E. Campbell, J. A. Charles, G. A. Clark, R. N. Craig, D. L. Hearn, W. A. Hewitson, J. Hopsley, R. Hunter, J. K. R. Lendelis, Phyllis Marriott, C. D. Newman, G. F. Pattin, K. I. Shalaby, T. W. Shaw, W. O. F. Sinclair, J. T. Smith, I. Soliman. *Chemistry and Physics:* H. G. B. Dove, L. B. Frere, C. N. Joseph, E. E. D. Lee, R. B. Pirie, J. D. Proud, W. A. Tweedie. *Elementary Anatomy:* H. Williamson, R. Welch.

SECOND M.B.—*Anatomy and Physiology:* W. Stott, C. H. Keay, W. Herbertson, P. A. Clements, A. J. R. Dove, Mary S. Gordon, L. Masse, G. D. Newton, R. Sells, C. G. Strachan, A. G. Taylor.

Second-class honours.

Medico-Legal.

CONTRACTS WITH LOCUMTENENTS.

WITH reference to the case briefly recorded, under the heading of "Contract with Locumtenents," at page 650 of our issue for March 16th, the defendant's solicitor and one of the medical agents who gave evidence on behalf of the defendant have both been good enough to supply further information. The case, however, was only of interest so far as it illustrated the working of general principles, so we merely note that whereas the medical agent seems to have regarded himself as testifying to what is the established custom in respect to giving notice to locumtenents, the solicitor regarded him as giving evidence on the specific point of what notice is required when a locumtenent is unable to perform his work through physical incapacity. It was on the latter point that the case eventually turned, the judge holding that a locumtenent engaged for a definite period contracts to perform certain duties day by day, and that if he is unable to perform those duties his engagement *ipso facto* terminates, even when the cause of the inability is illness or injury. On the question of what notice is due to, or by, a locumtenent who is not engaged for a definite period, and who has signed no contract by which the point is covered, the case, as we before indicated, establishes no precedent.

Public Health

FEES FOR CERTIFICATION OF PAUPER LUNATICS FOR ASYLUMS.

J. K.—Our correspondent has not stated his case quite clearly, but we may say that we have not before heard of a magistrate naming such a fee as 5s. as a proper fee for the serious and responsible duty of certifying a lunatic as fit to be removed to an asylum. We believe that the usual fee is a guinea. As our correspondent has certified numerous cases without any definite understanding as to what he might expect to be paid, his only redress would seem to be to appeal to quarter sessions under Section 301 of the Lunacy Act, which is as follows:

> 301. "(1) Any person aggrieved by the refusal of an order by any justice or justices or by any matter within the jurisdiction of a justice or justices under this Part of this Act, may appeal to a court of quarter sessions upon giving to the justice or justices against whom the appeal is made fourteen clear days' notice of appeal.
>
> (2) The determination of the court upon the appeal shall be final.

PUBLIC HEALTH ADMINISTRATION.

SCOTTISH MEDICAL OFFICER.—(1) The provisions of the Public Health Act must be carried out by the local authorities, however irksome they may appear to our correspondent. (2) The cases referred to being, in the opinion of the district medical officer of health and in that of the medical officer of health for the county, typhoid fever, our correspondent should have attended. His diagnosis of cerebro-spinal meningitis may have been open to doubt; the fact of the Widal test being negative does not amount to proof that the disease was not typhoid. (3) As cerebro-spinal meningitis is not listed as a notifiable disease under the Act, our correspondent is not entitled to a fee for notifying this disease. (4) If the district medical officer of health is willing to provide and pay for a nurse to attend these cases, surely our correspondent would not object to having the services of a nurse.

Medical News.

DR. CARL POSNER, editor of the *Berliner Klinische Wochenschrift*, and a well-known specialist in genito-urinary diseases, has had conferred upon him the title of Medical Privy Councillor.

AT a meeting of the Royal Sanitary Institute, at 90, Buckingham Palace Road, on Wednesday, April 24th, Dr. F. W. Mott, F.R.S., will deliver a lecture on Sanity and Insanity. The President, the Duke of Northumberland, will take the chair at 5.30 p.m.

THE report adopted at the annual meeting of the Royal Dental Hospital of London on March 14th recorded the admission of the institution to the position of a school of the University of London, its recognition for the teaching of chemistry and physics by the Conjoint Board, and the success of the public lectures at the hospital on the care of the teeth instituted last year.

THE report of the 139th anniversary meeting of Leicester Infirmary on March 20th includes a record of the adoption of a resolution recording the gratitude of the governors to Dr. F. M. Pope for the eminent services rendered by him to the institution and the children's hospital in respect both of administration and of attendance on patients. The resolution also asked his acceptance of the post of consulting physician, and expressed a hope that he would continue to take a prominent part in the guidance of the affairs of the joint institutions. Dr. Pope is about to resign his appointment on the active staff after a period of service extending over twenty-six years.

AT the annual meeting of the Chelsea Hospital for Women on March 25th, the President, Viscount Castlereagh, stated that the rebuilding scheme would now be put into operation. It includes transfer of the institution to a new site not far off, where there will be room for more beds, and for proper accommodation of the nursing staff, and freedom from noise. The new site has been presented to the hospital by Earl Cadogan, while Mr. Dyer Edwards has foregone a mortgage of £4,000 on the present site, so as to allow it to be sold free of incumbrances. The trustees of the Zunz bequest have promised a grant of £10,000 towards the expenses. These it is estimated will amount to about £43,000.

THE fifteenth annual dinner of the Chelsea Clinical society was held at the Richelieu Hotel, Oxford Street, W., on March 20th, the President, Dr. J. A. Mansell-Moullin, in the chair. The visitors included Professor Einthoven, of Leyden; Dr. A. Waller, F.R.S., Professor of Physiology at the London University; the Mayor of Chelsea, and others. The President, in proposing the toast of "The Chelsea Clinical Society," mentioned that during the year there had been a large accession of membership. The difficulty of securing a place in which to hold meetings had been overcome, thanks to the courtesy of the authorities of St. George's Hospital, who had placed the club rooms at the disposal of the society. He wished to take the opportunity of thanking the medical staff for this privilege and for providing them with clinical cases and placing the laboratories at their disposal. Dr. Theo. B. Hyslop responded in a humorous speech, and commented on the progress the society had made. Discussions of the greatest value were held from time to time, and the attendances had shown a considerable increase. Dr. T. W. Parkinson, who submitted the toast of "Our Guests," referred to Dr. Waller as the father of electro-cardiography, and complimented Professor Einthoven on having brought about its practical application. It was a great pleasure to have visitors from abroad: in medicine they acknowledged no nationality. Professor Einthoven gracefully responded: and Dr. Waller, who was also called upon, remarked that though he had been called the father of electro-cardiology, he felt like a child by the side of Professor Einthoven. He (Dr. Waller) had not dreamed of the instrument being more than a scientific curiosity, or that it would be placed in the hands of doctors in the way it had been. It had been shown, however, that there was a magnificent future before the instrument as a means of clinical investigation. The Mayor of Chelsea and Dr. E. I. Spriggs, on behalf of the Dean of the Faculty of St. George's Hospital, also replied. The toast of "The President and Officers of the Society" was proposed by Dr. Campbell Boyd and acknowledged by the Chairman, by Dr. Allpress Simmons, and by Dr. Ivan Maclean.

Letters, Notes, and Answers.

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CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, London, W.C.: those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Office, 429, Strand, London, W.C.

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2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

INGLESE, who speaks Italian, wishes to hear of an *albergo* in Rome with restaurant where pension can be obtained for 6 lire a day.

G. B. desires information regarding the styptic properties of the giant puff-ball (*Lycoperdon giganteum*). Beyond what he has got from Whitla's *Pharmacy* and an account of experiments made with it on horses in 1755, he has gleaned little.

HAIR DYE, who has used a bismuth soluble salt and sod. sulphide applied in two separate solutions, as described in the BRITISH MEDICAL JOURNAL, finds the dyeing power feeble, and asks for suggestions for something more positive.

BUDE asks if any member of the Association could personally recommend a good pension or villa at a quiet little place in the South Malo or Dinard district, quite close to the sea, where safe bathing is obtainable. He also inquires whether such a holiday could be got at an expenditure of about 7 or 8 francs a head in July or August.

THE MIMICRY OF PHTHISIS BY HYSTERIA.

DR. EDWIN ASH (London, W.) writes: I am much interested in a certain case commented upon by Dr. March and Dr. Hitchcock under the above heading in your issue of March 9th, as I have been investigating the circumstances thereof. As this case is partly interesting from the point of view of diagnosis, I should be very much obliged if either of those gentlemen or any other medical practitioner who had any opportunity of observing the girl in question during the course of her long illness, would inform me, either directly or through your columns, as to any physical signs or symptoms of hysteria which they may have observed, and upon which they may have based such an opinion.

INCOME TAX.

R. has claimed as a deduction in arriving at his profits for income-tax purposes the sum paid to a locumtenent for his services. The surveyor refuses to allow this deduction, referring our correspondent to the case of Lothian *v.* Macrae.

*** The cost of a locumtenent should be allowed as an expense of the practice on precisely the same ground as in the case of the cost of an assistant. The case of Lothian *v.* Macrae is not in point. The subject of assessment there was the income derived from an ecclesiastical appointment, and the decision was that voluntary contributions made from the stipend to a second person in order to obtain relief from performance of the duties did not constitute a deduction for income-tax purposes, inasmuch as the holder of the office could recoup himself by deducting income tax from the portion of the stipend handed over. Professional profits are on an entirely different footing, and charged under a different schedule of the Income Tax. There is no question of a "voluntary payment" in the case of a locumtenent; the expense is an ordinary expense necessary to the earning of the profits of the practice, and should be allowed.

DISPENSARY KEYS.

MR. W. B. FITCH.—(1) As far as we are aware, it is not customary for the matron of a hospital to be habitually in possession of a key of the dispensary door or to place one in her charge, except during such time as may be necessary either for sweeping the dispensary or for lighting the dispensary fire. (2) We should not advise the introduction of any such custom, because if it existed it would be impossible to fix on the dispenser the responsibility for the control of dispensary stores, and, in the event of the accidental or other misuse of drugs, the question of determining who was to blame would be complicated. (3) If the dispenser is not a resident officer, the best plan is to place in the house officer's room a small supply of every drug likely to be required in an emergency, the key being in charge of the house officer on duty. (4) The only drugs kept in wards, cupboards, or in charge of any member of the nursing staff should be such aperients and other common remedies as the nurses may possibly be authorized by the medical staff to use without specific instructions.

ANSWERS.

MEDICUS ACROSS THE SEA writes: "G. W. K. C." may be interested to hear that in the country from which I write, which has always been famous for its wines, there has been from time immemorial a widespread belief amongst wine makers and those in charge of wine cellars that women must on no account be admitted when menstruating, as the wine would be sure to turn. This belief is so firmly rooted that as a matter of course no women are allowed into cellars where barrels of wine are kept.

FLATULENCE.

DR. H. J. THORP (Ipswich) writes: In reply to "X." for treatment of flatulence: Ammon. bromid. grains x, tinct. sumbul ʒ ss, tinct. lupuli ʒ ss, aq. camph. ʒ j, to be taken at 12 and 6 p.m. Change of environment if possible.

LOCOMOTOR ATAXIA.

M. B. O.—Dr. J. A. Ormerod in his article on tabes dorsalis in Allbutt and Rolleston's *System of Medicine* has the following observation:

> Another great factor in the etiology is *sex*. Men suffer in a far larger proportion than women. The reason of this we do not know, nor how to reconcile it with a purely syphilitic etiology. As to age, the disease commonly manifests itself first in the fourth or fifth decade of life, though there may be exception to this, and a close inquiry into early symptoms may carry its origin farther back than was suspected. But probably the date of onset depends upon the age at which syphilis has been acquired rather than upon the actual age of the patient. The average interval between the infection with syphilis and the outbreak of tabes is given by Dr. Ferrier as seven to ten years, by Dr. Mott as eight to fifteen years; but, doubtless, it may exceed or fall short of these limits.

There does not seem to be any evidence that the mode in which syphilis is contracted has any influence on the subsequent occurrence of locomotor ataxia.

LETTERS, NOTES, ETC.

A WARNING.

S. C., who resides in a suburb of London, writes to suggest that any medical practitioner who may be called upon by a man some 30 or 35 years of age, tall, fair, and well built, offering his services as a masseur or chiropodist and manicurist, should be on his guard to ensure that the services offered will be in fact rendered.

THE NEW CELL PROLIFERANT.

MR. BERNHARD SMITH, L.M.S.S.A. (author of *Poisonous Plants of all Countries*) (London) writes: Anent the correspondence on the common comfrey (*Symphytum officinale*), I should like to say that I have come across the following lines in the poems of Beaumont and Fletcher:

> I must have this bleeding staid.
> From my banks I pluck this flow'r
> With holy hands, whose virtuous pow'r
> Is at once to heal and draw.

One other species of the genus *Boraginaceae* known to have active properties is our common hound's tongue (*Cynoglossum officinale*), which contains an irritant oil.

HUMPHREY PAINTER, SERGEANT-SURGEON TO CHARLES II.

DR. S. D. CLIPPINGDALE (London, W.) writes: All accounts of Painter are silent as to the time and place of his death. It may therefore be useful to record the following entry taken from the burial register of St. Mary Abbott's, Kensington: "1672, February 17. Humphrey Painter, esquire, ye King's Sergeant-Chirurgian."

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Eight lines and under	0	4	0
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A Lecture

ON

THE ACTION OF TUBERCULIN AND ITS APPLICATION TO THE TREATMENT OF DIFFERENT FORMS OF TUBERCULOSIS.

Delivered at the Medical Graduates' College and Polyclinic.

BY

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PHYSICIAN, EAST LONDON HOSPITAL FOR CHILDREN, SHADWELL; PHYSICIAN TO OUT-PATIENTS, CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, VICTORIA PARK.

The ability to use a drug with success presupposes some knowledge of its action and of how this action is likely to influence the diseased tissues to which it is applied. This would seem a needless remark, and as an abstract proposition it would elicit the agreement of every one: and yet it is a fact that tuberculin is being administered by many at the present time with little or no knowledge of its action, and with still less clear aim in their application of it to the needs of the diseased tissues. Such an empirical use is not justified in the case of tuberculin, for, though our knowledge of its action is still imperfect, it is yet ample to supply us with a rational working basis. It is my object in this lecture to put before you, in outline at least, the main facts of its action, and how this action may be rationally applied in the treatment of different varieties of tuberculous disease.

Action of Tuberculin.

One of the first points to grasp in the action of tubercle products is that they are quite innocuous to the non-tuberculous. Hamburger injected 1 c.cm. of Old Tuberculin into a healthy boy without any effects other than those due to the glycerine content, and Schreiber tested 40 newborn infants with doses up to $\frac{1}{10}$ c.cm. without result. Among adults living under modern conditions it is difficult to find individuals who have never been infected with tubercle. The ubiquity of tuberculous infection has only been thoroughly realized of late years, and when Koch suffered a very severe and even dangerous reaction from the injection of 0.25 c.cm. Old Tuberculin into himself, he regarded himself in the light of a heal by control. We now know that such sensitiveness to tuberculin was due to a former infection with the tubercle bacillus, and that nearly all adults show a similar susceptibility to large doses.

Tuberculous Sensitiveness.

This brings us to our second point, the corollary of our first—namely, that tuberculous sensitiveness must be present before tuberculin can act, and also that this is only brought about by infection, recent or remote, with the tubercle bacillus. The exact change in the tissues which enables them to "activate" tuberculin we do not yet understand, and it would be unprofitable to discuss the subject here; but reference must be made to the striking likeness of tuberculous sensitiveness to anaphylaxis, which is a closely analogous, though probably not identical, phenomenon, and the fact that lytic action is held by many to afford a plausible explanation of both facts. One of the main points in which they differ is that anaphylaxis is set up by the injection of dead albumen, but tuberculous sensitiveness as we know it has only been produced, hitherto, by the growth of living tubercle bacilli in the body.

Tuberculin Reaction and Negative Phase.

Given tuberculous sensitiveness, tuberculin becomes a powerful drug, and we will consider at once the common results of a full therapeutic dose. Some hours after the injection a train of symptoms appear known as the "tuberculin reaction." These may be "local," at the point of injection; "general," mainly affecting the nervous system; and "focal," at the site of disease. Any one or more of these effects may be present. The local reaction is sometimes useful as a guide to dosage, and there its utility stops: the general reaction is altogether a disadvantage, save as a warning against overdosage; the focal reaction claims closer attention. Where a disease like phthisis is under treatment, slight focal changes are necessarily hidden, and a most an increase of sputum draws some attention to them. If, however, a visible lesion is under treatment, as in disease of the larynx, eye, or skin, it is found that slight focal reaction—that is, an active hyperaemia of the focus of disease—is the constant result of an effective dose of tuberculin.

Still another phenomenon must be mentioned together with the tuberculin "reaction," and that is the fluctuation of the opsonic power of the blood known as a "negative phase," for these run side by side. The determination of opsonic power is a convenient measure of antibody content in general, for it is probable that other antibodies are also concerned, and that these follow the opsonins in their fluctuation.

Tolerance and Positive Phase.

Following the tuberculin reaction and negative phase, after these have run their course, a very distinct rebound to conditions of increased health is generally observable. The patient experiences a feeling of heightened well-being, appetite increases, and weight is gained. In the foci of disease secretion diminishes and healing often proceeds apace: in lung disease the sputum may diminish. Corresponding to this improved clinical picture, two points present themselves to special methods of investigation. First, the patient becomes for a week or two "refractive" or tolerant to tuberculin—that is, it will need an increased dose to cause as large an effect as the first dose produced: secondly, there is an increase in the opsonic power of the blood, and probably in the content of other antibodies also, so that we have at this stage what is spoken of as the "positive phase" of immunization.

Now I think we have collected shortly enough material to supply us with some discussion on the action of tuberculin, and we will turn for a moment to the disease which we desire to influence.

Localized Tuberculosis.

If we consider, first of all, a case of localized tuberculosis we find that we know, among others, the following facts: First, the opsonic content of the blood is below normal: secondly, the opsonic content, and therewith probably the presence of other antibodies, is especially low in the focus of disease: thirdly, the striking point about this focus is its very deficient blood supply. Localized tuberculous areas are but poorly vascularized, and on this account both disease and repair when left to themselves are extremely slow. The tubercle bacillus is walled in from the protective substances in the blood: bacillary substances filter through but slowly to stimulate the production of antibodies: food for nutrition of the cells in the neighbourhood is kept constantly scarce. Now, we may consider how an efficient dose of tuberculin will influence the course of localized tuberculosis.

Effect of Tuberculin.

First, the immediate effect of a dose of tuberculin possesses an element, the focal reaction, which is of infinite value in the treatment of localized disease. The main difficulty is at once overcome; blood, carrying antibodies and nutriment, is brought to the area of disease. This becomes obviously more vascular, and the plasma passing through it is increased.

Secondly, in the period following the reaction there is a general increase of antibodies in the blood shown in the "positive phase" of opsonic power, so that at the next injection more highly protective blood will flood the focus of disease. The result of the focal hyperaemia and the increase of antibodies shows itself in a marked healing tendency observable in visible tuberculous areas in the second week after an injection.

Practical Application.

We may now consider the administration of tuberculin in cases of localized tuberculosis from the point of view of practice. It is obvious from what has gone before that the following aims must be put before us:

1. To irrigate the diseased area by the production of a mild but prolonged focal reaction.

2. To keep the opsonic power of the blood at a high level for as long a period as possible.

The Dose.—These aims are generally served by the administration of an insoluble preparation of tuberculin in as large a dose as the "general symptoms" of the tuberculin reaction permit. The preparations of tuberculin most slowly absorbed are the endoplasm preparations, T.R. and B.E. and their congeners, and T.R. is probably the best for this purpose. The "general symptoms" must be kept within strict limits of time and scope, or weight is lost and general well-being declines. Generally a few days of slight malaise are all that are wisely permitted, but need for limitation of dosage may come from the side of local considerations, for if caseous material is present a marked focal reaction will cause this to soften, and the desirability or otherwise of this has to be decided in each particular case.

The Interval.—The other main practical point for consideration in the tuberculin treatment of localized tuberculosis is the interval between the doses, and this is governed by two factors. First, we desire to give the positive phase of antibody formation full scope, and experience teaches us that two or three weeks covers this period. Secondly, we have got to wait for the passing off of the "refractive period" to tuberculin which, as we have already mentioned, follows each effective dose. The means of measuring this I shall not enter into here, but it is found that it corresponds very closely in duration with that of the opsonic immunizing response. In all cases the interval must vary with the dosage. If a highly efficient dosage is employed the interval may be about three weeks; if a subefficient dose is for some reason used the interval may be shorter, perhaps ten days. A too short interval can always be shown by inequality in the effect of the dosage—a dose falling within the refractive period will be inefficient, and will consequently be followed by a shortened refractive period, so that the next dose will fall outside this, and will have a greater effect. Thus large and small effects will alternate.

Having found the suitable dose and gauged the suitable interval, in a straightforward case of localized tuberculosis little more is needed for success than to keep the ball rolling till healing occurs. It will be found when progress is made that sensitiveness becomes less as the area of disease diminishes, and so the dose may need to be raised from time to time to keep it effective.

AUTOTOXIC TUBERCULOSIS.

When the treatment of such a disease as phthisis comes to be considered, it is obvious that we have a very different state of things to those present in localized tuberculosis. Our aims are similar—namely, the production of a good supply of antibodies and the improved blood supply of diseased areas brought about by mild focal reactions. If, however, we try to fulfil these aims in a manner similar to that which is successful in localized tuberculosis, we soon meet with failure. In the first place, the small dose which is efficient in a case of localized disease is obviously futile in a patient whose tissues are already flooded with autotuberculin. In the second place, the presence of this autotuberculin may and does greatly change the response of the patient's tissues to tuberculin, so that the size of an effective dose differs enormously in various patients and in the same patient at different times. On the one hand there may be increased sensitiveness to tuberculin; on the other hand, a considerable amount of tolerance may have been naturally produced. Thirdly, we are met at once by the pertinent question, Are we going to do any good by giving more tuberculin to a patient who is already getting too much?

The Foundation of Tolerance.

Let us turn once again to the action of tuberculin before we go further into autotoxic disease. We have seen how a dose of tuberculin is followed by a "refractive" interval. In cattle this is so marked as to be utilized by dealers in passing off tuberculous beasts as healthy. A dose of tuberculin is given before the deal, and the animals no longer react to the test injection of tuberculin given by the buyer. In the human we have seen that an interval of two or three weeks has to be waited if the same dose of tuberculin is to be repeated with equal effect. Suppose, however, we elect to give our second injection during the refractive period, if we desire it to be effective we must raise the dose. The effect of this second dose is to raise tolerance still further, so that the third dose must be bigger still; and so with injections at short intervals, we must constantly raise the dose if we are to obtain each time the action of tuberculin—namely, mild focal reaction and stimulation of antibody formation. By this means we obtain, in addition to the effect of each dose, a *tolerance* to tuberculin established, so that at the end enormous doses are given with the same effect as minute doses at the beginning. This should be our aim in autotoxic disease. When large doses have been reached treatment is no longer hindered by the occurrence of some amount of autoinoculation; at the same time the patient is rendered tolerant of the poisons issuing from his focus of disease.

In cattle, as we saw, a single dose will produce considerable tolerance: in man a regular sequence is needed to achieve this result. If, instead, large and irregularly-spaced doses are given, tuberculin poisoning and increased sensitiveness generally result, and this is what has commonly happened in autotoxic disease. To interrupt the vicious circle absolute rest is needed, so that autoinoculation is reduced to its lowest point. When this is done we find that phthisis patients divide themselves roughly into the following three categories:

A Classification of Phthisis.

1. Those who have symptoms of autoinoculation even at rest.
2. Those who only get such symptoms on exertion.
3. Those in whom no symptoms are produced by full work.

To consider the last two categories first, we may say that Group 2 is amenable to tuberculin treatment, whether applied subcutaneously or by the exploitation of autoinoculation on similar lines, as by graduated labour. It is obvious that subcutaneous tuberculin is more easily controlled than autotuberculin, and it has besides many other points in its favour. During its administration autoinoculation must be kept at a minimum till large doses are reached.

The patients in Group 3 are mostly on the road to cure, and their danger lies in the fact that, just as in localized tuberculosis, their lesion may not suffice to keep them supplied with tuberculin. On this account a course of tuberculin from outside is valuable, and can be followed up by large doses at longer intervals over a considerable period.

When we turn to Group 1 we find a much more difficult subject for consideration. A large number in this group will be beyond the reach of any but symptomatic treatment; many will be cases with marked secondary infection where tuberculin if it is used must be employed in extremely minute dosage and with great caution; some will be acute cases in which tuberculin is worse than useless. The first endeavour in cases of this group must be to bring them as near as possible to Group 2 by all the means we have of checking autoinoculation in phthisis. "Typhoid" rest must be enforced, talking and excitement must be avoided, and visitors kept at a distance; cough must be reduced to a minimum. By these means many cases may be coaxed into Group 2, but if fever does not give way to these methods, tuberculin, preferably T.R. or B.E., may be tried in doses one-tenth or one-hundredth of those with which a course is usually commenced. This measure is closely reminiscent of the minute dose recommended by Wright to put an end to a prolonged negative phase, and it is not infrequently successful. If this fails, a larger dose may be given experimentally, since sometimes a smart reaction is the turning point in these feverish cases. This is not done altogether without risk, but this must be put against the chance of doing much good, and the responsibility is often worth taking.

It will thus be seen that the power of treating patients in Group 1 with tuberculin depends upon our power of bringing them into or near to Group 2, but there will always remain certain cases of advanced but chronic disease where tuberculin tolerance can be set up with advantage although cure is no longer possible. By this means comfort may be promoted and the patient to some extent protected against the symptoms of his disease, even though this must in the end overcome him.

Practical Application.

Consideration having been given to the theoretical side of tuberculin administration in autotoxic disease, we may turn shortly to the practical side.

Since the reactivity of patients varies enormously according to their sensitiveness and how far this is covered by tolerance, it is well to begin with a dose so low that it is certain to be ineffective. Actual dosage I shall not mention here, since I have long discarded the standards usually adopted and measure my tuberculin in cubic millimetres of original solution: and though this is the best and simplest of all methods, the doses in a new standard would be difficult to grasp in a lecture. Having begun with this small dose, it may be very rapidly raised till some effect is noted. This must be looked for in a local reaction, or, failing this in some slight general effect, such as a flattening of the temperature, or a slight rise, or slight symptoms in the patient. Having reached this point, the doses must be raised more gradually, and for the graduation of dosage nothing is more suitable than a geometrical progression such as that supplied by Lawrason Brown in Klebs's *Textbook of Tuberculosis*. By this means risk of large reactions is reduced to a minimum, and yet, with skilful adjustment, the dose may be kept sufficiently near the reacting point to efficiently call forth an immunizing response, the main points of which we have already laid down as the slight focal hyperaemia and the stimulation of antibody formation. It is unlikely that fever reactions will be altogether avoided, and this brings us to a parting of the ways among various exponents of the art of tuberculin administration. There are, as you know, certain people who ignore reactions, and, in their struggle to establish tolerance to large doses, will allow the patient to react violently again and again. Those who have treated localized tuberculosis, where the foci of disease are under the eye, cannot look on this method with favour. They know how caseous material will soften and discharge itself under large focal reactions, and though such a process in the lung may in certain cases be inevitable and lead to no harm, in other cases this is far from being the case.

By avoiding such large reactions we are putting possible danger on one side. By allowing mild reactions occasionally, and keeping the dose near the reacting point we are fulfilling those conditions which experience has taught us to rely on in the treatment of visible lesions. In this way the whole course of treatment is directed towards the healing of the tuberculous areas, and tolerance is but a valuable by-product of the tuberculin administration. This may be called the method of utilizing reactions. A third method in the administration of tuberculin aims at the avoidance of all reactions, and has not much to recommend it unless its safety.

The consideration of the method of pushing the dosage through reactions, with the aim of rapidly reaching tolerance to large doses, tempts me to the question of the value of such tolerance. Is there sufficient evidence of its value to justify us in making it an aim? If we turn to animal experiment for a moment we find that tuberculous disease protects against further infection with the tubercle bacillus. Experiments have been done on cattle, guinea-pigs, and, more recently, apes, which show that if virulent bacilli are injected into a healthy animal, no symptoms follow immediately, but after an interval symptoms of tuberculosis appear, and the animal dies. If similar injections are given to a tuberculous animal, on the other hand, a violent "reaction" immediately follows, but the animal shows no fresh tuberculous disease. Here we find that sensitiveness to tubercle products (not tolerance) is associated with protection against fresh infection. We might, therefore, fear that by producing tolerance we were removing a valuable safeguard against the further spread of disease.

We are, it is true, removing from the patient, for a time, the power of autoinoculating himself, and this might be a danger where tuberculin was withheld. It is, however, highly unlikely that tolerance removes in any way the power of the tissues of the tuberculous to deal with the tubercle bacillus. More probably the injected tuberculin is "activated" as before, and tolerance only protects the tissues, the nervous system, and focus of disease, from the toxic effect which follows. This may be by the production of some such body as the "antituberculin" of Wassermann, which is shown to increase under tuberculin administration on the intensive system. If this is the case the condition underlying tuberculous sensitiveness is not removed, but its effects are mitigated.

On the other hand, there is no reason to suppose that tolerance adds anything to immunity against further disease, and for this reason the common use of the word "immunity" where tolerance is meant is greatly to be deprecated. All that tolerance does—and this is no small advantage, is to free the patient from those symptoms of autotuberculin poisoning which were undermining his health, and from dangerous focal reactions, which were spreading the disease. At the same time it enables us, as we have seen, to treat autotoxic disease with doses of tuberculin so large as not to be unduly interfered with by autoinoculation. The value of tolerance depends, then, on the need of it in any particular case, and not in all cases of phthisis is tolerance to large doses required or even advisable. The need, on the other hand, of obtaining repeated response to tuberculin, in the form of mild focal reaction and antibody stimulation, is common to all varieties of tuberculosis. This appears to be Nature's method of cure, and if it is followed on rational lines, and the needs of each individual case carefully studied, it will be found that we have in tuberculin, and the control of autotuberculin, all or nearly all that we need for the cure of tuberculosis.

At the end I must apologize that I have tried to cover an impossibly wide field in this lecture. Its title was hurriedly supplied many months ago, and I did not realize at the moment to how big a business I was committing myself.

A THIRD SERIES OF TWENTY CASES OF PULMONARY TUBERCULOSIS TREATED BY CONTINUOUS ANTISEPTIC INHALATION.

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In a paper read before the Therapeutical Section of the Royal Society of Medicine on November 2nd, 1909, and published in the *Proceedings* of that Society, and also in the BRITISH MEDICAL JOURNAL of December 11th, 1909, I advocated the treatment of incipient and early pulmonary tuberculosis by means of continuous antiseptic inhalation, and narrated 30 cases in which it had been employed with success. In a second paper, printed in the *Lancet* of November 19th, 1910, I related 20 additional cases similarly treated; some of these were advanced or complicated cases. I desire now to record a third series of 20 cases, making a total of 70 cases treated by the method of which full details were given in my first paper.

Case 51.

A patient, aged 26, a draper's assistant, was sent to me by Case 3, July 29th, 1910. His sister died seven years ago from phthisis at the age of 23 years after eight months' illness. He had suffered for eighteen months from repeated "colds" and frequent cough, with occasional slight haemoptysis. In March, 1909, he entered a sanatorium and remained in it twelve weeks (weight on admission 10 st. 1 lb.—it rose to 10 st. 12 lb., but fell again to 10 st. 8½ lb.). Since June 20th, 1909, he had been at work, and had again "caught cold." His cough and sputum were as troublesome as before he entered the sanatorium, and his weight was only 9 st. 12 lb. Cough was frequent, short, and loose—he expectorated into a flask. He looked wasted, worn, and ill. All the characteristic dull areas of pulmonary tuberculosis as described in my first paper were present, and those at the left upper and lower apices were specially large. Over the whole left upper lobe in front and at both lower apices there was marked crepitus on inspiration, and very defective air entry at the right upper apex.

He was advised to remain in bed for two weeks and practise continuous antiseptic inhalation in the method and with all the details mentioned in my first paper. I saw him a second time on August 15th, 1910; he had then lost another pound, the weight having fallen to 9 st. 11 lb. But his cough was less troublesome, his sputum less profuse, his dull areas distinctly smaller, and the pulmonary crepitant sounds were much diminished.

He persevered with the treatment, and on September 26th, 1910, was much better, felt "quite a different man." Cough was "very much better," and sputum "very much less." His evening temperature was still about 99.4° F., morning 97.8° F. His weight was still 9 st. 11 lb., but he felt very much stronger, and no longer fatigued by walking. "Felt as if he would not recover at the last visit, but now feels that he is getting well." The physical signs showed an increased improvement. Had not been able to wear his inhaler at night. He spent the next four months at Southbourne, wearing his inhaler about eight

hours out of the twenty-four, but the weather was unfavourable and he had uncomfortable lodgings. When I saw him again (February 23rd, 1910) he had lost 4 lb., but the pulmonary signs were no worse, and he had hardly any cough. During the next month he gained 2½ lb., but after this there was a steady loss. Of late he had used his inhaler only five hours daily. He was urged to remain in bed for a fortnight and inhale continuously day and night. Some temporary improvement followed. In August he was admitted into Ventnor Hospital. Dr. Robertson, of Ventnor, has kindly informed me that he "died from tuberculous meningitis on September 1st, 1911, although he had gained 5 lb. up to the onset of cerebral symptoms, and in other respects was doing well."

This patient's personal and family history were extremely unfavourable, and the treatment by inhalation was imperfectly carried out. Yet he obtained very considerable relief.

Case 52.

A young man of 25, whose pulmonary symptoms had existed for two years before I first examined him on August 18th, 1910, and who had been in a sanatorium for eight and a half months (February–October, 1909). During the first five months of his stay in the sanatorium he gained no weight, but in the last three and a half months his weight rose from 11 st. 7 lb. to 12 st. 6 lb. Since his discharge he had been living in an open-air shelter at the seaside. He came to me on August 18th, 1910, on account of a "feverish cold," renewal of cough, and marked wasting. His weight was 11 st. 6½ lb.—1 lb. less than when he entered the sanatorium. He was found to have two cavities in the upper lobe of the left lung, and extensive signs elsewhere. Treatment by persistent antiseptic inhalation was advised, but it was imperfectly carried out. He objected to the inhaler at night, and, though he used it all day for twelve days, soon lessened the period of use to six hours, and finally to three hours. At his second visit on September 27th he felt better, and the physical signs showed some improvement, but he had lost another ½ lb., his weight now being only 11 st. 6 lb. He was strongly urged to wear the inhaler persistently, day and night, and was warned of the danger of septic infection of his pulmonary cavities. He acted on this advice to the extent of about eight hours daily, that is, for only about one-third of the time advised. Yet even with this imperfect use of the method he began at once to improve, and gained weight steadily. From 11 st. 6 lb. on September 27th, 1910, it rose persistently to 12 st. 6 lb. on March 8th, 1911. Thus, under treatment by antiseptic inhalation imperfectly carried out, he gained 14 lb. in five and a half months—a larger amount than his previous gain in eight and a half months in a sanatorium. The physical signs also steadily improved, and his evening temperature was normal. Encouraged by this improvement, he reduced the period of inhalation to only six hours daily. In July he caught "fresh colds," and the intense heat of this summer tried him much, the temperature in his outdoor shelter on one occasion rising to 100° F. He lost weight rapidly, and when I saw him again on September 21st his weight was only 11 st. 7 lb., and there was evidence of extension of the disease in his lungs. He was advised to go to bed for a fortnight and to practise continuous inhalation (day and night). He did as advised, and when last seen, on November 22nd, 1911, looked and felt much better, and had gained 4 lb. in weight. His physical signs had also again improved quite definitely.

In this case also the treatment has been imperfectly carried out, yet the benefit derived from it has been unmistakable.

Case 53.

A patient of Dr. Bousfield of Hornsey Lane, a clerk in an insurance office, recommended by Mr. A. (Case 25 of my first paper), who under treatment by continuous antiseptic inhalation for five months in 1909 made a complete recovery (including the obliteration of a cavity), and who has since done his full work for two years.

The patient was brought by Dr. Bousfield on September 24th, 1910, some tubercle bacilli having been detected in his sputum. The dull areas in his lungs were typical and extensive, but auscultatory evidence was almost absent; there was defective air entry over the dull areas, but no crepitant sound, no prolonged expiration, and no audible whisper over the front of the chest, and only the slightest crepitant sound at one spot in the left lung posteriorly.

Under treatment by continuous antiseptic inhalation this patient made a rapid recovery. Dr. Bousfield brought him to me on October 28th, 1910, and again on December 7th. On each occasion there had been a gain in weight, and the dull areas were smaller than at the previous visit. In the ten weeks he had gained 13 lb. After a stay at the seaside he went back to work at his office, and in October, 1911, I heard that he had been in full work since June, and that he looked extremely well. In November Dr. Bousfield wrote: "The sputum has been tested three times—in June, September, and last week—and *no tubercle bacilli found*. He has gained over a stone and a half in weight, and is better now than he has been for ten years." In reply to an inquiry Dr. Bousfield kindly sent word that the examinations for tubercle bacilli in the sputum were carried out by the Clinical Research Association, Adelphi, with the appended results:

August, 1910. Tubercle bacilli present.
December, 1910. Tubercle bacilli present.
February, 1911. A small number of tubercle bacilli present.
March, 1911. A few tubercle bacilli present.
June, 1911. No tubercle bacilli.
September, 1911. No tubercle bacilli.
November, 1911. No tubercle bacilli.

Dr. Bousfield also confirms the fact of the "progressive disappearance of the areas of dullness."

Case 54.

A man aged 33, a clerk, sent to me on September 26th, 1910, by the late Dr. Clark of Twickenham. Cough for ten weeks; much yellowish phlegm; no haemoptysis. Weight, 10 st. 6½ lb.; last spring he weighed 11 st. 7 lb. Large dull areas; poor air entry; some crepitant sounds at the upper and lower apices of the left lung; catarrhal sounds posteriorly; some prolonged expiration left apex. He was kept in bed for two weeks with persistent antiseptic inhalation. On October 17th he weighed 10 st. 8½ lb. His dull areas were smaller, and the crepitant sounds less marked. On November 14th he weighed 10st. 10½ lb. Had inhaled for about nineteen hours daily. Still had cough, heartburn, and flatulence, for which a mixture was prescribed. Dull areas still diminishing. On December 7th haemoptysis occurred and he brought up a large quantity of blood, about 2 pints. There was recurrence of haemoptysis next day and again two days later. His weight, which had risen to 10 st. 13 lb. (a gain of 6½ lb.), fell to 10 st. 1 lb. No inhalation was employed for three weeks; but as he began to recover from the effects of the haemoptysis he returned to the practice of continuous inhalation, and he soon began to gain weight rapidly. When I next saw him, on January 9th, 1911, he weighed 10 st. 6 lb. It was found that there had been extension of dullness in the right lung. He was inhaling about seventeen hours daily. From this time there was progressive improvement in his condition and in his physical signs, and the weight increased steadily. On June 7th, 1911, he weighed 11 st. 11½ lb., a total gain of 19 lb. The very hot summer tried him much, but when I saw him on September 25th (almost exactly a year since his first visit) he looked remarkably well and felt well. He then weighed 11 st. 8 lb. He was able to do his work.

Case 55.

A schoolmaster, aged 52, sent to me on October 1st, 1910, by Dr. J. J. Edwards of Fulham, suffering from mitral stenosis and from recent pulmonary tuberculosis. At the age of 24 he had rheumatism in his ankles and knees, and was in bed for three weeks; but no subsequent attack. He had had influenza "many times, three times in the last 18 months." He had lost 2 or 3 lb. in weight, his present weight being 8 st. 12½ lb. There was a presystolic murmur and short thrill at the apex of the heart, a loud first sound without any systolic murmur, and no second sound. No epigastric pulsation; no enlargement of liver. No aortic murmur. He had a short cough, and marked dullness in the characteristic positions, with very feeble air entry, and faint crepitant sounds at both lower apices. No prolonged expiration or audible whisper. He was kept in bed for 10 days, with continuous antiseptic inhalation, and afterwards used the inhaler all night and about 12 hours in the daytime. On October 22nd he had gained 5 lb. in the three weeks, and felt that he was "gaining in every way." Cough "altogether gone"—it began to disappear "as soon as he began to wear the inhaler." The dull areas were all smaller, and the entry of air much more free, but slight crepitant sounds were still present. He did not cough at all during this visit. On November 24th he weighed 9 st. 11 lb., a gain of 12½ lb. in eight weeks. Felt very much better. No return of cough or sputum. Was still inhaling about eight hours daily and at night.

Twelve months later (November 27th, 1911) Dr. Edwards reported that this patient seemed to be very well, was doing his work as usual, and had no cough.

Case 56.

A lady who had taken the degree of M.D.Lond., and had worked as a medical missionary in India, where (in November, 1909) she suffered from pleurisy, and lost 2 st. in weight. Her sputum was examined by an expert pathologist, but no tubercle bacilli were found. A well-known physician found no physical signs of disease in her lungs, but by *x* rays an area of disease at the left apex was detected. She was admitted into a sanatorium, and remained for two months, and gained 8 lb. in weight. But her condition again deteriorated, and she was advised to return to the sanatorium. She was, however, sent to me by Dr. Grove of St. Ives, on October 3rd, 1910. Her weight was then 9 st. 5 lb. She had had practically no cough for some months, and she brought up only a very little mucus. Yet she had large dull areas at the apices and elsewhere, especially at both lower apices, with very feeble air entry, definite crepitant sound at both apices on the left side, and faintly heard whisper. She was kept in bed for two weeks and practised continuous antiseptic inhalation as advised in my first paper. On November 4th, 1910, she had gained 4 lb. in weight; all the dull areas were smaller; the air entry was much improved, and the crepitant sounds had nearly disappeared. In December she had indigestion and loss of appetite, and lost 4 lb. in weight, yet the physical signs in her lungs were still improving. The indigestion gradually disappeared, and on February 4th, 1911, she weighed 9 st. 13 lb. The dull areas were now quite small, and there was no crepitant sound, though the air entry was not yet normal. On March 6th, 1911, she wrote, "I am *very* well, just rejoicing in a new influx of life and energy, all the more welcome after the long months of lassitude and depression. I have no cough, and only once or twice a week a trace of mucoid expectoration." She was still inhaling about four hours daily and at night.

On November 17th, 1911, she wrote that she had had no chest symptoms of any kind since her last visit, and had lived an active life, though there was some dyspepsia, and her weight was less that when I last saw her.

She had employed the method of continuous antiseptic inhalation in the case of a patient under her care, with regard to whom a medical man had given a very gloomy prognosis, and who was thought to be "going downhill fast." This patient used the method of antiseptic inhalation for two months, and improved greatly. She then went to live on Dartmoor. She was seen again six months later, and appeared to be very well.

Case 57.

A man, aged 23, a friend of Case 23, and a patient of Dr. K. C. Mackenzie of Caerphilly, South Wales. His illness began with haemoptysis in March, 1910. In April he was sent to a sanatorium, and remained in it for three months; during his stay his weight rose from 9 st. 7 lb. to 10 st. 7 lb. In October a second haemoptysis occurred, with slight pain in the right lung. I saw him first on November 10th, 1910; he then weighed 10 st. 2 lb. The dull areas in his lungs were rather large, especially at the lower apices; air entry very defective; some prolonged expiration, crepitant sound, and audible whisper at the right upper apex, and crepitant sounds at the right lower apex. Teeth carious; nasal passages compressed and obstructed. He was advised to use continuous antiseptic inhalation, to give up smoking, and to spray the nose with a cocaine-eucalyptus-parolein spray. On December 15th, 1910, having carried out these instructions, he stated that he had no cough and that his rectal temperature was only 98.4°. He had gained 9 lb. in weight (10 st. 11 lb.) in the five weeks; all the dull areas were markedly smaller, and the only auscultatory signs were harsh inspiration and slight crepitus at the right upper apex, with slight crepitus also at the lower apex. In January, 1911, he had an attack of vomiting and diarrhoea lasting three days—apparently a food poisoning, as his father had similar symptoms. It was therefore not surprising that on February 2nd, 1911, he had lost 2 lb. in weight; yet in spite of this his physical signs, both by percussion and by auscultation, were better than at the last visit. He was now inhaling about six hours daily and at night. On May 10th, 1911, though in lighter clothes, he weighed 10 st. 9½ lb.; the dull areas were smaller than in February, and the only auscultatory sign was slight bronchial breathing, without any crepitant sound or bronchophony, in the second right interspace. The sputum had been examined about a month previously. The report stated that there were "still some bacilli, but much fewer than before."

This patient lives at Cardiff and I have not seen him again, but I regret to hear that in June he had repeated haemoptysis and that his present condition is causing anxiety to his friends.

Case 58.

A young man of 19, brought by Dr. Ashton of Battersea, December 29th, 1910, on account of a cough which had lasted for three months, and occasional night sweats. Weight, 8 st. 1½ lb. He had a loose cough, with typical dull areas of moderate size, some prolonged expiration, with slight bronchophony and audible whisper at the right upper apex, and some crepitant sounds (still audible after a cough) at both upper apices. He was kept in bed for two weeks and practised continuous antiseptic inhalation. On January 27th, 1911, his weight was 8 st. 3 lb., his cough was "much better," and sputum scanty. The dull areas were all smaller, the prolonged expiration and bronchophony had vanished, and only slight crepitant sounds remained. He was now permitted to take an hour's walk each morning, but instead of limiting himself to one hour's exercise, he walked for four hours daily! The consequence was a distinct relapse, the temperature rose to 100°, and on February 24th he was found to have lost 1 lb.; all his dull areas were larger, and some interrupted respiration could be heard at his left apex. He was sent to bed again for two weeks, and made to inhale without intermission. On March 24th he had regained the lost pound (8 st. 3 lb.), and the physical signs had again improved. After this he used the inhaler every night, but very little during the day. His improvement continued, and in June he resumed his work. I examined him again on September 27th, 1911; he looked and felt very well. His weight was still 8 st. 3 lb. His physical signs were nearly normal.

In January, 1912, he was still quite well.

Case 59.

A clerk of works, aged 44, sent to me by Dr. Mowll of Surbiton, February 10th, 1911, on account of slight haemoptysis three weeks ago, repeated a week ago. He had had a slight hacking cough for a few days only. There was some complaint of indigestion, with flatulence and palpitation. He had been costive for some years, and had had piles. His weight was 9 st. 7 lb. His heart was normal. His muscular system was well developed (the result of a six months' course of physical exercises).

Dull areas were found in his lungs, in the positions characteristic of a tuberculous infection, the largest being that at the right lower apex. At this region a slight crepitant sound, possibly frictional, could be heard, and he complained of slight pain in the region of the right nipple on taking a deep inspiration. The only other auscultatory sign was a feebleness of air entry over the apical regions. Medicine was prescribed for his dyspepsia and constipation; he was confined to bed for a week, and advised to practise continuous antiseptic inhalation.

I saw him a second time on March 17th. His weight was 10 st. 4½ lb.; in the five weeks he had gained 11½ lb. All the dull areas were smaller; no rub or crepitant sound could be heard anywhere. There was no pain on breathing, and the air entry was more free. He had been back at work for two weeks, using the inhaler in his office whenever possible. He continued to improve till June, when in the very hot weather he felt faint and had slight haemoptysis. He came to me a third time on October 19th, 1911, his weight was then 10 st. 2½ lb.; he had no cough, but the physical signs in his lungs showed a slight increase. He was sent to bed for ten days, and practised continuous antiseptic inhalation once more. On November 23rd, 1911, he was found to have gained 2 lb., and thus regained his normal weight of 10 st. 4½ lb. There was no sputum and practically no cough. His dull areas had diminished in size, and the only auscultatory sign was a defect of air entry over these areas.

Case 60.

A schoolmistress, aged 29, sent by Dr. Muir of Burdett Road, February 11th, 1911. Indigestion for a year, frequent "colds," and "influenza" three weeks ago. No haemoptysis. No cough, but "phlegm at back of throat." Dull areas, fairly large, were found in all the positions characteristic of a tuberculous infection: the largest were at the right upper and lower apices. The air entry was extremely defective in these positions, and some crepitant sound could be heard at the right lower apex (but nowhere else). No prolonged expiration. Weight 7 st. 4½ lb. (last summer it was 7 st. 6 lb.). She was sent to bed for ten days, and practised continuous antiseptic inhalation. A tonic mixture was prescribed; milk and malted milk (as in all these cases) was taken four times daily. On March 4th, 1911, she had gained 4 lb. in the three weeks, felt and looked much better. The dull areas were all smaller, the air entry was distinctly improved though still defective, and the crepitant sounds had nearly disappeared. On April 1st she had gained 2 lb. more (7 st. 10½ lb.), and further improvement in the physical signs was recorded. She was now permitted to return to her work as a school teacher. On June 3rd she weighed rather less (7 st. 8 lb.), but she felt quite well and had done her full work for two months. The physical signs were now extremely slight. On September 30th, 1911, she appeared to be quite well and had done her full work. She still practised inhalation at night.

Case 61.

A district nurse, aged 27, a patient of Dr. Adair of Belfast. "Pneumonia" two years ago. At work in England eighteen months. Frequent "colds"; pleurisy two weeks before I first saw her on February 19th, 1911. Weight 8 st. 9 lb. (had been 9 st. last Christmas). Typical dull areas, of which the largest were at her right apex: very defective air entry: catarrhal double crepitus at both upper and at the right lower apices: whisper faintly audible, but no prolonged expiration. She looked ill and had a frequent short cough. She obtained leave of absence for three months, went back to her home in Belfast, stayed in bed for three weeks, and practised continuous antiseptic inhalation for a month, after which she gradually lessened the time of inhalation. The cough ceased after about two months. She came to me a second time on June 8th, 1911. She looked and felt better; all her dull areas were much smaller, the air entry was good everywhere, and no crepitant sound was audible. Only at the right apex posteriorly there was slight prolongation of expiration and slight bronchophony. She was permitted to return to her work as a district nurse. I saw her for the third time on October 13th, 1911. During all this hot and most trying summer she had worked very hard, and during some weeks had actually done double duty. Her weight was now 8 st. 12½ lb. (a gain of 3½ lb.). She felt perfectly well. No morbid sounds could be detected in her lungs, and all the dull areas were now very small. She was still inhaling for two hours daily and at night.

Case 62.

A young man, aged 19, seen with Dr. Schaub of Harlesden, February 20th, 1911. He had been well until quite recently, but had suffered from "a cold" for two or three weeks. Dr. Schaub examined his sputum four days ago, and found "*tubercle bacilli in good number*," and a second specimen two days ago was "*crowded with tubercle bacilli*." The patient looked depressed, and had a slight frequent short cough. Weight, 11 st. 2½ lb. Typical dull areas in his lungs, the largest being at the right upper and lower apices. Poor air entry and some crepitant sound at all four apices, whisper faintly audible at the right apex; no prolonged expiration. He was advised to remain in bed for ten days, and to practise continuous antiseptic inhalation.

I saw him a second time on March 13th, 1911: the weight was then 11 st. 7½ lb., a gain of 5 lb. in the three weeks. He felt "quite well," and wished to be allowed to play football! The cough was much lessened in three days after beginning the inhalation. There was now cough only in the early morning, and very little sputum. Dr. Schaub examined this for the third time three days ago, and had "difficulty in finding bacilli." The dull areas were all smaller, the air entry more free though not yet normal, and the crepitant sounds were much diminished. He was advised to continue the persistent inhalation, allowing an interval of two hours every morning. A month later (April 11th, 1911) Dr. Schaub reported that there had been no sputum for a week, and his evening temperature was normal. The dull areas were less than at the last visit; no crepitant sound could be heard; there was a little prolongation of the expiration at the right apex only.

On May 16th, 1911, he stated that he had continued the inhalation six hours daily and at night, and that he had had no cough and no sputum for a month. He looked remarkably well, and had gained 2 lb. in weight (11 st. 9½ lb.), a total

gain of 7 lb. The dull areas were now all very small, and no morbid sounds were audible.

On December 3rd, 1911, Dr. Schaub reported that this patient had gone on well, that he had been at work for a month, and that he was keeping up his weight. He still wore the inhaler at night.

On January 16th, 1912, he was still quite well, and had no cough. He had been in full work regularly for three months.

Case 63.

A girl, aged 13, seen with Dr. Hickley of South Lambeth Road, February 21st, 1911. Out of health two months, abdominal discomfort, cough, and some pyrexia (100° F.) for a few days. She was a pale, thin girl, with a pulse-rate of 140 and respiration-rate of 36. The abdomen was swollen and rather tender; obvious ascites was present, but no lumps or bands could be felt. The lungs showed dull areas in the positions characteristic of tuberculous disease, the largest of them situated at the right upper and lower apices. There was defective air entry, and some slight crepitant sound.

In view of the general condition and of the implication of both thorax and abdomen, a very unfavourable prognosis was given. She was kept at rest in bed, and fed on milk with malted milk every three hours. The windows were kept open, and she wore constantly a Yeo's inhaler, using the antiseptic solution described in my first paper.

Three weeks later Dr. Hickley reported that the child liked her inhaler so much that "she will not be parted from it"; that her cough was better, and the circumference of the abdomen a little less. He detected a lump in the lumbar region. There had been some diarrhoea, relieved by medicine.

I saw her a second time with Dr. Hickley on April 11th, 1911. There had been no cough for a long time, and the temperature was now always normal or subnormal. All the dull areas in the lungs were much smaller. The circumference of the abdomen was 1½ in. less than in February, and no ascitic fluid could be detected. There was a resistant region in the abdomen to the left of the umbilicus, and some enlarged glands in the right iliac fossa. The child was very thin; she had refused to take the milk and malted milk. She promised to do better in this respect, and the parents were advised to insist on her taking this nourishment regularly. The promise was carried out, and Dr. Hickley informs me that she improved very much. Three months later she was so much better that she was able to go to stay with friends in Wales. When she left London in July Dr. Hickley could find no evidence of disease in her lungs, and the abdominal lump was much smaller. But a relapse must have occurred before long, for she died in September. Possibly this relapse may have been due to exhaustion caused by the great heat of last summer, which has caused other tuberculous cases under observation to deteriorate. Thus the gloomy prognosis given at first was justified; yet the temporary improvement while under treatment by continuous antiseptic inhalation was most striking.

Case 64.

A schoolmistress, aged 45, brought by Dr. Chesters of Bromley, February 22nd, 1911. Cough for about a month; no haemoptysis; slight indigestion; sleep disturbed by cough. Temperature 99° to 100°; pulse 96; weight 8 st. 12 lb. Dull areas in both lungs, in the positions characteristic of pulmonary tuberculosis, the largest being at the right upper and lower apices. There was deficient air entry, a little prolongation of expiration, and slight bronchophony at the right upper apex, and slight crepitant sounds at both lower apices. She was advised to remain in bed for ten days, and to practise continuous antiseptic inhalation.

On March 12th Dr. Chesters telephoned: "She is doing splendidly." Three days later he brought her to me again. Her weight was then 9 st. 4 lb., a gain of 6 lb. in three weeks. She had not coughed since the second day of her use of the inhaler. Now no sputum. Temperature normal for the last week. All the dull areas were distinctly smaller, the air entry was more free, and the crepitant sounds had almost entirely disappeared.

I saw her a third time on April 11th, 1911. The temperature had been normal since the last visit. There was no cough and no sputum. The weight was still 9 st. 4 lb. The dull areas were smaller than in March, and the auscultatory signs were nearly normal. In December, 1911, Dr. Chesters reported that she was in excellent health, in spite of the trying summer and of extra work and some anxieties. Her weight had risen to 9 st. 7 lb.

Case 65.

A clerk, aged 22, sent by Dr. Edwards of Fulham, March 2nd, 1911. Pain on breathing from time to time for several years. Occasional cough, with some phlegm; no haemoptysis; slight dyspepsia. Dr. Edwards had examined the sputum, but found no bacilli. The patient was anaemic. His weight was 9 st. 9½ lb.; eight months ago it was 9 st. 11 lb. Dull areas were found in all the positions characteristic of pulmonary tuberculosis, the largest being at the left upper and lower apices. There was much defect of air entry, and a little crepitant sound at both upper apices in front. Posteriorly, at the left upper apex the inspiration was somewhat harsh, and the expiration was slightly prolonged; at the three other apices hardly any entry of air could be heard. He was kept in bed for ten days, and practised continuous antiseptic inhalation. He was forbidden to smoke. An alkaline tonic mixture was given before meals.

On March 23rd, 1911, his weight was 9 st. 12½ lb., a gain of 3 lb. in three weeks; he felt and looked better, his cough had disappeared, dyspepsia much less, dull areas smaller, and air entry much more free. Still slight crepitant sound at both upper apices. On April 20th, 1911, he felt "very well indeed," and his weight was 9 st. 13 lb. Iron was prescribed for his anaemia, and he was permitted to go back to work. On May 30th, 1911, he was still very well, though he had worked in a lawyer's office for four hours daily. He had continued the inhalation six hours daily, and at night. On September 18th, 1911, he had worked from 10 a.m. to 3 p.m. regularly since July, except during a three weeks' holiday. In spite of the trying heat he had remained very well. The dull areas were now small, the entry of air satisfactory, and morbid sounds on auscultation almost absent. He was advised to use his inhaler at night for a further period of six months.

Case 66.

A boy of 17, seen at his home in Battersea with Dr. Ashton, March 12th, 1911. Very bad cough since November, and some cough since October. No haemoptysis. Some sputum. Has grown thinner lately. Evening temperature 99.5° F. Dull areas were found at all four apices; the air entry was defective, and some crepitant sound could be heard above the right nipple. He remained in bed and practised continuous antiseptic inhalation. Six weeks later he was brought to my house by Dr. Ashton, who reported that "the temperature continued at 99.5° F. to 100° F. every evening until two days ago; last evening only 99° F.; in the morning usually 98° F." The patient said that his cough was "ever so much better." His weight was now 9 st. 3½ lb.; before Christmas it was 8 st. 7 lb., and Dr. Ashton stated that he had lost flesh considerably before I saw him in March, so that he appeared to have gained fully a stone in weight during the six weeks of treatment. The dull areas were all smaller. There was now some prolonged expiratory sound at the right upper apex, both in front and behind, but hardly any crepitant sounds. On June 15th, 1911, I saw him again at his own home with Dr. Ashton. He was still inhaling for eight hours daily and at night. There was now practically no cough, and the temperature had not been above the normal for a long time. He looked plump and well. His weight was now 9 st. 5½ lb. The dull areas at his apices were distinctly smaller; no crepitant sounds could be heard, but there was still a little prolonged expiration at the right apex.

In January, 1912, Dr. Ashton informed me that this patient was still doing well.

Case 67.

A lady, aged 26, brought by Dr. Hickley of South Lambeth Road, March 14th, 1911. Had suffered from more or less indigestion for five years, but had coughed only for about a fortnight. The cough kept her awake at night, and there had been some night sweats. Her weight was 9 st. 11½ lb.; in August, 1910, it had been 10 st. 2 lb. The dull areas characteristic of pulmonary tuberculosis were found in her lungs, with defective air entry, and some prolongation of expiration, with very slight crepitant sound, in the right suprascapular fossa only. She was kept in bed for a week, and practised continuous antiseptic inhalation for seven weeks. On May 2nd, 1911, I saw her a second time, when she felt "very much better." The cough "lingered on for a week or two," but there had been no cough for the last three weeks. The appetite was "very good," and she slept well. Her weight had increased by 11½ lb. in seven weeks, and was now 10 st. 9 lb. She looked very well. All the dull areas were smaller, the air entry was more free, and hardly any morbid sound could be detected.

She was instructed to use breathing exercises twice daily, and advised to inhale at night and for six hours daily. On May 31st, 1911, she felt "very well indeed," except for slight indigestion. On July 28th, 1911, her weight was found to be 10 st. 10½ lb.—a total gain of 13 lb. There was no cough at all: no morbid sounds could be heard in her lungs, and the dull areas were all quite small. She was considered to be cured, but was advised to continue the inhalations for four hours daily for a further period.

Case 68.

A lady, aged 22, seen with Dr. Ehrmann of Camden Road, April 3rd, 1911. Well until ten days ago, when she was overtired by a dance lasting till 5 a.m.; two days later there was slight sore throat; three days later her temperature was found to be 100° F.; it was now 101° in the morning and 102° in the evening. Slight cough, but no sputum. On examination of her chest it was found that she had small areas of dullness in all the positions characteristic of an early pulmonary tuberculosis, the largest being at the right upper and lower apices. Auscultatory signs were almost absent. She was directed to remain in bed for a week, and to practise continuous antiseptic inhalation for three weeks. On April 24th, 1911, Dr. Ehrmann brought her to my house; her weight was then 10 st. 8 lb. She had inhaled as directed; the temperature fell to normal in three days, and had not again been above the normal. The cough had gradually lessened; it disappeared three days ago. No sputum. She felt quite well. The dull areas were distinctly smaller: there was good air entry in front, with very slight crepitant sound at the end of inspiration. There was a defective air entry at the right upper apex behind, and very slight crepitant sound at the end of inspiration at the right lower apex; nothing else abnormal. She was advised to continue the persistent inhalation for three weeks longer, except for two hours in the morning and an hour in the afternoon. On May 17th, 1911, her weight was 10 st. 10½ lb., a gain of 2½ lb. She felt quite well. The dull areas were now very small, and the only abnormalities detected by auscultation were slight defect of air entry and the slightest possible crepitus. She was considered to be cured, and advised to practise breathing exercises and still to use her inhaler for three hours daily.

In January, 1912, Dr. Ehrmann kindly informed me that this lady was still quite well and fully able to perform all her usual occupations.

Case 69.

A lady, aged 39, sent by Dr. Edwards of Fulham, May 31st, 1911. Cough in winter time for some years; very subject to "colds going on to bronchitis." For about three years has had asthmatic attacks, which recur about once a month. Since March, 1911, she has had continual cough, with shortness of breath and yellow phlegm, and has lost weight. Anorexia, dyspepsia, flatulence, and disturbed sleep.

Weight 6 st. 9½ lb. On examination of her chest the signs found were not those of a generalized bronchitis: they were limited to the regions affected in early pulmonary tuberculosis. There were rather large areas of dullness at the characteristic positions at the four apices and elsewhere; the air-entry at the apices was very defective, and prolonged expiration, bronchophony, and audible whisper were heard at both upper and lower apices on the right side posteriorly. She was kept in bed for two weeks, and practised continuous antiseptic inhalation, and a tonic was prescribed.

On June 28th she had gained a pound in weight, and her condition was slightly improved, but she still suffered from asthma, which disturbed her sleep. A nasal spray of cocaine, eucalyptus, and parolein was therefore prescribed, to be used three times a day, and the continuous antiseptic inhalation was continued. On July 25th she stated that she had been quite free from asthma since she had used the nasal spray; the physical signs in her lungs were decidedly improved. On September 23rd, 1911, she felt and looked better, in spite of the very trying summer; the dull areas were still smaller and the air entry much improved, but there was now distinct evidence of a small (dry) cavity at the right apex posteriorly. She was advised to persevere with the inhalations, and to practise breathing exercises.

On January 9th, 1912, she weighed 6 st. 13½ lb., a gain of four pounds. She was still quite free from asthma and had no cough, though on some mornings she brought up a small quantity of phlegm on waking. She was still using the inhaler at night and for four hours in the daytime. Her dull areas were now very much smaller, and the only morbid sound detected was a slightly prolonged expiration at the right apex posteriorly. She was dismissed as cured, but advised to use the inhaler two to three hours daily for the next six months.

Case 70.

The matron of a convalescent home (formerly a hospital sister) came to me on August 5th, 1911, on account of a general feeling of illness, and occasional night sweats, with loss of weight (5½ lb. during the last month). She had, however, no cough at all, and no pain in the chest. On examination the only sign of disease that could be discovered was the existence of small dull areas in both lungs, in the positions characteristic of an incipient pulmonary tuberculosis, and very slight catarrhal sound at both apices in front. The signs might easily have been overlooked altogether.

She was unable to begin a course of treatment until a week later, when arrangements had been made to release her from duty. During this week there was a further loss of weight to the amount of 2 lb. But during the first week of treatment (in bed) by continuous antiseptic inhalation she regained these 2 lb. and in the following week gained 2½ lb. more. On August 24th, 1911, she wrote: "Already life is so much more worth living, and that excessively tired feeling has almost vanished. I can hardly believe that it is only three weeks since I felt such an absolute wreck." On September 1st, 1911, she wrote: "I gained another 2½ lb. this week—that makes 4¾ lb. My temperature is much more steady; at first it was generally 96.4° in the morning and 99° at night. Now it is 97.4°–98° in the morning and 98°–98.2° at night. Also I don't have the night sweats now."

On September 16th, 1911, all her dull areas were found to be smaller, and the catarrhal sounds at the apices had nearly disappeared. There were some digestive difficulties in October, but when these were overcome she again gained weight. Up to the end of this month she had been using the inhaler persistently, except during an hour's exercise each morning. She now reduced the time of inhalation to eight hours in the daytime, and at night; with a further reduction of one hour every fortnight. On December 9th she wrote: "I am still feeling quite well, my weight is quite steady, and I feel equal to anything. I can't understand anybody having a doubt as to the efficacy of the treatment. I wish I could satisfactorily explain how different in every way I feel, and have felt since shortly after taking up the treatment."

On December 29th, 1911, the dull areas were found to be still further lessened and the air entry was good. Only the faintest crepitant sound (probably pleural) was detected at one apex.

On February 1st, 1912, she was found to be quite well, and no morbid sounds could be detected. She has since resumed her duties.

THE fourth Congress of Physio-therapy of French-speaking doctors will be held in Paris at Easter, under the presidency of Dr. Georges Rosenthal. The Vice-Presidents are Drs. Hirschberg, Pierre Kouindjy, and Mesnard, of Paris; Dr. Edgar Cyriax, of London; and Dr. Profanter, of Franzenbad.

ON PEREZ'S SIGN: AND AUDIBLE MOTOR CRACKLES.

WITH SPECIAL REFERENCE TO THE INTRATHORACIC TISSUE SOUNDS ELICITED BY ARTICULAR MOVEMENT IN THEIR RELATION TO THE DIAGNOSIS OF TUBERCULOSIS.

BY

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THE stethoscopic sounds classified by Laënnec are mostly due to the conflict or to the reciprocal movements of fluid and of air, ranging from the capillary "pneumonic crepitations" to the loud gurgling of "crying bowels," or to the "water wheel" churnings of hydro-pneumopericardium. But they also include a long scale of "dry" sounds, either from solid vibrations such as the fine "grazing" or the coarse "new leather creaking" sounds of pericarditis, or the fine and the coarse sounds of pulmonary emphysema or fibrosis; or else from mainly aërial vibrations, like those elicited by pressure in subcutaneous emphysema. Fluid, when unmixed with air, as in the infiltrations of subcutaneous oedema or in the bulk of a serous effusion, has a silencing effect. It might almost be said that fluid, unmixed with air, is "parent of sweet sounds yet mute for ever"—but for the loud report of joint dislocation sounds where there is no air conduction but slight moisture only within the joint, and which Dr. Garrod has ingeniously termed a *non lucendo* "articular vacuum sounds." These might perhaps be due to the solid vibrations of some forcible membranous flapping, like the analogous report of the sigmoid valve flap at the moment of its tension.

Perez's sign has done more than anything else for the study of the dry vibration sounds which make up the immense majority of the "tissue-movement sounds," by directing the stethoscope to their observation, although we were already familiar with the "muscular rumble." As it has only recently brought that study into more general use, we are saved the burden of a long bibliography; and any investigator would enjoy the rare opportunity of commanding a comprehensive view of the entire subject at the start. This communication is offered as a brief introduction to that survey.

PEREZ'S SIGN.

Perez's sign consists essentially in the production of sounds audible over the upper thoracic surface on actively or passively moving the arms at the shoulder-joint, and particularly on raising or lowering them. It was originally described by him, in a case of mediastino-pericarditis, as due to intrathoracic sounds elicited by these movements in the upper part of the chest; and it has been referred to in that connexion by Fowler and Godlee,[1] by Frederick Roberts,[2] and also in Gould's *Practitioners' Dictionary*, and in Lippincott's new *Medical Dictionary*. The following description is from Dr. Perez's own pen:

> The original case in which this physical sign was discovered and subsequently described in the BRITISH MEDICAL JOURNAL[3] was commented on very thoroughly by the late Dr. Thomas Harris, of Manchester, and was examined by Sir Richard Douglas Powell, Sir Kingston Fowler, Dr. Wm. Ewart, Dr. Herbert Spencer, and others. The maximum intensity of the loud friction sounds or crackles was over the mid-sternum, although the sounds could also be distinctly heard over both scapular regions. The patient having had for many years attacks of what was considered to be dry pericarditis attended with excruciating, in fact anginal, pain, no reasonable doubt could be entertained that inflammatory adhesions existed, at any rate, in the anterior mediastinum, and that they were probably of a chronic tubercular nature, the patient having had formerly an infiltration of one of the apices of the lungs, which was diagnosed by the late Sir Wm. Gull. The various cardiac murmurs which were heard by some eminent London physicians, but not confirmed by others, point in my mind to extra cardiac murmurs produced by adhesions.

Its Scope in Relation to Articulations.—As regards the interpretation of these stethoscopic sounds, a critical examination of the case led the writer to suggest as an alternative explanation their possibly extrathoracic articular origin—namely, in the joints which were subjected to movement: for I could hear the same sounds when the stethoscope was applied either to the shoulder-joint or to the sterno-clavicular articulation, and also along

the clavicle. As pleximetric conduction along bone and cartilage would operate in both directions from any given spot, this fairly raised a question as to the precise site of the crepitations in this case, and as to their mechanism and significance in possible relation to the joints. In this way it seemed as though the scope of the sign might be further extended to include a study of articular conditions, and a new field opened for auscultation—namely, the stethoscopic auscultation of joints for the investigation of articular movement sounds; my previous experience having been limited to their percussion for the purposes of pulmonary diagnosis. Since then Dr. Archibald Garrod has recently submitted that new subject to a systematic examination, the results of which are given in his important paper *On Auscultation of Joints*.[4]

This is not all, however. The sign possesses a yet wider range. Shoulder girdle conduction is also capable of picking up audible vibrations of extra-articular origin in the vicinity of, or at a distance from the joints, from muscles or membranes in contact with any of the links in that pleximetric chain. This is of practical importance, particularly as any incomplete examination might be misleading as to the localization of the cause either within the chest or at any part of its upper circumference. Additional interest has recently been given to this point by the almost simultaneous publication of papers by Ralph Stockman[5] on *The Clinical Symptoms and Treatment of Chronic Subcutaneous Fibrosis*, and by W. H. Maxwell Telling[6] on *Nodular Fibromyositis*—conditions likely to give rise to the sign, although both authors refer to the employment in their investigations of the method of palpation only.

In this special group the most familiar instances are the more or less obvious vibrations commonly to be felt as well as heard in the scapular regions. They are not unlikely to be due to rubbing and rucking of thickened apomeuroses, or of stiffened or nodulated muscles, although they have not yet been conclusively traced to their precise causation. When of the coarser kind, they are often palpable and unmistakably extrathoracic; but the finer varieties are less easily placed, and are apt to complicate questions of pulmonary diagnosis. Some of them, too, may be of articular origin, as admitted by the latest authority, Miramond de Laroquette, and conducted by the shoulder girdle; but he does not favour another alternative view, which has been prominently advocated in France—that of their connexion with a "subscapular bursa."

The motor crackles which may be elicited by Perez's method, present therefore, as may be gathered from this brief enumeration, considerable variety in kind, in degree, and in possible derivation; they clearly require to be carefully scrutinized as to their genuineness before we proceed to isolate them into groups. On the other hand, it is high time that, with due regard to that clause, the analytical method should be applied to them for the elucidation of the most difficult group in the entire series—the study and identification of those intrathoracic motor crackles which were first introduced to our notice by Perez, and which bear upon the most important of our problems in diagnosis.

The Articular Motor Sounds.

In the study of these sounds Garrod has now led the way to greater thoroughness by supplying the basis for their classification into (*a*) intra-articular sounds proper, (*b*) periarticular, and (*c*) tendons sounds; and by recording his special observations in the first of these groups, which is the most important for differential diagnosis. The most striking intra-articular varieties which he describes are: The familiar "vacuum sounds," produced apart from any disease by sudden forcible movement of the joints, and sometimes at will, and often audible at a distance as loud explosive reports; the synovial "cracklings" of varying size and intensity somewhat analogous to fluid crackles in the lungs; the "attrition" sounds of roughened surface presenting every degree of roughness from the osteo-arthritic "scrunch" downwards; the "fibrous" sounds of tension or friction; and other less determinate or mixed types, among which may be mentioned the sounds audible in old or disused joints when worked beyond the range of their habitual movement. Any considerable effusion supersedes sound production and conduction. Tubercular joints are usually silent; and likewise the rheumatoid, in their more acute stage, when the trouble is still chiefly periarticular, although later on synovial crackles may be elicited.

The Subscapular Motor Sounds.

In the direction of the extrathoracic motor crackles a long lead had already been taken by the French school, but in a limited and exclusive field, that of the subscapular sounds. The "craquements et frottements sous-scapulaires" first attracted the attention of surgeons; and one of the latest articles, also of a surgical complexion, is an editorial review of the subject, and in particular of a recent thesis by Marcel Laisney,[7] and of the exhaustive articles by Surgeon-Major Miramond de Laroquette,[8] in Lucas-Championnière's *Journal de Médecine et de Chirurgie Pratiques*.[9] Chauvel's nomenclature describes three varieties: (1) *Froissements*, which are practically physiological; (2) *Frottements*, which are rather louder, but likewise unassociated with pain; and (3) *Craquements*, which are usually more or less painful, and have been compared by Zaphariadès to the noise that a horse makes in chewing its oats. We need not dwell upon the surgical and operative aspects, which are limited to the removal of any scapular or costal exostosis, or of the crepitating bursa if present, or perhaps to a plastic muscular insertion between the thoracic and scapular surfaces. These are unusual and almost exceptional indications. The clinical interest attaching to the subject is now almost exclusively of a medical order, in connexion with the diagnosis of tuberculosis, and it is chiefly to that aspect that the question owes its actuality and its claim to special consideration.

The Question of Tuberculosis.

Professor Poncet, of Lyons,[10] who entertains well-known views as to the frequency of a chronic tubercular inflammation, or *tuberculose inflammatoire*, as the real cause of many cases of arthritis commonly regarded as rheumatic, has advanced the opinion that the main pathological cause of the "subscapular crepitus" is inflammatory tuberculosis of the subscapular cellular tissue, or of a subscapular bursa. Other writers have taken up the idea, and among them Rénon and Moucany have placed on record that these crackles are met with special frequency, nay almost exclusively, among the tuberculous. If we adopt the standpoint that freedom from tuberculosis is rather the exception than the rule among those who are reputed healthy, no strangeness would attach to that statement. Clinicians may, however, feel some hesitation in subscribing to it in a broad practical sense. Happily, they will find ample relief from the anxiety which has been raised on that score in a perusal of Miramond de Laroquette's masterly and exhaustive review of the whole subject, including observations on 824 cases in health and in disease, and 25 *post-mortem* examinations. His trustworthy conclusions are that sufferers from tuberculosis are not more liable than others to this peculiarity, that in a vast majority of instances it is of a purely physiological nature, and that in pathological as well as in normal subjects its mechanism is mainly due to a relative over-action of certain muscular fibres, chiefly those of the upper dentations of the serratus magnus. It is, he states, comparatively rare in children, but occurs in both sexes, at all ages and in all professions. Its pathological incidence is about equal in rheumatism, in tuberculosis, and in the remaining category of all diseases. It cannot, therefore, be regarded as special to any diathesis.

Miramond's views are practically endorsed by E. Pallasse,[11] whose paper contains the latest review of the question as to the tubercular origin of the subscapular sounds, although, as in the other French papers, no reference is made to the more critical anterior auscultation for similar sounds elicited by moving the arms. He cannot admit that the subscapular sounds are ever truly physiological; but he adduces good evidence that their pathology is not always tubercular in the remarkable history of a robust youth of 19, free from all hereditary taint or symptoms of tuberculosis and refractory to its tests, but in whom, for a period of two years, painless subscapular creaking has been so loud as to be audible at a distance of one metre from the chest.

To return to the general question, similar conclusions may be provisionally extended to the wider field covered by the application of Perez's method for the anterior examination and for the general examination of the

thoracic surface, as well as for the study of the intra-thoracic conditions—the latter, however, owing to the possible bony conduction of sounds originating within the chest, present a complicating element of difficulty and of doubt. It is noteworthy that the sign was first described in a case of tuberculosis. Although no general significance attaches to that circumstance, the sphere of its clinical utility seems likely to remain largely identified with a more thorough physical examination of the chest for the diagnosis of tubercular affections of the pulmonary apices and of the mediastinum, in addition to its everyday employment in the diagnosis of rheumatic affections of the scapular and sterno-clavicular articulations and of their ligaments and muscles.

The Practical Value of the Method.

The chief recommendations of the method are its simplicity when conducted with the binaural stethoscope and the amount of information which it is capable of furnishing. By opening up a new field of observation its systematic employment might lead to clinical results the importance of which we cannot foretell. I venture to suggest to clinical inquirers that they make a rule of combining the articular with the upper thoracic examination in all cases yielding any stethoscopic sounds, and of noting the result. The most convenient technique is to firmly steady with one hand the cup of the stethoscope over the front of the head of the humerus, which it fits well, or in dorsal examinations over its side or over the flat acromial surface of the spine of the scapula, whilst the other hand grasps the elbow and imparts to the humerus a full range of strictly passive movements. The sterno-clavicular examination presents no difficulty.

1. *For articular conditions*, as this is by far the finest test that can be applied, the examination should be *de rigueur*. A negative result from auscultation and from manipulations would be the quickest as well as the only conclusive evidence of absolute soundness. Should, however, any articular sounds be heard, let us continue the movement, and simply shift the chestpiece to the supra-clavicular and infraclavicular regions—a matter of a few seconds, and well worth our while if any unexpected sounds should happen to be heard.

2. *For pulmonary and pleural conditions* the indication is obvious. The earliest detection of apical tuberculosis is the question of the day. Our time and trouble must not count; the shadowy indications of radioscopy draw largely upon both, but they are worthless in the absence of the best technical and instrumental advantages, and this is also true of the stethoscope. Meanwhile, should we continue to neglect a whole line of evidence which lies close at hand and needs no technical refinements? In all doubtful cases we should proceed to submit our apical results, whether positive or negative, to the articular test. Perez has taught us that there are lesions (in my experience chiefly pleural, but sometimes pulmonary) which may give sound under the mechanical traction of movement, and not always under that of deep breathing only; and the no less important fact that some of the sounds audible over the apices may be merely conducted from the sterno-clavicular or shoulder joints. There is no choice for us but to take the trouble to apply the necessary differential tests. Without them there can be no strictly conclusive overhauling of the chest.

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A LABORATORY for the investigation of pellagra has been established by the Public Health and Marine Hospital Service in Savannah, Georgia. Dr. C. H. Lavinder is in charge of the work.

THE INFLUENCE OF STRONG, PREVALENT, RAIN-BEARING WINDS ON THE COURSE OF PHTHISIS.

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[Second Paper.]

In a first paper on this subject, recently published,[1] I have shown that strong, prevalent, rain-bearing winds probably exercised a considerable influence on the course of phthisis in the Exmoor portion of Barnstaple Rural District during the forty-five years 1860 to 1904.

I now propose to show, in two other areas in quite different parts of Devonshire, a similar influence of these winds—namely, in the rural district of Okehampton, in Mid-Devon, during the fifty years 1860 to 1909, and in the parishes round Budleigh Salterton, in St. Thomas district of South-East Devon, during the forty-five years 1866 to 1910. Following the plan of my former paper, I have only considered cases under 50, as I find here, just as I did there, that from 50 onwards cases tend to be more chronic. As cases under 10 in these two areas evidently tend to be disproportionately acute, I have also omitted them. So that the cases given died over 10 and under 50.

As I have carefully described elsewhere the rural district of Okehampton,[2] where a most marked contrast was shown to exist in phthisis prevalence between the parishes fully exposed both to west and south-west winds and the parishes sheltered from them both, it is only necessary to recall the facts that most of the parishes are on impervious soils with a very considerable rainfall, and that many of the sheltered, as well as most of the exposed parishes, are more or less open to north-west wind.

Taking the same two groups of parishes that afforded the striking contrast in regard to phthisis prevalence, we obtain the following table:

Name of Parish.	Recorded Duration of Illness.			
	Under 1 Year.	1 to 1½ Years.	2 to 3½ Years.	4 Years and over.
Exposed to both W. and S.W. Winds.				
Highampton	3	1	1	
Beaworthy	5			
Bratton Clovelly	2		1	1
Sourton	2			
Totals	12	1	2	1
Percentages	73 %		18 %	
Sheltered from W. and S.W. Winds.				
Inwardleigh				
Monkokehampton				
Chagford	9	7	5	1
Gidleigh	1			
Throwleigh	5	3	1	
Drewsteignton	7	4	5	
Ashbury				
Totals	22	14	11	1
Percentages	45 %		25 %	

Thus the exposed parishes have a higher proportion of comparatively short cases than the sheltered parishes and a lower proportion of comparatively long cases.

Turning next to the parishes about Budleigh Salterton. These are nowhere so severely wind-swept as the preceding, nor is their rainfall so great; the soils of all are comparatively pervious, and the average inhabitant is

probably a good deal more well-to-do. We get there the following figures:

Name of Parish.	Recorded Duration of Illness.			
	Under 1 Year.	1 to 1½ Years.	2 to 3½ Years.	4 Years and Over.
Exposed to S.W., W., or N.W.				
Otterton (exposed to S.W.) ...	5	1	1	
Littleham (exposed to W., S.W., N.W.)	11	16	12	6
Withycombe Raleigh (exposed to W., S.W., partly N.W.)	8	11	12	2
Exmpstone (exposed to W., S.W., partly N.W.)	5	6	5	3
Newton Poppleford (exposed to N.W.)	1	4	1	1
Totals	30	38	31	12
Percentages	27%	61%	39%	
Sheltered from W., S.W., and N.W.				
Budleigh Salterton	6	6	13	4
East Budleigh	5	2	7	4
Colleton Raleigh		1	3	1
Bicton			2	1
Totals	11	9	25	10
Percentages	20%	36%	64%	

Here, again, the exposed parishes have a higher proportion of comparatively short cases than the sheltered parishes and a lower proportion of comparatively long cases.

It will doubtless be objected to these tables that the recorded durations of cases of phthisis cannot be implicitly relied on. To this objection I would reply:

1. That it is very unlikely that the errors in three consecutive areas would all tell in just the same direction: and

2. That there is no reasonable ground for assuming such error as would invalidate these figures.—

The much longer durations generally recorded about Budleigh Salterton than in Barnstaple and Okehampton rural districts may perhaps be jointly ascribed to more wealth, less wind, less rain, and more pervious soil. These, however, are matters which only concern us so far as to account for a difference which might otherwise be put down to varying accuracy of record.

Taking these tables together with those published in my former paper, I think a very strong case is established for the view that strong, prevalent, rain-bearing winds exert an influence upon the course, as they certainly do on the prevalence, of phthisis.

My best thanks are due to Dr. Young, of Okehampton, for kindly helping me to obtain the figures for his district.

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In his report for the year 1911 Dr. Waldo, Coroner for the City of London and for Southwark, states that the number of inquests on persons whose death was due to injury by vehicles reached a higher total than in any other year since he has been coroner for these areas. The number was 57, mechanically driven vehicles causing 39 of them, horse-drawn vehicles 18. The Hersecher apparatus for preserving bodies by means of formalin has proved of signal service in identification, as well as for the other purposes for which it was installed at the City mortuary some two years ago. A similar apparatus is much needed in Southwark, since the number of drowned and unknown persons landed there is large. There were only four deaths during the administration of anaesthetics, and only one of these occurred at a certain hospital in which in an earlier year as many as eleven such deaths took place.

THE GENESIS OF THE DICROTIC PULSE WAVE.

By D. W. SAMWAYS, M.D., D.Sc., M.R.C.P.,
MENTONE.

In Dr. James Mackenzie's *Diseases of the Heart*, edition 1910, he says:

There has been a good deal of discussion concerning the cause of the dicrotic wave. The semilunar valves are so delicately constructed that they readily respond when the pressure on one side rises above that on the other. As soon as the aortic pressure rises above the ventricular the valves close. At the moment this happens the valves are supported by the hard contracted ventricular walls. The withdrawal of the support by the sudden relaxation of these walls will tend to produce a negative pressure wave in the arterial system. But this negative wave is stopped by the sudden stretching of the aortic valves, which, on losing their firm support, have now themselves to bear the resistance of the arterial pressure. This sudden checking of the negative wave starts a second positive wave, which is propagated through the arterial system as the dicrotic wave.

I am very glad to see Dr. Mackenzie advocating the idea of the muscular mass of the ventricle contracting behind the aortic valves and acting as a support to them, because for twenty years I have maintained that the auricles, especially in mitral stenosis, may perform that service for the auriculo-ventricular valves.

I am, however, loth to admit that the aortic valves thus petted, are immediately afterwards so betrayed that they become suddenly stretched sufficiently to start a second positive, or dicrotic, wave. One may take for granted that any theory demanding so great and sudden a strain of these delicate structures is incorrect.

In 1894 I advanced another theory, in my thesis for the degree of M.D. at Cambridge, which I think better explains the mode of production of this wave. I maintained that the dicrotic wave is a ballistic or catapult wave, due to the *longitudinal* recoil of the first part of the aorta, after it has been longitudinally stretched by the contracting heart.

When the ventricle contracts with sufficient force the aortic valves open, and the blood in the aorta and in the ventricle forms one continuous column under pressure. This rigid column occupying the aorta and ventricle presses its foot on the inferior wall of the heart near the apex, and is probably a chief factor in preventing the apex moving upwards when the ventricle contracts. In fact, the arch of the aorta and the lower wall of the ventricle are mutually repelled by the pressure of the blood column lying between them and thrusting them apart.

With a ramrod of blood pushing it down, the apex cannot come up during contraction, and the base has to be drawn down towards it (as shown by the needle experiments of our early physiology days) during ventricular contraction, pulling with it the aorta, which consequently lengthens. The aorta is drawn like the finger of a glove over the blood at the base of the ventricle, the remainder of the ventricular blood being driven through the aortic orifice after it.

As the aortic pressure rises and the outflow from the ventricle decreases, the aortic valves are pushed towards one another by the blood behind them in the aorta, and finally closed. The pressure of the aortic column now falls on the valves, supported temporarily from behind, as Dr. Mackenzie suggests, by the "hard, contracted, ventricular walls."

Something else, however, now happens. The pressure in the aorta near the heart begins to fall, and the longitudinally stretched aortic walls soon begin to recoil to their normal length, just as the circularly stretched walls have begun to return to their normal diameter. And just as the circular recoil drives onward through the arteries the main pulse wave so the longitudinal recoil, which follows closely on it, shoots on a second wave—the dicrotic or ballistic wave. Any one who will examine the first part of the aorta will be amazed at the amount of its longitudinal elasticity (using the word in the vulgar sense), and if it be closed and pumped up it will be seen to lengthen considerably.

It might be objected that the longitudinal and circular recoil of the aorta would combine to generate the main pulse wave. That would only be true if the longitudinal recoil were as powerful, and so could commence simultaneously with the circular. This does not appear to be

the case. The advent of the longitudinal recoil is therefore slightly delayed, and the dicrotic wave, due to the oncome of a diminution in the longitudinal capacity of the first part of the aorta, is superposed on the main wave early in its descent.

The mode of production of this ballistic wave can easily be imitated with a model consisting of rubber tubes and pump representing the circulatory system. If, when the pump is squeezed, it be also pulled to stretch the tube into which its contents flow, and, after squeezing, allowed to yield to the stretched tube in its recoil, one wave is generated by the pump and a second smaller one by the tube in its longitudinal recoil. The whole, properly recorded, exactly resembles the main features of a normal pulse tracing, with the dicrotic wave small or large according to the rapidity of recoil allowed.

A confirmatory experiment I performed on a large dog. After anaesthetizing it, the chest wall and pericardium were opened. A tube introduced into a main artery of the leg allowed the pulse tracings to be recorded graphically. The aortic walls close to the heart were then seized and held by two pairs of forceps, and prevented as far as possible from making any movement in a longitudinal direction. The dicrotic wave, which before was conspicuous, immediately disappeared, and reappeared at once on the tracings when the aorta was set free to perform its longitudinal movements.

I have since had no doubt that the dicrotic wave is to the longitudinal recoil of the first part of the aorta what the main pulse wave is to its circular recoil.

A NOTE ON BLOOD-PRESSURE READINGS IN CASES OF AURICULAR FIBRILLATION.*

BY

M. D. SILBERBERG, M.D.MELB.,

MELBOURNE, VICTORIA.

In examining a radial pulse tracing taken from a case of auricular fibrillation one of the most noticeable characteristics is the inequality of the heights of the systolic primary waves—forcible beats and feeble beats occur in no definite order.

This suggests that the systolic arterial blood pressure is also a varying factor in these cases, and that to assign a single value for the blood-pressure readings in such patients is scarcely justifiable.

A simple method for ascertaining the systolic pressure reading for the various beats is as follows: The armlet band of a blood-pressure apparatus is adjusted on one arm—the right is the more convenient. A wrist splint of a Mackenzie ink polygraph is strapped on over the right radial artery, and another over the left radial, and the corresponding wrist tambours are connected by rubber tubing to the receiving tambours of the polygraph. In this way the two radial tracings are recorded on the one strip of paper. The apparatus is adjusted till the best radial impulse in each is obtained, and so that the swings of the writing pens are approximately equal. The paper is allowed to run through, and the pressure in the armlet band is increased by 5 to 10 mm. at a time, and that pressure noted at which the various beats fail to affect the recording apparatus. Sooner or later, as the armlet pressure is raised, the smallest beats of the pulse on the corresponding arm are lost. The reading of the manometer, at which this occurs, gives the minimal systolic pressure. When all the beats are obstructed, the maximal systolic pressure has been obtained. It is found that with highly irregular hearts there may be a difference in the maximal and minimal readings of 60 mm. Hg. With less irregular hearts—that is, those in which the rate is slower—the difference is not so marked, and in those that are only slightly irregular—as, for example, where the ventricular rate has been markedly retarded by digitalis—the difference may not amount to more than 5 to 10 mm. Hg.

Janeway[1] has previously called attention to the difference in the systolic blood pressure readings in cases of arrhythmia.

The readings taken from 8 patients, all of whom were typical examples of cardiac irregularity due to auricular fibrillation, are given in the following table:

Case.	Blood Pressure Reading of Smallest Beats.	Maximum Blood Pressure Recorded.	Difference in mm. Hg.	Pulse Rate per Minute.
1	150	210	60	56
2	80	100	20	72
3	100	130	30	92
4	95	140	45	74
5	130	140	10	44*
6	115	140	25	84
7	120	140	20	72
8	160	200	40	76

* On digitalis.

This table clearly shows the wide range of blood pressure which an individual case of auricular fibrillation may possess. This variation is of importance, because in the cases in which it occurs single observations of blood pressure, taken in the ordinary manner, possess only a restricted value as an index; the error introduced in continued and comparative observations, where each observation is confined to a reading of the most forcible beats, is also very considerable.

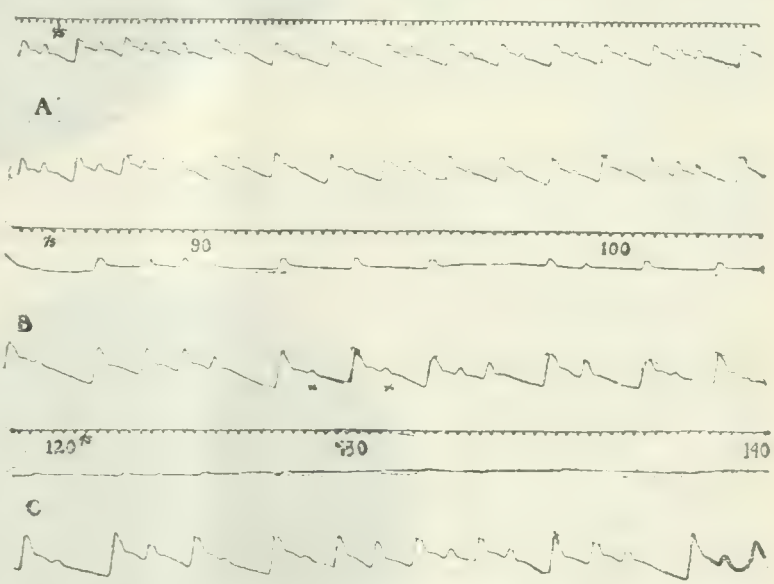


Fig. 1, A, B, and C.—Three strips of tracing (right and left radial) taken from the same patient.

A. Before brachial compression: all the beats come through.
B. The smallest beats × × disappear at a pressure between 90 and 100 mm. Hg.
C. The largest beats fail to record at a pressure of 140 mm. Hg.

REFERENCE.

[1] T. C. Janeway, *The Clinical Study of Blood Pressure*, p. 205.

* From the Cardiographic Department, University College Hospital Medical School.

A BEQUEST of £300 has been left to the East Sussex Hospital, Hastings, under the will of the late Mary Jane Day of Bexhill.

CALCAREOUS DEGENERATION OF THE MYOCARDIUM.

By J. A. MUNRO CAMERON, M.B., Ch.B.,
PATHOLOGIST TO THE LANCASTER COUNTY ASYLUM, WHITTINGHAM, PRESTON.

I AM inclined to record the following case, for although calcification of the cardiac muscle is by no means an uncommon condition, it is seldom that the process, either in extent or degree, reaches such an advanced stage. Its rapidity of development, as far as could be decided by ordinary clinical criteria, is also unusual.

CASE.

A. L., a male patient, aged 39, was admitted to the County Asylum, Whittingham, on February 7th, 1890, in a condition of maniacal excitement with delusions. The acute stage of his attack slowly and steadily subsided, but no definite improvement of his mental condition occurred. He became listless and apathetic, showing little interest and taking no part in the work or amusements of the ward, and ultimately dementia supervened.

Condition on Admission and Course.

On admission no anomaly of heart, lungs, or digestive system was apparent; the urine, of normal specific gravity, was free from albumen and sugar.

Until April, 1910, when he developed a cough, his physical condition had been relatively good. Then a systolic murmur was discovered in the mitral area; his sputum was examined for the tubercle bacillus with a negative result; a trace of albumen was present in the urine.

Subacute bronchitis was present on to May, 1911, when swelling of the feet and legs was noted. This ushered in a slowly advancing and finally a general oedema, in which condition the patient died on January 7th, 1912.

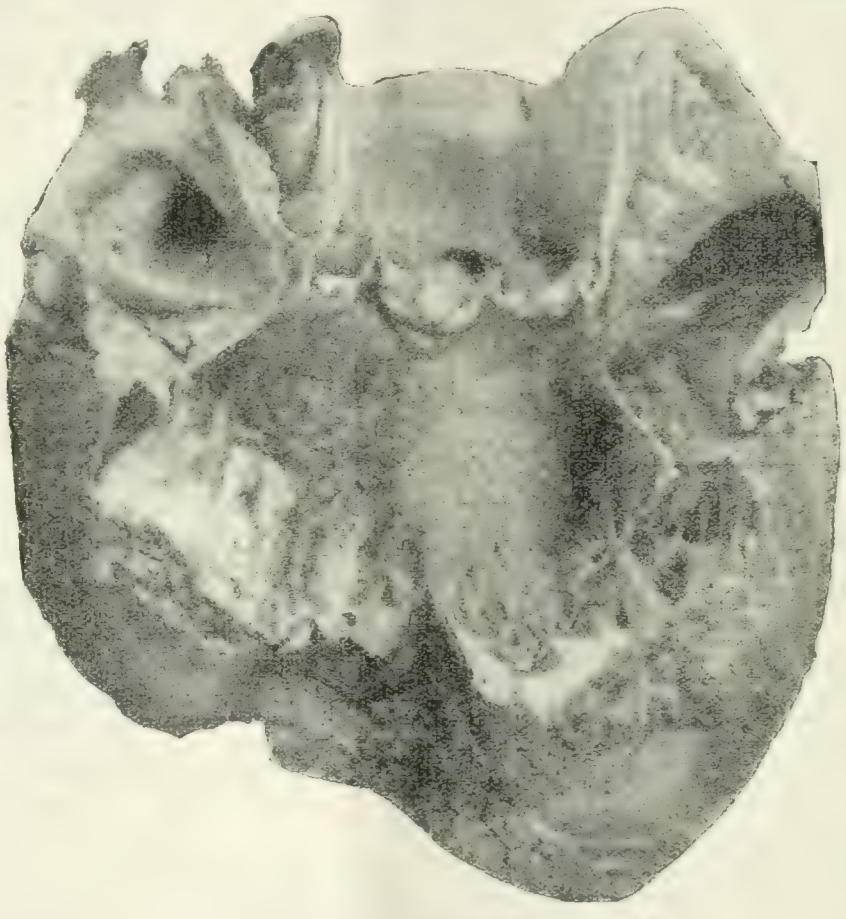


Fig. 1.—Calcareous degeneration of left ventricle. × ⅔.

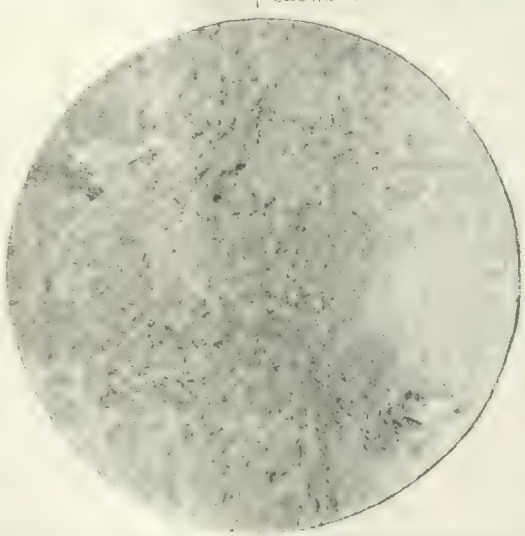


Fig. 2.—Longitudinal section through calcified area towards apex. × 20.

Necropsy.

Brain.—The venous sinuses were congested, the dura mater thickened, convolutions atrophied, lateral ventricles dilated and filled, ependyma congested. No haemorrhages into brain substance were present, although the basal vessels were atheromatous.

Lungs.—Bronchial mucous membrane irregularly thickened and congested; lower lobe of lungs oedematous.

Stomach and Intestines.—These were congested, but showed no other anomaly.

Liver and Spleen.—Congested and of very firm consistence.

Kidneys.—Congested, slight degree of fibrosis.

Heart.—This organ was large and weighed 450 grams. The aortic and pulmonic valves were competent, although slightly thicker than normal. The mitral orifice was markedly increased in size, the cusps thickened and firm; the tricuspid was affected similarly, but to a less degree.

The left ventricle was greatly dilated and hypertrophied and almost covered in its interior by a calcareous mass, between which and the mitral valve a large thrombus was found. The accompanying photograph shows the extent of the process, from the apex of the cavity almost up to the attached edges of the cusps. On the surface the mass was soft: as it extended towards the apex it became progressively denser, and in its lower part (shown on the right-hand side of the photograph) was of the consistence and had the appearance of bone. The myocardium underneath was fibrous, and the photomicrograph (longitudinal section from the "bony" part towards the apex) indicates that the condition was advancing until the time of death.

The coronary arteries were atheromatous, and sclerotic patches appeared on the aorta.

My thanks are due to Dr. Gemmel for permission to publish this case, and also to Mr. Fann for assistance in preparation of photographs and specimens.

RESULTS OF THE TREATMENT OF SYPHILIS WITH SALVARSAN AT THE ROYAL NAVAL HOSPITAL, HASLAR.

BY

STAFF SURGEON T. B. SHAW, R.N.

SALVARSAN has been used at Haslar since the end of December, 1910. The number of cases treated down to March, 1912, is 340, and as the employment of this new remedy in syphilis is a subject of general interest, it has been thought advisable to publish a short summary of our results.

In the treatment of the first 20 cases an alkaline solution of the drug was administered intramuscularly: twenty-six injections were given in this way, and we were very favourably impressed by the method; the severe pain was well borne by the men, and no evidence of tissue necrosis at the injection site—a sequela described by many workers—occurred in any of our cases.

In the treatment of all our remaining cases the intravenous method has been used; the undoubted superiority of this method over all others has now for some months been generally recognized.

As regards the actual method employed for introducing the salvarsan solution into the vein, we have used at Haslar the injection method as opposed to the infusion method. The apparatus employed is McDonagh's modification of Schreiber's original design, and it has given the greatest satisfaction. It consists essentially of an all glass 20 c.cm. syringe, two-way cannula, and rubber connexions. The special needle supplied with this apparatus has proved invaluable: it is fitted with a small plate, concave underneath, which rests comfortably on the arm when the needle is inserted into the vein. We have never yet found it necessary to expose the vein before introducing the needle.

The cases treated represented examples of syphilis in all its stages—primary, secondary, tertiary, and latent.

At first salvarsan was used in those cases which had proved resistant to mercury and other forms of treatment; the great value of the new drug was soon demonstrated, and gradually its use became more general. For some months now it has almost entirely replaced mercurial injections as the routine treatment of syphilitic patients in hospital. This position it has attained for the following chief reasons:

1. In the majority of cases it clears up syphilitic lesions more rapidly than mercury.
2. Its spirochaeticidal action is greater.
3. Its effect in changing a positive to a negative Wassermann reaction is stronger than that of mercury.
4. Its tonic effect is greater.

Taking into consideration the above facts, which are now almost generally recognized by those who have had experience in the use of salvarsan, we must conclude that its ultimate curative effect on syphilis will also prove to be greater.

The tonic effect of salvarsan has, I think, not been sufficiently emphasized: it has been a marked feature in many of our cases, especially in those already anaemic, and debilitated by the disease or by injudicious mercurial treatment. A few days after an injection the patients report an increased sense of well-being, that they "feel better," and a gain in weight almost invariably follows.

This gain in weight was in many of our cases remarkable. One patient, a petty officer who had contracted syphilis four years previously, was admitted to hospital suffering from extensive ulceration of the soft palate; he had had two years' mercurial treatment: the Wassermann reaction was positive. He was given 0.55 gram salvarsan: in five days the ulceration had healed, and at the end of a week he had gained 8 lb. in weight.

The rapidity with which salvarsan clears up syphilitic lesions was especially seen in:

1. Cases suffering from ulcerative lesions of the tongue, palate, fauces, tonsils, pharynx, and of the mucous membrane of the mouth generally.
2. Cases of so-called malignant syphilis.
3. Cases with marked cachexia and loss in weight.
4. Laryngeal syphilis with loss of voice.
5. Primary syphilis.

It was in cases of early secondary syphilis with rash that the clinical results as regards rapidity of action appeared sometimes to be disappointing, but even here in the majority of cases the action of salvarsan was more rapid than that of mercury.

It may be of interest to record briefly three cases in which mercurial and other treatment had been employed for months (in one of the cases for years) with little or no effect, and in which the beneficial results of salvarsan treatment were especially striking.

CASE I.

A stoker, aged 26, was admitted to hospital on August 12th, 1910, suffering from a very chronic ulceration of the tongue. He had contracted syphilis thirteen months previously, and had had good courses of mercurial treatment. The condition proved most intractable, resisting all treatment. Four months and a half after the date of admission to hospital he received 0.6 gram of salvarsan intramuscularly, and in twelve days the tongue was well.

CASE II.

A stoker, aged 28, was admitted to hospital on September 28th, 1908, suffering from malignant syphilis of the mouth and skin. Syphilis had been contracted two months previously, and he had had one course of seven mercurial injections. Every form of treatment was tried in this case, but with little or no effect on the progress of the disease. In December, 1908, he was invalided, but his condition was so bad that he could not be discharged, and he remained in hospital under treatment for more than two years. In November, 1908, his weight was 147 lb.; in November, 1910, 98 lb. At the end of this time he was a mere skeleton, his body was covered with ulcers, and his tongue, as a result of severe ulceration of the posterior half, was reduced to almost one-third of its original size. The hard palate was perforated, and his speech could not be understood. His left knee and left ankle became affected with the disease early in 1911, and he was practically bedridden. On March 12th, 1911, 0.34 gram salvarsan was given intramuscularly. Improvement was rapid and striking. In a few days the joint symptoms had gone and he was able to walk about. One month after the injection only two of the skin ulcers remained unhealed, and the whole of the mucous membrane of the mouth was clean and healthy. A second injection of 0.35 gram was given two months after the first. When, one month later, he was discharged from hospital one ulcer on the leg only remained unhealed.

CASE III.

A stoker, aged 22, was admitted to hospital on July 5th, 1911, suffering from severe ulceration of the posterior pharyngeal wall, tonsils, and palate. He had contracted syphilis twenty-two months previously, and he had had twenty-eight mercurial injections. The condition had been present two months, the ulceration advancing in spite of treatment, and the uvula and part of the soft palate had been eaten away. On July 6th 0.5 gram salvarsan was given intravenously; in ten days, before a second injection had been given, all the lesions had healed.

Three cases only failed to respond to salvarsan, and these had also proved intractable to mercury and other treatment. Two of these suffered from gummatous ulceration of the skin and subcutaneous tissues; in the third the lesion was leucoplakia, with chronic ulceration of the tongue.

We have had little experience of the use of salvarsan in syphilitic lesions of the nervous system, but, judging from the results of other workers, the field for its use in such cases is not a large one, and, if given at all, it should be exhibited with the greatest care. Two cases only, suffering from early cerebral syphilis, were treated at Haslar, and both showed a marked improvement. Two cases suffering from advanced choroiditis were treated; permanent damage to sight had already resulted and the lesions were progressing. In both cases the progress of the disease was checked by the salvarsan.

Latent Syphilis.

Eight cases received salvarsan treatment. One of these requires special mention because of the interesting sequelae of the injection.

This patient was admitted suffering from chancroid and bubo. He had contracted syphilis ten years previously, and had had two years' mercurial treatment. The Wassermann reaction was positive, and he was most anxious to have the "new treatment." A few days after an injection of 0.5 gram salvarsan he complained of his tongue, which was found to be enlarged; ulceration followed, extending along each border. This was followed by gummatous ulceration of the fauces. The condition cleared up after a second injection.

It is of interest to note that the last syphilitic manifestation from which this patient suffered was "ulceration of the tongue" three years previous to the salvarsan injection.

Primary Syphilis.

The number of cases of primary syphilis treated was thirty-four, and, so far, in none of these have any secondary symptoms developed. Twelve of these received the treatment from three to seven months ago. It is in these early cases of syphilis that the *therapia sterilisans magna* effect of salvarsan is best seen. Already authentic cases of a second infection of syphilis after cure of the primary disease by salvarsan have been reported. In this account of our results at Haslar I am able to report another case of reinfection. The case was as follows:

Reinfection.

The patient was admitted on November 7th, 1911, suffering from a primary chancre of the tongue, with typical syphilitic enlargement of the glands under the jaw. On November 23rd the diagnosis of syphilis was confirmed by the Wassermann reaction which was positive. An injection of 0.5 gram salvarsan was given, followed in seven days by a second injection of 0.55 gram. He was discharged on December 16th. On January 24th he was again admitted to hospital said to be suffering from chancroid. At the base of the glans penis he had a sore, which he stated appeared about eight to ten days after exposure to infection when he was on Christmas leave. The prepuce was much swollen, and the day after admission to hospital the sore could not be exposed. Two weeks later a hard sore could be distinctly felt. On February 16th the Wassermann reaction was positive. On March 13th circumcision was performed, and a typical large Hunterian chancre was found at the base of the glans. On March 16th a typical papulo-roseolar syphilitic rash had developed on the trunk.

Relapses.

At the time of writing only six of the cases treated are known to have relapsed or to have developed other syphilitic lesions. In all the Wassermann reaction remained positive. Two of these had received only one injection, and quickly yielded to further treatment. In two others, both of which had suffered originally from very severe secondary syphilis, what have been described as neuro-relapses, occurred. As such cases are important, I give below a short account of each:

Case I.

A stoker, aged 25, suffering from a very severe papular rash; three injections of mercury had led to little improvement, and he was given two injections of salvarsan each 0.5 gram. Three months after being discharged he was again admitted suffering from symptoms which pointed to an affection either of the left auditory nerve or of the labyrinth—namely, vertigo, tinnitus, and internal ear deafness. The symptoms began suddenly with pain in the left side of the head about one week after he left hospital. The onset of deafness was sudden. There was no nystagmus. Energetic mercurial treatment was tried, also potassium iodide in large doses, but with little benefit. The Wassermann reaction remained positive.

Case II.

A stoker, suffering from severe secondary syphilis, received two injections of salvarsan each 0.5 gram in September, 1911. About two months later paralysis of the right facial nerve suddenly developed. Admitted to hospital again in February, he was found to have complete paralysis of the right side of the face; no other lesions or symptoms were present. This patient at the time of writing is still under treatment, but so far has shown no improvement under large doses of potassium iodide, together with massage and electricity locally. Wassermann reaction remains positive.

In the two remaining cases which relapsed the lesions rapidly cleared up under further treatment.

Effect of Salvarsan Treatment on the Total Days' Illness.

An important consideration, when discussing the advantages and disadvantages of salvarsan treatment, especially in the services, is the effect such treatment will have in reducing the total days' sickness of syphilitic patients in hospital. That a reduction must occur is evident to those who have had an opportunity of observing the clinical results. In September last the reduction in the number of days' sickness was shown by comparing the results of corresponding cases of syphilis treated in hospital during 1910 before salvarsan was introduced. This reduction was especially seen in cases suffering from ulcerative lesions of the mouth, tongue, and throat, the average number of days' sickness for each case being reduced to almost one half.

To demonstrate this effect of salvarsan further, a comparison has been made between the total days' sickness from syphilis in Haslar during the last six months of 1910, before salvarsan was introduced, and the total days' sickness during the past six months, when the drug was in very general use.

Table showing Duration of Sickness Before and After Introduction of Salvarsan.

	Total Number of Cases.	Total Days' Sickness.	Average Number of Days' Sickness for each Case.
First period of 6 months, salvarsan not used	305	8,371	27.4
Second period of 6 months, salvarsan used	326	6,458	19.8

Comparing these two periods it is seen that the average number of days' sickness for each case was reduced by 7.6 days.

Sequelae of the Injection.

Local.—565 intravenous injections have been given at Haslar, and in no case has any local trouble such as thrombosis or abscess occurred. The skin over the vein chosen is thoroughly cleansed with ether soap immediately before the needle is introduced. A sterile pad is applied afterwards, and removed on the following morning.

General.—The greatest care has always been taken in the preparation of the saline solution and we have seen very few severe reactions. Rigors and vomiting were rare. From November, 1911, till February, 1912, the saline was sterilized immediately before use, but our results were not better than we had obtained previously using saline possibly sterilized one or two days before use. The highest temperature recorded was 103.8°. In 43 per cent. of the cases the constitutional sequelae were practically nil, the temperature did not exceed 99°, and the only complaint was slight headache. Headache has been the most constant sequela in our cases. Transient diarrhoea and abdominal pain have also been noted in many cases. Slight albuminuria was noted in six cases, but in only two did it persist for more than a few days. Herxheimer's local reaction was frequently seen in early secondary cases, the rash becoming much more marked four to six hours after the injection. This symptom was nearly always accompanied by a rise in temperature. No toxic affection of the eyes has followed its use. In no case were any symptoms of collapse seen, nor have we seen in any of our cases any alarming or dangerous symptoms follow the injection. Patients are placed on low diet for the day on which the injection is given. Afterwards they are kept strictly in bed till the following morning, the temperature and pulse being taken every hour up till 8 p.m. For some weeks now we have been using fresh redistilled water in the preparation of the saline solution, with very beneficial results.

The Wassermann Reaction.—In the large majority of the cases Wassermann's complement fixation test has been carried out before and after the injections. Later results have also been obtained in many cases at varying intervals after leaving the hospital. These tests have been carried out by Fleet Surgeon Bassett-Smith, who will shortly publish his results. It is sufficient to state here that treatment with salvarsan has proved superior to mercurial treatment in leading to the production of a negative Wassermann reaction.

Conclusions.

The general plan of treatment at present in use at Haslar is as follows:

Primary Syphilis.—Immediately a diagnosis of syphilis is made, one injection of salvarsan is given, followed eight to twelve days later by a second. When discharged to duty no further treatment is recommended in the absence of symptoms unless the Wassermann reaction becomes positive.

Early Secondary Syphilis.—Two injections of salvarsan are given as in cases of primary syphilis. Further treatment in the absence of symptoms is based on the Wassermann test. From our results, even in these early secondary cases, I believe two injections will in many cases cure the disease; but unless the Wassermann test can be carried out about once a month mercurial treatment supplemented with iodides is recommended.

Late Secondary and Tertiary Syphilis.—One or two injections of salvarsan are given according to the nature of the case, our aim being to clear up the lesions as quickly as possible. When discharged to duty, these cases are, as a rule, recommended for further courses of mercurial and iodide treatment.

Latent Syphilis.—Salvarsan is not recommended as a routine treatment in cases of latent syphilis. Its use here should be restricted mainly to early latent cases, and cases where previous treatment has been slight.

From our results so far at Haslar, we are of opinion that salvarsan, with or without mercury, is indicated in every case of syphilis with active signs of the disease, provided no contraindications are present.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

THE INGUINAL OPERATION FOR THE RADICAL CURE OF FEMORAL HERNIA.

I HAVE read with considerable interest Mr. Morton's paper in the issue of the BRITISH MEDICAL JOURNAL of February 24th on the inguinal operation for the radical cure of femoral hernia. I have practised this operation for the last seven years, and it has always been a matter of some surprise to me that the operation should receive such scant attention in textbooks of operative surgery.

In addition to being the only anatomical method, it is also the only one successful in closing the upper end of the crural canal, and it is the only method which gives an adequate view of the neck of the sac and its contents in cases of strangulation.

My experience has been very much the same as that of Mr. Morton. Out of 30 cases, 11 were for radical cure and 19 to relieve strangulation. The large number of these cases that come to the surgeon for the relief of strangulation as compared with those that came for a radical cure is due, I believe, to the fact that a femoral hernia does not, as a rule, reach a large size, and does not give much inconvenience until strangulation occurs.

I am not able to speak with any certainty of the after-results of the operation, because, so far, I have not gone into the matter, many of my cases having only been done a year or two. I would, however, advocate this operation as a routine in all cases of strangulation. The incision I employ is a curved one, beginning over the pubic spine, passing downwards and outwards an inch below Poupart's ligament, and then upwards, to cross that ligament at the junction of its outer and middle thirds. A flap of skin and fascia, convex downwards, is then dissected up, exposing the hernial sac and the aponeurosis of the external oblique. The sac is now separated from surrounding structures, and opened. An incision is now made through the aponeurosis of the external oblique; in the male the cord is hooked upwards and inwards; the fascia transversalis is now divided, and the peritoneum exposed. I now incise the peritoneum, so that a good view is obtained of the bowel, both limbs of the herniated loop can be seen, and their condition ascertained. Gimbernat's ligament may be divided from above, as Mr. Fagge suggests, but I find that in a large number of cases the ring can be stretched by the finger from above. The bowel is now drawn up from below, examined and replaced in the abdominal cavity; the sac also is drawn up above Poupart's ligament and cut off; after ligation any opening left in the peritoneum is stitched up, the operation being finished very much in the manner Mr. Morton describes.

The advantages of this method of operating consist in a good view of the parts concerned, easy access to the constricting agent; while any operation on the bowel, such as resection or the stitching up of a perforation, is a much more simple matter with the increased space at one's command. It was frequently a difficult matter to draw the bowel far enough down below Poupart's ligament to examine the site of constriction when operating by other methods, while the bowel stood some risk of being damaged in the process; and should damaged bowel slip back into the peritoneal cavity—a contingency which I have experienced—it can be rescued at once.

Oxford. EDMUND C. BEVERS, F.R.C.S.

ANENCEPHALOUS MONSTERS.

MR. RONALD KIRKNESS records a case of anencephalous monster in the BRITISH MEDICAL JOURNAL of September 30th, 1911, page 755, which, in many particulars, is so like two cases I have recently met with that I am induced to send some particulars from my notebook.

The mother of the monster shown in the photograph was confined at the end of August, 1911. It was her fourth labour. The first two confinements were normal and healthy boys were born. The third labour produced a dead fetus, with abundance of liquor amnii. After the early months of her fourth pregnancy she rapidly increased in size, and became distended to such a degree that her friends felt certain she would bring forth twins. Labour commenced at the end of the eighth month. After several hours of weak pains I ruptured the membranes and at once there was an escape of an excessive quantity of amniotic fluid. In various vessels I collected and measured five quarts, but at least another quart must have escaped on the floor. The monster had been dead a few days.

The photograph, which was kindly taken by our house-surgeon at the Children's Hospital, shows the absence of cerebrum and of neck. The cervical vertebrae were wanting, the base of the skull being rigidly fixed into the dorsal vertebrae and the sternum. There was also a spina bifida in the dorsal region.



The other case, born six months ago, was the result of a third pregnancy. The first child, a girl, was normal in every way. The second labour occurred at the seventh month and was a placenta praevia, with dead fetus. The third labour was normal, except there was more than the usual amount of liquor amnii. The fetus was exceedingly well developed in body and limbs, but had an absence of frontal region of skull, and almost an absence of parietal region. She made no sounds and did not seem inclined for food. She lived in this state for two months. The mother of this monster has a narrow and high palate. I am inclined to ask the readers of the JOURNAL if this disaster is more frequently met with than formerly. During the year and a half I was house-surgeon to the Women's Hospital, and attended about 1,500 labours. I did not meet with a case. I am told by a member of the staff that cases of monsters are often met with now amongst the hospital patients.

Brighton. GEORGE MORGAN, F.R.C.S.Edin.

CYST OF ABERRANT BILE DUCTS.

As cyst of the accessory bile ducts is of uncommon occurrence, the notes of the following case may be of interest.

On November 26th I was called to a man, aged 68, who had been taken suddenly ill. On my arrival he was *in articulo mortis* and expired in a few seconds. On inquiring from his relatives concerning his previous history I learnt that he had not been medically attended for over forty years, but that when 20 years of age he had suffered from some indefinite stomach trouble. He had never lived abroad.

Two days later I made a *post-mortem* examination. The body was that of an elderly man of spare physique. The cranial contents were normal. The lungs were healthy but showed sclerosis in parts; the bronchial glands were enlarged and darkened with carbonaceous particles. The heart was atrophied and exhibited fibrous and fatty degeneration.

On opening the abdomen there presented a swelling the size of a large orange. It occupied the fissure of the suspensory ligament and projected beyond the anterior edge of the liver. The swelling was globular and smooth, and was adherent to the left and quadrate lobes and to the

stomach. It was enucleated with a little difficulty, and on closer examination it appeared to be a tense cyst with thick walls. On opening it a tenacious bile-stained mucoid fluid escaped; the wall of the cyst exhibited calcareous plates. It was apparently of long standing, as inspissated bile could be scraped from the cyst wall. The liver and gall bladder were normal; the latter and its ducts had no connexion with the cyst. The other abdominal viscera were healthy.

The cyst did not present any of the characteristics of hydatids; there were no daughter cysts and no scolices or hooklets; further, the contents in consistency were quite different from those of echinococcal origin. The wall of the cyst did not exhibit any lamination. It appears to have originated in the accessory bile ducts, which are occasionally found at the left end of the transverse fissure, and the fact that the contents of the cyst were of the nature of inspissated bile suggests that cystic dilatation of one of these abnormal ducts, with retention of its secretion, is the causative factor in its production.

Wolverhampton. W. MACALISTER BROWN, M.B., Ch.B.

DOUBLE CEREBRAL HAEMORRHAGE IN A YOUNG MAN.

THE following case presents some unusual features, and is, I think, worth recording.

E. R., a railway-ticket collector, aged 21, was admitted into the Hampstead General Hospital on the evening of September 24th, 1911, in a state of coma.

His history was as follows: Four years previously he had been in St. George's Hospital for six weeks with acute nephritis and marked oedema of face and ankles, etc. Since then he had been quite well, save for occasional headaches and scanty flow of urine. For three weeks before he became unconscious he had been blind in his right eye. For the twenty-four hours preceding this state of coma he had performed his duties in the ordinary way, and had taken his meals well. On the day of admission he went out for a walk at 2.45 p.m., and at 4 p.m. he complained of numbness in his left hand and arm, and then immediately fell down insensible.

On admission, four hours afterwards, he presented the appearance of one deeply comatose. The face was clammy and bluish, the breathing slow and slightly stertorous, and mucous rattling in his throat most evident. The pulse was slow and full, equal at both wrists, registering 190 mm. Hg on the Riva-Rocci sphygmomanometer. The heart sounds were very distinct and pounding in character; the apex beat was half an inch outside the nipple line in the sixth interspace. The lungs showed medium crepitations at both bases. The pupils were equal, very contracted, and did not react to light. The tongue was very foul and coated with brownish fur. The breath was quite inodorous; he had vomited twice since the seizure, some reddish material, probably some ingested fruit. The bladder was full. No convulsions had been noticed, but he had a curious habit of lifting his left arm and hand, scratching and beating his left cheek persistently. On the left side the knee-jerk was much exaggerated, with marked ankle-clonus and extensor plantar response. On the right side the knee-jerk was rather sluggish; there was no ankle-clonus, and the extensor plantar response was not so distinct. The limbs were not flaccid, but offered a good deal of resistance to flexion, etc.; they were not wasted. He drew up his legs and moved his arms occasionally. Urine was passed involuntarily, but not faeces. The urine was almost solid with albumen, no sugar, no acetone. He was very cyanosed on admission, and showed some twitchings of the left hand. There was well-marked albuminuric retinitis in both eyes, most marked in the right. Treatment was directed towards what was supposed to be a state of uraemic coma. Hot packs, venesection to 16 oz., stomach lavage, subcutaneous saline, and 1 oz. magnesium sulphate by stomach tube were administered, but the state of coma became deeper and he died twenty-four hours after admission. The temperature on admission was 95° F., and steadily rose till it became 106° F. half an hour after death.

Necropsy.

Brain soft, superficial vessels injected, and basal arteries very atheromatous. Membranes appeared normal. The left cerebral hemisphere showed definite bulging. On section there was an extensive haemorrhage on the left side, apparently caused by rupture of one of the anterior ganglionic branches of the left middle cerebral artery, the structure of the brain was destroyed, and the effused blood had broken through into the left lateral ventricle. On the right side of the brain was a small circumscribed haemorrhage the size of a walnut situated in the immediate neighbourhood of the lenticular nucleus and involving the genu of the internal capsule. The ruptured vessel was not identified. The right lateral ventricle was free from blood, as also was the fourth ventricle. The right kidney was minute and granular, with capsule adherent; the left large and granular, with thickened vessels. The heart was of the much hypertrophied renal type. The lungs were oedematous.

ANDREW J. SHINNIE, M.B., Ch.B.,
Late House-Physician.

SUBPHRENIC ABSCESS PRESENTING UNUSUAL FEATURES.

ON September 24th, 1911, I was called to see Mrs. B., aged 55, who was the mother of six children (youngest aged 14). She was a stout but active woman, who, having always enjoyed excellent health, had never required a doctor. Two years before I saw her she sustained a fall, and, although able to perform her usual household duties, she had never "felt the same" since.

She complained of pain in the right hypochondrium, with frequent and painful micturition. An indefinite swelling, painful on deep pressure, could be made out, and on vaginal examination the right side of the pelvis was found to be occupied by a smooth, soft mass about the size of an orange. The temperature and the pulse were normal, the bowels regular, and digestion good. She emphatically refused operative measures and expressed considerable surprise at the presence of any lump, which had never given her trouble. On October 1st the patient expressed herself as feeling very well and with great glee remarked that the swelling in her side had disappeared. On vaginal examination the swelling was found to be less definite and the mass, which was less marked, was somewhat difficult to reach.

On October 5th, as the patient, freed from all pain and frequency of micturition, had resumed her household work, I ceased my professional attendance.

On November 27th a recurrence of symptoms, attributed by the patient to getting wet on November 25th, led to a request for my resumed attendance. I found the patient looking very ill and unable, owing to pain in the lower part of the abdomen, to either sit or stand upright; the temperature was 99.8°, and the pulse 110. On November 29th the temperature was 100° and the pulse 120, and there was acute general abdominal pain. This was completely relieved by hypodermic injections of morphine, so that on December 1st the patient was improved and comfortable. On December 4th the temperature was subnormal, and the pulse 120 and feeble. There was persistent vomiting and cold, clammy sweat. The vomiting continued, and on December 9th was faecal. The abdomen was distended and tympanitic, and there had been no action of the bowels for seven days. The patient complained of neither pain nor tenderness. In consultation with a colleague the same pelvic condition, though increased in extent, was found as had been discerned in September. A small quantity of pus was passed by the vagina.

The autopsy revealed:

1. A collection of pus in the pelvis, iliac fossa, and Douglas's pouch.
2. That the caecum was greatly distended.
3. That the appendix was fixed by firm adhesions.
4. Recent diffused peritonitis with extensive lymph flakes and intestinal adhesions.
5. That the uterus was normal in size and the ovaries atrophied (cascating areas).
6. On the posterior wall of the duodenum a gangrenous patch of the size of a shilling piece with a perforation of half this diameter.

Undoubtedly this duodenal ulcer, which had given rise to none of the characteristic symptoms—at no time had the patient suffered from any form of dyspepsia or passed blood by the mouth or bowel—was the source of the septic condition which culminated in the death of the patient.

Woking. GEO. F. VINCENT, F.R.C.S.Ed.

Reports of Societies.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Medicine.

Friday, March 8th, 1912.

Sir John Moore, President, in the Chair.

Cerebellar Tumour.

Dr. Dempsey showed a patient, aged 24, whom he regarded as suffering from cerebellar tumour, and detailed her history. Dr. Craig said it struck him as peculiar that if the lesion were cerebellar, the fifth, sixth, and seventh nerves should be involved without any involvement of the eighth. Dr. Moorhead said it was extremely important that physicians should form some opinion as to the value of operation in such cases. His own experience of compression operations was very favourable, so far as the relief of the symptoms was concerned, and he had seen sufficient cases done to convince him that operation was the treatment to adopt in all cases of intracranial tumour. In two cases that came under his notice recently very considerable relief was afforded to distressing symptoms by operation in the parietal region. Mr. Blayney said he understood the patient in this particular case had refused operation. The recognized surgical treatment was to perform the decompressive operation, and there was no doubt this gave relief for some time. An argument in favour of the occipital in preference to temporal decompression was that should further operation be afterwards undertaken the necessity for a fresh opening would be obviated. Dr. F. C. Purser drew attention to the danger of diagnosing tumour of the cerebellum unless localized symptoms came on, at latest, very soon after general symptoms. Professor Thompson said the chief complications in the diagnosis of the case were the ataxia and the Romberg's sign present; the other symptoms might be explained by an extra-cerebellar tumour on that side. Mr. M'Connell pointed out that the records of success in any particular class of operation altogether depended on the experience possessed in that particular branch; for this reason more attention should be devoted to the surgery of the brain. The difficulty of dealing with brain tumours was the length of time the tumour was allowed to remain. The operation mentioned by Mr. Blayney showed a large proportion of success.

X-Ray Diagnosis of Aneurysm.

Dr. Maurice R. J. Hayes, in a paper on *x*-ray diagnosis of aneurysm of the thoracic aorta, urged the necessity of remaining for from five to ten minutes in total darkness before making a radioscopic examination of the thorax in order to increase the luminous sensibility of the retina; it was also highly important that the investigator should be conversant with the *x*-ray appearances of normal as well as diseased chests. The diagnosis should be made from the screen examination. The shadows on a negative were likely to be misleading, especially to the inexperienced. With the negative static conditions only could be studied: with the screen dynamic conditions could be observed.

ROYAL SOCIETY OF MEDICINE.

Section of Medicine.

Tuesday, March 26th, 1912.

Dr. Frederick Taylor, President, in the Chair.

Abdominal Angina.

Sir Lauder Brunton, F.R.S., and Dr. W. E. Williams, in a joint paper, described a case of abdominal angina in a patient who suffered from severe pain on taking exertion. It was like that of angina, but was situated in the umbilical region. At first it was attributed to flatulence, but gradually increased, both in severity and extent, until it spread all over the chest, and caused perspiration to break out over the body. The patient had suffered from glycosuria for twenty-five years. On account of the severity of the pain Dr. Williams sent the patient to consult Sir Lauder Brunton, who remarked the great likeness of the pain to that of angina pectoris, and prescribed trinitrine, with the result that the pains were removed by the medicine, exactly in the same way as if they had been situated in the chest. The sister of the patient suffered for seven years from similar pain in the same region; walking sufficed to start it. Her pain also was removed by the taking of trinitrine. The term "angina abdominis" was first used by Baccelli, and cases had also been described by Professor Pal and by Huchard. Most of these sufferers from tabes.

Dr. Parkes Weber referred to the extensive Continental literature on the subject, and the variety of names which had been given to it, an example of these being "dyspravia intermittens angio-sclerotica intestinalis," a variant being the substitution of "gastrica" for "intestinalis" when the stomach was believed to be concerned. One form was that in which patients past middle life had general arterial sclerosis with high abdominal blood pressure. Some persons had severe abdominal pain and a desire to defaecate, but it resulted in merely the extrusion of a little mucus. He related the case of a man past middle life who had abnormally high blood pressure, and some symptoms of general arterial sclerosis. The administration of nitrites in a bad attack was successful. He had known diuretine recommended for the condition.

Dr. Crookshank related the case of a stout elderly woman who for a year had had recurrent attacks of pain similar to those described by the readers of the paper. She had an acute illness, with vomiting, and was seen by a doctor, who thought she had intestinal obstruction due to impaction of faeces. She got worse, and died. *Post mortem* the pancreas was found lying loose as a necrotic mass, and the pancreatic artery was practically obliterated by arterio-sclerosis, and there was extensive arterio-sclerosis of the coeliac axis, suggesting that the pains were due to angina abdominalis, and that ultimately intermittent claudication of the pancreatic artery proceeded to gangrene of the pancreas. He preferred the term "intermittent claudication" for the condition.

The President favoured the rejection of the word "angina" in these cases also, as it meant not only pain, but a suffocating pain.

Functional Hour-glass Stomach.

Dr. A. F. Hertz, in a paper on the functional hour-glass stomach, said he regarded its diagnosis by radiography as one of the greatest triumphs of skiagraphic methods. In even well-marked cases of the condition all the signs which had been supposed to distinguish the peculiarity might be absent. But sometimes what was found by *x* rays to be hour-glass stomach was not found to be so at subsequent operation: this was because the condition might have had a functional origin. He recognized certain distinct forms: Spasmodic hour-glass stomach, which had been shown to be a not very rare condition. It was generally due to an ulcer at the lesser curvature. In some cases the spasm led to a curious narrow depression on the greater curvature. The spasm could sometimes be made to disappear by abdominal massage, by vigorous voluntary contraction of the abdominal muscles, or by the injection of $\frac{1}{100}$ grain of atropin. Orthostatic hour-glass stomach resulted from the coexistence of severe atony with gastroptosis, and was only present when the patient was in the erect position. In gastroptosis the stomach formed a tubular organ, the whole being filled with a mixture of food and gastric juice, except a small part of the fundus containing gas. But in a dropped stomach, whose tone was deficient, the food at once fell to the most dependent part of the organ. The upper limit of gastric contents was abnormally low. The hour-glass condition disappeared on the patient lying down, in which posture all patients should be examined. One form might result from the presence of an ulcer on the lesser curvature adherent to the left lobe of the liver. Pseudo-hour-glass stomach had led to errors in diagnosis, owing to misinterpretation of shadows, and to examination being made with the patient in the wrong posture; in some cases the bismuth was given stirred with milk, instead of a "bismuth meal."

Section of Diseases of Children.

At a meeting on March 22nd, Dr. G. A. Sutherland, President, in the chair, the following were among the exhibits:—Dr. J. L. Bunch: A case of *Leucoderma and premature canities*, in a girl aged 14 years; at this age such cases were nearly always progressive, but the leuco-

dermic areas in this child had become less marked and diminished in size, and the white hair had already acquired a considerable amount of pigment. Dr. PORTER PARKINSON and Mr. DOUGLAS DREW: A case of *Purulent pericarditis* subsequent to pneumonia in a boy aged 4½ years. Mr. Drew excised 2 in. of the fifth rib cartilage and evacuated 10 oz. of pus, which contained pneumococci in pure culture. Recovery was uneventful, and the urine, which previously contained blood, pus, and pneumococci, became normal. There were at the present time no signs of enlargement of the heart or of cardiac embarrassment. The heart moved to and fro when the patient was placed on one or other side. Dr. LEONARD GUTHRIE: A case of *Chronic jaundice and splenomegaly*, in a girl 6 years of age. The jaundice had existed for eighteen months; during the three months she had been under observation in hospital it varied greatly in intensity, but had never disappeared. The motions were always dark, and the urine had never contained any bile pigment. The spleen remained enlarged. The probable diagnosis was "toxic hepatic cirrhosis with splenomegaly." Dr. G. A. SUTHERLAND: (1) *Bilateral deltoid paralysis* in a child aged 1 year. A few months ago the child had an illness of an indefinite character, lasting about a fortnight. Since then there had been little movement about the shoulder-joints, the patient being able to move the forearm and hands freely. The left deltoid appeared to be completely paralysed, the right retaining very little power. (2) *Cerebral palsy* in a child 1 year old. At the age of 7 months the child began to have screaming fits, drawing up the legs and twitching the head and eyes. At the age of 10 months he had a series of general convulsions, lasting for two days, about nine each day. Since then there has been an occasional general convulsion. The child was fat and flabby. Mr. LIONEL E. C. NORBURY: *Subacute arthritis of shoulder-joint* in a baby aged 11 months, admitted to hospital with a history of a swelling, dating from a fall on the shoulder four weeks previously. After the joint had been opened and irrigated it recovered free movement. An organism of *B. enteritidis* type was isolated from the fluid in the joint. Mr. DUNCAN FITZWILLIAMS: *Congenital deformities* in the lower limb in a child 7 years of age. The head of the femur was high on the dorsum ilii, nearly as high as the anterior superior iliac spine; the femur was much shorter than its fellow; the head of the tibia was displaced forwards and slightly outwards, and the ligaments of the knee-joint were very lax; the patella was absent; the foot was in a position of extreme equino-varus. Dr. HERTZ read a paper on *Congenital dyschezia*, a condition in which there was no delay in the arrival of faeces at the pelvic colon, but their final expulsion was inadequately effected.

MEDICAL SOCIETY OF LONDON.

AT a meeting on March 25th, Dr. J. MITCHELL BRUCE, President, in the chair, the following were among the exhibits:—Dr. F. PARKES WEBER: (1) A case of *Diabetes insipidus* in a boy aged 10, who was somewhat undersized. Polyuria and abnormal thirst had been noticed since he was 3 years old. He passed about 4,000 c.cm. of urine in twenty-four hours. It was of low specific gravity (1001 to 1002), pale, and free from albumen and sugar. The thyroid appeared small. Wassermann's reaction was positive. (2) A woman, aged 33, suffering from *Aneurysm of the ascending thoracic aorta*. Wassermann's reaction was positive. Dr. DE HAVILLAND HALL: A man, aged 38, with a smooth rounded swelling in the right hypogastric region. Suggested diagnoses were *Hydatid cyst* or *Distended gall bladder*. Dr. ESSEX WYNTER: Two sisters, aged 17 and 24 respectively, who had each *Symmetrical nerve degeneration* situated in the lower branches of the brachial plexus. Wasting and contraction of the muscles had occurred on the ulnar sides of the hands, until the ring and little fingers had assumed the "main en griffe" position; the middle finger was less affected. The two inner lumbricals were implicated as well as the long tendons. The affected muscles showed some degeneration if electrically stimulated. The younger girl had experienced pain and numbness over a similar area, sometimes extending to the whole hand. Dr. W. J. FENTON: (1) A case of *Cervical tabes in a typist*, aged 40. The most noticeable feature was marked inco-ordination of the hands. (2) A girl, aged 18, with *Unilateral swelling of the right arm*. It appeared to be due to obstructed venous return. She was in good health. A skiagram showed that the first rib was abnormal in size and position. Dr. F. S. PALMER: Two characteristic examples of *Pseudo-hypertrophic paralysis*. The patients were two brothers, aged 15 and 9 respectively, and the cases were of interest as showing the disease in an advanced stage in the elder and an early stage in the younger boy. Mr. H. J. CURTIS: Two cases of *Fibro-cystic adenoma* of the thyroid successfully treated by operation with little scar formation. The latter was accompanied by a smaller accessory thyroid, resembling a calcified tuberculous gland. He also showed, among other cases, one of successful *Resection of the urethra* for about 1 in. for an impassable traumatic stricture several months after the injury. Mr. W. H. CLAYTON-GREENE and Mr. A. G. H. LOVELL: A boy, aged 9, in whom a *Cyst of the humerus* had been scraped eighteen months previously, and no recurrence had followed. Mr. E. M. CORNER: A man, aged 25, with *Hydrocephalus* and a callous ulcer on the dorsum of the fourth toe, possibly trophic or gummatous. Mr. A. E. BARKER: A man in whom an *Ununited fracture of the tibia* had been joined by grafting the patient's own second metatarsal bone. The exhibitor emphasized the importance of using autogenous vital tissue in such cases. Mr. ARBUTHNOT LANE and Mr. BARRINGTON WARD: A girl, aged 10½, the subject of *Rheumatoid arthritis*. Ileo-colostomy had been followed by great general improvement and freer movement of the joints. This was ascribed to prevention of autointoxication from the large bowel.

MEDICO-CHIRURGICAL SOCIETY OF GLASGOW.

AT a meeting on March 15th, Dr. FREELAND FERGUS, President, in the chair, the following were among the proceedings: Dr. T. K. MONRO described a case of *Insular sclerosis* in a married woman aged 48, who died in the infirmary on June 17th, 1911. The symptoms had first appeared four years previously, but there had been marked remissions, and it was only a week before death that she became unable to walk and experienced difficulty in swallowing and during speech. The sections from the brain and spinal cord in this case were demonstrated by Dr. MADGE ROBERTSON. They showed patches of sclerosis in the lower part of the pons and in the cervical and upper dorsal cord. Dr. ELIZABETH T. FRASER demonstrated the *Ascoli-izar or meiostagmin* reaction as employed in the diagnosis of malignant tumours. She could give no personal opinion of the practical value of the method, as the observations so far completed by Dr. Campbell and herself were insufficient to warrant any conclusions. Dr. MILNE MCINTYRE showed specimen and microscopic sections from a case of *Primary cancer of the bronchus* associated with chronic tubercle of the lungs, which had occurred in a man 67 years of age. Both lungs were emphysematous, anthracotic, and on section showed numerous opalescent areas of tubercle. The upper lobe of the left lung was consolidated, and contained a cavity bridged by trabeculae and lined by ulcerated lung tissue. The lumen of the bronchus leading to this part of the lung was narrowed by a carcinomatous tumour limited to a small portion of the bronchus and to a small surrounding area of lung, and without any extension to lymphatic glands or other metastases. Its histological features pointed to the submucous glands and lining epithelium of the bronchus as being the likely seat of origin. Dr. J. ARCHIBALD CAMPBELL demonstrated the *Boas-Wassermann reaction*: in this a number of different serum quantities (0.2, 0.1, 0.05, 0.02, 0.01 c.cm.) are employed, with the idea of permitting the measurement of the degree in which a patient is still syphilitic, and so affording a guide to treatment. A negative reaction, the demonstrator said, must be given with all these serum quantities before mercurial or salvarsan treatment could be discontinued. He strongly recommended the method on account of its extreme delicacy and accuracy. Dr. MADGE E. ROBERTSON demonstrated microscopic sections showing *Cysts in the posterior root-ganglia*, which had been found in two cases of leukaemia and in one case of cerebral tumour. No con-

nexion could be traced between any symptoms observed and the condition of the ganglia.

GLASGOW OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

At the sixth meeting, Dr. A. W. Russell, the President, in opening a discussion on *Puerperal sepsis*, said that the figures of the Registrar-General proved that the country was annually losing thousands of mothers owing to insufficient care and defective methods at the time of childbirth. The following points demanded serious consideration: (1) The widespread and persistent prevalence of what was admittedly a preventable disease. (2) The need for proper definition of the condition that must be notified, and for early fearless diagnosis and notification as an aid to effective treatment. (3) The wider and more practical recognition of the fact that the process of childbirth needed asepsis from beginning to end. (4) Such further practical instruction of the student and young practitioner as would enable him to grasp the true principles involved in attendance on such cases. (5) The proper legal control and education of all nurses and midwives. Dr. A. Johnston, speaking of puerperal fever as seen in the Municipal Hospital, said the disease was wound fever and the infection bacterial. The organisms varied, but streptococci were most numerous. In a total of 290 cases of puerperal sepsis there were 123 deaths, that is, 42.4 per cent. He found antistreptococcus serum was worthless. Autogenous vaccines were useful, but only in the less acute forms, since half the fatal cases died within four days of admission, or in other words, within the minimum time required for the preparation of the vaccine. Professor Murdoch Cameron, discussing the subject from a consultant's point of view, said that the possibility of febrile attacks unconnected with the puerperal state must not be overlooked. A diagnosis between septicaemia and sapraemia must be made, the symptoms of the former being, as a rule, of greater severity and much less amenable to treatment. Pyaemia he rarely saw. He condemned the use of the curette, and relied on digital removal of any débris. Afterwards he swabbed the cavity, and applied carbolic and camphor, or 5 to 10 per cent. formalin lotion on a swab. Serum, in his experience, had saved the lives of several patients. Dr. James Craig, speaking from a general practitioner's standpoint, said the number of virulent cases seen nowadays was less than twenty years ago. The unsavoury conditions prevailing in the houses of the poor were more surely the causes of puerperal fever than the unwarranted use of forceps or tearing of the genital tract by the general practitioner. Attention to small matters of detail and thorough antiseptic precautions were essential to success in general practice. Dr. A. K. Chalmers, discussing puerperal fever in relation to the public health, said his statistics showed an increase in puerperal fever during the last quinquennial period; this, he thought, was due to a more rigid interpretation of the Notification of Births Act. The analysis of his tables made it clear that puerperal fever was occurring in the practice of midwives and nurses at twice the rate which obtained in the practice of qualified practitioners when they had charge of patients from the beginning. In his opinion the Obstetrical Society would do a work of immeasurable assistance to parturient women if they furthered the efforts of local authorities and medical officers of health in Scotland in having the Midwives Bill for Scotland placed on the statute book. Dr. Robert Jardine, speaking of preventive measures, said that in maternity hospitals aseptic methods had practically abolished septic infection, but in private work there had been no improvement. This should not be the case. Care should be taken to render the external genitals as aseptic as possible: greasy lubricants should not be used, instruments should be thoroughly immersed in sterilizing them; labour should be conducted with as little interference as possible, and with the minimum internal examinations. Another point of great importance was to empty the uterus thoroughly. There was one surgical principle which was often overlooked—namely, free drainage. This could be obtained by raising the upper end of the bed. In conclusion, he asserted that puerperal fever could and ought to be prevented.

BRISTOL MEDICO-CHIRURGICAL SOCIETY.

At a meeting on March 13th, Mr. C. A. Morton, President, in the chair, Dr. Michell Clarke, in opening a discussion on the *Intracranial complications of suppurative ear disease*, reviewed the symptoms of the cerebral and meningeal complications of ear disease, and pointed out the difficulties of diagnosis when otorrhoea complicated such diseases as polioencephalitis, cerebral tumour, basic meningitis, and tuberculous meningitis. He was followed by Mr. Lacy Firth and Dr. Carey Coombs, the former discussing the diagnosis and treatment of lateral sinus thrombosis and the technique of the operations for the meningeal and cerebral complications of aural disease; while Dr. Carey Coombs showed what was the relative frequency of the various complications as gauged by the records of the Bristol General Hospital. Dr. J. O. Symes said the intracranial complications were comparatively rare in the acute otitis of children, whether this occurred in connexion with acute specific fevers or independently. Dr. Watson-Williams deprecated palpation of a thrombosed jugular vein, and related a case illustrating the possible latency of cerebral abscess. Dr. J. A. Nixon expressed the opinion that the surgeon should attach little or no importance to the absence of optic neuritis. Mr. A. J. Wright said that in 7 per cent. of cases of uncomplicated aural suppuration optic neuritis was present. The President stated that out of 5 cases of cerebral and cerebellar abscess he had operated upon, 3 had recovered.

NORTH OF ENGLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

At a meeting in Sheffield on March 15th, Mr. Richard Favell, Vice-President, in the chair, Mr. Cuff reported a case of extreme *Vesical incontinence*, associated with prolapsus uteri, which he had successfully treated by laying bare the urethra, putting in some puckering stitches, and then doing a very thorough anterior and posterior colporrhaphy and Gilliam's operation. Dr. Fitzgerald showed: (1) A *Mucoid polypus of the cervix*, the size of a tennis ball, removed from a woman aged 31. The patient, who had been married for twelve months, complained of dyspareunia, pain in the back, occasional menorrhagia, and a persistent offensive leucorrhoeal discharge. (2) A *Dermoid of the right ovary*, and a pedunculated fibroid tumour which was attached to the posterior wall of the uterus, removed from a patient aged 70. Two years before the patient had suffered from an acute illness which was attributed to a pelvic tumour. Her condition at that time had been so grave that it was feared she would not survive. She, however, got well. The dermoid shows at its upper end a blood clot the size of a ping-pong ball, which no doubt was the result of torsion of the pedicle having occurred at the time of the previous illness. She complained of constant pain in the right iliac fossa and low down in the back. Mr. Miles H. Phillips (Sheffield) reported a case of severe *Concealed accidental haemorrhage* which had been successfully treated by Caesarean section followed by hysterectomy. The patient was 33 years old. During the previous thirteen and a half years she had had nine full-time labours and one miscarriage. Until one morning a fortnight short of full time she had been in good health. She was then awakened by severe abdominal pain. She fainted two or three times. There was no external bleeding. Dr. Walker, of Tinsley, recognized the condition, and at once sent her into the Jessop Hospital, where the operation was performed. For thirty-six hours recovery was very doubtful, but thereafter she made steady progress, which was delayed in the third week by a slight paracervical cellulitis. Dr. Oldfield, in a paper on *Diverticulitis* as a cause of pelvic inflammation, reported 3 cases. The condition, he said, was fairly common and well-known to surgeons, but had apparently escaped the notice of gynaecologists. The two chief clinical varieties he described were left-sided "appendicitis" and chronic obstruction. The former might assume various forms, just as appendicitis did, and not uncommonly caused pelvic abscess or even general peritonitis. The latter variety resembled obstruction from malignant disease of the pelvic colon, and on exploration, and even after resection of the portion of bowel involved, the disease was usually taken for carcinoma. In nature

it was inflammatory, and arose in connexion with small multiple diverticula from the colon, particularly the sigmoid. In operating for pelvic inflammation it was necessary to be mindful of the existence of diverticulitis, because, while it simulated left-tube ovarian disease, its operative treatment was both more difficult and more dangerous. Indeed, the death-rate from operations in chronic cases was very high, and was mainly due to the fact that the true nature of the condition had not been determined until after death.

THE OPSONIC INDEX.

IN reporting a modification of the technique employed in determining the opsonic index described by Dr. C. Russ at a meeting of the Pathological Section of the Royal Society of Medicine on March 19th (BRITISH MEDICAL JOURNAL, March 30th, p. 728) we indicated as the essential point in his paper a claim that the modification effected some degree of diminution in the sources of error. In deference to the wishes of Dr. Russ, we now state that the essential point was that "the observed errors by the improved process were one-quarter the magnitude of those by the old process, the conditions of experiment being almost completely comparable."

Reviews.

THE IDEA "CONDITIONED" IN MEDICINE.

THE monograph which VON HANSEMANN has devoted to the "conditional" idea in medicine[1] is of much interest, though the interest may be somewhat different from that which he anticipated. His main thesis may be shortly stated thus: "To look upon a disease as the result of a cause is misleading, and it is more useful to consider it as dependent on a set of conditions; of these conditions some are necessary and some are changeable." The idea here expressed is by no means new, but it has recently been urged by several writers with a variety of terminology from which the writer has selected that of "condition," as used by Verworn, and, having applied it widely to the problems of pathology, has found it stimulating. In the monograph he applies it over the whole range of medicine with a wealth of illustration from his wide experience that gives its real value to the essay.

The series of sketches by which he illustrates the complexity of the relation of a disease to its antecedents forms a useful reminder to those who may be apt to overlook this fact, even should it fail to carry conviction on the point of philosophy. It is one thing to show that concentration on, say, the tubercle bacillus, led for a time to leaving in the background the other factors in the problems in which it is concerned, but it is quite another to prove that such a concentration—which, after all, must prove temporary—is not a real economy in the progress of knowledge. Few who have to think about the etiology of a disease ever forget its complexity, and though often the patient asks what is the cause of his illness, the conscientious physician, knowing the multiplicity of factors, as often hesitates for his answer.

To make clear the author's way of thinking, it is necessary to quote some of his illustrations. Beginning with traumatic conditions, where the idea of the trauma as cause might be supposed to find its readiest justification, he points out the various factors contributing to produce phenomena observed in a case in which the patient has been run over in the street: in that event the trauma is but one member of the complex leading to the accident and determining its issue. Going on to the traumatic neuroses and allied conditions, he states what he considers the practical gain as follows: "One can say with certainty that the conditions named are never created by a trauma, that is, that an individual absolutely healthy beforehand never develops a hysteria or diabetes or exophthalmic goitre, etc., from a trauma. It would, therefore, be unjustifiable to compel an insurance society to pay accident or death claims on such an occasion." This proposition hardly compels acceptance by those who wish to insure against the trauma as the "exciting impulse (*das auslösende Moment*)." Applying the same mode of reasoning to poisoning, the importance of the individual reaction to the poison concerned is emphasized. A long and interesting chapter is devoted to tuberculosis; the various elements in the individual disposition are described, and the factors that determine whether the individual will develop tuberculosis at all in the presence of the bacillus, and if he does, what form it will take. After a chapter on other infective diseases the author passes to the non-infective conditions—rachitis, gout, cirrhosis, and malformations—and then goes on to tumours, where he says that the looking for a cause has prevented the formation of general etiological theory. He finds that three factors are necessary for the production of tumours: (1) Irritation of some kind; (2) its prolonged action; (3) individual disposition. In this he sees the reason for the failure of the experiments on the production of tumour in animals.

In a chapter on conditions given by the prognosis he writes, "one sees in these parasyphilitic conditions to what errors the idea of cause can give rise. When we say that the cause of syphilis is the *Spirochaeta pallida*, and further that the cause of the parasyphilitic conditions is syphilis, the *Spirochaeta pallida* enters into the first line as the cause of these conditions, and it would be quite logical to attempt to cure them by destroying the *Spirochaeta pallida*. . . . But we are not in a position to remove the cicatrizations which the gummosities leave behind them, and which lead to the parasyphilitic diseases."

The concluding chapter applies the same mode to illustrate the origin of epidemics, and the whole argument is summarized in a series of fourteen propositions.

The author seems not to realize that the colloquialism of everyday speech has its analogue in everyday thinking, and that here the idea of cause is a convenience which would be out of place in the more formal reasoning of science, in the terminology of which "essential condition" and its correlatives are already enshrined.

[1] *Ueber das konditionale Denken in der Medizin und seine Bedeutung für die Praxis.* Von Dr. v. Hansemann. Berlin: August Hirschwald. 1912. (Imp. 8vo, pp. vii, 184; figs. 30. Price M. 5.)

THE TREATMENT OF SYPHILIS.

ALTHOUGH there are now many papers in English on the subject of syphilis and salvarsan, it is well that we should have translations of original monographs. The profession, therefore, is indebted to Dr. ABR. L. WOLBARST for translating Wechselmann's book on *The Treatment of Syphilis with Salvarsan*.[2] Wechselmann was one of the first to be taken into Ehrlich and Hata's inner counsel, as he had at command a large clinical field in which the new remedy might be tried in a precise definite scientific fashion. This work is an account of those earlier investigations and observations. One of Wechselmann's most important primary observations was that salvarsan had a powerful effect for good in cases of syphilis which had proved resistant to many years' mercurial treatment. It is to him also that we owe the knowledge that a second injection may be given, not merely with impunity, but with advantage. Wechselmann was not difficult to convince, as Ehrlich had been convinced, that the intravenous method of administration is the best. By this method the drug most certainly reaches the uttermost corners, so to speak, of the organism, and is carried with most sureness into the connective tissues in which the spirochaetes are most prone to lodge. The intravenous method provides the energetic *ictus therapeuticus* necessary to accomplish the ideal *therapia sterilisans magna*. One "blow" may not be sufficient, and Wechselmann shows that two or three may be required if local recurrence take place, or if the Wassermann reaction continues. These local recurrences are explained by the author as due to persistence of spirochaetes in foci which on account of an imperfect blood supply have not been reached by the drug. This is most apt to occur if the drug has been administered in the early secondary stage when the whole organism is saturated with spirochaetes. The author is careful to point out the importance of observing the effect of salvarsan on the Wassermann reaction, and shows that the treatment of a case is not complete unless and until the Wassermann reaction becomes and remains negative. The literature of the subject, necessarily all German primarily, is reviewed by the author, and the translator has rightly added notes of the literature in English. At the end of the book are a number of coloured illustrations

[2] *The Treatment of Syphilis with Salvarsan.* By Sanitätsrat Dr. Wilhelm Wechselmann, Berlin. With an introduction by Professor Dr. Paul Ehrlich. Only authorized translation by Abr. L. Wolbarst, M.D. New York, Consulting Genito-Urinary Surgeon, Central Islip State Hospital, etc. With 15 textual figures and 16 coloured illustrations. London: Rebman, Limited. 1911. (Med. 4to., pp. 169. 21s.)

showing the effect of salvarsan administration in various syphilitic lesions eight to fourteen days after. These pictures may well be regarded as perfect, and will probably become classical.

DR. GUSTAV BAAR'S essay on *The Modern View of Syphilis and its Treatment*[3] is avowedly written for the purpose of advocating the more extensive employment of the Wassermann test. He narrates large numbers of cases in which the diagnosis rested entirely on this reaction—cases chiefly of the kind in which the history was obscure, more or less intentionally. The fact that a positive Wassermann reaction may be obtained in some non-syphilitic diseases, such as trypanosomiasis and scarlet fever, is noted, but in these it is only for a limited time after infection, say, about eighty to ninety days, whereas in syphilis the reaction is present at all times and stages. The second portion of the book deals with visceral syphilis, but it makes no pretence to be a scientific exposition of the subject. The temperature charts of some cases of cerebral syphilis are interesting.

MEDICO-LEGAL WORKS.

A RAPID perusal of the *Textbook of Medical Chemistry and Toxicology*,[4] by Professor JAMES W. HOLLAND, has proved an exceedingly pleasant task (were it not for the very aggravating, to English readers, methods of spelling—bromin oxid, for example), and the impression left on the reviewer's mind is exceedingly favourable: it is not surprising that the work has run through three editions in some seven years, a rate of progress that proves the work to be very acceptable to American readers, at all events. The volume opens with a section on physics, with probably quite as much on heat, light, and electricity as a medical man requires in this connexion; ions are well explained, but high-frequency currents are omitted. From physics a natural gradation leads to chemistry; the non-metals, which are first treated, are followed by the metals, and these in turn by organic chemistry. This subject, which, as the title would imply, occupies the bulk of the work, is dealt with in precisely the way which is most useful to the student of medicine, for along with the strict chemical details there are introduced paragraphs on the pharmacology and physiology and therapeutical usages, and also the toxicology of each substance, so that the student becomes at once interested in the substance under discussion, and learns a great deal more about it than its mere chemistry: for men to whom chemistry is a mere aid this method, we think, ought long ago to have been introduced into English medical schools. The introduction of numerous woodcuts and diagrams makes this part of the work very easy to understand. The book closes with an excellent section on the energy of foods, and an account of the chemical changes they undergo in digestion, ending with a complete scheme for the analysis of blood, milk, and urine. It is possible that there may be many monographs on the various divisions of this work, which are naturally and of course much fuller, but they commonly contain so much more than the medical student requires that he gets wearied. The work under review seems very cleverly to have hit the happy medium between a mere elementary treatise and a complete work of reference, and it is one we can heartily recommend to all students, and not only to them, but to busy medical men who want to rub up their old knowledge and even to find something new.

It is possible that there is a necessity for the existence of such books as the volume entitled *Medico-Legal Aspects of Moral Offences*,[5] but we are strongly of opinion that, if there be this necessity, nevertheless their only proper place is a library of reference. The moral causes of rape, the existence of perverted sexual instincts, are presumably facts which are from time to time objects of scrutiny by the law; but when such cases occur they should be heard *in camera*, and only placed on record for reference. The book we are reviewing seems to be exhaustive of the possibilities of such extraordinary behaviour, and certainly forms an excellent work of reference for alienists and medico-legal experts, but it should otherwise be kept under lock and key.

THE CLIMATE OF AFRICA.

The Climate of the Continent of Africa[6] is the title of a work by ALEXANDER KNOX, F.R.G.S., an author who has also written on the geology of the same continent. To write comprehensively on a subject such as the climate of a continent the size of Africa is, of course, a gigantic task, and Mr. Knox must be complimented on having undertaken the work. That the subject is interesting and, what is more important, of use, is of course undoubted, and the value of such a compilation to any one proposing to settle in any one of the different parts of Africa will be very real, and in this respect also the description of the products of the different territories will be helpful. This being so, it is a great pity that the healthiness or unhealthiness of the different colonies and protectorates—that is the medical status of each place—was not equally dealt with. This part of the work falls lamentably short of what it should have been. Of course, to have dealt with this in anything like a satisfactory manner would have enormously increased the size of the book, which as it stands is not small (552 pages), but when in the section on Uganda sleeping sickness and the tsetse-fly are not so much as mentioned, then, manifestly, an altogether erroneous impression must be given to the uninitiated reader. It is the same as regards North-Eastern Rhodesia and Nyasaland; the recently occurring cases of sleeping sickness are not mentioned, and the statement (page 373) that "though in some parts of South Central Africa sleeping on the ground may be practised with impunity, this should never be attempted on the Nyasa-Tanganyika plateau, as fever is an almost certain result." is pretty typical of the rest of the medical information scattered through the book. It may not, of course, have been intended to incorporate any accurate medical information in the book, but then in that case it would have been better not to have mentioned the salubrity or otherwise of the places rather than to have given intending settlers or others erroneous ideas which would only be too rudely shattered later. This is the one fault in the book for medical readers, otherwise the text is well written, is accurate, and contains an enormous mass of very useful meteorological information, and from that point of view is most valuable. If the book ever comes to a second edition, an appendix, or something of that sort, giving accurate information as to the salubrity of the different places dealt, would certainly enhance the value of the work.

BRITISH RED CROSS MANUALS.

IN issuing manuals of instruction for the personnel of their Voluntary Aid Detachments, the British Red Cross Society considered it imperative that separate textbooks should be devoted to each branch of Red Cross work. *No. 1 Manual*,[7] prepared for the society by Dr. JAMES CANTLIE, and dealing mainly with first aid to the injured, is issued as the basis for all the branches. It includes the requisite outline of anatomy and physiology, first aid and emergency treatment, bandaging and elementary transport, this latter subject being dealt with more fully in *No. 3*. The *Manual* is profusely illustrated, and is written in popular language which should be readily understood.

It has been laid down by Sir Alfred Keogh, the past Director-General of the Army Medical Service, that the essential function of a Red Cross Voluntary Aid Detachment is improvisation. This is rendered essential by the fact that the stores and equipment which may be required for its effective working are not available, or may not be

[3] *The Modern View of Syphilis and its Treatment.* By Gustav Baar, M.D. Vienna, Member German Congress for Internal Medicine, etc. New York and London: D. Appleton and Co. (Cr. 8vo, pp. 297. Price 8s. 6d. net.)

[4] *A Textbook of Medical Chemistry and Toxicology.* By James W. Holland, Professor of Medical Chemistry, Jefferson College, Philadelphia. Third edition, and thoroughly revised. W. B. Saunders Company. (Med. 8vo, pp. 655, figs. 112. 15s. net.)

[5] *Medico-Legal Aspects of Moral Offences.* By L. Thoinot, M.D., Expert to the Tribunal of the Seine. Translated by Arth. W. Weysse, Professor in Boston University. Philadelphia: F. A. Davis Company; London: Stanley Phillips. 1910. (Medium 8vo, pp. 502, engravings 17. 12s. 6d. net.)

[6] *The Climate of the Continent of Africa.* By Alexander Knox, B.A.Cantab., F.R.G.S., Member of Convocation of the University of the Cape of Good Hope, author of notes on the geology of Africa. Cambridge: At the University Press. 1911. (Sup. roy. 8vo, pp. 562; maps 14. 21s. net.)

[7] *British Red Cross Society First Aid Manuals: Nos. 1 and 3.* By James Cantlie, M.A., M.B., F.R.C.S., V.D., Honorary Surgeon-Colonel, R.A.M.C.(T.F.) London: Cassell and Co., Limited. (Cr. 8vo, Part I. pp. 235; Part III, pp. 246. 1s. each.)

available at the time when most required. In order to train the detachments during peace time to be able to improvise from whatever material comes to hand, the British Red Cross Society has issued, with the approval of the War Office, its *Training Manual No. 3*, which has likewise been prepared by Surgeon-Colonel James Cantlie. This manual deals with the ordinary stretcher exercises, wagon drill, and ambulance and sanitary organization in the field. On these subjects there are many books. But the most important part of this new manual, because almost invariably neglected till recently by writers on first aid, lies in the chapters devoted to improvization—improvization of stretchers, seats and wagons, of beds, shelters and tents, of filters, cooking apparatus, even of ropes and needles. There are eight full-page plates taken from photographs and 136 illustrations in the text to elucidate the drill, the preparation of all kinds of appliances, and the making of knots and lashings. For training civilians in first aid and emergency transport this is a most practical and useful work.

NOTES ON BOOKS.

THANKS to the salutary lessons inculcated by the South African and Russo-Japanese campaigns, it is now recognized among combatant officers that the Medical Corps exists for other purposes than the tending of sick and wounded, and that the keeping of the healthy soldier healthy is an all-important part of its work. To achieve this, however, demands not only an efficient sanitary organization, but co-operation between the medical officer and all officers of regiments. The *Handbook on Military Sanitation*[1] is specially designed by Major BARNETT, R.A.M.C., for the proper instruction of regimental officers in the main principles of hygiene and sanitation, as applied to troops in camp, in barracks, and on the march. It should be of great assistance to all medical officers, and especially those of the Territorial Force, who are called upon to impart this instruction, as well as to those officers who receive it.

DR. MAX HERZ gives in *New Zealand*[2] a graphic and readable account of that go-ahead country—a country where female suffrage, popular control of licensing, State regulation of labour, State adjudication on trade disputes, and socialistic land laws exist side by side with a high, unyielding wall of protective tariffs. The climate is mild, the soil fertile, and periods of drought are unknown. The temperature of Auckland's coldest month averages 51°, its hottest 65°. The population has grown from 57,000 in 1885 to 900,000 in 1900. An interesting account of the country's early history, of the character of its first Maori inhabitants, and the difficulties of the first white settlers, lead to a consideration of the New Zealand of to-day. Dr. Herz says there is no opening for doctors, as the "professions are more than filled in proportion to the small population." If the towns and cities are inartistic to plainness, the country displays a wealth of natural wonders and beauty. In one part Alpine snow and glaciers, in another hot lakes, spouting geysers and still active volcanoes; whilst the glories of the bush are only rivalled by the majesty and beauty of the fiords and inland lakes. Full particulars of New Zealand's trade are given, and the volume ends with some critical observations on the inhabitants, who are described as a race devoted to sport, and the practical rather than the artistic side of life. The book is well written, full of information, never dull, permeated with a sly humour, and illustrated by many excellent photographs. Though blemished by a few printer's errors, the type and printing are clear and bold, and the general get-up excellent.

A seventh edition of *A Simple Method of Water Analysis*[3] has now appeared, and we are glad to note that therein Dr. J. C. THRESH has adopted a suggestion which we made when noticing its predecessor namely, that he should in any future edition instruct users of his book to return their results in parts per 100,000 instead of grains per gallon. The method described—that of obtaining information as to the character of water by the use of soloids—is sufficiently sound to have led, we believe, to the authorization of its use by officers in the medical department of the Royal Navy.

We have already reviewed (BRITISH MEDICAL JOURNAL, February 19th, 1910, p. 449) the German original of the volume on *Anaemia*,[4] by EHRLICH and LAZARUS, so that there is little to do but to comment upon the way in which Mr. Armit has discharged his duty of translator. That the volume has found an English translator is most satisfactory, for its contents go to form much of what is accepted as fundamental in haematology: the authors are fortunate in finding such a good English interpreter as Mr. Armit: one misses all "Germanisms" except perhaps the maintenance of the word "erythrocyte" for red corpuscle, and one is grateful for help in many a difficulty in grasping some of our Teutonic colleagues' ideas; despite the translator's own care and despite the assistance of haematologists and mathematicians, we think "sinistral asymmetry" though certainly giving a translation for "Verschiebung nach links," but a poor description for the condition of nucleus which shows less segments than normal. Mr. Armit quite properly sets Professor Naegeli right in the section on page 152 in which the latter deals with the phagocytic theory of Metchnikoff, but compares the functions of leucocytes with those of such ferments as alexins derived from them. The reader will find in this monograph the last word of its distinguished authors on the subject of "anaemia," and will be grateful to Mr. Armit for making it accessible to English readers who are not familiar with the German language.

It is only eighteen months since the appearance of the second edition of Mr. HEY GROVES'S *Synopsis of Surgery*.[5] Its well-deserved popularity demands a third edition. This edition is not essentially different from its predecessor, but the additions necessary to keep it quite up to date, particularly in new methods of treatment, have been freely made. We remember how a Professor of Surgery of a former generation used to say to his class: "That is the pathology of the condition, gentlemen, up to the day before yesterday." In the present days treatment changes—sometimes with advances, sometimes not—with bewildering rapidity, so that we require to know it "up to the day before yesterday," and we require also to get at the knowledge quickly. There are two kinds of knowledge broadly considered—the knowledge that we carry in our heads and the knowledge that we know where to lay our hands on at a moment's notice. Mr. Hey Groves has supplied, in practically perfect form, the latter kind of knowledge as it concerns surgery. The book is among the best of its kind, and the author is to be congratulated on its readableness, its lucidity, and its fullness—notable qualities in a book whose greatest quality of all is that it remains a synopsis. The student or the man preparing for the higher examinations, or even the teacher going to meet his class, will find all the points vividly put, so that his memory will readily respond to fill in the outlines. One might cavil at the introduction of illustrations, which properly should not be found in a synopsis, but, with one exception, they are all in the chapter on surface markings and are themselves synoptical.

"THE SIGNIFICANCE OF EXISTENCE."

DR. J. HARRIS (Liverpool) writes: My attention has been drawn to a recent review of my book, *The Significance of Existence*, which appeared in your columns, and the unfairness of which is so manifest that I trust you will not refuse me a little space in your valuable paper for one or two remarks. It speaks well for the book that in spite of the fact that it contains a mass of scientific and philosophical matter, your reviewer, in order to afford himself an opportunity for adverse criticism, had to confine his remarks to misprints and oversights in passing the printer's proofs. Even then, some of his quotations are incorrect: for instance, the sentence, "it is spiritless and empty, and

[1] *Handbook on Military Sanitation for Regimental Officers.* By Major K. B. Barnett, M.B., B.Ch., F.R.C.S.I., R.A.M.C. London: Foster Groom and Co., Ltd. 1912. (Cr. 8vo, pp. 198. 2s. 6d.)

[2] *New Zealand: The Country and the People.* By Max Herz, M.D. With 81 illustrations and a map. London: T. Werner Laurie. 1912. (Demy 8vo, pp. 382. 12s. 6d.)

[3] *A Simple Method of Water Analysis.* By J. C. Thresh, M.D.Vict., D.Sc.Lond., D.P.H.Camb. Seventh edition. London: J. and A. Churchill. 1912. (Fcap. 8vo, pp. 65. Price 2s. 6d. net.)

[4] *Anaemia.* By Professor P. Ehrlich and A. Lazarus. Second edition. Enlarged and, to a great extent, rewritten by Professor A. Lazarus and Dr. O. Naegeli. Translated from the German by H. W. Armit, M.R.C.S., L.R.C.P. London: Rebman Limited. 1910. (Roy. 8vo; 5 illustrations in the text; 5 coloured plates; pp. 231. Price, 12s. 6d.).

[5] *A Synopsis of Surgery.* By Ernest W. Hey Groves, M.S., M.D., B.Sc.Lond., F.R.C.S.Eng., Assistant Surgeon to the Bristol General Hospital; Surgeon to the Cossham Hospital; Senior Demonstrator of Anatomy at Bristol University. Third edition, revised. Bristol: John Wright and Sons, Limited; London: Simpkin, Marshall, Hamilton, Kent, and Co., Limited. 1911. (Post 8vo, pp. 593; figs. 12. 9s. 6d. net.)

their predecessor's best energies are spent in combating ennui," is not contained in the original. May I also inform your well-instructed and humorous critic that I have the authority of Herbert Spencer and others for the assertion that some tribes practise patricide. Again, I may assure your critic that the sentence, "it is the scope of intelligence to bring to bear on a momentary impulse that strives for realization some antagonistic impulses that for the moment are non-existent" is quite comprehensible to average mortals—even to those who are not endowed with his subtle intelligence. On the whole, I must compliment your contributor on his discovery of a new procedure in the reviewing of books, which apparently does not necessitate the understanding of the book one is to give his opinion on.

*** The sentence "It is spiritless and empty," etc., was not put in quotation marks, and does not pretend to be a quotation *in extenso*. Dr. Harris's words (p. 181) are: "Society . . . is not all it should be. . . . Society at present is spiritless and empty, devoid of all the generous impulses and noble aspirations that distinguished their predecessors. Their best energies are spent in combating the ennui following on their aimless, purposeless life." It will be seen that, though every word was not quoted, and no pretence was made of quoting every word, the sense was not misrepresented, and the insertion of the missing words does not render the grammar correct. No doubt was thrown on Dr. Harris's statement that some tribes practise patricide. All that was suggested was that Patrick should be warned of the regions so dangerous to him. It is well to know, on Dr. Harris's authority, that that which does not exist can be brought to bear on what does exist. We did not question the truth of the statement, but expressed our difficulty in understanding the mechanism; but as it now appears that average mortals can understand it, we must confess to not being average. We did our best to understand *The Significance of Existence*, and as it seems that we have failed, we trust Dr. Harris will put the failure down to the deficiency of our intelligence, and not to the demerit of the book.

MEDICINAL AND DIETETIC ARTICLES.

Formitrol Pastilles.

Formaldehyde, in the form of its solid polymer paraformaldehyde, has found wide application as a local anaesthetic for the mouth and throat, and formitrol pastilles, supplied by Messrs. A. Wander, Limited (London, E.C.), contain each $\frac{1}{6}$ grain of formaldehyde with menthol and citric acid and a base which only dissolves slowly if not chewed, so that prolonged local action of the aldehyde is assured; each is enclosed in a tinfoil sheath to prevent loss of the medicament on keeping. The pastilles bear no brand and are not, we are informed, advertised to the public.

Pepto-Mangan (Gude).

The presentation of iron in assimilable form in cases of chlorosis has been attempted in many ways, both organic and inorganic compounds being utilized for the purpose; in Pepto-Mangan (Gude) iron and manganese are combined with organic matter in such a way that they are not precipitated from the solution by alkalis, and it is claimed that by the use of such a compound of both these metals, most satisfactory results are obtained. A sample of this preparation submitted by Messrs. T. Christy and Co., who are the London agents, consisted of a brown neutral liquid, free from astringency and with a slight aromatic flavour; after the organic matter had been destroyed by ignition, iron and manganese were found to be present in considerable quantity.

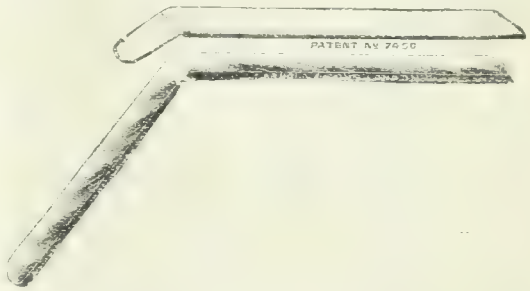
MEDICAL AND SURGICAL APPLIANCES.

A Noise Silencer.

Sir Ronald Ross sends us a short account of an ear clip he designed some twenty years ago for a patient who was susceptible to noise. It is designed to close the tragus of one or both ears in such a manner as to exclude slight noises without preventing access of all sound to the ear. It consists of a curved metal spring, jointed in the centre for portability, and provided at each end with a button, which presses lightly against the tragus or other part of the ear. It is manufactured by Messrs. Charles Baker, 244, High Holborn, London, W.C., and it is suggested that it may also be useful in the treatment of nervous maladies. When lying down with one ear closed by a pillow, the button on that side can be placed in the hollow between the ramus of the jaw and the mastoid, where it causes no discomfort. It is suggested further that it may be worn with advantage by those employed in big gun or rifle practice.

Envelope for Tongue Depressors.

Dr. Donald Murray (Stornoway) writes: Medical inspection of school children has its own problems, and one of these is the efficient examination of the throat without the risk of carrying infection from one to the other by the tongue depressor. Boiling or steaming the instrument is in nearly all cases impracticable. Disinfection by chemicals has many disadvantages. To obviate these a great number of medical officers use wooden depressors which are burnt immediately after use. This is a safer and cleaner method than by the use of one common depressor for all, whatever the disinfectant employed. Wood, however, has also its disadvantages—it is too bulky: it is not pure white and so does not reflect the light: where there are no open fires, and in summer when there are no fires at all, there is a practical difficulty in getting them burnt. A very simple expedient, and one which has several good



points in its favour, has been placed on the market by Messrs. Arnold and Sons, London. It consists of an envelope, made of specially prepared paper, which fits on to an angular depressor. The portion applied to the tongue is of double thickness, so that there can be no risk of organisms passing through. At the proximate (open) end there is a tab on which the finger rests to steady the envelope. This also serves as a catch by which to pull off the envelope after use, thus preventing any portion which has been in the mouth coming in contact with the medical officer's fingers. The small amount of room they occupy in the wallet, the enhanced illumination of the throat by the white paper, the facility with which the envelopes can be burnt and disposed of, together with efficiency in preventing throat to throat infection, should make this little contrivance a most useful item in the school medical officer's outfit. The same advantages will also commend it to the general practitioner.

The eighth International Congress of Applied Chemistry will be held at Washington and New York in September. The Congress is under the patronage of His Excellency the President of the United States. Among the papers to be read in the Section of Physiological Chemistry and Pharmacology are the following: Howard S. Reed, Ph.D., "The Enzyme Activities Involved in Certain Plant Diseases:" Reid Hunt, M.D., "Physiological Action of some New Compounds of the Choline Type;" G. A. Menge, Ph.D., "Some New Compounds of the Choline Type;" Atherton Seidell, Ph.D., "Comparative Solubility Studies on Thymol and Certain Other Vermifuges:" W. H. Schultz, Ph.D., "Pharmacological Action of Proteins and Some of their Derivates;" C. C. Guthrie, M.D., "A Comparative Study of the Action of Solutions on the Preservation of the Vitality of Tissues;" Arthur S. Loevenhart, M.D., "Further Observations on the Action of Oxidizing Substances;" W. N. Berg, Ph.D., "The Physico-chemical Basis of Muscle Contraction: A Critical Review;" Jacob Rosenbloom, M.D., "Chemical and Pharmacological Studies of Human Duodenal Contents;" George W. Crile, M.D., "Neuro-cytological Changes Resulting from the Administration of Certain Drugs;" Joseph L. Miller, M.D., "Physiological Action of the Various Anatomical Components of the Hypophysis;" J. A. E. Eyster, M.D., "The Relation of Calcium to the Inhibitory Mechanism of the Heart;" Atherton Seidell, Ph.D., "The Comparative Estimation of Epinephrine in Suprarenal Glands and in its Solutions Physiologically and by Colour Tests;" Walter Jones, Ph.D., "Some New Phases of the Nuclein Fermentation;" Charles Baskerville, Ph.D., "Inhalation Anaesthetics;" Oswald Schreiner, Ph.D., "The Physiological Rôle of Organic Constituents in Plant Metabolism."

CERTAIN PHASES IN THE EVOLUTION OF MAN.

ABSTRACT OF THE HUNTERIAN LECTURES DELIVERED BEFORE THE ROYAL COLLEGE OF SURGEONS IN FEBRUARY AND MARCH, 1912.

BY

ARTHUR KEITH, M.D., LL.D., F.R.C.S.,

CONSERVATOR OF THE MUSEUM AND HUNTERIAN PROFESSOR.

(*Concluded from page 735.*)

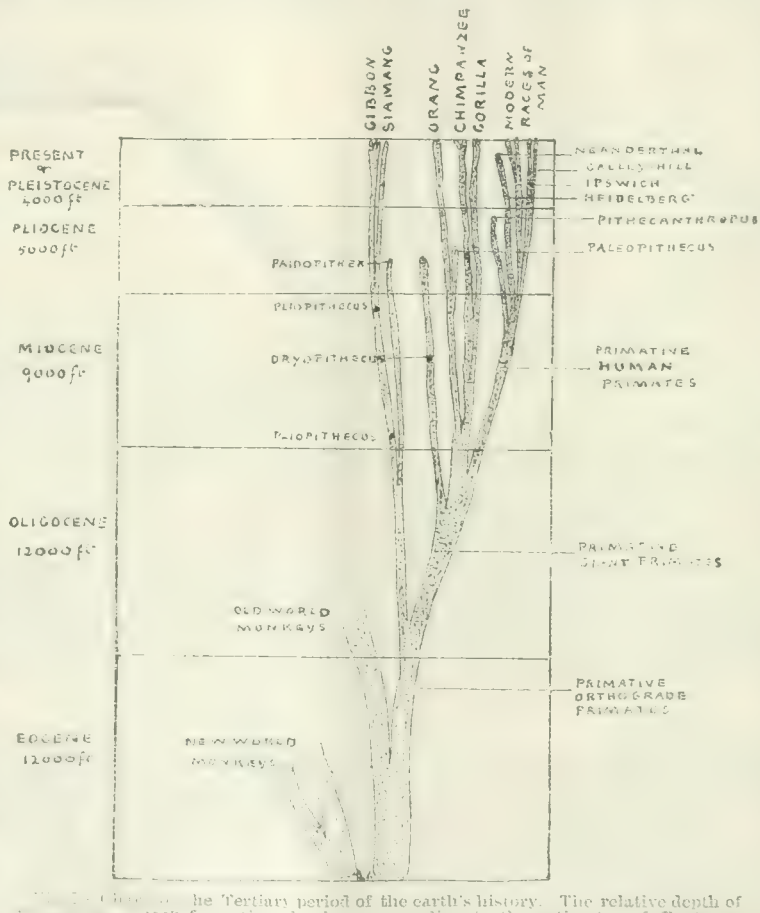
THE RELATIONSHIP OF THE GIBBON TO THE PRIMITIVE HUMAN STOCK.

To those who make a special study of the evolution of man the small anthropoid or gibbon is the most important of all surviving apes. Those who are familiar with the gibbons as seen in the Zoological Gardens or who have kept them as pets value them for their mental and bodily characters, but the student is drawn to them because, structurally, they belong to a very ancient animal world and throw light on a very early stage in man's origin.

The gibbon, which lived in Europe in Miocene times, is now confined to the jungles of further India, to Borneo, Java, and Sumatra. There are two very distinct kinds, the large gibbon, few in number and restricted in distribution, and the small or ordinary gibbon, of which there are numerous varieties spread over a vast jungle or forest country. The structural differences between the siamang or large gibbon and the ordinary or small gibbon are similar in degree and in nature to those which separate the gorilla from the chimpanzee. Mankind during the greater part of the Pleistocene epoch was also separated into two distinct types—the Neanderthal and the modern. When it is remembered that the gibbons, African anthropoids, and Pleistocene man represent three successive stages in the evolution of the highest primates, it is a remarkable fact that there should be in each stage a process at work which led to a separation into two kinds, one a massive and brutal form, restricted in numbers and in distribution, and the other less brutal, widely distributed, and divided into numerous varieties or races. The siamang, the gorilla, and Neanderthal man are the representatives of the brutal type; the gibbons, the chimpanzees, and modern human types the representatives of the other.

Although size or bulk of body is, as a rule, a character of very little value in classifying animals according to their degree of relationship, this is not the case as regards the higher primates. All the very ancient monkeys are of small size. The gibbon, compared to these very early forms, is large, but when compared to man, the African anthropoids, and the orang, it is small, being only a fifth to an eighth of their size. Great size and stature of body came with the evolution of the stock of "giant" primates, which gave rise to the great anthropoids and man, probably some time before the beginning of the Miocene epoch. The small anthropoid or gibbon represents the stock from which the large-bodied primates arose. When compared to the gibbon, and especially to primitive apes, the large-bodied primates are veritable giants.

The main interest of the gibbon, from an anatomist's point of view, lies in the fact that in this ancient form those remarkable changes which adapted the body to the upright posture are already evolved. We are apt to think of the upright posture as a human characteristic, but this is not the case. It is true that in man only are the lower extremities adapted for ground progression, but these changes, remarkable as they are, are minor when compared with the transformation which we see in the body of the gibbon. The gibbon is essentially an ordinary monkey adapted to the upright posture. There can be no doubt that in all the very ancient primates the axis of the body was carried horizontally: the gibbon is the earliest known form in which the axis of the body is carried upright: in its system we see the introduction of a structural principle which served as the stepping-stone to the human posture. Few biologists have realized the extent of the structural transformation necessitated by the upright posture. The position, shape and fixation of all the inner organs had to be altered, all the contents of the thorax and abdomen rearranged. The method and mechanism of respiration was changed: the musculature of the spine and trunk had to be adapted to new posture. It was at this stage the tail became useless, its muscles modified to form the pelvic floor. The carriage of the head, the new use of the limbs, brought about a modification of all the joints and bones of the body. Yet, although the brain and nervous system did also participate in this structural revolution, the change which took place was to such a slight degree that, by studying the brain of the gibbon, one can make a very accurate guess as to its ancestry. It came out of the stock which gave origin to the higher monkeys of South America on the one hand and to the ordinary monkeys of the Old World on the other. The period of the evolution of the gibbon dates back to soon after the separation of the fauna of Africa from that of South America, the latter continent being apparently the centre of evolution of the earliest forms of monkeys. It is believed that the separation just mentioned took place soon after the commencement of the Tertiary period. In Professor Keith's opinion, the upright posture was an extremely ancient character, having been evolved probably early in the Eocene epoch. The giant forms of primates, which we have not discovered as yet earlier than the middle of the Miocene epoch, were probably evolved in an earlier epoch—the Oligocene.*



The Tertiary period of the earth's history. The relative depth of each formation is shown according to the estimates of Professor Sollas. A genealogical tree of man and of the anthropoid apes is represented on the chart. The time represented by the chart covers many millions of years.

* These changes will be dealt with more fully on a future occasion by Professor Keith.

Extinct Anthropoids.

The evidence obtained from an examination of extinct forms of animals closely allied to mankind supports the opinion that the antiquity of man was very much greater than has hitherto been supposed. So far only two extinct forms of great or giant anthropoids have been discovered. One of these (of which only a fragmentary palate has as yet been found) belongs to the Pliocene formations which occur along the southern foot of the Himalayas and was named Paleopithecus by Mr. Lydekker. This anthropoid is a missing link between the orang of Borneo and Sumatra and of the chimpanzee of Central Africa. It is related more nearly to the orang than to the chimpanzee. The discovery of Paleopithecus shows us that in the Pliocene period the great anthropoids had already assumed their modern size and form.

More importance must be attached to Dryopithecus, a great anthropoid which lived in the jungles of Europe during the Miocene epoch and became extinct early in the Pliocene. It was about the size of the chimpanzee, and like that animal in several features, but it differed in certain points from all the existing great anthropoids and showed features which linked it with the small and much more primitive anthropoid—the gibbon. Dryopithecus was widely spread in Europe; the most complete remains have been found in the middle Miocene formations of the south-west of France. Its teeth occurred in rather later formations in the upper valley of the Rhine and in the valley of the Danube. At least three forms of this great anthropoid lived in Europe. The molar teeth of this ape have rather a close resemblance to the corresponding human teeth. It is possible that some of the molars attributed to this animal are really human teeth, or of the Miocene stock which gave rise to man. The molar teeth are the only points in which Dryopithecus resembled man, and there was no reason to regard this extinct anthropoid more than another as a possible human ancestor.

Not only were the great anthropoids represented in Europe during the Miocene epoch, but so were the small anthropoids or gibbons. The teeth and jaws of the European gibbons of that long-past time differ from those of their modern representatives in about the same degree as the corresponding parts of a modern Englishman differ from those of an aboriginal Australian. The European gibbons, as is the case with modern Asiatic gibbons, were separated into two very distinct forms—one large in size, strong in limb and tooth; the other smaller and more primitive. The earliest trace of the European gibbon occurs in the inferior or older Miocene: but the characters of even the modern genus are so primitive in nature that we may expect to find remains of these small anthropoids in strata of a much earlier or older formation. To students of human evolution the discovery of the gibbon at the beginning of the Miocene epoch is a matter of great importance, as we know thereby that the upright or vertical posture was evolved then; how much earlier we can only guess.

Discovery of fossil remains has also thrown light on the origin of the ordinary or dog-like monkeys of the Old World. In the matter of their dentition they have become specialized, while the gibbon and man have retained a primitive form of dentition. The Old World dog-like monkeys have acquired a form of molar dentition which was new among primates. In the middle Miocene formations of Tuscany is found the remains of a fossil ape (Oreopithecus) possessing teeth which are intermediate in form to those of the gibbon and dog-like monkey.

An account of the most important and surprising discovery yet made regarding the early history of the primates was recently published (1910) by Dr. Max Schlosser. In the oldest of the Oligocene formation of the Fayoum of Upper Egypt remains of three forms of monkeys were found. Two of these Dr. Schlosser regards as close allies of South American monkeys; the other he regards as an ancestor of the Miocene gibbon of Europe. The discovery has a double importance: it shows, in the first place, that the Old World monkeys and anthropoids have, as many formerly believed, a common origin with those of South America; in the second place, it shows that the basal anthropoid stock was in process of evolution by the beginning of the Oligocene period. It is therefore possible that we may discover, as Professor Sergi asserts has already been discovered, remains of man in strata of the Pliocene epoch.

Present Position of the Theory of Human Evolution.

In his concluding lecture Professor Keith reviewed the state of knowledge concerning the evolution of man. All the evidence indicated a very great antiquity for later phases in the evolution of the human body. More than forty years ago Sir Charles Lyell expressed his belief that the remains of man would be found in the Cromer beds of East Anglia. Although the actual bones of man have not been found in those beds, flints worked by man's hands have been discovered not only in the Cromer beds, but also beneath a deeper and much older formation—the red crag. Mr. Reid Moir, the discoverer of the pre-crag flints, regards them as being of at least early Pliocene age. The eoliths of the uplands of Kent, although of a somewhat later date than the pre-crag flints, serve better to convey an idea of the time which has elapsed since men first lived on the Kentish plateau. It is a most fortunate circumstance that these implements were first observed, and their antiquity inferred by the late Sir Joseph Prestwich—a geologist of sound judgement, and conservative in his estimates as regards the past period of man. We owe much to Mr. Benjamin Harrison for the manner in which he has developed our knowledge of these early flints. The deposit or "drift" in which the crudely worked flints or eoliths are found is mixed with fragments of greenstone and chert. The strata from which these greenstone fragments have been washed lie now in the weald 500 ft. below the level of the southern edge of the plateau. Prestwich realized that, at the time these ancient flint implements were imbedded, hills containing the greenstone strata must have occupied the position of the weald, and towered high above the level of the Kent plateau, and that after the greenstone fragments and flint implements were embedded on the plateau these hills had been gradually washed away to a depth of at least 1,000 ft. The lowlands of the weald have thus been formed since Pliocene man cut the implements now found in the plateau drift. When these facts, and the existence of a primitive form of anthropoid in the earlier part of the Oligocene period, are kept in mind, it becomes possible to believe in the existence of Pliocene man of a modern type—such as Professor Ragazzoni had discovered in the north of Italy.

Another consideration made anthropologists claim a great antiquity for modern man—in contradistinction to Neanderthal man. Mankind as seen in the world to-day—European, Mongolian, Red Indian and Australian—were most diverse in type. Their evolution from a common form demanded the elapse of an enormous length of time. In England we find the types of skulls of her most ancient inhabitants repeated in her modern population. With the exception of the Neanderthal type, all the ancient Continental forms are still to be found in Europe. From predynastic to modern times Professor Elliot Smith found that the skull of the Egyptian has changed only in detail. The oldest human crania found in America are of the Red Indian type. We are forced to believe that human evolution works slowly; yet it has effected the extraordinary contrast seen between two such representatives of the modern type as the negro of Africa and the fair-haired native of North Europe. To accomplish such a degree of divergence one must carry the history of modern man at least well within the Pliocene period. Of the survivals of ancient human forms, it is very likely that the aboriginal Australian is the best living representative of Pliocene man. From such a type one can understand the origin of the negro on the one hand, and of the European on the other. Neanderthal man was a yet earlier and, in his later development, a yet more aberrant type.

Two discoveries made in recent years appear to render it impossible to suppose that the modern type of man existed so early as the Pliocene period. The first was the discovery of the Heidelberg jaw in a stratum belonging to the oldest or first stage of the Pleistocene epoch. It was of a most primitive, brutal, and yet human character. It indicates an individual of the Neanderthal type, but of a more massive form than is found at a later date in France. If we accept the Heidelberg individual as typical of the human race of that period (early Pleistocene), then we must suppose that human evolution proceeded at a more rapid rate than we have at present any conception of. We have to remember that in the world to-day, and it has always been the case, there are types or forms representing

very different degrees of antiquity and stages of evolution. It is therefore not only possible, but probable, that the Heidelberg and Neanderthal man are survivals of a very ancient type, and in no way indicative of the stage reached by *Homo sapiens* in the Pleistocene period. Using the same manner of reasoning, it is unlikely that the man of Java (Pithecanthropus), who is very little older in date than the Heidelberg man, and has a brain capacity of only about half that of modern man, represented the highest type of man of his time. He, too, was evidently a survival of an early stage. At least, it is difficult to believe that in a single and short geological period, even allowing that the extent of that period may be a million years, man could, even in that space of time, double his brain capacity. No parallel instance of so rapid a degree of evolution can be found in the history of Pleistocene mammals.

As regards the degree of relationship between man and the great anthropoids the opinion of scientific men has changed very little since Darwin's time. Huxley regarded the structural difference between man and the gorilla as about equal in degree to that which separated the gorilla from ordinary monkeys. The divergence between the gorilla and monkey is undoubtedly the greater. It can be safely said that the brain of the gorilla represents an intermediate stage between the brains of man and of the small anthropoid (the gibbon); the brain of the dog-like monkeys represents a still lower or more primitive stage. In 1904 Professor Nuttall confirmed the inferences which anatomists had drawn concerning the relationship of man to anthropoids and monkeys. He established the fact that the blood of the great anthropoids reacts to certain tests in almost exactly the same manner as human blood; the reaction becomes less in amount when the test is applied to the blood of monkeys. The response in the case of those of the Old World is greater than with those of the New, thus bearing out the anatomists' opinion that the Old World monkeys are more recently related to the human stock than those of South America. There is also the evidence of disease. The great anthropoids are susceptible to syphilis—a human disease; monkeys can be inoculated with difficulty. Anthropoids in captivity are liable to typhoid fever, and when kept in captivity frequently die from that very human disease—appendicitis. There was no evidence that appendicitis occurred when the anthropoids lived in their native habitats and on their natural diet. Anthropoids are manifestly human as regards the nature of their diseases.

Although none of the existing anthropoids could be regarded as a human ancestor, there could be no doubt, seeing the extraordinary degree of structural similarity, that man and the great anthropoids were the products of a common stem. The gorilla shows the nearest structural approach to man. As to the time at which divergence occurred between the great anthropoid and human lines of descent no definite statement can as yet be made, but to obtain a working hypothesis it is necessary to place the point of divergence in a comparatively remote geological epoch—the Oligocene. The evolution of the great anthropoids from the small may have occurred early in the same period. The genealogical trees which have been constructed to explain the past history of the human stock are as yet little better than crude guesses to explain masses of ascertained facts of anatomy. Further discoveries will certainly cause these genealogical trees to be modified in detail, yet the sequence of events in the evolution of man's body is becoming clear. The great mass of his brain and his nude skin were evidently the latest of human acquisitions; the adaptation of the lower limbs for walking and the modification of his teeth to their present form were earlier modifications of his structure. The size of his body and his stature were still older human features, while the chief structural modifications to adapt the body to an upright or vertical posture, were of very ancient origin.

A CORRECTION.—Professor Keith asks us to apologize for an accidental slip of the pen, which prefixed the words "the late" to the mention of Mr. Barwell's name in a footnote to the first part of the report of the Hunterian Lectures on certain phases in the evolution of man (p. 737). Mr. Barwell's name stands second on the list of Fellows of the Royal College of Surgeons of England. He became a Fellow in 1853 in the same year as Mr. Thomas Bryant, and two years after Professor P. Redfern, who is senior Fellow, his diploma dating from 1851. We are glad to know that Mr. Barwell, though retired from actual practice, is hale and well.

Nova et Vetera.

THE GREGORIES.

THERE is a French saying, *Ce n'est pas lui qui a inventé la poudre*, equivalent to our description of a man who will not set the Thames on fire. But there is powder *and* powder, and there is one which has made the name of its inventor in a sense immortal. This is Dr. James Gregory, whose name used to be a word of fear in nurseries owing to its association with the detested powder which he devised. A correspondent, who may possibly have suffered from a too liberal administration of the Pulv. Rhei Co., has asked for some particulars as to its inventor. James Gregory was a member of the famous family of Gregories which gave many men of high eminence in various spheres of activity to Great Britain. Their real name was MacGregor, but this was for a long time proscribed. It is curious to think that the professors of mathematics and medicine who played so large a part in the intellectual life of Aberdeen, Edinburgh, and other places during the eighteenth century and the beginning of the nineteenth should have been cousins closely related to Rob Roy, the famous freebooter. A short account of them is given by Miss Agnes Grainger Stewart in a little book entitled *The Academic Gregories*.[1]

James Gregorie, who was mediciner at Aberdeen University in the beginning of the eighteenth century, was the founder of the Aberdeen School of Medicine. It was his son that the freebooter offered to take with him and make a man of, an incident reproduced by Scott in the offer made by Baillie Nicol Jarvie to take his sons, which is related in *Rob Roy*. James Gregorie died in 1733.

He was succeeded by his son, James, who was professor at Aberdeen from 1732 to 1755. He had a hot temper, and when he gave it free scope his friends would say, "Ah! this comes of not being educated by Rob Roy." Whether this tended to soothe his irritability we are not told. He left no children, but the name survived in John Gregory, who, after receiving his preliminary education at Aberdeen, went to Edinburgh in 1742 to study medicine. After three years he proceeded to Leyden, where among his companions was John Wilkes. King's College, Aberdeen, in his absence had obligingly sent him the degree of M.D., and on his return offered him the chair of philosophy, which he held from 1747 to 1749. At the same time he engaged in general practice as a physician. In 1754 he resolved to seek his fortune in London; in 1756, however, the death of his brother James having left the chair of medicine in Aberdeen vacant, he was appointed to it. But there were no students to teach, and the Aberdeen degree was a laughing stock, a state of things which chafed his proud spirit. His wife died in 1763, and in the following year he was invited to go to Edinburgh. There he was very successful in practice, and in 1766 he was appointed to the chair of the practice of physic, and was made first physician to the King for Scotland. He was the author of a *Comparative View of the State and Faculties of Man with those of the Animal World*, *Lectures on the Duties and Qualifications of a Physician*, *Elements of the Practice of Physic*, a textbook which he did not live to finish, and other works. He died suddenly in the middle of the session 1772–73, and the university authorities were at a loss how to arrange for the continuance of the lectures. His son James, the inventor of the powder, though only a student, offered to lecture till the end of the term, and extraordinary as it may seem, this proposal was gratefully accepted.

James Gregory was born at Aberdeen in 1753, and received his early education there. Afterwards he went to Oxford, but he cannot have remained long there, for he returned to Scotland and began his medical studies in 1767. After enlarging his experience at St. George's Hospital, London, he took his doctor's degree at Edinburgh in 1774, the subject of this thesis being *De morbis coeli mutatione medendis*. In it he advocated the advantages of change of air in prolonging life, and dealt in detail with phthisis, hypochondriasis, and gout. He afterwards pursued his studies on the Continent, and in 1776 he was elected to the chair of the Institutes of

[1] In the Famous Scots Series, published by Oliphant, Anderson, and Ferrier, Edinburgh and London, 1901.

Medicine. The appointment would nowadays be described as a job, but Gregory was very successful as a teacher, his classes growing steadily all the time of his professorship. The number of medical students grew from about twenty in 1776 to a hundred and sixty in 1827. Gregory wrote little on medicine, though his *Conspectus Medicinae Theoreticae* was long used as a textbook, passing through many editions and being translated into English and several other languages. He was also the author of a *Theory of Moods and Verbs* (1787) and of *Philosophical and Literary Essays* (1792). Moreover he posed and apparently was accepted as a critic of poetry, and the observations with which he favoured Robert Burns on some of his poems are amusing to a reader of the present day, though the poet complained that the medical Zoilus "crucified" him. It is a testimony to the respectful awe which Gregory inspired that the poet did not crucify him in return, as he might so easily have done.

In 1790, when Cullen's health was failing, Gregory was appointed joint professor with the right of succession. In the same year Cullen died, and Gregory become sole incumbent. What he was as a teacher may be learnt from what Sir Robert Christison says of him in his *Autobiography*:

> Equal in fluency as in choice of language he surpassed all lecturers I have ever heard. His doctrines were set forth with great clearness in the form of a commentary on Cullen's first lines of the *Practice of Physic*. His measures for the cure of disease were sharp and incisive, in acute diseases there was no *médecine expectante* for Gregory. He somehow left us with the impression that we were to be masters over nature in all such diseases that they must of necessity give way before the physician who is early enough and bold enough in encountering them.

It is curious to compare this characterization with Gregory's own opinion of the science and art of medicine as expressed in his book about the management of the Royal Infirmary.[1] He says:

> Much more than ninety-nine parts in the hundred of all that has been written on the theory and practice of physic for more than two thousand years is absolutely useless and unworthy to be known but as a matter of curiosity or as a miserable example and warning of the worst errors to which we are prone.

He goes on to say:

> A large proportion of those writings consist of controversies generally carried on with the bitterest animosity.

Clodius accusat! Further on he says of himself:

> He has not had wisdom enough to keep himself out of all disputes and controversies, even in science; and in those wherein he has engaged, he has been abundantly acrimonious; as his opponents (probably) would be ready to certify upon oath: or if they should not, it is of little consequence; the fact may be established without their help, or in spite of them. But hitherto, notwithstanding all temptations, and provocations, and plenty of bad examples, he has escaped the folly of any medical disputes or controversies; not by any superiority of understanding, for he knows that men, much wiser and abler, and more learned than he is, have fallen into that folly; but by his strong sense of ridicule, which on that point was to him irresistible. From his earliest youth he was admitted behind the curtain, and let into the secret of the medical drama. Having acquired a little notion of some other sciences, and of science in general, before he engaged in the study of physic he was from the first both mortified and entertained with the contrast which he saw. He soon perceived that, with respect to physic, each successive age has much more trouble to unlearn the bad, than to learn the good, of those which went before it, and still more to distinguish between the good and the bad which itself produced. After two-and-thirty of the best years of his life spent in learning, in teaching, and in practising physic, he has found much to confirm, and nothing to shake that unfavourable opinion of his own profession, and of a vast majority of those who have taught and practised it. Being a great philosopher, of the sect of Democritus, he thinks it much wiser, as well as pleasanter, to laugh than wither to cry or be angry at such things; and as he would have thought it in others, so in himself he would think it perfect Quixotism and truly a kind of Knight Errantry, to attempt to set everybody right; knowing well that not one in a thousand chooses to be set right. He would as soon think of building a magnificent dwelling house on the Goodwin sands, as of building his fame on a work of medical reasoning or medical observation; even if literary fame were, what it is not, the chief object of his ambition. He never could propose to himself either honour or advantage in telling fifty of his contemporaries and 500 of his predecessors, though in the civilest manner and only by implication, that they were knaves and fools, liars and quacks, or in being told the same in equally civil, or perhaps in plain terms, by many of his cotemporaries. He never had the vanity to suppose that his talents were greater, or that his efforts would be more successful in medical science, than those of many hundreds of his cotemporaries and many thousands of his predecessors, or to think that any addition which he might make to it could bear a sensible proportion to the whole stock even of real medical science. He has studied medical systems, and reasonings, and observations till he was sick, and tried many dozens of boasted but very useless remedies till he was ashamed of what he was doing. But far from exclaiming "All is vanity" and giving up the point in despair, his chief object, both in the teaching and in the practice of physic, has been to separate the little that he found true and useful from the vast mass that he found erroneous and useless, or worse. He knows many of the peculiar difficulties which have hitherto retarded the progress of medicine, and many of the causes which have produced the worst corruption of it. He is convinced that none of these are hopeless, and is confident that the science of medicine will yet make great and happy progress. The great Volume of Nature lies open to Physicians of every sect, and every opinion; but they must learn to read it fairly, like men of science, who seek for truth alone; not perversely, like disputants contending for victory; or, as some wrong-headed sectaries seem too often to have read the Bible, each most absurdly assuming the dangerous and wicked principle, that

> His liber est in quo quaerit sua domata quisque;
> Atque in quo reperit dogmata quisque sua.

It is amusing to find Gregory complaining of the controversial spirit of his professional brethren, for he was a man of most violent temper, and quarrelled with his colleagues, one of whom he assaulted with a stick within the precincts of the university. For this he had to pay £100 damages, and it is recorded that he said on paying his fine that he would willingly pay double for another chance. With the managers of the Royal Infirmary he carried on a bitter feud, waged in a style that shows the hot blood of the MacGregor throbbing through the academic veneer of the professor. Notwithstanding these flashes of irritability he had a large practice, and he was physician to George III and also to George IV, besides being President of the Edinburgh College of Physicians.

As regards his treatment, it may be said of him that in a sanguinary age he was less free with the lancet than the bulk of his brethren, and that he urged a liberal dietary in certain stages of consumption, but it is his famous powder that probably has kept his name alive more than anything else. As he was fond of Latin quotations he might have applied the lines from the Fourth Georgic to his invention, with reference to intestinal disturbance,

> Haec certamina tanta
> Pulveris exigui jactu compressa quiescent.

When Gregory died in 1820 there was great mourning among his friends, and the town gave him a public funeral. Over his grave is the following inscription: "*Vir priscae virtutis, per omnes vitae gradus et in omni vitae officio probatissimae.*"

[1] *Memorial to the Managers of the Royal Infirmary, MDCCC.* Second edition. Edinburgh. 1803.

THE COMPOSITION OF CERTAIN SECRET REMEDIES.*

A CURE FOR TOBACCO HABIT.

WE reported recently on certain "cures" for alcoholism, and one of those described was supplied by E. J. Woods, Ltd., London. It is claimed to cure inebriety and the craving for alcohol in three days with a "treatment" by which E. J. Woods is stated to have cured himself in that time, after having been a heavy drinker for many years. Recently advertisements have been appearing in newspapers and magazines over the name of E. J. Woods (the "Ltd." does not appear) offering a three-day cure for tobacco habit. One of these is worded thus:

> TOBACCO HABIT
> Conquered in 3 Days.
> I offer a genuine guaranteed Remedy for tobacco or snuff habit, in 72 hours. It is mild, pleasant, strengthening. Overcomes that peculiar nervousness and craving for cigarettes, cigars, pipe, chewing tobacco, or snuff; they are poisonous and seriously injurious to health, causing such disorders as nervous dyspepsia, sleeplessness, gas, belching, gnawing, or other un-

* Previous articles of this series were published in the following issues of the BRITISH MEDICAL JOURNAL: 1904, vol. ii, p. 1585; 1905, vol. ii, pp. 27, 1645; 1907, vol. i, p. 215; vol. ii, pp. 24, 160, 209, 393, 530, 1653; 1908, vol. i, pp. 833, 942, 1373; vol. ii, pp. 86, 505, 1022, 1110, 1193, 1285, 1566, 1697, 1875; 1909, vol. i, pp. 31, 909, 1128; vol. ii, p. 1419; 1910, vol. i, pp. 151, 213, 393, 1005, 1063, 1120; vol. ii, pp. 982, 1350, 1928; 1911, vol. i, pp. 26, 91, 823, 1324; vol. ii, pp. 32, 77, 456, 767, 854, 1543; 1912, vol. i, p. 26, 141, 318, 438, 683.

comfortable sensation in stomach; constipation, headache, weak eyes, loss of vigour, red spots on skin, throat irritation, asthma, bronchitis, heart failure, lung trouble, catarrh, melancholy, neurasthenia, impotency, loss of memory and will-power, impure (poisoned) blood, rheumatism, lumbago, sciatica, neuritis, heartburn, torpid liver, loss of appetite, bad teeth, foul breath, enervation, lassitude, lack of ambition, falling out of hair, baldness, and many other disorders. It is unsafe and torturing to attempt to cure yourself of tobacco or snuff habit by merely stopping—don't do it. The gentle, safe, agreeable way is to eliminate the nicotine poison from the system, strengthen the weakened irritated membranes and nerves, and genuinely overcome the craving. You can give up Tobacco and enjoy yourself a thousand times better, while feeling always in robust health. My Free book tells all about the wonderful 3 days' method. Inexpensive, reliable.

The "Free book" is entitled: "How to Speedily and Perfectly Conquer the Tobacco Smoking and Chewing Habits, also the Snuff Habit"; it is a pamphlet of thirteen pages, chiefly devoted to describing the awful effects of the use of tobacco, and evidently intended to impress the reader and enlist his terrors to aid the "cure."

A few extracts will suffice as samples:

Nicotine is one of the most intense of all poisons, approaching in its strength the highly powerful prussic acid.

The other important element is an oil called *nicotianin*: probably this is Shakespeare's "juice of the cursed henbane," mentioned in "Hamlet." This is also an intense poison. . . .

There are several kinds of cigarettes that are prepared with opium, cannabis indica (hasheesh), or cocaine. Thus, another very insidious and killing poison is taken into the system.

The muscles as well as the nerves become poisoned by nicotine.

The effect of tobacco upon the nerves and muscles of the eyes is a reason why oculists and opticians flourish.

Tobacco causes enfeebling of the mind and too often it leads to insanity.

. . . tobacco is a frequent cause of heart failure and premature death.

I have been told by medical men that there is a belief, becoming better founded from year to year, that tobacco is a cause of appendicitis.

Falling of hair, followed by baldness, also the turning of dark hair to grey shade, is due very often to the poisoning of the blood and nerves by nicotine.

The nicotine must be removed from the blood, muscles, nerves, membranes and all other parts of your body. Do not waste time in trying to accomplish this by the power of the will. No doubt you can make a gallant fight, but the poison will remain and will continue to do its mischief, like the uric acid of the rheumatic.

Thus far, over two hundred cases of leprosy in the United States have been traced to cigarette smoking.

A paragraph headed "A Deadly Weed" gives a list of rather more than a hundred disorders of various kinds, with the statement that "no tobacco user can escape one or more of the harmful consequences mentioned in the list." They are of very miscellaneous nature, "anxiety" and "softening of the brain" standing together, and "cowardice" coming between "amaurosis" and "apoplexy."

There are two forms of the treatment, at the same price:

The cost of the Woods C Treatment is one guinea. The result is absolutely guaranteed. All craving for tobacco in any form should be completely eradicated and in most cases this result will be accomplished in only seventy-two hours.

My C Treatment (regularly) for the Tobacco Habit is to be taken by the person who desires to be cured. Obviously, he knows that he is taking it.

I am asked sometimes, if I can provide a Treatment which can be given without the tobacco user's knowledge. Yes, I can. This is my C Secret Treatment. It can be given secretly in any kind of food or drink. It is tasteless. The person finds that he is losing his desire for tobacco and soon abandons its use altogether. The price of this C Secret Treatment is one guinea, the same as the regular C Treatment.

The "treatment" was accompanied by a letter, in which it was stated that "the preparations are very potential," and a postscript runs thus:

I would appreciate a testimonial from you, to add to the great collection that I am compiling. I hope you will see your way clear to send this.

The materials sent consisted of seven different kinds of tablets, and one lot of pills; these bore various numbers, as follows:

No. 301: 7 small pink-coated tablets.
No. 302: 64 small brown tablets, not coated.
No. 303: 15 small pink-coated pills.
No. 304: 6 chocolate-coated tablets.
No. 305: 4 small grey tablets, not coated.
No. 306: 10 grey tablets, not coated.
No. 307: 2 small black-coated tablets.
No. 308: 17 chocolate-coated tablets.

Since in every case one is directed to be taken for a dose, the total includes 125 doses for the 72 hours requisite for the cure; the elaborate 3-day time table sent, however, only provides for one to be taken at every hour from 7 a.m. to 10 p.m., and one on awaking in the morning and one at bedtime, and "if awake in the night or early morning, a No. 302 tablet may be taken each two hours. To induce sleep, if necessary, take one No. 304, followed by another in half an hour"; so that if five are taken during the night, just seventy-two doses are directed. For the first twenty-four hours the order of taking, beginning at 7 p.m., is 301, 302, 303, 302, 303, then the night interval, 303, 308, 301, 302, 303, 302, 305, 302, 306, 302, 301, 302, 305, and it is different for the second and again for the third twenty-four hours.

Every dose is to be followed by a medium size glass of hot or cold water to be sipped), Vichy or soda with milk, or buttermilk. Take Nos. 303, 304, 306, 307, and 308 whole. Chew No. 301 before swallowing. Dissolve Nos. 302 and 305 in a small glass of water.

Nos. 302, 303, 306, and 308, of which the supply was the largest, were analysed as fully as possible; for the others, the small quantity available did not permit of much more than a qualitative analysis. The results obtained were as follows:

No. 301 (to be chewed before swallowing).—The average weight of one tablet after removal of the coating was 1.28 grains; the principal ingredient was phenol-phthalein, and a resin which appeared to be podophyllin; no other active substance was found.

According to the directions, three of these are to be taken in the first twenty-four hours, two in the second, and four in the third: this makes a total of nine, but only seven were sent.

No. 302 (to be dissolved in water before taking).—The average weight of one tablet was 1.28 grains. Analysis showed the presence of sugar of milk 63 per cent., a brown dye, and a very bitter non-alkaloidal extract resembling extract of quassia, which it probably was. No other substance was found except a little talc; it was not possible to determine the amount of the bitter extract or of the dye.

According to the directions, seven are taken during the daytime in the first twenty-four hours, seven in the second, and four in the third, and three during each night if awake. There is, therefore, a large surplus of these in the supply sent.

No. 303 (pills).—The average weight of one pill after removal of the coating was 0.9 grain. Analysis showed the principal constituent to be aloin, with a small proportion of strychnine. According to the directions, four of these are to be taken in the first twenty-four hours, three in the second, and one in the third.

No. 304 (to be swallowed whole).—The average weight of one after removal of the coating, was 4.4 grains. Analysis showed the principal constituent to be asafoetida; in addition, a minute trace of an alkaloidal substance, which was far too small in amount to be examined, but which was not strychnine, was present, and no other medicinal substance was found.

These are the tablets to be taken during the night, if necessary, to induce sleep.

No. 305 (to be dissolved in water before taking).—The average weight of one was 2.5 grains. Analysis showed that the principal ingredient was reduced iron, with a trace of a bitter alkaloid which appeared to be strychnine. The greater part of the tablet being insoluble in water, the direction to "dissolve" it before taking cannot well be carried out.

According to the directions, two of these are to be taken in the first twenty-four hours and one each in the second and third.

No. 306 (to be swallowed whole).—The average weight of one was 3.7 grains; analysis showed the presence of ferrous carbonate, potassium sulphate, strychnine, and brucine, with dextrin, glucose, and starch; it was thus a form of Blaud's pill with extract of nux vomica. The alkaloids amounted to 0.16 per cent., representing about 2 per cent. of extract of nux vomica, or about $\frac{1}{75}$ grain in

one tablet: the iron was 9.7 per cent., representing 20 per cent. of ferrous carbonate, or about ¾ grain in one tablet.

According to the directions, one of these is to be taken in the the first twenty-four hours, four in the second, and five in the third.

No. 307 (to be swallowed whole).—One tablet weighed 2 grains, including the thin coating. Analysis showed the principal constituent to be a blue dye which agreed in its general characters with methylene blue. The only other substance found was a little starch.

According to the directions, one of these is to be taken about the middle of the period of seventy-two hours and the other just before its close.

No. 308 (to be swallowed whole).—The average weight of one, after removal of the coating, was 3.7 grains. Analysis showed the tablets to contain chalk 36 per cent., charcoal 20 per cent., sugar 26 per cent., and a trace of methyl salicylate (oil of wintergreen); the only other constituents found were small quantities of gum and talc, used, no doubt, as excipients.

According to the directions, one of these is to be taken in the first twenty-four hours, none in the second, and three in the third.

It appears very evident that suggestion is intended to play a considerable part in the treatment. The booklet is written in such a way as to strike an impressionable reader with a strong conviction of the terrible results to be expected if the tobacco habit is continued, and the emphatic guaranteeing of a cure in a very short time would, no doubt, assist the patient's determination to give it up. The medicines having to be taken every hour, sometimes chewed, sometimes swallowed whole, and sometimes dissolved, would ensure the mind being kept well occupied with the cure; and the full directions include the use of an enema daily, dieting, breathing exercises, bathing, etc. The medicines themselves appear to be of three classes—aperients, tonics, and those intended to produce a subjective effect like asafœtida and methylene blue, the colouring effect of which on the urine might perhaps lead the patient to ask an explanation or to guess for himself that the colour "shows the nicotine being driven out of the system."

A further set of remedies, the "E set," price £2 2s., is recommended to be taken immediately after the C set, and is "intended to assist the natural recuperative powers so that the full benefit of having taken the other treatments shall be more speedily manifested."

As the small amount of material available prevented the analysis of some of the products being made quantitatively, it is not possible to estimate exactly the cost price of the ingredients, but it is evident that a few pence would fully cover it.

Although three of the different kinds of products contained strychnine, none of the packages bore any intimation of the fact, or the word "Poison."

LIFE ASSURANCE FOR MEDICAL MEN.

Probably most medical men sooner or later take out life assurance policies of one kind or another, but they often find it difficult to decide upon the form of policy best suited to themselves.

The business of life assurance has learnt to adapt itself to the conditions of modern life, and there is no longer any reason for the deeply-rooted fear—handed down from our grandfathers' generation—of paying premiums in old age on reduced income. Unfortunately the numerous schemes set out by insurance offices are not always very helpful to the would-be insurer, and the result is that a form of policy is often chosen unsuited to the requirements of the case.

Choice of Endowment or Life Policy.

The first contract of insurance entered into by a man of 25 is probably an endowment assurance maturing at the expiration of twenty or twenty-five years. The attractions of having the sum assured payable during lifetime are too great to be resisted. The old-fashioned life policy—premiums payable throughout life—is rejected because of the assured's belief in his own longevity and the fear that premiums will continue to be payable in old age.

For family provision, which usually is or should be the primary object of life assurance, there is still, however, nothing superior to the simple whole-of-life policy—no longer old-fashioned except as to its object, but modern because of its elasticity and the many options granted to the assured. By paying a very little more the annual payments on this policy can be limited in number from the start; they can be reduced and finally extinguished at or about the pension age by the operation of the bonus, or single extra payments can be made at any convenient times for the same purpose.

The ultimate cost of a whole-life policy can be ascertained at the outset, as in an endowment assurance.

On the other hand, it may be argued that the superiority of the endowment assurance lies in the fact that the sum assured is payable during lifetime. True, the holder of an endowment policy handles his capital if he survives, but unless he is prepared to spend it, only the income resulting from its investment is available. In this respect his position is not overwhelmingly superior to the life policy holder whose capital is securely locked up for the benefit of his dependents, and whose policy, once the premiums are extinguished, also produces an income in the shape of bonuses which can be drawn in cash. Whilst the life policy yields less to the assured in his old age it has provided a far greater measure of protection during the most important and most hazardous years of working life, and in this way has more adequately met the wants of the professional man dependent upon his earned income. Officials of insurance offices will more often than not take the line of least resistance, and if the public show a preference for an endowment policy, an endowment policy will be supplied.

A life assurance contract is made up of two important parts—protection and savings, that is, accumulation of premiums. In one form of policy the protection element is emphasized; in another the savings element predominates, and it is only possible to increase the savings payable in old age by taking away from the protection benefit.

Let the prospective assured carefully consider which is of greater importance—the successful accumulation of a sum of money payable at the end of a period which may or may not be survived, or immediate adequate protection against premature death, for herein lies the answer to the question, Which is the most suitable policy for medical men?

If responsibilities have been incurred, then the necessity of life assurance must be more pressing in the early years before savings have been accumulated or legacies inherited.

The requirements of old age, always an unknown quantity, can be and often are provided for by the exercise of thrift during the later stages of life. The demands for the protection of life assurance are, on the contrary, never more urgent than when they first become manifest.

In the majority of cases, therefore, the first requirement is a whole-life policy, the amount of protection under which will be as 25 to 50 per cent. more than that secured under the endowment policy.

Circumstances alter cases, and the broad principles outlined above cannot be expected always to apply. Suffice it to say that, whilst the endowment policy is a modern product, and in some respects very attractive, the whole-life policy has stood the test of time, and has been so improved in its form as to supply nearly all the wants which called the endowment policy into being.

Age for Beginning Insurance.

In any attempt to define the most suitable policy, the question necessarily arises as to the best age for effecting life assurance.

If there be any doubt as to what form of policy is suitable in a particular case, there can be no two opinions as to the age when the benefits of life assurance can be secured on the most advantageous terms.

For many years past there has been considerable and not unnatural prejudice against assurances effected upon children's lives, but such prejudice does not apply to modern developments as illustrated by thrift and deferred assurances.

From every point of view there are obvious advantages in securing the benefits of life assurance before they become a necessity.

In childhood and youth the risk of ineligibility on personal grounds is relatively small, the possibility of

incurring extra risk on account of occupation or foreign residence is practically unknown, and cannot therefore be charged for, whilst advantage is taken to the fullest possible extent of the fundamental principle appertaining to all insurance business of spreading the cost over as many years as possible.

The risk of ineligibility in adult life will be recognized by members of the medical profession, for those intimately connected with the inner working of life assurance know the keen disappointment experienced by young men who find themselves uninsurable—oftentimes just prior to marriage.

To take a concrete example. An annual outlay of £8 or £9 for a £1,000 whole-of-life policy, on behalf of a boy aged 1 is a sound and profitable family investment, providing at a very small cost an assurance which will almost certainly be needed at some future time.

The cost of a policy effected on behalf of an infant may be compared with one effected at the age of 30. The expectation of life at the latter age is about 35 years.

World-wide Policy.

(1) Age 1 next birthday. Assurance commencing at age 21.	(2) Age 30 next birthday.
£8 17s. 6d. per £1,000 with profits.	£24 5s. 10d. per £1,000 with profits.
At age 65 £576 17s. 6d. has been paid in premiums.	*At age 65* £850 4s. 2d. has been paid in premiums.
Sum assured and bonus £1,870.	Sum assured and bonus £1,675.

Here the important axioms of spreading the cost over as many years as possible by effecting the policy early in life and securing a world-wide policy which can never be altered are all satisfied, and the cost in actual hard cash is certainly appreciably less.

Not only, however, is such a policy inexpensive, but it may have a natural stimulus to the child's own interest in thrift, the inculcation of which may have very far-reaching and beneficial effects.

It is safe to prophesy, therefore, that deferred assurances, coming into full force at age 21 or 25, effected by parents for the benefit of their infant sons, will form a large and important part of the life assurance business of the future.

The Medical Insurance Committee are in a position to allow a substantial reduction off the first annual premium, and will be pleased to give every assistance and advice to its members on the subject of life assurance. Rates of premiums and full particulars will be forwarded on application to the Secretary, Medical Insurance Committee, 429, Strand, London, W.C.

LITERARY NOTES.

WITH reference to a note on the French obstetrician, Levret, which appeared in the JOURNAL of March 30th, p. 746, Sir A. R. Simpson has sent us a copy of an introductory lecture delivered by him, reprinted from the *Scottish Medical and Surgical Journal* of November, 1902. It is entitled "Paget, Virchow, Levret, and the Priceless Power of Knowing a Foreign Language." Speaking of the International Congress of Obstetricians and Gynaecologists which had been held in Rome a short time before, he says he travelled from Paris to Rome in the same compartment of a sleeping car with Professor Pinard. In an address on the evolution of the midwifery forceps, delivered two years before, Sir Alexander had expressed the hope that some French physician would write a life of Levret worthy to compare with the *Life of Smellie* by Professor Glaister. Pinard then told him that in 1866 Tarnier had given a lecture on the subject. Varnier afterwards published an article on him in the *Annales de gynécologie*. In 1768 Levret reigned undisputed master in his own field, and was gradually narrowing his sphere of work. In 1770 and 1771, however, he was stirred into fresh activity by the appearance of a possible rival—Solayrès. During that St. Martin's summer of intellectual life Levret not only lectured assiduously, but produced seventeen memoirs. In 1772 Solayrès was prematurely carried off by laryngeal phthisis, and Levret's outburst of renewed energy gradually died down. He handed over his museum to his son-in-law Destremeau, whom he took into partnership in his practice. He continued to attend some members of the royal family, and, according to Varnier, seems to have retained all his powers and faculties. Varnier reproduces his will, which was signed on January 17th, 1780, five days before his death:

> He commends his soul to God, and prays for mercy through the infinite merits of our Lord Jesus Christ; leaves to his widow, whom he appoints as executrix, to see to his funeral, recommending the greatest Christian simplicity; leaves her to judge also what prayers should be said for the repose of his soul, and what alms should be given to the poor. He leaves 1,000 livres to his wife's maid, for a recompense for the care they had enjoyed at her hand, and takes care that his heirs charge nothing for board and lodging to a lawyer who had come at his request to stay with him. His goods are divided equally between his son and daughter, whom he recommends always to treat their mother with the greatest deference, respect, and affection. And though it be contrary to law for husbands to make dispositions in favour of their wives, he expects that it will be quite agreeable to his children that he leave to his dear wife the ring with four white diamonds presented to him by the Countess d'Artois.

"Posterity," says Varnier, "has not followed the public of 1780; it knows nothing of Destremeau."

Dr. H. Drinkwater of Wrexham asks as to two English writers on obstetrics in the eighteenth century—Benjamin Pugh and Robert Wallace Johnson. Pugh was a general practitioner at Chelmsford, and gained considerable repute as an obstetrician by his *Treatise on Midwifery* (London, 1748), in which he related a number of cases in which he used the forceps; he also laid down the principles of artificial delivery. Pugh was also the author of *Observations on the Climate of Naples, Rome, and Nice, etc.* (London, 1784). Of Robert Wallace Johnson, author of *A New System of Midwifery* (1769), we regret to be unable to supply any information.

Confetti, usually associated by most people with nothing more serious than carnival or the Mi-Carême, have recently been condemned by the medical profession as propagators of disease. It is true that in England they are almost exclusively reserved for the amusement of wedding parties, but abroad their use is far more general, and M. Emile Gautier, writing in the March number of *L'Hygiène*, comments upon the large number of lung, skin, and eye troubles which invariably follow the celebration of a public holiday in Paris, and which are undoubtedly the result of the indiscriminate confetti throwing so beloved of Parisians. Even as the confetti emerge from the bag, remarks M. Gautier, they are by no means so harmless as they appear, though, naturally, they are then far less dangerous than they become a few hours later, when they have changed hands countless times, and unlike the rolling stone of the proverb, have gathered fresh infection at every stage of their journey. Recent investigations have proved that these little paper pellets are capable of scattering broadcast the germs of tuberculosis, tetanus, influenza, pneumonia, and many other ills that flesh is heir to; and the fact that eight guinea-pigs which a short time ago were inoculated with the bacilli of confetti gathered from the Place de l'Opéra promptly died of the effects should in itself be sufficient to warn the public of the dangers arising from this particular form of social diversion. Another and even more fruitful source of infection, particularly during the season of Lent, is the fish supplied by the markets of inland cities. This, owing to the difficulties of transport and the fluctuations of temperature, frequently arrives at its destination in a state unfit for human consumption, and, being sold as fresh, causes an infinite amount of discomfort and suffering. The same number of our excellent contemporary contains some useful hints from Dr. V. Ch. Lefèvre concerning the detection of tainted fish and the different means of preserving it; whilst M. Francis Marre has done the same service with regard to eggs. The number also contains a short article on mountain sickness by M. Henri Meurisse, and an interesting discussion by Dr. Nathalie Fedoroff on the experiments of Darwin and Duchenne (de Boulogne) in connexion with the facial expression of the emotions in the human being.

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SATURDAY, APRIL 6TH, 1912.

PROGRESS OF MEDICAL RESEARCH IN INDIA.

In the recent Budget debate in the Imperial Legislative Council at Calcutta Sir C. P. Lukis, I.M.S., laid on the table a memorandum on the sanitary measures taken during the year 1911-12, and made a statement on the research work which is now being carried on in India. A grant of 10 lakhs (£66,000) has been made for this purpose, half of which goes to the Indian Research Fund, which was started last year with a similar grant. The allocation of the money is in the hands of a strong committee, which decides on what investigations shall be carried out, and has complete control of the funds. In this way it is hoped to ensure continuity of work. To the central research laboratory at Kasauli Rs. 50,000 have been allotted, and arrangements are being made for the separation of the important and growing work of the preparation of serums and vaccines from the purely research work. Two lakhs will be expended on the Parel laboratory at Bombay for the extension of research work and the commencement of post-graduate teaching in bacteriology, while an equal sum is allotted to the proposed Pasteur Institute at the hill station of Mymayo in Burma. In addition to these sums, 5 lakhs have been granted from Imperial funds for building the extension of the pathological laboratory of the Calcutta Medical College to enable the proposed Tropical School of Medicine to be started at that great hospital, which should in time be second to no such institution in the world. Altogether, in these times of financial stringency, it is clear that medical research in India is being dealt with not illiberally.

In his interesting speech Surgeon-General Sir C. P. Lukis gave a very satisfactory account of the research work now in progress in India. Noteworthy advances have been made in the practical study of malaria by the discovery of Liston, McKendrick, and Bentley, that this disease in Bombay is carried mainly, if not solely, by a domestic mosquito living in wells of private houses, and does not arise from the swamps around the city; while Christophers has shown that in the Andaman Islands the carrier is practically limited to a species inhabiting brackish water in the creeks of the islands. These discoveries immensely simplify the problem of preventing malaria in these places by making it possible to limit the measures necessary to the destruction of the incriminated mosquito. Unexpected difficulties have arisen owing to the strange attitude of Parsi doctors in Bombay in opposing the necessary measures for dealing with the private wells which are found to be responsible for malaria in that city, but this opposition, it may be expected, will not long be maintained. Mosquito surveys have been made in several towns, and measures for destroying the malaria-bearing mosquitos will now be undertaken. The Malaria Conference of 1909 has thus borne good fruit.

Arrangements have been made for utilizing the Indian Research funds on two special investigations. The first is on the deadly kala-azar, which in many parts of India causes far more suffering and loss of life even than malaria, with which it was for so long confused. The recent announcement that Captain Patton has succeeded in proving the theory of infection through bed bugs—which was put forward by Rogers as a result of his successful culture and development of the flagellate stage of the organism—will greatly facilitate this inquiry, which will be in the capable hands of Patton and Mackie. The other research will be on the bacteriology of cholera, to determine the life-history of the comma bacillus outside the human body, and to work at the carrier problem. Major Greig and Captain Hodgson will undertake this inquiry on lines worked out by the Director of the Kasauli Laboratory and Major Leonard Rogers.

In addition to these investigations the far-sighted policy is being adopted of being prepared beforehand against the possible extension to India of the two great scourges of Africa and the West Indies—namely, sleeping sickness and yellow fever. An entomological inquiry is to be carried out; it will include a study of biting flies, which might conceivably carry the *Trypanosoma gambiense* if it should chance to reach India; while Major James has been deputed to study yellow fever in its haunts, and a survey of all the Indian ports is being made for the presence and breeding places of the *Stegomyia*, the insect which carries the infection of this disease, in order that they may be dealt with before the opening of the Panama Canal increases the danger of an invasion of India by the disease. The investigations of plague, which have thrown so much light on that affection, are being continued under Major Glen Liston, and during the last year it has been found that certain provinces which have been very little affected by the disease owe their immunity either to scarcity of rats or to unfavourable conditions for the multiplication of fleas, thus affording one more proof of the truth of the theory of infection through the rat-flea.

In addition to all these valuable researches, it has been announced in the Budget speeches that a scheme for the reorganization and improvement of the sanitary services in India has been submitted to the Secretary of State for approval, while during the last two years sanitary works have received no less than 115½ lakhs from Imperial funds, exclusive of 75 lakhs spent in Bombay.

THE TEACHING OF OPERATIVE SURGERY.

We have recently reviewed some works on operative surgery, both general and special, and the occasion seems fitting to discuss some of the side issues which present themselves in connexion with this branch of surgery.

Perhaps the first question that may reasonably be put is whether the teaching of operative surgery as it is generally conducted is of any real value. In most student classes the demand for subjects far outstrips the supply, so that the student can only do a certain proportion of the operations on the list, while he plays the part of assistant at the others. In some schools the whole subject is crammed into ten days, with the object of making the student concentrate his thoughts and concentrate also the sensations of his hands and fingers. This plan is probably an

improvement on the old one of spreading the class over a six or eight weeks' term, apart altogether from the state of preservation or otherwise of the subject at the end of the term.

The importance of the teaching of operative surgery to students may be overrated. Operations on an injected and preserved subject are totally different procedures from operations on the living body, and have as little interest (and bear very much the same relation) as the continuous monotonous practice of scale passages and finger exercises on the piano to the student of that instrument. Operative surgery might very well be taught in the dissecting room under the designation of "surgical applied anatomy," along with drill in surface anatomy on the living subject. Anatomy would be more interesting and practical to the average student. Operative surgery as such is a very different matter when taught to post-graduate classes or to men holding junior hospital appointments. They have already done more or less operating work and want more practice. Now, to these men practice is valuable, but not, perhaps, so valuable as is sometimes thought. Little good can result from the performance on the cadaver of excision of a normal wrist-joint or removal of a normal upper jaw beyond some revival of anatomical knowledge which will prove of some, but not very much, use when the operation is to be performed for tuberculous disease in the one instance or for sarcoma in the other. As for intestinal operations, the practice obtained in operating on the cadaver is of little value, owing to the changes in the intestinal walls due to putrefaction or to injection with preservative materials, and can be gained much more satisfactorily on bovine intestine obtainable from any slaughter-house in a large city within a short time after the animal has been killed.

There is another aspect of this subject of the teaching of operative surgery to be considered. Operations on the extremities form the major part of the work of the operative surgery class, but such operations are diminishing in frequency every year. Excisions of tuberculous joints are now performed comparatively seldom, thanks to the success following the adoption of conservative measures such as Bier's passive hyperaemia, injection of iodoform emulsion, and the direct exposure of uncovered tuberculous joints and bones with sinuses and mixed infection to the sun's rays in both winter and summer which has met with such wonderful success in Switzerland. Amputations, too, tend to follow the broad rule of cutting the coat according to the cloth, with due regard to surgical principles. An amputation is not the classical operation it used to be, and we make bold to say that many a hospital surgeon could be "ploughed" in an examination on the amputations of the foot and leg associated with the names of Hey, Lisfranc, Pirogoff, Ssabanieff, Carden, Chopart, Tripier, and the others. There seems good reason, then, for unloading the student's burden thus far, and cutting out of our textbooks much that is merely of historical interest.

The same argument holds good in regard to the ligature of the smaller vessels. Ligature of the anterior tibial, for instance, is never likely to be anything but a surgical exercise. The exposure and tracing of the course of nerves appeals much more to both the student and the practitioner.

But there are other aspects of operative surgery on the living subject to which attention should be drawn. In several recently reviewed textbooks each of the authors had introductory general chapters on anaesthesia, preparation of the patient, preparation of the operator and his materials. Kocher of Berne holds strong views on these matters, and again and again insists that it is necessary for the surgeon to be more than a mechanical worker; how he must be at one and the same time a pathologist, a bacteriologist, an anaesthetist, and a surgeon. This is not the time to discuss the anaesthesia question, but undoubtedly freedom from anxiety on that score goes a long way to promote efficiency in operating. Manipulative procedures may only be carried out with confidence and ease when the mind can concentrate itself on the operation field. Strict asepsis has reduced operations as nearly as possible to the certainty of result of a chemical experiment. But certainty of absolutely safe anaesthesia has not yet been generally attained.

The great dexterity of surgeons of the pre-anaesthesia period is a matter of history. Spectators stood, watch in hand, timing the operator. The epoch of rapidity of operating was followed by a period when leisureliness was characteristic; it seemed to last up to within the last decade, when it has been succeeded by a return to manipulative rapidity. Several factors contribute to the change. Perhaps the most important is the recognition of the large part played by shock in operative work. Every unnecessary cut, every rough tear of tissues is an additional insult to the organism, and every misspent minute in the course of an operation means the absorption of a still greater quantity of a powerful drug and a bigger piling up of the burden the patient has to bear. Investigations into the true nature of shock and modes of preventing it, as well as inquiry into the action of anaesthetics, have undoubtedly resulted in a speeding-up of surgical operations. This speeding-up does not necessarily mean hurry; it means quickness of manipulation with gentleness in handling, cleanness of cut as opposed to rough tearing. In the discussion on the technique of wound treatment at the Annual Meeting of the British Medical Association in Birmingham the importance of dexterity was emphatically spoken to by two members, both claiming to belong to the older school. One reminded the Section of Surgery that Lawson Tait recommended a short course of training with every artificer in Birmingham as a proper preliminary to a surgical career. Life is too short and the medical curriculum too long for such a counsel of perfection; but at the same time it must be recognized that dexterity comes with practice.

THE LIBERAL PROFESSIONS.

Why have divinity, law, and physic been for so many centuries grouped together as "liberal" professions in contradistinction to other avocations? Doubtless, in the first place, because for admission to them it is necessary to have been initiated to some extent in the study of what are called the liberal arts: one cannot, as it were, become evolved into a clergyman, a lawyer, or a medical practitioner by the simple process of apprenticeship. But there is a further common stamp which marks off the professions from commercial pursuits of whatever kind; they are each bound by self-imposed laws, generally accepted, although they may be unwritten, by which their practice is regulated. This is what constitutes the bond of union, which Bishop Boyd Carpenter, at the annual meeting of the British Medical Benevolent Fund recently held at the Mansion House, called the freemasonry of the three great professions. They all place professional honour above the struggle

to acquire wealth, which is the aim of commerce, and they place on their members in their professional dealings restrictions which have no place in trade. The needs of mankind are considered fair subjects of exploitation by commerce; a "corner" in some commodity, even if it be a necessary of life, is considered a clever stroke of business. How different this from the attitude of Sir Thomas Browne, who was sympathetically referred to by Bishop Boyd Carpenter! His words have often been quoted but cannot be repeated too often: "I doe not secretly implore and wish for Plagues, rejoyce at Famines, revolve Ephemerides, and Almanacks, in expectation of malignant Aspects, fatall conjunctions and Eclipses: I rejoyce not at unwholsome Springs nor unseasonable Winters; my Prayer goes with the Husbandmans; I desire every thing in its proper season, that neither men nor the times bee out of temper. Let mee be sicke my selfe, if sometimes the malady of my patient be not a disease unto me, I desire rather to cure his infirmities than my owne necessities, where I do him no good me thinkes it is scarce honest gaine, though I confesse 'tis but the worthy salary of our well-intended endeavours: I am not onely ashamed, but heartily sorry, that besides death, there are diseases incurable, yet not for my own sake, or that they be beyond my art, but for the general cause & sake of humanity whose common cause I apprehend as mine own."

It is true Sir Thomas Browne introduces these noble words by saying: "I feele not in me those sordid and unchristian desires of my profession," but this remark must not be taken as of general application. Self-sacrificing philanthropy had not in his day become the badge of all our tribe, and perhaps it would be too much to say that all doctors, even at the present day, could honestly echo the words of the author of *Religio Medici*. But he expresses the general sentiment of the profession which is too generally regarded, as Bishop Boyd Carpenter well said, as the only profession in the world that is to be precluded from the right of a living wage. How often do coroners' juries, composed of tradesmen who would think any one demented that should ask them to give their wares to the needy for nothing, express a Pecksniffian indignation at the "inhumanity" of a doctor who has declined to give his laboriously acquired knowledge and his time to the first comer without any prospect of fee or reward, and with the memory of many cases in which he has been induced to do this without even earning the gratitude of the patient. How often is the censure thus lightly passed re-echoed in the press! How often, too, is the doctor's charity imposed upon by well-to-do persons! And how often is the doctor called upon to do work for nothing while the credit for his generosity goes to some Lady Bountiful; whose vicarious philanthropy is exercised at his expense!

In view of all this, it is surely passing strange that there should be persons who seem to think it a sacred duty to slander the profession and abuse or ridicule its work. Politicians, who should before everything else concern themselves with the safeguarding of public health and the promotion by this means of national efficiency, seldom show the slightest appreciation of the aims of medicine. Gladstone, whose interests ranged from Home Rule to the polity of the Hittites, could not be induced, even by the representations of his friend Sir Henry Acland, to consider hygiene as an object of legislation. Do we not see history repeating itself in an Act which is based on the assumption that the doctor will be eager to do the maximum of work for the minimum of pay? The politician thinks that he can safely leave the medical profession out of account because its voting power is negligible. In this he is perhaps wise in his generation, as experience shows that the professional instinct is so firmly rooted in the doctor's breast that he will bear whatever burden of work is laid upon him without looking for more than the scantiest wage. What other class of men is there of which it can be said that it is doing its utmost by laborious and often dangerous research to abolish and extirpate disease?—a consummation which, if ever reached, will carry with it the extinction of a profession which will have become superfluous.

Medicine is as yet far from being an exact science, and its professors have their share of the frailty which is a part of human nature. The same is true of the other liberal professions. Sir Thomas Browne puts it: "And to speak more generally, those three Noble professions which al civil Common wealths doe honour, are raised upon the fall of Adam, & are not any exempt from their infirmities; there are not onely diseases incurable in Physicke, but cases indissoluble in Lawes, Vices incorrigible in Divinity."

Even the proverbial differences of opinion among medical men are not peculiar to their profession. It was not of them, but of casuistical divines, that Pope was thinking when he wrote the famous line:

> Who shall decide when Doctors disagree?

The innumerable sects into which Christianity is split and the controversies that make one ask *Tantaene animis coelestibus irae?* show that among divines there does not reign that harmony which, Lorenzo says, is in immortal souls. As for the lawyers, they live on discord. It has been said that the divine sees the best and the lawyer the worst of human nature, while the doctor sees it as it really is. There is a certain amount of truth in this, but it is not the whole truth. The doctor sees the patient when his judgement is disabled and his will weakened by disease; he often sees an amount of selfishness that is hidden from the eyes of his brethren of the sister professions, a vampire-like selfishness that sometimes sucks the life blood out of those around. On the other hand, he also sees examples of tenderness and love of which the world knows nothing. This is particularly the case among the poor, whose kindness to each other in suffering must have struck all who, like the doctor, see their lives at close quarters. The doctor therefore sees both the best and the worst of human nature; for this reason he is generally a man of larger outlook than the members of the other liberal professions—more tolerant than the divine, less suspicious than the lawyer. We think, too, that we may justly claim for him that he is more charitable than either. His work has taught him the great lesson that *tout comprendre c'est tout pardonner*. He does not throw stones at sinners; he tries to heal their bruises. The much decried medical student—not always, it must be owned, a bright exemplar of the graces or virtues of the Christian life—faces the risks of infectious disease without fear; people look to him for such conduct as matters of course, and comfort themselves for their own cowardice by hugging the belief that in some way his profession makes him invulnerable. He feeds starving women whom he has attended in their hour of travail, perhaps accompanying his ill-spared gifts with language more picturesque than elegant. He has no notion that he is doing anything uncommon, and would be the first to laugh at the idea. As the boy is so is the man, and the finest heroes are found in the medical profession. Their heroism is all the more genuine

since it is obscure and inglorious. It is a mystery of the human mind, therefore, that there should be people who lose no opportunity of abusing the medical profession. That particular members of it should be disliked is easily understood, but hatred of the profession is as incomprehensible as hatred of engineers or painters.

RELIGIOUS NEWSPAPERS AND ADVERTISING QUACKS.

We have on many occasions drawn attention to what must seem to medical men and thinking members of the public the strange phenomenon that many religious newspapers and periodicals habitually publish, sometimes in the form of reading matter, advertisements of the most noxious quacks. It is therefore with great pleasure that we are enabled to quote the following spirited protest from the April issue of the parish magazine of Holy Trinity, Darwen, of which the Rev. Louis Savatard is the vicar: "If those wretched advertisements, emanating from various impostors who profess to heal all sorts of sicknesses, diseases, and infirmities beyond the power of our most eminent physicians and surgeons, continue to appear in certain religious newspapers after this notice in our obscure magazine, we shall proceed to invoke the aid of certain high authorities among both our own people and Nonconformists, in order to remedy the really serious evil. Hundreds (probably thousands) of the readers of these religious weeklies must be defrauded of no little money, while many of them doubtless receive more or less injury at the hands of these sham 'specialists.' We do not, of course, refer to the ever-increasing number of remedies 'to be had of all chemists and patent medicine vendors,' which may be no more harmful than they are efficacious. But what we strongly protest against is that papers chiefly devoted to the religious and moral welfare of their readers, should display, in large print and picture (or hide away in a corner), alluring advertisements of dishonest quacks. And their glaring advertisements appear side by side with and over and under articles, sermons, and other reports dealing with the solemn and deeply spiritual truths of our holy religion. Generally these base adventurers refer the reader to some private address of a bogus doctor, or to a bogus institute of medicine, chemistry, or such like place, while a more modest, but not less fraudulent advertiser charitably poses as a 'lady' or 'gentleman,' who has so benefited from a certain valuable remedy that she, or he, is prompted for the good of others to advertise the cure in many papers, year after year, and to correspond with thousands of applicants, utterly regardless of trouble and expense, and to forward the remedy free. None of the more respectable London and provincial secular papers nor the better class of religious papers will admit these vultures into their columns, and they certainly ought not to be aided in their nefarious trade by any papers whose one great aim is the spiritual and religious welfare of the whole community."

BLOOD-LETTING.

The days are long past since "they cupped, they bled, they purged, in short they cured him," yet in the lifetime of men now living Sir Thomas Watson wrote: "I cannot entertain a doubt that the withdrawal of a certain quantity of blood is in almost every case essential to the permanent control of common acute inflammation attended with pyrexia." Dr. de Havilland Hall quotes Watson's words in an article on Blood-letting in the last volume of the *Westminster Hospital Reports*. He shows how abstraction of blood has come to be more freely practised of late years. When a student at St. Bartholomew's Hospital he never heard of a patient being bled. In 1892, when Dr. Hall requested a surgeon attached to a great medical school to bleed a patient, the surgeon declared that it was the first time he had been called upon to perform phlebotomy. He goes on, however, to say that when he joined the staff of the Westminster Hospital in 1875 he found that the beneficial effect of judicious blood-letting was fully recognized and practised, and he tells us that he spoke, a year later, at a medical society, about the benefit to be derived from venesection to the amount of 4 to 6 oz. in cases in which the right side of the heart was engorged. Sir William Allchin was always an advocate of this method of treatment. Leeching also has gone out of favour; in 1837 over 96,000 leeches were used in a twelvemonth at St. Bartholomew's Hospital, and it must be remembered, Dr. Hall points out, that venesection was also extensively practised at that date, and that the services of a professional cupper were often requested. During the last three years the average number of leeches employed at the same hospital was under 650. The average at the Westminster Hospital during the past ten years was under 300. Dr. Hall notes the difficulty of performing venesection in very fat subjects, though in our grandfathers' time the transfixing of the skin and the vein with one stroke of the lancet was, owing to constant practice, carried out with great success and exceedingly little ill-effect. Latter-day phlebotomists seem to be almost as bold as their predecessors. Sir William Broadbent drew 30 oz. on one occasion. The patient was a plethoric man, aged 42, suffering from violent convulsions; he was in good health a year afterwards. Dr. Lucas Benham records a case of haemorrhage into the pons, where 48 oz. of blood were abstracted and recovery followed. Watson, in the good old times, saw a vein kept open until 72 oz. had issued from it, and the patient got perfectly well. Dr. de Havilland Hall is greatly in favour of phlebotomy or leeching in most forms of apoplexy, but, if the seizure be due to embolism or thrombosis, the recuperative power of the patient will not be increased by the loss of blood, and by lowering tension venesection may promote clotting and further increase the area of damaged brain substance. Dr. Hall gives some advice, not by any means superfluous, about leeches and leeching. In recommending their application in a test tube he reminds the reader that the thinner end of the leech is its head. Unfamiliarity with the annelid may, we believe, lead to mistakes about its end as well as about its use. In conclusion, Dr. de Havilland Hall advocates blood letting either by leech or lancet in cases of an apoplectic nature, especially when associated with coma and cyanosis, of high tension and granular kidney in connexion with arterior-sclerosis, of convulsions in the status epilepticus, of uraemia, of sunstroke with asphyxia, of polycythaemia, of pain associated with aneurysm, and in dilatation of the right ventricle from any cause. In pneumonia blood letting is advisable for relief of pain and dilatation of the right ventricle, and it is also to be recommended in haemoptysis with dilatation of that chamber of the heart.

COLOUR PHOTOGRAPHY BY PRISMATIC DISPERSION.

However excellent the results of colour photography by the autochrome and other screen-plate processes may be, some people who look at theory rather than at practice have always been found to contend that these are not really methods of colour photography at all, since the colour is superadded by an artificial colour screen. This objection does not hold good in the case of what is known as the micro-spectra method of colour photography by prismatic dispersion, which, of all the methods in the field, is possibly the most perfect theoretically. Unfortunately, the practical difficulties are enormous, but at a crowded meeting of the Royal Photographic Society on March 26th, the brothers Julius and Ernest Rheinberg showed how they had surmounted them by the construction of a special camera, and gave a successful

demonstration of results. No artificial colouring of any kind is introduced in this method. An ordinary black and white negative is taken, an ordinary black and white positive is made from it, and by a purely optical arrangement the picture is seen in its natural colours. The essential thing in the process is a surface composed of hundreds of complete but very narrow spectra, lying next to one another in a regular repeating series. So closely packed are these spectra that at the distance of normal vision the eye fails to distinguish them, and sees the surface as white. This surface is produced by allowing white light to fall upon a line-screen or Max Levy grating, and forming an image of this screen by means of a lens having a prism just in front of it. Each clear interspace between the opaque lines of the line-screen is thus spread out into a complete spectrum. Such a surface can be made to appear in any desired hues if it is viewed through a mask which blocks out or weakens colours not wanted while allowing other colours to pass through in their correct intensity. In the Rheinberg system the positive or lantern-slide serves as the mask for this purpose. The photograph is taken by projecting the image of an object on to the line-screen with an ordinary objective lens, and the line-screen with the coincident images is then focussed on to a panchromatic plate by a second lens having the analysing prism in front of it, the exposure being only about half a minute in summer sunlight. The resulting negative will have been darkened completely where it has been acted upon by any colour in its full intensity, and darkened partially where the incident colour is weakened. A positive will show the reverse effect of transparency, and when this positive is placed in the position previously occupied by the negative the contiguous spectra will be seen through it, and the picture will appear in its proper colours. It can be viewed in the camera by the individual, or projected on a screen before the audience. On the occasion alluded to a large number of results were shown on an aluminium-powder screen, and the colours appeared to be faithful, while the sheen of textiles and metallic surfaces was remarkably well rendered.

THE "INDEX CATALOGUE."

THE appearance of the annual volume of the *Index Catalogue*[1] is always an event of importance in the world of medical bibliography. Since the Surgeon-General's Library at Washington now contains over 176,000 bound volumes and more than 315,000 pamphlets, it follows that its *Catalogue* is rapidly approaching the degree of completeness when it will be possible to call it a compendium of the whole of medical literature. It cannot, indeed, be long before it will be the ambition of every bibliophile to possess a book or an edition of a book which is not to be found in the Washington Library. In the meantime, and for all practical purposes, one may feel pretty sure that the works bearing upon any subject in medicine which are named in the first and second series of the *Index Catalogue* make a complete list: if any one, even the most exacting of reference hunters, has exhausted the pages of this work, he need look no further save in more recent literature. What an amazing catalogue of medical writings it is! This is the second volume of the second series which has been given to the letter S, and part of a third volume will be required to complete it. Yet these volumes contain mainly the additions which have been made to the Library during the past twenty years, for the thirteenth volume of the first series (which corresponds roughly in its rubrics with this sixteenth of the second series) was published in 1892. Here we have 882 pages of double columns of small print, giving simply the titles of the various books, pamphlets, and journal-articles dealing with the medical subjects embraced alphabetically between the words Skinko and Stysanus, and, in order of time, between the years 1892 and 1912. The modern Dominie Sampson may well clasp his hands and ejaculate "Prodigious!" as he looks not at the books and essays, but simply at their titles in these well-packed pages. But the reader may all this time be wondering what *skinko* and *stysanus*, the first and last words in this volume, stand for. Under *skinko* the *Catalogue* refers us to the list of works on *Plague*, and we gather that it must be the name of a place: there is a *Shinko* (sic) named there in an article by Dr. Okata in a Japanese journal; perhaps that is it. *Stysanus* is also somewhat mysterious, but from the context we may hazard the guess that it is the name of a potato parasite. Turning now to the main list of articles in the volume we are at once arrested by the extraordinary number of pages devoted to *Stomach*, under such rubrics as Stomach, Acids of, Atony of, Bacteriology of, Cancer of, Contents of, Crises of, Dilatation of, Diseases of, Surgery of, Transillumination of, etc. In all there are 190 pages of double columns, each containing the names of some thirty articles or books, given to this one department of medicine. Now, the corresponding rubrics in the first series of the *Index* had only 78 pages given to them, so that we must admit that much more is being done for diseases of the stomach these past twenty years, or at least we may say that much more is being written about them. To take some of the other leading rubrics, we find *Small-pox* with thirty-seven pages, *Societies* with thirty-six, *Spine* with sixty-six, *Spinal Cord* with fifty-six, and *Statistics* with forty-eight pages. Then, under author-titles, we find that twenty-five columns are needed to record the contributions to medical literature in these twenty years made by members of the great *Smith* family! But most interesting of all are the rubrics which appear in this volume and which had no place in the corresponding one of the first series. There is *Sleeping Sickness*, for instance, which has no separate place in the first series of volumes, and now has more than nine columns of references, under such subheadings as Causes and pathology, Diagnosis and semeiology, Experimental, Prevention and treatment, Transmission of; the little *Glossina palpalis* has truly made a name for itself in these years. Then, again, there is *Skiagraphy*, offspring of the *x* rays, and *Stasis, Venous*, for which we are indebted to Bier. *Stegomyia calopus*, as the vector of yellow fever, makes his bow for the first time in this volume: and *Sterilization* (sexual, for sociological reasons), *Stirpiculture*, and *Stockbreeding* all appear to remind us of the eugenic movement and its relation to social hygiene. Many new drugs (*somatose, somniform, sozoiodol, spirosal, stovaine*, etc.) have rubrics to themselves, and when the third series of the *Index* is reached there will doubtless be many more whose names are now in the womb of the future, but whose chemical constituents await the hand of the pharmacologist to fashion them into health-giving combinations. Then, again, there are *Spirillosis, Spirochæta (pallida, duttoni, obermeieri)*, and *Spirochætosis* to remind us of notable discoveries in the causation of disease. Somewhat surprising rubrics are found in *Snoring, prevention of*, under which we find an antisnoring device registered; in *Sooterkin*, mysterious word; in *Stage-fright*, with its unkind cross-reference, "See also Neuroses"; and in *Straw-itch*, "a disease new to American physicians." Several papers are registered under the heading "*Strikes*," although we may not at present need to be reminded of the effect of such things on the public health of a country. Finally, here is a rubric which may give us pause: Under *Style* there appear only two contributions to this important matter of exact and elegant composition; one, from America, says, "Do not let your Latin spoil your English"; while the other is an editorial on style in medical writings which appeared (the editorial blush confesses it) in our own pages in 1905. Is it really true that these two

[1] *Index Catalogue of the Library of the Surgeon-General's Office, United States Army.* Second Series. Vol. XVI, Skinko-Stysanus. Washington. 1911.

contributions are all that have been given to guide the young medical author in this high business of writing well in these twenty years?

HEALTH IN WEST AFRICA.

A return relating to the health last year of non-native officials serving in the West African colonies and protectorates has been laid on the table of the House of Commons this week. It is issued by the Colonial Office, and owes its existence, no doubt, to the establishment of the West African Advisory Committee. Though brief, it is an interesting document, and one from which very satisfactory conclusions may be drawn. The information supplied includes the number of white officials in each of the five colonies and protectorates, their age distribution at the central age periods from 25 to 50, the mortality and invalidity rates at the same periods, and the average length of service at the date of death, invaliding, or retirement on pension. The total number of non-native officials at the beginning of 1911 was 2,214, the greater proportion belonging to the two age groups whose central years are 30 and 35: the number who died or were invalided were 32 and 58 respectively. These figures correspond to a death-rate of 14.4 per 1,000 and an invaliding rate of 26.1 per 1,000, but as the average number of the officials in question employed during the year was considerably over 2,214, the rates in question if precisely ascertainable would be correspondingly lower. Though these figures are by no means high in themselves the satisfactory progress they indicate is made more apparent by comparing them with the figures of an earlier date. This task is facilitated by two graphs and a table, which show that in 1904 the mortality-rate was as high as 63, and, with the exception of one year, has been steadily falling ever since. Even since the year 1910 it has fallen nearly 7 per cent., despite the fact that during that year there was a serious outbreak of yellow fever in the Gold Coast and Gambia, which led to the death of four non-native officials and thirteen non-native unofficial persons. In addition a certain proportion of the deaths in 1911 were, as in previous years, due to causes other than disease. It might be supposed that the lowering of the death-rate was due to greater promptitude in invaliding: but the figures supplied show that the invaliding rate also has dropped. Moreover, while in 1904 the average length of service at the date of invaliding was only two years, it was three years and four months in 1911. The return, therefore, fully confirms a belief which, gradually growing for a considerable number of years, has several times found expression in these columns—namely, that the time is past when the West Coast of Africa deserved its title of the "white man's grave." Several factors have, no doubt, contributed to bring about this desirable change, chief among them being the greater activity and greater success of officials of the West African Medical Staff in inculcating desirable habits among white residents, and in turning to full advantage recently acquired knowledge of tropical diseases. Further factors have been the encouragement that medical officers have received of late from the Colonial Office and the establishment by it of a Sanitary Department in the West African Medical Staff, and of an advisory body at home. On the subject of the general effect of residence in West Africa it should be noted that the term "invaliding" used in the report does not always imply permanent invaliding: officials invalided from the service are not infrequently found fit for reappointment after residence of a year or so in Great Britain, and those placed upon pension at the end of seven or a greater number of years generally enjoy their pension for many years. In one or two instances the period of pensioned life has been as many as forty years. The interest of a future report would be increased by supplying material for comparing the death-rates in West Africa with those of men in this country at the corresponding ages. Similarly a table might be supplied showing the average length of service of officials who so far have been neither pensioned, nor left the service on the termination of their engagement, nor through death.

TREATMENT OF LEPROSY.

A report[1] from British Guiana, recently laid on the table of the House of Commons, brings up to date the record of the investigation of the value of nastin and benzoyl chloride which has been in progress at the Mahaica Leper Asylum in the colony in question for the past three years.[2] The conclusions reached are not favourable to nastin, and only recommend benzoyl chloride as a palliative remedy. The investigator, Dr. E. P. Minett, Assistant Government Bacteriologist, concludes his report, which is remarkably succinct and yet adequately detailed, by indicating that so-called destruction of bacilli takes place in patients who are under treatment either by nastin or benzoyl, but does not appear to be hastened or otherwise influenced by either of them: it is a natural process which seems to accompany almost all cases of leprosy, and its activity varies both from time to time and also in different situations in the same patient. Cases of anaesthetic leprosy run a definite course, after which the disease seems to die out of itself, infectivity ceasing and cutaneous sensibility slowly returning. But these recoveries take place without any treatment whatever, and their rapidity is not apparently influenced either by nastin or benzoyl. Nodular cases do not tend to improve naturally, except in very rare instances, but the condition of these likewise is not affected appreciably by the drugs in question. On the other hand, benzoyl chloride is distinctly useful as a nasal spray or as a paint for ulcerating surfaces, since it quickly frees the discharges from bacilli: its regular use for this purpose is strongly recommended. Dr. Minett's conclusions are confirmatory of those previously reached by Dr. Wise at the same asylum, and both of them, it is to be noted, took the precaution of controlling their observations by corresponding observation of the progress of the disease in untreated cases of the same kind. In many instances such treatment and observation was maintained for as long as two years.

OPHTHALMOLOGY AT OXFORD.

The ninth annual post-graduate course is announced for the last fortnight in June, consisting as usual of a course of systematic lectures and clinical demonstration of a large number of cases illustrating the various conditions described in the textbooks, together with refraction work. The course of instruction for the diploma in ophthalmology is given during the summer term beginning on May 1st. It includes instruction in physiological optics under Professor Gotch in the Department of Physiology and in the anatomy of the eye and orbit in the Department of Anatomy by Professor Arthur Thomson. In the Department of Ophthalmology there will be given instruction in ocular pathology and a course of applied bacteriology. Systematic and clinical lectures will be given daily, and practical work in the methods of examination and treatment of the eye will be required, in order to qualify for the certificate of satisfactory attendance. The university examination for the diploma takes place in the third week in July. Any further information can be obtained from Mr. R. W. Doyne, Reader in Ophthalmology in the University of Oxford. The Oxford Ophthalmological Congress will meet on Wednesday, July 17th. Rooms can be provided in Keble College for any who wish to take part.

[1] *Further Report on the Nastin and Benzoyl Chloride Treatment for Leprosy.* By Dr. E. P. Minett, Assistant Government Bacteriologist, British Guiana. London: Eyre and Spottiswoode (Cd. 6025, price 1d.); in continuation of Cd. 5585).

[2] British Medical Journal, March 16th, pp. 529, 645.

THE FEAR OF PREMATURE BURIAL.

It is a fact that the fear of premature burial, small though the grounds for it may be, casts a shadow over the lives of not a few people of a morbid turn of mind. It is unfortunately true that in the present lax state of the law as to death certification the idea cannot be dismissed as altogether outside the sphere of possibility, but it can be said with confidence that it is a most unlikely contingency, and it is still more unlikely that if the accident did happen the victim would ever suffer any of the horrors depicted by the eerie fancy of Edgar Allen Poe. He would pass from trance into death without awakening into conscious life. For persons haunted by the fear of being buried alive cremation presents the undoubted advantage of being an effectual preventive of such an occurrence. The certificates required are so stringent as practically to exclude the possibility of a living body being disposed of as if it were dead. Or the precaution taken, among others, by Miss Frances Power Cobbe and Edmund Yates, of getting a doctor to "mak siccar" before the body is laid in the grave, may be adopted. Even this, however, seems to certain timorous minds to be not wholly free from difficulties. A lady named Mrs. Harris, who died on February 7th, is reported (in the *Times* of March 25th) to have made the following statement in her will: "I most sincerely desire that there shall be no possibility of my being buried alive or put under ground alive or in a trance, and that there shall be the most undoubted proof of death by one or more fully qualified medical men after personally seeing my body. I have none at present in whom I have sufficient confidence to name, so must leave to my executors to choose those who are perfectly capable of judging that decomposition has already set in before being fastened down and buried." There are many who distrust the power of the doctor to cure, though they are loud in declaring their perfect belief in his power of killing. But this poor lady seems to have carried want of confidence in the profession to a limit which Petrarch, Montaigne, Molière, and Mr. Bernard Shaw rolled into one have not reached, as she says she knew no one who could be trusted to say that her dead body had begun to decompose. It is to be hoped that her executors succeeded in finding some supreme scientific authority capable of solving that difficult problem.

THE LONDON SCHOOL OF TROPICAL MEDICINE.

The first number of the *Journal of the London School of Tropical Medicine*, which appeared in December, 1911, and the second number, which has recently been issued, contain some very interesting papers. The school proposes to bring out three numbers of the *Journal* yearly—that is, one number per session—the date of publication being about the middle of the term. Sir Patrick Manson is the Editor-in-Chief, Dr. Daniels the General Editor, and there are sectional editors for the different special departments existing at the school—namely, Dr. Leiper for helminthology, Dr. Wenyon for protozoology, Colonel Alcock for entomology, and so on. The scheme of the *Journal* is a very good one. A summary of recent literature is given in each section, in addition to original communications and other matter of interest. The matter published is all to be written by the staff and past members of the school, and this will not only make the *Journal* a real journal of the school, but encourages old students to contribute matter of interest. Though limited in this way, the *Journal* will also become a very important disseminator of information as to tropical medicine and tropical research generally, for much valuable and important work is now being accomplished at the school. The inclusion of abstracts of important papers will also keep any subscriber up to date in all the branches of tropical medicine. The new number contains papers on recent advances in knowledge of leishmaniasis, on helminthology, on antityphoid vaccination, on amoebic dysentery, on verruga peruana, and on ipecacuanha in the treatment of amoebiasis. It will be seen that a wide area is covered, and an immediate success may confidently be predicted for this the newest of journals dealing with the important subject of tropical medicine.

THE PREVENTION OF BLINDNESS IN EGYPT.

An interesting article appeared in the *Ophthalmoscope* in December, 1911, on the best means to adopt to avoid the spread of the forms of ophthalmia which may lead to blindness. This communication was read at the Fourth International Congress for the Amelioration of the Lot of the Blind in Cairo, and was written by Mr. A. F. MacCallan, F.R.C.S., the Chief Inspector of Ophthalmic Hospitals belonging to the Public Health Department at Cairo. The work with which Mr. MacCallan has now for so long been connected in Egypt makes his opinion on such a subject of great value. The chief causes of blindness in Egypt are acute ophthalmias, trachoma, and glaucoma. Glaucoma accounted for 21 per cent. of the cases of blindness seen among 91,917 patients examined during the four years 1907–10; that is, 1.4 per cent. of all the patients who presented themselves for treatment at the hospital were blind in both eyes from glaucoma. Chronic glaucoma is probably more common in Egypt than in any other country in the world. Out of 132,000 patients examined during the last five years 4.2 per cent. were found to be blind in both eyes and 6.4 blind in one eye from all causes. As regards trachoma, it is impossible in a country like Egypt to isolate the cases, for almost the entire population has the disease, and it is very difficult to keep unaffected people away from those who are contagious. Any acute ophthalmia will greatly aid the spread of trachoma, which is almost invariably due to direct infection from the finger or towel. Flies probably have little to do with its spread. Dust containing infective material is a very fruitful source of infection, especially among the lower classes, who all herd together, and very frequently with their animals. All the schools are insanitary and crowded, but the Ministry of Education cannot pull all the buildings down and build others with more space. So great is the prevalence of these diseases that there are at the present time in Egypt more than 39,000 blind children of about school age. It is hoped that within about ten years there will be twelve permanent and two travelling hospitals in the fourteen provinces of Egypt. This, however, is very insufficient, for in each province there are six *merkazes* or police districts, each with an average population of 120,000. Even with a travelling hospital in each *merkaz* it is calculated that twenty years would elapse before all the patients could be seen. Great things may be done by educating the people and by preventive measures, even more than by treating those already blind, and the Ministry of Education has been considering for some time past the possibility of providing in the chief towns an institution for teaching the blind. The amount of blindness in Egypt is simply appalling, and requires for its relief the expenditure of a great deal of money and much skill and thought by those who are able to devote time and study to the elucidation of the problems. Mr. MacCallan never tires of giving us details of the excellent work done by the ophthalmic hospitals in Egypt, of which he has been the chief surgeon and technical adviser ever since he has been in the country. The work he has done there has been colossal, while the Government and private individuals are doing all that is possible to ameliorate the state of suffering which is caused by these acute infective diseases, all of which might be prevented if suitable means could be adopted.

THE STUDY OF PSYCHIATRY.

The Council of the Royal Society of Medicine having decided that it is advisable to form a Section of

Psychiatry, a meeting of Fellows and others interested in the subject was held at the temporary premises of the society, 15, Cavendish Square, W., on March 27th. The President of the society, Sir Henry Morris, Bart., was in the chair, and a resolution was unanimously adopted welcoming the resolution of the Council and expressing the desire at once to take the necessary preliminary steps for the establishment of this section. For the furtherance of this project a subcommittee of Fellows was formed, consisting of Sir George H. Savage, Dr. F. W. Mott, and Dr. R. Percy Smith, with Dr. R. H. Cole as honorary secretary, to arrange preliminaries and to convene a meeting early in June to elect the officers and council of the section.

VISUAL MALINGERING.

THE study of malingering in its many forms has become essential to every medical man who has anything to do with the examination of workmen who claim compensation. Dr. H. V. Würdemann,[1] in an interesting paper on malingering with reference to the eye, states that accidental injuries are imitated by the patient inserting irritating substances, or by actually wounding his eye, and that the production of conjunctivitis in this way is common. Among the many substances used are sand, tobacco juice and ashes, caustic solution, acids, alcohol, and wine. The lesions are generally confined to the lower lid, whereas a real foreign body is more frequently found under the upper lid. It is typical of such cases that they appear before the examiner with the eye already bandaged. The cornea may be cut or scratched by broken glass, by a knife, or a needle, and the latter instrument has been employed to pierce the eye and produce a traumatic cataract. More commonly anomalies of function, and especially blindness, may be simulated. This is usually alleged in one eye, or if both are implicated, only diminution of acuity is complained of. The unilateral cases are easily detected by a surgeon with the necessary tact and knowledge. The best method is to examine the eye with the ophthalmoscope, and to pretend to agree with the candidate that it is a bad eye. Then say, "Now let us examine the good eye," and then slip a + 10 lens in front of it, or adopt other well-known methods, using prisms or coloured letters and glasses. Intentional self-inflicted damage under circumstances simulating accident are not unknown. Cases in which there has been a real accident, and the patient pretends that the loss of sight is greater than it really is, are much more difficult to unmask, and demand careful and frequent examination. The sight must be tested with different sized types at different distances, and the fields must be taken at various distances. In many cases of accident, bad sight which existed before the accident is alleged to be the result of the accident. Hence it should be an invariable rule always to test the acuity of both eyes as soon as the patient is seen.

FROM TRIPLETS TO SEPTUPLETS.

TRIPLETS are not of extreme rarity, but when we seek for information about quadruplets in medical literature we find much record unworthy of belief, yet quintuplets are known to exist on the evidence of a few obstetricians of the present day, who can verify their statements by museum preparations, and the photogravure. Professor Nijhoff of Groningen has supplied British literature with evidence of the latter kind.[2] Ahlfeld,[3] who last year reviewed the published reports of multiple twins in phenomenal numbers, could find no authentic case of septuplets. Putting aside legends which developed in past ages amongst credulous folk, Ahlfeld suspects deceit in later days, other mothers' infants being possibly borrowed and exhibited at fairs with twins or triplets. More often products of conception other than fetuses have been counted as such by midwives. Still, Ahlfeld accepts as genuine one solitary case of sextuplets—namely, that reported by Nassalli. Nijhoff has published a collection of 29 cases of quintuplets recorded from 1694 to 1900, but the earlier cases can hardly be admitted as genuine, although one, where quintuplets were born at Scheveningen in 1719, appears fairly credible. Ahlfeld's evidence as to viability seems to show that we must draw the line at quadruplets, though one individual quintuplet, it appears, managed to survive its birth for fifty days. All the remaining multiple twins were stillborn or lived for a very short time. Ahlfeld accepts the authenticity of one history of quadruplets all living when they were last under observation at the age of 11. We commented on the fate of triplets over six years ago in discussing Dr. Kaiser's full report of four batches of triplets born to one couple. All were too weak to take the breast, yet all were reared; two daughters out of the same set were married in 1905. Invidious things have been said about twins, much more familiar to men of all ages. We know that they very often live to maturity, but Kaiser declared that he knew of no famous man who had a twin brother. Compilers of biographical dictionaries may perhaps let us know if Kaiser was correct. Castor and Pollux still star it in the heavens, but the great twin brethren, being immortals, do not count.

[1] *Ophthalmology*, April, 1911.

[2] Case of Quintuplets, *Journ. of Obst. and Gyn. of the Brit. Emp.*, vol. vi (1904), p. 32.

[3] *Allgem. deutsche Hebammenzeitung*, No. 24, 1911.

WE regret to have to record the death of Dr. Angus Fraser, Consulting Physician to the Aberdeen Royal Infirmary.

A COMPETITIVE examination for not less than twenty commissions in the Royal Army Medical Corps will be held on July 24th next and following days. Further particulars will be found in our advertising columns.

AMONG the new members elected to the Italian Senate are Professor Pietro Albertoni and Dr. Felice Santini. Professor Albertoni, who is 62 years of age, has for many years occupied the chair of physiology in the University of Bologna. He fought under Garibaldi, and has sat as a Radical in the Chamber of Deputies. Dr. Santini is 61, and served for many years in the Italian navy. He is the author of an account of a voyage round the world. He has long been a member of the Chamber of Deputies.

SIR DAVID GILL, K.C.B., F.R.S., has succeeded Lord Cromer as President of the Research Defence Society, and Lord Cromer, the Right Hon. A. J. Balfour, Sir Edward Elgar, O.M., Mr. Rudyard Kipling, and Lord Rayleigh, O.M., have consented to be Vice-Presidents of the Society. Sir David Gill, who is 69 years of age, was His Majesty's Astronomer at the Cape of Good Hope from 1879 to 1907, and was President of the British Association in 1907-8. He is a Knight of the Prussian Ordre pour le Mérite, a Corresponding Member of the French Institute, and a member of most of the leading scientific societies in Europe and America.

ACCORDING to the *Pharmaceutical Journal and Pharmacist* of March 30th, a bill to regulate the sale of drugs in Nyasaland is under consideration. It provides that no person shall sell any poisons or drugs without being duly licensed, and that no licence shall be granted except to Europeans. Certain articles are also scheduled which may not be sold except on the written authority of a medical practitioner or other authorized person. These articles include cannabis indica, chloral hydrate, cocaine, morphine, and opium. The sale of the drugs and poisons specified in the several schedules to the bill to Asiatics and natives is prohibited, except when absolutely necessary for medicinal purposes by direction of a registered medical practitioner. It is proposed to repeal the "Poison and Opium Regulations, 1901."

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

National Insurance Act.

Trade Union Sick Benefits.

MR. WORTHINGTON-EVANS asked the Secretary to the Treasury whether an insured person who chose the Amalgamated Society of Carpenters and Joiners as his approved society, and made voluntary contributions to it for increased sick benefit in addition to that payable under the National Insurance Act would be able to recover such increased sick benefit if the trade union refused, whether rightly or wrongly, to pay such benefit to him.

Mr. Masterman said the fact that a trade union became an approved society under the Act would not affect the rights or disabilities of the union or its members in respect of operations outside the Act, and any insured person who chose his trade union as his approved society, and made voluntary contributions to it for sick benefit beyond the contributions and benefits within the Act would be subject, in respect of those benefits, to the same general law relating to trade unions as controlled their responsibilities in their present sickness benefits.

Preserved Cream Regulations.—In reply to many questions on this subject, Mr. Burns said last week that as a result of numerous investigations which had been made by medical inspectors of the Foods Department of the Local Government Board, and by others, he was satisfied that, in the interests of public health, regulations were required in regard to the sale of cream containing preservatives. He had accordingly had regulations prepared, and public notice had been given of them. He was anxious that any regulations which were made should interfere with legitimate trading as little as possible, and any representations which were submitted in regard to the proposals which were contained in the draft would be fully considered. The statutory period under the Rules Publication Act, 1893, for the making of objections would expire at the end of this month, but this would not, of course, preclude his taking into consideration communications subsequently received. As the draft now stood, no part of the Order would come into operation until June 1st next, and certain provisions not until January 1st next. If the trade considered other dates should be chosen, he should, of course, take account of any facts which they might submit in support of a suggestion to alter the dates. The points of detail raised in the question had, he thought, all been brought forward in official representations that had reached the department, and would be carefully considered. Questioned as to the use of the word "boricised" in the regulations, Mr. Burns said as between "boricised" and "aseptic," he did not think there was much to choose. The latter word was rather suggestive of a bandage or an accident hospital. It was true that boric acid and many other preservatives, when disproportionately used, were dangerous to health, and it was to prevent that that these draft orders had been prepared for the consideration of those interested. It was the temporary object of the Local Government Board to diminish the use of preservatives to the very lowest minimum. He hoped it would be possible some day to get rid of them altogether. Asked as to the date for the regulations to come into force, he said he did not think that on the point of notice any complaint could be made. Everybody concerned had had forty days' notice. As to June 1st for the first introduction of the orders, he had already said that he was prepared to consider the question whether a later date should be substituted for June, and whether a later date still should be substituted for January. On the whole, the trade had been treated reasonably well, particularly when it was borne in mind that it was at the instigation of the honest producers of pure cream that action like this had been undertaken.

Flour Adulteration.—Sir J. Lonsdale asked the President of the Local Government Board whether having regard to the fact that it had been established by departmental investigation that the adulteration of flour by the addition of various deleterious substances was largely practised by millers, and the matter had been under his consideration for more than a year, he would now state when he expected to be in a position to announce the steps to be taken to put a stop to this practice in the public interests. Mr. Burns said he had received a number of deputations on this subject since the reports were issued from the Foods Department last year, and the matter had been carefully considered by his expert advisers from all points of view. As a result he had come to the conclusion that, in some respects, the matter could be adequately dealt with by the ordinary law against adulteration. He was, however, still considering whether it might not be possible to deal with some of the practices referred to by regulations under the Public Health (Regulations as to Food) Act, 1907.

Small-pox.—Mr. Albert Smith asked whether the President of the Local Government Board was aware of an outbreak of small-pox amongst gipsies at Sutton, Hereford, last January; whether the house-surgeon at the Herefordshire General Hospital detected the disease on one of the gipsies, named Job Smith, who was attending the institution as an out-patient, and allowed the man to go back to where he resided; and whether he would draw the attention of medical men to the danger of allowing small-pox patients to be at large. Mr. Burns said that two cases of small-pox among tent-dwellers at Sutton, near Hereford, had been reported to the Local Government Board. The first was the case of a man who attended the hospital for a gunshot wound. The house-surgeon detected a rash which he thought might be small-pox. He telephoned to the medical officer of health, who on the same day discovered the man at Shelwick, near Hereford. At first the medical officer was not satisfied that the case was one of small-pox, but on the second day the case was definitely diagnosed, and was removed to the Isolation Hospital of the Hereford Rural District Council. He thought medical men were sufficiently well aware of the danger referred to, and he did not think it necessary to issue any general notice on the subject.

Vaccination.—Mr. Bentham asked whether the vaccination officer of the Croydon Union, upon receiving certificates of conscientious objection signed by the mothers of children, had kept such certificates until after the children attained the age of 4 months, and seeing that it was his duty to refuse all invalid certificates, what steps would be taken. Mr. Burns replied that he had received two complaints in 1908 that one of the vaccination officers in the Croydon Union had not returned defective declarations until after the child to which they referred was 4 months old. He corresponded with the vaccination officer at the time, and had had no complaints since, but he was again drawing his attention to the matter.

Indian Government Sanitary Commissioner.—Mr. Hodge asked whether there was any intention to appoint a separate Sanitary Commissioner to the Government of India, or whether it was intended to continue the temporary arrangement whereby the Director-General of the Medical Service was at present doing the work in addition to his own. Mr. Montagu said that the answer to the first question was in the affirmative. Certain questions regarding the functions and position of the Sanitary Commissioner were under consideration. As soon as they were decided the appointment would be made.

Hypnotism by Unqualified Persons.—Mr. Gibbs asked the Secretary of State for the Home Department whether he would consider the desirability of introducing a bill at an early date prohibiting the exercise of hypnotism on patients for fee or reward by any persons, whether they be Christian Scientists or those who style themselves healers or practitioners, unless they be duly registered and qualified medical practitioners. The Home Secretary replied that he did not at present see his way to introduce legislation dealing with this matter.

Sydney.

[FROM OUR SPECIAL CORRESPONDENT.]

Building Regulations.

A committee was recently appointed by the Local Government Association to consider the imperfections of the existing law with regard to buildings and to make suggestions for their betterment. The committee has been at work for the last six months, and its report has been submitted to the councils of the State for their approval. If the ordinance is carried into effect by new legislation, then in future the houses erected in this State should be satisfactory from every point of view. Under this ordinance no habitable room can be erected which does not provide at least 100 sq. ft. of floor space and a height of 10 feet. The necessity for ventilation has been carefully considered, and every room must have one window at least opening on the external air. The size of the window must be not less than one-tenth of the floor area and must open top and bottom. Damp walls are to be provided against by a damp course not only near the ground, but also above the roof in chimneys and parapet walls. Stability of external walls is provided for by making the thickness depend on the height, and no building can be erected with an external wall less than 9 in. thick. Some special clauses in this ordinance provide for the removal of household waste waters and drainage.

The chairman of the committee pointed out that its discussions had shown the necessity for extended powers; it therefore remained for the committee to state what further steps should be taken to bring about those amendments of the Act which their discussion had shown to be necessary. The outline of a new bill to be introduced into the next session of Parliament had been submitted to the committee; it contained no provisions for giving councils greater powers over buildings. The committee agreed to the chairman's recommendation, and it was decided to ask the Minister to amend the bill so as to include the following:

1. Power to fix the position of dwellings on allotments.
2. To give councils power to keep a medical history of dwellings.
3. To classify building zones and amusement areas.
4. To define more explicitly the power of councils over buildings.
5. To demolish buildings erected contrary to the approved plan.
6. Such other matters as the members may suggest.

It is to be hoped that the present Building Act will be amended in some of the ways suggested by this committee, for quite recently a local municipal council found that it had not the necessary powers to intervene to prevent the erection of insanitary and unsuitable houses in the district, and rightly argued that if it were to be responsible for the maintenance of the public health it should certainly have the power to step in and regulate the construction of the houses in which the residents were to live.

Factory Life.

A Royal Commission has been sitting for some time past for the purpose of investigating the conditions of factory life in New South Wales. A large number of witnesses, both medical and lay, were examined, and the report of the Commission covers the question of the hours of work, the general conditions of employment of females and juveniles in factories and shops, and the effect of the work upon them. The Commissioner remarks in the course of his report that it might perhaps be thought that the objections expressed by some medical men to factory work for young women sprang from too keen a sense of a high standard for popular health, and in some cases were expressed in too strong and sweeping terms; but it was beyond all doubt that the toll at present taken upon the bodily strength of those least able to resist imposition or to endure exaction stood at far too high a figure for the national welfare. The general age for entering on factory life at present is 14, but by special permission of the Minister it may be reduced to 13. The Commissioner gives as the first main conclusion from the medical testimony that the entering age for factory life is too low, and that it should be not less than 16 for girls; as regards boys opinions were divided, but the majority of the witnesses were in favour of the same age for them, while others considered that 15 might not be too early under certain precautions. As regards the hours of work, he says that many considerations go to show that the present working week permits of too great strain on boys and women. These workers cannot, like adult males, work the full limit of their strength without injury to their development, or, in the case of adult women, their health. No child and no woman ought to engage in the strenuous tasks of a factory, and its inevitable indoor confinement for long hours, for the length of time a man can work in outdoor occupations. Remembering the physical traces of fatigue and sometimes of downright exhaustion seen amongst women workers at the end of a week's work, the Commissioner states that he is satisfied that if the object of factory legislation for the unprotected classes of workers is not merely to strike a bargain between the rapacity of capitalists or parents and the claims of the national health, but to put a barrier between defenceless workers and the hindering of their development or the injuring of their health, then the present maximum working week has been left too high when it has been placed on the same level with that of the adult male in most occupations. He further recommends that the maximum working week for women and boys should be forty-four hours. Further, in deference to the opinion of the medical witnesses, it is recommended that overtime for females and males under 18 should be no longer permitted, the medical men having pointed out that all experience of employers and employees goes to show that overtime takes more out of the worker proportionately than the corresponding period of time worked before the overtime began. One of the most important parts of this report deals with the question of the employment of married women in factories, and it is satisfactory to know that the Commissioner speaks most strongly against it, for the following reasons:

1. It is an encouragement to the practice of prevention.
2. It involves risk of miscarriage.
3. If a married woman has children, the necessary abandonment of breast feeding leads to an increase of infant mortality.
4. The day's energy is given up to making money in the factory to the neglect of the home.
5. The practice encourages idleness and extravagance in men.
6. The influence of married women with the unmarried girls is often far from good.

Universal condemnation was expressed by the medical men of the present provision in the Factories Act which permits of women returning to work within four weeks after their confinement. The true regulation of this matter ought to be that a woman should not in any case return to work after her confinement without a medical certificate that she is fit for the actual work which constitutes her duty in the factory.

In summarizing his report the Commissioner considers that the most essential reform is that the entering age should be raised to 16, and that as a corollary the education of children should be continued for another two years, part of which should be spent by girls in gaining some domestic aptitude, and by boys in some technical training.

"White" Australia.

The Commonwealth statistician, Mr. G. H. Knibbs, has published a return showing in detail the nature of the non-European population in Australia according to the last census. There are 37,789 full-blood and 14,554 half-caste non-Europeans in a total population of something like six and a half millions in the whole of Australia. Of the non-European people, there are 10,113 Australian aborigines, Chinese 25,772, Hindus 3,698, Japanese 3,576, Syrians 2,423, Malays 1,161, Filipinos 563, Javanese 453, Cingalese 408, Afghans and Baluchis 326, Timores 185, Arabs 42, Asiatic Turks 26, Persians 21, Asiatic Jews 17, negroes, 662, Egyptians 25, American Indians 51, Polynesians 2,197, Papuans 375, and a few of other foreign races. These figures show what a polyglot population we have in this country in spite of the effort to maintain the "white" Australia policy.

Trinidad and Tobago.

THE annual report of the Surgeon-General for the year ending March, 1911, contains reports of the different medical institutions in the colony—namely, the Colonial Hospitals, the Lunatic Asylum, the Leper Asylum, and the District and Yaws Hospitals.

PUBLIC HEALTH.

The reports of the district medical officers show steady improvement in the health conditions of their districts. Educational efforts have been continued, and the diminished prevalence, more especially of the graver forms, of malaria indicates a more general and intelligent appreciation of the subject of prophylaxis and treatment. Many of the district medical officers direct special attention to the increasing prevalence of ankylostomiasis and the high infantile mortality. An ordinance has recently been introduced in the Legislature giving larger powers of control over the former disease, and a scheme for the provision of district nurse midwives in certain districts, submitted by the Medical Board, for dealing with the latter condition, is under the consideration of the Government. The death-rate in Port of Spain was 28.52.

In the different hospitals and asylums in the colony 13,649 patients were admitted during the year, and there were 17,677 out-patients.

PLAGUE.

Twelve cases of plague were reported during the year: 9 cases proved fatal. A large number of rats and mice were destroyed, and out of 19,839 rats caught and bacteriologically examined 11 were found to be plague-infected.

LEPER ASYLUM.

The number of cases of leprosy treated during the year was 338: of these, 31 were discharged and 34 died.

Regarding the presence of the bacillus of leprosy in these cases, out of 80 anaesthetic cases a positive result was only obtained in 9, while out of 105 tubercular cases the bacillus was found in all of them. These figures agree very closely with those of Professor Deycke. The Medical Superintendent of the Leper Asylum (Dr. F. A. de Verteuil) therefore says that it can be laid down as a general rule that the leprosy bacillus is invariably found in the nasal mucous membrane of all patients suffering from tubercular leprosy. The presence of the bacillus is of great practical importance. It affords a ready and valuable diagnosis in all doubtful cases: and it shows that nasal hygiene should be an essential part in the treatment of all leper patients, more especially when these patients are not thoroughly segregated and are living in contact with others. Regarding the treatment by nastin, improvement consists in previously anaesthetic cases becoming sensible—ulcers healing—the muscles of the forearm improve in tone, and the gait in some cases becomes more natural. In tubercular cases the tubercles assume a bronze or brown colour, get softer and smaller, and disappear. The patients feel stronger and their general health improves. Besides the nastin treatment, 9 patients were injected with 0.6 gram of salvarsan; slides taken from these patients showed, as a rule, bacteriolysis: in some of the cases it was very marked indeed; the degenerative process began from ten to fourteen days after the injection. As some of the patients also showed some clinical improvement, there is sufficient reason to give this drug a larger and more extensive trial. Radium has also been tried in 3 cases; Dr. de Verteuil says that it is difficult to formulate any very definite statement, but it seemed to him that radium had a marked influence on the leprotic manifestations. After a couple of applications in one of the cases there was a sensible change in the size of the nodulated infiltration. The application of radium may be of use in removing any disfiguring nodule or infiltration from the face. The 34 deaths reported were mostly due to diseases of the alimentary and respiratory systems.

Appended to the report are a large number of statistical tables showing the number of cases in the various institutions throughout the colony: these are of very little clinical value, and as they occupy about sixty pages of the report could be dispensed with.

Gibraltar.

PUBLIC HEALTH FOR 1910.

THE annual report of the medical officer of health for Gibraltar (Major Fowler, R.A.M.C.) has been issued

Statistics.

The population returns of the census taken in the latter end of 1910 form the basis for calculating the various rates connected with the vital statistics of the civil community of Gibraltar. The data connected with the military population are not included in the report. The returns show a total civil population of 18,154, in comparison with 18,351 at the end of 1909.

In 1910 there were 390 births, as against 436 in 1909, giving a birth-rate of 25.2 per 1,000. The total births are by far the lowest as yet recorded in the colony, and the birth-rate has only once been lower, in 1907.

The general death-rate works out at 18 per 1,000 living, as compared with 15.09 in 1909. There were 53 deaths amongst children under 1 year of age, equivalent to an infant mortality of 135 per 1,000 births.

Zymotic Diseases.

Measles and scarlet fever were prevalent during the year, but both were of a mild type. Diphtheria prevailed to a slight extent, 15 cases being notified, while there were 14 cases of small-pox. There were 25 cases of enteric fever; there was no common factor which could be accused of giving rise to this disease. The disease nearly always appears during the hot months of July, August, and September.

Pulmonary Tuberculosis.

There were 28 deaths from phthisis during 1910; the cases notified amounted to 66, as against 46 in the previous year. It is probable, judging by these figures, that there are at least 300 persons of the population affected with the disease. With reference to the treatment of phthisis, Major Fowler suggests the establishment of dispensaries for the treatment of patients in the early stage of the disease, as well as the erection of a sanatorium. A committee has been appointed to inquire into and report on the whole subject of consumption in Gibraltar.

Sanitary Conditions.

The general sanitary condition of Gibraltar is satisfactory taking into consideration how closely aggregated the houses are to each other, and the fact that the large majority of the houses are of the tenement order. There are areas in certain districts which would greatly benefit the community at large by being demolished and opened out.

Malta.

ANNUAL REPORT FOR 1910–11.

Vital Statistics.

THE annual report of the Public Health Department for 1910–11 states that the civil population enumerated on April 2nd was 211,473, to which should be added the military families, 1,922: in all, 213,395. The birth-rate was 36.12, as against 36.07 for the previous year. The average birth-rate for the past twelve years was 38.26. The death-rate for the year was 21.42—slightly under 1909–10, which was 22.57. The average rate for the past twelve years was 24.58.

The death-rate of children under one year per 1,000 was 242.46 in 1909–10, while that for 1910–11 was 236.93.

The report states that out of 69 cases of leucocythaemia during the year 66 occurred in children below 5 years of age.

Zymotic Diseases.

The deaths from infectious diseases reported during the year numbered 269. There were 41 cases of small-pox; these were all due to imported cases. Diphtheria cases amounted to 63, with 12 fatal. Enteric fever accounted for 25 deaths out of a total of 95 cases. There were 297 cases of Mediterranean fever with 35 deaths, as against 463 cases and 53 deaths the previous year. The regulations

published in June, 1909, for preventing the spread of Mediterranean fever could not, so far, be carried out in their entirety; still the periodical inspection of goats and the destruction of infected animals and the precaution of boiling milk already show a beneficial result. During the year 13,272 goats were examined; 402 were found infected and destroyed. There were 224 cases of phthisis and 161 deaths—a decrease on the number of the previous year, 280 cases with 192 deaths.

Appended to the report is a short note by Dr. Critien on infantile leishmaniasis in Malta, in which he suggests the adoption of certain principles of prevention—namely, the destruction of all ownerless dogs, the keeping of dogs as clean and free from vermin as possible; babies not being allowed to crawl if there is a dog in the house; the isolation of infected children and the thorough disinfection of their clothing.

Malta has a favourable meteorological record, the mean temperature for the year being 63.8° F., the shade maximum temperature recorded during the year being 92.7° F., with a daily average of bright sunshine amounting to 8.2 hours. The rainfall is small, 18.978 in., which fell on seventy-five days.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

LONDON.

London County Council.

The Milk Supply.

In a long report presented to the London County Council on April 2nd the Public Health Committee dealt with the conclusions of the Royal Commission appointed to inquire into the relations of human and animal tuberculosis and the existing powers of local authorities to prevent the sale of contaminated milk, declaring its opinion that further legislation was urgently required in order to safeguard effectively the milk supply of London. The general conclusions of the Royal Commission, the committee stated, as to the frequency with which infected milk found its way to the public made it apparent that it was the paramount duty of the Council to make further attempts to ensure a pure milk supply for London. In 1909 more than 10,000 deaths from tuberculosis (other than pulmonary tuberculosis) occurred in England and Wales in children under the age of 15. Of this number, 2,806 deaths which took place in children under the age of 5 were attributed to tuberculosis of the digestive system. Having regard to these facts, and putting aside the danger from diseases other than tuberculosis, which did undoubtedly from time to time infect an inadequately supervised milk supply, the committee felt that, although an impure milk supply was only one of various possible and probable sources of tuberculosis, nevertheless it was the duty of public authorities to try and remove any and every cause where possible, and that the eradication of tuberculosis in cattle must be regarded as a public health measure of considerable importance to man. The necessity for legislation to deal with dirty milk was generally appreciated. Examination of samples made for the Council by the Lister Institute showed that a large proportion afforded evidence of undesirable methods of production and handling. Samples of milk containing dung had not been uncommonly noted by the inspectors in the course of their routine work of collecting samples at railway stations. On more than one occasion also samples had been observed to be of a pinkish tint, due to the admixture of blood. Parliamentary action was necessary to arm local authorities with requisite and uniform powers. The powers of public authorities to deal with milk in London at present consisted of the following:

The London County Council.—Power to license cowhouses annually (Section 20 of the Public Health (London) Act, 1891). Power to secure proper conditions in cowsheds and dairies and the sanitary condition of milkshops. Power to forbid the use for human food of milk from a diseased cow, or one having tuberculous disease of the udder. (The Dairies, Cowsheds, and Milkshops Orders of 1885, 1886, and 1899; applicable also throughout the country.) Power to seize and slaughter on payment of compensation any cow in a London cowshed suspected of tuberculosis of the udder. (Part V of the L.C.C. (General Powers) Act, 1904.) Power to take within and outside the county samples of milk coming into London; to examine suspected cows outside London, and to prohibit the sending of further supplies from an infected source. (Part IV of the L.C.C. (General Powers) Act, 1907.)

The Metropolitan Borough Councils.—Power of registration of dairymen, the enforcement of the various Dairies, etc., Orders; power to prohibit supplies from any infected dairy within the county, to prohibit a person suffering from an infectious disease from milking any animal, to seize any article unfit for human consumption, to refuse to register persons carrying on dairies in unsuitable premises; power of enforcement of sanitary regulations made by the County Council, and powers under the Sale of Food and Drugs Act.

The Local Government Board.—May make regulations relating to the importation of any article of food unfit for human consumption. The Board has issued regulations, which come into force in June, 1912, prohibiting the use of preservatives in milk and cream.

Since the London County Council Powers Act, 1907, had come into operation, the bacteriological examination of 7,896 samples of milk of country origin had been completed, 850 (10.8 per cent.) proving tuberculous, 44,307 cows at 1,622 farms without the county had been examined, and 574, or 1.3 per cent., of the animals proved to be affected with tuberculosis of the udder. It was to be remarked, therefore, that whereas 10.8 per cent. of the milk examined was found to be tuberculous, only 1.3 per cent. of the cows were traced as being tuberculous. The disparity in the percentages was largely accounted for by the fact that milk from various cows was blended in the same railway churn; but, nevertheless, it appeared that more tuberculous animals existed than could be traced under present conditions. The Council had power to prevent the sale, within the county, of milk from cows ascertained to be suffering from tuberculosis of the udder only. It was most desirable that this power should be extended to include all cows suffering from tuberculosis with emaciation, or giving tuberculous milk, and the Council had already urged this upon Parliament. Moreover, although the Council could exclude from London milk from a farm without the county, which on examination was proved to be tuberculous, it had no power to require the slaughter or prevent the removal of the animal giving such milk. Consequently, if the animal was moved, all trace of it might be lost, and its milk would be sold for human consumption until again detected. Further, the Council had no powers to deal with milk which, on examination, was deemed to be so filthy as to be unfit for human food.

The Public Health Committee recapitulated the attempts made by the Council to obtain from Parliament the extensions of its powers suggested above. Since 1907 proposals by the Council had been withdrawn or rejected in favour of a plan for dealing with the question on national lines. Pressure of other business, however, has led to the continual postponement of a Government measure. The Committee expressed its agreement with the principle of a settlement of the question on national lines. The proposals made by the Council were necessarily limited in extent, and general legislation was more desirable. To deal in an effective and uniform manner with the question as affecting the whole country, legislation was required in one consolidating Act. In the opinion of the Committee the following points, *inter alia*, appeared to require the consideration of Parliament:

1. To make it possible to deal with a cow suffering from any form of tuberculosis, and to prohibit the sale of its milk.
2. Further powers of supervision of buildings where cows are kept or milk exposed for sale.
3. Power to take samples in any place from the time the milk leaves the cow to the time it reaches the consumer.
4. Adequate penalties to deter from wilful breaches of the law.
5. The more complete supervision of the import trade with a view to providing that imported milk, equally with home-produced milk, shall be subject to proper control.

The Public Health Committee advised that a deputation should wait upon the President of the Local Government Board to urge the importance of effective general legislation with regard to the milk supply being speedily promoted. Failing such general legislation, however, the Government should be urged to assist the Council in its efforts to safeguard London's milk supply, notwithstanding the fact that general legislation would be more satisfactory. In the unfortunate event of the Council having

to renew its own local efforts it should seek to obtain powers as follows:

1. To extend the provisions of Part IV of the London County Council (General Powers) Act, 1904, to any cow suffering from any form of tuberculosis, with emaciation, or giving tuberculous milk, and to the milk of any such cow.

2. Any necessary additional powers to take samples anywhere within the county of milk and milk products in transit and in wholesale and retail establishments; and in the event of such milk being found to be adulterated or unfit for human food to proceed for penalties.

3. Powers for the Council to make orders prohibiting the supply of milk into the county from the dairies or depôts without the county from which such impure milk was obtained.

4. Such additional powers (if any) as were necessary to enable sanitary authorities to take samples other than on railway premises, and to proceed for penalties.

5. Powers to enable the Council, at its discretion, to pay expenses of any dairyman appearing before it to show cause why an order should not be made requiring him not to supply milk from specified animals.

6. For the application within the county of Section 53 of the Public Health Acts (Amendment) Act (1907), which provides that, if the medical officer certifies to the local authority that any person is suffering from infectious disease which the medical officer has reason to think is attributable to the milk supply within the district, the local authority may require the dairyman to furnish a complete list of all the farms, dairies, or places from which his supply of milk has been derived during the last six weeks.

The report was approved and a deputation appointed to wait on the President of the Local Government Board.

Local Authorities and Tuberculosis Dispensaries.

Dr. Priestley, the Medical Officer of Health for Lambeth, presented recently to the Public Health Committee a report in which he expressed the opinion that it had become necessary to take measures to classify consumptive patients, and consequently that a tuberculosis dispensary was necessary, an institution primarily established for the examination and treatment, including tuberculin injections of patients, but chiefly useful in the discovery of cases in the early stages of the disease. It was from the tuberculosis dispensaries that the sanatoriums and hospitals or infirmaries would be fed, and the dispensary might best be described as a "sifting" or "classifying" organization. Such dispensaries were also of value educationally in the same way, but not to the same extent as sanatoriums, whilst the leaflets dealing with simple precautionary measures that would be distributed broadcast, would assist in the dissemination of simple knowledge as to the nature and prevention of the disease. At the meeting of the borough council, on March 28th, a letter was read from the Local Government Board stating that the committee recently appointed by the Chancellor of the Exchequer would report at an early date upon the consideration of general policy in respect of the problem of tuberculosis in the United Kingdom in its preventive, curative, and other respects, which should guide the Government and local bodies in making or aiding provision for the treatment of tuberculosis in sanatoriums or other institutions, or otherwise. The Board has deferred consideration of questions on the subject until the committee has reported. The borough council decided to adjourn the consideration of the establishment of a dispensary until the report of the committee has been presented.

BIRMINGHAM AND DISTRICT.

Birmingham Medical Institute.

The financial condition of the Institute calls, it would appear, for serious consideration on the part of the members. Last year, with the aid of a sum of £50 paid by the British Medical Association for the use of rooms in connexion with the annual meeting of the Association, the income and expenditure were nearly equal, but at present there seems to be no prospect of meeting the expenditure for this year. Then, again, no addition has been made to the fund for depreciation of the leasehold during the past two years. It is considered necessary, therefore, that a serious effort should be made to raise a sufficient sum, amounting to about £2,000, to equalize the income and expenditure of the institute if it is to continue in existence, and to provide for the redemption of the leasehold building in the future. A room in the basement of the institute has been let to the Birmingham Branch of the British Medical Association at an annual rental of £12.

Mr. Christopher Martin has presented a Leitz epidiascope, and is defraying the cost of its installation. The library now consists of 14,853 volumes, and during the past year 147 volumes have been added, including a total of seventy-three gifts. Sixty-six periodicals are supplied to the reading room, and of these thirty-nine are foreign and twenty-seven British. The income for the past year was £522, and the expenditure £519.

Birmingham Sanatorium for Consumptives.

The sanatorium for the educational treatment of consumption which was established in Yardley Road by the Birmingham Corporation has been so successful that the Public Health and Housing Committee has prepared a scheme for its extension. The old small-pox hospital was adapted in the first instance, and for the last twelve months a considerable number of patients have been treated. The patients were detained for about six weeks, and during that time they were instructed so as to apply the treatment for themselves when they returned home. In addition these patients also attend the tuberculin dispensary which has been established by the committee in Edmund Street. The existing accommodation at Yardley Road Sanatorium is for between fifty and sixty patients, and the committee desire to provide accommodation for another 150, including children. Altogether eleven sites have been visited, and the committee has decided to recommend to the City Council an extension of the sanatorium in Yardley Road in preference to the erection of a building elsewhere. The necessity for the increased accommodation has been intensified by the extension of the city boundaries, by the fact that no provision exists for the treatment of consumptive children, and because, now that the notification of all cases of consumption is compulsory, more than 100 cases a week are, on the average, reported to the medical officers of health.

Tuberculosis Exhibition.

The National Association for the Prevention of Tuberculosis has arranged for an Exhibition in Birmingham during the first fortnight in July. A strong local committee has been formed, and the Corporation has granted the use of the Town Hall for the Exhibition. During the time the Exhibition is open a lecture on the subject of the prevention of tuberculosis will be given each evening—probably in the lecture room under the Town Hall, which has seating accommodation for about 500 persons.

King Edward VII Warwickshire Memorial.

The executive committee of the King Edward VII Warwickshire Memorial has now completed its arrangements for the purchase of the site selected on Binton Hill, about four miles west of Stratford-on-Avon, for the purpose of erecting a sanatorium. The property is to be temporarily conveyed into the names of Mr. Arthur James (Chairman), Lord Algernon Percy, and Mr. Broughton Dugdale, pending the names of the permanent trustees and the trusts of the deed being definitely decided on.

Walsall Hospital Sunday Collections.

The total amount received in 1911 was £285, as against £281 in the previous year, in spite of the fact that the number of contributing congregations has diminished from forty-seven to forty-four. It has been decided for a deputation to wait on all non-contributing churches.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

Govan School Board.

The report of the chief medical officer for the year ending June, 1911, states that 11,599 routine examinations and 3,989 non-routine examinations were made. The medical officers examined 3,594 necessitous school children; only 5 per cent. were noted as having bad nutrition. Clothing seems to have been satisfactory, as only 7 per cent. were returned as not being sufficiently clad, 7 per cent. were returned as fairly or badly clad, and only 27 children had markedly insufficient clothing. Verminous or dirty conditions were prevalent, and were noted in 13 per cent. of the boys and 31 per cent. of the girls. It

is suggested that the best method of dealing with recurrent cases of this nature consists in establishing cleansing stations where the children could be cleansed and clothes disinfected. Defective vision was found in 8.5 per cent. of the boys and 14.1 per cent. of the girls. Only 11 per cent. of the children possessed good sets of teeth. The medical inspection showed that about 20 per cent. of the children examined suffered from defects calling for a notice to the parents that medical treatment was necessary, but apparently only about 45 per cent. of those notified received treatment. One of the chief defects of the Scottish Education Act of 1908 was that it did not give power to supply treatment. Under the Scottish system there was no legal power to establish school clinics, which would be invaluable for chronic conditions requiring prolonged treatment. The Treasury had granted Scotland the sum of £7,500 for the purpose of medical treatment, but as the share available for Govan was less than £400, this would hardly touch the fringe of the problem.

ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN.

The fifty-third annual meeting of the contributors was held last week. The directors' report showed that the total number of cases treated in the hospital during the year was 2,031, as compared with 2,034 in 1910. Of these cases, 1,391 were medical and 640 surgical. In the out-patient department 24,513 cases were treated, as compared with 28,315 in the previous year. The ordinary income was £5,987, as compared with £5,937 in 1910. The ordinary expenditure was £8,465, showing a deficiency of ordinary income of £2,478.

In the medical report it was stated that nearly half the number of out-patients were under 2 years of age, a fact which accounted for the necessity of assigning more than one-third of the beds in the hospital to the treatment of children under that age. The report states:

> As a large proportion of these babies and very young children suffer from gastro-intestinal disorders, the staff feel it their duty to suggest to the directors the desirability of considering the question of adding a milk dépôt to the therapeutic resources of the out-patient department. If means were provided whereby the instructions for feeding could be properly carried out, some, at any rate, of the babies now treated in the hospital might be treated as out-patients.

GLASGOW MATERNITY AND WOMEN'S HOSPITAL.

The same cry for increased financial assistance was raised at the annual meeting of the Maternity Hospital. As a teaching school the hospital attracts increasing numbers of students and nurses, but increasing financial strain made it incumbent on the directors to point out that, unless the capital funds still required were subscribed soon, as well as a very substantial increase in the annual subscriptions, the maternity work of the hospital would have to be curtailed. Though the net deficit at the end of 1911 was £8,717, it was not intended to restrict the work of the hospital before making a very special appeal to the public to raise funds. In moving a resolution appealing for an increase both in capital funds and ordinary income, Sir Donald MacAlister pointed out that maternity hospitals made a special appeal in that every case treated was of the nature of an emergency case involving two lives.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

IRISH WORKHOUSE ASSOCIATION.

A PUBLIC meeting, under the joint auspices of the Irish Workhouse Association and the Association of Charities, was held in the Mansion House, Dublin, last week for the purpose of discussing Poor Law reform and the upbringing of workhouse children. The Earl of Mayo, who presided, said that, according to parliamentary returns recently published, there were thirty-two unions in Ireland which had not adopted the boarding-out system in any way at all, and about 5,000 healthy children, and 2,304 who were classed as rich, still remained in workhouses. Nothing like that number, he said, were eligible for boarding out, but it was estimated that 500 of them were eligible. The Association decided to send a deputation to the Vice-President of the Local Government Board to urge it to press boards of guardians to adopt the boarding-out system. He was confident that in another five years there would be few, if any, of the thirty-two unions that had not adopted the boarding-out system. One of the difficulties experienced was to find suitable homes for the children, especially in the poorer districts, and a suggestion was made that, if suitable homes could not be obtained in the district, the guardians might be empowered to board out their children in homes outside their district. It was stated that the present inspection staff of the Local Government Board was entirely undermanned, as there were only two lady inspectors for the whole of Ireland, one having to do the entire North, and the other the whole of the South, of Ireland.

WOMEN'S NATIONAL HEALTH ASSOCIATION.

Lady Aberdeen, who presided at the first annual meeting of the Pembroke Branch of the Women's National Health Association, congratulated those who had taken part in the work of the branch, as the year's report showed that much excellent work had been done. Referring to the Insurance Act, she said that theirs was the only association in Ireland that could give real help in making the provisions of the Act effective with reference to the proper treatment of consumption. All branches of their organization should be ready to do their part in that great national work. In opening a new branch of the association at Dundrum last week, Her Excellency said that the sanatorium benefits of the Act would come into force at once with the bill, and both their branches and members should give a great deal of thought to this matter, as the death-rate from tuberculosis in the Dublin registration area showed a further decline from 1,491 in 1910 to 1,451 in 1911. Since 1907 there had been a decrease of about 6 deaths a week from tuberculosis in Dublin.

NATIONAL INSURANCE.

The following resolutions were passed by 13 votes to 3 at a meeting of the Dublin County Council on March 28th:

1. Having regard to the number of employed contributors resident in the county who are not members of any society, and to the large number of persons in the county who will come within the provision of the Act as employed contributors, and for whom no suitable approved society will be available, it appears to this County Council that we should take steps to form such a society under the council.
2. We hereby approve of the scheme, as settled by our committee, for establishing a county society, to be submitted to the Irish Insurance Commissioners, and agree to giving security by means of a charge on the county funds as set out in the scheme.

It was pointed out that the society would have the advantage that in the case of any default from which loss might result to the society's funds that loss would have to be made good out of the county fund by the council, and that the funds which would be available for investment would be left in charge of the Insurance Commissioners and invested by them.

ASSOCIATION OF ECONOMIC BIOLOGISTS.

The eleventh general meeting of the Association of Economic Biologists was held on March 28th in the College of Science, Dublin. Professor George H. Carpenter, B.Sc., M.R.I.A., F.E.S., President, occupied the chair; the attendance was not very large, owing, as the President thought, to the coal strike. After the President had given an address on biological training for agricultural students, Dr. R. Stewart Macdougall read a paper on parthenogenesis in *Nematus erichsonii*, a fly very destructive to larch plantations. Dr. G. H. Peythridge, the Secretary, read a paper on the methods employed in testing grass seeds, pointing out that very soon after coming into existence the Department of Agriculture had established a seed testing station for Ireland, where during the past twelve years some 15,000 samples of agricultural seeds had been tested. Mr. P. A. Murphy, assistant in the Division of Economic Botany, Department of Agriculture and Technical Instruction, gave a preliminary note on the culture of the potato blight fungus, with special reference to the formation of oospores. As the result of cultural experiments he had proved that resting spores were formed, probably sexually, and that these were capable of living through the winter. It was probable, therefore, he said, that attacks of potato blight originated from such resting spores. Mr. Walter E. Collinge read a paper on the food of birds. Afterwards tea was provided in the college, and the

laboratories were inspected. Visits were paid to the Royal Veterinary College and the National Museum. The meetings on the second day were held in the Royal College of Surgeons, and there was a good attendance. Mr. H. Hunter read a paper on cereal breeding in Ireland, with special reference to barley. Other papers read were experiments on the pollination of our hardy fruits, fungus in human skin disease, and a note on two new forms of rot in the potato tuber, the latter embodying the results of investigations carried out at the research station established at Clifden, co. Galway, by the Department of Agriculture in 1909 for the closer study of the various diseases of the potato. The afternoon was devoted to visiting the Royal Botanic Gardens and the Albert Agricultural College, Glasnevin.

This association has a membership in Great Britain and Ireland, and there are also a few members in the colonies. It holds annual meetings at different centres, those already visited including London, Birmingham, Manchester, Liverpool, and Edinburgh. The members are biologists interested in the application of biology to agriculture, medicine, fisheries, or any other department of economic importance. The Dublin visit should prove to be of particular interest to the members of the association, as very active work in economic biology is being done in Dublin and the stations dependent on Dublin, under the authority of the Department of Agriculture.

Correspondence.

THE LONDON COUNTY COUNCIL AND THE PROPOSED STERILIZATION OF THE "MENTALLY UNFIT."

Sir,—In your issue of December 9th, 1911, your Special Correspondents reported the proceedings of a meeting of the London County Council held a few days previously, and stated therein that at the close of a discussion "Mr. J. W. Gilbert, who spoke last, was the only member of the Council to declare opposition to the method of dealing with recurrent insanity by sterilization of the insane."

Based on this report, in my address to the Section of State Medicine of the Royal Academy of Medicine in Ireland (January 19th, 1912) I made the following observations:

> Only last month the London County Council, groaning under the yearly increasing incubus of lunacy charges, demanded almost unanimously the sterilization of the unfit. The chairman hinted at "segregation" and "colonization," as well as the "surgical operations—*of course under proper precautions*"! A past chairman is stated to have said: "Though the minds of the insane have gone, their bodies were left, and they propagated their species in an alarming extent," and he, too, demanded the knife.
>
> So spoke the City Fathers of our Modern Babylon, who evidently fail to see any other solution of the problem than the adoption of those measures which the Oriental potentates of ancient Babylon put in force to preserve the chastity of their women. One cannot help wondering whether the progenitors of the members of this Council were in every case free from taint or defect. It would seem morally certain that in such an assembly, drawn from such varied sources, some few at least must have sprung from families which suffered the all-too-common lot of mental affliction. If so, did these individuals pause to think that if the procedures they now so violently demand were in operation a generation ago they would not be now in the enjoyment of existence, and under circumstances which indicate the hall-mark of success in prosperous and honourable careers? The baton sinister of mental defect is to be found on the escutcheon of every family of known descent, though placed in the background by the emblazoned glories of the *honourable ordinaries*.

I understand that exception has been taken to the expression "demanded almost unanimously the sterilization of the unfit," and I am informed that no resolution was moved on the subject, and that there was not a full attendance of the 136 members of the Council. Furthermore, I am informed that the Council, before taking any definite position on this question, have very properly asked the Asylums Committee to submit a report on the causation of insanity and its increase.

We may assume, therefore, that whatever may be the opinion held by individual members, the Council as a body has not committed itself to a view which is open to such grave doubt as is involved in this question, nor will it do so without much careful deliberation. A definite expression of opinion from an important administrative body such as the Council on a matter of such vast interest to the public would go far to influence the attitude of other bodies entrusted with like responsibilities. Hence its decision will be awaited with anxiety by all those who, like myself, are daily engaged in considering the problem of insanity in its many aspects.—I am, etc.,

M. J. Nolan, R.M.S.,
President of the Section of State Medicine of the Royal Academy of Medicine in Ireland.
Down District Asylum,
Downpatrick, March 19th.

HYPODERMIC MEDICATION BY NURSES.

Sir,—The letter of "G. P." in the Journal of March 16th, p. 644, indicates the very serious rivalry and competition which the general practitioner experiences, occasioned by the enormous growth and development of the "nurse" during the last decade. The general practitioner has himself to blame in a great measure, for he has gradually allotted to nurses the task of passing catheters and administering enemas, and, occasionally, to save himself from being called up at night or otherwise disturbed, the hypodermic injection of morphine.

But this is not the only direction in which the general practitioner loses his place: latterly there has grown up a custom for the "specialist" to go about with his own nurse, who now takes the place of the young medical man who always used to "devil" when operations in private were in progress. Thus the "specialist" saves the fee usually paid to an assistant, and the profession loses, while the unqualified person gains all the advantage. This practice of employing an "unqualified" woman is one that should be curtailed, for it appears to be unfair to the many qualified men and women who are not overwhelmed with professional engagements.

Since the time has now arrived when the unqualified woman takes upon herself to "medicate," assuredly some steps should be taken to control the march of the ubiquitous nurse, who often allows the patient to think she knows more about the case than the doctor.—I am, etc.,

March 18th. Renldm.

Sir,—Without wishing to disagree with "G. P.'s" point, that it is undesirable for nurses or other unqualified persons to administer hypodermic injections of potent drugs on their own responsibility, I see no reason for his referring in such a sarcastic manner to "such a superior person as the modern nurse." Would he prefer to revert to the ancient style of Mrs. Gamp? The modern nurse is as indispensable as she is overworked and underpaid. All honour to her!—I am, etc.,

March 19th. Woman Practitioner.

MEDICAL EDUCATION IN LONDON AND PROFESSOR VON MÜLLER.

Sir,—In a communication to the *Muench. med. Woch.*, No. 6, reference was made to an article in the British Medical Journal for January 27th, 1912 (No. 2665), entitled "Medical Education in London and Professor von Müller." This article was written by a London teacher anonymously, and dealt with my evidence on university education before the Royal Commission. Although I expressly stated that I had no intention of giving any advice about the possible reform of English medical teaching, and purposely limited myself to a description of the German methods, the author has interpreted my remarks in a manner unfriendly to us, and has uttered a warning against the adoption of the German university system in London, because by this means "incalculable damage would be done." For this purpose the author has drawn a very unfavourable picture of German medical education, hospitals, and doctors, which can only be ascribed to a lack of knowledge of German institutions. This account ought not to be allowed to pass unchallenged.

It is incorrect to say, for example, that the students are under no circumstances allowed to enter the wards and work among the patients. The truth is that the students receive daily instructions in the wards in the various methods of clinical examination, and have the opportunity of personally examining patients under the strict supervision of the professor and the junior teachers. As many

of the students as possible are given definite work in the wards as dressers and clerks, under the name of "Coassistenten." In the larger universities—for example, Berlin and Munich—it is only possible for a comparatively small proportion of the medical students to work in the wards as Coassistenten, but the smaller universities, nineteen in number, which are much more typical of German medical education, give infinitely more opportunity in this respect.

The recent institution of the "Praktisches Jahr," which every doctor is obliged to undergo after his qualifying examination, shows clearly that we in Germany are increasing the practical character of medical education. The author of the note in the *Muenchener med. Wochenschrift* expresses the opinion that the amount of practical work should be increased as much as possible in accordance with the English system, an opinion which I held myself as a result of my more intimate acquaintance with American educational methods.—I am, etc.,

Munich, March 23rd. FRIEDRICH MÜLLER.

STANDARDIZATION OF PANCREATINS.

SIR,—The two letters under the above title from the respective pens of Mr. F. F. Shelley, F.I.C., and Dr. P. J. Cammidge, in your pages of March 9th and 16th, reveal a very serious state of things which has been known to some for several years past. Dr. Cammidge writes (p. 647), "A few years ago I tested samples of all the commercial preparations of pancreas that I could meet with, and was surprised to find what a large proportion were inert." As injections of pancreatic ferments first appeared in medical practice early in 1906 Dr. Cammidge possibly did not refer to such preparations, but it is an undoubted fact that were one to substitute in his letter for "preparations of pancreas" the words "preparations of pancreatic ferments for injection," his statement that "a large proportion were inert" would also be true. None the less, by all the writers who have used such inert preparations—without even knowing that they were inert—and who have dealt with their supposed actions or lack of actions in their writings, it has been assumed that the true character of a pancreatic preparation can be determined merely by reading the label. But, indeed, something more than "standardization" of pancreatic preparations is called for, since, even when "standardized" and put up in ampoules, the further question arises as to the length of time during which particular preparations retain any of their activities. In recent years the pancreatic ferments have been treated as though they were ordinary "drugs," which as a rule retained their properties unaltered, ignoring the fact, well known to some, that they are extremely delicate bodies, which, as active agents, lose very quickly all their original powers and become quite inert. Therefore it is not necessary to suppose that "preparations of pancreas," such as those mentioned by Dr. Cammidge, or injections of pancreatic ferments, had originally (when made up) no ferment powers at all. Possibly in all cases they had *some* powers, even on occasion great ones, but all the chemical evidences I have seen would lead me to believe that something or other in the manufacture of such inert preparations had led to their instability. On mentioning some of the facts concerning such inert ferment preparations to a well-known Glasgow surgeon, he said that it was my "duty to see that this was put right." Well, with deference to him and to you, I venture to think that this "duty" falls more appropriately and very much more effectively to the lot of the Editor of the BRITISH MEDICAL JOURNAL.

Not many weeks ago the writer received unexpectedly certain results of assays of various pancreatic preparations manufactured and sold in England, and the sender, who is a specialist in the study of ferments, remarked that probably the figures would be found "astounding." Indeed, an impartial examination and assay of all the pancreatic preparations at present on sale in this country would, without doubt, give results regarding certain of them not only "astounding" in character, but such as would put quite in the shade similar examinations of patent medicines. This question has been allowed to drift for years, and it is only common sense to ask "How long still shall it be possible to sell as active pancreatic preparations things which often are almost, or even in many cases quite, inert?"

Edinburgh, March 26th. J. BEARD.

THE NEW CELL PROLIFERANT.

SIR,—Mr. H. C. Ross's two statements (p. 523 and p. 646) with regard to the circumstances connected with my refusing to allow my illustrations to be used for a book he is writing differ from each other as to matters of fact. They cannot both be true. I never for a moment supposed that Mr. Ross had seen the only letters I wrote upon this subject, as they were all marked "private." Mr. John Murray, to whom they were written, has, however, given me a quite unnecessary assurance, unasked for, upon this point, so it is evident that Mr. Ross was not and is not in a position to make the statement he did. Unless it be discourteous to refuse any request made by Mr. Ross personally or by proxy, my letters to Mr. Murray were not discourteous.

As to the rest of Mr. Ross's arguments and pretensions, it is difficult to deal with any one who so continually shifts his ground and disregards pertinent criticisms. On March 2nd he complains that "scientists" obstruct his progress by adverse criticism without repeating his experiments. When I point out that I have repeated them and produced the results he describes, but that these results cannot be made to bear the interpretation he puts upon them, he says that "the technics are very difficult," and as I may not have worked upon the correct lines, he cannot accept my opinion. Mr. Ross took some 280 pages to describe in minute detail a technique which is full of sources of error, but I followed it with sufficient accuracy to produce results which agreed in detail with both his descriptions and his illustrations. The difference, then, between him and those "scientists" of whom he complains lies in the interpretation of the results following upon the application of his "technics." What are these results? That when living cells (in Mr. Ross's experiments almost invariably mammalian leucocytes) are placed in certain abnormal environments each of them breaks up into two or more parts. Mr. Ross's interpretation of this is that he has discovered certain substances which so act upon the cells as to induce in them the phenomenon of mitotic or indirect division, a process of which the details have been the constant study of some of the best known biologists for more than thirty years. The acceptance of Mr. Ross's interpretation involves the abandonment of practically everything that has been unanimously accepted by these men, and the assumption that they have one and all shown themselves absolutely incapable of observing the simplest matters of fact. One example of what has to be swallowed in order to agree with Mr. Ross will be sufficient: "The so-called nuclei of leucocytes ought, we think, in reality, always to be called centrosomes, and the word 'nucleus' deleted from their morphology."[1] One might be inclined to consider such claims more seriously did Mr. Ross in his writings show any acquaintance with the work in this particular line which has been done in the past, some of it before he was born. One example will again be sufficient. We are told that: "There is no doubt that the observation of the living cell is a new study."[2] Every biologist knows that, as a matter of fact, it is about as old as the cell theory itself.

On the other hand, it is a matter of common knowledge that when a living cell is placed under certain conditions of environment it is broken up into two or more parts. The difference between this phenomenon and that of mitosis is the difference between the verb passive and the verb active. It is the verb passive which Mr. Ross describes and illustrates, and which I have seen when using his technique. His results correspond with the results of osmotic and other disturbances, and could mislead no one who was at all intimately acquainted with cell phenomena; they are by no means surprising and can be produced by many other methods than those he uses; they bear not the slightest resemblance to mitotic divisions. To interpret the fact that because leucocytes are divided as they are in his experiments, they have been induced to divide mitotically, is just as reasonable as to claim that a man

[1] *Induced Cell Reproduction of Cancer*, p. 15.
[2] Ibid., p. 10.

has actively divided into two men because he has been cut in two by the passage of a railway train over his body.

Mr. Ross, at the end of his last letter to you (March 16th, p. 646), provides an excellent example of his method of thought and reasoning. Loeb, he says, states that agencies which cause cytolysis also cause eggs to develop. This is true with certain considerable limitations which I need not notice here. Mr. Ross claims this as evidence that he is right in believing that his "auxetics" induce mitotic divisions in cells generally, because: "It is with the substances produced by cytolysis that we have for some years past been producing cell division." Mr. Ross therefore thinks, because some agencies bring about cytolysis, that cytolysis must produce these agencies. In other words, that the effect must *produce* the cause, because the cause produces the effect; an attitude, I may perhaps point out to Mr. Ross, quite different from the belief that an effect involves the pre-existence of a cause. It would be just as reasonable to believe that because a sufficient flame from a Bunsen burner will heat a vessel of water to boiling-point, a vessel of boiling water will produce a Bunsen burner giving a sufficient flame.—I am, etc.,

Glasgow, March 17th. CHARLES WALKER.

THE NATURE AND ORIGIN OF CANCER.

SIR,—I do not see what useful purpose can be served by continuing further discussion with Dr. Brock concerning the material or non-material nature of the cell governor whose existence we both acknowledge. He is perfectly entitled to his own opinion that it is something like the will—such a very abstract something that it makes one giddy to think of it. I prefer the clearer atmosphere of materialism.

Dr. Brock quotes the chick as an instance of the impossibility of a material governing secretion affecting its development. I presume he acknowledges that when breakfasting on an egg he is not eating a chicken, but a store of nutriment that was never intended for him, and is a cast-off portion of a feather-covered mass of protoplasm—to wit, a hen; being such, it will contain a due proportion of the governing secretion present in the maternal protoplasm. A psychologist will perhaps assert that a hen loses a little of its abstract cell governor, its will power, every time it lays an egg, until ultimately its will power is minus. Does this explain the hysterical excitement of the feathery biped after laying?

Dr. Brock seems to be able to explain what life is; he attempts to grapple with the very nature of life. Personally I am content to deal with the bodily machinery and its defects, and not to tamper with the "actuating force"—that breath of life which is given to all of us, and which in course of time departs, we know not whither.—I am, etc.,

Wigan. J. THOMSON SHIRLAW.

THE PHYSICIAN AND PATHOLOGIST ON HEART FAILURE.

SIR,—This is a day of letter writing, and so special is knowledge becoming that unless letters are written the special worker must feel in danger of being submerged—always an unpleasant experience. I have read Sir Clifford Allbutt's most interesting address, and have studied it, as I have all his writings, with profit. I have also perused some interesting letters in your columns, and it is, I think Dr. Thomas Lewis's which has stimulated me to ask for a little of your valuable space. He pleads for breathing space and consideration to be given to what he calls the new school of cardiac research, and with which we must all and do all honourably associate his name. This plea recalls to mind a brief conversation with him—which no doubt he has forgotten—in which I humbly asked if a new and valuable journal of which he is editor was open to any other branch of cardiac research but that of the new school. His answer was brief and to the point and somewhat to this effect: Certainly, but it is the only work that is being done. Now comes my lament. I looked upon myself, with Dr. Paine, as the leader of a school which has presented to the country facts upon experimental heart disease which seemed to me, in my modesty, as only second in importance to those of the illustrious Harvey. We have demonstrated simple and malignant endocarditis and their relation to one another, myocarditis, and pericarditis, all of rheumatic origin—itself the great cause of heart disease. We have proved the occurrence of rheumatic dilatation and the focal nature of these lesions, and have placed in the national Hunterian Museum—epoch-making, I believe, is the correct expression—examples of these results. Yet where is our school? What mention of it in Sir Clifford Allbutt's brilliant address? What anguish rent me at Dr. Lewis's laconic reply when I realized that the school which I thought marked a new era in heart disease in this country was dead and supplanted ere my hair was white! Dr. Lewis may thus take heart, for he is not alone in trouble, and perhaps we may both agree that there is no new school in medical research upon heart disease, but only new developments initiated by the labours of those before us. Such, in my opinion, are better not looked upon as new schools, for such a view tends to depreciate collateral inquirers who are not of the same line of thought.

Sir Clifford Allbutt's address deals with problems of extraordinary complexity which no mechanical methods of investigation would seem able to solve for us; but that they will lead us nearer, as will, in my opinion, the experimental investigation of cardiac infections also, there can be little doubt—with this important proviso, that side by side must continue clinical investigation, which derives perpetually new life from these new sources, and is not, as some superficial minds would teach us, dead as regards progress.—I am, etc.,

London, W., March 29th. F. J. POYNTON.

SIR,—In Sir T. Clifford Allbutt's address I fail to see mention made of the effect of food in the stomach as one of the immediate causes of heart failure "in one who scarcely having known illness expires under no extraordinary effort; or in the peace of his own bed or elbow chair passes silently away." The article recalled to my mind the case of a hard-working agriculturist, aged 65 years, who had never had an illness of any moment, whom I was called in to see for swelling of the legs, breathlessness on exertion, cyanosis, and other signs of a failing heart. He was a very difficult case to manage, but by means of rest, diet, etc., he seemed about to enter upon a new lease of life. However, one morning he was given an extra quantity of meal porridge for his breakfast whilst sitting up in bed, previous to getting up for a few hours as usual. His nurse left him for a short time, and on her return found the patient sitting as she had left him but quite dead, with the basin in his hands and almost all the porridge eaten. I think there can be no reasonable doubt that the comparatively large meal enjoyed by him was the immediate cause of death. Whether it caused it mechanically by pressure on the embarrassed heart through the diaphragm, or reflexly through pressure on the vagus fibres in the stomach, or by pressure on the solar plexus, whether reflexly by "shock" owing to the gaseous contents of the intestines being suddenly expanded by hot porridge, or by the vaso-dilator of the abdomen being stimulated, and so depriving the heart of blood, I do not know. It is possible that death was caused by the warm meal stimulating the vagus fibres in the stomach, and so allowing rein to the accelerator fibres, causing a rise in the heart-rate which that organ could not continue, and so sank under the strain.

It is noteworthy in this connexion that many cases of sudden death from heart failure occur in elderly people hurrying to catch trains, etc., after a good meal. Especially is this the case with plethoric individuals taking insufficient exercise, who quite unknown to themselves have often fatty, weak hearts.—I am, etc.,

Liverpool, March 25th. ANDREW S. M'NEIL, L.R.C.P.S.E.

TRAVELLING DELEGATES OF DIVISIONS.

SIR,—I wish to suggest that every Division of the British Medical Association appoint certain members, in number corresponding to the number of immediately neighbouring Divisions one for each. Such members should act as "travelling members," attend the meetings of the neighbour Division to which they are severally appointed, as well as their own, to convey and receive information, and so enable unity of action to be more certainly and readily attained.

Patients, especially near towns, more frequently migrate from one district to an immediately neighbouring district

than to a remote one, and such a course as I suggest would have inestimable advantages, not only in our present crisis but in view of a certain proposition which I shall soon have the honour of laying before the Association.

The possibilities before the profession just now are immense, for good or for evil, according to our ability to seize the moment, and every step which will still further our present remarkable unanimity is worth taking. I intend to propose a resolution at my next Divisional meeting framed with a view to the appointment of "travelling members," such as I have suggested.—I am, etc.,

Wembley, N.W., Feb. 20th. JOSEPH H. CHURCHILL.

THE PROFESSION AND THE POLITICIANS.

MR. WILFRID TRAVERS, A.R.I.B.A., writes from 33, Old Queen Street, Westminster, S.W., to deny, so far as affects himself and Lieutenant MacKinnon, the following statements in Dr. Beckett-Overy's letters published in the issues of the JOURNAL of March 9th and March 23rd: (1) That the Queen's Hall meeting was at any rate partly organized in the Hammersmith Constitutional Club. (2) That the stewards were obtained under the same auspices, and one, a well-known Unionist worker in Hammersmith, was specially told off to mark Sir Victor Horsley.

Dr. Beckett-Overy, to whom Mr. Travers has shown a copy of his letter, writes to say that he had no intention of attacking Mr. Travers in any way, and regrets that Mr. Travers should feel that he has any cause for complaint.

Universities and Colleges.

UNIVERSITY OF DURHAM.

THE following candidates have been approved in the subjects indicated:

THIRD M.B.—*All Subjects*: *F. J. Nattrass, *W. K. Russell, W. Bell, G. A. Berkeley-Cole, R. P. Xinnis, S. Thompson. *Public Health, Medical Jurisprudence, Pathology, and Elementary Bacteriology*: R. E. Bell, L. H. W. Iredale, R. L. Kitching, S. E. Murray, J. L. Pringle, J. S. Soutter, H. J. Shanley, G. E. Stephenson.

* Second-class honours.

Degrees.

The following were among the degrees and diplomas conferred at a meeting of Convocation on March 30th:

M.D.—G. R. East, M. S. Paterson, H. W. Sykes.
M.D. (*for Practitioners of Fifteen Years' Standing*).—S. R. Lister, J. L. Thomas, L. A. Winter, H. de C. Woodcock.
M.B.—E. C. Abraham, R. G. Badenoch, S. P. Benson, F. E. Chapman, J. W. Craven, R. C. H. Francis, L. E. S. Gellé, J. K. J. Haworth, E. Kidd, W. G. Lidderdale, C. Mearns, J. A. C. Scott, W. A. Slater, R. W. Smith.
B.S.—E. C. Abraham, S. P. Bedson, F. E. Chapman, J. W. Craven, L. E. S. Gellé, J. K. J. Haworth, E. Kidd, W. G. Lidderdale, C. Mearns, J. A. C. Scott, W. A. Slater, R. W. Smith, T. R. West.
B.Hy.—C. R. Wilkins.
D.P.H.—A. E. L. Wear, C. R. Wilkins.

VICTORIA UNIVERSITY OF MANCHESTER.

THE following candidates have been approved at the examinations indicated:

FIRST M.B., CH.B.—*Part I. Inorganic Chemistry and Physics*: J. H. Albinson, B. Colley, Eva L. Glasier, A. Holker, B. L. Lloyd, *F. C. Ormerod, J. A. Panton, Nesta H. Perry, Nora H. Schuster, J. B. Wild, J. C. Williams. *Part II. Biology*: J. Brooks, J. D. Byrd, Kathleen L. Cass, B. Colley, Eva L. Glasier, J. Holker, Alice M. A. Holt, B. L. Lloyd, R. L. Newell, F. C. Ormerod, J. A. Panton, Nesta H. Perry, Dorothy Potts, Nora H. Schuster, W. Stansfield, L. Walton, J. B. Wild, J. C. Williams.
SECOND M.B., CH.B.—W. S. Booth, J. E. Brooks, N. H. Davison, S. G. J. Dowling, J. G. McKinley, J. F. O Grady, J. R. Slack.
THIRD M.B., CH.B. (*General Pathology and Morbid Anatomy*).—Ada L. Bentz, F. C. Bentz, H. C. Duffy, C. W. Fort, H. S. Gerrard, R. B. Gorst, W. L. Nicholson, H. A. Sandiford, P. K. Tomlinson, C. H. Whittall, S. A. Winstanley, H. C. Wright.
D.P.H. (*Both Parts*).—R. J. Batty, Albert Hilton, G. Y. Wong.

UNIVERSITY OF ABERDEEN.

THE following were among the degrees and diplomas conferred at a meeting of the Senate on March 28th:

M.D.—†A. Low, M.A., †A. G. Stewart, M.A., ‡C. D. S. Agassiz, ‡W. W. Jameson, M.A., ‡J. R. Mackenzie, ‡J. Rennie, R. Eager.
* Highest honours for thesis. † Honours for thesis.
‡ Commendation for thesis.
M.B., CH.B.—†A. F. Legge, †R. R. M. Porter, M.A., †H. R. Souper, M.A., G. Stuart, M.A., B. G. Beveridge, H. G. Bruce, J. Chalmers, A. Dugnid, N. A. Duncan, J. G. Elder, H. T. Finlayson, Margaret E. Forgan, M.A., A. P. Gray, W. Henderson, W. P. Hogg, W. W. Ingram, G. M. McGillivray, N. Macphail, A. C. Macrae, R. G. Martyn, R. W. S. Murray, W. P. Philip, D. O. Riddel, C. M. Stephen.

* Second-class honours.

D.P.H.—W. Allan, H. Duguid.

On the same occasion the degree of LL.D. *Honoris Causâ* was conferred on William Leslie Mackenzie, M.A., M.D.Aberd., Medical Member of the Local Government Board of Scotland.

QUEEN'S UNIVERSITY OF BELFAST.

THE following candidates have been approved at the examinations indicated:

FIRST M.B.—*Chemistry*: G. V. Allen, W. Bryars, A. G. Campbell, G. Chesney, C. D. Crawford, A. C. Dickey, Grace M. English, F. Ewart, E. Freeman, H. E. Hall, J. A. Harbison, W. J. Harvey, J. H. B. Hogg, R. N. B. McCord, N. McCullough, J. P. McGinley, A. G. McKee, B. W. McKinney, M. McMenamin, F. McSorley, P. J. McSorley, H. E. Magee, D. Mitchell, Elizabeth M. Moore, W. Napier, J. O'Kane, Charlotte Pedlow, Margaret S. Purce, C. A. W. Ramsay, R. J. Rea, J. Scott, R. L. Sinclair, Mary G. Thompson, N. C. L. B. Tweedie, E. S. G. K. Vance, J. H. Vance, T. Wallace, D. R. Wheeler, F. H. Whyte. *Physics*: W. Bryars, A. G. Campbell, G. Chesney, C. D. Crawford, A. C. Dickey, Grace M. English, F. Ewart, E. Freeman, H. E. Hall, Mary L. Henry, J. H. B. Hogg, R. N. B. McCord, N. McCullough, J. P. McGinley, B. W. McKinney, M. McMenamin, F. McSorley, P. J. McSorley, H. E. Magee, A. J. Millar, D. Mitchell, W. Napier, J. O'Kane, Charlotte Pedlow, W. H. Pedlow, Margaret S. Purce, C. A. W. Ramsay, R. J. Rea, W. Saunderson, J. Scott, R. L. Sinclair, Mary G. Thompson, E. S. G. K. Vance, J. H. Vance, J. J. Walker, T. Wallace, D. R. Wheeler, F. H. Whyte. *Zoology*: A. C. Taggart, N. C. L. B. Tweedie. *Botany*: D. Corry, W. J. Harvey, Mary E. Henry, A. G. McKee, H. Moore, J. P. Smyth, A. C. Taggart, N. C. L. B. Tweedie.
SECOND M.B.—*All Subjects*: W. K. Campbell, A. E. M. Carleton, R. Condy, F. J. Devlin, W. W. Dickson, M. Gilligan, G. Gordon, W. H. Hardy, D. Jamison, E. A. Mallon, W. T. McCurry, J. McKay, T. B. McKee, F. McKibbin, R. C. McMillan, T. P. McQuaid, J. C. Robb, J. S. Savage, A. F. L. Shields, F. G. Smyth, J. K. Stewart, R. F. Walker, J. Warwick, J. C. Wilson, R. H. Wilson. *Anatomy* only: J. M. Smith, S. A. D. Montgomery. *Physiology* only: H. D. Greaves.
THIRD M.B.—*All Subjects*: S. Acheson, T. M. Adamson, W. W. Allison, S. R. Armstrong, W. W. Blair, J. McK. Ferguson, W. Gault, H. M. Jackson, W. S. Lynd, S. McComb, V. C. Montgomery, W. M. O'Farrell, S. E. Picken, J. H. Porter, R. S. Ross, H. A. Skillen, W. J. Smyth, Martha J. M. Stewart, W. Speedy. *Medical Jurisprudence and Hygiene*: J. E. Finlay, E. W. Mann, A. G. Mitchell. *Pathology* only: H. P. Hall. *Pathology, Medical Jurisprudence and Hygiene*: V. Magee.
FINAL M.B., B.CH., B.A.O.—J. L. Brown, F. Carson, P. A. Clearkin, T. D. Graham, W. Megaw, E. Morison, S. I. Turkington, D. V. S. Willis, J. A. L. Wilson, W. Wilson.
D.P.H. (*Both Parts*).—T. A. Adams, M.B., H. Black, M.B., E. H. Condy, M.B., J. McCloy, M.B., S. K. McKee, M.B.

THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

A COMITIA was held on Monday, April 1st, Sir Thomas Barlow, Bart., K.C.V.O., President, being in the chair.

President's Address.

The President, in delivering the annual address, referred to the Royal honours and distinctions which had been conferred on Fellows, Members, and Licentiates of the College during the past year. He mentioned the medals and scholarships which had been awarded, and gave a brief review of the lectures which had been delivered, referring especially to the Harveian oration by Dr. C. Theodore Williams. He considered the financial condition of the College, and detailed the bequests which had been given to the College. Among the important subjects which had occupied the attention of the comitia, he laid stress on the relation of the London University to the College, and on the discussions which had taken place in reference to the Insurance Act. He mentioned that Mr. F. G. Hallett had obtained permission to proceed to America in order to explain the system and organization of the examinations of the Royal Colleges to the medical authorities of that country. The President then read short obituary notices of Fellows of the College who had died during the past twelve months: Samuel Jones Gee, George Fielding Blandford, Frederick William Pavy, John Hughlings Jackson, William Richard Huggard, John Alfred Coutts, Sir Samuel Wilks, Edmond Fanriel Trevelyan, Cecil Yates Biss, and Sir William Henry Allchin.

Vote of Thanks to the President.

Sir William S. Church proposed a vote of thanks to the President for his address and for the manner in which he had conducted the work of the College during the past year; this was seconded by the Treasurer (Sir Dyce Duckworth) and carried by acclamation. Sir Thomas Barlow thanked the College and vacated the chair.

Re-election of President.

The election of President then took place, and Sir Thomas Barlow was re-elected by an almost unanimous vote. The Senior Censor (Dr. J. Mitchell Bruce) delivered to the President the insignia of office, and the President gave his faith to the College and thanked the Fellows for the honour they had done him by again electing him.

Communications.

The following communications were received:

1. From the Secretary of the Royal College of Surgeons, reporting proceedings of the Council of that College on February 1st and March 14th.

2. From the Royal Sanitary Institute, asking the College to appoint delegates to a congress at York on July 29th next. The invitation was accepted.

3. From the Committee of the International Congress of Hygiene and Demography, to be held at Washington in September next, asking the College to take part in the congress. The request was granted.

4. From the Secretary of the International Historical Congress, to be held in London next year, asking the College to nominate a representative on the General Committee of Organization. The Harveian Librarian (Dr. Norman Moore) was appointed.

5. From the President of the Royal Society, asking the College to nominate a representative who shall take part in the celebration of the 250th anniversary of the society to be held July 16th to 19th next. The President consented to represent the College.

6. From the Secretary of the Bicentary Festival of the Medical School, Trinity College, Dublin, asking the College to send two representatives to the festival to be held July 4th to 6th next. The nomination was postponed until the next Comitia.

Sir George H Savage was appointed a representative of the College on the Committee of Management of the Chelsea Physic Garden, in place of Sir William Allchin, deceased.

Reports.

A report dated March 19th, was received and adopted from the Committee of Management. The report recommended:

1. That the following institutions which had been visited by members of the Committee and reported as fulfilling the requirements of the Board, be added to the list of institutions recognized by the Examining Board in England for instruction in chemistry and physics:—Maidstone: Technical Institute. Cirencester: The Grammar School.

2. That the following universities be added to the list of foreign universities whose graduates are exempted from the first and second examinations of the Board under the conditions of paragraph IV Section III of the regulations: Tulane University of Louisiana; Howard University, Washington.

3. That the course of laboratory instruction in public health given at University College and the City Bacteriological Laboratory, Nottingham, be recognized for the diploma in public health.

Insurance Act.

A report from the Insurance Act Committee, appointed at the last Comitia was received and adopted. The report was as follows:

I. At the first meeting (February 7th), in response to a letter from a similar Committee of the College of Surgeons, it was resolved to send delegates to confer with delegates from the Committee of the College of Surgeons. A meeting of these delegates was held on February 13th, at which the discussion chiefly centered upon the advisability of conferring with other bodies.

II. At the second meeting of the Committee, held on February 20th, a letter from the Society of Apothecaries having been read which expressed their desire to meet the Royal Colleges in conference, it was resolved, subject to the approval of the College of Surgeons, to call a conference of the Committees of the College of Physicians, College of Surgeons, and Society of Apothecaries.

III. A conference of these three bodies was therefore held at the College on March 5th, at which 33 representatives attended, and it was decided to invite the Medical Faculties of the Universities of England and Wales to send each a representative to the next conference.

IV. A second conference was held at the College on March 21st, at which were present Representatives of the Medical Faculties of the Universities, of the College of Physicians, of the College of Surgeons, and of the Society of Apothecaries (40 in all); and the following resolutions were passed:

1. That it be recommended to the constituent bodies of this Conference that they sanction its formation as a Joint Committee for watching the interests of the medical profession in regard to the Insurance Act, and considering alternative methods of attaining the objects of the medical portion of the Act.
2. That an "Agenda Committee" be formed, to consist of ten members of the Conference, resident in London: the Presidents of the two Colleges, the Master of the Society of Apothecaries, and the Registrar of the College of Physicians (as Secretary), being *ex officio* members thereof, and the nomination of the remaining members being left in the hands of the two Presidents.
3. That a resolution in the following terms be sent to the public press:

That this Conference, in which are represented the Medical Faculties of the Universities of England and Wales, the Royal College of Physicians of London, the Royal College of Surgeons of England, and the Society of Apothecaries, recognizes that there is a remarkable unanimity of opinion within the medical profession as to the attitude which its members should adopt towards the working of the National Insurance Act of 1911.

This Conference desires to place on record its general approval of the principles which inspire that attitude, and while conscious that there is some difference of opinion with regard to details, expresses its willingness to support the demand that these principles should be recognized by those who are responsible for the administration of the Act before medical practitioners consent to work under it.

SOCIETY OF APOTHECARIES OF LONDON.

THE following candidates have been approved in the subjects indicated:

SURGERY.—†W. G. Fraser, *J. Leach, *P. McGinnis.
MEDICINE.—H. Cox, *J. Leach, †M. J. E. R. Le Dentu, †G. Meyer. R. A. Robinson.
FORENSIC MEDICINE.—W. G. Fraser, J. Leach.
MIDWIFERY.—W. G. Fraser, W. C. Himely, J. Leach.
* Section I. † Section II.

The diploma of the Society has been granted to Messrs. W. G. Fraser, J. Leach, M. J. E. R. Le Dentu, and G. Meyer.

Obituary.

RICHARD ARTHUR PRICHARD, M.R.C.S.ENG., L.R.C.P.EDIN., J.P.,

EX-PRESIDENT, NORTH WALES BRANCH, CONWAY.

ONE of the most prominent public men, and a well-known practitioner in North Wales, passed away on Monday, March 11th, in the person of Mr. Richard Arthur Prichard, Conway.

He was born sixty-eight years ago at Pwllheli, in South Carnarvonshire, and educated at the Bottwnog Grammar School. After serving an apprenticeship with Mr. Robert Roberts, of Portmadoc, an eminent surgeon in his day, he entered as a student at the Dublin School of Medicine, and qualified as M.R.C.S.Eng. and L.R.C.P.Edin. in 1867. Shortly afterwards he commenced practice at Conway, where he soon established a reputation as a successful practitioner, and became a prominent citizen of that ancient borough. He was one of the few surviving members of the old corporation of Conway under King Edward the First's Charter, and when the first reformed corporation was elected he headed the poll as Councillor. For several years he had been an Alderman, and six times held the office of Mayor and Constable of the Castle. In 1885 he was placed on the Commission of the Peace for Carnarvonshire, and was one of the oldest, most valued, and regular members of the Bench. Since its formation twenty-four years ago, Mr. Arthur Prichard had been a member of the Carnarvonshire County Council, and in 1909 he was elected Chairman of that body. Advantage was taken of this occasion to recognize his good work in the public service, and he was presented with a handsome motor car.

He held the appointments of Medical Officer to the Conway Union and Workhouse, Surgeon to the Police, Medical Referee under the Workmen's Compensation Act, and was at one time District Surgeon to the Carnarvonshire and Anglesey Infirmary. He took a keen interest in the Volunteer movement. For many years he held a commission in the 2nd (afterwards the 3rd) Volunteer Battalion of the Royal Welsh Fusiliers, and for the greater part of that time he acted as Mess President, a position which he filled with great credit and satisfaction. He retired with the rank of Surgeon-Colonel, and was given the Volunteer Officer's Decoration.

In the North Wales Branch of the British Medical Association he took a prominent part. At the time of his death he was the oldest member. In 1884 he filled the Presidential chair, and for many years had been a member of the Branch Council, where his sound judgement and business tact were invaluable. In the next annual meeting of the Association in Liverpool he had been appointed one of the vice-presidents of the Navy, Army, and Ambulance Section. In Freemasonry he was a Past Master of the St. Trillo Lodge, and a Past Principal of the Conovium Chapter, and had held high rank both in the Provincial Grand Lodge and Grand Chapter of North Wales.

He was a zealous Churchman, had served the office of churchwarden, and taken a deep interest in the restoration of the old parish church. In politics he was a staunch Conservative, and was the Chairman of the local Constitutional Club, but he never allowed politics to interfere with his work for the welfare of the borough and its inhabitants.

Mr. Arthur Prichard was a marked personality—a personality winning, attractive, and affectionate, full of good nature, sympathy, and kindness. His presence in the sick room was always welcome, and probably no man was ever more loved by his patients, rich and poor alike. His charity, always dispensed in a quiet unostentatious manner, knew no bounds. For over forty years he gave

of his best, and his death leaves a gap which will ever remain in the memory of the present generation.

He was laid to rest at St. Agnes's Cemetery, Conway, on March 15th, amid manifestations of general grief. The funeral was attended by representatives of all the public bodies, and it was with difficulty that the route to the parish church, where the first portion of the service was held, could be kept clear, so anxious were the inhabitants of the whole district to pay their last tribute of respect to their old doctor.

Mr. Arthur Prichard was a widower, his wife having predeceased him by a few years. Though he leaves no near relatives, yet he leaves a host of friends to mourn his loss, and his memory will ever be blessed by the poor of Conway, who have lost in him a true, sympathetic, and helpful friend.

THE LATE SIR WILLIAM ALLCHIN.—"R.A.M.C." writes from the other side of the world: Your recent obituary notice of Sir William Allchin contains a pleasing reference, by an old Westminster man, which I am sure many would endorse. Allchin emphatically hated second-hand methods of acquiring knowledge; he encouraged students to exercise observation and reason, and to let memory occupy a secondary place. He had a certain caustic but at the same time genial humour, and, although I do not believe he ever maliciously "sat on" a student in his life—for he was the kindest of men—he had a peculiarly expressive manner, which the present writer knows to his cost, of showing his appreciation of textbook erudition in the wards. That Allchin's principle was essentially sound no reasonable person can doubt, and if more widely followed it would go some way towards replacing an infinity of useless facts by a certain quantity of useful knowledge.

THE LATE DR. T. L. PENNELL.—At the request of members of University College, London, of which, as stated last week, Dr. Pennell was a distinguished student, a memorial service was held on March 28th at St. Pancras Church. University College was represented by the Provost (Dr. T. Gregory Foster) and the Secretary (Mr. Walter W. Seton); University College Hospital Medical School by the Dean (Mr. Raymond Johnson); the Church Missionary Society by the Rev. Cyril Bardsley; the Society for the Propagation of the Gospel by the Rev. Canon Robinson; and the University College Christian Association by the President (Mr. F. Rowan), and the Secretary (Mr. R. T. Elworthy).

Medico-Legal.

NOTIFICATION OF BIRTHS ACT.

THERE seems, as the magistrate at the Thames Police Court said when hearing a case brought by the Stepney Borough Council, to be some friction caused by the way in which the Notification of Births Act is administered in that borough. Dr. Harry Roberts, of Mile End, who was summoned for failing to notify the birth of a child on January 8th until February 23rd, pleaded that there had been remissness on the part of the public health department of the borough in supplying cards for notification. He pointed out that under the Act the council was bound to supply stamped cards. The magistrate, while, as we have noted, observing that friction had arisen, said that it was clear that the defendant's attention had been called to the matter and imposed a penalty of 7s. and 23s. costs, and added that he hoped the friction would now stop. The medical officer of health seems to have admitted that he had received 280 cards out of a total of 310 supplied to Dr. Roberts.

INFORMATION TO CORONERS.

DR. J. C. BHUTTACHARJI.—(1) A medical man, one of whose patients has died as the result not of a natural disease, but of an injury, has fulfilled his legal duty when he has either (*a*) refused to give a certificate, or (*b*) given a certificate making the primary cause of death perfectly clear. (2) When the case is one in which it is known that an inquest will have to be held, it is sometimes a convenience to all parties to send information to the coroner of the occurrence, but there is no statutory obligation to do so. (3) No one has a right to complain of the omission to send information not required by law to be supplied, and a coroner who desires to secure that the medical man in his district shall give such information is likely to defeat his object by public animadversions on the subject.

Public Health AND POOR LAW MEDICAL SERVICES.

SUPERANNUATION.

R. R. asks: (1) Whether he "can claim superannuation on his vaccination fees." (2) Being medical officer for a workhouse and a district, whether he can "claim superannuation for the former and retain the latter," the two appointments "going together," but with separate salaries.

* (1) Public vaccinators cannot claim superannuation under the Act of 1896. (2) As the two appointments in question are described as "going together," we much question whether our correspondent would be able to resign one and to claim superannuation thereon while still holding the other; even if this could be arranged, he would in the future be under the disadvantage of having to submit to his superannuation allowance being lessened by the amount of salary he might receive so long as he continued to hold any office under the guardians.

Medical News.

AT the meeting of the Medico-Legal Society to be held at 11, Chandos Street, W., on Tuesday, April 16th, at 8.30 p.m., Dr. F. J. Smith will read a paper on the law and practice of *post-mortem* examination.

AT a well-attended meeting of medical men of Wimbledon and district on March 29th it was decided, on the motion of Dr. Powell Evans, seconded by Dr. Cowie, to form a Division of the British Medical Association for the district, and Dr. E. A. Purcell, 44, Queen's Road, Wimbledon, was appointed Secretary *pro tem.*

ARGYLLS, LIMITED, inform us that they have received from San Julian, Patagonia, a letter stating that an Argyll car, standard colonial type, in use there is giving every satisfaction, being well suited to the trying conditions of the country.

DR. WILLIAM SLINGSBY MANN of Edgbaston was presented recently by a number of friends with a cheque, a bicycle, and an illuminated address testifying to their regret at his approaching departure from the town and to the esteem which he has gained during his forty-eight years' work therein. For many years Dr. Mann served as honorary secretary to the Midland Medical Society, and for upwards of twenty years was honorary surgeon to the Birmingham Lying-in Charity, to which he is now consulting surgeon.

AN interesting lecture on "The Ideal Garden City of the Future" was delivered by Dr. A. Herbert Hart at the Caxton Hall, Westminster, on March 28th in connexion with the third annual Simple Life and Healthy Food Conference and Exhibition. The ideal site for a garden city was, he said, London itself, but a transformed London, with a limited radius of twelve miles from Charing Cross, encircled by a wide road and a belt of forest land. This "national circumferential fringe or breathing space" would form the city lungs, and beyond it would be the garden city proper, the residential portion of London, the land within the twelve mile radius being reserved for factories, offices, etc., each constructed on sound hygienic principles. Without the garden city would be a chain of garden suburbs extending from Harrow to Eton, and gradually spreading throughout England. The lecturer declared that the only real antidote to the horrible evils of the slums, and the only real cure for the submerged tenth, lay in some such system of garden cities, where the poorest people could live a healthy outdoor life amid decent surroundings. The need for garden cities in all parts of England, he concluded, was all the more imperative inasmuch as they provided a means of checking infant mortality, the death-rate amongst the children in garden cities showing a drop of 10 per cent. as compared with the mortality in other places.

THE annual meeting of the National Hospital for the Paralysed and Epileptic (Albany Memorial), Queen Square, Bloomsbury, was held on March 29th at Devonshire House, Piccadilly. Sir Frederick Macmillan was in the chair, and amongst those present were the Duchess of Albany, the Duke of Devonshire, the Dean of Canterbury, Sir William Baillie-Hamilton, Dr. Buzzard, Dr. Turner, Dr. Ormerod, Mr. Reginald Lucas, and Mr. Arnold Royle. The Chairman presented the annual report, in which it was stated that 1,254 in-patients and 7,281 out-patients had been

treated at the hospital during the past year, whilst the total receipts amounted to £16,419, as against the £14,454 received in 1910. There still remained, however, a deficit of £1,266. An important addition had been made to the hospital during the last twelve months in the form of a complete equipment of the gymnasium and physical exercise ward, an improvement rendered possible by the Jubilee Fund. The adoption of the report was moved by the Dean of Canterbury, who commented upon the wonderful advance made in recent years with regard to the treatment of obscure nervous disorders, and deplored the fact that there were at present as many as 120 patients waiting for admission into the hospital, who, owing to lack of space, might have to wait a considerable period and so lose all chance of permanent improvement. Mrs. Archibald MacKirdy (Olive Christian Malvery), who seconded the motion, spoke of the blessing the hospital proved to people who had never known the meaning of the words peace and comfort, and said that such institutions helped to show the poor that their sufferings were really cared for by their more fortunate brethren. The report having been adopted, Lord Strathcona and Mount Royal was unanimously re-elected President, and Sir William Baillie-Hamilton, Mr. Reginald Lucas, and Mr. Arnold Royle were re-elected to the Board of Management. The Duke of Devonshire, in responding to a vote of thanks for the use of his house, remarked that the time was coming when much of the money now devoted to charitable purposes would be at the disposal of others than its owners, but he felt that the system of maintaining hospitals and charitable institutions by voluntary contributions was so deeply ingrained in the national character that the present generation, at any rate, would not allow it to fail. If the work was not done by voluntary contributions it would have to be done by the State: and without wishing to say anything to the discredit of the State, his hearers might take it from one who had sat in the House of Commons, and had had some experience of the Treasury, that work done by voluntary effort and private contribution was infinitely better done than by public money worked by public officials.

AT a meeting of the Eugenics Education Society at the Grafton Galleries, on March 21st, a discussion on "Nature and Nurture" was opened by Mr. E. J. Lidbetter. Mr. Lidbetter contended that efficiency was primarily a question of inheritance, and environment did not create, but merely developed and supplemented such qualities as already existed. Defective stock was constitutionally incapable of improvement, no matter what the opportunities given. So much was this the case that response to external influences must ultimately come to be regarded as the test of good stock. What was really needed for the moral and physical well-being of the race was the prevention of the constant intermingling of good and bad stock by marriage, whereby Nature's tendency to extinguish the latter was frustrated. Defects, far from being weeded out by the introduction of good blood, seemed to derive from it fresh strength to perpetuate: and a healthy and normal family might be vitiated by a single ill considered marriage with a member of an abnormal one. Speaking generally, it might be said that among the working classes no selective force was in operation; in the great majority of cases they drifted into marriage in the same way that they drifted through life. It might be sufficient to say that ordinary sanction to a marriage was a far more effective instrument than a public control of the right to marry would prove, and that if mothers and matchmakers could be persuaded that in marriage social status counted for a good deal, something might be done towards helping the right selection. Major Darwin, who presided over the meeting, remarked that there were many changes in environment intended to be beneficial which would not have the desired result, as, for instance, those which threw an extra weight upon the well-to-do for the support of the poorer classes. Nevertheless, there were some which all eugenists would like pushed forward with the utmost force, especially such as were intended to give a good start in life to the young, and which would in consequence prevent thousands of unfortunate and aimless marriages. The strict adherence to eugenic principles with regard to marriage, however, was strongly deprecated by a medical man who spoke. He pointed out that if a careful examination of the pedigree on either side became a necessary preliminary of marriage, that institution would speedily die a natural death. Disease was a natural inheritance from which mankind could never hope to be entirely free; but happily nature had a merciful way of eliminating the unfit, and they would do well to trust more fully to her time-honoured methods of preserving the efficiency of the human race.

Letters, Notes, and Answers.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, London, W.C.; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Office, 429, Strand, London, W.C.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London*. The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, London*.

TELEPHONE (National):—
2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

D. R. asks whether any ill effects, such as eye strain, nystagmus, or headache, have been traced to watching cinematographs.

MEDICO recovering from acute rheumatism would like to hear from others of the best watering place (inland or otherwise) to go to at the end of April or beginning of May.

H. A. P. asks for advice in the treatment of a patient, aged 64, who is troubled with an offensive sour smell from the scrotal region. It is noticeable only in winter, and appears to be aggravated by the heat of thick trousers and drawers. It does not develop in tropical climates. It is not modified by scrubbing with coal-tar soap and powdering with boric acid.

PRACTICE ON PASSENGER SHIPS.

M.D.—In principle there would seem nothing in the circumstance of life on board ship to differentiate medical work there performed from corresponding work on shore. On shore a medical man is legally entitled to treat any one who seeks his services, but ethically it is usually considered improper for a medical man who finds himself temporarily resident in a small community to undertake medical work except in consultation. The person officially responsible in medical respects for every one on board ship is the ship's medical officer. Hence if a passenger applies for treatment to a medical man who happens to be a passenger likewise, the right course would seem to be to decline to afford it except in consultation. Strict adherence to ordinary principles would seem all the more desirable because quarantine authorities would accept no statement as to the health or death of a passenger from any one but the ship's medical officer.

"DEAD FINGERS."

C. F. would be glad to hear of any suggestion for the treatment of the following case: A nursemaid, aged 23, robust and otherwise quite healthy, suffers from periodical attacks of vascular spasm in the fingers of each hand. The thumbs are not affected, and there is a distinct line of demarcation across the back of the hands where affected just above the knuckles. The fingers are affected in variable numbers—one, two, or three at a time. The attack comes on suddenly; the affected fingers become dead white, cold, and senseless, and feel heavy to her. It may last five minutes or two hours. On the return of the circulation a hyperaemic blush extends down the fingers, accompanied by a tingling sensation and sweating. She may get as many as five attacks in the day. She is more liable to it on cold days, but is not necessarily free in the summer. Also if she goes out insufficiently protected in a cold wind the front of her chest may become similarly affected.

AN EARLY CASE OF SYPHILITIC INFECTION.

MR. JAMES H. THOMSON, M.B. (Southport) writes: A married woman with five children, aged 34, was probably infected with syphilis last May. She did not seek any advice until the following November, when on examination she was found to have the following manifestations: Mucous patches inside mouth, ulcers of the fauces, a diffuse rash simulating erythema multiforme, iritis of right eye, enlarged lymphatics, husky voice, scanty hair falling out rapidly, pains in the bones, and well-marked tremor of hands. She was treated in the usual manner, and commenced to improve rapidly. She received the usual careful instructions as regards the infective character of the disease. On March 9th this year I was called in to see the youngest child, a female aged 2 years, and found a large primary syphilitic sore on the mucous side of the right labia majora. The superficial lymphatic glands

were also palpable universally throughout the body. Could the child have been infected by the mother when wiping it either after a bath or defaecation? The mother when questioned about her own infection said that a man who had been staying in the house during the early part of last year "had a large sore just below his knee." Further questions elicited the fact that the primary disease in the mother was also in the labia majora. From what could be gathered, although the man was not seen, he appeared to be in the tertiary stage at the time of infection.

ANSWERS.

Dr. E. T. Withington (St. Mary-Church, South Devon) writes: In reply to "G. B.," *Lycoperdon giganteum* was largely used as a styptic in the seventeenth century by Adrien Helvétius, a celebrated practitioner, who received 1,000 *louis d'or* from Louis XIV for his treatment of dysentery by ipecacuanha, and was grandfather of the French philosopher, Helvétius. He describes *Crepitus lupi*, as the great puff-ball was then called, as "the best of haemostatics," which stops bleeding *d'une manière surprenante* without the pain or scarring caused by other styptics. Many country people, including the writer, can testify to its value p.r.n. after shaving.

Prostatectomy.

Dr. Shepherd Boyd (Harrogate) writes in reply to "M. C.": I have recently passed through, on behalf of two patients, the anxiety "M. C." has expressed in his letter, and I can tell him that in six weeks after the prostatectomy the urine was normal and urination of normal frequency. There is not much pain after the operation. A patient of 70 walked about six weeks after operation, and under three months feels and looks better than he has for years. My advice in reply to the last question is Yes.

Flatulence and Shivering during Pregnancy.

Dr. J. Reginald Bentley (Limpsfield, Surrey, writes: If "X." will have a catheter specimen of the patient's urine examined bacteriologically he will probably find the *Bacillus coli* present. In two cases with the identical history I have found this condition, which was relieved by helmitol grains x in ʒvj of water three times a day after food, continued until term.

H. F. W. writes: In reply to "X.'s" query, his patient's flatulence would probably be greatly relieved by pulsatilla. A couple of drops of the tincture two or three times a day, discontinuing when decidedly better, resuming if symptoms recur.

Pater writes in reply to "X.": As the flatulence is clearly from imperfect digestion and fermentation I would advise the following powder to be taken three times a day with meals: Pepsinc pulv. grains v (of good quality), guaiacol carb. grains iv, pulv. aloes, Barb., grain ½, pulv. capsici grain ½; ft. pulv.

LETTERS, NOTES, ETC.

Dr. W. A. Berridge (Redhill) writes: I send an interesting memorandum written by the patient herself, who died on July 1st, within a week of her 81st year, of senile decay and heart failure. She had worn a tracheotomy tube for over fifty years. She always spoke most warmly of the kindness of her dressers—Mr. Owen and Dr. Hilton Fagge.

Mrs. Wilkins.—The end of Janv 1851 I went to see Dr. Cock of St. Thomas Street London from that time to the 30th of March I was under his treatment he then said I must go in the Hospitle at once as I required daily treatment as the back of the Throat was growing to the root of the Tongue blocking up all passages and would have to go under opperation or I should choak on the 1 of May 1861 I went to Guy's Hospitle and was taken in at once to Charity Ward on the 10th May 1861 Dr. Hilton opperated on me Mr. Owin being my dresser and Mr. Fagg being my dresser when Dr. Hilton devided my Throat the First time Mr. Owin and Mr. Hilton Fagg being my dressers the worst of my time not remmembering the others names I have been in Guys Hospitle sixteen times going under opperations three and four times each time—as after I had been away from the Hospitle a short time my Throat began to close I had then to go back at once and so I continued for sixteen times once a German Doctor came to examine the Throat he informed Dr. Hilton he would get a Passage large enough for me to swallow in course of time he allso said he was affraid I should never be able to live without the Tube in my Throat as I could not breath through my nose Mr. Montifeire visited the Hospitle opperation day's, and took much Interest in the case The Doctors were Dr. Cock, Dr. Hilton, Dr. Berket, Dr. Cooper Foster, Dr. Powland, Dr. Durram, Dr. Stocker, Dr. Steele and many others.

A Locumtenent.

Dr. A. G. Bateman (General Secretary of the Medical Defence Union, 4, Trafalgar Square, W.C.) writes: Should any of your readers who may advertise for a locumtenent in the Journal receive an application from a Dr. Covey, may I be allowed to advise them before accepting such application to communicate with me?

Private Nurses and National Insurance.

Mr. P. Hamilton Robertson, M.B., Honorary Secretary, Scottish Nurses' Association 5, Kelvin Drive, Glasgow, W., writes: Considerable doubt and anxiety seems to exist in the minds of many private nurses as to whether or not private nurses must insure under the National Insurance Act. On behalf of the Scottish Nurses' Branch of the Women's Friendly Society, the Commissioners have been specifically asked, "Must nurses working on own account insure?" The Commissioners have replied: "Generally speaking, nurses working on own account will be liable to be compulsorily insured unless the rate of their remuneration exceeds £160 a year." It therefore seems clear that under ordinary circumstances all nurses must insure.

Lavatory Users.

M.D.Durh.—"Sanitas sanitatum, omnia sanitas" is my excuse for venturing on a letter which may seem uncalled for: it is not. In all public lavatories as well as semi-public ones—for example, clubs, and in private houses—users should, "immediately" they are relieved, pull the chain or draw up the handle, and "afterwards" attend to toilet. By so doing effluvium will be much diminished not only for the user of the lavatory, but, what is of a nice importance, to the successor and the house generally. Such advice should not come amiss from a doctor, and your thousands of readers could by giving this hint do much.

Boric Acid.

Dr. D. E. Anderson (Highgate, N.) writes: In the issue of the British Medical Journal of March 16th, p. 605, your correspondent gives an account of two cases of poisoning by boric acid when given as an enema. But my personal experience is just the reverse. During a serious attack of typhoid fever twenty-seven years ago in Paris I was given drachm doses of powdered boric acid twice and thrice a day in mulberry syrup and water, with no bad effect, excepting an annoying rasping sensation at the epigastrium, and vomiting for hours after. There was no erythema or any symptoms or physical signs of poisoning. Salol was at that time not in vogue, and boric acid was given as an antiseptic and germicide, evidently with good results, for although the second and third weeks of the fever were bad, the temperature and diarrhoea disappeared at the commencement of the fourth week. I have not heard of any other typhoid fever patient treated in this way with boric acid, and have myself never prescribed it for that fever, but I have seen fishes live in boric acid baths.

"A Good Thing for Saturday."

J. L., who resides in a county town, writes: *Re* the letter of "G.C.S.," entitled "A Good Thing for Saturday," I recognize an old acquaintance. He is a well-set-up person and drove here in a motor "from Epsom." He told me that he had a son who was suffering from pulmonary disease, and that he knew I had written about early signs at the apices. I thought he might have gone to London, but when he squeezed out a tear and spoke in a voice broken with emotion, what could I do but promise to see him the next day at 2.30 p.m.? Half choking with emotion he said, "Spare no expense—take him into a home near you," etc. As he left he said he was going to a Newmarket "meeting" where he always met his old friends. He added a question, "Do you ever back a horse?" I said I did not know the head from the tail at a certain distance, and he left. He called to my knowledge on two of my *confrères*. He wanted to consult the first about a sick wife, and the other about a sick daughter, as he had heard they were "specializing." In answer to the question, "Do you ever back a horse?" one replied, "I do a bit sometimes." The gentleman said "If you will give me £5 I will put it on 'X.Y.Z.,' and bring you the money when I bring my wife." He is a person of very gentlemanly appearance. Not many medical men would be taken in *re* the betting, but about the appointment they might. Hence this letter.

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A Clinical Lecture

ON

THE PRECISE RELATIONSHIP OF CYSTOCELE, PROLAPSE AND RECTOCELE,

AND THE OPERATIONS FOR THEIR RELIEF.

Delivered in the Post-graduate Course at the Manchester Royal Infirmary.

By W. E. FOTHERGILL, M.A., B.Sc., M.D.,

Honorary Assistant Gynaecological Surgeon to the Infirmary and St. Mary's Hospitals; Clinical Lecturer in Gynaecology, University of Manchester.

There is a tendency to use the words *prolapse*, *cystocele*, and *rectocele* rather loosely and without due respect for the writings of the classical gynaecologists. But "falling of the womb" is so common and causes so much suffering which can be remedied that clear ideas on the subject are most desirable. The treatment, if it is to be successful, must be suited to the needs of each case, and this can only be done after nice determination of the lesions present. Plastic operations on the vaginal walls and perineum were done on 66 patients out of 264 who were treated in the gynaecological wards of the Manchester Royal Infirmary during the year 1911, and this proportion of one in four was almost the same in previous years. At St. Mary's Hospital 238 patients had vaginal operations for the conditions under consideration during 1911, the total number of patients for the year being 1,137. These figures clearly show the importance of work of this kind.

Cystocele.

In cystocele the base of the bladder, the urethra, and the anterior wall of the vagina bulge through the vaginal orifice and form a rounded swelling of which the patient is unpleasantly conscious. The vaginal orifice is always wide, either because the perineum has been torn or because the cystocele has pressed upon and stretched it. In cases of pure cystocele the uterus remains anteverted and near its ordinary level in the pelvis, even when the patient bears down. The pathological condition which renders cystocele possible is relaxation of the connective tissue which intervenes between the bladder and vagina and the upper surface of the pelvic diaphragm, the tissues which support the uterus remaining uninjured.

Prolapse.

In cases of classical *prolapsus uteri*, cystocele is invariably present; but, in addition to this, the uterus is retroverted, and, when the patient bears down, it descends in the pelvis axis, together with the bladder and anterior vaginal wall. This can be observed in any case of early prolapse, for, on inspection of the external genitals, the egg-like cystocele appears as soon as the patient strains. If the tip of a finger be placed behind the cervix, and the patient is then requested to strain, the uterus is felt to become retroverted (if it is not so already), and to move downwards as she bears down, the cervix approaching the vaginal outlet. In an advanced case the cervix emerges, followed by the posterior vaginal wall; but the anterior vaginal wall (cystocele) always comes first, the cervix next, and the posterior vaginal wall last. The pathological condition which allows prolapse to occur is relaxation of the connective tissue which intervenes between the uterus and the upper surface of the pelvic diaphragm, together with relaxation of the connective tissue which holds in position the bladder and vagina. If the connective tissue round the bladder and vagina remains normal, relaxation of the uterine supporting tissue allows only retroversion to occur—not prolapse, for this demands looseness of vagina and bladder as well as of the uterus. To put this in another way, every case of classical prolapse is characterized by both cystocele and retroversion. Cystocele is one thing, retroversion is another. Either may occur alone, but if the two occur together they constitute classical prolapse.

Attention must be called to hypertrophy of the cervix as a complication of the conditions under consideration. In a simple case of hypertrophy of the vaginal cervix without cystocele or prolapse, the diagnosis is easy and the treatment simple—namely, free amputation of the cervix. A loose and elongated uterus often becomes retroverted, descends in the pelvic axis, and inverts the upper part of the vagina. This condition, also, is easily distinguished from classical prolapse by the persistence of the anterior fornix—in other words, by the absence of cystocele. But, when overgrowth of the cervix complicates one of the other conditions, it is not always easy to recognize the true nature of the case. Needless to say, if the cervix requires amputation, this should be done before and in addition to the operations described below, the uterus being curetted as a preliminary.

Rectocele.

Rectocele is an entirely distinct and separate condition, in which the anterior rectal wall bulges through the vaginal orifice covered by the posterior vaginal wall. It may occur by itself; together with cystocele (but without prolapse), and together with classical prolapse. It is recognized clinically by passing a finger through the anal canal and observing that its tip emerges at the vaginal outlet covered by rectal wall and vaginal wall. The pathology of rectocele is very interesting. The condition never occurs unless the perineum has been torn. In every case the anterior rectal wall is more or less abnormally adherent to the posterior vaginal wall. In other words, the recto-vaginal septum in rectocele is two layers of tissue united together and moving as one, while normally the recto-vaginal septum is two layers united by very loose connective tissue and sliding very freely and easily upon one another. The unduly firm union of the anterior rectal and the posterior vaginal walls in rectocele is caused by the remains of old inflammatory action. There is scar tissue instead of loose connective tissue between the layers of the recto-vaginal septum. The sequence of events is perineal tear at a confinement, infection of the torn surfaces, and then cellulitis in the adjacent connective tissue between the rectal and vaginal walls. The torn perineum heals by granulation, the cellulitis subsides and leaves the anterior rectal wall firmly adherent to the posterior vaginal wall. When this has occurred, constipation and straining at stool produce rectocele. When the recto-vaginal septum is not thus altered by old inflammation, constipation and straining do not produce rectocele. This is simply stated as the result of observation, and, like other rules, it may have its exceptions, but the writer has not seen one.

Treatment.

In order that the operative treatment of these conditions may be successful certain general rules must be observed. During the four or five months after a confinement the parts bleed freely, and are too soft to hold stitches well. Operations should be postponed until the tissues are firm and free from *post-partum* hyperaemia. During the period of waiting the use of pessaries is allowable. If the vagina is in a septic condition, or is ulcerated, a healthy state should be secured before operation by the use of mild antiseptic douches, light vaginal packing, and, if necessary, by rest in bed. The date of operation should be chosen so that menstruation will not occur until healing is fairly well advanced. For the menstrual discharge dilutes the lactic acid containing vaginal secretion, and so favours septic infection. Douching the vagina after plastic operations should be avoided, as a rule, for the same reason, and also because it irritates the tissues. But if, after an operation, the vagina is found to be infected, mild antiseptic douches should be used.

It is not necessary to use silkworm gut or silk sutures within the vagina, and, if these are used, their removal is both troublesome to the surgeon and painful to the patient. Catgut answers every purpose. If fairly thick, plain catgut, sterilized with iodine or otherwise, lasts long enough. If thin, the catgut should be chromicized or hardened with formalin. Silkworm gut may be used for stitches tied on the perineal surface.

The first measure in operating for cystocele is anterior colporrhaphy. Any incision will do, but the anterior vaginal wall must be cut through. It is not sufficient to strip off the vaginal mucous membrane: the whole thickness of the vaginal wall must be freely separated from the bladder wall. The unnecessary portion of the vaginal wall is then clipped away, and the incision is closed from side to side, so as to leave the line of suture running from near the urethral aperture to the

junction of the vagina with the cervix. Some surgeons close the incision transversely, and leave the line of suture running across the vaginal wall. But this pulls down the cervix into a position not far above the urethral orifice, and so shortens the anterior vaginal wall. This pulls down and retroverts the uterus, and leaves it lying in the axis of the pelvis started on a career of prolapse. This is the way to make sure of recurrence of the trouble. After the operation, the anterior vaginal wall should be long, and the cervix should be far back, near the hollow of the sacrum, the fundus being well forward.

When the bladder and vagina have once been loose surgery cannot make them as firm as they should be. Therefore, after the anterior colporrhaphy has been done, the perineum should be carefully repaired. For a loose bladder and vagina will descend more easily through a wide vaginal outlet than through a narrow one. Any good method of doing perineorrhaphy may be used; but the lower part of the vagina should be narrowed to admit only one finger, and a bulky perineal body should be built up.

The operations for classical prolapse are the same as those for cystocele, with the exception that the anterior colporrhaphy should be more extensive. For the uterus is loose as well as the bladder and vagina, and it is always retroverted and low down in the pelvis. The operation must be done in such a way as to carry the cervix backward into the hollow of the sacrum, and so maintain the uterus in a position of anteversion. If this can be secured the operation succeeds, and there is no recurrence. It is to be managed by bringing together, in front of the cervix, the tissues which before operation lay at the sides of the cervix. In other words the colporrhaphy wound must be broad at the upper or cervical part, the anterior fornix being, so to speak, excised. The easiest way to do this is to pick up two points, about 3 in. apart, one on either side of the cervix; put the tissues on the stretch, and cut between the points picked up right across the anterior fornix in front of the cervix. The vaginal wall is then separated from the bladder and urethra and a triangular portion of it is cut away. After the wound has been closed from side to side the cervix will be high up and far back, and the uterus will be found to be anteverted.

A loose uterus will come down a wide, straight vagina more easily than it will descend a narrow and curved passage. The perineum should, therefore, be carefully repaired as before. In operating for cystocele and prolapse it is not necessary to narrow the upper portion of the posterior vaginal wall. Indeed, by doing so, the cervix, thrown back by the anterior colporrhaphy, is pushed forward again by posterior colporrhaphy. This favours retroversion and recurrence, for the uterus does not prolapse if it remains anteverted.

In rectocele, however, the posterior wall is stretched, thinned, and adherent to the anterior wall of the rectum. To cure the condition the vaginal wall must be separated from the rectal wall, and its redundant portion must be excised. The perineum must also be repaired. Thus rectocele demands posterior colporrhaphy and perineorrhaphy, or colpo-perineorrhaphy, as the combined operation may be termed. This is best done as described by Donald. Beginning about an inch below the cervix, the posterior vaginal wall is incised by a Λ-shaped cut, and a triangle of it is dissected downwards. This part of the wound is stitched from side to side, and the lateral incisions are continued downwards and outwards for another stage. More of the vaginal wall is next separated from the rectum, and the second stage of the wound is sutured. A third stage frees the posterior vaginal wall down to the margin of the perineum, where it is cut away. The perineal body is then formed with buried catgut stitches, and the surface of the perineum is closed with silkworm gut.

It may be asked whether these operations give a satisfactory permanent result in cases of complete prolapse. The reply is that in some cases they have stood the strain of subsequent pregnancy and parturition. In other cases the operations for prolapse have had to be repeated after subsequent parturition. Apart from this extreme test, the results are uniformly good. It must be admitted, however, that these plastic vaginal operations are difficult, and that they seem to demand more judgement and experience than any other gynaecological work. This is illustrated by the personal experience of the writer, who used to find it necessary to supplement vaginal operations by ventrifixation in certain cases of prolapse. These became fewer and fewer as the upper part of the anterior colporrhaphy wound was made wider and wider; and during the last five or six years the writer has not done a single ventrifixation for prolapse.

A CLINICAL LECTURE ON GASTRO-ENTEROSTOMY.

By J. CRAWFORD RENTON, M.D.,

SURGEON AND LECTURER ON CLINICAL SURGERY, WESTERN INFIRMARY, GLASGOW.

DURING the last three months several cases of gastro-enterostomy have been operated on. The operation is performed for:

1. Dilated stomachs, due to chronic dyspepsia.
2. Stenosis of the pylorus, due to ulceration and contraction.
3. Ulceration of the stomach with haemorrhage.
4. In cases of ruptured gastric ulcer at the pylorus.
5. In cases where an ulcer has been cut out, the operation is of great value.
6. In hour-glass contraction of the stomach, due to an ulcer contracting in the middle of the stomach. In such cases a double gastro-enterostomy is necessary, or a gastro-gastrostomy.
7. Atonic conditions of the stomach in which all medical treatment seems to be of no avail. Of these cases I shall have something more to say later.
8. Duodenal ulcer with haemorrhage.
9. Malignant disease of the pylorus and stomach, either with or without gastrectomy.

All the cases operated on have been submitted to the ordinary tests:

1. Examination of the abdomen, which frequently shows more or less splashing, suggestive of dilatation of the stomach, which is confirmed by blowing it up.

2. Examination by means of a test breakfast, which consists of tea with milk and bread-and-butter. The stomach being gently relieved of this two hours after the patient has partaken of it, and the stomach contents examined chemically, you may find excessive acidity and fermentation, which frequently occurs in dilated stomachs: or an absence of acid may be found, showing itself in cases of malignancy. These cases are frequently accompanied by a sulphuretted hydrogen odour.

3. To determine pyloric stenosis the raisin test is a very good one. Two tablespoonfuls of raisins are mixed with bread and milk, and five hours after the patient has partaken of this the stomach is washed out. If the raisins are returned you may be quite certain that you have either got a stenosed pylorus or a dilated stomach with great lack of power to deal with, or the stomach is so feeble in nerve tone that it is unable to empty its contents.

The operation we generally perform here is the posterior gastro-enterostomy recommended by Professor Mayo Robson, which has given us excellent results. The patients are kept in the Fowler position for a fortnight; this is mechanically more satisfactory than any other and tends to diminish sickness after chloroform or ether. During the last three years we have invariably closed the pylorus, where necessary, by a purse-string suture, and there has been no trouble with recurrent bilious vomiting. Feeding is commenced eight hours after operation, and is gradually increased from day to day.

It is essential to keep in mind that the stomachs we are dealing with are weakened by disease, and therefore all foods should be carefully prepared, being given in moderate quantity until the digestion is stronger. Lactate of pepsine and sodium bicarbonate, equal parts after food, I have used with great benefit for four years.

Results.

Looking over the last 81 cases which we have done, 13 were for ruptured gastric ulcer. One of these died; the other 12 have been quite successful. The operation was done in 60 cases for pyloric stenosis, gastric ulcers with haemorrhage, and duodenal ulcers with haemorrhage. Out of the 60, 2 died, 1 from pneumonia, the other from exhaustion.

Cases of partial obstruction of the pylorus frequently

suffer from attacks of complete obstruction with vomiting and during the interval the patient feels quite well. You must therefore keep in mind that the raisin test to which I have referred does not give information regarding partial stenosis of the pylorus unless used during an attack, but the fact that you have recurrent attacks ought to make you recommend a gastro-enterostomy. Keep in mind that tetany or a slight epileptic attack occurs in some cases, and in these an operation is essential.

In the 8 remaining cases, 3 were for malignant disease, 2 partial gastrectomies with gastro-enterostomy, the third a simple gastro-enterostomy. One of the gastrectomies, done three years ago, is still quite well; the other one died at the end of four months from secondary growths all over the inside of the abdomen, with ascites; the third case lived for six months.

The atonic cases, 4 in number, were the most disappointing. Perseverance in careful dieting and other treatment generally, however, gives a satisfactory result.

The only case unaccounted for in our last list of 81 is of great interest. Ten years ago I operated for a ruptured gastric ulcer in the body of the stomach, from which the patient recovered. She was sent back to hospital with severe haemorrhage, from which I feared she would die, but, aided by adrenalin and normal horse serum, she recovered sufficiently to enable me to perform a gastro-gastrostomy. I could not in this case do a double gastro-enterostomy. She continues to be quite well, eighteen months after the operation.

You will thus see that the percentage of deaths is not large, being 5 per cent. in the 81 cases.

Looking at all the facts now before us I feel satisfied that you may recommend gastro-enterostomy as a safe and satisfactory operation. I think there is a tendency to persevere too long with medical treatment, and you would do well to recommend earlier operation, more especially in cases of malignancy.

RETROVERSION OF THE UTERUS TREATED BY GILLIAM'S ROUND LIGAMENT VENTRISUSPENSION.

WITH AN ANALYSIS OF 100 CONSECUTIVE CASES.*

BY

FRANCES IVENS, M.B., M.S.LOND.,

HONORARY MEDICAL OFFICER FOR THE DISEASES OF WOMEN, LIVERPOOL STANLEY HOSPITAL.

FOR many reasons pessary treatment of retroversion of the uterus is undesirable, and, unless it is likely to be curative, as in cases discovered shortly after labour or abortion, or when there is a probability that pregnancy may take place and result in a permanent cure of the condition, operative measures are more satisfactory if they can be safely undertaken. That treatment is necessary in cases complicated by disease of the appendages, adhesions, or tumours of the uterus there is little doubt. There is, however, some diversity of opinion as to the necessity for treatment in simple cases, especially those occurring in young unmarried women.

It is frequently stated that retroversion not uncommonly exists as a congenital condition without giving rise to symptoms, and that when such are present they are due either to the neurosis of the patient or to some other local condition. To a certain extent this may be true, but I am inclined to think that such cases are rather infrequent and that retroversion in the majority of instances will in time cause symptoms. I formed this opinion when assistant in the out-patient department of the New Hospital for Women, where the cases were not uniformly gynaecological or specially selected, and further experience has certainly confirmed it. The constant association of retroversion with chronic leucorrhoea and enlarged painful ovaries, so often found in neglected cases, cannot always be pure coincidence, any more than the rapid recovery from obscure attacks of flatulence and vomiting after the reposition of a retroverted uterus in women who have been regarded for years as the victims of neurosis.

The routine examination of young women engaged in factory labour entailing a good deal of standing and lifting shows that the presence of a simple retroversion is often a severe handicap, dysmenorrhoea periodically disabling the patient and destroying all chance of permanent employment. In such cases I have tried a preliminary dilatation and curetting with no effect, until the displacement has also been corrected.

E. C., aged 25, single, a factory hand, was sent into the Stanley Hospital in March, 1909. Menstruation, normal at the start, had become increasingly painful and was accompanied by clots. Backache, leucorrhoea, and constipation supervened. The patient was frequently obliged to ask for leave of absence, and loss of employment threatened. Dilatation and curetting gave no relief. The uterus was therefore suspended by the round ligaments. The patient shortly afterwards resumed work, and has since been in constant employment. In July, 1911, she said her health was excellent.

In young subjects simple retroversion seems often to cause marked hypertrophy of the endometrium, with profuse menorrhagia.

Miss C., aged 23, from the onset of menstruation had suffered from severe menorrhagia and leucorrhoea. Treatment directed to her general health from the age of 14 had made no difference. After curetting in 1909 there was slight improvement, but menorrhagia soon returned worse than before. A year later, after a second curetting, when masses of polypoid endometrium were removed, the uterus was suspended. The patient is now strong and well and able to lead an active open-air life.

In neglected cases, where chronic inflammatory trouble has extended to the adnexa, there is already a well-marked history of pelvic pain, and one or both ovaries will be found prolapsed, enlarged, and cystic.

Miss H., aged 28, had suffered from gradually increasing pelvic pain, leucorrhoea, and menorrhagia. The retroverted uterus was congested, and the prolapsed left ovary contained several large cysts. Dilatation and curetting, followed by ventrisuspension and removal of the affected ovary, resulted in complete recovery.

Where congenital cases are left untreated there is no guarantee that the uterus will right itself should pregnancy take place, though this sometimes occurs. In others abortion takes place, though it is clear from the frequent association of retroversion with sterility in married women that the one is the cause of the other, while pregnancy frequently occurs shortly after reposition.

Among the many varieties of operative measures devised for the treatment of this condition, none in ease, safety, and good after-results can compare with the round ligament ventrisuspension method of Gilliam, which I was fortunate in seeing performed by Dr. Howard Kelly for the first time in this country in the summer of 1905. While the round ligament is advantageously utilized as in Alexander's method, the operation is of wider application, and is not followed by the tendency to relapse of a Kelly's ventrisuspension, nor the dangers of a ventral fixation. With the object of ascertaining if there were any unsuspected evil effects either immediate or remote, I have investigated the after-results and analysed 100 consecutive cases in which I have myself performed a modified Gilliam's operation, in all of which retroversion, either alone or accompanied by some other pelvic lesion, was present.

GILLIAM'S OPERATION.

A small median subumbilical incision permitting investigation and treatment of the adnexa is made, and the round ligaments identified. A sharp Spencer Wells forceps thrust through the sheath of the rectus muscle and peritoneum grasps the round ligament about 1½ in. from the uterus, and withdraws a loop, which is sutured by catgut to the sheath of the rectus. I have latterly adopted the modification introduced by Mayo,[1] of drawing the round ligament through an aperture in the peritoneum close to the internal ring. In this way no slit-like artificial aperture is left in the peritoneal cavity. I have not done a sufficient number of cases to determine whether this modification presents any disadvantages.

I do not sew the round ligaments together, and I make the bilateral aperture in the peritoneum as small as possible, so that it is filled by the doubled round ligament, and the possibility of hernia avoided.

Gilliam's operation is practically extraperitoneal, and almost as safe as the Alexander operation. No sutures are left either in the peritoneal cavity or in the uterus. Should suppuration occur, either from deficient asepsis or necrosis

* Read before the North of England Obstetrical and Gynaecological Society.

of the ligament, it will be immediately under the skin and quite outside the peritoneal cavity, a point of some importance in an operation performed for the relief of symptoms and for a condition not likely to endanger life.

As the operation takes only a few minutes, it can usually be performed without much additional risk, after other pathological conditions have been remedied, if a retroversion is also present. If uterine prolapse is also a marked feature, Gilliam's operation presents a decided advantage over the ventrisuspension method. The muscular fibres of the round ligament hypertrophy in response to repeated stimuli from the weight of the uterus and the contractions of the recti, so that what was a delicate band becomes a strong muscular support instead of a stretched peritoneal adhesion. This was strikingly displayed in a case in which hysterectomy was done a year after a Gilliam's operation. The right round ligament had given way and was normal in appearance, but the uterus was held forward by the left, which was hypertrophied to at least four times the size of the other ligament.

Analysis of Cases

The cases on which I report were operated upon between May, 1907, and October, 1911, and can be grouped into four classes. Fourteen had been previously curetted at periods varying from five years to two months. Two had had posterior section. In one ventral suspension had been performed.

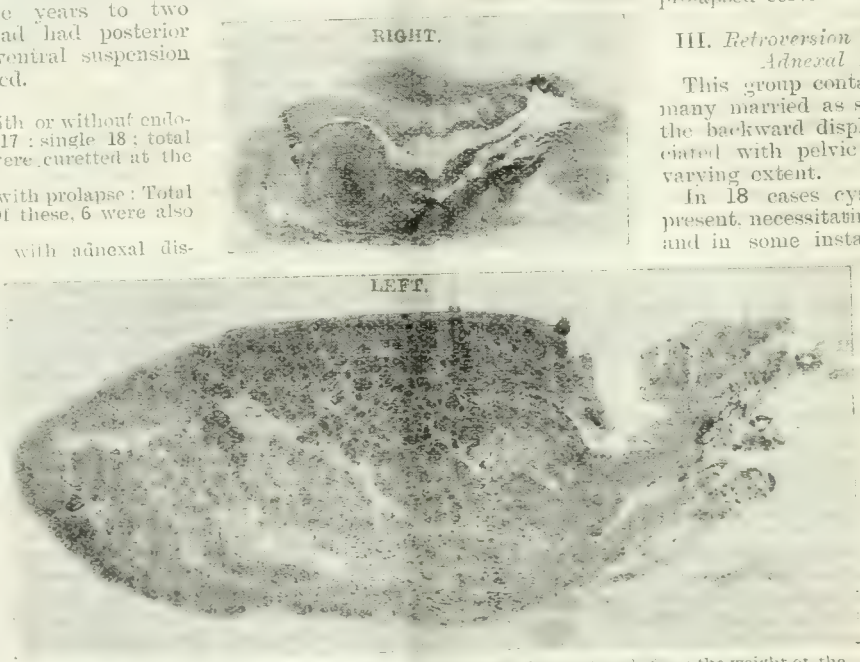
I. Retroversion with or without endometritis: Married 17; single 18; total 35. Of these, 20 were curetted at the same time.

II. Retroversion with prolapse: Total 11 (all married). Of these, 6 were also curetted.

III. Retroversion with adnexal disease: Married 41; single 9; total 50. Of these, 15 were also curetted.

IV. Retroversion with uterine fibroids: Married 1; single 3; total 4. Three of these were curetted.

There was no mortality, and an after-history has been obtained in 93 cases. In the greater number the local condition has been ascertained by pelvic examination, especially in those cases in which labour or abortion has since occurred. I am indebted to Dr. Mildred Powell for considerable assistance in these inquiries. In 93 per cent. primary union occurred, while in 6 cases slight suppuration took place round one or both catgut sutures about the end of the first week, and ceased on their removal. In one of the earliest cases there was acute suppuration in the wound, due probably to an unnoticed eczema of the umbilicus. It finally healed well, and no hernia has resulted. The patients have got up on the ninth or tenth day in the majority of cases, and no incisional hernia has been seen.



Photograph showing hypertrophied left round ligament, due to stimuli from the weight of the uterus and the contractions of the recti, after Gilliam's operation. The right ligament is normal.

I. *Simple Retroversion.*

The after-history has been ascertained in 32 out of 35 cases. The result, both as regards relief to symptoms and the local condition, is perfectly satisfactory.

Two patients have since borne children with normal pregnancy, labour, and puerperium, and the uterus in both cases is still in good position.

Four are at present pregnant—one after five years' sterility subsequent to a miscarriage, another after three, and a third after three and a half years' sterility.

Of the 18 single patients the average age was 24.7 years. Thirteen engaged in factory labour, domestic service, or nursing sought treatment as the severity of their symptoms necessitated frequent absences from work. All but one were enabled to resume their occupations satisfactorily: in the exception acute mania developed just as the patient was about to leave the hospital.

In one patient, although the uterus remained in good position, severe dysmenorrhœa, leucorrhœa, and menorrhagia persisted in spite of repeated curettings, and after consultation with Dr. Briggs hysterectomy was performed. A condition of extreme glandular hypertrophy was found.

II. *Retroversion with Prolapse.*

All 11 cases were married women, with an average of 1.5 children and 1.5 abortions. In all the symptoms dated back to a confinement or abortion. Colpoperineorrhaphy was done at the same time for the vaginal prolapse in all but one case, where the cardiac condition negatived further anæsthesia.

The uterus is in good position in all, and in two only (the subjects of chronic bronchitis) has it been necessary for a ring pessary to be worn for slight vaginal prolapse.

It would appear that in cases of uterine prolapse the round ligament ventrisuspension is an important adjunct to colpo-perineorrhaphy, for though it can have but little effect on the vaginal prolapse, it effectually keeps the uterus high and anteverted, so that one of the worst features of procidentia—namely, the ulceration of the prolapsed cervix—is removed.

III. *Retroversion Associated with Adnexal Disease.*

This group contains four times as many married as single women, and the backward displacement is associated with pelvic inflammation of varying extent.

In 18 cases cystic ovaries were present, necessitating removal of one and in some instances resection of the other. In one patient, in whom an inflamed adherent cystic ovary containing the corpus luteum was removed during early pregnancy (two months), abortion took place on the fifth day, although there was no rise of temperature or any malaise. In 23 cases chronic salpingo-oöphoritis was present, usually gonorrhœal in origin. In these the after-history has been least favourable, although the uterus has maintained its position. Further inflammatory trouble has occurred in 11 cases, and in 4 second operations have been undertaken on this account, 2 requiring total hysterectomy. It is noteworthy, however, that in 2 cases in which resection of the second ovary was done pregnancy has since taken place.

In 3 cases unruptured tubal pregnancy was present, and in 2 others haemorrhagic salpingitis. In one elderly patient a large semicystic ovarian fibroid, reaching to the umbilicus, had forced the uterus downwards and backwards until it was nearly outside the vulva. In 6 cases the appendix had also to be removed. One contained a number of threadworms. A year later this patient was admitted to a surgical ward as a case of acute appendicitis, the symptoms being doubtless due to the presence of intestinal threadworms.

The after-history was obtained in 46 of the 50 cases. With 1 exception the uterus is in good position:

In this patient, a young unmarried woman, a condition of chronic pelvic peritonitis was present. The fragile round ligaments adhered to the bladder, which was glued to the fundus uteri. The ligaments did not come up well, and it was impossible, even after separation, to get a satisfactory loop, and the uterus fell back. A year later the patient came under observation with acute appendicitis. At the second operation it could

be seen that the fragile attenuated ligaments had given way, and a second attempt to bring them up was unsuccessful. This was clearly a quite unsuitable case for Gilliam's operation.

Of the 46 cases, 7 have passed successfully through labour, 4 are pregnant, 3 have had abortions.

IV. *Retroversion with Uterine Fibroids.*

This small class contains only four cases. Three were single, one a married woman. In all myomectomy was performed, and the results have been good in all but one, where menorrhagia persisted, necessitating hysterectomy six months later. A sessile submucous fibroid growing from the fundus was found. In this case also the round ligaments were very much hypertrophied.

CONCLUSIONS.

From a study of this series I conclude:

1. That Gilliam's operation is uniformly successful in suitable cases—that is, when the round ligaments are not too attenuated.

2. That done under good conditions there is little risk beyond that of the anæsthetic.

3. That, as it causes no dystocia, it is strongly indicated in young women.

4. That there is no tendency to relapse after labour or abortion.

5. That, owing to the hypertrophy of the round ligaments, the operation is a valuable adjunct to a perineorrhaphy in cases of uterine and vaginal prolapse.

[illegible] Cases of Mayo [illegible] Operation for Shortening the Round Ligaments [illegible] vol. clxi, p. 322.

TWIN MONSTERS WITH ACUTE HYDRAMNIOS.

By A. E. TURNBULL, M.B., Ch.B.Edin.,

[illegible] GYNÆCOLOGIST, ROYAL EDINBURGH INFIRMARY.

THE following case is of interest on account of the difficulties it presented in diagnosis, and because of the comparative rarity of acute hydramnios.

Mrs. W., aged 26, nullipara, was first seen by me on March 31st, 1910, when she complained of great pain and swelling in her abdomen. She gave the following history: Menstruation had been regular until the end of September, 1909; it then ceased, and she believed herself to be pregnant. She kept very well until about March 10th, 1910, when she began to have pain in both hypochondriac regions if she was sitting for any length of time; she felt all right, however, when walking about or lying down. On March 18th, while carrying a pail of water on a ploughed field, she slipped and fell forward on to her face; on March 20th the pain in the hypochondriac regions began to be severe, especially on the left side. These attacks lasted about a quarter of an hour, and came on at frequent intervals. About this time her abdomen began to increase very rapidly in size, whereas previously it had enlarged just as in a normal pregnancy.

State on Examination.

When seen she was suffering a great deal of pain, and her abdomen was enormously distended. A large, very firm swelling filled the abdomen, extending [illegible] up to the ensiform cartilage; a prolongation of the swelling ran out into the right hypochondriac region, and there was a firm [illegible] swelling just below the umbilicus on the left side; no fluid thrill could be definitely made out, and there was dullness on percussion all over the tumour. On vaginal examination the os uteri was found quite closed and [illegible]; pulse 80, temperature 98°. The woman was suffering so much pain that morphine had to be administered.

Progress.

At 7.30 a.m. on April 1st she was in much the same condition, but on vaginal examination the os was found to be considerably dilated and the membranes could be felt presenting; it was impossible to feel any fetal parts either vaginally or by abdominal palpation. At 2 p.m. the membranes ruptured, and an enormous quantity of liquor amnii escaped, soaking the mattress through and running on to the floor in a few moments. The os was now fully dilated, and a head could be felt presenting; it was felt to be much larger than a six months fetal head and very soft, the bones being widely separated. At 2.30 this child was born, and was found to be an iniencephalic monster with hydrocephalus.



After the birth of this fetus it was evident that there was still something of considerable size in the uterus, and another bag of membranes was felt protruding from the os; this second bag of membranes ruptured about five minutes later, and again a very large quantity, nearly equal to the first, of liquor amnii escaped, and shortly after a second fetus was born, this one being a typical anencephalic. The placenta was expelled soon after and was single with a single chorion and two amnions; the one cord was inserted centrally and the other marginally. There was very little haemorrhage *post partum*. Both fetuses were of female sex; the first was born dead and the second lived for only a few moments after birth.

REMARKS.

The difficulty presented in diagnosis by this case was very great. The woman was five and a half months pregnant and apparently in perfect health when she had a fall, and from that time her symptoms began. The rapid enlargement of the abdomen and the great pain suggested a concealed accidental haemorrhage, but her pulse was never over 80 per minute, and there were no other signs of haemorrhage. The very irregular enlargement of the uterus with the hard masses in the right hypochondriac region and to the left of the umbilicus suggested that the pregnancy was complicated by a uterine tumour; the very rapid enlargement of the uterus seemed to be against a diagnosis of hydramnios, as was the fact that the patient was a primigravida; there was no embarrassment of circulation or respiration.

Acute hydramnios as a rule develops between the fourth and sixth month of pregnancy, and is usually, as in this case, accompanied by twins occupying a single ovum: as a rule, however, only one amnion is affected, but in this case both were affected. The absence of any *post-partum* haemorrhage after so great a distension of the uterus was also rather remarkable.

The first fetus was an iniencephalic monster with a hydrocephalic head; the second was a typical anencephalic.

My best thanks are due to Mr. N. T. Brewis for permission to publish this case.

UNDER the will of the late Mr. Frank Riley-Smith, brewer of Tadcaster, Leeds Infirmary and York County Hospital each receives a bequest in the form of 4½ per cent. debenture stock issued by John Smith's Tadcaster Brewery Company, to the amount of £2,000 nominal. To Bury and West Suffolk Hospital the same testator left a sum of £500.

A FOURTH poster or wall diagram recently issued by the National League for Physical Education and Improvement is a striking representation of a child left alone in a room scalding itself by attempting to drink from a kettle of boiling water, and at the same time setting its inflammable flannelette garments on fire by approaching too near to an unguarded grate. It was designed for the league by the Nurses' Social Union, Kingston Grange, Taunton.

THE twelfth excursion for medical study to the watering places and climatic health resorts (V. E. M.) will take place in September (1st to 12th), under the presidency of Professor Landouzy. The following are the places to be visited: La Motte-Beuvron (Sanatorium), La Roche-Posay, Néris, Evaux, La Bourboule, Mont-Dore, Saint-Nectaire, Vic-sur-Cère and Le Lioran (climatic stations), Royat, Durtol (sanatorium), Chatel-Guyon, Vichy, Bourbon-l'Archambault, Bourbon-Lancy, St.-Honoré-les-Bains, and Pougues. For further particulars application should be made to Dr. Carron de la Carrière, 2, rue Lincoln; or Dr. Jeuaust, 4, rue Frédéric-Bastiat, Paris.

RUPTURE OF THE UTERUS WITH EXPULSION OF THE FETUS INTO THE ABDOMINAL CAVITY.

By HENRY RUSSELL ANDREWS, M.D., B.S., M.R.C.P.,

OBSTETRIC PHYSICIAN TO THE LONDON HOSPITAL.

CASES of rupture of the uterus in which the fetus has been wholly expelled into the abdominal cavity are among the most unfavourable for treatment that can be met with. The patient only too often succumbs as the result of shock, haemorrhage, or peritonitis, in spite of operative treatment.

As I have been fortunate enough to have two such cases that recovered, operation being performed within a short time of the occurrence of the rupture, I think it worth while to record them.

CASE I.

M. A. S., 35, was admitted into the London Hospital with a diagnosis of rupture of the uterus after application of forceps with the head above the brim. On account of haemorrhage the forceps were taken off and examination made. The pains ceased, the head was found to have receded, the intestine could be felt in the vagina, and the fetus was easily palpable under the abdominal wall. The patient had had nine children previously. The first lay transversely and was decapitated, the second and third were small and born without difficulty, the fourth and sixth were delivered with forceps, the fifth and seventh were born without difficulty, the eighth and ninth were delivered by craniotomy. The interspinous diameter measured 9 in., the intercristal 9½ in., the diagonal conjugate 4 in.

On Admission.

The patient was in a state of collapse, blanched, and restless: pulse 124, respirations 44. The abdomen was opened two hours after the occurrence of the rupture. There was much free blood in the peritoneal cavity. The fetus, which weighed 7½ lb., was lying loose in the abdominal cavity. The head showed a certain amount of moulding. There was a vertical tear on the left side, from the vagina to within one inch of the origin of the left round ligament. In the upper two inches the tear was not complete, only affecting the superficial part of the uterine wall. There was a large haematoma in the anterior part of the left broad ligament from which oozing was going on, but no active arterial haemorrhage was seen.

Operation.

Subtotal hysterectomy was performed. There was considerable difficulty in finding the left uterine artery as it lay in the haematoma. The anterior and posterior lips of the cervix were sewn together with catgut, a large rubber drainage tube was left in, lying in the vaginal rent, and the peritoneum was sewn over all the raw surface, except at the point where the tube came through the pelvic floor. Intravenous injection of saline solution was carried out throughout the time of the operation.

After-History.

The patient made a very good recovery. On the ninth day there was a slight flow of urine from the vagina. There was a certain amount of leakage for the next fortnight, but none after this, and the actual cause was not discovered. The temperature for the first ten days was practically normal, but for the next ten days there was some pyrexia. There were no abnormal physical signs to be found, and the temperature came down again and remained normal without any discharge of pus. The patient left the hospital about four weeks after the operation.

CASE II.

E. H., aged 33, was admitted to the London Hospital on January 31st, 1912. She had had seven children, all born without any difficulty. Her last period occurred in the first week in April, and she expected to be confined about January 15th. Labour began at 7 p.m. on January 30th, and the doctor was called in for the first time at 1 p.m. on the 31st. He found the head high up with the occiput behind. Application of forceps for three hours on and off failed to bring the head into the pelvis, the forceps slipping several times. Towards the end of the afternoon he gave her a dose of morphine and sent her up to the hospital. He said that during the time when he was attempting to deliver there was no evidence of tonic contraction or of stretching of the lower uterine segment.

On Admission.

The patient was blanched; pulse 150 to the minute, and very feeble. The fetus could be felt lying free in the abdominal cavity. There was a considerable amount of oedema of the labia and some laceration in the lower part of the vagina. A vaginal examination was not made. The patient was so much exhausted on admission that it was thought best to let her lie quietly in warm blankets for an hour. At the end of this time she was anaesthetized and the abdomen was opened.

Operation.

There was a large quantity of blood in the abdominal cavity. The fetus and the placenta, which were lying loose, were extracted and the uterus was pulled up for inspection. A large tear was found on the left side extending from the vagina into the body of the uterus. There was a haematoma in the left broad ligament.

Suture of the rent, communicating as it did with a lacerated vagina and a large haematoma, did not appeal to one as a promising method of treatment, so it was decided to remove the whole uterus. Panhysterectomy was therefore carried out as quickly as possible. A "button-hole" suture was applied to the cut edge of the vagina to prevent bleeding, and the peritoneal flaps were joined over the vagina by a continuous suture. No drain was inserted, the vagina affording drainage for the haematoma of the broad ligament. Two pints of saline solution were injected into a vein of the left arm during the operation, several pints of saline solution were left in the abdominal cavity, and an intravenous injection of ergotin was given when the patient left the table. The pulse-rate at the end of the operation was between 140 and 150. The vagina was lightly packed with gauze, which was removed twenty-four hours later.

After-History.

The gauze was not soaked through with blood, and there was only very slight oozing after its removal. The vaginal lacerations became rather sloughy, but there was no extensive sloughing. The temperature for the first two nights was 100° F., but after this was normal. The patient made a smooth, uninterrupted recovery, and left the hospital on February 19th—that is, twenty days after the operation. The fetus and the placenta weighed 13½ lb. The pelvic measurements were normal. The first time a catheter was passed after the operation, practically pure blood was drawn off. After this the urine was normal, and there was no evidence of any injury to the bladder.

In recent years there have been several discussions as to the best method of treatment to be adopted in cases of complete rupture of the uterus. In the cases here recorded there can be no doubt that the only method of treatment was by abdominal section, as the fetus lay free in the abdominal cavity. Whether it is better to suture the uterus or to remove it can only be decided in each individual case on its merits. If there is much bruising and haematoma it is probably better to remove the uterus rather than to leave it damaged, possibly infected, in connexion with a torn vagina and a haematoma of the broad ligament. Removal of the uterus in such cases is an easy operation, but a good deal of time is required for suturing the raw surface of vaginal wall or cervix, as the raw edge is a long one, complete dilatation being present, and the patient's blood pressure so low that the fact that no oozing is taking place cannot be taken to mean that no bleeding will occur when she has recovered from her collapse.

A SUGGESTION FOR TREATMENT OF CERTAIN FORMS OF COCCYDYNIA.

By OLIVER BEDDARD, M.R.C.S.Eng., L.R.C.P.Lond.,

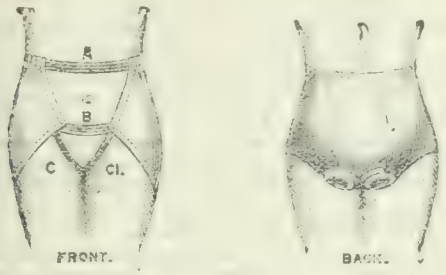
LONDON.

I HAVE had occasion to treat a few cases of coccydynia in which the pain was so obviously resulting from pressure upon the coccyx, particularly whilst sitting, that I sought for some apparatus which would obviate this and prove not inconvenient in use. Three such cases occurred in nulliparous unmarried women with a history of pain coming on after sitting for a length of time—as, for example, in church or on a bicycle. Examination showed a prominence of the coccyx which would render it liable to pressure on an ordinary seating surface, and it seemed as though such pressure could be avoided if the tubera ischii could be maintained on raised supports.

I found that this could be effected by a simple contrivance made of fine longeloth shaped on the lines of a napkin provided with two hollow rubber rings to receive the tubera. The rubber rings are 1 in. in depth, 2½ in. in diameter, their contained circles being 1½ in. in diameter. They are held within circular pockets, which close with snap fasteners, with their centres 4½ in. apart. The garment should accurately and closely fit the body, and be worn next the skin. It is kept in position by a broad silk elastic band (A) passing round the waist, and a similar band (B) passes across just above the pubes; c and c_1 are narrower silk elastic—they lie in the folds of the groins, and can be almost instantly undone or done up with the snap fasteners.

The arrangement permits of the use of an ordinary diaper. The rubber rings do not cause noticeable projection when worn under ordinary clothing, as they take up a position below the gluteal folds when the patient is standing.

When a good-fitting model has been obtained it is as well to have at least half a dozen made, as the pair of



rubber rings can be transferred from one garment to another in a minute, and thus a clean one can be used daily.

I have found decided relief from the severe pain of coccydynia has resulted in such cases as I have described, and the plan might be worth a trial by others who have greater opportunities for testing it than I have.

I have deposited my model with Messrs. Lindsey and Sons, instrument makers, Ludgate Hill.

ON THE CAUSATION OF PARENCHYMATOUS NEPHRITIS.

By GEORGE W. WATSON, M.D., M.R.C.P.,
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ALTHOUGH the etiology of acute nephritis is perhaps better understood than that of chronic nephritis, it cannot be said that very much is definitely known as to the actual causation of any variety of inflammation of the kidney. Owing to the association of acute nephritis with many of the infectious and febrile disorders, especially scarlatina, and its comparative rarity apart from these affections, the disease is considered with reason to be due to micro-organisms concerned in the production of the original fever or to their toxins.

In certain cases of nephritis occurring in infectious disorders, the specific micro-organisms have been demonstrated in the kidney or in the urine or in both. For instance, typhoid bacilli have been found in nephritis after typhoid fever, pneumococci in nephritis following pneumonia, etc. This does not necessarily prove the causation of the nephritis in these cases; but, on the other hand, acute inflammations of the kidney have been induced by Pernici and Scagliosi by the injection into the blood of certain micro-organisms, such as the bacillus of anthrax, the *Staphylococcus pyogenes aureus*, etc. It was found also that the toxins of these organisms when injected were productive of renal change, but were less harmful than the organisms themselves. Acute nephritis has been induced by the injection of the diphtheria toxin by Roux and Yersin, Spronk and others.

Beyond the association of acute nephritis with the acute fevers, very little is known regarding the causation. The disease has been attributed to the influence of cold, to pregnancy, to the ingestion of deleterious articles of diet, to drugs, to toxins elaborated in the body as the result of abnormal metabolism, and to many other things.

With regard to the causation of chronic nephritis our knowledge is even more vague. The relation of chronic nephritis to a previous acute nephritis is, I believe, far from being understood. And in the absence of more precise knowledge we include in the etiology of chronic nephritis such factors as chronic alcoholism, the continued action of damp and cold, various constitutional diseases leading to anaemia and cachexia, syphilis, and so on—factors which from observations we have learnt to associate with the appearance of the disease. But how these various circumstances operate we are still ignorant.

With the idea of obtaining some further insight into the etiology of renal inflammations, I have recently, in conjunction with experimental work, been engaged in the analysis of 100 cases of nephritis occurring in the wards of the General Infirmary at Leeds during the years 1900, 1901, 1902, 1908, and 1909. Save for the exclusion of cases of definitely interstitial nephritis or primary sclerotic kidney occurring beyond the middle period of life, there has been no selection in the series analysed.

Out of the total of 100 cases, there were 80 cases of undoubted chronic disease of the kidneys. Of the remaining 20, some were unquestionably examples of primary acute disease, whilst the others did not present a sufficiently clear combination of clinical facts to warrant a definite diagnosis. For convenience, both in description and deduction, I propose to consider first the chronic cases.

Before passing on to a consideration of the factors probably concerned in the production of chronic nephritis, it is necessary to mention briefly the different types of disease which are met with. Some cases exhibit marked albuminuria, with perhaps haematuria, scanty urine, dropsy, and anaemia, but no very pronounced toxic symptoms and no retinal changes as a rule. This clinical picture is associated with a distinct type of morbid kidney. The organ is large and pale, differentiation is good, and the capsule strips easily. Microscopically there is a widespread fatty degeneration of the tubules, and to a lesser extent of the glomeruli and the stroma, with also some amyloid change. Indications of interstitial inflammation may be slight, but are probably always present. This type of kidney is known as the "large white kidney."

Another type is that occurring in pale, thin, weakly-looking individuals. There is little or no dropsy, definite but less marked albuminuria, a normal or even an increased quantity of urine, pronounced toxic symptoms, and, usually, retinal changes. In this form the cardio-vascular changes are much more evident than in the preceding. The appearance of the kidney from a case of this kind is equally characteristic. The organ is small and contracted, differentiation is poor, the capsule strips with more or less difficulty, and the surface of the kidney is "pimply." Microscopically there is a great increase in the interstitial tissue, together with degenerative changes in the tubules and the glomeruli. This kidney has been termed the "small white" indurated kidney.

Clinically and pathologically both these types are definite enough when they occur, and present no difficulty in diagnosis. But by far the greater proportion of cases present features common to both varieties, and cannot strictly be classified as either. When we examine the kidneys of such we find a great variety of appearances. There are variations in size, in colour, in the ease with which the capsule can be stripped, and the character of the surface of the kidney. And microscopically these variations can be demonstrated to be due to differences in degree of the pathological changes in the individual tissues affected.

Much confusion is caused by the introduction into clinical medicine of such terms as "large white kidney," "small white kidney," "mixed nephritis," etc. It would lead to clearer conceptions if cases were recognized as cases of chronic parenchymatous nephritis, with little, some, or much induration, bearing in mind that the quantity of urine secreted and the intensity of the toxic symptoms tend to vary proportionately with the degree of induration, whilst the amount of oedema and degree of albuminuria usually vary inversely with the same factor.

Most authorities hold that some interstitial change occurs in the kidney in all cases of chronic parenchymatous nephritis, and that the degree of induration is largely a matter of time. That is to say, the longer a patient lives with chronic parenchymatous nephritis, even though at first the symptoms suggest that there is very little fibrosis of the kidney, the more does the clinical picture tend to approximate to the type which we have learnt to associate with much induration of that organ.

It is not my present object to discuss the question whether or not the same factor is responsible for the development of both the tubal disease and the interstitial fibrosis. I have therefore made no attempt to classify the cases according to type, but have considered them all, for my present purpose, simply as cases of chronic parenchymatous nephritis.

Chronic Nephritis May Exist Without Symptoms.

Undoubtedly we must admit that chronic parenchymatous disease of the kidney may exist for some length of time without giving rise to any symptoms of illness, its presence being therefore unsuspected. And when symptoms do appear we are often surprised by the degree of disease which we find to exist. A striking example is as follows:

Richard M., aged 33, a weaver, stated that he had always been strong and well up to two months before admission to hospital. Then he began to suffer from headache and morning vomiting. There was never any oedema. He died four weeks after admission, and at the autopsy advanced parenchymatous disease of the kidney, with extreme induration, was found. Both kidneys together only weighed 5 oz. This morbid change must have been going on for a considerable time, probably for years, but with an entire absence of symptoms.

Cases such as this—and I believe they are not very uncommon—can only be explained on the hypothesis that we begin life with a much larger amount of renal substance than we require for ordinary purposes, and that it is only under extraordinary circumstances that the surplus or reserve amount is called into use. Such extraordinary circumstances apparently did not occur in this man's life, and the slow inflammatory process went on unrecognized until the residue of kidney parenchyma was inadequate for even the small claims made upon it in his ordinary existence.

In twelve other cases of the series a diagnosis of acute disease was made on the development of symptoms, but on *post-mortem* examination chronic disease was found to exist—in some no doubt of several years' duration. In these no affection of the kidneys was suspected before the terminal illness.

How Symptoms May Manifest Themselves.

The onset of symptoms may be acute or gradual. In the former case the clinical picture is that of an acute nephritis with much oedema, scanty urine containing much albumen and perhaps blood, together with some toxic symptoms. In these instances a diagnosis of acute nephritis is usually made. Virtually the condition is an acute nephritis occurring in an organ already diseased, but it differs from a primary acute nephritis, not so much in the acute stage as in its course afterwards. In primary acute nephritis, unless death occurs, the blood disappears from the urine, the albumen entirely or almost entirely disappears, the dropsy subsides, and the toxic symptoms clear up after a variable but comparatively short period of time. But in the acute nephritis associated with the presence of chronic renal disease the improvement is slower and more unsatisfactory. The oedema persists, or varies in degree from time to time, or may disappear altogether only to reappear again. The blood disappears from the urine more or less quickly as a rule under the influence of rest and treatment, but the albumen, although it usually diminishes in amount, nevertheless persists in appreciable quantity. These are the cases where a diagnosis of "acute nephritis becoming chronic" is made, a sequence which I am of opinion seldom occurs.

In the series of 80 cases no fewer than 12 were diagnosed from the character of the onset as acute nephritis, but were proved at the *post-mortem* examination to be cases of chronic nephritis of some duration. And in many others in which a similar diagnosis was made the clinical course after the acute attack suggested very strongly the same state of affairs, although *post-mortem* evidence was wanting. An illustrative case is as follows:

Henry K., a miner, aged 34, stated that he had never been ill in his life up to the onset of the present symptoms. He commenced two months before admission to hospital with aching pains in the legs. A week later his body and legs began to swell, the urine was much diminished in amount, and contained blood and albumen. A diagnosis of acute nephritis was made, but whilst the blood disappeared from the urine the albumen persisted, and likewise the oedema. Death from uraemia occurred three months after the onset, and at the autopsy an enlarged kidney, with advanced parenchymatous change and a little induration (typical large white kidney), was found.

In other cases initial symptoms developed insidiously. These are usually of the nature of mild uraemic symptoms, such as headache, dimness of vision, nausea, shortness of breath. Or there may be a slow development of oedema, with or without uraemic symptoms. The nature of the onset has, as will be discussed later, some bearing on the prognosis.

Age Incidence.

Out of 80 cases, 4 were under the age of 10, being respectively 1, 3, 3, and 9 years old; 14 were between the ages of 10 and 20, 33 between 20 and 30, 19 between 30 and 40, 5 between 40 and 50, and 5 beyond the age of 50 years. From this it would appear that the period of life at which the onset of renal symptoms in chronic parenchymatous nephritis is commonest is between the ages of 20 and 30.

Relation of Infectious Fevers to Chronic Nephritis Developing After an Interval.

Only 6 of the cases in my series could refer to a past attack of scarlatina, and of these 2 only had any renal complication at the time. Twenty cases gave a history of some other infectious disease, or of some septic process. Five had had typhoid fever, 5 influenza, and 5 pneumonia. Others had a history of diphtheria, measles, quinsy, or "blood poisoning." Not one of these 20 cases had renal symptoms at the time of the acute illness.

A proportion of 6 cases of scarlatina out of a total of 80 is surprisingly small. And this, too, in persons suffering from a disorder of which scarlatina is accounted an important etiological factor is even more remarkable. Again, a proportion of 20 cases with a history of other infectious and septic disorders, out of a total of 74, is not more than one would expect in healthy members of the community.

Although the number of cases dealt with is small, the evidence they furnish supports the view which I hold strongly, namely, that acute diseases have very little, if anything, to do with the production of chronic renal disease developing after a reasonable interval. In chronic parenchymatous nephritis the change in the kidneys is progressive, and must therefore be due to an agent operating continuously or intermittingly over a period of time. There is in all the organs of the body a tendency to the repair of diseased tissues when the cause of that disease has been removed, and there is no reason to consider the kidney an exception to this rule. Therefore, I believe that inflammation of the kidney occurring as a complication of acute illness tends to recovery when the cause of that acute illness no longer exists. True, there may be some loss of kidney substance, owing to severe injury, and the functional capacity of the organ thereby lessened, but the kidney now is not the seat of a nephritis. Possibly an organ such as this is more prone to inflammation in the presence of a cause potent to reduce it.

Nothnagel, in his *System of Medicine*, states that it is not uncommon at an autopsy to find kidneys of normal or increased size, in which the remains of former inflammatory change can be detected by the microscope, and where there were no clinical manifestations of renal disease during life, even no albuminuria.

Lead as a Factor in the Production of Renal Disease.

In only three of my cases was lead a possible etiological factor. All were painters by occupation, and all were accustomed to mix their own paint. In two of them there was marked vascular thickening, and the symptoms were those of parenchymatous nephritis with much induration. The third was a doubtful case, as the man had not been in contact with lead for many years, and here there was very little arterio-sclerosis. It is well recognized, however, that chronic lead intoxication is a potent factor in the production of the indurated kidney. This is proved by reference to the records of any large hospital, and moreover, the lesion had been produced experimentally by Charcot, Prior, and others.

Alcohol.

I have no evidence to bring forward to indicate that alcohol is ever a cause of chronic parenchymatous nephritis. The cause of primary indurative nephritis does not come within the scope of my remarks, and it is with this form of disease that over-indulgence in alcohol is chiefly associated. Sixteen of my cases gave a history of alcoholism in excess, but there were other factors which made it impossible to estimate the share, if any, that this had in the causation of the disease. In three instances, however, acute symptoms developed apparently as a result of a "drinking bout." In two of the cases a diagnosis of acute nephritis following acute alcoholism was made; a diagnosis which was corrected later to one of "acute nephritis," developing in the course of a chronic nephritis.

In the third instance, the man was known to be the subject of nephritis, and the true relation of the alcoholism to the acute onset of symptoms was appreciated.

The only definite effect that alcohol produced in the cases reviewed appeared to be the determination of symptoms in an already existing latent chronic nephritis.

Fevers and Sepsis.

In seven cases symptoms appeared apparently as a result of some fever or septic process. This is not surprising, for if we accept the infectious fevers as a cause of acute nephritis, it is only to be expected that they should be potent to cause an acute exacerbation in the course of chronic disease.

The effect on the kidney of a long-continued chronic septic affection is not clear. In four cases symptoms of renal disease developed in the course of a chronic affection of the lungs.

Brief summaries of the important facts in these are as follows:

Ada D., aged 9, had suffered from a chronic cough for some years, but there was no history of any acute illness at any time. A week before admission to hospital oedema of the face and legs came on gradually. The urine was diminished in amount, and contained a moderate amount of albumen, with cellular and granular casts. An interesting fact also was that streptococci were found in the urine. Examination of the chest revealed fibrosis of the lung with bronchiectasis at the left base, and displacement of the heart to the left side. Whilst in hospital there were no indications of renal disease beyond the oedema and the urinary findings. The dropsy disappeared, and she was discharged at the end of three weeks. The urine still contained albumen in quantity, and a diagnosis of chronic parenchymatous nephritis was made.

Sam R., aged 38, had suffered from cough for five years. No other history of illness. One morning he noticed some swelling of the ankles. This gradually increased, and later there was general anasarca with ascites. The urine contained much albumen and a variety of casts. Death occurred three months after the onset, and at the *post-mortem* examination fibrosis of the lung with marked bronchiectasis (tuberculous in origin) was found. The kidneys were large and pale, and showed extensive chronic tubal and slight interstitial change. This was not a case of general lardaceous disease, the other organs of the body being healthy.

It is important to note on this case that with the exception of the cough the man felt perfectly well until the onset of the final illness. The development of renal symptoms without any obvious determining cause had, I think, some bearing on the unfavourable course which ensued. This point, however, will be referred to later.

Esther M., aged 31, had never been very strong, having suffered from bronchitis with much sputum for many years. There was never any clinical evidence of phthisis. She had three children. Her first confinement was uneventful, but after the second and third she suffered for a few weeks from swelling of the feet. The state of the urine was not recorded. After the third confinement she enjoyed her usual health for eighteen months, and then the oedema of the legs again slowly developed, and lasted until her death a year later. When under observation in hospital during the last few weeks, the urine was diminished in quantity and contained much albumen and many casts, but no blood. No *post-mortem* examination was made in this case. Note here that what were presumably renal symptoms were twice associated with labour, and these disappeared after a short interval. The symptoms of the final illness were not associated with any definite cause and never disappeared.

Doris W., aged 3, had pneumonia when 2 years old, and again six months later. She was never quite well afterwards. Two months after the second attack of pneumonia she began to be troubled with cough, and a little later oedema of the face and legs appeared. She died with symptoms of uraemia. The kidneys when examined were large and pale, and showed marked chronic tubal and a lesser degree of interstitial change. In addition there was a small abscess in the left lung.

Senator, basing his opinion on a number of cases specially investigated with regard to this point, believes that, in Berlin at least, of all chronic diseases, tuberculosis must be held to be the most common cause of chronic tubal nephritis not necessarily amyloid in character. I have made clinical and pathological observations on a large number of cases of pulmonary tuberculosis, but have not met with associated chronic nephritis sufficiently often to support this view. Still, a chronic septic process in the lung must not be lost sight of as a possible cause of progressive renal change.

Another possible source of infection is the throat. Several cases gave a history of uniform good health with the exception of frequently recurring "sore throats." The frequent association of acute nephritis with scarlatina and diphtheria is suggestive of a milder anginoid affection being a possible cause of the chronic disease. And the fact that diphtheria organisms may remain in the fauces for a considerable time and give no indication of their presence renders the view not unlikely that absorption of products from other organisms in the same situation may occur without any indication of infection.

Cold and Damp.

Sudden and severe chilling of the body has long been considered to be a cause of acute nephritis. In my series there were six cases in which symptoms of acute nephritis developed apparently as a direct effect of a severe chill. In many more the onset was attributed to cold, but in these the association was not so convincing.

Details of three out of the six cases are as follows:

Alexander S., aged 29, a miner, came under observation in 1909 with marked dropsy of the face, body, and legs. The urine was scanty and contained a large quantity of albumen and some blood. The onset had been rapid, and followed a severe chill, due to getting wet through. This case might have been diagnosed as one of primary acute nephritis, due to cold, had it not been that the man had been under observation in 1905 with an exactly similar condition. When discharged from hospital the first time the urine still contained some albumen, but the patient remained in perfectly good health until his second attack. When he left the hospital the second time the urine was not clear of albumen, but there were no symptoms.

Samuel S., aged 18, a bricklayer, gave a history of typhoid fever when 16. He was apparently perfectly well after this illness for two years, when he got wet through and caught a chill. The following day he was seized with severe and persistent vomiting. His legs began to swell, and the urine became scanty and dark in colour. When admitted to hospital there was marked oedema, and the urine contained a large amount both of albumen and blood. After a few weeks the blood had entirely disappeared, but the albumen persisted and was present in fair quantity on his discharge.

Alfred B., aged 60, a man with a strong alcoholic history, had enjoyed uniformly good health up to a month before his admission to hospital. Then he caught a severe chill during cold weather. Almost immediately the legs began to swell and later the body. The quantity of urine was much diminished, and contained much albumen and blood. The man died with uraemic symptoms, and at the autopsy advanced parenchymatous disease of the kidney, with much induration, was found.

In the last quoted case it would have been impossible to have made a correct diagnosis from clinical data. To all appearances the condition was one of primary acute nephritis due to cold, and the true state of affairs was only revealed after death.

As already mentioned in the first case, the true diagnosis of chronic parenchymatous nephritis with an acute manifestation could only be made with the help of the previous medical history, and such assistance is not always forthcoming.

The other three cases were very similar to the foregoing, and therefore details have not been given.

In my investigations I have not been able to find one single convincing instance of primary acute nephritis arising from cold. Most of the supposed cases occurred in adults, in whom I believe the primary acute disease rarely occurs. When acute symptoms have arisen apparently as a result of cold, I am inclined to regard the cold merely as a factor determining the onset of symptoms in an already existing chronic disease.

The effect of damp surroundings, frequent wettings, and insanitation, frequently in evidence in the etiology of nephritis, is probably one which merely contributes to the development of the disease by depressing the general health and resisting power of the individual, and thereby favouring the operation of the true cause.

Excessive Muscular Work.

The following case is of interest:

John R., aged 27, had never suffered from any definite illness, but was never very strong. He was employed as a tram conductor, and had never done any heavy manual work. Whilst changing his house he assisted in the removal of heavy articles of furniture, working very hard for half a day. The next day he did not feel very well, and could not go to work. On the following day his face and legs began to swell, and the urine contained albumen and blood. The oedema and albuminuria disappeared within a week under treatment, but the albumen persisted, though in lesser amount. Examination of the eyes revealed albuminuric retinitis.

Apparently this was a case of chronic parenchymatous nephritis running a latent course, in which symptoms were determined by unusual and severe muscular exertion. This is not surprising when we remember that albumen with casts is not uncommonly met with in the urine of

healthy athletes after hard muscular exertion such as football, rowing, running, and the like. Here it would appear that the functional power of the kidney is taxed to the uttermost for a short time. And that the functional limit of a diseased kidney should be the more easily reached is a fact which needs no pressing.

In the same way can be explained those cases in which symptoms arise as the result of labour. In 5 of my cases the onset of symptoms was definitely associated with delivery. In one instance, which has been recorded in the paragraph dealing with fever and sepsis, the woman had symptoms of nephritis in two successive deliveries with good health between, and also afterwards for a period of months. Symptoms appearing a third time caused her death, and the diagnosis of chronic disease was confirmed by *post-mortem* examination.

It is clear, from the facts set forth, that the factors associated with the development of clinical signs and symptoms of renal disease cannot be held to be the cause of that disease. With the exception of lead, which usually gives rise to the indurative form of nephritis, and long-continued septic absorption in chronic disease—the effect of which in the kidney is not precisely determined—I am strongly of opinion that none of the factors enumerated above do more than act as contributing causes of nephritis, or determine the development of symptoms when the kidney is diseased. I would also say that symptoms of nephritis occurring in an adult, no matter whether the clinical manifestations suggest an acute or chronic process, indicate in the vast majority of instances a chronic change in the kidney. Of the actual cause of this chronic change we know practically nothing. There are many cases of chronic Bright's disease in which there is no history of previous illness, and in which there is nothing to criticize in the occupation, habits, or home surroundings, and where we have not the slightest clue to the causation.

Relation of the Character of the Onset to the Prognosis.

I have spoken above chiefly of cases in which the onset of symptoms is associated with some definite cause. But there are a great number of instances in which symptoms appear apparently spontaneously and without reason. This was the mode of onset in 37 of my cases. In most of these the development of clinical manifestations was not acute but gradual, usually the slow appearance of oedema. And where indications of renal disease have developed in this way, the after progress has been more unsatisfactory than in those in which a definite factor was responsible for the onset.

A reasonable explanation of this would be that the disease is progressing slowly, but that up to a certain point the kidney is able to perform its function under the ordinary circumstances of life, and no symptoms arise. But when that point is reached, the kidney is inadequate to meet even moderate claims made upon it, and symptoms appear. Rest in bed with appropriate treatment will relieve the kidney of a proportion of work, and so ameliorate or remove symptoms. Any return to activity, however, brings back all the conditions that existed before, with a return of the signs of renal inadequacy. If, however, the onset of symptoms is determined by some unusual circumstance, this being removed, the effect of treatment is more permanent.

As a general rule, it may be said that when symptoms of chronic renal disease owe their appearance to some definite cause, the prognosis is better than when the symptoms arise insidiously and apparently spontaneously.

I know of no way of diagnosing primary acute nephritis with certainty during the acute stage. The presence in the urine of a marked quantity of nucleo-albumen is held to denote an active destruction of renal epithelium, but this occurs in other conditions besides primary acute nephritis. The association of acute renal symptoms with an acute fever would reasonably lead one to suspect a primary acute nephritis, if the individual had previously had no indications of renal trouble. That the diagnosis can never be certain has been shown already. One other example, however, will not be out of place here, and will illustrate the difficulty:

A woman, aged 32, had a severe attack of influenza, and during her convalescence suddenly developed extensive dropsy with albuminuria and haematuria. Her home surroundings were satisfactory and her previous health had been uniformly good. When she came under observation she had marked oedema and distinct urinary changes, but no toxic symptoms of any moment. In little over a week the oedema and the haematuria had disappeared. The heart, however, showed some enlargement, and the second aortic sound was distinctly accentuated. The albumen did not disappear, but was present in fair amount when she left the hospital four weeks later. The case was diagnosed at the time as one of primary acute nephritis becoming chronic, but I have no doubt at all that it was one of chronic nephritis, with an acute manifestation initiated by the attack of influenza.

If we consider the cases which exhibit renal signs and symptoms occurring in association with or immediately following some acute fever, and which for this reason may be suspected of being cases of acute nephritis, we cannot fail to be impressed by the fact that, although albumen may be present in large amount in the urine, and may be accompanied by blood and a variety of renal casts, yet in the great majority of instances all these abnormal constituents disappear, and the urine becomes normal in a comparatively short time (a few weeks) under the influence of rest and treatment.

I would not go so far as to suggest that all cases of acute nephritis which do not die recover absolutely, for there must be cases in which the kidneys are so extensively damaged in the acute inflammation as to be beyond all hope of repair, but I am firmly of opinion that in the very great majority of cases complete recovery is the rule.

In analysing my series of cases, I have been inclined to consider those in which albumen and casts disappeared from the urine permanently after a comparatively short time, with cessation of symptoms, as probably genuine examples of acute nephritis. On this assumption, out of the series of 100 cases, there were 18 of acute inflammation of the kidneys. Of these one died, and the diagnosis was confirmed at the autopsy. The remaining 17 apparently recovered completely.

Two other cases occurred in association with infectious fevers, and presented clinically all the features of acute nephritis. In the absence of any evidence of previous disease of the kidney these were also regarded as cases of acute nephritis. In both the urinary changes were very marked, and the symptoms were very severe. In both, also, although recovery was apparently complete, there was a slight persisting albuminuria. These cases are as follows:

Annie J., aged 21, had worked in a cloth mill for four years, the work being heavy and the hours long. She had had whooping cough and measles as an infant, but no other illness. She began to be anaemic some years before she came under observation in 1909. She then stated that she had had "influenza" a fortnight previously. This was followed in a few days by marked diminution in the quantity of urine passed, together with dropsy of the face and limbs. When admitted to hospital the urine contained much blood and albumen, with epithelial and granular casts. She was discharged three weeks later, when the oedema had disappeared, the urine was normal, with the exception of a faint trace of albumen, and she felt perfectly well.

Rebecca P., aged 8 years, was admitted to hospital in 1909 with pronounced oedema, albuminuria, and haematuria. She had never had any serious illness up to four weeks before admission. Then she suffered from a bad sore throat. Three weeks later oedema of the face and ankles appeared, with frequent vomiting. She was in the hospital three weeks, at the end of which time she was discharged, feeling quite well. The oedema had disappeared, but there was still a trace of albumen in the urine. This slight albuminuria was present two months later.

From what has been stated previously, the fact that there were no indications of renal trouble in these cases prior to the onset of definite symptoms does not prove that the kidneys were healthy, for it has been shown that disease of the kidneys may exist for some length of time without any symptoms whatever. The significance of this slight persisting albuminuria therefore is not clear. It may indicate a previous slight affection of the kidneys, or it may mean a continuance of the pathological process initiated at the acute attack. But in either case I am inclined to regard the presence of albumen in the urine as an indication of some persisting irritation of renal cells.

Age Incidence in Acute Nephritis.

Of the 20 cases of acute nephritis 11 were under the age of 15 years, the youngest being 9 weeks old; 14 were under 20 years, and 18 under 30 years. The oldest case was that of a man aged 37 years. This bears out the commonly accepted view that acute nephritis is a disease of childhood and adolescence.

Causation

Previous History.	Exciting Cause.	Number of Cases.
No history of illness	Scarlatina	3
No history of illness	Other infectious fevers	8
History of previous fever. (No nephritis)	Influenza	2
History of previous fever. (No nephritis)	Sore throat	3
History of previous fever. (No nephritis)	Cold and exposure	1
No previous illness (child of 9 weeks)	Acute intussusception	1
No previous illness...	—	2

I am aware that the foregoing table is not very helpful in arriving at a conclusion as to the most frequent causes of acute nephritis. On one point, however, I am convinced, and that is, that the history of previous infectious disease is of very little importance. It is the exciting cause which is the important one.

How many of the population escape measles, whooping-cough, and influenza in the course of their lives? Only a small proportion, and this proportion is not less in those who suffer an attack of acute nephritis. The exciting cause is to be sought for in the exanthems, the catarrhs, and, to a less degree, in the septic affections. And as these become more effectually controlled, so will acute nephritis become a rarer affection.

Conclusions.

To sum up, I would put forward the following propositions:

1. Acute nephritis is not a very common disorder.
2. Acute nephritis is usually due to the direct effect of some infectious fever, catarrh, or septic process.
3. The great majority of cases recover completely, therefore the prognosis is good.
4. The diagnosis of acute nephritis (primary) can seldom be made with certainty during the acute attack, and therefore a prognosis cannot safely be given until after an interval of a few weeks at least.

PYONEPHROSIS: OPERATION: RECOVERY.

BY

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THE condition found in the following case of pyonephrosis was probably due to some congenital malformation.

The following is the history of the patient, a boy aged 14, as obtained from his mother, who states that she herself, the boy's father, and other nine members of the family are perfectly healthy.

The boy's illness can be traced back to the time when he was three months old, when the mother noticed that the child was puny, thin, sickly, irritable, and continually crying. A doctor was called in and the baby was given some medicine, but the doctor did not then express any opinion as to what the trouble was. The child improved a great deal after that, and it was nearly three months afterwards before the mother found that there was a thick yellowish discharge on the napkins which she thought came from his bowels. She again consulted her doctor, and he informed her that the matter came from the bladder, and that there was some inflammation in that organ. It was then noticed that every time the child made water little lumps of matter passed through the urethra. The child cried before and after the act, and the colour of the urine, as far as the mother can remember, was invariably light. He was not what could be termed "ill" at that period, but from that time onward she noticed that the boy had to pass water far more frequently than any of her other children. Sometimes he would have pains for days, then these would suddenly cease, and the patient would be free perhaps for a week or more, when they would again come on quite suddenly and without any apparent cause. This intermittence has continued throughout all the years. Sometimes the pains were mild, but at other times they were so acute and severe that the boy was confined to bed for days. In the intervals of freedom from pain he was in perfectly good health and able to attend school. There was no sickness or vomiting when the paroxysms of pain came on, and the bowels had always been regular.

Apart from measles when he was 7 years old he had had no other illness.

In the early part of 1911, a swelling commenced to show in the back over the region of the left kidney. This gradually grew bigger until it was lanced a few weeks afterwards by the medical attendant. A large amount of matter escaped at that time, and the wound did not close.

I saw the boy for the first time towards the end of August, 1911. He had been confined to bed for three days with an unusually severe attack of pain. He was looking languid, pale, and emaciated: his features were thin and drawn, his eyes were heavy and sunken, his tongue dry and furred, and thirst troubled him a great deal. There were occasional rigors. The pulse that evening was 84, and the temperature 99° F. Posteriorly on the left side there was a sinus, the opening of which was 2½ in. below the last rib, and 3½ in. from the middle line of the back. The dressings that had been placed by the mother over the sinus were saturated with a thin, greenish-yellow, muco-purulent pus. The patient complained of a dull aching pain in the left loin, and of frequency of micturition and great tenesmus. On palpation under an anaesthetic the left kidney was found to be markedly enlarged and very tender, and on pressure being gently exercised over it, pus was seen to exude freely from the sinus posteriorly. The urine was dark red, and contained a large amount of deposit. It was alkaline in reaction, with a specific gravity of 1004, and yielded positive results for albumen and blood. The microscopical examination of the centrifugalized deposit revealed the fact that the deposit consisted almost entirely of pus, with red blood corpuscles, and the normal urinary epithelial cells and mucin. Tube casts, renal cells, and crystals were also detected. Specially stained films failed to demonstrate the presence of the tubercle bacillus, though numerous micrococci were observed.

On August 24th he was admitted into my home, and kept under observation until August 29th. During that time his temperature was very irregular, and ranged between 97.2° and 100.4° F. His pulse-rate kept between 68 and 102. On August 30th I resolved to remove the left kidney.

Operation.

I chose the abdominal route, and the operation was performed on the lines advocated by Treves for abdominal nephrectomy.



The right kidney on examination appeared perfectly normal, but it was distinctly enlarged.

A great deal of difficulty was experienced in freeing the posterior surface of the diseased kidney owing to the existence of strong and dense adhesions. I was able, fortunately, to clamp the sinus before incising it in the course of dissection, thus preventing any escape of pus into the cofferdam which I had established at the commencement of the operation. Little difficulty was experienced with the pedicle. At the end of the operation the opening of the sinus was enlarged posteriorly, and a drainage tube inserted.

The patient bore the operation remarkably well, and we had little or no trouble with him during the whole time he was in the home. He was discharged on November 7th apparently cured, and is now playing about with his companions and attending school regularly.

The condition of the diseased kidney can be seen from the accompanying photograph. It was 5 in. long, 4 in. broad, and 1⅞ in. in thickness. On section a large amount of greenish-yellow pus escaped, and the organ presented a picture of degenerated parenchyma with a number of abscess cavities, the majority of which were filled with soft, irregular concretions, which easily crumbled between the fingers. A direct communication could be demonstrated between most of the cavities and the pelvis. The pelvis was enlarged and much thickened. A piece of glass rod is inserted into the abscess cavity in the kidney that communicated with the perinephritic abscess.

From a consideration of the morbid anatomy of the diseased organ, it would appear that the condition must have been due, in the first instance, to some congenital malformation of the ureter or its pelvis. The lower portion of the pelvis is much more dilated than any other

part, much the same as is seen in an early hydronephrosis due to some obstruction to the outflow of the urine from the renal pelvis.

The exciting cause of the pyonephrosis and the period at which the infection occurred are factors, however, which are most difficult, if not impossible, to determine.

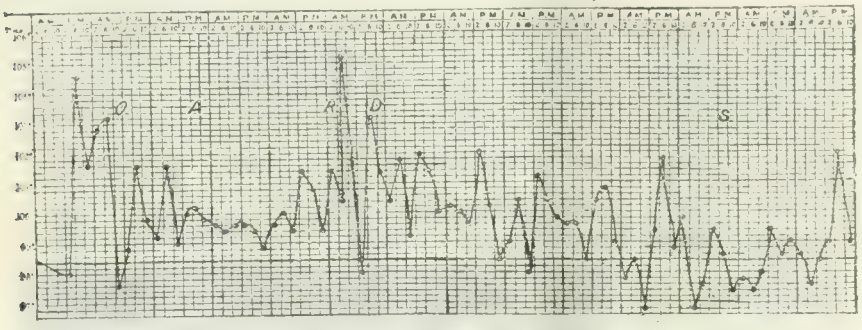
ACUTE PYELONEPHRITIS COMPLICATING PREGNANCY.

BY

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ALTHOUGH pyelonephritis is by no means rare as a complication of pregnancy, the following case, which was under my care, seems worth recording on account of the severity of the symptoms and the difficulty in making a correct diagnosis.



O, Operation: A, abortion; D, dressed; S, stitches removed.

A lady, aged 35, was pregnant for the sixth time, the pregnancy being of five months' duration. A fortnight before the onset of the disease she had been in a nursing home on account of a retroverted gravid uterus which had been replaced under an anaesthetic. Since then she had not felt well but had no definite symptoms beyond occasional vomiting, which was thought to be due to the pregnancy.

History of Present Illness.

On February 2nd, in the night, she was suddenly seized with severe abdominal pain and vomited several times. I saw her in the morning, when I found her looking very ill and complaining of great pain in the right loin and right iliac fossa, where there was well marked tenderness. There was no swelling to be felt, no dullness, and the bowels had acted naturally. By vaginal examination the uterus was felt to be enlarged to about the size of a five months' pregnancy, but nothing abnormal was discovered. The temperature was 101 and the pulse 120. Whilst I was in the house the patient had a rigor, during which the temperature rose to 106°, and this was followed by profuse sweating, the temperature falling to 97°. The urine was acid in reaction, specific gravity 1020, and contained no albumen. Microscopical examination showed that blood and pus were absent.

The next day her condition was the same, the rigors and vomiting still continuing. The case was considered to be either appendicitis or acute pyelonephritis.

Exploratory Laparotomy.

On February 4th her condition was very grave, the rigors and vomiting occurring more frequently. The abdomen was distinctly distended, and there was dullness in the right flank, but very little rigidity. As she was so much worse I asked Mr. Victor Bonney, under whose care she had been, to see her in consultation. There being no pyuria, the more likely diagnosis seemed to be appendicitis, with the formation of pus, but the case not being quite clear it was decided to wait. In the morning, as she was found to be in the same condition, the abdomen being more distended and the pulse 140, an exploratory laparotomy was undertaken. The ascending colon was found to be distended, but there was no peritonitis and the appendix was healthy. The gall bladder and pelvic organs were normal, but the right kidney was very much enlarged, a fact which pointed to the case being one of pyelonephritis.

After-History.

On the following morning vomiting began to be very troublesome, becoming almost incessant in the afternoon. Labour pains began at 2 p.m., and she was delivered of twins at 6.30 p.m. Delivery was difficult owing to the rigidity of the os and the inconvenience of the abdominal incision.

The urine had been examined microscopically each day, with negative results; but on this day a catheter specimen was found to contain a large quantity of pus. A cultivation was made, with the result that a pure culture of *Bacillus coli communis* was obtained.

On the next day the patient suddenly collapsed, and her pulse was hardly perceptible at the wrist; but she gradually rallied after hypodermic injections of strychnine and digitalin.

After delivery the sickness ceased, but the rigors continued. The incision healed by primary union, but the pyuria did not disappear for three weeks, after which the temperature gradually fell to normal. The patient was sent to the sea for a month, and is now quite well.

After the diagnosis had been made she was given urotropin gr. viii every four hours, her chief food being peptonized milk.

The case illustrates well the sudden onset of the disease, and is instructive because of the difficulty in arriving at the diagnosis. From the beginning pyelonephritis was considered, but the absence of albumen and pus from the urine for the first three days led us to think that the symptoms were more correctly accounted for by a diagnosis of appendicitis with the formation of pus, and it was on this assumption that the abdomen was opened.

Another unusual feature was the occurrence of abortion, which was probably produced by the toxaemia and resulting high temperature. It is worthy of notice that emptying the uterus did not appear to have any beneficial effect on the symptoms, this being contrary to the experience of some reported cases,[1] and showing that the induction of premature labour is not justifiable as a routine treatment for severe cases of this disease.[2]

REFERENCES.

[1] Bellingham Smith, *Guy's Hospital Reports*, vol. lx, p. 27[illegible]. [2] Bellingham Smith, *Journ. Obstet. and Gyn.*, August, 1905.

FOREIGN BODIES IN THE VERMIFORM APPENDIX.

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THE comparative infrequency of foreign bodies in the vermiform appendix makes the following case worthy of record:

A boy, aged 14, had a mild typical attack of appendicitis in June, 1911. Since then he had frequently had pain in that region, necessitating his being away from school on several occasions for a day or so. At the operation on December 15th I found the appendix considerably thickened and about four inches long. It lay to the inner side of the caecum, below the mesentery. There were a fair number of adhesions around it. The appendix was not of the infantile type. On slitting it up at the conclusion of the operation, the lumen was found to be unusually large, but uniform throughout; there was no ulceration or stricture. Near the distal end was a small piece of wood, about a third of an inch long and an eighth of an inch in the other two diameters. It was irregularly shaped, but being somewhat macerated its points were not sharp. The colour suggested that it had originally belonged to a cedar-wood pencil, but the boy, on being questioned afterwards, denied that he was in the habit of biting his pencils. There were also two hairs about three-quarters of an inch long, the nature of which was confirmed by microscopic examination. There were also several threadworms present, but these, in my experience, are not by any means uncommon. Nothing else was present except some soft faecal matter. No concretions had formed around the foreign bodies.

According to Kelly and Hurdon[1] the commonest foreign body met with in the appendix is a pin. These authors give a list of 46 cases in which this was found. All the cases were complicated by peri-appendicular suppuration, and many of them were fatal. Bullets and shot have also been met with, in most cases derived from eating game.

Other foreign bodies recorded are the following: Pieces of bone, pieces of fish-fin, bristles of a toothbrush, fish-bones, a nail, and parasites—*Ascaris lumbricoides*, *Oxyuris vermicularis*—and a segment of tapeworm. Barnet and Macfie[2] have published a case of gangrenous appendicitis in a hernial sac in which a clove was found protruding from the perforation in the appendix. The patient had not had the opportunity of swallowing cloves since eating an apple pudding a month previously, when he recollected doing so. Apple-pips, grape-seeds, and fig-seeds have also been found. Calcareous enteroliths and true gall-stones are very rarely seen. Battle[3] has suggested that the increase in the frequency of appendicitis in recent years may be due to minute particles of iron derived from the rollers used in grinding wheat. He suggests that these particles find their way into the appendix, where they form the nucleus of a concretion, and he has been able to demonstrate the presence of such a nucleus. Battle[4] also collected four cases in which hairs were present, and in some of these concretions had formed around them.

If sharp points exist, foreign bodies may, and often do, perforate the wall of the appendix and cause acute symptoms of peritonitis. Acute symptoms may be due to the penetration of the inner coats without actual perforation of the peritoneum. Battle quotes such a case recorded by MacDougall.

As regards the frequency of foreign bodies in the appendix, different authors have recorded varying statistics. A. O. J. Kelly had only one case (a pin) in 460 operations for appendicitis. Bell met with 5 cases in 1,000 appendicectomies. Murphy states that they occurred in 3.5 per cent. of his cases, Fitz in 1.2 per cent., while Mutterlich gives 12 per cent. as the result of his experience. At the Johns Hopkins Hospital 4 cases were met with in 1,000 operations for appendicitis. Probably this discrepancy is due to the degree of care with which concretions are examined for a foreign body as their nucleus, and possibly also to the inclusion of concretions by some authors under the heading of foreign body. Personally, I have examined several hundred appendices, and this is the first case in which I have found a foreign body, with the exception of threadworms, which I have noted in several instances. I must admit, however, that I have not always examined concretions carefully for a nucleus.

It is highly probable that, if a foreign body has sharp edges or points, which presumably may easily abrade the mucous membrane, inflammatory changes are produced in the appendix sooner or later in all cases, bacterial invasion of the wall readily occurring. It is possible, however, that the onset of symptoms may be delayed for a considerable period, as several cases have been recorded in which appendicitis, due to the presence of a pin, has not developed until several months after the foreign body was swallowed. Micro-organisms can probably pass through the mucous membrane without any gross abrasion, and their number and chances of flourishing would be greatly increased by the presence of foreign bodies: so that even a smooth foreign body may lead to inflammatory changes in the appendix. The presence of threadworms may also lead to such changes, as it has been proved that bacteria flourish more abundantly in their neighbourhood. It has even been asserted that threadworms may penetrate into the mucous coat. The escape of the foreign body back into the caecum may be prevented by valvular formations of the mucous membrane, by kinks, either congenital or produced by adhesions, or by stricture produced by ulceration. Inflammatory infiltration of the muscular coats, which would prevent peristaltic contraction, may also prevent the passage of the foreign body back into the bowel. Later on, the formation of a concretion around the foreign body may also prevent its escape. On the other hand, Howard Kelly[5] thinks that smooth rounded foreign bodies may produce no inflammatory change, and are possibly expelled into the caecum. Cases have been recorded in which a large quantity of shot has been present in the caecum and appendix without causing any symptoms.

Normally, the small size of the opening into the appendix prevents foreign bodies from entering it. Birmingham[6] thinks that the valve of Gerlach has very little to do with it. In my case, the unduly large lumen probably favoured the entrance of the foreign bodies, and they were then carried, possibly by reverse peristalsis, towards the tip, although the movements of neighbouring coils of intestine may have assisted in their migration. In this connexion the observations of Cannon and Murphy[7] are of interest. By means of observations of bismuth meals with the Roentgen rays, these experimenters found that where there is an insuperable obstruction in the small intestine, violent efforts are made on the part of the muscular coats to overcome it, but after a time, these efforts failing in their object, the intestinal contents are forced backwards in the opposite direction, probably by a process of reverse peristalsis. A similar process possibly takes place in the appendix.

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ON THREADWORMS IN THE VERMIFORM APPENDIX.

By CLAUDE WILSON, M.D.,

TUNBRIDGE WELLS.

THE connexion between threadworms and the vermiform appendix has not long been recognized, but evidence is accumulating which would appear to show: (1) That the appendix is by no means an uncommon nursery for the *Oxyuris vermicularis*; (2) that these small worms may be the direct cause of appendicitis; and (3) that obstinate cases of threadworms which resist repeated courses of treatment may often, and perhaps generally, be thus explained. A recent case illustrates these points.

In September, 1911, I was consulted by a lady, aged 35, who had suffered from grumbling pain in the right iliac region, with occasional exacerbations, for several years, and who had also had recurrent attacks of threadworms, which many courses of treatment by anthelmintics, administered both orally and by enemata, had failed to cure. I was fortunate enough to see the case when slight fever and marked McBurney tenderness pointed clearly to an attack of subacute appendicitis, and when also some threadworms were present in the motions. After the attack had subsided, leaving only some grumbling pain and doubtful tenderness, the appendix was removed. It was found to be kinked and swollen, and the inner coats were greatly congested and thickened, while a careful search revealed the presence of a single threadworm and a single ovum. It is now six months since the operation was performed, and the patient is apparently quite cured not only of her abdominal pains, but also of her tendency to be troubled by threadworms, though no anthelmintic treatment of any kind has been resorted to.

It is strange that more threadworms were not found in the appendix in this case, but no evidence of their presence would have been discovered at all had not a very careful search been made, and it is probable that *Oxyuris* may exist as a cause when none can be found in the removed appendix. Such a finding is, however, probably quite uncommon. In Dr. Macdonald's case[1] "two distinct collections of *Oxyuris vermicularis* were seen towards the base." In "several" of Mr. Burgess's "Five hundred consecutive operations for acute appendicitis"[2] small threadworms were present; while in one of Dr. G. F. Still's cases[3] no less than 111 worms were found in an inflamed appendix.

To Dr. Still, who devotes six pages to a discussion of this subject, we owe the knowledge that this class of case is by no means uncommon among children. "In a series of one hundred necropsies on children between the ages of two and twelve years threadworms were found in thirty-two cases—that is, in 32 per cent."; and in two-thirds of these cases they were found in the appendix. "Moreover, the appendix is in some cases the only part in which the threadworm is found." Dr. Still concludes that the appendix is a common breeding ground for the small parasite, and that the "extreme obstinacy" in some cases, "in spite of all treatment . . . becomes at once intelligible."

Among adults threadworms are fortunately much less common than in children, but when they do occur they are often extremely intractable, and it is probable that one

only has to approach such cases with the above considerations in mind to discover some evidence of appendix irritation in a large proportion. Finally, even in the absence of such evidence, the chances of failure to cure a case of threadworms, without removal of the appendix, should receive consideration, for it seems probable that the really obstinate cases may all be explained by the fact that there is a nursery beyond the reach of drugs passing through the intestine. Another case is doubtless an illustration of what is possibly a fairly common type. Twelve years ago a lady aged 26 complained that no one had been able to cure her of threadworms, from which she had suffered since childhood. At that time I had never met with an incurable case, and felt pretty confident of finally relieving her. But I failed, and the affection continued intermittently until four years ago, when, visiting relations, she developed an attack of appendicitis, and was operated on; and now she is free from the pest which troubled her both physically and mentally for so many years. Though proof is wanting, the explanation is fairly obvious.

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FOREIGN BODIES IN THE INTESTINE.

BY

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THE following case is of interest as an illustration of the manner in which Nature is sometimes capable of dealing with foreign bodies in the intestines. The patient was a male lunatic aged 33, who complained of pain in the abdomen, and whom I was asked to see late at night.

I found him lying on his back with his legs flexed upon the abdomen. His pupils were dilated, he had a temperature of 100°, a pulse of 112, his tongue was clean, and his bowels were said to have acted that day. He had not been sick. I was informed that he had on previous occasions passed stones (not gall stones). The abdomen was slightly distended and tender all over; it moved fairly well on respiration, was tympanitic, and nothing definite could be made out. Nothing was detected per rectum, and having excluded as far as possible all forms of external strangulated hernia, and finding no physical signs in his chest, he was ordered an enema and restricted to fluids.

The next morning (January 20th, 1911) he was much the same. He had slept well, there had been no result from the enema, he had not been sick, his temperature was 100.6°, pulse 112, and his tongue clean. He was ordered another enema. In the evening at six his temperature was 100°, his pulse 120, and although there was still no result from the enema he seemed somewhat better. He was ordered ol. ricini, ℥ jss.

The next morning (January 21st) his temperature was 101°, pulse 120, and his tongue was still moist and clean; urine normal. The abdomen was now well distended and tender, no peristalsis was visible, but there was resistance over the sigmoid flexure, which was dull to percussion, but still nothing definite could be made out. There was no vomiting, and as the bowels had not acted he was again ordered a large enema, but still with no result. Some flatus came away, and he was ordered calomel gr. viii ℥ belladonna.

On the 22nd the patient seemed better, the temperature was 98.4°, pulse 116, his tongue was furred and he had not been sick. The bowels had moved, and very offensive dark liquid material mixed with mucus came away. There was less abdominal distension, but there was still dullness over the sigmoid flexure. He was ordered ol. ricini ℥j.

On the 23rd he was no worse, his temperature was 100°, pulse 120, there was no sickness, and the bowels had acted, but only the same offensive material coming away. There was still some abdominal distension, and by now a mass could be made out in the sigmoid flexure, which was dull to percussion and painful.

In the evening his temperature had risen to 101.6°, his pulse was 120 and soft, he had not been sick, and the bowels had acted again, the same offensive material coming away. He was quite comfortable.

On the 24th there was a hard substance now easily detected in the sigmoid flexure, which was irregular in outline and painful and dull to percussion. His temperature was 100.6°, pulse 120, and tongue furred. He was not sick, and he was still passing the offensive material. In the evening he continued much the same, and one felt fairly certain that he was dealing with a case of a foreign body causing obstruction.

On the 25th he did not seem so well, his temperature was 99°, and his pulse was 120, and he had not been sick. There was now marked abdominal distension and especially on the right side. The abdomen was tender on palpation, and not only the sigmoid flexure, but the whole of the descending colon also was found to be quite dull to percussion and entirely filled with some hard material forming one long continuous dullness, whilst the other parts were tympanitic and much distended. An examination of the rectum revealed nothing except liquid faeces, so he was ordered another enema and visited soon after. After the enema had been given and with little result, the bowels acted themselves in the course of an hour or so, and he passed a very hard substance which was very offensive and which on subsequent examination proved to be a piece of wood measuring 3½ in. long by ⅝ in. thick, and pointed at one end, the whole enveloped in a piece of blanket 13 in. long by 1⅞ in. wide, and covered with hard faecal material. After this had come away the abdomen was again examined, and the hard irregular substance which was so obvious in the sigmoid flexure was missing. He slept in the afternoon, and early in the evening he again passed another mass, which proved to be a similar piece of blanket 9½ by 1½ in. firmly wound round smaller pieces of wood, the largest of which was 2½ by ½ in. After this had come away he felt considerably better, his temperature was 101.6° and his pulse 120. The abdominal distension was now much less, and one could still make out something hard in the sigmoid flexure and descending colon, which was considered to be more foreign material of some kind.

On the 26th he seemed much better. The temperature was 99°, his pulse 120, regular, tongue still furred. The bowels had been open two or three times during the night, and more foreign material had come away, including wood, blanket, pieces of stone, coal, buttons. The abdomen was now much less distended, and although painful, more foreign material could be made out in the sigmoid flexure and descending colon. No further treatment was employed, and in the course of the day his bowels had acted many times, the patient still passing pieces of blanket, shirt, jacket, stones, buttons, etc.

After this date the patient passed no more foreign bodies, rapidly improved in condition, and within about ten days his convalescence was complete.

The time occupied in the passage of the various articles was 24 hours, during which period the following things came away:

14 pieces of wood, ranging in size between 3½ in. by ⅝ in. and 1 in. by ⅛ in.

12 pieces of stone, ranging in size between 2 in. by 1 in. and ¼ in. by ½ in.

20 pieces of cloth, ranging in size between 12 in. by 1 in. and 1 in. by 1 in.

10 pieces of cotton neckties, ranging in size between 13 in. by 1½ in. and 4½ in. by 1½ in.

40 pieces of blanket, ranging in size between 13 in. by 1½ in. and 2 in. by 1 in.

19 pieces of fustian and corduroy, ranging in size from 12 in. by 1 in. to 2½ in by ½ in.

To complete the list the following must be added to the foregoing: 8 linen buttons, 4 brass buttons, 5 match stalks, 1 overcoat button, 1 piece of tape 3 in. long, 5 boot-laces 6 in long, 2 pieces of linen shirt 6 and 9 in. long respectively by 2½ in. wide, the bottom piece of a match-box, a sharp piece of the bowl of a clay pipe (½ in. square), besides several large pieces of coal, rolled-up paper, wool, and 7 long pieces of knotted handkerchiefs, etc.

The case is of interest, not only from the number of articles that came away, but also from the fact that no complete obstruction was caused in any part of the alimentary canal from the oesophagus downwards, that the ileo-caecal valve formed no obstacle to their passage, and moreover that there was no perforation. That inflammation (if not ulceration) of some part of the gut occurred there is no doubt, from the physical signs and from the offensive material which came away.

The sequela of this case is probably even of greater interest than the original condition of the patient, inasmuch as in my opinion and also in the opinion of my colleague, who took the case over during my temporary absence, there were absolutely no physical signs to indicate the presence of any further foreign bodies, indeed the physical signs and symptoms were those of a healthy individual. The patient was ordered, both by myself and my colleague, to be kept under constant observation, and therefore practically speaking could have had little opportunity of swallowing further foreign material, yet, as the sequela will show, the patient had numerous foreign bodies in his intestines at the autopsy which was held on February 24th. The case is as follows: On February 6th, namely, six days after the patient had been declared to be convalescent and was up and about taking ordinary food and apparently in a normal state of health, he was sent to bed with diarrhoea. He had no temperature, but the abdomen was slightly distended and tender all over.

The next morning (February 7th) the diarrhoea was better. There was no temperature, but the abdomen was much the

same. At 6 p.m. his temperature had gone up to 101°; the abdomen was more distended and tender, and rigid over the lower part. Turpentine stupes were ordered, and at 8 p.m. he seemed much relieved.

The next morning (February 8th) the temperature was 99°, and the abdominal symptoms less marked, but by now a hard substance could be felt in the left iliac fossa, and also a similar mass but not so large in the right iliac fossa. The stools were nothing unusual, tongue slightly furred. At 6 p.m. his temperature was 100°, pulse 132, respirations 20, and the abdomen was again distended, and rigid over the lower part and very tender. Turpentine stupes were ordered every four hours.

February 9th. The patient's temperature this morning is normal, but his pulse is 120, the abdomen is much less distended but still rigid over the lower part, bowels open twice during the night, but nothing unusual detected. A hard mass can still be felt on the left side of the lower part of the abdomen.

February 10th. The patient is much the same, bowels open, a hard mass can still be felt in the left iliac fossa. Calomel gr. vi ordered.

February 13th. The patient is much the same, no change.

February 15th. The patient still remains about the same. The stools are now offensive, liquid, and of a dirty brownish colour, and very acid in reaction. The abdomen is a little distended and rigid, and somewhat tender. Mass still felt on left side.

February 18th. The patient is worse, very weak. He has now incontinence of urine and faeces.

February 21st. The patient is sinking, pulse is extremely weak. Incontinence, very emaciated. Sordes on lips and teeth. He has a peculiar brownish mottling of the abdomen, and a very curious but not unpleasant odour emanates from the surface of the body. The hard mass (? foreign body) can still be felt in the right iliac fossa.

February 22nd. The patient is rapidly sinking; the temperature is subnormal. He passed a shirt-button with a small piece of shirt attached late last night. The button was quite black, and had evidently been in the intestines some time. Still has incontinence, and the mottling is now general over the body and limbs. He died at 2.30 p.m.

At the *post-mortem* examination (February 24th) there was marked chronic pelvic peritonitis. The lower portions of the intestines were absolutely matted together. There was marked congestion of the jejunum and ileum, and also of the large intestines; but there was *no ulceration* and, moreover, no perforation.

On opening the intestines, the following is a list of *some* of the articles removed:

20 pieces of linen, ranging in size from 11 in. by 3½ in. to 1 in. by 1½ in.

14 pieces of blanket, ranging in size from 4½ in. by 2½ in. to 2 in. by 1 in.

6 pieces of wood, ranging in size from 3¾ in. by 1½ in. to 1½ in. by ½ in.

6 pieces of necktie, ranging in size from 5 in. by 4 in. to 3 in. by 3½ in.

To the above must be added 50 shirt and trouser buttons, 7 match stalks, 3 large pieces of cinder, 1 long boot-lace, 1 overcoat button, and 1 piece of handkerchief 4 in. square, besides a quantity of rolled-up paper.

The majority of the articles were found in the jejunum and ileum, and several of the pieces of blanket were firmly wound round pieces of wood and covered with faecal accumulation. From the first to the last there was never complete obstruction; there was no vomiting and no haemorrhage.

A laparotomy was discussed, but for many reasons was not considered advisable. The cause of death was toxaemia following upon acute enteritis, and also from peritonitis due to the invasion of the *Bacillus coli* through the weakened intestinal wall.

THE report of the Board of Management of the Perth Public Hospital, Western Australia, for the year ending June 30th, 1911, shows that 2,247 casualties and accidents, 2,418 in-patients, and 3,781 out-patients were treated at the hospital, while at the infectious diseases branch at Subeau there were 463 in-patients, making a total of 8,909, compared with 8,869 in the previous year. The deaths numbered 248, being 8.6 per cent. of the in-patients treated. The principal causes of death were: Typhoid fever, 26 out of 165 treated; diphtheria, 5 out of 155 treated; and 60 from consumption, out of 117 treated. In the electrical and *x*-ray departments a large number of cases were treated. The weekly cost for each in-patient, after making allowance for out-patients, was £1 15s. in the general hospital, and in the infectious diseases branch £1 6s. 7d.; the cost per bed occupied in hospital £91 4s. 10d., and in the fever wards £60 3s. 6d.

OBSERVATIONS ON AN INFANT FED WITH BARLEY WATER AND COW'S MILK.

BY

R. C. VERLEY, M.B., M.R.C.S., B.Sc.EDIN.

THE notes of this case are short, but in no way biassed or unconfirmed, as the infant was at the time staying in my house.

A healthy infant, 9¾ lb. at birth in the autumn in excellent hygienic surroundings, and breast-fed, showed signs of intestinal derangement one week after birth, crying, chiefly at night; loose motions, sometimes greenish. It was in evident pain. Treatment with castor oil, hydrarg. c. cret., pulv. ipecac. co., sodium bicarb., alone and in combinations, gave only temporary relief. The mother was a highly strung individual, easily excited, and worried a great deal, but otherwise healthy, and apparently had a sufficiency of milk, for the infant gained 1 lb. in weight in three weeks.

As no treatment of mother or child seemed to make much difference, it was decided to stop the mother's milk, and the infant was weaned on barley water and cow's milk, 3 oz. of the former to 1 oz. of the latter being given every two hours.

There was some slight improvement at first, but within a few days the condition was as before, with the addition of the passing of much flatus, both eructations and by the anus. The abdomen was always soft and not painful to pressure. There was no vomiting and no rise of temperature. The motions varied in frequency from four to eight in twenty-four hours. There was no appreciable straining. Undigested curds showed only occasionally, and mucus was marked only when the stools were more numerous. Drugs were again tried with no better effect than before.

The milk was the best procurable in sealed bottles and carefully sterilized before each feed by heating in a water-jacket saucepan. The barley water was made daily from Robinson's patent barley according to directions on the tin. The proportion of milk was increased, and the addition of sodium citrate, 1 grain to the ounce, and also diluted water, but still the infant cried and suffered from pain and flatus. The time between the feeds was lengthened to two and a half hours, but had no effect.

After about ten days of this, plain water was substituted for the barley water, when it was noted that the flatus rapidly diminished and the loose motions equally rapidly became constipated. The crying also diminished, or rather changed its character from one of pain to one of fretfulness. To try to correct the constipation, a small proportion of barley water was added to the mixture of milk and water. This immediately again produced flatulence and painful crying, although it corrected the constipation. A teaspoonful of sugar was used in each feed from the beginning, sometimes cane sugar, and at another time milk sugar. The sugar appeared to make no difference to the flatulence, nor to the constipation.

The addition of fat to the milk and water was now tried in the shape of an emulsion of pure linseed oil. It seemed to answer its purpose very well, as I have often found, particularly in older children. Still the infant was restless and cried too much.

The food was now changed to pure sterilized cow's milk, the time between the feeds increased to every three hours, and 4 oz. to 5 oz. taken at each feed. The result has been perfectly satisfactory.

Of course it is not my intention to draw any general conclusions from observations on one case, particularly as infants are proverbial for their "trickiness" in feeding. I have, however, noticed other cases that appear similar, and by drawing the attention of others to the subject we may yet hope to narrow down the difficulties attendant on infant feeding.

The points I would emphasize in the above case are:

1. Barley water caused "wind" and a tendency to diarrhoea. It probably underwent a fermentative action.

2. Whole ordinary cow's milk may suit an infant where diluted cow's milk fails.

I understand that physiologists say there is no starch-converting ferment in the stomach of an infant under 5 months, hence physiologically barley water should be contraindicated. It is also well known how easily barley water will ferment and become acid under cleanly conditions outside the body. Is it not more likely to do so in the stomach and intestines?

Finkelstein's "albumen-milk" for infants, particularly those infants suffering from diarrhoea, is well known, and has been highly successful on the Continent though not much used in this country. It is, therefore, interesting to note that he founds the treatment on the idea that these cases are due to fermentation as distinguished from putrescence. Hence his food contains a maximum of putrescible substance in the shape of albumen, and

a minimum of fermentable material in the shape of carbohydrates. He adds a very small amount of malt sugar, but no other kind of sugar.

Stolte, in his researches,[1] comes to the same conclusion, pointing out that the thriving of an infant is correlated with increased solidity of the motions, and that the latter is due to saponification and absence of fermentation.

If, therefore, fermentation is producing fatty acids, and thus preventing saponification, the continued use of aperients and antiseptics will not cure the condition without a radical alteration of the diet; and what a saving of suffering, time, trouble, and money if we can lay our hands on the main principle of the diet required!

It must be a great saving in money to poor people who are unable to breast-feed their infants if they can rely on cow's milk, either pure or manipulated in some simple manner, instead of experimenting with this, that, or the other proprietary food, at the least excuse, and to the probable detriment of the infant.

REFERENCE.
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BORACIC ACID POISONING.

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IN the BRITISH MEDICAL JOURNAL of March 16th, 1912, Dr. J. Herbert Sanders describes an interesting case of dysentery, in which a repeated rectal wash of boracic acid caused symptoms of poisoning. This case is all the more interesting as the symptoms only came on after the irrigation of the bowel had been continued for some three weeks.

Professor Cushny, in his *Textbook of Pharmacology*, says that symptoms of poisoning with boracic acid, when absorbed from the alimentary canal, are:

> Uneasiness in the abdomen, vomiting, diarrhoea, dryness of the throat, and difficulty in swallowing; sleeplessness, great muscular weakness and depression, dimness of sight and headache were also complained of, and in some cases collapse and death followed.

I formerly used boracic acid solutions for lavage of the bowel in cases of colitis, but, after having seen symptoms arise in at least three patients, decided it might not be such a harmless method as one would be inclined to believe. Although when used as an intestinal douche I have not found it to cause any serious symptoms, it has, apparently, frequently caused marked symptoms of toxaemia. It would appear probable that this poisoning, if in reality caused by boracic acid, is due to some idiosyncrasy, as one frequently sees cases in which lavage of the bowel with boracic wash has been carried out over a considerable period without any toxaemia, and I have never come across a case like that of Dr. Sanders, when the symptoms have developed later during the treatment.

CASE I.

The first case I saw some fifteen years ago, in which a lady, with marked constipation, had colitis, passing large quantities of mucus, and sometimes membranes. The bowel was washed out with one-half saturated solution of boracic acid in the morning. A few hours later she became excitable, and complained of irritation of the skin, which in the afternoon became erythematous with some tendency to papules. The erythema was most marked over the chest and abdomen, and only slight on the limbs, but on the thighs there was some troublesome urticaria. This erythematous condition of the skin was accompanied by a considerable amount of mental irritability, the patient being fretful and seeming to exaggerate the amount of cutaneous irritation. The symptoms passed off in two days, the rectal washing having been discontinued. The symptoms, however, all recurred the following week when the boracic douche was again employed.

CASE II.

The second case was also a lady who had simple colitis. In this case the erythema was even more marked, for it appeared over the whole body, and was accompanied by most marked urticaria. The mental excitement was so great that the patient insisted on walking about the room naked, declaring that even the nightdress increased the skin irritation, and for a time she behaved like a mad person. The urticarial wheals rapidly passed off, but the erythema lasted nearly four days, and the mental excitement continued more or less during the first two or three days, and was accompanied by insomnia.

CASE III.

The third case was that of an elderly gentleman, suffering from dilated colon. The boracic acid rectal wash was here again followed in a few hours by considerable erythema, also accompanied with urticaria and mental excitement, which lasted nearly two days. This patient, some three weeks later, had copious melaena, followed by collapse. At the necropsy the haemorrhage was found to come from a pedunculated polypus in the descending colon just above the sigmoid. There was no evidence of colitis, but an enormously dilated atonic colon.

It is of interest that in all these three cases the erythema was accompanied by urticaria and mental excitement, which rapidly passed off after the boracic lavage was stopped. The quantity of boracic acid absorbed from one or two lavages could not be very great, and consequently these patients must have had some special susceptibility, if these symptoms are to be considered due to the boracic acid poisoning.

In the first two cases I did not like to lay any special stress on the condition of mental excitement, as both patients suffered from neurasthenia and exaggerated everything, so that the fact of having an erythema which they could actually see and talk about was certainly made the most of.

The third case had not nearly as marked mental excitement. Although the patient was very restless and anxious about his condition, one certainly could not call him neurasthenic, so that it was possible that this condition of mind was due to the boracic acid.

The fact that the erythema occurred with boracic wash has now to be explained, and before one can definitely accept it as a true symptom of boracic acid poisoning I think more evidence ought to be obtained. It has to be remembered that in cases of chronic constipation, when there has been retention of faeces in the colon, it is not at all uncommon to see erythema accompanied by urticaria suddenly come on when these accumulations are disturbed and, so to say, stirred up. I have seen them occur when lavage of the bowel has been given, and when no boracic acid or possible poison was contained in the solution employed as the wash water—even in a case after a simple purgative was given by the mouth, and, as it did not act, was followed by a dose of castor oil.

In a case of this kind not only did erythema occur with considerable skin irritation, although unaccompanied by urticaria, but there was considerable mental excitement. I have always considered such cases as due to toxaemia arising from a sudden absorption of the products of putrefaction from the colon contents, which had been quiescent and hence unabsorbed. The simple douche or purgative causing a loosening of the mass, together with a solution of the poisons, which were then rapidly absorbed, caused the toxic symptoms.

It still is not clear to my mind that we are justified in considering these symptoms as really due to boracic acid poisoning, and they certainly do not correspond with the symptoms described by Professor Cushny. The article published by Dr. Sanders made me think it might be advisable to record these cases which had come under my observation.

ACUTE EPIDIDYMITIS PRODUCED BY MUSCULAR STRAIN.

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HONORARY ASSISTANT SURGEON TO THE MANCHESTER LOCK HOSPITAL.

UNTIL quite recently I had always been strongly of the opinion that an acute inflammation of the epididymis without concomitant orchitis must in every instance emanate from disease of the posterior urethra. From an anatomical point of view it is easy to understand how, by direct continuity, inflammation of the mucosa of the prostatic urethra may travel along to the epididymis, and the pathological changes evidenced by *post-mortem* examinations and the experimental investigations by Melassez and Terrilon (quoted by Finger[1]) show that the testicle proper is not involved in such cases. Consequently, one has been disposed to receive with absolute incredulity a patient's statement that the condition has been brought about by a strain. Lately, however, two

cases of acute epididymitis have come under my observation in which the inflammation gradually developing after a violent lifting effort, no outward manifestation of urethral disease could be discovered; the urine was normal, and a most rigid urethroscopic search for inflammation in the posterior urethra proved negative. These searches were undertaken with a urethroscope of the Goldschmidt type, which, as I pointed out in a former paper,[2] has the great advantage of giving a highly magnified, well illuminated and beautifully clear picture of the prostatic urethra. This instrument has done much to unravel the mysteries of this deep-seated and important section of the lower urinary apparatus.

Comparatively few cases of epididymitis resulting from strain of the abdominal muscles have, as far as I can ascertain, been reported. Some apparent examples are certainly to be found in foreign literature, but it is questionable whether all possibility of latent urethral disease could be excluded until Goldschmidt and Wossidlo evolved their valuable urethroscopes. The following cases, however, have satisfied me that epididymitis may be excited, independently of any predisposing factor such as urethritis, by strong muscular effort, especially when such effort brings into play the muscles of the abdominal parietes.

CASE I.

A strong, muscular moulder, aged 27, seven years married and the father of four children, was on February 17th, 1911, carrying, with the help of a labourer, a large shank of molten metal, when he accidentally stepped with his left foot on to a piece of scrap-iron. This false step nearly threw him to the ground, but he made a desperate effort to regain his balance by suddenly throwing his whole weight on to his right leg. A slight pain referred to the right groin and a sensation of faintness and nausea followed. He assured me no direct blow was received on the groin or scrotum, nor were the scrotal contents nipped between the thighs or by the fork of the trousers. All his symptoms disappeared in a few minutes, and work was then resumed. About seven or eight days later, however, he noticed some swelling of the right testicle, which, increasing in size and becoming more and more painful, finally compelled him to discontinue.

The man's employers became suspicious of the nature of his complaint, and sent him to me on February 23th for examination. There was then well-marked epididymitis on the right side, but the inflammation did not involve the secretory portion of the testicle. The swollen epididymis was about three times its normal size, and painful on pressure; the spermatic cord was uniformly enlarged and sensitive. The veins showed no varicosity. No discharge could be obtained from the meatus even after repeatedly stroking the canal with the finger from the bulb forwards, and a three hours' urine passed into two test glasses showed neither cloudiness or urethral shreds in either portion. Both the vesiculae seminales and prostate were healthy. I decided to allow some of the acuteness of the epididymal inflammation to subside before attempting any instrumental exploration of the urethra, and the employers were accordingly advised of the necessity for the delay in my report.

When the man presented himself for further examination a week later, he had retained the urine for six hours in obedience to my instructions, and an examination of it revealed no abnormality. The swelling of the epididymis had now largely subsided, and after obtaining the man's consent I proceeded to urethroscope him. The anterior urethra was found after the closest investigation with a Wyndham Powell urethroscope and my telescopic attachment to be entirely free free from disease, and in fact to harmonize with the man's statement that he had never suffered from any gonorrhoeal affection. The posterior urethra was then examined by Wossidlo's instrument, with negative results, the whole of the mucosa of this region, including the colliculus seminalis, the orifice of the prostatic utricle, and the mouths of the ejaculatory and prostatic ducts, being absolutely normal and presenting no appearance of having been diseased. There was no personal or family history of tuberculosis, rheumatism, or gout, and the lungs were found to be thoroughly sound. As he had resided in Manchester all his life and had never been abroad, the question of malaria, a reputed cause of primary epididymitis, was not considered. I consequently reported to the man's employers that the case was undoubtedly due to accident. Two weeks later, when I saw him again, every trace of epididymitis had disappeared, and he informed me that he had been back at work for the past three days.

CASE II.

The patient was a strongly-built gentleman, 41 years of age, who was inclined to corpulency, but had in earlier life been a well-known athlete. Although married ten years no children had resulted from the union. His previous health would have been excellent but for the fact that he had suffered for the last four or five years from piles. He had an exceptionally good family history, and he positively assured me that he had never contracted gonorrhoea.

On May 11th 1911, he was, during a "spring cleaning," lifting unaided one end of a heavy upright grand piano while standing on his left foot and simultaneously using his right foot to push the carpet into its place under the piano. While doing this he experienced a sensation as if—to use his own words—"something suddenly tore" on the left side of the scrotum. There was practically no real pain at the time, but he became thoroughly exhausted immediately afterwards and was compelled to lie down. About an hour later he noticed that his piles had bled rather freely.

On May 19th, eight days after the accident, his left testicle began to ache considerably, and he discovered that it was reddened and nearly as large as his fist. He visited me the following day. There was then decided enlargement and tenderness of the left epididymis, and the inflammation was sharply confined to this part of the organ. The cord for some distance upwards was sensitive, and decidedly but uniformly thickened. A distinct recent ecchymotic discoloration could be seen on the left side of the scrotum. There was a double varicocele, but the varicosity was much more pronounced on the left side. The prostate was normal, and the vesiculae seminales could not be felt. No discharge could be expressed from the urethra, and the urine on inspection was clear and free from filaments.

On May 31st the swelling of the epididymis had entirely subsided without leaving the slightest thickening, the treatment employed being merely rest, applications of Caspar's ointment, and hot fomentations. The discoloration of the skin had also disappeared. The whole urethra was then minutely explored with the same instruments as were employed in the former case, and I was thoroughly satisfied that the urethroscopic appearances were perfectly normal, and that no sign of urethritis was present.

As regards the causation of this "strain-epididymitis" the majority of writers on the subject ascribe the condition purely to the sudden contraction of the cremasteric muscle, which, they say, violently drags up the testicle and bangs it against the pillars of the external abdominal ring. To this action the French have given the name *coup de fouet*. Judging from the histories of my two cases I think it is very questionable whether this whip-snap action plays the real part in the causation of strain-epididymitis. The strength of this muscle is comparatively feeble. The few strands of muscular fibres which compose it could not have the power by themselves to inflict such damage on a healthy organ, and again most of the force of the contraction of these muscular strands would have expended itself before the testicle had reached the outer inguinal ring. I think Case II helps to explain the etiology more rationally, for it will be noted that the patient was subject to haemorrhoids, which bled profusely shortly after the accident. Again, in this case an ecchymosis of the skin in the neighbourhood of the inflamed epididymis appeared a few days after the abdominal strain: and lastly, the patient suffered from a varicocele which was especially marked on the left side. Clearly some branches of both the spermatic and haemorrhoidal plexuses must have been ruptured by the muscular effort. That they should give way under such pressure is not to be wondered at when one considers that they are surrounded by loose tissue, which gives them little support, and are lacking in the aid afforded to other veins, as in the limbs, by muscular movements. Again, their valves are few and imperfect, the main veins are of considerable length, and are tortuous and form many anastomoses. The spermatic veins would, during an exceptionally violent contraction of the rectus abdominis muscle, very probably also be pinched by those fibres of the rectus which pass to the inner lip of the iliac crest. The arteries having more rigid walls would not be affected, and the result would be an engorgement of the veins, with their liability to give way at the weakest parts. Assuming, then, that a man is subjected to sudden and very severe muscular exertion, requiring him at the same time to make use of a violent expiratory effort, it is easily to be understood that a rupture of several small venules into the substance of the epididymis or cord may result under such tension and compression even though the vessels themselves are quite healthy. No other explanation but this haemorrhagic theory would satisfactorily account for the gradual development of the inflammatory exudate and afford the reason why the pain of strain-epididymitis should be slight at first, and slowly and gradually increase. If the "whip-snap action" were the correct explanation, one would expect, assuming for the moment that a banging of the testicle against the external abdominal ring by the cremaster muscle could be sufficiently powerful to set up an inflammation, that this would, just like an ordinary direct blow on the organ, give rise to immediate excruciating pain.

In the actual appearance and palpation of the testicle there is nothing to distinguish strain-epididymitis from gonorrhoeal epididymitis. Judging from my two cases the inflammation in the former disease is much slower in its development, recovers quicker, and appears to be less prone to leave behind the inflammatory deposit at the head or tail of the epididymis which is so common a sequel of the gonorrhoeal variety. To those unaccustomed to urethroscopic work an examination of the urine alone will nearly always suffice to settle the diagnosis between traumatic and gonorrhoeal epididymitis, for in the former the urine is always absolutely normal, whereas in whatever stage a gonorrhoea may be in the urine will afford the clue by showing the presence of cloudiness or clap-threads. Microscopy of these threads will usually reveal the presence of gonococci, excepting when the disease is of great chronicity, and in such cases an epididymitis is very unlikely to arise. When there is a history of injury there may be considerable difficulty in distinguishing during the first week or two an acute tuberculous epididymitis from a strain-epididymitis. Here again an examination of the urine usually aids us, for in most of these tuberculous cases there is some primary urethritis which renders the urine turbid, and this turbidity, when centrifugalized, may be found to contain tubercle bacilli. Further, in cases of acute tuberculous epididymitis the corresponding vesicula seminalis is early involved. Later on the formation in the epididymis of nodules which may break down into abscesses and the irregular thickening of the cord are characteristic of the tuberculous affection. Malaria, gout, and rheumatism are said also to be capable of producing a primary or idiopathic epididymitis. I have no experience of the first named, and I am very sceptical of the ability of the two latter to cause an epididymitis unaccompanied by orchitis when there is no posterior urethritis. However, as other rheumatic or gouty manifestations would be present, no difficulty could arise in distinguishing epididymitis so produced from strain-epididymitis.

Case 1 is of marked forensic interest in view of claims under the Workmen's Compensation Act. In a case of epididymitis referred to me three years ago the inflammation was said by the workman to have been produced by his slipping over a greasy iron plate. There were no witnesses of the alleged accident, and the claim was thought to be fraudulent. As frequently happens when the swelling is at its height no distinct discharge could be expressed from the urethra, but the urine passed into two test glasses was markedly purulent and loaded with urethral threads in both portions, pointing to the probable involvement of the posterior urethra. When these shreds were submitted to Gram's method and microscoped, numerous gonococci were to be seen. I accordingly reported that I was satisfied that the condition was one of disease and not the result of accident. On the strength of this opinion the case was put up for trial before Judge Parry at the Manchester County Court, and resulted in judgement for the employer.

References.

[1] Finger, Die Hoden und Nebenhoden, *Klinisches Handbuch der Harn- und Sexualorgane*, vol. iii, 1894. [2] Edwards, Chronic Disease of the Colliculus Seminalis, British Medical Journal, December 11th, 1909. [3] Wossidlo, Ein neues Instrumente für die Urethroscopie posterior, *Deut. med. Woch.*, No. 7, 1910.

From the fifth annual report of the British Guiana Society for the prevention and treatment of tuberculosis, we learn that full advantage has been taken of the public dispensary opened in 1908. The society undertakes the gratuitous examination and treatment of all persons, irrespective of race, colour, or financial status. The total number of persons who attended at the dispensary for examination and treatment during 1911 was 760. The total number of attendances made was 2,112. During the year under review a lady visitor was appointed whose duty consists in visiting the patients in their homes, helping them to carry out simple measures for general hygiene, and in particular preventing the spread of consumption. A great improvement has taken place in many homes. One of the difficulties met with is the fact that patients, thinking, possibly, that notification means persecution, give an incorrect address, and cannot be found. The report mentions some startling facts in connexion with the occupation of those suffering from tuberculosis—namely, that twenty consumptives followed the occupation of cook in various parts of Georgetown, fifteen were school teachers, twelve were bakers, seven were nurses.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

REMOVAL OF THE EYEBALL: A QUICK AND EASY METHOD.

In the British Medical Journal of November 11th, 1911, is a short article by Dr. W. Robinson of Sunderland on "Removal of the Eyeball: a Quick and Easy Method." Permit me to say that the method described by Dr. Robinson was constantly employed over twenty years ago by one of my colleagues in the Victorian Eye and Ear Hospital, the late Dr. Aubrey Bowen, and is still followed by me in many cases of enucleation of the globe.

James P. Ryan,
Surgeon, Victorian Eye and Ear Hospital,
Melbourne, Australia.

ADDISON'S DISEASE TREATED WITH TUBERCULIN.

The article by Dr. J. H. Munro in the Journal of March 23rd, page 665, was of great interest to me, because when in practice in Tasmania I had the care of a similar case which I treated in a similar manner. Unfortunately the disease was too far advanced when the patient came under my care to allow of any very progressive result from the treatment: but although the fatal end could not be avoided still the circumstances of the patient were made easier, and each inoculation of tuberculin materially lessened the pain. Futile as they were, the immediate results of the tuberculin inoculation in this case of Addison's disease strengthened my opinion that if such a case came early under treatment, inoculation of tuberculin would effect a cure. I am glad to learn that this form of treatment has proved so successful at the hands of Dr. Munro.

London, E.C. Theo. M. Kendall.

THE EFFECT OF SWALLOWING A LARGE DOSE OF BORIC ACID.

In the British Medical Journal of March 16th, 1912, page 605, Dr. J. Herbert Sanders gives detailed notes of a case of severe poisoning, the result of absorption of boric acid solution by the rectal mucous membrane. A boric acid rectal wash had been used twice a day for a month, each wash containing about three drachms of boric acid. He also refers briefly to four other cases of poisoning by boric acid. All these cases were due to the repeated absorption of small amounts of the substance.

Possibly the following very brief notes of a case in which a single large dose of boric acid was taken may be of some interest. In such cases symptoms of gastric and intestinal irritation are usually prominent; but in this case the toxic effect predominated.

A married woman aged 33, somewhat addicted to alcohol, had in her house an unopened packet, containing one ounce of boric acid crystals, which had been obtained from a chemist for use as a lotion. The patient's husband mixed the contents of this packet with half a tumbler of cold water, and it was drunk by the patient as a draught, only a few crystals being left adhering to the tumbler. I was sent for two hours later. The patient was lying down in a collapsed condition; the extremities and face were cold, and the cheeks and nose cyanotic. The pupils were widely dilated and equal; the conjunctiva of both eyes was markedly injected, the bright red vessels being very plainly seen. A diffused erythematous rash was present on the skin of the trunk and limbs; it disappeared completely on pressure, was not elevated above the skin, and was not itchy. The pulse was 150, small, of very low tension, and regular. The respirations were proportionately increased in frequency. The patient complained of great weakness and of abdominal discomfort. She had no marked nausea, and had not vomited.

An emetic of mustard was given at once with large quantities of warm water, and the stomach was emptied several times. Three doses of magnesium sulphate were then given at intervals of two hours till active catharsis occurred.

All the symptoms gradually subsided after this, and next

day she felt comparatively well. The erythematous rash rapidly faded, but the conjunctival injection lasted for about three days.

Broadstairs. JOHN H. AYTOUN, M.B.,

THE RADICAL CURE OF HERNIA.*

In the *Intercolonial Medical Journal of Australasia* for September 20th, 1905, I described a simplified method of operation for hernia in children. I have since then used it for all inguinal hernias, and think it well worthy of attention. It is based upon the dictum of Mr. Hamilton Russell that the sac is the cause of the hernia and the excision of the sac cures the hernia; or, more precisely, in Mr. MacLeod's words, that "the great underlying principle is to find the neck of the sac and occlude it thoroughly." The operation does this, I think, essentially and easily.

It is as follows: Open the sac in the line of the rings without separating it in any way. Deal with the contents. Pull the empty sac sufficiently out from the abdomen to ensure subsequent retraction of the stump. Extend the incision in the sac up to the internal ring. Locate the vas. Open out the sac transversely, putting it on the stretch over the first finger of the left hand. With sharp-pointed scissors cut the sac across over the finger, changing the position of the finger as necessary to get across the sac. The proximal cut edge of the sac (neck) will retract into the abdomen, and is to be caught here and there with clips. The sac (peritoneum) is thus severed from side to side and its neck held by the clips. Whip-suture the neck and allow it to retract into the abdomen. Close the wound. Seal it with tr. benz. co. and a little absorbent wool.

The advantages claimed are:

1. Great saving of time; the separation of the sac in the usual operation takes most of the time.

2. A good peritoneal closure—theoretically; I have not seen one from the inside.

3. Non-disturbance of parts—testicle and vas are not disturbed—no blood vessels of cord, etc., are cut or torn, therefore no ligature in wound.

4. Good primary healing without trouble on account of above.

The method of cutting the sac has been criticized on account of the risk to the vas. This is theoretical. In practice the continuous definition of the vas by the finger stretching the sac is so easy that the idea of cutting the vas is not tenable.

The scissor-point runs so easily and freely beneath the sac along the finger that in the tissues of a child one can distinguish and cut peritoneum only; in the thick sac of old herniae the scissor-point will not run so readily.

The sac left *in situ* in the lower part of the canal and scrotum gives no trouble, even when apparently half an inch thick. Why should it? If a truss were applied to retain the hernia the sac would not cause trouble; why should it now?

Tension on the neck of the sac in children ensures a good spring back after suturing and a good peritoneal surface, but in old hernias the sac is so adherent to the thickened mass about the ring that the ideal tense peritoneal surface is not so easily obtained.

The tr. benz. co. and wool sealing is, I think, ideal, and no other dressing is needed, except a pressure-pad during the recovery from the anaesthesia.

Babies are not put to bed, but given to their mothers to tend in the usual way. Children are kept in bed—that is, off their feet—but in no way tied or hampered as Mr. MacLeod suggests. Freedom to sit up or turn about as they wish is, to my mind, much more likely to ensure safe healing than struggling and crying against restriction. Old feeble people are got out into a wheel chair in a day or two.

West Maitland, N.S.W. E. KEN HERRING.

* This note refers to a paper by Mr. Harold H. B. MacLeod published in the JOURNAL of January 20th, 1912, p. 115.

ON THE GENESIS OF THE VENOUS PULSE.

In Dr. James Mackenzie's masterly description of the venous pulse (*Diseases of the Heart*, ed. 2) he attributes the main rise, which he denominates *a*, in the jugular curve, to the auricular contraction, and says: "The forces operative in producing the variations in the auricular pressure are also acting in producing the jugular pulse. . . . Both are due to the systole of the auricle."

It is not possible to agree unreservedly to this view, as applied to the jugular pulse, for the inference obviously is that blood is forced back from the contracting auricle into the jugular in sufficient quantity to cause a distension of the jugular vein, marked by a wave, *a*, consequent on the regurgitation.

In no way other than by a regurgitant stream could the systole of the auricle, *per se*, cause the venous pulse. Now, the contraction of the auricle begins on the great veins entering it. This sphinctering action of the great veins would oppose an insuperable obstacle to any regurgitation from the auricle under ordinary conditions, for a vessel contracted to an infinitely small diameter would, mathematically, require an infinite force to dilate it.

A sphincter, or contracted vein, is as good as, probably better than, a valve for preventing regurgitation. In the bird the right auriculo-ventricular orifice is entirely muscular, without any trace of valve flaps, as was long ago pointed out in this connexion by Dr. Herbert Davies. Yet the circulation goes on quite as efficiently in birds as in man.

The wave *a* in Dr. Mackenzie's and other tracings is, in all probability, an inertia wave, due to the blood flowing towards the auricle being suddenly stopped when the contraction of the great veins near the auricle prevents further onflow. If the tap at the end of a pipe from which water is flowing be suddenly closed the pipe behind it is subjected to a bursting strain, due to the momentum of the oncoming water. If the pipe were elastic instead of rigid it would swell considerably, in the same manner as the jugular near the auricle when suddenly sphinctered, and for the same reason. A leaden pipe gradually dilates under the shock from within till it finally bursts. Were the pressure in the pipe at the moment of the shock recorded, a considerable rise would be shown, due to the momentum of the suddenly arrested water column. Similarly in the jugular vein: when it closes near the auricle, the blood which would have flowed on into the auricle is arrested in the vein during the auricular contraction. But the walls of the jugular vein are not rigid, and must dilate to receive the oncoming venous blood till the dilatation is sufficient to absorb the inertia of the venous column.

This seems to me the natural and sufficient explanation of the auricular wave *a* in the jugular pulse curve. As Dr. Mackenzie remarks, "most people in good health show it"; and it is scarcely conceivable that most people in good health have a regurgitation from the auricle into the jugular each time the auricle contracts. The heart is not constructed to make regurgitations, but to drive the blood forward, and the auricle is adequately protected from causing regurgitation by the preliminary closing of the great veins entering it.

The wave *a*, as an inertia wave, would vary with the rate of flow of venous blood, the suddenness of its arrest, the intravenous pressure or fullness, etc., but would only be a true auricular regurgitant wave under diseased conditions.

Mentone. D. W. SAMWAYS, M.D., D.Sc., M.R.C.P.

As Lord Rosebery, President of the Royal National Hospital for Consumption, Ventnor, has again published a complaint as to the action of the Council of the King Edward's Hospital Fund in not making a grant to that institution, the honorary secretaries of the fund announce that the reason is that the accounts furnished by the hospital in support of its recent application showed excesses of income over expenditure. The surpluses were, it is true, due to legacies, and in the case of a hospital receiving exceptional legacies in a given year, or one which has so little free capital that the investment of unspent legacies is a matter of financial urgency, the existence of such a surplus would not be decisive against a grant, but in the case of this hospital, the average surplus for the six years 1905-1910 was £2,119, while in the last year the free capital amounted to £53,000 besides endowments of nearly £9,000. A grant to the hospital would thus have been equivalent to a grant to capital, and the council of the fund therefore considered that the moneys entrusted to it for distribution could be better employed in assisting institutions in greater need, or in increasing, as it has been able to do elsewhere, the amount of sanatorium accommodation available for London patients.

Reports of Societies.

THE ROYAL SOCIETY.

Thursday, March 28th, 1912.

Sir ARCHIBALD GEIKIE, K.C.B., President, in the Chair.

Confusion Test for Colour Blindness.

DR. G. J. BURCH, F.R.S., described the following confusion test for colour blindness: A sheet of perforated zinc is fixed in the focal plane of a convex lens of about eight diopters, through which the observer looks. On a card six inches or so farther off is painted a design in confusion colours—for example, red and blue letters on a dark green ground. The red-blind can distinguish the blue letters but not the red, though these are far more conspicuous to the normal. The letters being out of focus brush marks are invisible, and new designs can be easily drawn. Other colours are: Geranium red with French grey; emerald green with yellow ochre; lilac with blue—this last being a test also for the green-blind. The colours used were matched by the late Lieutenant-Colonel Scott, who was red-blind.

The Systematic Position of the Spirochaetes.

Mr. CLIFFORD DOBELL gave a brief summary of certain results obtained from a detailed study of the morphology of a large number of spirochaetes and related organisms. It was urged that the much discussed problem of the systematic position of the spirochaetes could be solved only by means of morphological evidence derived from a study of the Spirochaetes, Bacteria, Cyanophyceae, and Protozoa. A detailed study of these four groups had been made. Among the spirochaetes themselves many species—belonging to four different genera—had been investigated. Almost all the morphological characters found among the spirochaetes were represented also among the bacteria; certain of these characters were found in the Cyanophyceae, and the characters were such as to exclude the spirochaetes from the protozoan system altogether. It was therefore maintained that the spirochaetes could not be regarded as protozoa, but that they must be classified among the Schizophyta, and that in the latter group they must be placed among the bacteria and not among the Cyanophyceae.

Selection and Assortative Mating.

Using the simple hypothesis of Mendel, Mr. E. C. SNOW, M.A., investigated by analytical methods the numerical effect on the ancestral and fraternal correlations of dealing with samples (*a*) which are not true random samples of the general population and which mate with no sexual selection, (*b*) which are perfectly random samples of the general population but mate with certain intensity of assortative mating, (*c*) which are selected samples showing assortative mating. The general effect is the same for somatic characters as for gametic: in the case of (*a*) the correlations are found to be reduced, and in the case of (*b*) to be increased throughout. For (*c*) the two effects are superimposed, but it is found that the decreasing tendency caused by dealing with a selected sample predominates over the increasing tendency exerted by the assortative mating in cases in which the intensities of the selection and assortative mating are of the orders of those actually experienced. The general *numerical* results agreed fairly well with the values which had previously been reached by other methods, but the investigation in no way diminished the difficulties in the way of reconciling the "regressions" which follow from Mendelism for certain characters—for example, coat-colour in mice—with those actually found in statistical researches. So far as *numerical* results were concerned, the investigation supported the view that the Mendelian hypothesis could be employed to give confirmation to results which had at first sight appeared paradoxical—for example, the closeness of the resemblance between first cousins—and to give a rough indication of the probable results in cases for which actual statistical data were inadequate—for example, the inquiry into the effects on the offspring of inbreeding of various degrees.

Typhoid and Colon Bacilli.

In a paper on the production of variation in the physiological activity of *Bacillus coli* by the use of malachite-green, Mr. C. REVIS said that *Bacillus coli* could be trained to grow in nutrient broth containing malachite-green. By gradually increasing the percentage of the malachite green the organisms would develop readily in presence of 0.10 per cent. In most cases the organism at the same time underwent a profound change in its physiological activity towards sugars and polyhydric alcohols, acid only being produced in certain of these, from which the organism originally produced both acid and gas, the power of gas formation being permanently lost. In one instance this change in physiological activity was accompanied by equally profound morphological and cultural changes, the resultant organism being quite different to that from which it had been produced. The change brought about by malachite-green indicated a connexion between the typhoid and *coli* groups and the possibility of development of organisms of the one into those of the other.

ROYAL SOCIETY OF MEDICINE.

SECTION OF LARYNGOLOGY.

AT a meeting on March 29th, Dr. STCLAIR THOMSON, President, in the chair, the following were among the exhibits: DR. E. A. PETERS: (1) *Tonsils enucleated by a 16 mm. Mackenzie guillotine.* The PRESIDENT remarked that several years ago he advocated the use of the guillotine in enucleating tonsils. (2) A case of *Asthma* associated with middle turbinals sufficiently swollen to compress the septum: it was a condition characteristic, in the exhibitor's opinion, of nasal asthma. DR. IRWIN MOORE: A pair of *Cutting pliers* for cutting through a tooth-plate impacted in the œsophagus. Mr. W. STUART-LOW: (1) A case of *Lupus of the nose* improved by tuberculin: (2) a large *Cyst on the soft palate* of a boy, which had existed for years, but had never given any inconvenience. DR. DAN MCKENZIE: A case of *Tertiary specific ulceration of the pharynx* undergoing malignant transformation. DR. BROWN KELLY (Glasgow): A series of specimens illustrating œsophageal diseases, among them were an instance of *Traction diverticulum of the œsophagus* and atrophy of the left vocal cord, due to infiltrated gland beneath the arch of the aorta, and one of *Cicatricial stenosis* caused by carbolic acid. Mr. EDWARD D. DAVIS: A case of *Laryngeal crises* with abductor paralysis (tabetic). The cords lay in the position of complete adduction. Sir FELIX SEMON remarked that abductor paralysis in tabes not infrequently preceded all other symptoms in point of time. DR. H. J. DAVIS: Specimens and skiagrams from a case in which a nail 2 in. long fell into the left bronchus of a child, aged 2½, whose body showed *Complete transposition of viscera.* Discussing the last case, emphatic opinions were expressed as to the importance of examining by means of the *x* rays and the bronchoscope all cases of unilateral non-tuberculous pulmonary disease, both in children and in adults; and many cases were narrated in which delay or omission in doing so had led to grave consequences. DR. WATSON-WILLIAMS: An *Electric light gag* for use in operating on the faucial regions, etc. Mr. HUNTER TOD: (1) A case of *Enophthalmos* resulting from ethmoidal disease: (2) a case of *Bleeding tumour of the septum.*

LIVERPOOL MEDICAL INSTITUTION.

AT a meeting on March 28th, Mr. ROBERT JONES, President, in the chair, Mr. ARTHUR EVANS, in a paper on *Perforation in duodenal ulcer*, described 7 cases operated on by him during a period of twelve months. The patients were all males, aged from 23 to 42 years, and 5 recovered; in 6 the perforation was on the anterior wall of the duodenum. Early recognition of the condition was the essential factor in success. Perforation occurred early in the disease, and the ulcer might exist without any apparent symptoms. The most common indication of perforation was sudden acute pain, at first localized in the epigastrium; later the pain became diffused over the abdomen. The board-like rigidity of the recti abdominis, especially at their upper portions, was one of the most valuable signs. The degree of shock and collapse was very variable, and might be deceptively slight. The temperature and pulse-rate were not of much diagnostic value. The site of subacute perfora-

tion was invariably a chronic ulcer, and the extravasated fluids were usually confined to the region of the perforation. In most of his operations the abdomen was dry swabbed, but when contaminated by undigested and decomposing food lavage was employed. The Fowler position, continuous saline injection in the rectum, with pelvic and epigastric drainage, were the most important points in the after-treatment. There were objections to the addition of gastro-enterostomy, since the perforative peritonitis might interfere with the anastomotic junction between stomach and bowel, and the lesser peritoneal sac become infected, thus adding shock. In such cases pneumonia was more likely to occur. The invagination alone seemed to cure the ulcer, and to restore the patient to good health in most cases. Mr. R. E. KELLY said the shock and pain of the onset moderated in six hours or so, becoming more profound later; the most important sign was the alteration in the respiration, especially the reversal of the abdominal movements. It was important to notice where the pain was felt at the onset: if about the umbilicus there was generally appendicitis. He had found most difficulty in the young and the old patients in distinguishing between perforation and appendix trouble. Mr. R. W. MURRAY had prevented ulceration in cases of burns by the administration of sodium bicarbonate in large doses: in treating these cases he wiped out the peritoneum, and had never done a gastro-enterostomy either at the primary operation or later. Mr. F. PAUL thought that if it could be safely added a gastro-enterostomy was a safeguard against the recurrence of perforation; the presence of food in the peritoneal cavity made a great difference in the shock. He washed out and used a silver drain in the pouch of Douglas; the tube had a gauze wick in it. The injection of saline was a most important point, and in those cases where there was a doubt as to the rectal infusions being properly carried out it was better to use subcutaneous injections. Mr. F. JOANS attached very great importance to reversed abdominal movements as a delicate sign. He neither washed nor wiped out the peritoneum, and attributed the good results to saline injections and to suprapubic drainage. He had never had occasion to do a gastro-enterostomy at the time of the perforation, and in those cases in which he had suspected this might be required later there had been no further symptoms so far as he could trace the cases. Dr. COLLINSON (Preston) spoke of the difficulties in diagnosis that causes such as abscess in the mediastinum might originate. When cases of perforation required removal to hospital they should be transported, not lying down, but in the sitting posture. He had made experiments to find the effect of washing the peritoneal cavity, and had found that even a hose pipe was not effective. He removed the appendix in all cases in which he opened the abdomen. Dr. G. C. E. SIMPSON, in speaking of the difficulty of distinguishing between abdominal and chest conditions, said that when the pulse and temperature continued to rise the trouble was in the chest, but when the alteration in the respiratory movements were accompanied by a low pulse-rate and moderate rise in temperature the trouble was abdominal. In replying, Mr. EVANS said he had seen cases in which acute pancreatitis had given symptoms similar to those of duodenal perforation.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on March 19th, Dr. S. Lodge in the chair, Dr. EURICH, in a paper on *Headache*, said that many patients describe a sense of pressure as a headache; such people were generally neurasthenics. A large proportion of headaches were located in regions supplied by the fifth cranial nerve, a few in areas supplied by certain of the upper cervical nerves. These were mainly either peripheral in origin or due to lesions of the nerve trunks. Where the pain appeared to be deep-seated, tension of the dura mater, along with some circulatory disturbance of the blood or lymph, must be assumed. Since most headache was peripheral in origin, careful examination of the parts in which the fifth nerve terminates might give the clue to the treatment. Spots of local tenderness were due, rarely to brain tumour, occasionally to syphilitic periostitis, but fairly commonly to integumental, periosteal, or aponeurotic indurations, classifiable as rheumatic. These latter indurations were generally either frontal or occipital. They caused intense headache, and the only effectual treatment for them was massage. Hysteria was a very rare cause, and its diagnosis generally meant an insufficient examination. There was also a class of headache due to hard mental work, overexertion, insufficient or irregular sleep or food. Many of the headaches of childhood, traceable partly to eyestrain, were ultimately due to lack of sleep. Many anaemic patients suffered also from a lack of rest, and a rest cure was an important preliminary to treatment. It should be followed by a course of iron and arsenic. Headache might also be produced by vasomotor paralysis, as in the case of amyl nitrite. In severity this form came second only to the pains of brain tumour or of cerebral syphilis. Another type appeared to be due to hyperaesthesia of the dura, a form which might follow influenza. Finally, there was the important class of headache due to organic disease within the skull, to renal disease, and to various poisons, such as lead and aniline. The cause of these, in many cases, could be detected only by careful and repeated examinations and observations. Dr. METCALFE said he had cured many cases by means of "ionization" with salicylic acid; he also attached value to high-frequency currents in headache associated with high arterial tension. Dr. OLIVER described a case in which migraine had been cured by proper glasses. Mr. GOYDER advised concerted rather than independent action by the ophthalmic, medical, and gynaecological specialists in the diagnosis of headache.

HARVEIAN SOCIETY.

AT a meeting on March 28th, Dr. W. H. WILLCOX, Vice-President, in the chair, the Harveian Lecture was delivered by Dr. CLAYE SHAW, who chose as his subject *The Material Obligations of Spiritualism and Allied Phenomena*. He began by referring to the universality of belief in the existence of spiritual power, force, or some mysterious agency of a controlling nature, and to the essentially material way in which this was regarded and exploited. The attitude of exponents of theology was much more tolerant towards scientific teaching than formerly. The spectre or ghost theory was then analysed minutely, and the necessity of its physical obligations pointed out, the result pointing to the conclusion that the common acceptation was impossible, and that spirit seances and rappings and messages from the dead were impostures. The telepathic hypothesis was regarded as impossible of acceptance. In speaking of the relation of spiritual force to dead matter, it was contended that such forces had relations only with living matter, and that the upholders of the "occult" were illogical in that they professed to be able to control a higher spiritual essence by a lower and baser material structure. That a lower form of matter could control that which made it was an untenable theory. The spiritualists' ideas were in all respects material, and had never led to anything beyond the merest trivialities. Definitions of "spiritual doubles," given by occultists themselves, were quoted, and the difficulties and errors in their interpretation pointed out, and a critical analysis was made of the dualistic theory which involves the existence of a "mind process" acting only through the material. The recent views of Professor J. S. Macdonald, given at the British Association in 1911, were discussed and the difficulties of acceptance pointed out. The lecturer then gave his own theory of the eccentric projection of ideas as being in the main responsible for the common notions of the externality of force, and he advocated the study of epistemology as being necessary to our correct estimation of the validity of the external world. Occasion was taken to discuss the subjects of hypnotism and suggestion with the view of showing that they were not connected with any special force, but could be practised by any one.

THE German Ophthalmological Society will hold its thirty-ninth annual congress at Heidelberg in August next (3rd, 4th, and 5th).

AN institute for radium research was opened in Berlin on April 1st. It is in connexion with the Charité Hospital. Attached to the institute is a polyclinic, on the staff of which are representatives of surgery, internal medicine, dermatology, and other departments of the healing art. The director is Professor His.

Reviews.

NEUROLOGY.

LESS than two years after the first edition of PURVES STEWART'S *Diagnosis of Nervous Diseases* was published a second edition was called for. That edition, published in 1908, appeared in 1910 in French and German translations, and now a third edition, into which a considerable amount of fresh material has been incorporated,[1] has been issued. These facts sufficiently attest the high value of the book and its deservedly wide acceptance. In our review of the last edition, published in April, 1910, we alluded to the author's masterly grip of facts and entire lucidity of expression. On this, therefore, no more need be said. The reader, however, may be reminded that the work is not intended to displace systematic treatises on nervous diseases, but is planned to supplement them. It deals exclusively with diagnosis, and therefore, after brief opening chapters on the anatomy and physiology of the nervous system and method of clinical case-taking, Dr. Stewart describes nervous disorders from the purely clinical point of view, devoting, for example, separate chapters to coma, fits, and other convulsive phenomena, aphasia, pain, inco-ordination, and so on. The advantages of this plan to the practical student of neurology, both as a guide to diagnosis and for reference in any particular case, are obvious. Needless to say, the work is throughout up to date, and includes the very latest refinements of neurological diagnosis. The whole work is profusely illustrated by diagrams, photographs, and coloured prints, whose excellence adds to the value of a book which is so practical and instructive that it should be in the hands of every practitioner and student of neurology.

During the last few years great interest has been taken in acute anterior poliomyelitis, or infantile paralysis, and much has been heard about the severe epidemics of this often fatal disease that have visited other countries—America, Scandinavia, Germany. At the present time London is placarded with public notices concerning its compulsory notification. Hence it is with some relief that one reads in Dr. F. E. BATTEN'S pamphlet, *Poliomyelitis in Relation to the Spread of Infection by Schools*,[2] that at present, at any rate, there is little to show that the infection of poliomyelitis is spread by schools. Little is really known about its spread, and Dr. Batten is careful to avoid saying that schools and institutions do not aid in its dissemination; the question, as he points out, is still *sub judice*. He advises that contacts should be quarantined for a fortnight, and that infected children should not return to school for at least a month, and only then if convalescence is complete and there is no discharge from the nose. He suggests that both contact cases and infected persons should be treated with urotropin, a drug that is known to delay and prevent infection experimentally.

OPHTHALMOLOGY.

ALL the ophthalmic pathologists who have used the first edition of Dr. SELIGMANN'S textbook of microscopical methods[3] will welcome the second greatly enlarged edition. In the preface to the new edition the author points out how ophthalmologists have freely availed themselves of the wealth of new methods which modern histology has evolved, such as vital staining, the celloidin dry method, modern methods of staining fat, glycogen staining, and new stains for axis cylinders and nerve fibrillae. Processes used in blood examinations and in bacteriology have now to be considered, and in consequence it has been necessary to enlarge the volume. Methods of less value are printed in small type, but it must be noted that in the present state of knowledge the use of a few methods no longer suffices even for a beginner. The specialist needs a large handbook, and Seligmann says that it has been his endeavour to supply his need. Until after using the book practically in the histological laboratory it is difficult to give a judicial verdict upon it, and we can only say here that those methods which we have looked up have been clearly described, and practical hints have been given to avoid the various causes of failure. The book is divided into a general and special part. The general includes instruction on removing the eye, orienting it: preparation of specimens of the bisected eye: fixing, hardening, section cutting, and staining. Nerve methods have a chapter to themselves, and, finally, a chapter is devoted to methods of demonstrating various tissues. Among them are methods for demonstrating karyokinesis, for showing the ultimate structure of protoplasm, elastic fibre staining, and, lastly, methods used to stain blood. The special portion treats of the cornea and sclera; the uveal tract, the retina, the optic nerve, the lens and the zonule of Zinn, the vitreous, and some other special subjects. A chapter on ophthalmo-bacteriology ends the book. Instructions are carefully given for injecting blood vessels. The book is not confined to the human eye: directions for examining other species are given, and the reader is told how best to decalcify the eyes of some fishes before they are hardened.

Refraction and Visual Acuity,[4] by KENNETH SCOTT, is a new book on this subject. The subject is well treated, in a concise manner, and there are not too many mathematical formulae, which, though interesting to those capable of understanding them, are yet not appreciated by the majority of readers, who have neither the time nor inclination, nor even the requisite knowledge, to appreciate them. The book is eminently practical, and may be thoroughly recommended. There will be many whose practice differs from that recommended for working out a refraction, but no one way will satisfy all. The author lays special stress on the fitting of glasses, and the measurements of the patient's face by the surgeon, while elaborate details are given to enable the surgeon to verify the work of the optician. There is an excellent chapter on colour vision, in which the Edridge-Green theory is briefly given, and its bearing on the tests for colour blindness pointed out. It is characteristic of the book that the older and disproved theories of colour vision are not even mentioned. There are short chapters on squint, simulated blindness, and the inspection of school children. Part II consists of 45 pages, and is entirely devoted to the rules and regulations as to visual acuity required for the public services, and by all the principal steamship and railway companies in England, the Colonies, and in many foreign countries. This is of the utmost use, and the book would be well worth having were it for this alone. Finally, there is a useful appendix describing several instruments and other appliances for testing the eye. The book is one of the most practical we have seen for years, and is really quite different from many which are produced on this well-known subject, all cast very much in the same mould. This one we can thoroughly recommend to those who are in the habit of examining eyes, and especially those concerned in the examination of candidates for services where good eyesight is essential.

THE PRACTICAL APPLICATION OF THORACIC ANATOMY.

THE exact anatomy of the thorax and its contents is not studied, as a rule, with the attention that its importance would seem to warrant. To specialists such study is more or less essential, but many of them do not enter upon special lines of work until after their best opportunities for study are over, and hence the appearance of a detailed and well-illustrated account, written with the express object of applying exact anatomical knowledge to careful clinical observation, will be welcomed by all whose line of practice calls for more than superficial acquaintance with applied anatomy.

Such a work is now before us, originally planned as a

[1] *The Diagnosis of Nervous Diseases*. By Purves Stewart, M.A., M.D.Edin., F.R.C.P., Physician to Out-patients, Westminster Hospital; Joint-Lecturer on Medicine, Westminster; Physician, West End Hospital for Nervous Diseases, etc. Third edition, revised and enlarged. London: Edward Arnold. 1911. (Demy 8vo, pp. 485; figs. 222, plates 2. Price 15s. net.)

[2] *Poliomyelitis in Relation to the Spread of Infection by Schools*. By F. E. Batten, M.D. Issued by the Medical Officers of Schools Association. London: J. and A. Churchill. 1911. (Roy. 8vo, pp. 16. Price 1s. net.)

[3] *Die mikroskopischen Untersuchungsmethoden des Auges*. Von S. Seligmann, Hamburg. Zweite Auflage. Berlin: S. Karger. 1911. (Sup. roy. 8vo, pp. 352. M. 8.)

[4] *Refraction and Visual Acuity*. By Kenneth Scott, M.D., C.M., F.R.C.S.E. London: Rebman Limited. 1911. (Post 8vo, pp. 197. 6s. net.)

thesis, but subsequently expanded, by Dr. J. STUART DICKEY of Belfast, and we can cordially endorse the good opinion of it expressed by the examining authorities, who awarded a gold medal to its author. Much has been written on the subject of thoracic anatomy in numberless textbooks, but in many directions it may be noted that they are not all in agreement. Especially is this the case with regard to the apical regions, and Dr. Dickey has done well to devote a good deal of study to this part of his subject, bearing as it does so essentially upon the proclivity of the apices to tuberculous disease. Clear description, illustrated by good drawings, most of which seem to be original, renders the mass of detail in his *Applied Anatomy of the Lungs and Pleural Membranes*[6] intelligible and the arrangement under headings facilitates reference. The course of the lymphatic vessels and the relations of lymph glands are traced with admirable precision. Careful attention to many of the points demonstrated should serve to prove the inaccuracy of some of the supposed lines of infection that have from time to time been suggested. The relations of the cervical pleura, too, are very fully examined, many points familiar to the clinical physician being discussed and explained. In the second part of the work the anatomy of the thoracic walls and the relation of the viscera as seen in sections at various levels are very fully dealt with. Dr. Dickey has evidently spared no pains in his endeavour to give an exhaustive account, and has drawn upon the recognized work of many of his predecessors for support, though sometimes he finds ground for adverse criticism.

The use of skiascopy, and especially of the orthodiagraph, has thrown considerable light upon the excursions of the diaphragm, which are found to be considerably modified by many abnormal conditions, sometimes unsuspected in the course of routine physical examination. The pleura and its disturbance by varying degrees of inflammation or effusion obtains very careful consideration, and many useful hints are given for the avoidance of danger in tapping. The mediastinum is demonstrated by means of cross sections and close attention is given to the exact course and relation of the great tubes passing through it. Special interest attaches to the course of the upper air passages, open as they now are to inspection by the bronchoscope.

A short section near the end of the book deals with the question of the paths of the tuberculous infection to the apices. Five such paths are recognized and the relative liability of each to carry the bacillus is discussed, but no new ground is broken, as the subject has been fully examined by many previous writers.

For the work as a whole we have nothing but commendation. It should prove of real value to teachers of thoracic anatomy and of special interest to practitioners who have much to do with cardiac and pulmonary disease.

POVERTY AND RICHES.

MR. BINNIE DUNLOP, M.B., has written a pamphlet entitled *National Happiness under Individualism*,[5] which, short as it is, has without doubt required more hard thinking than many a portly volume. He calls it an "explanation and solution of the poverty and riches problem." It is, at any rate, a contribution to the question well worthy of study. For Mr. Dunlop, as for not a few of his predecessors, poverty is essentially due to overpopulation, and therefore to understand poverty and its prevention it is, he holds, necessary to understand overpopulation and its prevention. To avoid either, and therefore both, the question to be answered is, he says, "Who are not to beget children?" According to Mr. Dunlop, the answer of the socialist is, "Those whom the State thinks least worthy," and of the individualist, "Those who cannot afford to maintain them properly." This he calls the individualist law of parental responsibility. For him "excessive families mean inability to save: want of savings means inability to protest effectively against low wages: low wages, again, mean further inability to save": he sees in home maintenance of children "the last ditch" for the retreating forces of individualists, and challenges them "to produce any other practicable policy for checking chronic poverty and its sequel socialism" than child emigration. We will not attempt to pick up Mr. Dunlop's glove, though it may seem that his solution is only a way of temporizing with the problem. As we are led to believe that Mr. Dunlop intends to devote himself to questions of this order, and as he is clearly competent to give valuable assistance in their elucidation, we will venture two criticisms from which we might otherwise have refrained. The one is that he should pay more attention to correctness of style and in particular weigh carefully any metaphorical expression before he allows it to pass; had he done so in preparing this pamphlet he would hardly have spoken of an "urgent line of demarcation." The other is that he should make a vow wholly to eschew for the next five years the use of italics. The psychology of italics we take to be this—an inexperienced writer in reading over his sentence feels that he has not sufficiently emphasized the point he wants to make. Instead of drawing the true conclusion, which is that his sentence is inefficient or ineffectively constructed, he evades the difficulty, the true solution of which might have taken half an hour, or half a day, or half a week, by a stroke of the pen, which costs half a second. But the abuse of italics—which Lord Beaconsfield called the last resort of the forcible feeble—distracts and finally wearies the reader.

MEDICAL MISSION WORK IN KASHMIR AND MOROCCO.

WE fear that the title, *Beyond the Pir Panjal*,[7] which Dr. ERNEST NEVE has chosen for his handsome and well-illustrated volume on Kashmir will convey little to many readers in this country. The Pir Panjal is the mountain range separating the North of India from Kashmir, where Dr. Ernest Neve has been for a quarter of a century one of the medical missionaries of the Church Missionary Society. The first four-fifths of the volume are taken up with the Vale of Kashmir and contiguous valleys, the mountainous heights enclosing them, and that part of Western Tibet watered by the River Indus. A disproportionately brief account of the mission and its work concludes the volume. More than 90 per cent. of the people are Mohammedans, although there are 65,000 Brahmans. They have suffered much oppression, and one of their proverbs runs: "O God, save me from physicians and rulers." In their use of drastic purgatives, venesection, and starvation, the practice of the native doctors reminds one of the worst period of the Middle Ages. The present Maharajah is an enlightened ruler, and is assisted by British Residents representing the King-Emperor. The country with its wonderful valleys, its mountain peaks lost in perpetual snow; the people, their ignorance, superstition, disregard of sanitation, moral delinquencies, and curious customs—all are brought before the reader, although it must be confessed with some repetition and a detail at times verging on prolixity. Dr. Neve's narratives of his ascents of some of the mountains are set down with all a climber's enthusiasm. The mission school, the hospital, and the separate leper hospital are at Srinagar, a city with a population of over 126,000. The annual cost of each hospital bed is £10. The chief savings are effected on salaries, labour, provisions, and surgical dressings. Instead of expensive medicated wool, sterilized sawdust, costing one anna for 10 lb., applied in muslin bags, is used. The mission hospital has 150 beds, of which many are endowed, and the hospital is self-supporting in consequence. As many as a dozen cases of kangri cancer are in the wards at the same time. The kangri is a kind of brazier the people carry about filled with glowing embers to keep themselves warm. All their lives they burn themselves with these things, and the prolonged irritation is frequently followed by cancer. Last year 23,642 new out patients attended, and 1,979 in-patients were admitted. As many as 400 patients are seen, and twelve major and forty minor operations are sometimes done in a day. Spiritual instruction goes hand in hand with medical attention. To those wishing to know more about one of the outposts of civilization, and of

[6] *Applied Anatomy of the Lungs and Pleural Membranes*, with Especial Reference to the Apical Region of the Chest. By J. Stuart Dickey, M.D., B.Ch., Senior Demonstrator of Anatomy, Queen's University of Belfast. Belfast: Alexander Mayne and Boyd. 1911. (Sup. roy. 8vo, pp. 136, figs. 50. 5s. net.)

[5] Published by the author at Brasted, Kent. (Price 3d.)

[7] *Beyond the Pir Panjal: Life among the Mountains and Valleys of Kashmir*. By Ernest F. Neve, M.D., F.R.C.S.Edin. London and Leipzig: T. Fisher Unwin. 1912. (Medium 8vo, pp. 320, 2 maps and 58 full-page illustrations. 12s. 6d. net.)

the value of missionary work in breaking down caste, leading to a better understanding between races with opposite ideals, and in spreading a knowledge, among other things, of sanitation, Dr. Neve's book can be cordially recommended.

In *Morocco After Twenty-five Years*,[8] instead of long descriptions of scenery and places, Dr. ROBERT KERR describes the people. The result is an entertaining book, marked by the individuality of its author, who is a medical missionary with abounding faith in his calling. A considerable part is taken up with the affairs of the mission, but an exposition of the Moslem creed, as it does not add to common knowledge on the subject, seems superfluous.

But Dr. Kerr brings us face to face with the people. He is a keen observer and goes straight to the heart of things. The peculiarities of the people: their bravery, cowardice, and superstition; their marriage customs, duplicity, malingering, and cruelty; the business acumen and intellectual sharpness of the better class, are shown in a manner instinct with vitality, and illustrated by some capital stories. Dr. Kerr's remarks on the incapacity and unfitness of some of the missionaries sent out are candid, and deserve to be read and pondered by intending missionaries. He sums up the political situation adversely to France, and has some hard things to say of Britain and the Consular service for neglect of the interests of British subjects. He bears strong testimony to the efficacy of vaccination, which, in the face of great opposition, he introduced into Morocco. Now he vaccinates from 1,300 to 1,400 annually, "saving thousands of young lives," and gaining, through vaccination alone, an entrance into every home. Dr. Kerr believes that when Morocco is opened up it will become a resort for those with chest complaints, as the climate, he considers, far surpasses that on the shores of the Mediterranean. In the North of Morocco, Europeans and natives have "exceptionally good health." Malaria, leprosy, small-pox, typhoid and typhus fevers, scabies, and phthisis are the prevalent diseases. He states that the Jews rarely suffer from phthisis; tuberculous animals are common, and are sold, when the Jewish slaughterer has pronounced them unfit food for the chosen race, to the Moslems.

With its excellent type and full-page illustrations, Dr. Kerr's book may be recommended to all interested in a country which of late has been much in the public eye, and is destined to come more into notice in the near future.

URINARY SURGERY.

To listen to one end of a telephonic conversation is, if not exasperating, frequently amusing. In reading M. CATHELIN'S pamphlet on the comparative value of ureteral catheterism and division of the urine,[9] we are at one moment amused by the sarcastic references to opponents, and at the next worried to know what arguments he replies to. We are not long left in doubt as to his opinion that the Luys segregator is a dangerous instrument, for, in a kind of preface, he narrates three published cases examined by this instrument in which operative procedure founded on information so supplied was followed by disaster. Nor are we left long in doubt that, in the author's opinion, the best apparatus for division or separation of the urines within the bladder is Cathelin's, and the best books to consult on the subject are Cathelin's, where the reader will find thirty-two different difficulties and dangers and objections to ureteral catheterism. Ureteral catheterism teaches nothing regarding the total quantity of a renal retention, for instance; and he regards its use as open to grave errors beyond our control. He maintains that no method is of high value which does not enable the surgeon to make comparison of the quantity of urea and chlorides excreted from each kidney, that other alterations in the urine are of less importance. At the same time, he thinks that urinary surgeons should accept the two following working propositions: (1) That disease of the upper urinary tracts demands complete exploration of these tracts, employing every method and every particle of clinical evidence; and (2) that when one is certain of having to deal with a diseased kidney, and when that kidney cannot be discovered clinically, and when ureteral catheterization fails (as it will in tuberculous disease), then it is necessary to use an instrument for division or segregation of the urines. The author in the fifth letter gives short histories of 12 cases, in each of which catheterism failed after at least two attempts, and in all successful division of the urines was made. Of these 12, 8 were tuberculous, 1 hydronephrosis, 1 calculus, and 2 epithelioma, and in all the quantities of urea and chlorides were greatly diminished in the urine from the kidney found on operation to be diseased. In the attempts at ureteral catheterism of these cases the causes of failure were lessened vesical capacity, the impossibility of distinguishing the meatal orifice on account of vesical lesions, and the hitching of the tip of the catheter a short distance up the ureter. The author's conclusions as to the proper procedure to adopt are, on the one hand, to do unilateral ureteral catheterism at once "when we know and when we can," and on the other, "when we do not know," to make an endovesical division with his instrument in small bladders, and with Downes's instrument in large bladders. He thinks that in 50 per cent. of the cases ureteral catheterism will be employed—in 20 per cent. Cathelin's instrument, in 20 per cent. Downes's, in 5 per cent. no such exploration will be necessary, and in 5 per cent. nephrostomy will be urgently called for.

A couple of years ago we had the opportunity of reviewing Dr. O. RUMPEL'S *Cystoscopy as Adjunct in Surgery*,[10] and spoke highly of the plates, of their arrangement, and of the short notes on each picture. We have since then reviewed many such works, in English, French, and German, and can say confidently that this one is the best. We now have before us a translation by Dr. P. W. SHEDD, of New York. The fifty-nine pages of introduction seem to be a very literal translation. An example can easily be found: "They rise plastic from the deeper-lying, and therefore darker-appearing vesical wall, whose traces of trabeculae are still plainly visible." The whole is reminiscent of the translation of German legends which Mark Twain has immortalized in *A Tramp Abroad*. We might indeed be reading about "the heaven-aspiring, as it were, out of the stream rising rocks with their perpendicular, often projecting walls," which are mentioned in the legend of the Lorelei. This, however, does not matter much, as the picture is the thing in a cystoscopic atlas: in this work these reproductions have not lost in clearness or in colour when compared with the earlier ones. Therefore we can still recommend this book to anyone who wants such aid in the interpretation of what he sees down the cystoscope.

THE ANATOMY OF THE ABDOMEN.

IN his work on *The Abdomen Proper*[11] Dr. W. C. MORTON enunciates at the outset a series of five principles as a fundamental basis of study, and applies them to the human body. It consists of two complementary portions, the plates and the text, and for the present is confined to a "normal abdomen." Should the reception accorded to it be sufficiently encouraging, however, the author may apply the principles to other parts of the body later on. With the principles themselves there will be general agreement, and in the plates and the text alike there is evidence of originality and a good deal of thought. The plates are twenty-eight in number, printed in colours, on fourteen loose sheets of specially prepared paper, for the purpose of transillumination. They are in reality outline drawings of the structures in the abdomen and its walls, and are constructed in such a manner that when superimposed and viewed as transparent objects, the relationships of organs and structures at different levels may be studied in con-

[8] *Morocco After Twenty-five Years; a Description of the Country, its Laws and Customs and the European Situation.* By Dr. Robert Kerr. London: Murray and Evenden, Limited. 1912. (Med. 8vo, pp. 379; 2 maps, 44 illustrations. Price 10s. 6d. net.)

[9] *Six lettres sur la valeur comparée du cathétérisme urétéral et la diérèse des urines.* Par F. Cathelin. Paris. 1911. Printed for Private Circulation. (Roy. 8vo, pp. 43.)

[10] *Cystoscopy as Adjunct in Surgery.* With an atlas of cystoscopic views and concomitant text, for Physicians and Students. By Staff Surgeon Dr. O. Rumpel, Lecturer in Surgery at the University of Berlin. Only authorized English translation, by P. W. Shedd, M.D., of New York. London: Rebman Limited. 1911. (Demy 4to, pp. 137, 56 plates, with 85 illustrations in colour, and 22 figs. in the text.)

[11] *Principles of Anatomy: The Abdomen Proper.* Described and illustrated by text and plates. By W. C. Morton, M.A., M.D.Edin. London: Rebman Limited. 1911. (Med. 8vo, pp. 174. £2 2s. net complete, including a special frame for studying the plates by transillumination.)

siderable detail. The plates can be used in other ways as well. The idea is ingenious, and has been carefully carried out, and though we cannot see any likelihood of any general use being made of them in the dissecting-room, they may be found of service in the subsequent revision of work already done, and as a reference when access to a dissecting-room is impossible.

Though the text, too, illustrates the principles enunciated, we do not think that the author has succeeded in presenting his subject in a way likely to attract the average reader. Some of the changes in treatment and nomenclature, made, says the author, with "a definite aim at clearness, conciseness or ease in handling the facts," seem unnecessary, and in some cases even misleading. Of what assistance is the term "interfissural area of the liver" (quadrate lobe) to the student who has been taught the form of the generalized mammalian liver and is able to recognize the right lateral fissure in the human specimen when it is present? The statement, too, that "the testes themselves, like the ovaries, are covered not by peritoneum but by germ epithelium," is misleading as it stands, and needs amplifying to give the correct impression. Moreover, we cannot accept *in toto* the statement that "the small sac is not a diverticulum of the great sac," since that part of the small sac which lies behind the liver develops as a right-sided pocket from the great sac during the first month of development. Indeed, at one stage there are two such pockets—right and left—though the left one soon disappears. The general get-up of the book is unattractive, and the type of the contents pages seems unnecessarily prominent and varied.

THE "MEDICAL ANNUAL."

THE editor of the *Medical Annual*[12] is once again to be congratulated on the production of a highly useful volume. Among its other virtues is that of keeping to the same arrangement as its predecessors, and thus not confusing those who have learnt to rely upon it as a reference work. In bulk it is slightly less portly than last year's volume, and the number of different contributors is also somewhat less, but the former point is a virtue rather than a defect, while almost without exception those placed in charge of the different branches and subdivisions of medicine and surgery bear already well known names. The writers of one or two of the articles dealing with subjects of a specialist kind are not resident in this country; this, again, is a possible advantage, since in some of the special departments of medicine feeling tends to run high. To an active participant in any fray strict impartiality and accuracy of focus must ever be difficult of attainment. A good many articles have a certain topical interest—that, for instance, in which Mr. Whippel Gadd sums up the outstanding features of the Insurance Act and indicates their general bearing on medical practitioners, pharmacists, and hospitals. It is very clearly written, but not all readers are likely to share his apparent belief that if the demands of the medical profession overtop the sums available, the Insurance Commissioners, *motu proprio*, could solve the difficulty by ordering an increase of contributions. Also timely is the well illustrated article in which Mr. Charles Leedham-Green endeavours to awaken a keener interest in regional anaesthesia, by showing in how many more circumstances it is utilizable than is commonly known. In the articles on ear disease evidence is supplied that what is described as "the conservative radical mastoid operation, first brought to general attention by Heath," has numerous advocates, especially in America and on the Continent. Corresponding evidence that aurists as a class are paying any considerable attention to the question of the best way of alleviating the condition of those who are admittedly incurably deaf is unfortunately lacking. Sea-water treatment is also considered, but not, as two years ago, at great length; this year, after a brief reference to the fact that the treatment has been exploited by the lay press, the writer continues as follows:

> The supposed virtue of the sea water lies apparently in the fact that by addition of spring water it is rendered isotonic with human blood. Whether the particular combination of salts in sea water has any special value in cases of infantile diarrhoea is doubtful; certainly its use by some scientific observers has not justified the extravagant claims made for it; any method of supplying fluid to an infant drained of water by severe diarrhoea has, as has been recognized for many years, a life-saving value in many cases, and subcutaneous administration has been practised for a long time for this purpose.

[12] *The Medical Annual.* Thirtieth Year—1912. Bristol: John Wright and Sons, Ltd. (Demy 8vo, pp. 734. Price 8s. 6d. net.)

NOTES ON BOOKS.

THE advanced ambulance handbook, *First Aid to the Injured*,[13] by Messrs. WARWICK and TUNSTALL, has now become a standard work on the subject, and the issue of its seventh edition (sixtieth thousand) within ten years is ample testimony to its utility. This new edition has been thoroughly revised, and the latest stretcher and wagon drill has been incorporated from the R.A.M.C. Training Manual, special drawings having been prepared from photographs. These illustrations of stretcher and wagon drill are a feature of the book.

In *District Nursing*[14] is to be found an account by Miss MABEL JACQUES of this work as conducted in American cities, together with advice derived from her own experience as to the ends which should be kept in view by those who are nurses themselves or by those who wish to start district nursing associations. Though one gathers that work of this order is comparatively in its infancy in America, useful hints might no doubt be gathered from its pages by those similarly engaged in Great Britain.

The popularity in America of Dr. STEVENS'S *Manual of the Practice of Medicine*[15] is sufficiently evidenced by the number of editions which have appeared since its first publication in 1892. The ninth edition, like its predecessors, is intended to assist students in building up their knowledge by clinical observation and attendance at lectures. Used in this way it may be useful to British as well as American students, though one can hardly agree with the author that the saying, "half our knowledge we must snatch, not take," can rightly be applied to practical medicine.

An account of the important series of discussions held last year at Caxton Hall on the subject of poverty and its prevention has been published in a large volume entitled, *National Conference on the Prevention of Destitution*.[16] The work was divided into six sections, namely, public health, education, unemployment, mental deficiency, legal, and financial sections. The views and suggestions set forth in the various papers and in the course of the discussions form a species of encyclopaedia of current ideas on the whole subject. The volume, therefore, has a certain degree of permanent interest, and may be found useful as a kind of reference book for some years to come.

Anyone who has ever had the smallest experience of nursing has probably felt the difficulty of catering successfully for sick people. More particularly is this the case with regard to convalescents, whose reawakening appetite must be skilfully flattered at the same time that a delicate digestion has to be taken into full account. Miss FLORENCE B. JACK'S excellent *Cooking for Invalids in Home and Hospital*,[17] of which a new and revised edition has recently appeared, should therefore prove of great assistance to all who may be called upon to exercise their tact and ingenuity in ordering meals for the sick-room. Miss Jack's recipes, which combine the threefold advantages of being light, nourishing, and economical, are also extremely practical; and they are given with a simplicity and conciseness that should enable the veriest tiro in invalid cooking to try her hand with some measure of success. A few specimen menus and some useful hints on the art of poultice-making help to complete this invaluable little work, which should find its way to a handy place on the bookshelves of every home.

[13] *First Aid to the Injured and Sick.* An Advanced Ambulance Handbook. By Major F. J. Warwick, M.B., M.R.C.S., and Major A. C. Tunstall, M.D., F.R.C.S. Seventh edition. Bristol: John Wright and Sons. 1911. (Fcp. 8vo, pp. 260. 1s. net.)

[14] *District Nursing.* By Mabel Jacques, with an introduction by John H. Pryor, M.D. New York: The Macmillan Company. 1911. (Cr. 8vo, pp. 176.)

[15] *A Manual of the Practice of Medicine.* Prepared especially for students by A. A. Stevens, A.M., M.D., Lecturer on Medicine in the University of Pennsylvania. Ninth edition. Philadelphia and London: W. B. Saunders Company. 1911. (Post 8vo, pp. 573; 19 illustrations. 2.50 dols. net, or 12s. 6d. net.)

[16] *National Conference on the Prevention of Destitution.* Proceedings of the Conference held May 30th and 31st and June 1st and 2nd, 1911. London: P. S. King and Son. 1911. (Roy. 8vo, pp. 766. 10s. 6d. net.)

[17] *Cooking for Invalids in Home and Hospital.* By Florence B. Jack. A new edition, revised and enlarged. London and Edinburgh: T. C. and E. C. Jack. 1912. (Post 8vo, pp. 207. 2s. net.)

Men and Measures,[18] by Surgeon-Lieutenant-Colonel EDWARD NICHOLSON, is for the most part a historical account of the evolution of the chief systems of weights and measures in use at the present day, both in the British Empire and elsewhere. The author accepts the view that the earliest measures were those of length, derived from parts of the body: of the fundamental units the principal appears to have been the cubit, the length of the fore-arm from elbow to finger-tip, about 18 or 19 in. The cubit underwent many changes, and a chapter is devoted to the various cubits which have been of importance: the foot was two-thirds of a cubit, and the cubic foot of water became the standard of weight known as the talent, from which other weights were derived: various talents existed, however, at different times and in different places, and a most interesting account is given of these. The book shows evidence of historical research of no mean order: the author is not only concerned, however, with the historical aspect of the subject, but holds strong views as to the superiority of the Imperial system of weights and measures over the metric system, with which many people desire to replace it. The book will be read with much interest on account of the views put forward on this practical question, as well as for the sake of the historical facts.

With the approach of summer there should be a demand for the excellently illustrated booklet entitled *Camping for Boys*.[19] It is a description by Mr. J. H. WHITEHOUSE, M.P., of the secondary schoolboy's camp, how it came into existence, what is done thereat, and what its objects are. It is worth perusal both by parents and medical men, and if read also by schoolboys, as, indeed, it is intended to be, a call for an increase in the number of these camps is likely to be heard. In a final note Mr. Whitehouse, who is honorary warden of the camp, expresses his readiness to receive communications relating to the camp, if addressed to him at the House of Commons.

The *Maerchen*,[20] to her translation of which A. C. CATON has given the title *Children*, is a pleasantly told fairy tale by which some parents in a difficulty may convey to their children an answer to the child's question, "Where do babies come from?" It is suggested that instruction from botany and zoology may follow this introduction. There are some who find that the story of the egg may be told to children, and that the wonder of truth is none the less when it is divested of the atmosphere of pietistic mystery.

[18] *Men and Measures: A History of Weights and Measures, Ancient and Modern.* By Edward Nicholson, F.I.C., F.C.S., Surgeon-Lieutenant-Colonel, Army Medical Department, London: Smith, Elder and Co. 1912. (Demy 8vo, pp. 325. 7s. 6d. net.)

[19] *Camping for Boys.* By J. H. Whitehouse, M.P., Honorary Secretary National League of Workers with Boys, and Warden of the Secondary Schoolboys' Camp. London: P. S. King and Son. 1911. (Crown 8vo, pp. 80, 69 illustrations. Paper cover, 1s. net.)

[20] *Children. A Maerchen* by Hugo Salus. Translated by Aletheia C. Caton. Second and revised edition. London. 1912. The Mother Books I. (Pp. 28. Price 1s. net.)

MEDICINAL AND DIETETIC ARTICLES.

Colloidal Selenium.

SOME therapeutical experiments with a colloidal selenium in cases of cancerous growth have lately been made in Paris. They were suggested by the recent work of Wassermann (BRITISH MEDICAL JOURNAL, January 6th, 1912, p. 39). An attempt was made to prepare a colloidal selenium by the various methods which have been in vogue for several years past, such as that of Paal and Koch, but these were found invariably to give too large particles, or at least particles not of uniform size. Dr. André Lancien, who has undertaken the experiments on their physical side, then resorted to an electrical method of pulverizing the selenium, apparently the method of starting an arc between two electrodes and producing very fine disintegration. From the product thus obtained, which possesses all the physico-chemical properties of ordinary selenium, and has been named "Selenium A," a colloidal solution was prepared, suitable for injections. We gather from communications to the Société Médicale des Hôpitaux de Paris on February 16th and March 1st that this substance has produced some interesting modifications when applied, in the first instance, to a large maxillary adenopathy secondary to a cutaneous epithelioma, and, in the second, to a glandular mass accompanying cancer of the rectum. Professor Jules Thiroloix, who brought forward the first of these observations, states that periodical intravenous injections of from 4 to 8 c.cm. of the colloidal selenium was followed by rigor accompanied by rise of temperature, and that after five weeks the growth in the maxillary region suddenly increased in size and became fluctuating. Several punctures were then made in the mass, and a large amount of viscous, inodorous, aseptic fluid withdrawn. The mass disappeared almost entirely. Numerous particles of colloidal selenium were discovered in the fluid, and the cells appeared to be filled with them. Great reserve must be observed in drawing conclusions, but it appears to be established that the colloid is not toxic and that it has an action upon very vascular epitheliomatous masses. In the other case, recorded by Professor Netter, the injections made into the muscles of the gluteal region produced no febrile phenomena and resulted in a considerable diminution of the enlarged glands and functional improvement. The effect, if any, upon the tumour itself remains to be seen. This colloid, Selenium A, is prepared according to Dr. Lancien's technique by the Laboratoires Contrieux, 57, Avenue d'Antin, Paris, and bears the name of "Seleniol."

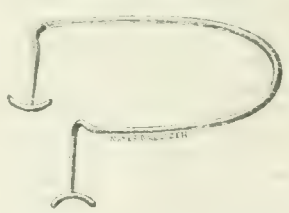
Mergentheim Tablets.

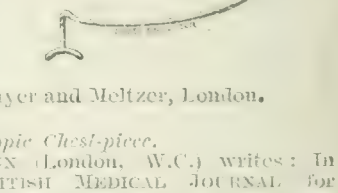
The water of the Karlsquelle, Mergentheim, is distinguished by the high proportions of sodium chloride, sodium sulphate, and magnesium sulphate which it contains in association with small quantities of several other salts. The Mergentheim tablets, supplied by Messrs. A. Siebert and Co., London, E.C., are made from the salts of this spring, and are intended to be dissolved in water to reproduce the natural water. Examination of a sample of the tablets gave results in accordance with the stated composition, and for any one wishing to drink the water without visiting the spring they furnish a means of preparing it as required. It is perhaps a disadvantage that they do not form a clear solution.

MEDICAL AND SURGICAL APPLIANCES.

Wound Retractor Prongs.

DR. H. ELLIOT-BLAKE (Bognor) writes: The wound retractor prongs are with a U- or V-shaped spring, and have been designed for self-retention and quick dilatation in wounds in minor surgery, and as an independent help to keep the unnecessary fingers of the assistant outside the wound. The prongs at the wound ends have a half-moon shape, the tips being slightly sharpened, and this arrangement admits of an increased hold upon the sides without doing damage. Both the elbow and the thickening at the back strengthens the resilience of the springs, especially when made of silver. The silver construction in my instruments when in the presence of a wound electrolyte probably enhances a cleaner and an antiseptic quality. The designs have been carried out by Messrs. Mayer and Meltzer, London.





Stethoscopic Chest-piece.

Dr. W. B. COLQUHOUN (London, W.C.) writes: In the issue of the BRITISH MEDICAL JOURNAL for March 23rd, 1912, p. 678, you have a review of a new stethoscopic chest-piece designed by Dr. Laurence M. Routh, and manufactured by Messrs. Krohne and Sesemann. With regard to this idea I am afraid that I must claim precedence by about five years. The chest-piece I designed was for precisely the same purpose—namely, to prevent raising a patient in bed. Also the phonophore principle of the chest-piece allowed examination through clothes, and the special ear-pieces needed no metal springs for retention in the ears. This stethoscope of mine was illustrated and reviewed at the annual meeting and exhibition at Exeter in August, 1907, and the review concerning it will be found in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL for August 31st, 1907. The instrument, chest-pieces, ear-pieces, and also, which is important, the locking arrangement for fixing the movement of the revolving chest-piece in any desired position, was made for me by Messrs. Arnold and Sons, as may be seen on the block illustrating the instrument.

Nova et Vetera.

HENRY HILL HICKMAN.

A Forgotten Pioneer of Anaesthesia.

(Communicated from the Wellcome Historical Medical Exhibition Research.)

In the year 1820 a young surgeon named Henry Hill Hickman commenced practice in the little town of Ludlow in Shropshire. He had barely reached his majority—being born on January 27th, 1800—when he became a Member of the Royal College of Surgeons, and began his career as a country practitioner. Impressed by the agonizing sufferings of those on whom he was called to operate, he resolved to seek some method of alleviating their pain by rendering them unconscious before the operation. With this object he commenced a series of experiments on animals, first, by producing semi-asphyxiation by the exclusion of atmospheric air; then by causing them to inhale small quantities of carbonic dioxide, and later, nitrous oxide gas. After rendering the animals unconscious, he excised the ears, amputated their legs, made incisions, then dressed the wounds, noted the time they took to heal, and the period of their complete recovery. He carried on these experiments for some time, and at last met with considerable success. This convinced him that, could he but carry out his experiments on the human subject, his methods would become of the greatest value to mankind in making painless the performance of major surgical operations.

His notes on some of these interesting experiments are still extant in his own handwriting, of which the following is an extract:

Experiment I. March 20th.

I took a puppy a month old and placed it on a piece of wood surrounded by water, over which I put a glass cover so as to prevent the access of atmospheric air; in ten minutes he showed great marks of uneasiness, in twelve respiration became difficult, and in seventeen minutes ceased altogether; at eighteen minutes I took off one of the ears, which was not followed by haemorrhage; respiration soon returned, and the animal did not appear to be the least sensible of pain; in three days the ear was perfectly healed.

Experiment II.

Four days after the same puppy was exposed to a decomposition of the carbonate of lime by sulphuric acid. In one minute respiration ceased; I cut off the other ear, which was followed by very trifling haemorrhage, and as before did not appear to suffer any pain; in four days the wound healed. The day after the operation he seemed to require an additional quantity of food, which induced me to weigh him, and I found he gained 9 oz. 1 drachm and 24 grains in nine days.

Experiment III. April 6th.

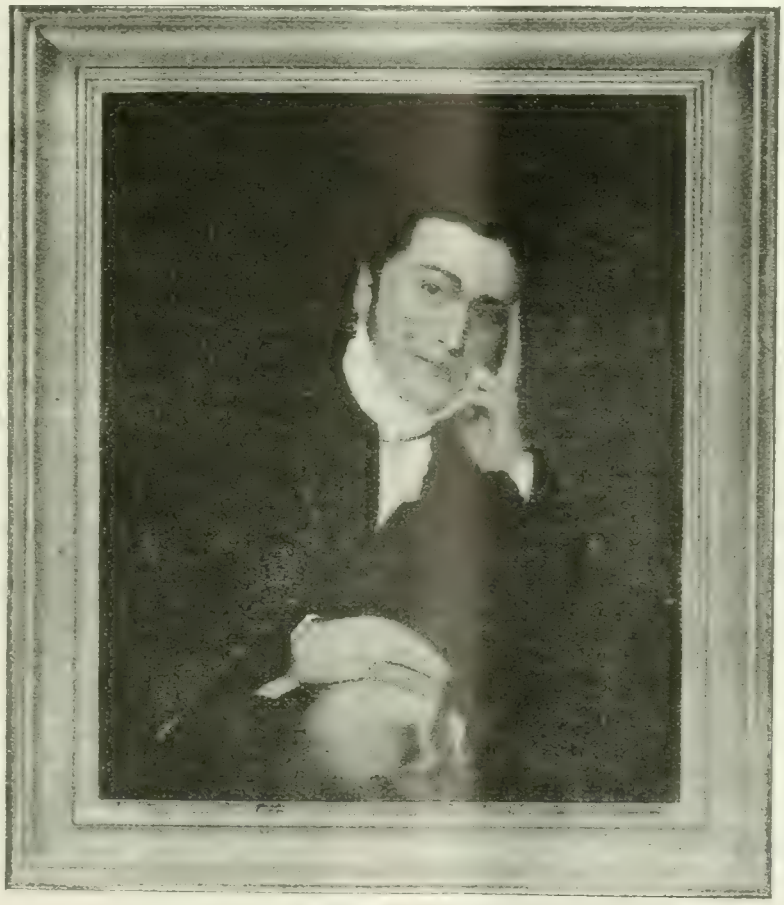
I took the same puppy and proceeded as in Experiment I, and respiration was acted on in much the same manner. I cut off the tail, and made an incision over the muscles of the loins through which I passed a ligature and made it tight. No appearance of uneasiness until the day following, when inflammation came on and subsequent suppuration. The ligature came away on the seventh day, and wound healed on twelfth, and the dog is remarkably increased in size and now perfectly well.

Experiment IV.

A mouse was confined under a glass surrounded by water. By means of a small tube a foot long I passed carbonic acid gas very slowly prepared into the glass; respiration ceased in three minutes. I cut all its legs off at the first joint and plunged it into a basin of cold water; the animal immediately recovered and ran about the table apparently without pain. The stumps soon healed, and I kept it a fortnight, after which I gave it liberty.

Experiment V.

I took an adult dog and exposed him to carbonic acid gas quickly prepared and in large quantity. Life appeared to be extinct in about twelve seconds. Animation was suspended for seventeen minutes, allowing respiration occasionally to intervene by the application of inflating instruments. I amputated a leg without the slightest appearance of pain to the animal. There was no haemorrhage from the smaller vessels. The ligature that secured the main artery came away on the fourth day, and the dog recovered without expressing any material uneasiness.



Henry Hill Hickman.

Experiment VI.

I exposed a rabbit to the same gas as Experiment V and cut off both ears, and I experienced a similar result.

Experiment VII.

I filled a glass globe with the gas exhaled from my own lungs, into it I put a kitten. In twenty seconds I took off its ears and tail; there was very little haemorrhage and no appearance of pain to the animal.

In 1825 Hickman removed to Shifnal, and endeavoured to demonstrate the results of his experiments before his professional brethren, but everywhere he was met with the greatest scepticism, and his system was generally derided and condemned as dangerous and useless. He had one sympathizer, however—a Mr. T. A. Knight, a layman, who resided at Downton Castle, near Ludlow, who was much interested in his experiments. Unable to get publicity through the medical press of the period, Hickman at length published an account of his investigations and his methods of inhalation to produce unconsciousness in the form of a letter, which he addressed to Mr. Knight. The following is a copy of that letter:

Dear Sir,

The object of the operating Surgeon is generally considered to be the relief of his patient by cutting some portion of the human body whereby parts are severed from each other altogether or relieving cavities of the aggravating cause of disease.

There is not an individual who does not shudder at the idea of an operation however skilful the Surgeon or urgent the case, knowing the great pain that the patient must endure, and I have frequently lamented, when performing my own duties as a Surgeon, that something has not been thought of whereby the fear may be tranquillized and suffering relieved. Above all, from the many experiments on suspended animation, I have wondered that some hint has not been thrown out, of its probable utility, and noticed by Surgeons, and consequently I have been induced to make experiments on Animals

endeavouring to ascertain the practicability of such treatment on the human subject, and by particular attention to each individual experiment, I have witnessed results which show that it may be applied to the animal world and ultimately I think will be found used with perfect safety and success in Surgical operations. I have never known a case of a person dying after inhaling Carbonic Acid Gas, if proper means were taken to restore the animal powers, and I have no hesitation in saying that suspended animation may be continued a sufficient time for any surgical operation providing the Surgeon acts with skill and promptitude; and I think it would be found particularly advisable in cases where Hemorrhage would be dangerous or the Surgeon is apprehensive of Gangrene taking place after the operation, as it is well known that carbon has a most powerful antiputrescent quality. It will be found, if the means for suspending animation are slow and gradual, the return of life is equally so, and I think it very probable if the Galvanic Fluid could have been applied in Cases that have proved fatal the persons may have been saved.

From a number of others I have selected the experiments now sent, each is correctly noted in as few words as possible, and which I think will prove a vast object.

With great respect,
I am, Dear Sir,
Your Obedient Servant.
(Signed) H. H. HICKMAN.

Ludlow,
February 21st, 1824.

T. A. Knight, Esq.

Disheartened by his failure to secure a hearing from the profession in his own country, Hickman at length resolved to lay the matter before the Royal Academy of Medicine in Paris, and drew up the following memorial to King Charles X, praying for permission to perform his experiments before the leading medical men of that city:

TO HIS MOST CHRISTIAN MAJESTY CHARLES X,
KING OF FRANCE.

Sire,

In addressing Your Majesty upon a scientific subject of great importance to mankind, I feel a properly humble but a firm confidence in Your Majesty's universally known disposition to countenance valuable discoveries: this relieves me from all apprehension of being considered presumptuous.

Permit me, Sire, to state that I am a British Physician, Member of the Royal College of Surgeons, London, who has visited Paris in part for the purpose of bringing to completion a discovery to which I have been led by a course of observations and experiments on suspended animation.

This object has engaged my practical attention during several years: It appears demonstrable that the hitherto most agonizing, dangerous, and delicate surgical operations may now be performed, with perfect safety and exemption from pain, on brute animals in a state of suspended animation. Hence it is to be strongly inferred, by analogy, that the same salutary effects may be produced on the human frame, when rendered insensible by means of the introduction of certain gases into the lungs: I have discovered a number of facts connected with this important subject, and I wish to bestow them on society.

Paris, the great Metropolis of Continental Europe, is the place above all others where the profound studies of Humanity are, with the utmost facility, carried to their highest extent and perfection: and, Sire, I feel confident that I do not say too much, with due regard for the scientific distinctions of my own Country, in avowing that these facilities, no where else to be found, and their most admirable results, have deservedly conferred on Your Majesty's Chief City and its illustrious schools of practical Philosophy, the eminent title of the Centre of Science to the Civilized World.

Presuming thus, Sire, to attract Your Majesty's thoughts to this interesting subject, I have resorted to the French Capital for the completion of my discovery, hoping to have the honour of placing it under Your Majesty's Royal and gracious auspices. In this manner I would pay to Your Majesty's Kingly and paternal Zeal in the promotion of every branch of useful knowledge that tributary homage which I am sure, Sire, it would be unjust, on a suitable occasion, to withhold from an Exemplary Monarch, who is surrounded by the wise and the Learned, the philanthropic and celebrated in all the Arts and Sciences, which benefit, ameliorate, ornament, and dignify the condition of mankind.

It is upon purposes of this nature, Sire, that Your Majesty daily deigns and delights to smile with enlightened, constant and the most effectual and condescending encouragement. Your Majesty invites the Philosophical from all Lands, and they are certain of protection.

It must have occurred to Your Majesty's magnanimous mind, that our species rise in the scale of moral and intellectual greatness, in proportion as our efforts are directed to the diminution of the sum of human misery, and physical evil: This was the elevated and virtuous aim of the Sages, and the best of Kings of Antiquity: and this grand purpose is yet more conspicuous in modern times.

Under this grave and powerful impression, I have ventured on the liberty of praying Your Majesty to be pleased, by an express intimation, or command, on the subject, to permit me to develop my ideas on operations in a state of suspended animation, in the presence of Your Majesty's Medical and Surgical Schools, that I may have the benefit of their eminent and assembled talent, and emulous co-operation.

It is also my desire, at a fit opportunity, to solicit the honour of presenting to Your Majesty, in person, if Your Majesty will condescend to receive it, a Book containing an account of my discovery which as far as I know or can learn, has entirely originated with myself; and should my labours meet with the approbation of Charles the Tenth, I shall ever enjoy the grateful satisfaction of believing that I have devoted myself to my profession to a distinguished and to a happy end.

With the hope that Providence may continue Your Majesty's invaluable Health, and prosper Your Illustrious Reign, I have the Honour to be, Sire, with profound Respect Your Majesty's

Most Obedient and Most Humble Servant,
(Signed) H. HICKMAN.

1828.

Paris. Hôtel des Ambassadeurs.
11, Rue Nôtre Dame des Victoires.

The receipt of this letter is recorded as follows in the National Archives of France, in the Register of the Direction des Établissements d'utilité publique at the Ministère de l'Intérieur, under the date of August 7th, 1828:

Hickman, Henry Hill, English physician, wishes to submit to the judgment of the Academy of Medicine a discovery on life-suspension. This letter, received at the Second Office of the Direction, had been sent to the Academy of Medicine on August 31st, and at the same time, Hickman had been notified.

MOYEN DE FAIRE LES OPÉRATIONS SANS DOULEUR. — M. Gérardin rend compte d'une lettre écrite à Sa Majesté Charles X, par M. Hickmann, chirurgien de Londres, dans laquelle ce chirurgien annonce un moyen de pratiquer les opérations les plus délicates et les plus dangereuses sans développer de douleurs chez les individus forcés de les subir. Ce moyen consiste à suspendre la faculté de sentir par l'introduction methodique de certains gaz dans le poumon. M. Hickmann en a fait l'épreuve multipliée sur des animaux vivans, et désire la coopération des grands médecins et chirurgiens de Paris pour en faire l'essai sur l'homme. Cette lettre sera communiquée à l'Académie réunie.

Photograph of record of Hickman's letter in report of Académie de Médecine, October 21st, 1828.

In the hope of at last realizing the dearest wish of his life, to publicly demonstrate his discovery before an influential scientific body, he left his home in Shifnal and journeyed to Paris to be ready to demonstrate his discoveries. The petition was referred by the King to the Royal Academy of Medicine in the autumn of 1828, and the Academy appointed a representative, M. Gérardin, to report upon it. In the official record of the meeting on October 21st, 1828, before which Hickman's memorial was brought, it is stated:

This report relates to a letter addressed to Charles X by Mr. Hickman, a London surgeon, which states that he has discovered a means of producing unconsciousness in individuals who must submit to major surgical operations. The method consists in methodically introducing certain vapours into the lungs. Mr. Hickman has already tried the method on animals, and he wishes to carry out the experiment before the celebrated surgeons of the capital. The bureau nominates Messrs. Dubois, Richerand, Mérat, Segallas, and Ribes.

This record is confirmed by an account of the meeting in the *Archives Générales*, Paris, vol. xviii, first series, page 453, which reads as follows:

Moyen de faire les opérations sans douleur.—M. Gérardin rend compte d'une lettre écrite à Sa Majesté Charles X, par M. Hickman, chirurgien de Londres, dans laquelle ce chirurgien annonce un moyen de pratiquer les opérations les plus délicates et les plus dangereuses sans développer de douleurs chez les individus forcés de les subir. Ce moyen consiste à suspendre la faculté de sentir par l'introduction méthodique de certains gaz dans le poumon. M. Hickman en a fait l'épreuve multipliée sur des animaux vivans, et désire la coopération des grands médecins et chirurgiens de Paris pour en faire l'essai sur l'homme. Cette lettre sera communiquée à l'Académie réunie.

Translation:

Painless Operations.—M. Gérardin reported on a letter written to His Majesty Charles X, by Mr. Hickman, a London surgeon, in which that gentleman asserted he had discovered a means of performing the most troublesome and dangerous operations without pain. The method consisted in producing temporary insensibility by the methodical introduction of certain vapours into the lungs. Mr. Hickman had made numerous experiments on animals, and was desirous of obtaining the co-operation of the leading physicians and surgeons of Paris, in order to make the same experiments on the human subject.

The reading of the letter before the meeting caused a sensation, but Hickman's discovery was received by the majority of the members with derision and contempt, the only defender of it being the famous Baron Larrey, who offered himself to be experimented upon, and although a committee, as recorded above, was formed to go further into the matter, the demonstration was apparently allowed to drop.

Larrey, the distinguished military surgeon, Hickman's one supporter, was a man of wide knowledge and generous sympathies. Himself a pioneer in the antiseptic treatment of wounds, and the inventor of the *ambulances volantes*, he was commissioned by Buonaparte to organize the ambulance service for the army of Italy. Renowned for his undaunted courage and humanity, he was eventually appointed by Napoleon to be Surgeon-General of the Grande Armée, and was described by the great Emperor in his will as "the most virtuous man I ever met."

One can picture the young surgeon's bitter disappointment and despair at the reception which his Memorial met at the hands of the Royal Academy of Medicine, and the extinction of what he thought his last hope of demonstrating his discovery. Thus, discouraged and well-nigh broken-hearted, he returned to England to die a few months afterwards at the early age of 29. He was buried at Bromfield, Shropshire, in the year 1829.

In this tragic manner the curtain fell on the life of Henry Hill Hickman, who practically gave his life in the attempt to demonstrate his methods of producing anaesthesia for the purpose of alleviating human suffering while undergoing severe surgical operations.

Nothing more was heard of Hickman, his experiments, or his discovery until 1846, that memorable year in the history of anaesthesia, when the first surgical operation was performed on a patient under the influence of ether in the Massachusetts General Hospital on October 16th, 1846, the anaesthetic being administered by W. T. G. Morton. This was speedily followed by the use of ether as an anaesthetic in an operation performed by Robert Liston on December 21st of the same year in University College Hospital, London.

During the fierce controversy that followed in the medical press at that time, as to who was the first to suggest inhalation as a method of producing anaesthesia for the purpose of surgical operations, no mention was made of Hickman until his friend, Dr. Thomas Dudley, of Kingswinford, wrote a letter to the *Lancet* on February 6th, 1847, in which he called attention to Hickman's discovery and his endeavours to place it on record.[1]

Dr. Dudley, writing to Mr. Hickman's widow on January 24th, 1847, with reference to the claims put forward from America in regard to the discovery of anaesthesia by inhalation, says:

I remember a similar system was proposed many years ago by your late husband. I think it more than probable that the parties now claiming the discovery may have found the publication and made the invention their own. I consider he was very ill-used, because his system was condemned without examination.

In a further letter to Mrs. Hickman on March 11th, 1847, Dr. Dudley writes:

I consider that Dr. Hickman is clearly entitled to the claim of having originated the idea, and, had his work been published in these more liberal times, the idea would have been followed up and probably the results of investigation would have been successful, instead of the system being crushed as it was by unjust criticism without due enquiry.

Again, writing on August 20th, 1847, he states:

It is clear the *principle* is his.

The next allusion to Hickman's discovery appears to be in the report of a meeting of the Royal Academy of Medicine in Paris on February 23rd, 1847, when it is recorded that:

A letter was read from Dr. H. Wells, of Connecticut, U.S.A., claiming the merit of the first application of the system to surgical operations. The protoxide of azote Mr. Wells now prefers to ether. M. Orfila stated that Vauquelin and himself had successfully endeavoured to inspire the nitrous oxide gas. Davy had asserted that it produced considerable exhilaration, but M. Orfila experienced nothing of the kind. M. Gérardin then said *that fifteen or eighteen years since a letter had been received from an English physician who asserted that by inhalation of laughing gas he could render patients insensible to pain during surgical operations*. This letter caused a certain sensation in the Academy, some members treating it with contempt. But Baron Larrey defended it, and offered to try the experiment. M. Gérardin would look in the Archives of the Academy for the letter.

In another account of this meeting, published in the *Bulletin de l'Académie Royale de Médecine* (vol. xii, Année 11ème, Paris, 1847–48, page 396), it is stated that during a discussion among the members of the Academy on the priority of the discoverers of anaesthetics, among others, there is the following statement by M. Gérardin:

Some seventeen or eighteen years ago, when the Academy was subdivided into three sections, the Minister of the Royal Palace addressed to the Academy the letter of an English physician, in which various methods of suspending sensibility during the performance of surgical operations; among other mediums, *protoxide of nitrogen* was quoted. The section named according to the custom a commission, of which I had the honour of being the reporter. One single member, Baron Larrey, said that it deserved the attention of the surgeons. This matter went no further; the traces may be found among the proceedings.

At the next meeting of the Academy, on March 2nd, 1847, M. Begin in the chair, it is recorded:

M. Gérardin stated that he had found the letter addressed to the late King Charles X by a Dr. Hickman, and dated September 26th, 1828. In that letter the author recommended the inhalation of several vapours for the purpose of producing unconsciousness during surgical operations.

On March 27th, 1847, Dr. Dudley again wrote to the *Lancet*, concerning Hickman's discovery, on behalf of his widow. In this letter[2] he claims for Hickman that he was the discoverer and originator of the idea of producing insensibility in patients about to undergo surgical operations. He said:

The modern introduction of sulphuretted ether is at least but an improvement of that idea, or, in other words, it is carrying out the original views of one party by means of a new agent suggested by another. It was known that Hickman was pursuing his experiments in 1828, that is, four years after the date of the letter referred to, and it is more than probable that subsequent experiments and improvements may have been made and published at a later date.

The *Medical Times*, July 31st, 1847, commenting on the various claimants to the discovery of anaesthesia by inhalation, states: "We think, however, we can set these various claims at rest by the extract from the printed reports of the Academy of Medicine of Paris" (quoted above).

This passage is *sufficiently explicit: no doubt can be entertained; the principle was discovered by Mr. Hickman*, and it is in the *principle* that the invention resides. Mr. Hickman took, in our opinion, the safest and best measures for the carrying out of *his* invention; they failed, but not by his fault. A scientific body was, by him, put in possession of the facts; the communication was made generously and freely; no patent was taken out, no attempt made to confine its pecuniary profits to himself—it was the gift of a man of science to the world. In all probability, Mr. Hickman is no more, or he would, doubtless, have arisen to defend what we must, in justice, consider as *his* property—*the discovery of the method of performing operations by the inhalation of medicated vapours.*

Although eighty-four years have passed away since Hickman placed his methods of producing anaesthesia by inhalation before the Royal Academy of Medicine of Paris, it is not too late to do honour to the memory of this young English surgeon, now forgotten, who practically sacrificed his career and gave his life in his attempts to gain recognition for his discovery of a method of producing anaesthesia by inhalation, and so rendering patients unconscious to pain during severe surgical operations.

C. J. S. T.

[1] *Lancet*, vol. i, New Series, February 6th, 1847, p. 163.

[2] *Lancet*, vol. i, New Series, March 27th, 1847, p. 345.

THE COMPOSITION OF CERTAIN SECRET REMEDIES.*

A "FLESH PRODUCER."

A PREPARATION named Sargol has been very widely advertised of late for the increase of flesh and development of the figure of persons who are too thin; the advertisements often include pictures intended to represent the results to be attained. One of these advertisements is headed:

We invite every thin man, woman, and child here. Every Person in the British Isles to Eat With Us at Our Expense.

Other extracts are:

This is an invitation that no thin man or woman can afford to ignore. We'll tell you why. We are going to give you a food that helps digest the other foods—a food that puts good solid flesh on people who are thin and underweight, no matter what the cause may be. A food that makes brain in five hours and blood in four—a food that puts the red corpuscles in the blood which every thin man or woman so sadly needs. . . .

Chew one up with every meal, and in five minutes after you take the first concentrated tablet of this precious food it will commence to unfold its virtues, and it will by actual demonstration often increase the weight at the rate of one pound a day.

Application to the Sargol Co. at the address given brought a small package of the tablets, with a circular letter, which was followed at intervals by others. We subjoin a few sentences from these lengthy documents:

Whether your lack of bodily weight comes to you by inheritance, by overwork, by indoor occupation, or no matter what you have done or how many ineffectual preparations you have tried, Sargol will be a revelation to you. . . .

Remember; until the discovery of Sargol, nothing has ever been known which could be depended upon to put 10, 15, and even 30 pounds of permanent, healthy tissue on a thin person's body.

As we receive so many letters from people who say they have been disappointed and deceived by so-called fatteners we think it best to take you into our confidence and give you some of the inside facts relative to Sargol. By a recent discovery it is now possible to reproduce chemically a very important natural fatty substance which is found in the yolk of eggs, in the roe of fishes, in the blood, also in the brain and nerve tissue of human beings. This substance can now be obtained in a highly concentrated form in combination with other valuable, vitalizing, and tissue building agents. . . .

Each dose of Sargol contains a generous amount of this newly discovered substance, the very element which thin folks lack. Each time you take a Sargol tablet you are introducing directly into your system in concentrated form, the actual fat forming substance which you so sadly need, and yet this is but one of the component parts of Sargol. Five other strength giving, fat producing elements of known and acknowledged merit, and great potency are carefully combined to form this peerless preparation.

A box of Sargol, price 4s. 6d., was found to contain 30 tablets; it is strongly recommended that a six weeks' supply, equal to six 4s. 6d. boxes, should be obtained, the price of this being 21s. The directions are:

1. Take one tablet with each meal and one at bed-time. 2. Be reasonable as regards diet.

The tablets were sugar coated and coloured pink. After removal of the coating they had an average weight of 5.3 grains. Analysis showed them to contain lecithin, hypophosphites of calcium, sodium, and potassium, zinc phosphide, sugar, albumen, and insoluble protein, with talc and kaolin or similar mineral matter, evidently added as excipient. In the course of the analysis it was necessary to obtain more than one supply of the tablets, and the different specimens showed a large variation in the proportions of some of the ingredients. The amounts actually found were:

Zinc phosphide	0.7 per cent.
Lecithin	1.9 ,,
Calcium hypophosphite ...	12.9 ,,
Sodium and potassium hypophosphites	7.7 ,,
Albumen (soluble)	4.2 ,,
Insoluble protein (? coagulated albumen)	10.8 ,,
Sugar	18.0 ,,
Talc, kaolin, moisture, etc.	

Estimated cost of materials for thirty tablets, about 1½d.

* Previous articles of this series were published in the following issues of the BRITISH MEDICAL JOURNAL: 1904, vol. ii, p. 1585; 1906, vol. ii, pp. 27, 1645; 1907, vol. i, p. 213; vol. ii, pp. 24, 160, 209, 393, 530, 1653; 1908, vol. i, pp. 833, 942, 1373; vol. ii, pp. 86, 505, 1022, 1110, 1193, 1285, 1566, 1697, 1875; 1909, vol. i, pp. 31, 909, 1128; vol. ii, p. 1419; 1910, vol. i, pp. 151, 213, 393, 1005, 1063, 1120; vol. ii, pp. 982, 1350, 1928; 1911, vol. i, pp. 26, 91, 823, 1324; vol. ii, pp. 32, 77, 456, 767, 854, 1543; 1912, vol. i, p. 26, 141, 318, 438, 683, 791.

MEDICAL REPORTS FROM CONSULATES IN CHINA.

THE series of medical reports from H.M. Consulates in China recently issued by the Foreign Office is edited by Dr. Douglas Gray, of the British Legation, Peking. The reports are concerned with the year ending September, 1911.

The general impression gained from a study of the medical reports sent from the treaty ports, seventeen in number, is that during the period under review the public health among foreigners was very good, better than for many years past. It was also fairly good among Chinese in the Central ports. But, as regards the Yang-tsze valley, typhus and relapsing fever (diseases which always occur after famine) were very prevalent. Starvation, following destruction of crops, and its ensuing loss of resistance to disease and infection, caused the deaths of many thousands. The editor of these reports seems to think that the political trouble in China may have been in part due to a state of general unrest produced by the high rate of sickness and mortality. In an agricultural empire such as China, with 80 per cent. of its inhabitants tillers of the soil, the vast majority know little and care less for political vagaries, and as long as crops are plentiful are willing and able to pay the usual taxes without troubling much as to the ultimate distribution of the sums collected. There can be little doubt, Dr. Gray says, that the revolutionary outbreak taking place, as it did, in the Yang-tsze valley with its ruined crops and consequent rise in the price of rice, the mainstay of Chinese diet, found, at its beginning, the people distressed in mind and body.

Tuberculosis is on the increase, and unchecked is becoming a serious scourge. Typhus, relapsing fever, cholera, small-pox, and bubonic plague appear annually, and claim a heavy toll. It is very difficult to suggest any cure for overcrowding in Chinese cities, but that a great amelioration could be effected by the Chinese themselves, the efforts, necessarily more or less limited, of foreign doctors and medical missionaries, can be cited as proof. Efficient drainage, pure water, isolation of infected cases and their contacts, ventilation of buildings, are all neglected in every Chinese city. The report states that in most places the lower classes are more ready to seek foreign medical aid than the gentry and *literati*, many of whom, in spite of lessons to the contrary, are curiously wedded to the Chinese system of medicine, which, with its superstitious notions and erroneous ideas, remains very much in the same unscientific state as it was over a thousand years ago. There is a steady annual increase in the demand for foreign medicines, which is being only partially responded to by the British drug merchants, the most active traders being the Japanese. "Patent medicines" are now extensively advertised, and the consumption of them is yearly growing greater.

Specific Diseases.

Intestinal parasites, tuberculosis, diarrhœa and dysentery, malaria, venereal diseases, are prevalent in the order named all over the empire.

The number of deaths known to have occurred from pneumonic plague, which raged over Manchuria, Shantung, and Chih-li provinces, was 65,000. The bubonic form was not so prevalent as usual.

The year was singularly free from cholera. Probably more accurate methods of diagnosis have resulted in a clearer definition between choleraic diarrhœa and the more virulent and fatal cholera Asiatica.

Typhoid fever was less prevalent among foreigners owing to the better sanitation of the various concessions. Dr. Gray strongly urges all newcomers to submit to antityphoid inoculation.

In treaty ports and wherever foreigners are the benefits of vaccination are being made more and more known, and the epidemics of small-pox are being correspondingly limited. During 1911 there appears to have been less small-pox than has ever been noted before.

All varieties of malaria are met with in Mid and South China. The paddy fields of the rice-growing districts form the most suitable mosquito breeding grounds that could be devised. Wherever rice is grown in China there is malaria most prevalent. Quinine prophylaxis is thought to be the most hopeful measure that could be adopted.

The foregoing summary refers to diseases most commonly met with. It may not be without interest to mention some of the most notable instances of diseases from which this vast empire is comparatively free as regards its native population.

Appendicitis is so rare that some doctors of long standing and wide Chinese medical experience have never met with a case, though they occasionally see cases in foreigners.

Though sprue is frequent among foreigners, especially in Shanghai, no definite case of this disease has ever been recorded in a Chinese. Liver abscess is scarcely ever seen among them, notwithstanding the high dysentery rate, and there is no record of a case of infection of a Chinese by *Trichina spiralis*. Even trichinosis among pigs is extremely rare. Tapeworms, which have so widespread and common a distribution over the rest of the globe, are seldom found in Chinese except in those who eat foreign food.

Locomotor ataxia is very infrequent. Having regard to the fact that syphilis is one of the commonest and worst-treated diseases in China, the almost total absence of true tabes dorsalis and general paralysis of the insane is remarkable. In China alcoholism is very uncommon.

Rickets is scarcely ever noted, probably owing to the fact that Chinese children are all breast-fed. Acute rheumatism in children is seldom seen, and to this is attributed the noted freedom from organic heart disease.

Appended to the reports is a separate article on schistosomiasis by Dr. Thomson of Hangkow. Discovered as recently as 1904, first in Japan by Katsurada, and a few months later by Catte in Fukiu, it has been increasingly evident throughout the Yang-tsze valley. In this year's report from Hangkow there are notes of three cases occurring in Europeans. The disease is due to infection by the ova of the parasite *Schistosomum japonicum*. Pathologically the disease may be divided into two stages: (1) Febrile stage of invasion characterized by pronounced febrile reaction and remarkable eosinophilia. Clinically this stage has to be differentiated from fevers, such as typhoid, paratyphoid, and malaria. (2) Ovian embolic stage, during which ova are settling in the liver and intestinal glands, causing cirrhosis of these organs. Fever is not, as a rule, a marked feature of this stage, and it is rarely the symptom of which the patient complains: this stage simulates chronic kala-azar, chronic malaria, dysentery, or chronic diarrhœa or alcoholic cirrhosis. The duration of the disease depends on the number of worms present, and upon their survival. The number of cases observed in Europeans, who come early under treatment and avoid further infection, is so far too small to warrant a definite pronouncement as to prognosis, but in their case it is decidedly more hopeful than among native patients, who are exposed to infection over and over again.

INTERNATIONAL MORAL EDUCATION CONGRESS.

THE Second International Moral Education Congress will be held at The Hague in August next (22nd to 27th), under the patronage of H.M. the Queen-Mother of the Netherlands. H.R.H. Prince Henry of the Netherlands is Honorary President. The first congress was held at the University of London, September 25th to 29th, 1908, under the patronage of the Ministers of Education of Belgium, Bulgaria, China, England, France, Greece, Holland, Hungary, Italy, Japan, Mexico, Portugal, Roumania, Russia, Spain, Turkey, and the United States of America. Twenty-one Governments were represented at the congress, and nearly thirty Governments assisted in promoting it. A very large number of the leading educationists of the world, without distinction of religion or party, served upon the General Committee and acted as vice-presidents.

International Executive.

The following are the members of the International Executive:

Professor J. W. Adamson, President, King's College, London; Fred Charles, Secretary, 22, Park Crescent, Church End, Finchley, London, N.; L. J. M. Basquin, LL.D., The Hague; Professor Felix Adler, New York; M. Léon Bourgeois, Paris; M. Emile Boutroux, Paris; M. Cloudesley Brereton, London; Mrs. Bryant, London; M. Ferdinand Buisson, Paris; President Murray Butler, New York; Miss Attie G. Dyserinck, The Hague; Professor Wilhelm Foerster, Berlin; Mr. St. George Lane Fox-Pitt, London; M. Harrold Johnson, London; Dr. G. Kerschensteiner, Munich; Dr. J. Th. Mouton, The Hague; Professor F. Orestano, Palermo; Professor M. E. Sadler, London; Mr. E. A. van Sandick, C.E., The Hague; Mr. G. Spiller, London.

Official Languages.

The official languages are English, French, German, and Dutch. The papers will be printed beforehand, and be at the disposal of the members at least one month before the Congress. The papers will not be read, but may be interpreted by the authors.

Programme.

On Thursday evening, August 22nd, there will be a reception by the Town Council of The Hague. On Friday, August 23rd, there will be a general meeting in the forenoon, at which the President will deliver an address. The afternoon will be devoted to a discussion on physical training as a means of character-building:

(*a*) Care of the body by means of:
  (1) Food, cleanliness, clothing.
  (2) Gymnastics, games.
(*b*) The significance in this respect of competition, individual and collective.
(*c*) National defence.
(*d*) Other subjects under this head.

On Saturday, August 24th, the subject of discussion will be moral education in training colleges (Écoles Normales), including schools for military men (Army and Navy). On Monday, August 26th, character-building of young people at educational institutes, which are not intended for ordinary primary education, and also in family life and society at large, will be discussed in the forenoon. In the afternoon the subjects of discussion will be—

1. Character-building of abnormal children:
   (*a*) The physically defective, blind, deaf, lame, etc.
   (*b*) The psychically backward.
   (*c*) The neglected and the criminal.
2. Schools and institutes for abnormal children:
   (*a*) Separation of abnormal children at primary and continuation schools into private classes and schools.
   (*b*) Homes and schools for correction.

On Tuesday, August 27th, questions of an administrative character will be considered and matters relating to the Third Congress will be discussed:

(*a*) The desirability of establishing an international bureau of moral education, and the scope of the duties which might be entrusted to it.
(*b*) The advisability of taking steps to establish an international journal of moral education, or of adapting some existing journal to that purpose.

The President will deliver a closing address.

BRITISH MEDICAL BENEVOLENT FUND.

AT the March meeting of the committee 30 cases were considered and grants amounting to £308 made to 27 of the applicants. Appended is an abstract of the cases relieved:

1. Daughter, aged 59, of M.D.Lond. Used to maintain herself as a cook, but for the last two years has been incapacitated by a nervous complaint and is now practically bedridden. Only income a few shillings a week, derived from a small cottage, which is mortgaged. Relieved three times, £26. Voted £8.

2. Widow, aged 46, of M.R.C.S. No income and children only just beginning to be self-supporting. Is receiving assistance from this fund, but asks for a little extra help to meet unavoidable expenses. Voted £5.

3. Widow, aged 56, of M.R.C.S. No children: no income, and unable to maintain herself on account of permanent ill health. Relieved eight times, £82. Voted £12.

4. M.B., C.M.Edin., aged 52. Used to have a fair practice in the North of England, but lost it during a long illness, and is now quite incapacitated by paralysis. No income, and entirely dependent on wife's earnings as a masseuse. Voted £18.

5. Widow, aged 38, of L.R.C.P., L.R.C.S.Irel. Quite unprovided for at husband's recent death from new growth, and has been unable to sell the practice. Two children, aged 7 and 6. Voted £10.

6. Daughter, aged 39, of late M.R.C.S. Is promised a year's training for rescue work, with the prospect of a good salary afterwards, but requires help for personal expenses meanwhile. Voted £20.

7. Widow, aged 61, of L.R.C.P., L.R.C.S.Edin. Only income £15 a year and suffers from a chronic complaint. Voted £10.

8. Daughter, aged 48, of late M.R.C.S. No income, and unable to support herself because she is obliged to nurse an invalid mother, aged 90, whose income is insufficient for two. Voted £10.

9. Daughter, aged 53, of L.R.C.P.Edin. Lives with her mother, who is paralysed, and practically dependent on an old age pension of 5s a week. Voted £12.

10. Daughter, aged 55, of late M.R.C.S. Dependent on a small weekly allowance from a widowed sister, and has been a chronic invalid for many years, during which regular employment has been quite impossible. Relieved fourteen times, £161. Voted £12.

11. Widow, aged 42, of M.B., C.M.Edin. Practically unprovided for at husband's death, and endeavours to support herself and four children by taking boarders. Relieved once, £10. Voted £10.

12. Widow, aged 88, of M.R.C.S. Has been bedridden for nearly twelve years, and only sources of income an annuity of £25 and an old age pension of 5s. a week. Relieved five times, £44. Voted £17.

13. L.R.C.P., L.R.C.S.Edin., aged 60. Has been totally incapacitated for four years, and is consequently practically dependent on two unmarried sisters, who have had to give up a school in order to nurse him. Relieved twice, £20. Voted £10.

14. Wife, aged 46, of L.R.C.P., L.R.C.S Edin. Since husband's removal to a county asylum five years ago has endeavoured to support herself by letting lodgings, but finds it most difficult to do so. Relieved twice, £30. Voted £15.

15. Daughter, aged 60, of late M.D. Used to be a governess, but has been unable to work since a serious illness some years ago, and is dependent on a sister whose means are very small. Relieved six times, £90. Voted £5.

16. Widow, aged 54, of M.D.Edin. Unprovided for at husband's death about seven years ago, and children only able to give very slight assistance. Relieved six times, £64. Voted £12.

17. Daughter, aged 63, of late M.R.C.S. Endeavours to support herself by taking boarders, and, with the help of friends and this fund, just succeeds in making both ends meet. Relieved five times, £62. Voted £10.

18. Widow, aged 66, of M.R.C.S. No income: health indifferent and nearly blind. Relieved once, £12. Voted £12.

19. Widow, aged 67, of L.R.C.P., L.R.C.S.Edin. Only income a small pension from a charitable society and is a chronic invalid. Relieved twice, £24. Voted £5.

20. Daughter, aged 61, of late M.R.C.S. Receives a few shillings a week from friends, and is quite incapable of supporting herself owing to a chronic and incurable affliction. Relieved four times, £42. Voted £12.

21. Widow, aged 46, of L.R.C.P., L.R.C.S.Edin. Has been in very bad health for several years, and is dependent on the help given by this fund and another charitable society. Children unable to help. Relieved sixteen times, £184. Voted 12.

22. Widow, aged 54, of L.R.C.P., L.R.C.S.Edin. No income; no children; health very feeble, and occupation consequently almost impossible. Relieved eight times, £82. Voted £12.

23. Widow, aged 67, of M.D.Glasg. Health so feeble as to necessitate daughter's presence at home; a son earning a small weekly wage supplements the help given by this fund and another society. Relieved twelve times, £136. Voted £12.

24. Widow, aged 50, of M.B.Durh. For many years supported herself, a mother, and two daughters, by a nursing home, but is now in bad health and dependent on a relation. Relieved three times, £29. Voted £5.

25. M.R.C.S., aged 74. Used to have a good practice in a London suburb, but broke down in health and now receives an old age pension of 5s. a week. Relieved once, £12. Voted £12.

26. Daughter, aged 44, of late M.R.C.S. Used to be a district nurse, but had to undergo a severe operation, and now endeavours to maintain herself by letting rooms. Relieved once, £10. Voted £10.

27. M.R.C.S., aged 65. Was a fairly successful practitioner, but has had bad health for several years, and has consequently exhausted his means. Is at present incapacitated by the sequelae of an acute illness. Relieved once, £12. Voted £12.

Contributions may be sent to the Honorary Treasurer, Dr. Samuel West, 15, Wimpole Street, London, W.

WE have received from the Cavendish Electrical Company, Limited (Great Portland Street, W.), a copy of a new x-ray and electro-medical catalogue. It is an interesting production of 250 pages, and it ranges over the whole field of modern requirements in this speciality. Many patterns of electric-light baths appear now to be obtainable, but probably the newest piece of apparatus catalogued is the x-ray focus-tube with a window of lithium glass. It is stated that lithium absorbs only 10 per cent. or 15 per cent. of the rays as compared with the 60 per cent. absorbed by ordinary sodium. A useful device is the metal frame plateholder, its purpose being to prevent spoiling the negative when it is wanted by the surgeon in a hurry and leaves the hands of the radiologist before it is dry. A separate pamphlet issued by the same firm treats of ionic medication.

SCIENCE NOTES.

AN interesting paper by Hess appears in the *Zoologische Jahrbücher. Abt. für Anatomie*, xxx. p. 339, dealing with a comparative study of accommodation in the eyes of various animals. In the mammalian eye, as is well known, the roots of the iris and the ciliary processes are not, as a rule, in direct contact with the lens. The contraction of the internal muscles of the eye brings about a relaxation of the zonula, which results in accommodation being effected. In this case, as in the case of all the Amniota, accommodation is due to a change in the shape of the lens. In reptiles and birds, however, unlike mammals, this change in shape is effected by direct pressure of the iris and ciliary ring on the peripheral parts of the anterior surface of the lens. In amphibia and fishes accommodation is effected, not by a change in shape, but by a change in position of the lens, and this is independent of any variation in pressure. In cuttlefishes a similar change in position is brought about by an alteration in internal pressure, the lens being pushed forward to accommodate for near vision. The eye in amphibia, also, is adjusted for distant vision, and requires to be accommodated for near vision. The reverse, however, is the case in bony fishes (cod, plaice, etc.). Several other features of interest are noted in the same paper, as, for instance, the fact that in the monotreme *Echidna*, the spiny ant-eater, the conditions of accommodation are the same as those in the higher mammals. The enormous development of the iris musculature in the eye of the otter is also commented on, and it is suggested that this probably assists in altering the shape of the lens during accommodation. In a further paper[1] Hess makes additional remarks on the same subject and brings forward several new and important anatomical facts.

What are generally regarded as the eyes of the common snail do not possess any light function. Such is the conclusion arrived at from experimental observations by E. Yung.[2] The so-called eyes are situated at the extremities of a pair of tentacles ("horns"), but these tentacles, according to Yung, exhibit absolutely no reaction to light stimulus of any kind. Obstacles placed in the path of the snail are apparently not seen by the animal, and no difference in behaviour can be observed when the "ocular" tentacles are amputated. Casual observation gives one the impression that the snail shuns the light, although Willem's experimental work suggests that the animal is positively phototropic. Yung's conclusion, based on a large number of observations, is that the animal is quite indifferent, and that the distribution of snails in light and shade is fortuitous, apart from the fact that shaded areas tend to be rather moister. These opinions will hardly go unchallenged, upsetting, as they do, some firmly-established ideas.

It is still a much-disputed anatomical point whether in the adult condition the mammalian heart muscle consists of cells or is formed of a syncytium. Much careful work has been done on this subject, yet, in spite of it, the views urged by opposing authorities appear to be of equal cogency. In attempting to form an opinion upon this matter, much depends on the interpretation placed upon the so-called intercalated discs or bands of Eberth, as to whether they actually determine cell boundaries or not. As Jordan[3] points out, these discs rarely occur in the heart muscle of animals below the level of birds, three exceptions being the turtle, frog, and trout. They are also absent in mammalian embryos before birth. At an early stage in embryonic development the cardiac musculature is distinctly syncytial, and the appearance of the intercalated discs at a later period seems to mark an increased degree of differentiation. Working on the heart of the hummingbird, which, on account of its high organization, was regarded as a suitable object of research, Jordan has come to the conclusion that in this case at least the cardiac muscle is really a syncytium, and that the intercalated discs cannot be regarded as cell boundaries. Both in structure and in staining reactions these discs resemble anisotropic bands, and their occurrence must be interpreted as representing a definite functional state of the heart muscle.

[1] *Sitzungsberichte phys.-med. Gesellschaft*, Würzburg, 1911, p. 52.
[2] *Comptes rendus Ac. Sci. Paris*, clv, p. 434.
[3] *Amer. Record*, v, 1911, pp. 517-527.

It is rather curious to find placoid-like teeth developing in the human embryo, yet such an abnormality has been noted more than once, and most recently by Adloff.[1] It may be remembered that the teeth of fishes differ from those of mammals in being outgrowths from the mesoderm which grow into the epidermis, while mammalian teeth arise in epidermic pockets. The former mode of origin is found not only in fishes but also in some amphibians and in the crocodile. Suggestions in the human embryo of a reversion to this type were first noted by Rose, and Adloff's latest discovery in a 9 weeks embryo of a projecting papilla lying beside a normal tooth-germ is regarded as being an analogous case, and is considered by its discoverer as an instance of atavistic reversion.

One of the most important recent discoveries in regard to the parasitic worms of man is that relating to the intermediate host of the Japanese liver fluke, *Clonorchis endemicus*. This fluke is very widespread in Japan, and causes much disease. A closely allied species, *Clonorchis sinensis*, is just as widely distributed in China, while other flukes belonging to the same family are not uncommon in Russia and other parts of Europe. It has been known for a year or two in connexion with at least one of these flukes (*Opisthorcis felineus*) that small freshwater fishes, such as the rudd, serve as intermediate hosts, and that infection is acquired by eating those. From the close correspondence in structure and habit of all these flukes it is not surprising to learn that the intermediate stage of *Clonorchis endemicus* is also passed in freshwater fishes. Kobayashi[2] mentions nine different varieties of fish in which he found the larval cysts. The cysts were found throughout the muscles and the subcutaneous tissues. Kittens were fed on these infected fishes, and were later found to harbour the adult liver flukes. These facts are of considerable importance to preventive medicine, and indicate a basis for prophylactic measures. These observations, however, do not clear up the entire life-history of the worms in question. Knowing what we do of the life-cycle of Trematodes in general, it is practically certain that some earlier stage of the Japanese liver fluke remains to be discovered. This will undoubtedly be found in the sporocyst or redia stage in some freshwater mollusc upon which the fishes feed and from which they acquire infection. So far, however, as preventing the disease in man is concerned, we are now in possession of facts by means of which much good may be accomplished.

Professor Trouessart, of the National Museum, Paris, makes an interesting contribution to *La Nature* (February 17th) on the predatory habits of the mantis. The praying mantis is well known—at least in name—to most people, as is the fact that it owes its appellation to the peculiar "praying" attitude it adopts while awaiting its victims. It is a common insect in the South of France, where it reaches a size of 2 in. Owing to its green colour, it is difficult to detect in the bushes and shrubs amongst which it lives. It attacks flies and other insects, which it stalks with great dexterity. Its chief weapons of offence are the first pair of legs, the femur and tibia of which bear on their posterior aspect a series of formidable tooth-like processes. When these are snapped together they exert a powerful grip and inflict considerable damage. Now, there are other species of mantis which are much larger than that found in Europe, and which are correspondingly redoubtable. There is, for instance, the Carolina mantis, which can make short work of lizards even three times its own size. Again, there is the Argentine mantis, which throttles small birds and sucks their blood. This observation is vouched for by the well-known entomologist Burmeister, and has received confirmation recently from the report of a similar instance occurring in Tunis. The Tunisian species, *Mantis (Hierodula) bioculata*, is a large and powerful-looking brute, and the bloodthirsty tale which Dr. Millet-Horsin has communicated to Professor Trouessart can quite easily be credited. A remarkable representation of the scene, drawn by Mr. Millot, accompanies the article.

[1] *Anat. Anzeiger*, xl, 1911, pp. 177-78.
[2] *Annot. Zool. Japon.*, vii, p. 271.

LITERARY NOTES.

IT is said that fashion often draws her inspiration from the peculiarities and physical defects of her leaders; and one of the most curious instances of her capricious fancy is related by M. Emile Langlade in his life of the famous Rose Bertin, "La Marchande de Modes de Marie-Antoinette." Under the *ancien régime*, as now, fashions changed with disconcerting rapidity; and Mademoiselle Rose owed her European reputation to the taste and ingenuity with which she utilized current events to vary the modes for her fashionable customers. The elaborate coiffures of the period required equally elaborate head-dresses, and the Queen's milliner was considered singularly happy in her invention and confection of the gorgeous "poufs" which crowned the powdered heads of Marie-Antoinette and her ladies. One of these poufs, known as the "pouf à l'inoculation," was inspired by no less an event than the inoculation of the young King, Louis XVI, which took place on June 18th, 1774. For a short time after this interesting occurrence every woman with the least pretension to fashion wore in her hair a miniature model of the rising sun and a heavily laden olive-tree, round whose trunk was entwined a serpent supporting a club wreathed with flowers. This elegant device signified the power of medicine (represented by the armed snake) to overcome the horrors of small-pox, the rising sun being an image of the royal patient (descendant of "Le Roi Soleil"), towards whom the thoughts of his loving subjects were now unanimously turned, whilst the olive-tree, symbol of peace, expressed their joy at the successful issue of his operation. We are not told what Louis, who disapproved strongly of his beautiful wife's extravagant taste in head-gear, thought of this delicate compliment; but it would be difficult to imagine a more ingenious method of flattering the monarch and at the same time indulging an exacting *clientèle* in their incessant demands for variety.

When the library of the late Dr. Frank Payne was sold, more than one correspondent asked us the name of the purchaser. We were unable to give the information, which, for reasons we cannot pretend to penetrate, has been kept secret. In the *Canadian Medical Association Journal* for March Sir William Osler gives an account of an attempt made by him to secure the famous library for the Johns Hopkins Medical School. Part of the library was sold in July, and the remainder at the end of January. The executors had placed a reserve price of £2,700, but on the morning of the sale Sir William Osler received an intimation that it would be reduced to £2,500. The collection was to be offered first *en bloc*. With Dr. Henry Barton Jacobs and Dr. George Dock, he went to Sotheby's at 1 o'clock on January 12th. A more rapid sale he says he never saw. The bidding began at £2,000, and within a minute it was knocked down to an unknown bidder at £2,300—a figure beyond that which Mr. Marburg, who had commissioned him to buy, had mentioned, but Dr. Jacobs and he were prepared to go to the reserve price, had they had a chance! Sir William Osler adds that the name of the purchaser is not known, but he believes the collection remains in Great Britain. He goes on to say that the second part of the library consisted of a special collection of about one hundred and sixteen Herbals, a few miscellaneous classical works, an [illegible] collection of first and other editions of Milton and Miltoniana. The Herbals were offered *en bloc*, but the reserve price was not reached. Several of the fifteenth-century Herbals brought a very good price; a 1488 Herbarium, the earliest with figures of plants, brought £96. For years Dr. Payne had been very much interested in Milton, and his collection contained a very large number of first editions. The highest price paid for a single item was for a quarto edition of the famous tract on Education, one of the very few copies known in this form, for which Mr. Quaritch paid £172. The library realized as a whole £4,353, a figure rarely reached by modern medical collections.

It is always satisfactory to us to find that the JOURNAL is carefully studied by our readers. It is therefore with special gratification that we have found one who, like Dr. Hurley of Queen Camel, Somerset, apparently reads it, as Sam Weller says, with a "pair o' patent double million magnifyin' gas microscopes of hextra power." Naturally with the aid of this powerful

instrument he has detected some mistakes: *we* congratulate ourselves on the fact that he has found no more. Some time ago we quoted a line from one of Rossetti's sonnets—which we may mention by the way we had not seen since the poems first appeared—and, according to our critic, we represented the poet as having written "these" instead of "those." He adds that this quite spoils a fine passage. If the beauty of the passage depends on an *o*, it must be of a fragility too delicate for exposure to the rack of the printing press. But then we must remember that once upon a time, in Gibbon's phrase, an iota divided the world. Our correspondent convicts us of having put into the mouth of Brutus words uttered by Mark Antony. It is a true bill, and in mitigation of damages we can only plead haste in writing. Again, in a law report there is a piece of slovenly English; we fear that a further search would have revealed even worse atrocities in such reports. Why does our critic think we suffer a severe nervous shock when we encounter a split infinitive? We certainly try to avoid this particular solecism, but, if it comes in our way, we can meet it with tolerable fortitude. Some years ago we pointed out, in reply to a distinguished authority, who had said that the split infinitive could not be found in authors of good repute, that Professor Lounsbury, of Yale, had cited a long *catena* of examples from well-known writers extending back to the sixteenth century. We may add that on at least one occasion Macaulay deliberately substituted a split infinitive for the more usual construction in order to make the expression stronger. Our correspondent goes on:

> Not long since you were patting yourself on the back because you gave a warm welcome to foreign words, and a week or so afterwards you printed "morale" in italics three times on one page. Surely there is no need to heave typographical tricks at the stranger in that way? "Morale" became naturalized long ago, and even the halfpenny press now prints it in ordinary type.

We pour ashes on our head for the needless italics. But we take the liberty of pointing out that "morale" has never become naturalized, because it is a word of English birth—illegitimate, we fear—but still our own. In French the corresponding word is *moral*. *Morale* has quite a different meaning. We venture to express surprise at our correspondent overlooking this not very recondite bit of linguistic lore; though, to be sure, we gather from him that it is not to be learnt from the halfpenny papers. We may conclude with a story, of which it is needless to point the moral (no italics, Master Printer, an' thou lovest me, or equivocation will undo us). A Cambridge don with a genius for minutiae on one occasion allowed some infinitesimal point to escape his memory. Thompson, then Master of Trinity, said to him: "I should have thought you would have remembered this, Mr. ——: it was so very unimportant."

The annual report of the Library Committee of the Manchester Medical Society states that the joint library of the Society and the Medical School contains 40,916 volumes, of which 675 were added during the year 1911. Early in the year the Committee decided to introduce the Dewey decimal system of classification for shelf arrangement. By means of that system books on the same subject, with few exceptions, will be placed together in chronological order, and literature on allied subjects will be placed in close proximity. Up to the present 247 books have been classified.

The Dewey method is also adopted in the Phillips Library of Pharmacology and Therapeutics, founded in the University of Aberdeen in memory of Dr. C. D. F. Phillips, a subject catalogue of which we have received. It is pointed out in the introduction that the system permits (1) of an unlimited subdivision of every class; (2) an unlimited intercalation of new books among those already on the shelves; (3) it possesses a simple notation which has acquired an international significance; (4) the notation is in a high degree mnemonic. The following interesting note has been supplied by Professor Cash:

> Whilst ancient and mediaeval works bearing the title of Materia Medica are mainly devoted to the description of the origin and properties, physical and sensible, of crude drugs (or reputed remedies), they not infrequently trench on the domain of Therapeutics by indicating the supposed sphere of action of such remedies and occasionally by hinting at some theory to account for their favourable effect. We are prepared to find that, in correspondence with the undeveloped condition of the sciences involved, there is but scanty reference in such early writings to botanical or chemical relationships and affinities, and that whilst mention is occasionally made of the more obvious toxic effects produced by large doses of drugs, which in smaller amounts were regarded as remedies, it would be useless to search for any record of systematic inquiry into the intimate action of such bodies. The reason of this is obvious, inasmuch as the new science had necessarily to wait until the essential preliminary facts which should serve as its basis had been established by Physiological research.
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> To this new science, which deals with the action of drugs and their constituents on the normal organism and tissue, the term Pharmacology is now by common consent applied. The word is of comparatively recent introduction, and for a time the meaning was sometimes attached to it of the study of drugs in the widest possible sense, but the birth of the experimental study some eighty years ago demanded a special designation, and hence the restriction in the meaning of the term. Pharmacology is therefore, in its present acceptation, equivalent to Pharmacodynamics (a ponderous term used by but few authorities) and is quite distinct from Pharmacognosy, which, standing for the study of drugs as such, deals with the characters and properties by means of which these may be identified. The ancient word Therapeutics now, as in olden times, implies the application of remedies, material or immaterial, to the purpose of alleviating suffering or combating disease.
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> The relationship of the cognate studies may be briefly expressed thus:
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> | | |
> |---|---|
> | The drug and its identification ... | Pharmacognosy. |
> | Its preparation for administration ... | Pharmacy. |
> | The chemical processes involved ... | Pharmaceutical chemistry. |
> | Its action on normal tissues and organism ... ... | Pharmacology. |
> | Its effect, when in poisonous proportion, upon man ... ... | Toxicology. |
> | Its application to treatment of abnormal conditions of tissues and organism ... ... | Therapeutics. |
>
> It is, however, to be remembered that there are many general therapeutical agencies apart from drugs.

J. M. S. writes: The amusing story about the body-snatchers and the living corpse, related in Literary Notes in the BRITISH MEDICAL JOURNAL of February 3rd, page 259, reminds me of another version of the same story, in which the agony is piled higher, and a more professional turn given to the anecdote, which was current in my student days at Edinburgh, now, alas! more than thirty years ago. Possibly you may think this other version also worth publication. Who originated or invented the story, which is much too good to be true, I have no idea.

> A country doctor, returning from a visit in the small hours of the morning, in the time of the "body-snatchers," had to pass a secluded burial ground, in which a deceased patient had been interred the day before. When he reached the wall he saw a horse and trap standing unattended on the road outside. Looking cautiously over the wall, he saw that two men had just disinterred the corpse. Standing in the shadow of the wall, he saw them bring out the body and place it in a sitting position on the seat of the trap, so that, when they drove away, the body, which they had wrapped in a dark cloak, would in the dim light look like a third man, sitting between the other two. They then got over the wall again, to fill in the grave. The doctor lifted the body down from the trap, laid it under the wall, and seated himself in its place. After a short time the two men got over the wall again, threw their spades into the back of the trap, seated themselves one on each side of him, and drove off. Presently one of the men said to the other, "The body seems to be warm still." The other replied, "So it is." Then the corpse said, "Warm! and if you had been where I have been for the past twenty-four hours you would be warm too!" The two men leapt with a yell out of the trap at opposite sides, and ran for their lives. The doctor drove the trap home. No inquiries were ever made by the owners.

The April number of the *Arena* contains some articles of special interest. We may mention in particular one entitled "Cambridge Fifty Years Ago," written by the Rev. J. W. E. Conybeare, who went up to Trinity in 1862, and still lives at Cambridge. The illustrations are from photographs taken fifty years ago, shown in comparison with photographs from the same view-points taken within the last few weeks. There is also a "historical survey" of "The High" at Oxford. An article on "The Public Schools Racquets Championship" is illustrated with portraits of winning pairs from the year 1871. The extraordinary number of winners who are also well known in other branches of sport is noticeable. Besides the variety of its contents the *Arena* is remarkable for the beauty of the illustrations.

British Medical Journal.

SATURDAY, APRIL 13TH, 1912.

MODERN BIOLOGY AND MODERN SOCIETY.

THE Herbert Spencer Lecture at Oxford was delivered this year by Mr. W. Bateson, the acknowledged leader of the Mendelian school of biology in this country.* It is a dogmatic pronouncement from the point of view of that school, and as such will appeal in the main only to those already convinced of the doctrines assumed. Mr. Bateson postulates the Mendelian hypothesis of "unit segregation" as a biological fact, and takes for granted the mutationist teaching on the evolution of species. Starting from these assumptions he claims that, though "it is not known how far the Mendelian analysis can be carried we should probably be right in assuming that it covers most of the features, whether of mind or body, which distinguish the various members of a mixed population like that of which we form a part." He then proceeds to examine what he somewhat strangely denominates "social physiology" in the light of this "knowledge," and devotes two-thirds of his lecture to an attempted application of the Mendelian calculus to various social problems.

In making the above-mentioned assumptions Mr. Bateson says nothing precise as to what he means by the "features of mind and body" which he considers capable of being dealt with by Mendelian analysis; and he appears to ignore altogether the fact that, as regards recognizable human characters, especially in the mental sphere, the part played in their development by individual experience, custom, tradition, and training is exceedingly large, while that played by instinct is proportionately small. The almost illimitable educability which marks the human brain seems to be lost sight of entirely. The word "instinct," moreover, appears to be used in a very loose manner, and no distinction is made between the capacity or potentiality of developing a "character," and the actual acquirement of a character under the influence alone of external agencies. Such confidence, indeed, has he in his own creed that he leaves no room for honest doubt, and at the outset of his lecture announces that it is only "within the last few years that mankind suddenly began to realize what heredity means." Although the last statement must be taken as a claim to a monopoly of the science of heredity by the Mendelian school, Mr. Bateson makes the admission that before the last few years many were "aware of the importance of heredity," and that "the late Francis Galton had endeavoured to direct attention to its practical significance." He further grants that Galton had shown "that the descent of characters could be partially expressed in a system which, though erroneous in fundamental conception, still gives an approximately correct representation of several of the phenomena"!

We quote these passages in illustration of the lecturer's general attitude towards his subject and as showing that he takes no account of the views of the large number of biologists to whom, in these days of "schools," the name of "Neo-Darwinians" has been applied. These are they who uphold the Darwinian teaching concerning "variations" in relation to biological evolution, modified by the conceptions of the continuity of the germ plasma and of the non-transmission of characters acquired during an individual's lifetime under the influence of use and experience, which, without such influences, would fail to appear.

In view of this position taken up by Mr. Bateson, no criticism of his main assumptions is called for here. He certainly allows, while claiming the general applicability of the Mendelian hypothesis to the solution of biological problems, that, "in the case of the ordinary attributes of normal men, we have as yet unimpeachable evidence of the manifestation of this" (the Mendelian) "system of descent from one set of characters only—namely, the colour of the eyes." He does not mention that even this statement has been questioned by some observers, but goes on to say that "there is no reasonable doubt that the extension (*sic*) to the normal attributes of man is one which we are well entitled to make" (meaning, we suppose, the "extension" of Mendelian rules); and he explicitly states that he proposes not to argue, but to assume, the truth of his position when dealing with the "structure of society."

The attempts made to regard practical matters of sociology in the light of the Mendelian doctrine do not appear helpful. This doctrine adds no weight to the dictum that it is desirable to segregate those who are hopelessly defective in mind; for it is generally acknowledged by biologists of all colours, as well as by observers unbiassed by any biological knowledge, that such persons are far more likely than others to procreate mentally defective children. We are quite in accord with Mr. Bateson when he says that there is no warrant for any legislative interference with human breeding other than in this particular; and we think that much that he says on this head might well be taken to heart by many of his eugenist disciples. But we part company again with the lecturer when he preaches *ex cathedrâ* about the "natural genetic distinctions which differentiate us into types and strains—acrobats, actors, artists, clergy, farmers, labourers, lawyers, mechanics, musicians, poets, sailors, men of science, servants, soldiers, and tradesmen." "How few," he cries, "of these could have changed parts with each other! Many of these types are even, in present conditions, almost differentiated into distinct strains. I never cease to marvel that the more divergent castes of civilized humanity are capable of interbreeding and of producing fertile offspring from their crosses. Nothing but this paradoxical fact prevents us from regarding many classes even of Englishmen as distinct species in the full sense of the term." Surely here we have self-mystification *in excelsis*, in spite of a passage curiously quoted from the *Rural Rides* of the "acute Cobbett," who, according to Mr. Bateson, "long ago expanded this conclusion"!

Not more illuminating are the references made to the abolition of the "hereditary Chamber," and to the administration of criminal justice as suggesting problems "to the solution of which biological data are essential." The lecturer's comments here consist of mere word-play, making capital out of the equivocal meaning of the word "hereditary," and using, for dialectical purposes, the ancient phrase that "in the sight of the law all men are equal."

*"Biological Fact and the Structure of Society." The Herbert Spencer Lecture, delivered at Oxford on February 28th, 1912. By W. Bateson, M.A., F.R.S. Oxford: Clarendon Press. Price 1s.

Speaking of the great rise in the population of England in the earlier part of the nineteenth century, Mr. Bateson, attributing this to the energy latent in the coal-fields, thus writes: "Nor have we to look far for the variation which enabled man to begin thus to devour the capital of the earth; and I suppose the coincidence of the first quick rise in population with the activities of *that remarkable mutation, James Watt*, needs no special emphasis of interpretation." We would, however, call for "special emphasis" to be laid by the reader who reflects on the words that we have italicized in the quotation above.

The concluding passages of the lecture contain several instances of the indefinite use of the word "instinct," and the equivocal use of the words "social organism," which suggest a false relationship between biological and social questions.

If "society" is not in "reality" an organism, the lecturer's remarks would seem to be quite irrelevant. But apparently he assumes that society is in reality an organism, and on this assumption declares (as part of his system of "knowledge") that all progress in civilization must depend upon "mutational novelties." Finally, with another apparent equivoque on the words "class distinction," Mr. Bateson contrasts thus the ideals of Democracy and Biology: "*Democracy regards class distinction as evil; we perceive it to be essential.*" With this stone from his sling he attacks Democracy, and proceeds to pronounce the judgement that "the aim of social reform must be, not to abolish class, but to provide that each individual shall, so far as possible, get into the right class and stay there, and usually his children after him."

We think it will be generally agreed that the breeding experiments which have been carried on, and inspired by, Mr. Bateson are more worthy of his abilities than this attempt at practical application of his dogmas to sociological problems.

INTELLECT AND LONGEVITY.

PERSONS of superior brain power would not seem *a priori* to be destined to length of days, since from their youth they have to bear the strain of an intense intellectual life, to which are often added the unhygienic conditions of a sedentary existence. It might be thought that such persons, being sicklied o'er with the pale cast of thought in early life, would be less long lived than those whose existence, in an intellectual sense, approximates to the vegetable order. Yet it appears to be the fact that "intellectuals" have on the whole a high expectancy of life. According to Benoiston de Chateauneuf the average life of members of the French Academy from 1635 to 1838 was 78 years and 10 months. Potiquet reckoned that between 1795 and 1848 the average for members of the Institute was 71 years and 4 months, while for members of the Academies of the Fine Arts, Sciences, etc., it was respectively 72 years and 2 months, 71 years and 4 months, and 70 years and 8 months. We know of no corresponding statistics for members of other learned societies, though, to mention only the most recent cases, Sir Joseph Hooker and Lord Lister had each passed the ordinary limit of human life.

To arrive at any definite conclusions we must discriminate between different forms of intellectual energy. Poets and artists are not in the same category as mathematicians, for instance, or workers at scientific problems. Then there are the inventors, a class apart, in whom the mere intellectual excitement is increased by the hope of gain. Disappointment, want of appreciation, lack of means, a squalid home, a scolding wife—all these things have to be taken into account as tending to shorten life. The longevity of statesmen has been so remarkable that during the last half-century or so it has been said with truth that the world is governed by old men. For the poet it has been said that the fatal age is 37. This seems to be founded on nothing more solid than the fact that Byron and Burns died at that age. Leopardi died at 39, Shelley at 29, and Keats at 25. Before he was 40 Alfred de Musset was, according to Heine's bitter gibe, a young man with a great future behind him. Heine's own life after 47 was spent in what he called his mattress grave. Shakespeare died at 52, but his creative life had ceased some years before. Goethe, on the other hand, lived to 82 in the full possession of his faculties. He was a man of powerful physique, and, though he ate and drank and did other things in anything but moderation, and, in fact, was supposed to be doomed to an early death in his youth, he continued eating and drinking and high thinking almost to the end. Victor Hugo died at 83. Yet poets as a class are not long-lived. In them generally intense exercise of the imagination alternates with periods of inaction, and these have too often been passed in excesses which tend to undermine the constitution. On the other hand, painters are long lived, as pointed out by Hazlitt in a well-known essay. Michael Angelo was 92, Titian 99, and there are many other instances. Men of science, too, whose life is spent, to use Newton's phrase, in "intending" their minds on problems in the solution of which disturbing influences are deliberately put aside, have a high average of longevity. They are to a large extent free from the baleful emotivity which is a frequent accompaniment of creative genius. They are not the slaves of passions which wear out the body as the sword does a scabbard. The brain has in them a greater inhibitory influence on the organs of vegetative life, and the continuous concentration of the mind tends to make this effect habitual and almost automatic. The man tends more and more to live in the idea, to such a degree that the ordinary stimuli even of hunger and thirst cease to be felt, and the senses lose their natural reaction to outward things, so that the train of thought goes on undisturbed by sight or sound. This explains the absent-mindedness of thinkers, and there is nothing incredible in the story of Socrates standing lost in thought in the same place for twenty-four hours.

To come down to a different plane, experience proves that errors in diet, not to speak of other things, clog the delicate machinery of the brain and disturb its working. Hence a thinker or a man of science cannot afford to give way to the indulgences which tend to shorten the life of the average sensual man. The plain life, which is one of the necessary conditions of high thinking, in itself promotes longevity. If an "intellectual" enters on life with a weakly constitution he is more likely to take care of his health than a man whose only aim is to get as much enjoyment as he can. But, apart from this, the man with a powerful brain is likely to have a corresponding vitality in his other organs. He is, in fact, better equipped than his fellows for the race of life. But a fine cerebral organization may coexist with lack of staying power. Hence success is largely a matter of survival, the strong outliving possible rivals. This is seen most evidently in judges and statesmen, to a less extent in members of the medical profession, whose work places such a tax on their physical powers that they stand low in the scale of expectancy. Yet we have heard a physician of the

highest eminence declare that he owed his position to the fact that he had outlived his competitors. Men of great intellect, if they start in life with a good family history, are more likely to live long than the common run of men only as far as their way of life keeps them out of the sordid struggles for a livelihood that beset most people. There is an element of truth in the cynical saying that a bad heart and a good digestion constitute the secret of long life. But freedom from care is an incalculable help not only to longevity, but to the achievements by which a man writes his footsteps on the sands of time.

MINER'S NYSTAGMUS.

The subject of the cause and prevention of miner's nystagmus has again been brought to public notice by the publication of a correspondence between Sir A. B. Markham, M.P., who is a coalowner, and the Home Secretary. It arose out of a letter addressed to Sir A. B. Markham by Dr. J. Court of Staveley, Derbyshire, who has had some forty years' experience of the coal-mining industry. Dr. Court urged that an inquiry should be undertaken into the eyesight of all men and boys working in collieries and other mines in Great Britain, where both naked lights and safety lamps are used, in order to ascertain: (1) The cause or causes of miner's nystagmus: (2) the duration and best means of cure; (3) whether there is a constitutional liability: (4) whether one attack predisposes to another; (5) whether mild cases are incapacitated from work underground and to what extent; and (6) whether miner's nystagmus causes the sufferer to be a danger to himself and other miners at work with him.

There are two views as to the cause of miner's nystagmus. The one attributes it to eyestrain due to working in a badly lighted space with black light-absorbing surfaces; the other to strain of the extrinsic muscles of the eye, especially of the elevator muscles, due to the position of the miner when at work at the coal face, or when examining the roof of the workings to detect gas or threatening falls. The view hitherto most generally accepted is the second, a theory which brings the condition into the same category as writer's cramp and other occupational neuroses. This theory was strongly held by the late Mr. Simeon Snell, who supported it by many cogent arguments drawn from his long experience in treating eye affections among coal miners. He had the support of Nieden, Dransard, and some other Continental authorities, but the theory has always been open to the objection that the disorder is seldom met with except among men working in coal mines; those engaged in other mines, it is said, are seldom or never affected in this way. In a paper on the causes and prevention of miner's nystagmus, communicated recently to the Royal Society by Dr. J. S. Haldane, Dr. T. L. Llewellyn, of Bargoed, Glamorganshire, advanced the theory that the nystagmus was due to a condition of imperfect centripetal impulses (imperfect fixation, disturbance of equilibrium, etc.), the intimate connexion between the centres governing the associated movements of the eyes being lost and inco-ordinate movements ensuing. Dr. Haldane has informed the Home Secretary that Dr. Llewellyn's researches in a number of coalfields and also among metalliferous miners confirm Dr. Court's conclusion as to the connexion between nystagmus and the very poor light given by ordinary safety lamps. Dr. Llewellyn found errors of refraction (hypermetropia, or astigmatism) present in 93 per cent. of 280 cases examined, and concluded that the personal proclivity to the disorder which is undoubtedly an important factor, since only a small percentage of coal miners are affected, may be due to these defects, but he admitted that accident, shock, and ill health are also predisposing factors. He found that the disorder certainly diminished with improved illumination, being almost unknown in naked-light districts, and the principal preventive measures he indicated were improvement of illumination (which Dr. Court also advocates, suggesting the use of electric lamps), employment of coal-cutting machines in thin seams, and the elimination of unfit workers by medical examination.

Mr. Snell, in his address as President of the British Medical Association in 1908, when the Annual Meeting was held at Sheffield, described experiments and observations made with the assistance of Mr. A. Stokes, H.M. Inspector of Mines, which seemed to establish the very important practical point that an underground coal worker suffering from miner's nystagmus was not able to recognize the "cap" which forms on a safety lamp in the presence of firedamp. The ordinary method adopted for the detection of firedamp in coal mines is to reduce the size of the oil flame of the safety lamp until the luminosity almost disappears, and the firedamp then, if present, causes a pale-blue flame, or "cap," to form above the oil light.[1] The amount of gas present can be approximately estimated by the appearance and dimensions of the "flame cap." The method does not clearly detect less than 2 to 3 per cent., but for some purposes it is desirable to recognize a smaller quantity even than 2 per cent. It will, therefore, Mr. Snell said, "readily be understood how necessary it is that with the ordinary methods indications of the presence of gas should be at once recognized." The disability to see the "cap" is due to the fact that the oscillations of the eyeballs give the sufferer the impression that the object looked at is in motion; he sees his safety lamp and its flame as if moving or "dancing," as he expresses it. The more rapid the oscillations, the more rapid the apparent movement of the lamp; as the oscillations may vary from 100 to anything up to, say, 350 in a minute, the apparent movements of the safety lamp may be very quick indeed, producing little more than the appearance of a blur of light. The oscillations may be to-and-fro, or rotary, or the two may be combined, but rotary movements are seldom, if ever, absent, and a miner frequently describes the safety lamp as appearing to move rather more in an ellipse than in a circle. The nystagmus is arrested by turning the eyes downwards, but in searching for firedamp the examiner must give particular attention to the roof, and consequently must often look up when lying or stooping in a very constrained attitude.

The objective of the renewed discussion of the subject would seem to be the institution of medical examination, in view, apparently, of the large number of claims for compensation made in recent years. Dr. Llewellyn stated that 1,618 men suffering from miner's nystagmus received compensation in the United Kingdom in 1911. We observe that the Home Secretary, in the correspondence as published, does not touch on this point, and the experience of the Board of Trade in respect of eyesight in the mercantile marine and among railway workers shows that it is a thorny question. Mr. Snell's observations on the "flame cap" have special importance in this connexion, for he suspected that some cases of alleged negligence in overlooking firedamp might in reality

[1] Mr. Snell's observations, illustrated by coloured pictures of the flame cap, were published in the British Medical Journal of August 1st, 1908, p. 243, et seq.

have been due to incapacity to recognize the warning owing to the existence of nystagmus in the searcher. Mr. Snell's death took place so shortly after the publication of the experiments mentioned in the address from which we have quoted that he was unable to follow the matter up, and, so far as we are aware, his observations have not since attracted the attention they appear to deserve. Were it established that nystagmus in the "deputies" or "firemen" whose duty it is to search for firedamp was even an occasional cause of explosions, the arguments in favour of systematic medical inspection would be greatly strengthened.

LORD LISTER'S ESTATE.

It seems incongruous to speak of the will of a man who has left to all mankind a legacy of beneficent discovery that will go on accruing in value to the last syllable of recorded time. Yet, as we have said before, it was a factor in the success of Lord Lister's scientific work that he was all his life free from the urgent need of earning his daily bread which is a stone of stumbling in the path of many men who have it in them to advance knowledge by research. John Hunter, when called to see a patient while engaged in a scientific investigation, said impatiently, "I suppose I must go and earn this d——d guinea, or I shall be sure to want it to-morrow." If Lord Lister had been interrupted in the same way, we cannot imagine him complaining of it with the same vivacity of language. But fortune provided for him better than she did for Hunter, and happily for suffering humanity practice was probably always a secondary consideration to him. The nature of the man who said that kindness of heart was the first requisite for a surgeon is conspicuously shown in his will. The net personalty of his estate has been sworn at £65,000. In addition to numerous legacies to his relatives and dependants he bequeathed £10,000 each to the Royal Society, King Edward's Hospital Fund, King's College Hospital, to which he was surgeon, and to University College Hospital, where he received his professional education. With characteristic modesty he added: "I hereby declare that I do not wish that my name should be in any way associated with these sums in the future." Besides the £30,000 thus bestowed for the help of the sick, he gave £20,000 to the Lister Institute of Preventive Medicine. He requested his nephews, Mr. R. J. Godlee and Dr. Lister, to arrange his scientific MSS. and sketches, destroying or disposing of such as are of no permanent scientific interest, and he left such MSS. and sketches when so arranged to the Royal College of Surgeons, England. To the University of Edinburgh he gave the insignia of the Prussian Order of Knighthood "Pour le Mérite," and of the English Order of Merit, medals received since his studentship from the Royal Society and other bodies, and diplomas or other announcements of degrees of membership, and also honorary gifts and distinctions, including the caskets containing the freedom of London, Edinburgh, and Glasgow, and of the Merchant Taylors' Company, and the trowel presented to him on opening the Nurses' Home at Montreal. In regard to this disposition he stated: "I expressly declare that it is my intention that the University authorities, for the time being, shall be perfectly at liberty to dispose of all or any part of the gift—for example, by having the medals melted down, or the diplomas or other writing destroyed—at any time and in any manner that may seem to them desirable." Lord Lister left the bulk of his estate for the benefit of mankind and the furtherance of research directed towards the discovery of the means of prevention and cure of disease. He had given his life to that greatest of all human endeavour, and his disposal of his property shows the same devotion strong in death. His career was consistent from first to last, and, if he had desired any record, he might have said with perfect truth, like Abou Ben Adhem, "Write me as one that loves his fellow men."

UNCERTIFIED MIDWIVES.

For the last two years—that is, since April 1st, 1910—the second paragraph of the first clause of the Midwives Act has been in operation. That paragraph provides that "no woman shall habitually and for gain attend women in childbirth otherwise than under the direction of a qualified medical practitioner unless she be certified under this Act: any woman so acting without being certified under this Act shall be liable on summary conviction to a fine not exceeding ten pounds." It is clear that the words of the Act "under the direction of a qualified medical practitioner" must be strictly interpreted: they distinctly imply that such direction shall be effective and given at the time of labour—the intention, in fact, would seem to be to permit an uncertified woman to act only as what is commonly called a monthly nurse. To what extent the practice of midwifery by uncertified women still goes on we do not know, but there is reason to believe that the Notification of Births Act has had some effect in embarrassing such law-breakers, inasmuch as that Act requires any person in attendance on the mother at the time of birth to give notice in writing of the birth to the medical officer of health of the district. The obligation on medical practitioners not in any way to countenance the practice of midwifery by uncertified women is both legal and moral, and we believe that it is almost universally accepted. There is, however, a danger that inadvertently a medical practitioner may so act as to render himself liable to a charge of aiding and abetting an unqualified midwife. The Council of the British Medical Association desires to warn members of the profession against this possibility, which could not be regarded otherwise than as a serious professional offence.

THE PSYCHOLOGY OF ASTHMA.

In putting forward his views on the mental factors which contribute to the origin of asthma, M. Saenger[1] draws attention to the following points: The almost infinite variety of conditions which may provoke or arrest an attack of asthma distinguishes this condition at once from such typically organic diseases as phthisis or rheumatism. The exciting causes of asthma may be bodily exertion, sneezing, coughing, disturbances of the digestive tract and of menstruation, residence in a particular town or room, certain odours, barometric conditions, rain or sunshine. The conditions beneficial to asthmatics are equally numerous and varied, and the same condition which provokes an attack of asthma in one patient may check it in another. Thus dancing may provoke an attack, and it also was the means of checking an attack in the case of a mechanic reported by Saenger. Also while some patients suffer most when overworked, others are most subject to attacks when resting on Sundays. Clearly there must be one underlying factor which, with the help of various exciting causes, is responsible for attacks the characteristics of which are strikingly uniform. Saenger holds that this factor is a psychic condition which, in the presence of some flaw in the respiratory system, is sufficient to bring on an attack. The flaw in the working of the respiratory system may be due to distension of the stomach or intestine, which embarrasses respiration by pressing on the diaphragm. Tight clothing, accumulation of secretion or dust in the respiratory passage, as well as changes in the composition and temperature of the inspired air, may all reduce the efficiency of respiration to the point at which the psychic factor precipitates an attack. The extent to which respiration is dependent on the mind is consider-

[1] *Berl. klin. Woch.*, No. 8.

able, and such emotions as sudden fright may almost cause suffocation. They may also cause partial or complete aphonia, violent coughing, a sense of pressure in the chest, and even haemoptysis. The dyspnoea which emotion induces may be largely due to a nervous cardiac condition, when its severity is in proportion rather to the mental stability of the patient than to the nature and extent of the exciting cause. Even the most apparently trifling causes may provoke such dyspnoea or an attack of asthma when the mental stability is reduced by menstruation or acute disease such as influenza. Diseases of the nose leading to headache and mental lassitude may form a link between nasal disease and asthma. Many patients suffering from asthma have previously suffered from bronchial catarrh, to which much attention has been devoted either by the patient or the patient's relatives. The patient may be reminded of the cough or the sense of suffocation which this catarrh caused, whenever nasal or laryngeal catarrh subsequently appears, or when exercise and tight clothing simulate the effect of the original bronchial catarrh. The effect which this association of ideas can have on the functions of the body has been shown by Pawlow's experiments on dogs whose digestive organs showed increased activity merely at the sight of food. Similarly, when the conscious or subconscious memory of a former catarrhal condition is suddenly stirred, bronchial congestion and secretion follow. Such a phenomenon does not, however, constitute asthma, which only follows if the original bronchitis has caused a sense of suffocation. Attacks of asthma are further encouraged by the want of objective reasoning faculties from which asthmatic patients suffer. This want is greatest in sleep when the mind is not under control, and when a slight stimulus such as coughing brings on an attack. Stimuli such as coughing and sneezing may also induce an attack on account of their suddenness, which does not allow time for their insignificance to be correctly gauged. In some cases the memory of an attack of bronchitis has faded, but yet exists; a dream, for example, may be forgotten, but it still leaves a sense of depression or the reverse. Children, too, are subject to the same process of subconscious reasoning as adults, and an asthmatic child's freedom from attacks on the irruption of cutaneous disease is to be accounted for by its attention being distracted. With the disappearance of the rash the distraction ceases, and the attacks of asthma recur. Asthma, therefore, according to Saenger, depends on the existence of an exudative diathesis and on a mental condition which is partly permanent and partly transitory. The treatment of asthma must, accordingly, be largely psychic, but the excessive susceptibility of the respiratory tract to stimuli must also be reduced.

WHAT MEDICAL MISSIONARIES THINK OF VACCINATION.

In his book, *Beyond the Pir Panjal*, Dr. Ernest Neve, who has spent a quarter of a century practising in Kashmir, bears striking testimony to the efficacy of vaccination. "Until the introduction of general vaccination," he says, "practically the whole population of Kashmir contracted small-pox in childhood. The mortality was appalling. From this and other causes 50 per cent. of the children are said to die in infancy. I often wish the opponents of vaccination could be present in our consulting room to see the melancholy procession, day by day, of those who have lost their sight from small-pox. For this disease is the most frequent cause of total, incurable blindness. Those who are vaccinated, especially if recently so, live with safety and impunity even in the midst of infection. Doctors and nurses enjoy the same immunity as they do in the small-pox hospitals at home. On the other hand, on more than one occasion in our small British community, children, whose vaccination has been omitted, have been singled out by the disease, in one case with fatal result. In contrast to this there has been no case of small-pox, within my memory, in the children of native Christians—a small group, properly vaccinated, under the supervision of the Medical Mission. From time to time European adults who have neglected revaccination are attacked. Public vaccination has of recent years been carried on with a certain measure of efficiency, and with the utmost benefit to the infant population. As might be anticipated, young adults are now, however, occasionally attacked by small-pox. This is, of course, owing to the fact that no adequate provision has been made for their revaccination." We are sometimes told that it is to more efficient sanitation that the disappearance of small-pox in this country is due. But this cannot hold good of Kashmir. There sanitary conditions do not exist: filth and insanitation abound. Yet in spite of this vaccination has proved its power to check small-pox among the susceptible natives of the East as it has done among the peoples of the West. Dr. Robert Kerr, in *Morocco after Twenty-five Years*, gives similar testimony. In some Moroccan epidemics families and villages were wiped out, and none left save those Dr. Kerr had vaccinated. But it was not till the people saw that the vaccinated were exempt from small-pox that the fear of vaccination fled. Now faith in it is supreme, and 1,300 to 1,400 vaccinations are done every year. The once common sight of boys and girls blind and disfigured from small-pox is now rare. Dr. Kerr declares that vaccination has gained him an entrance to nearly every house. As girls fetch a higher dowry if not disfigured by pock-marks, the mothers bring them to be vaccinated; and when a large inheritance was at stake, in order to protect it, the parents insisted on the vaccination of the child as early as the eighth day. On another occasion a Moslem woman pleaded in the most pathetic manner for the immediate vaccination of her boy, who had been sent among small-pox cases. The boy was vaccinated and escaped the graver infection. Even boys come and offer themselves for vaccination. But an antivaccination colleague of Dr. Kerr was less wise. Nothing would overcome his objections. He remained unvaccinated, was attacked by virulent small-pox, and died.

MEDICAL TERMS IN THE "NEW ENGLISH DICTIONARY."

THE new part of the *Oxford English Dictionary*[1] contains many medical terms, a circumstance to be accounted for partly by the fact that it is an unusually large section—containing as it does 164 pages of three columns each—and partly because a great many medical words begin with *th*. With so rich a store of terms to draw upon one is rather at a loss where to begin: but the two groups of medical words connected with *thyme* and *thymus* may serve as well as any others for a starting place. *Thyme* (Thymus), with its fragrant aromatic leaves, is derived from the Greek θύμον, from θύειν, to burn incense; from it come such words as *thymene* (a clear, oily hydrocarbon), *thymiatechny* (the art of employing perfumes in medicine), *thymic* and *thymicic* acid, *thymol* (the phenol of cymene), *thymoform* (a yellow antiseptic powder prepared from formaldehyde and thymol), *thymotic* (acid, alcohol, aldehyde), *thymyl*, and *thymylamine*, besides others less well known. Then there is *thymus*, from the Greek θύμος, a warty excrescence, defined as "a glandular body of obscure function (one of the so-called 'ductless glands') situated near the base of the neck in vertebrate animals, in man usually disappearing after the period of childhood." The editor adds this note: "In the calf and lamb called by butchers sweetbread, or more precisely neck or throat sweetbread, for distinction from the pancreas or stomach

[1] *A New English Dictionary on Historical Principles.* Edited by Sir James A. H. Murray. Th—Thyzle. Vol. ix. Oxford: At the Clarendon Press; London, Edinburgh, Glasgow, New York, Toronto, and Melbourne: Henry Frowde. April 1st, 1912. (Double section, 5s.—$1.25.)

sweetbread." Between thyme and the anatomical thymus a sort of artificial etymological union is established in the obsolete pathological term *thymus*, "a rugose wart, resembling a bud of thyme." From thymus come several words, such as *thymectomy* (excision of the gland), *thymonucleic* (pertaining to the nuclein of the thymus gland), *thymoprivous* (caused by removal of the thymus gland), and *thymin* (a crystalline alloxur base). There are also words identical in form but not in meaning: thus, there are two *thymic* acids, one derived from thyme and the other from the thymus gland, and there are two *thymopathies*, one meaning a disease of the thymus gland and the other any mental disease (from the Greek θῡμός, soul). Through all these somewhat confusing etymologies and terminologies Sir James Murray guides us with a sure foot. Going to the beginning of this part of the *Dictionary* we find *thalamus* (a part of the brain) and its derived words, *thalamencephalon*, *thalamic*, *thalamocoele*, *thalamocrural*, etc., and then reach *thalasso*—the "formative part of such learned words" as *thalassophobia* (a morbid dread of the sea) and *thalassotherapy* (treatment of disease by sea bathing, sea voyages, etc.). The word *thalerophagous* may be commended to the vegetarians: it means feeding on fresh vegetable substances, being derived from θαλερός, blooming. *Tharm* is an old word (now dialectal) for intestine, as appears from the quotation from Coverdale's translation of the Apocrypha—"there came upon him an horrible payne of his bowels and a sore grefe of the tharmes." Medical terms are also found in *theine* (the vegetable alkaloid now known to be identical with caffeine), *thelyblast* (the female element of a sexual cell), *thenar* (the ball of the muscle at the base of the thumb), *theobromine* (the volatile alkaloid) and *theomania* (religious mania). *Therapeusis*, *therapeutic* (now usually in the plural, therapeutics, and sometimes with a verb in the singular), *therapeutical*, *therapeutist*, *therapist*, and *therapy* form a distinctively medical family of words; and *theriac* with its curious association with *treacle* gives the editor an opportunity of telling how that strange conjunction came about. *Therm*—is the first syllable of a great number of words (such as *thermaesthesia*, *thermoplegia*, *thermotherapy*, *thermolabile*, and *thermostabile*) in which the idea of heat is contained; and the *thermos flask* has not escaped the vigilant editorial eye. A sulphurous group of terms is ushered in by *thio-*; here are some of them—*thiacetate*, *thialol*, *thiocarbamate*, *thiophenol*, *thioresorcin*, *thiosinamine*, *thiourea*, *thiocol*, and *thiogenol*. *Thirl* means one of the orifices of the nose, from which comes *nose-thirl*—that is, nostril. *Thnetopsychism* looks as if it might be a medical term; but no, it signifies the belief of a certain Christian sect that the soul dies with the body and is recalled to life with it at the Day of Judgement. *Thomsonianism*, on the other hand, although it does not look in any degree medical, is so, and brings memories of lobelia, capsicum, and sweating. *Thrill* has a medical meaning which is not forgotten ("a vibratory movement, resonance, or murmur, felt or heard in auscultation"), whilst *thriller* is a sensational story, a shilling shocker. *Thrin* is an old term for a triplet, "twins and thrins." *Throe* and *throng* both mean labour-pang. There are many other medical terms, such as *thrombus* and *thyroid* with their derivatives, but these must suffice to show that the *New English Dictionary* does not fail to keep the profession well in mind as it appears part by part. The editor defines "thoroughly" as "in all respects, with nothing left undone, fully, completely, wholly, entirely, perfectly." It is hardly too much to say that the *Dictionary* is "thoroughly" edited.

THE TYRANNY OF COAL.

If the coal strike focusses attention on the wastefulness of the present methods of burning coal and the injury they inflict on the nation, there will be something to set against the evils of the paralysis of labour. Unfortunately, people regard the smoke problem as an aesthetic rather than a practical question. We speak of things ending in smoke, as if smoke were some diaphanous gossamer, which, as it ascends, must be lighter than air. But Professors Cohen and Ruston, of the Leeds University, in a recent publication,[1] show that a city's smoke is a very solid pall. They calculate that over each square mile of the city of Leeds hang two hundredweight of solid matter, derived from the city's chimneys, whilst twenty-three tons of tar are sent into the air daily. Owing to imperfect combustion there is a minimum loss of 6 per cent. on domestic and of 0.5 per cent. on factory coal consumption. In the aggregate about 2,420,000 tons of incompletely burnt fuel pass into the air of the country annually. On visiting a smoke-darkened industrial centre we are apt to blame the forges and manufactories for the air pollution. We forget that the belching manufactories attract innumerable satellites. The thickly studded dwellings are more to blame than the conspicuous long chimneys. Soot is highly charged with tar, which makes it cling with an adhesion no rain can disturb, and with an acid which injures buildings, corrodes iron, and destroys vegetation: 220 tons of soot fall annually over each square mile of the city of Leeds, and even this huge mass is below the estimate for London, Manchester, Glasgow, and Lille. The yearly amount of soot emitted from the Leeds factory chimneys is put at 5,600 tons, that from the domestic chimneys at 30,000 tons. This wasted fuel, shot recklessly into the air, blights vegetation, injures health, kills beauty, depresses spirits, intercepts light, disfigures and destroys the stones of buildings, and eats away the mortar which holds them together. The painstaking experiments and observations on which these statements are based should be read in Professor Cohen's essay, which is a model of scientific exactitude and care. The work of Professor Cohen and his colleague should accelerate the wheel of progress, and help to liberate us from the tyranny and deleterious sway of that abominable autocrat, King Coal.

GRADUATE SCHOOL OF MEDICINE AT HARVARD.

What is often somewhat clumsily spoken of as post-graduate teaching has long been carried on at the Harvard Medical School, and in the last few years the amount of such training has greatly increased; during the past year 451 students were enrolled in the courses for graduates. The growing demand for such instruction, together with the appreciation of the great benefit of such opportunities to the profession and to the public, has led to the institution of a plan for the more systematic organization and greater development of this work. The Corporation of Harvard College last May, acting on a recommendation from the Faculty of Medicine, approved the establishment of a Graduate School of Medicine as a department of Harvard University, under the Faculty of Medicine. The Graduate School of Medicine will take control of all graduate instruction in medicine on October 1st, 1912, and its affairs will be administered by a separate Dean and Administrative Board. The Graduate School of Medicine is thus placed on an equality with the Medical School proper and the Dental School. The new feature is not the giving of graduate instruction, but the recognition that this work is of sufficient importance to warrant the establishment of a separate department. On February 28th, 1912, the Board of Overseers of the University confirmed the appointment of Dr. Horace D. Arnold of Boston as Dean of the Graduate School of Medicine. This, we are informed, is the first time that the development of graduate medical teaching has been undertaken on a university basis in the United States.

[1] *Smoke: A Study of Town Atmospheres*. By J. B. Cohen, Ph.D., B.Sc., F.R.S., Professor of Organic Chemistry in the University of Leeds, and Arthur G. Ruston, B.A., B.Sc., Lecturer in the Department of Agriculture, University of Leeds. London: Edward Arnold. 1912. (Med. 8vo, pp. 38; 41 illustrations.)

The object is to extend to graduates in medicine opportunities for further study that are as thorough and scientific as the instruction given in a first-class medical school, and to offer to those who are qualified the best opportunities for advanced study and research in all branches of medical science. The laboratories of the Harvard Medical School are exceptionally well equipped for this work, and the clinical facilities in the hospitals and other institutions of greater Boston are excellent.

DEMONSTRATIONS AT THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE fourth annual spring series of demonstrations of specimens contained in the Museum of the Royal College of Surgeons of England will commence on April 19th, when Professor Keith, Conservator, will lecture on specimens illustrating the growth of bones in health and disease. Original preparations by Hunter and Hewson will be shown; on April 26th Professor Keith will demonstrate on the skeleton of a man showing the condition known as osteogenesis imperfecta, and other skeletons illustrating static deformities; and on May 3rd will give a demonstration on cervical ribs and anomalous conditions of the spine and shoulder. Mr. S. G. Shattock, Pathological Curator, will commence his series on April 22nd, when he will demonstrate specimens illustrating necrosis of bone, and on April 29th and May 6th specimens illustrating diseases of the genito-urinary system. The demonstrations, which are intended for advanced students and medical practitioners, will commence each day at 5 p.m.

INSURANCE ACT: DEMANDS OF THE PROFESSION.

AT its meeting on April 11th, the State Sickness Insurance Committee resolved to address a communication to the Commissioners requesting them to inform the British Medical Association when it may expect to receive a more detailed answer to its letter of February 29th, in which the requirements of the profession were stated. In view of the anxieties and uncertainties of the present position it can hardly be necessary to insist on the urgent importance of the profession immediately appointing local provisional medical committees, and completing its local organization in every other respect, including the preliminary arrangements for a Public Medical Service.

INSURANCE ACT: ADVISORY COMMITTEE.

THE long list of the members of the Advisory Committee appointed by the Joint Committee of Insurance Commissioners is published in the SUPPLEMENT. With its Chairman, Mr. Lloyd George, and Vice-Chairman, Mr. C. F. G. Masterman, M.P., Financial Secretary to the Treasury, it will, when completed by the addition of five persons from the Advisory Committees to the Scottish, Irish, and Welsh Commissions—apparently the English Commissioners are to have no Advisory Committee—number one hundred and sixty-one persons. It contains twenty-five representatives of employers and sixty-seven of insured persons, thirty-three medical members nineteen representatives of other interests concerned, including two pharmacists, two midwives, two nurses, and two hospital authorities, together with fifteen, or, with the Chairman and Vice-Chairman, seventeen representatives of the Commissioners. The medical section of the Committee consists of sixteen practitioners, with personal experience of general practice, nominated as to thirteen (men) by the British Medical Association and as to three (women) by the Association of Registered Medical Women, together with seventeen medical men selected by the Commissioners. One of the representatives for Ireland, nominated by the British Medical Association, has not been appointed, and Ireland's only representative is the other practitioner nominated by the British Medical Association, Dr. Darling of Lurgan. Analysed by countries, it is seen that England has twenty-three members, Wales three, Scotland six, and Ireland one. Analysed according to the class of practice pursued, it appears that of the seventeen members selected by the Commissioners ten are consultants or teachers, three are general practitioners, and four are officials of whom three hold the appointment of medical officer of health. It appears, therefore, that of the thirty-three medical members nineteen are general practitioners, ten consultants, and four officials. Dr. D. J. Mackintosh, Medical Superintendent of the Western Infirmary, Glasgow, selected by the Commissioners as the representative of the British Hospital Association, has not been reckoned among the medical members in these calculations. The first meeting of the Advisory Committee will be held in London on Friday, April 26th, under the chairmanship of the Chancellor of the Exchequer.

INSURANCE ACT: HUSTLING METHODS.

FROM information received at the central offices of the British Medical Association, it would appear that various friendly societies are issuing circulars asking medical men to state the terms upon which, when the Insurance Act comes into force, they will be prepared to undertake attendance upon the wives and children of members and upon members of friendly societies who may be outside the provisions of the National Insurance Act. We venture strongly to urge members of the profession not to be hurried into giving an answer to such circulars. The position at present is that the profession is waiting to see whether terms can be arranged by the Insurance Commissioners, with the assistance of the Advisory Committee, which shall be satisfactory to the profession—that is to say, first, whether the profession can consent to undertake the duty of giving medical benefits under the Act at all, and secondly, what, if that should prove to be the case, would be a reasonable rate of payment and tariff of fees. The State Sickness Insurance Committee of the British Medical Association will take care that the profession has the fullest information and advice at the earliest possible moment, but in the meanwhile there is no pressing hurry, and it is clearly inadvisable to give any undertaking to enter into fresh contracts or to renew those now in existence. The Honorary Secretary of the Edinburgh and Leith Division of the British Medical Association sends us the following circular, which has been issued by the Division acting in conjunction with the Edinburgh and Leith Medical Practitioners' Association: "Inquiries are being made by the Scottish Insurance Commissioners from individual medical men to supply a number of particulars about their private and club practice, including details of gratuitous work done, bad debts, etc. It is earnestly hoped that such information be not supplied, and that the Commissioners be referred to the Scottish Medical Insurance Council." Should similar requests be made in England, it is suggested that they should be referred to the State Sickness Insurance Committee of the British Medical Association.

IT is with great regret that we have to announce the death of Dr. J. Dixon Mann, Professor of Forensic Medicine and Toxicology in the University of Manchester. He was at his work as usual until a few days before his death, which took place on April 6th from acute pneumonia after only about three days' illness. For some years Dr. Mann represented the Manchester University on the General Medical Council, and at the time of his death was Honorary Physician to the Salford Royal Hospital. A fuller notice will appear in the JOURNAL at an early date.

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

National Insurance Act.

Nursing Associations.

MR. CHARLES BATHURST asked to what extent county nursing associations and the rural midwives associations could and were likely to be utilized in connexion with the National Health Insurance scheme; and whether any grants out of public funds would be obtainable by such associations to balance the loss of voluntary contributions which they were already suffering, and were likely to suffer still further in the future, as the result of the National Insurance Act. Mr. Masterman replied that it was impossible at present to forecast to what extent the local Insurance Committees and approved societies might desire to avail themselves of the assistance of county nursing associations and rural midwives associations. He had no information as to loss incurred by such associations in voluntary contributions as the result of the National Insurance Act, nor did he anticipate that such a loss, if it existed, would be more than temporary in character.

Rural Housing.—On the motion for adjournment last week an interesting discussion on housing was raised by Earl Winterton, who contended that the insanitary condition of cottages and scarcity of decent dwellings in the rural districts had been aggravated and not remedied by such measures as the Housing and Town Planning, the Allotments and Small Holdings Acts. The Government, he said, were responsible for the existing conditions, and for the last six years had failed to remedy them. Sir A. Griffith Boscawen and Mr. Noel Buxton supported this view and gave many illustrations of the disgraceful conditions of bad housing and overcrowding, more especially in Norfolk and the Southern counties. They demanded more energetic action on the part of the Local Government Board, and backed up their demands by showing that the closing orders, although they numbered over 1,300, had not resulted in any increase in the number of cottages, but in some cases had forced families into the workhouse because no dwelling could be obtained. What was wanted was less optimism in the speeches of the President and more work in his Department. Mr. Burns, in the course of a spirited defence of the Local Government Board, said that he was somewhat surprised to hear that some of the statements regarding the domestic and sanitary conditions of rural houses that had been made by some London newspapers had been described as grossly exaggerated. The noble lord opposite spoke of the pleasant surroundings and fresh air enjoyed by the rural dweller. He was not in favour of the seed plot of typhus and typhoid behind the Virginian creeper in a rural cottage any more than in the London slums. It was their duty to take the other line and say that to the extent to which a rural labourer's wages were low he should have compensation in a spacious house and immunity from contagion and disease. The noble lord made an extraordinary statement when he said that the operation of the Housing and Town Planning Act had done a great deal of harm, and quoted a fact which ought to be qualified, that closing orders had been made against 1,344 houses. He went on the assumption that a number of superficial critics had followed, that because that number of orders were issued that number of houses were demolished. The fact was that all these houses were put into a state of decent habitable repair, with the exception of 126, which were in process of demolition. In fifteen months nineteen authorities in rural areas had built 153 houses at a cost of £30,208 on economic rents. If they were not able to be sustained on economic lines, he would suggest that hon. members should direct their criticism to the scandalously low wages of agricultural labourers. They would do more good for rural housing in the next twelve months if wages were raised by only a shilling a week than by supporting a cadging organization of landlords and farmers. If the noble lord would undertake a peripatetic campaign on this question in a gipsy van with a green door and brass knocker he would be pleased to take the chair for him. During the last few years the Local Government Board had sanctioned advances of nearly £3,000,000 for the purchase of 140,000 acres under the Small Holdings Act, and in connexion with that Act alone 1,015 cottages, independently of the Housing and Town Planning Act, had been provided in rural areas. His suggestion was that what the Housing and Town Planning Act was not doing in some areas the provision of cottages in connexion with the Small Holdings Act was doing, and, both combined, did make a contribution of a larger total sum to the provision of cottages in rural areas than hon. members were inclined to admit. A great deal of nonsense was talked outside and sometimes inside the House about the Local Government Board and by-laws. The Local Government Board had prepared both rural and urban model by-laws. It had the power, which was exercised on application, of varying those by-laws to adapt them to the peculiar circumstances of the district or county and the class of material available for cottage and house building in all the areas. It had only had one application from one authority at Gateshead to vary the by-laws about which so much display had been made. It was not a fact that the Housing and Town Planning Act had increased the overcrowding in towns. There were 500,000 empty houses in the United Kingdom. The tendency was from the town to the suburb and from the suburb to the country, and from the semi-rural to the rural. That was one of the difficulties that rural areas were now labouring under. If there were overcrowding in the towns, the London County Council and all the great authorities were amply provided with sufficient power to deal with it without going to the Local Government Board for any stimulus or suggestion. London had 60,000 empty houses. That was the condition of things to be faced, but it was not true to say that people were coming back to towns and cities, or that the towns and cities had grown in volume or in intensity of overcrowding. It was really the other way. As regards town-planning schemes, no fewer than ninety had been sanctioned or were now under consideration. For rural housing exclusively, from 1890 to 1899 loans for only £3,500 were sanctioned by the Conservative Administration; from 1900 to 1905 the amount was £6,800; from 1906 to 1910 it was £37,000; and in the last fifteen months the amount was £29,688, or just one-half of the sum which had been sanctioned in the previous twenty-two years. Those sums represented only loans to local authorities; but it must be borne in mind that frequently when a locality knew that a local authority was applying for a loan for housing purposes private enterprise, which had been dormant, was stimulated into rivalry, which induced good landlords to become better, bad landlords to become good, and shamed the worst landlords into becoming decent. When the census returns were submitted by the Registrar-General, they would present a very satisfactory record of the results of the pressure by the Local Government Board upon rural authorities to undertake housing schemes. He approached the housing question with an optimism born of hope. From 1890 to 1908 the Public Works Loan Commissioners sanctioned on an average loans amounting to £30,000 a year for housing purposes to companies and public utility societies; and during the last three years, since the Housing and Town Planning Act came into operation, the average sum had jumped from £30,000 to £192,000 a year. These figures showed the activity which was being displayed by the Local Government Board and the local authorities, and additional evidence might be found in the fact that the number of letters on housing received by the Local Government Board had increased from 2,000 a year before he took office to 10,000 a year at the present time.

Certifying Surgeons. Mr. Charles Duncan asked the Secretary of State for the Home Department whether a certifying surgeon under the Compensation Act could also act as the private medical inspector to a firm whose sole business was in lead-smelting. Mr. McKenna said he was not sure that he understood what was meant by the certifying surgeon acting as "private medical inspector." If it meant that he made the periodical examinations of workpeople under the lead-smelting regulations, this was one of his duties as certifying surgeon. If, on the other hand, it meant that the certifying surgeon acted as the medical adviser to the firm, the reply was that the certifying surgeon was not prohibited from acting in the capacity

of adviser either to an employer or to an association of workpeople. It would not be possible to lay down such a rule, though this consideration was borne in mind in making appointments, because in industrial districts it was often difficult to find a well-qualified man who did not hold some appointment in connexion with employers or associations of workpeople. The department was always prepared to inquire into any case of grievance that might be brought to its notice.

Births and Deaths Great Britain.—Mr. Lynch asked the President of the Local Government Board what was the excess of births over deaths in Great Britain for each of the ten years ending with 1911, and including that year; and what was the rate per 1,000 of such excess in relation to the population. Mr. Burns replied that the excess of births over deaths in Great Britain in each of the ten years 1902–11, and the rate of such excess per 1,000 persons living, were shown in the following table:

Year.	Excess of Births over Deaths.	Rate per 1,000 Persons Living.
1902	459,297	12.26
1903	491,166	12.98
1904	450,227	11.75
1905	465,136	12.08
1906	460,170	11.81
1907	445,365	11.32
1908	475,451	11.88
1909	450,205	11.22
1910	465,370	11.48
1911	403,462	9.86

Infant Vaccination in Workhouses.—Mr. Snowden asked the President of the Local Government Board whether, in view of the number of deaths of infants in workhouses following vaccination within a few days of birth, he had considered the opinion of the Royal Commission on Vaccination, as set out in paragraph 441 of their Final Report, that in the case of infants so vaccinated the operation should be limited to a single insertion of the vaccine matter; and whether he proposed to give effect to that recommendation of the Royal Commission. After referring to a reply he gave on November 9th, Mr. Burns said that the recommendation of the Royal Commission that a single insertion should be made applied to the exceptional cases in which infants were vaccinated within a few days of birth because of obvious danger of small-pox contagion.

Ceylon Medical Department.—Mr. MacCallum Scott asked whether the attention of the Secretary for the Colonies had been called to the speech delivered by His Excellency the Governor of Ceylon at the meeting of the Legislative Council on April 24th, 1911, in which he announced that the sanction of the Secretary of State had been obtained for the appointment of two superintending medical officers on the staff of the medical department, and further stated that it was proposed that these new staff appointments should be filled by European medical men; whether this reservation of certain posts for Europeans only was contrary to the settled policy of the Colonial Office in Ceylon; and whether this reservation had the approval of the Secretary of State. Mr. Harcourt replied that the proposal which was made by the Governor, and which his predecessor approved, was that these two new posts should usually be recruited from Europe, unless there were local applicants possessing very exceptional merits, qualifications, and attainments. This was the policy to which he proposed to adhere. The passage in the Governor's speech referred to appeared to relate especially to the first two appointments to be made after the creation of the new offices, which had now been filled by the transfer of experienced officers from another colony.

Proposed Select Committee on Patent Medicines.—Mr. Lynch asked the Chancellor of the Exchequer whether he was aware that concessions were granted by the Inland Revenue authorities, enabling patent medicines to be retailed in small quantities, in such a manner as to lessen the revenue on these products; that this practice also facilitated the distribution of quack medicines to poor people; that such concessions gave rise to prosecutions for spurious imitations; and whether he would take steps to put an end to the practice. Mr. Lloyd George answered that the question raised several points of considerable difficulty, both as to law and as to policy. They could not be adequately dealt with in reply to a question, but they might, he thought, be appropriately considered by the proposed Select Committee on "Patent Medicines." Mr. Lloyd George suggested that Mr. Lynch should communicate with the Home Secretary on the subject. The Home Secretary stated on another day that the terms of reference and the names of the Committee would be announced shortly.

Glasgow School Board (Medical Treatment).—Mr. Barnes asked the Secretary for Scotland if his attention had been directed to the needs of the Glasgow School Board for the medical treatment of school children as provided for by the Education (Scotland) Act of 1908; had an adequate sum been granted for the purpose; and would the Department surcharge the members if the expenditure had been excessive. Mr. McKinnon Wood replied that the answer to the first part of the question was in the negative. With regard to the amount of the grant for purposes of medical treatment, the Scottish Education Department was in communication with the school boards, and had invited suggestions as to the allocation of the sum of £7,500 granted by the Treasury. He was not aware that any question of surcharge had arisen.

School Medical Officers.—Mr. Goldstone asked the President of the Board of Education whether his attention had been called to the appointment of a school medical officer and a deputy school medical officer by the London County Council without reference to the Education Committee; and whether, seeing that it was provided by the Education Acts that all matters relating to the exercise by the Council of their powers under the Acts, except the power of raising a rate or borrowing money, should stand referred to the Education Committee, he proposed to take any action in the matter. Mr. Pease answered that, with reference to the first part of the question, he had received no official information on this subject beyond a notification of the appointment of the officer referred to. With regard to the second part of the question, he did not think that any occasion had arisen for him to intervene in the matter.

Stobhill Hospital, Glasgow.—Mr. Barnes asked the Secretary for Scotland if his attention had been called to a new set of regulations issued by the Glasgow Parish Council in regard to the visitations of patients at Stobhill Hospital by their friends; if he was aware that only half an hour was now allowed; and would he take steps to get such regulations relaxed. Mr. McKinnon Wood said that after medical inquiry as to the former arrangements the rule referred to received the sanction of the Local Government Board for Scotland, that sanction being provisional and for six months only. If the rule was found to cause hardship it would be reconsidered.

The Vaccination Acts Repeal Bill, which proposes to repeal the Vaccination Acts, was presented by Mr. Black last week, and is supported by Sir George White, Mr. James Parker, Mr. M'Callum, Mr. Kellaway, Mr. George Greenwood, Mr. Snowden, and Mr. Chancellor. The second reading was put down for April 16th.

The Course of Business.—The short Easter recess terminated on Wednesday for the faithful Commons, who met in comparatively small numbers and with minds preoccupied by the graver issues of Home Rule. In the first division, indeed, less than 200 members voted. The Army Annual Bill, at one time a fertile subject for prolonged discussion, failed to excite much interest, and the same was the case with the other business on the paper. The introduction of the Home Rule Bill on Thursday robbed all other subjects of their usual interest. As Friday remains a private members' day, the discussion of the great Irish measure must run over to next week, and may take two nights or even more. The House of Lords will not meet till April 26th.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

INSURANCE ACT.

ONE of the Insurance organizers, addressing the Athlone Board of Guardians last week, foreshadowed an amendment to the Insurance Act to improve the position of Post Office contributors, who, he said, were not really insured persons at all. He said also that he understood that rules were under consideration for dealing with employers' contributions towards casual employment. As the Act stood, the person who employed the casual worker on Monday morning, even though he required help only for the day, had to pay the employer's contribution for the week. The Irish Commissioners were considering whether it might not be possible to divide the employer's contribution amongst all the persons with whom the casual worker laboured during the week.

CENSUS RETURNS.

The Registrar-General has issued the census returns for four more counties—Carlow, Longford, Kerry, and Fermanagh. There is a decline of the population in all four: in Carlow the fall is 1,500, in Longford nearly 3,000, in Kerry over 6,000, and in Fermanagh between 3,000 and 4,000. In the first two counties the check to the flow of emigration in the decade compared with that ending in 1901 is barely appreciable. Kerry, however, shows the remarkable drop in the decade of more than 15,000. In Fermanagh also the emigration has declined by 2,000. In all four counties the number of persons receiving outdoor relief shows a marked decline. This is specially noticeable in Kerry, where last year there was 1 person in every 48 in receipt of relief, in place of 1 in every 35, as in 1901. One disturbing factor seen in the returns of all the counties that have been published so far is that the decrease in the population is most marked in the country districts; and even in such cases as Fermanagh, which shows decreases in all districts, both urban and rural, the decrease is comparatively less in Enniskillen Urban District than in the rural districts. This emigration from the country to the towns is particularly marked in Kerry, and points to the urgent necessity for a further broadening of the interests of rural life.

IRISH WORKHOUSE ASSOCIATION.

In pursuance of a suggestion made by the Vice-President of the Local Government Board on the occasion of a recent deputation headed by the Earl of Mayo, a special meeting of the committee was held in Dublin recently. It was resolved that a register of suitable homes wherein to board out pauper children should be kept by the Irish Workhouse Association; the secretary will be glad to hear particulars of suitable homes from ladies in the country who are interested in the matter. Committees are in course of formation in various counties, and it is hoped that the association will thus be enabled to help the boards of guardians, who now find a difficulty in procuring suitable homes for children whom they wish to board out.

GARDEN PLAYGROUNDS IN DUBLIN.

The Lord Lieutenant opened St. Monica's Garden Playground in St. Augustine Street, Dublin, last week. The existence of such playgrounds in London and Edinburgh determined the Women's National Health Association to extend the scheme to Dublin. This playground has been made on a derelict site, which the Corporation gave for the purpose at a nominal rent. It contains a convenient shower bath, which will be used under supervision, and a number of cradles in which babies may enjoy the air in comfort and safety. A trained nurse will attend daily to look after the children who are under school age. After 3 p.m. school children will be admitted, and they will be looked after by ladies and gentlemen who engage in such social work. A second playground in another quarter of the town is soon to be opened on much the same lines by the Women's National Health Association.

TUBERCULOUS COWS.

A veterinary surgeon writes in the *Irish Times* from Naas to say that the existing laws controlling the inspection of cows and milk are, to his mind, useless, and the present legislation for dealing with tuberculosis inadequate. As inspector he notified his urban council of the case of a cow suffering from open tuberculosis, but without the characteristic signs of a tuberculous udder. The absence of the latter symptom debarred the council from taking any step in the matter, and the Department of Agriculture would deal with the case only as regards its statistical value. The cow, fortunately, died.

MULLINGAR ASYLUM.

A curious point has arisen at the Mullingar Lunatic Asylum. Shortly before last Christmas Dr. Gavin, who is a Westmeath man, was elected by a large majority by the committee to be successor as resident medical superintendent to Dr. Finegan, who had resigned. Subsequently the Inspectors of Lunacy wrote raising the objection that Dr. Gavin was not yet "a fully qualified medical practitioner of seven years' standing." Since then there has been further correspondence on the subject, and the Lord Lieutenant's advisers have definitely stated that the election is illegal. The next meeting of the committee will not be held till April 11th, and, as Dr. Gavin will be legally qualified for the position on April 10th, it is probable that the matter will be settled at the next meeting by Dr. Gavin's reappointment, as the post has been again advertised. Dr. Gavin had resigned his position as medical officer of Horton Asylum in England as a result of his election in Mullingar.

THE LATE DR. HENRY CULLINAN.

At the last meeting of the Portrane Asylum Visiting Committee, Dr. O'Conor Donelan in his report stated that by the death of Dr. Cullinan the institution had sustained a loss which could not easily be replaced. He was an able physician, an earnest officer, an honourable and straightforward gentleman, a kindly and loyal colleague. The following motion of condolence was passed unanimously, all present standing:

> The Portrane Visiting Committee of Richmond Asylum heard with great regret of the untimely death of Dr. Cullinan, Deputy Resident Medical Superintendent, and they tender to his widow their heartfelt sympathy in her sudden bereavement

SALARIES IN BALLINROBE.

At a recent meeting of the Ballinrobe Board of Guardians certain regulations regarding the salaries of the doctors were carried by a majority of 11 to 7. The increases sanctioned were shown by the doctors to involve an increase in the rates of not more than a halfpenny in the pound. At the next meeting there was a notice of motion to rescind the increase. The board-room was filled with young and old men, nearly every one of whom had an ashplant. When the motion to rescind the increase had been moved one of the doctors attempted to speak and explain the state of affairs, but he and some members of the board, who asked that the doctors should receive a peaceful hearing, and the Local Government Board inspector were howled down, and the notice to rescind was carried by 14 votes to 10. At the next meeting a letter of protest from the doctors, complaining that intimidation had been practised and asking for the appointment of a small committee of the guardians to consider and report on the cost, was marked "read."

ACUTE POLIOMYELITIS.

At the last quarterly meeting of the Dublin Corporation a report of the Public Health Committee recommending the compulsory notification of acute poliomyelitis was adopted.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

DR. BYROM BRAMWELL.

THE colleagues of Dr. Byrom Bramwell, who, under the time limit, is retiring from the post of Senior Physician to the Royal Infirmary, Edinburgh, intend to mark their appreciation of his great services as a teacher of clinical medicine by entertaining him at a complimentary dinner on May 17th. The arrangements are in the hands of Professor Harvey Littlejohn, Dr. Norman Walker, and Dr. Haultain.

GRADUATE COURSE IN GLASGOW.

A post-graduate course in clinical pathology will be held in the laboratory of clinical pathology, Western Infirmary, Glasgow, commencing on Wednesday, May 1st, and will extend over six weeks. The class will meet for two hours three times a week at hours to be arranged. The subjects will include blood examination, clinical bacteriology, serodiagnosis, examination of stomach contents and faeces, less usual urinary constituents, etc. Further information can be obtained on application to Dr. Carl H. Browning, Director of the Laboratory.

ASSOCIATION OF SCHOOL MEDICAL OFFICERS.

The annual meeting of the Association of School Medical Officers for Scotland was held in the offices of the Glasgow School Board on March 30th.

The President (Dr. Roberts), in his presidential address, gave a summary of the work done during the past year, and made proposals for the next session. The reports of the general secretary and treasurer showed a membership of ninety and a balance of £7 for the year's work: the librarian reported that many school medical officers had not as yet forwarded copies of their reports for the library. Previous to the annual meeting Dr. Kerr Love and Miss Douglas gave, in Dovehill Public School, a most interesting demonstration in connexion with the formation of special classes for semi-deaf and semi-mute children. Dr. Love, in a short paper, outlined institutional and day-school treatment, the classification of such children, and dealt minutely with the educational side of the question. The various progressive stages of educational advancement in such children were exhibited in the cases shown by Miss Douglas. By the courtesy of Dr. Roberts the members of the association were permitted to inspect the Dovehill Cooking Centre, where the system adopted in Glasgow was fully explained. The next meeting of the association is to be held in Edinburgh on Saturday, May 18th, the subject for discussion being "The Organization of the School Medical Service in Town and County Areas."

England and Wales.

FROM OUR SPECIAL CORRESPONDENTS.

LONDON.

LONDON COUNTY COUNCIL.

Dental Treatment of School Children.

DURING an all-night sitting on April 2nd, at the last meeting before the Easter recess, the London County Council had before it the recommendation of the Education Committee that offers be accepted from the St. Marylebone General Dispensary and a local committee at Fulham to provide dental treatment for school children of 6, 7, and 8 years of age, and in special cases of children of other ages (BRITISH MEDICAL JOURNAL, March 16th, p. 639). It was proposed to employ a temporary assistant organizer at a salary of £100 a year in connexion with the two centres.

The Finance Committee commented on the latter proposal as follows:

> In previous dental schemes no mention had been made of the necessity for the appointment of additional organizers, although the Finance Committee was informed that this was now the usual practice. Under a comprehensive scheme of medical and dental treatment for elementary school children the number of paid organizers would be considerable, and their cost obviously must be taken into account when considering the cost of treatment. It appeared that the average cost to the Council of dental treatment, calculated on the number of children who actually obtained treatment during the last quarter, was 6s. 2d. a case, and that the cost per case of the new schemes now put forward was estimated at the same figure assuming that the full number of children contemplated attended. Experience had shown, however, that the number who actually attended was less than the number arranged for. If the cost of the organizing staff be added, the cost per case in the present instance would be increased by 9d., making the total cost per case 6s. 11d. This was exclusive of central administrative charges.

Mr. W. C. Johnson moved that the schemes be not limited to children of 6, 7, and 8 years of age. The system of making special arrangements with various hospitals was extremely difficult to work. He knew of a case in which a child spent the greater part of the day, with its parent, at a certain hospital, and was then sent home without treatment because its age was found to be 13 years, and therefore beyond that at which children were treated at that particular hospital. At the ages of 6, 7, and 8 the children only had their first teeth, and it was comparatively unimportant for operations and stoppings to be carried out at that stage. When the permanent teeth came the only alternative the Council offered the children was extraction. No provision was made for stopping. Hundreds of East End children were told to go to the London Hospital, where teeth were not stopped but pulled out at once. If any ages were stipulated they should be 11, 12, and 13 years. Conservative treatment would then be of some value.

Mr. A. Chapman seconded.

Mr. Cyril Cobb, Chairman of the Education Committee, said that the best ages at which children could receive dental treatment were those suggested by the Committee, and the period proposed by Mr. Johnson was the worst time possible. When children's temporary teeth got into a bad condition the effect was that their permanent teeth were injured before the temporary teeth were displaced. That was what it was desired to prevent, and therefore the ages of 6, 7, and 8 years had been selected, in accordance with expert advice.

Mr. Johnson said that his proposal would not tie the Council to treat the children at any particular age period, and children of riper years could be treated if it was thought necessary.

The motion was lost and the Committee's report was adopted.

Duties and Remuneration of Medical Officers of Special Schools.

At the same meeting the Council approved the proposals of the Education Committee for the revision of the duties and remuneration of the medical officers of special schools reported in the BRITISH MEDICAL JOURNAL, March 16th, p. 638.

METROPOLITAN PUBLIC GARDENS ASSOCIATION.

From the twenty-ninth annual report of the Metropolitan Public Gardens Association we gather that this body, though still financially sound, is very anxious to increase its subscription list, two notable supporters having died during the year. It is a society which deserves well of the public, since to its activity in raising funds for the protection and beautifying of open spaces in or near the metropolis much of the healthiness and attractiveness of London is due. The chairman of the association is the Earl of Meath, and its head quarters are at 83, Lancaster Gate, W.

THE UNIVERSITY OF LONDON.

The Senate of the University of London has instructed one of its standing committees to obtain from the Principal and officers a report comparing the accommodation available at the Imperial Institute with that which could be obtained on various alternative sites which have been suggested. The sum of £355,000 has been subscribed for the acquisition of the site to the north of the British Museum and the erection of suitable head quarters for the University, and this project seems to command the unqualified approval of the Royal Commission on University Education in London. But certain other sites have been suggested, including Gray's Inn (a site of 14 acres), should the benchers be willing to sell, of which there seems to be no evidence; the site occupied by the Foundling Hospital, near Brunswick Square, containing between 8 and 10 acres, which the trustees of the hospital are willing to sell at the price, it is said, of half a million; and, lastly, the grounds now occupied by the Royal Botanic Society in the middle of Regent's Park. A report on the British Museum site will be received from the standing committee at the meeting of Convocation on May 7th.

BIRMINGHAM.

REPORT OF CITY ANALYST FOR 1911.

FROM the annual report of the city analyst (Mr. J. F. Liverseege) it appears that 3,203 samples were submitted for analysis, and that 9 per cent. were adulterated, 1.6 per cent. by preservatives only. Of 1,060 samples of milk 6 were adulterated with preservatives only, and 99 contained added water or were deficient in fat. With the exception of 1910 last year showed the lowest percentage of adulteration by preservatives. At railway stations 657 samples were taken from 162 farmers, and of these samples 58, taken from 25 farmers, were adulterated. Of 207 samples of milk taken from 117 vendors in the streets, 17 taken from 12 vendors proved to be adulterated. There was very little evidence that the hot summer affected the quality of the milk, although the quantity of the milk supply was diminished seriously. Of 743 samples of butter 16 were adulterated with foreign fat, two contained an excess of water, and 12 contained more than 0·5 per cent. of boric acid, the total percentage of adulteration being 4.1.

Tasmania.

DEPARTMENT OF PUBLIC HEALTH.

THE annual report of the Department of Public Health for 1910-11, lately issued, states that the population of the island, as ascertained at the census on April 3rd, 1911, was 191,211. The birth-rate of 1910 was 29.03, and the corrected death-rate 10.00. The infantile mortality-rate was 102, being the highest recorded since the rate of 111 in 1903. This increase was largely due to the exceptionally hot, dry weather in the summer months.

Tuberculosis.

During the year under review the death-rate from tuberculosis was 0.87 per 1,000. Tasmania has a lower rate than any other States of the Commonwealth. Victoria heads the list with a death-rate of 1.02 per 1,000 of population; the rate in South Australia is 0.96, and in West Australia 0.85. In 1910 there were 169 deaths from tuberculous disease in Tasmania, and of these 121 were due to consumption. There has been a remarkable decrease in the number of cases of consumption during the past few years, and it is reasonable to expect a still further decrease in the future as a result of the greater attention that is being given to the advantage of living in the fresh air.

Infectious Diseases.

The number of cases of infectious disease notified during the year was 939, typhoid fever accounting for 237 and diphtheria for 404. The only serious outbreak of typhoid fever during the year was at Scottsdale, where 64 cases occurred. Investigation of the water supply discountenanced any attempt to blame that for the outbreak. There was evidence also that the epidemic was independent of the many sources of milk supply. There was reason, however, to suspect that a patient who had during the incubation period been employed at a house from which twenty of the cases were actually known to have obtained ice cream, may have contracted the disease from a sister who had not only typhoid herself, but was alleged, through close association with other outbreaks of typhoid in a neighbouring town, to be on circumstantial evidence a typhoid carrier. The prevalence of flies was so noticeable in Scottsdale as to excite general comment. In addition to the ordinary house-fly, there was the less numerous but more vicious-biting horse-fly, known locally as the March fly.

Food and Drugs Act.

This Act came into force on March 1st, 1911. Under the new Act and Regulations, which are in accordance with those drawn up at the Commonwealth Interstate Departmental Conference of Food and Drugs held at Sydney last year, there is a reasonable chance of preventing gross adulteration of foods.

Correspondence.

THE PHYSICIAN AND THE PATHOLOGIST ON HEART FAILURE.

SIR,—I can scarcely leave the letters which my address on this subject have called forth, some of them very kindly and helpful, without acknowledgement. Sir James Barr's reference to Mr. Mines's work is welcome, as the paper lies outside the journals I ordinarily see. May I add that by blood velocity, as by blood pressure, unless otherwise specified, arterial blood is usually meant? As to calculations of velocity on data of blood pressure, I think Sir James will agree with me that these data are as yet too rough to serve such a purpose. Had not Dr. Russell and Dr. Herringham lately insisted upon the inconstancy of local arterial resistance, there were other sources of fallacy, even in respect of systolic pressures, both in the instruments and in the patients. For this reason I have never relied upon records of pressures within 15 to 20 mm., and have often had to be satisfied with such adjectives as "subnormal," "normal," "high," and "excessive." As to the more careful scrutiny urged upon us by Dr. Russell, I have formed the provisional opinion that in such resistance of tunics arterio-sclerosis is a smaller factor than arterio-constriction.

As regards Dr. Morison's remarks, thoughtful as his comments always are, upon neurogenic and myogenic cardiac function, I still lean to the opinion that the distinction is "academic." In logical or academic analysis we may, perhaps we must, form separate concepts of the nervous and muscular elements; yet as we contemplate life in evolution and in activity they flash upon us as but different aspects of one quality. The primordial speck of irritable protoplasm embodies this quality as a whole, and if, in development, motion, conduction and storage become differentiated, yet the "functional unit" of Dr. Morison consists still in coefficients which are cognate and indissoluble: and we cannot surely speak of one element of the consentaneous whole as more ascendant or more separable than another.

Dr. Lewis's letter I have perused with some regret, for he remonstrates with me as if I had set myself against the new work opened out on the lines of electric and other graphic records of cardiac function, and had depreciated them. I can only say that some time ago, by the beneficence of Dr. Hoffman, of Combe Lodge, East Putney, we were enabled to couple up our pathological laboratory by a cable with Addenbrooke's Hospital, so that now under the management of Professor Woodhead and his co-adjutors, among whom I would particularly mention Dr. Scales, scarcely an errant heart beats in our wards whose motions are not silently registered in the laboratory. This surely does not signify indifference to the new methods. Dr. Lewis's time is far too valuable to medical science to be occupied in more careful perusal of a long and tedious Address; but were he to do so I am sure he would withdraw his complaint that I had recounted the failures of the new methods, and disparaged them so as to cripple them. I can scarcely believe that obscurantism is one of my many failings. On the contrary, I spoke of these methods as full of promise, and hitherto our only promise, of those exacter clinical measurements upon which scientific cardiac pathology must be carried forward. I urged specifically that disordered rhythms must in their degree signify molecular disorders in the myocardial system; and in respect of the electro-cardiogram, I suggested that in a certain character of it we might find one of the criterions of myocardial values which we so sadly need. I was glad to learn from the report of Professor Einthoven's address that this anticipation might prove correct. Dr. Lewis himself, indeed, goes no further at present than to assure us that "if these questions be asked again in a few years the new school will be ready with its answer." Is not this to confirm my own words on our present deficiencies? And in anticipation of the new results, is it not a useful, if a humble, task to endeavour meanwhile to clear the way for Dr. Lewis and other pioneers by criticizing in our too complacent diagnostics the wide assertions, the conjectures which call themselves "theories," and the "facts" which are but inveterate and petrified opinions.

When Dr. Lewis proceeds to say that "in no case has discontinuity of the *a–r* bundle with persistent conduction been proved in published reports," he is mistaken; it has been proved again and again. What has not been proved—and it will need a special jury of experts to prove it in any particular case—is that *complete* discontinuity has taken place with persisting conduction. Therefore, remarkable as are some of these cases alleged by competent pathologists, I carefully wrote "under what *seemed to be* complete discontinuity." I gave a reference to a case in which the *a–r* bundle was reported on good authority as calcified. As regards certain eminent physicians of the older school whose opinion I quoted on the pulse, a cursory glance at the context would have shown that by "the pulse" was there signified only what they had before them—namely, the radial pulse examined without the advantages of the brilliant but more recent methods for which we are so deeply indebted to Drs. Gaskell, Mackenzie, Wenckebach, Einthoven, and, not least, Dr. Lewis himself.—I am, etc.,

Ambleside, April 5th. CLIFFORD ALLBUTT.

THE STUDY OF CONDUCT.

SIR,—One could have wished to hear that, since this matter was last before your readers, Dr. Mercier had been to Peebles to be cured of his strange hilarity and misguided logic. But, alas! he is worse than ever in the last respect. Not deterred by summary conviction for fallacy and for breach of a minor canon, he now continues the last offence, and I find that he has actually committed assault and battery on a full-blown canon—the first Canon of Induction, the short title of the breach being "jumping to a conclusion." In addition there is abundant evidence of Ignoratio Elenchi—at least, of Ignoratio of the other fellow's Elenchus. As probably it has occurred neither to Dr. Mercier nor to Aristotle to give a name to the aggravated form of this misdemeanour, I suggest the title of "Evitatio puncti ridibunda." He writes of myself:

> He objects, if I understand him aright, that it is impossible or useless to study conduct systematically, because conduct is dependent on mind, and if we study mind that is sufficient. We have to all intents and purposes studied conduct.

Must I again tell him, for the fourth time in four letters, that we do not object to study conduct, but only to the study of conduct as conceived by him? His premiss being altogether false, what follows is insignificant, and, if it were of any significance, it would be a glaring instance of breach of the canon last mentioned.

Better things follow. He writes:

> My answer to all this is that we cannot study the minds of others at all except through the medium of their conduct. We can know, or rather we can guess, what is passing in the minds of others by no possible means except by watching what they do and listening to what they say; in other words, by their conduct.

In other words, Dr. Mercier now admits that conduct is the sole evidence, symptom, and sign of what the mind is doing. Applying this, as surely we may, to his dogma, it will read: "Insanity primarily is a disorder, not of the mind, but of the evidences, symptoms, and signs of mental process." I will leave it to Dr. Mercier to substantiate and justify this proposition. It is something, however, to agree that conduct is a symptom of disorder of mind. Again, depression comes over one, reading:

> I say that we can judge of insanity by conduct alone, without going behind conduct to the state of mind that prompts it.

By way of testing this, I submit a problem. Let us suppose that three or four insane ladies make their way out of an asylum and break big windows with little hammers. How would Dr. Mercier differentiate between them and others who are well known to us through the public press?

In his letter of February 24th Dr. Mercier definitely and categorically states his doctrine of conduct. *Insanity is primarily a disorder, not of mind, but of conduct.* It did not seem to be material to his argument at the time. I cannot help feeling that he thus intended to throw down his gauntlet, let him, who dare, pick it up. The challenge cannot be ignored, if psychiatry is to hold up its head. I could wish that the acceptance were in the hands of a better jouster, but failing such an one, I propose to have a tilt at him.

No doubt the logical mind of Dr. Mercier will admit, as soon as it is pointed out to him, that his proposition is fallacious, or at least that it must lead to fallacy. It is the old fallacy already charged to him, the breach of the third minor canon of explication, the "passing off" of one conception for another. He invites this by substitution of *his* conception of conduct for that accepted by 99 per cent. of average brains. I say that the vast majority of readers would infer that he is dealing with the conduct that denotes the presence of mental process as originator or determinator of action. Then the word "primary" invites at least two constructions; he most probably intends by it the equivalent of "in the first instance." But one often sees such expressions as "of prime importance," "of the first importance." Obviously, much will attach to the reading adopted. One might say that in the first instance man is a toothless being, but one would not care to affirm that of him in a qualitative sense. Then some question may arise in a reader's mind as to whether disorder included disease or not. I need hardly point out also that the proposition includes two fightable issues—one whether insanity is primarily a disorder of conduct; the other, whether it is primarily a disorder of mind. The latter is the belief of us all, except Dr. Mercier, and he will have to fight hard to destroy that belief.

He takes conduct of the amoeba, little *brainless* wretch, as a typifying illustration of "spontaneous motion," the starting point of his theory of conduct in all beings, from the highest to the lowest in grade. I render the opening passage of his book on Conduct:

> If we watch some very simple organism, such as an amoeba, which is a single cell, we see that, while its circumstances remain unchanged, the amoeba exhibits movement, which is to be regarded as amoebic conduct. It thrusts out a process here; it become contracted there. . . . It changes its shape. These, the simplest manifestations of rudimentary conduct in the simplest organisms, occur spontaneously. They are not responses to stimulus from without. The medium in which the animal is contained is motionless, and during the times of movements undergoes no such local alterations of quality as are sufficient to account for the large and conspicuous movements of the amoeba. Whatever changes of shape, whatever locomotion, whatever motion take place in the amoeba are spontaneous. They arise not in obedience to any stimulus applied from without, but out of the inherent activity of the amoeba itself. They are expenditures out of the store of motion that is accumulated within its substance—of motion that changes from molecular motion, which we cannot perceive, to a molar motion that is perceptible to our senses.

And again:

> On the other hand, much conduct is initiated by stimulus from without. The amoeba thrusts out a process at random, impelled to do so by the inherent motion of its own cell body, even when the no change in its surroundings elicits this protrusion: but the presence in the medium of a small organic particle, fit to serve as food for the amoeba, may incite the protrusion of a process in the direction of the particle and the absorption of the particle into the substance of the process.

It would be hard for any ordinary person to compress into such small space an equal amount of free assumption "jumping to conclusions." To physically demonstrate the absence of motion, and the universal absence of extra small organic particles, in the medium, and to exclude the possibility of our amoeba being influenced by tiny magnetic currents, which might not be unexpected in the presence of ceaseless motion is obviously out of the question. One would like to be assured by some means that there is no thing, no force, as he implies for the sake of his argument, between motion and that Central Authority which starts and maintains life, whatever that Authority be called. If Dr. Mercier relies on biology to prove the absolute truth of his datum, I should venture to say that the whole conception and legislation of biology would stand aghast at the wilful, wicked waste of motion, which is brought about by its being "purposively" used to get rid of itself without any known effect.

On this shaky and totally inadequate foundation Dr. Mercier constructs his scheme of conduct in man. He admits that reason has some share in conduct, the other part of it being instinctive conduct, which is founded on spontaneous motion. Instinctive conduct is derived from instinctive action, which in its turn is derived from instinctive motion, and this is evolved by the same "motion" that energizes the amoeba. In all stages, except that of motion, reason is admitted by Dr. Mercier to have a controlling, moulding effect on instinct.

Even in the debatable stage of conversion of motion universal into motion particular, we find in Dr. Mercier's *Psychology* that

> Sensation arises during, and corresponds generally with, the reception of motion by the individual. Thought arises during, and corresponds with, the combination and rearrangement of motion received. Will arises during, and corresponds with, emission of motion.

Thus it seems that the only shred of conduct that serves for foundation to Dr. Mercier's theory of total conduct is motion universal. Again, jumping to conclusions, he gives two examples of the application of this theory to the human race:

> The aimless jerkings and sprawlings and cryings of the new-born infant are due, or need be due, to no irritation or stimulus from without, but to liberation of pent up motion from within. In the more developed and adult human being, the opening of the eyelids on spontaneous waking in the morning, the throwing off the clothes and getting out of bed, are due to no stimulus from without, but to the liberation of motion from within.

Can we exclude pent-up wind in the first case, and uric acid, with that still small voice that cries, "You will miss your daily bread train if you do not turn out," in the second? Then as to motion: Can we assume that it is an unresolvable element of conduct? Can we exclude some connexion, as suggested to be possibly existent in the case of the amoeba, something subliminal? Until certainty is attained on such points no theory can be founded on them. The formation of motion instinctive out of motion general, as described by Dr. Mercier, involves the pouring of considerable quantities of motion from a central reservoir into the minor stores by which instinct is energized. A subjective reminiscence of petrol pushed itself on me when reading about this, and, indeed, petrol serves as a useful simile in some important respects. In both cases the agent is inert until transformed, when each becomes forcible and dangerous if not under sufficient control. If furious or dangerous driving is the subject of magisterial inquiry, do the police charge the petrol or the reasoning element with the disorderly "conduct" of the car?

My sole purpose in thus tilting at Dr. Mercier's doctrine is, if possible, to prevent the mischief which will arise from its indiscriminating use. We cannot afford to dally speculatively for a moment with the great principle which maintains psychiatry in its existing phase—the principle that insanity is absolutely and exclusively a disease of the organ of mind, a material disease of a material part of the human economy. This principle has brought psychiatry to what it is; it has secured a satisfactory recognition for psychiatry in the eyes of the public and of our brethren; it has brought the treatment of the insane, as "patients," into line with treatment of other disease; it has exorcised the irregular practitioners of Christian Science, faith healing, thought transference, suggestion, etc., with the "wise" men and women who tried their peculiar arts; it has directed to the proper quarters the capable clinical teaching, the splendid scientific work of our seniors and colleagues, and, better still, it is inspiring scores and scores of the keen, enthusiastic juniors who are now resorting to asylum practice as a field for scientific study. If we for a moment admit and support the suspicion that there is any possibility of insanity not having a true physical basis in the brain itself, all this will tend to go back and the burning desire for betterment will be lost.

And what as to the law? I venture to affirm that the acceptance of such a doctrine will lead to the hanging of many a decent lunatic and to the unjust treatment of minor offenders. A strong judge may brush on one side speculative conclusions, which war on common ideas. But could we blame the average justice of the peace if he, on Dr. Mercier's authority, neglected to regard mental conditions, only seeing disorder of conduct, which he is bound to remedy with the sole means in his power—fine or imprisonment?

I should not like to conclude this letter without saying that, though I have done my best to "matagrabolize" Dr. Mercier's views, I desire to express the warmest appreciation of the work that he has done in and about his doctrine, other than that of its origin and its conclusion. I am sure that no one can read his works without feeling that he has acquired much valuable and illuminating knowledge, dressed in firm and entertaining language. My views of that work are precisely the reverse of those formed about the deliverances of the Indian judge—that his conclusions were mostly excellent, but that his reasoning was fallacious.—I am, etc.,

Ticehurst, March 30th. H. HAYES NEWINGTON.

PEREZ'S SIGN AND AUDIBLE MOTOR CRACKLES.

SIR,—Since the publication of my paper in your issue of April 6th the following brief article has come to my hands, which was contributed two years ago (June 4th, 1910) to the *Journal of the American Medical Association*, vol. liv, p. 1865. Dr. Cooper's observations and conclusions[1] agree so closely with my own that he should be given the credit of their earlier publication; and I should be glad of your permission to quote them as an addendum to my article:

> For many years I have occasionally heard confusing, adventitious sounds over the scapular areas during auscultation of the organs of respiration. They may be of a creaking, crunching, or bubbling character, and may occur during either or both phases of respiration. They are somewhat superficial, and are confined to the scapular areas, or, if they extend outside, lose considerably in intensity at the bone margin. Displacement of the scapulae forward causes them to disappear, and clear respiratory sounds are now audible when the stethoscope is placed over the same pulmonary area. I have been able to demonstrate these sounds to students in the clinic, and have hitherto listed them under the term "the scapula rub." Three well-marked cases of late have enabled me, however, to trace their origin. In all three cases they were produced in the apparently healthy shoulder-joint during its respiratory movement. From this position of maximum intensity they were propagated by the scapula to the suprascapular and infrascapular regions and by the humerus along the arm, over which they were heard with peculiar distinctness. In one instance they were propagated along the clavicle, but did not reach the sternum. In two of the three cases they had led the examiner to entertain a suspicion that the patient had tuberculosis.
>
> I have deemed their occurrence of sufficient importance to draw attention to for the following reasons:
>
> (1) No mention is made of them in the students' textbooks. (2) They sometimes lead to an erroneous diagnosis of tuberculosis of the lung area over which they are heard. (3) Physicians who devote most of their time to the treatment of tuberculosis tell me that though they have long heard similar sounds they have never been satisfied as to their origin. It seems not improbable that similar confusing sounds may be produced in the sterno-clavicular and acromio-clavicular joints.

—I am, etc.,

London, W., April 9th. WILLIAM EWART.

PROFESSOR KEITH ON THE EVOLUTION OF MAN.

SIR,—We are indebted to Professor Keith and to your JOURNAL for the two excellent papers upon the above subject. While agreeing in the main with Dr. Keith's treatment of this important question, we cannot help taking into account the view of Mr. J. E. Marr, of Cambridge University, in regard to the Ipswich man—namely, that "the overlying layers may have slipped to their present position." This fact is of great importance, and has as yet never been sufficiently taken into account by geologists. Earth movements which are continually going on make great alterations in long courses of time. Even now towns on the side of hills are slowly slipping into the valleys. Lord Kelvin used to set up a ladder on the side of a wall, and show by minute measurements that it was continually slipping. The difficulties, therefore, relating to the modern type of the Ipswich and Galley-Hill men are best solved by regarding them as modern in time as well as formation.

The interesting diagram on page 788 requires, I believe, some readjusting. When we remember that the great mammals of the early tertiary have now passed away we can hardly accept the view that such highly specialized organisms as the Old and New World monkeys could have arisen in the Eocene.—I am, etc.,

Maidstone, April 5th. W. WOODS SMYTH.

PROGNOSIS IN CASES OF CHRONIC ARTHRITIS.

SIR,—I have read with great interest Dr. Ackerley's most excellent communication (March 30th, p. 758) on the necessity for a hopeful prognosis in cases of arthritis. I see considerable numbers of such cases, and am constantly told—even when the case is in the mildest and most curable form—that they have been given to understand by

[1] *Respiratory Joint Crepitations.* By Charles Miner Cooper, M.D., San Francisco.

their medical advisers that a cure can never be looked for. I am so convinced that this is wrong that I should like to add my emphatic testimony to that of Dr. Ackerley's; given the discovery of the exciting cause or causes, steady perseverance with an appropriate line of treatment will in a considerable number of these cases effect a definite cure; and practically all (except where actual ankylosis is present) will show marked improvement. Cheerful prognosis is the more necessary as so many arthritic cases, even while doing quite well, are liable to exacerbations of pain and discomfort.—I am, etc.,

Buxton, April 4th. WM. ARMSTRONG.

THE MILK SUPPLY.

SIR,—I have read with interest the report of the Public Health Committee of the London County Council. There is one fact in the report that stands out by itself. In 1909 there were 10,000 deaths from tuberculosis (other than pulmonary tuberculosis) in England and Wales in children under 15. This is a truly appalling condition of affairs.

The Committee acknowledges the futility of attacking this question piecemeal. It is a national question of first importance, and to attempt to obtain local legislation will only hinder a general settlement. What is the *fons et origo mali?*—undoubtedly the existence of tuberculosis in our dairy cattle (we are told on good authority that 20 per cent. are affected) and the foul condition of the cowsheds of the country; add to this the absence of any adequate supervision of the milk supply, and we have a glaring case against the Government for its delay in considering this deplorable condition of affairs.

The Public Health Committee advised the London County Council to send a deputation to the President of the Local Government Board "to urge the importance of effective general legislation with regard to the milk supply being speedily promoted." It will be a pity if this question is handed over to the municipal authorities to manage; it is a national question, and as such can only be met by general legislation. It will be an expensive business, having regard to the fact that compensation for slaughtered cattle will have to be provided. It may even cost as much as one Dreadnought, but what is this compared with the results we may expect? In ten years' time we shall be able to put our children's hospitals to some other use; there will be no need for them as such.

There is just one point more in this report—the Committee seems to infer that it is only cows affected with tuberculosis of the udder that yield tuberculous milk. The Final Report of the Royal Commission on Animal and Human Tuberculosis makes this point very clear. The Commissioners say: "These bacilli (tubercle) may also be present in the milk of tuberculous cows presenting no evidence whatever of disease of the udder, even when examined *post mortem*."—I am, etc.,

Hedon, April 8th. T. READMAN.

HYPODERMIC MEDICATION BY NURSES.

SIR,—I heartily endorse the opinions of "Woman Practitioner." This storm of cheap satire levelled at an honourable, overworked, and none too well-paid profession, such as sick nursing, is unworthy of a medical man. Granted that in some isolated cases nurses take overmuch upon themselves, let us acknowledge that, after all, these are exceptions, and that our best results, whether we be physicians or surgeons, have been attained only with the co-operation of the modern nurse.—I am, etc.,

April 6th. IRISH PHYSICIAN.

THE LIBERAL PROFESSIONS.

SIR,—Why the public does not think more of the members of the medical profession is obvious. It is because of the contemptible jealousy which exists between the members, with the result that they nearly all—I should say nine out of ten—make disparaging remarks about each other; not serious remarks, but observations introduced into ordinary conversation. The foolish part about this is that not only do they lower the individual whom they speak slightingly of in the estimation of the individual they talk to, but they lower themselves, for the average man is not so blind that he cannot see through this sort of thing. Again, if anybody abuses one doctor to another, the latter, if he is going to collar the patient, may not agree with him, but fails to defend his professional brother, and appears shocked at the "behaviour" or at the "enormous charges" of his professional brother, knowing perfectly well all the time the patient is under some misapprehension. Some of these things are very trivial, but they do their work in lowering us as a class in the eyes of the public—for example, a man said to his medical attendant: "Dr. Jones has got a good practice, hasn't he?" Note the artful answer, so arranged as to disparage Jones in the eyes of the patient without appearing to do so. Answer: "Oh, yes, of course—very large—but nearly all down at —," mentioning the slum part of the district. A lady living opposite a church remarked to her medical attendant: "I see Dr. Brown often going into church." "Oh, yes, he does that as an advertisement to get patients." Result, the lady's opinion of her medical attendant and of Dr. Brown went down to zero at once.

These two facts out of hundreds of others which I have come across serve to illustrate my meaning. If, instead of this sort of thing, every medical man would speak of all his professional brethren with great respect and insist on the public always doing the same, the whole profession would benefit by it and be held in high esteem by the public. We are supposed to know what our professional brethren are worthy of in the matter of honour and respect; and if we who do know and are naturally considered judges in the matter decry each other, how can we expect the man in the street to respect us? I think that every medical man should take an oath before being put on the *Register* that he will uphold the dignity and honour of all his professional brethren, and if he fails to keep this oath his name should be erased.

There is another point which many medical men overlook, and that is that whatever they say about each other generally gets repeated, and eventually gets round to the victim, who probably retaliates in a similar manner, and so the honour of the profession is kicked about before the public until it is a mere rag. A man had five sons; on his death-bed he said: "Whatever happens, stick to each other and back each other up in everything," with the result that the five sons' names are honoured in every capital in Europe to-day. If all professional men would back each other up always and in everything, they would have the whole world at their feet; for there is not, if they only knew it, a greater power on earth than the medical profession, and, if united in a bond of good fellowship and honour, no power, no State, no principality could stand against it.—I am, etc.,

London, N.E., April 8th. ARTHUR TODD-WHITE.

A RECENT TREATISE ON THERAPEUTICS VIEWED FROM THE STANDPOINT OF A GENERAL PRACTITIONER.

SIR,—Most general practitioners find it necessary to recast their pathology with every lustrum or less; several do the same with their physiology, some even with their knowledge of therapeutics.

Having recently dipped into the very latest (1910) edition of quite one of the most popular works on materia medica and therapy, I lighted on some extraordinary therapeutical tit-bits, and, reading, further discovered such a weird collection of items of treatment, that I feel bound to reproduce them, with permission, in the columns of the BRITISH MEDICAL JOURNAL for the "enlightenment" of my fellow practitioners who may be contemplating a similar course of study.

The work in question takes the various drugs in alphabetical order, and I feel that I cannot do better than quote the author's *ipsissima verba* in the sequence which he adopts and almost *usque ad nauseam*.

Acetum (vinegar), we are told, is used as "a haemostatic in *post-partum* haemorrhage"!

Acid. Benzoic. is vaunted as superior to carbolic acid in antiseptic properties, and may be used in acute rheumatism in preference to acidum salicylicum!

Acid. Boric.—On this medicament, two or three grains blown into each nostril every four hours have yielded good results in whooping-cough.

Acid. Carbolic., as sodium sulpho-carbolate, has been used with good results in ulcerative endocarditis! As a spray it is the best local routine treatment in diphtheria. When given internally, one-third of the lethal dose of the pure acid will cause death if freely diluted.

Acid. Gallic., we are told, has no local astringent action, and should be omitted from the *Pharmacopoeia*.

Acid. Hydrobromic., the author states, has sedative properties much weaker than the bromides. He says nothing of its action in the treatment of auditory vertigo.

Acid. Nitro-hydrochloric. Dil. is advised to be used as a bath at body temperature in a given strength in chronic congestion of the liver.

Acid. Phosphoric.—Of this preparation it is mentioned for the benefit of students that Grossich has advocated its use in a 10 per cent. solution as an injection into scrofulous glands and joints.

Aconitum is described as having been successful in the treatment of the vomiting of pregnancy.

Aether is said to be used by Meierhof to remove plugs of cerumen from the auditory meatus, while nitrous ether soothes the irritation of delayed dentition better than any other safe remedy!

Alcohol is advised as a good narcotic in very many diseases when the patient has been a total abstainer. Two and a half ounces of the drug—presumably aged as are its subtle oenanthic ethers, and preferably in the form of toddy, is the best mode of exhibition.

I have not exhausted the letter "A," but I have, I am afraid, exhausted the patience of my readers.—I am, etc.,

MAURICE G. MCELLIGOTT, F.R.C.S.Irel., D.P.H.

Wigan, April 8th.

REDUCTION OF FREQUENCY OF HEART-BEAT.

SIR,—In August last I made some observations in the course of treating patients which led me to read a paper before the Electro-Therapeutical Section of the Royal Society of Medicine on "A Method of Reducing Excessive Frequency of the Heart-beat by means of Rhythmical Muscle Contractions Electrically Provoked." The paper was read on February 16th last.

This morning there appears in the *Daily Mail* an article, which seems to be founded on my paper, under the somewhat sensational heading, "Heart Machine," with a statement that the apparatus has just been installed at the Middlesex Hospital, and an account stated to have been given by a member of the staff of the electrical department there. As this account makes no mention of me, the suggestion seems to be that the discovery has been made and worked out at the Middlesex Hospital.—I am, etc.,

W. HAMPSON.

London, W., April 10th.

Universities and Colleges.

UNIVERSITY OF LONDON.

MEETING OF THE SENATE.

A MEETING of the Senate was held on March 20th, the Vice-Chancellor, Sir William Collins, in the chair.

Site of the University.

The protest of the Vice-Chancellor against the manner in which the Senate had been ignored with regard to the appointment of trustees to receive gifts for the transference of the university to the site north of the British Museum, the resolution of the Senate, in response to which the Vice-Chancellor consented to withdraw his resignation, and the letter of explanation of the Chancellor, Lord Rosebery, have already been reported. Appended to the *London University Gazette* of April 3rd is a long letter addressed by the Vice-Chancellor to His Majesty's Treasury on March 29th, embodying the history of the conditions under which the university was transferred from Burlington Gardens to the Imperial Institute. It concluded with the following observations:

> While the Senate of the University is entitled to and receives contributions from Imperial and local funds, it also welcomes generous benefactions from private donors and is well able to apply them to useful purposes within its many-sided activities, but it has always assumed that such voluntary assistance would not be regarded as in any way derogating from its claims upon the Government or the due carrying out of the undertaking by the Government to provide for the "full extension and development of the University under the Statutes and Regulations made by the Commissioners appointed by the Act of 1898."

The *London University Gazette* also contains a copy of the following letter written by Lord Haldane, Chairman of the Royal Commission, setting out the origin of the proposal to erect the head quarters for the University on the proposed site.

> Royal Commission on University Education in London, 12, Queen Anne's Gate, London, S.W., December 15th, 1911.
>
> Dear Sir Francis Trippel,—The proposal you have put before the Royal Commission, of which I am chairman, at our meeting to-day is to acquire the four plots coloured blue on the plan of the site north of the British Museum, and to raise such further funds as would enable such head quarters for the University as are described in our forthcoming report to be erected.
>
> The Commissioners think the scheme a magnificent one and the site ideal.
>
> I have laid the proposal before the Prime Minister. He entirely approves, and suggests there should be a body of trustees for the purposes of the scheme.
>
> By his desire I would represent the Government in the body of trustees; my colleague, Lord Milner, the Commission; and Lord Rosebery, as Chancellor, the University.
>
> You should yourself be a trustee, and perhaps a fifth might be added. I have seen Lord Rosebery to-day, and he concurs.
>
> With best wishes for your success in this tremendous endeavour in the public interest, yours very truly,
>
> (Signed) HALDANE OF CLOAN.

The Establishment and General Purposes Committee to which the Senate refers matters dealing with the question of site laid before the Royal Commission a considerable amount of information on the subject, and the Committee has instructed the Principal and officers to prepare a report comparing the accommodation available on the site of the present central offices with that which will be obtainable on the various alternative sites suggested.

Recognition of Teachers.

The following were recognized as teachers of the University in the subjects and at the institutions indicated:

King's College.—Mr. Alexander Macphail (Anatomy).

St. Thomas's Hospital Medical School.—Dr. Reginald Ruggles Gates (Biology).

Guy's Hospital Medical School.—Dr. Hector Charles Cameron (Diseases of Children), Mr. Montagu Frank Hopson (Dental Surgery), Mr. Ernest Cranmer Hughes (Surgery), Mr. Joseph Lewin Payne (Dental Mechanics), Mr. Robert Wynne Rouw (Dental Surgery), Mr. George Rowell (Anaesthetics), Mr. John Henry Ryffel (Forensic Medicine), Mr. Ralph Thompson (Surgery), Dr. William Henry Butler Stoddart (Mental Diseases).

Lister Institute of Preventive Medicine.—Mr. Major Greenwood (Teacher of Statistical Methods in their application to Hygiene and Pathology).

London School of Dental Surgery.—Mr. William Henry Dolamore (Dental Surgery—Operative), Mr. Douglas Phillimore Gabell (Dental Mechanics), Mr. Joseph George Turner (Dental Surgery).

Appointment of Examiners.

Among the examiners appointed for the general intermediate examinations in the Faculties of Theology, Arts, Science (including agriculture and veterinary science), Engineering, and Economics for internal students for the year 1912 were:

For Physiology.—Dr. E. H. Starling (University College), Dr. W. D. Halliburton (King's College), Dr. J. S. Edkins (Bedford College and St. Bartholomew's Hospital Medical School), Dr. M. S. Pembrey (Guy's Hospital Medical School), together with the external examiners. Dr. E. H. Starling is the chairman of the Board.

Professor of General Chemistry.

Professor F. G. Donnan, F.R.S., Director of the Muspratt Laboratory of Physical and Electrical Chemistry in the University of Liverpool, was appointed Professor of General Chemistry as from September 1st, 1912, in succession to Sir William Ramsay.

Appointment of Representatives.

Mr. C. H. Golding-Bird, B.A., M.B., was appointed a Governor of Cranbrook Grammar School.

Dr. H. L. Eason and Dr. S. Russell Wells were appointed as representatives of the University at the bicentenary festival of the Medical School of Trinity College, Dublin.

The Vice-Chancellor for 1912–13, subject to his consent to act, was appointed to represent the University on the occasion of the celebration of the 250th anniversary of the Royal Society to be held in July, 1912.

Mr. R. B. Wilmot, M.R.C.S., L.R.C.P., has been nominated for reappointment to represent the University on the governing body of the Latymer School, Edmonton.

Examinations.

The following candidates have been approved at the examinations indicated:

SECOND M.B. (*Part I.*).—A. W. Adams, D. W. J. Andrews, Mary N. Andrews, I. Aubrey, D. Aucutt, C. H. D. Banks, C. P. Barber, E. B. Barnes, G. C. Berg, C. F. Bevers, E. Biddle, G. Blurton, C. V. Boland, M. C. Breese, C. H. C. Byrne, F. Chadwick, Hetty E. Claremont, W. M. Crombie, R. M. Dannatt, E. I. Davies, T. A. Davies, J. R. Dingley, G. B. Dowling, E. H. Eastwood, C. W. Ellison, H. H. L. Ellison, W. J. Evans, Susan A. Finch, R. K. Ford, Charlotte I. Fox, D. H. A. Galbraith, P. C. Gibson, O. Gleeson, L. Grey, A. F. G. Guinness, Hilda M. Halliday, F. K. Hayman, G. E. Heath, V. R. Hirsch, Mary I. Hounsfield, Edith C. Hudgell, P. Hudson, H. C. Jennings, R. B. John, J. G. Jones, P. T. Jones, F. A. Knott, Guy's Hospital and Imperial College, Royal College of Science; J. Kyle, H. J. Levisenr, D. J. A. Lewis, K. T. Limbery, Annie Lloyd, V. E. Lloyd, W. H. Lloyd, H. M. C. Macaulay, G. A. S. Madgwick, P. G. McElvedy, J. E. G. McGibbon, R. G. Michelmore, H. W. L. Molesworth, F. Molina, A. H. Morley, D. C. Ogilvie, H. R. Partridge, Doris M. Pearce, Enid M. Pfeil, G. J. Randell, D. Rees, D. W. R. Richardson, A. E. Richmond, Eveleen B. G. Rivington, J. E. Rusby, T. C. Russell, E. Sakoschansky, Enid E. Sanger-Davies, J. E. Seanlan, T. W. Short, J. F. Smith, M. C. Stark, R. G. Sterling, A. L. Stokes, G. T. Symons, G. P. Tatton, H. W. Taylor, D. C. Thomas, J. W. L. Thomas, R. C. Thomas, W. L. Thomas, R. R. Thompson, D. J. Valentine, H. S. Wacher, M. J. T. Wallis, H. Wearne, Phillis E. Webb, P. H. Wells, A. Willatt, A. Wilson, W. C. S. Wood.

* Awarded a mark of distinction.

SECOND M.B. (*Part II.*).—G. C. G. Baldini, F. G. L. Barnes, F. M. Barnes, T. D. C. Barry, S. Batchelor, W. R. Blore, F. H. Bray, Ismael F. Buckle, H. G. Chaplin, Dorothy Chick, A. J. Cleh, Lilian A. Clark, W. E. K. Coles, H. W. Cooke, P. V. Davies, A. D. d'Avray, J. A. W. Elsden, G. D. Eccles, A. F. El Hakim, R. Ellis, R. F. Fagan, H. A. Fawcett, J. Fielding, S. A. Forbes, H. L. G.

Foxell, S. L. Green, D. W. Griffith, H. S. Griffith, H. E. Griffiths, Norah Hamil, R. M. Handfield-Jones, A. G. P. Harrowick, C. E. Harrison, S. S. B. Harrison, Jessie E. Hart, H. W. Hay, A. G. Holman, G. M. Jackson, Hilda G. Johnson, Mary E. Joll, S. W. M. Jones, W. M. Lansdale, H. J. McCurrich, Helen M. M. Mackay, J. F. Mackenzie, S. S. Melkeni, V. M. Métivier, A. N. Minns, J. Y. Moore, H. R. Parsloe, Margaret R. Paterson, I. H. Pearse, A. C. Perry, London Hospital: Emma C. Pillman, A. L. Punch, J. B. Rawlins, J. T. Rees, University College, Cardiff; J. A. Robinson, F. H. A. Sayed, Hilda M. Scarborough, M. Scott, P. D. Scott, G. D. Shann, C. J. H. Sharp, H. R. Sheppard, A. G. Simmins, L. M. Smith, J. F. H. Stallman, J. Stephenson, L. B. Stringer, D. G. C. Tasker, W. E. Taylor, J. B. Thackeray, A. S. Wakely, E. H. Walker, Honoria J. Wallace, Katharine A. Waring, S. Wilson.

‡ Distinguished in Anatomy.
† Distinguished in Physiology.
‡ Distinguished in Pharmacology.

UNIVERSITY OF LIVERPOOL.

Tropical Medicine.

THE following candidates have been approved at the examination indicated:

D.T.M.—J. R. Acria, E. L. Anderson, J. Borle, J. T. Bowie, L. P. Brassey, D. Christie, H. de C. Dillon, M. R. Kochhar, V. W. T. McGusty, A. J. Milne, H. N. Pelly, B. Prasad, G. Prentice, F. Ross, A. J. H. Russell, M. W. Ruthven, J. Sandilands.

UNIVERSITY OF GLASGOW.

THE following candidates have been approved in the subjects indicated:

FIRST M.B., CH.B. (B., Botany; Z., Zoology; P., Physics; C., Chemistry).—W. D. Allan (Z., C.), J. Alston (Z., C.), W. Baird (Z.), J. E. Bannen (Z., C.), W. Barras (Z.), R. G. Battersby (B., Z.), J. Beveridge (B., P.), W. E. Boyd (C.), J. P. Broom (Z., C.), A. C. Brown (Z., C.), H. D. Brown (Z., C.), J. A. Buchanan (Z., C.), S. J. A. Bucklee (Z., C.), D. Cameron (Z., P.), J. Cathcart (Z., C.), D. Clyde (Z., C.), D. H. Coats (Z.), W. K. Connell (Z.), A. L. Cook (Z., C.), A. S. Cook (Z.), W. G. Cook (Z., C.), A. J. Copeland (Z., C.), J. Corner (Z., C.), J. N. Cruickshank (Z., C.), J. W. Dalziel (Z., C.), A. Davidson (Z., C.), A. Dewar (B., P.), M. Dewar (Z., C.), J. Dewar (Z., C.), S. N. Dey (Z., C.), J. Ewing (Z., C.), B. W. H. Fergus (Z., C.), T. Finlay (C.), T. Fleming (Z., C.), L. L. Fotheringham (Z., C.), M. M. Frew (Z., C.), T. R. Fulton (Z., P.), R. K. H. Gillespie (C.), J. G. Gilmour (C.), W. Gordon (B., P.), P. F. A. Grant (Z.), T. Gray (Z., C.), D. Heard (Z., C.), S. J. Henderson (Z., C.), G. M. Hetherington (B., P.), A. R. Hill (Z., C.), T. P. Hutchison (Z., P.), O. Johnston (Z.), S. Johnstone (Z., C.), T. Kemp (Z., P.), A. Kennedy (Z., C.), P. S. Kinloch (B., P.), R. Lindsay (Z., C.), F. C. Logan (Z., C.), P. Y. Lyle (C.), J. W. Macfarlane (Z., C.), J. P. M'Greabin (Z., C.), E. M'Guire (Z., C.), J. Macinnes (P.), D. B. M'Intosh (B., Z., P.), K. S. Mseky (Z., C.), D. M'Laren (B., P., C.), J. W. Maclean (Z., C.), P. D. MacLean, M.A. (Z., C.), A. F. M'Millan (Z., C.), D. M. M'Millan (B.), E. R. Martin (Z.), A. M'C. Millar (Z.), W. W. Morrison (C.), A. Morton (Z., C.), J. F. Narie (Z.), P. Nath (B., Z., P., C.), T. F. Noble (C.), J. Orr (B., Z., P.), J. H. Paul, M.A. (Z.), A. C. Philps (C.), T. Poole (Z.), T. J. Quigley (Z., C.), J. K. Rennie (Z.), F. Ribeiro (B., Z.), A. W. Ritchie (Z., P.), R. Rodger (Z., C.), F. W. Sandeman (Z., C.), A. M. A. Scott (Z., C.), H. F. Spencer (Z., P.), J. Steel (Z., C.), J. Steele (Z., C.), A. R. Steinberg (Z., C.), C. H. Stewart (Z.), P. A. Stewart (P., C.), W. M. Stewart (Z., C.), J. Stirling (Z.), H. Stuart (P., C.), G. C. Swanson (Z., C.), J. B. Sweet (P.), C. B. Templeton (Z.), J. L. Torley (C.), †H. W. Torrance (Z., C.), G. T. Walker (Z., C.), J. D. Watson (Z.), R. S. Weir (Z.), K. J. T. Wilson (Z., C.), J. T. Wylie (Z.), R. Young (B., Z.). Women: J. M. Alexander (Z.), C. B. Buchanan (Z., C.), M. C. Cairney (Z., C.), W. J. Crawford (Z.), J. C. Gilchrist (Z., C.), J. L. Hamilton (Z.), M. C. B. Leigh (P.), M. J. T. Leitch (Z., C.), M. E. Maclver (Z., C.), M. A. MacL. MacLean (Z., C.), A. J. Marshall (B., Z., P., C.), E. S. Martin (Z.), †M. K. Mitchell (Z., C.), †M. H. Routledge (Z., C.), M. Scott (P., C.), A. E. Wilson (Z., C.), M. B. D. Wilson (Z., C.).

SECOND M.B., CH.B. (A., Anatomy; P., Physiology; M., Materia Medica and Therapeutics).—J. Anderson (A., P.), R. Armstrong (P., M.), G. F. Barr (A., P., M.), A. D. Blakely (A., P.), R. W. Brander (A., P., M.), W. H. Brown (A., P., M.), M. S. Bryce (A., M.), S. Bryson (A., M.), J. Buchanan (P.), J. A. Chrystie (A., P.), A. La Barte Clark (A.), R. Clark, M.A. (A., P.), A. Climie (M.), J. P. Crawford (A., P.), W. Cullen (P.), W. T. Currie (A., P.), F. V. Daeblitz (A., P.), A. Dick (P.), J. Dunbar (P.), D. Ferguson (A., M.), J. J. Finlay (P.), G. Fleming (A., P.), J. B. Fotheringham (A.), A. D. Fraser, M.A. (A., P., M.), G. J. Fraser (M.), R. Frew, B.Sc. (A., P., M.), A. J. Gibson, M.A. (A.), W. H. Gibson (P.), T. Gilchrist, M.A. (A., P., M.), J. A. Giltillan (A., P., M.), P. Gordon (A., M.), R. M. Greig (A., P.), A. H. Hall (A., P., M.), D. C. Hanson (A., P.), D. Hardie, M.A. (A., P.), F. L. Henderson (A., P., M.), J. W. W. Hewitt (A.), T. C. Houston (A., P.), W. Y. Jamieson (P.), A. C. Jebb (A., P.), D. Johnston (A., P., M.), D. R. King (A., M.), P. C. M'Arthur, M.A. (A.), D. S. M'Bean (A., P., M.), G. M'Callum (A., M.), J. M'Culloch (A., P., M.), D. F. Macdonald (A., P.), J. B. M'Dougall (A., P., M.), C. R. M'Intosh, M.A. (A., P., M.), D. M'Intyre (A., P.), D. M'D. M'Intyre (A., P.), D. Mackie (M.), J. R. C. Mackintosh (M.), J. A. MacLean (P., M.), W. E. M'Lelland (A., P., M.), F. W. M'Millan (A., P., M.), †J. K. Manson (A., P.), A. P. Martin (A., P.), W. S. Martin, M.A. (A.), W. J. May (A., P.), T. S. Meighan (A.), W. Meikle (A., P.), A. D. Moffat (A., P., M.), J. W. Moffatt (A., P., M.), P. J. Moir (A., P., M.), T. N. O'Brien (M.), W. L. Peacock (A., P., M.), A. Picken (A., P., M.), †J. M'L. Pinkerton, B.Sc. (A., P.), J. S. Prentice (A., P.), F. P. Rankin (A., P.), A. Rankine (A., P.), R. Ray (A., P.), T. F. B. Reid (A., P.), R. C. Robertson (P., M.), S. Robertson (A., P., M.), †S. Roberson (A., P., M.), S. D. Robertson (A., P.), A. F. Ross (P., M.), A. M'K. Russell (A., P., M.), J. Sillars (P., M.), N. M'G. Smith (A., P.), J. B. Steven (P.), J. F. Steven, M.A. (M.), H. Stewart, M.A. (P., M.), J. S. Stewart (A., P.), W. B. Stewart (A.), R. Tennent (A., P.), R. N. Thomson (A., P., M.), W. Thomson, M.A. (A., P., M.), J. Vallance (A., P.), W. S. Wallace (A., P.), H. C. Watson (A.), J. A. White (M.), C. A. Whittingham (A.), J. B. Williamson (A., P.), A. S. Wilson (M.), J. Wylie (A., P., M.), T. W. Wylie (A., P., M.), A. Young (M.), G. Young (A., P.), J. M. Young (A.). Women: M. J. Brown (M.), A. E. M. Cooke (A., P., M.), D. P. Curiel (A., P., M.), E. W. Gommertz (M.), E. S. Kirk (M.), J. G. M'Laren, M.A. (A., P., M.), G. Montgomery (A., P.), M. Thompson (M.), S. A. Watson (A., P., M.), G. B. Whish (M.), M. Wilson (A., P., M.).

THIRD M.B., CH.B. (P., Pathology; M., Medical Jurisprudence and Public Health).—D. K. Adams, M.A. (P., M.), H. S. Banks, M.A. (P., M.), A. Blashky (P., M.), S. H. Bloom (P., M.), †W. A. Brechin (P., M.), †D. P. Brown (P., M.), R. A. Brown (P., M.), J. L. Brownlie (P., M.), A. G. Buchanan (P., M.), E. T. Burke (P., M.), J. Cameron (M.), W. L. Cassels, B.Sc. (M.), B. Cohen (P.), W. MacC. Conley, M.A. (P., M.), J. Corrigall (P., M.), †W. Cruickshank (P.), N. Crichlow (P., M.), L. Crombie (P., M.), W. C. Davidson (P., M.), G. D. de Kock (P., M.), W. E. Elliot, B.Sc. (P., M.), P. Figdor (P.), W. C. Fleming, B.Sc. (P., M.), W. Forbes (P., M.), J. Fraser (P., M.), W. Fraser (P., M.), J. L. Gregory (P., M.), J. G. Hendry (P., M.), W. J. Henry (P., M.), G. Hislop (P., M.), W. Hornsby (P., M.), W. M. Howells (P., M.), †D. M. Hunter (P., M.), T. P. Inglis (P.), J. S. Kinross (P.), A. Lindsay (P., M.), G. S. Livingstone (P.), J. L. M'Bean (P., M.), P. A. M'Callum (P., M.), J. A. M'Connochie (P.), J. W. M'Donald (P., M.), J. M'Ghie (P., M.), J. MacInnes (P., M.), D. Mackinnon (P., M.), J. R. C. Mackintosh (M.), K. N. MacLean, M.A. (P., M.), R. M'Lean (P., M.), N. Macleod (P., M.), R. M. M'Mian (P.), E. S. Macphee (P.), W. L. Maitland (P., M.), O. H. Mayor (P.), A. U. Millar, M.A. (P., M.), K. D. Murchison (M.), A. A. Murison (P.), M. Murphy (P., M.), F. M. Newton (P., M.), R. Parker (M.), A. Peden (M.), †J. L. R. Philip (P., M.), J. Purdie (P.), A. M'I. Ramsay (M.), F. M. Robertson (P., M.), N. I. Sinclair (P., M.), D. Smith (P., M.), W. R. Snodgrass, M.A. (P., M.), I. D. Suttie (P.), G. Taylor, M.A. (P., M.), J. C. Walker (M.), R. B. Wallace (P., M.), J. C. Watt (P., M.), W. H. N. White (M.), J. Whiteside (P., M.), A. S. Wilson (P.), A. M. Young (P., M.). Women: N. M. A. Allan (P., M.), C. S. T. Amerson (M.), J. P. Anderson (P.), M. J. Brown (P.), E. Crawford (P.), M. P. Hislop (P.), J. K. M'L. Hunter (M.), A. R. M'Kail (P.), M. H. M'Killop (P., M.), S. A. J. Rankine (P.), J. A. Woods (P., M.).

FINAL M.B., CH.B.—J. A. Aitken, J. C. H. Allan, J. Angus, J. G. Becker, V. Borland, N. Cameron, G. W. Clark, G. Dalziel, A. H. Davidson, W. G. T. Davidson, K. Falconer, A. Gardner, J. J. Gibb, L. Glushak, C. W. F. Greenhill, J. A. Harper, M.A., A. G. Henderson, A. J. Joubert, F. A. Kerr, T. J. Kirk, R. P. A. Kirkland, G. J. Lang, M.A., F. W. K. Lawrie, †N. V. C. Lothian, B.Sc., C. Lundie, M.A., B.Sc., D. Meek, †S. S. Meighan, B.Sc., M. J. Murray, A. Neilson, †J. B. Orr, M.A., B.Sc., J. C. Pyper, A. Rae, Lucy M. Ross, S. Rutherford, H. C. van der Wat Smit, M. Sommerville, L. T. Stewart, T. Walmsley, T. Waterhouse, E. C. White, W. Whitelaw, H. G. Wilson, †W. B. Wilson.

† Passed with distinction in one or more subjects.

LONDON SCHOOL OF TROPICAL MEDICINE.

THE following candidates were approved at the examination held at the end of the thirty-eighth session, which has just concluded:

†S. N. Roy; †H. R. Brown, Major, I.M.S.; †W. B. Johnson, C.M.S.; J. C. Oxley, Captain, I.M.S.; †A. K. Contractor; C. W. McKenny, C.M.S.; C. Monge, M.D.; Miss B. Hamilton, R. V. Clayton, W. G. Cobb, C.M.S., G. E. Aubrey, P. M. Rennie, Captain, I.M.S., D. F. O'Donoghue, C.M.S., W. R. Parkinson, C.M.S., J. E. Hailstone, C.M.S., J. Stewart, M.B.Irel., J. P. B. Snell, C.M.S., G. C. Purvis, P. C. Conran, C.M.S., S. Azmy, D. C. Kemp, Major, I.M.S., A. Mouat, C.M.S., K. Manson, C.M.S., W. A. Murray, R. H. Nolan, C.M.S., V. G. L. van Someren, C.M.S., P. W. Black, C.M.S., L. Dondney, C.M.S., T. R. Sandeman, C.M.S., F. C. V. Thompson, C.M.S., W. M. Nairn, M.B., Ch.B., C. G. Grey, C.M.S.

†† Passed with distinction.

The attendance during the session—namely, 65—was the largest hitherto recorded. Of the 32 who passed the examination 17 were officers in the Colonial Medical Service.

CONJOINT BOARD IN IRELAND.

THE following candidates have been approved in the examinations indicated:

FIRST COLLEGE.—G. G. C. Adams, D. L. Crowe, K. Elmes, P. Gaffney, H. Graham, A. E. Harbord, W. O'C. Hunt, G. G. W. Leary, J. R. Little, C. A. R. McCay, A. St. J. Mahony, Miss K. Murphy, N. E. Stephens, H. J. Young, J. Young.

SECOND COLLEGE.—A. P. Adams, S. Brown, S. J. M. Cairns, F. Freeman, E. N. H. Gray, J. J. Grey, W. J. A. Laird, G. M. Moffatt, J. A. Musgrave, D. V. O'Connor, P. J. D. O'Malley, B. Scher.

THIRD COLLEGE.—E. Connell, A. B. Foott, A. Humphreys, J. J. Keyns, E. P. Palmer, R. P. Weldon.

FINAL.—J. H. Barry, D. Burns, N. S. Deane, A. Hamilton, E. E. Holden, C. L. Lapper, T. J. Nunan, J. T. O'Boyle, J. J. O'Kelly, J. C. Sproule, I. M. Swanepoel.

AT a meeting at Northampton General Hospital on March 26th Dr. Frank Buszard was presented with two oil paintings of himself, one to remain in his own possession and the other to be hung in the institution. In making the presentation the Marquis of Northampton said that the subscribers, of whom he was proud to be one, felt that Dr. Buszard's long services, which had always been characterized by the highest skill and sympathy, demanded recognition. Dr. Buszard's first office at the Northampton General Hospital was that of house-surgeon, and he has since served the hospital for some fifty years, having been senior member of the staff on both the medical and surgical sides. He is an M.D. of the University of London and a Fellow both of the Royal College of Physicians of London and of the Royal College of Surgeons of England.

The Services.

ROYAL NAVAL MEDICAL SERVICE.

EXAMINATION FOR APPOINTMENTS AS ACTING SURGEONS.

AT the examination for the Naval Medical Service held on April 1st, 2nd, and 3rd eighteen gentlemen sat, and of these nine were successful and obtained the following marks:

Mr. R. M. R. Thursfield ...	1,575	Mr. J. P. Shorten	1,350
Mr. L. Moss	1,541	Mr. F. J. Burke	1,340
Mr. J. A. O'Flynn	1,405	Mr. G. E. D. Ellis	1,315
Mr. A. Rees Price	1,400	Mr. C. V. Hobbs	1,305
Mr. F. J. D. Twigg	1,355		

The highest possible number of marks for the examination was 2,400.

ROYAL ARMY MEDICAL CORPS (T.F., WESSEX DIVISION.

THE annual dinner of the officers of the Royal Army Medical Corps (T.F.), Wessex Division, will take place on Friday, May 3rd, at the Royal Clarence Hotel, Exeter, at 7.30 p.m. The A.D.M.S., Wessex Division, will preside. Officers should make early application for tickets, and male members of the Voluntary Aid Detachments in the division will be welcome. Tickets, 10s. 6d. each, may be obtained from the honorary secretary, School of Instruction, Goldsmith Street, Exeter.

QUEEN ALEXANDRA'S INDIAN MILITARY NURSING SERVICE.

THE Government of India has sanctioned the following revised scale of pension for Queen Alexandra's Military Nursing Service for India. The first in each case refers to nursing sisters, the second to senior nursing sisters, and the third to lady superintendents: After fifteen years' service, £50, £80, and £120. And thereafter up to the twentieth year the amounts increase by £2 and £4 respectively to the maximum. After twenty years' service to £60, £100, and £150, with an addition of £10 for the senior lady superintendent—that is, the lady who at the time of retirement is drawing a local allowance of Rs.50, admissible, and who is the recognized adviser of the Principal Medical Officer of His Majesty's Forces in India in matters affecting interior economy and welfare of the Nursing Service, and if necessarily the senior according to the date of promotion to the rank of Lady Superintendent. Nursing sisters who complete their term of service, and who are in all respects efficient, will be allowed to extend their service until they attain the age of compulsory retirement, and on attaining the retiring age they will be granted the pension admissible to nurses invalided with the same length of service. Sanction is also accorded to the grant of a period of leave on medical certificate of twelve months to count towards engagement and pension once during the entire period of a nursing sister's service. This would allow twelve months' leave on medical certificate to be taken in one term.

Medical News.

THE King has appointed Dr. Edward Acheson Chartres senior medical officer, West African Medical Staff, to be a member of the Executive Council and an official member of the Legislative Council of the Colony of Gambia.

A WELL-ILLUSTRATED pamphlet on Baden-Baden has been issued by the Municipal Inquiry Office, and copies can no doubt be obtained on application.

DR. FRED BRUSH has resigned the Superintendency of the New York Post-Graduate Medical School and Hospital to become Superintendent of the Burke Relief Foundation, which is about to erect a convalescent hospital at White Plains, N.Y., on a site of sixty acres.

A DISCUSSION on alcoholism in the Army and Navy will be opened by the Rev. J. H. Bateson, formerly general secretary of the Royal Army Temperance Association, India, at a meeting of the Society for the Study of Inebriety, 11, Chandos Street, W., on Tuesday, April 23rd, at 4 p.m.

A SHAKESPEARE Commemoration Service will be held, at 2.30 p.m. on April 23rd, at Southwark Cathedral, when Mr. F. R. Benson will give an address on Shakespeare and the fuller life of the people. A sum of about £190 is still required for the completion of the Shakespeare Memorial in the cathedral, and a collection will be made for this purpose. Donations will be received by the Honorary Secretary, Dr. R. W. Loftwich, 36, Ebury Street, S.W., from whom tickets for the service can be obtained.

THE Oxford Eye Hospital, which was established about a quarter of a century ago, now contains thirty-two beds in a building leased from the Radcliffe Infirmary and enlarged on several occasions; the last addition is a clinical pathology room, the need for which had long been felt. In 1911 the number of patients treated in the wards was 373, the new patients numbering altogether 3,334, included 764 men, 1,532 women, and 1,038 children, of whom 211 had been sent by medical inspectors of schools.

SIR SHIRLEY MURPHY will preside over the section of Sanitary Science and Preventive Medicine at the Congress of the Royal Sanitary Institute, to be held at York from July 29th to August 3rd. Two discussions will take place—one on the municipal dispensary and the tuberculin treatment, to be opened by Dr. A. Mearns Fraser and Dr. Hilda Clark, and the other on dispensaries for the treatment and prevention of consumption, to be opened by Dr. D. J. Williamson.

AT the annual general meeting of the Association of Medical Officers of Health, on March 29th, it was decided that the conjoint committee of the several associations of part-time medical officers should be requested to consider the advisability of organizing as quickly as possible local centres throughout the country of medical practitioners holding part-time appointments under Government or local authorities to work in conjunction with the Central Committee. The conjoint committee was also requested to consider the best means of securing at annual meetings of the constituent association the attendance of members of other associations. The report of the council was adopted, and all the existing officers re-elected.

IN moving the adoption of the accounts at the annual meeting of the Gloucester Royal Infirmary on March 28th, the Chairman emphasized the facts that the workpeople's contribution went to the general upkeep of the hospital, and was not in any sense a payment for treatment received; that the vast majority of the patients were admitted on the recommendation, not of subscribers, but of practitioners who came across them in the course of their daily work; and that the services of the medical staff were entirely gratuitous. Subsequently, in acknowledging a vote of thanks to the staff, Dr. E. Dykes Bower, speaking of the possible outcomes of the passage of the National Insurance Bill, stated that if hospitals came under State management there would be a disastrous tendency for selections for appointment to their staffs to be influenced by political rather than professional considerations.

DR. D. THOMSON has devised a new pipette for the enumeration of leucocytes and blood parasites (*Ann. Trop. Med. and Parasit.*, v. (1911), page 471). It consists of a fine bore tube of 1 c.mm. capacity, graduated into eight equal divisions. A drop of blood is drawn into this pipette, and $\frac{1}{8}$ c.mm. is transferred to a slide on which it is spread out by means of a needle to an area of about 4 mm. square. It is then fixed and stained. With the aid of an Ehrlich eyepiece, or similar square field eyepiece, the leucocytes are counted in squares along one edge of the film. At every fifth square they are counted in a band right across the film. The number of such bands multiplied by the average number of leucocytes in each gives the total number in the film—that is, in $\frac{1}{8}$ c.mm. of blood. The results compare favourably with those obtained by means of a Thoma-Zeiss apparatus, and the procedure is much simpler. The advantages of the method are its speed, the small amount of blood required, the absence of a diluting fluid, and the fact that blood parasites can be counted, and that the count may be postponed till convenient. The most obvious disadvantage is the very fine calibre of the pipette, in which clotting may readily take place, and can only with difficulty be removed; although, in the expert hands of Dr. Thomson, this difficulty is reduced to a minimum.

THE Bread and Food Reform League, which has received the support of most eminent medical and scientific men, has during thirty years, without advocating any special system of diet, brought the subject of pure food under the notice of vast numbers of people through exhibitions, congresses, meetings, and lectures, whilst educational literature has been widely distributed. There is still, however, much work to be done, and an appeal has been issued asking for honorary corresponding secretaries in towns and villages throughout the country, earnest and active men and women who by personal endeavour will arouse interest in their own localities, and will supply the central organization with the information necessary to enable it to bring home to the nation the universal need for food reform. The appeal is signed, among others, by Sir John Byers, Sir James Crichton-Browne, Sir J. Halliday Croom, Sir Alfred Fripp, Professor Matthew Hay, Dr. Leonard Hill, Professor Howard Marsh, Mr. Mayo Robson, Sir Herbert Maxwell, Professor Benjamin Moore, Sir Bertram C. A. Windle, and Professor Sims Woodhead. To any who are willing to assist, the Honorary Secretary, Miss May Yates, 5, Clement's Inn, Strand, London, W.C., will send a report of the League's work.

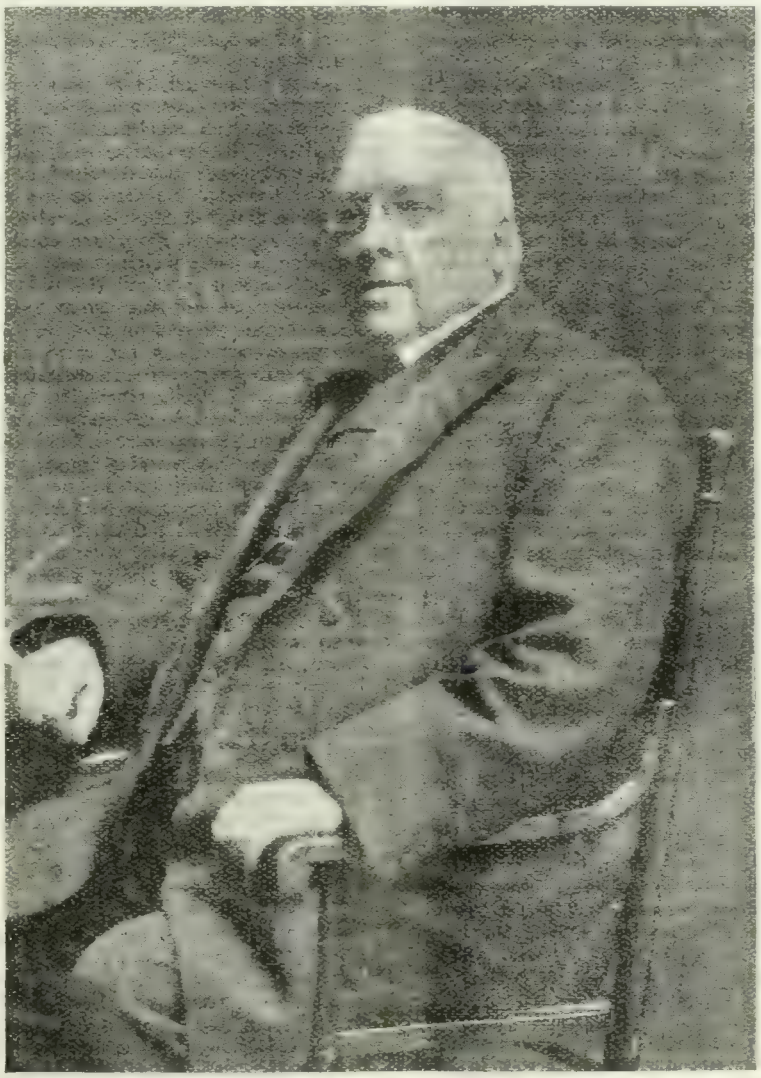
Obituary.

ANGUS FRASER, M.D.,

CONSULTING PHYSICIAN, ABERDEEN ROYAL INFIRMARY.

The many friends of Dr. Angus Fraser and the hundreds of medical graduates of Aberdeen scattered all over the world will hear with feelings of deep regret of his death, which occurred on April 2nd at his residence in Aberdeen: his outstanding personality and his untiring services for medical education and the medical charities earned the gratitude of the whole community, and commanded the respect and admiration of those who were privileged to know him.

Born in Aberdeen on Christmas Day, 1838, the son of a successful merchant, he received his early education in Aberdeen, and took his Arts Course in Marischal College. After a distinguished career, in which he gained the Boxhill Mathematical Bursary, he graduated M.A. in 1858. In 1862 he graduated with honours in medicine, and continued his medical studies for some time in the hospitals of Paris. On his return to his native place he acted for two years as Assistant to Professor Brazier in the Chair of Chemistry. Shortly after commencing the practice of his profession, he was appointed one of the Physicians of the Aberdeen Dispensary, which post he held until 1871, when he was appointed one of the Physicians of the Aberdeen Royal Infirmary. Here he found the field for his life's work, and for the long period of thirty-eight years he was an honoured and zealous worker, bringing healing and comfort to the sick, and filling with enthusiasm hundreds of eager students who flocked to benefit by his teaching. And few men were better equipped for the work of clinical teaching than Dr. Fraser. He was an accomplished chemist, and his investigations on urinary calculi and the constituents of urine were admirable pieces of work. At a time when the microscope was little used Dr. Fraser was an expert microscopist and a pathologist of no mean order. His acquaintance with medical literature was wide and minute, and when to those acquirements were added that of an acute, logical intellect, and a keen sympathy with students, it was not to be wondered that he became the Clinical Teacher of the Medical School and the favourite of the students.



Photograph by] DR. ANGUS FRASER. [Messrs. Mackie, Aberdeen

For Dr. Fraser was a students' man, not alone from his sympathy with them, nor for his stores of knowledge placed at their disposal, but for his approachableness and comradeship. No air of mystery surrounded him. There was no aloofness. He was one of themselves. In the ward, though ready to communicate, he was as willing to receive and discuss. Here he was at his best, and it was an interesting and rather amusing sight to see him and his students grouped round a patient, with heads close together, listening for some obscure bruit through his multiple stethoscope, humorously called "Fraser's octopus."

And to the end of his career Dr. Fraser remained in the front rank as a clinical teacher. He worked hard and read extensively, and his medical library was perhaps the finest private library in Scotland. (It has been bequeathed to the Aberdeen Medico-Chirurgical Society.) When the Chair of Pathology was founded in the University, he attended the practical class to get in touch with the latest methods in pathology and bacteriology. His room in the infirmary was richly equipped with every apparatus to assist him in his work, and his students had opportunities of seeing and practising methods of investigation in bacteriology, chemistry, and pathology which are usually handed over to specialists on these subjects.

In treatment his methods were simple and conservative. Although willing to try the newer remedies he preferred the old, and knew exactly what he could accomplish by them.

Not the least of the services he rendered to the infirmary was that which followed an after-dinner speech delivered nearly thirty years ago, in which he criticized its equipment and its management. Though his remarks were ill received by the directorate at the time, they led to an alteration in the management, to reconstruction, and an extension of the buildings, which have culminated in the modern and up-to-date pile which is a credit to the city and to the medical school.

Another of the medical charities with which Dr. Fraser's name must always be intimately associated is the District Nursing Association. Along with Miss Catherine Lumsden he took a leading part in its inauguration, and he occupied the chair of management from the commencement till about three years ago. Through his efforts the present home was procured and furnished, and his patronage was a guarantee to the community of the value of the scheme. There was deep regret when he felt the burden of years made it necessary to sever his connexion with this institution.

As time passed he built up a large private practice, and became the leading consultant in the North of Scotland. His personality, his skill, and his optimism begat

confidence, and brought cheer where he could not bring healing. He was no alarmist to magnify the minor ailments, and he used humorously to say that some of his patients refused to send for him because all he did for them was to put them to bed.

From his student days he retained his connexion with the University, serving it as Lecturer, Examiner, Assessor, and Representative on the General Medical Council, and took a keen interest in all connected with medical education and university work. To these he brought a business capacity, energy, and an intimate knowledge of the requirements of the times that were invaluable in shaping the future of medical education. He was Examiner in Medicine from 1869 to 1872. In 1889 he was elected one of the Assessors of the University Court, which office he held unopposed until last year. He was appointed University Representative to the General Medical Council in 1892, and was Convener of the Finance Committee, taking an active part in the University extension. In 1901 the University showed its appreciation of his services by conferring on him the degree of LL.D.

In politics Dr. Fraser was an advanced Liberal. He served for several years as Chairman of St. Nicholas Ward Committee, and was Chairman of the Aberdeen Liberal Association when the split in the Liberal Party occurred over Home Rule. He was an ideal chairman, and turbulent spirits felt that a strong hand grasped the reins. He was active in securing the return to Parliament of his friend, the Right Honourable James Bryce, with whom, and with Mrs. Bryce, Dr. Fraser had a warm friendship. His politics, unfortunately, formed a bar to his obtaining the Chair of Medicine in the University after the death of Dr. Smith Shand, as somewhat ungenerously a section of his political opponents strenuously opposed what would have been a most popular and well-deserved appointment and a generous acknowledgement of the merits of an opponent. This disappointment did not embitter Dr. Fraser in the least, nor turn him aside from his work. His Liberalism increased with his years, and only a few weeks before his death he remarked to the writer how much he was in sympathy with many proposals of the present time that were regarded as socialistic and extreme, and his belief that they would become commonplaces in the politics of the next generation.

Dr. Fraser was Physician to the Aberdeen Deaf and Dumb Institution, Medical Officer of the Aberdeen Post Office Staff, and Certifying Surgeon for the Factories. For twenty-eight years he was connected with the Volunteer movement, and on his retiral held the office of Brigade Surgeon-Lieutenant-Colonel in the 1st Volunteer Battalion Gordon Highlanders.

Dr. Fraser was unmarried, and is survived by his sister, Mrs. Adamson, widow of the late Rev. T. N. Adamson, Barnhill, Broughty Ferry.

One who was closely associated with Dr. Fraser writes:

Although Dr. Angus Fraser had been living in retirement for the past three years or so, still the news of his death gave rise to the feeling of personal loss to very many, to whom his figure had been so familiar during the long period of his professional life as physician, or with whom he had been actively engaged in the administration of public institutions or in political matters. His was a personality which made itself felt in whatever sphere of action he was for the time being employed, and which showed itself, perhaps, most happily when he was in his hospital wards.

As a clinical teacher he had a high and well-deserved reputation amongst his colleagues and his students, and many of the latter, now scattered far and wide, have ever eagerly given testimony to his powers of exposition. He was accurate in diagnosis, clear and neat-handed in demonstration, ready to try with an open mind all new instruments of precision, possessed of a wonderfully accurate memory of methods and of cases. From his early undergraduate days onwards he showed special interest in chemistry, which for a period he taught in the university during the absence of the professor, and he was always ready to employ his knowledge in the clinical observation of complex cases involving accurate urinary analysis, which was a field he had made peculiarly his own. Furthermore, in the early days of pathology as an exact science he succeeded in making himself familiar with section cutting and staining, and became an expert microscopist: so that the establishment of a Chair of Pathology in the university was welcomed by him, and he became a member of the first class taught by the late Professor Hamilton, although by that time he was busily engaged in the practice of his profession and had charge of wards in the hospital.

His ability was early recognized by his teachers, and the late Dr. Kilgour, whose name is still familiar amongst us as a master of medicine, showed him especial favour, so that in the course of time Dr. Fraser became the natural successor to his practice, and very soon attained a wide reputation as a consultant in the North of Scotland.

While thus busily employed in teaching and in his private work he found his relaxation, for the most part, in his library, which on the medical side was remarkably extensive, being drawn from English, American, and French sources, and in the lightest of current literature, a taste for which he shared with at least one very well-known *littérateur* whose views on the subject are well known to many.

He was interested in all the new devices which could be turned to account in his teaching, and, indeed, in all things of modern mechanical type, from stethoscopes to typewriters, lithographing and printing outfits, gramophones, and motor cars, of which he always had the latest approved models. So also in his reading, though by no means unmindful of the classic clinical teachers for whom he had the greatest reverence combined with an accurate knowledge of their writings, new editions immediately on their publication replaced the older ones, were carefully but rapidly read, and the true as well as the new critically examined and retained for use.

He was essentially of the town, and took his holidays—which in late years became infrequent—for the most part in London and Paris, where he haunted bookshops and instrument makers, to return home eager to test some new acquisition in his wards or in his book-room.

When his health made it imperative for him to give up his work, the parting with his hospital duties gave him the sorest pain, and very soon thereafter he confessed that the sight of new medical publications had become almost unbearable seeing that they were no longer to be of practical value to him. Still to the very end his table and even his bed was littered with medical journals, book catalogues, and works of reference, of which he had a marvellous assortment.

During his active life he was an enthusiastic member of the various medical societies of the city and district, where his genial criticism was a distinct feature of the meetings, while his presence was always welcome at the annual dinners.

Dr. Fraser's advice in all matters of difficulty was always at the service of his professional brethren and friends, by whom it was greatly valued, and in this respect as in many others his loss will be severely felt.

WILLIAM HENRY FOLKER, F.R.C.S.Eng.,

CONSULTING SURGEON, NORTH STAFFORDSHIRE INFIRMARY.

We regret to record the death of Mr. W. H. Folker, F.R.C.S.Eng., which took place at his residence, Bedford House, Hanley, Staffs., on March 26th, in his 86th year. The end was not unexpected, as he had lapsed into complete invalidism for the last three years.

Mr. Folker was born at Brighton in 1826, and was educated at New College School, Oxford, under George Valentine Cox, M.A. Subsequently he was apprenticed, as was then necessary, to James Fernandez Clarke, who was then on the staff of the *Lancet*; he became a student at Charing Cross Hospital, where he gained several prizes, including the final silver medal for clinical work. He also studied in Paris under Trousseau, Velpeau, Nélaton, Malgaigne, Ricord, and Dubois.

In 1851 he took the diploma of M.R.C.S.Eng., and in 1853 was elected House-Surgeon to the North Staffordshire Infirmary, which post he resigned three years later in order to begin general practice in Hanley. But his dissociation from the hospital was not of long duration, for in 1858 he was elected to the visiting staff as Honorary Surgeon, and held that office until 1890. From that date until 1892 he undertook the duties of Surgeon to the newly-formed Ophthalmic Department, and then retired as

Consulting Surgeon. His active interest in the hospital was, however, well maintained, and as Vice-President in 1904–5 and as President in 1906 he threw himself into administrative work. In 1899 he had given the first impulse to the movement for the erection of the King Edward VII Nurses' Home, and saw his project realized three years later in the fine building wherein the hospital nursing staff are at present accommodated.

Mr. Folker gained the diploma of F.R.C.S.Eng. in 1864. He was one of the first batch of certifying surgeons appointed by the Home Office under the Factory Act, and held his post until a few years ago, when he resigned, and was succeeded by his son.

His year of presidency of the Staffordshire Branch of the British Medical Association was signalized by a remarkable address on the Surgery of the Extremities, in which he compared the results of the many changes and advances in technique with which he had been personally associated. He also contributed occasional papers to the medical journals, mainly in connexion with his own modifications of the operations for the cure of haemorrhoids and varicose veins, which involved the specially devised instruments now bearing his name.

He was an enthusiastic member of the volunteer service, having joined it in 1859. His appointment as Battalion Surgeon to the 1st Battalion Staff Volunteer Rifles followed in 1860. He was decorated for long service, and retired in 1886.

He was a sound, but not militant, Conservative in politics, and a Past Master of the Sutherland Lodge of Freemasons, 451, and held provincial rank in the Godefroi de Bouillon Preceptory.

During his long life in North Staffordshire Mr. Folker had endeared himself to a wide circle of friends, whose esteem found notable expression in a dinner given in his honour in 1903 to celebrate the jubilee of his connexion with the North Staffordshire Infirmary. A placid geniality of disposition, an unswerving steadfastness in friendship, and an invincible optimism were his main characteristics, and this combination of qualities inspired him to a well-nigh perpetual youth. The younger members of his profession were instinctively aware of his kindly attitude toward them; and when, at their frequent invitation, he dispensed the ripened advice of a senior, he displayed at the same time the generous and comprehending sympathies of a contemporary.

Mr. Folker married in 1857 Ellen Jane, daughter of the late George Henry Fourdrinier, the celebrated paper maker, and leaves four children living, the eldest son being at the present time Ophthalmic Surgeon to the North Staffordshire Infirmary.

EVAN ROBERTS, M.D.Brux., M.R.C.S.Eng., etc.,

PENYGROES, N. WALES.

DR. EVAN ROBERTS, one of the oldest members of the profession in the Principality, passed away on Tuesday, March 19th, in his 83rd year.

He was born at Dolbenmaen, Carnarvonshire, in 1829, and was apprenticed to Mr. Rowland Williams of Tremadoc, a surgeon of very considerable repute, who, although he died at a comparatively early age, gave three men such a start in life that they all became in their day leading practitioners in Carnarvonshire; by the death of Dr. Evan Roberts the last of the good old school has gone.

Having completed his apprenticeship he became a student at Anderson's College, Glasgow, and after a successful career took the diplomas of M.R.C.S.Eng. in 1856 and that of L.R.C.P.Edin. in 1859 and the M.D. of Brussels in 1878. In the latter part of 1856 he settled down in the Nantlle Vale, was appointed Surgeon to the Nantlle Vale Quarries and Copper Works, and soon acquired a very large and extensive practice. Blessed with a strong constitution, active, and full of energy, he for thirty-five years worked very hard, in fact very few men have ever worked harder. Being particularly fond of riding, in his early years he did most of his work on horseback; he was reckoned to be one of the best cross-country riders, and as a rule made short cuts to visit his patients.

Although a very busy man he found time to do a large amount of public work, and served on many public bodies. More particularly he did much for education in the district, and was for many years Chairman of the local School Board.

Of a very kind and sympathetic disposition with a strong vein of good humour, he did an enormous amount of charitable work. He was the friend and adviser of the whole countryside, the widow and the orphan found in him a wise and sympathetic counsellor, and he himself was never happier than when doing a good turn to others.

His tales of the conditions of practice in the late Forties and early Fifties, his experiences of the pre-chloroform days, and his account of his own, often thrilling, adventures on the Welsh hills, made him an intensely interesting companion. Dr. Roberts was an ideal country practitioner. He knew the history of every man, woman, and child in his district, he loved his profession, and was ever jealous of its honour and best traditions. Close on twenty years ago he practically retired and only saw some of his oldest patients, but he never could be idle; he found interest in other pursuits, more especially farming. He was a great reader, and his store of general knowledge was quite remarkable. Some few years back he became very deaf, and his books afterwards were more than ever his companions. Although the loss of his hearing was a great misfortune for a man of such active tendencies, yet he never lost his usual brightness, and he enjoyed life to the end. Even at his great age he was alive to the modern discoveries in medicine and surgery, and up to a month before his death regularly read the BRITISH MEDICAL JOURNAL.

He always had a great fondness for animals; his horses and his dogs were his pets, and it was a familiar sight to see the "old doctor," as he was called, driving in his pony trap with a little Aberdeen terrier sitting by his side.

In 1861 he married Mary, the daughter of the late Mr. Hugh Jones of Coedmadoc, and in May of last year they celebrated their golden wedding.

He was buried in the family vault at St. Rhedyw's Parish Church, Llanllyfni, on Saturday, March 23rd, and the immense funeral—the cortage being nearly a mile long—testified that no ordinary man was being laid to rest that day, for the whole country around had come to pay their last tribute of respect to one who had devoted his life to the welfare of the Nantlle Vale for over fifty years.

Dr. Roberts leaves a widow, a daughter, and four sons. Two of his sons, Dr. H. Jones Roberts and Dr. E. Shelton Roberts, succeeded to his practice.

THE death is announced of Dr. EDWARD DIVERS, F.R.S., at the age of 75. He was educated at the City of London School, the Royal College of Chemistry, and Queen's College, Galway, from which he took the degree of M.D. In 1870 he was appointed Lecturer on Medical Jurisprudence at the Middlesex Hospital Medical School, but in 1873 went to Japan as Professor of Chemistry in the Imperial College of Engineering. In 1882 he became Principal of the College, and on his retirement was made Emeritus Professor of Chemistry in the Imperial University, Tokyo. He was President of the Section of Chemistry of the British Association in 1902, and of the Society of Chemical Industry in 1905.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Professor Albert Schütze, head of the Bacteriological Institute of the Moabit Hospital, Berlin, who had gone on the Tripoli Expedition as a member of the German Red Cross Society, and succumbed to typhoid fever at the Turkish head quarters at Gharian, aged 40; Dr. E. Windels, of Berlin, a member of the Business Committee of the German Medical Union, aged 63; Dr. E. G. A. Landergren, Lecturer on Physiology in the Medical Faculty of Stockholm; Dr. F. Zachrisson, Lecturer on Surgery in the University of Upsala; Dr. Federico Oloriz y Aguilera, Professor of Descriptive Anatomy in the University of Madrid; and Dr. Leonard Weber, Emeritus Professor of General Medicine in the New York Post-graduate School, formerly President of St. Mark's Hospital.

Letters, Notes, and Answers.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

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CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look for the Answer to Correspondents of the following week.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, London, W.C.; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Office, 429, Strand, London, W.C.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):—
2631, Gerrard. EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard. BRITISH MEDICAL ASSOCIATION.
2634, Gerrard. MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

M.A., M.R.C.S. asks for a scientific explanation in technical language of the following terms constantly used by the laity and also by some members of our profession: (1) Poorness of blood, (2) impoverishment of the blood, (3) rising of the lights, (4) a chill, (5) a chill on the liver.

J. W. T. asks for any reference to literature dealing, from the scientific point of view, with the miracle of the liquefaction of the blood of St. Januarius, which is said to occur once every year at Naples.

A. W. S. asks to be advised as to any standard to be adopted in the examination of candidates for admission to a friendly society, grounds of rejection being particularly important, especially at the present time when men are being pushed forward in large numbers.

Asparagus.

B. B. G. asks for information as regards the eating of asparagus by the gouty, and whether its use is likely to prolong a gonorrhoeal discharge.

ANOTHER correspondent asks for information as to the value of asparagus as a vegetable and as to the active principle.

*** Dr. Robert Hutchison (*Food and the Principles of Dietetics*) gives the following as the composition of asparagus: Water 91.7, nitrogenous matter 2.2, fat 0.2, carbohydrates 2.9, mineral matter 0.9, cellulose, 2.1; fuel value per pound 110. He adds that asparagus contains asparagin, which confers upon it slight diuretic properties. The characteristic odour in the urine which follows the eating of asparagus is due to a volatile sulphur compound which is produced from it in the intestine. Potatoes also contain asparagin, and Dr. Hutchison points out that while its direct nutritive value is *nil* there is reason to believe that it plays a useful part in the intestine by limiting putrefaction, and so sparing proteins from destruction. It may also promote the absorption of proteins and carbohydrates into the blood.

Definition of "General Hospital."

M. L. asks what is meant by "a general hospital" in relation to official recognition of nursing certificates.

*** We know of no definition, and can only say that the accepted meaning of the term "general hospital" is a hospital which takes in men and women and all kinds of cases, and is not a special hospital for fever or special diseases. The only cases which are not always taken in a general hospital are infectious cases and midwifery, and experience in nursing these cases has often to be obtained after a nurse has taken her certificate for general training. One or two hospitals, such as the Dreadnought at Greenwich, have arranged for their probationers to serve for a certain time at a women's hospital so as to enable them to obtain a general certificate, but as a rule the training has to be obtained in one hospital.

ANSWERS.

J. M. D.—Mr. Leipoldt's little book, *Common sense Dietetics* (Williams and Norgate, price 2s. 6d.), would be a suitable book for an intelligent layman.

Dead Fingers.

DR. G. LLOYD JONES (Cambridge) writes, in reply to C. F., to recommend calcium lactate in the treatment of "dead fingers" in doses of 10 grains three times a day. After a time it may be necessary to repeat the treatment. He usually gives this prescription: R Calcii lactatis, gr. x; ac. lactici, gr. ij; syr. aurantii, 5j; aq. chlor. ad 5ss. Ft. haust.; ter die en aqua post cibum sumendus. In cases of chilblains the effect is also very good.

LETTERS, NOTES, ETC.

A Disclaimer.

DR. H. W. S. WILLIAMS of Holywell, North Wales, desires to disclaim any connexion, directly or indirectly, with a paragraph published in a local paper in which his name and that of his assistant are mentioned.

Explosions in Coal-mines.

TERRA writes: I fail to grasp the idea that the reduction in quantity or percentage of oxygen would lessen the risk. Electric light is not used to any extent in collieries. I am satisfied that the cause of miner's nystagmus is chronic gas poisoning. Hence the increase of oxygen is exactly what is required, not the reduction. According to regulations there must be at least two shafts, and they must be at least fifteen yards apart. To reduce explosions and to exterminate miner's nystagmus, there ought to be a greater number of shafts, and these further apart.

Curettage and the Mechanism of Menstruation.

DR. JAMES OLIVER (London) writes: In spite of the many weighty evidences of a clinical character which can be adduced in favour of the view that menstruation is an excretory phenomenon, and which controvert the usually accepted theory that menstruation is due to a more or less extensive degeneration of the mucous lining of the uterus, still our gynaecological textbooks cannot even condescend to take notice of the former as an alternative theory. Stereotyped notions are difficult to abate. It, however, there is at each recurring menstrual period a degeneration and regeneration of the uterine mucosa, it is irrational to advise—as most textbooks do—curettage as a remedy for endometritis, especially as, in the majority of these cases of so-called endometritis, the curette fails to make any very evident impression upon the mucosa.

Dysentery and Liver Abscess.

CAPTAIN R. T. WELLS (Jullundur, Punjab) writes: On p. 453 of your issue of February 24th reference was made to myself as joint author of *Scientific Memoir*, Government of India, No. 47, on Dysentery and Liver Abscess in Bombay. I should like to point out that as indicated in the introduction to that memoir (p. 1), the responsibility for the form in which the report is presented was not shared by me. The only contribution made by me to the memoir was in the form of an independent note on the report. By some error this note was printed in the text of the memoir among the general conclusions (No. 15, p. 53). I should be glad if you would kindly publish this explanation.

The Nature and Origin of Cancer.

DR. ARTHUR J. BROCK (Edinburgh) writes: One last word to Dr. Shirlaw. He is wrong in thinking that I profess to "explain" what life is. All "explanations" belong to the province of reason, which is itself but one manifestation of life, and therefore unable to include that of which it is but part. But, as a practical man, I am convinced that in our subjective experience of "will" we get nearer to a realization of what life is than we ever could by any amount of objective investigation or reasoning. We do not "understand" life; we cannot "explain" it; we feel it. Now, what I call "life" or "will" Dr. Shirlaw calls an "actuating force." But he says he does not want to "tamper" with it; he is "content to deal with the bodily machinery and its defects." Well, nobody asks him to tamper with it, but there is no reason why he should not manipulate it in a legitimate manner for his own purposes. Has Dr. Shirlaw never told a patient to "buck up," to "pull himself together," and got him to do it? If so, he has at that moment abjured his preference for "the clearer atmosphere of materialism," and soared into the "abstract" but practical region to which I have all along been inviting his attention. Dr. Shirlaw's theory of a *Heat trium sectionum* as being what Harvey called "the efficient cause of the chicken," and accordingly *ex concessis*, as being also the long-sought cure for cancer, is well, isn't it rather too simple? We shall, however, await further clinical reports from Wigan.

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An Address

ON

TUBERCULIZATION AND DETUBERCULIZATION.

Delivered before the International Congress on Tuberculosis at Rome, April, 1912.

BY

R. W. PHILIP, M.D., F.R.C.P.,

PHYSICIAN TO THE ROYAL INFIRMARY, EDINBURGH.

The tuberculization of the race is a grim chapter in human history. The universal distribution of tuberculosis throughout the civilized world is a fact of immense significance. Tuberculosis has accompanied civilization. Tuberculosis is not essential to civilization. Mankind is responsible for tuberculosis. It is a vicious by-product of an incomplete and ill-informed civilization.

If the baneful outcome of misguided civilization has been tuberculization, the rôle of an enlightened civilization must be detuberculization. What an ignorant civilization has introduced an educated civilization can remove.

Detuberculization implies an intelligent and comprehensive movement of mankind towards the eradication of tuberculosis, as the cause, not only of immediate disease and death, but also of a vast amount of devitalization. It is an expression of the far-reaching claim that health and vitality are the inherited right of the human species, and that the entrance of tuberculosis implies unnecessary interference with that right.

The demand for detuberculization is not bounded by the limitations of medical science and practice. It is the voice of a mighty purpose conceived by mankind, to be carried out by mankind, in the interest of mankind. It signifies a conscious effort of the race to rehabilitate itself—to remove the disharmonies and disabilities which tuberculosis entails. It is a *renaissance*.

The events which culminate in tuberculization are of deep human interest. Go back in the history of the race and the individual, and a point is reached where tuberculosis as a morbid factor disappears. Savage man hardly knows it. Like cattle living and breeding in the open, he was free of it. The aboriginal races developed tuberculosis only when, retiring from an absolutely free life in contact with Nature, they began to clothe themselves with the raiment and impedimenta of civilization. The Red Indian, in the State reservations on the American Continent, is to-day pining with tuberculous infection, fostered by the very conditions which were created for his protection.

And so of the individual. All evidence tends to show that the child is not born with tuberculosis, or, at least, that this happens but rarely. The offspring of tuberculous parents are commonly healthy at birth—sometimes unusually fine products. One of the more valuable contributions which recent methods of diagnosis have yielded is the fact of the relative infrequency of tuberculization during the first six months of life. Thereafter the curve of incidence of tuberculosis rises steadily.

We owe to the genius of him, whose presence at our world Council we miss to-day, and to whom be the honour—we owe to him the revelation of the essential cause—the *causa causans*—of this widespread infection. The discovery of the tubercle bacillus illuminated the all-prevailing darkness. So great, indeed, has been the brightness of illumination that other issues seem almost to have been obscured. There is just a danger lest attention be concentrated too much on the tubercle bacillus, and that thereby sight be lost of that other factor in tuberculization which is of little less account—namely, environment—using the term in the widest sense.

The facts of natural and experimental tuberculization illustrate the point in striking manner. While essential to its production, the presence of the tubercle bacillus is not the *sure* antecedent of successful inoculation. The process of inoculation is slow and uncertain. The bacillus is a parasitic form of feeble growth. It demands specially favourable conditions. These conditions must be maintained more or less uniform, especially at the start. Growth is readily obstructed. The rabbit inoculated with tuberculosis, and thereafter allowed to return to relative freedom of life and movement in the air, has a different prospect in respect of tuberculization from a rabbit similarly inoculated and afterwards confined to its hutch.

In like manner in the human subject, it is impossible to doubt that in countless instances and on frequent occasions tubercle bacilli, in sufficient dose and with sufficient vitality, are introduced, and yet nothing follows because of the absence of favouring environment. Even after successful inoculation, while the feeble parasitic life is struggling to assert itself on the more or less resistant soil, the conditions of environment remain the determinant influence. With sufficient modification of this, there may be added to the equivocal resistance of the body that indefinable something which renders resistance effective. Such modification of environment, in the large sense, is possible from day to day during the prolonged period of incubation—when from the clinical standpoint nothing is evident and tuberculization may not be suspected.

Still later, when there can be no longer doubt as to successful inoculation—when disease has shown its presence by unmistakable symptoms and signs—how frequent is the occurrence of complete arrest of the parasitic invasion! What is the *motif* of so-called sanatorium treatment but alteration of environment and return to the physiological? After its successful adoption, there may remain nothing but faint traces—often determinable only on minute search—of the skirmishing of the defeated force, and the protective arrangements created by the body in response to the attack.

There exists a grave misconception as to the amount of tuberculosis in every civilized centre. It entails corresponding misunderstanding of the needs and methods of detuberculization. It is the outcome of direction of observation too much towards what may be described as the finished product—namely, on the one hand, the advanced case of tuberculosis, and, on the other, the mortality table. The conception covered by the term "phthisis," which unhappily dominates the nosological field, has obscured the larger view and been a stumbling-block to progress. It is time that as physicians and sociologists we recognize the underlying fallacy.

The classic description of phthisis, which continues in medical literature, requires revision. Students of disease must be taught that the enigma of the centuries is now solved by anticipation, and that phthisis—rightly described as the opprobrium of medicine—need no longer exist. The mediaeval portraiture of phthisis must be replaced by scientific delineation of the earliest manifestations of tuberculization, realizable through experimental or clinical study.

The artificial distinction between so-called medical and surgical tuberculosis has been the source of much confusion and error. What we want to keep in view is the fact of tuberculous inoculation. The point of entrance matters less. The natural history of the disease reveals a sluggish spread from point to point, until, if invasion be unchecked, point after point is yielded and the whole system is undermined.

Who would think of limiting the clinical picture of syphilis to that of the grosser visceral lesions? There are numerous points of analogy between the spread of the tubercle bacillus and the *Spirochaeta pallida* throughout the body. The time will come when the physician will regard what now, for the most part, passes current as the diagnosis of tuberculosis in much the same light as the belated news of the foot messenger contrasts with that of the telegraphic wire or Marconi receiver.

The sociologist can no longer content himself with the facts of registered mortality. Each death reminds him of the long procession of months and years during which tuberculization was in progress—a process which, so far as the individual was concerned, might have been checked, had the etiological conception and the antagonistic ideal been practically understood, and a process which, *pari passu* with its advance in the given individual, implied potential tuberculization for many more.

We must look tuberculosis straight in the face. As physicians and sociologists we must realize the unity of tuberculosis in its ever-varying manifestations, and recognize that potentially the seedling of tuberculosis is no less

significant than the full-grown tree. We find solace in the reflection that the conditions for reproduction and development demanded by the tubercle bacillus are essentially conditions which are inimical to human life, and that the conditions desirable, if human vitality is to be more than mere existence, are precisely those which are inimical to the life of the bacillus.

With the facts as they are the duty seems plain—to decline to sanction an existence synonymous with devitalization and lowered natural resistance, which is the likely precursor of successful tuberculization.

Let me give one or two illustrations.

Take, for example, the question of age incidence in tuberculosis. The common view—embodying a tradition which dies hardly—is that tuberculosis is especially a disease of adolescence and early manhood. The conception is traceable to the fact that about that age tuberculosis often reveals itself through unmistakable appearances, and thereafter runs a downward course. The phenomena of disease are now so striking that the attention of the man in the street is arrested.

> Non frondi verdi, ma di color fosco;
> Non rami schietti, ma nodosi e involti;
> Non pomi v'eran, ma stecchi con tosco.

Yet, after all, these distressing features are mere incidents in the natural history of tuberculosis. In the majority of instances the tuberculous infection, of which the immediately grave activity is the efflorescence, has existed for a long time within the system of the infected person.

Pathological and clinical facts have steadily accumulated which show that, for the most part, the tuberculosis of adolescent and adult life is but the harvest of seed sown years ago. The more carefully pathological examination has been carried out in children dying from all kinds of disease, the more we are forced to believe that the advent of tuberculosis in childhood is most frequent. Statistics of numerous pathological observers tend towards the common conclusion that by the time the fifteenth year is reached 75 per cent. of children have been tuberculized.

From the clinical side no less striking facts have emerged as methods of examination have been refined. In an address before the last Congress at Washington I stated that personal observations in relation to school children at Edinburgh had led me to conclude that at least 30 per cent. of such children presented evidence of tuberculosis determinable by ordinary clinical tests. Subsequent observations have convinced me that the estimate is within the truth. It is strikingly corroborated when, in addition to the determination of physical signs, recourse is had to one or other adaptation of the tuberculin test. The collective evidence from different countries goes to show clearly that it is possible to recognize clinically the existence of tuberculosis in the majority of school children.

If this be admitted, the question arises, To what extent has the tuberculous seedling been directly considered and handled with a view to prevent its passage onwards to the full-grown tree?

From the point of view of detuberculization every tuberculous seedling is of equal significance. It is impossible in advance to say which seedling will abort and which will pass on to larger fruition. Manifestly, if tuberculous seedlings exist to the amount indicated, our standpoint requires to be shifted. The seedlings must be watched and treated with the most careful precision of which scientific medicine is capable. The process of tuberculization must be antagonized at the outset by the methods of detuberculization.

The fact that such a large percentage of the young of the human species become infected by tuberculosis raises in cogent fashion the question of the dependence of tuberculosis on conditions which ought not to be tolerated. Granted that the infant is not born tuberculous and that tuberculization is a gradual process, it must be possible, by intelligent and patient application of the larger preventive measures, to prevent fructification of the seed whose harvest is so doleful.

Take another illustration. Recall the classic description of phthisis—the delicate pink and white colouring, quickly changing, the hectic flush, the cough, the hasty, shallow respiration, the rapid pulse, the pyrexia, the night sweats, the feeble, worn frame, the wasted muscles, the prostration:

> Defessa jacebant
> Corpora; mussabat tacito Medicina timore.

Looking at this picture of unutterable devastation, recall the fact that it is all referable to the successful entrance of a few tubercle bacilli commonly years before. Recall the natural obstacles to successful invasion, the countless barriers, the defensive army of phagocytes. Alongside the tragic and pathetic vision of vanishing life and a disintegrating frame, recall the extraordinary metamorphosis that is effected, even in cases of advanced disease, when poisonous and stifling environment is amended by what we are wont to term "sanatorium" measures—measures which, after all, are essentially physiological.

The aspect of the patient becomes altered as by the magician's hand. The delicate, transparent colour becomes transmuted into the ruddiness of health. Pyrexia melts away. The pulse slows and blood pressure rises. Night sweating and cough disappear. Every function participates in the recovery. The patient's working capacity is gradually restored. He is recreated.

In watching this marvellous metamorphosis from tuberculization to detuberculization—even when the latter falls short of completeness—is it possible to avoid the conclusion that the continuance of tuberculosis is dependent on the will of man? He permitted its entrance and he is responsible for the maintenance of conditions without which the tubercle bacillus is almost powerless. It is high time that he use his right of veto.

Successful use of this power means an intelligent grasp of the principles and methods of detuberculization. These principles are simple and broad. Their application, although of greater complexity, is not beyond the wit of man.

Were it possible to begin afresh the scheme of civilized life, were it possible to undertake anew the creation of cities and the homes of our people, were it possible to place within the recreated dwellings an understanding race, possessed of determination to exclude tuberculosis, detuberculization might be quickly attained. What a magnificent opportunity for the builders of new cities, the moulders of fresh civilization, with the grand purpose of "No tuberculosis"! The architect, the sanitarian, and the citizen would agree in insisting that physiological laws should be paramount, that there should be effective obedience to the larger demands of hygiene in the home, the school, the workshop, the meeting-place, and the cowshed.

Mankind was born into air and sunlight. These are his natural heritage. They are more—they are the irreducible conditions of his life. Other of his needs may be reduced without penalty. In proportion as these primary conditions are reduced, a penalty is exacted in the sense of disturbed function, diminished vitality, disease and death.

Parsimony in light and air—supplies of which may be had for the taking—is a physiological blunder fraught with grave consequences. Imperfect oxygenation means imperfect metabolism. There is no end to the possible disturbance of function. With disturbance of function comes lowered resistance of tissues and the preparation of the soil for successful invasion. All the while the condition of airlessness and sunlessness affords direct advantage to the tubercle bacillus.

How little is the inwardness of the simple truth realized! Mankind, purblind, stumbles about the planet with its marvellous potential of perfect vitality. By reason of his atrophied senses he fails to accept practically the dependence of health on two or three elemental principles, and allows himself to be cajoled into giving up his birthright by meretricious promises of protection and comfort. With astounding folly he starves at a banquet of the gods.

The civilizations of the world are languishing because men and women prefer an atmosphere of their own creation to that by which they live and move and have their being. Through dread of something they have misunderstood, misrepresented and mislabelled they continue to expel the all-pervading, life-giving essence by which every physiological activity is accelerated. They poison themselves, their children, and their dependants, with the inevitable result in devitalization and disease. If the

picture seem overdrawn I ask you to contrast the atmosphere with which Nature thought fit to surround the race and the miserably mean, half-used and tainted supplies to which it has been reduced through ignorant parsimony.

In the circumstances tuberculization is a strictly natural result—no less natural than detuberculization when the conditions are reversed.

What is true of man is no less true of cattle. The overcrowded, airless, foul and infected byre repeats for the calf the gruesome stages of tuberculization. The first step towards a wholesome milk supply is the recreation of the environment of the cow.

The facts of comparative pathology support the view. A pretty illustration may be had from the experience of zoological gardens, where an extraordinary improvement in health has occurred when animals from warm countries, for whom specially heated houses were formerly thought necessary, have been boldly placed in the open air. The tendency for the caged monkey to become tuberculous is overcome when open-air measures are pursued. Japanese apes brought to London, instead of being placed in superheated apartments, have been kept outside, with the result that, for the first time on record, they have bred under captive conditions, and the offspring have proved strong and vigorous. Similarly, a fine mandril, which had lived in France in a small cage heated with a stove, was transferred in London to the open air, with rapid improvement in health and the development of a magnificent coat. If only man would read Nature's lesson and understand that it is we who "arm the fates to bruise or caress us"!

The highest expression of detuberculization is immunity. The consummation is not unthinkable. It is not impracticable. It is realizable by the framers of new cities in new countries in proportion as physiology inspires the plans and governs the administration.

Then, the living place, private and public, would conform to physiological law. The ideal of the citizen would be light and air. Every apartment would have the maximum supply. Windows would be framed so as readily to admit both. From infancy the citizen would be trained to regard the dual function of the window as vital to life and health, day and night. The nursery and the schoolroom would be redolent of air and sunlight. Every school would be an open-air school. Much of the work would be done outside. Throughout the town open spaces would abound, wide streets would be the rule. Crowding in dwellings, offices, workrooms, factories, meeting places, would constitute a crime. The housing of cattle would be similarly regulated. In such a city tubercle need never appear.

Notwithstanding the faults of environment which have marred the march of civilization, the human race has attained some degree of immunity. Taken as a whole, the race has resisted tuberculosis well. Had it been otherwise, the civilized peoples of the world would long ago have been wiped out by the infection.

This natural resistance explains in part the slow and uncertain footing which the tubercle bacillus gains in the human subject. Whether the resistance be the outcome of prolonged exposure of the race to tuberculosis, generation after generation, is a moot point. Attractive as the conception is, its validity is not beyond dispute. Were immunity attainable thus, there should be now a more uniform mortality from tuberculosis among the older civilizations than is the case.

Whether we are to interpret the occurrence of slight tuberculous affections—for example, of glands, or other limited involvement—as contributing, when recovery is established, to immunization is not quite certain. The facts might bear the construction. Yet, having regard to the naturally slow development of the bacillus, it is not surprising that in frequent instances the infection should be arrested at one or other of the successive barriers to which reference has been made.

There can be no doubt as to the increased resistance which the human body offers to the tubercle bacillus under satisfactory conditions of environment. It is more difficult to be positive as to the effect of an arrested local infection in relation to subsequent immunity. Cases of tuberculosis at all stages, which seem to have been arrested, frequently present themselves later with recrudescence of disease. Indeed, the alternation of such remissions and exacerbations is a characteristic of tuberculosis. Such incidents constitute difficulties when we try to formulate conclusions regarding the modus of natural immunization.

What are we to say of artificial immunization? The prospect of vaccine-therapy seems bright with hope. Continuous and watchful use of tuberculin since its introduction in 1890, in relation to very many and varied manifestations of tuberculosis, has convinced me that, when commenced early enough and controlled by accurate clinical observation, tuberculin is capable of hastening the arrest of the spreading infection. The limitations to its use, which exist both on the physiological and anatomical side, are chiefly due to delay in adopting the procedure. If this be set on one side, the view is justified that tuberculin yields results in the direction of detuberculization of the individual which are not certainly attainable by other procedure.

The pressing, practical problem before the world is how to hasten the detuberculization of existing populations in the older civilizations. Faced with the fact that hundreds of thousands die every year of tuberculosis, and still greater numbers are poisoned and crippled by the infection, what are the lines on which to proceed towards detuberculization of the vast crowd?

While each country must be left to work out the scheme of detuberculization on lines suited to the character and traditions and customs of its people, certain general principles are common to every effective scheme. To these broader aspects of detuberculization I would devote the brief time which remains.

Assuming that it is the intention of a community or a nation to detuberculize itself, the first requisite is a clear conception of the issues. The larger facts of tuberculosis must be grasped. There must be a dropping of mere sentimentality regarding particular cases. An effective opposition must be offered to an infective, endemic disease which involves a people, and is dependent on conditions which they themselves have created.

Individuals and communities must be shown that the disease is maintained through ignorance and folly, and that its removal lies completely in their hands. Explicitly and without panic, the people must be taught from day to day that tuberculosis comes of their disregard of physiological law for themselves and for their cattle. Thereby a higher standard of national and personal cleanliness will be evolved, in presence of which the tubercle bacillus will be gradually discounted.

The education will not be mere theory. City improvements will mean the wiping out of the bacillus's breeding grounds. Each new street, each new building, will be an object lesson. The parable of the zoological garden will be transferred to the household. The airless, over-heated, and often pollated cage sometimes called nursery, sometimes school, sometimes hospital, in which the child is allowed to pine will be superseded. The general adoption of *al fresco* nurseries and *al fresco* schools will effect more in a generation than all the hospitals of the world have done throughout the centuries. Make it an offence to rear young life apart from the vitalizing atmosphere, and the detuberculization of a people is inaugurated.

What applies to the environment of the child applies no less forcibly to that of adult life, in the home, the workshop, and the meeting place. The circumstances of the child call for especial consideration because of the accumulating evidence as to the date of primary infection and because the child's environment is not of his choosing or making. It is the compulsory environment of childhood—for the most part vicious—which affords the usual entrance for the tubercle bacillus. The interest of the race demands that this shall be corrected. For if the child be trained from the first in the way he should go, when he is old he will not depart from it. The practical difficulty is not with the child, but with his guardian and teacher, *quem illuminet Apollo!*

If the large issues involved in detuberculization have been truly apprehended, there should be little difficulty in pressing for an effective solution of the problem—how to deal with the vast and varied amount of tuberculosis which already exists in the community and which is reinforced from day to day.

First and foremost, tuberculosis must be sought for. It is not enough to wait until the patient comes to consult.

It is not enough to care for the tuberculous patient when he presents himself. There must be a systematic search. The breeding grounds of tuberculosis must be raided. The tubercle bacillus must be hunted down. The protean character of its manifestations must be kept well in view.

Each manifestation requires its appropriate measure. There is no common measure for all. The individual factors in a scheme of prevention and treatment, while finely adapted to the several issues, must be correlated with care and linked together so as to form an intelligent and concerted whole.

The fault of most antituberculosis effort has been the absence of such adjustment and co-ordination. Attention has been directed unduly to one issue. Sometimes the sanatorium has loomed too much in the minds of those who have handled the problem. Sometimes two factors—alike essential to the process of detuberculization—have been pitted against each other as if they were opposing competitors. Thus the tuberculosis dispensary and the sanatorium have been championed each to the exclusion of the other by zealous advocates, impelled severally by favourable experience of one or other, forgetful that each has its sphere in the larger circle of antituberculosis activity, which, to be effective, must include both and much more besides.

The hope for the solution of the tuberculosis problem—bristling as it does with difficulties of many sorts—lies in the application of an organized plan sufficiently wide to cover all the ground.

On an occasion like the present it would be out of place to enter on details of a comprehensive antituberculosis scheme. Yet the moment is opportune for the delineation of the leading features of a system which, answering the larger needs of the tuberculosis problem, might be applicable to all countries.

In the foreground it appears clear that for every considerable community there must exist a centre, which shall concern itself in the widest possible way with the facts of tuberculosis as it exists in the area. Here every aspect of tuberculization will be dealt with, and every line of detuberculization will be conceived and realized.

Towards the centre inquiries from all sides regarding tuberculosis should be directed. To the centre patients in all stages of tuberculosis should be invited, and likewise persons who may be anxious lest they be tuberculous.

This great collecting centre constitutes the seat of diagnosis and classification of the varying types of disease. The collecting centre comes in turn to be a "clearing house." Each case will receive appropriate guidance and direction, whether at the centre itself, or at one of several residential institutions with which it should stand in organic relationship.

For example, patients for whom there still remains hope of recovery will be passed to the sanatorium with its great possibilities of treatment and education.

Another group, in whom tuberculosis has already played havoc, so that hope of recovery has disappeared, will be transferred to the hospital for advanced cases.

Others, who may have already been treated successfully in a hospital or sanatorium and to whom return to ordinary work might mean physical relapse and corresponding economic waste, will be drafted to the farm colony for prolonged supervision under favourable conditions and simultaneous education on lines of therapeutic and economic value.

The tuberculous school-child will be transferred to a special tuberculosis school in close relationship with the centre itself or with the sanatorium or farm colony, so that during the process of recovery from tuberculosis mental development may not be unnecessarily interrupted.

When the time comes for patients to be discharged from these several institutions they should be referred once more to the centre for such medical superintendence and after-care as will ensure that the recovery, in whole or in part, which has been achieved shall be maintained.

Beyond the patients who are thus drafted from the centre to one or other institutions for residential treatment there will remain a great majority of tuberculous persons for whom satisfactory guidance and treatment will be afforded through the centre itself.

By systematized operations through the agency of doctors and nurses it will come to pass that not a single case of tuberculosis need remain without observation and treatment, and that not one home into which tuberculosis has entered will be unconsidered.

This implies on the part of doctors and nurses a clearness of purpose and accuracy of method which can only be achieved by careful training.

The nurse must be taught to observe and report, and, in co-operation with the doctor, amend all faulty conditions of environment.

The doctor will not only have regard to conditions of environment, but, with keen medical eye, will hold a detailed and thorough review of all the other members of the household—what I have termed the "march-past" of the contacts—with a view to discover other cases of tuberculosis, and more especially the tuberculous seedlings, whose detection means almost certainly detuberculization of the individual and contributes correspondingly to the detuberculization of the community.

Such is broadly my conception of the aims and methods of the tuberculosis dispensary as the centre or base of antituberculosis activity for each community, and the nodus of the several elements which are essential to a complete scheme.

It goes without saying that the several elements which form the connected whole should be made as perfect for their purpose as it is possible to conceive. Too great care cannot be exercised regarding the precise adaptation of each element for its special purpose. Each must have its own purpose. Each must be a perfect machine. There must be no cross-purposes.

Perfection in the individual unit is insufficient unless the several units be correlated with care. As isolated elements they lack much of the strength and value of which they are possible in combination. What is required is the close linking up and interaction of the several units into a combined and co-ordinated scheme, which will take in hand, in understanding and thorough fashion, the varying needs of the tuberculized population in order to effect detuberculization.

This was the *motif* and continues the basis of what is now generally known as the Edinburgh Co-ordinated Antituberculosis Scheme, which commenced with the foundation in 1887 of the tuberculosis dispensary, and has been gradually evolved so as to include the various elements found to be requisite. These comprise compulsory notification, the tuberculosis dispensary, the sanatorium for early cases, the hospital for advanced cases, the tuberculosis school, and the farm colony. The scheme has, in the course of evolution, linked itself with the other authorities and agencies concerned in any way with the treatment and prevention of tuberculosis. This is essential. All influences which make for detuberculization must be brought within a common circle.

If I have allowed myself to project before this great assembly an illustration from a city in one particular country, it is from no local or limited consideration. It is because there has come evidence from many countries that the general plan and evolution of this scheme have proved serviceable as a model in the elaboration elsewhere both of the individual elements in the scheme and of the scheme as a whole.

While details in the actual working of the several elements will necessarily vary according to the views of those who have to organize and administer, prolonged study of the many-sided aspects of this great problem has convinced me that, in proportion as the modes and extent of tuberculization are rightly apprehended, some such comprehensive plan must be undertaken by every nation with a view to detuberculization.

In Great Britain the question seems rapidly ripening towards solution on these lines. For the first time in her history, the treatment and prevention of tuberculosis have been formally dealt with by Act of Parliament. The clauses of the recently passed National Insurance Act relative to so-called sanatorium benefit, which concern primarily persons insured under the Act, numbering about 14,000,000, and which may be extended to their dependants, have been generously interpreted by the Chancellor of the Exchequer as covering in very wide fashion the provision of machinery not only for the treatment, but also for the control and eradication of tuberculosis. Amidst divergence of opinion regarding some parts of the Act, there has been on all hands, both in Parliament

and outside, a remarkable unanimity in accepting the Chancellor's view.

Throughout months of unusual disquiet in the political and social sphere, there has been a fine response to this call for national activity against tuberculosis. A million and a half sterling have been specially voted for the establishment throughout the kingdom of such institutions as may be considered advisable for the whole population. Under the Insurance Act about one million sterling will be available annually for their maintenance, and means are foreshadowed whereby further funds will be forthcoming.

Not content with finding the money, the Chancellor of the Exchequer has proceeded to the practical determination of the form which antituberculosis measures shall take by the appointment of a Departmental Committee. The deliberations of the Committee are in progress, and a report may be expected at an early date upon the considerations of general policy in respect of the problem of tuberculosis, in its preventive, curative, and other aspects, which should guide the Government and local bodies in making or aiding provision for the treatment of tuberculosis.

The movement against tuberculosis has been baptized a crusade. Is the name quite descriptive of the need and purpose? Is it not rather a great reformation—the determined, peaceful emancipation of mankind from misconceptions and prejudices which civilization has entailed, and of which tuberculization for the most part is the result?

Each nation has its part to play in the revolution against a régime which means death and disability on so appalling a scale for its citizens. Each nation must be guided by its own traditions and methods. But the leading principle is the same for all—namely, the restitution of certain rights to the people by the removal of noxious and devitalizing influences. Our common purpose is the detuberculization of the individual and the community, with a view to the ultimate detuberculization of the nation and the world.

In "meditating this deep disease of life, what its far source and whence its remedy," we are faced continually by evidence that tuberculization is less the effect of the malign influence of a hidden foe than the outcome of blindness and unwisdom on our own part. The detuberculization of the world will be synchronous with the dawn of "that great to-morrow when mankind shall mend."

That is the renaissance towards which, to-day, Rome points the world. *Tempus est ut praetermittantur simulacra nostra. Incipienda est vita nova!*

THE END RESULTS OF OPERATION FOR CANCER OF THE TONGUE.

BY

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THE material for this study is based upon the case histories of 38 patients operated on for cancer of the tongue at the Bristol Royal Infirmary during the years from 1902 to June, 1911. It has been possible to obtain subsequent information in 29 cases.

Of the 29 followed through, the nature of the operation performed and the result obtained may be seen in the following table:

	Cases.	Died of Operation.	Died of Weakness or Recurrence.	Recurred.	Apparently Cured.
Partial removal of tongue	10	1	6	2	1
Total removal of tongue	2	0	2	0	0
Partial removal of tongue followed by removal of glands	17	1	5	5	6 (?)
	29	2	13	7	7 (?)

The glands were removed two or three weeks after the excision of the growth in the tongue.

In 5 cases it was necessary to divide the jaw. Four of these recurred, three of them locally; another patient died soon after the operation.

The site of recurrence is known in 14 instances:

Recurrence in the mouth	...	...	3 cases
Recurrence in glands	...	...	7 ,,
Recurrence in mouth and glands		...	3 ,,
Recurrence in spine ...	...	...	1 case

There is a further case, presently to be mentioned, in which the patient died of cancer of the oesophagus two and a half years later; it is uncertain whether this is to be regarded as a recurrence or not.

In several cases the patient was apparently cured for some considerable time, and then the disease recurred, in one instance in the neck, in another in the mouth. These two men were free for nearly three years after the original operation.

Two patients died of the operation, one of septic absorption and the other of gangrene of both lungs following on a profuse secondary haemorrhage due to the foul state of the mouth.

The figures bring out the superiority of the operation where glands are removed as compared with the older procedure of leaving them if they were not noticeably enlarged. Thus, only 1 patient was cured out of 12 where the glands were left, but perhaps as many as 6 out of 17 where the glands were excised. Moreover, even of the remaining 11 cases in this group there is evidence that the patient was given more chance of relief. Two of them were well and free from recurrence for nearly three years, and another died of cancer of the spine ten months later. In several instances careful sectioning of the glands excised showed no cancer cells. In 2 such cases the growth nevertheless recurred in the neck (in the submental region and behind the sterno-mastoid respectively).

The cancerous growth was preceded in 3 cases by a dental ulcer. In one of these the ulcer was excised and reported by a pathologist to be innocent, but a malignant gland appeared eighteen months later, and the patient died. In another case a papilloma had been removed two years before. One man had extensive leukoplakia and syphilitic fissures, which he used to rub with silver nitrate. Many of the patients had leukoplakia.

A few remarks may be made concerning the patients who might possibly be claimed as cures.

1. *Glands Not Removed.*

E. G., a woman, operated on in 1904 and again for a small local recurrence a few months later, remained free until her death in 1911, which was in no way connected with the cancer.

2. *Glands Removed.*

A. R. has been well now for eight years.

E. T. has been well for five and a half years. There is a tiny nodule in the neck which may possibly prove to be a recurrence. It is being watched.

R. H. has been well for five and a half years.

W. R. is a doubtful case, inasmuch as after two and a half years he was readmitted with epithelioma of the oesophagus 3 inches above the cardia, and died after gastrostomy. At the autopsy there was no other sign of recurrence—if this is to be called a recurrence. (The writer recollects finding an epithelioma of the oesophagus in a man who died after operation for an epithelioma of the lip.)

W. H. has been free from recurrence for two and a half years. He is a schoolmaster, and talks quite plainly.

G. W. has been free from recurrence for nearly two years.

In all the above cases the diagnosis was confirmed by microscopical examination, with the exception of R. H., in which the growth was regarded as so typical that it was not necessary to cut sections. In E. T. the pathologist's opinion was only formed after examining many specimens.

With reference to the size of the growth, in G. W. it was as large as a florin; in the other cases it was not more than ½ inch across. In 2 of these 7 cases there was a gland enlarged in the neck, but it proved to be free from cancer cells.

SUMMARY.

1. The immediate mortality in 38 operations was 5.3 per cent.

2. Of 29 cases 7 were *apparently* cured (well after two years); this gives a percentage of 24.1

3. The results are much better when glands are removed, recurrence being greatly delayed or altogether prevented in many cases.

4. Partial removals of the tongue were followed by *local* recurrence in 6 out of 29 cases.

REMARKS ON THE ESTIMATION OF THE CALCIUM METABOLISM.

WITH A DESCRIPTION OF A CLINICAL METHOD OF ESTIMATING THE AMOUNT OF CALCIUM IN THE URINE AND OTHER PHYSIOLOGICAL FLUIDS.

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To gauge the condition of the general metabolism of the calcium salts, which are now admitted by all to be of so much importance both in health and disease, an accurate knowledge of the amount at the disposal of the tissues is necessary, and this knowledge has been difficult to obtain.

For instance, some workers have estimated—chiefly experimentally—the amount of calcium taken in with the food, and have compared this with the amount recovered from the faeces.

I have always held that this must be absolutely unreliable in the result. For, although we know the amount taken in by the mouth, we are unable to find how much of this quantity is absorbed, and how much passes through the alimentary canal without being absorbed.

An example will make this quite clear. Suppose that 10 grains are taken in by the mouth every twenty-four hours, and that 5 grains are recovered from the faeces, those 5 grains may represent 1 grain passed through and 4 grains excreted, or it may mean that 2 grains are passed through and 3 grains excreted, and so on. That is to say, a large proportion of what is being absorbed may be excreted, or only a small proportion—there is nothing to indicate which.

Recognizing this difficulty, in 1907 I published a method of estimating the quantity of ionizable calcium in the blood.[1] By this method one is able to determine at any given time the relative amount of ionizable calcium in the blood, and so to get a good indication of the amount at the disposal of the tissues. But, as I then and have since emphasized, this method requires careful interpretation. For instance, a low calcium content in the blood might mean, either that very little was being absorbed or that too much was being excreted. I devised the method for a specific experimental purpose in regard to menstruation, and it served that purpose; but when it is used for routine clinical work, unless careful consideration be given to the findings, wrong deductions—as I have just pointed out—may be drawn from them.

If, however, the blood estimation method be used in conjunction with a method which will indicate the amount excreted a perfectly reliable knowledge of the condition of the general metabolism in regard to the calcium salts may be obtained.

Since the excretions from the intestinal canal are, as I have just shown, useless for the purpose, we must fall back on the urine, in which it is safe to say that, provided the urinary apparatus be healthy, the calcium found should represent a true index of the excretory ratio. If the blood index be low and the amount excreted by the urine also be small, it is fair to assume that not enough calcium is being absorbed. If, on the other hand, the blood index be low and the urinary excretion high, then probably too much is being excreted; and conversely a high blood index and low excretory ratio might indicate that an excessive amount was being retained in the tissues.

I must here point out that, as with the blood estimation when considered alone, so also with the urinary excretion: no true interpretation can be formed of the calcium metabolism by an examination of the urine alone. Because a large amount of calcium was found in the urine it would be ridiculous to state on this evidence alone that the patient was suffering from a calcium surfeit, and to cut off all supplies of the salt. It might be that she was excreting too much, as is the case in exophthalmic goitre, and was depleting her tissues. In such a case, far from cutting off the supply it should be supplemented. Or, again, in some cases in which very little was being excreted it might mean that the calcium was being stored in the tissues, and in such circumstances it would be the worst thing possible to assist in the process by administering more. To be scientific and accurate, when we have no definite clinical evidence or empirical knowledge to guide us, we must use all the means at our disposal to find out what is really happening with regard to the calcium metabolism; and we must not rely on one method alone without we can be quite sure of the interpretation to be put upon the result. In the future the whole subject will, of course, become more empirical, but at present it is far from being so, and I could give many instances of the value of accurate estimations and interpretations. It is, of course, not difficult with the requisite laboratory facilities to estimate chemically the amount of calcium in urine, since large quantities of the latter can regularly be obtained; but such a method of estimation is hardly possible for those engaged in clinical work, so that I think there is room for a reliable clinical method.

The method of estimating the calcium in the urine which I shall now describe owes its origin to Sir James Barr, who for some time has been in the habit of making a rough calculation of the amount excreted by adding to the urine freshly passed the solutions I originally suggested for the estimation of the blood calcium content—that is to say, oxalic acid and acetic acid—and gauging roughly the quantity of the precipitate obtained. On learning from him of this practice I undertook to have the accuracy of his findings investigated chemically. This was done by my assistants working in the biochemical laboratory at the university, with the following results:

1. The sediment sent by Sir James Barr, which was collected from many specimens of urine, was found to consist of pure calcium oxalate. It may be noted here that practically all the calcium present in urine is in an inorganic form, consequently it is precipitated. When the proper measures, to be described directly, were adopted, no phosphates were found in the many precipitates examined.

2. Of the urines submitted by Sir James Barr for chemical investigation of the accuracy of his conclusions the specimen supposed to contain the least amount of calcium was found on analysis to contain 0.008 per cent. of Ca; that supposed to contain a medium quantity was found to contain 0.007 per cent. of Ca; the specimen supposed to contain the largest amount of calcium gave on analysis 0.045 per cent. of Ca.

It is evident, therefore, that the method employed by Sir James Barr is accurate in so far as it is possible to recognize a very large deposit from a small one, and to recognize that a patient is excreting a good deal more than the normal quantity, or possibly, though this is much more doubtful, that he is excreting considerably less. The most obvious difficulty in regard to Sir James Barr's method arose in connexion with the estimation of medium and small quantities, which predominated in the specimens examined, for it was not possible to say whether these were above or below the average quantity. Nor would it be possible with the method employed by Sir James Barr to detect and recognize whether there were an improvement or the reverse during treatment, unless the changes happened to be very marked.

It was, of course, clear that one had to obtain some method of estimating accurately the amount of the precipitate, which we had proved to consist of pure calcium oxalate; and, as I have stated elsewhere, my method of blood estimation cannot be applied in its present form to urine. Consequently our experiments consisted in centrifuging and measuring the deposit in specially calibrated tubes.

Our first difficulty was to prevent the deposit sticking to the sides of the tube, and to get it to lie fairly evenly in the calibrated portion. After trying many things, we finally overcame what threatened seriously to interfere with the perfection of our method by adding alcohol or methylated spirit to the urine and reagent. Next, we found, as we anticipated, that with different rates of revolution of the centrifuge, and with different times spent in the operation, we obtained different results—that is to say, urines and solutions containing the same quantity of calcium gave deposits which stood at different levels according to the circumstances mentioned.

[1] * Read before the Liverpool Medical Institution, March 14th, 1912.

We eventually got over this difficulty by centrifuging a standard solution of an artificial urine, containing a known quantity of calcium in one tube, and the urine to be examined in the opposite one. In this way we were able always to get an absolutely accurate relationship between the two deposits, whatever the rate of revolution or the time employed. So that if the urine showed a deposit of calcium oxalate standing at half the height of the precipitate in the tube containing the standard solution, that urine was found on chemical analysis to contain a quantity of calcium just half in amount of the known quantity in the standard solution. All our results were, of course, verified chemically.

Description of the Method.

A sample from a twenty-four hours specimen of urine is made faintly acid with hydrochloric acid to dissolve any insoluble phosphates present. It is then made faintly alkaline with ammonia, and filtered. Next, 5 c.cm. of the filtrate are placed with a pipette in the special centrifuge tube, which is of the usual size and shape in the upper portion, but tapers at the lower end into a cylindrical extremity of even bore (1.25 mm.), and calibrated into 1 mm. divisions (Fig. 1). A line, with "urine" marked

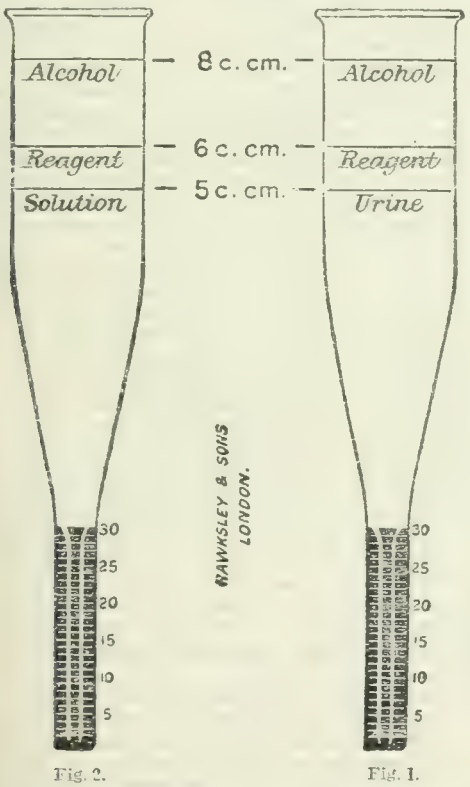


Fig. 2. Fig. 1.

below it, encircles the upper part of the tube at the 5 c.cm. level. Any air bubbles which may collect in the calibrated portion are got rid of with a fine wire or strand of silkworm gut.

Then 1 c.cm. of the reagent, consisting of a saturated solution of oxalic acid in a 5 per cent. solution of acetic acid, is added. The correct quantity of reagent (1 c.cm.) is also indicated by a line round the tube which is marked "reagent." Finally 2 c.cm. of alcohol or methylated spirit are added, as indicated by the line marked "alcohol," and the contents of the tube are thoroughly mixed by shaking. The second tube is then taken, and 5 c.cm. of the standard solution* is run into it with a pipette up to the line marked "solution" (Fig. 2), and any air bubbles removed as before. Next the reagent and alcohol are added, as in the case of the first tube, and the whole is thoroughly shaken. Both tubes, with their calibrated ends packed in wool, are then carefully placed in the opposite buckets of a centrifuge, and are centrifuged for about a quarter of an hour.

On removing the tubes the precipitate will be found to stand at a certain height—say 10 mm. in the "standard solution" tube, while it may stand at 7 mm. in the other, which contains the urine to be examined. As a rule, there is a slight slant on the surface of the deposit. This can be obviated by stopping the machine at the end of one or two minutes and turning the tubes through half a circle. The middle of the meniscus or slant is read off in each tube, and comparison made between them. In the above instance the deposit in the tube containing standard solution was stated to stand at 10 mm., and that in the tube containing the urine at 7 mm.; consequently the urine contains seven-tenths, or 0.7 of the quantity in the standard solution, which is known to be 0.2 per cent., so that the urine contains $0.02 \times 0.7 = 0.014$ per cent. of calcium.

This gives a general equation $\frac{U}{S} \times \frac{1}{50}$ = percentage of Ca in the urine examined, in which U = height in millimeters of precipitate in the urine examined and S = height in millimeters of precipitate in the standard solution. If the urine be found to contain an unusually large amount of calcium, so that the precipitate more than fills the calibrated portion of the tube, the urine should first be diluted with an equal quantity of distilled water, and the final result obtained in regard to the calcium content doubled.

In our experiments to test the accuracy of the method, we found that the difference between the total amount of calcium obtained in this way and that obtained by chemical analysis never amounted to more than 1 per cent. of the quantity present.

I have already indicated how much this research owes to Sir James Barr's initiative and assistance: but I must also express my indebtedness to Professor Benjamin Moore for laboratory facilities.

The expenses of the investigation were defrayed out of the fund for research which Mr. Arthur Smith has generously placed at my disposal.

REFERENCE.

[1] BRITISH MEDICAL JOURNAL, April 20th, 1907.

* *Standard Solution.*—0.05 gram of calcium phosphate ($Ca_3(PO_4)_2$) is dissolved in a little hydrochloric acid. This is made alkaline with ammonia, and finally acid with acetic acid. Finally 2 grams of urea are added to the solution, and the whole is diluted up to 100 c.cm. with distilled water. The specific gravity of this solution is about 1015.

A CASE OF OSTEITIS DEFORMANS

IN WHICH FRACTURE OF A FEMUR TOOK PLACE AS THE RESULT OF STOOPING.

BY

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CROUCH END, N.

CASES of osteitis deformans are always interesting. It is only some thirty years ago that Sir James Paget first described this disease, and since then cases have been recorded from time to time, though the disease is undeniably a rare one. Osler tells us that of eight traced to the end, five died from cancer or sarcoma. The following case is of more than ordinary interest, as special opportunities were afforded for witnessing the entire course of this disease, from its earliest apparent onset till its fatal termination, which was accelerated by an accident occasioned by the effects of the disease itself. The whole period covered a space of 4½ years.

The patient was a lady 63 years of age, and the mother of eight children, all living but one, who died in infancy. Her father died quite suddenly at a railway station, when in apparently good health, at the age of 81. Her mother died at the age of 82. There were eight in this family also, three girls and five boys. The eldest son was killed on the hunting field, a daughter died at the age of ten, and another son died last year in New Zealand of "heart and kidneys," at the age of 56. This leaves us with three brothers and a sister, all of whom are still living. A curious feature is that the only living sister, now 61 years of age, is also afflicted with osteitis deformans. The three brothers are aged respectively 53, 50, and 45, and are all in good health.

The patient had an attack of appendicitis in May, 1906. On November 10th, 1906, she had a second attack, and the nurse was then unable to notice anything abnormal about her limbs. On January 12th, 1907, appendectomy was performed by Mr. Mower White. The case, as far as the operation was concerned, made an uninterrupted recovery. When she got up she complained of pain and stiffness in her lower extremities (she had

never complained of these pains before the operation), so I recommended the nurse to give them gentle massage. The patient was unable to stand this, owing to the tenderness of her bones. I may remark here that the nurse remained with her two months after the operation, making a total continuous attendance of four months. After the patient had been walking about for some time it was noticed by both herself and the nurse that her legs were becoming bowed, and that she was shorter in stature than she had been before the operation. On December 24th, 1907, the same nurse was again summoned, as the patient had an attack of oedema of the lungs, and she observed that the disease was progressing, the femora and tibiae having become still more bowed. In December, 1908, the same nurse was called to attend the patient's husband, so once more she had an opportunity of seeing the patient, and she then observed a marked advance in the charming condition of the affected bones. In May, 1909, the patient's husband died somewhat suddenly, causing a severe shock to the patient. The same nurse returned to her as companion and attendant for a period of six weeks. She again noticed how the osteitis had progressed and she also noticed how much shorter the patient had become. At one time before the operation she was equal to, or even taller than her daughter; now she was many inches shorter. She had great difficulty in walking, and when she did so her body seemed to be tilted forward on her hips. She also complained frequently of pain in her thighs and legs.

A curious incident now occurred. On February 27th, 1911, the patient, while alone in one of the bedrooms, mounted a pair of steps in order to hang some curtains, when a thud was heard followed by groans. When the daughter entered the room she found her mother lying on the floor in a dazed condition, and quite unable to explain how the accident had happened; the last thing she remembered was standing on the steps. There were no broken bones, and all I could discover on examination was a pair of sluggish pupils. The patient complained of pain all over her body, but more especially on the left side. She was able, with an effort, to move all her limbs. In the course of a day or two it became apparent that she had fallen on her left side, as bruises began to make their appearance, and I was able to detect a slight left hemiplegia. Added to this she occasionally had attacks, during which she talked quite incoherently, and had diplopia. There had evidently been a slight haemorrhage into the right brain while she was on the steps, then followed unconsciousness, and hence her fall. The patient made a fair recovery from this attack, but became more helpless in getting about.

On May 10th, 1911, the same nurse was requisitioned for an illness of the patient's unmarried daughter, so that once more there was a favourable opportunity of witnessing the progress of the disease. One day the nurse saw her standing in her bedroom, partially undressed. She described her thus: "Her feet were close together, but her legs were far apart; the body was tilted far forward on the hips; her chest was more contracted than formerly, and her shoulders seemed broadened and rounded." On May 16th the patient was stooping to put out a gas-ring, when her left femur suddenly gave way, and as she fell to the floor she realized that the bone was fractured. Under chloroform I was able to get the ends of the bone well together and the limb was put up in a Liston's long splint and three small ones. Next day she was seen by Mr. Mower White, who agreed that the bone was in good position. There was now no doubt of the diagnosis: the femora were much enlarged and bowed forward and outward, and the tibiae were also bowed in the same direction, but not nearly so proportionately enlarged. When the patient lay on her back with her heels together the knees were widely separated, and there was an arch under the centre of the right femur under which one could pass one's hand. The cranial bones were not enlarged as one would have expected, but the lower maxilla was thickened and protuberant at the chin. The course of the illness from this date forward was also of a somewhat exceptional character. For three weeks the evening temperature oscillated between 99 and 101°, at the end of which time the temperature became normal for a fortnight. Coincident with this change was a most altered condition of mind. The patient became wandering, restless and delusional, and at times did not know those about her. On May 25th she began to feel sick. The tongue was perfectly clean, and there was no stomach trouble. The next three days she could keep nothing down, returning even the iced water she took so fast to be feel refresh. Her pulse became quick and compressible. Dr. Harber kindly met me in consultation on June 1st. There was no pneumonia but symptoms of a failing heart. She now took a turn for the better, and kept down an ounce of whey with twenty drops of brandy every hour. She was quite unconscious or incoherent till June 17th, when she suddenly had a lucid interval. I was sent for immediately, and was able to get her to sign her will, which she had had drawn up the very day her fracture had occurred. In the evening of that day her senses were preternaturally alert; she expressed great relief at having signed her will, and for the first time for many years, for she was chronically deaf, she distinctly heard the birds singing and her children's voices in the garden. The next two days her mind was still exceedingly active, though the period of hyperpnoea had passed. On the evening of June 20th the temperature suddenly ran up to 103°. At 10 a.m. the next morning it was normal again, only to ascend during the day to 102°, about which level it remained till June 25th, when she passed away at 4.15 a.m.

The interest of this singular case rests in the following facts: first, that the whole life of the osteitis deformans could be traced from onset to exit; secondly, that no cranial bone was affected except the chin-point of the lower maxilla, to which allusion has already been made; and lastly, that the onset of this disease immediately followed an operation for appendicitis. Whether this last was merely a coincidence, or whether the general shock of the operation affected the patient's nervous system in such a way as to produce a trophic degeneration in the bones of the lower extremities, it is, of course, impossible to say. No autopsy was made, but it was discovered after death that though the ends of the bone had been placed and kept together in excellent position for a period of six weeks all but two days, no sound union had been established, as the lifting of the leg produced cracking and bending of the affected femur.

TESTS OF INTELLIGENCE.*

By W. A. POTTS, M.A., M.D.,

INVESTIGATOR TO THE ROYAL COMMISSION ON THE CARE AND CONTROL OF THE FEEBLE-MINDED.

LAST year in one of our local medical societies an interesting paper was read on Certificates of Lunacy, the writing of which may devolve on the majority of us at any time. A paper dealing with tests of intelligence will perhaps be equally useful. In a certificate of lunacy facts indicating insanity at the time of examination are required; many of the tests I shall describe furnish facts of this kind, and may establish a diagnosis; they would not suffice for a patient with a fixed delusion, if there were no intellectual impairment, nor could they command the attention of a case of acute mania. In many lunacy certificates, however, they are useful, and also in other circumstances where a certificate of mental capacity is required; for instance, when a person contemplates making a peculiar will, or wishes to make a will of any kind when he is suffering or has suffered from disturbance of the mental health. In such cases explaining the provisions and effects of the will, and enumerating all the near relations, with the reasons for ignoring some or all of them, may constitute an ample justification for the certificate required, and it may be neither necessary nor wise to proceed further. On the other hand, certificates may be strengthened by the statement that certain tests were quickly and accurately performed. Sometimes it is important to have available definite evidence of this kind.

A note should always be kept of the tests used, but it is usually wiser not to give details till one is asked for full particulars, or is called into court. The legal mind, versed in the difference between statutory right and wrong, does not always understand that partial lack of intelligence and control may constitute irresponsibility, but is often satisfied by the explanation that certain suitable tests could not be performed.

Till recently there have been scarcely any satisfactory schemes for testing intelligence; the ordinary investigator merely examined the capacity for reading and writing, for elementary calculations, and asked one or two simple questions, such as the day of the month and the name of our King, without much regard to the age, previous training, or environment. During the last few years, however, the Report of the Royal Commission on the Care and Control of the Feeble-minded, the large amount of propagandist work some of us have accomplished, and the institution of medical inspection in schools, have focussed the attention alike of the public and the profession. Last summer, both at the National Conference on the Prevention of Destitution and at the meeting of the British Association, papers on mental tests were read. So many have been suggested that the ordinary medical man is a little perplexed as to which system to choose, especially as some schools claim that theirs is the one reliable method, and certain authorities, after issuing a final scheme, have introduced considerable modifications. Let me say at once that it does not do to pin one's faith to any single scheme; it is necessary to study several, and use the best tests from each as occasion demands.

In this paper I do not propose to discuss the diagnosis of amentia and dementia. I would, however, remind you that stigmata of degeneration are not without value, and

* A paper read at the Birmingham Branch of the British Medical Association on November 9th, 1911.

that the appearance, manner, carriage, and gait are of supreme importance. Indeed, as I have often pointed out, the attitude of a patient towards a mental test, and his behaviour during and after the execution of it, are frequently of more importance for diagnostic purposes than the fact whether he did it correctly or not. Those patients who realize their shortcomings are the more hopeful. A child who scribbles aimlessly on being asked to write a word, is more defective than one who admits he cannot. It is not possible to overrate the importance of a thorough physical examination in every mental case, and of a reliable family and personal history. Indeed, as regards many congenital defectives who come before us when young adults, the number of situations they have passed through, seven or eight in a year at the least, and the small amount of the best wages earned, almost determine the whole matter.

The environment and opportunities must always be considered. The child who told me that the family cat was an animal with four legs which drank beer, was not necessarily wrong according to his experience. Nor was a boy of 12 who could not read mentally defective: really he, or at any rate his father, was particularly sharp, for they had eluded the school attendance officers for years; even when I put the authorities at once on their track the couple had again vanished.

The tests I am going to describe are not adapted for the deaf or dumb, nor for those who are partially afflicted in that way, nor for those with severe visual defects. Those are possible explanations of a apparent mental defect which must be excluded by examining the hearing and visual power and the condition of the throat. In his report for 1909 the school medical officer for Wimbledon drew attention to 107 children two or more standards below the average for their age: only four of these were mentally defective. In twenty-four the eyesight was defective, while thirty were from very unsatisfactory homes; they were ill-nourished, undersized, and neglected.

Those who attend to all the points I have indicated will appraise at their true value the results of tests of intelligence. These tests have their limitations: we are on the right tack, however, in evolving and using definite systems; we are then better able to say, not merely that a child is backward, but how backward he is, and how far he will improve with training. After an ordinary examination a good working prognosis can often be given, but there will be fewer mistakes if we use a definite measuring scheme rather than continue a mode of investigation which at the best was unscientific. Some of the tests are also of use in difficult cases, such as moral defectives, where we are quite satisfied ourselves but cannot otherwise write down evidence which will convince the layman and the lawyer. They are valuable, too, for recording the progress of lunatics; as dementia increases, instead of saying that the intelligence, power of initiation, and other capacities appear to be failing, we can write the patient down as Standard M one year and Standard N the next. When a case of melancholia is under treatment, it is more satisfactory to measure the improvement than merely say "the patient appears to be better."

The first set of tests are those of Dr. Sante de Sanctis, Professor of Experimental Psychology in the University of Rome; these are good tests, few in number—six—and such that any one can use them in an ordinary examination.

First Test (five balls, about 2 in. in diameter, of different colours—red, green, blue, yellow, and purple).—Give me a ball. (Note time of response; then cover up the balls.)

Second Test.—Which is the ball you gave me? (Note time of response.)

Third Test.—Do you see this piece of wood? (A cube with 1½ in. sides.) Show me all that are like it in that group. (A group of five cubes, three pyramids, and two parallelepipeds.) (Note time of response.)

Fourth Test.—On this card (a card with ten rows of fourteen figures each, the figures being a triangle, an oblong, and a square placed at random) mark every figure that you can find like this (a cube). (Note time, errors, and omissions.)

Fifth Test (twelve cubes varying from 1 to 3 in.).—Here are blocks of wood like what you saw on the card.

(*a*) How many are there? (Child allowed to count.)

(*b*) Which is the largest?

(*c*) Which is the one farthest from you?

(Note time, errors, and omissions.)

Sixth Test.—Four questions:

1. Are large things heavier or lighter than small things?
2. How does it happen that sometimes small things are heavier than large ones?
3. Do distant things look larger or smaller than near ones?
4. Do they only appear smaller, or are they smaller?

Of course, the patient must be put at his ease; it is best to treat the procedure as a game. Rest a little after each test. A question may be repeated three times; no response then is failure.

An additional advantage of these tests is that we can classify by the results, thus—

1. There is a high degree of intellectual defect when the patient does not get beyond the second question.
2. There is a moderate degree of defect when he does the fifth with difficulty and many errors.
3. There is a mild degree when he fails at the sixth only.
4. A child who does all with normal rapidity is not defective.

The next test—Kraepelin's reckoning test—which is useful for measuring the action of tea, alcohol, and drugs, which affect mental processes, is often more useful for checking the progress of a case of melancholia than for diagnosis.

The original test was to add a large number of figures together as rapidly as possible; the latest modification used at Munich by Professor Kraepelin is to have a book like a school copybook. Each page has 10 columns, and each column 36 digits. In order to economize space, and at the same time make the test a little more complicated, the digits are added in pairs, the second of the pair being linked with the next, so that each digit except the first is used twice. The sum of each pair is written down on the right hand side, only the units figure being put down if the sum exceeds 9. Thus—

3	
4	7
8	2
6	4
9	5
2	1

The patient must first be carefully instructed; then, after a few seconds' warning, the order to start is given. At the end of each minute the examiner calls "Stroke"; the patient then makes a dash under the last sum, and goes on again as hard as he can: the test continues for fifteen minutes. The examiner then adds up the number of sums, counts the corrected and uncorrected errors, and what is more important, counts the number of sums done in each successive minute. From the latter records we often get definite evidence of the unduly rapid onset of fatigue in an exhausted or abnormally constituted brain.

The most important system is that of Binet. Binet's tests are open to criticism: some of them are too difficult, and the standard has been fixed too much by school records rather than by an estimate of success in ordinary life. All the same the series is excellent: it is most comprehensive, and will appeal particularly to the school medical officer who is not working against time, because with these tests the child can at once be placed exactly. Goddard, the energetic medical superintendent of the New Jersey Training School at Vineland, after trying it carefully in 400 mentally defective children and 2,000 normal ones—a stupendous task—and correlating his results by other methods, expresses unqualified approval. He merely points out that one or two of the tests as designed in France must be modified for our countrymen. We owe a debt of gratitude to Binet, not because all his tests are original (for many are not), but for systematizing and standardizing as he has done. It is, however, too elaborate a system for the ordinary practitioner, who will do well to pick out some of the most useful. I will give only a few tests illustrative of Binet's method.[1]

[1] Those who wish to go into the system in detail can either study Binet's papers, published in *L'Année psychologique* and elsewhere, or perhaps more conveniently the excellent compendium of Goddard.

The latest authorized version consists of five tests for each year of life from 3 to 15: when used for adults we class them as 4-year-olds, or whatever their standard may be. The principle is that the tests for each year are such that a normal child of that age can accomplish them, while a younger one cannot: the system was evolved by "studying normal children and finding out what they can do, and picking out of all those things those that are so fundamental and human that they do not depend upon training."

Binet and Simon in 1906 proposed thirty tests, in which no account was taken of the age of the child or of his training. In a paper published in 1908 they evolved a set of tests for each age of the child and nearly eliminated the element of training, presenting therefore "a measuring scale for intelligence." This has been modified again, and the same number of tests (five) introduced for each age. If a child succeeds in all the tests for his age he is normal; if only for a year younger he is backward to the extent of one year; if he is more than three years backward he is mentally defective. Before his standard is settled, however, a correction must be made. The child must be advanced one year for every five higher tests in which he succeeds. For example, a 9-year-old child fails in two of the 9-year-old tests; he appears, therefore, to be only 8 mentally. On further examination, however, he does three of the 10-year-old tests: these, added to the three of the 9-year-old ones he had already done, make six in all: he is therefore advanced a year and classed as normal. We begin with the tests for the age of the child, or the age we think he is mentally.

Tests for a 3-year-old child:

1. The child is asked to point to its nose, its eyes, and its mouth.

2. He repeats a sentence of six syllables—for example, "It rains. I am hungry."

3. He repeats two figures, 7, 2: the figures being pronounced distinctly, one half-second apart, without emphasis on either.

4. He is asked his family name.

5. He is shown a picture.

Binet uses three pictures, the essentials of which are that they represent a situation, but contain only one or two objects and one or two figures. I have not reproduced Binet's pictures; I use two, one of which contains things familiar to Birmingham children.

First Picture.—A wooden cradle on a river in flood, containing a baby and a kitten.

Second Picture.—A bricklayer on a ladder placed against scaffolding.

A child of 3 can only name the things in the picture; he cannot describe any actions. The pictures are used again as a test at 7 years, and the child is then expected to describe the situation.

At *Four Years* he is asked if he is a boy or a girl, to recognize three familiar objects (a knife, a key, a penny) to repeat three figures, and to compare two lines (two parallel lines 3 cm. apart, one 5 cm., the other 6 cm.)—which is the longer line? Hesitation in this test counts as failure.

At *Five Years* he has to compare two weights of equal size and appearance, to copy a square with ink, to count four pennies in a row, and to make the two halves of a card cut along the diagonal into a figure like an uncut card.

At *Six Years*, among other tests, comes the one of aesthetic comparison, "Which is the prettier?" Binet uses six heads of women in pairs, the one pretty, the other not. He also tries the execution of three simultaneous commissions: "Do you see this key? Put it on that chair. Then shut the door. After that, bring me the box that is on the chair."

At *Seven Years* Binet uses unfinished pictures, such as heads with the eyes, nose, or mouth not drawn in. "What is wanting in that picture?" He also makes the child count thirteen pennies placed in a row; each penny must be touched with the finger at the same time as the child names the number.

At *Eight Years* a child should be able to count backwards from twenty to one in twenty seconds without making more than one mistake, and should be able to compare two things from memory, such as a butterfly and a fly.

At *Nine Years* he is tested with weights, and at *Ten Years* with questions of comprehension. "What ought you to do when you have broken something that does not belong to you?" At least twenty seconds are allowed for an answer, and only three out of five such questions need be answered correctly.

At *Eleven Years* we say to the child, "I am going to tell you a sentence in which there is nonsense. You listen carefully and see if you can tell me where the nonsense is." Then we read very slowly:

1. "An unfortunate cyclist has had his head broken and is dead from the fall: they have taken him to the hospital, and they do not think that he will recover."

2. "The police found yesterday the body of a young girl cut into eighteen pieces. They believe that she killed herself."

Some people object to these horrors, but children and the mentally defective usually revel in them. At the same age—11—Binet tells a child to say as many words as possible in three minutes, such as "table, board, shirt, carriage." This is an excellent test. At least 60 words must be given. Some get to 200.

At *Twelve Years* Binet asks for simple rhymes, and the repetition of a sentence of 26 syllables such as "Children, it is necessary to work very hard for a living: you must go every morning to your school"; and so the tests go on. These I have described are some of the principal ones.

Abelson is the first worker, as far as I know, in this country who has been able to devote the time necessary to carry out similar investigations on a large scale. He has evolved a small number of tests of his own; he aims at correlating the results by the degree of competence for work in the ordinary world rather than by school records. One of his principles is that the results must be marked either by time, or for accuracy, but never in both ways: in most of them he uses a stop-watch, and so long as the child is working accurately urges him to go faster, but checks him when the work is inaccurate. The patient is placed by his time record. In practice I have found some of his methods distinctly useful, but have not yet had an opportunity of trying them on a large scale. Dr. Abelson has most kindly supplied me with certain details. The chief tests are—

Tapping.—The child is given a pointed instrument, and told to tap as fast as possible for ten seconds inside a 3 in. square on a piece of paper. The first attempt is for preparation, the second and third are recorded.

Crossing out Rings.—An irregularly disposed line of small rings. Three attempts, second and third recorded.



Fig. 1.

Crossing out Sets of Dots.—Five lines of dots in sets of three, four, and five in any order. The child is told to cross out all the fours as quickly as possible. Three attempts as before.

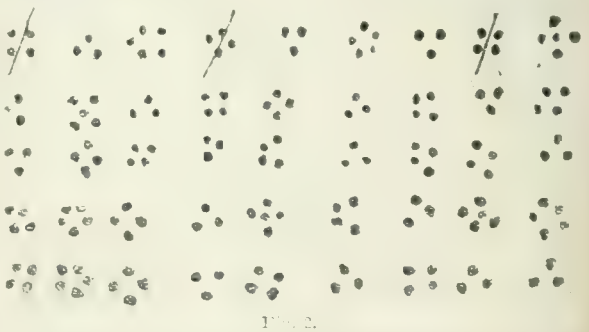


Fig. 2.

Memory for Sentences.—Seven sentences are used, the first a short one and each of the others a little longer than the preceding; marks according to accuracy.

There is also a memory for names test and a memory for commissions test: in the latter the commissions are very complicated—for example, "Put the book, the

saucer, and the penknife upon the gas-stove, then put the brush next to the spoon, then go and open the door, then sit down on the armchair, and then get up and put the matches which are on the table inside the matchbox."

There is a discrimination of lengths test, and one or two others before reaching the tests with geometrical figures. For these tests the child is practised for a week in recognizing a triangle, a circle, and a square; he is then provided with several sheets on which two or more of these figures are drawn, the figures frequently overlapping. There is a different colour for each of the three figures. The figures are then covered and the child is given an order, such as "Point inside both circles," or "Point in the triangle and square but not in the circle," according to the drawing he has at the moment. Each order is given twice carefully, making sure the child understands; the figure is then uncovered and the stop-watch started. If it is done incorrectly, the figure is covered and the order given again; the time taken in this case is added to that taken in the first instance. Abelson has eighteen geometrical figure tests; they promise to be of considerable value.

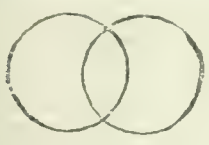


Fig. 3.



Fig. 4.

An excellent single test recommended by Tredgold is to send a mentally defective person to open a locked door, the key being hung on the wall just by the door. An intelligent child will use the key, a mentally defective one will come back and say he cannot open the door. A mentally defective child or adult, if told to hold out his hand or put out his tongue, frequently maintains the position till told to desist.

I could describe many other useful tests: I have explained sufficiently, however, the lines upon which we may work to try and obtain facts which will corroborate our opinion as to the presence or absence of mental defect.

ARREST OF SEVERE EPILEPSY IN A CHILD AGED FOUR

By J. STEWART MACKINTOSH, M.D.Durh., M.R.C.S., L.R.C.P.,
HAMPSTEAD.

I think the following case worth recording in detail, because it affords clear evidence that it is not necessary to abandon hope in a case of ingravescent epileptic habit that does not yield promptly to routine treatment.

The child was born on March 4th, 1906. I attended the mother in her confinement, and induced labour at the beginning of the ninth month at the suggestion of Dr. Herman, who saw the mother early in her pregnancy for retroversion of the gravid uterus, and judged that labour would prove difficult at term from the size of the child. He weighed 8 lb. when born.

The child was breast-fed for two months, and, the maternal milk then failing, he was bottle-fed with diluted cow's milk, cream, etc., with occasional raw meat juice, on which he throve till 9 months old. About this time the family left London for the country. He was fed on Savory and Moore's food till 2 years old, and the mother then gave him "gravy and bread, puddings, etc.," and a little later added finely-chopped raw meat to his diet, which therefore from the age of 9 months consisted chiefly of soft farinaceous foods, according to the present custom of feeding young children. However, up to the age of 2½ he was apparently a healthy child, good tempered and happy, but precocious for his age and restless in temperament.

In August, 1908, the mother came up to London to be attended by me in her fourth confinement. When she returned home two months later she found a marked change in the child for which no cause could be ascribed by those she left in charge. He had become irritable and spiteful towards his nurse and two elder brothers (both of whom were healthy children); he had also become very frightened of the trains which ran near his house, though formerly they delighted him. During the ensuing year he suffered from "gastric attacks" which appeared to have been due to carbohydrate dyspepsia, and the change in temperament continued.

In the spring of 1909 he was twice bitten by a chained dog and suffered a severe nervous shock. Following this he grew shy of strangers and said passers-by "looked at him." He would no longer play with his brothers, and would carry on conversations with the moon, the rain, or the wind. In September, 1909, he was seized with a characteristic epileptic fit when playing on the golf course. It lasted about ten minutes. The fits recurred three or four times daily. He was seen by a doctor, who prescribed potassium bromide gr.v t.d., and was examined by Sir Victor Horsley for a possible focal lesion, with negative results. Sir Victor Horsley thought the prognosis unfavourable. The potassium bromide checked the fits for six weeks, after which they returned. He was then seen by a well-known specialist in diseases of children, who also thought the outlook grave, but suggested that his enlarged tonsils and adenoid growths should be removed. This was accordingly done, the tonsils being enucleated by Mr. Waugh.

No immediate benefit as regards the fits resulting, a neurologist who has made a special study of epilepsy was consulted. He also was not hopeful of the future, but recommended a trial of Gélineaux's dragées, which contain potassium bromide, picrotoxin, and antimony. This did not, however, improve the fits, which had increased (possibly temporarily) in number after the operation, and, on the mother giving on her own responsibility two dragées at a time instead of one, the seizures rose in number to thirty per diem. The mother now despaired of a cure, and brought the child to me asking if I could think of any other procedure likely to improve matters. In view of the history of "gastric attacks" I cut down the carbohydrate element in the diet to a minimum, and prescribed the following mixture to be taken thrice daily: Sodium bromide gr.iv, strontium bromide gr.ij, tincture of belladonna mjv, orange flower water to ʒij, and also urged that the child should live in the country under the quietest possible conditions. Small doses of calomel were also given for a few days.

The result far exceeded my expectations, for from this time (September, 1910) onwards the fits rapidly diminished in intensity, though not at first in number, until they became imperceptible. At Christmas, 1910, the child showed some symptoms of atropism with visual hallucinations, and, becoming frightened, had two slight fits. On cutting out the belladonna from the prescription no further fits occurred, except on one occasion, when after a fright a single attack occurred. But apart from these interruptions, the child has been free from fits for ten months: he has no gastric trouble, and his mother reports his temperament has changed again to that of a normal, if somewhat excitable, child, and his intellectual progress, which came to a standstill, if not worse, with the onset of the fits, has resumed its due advance.

I do not think the arrest of the fits should be ascribed offhand to a lucky combination of drugs. The removal of "adenoids" has at times been attended with success, though not necessarily immediate, after drugs have failed. I believe there was a source of irritation in the carbohydrate dyspepsia with which adenoids are frequently associated. A child with nasal obstruction can only make four chews on an average between each breath, as he is using his mouth for respiration as well as mastication, whereas the normal child bites his mouthful fourteen to twenty times before gulping the bolus.

The mere removal of the adenoids and tonsils is, however, not always sufficient to cure the digestive troubles. The child's mastication requires re-education in order to deal with his carbohydrates, and there appears to be in some cases a chronic infection of the colon, subject to recurrent exacerbations, which requires treatment before the source of irritation can be removed. It is worth noting that in this case the tonsils were totally ablated, as it is now, of course, well known that the stump of a guillotined tonsil may still be a source of infection of the alimentary tract if sufficient tissue be left.

As regards drugs, the sodium and strontium salts were selected in case the failure of potassium bromide was due to idiosyncrasy. The occasional value of belladonna when bromides have failed is well known. Orange flower water had much repute on the Continent as an antispasmodic before bromides came into use, and cures of epilepsy have been ascribed to its use as a simple. The value of "antispasmodics" comes in as a check to the "habit" after the original source of irritation has been removed.

It is of course difficult to forecast what the future may have in store for the child whose case I have set forth. Some writers on epilepsy draw a strong line of demarcation between "essential" and "accidental" epilepsy, assigning the former term to cases in which, with a strong family history, fits arise without apparent provocation in children dull of intellect, unexcitable, commonly dark in complexion and sallow of skin; the epithet "accidental" being reserved for those cases in which the child is of highly neurotic temperament and the fits are traceable to a definite predisposing and frequently maintaining cause.

An excellent account of the range of dietary suitable in carbohydrate dyspepsia is found in *The Child's Diet* (Cargenven). London: Co. 1905. 1s. 6d.

If this distinction be admissible, the case here described belongs to the latter category, being very excitable, blonde in complexion (though sub-brachycephalic) and, up to the time of onset of the fits, intelligent to the point of precocity. There was no epileptic history on either side. There seems, therefore, reason to hope that, if the fits do not eventually return, the child may grow up to fill a useful place in society instead of falling a victim to the progressive mental degeneration which at one time threatened to be his lot.

P.S.—About a year after the apparent arrest of the fits the mother reported that epileptiform attacks had reappeared, occurring at bedtime and on awaking. On inquiry I learnt that the child had, in contravention of strict orders to the contrary, been having porridge for breakfast. Unfortunately, stopping this forbidden luxury has produced no amelioration of the fits up to the present, but the child continues to progress otherwise bodily and mentally. Just before receiving the proof of this paper the mother reported to me that she had noticed "something like a piece of tapeworm, about 4 in. long," in the child's stool. Unfortunately she did not save it for inspection, but thought it was segmented. It may, of course, have been mucus, but it should be noted that the child was fed with raw meat for a time. It would be interesting if a tapeworm were at the bottom of the trouble, and should this prove to be the case I will report it.

ON RADIUM EMANATIONS IN MINERAL WATERS.*

By T. PAGAN LOWE, M.R.C.S., L.R.C.P.Edin.,
SURGEON TO THE ROYAL MINERAL WATER HOSPITAL, [illegible].

The year 1903 was an important one in the history of balneology, for then it was that Ramsay and Soddy demonstrated that helium was one of the products of the disintegration of radium; in the same year Professor the Hon. J. R. Strutt discovered radium in the deposit of the Bath waters. In the same year, again, the late Lord Blythswood published in *Nature* the fact of the radio-activity of the gases from the springs of Bath.

In his presidential address to the Section of Balneology of the Royal Society of Medicine in October, 1909, my friend Dr. Leonard Williams attempted to redress the balance between science and empiricism, which, in matters balneological and climatological, had, in his judgement, too long shown a bias in favour of the latter. The burden of his argument, as it seems to me on re-reading that address, was that the methods which we employ exercise an influence upon the internal secretory glands, and he brought a considerable mass of evidence in support of his theory. He did not, however, offer any explanation as to how and by what means these internal secretory glands were influenced by such methods. I think the time has come when we can venture a step further by suggesting that the means by which our results are produced are, in some cases at any rate, brought about by radio-activity.

Mr. Pagan Lowe then gave an outline of Sir William Ramsay's observations, recently reported,[1] and continued as follows:]

The radio-activity of all mineral waters exists only at the source, and such waters rapidly lose this quality. Nevertheless it is possible by artificial means to render them permanently radio-active. Does the therapeutic potency of natural mineral water depend upon niton alone, or is the credit to be divided between it and the other, the chemical constituents—that is with those constituents which we have till now endowed with the entire beneficence? We are told that radio-active waters can be prepared by adding one milligram of radium sulphate to one litre of distilled water, which can then be used as a subcutaneous injection without harm. Is this artificial water as potent as natural radio-active water, or does it more quickly lose its acquired qualities? Can the radio-active water, as we find it at our springs, be used as a subcutaneous injection with advantage? These as well as other questions present themselves for our consideration.

Such, for instance, as those connected with the statement that niton, although it has the power of rendering all substances radio-active, cannot itself, according to some authorities, be absorbed by the skin. If this were true it would seem that bathing, as far as any special benefit from the radio-activity is to be obtained, was at a great disadvantage. But a little more consideration modifies this view. In addition to the immediate relief which experience tells us occurs from mineral water baths, such, for instance, as increased mobility and lessened pain, the patient is in the best position for taking the full advantage from niton. The orifices of the body are soaked in it, and the surrounding air is more or less saturated, and thus when the patient is in the bath, with his nose and mouth just above the surface of the water, he must be most favourably situated to reap the benefits of the induced radio-activity. Moreover, contrary to the belief of those who say that niton cannot be absorbed by the skin, Professor Lazarus is of opinion that it can, and in this he is supported by Ramsay and others.

In the administration of baths much longer periods of immersion seem to be called for, and I have no doubt that the custom of spending many hours in the bath, as is the custom at Leukerbad and other resorts, has a good deal to recommend it. The large public baths, as used there, however, seem to be inadvisable, and I cannot but think that the small bath room, due regard being of course given to ventilation, is preferable. The probability is that niton is not too strong, and we want to concentrate, perhaps to augment, it as much as possible.

Some authorities are of opinion that natural waters are not sufficiently radio-active to be of much service therapeutically, but on this question of their potency there are very conflicting views, and Professor Farr, of New Zealand, in an interesting discussion on the effect of radio-active spring water on trout, refers to radium emanation (niton) as a gas which physically is a hundred thousand times more active than radium.

Hitherto details of the effects of niton given off at the fountain head are not very numerous, notwithstanding the immense amount of research which has been made with regard to radium and artificially prepared radio-activity. It is urgent that those of us who have access to natural radio-active waters should fill up the deficiencies. Fortunately, at Bath the waters are sufficiently charged with niton for all purposes, and may be considered saturated, and we have 500,000 gallons coming up daily at a temperature of 118° F. There is also available more than 5,000 litres of gas.

Has the presence of niton any subtle action on the salts of magnesium, sodium, lime, and so on, which are found in indifferent waters rendering them more absorbable or potent when brought into contact with mucous membrane? The free absorption of radio-activity by mucous membranes and by the lungs will probably alter our treatment by those routes, and we shall in the future rely upon them much more. Inhalations will be more frequent and drinking more resorted to, for longer time and in greater quantity. The same, too, will apply to vaginal and rectal douching. This latter—the so-called Plombières method—is very popular at the present time at certain spas. Certainly its effect in suitable cases is very striking. It is also almost certain that the future will see a great increase in the combined use of electricity and radio-active waters.

Sir William Ramsay, referring to the ingenious spraying machine invented by Mr. Jones, the engineer to the bathing establishment of Bath, for use in throat and eye affections, suggests that the natural gas should be used instead of the mineral water. If this were adopted—and I have no doubt it will be—Ramsay is of opinion that "an agent nearly twenty times as potent would be available." He also thinks that in a similar way niton might be applied directly in the treatment of local rheumatism, especially if the patient were insulated and connected with the negative pole of a battery. He further outlines a method by which the intake of niton could be very much increased by giving electric baths with a continuous current; he says:

> If the patient in the electric bath were connected with the negative pole of a battery giving, say, 100 volts potential, or even more, and the other electrode were placed in the water, of course not in contact with the bather, the niton would rapidly reach the skin. It is, indeed, not unlikely that it would enter the system by so-called "ionization," and in this way a considerable dose might be given.

In the estimation of the value of natural waters it is

* Introduction to a discussion at the Royal Society of Medicine.

necessary to estimate the degree of its radio-activity, the contained volume of gas, and the amount of helium. Although helium is therapeutically useless, nevertheless its presence is an indication that we are dealing with a radio-active water. At the King's Well at Bath Lord Rayleigh found that there were 12 volumes of helium in 10,000 of the water, and some of the foreign mineral waters have been examined by Ramsay and others.

No introduction to a discussion on the subject we are joining in to-night would be complete without some reference to the valuable work of Professor His. He administers niton by means of a portable apparatus, and supplements its effects in certain cases of rheumatism by an injection of an insoluble, or repeated injections of a soluble, salt of radium, in the immediate neighbourhood of the affected joints. His's article on the treatment of gout and rheumatism, in the British Medical Journal,[2] unfortunately lacks full details of the exact method of the administration of niton. He tells us that under its influence the blood loses its uric acid within a few weeks, but the way, the time, and the dose are somewhat vague. What we require as practical balneologists is to learn how we can best utilize the niton for the benefit of our patients. It seems probable that radium emanations have a specific action on gout, and it is in cases of this disease that we may expect some of our greatest successes.

In an article by W. H. B. Aikins and F. C. Harrison, published in the *Canadian Practitioner and Review* last August, on the present status of radium therapy, the results in general are summarized as follows:

1. Greatly increased diuresis and excretion of uric acid.
2. Largely increased carbonic acid exhalation from 20 to 60 per cent.
3. Lowered blood pressure, especially in arterio-sclerosis.
4. Decreased blood viscosity.
5. Great improvement of gastric and duodenal digestion.
6. Marked solvent action on gouty deposits.
7. The dislocation of uric acid and its salts into carbon dioxide and ammonia.
8. Inhibition of inflammation and relief of pains in rheumatism.
9. Increase of sexual vitality.
10. Considerable influence over sympathetic nerve affections.
11. Marked results in diabetes, albuminuria, and glycosuria.

All of these results I am able to confirm from personal observation in Bath, and I would add the rapid disappearance of indican from the urine.

A good deal of further work on the subject comes from Germany. It seems that the Kreuznach waters are highly radio-active, and the local physicians have been studying the results of their application in various conditions. Substantially their conclusions coincide with those just quoted, but some further information in the matter of contraindications and best form of administering the emanations is now available.

So far as contraindications are concerned, they do not at present appear to be very definite; but there are observations enough to warn us that they certainly exist, and that, to say the least, some cases demand very great caution in the application of the remedy. Thus, Meternitzky of Kreuznach says he has found the application of radium emanation to cause not only subjective symptoms such as dizziness, fullness of the head, faintness, pains in the joints, but also objective phenomena such as emaciation, albuminuria, and even haematuria. This, as coming from a physician practising at Kreuznach, would be a very valuable testimony even if it stood alone. But it does not. Several others have studied the question, notably Davidsohn; working with an artificial radium producer, and not with mineral waters, he found that rheumatic and gouty patients after radium treatment experience violent pains in the joints and aggravation of other symptoms. This is particularly interesting to balneologists as affording an explanation of what we are all so familiar with—namely, an acute exacerbation of gout soon after treatment has commenced. Other observers have described considerable rises of temperature, haemorrhages from the mucous surfaces, and the like. It would be interesting to me personally to find any confirmation from other radio-active spas of the experience of everyone who has ever practised at Bath, to the effect that both baths and waters are definitely contraindicated in a case in which there is any suspicion of tuberculosis. Löwenthal considers that chronic nephritis, particularly of the contracting kind, affords a definite contraindication for treatment. It is probable that at least some of the accidents and inconveniences which have been described as resulting from treatment by radium have been due to the ignorance under which we still labour on the subject of doses. I may say here that a serious disadvantage to radium research and the application of radium is the absence of a general uniform standard of measurement. Neither the counting by Volt unit nor that by Maché unit is uniform in itself, as these units differ according to the different apparatus used. At the suggestion of Löwenthal, the Radiological Congress at Brussels last year appointed a committee, which accepted as unit the action of one gram of radium. It is hoped that this proposed Curie unit will bring order into the present confusion.

Concerning the method of administering radium, the German authorities do not agree with the views of those who attach subsidiary importance to the balneal treatment. Thus Kemen says:

> In the bathing method a certain part of the emanation passes through the skin into the blood, as was conclusively proved by Engelmann. It is also well known that during the bath the emanations readily find their way into the pulmonic circulation. Yet the bath appears to have a third mode of action in addition to these two; for, on the one hand, the fact of a very marked improvement, subjective and objective, is well known, whilst the other, the quantities of radium available by the pulmonary and cutaneous routes are much too small to account for the results.

What this third mode of action may be it is impossible to say at present, but we should do well to bear this view in mind lest in our enthusiasm for drinking and inhalation, whose action we happen now to understand, we be led into neglect of the time-honoured method of bathing, the detail of whose action is still insusceptible of explanation. We should not reject it merely because we are unable to understand it.

For we must remember that there is still a great deal about radio-activity and its therapeutic action which we are unable to explain. We cannot explain, for example, by what processes it produces its therapeutic effect. If we may rely upon the work of German authorities, its action is in no sense bactericidal. We know, further, that it stimulates metabolism, but by what process it achieves this is not clear. It may be, it is indeed probable, that the suggestion of Dr. Leonard Williams may yet prove to be correct, and that the stimulation is effected by way of the internal secretory glands. The statement that radio-activity is not bactericidal is not universally accepted. Later investigations by Lazarus Barlow seem to show definitely that it is decidedly bactericidal. But whether this action is sufficiently intense in mineral waters, or even in the gas from such waters, to be of service has as yet not been proved. After all, this would seem to be a minor point, for as far as present knowledge goes it is improbable that bactericidal qualities, as we understand them, are the explanation of the benefit that is derived from mineral water treatment in such diseases as gout and fibrositis.

From my own personal experience I have little to add that is of value. It seems that we balneologists are like the man in Molière's play, who was delighted to find that he had been talking prose all his life. We in Bath and elsewhere have been using radium all our medical lives, and we are proportionately uplifted. But we cannot say which of our results have been due to the radio-activity of the waters, and which may be accounted for by the douching, massage, and other measures upon which we have so long relied.

Nevertheless, I should like to confirm, from my own observation, some of the clinical results that have been reported by certain observers. The experiments by Wickham and others show that radium is destructive to the gonococcus, whilst the literature of gonorrhoeal arthritis shows that the cure of this disease is usually tedious and tiresome by medical means. Nevertheless, some of our greatest successes in Bath have been with patients suffering from it. I have always, in addition to the mineral water, given them potassium iodide, and it is a significant fact that the salts of potassium are radio-active, giving off beta rays—that is, the valuable ones in the medical uses of radium. It may be that the action of potassium in gout and fibrositis is due to radio-activity, and that metabolism under its influence is stimulated.

In connexion with gonorrhoeal arthritis it is interesting

to note how remarkably well cases of iritis do under mineral water treatment. We have patients sent to us with recurrent iritis, who rapidly improve, and, what is still more important, do not usually relapse. Mr. Beaumont, who has seen a considerable number of these cases, doubts the very existence of rheumatic iritis at all, and believes the cases we see in Bath are almost entirely gonorrhoeal, and that those which are not are due to some other form of toxaemia. Experiments by Wickham and Degrais show that radium is not, strictly speaking, bactericidal, but that it so modifies the culture medium as to make it inimical to the growth of the gonococcus. They are of opinion that one millionth part of pure radium in water will act on the cultures. If these views are corroborated, it is probable that in the near future the whole treatment of gonorrhoea and its sequelae will be revolutionized. Gonorrhoeal ophthalmia at once strikes one as a disease in which some confirmation of these hopes should be sought for.

During the last few weeks I have been treating an old lady of 75, suffering from a long-standing atrophic scirrhus of the left breast, by exposing it to the gas from the Bath springs. The ulcerated surfaces were exposed for ten minutes daily, and after twelve applications all the ulcers had healed and some of the surrounding induration had disappeared. This is the first case, I believe, of malignant disease in which the gas has been used in this way. A single case is, of course, of no very great value; nevertheless it encourages us to repeat the experiment, let us hope with equal success.

One final word more with regard to radium. Many of us believe that in this element we have found the explanation of the therapeutical effects of mineral water, but beyond a declaration of our faith we dare not at present go. It is a postulation that would explain the accumulated evidences of the ages. Every biochemical fact concerning it dovetails with the clinical effects of its application. Is it, then, any wonder that we balneologists regard radio-activity as the unknown god, and the blind worship of ages and the empirical faith of centuries as justified? To us the unknown god and his shrine are alike worthy of our homage.

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[1] British Medical Journal, March 16th, 1912, p. 617. [2] Ibid., February 4th, 1911, p. 243.

THE EFFECT OF UNSUITABLE NECK CLOTHING ON HEALTH.

By WALTER G. WALFORD, M.D.,

London, N.W.

I wish to bring before the profession the important bearing of collars and other forms of neck wear upon health, and to show, by experience gained in three years' study of this subject, that it has not received the attention it deserves.

Any pressure on the neck acts most insidiously: the neck is cone-shaped, and a collar or band that may be perfectly loose at the middle of the neck, say over the cricoid, may be tight enough to exert some pressure when it drops into its working position, more especially in a slope-shouldered person. Again, a collar may seem roomy, but may, when a person is reading, get pressed by the chin on to important organs. Next, the habitual wearing of neck clothing not sufficiently large arrests the full development of the neck, with its numerous organs for communication between brain and body. This is of great importance during the period of growth. Also, in advancing life when the neck muscles are wasting and losing their tone, the vessels and nerves beneath become more exposed and sensitive to pressure.

I had often, when young, suffered from headaches, but my attention was not drawn to this subject till at the age of 69, when, after having had many years of gouty and rheumatic troubles, I got a clot in a small cerebral artery, attended with pain in the head, unsteady gait, vertigo, sickness, and double vision. Though I improved in some ways, yet at the end of four months the pain was increasing, and I was certainly going downhill. After some experiments, I decided to have all my neckwear made an inch larger. This sudden change rather affected me just at first; however, I improved so rapidly that in a fortnight I could cycle. My blood pressure, which in consequence of hypertrophied heart had previously been very high, rapidly fell. But I found, in order to retain the splendid health to which I was restored, that it was necessary, as my neck, now that it was free, was enlarging, to continue to enlarge my neck wear. I had to continue doing this for three years, at the end of which time (the present date) my neck was actually 3 in. greater in girth. Almost from the first I lost all my gout, rheumatism, headaches, and indigestion as well. Strange to say, during this period, probably through freedom of the thyroid, I got thinner, and lost nearly a stone in weight.

Thus my neck had not previously been allowed to attain its proper size; and it is reasonable to think that this increase of neck material, while I was getting thinner as well as healthier, could not be mere fat or muscle. I then proceeded to try the same remedy upon others, and, being almoner of a charity in East London, I had a good field for it amongst the poor. I found, in all ranks of life, that most people were in the same condition as I had been, and that few had quite the full means of communication between brain and body that Nature would have supplied. For in all experiments the neck enlarged. It would appear that my own symptoms had been mainly caused by pressure on the jugulars, producing congestion of brain, and that this impediment to the blood current had in turn affected my heart.

One of the first cases in which I tried the loose collar was that of a clergyman who suffered much from attacks of aphasia. He would sometimes, too, get dazed, and almost "lose himself." He at once took my hints, and from that time, two years ago, to this has had no return.

A man of about 55 had frequent attacks of aphasia with vertigo. He wore no collar, but had a tight muffler. I got him to loosen this, and in a few minutes he was all right. I soon satisfied him as to the cause of his symptoms, of which at first he seemed doubtful, by getting him to again tighten his muffler, when he reproduced them. I subsequently found I could always produce aphasia in him for experiment by doing this.

I have met with many other cases of vertigo, generally with sickness, but all yielded immediately to the same remedy. Some had previously been under the usual treatment, but without success.

Dr. Phillips, of Coventry, told me he had noticed that neck pressure over the pneumogastrics was often the cause of indigestion, and I have found very slight pressure will do this. Just as a person sitting cross-legged may suddenly find his foot numb, so it would seem that one may insensibly get the whole of the viscera supplied by these nerves numbed and handicapped in their work.

In July, 1911, a lady asked me to see her parlourmaid, who had been ailing for some days with sickness, discomfort in the stomach, and pain in the back and legs. I said the cause was tight neck wear. Whereupon the mistress and a lady friend attacked me vigorously for the absurdity of my views. Both said any one could *see* the young woman's things were *not* tight, and that she wanted "a proper course of medicine," etc. I told her that medicine would be useless, and then asked the young woman if she would prefer "the proper course of medicine," or to get well at once straight away. She chose the latter, and retired to alter her things amid murmurs from the two ladies. The same afternoon the maid, feeling better, went to Hendon to see the flying, walked miles, returned quite well, and continued so in spite of the intense heat prevailing at the time.

Is not the undersized neck particularly noticeable in phthisis? In every case that I have met with of late this has clearly been produced by tight neck wear in fast growing young people.

In July, 1910, I found two consumptive children, a girl and boy, aged about 13. The latter had just been refused admission on account of tubercle to the Shaftesbury Home. Both had tight neck wear. The parents in each case readily took my hints. Nothing else was done for these children but to give them a fortnight in the country. Both most rapidly improved and very soon recovered, even after their return to the balmy air of Shoreditch, and were still quite well a year later.

A lady who a year ago had been sent to recruit in Devonshire for incipient phthisis was most tightly constricted in the neck and short of breath. She gladly took my advice and at once expressed relief, and I learn that she has recovered.

I found a girl of 19, nearly 5 ft. 10 in. in height, in advanced phthisis, with a neck only 9½ in. in girth at the cricoid. What room was there here for sufficient windpipe and nerve communication for a girl of this size? Her neck enlarged 1½ in. in three months, but the disease was too advanced for her to have a chance. Though she improved much the next fog killed her.

At an hotel near Torquay I was asked to see a slope-shouldered, ill-developed boy of 8, whose parents were very anxious about him as he had a weak chest. At first sight it almost looked as if his neck wear was sufficiently roomy, for directly you introduced your fingers it slipped up over them to where the neck was smaller, but on holding it in its working position I found it tight. On undressing the child he at once gave a full respiration of relief. I then showed the mother that the weight of the clothing had made a furrow round the root of the neck. This was at once attended to, and subsequently the parents told me they could almost see the child improve and develop from day to day, and six months later that he was perfectly well.

A Bluecoat boy of 14, but very small for his age, was sent during the holidays to run wild on the Norfolk coast, but while under these ideal conditions was found to have a weak chest, in which state he returned to town. He was ordered respiratory exercises for his ill-developed chest. On his father's side an aunt and other relations had died of phthisis, and on his mother's side he had lost an uncle of the same disease. I found his neck wear so tight that I could barely squeeze my little finger between the soft neck and the rigid clothing. Ten days later he was a different child. He then showed me that a finger wound which *for nine months had refused to heal* was well, his chest was well, and he has since done well in every way at school.

The lymphatics are easily obstructed by neck pressure.

A surgeon in North Wales, seeing that I had written a pamphlet on this subject, wrote to tell me he had had a hard tumour beside his trachea, which was regarded as an obstacle to life assurance. He slackened his neck things; the tumour was absorbed in four months. He then completed his insurance.

A man of 50, with malignant disease of the tongue, was suffering great pain. He had some enlarged glands behind and one in front of the left sterno-mastoid. He wore no collar, but had a flannel shirt, which appeared to compress him just above the inner end of the clavicles. I suggested he should loosen this, and before I left the house he expressed relief. In a fortnight the enlarged glands behind the muscle had entirely disappeared, the other was smaller, and all pain was pretty well gone; and though this did not seem to arrest the disease, he always said up to the last that I had given him great comfort.

A fat, clumsy girl of 15, who had had many fits, was stupid, troublesome, and gave great anxiety to her friends, had tight neck wear. This was subsequently kept loose, and four months later her mother told me she had very greatly improved.

Strange as it may seem, I have found the same treatment as beneficial in the gout and rheumatism of others as in my own case.

In January, 1911, I took in hand a retired army officer of 70, who had been a great sufferer from gout, rheumatism, lumbago, and sciatica. Six months later he said that from that time he had lost all his troubles, and had had better health than ever.

A working man, aged 73, who had for eighteen months been set fast from rheumatism in knees and hips and could only move by means of his arms, was induced by me to wear his neck things thoroughly loose. He lost most of his pain in a fortnight, and in nine months could walk about the room with a stick, and with this and a helping hand had even crossed a little street.

I have found the same thing invaluable in cardiac cases, apparently because the cause of the obstruction to the blood current has been removed. For example:

A lady fifteen months ago was approaching a critical condition from dilated weak heart of some years' standing. She had blue lips, dilated capillaries of face, shortness of breath, and great dyspepsia. I persuaded her to have her neck things thoroughly loose, and she is now in every way in enjoyment of the best of health. She is very active, and has quite lost her dyspepsia.

But these are only a few of the great variety of cases that I have dealt with successfully, and amongst them were several cases of migraine.

I find it important to protect the neck from pressure just above the inner third of the collar bone, and have had collars specially made for this purpose. In some cases it is as well not to relax the neck clothing too rapidly. As I have said above, I personally somewhat suffered at first from this. The too sudden removal of the support that appears to cause the high blood pressure is apt to produce faintness. For example:

A nurse noticed that a young child in her charge who had not been very well, went off into a stupor when undressed for bed. Thinking it a fit, she put the child into a hot bath. The child not coming round quickly, a doctor who was sent for said it was not an ordinary fit, and confessed himself puzzled. Exactly the same thing happened next day. A friend of mine who happened to be a relative of the family, and who had perused my pamphlet, suggested that the child having been too tightly neck-bound during the day, when the blood pressure became raised, had fainted by reaction on its removal. The child, subsequently more sensibly dressed, at once recovered, and had no more stupors.

Some of my friends have suggested that mischief may occur through pressure on the vasomotor or sympathetic nerves. Two of my friends who have had extensive medical experience among Eastern people tell me they have remarked that gout and consumption are almost unknown among those who have no neck covering at all. I have found that people of both sexes whom I have advised to have their things perfectly loose have given the best results. I see that many foreign surgeons and physicians are finding this out. Stimulants and hot weather dilate the capillaries of the head and neck, so that the neck wear may under these circumstances exert a pressure that it would not otherwise do. I am also convinced that too close wrapping up of the neck against cold is wrong. Quite as much warmth is got from a loose muffler as from a tight one.

What I am suggesting is always recommended to be used in first aid in any emergency, and is therefore surely useful to prevent an emergency. One must expect an occasional failure, but I only know of three.

One was an epileptic girl of 15. Though from the moment the loose neck plan was tried she ceased to have fits for six months and seemed wonderfully well, yet I heard that they returned later, after she and her friends had left my neighbourhood.

Two were men with rheumatic arthritis. Both improved much for a time, but as they were convinced they would "take cold" they soon returned to their old way. But as a fact these people seem less liable to take cold than others.

Though I have met with many exceptions, ladies are as a rule difficult to deal with, unless they are suffering severely, and even then it seems that some would rather suffer anything than not look smart. However, when they do for any reason adopt my plans I have found their personal appearance is immensely improved, as good health means good looks. Besides, I have found that when they have allowed Nature to have her way and take what neck-room she wants, they not only get good looks but may even regain their smartness.

TINCTURE OF DIGITALIS: ITS POTENCY AND KEEPING PROPERTIES *

BY

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In spite of numerous papers pointing out the great variability in the potency of different samples of tincture of digitalis, it is yet often prescribed without any safeguard but the limit of the pharmacopoeial dose. This is hardly a safe proceeding. Not only is the initial variability in potency very great, but the drug deteriorates on keeping. Consistent results can, therefore, be obtained only from samples of the drug which have been standardized at a recent date. Up to the present none of the alleged active principles of digitalis appear to have found much favour. Dixon[1] concludes a comprehensive review of the subject as follows: "Pharmacological and clinical investigations have not made a clear case for the substitution of 'active principles' for galenical preparations of digitalis in the treatment of patients. Those active principles are for the most part just as irritant as the infusion or tincture. They are neither more reliable and constant in action than a properly standardized tincture, nor are they absorbed more rapidly. They have the same tendency to accumulate and are much more expensive. The one advantage that certain of them possess over the pharmacopoeial preparations is that they may be given intravenously without ill effect."

Fortunately, the demand for standardized digitalis is now sufficient to have created a supply, and several firms of manufacturing chemists submit samples of their products to pharmacological tests before placing them on the market. I have been engaged in the physiological testing of galenicals for several years, and have accumulated a number of data regarding the potency of the tincture of digitalis.

* The expenses of the research on the keeping properties were defrayed by a grant from the Carnegie Trust.

Initial Potency.

During the three years ending December, 1911, I examined 23 samples of tincture of digitalis, freshly made by chemists of repute. The standard employed was that 3 minims of the tincture should kill a frog weighing 20 grams within four hours.

Only male frogs were used, as the weight of ova may vitiate results. Of the 23 samples 12 were of average potency, 6 were under the average and 5 were over the average strength. The actual strength of each may be indicated by stating the dose equivalent to the maximum pharmacopœial dose of 15 minims.

Average potency...	12
Under average ...	6–25 : 22½ : 22½ : 22½ : 20 : 18 minims.
Over average ...	5–10 : 9 : 8 : 7½ : 4 minims.
Total ...	23

Since these varying results are obtained by manufacturers who are anxious to produce drugs of standard potency it would be of interest to know what kind of tincture is made by firms who aim at nothing more than keeping within the letter of the law as laid down in the *Pharmacopœia*. It is to be noted that, in the case of tincture freshly made by firms of repute, the greater danger is likely to arise from the drug being too strong.

Keeping Properties.

Many estimates of the keeping properties of digitalis have been made. In most of these the initial criterion of potency has been care in manufacture or the reputation of the manufacturer. As already pointed out, this may not be a satisfactory test, and the value of the present results lies in the fact that the samples were all tested when fresh. Moran[2] found that a tincture made by a reliable firm of chemists from carefully dried leaves of good quality should retain its activity for two or three years. Haynes found that tincture of digitalis would keep for two years without material change in activity. His samples were kept in the dark. Other observers have found deterioration in two years' time, others in one year, and yet others in nine months.

The conditions under which my specimens have been kept were by no means specially favourable. They were not protected from light, and while the room in which they were stored was heated during the daytime for part of the year, they were subject to the variations of temperature of the Edinburgh climate during academic vacations.

The results may be summarized as follows:

1. Of three samples about a year old (14, 13, and 12 months) all were found to have retained their full activity.

2. Of four samples about 18 months old (20, 19, 18, and 18 months) one was found to have retained its activity, two were under strength to an extent not exceeding 33 per cent., and one was under strength to an extent exceeding 33 per cent. and not over 66 per cent.

3. Of three samples about 2 years old (22, 23, and 24 months) two were under strength to an extent not exceeding 33 per cent., and one was under strength to an extent exceeding 33 per cent. and not over 66 per cent.

4. One sample 2½ years old was found to have retained full activity.

5. Of three samples about 3 years old (37, 37, and 36 months) one was under strength to an extent not exceeding 33 per cent., one to an extent between 33 and 66 per cent., and one to an extent between 66 and 100 per cent.

In view of these results, which in a general way are concordant with those of others, it is hardly necessary to point out the necessity of prescribing only those tinctures of digitalis which have been standardized by physiological methods and are not over 12 months old.

Summary.

1. Nearly 50 per cent. of samples of digitalis made by manufacturing chemists of repute showed a departure from the average standard of potency.

2. The limits of this variation were from 275 per cent. over strength to 40 per cent. under strength. In other words, the effect of a dose of 10 minims might be that of 37½ minims or of 6 minims.

3. Tincture of digitalis probably retains its full activity for one year, but after that period deterioration of its potency to an important extent is likely to take place.

REFERENCES.

[1] *Quart. J. Med.*, V., 1912, p. 237. [2] *Med. Chronicle*, October, 1911.

LATERAL CURVATURE OF THE SPINE (SCOLIOSIS).

ANALYSIS OF TWO THOUSAND CONSECUTIVE CASES.

BY

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THE following analysis of 2,000 consecutive cases of lateral curvature of the spine (scoliosis) has been compiled from the notes of cases treated in private practice from July 1885, to June 1899, by the writer's father, Mr. Bernard Roth. The first series of 1,000 cases was published in the latter's book;[1] the second series of 1,000 was published by the writer in a paper read before the Annual Meeting of the British Medical Association at Birmingham in July 1911, which paper subsequently appeared in the BRITISH MEDICAL JOURNAL.[2] With the exception of reference made to them in a paper in the *London Hospital Gazette*,[3] the 2,000 cases are now published together for the first time.

1. SEX.—There were 1,721 females and 279 males—that is, females were affected six times more frequently than males.

2. AGE.—The age is taken from the time when the deformity was first noticed.

1 to 5 years old ...	... ...	84 cases.
6 to 10 years old ...	... ...	464 ,,
11 to 15 years old ...	... ...	973 ,,
16 to 20 years old ...	... ...	343 ,,
21 to 30 years old ...	... ...	105 ,,
31 to 40 years old ...	... ...	26 ,,
41 or more years old	... ...	5 ,,

Thus in 89 per cent. the deformity was first noticed between the ages of 6 and 20, and in 72 per cent. between the ages of 6 and 15.

3. HEREDITY.—573 cases, or 28.5 per cent., had blood relations also suffering from scoliosis. Particulars were obtained of 93 families in whom 3 or more members were affected; in 23 of these, 4 or more members were affected.

4. DEFORMITY (*Variety*).—Viewing the spine from behind, six varieties of deformity were met with:

	Variety. Description.	Name.	No. of Cases.	Percentage.
1.	Whole spine convex to left ...	Ordinary C	1,085	54.0
2.	(Upper (dorsal) curve to right / Lower (lumbar) curve to left)	Reversed S	618	31.0
3.	(Upper (dorsal) curve to left / Lower (lumbar) curve to right)	Ordinary S	123	6.0
4.	Whole spine convex to right ...	Reversed C	122	6.0
5	(Upper (dorsal) curve to left / Middle (dorsal) curve to right / Lower (lumbar) curve to left)	Ordinary ipsilon	48	2.4
6.	(Upper (dorsal) curve to right / Middle (dorsal) curve to left / Lower (lumbar) curve to right)	Reversed ipsilon	4	0.2

In the "reversed S" and "ordinary S" varieties the upper curve with but few exceptions was confined to the dorsal region, and the lower curve to the lumbar region.

Similarly, in the "ordinary ipsilon" and "reversed ipsilon" varieties, the two upper curves with but few exceptions were confined to the dorsal region, and the lower curve to the lumbar region.

5. DEFORMITY (*Degree*).—The cases were also divided into two groups, the "*postural*" and the "*osseous*." The cases with "osseous" deformity were divided into four subgroups, according as the deformity was "a trace," "moderate," "severe," or "extreme."

Thus, in the first thousand:

TABLE I.

Variety.	*Postural* (that is, no Bony Deformity)	*Osseous* (that is, with Bony Deformity due to Vertebral Rotation).				Total (Postural and Osseous).
		Trace.	Moderate.	Severe.	Extreme	
1. Ordinary C	81	104	276	61	1	523
2. Reversed S	1	21	152	121	34	329
3. Ordinary S	2	7	23	10	3	45
4. Reversed C	13	8	32	16	3	72
5. Ordinary ipsilon	—	1	13	14	—	28
6. Reversed ipsilon	—	—	1	1	1	3
	97	141	497	223	42	1,000

In the second thousand:

TABLE II.

Variety.	*Postural* (that is, no Bony Deformity).	*Osseous* (that is, with Bony Deformity due to Vertebral Rotation).				Total (Postural and Osseous).
		Trace.	Moderate.	Severe.	Extreme	
1. Ordinary C	69	75	365	47	6	562
2. Reversed S	3	19	122	120	25	289
3. Ordinary S	—	7	44	20	7	78
4. Reversed C	10	5	25	9	1	50
5. Ordinary ipsilon	—	—	9	10	1	20
6. Reversed ipsilon	—	—	—	1	—	1
	82	106	565	207	40	1,000

Combining the results in Tables I and II, the following figures are obtained for the 2,000 cases:

TABLE III.

Variety.	*Postural* (that is, no Bony Deformity).	*Osseous* (that is, with Bony Deformity due to Vertebral Rotation).				Total (Postural and Osseous).
		Trace.	Moderate	Severe.	Extreme	
1. Ordinary C	150	179	641	108	7	1,085
2. Reversed S	4	40	274	241	59	618
3. Ordinary S	2	14	67	30	10	123
4. Reversed C	23	13	57	25	4	122
5. Ordinary ipsilon	—	1	22	24	1	48
6. Reversed ipsilon	—	—	1	2	1	4
	179	247	1,062	430	82	2,000

6. PAIN.—In 916 cases pain was present; slight in 282, moderate in 250, severe in 384.

7. FLAT-FOOT.—This was present in 1,225 cases. In 933 of these cases the arch was restored by standing on tiptoe. In 292 cases the arch was not so restored—that is, they were cases of severe flat-foot.

In the book and articles cited will be found a full explanation of the terms used in this analysis.

REFERENCES.

[1] *Treatment of Lateral Curvature of the Spine.* By Bernard Roth. Second Edition. H. K. Lewis. 1899. [2] Report on a Thousand Consecutive Cases of Scoliosis, BRITISH MEDICAL JOURNAL, September 2nd, 1911. [3] Paper on Scoliosis, *London Hospital Gazette*, December, 1911.

LEFT-SIDED SUBPHRENIC ABSCESS DUE TO PERFORATED DUODENAL ULCER.

BY

CHARLES R. BOX, M.D., F.R.C.P.,

PHYSICIAN, WITH CHARGE OF OUT-PATIENTS, ST. THOMAS'S HOSPITAL; AND PHYSICIAN TO THE LONDON FEVER HOSPITAL.

THE following is an account of a case of subphrenic abscess, consequent upon rupture of a duodenal ulcer, which in many respects shows a striking similarity to that narrated by Dr. H. D. Rolleston in the JOURNAL of February 24th.

In both instances the abscess was left-sided, in both it was duodenal in origin, and in each case free gas was found to the right of the falciform ligament of the liver and purulent fluid to its left. My patient, however, was a young woman, his a man somewhat advanced in years.

A female servant, aged 23, was admitted to St. Thomas's Hospital on January 26th, 1899, and, in the absence of Dr. Sharkey, came under my care.

The history obtained was meagre, on account of her serious condition. We ascertained that she had never suffered from haematemesis or melaena but was subject to constipation, the bowels acting very irregularly. Six weeks prior to her admission she was laid up for three or four days with what was supposed to be pleurisy. She made a partial recovery, and went to stay with some friends. Six days before admission she experienced severe pain in the abdomen and felt very ill. She was kept in bed for a week under medical advice, and at the end of that time was sent up to hospital as a case of "pneumonia with pleurisy." There had been no vomiting, the bowels had acted freely, and plenty of urine was passed.

When admitted, she was found to be of good physique, but extremely collapsed and slightly cyanosed. Her pulse-rate was 156, the respirations were 58, and the temperature 99.2°. Her complaint was of pain in the left side of the thorax and in the abdomen.

The belly was tender and distended; its movements were in abeyance. The liver dullness, internal to the nipple line, was replaced by resonance. The flanks showed slight signs of fluid. In the lower left axilla the percussion note was dull, and this dullness merged with dullness in the left flank. The breath sounds at the base of the left lung were suppressed and a few crepitations audible.

The condition of the patient was very bad. No prolonged examination was possible, and no exploratory operation could be undertaken. She died within twenty-four hours.

Necropsy.

At the necropsy a considerable amount of free gas was found in the peritoneal cavity. There was but slight generalized peritonitis, and the lesser sac had escaped infection.

Under the left wing of the diaphragm and around the spleen lay an old abscess cavity, the walls of which were lined by a thin grey exudate. The abscess extended along the upper surface of the liver as far as the falciform ligament, by which it was limited to the right. It was shut off from the lower abdomen by the mesocolic shelf and costo-colic fold. Thus on the right side of the falciform ligament was free gas, on the left side pus.

The duodenum was surrounded by adhesions. On its anterior wall, immediately beyond the pyloric ring, was a small perforation which lay in the base of an ulcer the size of a threepenny piece. The ulcer had shelving walls.

The lower lobe of the left lung was entirely collapsed, and it was easy to trace the extent to which the uplifted diaphragm had brought the walls of the pleural sinus together; the apposed portions of the pleura were anaemic and the parts above congested. The upper limit of contact was almost horizontal round the thorax, and its level corresponded accurately to the lower margin of the fifth rib in the axillary line.

When discussing his case Dr. Rolleston remarks on the rarity of left-sided subphrenic abscess as a sequel to duodenal perforation, and quotes some remarks from an address I gave on the watersheds of the peritoneum.[1] The case related above was one of a number I had before me when I prepared that address, and was the instance on which my remark as to leftward spread was based. It was the first in which I had found a left subphrenic abscess consequent on duodenal ulcer, and is the only one in which I have seen such a strictly localized left-sided collection result. I have, however, my *post-mortem* notes on another patient, a man aged 25, who was under the care of Dr. Sharkey, also in 1899, and in whom a ruptured duodenal ulcer caused an accumulation of sour and turbid fluid under the left wing of the diaphragm and also in the pelvis.

The factor which determines the gravitation of the infective fluid in such cases is the relation which the

duodenum bears to the mesial abdominal watershed formed by the forward projection of the vertebral bodies. Since the perforation, or, to speak more correctly, the rupture of an adhesion, usually occurs to the right of this watershed, the extravasated fluid tends to gravitate towards the right renal weil (subhepatic fossa) or to invade the right subphrenic space. In those exceptional cases where the duodenum occupies a mesial position, or even lies a little to the left of the mid-line, the fluid tends to gravitate to the left, into the stomach chamber, and gives rise to an abscess under the left wing of the diaphragm.

Dr. Rolleston conjectures that adhesions may be responsible for the unusual site of the abscess in such cases, and this may well be so, but only, I submit, in so far as they may fix the duodenum in an abnormally leftward position. In other words, it is the slope at the side of the spine, and not the guiding constraint of the adhesions, which directs the infection to right or left as the case may be. In the first case recorded above the duodenal matting was rather extensive, but in the second case mentioned (Dr. Sharkey's) no adhesions were found. In this second case, too, I have a note of the position of the duodenal perforation; it lay nearly in the mid-line and was quite uncovered by the liver.

In the second case, as in the first, the contrast between the anaemic and injected portions of the pleura was evident, the line between the two being at the upper level of the sixth rib in the mid-axilla, so that in both patients the collection could have been evacuated by the lateral transpleural route on resection of portions of the sixth, or, better, seventh rib.

In justice to Dr. Jenkins and my colleague, Mr. Maynard Smith, I must repeat that the description of the most posterior part of the left subphrenic space, quoted by Dr. Rolleston from my address, is theirs and not mine.

I am, Sir, yours faithfully,
HENRY SEWARD.

Lancet, March 26th, 1910.

OPERATION FOR DECOMPRESSION: RECOVERY.

BY

R. W. MULLOCK, M.D.DUB.,

HONORARY MEDICAL OFFICER, SOUTHWOLD COTTAGE HOSPITAL.

THE patient in the following case, a gardener aged 25, was admitted to the Cottage Hospital, Southwold, on June 25th, 1907. His family history was good and his own health had been excellent until April, when headache and dizziness had commenced; he had gradually grown worse.

When admitted his headache was constant, and vomiting, without retching, occurred at intervals. He walked somewhat unsteadily, with feet well apart, and complained of dizziness. His eyesight was unaffected and the pupil reflexes normal. Pulse 46; temperature subnormal. A diagnosis of cerebral tumour was made, and he was treated with mercury and potassium iodide. He gradually became worse. At the end of July his position was as follows:

The headache was extreme, requiring ½ grain of morphine hypodermically nightly. Optic neuritis was present in both eyes; he was unable to read, and even pictures looked blurred and indistinct. There was no strabismus, but nystagmus was present on lateral movements of the eyes, in particular when made towards the right. No diplopia. Co-ordination of the right arm was bad: left arm normal; right arm and leg were weaker than left. He was unable to get on his feet, but when assisted to rise his gait was very uncertain and stumbling, with tendency to fall to right side at every few steps. With feet together and eyes shut he swayed to right.

Tumour of the right cerebellum was diagnosed, and on August 5th I removed a portion of bone 2½ in. long and 1½ in. wide over the right cerebellar region, and, as his condition was good, I incised and removed bulging dura mater. No tumour was evident, so I closed the wound without replacing the bone. He stood the operation well and the headache at once disappeared, but there was still slight sickness, considerable inco-ordination of the right arm, and marked diplopia.

On October 4th he could walk without a stick and was much improved, and was discharged.

In August, 1908, he returned to work and obtained a post as head gardener at an hotel in Southwold, which he still holds.

At present (October, 1911) his condition is most satisfactory. His gait, sight, and co-ordination are normal. He has had no headache since the operation nor any bulging at the site of the latter. Nystagmus is still present to a very slight degree when the eyes are moved to the right, and he complains of slight dizziness when his head is dropped backwards (in a barber's chair), but he can work as hard as ever and gives complete satisfaction to his employers.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

A RAPID METHOD OF DIAGNOSIS IN MALARIA.*

IT has often been said to me that it is impossible to examine every case of malaria in out-patient practice, owing to the length of time required; but I feel that in order to become thoroughly acquainted with the diseases of any locality this is necessary. The following is a method which I have found useful in practice:

Thick films are made on the slide without even a coverslip, so thick that the blood when allowed to run to one side is seen of a bright red colour. This is rapidly dried and examined directly under a drop of cedar oil and a $\frac{1}{12}$ in. immersion. The drying of this film causes the only delay. In a dry country such as Persia films will dry in the open air without any special treatment in about half a minute. In a damper climate they should be exposed to the sun turned upside down. In damp and cold weather they should be dried gently over a spirit flame. In any case one can begin the examination before the *whole* film is dry, and very often the information got is sufficient before the thicker edge is properly "set."

I have often proved the existence of malaria, verified, of course, by a properly stained slide, in one minute by the watch from the time of drawing blood. The thicker part of the film is best examined first, and from the character of the pigment the species of malarial parasite can, after a very little practice, be diagnosed in most cases with great ease, almost as easily as in a wet film. The diffuse and fine dots of tertian, the compact and coarser dots of quartan, and the peculiar arrangement of the pigment in the crescents in tropical malaria are very characteristic, not to mention pigmented leucocytes. They are as well seen as in a wet film, the chief point being to be sure that the pigment is on the same level as the red corpuscles, and disappears totally on focussing up or down. If no characteristic pigment is found in two minutes, the case is most likely not one of malaria; in any case of doubt, of course, the other methods are available, but probably not more than one case in ten of untreated malaria would escape detection.

I do not pretend for a moment that this is a method by which beginners can study malaria, any more than that of Sir Ronald Ross; but it is very rapid and accurate, and one, moreover, which avoids nearly all the pitfalls inseparable from those more commonly used, and, indeed, from Sir Ronald Ross's method, which I have tried. At starting, of course, a student should compare his dry slides with slides carefully stained in the usual way. This gives confidence and is a valuable check to the work.

I have no hesitation in saying that once this method is given a fair trial, it will be found of real use in out-patient work in tropical countries, where stress of work makes every minute of the greatest value.

Chepstow. J. CROPPER, M.D.

A CASE OF HYPOGLOSSAL NUCLEI PARALYSIS.

It has been disputed by some authorities, notably Oppenheim, whether the hypoglossal nucleus gives fibres to the seventh nucleus which supplies the orbicularis oris. Oppenheim takes up a sceptical attitude and thinks that such an innervation constitutes an individual abnormality. The contrary view is held by Howard Tooth and Purves Stewart. Bruggia-Mattenci described a positive case in 1887.

In view of the rarity of such a paralysis the following

* Read at the meeting of the Liverpool Medical Society and Hygiene, March 15th.

case, shown at the Transvaal Medical Society on December 21st, 1911, may be of interest:

A man, aged 30, with a specific history came to the hospital in November. A few days previously he felt his speech somewhat affected. Swallowing and chewing became embarrassed. In twelve hours these functions were almost entirely lost. There was also some weakness in the legs and an inability to move about. There was never any loss of consciousness and the case was obviously one of thrombosis.

A month later I saw him and found his condition as follows: There was difficulty in eating and speaking. He could not whistle, and constantly drooled from the mouth. The tongue lay flaccid on the floor of the mouth. The whole organ was atrophied, wrinkled longitudinally, showed fibrillar tremors, and could not be protruded. The faradic responses were much diminished, not only in the muscles themselves, but when the current was applied to the nerve above and behind the cornu of the hyoid bone. The fibrillary movements of the tongue made it difficult to measure exactly the qualitative alterations under galvanism of any given muscle. There was definitely a quantitative diminution of response throughout the whole organ. The point of chief interest was that the orbicularis oris clearly participated in the electrical alterations. There was no affection of the other facial muscles. The ocular muscles were all intact, as were all the remaining cranial nerves. There was no affection of the muscles supplied by the descendens hypoglossi. There was some implication of the pyramidal tracts. His gait was spastic, his knee-jerks much increased, and some ankle clonus could be elicited.

On iodides first, and later on iodides with mercury, marked improvement resulted in two months. He now speaks and eats without much difficulty. His tongue is clean and can be protruded beyond the teeth. Drooling has ceased. Although the knee-jerks are still somewhat exaggerated, the ankle clonus has disappeared, and he walks about comfortably with the aid of a stick. It would be justifiable to predict a greater measure of recovery with the process of time.

A. M. Moll, M.B., Ch.B.Edin.,
Senior Physician, Johannesburg Hospital.

SYPHILITIC REINFECTION.

Second attacks of syphilis are fairly common, but until modern methods of diagnosis were employed there were always doubts about the diagnosis. At the present time there appears to be an inclination to attribute the liability to these second attacks to the completeness of the cure, especially when salvarsan has been used. It is for this reason that this case may be of interest.

T. W., aged 28, contracted syphilis in 1909, and for two years seems to have had a thorough course of treatment by injection of mercurial cream. He then asked me whether it was possible to say if he was free from syphilis; to determine this, centrifugalized serum was sent to Hasiar, and also his blood was taken and examined at Plymouth Hospital. In both cases a positive Wassermann reaction was returned.

A short time after this I sent for the man and recommended him to have a further course of treatment; he then called my attention to the old scar, and I noted: "Site of old scar has come into prominence" (five weeks previously he had had connexion). He was then placed on hyd. c. creta, gr. iii ter die, but six weeks later the sore had broken down, and appeared suspiciously like a primary sore.

Serum from the sore was collected and examined for spirochaetes by the Chinese ink method. *Spirochaeta pallida* was readily found after half a minute's search.

F. C. B. Gettings, M.D.Lond.,
Staff Surgeon, Royal Navy.

A SIMPLE AND IMPROVED POST-OPERATIVE DRESSING.

I read with interest the articles on "Methods of Dressing Aseptic Wounds" which appeared in the Journal of February 3rd, 1912. The following method, which has been adopted for some time in the Royal Infirmary, Preston, and proved satisfactory, is, I venture to suggest, more comfortable to the patient, and quite as efficient.

Previous to operation the skin is prepared by the iodine method, that is, the application of a 2 per cent. solution of iodine in rectified spirit. After the stitches have been tied the same iodine solution is again applied along the line of incision and adjacent skin. A protective covering of gauze two or three layers thick is fixed at its edges to the skin by collodion or strapping. The dressing is removed on the seventh to tenth day and the stitches taken out, and a third and last application of the iodine solution made, no further dressing being necessary. In many cases, to minimize the exudation of serum and arrest any small bleeding points that may have been overlooked, insertion of one or more deep mattress sutures is useful; these are removed on the second or third day, when a similar protecting dressing is reapplied.

The following appear to me to be the advantages possessed by this method:

(*a*) Simplicity of application.

(*b*) Increased comfort to the patient, as more bulky dressings necessarily cause discomfort and irritation.

(*c*) The production of a dry wound by free ventilation. The serum from the line of incision dries up, and makes a very efficient barrier against micro-organisms.

(*d*) Free exposure of the abdomen, rendering observation more easy.

(*e*) Success of its use as shown by our results being better than those yet obtained by older methods. An extensive trial in various cases has proved itself uniformly satisfactory.

The cutting of the stitches short so as to prevent them coming through the meshes of the gauze renders the dressing more comfortable.

L. T. Poole, M.B., Ch.B.Edin.,
Resident Surgical Officer, Royal Infirmary, Preston, Lancs.

ETIOLOGY OF ERYTHEMA NODOSUM.

It may be of interest to those concerned in the study of the pathology of erythema nodosum to record the following case which came under my care at the Queen's Hospital for Children, being one of three admitted within seven days of each other:

A girl aged 12 was admitted with a history of phthisis in both maternal grandparents and of having had an attack of chorea two and a half years previously and an attack of rheumatic fever about eight months afterwards. She was admitted, with a temperature of 102°, on account of morbus cordis and some signs of pleurisy, neither of which proved to be urgent. About twenty-four hours after admission the usual signs of erythema nodosum began to appear on the legs, the temperature being still raised. As I had never had the opportunity of diagnosing a case so early in its course, I thought a blood cultivation might prove interesting, and Dr. Woodforde, who was good enough to make one, reported the presence of a streptococcus which gave all the sugar reactions of *S. salivarius*.

Taking all these facts together, they would appear to militate against the views of those who hold that this disease is a separate infection from rheumatic fever, notwithstanding the tuberculous history.

Ingatestone. Sheffield Neave, M.R.C.P.Lond.

CONTINUOUS INHALATION TREATMENT OF PULMONARY TUBERCULOSIS.

Reading in the Journal, of April 6th, p. 767, Dr. Lees's very interesting list of cases treated as above, brings to my mind what seemed a very good example of marked and rapid improvement in a patient who consulted me last November. Mr. R., aged about 50, consulted me for a cough which had been troubling him for some months. On examination I found signs typical of pulmonary tuberculosis, dull areas, and crepitant sounds in both lungs. I had his sputum examined at the Clinical Research Laboratory, and a report of "a moderate number of bacilli." He was placed at once on continuous inhalation. In a month's time the laboratory report of his sputum was "no bacilli, but some muco-pus." The cough also greatly improved, and to use his own expression, "he felt a different man to what he had felt for months." A month ago he told me he was feeling very well, and had but little cough. As an isolated case, perhaps this proves little, but in conjunction with Dr. Lees's remarkable list perhaps it is worth reporting.

New Wandsworth, S.W. J. Ashton, M.B.Lond., M.R.C.S.

Reports
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

MANCHESTER ROYAL INFIRMARY.

AN UNUSUAL CASE OF INTESTINAL OBSTRUCTION.

(Reported by J. R. Rigg, M.B., Ch.B.)

I am indebted to Professor William Thorburn for permission to publish the following notes. The case was one of intestinal obstruction, intermittent in character, due to the ball-valve action of a foreign body. The patient, a male aged 44, a labourer, was admitted on January 19th last as a case of recurrent appendicitis, and gave the following history:

Six years ago he had his first attack of severe abdominal pain, beginning on the left side and spreading over to the right. The attack lasted about an hour, and then vomiting came on, first of food swallowed at the last meal, then of "brownish, bitter-tasting matter," and the pain was relieved, the patient feeling quite well again next day. Since then he has had very many attacks, the longest free interval between any two being not more than three months. Up to December, 1911, however, the patient had not been confined to bed, but then he had an attack the symptoms of which were so severe that he was in bed for nine days. The pains lasted from ten minutes to three or four hours, and were always relieved by vomiting. He had suffered from constipation for many years and had not been losing weight.

On admission, the general condition was good, pulse 84, temperature normal, bowels slightly constipated. Examination of the abdomen showed neither distension nor peristalsis. Some fullness could be felt in the right iliac fossa, palpation eliciting tenderness; tenderness was also experienced on rectal examination.

Operation.

An exploratory operation was decided upon, and was performed by Mr. Thorburn on January 24th. The abdomen was opened by the usual gridiron incision for removal of the appendix. On incising the peritoneum a loop of small intestine presented, was drawn out through the wound, and at once seen to possess pathological features, a constriction being observed, with marked hypertrophy of the gut above and atrophy below. The constriction was very localized, and the peritoneal coat in the vicinity was studded with small white nodules resembling tubercles. The mesentery of the affected loop also showed pathological changes—namely, an old inflammatory cicatrix, and an enlarged and hard lymphatic gland. Palpation discovered a small hard body, which could be freely moved about inside the lumen of the hypertrophied gut above the stricture, beyond which it could not be passed. The bowel was replaced in the abdomen and the appendix sought for. It was found on examination to be quite normal, and evidently the symptoms could not have been due to any lesion of the appendix. Appendicectomy was performed, and attention again directed to the constriction first encountered. The affected loop of intestine was once more drawn out through the incision, and it was decided to excise this portion of gut. Intestinal clamps were applied, and about 6 in. of intestine, including the stricture, removed, along with a portion of the mesentery and the gland already mentioned. End-to-end anastomosis of the divided gut was then performed with the aid of a Robson's bobbin, and the intestine replaced in the abdomen, which was closed in layers.

When the portion of bowel removed was opened up the stricture was seen to be of old standing and inflammatory in nature. In the hypertrophied gut above, lying in a small crypt, evidently fashioned by it, was found a plum stone, the hard movable body previously referred to. The condition is well shown in the photograph. The valvulae conniventes were large and well marked, proving that the part of bowel removed had been situated high up in the small intestine.

A microscopic section was made of the whole thickness of the bowel at the site of stricture, and confirmed the diagnosis of inflammatory origin, the slide showing marked fibrous changes with anomalous giant cells.

Recovery was uneventful. The patient left the hospital twenty-one days after operation, quite well.

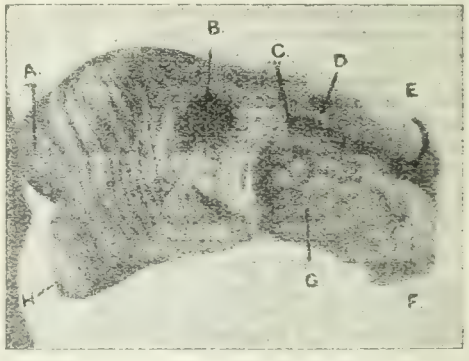
Remarks.

The case presents some points of interest:

1. The indefinite character of the symptoms diagnosed as appendicitis. The short, sharp nature of the attack, lasting only a few hours, relieved by vomiting, and occurring at very frequent intervals, was not of the ordinary appendicular type.

2. When the abdomen was opened, the affected coil at once presented. This admits of a two-fold explanation. In the first place, all collapsed small intestine below a point of obstruction high up tends to fall towards the right iliac region. This is mechanical, and due to the position of the sigmoid colon on the left side, and also to the arrangement of the great omentum. Then again the position of the pathological bowel immediately beneath the parietes is probably due to "vital" action. It appears to be Nature's way of dealing with the diseased gut, by bringing it to the ventral surface, into the situation most suitable for the formation of a faecal fistula, whereby intestinal obstruction may be relieved.

3. The fibrous stricture of the small intestine, which had evidently been present for many years, as shown by the signs of old inflammation on the peritoneal aspect of the bowel, and the hard semi-calcified gland, had caused no



A, Valvulae conniventes; B, plum stone; C, stricture; D, peritoneal coat (tubercles do not show); E, constricted portion of gut; F, atrophic gut below; G, peritoneal coat; H, hypertrophic gut above stricture.

symptoms at all until the advent of the plum stone, the gut above having hypertrophied sufficiently to drive the fluid contents of the intestine along. Then it would seem that, after impaction at the stricture for some time, the peristaltic movements of the bowel displaced the stone, and it fell away to one side, into the little fossa which it gradually made for itself, and the intestinal contents passed on again. All the subsequent attacks were apparently due to dislodging of the stone from this fossa up against the stricture. Unfortunately the patient had no recollection of swallowing the stone.

4. The original cause of the stricture is quite unknown, but it was probably due to trauma, using the word in its widest sense. The extremely localized nature of the obstruction made one think of internal hernia, occurring in infancy and reducing itself, the stricture afterwards developing at the point where the gut was nipped. At the same time, tuberculous disease must not be overlooked, although the giant cells were somewhat atypical, and the rest of the abdomen, as far as could be explored, showed no indication of tuberculous disease elsewhere.

5. The operation of end-to-end anastomosis was performed through the original appendicular incision with entirely satisfactory results. The position of the coil in the small intestine was not anatomically located, but, as mentioned before, the large valvulae conniventes supplied the clue.

The late Sir William Allchin, M.D., left estate of the gross value of £8,405, with net personalty £8,104.

Reports of Societies.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

Friday, April 12th, 1912.

Mr. McADAM ECCLES, President, in the Chair.

Discussion on Rheumatoid Arthritis.

THE PRESIDENT opened the discussion by giving what he had been accustomed to take as a working definition, but added that he expected to hear it roughly handled in the debate. He regarded rheumatoid arthritis as an arthritis affecting, as a rule, many joints, but chiefly the smaller ones, and occurring usually in the female sex, and always due to the absorption of a toxin. His feeling was that the cause should be sought for, and if that were found the treatment became clear. But the etiology of the disease was so varied that the treatments had been multitudinous. Multiple arthritis must be caused by an infection induced from a particular focus to the joints by the blood stream, and advance in dealing with the condition was almost entirely based upon the new science of bacteriology. It thus concerned every branch of the profession.

Dr. F. J. POYNTON read a paper, illustrated with photograph slides, on experimental work bearing on causation. In this he confined his attention to one point, the demonstration that one micrococcus—namely, that which he believed to be the cause of acute rheumatism—might experimentally produce in animals various types of arthritis. He demonstrated the occurrence of acute transient arthritis, osteo-arthritis, and periarticular arthritis. In all these examples he emphasized the fact that no suppuration had occurred. The different lesions depended on the severity and duration of the arthritis which resulted from intravenous inoculation. He believed that among the many causes of rheumatoid arthritis acute rheumatism must be included, and he desired to make it clear that to try to differentiate a case as one of rheumatoid arthritis upon the character of its lesions alone would be liable to lead to error. He regarded it as a distinct step forward to be able to reproduce such lesions as he showed occurred. They were the result not of the direct infection of a joint, which he thought to be of but little scientific value, but of intravenous inoculation. The histology of the capsule of the joints in these lesions was interesting because it showed a perivascular fibrosis in the chronic cases, which seemed to explain the tendency to atrophy of these structures, and the consequent stiffness of the articulations. He thought the problem of the etiology was distinctly nearer solution at the present time, and to him it was narrowing itself down to these points. If all the infections known to produce a severe non-suppurative arthritis were taken away, was there still left some specific but unknown infection? Could rheumatoid arthritis arise without some infecting agent? He had investigated for Mr. A. E. Barker, with Dr. Paine a considerable number of rheumatoid joints, and was inclining to the belief that just as certain streptococci and organisms of the streptococcic group might produce these lesions, so also might some which belonged to the group of staphylococci. Unfortunately, as was the case in animals, cultures from these human joints, though the joints were grossly diseased, were repeatedly negative, and that fact made advance in this direction very slow. Dr. Poynton expressed his admiration of the investigations made by Mr. Goadby upon dental suppurations. It would have been gathered that he, the speaker, regarded rheumatoid arthritis as a result of many infections: and though he believed the constitution of the patient had a most important share in the history of the disease, he rather doubted the possibility of such lesions arising without the addition of some infecting agent.

Dr. LL. JONES LLEWELLYN referred to the charts of fields of vision shown by Mr. Harman, indicating a definite restriction in subjects of rheumatoid arthritis, and said that he saw the same association nine years ago, at Bath, in company with Mr. Beaumont of that city. There seemed to be here a confirmation of the occurrence of vasomotor phenomena identical with or similar to those found in Raynaud's disease. Vasomotor phenomena were present long before the obvious joint trouble. He had seen 6 cases of gastric ulcer in whom there was a local asphyxia or syncope of the fingers, and in whom there developed later periarticular swellings. If this precursor were more frequently recognized, much might be done to ward off rheumatoid arthritis.

The PRESIDENT, in this connexion, referred to a recent article in this JOURNAL dealing with the subject of "dead fingers," and said he had often heard patients complain, before getting the fusiform swellings, of deadness of fingers.

Mr. LLOYD WILLIAMS made a contribution on oral sepsis in the causation of rheumatoid arthritis. He said the conditions favouring infection were, first, stagnation of food around the necks of the teeth and on the gums, and tartar around the necks, which, with the fermenting food stuffs, caused an ulcerative gingivitis. Food débris was very full of mouth bacteria. This condition was frequently diagnosed as pyorrhoea alveolaris. Secondly, caries, even if only one tooth was involved, with exposure of nerve, was a serious cause, as it threw the nerve and the opposing tooth out of function. The third cause was chronic septic periostitis or pyorrhoea alveolaris, a condition not easily diagnosed. The main features to look for were exudation of pus on pressure of gums around the tooth after cleaning away any débris; secondly, testing for pockets between teeth and gums, for normally the gums were continuous with the periosteum and adherent to the neck of the tooth immediately below the line of the enamel. Where the disease was present, a probe passed some distance along the root of the tooth. The attachment of the tooth in the jaw was a joint known as gomphosis, and there seemed some reason for the view that the chronic septic periostitis was itself an arthritis. The membranes were first attacked in osteo-arthritis; there seemed to be no specific causal organism. Thickening in the alveolar bone had been observed, with distinct bossing and lipping. Removal of septic foci in the mouth alone brought about improvement, and cures of the condition had been more frequent since the advent of vaccines. A woman, aged 27, was in the ward, under Dr. Beddard, complaining of pains in the joints and all over her for a month; she was sent to the hospital under the idea that she was suffering from acute rheumatism. She looked ill, and her complexion was muddy-looking. The eyes were photophobic, and only reacted to light sluggishly. Her tongue was furred, and she had several stumps, and one carious tooth with a septic pulp. Her knees and wrists were slightly swollen, tender, and painful. The affected teeth were removed, and a culture taken. A vaccine of pneumococci and staphylococci was made, and 10 million injected. The temperature gradually fell thereafter, and soon she was discharged well. He showed that evening a man, aged 56, who had pains in the metacarpal joints and in the knee, and for six months they had been getting worse. There was no wasting of muscles, nor tenderness over the sciatic nerve. When first seen, the mouth was very dirty, and it was cleaned for a fortnight with 1 per cent. chromic acid. There was still a patch of thickened mucous membrane around the affected teeth. A vaccine was prepared from organisms in the deep discharge of the teeth, namely, a Gram-positive diplococcus, probably a pneumococcus, and a Gram-negative bacillus, probably *E. coli*. Twenty-five million were injected, and the patient now looked brighter, and said his hands were greatly improved. He was also now able to sleep much better.

Dr. MIDELTON contributed a short paper on his methods of treating rheumatoid arthritis by counter-irritation, especially the application of an ointment consisting of croton oil, cantharides, acetic acid, and almond oil, his aim in this being simply to produce a rash. Patients might complain, for a day or two after the application, of burning or irritation, but that was relieved by applying hot water, followed later by glycerine. He used drugs very little. He also used the galvano-cautery, which could be applied either to the spinal column or to the neighbourhood of joints. It was not his custom to anaesthetize the skin beforehand. The administration of thyroid and the use of baths and massage had also had a place in the treatments he practised. His difficulty had been to prevent patients from using the affected limbs too much when he had restored power to them; early movement he regarded as a mistake. Neither did he believe in the early breaking

down of adhesions in these cases; it was better to wait until the general health had been largely built up, and his treatment seemed to soften adhesions. He illustrated his paper by showing a number of lantern slides, and gave particulars of cases treated.

Dr. HORDER sent a paper on the treatment of the condition by means of vaccines, which was read by Dr. STANSFIELD. In it was reviewed the present position of the matter and animadverted against the present nomenclature, preferring the term "multiple arthritis." Pigeonholing cases under a generic term he regarded as fatal to right treatment, because it limited one's conceptions. Inoculations should, in his view, form only part of the treatment. In many cases irretrievable damage had already been done to the joint before vaccines were applied. He regarded recent results of vaccine treatment in the condition as encouraging.

Dr. PRESTON KING also alluded to the unsatisfactory nomenclature, and agreed that there were a number of causes at work producing the same apparent condition, the cause sometimes being the specific germ of rheumatism. Even before the discovery of that bacillus he advanced the view, in a thesis, that the disease was microbic. Bath and other mineral waters were not claimed as anything more than helpful adjuncts in treatment, and if those waters had been used oftener in conjunction with vaccines failure to cure would probably have been fewer. He agreed with Dr. Midelton as to the importance of rest to the joints, even if the state was only subacute. At the Mineral Water Hospital adhesions were not broken down; he considered that was a barbarous method. A case which had been shown that evening by Dr. Palmer was of special interest; neither Dr. Palmer nor he knew until that evening that the case was under his (the speaker's) care twelve years ago. There was an enlarged shoulder and swelling and deflection of fingers; but now there was no rheumatoid arthritis at all. Every effort should be made to find out a definite etiology. He had tried vaccines made from the teeth exudation, but had had very little encouragement. A lady bacteriologist some years ago worked out, at Cambridge, the fauna and flora of the vagina, but she arrived at no definite useful conclusion. He had seen cases caused by the gonococcus which resembled rheumatism in appearance.

Mr. ERNEST SHAW said it was interesting to him to hear the various names which were bestowed on what some said was rheumatoid arthritis, and others said was osteo-arthritis. For years he had considered that in these joint troubles there was a micro-organism in the joints or around them, and that view was shared in by the President and Dr. Poynton. He narrated some cases in which vaccines made from the joint effusions resulted in benefit. When the mouth, nose, and throat were healthy, a swab from the cervix in a woman would be likely to afford a clue; or, failing that, the fæces should be investigated. *Staphylococcus albus* and a diphtheroid bacillus were frequent sequelæ of gonococcal invasion.

Dr. RICE-OXLEY related the case of a lady, aged 32, who complained of the series of symptoms which one recognized as those of oncoming rheumatoid arthritis; but guaiacum and sulphur produced no satisfactory results. Therefore he decided upon inoculations, especially as the nose and throat seemed injected and the tonsils enlarged. After two months' treatment the result was strikingly good; most of the pains had gone, and she seemed quite different. There were some cases in which there seemed no cause for the condition except the onset of the menopause; but some of them might be due to unsuspected gonococci having been absorbed from the vagina.

Dr. DAUBER said it was now largely the custom to attribute to oral sepsis many of the ills to which humanity was liable, but it was well to remember how common oral sepsis was. During the last five years the condition of the mouth of every patient under his care at a women's hospital was examined, and not 1 per cent. of those women had what could be called a clean mouth. A better result was found on examining members of a yeomanry regiment, but even here there was a very large proportion of unclean mouths, yet the general health was very fair. But there had not been a case of rheumatoid arthritis in the regiment for years.

Exhibits.

Dr. BERNSTEIN and Dr. BRAXTON HICKS: Series of museum specimens, not only of the disease in point, but of other joint affections, for purposes of contrast. There was a hypertrophic Charcot knee, a specimen of tuberculosis of the knee, the cirrhosed liver from a girl, aged 23, who for ten years had had chronic arthritis, without any history of alcohol, and specimens showing wasting and eburnation of the bones. Mr. BISHOP HARMAN: A number of charts of the fields of vision of cases of rheumatoid arthritis, for several of which he expressed his indebtedness to Mr. Beaumont of Bath. In a series of 40 cases the average reduction of the visual fields was 20 per cent. Dr. W. J. MIDELTON: A number of photographs of cases of the condition at various stages. Dr. REGINALD MORTON: Skiagrams of joint conditions—osteo-arthritis, rheumatoid arthritis, and septic arthritis, with normal joints exposed by the same rays. The joints which were the subjects of rheumatoid arthritis showed absorption of interarticular cartilage, but with practically no osteophytic formation. On the other hand, an osteo-arthritic joint did not show so much interarticular absorption, but lipping of the bone was very distinct. A fine specimen of a Charcot joint which was dislocated showed large osteophytes attached to the bone, and others which were not obviously connected with bone. A shoulder-joint radiograph showed the humerus in an abnormally high position, owing to the absorption of the articular cartilage and subacromial bursa.

HUNTERIAN SOCIETY.

Wednesday, March 27th, 1912.

Dr. HINGSTON FOX, President, in the Chair.

The Therapeutic Value of Alcohol.

SIR VICTOR HORSLEY, in opening a discussion on the therapeutic value of alcohol, said that the enormous decrease during the last twenty five years in the amount of alcohol used at hospitals and other institutions was due partly to increased knowledge of its action and partly to the number of newly discovered drugs at disposal. Though the evidence as yet available in respect of its therapeutic value was conclusive in neither direction, most members of the profession held a pretty decided opinion on the drug one way or the other. Alcohol was now prescribed sometimes as a stimulant, whatever that might mean; sometimes, in an exactly contrary sense, as a narcotic; and, very rarely now, as a "tonic." The narcotic action was indubitable, but the so-called stimulation effect was really a phenomenon caused by the removal of the control of the highest nerve centres. The error of the belief in a tonic action was shown by comparing the appearance of dogs which had been total abstainers with that of others of the same breed which had been moderate drinkers over a period of three years. He could not speak of the treatment of pneumonia from personal experience, but he believed that whereas twenty-five years ago alcohol had been regarded as a sheet anchor, it was now discarded by most physicians in treating that disease. It had certainly been learnt that the patient's resistance to the pneumococcus was diminished by alcohol, and the Registrar-General had even gone so far as to ascribe the excessive death-rate from pneumonia in males to the fact that they consumed more alcohol on the average than females. He asked physicians present whether blood pressure and cardiographic records showed that alcohol could be called a cardiac stimulant in pneumonia, and what was its relation to the grave symptom of arrhythmia. The effect of alcohol in pyrexia was the sum of its effect on the infective process underlying the pyrexia, and its effect upon the increased katalytic metabolism that was going on. Even in very small quantities it diminished the amount of complement in the blood, it inhibited phagocytosis, it lessened the resistance of the red corpuscles to haemolytic agents, and, as had been shown by Laitinen in regard to *B. typhosus*, it injured the bactericidal power of the body fluids. Possibly alcohol acted as a protein sparer, but this was no therapeutic advantage. He supposed that most surgeons had given up the use of alcohol altogether in the treatment of shock. Even if its effect on the isolated heart was not paralysing from the first—a point in dispute—it was as a foodstuff for the heart quite futile when compared with dextrose. The use of sugar in all armies and in the Boer war illustrated this point. His final opinion was that alcohol should be avoided as a therapeutic agent, if only on account of its habit-producing properties. The disadvantages of the drug far outweighed its advantages, and the speaker, at any rate, would not employ it.

Professor CUSHNY said that methods of experimentation were very often fallacious. The "isolated" heart, for instance, was unprotected by the plasma, and was much more susceptible to drugs. In intact animals he had

always found a weakening of the heart beat from the outset when alcohol had been administered. The idea that alcohol was a stimulant drug of any importance to man must certainly be dismissed; he did not, however, share the view that alcohol could be called a deadly poison in infective processes. It had certainly been shown that in intoxicant doses it rendered rabbits much more liable to infection, and all would agree that the same held good for man. But as the doses used had become smaller, the results had become increasingly indefinite, and he concluded that very moderate drinking could in no way be considered to lessen the resistance to infection. Alcohol, like chloral or opium, was of real use in medicine by making life more tolerable to the patient.

Dr. F. J. Smith, speaking as a practising physician, said he now used alcohol very sparingly in hospital work, but he could not honestly say that the results of treatment were one whit better or worse than in the days when it was used in enormous quantities. He prescribed alcohol in practice first because it often made life tolerable for his patients. It induced hope, and hope and the results of hope could not be measured by experiment. Secondly, he prescribed it to patients who had found that it had helped them to eat. In such cases he believed it acted indirectly as a tonic.

Mr. M. C. Corner said he had found whisky of great service in old people with rheumatic pains, and in cases of lung trouble where there was tight breathing and the skin was not acting well. He had used brandy with success in heart disease, and had given it per rectum in cases of collapse in midwifery. Possibly peripheral stimulation of the mouth and gullet by alcohol played a part of some importance in the therapeutic action of alcohol, and this explained some of the conflicting results obtained by experiments on animals on the one hand and clinical experience on the other.

Mr. F. S. Kidd objected to experiments on animals with alcohol being put before the general public as if the results obtained from them held good for human beings. Sir Victor Horsley had spoken of the effect of alcohol in diminishing resistance to infecting organisms, but the speaker would like to ask what effect alcohol had on, say, the pneumococcus itself? Did it not diminish its vitality? He had himself been injecting alcohol into urethrae infected with gonococci, and he had found that the gonococci were considerably the worse for the injection.

Dr. Hyslop said the question whether he was justified in using alcohol had often come before him in the treatment of mental disease, for he had often encountered grave conditions of insomnia which seemed to be untouched by all hypnotics. He recognized that alcohol—like chloral, bromide, and other drugs—exerted a deleterious effect on brain cells, but he thought it might occasionally be used as an alternative. The ordinary nightcap he regarded as exceedingly deleterious. He believed that the hypnosis produced by alcohol was in the nature of an auto-intoxication, for the oxygen used to eliminate the alcohol was drawn from the supply available for oxidizing the ordinary waste products of metabolism. For this reason a subject in whom sleep had been induced by alcohol woke up feeling very tired. In asylum practice alcohol had gradually been eliminated from diet as well as from therapeutics.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

At a meeting on April 3rd, Dr. F. R. Murch in the chair, Mr. A. R. Anderson described six cases of *Obturator hernia* recently treated at the General Hospital. Five of these patients were elderly females, and in one case the condition had recurred six months later. In none of the cases was a lump to be felt in the thigh, nor was there any special pain along the obturator nerve. In fact, in all those cases the symptoms were those of intestinal obstruction, and in all cases an abdominal operation was performed for its relief. In regard to these cases in general, the patient should be placed in the high Trendelenburg position as soon as the cause of obstruction had been localized. In most cases the bowel was severely nipped by the fibrous arch of the obturator membrane forming the border of the canal, and this was likely to produce gangrene of the gut. With a view to performing a radical cure in women a portion of the broad ligament should be sewed over the opening. In men a flap of the obturator internus muscle should be turned over the opening. The mortality of the six cases recorded was 50 per cent.: it was due to the great difficulty in diagnosing the herniae. It was therefore worth while in the case of an old woman suffering from signs of partial intestinal obstruction to bear in mind the possibility of an obturator hernia being present.

ASSOCIATION OF REGISTERED MEDICAL WOMEN.

At a meeting on April 2nd, Dr. Constance Long, President, in the chair, Dr. Janet Lane-Claypon gave an address on the work and aims of the Research Defence Society. It was founded in 1908, and one of its chief objects was to make generally known the work carried on by experimentation upon animals. Lord Cromer, the first president, had recently resigned, and had been succeeded by Sir David Gill. The society boasted a list of illustrious vice-presidents, to which the names of Mr. Balfour and Sir Edward Elgar had recently been added. The administration consisted of a Central Executive Committee with various branches in England and Scotland, also one in Dublin. The speaker went on to state that there were many educated and intelligent people who had no true conception of the methods whereby experimental work on animals was carried on. Certificates were necessary for every variety of research work performed upon animals—even such a simple step as a feeding experiment could not be undertaken without this permission. In addition, all laboratories concerned were subject to surprise visits from inspectors who travelled about the country for this purpose. Reference was made to a few of the more important points in the recent report of the Royal Commission on Vivisection. That Commission had begun its work by investigating various charges brought against the Home Office and against individual workers, and had finally decided that the witnesses produced by the antivivisectionists had misunderstood or misinterpreted the nature of the experiments under consideration. Another important phase of work considered by the Commission was the advancement of science due to experimentation upon animals. For example, with one or two exceptions, no narcotic drug had been introduced into the *Pharmacopoeia* before experiments as regards action and dosage had been performed upon animals. Passing to the work of the society, reference was made to diphtheria antitoxin, and tables were shown illustrating the great advantages resulting from its use. Plague was next considered. The area of distribution of the disease had grown enormously, owing to increased trading facilities and the consequent transportation of rats, during the last twenty years. The natives of India had long recognized that where there were no rats there was no plague. A French observer first pointed out the connexion between fleas and the disease, and Dr. Liston, I.M.S., was the first to describe special rat-fleas, at the same time showing that each animal has its own species of flea, which will not, under ordinary circumstances, bite another variety of animal. He also demonstrated the presence of *Bacillus pestis* in the blood of fleas from infected rats. Experiments on these lines, with confirmatory results, were performed last year at the Lister Institute in connexion with the outbreak of plague in Suffolk. Lastly, reference was made to Haffkine's vaccine and the great reduction in mortality which had followed its use.

The ninth meeting of the Association Internationale de Perfectionnement Scientifique will be held this year from August 10th to September 6th in the Balkans, Turkey, and Greece. The Congress, starting from Aix-les-Bains, will visit Venice, Trieste, Agram, Belgrade, Kazan in Bulgaria (by the Danube), the Iron Gates of the Danube, Bucharest, Sofia, Constantinople, Mytilene, Smyrna, Athens, Eleusis, Olympia, and Corfu. The final meeting will be held at Evian-les-Bains. Further information may be obtained by application to the Secretary, Rue François-Millet, Paris XVI.

Reviews.

OPHTHALMOLOGY.

A NEW edition of Swanzy's *Diseases of the Eye*[1] is always welcome, and this—the tenth—appears under the joint authorship of Sir HENRY SWANZY and Dr. LOUIS WERNER. It is rather different in appearance from the nine preceding editions, being bound in dark blue covers instead of the familiar red, and the volume itself is rather larger; but, with these exceptions, it is the same old friend that the junior and middle-aged generations of ophthalmic surgeons have known all their professional lives. Without in any way reflecting on the excellence of many contemporaries, we must confess that "Swanzy" holds a place in our affections which is not shared by any other book. Although it is nothing like so large a volume as many, containing only a little over 600 pages, which is fewer than in some of the earlier editions, yet there is scarcely anything one ever wants to look up that will not be found in it; in fact, we are unable to find anything omitted which is of the slightest importance. It is so well written and compiled that it is always a pleasure to read any part of it. The arrangement of the present edition differs slightly from the others. The earlier chapters now treat of the normal eye and its functions, and the methods of examination, while abnormalities of refraction are transferred to Chapter XV. The appearance and also the value of the book is much enhanced by the inclusion, for the first time, of nine coloured plates, which contain twenty-one figures, all taken from the original paintings of Dr. Werner. These are beautifully drawn and reproduced. There are also in the text a good many reproductions of photographs and drawings. The theories of colour vision and the tests are all carefully given. The Remy diploscope is described, as well as the diaphragm test of Harman. A most careful and detailed description is given of the removal of cataract. An evident preference is shown for the operation done in the usual way with iridectomy. The authors describe the "simple" extraction, and also give brief directions for removing the lens in its capsule after the manner so ably advocated by Colonel Henry Smith of the Indian Medical Staff. In describing the operation of discission for cataract, the method of introducing the needle through the cornea is described and figured, though what most people now consider the safer plan of introducing the needle into the anterior chamber subconjunctivally is also mentioned. It is considered that this operation is applicable to all cases of cataract occurring in people up to 25 years of age. The appendix is composed of the rules and regulations regarding eyesight for the British Army and the Royal Navy, the Home Civil Service, the various departments under the Indian Government, and the Royal Irish Constabulary, and the Board of Trade tests for the British Mercantile Marine. At the extreme end of the book there are specimens of sixteen different coloured wools illustrating the Holmgren test for colour vision. We should like to have seen other and more satisfactory tests for colour blindness illustrated, for this test has been so often proved to be unreliable that its perpetuation is rather a pity in a book so thoroughly up to date as this is, especially as it is the only one thus singled out for special illustration. We cannot too highly praise the book, and we feel assured, after most careful perusal, that it will continue to hold the highest place among books of this sort, a position it won for itself many years ago.

There is now being brought out *An International System of Ophthalmic Practice*[2] edited by Dr. WALTER L. PYLE, of Philadelphia, in several volumes; that on Pathology and Bacteriology is written by E. TREACHER COLLINS, F.R.C.S., and M. STEPHEN MAYOU, F.R.C.S. It is a well got up and handsome book, consisting of about 550 pages, with three coloured plates and 237 figures in the text. The subject is divided into seven chapters. Chapter I deals with aberration in development, Chapter II with neoplasms, Chapter III with derangements in the circulating fluids of the eye and of the vessels in which they are contained, Chapter IV with injuries, Chapter V with inflammation, Chapter VI with parasitic diseases affecting the eye, and the last chapter with degenerations. Besides these there is an appendix which is concerned with the practical methods of pathological and bacteriological research. The chapter on congenital defects is most interesting; in it the way in which these abnormalities are developed is discussed. In connexion with the development of metastatic growths it is stated that although there is no doubt that sarcomata are disseminated by emboli of cells from the parent growth, "it has recently been shown that secondary carcinoma is usually due to a process of permeation. The cancer cells at the seat of the primary growth extending into the lymphatics, then infiltrating, and growing along them to the surrounding parts." In treating of inflammation, a fairly full description is given of antitoxins, vaccines, opsonins, and all the various questions connected with this new method of treatment. It is impossible even to mention all the many matters which are discussed from the pathological and bacteriological standpoint, but it may safely be said that the book is a monument of the careful pathological work done by the authors during many years, while we know of no book which treats of this subject in such a concise form. It is particularly pleasing to find that it is not a mass of bibliographical references. These are all very well for actual research, but it is very distracting to the average student who reads the book for the purpose of getting a preliminary idea of the subject on which it treats. The appendix will be found very useful to practical workers.

PSYCHIATRY.

THE terms "paranoia," "systematized delusional insanity," *délire de persécution*, and the old and now almost obsolete English term of "monomania" undoubtedly include many different pathological species. In the past this has been very largely due to considering too exclusively the character of the delusions—whether of grandeur, of jealousy, of persecution, etc.—for the establishment of an autonomous psychosis, instead of grouping the symptoms according to their total and lifelong evolution, and, so far as possible, their causes and genesis. Systematized delusions may appear in the course of mental maladies of very different order and causation, whose common inclusion under one category introduces a regrettable confusion into the nosography of mental diseases and invalidates comparative statistics. In the interests of scientific precision, therefore, any careful study of a particular group separated from the heterogeneous collection of paranoia, such as is to be found in *Les Folies raisonnantes* by Drs. SÉRIEUX and CAPGRAS,[3] physicians to the asylums of the Seine Department, makes for accurate classification, and should be of value. From the classification of chronic systematized delusional insanity (*délires systématisés chroniques*) they disengage a nosographical type which they call "*psychose chronique à base d'interprétations délirantes*," or, more shortly, "*délire d'interprétation*," corresponding roughly to the non-hallucinatory paranoia of Kraepelin or the *Beziehungswahn* of Wernicke. A delusional interpretation they define as a false reasoning having for its point of departure a real sensation or an exact fact. A delusional interpretation differs from a delusional idea in that the latter is a creation, whereas the former is a deduction. As Regis said, "a delusional interpretation is to a delusional idea what an illusion is to an hallucination." It is for this reason that the authors sometimes speak of a delusional interpretation as a "mental illusion." The insanity of delusional interpretation is, they say,

> a chronic systematized psychosis characterized by (1) the multiplicity and the organization of the delusional interpretations; (2) the absence or poverty of hallucinations and their contingence; (3) the persistence of lucidity and of psychic activity; (4) the evolution by progressive extension of the interpretations; and (5) incurability without terminal dementia.

There can be little doubt that this classification corresponds

[1] *Handbook of the Diseases of the Eye and their Treatment.* By Sir Henry R. Swanzy, A.M., M.D., D.Sc., and Louis Werner, M.B., F.R.C.S.I. Tenth Edition. London: H. K. Lewis. 1912. (Demy 8vo, pp. 652; figs. 237, plates 10. 12s. 6d. net.)

[2] *The International System of Ophthalmic Practice.* Edited by Walter L. Pyle, A.M., M.D., Philadelphia. Pathology and Bacteriology, by E. Treacher Collins, F.R.C.S., and M. Stephen Mayou, F.R.C.S., with three coloured plates and 237 figures in the text. London: Rebman, Ltd. 1911. (Roy. 8vo, pp. 583. 21s. net.)

[3] *Les Folies raisonnantes: le délire d'interprétation.* By Drs. P. Sérieux and J. Capgras. Paris: Félix Alcan. 1909. (Med. 8vo, pp. 392. Fr. 7.)

to a definite type of mental disorder, and also that if cases presenting auditory hallucinations are to be excluded, that it is rare. As a matter of fact Kraepelin puts the frequency of his non-hallucinatory paranoia at less than 1 per cent., Mahaim (Switzerland) at between 1 and 2 per cent., Moreira and Peixoto (Rio de Janeiro) at 1 per cent., and Sérieux and Capgras at 1.1 per cent. of all admissions. Evidence is adduced tending to establish the proposition that in these insane the psychological mechanism of the interpretation does not differ from that of vulgar sophism, but that there are two characteristic traits which are pathognomonic. These are fixity and diffusion; or, otherwise expressed, incorrigibility and radiation. Fixity of error, however, is not peculiar to the insane. "There are," said Regis, "errors more tenacious than delusion." The fact which is at once the explanation and the stigma of the incorrigibility of the paranoiac delusion is its ego-centric character: in consequence the false idea is not regarded, as in obsession, as a strange element to be resisted or expelled, but is welcomed and employed in defence of the integrity of the subject: as del Greco said, it puts in play the instinct of conservation. Hence, paranoia is dominated by an original psychopathic constitution of definite "paranoiac" character. Doubtless there are many paranoiacs who are never certifiably insane. If, however, the paranoiac constitution and consequently a neuropathic heredity governs the causation, as determining factors first importance is assigned to emotional shock, particularly the summation of repeated shocks, chagrins, disillusions, real hostile acts. Of this a very good example is furnished by the life-history of the immortal paranoiac and genius, Jean Jacques Rousseau, who, driven from Paris under State order of arrest, driven again by the open hostility of the villagers from his refuge at Motiers, threatened by the Government of Berne, denounced by the Church and alienated from his old friends, developed upon an original character, vain, fearful, suspicious, and morbidly hyperaesthetic, systematized delusions of persecution. Of his slow but inevitable progression the authors give an able psychological analysis. No more need be said to indicate the value of this work. In its practical bearings, remembering the close relations of paranoia and criminal conduct, the often difficulty of diagnosis, and the consequent subtleties of defence, no type of mental disorder approaches this form of insanity in interest. On its theoretical side none other exceeds it in psychological value. For these reasons we cordially commend this careful study to our readers.

In a very careful and minute clinical study of dementia praecox and its position with regard to manic-depressive insanity, Dr. URSTEIN[4] discusses the results of his analysis of the clinical cases personally examined by him during two years. For several reasons the book is well worth reading. In the first place, because it exemplifies a method of study which has given excellent results in the hands of several recent observers—that is, the authors have not been content with observing cases merely in institutions, but have also studied in their own homes patients who have been discharged from asylums as improved and as recovered, it may be many years before. In the second place, it is worth reading because of its profoundly critical psychological analyses of such symptoms of mental disorder as are common to dementia praecox and manic-depressive insanity; and, lastly, because of the hints it affords as to diagnosis and prognosis in these two clinical forms. The term "dementia praecox" has been considerably restricted in recent years, with a corresponding increase in the number of cases diagnosed as "manic-depressive insanity." This change in clinical grouping has been brought about by refinements in diagnosis which appear to many in this country—and also, we note, to Dr. Urstein—as clinical hair-splitting. In view of the great importance to the patients and their relatives of prognosis and the favourable or unfavourable outlook, according as the case is diagnosed as one of manic-depressive insanity or dementia praecox, the differential diagnosis is of great importance. We may pass by any mention of Dr. Urstein's material, merely mentioning that it was more than adequate in amount; but it should be said that in all of the several hundreds of cases of dementia praecox upon which his work was based the diagnosis was absolutely certain. Dr. Urstein's first point is that many had formerly been diagnosed as manic-depressive insanity, but that later they proved to be undoubted katatonic dements (*kataton verblödet*): that is, that the mere presence of "circular" symptoms is insufficient to exclude dementia praecox or justify inclusion within the category of manic-depressive insanity. Even the history of a psychosis, characterized by circular symptoms and followed by temporary and full recovery, does not preclude eventual lapse into katatonic dementia. According to Dr. Urstein, the chief underlying condition of dementia praecox is a psychic disharmony or "intrapsychic ataxia," a splitting up of the personality. This separation of will and reason, as some of his patients expressed it, lies at the root of the katatonia which is so common a symptom of dementia praecox, and also explains, it may be remarked, the often noted resemblance of some of the symptoms of this disorder to hysterical phenomena. Further, as an illustration of this cleavage, Dr. Urstein has often noted a marked disharmony between oral and written expression—coherent speech with incoherent writing (word-salad) or vice versa. Here it may be mentioned that Kraepelin has described this condition in manic-depressive insanity, but Dr. Urstein evidently doubts the diagnosis in these cases of the distinguished Munich professor—at any rate, he has himself never encountered such cases. We cannot discuss Dr. Urstein's able analysis of the much-debated subjective psychic inhibition, but a few points may be mentioned in conclusion. Notwithstanding the frequency of circular symptoms in dementia praecox, Dr. Urstein thinks that dementia praecox is diagnosable in the beginning: (1) With regard to those beginning with circular symptoms but terminating in katatonic dementia, none that he has observed was initiated by pure mania. (2) If the attack began with melancholia the end-result might be either dementia praecox or manic-depressive insanity. Here an important differential-diagnostic point occurs: In no case ushered in by depression and terminating in a permanent katatonic state of dementia was the subjectively experienced psychic inhibition objectively confirmed. Whether outside melancholia there are other cases beginning with depression and showing neither subjective nor objective inhibition has not come within Dr. Urstein's experience, but if there should be any such they would, in his opinion, not belong to the category of manic-depressive insanity.

[4] *Die Dementia Praecox und ihre Stellung zum Manisch-Depressiven Irresein.* Ein klinische Studie. By Dr. M. Urstein. Berlin and Vienna: Urban and Schwarzenberg. 1909. (Sup. roy. 8vo, pp. 372. Mk. 15.)

CRIME AND INSANITY.

A SMALL book entitled *Crime and Insanity*,[5] by Dr. CHARLES MERCIER, forms one of the volumes of the excellent series of shilling books edited by Mr. HERBERT FISHER, Professor GILBERT MURRAY, and Professor J. ARTHUR THOMPSON, and published by Messrs. Williams and Norgate as the *Home University Library of Modern Knowledge*.

Dr. Mercier's contribution to this series may be regarded as a supplement to his book on *Conduct and its Disorders*. In Chapters I and II Dr. Mercier discusses, first, insanity and crime, and then describes in simple language the several forms of insanity. Dr. Mercier's views as to the nature of insanity are already so widely known that it is unnecessary here to discuss them. In the remaining chapters Dr. Mercier discusses crime and criminal acts, using the term "crime" not in the technical but in the wide sense of acts forbidden by law. Throughout Dr. Mercier views and explains crime from a biological standpoint, that is, "as militating, in one way or another, against the welfare of society, present or future." Based on this view of crimes as injuries to society, he treats of criminal acts according as they are international offences or national offences, the latter being again divided into public offences, which injure the State or society at large, and private offences.

From the biological standpoint there is much to be said for Dr. Mercier's classification, even if, as he would admit, much that is not regarded as a crime—in the wide sense already given—and of which the law takes no cognizance, would come within its purview. However far the reader

[5] *Crime and Insanity.* By Charles Mercier, M.D., F.R.C.P., F.R.C.S., Physician for Mental Diseases to Charing Cross Hospital, etc. *Home University Library.* London: Williams and Norgate. 1911. (Fcap. 8vo, pp. 254. 1s. net.)

may dissent from the author's views of the essential nature of insanity and crime, there can be no doubt that his book ought to be and certainly will be widely read. As to the criminal, Dr. Mercier puts with his usual pith in one sentence a statement which would, we believe, be endorsed by every one with long experience of criminals—"The true distinction between the criminal nature or character, and that which is moral and law-abiding, is that, in one, self-indulgence overpowers the social instincts, and in the other the social instincts overpower self-indulgence."

ORTHOPAEDIC SURGERY.

THE third edition of BRADFORD and LOVETT'S *Treatise on Orthopaedic Surgery* was reviewed in the BRITISH MEDICAL JOURNAL of April 14th, 1906, p. 869. The publication now under notice[6] is a condensed form of that work, from which the discussion of alternative methods of treatment and of vexed questions of pathology has been omitted.

As far as the scope of the book allows, it gives a clear and succinct account of most orthopaedic conditions, and clear indications of the measures which the authors have found most useful in dealing with them. It should be useful to those students and practitioners who need a brief statement of the opinions generally accepted in the Boston school of orthopaedics as to the nature and treatment of the affections under consideration. It would have been more useful had it included such subjects as Dupuytren's contraction of the palmar fascia, congenital defect of the fibula, and some other less common conditions for which the inquirer must still refer to the earlier editions of the treatise or its compeers.

Such as it professes to be, and is, we recommend this book to our readers. It is well printed and well illustrated.

SPECULATIVE MEDICINE.

IN his massive work on *The Internal Secretions and the Principles of Medicine*[7] Dr. SAJOUS shows how much can be done by the application of a single idea to the physician's art. His single idea is to collect evidence from the literature to prove that it is the secretions of the ductless glands that regulate all the processes of life in the human body. Beginning with the suprarenal glands, his literary researches show him that their main function is to supply an internal secretion which absorbs the oxygen of the air to carry it to the tissues; this substance he calls "adrenoxidase." Adrenoxidase must be a chemical Proteus, for we read that it is identical with the albuminous moiety of the haemoglobin molecule, the ferment secretin, fibrin-ferment, amboceptor, the blood-platelets, and apparently (p. 1771) oxyhaemoglobin also; spermin consists mainly of adrenoxidase, while enterokinase consists of adrenoxidase combined with nucleoprotein. Dr. Sajous's literary investigations similarly enable him to throw much light on certain anatomical problems. Thus, he finds a new organ in the partition between the two lobes of the pituitary body; in mammals this new organ is the highly developed homologue of the test-organ or osphradium of lower forms (p. 1023), and contains the thermogenic centre, while the posterior lobe of the pituitary body contains the respiratory centre, and is also a general centre for all the cranial nerves concerned with common sensation and motion, pain, heat, cold, hunger, thirst, muscle sense—all functions, in fact, which require conscious and to a certain extent intelligent co-ordination. A little further on we read (p. 1056) that the anterior lobe of the pituitary fulfils in all higher animals the same function that the osphradium or test-organ does in various invertebrates and lower vertebrates, and that it has an elastic capsule which contracts periodically. Dr. Sajous similarly finds that the thyroid and parathyroid glands are not true glandular organs, and that their follicles have no secreting epithelium; but they have a secretion, formed of granules secreted by leucocytes derived from the alimentary canal or the circulation. The glands, with the suprarenals and the anterior pituitary body, constitute what he calls the adrenal system, whose function it is to sustain general metabolism, the vital process, and the body's auto-immunizing mechanism. Dr. Sajous's method further enables him to throw new light on many medical matters and problems. Thus he finds that cancer is primarily due to hypoactivity of the adrenal system, the result, in most cases, of premature senility; that inadequacy of the adrenal system is the primary cause of epilepsy; depravity of the adrenal system is the initial cause of tuberculosis of the larynx. Pernicious anaemia is due to the presence in the blood of toxic substances which, by overstimulating the test-organ, keep the blood sufficiently overladen with autoantitoxin to produce progressive haemolysis. Congenital syphilis is the expression of inherited inadequacy or quasi-paresis of the adrenal system, and should be treated with thyroid gland "as by all odds the most efficient agent in this class of cases." He finds that *Bacillus coli*, whether by rapid multiplication or the assumption of greater activity, can assume the virulence of the typhoid bacillus, so that typhoid fever may be caused without infection with *B. typhosus*. Dr. Sajous has garnished his book with many hundreds of quotations from the literature; it is clearly written, and redolent of close study and the midnight oil. It is probable that but few physicians or physiologists will be prepared to go as far as the author's numerous hypotheses and deductions have taken him, however; and it is impossible not to feel that the book gives internal evidence of an industry and ingenuity out of all proportion to the logical and critical faculties that have directed its composition. Nevertheless, it may be recommended to all who take an interest in the vagaries of unbridled medical and physiological speculation.

WESTMINSTER HOSPITAL REPORTS.

The Westminster Hospital Reports[8] for 1909–10 open with an instructive article by Dr. de Havilland Hall on phlebotomy and leeches, therapeutic methods which underwent rather sudden eclipse in the middle of the nineteenth century, but which have their moderate advocates still, the author being amongst them. Dr. Hebb contributes a short note, turning attention to certain misconceptions about the relations of the pathology of the kidney to clinical symptoms. Dr. Carmalt-Jones dwells on the action of calcium and decalcifying drugs, and shows how profitable work may be carried on in out-patient departments of hospitals, where many young physicians overlook or neglect their opportunities. Besides the more purely official reports of medical, surgical, and gynaecological work, and of pathology, and museum management, this volume is distinguished for several papers in the main text which are based on solid labour in the laboratory. Dr. Carmalt-Jones records the treatment of patients in the department of bacterio-therapeutics in the hospital. He dwells on improvement during treatment in a case of arthritis after inoculations with an organism obtained from the lung when no other septic focus could be found. In Dr. Carmalt-Jones's opinion this channel of infection seems to have been generally neglected. The mouth, bladder, and colon are frequently explored with a view to finding organisms which may have been the cause of lesions in distant parts, but the extensive surface of lung tissue has hitherto been more or less overlooked in spite of the frequency of tuberculous arthritis and the occasional occurrence of pneumococcal arthritis. Dr. Braxton Hicks reports observations on an instance of absolute as distinguished from relative polycythaemia, and contributes also a memoir on one of the most prominent of current pathological and clinical subjects, entitled, "The Technique of Two of the Modifications of Wassermann's Reaction for Syphilis."

THE INSURANCE ACT.

IN the space of just over 100 pages the author of *The Insurance Act and Yourself*[9] has managed to explain in a

[6] *Orthopaedic Surgery.* By Edward H. Bradford, M.D., Surgeon to the Boston Children's Hospital, etc., and Robert W. Lovett, M.D., Associate Surgeon to the Boston Children's Hospital, etc. London: Baillière, Tindall, and Cox. 1912. (Roy. 8vo, pp. 418, 361 figures. 18s. net.)

[7] *The Internal Secretions and the Principles of Medicine.* By C. E. de M. Sajous, M.D., LL.D. Fourth edition. Two vols. Philadelphia: F. A. Davis Co. London: Stanley Phillips. 1910. (Roy. 8vo. Vol I, pp. 827; figs. 44. Vol. II, pp. 801–1875; figs. 24. Price, two vols, 50s. net cloth; 63s. net half morocco.)

[8] *The Westminster Hospital Reports.* Edited by E. D. Macnamara and E. Rock Carling. 1909–10. Vol. XVII. London: University of London Press. 1911. (Med. 8vo, pp. 215. 6s. net.)

[9] *The Insurance Act and Yourself; the Benefits of the Five-Handed Giant—Medical, Sanatorium, Maternity, Sickness, Disablement.* By Horace B. Samuel, M.A., Barrister-at-Law. London: T. Murby and Co. 1912. (Cr. 8vo, pp. 109. Price 6d. net.)

clear and correct manner practically all the salient points in the Act in a way that anyone quite fresh to the subject can easily understand. The introductory chapter, after explaining how it is immediately possible to insure persons of any age for the same premium as those of the age of 16, lays it down as the root principle of the Act that it is a scheme of compulsory insurance under friendly societies rather than compulsory insurance with the State, or, in other words, that the Act turns the 13,000,000 or 14,000,000 people who live on or near the border line of the living wage into a vast network of friendly societies conducted by themselves under the financial assistance and auspices of the State. The qualifications necessary for compulsory insurance are next described and the amounts and method of paying the contributions by the different classes of the insured. With a zeal for the Act which the author takes no trouble to conceal, he calls it a five-handed giant distributing five distinct classes of benefits. Perhaps the weakest part of the book is that dealing with medical benefit, as few details are given and none of the difficulties are properly explained. Some of the statements are, indeed, not supported by the Act itself; for example, it is stated that when the income limit is fixed for medical benefit, "those above the limit will be given in cash the average cost of medical attendance in the district to which they belong, and out of that sum they will have to provide their own doctor, medicine, etc." This is perhaps not exactly contrary to the wording of the Act, but it is not generally understood that the persons above the income limit will have the actual handling of the money themselves. Again, it is stated definitely that where contract service appears to the Commissioners to be undesirable or impracticable "the sums which would otherwise have been paid in medical benefit will be paid into a central pool, and the doctor's bill will be paid in the first instance out of the pool, while the balance, if any, will be defrayed by the contributor." The author is hardly justified in stating this so categorically, for there is nothing in the Act to compel any such arrangement, which is simply an idea put forward among many others to meet the objections of the medical profession to contract practice. The author's description of the other benefits is far more satisfactory, and under the heading "Insurance of the Uninsurable" the account of the position of the deposit contributors is very good. Special care has been taken in describing fully the position of clerks and domestic servants, and an attempt is made to explain all the complicated provisions about married women. Next comes a short account of the provisions for special classes, such as aliens, soldiers, sailors, and the inmates of charitable institutions, and an excellent description of the position of present members of the friendly societies. The author is too much inclined to gloss over the difficulties and defects of the Act, though, on the whole, his descriptions and explanations are concise and clear and well suited to those who desire to have the Act put into plain and easily understood language.

The National Insurance Act,[10] a pamphlet by Mr. J. B. PIKE, Honorary Surgeon to the Loughborough General Hospital, is well got up on art paper, with blank pages for notes, and it is throughout a consistent attack on many provisions of the Act. The writer expresses some doubt as to whether the principle of compulsion is the best at the present time, and he describes the obligation of the Act upon employers and employed as a "widely-distributed poll-tax," which, with most employers, will be "decidedly unpopular." The scheme for additional benefits is spoken of as "Utopian" and sickness benefit as "giving a stone for bread," the writer's opinion being that it would need £1 a week for thirteen weeks to make this benefit a substantial help. Of medical benefit he says the weakest spot in the Act is that "it panders to the well known cheap contract methods of the friendly societies," and that it "would perpetuate some of the worst features of the friendly society medical associations, and would inevitably lead to inferior and perfunctory work." The following quotation well shows the attitude of the author:

> It is assumed by the Liberal press that the suspension of medical benefit under the Act would be disastrous for the doctors. It would, in fact, be the best thing that could happen for them. By the organization of public medical services throughout the country, independent of lay control, the profession can work side by side with the Act and in co-operation with its legitimate aims. This is the true solution of the present impasse, and the feeling in favour of it is rapidly gaining ground. . . . Medical men are looking forward to victory in this conflict, and for them it is intolerable that conditions of service similar to those they have condemned should be imposed upon them by the Government. No method of working the medical clauses of the Act will be accepted which does not ensure freedom from control of lay committees.

The pamphlet appropriately ends with an appendix giving the rules and by-laws of the Loughborough Provident Medical Association, which is managed by the medical profession of Loughborough, all of whom may be on the medical staff of the association. From these rules it appears that members are workers earning weekly wages, and their families, provided that the aggregate weekly earnings of the family do not exceed £2. Each member pays 1d. a week, families of more than six persons being admitted at 6d. a week. For this they receive medical attendance and medicines, and a collector is paid for collecting the contributions. It would be interesting to know at how much each visit or consultation works out for what appears to be a very low contribution.

Can the Doctors Work the Insurance Act?[11] is the title of a shilling book by Mr. E. W. LOWRY, M.R.C.S., L.R.C.P. On the title page it is claimed that it is "published with the approval of Robert Saundby, M.D., President of the British Medical Association; Sir James Barr, Bart., M.D., President-elect of the British Medical Association; and Frederick J. Smith, M.D., Chairman, British Medical Association Reform Committee." No doubt the President and President-elect would explain that their approval is purely personal and not official: in more than one particular the opinions expressed by the author are not altogether in accord with the decisions of the Representative Meeting. The book deals only with the Act as it affects medical men, and begins by stating that the position of the doctors under the Act would be that of "underwriters" of it. It is said that the Act violates the elementary principle of insurance, which is that the risk of the individual should be borne by the collection of individuals, and that it "imposes upon the doctor or underwriter those very risks which the State has been so careful to itself reject." Four classes of cases in point are mentioned: (1) The Post Office contributor who "is to receive unlimited medical treatment free, but is only to receive sickness allowance up to the amount of his deposit"; (2) persons over 70 years of age whose sickness benefit ceases but whose medical benefit continues throughout life; (3) accident compensation cases, where "medical benefit is still free but cash is carefully withheld"; and (4) diseases of misconduct where "again the doctor must cure while the State will not pay." There is, of course, truth in all this, but in each case less than the whole truth is told, though the author's case would not have suffered by the whole. Dr. Lowry is at his best when he is contrasting the character of the work now done by club doctors with that to be done under the Act, and he makes out a good case for a considerably higher sum than 6s. for medical benefit. He shows well, too, the reasonableness, from both the public and the professional standpoint, of the six cardinal points, which, as he says, are not definitely secured, without mental reservation, in the Act. The discussion of consumption and sanatorium benefit is open to the criticism that Dr. Lowry has put an interpretation on the provisions of the Act which appears to be contrary to their plain meaning. If we understand Dr. Lowry aright, his argument is that sanatoriums are not for all forms of tuberculosis, but for early cases of consumption of the lungs; he makes the statement that "in some distant future, when the additional benefits are no longer additional, tuberculosis as a whole might indeed be included." He further says that "each and all of the uncured cases [of consumption, on their discharge from sanatoriums] will come home and will have to be attended to their last breath in their own homes by their insurance doctor." So far as we can find, however, "con-

[10] *The National Insurance Act.* By J. B. Pike, M.R.C.S., L.R.C.P., Honorary Surgeon to the Loughborough General Hospital. (Pp. 15, price 3d.)

[11] *Can the Doctors Work the Insurance Act?* By Ernest Ward Lowry, M.R.C.S., L.R.C.P. London: Watts and Co., Fleet Street. (Pp. 64. 1s. net.)

sumption" is nowhere mentioned in the Act: the term used is "tuberculosis," and we can only suppose that it was used to include every form of disease associated with the tubercle bacillus. Dr. Lowry, indeed, implies that it only refers to consumption. He says: "Everybody, except perhaps the framers of the National Insurance Act, knows sanatorium treatment applies only to the very early cases of consumption of the lungs," but here he appears to assume that sanatorium treatment is the same thing as sanatorium benefit. The truth is, as the Act explicitly states (Sections 8 and 16), treatment in a sanatorium is only one form out of several in which sanatorium benefit may be given. It may, for instance, be given as treatment in "other institutions" than sanatoriums, or it may be given "otherwise" than in sanatoriums or other institutions, as, for instance, at tuberculosis dispensaries or at the homes of the patients. The only interpretation we can put on the words of the Act is that sanatorium benefit is not only, as Dr. Lowry implies, for early cases of consumption but for advanced cases and for every form of tuberculous disease, as well as for non-tuberculous diseases that may be appointed by the Local Government Board. Sanatorium benefit if properly administered—and on this point of policy we shall be better able to judge when the interim report of the special Treasury Committee on Tuberculosis has been issued—ought materially to lessen the work of the doctors on the panel under the head of medical benefit. It is well fully and frankly to acknowledge this, as nothing is to be gained by overstating the case for the profession, especially as Dr. Lowry has very well shown that in numerous other ways the work of the doctors on the panel, compared with the work of present club doctors, will be increased to an extent which must far more than neutralize any relief afforded by sanatorium benefit. Another point on which Dr. Lowry appears to have misinterpreted the Act is in his reference to chemists; they are, he says, "asked to contract at the known rate (1s. or 1s. 6d.) for the supply of the unknown amount of medicines and appliances." We do not find in the Act any suggestion of payment per capita for chemists. Clause 15 (5) (*a*) provides that drugs, medicines, and appliances are to be supplied "according to a scale of prices." Moreover, when Dr. Lowry goes on to agree with Mr. Lloyd George that the "doctor should be separated from the drugs," and to argue that "it should be illegal for the doctor to dispense except in country places or on emergency," he is distinctly opposing the demand of the Special Representative Meeting, which has already been communicated to the Commissioners, that those doctors who so desire should be allowed to dispense for their own patients. The last part of the book is an argument in favour of the method of payment per attendance rather than payment per capita, the system of the National Deposit Friendly Society being regarded as a fair solution of many difficulties. On the whole the book is well worth reading, as it represents the view of a man with practical experience which enables him to speak with knowledge.

NOTES ON BOOKS.

THE fact that Dr. HERMANN MARX'S monograph on the malformations of the ear[1] has satisfied the editorial requirements of Professor Ernst Schwalbe is sufficient guarantee for its acceptability as a standard work on the subject. It forms a chapter in Professor Schwalbe's textbook on the malformations of man and animals, and the inclusion in it of a consideration of the malformations of the organ of hearing in the lower animals affords the author increased scope for illustration. The chapter is in two parts, the first being devoted to malformations in viable embryos, the second to those in the non-viable. This division has the merit of being practical, the former having a clinical importance which the latter does not directly possess. The separate parts of the hearing organ are taken in turn, and are discussed in relation to the characters, frequency, and genesis of malformations. Those of the auricle are freely illustrated, a picture being given of the only published case of total absence of this part (p. 577). The so-called duplication of the meatus is held to be a fistula of branchiogenic origin, always ending blindly and being less developed than the meatus (p. 582). The possibility of absence of the tympanic membrane as an embryological malformation is discussed and rejected. Altogether the important and intricate subject is invested with the utmost interest by the writer of this monograph, which is alike compact and exhaustive.

[1] *Die Missbildungen des Ohres.* By Hermann Marx. Jena: Gustav Fischer. 1911. (Sup. roy. 8vo, pp. 565-632.)

The newest enterprise of that very useful institution, the Sleeping Sickness Bureau, is the *Kala-Azar Bulletin*. It is edited by Dr. C. M. WENYON, and is to appear quarterly. The first two numbers, for December, 1911, and March, 1912, consist of summaries of recent observations and investigations. We have received also a special fasciculus consisting of a list of references prepared by Mr. Sheppard, Librarian to the Bureau. The Sleeping Sickness Bureau ought to change its name to the Tropical Medicine Bureau, and we have heard a rumour that it may shortly do so.

The City of London Year Book,[2] being brought out annually at a date when the principal changes of address and of the membership of councils have been effected, is a civic directory of a specially reliable kind. In the present, as in the preceding issues, ample information is supplied as to the principal institutions in the City of London, the committees by which its affairs are administered, and as to the schools and other more or less charitable undertakings owned by the various guilds.

We have received at odd times recently several fasciculi of a handbook on venereal diseases which is appearing under the editorship of FINGER, EHRMANN, and GROSZ of Vienna and JADASSOHN of Bern.[3] Those parts which are already in our hands are excellent, and we can certainly recommend the work, if the rest is of the same high standard. The first volume contains a large number of articles dealing with venereal diseases generally and gonorrhoea and its sequelae specially. Professor Jadassohn has contributed a most instructive account of the etiology and general pathology of gonorrhoea, covering some 150 pages, in which we find a wealth of information. Not less ably treated is the subject of the various forms of urethritis by Dr. Grosz. The second volume continues the subject of gonorrhoea and includes some first-class articles. The names of Grosz, Mucha, Nobl, Baschka, and Menge guarantee its excellence. The subject of syphilis is to be treated in the third volume.

[2] *The City of London Year Book, 1912.* London: W. H. L. Collingridge, "City Press" Office, Aldersgate Street, E.C. (Sup. roy. 8vo, pp. 382. Price 5s. net.)

[3] *Handbuch der Geschlechtskrankheiten.* Edited by Professor E. Finger, Professor Jadassohn, Professor S. Ehrmann, and Dozent S. Grosz. 1910-1911. Vienna and Leipzig: A. Holder. Vol. I. (M. 27.50.)

MEDICAL AND SURGICAL APPLIANCES.

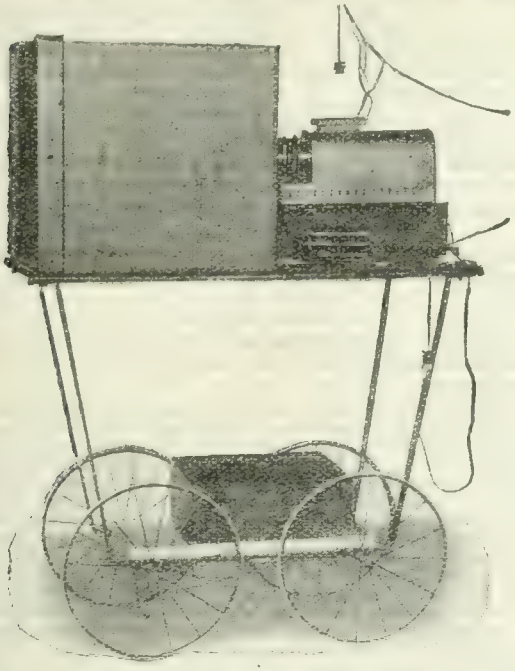
A "Universal Machine" for Electrical Applications.

THE Sanitas Electrical Company, Limited (61, New Cavendish Street, W.), has issued a pamphlet describing an improved earth-free "multostat," or "universal" apparatus for medical electricity. The "multostat" is something of a marvel in compression, for it contains on one small base all the adaptations necessary for a variety of purposes. Thus it can be utilized for galvanization, including the application of the galvanic current in electrolysis, ionic medication, and the like, and for sinusoidal faradization. The machine is also available for cautery and light, for vibratory massage, for surgical operations with burrs and trephines, and for a number of other requirements. One of the adjustments is a special condenser, intended to supply what is described as true galvanic current instead of the strongly pulsating semifaradic galvanization generally given by the universal switches. The condenser acts as a sort of buffer to eliminate the fluctuations.

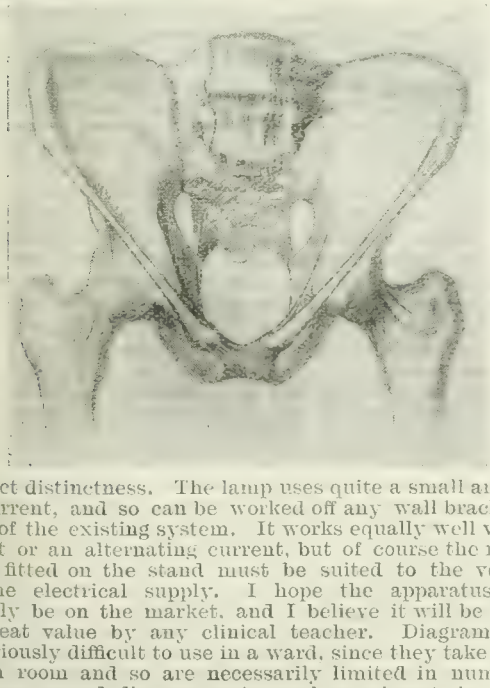
A Portable Demonstration Apparatus for Lantern Slides.

Dr. HENRY JELLETT (Master, Rotunda Hospital, Dublin) writes: This apparatus was devised by me for the purpose of enabling lantern slides to be shown to a class of students in the wards of a hospital, or in any other place where it is impossible to use the ordinary lantern and screen. As will be seen from the photographs, it consists essentially of a square box, one side of which is formed by a screen of ground glass, while into the opposite side projects the nose of a fixed lantern. Both are mounted on a wooden baseplate, which keeps them permanently fixed in their proper relations to one another. There is also fixed to the baseplate a small resistance, and a switch for the control of the electric current. The source of illumination is a small

open arc lamp with a hand feed. The base-plate is in turn mounted on an iron frame with four wheels, and can thus be readily moved from ward to ward. A tray placed between the wheels forms a convenient place for carrying the box of slides or any other fittings. The screen on which the image is formed is two feet square, and the



length of the apparatus over all is about four feet. The second illustration is a photograph of the actual image as it appears on the screen. I have now been using the apparatus regularly for the past year, and have found it of the greatest assistance in demonstrating operations or anatomical or pathological conditions to students. It is quite unnecessary to darken the room in which it is used. All that is required is to place it in such a position that a direct light does not fall on the screen, or is not directly behind it. If it is placed with its back to a window, the blind of which has been drawn down, slides will show with



perfect distinctness. The lamp uses quite a small amount of current, and so can be worked off any wall bracket or plug of the existing system. It works equally well with a direct or an alternating current, but of course the resistance fitted on the stand must be suited to the voltage of the electrical supply. I hope the apparatus will shortly be on the market, and I believe it will be found of great value by any clinical teacher. Diagrams are notoriously difficult to use in a ward, since they take up so much room and so are necessarily limited in numbers. Further, a good diagram costs nearly a guinea to buy, and rapidly gets out of date. Lantern slides, on the other hand, can be made from any existing drawing or illustration and usually cost about a shilling each, or one can make them at a cost of a few pence. Consequently one can have a much greater variety, and has no hesitation in throwing them away as they get out of date.

LONDON WATER.

Experimental Search for Pathogenic Microbes.

The Seventh Research Report of Dr. A. C. Houston, Director of Water Examination to the Metropolitan Water Board, has just been issued. It is divided into six sections. The first report dealt with the vitality of "cultivated" typhoid bacilli in *raw* river water, and the sixth with the comparative vitality of "uncultivated" and "cultivated" typhoid bacilli. The present report extends and confirms these later observations.

"Cultivated" and "Uncultivated" Typhoid Bacilli.

Typhoid bacilli which have been isolated from a case of typhoid fever and grown on artificial media in the laboratory are known as "cultivated" bacilli. "Uncultivated" bacilli, on the other hand, are bacilli which have never been subcultured, and which exist in the blood, organs, tissues, or excreta of persons suffering (or who have suffered) from typhoid fever. The danger of contracting typhoid fever from impure water supply is due to the possible presence of "uncultivated" typhoid bacilli. In the past, bacteriologists have based their conceptions of the vitality of the typhoid bacilli in water on the results of experiments carried out with "cultivated" bacilli. Dr. Houston goes on to say that with the object of clearing up this point, a careful examination was made of the comparative vitality of "cultivated" and "uncultivated" typhoid bacilli, and the striking result has been established that the latter die in river water much more rapidly than the former. In 13 experiments with the "uncultivated" typhoid bacilli, the micro-organism could not be found in the infected water after one week (9 experiments), after two weeks (3 experiments), and after three weeks (1 experiment). Yet the same microbes after "cultivation" usually lived over five weeks. If, says Dr. Houston, one may conclude the results of particular experiments to be generally applicable, this is a matter of vital importance to consumers of London water, and a most gratifying circumstance in relation to storage. He urges, however, that these discoveries should be regarded as happy omens for the future safety of the metropolis, and not as pretexts for excuse for delaying or curtailing the execution of contemplated purification works. "They should indeed be considered assets in the bank of security which cannot justifiably be pledged so as to save future expenditure."

Typhoid Carriers.

Particulars of experiments with a "typhoid carrier" (a man) are given and compared with the observations made on the urine of a female "carrier" described in the Sixth Research Report.[1] The results in the male case amply confirm those previously noted. Evidence that "uncultivated" typhoid bacilli die much more speedily in river water than their "cultivated" brethren is of far-reaching importance, inasmuch as the danger of drinking polluted water (*qua* typhoid) is solely due to the possible presence of the former.

Storage of Raw Water.

The cumulative evidence in favour of storage of raw river water is now, says Dr. Houston, so strong that it is difficult to escape the belief that thirty days' storage of river water is tantamount to sterilization, as far as the microbes associated with water-borne epidemic disease are concerned.

Effects of Temperature on Typhoid Bacilli.

Details are given of experiments on the comparative vitality of the typhoid bacillus in *raw* Thames water at different temperatures. The following are Dr. Houston's conclusions:

Temperature exercises a powerful influence on the vitality of the typhoid bacillus in *raw* river water.

The typhoid bacillus lives considerably longer at low (32° to 41° F.) than at higher (50° to 98.6° F.) temperatures. The big initial drop in numbers, always observed in connexion with storage experiments with typhoid bacilli, is delayed to a notable extent when the temperature falls 9 or more degrees below 50° F.

The mean temperature of river water (about 51° F.) favours the rapid death of typhoid bacilli. For seven months in the year the mean river temperature of about 53° F. is specially unfavourable to the sustained vitality of the typhoid bacillus.

[1] See British Medical Journal, February 4th, 1911, p. 261.

During the remaining five months of the year the mean temperature of about 41° F. is much less favourable to the rapid death of typhoid bacillus.

Even at freezing point, however, the reduction of typhoid bacilli by the second week was over 99 per cent. on the average, and by the fourth week only 1 survived out of every 3,039 added initially.

The three critical low temperature months of December, January, and February lag considerably behind the three critical typhoid months of September, October, and November.

The results show the immense practical importance of *adequate* storage, *not* the *inutility* of storage, under low temperature conditions.

In the case of the metropolitan water supply, Dr. Houston is of opinion that even in the coldest months of the year four weeks' storage of river water antecedent to filtration affords reasonable, if not absolute, protection from water-borne diseases.

Other sections of the report are devoted to observations on the biological characters of *B. coli* isolated from (1) raw river water; (2) stored river water; and (3) stored and filtered water, rapid sedimentation, and the advantages of occasionally using precipitation methods antecedent to the storage of raw river water in large reservoirs. The results of the experiments are given in tables.

Prestorage Settlement.

In his conclusions Dr. Houston recalls the fact that in his Third Research Report attention was called to the desirability of passing the *raw* river water first through a small settling reservoir before entering the storage reservoirs proper. He goes on:

It is most important that the reservoirs in which the river water is stored in *bulk* should be kept as free from impurities as possible. In the foregoing pages it has been shown that prestorage settlement in reservoirs holding less than one day's flow of water reduces considerably the number of bacteria and also improves the water materially, as judged by chemical tests. By adopting the principle of prestorage settlement, a large amount of suspended matter would be kept out of the storage reservoirs proper, and the impounded water would contain less ammoniacal nitrogen and albuminoid nitrogen, less oxidizable matter and be slightly less brown in colour, and would probably be less conducive to the not infrequent growth of troublesome algae, at certain seasons of the year.

Such partially purified water would be better fitted to undergo those processes of purification which normally occur under conditions of storage, and, as previously suggested, would probably be less apt to encourage the excessive growth of algae and aquatic plants.

Despite the remarkable improvement effected by storage, even when much of the river water passed into the storage reservoirs is far from satisfactory, it seems unwise to trade too greatly on this circumstance if any practicable remedy, even of a partial kind, is available.

The gross amount of suspended matter which passes into the reservoirs year by year is enormous, and if its accumulation seems very gradual it is none the less certain. Moreover, part of it is decomposable, and in the process of its decomposition the general body of water in such reservoirs may be prejudicially affected.

Prestorage settlement reservoirs are so comparatively small that the occasional emptying and cleansing of them presents no very serious obstacles. The desirability of interposing large storage reservoirs between the river and the filters is now generally recognized. The suggestion would not seem to be in any way impracticable, that the river water should first be caused to flow through a relatively small prestorage reservoir before passing into the big storage reservoirs proper. No doubt a chain of reservoirs effects the same object, but it is necessary to bear in mind that the kind of purification here dealt with is *mechanical and rapid*, and that therefore the reservoirs nearest the river should be relatively so small as practically to fulfil the requirements of the prestorage reservoirs here advocated. If this prestorage system of settlement were adopted there is no reason why, when the river water was specially unsatisfactory in quality, the good results obtained by simple sedimentation should not be considerably enhanced by the use of such coagulants as sulphate of alumina, alumino-ferric, etc.

* * * * * * * *

The storage of river water for purification purposes is a physical, chemical, mechanical, and biological problem of considerable complexity. The biological part of the process demands time for its proper fulfilment, and is a question of weeks rather than of days. The purely mechanical part also requires time, but is relatively rapid at the outset. Advantage should be taken of this circumstance to settle out the grosser impurities in small reservoirs interposed between the river and the storage reservoirs proper. This method of prestorage settlement ensures that the water passing into the storage reservoirs proper is of the quality best possible in the circumstances. The prestorage settlement method also permits of the occasional use of supplementary processes of water purification (for example, the use of coagulants).

Critical periods may arise in the future (as when floods succeed a period of long drought), when most impure river water must perforce be rushed through *depleted* storage reservoirs.

At such times, by the use of prestorage reservoirs and coagulants, the foulest river water could, apart from questions of cost, be rendered purer than the best water that ever flowed down the Thames.

Prestorage reservoirs are thus not only of advantage under ordinary, but also under extraordinary, conditions; with storage temporarily reduced to an almost negligible quantity, they could, with the aid of coagulants, be used to tide over any crisis that might ever arise short of the storage reservoirs being empty and the river so low as to render the abstraction of water a physical impossibility.

Yet, again, the adoption of a combined process of prestorage, settlement, and coagulation would, apart from questions of cost, enable the worst quality of flood water to be utilized, and so actually prevent the depletion of the storage reservoirs proper under any conditions save those of drought.

He adds that in a former report it was indicated that continuous flow settlement through small reservoirs capable of holding less than one day's flow had a decidedly beneficial effect in improving the quality of the river water.

Coagulants.

Dr. Houston states that the addition to the water of a coagulant (alumino-ferric) assists considerably in the work of purification.

Coagulants have for many years been most successfully used in this country in connexion with the purification of sewage, but their employment for waterworks purposes (apart from softening processes) is comparatively rare at home, although not uncommon in America and elsewhere. One reason for this is probably that our waters filter fairly easily, unlike many supplies in other countries, where the use of a coagulant may be a physical necessity owing to the presence in these waters of large quantities of very finely-divided suspended matter. Another reason is the rooted objection entertained by so many persons to the addition of chemicals of any sort to water, and no doubt the question of cost has also been a deterrent factor.

This aversion to the use of chemicals may be natural, but it needs to be remembered that the effluents from sewage works and manufacturing processes which drain into rivers above the "intakes" for waterworks purposes have frequently *already* been treated with chemicals. It may not be altogether desirable to compare chemicals taken for medicinal purposes with chemicals used as a means of purification; but the complaisant way in which people ingest the most nauseous and even potent drugs is somewhat surprising, in view of their intolerant attitude when any question arises of adding minute and harmless quantities of chemicals to water. Yet the amount initially added in the latter case may be infinitely small, the substance may be relatively (if not absolutely) innocuous *per se*, and the purification process may effectually remove even the last traces of it from the water. When the addition of a chemical to water does not appreciably alter its composition, or affect its taste, or produce any cumulative evil effects, or impair its potability generally, its use for *purification* purposes may not only be permissible, but actually desirable.

Such a substance is sulphate of alumina, and whether employed as a coagulant in connexion with mechanical filters or for ordinary purification purposes, its use is perfectly justifiable, and may indeed be necessary to obtain the best possible results.

He adds that there are a number of other precipitants which may safely be used to purify water—for example lime. Lime has the advantage of also softening the water, whereas alum increases the permanent hardness. On the other hand, alum is more efficacious in removing colour, and the precipitate produced settles much more quickly. The two are not infrequently used together. Lime treatment will be dealt with in his next report.

He concludes:

Taking the chemical and bacteriological results together, there can be no question that the beneficial effects observed in connexion with simple continuous flow settlement could be considerably enhanced by the use of coagulants.

Unfortunately the experiments were not carried out during the flood months of the year. Had it been otherwise, the results would in all probability have been much more striking from the point of view of percentage reduction, although doubtless it would have been necessary to increase the dose of coagulant.

In this brief abstract we have only attempted to give a general idea of the work of Dr. Houston and his staff. Besides the tables in the report, there are a number of addenda, in which the results of other experiments are given. The report is of the highest scientific and practical value, embodying as it does the results of a vast amount of painstaking research. In view of the terrible possibilities to the public health of a polluted water supply, Londoners have every reason to congratulate themselves on having so able and vigilant a guardian of the sources from which that supply is derived.

THE INTERNATIONAL TUBERCULOSIS CONGRESS AT ROME.

[From our Special Correspondent.]

The tenth International Tuberculosis Congress, which was held in Rome from April 14th to 20th, was under the patronage of Their Majesties the King and Queen of Italy. The object of this Congress is to promote the scientific and social study of tuberculosis. Membership is open to all doctors and others interested in tuberculosis: the subscription is 25 francs for each member and 10 francs for every member of his family who may be present. After the Congress all members are entitled to receive copies of the official publications.

The work of the Congress is conducted in three sections: (1) Social measures against tuberculosis; (2) the medical and surgical pathology and therapeutics of tuberculosis; and (3) the etiology and epidemiology of tuberculosis. Reports are made to each section on subjects chosen by the Organizing Committee at the last Congress, and these are followed by communications from members on any aspect of the question chosen by them. In addition to the meetings of the sections, eight general conferences of the Congress were arranged to hear addresses by Landouzy (Paris) on the etiological importance of social factors in tuberculosis; by Kraus (Berlin) on the early diagnosis of tuberculosis; by Maragliano (Genoa) on the prophylactic vaccination of man against tuberculosis; by Webb (Colorado) on vaccination against tuberculosis; by Sahli (Berne) on tuberculin treatment; by Philip (Edinburgh) on tuberculization and detuberculization (published at page 873 of this issue); by Sanarelli (Bologna) on the biological evolution of tuberculosis in the human species; by Calmette (Lille).

Reporters in each section were allowed twenty minutes for their opening remarks, and five minutes in which to reply. Authors of communications were given fifteen minutes for their papers, and five minutes for replies. Those taking part in the general discussion were allowed ten minutes. The official languages of the Congress are Italian, French, German, and English.

Two criticisms may be made on the arrangements. On going over the list of papers an extraordinary amount of overlapping is apparent, and a great deal of repetition. At every congress we have those who read papers that every one has heard before, and with due solemnity announce the results of old investigations. It would be very much better if every paper read before the Congress were first submitted to a committee of experts. Every communication would then have the distinction which a paper read before an international meeting ought to confer, the audiences would be saved a good deal of inconsequential polemics, and the offending authors would find some inducement to cease from resting on their ten year oars. Again, sensational and premature pronouncements would be eliminated. It is deplorable that in the past international congresses have been made the medium of statements as to a cure for tuberculosis, couched in such terms that while the reservations were apparent to every scientist present, they yet received a wholesale acceptance in the lay press. The press rightly regards an international meeting as an event of considerable importance, and here in Rome, some days before the Congress opened, special correspondents from the great European journals were already present, prepared to telegraph every day. This makes it the more necessary that safeguards should be enforced, as it is often impossible to know what the title of an apparently innocent paper may cover.

The head quarters of the Congress is the Castle of St. Angelo, now flying the Italian flag bearing the double tuberculosis cross, surrounded by beautiful grounds gaily decorated with flags. At the Information Bureau four languages are spoken, and there are complete postal and telegraph arrangements. The largest hall, the Roman Salon in the grounds, available for sectional meetings accommodates 250 people, while the total number of those attending the Congress is estimated at 2,000.

The personnel of the Congress changes with its venue. Death has overtaken the great discoverer of the tubercle bacillus, who three years ago in Washington, holding tenaciously to his doctrine that the bovine bacillus was not lethal to man, signified his intention of being present in Rome. In the interval the British Royal Commission has proved that in a certain number of cases the bovine bacillus is the morbid agent of the disease in man, but on the other hand the vital finding of his work has found an almost universal acceptance—that the human consumptive is the main source of infection to his neighbours, and on this a great part of the social activity against tuberculosis is based. In this wise Koch is present in Rome. Of the British members of the well-known international group the absence through illness of Dr. Theodore Williams, who has hitherto represented the British National Association for the Prevention of Consumption at the Congress, and of Dr. Arthur Newsholme of the Local Government Board of England, is generally regretted on all sides.

International Tuberculosis Conference.

The Congress was preceded by a meeting of the International Tuberculosis Conference from April 10th to 14th.

Human and Bovine Tuberculosis.

At the last conference in Washington the most debated subject was the question of bovine and human tuberculosis. Towards the end of a memorable discussion Koch proposed that further experiments be made and the results communicated to the conference in Rome. The statement made by Professor Gotthold Pannwitz, honorary secretary to the International Antituberculosis Association, as to Koch's position after the Washington Congress is therefore of considerable interest. On the voyage from America to Germany Professor Pannwitz drew up a statement which Koch approved. It is to the following effect: Koch took the same position then as he did in London in 1901—that bovine tuberculosis can be transmitted to men, but that it very rarely causes serious disease. Koch contended that pulmonary tuberculosis in man—the principal manifestation of the disease with which preventive medicine has to deal—was not caused by the bovine, but by the human bacillus. He therefore desired that all activities should be concentrated on this. He objected to the campaign against bovine tuberculosis, necessary in itself for economic and agricultural reasons, being associated with measures against human tuberculosis. He never objected to the measures ensuring the purity of milk and the products of milk, as milk is the medium through which many other infective diseases may be transmitted. He did object to these measures being placed in the foreground as having a bearing on the prevention of tuberculosis in man. Koch expressed his intention of undertaking further extensive investigations. He considered that investigations which aimed at proving the existence of bovine bacilli in human pulmonary tuberculosis should be undertaken with patients whose sputum could be examined over a considerable period of time. In his opinion the necessary investigations would be very laborious and expensive, and therefore could not be undertaken by small laboratories. In consequence the only results that might be considered of value would be those of the Imperial German Board of Health and the British Royal Commission.

There seems no doubt that this is to be accepted as Koch's final view on this question; but, quite apart from any misconceptions which may have arisen at Washington owing to the duality of languages spoken, there is most certainly a reservation in the above which was not apparent in Koch's pronouncement in London in 1901.

An important discussion took place on the second day of the conference on the relation of bovine tuberculosis to the human. Papers were read by Messrs. Calmette (Lille), Kossel (Heidelberg), Sims Woodhead (Cambridge), Nathan Raw (Liverpool), Moellers (Berlin), Neufeld (Berlin), Malm (Christiania), and Rabinowitch (Berlin).

Professor A. Calmette (Lille), having reviewed the recent work on this subject, maintained that the following points had been established:

1. That there was no morphological distinction whereby by staining we could differentiate the human from the bovine bacillus.

2. That culture methods give a useful indication as to whether the bacillus is bovine or human, but that their cultural characteristics are not sufficiently constant to enable a definite diagnosis to be made.

3. The inoculation of various animals, such as rabbits, goats, and especially bovines, is at once the best method and of general application. In most cases the human tubercle bacillus is unable to infect the rabbit, even if the

latter be inoculated with as much as 1 mg. of bacilli from a fresh culture; 50 mg. of bacilli from a similar culture will not generally induce tuberculosis in cattle. If the udder of the goat be inoculated with a culture of the human bacillus, there only results a local infection, which at most merely involves the neighbouring gland, whereas the bovine bacillus similarly inoculated will induce an extensive and lethal infection. If $\frac{1}{100}$ mg. of bovine bacilli be injected intravenously into the rabbit, the animal develops generalized tuberculosis in the course of four to eight weeks. There can be no question, therefore, that the bovine bacillus is more lethal than bacilli of the human type, when the latter is isolated from the sputum or from the lungs of a tuberculous subject. Guinea-pigs, cats, pigs, and most animals which suckle their young, are more sensitive to the bovine than to the human bacillus. The one exception is the monkey, which shows a maximum sensibility to both types of bacilli.

4. Experiments made with a view to raising the virulence of the human tubercle bacillus to such a degree that it is capable of inducing a general and lethal infection in the bovines have yielded uncertain results. Yet, according to Eber, it is possible for certain bacilli of the human type to adapt themselves to the bovine organism, and they then show all the characteristics of a very virulent bovine type.

5. In the early years of life human beings may be infected with bovine bacilli. At *post-mortem* examinations on children who die of generalized tuberculosis, it frequently happens that the bovine bacillus is found in the infected glands. According to W. Parker, it appears that from the ages of 0 to 5 the percentage of cases due to bovine infection in proportion to the total number of cases of tuberculosis is 26.5 per cent., at the ages of 5 to 16 it is 25 per cent., while above the age of 16 it does not exceed 1.31 per cent., as out of all fatal cases of tuberculosis above this age 98.69 per cent. appear to have been due to the human tubercle bacillus. In chronic cases of pulmonary tuberculosis this latter bacillus is practically alone present. It may be asked whether the rarity of the bovine bacillus in pulmonary tuberculosis is not due to the fact that the bovine bacillus implanted in the organism during the early years of life, without producing a pulmonary infection until after a lapse of many years, has not actually slowly adapted itself to the human organism, and is thus transformed into the human type. Such a hypothesis is supported by Eber's attempt to transform the human bacillus into one which showed the virulence and characteristics of the bovine type. Up to the present, however, there is no satisfactory solution to the question.

6. It is certainly an undeniable fact that in children from 0 to 16 years 75 per cent. of the cases of death from tuberculosis are due to the human bacillus, and in adults above 16 years of age 98.69 per cent. of fatal cases are due to the human bacillus. From the foregoing it is clear that for the prevention of tuberculosis we must prevent the infection of man by man and, above all, the infection of the family, this without neglecting measures to protect children against a possible infection from milk. He considered that the principal source of danger to human beings was that they should occupy the same room as a patient with open pulmonary tuberculosis, as this frequently results in massive infection to which the best protected organism almost always succumbs.

Professor H. KOSSEL (Heidelberg) said that if the type of bacillus in any given case of pulmonary tuberculosis be determined, it was then possible to fix the source of infection. Pulmonary tuberculosis in man was with very few exceptions due to infection by bacilli of the human type. The tuberculous patient was almost the only source of infection. The ingestion of bovine tubercle bacilli in the milk and meat of tuberculous animals played a subordinate part in the spread of the disease among human beings. The abolition of tuberculosis was only to be attained by measures which limit the spread of infection from man to man.

Professor G. SIMS WOODHEAD (Cambridge) summarized the reports of the work of the British Royal Commission on Tuberculosis appointed in 1901. In May, 1904, a first Interim Report was published in which it was stated that the disease as produced in bovines by certain strains of bovine tubercle bacilli was identical with that produced by certain strains of human tubercle bacilli. In 1907 the Second Interim Report states that a certain number of cases, especially among children, were due to infection with the bovine bacillus—of 60 cases examined, 14 were of bovine origin—and that a large percentage of cases due to ingestion of infective material were due to the bovine tubercle bacillus. The Commissioners urged more stringent regulations to prevent the sale of milk from clinically tuberculous cows.

The Third Interim Report went into the question of the infectivity of milk and faeces of naturally infected cows, as decided by Dr. F. Griffiths's experiments. It was already known that the milk of cows with tuberculosis of the udder was infective, but doubts were entertained as to whether the milk of tuberculous cows in which the disease could only be detected by the use of tuberculin presented any danger to the consumer. Six tuberculous cows were made the subject of experiment. After slaughtering, extremely careful search was made for any signs of tuberculosis of the udder, but in only one case (Cow F) were any such signs found, and in this case they were very slight. The milk of Cow F and of two other cows that showed clinical symptoms of tuberculosis during life contained tubercle bacilli whether the milk was taken in the ordinary way or with a sterilized catheter. In the case of the other three cows the disease could only be detected by the use of tuberculin; whither no tubercle bacilli were found in the milk, or they were found in such small numbers that they produced no typical tuberculous lesions when inoculated into guinea-pigs. The faeces of some animals was found to be infected though no bacilli could be found in the milk. This is important, as faeces not infrequently contaminate the udder and may get into the milk.

The Final Report was published in 1911 along with eleven volumes of experiments, carried on over a period of nine years.

Professor Sims Woodhead proceeded to give an account of these experiments in the isolation of tubercle bacilli from man and animals; the comparison of the cultural characteristics of the bacilli isolated and their pathogenic characters when introduced into various animals, and a comparison of lesions produced. Three main types of tubercle bacillus were met with—bovine, human, and avian. The bovine bacillus grows sparsely on glycerine; is acutely infective for the calf, rabbit, chimpanzee, Rhesus monkey, guinea-pig, goat, pig, cat: and is found in cases of human tuberculosis, chiefly in those due to infection by ingestion. The human tubercle bacillus grows luxuriantly on glycerine; is much more slightly virulent for the calf and rabbit. For the purposes of the Commission the avian tubercle bacillus was found to be of slight importance.

Professor Sims Woodhead also gave an account of the peculiar strains of bacilli isolated from cases of lupus in the human subject: some of these, in culture, resembled the "bovine bacillus," but were less virulent for certain animals, others resembled the "human bacillus" in culture, with a lower virulence for certain animals. Somewhat similar peculiarities were found in bacilli isolated from cases of tuberculosis of the horse.

Observations were made on the behaviour of the bacilli and their fate in the tissues of animals and on the lesions produced. The general results of these experiments showed that after ingestion the distribution in the organs of the body was much slower than after subcutaneous injection both in the case of the human and bovine types of bacilli. The inoculation of large doses, whether of human or bovine virus, might result in the excretion of tubercle bacilli in the milk of the cow and of the goat without any disease of the udder being produced.

Experiments directed to produce modification of the bovine and human types gave negative results. The only variation from the three main types occurred in cases of lupus and in the horse.

The human and bovine types of bacillus were morphologically indistinguishable, but differed in cultural and pathogenetic properties. The only cultural difference was that the human type grew more luxuriantly. In cases of fatal tuberculosis in the human subject, whether due to the human or bovine types, the clinical histories were alike and the lesions identical.

The peculiarities of the bacilli found in lupus were insufficient to establish the non-identity of the human and bovine tubercle bacillus. The Commission regarded these two types as variations of the same bacillus, and concluded

that mammals and man could be reciprocally infected with tuberculosis, that a considerable proportion of the tuberculosis affecting children was of bovine origin, the infection being transmitted to children in meals consisting largely of the milk of the cow.

One of the most important results obtained was that in at least 2 cases of pulmonary tuberculosis in which the patients ultimately succumbed to the disease, the tubercle bacillus known as the *Typus bovinus*, and this type alone, was found in the sputum during life. These observations were so carried out that they seemed to dispose of objections raised to the earlier findings of the Commission.

The following reports were submitted to the Conference:

Professor Francis Harbitz (Norway) gave the results of observations made at the Institute of Pathological Anatomy at Christiania. *Post-mortem* examination revealed the extraordinary frequency of tuberculosis in childhood, which frequency rapidly increased with age. The existence of tuberculosis in those cases in which there were no microscopic or macroscopic lesions was determined by inoculation of the guinea-pig. Autopsies on 484 children from 0 to 15 years revealed 198 (41 per cent.) cases of tuberculosis (including 119 cases which had died of tuberculosis (24.6 per cent.)), 52 cases (10.9 per cent.) of latent tuberculosis, and 27 cases (5.6 per cent.) in which the presence of tubercle bacilli was determined. In the first year of life 40 out of 161 cases, or 20 per cent., were found to be tuberculous. In the second and third year 25 out of 91 cases, or 27.5 per cent., were tuberculous, in the fourth and fifth year 15 out of 34 cases (44 per cent.), and in the sixth to the fifteenth year 118 of 158, or 75 per cent., were found to be infected. The later years of childhood therefore showed the greatest amount of infection.

By means of bouillon cultures and inoculation into rabbits and calves, Dr. Arent de Besche, Assistant at the Institute, investigated from 1909 to 1911 the cases of 134 children. Of these, tuberculosis was found in 52, or 39 per cent., of whom 28 had died of tuberculosis, 14 were cases of latent tuberculosis, and 10 were cases in which tubercle bacilli were found microscopically. Up to the present 46 pure cultures of tubercle bacilli have been obtained. In 41 instances these proved to be of the human type, 3 cases were due to the bovine bacillus, and 2 cases showed the bacilli to be of a mixed type. In the fatal cases of tuberculosis it was possible to trace the source of infection, which usually was the child's mother. On the other hand, in the cases of latent tuberculosis there was usually no source of infection to be discovered in the child's immediate surroundings. Professor Harbitz concluded with the statement that the chief source of infection in childhood is the human consumptive, and that the very great frequency of infection in childhood is of importance as being associated with the development of the disease in adult life.

Dr. Ernst Aug. Lindemann, of the Imperial Sanitary Office, Berlin, concluded that tubercle bacilli, compared to other bacteria, were very constant in their biological characteristics. In some cases long cultivation would produce a great reduction in virulence. From cases of lupus in man bacilli of very low virulence had been isolated. This virulence, however, could be increased by passage of the bacillus through bovines or the rabbit. Again, bovine bacilli of low virulence had been isolated from the horse. It had not been proved that tubercle bacilli of the human, bovine, or avian type could be transmuted one into the other.

Surgeon-Major Dr. Möllers (Berlin) read a paper, in which he gave the results of investigations carried out in Koch's own laboratory, and partly during his lifetime. The sputum of 54 cases of pulmonary tuberculosis in man was investigated, and in every case the human tubercle bacillus was found. The literature of the subject contained the results of investigating the sputum of 700 patients. With three exceptions (two cases of the British Commissson and one case of Jong-Staumann), all the bacilli present conformed to the human type. In one case Kossel found both bovine and human bacilli to be present. It was absolutely clear that, barring a few exceptional cases, pulmonary tuberculosis in man is due to the human tubercle bacillus. At Koch's Institute the bacillus had been examined since the last conference in 123 cases of all forms of tuberculosis, with the exception of lupus, as follows:

54 cases of pulmonary tuberculosis.
3 cases of tuberculosis of the bronchial glands.
8 cases of tuberculosis of the axillary glands.
3 cases of abdominal tuberculosis.
6 cases of miliary tuberculosis.
7 cases of uro-genital tuberculosis.
11 cases of tuberculosis of bones or joints.
9 cases of other forms of the disease.

With the exception of one case of tuberculosis verrucosa cutis, in which the bovine tubercle bacillus was found, every case yielded the human tubercle bacillus. Rothe had examined the bronchial and mesenteric glands in 100 children who died of various diseases before the age of 5. In 21 cases the presence of tubercle bacilli was proved by inoculation into the guinea-pig, and of these 20 were eventually found to be of the human type, and 1 of the bovine type. Of special interest were the investigations undertaken by Koch on lupus, on the supposition that this disease, continuing often for more than ten years, and showing little tendency to general infection of the system, might be due to bovine infection. Of 46 cases which came under observation, the investigation had now been completed in 28. Of these 28 cases, 23 were found to be due to the human tubercle bacillus, 4 to the bovine bacillus, while from one case both types were isolated. Dr. Möllers closed his statement with the remark that it was surprising that fewer cases of bovine infection had been found than by the members of the British Royal Commission, although in Germany a larger number of cases had been examined. He did not consider it likely that the population of Germany was less liable to bovine infection than that of other countries, considering the large amount of tuberculosis among the horned cattle of Germany.

There was some considerable division of opinion as to the exact part played by bovine tuberculosis as it affected man, and as a result it was decided to hold a special private meeting of the speakers in the above discussion, with a view, if possible, of arriving at some general working resolution. This meeting took place on April 12th. Professor Calmette was in the chair, and all the speakers were present. After considerable discussion, during which varying views were expressed as to the importance of bovine tuberculosis as a factor in the prophylaxis of tuberculosis, and the British representatives (Woodhead and Nathan Raw) strongly urged the importance of the danger of bovine infection to man, it was finally agreed to adopt the following resolutions:

1. Prophylaxis of tuberculosis must principally be directed against the suppression of contamination from man to man and principally in the family.
2. The contamination of man by bovine infection is of less frequency; nevertheless, it is necessary to maintain all measures against infection of bovine origin.

These resolutions were adopted unanimously, and it is believed that as a result the stringent measures to eradicate tuberculosis from dairy cows will be continued.

Specific Treatment.

At the second general meeting of the Conference, held on April 11th, Professor Petruschky (Danzig) and Dr. Holdheim (Berlin) submitted general statements in favour of the use of tuberculin without adding to what is already generally known.

Professor Dr. Gräfin von Linden (Bonn) made a statement on Finkler's treatment in experimental tuberculosis of the guinea-pig by the injection of a substance belonging to the tar group combined with iodine and a copper salt. The substance *in vitro* hindered the growth of the tubercle bacillus, and in the body was deposited at the foci of disease, where hyperaemia was induced. If the substance were given within fourteen days of the inoculation of the guinea-pig, complete cure was claimed in 75 per cent. of cases. The body (called A) belonging to the coal-tar group did not cause fever. The substance B—a copper salt with iodine—might induce fever at the end of twenty-four hours.

Professor Dr. Meissen (Hohenhonnef) and Dr. A. Straus (Barmen) related the results of the use of this substance in the human tuberculous subject. As the former began the treatment ten months ago and the latter nine months ago, the results claimed cannot in any way be regarded as conclusive. Copper salts, iodine, and various bodies in the coal-tar group have all been tried before in tuberculosis

without any startling results. To the careful observer of tuberculosis perhaps one of the most difficult problems is to determine which therapeutic agent in any given case actually brought about an arrest of the disease. As we know that in a great many cases the disease appears to be arrested with very little interference on our part, every new or old specific must be received with due reservation.

Women and the Tuberculosis Campaign.

On April 12th the Conference received an account of the part which women have taken in this movement in Belgium, Germany, and France.

The World Movement against Tuberculosis.

On April 13th, at 10 a.m., the Conference received reports on the progress of the antituberculosis movement in the various countries represented at the Congress. All showed a growing activity and interest, but in general were rather the records of isolated enterprises than of a concerted scheme. The report of the British National Committee on the progress of the campaign against tuberculosis in Great Britain and Ireland was submitted by Dr. R. W. Philip. It stated that the diffusion of information through the efforts of the National Association to arouse popular interest, and institutional provision for patients had both steadily been extended. Six new sanatoriums had been opened, and four existing sanatoriums enlarged, so that in all 240 additional beds had been provided. There had been a remarkable development in the number of tuberculosis dispensaries, and in London two tuberculosis open-air schools were opened during the pst year. Compulsory notification was the feature of administrative achievement in England. The report proceeds to consider the subject of tuberculosis in relation to the Insurance Act. The Act was interpreted as providing, in addition to sanatoriums, hospitals of different kinds for the treatment of tuberculosis in all its different stages, and tuberculosis dispensaries which would serve as centres for receiving and dealing with large numbers in every district. The hope was expressed that under the Act a more or less uniform system of antituberculosis activity would be established throughout the United Kingdom with the tuberculosis dispensary as its centre, linked up closely with the sanatorium, the hospital for advanced cases, the tuberculosis school, and the farm colony, the whole being in close relationship to the medical officer of health.

The Welsh National Memorial to King Edward VII embodies a scheme for the prevention and eradication of tuberculosis. The memorial was about to be granted a Royal Charter so that all forms of tuberculosis might be dealt with on national lines. A sum of over £200,000 has been subscribed. It was intended to draw up a scheme for the treatment of all forms of tuberculosis, including dispensaries, sanatoriums for adults and children, hospitals for advanced and chronic cases, and open-air schools.

The report concluded with a statement of the work done in Ireland by the Women's National Health Association of Ireland, the principal event of last year being the opening of the first tuberculosis dispensary in Ireland by His Majesty the King. This was the P. F. Collier Memorial Dispensary in Dublin, which was modelled on the lines of the Royal Victoria Dispensary in Edinburgh. Unfortunately notification of tuberculosis was still merely permissive in Ireland, but it was stated that there were indications of a growth of public opinion, which might lead to the introduction of an amending Act, making the notification clauses of the present Act compulsory. The extension of the Labourers Act had resulted in marked improvement in the condition of housing both in town and country.

SOCIAL ARRANGEMENTS.

On Saturday, April 13th, at 9 p.m., there was a reception to members in the Castle of St. Angelo. On Sunday, at 11 a.m., the Congress was formally opened in the hall "degli Orazi e Coriazi," in the presence of Their Majesties the King and Queen of Italy. On Monday the President, Professor Guido Baccelli, entertained the official delegates to a banquet. On Wednesday afternoon the lady members of Congress were entertained to afternoon tea by the Lycaeum. On Thursday afternoon the Municipality of Rome gives a reception to members at the Capitol. An excursion to Sangemini takes place on Saturday, and on Sunday, April 21st. *dies Natalis Romae*, there will be a reception at the Capitol at 9 p.m., when the Forum will be illuminated.

During the Congress members have free entry to the following: The International Exhibition of Hygiene, the Exhibition of Ancient Art, the Archaeological Exhibition, and to the newly completed memorial to Vittorio Emanuele II. Through special permission from the Ministry of Public Instruction members have free entry to all the national monuments in Rome, and in Turin, Genoa, Milan, Venice, Florence, Naples, Palermo, and Syracuse. Ladies attending the Congress have received cards of invitation to visit the monuments of Rome in company with the ladies of Rome. A daily journal of the Congress, containing the arrangements for the next day, is published each evening.

THE CREMATION SOCIETY OF ENGLAND.

ON March 27th the Cremation Society of England held its annual meeting at 20, Hanover Square, Sir CHARLES CAMERON, Bart., the President, being in the chair.

Report of Council.

The report of the council for 1911, the thirty-eighth year of the society's existence, was presented. It stated that during the year 114 cremations took place at Woking, as compared with 106 for the year 1910. There had been an increase in the number of cremations at Golder's Green, where 542 took place in 1911, as against 415 in 1910, being a growth of nearly 33 per cent. There was also an increase in the number carried out at other crematoriums in Great Britain. Stress was laid on the fact that there was no real difficulty in arranging for cremation, and that the forms and certificates required by the law could be filled up without causing serious trouble. The number of undertakers who were versed in the routine of cremation was daily increasing. The cost compared most favourably with that of burial. The council took the opportunity of again impressing on persons who desired cremation for themselves to make their wish known within the circle of those who might be called upon to provide for the disposal of their bodies after death. Inhumation often took place because it was not known in time that the deceased wished to be cremated. In a number of cases the body had been exhumed for cremation, a request to be cremated having subsequently been found amongst the papers of the deceased. Provision could be made during life with the society for cremation at death at any establishment in Great Britain. Since the alteration of the rules in 1907 admitting that course, a considerable growth had taken place in the membership of the society. During the past year it increased by 53, and included many persons of distinction. The Duke of Bedford, a vice-president of the society, having erected a new crematorium for the use of himself and family in the grounds at Golder's Green, had generously offered to give the society a crematorium built by his predecessor in connexion with the society's at Woking; the council had gratefully accepted this offer. The council viewed with much satisfaction the course taken by the Dean of Westminster in limiting his offer of interment in the Abbey to the cremated remains of Sir Joseph Hooker. In the list of those cremated during the past year the following names of well-known persons appeared: Sir W. S. Gilbert, Canon Robinson Duckworth, Mrs. Ramsay MacDonald, Walter Macbeth, R.A., General Goldsworthy, Lady Colin Campbell, Canon John Henry Coward, Sir Edwin Austin Abbey, R.A., Sir Charles Dilke, Bart., John MacWhirter, R.A., General Sir F. C. Stephenson, Constable of the Tower; Rev. H. C. Kelly, President of the Wesleyan Conference; Alberto Randegger, Mrs. Arthur Stannard (John Strange Winter), Rev. John Page Hopps, and the Earl of Cranbrook. H.M. the King was represented at two cremations, and the council thought it of interest to record that Canon Duckworth's ashes were deposited in the Abbey in an urn instead of an ordinary coffin. Those of Canon Coward were similarly deposited in St. Paul's Cathedral. The council gratefully

acknowledged the valuable assistance rendered by the newspaper press in placing the advantages of cremation before the public. Their special thanks were due to the British Medical Journal and the *Referee*. In response to an invitation by the British Executive Committee of the International Hygienic Exhibition held at Dresden in 1911, the society sent an exhibit including a statistical chart, examples of cinerary urns, and framed views, plans, etc., of crematoriums, for which they received an honorary diploma. The accounts and balance-sheet for the year ended December 31st, 1911, showed a satisfactory balance on the right side as the result of the year's working.

President's Address.

In his address Sir Charles Cameron referred to the fact that the cremation movement in this country continued to advance, though its rate of progress was disappointingly slow. The combined figures for Golder's Green and Woking showed an increase of over 25 per cent. on the cremations of the previous year, and, taking Great Britain as a whole, the number of cremations in 1911, which for the first time exceeded 1,000, surpassed those of the previous year by close on 20 per cent. That increase in itself was encouraging enough; but when they found that in Germany the number of cremations in a month was not very far short of that in Great Britain in a year, and when they learnt that in that country in the month of February last the increase in the number of cremations over those in February, 1911, was nearly as great as they could boast of in this country in a whole year, it was obvious that in the matter of this method of disposing of the dead this country lagged lamentably behind Germany. As usual, the list of those cremated during the year showed an extraordinary preponderance of members of the wealthy and intellectual classes. That was at once apparent from the selection of well-known and distinguished names contained in the report. But the unfortunate thing was that notwithstanding its cheapness and the manifold advantages of cremation over burial—in the case especially of those who could not afford the luxury of a private grave—among the poorer and working classes to whom it should present the most obvious attractions, cremation in this country has as yet made no headway whatever. In the list of distinguished names contained in the report, however, was one of a lady whose work and name were most intimately and honourably connected with those very classes, and he trusted that the example afforded in her case might have some effect in breaking down the groundless prejudice against cremation of those to whose advancement she devoted her lifelong work. In the report reference was made, among other advantages which cremation afforded over burial, to the safeguards it provided against the concealment of crime. Now this was a point which it was important that he should elaborate in some detail on this occasion and for this reason: In a recent trial for murder counsel for the defence adduced as one of his arguments that if the accused had poisoned the deceased, instead of burying the body he would have had it cremated, and thus destroyed all traces of his crime. Sir Charles Cameron had no doubt that the argument was put forward in perfect good faith, but it showed an extraordinary ignorance on the part of the learned counsel as to the procedure legally necessary for the purpose of obtaining permits respectively to cremate or to bury. In the case of burial there was practically no precaution enacted for the detection of foul play. All that was necessary was to obtain from the registrar of deaths a burial certificate, and that might be obtained, and in thousands of cases was obtained, on application by a relative or other person without any medical certificate, or a certificate given by a medical man who had seen the deceased a few times—it might be a very few times while alive—and who had granted the certificate on the statement of a third person that his patient was dead without any verification of the fact by a personal inspection. This burial certificate should be delivered to the authorities of the cemetery before burial was permitted, but even that flimsy precaution appeared to be frequently ignored—according to the well-known writer whose identity was thinly concealed under the signature of "Dagonet" in the *Referee*. That writer said that two or three years ago he had on his study table 100 death certificates of people of all ages handed to him by a friendly undertaker at a time when he was writing on the subject, not one of which had been given up at the cemetery, so that 100 bodies had been put underground without even this formal legal requirement having been complied with. What would have been the course of events had the accused in the case to which reference had been made attempted to have the body cremated? He would have had in his own application form to have answered on oath a number of questions which if truthfully answered would have amounted to a confession of crime. On the hypothesis that the accused had committed a murder and that his object in applying for the cremation of his victim was to conceal his crime, it might be assumed that the answers given would have been untrue. But his application would have had to be accompanied by two medical certificates. In one the medical man would have had to testify not only that he had attended the deceased in the last illness, but that he had seen and identified the body after death. The doctor signing that certificate would have had to answer a long list of questions as to the duration of illness, the cause of death and its mode, to state whether he felt any doubt whatever as to the character of the disease or the cause of death, and to certify that there was no circumstance known to him which could give rise to any suspicion that the death was due wholly or in part to any other causes than disease or which made it desirable that the body should not be cremated. That certificate would have had to be backed up by a confirmatory certificate, which could only be given by a medical practitioner of five years' standing, who in addition must be the holder of one of some half dozen specified public appointments. He would have had to testify that he had examined the other certificate, and must answer various questions calculated to test the thoroughness of his examination, and further to testify as the other doctor had done that he knew of no circumstance calculated to give rise to any suspicion of foul play in the case. But even assuming that the accused had succeeded in securing these certificates, they would still have to go before the medical referee for an authority to cremate. In the particular case referred to, the cause of death was, he believed, said to be epidemic diarrhoea. In the form of medical certificate for cremation, it was required that when the cause of death was certified as arising from gastritis, peritonitis, or alcoholic poisoning, details of the attendant circumstances should be given in full, and when the cause of death was stated to have been gastritis or other similar diseases resulting in gastro-intestinal irritation, Mr. Herring, who acted as Medical Referee to the London Cremation Company, informed him that he made it a rule never to pass such a certificate without the most stringent inquiry or until a *post-mortem* examination had been made by an expert pathologist. He added that if, after examining all the papers, he was not absolutely satisfied, he either insisted upon a *post-mortem* examination as to the condition of authorizing cremation, or reported the case forthwith to the coroner and awaited his decision as to whether or not he considered an inquest necessary. Sir Charles Cameron concluded by saying he hoped they would agree with him that had a poisoner attempted to get rid of all proof of his crime by applying for the cremation of his victim's body, the chances were 100 to 1 that the real cause of death would be promptly brought to light, whereas in the case of his resorting to burial the chances were nearly as great that the crime would never be revealed. For general purposes the precautions might perhaps be a little overdone in the case of cremation; but the enactment of some elementary precaution for the detection of crime in connexion with their burial system was one of the clamant requirements of any scheme of social reform worthy of the name.

Dresden Hygiene Exhibition.

The following is a list of the exhibits sent by the Society to the International Hygiene Exhibition held at Dresden last year: (*a*) Enlarged chart showing the number of bodies cremated in Great Britain since the commencement of operations in 1885. (*b*) Photographs and drawings of the Golder's Green and Woking Crematoriums. (*c*) Examples of modern cinerary urns. (1) Urn of leadless glaze pottery ware; (2) and (3) caskets of cast and wrought

English bronze. (*d*) Specimen vase containing ashes—after incineration at Golder's Green. (*e*) Handbook "Cremation in Great Britain," and various publications of the Cremation Society of England.

LITERARY NOTES.

MR. STEPHEN PAGET has written a book summarizing in ten chapters the evidence given before the Royal Commission on Vivisection, as well as the Inspector's Report for 1910. The volume also contains in a final chapter a brief account of the Commission's Report, and an important Introduction by Lord Cromer, which contains a justification of his acceptance of the Presidency of the Society, a critical survey of the Report, and an earnest appeal for calm study of the facts disclosed. The book will be published by Mr. H. K. Lewis.

The next number of the *Edinburgh Review* will appear under the control of a new editor, Mr. Harold Cox. Mr. Cox is the seventh in succession to Francis Jeffrey, who held the reins from the foundation of the *Review* in 1802 down to 1829. The succeeding editors were Macvey Napier, William Empson, George Cornewall Lewis, Henry Reeve, and Arthur Elliot. The proprietors, Messrs. Longmans, Green, and Co., feel confident that in Mr. Cox they have secured an editor of whom it may be predicted that he will consistently maintain the principles which have been upheld by the *Edinburgh* for more than a century. The traditions of the *Edinburgh* have been to inculcate a sane and individualist liberalism; and under its new editor the *Review* will be as strongly opposed to democratic tyranny and democratic corruption as it was in the early years of the nineteenth century to the tyranny and corruption of an aristocracy. It will continue to defend the unity of the kingdom and to advocate those principles of personal liberty and personal responsibility from which liberalism should never be divorced. It will aim at promoting these causes by the dissemination of sound economic doctrine. Every endeavour will be made to maintain the reputation of the *Review* for fair-minded and tolerant criticism in literature and art, and in the future, as in the past, cordial welcome will always be given to new ideas and new movements for the advancement of the nation.

There are few sights more charming to the average adult than that of small children going through their parts in a well-organized school entertainment, and there are probably few children who do not enjoy these performances as a welcome break in the monotony of school life. Such spectacles, however, pretty as they undoubtedly are, and gratifying to parental pride, are by no means devoid of danger for the little performers. Miss S. G. Barnet, writing in the April number of *The Child*, unhesitatingly condemns them as "actually prejudicial to the welfare of our school children"; and the truth of this statement is proved by the ill-effects which, as the writer proceeds to point out, are too often the only lasting result of such displays. Children, says Miss Barnet, are nearly always overworked in preparing for school entertainments. Their ordinary school work cannot be neglected, and therefore the rehearsals have to take place out of school hours; and the strain and excitement, as well as the unavoidable fatigue caused by weeks of continuous training, produces a state of lowered vitality and nervous irritability which is anything but conducive to good health of mind or body. The deterioration in the physique of so many modern school children and the alarming increase of neurosis in childhood are both in many instances due to the fact that the already overwrought and overburdened child has been systematically deprived of his scanty play hours in order to satisfy his teacher's natural desire "to show off the school or to bring forward specially clever or promising children, or to get notices in the press, or by some means to loom large in the public eye." The need for proper and sufficient recreation for school children cannot be too strongly insisted upon, especially as there seems to be a growing conviction on the part of modern educationalists that school games and other organized amusements can take the place of that spontaneous, untrammelled play which is one of the most precious rights of childhood. Dr. Clive Riviere, who has contributed an interesting article on "Holidays" to the April number of *The Child*, also lays stress upon the necessity for plenty of rest for growing children, whose forces are usually strained almost to breaking point by the simultaneous development of their mental and physical powers. Holidays, says Dr. Riviere, ought to be periods of complete relaxation: and for this reason the usual habit of giving holiday tasks should be set aside, and the child allowed to amuse himself in his own way, and so recover from the effects of past fatigues and gain fresh strength to meet the demands of the coming term. In addition to the above-mentioned articles, the present number of *The Child* contains some valuable advice from Mr. J. S. Kellet Smith on the treatment of lateral curvature of the spine by means of suitable exercises, and a most interesting account by Miss Mary Dendy of the Sandlebridge Colony for Feeble-minded Children; whilst Dr. C. W. Hutt has written on the "Feeding of Necessitous School Children," and Mrs. E. Macrosty has contributed a short history of the "Baby Clinic" recently opened in North Kensington.

The March number of the *Journal of the Royal Army Medical Corps* contains an interesting account by Major H. A. L. Howell, R.A.M.C., of Richard Wiseman, Serjeant Surgeon to Charles II. Wiseman's origin, like that of Jeames, is "wrapped up in a mistry," and the date of his birth is unknown. Major Howell thinks it probable that he was born some time between 1621 and 1623. He was apprenticed to a surgeon named Richard Smith in 1637. It has been suggested that Smith was a naval surgeon, and, according to Major Howell, there appears to be little doubt that Wiseman's earlier years of practice, and perhaps of apprenticeship, were spent on board the ships of the Dutch Royal Navy; all the cases of wounds and injuries are described by Wiseman in his treatises as having occurred before he served in the army. He spent a long time in the Dutch service and was present at many sea fights. During the Civil War he appears to have joined the Royal Army about the end of 1643. In 1644 he was on active service in the field with the Royalist forces. He was in the surprise of the forts at Weymouth on February 9th, 1644–45, and was amongst those besieged in that town. Major Howell thinks he was probably surgeon to Colonel Ballard's regiment, as all the wounds described by him at this time were in men of that corps. He was with Goring in the attack on Melcombe Regis, and then went to the West of England, and was present at the siege of Truro and the fighting at Truro. Major Howell gives some extracts from his works relating to his experiences at this time. From these we select two as of special interest:

> At the siege of Melcomb Regis, a Foot-souldier of Lieutenant Colonell Ballard's, by the grazing of a Cannon-shot, had a great part of his Forehead carried off, and the Skull fractured into many pieces, and some of it driven with the Hairy scalp into the Brain. The man fell down as dead, but after a while moved; and an hour or two after, his Fellow-souldiers seeing him endeavour to rise, fetcht me to him. I pulled out the pieces of Bones and lacerated Flesh from amongst the Brain, in which they were intangled, and drest him up with soft folded Linen dipped in a Cephalick Balsam, and with Emplaster and Bandage bound him up, supposing I should never dress him any more. Yet he lived 17 days; and the 15 day walkt from that great Corner-fort over against Portland to the Bridge which separates Weymouth from Melcomb Regis, onely led by the hand by some one of his Fellow-souldiers. The second day after he fell into a *Spasmus*, and died, howling like a Dog; as most of those do who have been so wounded.

Again:

> At the Siege of Taunton one of Colonell Arundell's men, in storming the Works, was shot in the Face by Case-shot. He fell down, and in the Retreat was carried off among the dead, and laid into an empty house by the way, untill the next day; When in the morning early, the Colonell marching by that house heard a knocking within against the Door. Some of the Officers desiring to know what it was lookt in, and saw this man standing by the Door without Eye, Face, Nose or Mouth. The Col. sent to me (my Quarters being nearest) to dresse the man. I went, but was somewhat troubled where to begin. The Door consisted of two Hatches; the uppermost was open, and the man stood leaning upon the other part of the Door which was shut. His Face, with his Eyes, Nose, Mouth, and forepart of the Jaws, with the Chin, was shot away, and the remaining parts of them driven in. One part of the Jaw hung down by his Throat, and the other part pasht into it. I saw the Brain working out underneath the lacerated Scalp on both sides between his Ears and Brows. I could not see any advantage he could have by my Dressing. To have cut away the lacerated parts here had been to expose the Brain to the Air. But I helpt him to clear his throat, where was remaining the Root of his Tongue. He seemed to approve of my Endeavours, and implored my Help by the Signs

he made with his Hands. I askt him if he would drink, making a sign by the holding up a Finger. He presently did the like, and immediately after held up both his Hands, expressing his Thirst. A Souldier fetcht some Milk, and brought a little wooden Dish to pour some of it down his Throat; but part of it running on both sides, he reacht out his Hands to take the Dish. They gave it him full of Milk. He held the Root of his Tongue down with the one Hand, and with the other poured it down his Throat (carrying his Head backward) and so got down more than a quart. After that I bound his Wounds up. The dead were removed from thence to their Graves, and fresh Straw was fetcht for him to lie upon, with an old Blanket to cover him. It was in the Summer. There we left that deplorable creature to lodge; and while we continued there, which was about 6 or 7 days, he was drest by some of the Chirurgeons with a Fomentation made of Vulnerary Plants, with a little brandy-wine in it, and with Stupes of Tow dipt in our common Digestive.

When the Prince escaped to Jersey in April, 1646, Wiseman, to whom he was appointed surgeon, was among his suite. He appears to have continued in attendance on the Prince at Paris, and afterwards at The Hague. Wiseman was with Charles II when he lived in Scotland, and marched with the King's army into England. At the battle of Worcester he was taken prisoner and was sent to Chester. That ended his career as an army surgeon. At Chester he remained till the end of 1651, and worked among the wounded. In the early part of 1652 he obtained a pass to go to London. Soon afterwards he was admitted to the Company of Barber Surgeons, and, though still a prisoner under a special bail, he established himself "in the Old Bayley at the signe of the King's Head." His practice was naturally mainly among Royalists, and on a charge of being concerned in an attempt of a Royalist prisoner to escape, he was imprisoned in the Tower. After a time, through the influence of his friends, he obtained his release and resumed practice in London. Afterwards, probably owing to the troubles of the times, he took service as a surgeon in the Spanish Navy, in which he spent three years. He then returned to London, where he was living at the Restoration. Ten days after the King's return he was appointed "Surgeon in Ordinary for the Person." On the death of Humphrey Painter he was appointed Serjeant Surgeon. For several years before his death he was an invalid, suffering from lung trouble. It is, says Major Howell, to his gradual withdrawal from the active practice of his profession on account of ill health that we owe the production of his writings. In 1676 he died at Bath, whither he had gone in the hope of improving his health. He was twice married, but left no direct descendants. Towards the end of his life he was comfortably off. His fees as Court surgeon, together with a pension that had been bestowed on him, were equivalent to more than £1,000 a year at the present day. A patient whom he had cured of syphilis settled £30 a year on him during his own life. He was evidently a man of education, for his books are very well written; they are full of descriptive touches that make his reports of cases wonderfully living. He described himself without vain boasting as an "Artist in Chirurgy," for he was an operator at once bold and cautious. It should be recorded to his credit that in a drunken age he was a water drinker, and, though closely connected with a dissolute Court, he seems to have led a moral life.

SCIENCE NOTES.

IN a paper communicated to the Royal Society on the morphology of *Trypanosoma gambiense* (Dutton) Sir David Bruce has made a further contribution[1] to the knowledge of trypanosomes and sleeping sickness. He gives a summarized account of the chief morphological characters of the organism, and a plate showing the variations in form. He deals exclusively with strains from Uganda. Details are given of the measurements of one thousand specimens obtained from man, chimpanzees, monkeys, oxen, antelope, and rats. They show that the average length of the trypanosome is 22.1 μ with a range of 13 μ to 33 μ. The greatest average length was found in man, but the widest range in rats. The marked dimorphism is commented upon, and the absence of a free flagellum in the stumpy forms is noted. A comparison is made with *Trypanosoma brucei*, and it is shown that it is practically impossible to distinguish the two specimens on morphological characters. *T. gambiense* shows a larger percentage of stumpy, non-flagellated forms, but there is no evidence that this is a fundamental difference.

[1] *Proc. Roy. Soc.*, B. 84, 1911, p. 327-332.

It is irresistibly funny to think of a fish trying to look like a chessboard, yet this is what some of Mr. C. Tate Regan's experimental pets tried to do, and he told a remarkable tale of their behaviour at the Zoological Society's meeting last week. It is a matter of current knowledge that very many animals—perhaps, in fact, all animals to some extent—endeavour, voluntarily or otherwise, to imitate the character of their surroundings by appropriate colourings or markings. The tiger in the jungle, the stick insect, and a multitude of others are familiar instances of this phenomenon. In many cases, however, such as that of the tiger, the animal does not possess the power of altering his markings when the environment is changed. In other cases the animal appears to be able to change its markings not only voluntarily but very rapidly. Such is the case with the pleuronectid flat fishes, and it was about those that Mr. Regan made his remarks. The common flounder, the plaice, and others of this class all possess markings which harmonize with the ground on which they live, and which render them difficult to detect, as anyone who has looked into an aquarium where such fish are kept will readily admit. Mr. Regan first of all exhibited two photographs of fish lying on sand and gravel bottoms, and so close was the imitation that he had to be asked to delineate the contour of the fish in each case. The next photograph showed the result of the chessboard experiment. The fish was kept in a tank the bottom of which consisted of large black and white squares, and the fish undoubtedly made an obvious though not very successful attempt to give itself the appearance of a chessboard. When the size of the squares was considerably reduced the imitation was unquestionably more successful, and when, instead of squares the bottom consisted of small white discs on a black background, the imitative effort of the fish was indeed highly creditable. It may be mentioned that the fish experimented with was a species of Platophrys, a Mediterranean form bearing a close resemblance to the turbot.

CONGRESS ON INDUSTRIAL ACCIDENTS.

THE third International Medical Congress on Industrial Accidents is to be held in Düsseldorf from August 6th to 10th this year. Previous conferences have taken place at Liége (1905) and Rome (1909), and the published proceedings of these have provided much valuable information respecting this important modern branch of medicine and surgery. The questions to be submitted for discussion this year are exceedingly practical, and an international exchange of views should be of material assistance in concentrating and adding to our knowledge in this branch of study. They are as follows:

1. Comparative study of the Compensation Act in force in various countries.
2. Importance of early institution of functional treatment in cases of industrial accident.
3. Traumatic diseases of the heart and blood vessels.
4. Traumatism and arthritis deformans.
5. Productive and aggravating influence of trauma on cancer.

Although these subjects are purely medical and of particular interest to medical referees and medical officers of accident insurance companies, the membership of the Congress is not restricted to the profession, but is open to representatives of insurance companies and associations of employers or workpeople. Whilst it is hoped that a good number of British representatives will visit Düsseldorf, any one interested may become a member and thus secure a copy of the proceedings without actually attending the meetings.

Professor Liniger, Elisabeth Str. 63, Düsseldorf, is the General Secretary of the Congress, but the organization in this country is being undertaken by the Association of Certifying Factory Surgeons (Incorporated), the Secretary of which will be pleased to answer any inquiries addressed to him at 16, John Dalton Street, Manchester.

British Medical Journal.

SATURDAY, APRIL 20TH, 1912.

ORGANIZE! ORGANIZE!

Disraeli, when a crisis in the fate of the party he led to victory was approaching, gave as the battle-cry to his followers the injunction, "Register! register!" The cry may be paraphrased in the existing crisis in medical affairs by the injunction, "Organize! organize!" The State Sickness Insurance Committee, in a memorandum to the Honorary Secretaries of Divisions and Branches in England, Wales, and Scotland about a month ago, strongly urged every Division to take steps to appoint forthwith for the area a provisional medical committee to safeguard the interests of the profession. Upon this advice many Divisions have already acted, and others are taking the necessary preliminary steps, but it is essential that every area in all the three countries should be organized as speedily as possible. The State Sickness Insurance Committee advised that medical men engaged in every class of practice in the area should be represented on the provisional medical committee, and, while urging that a strong effort should be made by a personal canvass to induce every member of the profession to join the British Medical Association, it recommended that members of the profession who still remained outside the organization of the Association should be invited to take their part in the work, and that the committees should at once get into communication with all practitioners at present engaged in contract practice. Another matter which has engaged the attention of the committee is the formation of a public medical service. This subject was first considered by the Association in 1906, and draft rules then prepared after long consideration, and repeated revision by the legal advisers of the Association, were issued to the Divisions in December, 1909, and published in the Supplement of the British Medical Journal of May 7th, 1910. The State Sickness Insurance Committee is to consider the matter further at its meeting this week, which takes place too late to render it possible for us to report its proceedings, but there can be little doubt that the immediate objective of the profession in all localities should be the organization of provisional medical committees, and the reference to them among other matters of the question of the lines upon which a public medical service can best be organized in each locality, in order that the profession throughout the country shall be in a position to meet the suspension of medical benefit should this be the outcome of the negotiations which may take place with the Insurance Commissioners after the draft regulations have been considered by them in conjunction with the Advisory Committee.

A report of the first meeting of the Scottish Medical Insurance Council, consisting of 58 direct representatives appointed by the medical practitioners in the insurance areas of Scotland, of the Scottish Committee of the British Medical Association, and of eight representatives of the medical faculties of the Scottish Universities and five of the Scottish Medical Corporations, is printed in the Supplement. It will be seen that it has been determined in Scotland that the insurance area shall be the unit for the purpose of organization, and that in each area a provisional medical committee shall be elected by the medical practitioners. To these provisional medical committees is entrusted the duty of organizing the profession in respect of each area. The Scottish Council has added a seventh principle, namely, that disciplinary power shall be vested in some properly constituted body, and it was decided that in the event of the seven cardinal principles not being incorporated in the regulations issued by the Commissioners the Executive Committee of the Scottish Medical Insurance Council shall at once take steps to establish a scheme, to be organized and carried on by the profession, for a public medical service adapted to the circumstances of the various areas in Scotland.

The reply (p. 917) of the Joint Committee of Insurance Commissioners to the letter addressed to it on April 12th in accordance with the instructions of the State Sickness Insurance Committee, does not carry us very far on the road towards firm ground for negotiation with the Insurance Commissioners, but it at any rate avoids the wrong turning which the Chairman of the Joint Committee seemed inclined to take when, in his answer to Sir Philip Magnus on March 20th, he told the House of Commons that he did not know that any reply, beyond a mere formal acknowledgement, would be sent to the Association's letter of February 29th, "because members of the British Medical Association are going to be appointed on the Advisory Committee, which will have to consider the whole question." This answer was too much on the lines of that made by the Chancellor of the Exchequer on December 4th, when he was asked whether the House of Commons might assume that the British Medical Association was satisfied with the provisions of the bill, and replied that while declining to express a definite opinion, he could at any rate point to the fact that the British Medical Association had allowed its Medical Secretary to accept the offer of a Commissionership.

From the terms of the brief reply received from the Joint Committee on April 15th, it seems that the Commissioners now clearly recognize that the duties of the medical members of the Advisory Committee do not go beyond giving the Commissioners advice and assistance in the preparation of the Regulations for the administration of medical benefit, and that it is now fully understood that the medical members have no authority to pledge the profession in any way. There is a statutory obligation on the Commissioners (Section 58) to accept the assistance of the Advisory Committee in making and altering Regulations, but the Commissioners may or may not act upon the advice so given. The medical members chosen by the British Medical Association will no doubt take care that members of the Association are fully informed as to the Regulations drafted by the Commissioners, and as to the advice tendered, and it will be for the Association as a whole, through its constitutional machinery, and after obtaining the opinions of the Divisions, to decide whether the Regulations effectively embody its demands. Should this not prove to be the case, any negotiations which might then be in order would be conducted not by the medical representa-

tives on the Advisory Committee, but by the British Medical Association, through the State Sickness Insurance Committee, acting under the instructions of the Representative Body, and with the co-operation of the Committee of Universities and Licensing Bodies in England, and the Scottish and Welsh Medical Insurance Councils. This must be clearly understood, and the letter of April 15th from the Joint Committee seems to show that its truth has been more or less completely grasped. Any attempt to steal a march upon the profession by representing to the public that the presence of elected medical members on the Advisory Committee is evidence that the profession is satisfied with the provisions of the Act as to medical benefit and with the actuarial estimates of the Treasury will be deeply resented and will seriously prejudice the position.

The first meeting of the Joint Advisory Committee—that is to say, the committee to advise the members of the Joint Committee of Commissioners for the three kingdoms—was to have been held on April 26th, under the chairmanship of Mr. Lloyd George, but has been postponed. When it meets, it will, as is understood, have before it certain draft regulations the preparation of which the Commissioners have regarded as urgent. As this Advisory Committee consists of some 150 persons, it is hardly likely that much business will be done at this first plenary meeting, and we understand that the intention is that the several classes of members, as indicated in the classified list published in the SUPPLEMENT last week, will subsequently meet as subcommittees for the consideration of the regulations especially affecting the several interests they represent.

THE FOUNDER OF GUY'S HOSPITAL MEDICAL SCHOOL.

Soon after the passage of the first Reform Bill an epidemic of commissions of one kind or another broke out through the land. So widely did it prevail that Sydney Smith said that if one was introduced to any stranger, the *onus probandi* that he was not a commissioner rested on the new acquaintance. A somewhat similar visitation is upon us now; it is one of the privileges—or penalties, for the matter may be looked at from different points of view—of living under a democratic dispensation. And the Commissions themselves have committees to advise them. These committees will naturally put forth blossoms in the shape of subcommittees, and it is possible that these too will need advisory committees to look after them.

The day of the despot, benevolent or otherwise, is over; at least, he is not known by that hated name. Yet, as there is an element of good even in things evil, the despot sometimes got things done. Had a Kaiser or a Bismarck or a Cromwell been available, we should have a living and teaching University of London, and many other things which have been smothered in infancy, overlain—or overlaid, if we would speak in the style of an Act of Parliament—by committees. What would become of an army in the field if commanded by a general with committees to left of him, committees to right of him, volleying and thundering? The task of Wellington in the Peninsula was made incalculably harder for him by the interference of the Government at home, and was further complicated by his relations with his Spanish and Portuguese allies. An interesting example of what can be done by a man who knows what he wants and sets himself resolutely to do it is afforded by the career of Benjamin Harrison, the founder of Guy's Hospital Medical School. He carried into practice Jowett's precept: "Don't argue; don't apologize. Get the thing done and let them howl." The story is told in Wilks and Bettany's *Biographical History of Guy's Hospital*. Harrison was elected treasurer at the age of 26; it should be mentioned that his father had reigned before him in the hospital in which the son had already lived twelve years. "He found many things needing reform. Cleaning had been neglected, lavatories were in a wretched state, the nurses were of a very inferior type. He set to work with vigour, and soon every department of the hospital felt the impress of his firm hand." In appreciation of his services the Governors, as early as 1808, had his portrait painted and placed in the panelling of the Court Room. To him the founding of the separate Medical School of Guy's is mainly due. Wilks and Bettany say: "However powerfully Sir Astley Cooper aided in this work, nothing could have been done, nothing was done, without Harrison's active initiative, participation, or consent. To have accomplished this so perfectly and so speedily proves him to have been a most able administrator, but he could not have performed so great a task unless he had had complete authority put into his hands. His was a kind of paternal government; he filled the various offices with persons whom he could trust, and took a lively interest in the welfare of each. Those who were not in his favour styled the government despotic and arbitrary, and he soon obtained the epithet of 'King' Harrison. The position he took may be seen in Cruikshank's caricatures, which adorn the walls of one of the rooms of the Medico-Chirurgical Society, where he is seen sitting on his throne and his subjects prostrating themselves in the most abject attitudes before him. He was supreme in everything, appointing not only the medical staff, but also the nurses and porters, and he supervised the purchase of all materials used in the hospital. His despotic sway continued until his retirement, and his power was absolute."

As might have been expected, Harrison's position as autocrat of the hospital was unfavourably regarded by many. In the Report of the Charity Commissioners who sat in 1837 there is the following statement: "He names the lecturers and exercises a sovereign and irresponsible authority in the distribution of the funds arising from the pupils' fees. So large a concession appears to us unjustifiable: not only is the great School of Medicine thus wholly delivered up to Mr. Harrison's discretion, but, the physicians and surgeons of the Hospital being practically elected from the lecturers in the School, their nomination is virtually surrendered to him." It is added, however, in justice to the Treasurer, "that his talents and energies have, for above forty years, been devoted to the service of the Hospital, and that the entire course of his administration has been marked by zeal the most active and efficient, as well as by the most scrupulous and disinterested integrity. Not only have his services been gratuitous, but his connexion with the Hospital—in the absence of a fund for the assistance of patients on their discharge—has proved to him a constant source of expense, numberless destitute persons having been relieved by his private benevolence. We are far from being prepared to show that the interests of the charity have as yet suffered under the above extraordinary delegation of authority to this gentleman; but a successor equally qualified and willing to make similar sacrifices with him is not likely to be found when it may become necessary." Harrison resented this inquiry most

strenuously, and was with great difficulty induced to give evidence. It was supposed by the public that abuses would be discovered, but none were made out. He retired from the treasurership in 1848, after more than fifty years' service, and died at Clapham on May 18th, 1856, in his 85th year. During his later years of office he acted very much under the influence of Gull, for whom he made offices without consulting anybody. Though he ruled despotically for fifty years, he was thoroughly supported by the Governors acting on the terms of Guy's will. The members of the medical staff were placed on the same footing as all other servants of the hospital, and could be arbitrarily dismissed at any time. The books of the hospital show how supreme the Treasurer was, and against his ruling there was no appeal. If there was any insubordination, he would bring the culprit before the Governors and sentence him.

To us in these days such a state of things is almost unthinkable. There are still, indeed, masterful chairmen of hospital boards, but they do not wield the sceptre of "King" Harrison. Medical men of the present day would not serve under a layman who arrogated to himself absolute authority in such matters as appointments to the staff. We do not believe in "men of destiny" or in autocracy of any kind, whether it be exercised over a hospital or an empire. But if the choice were to lie between an irresponsible treasurer who is at the same time a strong and honest man, and a fortuitous concourse of municipal atoms, the autocrat might prove the lesser evil.

ELDERLY PRIMIPARAE.

THERE is a very general belief that labour in a woman who bears her first child at an age more advanced than usual is apt to be difficult and dangerous to the mother. In the belief that the prevailing economic conditions militate against early marriage, and that therefore the number of elderly parturients is bound to increase, Dr. Kate Spain, of St. Louis, Missouri, has studied this question of elderly primiparae.[1] Dr. Spain has collected evidence from contemporary obstetricians tending to show that the outlook is much less unfavourable than current teaching would lead us to suppose.

An elderly primipara is, according to the statistical definition of most of these authorities, a woman who bears her first child between the ages of 30 and 45. The course of pregnancy differs little from that in young women. In Tarnier's clinic, a series of 111 women between the ages mentioned included only six in whom albuminuria was detected, and not a single instance of eclampsia. Hammerschlag found that eclampsia was only insignificantly higher in elderly primiparae than in primiparous women in general, who are more liable than multiparae to this complication. These observations are reassuring, since by the age of 30 most women have been exposed to several influences favouring renal disease and eclampsia from which young girls are more protected, hence on *a priori* grounds albuminuria and eclampsia might be expected to be a good deal more frequent. It appears that the elderly woman is specially prone to begin by bearing twins. Prinzing gives the percentage of twin labours in elderly primiparae as 4.14 per cent. The percentage is 2.96 in primiparae under 20, 3.54 in women from 20 to 25, and 3.90 in women from 25 to 30. Elderly primiparae are by no means so liable to protracted labour as is supposed. Uterine inertia seems more probable if the mother be weak or prematurely old, or if fibroids exist. Evidence about pelvic contraction is unconvincing. Edgar found 25 per cent. of pelvic deformities in 47 elderly primiparae, and high percentages have been noted in other records, but it seems probable some qualifying factor may have been left out of account; for example, women with such malformations are commonly picked out and sent to institutions where these statistics are made. Rigidity of the soft parts has been taken far too much for granted. The cervix is not necessarily rigid in elderly primiparae. Edgar (in his contribution to von Winckel's *Handbuch*) warns us, as Dr. Spain points out, against laying stress on rigid cervix in any individual elderly subject in labour. The rigidity is almost universally present in the primipara at any age, and also in the multipara in premature labours. In a weak elderly mother primary inertia may cause delay in overcoming resistance at the cervix, even when it is fairly soft. Rigidity of the perineum is more likely to end in its rupture than to cause a prolongation of labour. The weight of the child, it has been shown, increases proportionately to advancing age up till about 44 years; and Schroeder advances evidence that the great transverse diameter of the fetal head becomes disproportionately large when the age of the mother exceeds 35 years. That labour is often abnormal in elderly primiparae, so that instrumental aid is not rarely requisite, appears to be true. Tarnier resorted to the forceps in 27 per cent.; Sheviakoff, in Geneva, employed that instrument in 19.7 per cent. of his cases, whilst in addition he had 4 vaginal and 1 abdominal Cæsarean section, 3 versions with extraction, and 1 embryotomy.

Evidence as to laceration of the perineum is obscured by the fact that obstetric operations involve great risk of these lesions. It is not clear that the perineum is specially liable to rupture in a spontaneous first labour after 30. Fetzer finds that prolapse of the genital organs is more probable the later in life the first delivery occurs. Febrile morbidity, according to Hesselberg, was observed in 14.1 per cent. in 200 primiparae over 30 in his clinic, a low percentage when we remember that obstetric operations are so often needed. It is, however, satisfactory to learn that *post-partum* haemorrhages are rare: Edgar and Courgenon rate that complication at only 8 or 9 per cent.

As for the child, it is oftener a boy than a girl—about 135 males to 100 girls, the general proportion in all women being 106 to 100; males are often stillborn, especially in primiparae. Fetal mortality was until recently very high; but recently, thanks to improvements in operative methods, it has fallen greatly. Edgar lost no child in his 47 cases; Courgenon had a fetal mortality of under 4 per cent. in 111. Thus the prevalence of twins is the only positive fact about elderly primiparae, and though certain complications are not infrequent labour need not be dreaded. No doubt, as the above statistics collected by optimists show, an elderly primipara may be exposed to certain complications, especially to inertia; but, in respect to inertia, many younger women suffer, whilst many women in the thirties are in the prime of their physical strength and endurance. Lastly, when we bear in mind that statistics like those here recorded were mostly drawn up in places to which cases are specially likely to be sent when complications are expected, it is reasonable to presume that numerous instances of normal labours in elderly primiparae in private practice are unrecorded.

[1] *Amer. Journ. Obstet.*, March, 1912, p. 421.

MEDICAL MEMBERS OF THE SCOTTISH ADVISORY COMMITTEE.

The Scottish Board of Insurance Commissioners, being desirous of immediately appointing the Scottish Advisory Committee, has nominated as medical members the five Scottish representatives on the Joint Advisory Committee, namely, Dr. John Adams and Dr. J. Munro Moir, members nominated by the Divisions of the British Medical Association in Scotland, and Dr. McKenzie Johnston (Edinburgh—these three gentlemen are members of the State Sickness Insurance Committee of the British Medical Association—Professor R. Stockman (Glasgow), and Dr. Norman Walker (Edinburgh), the direct representative of Scotland on the General Medical Council. The Commissioners have also invited Dr. R. C. Buist (Dundee), Deputy Chairman of the Representative Meetings of the British Medical Association, Dr. D. E. Dickson, a member of the Council of Fife Branch who has had special experience of colliery practice, Dr. G. R. Livingston (Dumfries), Honorary Secretary of the Border Counties Branch, and Dr. J. C. Moorhouse, Honorary Secretary of the Stirling Branch of the British Medical Association, to join the Scottish Advisory Committee.

TUBERCULOSIS AND THE INSURANCE ACT.

The Special Committee on Tuberculosis appointed by the Treasury to advise as to the best methods of combating the disease in relation especially to sanatorium benefit under the Insurance Scheme will meet again on April 23rd, and will sit from day to day until it has completed the preparation of an interim report. "Sanatorium Benefit," it will be remembered, includes not only treatment in sanatoriums or other institutions but also treatment "otherwise," a provision which will allow the cost of treatment of tuberculosis at the patient's home, or at tuberculosis dispensaries, to be defrayed out of the fund for sanatorium benefit. The sums available for this purpose are annually 1s. 3d. in respect of each insured person out of the general fund, and 1d. in respect of each such insured person out of moneys provided by Parliament, and if these sums should prove insufficient the county council may sanction a larger expenditure. Further, there is the capital sum of a million and a half allotted under the Finance Act, 1911, for providing or making grants in aid of sanatoriums and other institutions. A local Insurance Committee will have the power, if it thinks fit, to extend sanatorium benefit to the dependents of insured persons out of the sums available for sanatorium benefit. Eventually sanatorium benefit may be extended by order of the Local Government Board, with the approval of the Treasury, to other diseases.

OCULAR TUBERCULOSIS.

Over thirty years ago the late Professor V. Michel began his researches upon tuberculosis of the eye, and pointed out that it was far from uncommon. In this country Stephenson and Carpenter have done much pioneer work in this direction, but until quite recently it was hardly realized in England how very common ocular tuberculosis really is, and even now few of the recent textbooks accentuate the fact. Dr. Windbiel of Amsterdam, in a paper upon ocular tuberculosis and its treatment,[1] stated that although the disease is relatively frequent, yet until two or three years ago it was believed that the eye was immune to the tubercle bacillus. He states that in his clinic about one half of all the new cases were suffering from tuberculosis, most of the patients being children and adolescents. It must be clearly understood that by ocular tuberculosis is meant not only conditions such as florid tuberculosis of the iris, miliary tubercle of the choroid, or solitary massive tuberculous deposits in the choroid, in which there is a definite local infection with Koch's bacillus; there may be also a tuberculo-toxaemia of the eye manifesting itself as a "rheumatic" iritis, or as a phlyctenular conjunctivitis. The latter condition is probably almost always a sign of a tuberculous focus somewhere in the body. The large majority of patients presenting phlyctenular conjunctivitis and keratitis have glands in the neck, and give a family history of tuberculous affections. Nearly all give a general reaction, and many a local ocular reaction, to an injection, which may have to be repeated, of old tuberculin. Again, many of them can be cured by tuberculin therapy without any local treatment whatever. Verhoef believes that scleritis and episcleritis invariably have a tuberculous etiology, and it seems certain that a very large proportion at least of these cases are tuberculous, and can be greatly benefited by tuberculin therapy. It has been mentioned that the joint pains associated with many cases of so-called "rheumatic" iritis are in reality due to a subacute tuberculous arthritis, and it is known that phthisical patients who have developed anaphylaxis to tuberculin may react to an injection of tuberculin by pains in the joints. Beaumont and others deny the existence of rheumatic iritis, ascribing all the cases to gonococcal infection. The truth seems to be that true rheumatic iritis is rare, many cases so-called are septic, others gonococcal, and a certain proportion are due to tuberculo-toxaemia or true infection. It used to be supposed that interstitial keratitis was almost pathognomonic of congenital syphilis, but there is now evidence that only about 70 per cent. of the cases have this etiology, and that a large proportion of the remainder are tuberculous. A course of tuberculin skilfully applied is most efficacious in these cases, but knowledge, and above all patience, are necessary. The treatment must often be continued for at least a year.

[1] *Ophthalmology*, April, 1911.

ASEPTIC DIGESTION.

During the course of the last thirty years speculation has from time to time arisen as to whether bacteria in the intestinal tract are necessary for the complete functional activity of the digestive apparatus. The occurrence in the intestine of all animals of an enormous number and variety of micro-organisms has naturally given rise to the view that the latter must take some part in the process of digestion, and it has even been maintained by some that their presence is indispensable. Latterly, however, this opinion has been seriously challenged, and not a few experiments have been performed with the object of testing its validity. It has been, in consequence, shown that insects, particularly flies, can be successfully reared under absolutely bacteria-free conditions, although in some cases, it is true, the individuals were undersized and ill-developed. All doubts on the matter, however, may practically be set at rest by a recent communication to the Académie des Sciences (February 12th) by Dr. M. Cohendry. He has succeeded in rearing chickens under absolutely sterile conditions, and the birds showed no difference in development or in other respects from those reared in the ordinary way. Dr. Cohendry devised a special incubator and cage, to which were admitted only bacteria-free air, water, and food. Hen's eggs, after they had been carefully sterilized externally, were placed in this apparatus, and in due course were hatched. The chickens appeared to thrive in their unusual environment, and eventually became too big for their cage. By that time they were as large and as well nourished as other individuals of the same brood which had been reared in the ordinary way. On subjecting the experimental chickens to bacteriological examination it was found that the digestive tract, the blood, and the external surface of the body were quite sterile. As a further experiment, some of these chickens were fed on ordinary food, and in the course of a few hours their intestine was found to contain the usual bacterial flora, and no ill-effects followed the change. In a later series of experiments pure cultures of various organisms were administered to the sterile chickens and it was found

that streptococci seemed to exercise a favourable influence on growth, *Bacillus coli* had rather a retarding effect, while *B. subtilis* had a positively deleterious influence. From these experiments Dr. Colendry concludes that the sterile chickens are not hypersensitive to intestinal bacteria, but that on the other hand, bacteria, non-pathogenic under ordinary circumstances, may exercise a pathogenic effect upon them. These experiments and conclusions have the endorsement of Professor Roux, which is probably a sufficient guarantee for their accuracy.

THE CULTIVATION OF THE LEPROSY BACILLUS.

CURRIE, CLEGG, and HOLLMANN, in their studies upon leprosy,[1] consider the question of the artificial cultivation of the bacillus of this disease. They conclude that by the method of Clegg it is frequently possible to grow an acid-fast bacillus morphologically similar to the leprosy bacillus in material from the tissues and organs of lepers, and that by heating, in the manner indicated by Clegg, a mixture of the cholera and amœba symbionts and the multiplying acid fast organism, it is possible to isolate this acid-fast organism in pure culture. They conclude further that this acid-fast organism from lepers resembles in cultural peculiarities other members of this group, represented by *B. margarin, B. smegmae*, and the grass bacillus of Moeller, but that by serum tests it can be shown that a difference exists between the organisms the authors isolated and the three well-known bacilli mentioned. They hold that the only evidence yet adduced that the acid-fast organism isolated is *B. leprae* is the frequency with which these bacilli can be grown from leprous tissue, its morphology and acid-fastness, and the fact that it is neither *B. margarin, B. smegmae*, or the grass bacillus of Moeller, three common saprophytic acid-fast organisms. While they admit that the above data do not constitute scientific proof that the cultures are *B. leprae*, any more than it has been proved that the acid-fast bacillus found in lepromata is the bacillus of leprosy, nevertheless as the latter is no longer doubted, the authors feel that the bacillus grown by them will soon be, if it is not now, almost as well established.

"THROW PHYSIC TO THE DOGS."

WHEN Macbeth told his doctor to throw physic to the dogs he had some reason for saying so, as the man of art had just confessed that he could do nothing for his patient. When General Sheridan said he would follow the advice but for the fact that there were some valuable dogs about, he at least produced a new variant on the hoary-headed gibes at the expense of the profession. But how often do we hear of people who, apparently out of mere boastfulness, will not take the medicine ordered for them! If, as is often the case, they have not paid the doctor and have only a pious intention of doing so somewhere about the Greek Kalends, the jest may have some point, though it seems silly to seek advice which they do not mean to follow. Molière told Louis XIV that he gossiped with his physician, and that he did not take his medicine, and got well without it. But he may have taken his advice all the same. Montaigne, another of the great jesters at the art of healing, was a hypochondriac, and visited all manner of baths and so forth in search of health. Molière, at any rate, was a grateful patient, for he obtained a canon's stall for the son of his physician. Mauvillain, who is said to have given him technical help in his attacks on the faculty. There are many people, however, who will pay fees, get the prescriptions made up, and then scoff at the oracle and his counsel. This class is well represented by Turgueniev, who in one of his sketches of Russian life has drawn a picture of a compatriot whom he by accident found dying in a hotel at Dresden. He was consumptive, and the novelist took charge of him. The patient was very cheerful, and his chief amusement was playing tricks on his doctor, to whom he used to relate all sorts of complications of his disease, the offspring of his own fancy, which the worthy German always pretended to have foreseen and announced. After the doctor had left the patient would mimic him, and throw his medicines out of the window. More than once Turgueniev suggested that it would be well to call in a doctor of high professional standing while there was still time, and told the patient that he ought not to play the fool with his disease. But the sick man only replied with jokes at doctors in general, and his own in particular. He became a little serious towards the end, saying that, after all, it was hard to die, but, recovering himself, he said, "Listen, the doctor will come to-morrow, and he will find me gone to the other world. I can imagine his look!" And the dying man tried to imitate the stupefied expression on his physician's face. A few minutes later he died. We have only quoted this narrative, which is doubtless a product of the Russian novelist's fancy, because it illustrates to an exaggerated extent a type of patient with which every practitioner is well acquainted. The sense of humour varies in man, not only in degree but in kind; did not George Eliot say that a difference of taste in jokes placed a severe strain on friendship? We would not grudge a dying man any distraction he might find during the last few and evil days of his earthly pilgrimage. But surely if the doctor is paid—a large "if," indeed—he has the best of the joke. If a patient chooses to dispense with the last rites of medicine, why should he go through the costly farce of having a minister of healing to look on at his exit from the world? This is a form of scoffing at medicine which doctors cannot reasonably object to; if a patient throws physic to the dogs that is his affair. But to pay for advice that is not taken is a jest which may be a supersubtle enjoyment to some eccentric minds, but to most people it is as foolish as asking a solicitor to draw up a deed for the mere pleasure of destroying it. There are, however, in the journals devoted to the propagation of health fads many indications that this kind of joke has a special effect in "disoppilating the spleen" as the older physicians used to say. It is at any rate harmless, for it hurts no one but themselves.

SUICIDE AND THE JAPANESE CLIMATE.

IT is a commonplace of scientific thought in these days that environment plays a most important part in the life of the individual; but the opinion may also be hazarded that racial characteristics are also largely the result of climate and environment. The English habit of mind, for instance, with its marked common-sense tendency towards compromise in all situations where marked divergence of opinion exists, its willingness to accept things as they are and make the most of them, may, without straining theory too greatly, be attributed, partly at any rate, to the training through many generations induced by the known variability of our climate. The modern American owes a large proportion of his restless energy to the stimulating effect of the clear dry atmosphere of such large tracts of the country he has populated, and the known success of the Irishman in America has been attributed as much to the change from the enervating humid moistness of his native land as to the greater opportunities afforded to his energies in the new one of his choice. To the traveller who keeps his eyes open constant examples of the universality of this little-recognized law are continually occurring; and nowhere, perhaps, is this more strikingly seen than in the case of the Japanese Empire. The Japanese are probably the most written about and least understood people in the world to-day. The charm of their country at first sight is so intense, the surface

[1] Treasury Department. Public Health and Marine Hospital Service of the United States. Public Health Bulletin No. 47, September, 1911. *Studies upon Leprosy: XIV. The Artificial Cultivation of the Bacillus of Leprosy. XI. Attempts at Specific Therapy and Leprosy.* By Donald H. Currie, Moses T. Clegg, and Harry T. Hollmann. Washington Government Printing Office. 1912.

gaiety of the people is so much in evidence, their habits and customs are so picturesque, that the passing sojourner, and much more the armchair traveller, may readily be forgiven if he acquires the usual prevailing impression that Japan is a country of sunlight, inhabited by a careless, laughter-loving people. It is only necessary to look below the surface for a moment, however, to see that this is not so—that, on the contrary, the Japanese are an essentially melancholy race. Europeans living in the country are fully cognizant of the fact, and, if evidence were necessary, it would suffice to point to the startling frequency of suicide among the Japanese. The scenery, too, is melancholy to a degree, the endless succession of serrated hills, clothed in funereal pines, producing on the mind, even of the passing traveller, a sense of solemnity and loneliness. Even amongst normal Europeans living in the country suicide is greatly in excess of that at home, and so fully has this been realized, particularly by American physicians practising in Japan, that they strongly advise that "melancholics" travelling for distraction of mind should not be encouraged to visit Japan, because the number of Americans who have committed suicide while travelling there in search of health has been so large. Putting aside the fact that Shintoism does not look upon suicide with the same abhorrence as Christianity, it is not surprising that in Japan suicide has been elevated almost into a cult. It is necessary only to read the story of the forty-seven Ronins and the account of the ceremony of hara-kiri preserved by Lord Redesdale to appreciate the attitude of mind prevalent amongst the mediaeval Japanese on this question. The yearly pilgrimages to the graves of these Ronins, who committed suicide after avenging the death of their overlord, the almost divine honour in which they are held, the wave of popular admiration which is now raising a statue to the memory of the station-master at Moji, who recently committed suicide by throwing himself before a train because the Emperor had been inconvenienced for half an hour owing to some mishap on the line, all tend to show that the modern Japanese have not wholly discarded the views of their mediaeval ancestors. Formal hara-kiri, it is true, is out of date; but the fact that over ten thousand suicides occur yearly in Japan, and that the President of the University of Kyushu has recently been compelled to resign owing to the pressure of public opinion, because he animadverted on the craze for spectacular self-destruction exhibited in the action of the Moji station-master, shows that the habit is deeply rooted in the nature of the people. This, coupled with the fact that Europeans also in Japan are more prone to self-destruction than at home, seems to suggest that the theory that the climate and the surroundings are the main predisposing factors towards an action which is repugnant, and rightly repugnant, to all the instincts of normal Western life.

THE ANTIVACCINATION LEAGUE.

There was the usual display of fireworks at the annual meeting of the Antivaccination League held recently in London. Mr. G. Bernard Shaw once more was responsible for the curtain raiser. His contribution was a letter, presumably addressed to the meeting, in his well-known style, but exhibiting him in the somewhat unfamiliar rôle of tender solicitude concerning "our rich classes." "As a means of terrifying our rich classes they ought to have a speech," said Mr. Shaw, "on the manner in which tourists are liable to be held up in ships on some of the more fashionable routes in Europe and America, and offered the alternative of revaccination or detention in a filthy and obviously dangerous quarantine camp if a case of small-pox or even a 'contact' is on board." The authorities who have to deal with the public health in places on the chief routes are fully alive to the danger of small-pox, and are not likely to tolerate filthy quarantine camps; nor are they likely to be terrorized into altering their vaccination regulations to oblige Mr. Shaw or "our rich classes." The story of the conversion of Dr. Hadwen gave the meeting another diversion. It is much on the same lines as other conversions. Briefly condensed from his reported remarks, it was somewhat as follows: He happened to see a child "covered with eruption from head to foot." The mother told him the eruption spread from the vaccination marks. Afterwards he looked at his own child in her cot and hesitated. Mother after mother told him the same tale. Then came a "strange coincidence." An antivaccination pamphlet was put into his hand just as he was getting out of a train. It bore the name of William Young. On perusing this, he informed his hearers, "I told my wife I would go up to London, see William Young, and take his advice." On the slender testimony of mothers and the writers of antivaccination pamphlets thousands besides Dr. Hadwen have shown similar credulity and become confirmed opponents to vaccination. Mr. Philip Snowden, M.P., moved the resolution to repeal the compulsory clauses of the Vaccination Acts. He candidly explained to the meeting that he had no qualification for his position there except that of the average man. Mr. A. W. Black, M.P., seconded; Mr. H. W. Chancellor, M.P., also spoke. Mr. Arnold Lupton, if present, is not reported to have said anything. The proceedings terminated with the usual votes of thanks to the officers.

THE WAITER'S NAPKIN.

It is strange that people otherwise very particular as to how they eat and drink, as well as what they eat and drink, should submit to a number of unpleasant, not to say unsavoury, accompaniments when they partake of food in public places, which they would not tolerate in their own homes. It is certainly a remarkable tribute to the omnipotence of the waiter that such things should be. Take for example that functionary's napkin, which is used for a variety of purposes other than to give the official brush up to one's plate which is so ceremoniously performed. We have seen this soiled piece of tapery made use of by a waiter in the intervals of serving his customers—quite impartially, whether it was to dust his trousers, or his boots, or even to wipe his perspiring forehead, and on more than one occasion to wipe his nose! A moment later he is perhaps rubbing the plate of a patron with this same napkin, which, when not being employed in any of the multifarious duties outlined above, is generally reposing in orthodox fashion in the armpit of a dusty and probably greasy evening coat. It is very little better to have one's soup handed to one after gently laving the visibly dirty thumb of the average waiter. True there have been sporadic attempts made to introduce the use of white cotton gloves, but the impossibility of keeping these for even a few hours in a state in any degree approaching their pristine purity is obvious. Whilst we need not allow our imaginations to run riot as to what may occur in the average hotel or restaurant kitchen, it is surely not too much to expect cleanliness in the actual serving of food. Certainly these and similar little unsavoury details are worthy of the attention of the public purveyors of food, for although for the most part people endure them uncomplainingly, for some of us undoubtedly they "clog the hungry edge of appetite."

SMALL-POX IN CANADA.

Small-pox, which in a mild form has been smouldering for over a year in many districts of Canada, is now flaring up in nearly all parts of the Dominion. It is not only assuming epidemic proportions but the type of case has grown more severe. In March there was epidemic prevalence in many localities from Ottawa to Quebec, and in one place

10 per cent. of the inhabitants contracted the disease: the lumber camps in Northern Ontario and Quebec were infected, there were cases in Alberta in February, and still further west, in British Columbia, twenty-two localities were infected. There has been, of course, almost total neglect of vaccination, and the Mayor of Toronto has taken this occasion to announce that he does not believe in vaccination. He has, perhaps, forgotten the historic epidemic in Montreal in 1885, familiar to most students of medicine through the account given of it by Sir William Osler, who knew all the circumstances well, in his textbook of medicine. For several years there had been no small-pox in the city, and a large unprotected population had grown up amongst the French Canadians, many of whom were opposed to vaccination. On February 28th a Pullman car conductor, who had travelled from Chicago, where the disease had been slightly prevalent, was admitted to the Hôtel Dieu, the civic small-pox hospital being at the time closed; he was not isolated, and on April 1st a servant in the hospital died of small-pox, whereupon the hospital authorities took the extraordinary course of dismissing all patients presenting no symptom of contagion who were not too ill to go home. "The disease," Sir William Osler says, "spread like fire in dry grass, and within nine months there died in the city of small-pox 3,164 persons." The occasion for the mayor's profession of want of faith was a reply to a letter received from a resident in Ottawa urging the Toronto City Council to co-operate with that of Ottawa in opposing the proposed amendment of the Vaccination Act. Incidentally we may say that further evidence of the failure in Ottawa to appreciate the gravity of the situation is afforded by the fact that an efficient inspector employed at a salary of 150 dollars a month was recently removed to make way for another willing to work for half the amount. It is true that the newcomer only retained the position for twenty-four hours and then resigned, but the incident does not seem to show a high standard of public spirit in Ottawa, and will not tend to encourage efficient medical inspection. The bill before the Ontario Legislature is designed to strengthen the law as to vaccination in certain respects, and in particular to remove the control of the vaccination of children of school age from the Board of Education and place it in the hands of the health authorities, to whom it properly belongs.

CHOLERA IN 1911.

A sketch map contained in the last monthly *Bulletin* of the International Office of Public Hygiene in Paris shows the prevalence of cholera in the Mediterranean basin and adjacent countries during 1911. In May the disease existed in epidemic form in three districts—two in Asia Minor, one near the southern Persian frontier, and another north of Erzeroum, extending as far as the southern shore of the Black Sea, and a third to the east of the Volga, in the lower part of its course. In June it had extended over a large area of country in Asia Minor, between Smyrna and the Sea of Marmora, as well as on the Persian frontier to the south of the districts infected in May. In July it had extended to both sides of the Volga as far as its mouth in the Caspian Sea, and to Sicily and the eastern parts of Southern Italy. In August the southern part of Sardinia was infected, as well as districts both in North Italy and on the eastern side of the southern part of the peninsula. It had also extended in Asia Minor to the whole of the southern shore of the Black Sea and of the Sea of Marmora and to the Aegean coast. In September Tunis and Tripoli had become infected as well as the northern part of Sardinia and several additional areas in the north of Italy. In August the disease had extended also throughout Macedonia as well as to the left bank of the Danube, from whence it spread to the right bank in September; the extent of country infected on the left bank increased during October, November, and December. The history of last year gives colour to the opinion which has been expressed by some authorities that the disease is again moving in an easterly and northerly direction, and it will be necessary for this country stringently to enforce the customary precautions during the approaching spring and summer.

A COLD CONGRESS.

There is a French Cold Association the members of which must have plenty to occupy them at the present time, when the Atlantic is strewn with icebergs, and the breezes blowing over them are "barbed" in a way that makes the morning tub a tribulation and an evening summons a trial to the flesh. The association is now organizing the second Congress on Cold, which is to be held at Toulouse in September (23rd, 24th, and 25th), under the presidency of the French Minister of Agriculture. The programme of the Section of Applications of Cold in Medicine (hygiene, laboratory, and therapeutics) is as follows: (1) Cryological (κρύος, cold) methods applied (*a*) in hospitals, (*b*) in medical faculties, (*c*) in morgues. (2) Applications in laboratory work: (*a*) Freezing of histological specimens; (*b*) the part played by cold in the preservation of serums; (*c*) the use of cold for the preparation of organic extracts; (*d*) the toxicity of serums, the influence of low temperatures; (*e*) preservation of vaccines by cryological methods; (*f*) the action of low temperatures on microbic cultures. (3) The uses of cold in therapeutics: (*a*) Application of solid carbonic acid in the treatment of skin disease; (*b*) treatment of leprosy by solid carbonic acid; (*c*) the action of cold on living animal tissues. (4) Applications to hygiene: Cold and the hygiene of dwelling houses.

INDUSTRIAL DISEASES.

The Workmen's Compensation Act, 1906, contained in its third schedule a list of diseases—anthrax, ankylostomiasis, and poisoning by lead, mercury, phosphorus, and arsenic—and provided in respect of diseases in the schedule that if a certifying surgeon certified that a workman was suffering from one of them and thereby disabled from earning full wages, or was suspended from his usual employment on account of the disease, or died from it, and the disease was due to the nature of the employment in which the workman was employed, then he or his dependents would be entitled to compensation under the Act as if the disease or suspension were due to personal injury by accident. The Home Secretary has appointed a Departmental Committee to inquire and report whether the following diseases should be added to the third schedule—cow-pox, Dupuytren's contraction, and clonic spasm of the eyelids apart from nystagmus. The members of the committee are: Mr. Ellis Griffith, M.P., Parliamentary Under Secretary of State for the Home Department (Chairman); Sir T. Clifford Allbutt; Mr. A. H. Ruegg, K.C., County Court Judge, Staffordshire, and Joint Judge for Birmingham; and Dr. T. M. Legge, Medical Inspector of Factories. Mr. Alexander Maxwell, of the Home Office, is Secretary of the Committee, and to him all correspondence should be addressed.

The Institute of Linguists, an association formed about eighteen months ago to promote a greater interest in the study of foreign languages, which has already held examinations under the direction of the University of London, will hold another on August 2nd and 3rd. It will be open to both men and women, and will be divided into two sections, commercial and literary. The standard of proficiency is high, and it is proposed to erect a properly equipped institute in London, and to establish a correspondence course in connexion with it. Further particulars can be obtained from the Honorary Treasurer, 120, London Wall, London, E.C.

THE INSURANCE SCHEME.

STATE SICKNESS INSURANCE COMMITTEE.

Fifth Meeting.

THE fifth meeting of the State Sickness Insurance Committee was held on April 11th.

Mr. T. JENNER VERRALL was in the chair, and the members present were: *England*: Dr. R. M. Beaton (London), Dr. John Brown (Bacup), Dr. T. M. Carter (Westbury-on-Trym), Dr. S. Hodgson (Salford), Miss M. H. Frances Ivens, M.S. (Liverpool), Dr. Constance E. Long (London), Mr. E. J. Domville (as Chairman of the Public Health Committee), Mr. James Neal (Birmingham), Dr. James Pearse (Trowbridge), Dr. F. M. Pope (Leicester), Dr. E. C. Price (Bangor), Dr. Lauriston E. Shaw (London), Dr. W. Johnston Smyth (Bournemouth), Dr. D. G. Thomson (Thorpe, Norwich), Dr. D. F. Todd (Sunderland), Mr. E. B. Turner (London), Dr. A. H. Williams (Harrow on the Hill), Mr. D. J. Williams, F.R.C.S. (Llanelly), Mr. E. H. Willock (Croydon). *Scotland*: Dr. J. Adams (Glasgow), Dr. Bruce Goff (Bothwell), Dr. R. McKenzie Johnston (Edinburgh), Dr. J. Munro Moir (Inverness). *Ireland*: Dr. F. W. Kidd (Dublin). *Ex Officio*: Dr. J. A. Macdonald, Chairman of Council.

Apologies for absence for unavoidable reasons were received from Dr. F. J. Maclean, Chairman of Representative Meetings; Dr. E. Rayner, Treasurer; Dr. R. E. Howell (Middlesbrough), and Dr. Darling (Lurgan).

We are enabled to publish the following account of the proceedings in anticipation of the preparation and confirmation of the minutes:

NEGOTIATIONS WITH THE INSURANCE COMMISSIONERS.

The question whether any further action, and if so what, should be taken with respect to the letter forwarded to the Insurance Commissioners on February 29th containing the minimum demands of the Association, was discussed. The receipt of this letter had been acknowledged.[1] The Chairman reported that no reply had as yet been received beyond this formal acknowledgement. In the course of the discussion the question was raised whether it was intended that the negotiations with the Insurance Commissioners should remain in the hands of the State Sickness Insurance Committee, or whether they were to be handed over to the medical members of the Advisory Committee. It was pointed out that the function of the Advisory Committee was merely to give the Insurance Commissioners advice and assistance in connexion with the making and altering of regulations under Act: the Advisory Committee could decide nothing, that duty falling to the Commissioners: and, further, the only body which had any mandate or authority to convey to the Commissioners the demands of the profession was the existing State Sickness Insurance Committee recently appointed by the Representative Body. Attention was directed to Mr. Masterman's reply in the House of Commons,[2] in which he had said that he did not know that any reply would be sent to the British Medical Association except an acknowledgement of the letter, because members of the Association were to be appointed on the Advisory Committee, which would have to consider the whole question. It was mentioned that the matter of medical benefit, including regulations as to medical attendance, treatment, and supply of drugs, and matters relating thereto, as well as the constitution of local Medical Committees, were matters to be settled by the Joint Committee of Insurance Commissioners acting in conjunction with the several national bodies of Commissioners. Eventually it was resolved *nemine contradicente*:

> That a communication now be made to the Commissioners requesting them to inform the Committee when a more detailed answer to the letter of February 29th last may be expected.

[1] BRITISH MEDICAL JOURNAL, March 9th, p. 571.
[2] Ibid., March 23rd, p. 697.

The following letter was in consequence forwarded to the Commissioners:

The Right Hon. the Chief Commissioner of the National Health Insurance Commissioners.

April 12th, 1912.

Sir,

On February 29th last the State Sickness Insurance Committee of the British Medical Association forwarded a communication to the National Health Insurance Joint Committee, in which the minimum demands of the medical profession in relation to the National Insurance Act were stated. A formal acknowledgement only was received.

The Committee would now be glad to know when it may expect to receive a detailed reply to its letter.

I am, Sir,
Yours faithfully,
(Signed) ALFRED COX.
Acting Medical Secretary.

To this letter the following reply has been received:

The Right Hon. the Chief Commissioner of the National Health Insurance Commissioners
National Health Insurance Joint Committee.
Buckingham Gate,
London, S.W.
15th April, 1912.

Sir,

I am directed by the National Health Insurance Joint Committee to acknowledge the receipt of your letter of the 12th instant and to state that all such representations as those of the British Medical Association conveyed in your letter of the 29th February will be carefully considered in connection with the preparation of the Regulations for the administration of Medical Benefit. The preparation of these Regulations is at present under the consideration of the Joint Committee, and it is hoped that it may be practicable at an early date to obtain, in that preparation, the advice and assistance of the Advisory Committee recently formed, to which as you are aware representatives of your Association have been appointed.

I am, Sir,
Your obedient Servant,
(Signed) W. J. BRAITHWAITE.

The Acting Medical Secretary,
British Medical Association,
Strand, W.C.

CONTINUANCE OF PRESENT CONTRACT MEDICAL APPOINTMENTS.

It was reported that several requests for advice as to the action which should be taken by the holders of contract medical appointments if asked either to make fresh contracts or to continue those at present in force, had been received. After discussion it was resolved to recommend medical practitioners receiving inquiries from friendly societies or kindred organizations as to the terms on which they would undertake fresh contracts for medical attendance on insured persons or their dependents, either under existing or new conditions, to reply that they are not at present at liberty to make any such arrangements and will be guided in their future action by the decisions of the British Medical Association. The following draft letter for use in such circumstances was adopted as a form which might suitably be followed:

> Sir,
>
> In answer to your inquiry as to the terms on which I would be willing to undertake the medical attendance on the ..... I beg to state that I am unable at the present time to make any such arrangements pending the decision of the British Medical Association on the subject.

The Committee considered in consultation with the solicitor various questions arising with regard to the legal position of members of the medical profession now engaged in contract practice for clubs or friendly societies. The solicitor expressed the opinion that the mere fact of a friendly society or other similar organization becoming an approved society would not terminate the contract between it and the medical practitioner. He considered it essential that every medical man holding such a contract should at

once ascertain its exact terms in point of duration and otherwise, but he was not of opinion that the force of any such contract would be altered by the mere fact of the Act coming into force—that is to say, on July 15th next, as at present contemplated. Many such appointments terminated at the end of each year, being then subject to renewal, and such contracts would come to an end if not renewed. If the appointment were made for an indefinite period, and no notice was provided for any termination thereof, then unless such appointment was held subject to the pleasure of the court, lodge, or society, reasonable notice to determine it would be necessary: the length of notice which would be reasonable would depend upon the periods at which the emoluments were paid, and other incidental circumstances entering into each particular case. In the case of clubs held by yearly or half-yearly appointments—that is to say, definitely fixed for six or twelve months as the case may be—such appointment would terminate automatically at the expiration of such period without any notice whatever; in cases in which it was necessary to give notice, such notice might be given at any time unless the contract regulating terms of service provided otherwise.

Mode and Rate of Remuneration.

It was reported that two meetings of the Remuneration Subcommittee, consisting of Dr. James Pearse (Chairman), Dr. J. Adams, Dr. R. M. Beaton, Dr. S. Hodgson, Dr. D. F. Told, and Mr. Verrall, had been held, and that the Subcommittee had adopted certain recommendations, which were submitted to the Committee. Among these recommendations were:

Occupation Basis for Income Limit.

That the Committee, while not prepared to advise, for general acceptance throughout the kingdom, definite regulations providing for an occupation basis for the application of the income limit, sees no reason why an individual locality, in dealing with the question of income limit, should not take into consideration the question of classification by occupation with the Association income limit as a basis.

Right to Medical Benefit: Onus of Proof of Income.

That provision should be made in the Regulations for the following:

(*a*) That all or any of the following, namely, the medical practitioner, the insured person, the local Insurance Committee, or the local Medical Committee, shall have the right of challenging the title of any insured person to obtain medical benefit, in the form of medical attendance under any scheme administered by the Insurance Committee, on the ground that his income exceeds a limit fixed by the Insurance Committee.

(*b*) That the onus of proof that an insured person is entitled to medical benefit, in the form of medical attendance, should rest on the insured person.

(*c*) That in such cases the Insurance Committee shall require a signed statement from an insured person, showing his weekly wage, countersigned by his employer, and also showing his income from other sources, if any.

Payment per Attendance Fees.

The Subcommittee reported that it had considered the following Minute of the Special Representative Meeting of February, 1912:

That the policy of the Association be to claim 8s. 6d. as a minimum capitation fee, not including extras and medicine, for members of approved societies, and to claim the recognition of payment per attendance, in which case the fees must be on such a basis as shall be deemed an equivalent by the State Sickness Insurance Committee, with recognition of a £2 maximum income limit.

The Committee had calculated that on this basis of 8s. 6d. as a minimum capitation fee the equivalent payments per attendance with a £2 income limit would be for ordinary domiciliary medical attendance on ordinary lives:

Ordinary attendance at surgery, 1s. 6d.
Ordinary visit at patient's house, 2s.

Payment for Extras.

The Committee accepted the recommendation of the Subcommittee that the Insurance Commissioners should be responsible for the payment of medical practitioners for extras, and not the individual insured person.

Obstetric Fees.—The Committee also accepted recommendations of the Subcommittee that, while ordinary confinement should be considered apart from the question of extras and come under a maternity case scale of fees, a miscarriage in an insured person should be held to be an extra; but that this point should be considered along with the question of fees for maternity cases at a subsequent meeting.

Other Extras.—The Committee also approved the recommendation of the Subcommittee that the following services should be extras, but postponed the consideration of the tariff of fees for such services as well as the consideration of other extras to a subsequent meeting:

Vaccination.
Fractures and dislocations.
Anæsthetics.

[As to this the Subcommittee recommended that the administration of a local anæsthetic be not considered as an extra, but that the administration of a general anæsthetic should be reckoned as an extra with a minimum fee of 10s. 6d.]

Night visits.

[The Subcommittee recommended that night visits (from 8 p.m. to 8 a.m., in response to calls received between those hours) should be extras.]

Organization of the Profession.

Public Medical Service.

It was reported that a meeting of the Insurance Organization Subcommittee had been held, at which the following were present: Dr. F. M. Pope (Chairman), Dr. John Brown, Dr. R. E. Howell, Dr. Constance Long, Dr. R. A. Lyster, and Dr. E. O. Price. The Subcommittee reported that it had had under consideration the model rules for a Public Medical Service issued by the Association in 1910,[1] as well as the scheme for a Public Medical Service of the Leicester and Rutland Division, and made the following recommendations:

(A) That the Committee is of opinion that each Division should be urged to set up a Public Medical Service in its own area.

(B) That the Divisions be informed that the Committee can suggest no better general basis for the formation of such services than the Model Public Medical Service Rules issued in December, 1909, by the Association, but recognizes that they require modification in some particulars, such as for example:

(i) The rules should be applicable either to the method of payment for work done or to that of payment per capita.

(ii) The times at which patients shall be allowed to change their doctor, and vice versa, shall be left for local decision.

(iii) The recognition of different subdivisions, which should be to a great extent autonomous, in such services as require them.

(C) That the Divisions be informed that the Model Rules are open to modification according to local circumstances, so long as the fundamental principles of the Association are observed, and that considerable latitude within these principles will be allowed by the Association in sanctioning the establishment of local schemes.

The Chairman of the Subcommittee stated that it had been found convenient in Leicester and Rutland to make the subdivisions mentioned (iii) correspond to Poor Law areas.

The Committee was informed by a member that the National Medical Union had in preparation a scheme based upon payment per attendance for the organization of a Public Medical Service under the control of the profession for use in the event of the Medical Benefit under the National Insurance Act being suspended, and added that he understood that the scheme would shortly be submitted for the consideration of the State Sickness Insurance Committee. In view of this statement, the further consideration of the recommendations of the Organization Subcommittee was postponed until the next meeting of the Committee.

New Form of Pledge.

The Committee considered, in consultation with the Solicitor, a new form of pledge which members of the profession should be invited to sign in amplification of the original undertaking of the Association, and the Chairman

[1] Published in the Supplement, May 7th, 1910, p. 205.

underlook to suggest to the Committee at its next meeting the procedure which might best be adopted to bring the pledge before the profession. It was understood that the new pledge would be addressed to provisional medical committees and no action taken upon it until, in the opinion of the State Sickness Insurance Committee, the time was ripe for the use of the pledges throughout the whole or certain parts of the kingdom.

NEXT MEETING.

It was arranged that the next meeting of the Committee should be held on Thursday, April 18th.

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

National Insurance Act.

Nursing Associations.

MR. CHARLES BATHURST asked the Secretary to the Treasury whether, in view of the work of county nursing associations and other organizations providing out of voluntary resources district and village nurses and midwives, and of the fact that these were largely maintained by workmen's contributions which were likely to be partially or wholly withdrawn in the future, the Insurance Commissioners would instruct their lecturers to point out to the executive committees of approved societies the fairness and desirability of making contributions out of their funds to such organizations under Section 21 of the National Insurance Act.

Mr. Masterman replied that it was the duty of the official lecturers to explain Section 21 with the other provisions of Part I of the Act, but it would not be desirable that they should give such advice as was suggested on a matter which was left by the Act to the discretion of societies and insurance committees themselves. He would consider, however, if anything more could be done. He had no knowledge that any steps were being taken to dissolve these associations, and would be glad to have any facts brought before him.

Naval Surgeons.—Lord Charles Beresford asked how many applications had been received by the Admiralty from naval surgeons for accelerated promotion to staff surgeon under the regulations issued by the Admiralty on October 31st, 1905; how many of these applications had been granted; and how many applications it was the intention of the Admiralty to grant. Dr. Macnamara said that the reply to the first part of the question was 14, 11 of whom were found to be ineligible for various reasons. As regards the second part, two had been promoted and a third would be promoted next month. In reply to the third part of the question, each case would be dealt with on its merits, full consideration being given to the officer's record and his professional ability.

Railway Workers Killed and Injured.—The President of the Board of Trade informed Mr. Leach that during the year 1911, 106 passengers and 390 employees were killed and 2,725 passengers and 5,311 employees were injured in accidents to trains or the movement of railway vehicles on the railways of the United Kingdom. He had no information which would enable him to state the number of cases in which the injuries were permanent. There were a large number of other accidents on railway premises, but not connected with the movement of vehicles, and these were included in a return which was presented to Parliament on April 2nd, and would be issued in the course of the next few days.

Suffragettes and Forcible Feeding.—Mr. Lansbury asked the Home Secretary how many prisoners in prison for offences connected with the recent suffrage disturbances had been forcibly fed; how many were now being forcibly fed; and had any of the prisoners so fed been discharged, and for what reason. Mr. McKenna replied that twenty-five of these prisoners had attempted to starve themselves, and had had to be fed forcibly. Of these, five were at once reported for discharge on medical grounds, one suffering from heart disease, two from aortic disease, one from phthisis, and one from asthma. Three of the others had resumed the natural mode of feeding, seven took their food from a feeding cup, and ten had to be fed by tube in order to prevent them injuring themselves by voluntary starvation. Mr. Keir Hardie asked if it was a fact that certain of these women were not allowed to use the water taps during the time the strike was on. Mr. McKenna replied that that was not exactly the case. After inquiry, he was informed that milk was put into the cells of some of these women who declined to take their food in the ordinary way instead of water, but on their spilling the milk or otherwise getting rid of it, they were given free access to the taps, and they had had supplies of water. Mr. Keir Hardie then asked how long was the prohibition of water maintained. Mr. McKenna said there was no prohibition of the supplies of water. The hon. member had not given notice of this question, and he might say that the whole transaction occurred without his knowledge, but, as he understood it, what happened was that milk was put in the cells, and as soon as it was found that they would not take the milk they were given access to the water.

Feeble-minded Paupers.—Mr. Ormsby-Gore asked the President of the Local Government Board what was the number of feeble-minded persons in Poor Law union workhouses and the number of feeble-minded, including certified lunatics, maintained by Poor Law guardians in county and borough asylums; whether any return had been made in connexion with these persons since January 1st, 1906: and whether he would ask for a more up-to-date return from boards of guardians without delay. Mr. Burns answered that the total number of pauper lunatics or idiots on January 1st, 1912, in county and borough asylums, registered hospitals, and licensed houses was 96,883. The latest return of feeble-minded persons other than certified lunatics was obtained on January 1st, 1906, and related to persons under 60 years of age. According to that return the number of such persons in workhouses or other Poor Law establishments in England and Wales was 8,775. He did not think there would be any special advantage in obtaining another return of this character at the present time.

Vaccination in India.—Mr. Chancellor asked the Under Secretary for India if he was aware that, in the Triennial Report on Vaccination in the Central Provinces for 1908–11, it was stated that the supply of a pure lymph of standard strength could not be secured under the present system, and that there was risk of septic lymph being used: and whether, in view of these circumstances, and of the opposition of the Indian peoples to vaccination, he could see his way to abolish compulsory vaccination in those provinces. Mr. Montagu replied that the statement in question expressed the Chief Commissioner's conclusion that really pure lymph could be obtained, and risk of using septic lymph avoided by adopting in the Central Provinces the plan of a single central supply dépôt which had proved satisfactory in other provinces. He had instructed the Sanitary Commissioner to examine the matter further. The Secretary of State was not prepared to take the action suggested in the last part of the question.

THE Henry Saxon Snell Prize, consisting of fifty guineas and the silver medal of the Royal Sanitary Institute, is offered this year for an essay on suggestions for improvements in the ventilating, lighting, heating, and water supply appliances for an operating room and its accessory rooms for a general hospital of 400 beds (no students). Two competitors of different professions or crafts may join in sending in an essay and plans, which must be received by the Secretary of the Institute, 90, Buckingham Palace Road, S.W., on or before August 30th, 1912. Further particulars as to the points to which it is desired that attention should be particularly given can be obtained from the Secretary.

England and Wales.

[From our special correspondents.]

WEST YORKSHIRE.

The Anthrax Investigation Board.

The sixth annual report of the Anthrax Investigation Board for Bradford and district states that during the six years the board has existed there have been 71 cases of anthrax, of which 24 died. Of the fatal cases, 15 were of the internal and 9 of the external type. Of the 8 fatal cases which occurred during the last year, in 1 only was medical advice promptly sought. Internal anthrax runs its course with so fatal a rapidity that, if recovery is to take place, early and prompt treatment is imperative. The symptoms may be altogether delusive, mere malaise being perhaps the prelude to death within twenty-four hours. The report speaks hopefully of Sclavo's serum. Of the cases which recovered, in 2 the good result is attributed to its intravenous injection, whilst in another, where the nostril was involved, 80 c.cm. of the serum were injected under the skin with good effect. In one of the cases of intravenous injection 80 c.cm. were used; in the other, three separate doses of 80 c.cm., 60 c.cm., and 40 c.cm. were given. This is in accordance with the recommendation of Professor Sclavo, who affirms that smaller doses than 60 to 80 c.cm. are useless. The board considers it proved that blood is the carrier of the anthrax spore: and "it appears increasingly probable that all danger of contracting anthrax would vanish in this district if blood clots could be permanently excluded from the raw material used." Dr. Eurich, the board's adviser and bacteriologist, to whom, doubtless, the interesting conclusions and facts contained in the report are due, shows that cases of anthrax arise in direct relation to those varieties of wool which show the most blood-stained samples. In a case of anthrax in a worker in Persian wool, it was reported that no blood-stained fibre was present in the material, but on a more rigorous search plenty of blood-stained material was found; in the remaining bales there were 99 samples of blood-stained wool, of which 10 were infected with anthrax spores. In one they were so numerous that "a case of anthrax would almost assuredly have occurred" during their manipulation. On the removal of the blood-contaminated portions the remainder of the wool was used, and no case of anthrax resulted. It is during the "carding" process, when the wool is torn apart by high-speed machinery, which shoots particles and short fibres into the air, that most cases of anthrax infection occur. As the washing and preparing processes do not disintegrate or open the blood-clots, like the carding machine, there is additional reason to regard the blood-clots as the carriers and source of the disease. It is suggested that receptacles for the blood-stained fibres should be provided, and be regularly emptied and cleansed, and that the workers should be trained, and encouraged to search for the dangerous material, by premiums paid to the sorters for its discovery and removal. No special danger appears to attach to the searchers who handle the blood-contaminated wool. The knowledge that danger exists leads to more careful handling; and during the last three years, since practical attempts to sort out blood-stained material began to be made, no case of anthrax has occurred among those who have engaged in the work, although the bacillus has been isolated from many of the samples cast out. Apparently it is not until the dried blood-clot is diffused by haphazard handling or disintegrating machinery, that risk arises. To assist the workers to recognize the blood-contaminated material Dr. Eurich has given seven demonstrations at the factories, and exhibits of blood-stained samples are to be placed in the public museums and factories of the district. Dr. Eurich considers that vigorous health is a factor in conferring immunity on the worker. No reliable germicide has been discovered. Cyllin, formic aldehyde, and Leach's fluid alter the outer layer of blood-clot and prevent penetration to the virulent spores in its interior. The Seymour Jones process, which is found effective in killing anthrax spores in the leather trade, is being tested. If it, or any other efficient method, can be adapted to the needs of the Woollen industry, a great step will have been taken to wipe the blot of anthrax from the textile trade. The report is a record of honest, patient work, greatly to the credit of the board and its medical adviser, Dr. Eurich.

Bradford Tuberculosis Dispensary.

In a previous issue of the Journal (January 20th, 1912, p. 157) attention was drawn to the proposed formation of a tuberculosis dispensary in Bradford, and a hope was expressed that local medical practitioners should be engaged to carry out the scheme, and that a whole-time officer would not be appointed for this purpose. This suggestion has not been followed, for a whole-time officer has recently been appointed. It is a matter for regret that the Medical Officer of Health for Bradford does not endeavour to forward the views of his medical brethren more actively. In his report to the Health Committee of the Bradford Corporation he did not even suggest the appointment of local medical practitioners to do the work.

Bradford Babies' Welcomes.

The City Council of Bradford has determined to take over the work hitherto carried on voluntarily by the babies' welcomes, as mentioned in the Journal for January 20th, 1912, p. 157. Here again the suggestion that the doctors who had generously done the work in the past should be asked to carry it on in the future, and be paid an honorarium for their services, has been ignored. A lady doctor who is to devote her whole time to the duties has been appointed. The work connected with these welcomes is of the kind in which general practitioners are experienced, and it is difficult to understand why the Medical Officer of Health for Bradford did not recommend the paid continuance of their appointments. It is little less than a scandal that in the formation of new medical schemes of the character of those mentioned no endeavour has been made to obtain the views of the local profession on the projects. The Bradford Division has determined to address a letter of remonstrance to the local authorities on their extraordinary methods.

Bradford Hospitals.

At the annual meeting of the Bradford Royal Infirmary there was a sad lament that the difficulties in building the proposed new infirmary were of such a formidable character. The committee now suggests a modified design for a complete hospital with 260 beds, costing £180,000. But the Insurance Act has placed the voluntary hospitals in a position of so great uncertainty that it is difficult to obtain the requisite funds or to know precisely how best to act under the circumstances. However, as Dr. Campbell stated, the staff are of opinion that it is inevitable that some change must be made before long in the working conditions. The work will either have to be curtailed or a new infirmary will have to be built.

The report of the Bradford Children's Hospital showed a deficit on the year's working of £772. It stated that "the board felt that all voluntary hospitals were at the present time passing through a serious crisis, and that their very existence might be seriously threatened." The seconder of the adoption of the report took a very gloomy view of the Insurance Act as it would affect that and other children's hospitals.

As children were not provided for in the Act they would not receive any grants from the local committees, as the general hospitals might do. They would have to insure their staff, and as to probationers who had no salary the hospital would have the privilege of paying both the employers' and the employees' contributions. All hospitals would suffer in the matter of subscriptions and donations. He feared the curtailment of the usefulness of the institution, the closing of the wards, and, finally, the municipalization of the institutions, with the result to the public that they would have to pay rates, amounting to shillings in the pound in large towns, for the maintenance of hospitals, as well as contributing to the insurance fund.

Halifax Royal Infirmary.

The report of this institution shows that the number of persons treated during the year was 12,115. Of these 2,465 were in-patients. The expenditure exceeded the ordinary income by £474 18s. The board of this hospital, like that of most other similar institutions, noted the passing of the National Insurance Act with anxiety. It was thought likely to have a serious effect in reducing the contributions made by the subscribers and workpeople. One probable effect of the Act would be an increase in the number of persons coming for indoor treatment.

MANCHESTER AND DISTRICT.

New Sanatorium of the South Manchester Guardians.

The new sanatorium belonging to the South Manchester Board of Guardians at Abergele, North Wales, was formally opened by Mr. George Macfarlane, Chairman of the Board, on April 13th. As the building, which was originally a private residence, was comparatively modern, only slight alterations were needed to adapt it as a sanatorium, and with the consent of the Local Government Board it could be considerably enlarged if necessary at a relatively small cost. At present it is fitted up for 50 patients, and is pleasantly situated on a well-wooded hillside overlooking the sea. About 280 acres of land are connected with it, and there are several miles of footpaths with various gradients well suited for the exercise of the patients. There are also several bungalows which will be useful as shelters and residences. No advanced cases of consumption will be sent to the sanatorium, as the guardians have made other arrangements for these, so that the sanatorium will be used only for early cases of the disease which may derive benefit from sanatorium treatment. In fixing on the site the guardians met with strong local opposition and had to meet the cost of a Local Government Board inquiry. The opposition was carried to the extent that the Welsh members of Parliament met and agreed to petition the President of the Local Government Board against the guardians being allowed to purchase the property. On the guardians agreeing, however, to certain restrictions being placed on the patients, the sanction of the Local Government Board was given, and there is no probability that the neighbourhood will in any way suffer as a health resort from the presence of the sanatorium. The total cost of the property to the ratepayers is about £14,000, which is said to be less than half what the former owner spent on the buildings alone.

Explosions in Coal Mines.

A good deal of interest is still being taken in the suggestions of Dr. John Harger for the prevention of explosions in coal mines, and a full discussion took place on the subject at a meeting of the Manchester Geological and Mining Society on April 9th. As was reported in a recent issue, Dr. Harger's suggestions may be put briefly by saying that he proposes to reduce the amount of oxygen in the atmosphere of the mines from the normal 21 per cent. to 20 or 19.5 per cent., or in places where the risks of explosion are very great even to 17.5 per cent., and he would add at the same time about 0.5 per cent. of carbon dioxide. It is claimed that this would do away with the possibility of explosion from any cause, either from firedamp or from coal dust, whereas at present the system of ventilation used actually makes explosions more likely to occur in certain cases. Dr. Harger said that an atmosphere containing 17 per cent. of oxygen was ideal for a mine if it were not too expensive to make and maintain. Not only would coal-dust explosions be impossible in such an atmosphere but fires of timber or coal or "gob-fires," even if they were started, could not spread or become dangerous, while the chances were very greatly against firedamp explosions being possible. For respiration, he said, 17.5 per cent. of oxygen was as good as 21 per cent., provided that not over 1 per cent. of carbon dioxide were present. Dr. Harger went so far as to claim that reduction of oxygen tension was a preventive and even a cure of consumption in miners. The problem of lighting the mine with such an atmosphere was solved by the use of the electric lamp, or, better and more safely, by the use of acetylene lamps, as it was found that acetylene continued to give a good light with only 12 per cent. oxygen, and did not go out until 9.5 per cent. was reached. The great advantage of the acetylene lamp was that it required about the same percentage of oxygen as a man did for respiration, so that as long as the lamp would burn the miner knew that the amount of oxygen was in safe proportion for breathing, provided there was no carbon monoxide present.

The President (Mr. G. B. Harrison, H.M.I.M.) said that he believed it could be shown that, but for the great improvement in ventilation of mines, there would have been far more loss of life from explosions. He believed that dust played a large part in many explosions which in former years were attributed to firedamp; some explosions which originated near the face of the coal were, beyond doubt, due to firedamp, and few mining men would agree that the ventilation on the faces was excessive.

Dr. J. Dickenson, former Chief Inspector of Mines in the district, agreed that more violent and more extended explosions occurred now than formerly, but it would take some time to persuade miners that improvement was to be effected by sending in impure air.

Dr. J. S. Haldane, in a letter read to the meeting, said that the air in a mine with 17.5 per cent. of oxygen would be similar in its action to that of a town at about 5,000 ft. above sea level where no one ever experienced any diminution in their working powers. The physiological effects of mine air now experienced when the oxygen was reduced to 17 per cent. by admixture with "black damp" were due not to the want of oxygen, but to the presence of 2 to 3 per cent. of carbon dioxide. The admixture of furnace gas for reducing the oxygen, which Dr. Harger had suggested, would entail great difficulties, as the gas would require thorough purification from smoke, suspended sulphuric acid, gaseous sulphurous acid, and most of the carbon dioxide, while the carbon monoxide would need to be consumed by some absolutely certain method that could never fail. Some of his experiments as to the explosibility of firedamp in an atmosphere with reduced amount of oxygen were not in accord with those of Dr. Harger, and he thought the experimental data were not yet sufficient to warrant any definite conclusions.

LONDON.

London County Council.

[illegible] School Medical Officer on Open-Air Schools.

The school medical officer, Dr. Kerr, has reported to the London County Council as to the effect upon the children's health of the two open-air schools held in London last year.

Dr. Kerr stated that the Birley House School was opened at the beginning of April, 1911. During the first week the weather was exceptionally severe: the temperature during school hours was from 40° to 50° F., and at night on several occasions there were 2 to 3 degrees of frost. A north-easterly wind was accompanied by frequent showers of snow, which lay to the depth of several inches. The sunshine, however, was fair in amount. In spite of these inclement conditions the school was carried on as usual, the children taking refuge in a Doecker shed during the blizzards of snow. It was noteworthy that although the children attending the school were brought from homes where closeness of atmosphere and closed windows were the rule, none of them suffered any harm from this sudden change in hygiene. Several contracted ordinary colds in the head, but in no case was the school attendance interfered with on that account. The great heat of the summer, when for many weeks the shade temperature recorded on the average 80° F., was not ideal for the purposes of the school, and accounted for the somewhat poor increase in weights noticed during the period. The intense heat had a somewhat enervating effect, and it was found necessary to curtail the amount of physical exercise and dancing. Following on this period there were three months of wet, windy, and unsettled weather, and the typical London fog had on occasions to be reckoned with, but there was never any need to bring the children indoors. On very wet days the classes were held in the Doecker shed, which had been considerably improved by the addition of removable side windows. These could be fitted so as to close in to a great extent the open side of the shed, whilst leaving a gap sufficient for the admission of a plentiful supply of fresh air, and keeping out the wind and rain. This device was the result of the ingenuity of the head master. During this abnormally wet period there had been no ill-effects from exposure, and the attendance had not been adversely affected. A notable innovation had been that children coming to school with the soles of their boots worn through were supplied with clogs to wear during school hours, thus ensuring that their feet were kept dry.

On admission the children presented a miserable and uncared-for appearance, and as the weather was cold

and windy, and many of them were suffering from common colds, it would be difficult to imagine a more wretched looking class. They came from very poor districts, and most of them were badly clothed and dirty. They were badly nourished and anaemic, and had bad teeth. A majority were suffering from lung conditions, such as fibroid changes, collapse, and bronchiectasis, all the result of repeated and neglected attacks of bronchial catarrh in the past. There were several with a family history of phthisis, and some had been treated previously elsewhere for phthisis. Judging from physical signs alone there were two children who might be considered to be suffering from phthisis, but not in an active state. Several children had enlarged cervical glands, and there was one case of tuberculous elbow-joint. As to the more common ailments, there were on admission: Enlarged tonsils, 3 cases; adenoids, 2 cases; other defects of throat and nose, 2 cases; defective vision, 12 cases; teeth requiring treatment, 52 cases (about three-fourths of all the children); discharging ears, 6 cases. Efforts were made to obtain treatment for all these children at the earliest possible date. The chief difficulty was the apathy of the parents, with whom, as the children came from parts scattered over South London, it was not easy to get in touch. The throat and ear conditions had all been remedied; the vision had also been attended to and glasses obtained in almost all cases. The children were taken for dental treatment in batches, but there were still thirty-one who required further treatment. Some of these cases were marked "urgent."

DR. KERR included in his report a number of tables showing that, as regards both height and weight, the children at the open-air schools on admission were considerably below the average of London County Council school children generally. During the thirty-six weeks of attendance at the school the children gained in these respects more rapidly than the standard child, and this was especially marked during the last ten weeks of cooler weather. For the purpose of comparison, the haemoglobin of 120 children (55 boys and 65 girls) was estimated at the ordinary medical inspection at three schools of good average type, the children's ages ranging from 3 to 13 years. The result of this examination, and of observations on the state of nutrition are expressed in the following tables:

HAEMOGLOBIN.

Schools of Average Type.

	Boys.	Girls.
	Per Cent.	Per Cent.
Haemoglobin average	87.8	88.9
Haemoglobin Averages at Birley House, 1911.		
At opening of school	81.0	81.1
At end of 26 weeks	86.1	86.5
At end of 36 weeks	87.7	88.0

As the average percentage of haemoglobin had reached almost to the average of ordinary London County Council school children, a continued improvement might be looked for. Of the 38 boys, the percentages of 24 showed an increase at the thirty-sixth week, 6 were stationary, and 8 had decreased. Of the 37 girls, the percentages of 22 showed an increase, 10 were stationary, and 5 had decreased. The abnormal hot weather appeared to account for the fall in some cases; in others it was attributable to teeth extractions or other operations. Bad home circumstances in some cases were at the root of the want of improvement.

STATE OF NUTRITION.

Expressed as Grams Weight per Centimetre [illegible].

Boys.			Girls.		
Age Last Birthday.	On Admission.	At 36th Week.	Age Last Birthday.	On Admission.	At 36th Week.
9	193.0	209.8	9	185.4	191.8
10	203.1	207.6	10	181.0	200.1
11	203.8	226.1	11	195.4	201.0
12	209.9	227.1	12	225.8	220.7
13	221.0	251.3	13	207.1	[illegible]

The number of children at each age was relatively small, but still the round increase was remarkable.

The chest expansion of the boys on admission was 1.9 in., and at the end of the period 2 in.: and of the girls, on admission 1.8 in., and at end of the period 2.4 in. It must be remembered that a majority of the children on admission were suffering from lung conditions.

As to the beneficial results to the children from attending the school, the brightness and general contentment of the children, as compared with their former apathy and often sullen resentment towards the open-air life, left little doubt that the experience was of great educational value for them.

Experience at the Shooter's Hill school had shown again that the more unhealthy and debilitated a child was at entrance, and the more room there was for improvement, the greater the rate of return to health. The method of admission, based as it was on the general impression of unhealthiness as well as on the presence of definite disease, meant the selection of children who were generally very anaemic: 73 per cent. of the admissions showed by the haemoglobinometer test only 75 per cent. of normal, but by the end of the school period only 2 per cent. were below normal. Probably the majority of the children were tuberculous in the widest sense of the term, but only 14 were definitely assigned to this heading. Of these, 5 were cases of pulmonary tuberculosis: they increased in weight, were less anaemic, and gained in appearance of general health, but the lung condition did not improve, except in one case, in which no traces of active lung disease could be detected when the school was closed. These cases could scarcely be expected to improve materially whilst they returned for the greater part of their time to the environment of the home from which the disease had originated. In cases of asthma the attacks seemed just as frequent during their attendance at the open-air school as previously. The great function of the open-air school appeared to be its stimulating effect upon the merely debilitated child in that it became happier and more interested in its work, preferred the open-air school to the classroom from which it had been drafted. Return to the open-air school was return to more natural conditions of living.

SOUTH WALES AND MONMOUTHSHIRE.

KING EDWARD VII HOSPITAL, CARDIFF.

AT the meeting of the board of management on April 10th Colonel Bruce Vaughan, referring to the City Memorial to King Edward, said that the fund had now reached £25,000, or £3,000 more than they had asked for. Of this the Lord Mayor had collected £1,100 under very difficult circumstances. A second sum of £500 had been received from Miss Talbot, of Margam, and the proceeds of the last infirmary ball were £380. Miss Talbot, in sending her donation, had expressed a wish that the whole of the beds in the new wing might be opened shortly, so as to reduce the number of those waiting admission, which stands at present at 963. Referring to the National Insurance Act, Colonel Vaughan made an appeal to the public to keep up and increase subscriptions, seeing that no provision for hospital cases was made in the Act. He also referred to the need for completing the medical school, a great step towards which would shortly be made by the opening of the pathological block. A discussion took place on the deferred question of instituting a staff of private nurses. The Joint Committee had reported in favour of the proposal. Dr. Herbert Vachell said that the Medical Board did not approve of the scheme, on the grounds of risk of infection and for other reasons. Dr. Wallace was in favour of it, and Colonel Vaughan strongly supported it. He believed that if a proper nurses' home were established the hospital would benefit by £500 or £600 additional income. The board eventually decided to form a private nursing staff. Mr. Andrew Brown brought up the question of the milk supply. He said that though the percentage of fats, etc., was very good, the institution had no safeguards as to the contamination of the supply by organisms. The milk came from numerous sources and from long distances, and he was in favour of the board taking steps to have every cow examined by veterinary surgeons. The

general feeling of the committee was that, though very desirable, it was not at present practicable to have control over all the milk from the farms to the institution.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

Medical Inspection of School Children.

The first annual report of the school medical officers for the county of Inverness has just been issued. The medical officer of health for the county, Dr. John MacDonald, is chief medical inspector; but the county is divided into two areas—the mainland, inspected by Dr. Gordon A. Lang, and the islands, by Dr. Fletcher. Dr. Lang reports that he paid 156 visits for purposes of medical inspection, while for other purposes 21 calls were made—in all 177. This involved travelling over 3,179 miles. The total number of children examined was 3,856, of whom 2,009 were boys and 1,828 girls. In reviewing the facts disclosed by medical inspection, Dr. Lang states that very few cases of poor nutrition were met with, notwithstanding the very bad condition of so many of the children's teeth. The figures are distinctly below the average: Boys 0.64 per cent., and girls 0.9 per cent. Dr. Lang states that there can be little doubt that the almost universal use of porridge has much to do with this remarkable result. The mentally defective boys formed 2.1 per cent., and girls 1.6 per cent. Regarding cleanliness, Dr. Lang remarks that so much has been written and said about the dirt and proneness to contagious skin diseases of the Highlander that it was expected that the figures under this heading would be high. It was found that the opposite was the case. Inspection showed that only 1.5 per cent. of the boys had verminous heads, the girls somewhat higher, 2.28 per cent.; and only 1.6 per cent. of the boys and 1.2 per cent. of the girls had verminous bodies. Defects of speech were found in 2.8 per cent. of the boys, and 1.8 per cent. of the girls. Dr. Lang found two out of every three boys, and a larger proportion of girls, had bad teeth; this was found in town and country, in the wildest glen as well as in the flat country along the sea. Dr. Lang makes some pertinent remarks regarding the food of the children in the Highlands. He says:

> One is sorry to see everywhere in the Highlands that the housewife is giving up baking at home, and buys from the baker's van and cart. The good old-fashioned oat-cake, bannock, a crusty loaf made out of coarse meal, is neither eaten nor wanted now, but a fine flour is used to make bread that contains no silica to form the essential enamel that covers all good teeth. It is common to see sets of teeth with no enamel at all upon them. Soft puddings are common, and every second mouthful, when the child is at home, is washed down with tea. This is the age of soft food and too much tea.

The percentage of children with at least two bad teeth was 64.7 in boys, and 69.4 in girls. Very few cases of skin disease were found.

Tuberculous disease was present in 46 cases; only 4 were cases of phthisis, the majority being tuberculous disease of glands.

Eyesight was not so good as would have been expected: the usual form of defective vision is short sight, no less than 70 cases were noted.

Appended to Dr. Lang's report on the medical inspection of the children are remarks on the feeding of the children, tinker children, and the hygienic condition of the schools; the recommendations contained in his report are carefully thought out, and we hope that the various educational authorities in the county will give it an intelligent perusal. Dr. Fletcher had possibly the more arduous task in inspecting the children of the island district of the county of Inverness. He paid about 200 visits to schools and examined 4,042 children (2,139 boys and 1,903 girls). He makes much the same remarks as Dr. Lang does as to the cleanliness and the defective teeth of the children in the islands. The percentages of most of the other defects found were somewhat similar to those found by Dr. Lang. Appended to the report is a memorandum by the chief medical officer, Dr. MacDonald, on school closure, which contains much useful information on this subject; he also deals with the question of medical certificates in connexion with schools and infectious diseases.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

The National Insurance Act

A deputation from the committee of the Dublin hospitals had an interview recently with the Irish Insurance Commissioners to explain how the Act would affect the hospitals. Following the lines of the appeal recently published by the committee, it was explained that there would probably be a large falling off in the subscriptions from the general public, and therefore a decrease in the number of patients. Dr. Henry Jellett, Master of the Rotunda Hospital, showed that the Act as it at present stands is a grave menace to the maternity schools in Dublin. At present between 3,000 and 4,000 maternity cases are treated in the Dublin hospitals, and about the same number of cases are attended in their own homes by the students and pupil nurses of the maternities. As the maternity benefit is only to be paid to women who remain at home and are attended by a qualified doctor or a certified midwife, this will probably prevent a large proportion of the 7,000 women from seeking the aid of the maternities. He therefore urged the Commissioners to make it clear to the women affected that if they entered a hospital the benefit would be paid to their dependants, and that attendance in their own homes by a student or pupil nurse under the direct supervision of the hospital would be recognized as equivalent to attendance by a qualified practitioner. There was some discussion also regarding the insurance of hospital employees and nurses. The Commissioners promised to take the various points into consideration, and to discuss them again with the deputation. Meantime the committee has circularized the hospitals, asking if they are in favour of a capitation fee to be paid for each insured person who is admitted to hospital, and if so, what should be paid for each day the patient remained in hospital; also asking the number of in-patients daily in the hospital, and the proportion of those who would be likely to be insured persons under the Act.

Rotunda Hospital and the Insurance Act.

At the meeting of the Board of Governors of the Rotunda Hospital last week a report from the Master on the effect which the Insurance Act will have upon the hospital was read, and it was decided to send a copy to each of the members of the board and to call a special meeting at an early date to consider it. In his report Dr. Jellett said the Act would affect the hospital in three ways: (1) By causing a reduction in the amount of the subscriptions, though he did not think it likely that the Rotunda Hospital would lose as much as the general hospitals. (2) By causing additional expenditure, in consequence of having to insure both servants and staff, and possibly the probationer nurses; this extra expense might be to a large extent avoided if the Commissioners would consider nurses in hospitals as coming under the head of inmates in charitable institutions, and if probationer nurses were included under the head of apprentices who do not receive money payment. (3) By penalizing all patients admitted to the intern maternity department of the hospital, or attended in the extern maternity department, since it would mean a loss of 30s. to every uninsured woman the wife of an insured man, of £3 to every woman who was herself insured. His report went on to state the suggestions he had made to the Insurance Commissioners for meeting this latter difficulty.

Trinity College Medical School Bicentenary Celebrations.

As already mentioned, the bicentenary celebrations of the Trinity College Medical School will take place in the first week of June. The Royal Colleges of Physicians and Surgeons in Ireland are both actively co-operating with Trinity College. Circulars have been sent out to all medical graduates of Trinity College whose addresses could be found, and invitations have been sent to about 300 learned bodies both at home and abroad, many of whom have accepted. Dr. T. P. C. Kirkpatrick has written a history of the medical school, which will be published before the celebrations.

THE ROYAL VICTORIA HOSPITAL, BELFAST.

At the annual meeting of the Royal Victoria Hospital, Belfast, on March 27th, the Lord Mayor (Mr. R. J. McMordie, M.P.) occupied the chair, and it was reported that although the work had in no way decreased, the annual income had exceeded the expenditure by £343; this was due to an increase in the subscriptions from workpeople and in the Hospital Saturday collection; and the debit balance of £2,103 had been reduced by the amount. The cost per bed was £63 1s. 5d.

The medical and surgical report was read by Dr. R. J. Johnstone, Honorary Secretary of the medical staff. The beds had been kept fully occupied now for a number of years and the number of patients varied within narrow limits; 1,576 operations were performed with a mortality of 2.1 per cent. Nearly 900 radiograms were taken, and equal activity characterized all departments. Ten years ago 13s. 7½d. was spent for the use of alcoholic liquors on every occupied bed for the year; in 1911 the sum was 3s. 10½d.

THE VACCINATION QUESTION IN BELFAST.

An endeavour has been made to induce the Belfast Board of Guardians to desist from compulsory vaccination. At a recent meeting of the board a deputation of medical men, consisting of Sir William Whitla, Dr. McKisack, Dr. J. R. Davison, and Dr. R. J. Johnstone, waited on the board, and once more put before it the unanswerable statistics in a clear and certain light. Dr. R. Thomson, Chairman of the Public Health Committee; Dr. Bailie, the Medical Superintendent Officer of Health for Belfast; and Dr. Robb, the board's own officer, also attended, and the latter gave the figures of the last epidemic. The Chairman thanked the deputation, which was sent conjointly by the Ulster Medical Society and the Belfast Division, for putting their views before the guardians. At the same meeting a letter was read from the Local Government Board, which pointed out the risk to the infant population of any slackness on the part of the guardians, and to the serious danger to public health. The chance of conveying disease by pure lymph was infinitesimal, and the protection afforded by efficient vaccination was fully recognized. The matter was postponed for discussion.

SALARIES OF UNION MEDICAL OFFICERS.

The Gort Board of Guardians decided at their last meeting, by 18 votes to 3, to adopt a graduated scale of salaries applicable to the medical officers of the union, increasing their salaries to a maximum of £200 per annum, to be reached in twenty-four years by triennial increments of £7 10s. each.

SCENE IN A HOSPITAL.

An extraordinary scene in the Corofin Union Workhouse was described in evidence given at an inquest held in Ennis last week on an old woman of 86, who had been in the hospital for some time, and who died as the result of injuries received from another female inmate who was also a patient in the hospital. The night nurse described what happened when she was on duty on the night of March 31st. The deceased woman was in a ward with five other women. About 3 a.m. one of the women sat up and began to threaten the deceased; she was pacified for the time, but soon afterwards sprang out of bed and, seizing a chair, rushed over to the bed of the deceased. The nurse tried to take the chair from her, but was unable to do so. In answer to the nurse's screams for help two men came from the infirmary, and the nurse ran for help to the main house. On her return she found the patient still in a violent state, striding up and down the ward with the chair, with which she struck the deceased and another woman. One of the men then rushed in, and they with difficulty removed the chair and got the frenzied woman back to bed. It was found that all the women in the ward were bleeding from blows they had received. The medical officer gave evidence that the woman was a chronic epileptic, and had been an inmate for several years. The jury exonerated the night nurse from all blame.

PROPOSED FORMATION OF AN IRISH GOAT SOCIETY.

The formation of a Goat Society in Ireland is at present under consideration by the Women's National Health Association. There are in Ireland a very large number of goats; but, as their breeding and management are greatly neglected, they yield only a small quantity of milk for a short period. There can be no doubt that if the Irish goat were improved and cared for it would to a great extent meet the want that is felt by labourers and other persons of small means of a milk supply. The object of the proposed society is to stimulate a wider interest in the subject, and more particularly to improve the milking qualities of the existing breed by selection, improved management, and a judicious crossing with foreign breeds yielding a large quantity of milk for a lengthy period.

India.

[FROM OUR SPECIAL CORRESPONDENT.]

FAMINE IN BOMBAY.

HIS EXCELLENCY the Governor of Bombay presided at a meeting convened by the Sheriff in connexion with the Bombay Central Famine Relief Fund, and in the course of a lengthy speech explained what had been done by Government and charitable agencies. The total number of persons employed on Government works on March 9th was 51,387, and of this number 40,752 in the Panch Mahals were employed on regular relief works. On the same date the total number of persons on Government gratuitous relief was 46,223, including 3,323 dependants and village servants. The Central Fund needed further assistance in the work it had undertaken of relieving those persons who were reluctant to accept Government help. Resolutions were passed approving the method of relief adopted by the committee and appealing for continued support.

SANITATION IN THE UNITED PROVINCES.

During the year 1910–11 special measures were adopted in the United Provinces of Agra and Oudh to improve sanitation and hygiene in both rural and urban areas. As the result of an inquiry into the prevalence of malaria in several districts special steps were taken to introduce the use of quinine on a large scale among school children as a prophylactic, to extend the sale of quinine among the general population, to effect general improvements in the conservancy arrangements of towns and cities, and to check infant mortality by providing trained midwives to assist the poorer population and by circulating simple directions for the feeding and care of infants. In addition to these measures steps were taken to formulate large schemes of drainage and water supply and to arrange to fill up insanitary pits and hollows. The Sanitary Commission adds that, "as these measures once started continue, there seems good reason to hope that the people will gradually learn some of the fundamental laws of health, and that this will lead to a progressive reduction in mortality generally, but more especially in that among children." Improved sanitation and better hygienic conditions of life will no doubt not be without their beneficent effect in reducing mortality among infants, but any appreciable reduction will be possible only when a thorough extension of education among India's women has taken place. It is pleasing, however, to be assured by Government that the "one obstacle in the way of carrying out sanitary reform now is not so much the apathy of the public, but a lack of sufficient funds."

OUTBREAK OF CHOLERA.

Cholera has broken out in rather a severe form in Serampore. According to one account there are 50 cases daily. The water in the tanks, the chief source of the water supply in Serampore, has dried up owing to the deficient rainfall, and what is left is hardly fit for human consumption.

MATCH MAKERS IN INDIA.

The White Phosphorus Matches Bill has been withdrawn from the Imperial Legislative Council for this year. The report of the select committee on the bill contained a note of dissent which gave expression to the views of the Chambers of Commerce and other mercantile bodies in the country with regard to this bill. This note was to the effect that during the period which had elapsed since the Berne Convention of 1906 great improvements had been made in the methods of manufacturing phosphorus matches, with the result that the risk of necrosis has

been, it was thought, almost entirely eliminated. The dissentients suggested that inquiries should be made as to the accuracy or otherwise of the statement that "since 1906 there has been such improvement in the process of manufacture as to obviate the need for legislation," and that "similar inquiries should be made as to the extent of the hardship that the prohibition is likely to inflict on the poorer people of this country, particularly the agricultural classes."

UNIVERSITY EDUCATION IN INDIA.

When the Viceroy was at Dacca recently he announced that the university to be established there would be residential and teaching, as opposed to an examining university, and on the occasion of his Convocation speech as Chancellor of Calcutta University he announced what is practically a definite and most important change in the educational policy of the Government of India. For the future, so far as circumstances permit, the Government of India will take as its educational ideal universities which teach as well as examine. It is a change of prime importance to India. The five examining universities which at present exist have done valuable work, but an examining university ignores the moral and physical education of its undergraduates. Lord Hardinge's Government has boldly recognized the truth of criticisms which outside observers have pressed forward upon the notice of its predecessors.

Special Correspondence.

PARIS.

Gold Medal of Paris.—Syphilis and Pregnancy.—Radiography and Appendicitis.

THE highest honour given by the Paris Medical School is the gold medal in medicine. It is competed for each year by the *internes* of the Paris hospitals who have completed four years' service. The competitors are required to write a thesis on some original work undertaken during their period of office as *interne*. The theses, which must contain solid and useful work, are judged by the Council of Professors, five in number, and those candidates who have written satisfactory theses are admitted to the next stage of the examination. The second stage consists of an oral examination, lasting twenty minutes, on any chosen medical question. Each candidate is given a few minutes for reflection, and must then expound the subject in all its aspects for twenty minutes. After the oral examinations the jury makes its award. The gold medal this year was won by M. Menard (75 marks); the second place, with silver medal, by M. Lutembacher (74 marks).

At a recent meeting of the Academy of Medicine, Dr. Pamard related some observations on the transmission of syphilis from the father to the child without the mother apparently showing any syphilitic taint apart from abortion in the first and sometimes the second pregnancy. The children born after the mothers had been treated by mercury not only lived and showed no hereditary syphilitic characters, but in due course married, and their offspring to all intents were absolutely normal children and quite free from any specific taint whatsoever. Dr. Bar stated that in several cases of abortion due to syphilis in the husband a positive Wassermann reaction was obtained in the woman, even though she had shown absolutely no signs of syphilis.

Dr. Dupuy de Frenelle read an interesting paper on the uses of radiography in the diagnosis of appendicitis in obscure chronic cases. In some instances a bent appendix could easily be made out, a dense cord-like shadow being shown on the plate. In the discussion, M. Aubourg went so far as to say that in some cases the exact position of the caecum and the existence of adhesions between it and the appendix could be made out.

THE Hungarian Minister of the Interior has offered a prize of the value of 1,000 crowns for the best essay on the etiology of trachoma. The competition is open to the whole world. Essays must be sent in by December 31st, 1913; they should be addressed "Budapest, I. Var, Belugyministerium." The award will be made during the meeting of the International Medical Congress to be held in London in 1913.

Correspondence.

LEPROSY IN THE UNITED KINGDOM.

SIR,—I have read the letters from Dr. H. Bayon, Sir Jonathan Hutchinson, and Dr. Abraham in your issues of March 23rd and 30th on the subject of "Leprosy in the United Kingdom" with much interest.

I presume the correspondence arose from some action proposed or taken by the St. Pancras Borough Council to enforce the notification of every case of leprosy occurring in the United Kingdom.

Compulsory notification of leprosy was recommended by the English delegates to the conference on leprosy held at Bergen in 1909. This preventive measure, supported by Dr. Bayon, is deprecated by Sir J. Hutchinson and Dr. Abraham.

The former remarks that there is no hint that the disease is spread (in the United Kingdom) by sporadic cases, although, as a rule, for long they are undiagnosed and unsuspected, and he infers that neither isolation nor registration are necessary, and it is not difficult to see that they are unjust and, in the case of leprosy, cruel.

The latter affirms that during the last forty years only two authentic cases of the disease have arisen in England, unless the leper had had some previous connexion with some foreign endemic centre. He then expresses the opinion that, however advisable stringent measures, such as notification, may be in places where leprosy is endemic or where it is spreading, they are not called for in this country, and adds that when cases of easily communicable diseases, such as tuberculosis and syphilis, are allowed every freedom, it is redundant and unnecessary that sufferers from leprosy should be penalized.

As I have lived and worked in a very large leper asylum for nearly seven years, and am in consequence myself a leper, the subject under discussion has naturally the very greatest interest for me.

I cannot give here the grounds for my belief; I hope to do so shortly, but they are as follows:

1. Leprosy is not hereditary.
2. Leprosy is contagious.
3. It is spread wholly and solely by contagion immediate or mediate.

I agree that it is not easily communicable from the sick to the healthy, not nearly so much so as phthisis, and certainly is not such a danger to the public health as syphilis.

In opposition to Dr. Abraham, I hold that it is precisely because there are few lepers in the United Kingdom that means should be taken to prevent contagion. It is while the lepers are few that prevention can be enforced with greatest prospect of success and with the least hardship. In many endemic areas—for example, India—segregation is practically impossible because the number of lepers is so great that no administration would face the cost. This applies to syphilis and tuberculosis in Great Britain and Ireland.

Sir Jonathan Hutchinson and Dr. Abraham seem very sure that those lepers who live in this country do not communicate the disease to others. With all the deference due to two *confrères*, for whose opinions I have the greatest respect, I am not so clear on this point.

Leprosy in an advanced stage, whether nodular or anaesthetic, can be easily diagnosed with certainty. Leprosy at its commencement, especially the anaesthetic form, is most difficult to detect. I have seen cases, especially amongst the children of lepers, which I had reason to suspect to be leprosy, in which my diagnosis would certainly have been disputed, and very reasonably disputed, in which, however, after the interval of some years, the advent of anaesthesia, paralysis, contractions, etc., have placed the diagnosis beyond the possibility of doubt. Not only may this uncertainty continue for years, but the disease, apparently, may never make any further advance.

I am convinced that if I presented myself for examination and treatment as an out-patient at our hospitals, especially if I concealed the fact that I had been associating with lepers, my disease would not be correctly diagnosed by the majority of the physicians. Many mistakes of this kind made by men of good repute, even

within an endemic area, have occurred to my knowledge. Therefore, when it is said that lepers in this country do not communicate the disease to others, it simply means they are not known to have done so. Possibly the two cases quoted may have been infected by intimate association with some undiagnosed case infected by an imported leper. At any rate, they cannot have arisen *de novo*.

The idea that lepers taken out of an endemic area are not dangerous is, I believe, largely due to the report that the Norwegian lepers who emigrated to America did not spread the disease. The recent increase of leprosy in America should make us cautious about accepting this opinion.

We do not know exactly how the disease is spread from person to person. That it is spread from the sick to the sound I have not the least doubt. I have the accounts of many lepers who, having no history of leprosy in their family, have become lepers after having lived with a leper.

It is highly important, in the public interest, that we should have a clear knowledge as to how the disease is passed from person to person. We are not likely to obtain this knowledge if cases occurring in England are hidden. If all cases were reported, their histories carefully investigated, and those with whom they had been in contact previous to the manifestation of the earliest signs were examined, I am convinced that, in the majority of cases, we should discover association with an imported leper or an unrecognized case infected by an imported leper.

It is in a country such as the United Kingdom, where leprosy is rare, that an inquiry of this description would have the greatest chance of resulting in success. It would mean much careful and minute investigation into each individual case, which could only be undertaken by persons accustomed to such inquiries.

The assertion that the leper has never been in contact with lepers must in all cases be received with distrust. Time after time it breaks down when carefully tested. I do not imply that the patient is always untruthful; this is by no means the case: frequently he is quite unaware that he has been associating or coming into contact with a leper. Not long ago I was talking to a Norwegian about leprosy in Norway; we were dining together. He assured me there were no lepers in the part of Norway from which he came. I knew that this was not correct. He also asserted most positively that he had not spoken to or even seen a leper. This I considered highly improbable. He was much surprised when I said to him, "At any rate you won't be able to say that any more, because you are speaking to a leper now."

Why should notification in the case of leprosy be stigmatized as "cruel"? Cruelty is the infliction of unnecessary pain or inconvenience; when the pain or inconvenience is necessary in the public interest there is no cruelty.

You may be sure I do not desire that lepers should be subjected to more restrictions or annoyances than are actually necessary. But they should cheerfully submit to any and every precaution likely to prevent others from suffering in the same way as they themselves are suffering.

I have seen leper asylums referred to as leper prisons. No one who has a large first-hand knowledge of the facts could make any such mistake. When I had the management of lepers I always tried to arrange that those who could isolate themselves on their own premises should be allowed to do so. The results were not encouraging. The vast majority could not maintain themselves. Many who could afford to support themselves continually disregarded the very simple precautions required of them and had to be segregated. Others voluntarily returned to the asylum because they found they were more comfortable there. This can easily be understood. A time comes to most of us when concealment is impossible, and a person whose face is disfigured by leprosies, or down whose expressionless face the tears and saliva are flowing, with contracted and missing digits, and bandages concealing sores, is not an acquaintance to be cultivated by many, or to be much in request in society; consequently he leads a lonely life, whereas in the asylum he is not shunned; he has other lepers to talk to, and the attendants are so accustomed to such things that they pay no attention to them.

With respect to myself, I am not at present contagious. That this is my firm conviction is shown by the fact that I have had a son living with me in the same house. Nevertheless, if any one invites me to visit him, I always acquaint him of the fact that I am a leper. He invariably tells me he does not care, and is not afraid, and almost equally invariably I am not asked to his house. I should be very silly if I resented this treatment.

In my opinion the notification of leprosy is most desirable from all points of view, and whenever it is necessary there should be power to compel segregation either in a leper asylum or under supervision at the patient's own home. The leper may object, but he must put up with it and regard it as a necessary consequence of his affliction.—I am, etc.,

April 15th. A LEPER.

THE BRITISH MEDICAL BENEVOLENT FUND.

SIR,—I have just been reading—as I seldom fail to do—in the BRITISH MEDICAL JOURNAL the sad list of people whose cases have been considered for relief by the committee of the British Medical Benevolent Fund, and a thought which has constantly recurred to me when doing so again presents itself to my mind. It is this: From time to time I read in the papers accounts of bequests to charities by medical men, and it constantly happens that such accounts record the giving of legacies to hospitals, whilst, on the other hand, it is quite exceptional to find this worthy medical charity in any way benefiting from their gifts. And yet I would have thought that the claims of our poor and distressed brethren and the widows and children of medical men who are, in too many cases, in a desperate state of poverty, should take precedence of institutions which minister to the public at large, and so obtain a support which must, in the very nature of things, be wide and general.

It is, indeed, pitiable to read the list of cases applying for relief to the British Medical Benevolent Fund, and to realize how very inadequately the committee administering its finances is able to deal with them because of its slender purse. I feel convinced that in their kindly work these almoners must experience many a sad moment when they find that what they are able to give to the applicants to the charity falls so very far short of the requirements of the cases brought before them. So it is that I venture to write this letter, in the hope that members of our profession who are considering the matter of leaving legacies to other than their kith and kin may remember this essentially medical charity, and include it in their list.

I conclude by saying that I am impelled to write this letter by the interest I feel in the subject, and that, beyond being a subscriber to the British Medical Benevolent Fund—as I would that every medical practitioner who can afford it would be—I have no connexion with its governing body.—I am, etc.,

Swansea, April 14th. H. A. LATIMER.

THE STUDY OF CONDUCT.

SIR,—This discussion is wandering far from its original limits, and the discursion is not to be regretted, for it enables me to clear up several matters as to which there are misunderstandings.

The original question was this: Was or was not I justified in saying "the psychiatric physician . . . not only makes no study of conduct, but denies that such a study is desirable, even if he admits that such a study is possible"? Dr. Newington, on the contrary, asserts, for himself and his colleagues, "that we do not object to study conduct, but only to the study of conduct as conceived by Dr. Mercier." I, on the other hand, have shown by unimpugnable documentary evidence that my colleagues, including Dr. Newington, did object *in toto* before they did or could have known how I desired it to be studied; and I have shown, moreover, that the way in which Dr. Newington supposed I wished conduct to be studied (that is, as classed or grouped with mental attributes) is the direct contradictory of the way in which I do wish it to be studied; still he maintains his opposition. On this original point of difference there is no more to be said, and I shall say no more; but in the course of the discussion Dr. Newington has raised several other issues which are much more important than the original one, and he has, moreover, discovered a terrifying bogey that I can exorcise for him, so I propose to follow for a short distance some of the

divagations and divarications into which he has led the discussion.

"Dr. Mercier now admits that conduct is the sole evidence, symptom, and sign of what the mind is doing." So says Dr. Newington, as who should say, "The Pope of Rome now admits that Roman Catholicism is the only true religion." I congratulate myself that after twenty years of effort, I have at last got Dr. Newington to appreciate that. Something, therefore, has been gained by this discussion.

Dr. Newington puts to me a problem. If three or four insane ladies make their way out of an asylum and break big windows with little hammers, how, he asks, would I differentiate between them and militant (and presumably sane) suffragettes? I am glad to have this problem put to me, for it gives me an opportunity of clearing up a misunderstanding to which I have hitherto not been quite alive; a misunderstanding that seems to underlie the criticisms of Dr. Urquhart and others. They appear to think—I apologize if I misunderstand them—that when I speak of judging insanity by conduct, I mean judging by a single act. This is far indeed from my meaning and intention. If I had meant one act, I should have said one act. It may be that a single act is of itself so insane, that by itself it carries insanity. When a lady, to whom I had been formally introduced, spat in my face without interchanging a word, I sat down at once and wrote a certificate of insanity without further ado, or further inquiry. The single act was in this case enough. But the act of breaking a window with a hammer is not necessarily insane. In order to determine, in any given case, whether such an act is sane or insane, we must have regard not only to the circumstances in which it was done, but to other parts of the conduct of the vitrofractors. We must take into account what they did and what they said before and after the act—it may be for a considerable time before, and for a considerable time after.

When I say that insanity is primarily a disorder, not of mind, but of conduct, I intend to state my doctrine, not of conduct, as Dr. Newington supposes, but of insanity. The word "primarily" has not the ambiguity that Dr. Newington attributes to it. It means first in order of importance. If I had meant, as he supposes I meant, in the first instance, or first in order of time, I should have said, not "primarily," but "firstly," or "first," which properly expresses that meaning. Dr. Newington says that it is the belief of every psychiatric physician, except myself, than insanity is primarily a disorder of mind, and not a disorder of conduct. I agree that this is so, and I am glad to have the admission, for I shall be able to call attention to it in a few years' time, when the opinion is all the other way, and when every one will be denying that his opinion has changed.

I omit any reference to Dr. Newington's criticism of my amœba illustration. When he quotes my words he quotes me correctly, but when he puts a gloss on them I am lost in a maze of wonderment. Whence he gets his statement that "instinctive conduct is derived from instinctive action, which in turn is derived from instinctive motion, and this is evolved by the same 'motion' that energizes the amœba"—where he gets this farrago of rubbish, which he attributes to me, I do not know: nor have I any inkling of what is meant by "motion universal" and "motion particular," which also he attributes to me.

Now I come to Dr. Newington's bogey, and a dreadful, turnip-headed, sheet-enveloped shaliaballah it is. "We cannot afford," he says, "to dally speculatively for a moment with the great principle which maintains psychiatry in its existing phase—the principle that insanity is absolutely and exclusively a disease of the organ of mind, a material disease of a material part of the human economy. . . . If we for a moment admit and support the suspicion that there is any possibility of insanity not having a true physical basis in the brain itself," all kinds of dreadful consequences will follow. This denunciation and prediction make my flesh to creep, and all my bones to shake: for if it is true, I am in a perilous state, and alas! Dr. Newington is no better off, and every other psychiatric physician is in the same galley. For they all believe, so Dr. Newington tells us, that insanity is a disorder of mind, whereas in fact it is exclusively a disease of the brain; so that we are all wrong together. I have sometimes been called, very erroneously, a materialist, but if I were to suggest that mind is "a material part of the human economy," I should richly deserve the imputation.

Let me try to clear the issues. Dr. Newington and I both believe that the fundamental and underlying factor in insanity is disorder of the brain processes. Dr. Newington says that the brain is the organ of mind; and I agree that part of the brain—that part that in insanity is disordered—is the organ of mind, and that consequently there is always in insanity disorder of mind accompanying disorder of brain process. Here, if I understand him aright, Dr. Newington stops. His picture of insanity is now complete. Insanity is disorder of brain exhibiting itself in disorder of mind: and since we cannot directly examine the disorder of brain, we must take the disorder of mind as the indication, the symptom, and the measure of the disorder of brain. Primarily and practically, therefore, insanity is for us disorder of mind. This, I think, is the position of Dr. Newington, and this certainly was his position, and that of every other alienist, up to the date of the publication of my book on conduct.

But at this point I do not stop. I go farther, much farther. I, too, say that the central disorder is disorder of brain process. I, too, say that since the brain, or that part of it that in insanity is disordered, is the organ of mind, therefore disorder of mind accompanies disorder of brain, and is an integral factor in insanity. But, in contradistinction to every other alienist, I say that our picture of insanity is not yet complete. I say that the brain, or that part of it that in insanity is disordered, is the organ not only of mind, but of conduct also, and that when that part of the brain is disordered not only is mind disordered, but conduct also is disordered *pari passu*. Dr. Newington, as the spokesman of my other colleagues, says that, as they cannot directly observe the disorder of brain process, they are compelled to observe the disorder of mind, and to take the disorder of mind rather than disorder of brain as the criterion of insanity. I say that disorder of mind is as completely hidden from direct observation as is disorder of brain; and that, as we cannot get at brain except through mind, so we cannot get at mind except through conduct; and therefore it is that I say insanity is primarily disorder of conduct. Primarily means first in importance. Disorder of conduct is first in importance to us as members of the community, because it is only through conduct that the insane person can injure the community. Disorder of conduct is first in importance to us as physicians, because only through the observation of conduct can we gain any insight or hazard any guess as to the other two factors in insanity—the disorder of mind and the disorder of brain.

But even yet my picture of insanity is not complete. That brain process that is accompanied by mental process and that actuates conduct has yet a further function, and when the brain process is disordered not only is mind disordered, not only is conduct disordered, but this other function also is disordered, and thus insanity has not a twofold but a fourfold characterization. This fourth function of the highest regions of the brain is a trophic function. It regulates the metabolism and all the functions subsidiary and conducive to metabolism throughout the whole body, and when the highest regions of the brain are disordered in their working the metabolism of the body and the functions subsidiary and conducive to metabolism, or some of them, are also disordered.—I am, etc.,

Parkstone, Dorset, April 13th. CHAS. MERCIER.

P.S.—I must express my regret that more than once Dr. Newington has misspelt that fine and expressive old English word "metagrabolise." Even if he is unfamiliar with it—which, considering the centuries during which it has been naturalized, is improbable—its manifest Greek origin should have saved him from converting the first vowel into an *o*.—C. M.

*** It is only right that we should clear Dr. Newington from this heavy charge. We alone are responsible for "**m**etagrabolize," which has no more to do with *meta* than Monmouth with Macedonia. This kind of etymological subtlety is one of the pitfalls of a classical education. *Matagrabolizer*, as all good Pantagruelists should know, is one of the many inventions of Rabelais. It will be found, for instance, in Louis Moland's edition—"*très soigneusement collationnée sur les éditions originales*" in the nineteenth chapter of the first book—*La*

Harangue de Maistre Janotus de Bragmardo faicte à Gargantua pour recouvrer les cloches. Of that oration the composer says, "*Il y a dixhuit jours que je suis à matagraboliser cette belle harangue.*" In the glossary it is explained that *matagraboliser* is a "*mot burlesque ayant le sens de se donner beaucoup de mal pour rien, de s'ennuyer et d'ennuyer les autres.*" This glossary is for the enlightenment of Rabelais's countrymen, and the word does not appear in Littré. Balzac, who in the *Contes Drôlatiques* imitated Rabelais, says, in the story called "*Les Joyeusetez du Roy Louis Unze,*" that the Cardinal "*revint horrificquement matagrobolizé.*" In Sir Thomas Urquhart's translation of Rabelais, *matagraboliser* is said to be "a word forged at pleasure, which signifies the studying and writing of vain things." He quotes Duchat as saying that when the creator of Gargantua coined this vocable he had in mind the three words. μάταιος (ineptus), γράφω (scribo), and βάλλω (jacio), making ματαιογραφοβαλίζειν, from which he afterwards formed his French word *matagraboliser*. *Metagraboulizer* does, indeed, appear in Cotgrave in the French part, but not in the English. It is defined by him to mean "to dunce upon, to puzzle or (too much) beat the brains about." We gather from the *New English Dictionary* that it has to some extent become naturalized as "metagrobolize"—an instance of the deformed transformed. We submit to both our distinguished correspondents that to continue this discussion would "too much beat the brains about" and risk "dunceing upon" our readers. We accept Cotgrave's definition, though it differs both from that of Duchat and that of Moland, as it is more polite than citl e: *ineptas scripturas mittere*, or "se donner beaucoup de mal pour rien, s'e nuyer et ennuyer les autres."

MEDICINE AND THE CHURCH.

SIR,—My attention has been called to an article in your issue of March 9th, entitled "Medicine and the Church." I am not concerned with the general argument of the article, but I feel it to be my duty to point out a serious mistake into which you have fallen when referring to our work in Emmanuel Church, Boston. You say, in describing the inception of our effort, that:

> Clergymen were to minister to minds diseased, while for the treatment of any coexisting or underlying bodily complaint the aid of the physician was to be invoked. We believe that this scheme, praiseworthy in its conception, has not been adhered to, the clergymen having embarked on a career of independent practice as healers.

Allow me to say that, in making this latter statement you are quite mistaken, though such a blunder may be pardonable in a writer describing something which is taking place 3,000 miles away. But it ought to be known that what is popularly called the "Emmanuel Movement" has for one of its fundamental ideas the co-operation of physician and minister, a co-operation which, so far from slackening, has become more and more close as time has passed by. Without such medical control, neither my honoured colleague, Dr. Worcester, nor I would undertake the work of trying to help persons suffering from such troubles as neurasthenia or alcoholism. As we are not only students of theology, but lovers of science, we could scarcely retain our self-respect if we ventured to do what your article alleges we are doing—that is, "embark on a career of independent practice as healers."

In conclusion, I would call the attention of your medical readers to the rules which govern our work and which were drawn up by four of the most distinguished physicians of this city. These rules, which are strictly adhered to, may be found in the appendix to the book entitled *The Christian Religion as a Healing Power.*—I am, etc.,

Emmanuel (Episcopal) Church, Boston, U.S.A., March 19th. SAMUEL MCCOMB.

*** We can only express our regret for the mistake, which was founded on statements made in certain American journals, which Dr. McComb's letter shows to have been inaccurate.

THE NEW CELL PROLIFERANT.

SIR,—Mr. C. Walker is mistaken in supposing that the division forms of leucocytes produced by Mr. H. C. Ross are in any way artefacts, or the results of mechanical agency, or "sports." The shape of the typical forms is much too definite, and the structure too regular and specialized, especially as regards the dividing so-called nucleus and the very remarkable arrangement of the granules, to admit of this explanation; and the forms are produced in such numbers and with such certainty that they cannot possibly be "sports." I have studied them with care, and have discussed them with equal care in the *Proceedings of the Royal Society of Medicine*, 1911, vol. v, pages 103–108, and have no doubt whatever that they are dividing leucocytes, and that they are caused to divide by Mr. Ross's methods. Mr. Walker says that he is unable, after trial, to confirm the work. I infer from this only that he has never really seen the typical forms. Such statements are always made regarding every new observation.—I am, etc.,

Liverpool, April 10th. RONALD ROSS.

WE have received a letter from Mr. H. C. Ross in which he declines further correspondence with Dr. Charles Walker, believing that Mr. Walker has not properly repeated his experiments or appreciated the arguments founded on them. Mr. Ross also sends us copies of letters received by him from Mr. Murray, the publisher of his book, with reference to Mr. Walker's refusal to give permission for the reproduction of certain illustrations, but as this matter appears to concern these three gentlemen alone it does not seem necessary to pursue it further.

Universities and Colleges.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A QUARTERLY Council was held on April 11th, Mr. Rickman J. Godlee, President, in the chair.

Presentation to Mr. Burne.

A presentation was made to Mr. R. H. Burne, M.A.Oxon., on his retirement from the office of Assistant Conservator of the Hunterian Museum, in recognition of the able and efficient services rendered by him during a period of twenty years.

Odontological Demonstrations.

Mr. J. F. Colyer was appointed to give three demonstrations on the odontological collection in the Museum.

The John Tomes Prize.

This prize was awarded to Mr. A. Hopewell Smith.

Begley Studentship.

Mr. A. C. Perry, of the London Hospital Medical School, was appointed to this studentship for the ensuing three years.

Honorary Fellow.

Lieutenant-Colonel J. J. Pratt, I.M.S., a member of twenty years' standing, was made a Fellow, in recognition of his valuable services in connexion with hospital administration and surgical work in India.

Recognition of Institutions.

The following institutions were added to those recognized by the Examining Board in England, for instruction in Chemistry and Physics: Maidstone, Technical Institute; Cirencester, The Grammar School.

The following universities were added to the list of foreign universities whose graduates are exempted from the first and second examinations of the Board under the conditions of Paragraph IV, Section III, of the Regulations: Tulane University of Louisiana; Howard University, Washington.

The course of laboratory instruction in public health given in University College and the City Bacteriological Laboratory, Nottingham, was recognized for the Diploma in Public Health.

International Eugenics Congress.

Mr. G. H. Makins was appointed college delegate to attend the meetings of the International Eugenics Congress to be held at the University of London, July 24th to 30th, 1912.

Child-Study Society.

Mr. C. T. Dent and Sir Alfred Pearce Gould were appointed delegates to attend a conference of the Child-Study Society to be held in the University of London on May 9th, 10th, and 11th.

The National Insurance Act.

The President reported the resolutions adopted at the conference on the National Insurance Act held in the College of Physicians on March 21st, when representatives of the two colleges, of the Society of Apothecaries, and of the medical faculties of the universities in England were present (BRITISH MEDICAL JOURNAL SUPPLEMENT, March 30th, page 356).

ROYAL COLLEGE OF SURGEONS IN IRELAND.

DR. G. JAMESON JOHNSON, Visiting Surgeon to the Royal City of Dublin Hospital, has been elected Professor of Surgery in the vacancy caused by the resignation of Dr. William Stoker.

CONJOINT BOARD IN ENGLAND.

THE following candidates have been approved at the examinations indicated:

FIRST COLLEGE (*Part I, Chemistry, and Part II, Physics*).—A. J. Bado, P. Banbury, B. E. Barnes, †G. A. Beyers, C. M. Bullpitt, D. M. Dickson, A. B. Dunmore, †H. J. Ewart, A. A. Fitch, †W. V. Gabe, A. N. Haworth, C. G. Hooper, W. K. T. Hope, †G. H. Howe, C. H. Jenkins, Florence Kerruish, J. M. M. Marshall, L. W. Moore, J. W. W. Newsome, R. W. Payne, D. R. Reynolds, †R. J. Scarr, B. C. W. Simpson, C. M. Slaughter, E. L. Stephenson, †P. Ward, H. G. Watters, †G. W. Wheldon, †T. Wilson, J. Wiseman, L. H. Woods.

* Passed in Part I only. † Passed in Part II only.

FIRST COLLEGE (*Part III, Elementary Biology*).—A. Arias, P. A. Ashcroft, A. J. Bado, T. B. Bailey, G. A. Beyers, J. R. S. Bowker, A. Bulleid, G. F. Cobb, A. A. K. Conan Doyle, A. V. S. Davies, C. J. C. de Silva, W. R. Dickinson, A. A. H. El-Zeneiny, H. J. Ewart, W. Farquharson, O. F. Fehrsen, A. A. Fitch, M. R. V. Ford, O. Halstead, J. M. Harrison, A. N. Haworth, S. N. Hayes, C. B. Henry, C. G. Hitchcock, H. M. Hobson, G. Hoffmeister, C. E. Hopwood, P. G. Horsburgh, G. H. Howe, J. M. Hughes, Mabel M. Ingram, W. G. Johnston, C. S. J. Kearney, Florence Kerruish, C. H. Laver, E. F. Llarena, J. M. M. Marshall, R. Moser, H. L. Pridham, C. N. Ratcliffe, O. A. L. Roberts, A. H. Samy, R. J. Scarr, D. Stewart, M. T. Talhat, P. Ward, C. J. L. Wells, H. M. Wharry, W. H. White, T. Wilson, W. E. Wilson, T. F. Zerolo.

CONJOINT BOARD IN SCOTLAND.

THE following candidates have been approved at the examinations indicated:

FIRST COLLEGE.—J. H. Blackburn, M. Seeraj, R. Prasad, C. F. Pereira, W. G. Bowie, D. C. M. Page, T. D. Renwick, Z. A. Green, N. R. R. Ubhaya, R. V. Clarke, W. A. S. George, E. C. Brooks, J. H. Bain, J. J. Armistead, J. E. Ainsley, T. T. Hoskins, and M. A. White.

SECOND COLLEGE.—O. Stewart, A. Craig, W. Turner, C. L. W. Fleming, C. T. Darwent, E. Annequin, Agnes Rothe, J. T. Brady, G. L. W. Iredale.

THIRD COLLEGE.—G. Hardie, H. E. Rose, C. M. G. Elliott, J. M. Hiddleston, M. McCloskey, A. Sinha, W. Chapman, C. Dolan, T. Hardie.

FINAL.—Florence A. Scott, C. G. Timms, H. J. Browning, J. M. Dalzell, L. E. Davies, W. W. Watt, D. J. Neethling, S. D. Large, J. M. R. Hennessy, W. F. Gibb, G. A. Macvea, C. L. Bhatia, J. Hegarty, C. H. Heyton, W. C. Dunscombe.

Medico-Legal.

VISITING MEDICAL OFFICERS OF HOSPITALS AND THE CORONERS ACT, 1887.

DR. R. BOYD ROBSON (Seven Kings, Essex) writes: The establishment of a cottage hospital in the district of Ilford has enabled the practitioners there to realize the gross injustice which it is possible for the above Act to inflict on them. A fortnight ago I was summoned up to the hospital to attend an accident which proved fatal. The cause of death was quite obvious, but for all that I was ordered to make a *post-mortem* examination. That necessitated my going down to the Ilford mortuary, to which the corpse had been transferred, and spending some time there. Subsequently there was the attendance at the inquest and the giving of evidence, and then the finale—not legally entitled to a fee by Art. 22, Coroners Act, 1887—because the case died in a hospital.

It is needless to say that I was astounded to learn that a medical officer connected with an institute, though non-resident at that institute, was regarded under the Act on the same footing as a resident medical officer. I had always considered the Act unjust to residents, but it is doubly so to those general practitioners who gratuitously give their services to a local hospital. It surprises me that up to the present there has been no organized protest against the measure. Probably the reason is that at a general hospital the routine in connexion with a fatal accident has been left entirely to the resident surgeon, without in any way inconveniencing his principal, whether he be a consultant or general practitioner. Further, I gather from the annual report of the Medical Protection Society that in the case of cottage hospitals coroners have been in the habit of allowing fees to doctors who attended fatal accident cases, but have recently been forbidden to do so by the county. I trust action will be taken by the British Medical Association to secure fairer treatment for its members. I did mention my case at a meeting of the Stratford Division of the British Medical Association, and it was unanimously resolved to invite the attention of the Executive to the matter. I also wrote to the member for Romford and received the subjoined reply. From it one can easily judge how forcibly the shabbiness of such treatment of the members of the medical profession strikes members of the laity. If, then, the various Divisions of the British Medical Association were to bring a case such as mine before the notice of local members of Parliament, I am sure the remedy we seek would not be difficult to attain.

Copy of Sir John Bethell's Letter.

Dear Dr. Robson,

I am in receipt of your favour of the 9th inst. giving your experience in connexion with a case at Ilford, and I must say that you have been treated very badly in the matter, and you can assure your medical friends at Ilford that I shall be pleased to support the amendment of the Coroners Act of 1887, so as to enable medical men to make a proper charge for their services in connexion with matters under the Act.

If you would like to see me upon the question at any time I shall be pleased to give you an appointment at the House of Commons.

Yours very truly,
(Signed) JOHN HENRY BETHELL.

House of Commons,
April 11th, 1912.

*** In a leader on Coroner's Law and Death Certification published in the JOURNAL of July 9th, 1910, page 99, attention was drawn, not for the first time, to the recommendation of the Departmental Committee on Death Registration that medical officers of public institutions should be placed on the same footing as other practitioners in regard to fees for giving evidence at inquests and for making *post-mortem* examinations.

The grievance of visiting medical officers of charitable institutions in that they do not receive any remuneration for giving evidence at inquests, and for performing *post-mortem* examinations on patients dying in the institution, was referred to in the memorandum of evidence of the British Medical Association forwarded to the Departmental Committee on Coroner's Law, etc., appointed in 1908, and in the Draft Coroners Bill, prepared by the British Medical Association in 1905, a clause was inserted providing that a registered medical practitioner who has attended at a coroner's inquest in obedience to a summons of the coroner under the Coroners Act, 1887, should be entitled to such remuneration as follows:

(*a*) For every day on which such practitioner so attends to give evidence at an inquest 1 guinea;

(*b*) For making a *post-mortem* examination of the body of the deceased without an analysis of the contents of the stomach or intestines or other part of the body 1 guinea;

Provided that no remuneration shall be paid to a medical practitioner for making a *post-mortem* examination without the previous direction of the coroner.

The question of Coroner's Law and Death Certification is under the consideration of the Parliamentary Subcommittee of the Medico-Political Committee.

Obituary.

WILLIAM OGLE, M.D.OXON., F.R.C.P.LOND.,

LATE SUPERINTENDENT OF STATISTICS, GENERAL REGISTER OFFICE.

DR. WILLIAM OGLE died at his residence in London on April 12th in his 85th year. He was the fourth son of Dr. J. A. Ogle, Regius Professor of Medicine in the University of Oxford. He was educated at Rugby, and went up to Oxford as a scholar of Corpus Christi College, of which he was elected a Fellow on his twenty-first birthday. He at first intended to enter the Church, and went so far as to take deacon's orders, but at an early date abandoned this intention and became a student of St. George's Hospital. He became a member of the Royal College of Physicians of London in 1859, and a Fellow in 1866, and graduated M.D.Oxon. in 1861. He was appointed Lecturer on Physiology in the Medical School of St. George's Hospital, and in 1869 Assistant Physician to the hospital. As a teacher of physiology, a science then in its infancy, he attracted not only students of St. George's School, but many others, who found in his lectures an opportunity not otherwise easily available of becoming acquainted with the rapid progress of the new science. He was beginning to prove equally attractive as a teacher in the out-patient department when, in 1872, he unexpectedly resigned the office of Assistant Physician on the ground of ill-health.

He was for a time Medical Officer of Health for East Hertfordshire, but in 1880 was appointed to the office in which his chief distinction was to be earned; he succeeded Dr. Farr as Superintendent of Statistics in the General Register Office, and perhaps the highest praise which can be given to him was that he was a worthy successor of that distinguished man. Dr. Ogle was responsible for the census reports of 1881 and 1891, and for the Decennial Supplement to the report of the Registrar-General, 1871–1880. His reports in these volumes contain the results of investigations into the mortality of different occupations, and led him to contribute to the *Transactions* of the Royal Medical and Chirurgical Society, of which he

had been Honorary Secretary, a paper on Mortality in the Medical Profession. Subsequently, most of his contributions to statistics were published in the *Journal of the Statistical Society*, but his letters to the Registrar-General, prefixed to the annual reports, are with his other official reports probably his most valuable contributions to medical science. In the Annual Report for 1880 he wrote articles on small-pox and vaccination, in that for 1881 on statistics of marriage, in that for 1882 on the proportion of illegitimate births in workhouses, in 1884 on the ages of marriage in different European countries, and on the increase of cancer, and in 1886 on the death-rates of scarlet fever at different ages. In the report for 1891 he issued a life table for the first year of life, showing the causes of death in that age period, and to the volume for 1887 he contributed an essay on fifty years of civil registration, dealing principally with mortality statistics. In 1886 he wrote a report on the condition of the working classes: he gave evidence before the Census Committee in 1890, the Death Certification Committee in 1895, the recommendations of which have never been carried out, and the Royal Commission on Vaccination in 1889. He was also a member of the Royal Commission on the Metropolitan Water Supply in 1893.

Dr. Ogle was the author of several scholarly translations of various works of Aristotle. In 1882 he published, with an introduction and notes, a translation of the Greek philosopher's treatise on the parts of animals. The introduction has been described as the best general statement of Aristotle's work in the sphere of biology. An edition of this translation, revised by Dr. Ogle himself, was issued last year in the series of translations of the works of Aristotle published by the Clarendon Press. In 1897 Dr. Ogle published a translation of Aristotle's treatises on youth and old age, life and death, and respiration, with an elaborate introduction and notes which occupy more than half the book. Dr. Ogle also translated Professor Kerner's *Flowers and their Unbidden Guests*. He was himself a botanist of no mean standing, and was a friend of Hooker and Darwin.

Dr. Ogle was a burly, robust man, and remembering this and the circumstance that he attained the age of 85, makes the fact that he resigned his appointment at St. George's Hospital forty years ago on the score of health seem almost absurd, and shows how mistaken a man may be in judging his own capacities. He was a man of genial presence, of ripe speech and wit, very approachable, and always ready to give help to any inquirer who had any sort of claim upon his assistance. His wife, the daughter of Mr. Allen Block of Highgate, a lady well known in literary and musical circles, died three years ago; there were no children of the union. Dr. Ogle had suffered for some years from osteo-arthritis, which greatly crippled his movements, but in spite of this he continued to frequent the Athenæum Club, and there among his friends he seemed to forget sufferings which must often have been acute. The funeral took place on April 16th at Colder's Green.

CHARLES O'FARRELL, L.R.C.P. AND S.EDIN.,

CHAIRMAN OF THE EAST NORFOLK DIVISION OF THE BRITISH MEDICAL ASSOCIATION.

GREAT regret is caused by the unexpected death of Dr. Charles O'Farrell, of Yarmouth. He had been in his usual health, and attended to his practice on April 5th; death, which occurred early on the following morning, was due to cerebral haemorrhage.

Charles O'Farrell, who was born in Dublin, received his medical education at the Ledwich School of Medicine, and took the diplomas of L.R.C.P. and L.R.C.S. Edin. in 1885. In 1889 he was appointed medical officer to the North District of the Great Yarmouth Union, and he was also medical officer to the Post Office, appointments which he held at the time of his death. He took a great interest in Volunteer work and in first-aid instruction. He joined the 2nd Volunteer Battalion of the Norfolk Regiment, and rose to the rank of Major with command of the Head Quarter Companies. After the introduction of the Territorial system he commanded for some time the Great Yarmouth detachment of the 5th Battalion of the Norfolk Regiment. He also took an active share in the organization of the Voluntary Aid Detachment, and it was through his efforts that the Corporation challenge bowl was obtained and offered for annual competition.

The funeral, which took place on April 9th, was very largely attended, among those present being representatives of the East Norfolk Division, which had sent a handsome floral wreath, the Chairman of the Yarmouth Board of Guardians, the Commanding Officer of the Yarmouth Detachment, 5th B.N.R., the President of the Irish Society of East Anglia, and representatives of the Boys' Home, of which Dr. O'Farrell was for many years Honorary Medical Officer.

WE have the regret to record the death of Dr. PEMBROKE MINNS, of Thetford, which took place on March 31st after a prolonged period of failing health, which led to his retirement from practice some time ago. Dr. Minns was born at Nassau, in the Bahamas, in 1840, and received his medical education at Guy's Hospital. He took the diploma of M.R.C.S.Eng. in 1861, and became M.D.St. Andrews in the following year. After serving the office of Resident Accoucheur at Guy's Hospital he joined Mr. Best, of Thetford, and continued in practice there for over half a century. He was Certifying Factory Surgeon, held various Poor Law appointments, and was a member of the staff of the Thetford Cottage Hospital. He earned the respect alike of the public and the members of his own profession, and two years ago was President of the East Anglian Branch of the British Medical Association, and gave an address at its annual meeting at Thetford. Dr. Minns, although of retiring disposition, had a large circle of friends, and was extremely hospitable, as was evidenced by the luncheon at which he entertained the members of the East Anglian Branch at its annual meeting. He was for three years a member of the Thetford Town Council, and was Chairman of the Thetford Gas Company, but did not take any prominent part in the public or political life of the district. The interment took place at Thetford on April 4th.

DR. DONALD CAMPBELL died from pneumonia at his residence at Calne, Wilts, on April 14th. Dr. Campbell, who was 70 years of age, was of Scottish birth, and received his medical education at the University of Glasgow, where he graduated M.D. in 1864. After a short sojourn in Gloucester, he settled in Calne in 1867, where he was in practice until his death. He was Medical Officer to the Calne Workhouse, etc., and Medical Officer of Health to the Urban and District Councils. He was a hard-working and painstaking practitioner of original ideas, very quick to see the advantages and disadvantages of any new scheme, and not afraid of stating his opinions. It was due to his initiative in his earlier days that Calne is supplied with a plentiful and very pure supply of water, and also an efficient scheme of sanitation in connexion with a sewage farm; the result has been that typhoid fever, locally known as "Calne fever" owing to its endemic prevalence in the town, was practically banished. It was due to his advice also that Calne was, we believe, the first of the smaller towns to possess an isolation hospital. He was widely known throughout the neighbourhood, and much liked by his patients, by whom his kindly presence will long be missed. He was twice married, first to Miss Waddy, a sister of the late Judge Waddy, and secondly to Mrs. Bishop, the widow of his late partner; by this lady he is survived. He leaves no family. He was a Wesleyan Methodist and had strong views on temperance. He was a member of the British Medical Association.

INSPECTOR-GENERAL SIR JAMES JENKINS, K.C.B., R.N., retired, died at Plymouth on April 5th, aged 93. He was the son of Mr. W. Jenkins, of Kirkconnel, Dumfries, and obtained the M.D.Glas. in 1839, and the diploma of M.R.C.S.Eng. six years later. He entered the service as Assistant Surgeon in December, 1841, became Staff Surgeon in 1863, Deputy Inspector-General of Hospitals in 1872, and Inspector-General in 1878. He served as Surgeon-in-Charge of the Naval Brigade in the Crimea throughout the winter of 1854, and until the capture of Sebastopol, and was present also at the capture of Kinburn, landing subsequently to attend the wounded. He received the Crimean and Turkish medals, and was created a

Knight of the Legion of Honour. He served in the ships *Belleisle* and *Simoon* during the China war, 1857–61, and received the medal and two clasps. From 1861 to 1869 he was Senior Medical Officer to the Plymouth Division, Royal Marine Light Infantry, and then until 1872 he was with the Royal Marine Light Infantry at Eastney. After being promoted to the rank of Deputy Inspector-General of Hospitals and Fleets, he served at the Royal Navy Hospital, Bermuda, from 1872 to 1875, and at the Royal Naval Hospital, Plymouth, from 1875 to 1878. In 1882 he was appointed Honorary Surgeon to Queen Victoria, and in June, 1837, on the occasion of the Jubilee, was created K.C.B., having received the C.B. in 1867.

Public Health AND POOR LAW MEDICAL SERVICES.

POOR LAW MEDICAL SERVICE AND SUPERANNUATION.

S. S., who is a workhouse and district medical officer about to resign both appointments, asks how the amount of his superannuation is to be calculated.

*** This is mainly ruled by Section 3 of the Act of 1895, which is as follows:

> An officer or servant who has served for ten years but less than eleven years shall be entitled to an annual allowance equal to ten-sixtieths of the average amount of his salary or wages and emoluments during the five years ending on the quarter day which immediately precedes the day on which he ceases to hold his office or employment, with an addition of one-sixtieth of such average amount for every additional completed year of service until the completion of a period of service of forty years, when a maximum allowance of forty-sixtieths shall be granted.

It appears that this will enable our correspondent to claim on his salaries and extra fees paid to him by the guardians, except any fees he may have received for certifying lunatics for asylum. The length of service is to be estimated by the number of years he has served in the longer-held appointment of the two.

The Services.

THE ROYAL NAVY MEDICAL SERVICE.

THE course for acting surgeons, Royal Navy, terminated at Haslar on April 16th, when Sir James Porter, K.C.B., etc., Director-General of the Medical Department of the Navy, gave away the prizes and delivered a short address to the newly-entered surgeons, R.N., congratulating them on their diligence and on the good work they had done at Haslar.

The Gold Medal and Admiralty Prize (a surgical dressing case) were gained by Acting Surgeon M. M. Melrose, formerly of Manchester University and Middlesex Hospital, who gained the highest aggregate marks in the London and Haslar examinations.

The Silver Medal and Admiralty Prize were won by Acting Surgeon C. H. Symons, formerly of Charing Cross Hospital, who takes the Second place.

Acting Surgeon G. D. Macintosh was awarded the third Admiralty Prize for being first in the analysis group of subjects taught at Haslar. As this officer entered as a Colonial candidate and elected to sit for qualification only and not for competition at the London examination, he is assigned, in accordance with the regulations, the last place in the seniority list.

The order of seniority as determined by the sum of the marks obtained by each acting surgeon at the London and Haslar examinations is as follows:

	Marks Obtained (Maximum 4,800).
1. Melrose, Malcolm M.	3,661
2. Symons, Cecil H.	3,491
3. Clark, Alfred B., M.B.	3,465
4. Cockrem, Guy B.	3,355
5. Hull, Herbert R. B.	3,313
6. Thatcher, Charles M. R., M.B.	3,312
7. Goodwin, Ernest St. G. S. G., M.B. ...	3,268
8. Fergusson, George D. G.	3,263
9. Barlee, Ronald J.	3,180
10. Macintosh, George D., M.B. (Colonial candidate)	—

DECORATIONS FOR SERVICES AFTER THE ITALIAN EARTHQUAKE.

THE King has granted authority to accept and wear the decorations following conferred upon the following medical officers of the Royal Navy by the King of Italy in recognition of valuable services rendered by them at the time of the earthquake in Southern Italy in 1908:

Commander of the Order of St. Maurice and St. Lazarus.—Deputy Surgeon-General James O'Brien Williams, M.D.

Officer of the Order of St. Maurice and St. Lazarus.—Staff Surgeon P. T. Sutcliffe, M.B., Staff Surgeon Elyston Gloryad Evelyn O'Leary, F.R.C.S.Edin., Staff Surgeon Frederick Mason Mahon, Staff Surgeon John Scarborough Dudding.

Commander of the Order of the Crown of Italy.—Fleet Surgeon Percy Edmund Maitland, Fleet Surgeon Arthur Edward Kelsey, M.B., Fleet Surgeon Edward Henry Hodnet de Courtmacsherry, M.D., Fleet Surgeon William John Colborne.

Officer of the Order of the Crown of Italy.—Staff Surgeon Percival Thomas Nicholls, Staff Surgeon Pierce Leslie Crosbie, F.R.C.S.I., Staff Surgeon Reginald Thompson, Staff Surgeon Robert Kennedy, M.B., Surgeon Hugh Bernard German, Surgeon Frederick George Wilson, M.B., Surgeon Horace Bryden Hill, M.B., Surgeon William Charles Carson.

Medical News.

THE twenty-ninth annual general meeting of the Medical Sickness Annuity and Life Assurance Friendly Society will be held at 11, Chandos Street, Cavendish Square, W., on Thursday, May 9th, at 4.30 p.m.

DR. MILSON RUSSEN RHODES has resigned the honorary secretaryship of the Organization Subcommittee of the National Medical Union. All communications in future should be addressed to the Secretary, National Medical Union, Mr. J. Webster Watts, F.C.A., 5, John Dalton Street, Manchester.

ON Wednesday evening, April 10th, Dr. Langdon Brown, vice-president, in the chair, the third annual award of the Hunterian Society's medal was made to Dr. A. Goulston of Heavitree, Exeter, for his essay on "The Use of Sugar in Heart Disorders." Dr. Goulston, after receiving the medal, read an abstract of his essay.

THE annual meeting of the Society for the Study of Inebriety will be held in the rooms of the Medical Society of London, 11, Chandos Street, Cavendish Square, W., on Tuesday, April 23rd, 1912, at 4 p.m. A discussion on Alcoholism in the Army and Navy will be opened by the Rev. J. H. Bateson, General Secretary of the Royal Army Temperance Association, India, 1889–1909.

DR. A. B. TIMMS, the old Scottish International, who has for some years been Medical Officer to the Cardiff Board of Guardians, was entertained to dinner last week by a large gathering of friends. Dr. Timms, who is leaving to practise in Surrey, was the recipient of some handsome plate and many other tokens of the esteem in which he is held.

THE adjourned discussion on "The Therapeutic Value of Alcohol" before the Hunterian Society will take place on Wednesday, April 24th, 9 p.m., at the London Institution, Finsbury Circus, E.C. All members of the medical profession are invited to attend. The president (Dr. Hingston Fox) will open the adjourned discussion, summing up the arguments of the speakers on the opening night. It is expected that the following will speak: Sir T. Lauder Brunton, Mr. G. Mansell Moullin, Dr. Stoddart, Dr. E. W. Goodall, Dr. W. Langdon Brown, Dr. Carrie. Sir Victor Horsley will reply.

AT the annual meeting of the Norfolk and Norwich Hospital on April 13th, the Chairman stated that the deficit on the year had raised the overdraft at the bank to £7,858, and expressed the opinion that recent legislation had lessened the probability of the greater support necessary for the upkeep of the hospital being obtained. Unless the financial position improved by the middle of the year, the question of closing a ward would have to be considered.

AT the annual meeting of the Metropolitan Hospital Saturday Fund on April 13th it was reported that the sum received during the year amounted to £45,468, of which £34,084 had been distributed, some two-thirds going to general, special, and cottage hospitals, £1,681 to convalescent homes, and £998 to dispensaries. The total receipts for the year were some £3,100 higher than during the previous twelve months. The chairman (Sir Thomas Vezey Strong), among other speakers, expressed some apprehension as to the possible effect of the National Insurance Act on the success of the Fund, and a belief that the voluntary system of hospital administration ought to be preserved to the last, not only because it was good for the patients, but because it ensured efficiency, economy, and sympathetic administration. Finally, a resolution was passed unanimously advising the upholding of the voluntary hospital system, and urging that under the National Insurance Act provision should be made for payment to hospitals for work done on behalf of insured persons.

Letters, Notes, and Answers.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone unless otherwise stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, London, W.C.; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Office, 429, Strand, London, W.C.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London*. The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, London*.

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2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

BULIMIA.

SCOTUS asks for suggestions in treatment of elderly patient, who suffers from bulimia. The urine is free from sugar, and there are no symptoms pointing to tapeworm.

INCOME TAX.

TAX puts the case of a partnership assessed to income tax at £600, subject to allowance for partner A. of £160 abatement, £17 life insurance, and £30 for children, and for partner B. of £150 abatement and £8 life assurance, the net sum charged with tax being £235. A. keeps a motor at a cost of £170, and B. does a little hiring. He inquires whether these items are to be taken into consideration in apportioning the tax. A. has two-thirds share and B. one-third.

*** It rests with the partners to decide on what lines the division is to be made. If it is desired to take into account unequal expenses and allowances, the following basis should be adopted: Supposing B.'s expense for hiring to be £40, the sum to be apportioned before allowing for motor expenses would be £600 + £210, or £810.

A.'s share would then be:

		£
Two-thirds of £810		= 540
less		
Abatement	£160	
Life Assurance	£ 17	
Children	£ 30	
Motor	£170	
		377
		£163

And B.'s share:

		£
One-third of £810		= 270
Abatement	£150	
Life Assurance	£ 8	
Hiring	£ 40	
		198
		£ 72

ANSWERS.

D. E. VOS.—The brothers Rheinberg state explicitly that from the point of view of a method intended for commercial success no claim is made for their micro-spectra process of colour photography by prismatic dispersion. The method necessitates a special and costly camera, and, in view of the ease with which results can be obtained by any screen-plate method, this more elaborate process is not at present, at least, suitable for general use. It is put forward for its scientific importance and possibilities, which are considerable. Mr. Rheinberg's address is 25, The Avenue, Brondesbury Park, N.W.

LETTERS, NOTES, ETC.

MORPHINE POISONING.

DR. J. BARKER SMITH (London, S.E.) writes: Dr. D. M. Macdonald (Leven, Fife) asks me a direct question in the BRITISH MEDICAL JOURNAL of March 23rd, which I will try and answer. In the first place, it is a matter of experiment, and I have, therefore, just obtained a bottle of Condy's fluid. On the label I find the following: "Condy's Fluid consists of active oxidizing sanitary compounds of uniform strength, and contains no permanganate of potash (poison)." On a fly-leaf further: "Fatal Accidents from Permanganate of Potash (Poison), often erroneously substituted for Condy's Fluid." A list of fatalities by potassium permanganate is also given, and we are also informed that "Condy's Fluid is absolutely Non-poisonous." So that, from the proprietor's point of view, there is a serious difference between the two oxidizers. I submitted Condy's fluid to experiment in the same way that I am accustomed to follow when I use a 1 per cent. solution of potassium permanganate. A cubic centimetre of Condy's fluid was put into a flask, 6 c.cm. of dilute sulphuric acid added, and the whole diluted with water to 100 c.cm. Of this solution, 10 c.cm. were used in a small flask, and the oxidizables in solution added to complete decolorization, the flask being gently shaken. Such is my method for all oxidizables - tannin, morphine, quinine, cinchona alkaloids, and all albumens—half-minute experiments.

I found that Condy's fluid would serve to estimate albumens, uric acid, solutions of morphine, etc., in the same way as solution of potassium permanganate, although somewhat stronger than a 1 per cent. solution. Putting 4 c.cm. of Condy's fluid into a small flask and 1 c.cm. of dilute sulphuric acid, I found at least four degrees of temperature before exhaustion, when glucose, morphine, alcohol, etc., were added. So I can answer Dr. Macdonald's question, and say, I do not think that potassium permanganate has chemically any specific advantage over Condy's fluid as an oxidizing agent for morphine. And as I have included albumens quantitatively and otherwise in my experiments, I am of opinion that wherever we find at our disposal Condy's fluid we can use it for the occasion as a co-ordinate of potassium permanganate—that is, application for bites of animals; and that as 1 grain of potassium permanganate breaks up 6 grains of water-free albuminoid or about 40 grains of white of egg or muscular tissue, so Condy's fluid applied should oxidize—that is, profoundly modify—half its volume of muscular or albuminous tissues. Again, for the estimation of glucose, morphine tablets, alcohol, citrates, lactates, etc., described at length in the BRITISH MEDICAL JOURNAL, July 16th, 1910, Condy's fluid should also serve the purpose.

As regards the "laborious work" referred to by Dr. Macdonald, it is even a labour to read it, although I wrote it, but it is, I venture to say, almost necessary for writers of books on antidotes and poisons, and for those who seek other than the present physiological antidotes to some plant poisons, contained in the form of alkaloids as distinct from albuminoidal poisons. For urea non-oxidizable is easily broken up by chlorinated soda, and hyoscine, hyoscyamine, cocaine, atropine, and crystallized aconitine may be equally responsive, as urea, to certain oxidizers, although they resist permanganate. Certainly, much of the work given in the forty (about) serial articles should be incorporated in modern books on poisons. Especially as many of the synthetic products, exalgine, etc., are studied, also the effects of the oxidizer heated, when it is more powerful. The serial articles are in the *Medical Times and Hospital Gazette* from April 21st, 1894, to May, 1896.

Finally, I am not so sceptical of the efficacy of bowel lavage as Dr. Macdonald, but I certainly do not myself understand that potassium permanganate injected hypodermically can act as an antidote. Yet experimental results suggest this method as effective. So far I have not been able to get at the time differences of the oxidizer in these cases. All albumens, uric acid, quinine, morphine, vegetable colours, etc., are all apparently instantly oxidized by permanganate: therefore I do not see otherwise than that albuminous mixtures with morphine are both oxidized immediately, and therefore there is no selective effects, and Dr. Macdonald is quite right in thinking, in spite of my work, I am not prepared to maintain that permanganate is a "physiological" antidote, or may I say specific antidote? We want very much more work on the subject.

With respect to the case described by Dr. Walter Dickson (BRITISH MEDICAL JOURNAL, March 30th), I suppose that "relative toxicity" might at least be viewed as relative absorption, and therefore the irrigation in his case, as well as in that of Dr. Macdonald's, did do good, as well as the stomach application and the administration of oxygen, for I can recollect a case of recovery after nearly an ounce of chlorodyne by oxygen inhalation. Would Dr. Walter Dickson's case have recovered if he had omitted the bowel lavage?

I know that whilst I was studying the subject of antidote to alkaloid poisons that I was very pleased to read of an experiment which showed that at least on the cadaver we could *per rectum* irrigate the whole of the alimentary canal, although I do not know whether this has been done on the living body.

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NOTE.—It is against the rules of the Post Office to receive *poste restante* letters addressed either in initials or numbers.

A Third Lecture
ON
UNICELLULA CANCRI:
THE PARASITE OF CANCER.

BY

THE LATE SIR HENRY BUTLIN, BART., F.R.C.S.

III.—THE WORKING THEORY OF CANCER FOUNDED ON THE TWO PREVIOUS LECTURES.

WHEN I was a young man there were a good many surgeons attached to the hospitals in London who spoke of themselves as "practical surgeons." They not only exhibited no interest in pathology and in the scientific problems connected with their trade of surgeon, but they held such things in scorn and laughed at those who did pursue them. To them surgery consisted in the diagnosis of disease and in the treatment of it, particularly by operation. They prided themselves—often quite justly—on their neatness, skill, and boldness. They sometimes heard it stated that pathology is the foundation of surgery. But the statement had no meaning in their ears, and they seldom gave themselves the trouble to discuss it or even to consider it.

Practical surgeons may still exist, but they are not now in evidence as they used to be. They no longer make a boast of their ignorance of pathology and the scientific side of surgery, and now it is rather the fashion to admit that pathology is the foundation of medicine and surgery. It is a good sound principle; rather an abstract proposition than a practical suggestion. It is only the weak and unpractical men who allow themselves to be influenced in their diagnosis and treatment of a disease or accident by the views of its pathology which happen to prevail at the moment.

As a matter of fact, I am sure that physicians and surgeons, scientific or practical, are always to some extent influenced in their diagnosis and treatment of accident and disease by the idea which they have in their minds of the nature—in other words, the pathology—of the disease. But few persons are conscious of the extent to which they may be, and often are, influenced by the pathology of the day in relation to a particular disease. To illustrate this statement, I shall take the single example of cancer and of the influence of the pathology of the day on the treatment of cancer as I have actually myself known it.

THE HUMORAL AND THE LOCAL THEORIES OF CANCER.

In the course of the last sixty years two great theories of cancer have held the field: the *humoral* theory and the *local* theory. (I am not, of course, speaking of minor theories, of the parasitic origin of cancer, etc., which have sprung up later; but solely of the two great theories of cancer which were discussed by pathologists and scientific surgeons in all countries.) Was cancer in its early stages a local disease, which became constitutional as it advanced? Or was it from the beginning due to an unsound state of the blood?

I do not know how long the humoral theory had received the support of the scientific surgical world, nor do I know who was responsible for it in the first instance. It was maintained by Mr. Paget, in his lectures on Tumour at the Royal College of Surgeons, just over sixty years ago. My copy of his Lectures (1853) is, I believe, the first edition. Two or three extracts from it will suffice to state his views.

> For the present I will say only that I think malignant tumours are local manifestations of some specific morbid states of the blood: . . .[1] The general history of cancers and their analogy with other diseases that are, in the same senses, specific and constitutional, imply that, before the formation of a cancerous growth, two things at least must co-exist—namely, a certain morbid material in the blood, and some part appropriate to be the seat of a growth incorporating that material, some place in which the morbid material may assume, or enter into, organic structure.[2]

This was the pathology of cancer which was taught at St. Bartholomew's Hospital when I became a student in the middle Sixties. Such were the reputation and eloquence of our great master that, if his views had differed from those of all other pathologists, he would have carried with him a large body of disciples. But they were the generally accepted views, and he happened to be one of the greatest exponents of them.

Now, see the pernicious influence of them on the treatment of cancer. I again quote from the lectures. Mr. Paget did not deal with the general question of operations for cancer, but he discussed the question of operation against cancer of the breast. For the study of the results of operations, he took two series of cases of scirrhus cancer. The first was a series of 66 cases in which no operation was performed. Of this series, he says: "The average duration of life, from the patient's first observation of the disease, is a little more than four years."[3] The second was a series of "47 cases, in which the cancer was once or more removed by operation, the average duration of life, after the first observation of the disease, was again something more than forty-nine months."[4] And, to leave no doubt regarding his opinion of the value of operation, he says, a few pages further on:

> In deciding for or against the removal of a cancerous breast, in any single case, we may, I think, dismiss all hope that the operation will be a final remedy for the disease. I will not say that such a thing is impossible; but it is so highly improbable, that a hope of its occurring in any single case cannot be reasonably entertained.[5]

Under this pessimistic pathology the most that was ever expected from an operation was that the patient might die a little less miserably. The disease was often advanced before it was removed; the operation was quite inadequate; the objects of the surgeon were to obtain an immediate good result of his operation and to prevent recurrence *in situ*. But his operation was seldom wide enough to secure the second object. There was no hope, either for the present or the future. To the very end of their surgical lives, many surgeons of the surgical generation before my own, such men as Sir Thomas Smith, were under the influence of these views, and I have heard the expression many times: "Once cancer, always cancer."

I do not remember when or where or how the theory of the *local* origin of cancer came before the pathologists and surgeons, or whether it was a British or a Continental inspiration. It was a very happy inspiration, and humanity has occasion to be very thankful for it. I have no recollection of discussing it and suddenly being struck with the belief that it was true. Probably, conversion came slowly, from the more careful study of individual cases of cancer and from the slow discovery that operations were more successful than they had been believed to be. I can well remember occasionally drawing the attention of members of the permanent staff (when I was Surgical Registrar to the Hospital, and working at the Pathological Society) to such successful cases. The reply was always: "Well, you may be sure it was not a case of cancer"! And, if the microscopical examination was adduced in proof of cancer, incredulity was expressed, which was by no means flattering to a young pathologist. The principle on which the results of operations for reputed cancer were regarded by the humoral pathologists was simple and ready of application; if removal of a cancer were followed by recurrence and death, there was no doubt of the correctness of the diagnosis; if there was no recurrence, and the patient lived and remained sound, it was because the disease was not cancer, whatever the microscopist might say.

I suppose the steady accumulation of observations, supported by more experienced microscopists, and the more careful recording of cases of cancer were the chief circumstances which shook the humoral theory of cancer. There were, too, certain weak points in the armour of its advocates. Thus, Mr. Paget had been obliged to admit in his lectures on Epithelial Cancer, "that in some cases permanent recovery and in some a long period of health follows their removal."[†]

Gradually belief in the curability of cancer was established. Hope was infused into the minds of surgeons and their patients. Operations for cancer were better planned; they were far better performed than they

[1] About forty-nine months.

[†] Loc. cit., p. 474. It is very important that a few pages further on—p. 478—he collects "from the facts of this lecture the grounds which seem to justify the inclusion of this disease under the name of 'cancer.'"

had been; they were performed at a much earlier period of the disease; and, thanks to the discovery of antiseptic surgery, they were performed with much less distress and danger to the patient: until, in these later years, operations for cancer have been extended far beyond the limits they were formerly intended to observe, and, I am afraid, sometimes beyond the limits which prudence and a better knowledge of pathology would justify.

It must not be imagined that all this was accomplished without a great deal of opposition, or that it was carried through in the course of a few years. Even when it was evident that the humoral theory, even in the strict sense of the humoral pathologists sixty years ago, could no longer be maintained it was by no means abandoned. The old humoral pathologists and those who would not admit the local origin of cancer, spoke of the constitutional origin of cancer; and discussions took place and battle was waged, with varying success, by the adherents of the two theories, and would probably still be waging had not the question been definitely settled by experimental investigation by our own and other cancer research associations in the course of the last ten years.

Since then the local origin of cancer holds the field. The object of the surgeon is to remove it early, while it still remains a local disease. He may remove the tumour alone, with a more or less wide area of the tissues outside, into which the cancer cells may have escaped: and he may extend his operation to the associated lymphatic glands, whether they are obviously cancerous or not, provided experience has taught him that they are liable to become cancerous. His working theory is plain and simple: it is to remove the whole of the existing disease—in fact, to get all the cancer cells out of the body of his patient. If he can do this, the patient will be cured.

In spite of errors of judgement, of ignorance of the special pathology of cancer of different parts of the body, of faulty application of operations, and of all the pitfalls which attend the steps of even the most prudent and accomplished surgeons in the exploration of new fields of operative surgery, the advantages which have been gained for cancerous persons by the institution of a good working theory of cancer for a bad one are greater than the mind of man could have conceived. So far as the surgery of cancer is concerned, I was reared by pessimists, and lived in their society and held their views, and was myself for some time a fatalist on the subject of cancer. For some years past I have been living in the society of optimists, to the formation of which I did contribute, though but a small part. Their enthusiasm seems to know no bounds: and the optimism of some of them is so great that I verily believe they regard every variety of cancer as curable by operation, provided the operation be sufficient and the disease is in an early stage. However, it is a much better atmosphere than the other, good both for the surgeon and the patient, and I do not complain of it.

Working Theory.

My theory is neither *Local* nor *Humoral*: it is probably first *Local* and secondly *Constitutional*.

1. It is *Local* in so far that our belief is now well founded that spontaneous cancer is, at its commencement, a local condition. If we turn our backs upon the question of its origin, and regard it just as we find it in the body, it is to all intents in exactly the same relation to the host as most micro-organisms which have entered the body from without, and which are fitted to live in it. Cut it freely out, just as a primary syphilitic sore is sometimes cut off the prepuce, or a little tuberculous sore is cut out of the tongue or tip of a finger, and, if the micro-organism which each of the three primary lesions contains is limited to the lesion, the attack will be cured by the operation. The host may suffer from subsequent attacks of the same nature, but that particular attack is cured. The operation is frequently successful in tubercle, frequently in cancer, less frequently probably in syphilis.

2. *Constitutional.*—But if the micro-organism has already begun to travel (migrate), the disease can no longer be considered to be *Local*. In each case the micro-organism has broken bounds, and may reach some part of the body in which it can live and multiply. It may reach some place where it may still be cut out with success. This is particularly the case with the glandular affections of tubercle and cancer; so little the case with syphilis that it is rarely tried.

In most cases of all three diseases the surgeon abandons the attempt to cure by removal, and the only hope lies in the resistance of the patient, assisted by medicine and other remedies. For syphilis the results are, in percentage, exceedingly good: many patients are cured and the spirochaete dies or is destroyed. For tubercle they are not bad. Fresh air, fit food, cleanliness, tonics, cod-liver oil, and tuberculin cure many patients. The tubercle bacillus dies or is destroyed. For cancer the case is very different. We have no specific medicine for cancer, no general measures (such as we use in tubercle) in which we place the least confidence. The cancer cell is not habitually influenced (or likely to be killed) by drugs, or inoculations, or diet, or air, or by any known treatment. When once, therefore, the cancer cell has broken bounds, the fate of the patient might be regarded as sealed and all hope lost.

Practically, this view prevailed until recently, but it is largely modified by our better knowledge of cancer, particularly that which depends on experimental investigation.

Why Cancer Cells which have Broken Bounds do not always Kill.

But cancer cells which have broken bounds do not always kill. Some, such as those of rodent ulcer and recurring fibrous sarcomata, are quite incapable of living and multiplying in other organs and tissues than those in which or in the vicinity of which the disease first appeared. Others may be so feeble that they are not able to live and multiply, even in those tissues and organs which are generally suitable to the needs of this particular variety of cancer cell. Or the resistance of the host may be so strong that the migrating cancer cells are not able to overcome it.

These are not mere matters of conjecture. Experimental investigation* has established them beyond dispute. We have learnt that cancer cells of the same variety are not all possessed of equal vigour, and that the resistance of different hosts varies within very wide limits.

Further, clinical observation has taught us that an attack of cancer may be severe or mild, like the attacks of so many other diseases. I do not mean than one variety of cancer is more fatal than another—spindle-celled sarcoma, for instance, than rodent ulcer; or that the same variety of cancer is much more fatal in one part of the body than another—squamous carcinoma of the tongue, for example, than squamous carcinoma of the lower lip or scrotum; but that two cases of the same variety of cancer in the same part of the body may vary enormously in their severity. Take, for example, two cases of spheroidal carcinoma of the breast in women of the same age. In the one case the tumour will grow four times as fast as in the other case, the glands will be early affected, and the case will run its course in a year or eighteen months. In the other case the tumour grows so slowly that it is still quite small at the end of four years, the glands are not affected, there is no distant metastasis, and the patient is not aware that she is suffering from a serious disease.

These differences have been well known for many years, and have been attributed to various causes. Now we should certainly ascribe them to difference in vigour of the cancer cell in the two cases, and to difference in the resisting power of the tissues of the two hosts. How much is to be ascribed to each of these two great factors we are not in a position to state.

There is reason to believe that in some of the cases the vigour of the cancer cell and the resisting power of the tissues of the host may undergo considerable change. A severe case may become much less severe, and a mild case may become active and even severe. In the first set of cases we assume that the vigour of the cancer cells has diminished, and that the "strain" is changed in quality, or that something has occurred to strengthen the resisting power of the tissues of the host. In the other set of cases we assume that a more vigorous "strain" of cells has taken the place of those which formerly grew out of the tumour or that the resisting power of the tissues of the host has been lowered.

The lowering of the resisting power of the tissues of the host sometimes appears to result from what may be termed an accident. Most surgeons have listened to the

* Imperial Cancer Research.

story of the patient of how the glandular enlargement he is examining came suddenly after very free use or straining of the arm. The breast had been removed a long time ago but the glands had been left. I suppose that most of us are disposed to treat this story with small belief, feeling that it is due rather to the wish of the patient that it were true than to conviction that it is true. But I suspect it is far more frequently true than we are disposed to believe, and I will give two cases in point:

Some years ago a gentleman consulted me on a hard glandular mass in the upper carotid (parotid) region. Three or four days previously, at an evening entertainment, he had sat in a seat where, for two or three hours, a cold draught of air had played upon the side of his neck. The following day his neck was stiff and swollen. And so it remained, for it was due to a cancerous affection of the glands secondary to an epithelioma of the tongue, which had been removed by Sir Jonathan Hutchinson a few months previously.

In December, 1895, I removed the left border of the tongue for a small epithelioma which had developed on a patch of leucoplakia. The glands of the neck were not removed, for I had not yet begun to remove them as a routine operation. The patient remained quite well until the beginning of 1898, when he contracted mumps from his sons. The attack of parotitis on the right side subsided within the usual time, but the attack on the left side did not subside, but a hard fixed mass remained in the neck. It was not a proper case for operation, because the tumour was so fixed, and he died of it in the course of a few months after I last saw him.

Ten years ago these cases would have been explained by suggesting that the "chill" and the mumps had drawn a quantity of blood into the neighbourhood of the lymphatic glands, and that the glands had in consequence been able to furnish better sustenance to the cancer cells. The terms in which we speak of these occurrences are of small importance. There was no recurrence in the tongue in either case. It must therefore be assumed that the cancer cells had already migrated to the glands before the operation on the tongue, and that they had remained lethargic there until the conditions had been disturbed by what may be spoken of as an accident.

There has been, as long as I can remember, an impression among surgeons that cancer, when it attacks young people, is likely to run a rapid course—much more rapid than that of the same variety of cancer of the same part of the body in an aged person. I do not attack the impression, for I really do not know whether it is correct. But the obverse must not be relied on—that cancer runs a a very slow course in aged people. I have many times seen persons 70 and 80 years of age suffering cruelly from cancer which might have been removed two or three years previously; but the operation had not been performed, because the opinion had been expressed that the disease would run a slow course in so old a patient and would never be likely to cause serious pain or trouble.

In cases, then, in which the cancer cells have broken bounds and are wandering or migrating, the hope of the patient lies in these factors: (1) In the inability of the cancer cells to exist and flourish at a distance from the tumour; (2) in the possibility that the cancer cells in the individual case may be wanting in vigour; and (3) in the possibility that the resisting power of the host may be high.

The first of these factors requires no treatment: the second is quite beyond our control at present: and the third has been for some years constantly before us—so much so that the attempts to discover a specific against cancer have given way, in the minds of most scientific physicians and surgeons, to an attempt to discover some means of increasing the resisting power of the host. This is the object of experimental investigation in laboratories: and means have been discovered of raising the resisting power of the tissues of animals, but not against the spontaneous occurrence of cancer. These means have not been successfully applied, hitherto, in human beings. Those which have been tried are, for the most part, empirical. But some of them rest on observation and some on theory. Coley's treatment is an example of a method resting on observation; Beatson's (removal of the ovaries) of a method resting on theory. As to the empirical methods, they are legion. Special diets: the avoidance or taking of particular articles of food: drugs: animal extracts; external applications: preparations made from cancerous patients and cancerous tumours—these are representative of the means employed to "kill the cancer," or to raise the resistance of the host.

The Migration of the Cancer Cell.

The application, then, of this theory as a working theory of cancer reduces itself to a consideration of the migration of the cancer cell on the one hand and the resistance of the host on the other. As regards the migration of the cancer cell, we have to ask ourselves whether the cells of every variety of cancer migrate; whether the cells of every case of the same variety of cancer migrate at the same time and to the same extent; and when do cancer cells migrate?

1. *Do the Cells of Every Variety of Cancer Migrate?*

I do not know of any data to settle this question. The proof of migration is the presence of metastasis. It may be maintained that the cells of those tumours (like rodent ulcer) which do not produce metastasis do not migrate. I am disposed to think that they do migrate, but that they cannot find subsistence in the organs and tissues which they reach.

2. *Do the Cells of Every Case of the Same Variety of Cancer Migrate at the Same Time and to the Same Extent?*

Here, again, we are obliged to depend rather on conjecture than on ascertained facts. But such evidence as there is strongly suggests that there is very considerable difference both in respect to time and to extent. Quite apart from the variations observed in the occurrence of metastases in a series of tumours of the same variety in the same part of the body—for instance, a series of tumours of the breast, where the variations might be attributed to differences in the resisting power of the tissues of the respective hosts—the variation in the rate of growth of the primary lesions (the tumours) and the great difference which microscopists find in sections of a series of primary lesions (tumours) point very strongly to this conclusion.

In some cases the tumour is very well defined both to the naked eye and to the microscope. The cancer cells are not numerous for that variety of tumour as compared with other tumours of the same variety. They are not observed in the tissues outside the apparent limit of the tumour, and the general aspect is a lack of activity. The reports of microscopists on such tumours are that they are "slow-growing." In forming this opinion they also take into account the arrangement of the cells and are disposed to consider those tumours less malignant in which the cells are arranged in a very orderly manner, so as to represent more or less normal tissues. They may be correct in the opinions which they express, but I often think they far exceed the limit of the scope of the microscopist. Many of them know little or nothing of the clinical pathology of cancer. And they do not understand that the prognosis of an individual case of cancer depends on all the conditions of the case, and should not be hazarded on one particular condition by persons who are not in possession of all the other conditions.

In other cases, even when the tumour is well defined to the naked eye, the cancer cells are very abundant, grossly formed, irregular in size and shape, and are very coarsely arranged. In such cases single cancer cells and groups of cells are observed in the tissues outside the apparent limit of the tumour. The reports of microscopists on these tumours are to the effect that they appear to be particularly malignant. I believe this opinion to be generally correct.

I will give one case in support of it, which I have already published elsewhere:[6]

I removed a portion of the right half of the tongue to an inch behind a flat plaque of epithelioma right on the border. Finding it a little thicker than had been expected, I cut out a lump of muscle in the floor of the mouth beneath the seat of the ulcer, but did not pretend to remove any muscles, or groups of muscles, to their insertions. The contents of the anterior triangle were removed two or three weeks later. The parts were examined by the Imperial Cancer Research. Dr. Murray reported that no cancer was found in the glands, but that the primary lesion exhibited a very high degree of malignancy. Columns of cancer cells infiltrated the muscles far beyond the apparent limit of the disease. I examined the sections myself, and fully agreed with Dr. Murray's report. I was, therefore, very unhappy about the future of the patient, and wrote to Dr. Joseph Bryan and to Dr. Collins Warren, of the United States, begging them to keep the patient under observation, as

I thought there would probably be recurrence in the muscles of the tongue. But there was not any.

Six months after the operation a lump was unexpectedly found on the *left* side of the neck. An attempt was made by an expert surgeon to remove the contents of the left anterior triangle, but extensive and fixed disease was discovered, and the patient succumbed to the attempt. The sequel of the case proved the correctness of Dr. Murray's report. There was early and extensive reappearance of the disease, but not where we expected to find it.

I can only assume that the glands provided better maintenance for the squamous cells than did the muscles of the tongue. I cannot believe that I did not leave some of these vigorous cells in the muscles of the tongue which were not removed. And cancer cells must, before the operation, have been conveyed to the glands on the left side of the neck. The glands apparently suited them better than the muscles.

3. *When do Cancer Cells begin to Migrate?*

This question is the most important of the three. But, in endeavouring to answer it, we have to rely largely on conjecture and circumstantial evidence. Theoretically, there is no reason why the cells of any and every case of cancer should not begin to migrate from the first moment of their existence as independent creatures. But reasons have been given in the preceding paragraphs for believing that the cells of many cancers do not migrate so early. On the other hand, thousands of cases can easily be furnished to show that they migrate within a few months of the discovery of the tumour, cases in which the successful removal of the tumour has been followed by metastasis, either immediately or after a period which may be very considerable. And there are other cases which suggest that migration of the cells of some primary tumours commences at a very early period.

I will give two cases in point:

An old gentleman had a very tiny ulcer of the front part of the floor of the mouth and a number of large fixed glands under the floor of the mouth and in the neck. I cut out a fragment of the ulcer, had sections made of it, and found that it presented the characters of squamous carcinoma. The patient was very unobservant, but believed the little ulcer and the glands had appeared about the same time. The ulcer was so trivial that Dr. Mackenzie Davidson cured it with a single application of radium (the only case of buccal epithelioma which I have myself known to be cured by radium). We sent him to Paris to see whether radium could be successfully applied to his glands, but he died there in the course of a very short time.

The details of this case leave much to be desired. The second case is much more to the point:

In the spring of 1901 I removed by a trivial operation one of the smallest squamous carcinomas of the tongue that I have ever seen. It was just under the left border of the tongue in the middle of an old area of leucoma and glossitis, due to past syphilis (Fig. 1). In October, 1904, three and a half years after the operation on the tongue, the patient consulted me on account of a large, hard, glandular mass in the parotid (upper carotid) region on the same side. It had only been noticed three months. I removed it and found it to be squamous carcinoma (Fig. 2).



Fig. 1.—Squamous carcinoma of tongue.

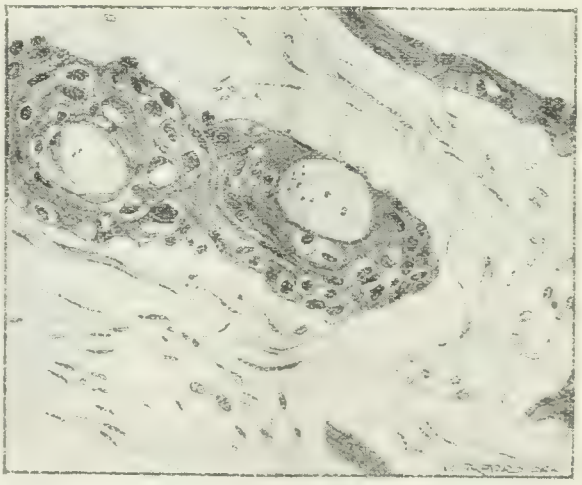


Fig. 2.—Glands removed more than three years after successful removal of the tiny tumour of the tongue.

There was no disease in his throat, or cheek, or mouth, or tongue, for I had cut out the whole of the little area of leucoma and glossitis. And the whole operation had been so small that the doctor who first saw the tumour in the neck and examined the mouth, and particularly the tongue, for a possible primary lesion, did not perceive that an operation had been performed on the left border of the tongue.

The Resisting Power of the Host.

It is quite evident that the resistance of the host plays a much more important part in relation to the prognosis and treatment of cancer than it has hitherto been supposed to do. Most of our knowledge regarding resistance is due to experimental investigation, and is quite newly acquired.† Amongst other things, we have learnt that resistance lies more in the individual tissues than in the blood or fluids of the host. So far as animals are concerned, we have learnt that resistance is much greater in some animals than in other animals of the same species; that it is not always the same in strength; that it may be increased or diminished by certain definite measures; together with many other matters on which I need not dwell now.

Hitherto we have been in the habit of believing that the success of our operations has been consequent on the complete removal of the tumour, including every outlying cell and group of cells, and in the wide removal of glands which contain metastasis or in which metastasis may be expected. To this we have rightly added the removal of the tissues between the tumour and the glands for the cancers of certain parts of the body, such as the breast. In those cases in which the glands which are liable to metastasis have not been removed, and the result has, nevertheless, been successful, we have attributed success to the fortunate circumstance that the tumour was removed before the cancer cells had reached the glands. No doubt these assumptions are often correct. But I think there is equally no doubt that migration has already commenced in other cases which are successful, and that success has been dependent on the resisting power of the tissues of the host. I do

A section of it is figured in the Second Scientific Report of the Imperial Cancer Research Fund, 1905, page 45, Fig. 35—not because it was cut in their laboratory, but because, owing to its minute size, some microscopists at that time would not have accepted it as an undoubted squamous carcinoma, and on account of the subsequent history of the case.

† We are largely indebted to the Imperial Cancer Research for our information, and I would refer those who desire to make themselves acquainted with what has been done in relation to this matter to the Scientific Reports of the Fund.

not know how otherwise to account for some of the conditions which are not of uncommon occurrence.

Take, as an example, the history of the case of spheroidal-cell carcinoma represented in Figs. 12 and 13.[1] The operation included the entire breast, the contents of the axilla, the tissues between the breast and the axilla, and a part, but not the whole, of the greater pectoral muscle. Five years later I removed a single recurrence, as large as a broad bean, from the muscular tissue below the scar, and perhaps 1½ in. from it. It was undoubtedly due to cancer cells which had not been removed at the operation. For the structure of the tumour and of the recurrent growth is identical. The cells seemed to have remained inactive for more than four years, and then to have grown and multiplied to form a small mass. The resistance of the host held them lethargic for several years. I cannot believe that this was the only group of cancer cells left at the operation. It is far more probable that it was one of several or many groups, which had escaped removal; but that it was the only one of them which succeeded later in overcoming the resistance of the host. I know this patient was quite well five years after the second operation. From indirect information I have received I believe she is still quite well. I judge that her resisting power is still maintained. It may possibly have enabled her to destroy other groups of cells which might otherwise have developed into tumour masses.

Again, take the case of cancer of the tongue which has been described, in which recurrence was expected in the muscle, but actually occurred in the glands of the opposite side of the neck. I do not believe that I removed every piece of muscle which contained cancer cells. Yet no mass grew from those that were left, and this I attribute to the resisting power of the muscles which lay at some distance from the primary disease.

THE VALUE OF PROPERLY DESIGNED AND EXECUTED OPERATIONS.

It may be inferred from what has been said that I have much greater faith in the resistance of the host than I have in extensive operations, and that I attribute a great part of our success rather to good fortune than to skill. I hasten to correct this impression. If there be one thing which is more clearly proved than another in relation to malignant disease in the course of the last thirty years, it is the wonderful improvement in the results of operations for cancer. Wide and early operations, adapted to the pathology of the particular variety of malignant disease in each particular part of the body, have been attended with very great success. Nor is this to be wondered at. For the tumour is the manufactory and the storehouse of cancerous cells. And even in those cases in which the cells have begun to migrate, it is most desirable to get rid of the chief source of cancer cells. The resistance of the host has a much better chance of contending successfully with scattered cells, perhaps not yet firmly established where they lie, after the removal of the tumour. Indeed, I have thought for a long time past that if a "specific" against cancer were discovered it might even then be very desirable to remove the primary lesion—the tumour.

It will be noted that, in connexion with "wide and early operations," it is suggested that the operations must be "adapted to the pathology of the particular variety of malignant disease in each particular part of the body." For thirty years I have urged this. But it is not yet by any means generally accepted or acted on. Because a particular scheme of operation is successful for a particular variety of cancer of one part of the body, a scheme as nearly like it as possible is recommended for a different variety of cancer in another part of the body. This method of reasoning by analogy has led to very serious errors in the scheme of operations. The operative treatment of cancer of the breast has been taken by a large number of surgeons as indicating the ideal which should be aimed at in operations for malignant disease of all parts of the body. It includes two very important features—the removal of the entire breast, and the removal in a continuous mass of all the tissues between the breast and the axillary glands. The success which has attended operations for cancer of the breast has led many persons to believe that precisely the same principles should be applied in every operation for cancer in which it is possible to apply them. Not many years ago there were distinguished surgeons who insisted that the entire tongue should be excised in every case of cancer of the tongue. For quite a number of years there were surgeons and laryngologists in the United States and on the Continent who removed the entire larynx in every case of cancer of the larynx, whether intrinsic or extrinsic, whether large or small.

I think the "entire organ" craze has by this time died out, except for such organs as the breast, ovary, testis, etc. But the removal of the tumour, the associated glands, and the intervening tissues in one continuous mass still possesses great attraction for certain surgeons. It is recommended as a routine operation in cases of cancer of the tongue, in spite of the fact that it seriously adds to the danger of the operation and impairs the powers of speech and mastication. It is quite unjustified by careful observation and comparison of the results of operations. I think I have recently seen it recommended for cancer of the lower lip, for I have seen some ghastly pictures of quite up-to-date operations on the lower lip. But I suppose they refer to very extensive primary disease of the lip. I cannot conceive that any surgeon in his senses would make a routine practice of such horrible operations.

Some of these operations are recommended on the microscopical findings of some of the cases in which continuous sections have been cut from the tumour to the glands. Cancer cells have been found in the intervening tissues, and the conclusion has therefore been drawn that the intervening tissues ought to be removed in every case, in spite of the much greater danger to life from the operation and the much greater permanent crippling of the patient. Fortunately, this routine, which has been particularly urged in the treatment of cancer of the tongue, has not been adopted by the majority of surgeons.

The tumour of the tongue and the associated glands have been separately removed, and the results have been such as to justify separate removal as against continuous removal. These cases and other similar cases in other parts of the body clearly show that every cancer cell or groups of cells which the microscope discovers do not develop into tumours, even when they seem to have made good their footing in the tissues at some distance from the tumour. I have been so impressed with the danger of trusting implicitly to microscopic findings and planning operations on them, that I have ventured to lay down the axiom—

"*That if an operation does not fulfil the requirements of pathology and is, nevertheless, exceedingly successful, the pathology which relates to it must be revised: either the observations are incorrect, or the deductions which are drawn from them are not justified.*"[9]

REFERENCES

[1] *Lectures on Surgical Pathology*, by James Paget, F.R.S., vol. ii. London, 1853, p. 18. [2] Loc. cit., p. 529. [3] Loc. cit., p. 344. [4] Loc. cit., p. 346. [5] Loc. cit., p. 351. [6] *A System of Operative Surgery*, edited by Burghard, Oxford, 1909; vol. ii. p. 241. [7] Lecture II. BRITISH MEDICAL JOURNAL, vol. ii. 1911, p. 1459. [8] Burghard's *Operative Surgery*, Oxford, 1909; vol. ii. p. 247. [9] Ibid., p. 241.

THE eighty-fourth meeting of the German Association of Scientists and Medical Practitioners will be held this year at Münster in September (15th to 21st). Among the addresses delivered at general meetings will be the following: Professor Czerny (Heidelberg), on the treatment of tumours without operation; and Professor Küttner (Breslau), on modern military surgery.

THE Anglo-American Medical Association, which was founded in Berlin some eight or nine years ago and reconstituted in 1910, has recently acquired well-situated quarters of its own at the Hotel Atlas, 105, Friedrichstrasse. They are open daily from 12 to 2 for luncheon: the assistant secretary is in attendance from 1.30 to 4.30 to give information; and from 9 p.m. to 12 p.m. the rooms are open for social purposes, writing, and perusal of the journals with which the association keeps itself supplied. In addition, there is a formal meeting each Saturday at 8 p.m., when dinner is taken and a paper read and discussed. One of the special objects of the association is to make the visits of British and American medical men to Berlin pleasant and informing by putting them promptly in touch with what is going on in medical and surgical circles, and by enabling them to meet on a social footing their colleagues in Berlin. The association is, therefore, likely to be found very useful to those who wish to study in Berlin. It also publishes a year-book, the current issue of which contains, in addition to other notes, information as to courses on various subjects more or less constantly in progress, and also as to vacation and other special courses. The honorary secretary and treasurer of the association is Mr. H. R. Carstens.

The Arris and Gale Lectures

ON

THE MECHANISM AND TREATMENT OF SHOCK.

DELIVERED AT THE ROYAL COLLEGE OF SURGEONS, MARCH 20TH, 1912.

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LECTURE I.—PART I.

INTRODUCTION.

MR. PRESIDENT, Fellows and Members of the College,—It is our pleasant duty cordially to thank you for the honour you have conferred upon us in electing us to deliver the Arris and Gale Lectures this year. We have chosen a subject which we believe to be of interest, not only to the operating surgeon, but also to the pathologist, physiologist, physician, and anaesthetist. We cannot lay claim adequately to represent all these branches of professional knowledge, but we have at least a sympathetic interest in them; and this research embodies a humble effort to apply physiological principles to the practical problems of medicine and surgery. Before proceeding to the lecture itself, we wish to express our deepest gratitude to our colleagues for the kindness they have shown in allowing us to take observations on their cases, often at considerable inconvenience to themselves. In particular we would acknowledge the kindness of Dr. Garrod, Dr. Batten, Mr. Waugh, Mr. Fairbank, and Mr. Pardoe. We also wish to acknowledge the assistance in taking records of Drs. Jeffries and Reynolds. Finally, we cannot adequately express our gratitude to Professors Leith and Carlier, of the University of Birmingham, for placing their laboratories and apparatus at our disposal for experimental purposes.

The problem of shock is one of the oldest in medicine, and is still certainly the most formidable obstacle to modern surgical endeavour. It is almost as old as the "everlasting hills": certainly co-existent with the existence of man. We do not pretend to have completely solved it; rather shall we be well repaid if it is held that we have advanced in any degree the knowledge of its mechanism and rational treatment along lines which will eventually lead us to a clear understanding of its pathology and to a control of its terrors. It is, unfortunately, only too well known that in scientific research, in common with other researches, direct proof to establish the truth of any central doctrine is not always possible. If, however, we approach the subject from many different standpoints and all these lines of approach converge to meet at one point, then it is a logical assumption that that point or central doctrine is true, and the theory is as surely proved as if direct proof were possible. It is on these lines that we have studied the mechanism of shock—by an attempted combination of clinical observations, experimental and pathological research. By these we do not claim to have thoroughly exhausted or completely proved any one aspect of the problem, but rather to have attempted a comprehensive view of the subject from almost every standpoint.

We have tried to reproduce in animals some of the conditions observed by us in man, and to perform on the former identical operations, comparing the results obtained in each. Experimental work has, therefore, been approached more from the standpoint of the practical surgeon than from that of the purist in physiology. We therefore ask the indulgence of physiologists if some of our experimental methods do not appeal to them.

We entered on this research on account of the extraordinary control of shock observed in children with the use of spinal anaesthesia: for the principle of nerve-blocking as applied in practice appeared to increase very widely surgical possibilities in those of tender years. At the commencement of our investigations we had few fixed ideas on the subject of shock, and did not possess any great knowledge of the literature. Of set purpose we refrained from consulting the views of other authors: and the fact that our observations and conclusions are made *entirely independently*, and yet so largely harmonize with some of the views of authorities on this subject, should contribute largely to their value. Again, we wish to point out that the deductions from our observations were not arrived at until from many months to one or two years had elapsed after the taking of the records. Hence the liability to error is equal for all the observations we have made; and these observations were made entirely without bias.

Since working out our own results we have studied the literature to the fullest extent we were capable of. If, therefore, in these lectures we do not often quote other authorities, or if we seem to ignore their work, it is not due to any lack of appreciation, but rather to the fact that a summary of the literature is not possible in the time at our disposal. We are fully aware of the justness of any criticism that our work has not extended over a sufficient time to warrant our conclusions. But we would state that it has occupied four years of constant labour, and we prefer at this point to give our conclusions to the profession in order that we may profit by honest criticism, and that those who are better qualified for such a task and have more time to devote to it than ourselves may take up and justify our conclusions.

METHODS OF INVESTIGATION.

Blood pressure estimations were taken at frequent intervals in a great number of surgical operations under all possible conditions of anaesthesia and anaesthetists. The difficulty of obtaining continuous blood pressure records in man, and therefore the difficulty of comparison of records in man with those obtained in animals, led us to devise a modification of Gibson's excellent instrument. A description of this instrument will appear in the forthcoming number of the *Quarterly Journal of Medicine*. By it we are enabled to record graphically the blood pressure every ten or twenty seconds for a period extending over more than two hours. Simultaneous respiratory and pulse or time tracings can be taken. The results have been plotted out on charts together with remarks as to the particular tissues being manipulated. By means of this instrument we have been enabled to compare the pressure changes in man with those in animals during the same operative manipulations, and we have learnt how valueless isolated readings of the blood pressure are in a study of surgical shock. We have examined histologically specimens in serial sections from animals we have operated on, and from the human subject, in order to ascertain what cell changes, if any, are to be noted. We are also much indebted to Dr. Rosenheim, of King's College, for his courtesy in making chemical examinations of the central nervous system in cases of clinical shock. Finally, the condition of the suprarenals in shock has been investigated, at our suggestion, by Mr. Priestley, of the University of Birmingham, in order to determine if there is any constant change in those organs in connexion with shock and conditions of low blood pressure.

RELATION OF THE BLOOD PRESSURE TO SURGICAL SHOCK.

The importance of the alterations in blood pressure to surgery are well known to all, and the many therapeutic measures for counterbalancing such effects are also well known: so that by these it is possible, to a large extent, to mitigate the injury likely to be inflicted. A study of the blood pressure under various surgical procedures has therefore in itself an important significance in the welfare of the patient, a significance to which we hope to be able to apportion its true value. But we hold that the changes in blood pressure are of vastly greater importance as a *symptom* or *sign* of infinitely graver disturbances to the physiology of the subject: that treatment to be of permanent value must be directed against the cause, however desirable it may be to relieve the symptom: and that a study of the mechanism of cardio-vascular changes resulting from surgical operations

should naturally follow the observation of such variations. Factors which normally influence the variations of blood pressure need not detain us at the present time.

Now "the whole of an animal's life may be looked upon as a series of reflex actions" (Starling), the physiological equilibrium being maintained by a succession of afferent impulses, each of which calls forth an efferent response. The most important afferent impulses which reach the vasomotor centre (Diagram I) and influence the blood

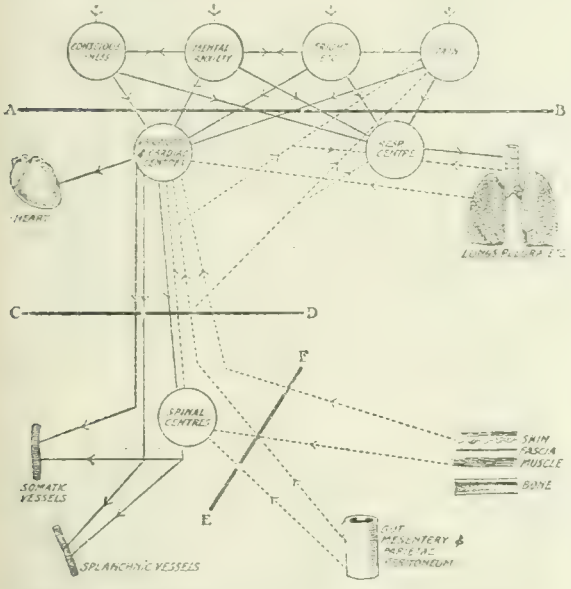


Diagram I.—Impulses and routes to centres. Levels of block by different anaesthesias.

pressure are: (*a*) *From the higher centres*—for example, mental activity, emotion, etc.; (*b*) *continuous impulses from the peripheral parts of the body.* These form the most important factor to be considered in surgical operations, since it is this normal reflex which is subjected to the greatest disturbance. The study of the arterial blood pressure under these conditions, therefore, affords reliable information as to the effects of various surgical procedures on the central nervous system, provided we can appraise these variations at their true value. To do this it is necessary to eliminate the first factor mentioned, (*a*); further, it is essential to consider the effect of these afferent impulses on the respiratory centre, which is an important factor in the regulation of the blood pressure, and must necessarily be subject to some extent to the same influences as the vasomotor centre. The blood pressure also varies with:

1. Increased cardiac output.
2. Increase of peripheral resistance.
3. Muscular effort.

Interpretation of blood-pressure variations, therefore, during surgical operations necessitates continuous or consecutive records or tracings at short intervals of:

1. Blood pressure.
2. Pulse rate.
3. Respiration.

The Influence of the Higher Centres on the Blood Pressure.

Diagram I is a schematic illustration of the most important influences on the vasomotor and respiratory centres which we have to consider. Regarding the vasomotor and respiratory centres as of primary importance, all impulses to these are marked as afferent by dotted lines, with the exception of those from the higher centres: efferent impulses are marked by a continuous line. A—B is the situation of the block to impulses in general anaesthesia; C—D is the situation of the block in trans-section of the cord; E—F is the situation of the block in (1) spinal anaesthesia, (2) section of the posterior roots, and (3) excision of the cord.

1. *Consciousness.*

Blood pressure readings were taken at short intervals on a child of about 7 years, at the Medical Society of London (April 17th, 1910). The child was perfectly quiet and manageable. Two facts are evident from an examination of this chart. In the first place, the mean blood pressure gradually subsided as the child became mentally more reconciled to the situation. In the second place, individual variations correspondingly decrease. It seems therefore that:

The activity of the higher centres acts as a stimulus to the vasomotor centre, and this not only raises the mean level of the arterial blood pressure, but also increases the range of variations. This is further supported by tracings of a child asleep and awake; here we found that, during sleep, rapidly consecutive tracings showed that the blood pressure in sleep is about 20 mm. lower than during consciousness.

Tracings from a fretful child, during operation under spinal anaesthesia, show that these features are accentuated. In extreme mental disturbance, exemplified by a tracing under spinal anaesthesia where excitement was a predominant factor, the blood pressure is raised enormously and the variations are still more marked.

2. *Consciousness of Pain.*

In pain, one tracing which we have been able to obtain appears to show that the mean level of the blood pressure is hardly raised at all, but that the most marked feature is the increase in individual variations. We conclude, therefore, that the emotions raise the mean blood pressure, and increase the individual variations in proportion to their intensity, but that *in consciousness of pain*, perhaps the most violent of the emotions, *the variations are the most distinctive feature.*

Inhalation Anaesthesia.

Professor Crile states that "those parts of the nervous system which are embryologically and phylogenetically the oldest" . . . are the hardiest and the least susceptible to inimical influences.[1] It is misleading, therefore, to state that chloroform and ether, when inhaled, paralyse from above downwards; rather must we regard a definite concentration of these drugs in the blood, as powerful enough to paralyse consciousness, which, for example, is yet insufficient to produce a similar effect on the lower centres.

(*a*) *Chloroform Anaesthesia.*

Tracings from the human subject show, as a rule, the initial rise during the preliminary excitement of the higher centres. After this the blood pressure falls proportionately to the concentration of the drug. The abolition of consciousness in chloroform anaesthesia usually induces a drop in blood pressure amounting to about 20 mm. Hg. or about the same as in the abolition of consciousness during sleep. This drop of blood pressure is attributable to the blocking of continuous impulses from the higher centres to the vasomotor centre. With regard to the respiratory centre, chloroform appears first to stimulate, then to depress, the afferent fibres which inhibit inspiration. A further concentration of chloroform appears to directly paralyse the centre itself.

It might be expected that the more resistant vasomotor centre would show signs of stimulation as the percentage of chloroform vapour increases, and that this should be indicated by a subsequent rise in blood pressure. We have never been able to detect such a rise; and it seems that, under ordinary surgical anaesthesia, chloroform narcosis within the limits of safety does not influence the vasomotor centre to any extent. Further evidence in support of this conclusion will be forthcoming. Finally, the effects of chloroform on the heart muscle itself must not be overlooked. We are led to suppose that death from "overdose" of chloroform is due, primarily, to paralysis of the respiratory centre.

(*b*) *Ether Anaesthesia.*

In the administration of ether by the open method the same preliminary rise of blood pressure is seen. When unconsciousness has been induced the blood pressure usually remains at about the same level as before induction. Individual variations, however, are much more marked. We have concluded: (1) That the fall in blood pressure, consequent on the blocking of impulses from the higher centres in unconsciousness, is compensated in ether anaesthesia by the stimulant action of the drug on the respiratory centre; (2) that the variations are

widely increased owing to the increase in the respiratory amplitude and rhythm. Finally, we cannot agree that "ether raises the blood pressure." Our observations lead us to conclude that the effect of ether is to compensate for the lowering of the blood pressure, consequent on the paralysis of the higher centres, by the stimulation of the respiratory centre and the heart; the net result being that by this mechanism *the normal level of the blood pressure is approximately maintained, though with a wider range of variations above and below the mean.* Further, that the concentration of this more volatile drug never reaches a degree sufficient to induce the stage of paralysis in respect of the respiratory centre.

Variations in Blood Pressure during Lumbar Puncture and the Induction of Spinal Anaesthesia.

The results of our investigations of this subject are shortly to be published in detail in the *Quarterly Journal of Medicine*. It will be sufficient, therefore, to refer briefly to the conclusions we have arrived at.

Lumbar Puncture.

The insertion of the needle into the spinal theca is accompanied by a marked elevation of the blood pressure; this is not due to the influence of pain, since it is present, though in a different degree, in unconsciousness, and even under anaesthesia. The withdrawal of cerebro-spinal fluid, and the subsidence of the emotion resulting from the puncture, are responsible for a gradual fall of pressure. But the original level is not regained within twenty minutes. We have taken tracings in various forms of intracranial pressure, and in one apparently normal subject (where the fluid was obtained for cytological examination), and we conclude that the net result of lumbar puncture is to raise the blood pressure for at least twenty minutes afterwards. The withdrawal of cerebro-spinal fluid, therefore, is clearly not responsible for the drop of blood pressure occurring about this time under spinal anaesthesia.

Spinal Anaesthesia.

Tracings show that, under dextrin-stovaine anaesthesia, a complete block to afferent impulses is instituted, and all curves are constant, independently of the nature of the operation performed. The fall in blood pressure occurring is attributable to three factors: (1) Subsidence of mental excitement after the lumbar puncture; (2) to a very small extent to muscular relaxation; (3) most of the drop of pressure observed is due to the paralysis of the thoracic, combined with supra-umbilical abdominal, muscles, and is directly proportional to the height to which paralysis is induced. Other variations observed are definitely attributable to the phenomena of mental activity, and bear no relation to the steps of the operation.

Blood Pressure Variations due to Afferent Surgical Stimuli.

Any surgical operation entails the stimulation, to a greater or lesser degree, of afferent nerves supplying the operation area; these impulses we propose to study in their relation to the respiratory centre and in the efferent responses which they call forth from the vasomotor centre. Such impulses may travel by more than one route (see Diagram I): (1) They may evoke a reflex in the segment, or segments, whose afferent branch, or branches, are stimulated. It will be apparent later that blood pressure variations of this origin may, for our purposes, be neglected. (2) They may travel up to the central nervous system and evoke reflex responses according to the nature and extent of the stimulus and the condition of the centres.

Manipulations in some parts of the body will, presumably, excite more disturbance in the central nervous system than others. On what factor does the extent of such disturbance depend? Clinically we know that the degree of shock is directly proportionate to the extent of the damaged area—that is, the number of nerve fibres stimulated and the region of the body which is subjected to injury. In surgical operations we are concerned with the effects of summation of stimuli and the mechanism of the resulting fatigue or shock.

Summation of Stimuli.

Chart 21 is taken from a child during the performance of the operation of circumcision under light chloroform anaesthesia. In this chart the blood pressure and pulse-rate are both depicted.

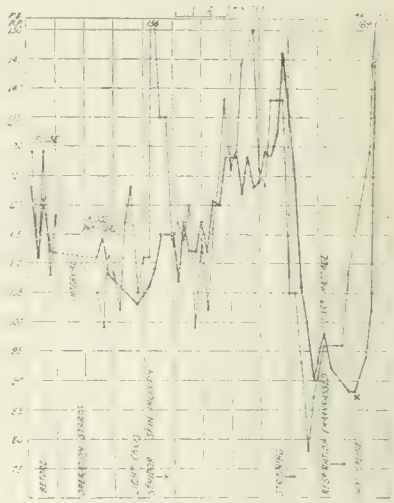


Chart 21.—Circumcision.

In the first place it is noticeable that the original readings show as usual a tendency to fall: they are higher at first than is normal in a child of 3 years. The excitement stage is not shown, but, though anaesthesia is too light to depress the medullary centres to any extent, the chart shows a fall of 11 mm. Hg with the characteristic fall in pulse-rate, due to loss of consciousness. The incision is made when the blood pressure stands at 106 mm. Hg; and it will be seen that during the subsequent manipulations there is a continuous and marked rise until the operation is concluded, when the reading is 146 mm. Hg (a rise of 40 mm.). After this point there is a very marked fall to 90 mm., in spite of the fact that anaesthesia is lighter. At the point x (see Chart) hot saline solution is applied to the wound, with the result that a striking rise in blood pressure to 144 mm. occurs (a rise of 56 mm.), or practically to that point which was reached under the stimulus of the operation. The nature of the stimulus to the centres, therefore, appears to have little influence on the result produced; but the extent of the excursion of the blood pressure appears to vary rather with the degree of interference (that is, intensity). Further reference to Chart 21 shows that the rise of blood pressure during the manipulations presents a "step ladder" appearance, which is suggestive of dependence on the summation of stimuli. Now, if the pulse tracing be examined, it will be seen that the variations in rapidity follow almost identically the excursions of blood pressure. The actual extent of the variations does not correspond identically in the two cases, because, in the case of the pulse, experimental error is great. Again, if, during an operation of this nature, an observer carefully examines the radial pulse, the tension will be found to increase and the percussion wave will be felt to be smaller. Further, a dicrotic pulse, such as is not infrequently observed under chloroform anaesthesia, loses this characteristic at the first stimulus of the operation.

To summarize—the stimulus of circumcision is accompanied simultaneously by: (1) A marked step-ladder rise in blood pressure; (2) a corresponding increase in pulse rate; (3) a diminution in the percussion wave; (4) an increase in respiratory rate; and (5) an increase in respiratory amplitude. Circumcision performed under spinal anaesthesia yields an absolutely uniform blood pressure line, showing: (1) That all these changes are the result of reflex response of the central nervous system to the stimulus of the operation; and (2) that this response is due to hyperactivity of all the centres influenced by the centripetal impulses.

The effects of this stimulus on the centres are therefore: (*a*) *The respiratory centre.* Increase in rate and amplitude tends to raise the level of the blood pressure, and to increase its respiratory variations. (*b*) *The vasomotor centre.* Stimulation of this centre results in efferent stimuli, passing out through the whole sympathetic system, the result being: (1) A rise in blood pressure from general vaso-constriction; (2) acceleration of the pulse-rate to a corresponding extent; and (3) a diminution in the size of the pulse, owing to the contraction of the arteries.

In order to eliminate any possibility of the variations commented on being due to other agencies (for example,

variations of anaesthesia, experimental error, etc.), we have taken charts of the same operation performed under different depths of anaesthesia. Chart 22 was taken from a boy, 2 years of age, operated on for inguinal hernia under very light chloroform anaesthesia. The respiratory and pulse rates are seen to follow the blood pressure closely, though the lightness of the anaesthesia entails a considerable variability in the readings. In spite of this, however, the respiratory amplitude (where the experimental error is very much less than in the pulse and respiratory rates) follows the blood pressure almost step for step. Here, again, the characteristic step-ladder rise, due to the summation of stimuli, is seen, and the blood pressure rises to 125 mm. Hg or 33 mm. higher than at the commencement of the operation. After traction on the peritoneum is relieved the blood pressure rapidly falls, but does not reach the level of the starting-point. In a similar operation under deeper anaesthesia the chart shows that the blood pressure variations are practically the same, but that corresponding variations in the respiratory tracing, both in rhythm and amplitude, follow the blood pressure curve to a much less extent. Now, if chloroform narcosis be induced to such a degree that the operation does not affect the respiratory tracing, it is again apparent that the blood pressure variations are in every respect similar to the preceding charts. Chart 24 represents the operation for inguinal hernia in a child of 4½ years under very deep chloroform narcosis. The respiratory lines are not charted, since they did not vary throughout. In spite of this fact, the pulse-rate and blood pressure lines exhibit precisely the same characteristics. It will be seen that the total rise of blood pressure (about 33 mm. Hg) was not affected by the depth of narcosis. Chart 25, on the other hand, shows that all these lines are practically constant when this operation is performed under spinal anaesthesia. The trivial rise at *a* is either respiratory in origin, as evidenced by the respiratory lines, which move in opposite directions at this time, or of mental origin, as shown by the pulse-trace. This chart stands in evidence that the variations we have referred to are attributable to the afferent impulses of the operation.

From these and other tracings we conclude that chloroform does not block afferent impulses arriving at the vasomotor centre unless administered in large doses over a prolonged period of time. In other words, the *vasomotor centre is the most resistant of the medullary centres.*

Experimental evidence supports these clinical findings. If, for instance, the operation of laminectomy be performed on a dog under chloroform anaesthesia, a definite small rise of blood pressure is observed with the skin incision. With the attack on the deep tissues the blood pressure rapidly rises, in spite of the fact that these proceedings involve a considerable amount of haemorrhage. With the attack on bony structures (the laminae) a marked alteration in the blood pressure tracing is noticed, for marked oscillations, corresponding with the repeated stimuli to bone, are evident. Each attack on bone corresponds closely with a definite "spike" in the blood pressure line, though it was not possible to indicate each separate stimulus. As the operation nears its conclusion the blood pressure continues to fall; but this fall is still occasionally interrupted by such spikes. Further study of this chart will be resumed later; in the meantime, however, we wish to call attention to Chart 26. This chart represents the operation of laminectomy on a dog, plotted out in a correspond-

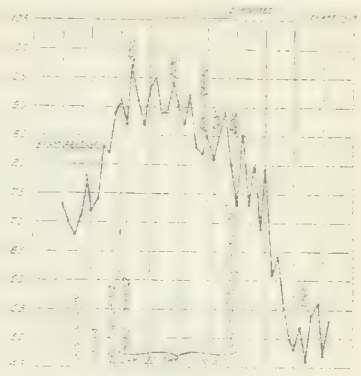


Chart 26.—Laminectomy in dog (plotted out on chart like human ones).

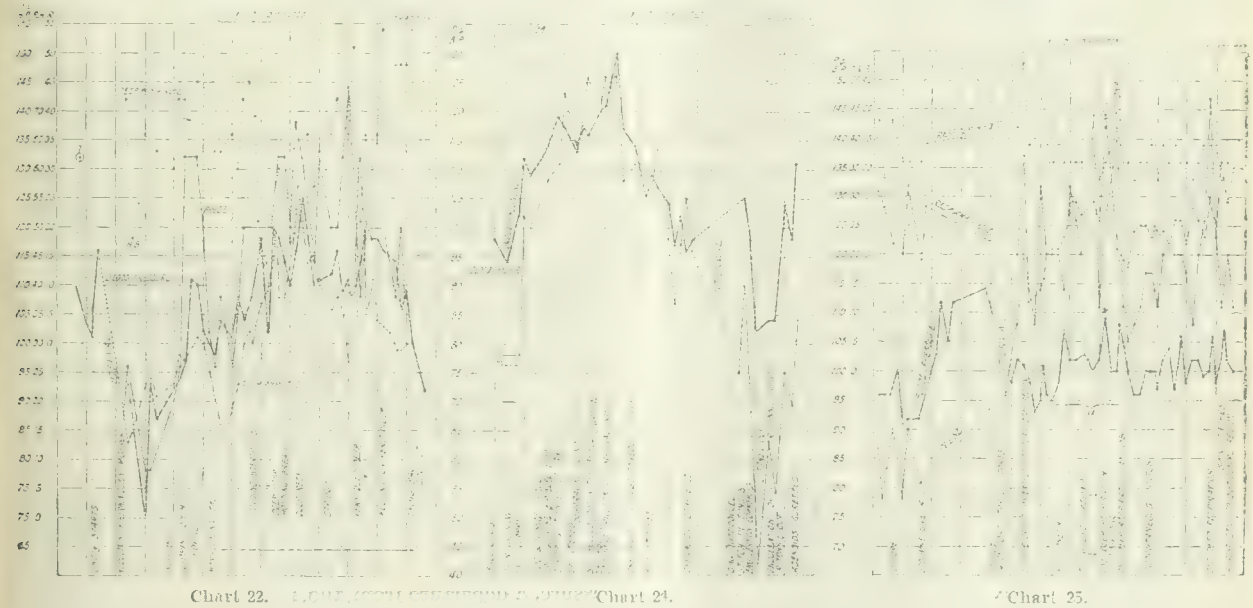


Chart 22. Chart 24. Chart 25.

Three hernias for comparison. Chart 22, Light CHCl₃. Chart 24, Deep CHCl₃. Chart 25, Spinal anaesthesia.

ing manner to the clinical charts we have already submitted. Its resemblance to those taken from the human subject is a striking feature. In the first place the rise in blood pressure at the skin incision, and the subsequent fall practically to the starting point, are again observed, and are strictly comparable with the spike accompanying the skin incision, which has been seen in the previous charts. Following this we note the step-ladder rise, consequent on the "summation of stimuli" as the stimulation of the deep tissues commences. There are two other features of interest. In the first place there is a general rise of pressure during the operation, and a fairly rapid fall as the operation nears its conclusion. The second point to which attention must be directed is the definite "spike" on the chart each time bone is attacked. It is also noteworthy that stimulation of the dura and cord by the forceps results in a well-marked rise of blood pressure. Now, the characteristic feature of stimuli produced by chipping pieces of bone is that they are short-lived; accordingly these spikes present the characters of an equal rise and fall, or approximately so—that is to say, they form a break in the step-ladder rise and fall.

It would thus seem as if the steps in the operation caused a general rise in pressure, special rises being consequent on the stimulation of specially sensitive regions,

of which bone is one. But, in comparison with Chart 26, we show Chart 27. This chart represents the blood pressure taken during the steps of a subtrochanteric osteotomy on a child. Details of the operation are given on the chart, and it will be seen that these same spikes are reproduced in Chart 27, as in Chart 26. Naturally, the perfect

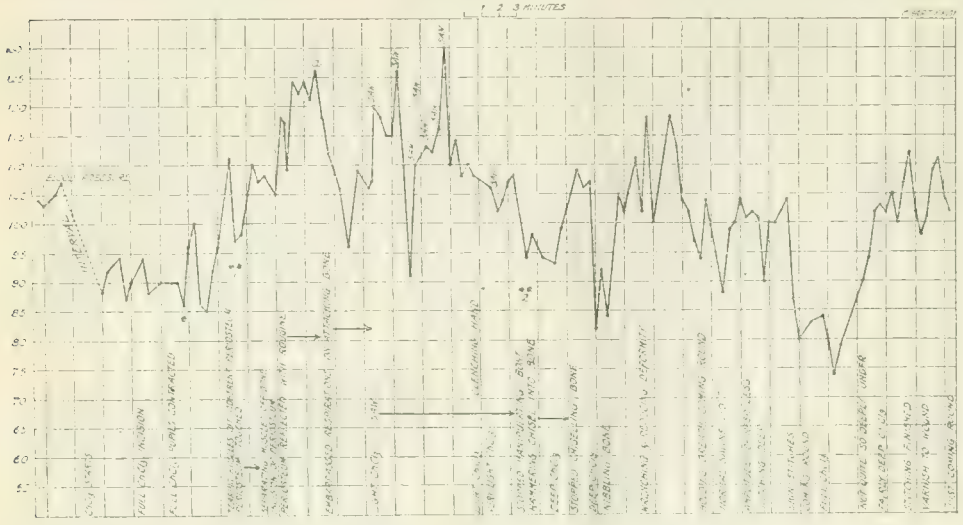


Chart 27.—Subtrochanteric osteotomy (for comparison with above).

regularity of charts taken from continuous tracings in animals cannot be expected in tracings from the human subject. Nevertheless, the features observed in Chart 26 are extremely well illustrated here. Note, for instance, the general rise of a step-ladder character commencing at *, and the continuation of this as the periosteum is reached at ** *1*. The pause before bony manipulations are commenced is signalled by a fall in pressure after *a*. After this point the vigorous attack on bone heralds a continuation of the rise in pressure (to approximately the same level), marked, however, by special rises following the stimulation of bone by the saw. These spikes interrupt the general rise of pressure, and are of the same character as those noted in Chart 26. The cessation of bony manipulations is characterized by a fall of blood pressure at ** *2*, followed by a second rise when bone is once more attacked, and yet again by a rise on wrenching the limb.

The nature of these spikes in the chart requires a moment's consideration. They may originate in one of two ways: (1) By a reflex vaso constriction of the deep tissues in the segment or segments stimulated—that is, a local or peripheral reflex; and (2) by additional stimulus to the vasomotor centre resulting from manipulation of more sensitive structures. A study of the original tracings of the operation of laminectomy in a dog demonstrates the real central origin of these variations. Thus, with each bony stimulus, and its concomitant rise of pressure, there is an alteration in the systolic and diastolic variations. The difference between the systolic and the diastolic pressure becomes less, and the cardiac rhythm quicker, with each rise of blood pressure. Conversely, when the blood pressure falls these excursions become greater and the cardiac rhythm is slowed.

Now, the operation of cystectomy in the dog under combined spinal and general anaesthesia shows an absolutely uniform blood pressure and respiratory trace. The perfect regularity of these and of the pulse rate throughout shows that the afferent impulses to the medullary centres are completely blocked, and contrasts markedly with the tracings of a similar operation performed under chloroform anaesthesia alone. These observations demonstrate that the variations observed are the result of the afferent impulses from the operation, and are not variations due to the anaesthetic.

Operations under Ether Anaesthesia.

It has been shown that, in all probability, chloroform administered within the limits of safety exerts little influence on the vasomotor centre; further, that under the influence of this anaesthetic we are able to study the changes resulting from centripetal impulses to the vasomotor centre in considerable detail. Ether, by its action as a stimulant both to the heart and respiratory centre, compensates for the drop in blood pressure resulting from loss of consciousness. It would be expected, therefore, that further stimulation of the vasomotor and respiratory centres, such as obtains in surgical operations, would produce less obvious disturbances than in the case of chloroform. Experimentally, blood-pressure variations are less marked in degree when ether is employed. For experimental purposes, therefore, ether is unsuitable as an anaesthetic, for it masks the variations of blood pressure, although there is no evidence that the afferent impulses are in any way mitigated by its employment—indeed, there is evidence to the contrary.

THE RELATIONSHIP OF BLOOD PRESSURE TO THE ONSET OF CLINICAL SHOCK.

Pressor and Depressor Stages.

We must now study a case of well-marked clinical shock, resulting from a severe operation, in order to ascertain what relation the blood-pressure changes which we have hitherto described bear to the onset of the symptoms known as shock.

The case chosen is that of a girl of 4½ years suffering from extensive tuberculous disease of the hip-joint. Mr. Arbuthnot Lane's arthrectomy was the operation performed. (The steps need not be detailed.) Chloroform was the anaesthetic administered, and ether was also given on the mask at intervals. Chart 28 represents the blood pressure throughout this operation: the respirations varied so little that they can have had practically no influence on the blood-pressure changes. The pulse-rate followed in detail the variations of the blood pressure, as in the preceding charts we have studied: it is, therefore, only charted from that point where the onset of shock was clinically apparent.

If the general character of this chart be first surveyed, it will be seen that the opening stages of the anaesthetic are accompanied by the same changes in blood pressure which have already been referred to. The skin incision, after the point *b* was followed by no rise in blood pressure, a departure from the rule in previous cases; in explanation of this it should, however, be noted that all the steps of the operation, as far as the opening of the hip-joint, were mostly through the scar tissue of previous operations. As a result, although there are fairly well-marked variations in the blood-pressure reading attributable to the manipulations of these tissues, there is no rise in the mean pressure. In fact the mean pressure from *b* to *c* shows a steady fall due to chloroform. It is only at *c*, where the joint is opened, and manipulations within its cavity commenced, that marked alterations in the blood pressure manifest themselves.

From A to B, during which time the steps of the excision and manipulation of bone are in progress, the mean curve of the blood pressure does not exhibit such a large rise as in the case of structures interference with which admittedly induces a very much smaller degree of shock (see Charts 21 to 24). The great variations or spikes in the general curve are, however, a striking feature, and these are strictly comparable with the changes already noted in operations on bone; but in the present instance these spikes are very much larger (see Chart 26).

It is significant that these large isolated rises in pressure accompany the steps of those operations which clinically are known to produce marked shock. At B the dislocation of the head of the femur out of the acetabulum is characterized by a striking rise of blood pressure, amounting to over 30 mm. Hg; while cutting away diseased synovial membrane *c* is accompanied by a much less marked,

although quite definite, spike. Again, at c, curetting the bony surfaces of the acetabulum is characterized by another spike of 30 mm. Hg. As bony manipulations cease it is noticeable that the blood pressure rapidly drops to 86 mm. Hg (*f*). After the point *f* continuous manipulations of the soft parts and removal of bone alternate with each other in rapid succession, and, as in cases previously studied, the effects of the summation of stimuli become apparent. Thus the chart from c to d exhibits the characteristic step-ladder rise. It is again significant that each attack on bone is signalized by a spike in blood pressure up to the point d; and, in this respect, the features of Chart 28 up to this point are strictly comparable to those of Chart 27. At the point =, thirty-eight minutes from the commencement of the operation, the clinical phenomena of shock were apparent. The blood pressure at this time was 114 mm. Hg, and afterwards rose to 120 mm. Hg. It should be realized, therefore, that, at the time the symptoms of shock were first definitely noted, the blood pressure reading was, with the exception of two spikes at b and c, the highest figure reached at any time during the operation; and further, it may be emphasized that the pressure at the onset of shock stood at practically the highest sustained figure reached throughout the whole operation. The manœuvres caused a corresponding fall of blood pressure in every instance. The cessation of all operative manipulations at *k* is signalized by an immediate and rapid rise of blood pressure (*k* to *l*). Further manipulations, *l* to *m*, repeat the phenomena already observed, though in a less marked degree; manipulation of the soft parts clearly does not compare in its effects with the attack on bone.

It should further be noted that at *l* the blood pressure is 90 mm. Hg, or about the same level as before the commencement of the operation. This level of pressure seems to have been the natural point to which the blood pressure returned when manipulations had ceased. The rest of the chart after point *m*, dealing with the effect of strychnine and atropine, is referred to later.

The interpretation of this chart must now be considered. Broadly it may be divided into two phases: (1) a to d. Here the principles evolved from the consideration of preceding charts hold good in every detail; each stimulus induced an appropriate rise in blood pressure. (2) d to e. In this phase the effects of these stimuli are exactly reversed. The truth of these observations is supported by a further reference to Chart 26. For the concluding stages of laminectomy in the dog reproduce to a large extent the phenomena seen in

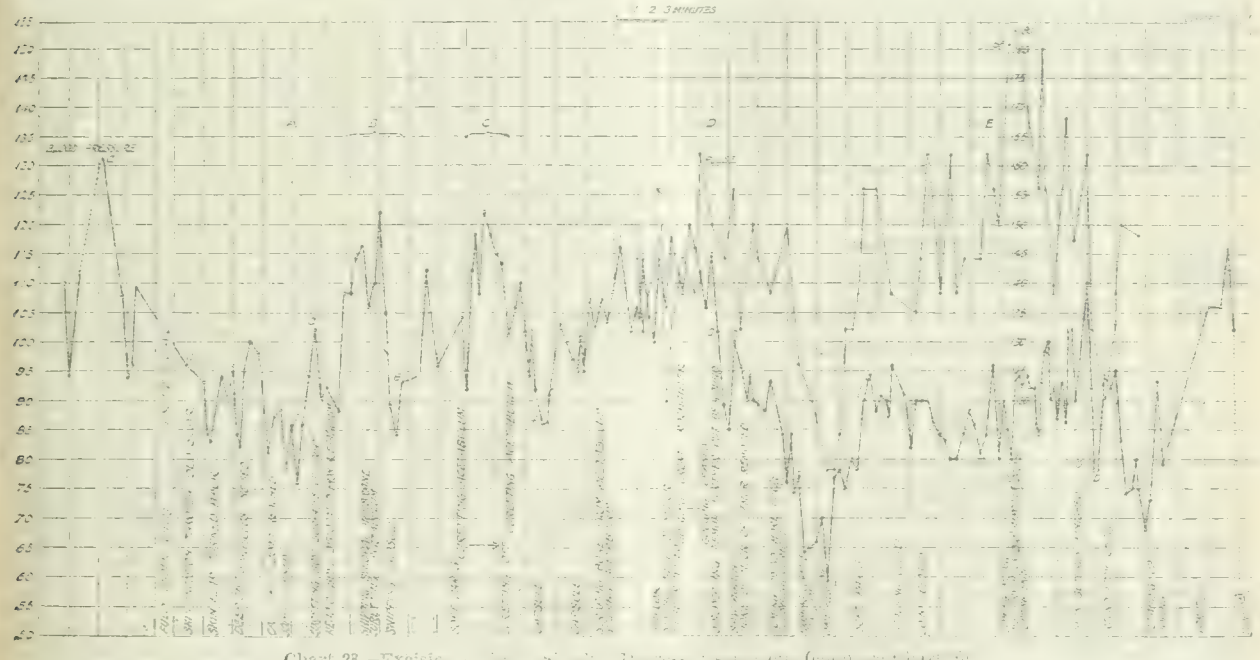


Chart 28.—Excisio[illegible] [illegible], etc. ([illegible])

respiratory tracing was unaffected, showing that full surgical anæsthesia was maintained throughout, and that none of the alterations in blood pressure could be ascribed to the anæsthetic. Therefore, at =, the activity of the vasomotor centre was at its highest. We lay stress on this fact as showing (1) that the centre is not fatigued, (2) that a low blood pressure is by no means an essential feature of surgical shock. Up to this point this chart proves that the series of pathological processes resulting from the operation, in a case which manifests clinically the symptoms of shock, are only a more advanced degree of exactly similar changes in those operations unattended by such clinical evidence.

A striking change in the character of the chart should be noted after d, nearly three minutes later. (During this interval bony manipulations produced the spikes shown in the chart as far as d.) At *g*, twenty seconds after d, the femoral head was dislocated further out of the joint cavity. This manœuvre caused an enormous rise of blood pressure at b, but, when repeated at *g*, it was accompanied by a marked fall. At *h* the saw was again applied to the femoral neck, and again this fresh stimulus is accompanied by a continued fall of blood pressure. The chart notes that these variations are not due to the anæsthetic. Again, the application of a flushing gouge (saline 110 F.) to the joint surfaces at *i* induced a fall, which was only interrupted by a very small spike. Further this chart. We wish to call attention particularly to the fact that this reversal is an *active* process, which constitutes further evidence of the preserved activity of the vasomotor centre. If the fall in pressure were a passive one and due to paralysis of a centre from gradual exhaustion, how can the rise of pressure from *k* to *l* on the cessation of manipulations and its repeated fall on their resumption be explained? It cannot be seriously argued that the centre recovers its activity within the space of twenty seconds!

Further, a consideration of the pulse-rate over the period d to e also supports the view that these variations are active and not passive; for, were the centre paralysed, the pulse and blood pressure would no longer be under the same degree of central control. Consequently, peripheral influences would predominate and the heart would "race" against the low blood pressure and beat more slowly as the pressure rose. Reference to this chart, however, shows that the pulse-rate follows the blood pressure closely in the stage of reversal. Finally, with the swing back (passive) of the blood pressure to its intermediate position, on cessation of the stimulus, the pulse, freed from the influence of afferent stimuli, races against the low blood pressure.

Stages of Surgical Shock.

On these arguments we divide surgical shock into three stages: (1) The stage of stimulation, or the pressor stage;

(2) the stage of depression, or the depressor stage; (3) the stage of equilibrium, when active abnormal afferent impulses are in abeyance.

We must now consider the mechanism of this reversal.

It has been shown that every sensory nerve contains pressor and depressor fibres to the vasomotor centre; stimulation of the pressor fibres only, induces reflex vaso-constriction and cardiac acceleration, while stimulation of the depressor fibres only, induces reflex vaso-dilatation, and at the same time inhibits vaso-constrictor impulses. Stimulation of such a mixed sensory nerve usually induces domination of the pressor group. Domination of the depressor group only occurs (in so far as the present study is concerned) when the pressors are fatigued.

Applying these principles to the results obtained in Chart 28, we conclude the following: The first stage of shock in that operation consisted in a rise of blood pressure and an increase in the pulse-rate, consequent on the domination of the pressor impulses. At D pressor fatigue commenced. Further stimulation initiated a domination of the depressor impulses, the cessation of these impulses being marked by a passive return of the blood pressure to an intermediate level, due to the cessation of active depressor domination.

Death from Shock.

Prolongation of the stimulus during the depressor stage leads to: (1) Continuous lowering of blood pressure—this renders inadequate the blood supply to the cardiac muscle through the coronary arteries, and this fact, combined with the lack of peripheral resistance, leads to delirium cordis; and (2) anaemia and starvation of the central nervous system—if this is carried to a sufficient degree, the recovery of the centres is rendered impossible.

REFERENCE.
[1] *Annals of Surgery*, 1910.

A METHOD OF ESTIMATING THE STRENGTH OF A VACCINE BY A STANDARD BACTERIAL EMULSION.

BY

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THE following account deals with a method of counting an emulsion of bacteria of unknown strength by comparison with an emulsion of known strength—that is, a "standard"—using a differential stain (Gram's method), and a "standard" of opposite staining properties to the bacterial emulsion whose strength we wish to estimate. Thus, if an emulsion of staphylococci has to be estimated, a Gram-negative "standard" (*B. coli*) is used, and vice versa; and by the formulae:

Gram + : Gram − :: × : standard emulsion,

or

Gram − : Gram + :: × : standard emulsion,

the strength is readily worked out.

The "standard" emulsion is obtained by applying the principles used in the estimation of the number of bacteria per cubic centimetre in water or sewage, and the apparatus needed is very simple, and in fact the simple forms of glass-ware to be mentioned shortly are much more convenient than any more elaborate. The requirements are: A well-spread twenty-four hours old agar culture of *B. coli communis*, a platinum loop, small white sterile glass beads in sterile saline, tubes of sterile normal saline, sterile test tubes, a litre measure, three or more 1 c.cm. pipettes graduated in one-tenths, a Wright's pipette with a glass pencil mark ½ in. from the tip, two glass-stoppered "half Winchester" bottles containing 999 c.cm. of water, three or four 6-oz. flat-sided medicine bottles containing 15 c.cm. of nutrient gelatine (12 per cent. to 15 per cent.) suitably plugged with wool and sterilized, two deep saucepans or water baths. The 1 c.cm. pipettes (rolled up in paper) and the "half Winchesters" with their contents are sterilized.

The culture of *B. coli* is now taken, and an emulsion made by pouring about 2 c.cm. of sterile saline over the agar, and then rubbing off the growth into the saline with the platinum loop. The resulting emulsion is now transferred to a sterile test tube, and some half-dozen of the sterile glass beads added.

The next step is to obtain a "convenient strength" of this emulsion to work with in the subsequent diluting experiments that are the most important part of the process. After many trials we have found that a strength roughly estimated at between 1.500 and 2.000 millions of bacteria per cubic centimetre is a "convenient strength" to use. The opacity of the emulsion which represents roughly this strength is easily obtained either by previous experience, or by allowing three to four drops of milk to mix with 5 c.cm. of water, and then diluting the emulsion from the agar down to the opacity represented by this mixture. Having diluted down the agar emulsion to this "convenient" strength, the open end of the test tube is sealed off in the flame, and the tube shaken for half an hour or more to ensure complete separation of the individual bacteria.

It is now necessary to ascertain the true strength of this "convenient emulsion." The two water baths are next heated, one to boiling the other at 26° C., and the medicine bottles containing the gelatine put into the latter. With a graduated pipette take 1 c.cm. of the emulsion of "convenient strength" and put it into the first "half Winchester" bottle (A), stopper the bottle and shake vigorously. Place the tube containing the emulsion of "convenient strength" into the boiling water bath for a few seconds, then remove and add two drops of formalin. Take next 1 c.cm. of (A) and drop it into the second "half Winchester" bottle (B), and shake well. Use separate sterile 1 c.cm. pipettes for each bottle. From (B) with the third pipette take 1 c.cm. and carefully drop 0.5 c.cm. of this into the first medicine bottle (C), 0.25 c.cm. into the second bottle (D), and 0.1 c.cm. into the third bottle (E). Mix the contents of these bottles and lay flat on their broad side to solidify; when solid, incubate in the cool incubator. At the end of seventy-two hours rule out squares of suitable size with a grease-pencil on the bottle and count the colonies. The dilutions being known, the true strength of the "convenient emulsion" is known, an average being taken of the plates, though, as a rule, the plates come out in practically exact multiples of one another. For example, in (A) the "convenient strength" is diluted 1,000 times, and in (B) 1,000,000 times, there being already 999 c.cm. of sterile water in each "half Winchester." Thus, if the "convenient strength" had happened to be 1.500 millions of bacteria per cubic centimetre, then 0.5 c.cm. of (B) will give 750 colonies (C), 0.25 c.cm. of (B) will show 375 colonies (D), 0.1 c.cm. of (B) 150 colonies (E).

This emulsion of 1.500 millions per cubic centimetre is now a "standard emulsion" of Gram-negative (*B. coli*) bacteria, and may be used to estimate the strength of an "unknown" Gram-positive emulsion by the following method: Having for convenience diluted the "unknown" emulsion down to approximately the opacity of the "standard" emulsion, a slide is thoroughly cleaned and passed through the flame several times to remove any traces of grease. With the Wright's pipette equal volumes of the Gram-negative "standard" and the Gram-positive "unknown" emulsions are taken and thoroughly mixed. One end of the clean slide is slightly warmed and a portion of this mixed drop is put on this part of the slide. Using the pipette as a "spreader" a film is made, blowing across the film as it is spread. The result of the warmth and the blowing is that the film dries evenly and instantaneously. The film thus obtained is carefully fixed by passing three times through the flame, is stained by Gram's method and counterstained by neutral red (2 per cent. aqueous). A large-sized "counting square" having been dropped into the eyepiece of the microscope, successive "squares" are counted with the one-twelfth objective, carefully noting on paper the Gram-positive and Gram-negative organisms in each "square." When 200 to 300 of the "standard" bacterium have been counted, the total Gram-positive and Gram-negative organisms are carefully and separately added up. Knowing the strength of the "standard" emulsion the "unknown" emulsion is readily found by proportion. Thus, supposing 250 Gram-negative organisms and 200 Gram-positive organisms have been counted and the strength of

the "standard Gram-negative" emulsion is 1,500 millions per c.cm., then: —200 : 250 : : × : 1,500=1,200 millions per c.cm. as the strength of the Gram-positive emulsion. This Gram-positive emulsion may be used as a "standard Gram-positive" emulsion, but if used as such more than 200 of the bacteria should be counted to ensure great accuracy, about 500 of each bacterium being counted before the calculation is made. Of course plate estimations can be made, using staphylococcus instead of *B. coli*, the process being similar to that just described, and a "Gram-positive standard" obtained in this way; but the obtaining of the "Gram-positive standard" from the "Gram-negative" standard saves two series of dilution experiments.

Having now obtained two "standard" bacterial emulsions (which keep well from the addition of the formalin, and are readily and thoroughly mixed from the presence of the glass beads), we are in a position to estimate the strength of any unknown emulsion by simply mixing it with equal parts of a "standard" of opposite Gram staining properties, making a film, and counting by the methods already fully described. The only precaution to be observed with regard to the "standard" emulsions is to cap them suitably to prevent evaporation.

This method has now been used for the past fifteen months in private and hospital practice, and it was found from the first as rapid as Wright's method, and after practice more rapid than this method. From numerous observations on Wright's method, the Thoma-Leitz counting slide method, and the method under consideration, it has been found that the lowest estimations of any bacterial emulsion are given by Wright's method and the highest by this method now described, while the Thoma-Leitz method is intermediate between the two. It is probable that the method under consideration is much more accurate than those commonly employed, and for the following reasons: (1) A constant "standard" obtained under the most accurate conditions possible is used; (2) one is comparing objects of approximately equal size; and (3) one is able to use a one-twelfth objective. In Wright's method the "standard"—that is, the red corpuscular count—is a fluctuating quantity, and ought to be re-estimated at each estimation of the strength of a vaccine, and, further, the standard is many times the size of the bacterium with which it is compared. In the Thoma-Leitz method one must allow thirty to sixty minutes to elapse from the making of the drop preparation to allow the bacteria to settle sufficiently, and one is unable, moreover, to use a one-twelfth objective.

To now briefly summarize the process:

1. Obtain a Gram-positive and Gram-negative "standard" by the diluting and plating out processes described. These "standards" keep good for at least six months in our experience.
2. Take equal parts of the emulsion of "unknown" strength and a "standard" of opposite Gram staining properties and mix thoroughly.
3. Make a film and fix it carefully.
4. Stain by Gram's method, using a counterstain.
5. Count 200 to 300 bacteria, using a "counting square" and a one-twelfth objective and noting the Gram-negative and Gram-positive organisms in the squares counted.
6. Knowing the strength of the "standard" and the proportion of Gram-negative to Gram-positive organisms, the strength of the unknown emulsion is easily worked out by proportion.

In conclusion, I should like to thank Mr. F. R. Chopping, senior laboratory assistant to the hospital, for his invaluable assistance and suggestions in the early part of our investigations and repeated co-operation in the subsequent laborious counting tests so necessary to prove the value of the method.

The second Shakespeare commemoration service held at Southwark Cathedral, formerly the church of the parish in which Shakespeare was a resident, was held on April 23rd, when Mr. F. R. Benson gave an address on "Shakespeare and the fuller life of the people." It is announced that the fund, of which Dr. R. W. Leftwich is the honorary secretary, for the Shakespeare memorial in the cathedral, has been completed by a gift of £180 by Mr. Sanford Saltus, of New York.

A CASE OF TUBERCULOUS POLYSEROSITIS.

BY

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FELIXSTOWE.

Multiple inflammation of serous membranes is a somewhat uncommon condition, and the case here reported presents features of unusual interest, particularly in its exceptional onset, its abnormal course, and the final *post-mortem* proof of its tuberculous nature.

The patient was a married woman aged 46, with a healthy family history. She had no personal record of any serious illness until ten years ago, when she had an attack of pneumonia, involving the lower lobe of the right lung, and terminating in complete recovery after suppuration, and coughing up of the pus. No abnormal physical signs could be found at the commencement of the illness recorded in this paper.

On November 11th, 1909, the patient was taken ill with the symptoms of influenza, including headache, pain in the back and limbs, and severe prostration. She did not, however, seek medical advice until November 25th, when she was found to be in a state of high fever and nervous excitement, her temperature being 103.4°. She had been performing her household duties intermittently during the previous fortnight. During the following week she was kept in bed, and treated with quinine and simple antipyretic medicine. There were no arthritic symptoms, and no abnormal signs in the chest or abdomen.

On December 2nd the patient left her bed for a few minutes and fainted, and on examining her shortly afterwards she was found to be cyanosed and almost in a state of collapse, her pulse being 145 per minute. A very faint friction sound could now be detected near the base of the heart, and two days later there were definite signs of general pericarditis. Sodium salicylate was administered on the assumption that the pericarditis might be of rheumatic origin, but was discontinued after a few days, on account of its depressing effect. Treatment with quinine and stimulants was resumed.

On December 13th pleurisy developed over the lower lobe of the left lung, and signs of effusion were found on the following day.

On December 20th the dull area was explored for fluid, but none was found, for the probable reason that the needle was inserted too near the middle line, considering the position of the patient, who was lying on the affected side, so that the lung, no doubt, sagged down towards the axilla, and was wounded by the needle.

The erroneous conclusion was drawn, however, that the dullness was due to solidification, and a second exploration was not made at the time. The temperature continued febrile, ranging from 99° in the morning to 101° to 102° in the evening, while signs of scattered bronchopneumonia became perceptible in the right lung, and the signs of pericardial friction disappeared.

On January 4th, 1910, Dr. Brown, of Ipswich, saw the patient in consultation with me, and the chest was again explored—this time with success—and 52 oz. of clear serous fluid was withdrawn. Respiration was, of course, greatly relieved by the operation, but the fluid again accumulated with great rapidity, and paracentesis was again necessary on January 10th, 15th, and 19th, more than two pints being withdrawn on each occasion. The fluid was clear each time, and was examined for tubercle bacilli, as was also the sputum, with negative results.

The skin of the back was now oedematous, and scattered crepitations were heard over the right lung. On January 21st the temperature became normal and remained so for nearly a month, though the sputum, during the weeks immediately previous and subsequent to this, was deeply bloodstained.

Paracentesis thoracis was again done on January 31st, February 16th, March 4th, and March 21st, the patient always being greatly relieved for a day or two after each operation. A consultant who saw the patient on February 22nd considered the case one of polyserositis of rheumatic origin, and negatived the previous diagnosis of tubercle. Potassium iodide and caffeine were now given, but the symptoms of iodism and depression were so marked during its use that it was discontinued after a week.

On March 23rd oedema of the legs became very troublesome, and Southey's tubes were inserted for its relief. They were removed after two days, and again used on several occasions during the remainder of the illness.

Enlargement of the liver and ascites now began to be very obvious, and the abdomen was tapped on April 11th, 5 pints of fluid being withdrawn. The operation was repeated on May 10th, June 2nd, and June 18th.

From July 16th the temperature became regularly hectic, and continued so during the subsequent progress of the case, though emaciation was not so marked as might have been expected.

On July 20th the chest was again aspirated and 3 pints of clear serous fluid were withdrawn.

On August 20th a third consultant saw the case and considered it was not tuberculous, on the ground that emaciation and debility were less than would be expected in the presence of tubercle. Von Pirquet's reaction was then tried, with a

negative result, as was also the diazo reaction for the urine. The chest was aspirated for the last time on October 19th, much less fluid being found than on the previous occasions. The patient now became gradually weaker and more emaciated, suffering occasionally from alarming attacks of syncope. She died during her sleep on December 2nd.

At the *post-mortem* examination the following observations were made:

Abdomen: Intestines everywhere roughened with nodular chronic granulations and coated with a layer of lymph, the intestinal coils being adherent and the omentum thickened.

Liver enlarged and fatty, pale in colour, and showing the characteristic appearances of passive congestion.

Kidneys and spleen normal.

Chest: The pericardium was greatly thickened and its cavity completely obliterated by firm fibrous adhesions between its two surfaces. The orifices of the superior and inferior venae cavae were contracted.

The right pleural cavity was obliterated by adhesions, the lower lobe of the lung being congested, oedematous, and partly collapsed. The upper lobe was congested and studded with small hard tuberculous nodules. The left pleural cavity was obliterated in its upper half by pleuritic adhesions, and shut off from the lower part, which contained about a pint of serous fluid. The lower lobe of the left lung was collapsed, and the upper lobe contained the same tuberculous-looking nodules as the right lung. They were arranged in scattered groups, but had all the appearance and consistence of tuberculous nodules.

Portions of the peritoneal nodules and the pulmonary tissue sent to the Clinical Research Association for microscopical examination presented the typical appearance of tuberculous disease.

The clinical course of this case presents several unusual and interesting features, especially when viewed in the light thrown upon them by the autopsy.

Thus the rapid subsidence of the signs of pericarditis would at first sight render the extensive thickening revealed after death a matter of surprise.

The enlargement of the liver during a portion of the progress of the case was so great that the edge could be felt well below the level of the umbilicus after the fluid had been withdrawn by paracentesis, but there was none of the tenderness usually associated with the cardiac liver. The subsequent diminution in size of the liver was also remarkable, since at the end of the illness its edge reached only about 3 in. below the costal margin on deep inspiration. During the earlier months of the illness the urine contained a large quantity of albumen, but latterly this practically disappeared. Various diuretic drugs were administered from time to time, the most successful being theocin sodium acetate, which in 5-grain doses twice a day produced a very abundant flow of urine, but was discontinued on account of the nausea and depression it appeared to produce. The injection of adrenalin into the pleural and peritoneal cavities was considered, but rejected on account of the risk to life, the writer having had a patient who died suddenly from cardiac spasm immediately after its use for recurrent pleural effusion. The question of the incision and drainage of the pleural cavity was also considered in consultation; but the probability of converting the simple effusion into an empyema, which might be slow to heal and would involve a serious drain upon the strength of the patient, led to its rejection.

The term "polyorrhomenitis" has been applied to a multiple suppuration of serous membranes by Italian physicians, and this condition was fully dealt with by Dr. Frederick Taylor in a paper in the BRITISH MEDICAL JOURNAL for 1900 (vol. ii, p. 1693), but in the case here reported no suppuration occurred. Many writers consider that recurrent pleurisy is almost always tuberculous, and this opinion is borne out by this case, notwithstanding the negative results of the various clinical and pathological tests.

DURING the past winter semester the number of students in the medical faculty of the University of Vienna was 2,334, of whom 125 were women. This number does not include 62 students who entered for particular parts of the curriculum; of these, two were women; or 238, of whom 9 were women, who attended special courses.

THE total number of legally qualified practitioners of medicine in the German Empire at the end of 1911 was 32,500. Taking the whole population of the empire this gives a proportion of about one doctor to every 2,000 inhabitants. The number of medical students in the universities of the empire during the past semester was 12,446, of whom 582 were women. The number of persons who passed the State Examination in the academic year 1909-10 was 945.

THE DIAGNOSIS AND TREATMENT OF SCIATICA.

WITH A NOTE ON THE METHODS IN USE AT HARROGATE.

BY

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CASES of sciatica, for the purposes of classification, may be conveniently divided in the following manner:

A. *Primary Group*—
1. Sciatic neuralgia.
2. Sciatic perineuritis.
3. Sciatic neuritis.

B. *Secondary Group.*

Sciatic Neuralgia.

By sciatic neuralgia is meant a painful condition arising in the area of distribution of the sciatic nerve. As with other neuralgias, it is probable that there is no definite inflammatory change in the nerve trunk, the condition being purely functional. It occurs most frequently in flabby, anaemic, debilitated subjects, more often in women, and appears to be the expression of nervous exhaustion. Occasionally associated with dysmenorrhoea, or irregular menstruation. I have seen it alternate with facial neuralgia. Over-fatigue or mental anxiety will precipitate an attack. In such cases little is to be made out by examination. There is no muscular wasting, and neither movement of the limb, nor pressure on the "tender points" elicits the exquisite pain accompanying the other conditions. The pain is intermittent, and the patient, although the attacks may be very severe, is quite comfortable between them.

Sciatic Perineuritis or Neuritis.

This is a disease of adult life, and in my experience four times as common among men as women. There is almost invariably a gouty or a rheumatic history. The ordinary pathological changes of neuritis have been observed when the nerve has been cut down upon for the purpose of stretching. Exudation and effusion have been found in the sheath, swelling and redness of the nerve trunk, and occasionally small haemorrhages, these changes being most marked at the level of the sciatic notch and at the middle of the thigh.

The disease is, then, primarily a perineuritis, and the pain and tenderness are due to the irritation of the sheath nerves. As the disease progresses the nerve fibres become involved in an interstitial inflammation, and a definite neuritis supervenes.

In cases of fully developed neuritis muscular atrophy, paresis, and the reaction of degeneration are present, with diminution of tactile sensibility, areas of anaesthesia, and hyperaesthesia, tinglings, pins and needles, formication, etc.

The exciting cause of an attack of sciatic perineuritis—and one attack predisposes to another—is in the majority of cases the exposure of the limb to local cold, not dry cold, but cold associated with wetting—for example, sitting on wet grass or upon a damp seat.

Special attention must be directed to the association between lumbago and sciatica. How common is the history of acute pain in the lumbar muscles, followed in two or three days by sciatic pain—in other words, a spread of fibrositis and involvement of the nerve trunk.

It is stated that direct pressure on the nerve by sitting in an uncomfortable position sometimes causes sciatica, as, for example, in the city clerk, dangling his legs from a high stool. In the case of two patients who had always been accustomed to wear woollen underclothing, the attack was attributed to changing to linen and silk respectively.

Secondary Group.

In this group are included all those cases in which the condition is due to involvement of the sciatic nerve by pressure, or the spread of inflammatory processes. Hence the importance of making a complete and systematic examination before diagnosing primary sciatica. It is stated that a rectum overdistended with scybalous masses sometimes exerts sufficient pressure to give rise to sciatica,

[1] Paper read before the York Medical Society on February 14th, 1912.

but whether this be so or not, it is at any rate quite sufficient to aggravate the condition if already present. Intrapelvic causes which must be excluded are sarcoma of bone, carcinoma of the rectum and uterus, fibroids, ovarian tumours, and pelvic inflammation.

Growths of bone are readily detected by local examination. Sciatica is of particular importance as a symptom of recurrence after removal of a primary growth of the rectum or uterus (the cervix especially) when no local recurrence with discharge, etc., has occurred. Fibroids and ovarian tumours rarely give rise to sciatica, and then only when there is impaction in the pelvis. Pelvic inflammation may be the cause, either by pressure or by the involvement of the nerve sheath by spreading inflammation. In the field of obstetrics, pain of the nature of cramp down one or both legs is quite common when the head enters the pelvis. Sciatica or paralysis is rare, probably because the promontory of the sacrum and the pyriformis protects the plexus. Occasionally, however, in a small round pelvis, when the head fits the pelvic cavity tightly like a cork in the neck of a bottle, the lumbo-sacral cord is damaged by pressure against the pelvic brim. Agonizing cramp, with paralysis of the external popliteal branch, may result; this may occur also after delivery from pelvic inflammation. It may be noted that separation of the sacro-iliac synchondrosis during childbirth sometimes produces a lameness loosely simulating sciatica, which may persist for some time.

The secondary group also includes those cases of sciatica due to tuberculous or osteo-arthritic disease of the spine, bones of the pelvis or hip-joint. Special attention to the association between sciatica and osteo-arthritis of the hip-joint has been directed by Dr. William Bruce in an address on "The Real Nature and Rational Treatment of the Disease";[1] and later, in a paper entitled, "The Relation between Sciatica and Diseases of the Hip-joint,"[2] read before the Medical Society of London, Dr. Ironside Bruce brought forward a number of radiograms, revealing evidence of chronic arthritis in patients who had the signs and symptoms of sciatica. A partial form of osteo-arthritis involving one hip-joint alone is not uncommon, and I have notes of nine such in my series of cases of so-called sciatica. All these cases were elderly men, and there was a definite history of trauma in each. The sciatica was of a chronic nature, had never been acute, the patients walked with a limp, and there was present in all more or less muscular wasting of the buttock.

A highly nervous lady, 40 years of age, complained of very severe sciatic pain in the left leg, which I was inclined to consider a neuralgia. An *x*-ray examination revealed the presence of a bony outgrowth from the femur at the junction of the upper with the middle third, and periostitis.

It is always advisable, and particularly in cases which prove intractable, to have a radiogram taken.

The exclusion of diseases of the spinal cord, peripheral neuritis, Bright's disease, diabetes, etc., does not as a general rule present much difficulty, as primary sciatica usually involves one side only.

A gentleman, 45 years of age, who had been confined to his bed for three weeks previously, came to Harrogate to take treatment for what appeared to be a very acute attack of primary sciatica in the left lower extremity. Four months before I saw him he had contracted gonorrhœa, but the urethral discharge had ceased. There was no muscular wasting, but the slightest movement or exposure of the limb caused excruciating pain, only to be controlled by hypodermic injections of morphine. Five weeks later he began to have pain in the right leg, bladder symptoms quickly followed, and the case soon presented the clinical picture of myelitis, from which he died five months after the onset of his illness.

The pains of tabes dorsalis are often felt in the sciatic area, but their fleeting character and the presence of other signs of locomotor ataxy should prevent any error in diagnosis.

Treatment.

In acute cases absolute rest in bed is essential, and the problem is how to make the patient as comfortable as possible. A water bed is advisable, and the sheets must be either woollen or cotton, not linen. Woollen socks and pyjamas should be worn. I usually fix the limb with a long Liston splint, which adds greatly to the comfort of the patient when he has become accustomed to it, and does away with the startings which are such a painful feature of the disease. Should this prove unsatisfactory, slinging the leg in a Salter's fracture cradle is worthy of a trial. It sometimes acts admirably, and has the additional advantage of permitting local treatment to be adopted more readily. The limb must be kept very warm. It is a good plan to swathe the leg in ordinary or thermogen wool, fixing with a domette bandage.

In subacute cases a few days' rest with the limb on pillows and between sandbags may be necessary.

It is wise, and particularly in gouty cases, to begin the treatment of acute cases with a dose of calomel, followed by a saline in the morning. As to drugs in general, their effect is very uncertain in sciatica, but in many cases they are most beneficial. In acute cases the salicylates in combination with the bromides and tincture of gelsemium answer well. Aspirin appears to have a specific effect in relieving the pain of fibrositis; and pyramidon, exalgin, acetanilide, and phenalgin are worthy of mention. Potassium iodide is a most valuable remedy, more particularly in chronic cases, especially when combined with the glycerophosphates. Tonics (iron, arsenic, strychnine, etc.) are very necessary when the acute symptoms have subsided.

Regarding local treatment, many pin their faith to flying blisters; the disadvantage is that if not effective they interfere in a measure with the adoption of other methods of treatment. Hot linseed poultices, antiphlogistine, a canvas bag containing mustard bran, electra cloth applied along the course of the nerve, are all good methods of counter-irritation.

Anodyne colloid is excellent for relieving local pain, and particularly if the alkaloids it contains are brought into activity by applying a piece of moist spongioline over the collodion film. The A.B.C. liniment or the compound chloral paint (which contains chloral hydrate, camphor, menthol, and thymol) painted on the painful areas with a brush form valuable remedies. Methyl salicylate, to which may be added tincture of iodine and menthol dissolved in paregen, or made into an ointment with vasogen, is a favourite application of mine. Mesotan, or 1 to 3 drachms of spirosal in ½ oz. of rectified spirit, are of service in fibrositis. Morphine may be administered hypodermically, but the danger of the patient acquiring the habit of self-administration, particularly in neuralgic cases, must not be overlooked. For the first few nights of an acute attack suppositories containing ½ grain of morphine act well. But I know of no remedy of greater value in relieving the very acute pain than cocaine administered hypodermically in doses of from $\frac{1}{4}$ to ½ grain. This should be injected at the seat of the pain but not into the nerve. It is said that injections of plain water often gives relief, but this cannot be in cases of acute sciatic perineuritis.

Dr. Wilfred Harris[3] reports good results from deep injections of strong alcohol "in cases of fibrositis of the buttock which simulate sciatica, and may precede, and then accompany, sciatic perineuritis." He points out the importance of not injecting the alcohol into the nerve, or paralysis will follow. He also uses a modification of Lange's infiltration of the nerve with warm normal saline solution and eucaine, reporting in a series of 34 cases of chronic sciatica 24 completely cured and 3 considerably improved. Fibrolysin I have never found of any service.

Balneological Treatment.

I do not propose dealing with the internal administration of natural mineral waters, but wish to draw attention to the various methods of balneotherapy which are adopted at Harrogate. Naturally, the majority of cases which come under observation are of the nature of chronic sciatica.

In the Greville hot-air bath, designed for the application of local dry heat, the heat is generated by the passage of an electric current through high-resistance wires fitted in suitably shaped cases and insulated from the patient, and conveniently adapted for application to the lumbar region and the lower extremity affected. The limb is lightly covered with a layer of lint and submitted to a temperature of 300° to 400° F. for from twenty to sixty minutes. In the Dowsing radiant light and heat bath the heat is generated by electric heat lamps fitted in specially made aluminium reflectors. The patient lies on an asbestos sheet placed on a bed surrounded by the lamps, the body being covered with asbestos to keep in the heat. The temperature is raised to 250° to 350° F. It is claimed that the addition of the light to the heat rays increases

their therapeutic effect. Both the Greville and the Dowsing baths are useful in relieving pain, but in the treatment of chronic cases I have found them disappointing.

Hot sulphur immersion baths are often given combined with subsequent local treatment consisting of mustard packs placed down the sciatic nerve.

Mud baths, which are to all intents and purposes a universal poultice, are one of our most valuable methods of treatment. They are made from peat obtained from the Yorkshire moors; it is broken up in a mechanical mixer to the consistency of thick pulp, and afterwards raised to the required temperature by superheated steam.

Electrical Treatment.

For cataphoresis, the skin must first be cleansed with ether soap, and dried, any abrasions present being covered with a film of collodion. A leaden electrode, 8 in. to 12 in. long by 4 in. wide, and covered with eight to twelve thicknesses of lint soaked in a 1 to 2 per cent. solution of chemically pure sodium salicylate, is fixed along the course of the sciatic nerve over the lower part of the buttock and the back of the thigh. It is connected with the negative pole of a galvanic current. The inactive pole, which should be the larger of the two, is likewise covered with several thicknesses of lint soaked in a saturated solution of lithium carbonate, and placed in a convenient situation, for example, across the shoulder blades, and afterwards connected with the positive pole. Salicyl ions are electro-negative, and consequently flow from the negative to the positive. The current strength is increased until the patient feels it; in practice 1½ to 2½ milliampères per square centimetre is the strength of current employed. It is not satisfactory to apply the inactive electrode in the neighbourhood of the ankle, because of the unevenness of the surface and the consequent difficulty of preventing electrolysis. As an alternative to this, if it be desired to confine the flow of the current to the affected limb, it is a good plan to immerse the foot and the leg up to the middle of the calf in a weak solution of lithium carbonate contained in a deep foot cell, this being connected to the positive pole of the galvanic supply. If a continuous current from the mains is available, all that is necessary is a shunt switchboard fitted with a milliampèremeter; but if the town's supply be an alternating current, a rotary converter to transform the alternating to a constant current will be required. If no electricity be available, a battery of 20 to 30 dry cells, fitted in a suitable case, with double cell selector, and milliampèremeter is all that is necessary. This forms a rational, and in my experience a very successful, method of treatment of chronic sciatica. Where the condition is associated with lumbar fibrositis, the administration of iodine by ionization, using a 1 to 2 per cent. solution of either sodium, potassium, or lithium iodide, is more useful than the salicylates.

The high-frequency current is sometimes of service in cases of sciatic neuralgia. It is usually applied by auto-condensation, followed either by bipolar massage or the *effleure*. For the former the patient lies on his side on a couch, holding the handles in connexion with one pole of the high-frequency apparatus, the other pole being connected to the attendant by means of a wristlet. The method of administration is by light massage to the affected area through one thickness of clothing, causing slight sparking, which increases the local reaction. For the *effleure* a brush with metallic points in electrical connexion with a high-frequency resonator is held 4 to 5 in. away from the patient and made to travel up and down the sciatic nerve.

If the galvanic current be adopted, and it can be used with advantage at the acute stage, the stabile electrode is placed between the shoulders and the mobile electrode applied to any specially tender spots. It may also be administered in a full electric immersion bath. The patient lies in a bath of plain or sulphur water at a temperature of 98° to 102° F., in which is fitted at the head a large copper electrode and at the foot two smaller electrodes, one on each side of the bath.

Dr. Schnee's four-cell bath, in which the hands and feet are placed in four separate receptacles containing water, is an improvement on the electric immersion bath in that the dosage the patient gets is under the absolute control of the operator. The cell containing the foot of the affected leg is connected to the negative end and those containing the other leg and arms to the positive pole so as to control the flow of current and local action to the affected limb.

The sinusoidal current, which is an alternating current and differs from the galvanic in that its polarity changes with great rapidity, is chiefly indicated in cases of sciatic neuritis, the galvanic in sciatic perineuritis.

Massage douching, on the Aix or Vichy principle, is so well known that no description is necessary. Combined with the Scottish douche, alternating currents of hot and cold water on the spine and leg, it forms a valuable method of treatment in chronic cases, but should not be permitted until pain and tenderness have disappeared. The same remark applies to dry massage, which is of distinct service in preventing the formation of adhesions. The masseur must proceed very cautiously, confining his attention at the beginning to attempting to improve the nutrition of the muscles. Passive movements should be employed as soon as possible. With the patient in the recumbent posture, the thigh is flexed upon the abdomen, first with the leg flexed, and then with the leg extended. Abduction and external and internal rotation in various combinations are part of the daily treatment. With improvement these movements become less passive and more active. A very useful exercise consists in rising from a low couch or seat, on which the patient sits with both feet on the ground, at first with the aid of the masseur, and as the need for assistance lessens steadily decreasing the height of the seat until he can rise unaided from a footstool.

And, lastly, in cases which have resisted all other methods of treatment, good results have been obtained from surgical treatment, and particularly so when dense adhesions have been discovered between the nerve sheath and adjacent tissues. The beneficial effect of nerve stretching is largely due to the breaking down of such adhesions. Of acupuncture I have no personal experience, save that I have seen several patients who have undergone this treatment with temporary relief only.

Regarding after-treatment, the patient must be cautioned to keep the affected limb very warm, and there is nothing better than woollen combinations made of double thickness in one leg. Cold, damp, or hard seats must be avoided, and, inasmuch as the exciting cause in so many cases has been in my experience sitting on the cold seat of draughty watercloscts, I always advise the patient to use a felt cover.

The cure of cases of chronic sciatica is oftentimes a very gradual process. In the beginning, with the patient lying on his back, it may not be possible, holding the heel, to raise the foot in the slightest from the couch without causing pain; but as the condition improves the leg can be raised higher and higher, and this incidentally affords a rough and ready, but on the whole accurate, indication as to the extent to which progress in recovery has been made. It is also well to bear in mind that, though the patient may consider himself so, he cannot be said to be completely cured and altogether free from the danger of a relapse until the thigh with the leg fully extended can be acutely flexed upon the abdomen without causing pain.

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THE first International Congress of Comparative Pathology will be held in Paris in October next (17th to 23rd). The Congress, which is organized by the Société de Pathologie Comparée, will be under the presidency of Dr. Roger, Professor of Experimental Pathology in the University of Paris. Professors Bouchard and Chauveau are honorary presidents. In addition to them, the following are among the members of the Comité de Patronage: Professors Landouzy (Dean of the Paris Faculty of Medicine), Professors Achard, Blanchard, Chantemesse, Delbet, Letulle, Albert Robin, Widal, of Paris; Drs. Hallopeau, Jeanselme, Netter, and Tuffier, of Paris; Drs. Roux, Metchnikoff, and Borrel, of the Pasteur Institute, Paris; Nicolle, of the Pasteur Institute, Tunis; and Professor Calmette, of Lille. The Secretary of the Committee is Dr. Garnier, Physician to the Paris Hospitals; the General Secretary of the Congress is M. Grollet (42, Rue de Villejust, Paris), to whom all communications relative to the Congress should be addressed.

TRAUMATIC OSSIFICATION OF TENDON.

BY

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UNDER this term one would first associate the ossification of the adductors met with in horsemen, and which receives the special appellation of "rider's bone." Or, again, we may think of another common example occurring in the deltoid muscle, usually seen amongst soldiers, the "drill bone."

These two conditions are explained by the detachment of periosteal fibres consequent upon some strain: these fibres still continue to perform their functions, and so give rise to the bony formation found in the tendon of the muscle. Apart from the foregoing, bony conditions occurring in either the tendons or muscles are rarely met, so it may be of interest to record the history and histology of the following example.

In the first place, allow me to state that I wish to demonstrate not a periosteal bony formation, but an actual metamorphosis of tendon fibres into cancellous bone.

A. S., mate on a coal barge, six months before he came under my care met with an accident as the result of a

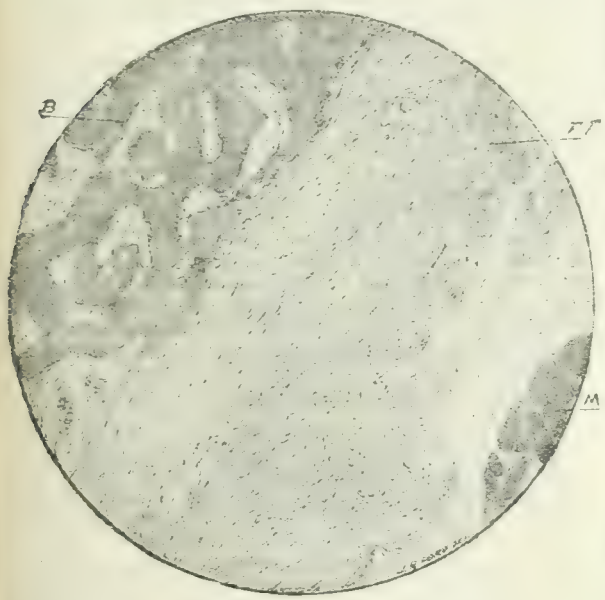


Fig. 1.—B, Bone; F T, fibrous tissue; M, muscle.

collision between his boat and one of the many narrow bridges crossing a canal. He was wedged between the barge and the bridge, being caught chiefly about the pelvis. Four days after this accident the patient was admitted to hospital, and it was discovered that besides contusions and abrasions of the anterior abdominal wall, he had, on x-ray examination, a fracture of the left ala of the pelvis. The fracture was triangular in outline, having a base of ¾ in. situated at the crest of the ilium.

The patient received the usual treatment, the pelvis was immobilized as far as possible, and he was kept for six weeks in bed. In eight weeks from the date of admission he was discharged with good union and free from pain. Subsequently for two months his condition progressed favourably, but after this, and indeed for the next two months, a most excruciating pain was felt in the upper and outer side of the left thigh, over the cutaneous distribution of the external cutaneous nerve, so that six months after the accident he was again admitted complaining of this pain, which chiefly made its appearance at night. On examination it was seen that the bone in the region of the fracture was greatly thickened, upwards of 3 in. or 4 in. in diameter, in fact, a most exuberant callus formation: whether due to an "ossific diathesis" or some clinical condition not easily explained it is difficult to say.

He stated that his father or mother, brothers or sisters, never had any broken bones, so one cannot determine whether any bony tendency runs in the family or no.

This pain in the upper and outer side of the thigh increased, so that operative measures were adopted. An extensive incision was made, and we found the external cutaneous nerve raised up on the summit of a huge lump of callus; the irritation so produced no doubt accounted for the pain.

This exuberant cancellous bone was fully dealt with, and the nerve relieved. Coming now to the item of striking interest in this case—that is, over the left inguinal region there was an isolated plate of bone imbedded in the tendon of the external oblique muscle and closely incorporated with its muscular fibres. This plate of bone had no connexion with the exuberant callus of the pelvis, but was completely isolated, and indeed was underlying the contused area on the skin following the accident.

Now I feel assured that this plate of bone was the result of the injury: in other words it was traumatic in origin. Again, it may be asked whence it cometh, from what structures did it arise, whether from tendon, muscle, or perhaps a new bony formation? The accompanying photomicrograph will speedily dispel all uncertainty, showing clearly that the bone is formed from the tendon fibres; at any rate they are replaced by bone of a cancellous type. Therefore it must be admitted that we have here an example of traumatic ossification of tendon fibres arising as a most unusual sequela complicating fractured pelvis.

NOTES ON AN INTERESTING CASE OF COLOUR BLINDNESS.

BY A. RUDOLF GALLOWAY, M.B., C.M., M.A.,

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A LINE fisherman, aged 27, came to the Eye Institution on February 21st to have his colour vision tested, as he wished to apply for a skipper's certificate. He had not previously entered for any eyesight examination, and had not had any practice with coloured wool tests. He had been at sea for a number of years, and was considered to have excellent form and colour vision. In any difficult situation the skipper always sent for him, as he could detect lights sooner than other fishermen.

Form Vision.

His form vision was normal, namely, $\frac{6}{6}$ in each eye with no manifest hypermetropia.

Colour Vision.

TEST I.—The colour test was begun with K. Scott's asbestos chimney over an Argand burner. All the coloured glasses were repeatedly named correctly, clear or obscured by the ground glass disc, and with any size of aperture down to 2 mm., the test being applied at 3 metres distance.

The white or yellow light of the open aperture was correctly named. When, however, the ground glass disc was shown, the colour named was green, and this mistake was made repeatedly.

TEST II.—The second test used was Holmgren's wools.

1. *Pale Green:* The colours selected were pale blue, light and dark greys, also brown.
2. *Rose-pink:* Mostly pure pinks were chosen, but there was one confusion colour.
3. *Red:* Most of the reds were picked up, but also one or two dark browns.

The following additional Holmgren skeins were used as tests:

(*a*) *Medium Green:* This was matched correctly.
(*b*) *Pale Blue:* This was assumed to be green, and greys, browns and greens were selected.
(*c*) *Medium Blue:* Matched correctly.
(*d*) *Greyish-white:* With this was matched nearly all the pure greens, also greys, one or two blues, and a yellow-green.

TEST III.—The third test applied was Edridge-Green's wools:

1. *Orange:* Yellows only selected.
2. *Violet:* Blues, with one or two violets.
3. *Red:* Matched correctly.
4. *Blue-green:* Greys, greens, and yellows chosen.

The following additional skeins were used as tests:—

(*a*) *White:* Pinks only taken.
(*b*) *Light Grey:* Blues chosen.

TEST IV.—The fourth test was Edridge-Green's glasses with Thorington asbestos chimney, the aperture being 10 mm. at 3 metres distance:

(*a*) Thin—Neutral 1, named green.
(*b*) Medium—Neutral 2, named green.
(*c*) Thick—Neutral 3, named green.
(*d*) Neutrals 1 and 2 (which give red), named green.
(*e*) Ground glass, named green.
(*f*) Ribbed glass, named green.
(*g*) Red glasses, all three shades named correctly.

(*h*) Dark red with neutrals 1 and 2 was blank, no red being visible to the man when it was seen by myself.
(*i*) Dark red with ribbed glass, named green.
(*j*) Dark red with ground glass, named green.
(*k*) Orange, named green.
(*l*) Green, named correctly.
(*m*) Blue-green, called light blue.
(*n*) Blue, named correctly.
(*o*) Violet, called "mauve or blue."

TEST V.—The fifth test was the spectrum as seen in bright daylight through a small spectroscope. The only colours seen were three in number, and were called "red," "green," and "blue."

The chief points of interest in this case are:

Test I. The coloured lights, however small and clear or obscured, being named correctly, while obscured white was invariably called green.

In Test II. if decided shades were used as tests, the matching was good, and would undoubtedly satisfy many examiners. The best colour in Holmgren's wools to show the defect is probably a greyish-white, which is not one of the standard tests.

In Test III the failure to select orange, and the confusion of blue and violet, are important points, while blue-green must have been very imperfectly seen.

In Test IV the name green was applied to all neutrals, to orange, also to ground and ribbed glasses alone and with dark red, while the red given by neutrals 1 and 2 was called green. The fact that dark red with neutrals 1 and 2 was not seen shows that there must be some shortening of the red end of the spectrum, in addition to the other defects.

Test V, in which he stated positively that there were only three colours, considered along with the other tests, indicates that the case is one of trichromic colour blindness with shortening of the red end of the spectrum, as described by Dr. Edridge-Green.

I have no doubt that this man is unfit to be entrusted with the care of life at sea; it is also evident that something more than the ordinary Holmgren tests in the hands of laymen is required to detect his deficiency.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

HAEMORRHAGE FROM THE INTESTINAL MUCOUS MEMBRANE IN MEASLES.

A BOY aged 7 years, whose father had died of pulmonary tuberculosis, had a typical attack of measles; the rash was well out, and there were slight bronchial symptoms, but the case seemed mild. I was informed on the fourth day of the attack that the child had had attacks of vomiting without relation to food (milk and soda water). Having already noticed that the epidemic which is raging here was occasionally ushered in by intestinal symptoms—vomiting and diarrhoea—I took no immediate notice of this symptom. The friends sent for me during the afternoon of the same day and showed me about two ounces of liquid blood, bright red in colour, not clotted, with shreds of mucus and typical sago-like masses of mucus, which they said the child had passed at stool. The child looked bright, but slight pain on pressure was elicited over the right iliac region. The patient complained of pain in the lumbar region of a colicky nature, and in front over the caecum. During the attacks the child would jump up in bed and demand the bed-pan. The haemorrhage continued in small quantities hourly for the next twenty-four hours in spite of treatment by an ice-bag to the abdomen and pulv. cretae aromaticus cum opii, grains iij every two hours. No sign of faeces was noticed in the discharge passed after each attack of pain; there had been no catarrh of the intestine before the haemorrhage occurred. I came to the conclusion that the haemorrhage was due to hyperaemia of Peyer's patches, sometimes met with in measles, especially the haemorrhagic form. Having made this diagnosis, and as the blood showed no signs of coagulation, I prescribed calcium chloride gr. v, tinct. hamamelidis ♏ iv, liquor morphinae hydrochloridi ♏ ij, every two hours. The haemorrhage gradually ceased during the next twelve hours, save for a slight discharge of blood-stained mucus which came away involuntarily on the bedclothes. The child had a normal movement of the bowels on the third day from the commencement of the haemorrhage, of a natural colour but smelling badly. Prolapse of the rectum, brought on by straining during the attacks of colicky pains, ensued, but the boy made a good recovery.

JOSEPH STARK, L.R.C.P.,
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THREADWORMS IN THE VERMIFORM APPENDIX.

I HAVE read with interest the notes on "Threadworms in the Vermiform Appendix," by Dr. Wilson of Tunbridge Wells, in the JOURNAL of April 13th. The following notes of a case on which I operated on April 9th, and found in the appendix *Oxyuris vermicularis*, may be of further interest to your readers.

Miss A. G., aged 21 years, had suffered during the last eighteen months from repeated attacks of subacute appendicitis. The cardinal symptoms of all the attacks were so indefinite that I was in doubt as to the correct diagnosis, and therefore the call for operation, but as the patient had a more severe recurrence on April 1st, with marked pain and tenderness over McBurney's point and in the lumbar region, I decided to operate when the symptoms subsided, which they did on April 3rd, the patient being up and downstairs when I visited her. I would point out that in its shortness this attack was similar to the previous attacks, one of which only lasted a few hours.

On operating I found a very long appendix, measuring 6½ in., passing up behind the ascending colon, which showed signs of recent inflammation, there being excessive injection. On opening the organ I found, 3 in. from the apex, a threadworm ¾ in. long, embedded in faeces, which filled the interior, and at the apex five fine hairs. The mucous membrane was greatly thickened.

I find, on inquiring into the previous history from the patient's mother, that A. G., when a child, "had a habit of lying and sleeping with her right leg drawn up," and during her whole life has had frequently dull pains over her right side and in her back, with often acute pain for a few hours, which were relieved by hot fomentations and the recumbent position. These attacks were thought to be "indigestion."

Hawick. J. OLIVER HAMILTON, M.B., Ch.B.

HAEMOPHILIA IN AN INFANT.

MRS. C. was delivered normally of a female child, small but healthy. It passed no urine till it was thirty-six hours old, but took to the breast a few hours after birth.

Three days after birth there was very slight haematemesis: the next day, the mother said, a little blood was mixed with the faeces and urine, and the child appeared slightly jaundiced. Careful watch was kept for the next few days for further symptoms. When I called on the eighth day I was struck by the marked change since I saw the child the day before. Its face was now a deep lemon yellow, suggestive of intense anaemia. The "binder" was found soaked with blood, which had proceeded from the neighbourhood of the umbilical cord. No bleeding point could be found, but I transfixed and ligatured the remains of the cord, and applied a compress. The mother said she had noticed nothing wrong when she washed the baby half an hour before. The child was already comatose. Further bleeding occurred twice during the day from the same locality. The cord had practically come away.

At the necropsy, performed thirty-six hours later by Mr. W. J. Heslop, F.R.C.S., several bruises under the skin were found. All the organs were normal, but very pallid and bloodless. The ventricles were practically empty save for a little uncoagulated blood. The liver had not the yellow colour suggestive of icterus neonatorum. On opening the skull the space between the brain surface and the membranes was filled with thin uncoagulated blood, but the brain substance itself was bloodless, the blood evidently having oozed out from the vessels. The weight of the child was 4½ lb.

Mr. Heslop came to the conclusion that death was due to a true haemophilic condition. There was no fever and no suspicion of specific disease in the parents, who are both healthy. The case is thus differentiated from the haemorrhagic diseases of the newborn described by Osler.

Cheetham Hill, Manchester. S. DANZIGER, L.M.S.S.A.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

NORTH OF ENGLAND BRANCH: NEWCASTLE-UPON-TYNE DIVISION.

The March winter scientific meeting was held at the Royal Victoria Infirmary, Newcastle-on-Tyne, on Friday, March 15th, when seventy medical men attended, Dr. James Dew being in the chair.

Auricular Fibrillation.

Dr. W. E. Hume said that the introduction of graphic methods into the study of the cardio-vascular system had advanced our knowledge of the mechanism of the normal and pathological heart: that now it was possible to assign most irregularities of the pulse to a particular abnormal focus in the heart. A foundation had been made for the better observation of the effects of treatment in heart failure. A definition of auricular fibrillation was then given, and 53 cases were shortly analysed. Tracings were thrown on the screen showing normal jugular pulses; this was followed by a series of tracings from cases of auricular fibrillation. In the latter stress was laid upon the absence of the large "A" wave seen in the normal tracings and upon the complete irregularity of the pulse. It was then pointed out that most cases of auricular fibrillation could be diagnosed by means of the fingers alone. Diagrams were shown illustrating the effects of the administration of digitalis in cases of auricular fibrillation. Some of these effects were compared with those obtained in heart failure with a normal rhythm. The principles of the administration of digitalis were briefly referred to. Lastly, the presence of auricular fibrillation as it affects prognosis was discussed.

Ectopic Gestation.

Professor Ranken Lyle stated that the diagnosis of this condition before rupture was a matter of great importance, and with a little care there was not much difficulty in the diagnosis. After detailing the symptoms and emphasizing the most important, he pointed out that ectopic gestation was most frequently mistaken for incomplete abortion, and often treated as such until the more serious symptoms occurred and the actual condition was recognized. Dr. Lyle showed a large number of specimens, including one of ovarian pregnancy and a fetus which was removed from the abdominal cavity at full term.

Practical Points in Connexion with the Urinary Tract.

Mr. Clay first showed pictures illustrating the structures in relation with the kidney when in its normal position. He pointed out how much more accessible the pedicle of the kidney was when approached from this point, and that it was advisable to bear this in mind when, from the large size of a renal tumour, difficulty was anticipated in getting at the pedicle of the kidney. Although these were the relations of the kidney when normally placed, the kidney was one of the greatest wanderers of all the abdominal viscera. He showed a skiagraph of the kidney which he had distended with collargol injected through a ureter catheter. In this way, by means of the ureter catheter, not only by drawing off a sample of urine, could it be made out what the kidney was doing, but the exact position and size and shape of the pelvis of the kidney could be made out. He showed skiagraphs of stones in the lower end of the ureter—one from a child, the other from a woman—in both of which the stone could be felt by pelvic examination, illustrating the importance of not neglecting the old and tried methods of physical examination. He related a case in which a kidney affected by congenital disease had been ruptured by a fall from a bicycle, and in which the kidney had been treated extraparietally and only returned to its bed when all danger of haemorrhage had ceased. He showed lantern slides of the bladder and urethra, and laid stress on the fact that it was very necessary to remember that patients with either complete or partial obstruction of the outlet from the bladder often never complained of any urinary trouble, and that it was necessary to be on the look-out for the condition if it was not to be overlooked. In illustration of this, he showed a bladder, the result of prolonged retention, in which the patient appeared to be suffering from dilated heart and made no complaint of any urinary trouble. He related other cases in which intestinal obstruction was the prominent symptom of the renal insufficiency resulting from urinary obstruction.

Ancient and Modern Prescriptions.

Mr. Sydney Dunstan, M.P.S., F.C.S., read a paper on ancient and modern prescriptions. He thought a better name would have been Ancient and Modern Pharmacy. On this subject a book entitled *The Chronicles of Pharmacy* had been published by Messrs. Macmillan and Co., to which he was indebted for much information, and which might be consulted by those who desired to follow up the subject. The earliest people who claimed to be able to cure disease were called herbalists, and in many cases were women, but more often priests. The records of this art and mystery went back to the remotest periods of ancient history. Soon after finding out some of the properties of herbs they began to employ preparations from them for internal use. Thus this sacred art, surrounded by mysteries and superstition, was introduced. The earliest writings relating to pharmacy could be seen in the British Museum; many of them consisted of Egyptian prescriptions, dating somewhere about 2,000 years before the birth of Christ. George Ebers, the great Egyptologist, visited Egypt in 1872, and, after making extensive searches and inquiries, was ultimately successful in obtaining from an Arab a genuine papyrus which he had discovered in the Theban Necropolis in a metal box between the knees of a mummy. These writings had proved to be of great value in the delineation of the medical customs of that time. The writing on this material was in black ink, but other headings were in red, and were supposed to date somewhere about 1550 B.C., which, according to Scriptural chronology, corresponded to the 25th year of the life of Moses. The following directions show how the Egyptian physicians diagnosed liver complaints:

> When thou findest one when eating, he feels a pressure in the bowels, and the stomach is swollen, feels ill while walking: look at him when lying outstretched and if thou findest his bowels hot, and a hardening in the stomach, say to thyself, "This is liver complaint"; then make a remedy according to the secrets of botanical knowledge, from nuts and dates pounded and mixed with water, the patient to drink on four mornings to purge his body, then after, if thou findest both sides of the bowels, namely, the right one hot and the left one cold, then say, "That is bile": look at him again, and if thou findest the bowels entirely cold, then say to thyself, "His liver is cleansed and purified, he has taken the medicine, and the medicine has taken effect."

Superstitious notions in connexion with medicine were not more apparent in those days than they were in any British herbal of 300 or 400 years ago. Charms, enchantments, amulets, and all the armoury of witchcraft and magic had been intimately mixed up with medicine and pharmacy in all countries and in all ages. Hermes and Soloman were famous among the early practitioners and teachers of magic, and it followed that those who made their living out of the superstitions of the people pretended to have their knowledge and practices from those great heroes of the past. Among some of the New Zealand natives, for example, it was believed that a separate demon existed for each disease, each of these demons having something that would please or frighten him, so that amulets, charms, etc., came into use. In North America the Indians attributed all diseases to one evil spirit only; consequently their treatment of complaints was all the same. The belief of the savage or untutored races in demons which caused disease was natural. It would be useless to relate at any length the number of silly superstitions which had existed in quite modern times, and existed at the present day. After referring to the perpetuation of Galen in "galenical" preparations, Mr. Dunstan went on to say that Paracelsus and Culpepper, who lived at a much later period, also deserved a place among the masters of pharmacy. Paracelsus was born in 1493, and was the first physician to put forward the doctrine that life processes were chemical—therefore, they must look to chemistry for remedies to cure disease. Culpepper, who was born in 1616, was also noted for his pharmaceutical skill and his cleverness in criticizing the first and second editions of the *London Pharmacopoeia*. The College of Physicians was incorporated by charter in the

reign of Henry VIII (1518), and the first *London Pharmacopoeia* was introduced in 1618. That production did not err on the side of condensation; it comprised 1,028 simples and 932 preparations and compounds: 211 of these preparations had more than ten ingredients in each. Some of the items used were as follows: Worms, frog's spawn, fox's lungs (this was a popular remedy for asthma in the form of a syrup), blood of the badger, bull, cat, dog, goose, hare, man, bones of the hare, pig, stag, and the triangular bone of the human skull. "Liquor cranii humanii" was a highly prized remedy: it was prepared from unburied skulls, those of criminals for preference. The druggists in London sold skulls upon which had grown a little greenish moss because it resembled the moss which grows on the oak. These skulls mostly came from Ireland, where they frequently let the bodies of the criminals hang on the gibbet till they fell to pieces. The market price of skulls at that time varied in London from 8s. to 11s. each: those with plenty of moss on made fancy prices. Also used were coral white and red, crabs' claws, crabs' eyes, crayfish, cuttlefish, excrements of the cow, horse, mouse, pigeon, sheep, and wolf: powders of precious stones, pearls in particular: viper's flesh. Both in ancient and modern times vipers have been held in the highest esteem for their medicinal virtues: vipers' fat, vipers' wine, are used to this day in some remote parts of Britain. Vipers used in medicine were of the common variety, commonly known to-day as adders, *Vipera communis*. Quincy (1728) had great confidence in their virtues. He wrote:

> That they are Balsamic and greatly Restorative is confirmed by long experience, for we have many instances in Physical Histories of persons arriving at an healthful old age by their frequent use.

In a local paper only a few weeks ago there was an account of a snake farm in America where they had 30,000 snakes, which were kept for procuring the venom for medicinal use, so it seemed that the old theory was being revived. After the first *Pharmacopoeia* had been several times reprinted a new one appeared in 1650. Tolu, benzoin, jalap, and steel wine were added. The fourth edition appeared in 1721, the fifth in 1746, when tinctures now came into favour, the sixth in 1778: the College claimed to have paid special attention to the advances made in chemistry and pharmacy, and to have provided that very few of the former superstitions should remain: bezoar stones, viper's flesh, and some other substances were dismissed, but woodlice remained. The seventh edition appeared in 1809, the eighth in 1824, and the ninth in 1836; that work was well up to date, with notes indicating the methods of ascertaining the purity of medicines, better methods for preparing chemicals and compounds, and the introduction of the most of the important new products, such as the alkaloids of morphine, quinine, and strychnine. The tenth and last of the *London Pharmacopoeias* was published in 1851; chloroform, cod-liver oil, ext. nux vomicae, atropine, and ammonia citrate of iron were the principal novelties now made official. The Medical Act of 1858 authorized the fusion of the *Pharmacopoeias* of the three kingdoms, and assigned the task of carrying out this work to the General Medical Council created by that statute. The first *British Pharmacopoeia* was issued in 1864. Three great achievements characterized pharmacy of the nineteenth century: first, the discovery of alkaloids in the early years, anaesthetics in the middle periods, and of synthetic products in the latter years. From a pharmacist's point of view anaesthetics are about the most troublesome class of preparations he had to deal with, and required constant analyses. The past fifty years had witnessed a very great activity among investigators in every branch of science. It was probable that no art had gained such valuable knowledge through experimental research as that of medicine. This satisfactory state of things had been brought about not only by direct chemical observations made by medical experts, but also by the physiologist, bacteriologist, and chemist in their respective laboratories. It had been shown that under suitable treatment natural products, such as leaves, roots, and barks, might be made to yield definite chemical compounds. The vast strides made in organic chemistry had also enabled the chemist to synthetize large numbers of compounds possessing a known structure and known action, which action could frequently be modified by some alteration in the structure. These compounds had been classified according to their action, as antipyretics, diuretics, antiseptics, and hypnotics. At the present time the physician, instead of giving his patient large quantities of indefinite preparations containing numerous ingredients, which might be chemically or physiologically antagonistic to each other, was enabled to select some definite compound, of which he knew both the chemical constitution and the physiological action, but under the old conditions of polypharmacy it was a virtual impossibility to attribute the beneficial or harmful action of a preparation to any special ingredient. Apart from the great advances made in pharmacology, there had also been a distinctly forward movement on the part of the hospital pharmacist to place within the reach of the medical staff preparations of undoubted quality, strength, and elegance. Their aim was to make every product of the best material in the best possible way, so as to ensure exact dosage and constancy of physiological action.

Reports of Societies.

MEDICAL SOCIETY OF LONDON.

Monday, April 22nd, 1912.

DR. J. MITCHELL BRUCE, President, in the Chair.

The Vital Phenomena under Anaesthesia.

DR. DUDLEY BUXTON, in the course of a paper on the vital phenomena—nervous, circulatory, respiratory, and metabolic—occurring under anaesthesia and their relation to the safety of the patient, pointed out that the exigencies of modern surgery involved the necessity for a deeper narcosis than was adequate in the earlier times of anaesthesia, and frequently necessitated that this should be maintained for a long time. The phenomena he indicated embraced during the induction period have been studied and are now fairly well known, whereas the effects of prolonged action of anaesthetics upon vital tissues are less studied and less understood. Research has, however, shown that more or less profound effects are produced which, even if not shown to be inimical to life at the time of the operation, seem to be the cause of serious results later. To study them it is essential to differentiate the effects of therapeutic dosage—that is, dosage adequate to produce the necessary degree of narcosis—from those arising from toxic dosage—that is, dosage in excess of this. The known effects upon the blood, upon nerve cells, muscular structures, upon glands and organs, and the essential functions of the organism, were then brought under review, and it was shown that the intimate aggregation of the anaesthetic and the cells of the body resulted in an inhibition of function. In the case of patients already suffering from derangement of function—for example, blood disease, fatty degeneration, profound exhaustion, and so on—a maximal effect is brought about by a minimal action of a narcotic. Similarly, since blood and tissues are able to take in more and more anaesthetic, the longer the period during which they are subject to its environing influence the greater and severer are the effects. Dealing with the measures whereby such deleterious effects could be minimized, it was pointed out that cells part with the aggregated anaesthetic when the internal is greater than the external tension, so the indication is to lessen the strength or amount of anaesthetic when the requisite degree of narcosis is reached, and to lessen it still further as time elapses. Certain intercurrent results due to the effects of anaesthetics or the operation, such as lessened aëration, fall of blood pressure, depression of temperature, loss of blood and shock, being themselves dangerous to tissue vitality, must be watched for and counteracted. The effects of nerve shock during analgesia were dealt with, and their dangers in certain cases emphasized. It was finally urged that if the dangers of prolonged interaction of narcotics given in excessive quantities were more thoroughly understood and appreciated, and the necessary precautions, such as more careful preparation, selection of anaesthetic, and method and management of the narcosis adopted, the patient would be preserved from post-operative complications, and recuperation would be more rapid and complete.

Post-Anaesthetic Poisoning.

Mr. E. M. CORNER read a paper entitled, Some Remarks on Post-Anaesthetic Poisoning. It was based on an inquiry which was carried out at the Hospital for Sick Children, Great Ormond Street, but which was not yet completed. The condition could not be ascribed to the presence of any impurity in the anaesthetic, nor to the preparation of the child, nor to the method of administration of the anaesthetic. There was no constant predisposing condition, as far as could be elicited. The nature and duration of the operation were not to blame. It was probable that many of these factors had an obscure contributory power in its production. It was only an assumption that a close relationship existed between acetonuria and post-anaesthetic poisoning. Extreme fatty change in the liver was a constant feature, but it was doubtful whether it always accompanied acetonuria. It was possible that acetonuria was merely a symptom of a metabolic derangement, which was one of many contributing causes of post-anaesthetic vomiting. The safest method of inducing anaesthesia in children was the open ether method, to a child who had been carefully prepared with the addition of glucose to the diet for a few days previously, and who was given an injection of morphine and atropine three-quarters of an hour before the anaesthesia. Post-anaesthetic poisoning was a veritable scourge in a children's hospital, being very much more frequent than was commonly supposed, especially in its non-fatal manifestations.

ROYAL SOCIETY OF MEDICINE.

OBSTETRICAL AND GYNAECOLOGICAL SECTION.

AT a meeting on April 11th. Dr. AMAND ROUTH, President, in the chair, Mr. GLENDINING, in a paper on *Fibro-adenoma of the ovarian fimbria*, described 4 cases in which this new growth was found. All of them he showed might, in the absence of a critical histological examination, have been written down as instances of accessory ovarian tissue. A certain proportion of the reports of cases of accessory ovary were probably based on the error indicated. Dr. J. D. BARRIS, in a paper on *Haematuria in retroflexion of the gravid uterus*, after relating a case in point, said that in all the recorded cases of haematuria the complication had been caused by the accompanying cystitis. In his own case there was no evidence of cystitis whatever, for no micro-organisms were found either on staining film or after cultivation. The haematuria might have been caused by rupture of a blood vessel in the wall of the bladder, or by a tear in the lining mucous membrane, due either to over-distension or to the sudden relief of tension. Grosse was of opinion that a tear in a large varicose vein of the bladder was a common cause of haematuria during pregnancy, the varicose condition being due to the pregnancy, in the same way as haemorrhoids and varicose veins of the vulva. That this condition did occur had been demonstrated by Luys with the cystoscope, and was also observed at a later examination in the case recorded. Dr. WILLIAMSON reported a case in which the rupture of umbilical vessels during labour brought about death of the child. In such cases the insertion of the cord was velamentous. The insertion of the cord was velamentous only in about 0.7 per cent. of all human placentae. In twin pregnancies this insertion was more common. Von Winkel found it as frequent as 5 per cent. in the Dresden clinic. The essential anatomical feature of a velamentous placenta was the termination of the cord at some distance from the placental edge, the vessels diverging from one another and running over the chorion lacve for a greater or less distance. The vessels might take a wide sweep over the membrane, and eventually reach the placenta at a point on the margin most distant from the cord. If these vasa aberrantia ran in the portion of the membranes which lay in front of the presenting part of the child, they were termed "vasa praevia," and it was obvious that they might imperil the life of the child in two ways: (1) By being compressed between the presenting part and the wall of the lower uterine segment, and thus cause asphyxia; and (2) by being torn across when the membranes ruptured. The condition could be diagnosed during labour if pulsating vessels were felt running across the presenting pole of the bag of membranes. After bleeding had commenced the cases were usually mistaken for placenta praevia or accidental haemorrhage. In one or two cases suspicion had been aroused because in spite of severe bleeding the mother showed no signs or symptoms of haemorrhage. The presence of nucleated red corpuscles in the blood would confirm the diagnosis. Spiegelberg recommended that when the diagnosis was made early the membranes should be preserved intact till the cervix was fully dilated and the child then rapidly extracted. The author was of opinion that, when diagnosed early in labour, the best chance of saving the life of the child lay in Caesarean or vaginal section, but when the vessel had once ruptured the life of the child was so precarious that such operations would not be justifiable.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

AT a meeting held on April 11th, Dr. ERNEST KNIGHT President, in the chair, Mr. GRAHAM SIMPSON, in a paper on the use of *Acute flexion in the treatment of fractures* of the lower end of the humerus, strongly recommended this method on account of its simplicity. An anaesthetic was absolutely necessary for the reduction, and the elbow should be bandaged in the position of acute flexion for ten days. The elbow should then be put up at a right angle, and the bandage should be dispensed with on the twentieth day. Passive movements were not only useless but harmful, and massage should not be adopted until movement had returned. Skiagraphy was very desirable, but by no means essential. In conclusion, he emphasized that an equally good result could be obtained by other methods, but that the advantage of this method was that it saved the doctor a great deal of bother and the patient much unnecessary suffering. He showed a typical case of a fracture treated in this way with a satisfactory result. Mr. G. H. POOLEY, in a paper on *Proptosis of the eyeball*, classified the causes as follows: 1. Pressure acting from behind, due to (*a*) inflammations, etc., which might be endogenous or exogenous; and (*b*) neoplasms, which might be cysts or tumours. 2. Action of unstriped muscle of orbit in toxaemias, as in Graves's disease. He then gave details of 16 cases which had been under his care in the last three years. These included inflammatory cases following injury, cases following nasal catarrh and influenza, 2 fatal cases after osteomyelitis and facial erysipelas, hydatid cyst of the orbit, recurrent sarcoma of accessory lacrymal gland, and empyema of spheno-ethmoidal cells. Mr. G. WILKINSON showed a molar tooth removed from the right bronchus by upper *Bronchoscopy*. Owing to its size it could not be drawn into the tube, which measured 9 mm. across. In withdrawing tooth and instruments together, the contraction of the rima dragged the tooth from the forceps, and it fell into the trachea, whence it was removed at the second attempt. Recovery was speedy and uneventual.

LIVERPOOL MEDICAL INSTITUTION.

AT a meeting on April 11th, Mr. ROBERT JONES, President, in the chair, Dr. MUSSON (for Dr. E. W. HOPE) read a note on the strike of last summer and its effect on the health of the city, when the strikers prevented the transport of food, scavenging, and even the sale of milk at the municipal dépôts. The effect was seen in the rise in the mortality from *Infantile diarrhoea* in those districts affected by the strike, while there was no corresponding increase in the unaffected districts. When the schools reopened towards the end of the strike there was four times the usual demand for free meals for the starving children. Dr. W. B. WARRINGTON, in a note on the results of operation in cases presenting the *Brain tumour syndrome*, said that the grave prognosis was mitigated by the following facts: Recovery without operation occurred; recovery occurred after simple decompression operation; in cases which were either cases of the condition of pseudo-tumour, or chronic acquired hydrocephalus, or serous ependymitis, or else such cases as chronic circumscribed arachnitis, a third modifying consideration was the frequency of cysts and their great curability. Dr. JOHN HAY reported 3 cases in which the *Bacillus paratyphosus* B was apparently the cause of a prolonged illness. The cases were sporadic and had no relationship one with the other. The diagnosis was based on the clinical condition and

on the result of agglutination tests carried out by Dr. Cox. Two of the cases were fatal, but no *post-mortem* examination was obtainable. Dr. R. STENHOUSE WILLIAMS, Dr. LEITH MURRAY, and Dr. A. J. WALLACE read a joint paper on *Coliform organisms in the female bladder*, their relation to pathogenic conditions, with a study of some cases treated by autogenous vaccines. Catheter specimens of urine were taken with due precautions from 26 cases showing no evidence of bladder or kidney infection; 11 showed *B. coli* before operation, 24 after operation. A further series of 12 specimens obtained by puncture of the bladder through the peritoneum showed *B. coli* in 4 cases. It was concluded, therefore, that the presence of *B. coli* in the urine did not necessarily prove that this was the cause of pathogenic changes. The inter-agglutinative reactions of the various strains of *B. coli* differed markedly: the use of stock *B. coli* vaccines was not, in the opinion of the authors, justifiable. The bacteriological analysis of 9 cases in which coliform organisms were giving rise to pathogenic changes showed that only in 1 case was true *B. coli* isolated: 2 others showed lactose fermenters not *B. coli*: 2 showed non-lactose fermenters, and 4 cases showed mixed growths, the non-lactose fermenters predominating. In these cases true *B. coli* was only on one occasion the single cause of the pathological condition. The results of treatment with autogenous vaccine in 13 cases of cystitis or pyelocystitis were detailed; 6 of these were very acute, and in all an immediate improvement was produced. The cure did not necessarily imply the sterilization of the urine. Cases of pyelocystitis in pregnancy proved the most resistant, and treatment as a rule had to be continued till after delivery. In subacute and chronic cases a marked and speedy improvement was forthcoming in every case, but the total elimination of pus from the urine was found to be a lengthy matter. Small doses (5 to 10 million) at short intervals were recommended in acute cases, and larger doses (50 to 300 million) at longer intervals in more chronic cases.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on April 16th, Dr. S. LODGE in the chair, Mr. MCEWAN reported a case of *Antepartum haemorrhage treated by Caesarean section*. The patient was brought into hospital with slight haemorrhage and whilst under observation evidently had a large intrauterine haemorrhage, and the abdomen was immediately opened. The patient was transfused at the commencement of the operation. There was practically no haemorrhage during the operation, and the patient made an uninterrupted recovery. Mr. PHILLIPS, in a paper on *Some practical points in surgery*, recommended the "outer" incision in inguinal hernia, leaving intact the fascial bands crossing the inguinal canal, and the "inguinal" incision in femoral hernia, as this enabled the operator to tie the sac at the top of the neck just under Poupart's ligament. In cases of chronic constipation where, as shown by a bismuth meal, the cause lay in the rectum, which did not respond to the stimulus of the faeces, excellent results could be obtained by enemas of pure glycerine, beginning with 2 drachms and gradually replacing the glycerine by water till finally pure water only was given. In obstinate incontinence of urine in girls from 16 to 19 he advised an operation as follows: Dissect up the anterior wall of the vagina and then with a curved needle pass a silkworm-gut suture round the urethra close to the neck of the bladder. Pass a fine catheter into the bladder and tie the suture round it. Put two or three sutures in again lower down. After operation of circumcision Mr. Phillips recommended leaving the dressing on for a week. He said he always found the parts perfectly healed, and avoided in this way the painful daily dressing. Dr. EURICH showed a case of *General paralysis of the insane* in a girl aged 19.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on April 12th, Dr. JOHN BROWNLEE, Vice-President, in the chair, the following were among the exhibits:—Dr. R. SPEERS FULLARTON: A boy aged 9½ years, who was demonstrated to the society on January 19th, with a large tumour of the right kidney, and had since been operated on at the Western Infirmary by Dr. James H. Nicoll. He had made an excellent recovery, and had gained notably in weight. The excised kidney and microscopic sections of the tumour, prepared by Dr. J. SHAW DUNN, were demonstrated, the latter's report being that the tumour was an embryonic adeno-sarcoma peculiar in being almost purely adenomatous in structure. Dr. J. MILL RENTON: A girl aged 8 years, who had sustained in August, 1911, a simple fracture of both bones of the forearm, and had since then, apparently in consequence of over-firm application of splints, suffered from symptoms of Volkmann's ischaemic paralysis, lividity and coldness of the hand, diminished sensibility to touch, marked flexion of the fingers, and wasting of the muscles below the level of the fracture. As the hand was quite useless when seen by Dr. Renton three months later, the treatment adopted was that of indirect lengthening of the tendons by shortening of both bones of the forearm. A length of 1¼ in. was removed subperiosteally and the bones reunited by silver wire. This procedure, followed by the use of splints, as advised by Mr. Jones, had given the child a very useful hand. Dr. DAVID WATSON, in a paper on the diagnosis of *Chronic gonococcal infections*, said that while acute gonorrhoea could be diagnosed from clinical symptoms, in chronic processes bacteriological investigation was essential. The complement deviation test was of proved value as an aid to diagnosis, though its use was subject to certain limitations. The same was probably true of the skin reaction to gonococcus vaccine. This was at present being carried out experimentally in the Glasgow Lock Hospital by the intradermic injection of from 10 to 20 million of dead gonococci of mixed strain. The result of the injection was a white urticaria-like bleb, followed in cases of gonorrhoeal infection by the appearance in a few hours of a surrounding area of intense redness slightly exceeding the bleb in size. This specific reaction reached its maximum in three days, but the redness remained marked till the sixth or seventh day, and slowly faded during the following week or ten days. The effect of the injection in a normal individual was at the most a slight redness, which reached its maximum within twenty-four to thirty-six hours, and faded to a barely distinguishable paleness in four to five days. In post-gonorrhoeal cases a modified reaction between the normal and the specific was obtained. Dr. W. S. SYME made a brief communication on an examination of 1,050 skulls, and some points of interest in connexion with the surgery of the ear and nose revealed thereby.

UNITED SERVICES MEDICAL SOCIETY.

AT a meeting on April 10th, Major C. E. POLLOCK, R.A.M.C., in the chair, Major H. E. M. DOUGLAS, V.C., in a paper on *The special weaknesses, from a medical aspect, of volunteer troops*, instanced, in the first place, enteric fever, and quoted statistics of various wars to show the enormous importance of this disease in war. The main stand-by for prophylaxis was inoculation, and arrangements would be made to carry this out on mobilization. The disturbance which resulted was so transient that this was feasible with regard to immunization against enteric fever. On the other hand, small-pox, which was another disease greatly to be feared in the field, required an immunizing process which would unfit the majority of men for the serious work of an army in the field for a fortnight, and on this account it was necessary to make every effort to secure revaccination of volunteer troops during peace time. That this was necessary was shown by the experience of the American Civil War, and more especially by the ravages which small-pox made in the badly-protected French army in the Franco-German War, where the deaths from small-pox were said to have reached 23,400 in the French army as against 278 among the carefully protected German troops. Sore feet were another great source of weakness in an army recently withdrawn from civil life, and for this the author advised that men should be encouraged to habituate themselves to the use of marching boots, and should be instructed in the care of their feet and the management of their boots. Heart strain also was likely to be extremely prevalent among troops suddenly put to the heavy physical labour of a soldier in the field without the regular and systematic physical training to which a soldier in the regular army was subjected; as a partial remedy for this he recom-

mended that as much as possible should be done to encourage the culture of physical fitness among men of the Territorial Force by the provision of gymnasiums, etc. An example of the effects of overstrain in physically untrained troops was given in the experiences of one of the volunteer concentration camps in the American Civil War, where, out of 4,901 men discharged for physical unfitness, 1,123 suffered from some form of organic disease and 1,200 from functional disease of the heart. The incidence of camp diarrhoea also was much influenced by the physical fitness or otherwise of the troops, as well as by the degree to which they were accustomed to accommodate themselves to the exigencies of camp life.

EDINBURGH OBSTETRICAL SOCIETY.

Ovarian Transplantation.—Dr. H. M. Church informs us that the condition which, during the discussion on ovarian transplantation before the Edinburgh Obstetrical Society on March 13th (BRITISH MEDICAL JOURNAL, March 30th, p. 726), he said might result from the removal of ovaries was rheumatoid arthritis, not osteomalacia. In support of his belief he referred to some experiments by Curatulo mentioned in Ritchie's book on osteomalacia. These experiments led Curatulo to believe that after removal of the ovaries oxidation of organic phosphates diminished and the phosphorus tended to accumulate in the bones in the form of phosphates of lime and magnesia.

Reviews.

THE PROBLEMS OF ASTHMA.

SPASMODIC disturbance of function, whether it affects the nervous, the circulatory, or the respiratory system, presents a never-ending subject for scientific speculation, aided or not, as the case may be, by physical observation. Numerous as have been the discussions and monographs on the subject of spasmodic asthma, no finality of agreement has yet been reached by those who have devoted many years to the study of the disease, except on one point. A recent correspondence in our columns has served to indicate the general opinion that the dyspnoea is due to narrowing of the smaller bronchial tubes, but the exact means by which such narrowing is brought about are variously stated.

The possibility is assumed by some authorities that irritation of the nerve centres, from a variety of causes, may induce acute spasm of the muscular fibres in the walls of the lesser bronchial tubes. Another view regards the bronchial narrowing as being due to turgescence of the mucous membrane, set up, like urticaria in the skin, by some subtle poison acting through the nervous system. A third theory is that so warmly advocated by Dr. J. B. BERKART as long ago as the year 1889, when the second edition of his book on *Bronchial Asthma* was published; the third edition,[1] recently issued, is now before us. To him asthma has always appeared to be essentially due to obstruction of tubes by an exudative process, often associated with catarrh, and only producing dyspnoea after a certain degree of obstruction has been set up. In support of this view he has now been able to bring together a series of seven *post-mortem* examinations of the bronchial conditions in patients who have died during or shortly after an asthmatic attack. Pathological evidence of this kind is as valuable as it is rare, owing to the fact that death so seldom occurs during a paroxysm of uncomplicated asthma. The cases quoted are the only records available over a period of twenty-five years, and they are all reported by observers whose accuracy cannot be impugned. Dr. Berkart long ago put forward the suggestion that this exudative catarrh might be caused by microbic infection, but clinical examination of the well-known mucous pellets, twisted tube casts and spirals, has not as yet proved the constant presence of any special form of micro-organism. Like other advocates who have warmly espoused a particular cause for many years, he is somewhat intolerant of opposing theories and stubborn facts, but the impartial reader will probably conclude that, like the disputants of old as to the colour of the chameleon, the supporters of the various theories are really concerned with several different aspects of the same phenomena.

While Dr. Berkart's theory, supported by pathological evidence, will suffice to account for one form of the disease, it would appear altogether inadequate to explain the absolutely sudden attacks, such as those described by Brügelmann and others, where the spasm arises in instant response to mechanical irritation.

Perhaps the most remarkable point of divergence in opinion among experts, as disclosed in the course of discussions and monographs, relates to the actual form of the dyspnoea. Is it inspiratory or expiratory? Here, again, the differing authorities are probably describing different phases of the same disease. To quote the dictum of an old clinical physician of long experience, the patient's difficulty in asthma is to get the air into his lungs; in emphysema he has to labour to get it out. But the average case of spasmodic asthma is usually complicated by some chronic degenerative changes in the lungs and bronchi, and often in the heart also, and hence the form of the dyspnoea is liable to great variation.

Of all distressing symptoms, breathlessness is the worst, and it is not much to be wondered at that even medical patients themselves are ready to try any and every remedy that has been put forward as a cure for the dyspnoea of asthma. The line of treatment advocated by Dr. Berkart is aimed at prevention rather than cure, with the main object of reducing the liability to catarrh. Incidentally he makes mention of a few cases which have apparently obtained benefit by the use of the antitoxin of diphtheria and by other special methods. Perusal of the work, together with that of others, suggests very forcibly the lesson that asthma may arise from several causes, and that the determination of the cause in each case should determine the best line of treatment.

THE CORRESPONDENCE OF A NEUROLOGIST.

ON the plea that "the ordinary individual takes an intense interest in all that concerns his health," Dr. JOSEPH COLLINS has subjected to a certain amount of pruning and deletion certain letters received from patients and others, together with his own replies and comments, and has published them under the title of *The Way with the Nerves*.[2] They appeared originally in the *Medical Record* of New York, and the favourable reception accorded them led to the suggestion that they might appeal to a wider public. The question at once arises whether the book does not suffer to some extent from this ambiguity of aim. To answer this question it would be necessary to compare its contents in their present modified form with that in which they first saw the light. But inasmuch as the end in view by the author, as the title itself indicates, was rather the inculcation of a generally correct attitude and method of dealing with a certain class of maladies than a detailed technical handbook—rather the promotion of wisdom than mere knowledge—his decision may be justified. In any case, there is no doubt that he has produced a most readable volume. Several of the letters addressed to its author by patients or their friends constitute human documents of remarkable interest. The troubles for which relief or advice tending thereto is sought range from neurasthenia to "dual personality," ennui, and jealousy. One of the most amusing chapters in the book is that in which a lady recounts her observations anent the New World "bedside manner." She describes herself as "a neurotic of vast experience," and is of opinion that "any physician who crosses his legs and waves one toe up and down ought to be boiled in oil." The author advocates the restriction of the term "neurasthenia" to cases in which the morbid condition is mainly acquired, and that of "psychasthenia" to those in which it is mainly inherited, citing Charcot's differentiation of con-

[1] *On Bronchial Asthma: its Pathology and Treatment.* By J. B. Berkart, M.D., late Physician to the City of London Hospital for Diseases of the Chest, Victoria Park, etc. Revised and abridged third edition. London: Henry Frowde, Oxford University Press. 1911. (Demy 8vo, pp. 156; 12 figures. 5s. net.)

[2] *The Way with the Nerves: Letters to a Neurologist on Various Modern Nervous Ailments, Real and Fancied, with Replies thereto telling of their Nature and Treatment.* By Joseph Collins, Physician to the Neurological Institute of New York. New York and London: G. P. Putnam's Sons, 1911. (Post 8vo, pp. 319. 6s.)

genital or idiopathic and acquired neurasthenia in defence of his plea. He justly rebukes the tendency to regard the climacteric as in itself an adequate exciting cause of disease of any kind. And, in reply to a general practitioner who complains that all those of his patients who have got into the hands of quacks have gone there via the neurologist, he stoutly defends the latter from the charge of an inclination to therapeutic nihilism, attributing the too frequent failures rather to the slackness of general practitioners in giving effect to those seemingly trivial directions of the specialist upon which success mainly depends.

SURGERY.

THE place that was held in the affections of students and practitioners of last generation by "Erichsen" may quite reasonably be said to be that occupied by "Rose and Carless" in the present day. This *Manual of Surgery*[3] has reached its eighth edition; it has been translated into Czech and into Chinese, and has been published in America. There can be only one reason for its continued popularity, and that is that it is full, complete, compact, and a work in one volume. The death of Professor William Rose is referred to in the preface by his colleague, Professor CARLESS, but the absence of his name from the title-page makes no essential difference in the work, as his share in the preparation of later editions had been small. In the new edition numerous chapters have been rewritten; for instance, those dealing with diseases of the gall bladder and with malignant disease of the rectum; while the addition of typical blood counts and results of test meals go still further to increase the value of the work. Besides these features, newer advances in theory of disease: Wright's opsonin theory, the Wassermann reaction, the side-chain theory of Ehrlich, as well as quite new forms of treatment, such as the re-establishment of the lymphatic flow by silk strands suggested by Sampson Handley, are duly noted. The chapter on immunity is lucid and comprehensible. Prominence has always been given in this manual to surgical pathology, and we believe rightly. The tendency of the present-day textbook of surgery is to exaggerate the importance of the place of treatment at the expense of pathology, with the result that diagnosis has become the weakest link in the surgical chain. In "Rose and Carless" we have a well-balanced, thorough, steady, reliable book, which is full enough for the man reading for a fellowship, contains all in surgery that a general practitioner may desire to have, and yet is not by any means too large for a student's textbook. There is a very full index, and the illustrations and diagrams are apt and not too numerous. The publishers deserve praise for the convenient size of the volume, for its strong binding, and for this, too, that the leaves lie flat out whenever and wherever the book is opened.

We are glad to bring to the notice of the profession the publication in book form of Mr. W. H. BATTLE'S *Clinical Lectures on the Acute Abdomen*.[4] It may be that such expressions as "acute abdomen" and "peritonism," now commonly used, are pollutions of the well of English undefiled, but they serve their purpose in denoting quite clear and distinct clinical conditions, though we hope that their use will not become permanent. In the meanwhile no practitioner is entitled to content himself with a diagnosis to be labelled "acute abdomen" or "peritonism," for the former is a term which embraces an immense variety of pathological states, and the latter indicates a very late stage in a pathological process, though too often its development is rapid when measured by ordinary standards of time. In these lectures Mr. Battle puts clearly and succinctly the various abdominal catastrophes that are met with, and on broad lines indicates the treatment. The method of clinical lecture is well suited for such a subject, as it is best taught by narration of cases and not by systematic statement. Not that there is want of system in this volume, for the subject is dealt with in a manner which appeals to us as truly systematic. The author begins with the appendix as the commonest seat of origin of diseases culminating in the acute abdomen, and works down the list to causes and seats of origin less and less common. In the after-treatment of acute abdominal conditions success very largely depends on the efficient maintenance of the Fowler position and on saline injections by the rectum. The importance of these two recent adjuncts to the treatment, which we owe to American surgery, is perhaps not yet sufficiently appreciated. It may be said to be a sound general principle that the patient should be put into the half-sitting position as soon as the "acute abdomen" manifests itself, and that in that position he should be moved to the hospital or nursing home or kept at home till operated on. Continuous proctoclysis is not usually a success at home, but four-hourly saline injections are quite practicable, and in the opinion of some surgeons serve the purpose equally well. Two of the lectures deal in a conversational way with "some of the more rare causes of the acute abdomen" and "some neuroses which may cause symptoms of urgency." These are short and necessarily rather scrappy, but they are interesting from the fact that the author gives the clinical history of cases of each of the various conditions mentioned. This little volume will very amply repay perusal, particularly by young surgeons and family practitioners, who will find a large amount of helpful information about very common but often desperate cases which make large demands not only on their professional skill but also on their strength of character and firmness of will.

Dr. KRECKE'S[5] contributions to practical surgery consists in a critical examination of 1,925 operations of all sorts performed in his private practice during the three years preceding 1910. His main object seems to be to show that modern aseptic surgery may be successfully practised in private as well as in hospitals with special equipments, if only the surgeon exercises a little forethought. His description of his personal practice is full of useful hints. He lays special stress on the care of the hands, and urges the importance of this matter, not only for the consulting surgeon, but still more for the general practitioner and country surgeon, who, he says, may have to open abscess in the morning, attend a confinement, clear out a septic uterus, and then in the evening operate on a case of strangulated hernia. The practitioner should avoid touching any septic surface with his fingers, should wear gloves as a routine practice in all cases where he may have to encounter pus, but, above all, should cultivate a special sense of aversion to septic contamination, in consequence of which he feels uncomfortable if he inadvertently touches anything septic, and does not get rid of this feeling till he has carefully sterilized his hands. The hands should be washed thoroughly immediately after any contact with septic matter. In elderly patients pneumonia is the great danger to be dreaded, especially after abdominal operations. Among the measures advocated to guard against this are breathing exercises, which the patient learns to perform before the operation and carries on after so as to reduce the liability to hypostatic congestion. Patients are got out of bed into an armchair the day after the operation, if possible. Elderly patients, he says, are generally glad to get up in the first day or two after an operation; young people seem to feel an operation more and are less willing to get up, but it is of less importance that they should do so. In any case, there is no reason why even a young patient should be kept strictly in bed for more than a week after any ordinary abdominal operation. The report on local and general anaesthetics contains an account of his experiences of 89 cases of spinal anaesthesia. Only 37 of these were entirely free from trouble of some sort, and there was one death on the operating table. The rest of the book is concerned with statistics, methods of operative technique adopted in special cases, and a discussion of results obtained. Though much of the book is necessarily occupied with matters of ordinary surgical routine, it is well worth perusal for the sake of the careful descriptions given of special measures taken to meet special difficulties, and because the results of any exceptional or unusual measure are carefully criticized.

[3] *Rose and Carless's Manual of Surgery.* Eighth edition. Revised by Albert Carless, M.B., M.S.Lond., F.R.C.S., Professor of Surgery in and Surgeon to King's College Hospital, etc. London: Baillière, Tindall, and Cox. 1911. (Demy 8vo, pp. xii + 1406, with 12 coloured plates and many new and original illustrations. 21s. net. University Series.)

[4] *Clinical Lectures on the Acute Abdomen.* By Wm. Henry Battle, F.R.C.S., Surgeon to St. Thomas's Hospital; Hunterian Professor of Surgery at the Royal College of Surgeons of England. London: Constable and Co., Ltd. 1911. (Med. 8vo, pp. 107. Price 4s. net.)

[5] *Beiträge zur praktischen Chirurgie.* Munchen. 1910. (Pp. 532; 50 illustrations. M.7.)

MUSSER AND KELLY'S "HANDBOOK" OF TREATMENT.

In our notice of the first volume of the great American *Handbook of Practical Treatment* (British Medical Journal, July 29th, 1911) the general scope of the work was indicated, and in the second volume[6] we recognize the same strain of thoroughness, and the same determination to record the most recent observations in the most readable form.

The volume contains many contributions from American writers and a few from this side of the Atlantic. Notable amongst these is a breezy article by Sir T. Clifford Allbutt on the treatment of diseases of the cardio-vascular system, which combines in characteristic fashion the completeness of the textbook with the practical wisdom of the experienced physician. The modern tendency towards the rigid application of the tenets of the clinical pathologist needs to be blended with the therapeutic enthusiasm of the specialist, and this is especially the case in dealing with heart disease. The vast increase in the knowledge of cardiac pathology has afforded the clinician better means of interpreting clinical symptoms, but in cases of chronic disease the treatment must still be merely palliative. Relief, however, is what the patient seeks, and, as Professor Allbutt rightly points out, that relief can only be given by close attention to a host of details which it is the doctor's business to see carried out. The term "heart failure" has figured largely in obituary notices of late years, and the treatment of heart strain, real or imaginary, has become fashionable. Arterial degeneration, on the other hand, receives little attention, and the comments upon these matters contained in this article deserve serious attention, and point the way to rational treatment. The surgical aspect of cardiac lesions is dealt with by Mr. Clinton Dent in a short chapter, in which he indicates his favourable opinion of operation for the release of adhesions as a scientific procedure, although as yet it has not been attended by strikingly favourable results.

The subject of infectious diseases occupies a large portion of the bulky volume. It opens with an article by Dr. Rufus Cole on the therapeutic measures called for in dealing with typhoid fever. Prophylactic injections were used largely during the Spanish-American War, and the results fully justified the method. The experience gained in many lands as to the persistence of the bacillus in the body after the subsidence of all evidence of activity, rightly leads the author to insist on the closest attention to disinfection of excreta of every kind. The old views as to restriction of diet have undergone many modifications, and plenty of cases are in evidence to prove that a mixed diet is often as successful as one limited to milk or other nutrient fluids. Dr. Cole himself evidently inclines to the time-honoured method, but advocates free use of water both internally and externally. The use of the bath for reduction of temperature has been greatly facilitated by the introduction of simpler means of moving the patient, and these are fully described and illustrated. Incidentally it is made manifest that perforation cannot be shown statistically to be directly associated with any form of dietary or antipyretic treatment.

Advocates of active measures in dealing with pneumonia may be somewhat disappointed with Dr. Hare's expectant attitude. The supporters of tracheotomy or intubation respectively will find the relative advantages of both methods fully discussed and illustrated by Dr. J. H. Jopson in his article on diphtheria. The fatal complications of measles, in the form of gangrenous stomatitis and vulvitis, appear to have been more evident of late years, and some useful cautions are given as to the best means of avoiding them.

Tuberculosis, described by Dr. E. O. Otis as a "communicable" rather than as an infectious disease, is very fully considered from the therapeutic and prophylactic points of view. The whole article is quite up to date, and contains reference to the latest work on the subject. The leading features of American sanatoriums are well illustrated, and the writer's remarks upon the relative values of systems of treatment as opposed to common sense are very much to the point.

Drs. White and Wood, who contribute the article on the treatment of syphilis, lay great stress upon the precautions necessary to prevent the spread of infection by general contagion apart from genital contact. From his description of gonococcic infections, Dr. E. Martin does not appear to have had much favourable experience of inoculation in chronic joint affections. Cerebro-spinal fever is discussed by Dr. L. F. Barker, who has found that Flexner's serum is in his hands the most effective antidote. Rheumatism figures among the infectious diseases, and is defined as being due to the *Diplococcus rheumaticus* of Poynton and Payne. Whooping-cough also appears in this category, as being caused by an unidentified microbe of the nature of the *Bacillus influenzae*. Tropical diseases receive full attention, and two useful chapters are added on the ocular and aural complications of infectious diseases.

It will thus be seen that the second volume is a worthy companion to its forerunner, and a most interesting work of reference from which to cull the latest information on the treatment of the group of diseases with which it deals.

BACILLARY DYSENTERY.

Dr. Hermann Lüdke is eminently practical. In writing his book on bacillary dysentery,[7] he settles down on the first page to the business in hand, and from the beginning of the work to the end he does not waste a word. There is no rhetoric, no scientific disquisition of the quasi-philosophical type—merely a concise exposition of facts about the bacteriology of the disease, its clinical features, treatment, and diagnosis. For the isolation of the bacillus he recommends Drigalski-Conradi plates from which the crystal violet has been omitted. This last ingredient has some retarding effect upon growth, but when it is left out colonies of from 1½ to 2 mm. in diameter will develop in about twenty hours. It must be admitted, as the author says, that bacillary dysentery cannot be regarded as a single etiological entity, as there are undoubted biological differences between the Shiga-Kruse and the Flexner types: and, moreover, the peculiarities of the "Y" bacillus of Hiss and Russel and the strain isolated by Strong cannot be overlooked. American research on the association of dysentery bacilli with the "summer diarrhoea" of children also raises difficult problems of etiology, since the bacillus cannot be found in some cases which on clinical grounds are identical with those where it is present, and, presumably, the cause of the disease. In this country the presence of dysentery bacilli in the stools of children suffering from epidemic diarrhoea appears to be very much rarer than in America. Chapter VI is on serum-therapy, and contains an excellent collection of statistical data, including the author's own experiences, showing the favourable influence of the specific serum on cases in which the infective bacillus is of the Shiga-Kruse type. Chapters IX and X treat respectively of agglutination with serum from various species of animals, normal and immune, and agglutination with the serum of dysentery patients. The statistics they contain, particularly those provided from the author's own researches, are a valuable contribution to the study of agglutinins, and form a record which will be of permanent service to future workers on this subject. We congratulate Dr. Lüdke on the production of an excellent treatise, and only wish that there were more pathologists, both in his country and in our own, who were content to let facts speak for themselves without obtrusion of the personal equation.

LEGAL POSITION OF ANTENUPTIAL VENEREAL DISEASE.

In the lecture to the Berlin Dermatological Society, which he has reprinted in a pamphlet,[8] Professor Heller discusses the question, Do German judicial decisions make it the duty of nupturients to declare former venereal disease? The lecture is valuable, and is very carefully documented. Twenty-two separate decisions are quoted and summaries are given of the legal position in other countries of the

[6] *A Handbook of Practical Treatment.* By Many Writers. Edited by John H. Musser, M.D., LL.D., and A. O. J. Kelly, A.M., M.D., of Philadelphia. Volume II: Diseases of the Circulatory System, Infectious Diseases, Tropical Diseases, Animal Parasites. 1911. London: W. B. Saunders Company. (Sup. roy 8vo, pp. 865; per set, 75s. net.)

[7] *Die Bazillenruhr.* Von Dr. Hermann Lüdke. Jena: Gustav Fischer. 1911. (Sup. roy. 8vo, pp. 239. Figs. 4, Tab. 1. M. 7.)

[8] *Besteht nach der deutschen Rechtsprechung zwischen Heiratskandidaten (Nupturienten) eine Pflicht zur Offenbarung Uberstandener Geschlechtskrankheiten?* Von Professor Dr. Julius Heller. Berlin: August Hirschwald. 1911. (Med. 8vo, pp. 32. M. 1.)

issues raised. The exposure of one party in a marriage to a loathsome or dangerous disease is a ground for a declaration of nullity, unless the full risk assumed was known and accepted. A medical certificate of complete recovery will not remove this, though it may protect from a claim for damages or aliment. If the risk is not fully realized until after marriage, nullity may still be declared. In view of the difficulty of giving an explanation sufficiently full and detailed to any woman not medically trained, Heller thinks the protection to be got by confession, as a rule, illusory, and as such a confession would in many cases lead to breach of engagement, he urges that it is inadvisable. It is individually inadvisable, even if the marriage is completed, because the husband has furnished a cause of domestic strife always to his disadvantage. It would constitute, he thinks, a national danger in Germany, in view of the rapidly declining birth-rate. Heller makes the appalling statement, which we have seen elsewhere, that in the large towns of Germany 80 per cent. of young men over 27 have suffered from gonorrhoea, and that in some classes (students, merchants, and officers) the rate rises to over 95 per cent. In English law, exposure of the wife to undeclared venereal disease may, as "cruelty," be urged as a cause of divorce.

NOTES ON BOOKS.

DR. W. C. BOSANQUET has written a small monograph on *Spirochaetes*[1] which affords a short but lucid account of present ideas in regard to these organisms. Although hardly to be regarded as an authoritative pronouncement on the subject, it yet displays a commendable judgement on the part of the author in dealing with a voluminous mass of scattered and not infrequently discordant observations. In most cases no attempt has been made to reconcile conflicting opinions, the author contenting himself with a plain exposition of the views on either side. Most questions, indeed, relating to spirochaetes bristle with difficulties, and the success with which Dr. Bosanquet has tackled them within such a small compass is to be highly praised. The first section of the book is general in character, dealing with the morphology, development, pathogenicity, and classification of the group as a whole; while the second section is devoted to short, systematic accounts of all the known species, pathogenic and otherwise, and there is added a carefully compiled bibliography comprising upwards of 600 entries. On the question of the biological relations of the spirochaetes Dr. Bosanquet maintains a non-committal attitude, although he certainly shows an inclination to admit the bacterial affinities of the smaller spirochaetes. He also views with doubt the existence of the so-called undulating membrane. In connexion with the mode of development of these organisms, he adds some interesting observations on *Sp. anodontae* which seem to suggest that this species may multiply by breaking up into a number of coccoid bodies. In dealing with the individual species the author has given exact measurements of the various forms, and has described their morphological characters in a brief but satisfactory manner.

There are many persons who think that a knowledge of a language can be acquired more easily by a special method than by learning it in the orthodox manner, and we assume that this belief is responsible for the multiplicity and variety of "systems" of learning foreign languages. A somewhat novel method of mastering the German tongue has been suggested by Mr. B. LEWIS. The idea which pervades his *Medical Vade Mecum*[2] is that by giving clinical lectures and other material in both English and German the reader will become well acquainted with the vocabulary of each. A dictionary is held to be superfluous, and the student is to learn his German or English vocabulary from reading clinical lectures in a known as well as in an unknown tongue. The book cannot even be regarded as a useful "crib," since the articles translated, although interesting and good from a scientific point of view, are not of much literary merit. The German appears to be the original, but we are informed in an introduction that the text was prepared specially to admit of literal translation, and is therefore indifferent German—and the English is no better.

When a writer essays to instruct the public on well-worn topics it is essential that he have something original to say, or that he can write in a manner which compels attention. Dr. BERNARD MYERS has attempted such a task in *The Letters of a Professional Man*,[3] and, excellent as is the scope of the little book, it must be confessed that whilst the opinions expressed are unexceptionable, they are not novel, and too often the manner of their expression is neither concise nor convincing.

For an elementary book suitable for young people *Talks on Health and Temperance*[4] is marked by moderation and good sense. The sections on elementary physiology and food are lucid and practical, those on alcohol and intemperance well-balanced and fair, and the concluding section on the care of the body helpful and intelligent. There are many explanatory plates and diagrams, and both the scheme of the book and the manner in which it is carried out are excellent.

Under the somewhat misleading title of *Science and the Criminal*[5] Mr. C. AINSWORTH MITCHELL, known to the magazine reading public as the author of numerous articles on various branches of science, has written a readable and, in parts, interesting description of some of the ways in which scientific methods have been applied by the malefactor in his conflict with society on the one hand and on the other by society to bring the criminal to book. We say "misleading" because to scientific men the title of the work would, we imagine, suggest rather an *exposé* of the results of scientific inquiry into the criminal in his ethnological, sociological, anthropometrical, and psychological aspects; whereas this book is concerned entirely with matters appertaining to evidence at trials and the detection of criminals, such as finger-prints, handwriting, invisible inks, forged documents, blood tests, the effects and detection of poisonings, etc. To the lay public, always interested in such matters as these, this book will doubtless appeal successfully, and in justice to the author it must be admitted that when scientific facts are discussed they are described with precision and absence of bias and after a careful scrutiny of all related facts.

The publications of the medical department of the Royal Prussian Ministry of War, dealing with matters connected with the health of the army, are neat little booklets containing useful information. The volumes before us are Nos. 47 and 48.[6] No. 47 gives an excellent general and special description of the "Königliche Hauptsanitätsdepot in Berlin," the head quarters of the Army Medical Corps. No. 48 contains an article by Professor Krause and Dr. Landgraf on beta-naphthalinsulphonic acid and acid sulpho-salicylate of sodium as a reagent for albumen in urine for use by medical officers in the field. Attached to this article are reports by chemists. It appears that while the reagent has advantages for field service, it is not a pure indicator for albumen. The conclusion is that, provided the sources of error are recognized, the test can be recommended. These publications will be found valuable by military surgeons.

Mr. J. F. WESTON'S *Elementary Experimental Chemistry*[7] is intended as a guide for beginners. Commencing with the simplest experiments, such as the preparation of solutions and the investigation of their nature, the student is led by orderly steps to simple quantitative operations. The directions are adequate and clear, but not so copious as to leave nothing to be supplied by the exercise of the student's own faculties. The author is at the head of the chemical department of one of the large London polytechnics, and the book is admirably suited for teaching the rudiments of the subject, in a scientific and not a mechanical manner, to students attending classes such as are provided in these institutions.

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[1] *Spirochaetes: A Review of Recent Work, with Some Original Observations.* By W. Cecil Bosanquet, M.A., M.D., F.R.C.P. Philadelphia: W. B. Saunders Company. 1911. (Pp. 152; 89 figures. 12s. net.)

[2] *Medical Vade Mecum in German and English.* By B. Lewis. Vienna: B. Lewis. 1910. (Demy 8vo, pp. 559. Price not stated.)

[3] *The Letters of a Professional Man.* By Bernard Myers. London: Hirschfeld Brothers, Limited. Glasgow: Alexander Stenhouse. 1912. (Crown 8vo, pp. 77.)

[4] *Talks on Health and Temperance.* London and Edinburgh: McDougall's Educational Company, Limited. 1912. (Cr. 8vo, limp cloth, pp. 109; 26 illustrations. 7d. net.)

[5] *Science and the Criminal.* By C. A. Mitchell, B.A., F.I.C. London: Sir Isaac Pitman and Sons. 1911. (Post 8vo, pp. 237; 29 illustrations. Price 6s. net.)

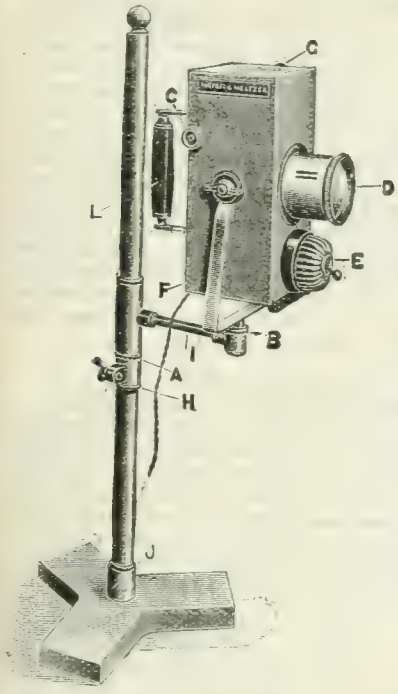
[6] Veröffentlichungen aus dem Gebiet des Militär-Sanitätswesens. Issued by the Medical Department of the "Königlich-Preussische Kriegsministerium." Vol. 47, *Das Königliche Hauptsanitätsdepot in Berlin.* Berlin: Aug. Hirschwald. 1911. (Sup. roy. 8vo, pp. 38, 3 plates, 24 illustrations. 2s.) Vol. 48, *Ueber ein Eiweissreagens zur Harnprüfung für das Untersuchungsbesteck der Sanitätsoffiziere.* (Sup. roy. Price 1s. 6d.)

[7] *Elementary Experimental Chemistry.* By F. E. Weston, B.Sc. Lond., F.C.S. London: Longmans, Green and Co. 1911. (Crown 8vo, pp. 146; 78 illustrations. 2s.)

MEDICAL AND SURGICAL APPLIANCES.

A Lamp for Aural Surgery.

MR. CHARLES HEATH, F.R.C.S., has found that the lamps which the instrument makers have hitherto supplied for the use of the aural surgeon have certain disadvantages. Some become extremely hot when in use, and cannot safely be handled. Others, under slight vibration, have a provoking habit of shifting from the position in which they have been placed by the surgeon: the direction of the cone of light is thus altered, and may no longer be suitable. In designing the lamp here illustrated, these and many other matters have received attention, and Mr. Heath states that prolonged use has not shown that any essential has been omitted. The matter of easy cleaning has been considered, and though made of brass, the lantern is covered with aluminium paint and varnished, so that it can be cleaned in a moment with a damp cloth. The lamp can be used for operations on the ear, throat and nose. It has been made by Messrs. Mayer and Meltzer.



A, Ratchet to ensure that the arm (I) shall remain in whatever position it is placed. B, Ratchet to ensure that the lamp, when turned in the right direction, shall remain there. C, Milled head for raising or lowering the burner, in order to bring it opposite the lens (the burners vary in size). D, Telescopic tube carrying the lens; this slides easily, and focuses the light. E, Tumbler switch. F, Cradle carrying the lantern; on the opposite side this is extended to the top (G) in the form of a cleat, for winding up the flexible wire in a figure of 8 manner, thus preventing kinks. G, Top of cleat, just visible. H, Movable clamp, to be fixed with the thumbscrew at the required height. I, Arm carrying the lantern and working on the ratchet at A. J, Table stand; a taller one is made with a larger base to stand on the floor. L, Handle for carrying the lamp when it is used as a hand lamp. As the lantern never gets hot it can safely be used in this way. Nernst or ordinary burners can be used; the lens in the illustration is adapted to the Nernst.

A Covered Dredger.

THE Newman Publishing, Printing, and Manufacturing Company, 105, Midland Road, St. Pancras, N.W., have sent up specimens of an ingenious dredger for salt, pepper, or pounded sugar. It is a glass stoppered bottle with a metal cap. The mouth is closed by a loose, wedge-shaped stopper base inwards, with a wide flange internally. When the bottle is upright the stopper fits securely on to the neck; when it is tilted and shaken the contents fall out in a thin stream. It must have seemed to many readers that the habit of putting salt in open cellars and sifted sugar in open basins is not very cleanly, and though the common perforated cap does something to remedy this objection it does not do so perfectly; this dredger seems to obviate the objection completely.



AT the meeting of the International Congress of Dermatology recently held in Rome it was decided that a permanent international dermatological society should be founded.

THE COMPOSITION OF CERTAIN SECRET REMEDIES.*

THE "NORMYL" CURE FOR ALCOHOL AND DRUG ADDICTIONS.

WE have been favoured by a correspondent with a certain quantity of the medicines used in the "'Normyl' Treatment" of alcoholism; these were supplied to a patient who did not continue the "cure." It appears from the printed matter on the package that the full course consists of twenty-four days' medicine, supplied in twenty-four bottles; the package sent by our correspondent was marked "second treatment"; it had contained twelve bottles, but one had been removed before it reached us, and the eleven sent were marked respectively "14th day," "15th day," etc., to "24th day." Each bottle had the cork and neck covered with tinfoil, over which was the label indicating the day on which the contents were to be taken, showing that they had not been opened or tampered with. On the outside of the box was a proprietary medicine stamp for 3s., this being the duty payable on proprietary medicines of selling price 20s. to 30s. (exclusive of stamp); an article bearing a 3s. stamp is usually sold at 33s.

Each bottle contained about 150 minims of a light reddish-brown liquid. The directions for use are:

> Secure from your chemist what is known as a flat eight ounce bottle for pocket use and a dose glass. Mix the contents of vial marked "1st day" in eight ounces of water and take half-an-ounce (one tablespoonful) of the mixture every hour while awake. When any of the mixture remains from the previous day, throw it away, as it loses its virtue after 24 hours. Mix a fresh bottle every day. Keep the bowels regular, and in case of constipation take some gentle aperient as often as may be necessary, and use no intoxicating liquor. Eat of any food you like.

It is further stated that:

> As this preparation contains a small medicinal dose of Nux Vomica, it must, in order to comply with the Pharmacy Act, be labelled poison, but its composition remains unaltered.

And:

> N.B.—Although a cure will apparently be effected in a few days, it is absolutely necessary in order to ensure a Permanent Cure that a full course of 24 days' medicine (24 bottles) shall be taken without a break, so that the alcoholic or drug poison may be thoroughly eliminated from the system and thus prevent a return of the crave.

Qualitative examination of the contents of some of the bottles did not indicate any differences of composition, and as the quantity in one bottle was far too small for quantitative analysis, the contents of several were mixed for analysis. The mixed liquid was found to contain—

Alcohol	... ...	75.5 per cent. by volume.
Alkaloid	... ...	0.09 per cent. (weight in volume).
A soft resin	...	1.5 " " "
A non-alkaloidal bitter principle	...	A fair trace.
Ash	... ...	0.1 per cent. (weight in volume).
Extractive, including colouring matter	...	2.3 " " "

The alkaloid consisted principally of strychnine, with a little brucine; the amount present corresponds to about 25 per cent. (by volume) of tincture of nux vomica, or 38 minims in one bottle (one day's medicine). The resin did not agree in character with jalap or scammony resin, and the quantity available was too small for its identification. The non-alkaloidal bitter principle was extracted from acid solution by chloroform, like the principles of several common bitter drugs. It agreed in its behaviour with various colour tests with picrotoxin, and a small quantity of the latter was accordingly prepared in an impure state from a tincture of *Cocculus indicus*, for special comparison with it; they agreed very closely, though not perfectly, in their behaviour with various tests—perfect agreement between necessarily impure substances was not to be expected—and there appears a high probability that the substance extracted from the "Normyl"

* Previous articles of this series were published in the following issues of the BRITISH MEDICAL JOURNAL: 1904, vol. ii, p. 1585; 1906, vol. ii, pp. 27, 1645; 1907, vol. i, p. 215; vol. ii, pp. 24, 160, 209, 393, 550, 1653; 1908, vol. i, pp. 833, 942, 1373; vol. ii, pp. 86, 505, 1022, 1110, 1193, 1285, 1566, 1697, 1875; 1909, vol. i, pp. 31, 909, 1128; vol. ii, p. 1419; 1910, vol. i, pp. 151, 213, 393, 1005, 1063, 1120; vol. ii, pp. 982, 1350, 1928; 1911, vol. i, pp. 26, 91, 823, 1324; vol. ii, pp. 32, 77, 456, 767, 854, 1543; 1912, vol. i, p. 26, 141, 318, 438, 683, 791, 846.

medicine was picrotoxin, though it was impossible to prove its identity conclusively with the minute quantity available. The ash extractive and colouring matter did not give any evidence as to the drug from which they were derived; there was an aromatic flavour in the mixture resembling that of orange.

THE INTERNATIONAL TUBERCULOSIS CONGRESS AT ROME.

[FROM OUR SPECIAL CORRESPONDENT.]

(Continued from page 906.)

ON Saturday evening, April 13th, an informal *conversazione* was held at the Castle of St. Angelo, and on Sunday morning the Congress was formally inaugurated in the presence of the King and Queen of Italy at the Campidoglio. Professor BACCELLI, the veteran President of the Congress, whose voice resounded clear in spite of his eighty summers, welcomed the audience in an admirable address, and his oration was followed by speeches from a number of national delegates.

The British Government was represented by Dr. LESLIE MACKENZIE, of the Local Government Board of Scotland, whose address was an admirable example of what should be said on such occasions, and how it should be said. Dr. Leslie Mackenzie said:

Your Majesties,—I have the honour to represent the United Kingdom of Great Britain. In the name of His Britannic Majesty's Government, I wish to convey to your Majesties the satisfaction of our people that your Majesties have graced this Congress with their presence.

For centuries we in England have been fascinated by the great history of your Majesties' country, and educated in its literature. Your Majesties to-day make it possible for the men of science and the men of affairs now engaged in every country of the world in the campaign against tuberculosis to share in that great history and so to continue with new courage the struggle towards a healthy life. In the historic centre of Western civilization, the United Kingdom of Great Britain offers salutation and thanks to the King and Queen of United Italy.

The arrangements for the convenience of members at this meeting were extremely imperfect, and not a few failed to obtain admission, and those who did suffered discomfort owing to the deficiency of seats.

GENERAL ADDRESSES.

On the same afternoon Professor LANDOUZY of Paris delivered his lecture on social factors in the causation of tuberculosis. He gave an exhaustive review of the existing conditions in every phase of life, and suggested that evil conditions of environment might best be corrected by a spread of education. He was followed by Dr. CITRON (Berlin), who read the address of Professor KRAUS of Berlin, who was unable to be present, on early diagnosis of pulmonary tuberculosis. Professor Kraus regarded the aërogenous as the most frequent source of infection, and reviewed the various physical signs which may be present. On the afternoon of April 14th Dr. MARAGLIANO gave an address on the preventive vaccination of man against tuberculosis, and was followed by Dr. WEBB of Colorado, who dealt with the same subject. The latter had only twenty minutes in which to deliver one of the most suggestive papers of the Congress, and the authorities had failed to arrange for showing his lantern slides.

IMMUNITY BY INOCULATION OF LIVING BACILLI.

Dr. WEBB has shown that large numbers of virulent tubercle bacilli may be inoculated into guinea-pigs without producing tuberculosis, provided that very few bacilli are at first inoculated, and that the numbers are gradually increased. Lieb has also shown that rabbits can be treated with tubercle bacilli of a virulent bovine strain in a similar manner. Dr. Webb reported the results of a research which indicate that monkeys, which in captivity are very vulnerable to tuberculosis, can be safely given increasing amounts of virulent tubercle bacilli if inoculated in a similar manner as the above animals. Twelve monkeys tested to tuberculin by Römer's method gave negative reactions, and were therefore assumed not to be already infected with tuberculosis. They were then inoculated with a strain of human bacilli, virulent in a dose of thirty-five bacilli to the guinea-pig. The number of bacilli injected at each inoculation increased from 1 to 65,000. Two and a half months later the Römer test was again applied, and three monkeys gave a reaction to 20 mg. of old tuberculin. They were killed, but no trace of tuberculosis was found either microscopically or when portions of glands were macerated and inoculated into guinea-pigs. With 5 mg. of tuberculin the other monkeys gave the normal fall in the evening temperature, and it was suggested that this might be attributed to the presence of specific antibodies, or to hypersensitiveness to tuberculo-protein. To test for the presence of antibodies Dr. Webb used the meiostagmin reaction of Ascoli and Izar, which depends on the decrease in surface tension which occurs when the specific antibodies in serum unite with the appropriate antigen when incubated together. The surface tension can be accurately measured before and after incubation by means of the stalagmometer of Traube. To this test both normal monkeys and those which had received large numbers of tubercle bacilli gave negative results. Emery's method of measuring quantitatively the specific antibodies was also applied with negative results. Again, from differential leucocyte counts it was not possible to adduce any evidence of infection.

Therapeutic Application.

Of very great interest was the account of how two boys, aged 3 years and 3 months respectively, were inoculated with living bacilli. Before treatment both these patients gave a negative reaction to von Pirquet's test. A few weeks later their father died of advanced pulmonary tuberculosis, and their mother was found to have tuberculous infection of one lung, accompanied by irregular temperature. The children were then inoculated with a culture of human tubercle bacilli in the following doses:

Date.	No. of Bacilli.	Date.	No. of Bacilli.
Oct. 20th, 1910 ...	... 1	Dec. 8th, 1910 ...	... 35
Oct. 27th, 1910 ...	... 3	Dec. 15th, 1910 ...	... 50
Nov. 3rd, 1910 ...	... 5	Dec. 22nd, 1910 ...	... 75
Nov. 10th, 1910 ...	... 8	Dec. 29th, 1910 ...	... 100
Nov. 17th, 1910 ...	... 12	Jan. 5th, 1911 ...	... 125
Nov. 25th, 1910 ...	... 18	Jan. 12th, 1911 ...	... 150
Dec. 1st, 1910 ...	... 25		

Total number of bacilli received by each child, 637.

The children were now again tested by means of the von Pirquet skin test and again the reaction was negative. It was realized that the intradermal test might have been more thorough, but as the results with this test in monkeys and, as Krause reports, with this test in guinea-pigs suggested that it would be possible to sensitize to tuberculo-protein, it was perhaps fortunate that it was not employed. The children gained weight and were thoroughly healthy to date. On May 22nd, 1911, after four months' freedom from inoculations, the children were again tested and found again to be negative to the von Pirquet reaction.

Conclusions.

1. The exact number of tubercle bacilli of the culture employed which will infect a rhesus monkey has not yet been ascertained.

2. A rhesus monkey, weighing 2,332 grams, withstood infection when injected at one dose with more than six times the dose of human tubercle bacilli which caused tuberculosis in a guinea-pig weighing 744 grams.

3. Two monkeys each received safely virulent human tubercle bacilli enough to kill at least 12,000 full-grown guinea-pigs.

4. No antibodies so far have been satisfactorily demonstrated in the serums of the vaccinated monkeys.

5. The temperature charts indicate the possible presence of such antibodies which might be interfering with the normal night drops following the subcutaneous inoculation of old tuberculin for diagnostic purposes.

6. It would appear that it is possible by the intradermal inoculation of old tuberculin to sensitize the skin of a monkey to tuberculo-protein.

7. Two children, both of whose parents were tuberculous, have been successfully vaccinated with upwards of 600 virulent human tubercle bacilli, without any indication of infection up to the present time.

TUBERCULIZATION AND DETUBERCULIZATION.

On Tuesday, April 16th, Dr. R. W. PHILIP delivered an address on tuberculization and detuberculization. Dr.

Philip spoke for some time in Italian, and his views have been endorsed by the leading papers in Rome.

WORK OF THE SECTIONS.

I.—SOCIAL DEFENCE AGAINST TUBERCULOSIS.

The confusion which marked the general arrangement of the Congress as a whole was also apparent in the work of the sections. In many cases papers were read in one section which obviously should have been delivered in another. Again, it was impossible to know when any given paper would be read, and some of the "*rapporteurs*" far exceeded their twenty minutes, so that other papers were put off from day to day. Thus, a paper by a town councillor of an English city was postponed from day to day, and was eventually read in the Medical Section. As this communication dealt with administrative measures, it should obviously have been read in the first section. The English-speaking representatives at the Congress were a small minority, so that whenever a communication in English was announced the section rapidly cleared.

Tuberculosis and School Children.

Miss N. LA MOTTE (Baltimore) described the work of women health visitors in most of the eastern cities of the United States, which is on the same lines as the work of our own health visitors. The work of women in London was described by Dr. MURRAY LESLIE. The incidence of tuberculosis in schools was the subject of many papers. Dr. HOMER FOLKS (New York) read a paper on the extent to which the education of children might bear on the prevention of tuberculosis. Dr. H. MERY (Paris) discussed the incidence of tuberculosis in children of school age, and stated that open-air schools were required for 4.25 per cent. of all school children. Professor BADALONI laid great stress on the conditions under which children are taught. By a series of excellent pneumographs he showed that a badly-constructed desk and seat exercised a most pernicious influence on the tidal breathing of the normal child. Dr. FLEURY (Paris) described the existing organizations for the treatment of tuberculosis in children in France. A similar paper dealing with the United States was contributed by Dr. EDWARD O. OTIS (Boston). Miss M'GAW (London) read a paper on the relation of the tuberculosis open-air school to the co-ordinated system for the control of tuberculosis. This paper aroused great interest, as for one thing it showed how the greatest potentiality of these schools was lost if they were not linked up and connected with the tuberculosis dispensary, the sanatorium, hospital for advanced cases, working colonies, and other factors in the scheme. Miss M'Gaw's paper was in Italian, and the Italians present signified their approval by making the author an honorary president of the section. M. REY (Paris) gave an interesting address on school construction; our ideas on the subject, he said, required complete revision if we were to ensure even the health of the normal child.

Notification of Tuberculosis.

Dr. E. W. HOPE (Liverpool) gave a communication on the notification of tuberculosis by voluntary or compulsory measures. Having outlined the history of the voluntary and compulsory notification in the United Kingdom, he summarized the object of limitation of notification of pulmonary tuberculosis as follows:

I. *Exact Knowledge as to Prevalence of Disease.*

This information must necessarily be largely influenced by the means at the disposal of the medical profession. Everybody knows the difficulty in incipient cases of coming to a conclusion, and the personal factor is an important element in such cases. Many incipient cases will have no tubercle bacilli in the sputum.

II. *Action by Public Health Authorities.*

This action covers practically the whole ground of municipal sanitation. The following points may be enumerated as indicating lines of advance—namely:

(*a*) Visitation of cases, education of patients, discovery of insanitary surroundings, occupation, etc. Inquiries as to whether patient is under medical care. The urging of medical treatment where necessary.

(*b*) Isolation—by day, by night.

(*c*) Disinfection of premises from time to time.

(*d*) The offering of assistance with regard to admission to sanatoriums of various kinds.

(*e*) Co-operation of Boards of Guardians or charitable bodies with regard to maintenance of family where the patient is a wage earner.

(*f*) After-care of patients discharged from sanatoriums.

(*g*) Co-operation with education authorities:

(1) *Re* special school accommodation.

(2) *Re* desirability of attendance at ordinary schools.

(*h*) Compulsory removal of cases to institutions—for example, St. Helens' New Act.

(*i*) The search for infected "contacts."

Limitation of Notification of Phthisis.

In the upper and middle classes practitioners may refrain for a time from notifying cases for various reasons, notwithstanding a compulsory system, perhaps from dread of the diagnosis being known by the patient's friends, fear of interference with employment, fear of visits from officials, but all of these groundless apprehensions will probably very quickly disappear.

There will always remain, however, a certain number, perhaps a very small number, of unrecognized cases whose infectivity may be considerable, and there will always be the risk of the dangerous, heedless, thriftless person, probably intemperate, and probably drifting from hospital to hospital or workhouse to workhouse, and being a source of danger as long as he is at large. For these persons compulsory notification should be accompanied by powers of compulsory detention.

Notification will not bring to light the existence of "unrecognized" cases whose infectivity may be considerable.

The value of notification is certainly diminished by the great divergence of medical opinion in the diagnosis of "phthisis" in a case with no bacilli in the sputum. This is especially the case with children.

Many notifications coming from hospitals, dispensaries, and practitioners, relating to poor persons residing in crowded neighbourhoods, bear wrong addresses, and the patients cannot be found.

Some measure should be adopted to secure the "cancellation" of a notification in respect of a satisfactorily "cured" patient.

Notification of other Forms of Tuberculosis.

This action is not called for under the Local Government Board Orders, but has been in vogue in Liverpool since the introduction of the voluntary system of notification was adopted in 1901.

The number of cases notified has not been large, and in any case the notification of this form of tuberculosis is of very minor consequence in comparison with the other.

Dr. Hope suggested that a very important extension of notification related to tuberculosis in milch cows. Since 1900, under Act of Parliament relating to Liverpool, every dairyman within the city who has in his dairy any cow affected with or suspected of having tuberculosis of the udder, is required to notify the fact to the medical officer of health. Dr. Hope also made the suggestion that notification of human tuberculosis should be limited to those cases of open or discharging pulmonary tuberculosis. This suggestion was widely canvassed at the Congress, and in general it was felt that the true purpose of notification—to enable the sanitary authority to have an accurate knowledge of the incidence of the disease in its area—would be retarded by this limitation.

Alcohol and Tuberculosis.

Professor SIMS WOODHEAD (Cambridge) read a paper on the relationship between alcohol and tuberculosis. The following summary contains the principal points of this communication:

Incidence of Tuberculosis in Trades Exposed to Temptation to Alcoholism.—Tatham and Newsholme have published statistics to the effect that persons engaged in the distribution of alcohol are especially prone to tuberculosis. Tatham gives the figures for eleven trades, barmen heading the list as having the greatest mortality from tuberculosis. With regard to tuberculosis amongst brewers' employees, Karl Pearson, in a pamphlet recently published, quotes the statistics of the Leipzig Orts-Krankenkasse in support of his contention that alcoholics being stronger and more vigorous than the temperate are less affected by tuberculosis. Von Gruber, from the same statistics, draws an entirely different conclusion. These statistics certainly show that there is a very high tuberculosis incidence among brewers' employees between the ages 35 to 54, a fact which bears out Liebe's statement that tuberculosis frequently attacks drinkers later in life than others. Reveillaud states that 66.6 per cent. of the coffee-house waiters in Brussels die of tuberculosis. The age factor of tuberculosis in different trades seems to be of special importance in connexion with the age factor in alcoholism. This comes out with special force in von Gruber's figures.

Alcohol as a Predisposing Factor in Tuberculosis.—Letulle, from his observations in the Paris hospitals, concludes that of all chronic complaints slow alcoholic poisoning is the surest preparation for the invasion of pulmonary tuberculosis. Increased susceptibility to tuberculosis is frequently the result of the action of special poisons, often acting upon the nerves; and in many cases alcohol appears to act cumulatively along with

these other poisons. In so far as alcohol interferes with nutrition, most writers are of opinion that it is a predisposing factor in tuberculosis. Racial and class predisposition afford additional evidence as to the predisposing influence of alcohol both directly and indirectly. Osler, Hector Mackenzie, Vos and Strumpell may be referred to on these points.

Alcohol is Associated with Cirrhosis of the Liver, Nervous Disorders, etc., which Predispose to or Accompany Tuberculosis.—Evidence of this was cited from Vivian Poore, Allchin, Percy Kidd, Oliver, von Bunge, Vos, and Kelynack.

Parental Alcoholism Predisposes the Offspring to Tuberculosis.—J. H. Greef, from observations made on over 150 families, in which he examined 524 children personally, states that where the father or maternal grandfather was a drunkard the daughter was in 10 per cent. of the cases phthisical, and in 70 per cent. unable to suckle her children. Reynier states that in a large proportion of cases of external tuberculosis in children he can find no family history of tuberculosis, but the father is often a drunkard. He adds that 90 per cent. of his cases of external tuberculosis in adults over 40 are due to alcoholism.

Use of Alcohol in Sanatoriums.—In England, France, and America alcohol is being regarded with growing distrust; in Germany and Italy it is looked upon more favourably. There is evidence that it is unsatisfactory in the treatment of night sweats; the author's own experiments in temperature lead him to agree with this view. The *prognosis* in tuberculosis is less favourable in an alcoholic, because alcohol interferes with metabolism, and also with the patient's mind and will power, making him less capable of determined and persevering co-operation in his cure.

Result of Direct Inoculation Experiments with Tuberculous Material on Alcoholized Animals.—These experiments, carried out by Kern, Laitenen, and Achard and Gailard, are comparatively few in number, but they afford some corroboration to the idea that alcohol is a predisposing factor in tuberculosis. The evidence is, however, incomplete, and much requires to be done before the matter is settled from the experimental point of view.

Professor Woodhead concluded by saying that he was strongly in agreement with those who held that any efficient antituberculosis campaign must include educational anti-alcohol work.

Dr. H. TRIBOULET (Paris) also read a paper the general conclusions of which were in accord with those of Professor Woodhead.

Cinematograph Lecture.

A general conference of this section was held on Thursday, Professor GUALDI (Rome) in the chair, when Dr. HALLIDAY SUTHERLAND (London) delivered a lecture, illustrated by the cinematograph, on the Edinburgh system for the control and eradication of tuberculosis.

II.—PATHOLOGY AND THERAPEUTICS.

During the first days of the medical portion of the second section the question of immunity to tuberculosis was considered at great length by Professor COURMONT (Lyons), Dr. NEUMANN (Vienna), and Professor CALMETTE (Lille). The papers and discussion practically covered the whole field of immunity, but it did not appear that there was anything new to record. The specific treatment of tuberculosis was considered by Professor TEISSIER and Professor FERNAND ARLOING (Lyons). They concluded that tuberculino-therapy cannot be regarded as a cure, but that it is an indispensable adjuvant to treatment on hygienic and dietetic lines, as by this means a specific defensive reaction can be produced in the patient.

Artificial Pneumothorax.

A large number of papers, mostly in Italian, were read on this subject. In certain cases excellent results were recorded, but in general it seemed that the application of this treatment must of necessity remain very limited, since its applicability depends on special pathological and anatomical conditions.

Heliotherapy.

Dr. F. MORIN (Leysin) made a short but excellent communication on the treatment of tuberculosis of glands, joints, bones, and skin by exposure to sunlight. It was illustrated by lantern slides, and a large number of photographs. In most cases the treatment extended over months, even years, but there was no question that the improvement was great. A most striking photograph was that of a young patient with arrested disease of the tibia ski-ing stark naked over Alpine snow. In contrast to these photographs were those of a foreign institute, or perhaps one should say a firm, which shall be nameless. Here the effects of the light treatment were shown, but it was curious that while all photographs of the patient before treatment were printed on bright, glossy paper, whereby details were accentuated, the after-results were invariably printed on dull matt paper, no doubt for artistic effect.

Early Diagnosis in Childhood.

Early diagnosis in childhood was discussed by Dr. HUTINEL (Paris), Dr. F. KRAUS (Berlin), and Professor TESTI (Rome). The papers were exhaustive but not novel. Dr. SIDEROT (Paris) read a paper on predisposition to tuberculosis, in which a theory very French in its ingenuity was developed. According to Potain, dilatation of the stomach is accompanied by dilatation of the right heart. Therefore if an infant's stomach be dilated through improper alimentation, its right heart will be dilated. This will cause a spasm of the right pulmonary artery and congestion of the right pulmonary vein, so that there will be dullness at the right apex more often than at the left, and so predisposition can be diagnosed. It may be objected that in children dullness at the right apex is not more frequent than at the left, and that probably every rachitic child has a dilated stomach.

The Iodine Treatment.

An interesting paper was that of Dr. GEORGE L. BROWN (Montreal) on iodine in treatment. Iodine in one form or another has been largely used in the treatment of pulmonary tuberculosis. Dr. Brown attributed the uncertainty of its results to the presence of secondary infection, which he investigated as follows:

A culture was taken direct from the larynx by means of a sterilized laryngeal snare and wire. The wire was protruded and a culture taken, then the wire was withdrawn into the holder and the end of the snare sterilized, the wire was then protruded again into the bouillon. The most common organisms found were the staphylococcus, pneumococcus, colon bacillus, and the *Micrococcus tetragenus*. In the non-febrile case a culture from the sputa developed staphylococci and diplococci which sometimes occurred in groups of four. This organism was classed as a pneumococcus as it coagulated Hiss's serum water medium and was a high acid inulin fermenter and was Gram-positive. During an attack following a cold this would form chains, but would soon revert to its original form while fever would last for about three weeks.

In the febrile cases a culture from the sputa showed a chaining diplococcus of small size, forming, when virulent, very long chains. Its coagulating action on Hiss's serum water medium depended upon the amount of acid produced when it was fermenting inulin.

In a case without fever that had been treated for some time, in whom the cough and sputa had ceased and the lung had almost cleared up, a cold developed, accompanied by fever. The physical signs increased, and on examination of the sputa a few tubercle bacilli and long chaining diplococci were found. In this case iodine failed to cure the disease, and it progressed unfavourably, with cavity formation, pneumothorax, and death. Having satisfied himself that this chaining diplococcus was the cause of the failure of iodine to cure pulmonary phthisis, he decided to examine some febrile non-pulmonary cases. Dr. Forbes, of the Children's Memorial Hospital, kindly permitted him to examine the chronic tuberculous joints in the hospital. There were twelve joints examined, four without and eight with fever. In the latter a chaining diplococcus was invariably found. Three cases of renal tuberculosis were examined, two without and one with fever. In the urine of the former tubercle bacilli and colon bacilli were present, while in the latter the chaining diplococcus was found as well as the tubercle bacilli. This chaining diplococcus was examined still further as to its virulence. The plan worked out by Duval and Lewis was adopted—that is, the power of this organism to ferment inulin bouillon, also its power to coagulate Hiss's serum water medium. It was difficult to say whether this diplococcus should be classed as a pneumococcus or a streptococcus. After close observation, he concluded that it was a pneumococcus, and its virulence was to be estimated according to its power of fermenting inulin or its ability to retain chain formation in repeated cultures. He found that this organism taken from the same case differed in its power to ferment inulin at different periods. At the beginning of the case, when its virulence is marked, it may show a medium power of fermentation, but later, as the case progresses, its power to ferment inulin, as well as its chaining capacity, will be diminished. This diminution is especially noted after secondary and repeated cultures. According to Duval and Lewis, one would classify this organism as a pneumococcus of high, medium, or low inuline fermenting power. Their medium consisted of 1 c.cm. of a 1 per cent. inulin solution in 9 c.cm. of bouillon, and after inoculation was incubated for ten days and the acid estimated with ½ per cent. alcoholic solution of phenolphthalein. The high acid producers averaged 6.5 per cent., the medium 4.5 per cent., and the low 2.6 per cent., while the *Streptococcus pyogenes* gave only 1.65 per cent.

The very high acid producer was a large-sized diplococcus with capsule, which, when active, chained but was not virulent, as it soon lost its chaining capacity. It produced a bronchitis with fever which lasted about three weeks. The medium and

low acid producers caused marked and serious effects. This diplococcus was of small size with capsule, and produced a cloudy bouillon containing long chains. The colonies on blood agar varied according to the degree of acidity from the size of a very small to a large pin head, and only when very virulent produced small chains. The lung lesion produced corresponded to the degree of acidity. When caused by medium acid producer one usually found a severe bronchitis followed by death in about six weeks; but, when caused by a low acid producer, one found lung consolidation, cavity formation, and a course corresponding to the vast majority of chronic phthisis.

Miscellaneous Papers.

Papers on the use of Roentgen rays in diagnosis were read by Professor MARAGLIANO and Dr. MURRAY LESLIE (London). The latter urged that in certain cases their use was indispensable to the diagnosis of pulmonary tuberculosis. Dr. FLICK of Philadelphia sent a communication, in which he urged a universal nomenclature in physical signs. The interruption of pregnancy in tuberculous women was the subject of a large number of papers, but no new indications were given as to its adoption.

III.—ETIOLOGY AND EPIDEMIOLOGY.

There was little touched upon in the third section that had not already been considered at the Conference. Dr. GRIFFITHS (London), whose work for the Royal Commission on Tuberculosis is well known, sent in a paper on the relation between bovine and human tubercle bacilli. The whole feeling at the Congress tended to endorse the statement he made, that it was quite impossible to distinguish microscopically between the human and bovine tubercle bacilli.

CONCLUDING CEREMONIES AND RESOLUTIONS.

The last meeting of the Congress took place on Saturday morning, April 20th, and the social part of the arrangements closed on Sunday night with a reception at the Capitol, when the Forum was illuminated.

At its last session the Congress passed a host of pious resolutions. Of considerable importance, however, was the endorsement of the finding of the Conference on the question of bovine and human infection:

1. That the prevention of tuberculosis must be centred on the prevention of infection from man to man, and especially the infection of the family.
2. Infection of man by bacilli of bovine sources is less frequent, but it is necessary to maintain the prophylactic measures against infection from cattle.

The Congress urged notification in all cases of death from tuberculosis, and considered that in the interests of prevention all cases should be notified during life. It asked for the rigorous application of existing legislation on notification, and for its extension. Further, that to this end—the knowledge of the actual amount of tuberculosis—each State should institute antituberculosis dispensaries in its area.

In general, the Congress indicated a vast amount of antituberculosis effort, with only a small part of which has it been possible to deal here, but on all sides it was obvious that the fruit borne of this enthusiasm would be increased a hundredfold, were there measures in every country linked up and co-ordinated with each other. It was generally recognized at the Congress that the Report of the Royal Commission, and the co-ordinated measures with which this country is associated, indicate high water mark in the scientific and administrative spheres.

The next Congress is to be held in London five years hence.

THE proceedings of the Governors of King Edward's Hospital Fund for London at their annual meeting on April 18th were, as usual, of a formal character, the only business to be transacted being the submission and adoption of the report of the General Council for the preceding year. The report, in addition to recapitulating events which have already been recorded in our columns, contained a plea for wider support for the fund, and a statement that the amount spent on its administration from the time of its foundation up to date had been only £1 5s. 3d. for every £100 received. In the course of the proceedings it was indicated that the issue of the report on the out-patient system in London, publication of which was delayed owing to the necessity of reviewing matters in the light of the possible effect of the National Insurance Act, might be expected at no very distant date.

MILK, BOILED AND UNBOILED.

THE Local Government Board has published a very detailed and careful report* by Dr. Janet E. Lane-Claypon on boiled milk as a food for infants and young animals. The report covers rather wider ground than its title might suggest, and it may be said at once that the evidence, both experimental and clinical, which Dr. Lane-Claypon has brought together emphasizes very forcibly the importance of breast-feeding for the young of all species, and the special importance of breast-feeding during the early weeks of life.

In studying the value of the milk of another species in the feeding of animals, a comparison was made between the value of raw and boiled milk. It was pointed out that the common use of the term "sterilized" milk is inaccurate, since milk which has been heated to 100° C. is not sterilized, and even considerably higher temperatures may not be sufficient to kill the spores almost always present.

EXPERIMENTAL EVIDENCE.

The evidence collected did not support the opinion sometimes expressed that calves do not thrive upon boiled cow's milk. Milk which was really sterilized might produce scouring; in certain experiments in which the results of boiled milk were not at first good, growth proceeded satisfactorily after the addition of sodium chloride or certain other salts. The general conclusion is that no serious loss of nutritive value is produced by the boiling of milk of the same species.

Experiments upon the relative nutritive value of raw and boiled milk of a different species confirmed the conclusion that the salt content was a point of great importance, and generally favoured the conclusion that young animals fed upon the milk of a suitable foreign species throve somewhat better if the milk was given boiled and not raw; the only exception was in the case of "germ-free" milk, that is to say, milk obtained with special precautions to protect it from bacterial contamination. In those cases in which the health of the animals fed on boiled or raw milk was inquired into after the cessation of the experiment, no constant difference could be detected.

CLINICAL EVIDENCE.

Difficulty was encountered in finding a sufficiently large series of cases of healthy infants fed upon raw and boiled milk respectively under conditions otherwise similar, and Dr. Lane-Claypon says that "it is impossible to avoid the impression that many of the opinions formed by medical men in private practice are based upon a comparison between the well-to-do baby fed upon expensive raw milk and under proportionately favourable conditions, and the baby of the poorer classes fed upon inferior boiled milk and under greatly inferior social conditions. Such comparisons, even if based—as they are in some cases—upon some degree of knowledge of the progress of the baby's weight, are valueless. It is only by feeding babies upon raw and boiled milk of the same quality that any reliable evidence can be obtained."

Clinical evidence was considered under two heads: Cases in which infants were fed on raw and boiled milk of the same species, and those fed on raw and boiled milk of another species.

Upon the first head the data are very limited, and, after enumerating certain records, Dr. Lane-Claypon writes:

> The most numerous cases I have been able to discover are those of Professor Thiemich of Magdeburg. They are unfortunately as yet unpublished, although the data are available; but Professor Thiemich has been so kind as to give permission to me to quote his experiences for the purpose of this report. He has furnished me with a short report of his results as follows:
>
> "In my wards the milk of all the new wet-nurses is given boiled only, until Wassermann's and Stern's reactions have been carried out.
>
> "If it happens, as it frequently does, that one or other of the reactions is positive or doubtful, and there is no detectable evidence of specific trouble in either mother or child, I sometimes keep the wet-nurse for many months, and during the whole of this period the milk is only given boiled. I may add that in the case of an infant living with its parents which requires a wet-nurse or human milk for *allaitement mixte* it is only in very exceptional cases that I allow actual suckling. Otherwise only expressed and boiled milk, human milk, is

*Reports to the Local Government Board on Public Health and Medical Subjects. New series. No. 63. To be obtained through any bookseller. (Price 9d.)

given by the bottle in suitable quantities. Similarly, the milk of a feverish wet-nurse is boiled, not because of the risk of the direct passage of any organisms in the milk, but because of the possibility of outside contamination of the milk.

"On this system I have now seen a great number of children improve just as well upon boiled milk as happens with raw human milk.

"In a smaller number of cases raw and boiled human milk have been given alternately and systematically for various periods of days and weeks with the same result—namely, that no difference could be detected."

On the second head, the evidence in regard to infants fed respectively upon raw and boiled milk of another species, Dr. Lane-Claypon observes:

The great variety in chemical composition in the milks of different species leads to the assumption that the milk of each is adapted especially for the needs of that particular organism. It is conceivable, therefore, that in such a complex and presumably nicely-adjusted food as milk, the slight changes produced by boiling might have a more important effect upon the nutrition of the young animal of the same species than would be produced by the corresponding changes induced in the less well adjusted milk of a foreign species. From the evidence above given there can be no doubt that many babies thrive well upon boiled human milk, and hence it must be supposed either that the changes produced by boiling are insignificant, or that the milk is not so finely adjusted to the needs of the particular species as to lose by boiling any appreciable portion of its nutritive value. The importance of salts in the feeding of calves upon raw and boiled cow's milk has already been dwelt upon.

Certain observations by Finkelstein are set out, leading to the general conclusion that "no definite distinction between the results obtained by feeding upon raw and boiled milk respectively could be detected."

Dr. Lane-Claypon's own observations are founded upon the records of the "infant consultation" conducted by Dr. Ballin in the Naunyn Strasse, in Berlin. Children attending the consultation belong exclusively to the working classes, and the great majority are breast-fed, small bonuses being given to the nursing mothers. The cow's milk used is obtained from the municipal dairies, which obtain their milk from cows proved to be tubercle-free and kept on farms conducted upon model lines. The fat is never less than 3 per cent., and the bacterial count varies from 20,000 to 30,000 per c.cm.; the milk is thus of high purity. The milk is rapidly filtered, bottled, and cooled to between 3° and 4° C., and is sent to Berlin by special train and delivered in cooled vans. This milk is usually diluted for the infants, on much the same lines as in this country. The preparation of the milk in the home is supervised by the health visitor. It is brought to the boil and allowed to froth up twice; it is then covered and placed in a vessel of cold water.

Careful records are kept of the progress of the infant. In studying the material thus available the babies were divided into two classes:

1. Healthy babies of the average artisan class, fed upon milk in various forms, in order to have a control consisting of the average baby.
2. Healthy babies of the same class, but fed only upon boiled cow's milk, in order to study the difference, if any, produced upon the average baby of the class by feeding it exclusively upon boiled milk, as compared with the infant of Class 1.

Various precautions were taken to avoid the introduction of fallacies into the statistics, and it was decided to exclude from the control series all babies who had received less than four months' breast-feeding, and to exclude altogether (*a*) all infants who were over four months of age at the time of their first attendance; (*b*) all who did not attend over a period of at least four months with regularity; (*c*) all babies who were suffering from constitutional diseases, or who developed such during their attendance at the consultation; and (*d*) to exclude all babies who died during their attendance at the consultation, owing to the difficulty of ascertaining how far they had been initially healthy babies. Every baby still attending the consultation at the age of 12 months is examined for rickets, and an analysis of the figures did not justify a deduction of any greater incidence of rickets as a result of feeding upon boiled milk as compared with breast-feeding.

This part of the report is illustrated by tables and charts founded upon them. The general result is to show a significant difference between the average weight of infants fed upon the breast and upon boiled cow's milk in favour of the former, and a careful mathematical examination of statistics proved that an important factor in this result is the method of feeding. Each curve falls into three parts: the first part shows a rapid fall in the weight of babies fed upon boiled cow's milk throughout the two first eight-day periods, and no rise to the level of the first eight-day period until the 33rd to 40th day of life; the average weight of the breast-fed babies showed a rise from the first. The figures appear to indicate that the physiological loss of weight which occurs after birth is greatly accentuated in the case of children fed upon boiled cow's milk. In the middle part of the curves extending from the 40th to about the 230th day the curve showing the average weight of infants fed on boiled cow's milk is consistently lower than that for infants of the control series. The difference between the average weights of the two series begins to decrease at about the 180th day of life and disappears fairly rapidly until, at about the 230th day, it is no longer present. No subsequent difference is to be detected down to the end of the first year, though there is possibly a variation in favour of the boiled milk series towards the end of the year. Dr. Lane-Claypon is careful to point out that the conclusions cannot be at once applied to the population at large, since there can be little doubt that the favourable result was due in a great measure to the medical care and knowledge available for the babies attending the consultation.

Dr. Lane-Claypon also calculated the percentage-rate of growth of babies of both series. These calculations were made in three ways:

1. By estimating the percentage increase per kilogram of body weight during each period of eight days in each series. The result is shown in the remarkable curves here reproduced (Fig. 1). As will be seen there is an extreme

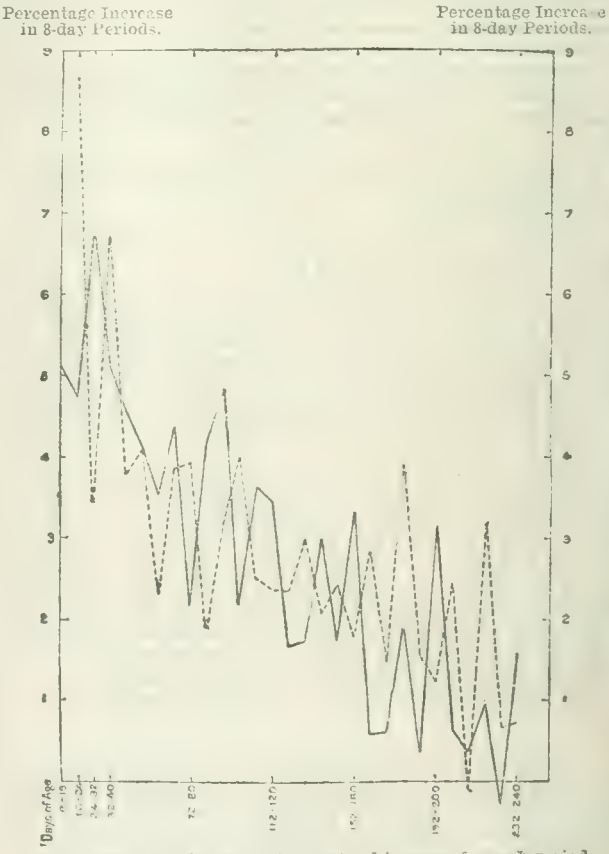


Fig. 1.—Showing the percentage rate of increase for each period of eight days of both series (control, continuous line; and boiled cow's milk, dotted line) down to the age of 8 months.

irregularity in the rate at which the weight increases in both series, but after the first two estimations it is difficult to point out any marked difference between the values of the two series.

2. By estimating the rate of growth by measuring the time required by the babies of each series to double the initial average weight, the values of the first eight-day period being omitted on account of the small number of

observations available in the series fed upon boiled cow's milk. The result was to show little difference between the two series. The babies fed upon boiled cow's milk doubled their weight at the 185th to 192nd day, a fortnight earlier than the breast-fed babies, but they started with an initial lower weight, since the first value was omitted.

3. By estimating the percentage deficit of the average weight of babies fed upon boiled cow's milk as compared with the weight of the breast-fed babies, the weights of the latter being taken as 100. This method showed that the deficit did not at any period of life exceed 10 per cent., and during the greater part of the period under observation was much less. Dr. Lane-Claypon again points out that this favourable result is probably due in large measure to the fact that the babies were attending the consultation, and were therefore under favourable conditions.

The material was further analysed rather more closely with a view to getting two series for comparison, one consisting of babies exclusively breast-fed, and the other of babies who had never been breast-fed but fed from birth upon boiled cow's milk only. The records of 130 infants who had received only breast milk were available from about a fortnight after birth up to at least the 200th day. Only 78 babies who during the same period of life had received only boiled cow's milk were available, but it was

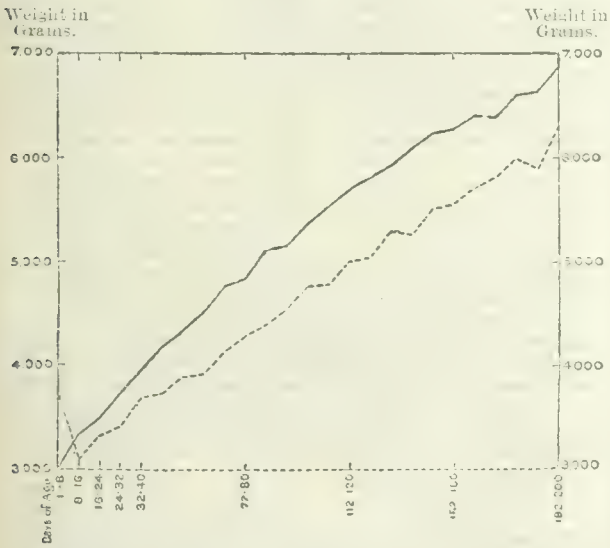


Fig. 2.—Showing the average weight of 130 infants exclusively breast-fed and of 119 infants exclusively fed upon cow's milk down to 200 days of age (see text).

found after statistical study of the material that it was legitimate to add 41 babies who had similar attendance records and had been fed for periods of not more than eight days upon the breast before receiving boiled cow's milk as their sole food. The result of the comparison is shown graphically in Fig. 2, while Fig. 3 shows the percentage-rate of growth, starting from the sixteenth day of life. The divergence is rather more accentuated than in the figures obtained from the analyses of the other series referred to above.

Infantile Scurvy.

The main objection which those who would defend the routine use of boiled cow's milk as a diet for infants who cannot be suckled have to meet is that a rigid adherence to it may be followed by scurvy. Dr. Lane-Claypon discusses this question in the light of recorded experience. This experience seems to amount to this—that the disease, at any rate in a well-developed form, is exceedingly rare, even in infants fed upon boiled milk, and that it has occurred in infants suckled by the mother; that, save in these very exceptional cases, the infants who have suffered from it have been fed upon milk which had been subjected to prolonged boiling or sterilizing, or to unusually elaborate manipulation, and that a cure can be effected, unless the patient is already moribund, in an "almost dramatic manner." The adjective is undoubtedly fully justified, and the transformation worked in the child usually disposes the observer to conclude that the fresh food has supplied some ingredient lacking in the prepared. But the conclusion is not inevitable, since the effect may be due to some ingredient which has come into existence during the process of keeping and preparing the milk. There is a good deal to be said for this alternative suggestion, and Dr. Lane-Claypon quotes the following striking experience of Plantenga:

Plantenga has published an account of an outbreak of Barlow's disease which occurred among the children of his consultation. During one year the milk which was given out at his consultation was pasteurized overnight by heating at 70° C. for half an hour. The milk, therefore, although not boiled was yet subjected to prolonged heating. In the morning this milk was further heated, being boiled for five minutes in a Soxhlet's apparatus. In that year 23 cases of Barlow's disease developed among the babies of the consultation, out of a total number of 200.

As a result of this outbreak the routine of the milk preparation was changed, and the morning's milk was merely

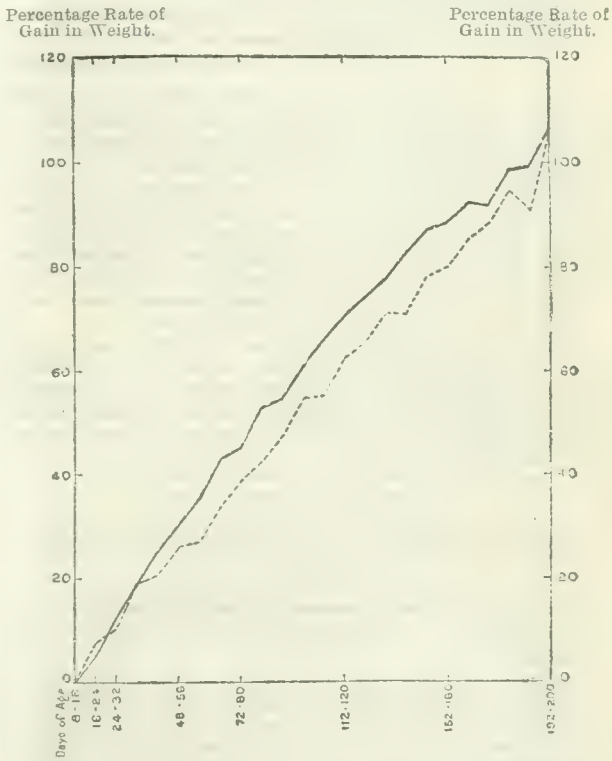


Fig. 3.—Showing the percentage rate of growth of 130 infants exclusively breast-fed, and of 119 infants exclusively fed on boiled milk, starting from the sixteenth day of life up to the age at which the weight was doubled.

pasteurized without being kept. No case of Barlow's disease occurred on this form of milk. Plantenga attributed the occurrence of the trouble to the length of time the milk had been kept before it was used, and he pointed out that the value of raw milk in certain cases may arise from the fact that it is given sooner after milking.

We should be disposed to attach a great deal more weight to evidence such as this than to the alleged extreme rarity of the disease. In the first place, the misfortune can only befall the child of a very scrupulous mother, a certain—often, no doubt, a very small—amount of mixed feeding being the rule from an early age, even among classes far above the poverty line; in the second place, though well-developed cases are undoubtedly rare, minor degrees are probably not very uncommon. In considering this matter, and indeed the report as a whole, the warning which Dr. Lane-Claypon herself gives more than once must always be borne in mind. The conclusions drawn can be applied with confidence only to conditions identical with or closely similar to those operative in the series of infants upon which it is mainly founded. For example, in this matter of scurvy the conclusions apply only to infants fed on milk boiled shortly after being drawn. It would be unscientific and unsafe to transfer them to milk which has been really sterilized at a high temperature, or to the various forms of milk powder and concentrated milk on the market which are recommended as exclusive diets for infants.

SUMMARY AND CONCLUSIONS.

Dr. Lane-Claypon concludes her report in the following terms:

The balance of evidence, both experimental and clinical, points in the main to the same conclusions. Both lines of research show—

1. That there is apparently no serious loss of nutritive value produced by feeding an animal upon boiled milk derived from an animal of the same species. At the same time it must be pointed out that the published evidence on this point is scanty.
2. That, when an animal is fed upon the milk of another species, the milk from which has been found to be suitable for this purpose, such small differences as have been found in the nutritive values of raw and boiled milk have been in favour of boiled milk.
3. That the milk of the same species has a considerably higher nutritive value for that species than the milk of any other species so far investigated.

The evidence dealt with throughout this report emphasizes very forcibly the importance of breast-feeding for the young of all species, and shows the special importance of breast-feeding during the early weeks of life.

Where artificial feeding has been employed in animal experiments, boiled milk of a foreign species has given more satisfactory results than similar milk raw. The Berlin figures dealing with infants fed on boiled cow's milk give extremely favourable results, and in view of the evidence collected in this report could scarcely be expected to be surpassed had raw cow's milk been used.

It may be again pointed out that the Berlin babies who are artificially fed in connexion with the consultation receive milk of a known excellent quality. The excellence of the results obtained in Berlin are almost certainly largely due to the care and supervision exercised at and through the consultation.

BRITISH MEDICAL BENEVOLENT FUND.

AT the April meeting of the Committee 18 cases were considered and grants amounting to £180 made to 17 of the applicants. Appended is an abstract of the cases assisted:

1. Widow, aged 89, of M.R.C.S. Small capital left by husband has been unavoidably exhausted, and applicant is now entirely dependent on an old age pension of 5s. a week. Voted £12.
2. Widow, aged 47, of M.R.C.S. No income, and is endeavouring to maintain herself by taking boarders at a small house in the country. Voted £10.
3. Daughter, aged 64, of late M.R.C.S. Has supported herself and a crippled sister by teaching and acting as organist, but now finds great difficulty in obtaining pupils. Voted £12, to be shared with sister.
4. Widow, aged 74, of L.R.C.P., L.R.C.S.Edin. Quite unprovided for at husband's heath a few months ago, and has applied for an old age pension. Voted £12.
5. Daughter, aged 66, of late M.R.C.S. Used to be a police-court missionary, but was obliged to resign on account of ill health, and is now entirely dependent on friends. Voted £12.
6. Wife, aged 39, of M.R.C.S., who is incapacitated owing to a mental breakdown. Endeavours to support herself and two sons by taking boarders, but is unavoidably in arrears with her rent. Voted £15.
7. Widow, aged 38, of L.R.C.P., L.R.C.S.Edin. Unprovided for at husband's death a few years ago, and supports herself and two children by nursing, but asks for a little help towards the education of the elder. Relieved once, £10. Voted £10.
8. Widow, aged 39, of L.R.C.P., L.R.C.S.Edin. Two children, the elder a pupil governess and the younger at an institution. Endeavours to maintain herself by nursing, but finds difficulty in getting continuous work. Relieved six times, £50. Voted £5.
9. Widow, aged 53, of L.F.P.S.Glasg. No income. Six children, of whom two are dependent and one is temporarily out of work owing to ill health. Relieved eight times, £82. Voted £12.
10. Daughter, aged 57, of late L.R.C.P.Edin. Used to be a dressmaker, but is now unable to obtain regular employment, and is dependent on the help of a friend and such occasional light work as she can find. Relieved seven times, £58. Voted £6.
11. Widow, aged 41, of L.R.C.P., L.R.C.S.Edin. Seven children, aged 15½ to 1½, and income only 15s. a week. Voted £12.
12. Daughter, aged 56, of late M.D.Edin. No income; used to be a governess but is now dependent on small uncertain earnings from sewing. Relieved twice, £15. Voted £12 in twelve instalments to be shared with her sister.
13. Daughter, aged 65, of late M.R.C.S. Is unfitted for any occupation and practically dependent on this fund and a small pension from another charitable society. Relieved thirteen times, £132. Voted £12.
14. Daughter, aged 50, of late M.R.C.S. Used to be a companion, but is now nearly blind and quite incapable of any occupation. Small savings exhausted by illness. Relieved once, £12. Voted £12.
15. Widow, aged 49, of L.R.C.S., L.R.C.P.Edin. No income; two sons only able to give slight help. Relieved eight times, £87. Voted £2 and case to be reconsidered.
16. Widow, aged 49, of M.B., B.Ch.Aberd. After husband's death a few years ago supported herself as a nurse, but is now quite broken down in health and dependent on relations who can ill afford to help. Relieved four times, £37. Voted £12.
17. Daughter, aged 69, of late M.R.C.S. Was provided for at father's death, but lost part of her capital through the failure of a bank and the rest in the endeavour to establish a boarding house. Relieved twice, £24. Voted £12.

Contributions may be sent to the Honorary Treasurer Dr. Samuel West, 15, Wimpole Street, London, W.

SCIENCE NOTES.

SOME entomological observations made by Roubaud[1] in South Africa are of interest from the fact that they deal with forms which directly or indirectly affect man. The first observation relates to the hitherto unique case of a fly larva (*Auchmeromyia luteola*), which not only bites man, but also sucks blood. Roubaud now records two other instances of flies the larvae of which suck blood. The two species in question are new, and they belong to a new genus. One attacks the Cape ant-eater, the other the wart-hog. Roubaud adds some notes on the habits of these larvae. They are hardy creatures, and live in the earth in burrows. His further observations relate to cutaneous myiasis in man, and they are chiefly concerned with the mode of infection. It is well known that the larvae of *Cordylobia anthropophaga* are frequently found beneath the skin not only of man, but also of domestic animals, and give rise to tumours. Two views have been suggested as to the mode of entry—first, that they bore their way directly into the skin, and secondly, that they are ingested with the food and eventually find their way to the skin. Judging by Roubaud's experiments, the first view appears to be correct, and he concludes that infection takes place as a result of sleeping on ground in which such larvae are living.

So much solid CO_2 is now used for therapeutical purposes that it is interesting to learn the results of some experiments upon the electrical properties of this substance brought before the Roentgen Society on April 2nd by Mr. C. E. S. Phillips, F.R.S.E. It has often been noted on collecting carbon dioxide snow that an unpleasant shock has been produced, and in the dark-room it is possible to see quite a large number of sparks flying about. Mr. Phillips finds that a very high charge, sufficient to make the needle of an electrostatic voltmeter register 6,000 volts, may be accumulated when liquid CO_2 is emitted into the air from an ordinary steel cylinder at a high speed through a metallic nozzle. The deposited moisture at the nozzle takes the form of little beads or globules, which are particles of ice, and as these become electrified they are thrown off in a fine shower. Some of the gas, after it had come out of the nozzle, was passed into an ionization electroscope, and brought down the gold leaf very rapidly; more rapidly when it was positively electrified than when the electrification was negative. It is possible to electrify a stick of CO_2 snow by rubbing it with a piece of silk or similar material, and the electrification is always negative save when the snow is rubbed against a surface more easily removed by friction than its own, such as a deposit of hoar-frost on a layer of ice. A block of the snow retains its charge for a considerable time, so that, although there is a rapid evaporation of gas from its surface, it appears as though there were an interchange of electrified particles, which are handed on from molecule to molecule.

[1] *Comptes rendus*, cliii, p. 553, and clv, p. 789.

PROGRESS OF CREMATION.

Great Britain.

In the Journal of April 20th we published a report of the annual meeting of the Cremation Society of England, held on March 27th. The President in his address stated that cremation was making progress in this country, though slowly. The subjoined table shows the number of cremations carried out in Great Britain since the opening of Woking Crematorium in 1885.

From this table it will be seen that the total number of cremations in Great Britain during 1911 was 1,023. Of that number 656 were carried out at the two metropolitan crematoriums—Golder's Green and Woking—managed by the London Cremation Society. This shows an increase of 177 as compared with last year.

Germany.

In Germany cremation has made much more rapid progress. The various societies have a total membership of about 60,000. The total number of bodies disposed of by this method in 1911 was 7,555, as against 6,074 in 1910, an increase of 1,481, or more than 24 per cent. The figures for the several crematories are as follows (the figures in brackets represent the number in 1910):

Baden-Baden	71 (48)	Leipzig	935 (477)
Bremen	561 (454)	Lubeck	98 (50)
Chemnitz	630 (643)	Mainz	450 (410)
Coburg	326 (310)	Mannheim	218 (188)
Dessau	33 (25)	Meiningen	17
Dresden	328	Offenbach a. M.	268 (208)
Eisenach	162 (164)	Pössneck	88 (89)
Gera	213 (79)	Reutlingen	13
Göppingen	12	Sonneberg	2
Gotha	598 (549)	Stuttgart	438 (356)
Hamburg	669 (678)	Ulm	335 (297)
Heidelberg	106 (112)	Weimar	9
Heilbronn	61 (36)	Zittau	289 (206)
Jena	391 (413)	Zwickau	140 (139)
Karlsruhe	123 (143)		

From this list it will be seen that six new crematoriums were opened in Germany during 1911, and therefore afford no figures for comparison; these are at Reutlingen, Dresden (opened May 19th, 1911); Meiningen (opened on October 8th); Göppingen (opened on October 8th); Weimar (opened on December 8th); and Sonneberg (opened on December 12th).

The progress of cremation in Germany may be estimated from the steadily ascending scale of the numbers. In 1878 only 1 body was burnt: in 1880 there were 16; in 1885 there were 79; in 1890 there were 111: in 1895 there were 266; in 1900 there were 639. From that time the increase was much more rapid, the number of cremations in 1905 having been 1,768; in 1910, as already said, 6,074; and 7,555 in 1911. The total number of cremations carried out in Germany up to December 31st, 1911, was 37,529.

Now that a law permitting cremation has been passed in Prussia, there will doubtless be a still further increase in the number disposed of in this manner. The law was passed in the face of much opposition, but in its passage through the Legislature was so modified that its sphere of operation was greatly restricted. Among other provisions was one which can only have been introduced with a purpose hostile to the general acceptance of cremation. This was that in the case of women the body must be examined, and the evidence of virginity, if present, mentioned. Naturally the proposed *post-mortem* outrage excited widespread indignation. The women of Berlin held a meeting of protest, and sent a petition to the Minister of the Interior asking for the repeal of the obnoxious clause. Herr von Dallwitz bowed before the storm, and it is stated that as a matter of fact only one certificate was given. That was in the case of a lady aged 75, who was declared by a medical certificate to be a virgin—"as far as that can be established." This incident shows to what lengths the opponents of cremation will go to make it unpopular.

Austria.

The Central Cremation Society, whose headquarters are in Vienna, has, according to the official report for 1910, 1,172 members. The ten local affiliated societies have 2,029, making a total of 3,201. These figures, as compared with those for 1909, represent an increase of 6.6 per cent. in the membership of the Central Society, and 23.1 per cent. in that of the local societies. In the course of 1910 the bodies of 115 Austrian subjects were burnt in German and Swiss crematories.

Belgium.

There is a Belgian Society for the propagation of cremation. Its head quarters are in Brussels. The honorary presidents are Count d'Alviella, senator; M. Paul Janson, a representative; and M. Ernest Solvay, a former senator. There is also a society of the same kind which has its head quarters in Antwerp. These societies furnish members the names of undertakers who guarantee to have cremation carried out with proper precautions in Paris or at Mainz.

Switzerland.

Cremation was legalized in Switzerland in 1884. There are now ten crematories in that country—at Zürich (opened in 1889), at Basel (1898), at Geneva (1902), at Saint Gall (1903), at Bern (1908), at Lausanne (1909), at La-Chaux-de-Fonds (1909), and at Winterthur, Brenné, and Aarau, each opened in 1911. These crematories are the property of societies, with the exception of those at Basel, Geneva, and Zürich, which belong to the municipalities of those towns. There are eighteen cremation societies in Switzerland. The progress of that method of disposing of the dead may be judged from the fact that in

Table of Cremations carried out in Great Britain since the opening of Woking Crematorium in 1885.

	1885.*	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	Total.
Woking	26	28	46	54	99	104	101	125	150	137	173	240	240	301	273	275	143	138	95	140	108	119	105	106	**114**	**3,440**
Manchester						3	30	47	58	52	51	62	88	85	6	81	92	98	97	90	98	116	106	114	**124**	**1,585**
Glasgow									1	10	16	12	16	20	18	20	24	19	35	44	30	28	30	28	**39**	**390**
Liverpool										2	10	27	23	40	40	54	35	40	35	46	34	42	46	37	**50**	**551**
Hull															17	13	18	20	15	17	29	37	15	21	**25**	**227**
Darlington															1	2	1	7	4	13	8	6	9	9	**12**	**72**
Golder's Green																5	158	220	252	298	290	364	421	415	**542**	**2,965**
Leicester																1	8	8	16	12	12	14	19	16	**13**	**116**
Birmingham																	1	19	22	25	33	18	30	38	**44**	**230**
Leeds																			16	15	16	24	19	12	**17**	**119**
Ilford																			9	23	18	19	24	22	**20**	**135**
Bradford																			1	14	13	6	13	14	**13**	**74**
Sheffield																			7	6	18	12	18	8	**10**	**79**
Total	26	28	46	54	99	107	131	172	209	201	250	341	367	446	445	452	477	569	604	743	707	795	855	840	**1,023**	**9,984**

* Golder's Green Crematorium in operation.

1889, when the first crematory was opened at Zürich, 21 bodies were burnt, whilst in 1910, when there were seven at work, the number of cremations was 1,210.

Other Countries.

We have no recent statistics about cremations in other countries. It may be remembered, however, that in the United States there were, in 1903, 38 crematories, in Italy there are 28, in France 5, in Sweden and Norway 4, in Russia 2, and in Denmark 1.

LITERARY NOTES.

Among the forthcoming Oxford Medical Publications is *The Practitioner's Encyclopaedia of Medicine and Surgery in all their Branches*, edited by J. Keogh Murphy, M.C.Cantab., F.R.C.S. The prospectus states that this encyclopaedia "is in no way intended to compete with the larger works of reference. It is primarily meant to be an indispensable companion to the practitioner. The articles are written by experts in their own subjects, and are all of them essays which go directly to the point. Anatomical and pathological details are not included, except where they are of practical application or essential to the elucidation of the subject. Surgical operations are not described, except such as come well within the scope of every practitioner. On the other hand, special emphasis has been laid upon diagnosis and treatment, and in the compilation of the work conciseness coupled with completeness, terseness with lucidity, have always been aimed at." Among the contributors are Dr. J. C. McVail, Sir William Osler, Dr. A. F. Hertz, Dr. F. W. Mott, Dr. C. O. Hawthorne, Dr. G. F. Still, Dr. Robert Jones, Dr. T. B. Hyslop, Dr. Mercier, Sir Thomas Clouston, Sir W. Watson Cheyne, Professor Sims Woodhead, Mr. Sampson Handley, Mr. Arthur Barker, Mr. Burghard, Mr. D'Arcy Power, Sir F. C. Wallis, Mr. Bruce Clarke, Dr. Hastings Tweedy, Dr. Cuthbert Lockyer, Dr. Victor Bonney, Dr. Comyns Berkeley, Dr. H. Jellett, Mr. Devereux Marshall, Mr. Arnold Lawson, Mr. Hunter Tod, Dr. J. H. Sequeira, Dr. Pernet, and Dr. Galloway. The work will be issued complete in one volume of about 1200 pages. To subscribers in advance the price is 25s., payable to the Managers, The Oxford Medical Publications, 20, Warwick Square, London, E.C.

We have received a bibliography of the published writings of the late Sir Samuel Wilks, compiled by Mr. William Wale, Wills Librarian, Guy's Hospital, and reprinted (with additions) from the *Guy's Hospital Gazette* of November 25th, 1911. The list is preceded by a short biographical note of the distinguished physician in which we find the following narrative, taken from our own columns of August 25th, 1866. As it is perhaps not generally known that Sir Samuel Wilks's career was nearly being brought to an untimely end, we think it may be interesting to some of our readers to reproduce the account, which appeared under the title "Narrow Escape":

> On Tuesday week, Dr. S. Wilks, who is staying at Scarborough, started alone along the sands to Filey. After walking about five miles, he found the projecting rocks hindered his further progress. He attempted to retrace his steps, but the tide having risen considerably, he was soon hemmed in. He sought refuge in the cliffs. When the tide had receded it had become dark, so that he durst not come down, but was obliged to remain the whole night, and unfortunately when daylight appeared the tide had again returned, and he was compelled to wait for hours. On Wednesday morning, Mrs. Wilks and her son proceeded to Filey, and having no tidings of him, engaged the services of some fishermen, who, with the assistance of ropes, went over the cliffs and explored the rocks. After searching in vain for some time, they found that Dr. Wilks, exhausted, had crawled over the rocks to the door of a cottage on the beach. The poor woman at once admitted him, and administered a little brandy to him. His clothes, which were saturated to the neck, were immediately taken off, and he was put to bed, and messengers were afterwards dispatched to Scarborough for a carriage, by which he was taken home to his hotel.

The bibliography extends over twenty-three printed pages, and is a striking proof of the range and variety of Sir Samuel Wilks's intellectual interests.

Novelists must of course draw their characters from real life, and much time and trouble have been given to the attempt to trace the originals. We all know how Dickens had to confess with sorrow that his pen ran away with him in his picture of Harold Skimpole, in which the features of Leigh Hunt were at once recognized. Writers of fiction are usually careful to disguise their originals, and sometimes mix the characteristics of different persons. Particular touches are, however, often copied from the unconscious model. There is an amusing passage in Sir Arthur Conan Doyle's *Stark Munro Letters*, in which Cullingworth, whose originality takes the form of charlatanism, is represented as saying:

> "Hetty's riled because their wives wouldn't call upon her," he cried. "Look at that, my dear," jingling his bag. "That is better than having a lot of brainless women drinking tea and cackling in your drawing-room. I've had a big card printed, Munro, saying that we don't desire to increase the circle of our acquaintance. The maid has orders to show it to every suspicious person who calls."

On first reading this we were struck by the dainty device of the card warning off visitors. We have since found the source—unless it be a coincidence—of that invention in Captain Owen Wheeler's "Running Record of Military Life and Incident in the 'Shiny East,'" which appeared in *Navy and Army Illustrated*. It is there related of a distinguished Surgeon-General, still among us who had won his V.C. in the Mutiny and had served in the Crimea, China, and New Zealand, and also in the Ashanti war of 1873-74. "He was not, however," says Captain Wheeler, "generally popular at Simla, for he was, to say the least, brusque in manner, and was anything but suave in his relations with Simla society. It was common talk that callers at his house were sometimes confronted by a notice handed them by a servant to the effect that Sir A. and Lady —— 'did not desire to extend the circle of their acquaintance.'"

Charles Dickens is sometimes sniffed at by the superior person of the present day, but whatever may be thought of his sentiment and even of his humour, there can be no doubt of his marvellous power of observation. The New York *Medical Journal* recently called attention to the fact that he had noticed the voice characteristic of adenoid vegetations before the condition was scientifically described by Meyer of Copenhagen. In proof of this our contemporary quotes the following passage from the *Uncommercial Traveller*, a collection of essays reprinted from *All the Year Round*:

> The Refractories were picking oakum, in a small room giving on a yard. They sat in line on a form, with their backs to a window; before them, a table, and their work. The oldest Refractory was, say twenty; youngest refractory, say sixteen. I have never yet ascertained in the course of my uncommercial travels, why a Refractory habit should affect the tonsils and uvula; but, I have always observed that Refractories of both sexes and every grade, between a Ragged School and the Old Bailey, have one voice, in which the tonsils and uvula gain a diseased ascendancy.

Dickens notes later that one of the "refractories" laughed "very uvularly." We may point out that long before this, in *Oliver Twist*, Dickens had described the adenoid voice in the conversation of Barney, the associate of Fagin. When Fagin calls at the public-house in Saffron Hill and cautiously inquires if there is anybody there, Barney replies, "Dot a shoul," and it is added that his words, whether they came from the heart or not, "made their way through the nose." He qualifies his statement by saying, "Dobody but Biss Dadsy," adding that the said Nancy has "bid havid a plate of boiled beef id the bar." That the condition is not a mere cold is shown by the fact that all through the book Barney speaks in the same way. Thus when Bill Sikes appears at the house of call before the burglary he is invited by Barney to "cub in." Oliver is referred to by him as "Wud of Bister Fagin's lads." When Noah and Charlotte arrive at "The Three Cripples" Barney tells them that "is the dabe of this onse." When they ask if they can sleep there he answers, "I'b dot certaid you cad, but I'll idquire." When Fagin comes to ask after some of his young pupils Barney warns him. "Hush: stradegers id the next roob," adding the information "ad rubs uds too. Frob the cuttry but subthig in your way or I'b bistaked." Doctors have been familiar with enlarged tonsils for more than two thousand years; Celsus describes a method of removing them by enucleation. And yet it is not fifty years since Meyer peeped behind the veil that hid adenoids.

British Medical Journal.

SATURDAY, APRIL 27TH, 1912.

THE SLEEPING SICKNESS RESERVOIR

IF, at the present day, evidence in favour of the need for further organized experimental investigation on a large scale were lacking, it would be furnished in ample measure by the Colonial Secretary's reply to Dr. Chapple's question (p. 977) as to the administrative action likely to be taken in view of the additional evidence afforded by a recent paper of Kinghorn and Yorke in regard to the existence of a so-called "game reservoir" of human trypanosomiasis. The part of prophet has not been played successfully by many in the drama of science. It is easy enough to hold an empirical opinion and to acquire a certain reputation as a *post-factum* seer—intuition may bless a fortunate few—but experience is, in the event, the only safe and reliable guide and criterion of human affairs. To be really useful and valuable, however, experience requires to be reinforced by accurate observation and correct interpretation, and these are in every case functions of the era in which they are made. The natural tendency of observation is towards greater and greater detail; that of interpretation, on the other hand, is towards wider and more comprehensive generalization. In this connexion, nevertheless, the prime and essential factor is experience. In matters scientific, and indeed in many other matters, this factor is frequently not available, and for it must be substituted trial or experiment. It is precisely for lack of this that Mr. Harcourt's reply is non-committal, and therefore necessarily inconclusive. Dr. Chapple's question was a poser; it savoured much of the nature of a conundrum.

To arrive at some sort of conclusion—we cannot say definite conclusion—as to the value and significance of the Colonial Secretary's answer, it is necessary to analyse the facts of the case as they are presented to us. Although on slender grounds, the matter has been discussed in these columns before now, but its importance warrants a restatement. Before the arrival of the Royal Society's Commission in Uganda it was generally believed that *Trypanosoma gambiense* had an almost exclusive predilection for man. Towards the end of the inquiries of the Commission, however, various scattered observations and the resulting logical deductions caused this belief to be challenged, and the question was mooted as to a possible "reservoir" source of infection. Attention was naturally directed in the first place to mammals, but birds and even reptiles did not escape incrimination, these latter, it should be remarked, by others than the Royal Society's Commissioners. Sir David Bruce and his colleagues were unfortunately unable to devote adequate attention to this important point, but they did furnish[1] a certain amount of evidence that cattle could harbour the trypanosome of sleeping sickness. In a limited number of experiments they showed that cattle could be infected with *T. gambiense* by means of artificially and naturally infected flies, and that the blood of these infected cattle was infective for monkeys and goats. They also found a solitary case, out of 17, of natural infection in a cow. These results could hardly be regarded as affording sufficient basis for administrative action. It may be noted that the Commissioners' report does not make it clear that the cattle succumbed to sleeping sickness. In one instance they state that the animals developed sleeping sickness, but in most they merely mention the fact that *T. gambiense* was found in the blood.

Such was the state of affairs in experiment and experience before this recent work of Drs. Kinghorn and Yorke.[2] Speculation and conjecture have been rife, as might be expected, but no further facts have been put forward to serve as a guide in one direction or another. The communication on which Dr. Chapple's question was based has, however, made the matter more concrete. In Northern Rhodesia, where Kinghorn and Yorke conducted their experimental investigations, human trypanosomiasis is caused by *T. rhodesiense*, an organism differing in strain if not in species from *T. gambiense*. This organism is an extremely recent addition to the quotum of human parasites, and has hitherto been recognized to occur only in the southern parts of the African continent. The tsetse fly here concerned is *Glossina morsitans* instead of *G. palpalis* as in Uganda. The gist of the experimental results is that trypanosomes indistinguishable from *T. rhodesiense* were found in tsetse flies in the natural state, and also in various game under natural conditions. In each case these organisms were examined morphologically and their virulence tested on monkeys and other animals. Altogether 98 animals were examined, and 25 of these showed trypanosomes in their blood. In another half-dozen cases the blood was found to be infective for monkeys, although no organisms were seen at the first examination. With the exception of the native dog (*Lycaeon pictus*), all the infected animals were game—waterbuck, warthog, hartebeest, and mpala.

It cannot, however, be assumed that game are the chief or only hosts of this trypanosome on account of the fact that 85 per cent. of the animals examined belonged to this class. Of these 85 animals 30 were found to harbour *T. rhodesiense*, a proportion which seems to render comment unnecessary.

The speculation of the past two or three years would thus appear to have received ample confirmation, and the logical corollary would be that an analogous condition exists in Uganda and other regions where sleeping sickness is endemic.

In this wise Dr. Chapple's question bears point, and in view of these facts of experiment and experience the question arises what is to be done, what administrative measures are to be adopted "to protect human life, domestic animals, and British trade from the consequences of this disease"? It is a knotty problem, and it is exactly here that experience fails to go far enough. Mr. Harcourt had none to guide him. Remove the "reservoir" by exterminating the game is a suggested administrative measure, but what assurance have we that such action would not determine an increased incidence of tsetse fly attacks, and so of trypanosomiasis on domesticated animals and man? That the fly itself would die off if its natural food in the shape of the blood of game were removed is an assumption for which we have absolutely no warrant. What, then, are we to do? Mr. Harcourt temporizes. Let us wait till the present Royal Society Commission reports on the

[1] *Proc. Roy. Soc.*, B. 82, 1910, pp. 482-4.

[2] *Ann. Trop. Med. and Parasit.*, vi, 1912, pp. 1-23.

[3] Stephens and Fantham, *Ann. Trop. Med. and Parasit.*, iv, 1910, pp. 340-50.

investigations now in hand. Very well; but if this report be confirmatory, what then remains for us to do? Northern Rhodesia and Nyasaland must be opened to British trade and commerce, civilization must advance even into the heart of Central Africa. We have not the slightest doubt that the game must and will go in time, but it will be a long time. We cannot forget that in India, for instance, where civilizing influences have been in action for a length of time which can hardly be measured, tigers and cobras still abound. The prospect in this direction is not immediately hopeful. To exterminate the flies appears to be a task beyond present human powers, even although the tsetse may not be a particularly invulnerable insect. The Sleeping Sickness Commission has during the last two years been making a special inquiry into the habits of tsetse flies in Uganda, with the view, presumably, of discovering some means of reducing their numbers or utterly eradicating them, but nothing has come of this as yet. A combination of both policies, together with a careful watch over domestic stock, seems to offer the only feasible solution of the difficulty, and we must trust to increasing knowledge and education to devise precautionary measures. We cannot forbear from thanking Dr. Chapple for bringing this important matter before public notice, or from sympathizing with Mr. Harcourt in an extremely difficult position.

THE METROPOLITAN PROVIDENT MEDICAL ASSOCIATION.

The annual report of the Metropolitan Provident Medical Association contains some material of interest in view of the possibility that this association may be recognized under the National Insurance Act as a medium for providing medical attendance for the insured in certain districts. The association is under the management of a council of over seventy members, of whom about one-fourth are medical practitioners. Its objects are said to be "to provide upon principles of mutual assurance by means of small periodical payments, efficient medical treatment and medicine for those members of the working classes and their families who are unable to pay the ordinary medical fees, and to co-operate with the governing bodies of the metropolitan hospitals in order that they may be relieved of the large number of ordinary cases of illness that at present overcrowd their out-patient departments, and also have referred to them from the provident dispensaries cases which require special hospital treatment and nursing or are suitable for clinical instruction." These objects it is sought to attain by the establishment in suitable districts of provident dispensaries under the management of local committees.

It is not surprising to read that the council of the association finds it difficult to speak with any confidence as to its future under the Insurance Act. It is, however, pointed out that, apart from any question of the utilization of the dispensaries in the treatment of insured persons, married women and children who are not employed persons form a very large percentage of the members of the provident dispensaries, and will still require, for the present at any rate, to be provided with medical treatment in the same way as to-day. In co-operation with the London Provident Dispensaries Council, the association last year drew up a statement and resolutions which were sent to the Chancellor of the Exchequer and to members of Parliament, and all provident dispensaries in London were requested to co-operate in trying to secure recognition under the Insurance Act. The document referred to states that there are at present in London alone over 110,000 persons insured for medical attendance under the dispensaries, and if the principal country dispensaries are also included the membership—men, women, and children—exceeds 350,000. The dispensaries, therefore, claimed that they had the machinery for carrying out the provisions of the Insurance Act in the districts they covered. They had panels of medical men, open to all general practitioners, the members had a free choice of doctor from the panel, and arrangements were made for the dispensing by qualified dispensers of medicines prescribed by the doctors, the drugs being purchased wholesale by independent committees. The fear was expressed that though the dispensaries are now mostly self-supporting, it would be difficult to carry them on for mothers and children alone if the wage-earning members were taken away by the Insurance Act. If the dispensaries were utilized for the medical benefits of the insured the result might be different, and it was therefore urged that the dispensaries should be utilized for the administration of the medical benefits under the insurance scheme: that the appointments on the medical staffs should be open, as now, to all general practitioners: that each insured person or subscribing member should have free choice of doctor from that staff: that, in accordance with existing regulations, only persons whose total income is not over £104 a year should be eligible for medical benefits in the dispensaries: and that the attention of the Chancellor of the Exchequer should be drawn to the value of the dispensaries in providing medical relief for women and children, as well as for men. The Attorney-General, who received a deputation from the association, said that there was nothing to prevent friendly societies or insurance committees utilizing these dispensaries, and he thought they would gain rather than lose thereby. The council is at present waiting to see what arrangements are made under the Act with the medical profession, and intends as soon as possible to bring before the Commissioners the position of the dispensaries and the possibilities of their being used for the medical treatment of insured persons, leaving details to be arranged by local Insurance Committees.

The report states that at the end of the year the association had a membership roll of 13,016 "cards," family and single, which was a total increase of 334 over the previous year. The contributions are 6d. a month for a single person, or 4d. in poorer districts, and the highest payment for a man, wife, and all children under 14 years of age is 1s. 10d. a month, or 1s. 4d. in poor districts. The number of qualified medical men who work for the association is 148, and of dental surgeons 20. Each member selects his own doctor, and may be transferred from one to another at any time except during an illness; while consultations by any doctor on the staff are given free. It is claimed that "there is no restriction as to the quality or quantity of the drugs ordered by the medical officers." Midwifery attendance is given at reduced fees, and nursing is free; as to dental treatment, extractions and advice are free, and the charges for mechanical work are at reduced rates. Special hospital and convalescent home treatment and surgical aid are, on the advice of the medical officers, obtained as far as possible. Advantageous terms are also offered to benefit societies and clubs, their members being charged 1s. a quarter, and in return have a choice of the doctors near their homes.

In looking over the particulars given of the separate dispensaries, which number 17 together with 4 medical

clubs, it is noticeable that the Croydon dispensary seems to make a speciality of the treatment of diseases of the ear, throat, and eye. Consultants for these branches are attached to it, and a considerable number of patients are treated. The Soho branch derives its income largely from affiliated clubs, while for the branch at Tottenham there are 19 doctors on the staff and 872 members. The Whitechapel branch is the largest, with 1,862 members; of the Willesden Green branch it is said that the receipts from the 182 members amounted to £93 10s. 8d., that subscriptions from honorary members amounted to £76 17s. 6d., and that the medical staff includes 11 of the doctors of the neighbourhood. The accounts of the association show that the total members' payments, including ordinary contributions, fees for midwifery, dental, and "immediate treatment," as well as payments for bottles, cards, etc., amounted to £5,638, or, including Hospital Saturday Fund payments, £5,963. In addition to these sums there were grants from the council to certain branches that were not self-supporting, and from the Hospital Sunday Fund, donations, and other receipts, making a total income of £7,649. The expenditure account shows that the doctors, midwives, and dentists altogether received £3,462, and dispensers £1,100; drugs, bottles, and dispensary sundries cost £644, and rents, rates, taxes, and the various management expenses and sundries cost £2,030, leaving a balance of about £412. It is not stated how many family cards there are in distinction to single members, so that it is impossible to estimate for how many separate persons each doctor, on the average, is responsible. Moreover, the payments made to doctors are lumped together with the payments to dentists and midwives, the only information being that doctors, dentists, and midwives received £3,462 for 13,016 "cards." It is interesting to note that while treatment, including dentistry and midwifery, cost £3,462, drugs, bottles, and dispensing cost £1,744, which is roughly about half as much as actual treatment. The inclusion of dentistry and midwifery in treatment, however, makes it impossible to compare this with the probable relative cost of treatment and medicines and appliances under the Insurance Act. It seems evident, however, that the amount derived by the dispensary doctors for each person on their lists must be absurdly inadequate.

CREMATION.

ELSEWHERE we give an account of the progress of cremation. The figures show a distinct but slow increase in the number of bodies disposed of in that way in Great Britain, and a much more rapid increase in Germany. As to other countries it is not easy to get exact figures; they are scattered through various more or less inaccessible publications or not published at all. Some of the societies formed to further the movement should make it their business to collect all available statistics and publish them from time to time. This could hardly fail to help in exciting interest in the public mind as to an important matter, which at present it looks upon with repugnance or indifference. This feeling is largely due to ignorance, for although death in itself is not to most people a cheerful subject of contemplation, it is made infinitely worse to the imagination by the thought of the horrors of burial. The public mind needs to be educated on the subject. How is this to be done? Scarcely by the distribution of leaflets or even by the oratory of paid lecturers, as if it were an unpopular Act of Parliament. It can only be done *sensim sine sensu* by the instillation of the hygienic advantages of cremation as the opportunity arises. This private and informal propaganda can usefully be carried on by individual medical practitioners. Although the profession is virtually agreed that cremation is from a sanitary point of view the best method of disposal of the bodies of the dead, the time has not, we think, yet come for what may be called an official utterance on the subject; the public is not yet prepared to respond adequately to the teaching. The diffusion of knowledge on the subject is a necessary preliminary, and as a first step the collection of exact figures showing the position of cremation in all civilized countries should be undertaken.

Man is to a great extent led by example, and we are convinced that the progress of cremation in Germany has been greatly aided by the particulars given in *Die Flamme*. The Cremation Society of Great Britain does all that, with the limited means at its disposal, it can to fulfil the mission which it has undertaken. The Belgian Society issues *La Crémation*, which ought to help the cause. We ourselves have for years past published all the facts within our reach, and have sought to impress the advantages of cremation on the public mind. Parts of these articles have often been quoted by the general press. But newspapers, as a rule, seem to be afraid that their pages will be defiled if they touch the subject. This is not a very dignified attitude on the part of organs which exist for the enlightenment of the public mind. An honourable exception is the *Referee*, in which Mr. G. R. Sims ("Dagonet") is not afraid to force the matter on the attention of his innumerable readers.

The reform is one that is bound to come in time, for already the overcrowding of cemeteries in various places is a danger to the public health, and the purchase of land for the purpose of burial is becoming increasingly difficult, and throws an unnecessary additional burden on the ratepayer. The advocates of cremation have therefore, from every point of view, a right to plead for the active co-operation of the leaders of thought in all countries in hastening the advent of this reform.

The list of persons whose bodies have been cremated at Golder's Green and elsewhere contains the names of several well-known clergymen of different denominations. This fact encourages us to hope that the pulpit may yet be used for the diffusion of knowledge which closely concerns the welfare of the living and can in no way harmfully affect the dead. Cremation, as we have several times shown, is not opposed to any theological dogma, and is accepted in principle even by the Roman Catholic Church, which allows the burning of dead bodies in times of pestilence. It would powerfully aid the acceptance of cremation if some broad-minded preachers who command public attention would lay the theological bogey—for it is nothing else—that stands in the way of reform in the mode of disposal of the dead. It should be insisted upon that nothing can be more reverent than the treatment of a body that is cremated. It is never touched by the hands of those to whom is entrusted the discharge of this last duty, and the ashes are gathered with the utmost care into the receptacle in which they are to remain. When we compare this procedure with the filling of a grave with earth, and with the roughness and disregard of decency often displayed abroad—where we have seen a body thrown out of the coffin into a shallow grave and pressed down, when covered only with a thin layer of earth, by the stamping of the grave-diggers—we can only

wonder that sentiment should still be generally on the side of burial.

Cremation gets rid of all the horrors of decomposition. If these were realized every one would cry out with Hamlet, "How abhorred in my imagination it is! My gorge rises at it." We would speak with all tenderness of the feeling that sees in cremation a kind of outrage on the dead. Some feel that the separation from the loved one they have lost is somehow less complete when the body is laid in the ground than when it is quickly destroyed by fire. But this is, after all, not only a morbid but a selfish sentiment, for it is only for the satisfaction of the survivors. It is surely a greater outrage to the dead to let their bodies rot in the ground than to save them from putrefaction by a flame which in the most literal sense is purifying. It is, we have no doubt, the freedom ensured by cremation from loathsome decay that makes so many artists and men and women of letters choose it instead of burial. By all means let the ashes be buried with all suitable rites, and amidst surroundings likely to soothe the sorrowing heart by their beauty. Cremation would make it possible to continue the custom consecrated by long usage of burying in churches. The state of things found in some old churches when vaults have been opened or excavations have been made has from time to time shown how revolting and dangerous this custom is when bodies are buried in the ordinary way. Some years ago protests were made in the name of hygiene against further burials in Westminster Abbey; and, to judge from letters which appeared in the press, these protests were regarded by some as impertinent and almost sacrilegious. It is with the greatest satisfaction, therefore, that we noted that in the cases of Sir Joseph Hooker and Lord Lister, the offer of interment was made subject to previous cremation. This enlightened action of the Dean will doubtless have a great influence in disabusing people's minds of the notion that there is something in cremation inconsistent with Christianity. We recently met with a curious instance of this prejudice in a review which appeared in that very superior publication, the Literary Supplement of the *Times*. Speaking of a tomb in the Cathedral in Toledo bearing the inscription *Hic jacet pulvis et cinis, et nihil*, the writer said that was a strange sentiment to find expressed in a Christian church. But what more is there besides the decaying remains of the body to be found in any tomb? We think this worth mentioning as it illustrates the state of mind that engenders antagonism to cremation. There is an irrational feeling that there is something more—some spark of the *divina particula aeraï*—which is destroyed by cremation. So grotesque a conception may be left to the occultists: Christianity does not teach that the soul dies with the body, still less that it moulders with it in the grave.

We have laid some stress on the theological objection to cremation because it is the most powerful. The argument that the burning of the body destroys evidence of crime has a certain weight; but this is counterbalanced by the number and stringency of the regulations that must be complied with before permission is granted for the cremation of a body. No precaution can absolutely prevent the possibility of a crime remaining undetected. But it may confidently be affirmed that by the provisions of the Cremation Act of 1902 and the Regulations of 1903 that risk has been reduced to a minimum. Cremation is a far greater protection to the public than the ordinary system of death certification, which, lax as it is in its provisions, is still more laxly carried out in practice.

THE ROYAL SOCIETY OF MEDICINE.

THE King has been graciously pleased to promise to open the new house of the Royal Society of Medicine of London. The ceremony will take place at 3.45 p.m. on Tuesday, May 21st, and His Majesty will be accompanied by the Queen. An address will be presented to Their Majesties and presentations made. The new building, which stands at the corner of Wimpole Street and Henrietta Street, with entrances into both, is ready; the work of transferring and arranging the library and completing the furnishing will be fully concluded before May 21st, and the building will, we understand, be opened for the use of Fellows and Members on the following day.

UNDER-PAYMENT OF WOMEN MEDICAL OFFICERS

THE report in the *Bristol Times and Mirror* of April 19th of a meeting of the Health Committee of the city on the previous day affords evidence of the success of the action taken by the Bristol Division of the British Medical Association and the Association of Registered Medical Women in respect of the proposal of the Health Committee to obtain the services of a woman doctor as inspector of midwives and lady health visitors on terms regarded by the profession as unfair and unreasonable. The meeting was held for the purpose of making an appointment to this newly instituted office, but as soon as the proceedings commenced it appeared that protests against the terms of the appointment had been received from both the bodies mentioned, that none of the ladies practising medicine within the area had applied, and that in all only two candidates, both ladies from other towns, had sent in their names. These two ladies, Dr. C. M. Kerby of Fulbourn, Cambridge, and Dr. B. Garvie of Rotherham, were both in attendance, and each in turn was interviewed by the committee. Both ladies, however, indicated that they had just learnt that a warning notice against the appointment had been issued by the British Medical Association, and each expressed her inability to accept any appointment the terms of which were considered improper by the Associations to which she belonged. An endeavour was made to persuade them that the views of these bodies were wrong, and that the hours of duty would really be quite short, but neither budged from the very sound position taken up. The net outcome, therefore, was that the committee decided to reconsider the whole question of the appointment. These two ladies are both to be congratulated on the promptitude with which they made up their minds to withdraw their candidature, and on the resolution they showed in resisting persuasion. They were already entangled in the spider's web, and might well have been gobbled up altogether. That one or the other would have been gobbled up had not both firmly withdrawn from the threshold of the parlour we have no doubt, for we have yet to learn of any medical appointment in which the amount of work exacted is habitually less than that suggested by the official terms of appointment. In this particular case the appointment as represented in the committee's advertisements was a "part-time" office at £100 a year, but the duties as laid down in the form of application were as follows: "To act under the direction of the medical officer of health in supervising the work of the midwives, and of the lady health visitors, and of such other helpers as may be provided by voluntary organizations with the approval of the Health Committee." The work was further particularized by stating the hours on duty. These were "half day's service on three days a week, and office attendance on the other three days." An attempt to obtain the services of a medical woman for such a post in return for £100 a year is, to say the least of it, enterprising, while probably no one but the proverbial marine would accept the suggestion made in committee that the duties only meant ten or twelve hours' work a week.

A PIGMENTARY NOSTRUM.

A SHORT time ago a correspondent in the West of England wrote to us to say that he was familiar with people looking black or purple from ill-suppressed passion, or crimson from nervous blushing, yellow as a guinea from jaundice, white on seeing a ghost, or green from envy, but he had not until lately known "half the people of a town" to pass water of a dark grass-green colour. It was early ascertained that this striking phenomenon followed upon the ingestion of "De Witt's kidney and bladder pills," samples of which appear to have been distributed by the proprietors. With the samples was given a leaflet talking about the thousands of deaths every year from Bright's disease, and suggesting that these pills would counteract the effects of the deadly uric acid poison and keep the kidneys well. The leaflet stated that the pills likewise "assist in regulating the urinary system, and cleanse the kidneys, gently helping them to filter out urineous (*sic*) poisons from which rheumatism arises." The pills "are compounded especially to reach and help diseased kidneys, and with the cause removed there can be no backache and no weak back." "Results," the leaflet says, "are shown after a few doses have been taken. But the pills should be continued for several weeks, especially in severe cases." One result is, as the pamphlet says, "the urine becomes a bluish or greenish color, according to the condition of the urine," and this, we are told, "shows that one of the ingredients, which is an excellent antiseptic, is acting properly." As we subsequently received a similar communication from a different part of England, it seemed worth while to submit the pills to chemical analysis, when it was found that they contained a blue dye agreeing in its characters with methylene blue, which it appears to be; the pills also contained oil of juniper, small quantities of a bitter substance and a tasteless resin, and a good deal of kieselguhr. The methylene blue clings obstinately to the other solid ingredients, so that the bitter substance and resin could not be obtained in a pure state, and showed no characters by which they could be identified. A specimen of urine was examined from one recent case; the patient was a man, aged 52, who said that he had suffered from pain between the shoulders, and slight pain in the loins occasionally, and had felt sleepy and heavy during the day. The pills, he said, were brought round from door to door in small packets containing six, and he took four. When he came under treatment he complained of vague abdominal pains, his temperature was 98 F., and the urine of greenish tint. This green tint would, of course, be accounted for by the excretion of methylene blue. The sample of urine was normal in other respects: it had a specific gravity 1008, a slight acid reaction, and contained no sugar or bile pigments. The methylene blue, whether added for that purpose or not, is certainly calculated to impress the person taking the pills, and to serve as a rather ingenious advertisement of the nostrum. When methylene blue is taken in sufficient doses the faeces also become blue on exposure to air, an observation which would be likely still further to impress the patient.

A NATIONAL HEALTH WEEK.

THE movement for the establishment of a national health week, to which Professor Bostock Hill drew attention by a letter in our issue for March 30th, attains its first fruition next week. The arrangements made by the central committee, of which Professor Bostock Hill, President of the Society of Medical Officers of Health, and Mr. A. J. Martin, President of the Institute of Sanitary Engineers, are respectively chairman and honorary secretary, are to come into operation next Sunday: the proceedings will extend over the six following days. Every endeavour will be made to focus public attention on questions of hygiene and sanitation, personal and domestic. The object is to arouse intelligent interest in health even among the more thoughtless and ignorant members of the community, and to secure increased support for local health authorities and voluntary societies for the promotion of the physical well-being of the population. Representatives of the better known of all such societies are on the committee, and the movement has the support of a large number of public authorities, of members of the medical profession, including medical officers of health, of mayors of metropolitan boroughs and the larger provincial towns, and of clerics. As an example of the steps in view may be quoted some of the arrangements made by the committee which represents the movement in the borough of St. Marylebone. This committee, whose chairman is Dr. Charles Porter, M.O.H., includes Sir Thomas Barlow and Sir Lauder Brunton; it has secured that a great variety of health-aiming enterprises should be thrown open to inspection by the general public on one or other day of the week, ranging from the Middlesex Hospital and the Borough Council Cleansing Station and Baths to the Infant Consultations maintained by the St. Marylebone Health Society and the Mothers' Club in Church Street. Popular lectures accompanied by cinematograph and other lantern demonstrations are to be given on various evenings, the lecturers including Dr. F. M. Sandwith, Dr. Dickinson Berry, Dr. Squire, Dr. Sutherland, and Dr. Wallis (who will deal with the care of the teeth). The St. Marylebone Health Society has also arranged to hold its sixth annual meeting during the same week. The sermons at the principal churches on Sunday will include hygiene in their purview: special health talks will take place at mothers' meetings, girls' clubs, men's meetings, and the boys' brigades in the fourteen or fifteen parishes included in the borough, and a gymnastic display will be given by a working girls' club. The arrangements will, no doubt, vary largely in different areas, but some degree of success for the movement seems certain wherever it has been taken up. As evidence of the sound basis of the movement, and as an augury of the permanence of the position of a national health week among the regular events of each year, it may be noted that it seems to have been agreed between the central and local committees that both sensationalism and controversial topics shall be avoided in making the arrangements.

THE HOSPITAL SHIP "MEDIATOR."

THE Navy Estimates recently issued show that it is expected that the hospital ship *Mediator*, designed by Sir Philip Watts, K.C.B., will be completed during the financial year 1913–14. She is to be built by contract, and the sum to be expended upon her in this financial year (1912–13) is £68,838, including £34,000 for hull, fittings, and equipment, and £30,000 for propelling and other machinery. The details of the cost of completing her are not yet ready. She will be a vessel of 5,000 tons, turbine propelled, and having a speed of between twelve and fifteen knots; she will have a wireless telegraph installation, and a number of boats, motor and others, for the transference of the sick and wounded. From the general wards patients will be transferred by electric lifts to the operating theatres to which preparation rooms will be attached. There will be a laboratory and bacteriological room, an ophthalmic room, a dental room, a padded room ample bath accommodation, a steam laundry with disinfector, an incinerator for soiled dressings, and a mortuary. Isolation wards, capable of dealing simultaneously with three or four types of infectious disease, will be provided. The medical staff in peace will consist of four medical officers and twenty-nine sick-berth men; in war there will be nine medical officers and forty-seven sick-berth men; in addition there will be a staff of cooks and special arrangements for cooking for the sick.

THE CONJOINT BOARD IN ENGLAND.

THE offices of the Conjoint Board of the Royal Colleges of Physicians and Surgeons will be moved to the new Examination Hall, 8 to 11, Queen Square, Bloomsbury, on

Saturday next, from which date all business connected with the Examinations of the Board and the diploma of Fellow and Licence in Dental Surgery of the Royal College of Surgeons will be transacted in the new building.

AUSTRALIAN INSTITUTE OF TROPICAL MEDICINE.

In this issue is published an advertisement by the Australian Institute of Tropical Medicine inviting applications in connexion with the appointment of three new officers, one to be a laboratory expert capable of taking charge in the absence of the director, the second to be an expert in tropical hygiene and epidemiology, and the third to be a biochemist. This is the outcome of the large increase of endowment recently granted by the Commonwealth Government. Extensive new laboratories are in process of erection at Townsville, Queensland, and special wards have already been equipped in the Townsville Hospital. The first report of the Director, Dr. Anton Breinl, is full of hopeful augury. An Australian diploma of Tropical Medicine is being established simultaneously by the universities of Sydney, Melbourne, and Adelaide, the bulk of the teaching being entrusted to the institute. The affairs of the institute are supervised by a committee, including representatives of the Governments of the Commonwealth and of Queensland, and the universities of Sydney, Melbourne, Adelaide, and Brisbane.

DYSENTERY IN FIJI.

In a report to the London School of Tropical Medicine Dr. P. H. Bahr states that the epidemic dysentery in Fiji is of bacillary origin: bacilli morphologically and culturally identical with Shiga's and Flexner's bacilli were isolated from the stools, and at the necropsies of such cases in 1910. Other bacilli, morphologically similar but giving an atypical reaction with various sugars, were also obtained. No special strains were found to be connected with special clinical types of the disease. The sugar reactions of the bacilli were ultimately, after long subculture, found to be variable and inconstant: the reactions as regards mannite and dextrose, however, remained constant. Clinically, cases of all degrees of severity were met with, but they could be classified into three main types—namely, the mild or catarrhal, the acute or ulcerative, and the toxic or fulminant. In some instances attacks of dysentery carried off patients suffering from chronic wasting diseases, such as tuberculosis. An epidemic of this bacillary dysentery would seem to be an annual occurrence in Suva, the capital of Fiji, the season corresponding with the period of greatest heat and greatest aggregate rainfall, and there is some evidence that house-flies act as spreaders of the disease. As regards treatment, the best results were obtained by the use of a polyvalent antidysenteric serum.

THE 250th anniversary of the foundation of the Royal Society is to be commemorated by a series of meetings and entertainments to occupy the week beginning July 15th. A number of foreign visitors will be invited, and the first four days will be spent in London: on Friday, July 19th, visits will be paid to the Universities of Oxford and Cambridge.

THE Surgical Section of the Royal Society of Medicine is arranging a large exhibition of museum specimens of aneurysm, collected from the various metropolitan museums, which will be held on the occasion of the meeting of the Section on Tuesday afternoon, May 14th. Professor Gilbert Barling will subsequently (at 5.30 p.m.) open a debate on the surgical treatment of aneurysm.

THE INSURANCE SCHEME.

STATE SICKNESS INSURANCE COMMITTEE

Sixth Meeting.

THE sixth meeting of the State Sickness Insurance Committee was held on April 18th.

Mr. T. JENNER VERRALL was in the chair, and the members present were: *England and Wales:* Dr. R. M. Beaton (London), Dr. John Brown (Bacup), Dr. T. M. Carter (Westbury-on-Trym), Mr. E. J. Domville (as Chairman of the Public Health Committee), Dr. S. Hodgson (Salford), Dr. R. E. Howell (Middlesbrough), Miss Ivens, M.S. (Liverpool), Dr. Constance E. Long (London), Dr. R. A. Lyster (Winchester), Mr. James Neal (Birmingham), Dr. James Pearse (Trowbridge), Dr. F. M. Pope (Leicester), Dr. E. O. Price (Bangor), Dr. W. Johnson Smyth (Bournemouth), Dr. D. G. Thomson (Thorpe, Norwich), Dr. D. F. Todd (Sunderland), Mr. E. B. Turner (London), Dr. A. H. Williams (Harrow on the Hill), Mr. E. H. Willock (Croydon). *Scotland:* Dr J. Adams (Glasgow), Dr. Bruce Goff (Bothwell), Dr. R. McKenzie Johnston (Edinburgh). *Ireland:* Dr. J. S. Darling (Lurgan). *Ex Officio:* Dr. E. J. Maclean, Chairman of Representative Meetings; Dr. E. Rayner, Treasurer.

Apologies for absence for unavoidable reasons were received from Professor Saundby, President; Dr. J. A. Macdonald, Chairman of Council; Dr. F. W. Kidd (Dublin), Dr. Munro Moir (Inverness), and Mr. D. J. Williams, F.R.C.S. (Llanelly).

We are enabled to publish the following account of the proceedings in anticipation of the preparation and confirmation of the minutes:

NEW MEMBERS OF THE COMMITTEE.

The Committee was authorized by the Representative Meeting to co-opt not more than four additional members; three such members have already been co-opted, and it was resolved to exercise the power to co-opt one more member. Dr. H. F. Oldham, of Morecambe, North Lancashire, was elected.

A letter from Dr. R. J. Johnstone, one of the representatives of Ireland on the State Sickness Insurance Committee, representing the Munster and Ulster Branches, was read notifying his resignation from the Committee, and the Chairman of Representative Meetings undertook to arrange for the election of a representative of those Branches in his place.

MODE AND RATE OF REMUNERATION.

The further consideration of the minutes of the Remuneration Subcommittee, which had not been concluded at the last meeting of the Committee (BRITISH MEDICAL JOURNAL, April 20th, p. 918), was resumed. The recommendation under consideration was the services which were considered to be extras. The Committee considered carefully, and adopted a further list of extras based in general on the suggestions made to the Representative Body.

The Committee resolved to call the attention of the Commissioners to the following points:

Special visits—that is, visits made in response to, and on the same day as, calls received after 10 a.m., or made on Sundays at the desire of the insured person—should be extras.

To the question of the definition of the word "misconduct" occurring in Subsection 14 (4):

Where, under any such rule as aforesaid, payment of sickness or disablement benefit is suspended on the ground that the disease or disablement has been caused by the misconduct of the person claiming the benefit, such person shall not thereby become disentitled to medical benefit,

and to the question of the desirability or otherwise of any of the diseases in the definition being held to be an extra.

To the present procedure of friendly societies in admitting new members without any medical examination and its effect on the arrangements to be made with medical practitioners for attendance and treatment, with a recommendation that there should be a fee for a medical examination of an insured person desirous of joining an approved society.

To the fact that the Association had approved the principle of compensation of medical practitioners in cases where a loss of goodwill, etc., has been proved.

MATERNITY BENEFIT AND OBSTETRIC INSTRUCTION.

The Committee had a conference with the President, Dr. A. Routh, and one of the Honorary Secretaries, Dr. W. W. H. Tate, of the Obstetrical and Gynaecological Section of the Royal Society of Medicine, with reference to the probable effect of the provisions as to maternity benefit contained in the Insurance Act, and in the Model Rules issued by the Insurance Commissioners (BRITISH MEDICAL JOURNAL, SUPPLEMENT, March 16th, p. 316) upon the teaching of clinical midwifery. Dr. Routh stated that the Section had been in communication with the National Insurance Commissioners, England, with reference to the meaning and intention of the Model Rules, and that the Commissioners had suggested an interview between representatives of the Obstetrical and Gynaecological Section of the Royal Society of Medicine and one or more of the Commissioners for the purpose of considering the various aspects of the matter involved. Dr. Routh said that before accepting this invitation the Section desired to learn the views of the State Sickness Insurance Committee.

Dr. Routh pointed out (1) that under the Model Rules a member of an approved society was not entitled to maternity benefit in respect of his wife if she were an inmate of any workhouse, hospital, asylum, convalescent home, or infirmary, supported by any public authority, out of any public funds, or by a charity or voluntary subscriptions, or institution approved for the purposes of sanatorium benefit; (2) that the wife or widow of an insured person in respect of whom maternity benefit was payable must be attended in her confinement either by a duly qualified medical practitioner or by a duly certified midwife, she herself selecting any person with either qualification for the purpose; and (3) that under Section 18 unmarried women, if employees and insured under the Act, could obtain similar maternity benefit under similar conditions. The question which specially interested the Section of the Royal Society of Medicine, which contains among its members almost all the teachers of clinical midwifery in London and the provinces of England, was that the rules appeared to imply that the maternity benefit would not be given to the husband or to any insured woman if the woman were attended in her confinement by a medical student. He said that last year in London alone, within certain definite areas around the general hospitals, 1,150 women were attended in confinements by 400 students under the general supervision of duly qualified medical practitioners. It was contended that if in future the attendance of such students upon these confinements involved the loss to the husband or the woman of maternity benefit, such women would largely be attended by certified midwives and the facilities by which medical students now obtain clinical experience of parturition and the lying-in period would be very largely reduced.

In reply to questions Dr. Routh said that it was estimated that the proportion of wives of insured persons, or women themselves insured, among those so attended would be large. About 2,000 parturient women were received annually as in-patients, and remained on the average about fourteen days. Dr. Routh added that the Council of the Section regarded favourably the following suggestions for meeting the difficulties mentioned:

1. That poor women should be given clearly to understand that if they enter maternity hospitals for their confinement the benefit will be paid to their dependents.

2. That women attended by students and pupil midwives in the extern department of a hospital under the supervision of qualified medical men—that is, the hospital staff—should be regarded as attended by qualified medical men, and should be eligible for maternity benefits.

It was pointed out by members of the Committee that the Commissioners were bound to safeguard the right of the woman herself to select a duly qualified medical practitioner or a duly certified midwife, but generally the Committee were in sympathy with the view of the Section of the Royal Society of Medicine as to attendance by medical students and pupil midwives, and expressed the opinion that an interview with the Commissioners might be useful.

JOINT ADVISORY COMMITTEE.

It was reported that the meeting of the Joint Advisory Committee, summoned for April 26th, had been postponed, and would probably not be held until a fortnight after that date.

The Committee expressed its readiness to meet in conference, immediately before the first meeting of the Advisory Committee, those medical members of the Advisory Committee who had not been nominated by the British Medical Association.

The letter from the Joint Committee of National Insurance Commissioners in reply to that addressed to the Commissioners on April 12th (BRITISH MEDICAL JOURNAL, April 20th, p. 917) was read. The resolution of the State Sickness Insurance Committee at its meeting on March 14th (BRITISH MEDICAL JOURNAL, March 23rd, p. 696), to the effect that the policy of the Committee should be to arrange direct negotiations with the Insurance Commissioners as and when, in the opinion of the Committee, occasion arises, was considered, and it was resolved that at its next meeting the Committee should draw up a further letter to the Insurance Commissioners calling attention to the above statement of policy.

NEXT MEETING.

It was resolved that the next meeting of the Committee should be held on April 25th.

NATIONAL MEDICAL UNION.

Proposed Public Medical Service.

Mr. T. R. WALTENBERG, M.A.Oxon., Honorary Secretary of the Press Committee of the National Medical Union, writes: Allow me to correct a mistake in yours of the 20th, p. 918, where the Chairman of the Subcommittee is reported to have said that "the National Medical Union had in preparation a scheme based upon payment for attendance, for the organization of a Public Medical Service under the control of the profession, for use in the event of the medical benefit under the National Insurance Act being suspended, and added that he understood that the scheme would shortly be submitted for the consideration of the State Sickness Insurance Committee."

The fact is that there are three such schemes before the National Medical Union. So far none of them has satisfied the views of the executive. It is therefore premature to expect one with the imprimatur of the union or some of the executive of that union to be laid before the State Sickness Insurance Committee or any other organization.

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

Insurance Act.

The Administration of the National Insurance Act.

ON April 18th, on the motion to get the Speaker out of the chair on the Civil Service Estimates, Mr. Rupert Gwynne moved a resolution expressing general disapproval of the methods adopted and the steps taken to bring into operation Part I. of the National Insurance Act, and the opinion that, owing to the delay in establishing the Advisory Committee and framing regulations, in establishing the Insurance Committees and District Committees, and in making arrangements for providing medical benefit and otherwise, the date of the commencement of Part I. of the Act ought to be deferred. In reply to a challenge made by Mr. Gwynne early in his speech, the Financial Secretary to the Treasury (Mr. Masterman) said that the whole parliamentary responsibility for any executive action of the Commissioners was accepted by the Chancellor of the Exchequer. Mr. Gwynne contended that this would amount to this: that matters which were not discussed by the House, but left to the Insurance Commissioners to determine, were in fact to be determined by the Chancellor of the Exchequer. Mr. Gwynne protested that attempts had been made to make party capital out of the Act.

The motion was seconded by Sir Philip Magnus, who directed his attention to the question of the arrangement so far made with regard to medical benefit. He said that

he would have the sympathy of many members of the other side of the House in expressing his regret that the Act should have been drafted practically without reference to the members of the medical profession, without whose co-operation it could not possibly work. He referred to the meeting of the Scottish Medical Insurance Council, reported in the SUPPLEMENT of the BRITISH MEDICAL JOURNAL of April 20th, p. 401, and said that the resolutions then adopted practically amounted to this, that the medical profession in Scotland proposed to contract out of the machinery of the Act, because it was impossible to work it. He continued as follows: "It will be remembered that in August last I moved an amendment to the Insurance Bill, with the object of giving effect to some of the cardinal points raised by the medical profession, and regarded by them as essential for securing their co-operation in bringing the Act into operation. The Chancellor of the Exchequer met me with an absolute *non possumus*, and he expected to override the wishes of the whole of the medical profession by Act of Parliament, and they would be compelled to come in under the machinery of the Act; but from that time up to the present moment the medical profession has held out for the granting of these very amendments which I moved in August last, and they have not yet been granted. I venture to say further that if these amendments had then been adopted by the Chancellor of the Exchequer, this Act, so far as its medical benefits go, would have been in operation a long time before now, and we would have had the whole of the medical profession willing to come in, and would give effect to a measure the object of which is to prevent sickness and illness. So far a settlement has not yet been reached with the medical profession on the points by virtue of which they are willing to co-operate. What has been done? Large sums of money have been expended, innumerable committees have been set up, secretaries and clerks and lecturers and typewriters and persons of all descriptions have been appointed at enormous cost to the country, to cure sickness, while the particular persons who are alone able to work this part of the Act are not in co-operation with it at all. At the present moment the rate of remuneration paid to the members of the medical profession has not been settled either in the Act or by the Commissioners. I think it ought to be known that the very actuarial calculations on which the bill is based will probably be found to be entirely inaccurate, because they have proceeded on the assumption that the members of the medical profession will be willing to give medical attention for less sums than they are prepared to accept. I have only recently been informed that a very much larger sum of money than that which has been calculated, amounting to more than hundreds of thousands of pounds, will be required to satisfy the legitimate requirements of the medical profession before this Act can be brought into operation. Perhaps the Financial Secretary to the Treasury will be able to tell us—and the information I am seeking would really be useful to the medical profession—whether the Chancellor of the Exchequer intends to devote a portion of the £6,000,000 surplus which he has at present in his pocket to provide sufficient remuneration for members of the medical profession to enable this Act to come into full operation." Sir Philip Magnus then referred to the correspondence which had passed between the State Sickness Insurance Committee of the British Medical Association and the Insurance Commissioners, and said that the last letter of the Joint Committee of Insurance Commissioners showed that no progress had been made since August towards an arrangement being made between the Commissioners and the members of the medical profession, without whose assistance the Act could not be carried out. He said that when the facts were brought under the notice of the Financial Secretary by questions in the House he took refuge in the statement that even if there was no medical benefit the Insurance Act would come into operation. Continuing, Sir Philip Magnus said: "This is really the most remarkable statement that has ever been put forward, and I should be very glad if the hon. member would inform us what it means. It means nothing less than trying to perform *Hamlet* without the Prince of Denmark. How is it possible to arrange for the prevention of disease and illness unless you have the members of the medical profession working with you? What were we told a few days ago in answer to a question on this point? The answer given to us was that if the medical profession refused to co-operate the Insurance Committees will be enabled to pay to the insured person the sum equivalent to what the medical benefits would cost. Yes, that is true; but how can we ensure that this money collected from the pockets of both workmen and masters and contributed to by the State for the purpose of medical benefit will be used for that purpose? It may be used for any other purpose, and not necessarily for medical benefits."

Several other members spoke, and Mr. Cassel specially dwelt on the uncertainty of the institution of sanatorium and medical benefits.

Mr. Masterman, replying for the Government, said that full sanatorium benefits would not be available immediately the Act was put into operation, but there was no reason why people who could be given benefits between July 15th and January 15th should have those benefits put off. Sanatorium benefits as defined by the Act and interpreted by the most important committee now sitting were of much wider scope than the mere sending of patients to sanatoriums, and before July 15th they would be able to lay before the House a system largely outlined by the Commission which would grow every week as opportunities offered, and would give immediate and direct relief to some of the most unfortunate of the insured persons of which they might be for ever deprived if the Act was put off till January. The hon. member for the University of London had complained of delay in negotiation with the medical profession in regard to medical benefits, but were the Commissioners responsible for that? The first action of the Commissioners was to invite conferences with every class affected by the Act; and every class responded to the invitation except one, the official representative body for the medical profession. Fortunately—for he strongly wanted to see peace—with the British Medical Association wiser and more moderate counsels prevailed, and the Commissioners were only asked to postpone a conference, and now they had nominated members for the Advisory Committee. But so far as the great statutory body representing the medical profession were concerned they thought it their duty to declare that under no circumstances would they discuss questions with the Commissioners, and yet the Commissioners were blamed for delay! The administration of the Act was in the hands of the Insurance Commissioners, and if the statutory representatives of the medical profession realized that their demands could not be granted there was no reason why they should not come and see why they could not be granted. Of course, and necessarily, there was delay, but now that the Advisory Committee had been set up with full representation of the profession, there might be some rational conversation and rational understanding.

The Marquis of Tullibardine was speaking when under the standing orders the discussion was adjourned. It was resumed on Wednesday, April 24th, when Mr. H. W. Foster criticized the delay in appointing the Advisory Committee, and attributed the reluctance of the medical profession to appoint representatives to the manner in which the Chancellor of the Exchequer had referred to the profession. He went on to discuss the position of small societies and the delay in the appointment of Insurance Committees. After speeches by Mr. Lees Smith, Mr. Peel, Mr. G. H. Roberts, and Sir H. Craik, Mr. Masterman replied, dealing with various points in the discussion, but said that he would defer his observations on the position of the medical profession until next week, when the matter was to be raised by a distinct resolution. After other speeches, the closure was carried by 204 to 145, and Mr. Gwynne's amendment was rejected by 205 to 147—a majority of 58.

Insurance Act Sanatoriums.

Mr. Goldman asked, in view of the fact that the National Insurance Act came into operation on July 15th, from which date every insured person who might suffer from consumption was entitled to sanatorium treatment, whether any, and what, provisions were being made to give effect to this part of the Act; whether, pending an arrangement being arrived at with the doctors, a special authority certifying sanatorium patients and treating

them would be created; and, in the event of sufficient beds not being available, what course he proposed to take with regard to the contributions from insured persons in respect of sanatorium treatment.

Mr. Masterman replied and said sanatorium benefit would commence from July 15th, but it would be impossible to give all patients requiring treatment in sanatoriums such treatment until sufficient sanatoriums had been provided. In the event of local Insurance Committees not being constituted by that date, other means would be provided for selecting those who would be recommended for treatment in sanatoriums. Any money necessarily unexpended owing to insufficiency of accommodation at the commencement of the working of the Act would be available for later benefit. The whole subject was being considered by the Committee on Tuberculosis, which would, he understood, report very shortly.

Sanatorium Benefit.

Mr. Hunt asked the Chancellor of the Exchequer whether, in view of the fact that there were about 300,000 people in the United Kingdom suffering from consumption every year, he could say how many consumptive people would have been provided with beds in Government sanatoriums at the end of three years after the National Insurance Act has come into operation.

Mr. Masterman said he had no reason to anticipate that within the period named by the hon. member beds would not have been provided in sanatoriums for all cases for which such treatment was found necessary. Other forms of treatment, either institutional or otherwise, would be provided for other cases according to their respective requirements. He should add that the Act did not contemplate the provision of sanatoriums by the Government, but by the county councils and other local bodies with the assistance of the grant which Parliament had made for the purpose under the conditions laid down in Section 64 of the Act. The grant would be sufficient to provide for all those who needed special sanatorium treatment. Arrangements were under consideration for giving from July 15th onwards to insured persons suffering from tuberculosis who were not treated in sanatoriums such special treatment in other institutions or otherwise as their cases severally required. No announcement, however, as to the precise character of these arrangements could usefully be made pending the consideration of the report of the Tuberculosis Committee, the issue of which was expected within the next few days.

Insurance Committees.

Mr. E. Harvey asked whether the Insurance Committees would be constituted before July 15th.

Mr. Masterman said he was not at present in a position to make any definite statement as to the date of the constitution of local Insurance Committees. If they were not constituted by July 15th special arrangements would be made for the administration of sanatorium benefit, which was the only benefit coming into operation before January next.

Sleeping Sickness.—Dr. Chapple asked the Secretary of State for the Colonies whether his attention had been called to the additional evidence published in the *Annals of Tropical Medicine and Parasitology*, issued by the Liverpool School of Tropical Medicine, in confirmation of the view that game in Nyasaland was a reservoir and *Glossina morsitans* a carrier of the trypanosome of sleeping sickness; and whether he was now prepared to take such steps as would tend to protect human life, domestic animals, and British trade from the consequences of this disease. Mr. Harcourt replied that he was informed that Drs. Kinghorn and Yorke, of the British South African Commission, working in the Luangwa Valley, Northern Rhodesia, had shown satisfactorily that *Glossina morsitans* transmits, in Nature as well as in laboratory experiments, the human trypanosomiasis of that region and that certain wild animals were naturally infected with the human trypanosome. With regard to the first finding it followed that every effort must be made in Nyasaland and Rhodesia to destroy, where it was possible, and elsewhere to avoid this species of tsetse fly. He was advised, however, that the second finding required more examination. The Commission examined ninety-eight wild animals, of which seventy-seven were antelope and eight were pig; it was in these animals, namely, in seven antelope and one pig, that human trypanosomes were found. They did not record any examinations of domestic animals except that of one dog, and it was noteworthy that in this animal also human trypanosomes were found. But it had been shown elsewhere that cattle and other domestic animals might harbour human trypanosomes without detriment to health. Consequently, it was probable that domestic animals in Rhodesia (and equally Nyasaland) which were subject to the bites of *Glossina morsitans*, also harboured the human trypanosome. This required investigation, and if they were found to do so it would greatly complicate the problem, because it was out of the question to decree the destruction of all domestic animals in Nyasaland. He assumed that his hon. friend wished to kill off all or a great number of the large wild animals in Nyasaland, and that he advocated this on one of two assumptions: either (*a*) that the tsetse fly could not exist without them, and therefore would die out when they disappeared; or (*b*) that the large wild animals form the reservoir of the virus which the tsetse transferred to men. As regards (*a*), there was much contrary evidence; and as regards (*b*), there was probability that the domestic animals were serving equally as a reservoir. It might well happen, then, that as a result of exterminating or greatly reducing the game, the tsetse fly, unable to obtain blood from these animals, would attack man and the domestic animals to a yet greater extent than it did at present, and that if, as was probable, these domestic animals harboured the human trypanosome, human beings would become infected in increased proportion owing to close association with their flocks and herds. He did not maintain that this would happen, but he was advised that it undoubtedly might, and such a possibility should call a pause before decisive action was taken on the evidence at present available. An attempt made in Nyasaland to get the game in a certain area killed off was after twelve months unsuccessful, though the natives were encouraged to shoot. It would be well to bring such an experiment to a successful conclusion before deciding to attempt the same thing on a large scale. The matter was, of course, urgent, and it was of vital importance to Nyasaland; but he did not think that anything would be lost by waiting a few months for a report from the Royal Society's Commission, which was investigating the connexion between sleeping sickness and the African fauna in all its aspects. No fresh cases of infection, either in Nyasaland or Rhodesia, had been reported during the present year.

The Inebriates Bill.—Mr. Ellis Griffith, in moving the second reading on Monday last, said that the main provisions of this bill were founded on the recommendations of the Departmental Committee which reported in 1908.[1] There were two methods of dealing with the people who came under the Act. If a man or woman could be induced voluntarily to enter a retreat he or she could be subjected to restraining and reforming influences, but it was hardly necessary to say in a great number of cases people would not submit themselves to voluntary treatment. Inebriates who had committed offences against the law could in certain cases be sent to reformatories. There were two classes of these inebriates. There were, first, those who had been convicted on indictment of offences punishable by imprisonment or penal servitude if drunkenness was a contributing cause and if the offender was found by the court to be an habitual drunkard. This was under Section 1 of the Act, but many difficulties had arisen in putting the section into operation, and during the last twelve years only 600 persons had been dealt with under it. The second class consisted of people summarily convicted of drunken conduct four times within twelve months. Only about 3,500 persons had been dealt with under that description during the past twelve years. The inadequacy of the present provisions was amply borne out by the fact that during the last twelve years there had been 2,000,000 summary convictions. Less than 1.5 per cent. of the persons convicted of drunkenness were sent to reformatories. The first part of this bill applied to inebriates who had committed no offence, and the second part dealt with

[1] British Medical Journal, March 30th, 1912, p. 737.

criminal inebriates. Under the first part it was proposed to apply the principle of compulsory detention in certain circumstances and subject to certain safeguards to inebriates not guilty of any offence. That was the new principle introduced by the bill, and the proposal was based on the report of three Departmental Committees. It was, no doubt, a strong step to take, but the Government were convinced that it was urgently needed. The only alternative to interfering with the particular inebriate was to permit the inebriate to interfere with other people. The bill provided that the power of committal should only be exercised by a county court judge, a police or stipendiary magistrate, or a specially-appointed justice, and the exercise of this power was subject to very powerful restrictions. Provision was made that before an inebriate could be committed a trial should be made of voluntary submission to restriction, either by way of a statutory pledge taken before a justice or a voluntary submission to the care of a guardian. It was only when the inebriate refused the two methods of voluntary submission, or when they failed, that a compulsory committal might be put in force; and under a compulsory committal a person might be either committed to a reformatory or to the care of a guardian. In many cases, no doubt, the adoption of the latter method would avoid reformatory treatment. With regard to the second class of inebriates, those who had been guilty of offences under the Act of 1893, it was necessary to prove that the offender was either an habitual drunkard or had been convicted four times in twelve months. It was proposed in the bill to get rid of both those provisions and to empower the Court to commit to a reformatory any offender brought within the definition contained in one of the clauses of the bill. The practice had sprung up of making three years both the maximum and the minimum period of committal to a reformatory. It was now proposed to substitute a maximum of six months for the first committal and a period of not less than one or more than three years on the second or subsequent committal. The bill also provided for a period of probation after release from a term of detention. The law had been inadequate, for there had been no compulsion to provide accommodation. That obligation would now be imposed upon local authorities, and the Government proposed to help the work by a Treasury grant towards the cost of maintenance. One feature which was new was the definition of intoxicant as including "any intoxicating liquor, and any sedative, narcotic, or stimulant drug or preparation." He supposed that would include morphine, cocaine, and similar drugs. He hoped the House would regard the bill as non-controversial.

Mr. C. Bathurst expressed sympathy with the principle and intention of the bill. Sir F. Banbury moved the rejection of the measure but he found no seconder. Mr. Roberts, Mr. Pollock, Mr. Munro Ferguson, and Mr. Joynson Hicks continued the discussion, which was interrupted for private business. The second reading was therefore postponed but will come on at the first opportunity.

Mental Defect Bill.—This bill proposes to amend the law relating to mentally defective and epileptic persons. It was presented on April 15th by Mr. Hills, supported by Mr. Acland Allan, Mr. Dickinson, Mr. Godfrey Locker-Lampson, Sir Alfred Mond, and Mr. Pollock, and is put down to be read a second time on Monday, April 29th.

Vaccination (Royal Navy).—Mr. Bentham asked the First Lord of the Admiralty whether he was aware that although Alfred C. East, able seaman, of His Majesty's ship *Natal*, had his right to object to vaccination confirmed by the Admiralty in June, 1911, and his privileges as a very good conduct man restored to him on the way to India, whilst escorting the *Medina*, East was told by the captain that he would have to be vaccinated, and that East referred to the decision of the Lords of the Admiralty; whether he was aware that the captain refused to recognize this, and also declined to allow East to see the commander of the escorting squadron; that East was not allowed on shore for recreation and to attend divine service; and that on the way home the captain applied for East's discharge, but this was refused by the admiral in consequence of the Admiralty's decision about the case; and whether he would inform the captain of the *Natal* that he had no right to curtail East's privileges solely because he objected to be revaccinated. Mr. Churchill replied that no report had been received on the subject, and it could not therefore be stated whether the facts, as given in the question, were correct in all their details. It would appear that the man's leave was not stopped as a punishment, but as a precaution for the safety of others. No attempt had been made to force him to be revaccinated, and no such attempt would be made, but, as a necessary consequence of the exercise of his discretion in the matter, his movements might have to be restricted, particularly in foreign ports where small-pox was prevalent.

Suffragettes and Forcible Feeding.—Mr. Fletcher asked the Home Secretary whether he would reconsider his view as to the necessity of the forcible feeding of prisoners. Mr. McKenna said that the forcible feeding of prisoners was a matter of necessary medical treatment carried out in accordance with the law as laid down by the High Court. If the hon. member could suggest any better means for preserving the life of a prisoner who refused to take food in the ordinary way he would be most happy to consider it; but it must be plain to him that it was impossible to allow any prisoner to determine the length of his own sentence by setting him at liberty if he chooses to refuse food for a few days. Asked if he could not give fuller discretion to the medical officers, Mr. McKenna said they had a careful report in every case from the medical officer as to whether a patient was in a suitable state of health to be forcibly fed. Whenever a medical officer reported that a prisoner was not in a suitable state the prisoner was at once discharged. That applied to criminals of all classes. Mr. Lansbury then asked the Home Secretary to state the number of suffragist prisoners, if any, now being forcibly fed, and whether he could make any further statement as to the application of Rule 243A to those prisoners. Mr. McKenna replied that the number who had to be fed by artificial means varied from day to day, but, including all the prisons, it was now, he understood, 17. In view of representations made by the Chairman of the London Quarter Sessions, he had decided to extend Rule 243A to all the suffragist prisoners convicted at Quarter Sessions. The privileges given under the rule would be modified in one or two particulars. It would not be possible to allow the large number of suffragists now in prison to have their meals sent in from outside indiscriminately, but as many of them were old or in poor health, their ordinary diet would be modified to suit their needs by the prison medical officer, and subject to his approval each prisoner would be allowed to have sent in by their friends, if they so desired, one parcel of food weekly on a specified day. They would be employed only on the lighter forms of prison labour, and they would, if they behaved well, have monthly visits and fortnightly letters. Strictly speaking, he had no power to extend the privileges to the hard-labour prisoners; but, as those now in prison were all approaching the termination of their sentences, he felt he would not be guilty of any serious irregularity if he allowed them to be treated in the same way as the others. This treatment would apply to suffragist prisoners wherever they might be.

A QUARTERLY court of the directors of the Society for Relief of Widows and Orphans of Medical Men was held on April 10th, the Right Hon. Sir Thomas Boor Crosby, Lord Mayor, one of the Vice-Presidents of the society, in the chair. Two gentlemen were elected members of the society. By the kind invitation of the Lord Mayor, the annual general meeting of the society will be held at the Mansion House on Wednesday, May 15th, at 5 p.m. The invested funds of the society now amount to £101,600. Relief is only granted to the widows and orphans of deceased members, and since the last court five letters had been received from widows of medical men asking for relief which had to be refused as their husbands had not been members. Membership is open to any registered medical practitioner who at the time of his election is resident within a twenty-mile radius of Charing Cross. The annual subscription is two guineas. Life membership may be obtained on special terms varying with the age of the applicant. Proposal forms and full particulars may be obtained from the Secretary at the offices of the society, 11, Chandos Street, Cavendish Square, W.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

National Insurance Scheme.

Advisory Committee for Ireland.

The Advisory Committee to the National Health Insurance Commission (Ireland) consists of a total of forty-eight members; of these, five are doctors: J. S. Darling of Lurgan, T. Donnelly of Dublin, and T. B. Costello of Tuam, nominated by the Conjoint Committee of the British Medical Association and Irish Medical Association, and the Right Hon. M. T. Cox of Dublin, and P. T. O'Sullivan of University College, Cork, nominated by the Commissioners. Miss Ramsden, Lady Superintendent of the Rotunda Hospital, and Miss Hannan, Matron of the Mater Infirmorum Hospital, Belfast, have also been nominated by the Commissioners as persons representative of insured interests.

Consumptive Workmen.

It has been pointed out in the daily papers that the consumptive workman who is sent to a sanatorium will not have 10s. a week provided for his family while he is being cured, as was stated by the Chancellor of the Exchequer, at any rate in the early years of the working of the Act. The reason is that no approved society would take a consumptive as a member, and therefore he will be a Post Office contributor, in which case it would take him eight years to provide the sum of 10s. a week for twenty-six weeks.

Women's National Health Association.

The fifth annual meeting of the general council of the Women's National Health Association was held on April 18th, 19th, and 20th in the theatre of the Royal Dublin Society. The president, the Countess of Aberdeen, in submitting the report, spoke of the great success of Ui Breasail, and thanked all those who had worked for it. Speaking of the Insurance Act, Her Excellency said that there was a provision whereby approved societies could make donations for the purpose of maintaining district nurses, and also that there was a rule providing that approved societies might appoint persons to visit and nurse their members. The Slainte Insurance Society did not intend to have branches, as it was more economical to work with one head office and with officers and visitors about the country as they were required. It had now submitted to the Insurance Commissioners a rule that the society should, wherever possible, appoint duly qualified nurses to visit insured members. The Women's National Health Association and the Slainte Insurance Society could work in friendly co-operation, and when one of the branches of the Health Association found it difficult to maintain its district nurse, if there were a sufficient number of insured members in that district the Slainte Society would be able to appoint the same nurse as its visitor there. Lady Aberdeen also spoke of the recent formation of the Irish Goat Society and the good it might be expected to do in improving the milk supply of the poor.

At the annual meeting of the Rathgar and Terenure Branch of this Association it was stated that arrangements had been made for a dentist to visit the Terenure Dispensary once a fortnight to inspect, extract, and fill the teeth of the children of the district. Lady Aberdeen said that though the death-rate from tuberculosis had fallen in Rathmines and Rathgar it had risen in Crumlin, and the infantile mortality for the whole district was high: it might therefore be necessary to start another baby's club.

District Lunatic Asylums.

A conference of the committees of management of district lunatic asylums was held in Dublin last week to consider the deficiency in payment of the 4s. grant in aid for pauper lunatics. It was explained that the grant was originally given in order to secure beyond all doubt adequate provision for the exceptional requirements of the insane poor. It was an addition to the sum raised in asylum districts, and was in no sense intended to take the place of such local charges. For a considerable number of years it was continued, and the assurance of its certain receipt fixed the standard of necessary asylum maintenance. It was first granted at a period when the cost of living was very much less than at present, when the labour market was cheaper, when acute lunatics had but lately passed from gaol cells to more humane treatment. All this has changed. The cost of living has increased the rate of salaries, and wages are higher in every class of service, and the asylums have become mental hospitals appreciated by the public. The result of all this is that much more has to be expended on lunatics, and there are many more lunatics under the care of district asylums, the increase in cost is thus two-fold. This amount is now still further intensified locally by the decline of the 4s. grant which entails an enormous increased local taxation. Till the passing of the Local Government (Ireland) Act, 1898, this grant, which had hitherto been paid out of the Consolidated Fund, was charged on the local taxation account, the shrinkage of which has resulted in this deficit. The Act requires that the asylums shall be "well managed," and in good order and condition. The conference was called, therefore, to protest most strongly against this result of an Act which, while it threw the control of asylums more directly into the hands of county authorities, at the same time transferred the source of income from a fixed to a fluctuating fund, from a Consolidated Fund to the local taxation account, which latter depends on special trade conditions in Ireland. The following resolution was passed:

> This conference of the Committees of Management of District Lunatic Asylums, representative of those who are immediately responsible for the proper provision and adequate care and treatment of the insane poor in Ireland, and, we, the standing authority in the lunacy services of the country, and familiar with the requirements of the districts, are of opinion that in the present circumstances the full 4s. in aid being a measure of State contribution, due to supplement local lunacy charges, the same should be at once provided to make up the deficiencies of Irish local taxation account in respect of the grants to Irish lunatic asylums. We are also of opinion that this grant should be placed on a non-fluctuating basis, on the terms set out in the report of the Executive Committee of the Irish County Council's General Council for the year 1910; and, that in any arrangement that may be made at any future time in connexion with the finances of asylums, the grant shall be earmarked for its special purposes. We hereby call on the Government to make good the deficiency that has already accrued, and to secure in the future the full payment of the grant to enable us to continue to discharge in a manner beneficial to the insane poor and satisfactory to the public the responsibilities with which we are charged.

A small committee was appointed to act in the matter.

Ballinasloe Asylum.

Exception has been taken by the local medical men in Ballinasloe to the action of one of the doctors of the Ballinasloe Lunatic Asylum, who has, they say, engaged in private practice in the district. Some time ago these doctors wrote to the committee of the asylum drawing their attention to this. This letter was marked "read." At the last meeting of the Asylum Committee a further letter from the doctors was read, in which, though mentioning the name of the offending doctor, they said they still wished merely to object to the principle of a whole-time medical officer in the public service engaging in private practice, consultative or otherwise. The doctor in question said that he had never taken any fees for private practice, and the Medical Superintendent, when asked, said that he was a most efficient officer. As no specific charge had been made, it was decided to merely mark the letter "read." There is no doubt that only in very exceptional circumstances is it advisable that a whole-time medical officer of an asylum should undertake private practice beyond consultation in cases of mental disease or in cases of emergency.

Cork District Lunatic Asylum.

At the monthly meeting of the Committee of Management of the Cork District Lunatic Asylum, held on April 16th, the question of the appointment of two resident Roman Catholic chaplains came before the meeting. A subcommittee had been directed to consider the question and report on salary, accommodation, etc. This committee recommended that the salary in each instance should be £150 per annum with furnished residence, fuel, light, vegetables, milk, bread, and washing, valued at £80 per annum. The resident medical superintendent having reported that no buildings were available for the proposed chaplains' residences, the subcommittee inspected the grounds for an available site and selected the eastern part

of the garden attached to the resident medical superintendent's residence. To this the resident medical superintendent objected, holding that the garden was his perquisite as much as his salary, but it was stated by the clerk that the word "garden" only meant a supply of fresh fruit and vegetables for his household. The committee decided on the site and gave orders to invite applications from architects for the work of preparing plans and estimates for the residences. The appointment of resident chaplains is not usual in asylums in Ireland, and hitherto the Cork Asylum has been attended by visiting chaplains, one each for the various churches.

Tuberculosis in Asylums.

Dr. O'Neill, resident medical superintendent of Limerick Asylum, in giving his annual report to the governors, reported 52 deaths for the year, and added that 21 of the deaths were due to tuberculous disease. Having referred to the close connexion existing between insanity and tuberculosis, as pointed out in previous reports, Dr. O'Neill says:

It is not an uncommon occurrence to find patients developing tuberculous symptoms without having any early signs or complaining of feeling unwell until they suddenly break down and the disease runs a short course. "The remedy is easy—the erection of a small but inexpensive detached hospital on the highest available site, with a verandah running all round, and having a southern aspect, for the treatment of all suspicious cases. This is the surest way of checking the source of asylum mortality." During the last twenty years no fewer than 6,885 inmates of Irish asylums have died from this cause.

Queen Victoria's Jubilee Institute for Nurses.

A conference of representatives of the affiliated associations in Ireland was held last week in the Hall of the Royal College of Physicians, Dublin, with a view to considering the establishment of an Irish committee. Great difficulty has been found by the executive committee in London in dealing with the work in Ireland, owing to the lack of knowledge and information of the conditions in Ireland, as it was impossible to get any body from Ireland to attend the meetings of the committee in London regularly. The original proposal was to appoint an Irish committee, but an amendment was carried to refer the question to the affiliated associations throughout the country. Ireland, it was said, contributed £25,000 to the fund, which was a larger contribution in proportion to her taxable capacity and population than that of Great Britain. If an Irish Executive Committee was formed, one of the first questions which would arise would be the amount that Ireland contributed.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

Tuberculous School Children.

The Scottish Office has issued a circular to the school boards of Scotland stating that a sum of £7,500 has been assigned for the purpose of medical treatment of school children in Scotland. The expenditure of school boards on medical inspection under Section 4 of the Education (Scotland) Act, 1908, is being aided by grants under Section 17 (6). The further grant now available is to be applied mainly for the medical treatment of necessitous children, in terms of Section 6. The department has under consideration the question of how this grant can be most equitably and most usefully distributed, and is at the same time prepared to consider the question of making grants in aid of open-air schools for children suffering from tuberculosis or other ailments requiring open-air treatment, or in aid of any similar arrangements for improving the health of school children. The Corporation of Glasgow has adopted the recommendations of the Subcommittee on Tuberculosis, as follows:

1. That a home be provided in the vicinity of the city for the accommodation meantime of 50 children, the ground attached to it to be sufficient for accommodating 250.
2. That the approval of the Local Government Board for Scotland be obtained therefor, in terms of the Public Health (Scotland) Act, 1897, and the National Insurance Act, 1911.
3. That the Town Clerk be instructed to make application to the said Local Government Board for a grant towards the cost thereof out of the fund provided under the National Insurance Act, 1911, for the erection of sanatoriums and similar institutions.
4. That, in the event of these recommendations being approved, it be remitted back to this subcommittee to take all necessary steps to provide the home.

Friendly Society Medical Appointments in Dunfermline.

At a meeting of the medical men in Dunfermline, held last November, it was unanimously agreed that each should resign any appointment held by him under a friendly society as from March 31st, 1912. At the same time, the conditions upon which the medical men would be willing to attend by contract members of a friendly society were laid down. Each medical man in the town accordingly handed in his resignation of any friendly society appointment he held, at the same time notifying his willingness to undertake contract work on the terms specified. The societies held joint conferences and appointed a joint committee. This committee met the medical men, who in the discussion which ensued showed that they were determined to adhere to the terms laid down. The Joint Committee then sought to engage one or more medical men from elsewhere to undertake contract work at lower terms than those offered by the local medical men. About the middle of March the officials of the societies again approached the doctors in order to ascertain whether they would agree to do friendly society work if the friendly societies made themselves responsible for paying 1s. 6d. a visit or consultation. After further consideration the matter was finally arranged on the following conditions, all the doctors and all the friendly societies in the town being parties to the agreement:

1. Every member of the friendly society who wished to make provision for medical attendance to pay 6s. per annum. The amount thus collected to be held by the society for the purpose of paying the doctor's bills at the rate of 1s. 6d. per visit or consultation. Should the sum total of doctor's accounts exceed the amount collected, they would be reduced in proportion to the deficit; should there be a surplus, such surplus would be divided between the doctors in proportion to their accounts.
2. Every member of a friendly society who contributed under this scheme to have free choice of doctor at any time.
3. Attendance under this scheme not to include medicine, and all night visits, operations, etc., to be paid for as extras by the individual members.
4. Any member of a friendly society who already contributes at his place of employment for a doctor to have the option of remaining outside the scheme.

The medical men considered that this arrangement would place friendly society work on the most satisfactory basis, as the contract would now be an individual one between doctor and patient, the society guaranteeing payment of the account. Hence, they felt that it would be to the advantage of both patient and doctor to meet the societies by limiting their liability to 6s. per member, especially as it was made quite clear that the arrangement was to be subject to revision at the end of the year.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

WEST YORKSHIRE.

The New Bradford Infirmary.

We have received the following letter:

Will you allow me to amplify a statement made by your special correspondent on page 920 of the JOURNAL of April 20th. Referring to the above, he writes: "The committee now suggests a modified design for a complete hospital with 260 beds, costing £180,000." This statement has already been made in another place, and has not unnaturally provoked criticism, on the ground that this total works out at £700 a bed. While it is in one sense true, I think it is due to our architect, Mr. Pite, to point out that it produces an entirely erroneous conception of the policy which the committee are suggesting under his guidance.

At the outset the committee had two objects in view: First, the provision of a comprehensive scheme sufficient for the needs of Bradford for many years to come; secondly, the arrangement of the scheme in such a way that it could be carried out step by step, so that it could be gradually extended as the needs of the district required.

To meet these objects, therefore, the committee asked for a design for a hospital with 400 beds, which would also allow of another 100 beds being added. All administration buildings, out-patient departments, nursing home, offices, etc., were to be arranged at the outset so that they would serve the complete scheme in the future without any reconstruction or material alteration. Mr. Pite met these conditions with much ability, and has provided a scheme which, when carried to its completion, will cost approximately £500 a bed.

For the immediate future, however, Bradford urgently requires bed accommodation for 250 patients. The committee, therefore, suggest that the plans of Mr. Pite for all administrative buildings, and all departments other than wards, be carried out at the outset. Unless the Insurance Act modifies hospital out patient departments, this part of the scheme can be roughly estimated at £130,000. For the present they suggest building five ward blocks also, at a cost of £50,000, thus providing accommodation for 260 patients to begin with. By adopting this course it will be possible to add one ward block after another in the future, without tampering in any way with the main essential features of the scheme, until the whole 500 beds has been provided. Each ward block for fifty-two patients will cost rather less than £10,000, and there will be no pulling down and reconstructing of the central buildings. Surely such a scheme must commend itself to every practical individual. While it demands of the present generation to provide the nucleus of a hospital such as every large city should possess, it leaves succeeding generations to add any additional ward accommodation they may require.

It is obvious, therefore, that the committee do not merely suggest "a hospital of 260 beds costing £180,000." They suggest the provision of all the essentials of a large hospital at a cost of £130,000, *plus* ward accommodation for 260 patients at a cost of £50,000 to begin with. The total of £180,000 includes far more than the statement conveys to the casual reader.

I have used the figures given by your correspondent in order to avoid any confusion. It is too early to give definite estimates for the various sections of such a large undertaking. As a matter of fact, however, the committee have good grounds to believe that the figures quoted are likely to prove in excess of the ultimate cost.

I am, etc.,

J. BASIL HALL,
Chairman of the Building Committee.

Bradford, April 20th.

Correspondence.

THE NEED FOR PRACTICAL MEDICAL SUPERVISION IN ARTIFICIAL INFANT FEEDING.

SIR,—I have read with interest Dr. Verley's article entitled Observations on an Infant Fed with Barley Water and Cow's Milk in your issue of April 13th (p. 831), and I should like to add a few remarks in support of his concluding paragraph:

> It must be a great saving in money to poor people who are unable to breast-feed their infants if they can rely on cow's milk, either pure or manipulated in some simple manner, instead of experimenting with this, that, or the other proprietary food, at the least excuse, and to the probable detriment of the infant.

I think that this is very true. The cost of the artificial feeding of an infant is a considerable burden even to the average man, let alone the poor one, and it is largely increased by the use of patent foods. It is not the business of the medical profession to prevent people wasting money, but I think that one is justified in pointing out to the public that the occasional advice of a physician in the rearing of an infant is in the long run more economical and more beneficial than improperly conducted artificial feeding, especially with the superadded cost of patent foods. The alluring advertisements of proprietary infant foods will only too readily induce the public to try them ("experiment with them at the least excuse," as Dr. Verley says), possibly in preference to seeking medical advice, and probably owing to an ignorant impression that they form an adequate or superior alternative.

I also believe that the bulk of infant feeding is conducted without medical advice at all, either on account of the expense or because women foolishly disregard their doctor's advice after his attendance at the birth has ceased. They subsequently rear the infant with what scraps of information (often inaccurate) which can be gleaned from friends or from the advertisements of the patent foods in newspapers and periodicals. The medical student is thoroughly educated in the scientific principles of infant feeding, and when he is in a position to put his knowledge into practice, he finds himself "not wanted" because he can be "done without."

Dr. Verley, however, does not suggest a remedy for this unfortunate state of affairs. The difficulty appears to lie in the selection of the proper persons to deal with the matter, to take the lead, and to be responsible for its conduct. The individual practitioner has not the opportunity of dealing with the community as a whole, and I venture to suggest that the best way out of the difficulty would be for the medical officers of health to invite the opinions of the practitioners in their respective districts as to whether printed information could not be sent on notification of birth to every woman who has not been attended by a medical man. The medical officers of health naturally dislike interfering with patients of practitioners, but they might co-operate with them in such an important cause. In some districts I believe that steps have been taken in this direction, but they might be extended with advantage, for it appears to me that the question of infant feeding is of great importance, not only to the individual but also to the nation.—I am, etc.,

London, S.W., April 23rd. J. W. CROPPER.

STERILIZATION OF THE SKIN WITH IODINE.

SIR,—I am obliged to Mr. J. L. Lionel Stretton for pointing out an error in my letter on the above subject, which appeared in your issue of February 24th, p. 465. All I meant to say was that the method of sterilizing the skin with iodine was first introduced by Antonio Grossich, and that his method it was that had been modified by different surgeons. Since writing my first letter, I have used my solution of iodine in petrol for sterilizing my hands and the skin of patients in operations for the radical cure of hernia, hydrocele, fibroid tumour, and an elephantoid scrotum (weight 8 lb.), all of which healed by first intention, leaving a beautiful scar in each case. In these cases, I sterilized my hands and the skin area by simply rubbing them for a few seconds with a sponge soaked in the solution a few minutes before commencing the operation, without any preliminary washing.

I have also used a weaker solution of iodine in petrol for dressing wound cavities, ulcers, sinuses, etc., by packing them with gauze squeezed out of the solution, and the results were very encouraging.—I am, etc.,

Colombo, Ceylon, March 28th. I. DAVID.

POTASSIUM CYANIDE AS A LARVICIDE.

SIR,—In your issue of September 23rd, 1911, p. 712, it was suggested by Sir Ronald Ross and Mr. E. S. Edie that potassium cyanide should be given a trial as a larvicide in the field.

The following are the results of my experiments with the drug on anopheline larvae, chiefly *M. barbirostris* and *N. rossii*:

In laboratory—
1 in 300,000, no effect.
1 in 150,000, no effect.
1 in 75,000, larvae destroyed in twelve hours.

When used in stagnant pools the results obtained were variable. The highest dilution that had any effect was 1 in 50,000, and some pools required as much as 1 in 35,000. A solution of 1 in 37,500—that is, eight times the strength recommended—was required for most pools.—I am, etc.,

S. T. GUNASEKARA,
Superintendent, Antimalarial Campaign.

Kurunegala, Ceylon, March 20th.

HOME RULE AND THE MEDICAL PROFESSION.

SIR,—Will Home Rule affect the medical profession?

It seems worth inquiring whether any steps should be taken to safeguard the rights of the profession in the bill now before Parliament. So far as I know, the measure will do nothing to adversely affect the profession. Of course, an Irish Parliament can create new universities or colleges, and can enlarge or diminish the rights of existing

ones. It can refuse to recognize the General Medical Council, and can repudiate any but Irish diplomas. On the other hand, Britain could retaliate on the same lines, and Ireland would probably be the loser if the account were balanced.

From the Irish point of view, it would seem desirable that the recognition of any additional Irish diplomas (that is, diplomas not at present on the list of those recognized by the General Medical Council) should be provided for. For example, should the licentiates of the Irish Apothecaries' Hall be styled (in virtue of an additional charter to the Hall from an Irish Parliament), say, "Licentiates in Medicine and Surgery, Dublin," powers should be available whereby the General Medical Council would be compelled to register them under that designation, and in like manner if a new qualification, such as M.R.C.S.I., were instituted.—I am, etc.,

J. C. McWalter, M.A., LL.B., D.P.H.

Dublin, April 22nd.

THE LIBERAL PROFESSIONS.

Sir,—The letter by Dr. Arthur Todd-White (p. 865) states in a most concise way the reasons why the public does not think more of the members of the medical profession. We are collectively the most jealous body of men. The general practitioner who is a great success is the most ready target for all sorts of innuendoes by the less fortunate members, and the public readily see the petty ways of some of us. I almost with fear and trembling state that many doctors' wives, in their almost uncontrolled desire to obtain patients for their husbands, "give the profession away."

Until it becomes a matter of honour under no circumstances to allow any medical man to be spoken of in a disparaging way in our presence, and wives to be seen and not heard, the public will consider as they do now—that we are a species of commercial traveller, desirous of thrusting our own particular wares upon them, often at the expense of our brother practitioner.—I am, etc.,

Dorchester, April 15th. W. Burrough Cosens.

THE BRITISH MEDICAL BENEVOLENT FUND.

Sir,—It may interest Dr. Latimer, whose letter under the above title appears in your current issue, to know that an example he might be able to follow has been set in Stepney by Dr. and Mrs. Graham Grant. Assisted by a committee of the wives of the local medical men a concert was given in the Stepney Central Hall last Thursday evening, and a sum of £50 handed to the Fund.

I enclose a copy of the programme, which was made a source of revenue by means of jocular advertisements, for which money was obtained from the firms mentioned therein. All the printing expenses were covered by the sale of these programmes.—I am, etc.,

London, E., April 23rd. Frederick Spurr.

SIR THOMAS BROWNE AND WITCHES.

Sir,—In *Notes and Queries* for March 23rd Mr. Malcolm Letts presents a well-considered refutation of the tradition that Sir Thomas Browne, by his evidence, caused the death of two harmless women who were convicted of witchcraft at Bury St. Edmunds in 1682.

Mr. Letts has found (1) that this story, which is to be found in every biography of Sir Thomas Browne, depends entirely upon the unsupported statement of one author, a Mr. Hutchinson, who, in 1720, wrote a book upon witchcraft; (2) that there is no evidence that Sir Thomas Browne was in Bury at the time of the trial; and (3) that he is not even referred to in the official report of the case.

It seems to me that Mr. Letts deserves our warmest thanks for rescuing from an unmerited stigma the fair fame of one of the most brilliant members of the profession.—I am, etc.,

London, W., April 14th. S. D. Clippingdale.

THE NEW CELL PROLIFERANT.

We have received a further letter from Dr. Charles Walker, who states that, following Mr. H. C. Ross's "technics," he has produced appearances in leucocytes which correspond in detail with the illustrations and descriptions in Mr. Ross's book. The point at issue, which can hardly be settled by further correspondence in these columns, is that Mr. Ross attributes these appearances to mitotic or indirect cell division, while Dr. Walker looks upon them as corresponding with well known and frequently observed effects of osmotic and other disturbances.

Obituary.

JOHN DIXON MANN, M.D., F.R.C.P.,

PROFESSOR OF FORENSIC MEDICINE AND TOXICOLOGY, MANCHESTER UNIVERSITY, AND HONORARY PHYSICIAN TO THE SALFORD ROYAL HOSPITAL.

During the last twelve months the death-roll among the teaching staff of the Manchester School of Medicine has been unusually long, and following soon after the lamented loss of Professor Young we have to record with deep regret the death of John Dixon Mann, the Professor of Forensic Medicine and Toxicology in the University of Manchester. Up to about a week before his death, which took place at his home in Plymouth Grove, Manchester, on Saturday, April 6th, Dr. Mann was in good health, and, though he was over 70 years of age, was going about his work as usual. He died from acute pneumonia after only a few days' illness.

Dr. Mann was born at Kendal in 1840, and, according to the custom of the time, as soon as he decided to enter the medical profession, he became apprenticed to a medical man in Kendal. He received his medical education at the Royal School of Medicine in Manchester, and took the diplomas of M.R.C.S. and L.S.A. in 1862. In 1880 he obtained the M.D. of St. Andrews University, and also became a Member of the Royal College of Physicians of London, being elected to the Fellowship ten years later. For many years after he became qualified he was engaged as a general practitioner in Manchester, and not until 1882 did he obtain his first appointment as Honorary Physician to the Salford Royal Hospital, a position which he retained to his death. This appointment was the first step towards giving up general practice, and was soon followed by a further teaching appointment at Owens College. In 1885 Dr. Cullingworth, who up to then had been Lecturer in Forensic Medicine and Toxicology, was appointed to the Chair of Obstetrics and Gynaecology rendered vacant by the death of Dr. J. Thorburn, and Dr. Dixon Mann succeeded to Dr. Cullingworth's place. In 1892 the Lectureship was changed to a Professorship, and Dr. Mann from that time to his death continued to be Professor of Forensic Medicine and Toxicology. His lectures were always practical and to the point, possibly too matter of fact to be very attractive, and he was at his best in his practical classes, where he could talk at his ease and demonstrate. His classes on the identification of poisons were especially useful: his numerous original methods in experimental analyses made his teaching most valuable, and many a student of his has found the practical utility of Dr. Mann's "tips" when faced in practice with the task of detecting poisons.

His position as Professor of Forensic Medicine and Toxicology made him much sought as an expert witness in the law courts, but, as many a member of the Bar has found out, he was always a most difficult witness to deal with. He gave his evidence in a straightforward and extremely direct and positive way, and always seemed very greatly to resent attempts of counsel to make him modify his statements. So much was this the case and so impatient did he show himself of what he regarded as legal quibbles and irrelevancies that he was never a great favourite in the courts, and it was rather because of his manner than from any doubt as to his position as an authority that he appeared in the courts perhaps less frequently than might have been expected. In spite, however, of his positiveness in giving evidence, he always felt that evidence of the character that he might be called on to give not only invariably carried with it grave responsibility, but often entailed a certain amount of odium from one side or the other. This caused him almost instinctively to shrink from criminal trials, and he often said that the trouble and annoyance of having to submit to cross-examination, often after weary waiting in the court, were not repaid by any fees received.

Dr. Dixon Mann was perhaps best known outside Manchester through his valuable work on *Forensic Medicine*

and Toxicology, the first edition of which appeared in 1893. A second and third edition were soon called for, and the fourth and last edition, which was greatly enlarged and improved, appeared in 1907. The book soon became a standard work of reference and was often quoted in the law courts. In the section dealing with poisons much of the material was the result of Dr. Maun's own work and experience. In addition to the laboratory at the Manchester University he had a private laboratory of his own, and he spent a considerable part of his time in patient and laborious experiments and investigations. He also published in 1904 a work on *The Physiology and Pathology of the Urine*, a second edition of which was required in 1908. This entailed a vast amount of work in physiological chemistry, and it was in the chemical investigation of disease that he seemed to find his chief occupation and attained his greatest successes. He wrote numerous articles in various works of reference, such as Quain's *Dictionary of Medicine* and Bain's *Textbook of Practical Medicine*, as well as numerous papers in the various journals, of which may be mentioned "The Causes and Treatment of Oedema" (British Medical Journal, 1905), "Extremes in Mutability of Symptoms in Disseminate Sclerosis" (British Medical Journal, 1909), and his article on "Some of the Effects of Excessive Tobacco Smoking" (British Medical Journal, 1908). All his writings were marked by an eminently practical spirit and common sense, and he endeavoured to make no assertions he could not substantiate by experimental proof. His position as Honorary Physician at the Salford Royal Hospital afforded him abundance of clinical cases on which to base his observations, and he never failed to submit his opinions to the most rigid tests that laboratory experiments could suggest.

At various times he acted as external Examiner in Forensic Medicine and Toxicology in the Universities of London, Oxford, and Sheffield, and occupied the position of President, and later of Trustee, of the Manchester Medical Society, President of the Manchester Pathological Society, and Chairman for several years of the Manchester and Salford Sanitary Association; he was an active member of the Pathological Society of Great Britain and Ireland and of the Manchester Literary and Philosophical Society. He took a leading part in the general work of the Manchester University, and at the time of his death and for several years before represented it on the General Medical Council. The mere list of his numerous activities is sufficient to show that he was a man of the widest sympathies. Some years ago he took an active part in the work of the British Medical Association, and though of late years his other work had precluded this, he always continued to show the fullest sympathy with the aims and objects of the Association. In matters of professional etiquette he held that gentlemanly common sense should be the ultimate basis of medical ethics, and his own professional conduct was so unquestionably and strictly correct, especially in his relations with general practitioners, that he was often appealed to by younger practitioners, who were doubtful of the correct attitude to be adopted in disputes. He was, in fact, looked on in Manchester as an authority in medical ethics, whose practice was always consistent with his preaching.

He had a fairly large practice as a consulting physician in Manchester, though this came late in his life. In the earlier part of his career, and before his appointment as lecturer at Owens College and professor at the university, he had few opportunities of becoming known to medical students. His position as physician at the Salford Hospital hardly brought him into much contact with medical students, who only occasionally resort to this hospital; hence few of the students knew his ability as a practical clinician, but men who had been resident in the Salford Hospital were always impressed not only with his kindly interest in his patients, but with his scientific thoroughness and the great care he took in investigating disease. His work in forensic medicine had taught him the importance of being sure of his diagnosis before he expressed any opinion; and when he gave what the public might regard as a wavering, uncertain opinion on a case, it might be taken for granted that there were real difficulties which he was not inclined to gloss over by an assumption of certainty not warranted by facts.

The funeral took place at Bowdon parish church on April 10th, and as an evidence of the universal esteem in which he was held there were deputations from the University of Manchester, the Salford Royal Hospital, and various other institutions with which he had been associated, in addition to a large number of individual medical men and private friends. Wreaths were sent "From the patients, sisters, nurses, and residents in his medical wards," and a cross composed of lilies and orchids bore the following message: "From the nursing staff of the Salford Royal Hospital, a loving and grateful tribute to the honoured memory of our physician and teacher who has been for so many years an inspiration to us."

THOMAS RENNIE, M.D.,

FORMERLY OF FOOCHOW, CHINA.

We have to record with deep regret the death in Aberdeen, on April 11th, of Dr. Thomas Rennie, late of Foochow, China, and for many years doctor to the European community of that important city.

Dr. Rennie graduated with "highest honours" at Aberdeen University in 1872. After acting for a short time as assistant to Dr. Bruce of Dingwall, N.B., he proceeded to Takao, Formosa, in 1873. In 1880 he removed to Foochow, where he practised till his retirement in 1911, after thirty-eight years of arduous work in what for most of the year is a hot and trying climate. During all these years Dr. Rennie had only three brief holidays at home. Even these were not complete holidays, for he made it a practice to devote a part of his furlough to familiarizing himself with recent medical developments, and, with this in view, visiting London and other medical centres.

Dr. Rennie was a fine example of that type of medical man, sometimes met with abroad but rarely elsewhere; as it is evolved by the peculiar circumstances under which they have to work, including complete medical isolation. Called upon to deal, on his undivided responsibility, with all kinds of disease in all kinds of nationalities, without skilled assistance or skilled nursing, often with inadequate or extemporized appliances, the young doctor, if he has the right grit, acquires a degree of adaptability, of self-reliance, of resourcefulness, and of all-round skill such as is rarely met with in countries where the consultant, the specialist, the operating surgeon, and the trained nurse are at command. Such a man was Dr. Rennie. He "got on" with everybody—European or Chinese. He could tackle a cataract or a laparotomy, a midwifery case or a fever, a fistula in ano or a skin disease as successfully as any consultant, operating surgeon, or specialist in this country. His experience in private and hospital practice was as varied as it was extensive. Furthermore, in addition to the knowledge and skill thus acquired, his patients had the benefit of the most recent advances in medicine and surgery, for he was a diligent student of current medical literature, and could and did use his microscope in diagnosis.

He had a working knowledge of two dialects of the Chinese language—Amoy and Foochow—and perhaps the most telling testimony to Dr. Rennie's social and professional worth is the fact that for many years he had, in addition to his European and hospital work, a large and increasing practice among the Chinese merchants and officials at Foochow. Dr. Rennie was a great favourite. He had excellent social qualities, and, moreover, could shoot, fish, ride, or play a game of racquets with the best—qualities much appreciated in a sporting community such as that of Foochow. His many friends, both in this country and in China, will be grieved to hear of his death.

Dr. Rennie made no serious contribution to medical literature. He disliked writing. In view of his great experience and sound judgement this is to be regretted.

He has left a widow, three sons, and a daughter to mourn his loss. One of his sons is in the profession—a captain in the Indian Medical Service.

Patrick Manson.

EDWARD MASON WRENCH, M.V.O., F.R.C.S.,

SURGEON-LIEUTENANT-COLONEL, V.D.

Mr. E. M. Wrench, of Baslow, one of the best known practitioners in the north of Derbyshire, with whom many members from other parts of the country must have made acquaintance at the Annual Meetings of the British Medical Association, died suddenly at Buxton on March 12th. Although 78 years of age, Mr. Wrench was

an active cyclist, and on the morning of his death had gone out for a cycle ride, apparently in his usual health. He was found by passers-by leaning against the railings on the roadside, and died very quickly, without being able to communicate with those about him. Mr. Wrench had had two attacks of rheumatic fever, had long suffered from a defect of the mitral valve, and on two previous occasions had had attacks of heart failure.

Mr. Wrench, who was the son of the Reverend T. W. Wrench, Rector of St. Michael's, Cornhill, was born on July 1st, 1833. He received his medical education at St. Thomas's Hospital, and obtained the diplomas of M.R.C.S. and L.S.A. in 1854, in which year he went out to the Crimea; he was first placed in charge of the wounded from Inkerman, in the hospital in the Russian Military School, Balaclava, and was afterwards attached to the 28th Regiment, with which he served in the trenches during the attack of December, 1854. He had been gazetted Assistant Surgeon to the 34th Regiment in November, and joined it on its arrival in the Crimea. He served during the terrible winter of that year, and was present at the capture of the quarries, the successful assault on the Redan of June 18th, and the final capture of Sebastopol on September 8th, 1855. He was mentioned in dispatches, and received the Crimean medal and clasp for Sebastopol, and the Turkish medal. Returning from the Crimea in 1856 he was transferred to the 4th Lancers, went to Madras with that regiment in the following month, and served with it during the whole of the Indian Mutiny. For his services in India he received the Indian medal and clasp for Central India. He returned to England in 1860, and married in 1861 his cousin, the daughter of Mr. William Kirke, of Markham Hall, Nottinghamshire, by whom he is survived. He retired from the army in 1862, and settled at Baslow on his appointment as surgeon to the seventh Duke of Devonshire. During his long connexion with Chatsworth he had the medical care of many notable and distinguished persons, and on one occasion attended the late King Edward VII professionally. The decoration of a Member of the Victorian Order was conferred upon him by King Edward on the occasion of his last visit to Chatsworth.

Mr. Wrench took the diploma of F.R.C.S.Eng. in 1870, and was Consulting Surgeon to the Whitworth Hospital, Darley Dale. In 1864 he joined the 3rd Battalion of the Derbyshire Volunteers, serving as Ensign and Lieutenant, until gazetted Surgeon in March, 1870. In 1892 he was promoted to Surgeon-Lieutenant-Colonel, and in the following year received the V.D.; he retired in 1900 with the rank of Lieutenant-Colonel. Mr. Wrench had held the office of President of the Midland Branch, and after the Annual Meeting of the Association at Sheffield in 1908 he conducted a large party over the park and house of Chatsworth. He was appointed a magistrate in 1898, and was a regular attendant at the Bakewell Sessions. As has already been said, Mr. Wrench was very highly esteemed, not only in his own immediate neighbourhood, but throughout the northern part of Derbyshire. He was deeply interested in archaeology, local history, and geology, was president of the Bakewell Naturalist Field Club, and was an authority on place names.

WE regret to announce the death of one of the leading dental practitioners in the north of Scotland, who was also a member of the medical profession, Dr. W. H. WILLIAMSON; he died at Aberdeen on April 13th. He was born at Leicester fifty-nine years ago, but spent practically all his life in Aberdeen, where his father, the late Mr. Williamson, carried on a large dental practice for many years. He was educated at the Grammar School, Aberdeen, and afterwards studied medicine at Aberdeen University, taking the M.B. degree in 1874 and the M.D. in 1880. He proceeded to Edinburgh and became L.D.S. in 1881. Afterwards he went to Pennsylvania University, where he took the degree of D.D.S.Mass. On the death of his father he entered on practice on his own account, and in the course of his career as a dental surgeon attained to a high place in his profession. He was President of the British Dental Association in 1904–5. In Aberdeen Dr. Williamson was held in esteem by all with whom he came in contact. He was long a Member of the Council of the Aberdeen Artists' Society and was also an ex-President of the Aberdeen Philosophical Society. For many years he acted as Dental Surgeon to the Aberdeen Royal Infirmary. Predeceased by his wife, he leaves a family of two daughters and three sons, the eldest of whom was associated with him in practice.

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

THE following candidates have been approved at the examinations indicated:

D.P.H. (*Both Parts*).—R. A. Askins, *S. A. Baillie, L. E. H. R. Barker, A. H. Brehaut, J. S. Byrne, A. Connal, Josephine Coupland, A. D. Cowan, G. H. Dart, F. C. Davies, Jessie G. Duncan, T. Evans, T. P. Fraser, M. F. Grant (Captain, R.A.M.C.), Dorothy C. Hare, H. C. Jeffreys, Elizabeth Knight, A. A. D. McCabe-Dallas, W. Macewen, J. MacMillan, P. R. McNaught, B. MacPhee, H. C. Manning, A. Robertson, L. J. Short, H. G. Smith, J. R. Sutherland, R. W. Telford, W. R. E. Unthank, S. B. Walsh, E. Wardman-Wilbourne.

* Distinguished in Chemistry.

UNIVERSITY OF EDINBURGH.

Honorary Degrees.

THE Senatus Academicus has resolved to confer the honorary LL.D. degree upon Professor J. Theodore Cash, M.D., F.R.S., Aberdeen University; Dr. Robert Munro, F.R.S.E., Largs; and Sir James Porter, Director-General, Medical Department of the Royal Navy.

UNIVERSITY OF GLASGOW.

THE following were among the degrees conferred at a meeting of the Senate on April 22nd:

M.D.—*C. A. Gourlay, M. Macnicol, C. K. Toland.

Ch.B.—*W. B. Wilson, †S. S. Meighan, *N. Y. C. Lothian, B.Sc., *J. B. Orr, †T. Walmsley, *J. C. Pyper, *A. Gardner, J. A. Aitken, J. C. H. Allan, J. Angus, J. G. Becker, V. Borland, N. Cameron, G. W. Clark, G. Dalziel, A. H. Davidson, W. T. G. Davidson, K. Falconer, J. J. Gibb, I. Glushak, C. W. F. Greenhill, J. A. Harper, A. G. Henderson, A. J. Joubert, F. A. Kerr, T. J. Kirk, R. P. A. Kirkland, J. F. Lang, F. W. K. Lawrie, C. Lundie, D. Meek, M. J. Murray, A. Neilson, A. Rae, Lucy M. Ross, S. Rutherford, H. C. v. d. W. Smit, M. Sommerville, L. T. Stewart, T. Waterhouse, E. C. White, W. Whitelaw, H. G. Wilson.

D.Sc.—L. Findlay.

B.Sc. (*in Public Health*).—H. R. Sloan, E. Watt.

* Commendation for thesis. † Honours.
‡ Passed with commendation.

Bellahouston Gold Medals for eminent merit of a thesis for the M.D. have been awarded to Drs. Hugh Morton and Peter D. Strachan, the latter also obtaining the *Straits Settlements Gold Medal* in Tropical Medicine. Among the special class prizes of the same university is the Asher-Asher Gold Medal in Laryngology and Rhinology which has been awarded to Mr. J. S. K. Boyd.

Commemoration Day.

The proceedings at the Biennial Commemoration on Tuesday, June 25th, will include a meeting at 10.30 a.m. in the Bute Hall for divine service, an oration on Sir Joseph Hooker by Professor F. O. Bower, D.Sc., F.R.S., and the conferring of honorary degrees. At 3 p.m. the ceremony of presenting to the university a bronze medallion of Professor Wm. Stewart, D.D., LL.D., will take place, and tea will be served thereafter. At 7 p.m. a dinner will take place in the University Buildings, at which the honorary graduates and delegates attending the Congress of the Universities of the Empire will be entertained as guests. This function will be open to graduates and friends, including ladies. Applications for tickets for each and all of the meetings must be made to the Secretary of the University Court on or before June 12th.

Statistics.

Among statistics published in the minutes for the meeting of the General Council held on April 24th are the following:

Comparison of the Number of Matriculated Students in Sessions 1908-9, 1909-10, and 1910-11, with the Average Numbers for the Three Quinquennial Periods ended 1908.

	Average of Five Years ending			Year 1908-9.	Year 1909-10.	Year 1910-11.
	1898.	1903.	1908.			
Medicine—						
Men		612	635	626	627	651
Women		72	61	83	71	78
Total	703	684	696	709	698	729

Comparison of Number of Degrees granted for 1908-9, 1909-10, and 1910-11, with the Average for the Two Quinquennial Periods ending 1908.

M.D. Honours	2	2	3	—	1
Commended	6	6	10	6	8
Ordinary	14	15	10	9	15
M.B., Ch.B. (or C.M.)					
Honours	2	4	6	3	3
Commended	9	11	16	7	8
Ordinary	84	82	106	84	87
Total	117	120	151	109	120

UNIVERSITY OF DUBLIN.

THE following were among the degrees conferred at a meeting of the Senate on April 18th:

M.D.—F. V. Agnew, J. Beckett, R. Morrow.
M.B., Ch.B., B.A.O.—F. V. Agnew, T. Brook, F. A. Bourke, H. M. Fleming, R. E. Grandy, S. A. Lane, R. G. J. McEntire, J. N. G. Nolan, H. E. Williams, T. G. Harpur.

CONJOINT BOARD IN ENGLAND.

THE following candidates have been approved at the examinations indicated:

FIRST COLLEGE (*Part IV, Practical Pharmacy*).—L. W. Barlow, R. E. Barnsley, P. N. Batton, M. H. Cane, H. G. R. Canning, W. K. Churchouse, E. C. Cline, E. Coplans, D. H. Derry, E. G. Fisher, R. Hodson, F. C. Hunot, C. S. J. Kearney, G. Kinneir, H. B. Logan, P. E. Lones, W. U. D. Longford, O. D. B. Mawson, L. M. J. Menagé, L. Milton, A. V. Moberly, R. F. Quinton, J. M. Redding, J. E. Rivera, C. M. Ryley, J. T. Samuel, H. N. Sealy, B. L. Skeggs, K. V. Smith, W. J. D. Smyth, D. L. Spence, J. R. W. Stephens, W. A. Stewart, J. S. Strachan, W. F. Thompson, V. C. W. Vickers, W. G. Watson, F. L. Webster.

SECOND COLLEGE (*Anatomy and Physiology*).—C. H. P. Allen, E. Atkinson, F. E. Bendix, C. F. Beyers, S. V. Bhat, J. W. Bouwer, Isabel F. Buckle, E. Casford, E. J. Cooke, E. R. Dermer, M. Dia, M. K. El Kholy, A. Z. Elsaied, D. T. Evans, R. E. Fagan, H. Fernando, V. Fox, G. F. P. Gibbons, G. L. Grant, W. H. Harris, S. Hutchinson, E. L. Ivens, I. S. James, T. R. Kenworthy, N. H. Linzee, W. D. McDonald, F. O. MacGibbon, L. A. Malik, H. W. Maltby, G. W. Maw, B. R. Mayman, H. G. Moser, S. H. Paul, J. E. Pearce, A. C. Perry, D. J. Platts, L. H. Poh, C. W. Pool, H. P. Price, A. L. Robinson, G. F. Rowcroft, T. O. Shah, S. Simons, B. H. Singh, P. de S. Smith, J. W. G. Steell, W. B. R. Stower, P. W. Symons, H. B. Taylor, O. R. Unger, W. E. Wade, G. L. Wilkinson, M. U. Wilson.

* Recommended for Begley Studentship.

SOCIETY OF APOTHECARIES OF LONDON.

THE following candidates have been approved in the subjects indicated:

SURGERY.—*†L. K. Edmeades, †C. W. Jenner, *†H. Robinson, *†C. B. Welsby, *†H. D. Willis.
MEDICINE.—†H. Cox, †E. B. Keen, †P. McGinnis, †C. B. Welsby, *†H. D. Willis.
FORENSIC MEDICINE.—W. C. Hinely, C. de C. W. Langdon, A. H. Macklin.
MIDWIFERY.—J. A. A. Boddy, R. B. F. Frazer, R. Jones, R. V. Martin.

* Section I. † Section II.

The diploma of the Society has been granted to Messrs. L. K. Edmeades, E. B. Keen, P. McGinnis, C. B. Welsby, and H. D. Willis.

Medico-Legal.

SECRET REMEDIES.

BEFORE Mr. Hedderwick at North London Police Court on April 17th, John James Huggins and George Douglas Buchanan, both of 67, Isledon Road, Holloway, were summoned at the instance of the Commissioners of Customs and Excise for selling Jap's Pills and Jap's Balm, preparations liable to duty, without an Inland Revenue licence. Mr. Simpson, who appeared for the Commissioners, said that the defendants carried on business as "Jap and Co.," and manufactured and sold these pills and ointments at one penny a box. They were for so doing liable to a licence duty, and the Commissioners contended that each box should be stamped with a three halfpenny stamp. The defendants, in the notice printed on the pill boxes, said that the pills were prepared from the formula of Beecham's Pills, and that the balm was prepared according to the formula for Zam-Buk. The penalty for selling such medicines without a licence was £20, and for selling the medicines without being properly stamped, £10. Mr. Huggins, one of the defendants, admitted the sale, but submitted that there was no secret about the process of manufacture, the formula in each case having been taken from a book, *Secret Remedies*, and as they were both recognized and published formulas there was no necessity to pay a licence duty or a stamp duty. He quoted the *Chemists' Diary* to show that the law had been complied with. Mr. Simpson said that the exemption referred to applied only to medical men and qualified chemists and druggists who made up and sold remedies such as were known to and recognized by the *British Pharmacopœia*. The defendants seemed to think that because they got these formulas from the book, *Secret Remedies*, they were protected; but the defendants were not qualified chemists recognized by the law, and the remedies mentioned in the book were not approved. The sole object of the book was to expose frauds on the public. Mr. Hedderwick, in giving his decision, said he thought the defendants had been under an honest misapprehension, and had believed that because the prescriptions of these articles had been published in *Secret Remedies* they were protected, but that was not what the Act contemplated. The case had drawn attention to the very remarkable work, *Secret Remedies*, published by the British Medical Association for the protection of the public. From this it seemed that Zambuk, which was said to be identical with Jap's Balm, cost one farthing per box to make, and that Beecham's Pills, which were said to be worth a guinea a box, cost no more than a farthing for a boxful. The defendant was ordered to pay fines and costs amounting to £20 6s. Mr. Huggins, on hearing the decision, said that he would not waive his objection to the summonses, which were not in order. Ultimately the summonses were dismissed, the magistrate intimating that if fresh summonses were taken out against both partners and the cases were proved, he would fine both.

NURSE'S FALSE TESTIMONIAL.

Prosecution by the London Hospital.

ON April 13th, at the Eye Borough Petty Sessions, Evelyn McCoy was charged with having presented a false certificate of training, purporting to be a certificate of the London Hospital, with a view to obtaining a post as nurse under the Hartismere Board of Guardians. The certificate stated that she had been three years in the service of the London Hospital, whereas she had never been in that institution.

The prisoner pleaded guilty.

Mr. A. G. Whitting, on behalf of the London Hospital, briefly explained the facts. The prisoner had sent in a copy of a testimonial purporting to be a certificate of training signed by the officials of the hospital who usually signed such certificates. A discrepancy was, however, noticed which prompted the clerk to the guardians to write to the authorities of the London Hospital with a view to verifying the certificate. It was found that no such person had ever been trained at the London Hospital.

The prisoner expressed deep regret for what she had done.

The Mayor, in sentencing, stated that, as there was nothing previously against the prisoner, the Bench were inclined to be lenient with her. They fined her £1 and costs, or, in default, fourteen days' hard labour. They thought that very lenient for a serious offence.

WORKMEN'S COMPENSATION ACT.

Grease and Dirt getting into a Cut.

IN Chandler *v.* Great Western Railway (Court of Appeal, March 12th) the applicant was a fireman. On July 8th, 1910, he cut his finger with a table knife while having his dinner at his lodgings. Applicant was then living in South Wales. Applicant went to work on his engine, but later blood poisoning supervened and the finger had to be amputated. The county court judge found that the blood poisoning, which was the cause of the lost finger, was due to an accident arising out of and in the course of the employment. The Court of Appeal held that as infection might have got into the man's hand in a number of ways there was no evidence that he was the victim of an accident arising out of and in the course of his employment. The appeal was therefore allowed.

Medical Referees as Witnesses.

ENQUIRER asks whether a medical referee appointed under the Workmen's Compensation Act can give evidence in a case in the same court in which he acts as referee.

*** By Section 10 (1) of the Workmen's Compensation Act: "Where a medical referee has been employed as a medical practitioner in connexion with any case by or on behalf of an employer, or workman, or by any insurers interested, he shall not act as medical referee in that case." Provided there is no infringement of this clause, a medical referee has the same liberty of action as any other practitioner.

BOOK DEBTS AND LATER FEES.

M.B. writes that he has recently come into a partnership without buying any of the book debts. His partner claims fees for confinements and operations in payment of his outstanding bills. He wishes to know if this is correct. He thinks that such fees, being definite payments for definite services, and commonly paid as cash, should be credited to the firm, and not to his partner.

*** Our correspondent is entitled to his share of all moneys paid for professional work done after his entrance into the firm. Fees paid for confinements and operations at the time could have no reference to old outstanding accounts, and would belong to the firm. It is only where credit is given, and accounts are periodically rendered, that payments made by the debtor, unless he directs otherwise, are presumed to be for the satisfaction of debts in the order of their priority.

VISITING MEDICAL OFFICERS OF HOSPITALS AND THE CORONERS ACT, 1887.

A MEMBER writes with reference to Dr. Boyd Robinson's letter, p. 929: The Act states that if attendance on the patient is the duty of the medical officer to the hospital there is no fee for an inquest. In our hospital we get over this difficulty in the following manner: Each officer takes one month's duty, A. B. C. D. E. F. During A.'s month it is his duty to attend cases of accident, and therefore he can claim no fee, but if B. attends the case and is summoned to the inquest he can claim the fee. Therefore let A. promptly hand over the case if death is expected to B. or C., etc. We cannot always arrange this, but when we can we get the fee. There can be no doubt that the Act was not intended for these small hospitals, where there is no resident, and where practically the work is done for nothing.

The Services.

TERRITORIAL FORCE.

HOSPITAL TREATMENT, MEDICAL EXPENSES, AND GRATUITIES.

THE following special Army Order dated April 15th has been issued:

Hospital Treatment, Medical Expenses and Gratuities.—1. In view of difficulties which have been experienced in the administration of paragraphs 658 to 666, Territorial Force Regulations, 1910, and of concessions which it has been found possible to make in the matter of medical expenses and the special gratuity referred to in the new paragraph 664A, the Army Council have decided to substitute the following for the paragraphs mentioned above. The amendments should be brought to the notice of all concerned.

2. Attention is particularly directed to the necessity of dealing with claims under this section with the utmost promptitude, those which can be settled locally being so dealt with and those requiring decision by the Army Council being forwarded to the War Office with the necessary particulars with the least possible delay.

3. General Officers Commanding are requested to direct the special attention of all officers of the Royal Army Medical Corps (Territorial Force) to the rules with regard to general procedure. Extra copies of this Special Army Order will be distributed for the use of all concerned.

4. A poster (Army Form E 631) calling the attention of all members of the Territorial Force to these rules has been prepared and will be displayed in all drill halls. Copies will shortly be issued to all concerned.

5. The following will be *substituted* for paragraphs 658 to 666, Territorial Force Regulations:

Regimental Officers and Men.

658. In cases of disability, whether of injury or sickness, officers and men of the Territorial Force may be granted hospital treatment, medical treatment or refund of medical expenses, pay or gratuity, under the conditions laid down in paras. 659 to 666.

General Procedure.

659. At camp or other duty, all cases of injury or sickness will be reported at once to the medical officer in charge, who will decide how the case is to be disposed of—for example, taken to hospital, sent home, or treated in quarters. A diary will invariably be kept with details of all cases reported or treated.

659A. Should no medical officer be present (for example, in case of an injury received at musketry) the senior officer may summon medical aid, if he is satisfied that the matter is sufficiently urgent. He will in any event make a full report of the case to superior authority.

659B. If the disability is temporary and can be adequately treated by the medical officer at the place of training, it will be dealt with there.

659C. If hospital treatment is necessary, the case will be sent to a military hospital if one is available.

659D. In cases of urgency or where the patient cannot be moved to a military hospital, such arrangements as are necessary must be made, for example, the case may be taken to the nearest civil hospital.

659E. If hospital treatment is not necessary, but it is clear that the officer or man will be unable to perform further military duty during the period for which he has been called up, he will be sent home.

659F. A board will be held as soon as possible (where practicable, on the day on which the disability is reported) to investigate and report the circumstances as affecting the question whether the injury or sickness was contracted in and by the performance of military duty. The board should record such opinion as they are able to form on this point. At camp the board will consist of the C.O. and medical officer of the unit, the adjutant and a regular R.A.M.C. officer, if available. In other cases the board will consist of such of these officers, or their nearest representatives, as are available.

660. Disability will only be regarded as contracted in and by the performance of military duty when it is incurred during the actual performance of military duty and arises directly out of such performance. It will not be so regarded if, although contracted during the period of such duty, it is due to the ordinary risks of indoor or outdoor life to which military duty carries with it no special liability. In cases of sickness, the proceedings of the board will be forwarded to the Director-General, Army Medical Service, with whom the final decision will rest, if any claim is made involving expense to the public. In cases of injury the G.O.C.-in-C. will decide the case without reference to the War Office.

660A. If it is decided that the disability was not contracted in and by the performance of military duty, the officer or man will have no claim on the public for pay, gratuity, or medical expenses, except as provided for in para. 661 and in the special cases dealt with in paras. 663A and 664A.

660B. If the board considers the disability to have been caused in and by the performance of military duty, the medical officer, on sending an officer or man home disabled, or the medical officer of a military hospital, on discharging him from hospital, will give him a certificate stating (1) whether he is in need of further medical treatment, (2) whether he is incapacitated from following his trade or calling, and (3) the minimum probable duration of the disability. If the case is in a civil hospital, the certificate of the hospital doctor will be accepted. The certificate will be forwarded in support of any claim.

660C. The medical officer, on sending home or discharging from a military hospital an officer or man who requires further treatment and is not entitled to medical attendance under the National Insurance Act, will endeavour to ascertain whether treatment by a regular R.A.M.C. officer is possible, and, if it is available, will direct the officer or man to apply for such treatment.

660D. When a case is sent to a civil hospital, the principal medical officer of the command will be informed, and will watch the case with a view to arranging, in the event of further treatment being necessary on discharge, for that treatment to be given, if possible, by a regular R.A.M.C. officer.

Pay.

661. In all cases of disability occurring at camp, manœuvres, or authorized courses of instruction, and duly reported as above, pay will be issued to the officer or man until the end of the period of training for which he is called up, whether he remains at the place of training, or is sent to a military or civil hospital. If a man is sent home under para. 659F, he may draw his pay and allowances to the end of the training period unless eligible for a gratuity under para. 661 or 664A.

661A. If an officer is suffering from a disability contracted in and by the performance of military duty and is sent to a military or civil hospital, or is sent home certified as incapacitated, pay may be issued, at the discretion of the Army Council, for a period not exceeding six months from the date on which the disability was incurred.

661B. If a N.C.O. or man is injured in and by the performance of military duty and through no fault of his own, and is sent to a military or civil hospital by competent military authority, pay may be granted until discharge from hospital for a period not exceeding six months. In the case of (1) married N.C.Os. and (2) married privates remaining at camp or in hospital for the whole prescribed period of camp, separation allowance will also be issued.

Charges for Treatment in Hospital, etc.

662. No charge will fall upon a patient for treatment by regular R.A.M.C. officers, or by medical officers of the Territorial Force when present at camp or training, or when in case of urgency he has been sent to a civil hospital, or a civilian practitioner has been called in, by competent military authority.

662A. An officer or man treated in a military hospital, or in a civil hospital in cases where the War Department bears the expense, is subject to the same stoppages as are levied in the Regular Army so long as he receives pay. Should no pay be issuable no charge is made for subsistence. In the case of injury received by a non-commissioned officer or man in and by the performance of military duty, the whole stoppage may be remitted as laid down in the Allowance Regulations.

Medical Expenses.

663. If the disability is incurred in and by the performance of military duty, and an officer or man not entitled to medical benefit under the National Insurance Act is sent home (whether on discharge from hospital or not) and is certified as requiring medical treatment and treatment by a regular R.A.M.C. officer is not available, reasonable medical expenses will be allowed. In the case of non-commissioned officers and men, the total issuable under this para. and under para. 664 will not exceed a total of 3s. 6d. a day for six months.

663A. Medical expenses may also be allowed as above in the case of injuries sustained by officers or men arising out of their riding or driving horses when in uniform and going to or returning from an authorized drill, parade, or other military duty which necessitated their riding or driving. It will be a necessary condition of such a grant that the accident arose from circumstances outside the control of the claimant.

Gratuity.

664. If, in the case of disability incurred in and by the performance of military duty, a man is sent home certified as unable to follow his trade or calling, a gratuity may be allowed to him, for the period certified under para. 660B, up to a maximum of six months from the date on which he incurred the disability, provided that the total amount allowed for such gratuity and for medical expenses under para. 663 shall not exceed the total of 3s. 6d. a day for six months. The gratuity will not be issuable for any period during which the man is in receipt of pay or subsisted in a hospital at Government expense.

664A. Should a N.C.O. or man of the Territorial Force be injured in the performance of regimental sports of a definitely military character which form an officially recognized element of the camp period, the rate of gratuity will be 2s.† and the maximum period of issue three months.

Liability when Treatment Provided is Declined.

665. If an officer or man refuses to be treated in a military hospital or by a regular R.A.M.C. officer when such treatment is available, he surrenders his claim to refund of medical expenses, either as such or as part of the gratuity. This regulation should be brought to the notice of any patient who asks to be treated by his own doctor.

Arrear Claims.

666. Should an officer or man become incapacitated or require treatment, subsequent to the performance of military duty, on account of a disability which he considers to have been contracted in and by the performance of such duty, but which was not reported, or being reported was not considered likely to incapacitate him or necessitate treatment, he should at once report the case through his superior officer. If such report is not made, no liability for medical expenses can be admitted. The G.O.C. will then obtain a report on the case by a regular R.A.M.C. officer and, if necessary, cause a board to be held in accordance with para. 659F. He will then adjudicate on the case or refer it for the decision of the Director-General, Army Medical Service, as laid down in para. 660.

† The National Insurance Act does not come into operation until 15th July next.

‡ Pending the operation of the National Insurance Act cases of this character should be referred to the War Office for decision.

Medical News.

THE Fourteenth International Congress of Anthropology and Prehistoric Archaeology will be held at Geneva this year in the first week of September.

THE Gresham Professor of Medicine will give four lectures on the use and abuse of alcohol at the City of London School, Victoria Embankment, E.C., on May 7th, 8th, 9th, and 10th, at 6 p.m. on each day.

THE summer course of post-graduate demonstrations at the Manchester Royal Infirmary will begin on Tuesday, May 7th, when a medical demonstration will be given, to be followed by a surgical demonstration on Friday, May 10th. These demonstrations will be held at 4.30 p.m. on each Tuesday and Friday throughout the summer session, with the exception of Whit-week.

IN the *Nyasaland Protectorate Sleeping Sickness Diary*, Part XVI, 1912, further details are given of the spread of trypanosomiasis in that region. Since the issue of the last number of the series, when the cases of sleeping sickness reported up to October 12th, 1911, numbered 55, 8 further cases had been recorded. During the month of November no fresh cases were observed. The patrols who are looking for cases report, however, that natives frequently hide their sick, and that more severe measures will be necessary for dealing with offenders in this respect. Of the previously reported cases large numbers have now died, but the course of the disease would seem generally to be very slow, in this way differing very materially from the recent Uganda epidemic.

THE Warren Triennial Prize, founded by the late Dr. J. Mason Warren, of Boston, U.S.A., in memory of his father, is awarded every three years for the best dissertation considered worthy of a premium on some subject in physiology, surgery, or pathological anatomy, the arbitrators being the physicians and surgeons of the Massachusetts General Hospital. The subject for competition for the year 1913 is on some special subject in physiology, surgery, or pathology. Dissertations must be in English, French, or German, and must be typewritten and suitably bound, so as to be easily handled. Work that has been published previously will not be considered in competition. The name of the writer must be enclosed in a sealed envelope, on which must be written a motto corresponding with one on the accompanying dissertation. The amount of the prize for the year 1913 will be £100. Dissertations will be received until April 14th, 1913. A high value will be placed on original work.

A DINNER in connexion with the special appeal recently launched by the authorities of St. Bartholomew's Hospital is to take place at the Mansion House towards the end of the first week in June. We pointed out some years ago the difficulties in which this great hospital was likely to find itself before very long, since the income from its landed property was falling while it was receiving little in the way of donations and bequests from the public. At that time the balance on the wrong side between income and expenditure was quite small, but the overdraft at its bankers has now reached £57,000, and in default of material assistance must almost inevitably go on increasing at the rate of between £7,000 and £8,000 per annum. In addition the structural alterations and rearrangements of the various blocks, long recognized to be necessary, have still to be completed; the expenditure on what has been achieved so far in this direction has been provided mainly by governors of the institution, old students of its medical school, and others closely connected therewith.

DR. MARSHALL PHILIP, Medical Officer of Health, Colombo, mentions in his annual report that a municipal dispensary was opened in February, 1910, with a staff of one medical officer, one dispenser, one lady health visitor, and one orderly. The object of its establishment was to enable the health department to get into closer touch with the sick poor, and it was expected that the information so acquired would be of special value in connexion with the prevention of infantile mortality and diseases such as enteric fever, dysentery, and phthisis. The results were most encouraging, no fewer than 6,179 patients being treated, representing an aggregate of 12,462 visits: 506 cases were discovered and referred to the dispensary by the health visitor. The medical officer visited 106 cases of illness in their homes, and 64 cases of confinement were attended by the municipal midwife. Dr. Philip has recommended the development of the system by the establishment of two more dispensaries.

Letters, Notes, and Answers.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone unless the contrary be stated.*

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, London, W.C.; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Office, 429, Strand, London, W.C.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London*. The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, London*.

TELEPHONE (National):—
2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

E. S. W. W., who has tried many remedies, asks for advice in the treatment of a case of excessive axillary perspiration.

CUMNOR wishes to hear of an institution in Cheshire, Lancashire, or North Wales where a woman of 37 of weak intellect (uncertified), of the farming class, can be received. Her means allow of her paying about a guinea a week.

RISK OF INFECTION.

F.R.C.S. writes: A bedroom in my house has recently been painted, the walls distempered, the ceiling papered. I find now that the painter has a cough and is suffering from tuberculosis. Would one of your expert readers inform me how I can render that room free from danger to its occupant without spoiling the walls or ceiling?

THE ADMINISTRATION OF CHLOROFORM.

LETHEON writes: If Junker's inhaler for chloroform uses a vapour such that every press of the ball evaporates 1 minim, and this minim is diluted with 6,000 times its volume of air, how does this compare with Vernon Harcourt's dosimetric machine, which gives 2 per cent. chloroform vapour in the atmosphere breathed? Or, what is the strength with Junker's inhaler?

*** The assumption that 1 minim of chloroform is volatilized and so commingles with a given amount of air, is not borne out by experiment. The amount of vapour varies according to the force with which the air is pumped, and this varies with the depth of liquid in the bottle, the temperature of the bottle and that of the air, and the shaking and splashing of the contents of the bottle. The whole question was examined experimentally by Dr. Waller (BRITISH MEDICAL JOURNAL, April 23rd, 1898, p. 105, and *Lancet*, July 9th, 1904, p. 77) and Dr. Paul Chapman (BRITISH MEDICAL JOURNAL, vol. i, 1906, p. 615); the latter showed that a percentage of vapour of 5 or higher could be delivered from this apparatus. See also articles on Junker's inhaler and Vernon Harcourt's inhaler in the Report of the Special Chloroform Committee of the British Medical Association, price 1s., post free, 1s. 3d.

ANSWERS.

ASPARAGUS.

DR. R. ACKERLEY (Llandrindod Wells) writes: B. B. G. asks "for information as regards the eating of asparagus by the gouty, and whether its use is likely to prolong a gonorrhoeal discharge." There is good reason for thinking that in many cases of gout asparagus is distinctly harmful. I have suggested (*Transactions* of the Royal Society of Medicine, Balneological Section, vol. iii, 1910, page 65) that the harmful ingredient is the common salt, of which cooked asparagus contains 27 to 35 parts in 1,000 (H. Strauss, *Zeitschr. f. Phys. und. Diet. Therap.*, Leipzig, 1908–9, vol. xi, page 14). Asparagus not only contains a large quantity of NaCl, but is generally boiled in water containing a good deal of NaCl and is served with salt butter or sauce containing NaCl. This percentage of common salt would also act as an irritant to the urinary tract, especially if already inflamed.

TWINS.

DR. ELLA SYNGE (Dallas, Oregon, U.S.A.) writes to suggest that the explanation of the case related by "Pastor" in the JOURNAL of March 23rd, p. 708, would be uterus didelphys or uterus septus bilocularis and not hour-glass contraction.

LETTERS, NOTES, ETC.

THE STUDY OF CONDUCT.

DR. A. R. URQUHART (Perth) writes: I am not afraid with any amazement when opinions which are none of mine are attributed to me. The reference may be found on p. 415 of the *Journal of Mental Science* for July, 1910, and it cannot be twisted into a statement that Dr. Mercier judges insanity by a single act or so recommends. I suppose that asylum case-books must contain minute descriptions of insane conduct; but one may desire, without offence, that these should be subordinated to the medical facts—that hospital records should be rather medical than legal—although both may not be amiss.

DR. CHAS. MERCIER (Parkstone, Dorset) writes: I take it very ill that when I try to bluff Dr. Newington into the belief that he has displayed deplorable ignorance of a familiar English word, I should have the hose of your erudition turned upon me, and be drenched, and drowned, and knocked breathless and senseless—stunned by an etymological deluge. Sir, I have not been so dunced upon since, at the meeting of the Association at Exeter, I reproached a local member with incorrect spelling of the name of the local delicacy. "Why," I asked him, "do you spell juncate, junket?" With a readiness and resource that compelled my hearty admiration, he instantly replied, "Junket is quite correct: it is from the Saxon 'junc' = curdled milk." This derivation lost no lustre by comparison with Duchat's derivation of matagrabolise from μάταιος, γράφω, and βάλλω. My books are not yet unpacked, so that I cannot refer, but I am sure that in my Rabelais the word is spelt metsgrabolise: and I have no doubt that it is as certainly derived from the Greek as Panjandrum is derived from πᾶν and ἀνδρος.

So far the question of etymology; but now, Sir, I come to a much more serious matter. It is shocking to me that the Editor of our JOURNAL should take advantage of his position to make an unjustifiable charge against one of his correspondents. You, Sir, have attributed to me, in no uncertain or ambiguous terms, the possession of a classical education. I know not what I have said or done to provoke this accusation. Shades of Shakespeare, of Bunyan, of Cobbett, and of John Bright! Is my English involved, obscure, or slipshod? Is my choice of words pedantic? Is my grammar bad? Is the construction of my sentences un-English? Am I hidebound in prejudice and unable to assimilate a new idea? Do I haggle about words under pretence of arguing about things? On what is this monstrous imputation founded? However reluctant I may be to seek that legal remedy that is so open (and so profitable) to a person maligned in a public print, I may be compelled to have recourse to it unless you make speedy retraction and apology.

Libel is the heel of a journal—its vulnerable part. We hasten, therefore, to pluck the deadly arrow shot by Dr. Mercier from our tendo "*Achilles*," a pronunciation fashionable in the days of our youth among certain students of medicine who, it may be assumed, shared the advantage claimed by our correspondent for himself of not being in "the possession of a classical education." We feel like Major Dowler when Mr. Winkle made his unexpected appearance, and using the language of that valiant warrior we say: "Dr. Mercier, Sir, be calm. Don't strike us." We can also say with him in extenuation of our offence that "circumstances were suspicious." That remark about a "manifest Greek origin" had something of the cocksureness attributed to Macaulay by Lord Melbourne, and thus were we misled. But we may conclude, again quoting Major Dowler, that the "circumstances have been explained," and we say to Dr. Mercier, "Your feeling is upright. Conscious innocence. There is my hand. Grasp it." Dr. Mercier's new-logical mind will doubtless accept the validity of the obvious inference as to the value of the opinion that *meta* bewrayeth the origin of the word invented by Rabelais, and conjecturally emended by some English lexicographers.

"AUSCULTATION."

DR. G. BERTRAM HUNT writes from Arosa, Switzerland, as follows: A thrill is "a vibratory movement . . . felt or heard in auscultation." I am writing beyond reach of the *Oxford English Dictionary*, and cannot ascertain what definition Sir James Murray gives therein of the word "auscultation," but wish to point out that the above description of a thrill quoted in last week's BRITISH MEDICAL JOURNAL from the *New English Dictionary* shows that lexicographers, like Homer, sometimes nod. As a thrill is detected by the hand, and not the ear, and cannot be "felt during auscultation," except in the rare instance when the head is directly applied over the heart without intervention of a stethoscope, the word "auscultation" must be here incorrectly used for "physical examination of the chest." This mistake, which is becoming common, of including the whole examination of the chest under the term "auscultation" is not only incorrect etymologically, but may lead, if persisted in, to the relative neglect of inspection, palpation, and percussion. In French the error is even more frequent: "Le jour d'auscultation" means the day on which the chest is examined, and in slipshod writing the term is sometimes misapplied to any medical examination; thus, I noticed in a novel that a doctor was sent for to "ausculter" a damaged leg, which I fear did not mean to listen for crepitus. While the countrymen of Laënnec may, perhaps, be forgiven this solecism, surely in English we should try and limit the use of the word "auscultation" to the stethoscopic or other aural examination of the body; and also refrain from telling our patients that we wish to "listen to" their chests, when we mean that we wish to "examine" them.

THE STORY OF A SWEET PEA.

DR. WILFRID A. ALDRED (Wroxham) writes: The following case may be of interest. A boy aged 10 presented himself at my surgery the other morning with a history of having shot himself over a fortnight previously in the palm of the hand with an air gun loaded with a sweet pea seed. He said that the pea was still in his hand, and that he had declined his father's offer to remove it with a "sheet knife," as he thought he would hurt him more than I should! There was a small circular hole in the centre of the palm from which a little semipurulent fluid could be squeezed; it was only slightly tender, and there was no swelling of the hand. I enlarged the hole under the local application of ethyl chloride, and with a pair of iridectomy forceps removed the pea, which was deeply placed; it was quite soft and was sprouting. Can any of your readers enlighten me as to what would have happened had the pea stayed in its novel surroundings for another fortnight? I was half tempted to try!

A MECHANICAL AID IN BLOOD COUNTS.

THOSE who have occasion to undertake many blood counts, whether for ordinary enumerative purposes or in the course of opsonic estimations, recognize the tedious nature of the task. Dr. Tobjin of Berlin has invented an instrument, to which he has assigned the barbarous name Cytax, which enables the counting and arithmetical computation to be performed mechanically. It is not possible to form a sound judgement as to the practical value of such a machine from a written account, but if, in other hands than those of the inventor, it substantiates his claim, much time and trouble will be saved. The Cytax is supplied by Aug. Matz and Co., Berlin-Schöneberg, Hauptstrasse 53, and its price is 160 marks.

"606" COMPANY.

DR. JAMES GOWANS (Broughty Ferry) writes: Two members of a hospital staff have informed me they have been invited to become shareholders in a company having proprietary rights in the sale or manufacture of "606." Though the holding of such shares is not likely to become common in this country, would it not be well to call attention to the serious nature of such an association of doctors with the sale of proprietary remedies?

CRANIOPAGOUS LIVING TWINS.

THE *Berliner Tageblatt* announces the birth, on January 7th last, of craniopagous twins, who were living and well in the last week of March. They are united at the summit of the cranium, so that their bodies diverge almost in a straight line, their united length being a little over 35 inches. As they lie in bed they look about almost intelligently, but neither can see the other. Their movements are not simultaneous, and one may be asleep when the other is crying or moving its hands involuntarily. They were born at Vilbel, near Frankfort-on-Main, of parents of the working-class, and have been brought up by the bottle, and when last seen they had become very well developed. The precise relations of the cranial bones and the brain of each twin are being studied by a Hessian medical association, and the Roentgen rays will be applied at a coming meeting of the Frankfurter Aerztevereins. It is clear that the monster is an instance of craniopagus parietalis, where, instead of one twin being a mere ill-formed cranium, with a trace of a trunk or a limb (craniopagus parasiticus) topping the head of the well-developed brother like a "chignon," both twins are well developed. Blainville noted that in one very ancient case it was observed that one child cried when the other slept. Albrecht's twins lived over three months. A few other cases collected by Ahlfeld were either stillborn or lived but a few hours at the most. Ahlfeld's drawings (Part III, Figs. 5 to 9, in *Die Missbildungen des Menschen*, 1880) represent some of the examples of this monstrosity figured in the monographs which he consulted. Hirst and Piersol (*Human Monstrosities*, 1891) quoted Ahlfeld, but could not add any reports of more recent cases of craniopagous parietalis.

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A Clinical Lecture
ON
CHRONIC INTESTINAL STASIS.

BY
W. ARBUTHNOT LANE, M.S., F.R.C.S.,
SURGEON TO GUY'S HOSPITAL AND TO THE HOSPITAL FOR SICK CHILDREN, GREAT ORMOND STREET.

GENTLEMEN,—I will make no apology for considering the subject of chronic intestinal stasis again, for its importance has now been generally recognized and its bearing on disease is most far-reaching and of immense interest to us as surgeons. It is only the other day that most of the leading physicians in Great Britain scoffed at intestinal stasis and autointoxication and their results. Now, on the other hand, the progressive scientific observer has recognized autointoxication as an important—if not, perhaps, the most important—factor in the production of disease. Our object is to learn how best to obviate it in the several morbid conditions in which we believe it to exist.

Up to the present we have been dealing only with end-results, readily assuming that one result is the cause of another. This is such a common fallacy that I need not supply illustrations. Therefore chronic intestinal stasis, which I believe to be the prime factor in the production of very many diseased conditions, is of enormous importance, and we cannot spend too much time or thought in unravelling the many problems which it presents. By the examination of our patients at intervals of time after operation we are able to simplify and improve our methods of procedure, to reduce the patient's risk, and at the same time to secure a maximum of benefit from operative interference.

By chronic intestinal stasis I mean such an abnormal delay in the transmission of the intestinal contents through some portion or portions of the gastro-intestinal tract as results in the absorption into the system of a greater quantity of toxic material than the organism is able to deal with effectively by means of the organs whose business it is to eliminate it. The excess circulates through the system, and produces degenerative changes in all the tissues, and a series of symptoms results which are very definite and unmistakable to any one who has rendered himself familiar with the condition. After a time those organs whose function it is to convert, convey, and eliminate the several toxic products circulating in the blood themselves undergo degeneration under the influence of prolonged and progressive strain of work. Then the degenerative conditions produced in the tissues progress still more rapidly in proportion as the converting and eliminating organs fail to perform their work efficiently.

The chief difficulty one experiences is in determining the share played by autointoxication in the production of certain diseases, so as to gauge the benefit that will be derived by the patient if the condition of autointoxication is eliminated more or less completely by mechanical interference. Perhaps I can best illustrate what I mean to convey by specific examples.

Take, for instance, tubercle and rheumatoid arthritis. While we are perfectly familiar with the bacillus of tubercle, the organism which produces true rheumatoid arthritis has not been clearly recognized. Now in my experience a patient cannot develop either of these diseases (except in the case of tubercle by inoculation) unless the resisting power to the entry of organisms, or in other words the vitality of the tissues of the body, has been depreciated by the poisons which circulate through them in chronic intestinal stasis.

These patients show in a varying degree all the clinical symptoms which are characteristic of the presence of autointoxication. The actual existence of chronic intestinal stasis can be demonstrated beyond question and gauged accurately by giving the individual a sufficient quantity of bismuth carbonate and by watching its rate of progress through the several portions of the gastro-intestinal tract.

This has been done for me for a considerable period by Dr. Jordan.[1] His observations have been of the greatest service in confirming the views I have long held and in demonstrating the several conditions sufficiently clearly to be obvious to the meanest intellect. Dr. Jordan's success has been due in great part to his insisting on being present at every operation performed on the patients he has examined by the *x* rays. In this way he has been able to improve his methods for showing and detecting obstructions and to translate accurately the meanings of the conditions presented by his photographs. It is only in this manner that a radiographer can obtain a thorough knowledge of the working of our drainage scheme and of the mechanism of the faults that so frequently arise in it. I feel I cannot express too strongly my appreciation of Dr. Jordan's work and of the perseverance with which he has rendered his knowledge of the several details as perfect as possible. In the patient affected with tubercle or rheumatoid arthritis chronic intestinal stasis always exists, and it can be demonstrated clinically and by the use of bismuth and *x* rays. For instance, in a case which was admitted into the Hospital for Sick Children under my care as tuberculous disease of the knee-joint the clinical symptoms of chronic intestinal stasis were absent. The administration of bismuth and radiography proved that the contents of the intestinal tract were not delayed in their progress. A Wassermann reaction showed that the child was syphilitic, and the knee reacted at once to salvarsan.

In the rheumatoid and tuberculous subjects a very rapid improvement in the general condition of the patient results from the operation of short-circuiting. This consists in the division of the end of the ileum and its direct implantation into the pelvic colon.

In the case of rheumatoid arthritis, and in that of tubercle in which there is no superadded infection, the improvement in the local disease is manifested very quickly. If, however, the tuberculous condition has become complicated by the presence of organisms other than those of tubercle, the rate of improvement is less rapid, and, in a degree, proportionate to the severity of the added infection. We find some difficulty in drawing the line between the cases in which the stasis can be met efficiently by the use of paraffin and those in which an alteration in the drainage scheme is advisable. In all doubtful cases we give paraffin a thorough trial before adopting operative procedures. The administration of paraffin, or the exclusion of the colon, does not interfere with any benefit which can be obtained by the use of vaccines, whether by the method employed by Wright or by that devised by Bier, or by any other supplementary treatment.

My experience of the advantage derived from short-circuiting in these two specific diseases—tubercle and rheumatoid arthritis—is that the local and general improvement is remarkable, and varies in proportion to the duration of the disease, and with the presence of organisms other than those peculiar to each disease. These facts I have demonstrated clinically to a large number of my friends, and I understand from many of them who have adopted the same treatment that their results have been equally gratifying. I presume we will soon have a full record of the work of other surgeons along these lines.

I am always very pleased to place any of the cases on which I have operated in this manner at the disposal of those of my surgical friends who may wish to inquire into the results of this method of treatment, since the knowledge of the benefit afforded by operation can only be obtained with certainty by a personal examination and study of the patient. A paper by Mr. Harold Chapple on the results of this operation was published in the *Lancet*, April 29th, 1911, entitled, "A Consideration of some Cases of Advanced Tuberculous Joints treated by Ileo-colostomy." Mr. Barrington Ward, the Medical Superintendent of the Hospital for Sick Children, has also described several of the cases of tubercle and rheumatoid arthritis which were operated on in that hospital;[2] he has the weight charts and bismuth photographs of many of these cases both before and after operation. Nothing is more striking than the rapidity and uniformity with which these patients put on weight after operation, the steady fall previous to interference being followed by a rapid ascent. Similarly the delay in the drainage is replaced by a very efficient action of the intestinal tract. No local operation is performed on the tuberculous joint or disease beyond the

occasional aspiration of an accumulation or the cleaning up of a wound infected by organisms other than tuberculous.

The operation of short-circuiting to remove the chronic intestinal stasis in tubercle and rheumatoid arthritis may be performed with advantage at any age. My earliest tuberculous case was 2 years old at the time of the operation. In both these diseases the operation is effected with comparative facility and at practically no risk. This is especially the case in children, since in them the pelvic colon is very considerably elongated. It is, therefore, readily brought out of the abdomen and retained in apposition to the end of the ileum, so facilitating very materially the performance of the operation. There seems to be exceedingly little risk associated with the operation, and within a few days of it there is very manifest improvement in the mental condition, and an appearance of happiness replaces one of apathy or distress. The older subject always expresses himself as being delighted that the operation has been done, as life appears so much brighter than it did previously.

MECHANISM.

Now, gentlemen, I must refer to the mechanics of some of the changes that develop in the gastro-intestinal tract in the first instance through defective feeding, and, later, through the habitual assumption of the erect posture of the trunk during about sixteen or more hours of the day. I will do so as briefly as possible.

I believe that the earliest changes are probably those that arise in consequence of the tendency for the caecum to descend into the true pelvis, together with the transverse and iliac colon, and to interfere with the normal functioning of the pelvic colon, bladder, and uterus. This tendency of the caecum to fall downwards and inwards into the true pelvis may be regarded as the resultant of a parallelogram of forces. This is opposed by the development of resistances, in addition to the normal anatomical structures which retain the intestines in position. These resistances may be regarded as forming the two limbs of the parallelogram, which crystallize into definite structures. May I remind you of a law I formulated about the skeleton—namely, that it represents the crystallization of lines of force which when exerted in one direction are laid down in compact tissue, when exerted in varying directions as cancellous tissue? Any modification in the direction of the line of force results in an alteration of the form of the skeleton, which is more marked the younger the subject. The soft tissues of the body are subject to precisely the same mechanical forces and react in a very definite manner, just as does the bony skeleton. I refer to this here as many observers appear to be unable to understand the mode of formation of the several restraining bands as evolutionary structures, but regard them as being of necessity the result of some inflammatory process. A study of the changes that develop in the body of the labourer would enable these objectors to grasp the factors which determine the development of these bands.*

On the outer aspect of the caecum these resistances crystallize so as to form peritoneal bands or membranes which tend to retain and support the caecum, obviating its prolapse into the true pelvis. One of these bands may fix the appendix at some point in its length, and obviously with the object of employing it as a resistance to downward displacement of the caecum. The appendix, being thick and strong, ought to make a very efficient ligament, were it not hollow and lined by a secreting membrane, and if the attachment of a band to a portion of its length did not render it very liable to kink, especially when strain is exerted upon it by the loaded caecum. This kinking produces an acute or chronic distension of the distal portion of the appendix beyond the kink, and a fluid or solid collection of accumulated epithelial and organismal débris may form in it. This mass by its pressure may produce ulceration and even perforation of the wall of the appendix.

Now the inner limb of the parallelogram of forces may be represented in one of two ways or by a combination of both. The termination of the ileum may be employed as an additional resistance to displacement by the development first of bands in the under-surface of the mesentery of this part of the ileum and later by their separation from the mesentery as a definite new or acquired distinct peritoneal ligament which attaches itself progressively to an area of the ileum more and more distant from the attachment of the normal mesentery. In this manner the section of the ileum is kinked by the band, which is shorter than its normal mesentery, and the bowel is twisted on its axis, because of the attachment of this short band to the ileum at a considerable distance from the mesentery. The tension exerted on or by these strains or resistances is increased by the erect posture. I have illustrated this ligament diagrammatically in the *Lancet*, April 30th, 1910, "The Kink of the Ileum in Chronic Intestinal Stasis," and Dr. C. H. Mayo has published a beautiful drawing of it in *Surgery, Gynaecology, and Obstetrics*, March, 1911, "Intestinal Obstruction due to Kinks and Adhesions of the Terminal Ileum." Dr. Franklyn Martin has written two able papers on the subject: "The Significance of the Lane Kink of the Ileum" (*Surgery, Gynaecology, and Obstetrics*, January, 1911), and "The Treatment of Certain Obstructive Bends of the Intestines due to Abnormal Mesenteric Attachments and Inadequate Parietal Support" (June, 1911). Or some point in the length of the appendix may become attached by acquired bands to the peritoneum, forming the posterior layer of the mesentery of the termination of the ileum. In such a case, if the grip of the appendix is sufficiently firm and secure, it takes the place of the acquired ligament in the mesentery, which consequently does not develop at all, or if it does it develops in proportion to the imperfect function of the appendix as a ligament. The end of the ileum is hitched up by the part of the appendix which runs upwards behind it, and its effluent is controlled and a state of obstruction results similar to that brought about by the acquired peritoneal band on the under-surface of the mesentery.

Now the distal portion of such an anchored appendix is often subject to distension changes. Consequently, the condition of partial obstruction of the ileum, which results from the pressure exerted upon it by the tense appendix which passes behind it and which is secured to its own mesentery, is liable to be complicated by inflammation of the appendix beyond the point of fixation.

It is in this form of obstruction of the ileum, produced by the fixation of the appendix in such a manner as to control the effluent, that relief to duodenal and gastric distension results from appendicectomy. This had led surgeons to suppose that gastric and duodenal troubles often result directly from inflammation of the appendix, and the mistake is a natural one, since the removal of the appendix in these circumstances is followed by cure of the gastric and duodenal symptoms. The simple and obvious explanation is that the removal of the appendix frees the ileal effluent from the obstruction which produced the duodenal distension. The cause being removed the consequence ceases to exist.

There is a third variety of obstruction of the effluent of the ileum into the caecum, which occurs in the very feeble, and is of comparatively rare occurrence in a marked degree. I call it the simple static variety, as opposed to the varieties produced by the acquired band or by the appendix anchored to the posterior aspect of the mesentery of the end of the ileum, or by both together. In these cases the caecum has been secured early in life to the floor of the iliac fossa by acquired adhesions. To reach the caecum, the terminal loop of the ileum has to ascend from the pelvis over the comparatively sharp margin of the pelvic brim in order to enter the inner aspect of the more or less fixed caecum. When the muscle wall of the intestine, as that of the body generally, is very feeble, the pressure exerted by the margin of the brim is liable to result in accumulation of material in the terminal loop, and the greater the accumulation the more marked is the pressure sustained by the small intestine, and the more complete does the obstruction at the brim become.

Let us consider the conditions which result from interference with the effluent from the ileum into the caecum. It means that material is delayed considerably in the small intestine, and that an excessive absorption of toxic material results in consequence, flooding the tissues of the

* I would refer to the following papers for further information on the subject: A Remarkable Example of the Manner in which Pressure Changes may Reveal the Labour History of the Individual, *Journ. of Anat. and Physiol.*, April, 1887; The Anatomy and Physiology of the Shoemaker, *Journ. of Anat. and Physiol.*, July, 1888; and The Result Produced on the Muscles, Bones, and Ligaments by the Habitual Exercise of Strain, BRITISH MEDICAL JOURNAL, December 1st, 1888

body with poisonous products. The amount of deleterious organisms in this segment of the drainage scheme is increased, and their level in the intestine is raised in a corresponding manner. The strain exerted by the overloaded small intestine blocks the duodenum at its termination,[3] obstructs the escape of its contents, dilates and distends this portion of the small gut, and especially the first portion, which yields much more readily to the tension since it lies free in its peritoneal covering, while the second and third parts escape because they are buried firmly behind the peritoneum. These tension changes, aided by chemical and bacteriological developments in the contents of the intestine and by depreciation of the vitality of the tissue by the toxic material present in excess in the circulation, result in engorgement of the mucous membrane of the first part of the duodenum, later in its abrasion, and finally in its ulceration and perforation.

The same causes produce infection of the contents of the biliary and pancreatic ducts, determining the formation of gall stones, producing inflammation of the lining membrane of the ducts and of the glandular tissues about them, causing pancreatic inflammation and later cancer of the pancreatic or biliary tracts. The supposition that gall stones produce pancreatitis is merely another evidence of the common error of assuming that one effect of chronic intestinal stasis is the cause of another.

The stagnation of material in the duodenum obstructs the flow from the stomach, and an accumulation takes place in that organ in which bacteriological and chemical changes arise. The strain exerted upon the lesser curvature by the accumulation of the gastric contents, increased materially by that transmitted through the great omentum from a loaded transverse colon, aided by the chemical changes in the static gastric contents and the condition of autointoxication, results in engorgement, abrasion, ulceration, or in cancerous or other infections of its mucous lining. The strain is greatest at the pyloric extremity of the curve, but is felt along its entire length in a degree varying with the mobility of the pylorus. Time will not permit me to deal at great length with the condition of chronic stasis of the contents of the large intestine. In some cases the delay may be general and fairly evenly distributed through the entire large bowel, while in others there is a definite obstruction at the upper limit of the caecum, at the hepatic flexure, in the transverse colon just below the gall bladder and duodenum, at the splenic flexure in some portion of the sigmoid flexure, due to excessive fixation and telescoping of its length or to an irregularity of its fixation by acquired bands forming loops of bowel which become obstructed chronically or acutely, and again by the lowest acquired band which produces a kink at its junction with the pelvic colon at the brim of the pelvis.[4]

I have already discussed the mechanics of the large bowel fully on many previous occasions, and they are most obvious and distinct. Some opponents of my views put forward as an argument against them that they do not see and are unable to find the changes I describe, or that they consider them of no importance. I feel pleased that their inability to observe these changes is considered by them as an important argument in favour of their views, since I am sure that the more complete examination of their cases will enable them to see and understand physical conditions that were at once recognized and described by many surgeons of world-wide reputation in the United States and elsewhere. As I foretold, the American surgeon has taken the lead in this matter, and is investigating it with the energy, perseverance, originality, and promptitude that are characteristic of him. He is dealing with the varying problems presented by chronic intestinal stasis, and is endeavouring to learn the best means of meeting the disability of each portion of the drainage scheme in the most effective manner possible. The time is not far distant when we shall arrive at some general agreement on this subject.

Symptoms.

Time will not allow me to more than enumerate the symptoms of chronic intestinal stasis.

They may be divided into two groups—first, the simply mechanical, which are those due to obstructive changes in the gastro-intestinal tract and the infective results of them; secondly, those produced by the presence in the circulation of a number of poisonous toxins.

The simple mechanical group includes symptoms such as result from the distension of the stomach, duodenum, small intestine consequent on an interference with the passage of material from the small intestine into the caecum. The pain and tenderness over the distended duodenum is usually mistaken for gall stones, and quite a number of the cases I have operated upon have passed through the hands of eminent surgeons with great experience in abdominal work, who having diagnosed gall stones, have explored the gall bladder, have occasionally drained it on the excuse that there was pancreatitis, and have usually removed the appendix. I need not say that the unfortunate patients received no benefit from operative interference. Roughly, the symptoms are regarded as being due to indigestion, and a course or courses of drugs and diets are inflicted on the patient. In a considerable proportion of cases the tenderness evinced on pressure over the fixed and kinked ileum leads the surgeon to remove a normal appendix, frequently through an aperture in the abdominal wall sufficiently small to enable him to form no opinion whatever of the condition of the viscera in the abdomen.

If the mucous membrane of the duodenum or stomach is ulcerated definite symptoms may result. If cancer of the stomach should develop later its symptoms are fairly characteristic after a time. As in the preceding conditions, the *x*-ray affords invaluable evidence for differential diagnosis.

The symptoms of gall stones, pancreatitis, later those of cancer of the liver, of its ducts and of the pancreas, require no special mention.

In many of the patients I have operated on in which there was no obstruction gastro-enterostomy had been performed, usually with only a temporary benefit, while in others the patient was distinctly the worse for the operation. As I pointed out in these cases, the only benefit that results from this operation is that when the stomach is not dilated, the securing of the jejunum—it matters not whether to the anterior or posterior surface of the stomach—reduces the tendency for the jejunum to kink the end of the duodenum. When the stomach is largely dilated it does not even serve this purpose.

Now that we are more familiar with intestinal stasis, as demonstrated by a competent radiographer, these errors of operative treatment will cease to arise, and we will infuse more common sense into the principles and methods we employ.

In these static cases appendical obstruction in varying degrees of severity manifests symptoms with which we are all quite familiar, and which call for no special comment here. I would merely suggest to those who regard appendicitis as a primary condition and independent of chronic intestinal stasis that they observe by means of bismuth and the *x* rays the rate of passage of the intestinal contents in a case of appendical inflammation quiescent between attacks. They will observe that this condition has associated with it the most marked intestinal stasis.

The symptoms of stasis in the large intestine vary with the abruptness of the obstruction. In some cases there is much pain, distension, tenderness, vomiting, etc., while in others there may be no complaint whatever. This does not make the stasis any the less deadly in its poison-producing effect. Later results of stasis are ulcerative and mucous colitis. Many of my cases have endured an appendicostomy, while others less fortunate have had a hole made into the caecum with disastrous results. Not only did the latter condition render the patient's life almost unendurable, but it added enormously to the risk of the short circuit with or without colectomy, which is the only reasonable course in the circumstances. The symptoms resulting from fixation and inflammation of the sigmoid, volvulus, and cancerous or other ulceration of the large bowel, are usually fairly characteristic.

The troubles that arise in the ovaries and tubes from being included in the last kink, or from infection from the appendix, are also very definite.

The symptoms which ensue from the presence of toxins in the circulation are the result of degenerative changes in the several tissues.

1. The skin becomes thin, inelastic, wrinkled, and sticky,

and stained. The staining is general, but is most marked in the several frictional areas, commencing in and about the eyelids. Its degree varies with the colour of the hair, being very marked in dark-haired subjects, and very slow to develop in those with reddish or towy-coloured hair. The colour of the hair influences in an extraordinary degree the resisting power of the tissues of the individual to the degenerative action of the toxins.

The secretion of the skin is abundant and offensive, especially in the axilla and groins. It may render the patient very objectionable in society. In certain places —as in the back of the upper arm—the skin is thick, gelatinous to the feel, and often covered with small papules. This condition, combined with a certain lividity of the skin, may render the use of a short sleeve impossible. A quantity of fine down or hairs forms on the cheek, posterior surface of the neck and back in the middle line, and over the forearms.

2. The circulation becomes much enfeebled and the blood pressure is lowered. Later, when definite degenerative changes have become developed in the heart, vessels, and kidneys, the blood pressure may become very high.

The rate of the pulse is very variable, being increased very greatly in frequency by any exercise or by an accumulation of gas in the intestines, a condition closely resembling asthma sometimes resulting.

The ears, arms, and legs are cold even in the hottest weather. Sometimes patients will say that their legs become quite dead up to the knees. The transition from the warm to the cold area is often very abrupt.

3. The temperature of the patient is habitually subnormal. If, however, there be any infective change in the mucous membrane of an obstructed intestine, the evening temperature is high and in a degree proportionate to the infection. The range between the subnormal morning and the abnormally high evening temperatures may be great, and this variable temperature may continue for a long time.

4. The patient loses fat. At first the loss of fat is slow, but after a time it becomes a very conspicuous feature and gives the patient an appearance of senility and decrepitude which is most distressing.

5. The muscular system degenerates very rapidly, and the muscles become soft and friable and are unable to perform their functions normally and efficiently. Later, this may become so marked that the patient is quite unable to stand.

In the early stages resting postures are habitually assumed, and the deformities called lateral curvature, round shoulders, knock-knee, and flat-foot develop.

6. Partly owing to the loss of fat and partly owing to the degeneration in the muscular system, the organs are no longer retained in their normal position, but drop downwards and alter in form. For instance, the uterus drops and bends in varying directions, and produces symptoms consequent on these changes in form and position. The same is true of the kidneys and of the other abdominal viscera.

7. The influence of the toxins on the cerebro-spinal system is very marked. The patient becomes stupid and apathetic, and loses control over the temper, is very depressed, so much so as to suggest imbecility or dementia. While these patients are often inert and drowsy during the daytime, their nights are also very much disturbed, and are occasionally made miserable by dreams. They awake in the morning with a headache, and feel they have derived no benefit from their sleep. Headache, often very severe, in one form or another, is a common and a very distressing feature in cases of auto-intoxication. Neuritis is a common complication. These symptoms are usually comprised under the elastic term of "neurasthenia."

One of the most marked features after the big bowel has been excluded or removed is the extraordinary improvement in the mental condition and in the activity of the patient. A girl who had been confined to her bed for a year because she was unable to stand, who did not speak, who took no interest in life, who appeared to us all to be imbecile, took an active share in the ward work a month after colectomy, and is now a very useful and intelligent member of society. The sense of sight, smell, and taste are often much affected, while degenerative changes in the cornea, lens, and muscles of ocular accommodation are often very obvious.

8. The joints of these toxic people are very liable to degenerate with abnormal rapidity, and to cause them much pain and discomfort. These patients complain of pain in the muscles of their legs and thighs, in their loins, and in their arms. How far these pains result from toxic influences upon the muscles, joints, or nerves it is difficult to say, but all these tissues suffer more or less.

9. I have already called your attention to the fact that the resisting power to the entry of organisms into the several tissues of the body is very materially influenced by the autointoxication, and I illustrated this by tuberculous and rheumatoidal conditions. It applies equally to many other diseases, both of an acute and chronic nature.

10. The changes in the breast which are always present in a varying degree when autointoxication has existed for any length of time are very characteristic. Indeed, they may be regarded as a measure of the amount of poisoning to which the tissues of the body have been exposed.

The change commences as an induration in the upper and outer zone of the left breast, and later in the same area on the right side. As time goes on this induration becomes a more marked feature and extends to the rest of the breast, the change in the upper and outer segment being still in excess of that in the rest of the breast.

Later cystic and inflammatory changes arise, followed after an interval of time by intracystic growths or by cancer. In almost every case of cancer of the breast a previous history of chronic intestinal stasis can be demonstrated. I need hardly lay stress on the great importance and interest of this sequence.

Treatment.

The nature of the treatment of any case of chronic intestinal stasis must vary with the severity and duration of the condition, with the age and sex of the individual, and with the presence or absence of complications which have resulted from it. Every endeavour should be made by palliative means to obviate resort to operative interference, but if the clinical symptoms and radiographic evidence show that non-operative procedures are unlikely to be of service the surgeon should not hesitate to perform any operation, however radical. It is well to remember that for all practical purposes the only risk of these operations is the formation of adhesions which may kink and obstruct the small bowel, and over this complication we have, so far as I know, no control whatever apart from extreme care in avoiding irritation at the operation. Many suggestions have been made to obviate their formation, and I have endeavoured to give most of them a thorough trial, with the result that I have come to the conclusion that they give little or no protection. I am under the impression that the direction to work in is through the circulation, and that the formation of adhesions depends on some blood condition. It has seemed to me that they form less readily if the blood be rendered more fluid by potassium citrate, but of this I am uncertain. Yet, as the development of adhesions is practically the only serious complication we have to meet, we must devote our energies to obviating their formation. Should we succeed in doing this, removal of the large bowel becomes a simple operative procedure quite free from risk. Before we determine on any line of treatment in any particular case of stasis we must go thoroughly into the clinical evidence and trace a bismuth meal through the entire gastro-intestinal tract. The fallacy of the latter evidence consists in the fact that the obstruction may be very variable, just as are the attacks of pain, distension and vomiting, and if the case be *x*-rayed while these symptoms are in abeyance the full importance of the condition may not be recognized by the radiographer. If this fact is borne in mind, this fallacy can be reduced to a minimum. The chest should also be radiographed, since valuable evidence as to the absence or presence of dilatation and atheromatous changes in the arch which are present as a late result of stasis can be obtained in this way. To arrive at an accurate diagnosis of the degree and nature of the obstruction or stasis calls for much care and observation, and, except in very typical cases, it is often impossible to arrive at a correct conclusion at once without *x*-ray and other evidence. There are, on the other

hand, certain cases, as those of obstruction of the end of the ileum and distension of the duodenum, which present unmistakable and characteristic symptoms. The ileum may be felt to be fixed and kinked and very tender, while the distension of the duodenum consequent on the ileal obstruction can be recognized by the hand, while pressure on it is very painful to the patient.

As to the treatment, it resolves itself into operative and non-operative. The non-operative treatment consists in facilitating the passage of material through the gastro-intestinal tract by sufficient doses of liquid paraffin and by the pressure exerted on the lower abdomen by a spring support. The spring pressure provided by the support not only tends to oppose the descent of the viscera, but exerts an intermittent pressure on the intestines, constantly stimulating them to perform their peristaltic functions more actively. It also performs another very important purpose which would perhaps not occur to one at once, in that it controls the splanchnic area, keeps an excess of blood out of the large veins of the mesentery, and raises the pressure in the blood vessels of the brain. The enhanced capacity for mental work and of physical endurance which results from the exercise of this elastic pressure is most marked.

Such treatment is of very great value in cases where the stasis is general through the drainage scheme, or when the passage through part or the whole of the large intestine is obstructed. On the other hand, it is of less service when there is serious obstruction at the end of the ileum, or when the lumen of the duodenum is reduced very considerably by cicatrization of an ulcer. Even in these circumstances it is often very helpful in facilitating the passage of the fluid contents through a small aperture.

The use of paraffin reduces the quantity of faecal matter passed very considerably, probably because it is hurried along the tract and has not added to it the large quantity of organisms which form so much of its bulk in normal conditions. The quantity of urine passed is also much reduced, apparently because the hustling of the faecal contents along the canal reduces greatly the quantity of toxins absorbed by the mesenteric vessels and the products into which they are converted in order to be excreted through the kidneys, etc.

As to the nature of the food it is probably inadvisable to introduce into a defective drainage system such material as is liable to rapid decomposition and to the formation of poisonous toxins. When this form of treatment is obviously inadequate to meet the obstruction in the intestine, as indicated by clinical symptoms and bismuth and radiographic evidence and the consequent stasis, operative means must be resorted to.

The method of the operative interference varies of necessity with the nature of the factors responsible for the stasis. If the symptoms be due chiefly to obstruction at the end of the ileum by a newly-acquired ligament kinking and twisting this portion of the bowel and reducing its lumen proportionately the ligament must be divided and means taken to avoid its re-formation.

If the effluent through the end of the ileum be controlled and reduced by the pressure exerted by the proximal portion of an appendix which passes vertically behind the ileum, and is anchored to the posterior surface of its mesentery, the obstruction will be relieved by the excision of the appendix.

If the passage of the contents through the end of the ileum results from extreme debility, and is of the nature of what I call simply static, the ileum must be divided and its proximal extremity introduced into the pelvic colon below the last kink.[5] Should that kink not be sufficiently well developed, the outer surface of the large intestine should be sewn down to the adjacent peritoneum, so as to produce an efficient kink or obstruction to the ascent of faecal contents.

In many circumstances, especially if the subject be a female, or if there is decided stasis in the large intestine, the patient who has an ileal obstruction produced by an acquired ligament will derive infinitely more benefit from exclusion of the large intestine by means of a short circuit than by the division of the new short mesentery.

Also, in every case of tubercle or rheumatoid arthritis, in which simple means have failed, the bowel should be short-circuited without hesitation. This operation produces a maximum of benefit at a minimum risk, and is readily borne without evidence of any shock by children as young as 2 years of age.

When there are evidences of mucous or ulcerative colitis, short-circuiting should be resorted to as the best means of meeting the difficulty. Even in the most acute cases it will tide over a difficulty, and will render the subsequent removal of the large bowel, should it be necessitated, much more easy and free of risk to the life of the individual.

If after the performance of short-circuiting for stasis the patient should suffer sufficiently from distension of the large bowel the colon can readily be removed.

If the symptoms of stasis in the large intestine be very manifest, and if that tube is much inflamed, it is occasionally advisable to remove it when the ileo-colostomy is performed. However, as time goes on, I incline, except in special circumstances, to the performance of ileo-colostomy, the colectomy, if necessary, being performed at a subsequent period, when the patient is no longer suffering from autointoxication.

Objection was made by those who were ignorant of the result of the operation of short-circuiting on the ground that the patient would suffer from constant diarrhoea. To those who operate freely on these cases this objection is known to be absolutely unfounded.

The risk of ileo-colostomy is reduced enormously by the use of an oesophageal tube introduced through the rectum into the small intestine and retained for six days. It facilitates the passage of faeces through the junction and allows the patient to be fed as soon as the anaesthetic disturbance has passed. This is very soon, since shock is reduced to a minimum by the introduction of large quantities of normal saline beneath the skin before the operation is commenced. This probably by raising the blood pressure also obviates any vomiting after the anaesthetic.

Suppuration in the wound resulting from the contact of the intestines or the fluid secretion in the peritoneal cavity is met by the use of large hot compresses over the entire abdomen. They also add to the comfort and general well-being of the patient.

In order to judge adequately of the benefit of these operations it is necessary to see a number of the patients after operation, and the progressive improvement which they present is one of the most striking results of surgery.

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THE usual monthly meeting of the Executive Committee of the Medical Sickness, Annuity, and Life Assurance Society was held at 429, Strand, London, W.C., on Friday, April 19th, Dr. de Havilland Hall in the chair. The records of the society for the early part of the year show, as usual, a larger number of sick claims than in the warmer months, but they have been for the most part of short duration, and have not caused much more than the usual amount of disbursement. A large proportion of these claims has been caused by bronchial ailments; a moderate number of claims have been caused by influenza, but nothing in the nature of an epidemic has so far been noted. The annual general meeting of the society will be held on May 9th, and the report to be then submitted to the members will show that in 1911 the society made satisfactory progress both in membership and in financial strength. The sickness claims were within the amount expected and provided for in the tables of contribution, and a considerable addition was made to the funds, which now amount to over a quarter of a million sterling. As the business has grown, the amount of reserves required to make the benefits secure has necessarily grown also, but in every year the funds have grown at a still greater rate, and a handsome surplus has been produced. Prospectuses and all further particulars on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

[5] The First and Last Kink in Chronic Intestinal Stasis. A paper read before the Derby Medical Society on October 17th, 1911, and published in the *Lancet*.

A Post-Graduate Lecture

ON

INFECTION OF THE URINARY TRACT BY BACILLUS COLI.

GIVEN AT QUEEN'S HOSPITAL, BIRMINGHAM.

BY

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THE condition which forms the subject of this lecture is of common occurrence, and causes definite and serious symptoms, yet although readily diagnosed it remains too little recognized by the majority of the practising members of the profession.

Until the microscopical examination of the centrifugalized deposit of a fresh or uncontaminated catheter specimen of the urine becomes part of our routine examination, the evidence of *Bacillus coli* infection will seldom reach us.

Although it is true that in some cases the symptoms of the patient will draw attention to the urinary organs, and in others the pus in the urine will be obvious to the naked eye, yet such cases are few in comparison with those in which the urinary symptoms are slight and the urine itself shows nothing more to the naked eye than a slight turbidity. In all cases, however, if the urine be centrifugalized and a drop of the deposit examined under a one-sixth objective, the presence of bacilli and pus cells will practically establish the diagnosis.

Inasmuch as any normal specimen of urine is liable to become loaded with bacilli if left uncovered in a warm room, and a female's urine usually contains some bacteria and pus cells washed away from the meatus and labia, it is essential to examine only perfectly fresh specimens in the case of men, and catheter specimens kept in a sterilized bottle in the case of females.

Infection by *B. coli* having been recognized, it is still necessary to determine whether the infection is primary, or whether it is secondary to some other disease of the urinary tract, such as stone or tuberculosis of the kidney or bladder, enlarged prostate, urethral stricture, or retention from disease of the spinal cord, growth in the bladder, etc.

As these secondary infections come more properly within the province of the surgeon, I propose to confine myself to primary infection by *Bacillus coli*—that is, to infections occurring in patients apparently free from any surgical lesion of the urinary tract.

My experience is based on 53 cases which I have encountered during the past three years; 39 of these I have treated with vaccines made in every case from the patient's own bacillus. I have, moreover, in 30 cases attempted to identify accurately the bacillus present in the urine.

THE IDENTITY OF THE BACILLUS.

Although it is not strictly accurate to apply the term *Bacillus coli* to all the bacilli which produce the condition I am describing, yet because the term implies that the urinary tract is infected by a bacillus which has its natural abode in the alimentary canal, it is difficult to suggest a better.

As a matter of fact, many other Gram-negative, lactose-fermenting bacilli normally present in the faeces, such as *B. cloacae*, *B. lactis aërogenes*, *B. neapolitanus*, *B. acidi lactici*, and *B. Friedländeri*, are capable of invading the urinary tract and setting up a condition which can only be distinguished from infection by *B. coli* by the elaborate tests necessary to identify the bacilli.

The undoubted success of vaccine treatment in these infections has made this question of the identity of the bacillus one of great practical importance, for if a stock vaccine of *Bacillus coli* be used, one would expect it to prove useful only in those cases in which a true *B. coli* is responsible for the infection, whilst if the vaccine be made from the patient's own bacillus, its exact identity is of comparatively little importance.

I have carried out a full bacteriological investigation in 30 cases in which a coliform bacillus was present in pure culture and have tabulated the results and classified the bacilli.

In all these cases the bacilli had the following common characters. They produced:

(1) Acid and clot in litmus milk.
(2) Indol in peptone water.
(3) Did not liquefy jelly.
(4) Produced acid and gas in glucose, lactose, mannite, sorbite, maltose, levulose, galactose, mannose, and glycerine.*
(5) Produced neither acid nor gas in inulin and adonite.

They showed the following differences in the fermentation of dulcite and saccharose:

3 Fermenting neither dulcite nor saccharose.
18 Fermenting dulcite, but not saccharose; and these only can be classified as *Bacillus coli*.
5 Fermenting both dulcite and saccharose.
4 Fermenting saccharose but not dulcite.

Thirty Cases of Infection of the Urinary Tract by a Coliform Bacillus in Pure Culture.

In every case the bacillus produced acid and clot in milk, indol in peptone water, acid and gas in lactose, glucose, mannite, sorbite, maltose, levulose, galactose, mannose, and glycerine.* In no case was gelatine liquefied. In no case was acid or gas produced in inulin or adonite. The following table shows the differences in the bacilli. "Acid and gas" production is marked +.

Case.	Dulcite.	Saccharose.	Salicin.	Syringin.	Dextrin.	Raffinose.	Motility.
GROUP I.—*Type B. Ac. Lactici.*							
1. Pyelitis of pregnancy	−	−	−	−	−	−	N.M.
2. Chronic cystopyelitis. Female, 34. Also has mucous colitis	−	−	−	−	−	−	N.M.
3. Acute pyelonephritis after catheterization. Male, 28	−	−	−	−	−	−	N.M.
GROUP II.—*Type B. Coli.*							
4. Bacilluria. Male, 26, with ulcerative colitis	+	−	−	−	−	−	M.
5. Cystopyelitis. Also has streptococcal puerperal fever	+	−	−	−	−	−	M.
6. Cystitis. Acute recurrences. Male, 32. Began with pneumonia	+	−	−	−	−	−	M.
7. Puerperal pyelitis	+	−	−	−	+	−	N.M.
8. Bacilluria. Female 28. Single	+	−	−	−	+	−	N.M.
9. Chronic cystopyelitis of long duration. Female, 44	+	−	−	−	−	+	N.M.
10. Chronic cystopyelitis. Symptoms two years. Female, 26	+	−	−	+	−	−	M.
11. Puerperal pyelonephritis	+	−	−	+	+	−	N.M.
12. Chronic cystopyelitis. Duration unknown. Female	+	−	+	−	−	−	M.
13. Puerperal cystopyelitis	+	−	+	−	−	−	N.M.
14. Acute cystopyelitis. Recently married; not pregnant	+	−	+	−	−	−	N.M.
15. Chronic cystopyelitis. Occasional febrile attacks. Female, 38	+	−	+	−	−	−	N.M.
16. Acute pyelonephritis after excision of cancer of rectum. Male, 60	+	−	+	+	−	−	N.M.
17. Cystitis. Patient has streptococcal puerperal septicaemia	+	−	+	+	−	−	N.M.
18. Chronic cystopyelitis. Female, 32, with mucous colitis	+	−	+	+	−	−	N.M.
19. Puerperal pyelitis	+	−	+	+	+	−	N.M.
20. Cystitis complicating paraplegia. Male	+	−	+	+	+	−	N.M.
21. Cystopyelitis of long duration. Female, 59	+	−	+	−	−	+	M.
GROUP III.—*Type B. Friedländeri, B. Neapolitanus.*							
22. Cystitis and prostatitis. Gonorrhoea denied	+	+	+	+	−	+	N.M.
23. Acute cystitis. Old lady of 80	+	+	+	+	−	+	N.M.
24. Pregnancy pyelonephritis	+	+	+	+	−	+	N.M.
25. Puerperal pyelitis; also streptococcus and *B. coli* in uterus	+	+	+	+	−	+	M.
26. Urethritis. Male, 34; probably post-gonorrhoeal	+	+	+	+	−	+	M.
GROUP IV.—*Type B. Cloacae, B. Lactis Aërogenes.*							
27. Chronic cystopyelitis since pregnancy three years previous	−	+	+	−	+	+	N.M.
28. Chronic cystopyelitis. Married woman, not pregnant	−	+	+	−	+	+	N.M.
29. Cystitis. Male; probably post-gonorrhoeal	−	+	+	−	+	+	N.M.
30. Acute cystopyelitis. Married woman, not pregnant	−	+	+	−			N.M.

*0.5 per cent. of fermenting substance in 1 per cent. peptone water.

On consulting the table, differences in the fermentation of salicin, raffinose, dextrin, and syringin will be noticed.

The bacilli also showed marked differences in motility, even in those giving identical fermentation results.

Although all were Gram-negative bacilli, they showed great variation in shape which I have not attempted to classify.

It is obvious that many varieties of bacilli are capable of infecting the urinary tract, and, as far as my own observations go, neither the microscopical appearance of the bacillus, the part of the urinary tract involved, the symptoms of the patient, nor the response to autogenous vaccines, enables us to distinguish a true *B. coli* infection from one due to any of the other coliform bacilli.

The question whether the tests employed reveal merely varieties of one specific bacillus or specific varieties of bacilli cannot be discussed here; but I believe the answer to be that there are several distinct bacilli capable of causing the infection, and that each of these may show minor variations.

If a stock vaccine be used it should be a mixed one containing bacilli from the four main groups which I have classified, and the dose should be much larger than if an autogenous vaccine were employed, for the greater part of a mixed vaccine is probably useless.

It is easier to make a vaccine from a coliform bacillus than properly to identify the bacillus itself, for the distinctive fermentation tests extend over a couple of weeks, and must be made from many different colonies.

It is not easy to understand why the bacillus is usually present in pure culture, but possibly the marked acidity of the urine in these infections prevents other bacteria complicating the infection.

My thanks are due to the pathological department of the Birmingham University for permission to conduct my investigations there.

The Part of the Urinary Tract Infected.

Here I find my own observations to be of little use, as in the majority of my cases I have had no means of showing whether the infection was in the bladder or in the pelvis of the kidney, or in both.

But in 6 cases the substance of the kidney was infected and the urine presented all the characters of an intense nephritis. In 4 of these cases I examined the kidneys *post mortem*, and in each found them studded with small abscesses, the infection being bilateral in all; in a fifth case the nephritis was unilateral, and nephrectomy saved the patient, the kidney again showing multiple abscesses; in the sixth case the patient had all the signs of an acute haemorrhagic nephritis combined with the bacillary infection, and the urine still contains numbers of casts, though it is over two years since the acute attack.

Of the 47 remaining cases none had casts in the urine, and therefore I have presumed, perhaps rashly, that the kidney substance was not involved, and I call them cases of cystopyelitis from lack of more accurate localization. It is true that in some instances the symptoms of the patient pointed to the bladder and in others to the kidney, but I do not see how the site of infection can be clearly diagnosed except by means of the cystoscope and the urethral catheter.

The opinion of the majority of recent writers seems to be that the pelvis of one or both kidneys is the commonest site of infection.

The Manner in which the Bacillus Reaches the Urinary Tract.

There appear to be three possible ways:

(*a*) An ascending infection via the urethra to the bladder, and thence by the ureter or peri-ureteral lymphatics to the kidney.

(*b*) An infection of the kidney from the blood stream, and a descending infection to the kidney pelvis and bladder.

(*c*) A transparietal infection from the bowel to the bladder or kidney.

(*a*) I believe the ascending infection to be the more usual one, and for the following reasons:

The orifice of the urethra is always liable to contamination by faecal bacteria, though normally the frequent flushing of the urethra with a sterile urine prevents the infection travelling higher.

Yet a urethritis due to *Bacillus coli* is not uncommon, and the passage of a catheter, sound, or bougie may cause cystitis or pyelitis due to *Bacillus coli*, though the urethra be healthy.

In the female the proximity of the vulva to the anus, and the shorter and wider urethra, might be expected to make the chances of infection greater than in the male; and as a matter of fact cystopyelitis due to *Bacillus coli* is about ten times commoner in females than in males, if we consider only cases of primary infection.

Probably the *Bacillus coli* frequently reaches the bladder, but is either killed or passed out in the urine before it has time to set up inflammation. When, however, there is any temporary or permanent stasis in the bladder, ureter, or kidney, the risk of the infection ascending and becoming established is apparently much increased.

Infection of the kidney from the blood stream, implying a previous infection of the blood from the bowel, meets with much more support from writers on this subject than their arguments appear to warrant, many maintaining that this is the commonest mode of infection. It is stated that the colon bacillus frequently finds its way from the bowel to the blood stream, resists the normal bactericidal power of the blood, is deposited in the kidney, and may there set up inflammation or be carried through to the kidney pelvis, ureter, or bladder, and so cause a pyelitis or a cystitis. This theory probably explains some cases, but it does not explain why the pyelitis is usually unilateral, nor the greater susceptibility of females, nor does it explain why an infection of the renal pelvis is so much commoner than one of the actual substance of the kidney.

We know that in some cases of septicaemia, and particularly in infective endocarditis, the urine contains the infecting micro-organism, but as a rule this occurs when the disease is well established, whereas in the acute type of pyelitis, due to the colon bacillus, the bacillus will be found in the urine at the very onset of the disease.

I have met with three cases of puerperal septicaemia in which the uterus and the blood showed a pure streptococcal infection, whilst the urine showed a pure infection by the colon bacillus. Moreover, although I have made a considerable number of blood cultures, I have not yet met with the *B. coli*, and am not disposed to regard its presence in the blood stream as of common occurrence. Speaking generally of blood infections, especially streptococcal, I think it the exception, rather than the rule, to be able to isolate the infecting micro-organism from the urine.

At present, therefore, I am not prepared to admit that an infection from the blood is the common cause of *B. coli* pyelitis.

Transparietal infection would appear to imply a lesion of the bowel wall, and probably of the urinary tract. Such cases as that of the patient who developed acute cystitis and suppurative nephritis after excision of a cancer of the rectum are probably of this nature. Possibly the urinary infection which is frequently associated with mucous and ulcerative colitis, and sometimes the cystitis in paraplegia, have their origin in a transparietal infection.

Symptoms.

In acute cases the symptoms vary according to the portion of the urinary tract infected.

Acute nephritis due to B. coli, in which the substance of the kidney is involved, is not infrequent in pregnancy, during the puerperium, and in males after the passage of a catheter or a bougie, or after operations involving the bladder. The first symptom is usually a rigor; the temperature rises to 103° or 104° F., and remains for the next few days high, with daily fluctuations and sometimes repeated rigors. In some cases there are no symptoms calling attention to the urinary tract, in others there is pain in the back or in one loin, vesical irritability, or discomfort in the lower half of the abdomen. In such cases there are the usual symptoms of an acute infection—namely, constipation, furred tongue, loss of appetite, headache, and mental disturbance.

The urine may be at first suppressed, and later be scanty and bloody, as I have seen in two cases, or it may

appear thick, show a cloud of albumen on boiling, and under the microscope show pus, casts, red blood corpuscles, and coliform bacilli.

The patient may die of an acute attack, or the symptoms may subside and resemble those of chronic nephritis, in which case albumen remains, and epithelial and granular casts may be found in the urine for months or years—in fact, it may be doubted whether the kidney ever thoroughly recovers. Even when the nephritis has reached a chronic stage the patient may periodically suffer from acute recurrences.

In acute cystopyelitis the symptoms are not so severe on the whole as in nephritis, yet in some cases the patient is extremely ill. The general symptoms are similar except that in adults rigors are not common and the temperature does not range so high. The urine does not show casts and rarely shows blood, but the amount of albumen may be considerable, and in all my cases there was a fair deposit of pus when the urine was first examined.

This form of the disease is rarely fatal and may clear up completely without treatment, but quite commonly it subsides into the chronic form.

It is possible that the chronic form of this disease is always the result of an acute attack, but if that be so the onset must often be very mild, for the patient can, as a rule, give no definite account of it.

In *chronic cystopyelitis* the general symptoms may be very slight and the condition not discovered till, the patient seeking medical advice for some other ailment, the urine is submitted to examination.

A more severe type is, however, quite common, in which the symptoms are those of a general malaise, with headaches, vague muscular and joint pains, lack of vitality, occasional mild febrile attacks, anaemia, and chronic dyspeptic symptoms.

As a rule the patient complains of no symptom likely to draw the doctor's attention to the urinary organs, though on being questioned she is found to have noticed some discomfort and frequency of micturition, not uncommonly dating from a previous confinement. Examination may reveal some hypogastric tenderness, or one or both kidneys may be palpable and tender.

When a woman complains that her water is thick, we should not assume that she refers to a deposit of urates, but rather examine a specimen.

The urine in cystopyelitis due to the colon bacillus is acid and usually odourless, though it sometimes has a curious fishy smell which could hardly be described as offensive. It is never quite clear, though its turbidity varies from a slight opalescence to a thick cloudiness, according to the amount of pus and bacilli present. The turbidity does not disappear on the addition of acid nor on heating, and, though filtering reduces it, it never removes it entirely. Boiling usually shows some albumen, often so slight a cloud that the turbidity of the urine masks it, but sometimes a definite thick cloud which may easily be attributed to chronic Bright's disease. The albumen more often than not varies in specimens passed at different times of the day, sometimes being present in considerable quantities and at other times practically absent, and in two of my cases a diagnosis of functional albuminuria had been made on that account.

In marked cases a drop of the urine placed under the microscope will show pus cells and bacilli, but it is advisable to examine the deposit after centrifugalizing, when both pus and bacilli will be easily found even in those cases where the urine is almost clear. With a little practice there is no difficulty in seeing the bacilli in an unstained preparation with a one-sixth objective, though I have known clumps of bacilli interpreted as "granular débris." If, however, there is any doubt, a film preparation of the deposit should be stained by the Gram method and counterstained with dilute fuchsin, when the Gram-negative bacilli will appear as red rods of varying length and thickness, according to the exact strain of bacillus present.

Bacilluria (meaning by that term the presence of bacilli but absence of pus in the urine) is the mildest form of the disease of which I am speaking. I have not yet seen a urine containing the colon bacillus, however, which did not show some pus cells on careful examination of the centrifugalized deposit.

THE DISEASE IN CHILDREN.

Although practically all my patients were adults, yet the disease is common in children, particularly in little girls, and therefore I feel that the condition in children requires special mention.

Acute Form.—The infection may appear in an acute form as a sharp febrile attack with chills or rigors, which are indeed most characteristic of this disease. Headache, malaise, loss of appetite, vomiting, broken sleep, twitchings, delirium, stiffness of the neck, and sometimes convulsions, are among the severer constitutional symptoms. Local symptoms may be present in the form of frequent and painful micturition, tenderness in the hypogastrium, moderate distension of the abdomen, and subcostal and epigastric pain with tenderness and slight rigidity.

Chronic Form.—Such attacks frequently subside spontaneously. They may merge into a chronic form of the infection which apparently causes but little disturbance, but may, on the other hand, be of a more severe type, causing emaciation, sweating, splenic enlargement, and slight elevations of temperature; or there may be from time to time acute febrile recurrences, with vomiting, nervous symptoms, and rheumatic pains.

DIAGNOSIS.

As I have already said, the diagnosis must be made, and in fact can only be made, from an examination of the deposit from a fresh specimen of the urine.

An acid urine which is turbid or opalescent when passed, and is not cleared by heating or by the addition of acid, but often shows a slight cloud on boiling, should excite suspicion.

In acute cases without local symptoms of sufficient severity to call attention to the urinary organs, this disease is likely to be confounded with pneumonia, influenza, typhoid fever, pleurisy, malaria, and puerperal fever in adults, and may in children simulate appendicitis, meningitis, and acute otitis media.

The general and constitutional symptoms in chronic cases may in adults suggest neurasthenia, pulmonary tuberculosis, chronic rheumatism, anaemia, migraine, and chronic dyspepsia, and in children some deep-seated tuberculous focus.

The urinary symptoms are suggestive of stone or tuberculosis of the kidney or bladder, and possibly gonorrhoea. The constant or occasional presence of albumen may lead to a diagnosis of chronic Bright's disease or functional albuminuria.

It must always be borne in mind that the presence of pus and *B. coli* in the urine may be associated with pyonephrosis, calculus, stone or growth of the kidney or bladder, enlarged prostate, chronic prostatitis and prostatic abscess, chronic urethritis, urethral stricture, and cystitis due to disease of the spinal cord.

TREATMENT.

Probably half the acute cases recover spontaneously, and, even when they have subsided into a subacute or chronic stage, may recover without treatment as soon as the predisposing cause—for example, pregnancy—has ceased to be present. But the chronic cases, especially if of long duration, are admittedly difficult to cure.

On general lines it may be laid down that acute cases and the severer types of the chronic cases should be kept in bed, ordered a bland non-stimulating diet, allowed plenty of water or barley water, and advised to pass urine every two hours; constipation should be carefully guarded against. The milder types of chronic cases may be allowed more latitude, but alcohol and much meat should be avoided.

Drugs.

The most useful drugs appear to be potassium citrate or bicarbonate, though it is not quite clear how they act; sometimes very large amounts are required to render the urine alkaline, but the dose should be increased until this occurs.

Urinary antiseptics have on the whole signally failed to relieve the condition, but in some cases I have found urotropine useful.

Vaccines.

Here I will only speak of my own results, as so many small differences must occur in the actual preparation of

vaccines (and in the doses employed) by different workers that accurate comparisons are impossible.

I have treated 39 cases with vaccines made from the bacilli grown from the urine, and of these the majority were chronic cases which had already been treated on general lines without improvement. 5 were acute puerperal cases with irregular pyrexia, 3 were cases of pregnancy with a mild sort of fever and may be called "subacute," 1 was a case of acute suppurative nephritis, and 1 an acute cystitis with fever in a very old lady.

(a) In Acute Cases.

I will deal first with the 10 cases with fever: In the case of acute suppurative nephritis, after two injections of vaccine had failed to relieve the symptoms, the left kidney was removed and the vaccine continued, as the urine still contained pus and bacilli. The temperature remained normal subsequent to the nephrectomy, and in a few weeks the pus and bacilli disappeared from the urine; the patient made a complete recovery and has since remained well.

In the other 9 cases the temperature remained normal after the first or second dose of vaccine, and the general and local symptoms were in every case relieved.

In the 3 pregnancy cases the pus and bacilli were reduced in the urine, but were still present after the confinement.

In 2 of the puerperal cases the pus and bacilli were still present when the patients were last examined; in the other 2 cases the urine became free from deposit and sterile on culture.

The urine of the old lady with cystitis contained a little pus and plenty of bacilli when I last examined it.

I have mentioned the acute cases separately, because it is held that a large proportion recover spontaneously without treatment, and therefore that it is unwise to attribute the amelioration of the symptoms to the remedies employed; but what has appeared to me so striking is that in all the nine cases the temperature chart showed a definite daily pyrexia for two or more weeks before the vaccine was used, and a normal temperature from the time the vaccine treatment was started.

(b) In Chronic Cases.

The results of vaccine treatment in 29 chronic cases are of more importance, for practically all had been treated on general lines for a considerable period without success, or, at any rate, without any appreciable alteration of the urinary deposit.

In all there appeared to be a very definite improvement in the general health, the appetite returned, the complexion became clearer, and the feeling of lassitude gave way to one of increased vitality. Local symptoms when present were relieved, and in some cases completely cured.

A much more satisfactory estimation of the effect of vaccine treatment is to be made by noting its effect upon the character of the urinary deposit, for as long as the bacilli remain in the urine there must always be danger of the patient relapsing after the immunizing effect of the vaccine has worn off.

In these 29 cases of chronic cystopyelitis in adults the effect on the urine was as follows:

Nine cases are either still under treatment or have not sent sufficient specimens of their urine to enable me to classify them.

In 10 cases the urine has become free from microscopical deposit, and has proved free from *Bacillus coli* on culture on at least the two last examinations.

In 3 cases the pus has practically disappeared, but the *Bacillus coli* is still present either microscopically or on cultivation.

In 4 cases both pus and bacilli are present, though in considerably reduced amount.

In 3 cases the urine shows no change for the better, though there was temporary improvement during the course of treatment.

These results may appear to you unconvincing, yet it must be borne in mind that we are dealing with cases of long standing, which had failed to improve on other lines of treatment.

It is most important, before arriving at any conclusion with regard to the urine, to examine a considerable number of specimens, and especially to examine the first specimen passed (or rather drawn off) in the morning, for this specimen is often the worst of the whole twenty-four hours, probably because the urine remains much longer in the bladder. Some patients, however, pass most pus when walking about, and it is therefore essential to examine urine taken at various times of the day.

The vaccines were all made from fresh cultures made from the patient's urine.

Injections were given every four or five days.

The dose was always steadily increased.

In practically all cases the amount of vaccine given was as follows: First dose, 50 million; then 100, 150, 200, 300, 400, 500, and 600 million; this last dose was repeated several times, after which, in those cases still showing bacilli, a fresh vaccine of greater strength was usually prepared and a second course given, commencing with 500 million, and gradually increasing to 1,500 million.

In no single case did the patient experience any ill effects from an inoculation, and in no case was there ever a rise of temperature after an injection.

Before leaving the subject of vaccine treatment, I am tempted to ask why this treatment, so thoroughly successful in some cases, seems to carry us but half way in others.

Doubtless the explanation is not a simple one, but my own opinion is that infection of the urinary tract by *B. coli* is incurable by vaccines as long as any part of the urinary tract is incapable of completely emptying itself, and that in many of the incurable cases there is some anatomical alteration of the kidney pelvis, due to displacement of the kidney, kinking of the ureter, pressure of a pregnant uterus on the ureters, which produces a little collection of urine in which the bacilli are able to grow, from which it is difficult to dislodge them, and to which they are liable to return, even though temporarily removed.

This is no more than my uncorroborated opinion, which further experience may deny or confirm; but it is not impossible that some of the severe general symptoms in cases of nephroptosis are occasionally due to an associated bacillary infection, and the relief which has followed nephropexy has been due to a spontaneous cure of the infection, the normal position of the kidney allowing a freer exit for the urine, just as a chronic cystitis may cure itself after the removal of an enlarged prostate or the relief of a stricture.

Operative Treatment.

Washing out the bladder has had a fair trial; the majority of surgeons have little to say in its favour, and some frankly condemn it. If it be true that the infection mainly resides in the pelvis of the kidney, we can understand why bladder washing is useless.

It was tried on several of my cases, and in two converted a pure infection by *Bacillus coli* into a mixed infection, adding streptococci in one case and staphylococci in the other, at the same time increasing the pus. One patient developed acute haemorrhagic nephritis with rigor after the first passage of the catheter. Another case appeared to improve as soon as bladder irrigation was discontinued. Although my own experience has been unsatisfactory, I must admit that I have heard of cases in which irrigation of the bladder has cured the infection, and I take it that in these cases the main focus was in the bladder or prostate, for they were all men.

Irrigation of the kidney pelvis through the ureteral catheter is, at all events, a rational procedure, and such results as I have seen published are good. I know nothing of its dangers, difficulties, or risks, but I do know that up to the present the technique of ureteral catheterization has not been mastered by the majority of surgeons, and therefore its adoption as a practical routine procedure is at present impossible.

Although pyelitis occurring in the later months of pregnancy is common enough, yet the women usually go to full term, and the infection subsides after the birth of the child. Nevertheless, there occur cases in which the symptoms are sufficiently serious to call for induction of labour. I have made two *post-mortem* examinations on pregnant women who died of acute suppurative nephritis, due to *B. coli*, and one on a woman thought to have died of puerperal septicaemia, in whom the obvious lesion was infection of both kidneys, which were studded with small abscesses, by *B. coli*.

Nephrectomy may save a patient when such a condition is limited to one kidney. In the case of an old man who

developed infection of the left kidney by *B. coli* after the removal of a cancer of the rectum, Mr. B. J. Ward removed the kidney (which was full of miliary abscesses), and the patient, in a most critical condition at the time of operation, made an excellent recovery.

My own feeling is that in severe and obstinate cases an experienced urinary surgeon should be consulted, and it should be his object to determine whether the infection is in the bladder or kidney, or both; whether it is limited to one kidney or present in both; whether it is a primary infection or secondary to stone, tubercle, or obvious obstruction.

How far the surgeon is able to remedy a moderate dilatation of the kidney pelvis I do not know; but where the infection is obstinate and associated with nephroptosis, I believe nephropexy should be tried.

If the surgeon discovers no indication for operative interference, we have in vaccine treatment a remedy which will always relieve, and sometimes cure, the disease; and in some cases a course of vaccine might with advantage be used as a preliminary to operation.

In mild infections without symptoms the condition will often remain undiscovered, but once the infection is known to exist, it must be borne in mind that the disease may at any time become more acute or spread to another part of the urinary tract, so that even if a case does not appear to call for treatment, the condition should never be altogether ignored.

In conclusion, let me once more remind you that although infection of the urinary tract by *B. coli* is of common occurrence, the symptoms will often fail to draw our attention to the urinary organs; and we shall certainly fall into the error of our predecessors of attributing the symptoms to other causes, unless we are prepared to adopt the simple measures necessary to make a correct diagnosis.

A Post-Graduate Lecture

ON THE

CORRELATION AND DISTINCTION BETWEEN CERTAIN SYMPTOMS IN SOME ABDOMINAL DISEASES:

BASED UPON AN ANALYSIS OF 124 OPERATIONS FOR GASTRO-DUODENAL ULCER AND 110 FOR APPENDICITIS.

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THAT there exists some difficulty in the accurate diagnosis of cases presenting symptoms which point to the existence of a gastro-duodenal ulcer when in reality no such ulcer exists and the cause is to be found elsewhere, no one who has had any extended experience of abdominal surgery will deny; but that this is as great as is suggested by Mr. Moynihan's paper published in the BRITISH MEDICAL JOURNAL of February 17th will probably be considered surprising by most surgeons.

With a view to obtaining data for a slight contribution to the discussion of this question I have collected all the cases of abdominal section for operations upon the stomach and duodenum which have occurred in my practice during the last six years, both hospital and private, and which number 124. Also, all operations for appendicitis, both acute and chronic—these number 108; these latter cover a period of thirteen years, and, whilst both lists are far below those of certain operators, they may perhaps serve as a basis for some observations which perhaps may be worthy of attention.

Taking the appendical list first, 46 cases were acute, whilst 62 were chronic or relapsing. Under the former were classed all those who, whether operated upon at once or after the more acute symptoms had subsided, had had but one attack—that which was the immediate cause of the operation; whilst the relapsing cases included all who had had two or more—frequently many more—previous attacks of a similar character. In view of the greatly increased activity of surgeons in the present day—an activity perfectly justified by our present knowledge, and in which I share to a large extent—I may, perhaps, congratulate myself upon this list of relapsed cases, which is becoming less and less likely to be repeated, and which enables me to emphasize some points which may possibly have escaped the attention of those more anxious to prevent their occurrence.

Laparotomies for Gastro-duodenal Lesions.

Class.	No. of Cases.	Male.	Female.	Mortality.
Partial gastrectomy for cancer ...	7	4	3	3
Perforated gastric or duodenal ulcer	9	6	3	2
Demonstrable gastric or duodenal ulcer	90	57	33	8
Gastrectasia	8	5	3	0
No gastro-duodenal lesion found	10	8	2	0
Total	124	80	44	13

Operations for Appendicitis.

Class.	No. of Cases.	Male.	Female.	Mortality.
Acute appendicitis	46	22	24	8
Relapsing	62	32	30	0
Total	108	54	54	8

In this list of relapsing appendicitis the incidence of sex is apparently equal. There were 32 cases (male) against 30 (female). The average age in men was 32 years and 9 months; in women, 26 years and 8 months. The youngest male was 15, the youngest female 12; the oldest male was 61, the oldest female 39.

The average number of previous attacks is difficult to estimate. In many cases nothing but a vague general statement could be obtained, giving the approximate date of the first attack, followed by some such statement as this, that whilst at first there might be intervals of freedom from pain to be measured by months, latterly attacks had occurred every week. Others speak of isolated attacks at first, with perfectly painless intervals of months or even years, gradually becoming more frequent, until at last pain was almost continuous with exacerbations. But where it was possible to determine a definite number of attacks, those were noted, and the average number was 4; the greatest number in any one series was 12, the smallest 2.

The periods covered by these attacks vary from twenty-two years to nine months.

Although in all these "relapsing" cases the appendical origin of the symptoms became clear before operation, there is a small group amongst them which is worthy of special attention, since in it, in the earlier stages, it would have been easy to come to a different conclusion; had they been seen in the earlier attacks only, they would almost certainly have been classed as gastric or duodenal; and thus they evidently are practically identical with the group of cases referred to by Mr. Moynihan, and which in my list of laparotomies for gastro-duodenal ulcer are classed under "No gastro-duodenal lesion found."

For it is evident that the cases to which Mr. Moynihan has called attention are essentially cases of chronic appendicitis, in which the progress of the pathological changes has been so slow and gradual that their results in the production of determining symptoms are such as to divert the mind of the observer, at the time they were seen and operated upon, from the tissues actually involved towards others mainly affected by the reflex irritation produced; that they are still more chronic than those usually classed under that name; and that light will probably be thrown upon such extremely chronic conditions by observation of the modification of symptoms already evident in the transition between acute appendicitis and cases less slow in their evolution, which are, however, yet evidently and plainly appendical, and which have been classed as

chronic or relapsing. Any such differences are likely to be still more accentuated in the condition under discussion. Not only so, but any differences noticeable between acute affections of the appendix and similarly *acute* lesions of the stomach or duodenum are likely to be reflected, to some degree at least, in the distinctions between *chronic* inflammatory diseases of the same organs.

It is of the essence of the difficulty that in both sets of cases, the gastro-duodenal and the appendical, the disease is one which produces a succession of more or less isolated attacks characterized by abdominal pain and vomiting, which last for a certain time and then disappear or so greatly remit as to leave the patient in a state of comparative health. It is in the differences noticeable between the symptoms present in these previous attacks that some assistance as to diagnosis may be found.

If comparison is made between an ordinary acute appendicitis and one of the relapsing variety, certain similarities and certain differences are at once noted. In both pain is the earliest symptom; in both it at first makes its appearance in or near the epigastrium or, at least, above the umbilicus. In acute appendicitis it becomes in the course of a few hours definitely located in the right iliac fossa; but in these relapsing cases the history of the first and even of some of the succeeding but early attacks appears to show that a much longer time elapsed between the first appearance of pain and its localization in the appendical region; whilst in some still less acute cases pain in the earlier attacks was sometimes entirely confined to the epigastrium, and did not show itself at all in the right iliac fossa until a second or even third attack.

Thus in Case 66, that of a man aged 61, until two years before operation no pain had been felt in the right iliac region, though for two years previously isolated attacks of pain had been complained of in the epigastric region; these attacks of *epigastric* pain occurred about once in every three months, and were becoming more frequent. They were often started and always increased by food, so much so that on one occasion the patient fasted for four days because of the pain produced by food. On operation, a short, thickened, almost fibrous appendix was found buried amongst firm adhesions in the subcaecal fossa. In this instance it was only the fact that in the later attacks, those which occurred during the last two years, pain became more and more plainly referred to the right iliac fossa, which placed the surgeon seeing him then in a position enabling him to direct his operative work in the right direction. Had the same surgeon seen him in the earlier attacks, during the first two years, he would certainly have operated, if at all, for some gastro-duodenal lesion.

In another case, that of a woman aged 32, sent to me by Dr. Moon, of Levenshulme, there was a history of disconnected dyspeptic attacks spreading over a period of fourteen years. Twelve years before operation there had been a sharp attack of haematemesis. The first definite attack of pain in the right iliac fossa occurred five years ago; since that there had been three attacks, in all of which the pain had been definitely located in the appendical region, and operation discovered an appendix buried in old adhesions. With the removal of this all the old dyspeptic symptoms as well as the right iliac pain disappeared. But, had any surgeon operated before the last five years, all the indications then present would only have pointed to an incision above the umbilicus for some gastro-duodenal lesion.

In two other cases (21, 72) there was a history of many years' flatulent dyspepsia and constipation, culminating at last in a well-marked attack of acute appendicitis, with the formation of an abscess in a stiff-walled cavity evidently surrounded by old adhesions. It is extremely doubtful whether in either case the previous symptoms would have suggested to any medical man the possibility of chronic appendicitis. All the symptoms detailed pointed rather to some functional or organic gastro-duodenal lesion.

In both acute and relapsing cases *vomiting* is usually associated with the pain; but whilst in acute cases it is usually noted as immediately following, in subacute or relapsing cases its absence in the earlier attacks is not unusual. Of course, as one has to rely upon the patient's memory for these details, it is very possible that it may have been present, but evidently not to such an extent as to markedly attract the patient's attention. In the later cases it makes its appearance in the notes, but often with a wider interval than in acute cases—thirty-six hours, two days, two and a half days, etc., after the onset of pain. In a few instances only a sensation of nausea has been experienced.

In Case 50, that of a woman aged 33, distinct attacks of pain had been referred to a point somewhat nearer Poupart's ligament than McBurney's point, from time to time, for four years, becoming more frequent and severe during the twelve months immediately before operation. During these four years, according to the patient's account, there had been no vomiting at all, but she had had a sensation of nausea when the pain was most severe. In this case operation during the last attack disclosed a small abscess around a firmly adherent appendix.

In Case 106, also a woman, aged 29, there had been three attacks, the first being ten years before operation. There had been no vomiting, according to her account, during the first two attacks. In Case 34, that of a man aged 43, there had been three attacks. In the first attack, which lasted five weeks, there was pain, but no vomiting; in the second pain and vomiting, the attack lasting three weeks; in the third attack, which lasted nine days, again pain without vomiting was noted.

In a few cases, as I have said, vomiting, though present, appears to have been delayed. Thus, in Case 49, that of a man aged 27, who had three attacks, the first being one year before operation, in the first attack vomiting occurred two days after the commencement of pain; in the second attack there was no vomiting; in the third attack vomiting began one or two hours after the pain.

Thus, although in acute cases vomiting is closely associated with pain, in those more chronic, or subacute, or "relapsing" cases vomiting does not appear to be such an unfailing attendant, whilst the relation between the two, though sometimes irregular, appears generally to become closer as time goes on.

And, as might have been expected, in the majority of cases the act of vomiting gives no relief to the pain; this, however, can hardly be relied upon, as in one case so great was the relief afforded that the patient had recourse to artificial means in order to produce it.

Probably, in comparison with the almost certain relief to pain obtained by vomiting in gastro-duodenal cases, its usual absence in appendical cases is of more importance in differentiation than its occasional presence.

Lastly, some importance may be attached to the action of purgatives. Every one knows how gravely an injudicious purgative given at the commencement of an acute attack will aggravate the mischief in progress; how it quickens up the rate of destructive change. In these more especially chronic cases the rate is at its slowest; some quickening is permissible. By the action of a purgative a little increased irritation may be produced at the actual seat of the lesion, thus inducing a localized tenderness which is temporary, but sufficient to attract attention. Much emphasis cannot as yet be attached to this; in only 3 cases of doubt has this been tried. In 1 no reaction resulted, although in this the appendix was at fault; but in 2 sufficient tenderness and increased resistance over McBurney's area was found to justify incision in this area, and in each case a kinked and adherent appendix was found.

It would appear that cases of appendicitis must be reclassed: (1) Acute, (2) relapsing or subacute, and (3) chronic, in which latter class all these cases under consideration must be included.

It is in this class that difficulty is found as to diagnosis before operation—difficulty which it is very necessary to overcome, and which, I suggest, may be cleared up by a more careful search amongst the records of the earlier attacks and comparison with those of the later ones. Such search should be directed to:

1. Any difference as to the localization of the pain.
2. Any alteration in the relationship of pain and vomiting.
3. The relief afforded or not by vomiting.
4. The effect of purgatives.

But is the proportion of such cases incorrectly referred to us for operation by physicians as large as that suggested by Mr. Moynihan? In view of this question I have collected and carefully searched through all my laparotomies for gastro-duodenal lesions. They amount, as I have said, to 124. Either I must have been singularly fortunate, or Mr. Moynihan peculiarly unfortunate in our medical colleagues, the gentlemen who have so kindly referred their cases to us for operation, and who, at least in my own case, had, in the majority of these cases, already made the diagnosis. So far from over 50 per cent. being mistaken, which is Mr. Moynihan's estimate, only ten, or roughly 9 per cent., failed to show a perfectly definite lesion such as could be appreciated by the operator and—generally—be demonstrated to those around in either the stomach or the duodenum; and one of these cases was

one of hydatid of the liver, presenting beneath the gastro-hepatic omentum, not sufficiently large to give any outward sign of its presence, but depressing the stomach and hampering its action. In this connexion, also, the immense assistance rendered by radiography must be acknowledged. It has, in all cases in which its aid has been sought, never failed to throw light upon points not previously clear.

I have said that generally these lesions were demonstrable to onlookers, but there is, and, I suggest, must be, a limitation to this. No operator to-day would permit any more fingers in the abdominal wound than were absolutely necessary. Demonstration by touch, therefore, must be confined to the operator and his assistants. The only possible general verification must be that of sight. Of course, if there is marked thickening in an area which can be brought to the surface, this can be seen, or if well-marked whitish discoloration is present, as is usually the case, this is equally plain, but these conditions are not always present. In one case in which repeated attacks of hæmatemesis and melæna had greatly reduced the patient, and in which on operation a small crater could be plainly felt both by myself and my assistant in the lower anterior portion of the first segment of the duodenum, it was impossible to prove to those around its existence without unjustifiably increasing the risks to the patient. The results of the operation in immediate relief which has continued now for three years, during which the patient has been in perfect health, are as good proof of the necessity of the work as any number of opinions from bystanders whose knowledge may sometimes be incomplete.

Of the remaining 9 cases, in 2 no lesion could be found in the upper abdomen; in both the abdomen was closed without anything more being done. One of these has disappeared; the other returned twelve months later with precisely the same symptoms, for which he urgently craved relief. His abdomen was reopened, and still no organic lesion in this area was discoverable. At that time, attention had not been called to the possibility of an appendical explanation; there had been no symptoms suggesting the presence of a diseased appendix, and gastro-jejunostomy was performed with the idea that some ulcer must be present, although we were unable to localize it. I can only surmise that this must have been the case, for the previous symptoms of pain after food with recurrent vomiting ceased from that time, and the patient perfectly recovered and gained in weight. The result could scarcely be due to auto-suggestion, otherwise the first operation, of the details of which he was in ignorance, would have been equally effective, and its failure was complete.

In the remaining 7 cases, adhesions were present in all, dragging upon and distorting the duodenum; suggesting the previous existence of some irritant lesion, although after their separation nothing demonstrable could be found. Most of these cases are no longer traceable; one, however, operated upon in November, 1909, by the freeing of adhesions, and no loop posterior gastro-enterostomy, presented himself again recently. He had had 16 months' entire freedom from pain and vomiting; and had been in good health, but during the last month had suffered again from all his old symptoms; at present, the advisability of exploration of his appendix is under consideration, but it is at least possible that fresh contraction of duodenal adhesions may have taken place.

One uses the term "gastro-duodenal" in reference to these ulcers because to the operating surgeon it is, I conceive, a matter of no great moment whether an ulcer is situated above or below the line of the pyloric vein upon which Mr. Moynihan and I believe some others lay so much stress. It may conceivably be so to the physician, whose accuracy in diagnosis may thereby be called in question, but so far as surgical treatment and its results are concerned the exact situation of the lesion he is called upon to treat, so long as it is gastric or duodenal, makes very little difference to either patient or operator, except as to its accessibility. Moreover, even if Mocquot and Houdard[1] had not proved its unreliability as an accurate locator of the pylorus, as this vein is superficially placed in the duodenal wall, and as one of the main features in such cases is the continually recurring spasmodic contraction, and, so to speak, tenesmus of the pyloric antrum, upon which, it would seem, most of the pain experienced depends, it is easily conceivable that the contained pylorus, like its homologue, the os uteri, may be forced downwards in the ensheathing duodenum, and that so an ulcer beginning in the true pylorus or extreme lower part of the pyloric antrum as it slowly progresses may become fixed against the upper part of the duodenum in a partial intussusception, so that the later stages of the ulceration may therefore be carried on in tissues below this external line.

Whether this be so or not, it is a matter of common experience that even in cases demonstrably gastric—such as, for instance, in "saddle" ulcers affecting and confined to the lesser curvature—the symptoms may closely simulate those of duodenal ulcer. There is frequently the same interval of time between the taking of food and the occurrence of pain, the same vomiting, the same relief afforded by vomiting, by more food, or by alkalis. Hertz has shown that we can no longer explain the onset of pain by the actual contact of food or gastric juice with the ulcerated surface. Even x-ray observations, useful as they are, unless actual obstruction due to the contraction of a pyloric scar has taken place, are much the same in gastric as in duodenal ulceration. There is the same exaggerated contraction of the pyloric area whether the point from which the afferent impulses are derived is above or below the pyloric vein, and consequently it is not infrequently the case that the precise location assigned to the ulcer before operation has had to be revised on the operating table.

But, as previously said, this is a matter of slight importance from the operator's point of view. The same incision gives equal access to both. The same measures (excision, infolding, gastro-jejunostomy) are equally applicable to both, and can with equal ease be carried out through the same abdominal opening, with usually the same effective results.

And the same is true of a third class of cases—those of biliary calculi without jaundice or colic, the symptoms of which sometimes fairly closely simulate those of gastro-duodenal ulcer. In these cases the gall bladder may be found to be the seat of a low grade of inflammatory change, around which plastic adhesions have formed, uniting it to the stomach, duodenum, or transverse colon, whilst the bladder itself may or may not contain calculi, and such adhesions, pulling upon, distorting, and contracting the duodenum, may produce symptoms and results closely simulating those of duodenal ulcer. This is so well recognized by operators that to-day no one would be satisfied who had not carefully examined the biliary tract, and especially the gall bladder, before closing the abdominal incision.

Gastric ulcers, duodenal ulcers, gall bladder or gall duct conditions, the existence of bands, kinks, even carcinoma, or other stricture of the upper reaches of the large intestine, and the much rarer small intestine obstructions, such as mesenteric thrombosis, etc., may be verified and frequently dealt with effectively through the upper incision; but when no lesion is found after careful search in this area there remain certain things for which this point of attack is useless, and notably amongst them appendical disease.

It is doubtless true that an appendix may be brought up and examined through a supra-umbilical incision, but this can only safely be done when the caecum is healthy and mobile, when the appendix is itself healthy and consequently needs no operative interference. When the appendix is diseased, perforated, and surrounded by pus, buried in adhesions, or concealed and adherent in one of the fossæ about the caecum, it either becomes impossible or, if possible, is scarcely a wise procedure for a surgeon to attempt.

And whilst such a diseased appendix cannot be safely or efficiently dealt with through a substernal incision, it is obviously still less possible to properly close a perforated or chronic lesser curvature ulcer or to perform a gastro-enterostomy through an incision in the right iliac fossa.

In each case the incision must be so placed that the deeper work through it can be best carried out, and though duplication of incisions in the abdominal wall may by some be regarded as of little importance, to the patient they mean a good deal beyond the very obvious increase in the possibility of ventral hernia. After every incision into the peritoneal cavity there is always a certain amount of intra-abdominal plastic adhesion, if only of the

omentum to the line of the wound; these adhesions are, no doubt, in the majority of cases pretty quickly absorbed, but the rate of their absorption differs widely in different patients, and all experienced abdominal surgeons will have seen cases in which complaints have been made for prolonged periods after operation, which were evidently due to the intermittent drag upon transverse colon and stomach produced by these attachments. The possibility of this, always present even after only one section, is doubled after two, and these being in different parts of the abdomen, there is added the possibility of opposing traction upon the same viscus.

For these reasons it will, I think, be admitted that it is important, if it be possible, that the differentiation between cases having an appendical from those having a gastro-duodenal origin should be made before the abdominal wall is incised; and it is in the hope that the suggestions given above may be useful in this direction that the cases so far cited have been brought forward. They are, of course, much too few to warrant any definite conclusions; but if they are corroborated by other observers whom they may stimulate to watch for them, ultimately sufficient evidence may be accumulated to be useful in what is, at present, a somewhat difficult, though a most important, point in diagnosis.

I have already referred to the great assistance rendered by expert radiography. This seems likely to be still more effective in the future if Holzknecht's symptom complexes prove reliable. One of the most unpleasant features of previous methods of obtaining evidence as to the presence of hyper-acidity or hypo-acidity—the use of the stomach tube—may then be almost eliminated. The use of Haudek's double bismuth meal[2] and of Schwarz's fibro-dermic capsules in conjunction with radioscopy would appear to give all the requisite information.

So far as my cases go, however, some of these methods of obtaining evidence are in the future; but even in the past, as my list shows, a definite diagnosis was made previous to and proved correct by operation in 114 cases out of 124. Even if the 9 cases of acute perforation are eliminated as being based upon sharp physical signs which could hardly be misunderstood, and the 7 of carcinoma, in all of which a mobile hard mass could be felt, there remain 98 cases in which a correct diagnosis can be placed to the credit of the clinicians concerned, and which is very different to "over 50 per cent. of mistakes" which Mr. Moynihan appears to have encountered.

I venture to lay the more stress upon this, since in the great majority of instances the diagnosis was made before the case came into my hands, and I had simply to verify it and act accordingly. The statement as made by Mr. Moynihan cannot but throw doubt upon the diagnostic means available by physicians or upon their use of these means. As my own experience is so entirely different, I feel bound to bring it forward, small as it is, to counteract as far as may be in my power any such effect.

REFERENCES.

[1] *Rev. de chir.*, March 10th, 1912, p. 402. [2] *Archives of Roentgen Ray*, June, 1911, p. 6.

THE Department of Tropical Medicine and Hygiene of Tulane University, which is under the direction of Professor Creighton Wellman, has sent out its first research expedition for the study of malaria. The expedition, which is headed by Dr. Charles Cassedy Bass, a member of the department, sailed from New Orleans on April 20th for Central America. The Commission will return to New York in time to report the results of the investigation to to the meeting of the American Medical Association.

ACCORDING to the *Canada Lancet* the total number of medical colleges in the world is 320. Of these, 120 are in the United States; 34 in Great Britain and Ireland; 8 in Canada; the "rest of the world" making up the balance of 158. In the United States in 1910-11 there were 19,786 students in all medical schools and colleges, the smallest number since 1900. Of this number 680 were women, of whom 159 graduated. The total number of graduates in the United States in 1911 was 4,273—the smallest number in ten years. The percentage of total graduates is 21.6. In Canada there are 8 regular medical colleges, in 2 of which the teaching is given in French. In the United States 13 medical schools "suspended" or were merged into others during the year. Of the 120 now in existence 101 are regular, 12 homœopathic, and 7 eclectic.

APPENDICITIS—AND QUICKNESS.

BY

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THE word *quickness* at the head of this note is used in a double sense: first, with regard to the speed in which appendicitis may run its course, and, second, with regard to the need of the surgeon losing no time in getting to work when once the presence of the disease is recognized—or, on good grounds, suspected.

There cannot be much doubt, I think, that cases of appendicitis are being met with with increasing frequency. On all sides one hears of this disease—in the Profession and out of it; in the circle of one's friends and acquaintances; in the first column of the *Times* and in obituary notices. And it often happens that in the first column the reference is worded somewhat thus—"of appendicitis, after operation," as if the sorrowing friends were not quite sure whether the death ought to have been ascribed to the disease or the treatment. I have personal knowledge of not a few of these cases. Indeed, I confess that I have been professionally associated with a share of them, and I know that the wording of some of the notices is, to say the least, misleading. The wording ought to have run somewhat thus—"of appendicitis, after a belated operation," or "of appendicitis, after operation which the surgeon was not allowed to perform until it was too late," or "of appendicitis, after operation, the services of a surgeon not having been called in until medical treatment had been found unavailing." Perhaps the simplest form is the best, however: and I feel sure that if the publisher of the *Times* gave instructions that the word "belated" should in all these announcements precede the word "operation," it would be not only in the cause of truth but also in the interest of future sufferers. In the public mind the three words "appendicitis," "operation," and "death" are unhappily thus connected. If the surgical treatment could always be quick there would be little chance for death. At any rate, this unhappy association of ideas cannot be laid at the door of the surgeon. If he had his way—if the physicians would say, "This case of localized septic disease, or mortification, or abscess, or whatever it is, is not a case for me; it is a purely surgical question," there would be little loss of time and still less of life. Also, if matrons in charge of children at schools, and if parents, could be made to understand that severe "stomach-ache" in a child is not a case for treatment by "first aid," but that a practitioner should at once be called in, things would go more happily. The case is urgent—much more so than it may seem to be—and professional aid should be quickly obtained.

Then, it being admitted that cases of appendicitis are more often met with than formerly, I would ask the question if they are not sometimes found running their course with greater quickness than formerly. At any rate, at the present day the quickness with which some of them develop is remarkable.

A healthy boy of 16 had been working in Dr. Eckenstein's pathological laboratory for two years. He had had during this time no serious illness, but six months ago he had a slight pain in the right side when he ran. There had been no other trouble. On Monday, March 25th last, he was quite himself, feeling hungry and eating well. On Tuesday, 26th, he ate his breakfast as usual, and felt quite right till about 11 o'clock, when he had had some bread-and-butter and cocoa, after which he had slight pain. He was not really ill, however, for he did his work and went on several messages. But between 1 and 1.30 o'clock pain became severe, and when Dr. Eckenstein arrived at the laboratory at 2 o'clock the boy complained of bad "stomach-ache." He was made to lie down; he did not vomit. At 3 o'clock he said that he felt very ill, and he was then sent in a cab into the French Hospital, where, on admission, he was half-unconscious, and his pulse was hardly perceptible. His temperature was 96.2.

I saw him at 5 o'clock that evening, and found the lower part of the right rectus abdominis contracted and hard. But I gave it as my opinion that there was no perforation

of the appendix, not only because of the shortness of the history, but because the boy's aspect was good—particularly good. But we were all agreed that it was a case for operation. On opening the peritoneum there was an abundant escape of odourless yellow serum. The end of the appendix was as large as one's little finger, and there was perforation in it (near a concretion) from which fluid was running freely. The appendix was removed, and the peritoneum of the caecum was sewn over its stump. There were no adhesions. On passing the finger towards the pelvis a considerable rush of serum took place, so a large drainage tube was introduced deeply and there left. Next day the odour of the discharge gave clear evidence of coli-bacillary infection. The boy made a rapid recovery.

What is the sign by which the surgeon may be made aware of the need for operation? In my experience there is none: or, to put it more forcibly, there may be urgent need for immediate operation in any case and yet no danger signal may have been hoisted. The *temperature* certainly cannot be depended upon as a guide. Indeed, if the absorption of poison has been considerable, the chart may be tracking along the normal line or even below it.

The *pulse*, as a rule, gives some help in the case of pain in the abdomen; but it must be remembered that it takes very little to send up the pulse rate in children. And it sometimes happens that in a case in which the surgeon has discovered a mortified appendix there has been no marked quickening of the pulse. So the pulse cannot be depended upon any more than the temperature.

The *aspect* of the patient I for some time considered as the most trustworthy guide to the condition of the appendix, but having seen certain patients smiling and of good colour whose appendix had already given way, I have ceased to pay much heed to the aspect as a sign. In this case the good aspect of the boy was particularly misleading.

The *history*—Well, no surgeon of experience pays much regard to history; and in this case the shortness of the history certainly helped to mislead.

Local signs are also apt to be misleading. There may be no pain and not much tenderness in the region, even with advanced appendicular disease; and rigidity of the abdominal muscles in the right inguinal region, though generally present, and most helpful as a guiding sign, may be wanting though disease of the appendix is far advanced.

Generally, however, the most wilful cases show *one* sign of danger, in rigidity, tenderness, aspect, pulse or temperature. It is, surely, an unreasonable or very young practitioner who would expect *all* the danger signals, as described in books, to be hoisted at the same time.

As regards operation in appendicitis—what about that waiting until adhesions have formed? Does any body now wait for such protection? When an appendix has perforated, and the serous fluid which bountiful Nature pours out has become infected with the colon bacilli, as in this case, it is impossible that a limiting barrier can form. And if there had been delay in sending this boy into the Hospital, or delay in operating, he would probably have died without a trace of that "walling-off" of the affected region by adhesive peritonitis of which so much used to be said.

The more that I see of appendicitis the more convinced am I that the greatest safety lies in the quickness with which the radical operation is undertaken. "But," says some one, "so prodigal a surgeon is likely to be found operating on cases in which the appendix was very slightly—if at all—affected. Surely it is better to wait a bit until there is no doubt about the appendix being at fault?"

To him I would reply that there is, of course, the possibility of such an error, but that, after all, this is a small matter compared with the risk of letting an uncertain case of appendicitis drift on either until "adhesions may have formed," or until the dangerous nature of the disease had been rendered abundantly clear by the appearance of signs which had hitherto been absent. I suppose that every operating surgeon has at times been regretfully compelled by the well-meaning advice of other persons connected with the case to hold his hand, till in the end he has been brought into the unhappy state of the submissive Job, who mourned that when he looked for good evil came upon him, and that when he waited for light there came darkness.

ON RETROPERITONEAL PERFORATION OF THE DUODENUM,

WITH A SUGGESTION FOR TREATMENT.

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During the last few years there has been much progress in the surgical treatment of those gastric and duodenal ulcers which have perforated into the peritoneal sac. We have learnt to know the symptoms of this catastrophe more clearly, to appreciate the significance of a rigid abdominal wall, and to recognize the interval of apparent well-being, which, coming after the first shock of the perforation, flatters to deceive. The results of operations on these cases have shared in the improvement which has followed a more general recognition of the principle that early operation is the dominant factor in the surgery of the acute abdomen, and these results would appear to have been further improved by the practice of gastro-enterostomy in addition to the closure of the perforation. It is, however, scarcely possible to claim a parallel improvement in the treatment of those ulcers of the duodenum which have perforated into the retro-peritoneal cellular tissue. The surgeon rarely sees these cases before the consequent abscess has given unmistakable signs of its presence, and by this time the damage is often beyond repair. From this point onwards there is a singular likeness in the histories of cases of retroperitoneal perforation. The abscess is incised at some convenient point; the bulk of the food, together with large quantities of bile and pancreatic juice, continue to pour through the opening, and before many days the patient is dead.

In considering any scheme for the better treatment of these rare but most fatal accidents the following facts must be taken into account.

The second part of the duodenum is entirely devoid of peritoneal covering on its posterior surface where it is in contact by areolar tissue with the right kidney and inferior vena cava. A small portion of the first part of the duodenum near its termination, together with the beginning of the third part also, have no peritoneum on their posterior aspects. If ulcers perforate in these districts they must perforate into areolar tissue and not into the peritoneal sac. The accident of retroperitoneal perforation must at any time be a rare one, since ulceration of the second stage of the duodenum is uncommon as compared with ulceration of the first stage. Fenwick states that 6 per cent. of perforated ulcers occur in the second stage. The figures of Perry and Shaw, which are often quoted in this connexion, show that in 149 instances of duodenal ulcer the distribution was as follows: First stage, 123; second stage, 16; third stage, 2; and fourth stage, 8.

The great majority of duodenal ulcers are situated close to the pylorus, and when these perforate they will perforate into the general peritoneal sac, but of these ulcers in the first stage it is possible that an occasional one situated near the end of the first portion of the duodenum may perforate into retroperitoneal tissue. Of the ulcers situated in the second or descending portion a certain number will be found in that area uncovered by peritoneum and may consequently perforate into areolar tissue. The chances of retroperitoneal perforation thus limited by the natural distribution of the ulcers are further much reduced by the plastic conservative efforts of Nature to seal off the opening—efforts which, while often futile on a free, mobile, peritoneal surface, are likely to be attended with success under the favourable conditions of the second stage, where the gut is fixed in a bed of connective tissue. There can be no doubt that many of these ulcers are sealed off in this way, since duodenal ulcers adherent to the posterior abdominal wall and adjacent viscera, especially pancreas, are common. Fenwick states that 42 per cent. of his cases of duodenal ulcer showed adhesions to neighbouring organs, and most of these adherent ulcers were on the posterior wall of the gut.

We have not been able to find any figures bearing on the frequency of cases of retroperitoneal perforation which have come to operation. We can personally recall only three of these cases during the last ten years.

The course taken by the extravasated contents of the gut is not invariably the same. The collection is first formed around the right kidney, producing the clinical signs of a perinephritic abscess. If left unopened at this stage the extravasated fluid, together with its associated inflammatory exudate, will track downwards behind the ascending colon, and will appear in the right iliac fossa, where it will simulate closely an appendicular abscess. During this course the collection has been known to open into the colon itself. Abscesses resulting from retroperitoneal perforation of the duodenum have also been recorded as pointing through the lower right ribs, and in one remarkable case the abscess was opened at the root of the neck.

The clinical signs during the earlier stages of the perforation are not likely to be characteristic. There is sudden onset of sharp pain, with rigidity over the upper half of the abdomen, especially marked on the right side. The patient does not show the signs of "peritonism" to the same extent as is seen in the more generalized perforations. If the case is treated on expectant lines, the pain continues, and there will be vomiting and a raised temperature. The symptoms are now those of a localized abscess. The patient has usually been under treatment for "indigestion," and may have shown those symptoms which are now regarded as pathognomonic of duodenal ulcer. A previous history of severe haematemesis or melaena is suggestive, since it probably indicates a deep ulceration towards the posterior aspect of the gut.

Within a few days the presence of a tender swelling covered by oedematous skin leaves no doubt as to the existence of an abscess, but even now the exact source of the collection may be difficult to determine until it is made plain by the escape of foodstuffs and bile from the opening.

The treatment of these cases is usually a free incision into the abscess; a tube is inserted, and the contents of the gut pour through the opening until the patient sinks and dies from starvation. This would appear to be the almost inevitable termination of those cases which are treated by expectant methods. Here and there a case, probably one of minute perforation, survives with a chronic sinus, and may ultimately recover by the spontaneous closure of the track or the timely performance of a gastro-enterostomy.

In the light of such results we cannot pretend to rest content with our present modes of treatment. Berg has suggested the performance of a gastro-enterostomy with closure of the pylorus, and has carried out his suggestion in two cases. This method, although a distinct improvement on simple incision, can hardly be regarded as complete, since it fails to deal with the perforation itself, and cannot influence the leakage of bile and pancreatic juice. A case which happened to us recently is of interest in this connexion, since, although the case had a fatal termination, we were able to show that a duodenal ulcer which had perforated in the retroperitoneal area of the second stage could be reached with ease and closed by sutures. We have not been able to trace a report of any case in which this method has been adopted as a set operation, and therefore, although dealing with a single and possibly exceptional case, we think it worth while to place the facts on record.

L. J., male, aged 43, was admitted to the Manchester Royal Infirmary on February 3rd, 1912. He gave a history of many years of "indigestion," and had been acutely ill for ten days. His illness began with severe pain in the upper half of the abdomen, and was followed by vomiting. The pain and vomiting had continued without remission since the onset. He was a spare man of good facies. His temperature was 100° and pulse 120. There was a large and obviously inflammatory mass in the right iliac fossa, extending for some distance upwards into the loin. The rest of the abdomen was flat and loose. The case was regarded as one of appendicular abscess, and operation was done at once. An incision was made over the swelling close to the anterior superior spine. The deeper layers of the abdominal wall were much infiltrated by inflammatory products, and their identity was obscured. A large collection of thin brown pus was opened. There was neither gas nor odour. It was then seen that the inner wall of the abscess was formed by the postero-external surface of the ascending colon and caecum, and on this aspect of the caecum there was a greenish slough the size of a florin. The appendix was found inflamed, but showed no sign of disease arising from within. It was removed and a tube inserted in the abscess cavity.

There was a profuse discharge of bile from the tube on the following day, and it was then apparent that the case was one of retroperitoneal abscess from perforation of a duodenal ulcer. During the next five days attempts were made to improve the patient's condition by rectal feeding, but these attempts were futile by reason of an uncontrollable diarrhoea, which was no doubt due to colitis of the ascending colon. On the fifth day after admission it was evident that unless further treatment was attempted death was inevitable. Although his condition was grave and his pulse 120 and weak, we decided to open the abdomen and endeavour to reach the ulcer, and if successful in closing the perforation to attempt a gastro-enterostomy and to occlude the pylorus. Under "open" ether anaesthesia the abdomen was opened by a long incision through the right rectus; the peritoneal cavity was normal and no ulcer was seen on the anterior surface of the duodenum. A large gauze packing was inserted, and with good retraction it was a quite easy matter to expose the second stage of the duodenum. A vertical incision was made through the peritoneum immediately to the outer side of and parallel to the descending portion of the gut. There escaped at once a large quantity of fluid of the same nature as that obtained from the drainage tube. The duodenum thus "mobilized" was quite easily turned forwards and to the left, when the perforation was at once apparent. The opening was in the centre of the posterior wall of the descending portion 1 in. from its beginning. The perforation admitted the tip of the index finger and there was hardly any induration of its edges. It was an easy matter to close it by four Lembert sutures, and in fact it was closed more readily than is possible in many cases of intraperitoneal perforation. A posterior gastro-enterostomy was quickly done and the pylorus closed by a ligature. The whole operation occupied less than half an hour. After the operation there was a distinct rally, probably due to the ether, but during the afternoon the signs of collapse were apparent, and the patient died at noon of the following day.

Our object in reporting this case is to indicate the possibility of treating future cases by the only method which has a rational basis—that is, the attack on the perforation itself. Although in our case we were fortunate to have a spare subject and an ulcer remarkably free from adhesions, the discovery and suture of the ulcer was so simple that the operation should certainly be attempted in similar cases, especially in view of the lamentable mortality of expectant methods. Here, as in other branches of abdominal work, operation must be early if it is to be of any use; an operation of this nature is hardly likely to succeed if it is done in a patient already *in extremis* from sepsis and starvation.

Although in the present state of knowledge it may not be possible to diagnose a retroperitoneal perforation with precision, yet it would appear to be the wisest course to operate at once in all cases presenting in any degree signs which suggest that an ulcer may have perforated. There is, unfortunately, a tendency to regard these cases which show less fulminant signs as instances of "leaking" ulcers, and to wait for further indications before operating. It is not easy to realize what is meant by a "leaking" ulcer; an ulcer either has or has not perforated, and if it has perforated it should be operated upon. In any patient known to have had signs of gastric or duodenal ulceration in whom symptoms of increased pain with rigidity develop it will be the safest course to operate at once and to attempt the closure of the ulcer, whether intraperitoneal or extraperitoneal, although the classical signs of a generalized perforation are not present.

THE *Bulletin* for February of the Yellow Fever Bureau states that the outbreak of yellow fever in Yucatán has not completely ended, although lately few typical cases have occurred. At the present time parasitological and other investigations are being carried out on the spot by the scientific secretary of the bureau, Dr. Seidelin. A difference of opinion prevails amongst various observers as to the origin of this epidemic. Dr. Liceaga points out that it would seem strange that no typical cases should occur for a considerable length of time in the large foreign population always present in the capital, Mérida, if the infection were continually existent in the form of mild cases in natives. He therefore suggests that there may be, besides the blood of infected individuals, another source of infection as yet unknown. On the other hand, Dr. Lebredo is satisfied that the infection is, and has been for a long time, endemic in Yucatán, and more especially in Mérida, which would explain without difficulty the occurrence of typical cases.

The Arris and Gale Lectures

ON

THE MECHANISM AND TREATMENT OF SHOCK.

Delivered at the Royal College of Surgeons, March 20th, 1912.

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(Continued from page 944.)

LECTURE I.—Part II.

Shock Values and Shock Index.

Clinical experience has taught that the shock value attaching to the operation for hernia is infinitely less than that arising from surgical interference with bone. A comparison of the charts taken from the former (Charts 21 to 24) and the latter (Charts 27 and 28) shows quite a different type of curve. In the former a step-ladder rise was remarked; but in the bony operations the mean blood pressure was not so markedly raised, but was characterized by enormous rises followed by equally marked falls. Clearly the actual *height* to which the pressure rises is not the main factor in controlling the onset of pressor fatigue; although it is, to a certain extent, an indication of the violence of the stimulus, which is one of the factors influencing pressor fatigue. The other main factors influencing the onset of pressor fatigue are: The nature of the stimulus, and the area involved. Clinically these facts are generally accepted. Experimentally—if Chart 27, which necessitated free exposure and prolonged manipulation, be compared with a chart representing a simple osteotomy with an osteotome and mallet, the difference is striking. Here the same region is attacked, but the difference in the type of curve obtained is attributable to the degree of stimulus to the area of operation, and to the duration. Thus, all our observations show that wide and forcible retraction of wounds, crushing, tearing, and traction, without exception induce a more marked rise in blood pressure than clean incision; for the former manipulations stimulate a larger number of nerves, and raise the pressure in proportion to the aggregate number of pressor fibres stimulated. These factors, relating to the exciting cause, have a prominent bearing on pressor fatigue. But, even when they are all more or less constant, experience teaches us that one of the most important factors in the production of shock is the region of the body which is attacked. Thus to each organ, structure, tissue, or operation may be assigned its own *shock value*. Now, in the first group of charts the stimulus of the operation induced a step-ladder rise, consequent on the summation of stimuli in a region where pressor fibres are markedly in excess of the depressor. If an equal stimulus be applied to a region where depressor fibres are in excess, the stimulus may be sufficient to induce a rise of blood pressure from the stimulation of such pressor fibres as are present; but this rise of pressure will clearly not be maintained in sufficient degree to cause the characteristic step-ladder rise. Accordingly, we should expect more evanescent rises in blood pressure, followed by rapid falls in the intervals between successive stimulus, in contrast to the gradual fall observed on a cessation of the stimulus in the former. Now, if we regard a surgical operation as a series of rapidly alternating periods of stimulation and quiescence, it is reasonable to expect that: (1) In operation in regions where depressor elements are in excess, charts of the blood pressure will show large rises and correspondingly marked falls—that is, spikes in the general curve—corresponding to the steps of the operation; (2) in interference in regions where pressor elements are predominant, the after-stimuli between the steps of the operation will be sufficient to maintain the ascending or step-ladder character of the curve. The operations on bone which we have demonstrated are types of regions where depressor elements are in excess. Consequently, we may conclude that in any particular region the shock value varies directly with the relation of pressor to depressor fibres in the nerve supply. The physiological needs of different organs naturally require varying dispositions of pressor and depressor fibres in their nerve supply, to provide for local vaso-constriction or dilatation under different conditions. For example, stimulation of an afferent nerve induces a rise in the general arterial blood pressure, but a local vaso-dilatation in the organ supplied by that segment, Lowén's reflex.

Now, operations on the tibia induce a smaller degree of shock than similar operations on the femur. The respective vasomotor demands of these bones deserve a moment's consideration. The tibia is an exposed bone, and less protected from injury by direct violence than the femur; consequently we should expect Nature to provide a more adequate mechanism for the defence of the organism against the results of trauma, in the case of an exposed bone like the tibia, than in a bone like the femur, which is well protected by its enshcathing muscles. One of the greatest demands made by a damaged bone is the means of stopping haemorrhage, and this is effected by vaso-constriction. Accordingly it is to be expected that pressor influences would predominate in the case of the tibia on account of its exposure to injury. Again, the mechanism of the early defence of a structure against infection by micro-organisms consists in vaso-dilatation, in order that a greater supply of blood may be brought to the infected area. Such a mechanism involves the predominance of depressor, or active vaso-dilator, fibres in the nerve supply. Acute osteo-myelitis of the femur is of rarer occurrence than similar infections in the tibia. Hence it is reasonable to infer that the predominance of depressor influences renders the femur, which is anatomically protected against injury, less liable to acute infection by micro-organisms; while in the case of the tibia, the predominance of pressor, or vaso-constrictor, fibres (provided against its liability to direct trauma) renders this bone less immune against infection. These considerations are borne out by clinical experience, and support the contention that the shock value of a structure varies directly with the proportionate number of depressor fibres in its nerve supply, and that the higher the shock value the greater the degree of resistance to infective lesions. Accordingly we suggest that the following law, the law of inverse immunity, will be found to be supported (with reservations) by the whole of our research, and it may be stated as follows: That those parts which are physiologically the most active, contain the largest proportion of depressor fibres in their nerve supply, are most immune from bacterial infection, and show the highest shock value; such structures are deep seated, and anatomically protected against injury. The converse is equally true.

Minimal Shock Index.

With a given stimulus the greatest extent of the rise in blood pressure observed is some indication of the proportion of pressor fibres responding to that stimulus. The number of "depressor" spikes in the curve, each corresponding to a definite step in the operation, gives some indication of the amount of stimulation of those tissues where depressor fibres predominate. The total rise in blood pressure, therefore, gives some idea of the resistance of a structure to pressor fatigue, and the number of spikes observed gives some idea of the likelihood of depressor stimulation. Since the stimulus of an operation depends largely on the individuality of a surgeon, and is not a measurable quantity, this factor may be represented as x. Further, the duration of the stimulus increases the shock value of an operation. Since the smallest afferent stimulus in an operation is a step in the production of pressor fatigue, there must be at least *one* depressor spike in the curve, even if this only consists of the curve as a whole (that is, there is always some degree of shock in every operation). From these factors it is possible to work out roughly a shock index for any particular opera-

tion. With our methods of record, however, such an index can only express the least possible figure. Thus, x multiplied by number of depressor spikes, multiplied by the duration, go on the multiplying line, while the total rise in blood pressure multiplied by 100 go on the dividing line. Thus, the operation for radical cure of hernia gave an average index of 0.003 x in three cases; while operation for excision of the hip-joint gave an index 0.09 x, or nearly thirty times as great as the preceding one. The relative shock values of different structures in the lower limb are well exemplified by an operation of amputation through the thigh under deep chloroform narcosis. Such an operation is illustrated by Chart 30, where the more important steps are noted. .. Thus the

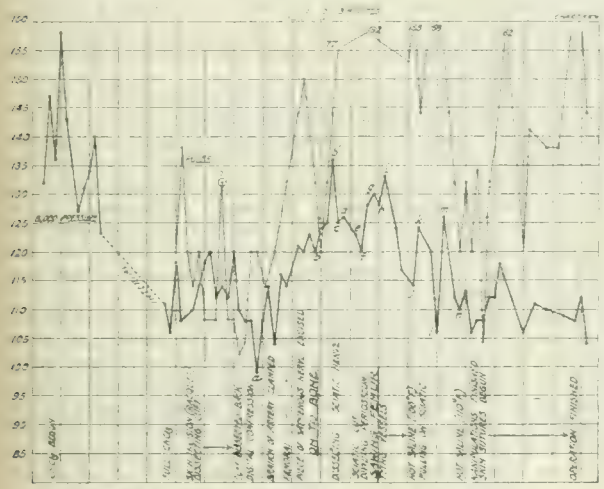


Chart 30.—Amputation. Shock values of tissues.

attack on soft parts is seen to be marked by a pressor rise of a step-ladder character, up to the point a, a to b, during the manipulations of the great vessels, shows the most marked pressor rise; while the attack on bone is heralded by a typical depressor spike, b to f. The remainder of the operation shows clearly a gradual depression interrupted by pressor spikes: the whole curve, from f to n, showing a slight, though definite, active depression. It is clear that the shock value of bone excels that of all the other tissues involved, that of the great vessels showing the next value, then fascial and muscular tissues, while the lowest value falls to the skin proper. These conclusions are supported both by many of our observations on the human subject, all of which it is impossible to produce, and also by experiments on animals. If the *element of pain* is eliminated by general anaesthesia, surgical lesions of the skin proper have practically no shock value. When, however, the corium and subcutaneous tissues are invaded a considerable pressor effect is observed. The importance of this observation is very apparent, for it shows that shock resulting from extensive skin lesions is due almost entirely to afferent impulses to the centres of consciousness for pain. The shock index in Chart 30, worked out in the manner already suggested, gives a figure of 0.015 x. In Chart 27 a far more severe operation on approximately the same structures gives a shock index of 0.048 x—that is to say, this operation produced three times as great a degree of shock as amputation. Had this operation (Chart 27) extended over an equal time to the amputation (Chart 30), the index would have been 0.018 x. And since the osteotomy involved more violent manipulations, the increase of the figure, 0.018 over 0.015 (in the case of the amputation), may be apportioned to the increased stimulus. Consequently in these cases we see that the difference in the index for the same region of the body depends on two factors—(*a*) The violence of the stimulus, (*b*) the duration of the stimulus. This deduction is in complete harmony with clinical and experimental observations. Finally, excision of the hip-joint (Chart 28), if taken throughout the whole operation up to the depressor stage of shock, gives an index of 0.032 x. If, however, the observations include the depressor stage of shock, the index is 0.09 x. Making use of this formula, we have worked out the shock index of many operations of which we have tracings. And our results are in agreement with clinical experience. We therefore bring this index forward, not as a practical suggestion, but as some confirmation of the deductions we have drawn with respect to pressor and depressor types of chart. Operations on the neck show the same variations as have been observed in other regions, with the exception that the stimulus to the vagus, on deep dissection, appears to induce some fall of blood pressure and slowing of the pulse.

Regional Shock Values.

The Central Nervous System and its Envelopes.

If the results on the blood pressure of operative interference with the laminae of the vertical column be reviewed, it is evident that, whereas a very marked pressor effect is observed in all manipulations of the soft parts surrounding the bony column, the attack on the bony structures themselves is characterized by a marked change in the character of the tracing.

The type of curve indicates a preponderance of depressor over the pressor fibres in the nerve supply to the laminae. These structures have, therefore, a high shock value.

Moreover the vertebral column is extremely well protected against injury by soft structures, while the rarity of acute infection in this region is well known. Consideration of the previous arguments would lead us to expect a high proportion of depressor fibres in the nerve supply of bony structures, and this conclusion is supported experimentally. Once more, therefore, we find support to the law of inverse immunity.

Spinal Membranes.

The function of these structures is very largely supporting and protective; accordingly we find a well-marked tendency to suppuration and little power of localization when an infective agent is introduced to this neighbourhood.

The results of our observations in cases of lumbar puncture show that injury of the spinal membranes is accompanied by a well-marked pressor effect, for such a small stimulus as the prick of a needle or puncture with a sharp knife causes an appreciable rise in blood pressure both clinically and experimentally—a rise which subsides very gradually. Further, experiments show that rubbing with gauze, cutting, or flushing with hot saline, all induce a well marked rise in blood pressure of the type which is maintained some little time after the withdrawal of the stimulus. Thus, in the case of the spinal membranes, the shock value is a low one and the law of inverse immunity is again supported.

Spinal Cord.

Experimental injury, division, or other form of stimulus to the spinal cord itself always induces an immediate rise of blood pressure. This rise is independent of the muscular spasm that may be induced and is accompanied by a corresponding acceleration of the pulse-rate—that is, is central in origin. It lasts a very short time; in fact, a rise in blood pressure so produced is followed by as rapid a fall to a point usually below the original. Division of the cord is, of course, followed shortly afterwards by a fall of blood pressure, due to the consequent relaxation of the muscular coats of the vessels involved. This phenomenon we are not at present concerned with. In mechanical division of the spinal cord the domination of the pressor group very soon gives way to that of the depressor group of fibres, which are in great preponderance.

Some clinical evidence of this may be found in the prolonged collapse supervening on crushing injuries to the spinal cord.

(That surgical shock in operations on these regions is due entirely to afferent impulses is proved clinically by the complete absence of shock in Forster's operation when this is performed under spinal anaesthesia, followed, if necessary, by direct stovainization of the cord.)

While, therefore, the spinal cord shows a high shock value to surgical interference and injuries, it shows a high immunity to bacterial invasion; for, whereas infection of the cord may not infrequently occur, sufficient resistance to withstand pus formation is a notable feature. Here again the analogy is complete.

The Head.

Incision and manipulation of the scalp and periosteum always give a step-ladder rise in blood pressure. It is not

necessary to reproduce charts of scalp operations, but tracings show that the pressor effect is particularly well marked.

A tracing was taken from an operation performed for the radical cure of tuberculous disease of the mastoid in a girl, aged 9 years 10 months.

The initial fall of blood pressure is well shown as consciousness is lost from the effects of the chloroform, the rise due to the excitement stage (followed by vomiting), and, finally, the rapid fall as the stage of surgical anaesthesia is reached.

Now the most noticeable feature of the whole chart is that the mean blood pressure hardly varies throughout. The respiratory trace indicates a very constant depth of the anaesthesia, for the respirations hardly vary at all. The stimuli of the operation maintain a slightly higher level of pressure than at the commencement. This raised level gradually falls as the successive steps of the operation become more gentle and rarer. The remainder of the chart shows a steady rise, with larger variations, as anaesthesia becomes lighter.

Incision of the integument and periosteum, reflection of the flap, and dragging forward the pinna by means of a plug through the meatus, are all accompanied by a perfectly typical step-ladder rise in blood pressure. It is significant that the attack on bone with the gouge is followed, unlike other cases of bony operations seen, by a rapid sinking of the pressure to about the original level. In fact, at no time does the application of the gouge or bone forceps to the mastoid cause any disturbance of the blood pressure. The respirations at this time were quite constant; and, accepting the blood-pressure variations as an indication of the extent of the shock induced by the operative stimuli, we suggest that the bony tissue of the mastoid is without appreciable shock value. Such a statement, however, in the case of an operation on the mastoid requires qualification. Thus, it is most significant that the application of the hammer is followed by a marked sudden rise of pressure; whereas, directly the hammering ceases, and the use of bone forceps is substituted, the blood pressure sinks again to practically the same level.

The rise can, we think, have only one interpretation: the same area is attacked by the forceps as by the hammer; yet with the forceps there is little or no variation in blood pressure; therefore the rise is due to the direct concussion to the centres produced by the hammering of the skull. These concussions act as a stimulus to the centres, and induce corresponding spikes in the curve. Further, there is seen in the respiratory tracing some slight increase in the rate and amplitude accompanying the application of the hammer; while the change from hammer to forceps is accompanied by a diminution in both rate and amplitude. These alterations, however, are not sufficiently marked to justify stress being laid on them.

The opinion has been expressed that chloroform attacked the synapses of the afferent fibres to the respiratory centre during full anaesthesia, but, except in lethal doses, hardly affected the vasomotor centre. This fact would account for the marked effect of the concussion stimulus to the vasomotor centre, and the slight accompanying effect on the respiratory centre.

To sum up, the mastoid itself has little or no shock value: but concussions, induced by the use of the hammer in operations on this region, have a deleterious effect on the central nervous system in proportion to their violence. The bearing of this inference on practical surgery is obvious.

The pressor effect of surgical interference with the scalp and calvarium is illustrated by a series of charts taken during head and brain operations, though the extent of the variations is subject to the condition for which operation was undertaken. Experimentally, the pressor effect of lesions of the scalp and calvarium is seen in a tracing taken from a dog in a condition of profound shock. An appreciable pressor effect is evident as the result of removal of the skull over the cerebellar region with bone forceps. For not only is there a definite rise in blood pressure, but also a synchronous acceleration of the rate, and diminution of the percussion stroke, of the pulse. It is, of course, difficult, in the human subject, to obtain consecutive evidence as to the pressor character of the tracings in injuries of, and surgical interference with, the calvarium under physiological conditions; and the charts we produce are necessarily modified by the existence of pathological conditions. Even these charts, however, testify to this pressor effect.

Now experimental work has repeatedly demonstrated the intimate relationship between the cerebro-spinal and the blood pressure. Thus, Professor Leonard Hill has shown that equilibrium is maintained between the pressures in the cranio-vertebral cavity and the large cranial venous sinuses and cerebral veins. Also Cushing has demonstrated, more recently, that an increase of pressure in the cranio-vertebral cavity is accompanied by an increase in the blood pressure, which tends to assume a slightly higher level.

The explanation of such a mechanism would appear to be as follows:

The intracranial pressure is equal to the cerebral venous pressure. Any increase of the former will produce in the first place most evident results on the most collapsible structures—that is, on the veins. When, therefore, the venous return is impeded from the gradual compression of the venous channels (as in increased intracranial pressure), the return of deoxygenated blood from the centres is delayed and the blood pressure rises, as in asphyxia; for the venous blood stimulates the vasomotor centre and induces a general vaso-constriction.

When such abnormal conditions exist, as in the cases we present, it is found that the stimuli of the operative manœuvres evoke a less marked response from the vasomotor centre, which is already reacting to the stimulus of the imperfectly drained venous blood. When, however, the intracranial pressure is relieved the variations in blood pressure, as the result of the steps of the operation, become more marked; this is due, doubtless, to the renewed supply of arterial blood to the vasomotor centre, and the consequent relaxation of the arteries of the body.

The tracing of Chart 33 was taken from a child of

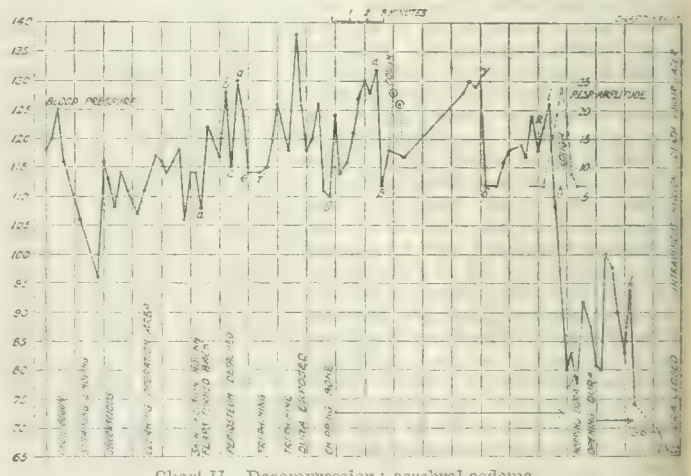


Chart 33.—Decompression; cerebral oedema.

7½ years suffering from spreading oedema of the brain, the result of whooping-cough with convulsions, in whom a decompression operation was performed. The patient was quite unconscious, and little anaesthetic was required. It will be seen that the rises *a*, *b*, *c*, following incision and reflection of the flap, are quite typical, while the separation of the periosteum (*c*, *d*, *e*) forms part of the same general rise of pressure. The application of the trephine at *f* is accompanied by an appreciably marked pressor effect. The application of the forceps to the skull at *g* is again followed by a rise in pressure. But it should be noted that, after this point, the excursions of blood pressure, consequent on the prolongation of successive stimuli, became progressively less marked, so that up to the point *β* the mean curve is about level. The removal of bone with the forceps from *h* to *j*, is accompanied by a very rapid fall in pressure of 32 mm. Hg in 1 minute 20 seconds. The nature of this fall is open to three constructions.

1. *The Onset of the Depressor Stage of Shock.*—In favour of this view are the falls *α β*, *γ δ*, *h j*. This view, however, seems to be negatived by the character of

the blood-pressure, subsequent to *j*, on attacking the dura mater.

2. *It may be an anaesthetic effect*: for the character of the respirations, from the point *R*, indicates that anaesthesia is lighter, and shortly after the child coughed. The depth of anaesthesia from this point was increased, as shown by the diminution in amplitude and the increase in regularity of the respirations. The fall *h j*, therefore, may be due to deeper chloroform narcosis. But subsequently the respiratory trace assumes a similar character to that previous to *R*, therefore it is probable that the narcosis was only pushed to a similar degree, and is insufficient to account entirely for so marked a drop in pressure.

3. We believe the fall *h j* is due, to a large extent, to the partial relief of pressure by the removal of a large area of the calvarium. This is calculated to lower the arterial blood pressure in the following way: The removal of pressure permits the expansion of the collapsed cerebral veins, and so allows the removal of venous blood from, and the access of arterial blood to, the vasomotor centre. Whether the stimulation of the vasomotor centre in intracranial pressure is attributable to anaemia (as stated by Professor Leonard Hill) or to excess of CO_2, the stimulus is thus removed, the vaso-constriction is relaxed, the force of the cardiac impulse is diminished, and the arterial blood pressure falls.

At *j* the manipulations and incision of the dura mater begin, and the marked pressor effect from *j* to *k* is noticeable. After the point *k*, following upon the escape of cerebro-spinal fluid, a further very marked fall of pressure is seen at *k l*. At this time the child's condition was one of profound collapse, for no readings could be obtained until near the conclusion of the operation, when the alarmingly low figure of 22 mm. Hg was obtained. In spite of intravenous infusion, the child died an hour after the conclusion of the operation.

The fall of blood pressure consequent on the relief of intracranial pressure appears to be entirely a passive vascular phenomenon, independent of any true shock from the operation; for in this case the fall occurred in both instances during a pause in the steps of the operation.

The vascular collapse, from *k* to *l*, was so profound that marked anaemia resulted; this is shown by the fact that manipulations of the cerebral cortex induced no ascertainable effect on the blood pressure. It will be shown later that such manipulations usually produce marked "spikes" in the blood pressure, and the absence of these indicates a loss of excitability due to the profound anaemia from sudden relief of pressure.

This chart, then, illustrates the pressor effects on the vasomotor centre of the manipulations of the scalp, calvarium, and dura mater; at the same time, this phenomenon is not extreme, owing to the increased intracranial pressure (already causing a constant stimulus to the vasomotor centre) at the time of the operation. In favour of this explanation is the very well-marked pressor effect at *j*, on incising the dura mater, after the partial relief of pressure at *h j*.

This chart assumes considerable importance when we consider the practical bearings of these deductions. The two following charts are of interest in that they represent the first and second stages of the removal of a left intracerebellar tumour in a boy of 7 years.

They are also of importance from the point of view of the comparison of the results of tracings in supratentorial and in subtentorial pressure. The operation area was exposed by Cushing's method. (The chart of the first stage is not reproduced.)

The well-marked pressor effect on incising the scalp is again emphasized by the fall on the cessation of manipulations.

The succeeding excursions of the blood-pressure chart illustrate the attack on periosteum quite well; but the most notable feature is the marked rise in blood pressure on removing the calvarium with bone forceps. A gradual subsidence of blood pressure follows the cessation of the operative manœuvres (during the ligature of bleeding points), interrupted only by well-marked oscillations during the palpation of the cerebellum through the dura mater. A renewal of the stimuli with the closure of the wound (and perhaps a lighter degree of anaesthesia, as evidenced by the variability of the respiratory curve) is responsible for the terminal rise in blood pressure. In interference with the scalp and calvarium in these two cases there is a marked approach to the depressor type of curve; this is probably due to the nearness of pressor fatigue, due to the continued stimulation of the bulbar centres by the raised intracranial pressure.

Now, one point to which we wish to call attention is the absence of any precipitate fall of pressure following the removal of the skull below the tentorium.

In order to consider the significance of this fact it is necessary to revert for a moment to the subject of lumbar puncture.

We have already shown that the net result of lumbar puncture is to raise the blood pressure for at least twenty minutes afterwards; and it appears that this rise may be greater and more sustained in subtentorial cases.

Now it is essential to realize that the increase of tension of cerebro-spinal fluid is circulatory in origin; for, in cases of intracranial pressure, lumbar puncture during life releases the cerebro-spinal fluid *under pressure*, a phenomenon which is never observed after death.

Further, it is reasonable to infer that the ventricles share in this increased tension and become proportionately distended.

With the increase in pressure we have already stated that the veins are the first structures to be affected.

Hence, the removal of venous blood becomes impeded, and the volume of the cerebellum decreases proportionately as the volume of the cerebro-spinal fluid increases. At the same time the cerebrum shares in this obstruction to the venous return.

Lumbar puncture under such conditions must produce a twofold effect:

1. The sudden engorgement of the partly collapsed veins with venous blood, with the consequent increased stimulus to the vasomotor centre: a rise in arterial blood pressure from general vaso-constriction, and an increase in bulk of the cerebellum.

2. The synchronous engorgement of the cerebrum, whose bulk will also tend to increase and shut off the communication between the upper and lower chamber.

The second phenomenon prevents the escape of more than a certain amount of cerebro-spinal fluid, increases the venous engorgement of the cerebellum and medulla, which is responsible for the raised arterial pressure, and thus assists in the production of those factors which favour the respiratory failure from sudden excessive stimulation.

The failure of respiration in such cases has been attributed to the formation of "pressure cones" (Cushing). Against this view may be urged the following considerations:

1. At first the blood pressure should fall, consequent on the sudden diminution of intracranial tension from the descent of the cerebellum into the foramen magnum. The blood pressure has been shown, however, to rise, owing to the immediate replacement of the loss of cerebro-spinal fluid by venous engorgement, and the stimulation of the centres.

2. Sudden cessation of respiration during lumbar puncture may occur in cerebellar cases without any evidence, either at operation or *post mortem*, of the existence of "pressure cones."

(We may quote a case of raised intracranial pressure in which sudden respiratory failure occurred. Artificial respiration was maintained by the battery for some hours before, during, and after operation. At the operation no evidence could be found of the existence of "pressure cones," and at the autopsy there were no indications that these had ever been present.)

3. Pressure cones have been found *post mortem* in cases which showed no sudden terminal respiratory failure.

4. It is difficult to believe that a comparatively soft structure such as a cerebellum (which is probably oedematous) can exert sufficient direct pressure on a comparatively firm and fixed structure like the bulb to make any appreciable effect on the respiratory centre.

5. In lumbar puncture performed on cases of supratentorial pressure the first brunt of the venous engorgement falls on a far larger vascular area more remote from the bulb—a fact which is sufficient to account for the difference in behaviour in the two classes of lesion.

Thus, though the existence of "pressure cones" is recognized and admitted, we believe that these must be regarded as frequent, but by no means constant, accompaniments of increased subtentorial pressure, and of lumbar puncture performed on such cases.

We believe that the respiratory failure referred to is independent of this phenomenon and due to the sudden

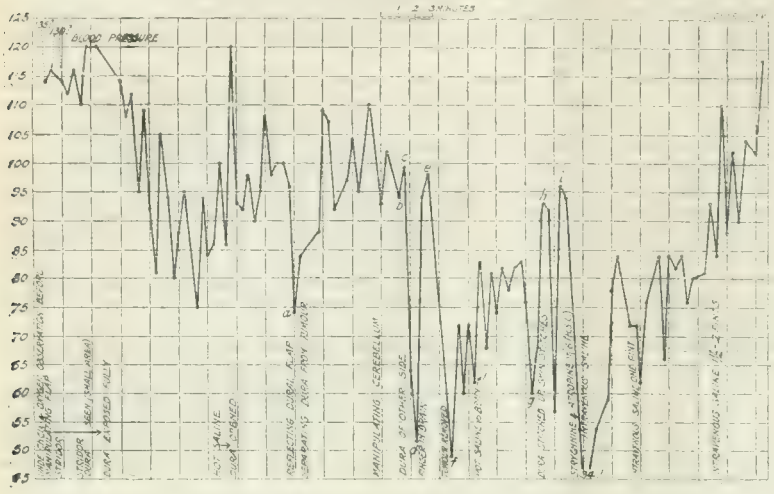


Chart 35.—Second stage, cerebellar tumour.

venous engorgement, over-stimulation, and so fatigue of the synapses (as will be shown in Lecture II).

We also think that "pressure cones" may not infrequently be a *post-mortem* occurrence; for, when the vascular pressure falls with death, the cerebro-spinal pressure falls correspondingly, and it is quite possible that the descent of the cerebellum may then take place under a negative pressure from below.

Chart 35 affords additional evidence that the rapid fall of blood pressure accompanying the opening of the dura mater is of the nature of a mechanical relaxation of the continued "pressure-stimulus" to the vasomotor centre, rather than an example of the negative stage of shock.

This chart represents the second stage of the removal of the cerebellar tumour (enucleation of the mass). There is nothing of special note until the point *a*, at which the reflection of the dura mater is commenced on the left side.

Now in this case the mass was situated in the left lobe of the cerebellum, and was intimately adherent to the dura mater; consequently the reflection of this membrane was followed by a very marked pressor effect (*a* to *b*): and no sudden fall in blood pressure occurred, for there was little, if any, escape of cerebro-spinal fluid.

As a contrast, we note the effect of opening the dura mater on the right side, at *c*. The free flow of cerebro-spinal fluid under pressure causes a marked vascular collapse, *c*, *d*. It might be argued that this fall of pressure is incompatible with the explanation offered of the phenomena observed during lumbar puncture; but it must be remembered that in this case we are no longer dealing with a closed cavity, but an open one. Thus, there is no further obstruction to the return of venous blood, and further, the operation is responsible for a considerable depletion of venous blood. Again, the manipulations of the cerebellum, necessitated by the enucleation of the tumour, are accompanied by a very marked excursion of the manometer.

This excursion (*d e f*), however, is of the depressor type—that is, the removal of the stimulus is followed by a drop to the original level or slightly below it. The rise of pressure, *d e f*, is open to another interpretation—namely, that the pressure involved in enucleating the tumour exerts direct compression on the bulb, inducing anaemia of the centres, and so a rise in blood pressure (Hill). Against this may be urged that the cerebellar chamber is no longer a closed cavity, and that, in enucleating a mass from the lateral lobe, the pressure is largely directed *away* from the bulb.

Further evidence in favour of the depressor effect of the actual manipulations of the cerebellum is shown by the blood pressure swinging back to an intermediate level (f^1) during the pause following the removal of the tumour; while the application of hot saline (f^1) produces a further active rise of pressure, which subsequently falls below the original level—the total curve $f^1 g$ being of the depressor type, but less pronounced than the curve *d e f*.

Perhaps the curve $f^1 g$ is an indication of the near approach of pressor fatigue—a view which subsequent readings appear to confirm. Thus the suture of the dura mater, usually accompanied by pressor manifestations (see curve *a b*) are signalized by marked depressor "spikes" (*g h*, *i j*); while at the end of the second of these (*i j*) the pressure fell to 34 mm. Hg.

Once more it seems evident that a pressor type of blood-pressure curve accompanies injuries to, and surgical interference with, the protective coverings of the brain—that is, the scalp, skull, and membranes—while the resistance of the latter two structures to infective agents is low.

In the case of the scalp, however, the relationship of resistance to infection and shock value do not seem to hold good for, though the scalp has a low shock value, it also has a notoriously high resistance to infection. The explanation of this apparent anomaly would seem to rest in the fact that the surface of the scalp is naturally very septic, and this structure probably acquires a high immunity against those organisms which are always harboured in its vicinity.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

EPIDEMIC OPHTHALMIA.

In an epidemic recently under my notice, oedema of the conjunctiva, with signs of acute inflammation and oedema of the lids, shutting light out entirely, made me expect serious results. Even in children with the lids absolutely closed, the absence of pain observed in epidemics I had seen a generation ago struck me. There was as a rule little discharge, and when purulent the pus was lighter in colour than in the epidemic Australian (sandy blight, so-called) and our herpetic and gonorrhoeal ophthalmias. The contagious character was evident, as well as its persistence, when not actively treated. In a case of chorea with ichthyosis there was more pus than in most of the other cases, but treatment was equally effective. In no case did I observe corneal ulcers. I may say that I was quite surprised to find the pneumococcus on microscopical examination of the discharge, and no cocci. Albanese found moderate secretion with "*pneumocoque et bacille massué*" (*Annales d'oculistique*, October, 1911, page 249). Métafune (loc. cit.) found *pneumocoques*.

London, W.C. J. REID, M.D.

ON THE GENESIS OF THE VENOUS PULSE.

DR. SAMWAYS states in the BRITISH MEDICAL JOURNAL of April 13th that the genesis of the *a* wave in the jugular pulse may be entirely explained by supposing it to be due to the inertia of the column of blood in the jugular vein. If this be so, how does he account for the following facts? In the normal healthy patient the *a* wave is much more prominent in the horizontal position; surely if Dr. Samways's explanation were true the wave ought to be greater in the vertical position, for then the inertia of the column of blood in the vein is augmented by the effects of gravity.

Again, in cases in which auricle and ventricle are dissociated, the *a* waves, wherever they occur, are of the same shape, but where the auricular systole has occurred during ventricular systole a much greater *a* wave results. The inference is that the *a* wave is due (in part if not entirely) to regurgitation of blood from the auricle during

systole: for when, owing to ventricular systole, the auricle cannot empty itself normally, it empties itself into the jugular vein more completely than usual, producing a wave of the normal shape, but larger than normal.

Dr. Samways "can scarcely conceive that most people in good health have a regurgitation from the auricle into the jugular vein"; yet we know that the functional activity of the auricle is not essential to health.

K. DOUGLAS WILKINSON, M.B., Ch.B.Birm.

Birmingham.

THE hypothesis advanced by Dr. Samways in "The Genesis of the Venous Pulse" (BRITISH MEDICAL JOURNAL, April 13th, page 835), namely, that the *a* wave in the jugular pulse is caused by the sphincteric action of the superior vena cava, is open to considerable objection.

If it be a percussion wave, and is due, as he suggests, to the sudden arrest of the blood column in its passage downwards, it would be greater when the body is in the upright position than when in the recumbent, because then the stream is swifter. But this is not the case, the converse holding good. In clinical practice the *a* wave becomes fully apparent only when the patient assumes the horizontal posture.

Moreover, if the acclivity of the *a* wave in the tracing be caused by a sudden arrest in the momentum of the moving column, it would be steep, resembling the upstroke of the radial pulse and the declivity formed by the drop in the venous column, when the tube is thrown open, would be equally precipitous. On the contrary, the pen in tracing the rise of the *a* wave period occupies as long as a tenth of a second, and an equal time is spent in recording its fall.

London, S.W. H. WALTER VERDON.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

SAVERNAKE HOSPITAL, MARLBOROUGH.

A CASE OF UMBILICAL INTESTINE.

By T. H. HAYDON, B.A., M.B.Camb.)

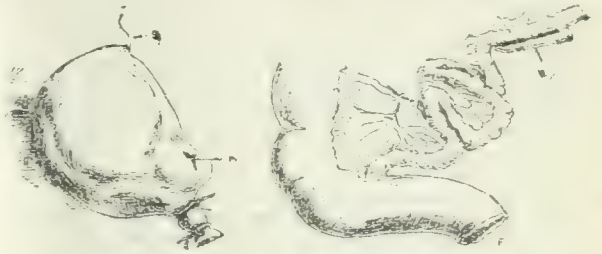
THE following case is unusual in my experience, and appears to be of interest. It occurred in a male child, born 10.45 a.m. on March 10th, 1912.

The mother was attended in her confinement by the district nurse, who sent for me to see the baby, because there was a large swelling of the umbilical cord at the navel. She had tied the cord about half an inch beyond the swelling, but almost immediately afterwards one of the vessels close to the swelling had ruptured, and there was violent bleeding. She then tied this vessel, which necessitated pinching up a piece of the swelling. The haemorrhage was checked, but the swelling ruptured and discharged meconium, in amount as much as a teacupful.

The child, when seen, was somewhat blue and cold. The cord was large and swollen for the first two inches from the abdominal wall. Beneath the mucoid tissue on the upper surface of the cord a rounded dark swelling was seen, at the distal part of which was a small hole discharging a little meconium.

Operation.—At 5 o'clock in the afternoon the baby was taken to the hospital. Chloroform was given very cautiously by Dr. J. Dwyer. Nothing but sterilized salt solution was used as a lotion. An incision was made on the left of the navel through the skin, the edge of the rectus sheath defined, and the abdomen opened. The umbilical vein, about 4 mm. in diameter, was found on the left of the bowel and tied close to the peritoneum. The piece of bowel which passed into the cord was free all round at the navel, but became incorporated with the tissues of the cord at its distal end. On tracing it into the abdomen it passed to the right and upwards. At a distance of about 5 cm. from the end adherent to the sac the small intestine entered it at right angles. The end of the gut was freed from the cord tissues and its freed open end sewn up, and then a purse-string suture put in and the sewn end invaginated, leaving about 1 cm. of caecum. The tissues of the cord were then completely removed by an incision through the skin on the right of the umbilicus, the peritoneum and rectus sheaths were closed by a continuous iodized catgut suture and the skin also sewn up with catgut. The anus and rectum were apparently patent though no meconium had passed that way.

Result.—The child stood the operation, which lasted about twenty-five minutes, fairly well. It was taken back to its mother the next morning. It took a little warm water during the night and later weak milk and water and some milk drawn off from



S, Skin. P, Perforation. M, Meckel's diverticulum. F, Free end of intestine cut away for cord.

its mother's breast, and by the following day was taking the breast naturally. On March 12th a little saline was injected per rectum and a long string of mucus passed, but no meconium. On March 13th there was a normal action per rectum and thereafter the child did well and the wound healed perfectly.

On examining the piece of intestine and cord removed and cutting the thread ligatures, it was found that the large bowel was continuous by a small passage through the piece of cord that had been tied.

It appears that by the operation the greater part of the caecum and the appendix were removed.

Reports of Societies.

ROYAL SOCIETY OF MEDICINE.

SECTION OF MEDICINE.

Tuesday, April 23rd, 1912.

DR. FREDERICK TAYLOR, President, in the Chair.

Nodular Leukaemia.

DR. GORDON R. WARD, in a paper on what he termed nodular leukaemia, included cases in which nodules or tumours of lymphoid growth had been found in various sufferers from leukaemia, and had been obvious to the sight or by inference during life. He used the phrase purely as a clinical term. Cases of the kind had been reported under a variety of titles, such as mycosis fungoides, chloroma, Mikulicz's disease, Kaposi's disease, sarcomatosis, etc. The author did not suggest that all the cases described under these names were cases of nodular leukaemia, but merely that the latter might, in its clinical manifestations, approach the syndromes to which these various names had been applied. Cases of sarcomatosis or nodular leukaemia were usually acute, and death followed the onset in a few months. Operations in such cases had been found to be unjustifiable; a variety of severe operations had been done in instances of the kind. In chloroma the tumours appeared on the skull bones, and after death they were found to be green. Sarcomatosis consisted of multiple tumours of sarcomatous nature, but not according with any recognized type of malignant disease. Its symptoms were protean. In mycosis fungoides there was a marked pre-fungoid stage, and pruritus was marked. Tumours then appeared, followed by death from asthenia. In Mikulicz's disease there was symmetrical enlargement of the lacrymal glands, and often of the salivary glands also. Kaposi's disease might be called multiple haemorrhagic sarcoma. Certain recent facts demanded a reconsideration of the current conceptions. Leucocytosis could be differentiated from leukaemia by (1) the number of cells, (2) their nature, (3) the presence or absence of mitosis. Only the last of these, however, was absolute. He urged a further consideration of the condition of the blood. The blood of a case of leukaemia might present a majority of cells which were neither myelocytes nor lymphocytes, but in a stage anterior to both. Thus it was difficult to determine to what variety of leukaemia a given case could be referred. The most likely explanation of the nodules was that they arose from pre-existing lymphoid foci, which foci were present in all parts of the body. In favour of this idea was

the rapid origin of lymphoid tissue in various parts of the body in other conditions. For example, about the advancing edge of a cancer there was often a zone of round cell infiltration which was absent from benign growths. By some this was regarded as a defensive development of lymphoid tissue. In all parts of the body, except in the epiblastic tissue, were cells which might develop into lymphocytes, and in definite leukaemia those cells took on the function of forming blood cells. Dr. Ward then proceeded to consider the clinical characteristics of the nodules, both in tissues and bones, the latter including the vertebrae; and concluded by narrating a case (2 years of age) of what he termed nodular leukaemia, though he invited suggestions for a better name. The paper embraced a very extensive bibliography of the subject, and was illustrated with a number of microscopical slides.

Dr. H. D. ROLLESTON spoke of a case seen by himself and by Dr. Wilfred Fox in which infiltration of the skin was very marked. He expressed his preference for the term "infiltrating leukaemia." He believed that cases of infiltration of the skin in leukaemia were rare and were often confused with cases of the commoner condition, lymphadenoma of the skin; and he raised the question of the significance of pruritus occurring in patients who were the subjects of infiltrations of the skin. Pruritus was almost a characteristic of lymphadenoma, but was very rare in cases of leukaemia. He referred to a case which had been briefly reported by Dr. Miller, of Edinburgh, in the *Journal of Pathology*—this was a case of spleno-medullary or myeloid leukaemia in which there were large tumours of the liver and spleen, resembling to the naked eye sarcomata

Dr. PARKES WEBER related cases in which the hypertrophy of the tissues of the face gave the patient a leonine appearance. He insisted that so-called multiple haemorrhagic sarcoma was a totally distinct condition from leukaemia.

Dr. LANGMEAD mentioned a case of what might be called nodular leukaemia, in which the nodules were most marked in the mouth, and occurred also on the tongue. Acute leukaemia did not seem to be so rare as was commonly thought, as 9 cases were seen in two years at one children's hospital. In that series were several with very large kidneys and definite leukaemia.

Mr. P. BEDDOES discussed the nomenclature, and the author replied on the discussion.

SECTION OF BALNEOLOGY AND CLIMATOLOGY.

AT a meeting on April 17th, Dr. G. H. THOMPSON in the chair, a discussion on the *Radium emanation of mineral waters* was opened by Mr. PAGAN LOWE with a paper which was published in the BRITISH MEDICAL JOURNAL for April 20th. Continuing the discussion, the PRESIDENT said that the subject was of the greatest importance to the section. Balneology had by many been relegated to that nebulous atmosphere which bordered on the realms of quackery, but henceforth this department of medicine could claim a scientific basis for its practice. The profession was at present merely on the threshold of inquiry with regard to radio-activity, and the definitely medicinal properties of mineral waters, such as those of Bath and Buxton, must not be lost sight of. The clinical results obtained by Buxton waters, which had a specific gravity of only 1010 and contained no salt of unusual potency, suggested a conclusion that there was some power in them which was not represented by any solid chemical constituent in the ordinary sense, and the existence of radium emanations afforded a satisfactory explanation of their efficacy. Dr. ARMSTRONG mentioned exact observations showing that niton water therapy increased the activity of the various internal secretions and ferments, stimulated the excretion of carbon dioxide by the lungs, of urea and butyric acid by the skin, and of uric acid by the kidneys; he laid stress on the greatly increased efficacy of niton when oxygen was added in inhalation and bathing, and on the electricity in the local applications of niton water or earth compresses. He testified to its value in gout, rheumatism, arthritis, neuritis, and in the various auto-intoxications. In high arterial tension the niton-oxygen baths gave exceptionally good results. In view of the rapid elimination of the niton from the body the water should be given at intervals of three or four hours. Dr. BUCKLEY regarded as doubtful the value of large doses of emanation in artificial solution, but there was ample clinical evidence of the value of even the weaker radio active mineral waters. Many of the methods advocated for radium therapy involved the action of other potent elements, so that accurate deductions could not be drawn from such methods as to the action of radium. Dr. PRESTON KING had very little doubt that in radio-activity they had the true explanation of the benefit in the treatment of disease by the Bath waters. Clinical experience had demonstrated the benefit for many years, but its cause had remained unknown until now. Dr. ACKERLEY was not at all convinced that any of the good results achieved at Bath were due to radium emanations. What control experiments had there been? He presumed that in the treatment of patients attention was given to diet and general hygiene, and that baths, massage, etc., had been used. If so, why ascribe the improvement in the condition of patients to the fact that the water in use contained radium? Were the results of combined treatment any better when radio-active water was used than when indifferent waters were used? Dr. LLEWELLYN, in reference to Dr. Ackerley's criticisms, pointed out that the literature showed that much scientific investigation had been conducted on radio-active water. Consideration of His's group of cases and of that of Mandel had convinced him that in gout subjective improvement did not invariably run parallel to a decline in the uric acid content in the blood, nor, for that matter, with its excretion in the urine. He submitted, therefore, that the beneficial effect of radio-active water involved something more than the dissipation of the uric acid in the blood and its excretion in the urine. It seemed possible, therefore, that the suggested capability of activizing the body ferments which had been ascribed to it might in some obscure way correct the particular warp in metabolism responsible for gout. Dr. MANTLE said it had been a matter of common knowledge for eight years that the old sulphur well at Harrogate was markedly radio active, for Sir William Ramsay then reported upon it. The action of radium upon metabolism was little known or understood, but possibly some of the good results of treatment, particularly of the mucous membranes, might be due to it. He would urge caution, however, in accepting the radio-activity of certain spa waters as a complete explanation of their action. Dr. FORTESCUE FOX said that he had visited the factory at Kreuznach where radium bromide was extracted from the sinter, or deposit from salt waters For 200 years the evaporating waters had been used for inhalation, and the mud for compresses. Radio-activity must be regarded as one of the many physical and chemical properties of waters, and required patient and discriminating investigations.

SECTION OF DISEASES OF CHILDREN.

AT a meeting on April 26th, Dr. G. A. SUTHERLAND, President, in the chair, the following cases were among the exhibits shown:—Mr. O. L. ADDISON: (1) A case of *Bony growth on the skull* in a female child aged 5 years. A swelling on the head was first noticed a fortnight after birth, and had gradually increased to the size of a pigeon's egg. It was on the frontal bone, just to the right of the middle line, and continued as a ridge, gradually decreasing in size, for 2 inches or more downwards and forwards to the temporal fossa. An *x*-ray photograph showed it to consist of cancellous bone. (2) A case of *Exostosis of the clavicle* at its inner end in a female child aged 11 years 9 months. On the anterior surface of the inner end of the left clavicle was a bony swelling, the size of a horse-bean. An *x*-ray photograph did not show the tumour, but a large cervical rib was well shown on the left side and a smaller one on the right. Dr. J. D. ROLLESTON: A case of *Destruction of the uvula* in Vincent's angina. The patient, a girl aged 6 years, showed loss of uvula and anterior pillars, and portion of soft palate and tonsils; the free margin of soft palate presented a depressed pale area of scar tissue; voice nasal; no difficulty in swallowing. She was admitted to Grove Hospital on January 31st, 1912, certified to be suffering from diphtheria on the seventh day of disease. Deposit on left tonsil; 8,000 units of antitoxin given. February 1st: Ulceration of left tonsil and left side of uvula. A few organisms resembling diphtheria bacilli in culture; numerous cocci. February 4th:

Ulceration of tonsil and uvula more marked. Vincent's organisms in smear. In spite of various local measures successively adopted the ulceration advanced and was accompanied by much fetor, dysphagia, prostration, and insomnia. From February 2nd to February 20th the temperature was always above 102° F., and on February 11th was 105.2° F. On February 14th the uvula was entirely destroyed. The larynx was not affected. On February 23rd local and general improvement occurred, and cicatrization rapidly took place. Vincent's organisms were still present in the throat smears on February 22nd, but none were found on March 2nd. The voice long remained very indistinct and nasal, but gradually became clearer. From March 1st to March 9th there was some regurgitation, but none had been noticed since. Wassermann's reaction on March 16th was positive, but became negative on March 30th, without antisyphilitic treatment. There was no family or personal history of syphilis. Dr. F. J. POYNTON: A male *Rachitic dwarf*, aged 11 years 11 months. He walked at the age of 15 months and grew till 4 years of age, but was quite small for his age, and had not grown much since. Height, 3 ft. 2 in. (should be 4 ft. 6 in.). Weight, 3 st. 3 lb. (should be 5 st. 6 lb.) Cranial circumference, 20¾ in.; skull square, not bossed. Curves of long bones exaggerated; spade-like hands and feet. Scoliosis. Beaded ribs; keeled sternum. Harrison's sulcus; angulus Ludovici prominent. Muscles very well developed. Dr. D. FORSYTH: A case of *Gumma of the lung* in a boy, aged 10 years, the sixth of eight children, his birth being preceded by two miscarriages. One year ago he developed interstitial keratitis in both eyes, the left cornea becoming permanently damaged. A couple of months ago the keratitis recurred in the right eye. The boy was pigeon-breasted, with the following physical signs, suggesting a solid mass in the right chest: Right chest—lateral expansion defective, percussion note impaired in first space, dull at second rib down to fourth space; resonance began again under fifth rib whence to liver dullness at seventh rib (nipple line) the note was resonant. Over the dull area the vesicular murmur as well as the vocal fremitus and vocal resonance were absent. Behind, the note was impaired opposite the first dorsal spine, becoming duller at the second, and resonant again at the fourth: breath sounds from the first to the eighth spine rather faint and high-pitched, though at the base they were heard better again: vocal fremitus was diminished and vocal resonance diminished and rather nasal on this side. The left lung and the heart were normal. As the *x*-ray photograph showed, the right chest contained, apparently about the hilum of the lung, a large, fairly sharply outlined mass occupying a position corresponding to the physical signs. This mass, though continuous with heart and aorta, did not pulsate nor in any way displace the heart. The Wassermann reaction was positive. Since coming under observation the boy had not lost weight, had had no cough and no sputum, but had run a slightly irregular temperature.

LIVERPOOL MEDICAL INSTITUTION.

Thursday, April 18th, 1912.

Dr. J. LLOYD ROBERTS, Vice-President, in the Chair.

Fly Infection.

DRS. LISSANT COX and ERNEST GLYNN, assisted by Mr. F. C. LEWIS, recorded a series of observations made last summer upon the numbers and varieties of bacteria carried by the common house-fly caught in the congested and more insanitary portions of the city where infantile diarrhoea was comparatively common, as compared with those caught in less congested or in suburban areas where infantile diarrhoea was rare. The number of bacteria growing at 18° C. washed off the bodies of flies varied from 2,500 to over 1,000,000,000, whereas the numbers carried inside and outside the fly varied from about 100,000 to 1,000,000,000,000. Intestinal bacteria—that is, colon group, etc.—growing at 37° C. also varied from about 100 to 1,000,000,000. Generally speaking, flies caught from the congested and insanitary parts of the city, especially in the neighbourhood of the slaughterhouse and refuse destructors, carried and contained far more bacteria, particularly of the intestinal group, than those caught in the more sanitary portions, as model dwellings and suburban areas. These results demonstrated the necessity of efficient scavenging, especially in the congested parts of the city. Strains of bacilli resembling *paratyphoid* B, Morgan's bacilli, *Bacillus pyocyaneus*, were isolated. These were more common in congested areas. In the discussion that followed, Dr. O. C. STALLYBRASS said that recent investigations showed that the autumnal epidemic of typhoid was still marked in the central parts of the city, especially where there were collections of horse manure, but it had practically disappeared from the outer parts of the city. Dr. STENHOUSE WILLIAMS said that, though organisms had been found in flies similar to those causing disease such as infantile diarrhoea, it had not yet been proved that flies were the cause of disease, or at least not the only cause.

Exhibits.

The following were among the exhibits:—Dr. R. E. HARCOURT: Sections and lantern slides of a *Leucoma adherens* between the cornea and the capsule of the lens. Dr. T. R. BRADSHAW and Dr. E. GLYNN exhibited a heart with a *Sacculated aneurysm* in the undefended space, which bulged into the right auricle and ventricle; the valves were normal, there was no evidence of syphilis, and death was due to sclerosis of the orifices of the coronary arteries. Dr. WOOLFENDEN and Dr. E. GLYNN: An omentum, with extensive fat necrosis, and the pancreas from a case of *Hæmorrhagic pancreatitis;* some 240 gall stones had been removed from the patient, two being found *post mortem* in the common bile duct, but none in the orifice of Vater's ampulla; the pancreatic duct was normal. Dr. E. GLYNN: A *Heart weighing 41 oz.*, with atheroma of the aorta and degeneration of the aortic valves. Mr. F. JEANS: A *Carcinoma of the male breast;* the patient had been in the habit of pressing the top of his brace-bit against the breast. Mr. G. P. NEWBOLT: (1) Two large gall stones, which had caused *Acute intestinal obstruction;* (2) (with Dr. S. MCLELLAN) a slough of the entire mucous membrane of the vermiform appendix. Dr. E. W. LEWIS: A specimen of a primary malignant *Melanoma of the rectum.* Dr. MILDRED POWELL: (1) Sugar-free milk prepared by precipitating the caseine from creamed milk by acetic acid; the clot was washed until sugar-free, neutralized with alkali; to this was added clotted cream and water; the resultant milk was slightly richer in fat than ordinary milk, and, being sugar-free, was a valuable addition to the dietary of a diabetic; (2) (with Dr. O. T. WILLIAMS) specimens illustrating the effect of fatty acids on tubercle bacillus. Fats, soaps, and lecithins were prepared from the blood of a case of diabetes, and added to glycerine-acid-agar. It was found that the tubercle bacilli grew well in all the fat bodies present in diabetes except the free fatty acids. The growth on normal blood was not so profuse as on diabetic fat. Specimens were shown of the growth of tubercle bacilli on other fats. It was found there was free growth on all saturated fats and on unsaturated glycerides, such as cod-liver oil, but less on free fatty acids. Controls with other acids showed that acidity affected growth, but a 2 per cent. stearic acid gave a finer growth than a 1 per cent. oleic acid which had less acidity; there was no growth on soaps of the unsaturated fatty acids even when the acidity was neutralized. Mr. F. T. PAUL showed a specimen of perforated peptic ulcer removed by operation from a man on whom gastro-enterostomy had been done in 1908.

THE Mission to Lepers has appointed Mr. W. H. P. Anderson to be its secretary for India. Seven years ago Mr. Anderson surrendered a valuable position as a chartered accountant in order to devote himself to work among the lepers. Since then he has been superintending the large asylum at Chandkuri, in the Central Provinces, which contains some 500 lepers. From July 1st he will be engaged in promoting the interests of Indian lepers by visiting asylums, negotiating with Government authorities, and awakening interest among the European community and educated natives.

AT the annual meeting of the Dr. Barnardo's Homes Association on April 30th it was stated that the death-rate among the children was only 6.92 per 1,000 of the average number in residence throughout the year, although 1,043 were children 5 years of age, and 973 belonged to the physically defective classes. An extension of the work of the association—a boys' garden city—is to be opened on May 23rd. It will accommodate 900 children.

Reviews.

THE DIAGNOSIS AND TREATMENT OF SYPHILIS.

It is probable that never before in the history of medicine did such a stream of literature from one source overrun the scientific world as has flowed from the great three-fold syphilis discoveries of recent years—Schaudinn's identification of the *Spirochaeta pallida*, the Wassermann reaction, and Ehrlich and Hata's salvarsan. Some of the literature is, of course, original; most of it is not. Original work has been hitherto almost exclusively German, and confined to perhaps half a dozen authors. We have, therefore, special pleasure in welcoming a work of brilliant originality and of the highest scientific and practical value by two Scottish authors. Dr. CARL BROWNING and Dr. IVY MCKENZIE, the authors of *Recent Methods in the Diagnosis and Treatment of Syphilis*,[1] are already well known for contributions to the subject in various English and German journals. They have now built up these scattered papers into a volume, which forms a contribution to the subject second only in importance to the original works of the men to whom we owe these three great discoveries.

Professor Muir, to whom his pupils, the authors, acknowledge indebtedness for inspiration and assistance in their investigations, contributes an Introduction which is an admirably concise statement of the principles and methods of the Bordet-Gengou reaction (indicating the presence of an immune body by fixation of complement) and their application to syphilis. The present work, he says, goes forth as an attempt on the part of unprejudiced observers to test the value of the Wassermann reaction and of Ehrlich's method of treatment of syphilis by salvarsan.

The work itself is in two parts. The first deals with the diagnosis of syphilis by the serum reaction of Wassermann, Neisser, and Bruck: and the second with the treatment by salvarsan. It will therefore be observed that the biology, the pathogenicity, and the specific action of the *S. pallida* are not discussed.

A clear understanding of the Wassermann reaction is essential. The authors, therefore, in the first chapter develop the subject step by step. The phenomena of haemolysis are first fully described, and the properties of immune body and complement detailed; then deviation of complement is explained: the whole leading up to the statement that the "biological syphilis reaction depends on the fact that syphilitic serum in the presence of certain lipoid tissue constituents leads to the absorption of an amount of complement in excess of the total of the amounts absorbed by the serum and the tissue constituents by themselves." Syphilitic serum, therefore, acquires the power of reacting with certain bodies of known constitution in such a way as to bring about fixation of complement. The fact that this and similar tests are quantitative does not apparently disturb workers in this sphere: it means that the conditions of experiment must be made to suit the quantitative method and the controls must be the more effective. The authors are fully alive to possible "fallacies due to variations in the properties of complement, containing serum and organ extract," and devote a chapter to discussion of these fallacies, some of which appear to arise out of the quantitative nature of the test. The authors have thoroughly studied the original Wassermann method and modifications, and have discovered that lecithin and cholesterin in combination provide a reagent as organ extract or antigen of easier manipulation and greater delicacy than any others hitherto recommended. Their dictum is "if a serum absorbs more complement in the presence of lecithin *plus* cholesterin than it absorbs in the presence of lecithin alone, then this is evidence of its syphilitic nature." Lecithin is prepared by making an alcoholic extract of ox liver obtained within four hours after the animal has been killed. Cholesterin is added in stated proportions, and the combined solution of the two substances is stable enough to last for many months. The emulsion for use is prepared in a few moments by floating one part of the saturated alcoholic solution on the surface of seven parts of 0.85 per cent. sodium chloride solution and then mixing slowly. The authors urge the advantage of the lecithin-cholesterin method and point to its reliability, as it may be used in two series (lecithin alone and lecithin-cholesterin combination) thus minimizing the disturbing effect of variations in deviability of complement, and also to its delicacy in the case of weakly reacting serums.

The chapter on the clinical application of the syphilis reaction makes an appeal to a much wider circle than do those preceding technical chapters to which we have directed attention, comprehensive as they are and full to overflowing with elaborate details and records of observations. The authors do not hesitate to accept the claim that, "so far as diseases common to this country are concerned, the alteration in the serum which gives rise to a positive Wassermann reaction is peculiar to syphilis." A positive reaction has been found in 85 per cent. of cases presenting active syphilitic lesions. Why the reaction is not positive in the remainder is not easy to explain: in some cases it may be that the spirochaetes are so distributed and in such small numbers as not to produce the necessary changes in the serum content; and in others, as the authors of this work remind us, the explanation may lie in the fact that "almost no biological phenomenon is found to be of universal occurrence." The whole range of the clinical aspects of the disease is reviewed in this chapter in their relation to the reaction. It is shown that many conceptions of the disease and of others not regarded as related to it—for instance, Little's disease, neurasthenia, and paroxysmal haemoglobinuria—will require to be remodelled. The authors have covered a wide clinical field, especially in parasyphilitic diseases and in congenital mental defects, and their contribution to the work already done, though to a great extent corroborative, has a distinctive note, more particularly in the observations on the reaction of the cerebro-spinal fluid found frequently to be positive when the serum reaction is negative.

The second part of the book deals with the treatment of syphilis with salvarsan. The authors were fortunate enough to be pupils of Ehrlich, and were the first, or amongst the first, workers in Great Britain to use the drug. By the time the book passed from the stage of manuscript to the stage of print they had administered the drug over one thousand times. Their opinion as to its value (and we must remember that these authors and their collaborators have already worked at the serum reaction since its inception, and have thoroughly trained themselves to take an unemotional, impersonal, scientific view) is to be regarded as more than ordinarily reliable. Ehrlich and Hata's work on chemio-therapy, the chemistry of salvarsan, the effects of salvarsan treatment both primary and accessory in their own cases are discussed, and the known fatalities after administration of salvarsan noted. The general conclusions are that the treatment of syphilis is revolutionized; that, in causing rapid disappearance of clinical evidences of the disease, it is greatly superior to all other remedies; that treatment by its means must be thoroughly energetic, as it is on the extermination of spirochaetes persisting in dense connective tissues that ultimate success depends; that treatment by salvarsan may advisedly be supplemented by the administration of mercury during alternate months for a year at least; that in no case can absolute assurance be given that a cure has been effected: that cure may be presumed if at the end of a year the Wassermann reaction is negative, and if during the year there have been no symptoms of syphilis: and, lastly, that the therapy must throughout be controlled by the serum test repeated at intervals of not more than six months till it prove negative and continue to be negative.

This book, then, it will be seen, is a record of original work of the highest standard of excellence. We feel that we have merely swept along its surface, but we hope that laboratory workers, syphilographers, and the whole body of the profession will sound its depths for themselves. In

[1] *Recent Methods in the Diagnosis and Treatment of Syphilis: The Wassermann Serum Reaction and Ehrlich's Salvarsan.* By Carl H. Browning, M.D., Lecturer on Clinical Pathology, University of Glasgow, Director, Clinical Research Laboratory, Western Infirmary, Glasgow, and Ivy McKenzie, M.A., B.Sc., M.B., Ch.B., Director, Western Asylum's Research Institute, Glasgow, Physician to Outpatients' Department, Western Infirmary, Glasgow; in collaboration with John Cruickshank, M.B., Ch.B., and Charles G. A. Chislett, M.B., Ch.B., Walter Gilmour, M.B., Ch.B., Hugh Morton, M.B., Ch.B. With an introduction by Robert Muir, M.A., M.D., F.R.S., Professor of Pathology in the University of Glasgow. London: Constable and Company, Ltd. 1911. (Demy 8vo, pp. 329. 8s. 6d. net.)

our judgement, it is the most thorough and complete exposition of the subject which has yet appeared in our language.

SURGICAL TECHNIQUE.

By issuing a second edition of *Modern Surgical Technique*[2] Professor YELVERTON PEARSON has rendered a distinct service to surgeons. There is a tendency to assume that finality in technique has been reached, but it is well that we should be reminded from time to time that there is no such thing as finality in the science and art of surgery. The discussion at the annual meeting of the Association at Birmingham on the technique of wound treatment showed that the subject was ever fresh, and Professor Pearson's work focuses attention on first principles of technique and their practical everyday application. The book embodies the author's personal experience, and contains also information gained from his visits to many other surgical clinics. In addition he has culled extensively from original articles in various medical and surgical journals. The chapter on the standardization of disinfectants is new, and is based on reports of the Rideal-Walker methods and on the investigations by the *Lancet* Commission. Both in this chapter and in that on germicides and antiseptics the reader will find abundant store of valuable information. Indeed, the whole work is distinguished by practicalness and reasonableness and comprehensiveness. Nothing pertaining to the subject seems to have been omitted. We strongly recommend not only its perusal but its possession also to every operating surgeon, whether he pride himself as still of the old school or whether he belong to the most advanced of the new. We are glad to observe the author's insistence on gentleness of handling and manipulation of tissues, and on the importance of making clean cuts just as long and, so far as possible, just as deep as required. The operator who makes two or three cuts before he reaches the subcutaneous tissues betrays at once his own timidity and forgetfulness of the ill effect of such frequent insults to the organism. The assistant, too, must not be unmindful that a retractor is not a boat-hook.

Professor Pearson thinks, and we agree, that surgeons are too rigid in their maintenance of the dorsal position after abdominal operations. His own practice is to have the patient very early turned over from one side to the other to a slight extent unless there is some special reason for not doing so, and he encourages the patient when settling to sleep to assume the position that is most natural and comfortable. Interference with healing or risk of ventral hernia need not be feared.

Surgeons will be interested to observe that the author has no fear of the action of opium after severe operations, abdominal as well as others followed by much pain. He is accustomed to order 15 to 20 minims of liq. opii sedativ., subcutaneously or by enema, in preference to morphine. If injected into the buttocks it causes no local irritation. The action of opium is, he considers, far superior in many respects to that of morphine: it is a powerful stimulant if not used in excessive quantities, and is less likely than morphine to provoke vomiting. One dose often suffices.

As to the feeding of gastro-intestinal cases after operation, the author writes: "Milk should never be given until all immediate danger is over and intestinal peristalsis has been re-established." Until then the patient is to be kept going with water, soda water, gelatinous broths, beef tea, etc. As is necessary in a work to which frequent reference is required for formulae and methods, the index is full. The illustrations are comparatively few, but they are apt. We find clerical errors on pages 402 and 461, but these are only trifles.

THE PITUITARY AND PINEAL BODIES.

"WHOSOEVER seeketh something, he cometh at last to this point, either that he saith he hath found it, or that it cannot be found, or that it is still being sought for." This typical sentence of Montaigne, that apostle of common sense, come to one's mind after reading a book like this of Professor POPPI's on the cerebro-pharyngeal hypophysis and the pineal gland in pathology.[3] The very restraint and modesty with which he puts forward his hypothesis makes one the more inclined to believe him; and if he does not go so far as to say he has found a solution, he certainly points out a possible way. The book is an attempt to correlate the functions of the ductless glands possessing internal secretions, with especial reference to the pharyngeal hypophysis and pineal body and their relation to adenoidism and other states. The enormous literature now extant dealing with the ductless glands is obviously well known to the author, as may be judged from the copious bibliography at the end of the book, and his necessarily succinct review reads in places rather like a good *catalogue raisonné*; so many different hypotheses make the reader reflect that little is really known, and much remains to be settled in this region of pathology.

The author believes that many of the improvements which undoubtedly follow the removal of adenoids are not due to the mere removal—for often the mechanical obstruction to respiration, etc., is of the slightest—but to the removal of the remains of the pharyngeal hypophysis and the interruption in the cranio-pharyngeal canal, which in these cases sometimes remains patent. Normally this canal closes at the end of the third month of fetal life, but it has been found patent in 0.3 per cent. of adults, mostly mentally deficient. The great variety of the cases in which improvement has followed adenotomy (the author refers to Graves's disease, strabismus, cutaneous pigmentation, glaucoma, epistaxis, acromegalic symptoms, etc.) makes it doubtful whether the improvement can all be due to the mere mechanical removal of the adenoids alone. In regard to the cure of strabismus by adenotomy, the author refers to the fact that strabismus is a frequent symptom in tumours of the epiphysis. Again, the association of enlarged thymus and hyperlymphatism (for example, in rickets) in infancy, or of enlarged thymus and Basedow's diseases in adults, is used by the author to show a relation between these various glands with internal secretion—a relation which is disturbed, in his view, by a primitive change in the hypophysis. That there is some sort of compensatory functional activity between these various internal secretory glands seems probable, and much of the book is filled with examples of diseased states which illustrate his view. The chief factor, however, in the author's opinion, lies in the altered relationship between the anterior and the nervous lobe of the hypophysis, due to abnormal condition of the cranio-pharyngeal canal and of the cephalic extremity of the dorsal cord. There are good photographs of children and young adults before and after adenotomy, and drawings of the microscopic appearance of sections of the various accessory hypophyses. Whether the various groups of diseased conditions discussed by the author, and all more or less associated with morbid states of one or other of the many ductless glands, can be ultimately correlated with abnormal states of the hypophysis cerebri, as the author seems to suggest, may possibly not be the whole truth, but it is at least a hypothesis worthy of thoughtful consideration.

VACCINES AND IMMUNITY.

IN the first part of his *Introduction to Therapeutic Inoculation*,[4] Dr. CARMALT JONES endeavours to describe in the simplest possible terms "the common sense" of those principles of immunity upon which modern vaccine treatment is based. We agree that for the purpose of his book, which is, apparently, to interest those who are mainly absorbed in clinical work, detailed discussion of the more abstruse theoretical problems would have been out of place; at the same time it is necessary to avoid the opposite mistake of lapsing into an elementary, milk-and-water style which would be the reverse of flattering to the intelligence and scientific training every medical man may be assumed to possess. Dr. Carmalt Jones's anxiety for simplicity sometimes leads him perilously near this latter error. If he

[2] *Modern Surgical Technique in its Relation to Operations and Wound Treatment.* By C. Yelverton Pearson, M.D., M.Ch., F.R.C.S., Professor of Surgery, University College, Cork; Surgeon to the North Charitable Infirmary and County and City of Cork General Hospital, etc. Second edition, revised and enlarged. London: John Bale, Sons, and Danielsson, Limited. 1911. (Demy 8vo, pp. 503; figs. 129. 10s. 6d.)

[3] *L'Ipofisi Cerebrale Faringea e la Glandola Pineale in Patologia.* By Dott. Alfonso Poppi. Bologna: Paolo Leri. 1911. (Roy. 8vo, pp. 226; illustrations 78. L. 10.)

[4] *An Introduction to Therapeutic Inoculation.* By D. W. Carmalt Jones, M.A., M.D., M.R.C.P. London: Macmillan and Co. 1911. (Post 4to, pp. 185, with 11 charts and 5 plates. 3s. 6d. net.)

will compare his book with other recent treatises which deal with the same subject, and are intended, like his, for readers who do not wish to be overburdened with technicalities, he will find that it is possible to give a more substantial and therefore more satisfactory account of immunity without neglecting the requirements of brevity and lucid exposition. The second part of the book is concerned with the practice of vaccine therapy in various diseases. The author has made valuable use of the statistics recorded in the department of therapeutic inoculation at St. Mary's Hospital, and to a large extent his recommendations for the treatment of the commoner infective diseases are based on the evidence which these records afford. Under each disease he gives the number of cases treated, the dosage, the result of treatment, and other clinical circumstances which may have had an influence on the case. These facts, though not always pointing to a definite conclusion, form an interesting study and enable the reader to judge for himself as to the value of the treatment recommended. Equally useful is the appendix, which contains a full and carefully-written description of the technique employed at St. Mary's Hospital for the preparation of vaccines and the determination of the opsonic index.

It would be a pity if Dr. BOLDUAN's altogether admirable little book on *Immune Sera*[5] should be lost sight of in the recent flood of literature dealing with immunity and kindred subjects. The book, now in its fourth edition, presents in a lucid and straightforward manner, an excellent summary of the actual work done in this important branch of science, without laying too much stress upon the purely hypothetical side of so vast a subject as immunity. The author frankly admits that "like most biological phenomena, the deeper we analyse the problem the more complex and more marvellous it becomes." This is the right mental attitude of the true scientific observer. Although holding no brief for Ehrlich's views on immunity, Dr. Bolduan is evidently impressed by the adaptability of the side-chain theory to the complicated reactions which have to be explained in dealing more especially with the subject of agglutinins, bacteriolysins, and haemolysins. In discussing the value of the opsonic index as measuring the degree of immunity possessed by the patient, he very pertinently observes that precisely the same irrational interpretation was put upon the observations of Gruber on agglutinins as has recently been placed by some on opsonins. The opsonic index measures but a fraction of the immunity reaction of the body. The importance of an examination of the blood for the presence of iso-agglutinins and iso-haemolysins in cases of proposed homologous transfusion, and the medico-legal value of the Wassermann-Uhlenhuth blood test, are both duly emphasized. It is a matter for thankfulness that this little book is free from the confusing terminology that disfigures so many similar works by Continental writers.

PATHOLOGY AND BACTERIOLOGY.

A REMARKABLE testimony to the value of a book such as KOLLE and HETSCH's *Experimentelle Bakteriologie und Infektionskrankheiten*[6] is the fact that it has reached its third edition within five years. It is not a book which will make a wide appeal to elementary students, and yet it is one which will be found of the greatest value not only to students, but also to experienced bacteriologists. It is a thoroughly up-to-date exposition of the whole range of bacteriology and of the various organisms which are concerned in the causation of infectious disease. Thus it deals not only with the bacteria, but also with the protozoa and a few of the more important parasitic worms. The descriptions are concise and to the point, while in matters of controversy judgement is given wisely and impartially. The arrangement follows that of most text-books on bacteriology, the introductory chapters being devoted to the discussion of technique and general considerations, while the individual organisms are dealt with in detail later. At the outset we notice a more than usually bright chapter on the principles of microscopy, a subject which is of extreme importance to bacteriologists, and one which does not generally receive the attention it deserves. The question of mutation is accorded very brief treatment in the chapter on general biology, but is dealt with at greater length in the chapters devoted to the special organisms concerned. A special section, albeit a short one, is devoted to the differentiation of mixed and secondary infections. Under the heading, "Bacteriolysine, Haemolysine, etc.," we find a fairly explicit account of these little understood phenomena, while the treatment of agglutinins, precipitins, and anaphylaxis is entirely satisfactory. It is impossible to enter into a detailed criticism of the numerous special chapters, nor does it seem desirable to indicate the trivial mistakes which occur here and there or the various directions in which improvement or elaboration might have been advisable. It must be remembered that the book was prepared for press over a year ago, and the extremely rapid advance of experimental pathology has necessitated some changes of view even in that short period. The sections dealing with protozoa and parasitic worms, although quite good, are not up to the standard of those dealing with the bacteria. In places, indeed, they give evidence of a very second-hand knowledge, and the illustrations in this part are in some cases extremely poor, as opposed to those in the bacteriological section, which appear to be correspondingly good. As is always the case, the chapter on the still obscure, *noch nicht bekannten*, organisms and diseases is one of the most interesting. The state of flux which this presents in most books of a similar nature is one of the most important criteria of the progress of knowledge. It is interesting to note that in the present volume under this heading we still find measles, scarlatina, beri-beri, trachoma, typhus fever, and a number of others.

The *Textbook of Bacteriology*[7] by Professors HISS and ZINSSER is divided into five sections. The best of these is the second, which is devoted to infection and immunity. The authors display unusual skill in dealing with this difficult branch of bacteriology in a way which is adequate without being too complicated. Whilst incorporating the important facts of recent research and discussing their theoretical interpretation, they do not overwhelm the student with a confusion of technical minutiae, but write clearly and forcibly, bringing within easy grasp both the fundamental problems of immunity and the technique of laboratory procedure required for their investigation. Their chapters on the technique of serum reactions, including the Bordet-Gengou method of complement fixation, and on anaphylaxis may be cited as particularly good examples of clear exposition combined with comprehensive detail. Section I, on the biology of bacteria and the general technique of laboratory work, is of good average quality, presenting the usual instruction in a manner which shows that the authors are experienced teachers and know how to interest their students. Section III, dealing individually with the pathogenic bacteria, is not uniformly good. The chapter on the dysentery bacilli is full and interesting, particularly in the account of the endeavours to divide these organisms into groups by means of fermentation and agglutination tests. The treatment of the tubercle bacillus is rather one-sided. It gives the reader the impression that recent discoveries about this organism are mainly due to Theobald Smith, and that the findings of other investigators, mostly German, have been merely corroboratory. The English, French, and German publications which tend to cast doubt on the unqualified validity of Smith's assertions are ignored. Under the heading, "Bacilli closely related to the tubercle bacillus," are grouped the bacillus of bovine tuberculosis, the avian tubercle bacillus, the bacillus of fish tuberculosis, the Timothy bacillus, the butter bacillus, the *Bacillus smegmatis*, and the bacillus of leprosy. It is absurd to lump all these together as "close relations." The bacillus of bovine tuberculosis is as much entitled to be called "the" tubercle bacillus as is any other mammalian tubercle bacillus. The avian bacillus, though also a tubercle

[5] *Immune Sera*. A concise exposition of the main facts and theories of Infection and Immunity. By Dr. C. F. Bolduan. Fourth edition, rewritten and enlarged. New York: John Wiley and Sons. 1911. London: Chapman and Hall, Limited. (Post 8vo, pp. 237; figs. 10. 1.50 dols.)

[6] *Die Experimentelle Bakteriologie und die Infektionskrankheiten*. Von Dr. W. Kolle und Dr. H. Hetsch. 3te erweiterte Auflage. Berlin und Wien: Urban und Schwarzenberg. 1911. (Sup. roy. 8vo, 1te Band, pp. xvi and 496; 2te Band, pp. vii and 497 968. M. 30 broschiert, M. 34 gebunden.)

[7] *A Textbook of Bacteriology*. By Philip Hanson Hiss, jun., M.D., and Hans Zinsser, M.D. New York and London: D. Appleton and Co. 1910. (Demy 8vo, pp. 745; with 156 illustrations in the text, some coloured.)

bacillus, is of a definitely different type from the mammalian. The other bacilli mentioned differ still more widely, and in the case of some the relationship, if such there be, is the reverse of "close." The treatment of *Bacillus pestis* is also poor. The instructions for differential diagnosis are quite inadequate. The English work on plague in India is ignored, and transmission of plague by the rat-flea is dismissed in three and a half lines, with a reference in the text to an article of Simonds, published in 1893, and a footnote citing Nuttall's articles in 1897 and 1899. Sections IV and V give respectively short accounts of diseases probably due to unknown organisms and the examination of bacteria in air, soil, water, and milk. We are glad to see that in the former of these two sections recent research on acute anterior poliomyelitis receives notice.

In the recently-issued ninth edition the *Textbook of Pathology*,[8] by Professors DELAFIELD and PRUDDEN, has been revised and brought up to date, but the general characters of the book remain unchanged. Its main fault is that the authors have endeavoured to cover too much ground, with the inevitable consequence that limitations of space have compelled them to treat many subjects in a scrappy, superficial manner. The chapter, in Part I. on the infectious diseases is an example of this fault. Here we find eight consecutive pages suffice for the disposal of four important infectious diseases, diphtheria, tetanus, Malta fever, and plague. Obviously such treatment is much too brief to be adequate, even for the minimum requirements of the medical student, and the plea put forward in the preface that the "limitations" of the book necessitated condensation and omissions leads us to suggest that the best way out of the difficulty would be to write two volumes, each of moderate dimensions, instead of overburdening a single and inconveniently bulky volume with matter which is too imperfectly treated to be serviceable.

In Professor GIERKE'S *Taschenbuch der pathologischen Anatomie*[9] we have a book which is evidently intended for students who already possess some knowledge of pathology. It is, in fact, a book for revision, and it is so arranged that the facts with which it deals are presented in the most striking and impressive manner. Each part is divided into a number of chapters, which are further subdivided into sections and paragraphs, and the latter are made, as far as possible, separate entities. A wide margin is provided, apparently for annotations, and the wide spacing of the paragraphs is evidently intended for the same purpose. As might be expected, theories are ignored and facts are set forth in as dogmatic a manner as is consonant with reason. The illustrations are correspondingly diagrammatic and uncompromising; in many cases detail is sacrificed for the sake of a bold and unmistakable picture. From its arrangement the book is easy to read and to refer to; it is up to date and accurate, and the author has certainly succeeded in his avowed intention of concentrating an enormous body of facts into a manageable compass. In this respect the second part is not quite so good as the first, for the treatment of the individual organs, necessitating as it does a considerable amount of detail and repetition, tends to be rather scrappy in parts. Most of the illustrations in this part, however, are extremely good.

DESERT ISLANDS.

DR. P. R. LOWE'S volume, *A Naturalist on Desert Islands*,[10] contains an account of his observations on the natural history of the Greater and Lesser Swan Islands and of the Island of Blanquilla situated in the Caribbean Sea. The opportunity for visiting these islands was afforded during recent cruises in Sir Frederick Johnstone's yacht *Zenaida*, and the author has made good use of an opportunity which many of his readers will much envy.

As the introduction states, this is no book of travels, but rather a collection of field notes by an accurate observer, and one who is obviously a keen lover of Nature as well as a sportsman. A member of the British Ornithologists' Union, Dr. Lowe's hobby is evidently the study of birds, and this is a marked feature of the book.

The Swan Islands are two small coral islands situated in the western end of the Caribbean Sea. They are so little known that Dr. Lowe tells us that the staff of the Royal Geographical Society had never heard of them and could give no information concerning them. They had only once before been visited by a naturalist, Mr. Charles Townsend, an American ornithologist, in 1886. At the time of Dr. Lowe's visit the larger of the two Swan Islands was inhabited by an American and his family and a few negro servants. The American was a son of the owner of the island, which appears to be private property. The Lesser Swan and Blanquilla Islands are uninhabited. As far as historical information could be gleaned, there appear to have been resident owners from time to time, and once for a short period the islands seem to have been exploited for phosphates by a guano company.

For the biologist and lover of nature who longs for a brief sojourn "far from the madding crowd" these islands are ideal spots. Sport, in the form of fishing, is abundant, but demands both skill and pluck. Tarpon, devil-fish, and shark are not easy to tackle. Very interesting details are given of the fishing expeditions, and the account of the skill and prowess of Lady Wilton in this direction fills us with admiration.

Apart from the bird life, many interesting observations of the habits and instincts of other animals, such as the crustacea, are recorded, but perhaps the most fascinating part of the book is the account given of the richness of the coelenterate fauna. The recent work of Stanley Gardiner and of Wood-Jones has again attracted attention to the many problems connected with the formation of coral islands. Their work has been confined to the Indian Ocean. It would well repay a skilled naturalist to visit these islands, as much useful information might be obtained, and a well-preserved collection of hydroids from that region would be most welcome. The book is attractively written and there are many excellent photographs, some taken under very difficult circumstances.

ST. BARTHOLOMEW'S HOSPITAL REPORTS.

THERE is a melancholy feature about the forty-seventh volume of the *St. Bartholomew's Hospital Reports*.[11] It begins with three obituaries, marking the loss to the hospital of three distinguished members of the staff, Dr. S. J. Gee, Mr. John Langton, and the octogenarian ophthalmologist, Mr. Henry Power. Dr. FLETCHER and Mr. ECCLES have shown sound judgement in selecting the biographers of these eminent men, as each memoir bears the initials of a well-known colleague, and each is adorned with a portrait. This volume, therefore, at least includes subjects of interest to hundreds of fellow-students and pupils—namely, the lives of three men who were undoubtedly great teachers, and, what is of special interest to the psychologist, each was an educationalist of a distinct type. Langton was amongst the best of the old school of teachers of human anatomy; Power knew how to instil purely scientific knowledge into the minds of his disciples, a knowledge too often held to be "unpractical"; and Gee made clinical medical teaching as interesting to the clerk as surgical instruction generally is to the dresser. Medical teaching requires special qualities not common to all physicians, and Gee possessed those qualities. The division of the contents into medical and surgical papers is maintained. Sir Dyce Duckworth heads the series with an important communication on the avoidance of the sequels of rheumatic endocarditis by prolonged rest. Dr. Barris reports a case of chorion-epithelioma of the uterus, associated with cystic ovaries. To Dr. J. A. Nixon's case of abdominal aneurysm in a girl aged 20, due to congenital syphilis, is appended a very instructive table of collected cases of abdominal aneurysm (a blending of other tables scattered over the pages of medical literature). Crisp's tables included 60 cases, Bryant's 54, Nunneley's

[8] *A Textbook of Pathology*. By Francis Delafield, M.D., LL.D., and T. Mitchell Prudden, M.D., LL.D. Ninth edition. London: Baillière, Tindall, and Cox. 1912. (Roy. 8vo, pp. 1140, with 13 plates and 687 illustrations in the text. 28s. net.)

[9] I Allgemeine Teil (pp. 143, figs. 69). II Spezieller Teil (pp. 207, figs. 58.) Leipzig: Werner Klinkhardt. 1911. (M. 3 and 4.)

[10] *A Naturalist on Desert Islands*. By Percy R. Lowe, B.A., M.B.Cantab., Member of the British Ornithologists' Union. London: Witherby and Co. 1911. (Demy 8vo, pp. 224, with 32 plates and 3 maps. 7s. 6d. net.)

[11] *St. Bartholomew's Hospital Reports*. Edited by H. Morley Fletcher, M.D., and W. McAdam Eccles, M.S., F.R.C.S. Vol. xlvii. London: Smith, Elder, and Co. 1912. (Medium 8vo, pp. 214; with Statistical Tables of Patients under Treatment, pp. 186.)

32, and these, with 20 cases from Bristol and others reported by well-known physicians, make up a total of 233, duly analysed by Dr. Nixon in the usual manner. Following in the footsteps of his father, Dr. Alan Moore contributes his Cambridge thesis on disease at sea in Tudor and Stewart (*sic*) ships. The mortality was appalling, so that Anson's *Centurion*, in her famous cruise in later days, was almost a sanatorium in comparison with the *Bristoll*, bound for Virginia in 1678. "Punch and brandy since I cam on board have runn as freely as ditch-water," Teonge, the navy chaplain, informs us. Dr. H. Tooth writes on a case of obstructive jaundice in a child. Mr. McAdam Eccles has taken part in the preparation of two papers—the first, compiled with the co-operation of Mr. F. F. Laidlaw, is an analysis of a fourth series of cases of intussusception, records of cases in the hospital from the beginning of 1901 to the middle of 1910. With the assistance of Mr. C. W. Archer, Mr. Eccles has also collected 18 cases of carcinoma of the male mamma treated during the past twenty-one years in St. Bartholomew's Hospital. The last surgical paper is devoted to tuberculous disease of the testis and epididymis, especially the more acute form. The authors are Mr. K. M. Walker and Mr. C. S. Hawes. It is a good scientific contribution, containing 2 new cases reported in full.

NOTES ON BOOKS.

A SERIES of volumes, to be published in honour of Robert Koch, on the fight against tuberculosis starts with a small volume containing a monograph by B. MÖLLER[1] on the type of tubercle bacilli in the sputum of phthisical patients. The author claims to have been able to determine by means of inoculations into guinea-pigs and rabbits that the human type was present in 51 specimens of human sputum examined, and uses this result as an argument in favour of Koch's views with regard to the pathogenicity of the bovine bacilli for man. He further maintains that only human bacilli have been found in human sputum. The second volume contains an article by ROTHE on tuberculous infections in childhood. He has examined 400 children after death, and in 78 cases has found tuberculous infections. In 75 of these the tubercle bacilli were of the human type (98.68 per cent.), in 2 the type was doubtful, and in 1 only (1.32 per cent.) were the bacilli bovine. He employs these figures to uphold Koch's views.

The remarkably thorough manner in which pharmacopoeial revision is carried out in the United States is well attested by the *Digest of Comments on the Pharmacopoeia of the United States of America*,[2] which is issued annually by the Treasury Department at Washington. The issue containing this digest for the year 1909, constituting Bulletin No. 79 of the Hygienic Laboratory, which has recently appeared, is a volume of over 700 pages, and the number of papers published in all parts of the world, here summarized, may be estimated from the fact that about ten are dealt with on each page. The matter is systematically arranged, general comments coming first under several heads, and then criticisms and new information on drugs and preparations, arranged under the headings of the respective substances to which they refer; the reference to the full publication is given in every case, and there is a list of 237 journals quoted. It is obvious that such thorough records as these must simplify very much the work of the actual Committee of Revision, and must tend greatly to ensure that each succeeding issue of the *Pharmacopoeia* shall embody everything of value which is known concerning the drugs included in it down to a date shortly before its publication.

[1] *Veröffentlichungen der Robert Koch Stiftung zur Bekämpfung der Tuberculose.* Vol. i by Stabsarzt Dr. B. Möller. Vol. ii by Stabsarzt Dr. Rothe. Leipzig: G. Thieme. (8vo. Vol. i, pp. 65, M.3; vol. ii, pp. 41, M.2.20.)

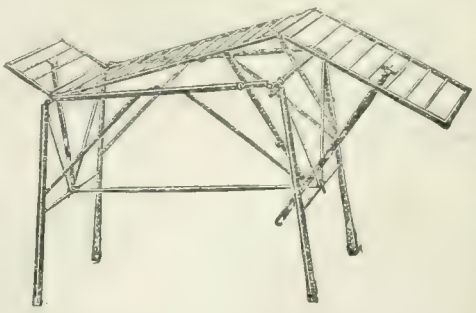
[2] *Digest of Comments on the Pharmacopoeia of the United States of America and on the National Formulary*, for the calendar year ending December 31st, 1909. By Murray Galt Motter and Martin J. Wilbert. Washington: Government Printing Office. 1912. (Roy. 8vo, pp. 735.)

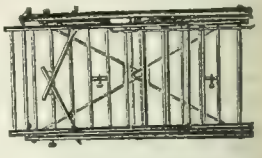
THE University of Toulouse has established an Institute of Hydrology for the investigation of all questions relative to mineral waters. The City of Toulouse has given a site, and the Rector of the University and the Dean of the Medical Faculty have issued a circular to all the mayors of the district asking to what extent they are prepared to co-operate in the construction and working of the institute.

MEDICAL AND SURGICAL APPLIANCES.

A Portable Operating Table.

MR. C. A. STIDSTON (Penn, Wolverhampton) writes: A portable operating table, recently made to my design, consists throughout of finest, seamless steel tubing, except the hinged joints, which are of solid brass, and the ratchets, which are of pressed steel. The table is absolutely rigid, very strong, and weighs a little over 30 lb. It can be unpacked, set out, and repacked in a few seconds. When closed, it measures 39 by 21 by 3¾ in.; when open, 71 by 36 by 21 in., but it can be manufactured any less height than 3 ft. The legs at the head are slanted, giving a large base, and suiting the Trendelenburg and allied positions. All the legs are fitted with solid rubber feet. Any of the positions required in modern surgery can be easily obtained. Lithotomy uprights and straps are provided, and an arm rest and instrument trays, which simply catch on to the side of the table, are added. The difficulty met with, even in operating theatre tables, of over-extending the arm, as required in dissection of the axilla, has been met by a detachable rotatable bar, to which the arm may be attached and held horizontally at any angle. In addition, an upright bar can be fitted on to either head leg, on which may be hung a lamp, an infusion apparatus, and so on; it carries also a candle socket. All the tube joints are welded and rounded. The ratchets are detachable, and fitted with special sockets, preventing any save intentional movements. The table is nickel-plated throughout, but can be enamelled if preferred. For travelling purposes a canvas bag, or a light tin case, or a wooden case, which becomes an instrument table if required, have been provided by the makers, Messrs. James Gibbons of Wolverhampton.





A Cranial Tourniquet.

MR. L. BATHE RAWLING, F.R.C.S. (London), writes: In all such operations on the skull and brain as allow of its application a tourniquet should be utilized, with the object of controlling haemorrhage from divided scalp vessels. Cushing's tourniquet was found rather inconvenient in its application, and I am accustomed to use the pattern depicted in the figure. It consists of two flat metal bands connected posteriorly by strong rubber, the two bands passing in front through a metal fixation piece fitted with a screw, which, when tightened up, allows of the maintenance of the required pressure. The instrument is applied as follows: The whole head is enveloped in gauze, two or three layers thick, the tourniquet slipped over the head, as low down as possible, passing from the lower frontal region in front, above the level of the ears, to the lower occipital region behind, and then tightened up in such a manner as to control bleeding from all divided scalp vessels. A tape, having a loop behind through which the tourniquet passes, is laid in the middle line and fastened in front to the median screw. The tape not only prevents the tourniquet from slipping down over the eyes, but acts at the same time as a convenient guide to the surface marking of the superior longitudinal sinus. After the scalp-flap has been sewn into position, at the termination of the operation, the tourniquet is removed, and its place taken by a few turns of gauze bandage, applied, of course, with moderate pressure only. This tourniquet was made by Messrs. Arnold and Son, London, E.C.



EIGHTIETH ANNUAL MEETING

OF THE

British Medical Association

LIVERPOOL, JULY, 1912.



New Brighton Lighthouse.
(Reproduced by permission of Messrs. Littlebury Bros.)

TWO articles on Liverpool, Past and Present,[1] Mr. Bickerton has given an account of the history and institutions of Liverpool with a wealth of local knowledge and a breadth of historical information which few could rival. We propose here to add to his interesting essay some brief notes on the environs of the great Lancashire port.

PARKS AND GARDENS.

Before going beyond the skirts of the city itself some reference must be made to the parks and gardens, in which it is particularly rich.

Princes Park, the earliest founded recreation ground in Liverpool, was presented to the city by Mr. Richard Vaughan Yates, the land having been purchased by him from the Earl of Sefton at a cost of £50,000. The park, which is fifty acres in extent, originally formed part of the Toxteth Royal Park, and contains a memorial to its founder in the shape of an obelisk erected by public subscription in 1858.

Within easy distance of Princes Park is Sefton Park, the largest and most beautiful park belonging to the Corporation. It is nearly 300 acres in extent and was laid out by M. E. André, Director of the Public Parks of Paris, and Mr. Hornblower, and was opened in 1872. The palm house, presented by Mr. Henry Yates Thompson in 1899, has statues of John Parkinson, Apothecary to James I; André le Notre, the great French landscape gardener; Darwin, Prince Henry the Navigator, Linnaeus, Captain Cook, Columbus, and Mercator.



The Photochrom Co., Ltd. Calderstones Park, Liverpool.

The Botanic Gardens which adjoin Wavertree Park are extensive, and contain many rare specimens of tropical plants. Newsham Park, which is about a mile from the Botanic Gardens, was one of the first purchased by the Corporation, and was at that date (1846) some distance beyond the city boundary. Owing to the rapid increase of the population and the extension of the boundary it is now situated in a very crowded district. Newsham House is used as the judges' lodgings, and on the east side of the park stands the Seamen's Orphanage, one of Liverpool's finest charities, not far from the electricity generating station supplying light and power to the city.

Within easy walk of Mossley Hill Station is Calderstones Park, to reach which the visitor has to pass the famous Allerton beeches in Allerton Old Road. The mansion which stands in the park was formerly the residence of a Liverpool merchant, and the grounds contain a large variety of beautiful trees, including a famous oak which is reputed to be over a thousand years old. In this park Sir James and Lady Barr will entertain the Association at a garden party during the forthcoming meeting. Near the entrance to the grounds are the "Calderstones," a set of six red sandstone slabs, which form a small circle on a triangular plot of grass. Several cinerary urns attributed to the bronze period have been found among the stones.

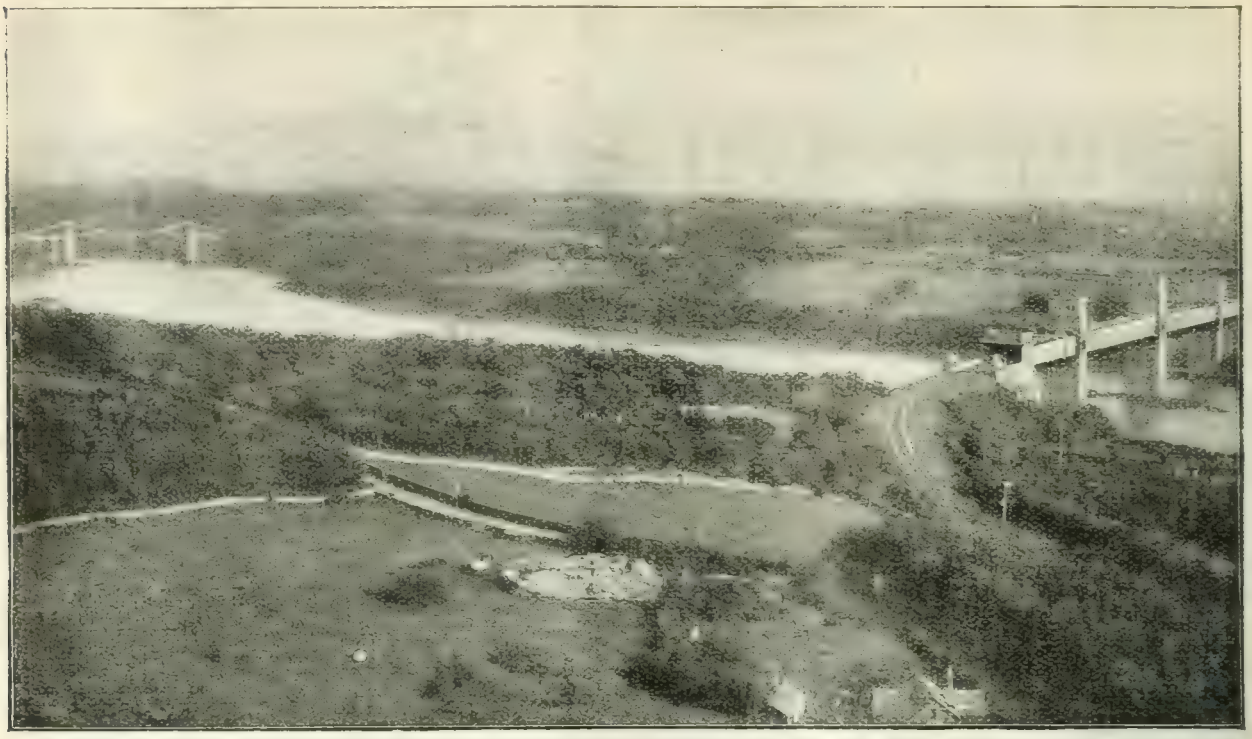
COUNTRY SEATS.

Knowsley, the residence of the Earl of Derby, the present Lord Mayor of Liverpool, is distant about seven miles from Liverpool. Its park, of over 2,500 acres, is the largest in the northern counties. It is beautifully wooded, and contains several lakes, the largest, over 90 acres in size, being known as "The White Man's Dam," from a marble statue said to have been found in it. The hall possesses no special architectural beauty; one part was built by Thomas, first Earl of Derby, in 1495, on the occasion of a visit from Henry VII, and this is still called the King's Room. The picture gallery contains paintings of the Italian and Flemish schools, together with numerous modern pictures.

About three miles from Ormskirk, on the Lancashire and Yorkshire Railway, is Lathom House, a famous Lancashire hall, which is even more closely connected with the history of the Derby family than Knowsley. In 1644 it was besieged by Sir Thomas Fairfax, and was defended by the Countess of Derby, who held it for the King. When, after four months, the siege was raised, the garrison had lost six men and the besieging force 500.

Croxteth Park, the seat of the Earl of Sefton, has belonged to several distinguished families, including the Stanleys of Lathom and Knowsley; its deer park or forest was famous as far back as 1228. In 1446 the estate was granted to Sir Richard Molyneux, and in this family it has

[1] BRITISH MEDICAL JOURNAL, 1911, vol. ii, p. 1547; 1912, vol. i, p. 29.



The Photochrom Company, Limited. Menai Straits from Anglesey Column.

since remained. The mansion occupies a picturesque position in woodland surroundings, and commands a direct vista of the neighbouring Knowsley Hall.

Speke Hall, the property of Miss Watt, is a very good example of the timber-framed, moated manor house of the early part of the sixteenth century. The hall is wainscoted with oak from Holyrood Palace, and has its haunted chamber and secret passages.

Hale, which is situated about ten miles from Liverpool, is one of the most ancient and picturesque villages in the North of England. In the churchyard is the grave of John Middleton, "The Childe of Hale," who lived in the time of James I. He was 9 ft. 3 in. in height, and his hands were each 17 in. long. In Hale Hall, the seat of the Ireland Blackburns, may be seen a portrait of the giant, a walking stick said to have belonged to him, and a tankard which he used when he visited Brasenose College.



Lord Street, Southport.
(Reproduced by permission of Messrs. Littlebury Bros.)

Birkenhead and Wirral.

That part of Cheshire lying between the estuaries of the rivers Mersey and Dee, generally known as the Wirral peninsula, is an undulating country containing secluded hamlets and villages which remain much as they were in the days when modern improvements were not, though various small townships have become popular of late years as places of residence for many hundreds of people engaged in business in Liverpool. The air is bracing, and such places as Seacombe, Egremont, New Brighton, New Ferry, and Rock Ferry have become residential suburbs of Liverpool. There is a quick and thoroughly reliable service of ferry boats to each of these places, besides a service of electric trains which pass under the Mersey.

The metropolis of the Wirral peninsula, Birkenhead, has a population of about 120,000. Of history the town possesses little, for it is almost entirely modern; but in the centre of the borough are the ruins of an old Benedictine monastery.

Nearly two miles from Birkenhead is Bidston Hill, clothed with gorse, broom, and heather; about 200 ft. above sea level it commands extensive views of Liverpool Bay and the Welsh mountains. Upon it are situated the observatory and a light-house, both maintained by the Mersey Docks and Harbour Board.

Hoylake is a favourite and rapidly developing seaside resort on the northern coast of the peninsula, and about nine miles from Liverpool. It possesses one of the finest golf courses in the kingdom in the links of the Royal Liverpool Club. Hoylake, well known as a shipping port in days gone by, was the place of embarkation of William of Orange for Ireland in 1689. West Kirby, one mile from Hoylake, and more sheltered from cold winds, though

modernized, is a picturesque place, and possesses a marine lake, in which to all intents and purposes the tide may be said to be permanently at high water. On Hilbre Island, near West Kirby, where is now the telegraph station of the Mersey Docks and Harbour Board, was a shrine dedicated to the Virgin on account of the miracles attributed to St. Werburgh.

Near Eastham, a typical Cheshire village, about four miles from Birkenhead, are the huge entrance locks of the Manchester Ship Canal.

Parkgate was once a station of importance from whence the Irish packets sailed twice weekly. Here Handel, detained on his way to Dublin by contrary winds, composed a portion of the *Messiah*. At Neston, about a mile away, was born Amy Lyon, destined to become Lady Hamilton and the friend of Nelson. New Brighton is essentially a holiday place, with an imposing tower 620 ft. in height and 40 acres of pleasure grounds.

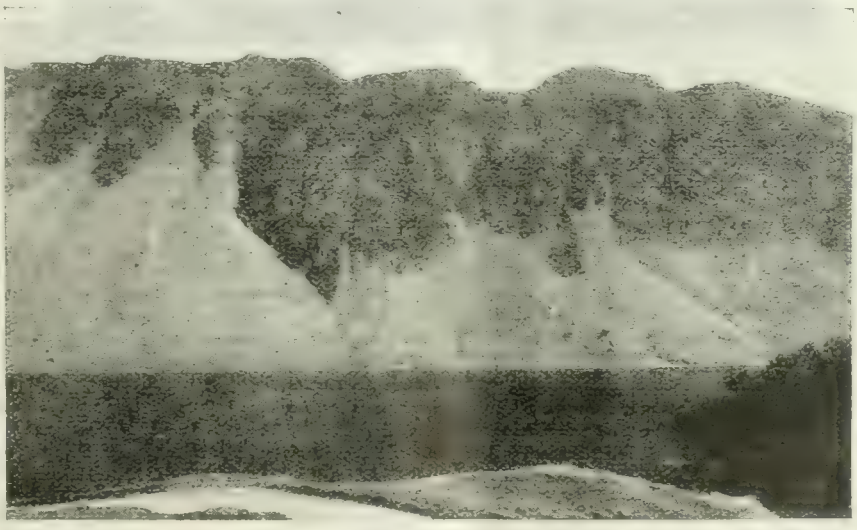


Bell] Ullswater. *[Ambleside.*

EXCURSIONS FROM LIVERPOOL.

There are many other places of interest outside the 10-mile radius which will well repay a visit. Of matters of medical and archaeological interest in the ancient city of Chester we hope to give some account in an early issue.

Blackpool, the Mecca of the Lancashire cotton operative and the miner during the "wakes" season, has many attractions to offer the visitor during quieter times. Its popularity as a seaside resort is due in no small measure to the enterprise of the municipality in providing comforts and amusements for visitors. It has a grand stretch of sea beach over three miles long, facing due west to the Irish Sea.



Bell] Wastwater. *[Ambleside.*

Southport is a popular seaside and health resort about eighteen miles north of Liverpool. Its high record of sunshine has favoured its development as a place for convalescence. It is quite a garden city, and possesses a drive, extensive winter gardens, a marine lake, and a fine opera house. Near Southport are the head quarters of the Hesketh, Birkdale, Southport and Ainsdale, and Ormskirk golf clubs.

Those who do not dread the sea may make excursions in well-appointed steamers to Llandudno or the Isle of Man. Llandudno Bay, facing due north, is guarded on either side by the Great and Little Ormes. The Marine Drive of six miles around the steep sides of Great Orme's Head passes close by the house the late Mr. Lawson Tait built for himself towards the end of his life, and passes in view of St. Tudno's Church, the lighthouse and the ruins of Gogarth Abbey. Beaumaris with its ivy-clad castle, Bangor and Colwyn Bay are all within a few hours of Llandudno, the course being through scenery equal to that of the Norwegian Fjords.

The town and villages of the Isle of Man are for the most part on the coast, which is the haunt of all kinds of sea fowl; inland the island is divided into small farms, with here and there great patches covered with heather and gorse and many beautiful glens.

THE ENGLISH LAKES.

To those who have leisure after the Annual Meeting, an excursion of a few days or a week into the English Lake District offers many inducements to stray from the direct route home; and for those to whom time is of great account, even a day excursion to Windermere and district will afford a glimpse of some of the quieter, but none the less picturesque, portions of the locality, with views in the distance of the higher features of mountain and fell. Two or three such excursions are run each week at the modest fare of 4s. for the return journey from Liverpool to Windermere, and a stay of from six to eight hours can thus be secured.

Three days given up to "play" will furnish a much better idea of the chief charms of the district. Such a programme as the following could be carried out: By train to Penrith, thence coach to Pooley Bridge, and embark on the steamer for Patterdale, thus traversing Ullswater. This lake has been called the Queen of the English Lakes, and the view of Helvellyn, Fairfield, and other giants at the head of the lake is almost unique. Coach can be taken from Patterdale to Keswick, and here the night can be spent. Next day the tourist may drive by coach along the shores of Derwentwater, paying flying visits to the falls of Lodore and the Bowder Stone, and so by Honister Pass to Buttermere, Crummock Water, and Lowes Water. The views from the higher portions of this route are very imposing, as the loftiest mountains are in close proximity. A return, if time permits, by

Portinscale will include a view of Bassenthwaite. Coming from this direction Skiddaw and Saddleback are seen to advantage, and on reaching Keswick again for the evening, a climb on to Skiddaw may be undertaken. Next day a long drive by coach from Keswick to Windermere gives the visitor a close acquaintance with Thirlmere, Grasmere, Rydal Lake, and Windermere, passing on the outskirts of the village of Grasmere, and through those of Rydal and Ambleside. All these villages are associated with names great in poetry and literature.

An alternative route from Patterdale for those who enjoy a climb is to walk over Helvellyn via Striding Edge and drop down into Grasmere; this is perfectly easy and can be done in three or four hours, and it is needless to add that the view into the whole of the lake district, from the top of Helvellyn, as far as Ingleboro, away to the south is one of great majesty. It is not worth while to attempt this unless the day be clear, as to be caught in the cloud mists is a cold damp experience at the best, and at the worst might mean a longer stay in the mountains than was originally intended.

There still remain unmentioned a couple of lakes which possess special attractions because of the giant mountains in their proximity—Wastwater and Ennerdale. These lakes can be reached either from Ambleside by a not too good road, or from the west by the Furness Railway, which goes as far as Drigg. It is the ruggedness of this country that appeals to the athletic instincts in man, as there are hard climbs which tax all the resources of muscle and nerve. Should a further stay be permissible, a visit to Hawkshead and Coniston from either Windermere or Ambleside, will furnish a very delightful outing. In the summer the travelling facilities by coach, char-a-banc and steamers, all at very reasonable rates, are very great.



Buxton: View from the Town Hall.

Buxton.

The mineral springs of Buxton were known to the Romans and used by them, and the town was mentioned in the Domesday Survey as Bawkestanes.

It was not, however, until the reign of Henry VIII that the baths began to attract popular attention. In the reign of Elizabeth Dr. Jones published his famous treatise on *The Buckstones Bathe's Benefite*. His most illustrious patient was Mary Queen of Scots, who visited Buxton at least four times. She is said to have inscribed upon one of the windows of a room in what is now the Old Hall Hotel the following couplet:

> Buxtona quae calidae celebraberis nomine lymphae
> Forte mihi posthac non adeunda vale.

In 1784 the Crescent was erected at Buxton by the fifth Duke of Devonshire, and the town increased rapidly in size and importance.

Owing to the circumstance that it is situated in the centre of the Peak District of Derbyshire, Buxton is sometimes called the Mountain Spa. The town, which is the highest in the United Kingdom, being 1,000 ft. above sea level, has an ordinary population of 12,500, is singularly well kept, and possesses many stately buildings and pleasant gardens. The surrounding country is typical of the Peak District, the moors being at its doors and the dales not far distant. The climate is dry and bracing, the air in consequence of the altitude being very exhilarating. The Buxton season is from May to October.

The Buxton waters belong to the radio-active thermal group, in which are included Bath, Gastein, Wilbad and Plombières, but they possess also certain features in common with the earthy waters of such places as Contrexéville, Vittel, and Evian. They issue from nine springs, and from one of these alone—that supplying the swimming bath—about two million gallons flow daily. A regular supply of nascent gas is thus provided, and the baths, we are informed, are kept at a constant radio-activity. The waters emerge from the earth at a uniform temperature of 82° F. When seen in mass they are of a blue colour and large bubbles of gas constantly rise and discharge on the surface. This gas consists of nitrogen and carbonic acid together with radium emanations (10.5 mg. per million litres). The Buxton water is poor in mineral ingredients; it yields only 27.32 grains per gallon, principally the calcium and magnesium bicarbonates.

Last year a new spring was discovered the temperature of which was about 1° higher than that of any known spring in the town. The presumption is that this spring is really the principal source, the other springs being branches from it at various depths, reaching the surface by more or less devious paths. The water of the new spring is highly gaseous, and it is proposed to carry this water to the pump-room, and to allow it to discharge into an open basin. From this basin the water will be obtained in its natural condition for drinking without pumping.

There is also a chalybeate spring containing iron in the ferrous state held in solution by CO_2. It is prescribed as a haematinic and tonic.

The bathing establishment and pump-room, which are controlled by the town council, occupy a central position, within a mile of any part of the town. They are in two sections — the natural baths, where the water is used at a temperature of 82° F., and the hot baths, where the water is heated to any degree desired. The baths have recently been extended and much improved, and a complete installation of the latest Continental douches and an entirely new electrical section have been added.

The special features of the Buxton baths are the swimming bath, the Buxton douche-massage (combined vapour and immersion), moor baths, and the Plombières system.

The reputation of Buxton has been based from the earliest times on the effect of its waters on rheumatism, gout, and kindred diseases, but they are also found serviceable in some nervous conditions and in skin diseases of a gouty character.

Buxton is well supplied with good hotels and hydropathic establishments, and is well laid out with ornamental grounds. It has various places of amusement, tennis courts, croquet lawns, bowling greens, and two golf courses.

The Devonshire Hospital, with 300 beds, is the largest hospital in the United Kingdom for the treatment of the poorer classes suffering from rheumatism and allied diseases.

The Royal Dental Hospital, Leicester Square, has received a donation of £100 from Mr. R. Nivison.

At the annual meeting of the Society of Medical Officers of Health Dr. E. W. Hope was elected president for the year 1912-13, Dr. R. Dudfield treasurer, and Drs. Herbert Jones and Joseph Priestley honorary secretaries.

NATIONAL INSURANCE ACT.

SANATORIUM BENEFIT.

INTERIM REPORT OF THE DEPARTMENTAL COMMITTEE ON TUBERCULOSIS.

THE Departmental Committee on Tuberculosis appointed by the Treasury on February 22nd, 1912, has presented an interim report which was issued on April 30th.*

The Committee consisted of the following:

Mr. Waldorf Astor, M.P. (Chairman).
Dr. Christopher Addison, M.P.
Dr. Noel Bardswell, Medical Superintendent of the King Edward VII Sanatorium, Midhurst.
Dr. David Davies, M.P., Chairman of the King Edward VII Welsh National Memorial Association.
Dr. A. Mearns Fraser, M.O.H., Portsmouth.
Dr. Arthur Latham, Physician to St. George's Hospital and to the Hospital for Consumption, Brompton.
Dr. W. Leslie Mackenzie, Medical Member of the Local Government Board for Scotland.
Dr. John C. McVail, one of the Insurance Commissioners for Scotland, formerly M.O.H. for the counties of Stirling and Dumbarton.
Dr. W. J. Maguire, one of the Insurance Commissioners for Ireland.
Sir George Newman, M.D., Chief Medical Officer to the Board of Education.
Dr. Arthur Newsholme, C.B., Medical Officer to the Local Government Board in England.
Dr. James Niven, M.O.H., Manchester.
Dr. Marcus Paterson, Medical Superintendent of the Brompton Hospital Sanatorium, Frimley.
Dr. R. W. Philip, Physician to the Royal Infirmary and Victoria Consumption Hospital, Edinburgh.
Dr. H. Meredith Richards, one of the Insurance Commissioners for Wales, formerly M.O.H., Croydon.
Mr. T. J. Stafford, C.B., F.R.C.S.I., Medical Commissioner, Local Government Board, Ireland.
Dr. Jane Walker, Medical Superintendent of the East Anglian Farm Sanatorium.
Dr. J. Smith Whitaker, Deputy Chairman of Insurance Commissioners, England.

On March 18th Mr. Arthur Henderson, M.P., a Labour member, and Mr. F. J. Willis, formerly secretary of the Committee, were added to it, and Mr. O. B. Clarke was appointed secretary in place of Mr. Willis.

The Committee did not contain any general medical practitioner, but the following memorandum approved by the State Sickness Insurance Committee was submitted to the Tuberculosis Committee on behalf of the British Medical Association:

MEMORANDUM BY THE BRITISH MEDICAL ASSOCIATION ON THE POSITION OF THE GENERAL PRACTITIONER IN RELATION TO ANY SCHEME OF PREVENTION AND TREATMENT OF TUBERCULOSIS.

The British Medical Association in laying its views before the Committee appointed by the Chancellor of the Exchequer to consider questions of general policy in respect of the problem of tuberculosis in its preventive, curative, and other aspects, confines its observations to the part which the Association is of opinion the general medical practitioner should play in any provisions made by the Government or local authorities.

It is assumed that the Committee is already in possession of, or has access to, expert information as to the special medical and administrative points which arise for consideration.

The Association also assumes that the Committee is considering the subject of its reference in its widest aspects and not with a view merely to the provisions of the National Insurance Act or of any existing administrative methods of dealing with tuberculosis.

1. The Association would lay down as a fundamental proposition that no system of dealing with the problem of tuberculosis can be efficient which does not make the fullest use of the general clinical experience and the opportunities for intimate personal contact with affected persons, which the general practitioner possesses. The general practitioner has the best opportunities for making that early diagnosis on which successful treatment depends, and for knowing when other advice should be sought; his intimate personal contact and influence with the family should if properly utilised be invaluable in any system of prevention.

The Association would endorse the words used in an authoritative recent work:—

> "If we aim at mastering tuberculosis, no matter by what means, it must in the future become and remain the domain of the general practitioner; it is he who must advise and select, and then insist on treatment." (Bandelier and Roepke, "Tuberculosis in Diagnosis and Treatment," 1909.)

2. The relation of the general practitioner to the administrative problem may be dealt with under the following heads:—

(a) Diagnosis by practitioner in attendance, either alone or with expert assistance, clinical, microscopical or otherwise.

(b) Treatment: (1) domiciliary, (2) dispensary (tuberculin or otherwise).

Diagnosis.

3. It is fully realised that there are many cases in which the opinion of an expert would be invaluable, and it is submitted that such opinion should be placed freely at the service of the attending practitioner, who should be encouraged to arrange for a personal consultation. If such an arrangement is to be successful, there must be no risk of the practitioner in attendance being superseded—except, of course, in the ordinary way, namely, by the desire of the patient himself. No case should be seen by the expert except at the request of the practitioner. The practitioner should be encouraged not only to send his patient to the expert, but to take him for the purpose of a personal consultation. Provision for bacteriological examination of sputum, &c., should be placed freely at the disposal of every practitioner.

Treatment: Domiciliary.

4. Domiciliary treatment should be carried out as far as possible by the practitioner in attendance, when necessary with the help of, and under the supervision of, expert consultants.

The Association fully recognises the necessity and value of expert assistance. It is not suggested for a moment that every general practitioner is cognisant of the details of the most modern treatment of tuberculosis, but it is believed that if encouragement were given to the private practitioner to make full use of expert advice given by men who were not and could not be in competition with him for private practice, there would be great advantage both from the public and the professional point of view.

The patient and the attending practitioner would have expert opinion placed at their disposal while the services of the private practitioner would be enlisted in carrying out the treatment decided on in consultation with the expert. There is no real difference between the domiciliary treatment of tuberculosis and that of other cases as to which expert advice in consultation is taken every day. The expert and the attending practitioner settle the line of treatment in consultation and the attending practitioner carries it out, if it can be carried out at home.

5. In order that private practitioners may be able to co-operate effectively with the local authorities and with the experts appointed by these authorities, it is suggested that practitioners should not only be encouraged to take their patients personally to the institutions where diagnosis and treatment is provided, but should be invited to look upon their institutions as places of post-graduate instruction in which they may learn the technique of tuberculin or other special treatment, and carry it out in cases reserved for domiciliary treatment. Treatment by tuberculin injections is mentioned because it is the method of treatment at present most in vogue. It may quite possibly be superseded in a few years, but in any case it presents no difficulties which could not be overcome in a short time by properly trained and qualified practitioners.

Dispensary Treatment.

6. If the above suggested methods were adopted, dispensary treatment would only be needed for (a) cases sent by outside practitioners for early treatment afterwards to be continued at the patient's home under the combined supervision of private practitioner and consultant, and (b) cases where the treatment was continued at the dispensary by agreement between private practitioner and expert.

* Interim Report of the Departmental Committee on Tuberculosis (Cd. 6164), to be obtained through any bookseller, price 3d.; or from Messrs. Eyre and Spottiswoode, East Harding Street, Fetter Lane, London, E.C., post free 4d.

7. The work at the dispensary might with great advantage to the public and the local profession be carried on by a staff of part-time practitioners under the supervision of the whole-time expert. If the local practitioners were appointed on a rota so that all practitioners who cared, and were in other respects suitable, might in their turn take a share in the work, the educational effect on the profession would be great and the ultimate benefit to the public marked.

8. It is hoped that the Committee will not overlook the question of provision for cases of surgical tuberculosis. Here again the combined services of the consultant and the attending practitioner will often allow of these cases being treated at home, but proper hospital accommodation should be provided for the cases which need such provision.

Position of the Experts.

9. It is submitted that there will be little danger of friction between the authority directing the administration of tuberculosis prevention and treatment, and the general body of private practitioners, if the relation between the expert employed and the local profession, is definitely defined to be that of the consultant to the attending practitioner. There would be no hesitation on the part of the attending practitioner to call in the services of the expert if he knew that these were freely at his disposal, and he was assured that there was no danger of supersession or unnecessary interference. That is to say the consultant must be a well paid whole-time officer of undoubted special experience.

10. The Association submits that the principles here laid down are the only ones applicable to all parts of the country, urban and rural. Whereas in a town it is conceivable, though in the opinion of the Association highly inadvisable, from every point of view except, perhaps, that of mere administrative convenience, that the tubercular patients needing special treatment might be attended entirely by whole-time officers, it would be extravagant and almost impossible to deal in this way with patients scattered over rural areas. The services of the general practitioner must therefore be utilised in some parts of the country, and the Association strongly holds that it will be better that in the initiation of a national tuberculosis system the general practitioner should be gladly and freely recognised as an essential factor everywhere, and arrangements made accordingly.

11. It is realised that for administrative purposes, the employment of whole-time officers offers certain obvious advantages.

But these advantages would be dearly bought if, as the Association believes, the extension of this principle would lower the status and general standard of attainment of the general practitioner and diminish his sense of responsibility, his field of experience and his general public utility. The possibility of thus lowering the standard of the class of practitioner on whom the general public must for the most part rely, is one which the Association regards with dismay.

REFERENCE TO THE TREASURY COMMITTEE.

The terms of reference to the Committee were as follows:

"To report at an early date upon the consideration of general policy in respect of the problem of tuberculosis in the United Kingdom, in its preventive, curative, and other aspects, which should guide the Government and local bodies in making or aiding provision for the treatment of tuberculosis in sanatoria or other institutions or otherwise."

The Interim Report is signed by all the members of the Committee.

The object to which the Committee set itself was the consideration of the existing machinery and funds available in the light of the information possessed by its members, or submitted to it by various individuals and organizations whose advice was requested. In view of the fact that the provisions of the National Insurance Act as to sanatorium benefit—that is to say, with regard to tuberculosis in all its forms—will come into operation more or less completely on July 15th next, the Committee has considered it desirable to issue an Interim Report, as preliminary arrangements must shortly be made, both central and locally, and it is felt to be desirable that the action taken by local authorities or bodies concerned should be in general harmony. The report, therefore, is intended to set out the essential features and broad lines of a comprehensive scheme with special reference to the practical steps to be taken in the near future for the provision of immediate treatment for the existing tuberculous population.

GENERAL PURPOSE OF THE PROPOSED SCHEME.

In a general introduction, the Committee makes the following observations:

Any scheme which is to form the basis of an attempt to deal with the problem of tuberculosis should provide—

(1) That it should be available for the whole community.
(2) That those means which experience has proved to be most effective should be adopted for the *prevention* of the disease.
(3) That a definite organization should exist for the *detection* of the disease at the earliest possible moment.
(4) That, within practicable limits, the best methods of *treatment* should be available for all those suffering from the disease.
(5) That, concurrently with the measures for prevention, detection, and treatment, provision should be made for increasing the existing knowledge of the disease and of the methods for its prevention, detection, and cure by way of *research*.

In view of the particular circumstances which necessitate the submission of this Interim Report the Committee trust that it will be recognized that the present recommendations must deal with certain aspects of prevention, and with detection, and treatment rather than with research. The latter subject, on the importance of which the Committee wish to lay stress, will be dealt with in greater detail in the Final Report, after the Committee have had further opportunity of obtaining and studying the views of various experts whom they are consulting. The Committee desire, however, to express their opinion that the scheme which they recommend in this report, for assistance in the formation of which they desire to express their indebtedness to those who have placed suggestions and information before them, will be calculated to afford material assistance to the cause of research.

The Committee have endeavoured to devise a scheme in which may be united or correlated the activities of the various bodies, authorities, and persons concerned, so as to ensure that adequate provision for the prevention and treatment of the disease should be made available on a systematic basis, as far as possible uniform in character, but not necessarily identical in detail, throughout the United Kingdom.

They recognize that a reasonable measure of latitude and elasticity is necessary in order to suit the varying local conditions in each of the four countries, especially having regard to the existing agencies available for dealing with tuberculosis.

The Committee points out that in addition to the medical profession and to voluntary societies, the existing bodies at present engaged in greater or less degree in dealing with tuberculosis in England and Wales are county councils, sanitary authorities and joint hospital boards, local education authorities, Poor Law authorities, and the Metropolitan Asylums Board.

The Insurance Act.

The Committee gives a short analysis of the provisions of the Insurance Act, 1911, as to sanatorium benefit (tuberculosis), and points out that the Act deals with (1) treatment, (2) erection of sanatoriums and other institutions, (3) research, and (4) education throughout the United Kingdom. By reference to Section 59 it is shown that an Insurance Committee must be set up for every county and county borough, and that the county Insurance Committee must, after consultation with the County Council, submit for the approval of the Commissioners a scheme for the appointment of district Insurance Committees, including committees for each borough (including the City of London and a metropolitan borough) having a population of not less than 10,000, and for each urban district with a population of not less than 20,000, subject to grouping with adjoining districts.

Finance.

The cost of maintenance of sanatoriums is to be defrayed out of moneys provided as follows:

1. The amount paid or credited in respect of sanatorium benefit to the local Insurance Committee, at the beginning of each year, by the Insurance Commissioners out of the

National Insurance Fund (Section 16 (2)). It is estimated that the number of persons who will become insured will be a little over fourteen million. The income of Insurance Committees for this purpose will therefore be about £880,000 per annum.

2. The amount credited to the local Insurance Committees by the Insurance Commissioners out of the moneys provided by Parliament (Section 16 (2) (*b*)). This sum on the same estimate of the number of insured persons would amount to about £60,000 per annum. The whole of this or any part of it may, at the discretion of the Insurance Commissioners, be allotted for purposes of research.

3. A contingent source of income, in the event of a deficit in any year, may be made available, with the approval of the Treasury and the county council concerned, by contribution out of the county or borough fund or rate, with an equivalent amount from the Treasury (Section 17 (2) (3), Section 22).

THE SCHEME RECOMMENDED.

The main points for the consideration and determination of the Committee were:

(*a*) The formulation of a scheme for the prevention, detection, and treatment of the disease, which, while meeting all the issues, will yet be sufficiently elastic for general application.

(*b*) The allocation of responsibility for the establishment, direction, and maintenance of the several elements required.

The scheme recommended by the Committee consists, broadly speaking, in the establishment and equipment of two units, both related to the general public health and medical work carried on by the medical officers of health, and both working in harmony with the general practitioner.

The first unit consists of the tuberculosis dispensary; its functions are pretty generally understood, although not always accurately described. They are detailed by the Committee with clearness and much in the way they have been propounded from time to time in our columns by the founder of the tuberculosis dispensary and those who have, in different places, carried out the plan since the establishment of the first tuberculosis dispensary in 1887.*

Behind the first unit, constituted by the tuberculosis dispensary, stands the second unit, consisting of a system of sanatoriums, hospitals, farm colonies, open-air schools, etc., which, in order to ensure effective action, should be linked up closely with the tuberculosis dispensary.

1. Tuberculosis Dispensaries.

It is recommended that the tuberculosis dispensary shall constitute the common centre for the diagnosis and for the organization of treatment of tuberculosis in each area, at which the various bodies and persons connected with the campaign against tuberculosis will be brought together. The aim is that no single case of tuberculosis should remain uncared for, and that whatever services the scheme provides shall be generally available.

The tuberculosis dispensary is designed to be the centre of operations and to serve as (1) receiving house and centre of diagnosis; (2) clearing-house and centre for observation; (3) a centre for curative treatment; (4) centre for the examination of "contacts"; (5) centre for after-care; and (6) information bureau and educational centre.

Under the first head the Committee expects that early cases in which there is no more than a suspicion will be sent to the dispensary for diagnosis. Under the second the tuberculosis officer, as the head of the dispensary is called in the report, who would classify the cases, should have a few beds at his disposal for observation. It would, therefore, be necessary for this officer to be in the closest touch on the one hand with the general practitioners and on the other with the responsible officials of institutions providing treatment. With regard to curative treatment, the report states that a large number of cases of pulmonary tuberculosis and some cases of other forms of tuberculosis can be adequately treated in the patient's own home, and for many of these cases the dispensary would be the centre of treatment. Cases so treated would usually be persons who might safely continue their occupations, whether at home or elsewhere, and those cases in which such treatment did not yield satisfactory results would be reclassified and drafted to the proper institution. The treatment provided in the dispensary would include not only general treatment in the patient's home or in a shelter, but also more special methods of treatment, as, for example, by tuberculin. Under the fourth head, it is considered that the information received by the dispensary might lead to the discovery of tuberculosis in persons living in close contact with those known to be suffering from the disease. This is regarded as a valuable part of the machinery of control and prevention, as it would lead to the detection of a large number of cases at such an early stage that suitable treatment might readily and successfully be applied. To the subject of after-care further reference is made below. As to the sixth head, the report contains the following paragraph:

Centre of Information and Education.

The tuberculosis dispensary should constitute a centre towards which persons interested may turn for information and guidance. In course of time, by careful records on the case sheets and schedules, the accumulation of clinical facts and statistics at the tuberculosis dispensary should prove of great service in investigation connected with tuberculosis. These facts and statistics, which should be collected upon a uniform system, and should be related to the information obtained by the medical officer of health in connexion with the compulsory notification of all cases of pulmonary tuberculosis and in connexion with the general death and sickness reports of the community, should also be at the service of those who are engaged in research, and should be of considerable value as data in that connexion. The information so obtained, together with the systematic training of individual patients in the measures necessary for their own treatment, should materially assist in the education of the community generally, and thus serve to promote the prevention of the disease.

In addition, the dispensary should become a valuable centre of medical education. This should prove of importance in the special training of medical practitioners and nurses.

The Committee expresses the opinion that in urban areas one tuberculosis dispensary might suffice for the needs of a population of 150,000 to 200,000 persons, the aim being to centralize effort as much as possible. But it is thought that when circumstances required it, branch dispensaries with simpler equipment might be established. In rural districts one or more of the principal small towns might be taken as the centre with local subcentres, where the doctor and nurse could attend from time to time. These subcentres might be placed in small towns or large villages.

As to construction, the Committee is of opinion that the actual premises of the tuberculosis dispensary may be quite simple, and that in many cases, an ordinary dwelling-house could be readily adapted for the purpose. In a few large centres—more especially where there are medical schools—a more special building might be erected to meet the many-sided requirements of the problem and to serve as a teaching centre. The success of the tuberculosis dispensary will depend more on its organization than on its material construction.

The Committee lays special stress on the necessity for having a highly trained responsible tuberculosis officer in charge of the dispensary. It holds it to be of supreme importance that he should be a first-class clinician who, as a rule, would give his whole time to the work.

On the question of salaries the report contains the following paragraph:

Maintenance.—The salaries should be such as to secure men of the requisite ability. In order to attract the right type of men as chief tuberculosis officers, it will usually be found necessary to offer a salary of not less than £500 with prospects of increase. The salaries of the rest of the staff will depend on local circumstances. In addition to salaries, some of the chief items of expenditure will be rent, rates, taxes, etc., drugs, including tuberculin, stationery, etc.

Associated with the tuberculosis officer at the head of the dispensary there should be one or more assistant medical officers according to the size of the area served, and arrangements made for the co-operation of general practitioners giving part of their time.

* BRITISH MEDICAL JOURNAL, 1906, vol. ii, p. 1529; 1910, vol. ii, p. 1957.

On these points the Committee reports as follows:

Duties and Qualifications of Heads of Dispensaries and Sanatoria.

The chief tuberculosis officer of the dispensary should be independent of control by any other medical man so far as his clinical duties are concerned, and should, subject to his relationship to other officers as defined by the local authorities' regulations, be responsible for the management of these institutions. He should be in intimate relationship not only with medical officers of health, but also with the general practitioners in the locality, and the medical officers of the several institutions (sanatoria, hospitals, etc.) which constitute elements in the co-ordinated scheme. He should decide as to the suitability of patients for the sanatorium, the hospital for advanced cases, etc., in co-operation, so far as is possible, with the general practitioners and with the medical officers of these institutions. He should also be in close touch with other authorities (including those responsible for Poor Law institutions), charity organization societies, and all agencies, voluntary or otherwise, which have an interest in tuberculous persons.

The Committee desire to lay emphasis upon the necessity of having suitably qualified and experienced medical men for the senior appointments in connexion with the dispensaries and sanatoria. Indeed, the effectiveness and economy of the administration of the scheme suggested by the Committee will be dependent, in a large degree, upon the judicious selection of these officers.

With a view to securing desirable officers the Committee recommend that, in giving or withholding approval, the Local Government Board should take into consideration the whole management and staffing of these institutions (including the tenure and other conditions of appointment of the staff), not only from the point of view of the advantage to the patients concerned, but in order to command the confidence and co-operation of the medical practitioners within the area.

Whilst not desiring to lay down any hard-and-fast conditions, the Committee are of opinion that preference should be given to registered medical practitioners of suitable qualifications and experience and not less than twenty-five years of age, who have held house appointments for at least six months in a general hospital, in addition to a similar period of attendance at a special institution for the treatment of tuberculosis. They should also be competent to supervise such laboratory work as may be necessary.

Position of the General Medical Practitioner.

The Committee are of opinion that it is of primary importance to the lasting success of any scheme for dealing with tuberculosis that it should enlist the hearty co-operation and stimulate the interest of the general medical practitioners of the country. Their intimate personal relations with patients and their influence in the homes of the people are forces which should be actively enlisted in the campaign against the disease as aids to securing its early recognition and methodical treatment, as well as in promoting the effective after-care of cases of tuberculosis and in encouraging those healthy habits of life which are so essential to building up the powers of resistance to the disease.

For these reasons the practice of the tuberculosis dispensary should be so arranged as to encourage general medical practitioners to seek the help and instruction which it affords both by consultation with its special medical officer in the homes of the patients and at the dispensary. Wherever practicable, the practitioners of an area, or some of them, should be engaged to serve as assistant medical officers to the dispensary, in rotation or by some other agreed method. In order to secure these ends the Committee believe that, as a rule, the following conditions are essential:

(1) The chief tuberculosis officer of the dispensary should be a whole-time officer whose duties will be such as will not bring him into competition with the other medical men of the district. He should be of suitable age and attainment and enough of an expert on the subject of tuberculosis to command general confidence.

(2) The chief tuberculosis officer of the dispensary should, wherever practicable, act as the adviser to the Insurance Committee as to the character of the treatment of cases that are recommended for sanatorium benefit. The chief tuberculosis officer of the dispensary in such cases should act in an advisory and consultative capacity, his aim being to avoid unnecessary interference and to establish such relations with the general medical practitioners that his advice and help will be gladly sought.

(3) In the case, at all events, of insured persons, patients living at home who are treated at or under the supervision of the dispensary, should generally be placed, where they are willing, under the care of some general practitioner who will carry out the necessary home treatment in consultation with the chief tuberculosis officer of the dispensary, and who will, where the patients are insured persons, be paid out of the funds available for sanatorium benefit.

(4) Arrangements should be made for the provision of expert advice in surgical, dental, and in other cases where difficulties may arise.

The staff would include also specially trained nurses, a dispenser, and a clerk.

The cost of the tuberculosis dispensary would vary according to its size and internal arrangement. Thus a simple dwelling might be adapted and equipped for £200 or £300. A specially built institution would necessarily be more expensive, the actual cost depending chiefly on the views of those who are organizing the institution and its relation to teaching, research, etc.

It is recommended that the principal tuberculosis officer shall be responsible for the general conduct of the work and be in intimate relationship with the general practitioners in the district, the medical officer of health, and the officers of the several institutions (sanatoriums, hospitals, etc.), which form elements in the co-ordinated tuberculosis scheme. Also that he shall be in close touch with other authorities, including Poor Law institutions, charity organization societies, and all agencies, voluntary or otherwise, which have an interest in the tuberculous poor.

The Committee recognizes that it is of primary importance that the medical men engaged in general practice in the locality should be afforded abundant facilities for keeping in touch with the treatment of tuberculosis in all its aspects. The medical officer of the tuberculosis dispensary, it considers, should be instructed to assist them in every possible way. He would stand in the relation of consultant, and would, when desired, treat patients in conjunction with the general practitioner, thereby preserving the normal relationship between the patient and the practitioner.

2. RESIDENTIAL INSTITUTIONS.

The second unit of the scheme is the residential institution, including sanatoriums, hospitals, farm colonies and open-air schools.

The report discusses the sanatorium proper, and the principles of sanatorium treatment. The general purport of the recommendations is that the sanatorium proper should be used especially for cases of pulmonary tuberculosis of recent onset, with some impairment of working capacity but without marked evidence of ill-health, and to some extent for cases of recent onset with evidence of acute illness, and similar cases with a longer history. It is recommended that cases in which there is more permanent loss of working capacity would be received more especially for education and symptomatic treatment.

Medical Staff.

With regard to the medical staff required for a sanatorium, the Committee reports as follows:

In addition to a medical superintendent, there should be two resident medical officers for an institution of 200 beds and one resident medical officer for an institution of 100 beds. The salaries should be such as to secure men possessing the requisite ability. It must be remembered that the proper performance of their duties requires high and varied qualifications, and the Committee are of opinion that, in order to attract the right type of men as medical superintendents, it will usually be found necessary to offer a salary of not less than £500 a year with house, and with prospects of increase.

At the present time, owing to the lack of facilities for obtaining experience in the institutional treatment of tuberculosis, there are comparatively few medical men and nurses who possess the necessary qualifications for posts in sanatoria. If a number of sanatoria are to be established, this deficiency must be borne in mind. It will take some months to give medical men and nurses

the necessary training. A certain number of appointments should therefore be made in the near future, on the understanding that those selected should at once make adequate arrangements to secure the necessary training and experience.

Advanced cases of disease and those in which a fatal termination is within sight should, it is recommended, be segregated in special hospitals devoted to such cases.

We are glad to note that little stress is laid on the establishment of the sanatorium in an out-of-the-way locality merely because it has a hillside or a pine forest. The sanatorium is for the benefit of the people within a given area, and much of its benefit may be lost and much inconvenience be caused if it be not easily accessible. The report points out that satisfactory treatment has been carried out in sanatoriums situated close to large cities. If this be so, it is difficult to see why the sanatorium should not be placed as near the centre to be served as it may be possible to obtain an adequate site at a reasonable price. One reason for this is that it is eminently desirable that the patient who is recovering should appreciate that recovery has been attained under conditions which he can continue to realize in chief part at his own home. The hospital for advanced and dying cases should, in every case, be in close proximity to the chief centre served.

After-Care.

The after-care of patients who have been treated at the sanatorium will be carefully looked to. Just as the patients would be selected at the central tuberculosis dispensary as far as possible in co-operation with the chief medical officer of the sanatorium, so cases, after a varying period of residence at the sanatorium, would be sent back to the dispensary for after-care and general guidance. The proposal is that, in so far as the patient is not closely supervised by a private practitioner, he should report himself from time to time for a considerable period to ensure that the benefit he has attained be not thrown away.

The report dwells on the need for some machinery whereby suitable employment may be found for selected cases after discharge from treatment, when an immediate return to their previous occupation would imply risk of relapse and corresponding economic waste. This is a subject of the first importance. The need for the establishment of farm colonies for such selected cases has been shown to be very real. Provision for these has been made in the more completely co-ordinated schemes in this country and America, and there is a growing consensus of opinion as to their value. The Committee states that it will return to the subject in its final report.

Capital Expenditure on Sanatoriums.

The cost of erection of sanatoriums is put generally at about £150 a bed, the cost of maintenance at 25s. to 30s. a bed a week. These figures are endorsed by experience in many quarters.

Necessarily more indefinite are the estimates made as to the number of institutions likely to be required. It is suggested that it would be desirable to provide one sanatorium bed per 5,000 of the population. This will seem to some a low estimate of the requirements, if treatment is to be carried out in any large proportion of the cases to the point of recovery. There seems to be throughout the report an over-sanguine conception as to the number of cases likely to recover within the limited period assigned for their residence.

Non-pulmonary Tuberculosis.

The Committee's outlook has not been limited to tuberculosis of the lungs, but has included the treatment of tuberculosis of bone, joints, glands, skin, etc. All forms of tuberculosis in children have been considered. With regard to new provision needed, it is stated that cases of pulmonary tuberculosis should, as a general rule, be sent to residential sanatorium schools; but the proposal to make available some 250 additional beds for this class of case seems insufficient.

It is recommended that cases of tuberculosis of bones and joints should be sent to residential sanatorium schools equipped with the necessary appliances, and it is estimated that at least 2,000 additional beds will be required. Cases of glandular and other forms of tuberculosis, the Committee thinks, might be dealt with mainly by means of open-air schools, etc., and it is urged that accommodation of this character should be considerably extended throughout the country.

If recent views regarding the frequency in childhood of tuberculosis in all its forms and its relation to adult tuberculosis be approximately correct, this department of the provision for the treatment and prevention of tuberculosis may require larger provision and expenditure than the report foreshadows. The report, indeed, contains the suggestion that, in order to link up the education authority with the other elements in the scheme, the school medical officer should be closely in touch with the tuberculosis dispensary. The tuberculosis dispensary should provide, as far as possible, the same services for children as for adults.

ADMINISTRATION.

For the administration of the scheme in England and Wales the Report proposes that the unit area should generally be a county or county borough, or, in some cases, a group of counties or county boroughs, and that the organization of schemes would best be carried out if undertaken by the county or county borough council, or by a joint committee of these bodies (possibly with other local authorities) in case of combinations. While the council or joint committee would be the body legally responsible for the provision and maintenance of the institutions required, the Committee is of opinion that, in formulating a complete scheme for an area, it should consult in reference thereto the other sanitary authorities and also the Insurance Committees interested.

Relation of Insurance Committees to the Scheme.

On this point the report contains the following observations:—

Insurance Committees will have the following duties:

(*a*) That of securing prompt official notice whenever suspicion arises that an insured person (or possibly a dependent) is suffering from tuberculosis.

(*b*) That of obtaining proper evidence as to whether such person is in fact suffering from tuberculosis.

(*c*) That of deciding whether such person, if found to be suffering from tuberculosis, shall receive "sanatorium benefit."

(*d*) If it be decided that he shall receive "sanatorium benefit," that of deciding what form of treatment he shall receive, and with what person or authority the Committee shall make arrangements with a view to his receiving suitable treatment, and of making the necessary arrangements.

The duties of the Committee under (*a*) and (*b*) are chiefly medical, and must be discharged by making suitable arrangements with medical practitioners for reporting cases to the Committee, and for making the confirmatory diagnosis when required.

The duties under (*c*) involve both medical and financial considerations. If the necessary funds are available, the Committee may be able to act upon the principle that all cases of tuberculosis occurring in insured persons shall receive "sanatorium benefit." If the funds are insufficient for this, some discrimination must be made, and such discrimination must be based chiefly upon medical grounds. In other words, the Committee must be advised by a medical expert in its exercise of this discrimination.

The Committee must also act under medical advice in deciding to what kind of institution, if any, a given patient should be referred, or whether he should be treated in a dispensary or at home.

When a council has established a scheme in full working order, a large proportion of the patients to be treated by and in the institutions it has established will consist of persons referred to it by the Insurance Committee, for the cost of whose treatment that Committee is responsible.

When an Insurance Committee is performing its duties under the Insurance Act it will look mainly to the county or county borough scheme for the provision of institutional and dispensary treatment for those whom it recommends for sanatorium benefit.

The Committee are of opinion that the point of contact between the two bodies should be the tuberculosis dispensary. The chief tuberculosis officer of the dispensary would seem to be the person best qualified to advise Insurance Committees in the discharge of such of their duties relating to persons suffering from tuberculosis as

involve medical considerations. When institutional treatment is necessary he would be able to take or advise the right steps, since he would be in close touch with the available institutions of the county scheme; where treatment other than in an institution is necessary, he would be able to assist in giving it efficaciously through the dispensary.

The Committee recognize that the disposition of Insurance Committees to make full use of the medical staff of the dispensary in the manner which is above indicated may be largely dependent upon some measure of control being given to them over the personnel and working of the dispensary.

It appears to the committee, however, that satisfactory arrangements for the combined use and control of the dispensary might well be made by arrangement between the two parties concerned.

The Committee are of opinion that, for the reasons above stated, the bodies legally responsible for the establishment and maintenance of the tuberculosis dispensary should be the councils, but they suggest that arrangements should be made whereby, in view of the payments that would be made by Insurance Committees (under agreements for a term of years) towards the expenses incurred in connexion with the dispensary in respect of the Committees' patients, the councils might agree to be guided, in matters appertaining to the staffing and internal management of the dispensary, by the advice of a consultative committee consisting of members of the two bodies appointed by the respective parties in some agreed proportion.

Voluntary bodies of an approved character specially interested in tuberculosis might suitably be given representation on this consultative committee.

The special conditions of Wales, Scotland, and Ireland are considered.

Wales.

With regard to Wales the Committee makes the following observations:

Section 82 (4) of the Insurance Act requires the Welsh Insurance Commissioners in making, and the Treasury in approving, grants in aid of providing sanatoria and other institutions to have regard to the provision of such institutions which may have been made or may be proposed to be made by any association established for Wales by Royal Charter before or within 12 months after the commencement of this Act. The King Edward VII Welsh National Memorial Association, which has a fund exceeding £200,000 at its disposal, has recently taken the necessary steps to obtain a charter.

The constitution of this Association provides for the representation of every county and county borough Council and Insurance Committee in Wales and Monmouthshire. It is therefore a national institution, and aims at placing the campaign upon a national basis. The Committee consider, therefore, that all the recommendations contained in Sections 20 and 33 to 37 of this report need not apply in the case of Wales.

Furthermore, the Welsh problem presents certain special difficulties. Many of the counties are entirely rural, sparsely populated, and difficult of access from any one centre. Thus no less than six of the thirteen counties have less than 60,000 population, while even in Glamorganshire, which contains nearly half the population of Wales, special difficulties arise from the physiographical features of the district. At the same time, it is precisely in some of the sparsely-populated areas that the need for activity in respect to the prevention and treatment of tuberculosis is most acute. For these reasons Wales is fortunate in having the National Memorial Fund available for supplementing either capital expenditure or revenue derived from other sources.

The Committee desire to point out that in any national scheme for Wales particular attention should be paid to the training of county and district nurses in the treatment of tuberculosis and in securing the co-operation of existing nursing associations.

Scotland.

With regard to Scotland the Committee discusses the legal powers of local authorities under the Public Health Acts in conjunction with the Insurance Act. It expresses its appreciation of the voluntary efforts, both in town and country, by which a great deal of valuable work in the prevention and treatment of tuberculosis in Scotland has been done. It states that it is obvious that the problem in Scotland has important aspects of its own, and does not discuss in detail the arrangements to be made or measures taken or to be taken by the Scottish central and local authority. It however recommends as follows:

That the establishment of the two main units, namely, (1) Dispensaries (including domiciliary treatment), and (2) Sanatoria, etc., should continue to be the basis of action in Scotland on the same main lines as in the other three countries. They desire further to indicate that the Highlands and islands raise, however, exceptionally difficult administrative and financial questions which it is not within the scope of this report to discuss in detail.

Ireland.

With regard to Ireland, after briefly discussing the powers of local authorities and the present position, the Committee makes the following recommendations:

It is clear that some of the recommendations which the Committee have made in the other section of the report would either not be applicable to Ireland, or might require to be considerably modified. In view, therefore, of the more complex conditions existing in Ireland, the Committee desires merely to express the opinion that the same general principles as regards treatment and the class of institution to be established which are indicated in this report are applicable to Ireland, and that the authorities administering the grants should, in the main, be guided by those general principles.

The areas of administration should, as far as practicable, be those of borough and county councils or combination of counties.

The Committee consider that it is necessary, in order to deal effectively with tuberculosis in Ireland, to provide without delay for:

(*a*) The compulsory notification of pulmonary tuberculosis in all districts in Ireland.

(*b*) Entrusting county councils with administrative functions for dealing with public health and for the appointment of county medical officers of health.

(*c*) The medical inspection and treatment of school children, which should be provided by means of a Government grant.

The Committee consider that a fixed proportion of the grant of £145,000 to Ireland should be earmarked for providing for the institutional treatment of tuberculous children. The higher incidence of tuberculosis in Ireland amongst children of the school age renders it imperative that adequate provision should be made for dealing with this aspect of the question, for if this matter is not adequately dealt with, it may result in throwing upon the insured ages a large number of medically unfit persons, and thus upset the actuarial calculations upon which the finance of the National Insurance Act is founded.

Co-operation between Government Departments.

With a view to securing prompt and effective concerted action and a common trend of effort, the report proposes that the Government departments concerned, such as the Local Government Board and the National Health Insurance Commissions, should make, as has been done by other Government departments, mutual arrangements in some convenient form whereby important questions under the Insurance Act affecting the administration as to tuberculosis should first be considered generally by representatives of the departments concerned.

FINANCE.

The financial recommendations include proposals for capital grants in varying proportions towards tuberculosis dispensaries, sanatoriums, and hospitals. With regard to maintenance, the proposal is that Insurance Committees should make agreements with the governing bodies of sanatoriums, hospitals, etc., for the maintenance of a fixed number of beds for a term of years, and that, as far as the dispensary is concerned, a lump sum should be paid annually under an agreement for a term of years.

In the case of general practitioners treating persons under the scheme in consultation with the chief tuberculosis officer, payment should be on a scale agreed upon between the parties concerned, and, in the case of insured persons, the payment would, of course, be in addition to the sums paid for medical benefit. No indication is given of the rates of payment which the Committee would consider adequate.

The Committee estimates that some 225 to 300 dispensaries or their equivalent staff would probably be required for the United Kingdom, but that special arrangements

may be needed for sparsely populated areas. It is estimated that an existing building could, as a general rule, be adapted to a dispensary at a capital expenditure of from £250 to £300 for the alterations and equipment necessary. Taking the basis of one bed for every 5,000 inhabitants it is estimated that some 9,000 beds in sanatoriums will be necessary at the outset for adults in the United Kingdom, including such existing beds as may be suitable and available. It is estimated that the cost of the additional accommodation required would be on an average £150 a bed, including the cost of the land and of the administrative section. As to hospital beds, the Committee expresses itself unable to make more than a rough estimate, which is that in addition to Poor Law beds some 9,000 beds will probably be required for the purposes of observation, treatment, education, and isolation. How many of this number would have to be new would depend upon the number of available beds in existence not now utilized for the treatment of tuberculosis.

The Committee proposes to deal with non-pulmonary tuberculosis and children in its final report, and, realizing the importance of undertaking the systematic treatment of children, will propose the allocation of a definite sum for the provision of the necessary institutions.

SUMMARY OF PRINCIPAL RECOMMENDATIONS.

The principal recommendations of the report are summarized as follows:

1. That schemes dealing with the whole population should be drawn up by councils of counties and county boroughs[*] or by combinations of these bodies at the earliest possible date on the lines recommended in this report, with due regard to the incidence of the disease and the special conditions and circumstances of the area.[†]

2. That the early establishment in working order of an adequate number of tuberculosis dispensaries is essential.

3. That, so far as possible, grants in aid of tuberculosis dispensaries should only be given where such institutions will eventually form constituent parts of complete schemes.

4. That, in framing complete schemes, regard should be had to all the existing available authorities, organizations, and institutions, with a view to avoiding waste by overlapping and to obtaining their co-operation and inclusion within the schemes proposed.

5. That special regard should be given to securing the co-operation of medical practitioners in the working of the schemes, particularly in relation to the early detection of the disease and its domiciliary and dispensary treatment.

6. That special attention should be paid to securing suitably qualified and experienced medical practitioners for the senior appointments in connexion with institutions established, as the ultimate result obtained by the treatment recommended must depend to a great extent upon the medical and administrative qualifications.

7. That in erecting or adapting institutions local authorities and other bodies should avoid pretentious and extravagant buildings, and should aim rather at providing institutions of a simple and inexpensive character. It would seem desirable that provisions similar to those of Section 3 of the Education Act, 1911, should be made applicable, and that due regard should be had to any town-planning schemes.

8. That inasmuch as the opportunities which are now afforded in general hospitals to students of medicine for the observation of the course and treatment of tuberculosis are insufficient to secure provision of an adequate number of expert medical officers, advantage should be taken of the extended opportunities which will be afforded under the proposed scheme to obtain additional instruction.

[*] In Scotland by the councils of counties, and, in burghs with a population of 20,000 and upwards at the census of 1911, by the town councils.

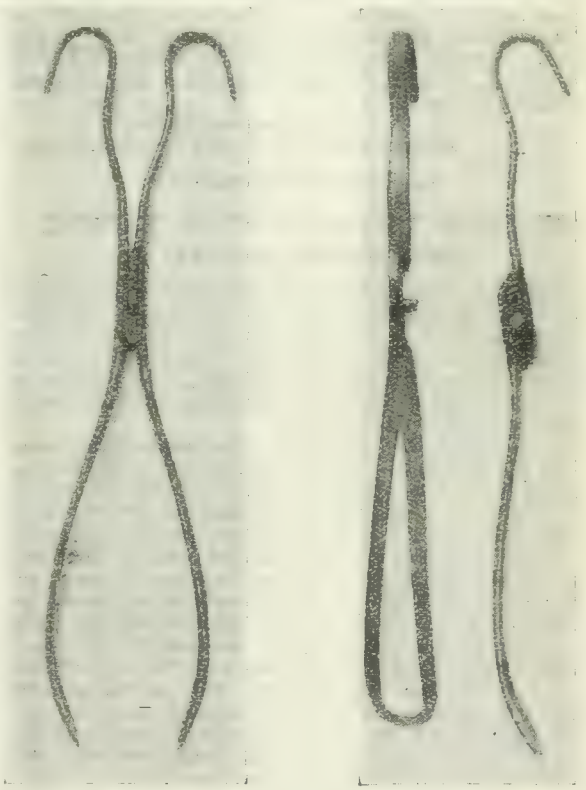
[†] In its application to Wales this recommendation should be read subject to the modifications which may be rendered necessary owing to the existence of the Welsh National Memorial Association.

Nova et Vetera.

A PAIR OF MIDWIFERY FORCEPS OF EARLY EIGHTEENTH CENTURY PATTERN.

THE accompanying photographs are taken from a very interesting instrument in the museum of the medical department of the University of Leeds. It was presented by Mr. J. A. Nunneley, M.B., and was the property of his father, who collected many curios. It appears to correspond with a pattern that bears the name of Grégoire *fils*, dating from the first half of the eighteenth century.

The two oldest patterns of forceps known are: First, the original Chamberlen forceps, preserved in the library of the Royal Society of Medicine, with which I have carefully compared the instrument about which I am now writing; and, secondly, Palfyn's forceps, which will be found depicted in several textbooks of midwifery, such, for instance, as Whitridge Williams's well-known work, which



shows several of the oldest instruments. Palfyn's instrument was almost certainly not derived from Chamberlen's, but was designed by doubling the "*crochet en cuillier*" of Ambroise Paré, and to this Grégoire's pattern shows no resemblance. To Chamberlen's instrument, however, its likeness is obvious. Certain differences are obvious also, especially in the lock. Chamberlen's earlier pattern has no lock; the later has a pivot joint of simple form. The pattern here shown is characterized by a very ingenious lock, which consists of a pivot rising from the lower blade and passing through a hole in the upper. It is secured by a sliding bolt, which fits into a groove round the neck of the pivot and clasps it firmly.

Midwifery forceps were first described in European literature by Giffard in 1734 and Chapman in 1735; their instruments are obviously modifications of Chamberlen's, but do not correspond with Grégoire's. Levret's famous forceps (1747) resembles Grégoire's in some points, but differs by the presence of the pelvic curve and in the details of the lock.

Grégoire's forceps is figured in a very interesting work by Dr. E. Ingerslev of Copenhagen, *Die Geburtszange, Eine geburtshülfliche Studie*. Stuttgart, 1891. The sliding bolt is present and the pattern appears to correspond almost exactly with the instrument in my possession.

The Grégoires, father and son, had an extensive midwifery practice in Paris in the first half of the eighteenth century, although they have left no contribution to the literature of their time. Grégoire *fils* had a pupil, Boehmer, who became professor in the University of Halle, and who in 1746 published an account of Grégoire's forceps, and this is said to have been the first introduction of forceps into Germany. This instrument has a cephalic curve which is shallower than the cephalic curve of modern instruments. The blades are perfectly straight, and there is no proper shaft, the fenestra coming quite near to the lock. The instrument is very well made in steel, and weighs only 15 oz. The total length is 15 in., the blades are about $1\frac{5}{8}$ in. wide, the greatest distance between the two blades is $2\frac{3}{8}$ in., and the distance separating the tips is $1\frac{1}{2}$ in.

I think that a low forceps case could be very well delivered with Grégoire's forceps, but for high cases it would be inefficient and dangerous.

I have no further means of determining when and where this instrument was made, but it certainly corresponds to Grégoire's pattern, and this is of historic interest as being the first known in Germany. I should be much obliged to any connoisseur who could give me further light on the subject. Ingerslev's figure is copied in Winckel's *Handbuch*, Bd. iii, T. 1, S. 484, but Ingerslev's original work gives fuller details.

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THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY.

THE annual general meeting of the London and Counties Medical Protection Society was held at the society's registered offices, 32, Craven Street, on April 24th, when the report of the council for the year 1911 was submitted, and, together with the accounts, duly adopted. The election to the various honorary offices of the society also took place; all existing officers were re-elected.

The principal event recorded in the report was the sanction by the Courts of the alteration in the memorandum of the articles of association authorizing the society to make itself responsible towards a member on whose behalf action is taken by the society, not only, as before, for all the costs of defending him, whether successfully or otherwise, but also against any adverse costs and damages up to the amount of £2,000 in a case fought on his behalf by the society in the courts, as also against any amounts which may become payable in a case settled by compromise. This alteration in the scope of the work of the society took effect on February 14th, 1911, and led, as was expected, to the loss of a certain number of members who were not prepared to face an increase in subscription from 10s. to £1. On the other hand, the change was warmly welcomed by the great majority of members of the society, and there was a noteworthy increase in the number of those who availed themselves of the advice and assistance provided by it.

In view of the altered circumstances of the society's work the accounts presented included some new headings which will presently be still further developed, the funds being divided into three separate accounts—a general account, a reserve account, and a special insurance account. Summed up, they showed that the total resources available for the work of the society during the year 1912, as calculated on the first day of that year, exceeded £33,000. The report also recorded the action taken by the council in regard to the National Insurance Act soon after its introduction in the House of Commons last year. Gratitude was expressed to the society's solicitors, Messrs. le Brasseur and Oakley, for energetically and skilfully conducting its legal work, and brief extracts of some two hundred of the cases in which the advice of the society had been sought were given as samples of the work done during the year. These show how multifarious are the problems that may turn up in the course of the work of a medical man or dental surgeon, and how desirable it is for every practitioner to become a member of a defence society.

In moving the adoption of the report Dr. HERON, the Chairman, asked members of the society to give careful attention to the system of assurance which the council with the approval of the vast majority of the members had got into working order since February 14th last year. Its chief features were that the funds the society derived from the additional subscription would be first used to meet the costs of "the other side," as also any damages in unsuccessful cases undertaken on behalf of members. (The costs of the members would, of course, be paid by the society as before, but would not be included in the insurance.) If the gross expenditure entailed by the society in the payment of such possible costs and damages exceeded £2,000 in any one year the excess would be met by insurance effected with members of Lloyd's. Any possible excess up to £20,000 was covered by this assurance, and the whole sum of £22,000 was thus available for the payment of the costs of the other side, as also of damages incurred in connexion with any case which the society undertook on behalf of a member, whether such member figured in the proceedings as plaintiff or defendant. Should the member be cast in damages as well as in costs, or in costs alone, this same fund of £22,000 would be equally available to meet the expense.

The report and accounts were adopted unanimously, and the meeting, which was well attended, ended after the passage of a vote of thanks to Dr. Heron.

LITERARY NOTES.

THE publication of *The Works of John Caius, M.D., Second Founder of Gonville and Caius College and Master of the College 1559–1573*, by the Cambridge University Press, is announced. The volume is edited by the present Master, the Rev. E. S. Roberts, and a memoir of the life of Caius is contributed by Dr. John Venn, Senior Fellow and President of the College. This edition is intended as a memorial of the quatercentenary celebration of the birth of Caius in 1910. The President and Fellows of the Royal College of Physicians have shared with Gonville and Caius College the labour and expense of issuing the volume.

The report of the Council of the National Library of Wales on the progress of the library from April, 1909, to September, 1910, states that a large amount of important work has been done by readers who have eagerly availed themselves of the opportunity to consult manuscripts now for the first time made accessible to the public. The name of Sir John Williams, M.D., the president of the court of governors, who may be called the "pious founder" of the library, and who has been a most generous giver to the collection, figures largely in the list of the donors. During July and August, 1909, a selection of manuscripts and books from his library was placed on exhibition, and a large number of visitors took advantage of the opportunity thus afforded of seeing for the first time some of the precious manuscripts of the Hengwrt and other collections, and other unique, rare, and precious books. A department of prints and drawings has been instituted. To this department Sir John Williams has presented his portfolios of prints and drawings—a large and valuable collection ranging over every county in Wales and including a fine series of original drawings made by Thomas Rowlandson—and many other original drawings of great interest and value. The volume contains much that is of interest to all students of English as well as of Welsh literature.

We have received the first number of a new periodical entitled *Bedrock*, which is described as a quarterly review of scientific thought. Among the contents are Recent Researches in Alcoholism, by Dr. Archdall Reid; Darwin and Bergson in the Interpretation of Evolution, by Professor E. B. Poulton; Social and Sexual Evolution, by the Hermit of Prague; and Human Evidence of Evolution, by Dr. A. M. Gossage. *Bedrock*, which is published by Messrs. Constable and Company, Limited, is under the direction of an editorial committee consisting of Sir Bryan Donkin, Professor Poulton, Dr. Archdall Reid, and Dr. H. H. Turner, Savilian Professor of Astronomy in the University of Oxford. The acting editor is Mr. H. B. Grylls. The new periodical is excellently printed on good paper, and altogether presents an attractive appearance. We heartily wish it success.

To the *Cornhill Magazine* for May, Mr. Stephen Paget contributes a thoughtful article on heredity and life. He says that Sir Francis Galton gave his work in life and his wealth at death to help men and women to clear their minds on the subject of heredity and take to heart the responsibilities of parentage and the shame of degeneracy. What he did to found and establish the principles of eugenics is firm and sure for all time. Yet there are some, Mr. Paget goes on to say, and they are not fools, who find it hard to believe that eugenics will ever have much influence either on the science or on the art of life. Eugenics are becoming a fashionable pursuit, and the man in the street dislikes fashionable science; but he has a better excuse than that for his vague distrust of eugenics, and of all weights and measures of the wonder of heredity.

We play with words, says the man in the street, as a child plays with counters: and this word *Heredity* is one of our favourite toys. We love to wind it up, and make it perform; we pretend that there is a good understanding between it and us. We lay on heredity our vices, and kind friends explain by heredity our virtues. I know, says he, that many of us have reason enough, and maybe more than enough, to pay great heed to heredity; for in them it is always dominant, or so it seems to them, for better for worse, for richer, for poorer, in sickness and in health: and I admit that it would take a fool of unusual density to explain away or deny the palpable facts of heredity. Only, we must not imagine that we can fathom them. For there are words which we are bound to use, because they are the only words that we have. Such are "nature," "duty," "happiness," and the like; we are not agreed as to the meanings of them, but we cannot get on without them. So it is with this word "heredity." It does not define with exactness any one fact or set of facts in science and experience; it will not let itself be limited by terms of physiology; and we use this profound word with offhand levity. For the practical conduct of our private and public affairs, we have got thus far, with all our talk about heredity, and no farther: that we must be more scrupulous and reverent in our exercise of the awful power of parentage, and must go in more fear of reproducing, in the next generation, nothing better than ourselves, or something worse. We are beginning to feel the wickedness of self-confidence, the foolishness of mere hope and faith: we are learning that figs do not come of thistles, nor grapes of brambles.

We recommend all interested in the subject to read Mr. Paget's article; they will find there that the science of eugenics is largely a juggling with words as cryptic to the general as the hieroglyphs of vanished races. And these mystic symbols are often a cloak for ignorance of realities. After all, can it be said that with our "gametes," "ids," "allelomorphs" and the rest, we have got further than Horace's teaching, *Fortes creantur fortibus et bonis!*

Dr. A. A. Bradburne (Manchester) writes: In the issue of the JOURNAL for April 27th, p. 968, you say:

Novelists must, of course, draw their characters from real life, and much time and trouble have been given to the attempt to trace the originals.

You go on to refer to Sir Arthur Conan Doyle's *Stark Munro Letters*. In that same work, on p. 44, occurs the following:

Yes, Horton is a real right-down good fellow. His heart is broad and kind and generous. There is nothing petty in the man. He loves to see those around him happy; and the sight of his sturdy figure and jolly red face goes far to make them so. Nature meant him to be a healer; for he brightens up a sick room. . . . Don't imagine from my description that he is in any way soft, however. There is no one on whom one could be less likely to impose. He has a temper which is easily aflame and as easily appeased. A mistake in the dispensing may wake it up; and then he bursts into the surgery like a whiff of east wind, his cheeks red, his whiskers bristling, and his eyes malignant. The day book is banged, the bottles rattled, the counter thumped, and then he is off again with five doors slamming behind him. We can trace his progress when the black mood is on him by those dwindling slams. Perhaps it is that McCarthy has labelled the cough mixture as the eyewash, or sent an empty pill box with an exhortation to take one every four hours.

This pen picture is drawn from life, and represents the late Mr. Reginald Ratcliff Hoare, of Aston, Birmingham. Every one who knew him feels how true this description of the genial, warm-hearted doctor is. Sir Arthur's knowledge arises from the fact that he was Mr. Hoare's assistant, and the *Letters* contain much of the author's personal experiences. If those who have not read these *Letters* do so now with the knowledge that a great deal is actual experience, they will find an interest peculiarly its own permeating the work. Personally one cannot help feeling grateful to Sir Arthur for the monument of immortality which he has raised to one of the best of men that ever graced the profession.

A curious instance of a very old superstition is to be found in the April number of the *Old Lore Miscellany of Orkney, Shetland, Caithness, and Sutherland*. Part II, vol. v. The custom of treating sprains by winding a thread round the injured limb whilst reciting a certain charm is of great antiquity, and seems to have been used, in certain parts of Scotland at least, in the case of cattle as well as men, long after it had been forbidden under pain of severe penalties by the Scottish Kirk. The Rev. D. Beaton, who has published an interesting series of extracts from the Kirk Session records of the parish of Canisby, in Caithness, quotes in the present number of the *Old Lore Miscellany* a case which came before the Kirk Session on June 26th, 1659, and is entered on the parish books as follows:

26 June 1659. Delated that Issobell Skeall in Dungasbey the first day that the plough streiked (set to work) sche did put ane blew threid about ane oxe foot wt severall knots upon it and that sche removed the first day of sowing barland and put a threid of another color. Ordaines the said Issobell to be charged at the next session.

3 July 1659. Compeired Issobell Skeall who accuised, confessed that sche had frome Donald Gilbertsone a wrestband of reid threid wch sche did put about hir oxe foot being sore and that the said Donald Gilbertsone did put it on, speiking some words in way of Charm. Ordaines the said Donald for useing his lib to be charged to the session the next diett.

7 August 1659. Issobell Skeall convict by hir confession of charming hir oxe foote ordained the nixt day to be charged to enter and stand in sackcloath.

Thus ended "the said Issobell's" unfortunate attempt to heal her ox by the time-honoured method of the "wreist-band"; but it would be interesting to know how Donald Gilbertstone fared in the matter, and if he and the too credulous Isobel saw the error of their ways or continued to cling secretly to a belief which had been handed down to them through countless generations from their pagan forefathers. The April number of the *Old Lore Miscellany* also contains an interesting article by Mr. R. Stuart Bruce on some old-time Shetlandic wrecks, and a short account by Mrs. A. W. Johnson of some ancient Shetland airs; whilst Mr. J. Storer Clouston discusses the origin and history of Orcadian surnames. Mr. John Spence contributes the last of his charming series of articles describing life in an old-world township of Orkney.

Dr. Hurley, of Queen Camel, Somerset, continues his studies in the infinitely little (see BRITISH MEDICAL JOURNAL, April 13th, p. 849). He has lighted on a sentence containing an obvious misprint, as to which we can only say, as Goethe said to the candid friend who showed him that he had perpetrated a seven-footed hexameter, *Lass die Bestie stehen!* He has found another sentence, in which, by the topsy-turveydom that is so often the result of a double "correction," it is stated that Charles II, when Prince of Wales, was appointed surgeon to Wiseman! "A hit, a palpable hit!" We do not, however, think that Dr. Hurley gets home in his next thrust. He seems to be unnecessarily puzzled by the phrase "direct descendants"; has he never heard of collateral descendants? Our Aristarchus is also much exercised by the discovery that the contributor of an original paper likened himself and his brethren to "the man in Molière's play who was delighted to find that he had been talking prose all his life." In a matter of such gravity no effort should be spared to arrive at the exact truth; we have accordingly taken the trouble to verify the reference. Dr. Hurley is quite correct in putting the period at forty years. M. Jourdain, in *Le Bourgeois Gentilhomme*, says to his "maître de philosophie": *Par ma foi, il y a plus de quarante ans que je dis de la prose, sans que j'en susse rien.* It appears that Mr. Mallock in his *New Republic* was so misguided as to give the period as twenty years! We congratulate Dr. Hurley on having thus at one fell swoop unmasked our contributor and Mr. Mallock. Dr. Hurley, seeking a misprint or a slip of the pen, reminds one of Diogenes with his lantern looking for a man. If he picks up an unconsidered trifle here and there, on the whole his success is not commensurate with the trouble expended. This is not surprising in the case of a busy doctor in these hustling days. He would require the spacious times of great Elizabeth to play the part of amateur literary detective with the success worthy of so great a cause.

THE SEROLOGICAL DIAGNOSIS OF CANCER.

I.—COMPLEMENT DEVIATION REACTIONS.

By the researches of Bordet and Gengou it became possible to demonstrate the presence of antibodies in a serum when the antigen was known. They found that a mixture of antigen, whether bacteria or their products or solutions of albuminoid substances, and the specific reaction bodies in the serum had the property of appropriating normal serum complement, so that if subsequently red blood corpuscles and their appropriate antiserum were added to the mixture, haemolysis did not occur, owing to the fact that the serum complement necessary for the reaction had been already used up. It is possible to hope by these means to find either the antigen when the antibody is known or the antibody when the antigen is known.

In the Wassermann reaction in syphilis there is a combination of reaction bodies in the serum with a particular antigen, but the antigen is not the exciter of these antibodies; in other words, the reaction is practically pathognomonic, though it is not specific. The extract of syphilitic liver used in the test is not an extract of the spirochaete, as extract of guinea-pig heart can be substituted for it. Such being the case, is there not reason to hope that by similar methods evidences of reaction bodies in the serum might be found in malignant disease? Here we are ignorant of the nature of the real exciter of the presumed antibodies, but perhaps an extract of the cancerous tumour would combine with the latter to absorb complement, just as in the case of syphilis. A considerable amount of work on these lines has been done by foreign investigators.

Sampietro and Tesa,[1] who were the first to communicate definite results, employed aqueous and alcoholic extracts of malignant tumours as antigen. They found, in the serum of 17 cases of cancer, substances which combined with this antigen to deviate complement, whilst the serum of normal or non-cancerous cases had no such property, with the one exception that alcoholic extracts gave reactions with syphilitic serum. Simon and Thomas[2] prepared an antigen by shaking minced cancer tissue for twenty-four hours with carbolized saline solution and centrifuging the extract before use. Of 37 cancer serums, 24 (21 carcinomas and 3 sarcomas) gave a positive reaction. Those giving a negative reaction were all cancers of the alimentary tract or of the uterus. Of 100 controls only 2 reacted positively. Ravenna[3] found in cancer serum certain substances, not present in normal serum, capable of deviating complement in the presence of cancer extract; but this deviation could be obtained not only by cancer extract but also by various other pathological products in other diseases. He agreed, however, that cancer serums gave a much more exact reaction with diluted cancer extract than did the serum in other diseases. Sisto and Jona,[4] using an aqueous extract of cancer, obtained 23 positive results in 30 cases of carcinoma and in 6 out of 8 cases of sarcoma. Weinberg and Mello[5] sought for the presence of antibodies in the serum of 100 cancers; an aqueous extract gave the best results, but they obtained only 20 per cent. positive results, and they suggested that the higher percentages claimed by others were due to faults in technique. Their results were confirmed by De Marchis,[6] who tested the reaction in 33 carcinomas, 4 sarcomas, 2 cancers supervening on syphilis, 5 benign tumours, and 29 non-malignant cases. Using both aqueous and alcoholic extracts of carcinoma and sarcoma, he found that the reaction often failed in small cancers or large growths whether ulcerated or not. It was, indeed, found to occur in a relatively small number of tumours, and also in syphilis and other diseases. He concluded that a negative reaction was of no importance, whilst a positive result was of comparatively little clinical value. Guillot and Daufesne[7] and Hirschfeld[8] entirely failed to obtain reactions in any of the cases they tested. Mello[9] obtained fixation of complement in 7 out of 15 horses with malignant tumours. Gay,[10] working with the Flexner-Jobling rat carcinoma, found that a watery extract of the tumour did not produce deviation of complement in the presence of the serum of rats rendered immune to transplantation. Wakelin Barratt[11] got deviation in the case of transplanted mouse cancer in 3 cases out of 9, though he failed to find it in the case of human cancer. Weil[12] and Engel[13] did not succeed in obtaining positive reactions in any case of mouse cancer. Michaelis found no deviation with the serum of immune mice.[16]

The latest observations are those of Professor von Dungern.[14] He experimented with watery extracts and also with ether extracts prepared according to Ascoli's method, but the results were unsatisfactory. Good results, however, were obtained by the following technique:

> The finely-minced tumour is mixed with four volumes of ethyl alcohol and left for twelve to forty-eight hours, when it is filtered. For use a portion is diluted with two volumes of normal saline; 0.4 c.cm. of this lipoid emulsion is added to each tube; the serum to be tested is used unheated in quantities of 0.05 c.cm., and as complement 0.05 c.cm. of fresh guinea-pig serum in 1 c.cm. salt solution is added. The tubes are left for three hours at room temperature. The sensitization of the ox corpuscles for the haemolytic system is so arranged that in the controls the haemolysis occurs in three-quarters of an hour. The reaction is considered negative if haemolysis in the tubes containing extract commences soon after that in the controls, and is complete in two hours. The extracts of themselves have no effect on the haemolysis. The result of the reaction is very evident three to four hours after haemolysis has commenced in the controls. After twenty-four hours haemolysis has generally occurred.

Von Dungern used four different extracts—two prepared from rapidly growing mammary carcinomas, one from a carcinoma of the pharynx, and the fourth from an epithelioma of the vulva; 144 different serums were tested; 40 were from various tumours and 23 normal; the remainder included other diseases, amongst which were several cases of syphilis. The serum from the tumour cases always gave a positive reaction; normal serum was always negative, as also was the serum in diseases other than syphilis. All the malignant cases gave a strong reaction with the extract first used. Only six benign growths were investigated, and the reaction was sometimes positive and sometimes feeble. In several cases of syphilis and parasyphilis the reaction was negative, though the reactions with extract of guinea-pig's heart were strong; other cases of syphilis, such as chancre, gumma, and syphilitic arteritis, gave a positive reaction. Only one of the cancer cases gave a positive Wassermann reaction, though all were tested, and in this case there was no history of syphilis, though it could not certainly be excluded. This is an important point in view of the fact that Caan[15] claimed to have found a positive Wassermann reaction in no less than 35 out of 85 carcinomas and sarcomas where there was no history of syphilis. Several other observers have also observed positive Wassermann reactions in cases of malignant disease, but their results, obtained by older technical methods, are not now accepted.

From the writings of the various observers it is evident that hitherto the extracts of malignant tumours that have been used as antigens in the complement deviation tests are not specific enough to differentiate cases of cancer from syphilis, or to distinguish simple from malignant new growths. It is possible that in the future an extract may be so prepared that it will give a deviation with all cancer serums but not with syphilitic serum. Meanwhile further observations are necessary to confirm the results of v. Dungern—results which so far surpass those of previous workers as to give us the hope that the complement deviation reaction, either alone or in conjunction with other serological reactions, may be of diagnostic importance in malignant disease.

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THE Wolseley Motor Car Company has brought out a well bound catalogue to assist purchasers of Wolseley cars in identifying and ordering any spare parts considered necessary. Every component of a complete chassis is so clearly illustrated that the booklet might well be useful to any one desirous of getting up a knowledge of the anatomy of car construction and of the meaning of the technical terms used in descriptions thereof.

British Medical Journal.

SATURDAY MAY 4TH, 1912.

THE TREASURY COMMITTEE ON TUBERCULOSIS.

SANATORIUM BENEFIT as now defined—the use of the term remains as an indication of the imperfect conception of the problem which the promoters of the measure had when the bill was originally drafted—stands on a somewhat different footing from "medical benefit." It is, as is well recognized, not included in the medical treatment proposed to be arranged under the provisions of the Act relating to medical benefit, and its cost will be defrayed out of a separate fund.

A little over two months ago the Chancellor of the Exchequer appointed a Committee to report upon the considerations of general policy in respect of the problem of tuberculosis in the United Kingdom in its preventive, curative, and other aspects, which should guide the Government and local bodies in making or aiding provision for the treatment of tuberculosis in sanatoriums or other institutions or otherwise. The Committee, presided over by Mr. Waldorf Astor, M.P., consisted primarily of eighteen members, to whom two more were subsequently added. The Committee was representative of Parliament, of the various departments of the State more directly interested in tuberculosis, and of clinical and preventive medicine, but did not contain any representative of general practitioners. This omission, which is much to be regretted, was as far as possible repaired in a memorandum submitted by the British Medical Association, a copy of which is published as part of the analysis of the Committee's Interim Report printed at p. 1021. Judging from the tenor of the report it is clear that the representations made by the Association had much weight with the Committee, for it will be seen that the importance of the work general practitioners must do in any campaign against tuberculosis which is to be effective has been recognized.

With commendable promptitude the Committee commenced its labours within a few days of its appointment. Though the instructions given by the Treasury did not contain any direct reference to the National Insurance Scheme, it was of course constantly in the mind of every member, and the Committee has been moved now to issue an interim report by the fact that the provisions of the National Insurance Act, 1911, with regard to "sanatorium benefit"—that is to say, with regard to the treatment of tuberculosis in all its forms, a point clearly recognized in the report—will become effective on July 15th, 1912, from which date insured persons will be entitled to claim the various kinds of assistance included under the statutory term "sanatorium benefit." The chairman of the Joint Committee of Commissioners has admitted that it will not be possible to provide sanatorium treatment immediately in a complete form. If the estimates of the Committee are not exaggerated—and some will think them underestimates—if, that is, something like 250 or 300 tuberculosis dispensaries, 9,000 beds in sanatoriums, 9,000 hospital beds for the purposes of observation, treatment, education, and isolation, and eventually beds for the treatment of children and for non-pulmonary tuberculosis both in children and in adults will be required, it is evident that the whole complex piece of machinery cannot be got into fully working order in a hurry.

To the patient researches of pathologists, bacteriologists, and clinical physicians it is due that administrators, lay and medical, are now in a position confidently to advise the State and municipalities as to the means which can most effectively be taken to check and finally, it is hoped, to eradicate the disease. To the education of public opinion by the medical profession it is due that Parliament has sanctioned the expenditure of large sums of public money for the prevention and treatment of the disease and, we are glad to add, for the continuation and extension of researches into its etiology and pathology. In the practical working of any scheme for the administration of sanatorium benefit, as at every other point in which the Insurance scheme, by its many ramifications, touches problems affecting the prevention and treatment of disease, the hearty co-operation of the medical profession is essential to success. The Committee on Tuberculosis has recognized this fact. The scheme it recommends consists of two main parts, the provision or extension of tuberculosis dispensaries, allied with domiciliary and shelter treatment, and the provision, organization, and classification of means of treatment in residential institutions (sanatoriums and hospitals). The purpose of this interim report is, in fact, to outline a comprehensive scheme for combating tuberculosis in all its forms so that local authorities and other bodies concerned should be able to take harmonious action in the near future.

A most important part of the Committee's work has consisted in the attempt to correlate the activities of the various bodies, authorities, and persons concerned with the problem, and in this attempt it has seen the necessity of recognizing the important part that must be played by general practitioners. The agencies which have to be welded together so as to combine in an effective campaign include, besides medical practitioners who are the essential element of the whole, county councils, sanitary authorities and joint hospital boards, education authorities, Poor Law authorities, the Metropolitan Asylums Board, and voluntary societies. Beyond these, the Act brings, for the first time, into existence a new group of agencies in the Insurance Commissioners and Insurance Committees.

The Committee recommends that in conducting the proposed campaign against tuberculosis the unit of area should generally be that of a county or county borough, and that the council of the county or county borough should be the body legally responsible for the provision and maintenance of the institutions required, but that in formulating a complete scheme for an area they should consult the sanitary authorities and the Insurance Committees. It expresses the opinion that these bodies, recognizing the services that have been rendered in the past by voluntary effort, should encourage the continuance of such services by making the utmost use of the provision which private liberality has made available. It recommends, therefore, that every endeavour should be made to include in the local scheme institutions and associations which are carried on by private effort. The point of junction between the two chief authorities would be the tuberculosis dispensary. Under the scheme devised it is intended that the chief medical officer of that institution should be in closest touch with the Insurance Committees on the one hand, and

with the medical officers of health and sanitary authorities on the other.

The Finance Act, 1911, allocated the sum of £1,500,000 for the provision of, and making grants to, sanatoriums and other institutions. This capital sum is to be apportioned in proportion to population, and the Committee makes the rough estimate that the capital sum available will be in England £1,116,000, in Wales £81,000, in Scotland £158,000, and in Ireland £145,000. The grants will be distributed in proportion to population in England, Scotland, and Ireland by the Local Government Board, with the consent of the Treasury, which in turn is to consult the Insurance Commissioners. In Wales the money will be distributed by the Welsh Insurance Commission, which will have regard to the fact that the King Edward VII Welsh National Memorial Association has raised a fund exceeding £200,000.

The general purport of the report is to devise means to meet every aspect of the tuberculosis problem by an effective agency in the shape of an institution fitted to deal with the particular issue. The primary centre of the whole activity would be the tuberculosis dispensary, to which inquiries regarding tuberculosis and patients suffering from tuberculosis would be referred in the first instance. It is recommended that this receiving centre should be closely linked to the other elements in the system concerned with treatment, including sanatoriums, hospitals, tuberculosis schools, and farm colonies, while at the same time continuing to be for certain patients the centre from which treatment would be organized. The proposals would seem to be an endorsement in principle, and largely in detail, of what is pretty widely known as the Edinburgh co-ordinated scheme, with a definite recognition of the need for the systematic co-operation of general practitioners as an essential part of the scheme. The view that the establishment in working order of an adequate number of tuberculosis dispensaries is more important in point of time than the establishment of other institutions is emphasized, and it can, in fact, hardly be doubted that in proportion as the tuberculosis dispensary is perfected and made an effective element in organization, there will be less and less need for the spending of money on the other institutions.

The report rightly insists that regard should be had to all existing available authorities, organizations, and institutions, whether official or voluntary, with a view to securing their co-operation and including them within the scheme. It cannot be forgotten that in this country a large part of the armament against tuberculosis has been forged by the foresight, determination, and generosity of private individuals. These pioneer achievements have taught us much, both in principle and in detail, and have contributed largely to the solution of the problem which seems now to be within reach. As we proceed to further developments it is right that the debt owed to these forerunners should be remembered and recognized.

THE HIPPOCRATIC OATH.

A CORRESPONDENT has asked us to give "the main points of the Hippocratic oath, with any other short notes on the manner in which Hippocrates's teaching has influenced medical ethics." To answer this question fully a treatise would be required. In the first place, there is considerable doubt whether the oath is of genuinely Hippocratic origin. Kurt Sprengel, in his *History of Medicine*, holds that it was primarily introduced from Egypt, and that in its present form it does not date further back than the famous medical school of Alexandria. That distinguished authority, Felix von Oefele, has sought to prove that the oath is of Egyptian origin, on the ground that the narrow caste spirit which reserved to some privileged families the teaching of medicine, and placed their members as practitioners in an exceptional position, could not have had its origin in Greece. He thinks that Greeks who went to learn in Egypt were obliged to submit to ceremonies of initiation or investiture, which they afterwards introduced into their own country, substituting the names of Greek gods for those of Egyptian deities. On the other hand, in the article on Medicine in the latest edition of the *Encyclopaedia Britannica*, the oath seems to be treated as Hippocratic in character if not actually in authorship. "The first grand characteristic of Hippocratic medicine," it is there said, "is the high conception of the duties and status of the physician, shown in the celebrated 'Oath of Hippocrates' and elsewhere—equally free from the mysticism of a priesthood and the vulgar pretensions of a mercenary craft." It is impossible to discuss here a question which has exercised the minds of many scholars; we need only say that while Hippocrates was, according to Soranus, born in 460 B.C., the dates assigned to the representatives of Indian medicine, chief among whom are Susruta and Charaka, vary within an indefinite limit of many centuries. The text of the Hippocratic oath is as follows:[1]

"I swear by Apollo the physician, and Aesculapius, and Health, and All-heal, and all the gods and goddesses, that, according to my ability and judgement, I will keep this Oath and this stipulation—to reckon him who taught me this Art equally dear to me as my parents, to share my substance with him, and relieve his necessities if required; to look upon his offspring in the same footing as my own brothers, and to teach them this art, if they shall wish to learn it, without fee or stipulation; and that by precept, lecture, and every other mode of instruction, I will impart a knowledge of the Art to my own sons, and those of my teachers, and to disciples bound by a stipulation and oath according to the law of medicine, but to none others. I will follow that system of regimen which, according to my ability and judgement, I consider for the benefit of my patients, and abstain from whatever is deleterious and mischievous. I will give no deadly medicine to any one if asked, nor suggest any such counsel; and in like manner I will not give to a woman a pessary to produce abortion. With purity and with holiness I will pass my life and practise my Art. I will not cut persons labouring under the stone, but will leave this to be done by men who are practitioners of this work. Into whatever houses I enter, I will go into them for the benefit of the sick, and will abstain from every voluntary act of mischief and corruption; and, further, from the seduction of females or males, of freemen and slaves. Whatever, in connexion with my professional practice, or not in connexion with it, I see or hear, in the life of men, which ought not to be spoken of abroad, I will not divulge, as reckoning that all such should be kept secret. While I continue to keep this Oath unviolated, may it be granted to me to enjoy life and the practice of the art, respected by all men, in all times! But should I trespass and violate this Oath, may the reverse be my lot."

In the BRITISH MEDICAL JOURNAL of May 27th, 1907, we reproduced a tablet placed by Sir Havelock Charles in the entrance hall of the Calcutta General

[1] *The Genuine Works of Hippocrates*. Translated from the Greek, with a Preliminary Discourse and Annotations, by Francis Adams, LL.D., Surgeon. Vol. II. London. Printed for the Sydenham Society. MDCCCXLIX. P. 779.

Hospital, in which the Hippocratic oath, together with the Vedic, are inscribed in Sanscrit, Greek, and English. The Indian formula is too long to quote here at length; the following passages will suffice for the purpose of comparison with the Greek oath:

"Thou shouldst with thy whole heart strive to bring about the cure of those that are ill—not even for thy life's sake extorting their substance. Thou shouldst not even in imagination know another man's wife, and similarly thou shouldst not appropriate the possession of others.

"Thou shouldst never administer medicines unto those that have incurred the displeasure of the king, or those that are ill disposed towards him, or those that have incurred the displeasure of the great or those bearing ill will towards him. So also thou shouldst not administer medicines to those that are of exceedingly perverse or wicked disposition, or those that are exceedingly poor. Or those that never vindicate their character when it is aspersed, or those that are on the point of death, or those that have not their masters near them, or those women that have not their husbands or other guardians near them.

"Thou shouldst never gossip of the practices of a patient's house. Even if possessed of sufficient knowledge thou shouldst not boast of that knowledge.

"There is no end in the Science of Medicine. Hence heedfully and carefully thou shouldst devote thyself to it, conducting thyself as I direct and without feeling of humiliation, acquiring practice in the Art."

Some points of difference will be noted between these formulas, though the essentials are the same. These are much more tersely set forth in the Hippocratic than in the other. In the Indian oath nothing is said about abortion, and nothing about not cutting for stone. It seems to be doubtful what this means in the Hippocratic form. It is well known that cutting for stone was left as a speciality in the hands of itinerant quacks till about the seventeenth century. It has been suggested that in the Hippocratic oath castration is really meant, but Adams rejects this interpretation. The spirit of the Greek oath may be gathered from other Hippocratic writings. For instance, that entitled *The Physician* begins thus: "Touching his state of mind, he must be heedful of the following. He must not only know how to be silent at the right time but must lead a well-ordered life, for this adds much to his good repute. Let his disposition be that of a man of honour, and as such let him behave to all honourable men in a friendly and easy spirit. Precipitation and impetuosity are not liked even though they be of use. As to his bearing, let him wear an expression of sympathy and not show vexation, which would indicate presumption and misanthropy. Who, on the other hand, laughs readily and is at all times merry becomes a burden. Whence this is particularly to be avoided." Here we may be allowed to add a gloss to the effect that the doctor should certainly avoid the other extreme of going into the sick-room with a face like an undertaker and behaving generally as if it were his duty in life to be a *memento mori* to his fellow creatures. As it is, his mere presence is apt to frighten people, and he need not add to the darkness of the shadow cast thereby by preternatural solemnity of aspect. After all, cheerfulness is better than most of the drugs in the pharmacopoeia, and is more likely to inspire in the patient that confidence which is the greatest of all therapeutic agents.

Hippocrates holds that the good of the patient constitutes the only goal of medical thought and action. "For where love of mankind is, there also is love of art." Belief in the true art of healing, as well as the equally vital recognition of its limitations, rest, in the true disciple of Hippocrates, upon considerations of ethics as well as upon those of theory and knowledge.

Apparently the Hippocratic physician deduces from this realization of the limits of art—a conclusion foreign to our ideas—that help should be withheld from the incurable. Medicine is to him the art "whereby sufferers may be entirely freed from their ailment and severe attacks of disease mitigated, but which should be refused to those persons who are already overwhelmed by illness, since it is clear that in such cases art can effect nothing." This teaching held sway till the Middle Ages, and probably much later. Mondeville expressly enjoins his pupils not to undertake difficult or hopeless cases, on the ground that this would damage their reputation. This can hardly be wondered at when we read of a surgeon insisting on a guarantee of indemnity from all the patient's relatives before undertaking an operation. In our own day we have heard of a great physician whose somewhat rugged honesty made him decline to attend a case, saying bluntly that the disease was cancer of the liver, and that he could do no good. Another physician of great name but different manner was called in, and, while admitting that there was an "enlargement of the liver probably not benignant in character," gave the assurance that much could be done for the relief of the patient. He felt it his duty, in the words of Crabbe:

> When more powerful ills all efforts brave,
> To ease the victim no device can save,
> And smooth the stormy passage to the grave.

Sir James Paget used to say that doctors when confronted with a case of cancer were too ready to fold their hands and do nothing; he would have the fight against the disease continued to the bitter end. To our mind this is unquestionably the right line to take.

The clauses in which the practitioner undertakes to keep secret whatever comes to his knowledge in treating patients, not to procure abortion or suggest means for bringing it about, and to refrain from immoral conduct, lie at the root of medical ethics as accepted at the present day. These are fundamental precepts the violation of which constitutes conduct "infamous in a professional respect." It will be noted that the oath contains nothing as to the duty of the doctor to brother practitioners; perhaps this was not needed in the time of the Father of Medicine. The similarity between the Hippocratic oath and the Indian formula of initiation, are such that it is scarcely possible to look upon them as altogether independent of one another. It is held by Liétard[2] that the identity of the Indian and Greek medical theories is a proof of contact between the two peoples in which the exchange of ideas took place, the Greeks contributing the larger part. There is no reason why the texts about medical etiquette should not have, like the scientific ideas, passed from one civilization to the other. It will be noted that the Indian oath is evidently intended for persons wishing to be admitted to the study of medicine, while the Hippocratic formula is for those about to enter on the practice of their profession. Both of them have something of a sacerdotal character and both are inspired by the feeling of caste. We know that in ancient Greece and in times comparatively modern there were medical families the traditions and observations of which were handed down from father to son, but kept jealously hidden from others.

[2] Acad. de Méd., May 11th, 1897.

The influence of the Hippocratic oath on medical ethics has been far-reaching. At Montpellier till a few years ago the text of the oath used to be printed at the head of the doctoral thesis and was read by the candidate. The oath taken by candidates in the University of Paris, known to every one by the parody of Molière, relates more to the upholding of the privileges of the Faculty than to the conduct of the doctor. At Leyden, Liège, and elsewhere in the Low Countries, an oath was taken on graduation, at least up to 1818, which is essentially the same as that known by the name of Hippocrates. The candidate undertook not to procure abortion and to observe professional secrecy. There was an important reservation in regard to this, however, for he promised to disclose to a judge in a law court whatever had been done or discovered, and to declare his opinion as to the nature of the disease. (In examine autem forensi ad judicem fideliter relaturum quid actum, quid repertum sit, et de indole mali ex animi sententia religiose pronuntiaturum.)

In England, according to the ruling of Lord Brampton, the doctor in the witness-box is at the mercy of the judge, and may be committed for contempt of court if he refuses to answer questions involving a breach of the professional secret. Most judges, however, mercifully refrain from putting this strain upon the conscience of the medical practitioner.

From what has been said, it will be seen that the formula known as the Hippocratic oath, whether it be, as Neuburger says, "the oldest inherit ance from the Coan school, wherein are laid down the duties of the Asclepiades towards pupil, teacher, and patient," or part of a rite of initiation imported from Egypt and adopted in India, still forms the basis of our code of medical ethics. Oaths embodying the essentials of the Hippocratic formula—especially in regard to the keeping of professional confidences—are still, or were till lately, taken by candidates on admission to the medical degree in British universities.

THE THEORY AND PRACTICE OF CHEMIOTHERAPY.

PROFESSOR EHRLICH, in his studies on the treatment of parasitic diseases by means of the salts of arsenic, has been led to divide these parasites into two classes for therapeutic purposes.[1] In some cases the parasites are immune to the specific antibodies produced by the tissues of their victims, and these parasites he describes as "serum-fast." In others the parasites are immune to the most various chemical substances with which the cure of the disease may be attempted, and these parasites, he says, are "chemio-fast." He has reasons for believing that the serum-fast parasites acquire their "serum-fastness" by means of a change in the nature of the receptors or side-chains that may normally serve either the purposes of nutrition ("nutriceptors"), or to anchor to the parasite the immunizing substances produced by the victim. The serum-fast parasites no longer attract or anchor the immunizing substances that would prove fatal to them. But in the chemio-fast parasites another process has been at work, and the "chemio-fastness" is usually gained only slowly and with difficulty by a progressive accommodation of the parasites to the presence of increasing quantities of the toxic drug in question. Immunity to certain varieties of arsenical drugs, however, can be more rapidly acquired by trypanosomes, and Professor Ehrlich's experiments show him that this arsenical chemio-fastness, or immunity to destruction by relatively large amounts of certain arsenical preparations, can be acquired by and maintained in a stock of trypanosomes for years. Now, it is quite a simple matter to make a parasite serum-fast to any given serum, speaking generally, and it is equally easy to rob the parasite of its newly-acquired specific serum-fastness, by the method of passage from one victim to another and back again.

It is of the greatest interest to know whether the property of chemio-fastness runs parallel with that of serum-fastness; for, if it does not, then the human race is threatened with a new horror—that of stocks of trypanosomes and spirochaetes that have grown immune to the arsenical and other medicaments which at present are our only protection against their attacks. The elaborate experiments of Dr. Gonder have shown that in two years *Trypanosoma lewisi* can be made chemio-fast to arsenophenylglycin in twice the concentration that proves fatal to the normal parasite. This trypanosome is normally handed on from one rat to another by the rat louse, *Haematopinus spinulosus*, with an incubation period of twenty-five to thirty-two days, and the question that suggests itself for solution is this: Will the trypanosomes produced by the sexual cycle of multiplication that takes place in the intermediate host, the rat louse, exhibit the same "arsenophenylglycin-fastness" as the chemio-fast trypanosomes produced by multiplication in the rat? The result of Dr. Gonder's experiments has been to show that this chemio-fastness to arsenic is not transmitted to the young trypanosomes formed by the sexual cycle; it continues in the parasites found in the infected rat lice until the end of about a fortnight, and vanishes with the appearance of the young crithidia-forms in the tissues of the louse. In other words, *Trypanosoma lewisi* can acquire a certain immunity to arsenic, only to lose it at once in a single cycle of sexual reproduction.

Another question attacked by Professor Ehrlich in the last few years has been the variety of the relapse forms that can be assumed by infecting parasites. To take a simple example: It is well known that relapsing fever in human beings commonly runs a course showing two or three relapses, and ends by spontaneous cure. Professor Ehrlich interprets this course by assuming that Obermeier's spirillum—the parasite causing relapsing fever—has only three or four possible forms (relapse forms) of growth. Each attack of fever produces in the patient antibodies that inhibit the further growth of one of these forms, so that when the patient has had his three or his four attacks of fever, his two or his three relapses, he has provided himself with all the three or four antibodies necessary to prevent the growth of the three or four possible relapse forms of the spirillum, with the result that spontaneous cure of his fever follows. In syphilis, sleeping sickness, and perhaps in malaria also, the number of relapse forms the infecting parasites may develop would seem to be much larger; and Professor Ehrlich believes that this is the reason why these diseases are so often fatal before the patient has had time to develop a corresponding number of antibodies, and why they are often so difficult to cure by arsenical or other drugs. For the same reason, he argues, spirochaete infections should always be attacked therapeutically with the greatest possible vigour, in order to sterilize the patient as completely as may be, and prevent the survival and development of relapse forms. This is particularly the

[1] *Aus Theorie und Praxis der Chemotherapie.* By Professor Paul Ehrlich. Leipzig: Dr. W. Klinkhardt. 1911. (Imp. 8vo, pp. 28. M. 1.20.)

case with syphilis: in long-standing tertiary cases large numbers of different antibodies have been produced, many successive relapse forms of the spirochaete have, no doubt, been destroyed—starved out—by the patient's reaction to the infection, and only some highly resistant relapse form of the parasite may be left in the patient's tissues. Any treatment or combination of treatments that may weaken the spirochaete should be tried; mercury and salvarsan may be alternated or combined, for the parasites that have become chemio-fast to one of these drugs may well be highly susceptible to the poisonous action of the other.

BICENTENARY OF THE MEDICAL SCHOOL, T.C.D.

THE Chancellor of the University of Dublin (Lord Iveagh) and the Provost of Trinity College, Dublin (Dr. Anthony Traill) have issued invitations to attend the celebration of the bicentenary of the medical school of the University of Dublin, on Thursday, Friday, and Saturday, July 4th, 5th, and 6th. The university was founded by Royal Charter in 1591, and consists, as is well known, of one college only—Trinity College. Though the original charter provided for teaching in all subjects, in the early years theology practically monopolized the energies of the governing body until, in 1637, the Crown granted an additional charter providing that one of the Fellows of the college should devote himself to the study and teaching of medicine. It was not, however, until the middle of that century that a serious effort was made to establish a teaching medical school. The movement was mainly due to the energy and public spirit of the distinguished scholar, John Stearne, a Fellow of the college, founder and first president of the College of Physicians of Ireland. In 1711 permanent provision was made for the teaching of anatomy, chemistry, and botany, and a home for the medical school was then provided within the walls of Trinity College. Sir Patrick Dun, an Aberdonian by birth but the leading physician in Dublin in his day, bequeathed his estates to the Royal College of Physicians to provide the stipends of lecturers for a school of physic which he wished to see established in Ireland. This School of Physic in Ireland, the title which it still retains, was established under the joint control of the Provost and Senior Fellow of Trinity College and the President and Fellows of the Royal College of Physicians in Ireland. The control of the university has since increased, and at present the part played by the Royal College of Physicians is confined to the election of the holders of the professorships of the practice of medicine, midwifery, and materia medica and therapeutics. The existing medical school buildings have nearly all been re-erected since 1885 by the Board of Trinity College, while within the last few years the Chancellor has erected the fine laboratories of physics and botany, for the upkeep of which the graduates of the university have provided. The official reception of the delegates and guests by the Chancellor will take place on Thursday afternoon, July 4th, and the graduates' banquet on that evening. The next morning a short oration on Stearne and his work will be delivered in the theatre of the college, and a congratulatory address will subsequently be presented; in the afternoon there will be a garden party, and in the evening a dramatic performance in one of the theatres. On Saturday morning, July 6th, the delegates and guests will visit the departments of the medical school, and afterwards go in procession to the Royal College of Physicians, where they will be received by the President and Fellows. In the afternoon there will be a garden party in the university, in connexion with the college athletic sports, and in the evening the Provost, who is himself a member of the medical profession, and Senior Fellows will entertain the delegates and guests at dinner in the college.

SELECT COMMITTEE ON SECRET PREPARATIONS.

THE Treasury has appointed a Select Committee to inquire into the question of the sale of patent and proprietary medicines and medical preparations, and appliances and advertisements relating thereto, and to report what amendments, if any, in the law are necessary or desirable. The Committee is to have power to send for persons, papers, and records, and to order analyses. It consists of the following members of Parliament: Mr. Charles Bathurst, M.P. for South Wilts; Mr. H. T. Cawley, M.P. for the Heywood Division of Lancashire; Dr. W. A. Chapple, M.P. for Stirlingshire, formerly physician to the Wellington Hospital, New Zealand; Sir Henry Dalziel, M.P. for Kirkcaldy Burghs; Mr. Marshall Hall, K.C., M.P. for the East Toxteth Division of Liverpool; Mr. John P. Hayden, M.P. for South Roscommon; Mr. J. Hodge, M.P. (Lab.) for the Gorton Division of Lancashire; Mr. H. Ingleby, M.P. for King's Lynn; Mr. W. S. Glyn-Jones, M.P. for Stepney, Parliamentary Secretary of the Pharmaceutical Society of Great Britain, and formerly secretary of the Proprietary Articles Trade Association; Mr. Haydn Jones, M.P. for Merionethshire; Mr. Harry Lawson, M.P. for the Mile End Division, Tower Hamlets, and one of the proprietors of the *Daily Telegraph*; Mr. Arthur Lynch, L.R.C.P., M.R.C.S.Eng., M.P. for West Clare; Sir Philip Magnus, M.P. for the University of London; Mr. H. K. Newton, M.P. for the Harwich Division of Essex; and Sir Henry Norman, M.P. for Blackburn, who will act as Chairman of the Committee. The members met privately on May 2nd to arrange procedure. The scope of the terms of reference to the Committee and the character of the witnesses to be invited were discussed at considerable length, and it was decided to ask, in the first place, for official evidence concerning the state of the existing law with regard to patent medicines. The Committee decided also to provide itself, through the proper official authorities, with information concerning the law of the sale and advertisement of patent medicines in the principal Dominions and the chief European countries. The clerk was instructed to communicate with various interested parties and invite them, if they thought fit, to submit names of witnesses. The Committee will meet on Tuesdays and Thursdays in each week. The British Medical Association has already collected a good deal of information bearing upon the matters which the Committee will have to consider, and, as our readers are well aware, has published a large number of analyses of secret proprietary remedies, some of which have already been republished in the volume entitled *Secret Remedies*; a new volume under the title "*Secret Remedies* (Second Series)" is in course of preparation. The Association will, however, be glad to receive from members further information bearing upon the matter, more especially recent instances of the injurious effects, direct and indirect, of the untrammelled sale of secret preparations and nostrums. By indirect evils we mean instances in which the hopes raised by the advertisements and letters of proprietors of nostrums have led to delay in seeking the proper treatment, entailing serious results to the sufferer. Members who have information which they think may be of service are asked to put themselves at once in communication with the Medical Secretary, British Medical Association, 429, Strand.

ANCIENT EGYPT.

IN return for the years of patient labour that scientists of every land have lavished without stint upon her graves and monuments, Egypt has yielded an abundant harvest of knowledge that should prove of immense value to the student of history or of science. Professor G. Elliot Smith, who during his term of office as Professor of Anatomy in the Government School of Medicine at Cairo enjoyed unrivalled opportunities for research, has given in his most interesting historical study on the

Ancient Egyptians[1] a striking picture of the extraordinary influence exercised on the history of the world by this small and comparatively obscure country. Perhaps no other nation of its size has ever played a more important part in moulding and directing the course of human progress, for Egypt was literally the cradle of European civilization; and it is hardly overstating the case to say that all we possess to-day of culture and learning had its origin on the banks of the Nile. "Egypt exercised a three-fold influence upon the development of European civilization," remarks Professor Elliot Smith. "By virtue of her own precocious acquirement of a culture far surpassing that of any of her contemporaries, she came to occupy a prominent position among the kindred populations, who were still in the Neolithic age centuries after Egypt had left it behind; and there can be no doubt that her influence must have slowly passed from tribe to tribe until the whole Mediterranean littoral became permeated with the leaven of Egyptian culture, which thus affected at their source the very springs of European civilization. . . . At every epoch in later ages, at one time through the influence of the Jews and other Asiatics, at another through the intermediation of the Greeks and Romans, and still later of the Arabs, the world at large, and especially Europe, has received the impress of Egyptian civilization, in its customs, its arts and crafts, its medical and surgical knowledge, and even in its beliefs and its literature." The secret of Egypt's power, of course, lay in the discovery of metals, which enabled her to take the lead in the civilization of the world. It is significant of the trifles that sometimes sway the destinies of men and nations that the most important discovery ever made in the history of man was due to the fact that for centuries before the metal copper was dreamt of the copper ore or malachite was in daily use amongst the proto-Egyptians as the ingredient of a face paint; and it was probably some accidental transformation of the cosmetic into metal that gave birth to "the germ of the idea that began to transform the world more than sixty centuries ago." The possession of metal weapons, at a time when every other race on the face of the globe contented itself with rude implements of stone or wood, naturally gave the Egyptian the power to impose his civilization upon the Asiatic peoples with whom he came into contact; and these in their turn carried it into Europe in the course of their periodic migrations in search of new worlds to conquer. Hence it comes about that the Eastern, no less than the Western civilization actually originated in an obscure corner of Africa; and the tourist who visits the Pyramids to-day owes far more to their unknown builders than he is ever likely to realize. It is only fair to add, however, in the words of Professor Elliot Smith, that "European civilization has attained its commanding position in the world, not in virtue of Asia's or Africa's gifts, either of knowledge or of men, but by reason of the virility of her own people, and especially of those belonging to the blond Nordic race." We congratulate Messrs. Harper on this latest addition to the excellent series known as the "Library of Living Thought." *The Ancient Egyptians* is emphatically a book to be read; for the author has treated a most difficult and complicated problem with unusual skill and judgement, and his clear, terse style, no less than his deep learning, will commend itself to many to whom such a subject, in other hands, might well present but few attractions. It would be impossible, however, to wish for a more lucid and scholarly exposition of what is perhaps the most interesting, as it was certainly the most important, period in the history of mankind; and as such we recommend it cordially to all who wish to obtain a thorough grasp of the relations between early Egyptian thought and that of our own day.

[1] *The Ancient Egyptians and their Influence upon the Civilization of Europe.* By G. Elliot Smith, M.A., M.D., F.R.S. Published by Harper and Brothers, 45, Albemarle Street, London, W., and New York. 1911. Price, cloth, 2s. 6d. net; leather, 3s. 6d. net. Pp. 188.

THE STANDARDIZATION OF DISINFECTANTS.

THE methods of standardizing chemical disinfectants were considered in some detail in a paper read by Dr. David Sommerville at a meeting of the British Science Guild on April 26th. He expressed the view that the well-known drop method of standardization devised by Rideal and Walker, together with its modification by the *Lancet* Commissioners, had done good service in raising the germicidal efficiency of many disinfectants on the market. During the last few years he had determined by the Rideal-Walker method the coefficients of all the disinfectants of repute, and had also taken them to pieces chemically, and estimated their active phenoloids. In some instances there was remarkable uniformity in composition, in others the reverse was the case. The matter of inflated coefficients, handicapping as it did the honest manufacturer, required to be set right, for coefficients which were three, four, or five points too high were freely advertised. The evidence brought forward lately to show that the greater molecular weight of an active germicide had some connexion with increase in efficiency would have an important bearing upon the production of new and more suitable disinfectants. This evidence was supported by Bechold's work, some of which the speaker had confirmed, on the introduction of varying quantities of halogens into the benzene ring of certain phenoloids. Bromine, for instance, conferred a higher germicidal value on an aromatic nucleus than chlorine, the same number of atoms being introduced in each case. Yet chemically chlorine was the more active halogen. Bodies associated with some forms of petroleum possessed excellent destructive powers for micro-organisms, although petroleum itself was an inferior disinfectant. In replying to some points raised in a brief discussion, Dr. Sommerville met the objection that disinfection was quite secondary, seeing that all bacterial invasions, according to the conclusions of experimental medicine, were fought within the organism on natural lines; he said that there was no living body which was at all times capable of dealing with virulent bacteria, and that if the number and virulence of the bacteria could be lowered by the disinfectant, thus giving the antagonistic elements within the body the better chance of asserting themselves, it was a rational procedure of the first importance. Asked for some practical guidance, Dr. Sommerville gave his opinion that disinfectants having a coefficient of 12 to 14 and upwards by the Rideal-Walker method were of sufficient value for ordinary purposes, and in solutions of 1 in 200, or 1 in 300, fulfilled most of the requirements in general sanitation. The chairman of the meeting, Mr. Walter Read, suggested that an effort might be made to include the subject of disinfectants within the scope of the Select Committee of the House of Commons which has been appointed to inquire into the question of patent medicines.

CLUB PRACTICE SIXTY YEARS SINCE.

As club practice is probably doomed whatever may be the fate of the Insurance Act, it will perhaps interest some of our readers to read how it was carried on sixty years ago. In Dickens's *Household Words* of January 22nd, 1853, there is an article by a country surgeon who relates his experiences as a club doctor. He says he was only beginning to get on in his district, doing the reasonable work of two men for £70 a year and filling up what leisure time he could make with odds and ends of private practice and the work supplied by a few unimportant clubs, when there came a chance of getting the "Woodman's Club." "Being the last comer," he says, somewhat cynically, "I was very popular with the poor; and the miraculous recovery of a patient whom I had left to Nature, and to whom I had administered water tinged with a little compound tincture of cardamoms, had created for me an enormous reputation in the immediate neighbourhood of some of the Ancient Woodmen." "Parkinson"

(a rival practitioner) and he had terrible heart-burnings about the appointment, which involved attendance on a hundred and fifty men for the payment of four shillings a year from each. But then, they reflected, these men are in receipt of good pay; and whoever pleases them attends, perhaps, their families, who are not members of the club, and against whom he may add up a bill. "Besides it is all—that indefinable mystery—connexion." Therefore he quarrels with Parkinson because he canvassed among the Ancient Woodmen, insinuated himself into the hearts of the colliers who had votes, and even courted some of them at the Thistle itself, the house at which his club assembles, and there won the goodwill of the host—always an influential person—by joviality and an affected love of beer. This naturally seemed to our candidate unprofessional; therefore he cut the rival. This sort of thing has only an antiquarian interest: such things, as Ibsen says, "are not done" nowadays. He was elected, and his first duty was to get himself initiated as a Woodman. After the ceremony the court resolved itself into an assembly of colliers and potters, who smoked and drank beer in a spirit of good fellowship and abounded in courtesy towards their new doctor. He then went home with the feeling that £30 a year had been added to his income. Not long afterwards he found himself in charge of a very large number of patients, for whom medical aid was procured through a dispensary which paid him some 3s. for the whole attendance on each case, including medicine. Other clubs "subjected themselves to his lancet," among them a large Church Club established by the rector in antagonism to the societies which led men into the way of waste by meeting in public houses. But the number of his private patients increased slowly. Night calls were numerous but unprofitable. He was out, on an average, not less than three nights in the week; and as the average was very unequally distributed, sometimes the act of getting to bed continued for a fortnight together to be a useless ceremony. If a stray club patient came who belonged to Parkinson, he was promptly sent on to that gentleman; if Parkinson were out and the patient came back, our Woodman went with him. "But," he adds, "if ever in such a case harm came of delay, the heartless apathy of the doctor—who did not care for the lives of club or parish patients—was noised as the cause of all." If two urgent calls were simultaneous, there was a certainty of being abused by somebody, and a chance of having one's professional and moral character frankly discussed in a court of law. Of course board schools have taught modern club patients not to be so exacting and unreasonable. The following description, however, has features which do not all belong to ancient history. "The drug bill of a young country surgeon who had parish work and clubs, with very little private practice, easily reaches £50 a year; and if he has no friend from whom to borrow instruments, the cost of them is serious. He must be prepared to meet every emergency and to perform any operation. He cannot send, as he would in London, for assistance from the hospitals; and though he may send for any surgeon in his neighbourhood by way of consultation, to advise with him, or take part in the responsibility of any obviously active measure, yet the performance of the active measure must be by himself. When he transfers the duty to a rival he confesses his inferior ability, and transfers to the prompter man his patient's confidence. The country surgeon, if he would act for himself, and incur no risk of figuring unpleasantly at inquests, must have at hand every instrument which, like the stomach pump, may be demanded suddenly, and must purchase others as they are called into request. If he has much poor practice, and nobody to borrow from during his first years, while he can least afford any expense, the call for one instrument after another will be tolerably brisk. In the first quarter of my attendance on the Ancient Woodmen I spent all the quarter's money profit on an instrument required for the performance on a club member of an operation not likely to be called for half a dozen times in a long course of practice. I had a broken leg two or three miles away in one direction, and a fever case requiring for some time daily attention two or three miles off in another. In addition to the cases of average slightness furnished by my club, I was summoned to some dozen members who had nothing particularly the matter with them, and who only sent for their doctor on some trivial errand because they had nothing to pay for his attendance. All this time the followers of Parkinson were on the watch to register against me cases of neglect." Of course such cases did occur, but as like cases were common to every surgeon in the parish they were easily attributed to the general carelessness of medical men upon the poor, and did him no harm. What did imperil his position was his failure to attend the annual dinner of the club. The Woodmen could not stomach "pride" on the part of their doctor. He was warned of his danger, however, and saved the situation by going to a Gargantuan feast where he made a speech and regained the confidence of the club.

GROWING UP.

DR. LACHLAN GRANT recently delivered an address on growing up to senior scholars of the Ballachulish public school, which Mr. Charles Stewart, of Achara, Duror of Appin, Argyllshire, has had printed and circulated. It is an address full of good sense, and preaches the gospel that the human body, so far from being treated as the Brother Ass of the *Poverello* of Assisi, is a sacred gift and should be dealt with accordingly. Dr. Grant says: "Treat your bodies with respect; keep them sweet, clean, and beautiful; study yourself and find out what is best for you: what to eat and drink, how much sport and recreation." He insists on the need of fresh air by night as well as by day and regularity in meals. He contrasts this country to its disadvantage with France in respect of cooking, but thinks that a time is coming when every girl will be expected to serve a short time in a good cookery school. From this it would seem that the voice of the "feminist" has not yet made itself heard in the Arcadia of Ballachulish. To serve in a cookery school, indeed! To serve in a prison for breaking windows appears to be more the ambition of militant woman of the future. Dr. Grant gives much sound advice that should help to make the body strong and healthy; but, as he says, strength and beauty in man without wealth and wisdom will not avail him much at the present day. By "wealth" he is careful to explain that he does not mean money, but a calm, well-balanced mind, stored with useful knowledge, and the highest development of one's powers, gifts, and faculties. Wealth, he insists, is not what a man has, but what he is. He points out that many fail in business and professional life through slovenly habits of mind. "If asked about something, such people will beat about the bush and enter into a long explanation, instead of going straight to the question. Or, if asked to repeat what they have heard, they will add here and there, and what they forget will be filled in by the imagination." Unluckily this is a universal human failing which no amount of "growing up" seems to be capable of eradicating. A famous judge who was asked whether in his experience lying witnesses were common, replied that most of those he had had before him tried hard to tell the truth, but could not succeed in doing so. It is this that makes human testimony so untrustworthy and observation of such doubtful value. Carlyle somewhere says that the best test of clearness of mental vision is the capacity to give a concise account of any event shorn of all needless detail. Dr. Grant rightly says that inaccuracy is often due to defective early training and a bad memory, both which defects can be remedied by proper attention and mental

exercises. One golden piece of advice given by Dr. Grant is: "If you don't know a thing just say so straight out." Lord Rosebery tells us that when Napoleon took the reins of government in his hands he did not know the barest elements of administration but he was never ashamed to ask for an explanation of the simplest things—and he never asked twice. Here we may take occasion to point out that inaccuracy and ignorance which may remain with a man throughout life are often the fault of the teacher. A pupil may be too shy to ask a question on some point as to which he is not clear, and his mind may thus permanently harbour a fundamental misconception which a word or two spoken in season would have removed. We have known distinguished teachers who apparently thought it beneath them to help a beginner over the stones of stumbling in his path. One of the great merits of Jenner's teaching was that nothing was too elementary for him; he took no knowledge for granted in his hearers, and thus those who had the privilege of listening to him, whether they learnt much or little—and after all, whatever is got from a teacher *secundum modum recipientis recipitur*—gained clear ideas on the essentials of medicine which became, as it were, a part of their mental structure.

STANNINGLEY, FARSLEY, AND PUDSEY.

A meeting last Friday of representatives of sundry friendly societies in the neighbourhood of Stanningley, Farsley, and Pudsey, in Yorkshire, came to a decision which would appear to indicate an intention to endeavour to secure one or more whole-time medical officers to attend on the members of the societies. It is not yet absolutely decided that such an attempt shall be made, and we have at present no information either as to the terms which will be offered or as to the fashion in which the societies will endeavour to bring the matter to the knowledge of possible candidates. The only thing, indeed, as yet certain is that whoever may prove sufficiently short-sighted to accept any appointment offered by the joint council of the societies in this Yorkshire area will find himself under the absolute control of his employers and in opposition to all his colleagues in the localities concerned. It is, in short, the question of control that is immediately responsible for the crisis. By common consent every medical man in the district who had any club patients upon his books gave notice on February 29th that his services as medical officer of the society concerned would not be available after June 30th. This was due to a general feeling that contract work on the existing lines was unsatisfactory both to patients and doctors, and to the latter extremely distasteful. Negotiations with a view to the formulation of fresh terms then commenced, but broke down owing to the representatives of the societies refusing to entertain any scheme which would not result in the medical men who took part in it being under the complete control of the societies' lay officers. A notice with reference to the matter will be found in our advertisement columns under the heading of "Warning Notices."

APPOINTMENT OF MEDICAL SECRETARY.

The Council of the British Medical Association, at its meeting on Wednesday last, appointed Dr. Alfred Cox to be Medical Secretary. Dr. Cox has been Deputy Medical Secretary since 1908, and has been Acting Medical Secretary for the last five months. The zeal and ability with which he has discharged the duties of this office during that very anxious and laborious period have greatly impressed all who have seen his work, and there is no doubt that the Association by his appointment has gained a devoted and competent officer. Dr. Cox was the Representative of the North of England Branch on the Parliamentary Bills Committee from 1899–1901, and on the Central Council, 1902–3; he was Secretary of the Branch from 1902–6, and President from 1907–8. He was Secretary of the Gateshead Division from 1902–8, and its Representative on the Representative Body from 1903–8. He was also a member of the committee which drafted the scheme of reorganization, 1902–3. He has thus an intimate acquaintance, gained by experience, with the constitution of the Association and the administration of its affairs.

CHILD STUDY SOCIETY.

The annual conference of the Child Study Society (consisting of constituent societies at Birmingham, Cheltenham, Dundee, Edinburgh, Exeter, Halifax, London, Liverpool, Manchester, and Tunbridge Wells) will be held, at the invitation of the London Society, in the University of London, on Thursday, Friday, and Saturday, May 9th, 10th, and 11th, 1912, under the presidency of Sir James Crichton-Browne. The following is the chief subject proposed for discussion: "The Health of the Child in Relation to its Mental and Physical Development." In addition to an address by the President, a paper on the "Influence of Defects on Hearing in Relation to the Mental and Physical Development of the Child" will be read by Dr. Kerr Love, and the discussion will be opened by Mr. Macleod Yearsley. Mr. Bishop Harman will read a paper on the "Influence of Defects of Vision in Relation to the Mental and Physical Development of the Child," the discussion of which will be opened by Dr. F. W. Edridge-Green. Dr. Jane Walker will read a paper on the "Tuberculous Child," and the discussion will be opened by Miss M. A. Broadbent. Dr. T. Hyslop will read a paper on "Mental Hygiene in Relation to the Development of the Child," a discussion on which will be opened by Percy Nunn, D.Sc. Dr. Eric Pritchard will read a paper on the "Instruction of the Young in Sexual Hygiene."

CONDEMNATION OF DICHOTOMY.

The New York Academy of Medicine, at a meeting held in October, 1911, passed a unanimous resolution condemning as unworthy of any member of the medical profession the secret division of fees by practitioners with any person who may be instrumental in influencing a patient to apply for operative care or professional advice. It was further resolved that such division of fees should be accounted sufficient ground for the expulsion of any member from the Academy.

The Berlin Institute for Infectious Diseases is henceforth, by the wish of the German Emperor, to be known as the Koch Institute, in honour of the late Robert Koch.

In response to invitations from the State Medical Association and the State Board of Health of South Carolina, the National Association for the Study of Pellagra will hold its next triennial meeting in Columbia, S.C., on October 3rd and 4th, 1912, that is to say, the week following the Washington meeting of the Fifteenth International Congress on Hygiene and Demography. It is expected that several foreign Governments and medical organizations will be represented at the conference, but all persons interested in pellagra are invited to participate in it, and the co-operation of officers of the Government Medical Services, State Boards of Health and State Hospitals for the Insane is especially solicited. Communications and inquiries may be addressed to the special committee, consisting of Drs. J. W. Babcock, J. J. Watson, and J. A. Hayen, Columbia, S.C., N.S. America.

The Sixth International Congress of Medical Electrology and Radiology will be held at Prague in July (26th to 31st). The following questions are proposed for discussion: Radio-activity, to be introduced by Professor Bertolotti of Turin; treatment of joint affections by high frequency currents (Dr. Mortet of Antwerp); the resistance of the skin (Professor Donmer of Lille); photography by means of light baths (Professor Peyri of Barcelona); reinforcement screens (introducer not yet selected); ionization and the electrolytic introduction of medicaments (Dr. Sarazin of Angers); present state of very rapid radiography (Herr Dessauer, engineer, of Frankfort a.M.). All communications relative to the congress should be addressed to Dr. Krist. Hynek, General Hospital, Prague II, Bohemia-Austria.

THE INSURANCE SCHEME.

STATE SICKNESS INSURANCE COMMITTEE.

Seventh Meeting.

THE seventh meeting of the State Sickness Insurance Committee was held on April 25th.

Mr. T. JENNER VERRALL was in the chair, and the members present were: *England and Wales:* Dr. R. M. Beaton (London), Dr. John Brown (Bacup), Mr. E. J. Domville (as Chairman of the Public Health Committee), Dr. S. Hodgson (Salford), Miss M. H. Frances Ivens, M.S. (Liverpool), Dr. Constance E. Long (London), Mr. James Neal (Birmingham), Dr. H. F. Oldham (Morecambe), Dr. James Pearse (Trowbridge), Dr. E. C. Price (Bangor), Dr. Lauriston E. Shaw (London), Dr. D. F. Todd (Sunderland), Mr. E. B. Turner (London), Dr. A. H. Williams (Harrow on the Hill), Mr. E. H. Willock (Croydon). *Scotland:* Dr. J. Adams (Glasgow), Dr. Bruce Goff (Bothwell), Dr. J. Munro Moir (Inverness). *Ex Officio:* Dr. E. J. Maclean, Chairman of Representative Meetings; Dr. J. A. Macdonald, Chairman of Council.

Apologies for absence for unavoidable reasons were received from the President, Professor Saundby; Dr. T. M. Carter (Westbury-on-Trym), Dr. F. M. Pope (Leicester), Dr. R. B. Mahon (Ballinrobe), Dr. J. S. Darling (Lurgan), Dr. F. W. Kidd (Dublin), Dr. R. A. Lyster (Winchester), Dr. D. G. Thomson (Thorpe, Norwich), Mr. D. J. Williams, F.R.C.S. (Llanelly), and Dr. W. Johnson Smyth (Bournemouth).

NEW MEMBER OF COMMITTEE FOR IRELAND.

The CHAIRMAN OF REPRESENTATIVE MEETINGS reported that Dr. Mark Cahill (Belfast) had been duly nominated by the Representatives of the Divisions in Ireland which had elected Mr. R. J. Johnstone to fill the vacancy on the Committee caused by his resignation, and that no other nomination had been received. Dr. Cahill was accordingly declared elected.

JOINT ADVISORY COMMITTEE.

As reported last week (p. 975), the Committee, at its meeting on April 18th, had before it the reply of the Joint Committee of National Insurance Commissioners (BRITISH MEDICAL JOURNAL, April 20th, p. 917), and resolved to address a letter to the Insurance Committee calling attention to the fact that it was the policy of the Committee to arrange direct negotiations with the Insurance Commission as and when in the opinion of the Committee occasion arose. The following form of letter was adopted:

Letter to Joint Committee of National Insurance Commissioners.

Offices of the British Medical Association,
429, Strand, London, W.C.,
April 26th, 1912.

Sir,

In further reference to your letter of 15th instant my Committee instructs me to say that it entirely endorses the view that the members of the Advisory Committee whom the State Sickness Insurance Committee nominated for election at the request of the Insurance Commissioners, will be able to give advice and assistance in the preparation of the Regulations.

I am, however, to point out that the full Committee, elected by the Meeting of Representatives of the British Medical Association, is the only body with authority from the Association to convey to the Commissioners and to press on their acceptance the terms desired by the medical profession. Though these have been submitted by letter, circumstances may make it the duty of this Committee to seek a direct conference with the Commissioners in the hope that such arrangements may be made as will be satisfactory and fair to those who will be asked to undertake medical attendance and treatment under the Act.

I am, Sir,
Yours faithfully,
(Signed) ALFRED COX,
Acting Medical Secretary.

The Secretary,
National Health Insurance Joint Committee,
Buckingham Gate, S.W.

[To this letter the following reply has been received:

National Health Insurance Joint Committee,
Buckingham Gate, London, S.W., May 1st, 1912.

Sir,

I am directed by the National Health Insurance Joint Committee to acknowledge receipt of your letter of the 26th ultimo, and to say that they have noted your statement as to the position and authority of the full Committee elected by the Meeting of Representatives of the British Medical Association.

I am to state that the Commissioners will be pleased to arrange a conference with the Committee, should circumstances arise which make it desirable for such a conference to be held.

I am, Sir, Your obedient Servant,
(Signed) W. J. BRAITHWAITE.]

The Acting Medical Secretary,
British Medical Association.

It was resolved to invite all the medical members of the Joint Advisory Committee to meet the State Sickness Insurance Committee at 8.30 p.m. on Thursday, May 9th, the evening before the first meeting of the Joint Advisory Committee on May 10th.

MODE AND RATE OF REMUNERATION.

The CHAIRMAN reported that a joint meeting of the Organization and Remuneration Subcommittees had decided to prepare two alternative model schemes of Public Medical Service for the provision of medical attendance, one based on the payment per attendance system, and the other on the capitation system.

FRESH CONTRACT APPOINTMENTS.

A communication was received from the Honorary Secretary of a Division stating that several practitioners in the area of the Division had been approached to take up fresh friendly society appointments. The Division desired to have the advice of the Committee as to the proper course to be pursued in such cases. The Committee expressed the opinion that it was inadvisable for practitioners to accept such appointments, but that if the Division thought there were sufficient reasons for allowing practitioners to accept such appointments they should be asked to give an undertaking to the Division or Provisional Medical Committee to the effect that they were prepared to resign such appointments if called upon to do so, and should be given to understand that no question of compensation for such appointments could arise.

ORGANIZATION OF THE PROFESSION.

The Committee completed its consideration of a further circular to be issued to Provisional Medical Committees relative to the organization of the profession. This circular has since been issued: it embodies a form of pledge, supplementary to the Undertaking signed by over 26,000 practitioners last year, defining the attitude of the members of the profession with regard to contract practice and medical charities.

COLLIERY PRACTICE.

The Committee considered a communication from the Barnsley and District Division embodying the letter from the Chancellor of the Exchequer contained in the report of the meeting of that Division published in the SUPPLEMENT to the JOURNAL of April 27th, p. 415. The Committee resolved to advise the Division to make it plain to the Chancellor of the Exchequer that any representations that colliery doctors might make would be made through the Association, as it was important to avoid any appearance of sectional or individual action. It was stated that it was hoped shortly to call another conference with the medical officers of collieries and works.

NEXT MEETING.

In view of the necessity for arranging for meetings of subcommittees on May 2nd, it was resolved that the next full meeting of the State Sickness Insurance Committee should be held on Thursday, May 9th.

Erratum.

MATERNITY BENEFIT AND OBSTETRIC INSTRUCTION.

The number of women within certain definite areas around the general hospitals in London attended during last year in their confinements by students under the general supervision of qualified medical practitioners was 11,500, and not 1,150 as printed last week, p. 975, in the report of the interview between the State Sickness Insurance Committee and the president and one of the honorary secretaries of the Obstetrical and Gynaecological Section of the Royal Society of Medicine.

Medical Notes in Parliament.

National Insurance Act.

Debate on Medical Benefit.

A REPORT of the discussion on Medical Benefit under the Insurance Act in the House of Commons on Wednesday evening, containing a full report of the reply of the Chancellor of the Exchequer, is published in the SUPPLEMENT.

Sanatorium Benefit.

Mr. Wright asked the Secretary to the Treasury (1) what was the estimated number of persons who would be entitled to sanatorium benefit on July 15th, 1912; (2) what was estimated would be the cost of permanent and temporary buildings to be provided by July 15th, 1912, for the accommodation of persons entitled to sanatorium benefit; and (3) what were the number, names, and addresses of the private sanatoriums with which arrangements had been made to provide the benefits of sanatorium treatment in cases of tuberculosis on the date on which the Insurance Act came into operation; and what was the number of beds available in such private sanatoriums?

Mr. Masterman said it would rest with the local Insurance Committees (or pending their appointment, with other authorities set up temporarily for the purpose), subject to certain conditions, to recommend tuberculous insured persons for sanatorium or other treatment, and to make the necessary arrangements with sanatoriums and other institutions. He was unable to say at present how many persons would require sanatorium benefit in July next, and it was clearly impossible that such arrangements as those which the hon. member suggested should have been concluded as yet with private sanatoriums. With regard, however, both to these questions and also to that of the cost of building sanatoriums, he would beg to refer the hon. member to the first Report of the Tuberculosis Committee, which would, he hoped, be published in a few days.

Appointments of Commissioners.

Mr. Snowden asked the Secretary to the Treasury if any of the National Insurance Commissioners, including chairmen, had been appointed under Section 4 of the Superannuation Act of 1859, and, if so, which; if all the remaining Commissioners had been appointed under Clause 7 of the Order in Council of January, 1910; if any of the appointments were definitely fixed for a limited number of years; and if all the Commissioners, chairmen included, were pensionable.

Mr. Masterman replied that the four chairmen were the only Insurance Commissioners who were pensionable as such, though Mr. Bradbury and Mr. Robertson were pensionable Civil servants in respect of their permanent appointments as a principal clerk in the Treasury and Chief Registrar of Friendly Societies respectively. The office of chairman of each of the four Commissions was placed under Section 4 of the Superannuation Act, 1859, without addition of years by Treasury Minute of January 2nd last, which was laid before Parliament on February 16th. The other Commissioners held their offices for a fixed number of years (in most cases five). The appointments held by them were placed under Schedule B of the Order in Council of January 10th, 1910, by *Gazette* notice of January 9th, 1912, and they were, therefore, exempt from the necessity of obtaining Civil Service certificates. He was not aware that any Commissioners had been called upon to forfeit pension rights, or that any complaint on the matter had been made. Pension rights for five years could hardly be given to young men appointed for that time.

Advisory Committee.

In reply to Mr. J. Thomas, Mr. Masterman stated last week that the English Commission had invited two representatives of the Friendly Societies' Medical Alliance to join the Advisory Committee to the Commission, and both these gentlemen had expressed their willingness to serve.

Medical Remuneration.

Mr. Wright asked the Chancellor of the Exchequer on April 25th if he proposed to use any, and what portion, of the £6,000,000 surplus to increase the money available for the doctors' capitation grant. Mr. Lloyd George, in a written answer, stated that he had at present nothing to add to his Budget statement.

Industrial Diseases.—Mr. Wedgwood asked the Secretary of State for the Home Department whether he could see his way to extend the terms of reference of the Committee inquiring into industrial diseases that could be added to the Third Schedule of the Workmen's Compensation Act, so that they might consider the addition of writer's cramp among the diseases for which compensation is payable. Mr. Ellis Griffith replied that the Home Secretary would be prepared to consider the question of including writer's cramp in the reference to the Committee which had just been appointed: but up to the present no representations had been made to the Home Office on the subject, nor did it appear to have been brought before the former Committee which made the general inquiry in regard to industrial diseases after the passing of the Compensation Act of 1906.

Workhouse Children.—Lord Henry Cavendish Bentinck asked the President of the Local Government Board what steps he intended to take to improve the condition of the children in Bromsgrove Workhouse. Mr. Burns said that he had been in communication with the guardians of the Bromsgrove Union in regard to them. The guardians had boarded out all eligible children, and last year they selected a house as a children's home, but the water supply was found to be unsatisfactory. He had since written to them with regard to another proposal for the removal of the children. This question, as well as the improvement of the infants' quarters and the provision of additional staircases at the workhouse, was at present receiving his serious consideration.

Vaccination.—Last week Mr. Peto put a series of questions respecting the loss of income suffered by vaccination officers. First he asked about the refusal of the Bristol Board to carry out the suggestions of the Local Government Board. Mr. Burns said that he had received a letter from the guardians on April 4th, from which it appeared that they had negatived a motion to refuse to pay compensation to the vaccination officers. He was still in communication with the guardians on the subject. Next was the case of the Bedford vaccination officer who was stated in spite of gratuities to have suffered a loss of £50. Mr. Burns answered that he had received the letters referred to in the question. Besides the first gratuity of £7 12s. 3d. referred to, the guardians had paid the vaccination officer gratuities of £3 7s. and £3 15s. with his sanction, and had allowed him 30s. a year for his postages. He was in communication with the guardians on the subject. He might add that this official was not required to devote his whole time to his duties.

Education (School Attendance) Bill.—This bill was before the Commons on April 26th, and occupied the whole afternoon, but the second reading was carried in the end by a majority of 124. Mr. W. Rea, who moved the second reading, showed that the bill was to put an end to half-time employment, more especially in the textile districts, and to prevent children leaving school before the age of 13. He advocated the bill as a means of improving the health of the young workers. The heated atmosphere of the mills, he showed, so affected them that when they reached adult years they were distinctly inferior physically to children who had gone into factories at a later age. The moral effect, he contended, was also detrimental to the children, of whom there were at the present time some 30,000. Mr. Barnes seconded the motion for the second reading as one who had entered a mill at 10 years of age, and had experience of the evils of the system. He gave figures to prove the greater liability of the children to accidents, who suffered twice as heavily as adults. He strongly pressed the value of the bill from the public health point of view. There was an animated opposition to the bill led by Sir F. Banbury, but the second reading was carried and the bill committed.

Midwives (Scotland) Bill proposes "to secure the better training of midwives in Scotland, and to regulate their practice." It was presented by Mr. Barnes, supported by Mr. Ainsworth, Mr. Robert Harcourt, Mr. Arthur Henderson, and Mr. Duncan Millar, and put down to be read a second time upon Friday next.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

MANCHESTER AND DISTRICT.

THE MANCHESTER EDUCATION COMMITTEE.

THE question of school clinics for Manchester has been much discussed in the local newspaper press during the last few weeks, and it is noticeable that some of the opposition comes from school teachers, the principal reason given being that the present provision for treatment at the charitable hospitals is ample to supply all the needs. The Education Committee seems altogether disinclined to undertake to establish clinics at present, on the ground of the cost and the absence of any sufficient State grant for the purpose: at the same time the committee is losing not less than £8,000 a year through loss of money grants by the exclusion of school children from school owing to sickness, much of which is either not treated at all or only receiving a very casual treatment. Apparently the medical and surgical staffs of the hospitals are content to let things remain as they are, and to go on giving attendance at the out-patient departments to any children that present themselves. The following figures for the quarter ending March 31st, 1912, may be useful as showing the numbers of children in the various kinds of elementary schools, the average attendance, and the numbers now in the various residential institutions:

Schools.	Accommodation.	Average Attendance.	Number on Books.
Municipal	76,824	60,017	68,870
Church of England ...	34,002	27,190	31,255
Roman Catholic ...	18,557	15,366	17,823
British	2,042	1,955	2,187
Wesleyan	392	364	412
Total	131,817	104,892	120,547

At the end of March there were 24 children in schools for the blind, 114 in schools for crippled children, 70 in schools for the deaf, 67 in schools for epileptics, 39 in schools for mentally defective, and 315 in industrial schools. In the estimates of expenditure for the year ending March, 1913, it is stated that the amount to be raised on the current year's rate will be £355,707. Of this amount £60,366 is for higher education, and £295,070 for elementary education. The estimate exceeds the last year's expenditure by £1,700, and the magnitude of the committee's operations is shown by the fact that the salaries of teachers, both of higher and elementary education, alone exceeds £413,000 a year.

THE MANCHESTER CORPORATION AND THE NATIONAL INSURANCE ACT.

The Manchester Corporation is evidently anxious to be prepared, when it is called on under the Insurance Act, to elect representatives to the Insurance Committee, and inquiries are now being made by the Town Clerk as to the procedure to be adopted for the constitution of an Insurance Committee for the county borough of Manchester. It has also been felt by the Watch Committee that the members of the city police and fire brigade are sufficiently well provided for under the terms of their employment without having to become insured persons under the Act. By paragraph (*b*) of the second part of Schedule I of the Act it is provided that employees of the Crown or of any local or other public authority may be exempted from insurance "where the Insurance Commissioners certify that the terms of employment are such as to secure provision in respect to sickness and disablement on the whole not less favourable than the corresponding benefits conferred by Part I of this Act." The Watch Committee has accordingly decided to recommend the council to make application to the Commissioners for their certificate exempting the police and fire brigade from having to become insured under the Act. It is to be noted that in the paragraph of the schedule referred to only sickness and disablement benefits are mentioned, so that if the corporation can satisfy the Commissioners that the police and firemen are provided under the terms of their employment with sickness and disablement benefits equal to those provided under the Act, there is apparently no need to take into account the fact that the National Insurance Act also provides medical, sanatorium, and maternity benefits. Thus it is quite possible that as regards these last three named benefits the employees might not be as well off under the terms of their employment as they would be under the Act, though some provision is now made for medical attendance. Inquiries are also being made as to what action is being taken or contemplated by other large municipalities with regard to the formation of an approved society for the employees of the corporation, and the Town Clerk is to submit a return of the number of employees of the corporation who would come under the scope of the Act who are connected with friendly societies, insurance companies, or other bodies that have applied or that will apply to become approved societies under the Act.

HAMPSHIRE.

HAMPSHIRE HOME OF RECOVERY.

A WELL ATTENDED meeting was held at Gun House, Portsmouth (by the kindness of Mrs. Burney), on April 24th, to further a scheme for building and endowing a home of recovery for Hampshire. The proposed home will differ from ordinary convalescent homes in that patients, after operations, will be transferred from the hospital to the fresher air of the home, although there may be unhealed wounds, and skilled treatment and nursing may be still required. The very representative gathering was presided over by the Hon. Evelyn Moore, sister of the Commander-in-Chief, and the speakers were the Hon. Mrs. Edward Talbot, Lady Simeon, the Rev. Guy Landon, Mr. H. Rundle, Dr. Leon, and Mr. T. H. F. Lapthorn, Chairman of the Portsmouth Hospital Committee. It was stated that the cost of the building would be about £10,000, and that the home was not to be an addition to the list of charitable institutions, dependent on private subscriptions, which fluctuated every year, but that £30,000 was to be raised as endowment. Not until this £40,000 was in sight would the building be commenced. A bazaar, to be opened by Her Royal Highness Princess Henry of Battenberg, will be held in the Drill Hall, Southampton, on June 11th and 12th, in aid of the endowment fund. A sum of £3,500 has already been raised for the building fund, with conditional promises of more. The scheme deserves liberal support. With widespread and united effort there is every reason to believe that this much-needed work will be set in hand shortly.

LONDON.

THE BIENNIAL HEALTH CONFERENCE AND EXHIBITION.

As already announced, the next Health Conference and Exhibition will be held at the Royal Horticultural Hall and Technical Institute on June 23rd, 25th, 26th, and 27th, 1912. Preparations for the meeting are progressing very well, and the Consultative Committee which is assisting the capable Organizing Secretary (Miss R. V. Gill) has already arranged a number of interesting and useful discussions. The Conference is under the patronage of H.R.H. Princess Christian, and among the other patrons are the Archbishop of York, the Countess of Aberdeen, the Duchess of Northumberland, Lady Balfour of Burleigh, Sir Dyce Duckworth, Sir William Bennett, Dr. Collingridge, Dr. Hope, Professor Kenwood, Mrs. Scharlieb, M.D., and Dr. Kaye.

It is hoped that the exhibition, which will include many highly interesting exhibits from the National League for Physical Education and Improvement, the St. Marylebone General Dispensary, the City of Westminster Health Society, the Nurses' Social Union, the Birmingham Infants' Health Society, the National Society for the Prevention of Cruelty to Children, the National Association for the Feeble-minded, and other societies and individuals, will prove that, although exhibitions are becoming too frequent, some at least serve a valuable purpose in teaching the public about the real things that matter.

The following is the provisional programme of subjects proposed for discussion:

How to Conduct an Infant Consultation. To be opened by Dr. Eric Pritchard.
Créches. By Muriel Viscountess Helmsley.
Tuberculosis and the Child. By Dr. T. N. Kelynack.
Early Notification of Births. By Dr. A. A. Mussen.
The Prevention of Deafness in Children. By Mr. Macleod Yearsley.
Schools for Mothers. By Miss M. E. Bibby.
Housing, Urban and Rural. To be opened by Professor H. R. Kenwood, who will be followed, among others, by Mr. A. G. R. Foulerton, Dr. F. R. Fremantle, Dr. W. F. Corfield, and W. Butler.
The Importance of the Natural Feeding of Infants. By Dr. H. Scurfield, who will be followed by Dr. Sykes.
The Co-operation of Voluntary Health-Promoting Agencies with the Public Health Department. By Mrs. Bernard Drake.
The Necessity of Further Manual Training in Public Elementary Schools. By Dr. C. B. Moss-Blundell.
The Teaching of Practical Domestic Economy in Schools; Its Importance to the Nation. By Dr. A. Banks Raffle.
On the Need of a Hospital for the Middle-Class at Moderate Fees. By Dr. Lancelot Archer, who will be followed by Mr. H. W. Armit.
The Feeble-minded. By Dr. Chapple.
Eugenics and National Health. By Dr. C. W. Saleeby, who will be followed by Dr. Lidbetter.

The following popular lectures will be given, "Why Babies Die," by Mrs. Barnes; "The Health of Girls," by Miss Florence Stackpoole; and "Healthy Homes and Domestic Hygiene."

SOUTH WALES AND MONMOUTHSHIRE.

Medical Inspection of School Children.

Dr. Walford, Medical Officer of Health for Cardiff, presented his annual report to the Education Committee last week. During the year 11,845 children were inspected. Owing to the system of excluding individual children, the necessity of closing schools on account of illness or infection was much less than formerly. He hoped that in the near future Government grants would make the financial aspect better, and stated that the Board of Education had already sanctioned the establishment of a small school clinic for the treatment of minor ailments.

The School Management Committee was now considering the provision of treatment for ringworm by *x* rays, and also the opening of open-air schools, to form an integral part of the organization for treating consumption linked up with dispensary, sanatorium, and other treatment.

Dr. Garrod Thomas.

Dr. Garrod Thomas of Newport has reached home very little the worse for his unpleasant experience. It will be remembered that he was a passenger on the *Delhi*, and when she was wrecked suffered fracture of both bones of the right leg. A few days later he was slung lengthways on a mule and taken to Tangier.

Medical Examination of Colliers.

As foreshadowed in these columns, a possible sequel to the establishment of a minimum wage for miners will be a demand by the owners for a medical examination. This demand has not yet been made, but, in reply to a question, Mr. Brace, M.P., said that in no circumstances would the men's representatives on the wage board agree to such an examination.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

Poor Law Officials and Home Rule.

It is pointed out that, whereas the Home Rule Bill contains substantial provision for the protection of civil servants, there is no reference to officials engaged in the administration of the Poor Law in Ireland. The Poor Law service is one of long standing, and the onerous and responsible nature of the work of its officials is recognized by the fact that they are entitled, under certain conditions, not, however, so effective in their nature as those which apply to civil servants, to superannuation allowances. In the face of the high praise given to the Poor Law officials in the report of the Viceregal Commission on Poor Law Reform in Ireland, published in 1906, it is difficult to see why the obvious claims of such a large number of officials engaged in the public service have been completely ignored, and why such officials, many of whom have spent most of their lives in the service, should now be left, as the Act at present stands, without the protection deemed necessary in the case of other Government servants.

County Councils and Sanatoriums.

At a meeting of the County Council's General Council held in Dublin for the purpose of considering a report brought up by the Standing Committee on Legislation on the financial proposals contained in the Home Rule Bill, 1912, the following resolution was adopted:

That as a grant in aid of the building of sanatoriums is provided in the last Finance Act, and as a part of the Irish Health Insurance Fund is to be appropriated for the maintenance of consumptive patients in those institutions, the Executive Committee be instructed to consult expert medical and official opinion as to the number and grouping of sanatoriums that would meet the needs of the country, their probable cost of erection and of upkeep, and the number of patients likely to avail of them; and to prepare for each county council a report on the probable utility of such a scheme, and the results that might be expected from it.

Poor Law Medical Officers and Payment of Fees.

A constant source of dispute between Poor Law medical officers and boards of guardians is the question of the payment of fees to any substitute that the doctor may have to appoint to do his work temporarily for any cause. Recently, at Carrick-on-Suir, Dr. Stephenson, the medical officer, had to attend Clonmel Quarter Sessions on a subpoena, and the board of guardians refused to pay a fee of one guinea to Dr. Moran, who undertook the work during Dr. Stephenson's absence. The reason given by the guardians for this refusal was that Dr. Stephenson was paid a fee for attending the sessions, and should therefore pay Dr. Moran himself. Dr. Stephenson has now written to the guardians and the Local Government Board explaining that he only received £1 6s. to cover fee, travelling, and hotel expenses. This would not leave much surplus after deducting Dr. Moran's fee. A somewhat similar case has arisen at Warrenpoint. Dr. Bell received a communication from the solicitor of the Newry No. 1 Rural District Council directing him to attend on the following day in Newry to give evidence in an appeal under the Labourers Act. As it was his dispensary day, the hour for which was the same as the hour he was summoned for, Dr. Bell notified the relieving officer that he could not attend his dispensary, and nominated Dr. Mayne as his substitute. Dr. Mayne was engaged by the relieving officer and acted accordingly. Dr. Bell was detained in Newry (about seven miles from Warrenpoint) for seven hours, and he wrote therefore to the Local Government Board asking what fee he was entitled to for attending and giving evidence. The Local Government Board referred this letter to the Newry Board of Guardians for their comment. The Clerk explained that Dr. Bell had received no payment yet, and the No. 1 Council was not bound to pay Dr. Bell for anything except his attendance in court; this it would do. A motion was then passed deciding to inform the Local Government Board how matters stood, and asking its permission to deduct Dr. Mayne's fee out of Dr. Bell's salary. If this is done, Dr. Bell will receive a fee (probably 1 guinea) from the No. 1 Council and will have to pay Dr. Mayne's fee (also presumably a guinea). The result will be that he will have had the trouble of travelling fourteen miles and attending court for several hours and losing his whole day for nothing. It would be better for all parties concerned if it could be arranged that adequate fees should be paid in all cases in which a medical officer has to spend his day in the unpleasant atmosphere of the courts.

Irish Census Returns.

According to the census returns already published for twelve counties, there is a considerable improvement in house accommodation; the number of first-class houses has increased, while that of fourth-class houses has decreased. There is also a well marked decrease in the number of tenements. The education statistics also compare favourably with those for the census of 1901, there being a decided decrease in the number of illiterates. There has also been a great diminution in the number of emigrants, the figures for last year showing a decrease of almost 2,000 as compared with 1910.

CHARGE OF POLITICAL BRIBERY AGAINST A MEDICAL OFFICER.

Last week the charge against Dr. Joseph O'Brien, who was reported at the hearing of the North Louth election petition in December, 1910, was tried before a city common jury. The charge was that Dr. O'Brien had on December 7th, 1910, the day before the polling, been guilty of bribery in connexion with the North Louth election. According to the witness, Dr. O'Brien had called and asked for his vote, which was refused, but he had given a two-shilling piece to the witness's little son, aged 3 years. In the defence it was stated that Dr. O'Brien had already been prosecuted in connexion with this alleged transaction of 2s. He had had a large practice in the Dundalk district, he was dispensary doctor, medical officer of health, vaccination officer for several sanitary districts, and was the doctor for six post-office districts. The result of the report by the election petition judges was that he had been deprived of all these posts; he had also lost his house, and had had to go to Dundalk to start practice there. The defendant denied having given the child money. The jury were unable to agree. The counsel for the prosecution said he was instructed by the Attorney-General to enter a *nolle prosequi*; the matter is therefore now at an end.

CORONER AND MEDICAL OFFICER.

At the quarter sessions for Queen's County, Dr. Higgins, coroner for the county, sued the county council for two fees of one guinea each due to him for professional evidence given at two inquests. The evidence showed that Dr. Higgins attended as a medical witness at two inquests which were held by local magistrates, and it was in respect of these that he claimed the usual fee of one guinea. The county council contended that as Dr. Higgins was an official under the council and in receipt of a salary of £200 a year he was precluded from making further claims of any kind upon the council. The judge gave a decree for the amount, but would not grant professional fees for the doctor's attendance at court, on the grounds that he did not attend as a professional witness.

ESPERANTO.

In consequence of information from Berlin that the German dentists were making efforts to have Esperanto accepted as an official language at the forthcoming International Dental Congress in London in 1914, the Irish branch of the British Dental Association decided to call a special meeting for the purpose of hearing a lecture on the subject by Mr. G. Jameson Johnston, F.R.C.S.I. The lecturer related the history of the language, and expressed the opinion that the adoption of Esperanto would enormously facilitate the work of these international congresses, as illustrated by the fact that seven international Esperanto congresses had been held in different countries, and the whole business at these had been carried out in Esperanto. It was decided that a class should be held in the Dental Hospital.

Transvaal.

NATIVE LABOUR IN MINES.

AT the request of the Medical Officer of Health for Johannesburg (Dr. Porter), Dr. G. D. Maynard has made a report on the mortality amongst natives employed in mines and works in the labour area of the Transvaal.

Dr. Porter states that, in view of the importance of the question and of misleading and even incorrect published statements, resulting presumably from want of acquaintance with the fallacies which beset any uninformed comparison of the crude death-rates of individual mines, Dr. Maynard was asked to investigate the problem. Dr. Maynard's conclusions are shortly summarized at the end of his report and are given below. Although his painstaking and logical inquiry has not disclosed any entirely unexpected feature, it has served the very useful purpose of analysing and sifting available evidence and of replacing more or less vague general impressions or assertions by reasonably precise and accurate statements of fact. It has also demonstrated very clearly that no comparison of the death-rate of individual mines can be instituted without due consideration in each case of the territorial origin of native workers, of their diet, the nature of their housing, the depth of the mine, and the general sanitary conditions. Dr. Maynard, in submitting his report, deals with the following special points:

1. To what extent, if any, do recently arrived natives suffer from disease in excess of the "boys" who have been at work for some time?

2. If new "boys" do suffer from a higher death-rate, to what disease or diseases is it mainly due?

3. To what causes are the large differences in the death-rates in various mines due. The conclusions Dr. Maynard arrives at as a result of their investigations are summarized as follows:

1. The general death-rate amongst all natives, tropical and others, employed in mines and works is very much higher during the first three months of such employment than during the succeeding fifteen months, and in the latter period the death-rate exhibits a marked progressive decrease.

2. The pneumonia death-rate is at least three times as high during the first six months as it is in the second year at work.

3. The accident death-rate shows comparatively little tendency to decrease with increased period at work.

4. Phthisis becomes relatively more important as the length of residence in the mining districts is increased; but, in spite of this, the general death-rate shows a marked decline.

5. The great differences in death-rates in various mines are not entirely due to local conditions. The territorial origin of the natives employed is an important factor for which a statistical correction can be applied. Other differences do not so easily admit of statistical treatment.

Dr. Maynard says that the question of diet is no doubt important, and is receiving careful attention from those in medical charge of the mines, as is also the construction of compounds as regards ventilation, draught and cold, ease of disinfection of bunks, and general sanitary conditions. The length of time spent under ground in reaching and returning from work is of great importance, and in this respect the out-crop mine is better situated than a deep level mine.

Another point is as to the employment of experienced natives, as against the raw Kaffir. "Experienced" natives may be divided into two classes: (1) Those who return home in the intervals between work, and (2) those who engage again without leaving the Rand. Natives who re-engage and are free to choose where they will work drift to the mines at which the conditions of work are most pleasant, where the food is good and plentiful, and where the compound management pleases them. The death-rate in such a mine is lowered in two ways—directly by good management, and indirectly by obtaining "boys" who have a lower death-rate, owing to what may be called acclimatization. The old hands drill their complement of inches in a shorter time than the new "boys," and therefore leave the mine sooner, and thus spend more time in the fresh air. The old "boy" also spends more money in buying food, and so, from every point of view, renders himself less liable to disease and death. The report, although it is only based on one year's figures, is of considerable value, and gives some indication of the factors that may be at work in producing the variations in the death-rates in the different mines.

A CONFERENCE on Diet in Public Secondary and Private Schools will be held at the Guildhall, by kind permission of the Court of Common Council, on Monday, May 13th, at 10.30 a.m. The Lord Mayor, Sir Thomas Boor Crosby, M.D., LL.D., will preside at the opening of the proceedings. The provisional programme includes a paper on diet as a factor in physical, intellectual, and moral efficiency, by Dr. Clement Dukes; papers on existing methods and the main lines of reform, by Dr. A. A. Mumford and others; on instruction in the elements of physiology and personal hygiene, by Mrs. Alice M. Burn, M.B., D.P.H., and Cecil Reddie, B.Sc., Ph.D.; and on problems in institutional feeding and training in institutional management, by Mrs. Stanley Hazell, formerly lecturer on domestic economy and hygiene. The Representative Committee, which is making the arrangements, is issuing invitations to the heads and medical officers of schools, members of the Parents' National Education Union, Child Study Society, and similar organizations, as well as to prominent educationalists. Full particulars will be supplied to any one sending a stamped addressed envelope to C. E. Hecht, National Food Reform Association, 178, St. Stephen's House, Westminster.

Special Correspondence.

BUDAPEST.

The Housing of Working Men.—Tuberculosis in the Hungarian Lowlands.

THE project of providing suitable and hygienic dwellings for agricultural labourers in Hungary has been realized during the last eleven years by means of Government grants, a certain sum having been included for that purpose in each year's budget ever since 1901. The annual expenditure from 1901 to 1905 amounted to £3,000, but the demand for cottages increased to such an extent that in 1906 the annual grant was increased to £15,600. As this amount, however, also proved inadequate, an Act was passed in the following year which authorized the conversion of a sum of £15,600 of capital into interest, thus making it possible to build about 1,500 cottages every year. Another clause of the same Act provided that in the case of land being sold to labourers for building purposes by the local authorities, all the necessary plans, surveys and contracts were to be made by the Minister of Agriculture at the expense of the State. The interests of the labouring classes are safeguarded by the Act in a variety of other ways. For instance, the land selected for building purposes must be entirely suitable as regards soil, air, and drinking water; and any attempt at speculation on the part of the builder or contractor is strictly forbidden; whilst the conditions of the sale or loan, the terms of the loan, and the general plan must be favourable from the labourer's point of view. During the period allowed for his repayment of the loan the property can neither be seized for debt, nor divided, encumbered, or alienated in any way, and a complete exemption from taxation is granted for twenty years. With regard to the selection of sites, preference is given to applications coming from such parishes and local authorities as make either a free grant of land on which to build the house, or of ground suitable for gardens. The necessary materials are forwarded at cost price on all the railways owned or worked by the Government, but State assistance is only granted for buildings designed to accommodate one family. Each cottage occupies a plot of ground covering from 1,000 to 1,200 square yards; and the cost of building varies from £38 to £75. Loans made to labourers who wish to build a house may be repaid by annual instalments of sums ranging from £2 10s. to £4 10s., extending over twenty or thirty years. Under the provisions of the Act of 1907, 10,943 workmen's cottages were built in the course of one year in different parts of Hungary. Another result of this Act has been to abolish land speculation, and to keep down the cost of building sites, owing to the fact that most Hungarian townships own the adjacent country, which, formerly used as common land to supply fuel and pasturage to the townsfolk, now offers a convenient situation for the erection of workmen's dwellings. But the care of the State is not confined to the housing of agricultural labourers alone. A law was passed on July 20th, 1908, which authorized the construction of houses in Budapest for employees of both State and private enterprises, the Government undertaking the building of the houses and a sum of £500,000 being set aside for that purpose. The actual building was commenced in 1909; and by May 1st, 1911, two hundred and seventy houses (containing in all nine hundred and seventy flats) had been finished, and seven hundred and twenty-two others (containing in all two thousand flats) were planned for erection in the course of the following year. It should be added that the average building cost of a two-roomed flat was £154, the average yearly rental amounting to £8 10s., whilst a flat of three rooms and a kitchen cost £200, and might be rented for £13 8s. a year.

The high rate of mortality from tuberculosis in the Hungarian lowlands, ascribed by some authorities to a peculiar susceptibility on the part of those of pure Hungarian blood (who usually inhabit the plains), has been made the subject of close study by Dr. Okolicsányi-Kuthy Dezso, one of the lecturers at the University of Budapest. Dr. Dezso, it is interesting to note, is convinced that the terrible prevalence of phthisis amongst Hungarians, or ancient Magyars, as they are usually called, is due to climatic rather than hereditary causes. He points out that the lowlands of Hungary rejoice in a climate that possesses every drawback likely to foster the spread of the disease, including extremities of heat and cold, and very dry summers, when the vast quantities of dust cannot fail to work havoc with the lungs of the inhabitants. Such a state of affairs, according to Dr. Dezso, can only be remedied by educating the people with regard to their houses and clothing, and by planting trees, a measure which would serve a double purpose by improving the climate and lessening the formation of dust.

Correspondence.

POLYORRHOMENITIS.

SIR,—In his interesting paper on "A Case of Tuberculous Polyserositis" in the current number of the BRITISH MEDICAL JOURNAL, p. 945, Dr. Conford has kindly called attention to my clinical lecture on "Polyorrhomenitis or Combined Serous Inflammations" published in the JOURNAL, December 15th, 1900. But in doing so I think he has not quite correctly represented me and the Italian writers to whom I had in that lecture referred. He says:

> The term "polyorrhomenitis" has been applied to a multiple suppuration of serous membranes by Italian physicians, and this condition was fully dealt with by Dr. Frederick Taylor in a paper, etc.

To me it is quite clear that the term was not limited by the Italians to suppurative inflammations, and certainly in my lecture I dealt only very briefly with suppurative forms of the disease, and much more fully with tuberculous varieties. A section inserted by Dr. Luigi Ferrio in the Italian translation (1900) of my work on medicine begins thus: "Polyserositis or polyorrhomenitis (Concato) is the inflammation, simultaneous or at intervals, in the same individual, of two or of all the great serous membranes (pleura, pericardium, peritoneum)." Reference is then made to such conditions arising from streptococcal, staphylococcal, and rheumatic infections. Then he says: "But the larger proportion of cases of polyserositis have a tuberculous origin." And Picchini's articles in *Il Morgagni*, 1891, to which I referred, and which are entitled "*La Poliorromenite subacuta e lenta*," are devoted to the proposition that all chronic and subacute cases of polyorrhomenitis are tuberculous. In a very useful book of reference, *Terminologia Clinica*, published by Dr. Ferrio,[1] *poliorromenite* is defined as:

> Name proposed by Concato to designate the inflammation (tubercular) of many serous membranes, *polyserositis*. The form particularly illustrated by Concato, which would deserve to bear his name, comprehends cases of serositis, following at intervals, more or less long, in individuals who finally die some years later with pulmonary tuberculosis. In other cases the tuberculous polyserositis is simply acute or subacute: in them two or more serous cavities are struck contemporaneously or at short intervals one after another, remaining simultaneously diseased.

He then refers to rheumatic cases and to rapidly fatal streptococcal and staphylococcal cases.

Thus the term "polyorrhomenitis" was (at least up to 1909) by no means limited by the Italians to suppurative inflammations. I take it that Dr. Conford's interesting case would exactly fall under the head of polyorrhomenitis as described by Concato, Picchini, and others.—I am, etc.,

London, W., April 27th. FREDERICK TAYLOR.

THE INNERVATION OF THE ORBICULARIS ORIS MUSCLE.

SIR,—The case of "Hypoglossal Nuclei Paralysis," published by Dr. A. M. Moll in the JOURNAL of April 20th, 1912, is inconclusive on the question of the nuclear origin of the motor fibres which supply the orbicularis oris muscle-complex; in a syphilitic case almost all things are possible. Doubtless Dr. Moll, in mentioning the name of Dr. Tooth as favouring the twelfth nucleus hypothesis, had in mind the case of bulbar paralysis studied by Drs. Tooth and Aldren Turner (*Brain*, vol. xiv, 1891): they found extensive degeneration of both the seventh and the twelfth nucleus. At the end of their paper they frankly admitted that on the question as to how the fibres which

[1] Turin, 2nd edition, 1909.

supply the lips reach the facial nerve-trunk from their nucleus of origin their case threw no light; they suggested the posterior longitudinal bundle.

But the twelfth nucleus hypothesis was disproved for the case of man by the admirably studied and reasoned out case published by the late Dr. Alexander Bruce and Dr. J. H. Harvey Pirie (*Rev. Neurol. and Psychiat.*, vol. vi, 1908, p. 685):

A man, aged 65, had complete unilateral facial paralysis of peripheral type coming on with other symptoms. During life there was total absence of faradic response in all the facial muscles. Autopsy, four and a half months after onset of facial palsy, showed (1) degeneration of all the cells of homolateral facial nucleus, none of heterolateral; (2) not a single cell of either hypoglossal nucleus affected; (3) no change whatever in any of the cells of either third nucleus.

Bruce and Pirie naturally concluded that the hypoglossal nucleus of man does not innervate the lip-facial muscles (the oro-facial group of Tooth and Turner).

It passes my wit to understand why this very easy question has not long since been properly tested by experiment. All that need be done is to cut or avulse on one side—preferably in monkeys or carnivora—all those branches of the buccal and supramandibular branches of the seventh nerve which enter the orbicularis oris muscle-complex. Histological examination a few days later should reveal retrograde chromatolysis of some of the cells of either the seventh or the twelfth nucleus, probably only homolateral.

In conclusion, may I ask the adherents of the twelfth nucleus hypothesis this awkward question? Where do you suppose the muscle afferents of the orbicularis oris muscle have their ganglionic origin? You cannot consistently say in one breath that the motor fibres rise in cells of the twelfth nucleus and the muscle afferents in the geniculate and Gasserian ganglia. If you still adhere to the twelfth nucleus for the motor fibres you must think of the second cervical dorsal root ganglion for the muscle afferents, and would you seriously do that? It is to be hoped that any experimentalist who may take up the question of the motor innervation of the muscle will not forget to study histologically also the cells of the geniculate and Gasserian ganglia. We have already both experimental and clinical evidence that both these ganglia give origin to facial muscle afferents, but at present we lack evidence as to the ganglionic origin of the orbicularis oris muscle afferents.—I am, etc.,

London, N.W., April 19th. LEONARD J. KIDD, M.D.

THE ANATOMY OF THE ABDOMEN.

SIR,—In the review of my work, *Principles of Anatomy: The Abdomen Proper*, which appeared in the JOURNAL of April 13th, p. 840, your reviewer says:

Of what assistance is the term "interfissural area of the liver" (quadrate lobe) to the student who has been taught the form of the generalized mammalian liver and is able to recognize the right lateral fissure in the human specimen when it is present?

Is it too much to ask that any one who has been taught the form of the generalized mammalian liver, and is able to recognize the right lateral fissure in the human specimen when it is present, should also be able to recognize the fact that in the *Principles of Anatomy* the term "interfissural area of the liver" is not applied to the quadrate lobe?

Your reviewer also says:

We cannot accept *in toto* the statement that "the small sac is not a diverticulum of the great sac," since that part of the small sac which lies behind the liver develops as a right-sided pocket from the great sac during the first month of development.

In the *Principles of Anatomy* the context plainly shows that the words, "the small sac is not a diverticulum of the great sac," mean, as they are intended to mean, that "the small sac is not a diverticulum of the great sac"—only that and nothing more. A surgeon, on reporting the condition of a patient after amputation of a finger, might be told: "We cannot accept *in toto* the statement that our friend is alive, since that part of him which has been amputated is already dead and will soon be buried," or, again, a physician, after prescribing specially coated pills, might be informed that "we cannot accept *in toto* the statement that the pills are not bitter since that part of them which lies within the coating contains some bitter ingredient." In each case the reservation may be correct, but it is scarcely relevant.

But, except for that part of the small sac which lies behind the liver, your reviewer does accept the statement that "the small sac is not a diverticulum of the great sac." It would be interesting, then, to have his opinion of the following description, which is taken from one of the standard textbooks of the present day:

Whilst the main sac of the peritoneum lies in front of the various abdominal viscera . . . there is a special diverticulum derived from this "great sac," which turns in behind the stomach, and covers its posterior surface; this is known as the lesser or smaller sac.

According to this method, an hourglass might be described as a tube consisting of two equal compartments, each of which is a diverticulum derived from the other: according to the method of the *Principles*, it might be described as a tube so constricted as to form two equal compartments which intercommunicate by way of the constriction.

Lastly, when your reviewer speaks of the "relationships of organs," presumably he is referring to their "relations."—I am, etc.,

WM. CUTHBERT MORTON, M.A., M.D.Edin.,
Honorary Demonstrator of Anatomy in the University of Leeds.

Leeds, April 22nd.

BACILLUS DIPHTHERIAE.

SIR,—May I ask a small portion of your space in the BRITISH MEDICAL JOURNAL to discuss a subject of much public importance? Of late years people as "carriers" or "contacts" in cases of diphtheria have taken a very different position to formerly on account of the bacillus occurring in their throats, and in certain instances they have to incur not only isolation but much pecuniary loss. Has the science of medicine progressed so far that it can be said with any degree of certainty that these cases are all of an infectious nature? We have these cases of positive laboratory results with perfect health mixing with other members of their family with no serious effect resulting, and we also see adults debarred from their work with much pecuniary loss. I yield to no one in admiration for scientific medicine, but I think something more is necessary to be done in these cases before continued isolation is demanded. We find in a cottage one or two children with positive results mixing with the other members of the family; they have their meals together, sleep together, use the same plates, cups, knives, forks, etc., and with no evil resulting. However much you may try to instil the necessity for care, it is practically beyond the powers of a cottage mother to carry it out to any useful extent. At one cottage I made inquiries the mother told me nothing whatever was done during the whole nine weeks the child was at home; she slept, ate and drank, etc., with all the rest of the family with no precautions whatever. At a superior home the mother informed me some Condy's fluid was used in the washing-up water, nothing else: and at a third, while the children had their own utensils, which was their rule in that cottage, they were all washed up together with no disinfectant. During the whole time all were apparently in perfect health.

There can be no finality in scientific investigation. Scientists themselves, I believe, agree that there may be germs of identical appearance as observed under the microscope, but vastly different in their nature—some benign, while others are virulent. If such is the case—and the practice of medicine would go to confirm this view—would it not seem desirable that before knocking people off work and stopping their livelihood on account of the bacillus being found in their throats, further tests should be made, as by animal inoculation or such other methods as experts may consider satisfactory? I may be told that these benign bacilli have all the elements of the virulent, and only require some stimulus, as association with other kinds of bacilli, etc., to rouse them into a dangerous state; and I shall probably further be told that even if such is not the case, until it can be proved not to be so the minority must suffer on behalf of the majority. In the interests of medicine itself it is to be hoped it will soon be put on a sound footing; for if isolation of adults, with all the accompanying inconveniences, is carried out

to any great extent it may do harm to science by causing much irritation, for it will be difficult to persuade the public of the necessity for such stringent measures if they find not only that while they are themselves in good health, neither the members of their families nor the public with whom they may come in contact suffer in any way from infection, and they will become sceptical as to the truth of the verdict that has condemned them to this disability.

I used the word isolation more as referring to removal from work with their fellows than in the true sense of the word. To get perfect results clinical and laboratory work must go hand in hand, and those in practice may help a little towards this by careful observation and recording the results.—I am, etc.,

Fulbourn, April 21st. F. L. NICHOLLS.

THE FUTURE OF GENERAL PRACTICE.

SIR,—I wonder if many of your readers have pictured to themselves the general practice of the future, the practice of ten years or so hence, what time a grandmotherly State shall have tucked under her wings all the classes which make up private practice of to-day and undertaken the responsibility and the supervision of their medical needs. When all the workers with their wives, and children over school age shall have come in under the National Insurance Act and be doctored by sweated club doctors; when confinements will all be attended by midwives under the control of the Public Health Authority, to whose assistance in time of danger a specialist will be sent by the same authority; when the babies will be tended by the same authority's health visitors, and attended by that authority's official doctors; when the tuberculars will all be attended by the public health officials; and finally when the children attending public elementary schools, for all their diseases and ailments shall have come under the school medical officer, who is himself either the medical officer of health or his subordinate.

A dream? A nightmare? Well, perhaps. But this dream has foundations only too realistic.

With regard to the struggle over the National Insurance Act, however well it goes for us, we shall certainly be club doctors under the heel of a lay committee, and as certainly be sweated. Married women will be coming in under the Act in five years, and it may safely be assumed that before long children will come under the Act immediately they obtain employment.

An enormous number of women are now attended by midwives, who employed the family doctor ten years ago. How many will be left to him in ten years' time? The extern service of some of our hospitals has proved to the public that a woman in labour may be safely attended by an unqualified woman, provided that a qualified practitioner is at her beck and call, and that such attendance has the approval of hospital staffs. It would probably not be difficult to organize a maternity service for the whole country on such lines as these, utilizing midwives and specialists alone, the whole service being under the control of the Public Health Authority.

An extension of the present system of visiting and advising mothers as to the care of their babies would soon bring all the little ones under school age under the health visitors and staff of official doctors.

There are already the beginnings of a tuberculous service in the country, employing inspectors and "specialists," which may soon be expected to grow, under the stimulus of the Insurance Act, into a formidable competitor with the private practitioner.

The Education (Administrative Provisions) Act, 1907, was the official foundation of a medical service, under public health administration, designed to give medical treatment to all the children of school age in the kingdom.

It is true that up to the present the policy of the Board of Education has been to let down the private practitioner quite gently, but in the 1910 Report of the Chief Medical Officer and in the Memorandum on grants published in your issue of April 27th there are many indications that there is no room for the independent private practitioner in the comprehensive scheme of treatment which has up to the present been merely adumbrated, but that if, and when, private practitioners are to be employed, they must be under the authority of the School Medical Officer.

"The Treatment Clinic arises naturally out of . . . the Inspection Clinic; its roots should always be found there" (Rep., par. 197). In the Memorandum these roots get their top-dressing, a grant given, not for medical inspection, but for treatment. Treatment is the pet child of the Report and the last word of the Memorandum. The local education authorities which have gone farthest in treatment get the greatest approval, while the laggards are tuned up. And, be it remembered, that which is approved by the Board to-day will be insisted on to-morrow. In my opinion, the ideal of the Board of Education—kept quietly for the present, but constantly and consistently before them—is a system of treatment of all elementary school children by official doctors under the control and supervision of the Public Health Authority. This ideal system, at first confined to such ailments as malnutrition, diseases of the eye, teeth, ears, nose, throat, and skin, will gradually enlarge its borders to embrace almost every conceivable disease that children suffer from, and the medical charities will be requisitioned to deal with such cases as the official staff cannot grapple with. Then we shall have in being Sir George Newman's ideal, "a simplified and unified State medical service" (Rep., par. 7). In this service the independent private doctor will have no place. Even at the present time he is only tolerated by the Board on certain conditions, one of which is that his work must be "carried out under the supervision of the school medical officer" (Rep., par. 200, cf. par. 4).

At the same time that the Board are engineering this frontal attack on general practice they are also laying mines. Local authorities are urged to take the fullest possible advantage of existing voluntary hospitals, thus adding enormously to the sum total of that hospital abuse which has already played so prominent a part in damaging general practice (Rep., pars. 168 et seq.).

So then it would appear that in a very few years the whole of the working-class population will have their medical needs attended to by a number of special medical services. Moreover our knowledge of the working of the Education Act does not encourage us to hope that better-off folk will keep aloof. What will be easier and, indeed, more logical than for the State to intervene at the right moment and "simplify and unify" these services into one State medical service—a service in which the private doctor has no place, and which leaves him none but the idle rich?

It is not my wish to argue the point as to whether a public medical service will be good or bad for the profession and therefore for the community. My object has been to put before your readers what I consider to be the inevitable. If we consider a State service to be in the best interests of the community we should acclaim and encourage the march of official work. If not, then surely we should not merely protest but take strong action to combat the sure effects of this work. We should not merely seek to palliate the Insurance Act but refuse to touch it save as private practitioners. We should refuse to countenance school clinics unless worked by all of the local profession who so wish. We should refuse hospital treatment, except for urgent conditions and operations, to elementary school children. We should deny the right of the medical officer of health and the school medical officer to supervise the work of his, probably, more experienced colleague, the general practitioner. We should condemn the unqualified maternity work of midwives and nurses, even when covered by specialists. We should welcome the proper work of health visitors, nurses, inspectors, *et hoc genus omne*, as useful and important auxiliaries in the never-ending struggle with disease, but discountenance any interference with the at least equally important work of the independent private practitioner. And we should do all this, not primarily nor even principally, because our vested interests are being interfered with, but because it is our honest opinion that the greatest and best and most efficient general medical practice in this country has for generations and still is being carried on by the independent private practitioner.—I am, etc.,

Bristol, April 30th. H. F. DEVIS.

"CAN THE DOCTORS WORK THE INSURANCE ACT?"

SIR,—The book above mentioned has been very favourably reviewed by the *Times*, the *Athenæum*, and the *Lancet*, and, on the whole, very unfavourably by the BRITISH MEDICAL JOURNAL. I should therefore be glad of an opportunity of replying to your reviewer's critique.

In the first place, the approval of Dr. Saundby (President of the British Medical Association) may be "purely personal," but those who heard his inaugural address will remember that he expressed opinions very similar to those in the book, and may therefore be said to have in a manner given an official imprimatur to my views before they were put on paper.

Your reviewer attacks the statement that the Governments protects itself against risks which the doctor is expected to bear, but does not attempt to justify his attack. He says the statement is but half of the truth; a very careful study of the Act has failed to reveal the other half to my humbler intelligence. Perhaps your reviewer will oblige.

Much of your space is devoted to labouring the statement that the sections of the Act dealing with sanatorium benefit will relieve the insurance doctor very greatly—a statement the truth of which is at least doubtful. In the event of the statement being true, your apologia is of none effect, through your own admission that the net relief afforded by the Act will be a large additional burden.

Again, with regard to the chemist, your reviewer quotes the Act as mentioning a scale of prices. I agree that a scale is mentioned in the Act; what is not mentioned in the Act is the actuarial calculation which forms the basis of the whole scheme, according to which 6s. is to cover the annual cost per head of medical benefit, including drugs, etc. This is recognized by the official Government interpreters of the measure. In effect the "scale of prices" is to be governed by the "capitation" set aside for the purpose in the actuarial basis. The Government actuaries have officially stated that any increase of the *total* cost of medical benefit must render the scheme insolvent: therefore higher pay for the chemist must mean less for the doctor.

This textual reliance on the Act itself, without regard to its actuarial basis, is the cause of half the confusion which exists on the subject, not only in the mind of your reviewer but in the minds of the public also. Your reviewer admits that I make out a good case for the "six cardinal points," one of which is payment according to the method chosen by the practitioners of each district. This most essential "point" opens the way for payment by the local committees for work done. The British Medical Association has done its best to burke this question. Every sort of effort has been made to induce the profession to accept the principle of capitation—a principle admittedly bad in itself, and on any large scale incompatible with honest work. It is to the discredit of the British Medical Association that this should be the case, and will, I fear, lead ultimately to the undoing, not only of the Association, but of the medical profession.

Your reviewer's omissions are of more importance than his statements. The argument that the Harmsworth amendment (even as amended and accepted by the British Medical Association) makes free choice of doctor practically impossible is allowed to go by default.

There is no word on the all-important question of the Government's expectation of sickness, which Mr. Lloyd George has admitted, in a personal letter, to be eleven days of *total invalidity* (exclusive of any minor sickness) per insured person per year. This high average of sickness is, of course, due to the inclusion in the scheme of unselected lives of both sexes, as contrasted with the selected male lives of the old friendly societies.

Ignored also is the question, "Is 8s. 6d. adequate remuneration for eleven days of total invalidity?"

Unnoticed also is the statement that the capital value of any practice which is composed of State work is exactly nothing.

Nor is any notice taken of the statement of the Vice-Chairman of the Commissioners that payment for work done is impossible under the Act, except in such a way as to be merely capitation under another name.—I am, etc.,

Kew Bridge, April 23rd. E. W. LOWRY.

*** We entirely agree with Dr. Lowry that the insurance scheme must be considered as a whole, and that the actuarial estimates must always be taken into account. This is a point to which editorial references have so often been made that it appeared unnecessary to labour it again. We venture to think that there is a serious obligation on every medical man, especially if he be addressing the public, not to overstate the case by making assertions which can easily be refuted, and in the review of the pamphlet we thought it necessary to call attention to this point. The review did not profess to be the kind of abstract which the author would appear to think would have been appropriate.

RADIUM EMANATIONS IN MINERAL WATERS.

SIR,—In your report of Dr. Pagan Lowe's excellent address before the Royal Society of Medicine on the above subject, I am pleased to find that he confirms, from his own personal observations, eleven important results of radium water therapy. He credits these, however, to Drs. Aitkins and Harrison, who published them in the *Canadian Practitioner* in August, 1911. I should like to point out that the results quoted (largely the outcome of my own investigations) were published in my paper on Radium Water Therapy in your issue of April 29th, 1911.—I am, etc.,

Buxton, April 29th. WM. ARMSTRONG.

THE PREVENTION OF BLINDNESS IN EGYPT.

SIR,—The thanks of my colleagues and myself are due to you and the writer of the article on the prevention of blindness in Egypt in the JOURNAL of April 6th, p. 801, for your reference to our work.

I shall be glad, however, if you will correct the statement that "all the schools are insanitary and crowded." As I stated at the congress, this only applies to "the infant schools or kuttabs over which the Government has in the majority of cases but small control, and in others no control at all." The primary and secondary schools, for which alone the Ministry of Education is responsible, are fully up to modern hygienic requirements.—I am, etc.,

Cairo, April 20th. W. MACCALLAN.

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

THE following candidates have been approved at the examination indicated:

SECOND M.B. (*Part II, Pharmacology and General Pathology*).—S. G. Askey, M. W. K. Bird, E. J. Bradley, H. F. Brice-Smith, A. E. Brown, A. B. Buxton, L. S. Fry, C. L. Gimblett, H. A. C. Goodwin, B. B. Jareja, G. C. King, H. W. Leatham, G. R. D. McGeagh, W. D. Newcomb, H. B. Padwick, W. R. Purchase, P. W. Ransom.

Degrees.

The following degrees have been conferred:

M.D.—A. E. Barclay, R. W. S. Walker.
M.B.—J. R. Dick.

UNIVERSITY OF LONDON.

UNIVERSITY COLLEGE MEDICAL SCHOOL.

Mechanism of the Heart Beat.

DR. THOMAS LEWIS will give a course of seven lectures at the medical school on the mechanism of the heart beat on Thursdays, at 4 p.m., commencing on May 9th. Students and practitioners will be admitted to the lectures on presentation of visiting cards.

UNIVERSITY OF SHEFFIELD.

THE Council, at its meeting on April 26th, appointed Mr. Francis A. Duffield, M.B., Ch.B.Edin., to the post of Demonstrator in Experimental Physiology and Pharmacology.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

A COMITIA was held on Thursday, April 25th, Sir Thomas Barlow, Bart., K.C.V.O., President, being in the chair.

Admission of Members.

The following gentlemen, having passed the required examination, were admitted Members of the College:

Trevor Berwyn Davies, M.D.Lond., L.R.C.P.; De Wesselow Owen Lambert Vaughan Simpkinson, M.B.Oxon.; Arthur Charles Douglas Firth, M.B.Camb., L.R.C.P.; Thomas Howard Foulkes, L.R.C.P.; Major I.M.S.; George Herbert Hunt, M.B.Oxon.; Charles Edgar Lea, M.D.Vict.

Licentiates.

The Licence of the College was granted to ninety-six gentlemen who had passed the necessary examinations.

Election of Fellows.

The following members who had been nominated by the Council were elected Fellows of the College:

William Bain, M.D.Durh. (Harrogate); Edward John Cave, M.D.Lond. (Bath); Robert Briggs Wild, M.D.Lond. (Manchester); Henry John Davis, M.B.Camb.; John Roger Charles, M.D.Camb. (Clifton, Bristol); Frank Charles Shrubsall, M.D.Camb.; Arthur John Jex-Blake, M.B.Oxon.

Charles Scott Sherrington, M.D.Camb., F.R.S. (Liverpool), who had been nominated by the Council under By-law lxxi (*b*), was also elected a Fellow.

Gift to the College.

A silver cup and an M.D.Lond. gown, formerly belonging to the late Sir William Allchin, M.D., were received as a gift from Lady Allchin, and a vote of thanks from the college was accorded to Lady Allchin.

Communications.

The following communications were received: (1) From the Secretary of the Bicentenary Festival of the Medical School, Trinity College, Dublin, asking the college to send two representatives to the festival to be held from July 4th to 6th next. The President and the Treasurer (Sir Dyce Duckworth) were nominated. (2) From the Secretary of the Royal College of Surgeons of England reporting proceedings of the council of that College on April 11th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE COUNCIL.

THE constitution of the Council of the College is as follows:

President.

Mr. Rickman J. Godlee; C, (1) 1897, (2) 1905.
[Sir H. T. Butlin, deceased, resigned subsequently to his election as President in July, 1911.]

Vice-Presidents.

Mr. C. W. Mansell Moullin; C, (1) 1902 (substitute), (2) 1907.
Mr. Clinton T. Dent; C, (1) 1903, (2) 1911.

Other Members of Council.

Sir H. Morris, Bart.; C, (1) 1893 (substitute), (2) 1898, (3) 1906.
Mr. Edmund Owen; C, (1) 1897, (2) 1905.
Sir W. Watson Cheyne, Bart., C.B.; C, (1) 1897 (substitute), (2) 1901, (3) 1909.
Mr. F. Richardson Cross; C, (1) 1898, (2) 1906
Sir A. Pearce Gould, K.C.V.O.; C, (1) 1902, (2) 1908.
Mr. R. Clement Lucas; C, (1) 1901, (2) 1909.
Mr. G. H. Makins, C.B.; C, (1) 1903, (2) 1911.
Sir Frederic S. Eve; C, (1) 1904 (substitute), (2) 1907 (substitute till this year for Sir J. Tweedy).
Sir Anthony Bowlby, C.M.G.; C, 1901.
Mr. Gilbert Barling; C, 1904.
Mr. C. H. Golding-Bird; C, 1905.
Mr. W. Harrison Cripps; C, (1) 1905, (substitute till 1908), (2) 1909.
Mr. W. Bruce Clarke; C, 1907.
Mr. Charters Symonds; C, 1907.
Mr. W. F. Haslam; C, 1908.
Mr. C. B. Lockwood; C, (1) 1908 (substitute), (2) 1910.
Mr. W. Arbuthnot Lane; C, 1908.
Mr. Bilton Pollard; C, 1910.
Mr. C. A. Ballance, M.V.O.; C, 1910 (substitute for Mr. G. A. Wright till 1914).
Mr. J. Bland-Sutton; C, 1910.

The medical schools are represented as follows:

London:	
St. Bartholomew's	5*
Guy's	4
King's College... ...	1
London	2
Middlesex	3
St. George's	1
St. Mary's	1
St. Thomas's	2
University College	2
Total, London Schools† ...	21
Provincial:	
Birmingham	2
Bristol	1
Making total of Council ...	24

*Including Sir H. Butlin, deceased.
†No special hospitals represented at present.

On this occasion there will be three full vacancies and one substitute. Sir Frederic Eve has served his time as substitute for Sir J. Tweedy, whilst Sir A. Bowlby and Mr. Barling have served for the full eight years. There remains a vacancy as substitute for Sir H. Butlin, deceased, which will be held for a relatively long space of time, seven years, or until 1919.

CONJOINT BOARD IN SCOTLAND.

THE following candidates have been approved at the examinations indicated:

FIRST COLLEGE.—A. Black, P. Hayes, A. Mathewson, C. J. Middleton, F. C. J. Mitchell, J. J. de Waal.

SECOND COLLEGE.—O. Brunlees, J. W. Cowie, J. R. C. Gordon, G. L. Neil, W. L. Paterson, C. F. Pereira, G. L. Pierce, C. Read, T. R. Scott, J. M. Smeaton, J. A. Smith, G. Thomson.

THIRD COLLEGE.—H. D. Atherstone, J. F. Bourke, W. Laird, Madeline MacWilliam, J. M. Milne, F. M. Murray, B. Prasad, Violet M. Tracey, N. R. R. Upbaya.

FINAL.—V. T. W. Eagles, T. E. Ferguson, J. A. Frost, F. W. Grant, A. R. Henry, H. Hukku, R. H. Jones, Mary Lyon-Mercado, M. B. Motafram, F. G. Power, S. G. Rasul, P. C. Ray, B. Singh, J. D. Wright.

Public Health AND POOR LAW MEDICAL SERVICES.

POOR LAW MEDICAL OFFICERS' ASSOCIATION OF ENGLAND AND WALES.

A COUNCIL meeting of this association was held at 34, Copthall Avenue, E.C., on April 23rd, Dr. D. B. Balding in the chair. A letter of apology for absence was read from Dr. Biddle (Merthyr Tydfil).

Breach of Poor Law Orders.

The Honorary Secretary reported that in accordance with the instructions of the Council in the matter of the Winchester guardians he had sent the following letter to the Local Government Board:

February 17th, 1912.

Secretary to the Local Government Board.

Re Appointment of District Medical Officer resident within his district for a term of three years by the Winchester Guardians.

Sir,

Your letter of the 6th inst. was carefully considered by my Council at its meeting on Wednesday last.

I am directed to say that it greatly regrets the sanction given to the action of the Winchester guardians in disregard of the provisions of Art. 2 of the Medical Appointments' Order of May, 1857. I am also desired to send you the enclosed cutting from a local newspaper. From this report of a meeting of the Winchester guardians it seems clear to my Council that whatever reasons were given to your Honourable Board, the paramount reason was simply objection to permanency of appointment of the district medical officer, which the above mentioned Order, it is thought, was intended to secure.

With regard to the advertisement of the Winchester guardians, my Council desires to know whether it is lawful for a board of guardians to issue an advertisement for an officer on terms which contravene the Poor Law Orders. If a board of guardians may do so, and afterwards plead the acceptance of the terms offered as a reason for giving sanction to its action, it seems to my Council that both the said Order and other important Orders might readily be made dead letters.

I am, yours obediently,

MAJOR GREENWOOD,
Honorary Secretary.

To this the following answer had been received:

Whitehall, S.W.,
March 15th, 1912.

Sir,

I am directed by the Local Government Board to advert to your letter of the 17th ult., with reference to the recent appointment of a district medical officer in the Winchester Union for a period of three years.

In reply, I am directed to point out that Article VI of the General Order of the 25th May, 1857, referred to in your letter, provides that nothing contained in the Order "shall prevent the guardians in any case of emergency, or under special circumstances, from appointing one or more medical officers to act temporarily for such time and upon such terms as the (Local Government) Board shall approve," and I am to state that the Board would not regard the action of the guardians in the case now in question as a contravention of the Order.

I am, Sir,
Your obedient servant,
H. WILLIS,
Assistant Secretary.

The Honorary Secretary said that the Local Government Board appeared to contend that there had been no violation of the Medical Appointments' Order. But was this a "case of emergency"? Or, what were the "special circumstances" under which the sanction was given? In all the public reports of the meetings of the Winchester guardians the only reason alleged was objection to permanent appointments. He had written, as directed, to the British Medical Association and the National Poor Law Officers' Association, and in reply had received promises of assistance.

It was thought by some of the council that the Poor Law Medical Officers' Association should again approach the Local Government Board, but it was decided to defer further action for the present pending that to be taken by the British Medical Association and the National Poor Law Officers' Association.

Part-time Appointments.

A letter was next read from the Honorary Secretary (Dr. Bellios) of the Association of Medical Officers of Health. Two resolutions passed at the last general meeting of that body were submitted for the approval of the Poor Law Medical Officers' Association. They were:

1. That the Conjoint Committee of the several associations of medical officers holding part-time appointments be requested to consider the advisability of organizing as quickly as possible local branches throughout the country of medical practitioners holding part-time appointments under Government and local authorities to work in conjunction with the Central Committee.
2. That the Conjoint Committee be requested to consider the best means of securing at the annual general meetings of the constituent associations the attendance of members of other associations.

The object of these resolutions was unanimously approved of by the Council, and it was decided to inform Dr. Bellios that every assistance should be given in carrying out the principles therein embodied.

Annual Meeting.

The council then considered the arrangements for the annual meeting at Bristol. The Honorary Secretary reported that he had received an intimation from the Lord Mayor that Tuesday, June 25th, would be most convenient for the municipal authorities, so that he had accepted that date on behalf of the Poor Law Medical Officers' Association. This was agreed to, and it was decided that the business of the meeting should commence at 2 p.m., and, if possible, two papers should be read, one from a local man. It was also resolved that special circulars notifying the date of the annual meeting should be sent out to all members, and to all Poor Law medical officers in the unions adjoining Bristol. The arrangement of the dinner was to be left in the hands of Dr. W. King Brown and the Honorary Secretary.

Obituary.

SIR FREDERICK WALLIS, M.B., B.C., F.R.C.S.,

SURGEON TO CHARING CROSS HOSPITAL.

It was a great shock to his many friends to learn of the death of Sir Frederick Wallis on the morning of April 26th. He was so active, so cheery, and so athletic in build and habits that he seemed destined for long life. *Dis aliter visum.*

Frederick Charles Wallis was born at Southampton on December 18th, 1859. He was educated at Caius College, Cambridge, and St. Bartholomew's Hospital. He graduated B.A.Cambridge in 1879. He took the diploma of M.R.C.S. in 1883, and the degree of M.B., B.C.Camb. in 1885; in 1891 he became a Fellow of the Royal College of Surgeons. After holding various appointments he became connected with Charing Cross Hospital, to which he was attached till his death. He was elected Assistant Surgeon in 1893, and Surgeon in 1905. It was to Charing Cross Hospital that he gave most of his time, and a large share of his energy as well as his affection. He became a Charing Cross man heart and soul, and gave it of his very best. From early days he took a particular interest in rectal surgery, and for many years he had been on the staff of St. Mark's Hospital for Diseases of the Rectum. In addition to publishing numerous papers on the surgery of the rectum and colon, he published in 1907 a book on this subject, and during the last year or two of his life he was engaged upon a larger work on the same subject.

He was Surgeon to the Grosvenor Hospital and Consulting Surgeon to the Metropolitan Hospital, Willesden Cottage Hospital, British Orphan Asylum, St. Luke's Hostel, and St. Monica's Home.

In addition to the many lectureships which he held at Charing Cross Hospital, he was Dean of the Medical School for over two years; he resigned the post last year. Though he had not been quite himself for the last year, Sir Frederick apparently only got a definite warning that his heart was affected at the beginning of this year, when he was obliged to give up some of his work. Among other things, he resigned the co-lectureship in surgery at Charing Cross Hospital Medical School. None of his friends seem to have realized in the least that he was gravely ill. Even those who knew he had been taken ill while on a holiday abroad after Easter never dreamt that he was so ill.

The news of his death came so suddenly that his friends were staggered, and the number of his friends was very great. At Charing Cross Hospital every person in the place was filled with a great and heartfelt sense of loss. For Freddie Wallis was liked and loved by all. His personality—so charming, so kindly—appealed to all. His cheery face did a man good; his kindly jest made one forget one's troubles. The students all had an affection for him, which he certainly reciprocated. He was always keenly interested in the Students' Club, of which he was the treasurer for several years. His kindly disposition was exemplified in the interest he took in the founding of the Union Jack Club for Soldiers and Sailors, of which he was vice-president. His patients in hospital all loved him; his private patients became his personal friends. It was with genuine pleasure that all who knew him saw that he had been honoured with a knighthood last year.

Who would have thought that he, who was always cheerful and apparently in the best of health and spirits, would be taken from us at the comparatively early age of 52? A sister of a ward in one of the hospitals he visited once said that she had only to whisper in his ear that one of his patients was depressed and in need of encouragement, and he would not leave the ward till that patient was smiling and happy. It was a great gift that he possessed, the gift of a genial personality, which, coupled with a rare kindliness, did so much to cheer the lives of all with whom he came in contact. It was the same story wherever he went. His loss will be deeply felt at more than one golf club where the staff had experienced his kindness.

PROFESSOR JOAQUIN ALBARRAN, whose death at the comparatively early age of 52 was announced in the JOURNAL a little time ago, was born in Cuba in 1860, and studied medicine in Paris, where he had a distinguished career. He came out first in the list of *internes* in 1884, and was awarded the gold medal of the *internat* in 1888. In 1889 he took his doctor's degree, the subject of his thesis being the kidney in urinary disease. He became *chef de clinique* in 1890, *professeur agrégé* in 1892, and surgeon to the Paris hospitals in 1894. He attached himself especially to Guyon, and succeeded him in the chair of genito-urinary surgery in 1896. Albarran was the author of treatises on diseases of the kidney (1899), on diseases of the prostate (1900), on exploration of the kidney (1905), and on the operative surgery of the urinary passages (1909). In addition to these he was the author of monographs on tumours of the bladder, on tumours of the kidney, on the part played by psorospermosis in the development of epithelial patches and of certain epitheliomas of the bladder, and on genito-urinary tuberculosis. He invented a urethrotome, and introduced certain modifications in the technique of suprapubic lithotomy and in the treatment of strictures of the urethra. In 1895 he devoted special attention to movable kidney, to lithotrity, and to the effect of castration in hypertrophy of the prostate. In 1896 he studied serum-therapy in urinary infection, and published a book on the pathological physiology of the enlargement of the kidney and of polyuria in hydronephrosis. In 1897 he introduced the cystoscope for ureteral catheterism. Professor Albarran was a most strenuous worker both in the wards and in the laboratory; he was also an enthusiastic and successful teacher. His labours undermined a constitution naturally somewhat weakly.

WE regret to record the death of Dr. V. FFRENCH-MULLEN of Jamaica. It took place after an illness of only a few hours' duration on April 7th at his residence at Claremont, in the district of St. Ann. Dr. ffrench-Mullen, who was born at Tuam, co. Galway, received his professional education in the schools of the Royal College of Surgeons in Ireland, and at the time of his death had standing to his credit some thirty-two years' continuous service in the Medical Department of the Government of Jamaica. In addition to the cares of his official appointment and of private practice, Dr. ffrench-Mullen devoted a portion of his time to the duties of a justice of the peace, and to work in connexion with the militia force of the island, in which he held a commission as Surgeon-Captain. Dr. ffrench-Mullen was married, and is survived by his wife, and by two sons and two daughters.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession who have recently died are Dr. Paul Bourgeois, who formerly represented La Vendée in the French Chamber of Deputies; Dr. Ernst Löhlein, Medical Superintendent of the Lazarus Hospital, Berlin, a position in which he succeeded the late Professor Langenbuch twelve years ago, aged 55; Dr. Nejoloff, Professor of Obstetrics and Gynaecology in the Medical Faculty of the University of Warsaw; Dr. P. Brousse, formerly a member of the French Chamber of Deputies for the Seine Department; Dr. Imbert-Goubeyre, some time Professor of Hygiene and Therapeutics in the Medical School of Clermont; Dr. Alonso Calabrese, Director of the Naples Antirabic Institute and Coadjutor in Professor Cardarelli's Clinic in the University of that city, aged 42; Dr. Andreas Mordtmann,

Physician to the German Hospital at Constantinople, where he had been a leading practitioner for forty-eight years, well known also for his historical and topographical learning and for his knowledge of Oriental languages, aged 76; Dr. Alessandro Codivilla, Extraordinary Professor of Orthopaedics in the University of Bologna; Dr. L. Magnus Möller, Professor of Syphilography in the Medical Faculty of Stockholm; Dr. Max Salomon, of Berlin, author of a handbook of special internal therapy, of a history of glycosuria, and a number of writings on the prevention of tuberculosis and other hygienic and medico-social subjects, and one of the founders of the seaside institutions for tuberculous children, aged 74; Dr. J. A. Fort, formerly Free Professor of Anatomy in Paris; Dr. Richard Frommel, sometime Director of the Gynaecological Clinic of the University of Erlangen; Professor Wilhelm Dönitz, head of one of the departments of the Berlin Institute for Infectious Diseases, in his 74th year; Dr. M. Mandelstamm, Emeritus Professor of Ophthalmology in the University of Kieff, aged 74; Dr. Dittmar Finkler, Professor of Hygiene and Director of the Hygienic Institute of the University of Bonn, aged 59; Dr. J. H. Musser, of Philadelphia, Professor of Clinical Medicine in the University of Pennsylvania, President of the American Medical Association in 1903–04, and one of the most eminent physicians of the United States, aged 55; Dr. Alfred Pribram, Professor of Internal Medicine in the German University of Prague, author of monographs on cholera, recurrent fever, rheumatism, and other subjects, and of a treatise on therapeutics, which passed through two editions, aged 70; Dr. Egmont Baumgarten, Lecturer on Laryngology at the University of Budapest, of blood poisoning from a bite on the finger received from a patient on whom he was operating, aged 52; and Dr. P. P. Ssadowsky, Professor of Gynaecology and Obstetrics in the St. Petersburg Medical Institute for Women, aged 46.

The Services.

AN INCIDENT IN THE DAILY ROUND OF CINDERELLA.

Scene: An important cantonment in Hindustan.
Time: 7 p.m., about the end of the cold weather.

THE doctor-sahib of the Blank Infantry is hastily summoned from his bungalow to see a young Sikh sepoy who has been brought to hospital in a state of collapse, with acute abdominal pain. The signs of an "acute abdomen," probably a fulminating appendicitis, are all too evident, and the patient's consent is obtained for immediate operation.

A beneficent Government has refused to spoil the archaeological interest of the pre-mutiny hospital by providing it with an operating room, and accordingly the office, which measures 12 ft. by 12 ft., is cleared of books and papers, and some small tables and a couple of reading lamps are fetched from the medical officer's bungalow. The office table, measuring 5 ft. by 3 ft., is placed ready for the patient, and partially covered with our one authorized piece of waterproof sheeting (one yard square) which has just been used in giving him an enema. The only instruments available in the regimental field equipment are some scalpels, six pairs of artery forceps, one pair of dissecting forceps, and some needles for skin suture; these are supplemented by private instruments belonging to the medical officer and by some of his wife's sewing needles.

An urgent message is sent to the station hospital for British troops two miles away asking for the loan of retractors and intestinal clamps. Another messenger is dispatched to another hospital a mile distant to fetch the one small sterilizer and an instrument tray that are provided for the three scattered Indian troops hospitals in the station.

By 8.30 p.m. the sterilizer has arrived from the station hospital, also a pair of small retractors and two pairs of gigantic pedicle clamps! Operation towels and gauze (purchased at the expense of the regimental officers) are put on to sterilize over a kerosene oil stove belonging to the doctor-sahib.

By 9.30 p.m. another medical officer has arrived to assist, agrees as to the need for immediate operation, and Udham Singh is put on the table.

However, there is an intermission in the pain, and Udham Singh has decided that without operation he will be all right in the morning, and that with operation he will certainly be dead. So he squats on the table, and respectfully but obstinately refuses to be touched. His native officer is sent for to expostulate with him, but all to no purpose, and the operation has to be abandoned.

The subsequent history of Udham Singh is that of other cases of neglected acute abdomen, but can we blame him that he refused to run the risk of letting the doctor-sahibs pour the new wine of modern surgery into the old bottles of the antiquated and effete system that the Sirkar considers good enough for its native troops?

Medico-Legal.

WORKMEN'S COMPENSATION ACT.

Is Scarlet Fever an Accident?

SOME time ago a hospital porter at the Monsall Fever Hospital, Manchester, contracted scarlet fever and some serious complications followed the fever. An action was thereupon brought under the Workmen's Compensation Act against the Manchester Corporation, as the employers of the porter, and His Honour Judge Mellor found that the contraction of the fever was an injury by accident arising out of and in the course of the man's employment within the meaning of the Workmen's Compensation Act, and he awarded the applicant compensation at the rate of 15s. per week. The corporation appealed, and the case was heard before the Court of Appeal on March 29th, when the court unanimously allowed the appeal.

Working in Bare Feet.

In Peel *v.* William Lawrence and Sons, Limited (Court of Appeal, March 13th), it appeared that the applicant was a minder in a cotton spinning mill. On May 15th, 1911, he strained a tendon of a finger of his left hand in the course of removing a sock. The applicant did his work in bare feet, and he sustained the injury while preparing himself for his work at the mill. Being incapacitated for some time from doing his work, he commenced proceedings for compensation. There was evidence that it was not essential to remove the socks, as some of the spinners worked in stockings; but the applicant said it was more comfortable to work in bare feet, and that it was a common practice to do so. The county court judge held that the accident did not arise out of the employment. On appeal the Master of the Rolls, in giving judgement, said that although the accident happened in the course of the employment there was a further question whether it arose out of the employment. It appeared that for their own convenience, and it might be in order that they might do more efficient work, the workers in the mill were in the habit of taking off their coats and waistcoats, and usually, though not universally, they also worked without socks. The appellant had injured his finger in removing his sock. The question in the present case was a question of fact, and the county court judge had not misdirected himself. The workman must show that he had met with the accident owing to some special and peculiar risk to which ordinary mortals were not exposed, and he could not do this. The appeal failed, and must be dismissed with costs.

Medical News.

HIS ROYAL HIGHNESS PRINCE ARTHUR OF CONNAUGHT, K.G., has graciously consented to act as patron of the congress of the Royal Sanitary Institute to be held this year in York from July 29th to August 3rd.

THE Royal Meteorological Society will hold a meeting at Southport, by the invitation of the Mayor and corporation, on Saturday, May 11th, and Monday, May 13th. Visits will be paid on Monday to the Marshside Anemograph Station and to the Formby Observatory. In the afternoon papers will be read on the hourly wind and rainfall records of Southport, 1902–11, by Mr. J. Baxendell, and on the south-east trade wind at St. Helena, by Mr. J. D. Dines. There will be a dinner in the evening. Further information can be obtained from the Secretary of the Society, 70, Victoria Street, S.W.

DR. COLLINGRIDGE, Medical Officer of Health for the City of London, has drawn up some succinct instructions with regard to the rearing of infants, and the Corporation, through its public health department, is now issuing them printed in large type on both sides of a large thick card, with a loop for attachment to a wall. The directions on the two sides relate to breast-fed and bottle-fed infants respectively. In each case the impropriety of giving drugs of any kind except under medical advice is emphasized, while some ten conditions which should lead to such advice being sought are described in a corresponding series of sentences, none exceeding ten words in length.

EARLY on Tuesday morning an outbreak of fire occurred in the biological laboratory at Guy's Hospital. Fortunately it was soon discovered, and was extinguished before any extensive damage had been done. The biological laboratory is the only part of the school premises which is now housed within the hospital buildings. It is situated on the ground floor of the medical buildings, and adjoins the hospital kitchens. The proximity of the medical wards accounted for the arrival of a large number of fire-engines, and this naturally gave rise to a certain amount of disturbance and excitement. The damage done was, however, of the slightest. The cause of the outbreak is not known

THE seventh annual report of the City of Westminster Health Society shows that its work has greatly increased during the last year or two, and supplies accounts in detail of some of the cases which came under the notice of the phthisis visitor. A noteworthy point about the society is that, though most of the visiting of one kind and another is done by voluntary workers, no such workers are employed until they have been adequately trained; many of them, indeed, hold certificates from some public body. The expenditure is commendably small, for some £200 covers everything. Dr. Allan, M.O.H. Westminster, is chairman of several of the committees of the society, and all its work is done in the closest connexion with his department. The honorary secretary of this very businesslike society is Miss M. Horn; the honorary treasurer, by whom subscriptions towards its work will be gladly received, is Miss Haldane, LL.D., 28, Queen Anne's Gate, S.W.

A NEW sanatorium for consumptive children has recently been opened by the Church Army at Crookham, in Hampshire. This institution, which owes its origin to the untiring efforts of Miss Walker, Honorary Secretary to the Fresh Air and Dispensary Department of the Church Army, and of Dr. Barty King, has been built to accommodate 18 patients, and was formally declared open by the Duchess of Albany on Tuesday afternoon, April 23rd. Her Royal Highness was received in the grounds by the Bishop of Winchester, Prebendary Carlisle, Miss Walker, and several other members of the Church Army head quarters staff. A short speech of welcome was made by Mr. A. C. Salter, M.P. (North Hants), who remarked that the fight against consumption was of national importance. He believed that £1 spent on a child showing symptoms of tuberculosis was equal to £30 spent later on for an adult. In conclusion, Mr. Salter said that, though the house had been bought, it was desired to raise an endowment fund of £9,000: and Miss Walker added that, save for a sum of £60, the house had been opened free of debt. Dr. Barty King laid stress upon the value of keeping the conditions of consumption in childhood under observation; the institution was for children only, experience having proved that it was very undesirable to treat young children along with adults. A brief dedicatory service, conducted by the Bishop of Winchester, was held in the house, and the Duchess subsequently inspected the buildings and expressed her satisfaction with their furnishing and arrangement. A collection made from those present amounted to a total of more than £70.

THE annual meeting of the Factory Girls' Country Holiday Fund was held at the Mansion House on Wednesday, April 24th, when Alderman and Sheriff Hanson presided on behalf of the Lord Mayor. An earnest appeal for funds to continue the work was made by the Bishop of Stepney, who called attention to the contribution made by the girls themselves towards the expenses of their holidays: it amounted last year to £1,665, nearly £500 more than the annual subscriptions. It was all very well to sing "Rule Britannia," continued the speaker, but what we wanted to-day was to look seriously to the health of the nation. At present we were playing fast and loose with the health of young people, and it was about time to seek the cause of the national weakness and inefficiency. Among the well-to-do classes the holiday habit was steadily gaining ground, and yet thousands of over-worked, under-fed working girls were forced to spend the most critical years of their lives without a chance of recruiting their sorely-tried strength by the least little change of air and surroundings. The great benefit derived by the girls sent into the country by means of the Fund was commented on by Miss Paget, who drew attention to the fact that owing to want of money it had been reluctantly decided that this summer no girl could have a holiday who had already been sent away three years running by the Fund. Mr. Pett Ridge spoke of the terrible surroundings in which many slum girls lived and worked, and of the extraordinary courage and gaiety with which they bore their hard lives. Their philosophy was shared by other members of the working classes: he quoted as an example the reply of a porter at a big London terminus, who, having been told that the insignificant little man who had just asked him a question was no less a person than the Chancellor of the Exchequer, who had control of the money of the nation, replied briefly, "*Is* he? Well, he never gave me none of it." The proceedings closed with a vote of thanks moved by the Rev. E. Canney, chairman of the Fund, which was responded to on behalf of the Lady Mayoress by Alderman and Sheriff Hanson.

Letters, Notes, and Answers.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone unless the contrary be stated.*

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, London, W.C.; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Office, 429, Strand, London, W.C.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):—

2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

CAPUT asks whether daily washing the head with soap and water is likely to produce falling-out of hair.

J. H. wishes to find a home for a girl of 7 years afflicted with lupus nasi. She is the daughter of a Church of England clergyman who is not able to subscribe to her support.

L. H. B. has a daughter, aged 15, with rather fair hair. Less than a week after it is washed it is full of grease. Nothing that has been tried has been successful in avoiding this, and he would be glad of advice.

INCOME TAX.

F. J. W. inquires (1) what proportion of the expenses incidental to the maintenance of a car may be deducted for income-tax purposes when the car is used almost entirely for professional purposes, and (2) whether subscriptions to the British Medical Association and kindred societies may be deducted as a professional expense.

*** (1) The proportion must necessarily depend on the relative extent of the use for professional purposes; if the private use is casual only and by the practitioner alone, it is customary to deduct the whole expense; otherwise nine-tenths would seem to be a reasonable deduction. (2) Subscriptions to professional associations should be claimed as a deduction.

A. and his wife are both in practice. He asks how the joint income should be returned and how the expenses apportioned. He further states that he has claimed horse and trap expenses, travelling expenses, two-thirds of rent, drug bill, lighting, heating, and cleaning of surgery, etc., but has not been allowed these in the assessment.

*** The incomes should be returned separately by A. himself and an abatement of £160 claimed from each income if the total joint income of husband and wife from all sources be under £500; if the total income be over £500 and under £700, there will be one abatement only. The joint expenses should be apportioned according to the gross receipts. The outgoings referred to are all admissible as deductions (with a possible restriction in regard to the rent), and if they have not been allowed the attention of the surveyor of taxes should at once be drawn to the fact.

PERPLEXED published a book in 1908 on the half-share system, paying £50 down, and being now liable to a further £50 (the book not having been a success). The first payment was not allowed as a professional expense, and the question arises whether there is any means of obtaining income tax relief in respect of the £100 loss.

*** The only means of obtaining relief will be for our correspondent to put in a separate claim for the loss of £100, as being a loss incurred as an author. The claim should be made under Sec. 23 of the Customs and Inland Revenue Act, 1890, and should take the form of an application of repayment of tax on £100 for the financial year in which the publisher acquainted him that the loss was incurred. The application should be sent to the surveyor of taxes.

H. S. inquires whether he may deduct as professional expenses the cost of a post-graduate course undertaken last summer, and also the cost of a locumtenent while he was taking the course.

*** The cost of the post-graduate course would not fall within the scope of the deductions authorized by the Income Tax Acts; the title to deduct the cost of the locumtenent for the period is quite arguable, and the deduction should be claimed on the ground that the position for the three months was precisely the same as in the case of a business put under management for a period.

1597, after paying his tax as usual for the year 1911-12, has received on April 20th an assessment for an extra amount for the same year, and asks whether such additional assessment is legal.

*** An additional assessment to the income tax may be made at any time within three years of the end of the financial year to which the assessment relates. There is, of course, a right to appeal if the assessment be excessive.

C. F. S. holds certain offices, to one of which he was appointed at the end of August, 1911. He inquires whether he is entitled to any deductions from the gross receipts from his offices in making his income-tax return, and also whether a full year's salary from the appointment in question should be returned. He further inquires how profits should be estimated for income tax purposes.

*** The return of income from appointments may be made specifically for each appointment under Schedule E, in which case a full year's salary is required to be returned, less such deductions for expenses incurred in the performance of the duties as is reasonable in the circumstances of the case. On the other hand, the practitioner may apply to be assessed under Schedule D for all his profits, whether arising from appointments or from general practice. In the latter case the receipts from offices held should be treated precisely as though they were fees from private patients, and included in the general return of the profits of the practice made on the average of the profits of the three preceding years (regardless of whether the appointments were or were not held during those three years). In estimating profits for the purpose of the income tax deductions may be made from the gross receipts from each year on account of drugs, travelling expenses, motor or carriage expenses; salaries and board of assistants or servants kept for the purposes of the profession; replacement of utensils; incidental professional expenses, such as telephone, postage, stationery, etc.; rent and other expenses attending the maintenance of professional premises. The last-mentioned outgoing will, in the ordinary case, be represented by a due proportion—usually one-half—of the practitioner's rent, rates, and house repairs, and by a smaller proportion of his outgoings for gas, water, firing, etc.

ANSWERS.

AN anonymous correspondent who sends us a postcard from the neighbourhood of Colchester is referred to page 980 of the JOURNAL of April 27th.

ASPARAGUS.

DR. G. VIGERS WORTHINGTON (Llandrindod Wells) writes, in continuation of the correspondence on this subject, as follows: Asparagus, containing as it was found a somewhat large percentage of extractives, used to be forbidden to the gouty; of late, however, since it is the purin content which is now considered the important consideration in the gouty connexion, it is not so frequently disallowed. The active principle, asparagin, is diuretic. This action should tend to make it useful both in gout and gonorrhœa, and in fact it used to be prescribed in gout. A few years ago I suffered much from gouttiness. I never missed an opportunity of eating asparagus, often in considerable quantity, and I never now forbid it to my gouty patients. I have never found, either in myself or other gouty individuals, any harm to follow, and I have known at least one case to maintain that a urethritis was much benefited by taking it.

AN OBSTETRIC CONTRAST.

DR. T. G. PARROTT (Aylesbury) writes: On April 10th I was called to a patient who had previously engaged me to attend her in her confinement; the nurse was there, all preparations for the event were made, and the patient said she was in pain and in labour. On examination I found she was not even pregnant. This woman has had two children, the last seven years ago; the pains appear to have been simulated by spasmodic contraction of the intestines, as they disappeared when a sedative was given.

On April 18th I was sent for in a great hurry to see a woman in labour. When I arrived the baby was lying on the carpet with the cord and placenta; it had fallen into a slop pail into which the liquor amnii had been received; fortunately the pail was knocked over, and the child saved from drowning. This patient has had no child for ten years; both she and her husband assure me that they had not the slightest suspicion that she was pregnant; no preparation had been made, and no nurse engaged.

These cases occurring so close together present such a remarkable contrast that I thought it might be of interest to mention them.

LETTERS, NOTES, ETC.

THE TUBES USED IN THE ESTIMATION OF THE CALCIUM METABOLISM.

DR. J. BARKER SMITH (London, S.E.) writes: I wish to call the attention of Dr. W. Blair Bell and others to the value of the tubes figured in the BRITISH MEDICAL JOURNAL of April 30th, p. 879. Apart from their special use, these tubes will serve admirably to give the total phosphates in urine most accurately in three or four minutes in most cases, with the necessity of diluting the urine in the case of some of the stronger urines. Some few weeks ago I raised some points in connexion with acidity of urine and expressing that acidity in terms of phosphoric anhydride, advising at the same time that lime water should always be used to ascertain the acidity of urine. Using 5 c.cm. of lime water in a graduated test tube, with a single drop of very weak solution of phenolphthalein, I showed that solutions of phosphoric acid indicated their percentage by their acidity. The constant dividend for 5 c.cm. of lime water approaches 0.48. I will now examine a sample of urine for total phosphates and express the same in phosphoric anhydride, illustrating the use of Dr. Bell's tubes, and recalling the problem previously mentioned in my former letter—namely, the significance or the interpretation of those departures in urine acidity from the total phosphates. A sample of afternoon urine examined: 11 c.cm. removed the colour from 5 c.cm. of lime water. Hence acidity is 0.044 per cent. in terms of phosphoric anhydride—namely, 0.48 ÷ 11. Total phosphates with Joulie's citro-magnesian precipitate and centrifuge found 0.05 per cent. By the lime water method, elsewhere described, using 1 c.cm. of the urine and 5 c.cm. of lime water, the percentage was found nearly the same as by the citro-magnesian method. The same urine was now examined in one of Dr. Bell's tubes—5 c.cm. of urine, 1½ c.cm. of citro-magnesian solution, and 1 c.cm. of solution of ammonia. The tube was shaken and allowed to stand about a minute, then centrifuged. The deposit in Dr. Bell's tube was 13 mm., half-strength urine 7 mm. Such deposit quickly takes place; the reading is most easy and accurate; the difficulty of removal afterwards is very little. To express the value of such deposit in terms of phosphoric anhydride, I have hitherto simply divided the volume of the deposit by 5, and this experiment would again approximate to results just mentioned, but these accurate tubes will allow us to give exact data when we have examined solutions of definite phosphates and fixed the scale in its relation to the cubic centimetre or to the gram. The tube also serves to estimate total urates in five minutes, as do other tubes in use, also the total phosphates by the lime water method. The tube is a little too long for my centrifuge. We have in Dr. Bell's tube a revolution in the direction of ease and accuracy of knowing conditions of urine.

MATERNAL IMPRESSION.

DR. T. H. HARRIS (Mildenhall) writes: About forty years ago I attended at Holywell Row, Mildenhall, a single woman in her confinement, and the child when born had an amputated arm above the elbow, and also the appearance of the insertion of five stitches. The scar simulated a circular amputation, and the stump appeared somewhat conical. Parentage was not denied by a retired soldier who had had an amputation done on the same arm (the left) at the same site and in the same manner a short time previously. I examined the soldier's stump, and can vouch for its exact resemblance to the baby's.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

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An average line contains six words.

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A Lecture
ON
SANITY AND INSANITY.

DELIVERED AT THE ROYAL SANITARY INSTITUTE ON WEDNESDAY, APRIL 24TH, 1912.

BY

F. W. MOTT, M.D., F.R.C.P., F.R.S.,

PHYSICIAN TO CHARING CROSS HOSPITAL; PATHOLOGIST TO THE LONDON COUNTY ASYLUMS.

The President, His Grace the Duke of Northumberland, in the Chair.

INTRODUCTION.

WHEN your Secretary did me the honour of asking me to give the annual lecture to the Royal Sanitary Institute, I chose the subject of "Sanity and Insanity" for two reasons: firstly, because the alarming increase of cost to the ratepayer for the maintenance and housing of the insane, together with the prospective cost of segregation and maintenance of the feeble-minded, has during recent years aroused public opinion regarding insanity and its prevention in a way that purely altruistic feelings for suffering humanity could not have done. Secondly and mainly, because in my capacity as pathologist to the London County Asylums I have been engaged for many years past in the study of the causes of insanity, and my exceptional experience of the subject may be of interest as well as of practical value.

I am continually asked whether insanity is not greatly on the increase. Before answering such a question, it is as well to know exactly what constitutes insanity at the present time. It is often difficult to draw the line between sanity and insanity. It may, however, be asserted that a person is insane who by virtue of mental defect or mental disorder no longer feels, thinks, or acts in conformity with the usages and customs of the society in which he lives. An individual is judged to be sane or insane by his conduct, but behaviour by itself, without consideration of the social environment, is an insufficient criterion. Thus, the behaviour of a person of the upper classes which is in correspondence with the customs and social usages of the lowest classes would be regarded as insane, or, to say the least, eccentric. Again, a person of the lowest classes who impersonated, or who attempted to impersonate, the customs and social usages of the upper classes would in all probability be a lunatic or a criminal. He would be regarded as a lunatic if, owing to a loss of the auto-critical faculty, he did not know the quality of his acts. The knowledge of the quality of his acts is the legal phraseology employed in the cases of crime and responsibility, but lunatics may know the quality of their acts, and it is often difficult to decide whether a man is so far sane as to be responsible for his actions. Signs and symptoms of early insanity which might be unnoticeable or even disregarded by a legal expert mean a great deal to a medical expert—for example, in cases of crime committed by general paralytics in the early predemential stage: the unequal, irregular pupils, inactive to light; the presence of lymphocytes in the cerebro-spinal fluid, together with the characteristic biochemical reaction indicative of antecedent syphilis, can only be discovered and their meaning appreciated by the medical expert, who from the presence of these signs is able to assert with confidence that there is organic disease of the central nervous system, and therefore, however sane the man may appear, he is in all probability not responsible for his actions.

More difficult to decide is the question of crime and responsibility in those cases of anomalous epilepsy in which psychic equivalents take the place of convulsive seizures, for they are apt to be attended by criminal impulsive acts; being of the nature of automatism, the "quality of the acts" is in such cases not known, neither is there recollection of them. In the intervals the individuals so affected may be perfectly sane and responsible for their actions; therefore great difficulties can arise regarding responsibility and crime in such cases, and it is no wonder that difference of expert opinion is usually obtainable in such cases, likewise, and for the same reasons, in cases of periodic or recurrent insanity. In systematized delusional insanity fixed ideas of persecution may lead to criminal acts, notably homicide, as in the case of the murderer of the actor Terriss. He meant to kill Terriss when opportunity offered; a supposed injury, magnified by continual introspection, impelled him to an act of vengeance. The question arises, Was he sane enough to be responsible for his acts and therefore deserving of capital punishment? "In fact, can we assume that a man, having an insane delusion, has the power to feel, think, and act in regard to it reasonably, so that at the time of the offence he ought to have and to exercise the knowledge and self-control which a sane man would have and exercise?" (Maudsley). In the true insanities there are no physical signs indicative of a disease of the brain, as in general paralysis; nor should we by examination of the cerebro-spinal fluid during life or of the brain after death be able to recognize any morbid change which could be associated with the mental disorder; consequently we can only appreciate whether an individual was sane enough to be responsible for his actions by a full consideration of what the man was born with—his inheritance, nature—and what has happened since birth—his nurture. The existence of epilepsy or insanity in the ancestral stocks would assist in forming a judgement, for, as I hope to prove, *a neuropathic heredity is the most important cause of insanity.* Again, if there was proof that he had auditory hallucinations, his insanity could not be contested, for of all the symptoms of mental disorder the "hearing of voices" is the most frequently met with. Yet, if hearing of voices and seeing visions in days gone by had been sufficient grounds for segregation, what would have been the effect on progress and civilization? At all periods in the history of civilization we find that new religions, social progress, or scientific discoveries, which led to the sudden or gradual overthrow of established customs, usages, and traditions, were regarded as either works of the devil, of wicked men, or of madmen.

Nietsche, who himself became mad, pleads thus for the benefit of madness in his work, *The Dawn of Day*:

> It was insanity almost everywhere that paved the way for new thought and cast off the spell of an old custom and superstition. Indeed, history shows that men of earlier ages were far more inclined to believe that wherever traces of insanity showed themselves a certain proportion of genius and wisdom was likewise present.
>
> "All the greatest benefits of Greece have sprung from madness, said Plato, setting on record the opinion of the entire ancient world. Let us take a step further. All those superior men who felt themselves urged on to throw off the yoke of some morality or other had no other resource, if they were not really mad, than to feign madness or actually to become insane. And this holds good for innovators in every department of life, and not only in religion and politics. Even the reformer of the poetic metre was found to justify himself by means of madness. Almost all the eminent men of antiquity have given themselves up to this dreadful mode of reasoning and secret doctrine of artifice, and dietetic jugglery grew up around this subject and was handed down from generation to generation, together with the feeling of the innocence and sanctity of such plans and meditations. The means of becoming a medicine man among the Indians, a saint among Christians of the Middle Ages, an Angekok among Greenlanders, a Pagee among Brazilians, are the same in essence. Senseless fasting, continual abstention from sexual intercourse, isolation in a wilderness, ascending a mountain or a pillar, sitting upon an aged willow that looks out upon a lake and thinking of nothing but what gives rise to ecstasy and mental derangement.

That eminently sane and great philosopher, Galton, remarks:

> Great men may be even indebted to touches of madness for their greatness, the idea by which they are haunted and to whose pursuit they devote themselves and by which they rise to eminence having much in common with the monomania of insanity.

Striking instances of great visionaries may be mentioned who had almost beyond doubt those very nervous seizures with which the tendency to hallucinations is entirely connected. Indeed, it is remarkable how large a part in history and epochs of national life the visionary temperament has played. Martin Luther, Mahomet, and Emanuel Swedenborg were all visionaries, and the extraordinary genius of the last-named, after a hundred years have elapsed, has now been recognized. But times have changed, and it is not fashionable now as in ancient times to see visions and hear voices, for it might be considered clear proof of insanity; yet a number of healthy people exist who see visions, but they keep quiet, because in our

TABLE I.—*Comparative Statistics for London and other Large Towns.*

Town.	Number on January 1st, 1910. In County and Borough Asylums, Registered Hospitals, and Licensed Houses.	In Metropolitan District Asylums.	In Workhouses. Number.	In Workhouses. *Percentage to Total.*	Residing with Relatives and Others.	Total. Males.	Total. Females.	Total. Total.	*Per 1,000 Estimated Population.*
London (Administrative County)	19,563	6,844	250	*0.9*	165	11,966	14,856	26,822	*5.5*
Birmingham	1,669	—	146	*8.0*	17	930	902	1,832	*3.3*
Bradford	566	—	201	*25.9*	10	400	377	777	*2.6*
Bristol	875	—	538	*35.1*	122	673	862	1,535	*4.1*
Cardiff	652	—	25	*3.1*	118	390	405	795	*4.1*
Croydon	439	—	34	*7.2*	1	193	281	474	*2.9*
Hull	589	—	37	*5.7*	28	297	357	654	*2.4*
Leeds	1,115	—	171	*12.9*	37	669	654	1,324	*2.7*
Leicester	678	—	58	*7.6*	28	356	408	764	*3.1*
Liverpool	2,817	—	356	*11.2*	19	1,410	1,782	3,192	*4.2*
Manchester	1,751	—	578	*24.7*	7	1,137	1,199	2,336	*3.6*
Newcastle	836	—	2	*0.2*	13	488	363	851	*3.0*
Nottingham	808	—	206	*18.4*	103	519	598	1,117	*4.2*
Salford	668	—	254	*27.5*	3	501	424	925	*3.8*
Sheffield	1,018	—	253	*18.9*	65	650	686	1,336	*2.8*
West Ham	998	—	32	*3.0*	25	475	580	1,055	*3.3*

matter-of-fact days it is not considered correct; but should it become popular to see visions, a human faculty which has always been existent would again be evoked and made manifest, and as of old without safeguards would tend to run into extravagant, eccentric, and insane conduct.

Dryden was quite right, therefore, when he said that

> Great wits are sure to madness near allied,
> And thin partitions do their bounds divide.

Still, as Maudsley and Clouston point out, it is the inborn tendency to a variation from the normal ordinary individual in which the association especially occurs. Thus, "great wits" are not always allied in essential kind to madness, but they are both apt to occur in the same families and stocks.

NON-REGISTERED INSANITY.

There are two very numerous classes of individuals whose conduct is anti-social and who are at present not registered or controlled. They are, first, the chronic incurable inebriate, dangerous to himself and society and responsible for a large proportion of the crimes of violence, consequently a perpetual danger to the community. Secondly, the higher-grade imbecile of feeble will power, slender sagacity and energy, and lack of moral sense. These latter form a large proportion of the chronic inebriates who are on the black list; a daily quantity of alcohol which taken by a normal individual produces no irresponsibility is sufficient to make them disorderly, drunk and incapable, and a menace to society in many ways. Again, the feeble-minded swell the ranks of criminals, and especially are they found among the unemployed, because unemployable; again, many imbecile women not having sufficient intelligence or desire to earn an honest living, lead immoral lives and have numerous illegitimate children. The great army of prostitutes for the same reason is partly recruited from feeble-minded women. Although the feeble-minded may be met with in all grades of society, they are especially to be found among the submerged denizens of the one-roomed tenements of our large cities. Unlike the more intense forms of mental deficiency, these defectives are fertile and procreate; seeing that "like tends to beget like," it will be a good thing for society when they are registered, and those who are unfit for social privileges are segregated in early life. The sooner the truth of the adage that "a silk purse cannot be made from a sow's ear" is recognized the better—seeing that every child in a defective school costs the ratepayer three times as much as a healthy child, and the results are in no way commensurate with the cost.

Now the feeble-minded are more numerous than is generally supposed, for a special investigation made by the Royal Commission on the Feeble-minded in England and Wales disclosed the fact that 4.6 per 1,000 of the total population, or 0.46 per cent. of mental defectives, were not at present registered; they are therefore even more numerous than the registered insane. It has been calculated that if the same percentage holds good for the population of London with its 4,522,961 inhabitants, there would be 20,805 unregistered mental defectives. Now the accompanying table (Table I) and curves (Fig. 1) show that the proportion of registered lunatics in London, is considerably higher than in England and Wales.

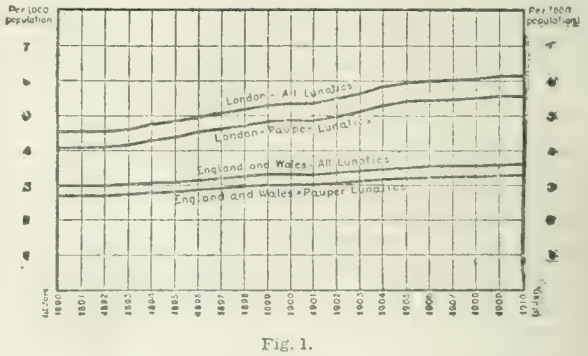


Fig. 1.

The above diagram (Fig. 1) is taken from vol. xxi of the "London Statistics." It shows the number of pauper lunatics and all lunatics per 1,000 of the population on January 1st, of each of the years 1890–1910, in London as compared with England and Wales.

This marked difference in the percentage may be due to the fact that in London a larger proportion of the mentally defective are registered than in England and Wales, and therefore there are fewer of the feeble-minded at large; or it may be that the causes which make the registered cases of lunacy higher in London than in England and Wales make the unregistered feeble-minded proportionally more numerous. But no investigation has been made to show that there is a proportional increased ratio of feeble-minded to the general population in London as compared

with the total population of England and Wales. Compared with other cities and towns London is unusually high in its percentage of registered insanity (Table I.), but this may be due to the more ample provision for accommodation of registered lunatics.

Registered Insanity in London.

The registered insanity in London is 5.5 per 1,000 of the total population, and naturally there is a widespread belief that insanity is greatly on the increase. Let us inquire what are the causes of this great increase of registered insanity. Permit me first to call your attention to this chart which shows how it has increased in London while

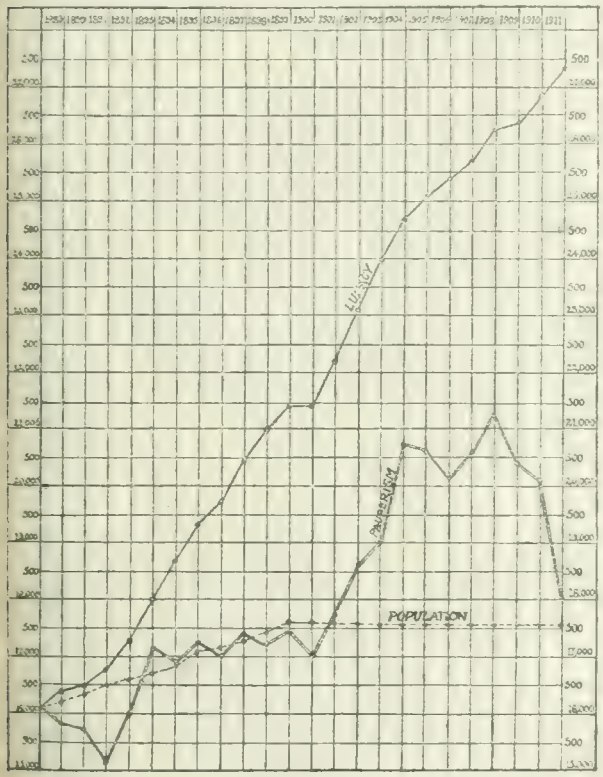


Fig. 2.

the population has remained almost stationary; you will observe that up to two years ago there was a marked and steady increase of pauperism; then you observe there was a drop coincident with old age pensions, but you will notice that there is no corresponding drop in the curve of registered insanity; it has steadily risen during the last few years. Yet it is my opinion that this great increase of insanity is *more apparent than real* and for the following three reasons:

I.

The Standard of Sanity Raised.

Firstly, the standard of sanity has been raised; a great number of harmless idiots and weak-minded persons who formerly were allowed to roam at large are now gathered into asylums. Collective responsibility has replaced family responsibility, and the humane treatment and improved housing of the insane, with all the legal penalties attached to any cruelty, have removed the objections the public had to put away an insane relative or friend; consequently a very much larger proportion of persons are admitted to asylums and registered as insane than formerly. The following facts in support of this argument may be mentioned regarding registered insanity in the county of London.

Within the last fifteen years the asylum accommodation provided by the London County Council has been doubled; as the population of London has not increased to any great extent during this period of time, it may be assumed that this accommodation was necessitated either by inadequate accommodation previously or was necessary on account of an increase of registrable insanity. If now we look into the reports of the Asylums Committee we find that in 1910 it is stated that over 99 per cent. of London's certified lunatics were at that time housed in the London County Asylums; prior to this many had to be boarded out or kept in the infirmaries. Correlated with the provision of adequate accommodation by the authorities, the necessity of discharging patients to make room for urgent admissions has steadily diminished in recent years; and probably this practically explains the fact that the number of patients discharged as recovered shows a constant and continuous diminution of numbers. In an admirable report by the Clerk of the Asylums, to which I am indebted for very much of this statistical information, it is stated that, out of the large mass of registered lunacy, only 2.39 per cent., according to the medical superintendents, have a favourable prospect of recovery, 5.42 per cent. are doubtful, and 92.19 per cent. are unfavourable.

II.

Declining Death-Rate of Registered Lunatics.

Secondly, an important cause of the increase of registered insane is that the death-rate in recent years does not approach anything like the high level of earlier years of London County Council management—for example, 1890–1897—and I attribute this in great measure to the diminution of deaths from dysentery, tuberculosis, pneumonia, septic and other microbial infective diseases. There is, in consequence, a tendency to silt up the asylums with chronic incurable cases. That this is so is shown by the fact that at the present time nearly one-half of the inmates of the London County Council Asylums have been resident more than ten years. Again, at the end of 1910 no less than 4,238 patients known to have been insane for more than twenty years were in the London asylums; moreover, such long-standing cases have been accumulating during the last four years at rates varying from 125 to 200 per annum.

III.

Registered Insanity in Aged Persons.

The third cause of the increase of registered insanity rests with those who certify paupers. The degree of mental unsoundness necessitating asylum treatment depends largely upon the provision obtainable for nursing and taking care of incipient cases of insanity and aged persons who are suffering from senile decay.

In the report of the Asylums Committee, 1910, p. 110, it is stated that as many as 4,762, or 23 per cent., of the inmates of the London County Council Asylums were suffering from dementia, senile and secondary; this indicates that a number of these aged persons who were formerly treated in the infirmaries are now sent to the asylums, where they can be better cared for.

Mr. Noel Humphry, I.S.O., in a valuable paper read before the Royal Statistical Society, argues that there is no proof of the existence of an actual increase of insanity in England and Wales, and he concludes, on the evidence of several interesting tables drawn from the statstics in the annual reports of the Lunacy Commissioners, the London Asylums Committee, and the Metropolitan Asylums Board, and from the census returns, that the increase is apparent rather than real for the same reasons that I have given regarding registered London lunacy.

These curves, showing the relationship of registered lunacy, pauperism, and population in the county of London, demonstrate a stationary population with an enormous increase of registered lunacy, and it might naturally be supposed that this was clear proof of the increase of insanity in the population of London; but this increase is correlated with the increase of housing accommodation. Nevertheless, there is truth in the opinion expressed by Sir George Savage, in his Lumleian lectures, 1907, that "there is a steady increase in the number of insane, and that this increase shows a definite relationship to the progress of civilization." At a first glance it might be supposed that the rise of pauperism as shown in the curve (Fig. 2) bore some relation to this increase, but recent years show a marked drop coincident with the granting of old age pensions; nevertheless, this drop in pauperism is not attended by a fall in insanity, for the registered insanity curve steadily rises. I do not think, however, we can expect old age pensions to have any appreciable effect on the admission of the aged insane paupers to asylums, because the conditions of dwellings are so different in cities to rural districts.

Mr. Burns was reported recently to have stated that 70 per cent. of the vagrants of this country were at one time of the year in London; probably a number of such vagrants are mental defectives; moreover, lunatics or potential insane persons are liable to become stranded in London. The pauper population undoubtedly contributes a much larger ratio of lunatics to the public asylums than the non-pauper population. For a glance at Table II shows not only how variable is the percentage for the different boroughs of the county of London, but how much higher a percentage

TABLE II.—*A Return showing the Ratio per 1,000 of all Pauper Lunatics chargeable to Unions and Parishes in the County of London on January 1st, 1910, to the Estimated Population in April, 1909.*

Union or Parish.	Estimated Population. (April 6th, 1909.)	Total Pauper Lunatics—that is, those in London and other County Asylums, in Licensed Houses, in Imbecile Asylums, in Workhouses, and with Relatives and Friends. (January 1st, 1910).	Ratio per 1,000 of Population.
Hampstead	88,728	234	2.6
Lewisham	185,184	513	2.8
Wandsworth	500,444	1,748	3.5
Fulham	158,208	586	3.7
Paddington	145,251	555	3.8
Hammersmith	121,701	485	4.0
Woolwich	146,700	591	4.0
Islington	336,983	1,448	4.3
Greenwich	194,549	884	4.5
St. George's Union ...	124,618	642	5.2
Kensington	185,360	982	5.3
Camberwell	270,059	1,436	5.3
Mean ratio ...	—	—	5.61
Lambeth	310,239	1,730	5.7
Bethnal Green	128,720	769	6.0
Hackney	273,023	1,672	6.1
Poplar	167,146	1,035	6.2
St. George-in-the-East ...	47,288	301	6.4
Mile-End Old Town (Hamlet of)	110,104	715	6.5
St. Marylebone	125,336	817	6.5
Chelsea	71,292	469	6.6
Stepney	55,076	366	6.6
Bermondsey	128,735	916	7.1
Shoreditch	116,680	837	7.2
St. Pancras	228,394	1,808	7.9
Westminster	32,321	262	8.1
Southwark	198,451	1,671	8.4
Holborn	127,856	*1,102	8.6
St. Giles and St. George...	28,067	258	9.2
Whitechapel	73,416	701	9.5
Strand	18,161	230	12.7
County	—	561	—
Total	4,698,070	26,377	5.61

* Including one female chargeable to the Borough of Holborn (formerly charged to Gray's Inn).

there is in boroughs with a poor population. You will be struck by the relative low percentage of Hampstead 2.6 per 1,000, Lewisham 2.8, Wandsworth 3.5; whereas we find in St. Pancras 7.9 per 1,000, Westminster 8.1, St. Giles in the Fields and Bloomsbury 9.2, Strand 12.7. The explanation of the high percentage of these latter (excepting the Strand) is that the pauper population is largely composed of the denizens of one-roomed tenements, and in districts where we should, owing to improvements and the pulling down of slum property, expect a diminution of pauperism and insanity, there is no decrease, and in many instances an increase. Owing to better and cheaper means of locomotion, an increasing number of the better classes and more desirable members of the lower classes have migrated to the suburbs, the result being that in many boroughs large houses which were formerly occupied by one family are now converted into flats and one-roomed tenements accommodating a number of separate families, generally very poor. Woolwich has a relatively low percentage (4.6), and this is probably explained by the fact that the majority of the householders, although poor, are skilled artisans in comparatively continuous employment, whereas at Stepney (6.6), Poplar (6.2), and St. George's (6.4), the casual labourer predominates.

It would probably be found that those parishes which had a high lunacy rate would have also relatively a high pauper rate, a high infant mortality, and a proportionally higher death-rate from tuberculosis. This would be an interesting and important correlation to establish.

This Royal Sanitary Institute preaches and teaches that the first duty of the State is the prevention of disease; failing that the cure, and failing that the prolonging of life and relief of suffering. At present, as regards insanity, the authorities spend vast sums of money in prolonging life and relieving suffering, which is commendable altruistic utilitarianism up to a certain point. Eastern nations, following the precepts of the ancients, regard lunatics as holy men, and leave them to shift for themselves; some authorities in Great Britain, judging from the lavish expenditure on estates and buildings for the maintenance of lunatics, sometimes regard them as priceless possessions. Some years ago, in an editorial in the *Lancet*, it was remarked that brains, as well as bricks, were required in dealing with this increase of insanity by way of prevention. If it can be shown that there is a correlation between insanity, tuberculosis, alcoholism, syphilis, and overcrowding in one-roomed tenements and insanitary dwellings of our large cities, it might be asked whether public money would not be better expended in attempting to solve the housing question than in expending vast sums on sanatoriums and lunatic asylums in the hope of dealing with physical and mental degeneracy. We hear much at present of the necessity of the adoption of social surgery, but before such a proceeding can come within the range of practical politics many vital questions will have to be answered. We require a much more thorough and extensive knowledge of human genetics and of the social problems underlying the production of the unfit in all classes. The establishment of a social service, as is contemplated at the mental hospital of the State of Massachusetts in Boston, is on the right lines, as it is recognized that the whole matter demands most careful consideration, and not hasty rhetoric and generalization: for if the feeble-minded were sterilized it is probable they would be in many instances made more fitting subjects for segregation: for it would not improve their energy or their sagacity and ability to earn an honest livelihood, and the moral sense would be deteriorated in many cases. Our first duty, in the hope of prevention, is the scientific study of the causes of insanity. This has not been altogether so barren as some people suppose, for one of the greatest advances medicine has ever made was the discovery of the organism of syphilis by the biologist Schaudinn; this led to experiments of the greatest value, and one outcome was a biochemical test whereby the syphilitic virus can be detected in the body even when there are no obvious symptoms. This test enables us not only to detect the active virus, but those late manifestations of syphilis, locomotor ataxy, and general paralysis of the insane. Moreover, it confirms the view I have always maintained of the syphilitic origin of general paralysis.

A sufficient time has not yet elapsed to show whether the widespread use of the new drug, "606," introduced by Ehrlich after a long series of carefully contrived experiments, may not diminish the number of cases of this terrible fatal disease—general paralysis of the insane—and of locomotor ataxy, which is the same pathological change, affecting a different part of the nervous system.

If there were time I could give logical arguments in favour of this hypothesis, but I must be content with saying that since we now know the cause of 20 per cent. of the

deaths in the London County Asylums is due to general paralysis, therefore one very important preventable cause has been discovered. Not only is it important as regards numbers afflicted by this terrible malady, but it is important because the sufferers from this disease are drawn from all grades of society, and as a rule are of civic worth; the same cannot be said of the feeble-minded.

We might add another 5 to 10 per cent. of cases of brain disease dying in asylums with softening of the brain due directly or indirectly to syphilis. In congenital syphilis it is appalling to think what a number of feeble-minded adults there would be from this cause did it not happen that when the syphilitic organism invades the brain it is fatal in the great majority of cases. The congenital syphilitic offspring of diseased parents as a rule die before birth or in early infancy. Still, the biochemical test that I have referred to shows that a considerable percentage of the feeble-minded may owe their defect to this preventable cause.

Neuropathic Inheritance.

Three years ago I initiated a card system of relatives who are at present, or have been discharged from, or have died in, the London County Asylums. The ball once set rolling has grown to enormous dimensions, and I have at present considerably over 3,000 cards, most of them belonging to persons closely related in the direct line. There are at the present time about 1,000 closely-related persons inmates of the London County Asylums—namely, 5 per cent. of the total population. *A priori* this is a strong argument in favour of the importance of heredity as a cause of insanity, for it cannot be supposed that if we took 20,000 people from the 4,522,961 inhabitants of London for some random cause we should find 5 per cent. of them closely related.

Table III.—*Statistics of 3,042 Related Cases in the London County Asylums.*

	Discharged.	Transferred.	Died.	Resident.	Total.
Males	256 19.2 %	60 4.5 %	392 29.4 %	626 46.9 %	1,334
Females	353 20.6 %	59 3.4 %	389 22.8 %	907 53.1 %	1,708
Total males and females	609 20.0 %	119 3.9 %	781 25.6 %	1,533 50.4 %	3,042

The above table shows the proportion of males to females; the latter are much more numerous; it will be observed that owing to a lower death-rate of the females, they tend to accumulate. This is no doubt due to the fact that general paralytic males are three times as numerous as females, whereas other non-fatal forms of insanity are much commoner in females. It will be observed that of the 3,042 relatives who are at present or have been in the London asylums 1,533 still remain resident, a little more than half. I shall have occasion later to refer at length to some important deductions made from the age incidence of the first attack of insanity in these insane relatives.

Nature and Nurture.

No child is born insane, though it may be born feeble-minded either from actual organic disease or inborn germinal cerebral deficiency. The former being an acquired character is not heritable, a fact of very considerable importance in diagnosis and segregation with the view of prevention of transmission of feeble-mindedness.

We should endeavour to study every case of nervous or mental disease as a biolcgical problem, ascertaining as far as possible what the individual was born with, ancestral inheritance (Nature); what happened during development after conception (congenital); finally, what happened at or after birth (nurture). The collection of statistics and pedigrees merely relating to the question of certifiable insanity or epileptic fits is quite inadequate for scientific purposes, as the *neuropathic predisposition* manifests itself in many ways; and it is necessary to seek the first stages and less obvious conditions of degeneration in a stock. Morel, who studied this question more than fifty years ago, pointed out that nervous irritable weakness, the neurotic temperament, neurasthenic predisposition, may be the first evidence of degeneration of a stock. The inborn morbid neurotic temperament may be manifested in a variety of ways by the behaviour and conduct observed in various members of the stock. The signs of degeneracy which may be exhibited are self-centred narrow-mindedness in religious beliefs, fanaticism, mysticism, spiritism, an unwholesome contempt for traditional customs, social usages, and morality, a vain spirit of spurious art and culture, a false self-loving vanity in the pursuit of a sentimental altruism, or by eccentricities of all kinds; such signs of degeneracy are often combined with talent and even genius, especially of the constructive imaginative order; but the brilliant intellectual qualities of a degenerate are invariably associated with either a lack of moral sense or of sound judgement and highest control. Time, chance, circumstances, and opportunities play an especially important part in moulding and determining the career of the members of a neurotic stock; circumstances and environment may favour one member and he rises on the tide of fortune to an eminent position, whereas another, unfortunate or less fortunate, but with a similar inborn temperament, dies in an asylum or commits suicide in despair. How often may it be observed that an apparently sound stock may in reality be unsound. Successful men in the eyes of the world may be really degenerates; not infrequently so-called self-made men form the first step in the process of degeneration. The selfishness and meanness or the cunning, avarice, and moral guile by which they have succeeded in selfishly amassing a huge fortune for their children to spend selfishly is the first evidence of degeneracy: but whereas the parents to gratify their selfish desires succeeded by work and abstemiousness, the children, possessing the same selfish instinct with no need to work, and supplied with abundant wealth, acquire vicious habits and criminal propensities and not infrequently terminate their careers in the madhouse or prison.

I have often found in the collecting of pedigrees the association of insanity and suicide in a stock preceded by, or associated with, the existence of individuals possessing the melancholic, suspicious, brooding, self-centred, hypochondriacal temperament; and it is not uncommon for suicide of one or more members of the stock in successive generations to occur. Associated with these temperamental evidences of degeneracy of a stock may be chronic alcoholism, dipsomania, hysteria, hypochondriasis, exophthalmic goitre, neurasthenia, psychasthenia, migraine, *petit mal*, or neuroses of an epileptic character, often unrecognized because not manifesting fits of the major form of the disease. In searching for the neuropathic tendency there are, therefore, many possibilities of missing the inborn factor of a neurosis or psychosis though a careful inquiry be made, even when aided by intelligent co-operation on the part of the friends.

I have not yet mentioned alcoholic intemperance and the habit of drug-taking so common in degenerates of all kinds; the habit may be the cause or the result of the degeneracy. I am of opinion that such causes as alcoholism, infective diseases, autointoxications, physical injury, especially head injuries and shocks, emotional shocks, sexual excesses and perversions, are too often wrongly assigned as the *sole* cause of nervous and mental disease to the neglect of the *inborn* factor. That they are powerful exciting causes there can be no question. In diseases of the mind there are two factors—namely, the soil and the seed, the inborn and the acquired environmental. There are individuals born of sound stocks that no acquired conditions—for example, drink, poisons engendered within the body or taken from without, head injuries, emotional shock, distress, and even profound misery and destitution, separately or even all combined—can render insane. There are others, and these are generally from a neuropathic stock, whose mental equilibrium may be upset by any one of these exciting causes, or very frequently, as my further observations will show, without any apparent cause, except it be by a disturbance of the normal physiological conditions of the sexual functions in adolescence, pregnancy, and the involutional or climacteric period. The profound psychical influence of the sexual glands by reason of their internal secretions during the period of ripening of the germ cells is beyond

all dispute, and the repression of the instinct of propagation, attendant mental dejection, or excitation is a powerful exciting cause of mental or nervous disorders. The preservation of the individual and the preservation of the species form the basis of the desires in which our actions are rooted, or as Schiller poetically expresses it:

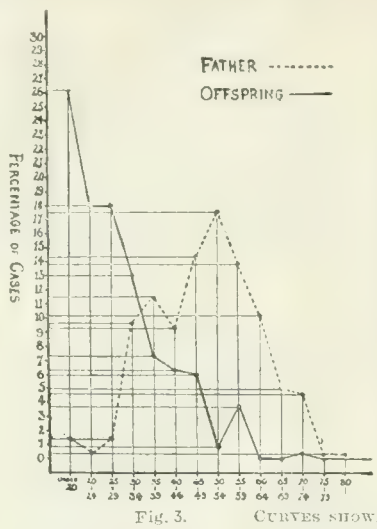
> Durch Hunger und durch Liebe
> Erhält sich die Weltgetriebe.

At the involutional or climacteric period, when the sexual functions wane and cease and the *joie de vivre* is no more, the stimulus ceases, and with it a general biochemical change in the body which has a profound psychical influence especially noticeable in females. As I shall show you later, the great numerical incidence of the true insanities is during adolescence, 15 to 25, and the involutional period 45 to 55.

Bateson, in his interesting Herbert Spencer Lecture, "Biological Fact and the Structure of Society," thus quotes from Spencer's *Study of Sociology*, written in 1873: "If any one denies that children bear likenesses to their progenitors in character and capacity, if he holds that men whose parents and grandparents were habitual criminals have tendencies as good as those whose parents and grandparents were industrious and upright, he may consistently hold that it matters not from what families in a society the successive generations descend. He may think it just as well if the most active and capable, and prudent and conscientious people die without issue; while many children are left by the reckless and dishonest. But whoever does not express so insane a proposition must admit that social arrangements which retard the multiplication of the mentally best and facilitate the multiplication of the mentally worst must be extremely injurious."

Bateson remarks: "In the period when these words were written practically nothing was known of heredity." But there are signs, as Bateson says, that the civilized world is at length awakening to the fact that the knowledge needed for the right direction of social progress must be gained by biological observations and experiments.

I have been able to make some deductions which I regard as important from a sociological point of view from a study of data concerning 3,000 odd relatives, who are or who have been in the London County Asylums, to some of which I will now briefly direct your attention.



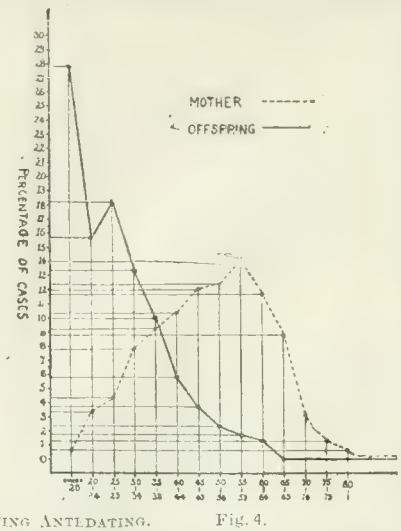


Fig. 3. CURVES SHOWING ANTEDATING. Fig. 4.

Fig. 3 represents diagrammatically the age incidence of first attack in father and offspring. The first peak in the curve of the parent is due to the incidence of a larger number of cases of general paralysis in the male as compared with the female at this age period. It would be much more marked were it not for the fact that the cases of general paralysis among relatives are not numerous comparatively with other forms of insanity. This is as we should expect, for it is an acquired disease, and heredity plays a far less important part in its etiology than in the true insanities. It will be observed that the parent curves, male and female, attain their maximum in the involutional period. There is an obvious difference in the male and female parent curves. There is a greater incidence of insane mothers under 30 than fathers; this is due to puerperal cases, of which there were a fair number. These figures (3 and 4) are constructed upon the data contained in Table IV. The abscissae represent the age periods and the ordinates the percentages of cases whose ages at the time of first attack is given.

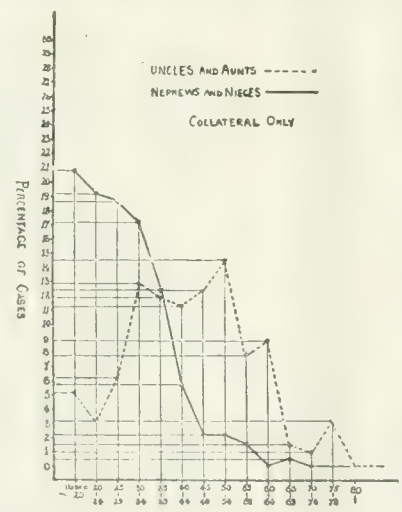
It is acknowledged that the value of statistical inquiries depends fundamentally upon the reliability of the data, and a sufficient number of instances to enable conclusions to be drawn. In respect to certain facts there can be little doubt concerning the reliability of the data as to the insane relatives in the London County Asylums — namely, sex, age, date of admission, date of discharge, date of death, and in the vast majority of cases the age of the patient at the first attack. Hence, taking into consideration the large number of cases dealt with, it is legitimate to draw certain conclusions from these data.

Maudsley, in his philosophical work on the *Pathology of Mind*, says:

> There appears to be at work a silent tendency in Nature to restore an insane stock to a sound type if regeneration be possible, or to end it if its degeneration be such that it is too bad to mend.

This conclusion, which he arrived at from a wide experience and knowledge combined with philosophical deduction, seems to be proved by the facts which I shall now briefly bring to your notice.

If we ask ourselves how Nature could best accomplish the mending of a degenerate stock, the obvious answer would be to cause a coalescence or aggregation of the unsound germinal determinants into a few of the offspring leaving the germ plasm of the others more or less free. This would not only purify the stock by concentration in one or two offspring, but would lead to intensification of the disease tendency and the occurrence of the disease at an earlier age. The occurrence of the disease at an earlier age was termed by Darwin "anticipation" or "antedating"; hitherto it has only been shown to occur in



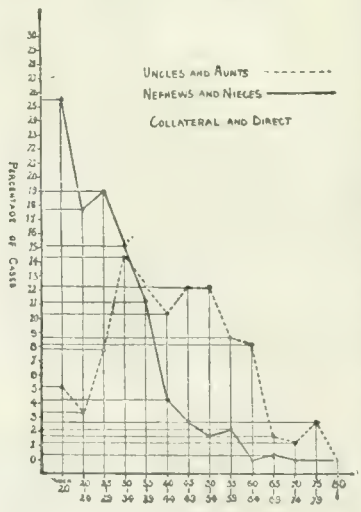


Fig. 5. Fig. 6

Fig. 5 shows the curves of uncles and aunts and nephews and nieces constructed from the percentages in Table VII. Fig. 6 shows the curves of uncles and aunts and nephews and nieces, including those cases where one of the parents was also insane, so that there is direct and collateral heredity. It will be observed that there is a considerable difference in the offspring curves. When there is only collateral heredity there are a far larger number of offspring in which the first attack occurred in the later periods of life. There is antedating, but it is not nearly so marked as is shown in Fig. 6; nor is it nearly so marked as in parents and offspring, Figs. 3 and 4. These figures are constructed from the data contained in Table VII.

* A discussion of the application of the chromosome theory and a number of illustrative pedigrees showing anticipation will be found in my Presidential Address of the Neurological Section of the Royal Society of Medicine; also in an original article, "The Inborn Factors of Neuroses and Mental Disease," *Brain*, Parts II and III, vol. 34.

diabetes, tuberculosis, and certain eye diseases. My observations show that there is a signal tendency for the insane offspring of insane parents to be born imbeciles or become insane at a much earlier age than the parent, and to suffer with a more intense form of mental disorder. I have not yet any precise data, but I should think 1 in 4 or 5 of the offspring of an insane parent on an average become insane. The effect of this intensification and antedating of the insanity upon the offspring affected would be to unfit them for the struggle for existence and propagation, therefore of begetting their like. Moreover, I have found that the form of insanity of the insane offspring of insane parents *is especially a primary incurable and progressive dementia occurring in adolescence* (dementia praecox), and the most frequent cause of death in these cases is tuberculosis. In putting forward this coalescence theory of unsound germinal determinants, I may mention, in support thereof, a statement made by Galton in his great work, *Natural Inheritance:*

> In the process of transmission by inheritance elements derived from the same ancestor are apt to appear in large groups just as if they had *clung together in the pre-embryonic stage*, as perhaps they did.

Before referring to the statistical results I would like to call your attention to the fact that I began this study of relatives in the asylums rather more than three years ago with a view of ascertaining if the convolutional pattern of the brain formed by the fissures showed a resemblance in relatives, as everybody knows the physiognomy does. No two brains are alike, any more than two faces, but there is close family resemblance. I will show on the screen a photograph of the brains of a mother and daughter. The mother became insane at the age of 45, just after the birth of the daughter, who became insane at the age of 16, and a brother at the age of 23 shot himself. Dr. Edgar Schuster has undertaken for me the investigation of the *pattern* of the brains in relatives; he has made a careful examination of the *fissures* of the brains of this couple and shown that there are many and marked similarities. He has also examined the brains of two brothers, and they again show marked resemblances in the convolutional pattern; still there are many differences, which, of course, we should expect, as these two brothers were not twins. But if there is a close morphological resemblance of the organ of mind, it is reasonable to suppose there is a corresponding close functional relationship, for there is from an evolutional point of view a certain relationship between the fissures and cerebral localization of function.

STATISTICAL DATA RELATING TO INHERITANCE AND INSANITY, ESPECIALLY IN RELATION TO ANTICIPATION.

Six months ago data referring to 508 pairs of parent and offspring had been collected from the records of 464 insane parents whose 500 insane offspring have been also resident in the London County Asylums, and in these the age of the first attack has been ascertained.

Direct Heredity.

The following table is compiled from 217 pairs of father and offspring and 291 pairs of mother and offspring. The figures denote the percentage of cases whose first attack occurred within the given age periods.

TABLE IV.

Age Periods.		Father.	Offspring.	Mother.	Offspring.	
Under 20 years	...	1.4	26.2	0.6	27.8	
20–24 „	...	0.4	18.0	3.4	15.7	Adolescence.
25–29 „	...	1.4	18.0	4.4	18.2	
30–34 „	...	9.6	13.0	7.8	13.4	
35–39 „	...	11.5	7.3	9.2	10.0	
40–44 „	...	9.2	6.4	10.3	5.8	
45–49 „	...	14.3	6.0	12.0	3.7	Involutional Period.
50–54 „	...	17.5	0.9	12.3	2.4	
55–59 „	...	13.8	3.7	14.0	1.7	
60–64 „	...	10.1	—	11.6	1.3	
65–69 „	...	5.0	—	8.3	—	
70–74 „	...	4.6	0.4	3.1	—	
75–79 „	...	0.4	—	1.3	—	
80 „	...	0.4	—	0.6	—	

The above Table IV is shown graphically in the two figures 3 and 4 (p. 1058); the abscissae represent the age periods, and the ordinates the percentage of cases whose age at the time of first attack is given.

Investigating the ages at the time of the first attack in the insane offspring of insane parents, I find in the following pairs that 239, or 47.8 per cent., out of 500 offspring had their first attack at or before the age of 25 years:

TABLE V.

Mother—son ...	...	51 out of 118 offspring.
Mother—daughter	...	81 „ 170 „
Father—son ...	...	45 „ 90 „
Father—daughter	...	62 „ 122 „
Total ...	...	239 out of 500 offspring. = 47.8 per cent.

If a table is constructed to show the average age at the time of first attack in the parent and offspring it will be found, as the subjoined table shows, that a difference of practically twenty years exists between the average age of first attack in parent and offspring.

TABLE VI.

	Average Age.	
	Parent.	Offspring.
120 pairs, mother—daughter	49.7	29.3
67 „ mother—son	50.2	30.7
76 „ father—daughter	50.1	30.4
51 „ father—son	51.9	33.1
79 parents, 133 offspring in families with more than 2 insane	47.7	28.7
Total: 393 parents, 427 offspring ...	49.7	30.0

I have not, however, included in this Table VI seventy-one parents (whose average age was 49 years at the time of first attack) who were associated with imbecile offspring mentally defective at birth.

Lastly, I find that in 299, or 58.8 per cent., of the 508 pairs of insane parent and offspring, *the first attack in the offspring occurred at an age twenty or more years earlier than in the parent;* of these 299 instances seventy-three of the offspring were imbeciles.

Collateral Heredity.

The subjoined Table VII is compiled from 193 pairs of uncles and aunts, with nieces and nephews in which only collateral heredity is manifested, and 231 pairs of uncles

TABLE VII.

Age Periods.	Collateral Only.		Collateral and Direct.	
	Uncle or Aunt.	Niece or Nephew.	Uncle or Aunt.	Niece or Nephew.
Under 20 years	5.2	20.7	5.2	25.5
20–24 „	3.1	19.2	3.4	17.7
25–29 „	6.2	18.6	7.8	19.0
30–34 „	12.9	17.1	14.3	15.1
35–39 „	11.9	12.4	12.1	11.2
40–44 „	11.3	5.7	10.4	4.3
45–49 „	12.4	2.1	12.1	2.6
50–54 „	14.5	2.1	12.1	1.7
55–59 „	7.7	1.5	8.6	2.1
60–64 „	8.8	—	8.2	—
65–69 „	1.5	0.5	1.7	0.4
70–74 „	1.0	—	1.3	—
75–79 „	3.1	—	2.6	—
80 „	—	—	—	—

and aunts with nieces or nephews, in which are included those instances where one or both parents of the nieces and nephews are also insane. The figures denote the percentage of cases whose first attack occurred within the given age periods.

The results of the above Table VII are shown graphically in Figs. 5 and 6 (p. 1058); the abscissae represent the age periods, and the ordinates the percentage of cases whose age at the time of first attack falls within the given periods.

Of the insane nieces and nephews of insane uncles and aunts, 103 out of 208, or 49.5 per cent., had their first attack at or before the age of 25 years.

Uncle—nephew or niece	...	51 out of 93
Aunt—nephew or niece ...	...	52 ,, 115
Total	...	103 out of 208 = 49.5 per cent.

Finally, curves of parents, male and female, and offspring have been constructed by taking as abscissae the numbers of cases (instead of percentages) of parents and offspring and the age-periods as ordinates; the result is shown in Fig. 7. It will be observed that the parents and offspring curves represent a blending of the two curves of Figs 3 and 4.

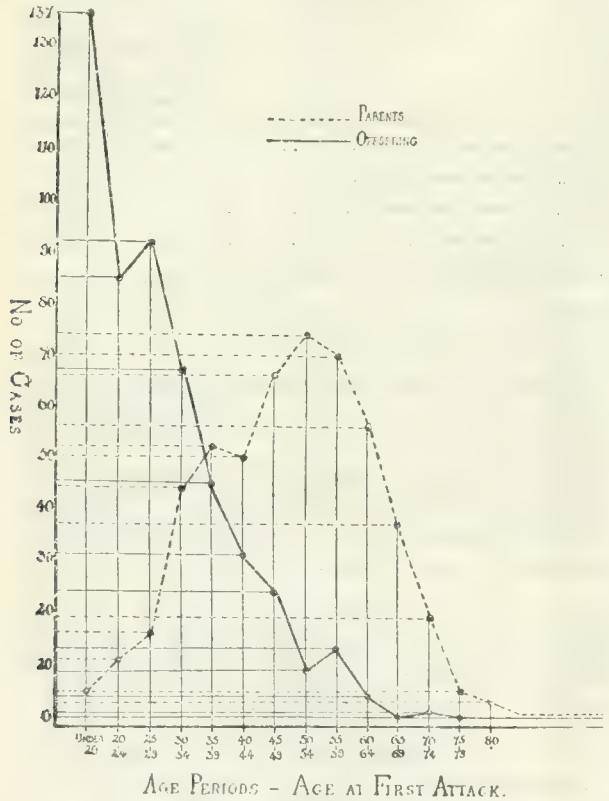


Fig. 7.—Parents and offspring curves, showing antedating.

Permit me to point out that this signal tendency of insane offspring to suffer with a more intense form of the disease and at an early age, as shown in the above figures and tables, is of great importance for the following reasons: First, it is one of Nature's methods of ending or mending a degenerate stock: secondly, it is of importance to the physician, for he can say that there is a diminishing risk of the child of an insane parent becoming insane after he has passed 25, a matter of great importance in the question of marriage; thirdly, it is of importance in connexion with the subject of social surgery of the insane, for when the first attack of insanity occurs in the parent the children for the most part have all been born, as these tables and curves show. Sterilization would therefore be applicable in relatively few parents admitted to asylums.

In conclusion, I should like to call attention to the fact that the importance of the study of mental diseases in this country has within recent years received an impetus in several directions. First, the universities have just commenced to grant diplomas in psychological medicine. Impressed by the great value the D.P.H. had proved in the advancement of public health, I advocated five years ago the establishment of a similar diploma for psychological medicine, in the preface of the *Archives of Neurology*, vol. iii. and I interviewed some of the heads of the profession, but, like many other innovations, it received a plentiful douche of cold water. Secondly, Dr. Henry Maudsley four years ago most generously offered £30,000 to the London County Council if they would build a hospital with pathological laboratory attached for the treatment and study of acute curable cases of insanity. This was accepted; the site has now been obtained, and the plans for this hospital have been recently sent to the Commissioners. In connexion with this, I may mention that a hospital for acute cases has recently been built in Baltimore, and the State of Massachusetts has built a hospital for acute mental diseases in Boston. Thirdly, the Royal Society of Medicine has established a Section of Psychiatry, which should do much to stimulate in this country the scientific study of mental diseases.

The Royal Sanitary Institute, I am sure, will recognize the great importance of these movements and approve of them and all others which aim at encouraging the scientific study of the causes, individual and social, of mental defects and disorders and their inheritance, for by this way alone can we hope to promote the relief of the present and the protection of future generations. And if we should feel despondent and listen to the cries of racial degeneracy, we can reflect upon the magnificent heroism displayed in the recent terrible *Titanic* disaster, which shows that the same spirit of calm resolution, devotion to duty, and unselfishness in the hour of supreme danger and death that was shown fifty years ago at the foundering of the *Birkenhead* still remains with us as an inborn character in all classes of our Anglo-Saxon race.

A Post-Graduate Lecture

ON

COMA AND ITS DIFFERENTIAL DIAGNOSIS.

BY

DAVID FORSYTH, M.D., D.Sc., F.R.C.P.,

CHARING CROSS AND EVELINA HOSPITALS.

I.

GIVEN a comatose patient, perhaps a stranger and, for the time being at any rate, with no friend to tell his history, how is his state to be diagnosed? The situation, though familiar to us all, can never abate its claim on our serious attention. For these patients often die, and yet, at best, our diagnostic insight is not always keen enough to pierce the obscurity of their symptoms; and sometimes, in addition, we discern across their couch the shadow of legal complications. Not, however, that the cases mostly lie near the boundary of our resources. On the contrary, the majority fall well within it, and the difficulty presents itself rather in the fact that now and again we are at a loss to recognize the patient who is dying from him, for example, whose cure can safely be left to nature within the four walls of a police cell.

However, the whole subject is too important to allow any of its clinical forms, even the simplest, to be passed over, though, by putting aside all cases of such merely fleeting insensibility as fainting, I shall restrict myself to those in which, defining them roughly, the unconsciousness is not transitory and is generally profound. The clinical picture I wish to paint is that of a patient rapidly bereft of his senses, except, perhaps, of pain, with no power of voluntary movement, and unable, whatever the provocation, to respond by blinking, swallowing, or coughing. The condition is common enough, and its causes spread over a pretty wide field. Let us begin by arranging them, not in any anatomical or even pathological order, but with the everyday, and therefore to this extent most important, varieties in the front.

In the foreground of our minds we should keep this round half-dozen: Vascular derangements of the brain

(haemorrhage, thrombosis, embolism); injuries to the head; epilepsy; diabetes; poisons; Adams-Stokes disease. A short list, from which, nevertheless, our choice will be made in the large majority of cases.

While, however, it includes the majority of the cases of coma, the majority of the causes are still to be named; and since any given case may be, for all we know beforehand, some rarer instance, these others also must be kept in mind. First, we have meningitis in its various forms, encephalitis, cerebral abscess, and cerebral tumour. Then the specific fevers, eclampsia, cholaemia, and epidemic enteritis, while to these must be added, for a reason to be given later, general paralysis and disseminated sclerosis.

Finally, in the background, as of no great consequence on account of their rarity, but stored up rather in the hope than the expectation of making use of them, these others—pernicious malaria, muscular exhaustion after, say, a long foot-race, and heat-stroke.

With this summary, which, for easy reference, I have tabulated, we have run over the list of the pathological causes.

I.	II.	III.
Derangements of the Cerebral Circulation—	Meningitis.	Pernicious malaria.
Haemorrhage.	Encephalitis.	Muscular exhaustion.
Thrombosis.	Cerebral abscess.	Heat-stroke.
Embolism.	Cerebral tumour.	
Mechanical Injury—	Fevers.	
Fractures.	Eclampsia.	
Compression.	Cholaemia.	
Epilepsy.	Epidemic enteritis.	
Uraemia.	General paralysis.	
Diabetes.	Disseminated sclerosis.	
Poisons.		
Adams-Stokes disease.		

II.

Very often, of course, if only we knew the patient's history, present or bygone, his symptoms would be obscure no longer. Suppose, for example, the relatives speak of epilepsy or of diabetes, our perplexity may fade almost to nothing. Yet, on the other hand, let us not forget that it is just when the epileptic fractures his skull or the diabetic suffers a cerebral haemorrhage that the history may beguile us. Remember, too, that a patient may lie unconscious from more than one cause at once. Of this I will give an instance later. But, with this reservation, we are justified in conceding no small weight to the history. Nevertheless, even when this is altogether lacking, the loss, though considerable, is most often reparable. After all, not many of these patients, these derelicts sunk in a sea of coma, are without something to show for their buffetings by the storms that have at last prevailed against them. Our business is to search high and low for the dents and splinters, piecing together their scraps of testimony, and so declaring the whole story of the disaster.

Before setting about this, however, it is well to study attentively the broad features of the case. Sometimes from these alone it will be possible to learn as much—possibly more—as by any elaborate quest of little details, which, however useful by way of corroborative evidence, may play us false if too much trust is reposed in them. Depend upon it, the patient, unconscious as he is, has, after all, a tale of his own to tell. He is, let us say, a burly man, past middle age, profoundly unconscious, and with his limbs lying anyhow, as they were laid. His chest heaves tumultuously and his breathing, though noisy, comes slow and deep. He puffs out his breath from a corner of his mouth, for all the world like a smoker well content, and his cheek flaps slackly in the current. Where the collar of his shirt has been loosened there is seen a violent commotion of his arteries, in keeping with the flush over his hot face. With such a patient which of us, though never so cautious, would keep or wish to keep his mind unbiassed until he had compared the pupillary reflexes, applied chemical tests to the urine, and recorded the temperature in both groins?

Or, again, take a little child, 3 or 4 years old, deep in coma. She lies on her side with her limbs drawn up and her head thrust far back. Her open eyes are vacant and filmy, with shreds of half-dried secretion lying across them, while every now and again one eyeball turns until the child squints and then turns back again. At intervals, and between her moanings, she heaves a long, broken sigh, whereupon her breathing stops for a while until one wonders if she be dead. Time and again, too, she carries through some pitiful little movement—perhaps passing a trembling hand slowly to and fro, or with her lips making as though she ate. With this much and no more before us need opinion be reserved until the leucocytes in the cerebro-spinal fluid have been counted and the chamber of the vitreous explored with ophthalmoscope and lens?

Not that I wish for a moment to make little of a painstaking physical examination. On the contrary, this must never be omitted; for even though it tell no more than can be learnt with the naked eyes and ears, this very fact, when it can be asserted of a particular case, carries its significance. The examination, however, apart from any special investigations, need not go very wide. As a first step, the depth of the coma should be estimated as near as possible by trying to rouse the patient, say, by tweaking his hair or cuffing his cheeks. Next, compare the muscular tone of his limbs, in the hope of detecting some relative limpness on one side. Then listen to what his heart has to tell—maybe the diagnosis itself—and pay special heed to his pulse and his breathing. For the rest, if his tendon-jerks are feebler on one side than the other, or his pupils unlike in size or mobility, or if, being alike, they are very small or very large, or if his tongue goes to one side or his temperature rises—these observations will sum up most of what can profitably be learnt from the examination. Taking them altogether, their significance lies not so much in betraying the cause of the coma as in marking off those that are unilateral from those that are bilateral. Yet even on this ground we must not trust them too far.

With respect to the special investigations, the two first of the following four are practically always required; the other two only in particular cases. These are they: (1) An analysis of the urine for albumen and sugar; (2) an inspection of the retinae for albuminuric retinitis, optic neuritis, or specific choroiditis; (3) an examination of the cerebro-spinal fluid obtained through a lumbar puncture; and (4) an analysis of the stomach contents for poisons.

This completes the collection of evidence. If, having gone thus far, you are still in reasonable doubt—and, in some cases, not wide clinical experience backed up by a searching examination will place the diagnosis beyond doubt—return to your patient's bedside and watch again. Perhaps, fingering over the points in your mind but uncertain how to string them together, you may, even now, come upon the clue.

III.

How, then, having thus come to close quarters, are we to know one case from another? First, let us settle with the rarer cases in order to clear the ground for those of greater practical importance. Indeed, with regard to the rarest of all, our Group III, I need add nothing; these cases, when they occur, will almost certainly be so circumstanced as hardly to be confounded with the rest.

In Group II the cases share this much in common, distinguishing them from the principal group—that the coma appears, not without warning, but rather as the culmination of an illness already suspected and, probably, identified. For examples take the coma of typhoid fever, of meningitis, of cerebral abscesses and tumours, of cholaemia. Clinically, these cases do not often stand in the category with apoplexy and the others. Nevertheless, you should particularly remember that with some of them, albeit exceptionally, the coma is every whit as sudden and unforeseen as with, say, uraemia. Thus, I recall instances of tuberculous meningitis and cerebral tumour first showing themselves in this way, and of course most of the specific fevers of childhood may lay hold of the patient by a convulsion passing into coma. Moreover, with the two last items in the group—general paralysis of the insane and disseminated sclerosis—a convulsion leading to coma may be the first smoke from the fire, rising long before suspicion would otherwise have been roused. This prognostic is, perhaps, not always borne in mind when a patient, man or woman, previously healthy, is taken with an apparently inexplicable convulsion.

The kernel of the whole subject, however, is Group I. Here, as a first step in the differential diagnosis, it is useful, as a rule, to separate, on the one hand, cerebral haemorrhage, thrombosis, embolism and injury from, on the other, epilepsy, uraemia, diabetes, poisons, and Adams-Stokes disease; or, broadly speaking, the unilateral from the bilateral lesions.

With a *cerebral haemorrhage* the patient, perhaps while making some special effort or if stirred by excitement, is seized by a rapidly deepening coma, which, by the time the doctor reaches him, has brought him to the state already pictured. Over and above these features you may find that his limbs hang more loosely on the one side, that his head and eyes are turned from this side, and, perhaps, that his pupils are unequal. If the blood, instead of ploughing through the internal capsule, has torn up the pons, the symptoms will be modified, and the damage may be located by a crossed facial paralysis, tightly contracted pupils, a rising temperature, and not infrequently convulsions. In either event, if, as is likeliest, Bright's disease lies at the bottom of the mischief, the proof must be sought in the hypertrophied heart and tense, degenerated arteries, in the urine, and in the retinae. Nor, if still in doubt, must a chance be overlooked that the cerebro-spinal fluid may be tinged with blood that has trickled down from the head. Before drawing any conclusion from this, however, assure yourself that the blood has, in fact, come from the brain and not oozed from the lumbar puncture. This latter contingency would be proved if the blood clotted in the fluid as it stands in the test tube, or if, after centrifugalization, the supernatant liquid were left bright and clear. Alternatively, blood that had found its way from the brain would have already clotted or at least lost its power of clotting *in vitro*; and as some of its pigment would have dissolved in the spinal fluid, the latter, even after long centrifugalizing, would still be stained yellow, and would yield the test of haemoglobin, or, if not this, of its derivative bile pigment.

Cerebral thrombosis, whatever its ultimate effects, takes time to come about, in this respect differing from most cerebral haemorrhages. Usually the patient, before reaching the state of coma, passes through a few hours or days of premonitory symptoms, more especially headache and dizziness with ill-defined sensations of tingling or numbness on one side, while his mental confusion may be apparent to his friends as well as felt by himself. Later, as the clot spreads and more and more of his brain is sapped of its blood, he becomes hemiplegic and finally subsides into coma.* As to the distribution of the symptoms, this must depend on the vessel that has become plugged. With a median artery like the basilar the effects will be spread over both sides, and, since in this case the pons bears the brunt, the symptoms will be severe like those of a pontine haemorrhage. On the other hand, with the thrombus in the posterior cerebral artery carrying blood to a part of the occipital lobe, the symptoms are likely to be hemianopia with sensory aphasia; or, with obstruction in the middle cerebral artery supplying the motor cortex, hemiplegia and, when the left artery is stopped, motor aphasia; and so on. These clots most often form in people who are not so old as apoplectics, but as a rule are syphilitic. In fact, as I pointed out in an earlier lecture on the spinal cord, syphilis, by bringing endarteritis in its trail, makes itself one of the commonest causes of arterial thrombosis, whether spinal or cerebral. On this account we should be at pains, in cases of suspected thrombosis, to collect the evidence attesting syphilis.

With *embolism*, the third of the cerebral vascular lesions, the symptoms come on as suddenly as the embolism itself. The patient quickly, even instantaneously, loses consciousness, and, if he comes round again, finds himself powerless on one side and, perhaps, speechless.† The symptoms are open to be interpreted as a haemorrhage; but, as a matter of fact, the diagnosis is not often obscure, inasmuch as the embolus usually comes from the heart (especially from the mitral valve or from a clot in the left auricular appendix), where will be found proof enough to satisfy you; indeed, in cases with the suggestive presystolic thrill, you will probably draw your own conclusion as soon as you lay your finger on the point of the heart. If, as sometimes happens, the embolus has broken away from an ulcerating vegetation, you will find, almost for a surety, other indications of infective endocarditis, including, perhaps, embolisms elsewhere.

With the surgical *injuries* to the head only one of these three vascular conditions—haemorrhage—is at all likely to be confounded, but with this the distinction is sometimes uncertain. True, the history of an injury counts for much; but then there may be no one to speak to this. Moreover—and this is important—the injury itself may be the result of some other cause of coma. Thus, in a recent case, a gentleman, turning from the counter at his bankers, slipped (so the bystanders averred) and fell, striking his head against the mosaic floor. He was carried unconscious into the manager's office, but, after a while, seemed as though he was reviving; not for long, however, for coma began to deepen rapidly, and he soon expired. After death the vault of his skull, which was unnaturally thin, was found fractured, and, as was expected, a copious meningeal haemorrhage lay beneath. On looking further, however, we came upon what was not expected—namely, a pontine haemorrhage, the result of old-standing granular nephritis. This haemorrhage, I cannot doubt, was responsible for his slipping.

Commonly, however, the history of an injury will serve to distinguish the surgical conditions, while, with a fracture of the base, you will probably see blood coming from the ear or nose—possibly even a dribble of cerebro-spinal fluid—or beneath the conjunctiva or about the mastoid process, and, if a cranial nerve has shared in the injury, the resulting palsy. Again, in compression from a meningeal haemorrhage, the patient probably recovers temporarily from the concussion, and only after an interval, perhaps of several hours, becomes comatose; though now, with his meningeal artery bleeding furiously, he goes under very fast, his symptoms at first being hemiplegic, with the corresponding pupil widely open. In compression by a fragment of bone, on the other hand, the coma will probably follow hard on the injury.

In *epilepsy*, the patient's history of previous attacks, confirmed possibly by scars on his head or body—the legacies from earlier seizures—the testimony of eye-witnesses, the saliva churned up in his mouth, the bitten tongue, the voided urine, the symmetry of his nervous symptoms, and, as a rule, the gradual return of consciousness—some or all of these should make the diagnosis relatively easy even while the coma persists.

In contrast to this simple form, we must recognize in *uraemia* one of the most misleading varieties of coma. No doubt in some cases it is recognizable readily enough, but in others, especially when it affects a hemiplegic distribution, it succeeds in passing itself off as a unilateral lesion, most probably as a haemorrhage. Perhaps on these occasions the imposition is to be set down to a limited oedema in one hemisphere, but, whatever the explanation, this much must not be forgotten—that uraemia, at one time or another, simulates most organic cerebral conditions. It assumes many guises, and I cannot tell you how never to be deceived. In a difficulty you must put your trust mainly in the evidence for Bright's disease, supported, negatively enough, no doubt, by the absence of any sufficient reason for making another diagnosis. One further point of some little value—uraemic coma is not always very profound, and sometimes the patient, if briskly stimulated, will stir.

The coma of *diabetes* brings us once more on firmer ground, provided, that is to say, we remember that not all that reduces Fehling's solution is diabetic sugar. Other chemical bodies with this property are ready to mislead the unwary, while, of course, sugar itself may be present in the urine of a patient comatose from some pontine lesion, a cerebral haemorrhage or even from epilepsy. With none of these, however, should we expect that really copious deposit of the hydrate of copper that goes with diabetes mellitus. Yet, with diabetes proved, it were well to be not over-hasty in drawing a conclusion, inasmuch as some diabetics meet death by way of apoplexy.

Next, among the *poisons* responsible for coma (a family which, thanks to the fecundity of synthetic chemistry, grows larger almost every year by the birth of a new hypnotic) only three need be considered—alcohol, opium, and lead. The alcoholic patient, however deep in his

* By no means all cases of thrombosis, of course, any more than all cases of haemorrhage, become comatose. The smaller the lesion and the less important the cerebral areas affected the less probable is the coma.

† Here again, of course, in the milder cases coma may never develop

cups, can generally be roused, at any rate to mutter and grumble. Moreover, his nervous signs are no more on the one side than the other; and his urine, though of low gravity, is probably free from albumen and sugar. The same points hold good for opium, except, perhaps, that the patient may have sunk too far Lethe-wards to be recalled at all. In addition, his pupils will be narrowly contracted, his skin cold, moist, and livid, his pulse slow and weak, and towards the end his breathing flickers out. As to lead, it will be enough to remember that, now and again, instead of its customary attacks on the outposts of the nervous system, it gathers its forces to storm the citadel itself. And so hot is the assault that the brain, after a few increasingly distressful days marked by headache, vomiting, and double vision, is pushed to its last extremity of violent but useless, exhausting convulsions, and soon all is quiet in a fatal coma.

Finally, there is the unconsciousness of Adams-Stokes disease, which, beginning suddenly, and often preceded by an epileptiform convulsion, comes from the anaemia of the brain when the ventricle of the heart stops beating in consequence of some grave disease of the auriculo-ventricular bundle. The diagnosis in these cases is made with the finger on the pulse, when, with a beat of only thirty or even fewer, the nature of the seizure will be apparent.

Then, for a last word, let me add that, whatever our difficulties in recognizing these several states, we have always, in addition, to beware the cunning of the malingerer and the delusions of the hysteric. It is true that neither of these is ever really comatose, or even can assume the essential signs of coma. Your misgiving, if any, will lie rather in the thought that perhaps the patient, before your arrival, was indeed comatose, and is now mending. Coins of this stamp, however, usually ring false as soon as you come to test them. Yet, if you feel any uncertainty, wait; for, whatever happens, you must not mistake a genuine case of coma for one of these. With them, as indeed with every dubious case, err—and err we all must at times—by inclining to the side of caution and prudence.

GALVANIZATION OF THE BRAIN.

BY

R. T. CAESAR, M.R.C.S.Eng., L.R.C.P.Lond.,

MAIDSTONE.

ALTHOUGH the value of electricity is so well known, and its action on the circulation is so marked, yet it is difficult to find records of its application in brain lesions.

The following case is interesting:

D. L. J., aged 33, a mining surveyor and assayer, was at the bottom of a mine shaft in South America, when a stone or "key" fell on his head, rendering him unconscious. The skull on the left side above and in front of the ear was fractured. He was for three months unconscious—from July 5th, 1909, till about the beginning of October. He then made a gradual return to consciousness and a tedious return to partial recovery.

For an account of this period of his illness I am indebted to his Spanish doctor, who made copious notes of his condition during his stay in hospital. At that time his right arm was useless. Speech was normal, but he very easily lost all power to talk, any slight excitement or sudden noise rendering him incoherent. He suffered from convulsions which were very easily induced. He returned to England, went into a hospital, and several pieces of bone were removed, but when he left the hospital he was not much better.

When I saw him, at the beginning of July, 1911, two years after the accident, he had great difficulty in speaking, and it was often impossible to understand what he said. He was in a very nervous state, was quite unable to go about by himself, could not dress himself, as he could not use his right arm. He was unable to express his thoughts in word. His eyesight was "blurred and foggy," and he "saw double." He suffered from convulsions, very slight causes being sufficient to excite them. He was quite unable to raise his arm from his side, though he could pronate slightly; his hand was numb; he could grasp an object in his hand, but could not let go again. The electrical reactions of the various muscles were curiously varied, but there was no reaction of degeneration.

I had no hesitation in promising him considerable benefit, not complete cure, of course, but that he would, after electrical treatment, be able to speak correctly, lose his convulsions, regain his sight, and be able to use his arm. He then told me that he had been advised not to have any electrical treatment, as it would make his arm more "rigid." As time had gone on without any improvement he had made up his mind to have electrical treatment, in spite of that advice, and had undergone a three months' daily course, including Sundays, without any benefit whatever; on the whole, he thought he was rather worse after, than before, treatment.

I commenced treatment on July 13th, 1911. On this occasion the current was passed through the brain and right arm, the latter being immersed in a porcelain arm bath. The amount of current was only 2 milliampères, this being sufficient. I afterwards increased the current considerably, being guided entirely by symptoms. On two occasions I passed as much as 30 milliampères. The application of the current was always followed by an increased sense of well-being; it acted as a tonic to him; it made him somewhat drowsy and he slept well from the commencement of his treatment. It was so pleasant in its action that he was always asking me to increase the strength. The current was passed on each occasion for fifteen minutes. This was followed by stimulation of the affected muscles by means of the interrupted-continuous current, 100 interruptions to the second. No medicine was given.

This combined treatment was carried out twice weekly till August 24th (six weeks), when I stopped all treatment.

He can now talk quite easily and plainly, having only a slight stammer, and can convert his thoughts into words without any trouble whatever. The convulsions have stopped. His eyesight is normal. He can use his right arm quite well, can dress and feed himself without any trouble, but cannot extend his thumb. The arm is much wasted, but is considerably increased in size under the treatment, and will continue to improve with use.

He goes about by himself, using train, 'bus, etc., according to his needs, transacts his business, and has so entirely and successfully recovered that he has obtained another post similar to the one he occupied before his accident.

It is seldom possible to obtain such direct evidence of the value of passing an electric current through the brain.

For some unknown reason this treatment is not adopted in many cases which undoubtedly would be benefited by it. There must be a large number of persons suffering from the after-effects of a "stroke," who would derive considerable benefit from this method of treatment, and who would be willing to submit to it if even they had a chance of improving their condition.

The condition of the brain and its coverings is very much the same whether the lesion is caused by an effusion of blood from a vessel damaged either by degeneration of its walls or from injury. The blood is there in either case, attended by pressure effects. In recovering cases a certain amount of absorption takes place, but there still remains an appreciable amount, which can often be directly influenced by a suitable electric current, leading to a further improvement.

The rapidity with which the effusion, due to a recent injury, disappears under the application of a properly applied current is very striking. I have reduced a 2½ in. swelling of the ankle-joint in thirty-five minutes, and that is quite an ordinary and usual experience, and the reduction is accompanied by entire loss of pain.

If, then, this can be done to the ankle-joint, why not make use of the same treatment in the case of the brain? It is, of course, not advisable to use the galvanic current too soon, time must be given for recovery from shock. This would probably begin at a month or six weeks from the onset. In cases of embolism it would do no harm to commence much earlier. Each case should be judged on its own merits, and every case, if possible, should be treated by the foregoing method. Electrification of the paralysed muscles alone is not sufficient, as this case clearly demonstrates, but what may be called the greater treatment should include the less.

We are, after all, only making use of Nature's own remedy. An electric current is set up in our bodies whenever a muscle is used or the heart beats. Whenever any part of the human body is injured a current is caused and flows in a definite direction and can be measured. This electric current must therefore be necessary, and probably acts by stimulating the various cells of the part to increased work, thus leading to repair of tissue and absorption of deposits.

The current should be turned on very gradually and carefully measured by a galvanometer. The choice of and relative position of the poles vary in any given case. The electrode should be water, the usual pads of gauze or lint not being so satisfactory. The patient must be assiduously attended to throughout the treatment.

UNDER the title of *Dunlop Motor Tyres, 1912*, the Dunlop Company has brought out a booklet which, in addition to information as to prices, contains a large number of useful hints on the subject of economical driving. There are also well-illustrated descriptions of the firm's detachable wheels.

A CASE OF TYPHOID FEVER COMPLICATED WITH CHOLECYSTITIS.

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A CASE of typhoid fever complicated with cholecystitis recorded in the JOURNAL of January 20th, 1912, by Dr. John McMillan, in which the complication arose at the end of the eighth week, makes me think that the following case of a somewhat similar nature, occurring just at the time of publication of Dr. McMillan's case, would be of interest:

On January 18th a married woman, who had had three children, had felt unwell for a few days; suddenly she felt cold and shivery; at the same time "everything went black." Seen on the morning of January 19th her temperature was 101°, and the pulse 112. She ached generally, and her mental condition was one of marked lethargy. As the symptoms had come on so suddenly and many cases of influenza had been under treatment, she was treated for the next few days as if suffering from this, though the evening temperature was always 103° or slightly over, necessitating tepid sponging; the morning temperature was never below 101°, and the mental hebetude, with deep and inexplicable sighing, made one fear that the illness from which the patient was suffering might be other than influenza. At 3.30 on the morning of January 24th the patient awoke from a short sleep, marked insomnia having been a prominent symptom so far, with a rigor. This occurred again at the same time on January 25th. The temperature on the evening previously had mounted to 104°. Shortly after the rigor the temperature was 98.4°, and when I saw the patient at 9 a.m. some definite typhoid spots were to be seen on the abdomen.

From January 25th to 31st the patient seemed to be having a mild attack, as the temperature began to subside on January 28th, until on January 31st it was never higher than 99°, the pulse-rate falling proportionately, though the hebetude persisted very markedly; there was obstinate constipation necessitating enemata, and the mouth was very foul, with tender though furred tongue, and thirst very troublesome. Widal's reaction was markedly positive.

On February 1st, after a full soap and water enema, which was retained, the patient complained of a sudden and acute pain below the costal arch on the right side, causing the temperature to run up to 102.6°, pulse 120, with much prostration and profuse sweating. Pain of any kind so far had been conspicuous by its absence. Hot fomentations not relieving the patient to any appreciable degree, on the suggestion of my partner, Mr. W. H. Jalland, a full enema of oil was administered with a long tube; some was returned without any faecal matter, but the major portion was retained.

The pain returned in the early hours of February 2nd, and was confined to the right side of the abdomen as before. A large, sausage-shaped tumour was easily to be felt, very hard and exquisitely tender at its lower end, pointing to the probability of cholecystitis.

Operation.

As the patient's condition was grave, and operative interference deemed necessary, Mr. H. Littlewood of Leeds operated at noon on February 2nd, assisted by Mr. W. H. Jalland and Mr. Coupland, the anaesthetic (ether) being administered by me. The abdomen was opened by an incision about 4 in. in length, just to the left of the middle line, extending 1 in. below the level of the umbilicus. An enlarged gall bladder was at once seen, adherent by recent adhesions to the omentum, colon, and duodenum, which were easily separated. The gall bladder was aspirated, about an ounce of pus being removed. It was then opened, and five large gall stones removed, one being the size and shape of the distal phalanx of an average man's thumb. The mucous membrane of the gall bladder was thickened and infiltrated with pus, and as much of it as possible was removed. The patient being too ill for cholecystectomy, a drainage tube was inserted into the gall bladder, and the abdomen closed.

After-History.

For forty-eight hours after the operation the patient's condition was critical, needing frequent rectal salines and hypodermics of strychnine. The temperature was practically normal on and after February 9th. Bile flowed freely from the tube until its removal on February 15th. The wound closed on February 22nd, and the patient was allowed up on February 28th, her convalescence being uninterrupted and complete.

Cultures made from the pus from the gall bladder yielded a pure growth of the *Bacillus typhosus*. The original cultures were made on Grunbaum-Hume medium, and the precise nature of the organism determined subsequently by the sugar reaction.

The points of interest in this case are:

1. The total absence of any pain whatsoever at any time during the life of the patient pointing to the presence of gall stones until the sudden and violent attack on February 1st.

2. The absolute constipation throughout the illness, a condition more often met with nowadays in enteric fever than not.

3. The presence of the *Bacillus typhosus* in the pure cultures made from the lining of the gall bladder.

GREEN URINE DUE TO A PROPRIETARY PILL.

BY
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DURING the latter half of March and in April six patients who passed light greenish-blue urine came under our notice. At first it was thought possible that the cause was sucking an aniline pencil or eating sweets, and absorption of methylene blue. In another patient the presence of a considerable quantity of indican in the urine suggested that its transformation into indigo blue might have taken place; and that this apparent excess of indican might have a definite bearing on the epileptic fits which he had after the urine was noticed to be coloured. Inquiry, however, showed that the patients had recently taken one or more of De Witt's "Kidney and Bladder" pills, which in many instances had been presented as samples. A prospectus accompanying the pills contains the "*Important Notice.* If after taking these pills the urine becomes a bluish or greenish color, according to the condition of the urine, you need not be alarmed. This shows that one of the ingredients, which is an excellent *antiseptic*, is acting properly." That the pills were the cause of the greenish-blue urine seemed certain before we saw this notice, for one patient, a man aged 21 years, who had been in the hospital on many occasions, returned passing greenish urine and bringing some pills with him; after his urine had become normal in colour he took another pill and his urine became greenish again.

Secret Remedies does not contain any reference to these pills, which have probably been recently put on the market, but a note about these pills, with an analysis, appeared in this JOURNAL on April 27th, p. 973.

Analysis of the pills by one of us (F. L. G.) showed that each contained approximately 8 mg. of methylene blue, which would appear to be the commercial variety, as zinc was found in it. The feebly antiseptic power of methylene-blue probably accounts for its inclusion in the pill. Methylene blue, which was formerly employed to test the permeability of the kidney, and is sometimes given for neuralgia and malaria, is atoxic in the small quantities contained in the pills. Kowalewsky,[1] indeed, injected considerable amounts intravenously into a dog without bad effects; but F. J. Smith's[2] case of a woman who swallowed 3 oz. of marking ink proved fatal.

None of the patients had any symptoms referable to the greenish urine passed, but a few words may be said about the patient already mentioned who afterwards had epileptic fits. He was a male, aged 50, subject for years to epileptic fits, who took two pills for constipation, and next day was unable to micturate and had general malaise: towards evening he passed bluish urine. Next day he was admitted to St. George's Hospital under one of us (F. L. G.) in a muddled and confused state, and passed bluish-green urine. On the next four days he had general epileptic fits; the urine became normal in colour on the second day after admission to the hospital. The retention of urine in this case was probably a precursor to a bout of epileptic fits, a very rare but recognized phenomenon. As already mentioned, the bluish-green colour of the urine at first aroused a suspicion that an excess of indican in the urine had been transformed into indigo blue; this, however, does not occur except in urines allowed to decompose. Three calculi of indigo, however, have been recorded (Emerson),[3] one of which W. M. Ord[4] found in the renal pelvis of a woman. According to Weber,[5] methylene blue explains practically all the blue and green urines. In some recent experiments by Kauffmann[6] on the metabolism of indoxyl, large amounts—namely, 3 to 4 grams—were given by the mouth without causing the appearance of any indigo blue

in the urine. The urine in the epileptic patient was at first thought to contain indigo blue, because the chemical differentiation of methylene blue from indigo blue is a matter of some difficulty when the two bodies are only present in very small amounts in dilute solution. The spectrums are practically identical, and reducing agents have the same bleaching effect on both bodies. Both bodies were readily extracted by chloroform. The following tests, which appear most reliable, were carried out by one of us (F. L. G.). The methylene blue of the urine was first separated by shaking with $CHCl_3$, evaporated and taken up in water.

Distinguishing Tests.	Methylene Blue.	Indigo Sulphate.	Pills.	Urine.
I. Evaporate aqueous solution to dryness and heat gently	Readily clears and gives a faint green-ish sublimate	Characteristic purple sublimate	Same as methylene blue	Faint methylene blue reaction.
II. To solution add solution of KOH	No effect	Colour discharged reappears on adding acid	No effect	? Pink on one occasion.
III. To solution add strong nitric acid	Not altered	Decolourized	Not altered	? Not altered.
IV. Tested for zinc	Found in the commercial variety	Absent	Faint	Faint.

The first and last tests were the most definite. The action of KOH in HNO_3 gave indefinite results with the urinary solution. Possibly the methylene blue had been affected by bacterial changes.

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The Arris and Gale Lectures

ON

THE MECHANISM AND TREATMENT OF SHOCK.

DELIVERED AT THE ROYAL COLLEGE OF SURGEONS, MARCH 20TH, 1912.

BY

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(Continued from page 1008.)

LECTURE II.—PART I.

THE ABDOMEN AND GENITO-URINARY SYSTEM.

1. *The Abdomen.*

THE variations in blood pressure associated with surgical interference with the viscera are so varied, and open to such different interpretations, that this branch of our study is quite as complex and difficult as in any region of the body.

In the first place, all manipulations must be carried out carefully, so that pressure on the abdominal wall is eliminated; otherwise false interpretations may result. Pressure on the abdominal wall is well shown, in animals under spinal anaesthesia, to cause a proportionate and mechanical rise of blood pressure, and a prolonged mechanical inspiration from the compression of the viscera against the diaphragm and lower thoracic wall.

Chart 36 also illustrates this phenomenon to some degree. It represents exploration in the region of the appendix in a case of abdominal tubercle in a child of 10 years. A to B represents the blood-pressure variations accompanying the induction of chloroform anaesthesia, the constant depth of which is evidenced by the extreme regularity of the respiratory tracings throughout. The rise C *c' d'* D occurred during the preparation of the patient and the cleansing of the operation area; some considerable pressure on the abdominal wall results when soap and water are employed for this purpose, and the curve C *c' d'* D must be attributed to this agency.

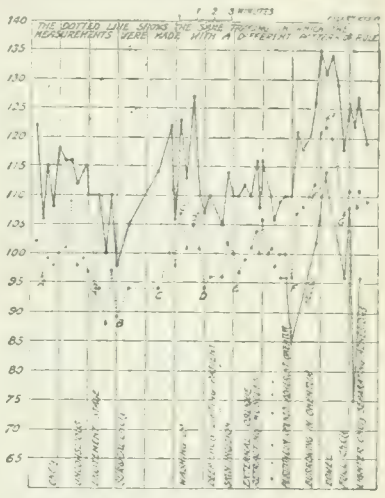


Chart 36.—$CHCl_3$. Exploration of caecum and appendix.

The curve from E to F represents the incision and separation of muscle; the peritoneum is reached at F. At F the peritoneum was opened under deep anaesthesia, and the separation of tough tuberculous adhesions commenced. These manœuvres are signalized by a marked excursion of the blood pressure lever, but the most startling change is noticed at *f'*. At this point the finger was introduced deeply, and adhesions in the neighbourhood of the posterior wall of the abdominal cavity were freed, in order to present the caecum and examine the appendix.

It is worthy of note that the most marked rise in pressure (to *f''*) was induced from manipulations of the posterior peritoneal wall; and that directly these ceased, on presentation of the bowel (*f''*), the blood pressure rapidly sank to G, only to rise again in step-ladder fashion on the continuation of similar manipulations nearer the surface. The outstanding features here are: (1) The marked pressor effect induced by a stimulus to the parietal peritoneum; and (2) the similar more pronounced effect from manipulations of the posterior wall of the peritoneal sac. Corresponding to this rise of pressure, the chart shows a definite acceleration of the pulse-rate during the deeper manœuvres within the abdomen, and also on opening the peritoneal sac. The constant depth of anaesthesia accounts for an absence of variation on the respiratory curve. The markedly pressor type of curve obtained in this operation, particularly during the invasion of the posterior wall of the peritoneum, would seem to suggest a low shock value to surgical interference in these regions. This, however, is clinically incorrect, hence the degree to which such variations are attributable to centripetal impulses, or to other agencies, must be investigated.

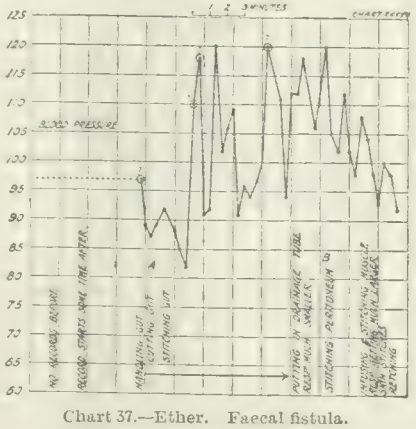


Chart 37.—Ether. Faecal fistula.

Chart 37 represents the closure of a faecal fistula into the upper part of the sigmoid in a child of about 3 years. The child's condition was not good, and the operation was performed under ether anaesthesia administered by the open method. No tracing was obtained in the early stages of the operation. A small rise of pressure, at A,

accompanies the separation of the intestine with scissors from its adhesion to the peritoneum at the site of the fistula. The rest of the operation consisted of the suture of the opening in the intestine in two layers. This manœuvre was one of considerable difficulty, owing to the depth at which these manipulations had to be carried out. For the gut could not be brought to the surface, and consequently traction on its mesentery and manipulation of the deep peritoneum were entailed. The chart shows that a very considerable disturbance of the blood pressure accompanies this part of the operation; while the conclusion of the intra-abdominal manipulations, after the removal of the gauze packing and the introduction of a drainage tube (B), are followed by a gradual fall of pressure.

It is probable that the wide excursions of the manometer are due to the stimulus of the steps of the operation alone, since, in the first place, there is a complete absence of relationship between the high and low pressure readings and the respirations, in the original tracing; in the second place the cessation of intra-abdominal manipulations is accompanied by a regular fall in blood pressure, which contrasts vividly with the type of chart preceding it. This chart seems to illustrate again the increased disturbance induced by manipulations in the neighbourhood of the posterior peritoneal wall and its mesentery. Charts 36 and 37 represent operations in very similar regions of the abdomen; operations of a different degree of severity it is true, but nevertheless involving only a more violent stimulus to similar structures. It could reasonably be expected, therefore, that Chart 37 would show a more pronounced reproduction of Chart 36; but this is far from being the case. For, whereas in Chart 36 the intra-abdominal manœuvres induced a marked pressor type of variation, Chart 37 shows a very evident depressor type of curve. It might, therefore, be concluded, on the basis of previous reasoning, that interference in the region of the sigmoid was accompanied by a greater degree of shock than in the right iliac fossa. While it is perfectly true on all grounds, that the operation shown in Chart 37 was accompanied by much more shock than was the case in Chart 36, it does not follow that the shock connected with these two regions differs appreciably. Evidence to the contrary is found in the following:

1. Assuming that shock depends on the nature and extent of the peripheral centripetal impulses, it remains to be shown how far the variations observed are the result of these.

2. No consideration has yet been given to the effect of toxaemia, general health, etc., on the mechanism of the production of shock.

Now, in Chart 36 the child was in excellent condition, and showed no evidence of toxaemia; the curve was of a pressor type. In Chart 37 chronic toxaemia was evident; the chart was of a depressor type. To carry this point a stage further, Chart 38 is shown, representing operation for acute appendicitis in a child of 3 years, suffering from profound toxaemia and collapse. The intra-abdominal manipulations are accompanied from the start by a depressor type of curve in an extreme degree. Thus, in comparing these three charts, it seems clear that in three similar operations widely different types of curves are obtained; and the inference is that various toxic agents induce a paresis of the pressor paths to a degree in proportion to their virulence. Thus, in a very toxic subject, very little stimulus (such as from operation) is required to complete pressor fatigue and initiate the depressor stage of shock. This is nowhere better illustrated than in Chart 38, though this operation in itself was short and is not one of a high shock value. Toxaemia may, apparently, therefore, produce a condition analogous to, but in reality different from, the second or depressor stage of shock; and a surgeon performing an operation, undertaken under these conditions, may have to reckon with this very formidable antagonist from the commencement. It must not be supposed, however, that these conditions are the same; for, in shock, we are dealing with pure pressor fatigue; while in toxaemia a somewhat similar effect is produced through the agency of a virulent poison, which also affects the centres themselves. (We shall show that, in their effects, general anaesthetics are to be classed with toxaemias.) In order to investigate the extent to which the variations thus described are attributable to centripetal impulses, it is necessary to study similar operations when all the centripetal impulses (with the exception of the vagus) have been cut off by means of a spinal anaesthetic, administered by the method described elsewhere by one of us. Chart 39 represents appendicectomy in a remarkably

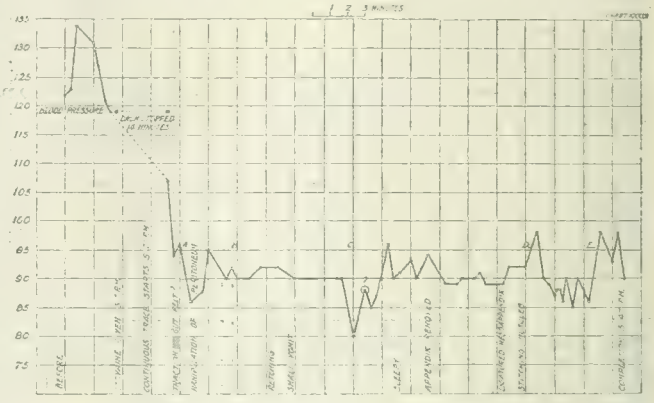


Chart 39.—Spinal anaesthesia. Appendicectomy.

placid child of 11 years, under spinal anaesthesia with dextrin-stovaine (⅔ c.cm). Evidence of mental disturbance is completely lacking in the original tracing. The constant type of curve accompanying spinal anaesthesia to a high level, independent of the nature of operation, has been studied by us elsewhere. In this case it is evident that the usual fall of blood pressure is interrupted after A, which signalizes the attack on the deep peritoneum. From B to C, while the child was retching, the manipulations were stopped as usual and a pad put over the wound. At C the blood pressure is seen to have fallen to a lower level. Though the operation data are rather inadequate in this case, experience enables us to say that at C the manipulations in the deep peritoneum recommenced, and the child went to sleep. The rising blood pressure, therefore, on recommencing the deep peritoneal manœuvres, lasts until the removal of the appendix, and then falls a little, only to be again raised on the renewal of traction involved in the ligature of the meso-appendix.

This and similar charts show that, whereas under spinal anaesthesia surgery of the abdominal wall induces no mean rise in the blood pressure curve, a definite rise accompanies intra-abdominal manipulation. Again, this rise seems most marked when the posterior peritoneal wall is interfered with, and when the mesentery is dragged upon. It is least marked with the manipulation of intestine and visceral peritoneum. The increased extent

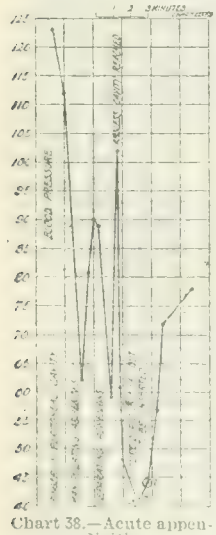


Chart 38.—Acute appendicitis.

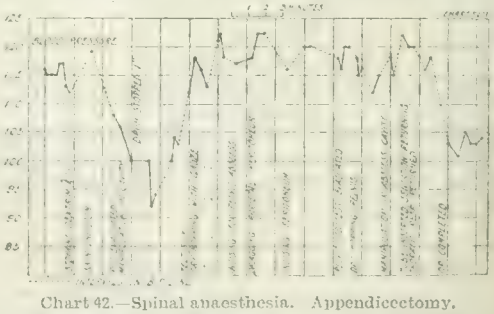


Chart 42.—Spinal anaesthesia. Appendicectomy.

of this phenomenon, accompanying an increase of the extent and violence of the operation, is illustrated in Chart 42. This represents appendicectomy, with widespread septic peritonitis. In this operation far more

extensive interference with the abdominal contents was necessitated by a prolonged search for several pockets of pus. Interrupted readings only were taken, but the degree of rise in pressure, accompanying the manipulations of the deep peritoneum, is far more definitely marked than in the case we have just shown. In comparing these features, which are traceable in all our charts of operations performed under these conditions, variations are to be expected, due to the rapidity with which thoracic paralysis is initiated, and with the time of commencement of the operation relative to this rapidity. A tracing of an operation for the relief of acute strangulation of the jejunum, in a collapsed child of 2½ years, shows that these phenomena are also evident in operations in the upper part of the abdomen.

The disturbance of the blood-pressure line in operations in the abdomen under spinal anaesthesia is capable of two explanations: (1) That the anaesthetic does not induce a complete block to the centripetal impulses we are considering; (2) that it is due to some local mechanism.

(1) Against this explanation is the fact that no conscious child would quietly submit to such operations unless all centripetal impulses were cut off. Further, the variations observed in the blood-pressure line are unaccompanied by the corresponding alteration in the pulse-rate, which we have before remarked when these variations are due to central afferent impulses. Further evidence as to the completeness of the nerve block will shortly be apparent. In confirmation of the truth of these observations in the case of localized peritoneal trauma under spinal anaesthesia, we have found that hot saline solution poured into the abdominal cavity under spinal anaesthesia induces a marked rise of blood pressure (in Chart 43 the rise was 32 mm. Hg). The saline solution initiates a far more widespread stimulus than the steps of the operations we have studied, and, assuming the complete block to centripetal impulses in spinal anaesthesia, this rise must be attributed to a local mechanism. It is not due to direct action on the blood vessels, for this should induce vaso-dilatation and a corresponding fall of blood pressure. If hot water (125° F.) be poured into the abdominal cavity of a cat which has been subjected to an overdose of chloroform, it is seen that the blood pressure immediately rises to a marked degree, and that the pulse becomes slower and more forcible at first, later smaller and more rapid. In a shocked dog, where the pressor paths are fatigued and the vasomotor centre appears inactive to pressor stimuli from the periphery, the rise of blood pressure accompanying the introduction of hot saline into the peritoneal cavity is less marked, but it is accompanied by a more marked slowing and increase in force of the heart. The same manœuvre repeated in a shocked dog, whose semilunar ganglia have been poisoned by painting them with pure nicotine, no rise of blood pressure is observed, but a fall, which is accompanied by acceleration and diminution in size of the cardiac impulse.

That the slowing of the pulse is not due to vagus stimulation is shown by the rise of blood pressure; for we shall produce tracings which show that surgical stimulation of the abdominal vagus is usually followed by a marked fall, and never by a rise, in blood pressure. The explanation appears to be that the hot saline solution stimulates the semilunar ganglia or their efferent fibres, inducing a vaso-constriction of the abdominal vessels. This local rise of blood pressure increases the work of the heart, slows the rhythm, and increases its force at first. Later, as the immediate local effect of this stimulus wears off, the domination of the centripetal impulses causes stimulation of the vasomotor centre and cardio-acceleration, which we have repeatedly laid stress on. When this central pressor effect is almost eliminated in extreme shock, the slowing of rhythm and increase of force of the cardiac impulse is more pronounced and lasts longer. For, under these conditions, the variations are attributable to a mixture of the local vaso-constriction, with efferent depressor stimuli to the vasomotor centre, such as exist in this stage of shock. In accordance with this, when the pressor effect has been eliminated by shock and the semilunar ganglia have also been thrown out of action by the application of nicotine, these depressor afferent impulses (possibly with local vaso-dilatation) existing alone, lower the blood pressure.

In order to study more fully this local abdominal vasomotor mechanism in abdominal surgery, such operations as are performed in human subjects have been repeated in animals (in whom a greater detail of observation is possible) under precisely analogous conditions. In this connexion, however, we wish to remark that, in all probability, the vasomotor mechanism in the human subject is more highly organized than in quadrupeds, in compensation for the erect position. It is to be expected, therefore, that variations should be less marked and shock induced quicker in animals. As a matter of fact, this seems to be the case.

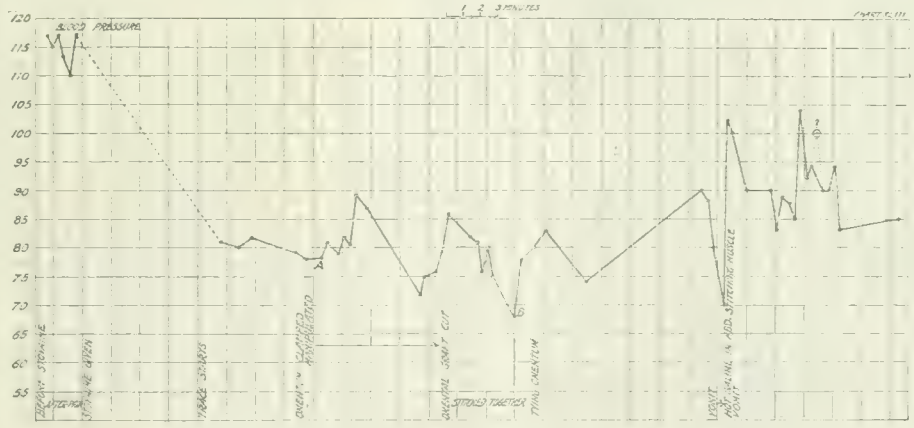
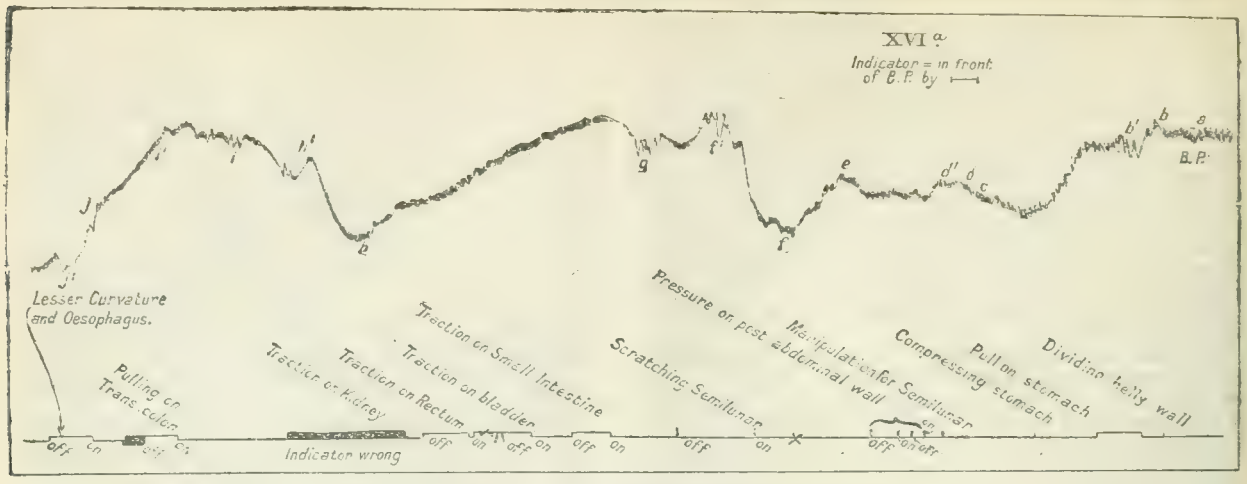


Chart 43.—Spinal anaesthesia. Strangulation of jejunum. Hot saline in abdomen.

(In all operations upon animals one of us operated, while the other anaesthetized and marked the signal on the indicator line. In some places the signals are not always absolutely synchronous with the various manipulations carried out. Too much attention must not be paid to slight inaccuracies of this nature, and discrepancies will, in most instances, be indicated on the tracing or in the text.)

The operation of splenectomy in the dog, under chloroform anaesthesia administered on a towel, is one of a large number demonstrating the accuracy of our observations in the human subject. Thus, the incision of the abdominal wall is followed by a marked rise of pressure, which persists as long as these structures are being manipulated, and falls during the application of the skin clips which fasten the towels to the edges of the wound. Splitting the fascia and muscle fibres of the rectus abdominis again repeat the rise of pressure, which is further increased on opening the peritoneum, and, still further, with traction on this structure and enlargement of the wound. Ligature of the pedicle of the spleen by isolated ligatures, as well as one round the whole structure, involves traction on the mesentery, and this, combined with the manipulations within the abdomen essential to its performance, maintains the blood pressure at fairly high level, while a rapid fall occurs with the release of traction consequent on the completion of the ligatures. At the same time the respiratory trace shows that the attack on the abdominal wall stimulates the respirations, while the manipulation of the viscera gradually inhibits them. The conclusion of the tracing (which is not shown) only repeats in the main the points to which attention has been drawn. One further point, however, was well shown—that is, the cessation of interference with the viscera was accompanied by an increase in the amplitude of respirations to approximately their original level. This inhibition of respirations is well illustrated in all intestinal manipulations on animals,



Trace 16*a*.—CHCl₃. Puppy shocked by visceral manipulations.

where a respiratory tracing is shown. We shall show shortly tracings which illustrate vagus stimulation in certain manipulations within the abdominal cavity. Many experiments, however, demonstrate that this vagus inhibitory action on respiration is practically absent in the lower abdomen, and increases as the upper region of the abdomen is approached. It is more marked when the mesentery is manipulated than when intestine only is handled, and especially with traction. The higher up the manipulations of the mesentery, the more marked is this phenomenon. Finally, traction on the stomach and oesophagus practically inhibit inspiration completely.

As regards the heart, this vagus action is entirely subordinate to (1) vasomotor influences excited in the centre, as the direct result of the centripetal impulses of the operation; and (2) to the indirect stimulation of the heart by the raised blood pressure, which is the result of the direct stimulus of the operative manœuvres to the efferent splanchnic system and the resulting vaso-constriction of the mesenteric vessels.

Manipulation of the mesentery, therefore, shows the inhibitory action of the vagus on the heart entirely masked by the sympathetic phenomena.

Trace 16*a*, however, shows well that the traction on the stomach and the oesophagus alone does not stimulate any (or at least very few) of the splanchnic fibres (*j j'*); this manœuvre excites an almost pure vagus inhibition both on respirations and heart, so that the blood pressure falls from inhibitory slowing of the cardiac rhythm: firm traction stopping the heart almost completely, as will be seen in a subsequent tracing. In the human subject this respiratory inhibition is particularly well shown in an operation on the abdomen under ether anaesthesia. A tracing was taken from a little girl whose intestines had prolapsed through a recent laparotomy wound. These were returned to the abdomen, and the wound resutured with some difficulty owing to their distended condition. (Chart 44.) The stimulus of the ether is well shown in the respiratory amplitude, while the commencement of the manipulations raised the blood pressure and markedly inhibited inspiration. As the intestines were reduced, and the suture of the abdominal wall was commenced, the respiratory amplitude began to return, and, at the same time, the blood pressure fell from the cessation of the stimulus. The pulse rate increased in rapidity as usual, masking any vagus action on the heart.

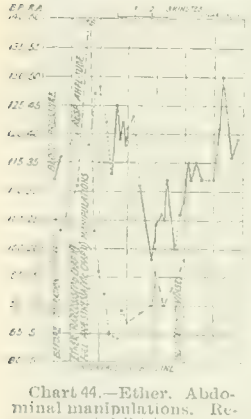
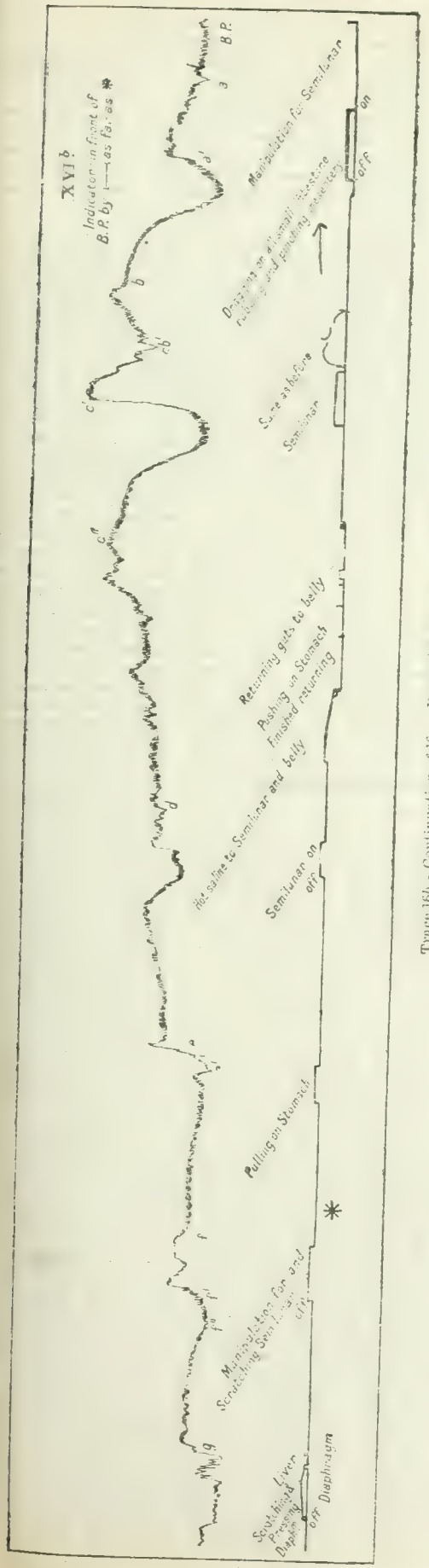


Chart 44.—Ether. Abdominal manipulations. Respiratory inhibition.

In order to investigate the variations in blood pressure contributing towards the final collapse so commonly seen in splanchnic shock, we present tracings 16*a* and 16*b*. These represent the indicator line and blood pressure tracing from a young puppy which was profoundly shocked by various manipulations in the abdomen. Chloroform anaesthesia was administered through a tracheotomy tube in a constant self-regulated quantity by a mechanical pump. The incision of the abdominal wall at *a* is accompanied by the usual rise in blood pressure, which falls from traction on the stomach (*b* to *b'*), and also sinks gradually on compression of the stomach, which was distended. Manipulations in the upper abdomen and firm pressure on the posterior wall of the peritoneum produce a moderate rise of pressure which is maintained some time after the cessation of the stimulus, *c d d'*; the pressure line finally rises to *e* before sinking to *f* in the interval between the manipulations. At *f* the right semilunar ganglion was searched for and stimulated by firm scratching, which manœuvre was discontinued at *f'*; it will be noticed that the rise *f f'* is immediately followed by a rapid fall when the stimulus ceases; but that the blood pressure subsequently begins to rise again in the interval (soon after *f'*). Traction on the small intestine at *g* (near its commencement) induced a very marked rise in blood pressure, with definite improvement of the heart, and this was followed by a gradual fall to *h*, which is hardly broken by traction on the lower abdominal or pelvic viscera (bladder and rectum). These latter manœuvres usually induce a well-recognized increase of blood pressure and respiratory stimulation: here, however, the mesenteric vessels are doubtless contracted from the excessive splanchnic stimulus, and are little affected by the additional reflex from the vasomotor centre. At *h*, however, traction on the right kidney pedicle is accompanied by an exact repetition of the phenomenon at *f f'*—that is, the rise *h h'* is followed by the fall (as the traction is released), the latter being immediately superseded by a further marked rise in blood pressure after the cessation of the stimulus. Even at this height a further rise in blood pressure accompanies traction on the transverse mesocolon.

It should be noted that, after all these manœuvres (as far as *j*), which induce a considerable degree of shock in a small puppy, the blood pressure is not greatly lower than at the commencement; it is even higher than at the beginning of the intestinal manipulations at *c*. At *j* traction on the lesser curvature of the stomach and oesophagus illustrates the vagus cardiac inhibition, with its fall of pressure, mentioned above (*j* to *j'*). It must be remembered that we are concerned with centripetal impulses, as well as local vascular phenomena, in the reading of these tracings, and that up to the present no evidence of any depressor stage of shock has been noticeable.

Continuing with Trace 16 *b* (in the same animal): At *a* the whole mesentery of the small intestine was dragged on and pinched from *a* to *a'*. At *a'* the usual fall in pressure is followed by the very marked rise, which we have already observed in connexion with the stimulation of the semilunar ganglion. A repetition of this manœuvre at *b b'*, however, is only accompanied by a short rise, and then by a fall, during the traction.

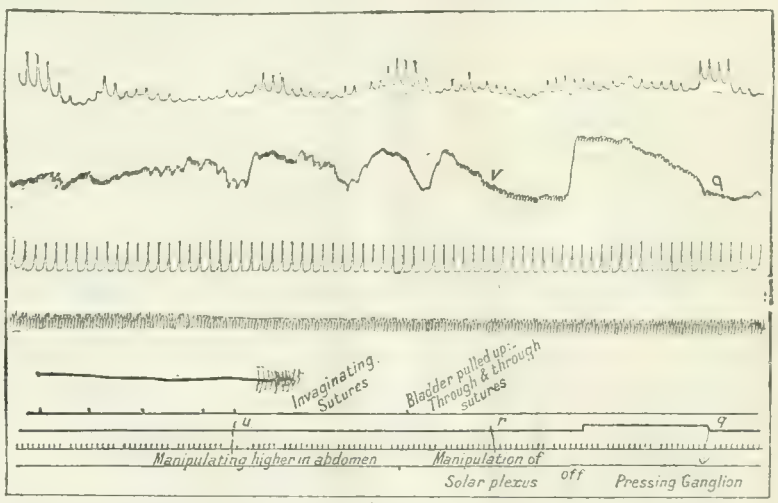


Trace 16*b*.—Continuation of 16*a*. Depressor stage.

Stimulation of the semilunar ganglion, by scratching at *c*, repeats the phenomena, already observed, with this exception—that, after *c'*, the fall is very much more pronounced (below *c b'*); and, unlike the former instances, the subsequent rise to *c'* does not reach a higher level than *c'*. The gradual fall, as far as *d*, is interrupted to a slight degree by the manipulation of the intestines, and pouring hot saline into the abdominal cavity; while, at *d*, the usual semilunar stimulus is only followed by a very moderate variation of the usual type. Traube-Hering curves are becoming apparent, and it is to be noticed that, whereas each manœuvre reproduces in type the earlier blood pressure variations, the blood pressure reaches a lower level after each stimulus. The vagus inhibitory fall of pressure is well shown at *ee'*. That this period of the tracing represents the depressor stage of shock is evident. Thus, a semilunar stimulus at *f f'*, again hardly induces any rise compared with the earlier ones; but is followed by a fall to a definitely lower point. If *f* to *g'* be compared with *g* to *h* in the previous tracing, it will be seen that in the latter a cessation of stimulus is followed by a gradual fall after the secondary rise. In the former, *f'* to *g* (16*b*), no fall is observed; but rather, the blood pressure swings up to an intermediate level in the interval, a feature of the second, or depressor stage of shock. At *g* manipulations of the liver and diaphragm show the same phenomena exhibited by the stomach, that is, domination of vagus inhibition and a fall of blood pressure. While further evidence of the depressor stage of shock is seen when traction on the rectum, which usually induces a pressor type of rise in blood pressure, is accompanied by a small rise and then a fall to a lower level; the blood pressure afterwards swinging back to an intermediate level. The animal was now in a state of profound shock. From these two tracings we learn that, in harmony with the results in the human subject, a pressor rise accompanies the attack on the abdominal wall and parietal peritoneum; manipulation of the intestines being also accompanied by a definite rise in pressure. Manipulation of the gut itself hardly induces any vasomotor disturbance; but traction on the mesentery induces a marked rise in blood pressure, which is more and more accentuated as the stimulus approaches the upper end of the mesentery in the neighbourhood of the semilunar ganglia. The nearer these ganglia traction is applied (especially on the kidney pedicle) the more in degree and type do the variations simulate those exhibited by stimulation of the semilunars themselves; this manœuvre induces a marked rise in blood pressure. Traction on the transverse mesocolon resembles the small intestine in its result; but traction on the stomach and œsophagus, and manipulations of the liver and diaphragm, establish the domination of the vagus phenomenon—namely, a fall in blood pressure from cardiac inhibition.

That these changes in blood pressure are due to the vaso-constriction of the abdominal viscera is shown by a tracing from a dog, of similar manipulations within the abdomen, combined with stimulation of the right semilunar ganglion by scratching. If in such a manœuvre synchronous tracings of the blood pressure, respirations, and oncometer are taken, a definite contraction of the kidney on the left side accompanies a simultaneous rise in blood pressure from the stimulation of the right semilunar ganglion and the mesentery. The contraction of the kidney is relieved immediately the stimulus to the opposite semilunar ganglion ceases. At the same time these manipulations in the upper region of the abdomen inhibit very definitely the excursions of the respiratory lever. It is further noteworthy that the excursion of the blood pressure is accompanied by a definite slowing in rhythm and increase in force of the heart, and that, after the fall, on the cessation of the stimulus, the pressure again rises, and the rapidity of the heart gradually increases, while its force is diminished. In order to confirm the bearing of isolated experiments on a surgical operation, we operated upon a dog under ether anæsthesia to expose the kidney (right) transperitoneally. Blood pressure, respiratory and oncometer tracings (from the left kidney) were taken simultaneously. The ether anæsthesia masks to a considerable degree those changes in blood pressure which we have observed to take place under chloroform. This point has been previously referred to. Before the beginning of the trace the left kidney had been exposed through

a transverse incision from the loin to the abdomen. And the absence of variations in the oncometer trace, accompanying the early steps of the operation in the neighbourhood of this wound, are to be attributed to the previous existence of a Lowén's reflex—that is, the previous manipulations in arranging the oncometer, and interfering with the abdominal wall for this purpose, had induced a reflex vaso-dilatation in this (the left) kidney. Accordingly, as the stimulus of these manœuvres became less and the experiment was continued, gradual contraction of the kidney to the normal is indicated by a fall in the oncometer trace, until the point when the peritoneum is reached. The first definite active fall in the oncometer trace accompanies the slight temporary rise in blood pressure on dragging the parietal peritoneum. Subsequently, manipulations of the small gut and its mesentery are accompanied by the usual blood pressure variations, and, at the same time, by a steady fall of the kidney volume as far as the point where these manipulations cease. During the introduction of the hand into the abdominal cavity, the blood pressure shows a steady fall while the oncometer trace gradually rises. For the stimulus to the peritoneum is relaxed and the blood pressure falls; while, at the same time, the hand in the abdomen increases the pressure on the mesenteric vessels, and blood is forced into the abdominal viscera, whose volume is increased by passive engorgement. Thus a marked rise in the kidney volume is accompanied by a diminution of the pulse wave in the oncometer tracing, and is not due to arterial dilatation (which would render the pulsations more prominent) but to venous engorgement. This rise in volume is broken simultaneously with the fall in blood pressure by moderate manipulation near the under surface of the liver. Again, traction on the right kidney pedicle illustrates well that the rise in blood pressure is accompanied by marked vaso-constriction of the abdominal viscera, for the opposite (left) kidney volume shows a very precipitate diminution, while at the same time the oncometer pulsations almost vanish. Release of this traction is at once followed by a relaxation of the left renal arteries and an increase in the kidney volume, while the pulsations return rapidly to about their former distinctness.



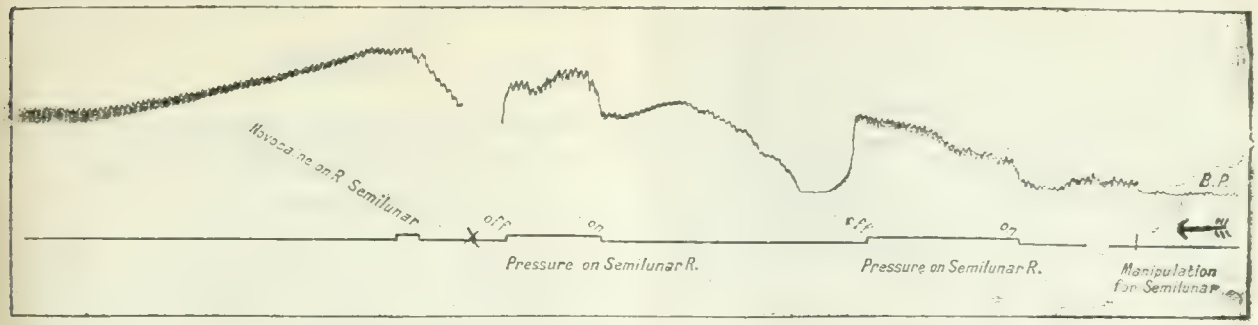
Trace 20.—CHCl3 and spinal anaesthesia. Dog. Comparison of manipulations in upper and lower abdomen.

Two *upper* tracings and *lower* indicator line=respirations and blood pressure in upper abdomen.

Two *lower* tracings and *upper* indicator line=respirations and blood pressure in pelvis (cystectomy).

After this point, the application of crushing clamps to close the abdominal wound showed very marked variations indeed. Thus, as the blood pressure continuously and markedly rises, an enormous contraction of the kidney volume (as evidenced by a rapid fall in the oncometer tracing) shows that this rise in blood pressure is accompanied by a marked contraction of the vessels of the abdominal viscera. This feature is particularly well illustrated as the operation of laparotomy is performed again; and the fact that pressure on the abdomen causes a rise of blood pressure of mechanical origin is illustrated very well by a simultaneous rise in the oncometer tracing with the practical disappearance of the pulse wave. The latter is restored directly pressure on the abdomen is relaxed. The remainder of our tracing showed that a continued rise of blood pressure accompanied the surgery of the abdominal walls, with a simultaneous gradual but marked fall in the kidney volume. We wish to call attention to the fact that here, again, the respirations showed marked variation in accordance with our previous statements. Thus, manipulations within the abdomen were always characterized by a simultaneous inhibition of respiration; while a rise of blood pressure, accompanying manipulations of the abdominal wall, was synchronous with a very marked increase in rate, amplitude, and regularity of the respiratory tracing. Finally, similar tracings under chloroform show that the rise of pressure following manipulations in the upper abdomen, pressure on the posterior peritoneal wall, manipulation and traction of the small intestine, traction on the kidney, and stimulation of the semilunar ganglia, etc., are one and all due to the vaso-constriction of the vessels whose nerve fibres, at some part of their course, lie in the stimulated area.

There are three possible mechanisms by which these variations may be brought about: (1) Deep reflex vaso-constriction in the segment stimulated; (2) centripetal impulses to the vasomotor centre inducing efferent general vaso-constrictor impulses; (3) direct stimulus of the efferent nerves to the visceral vessels. In order to ascertain the degree to which one of these factors is responsible for such variations as has been observed, the first two were eliminated by means of the administration of a spinal anaesthetic (dextrin-stovaine $\frac{2.5}{5}$ c.cm.) to a dog, paralysis being induced to about the mid-dorsal region. It must be remembered that in order to do this a lamina had to be removed in a chloroformed animal and the injection given directly under the dura. Some shock naturally accompanies this procedure, but it does not greatly affect the result. We therefore produce *part* of a tracing taken from this dog under spinal anaesthesia, which compares the blood pressure variations accompanying interference in the lower abdomen and pelvis (lower tracings) with manipulations in the upper abdomen (upper tracings) near the semilunar ganglia (Trace 20). It is clear that manipulations in the former do not break to any extent at all the perfect regularity of the blood pressure line. In Lecture I we showed that the vasomotor disturbances accompanying manipulations in other regions than the abdomen were due entirely to centripetal impulses reaching the vasomotor centre. It was shown that these variations were a clear indication of the nature and extent of the centripetal stimuli to the vasomotor centre; and can, therefore, be accepted as an indication of the shock value of these parts. The complete elimination of such variations under spinal anaesthesia in operations on the pelvic viscera (which normally induce a pressor type of curve) shows that these deductions are equally true for this region. In this tracing, contrasted with this regular blood pressure line, we find very definite variations in blood pressure as the upper abdomen is attacked. These variations (accompanied by the usual inhibition of respiration) become more and more marked the nearer the stimulus approaches the semilunar ganglia. Thus, during the opening of the abdomen, an almost unbroken line in blood pressure and respiration is present; while manipulations in the upper abdomen are seen to induce a rise in blood pressure, in spite of the fact that centripetal stimuli are blocked. Traction on the kidney and pressure on the posterior peritoneal wall induce the characteristic rises in pressure respectively which we have noted before under general anaesthesia; even if these are not very accentuated. (It should be noted that, by this time, chloroform anaesthesia had been maintained for a con-



Trace 22.—Semilunar phenomenon after excision of spinal cord in the splanchnic area.

siderable period.) Small rises of pressure accompany traction on the lower end of the large bowel. Manipulation high up in the abdomen induces marked deviations of pressure; while traction on the stomach induces an almost complete inhibition of respiration on each occasion, but only a slight fall in blood pressure (the slight effect on the blood-pressure of dragging on the stomach is probably explained by the marked degree of collapse existing). Manipulations in the region of the semilunar ganglia induce the typical rise and variability in the blood pressure (*q*, *r*) which has been observed to accompany similar manœuvres in animals when centripetal paths are not blocked; this shows that these variations in abdominal operations are almost entirely local in origin. Thus not only does each separate manipulation induce its own characteristic rise in pressure, but the high pressure is maintained as long as the stimulus continues.

It might be argued that either the spinal anaesthetic did not produce a complete block to centripetal impulses, or that its effect had worn off when these phenomena were observed. In order to show that neither of these views is correct we repeated the same manœuvres, after division of the spinal cord above the splanchnic area, in a dog under chloroform anaesthesia. The resulting collapse was to some extent controlled by a subcutaneous infusion of physiological saline. As a result, manipulations in the upper abdomen, similar to those we have already studied, induced the typical "semilunar phenomenon" which has been repeatedly observed and controlled. At the same time a very noticeable feature is that the slowing and improvement of the pulse, before noted as being an accompaniment of this semilunar phenomenon, was infinitely better marked. Indeed, at the end of these manipulations, the action of the heart very markedly improved. It is possible that these variations might be attributable to a reflex vaso-constriction through the segments of the cord below the level of transection. In order to exclude this, the same manipulations were repeated after excision of the cord over the splanchnic area. (Shock was so profound at this time that no chloroform was necessary for the remainder of the experiment—unconsciousness being complete.) Trace 22 shows the results on these phenomena of excision of this part of the cord. In the first place attention is called to the condition of the blood pressure and the pulse at the commencement, as showing that the animal was nearly dead. Stimulation of the semilunar ganglion (right) is, in each instance, followed by the usual phenomenon in an extraordinarily marked degree. If this tracing be compared with similar manœuvres in Traces 16*a* and 16*b* (where the centripetal depressor impulses are not blocked) the extraordinary improvement in blood pressure and cardiac action are only attributable to the combination of the local splanchnic stimulus with the elimination of central depression. We took a further tracing on this same animal to show that manipulations of the mesentery immediately below the semilunar ganglia induced the same effects to an even more marked degree. (After paralysing the semilunar ganglia with nicotine, this "semilunar phenomenon" is practically absent.) When the animal was practically dead, and the heart had ceased to beat, the semilunar phenomenon could be reproduced and the cardiac action infinitely improved. In a shocked animal (where ordinary centripetal impulses from the shocked area do not materially affect the blood pressure), if the semilunes be paralysed with nicotine, ordinary manœuvres are accompanied by a blood pressure line almost as steady as with a spinal anaesthetic. Dragging on the stomach, however, induces a slight fall of blood pressure and complete stoppage of the heart. The contrast between this phenomenon and the results of similar manœuvres in Trace 16*a* shows that, in the latter, the mechanism was the double one referred to; and that, in this case, elimination of the sympathetic permits an unmixed vagus inhibition. In the human subject this vagal inhibition is particularly well illustrated during enucleation of the tonsils by the method of Mr. G. E. Waugh. We can produce a tracing to show that the blood pressure falls, the pulse rate is under half, and respiration is inhibited. (The chart of this case was shown in Lecture I, end of Chart 24.)

The following conclusions may be drawn. Vasomotor variations in abdominal surgery are due to:

1. *Local vascular changes*, from the direct stimulus to those nerve fibres proceeding from the semilunar ganglia to the arteries of the intestine and mesentery. We shall show that fatigue of these may occur experimentally, but does not, in all probability, occur surgically. This may be termed "local visceral shock."

2. Blood pressure variations due to centripetal impulses are symptomatic of central or "systemic shock."

Local Visceral Shock.—The degree of vasomotor disturbance of local origin depends on mechanical causes, relative to the number of efferent fibres stimulated and the degree of their stimulation, in accordance with Diagram 2. (See Lecture II, Part II.)

From these observations we may deduce that the fall of blood pressure due to prolonged operations in the abdomen are due to afferent pressor fatigue and the domination of active central depressor impulses—that is, *second stage of shock*.

But that this fall is actively broken by the local splanchnic stimulation referred to, in accordance with the diagram, we have shown. The beneficial effect of blocking these centripetal depressor impulses (such as we have shown in spinal anaesthesia, transection, and excision of the cord) cannot be overestimated. Further, according to the duration and extent of dragging or manipulation of mesentery and peritoneum, will depend not only the degree of local vaso-constriction, but also the degree of centripetal stimulus initiated, from the varying number of nerve fibres (afferent and efferent) excited.

The shock value of the intestines and mesentery cannot be estimated at all by blood-pressure readings, which may be absolutely useless and fallacious in estimating the degree of shock. A combined detailed study of all these tracings demonstrates that, as regards centripetal impulses, the shock value of the intestines is a very high one, the blood pressure completely masking these facts. Concurrently with the effect of splanchnic stimulation on the blood vessels we find inhibition of the intestinal wall. Thus, experimentally, the intestines become distended as the manipulations increase. Similarly intestinal inhibition has been noted by Meltzer, and observed by all surgeons, during the incision of the abdominal wall in cases of intestinal obstruction. Meltzer aptly illustrates this inhibition on opening the abdomen by comparison with the inhibition of conversation induced by the opening of the door and the the introduction of a stranger into a crowded room.

Finally, in operations on the stomach and under the diaphragm the splanchnic system hardly plays any part. Vagus inhibition here predominates both in respect to the heart and blood pressure, and also to the respiration. This vagus inhibition in these operations has a distinct bearing both on technique and on choice of anaesthetics, etc.

The condition of the arteries in shock requires a word. To state that these are either contracted or dilated is incorrect, for either statement needs qualification. In the pressor stage of shock they are contracted; in the depressor stage (when the stimulus is relaxed) they are neither contracted nor actively, nor passively, dilated. They preserve their normal tone independent of central control, unless in the last stages of experimental local visceral shock. In this case only the abdominal vessels are directly fatigued, so that a splanchnic stimulus reverses the phenomena we have noted; but we would point out that this condition does not obtain in surgery, with the possible exception of the kidney.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

MELAENA NEONATORUM.

I note in the Journal of February 17th a case of malaena neonatorum, reported by Mr. James Dunlop, M.B., of Shettleston, N.B.

In March, 1911, I attended a primipara, a young healthy woman, who under chloroform was delivered with forceps of a female child. On the evening of the second day I was hastily summoned by the nurse. The baby had passed per rectum three large clots, followed by a large quantity of bright blood. This continued with varying severity several times daily for three days. The infant was extremely blanched, and it was difficult to keep it warm. On the fifth day the motions became normal and recovery took place. I gave mild astringents and small doses of liq. opii sed.

I could find no reports of similar cases, and during thirty years' general practice at home and abroad had never seen a similar condition.

W. Morrison, M.A., M.D.,
Senior Honorary Physician, Ballarat Hospital, Australia.

THREADWORMS IN THE VERMIFORM APPENDIX.

With regard to threadworms and other *vermes* in the vermiform appendix, it may interest Drs. Claude Wilson and Hamilton to know that recently I found a very fine specimen of *Trichocephalus dispar*—the whipworm—in the appendix of an adult male, but no ova were detected. There was no very clear history of acute attacks, but the patient was subject to much dyspepsia and distinct tenderness in the region of the appendix, which was very long and tightly kinked, and bound down.

Wallington. Walter Gripper, M.A., M.B.Cantab.

ABDOMINAL ANGINA.

The interesting description of this condition given in the joint paper contributed to the Royal Society of Medicine by Sir Lauder Brunton and Dr. W. E. Williams is very similar to that which applies to a case I have had under observation for the last two years. The patient, a man of 80, who is wonderfully active for his age, has for two years been subject at intervals of some months to severe attacks of pain situated in the umbilical region, on each occasion coming on after extra exertion, such as taking a longer walk than usual. During the first attack the pain was of a very severe character, and when I arrived at the patient's home he appeared to be *in extremis*, his body being covered with perspiration and his whole appearance such as to suggest that he had not many minutes to live. On examination, however, it was found that the pulse was not appreciably affected, and after the administration of morphine the pain subsided. This attack I at first considered to be due to indigestion brought on by over-exertion soon after a heavy meal, but subsequent attacks led me to suspect that the pain was very similar to that of angina pectoris, and suggested the treatment by nitrites, which has proved successful in giving relief. During the attacks there is a desire to defaecate, but no expulsion of faecal matter. I may add that there is evidence of arterial degeneration, but not more than advanced age would account for, and the urine is normal. There is no history of gout or plumbism.

Selby. Arthur Somers, M.B. B.Ch.

Reports

on

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

BRISTOL ROYAL INFIRMARY.

A CASE OF TRAUMATIC PNEUMOTHORAX.

(By Richard C. Clarke, M.B., Ch.B.Bristol, M.R.C.S., L.R.C.P., House-Surgeon.)

Doris M., a well-nourished child of 2, was brought into the casualty room at 3 p.m. on February 24th, 1912. The child had been playing in the road, and was run over by a baker's cart. She was brought straight up, and I saw her some ten minutes after the accident.

She was then very blue in the face, and was suffering from marked dyspnoea. Respirations about 80. On examination of the chest, except for marked retraction with inspiration, nothing abnormal was seen, neither did palpation reveal any evidence of fractured ribs. The apex beat of the heart was in the fifth space in the mid-axillary line. The chest was resonant all over, but the breath sounds differed considerably on the two sides. On the left side they were loud and harsh; on the right side, though by no means inaudible, the sounds were not half so loud. I failed to get the bell sound.

During the examination the child was becoming more and more dyspnoeic, so I sent for an exploring needle, and fitting a rubber tube on to it I pushed it into the chest on the right side in about the fifth space in the anterior axillary line. The end of the rubber tube was placed in a bowl of water. There was a continuous gush of air lasting about five minutes, with quite a miraculous effect on the condition of the child. The colour immediately became good and the respirations dropped to 50. The apex beat at the same time came back to the nipple line. When the continuous stream of air from the tube had stopped, with each expiration there was a gush with no intake of water from the tube at inspiration. After watching this for about half an hour I squeezed the rubber tube. This had the effect of causing dyspnoea with migration of the apex beat towards the axilla. On letting go, the rush of air was continuous and at high pressure. I then substituted for the exploring needle an ordinary intravenous cannula, on account of its larger calibre and blunt end, and the child was admitted under the care of Mr. Walters.

During the afternoon and evening some 2 oz. of blood was blown out of the tube and the child suffered considerably from shock. The respirations remained at 50. On the next day there was still a large amount of air coming out of the tube with each expiration, so it was decided to leave the tube in. The condition of the child had improved considerably.

On the next evening, as there was very little air coming out, the tube was removed. This was exactly fifty hours after the accident. The child seemed distressed at first but soon settled down. There was now some bronchitis on the left side with distant breath sounds on the right side.

From this time the recovery was uninterrupted and, when the child left the hospital three weeks after, there were no abnormal physical signs in the chest. I have lately seen her, and she is now quite healthy and getting stronger every day.

The point of interest in this case is the large amount of air which leaked out of the lung at each inspiration. This, I think, shows that the tear was most probably in one of the larger bronchi, as there was so little haemorrhage. Had the tear been in the substance of the lung, it would have to be so large to let out so much air, that death would have been caused by haemorrhage. Another point of interest is the extraordinary immediate improvement after letting the imprisoned air out of the chest.

I am indebted to Mr. Walters, assistant surgeon to the infirmary, for permission to publish this case.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

METROPOLITAN COUNTIES BRANCH: RICHMOND DIVISION.

Richmond, April 24th, 1912.

Dr. G. CARDNO STILL, President, in the Chair.

Surgical Treatment of Locomotor Ataxy.

DR. L. N. DENSLOW read a paper on the surgical treatment of locomotor ataxy. He said that he found that in male subjects in every case of this disease an abnormal condition of the urethra existed, and that by treatment directed to that condition many of the symptoms of the disease—for example, the pains, ataxic gait, visceral crises, and incontinence of urine and faeces—might be cured or alleviated, and the disease itself at least held in check. There seemed no doubt that all cases of tabes were ultimately due to syphilis, whether congenital or acquired. But, admitting this as an essential, certain other conditions had to be reckoned with. Thus, syphilis alone might not suffice to cause the disease; other factors might be needed to call it forth, and among these urethral irritation in the male occupied the most prominent place. In tabes they had to do with a neuron defect (involving chiefly the peripheral sensory neurons) acquired through the agency of the syphilitic virus. Now they might suppose, as a plausible theory, that the continuous peripheral irritation, whether arising in the urethra or other regions of the body, produced changes in the posterior spinal roots and posterior columns. He did not, of course, pretend for a moment that the degenerated tissue in the cord could be regenerated. What he did claim was to save not only what was left, but to relieve the tension from the remaining sound tissue. He would insist that in some cases of tabes symptoms occurred with a severity out of all proportion to the actual pathological changes found. These symptoms were apparently caused by such changes creating a zone of irritability beyond the initial point. It was, in the first place, of the utmost importance to discover the exact condition of the urethra, as upon that would depend the treatment to be adopted. A urethroscope or an Otis urethrometer was used for this purpose. The lesions usually found in the urethra were erosions, granulations, and strictures. Besides, a highly sensitive condition, either local or general, was often discoverable, and this had to be reckoned with in applying local treatment. When the urethra was sensitive, it might be necessary to use a local anaesthetic before introducing the urethrometer or urethroscope. As to the strictures, those situated in the anterior part of the urethra near the meatus were best incised and dilated regularly and gradually up to No. 18 (English), or even a higher number, two or three times a week for several weeks. Dr. Denslow considered this procedure of the greatest importance in the treatment of tabes. His rule was that when a sound did not drop into the urethra of its own weight it should not be passed. Should the stricture be in the lower three-quarters of the pendulous or in the deep urethra, the conservative plan of gradual dilatation gave the best results. In all cases 5 grains of urotropin were given three or four times daily in a tumbler of water. Constipation was the rule in tabes. This was best treated with cascara sagrada, or any of the waters containing sulphate of sodium or magnesium. He found that liquid petroleum in half-ounce doses acted both as a lubricant and disinfectant. Under no circumstances should strychnine or any spinal stimulant be administered: that but added to the irritation, which it should be their utmost endeavour to remove. As to the exhibition of such drugs as pyramidon, aspirin, or any of the other synthetics to allay the lightning pains, they were seldom needed after a few days of urethral treatment. Under no circumstances should morphine be given. From an experience of 59 cases—34 in New York, 19 in Paris, and 6 in London—he had been successful in making a clinical cure in 27 cases. During his practice in New York many more cases were in an utterly hopeless condition but could not be refused treatment and were not counted. Of the 19 Paris cases treated at the Charcot Clinique, referred to him by the late Professor Raymond, 16 were old chronic hospital cases. In 7 of these a clinical cure could be claimed, while 10 others were greatly improved; 2 received no benefit. Of the 34 New York cases, 18 could be considered clinical cures. Of the 6 London cases sent him by Dr. Harry Campbell, 2 could be considered clinical cures while the other 4 were greatly relieved. This series of 59 cases showed a clinical cure of almost 50 per cent., with 12 others greatly relieved of their pains, ataxia, and urinary troubles. The following cases were shown:

1. L., May 5th, 1911, aged 57. Gait 75 per cent. off normal. Syphilis thirty-five years ago. Duration of disease, twenty-five years. Weight, 9 st. 2 lb. (weight April 24th, 1912, 10 st. 9 lb.). Romberg, Westphal, and Argyll Robertson present. Analgesia and anaesthesia general. Daily and nightly lightning pains for twenty-five years. Black spots before eyes and dizziness when walking. Obliged to look at feet while walking. Cannot wash face without support. July 25th, 1911: Gait practically normal. No black spots or dizziness. Can wash face and put on trousers standing alone. No pains. Balance practically normal. Examination found contractions in lower pendulous urethra, No. 13 English. This was dilated during three months up to No. 18 English. April 24th, 1912: Gait still normal. Balance good. Does not have to look at feet while walking. Still no spots or dizziness. Sleeps well seven hours. Only slight occasional pains at intervals of month or more. During ten years has not been able to ride. Has been riding a spirited horse and jumping ditches.

2. B., March 29th, 1912, aged 44. No history syphilis. Duration disease, ten years. Romberg, Westphal, and Argyll Robertson present. Anaesthesia extremities. Hyperaesthesia trunk. Weight, 10 st. 2 lb. Lightning pains commenced about ten years ago, gradually grew worse until three years ago, confined to bed three days a week. At this time gastric crises commenced, also incontinence of urine. Has attended West End Hospital for past year, and had urethra cut. The incontinence stopped and pains much diminished. March 29th, 1912: Operation in first inch of urethra to 22 English, since which time the pains had practically ceased. Balance and gait restored for past year. Has not been laid up for a year, and gastric crisis stopped. Sensations in great measure restored.

3. J., April 5th, 1912. Gait 75 per cent. off. Duration five years. Syphilis thirty-five years ago. Romberg, Westphal, and Argyll Robertson present. Analgesia and anaesthesia general. Complains spasm of muscles of legs. Pains severe night and day for past three years and up to the present date. April 5th, 1912: Operation to 22 English first inch, and passed 18 up to 22 English during three weeks. Gait practically normal. Only occasional pains. Sleeps well. Spasm of muscles relieved.

Reports of Societies.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Wednesday, May 1st, 1912.

Mr. J. M. COTTERILL, President, in the Chair.

Acute Myelocythaemia.

DR. ALEXANDER GOODALL recorded a case of acute myelocythaemia associated with osteo-sclerosis. The patient was an infant 10 weeks old, admitted into the Sick Children's Hospital under the care of Dr. Fowler. It had been under observation in the out-patient department for some weeks previously, where the early symptoms had been vomiting and diarrhoea with jaundice, and latterly obstinate bleeding of the nose. Death took place within a day after admission. Blood films taken during life showed 1,000,000 red cells, with marked poikilocytosis, polychromasia, and numerous nucleated cells. With Wright's and Jenner's stains the differential leucocyte count showed 70 per cent. of lymphocytes, with a total of 75,000 leucocytes per cubic millimetre. But the use of the triacid stain and a modified Jenner stain showed most of these lymphocytes were really myelocytes, with poorly staining neutrophilic granules, forming 46 per cent. of the total leucocytes. The *post-mortem* examination showed an unusual sclerosis of the bones, the medullary cavities being greatly encroached upon by projecting shelves of bone. Free iron was abundant in liver and spleen. The condition of the marrow confirmed the blood picture, and established the case as one of spleno-medullary leukaemia. The case was probably the nineteenth recorded authentic instance of myelocythaemia occurring in infancy, and the twentieth case of acute myelocythaemia at any age. But the association of osteo-sclerosis made the case still more unique, this having been previously recorded only twice. The defective staining of the neutrophilic granules had at first obscured the diagnosis. The point of distinguishing a myelocythaemia from a lymphatic leukaemia had some

practical bearing, since the therapeutic use of *x* rays was sometimes beneficial in the former, but harmful in the latter case. Dr. J. S. FOWLER said that the triacid stain had fallen undeservedly into neglect. It was easy to use, and superior to others in the differential staining of granules, and yet it seemed that the student had now ceased to be taught it. He also remarked on the relative frequency of lymphatic as against medullary types of leucocythaemia in childhood. Dr. W. T. RITCHIE said that it was unsatisfactory that the distinction of the two types of leucocythaemia should rest upon the granular staining of the leucocytes when in cases like the present the determination of the reaction of the granules was a matter of uncertainty. Dr. GOODALL replied.

Faulty Interpretation of Radiographs.

Mr. A. MCKENDRICK, in a paper on this subject, said there was need for greater collaboration between the surgeon and the radiographer if error and inefficiency were to be avoided. For example, in a joint, the indication of whether it was synovial tissue or bone that was desired to be shown would materially assist the radiographer in the selection of the suitable tube. Further, *x* rays were mathematically exact, and, given certain measurements of external anatomical positions, could give accurately internal measurements. He showed in illustration of this how the internal conjugate of the pelvis could be calculated from an *x*-ray photograph of the pelvis in which the distances of certain fixed points on the pelvic boundaries from the tube were measured. The calculation was made by an instrument which he had devised—the skiameter—and the method was generally applicable to other regions of the body. The question of position was also important, and faulty position could produce a great apparent distortion or dislocation, as, for example, in the neck of the trochanter or in the position of the pylorus of the stomach. It was most necessary to establish a standard series of normal focus points and normal positions.

Cases and Specimens.

The following were among the exhibits:—Mr. WALLACE: A woman, aged 60, after *Partial oesophagectomy* for a squamous epithelioma of the upper end of the gullet. The first symptoms of dysphagia and pain had occurred four months before admission. The tumour was well seen by laryngoscopic examination, and there was no glandular involvement. The after-result in such cases depended upon early diagnosis and operation, and upon the localization of the growth. Mr. C. W. CATHCART: A patient who had suffered from constant abdominal pain in the region of the umbilicus, with frequent severe spasms shooting through to the back, but without jaundice. On operation a large *Gall stone* was found at the neck of the gall bladder grasped by the wall. It had apparently acted as a ball valve, allowing bile to enter the gall bladder, but hindering its exit. The PRESIDENT: A female patient, admitted with a large sarcoma involving the upper portion of the right radius. Amputation having been refused, the upper three-fourths of the radius had been removed. Microscopic examination of the tumour showed it to be a small *Round-celled sarcoma* instead of the expected myeloid sarcoma; and this indication of greater malignancy had been borne out by a rapid and large recurrence of new growth in the clavicle and shoulder-blade. Removal of the entire upper extremity would now be performed. Dr. TORRANCE THOMSON: A modification of the usual *Schimmelbusch mask* for administering chloroform and ether by the open method, in which a bottle with adjustable dropper was mounted directly above the mask, the whole apparatus being thus easily controlled with one hand.

HUNTERIAN SOCIETY.

Wednesday, April 24th, 1912.

Dr. HINGSTON FOX, President, in the Chair.

Therapeutic Value of Alcohol.

THE discussion on the therapeutic value of alcohol, initiated by Sir Victor Horsley on March 27th (see BRITISH MEDICAL JOURNAL, April 20th, p. 894), was resumed by the PRESIDENT briefly summarizing the chief points which had been raised.

Sir LAUDER BRUNTON then submitted that alcohol was like the contents of the ink-bottle—an excellent thing only so long as it was in the right place. Parkes, in the Ashanti campaign, had found that, although alcohol might apparently act as a stimulant for the first mile or two, it always reduced the total day's march. At the end of a fatiguing day, however, the older men found a ration of rum a great help to their digestion. Alcohol aided digestion by setting up in the mouth a reflex stimulation of the various digestive juices; but, in addition to this, it accelerated absorption in the stomach, and probably in the intestines as well. This latter action probably accounted for the marvellous results that were obtained by giving a few drops of brandy to an infant with severe diarrhoea. He knew a doctor who had completely cured himself of a previously intractable diarrhoea by taking a small glass of liqueur with his meals. Alcohol relieved spasm, both in the intestines and elsewhere, and was thus of great value in attacks of ague, where the vessels were in a state of spasm. Fainting fits might be prevented by a small dose of alcohol, but he did not believe that the drug was of much service in chronic heart cases except as a digestive. There had certainly been a great decline in the use of alcohol in fevers in recent years, partly because the severer forms were becoming increasingly rare. It was of most value in the shorter febrile diseases, such as typhus, where it helped digestion and retarded tissue change, thus tiding the patient over a crisis. Thus it was often serviceable in pneumonia, where, indeed, it might to a great extent take the place of food for two or three days. Broadly speaking, however, alcohol was not much good as a food alone; its value rather was as a stimulant to the gastric and other juices and as an aid to digestion.

Dr. W. H. B. STODDART submitted that Sir Victor Horsley's diagrams, showing the enormous decrease in the amount of alcohol consumed in institutions during recent years, exaggerated the change of opinion in the profession, because, whereas alcohol was now used entirely as a medicine, it used to be employed as a beverage as well. Sir Victor Horsley had spoken of the action of a 0.4 per cent. solution of alcohol on the isolated heart, but the speaker had calculated that he would have to drink 2½ oz. of whisky to raise his blood to a 0.4 per cent. alcoholic solution, and such amount would be a pretty stiff therapeutic dose. Alcohol was of use in asylum practice as an appetizer, and occasionally as a hypnotic, where other drugs had failed. In some conditions of extreme collapse in certain forms of alcoholism, such as delirium tremens or alcoholic pseudo-paresis, it undoubtedly saved life. Apart from asylum practice, there were many people in poor health upon whom a morning glass of port had a magical effect for the rest of the day. He had a friend who suffered from headaches due to high blood pressure, and who had been greatly relieved by a dose of brandy, which acted, he supposed, by lowering the blood pressure. If this were so, he would venture to throw out the suggestion that the drug might be of use in cerebral haemorrhage, in spite of the present view that it was contra-indicated on account of its supposed stimulant effect.

Dr. E. W. GOODALL said that there was more than one cause for the decrease in the alcohol consumed in the Metropolitan Asylums Board hospitals in recent years. It was no longer used now as a beverage for the staff or convalescent patients; but, more important than that, there was a vast difference in the class of cases treated. Typhoid and typhus were comparatively rarely seen now, and scarlet fever had become such a mild disease that neither alcohol nor any other drug was often needed in its treatment. In his experience the action of alcohol as a stimulant was disappointing. He very seldom gave it in typhoid. In children with measles, complicated by abdominal pains and looseness of the bowels, he had found very small doses of brandy give relief. Stimulants, he believed, were of little, if any, value in the acute stage of diphtheria, but possibly alcohol might be useful as a transient stimulant in the syncopal attacks occasionally met with during the stage of paralysis. On the whole, there was now a consensus of opinion against the use of alcohol, except to a limited extent, in the acute specific fevers.

Dr. LANGDON BROWN believed, with former speakers, that alcohol had a definite value in digestion. The reflex

effect of alcohol on the mouth had already been dealt with, but he ventured to lay additional stress on its chemical effect in the stomach. Alcoholic solutions were readily absorbed in the stomach where watery solutions would scarcely be absorbed at all. Now Edkins had pointed out that products of digestion, when absorbed, directly stimulated the pyloric glands, which, in turn, stimulated the glands in the fundus to further secretion. Both in increasing absorption and provoking the further flow of various juices, therefore, alcohol was a valuable chemical aid to digestion. It had been said that alcohol was inferior to sugar as a foodstuff for the heart. But sugar could not be administered in cases of diabetes. The onset of acidosis in diabetes was due to the splitting up of fats in the absence of carbohydrates. He believed that alcohol could to a limited extent replace the carbohydrates, and he employed the drug in diabetes to prevent or diminish acidosis.

Dr. CURRIE observed that Sir Victor Horsley's diagram, which showed a great decrease in the alcohol used at asylums, also showed an enormous increase in the insane during the same period. He questioned whether, in the change of attitude of the profession towards alcohol, the pendulum was not swinging too much in the other direction. He had over and over again obtained good results from the use of alcohol in therapeutics. He had seen it strengthen the flagging heart in diphtheria; he had seen it bring patients back from the sighing, gasping semi-consciousness of toxic states to consciousness and comfort; he had seen it revive collapsed patients, drained of blood, in placenta praevia: and he refused to be debarred from its use in future. The experiments on the isolated heart of the rabbit that had been mentioned took no count of the action of alcohol on the controlling nerve centres, and it was its action on the whole human organism that medical men were concerned with. That action was the action of a spur on a jaded horse rousing it to sudden, but not to sustained effort.

Dr. SANDWITH had understood Sir Victor Horsley to say that no patient was really any the better for taking alcohol, but that he only thought he was better. He preferred to believe that his own powers of digestion and absorption were really improved by a small dose. Nothing would induce him to state that he would never prescribe alcohol under any consideration. He would be sorry, for instance, to take up the care of babies if he were not permitted to give brandy occasionally. At the same time he recognized that other drugs were taking the place of alcohol in many ways, and he would very warmly commend to the meeting the use of camphor, injected in a sterilized oil, as a stimulant. The fact was that the advocates of alcohol had changed their platform, and now prescribed the drug as a digestive or a narcotic, and no longer as a stimulant and never as a tonic.

Dr. MARY STURGE was afraid that nurses were very prone to administer more alcohol than was ordered for patients, unless the doctor had been particularly exact in his dosage.

Sir VICTOR HORSLEY, in reply, deplored the fact that accurate clinical observations on the action of alcohol in disease had not been brought forward. He would like to have seen blood pressure, cardiographic and other exact records laid before them. He feared that, in point of fact, the work had not been done, and really there were scarcely any clinical data in existence of any value supporting the therapeutic use of alcohol. He wished that more details had been given about Mr. Cursham Corner's patients who had improved with alcohol. In cases of "tight breathing," for instance, any narcotic might bring relief to the patient, and alcohol was probably of benefit solely as a narcotic. Sir Lauder Brunton had raised some important points in discussing the effects of alcohol on the digestive organs. There was a further side to this question—namely, the known inhibitory effect of the drug on the action of digestion ferments; this had not been alluded to. He (Sir Victor Horsley) would suggest that there were other substances quite as efficacious as alcohol in aiding digestion both reflexly and directly. He had been particularly interested in Sir Lauder Brunton's observation that alcohol was of much less value in the longer as distinct from the shorter fevers. The distinction well illustrated his own point that alcohol was not now used as a sparer of metabolism. He agreed with Dr. Stoddart that a great deal of the diminution in the consumption of alcohol in institutions was due to its disappearance as a beverage, but he thought that its use as a beverage might fairly claim to come within the therapeutic horizon. He had been interested in Dr. Stoddart's calculations as to the size of the drink that would correspond to a 0.4 per cent. solution of alcohol acting on the heart, but he could not agree that the 2½ oz. of whisky would be regarded as a big dose, either therapeutically or popularly. It was less than many so-called moderate drinkers took in a day. He would venture to extend the same criticism to Dr. Currie's remarks as he had done to those of Mr. Cursham Corner. Personal experience was not a sufficient basis; scientific data were needed to support it. In conclusion, he thanked the society for the honour of opening a discussion which had shown clearly what a useless and treacherous drug alcohol was.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF SURGERY.

Friday, March 29th, 1912.

Mr. R. H. WOODS, President, in the Chair.

Spina Bifida.

MR. R. ATKINSON STONEY, in a paper on spina bifida, gave short histories of four cases on which he had operated at the Royal City of Dublin Hospital. The first was a baby, 7 months old, with a large meningo-myelocele in the sacral region, the skin covering which was stretched and ulcerated and on the point of bursting. The second 3 months old, was also a case of large sacral meningo-myelocele. The third, 5 months old, has a large syringo-myelocele in the dorsal and lumbar region, nearly the size of a fetal head, and there was complete paralysis of the lower part of the body and limbs. The fourth case was a boy of 9 years old with a large bilocular tumour in the sacral region, the superficial one being a meningocele and the deeper loculus a meningo-myelocele. All had been operated on successfully as far as the removal of the tumour was concerned. Special stress was laid on the importance of the gradual evacuation of the cerebro-spinal fluid, and of keeping the patient's head at a lower level than the pelvis both during the operation and during the process of healing, in order to prevent leakage of the cerebro-spinal fluid or stretching of the cicatrix. The results of these four operations, in which the defect had been covered in merely by flaps of skin and subcutaneous tissue, showed that the elaborate methods of forming bone flaps were quite unnecessary, and only added to the difficulty and gravity of the operation without any compensating advantages. One of the cases, which had been followed for four years since the operation, showed no bulging of the scar although marked enlargement of the head had occurred, showing that there was increased tension of the cerebro-spinal fluid. The conclusion reached was that in all cases in which a tumour was present operation should be performed, more especially if the tumour was enlarging and the skin showed signs of thinning and ulceration; otherwise an immediate fatal result must be expected. Dr. BOYD BARRETT agreed that the removal of the tumour could do no harm, and if hydrocephalus occurred it was not due to the removal of the tumour. The paralysis, of course, would not be relieved by the removal of the tumour. He also agreed that the treatment was simply a matter of technique, and no danger should arise from the operation if the precautions enunciated by Mr. Stoney were taken. He considered no plastic operation necessary, as no secondary bulging occurred.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on April 26th, Mr. H. LITTLEWOOD, President, in the chair, the following were among the exhibits:—Dr. A. D. SHARP: (*a*) A case of *Paralysis of the internal tendons of the vocal cords* in a male, aged 47, who had had several attacks of huskiness of voice during the last few years. The condition would begin and disappear suddenly. The vocal cords were congested and relaxed, and on attempting phonation an elliptical space was left between their margins. If the thyroid cartilage was

pulled forward, the huskiness disappeared and the cords approximated; (*b*) a case of *Suspended nasal breathing* in a female, aged 22. If mouth breathing was prevented, the patient got distressed, and the face became congested; and, in spite of anxious efforts, she was unable either to inhale or exhale through the nose. The anterior nares were collaterally narrowed, but the naso-pharynx was clear. A probe dressed with cotton-wool could be easily passed on both sides. Mr. A. L. WHITEHEAD: A case of *Synchysis scintillans*, or cholesterine crystals in the vitreous. Dr. C. OLDFIELD: A primipara, aged 23, who had hip disease in infancy, resulting in ankylosis in position of flexion and adduction. There was failure of development of the right side of the pelvis, producing oblique pelvis, with marked contraction, which had necessitated Caesarean section, when she was delivered of a child. Mr. H. LITTLEWOOD: (*a*) A case of *Actinomycosis* of the neck treated by two injections of salvarsan. The ray fungus was demonstrated and the Wassermann reaction was positive; this had now disappeared. There was no evidence of syphilis. (*b*) A case of *Gumma of the face*, producing salivary fistula, in a man of 38. Mr. T. H. HUNT: A man aged 20, some three years after *Laminectomy*, rendered necessary by a fracture of the spine due to a fall. He could now walk without aid as a rule, and had control over the bladder and rectum. Mr. H. COLLINSON: A female aged 18, in whom excision of the third part of the duodenum had been performed in September, 1911, during removal of a large retroperitoneal growth; end-to-end anastomosis being impossible, the proximal end was closed and a posterior gastro-enterostomy performed. The whole of the bile secreted now passed back through the pylorus into the stomach, but the patient, with reasonable care in diet, had no vomiting and no digestive discomfort. Dr. A. G. BARRS: A case of *Hyperplasia of the long and cranial bones* in a man, aged 34, who was also somewhat feeble-minded. The character of the thickening of the bones did not correspond with that of rickets, nor did the disease conform to osteitis deformans. Despite the fact that the Wassermann reaction was negative, the character of the bossing of the head and the mental state suggested that the condition was due to congenital syphilis. Dr. W. H. MAXWELL TELLING: A case of *Lead palsy* in a man of 35. He had had three attacks of lead colic, but gastro-intestinal symptoms were not marked. There was marked wasting in the biceps, triceps, infraspinati, and deltoids, but the small muscles of the hands were not affected. A blue gum line was present. Dr. T. WARDROP GRIFFITH: A man with *Paralysis* of the left vocal cord, left half of palate, and left side of the face. The onset was subacute about two months ago. He had headache during one day, then went to bed as usual, but felt pain in front of the left ear and a tingling sensation in the face, arm, and leg. For a few seconds there were some slight "twitchings" of the left side of the face. In the morning the above condition was found to be present, and had continued until the present time. The patient's family history showed a tuberculous taint, and there was a lesion at the right apex. No specific history. No optic neuritis. Dr. T. CHURTON: A man, aged 51, who had had *Angina pectoris* four years, and had taken erythrol tetranitrate, gr. ½ every six hours, for the last fifteen months with great benefit.

LIVERPOOL MEDICAL INSTITUTION.

AT a meeting on April 25th, Dr. C. J. MACALISTER, Vice-President, in the chair, Mr. R. KELLY showed an apparatus for producing anaesthesia by insufflation of ether, together with warmed and moistened air, through a catheter passed through the glottis. Mr. KEITH MONSARRAT related a case of *Focal epilepsy*, in which the onset of the attacks was apparently connected with the subdural injection of anti-tetanic serum in 1904. Mr. HUGH E. JONES, in a paper on the *Operative treatment of aural vertigo due to causes other than suppuration*, drew the following conclusions: The cases unsuitable for destructive operation on the labyrinth were: (1) Those in which rapid and complete destruction of the vestibular function occurred; (2) functional and toxic cases (including autointoxications); (3) lesions of the central nervous system; (4) cases secondary to lesions of the middle ear, which could be cured by treatment (operative or non-operative) of the middle ear; (5) cases of true Menière's disease or of Menière's symptom-complex where the patients were old or were bad subjects for operation, or could afford or preferred to wait for the destruction of function, which sooner or later followed by natural processes. The cases suitable for operation were: (1) Pure labyrinthine cases in which the recurrent attacks interfered with important duties in otherwise healthy persons, notwithstanding a fair trial of ordinary treatment, and cases where falls were likely to occur in dangerous places to the risk of life and limb, and where the symptoms were unusually incapacitating and caused constant fear and great distress of mind; (2) it was possible that the successful case described by Jenkins of simple opening of the perilymphatic space for supposed increased tension within that space might lead to the extension of the operation to cases of secondary hyperaemia; (3) a few traumatic cases. In operating he preferred an operation whereby the external semicircular canal was followed throughout its extent into the vestibule. By this means the vestibule and the three ampullae could be rendered functionless without opening the tympanum.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

AT a meeting on April 19th, Professor A. BOSTOCK HILL in the chair, Dr. J. A. GIBSON, in a paper on the *Housing (Inspection of Districts) Regulations, 1910*, dealt more particularly with the difficulties in carrying them out in rural districts where no special officers had been appointed. In such the actual inspections had to be carried out by the inspectors of nuisances, whose routine work might thus be neglected. Upon medical officers of health a very large amount of additional travelling and of clerical work had resulted, and as the extra cost of this was usually paid for out of the officer's salary it resulted in a conscientious official having to incur a reduction in his income. The regulations accentuated the need for security of tenure, for the small owner whose house was condemned often had friends on the council who were quite ready to take up the cudgels against those officials who carried out their duties properly. The conflicting opinions of the English and Scottish Local Government Boards were criticized by the speaker, who agreed that the reasonable view was that of the Scottish Board, who considered that after a closing order had become operative a condemned building might be used for purposes other than a dwelling house, whereas the English Board held that once a closing order had been made the building must be demolished and could not be used as a barn or storehouse. Professor KENWOOD considered that the Local Government Board was often in default where negligent local authorities were concerned. He advocated a subvention from the State in aid of rural housing, and thought it would be impossible to raise the wages of the workmen sufficiently to enable them to pay an increased rental. Dr. HERBERT JONES said that State assistance was economically unsound, and he did not think there would be much difficulty in raising the labourers' wages 1s. a week, which was all that was needed to provide better houses. Mr. F. E. FREMANTLE considered a State subvention quite justifiable, and feared it would be impossible to get increased wages. Dr. J. S. TEW advocated a standard of habitability, and referred to the uncertainty as to the costs entailed in an appeal to the Local Government Board against an order of the local authority. Dr. BYGOTT considered that it would be impossible to set a standard of habitability, and suggested that the insurance funds might be drawn upon for housing purposes.

THE Royal Mail Steam Packet Company, in announcing Whitsuntide cruises to France, Spain, Portugal, the Azores, Gibraltar, Morocco, the Canary Islands, and Madeira, varying in length from eight to twenty-five days, notifies that all its vessels are provided with lifeboats to accommodate a full complement of passengers and crew, and are fitted with wireless and submarine signalling apparatus. Further particulars can be obtained from the head office of the company, Moorgate Street, London, E.C.

Reviews.

THE PRESENT POSITION OF TUBERCULIN TREATMENT.

MORE than twenty years have now passed since Koch's method of treating tuberculosis by the injection of tuberculin was first introduced into this country. The exaggerated hopes that were raised in 1890 were not realized, and a wave of pessimism arose which for a time carried all before it. Injections as a means of treatment were discontinued, but a few of Koch's disciples carried on the work of observation and experiment, and by slow degrees the return wave of cautious optimism began to show itself. Within the last ten years enough experience has been gained to warrant positive statements as to the practical value of the various forms of tuberculin, both in diagnosis and treatment. The enormous number of papers that have been written on the subject and the ever-increasing forms of tuberculin that appear on the market, may well prove confusing to the ordinary reader, who will doubtless welcome the appearance of a book in which the present position of the subject is set forth in simple terms. Such a book, *Tuberculin Treatment*, has recently been issued as the joint work of two competent writers, Drs. CLIVE RIVIERE and EGBERT MORLAND.[1] It is probable that a large proportion of the profession in Great Britain has not yet realized the amount of practical success that has been already achieved by the use of one or other form of tuberculin. There are doubtless many who still harbour the old fears as to the possible dangers of its use in consumption. To put the whole subject of the principles and practice of tuberculin treatment upon a firm basis has been the main object of the writers, and it may be said that they have produced a handbook, at once clearly, simply, and convincingly written, which may be read with advantage by the expert as well as by the novice. The uncertainties commonly experienced by the practitioner who may be anxious to use tuberculin are manifold. The selection of the right preparation, where so many are available, and the appropriate dosage for the individual case are initial difficulties, and when these points are decided there remain further doubts as to the correct interpretation of the results produced by the first doses. At the outset it has to be assumed that tuberculin exercises no influence upon the animal body which is free from tubercle. Hence a failure to react is held to indicate the absence of tubercle in any form; but this test is not absolute, being subject to many variations. The converse, however, is held to be conclusive—namely, that tubercle in some form or other must be present if a reaction takes place. But the susceptibility to reaction may be profoundly modified by repeated injections, according to the size of the dose used and the degree of tuberculosis present. Sensitiveness may be gradually altered by repeated injections until tolerance is established, and these points of sensitiveness and toleration are extremely important to understand in order to get a clear conception of the varying phenomena of reaction. The writers have stated the case with admirable brevity and without undue assertion, and their explanation opens the way to the better understanding of the principles underlying the two principal methods of administration—by small and large doses respectively. Of the various forms of tuberculin now in use there does not appear to be much qualitative difference. The action of them all is approximately the same, but the relative strength of each has to be carefully estimated before use. The adoption of the cubic millimetre as the standard unit of value makes it easy to calculate the necessary degrees of dilution. After discussing these points and many others relating to the general lines of tuberculin treatment, the writers pass on to consider the method, originally advocated by Koch and his immediate followers, whereby large doses were pushed to the extent of tolerance. The balance of experience would tend to show that this is the system which has been found to give the best results in tuberculosis of the lungs, whereas the use of small doses, insufficient to produce tolerance, as advocated by Sir Almroth Wright, would appear to have achieved striking success in cases of localized tubercle in bones, glands, skin, etc. In such cases the patient is far less likely to infect his own organism than in cases of pulmonary tuberculosis, and the liability to this autoinoculation can never be left out of sight in every stage of consumption. In common with almost all other writers, Drs. Riviere and Morland deprecate the use of tuberculin where mixed infections are present, which is tantamount to limiting its use to tuberculous infiltration without disintegration, but they can nevertheless point to well marked instances of improvement where other organisms than the bacillus are playing a prominent part. Of late years ambulant treatment has been increasingly practised, and in cases where the patient has loyally co-operated with the doctor much good has ensued. The writers refrain from publishing any statistics, being well aware that classification as "cured" does not carry much weight to the well-balanced judgement, but they note the increasing popularity of the tuberculin treatment as evidence of the estimation in which it is held by patients and doctors alike. In the latter part of the book the teachings of Sir Almroth Wright are fully discussed. This section is full of practical information, and many illustrative cases are quoted. A large number of charts and a full bibliography are appended, and the work as a whole gives in simple and handy form an account which should enable the practitioner to use tuberculin with precision and confidence. He will not be led to take too rosy a view of the prospects of success, but he cannot fail to be impressed with the tone of common sense and sound judgement which pervades the whole work.

Another book, *Tuberculin in the Diagnosis and Treatment of Tuberculosis*, dealing with the same subject, presents the case of tuberculin from the standpoint of longer practical experience.[2] Dr. CAMAC WILKINSON'S persistent advocacy of Koch's teaching is well known. For many years in Sydney and for a few years in London he has practised inoculation in cases of early tuberculosis, and the results that he has obtained have satisfied him as to the curative powers of the method in all uncomplicated cases. Like many other enthusiasts for a particular cause, he is impatient of criticism, especially by those who have not made personal study of his work; and in his prefatory apologia he takes occasion to fall foul of certain leading members of the profession who, on the strength of the evidence before them, are not as yet prepared to accept without reservation the omnipotence claimed for tuberculin. Incidentally, also, the sanatorium system comes in for a good deal of somewhat contemptuous criticism. Throughout the book, which is a large one, the writer seems unable to refrain from reflections upon the failures of others. This introduction of the personal element is happily rare in medical literature in this country, and is greatly to be deprecated. If it be true that 90 per cent. of cases in the first stage of consumption have been cured by tuberculin, the cases themselves will establish the value of the treatment. But the proof must be forthcoming in such a form as will stand critical examination. Apart from this blemish, Dr. Wilkinson's book will be found to contain a vast amount of interesting information on the whole subject—historical, critical, and practical; and the latter part of the volume is devoted almost entirely to records of cases in illustration of the many points raised in the text. As a pioneer in the ambulant system of treatment he enlarges upon its convenience to the patient and upon its efficacy without the aid of supervision, and he is able to point to many cases of remarkable success. The difficulty of keeping outpatients in sight is, however, a constant hindrance to correct judgement as to any form of treatment, as so many persons cease to attend if immediate results are not obvious, and it is therefore never known whether they have benefited in the long run or not. The success obtained in cases that are kept in view must therefore be taken as a fair criterion of the general average. It is mainly on the lines originally laid down by Koch that Dr. Wilkinson's practice has developed. Large doses, therefore, are used,

[1] *Tuberculin Treatment.* By Clive Riviere, M.D.Lond., F.R.C.P., Physician to the City of London Hospital for Diseases of the Chest, Victoria Park, and Egbert Morland, M.B. and B.Sc.Lond., M.D.Berne, Visiting Physician to the English Sanatorium, Arosa, Switzerland. Oxford Medical Publications. London: Henry Frowde, Hodder and Stoughton. 1912. (Pp. 277. 5s. net.)

[2] *Tuberculin in the Diagnosis and Treatment of Tuberculosis.* (Weber-Parkes Essay, 1909.) With additions by W. Camac Wilkinson, M.D.Lond., F.R.C.P. London: James Nisbet and Co., Limited. 1912. (Sup. roy. 8vo, pp. 492. 21s. net.)

the observations of Sir Almroth Wright and the indications of the opsonic index being regarded only with academic interest. The curative powers of tuberculin may exert influence far beyond the individual. The young mother with incipient disease may be prevented from conveying the taint to her children. The infectious case may be rendered non-infectious, and if tuberculin be universally used the end of tuberculosis should be in sight. But it is maintained that no one can be pronounced cured until he has ceased to react to inoculation. It is equally clearly shown by Dr. Wilkinson's records that susceptibility to reaction may return after longer or shorter periods of immunity. It follows, therefore, that failure to react must not be held to be conclusive of cure, but only of tolerance, naturally or artificially induced. Recent theories of autoinoculation should at least make us alive to the ever-present danger of self-infection from latent foci of tubercle stored up in glands and other tissues, and Dr. Wilkinson maintains that such foci may be rendered inert by tuberculin. If this be so, a very great danger can be averted from the individual and a great anxiety relieved where the risk is realized. Dr. Wilkinson regards the influence of heredity as of minor importance. If family history may be taken as proving the existence of mild forms of tubercle in progenitors, it is possible that some degree of immunity may be transmitted rather than a tendency to susceptibility. A very comforting reflection. Of the book as a whole it may be said to present the case for tuberculin as seen through the spectacles of a thoroughly convinced advocate. The quoted cases afford strong evidence of its beneficial effect, and the rapidity of its action as compared with the slower methods of enforced hygiene cannot be denied. The question of outdoor treatment in tuberculin dispensaries is discussed in a final chapter, which should be read carefully by all who may be interested in the spread of the movement. It must not be overlooked that expert knowledge of a special kind is required in order to select the suitable dosage for each case, and hence, if extension of the system should be decided upon, the services of the chest hospitals should be enlisted in the cause. While recognizing the educational value of the sanatorium, it must not be forgotten that a still more powerful influence may be exercised in the home by the constant supervision of the general practitioner, seconded by a skilled district nurse. Dr. Wilkinson's work in demonstrating the practical value of tuberculin has been fully recognized, and the present record of it would hardly seem to require constant reference to the personal element. Good wine needs no bush, and so good a record should be allowed to speak for itself.

Prominent among the advocates of tuberculin on the Continent stands the name of Professor SAHLI of Berne. His work on the subject has already been commented on in our pages (BRITISH MEDICAL JOURNAL, July, 1907), and a good English translation[3] of the third edition of it is now before us. He has employed Béraneck's tuberculin for the most part, but the information on the whole subject of treatment by inoculation will apply equally well to other preparations if the differences in dosage be strictly observed. The translation has been well done, under the supervision of Dr. Egbert Morland, by Mr. W. B. Christopherson, and will be found to be a valuable guide to the intelligent use of the method. The employment of marginal headings in heavy type renders the work easy of reference, and it may be commended, in company with the work of Drs. Riviere and Morland described above, as a welcome addition to the literature of tuberculin treatment.

DISEASES OF THE STOMACH.

IT is eight years (see BRITISH MEDICAL JOURNAL, 1904, p. 23) since we reviewed the third edition of Dr. MAX EINHORN'S book on *Diseases of the Stomach*.[4] The fifth edition is now before us. It is a book written on a strictly systematic plan, commencing with the anatomy and physiology of the stomach, and going on to methods of examination, diet, and local treatment, which occupy some two-fifths of the book. The organic, functional, and nervous affections of the stomach are then described, and in a final chapter the author deals with the condition of the stomach in diseases of other organs. The book is thoroughly German in its foundations, and, like most American textbooks on this subject, a great deal is made of apparatus for mechanical and electrical treatment. The author is the inventor of a bucket by which he believes he can reach the duodenum, from whence he claims to be able to draw fluid, or conversely to feed the patient without the food entering the stomach, but it does not seem to be a very comfortable method for the patient, as it takes about an hour for the bucket to reach the duodenum, during which time the patient has to sit with the tube in his oesophagus. The author also uses the "radiodiaphane" and the "gastrograph"—instruments which seem to have little practical value. If we had administered bismuth in "a pint of rich cream" we should be more disposed to attribute the "acute diarrhoea" which followed to the cream than (as Dr. Einhorn does) to the bismuth. In some of his figures there is no lettering on the photograph to correspond to the description printed below, so that they are less intelligible than they might be. The frequency with which fragments of mucous membrane are found by him in washing out the stomach suggests that the extraordinary instruments which he is in the habit of introducing into the stomachs of his patients are capable of causing laceration. We do not think that experience shows that albuminous food is invariably the best treatment for superacidity, as some patients do better on a lacto-farinaceous diet, while we note that the author says nothing about the use in this condition of fat or oil or abstinence from sodium chloride. A good deal has been written in recent times about the use of hydrochloric acid in the treatment of gastritis, and it has been attributed sometimes, with a good deal of exaggeration, to English practitioners, but it is certainly no novelty, and it is surprising to see its introduction attributed to Leube. The hypodermic injection of gelatine is recommended for haematemesis, in spite of the proved dangers of the use of unsterilized preparations and of the futility of that which has been sterilized by heat. Although the author is generous in his acknowledgement of the work of German and American writers, he omits the names of several Americans whose recent work is, perhaps, better known than that of any of those he recognizes. There is a perfect glut of American textbooks on the stomach; like the present work, they are all of a certain merit, but singularly lacking in the presence of qualities which can give them more than temporary and local value.

Further evidence of the attention which, to judge by the number of books on gastric diseases that reach us from the other side of the Atlantic, diseases of the digestive organs call for in the United States, is afforded by another book on *Diseases of the Stomach*,[5] by Professor CHARLES D. AARON of Detroit; it is, he says, restricted to the practical and therapeutic sides of his subject, yet it extends to more than 500 pages! It is dedicated to Profesor Adolf Schmidt of Halle, and the book shows throughout a fairly close acquaintance with German teaching; in fact, its fault is that it is too much a repetition of the teachings of others, and contains too little evidence of Professor Aaron's personal experience. In this way it is very easy to pad out a book to an inordinate size and yet leave it of comparatively small value. What we want is not the constant repetition of the work of eminent authorities in Germany or elsewhere, but the results of careful clinical work by those who have the time and opportunity to make observations at the bedside. The book is abundantly illustrated, but most of the figures are superfluous, and some of them are open to even further objection, as we cannot see what is gained by the publication of photographs of very much undressed young ladies wearing various apparatus devised by the author; their utility would be quite as plain if the marks were put upon outlined figures. A circumstance that shakes our belief in the book being based upon personal experience is the existence of certain

[3] *Sahli's Tuberculin Treatment.* By Dr. Hermann Sahli, Professor of Medicine in the University of Berne. Translated from the third edition by Wilfred B. Christopherson, with an Introductory Note by Dr. Egbert Morland, M.D.Berne. London: John Bale, Sons, and Danielsson, Limited. 1912. (Sup. roy. 8vo, pp. 198. 7s. 6d. net.)

[4] *Diseases of the Stomach.* A Textbook for Practitioners and Students. By Max Einhorn, M.D. Fifth revised edition. London: Baillière, Tindall, and Cox. 1912. (Med. 8vo, pp. 529, figs. 112. 14s. net.)

[5] *Diseases of the Stomach, with Special Reference to Treatment.* By Charles D. Aaron, Sc.D., M.D. London: J and A Churchill. 1912. (Med. 8vo, pp. 555; illustrations 42, plates 21. 21s. net.)

inconsistencies. For instance, in one part we are told, and we think rightly, that salted and smoked meats are bad for the diseased stomach; in another place we are told to give ham under these conditions. Even on the same page (p. 103) we are told that "fried foods" are prohibited and yet that "fried veal sausages" are permitted. In one place the author speaks as if white meats were distinctly more digestible than dark meats, but the table of digestibility given in another part does not support this. So far as we know people are not in the habit of eating raw meat, which he forbids, but lightly cooked meat is a most valuable article of diet in the treatment of diseased stomach, and even raw meat itself, if disguised or put in sandwiches, may often be used with advantage. We are quite at a loss to understand what the author means by speaking of the "large percentage of carbohydrates in potatoes"; as compared with that of most carbohydrate foods it is low. Why should "sweets of all kinds" be prohibited in the treatment of all gastric diseases? Is it intended to prohibit the use of light puddings? In the same table "green lettuce" is amongst the things allowed, but as in England lettuce is usually eaten as a salad, it seems inconsistent with the prohibition of "salads" on the same page. This may be entirely due to the fact that American ways of eating are different from those in England; but, if so, the book is of diminished value to an English reader, as by these peculiarities he is apt to be misled or puzzled. The diet is certainly peculiar. One would not expect to be ordered to eat "cold roast beef" for breakfast, or "squab" at any time, while carp is seldom if ever eaten here; moreover, it is a little puzzling to be told that "game must not be pickled." The value of the stomach tube in the treatment of gastric tetany and in haemorrhage is at least open to doubt, and what does the author mean by including amongst the gastric conditions in which it is of value "diabetes mellitus"? He has learnt from his German teachers that the stomach tube is not so useful as was formerly supposed, and we believe he will learn in time that the value of many other things which he describes and figures is at the present time over-estimated. The chapter on the use of hydrochloric acid is worth reading although it is chiefly derived from other sources. We are glad to see that he believes surgical interference can only do harm in the various common forms of stomach neuroses, but the indications he gives for operation in pyloric obstruction are insufficient, and, in spite of what he seemed to admit, he does not (p. 215) appear to be certain that gastro-enterostomy is useless in gastroptosis. In the diagnosis of cancer he omits *x* rays from the list of means at our disposal for recognizing its existence, and in connexion with the surgery of the abdomen his statement that nephropexy is not a successful operation stands in need of revision. In the use of oil for checking hyperacidity he speaks casually of "a few tablespoonsful" for a dose; and while he suggests "eumydrin" as a substitute for atropine, he seems to have had no personal experience of its use. In the treatment of gastric ulcer he describes the method of duodenal feeding invented by Einhorn, and recommends that while the bucket is on its journey the patient should "read some light literature in order to divert his attention." We are told that when the bucket has reached the duodenum we can be certain about it, because bile or watery liquid with an alkaline reaction can be withdrawn. The author says that "Einhorn reports several cases which have been successfully fed by means of the duodenal pump." The book is well written, but we do not know that it can be said to fill any particular void in the modern literature of this subject.

JACKSON OF MANCHURIA.

THE *Life of Dr. Arthur Jackson of Manchuria*[6] reveals one of life's tragedies. Born at Oxton in Cheshire in 1884, and educated first at Parkgate under the brother of Grenfell of Labrador and afterwards at the Merchant Taylors' School at Crosby, Jackson proceeded with a scholarship to Cambridge. At the university he had a brilliant career, entering also to the full into all the social and religious activities of his own college, Peterhouse. After completing his medical education in Liverpool he decided to devote his life to the work of a medical missionary in China. Reaching Moukden in 1910, he was attached to the Manchurian mission connected with the United Free Church of Scotland. He at once threw himself with characteristic energy into the work, and soon endeared himself to every one with whom he came into contact, Chinese and Europeans alike.

On the outbreak of pneumonic plague at Moukden he was unceasing in his attentions to the stricken. He himself contracted the disease, and, after only three weeks' residence in Moukden, died on January 25th, 1911, at the early age of 26 years. Such is the bare outline of his life. Fully to appreciate his character, zeal, and devotion, the book itself must be read, and no one can read the record of such a life and be uninfluenced by it.

The book is written by the Rev. ALFRED J. COSTAIN. It may appear ungracious to criticize what has obviously been a labour of love, but it must be admitted that as a biography and as a literary production it does not possess much merit. We fully appreciate the difficulty of the task. So short a life, though much was accomplished in it, furnishes little upon which to write a volume; there is, consequently, much unnecessary "padding." The language is, moreover, in many places slovenly. A shorter and much more effective biography might have been written.

Nevertheless, the intrinsic value of the book lies in the life of which it is an account. The name of Arthur Frame Jackson must be added to the already long list of medical heroes. The age of heroism and chivalry is not yet past.

THE INSURANCE SCHEME.

A PAMPHLET entitled *The Doctors and the Insurance Act: a Statement of the Medical Man's Case against the Act*,[7] has been written by Mr. J. DYER BRAY, and is published in Manchester, with an introduction by Mr. G. A. WRIGHT. The author, who is not a medical man, claims to have written without party or political bias, and states that he "has belonged by family traditions, by lifelong association, as well as by personal conviction, to the party of which the author of the Insurance Act is so prominent a member." He adds that he has "often been surprised to find in unsuspected quarters how widely and strongly the manner and matter of the Insurance Bill is resented within that party." The pamphlet is divided into six chapters; the first is entitled "The Medical Opposition to the Act not Selfish." Mr. Bray contends that it is universally recognized that the members of a calling have both a right and a duty to combine in protection of their interests without laying themselves open to the charge of selfishness, and says that the purpose of his pamphlet is to show that the opposition to the Insurance Act on the part of the medical profession is based upon grounds of reasonable self-interest, and is not unmindful of other interests concerned. He shows that the profession has not at any time been opposed to the principle of what is popularly known as national insurance against sickness, by which he understands a national arrangement for providing means of dealing with sickness for persons of small income. He contends that the fact that the opposition to the medical provisions of the Act is so general in the profession is more than presumption that it is based upon substantial, not merely selfish, grounds, and he points to the circumstance that many of those who have been prominently opposed to the Act would be personally unaffected by it. Finally, he contends that if medical men believed, as they undoubtedly do, that injustice is being done to their calling by the Act, opposition to it, so far from being selfish, is their bounden duty. In the second chapter he relates the precipitate course of the Act through the House of Commons; in the two succeeding chapters he explains the six cardinal principles, and criticizes the medical provisions of the Act in the light of these principles. The book ends with a chapter on the effect of the scheme on voluntary hospitals, and a short note of the position at the time the pamphlet was printed, which is not quite the position to-day, owing to the rapidity with which events

[6] *The Life of Dr. Arthur Jackson of Manchuria.* By the Rev. Alfred J. Costain, M.A., with a preface by the Rev. William Watson, M.A. London and New York: Hodder and Stoughton. 1911. (Demy 8vo, pp. 187, illustrations 4. 2s. net.)

[7] *The Doctors and the Insurance Act: A Statement of the Medical Man's Case against the Act.* By J. Dyer Bray. Manchester: Thomas Griffiths and Co., 63, Bridge Street. 1912. (Cr. 8vo, pp. 90. Single copies 3d. net, post free 4d.; 50 copies 10s. 6d.; 100 copies £1.)

have moved, as shown by the Chancellor of the Exchequer's speech in the House of Commons last week. Mr. Bray's criticism contains little that is new, but he has marshalled his material very well, and it is interesting to observe the impression the attitude of the medical profession has made upon a layman. The pamphlet seems to be free from any serious fallacy, and, although it is professedly a statement and defence of the medical case, it is written with restraint. The author says that medical men may find it useful to give copies to their patients and lay friends, and in support of that suggestion it may fairly be said that Mr. Bray writes lucidly and has arranged his matter in good order, so that it is easy to follow his explanations and arguments.

Dr. H. PRIEST SHANKS has issued a very small pamphlet, entitled, *How the Insurance Act could be Worked by the Doctors*.[8] His answer is that the Act could have been worked "had the capitation fee been fixed at 10s. a head for picked lives, and the bad ones been catered for by the Government, as they have a right to expect to be, every bit as much as the aged poor and the insane, who are provided for by taxes and rates levied for that purpose." He arrives at this conclusion by a calculation made in answer to two questions—How much work can a doctor do? and How large an income does the doctor require? He bases his calculation on the estimate that the picked lives of the friendly societies require on an average 6.387 visits a year, and that on this basis one doctor, with a thousand such picked lives on his books, would have as much work as he properly could do. To defray the expenses of education, the expenses of starting in practice, the expenses of living, and to make provision for old age, he calculates that a minimum income of £500 a year is necessary, and this, with a thousand patients, would require a payment of 10s. a head yearly. His calculations refer only to town practice.

NOTES ON BOOKS.

THERE has been published as the first supplement to the *Journal of the London School of Tropical Medicine* a very interesting report on filariasis and elephantiasis in Fiji,[9] by Dr. BAHR. Dr. Bahr has recently been engaged in research work for the school, and is now on his way to Ceylon to study sprue. The report contains much useful work on the subject of filariasis. The absence of periodicity in the Fijian filaria is commented upon, and an ingenious theory is put forward to explain this peculiarity. The chief spreader of the *Filaria bancrofti* in Fiji would seem to be a day-feeding mosquito, the *Stegomyia pseudoscutellaris*, and not the usual host, the *Culex fatigans*. Adult specimens of the Fijian filaria were submitted to Dr. Leiper for examination, and he has concluded that they are *Filaria bancrofti*, and not a new species, as was at one time suggested. Dr. Bahr also worked at the pathology of the disease, and has brought forward some valuable observations supporting the filarial etiology of tropical elephantiasis. The report is very handsomely illustrated and got up, and is deserving of careful study.

A second edition has now appeared of the volume entitled *Principles and Practice of Physical Diagnosis*,[10] by Dr. J. C. DA COSTA, jun. The ground that it covers is more limited than that of many other volumes of somewhat similar title, since the thoracic and abdominal organs are alone considered, and laboratory and other aids to diagnosis, though sometimes mentioned, are not described in detail. The book is admirably illustrated, and gives an exhaustive account of everything coming within its precise scope.

The new edition of Dr. MURRELL'S *What to Do in Cases of Poisoning*[11] is the eleventh to appear since the first publication in 1881. It preserves the external appearance and size of its more recent predecessors, but has been brought thoroughly up to date in all respects. Veronal is now included among the modern hypnotics that receive attention, and some additions have been made to the statements regarding the contents of various popular proprietary medicines. The initial paragraphs concerning cases of poisoning as a whole, the work which they may necessitate, and the considerations, including those of fees to be charged, which they may involve, are as pithy and sound as ever. These opening statements undoubtedly add very materially to the value of this emergency-bag reference book.

A very large number of authorities, mainly resident in the United States, have contributed to *Modern Treatment*,[12] but their work has been controlled by Dr. HOBART AMORY HARE, Professor of Therapeutics and Materia Medica at Jefferson Medical College, assisted by Dr. H. R. M. LANDIS, Director of the Clinical Department of the Phipps Institution. The outstanding feature of the work as a whole is perhaps the amount of space devoted to a consideration of treatments which, though of a medical character in the main, do not include the administration of drugs. Hydrology, general hygienic measures, and the use of vaccines are cases in point. About half the first volume is devoted to treatments of this order, while some 120 pages are devoted to a consideration of points such as the bearing of modern pharmacology on practical therapeutics, the art of prescription writing, and the value of combination of drugs. The rest of this volume and the whole of the second deal in detail with the treatment of infectious disorders, and that of diseases of the various systems. It is this division of the matter into parts dealing with each of the "systems" in turn which accounts presumably for the inclusion of sections on diseases of the eyes and ears.

Mr. R. WHYMPER'S *Cocoa and Chocolate*[13] is a very complete monograph on the subject. It is divided into three parts, the first of which deals with the history, botany, and agriculture of cacao—the appearance of the growing plants and the fruits and the process of picking, sorting, drying, etc., are illustrated by photographs; the second is devoted to the manufacture of chocolates and cocoa powders, and in the third the chemistry of cacao and its products is described, and the most approved methods of analysis are given in detail. Some of the figures relating to the quantities of cacao imported into various countries give an idea of the scale on which these products are consumed; it is estimated that in 1909, 391 million pounds of cacao was put on the market, America being the largest consumer; England appears to stand third or fourth in the list of consuming countries. The official figures show the consumption of raw and manufactured cacao in the United Kingdom in 1908 to have been 56½ million pounds, which represent an increase of about 44 per cent. over the quantity consumed in 1899; during the same decade the consumption of coffee in the United Kingdom was practically stationary, amounting to only about 260,000 pounds annually. Reasons for the increased use of cocoa and chocolate are supplied by the many analyses given, which show the high food value of the products made from the cacao bean. The author evidently writes with an intimate personal acquaintance with every part of his subject, and the book must prove of great use to those concerned with either the manufacture or analysis of these products, while it contains much matter of value to medical practitioners and others whose interest in them is mainly from the standpoint of dietetics.

POCKET ATLAS OF THE FUNDUS OCULI.

In the review of the *Pocket Atlas and Textbook of the Fundus Oculi*, published in the JOURNAL of March 2nd, p. 494, it was not made sufficiently clear that the binding, pocket case, black and red pencil, and note and sketch book, were designed by Mr. Arthur Head, who, as was stated, was the artist responsible for the drawings from which the colour prints were prepared.

[8] *How the Insurance Act could be Worked by the Doctors.* By H. Priest Shanks, L.S.A. 1912. The Devon Press (Bishop Brothers), Norwood Road, Southall. (Demy 32mo, pp. 10. Price 2d.)

[9] Supplement No. 1 of the *Journal of the London School of Tropical Medicine*—Filariasis and Elephantiasis in Fiji. Being a report to the London School of Tropical Medicine, by P. H. Bahr, M.A., M.B. With many coloured and monochrome plates, numerous charts, and a map. London: Witherby and Co. 1912. (Imp. 8vo, pp. 200. 6s. net.)

[10] *Principles and Practice of Physical Diagnosis.* By John Da Costa, jun., M.D., Assistant Professor of Clinical Medicine, Jefferson Medical College. Second edition. Philadelphia and London: W. B. Saunders Company. 1912. (Medium 8vo, pp. 557, figs. 225. Price 15s. net.)

[11] *What to Do in Cases of Poisoning.* By William Murrell, M.D., F.R.C.P. Eleventh edition. London: H. K. Lewis. 1912. (Foolscap 16mo, pp. 285. Price 3s. net.)

[12] *Modern Treatment.* Edited by Hobart Amory Hare, M.D., assisted by H. R. M. Landis, M.D. In two volumes. London: Henry Kimpton. Glasgow: Alexander Stenhouse. 1911. (Roy. 8vo, vol. i. pp. 900, figs. 105, plates 31; vol. ii. pp. 900, figs. 88, plates 23. £3 net two vols.)

[13] *Cocoa and Chocolate: their Chemistry and Manufacture.* By R. Whymper. London: J. and A. Churchill. 1912. (Sup. roy. 8vo, pp. 338, 13 plates and 19 illustrations. 15s. net.)

THE Chelsea Hospital for Women has received from the Misses Wheeler three cheques of £100 each towards the rebuilding fund.

THE SEROLOGICAL DIAGNOSIS OF CANCER.

II.—THE MEIOSTAGMIN REACTION.

REGARDING this reaction, the rationale of which is difficult to explain, there has been a remarkable agreement amongst those who have employed it as to its worth as a diagnostic method. The technique is very simple, though the description be somewhat involved.

Starting from the original observation of Traube that the addition of toxin to antitoxin produced a lowering of the surface tension, Ascoli and his pupils established the fact that in certain diseases, such as typhoid fever, syphilis, tuberculosis, and other infectious diseases as well as in echinococcosis, a mixture of the serum with suitable dilutions of the appropriate antigen produced the phenomenon of diminution of the surface tension of these fluids. To this reaction Ascoli gave the name of "meiostagmin reaction" (from *μείων* smaller, and *στάγμα* a drop). In collaboration with Izar,[1] he endeavoured to prepare an antigen from cancerous tumours which might give the characteristic reaction with the serum from cancer patients. The experiments were in the first case performed with the serum of sarcomatous rats and the antigen was prepared from rat sarcoma, and afterwards the results were applied to the case of human cancer. They claimed that an antigen prepared from rat sarcoma acted quite well for human serum, and vice versa, and that an antigen from carcinoma was similarly successful with serum from a case of sarcoma. Whatever be the nature of the lipoid antigen with which Ascoli deals, it would seem from these observations to be specific for malignant disease, no matter what the nature of the cancer may be or the species of animal bearing it, though, as a matter of fact, Micheli and Catoretti find that an antigen prepared similarly from normal pancreatic tissue gives as good results.

The surface tension of the serums is measured by means of the stalagmometer of Traube, which is a bent capillary tube with a bulb graduated so that when water is aspirated into it up to a certain mark and allowed to flow out again in drops the number of drops at 15° C. will be about 56. Further, the last retained part of a drop can be estimated exactly. In performing the test the serum is diluted 1 in 20 with normal saline solution. Two test tubes are used; in the first is placed 9 c.cm. of this diluted serum and 1 c.cm. of distilled water; into the second, 9 c.cm. of the diluted serum, to which is added 1 c.cm. of a certain dilution of the antigen. The second tube, therefore, differs from the first only in that it contains a very minute quantity of cancer extract. The tubes are now placed in a water bath at 50° C. for one hour, and thereafter cooled to the room temperature. The fluid in the first tube is aspirated up to the mark on the stalagmometer and the number of drops that issue counted. It may, for example, be found to be 56. If then the proceeding be repeated with the contents of the second tube the number of drops will be increased, perhaps, to 60, if the serum is from a case of cancer, whilst in the case of serum from some other disease it should not be more than 56. The counting of the drops is rather tedious and liable to the errors of anticipation or forgetfulness, and an electric automatic stalagmometer has been devised for the purpose by Stabilini and de Agostini.

The antigen originally used by Ascoli and Izar and that with which most of the investigators have worked is prepared as follows:

To the finely-pulped sarcoma of the rat is added 95 per cent. alcohol, and the mixture is placed in the incubator for twenty-four hours. The fluid is decanted, and fresh alcohol is added. The process is repeated next day. After three days of this treatment the insoluble deposit is dried in a water bath at 50° C. and treated with ether, which is changed three times in twenty-four hours. The remaining deposit is again treated with alcohol until it is colourless. The alcohols and ethers thus obtained are distilled, ether at 37° C. and alcohol at 50° C., and the residues left are mixed and taken up by ether. This ethereal antigen is now titrated by making up various dilutions (1 to 50, 1 to 100, and so on) and using as standard the weakest dilution, which, with 9 c.cm. of diluted (1 in 20) normal serum, will give at most an increase of 1 drop above the number given by the control (that is, 9 c.cm. serum + 1 c.cm. distilled water). The concentration of antigen is important, because it has been found that if it be too strong it will diminish the surface tension of normal serum.

It was soon found that the antigen so prepared was very unstable. The technique is meticulous, and perhaps a minority of tumours will provide a useful antigen. Several observers who carefully followed the instructions of Ascoli failed to obtain results with their antigens until they had worked in his laboratory under his supervision.

Sometimes an antigen which had formerly given good results was found to have lost its effect with the lapse of time. De Agostini demonstrated that shaking for a short time brought about deterioration. An endeavour was therefore made to produce a more stable antigen, and one, too, less difficult of preparation. Ascoli and Izar give the following particulars:-

The malignant tissue, which may be of human or animal origin, is finely minced and pulped in a mortar, and, having been spread in a thin layer on a glass plate, is dried *in vacuo* or at 37° C. in the incubator. The desiccated material is pulverized and 5 grams are added to 25 c.cm. of pure methyl alcohol. The mixture is placed in a water bath at 50° C. for twenty-four hours in a closed vessel. It is filtered while hot and again when cold through "C. S. and S." No. 590 filter paper. The extract is titred as in the first method, and will run about 1 in 100 to 1 in 200. In the case of the serums to be tested three tubes are set up: (1) 9 c.cm. of serum which has been diluted 1 in 20, + 1 c.cm. of distilled water (the dropping number is reckoned forthwith); (2) the same counted after being one hour at 50°; (3) 9 c.cm. of the diluted serum + 1 c.cm. of the standard antigen emulsion (counted after being one hour at 50°). It has been found that the addition of small quantities of acetic acid, 1 in 1,000, or valerianic acid, 1 in 10,000, to the antigen emulsion considerably exaggerates the result.

St. d'Este[3] found a diminution of surface tension, indicated by an increase of 1.5 to 3 drops, in all cases of carcinoma and sarcoma, whether the antigen were prepared from sarcoma or carcinoma, whilst the serums of normal individuals or of those with benign tumours showed no such increase. Stabilini,[4] with an antigen prepared from mammary carcinoma, obtained an increased drop number of from 2.1 to 7 in all of the 32 cancer serums tested, whilst in normal serums the highest increase was 1.2, and in the serums from benign tumour cases the maximum was 1.5. He would therefore consider an increase of 2 drops as decisively positive, and an increase of 1.5 to 2 drops as suspicious. De Agostini,[5] whose paper is well worth consulting for its practical advice on the manipulation of the method, found in the examination of the serum of 27 tumours that in 23 there was an increased drop number of 2 to 5.5, in one 1.7, in two 1.5, and in one only 0.3. In 27 controls only 3 gave an increase over 1—namely, 1.2, 1.3, 1.5. He attributed the faulty results to deterioration of the antigen through shaking. Micheli and Catoretti[6] consider the reaction to be strongly specific and of good diagnostic value in malignant disease. Of 31 cancer serums examined, 27 gave a positive result, and 4 were negative; 32 cases of diseases other than cancer reacted negatively.

According to these observers it is not a cachexia reaction. They found that antigen prepared from the pancreas gave quite good results in comparison with several which they employed prepared from carcinoma and sarcoma.

Weinberg,[7] who, before going to Ascoli's laboratory, failed to get positive results, is now, after considerable experience with the modified antigen, convinced of the great value of the meiostagmin reaction in cancer.

Tedesco,[8] in 29 cancers, obtained 28 positive results. Of 33 controls, 1 case of diabetic coma and another of tuberculous peritonitis reacted positively, 2 cases of tuberculous meningitis gave doubtful reactions, and the rest were negative.

Verson[9] found that if the serums were preserved aseptically they gave practical results for a long time. Of 18 cancers which he examined, 10 were positive and 8 were negative, amongst the latter being 3 very early epitheliomas. In 6 cases in which a clinical suspicion of malignancy existed the reaction was negative, and there operation showed no trace of neoplasm; 8 controls were quite negative.

Kraus, v. Graff, and Ranzi,[10] who have critically investigated most of the serological reactions put forward from time to time, consider that it is superior to all other methods. In 26 test cases the indications of the reaction were only twice at fault. V. Monakow[11] also considers it the most reliable of all the serum reactions. Stammler,[12] with an extensive experience of the method, found that only

6 out of 15 cancerous tumours gave good antigen material. In 73 per cent. of all cancer serums he got a positive reaction, but he says that an increased drop number occurred in fully 20 per cent. of other diseases such as febrile processes, gangrene, and prostatic hypertrophy. He did not obtain it in any cachectic cases. It disappeared after operation and was found in early cases. Leidi[13] in 20 cancers had 14 positive results; in 24 controls 22 were negative, and 2 cases of severe jaundice were positive. Ascoli and Izar claim that the meiostagmin reaction gives positive results in 93 per cent. of all malignant tumours. Out of 103 cases of other diseases the test was only positive in 1 case of nephrolithiasis; in 4 cases of leukaemia it was negative.

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THE MEDICAL PROFESSION IN THE ISLE OF WIGHT.

AT a meeting of the Isle of Wight County Council on April 29th a letter from the county medical officer of health and school medical officer was laid before it and the resignation it contained duly accepted. This event marks what may be regarded as the third volume of a story which started upwards of a year ago. At that date the Isle of Wight, as unhappily represented by a small majority of its county council, allowed itself to come to loggerheads with the medical profession, as primarily represented by the Isle of Wight Division of the British Medical Association. It did this first by persisting in committing a grave injustice towards a medical man who had served the island most faithfully and well; and secondly, by deciding to offer for the joint post in question a salary which was regarded as quite inadequate, not only by the local medical profession, but by the profession at large. The first result was that the island had to content itself with the services of an officer who had never previously held a post of in any wise corresponding importance, the second was that the local medical profession set its face against him, and the third is that the county council already has to look for another officer. In the circumstances it is well, perhaps, that Dr. Barford should have left no doubt as to why he has resigned. The following is a copy of his letter:

Madrid House,
Esplanade, Ryde.

To the Chairman and Members of the Isle of Wight County Council.

Gentlemen,

I have for some time past been giving careful consideration to my appointments as county medical officer of health and school medical officer, and I have finally decided that I should prefer to terminate my engagement with you in three months' time, which I believe to be my agreement with you.

I have been offered a much smaller appointment, but that is not the reason of my resignation. In order that a county medical officer of health may carry on his work with success he must have the hearty co-operation of the district medical officers of health, and the school medical officer must have the same support from the local medical practitioners, and I find the information given to me by the British Medical Association on these and other points before I accepted office with you has proved to be correct. I have been in your service now for nine months, and in neither of these capacities have I this necessary support. I am therefore convinced I am acting in the interest of the Public Health Administration of the island and in the welfare of your school children in tendering my resignation.

I shall of course perform my duties to the best of my ability during the next three months.

I am, Gentlemen,
Your obedient servant,
(Signed) A. H. M. BARFORD.

We have no doubt that the third volume will eventually end happily, but for how long a time meanwhile the public health interests of the Isle of Wight will still suffer from the continuance of the conditions indicated in this letter cannot be foretold. What alone is certain is that unless the small majority on the council whose views are opposed to those of the medical profession now gives way, the next occupant of the post of county medical officer of health and school medical officer for the Isle of Wight will find himself in the same position as his predecessor in more than one way. As this would be most unfortunate both for himself and for the general public, a Warning Notice on the subject appears in our advertisement columns.

BROMOCARPINE.

AN inquiry was received recently for information as to the constitution of a preparation called Bromocarpine, which is said to be fairly extensively used in some districts as a remedy for nervous disorders, more especially epilepsy. A circular accompanying the preparation has the title "The Treatment of Nervous Affections by Bromocarpine"; and it is stated that "the attacks are diminished in number to the extent of 80 per cent.," and that a "complete disappearance is extremely common. Petit Mal (vertigo) is abolished, and there is a very marked improvement in the mental state during the intervals." It is further stated that "The nervous system can be quieted by the methodical use of Bromocarpine, continued for many months if necessary. This preparation, of which Pilocarpine is one of the principal factors, determines copious diuresis, free perspiration, and an abundant secretion of saliva. In this form the intensive bromide treatment is well borne."

The bottle (price 6 francs) contained 16.7 fluid ounces. The liquid was found to contain:

Potassium bromide	...	8.9 per cent.
Alkaloid	...	0.0035 ,,
Sugar	...	54.0 ,,
Glycerin	...	10.0 ,,

It was orange-flavoured, and contained a little alcohol, in all probability added in the form of tincture of orange; a trace of some other colouring matter was also present.

The alkaloid agreed in some respects with pilocarpine, or the mixed alkaloids of jaborandi; it did not give the characteristic colour-test for pilocarpine, but this may have been due to some decomposition during the treatment it had undergone, the separation of such a small quantity of alkaloid from a large quantity of sugar and glycerine being a rather troublesome operation.

If the alkaloid is calculated as pilocarpine, the quantity is equivalent to 0.0049 per cent. of pilocarpine hydrobromide. On a small label on the bottle the liquid is stated to contain 10 per cent. of potassium bromide and 0.005 per cent. of pilocarpine "hydrodom," presumably a mistake for 'hydrobrom." In a circular wrapped round the bottle it is stated that each teaspoonful contains nearly 10 grains of potassium bromide, and a two-hundredth of a grain of pilocarpine; comparing this with the formula on the label it appears that a teaspoonful is reckoned as nearly 100 grains, and the same proportion is given for pilocarpine in the one case and pilocarpine hydrobromide in the other. Actually, 1 fluid drachm of the liquid is 76.9 grains.

Various other substances were tested for, but nothing was found besides those mentioned above, and water.

THE Harpenden Sanatorium for Children was opened about the middle of 1910, and its first report gives an illustrated description of the institution which is one of the enterprises of the National Children's Home and Orphanage, a society established some forty years ago. It now has over 2,000 children under its care, and the sanatorium is for those who show a tendency to tuberculosis, but children sent by boards of guardians or by parents themselves are also admitted on payment when beds are available if their disease is in an early and curable stage. The report brings up the account of matters to the end of July last year, by which date 76 children had been admitted. No attempt is made to draw precise conclusions as to the results of their treatment, but it is stated that in all cases there was marked improvement, and that in the majority permanent benefit may be expected. The report contains special expressions of gratitude to Sir Thomas Barlow, who materially assisted the foundation of the institution; to Dr. Kelynack, the Medical Adviser of the National Children's Home, who has visited the sanatorium regularly since it was opened; to Dr. Percy Jakins, and to Drs. A. L. Hine, H. Fraser, and Violet Kelynack, of Harpenden.

LIFE ASSURANCE FOR MEDICAL MEN.

THE article published under this heading in the JOURNAL of April 6th, p. 793, has brought us the following letter. As it raises several questions of importance which have been much debated by experts in life assurance, it will, we think, be useful to add some observations to Dr. Martley's letter:

Sir,

The article on Life Assurance for Medical Men in your issue of April 6th brings prominently before one's notice the question of the advisability of the Association authorizing a special committee to act as insurance agents.

This has probably been done for two reasons—(*a*) for the advantage of the practitioner individually, (*b*) for the furtherance of some object or objects for the benefit of the profession generally.

As regards (*a*), it appears from inquiry that the committee act as agents for a first-class office, and that the advantage to the individual lies in the reduction of the first premium by an appreciable amount, but only of the first premium.

An arrangement of this sort means that different people pay different rates for the same benefits; an idea that is repugnant to many, especially when there is no certainty that a would-be insurer introduced by the committee would get the best terms possible, or whether he might not do better if put forward by some more influential body.

Again, the proportion of expenses of management to the premium income in the case of the office favoured by the committee is, according to their last report, more than 12 per cent for their year, that is, that for every 100 shillings paid into the office only 88 are reserved for the policy holder. The latest returns of two of the non-commission paying offices show that less than 5 per cent. and 7 per cent. respectively of their premium income is absorbed in management expenses, thus leaving 95 or 93 shillings out of every 100 shillings paid in to accumulate for those insured in them—surely a better result, and one that far more than counterbalances the remission of 10s. per cent. on the sum insured allowed on the first premium to those introduced by the committee.

As regards (*b*), one learns that the balance of commission is handed to medical charities approved by the committee; whether such balance is much or little I cannot say, but in any case the plan does not appeal to one's business instincts. On the one hand a man's savings are subjected to an indirect levy for the benefit of objects which should be supported directly; on the other he may feel, and feel rightly, that he would do better by approaching the insurance office through some other channel, by which he would get the benefit of the whole or of a larger proportion of any commission allowed.

The situation would be best met by the committee boldly representing non-commission paying offices, and I believe without any doubt that this course would be in the best interests of the members or the profession desiring insurance. The only disadvantage would be, of course, the loss to the approved medical charities of the balance of the commission, whatever this may amount to, but it is better not to mix up business with philanthropy.

I am, etc.,
F. C. MARTLEY,
April 13th, 1912. London.

Dr. Martley is no doubt aware that the committee was formed in 1907 as the direct outcome of representations made by members of the profession to the *Lancet* and the BRITISH MEDICAL JOURNAL. Dr. Martley raises the very important question of expenses in connexion with life assurance business, and points out that the expenditure represents a smaller proportion of the premiums in the case of a few offices which do not allow any agency commission than in the case of an office employing agents. He suggests that the Medical Insurance Committee should restrict its choice to one of the offices of the former class, and seems to think that in recommending an office employing agents the committee is not fulfilling the objects for which it was formed, namely, to secure advantageous terms for its members and to protect the profession from the risks which the hasty choice of an office offers to a busy professional man who has little time and still less technical knowledge for going into such matters. He argues that although the whole of the proceeds of the agency after paying expenses go (*a*) partly to the individual, (*b*) partly to one of the charities connected with the medical profession, it really forms an indirect tax on the savings of the individual for the benefit of a charity, and, as he puts it, "mixes up business with philanthropy."

Clearly this argument rests on the assumption that an office paying no commission must of necessity hold out better prospects to the assured than another first-class company employing agents. Can it be admitted that, to quote Dr. Martley's figures, an office with an expense ratio of 5 per cent. must necessarily give benefits in the proportion of 95 to 88 as compared with an office which spends 12 per cent. of its premium income?

It is a *sine qua non* in life assurance business that a company should secure sufficient new policies to make good the waste by death and surrender; otherwise there will be a danger of decreasing vitality, which must prove detrimental to the interests of the policyholders.

Whether the necessary amount of such new business which is the life-blood of an office can be secured by adopting the plan—admirable in theory—of the non-commission offices is certainly questionable, as evidenced by the fact that there are but four such companies in existence at the present time, all small as regards the volume of new business transacted—one of them a "class" office. The British offices employing agents number about seventy-five, and the present position of life assurance is almost entirely due to the propaganda of these offices.

The mortality experienced in the early years when medical selection is recent is much lighter than when the effects of such selection have diminished. Consequently, an office with a large proportion of new business should show an improved mortality, which goes far to compensate for the additional expenditure. In the language of a well-known actuary, "expense ratios, though interesting and useful within certain limits, form only one of the many groups of facts which must be taken account of when examining the position and practice of a life assurance office"; a fair comparison of the merits of life offices cannot be made solely on the basis of the percentage of expenses to total premium income.

The result under a life assurance contract, except in the case of a non-profit policy, depends to a large extent upon the amount of the bonuses declared, which in their turn are dependent upon the careful safeguarding of not one but several sources of profit—namely, (1) interest earned from the safe and profitable investment of funds, (2) mortality profit, and (3) economical management. If the past history of various life offices is examined it will be found that fluctuation of the bonus rate is not unknown amongst the non-commission offices, and the committee, in making recommendations, has directed its attention to such points as these, so as to ensure as far as possible that the policyholders shall receive the profits which they have been led to expect.

As a matter of fact, excellent as are the non-commission offices to which Dr. Martley refers, their results (on the whole) are certainly no better than can be obtained elsewhere. The Medical Insurance Committee has, however, never limited its recommendation to one office. On the contrary, it is prepared to transact business with any first-class office; but it should be obvious that any work undertaken by it must be self-supporting, and therefore those members who hold the opinion that they can obtain better results from a non-commission office than by sharing with the committee the commission received from a carefully selected office are, of course, quite free to make their own choice.

The Bioscope, a paper devoted to the interest of the kinematograph trade, has arranged three scientific and educational matinées on June 5th, 12th, and 15th, from 11 to 1 o'clock on each day. The first is being arranged exclusively for members of the medical profession and men of science, to whom alone tickets for admission are available. The films which will be shown are as follow: The amoeboid movement of a leucocyte, *Trypanosoma lewisi* and *T. brucei*, *Spirochaeta gallinarum* and *S. pallida*, relapsing fever, the spirochaetes of Vincent, the phenomenon of agglutination, examination of the stomach under *x* rays, the *x* rays, the mosquito, intestinal microbes. The second morning will be devoted to natural science, and the third to a demonstration of the educational possibilities of the kinematograph as an animated textbook. Tickets can be obtained by application to the proprietors of *The Bioscope*, 85, Shaftesbury Avenue, London, W.

THE LISTER INSTITUTE OF PREVENTIVE MEDICINE.

THE annual meeting of the Lister Institute of Preventive Medicine was held at the Institute, Chelsea Gardens, on May 8th.

Lord Lister.

The report of the governing body opens with a reference to the death of Lord Lister. Of the far-reaching effect of his work and discoveries no account was attempted, since they have met with world-wide acknowledgement, culminating in the impressive funeral service at Westminster Abbey, when representatives, not only of science and medicine, but of all that stands for the progress of civilization, met from many countries to present their last homage to his memory. But the governing body records its appreciation of the debt which the Institute owes to him in its foundation, its aims, and its guidance, and through the example afforded by his unselfishness, and the imagination, patience, and accuracy which characterized his researches. He became the first chairman of the governing body of the Institute in 1891, and held that post until 1903, when advancing age led him to accept the honorary position of President. In the early days he spared no effort to secure adequate financial support to place the Institute on a firm foundation, and great was his satisfaction when the munificent donation of a friend to science (Lord Iveagh) made that support assured. His interest in the Institute and his approval of its work continued to the last, as was shown by his generous bequest of £20,000 to its general funds.

Work of the Institute.

The reports stated that Mr. G. Udny Yule, the distinguished statistician, has become Honorary Consulting Statistician to the Institute, while Mr. Major Greenwood, jun., has undertaken, in addition to his work as Statistician to the Institute, the duty of Secretary to the governing body. Dr. E. A. Atkin, formerly a Beit Scholar, and Dr. W. Ray, formerly a Rhodes Scholar, have been elected to fill the vacancies in the staff of the department of bacteriology caused by the appointment of Dr. F. A. Bainbridge to be Professor of Physiology in the University of Durham, and by the loan of the services of Dr. G. F. Petrie to the Government of Egypt to undertake an investigation into the epidemiology of plague in Upper Egypt. The Commission for the investigation of plague in India continued its inquiries both in India and at the special plague laboratories of the institute at Elstree, which were placed at the disposal of the Advisory Committee. In December this committee issued a further volume of reports, including (*a*) a detailed account of experimental inquiries, conducted in the Institute's laboratories, as to the toxic and immunizing properties of the various constituents of the plague bacillus and the application of the result to the immunization of horses with a view to the production of curative serums and to the preparation of prophylactic vaccines capable of standardization, and (*b*) a minute analysis of the factors influencing the prevalence of plague in the Punjab, carried out in the Institute's statistical laboratory. The services of Mr. Sydney Rowland are still at the disposal of this committee.

Mr. A. W. Bacot, F.E.S., has been appointed entomologist to the Institute. He will devote himself principally to research in connexion with the medical aspects of his subject, but will also give a course of lectures in medical entomology at the Institute from time to time.

The generous offer of the Rev. C. N. R. Burrows to present his collection of acari and insect parasites to the Institute has been gratefully accepted, and the specimens are now available for study in the entomological department.

The Institute continues to co-operate with the medical inspectors of the Local Government Board in the investigation of suspected typhoid carriers, and has also undertaken for the same authority an investigation into the anaërobic flora of the child's intestine, which is being carried out by Dr. H. R. Dean.

The growing demand from holders of research scholarships and other private workers for opportunities to carry on their inquiries in the laboratories of the Institute is noted, and appended to the report is a long list of scientific papers published from the laboratories during the year, many of them being papers by such voluntary workers. The Institute, it may here be noted, is a school of the University of London in the Faculty of Medicine, and has laboratories of bacteriology, biochemistry, entomology, hygiene, pathology, protozoology, and statistics.

The facilities available at the Institute's branch at Elstree have been increased by the completion of new stables with loose boxes for twenty additional horses, and new laboratories for the preparation of calf lymph. These include a large general laboratory and operating room with top light, a private laboratory for the bacteriologist in charge, a gas engine room, a service room, and a small photographic laboratory. Separated from the laboratory by a few yards is a calf stable, warmed from the main building, and capable of accommodating twelve animals. The old calf stables and operating room have been converted into a quarantine stable for calves prior to their employment for the preparation of vaccine. The governing body has been fortunate enough to secure certain freehold and leasehold premises adjoining the building at Chelsea, which will be available for enlargements should they become necessary, as is probable.

The financial position of the Institute is satisfactory, and the report concluded with an acknowledgement of the effective and cordial co-operation of the director and of members of the staff in the research work of the Institute.

LITERARY NOTES.

IT is often said that the nervous system of the average man is now more irritable than that of our stolid ancestors. It is generally taken for granted that in the eighteenth century particularly and the early part of the nineteenth the average Briton was untroubled by "nerves." And certainly life in the eighteenth century as depicted by Fielding and Smollett and other novelists would seem to have been made up mainly of drinking, debauchery, and skull cracking. It makes a modern headpiece ache to read of the quarterstaff encounters in which our rude forefathers indulged, apparently with comparative impunity, and the description of their other sports makes us squeamish. But when we take a broader view of life as reflected in literature we find in Richardson, for instance, and even more in the novelists of the early part of nineteenth century, that not only women but men fainted and dissolved in tears on the very smallest provocation. Macaulay, who was a great novel reader, took the trouble to make a calculation of the number of fainting fits recorded in a book, written by a lady, which he bought in India. The following is the list: Julia de Clifford, 11 times; Lady Delamore, 4; Lady Theodosia, 4; Lord Glenbrook, 2; Lord Delamore, 2; Lady Enderfield, 1; Lord Ashgrove, 1; Lord St. Orville, 1: Henry Mildmay, 1. Macaulay's biographer, Sir George Trevelyan, gives an example of these catastrophes, selected for no other reason than because it is the shortest:

> One of the sweetest smiles that ever animated the face of mortal now diffused itself over the countenance of Lord St. Orville as he fell at the feet of Julia in a deathlike swoon.

In the novels of the first Lord Lytton and others of the same kind, on every other page men's faces are convulsed with rage, become deadly pale, they bite their lips till the blood comes (which probably no human being has ever done except in a fit of epilepsy) and otherwise disport themselves in the most approved style of what we vaguely call hysteria. Such ready manifestations of emotional disturbance have little place in modern novels—except, perhaps, in those written by a certain kind of woman; in these nobody speaks, it is all "hissing," "snapping," and so forth. We do not think there is any evidence that we are more neurotic than our fathers, though we are certainly more sentimental in regard to certain things, and we are probably less tolerant of pain. "Irritability" of nerves is not a pathological phenomenon; as Sir Clifford Allbutt pointed out long ago, it is the function of nerves to be irritable.

In a recent issue of the JOURNAL the relation between diet and intellect was discussed. As at the present day nothing about a great man is too small to be noticed, the following quotation from Paul Louis Courier's famous *Pamphlet des Pamphlets* may be of interest to some

readers. Courier, it should be said, was an artillery officer, though his heart was not in his profession. Some one in the prefecture of police, before which he was cited, having asked him in confidence if he was not the author of certain pamphlets, he vehemently denied the charge. Whereupon the questioner said: "Ah, sir, you are a great genius; you are inimitable!" This, says Courier, recalled to him a little known historical fact, which he proceeds to relate. He was lunching one day with his comrade Duroc in that officer's lodging on the ground floor of an old house in Paris. There were several others, and they were enjoying themselves, when suddenly their comrade Bonaparte, the tenant of the first floor, appeared among them unannounced. He was paying a neighbourly visit, and this familiarity astonished the guests so much that not one of them knew what he was doing. They rose from their seats, asking each other "What's the matter?" The hero made them sit down again. He was not one of those comrades to whom one can say, "Make yourself at home and share our luncheon." He did not sit down, but looked at them, not knowing very well what to say, and walked about the room. "These are artichokes you are eating?" "Yes, General." "You, Rapp, you eat them with oil?" "Yes, General." "And you, Savary, with sauce? I eat them with salt." "Ah, General," said he who was then known as Savary, "you are a great man; you are inimitable!" Courier records this fact, he says, to show his friends that once in his life he was treated like Bonaparte. We quote it in order to place on record the fact, which may be useful to historians who may have failed to note the passage, that Napoleon ate artichokes with salt as the only condiment.

In the *St. Bartholomew's Hospital Journal* for February, Mr. D'Arcy Power gives an account of the evolution of the surgeon in London. He says:

> Looking backwards, I see that the first London surgeon appears as a gentleman at the most courtly and picturesque time of English history, when Edward III was on the throne and the Order of the Garter had been recently instituted; later, in the Tudor period, when every one was bourgeois, the surgeon had fallen from his high estate and was bourgeois also; during the Stuart and Commonwealth periods he emerges once more as a gentleman and of the best type, for he maintained his Royalist sympathies but tempered them with the gravity and sagacity of the Puritans. He was a wit in the days of Queen Anne, but under the Hanoverians, with a few brilliant exceptions, he was little better than a tradesman. In the Victorian era he became a gentleman again, and as the classes differentiated themselves in England the surgeon rose from the lower into the upper middle class. The introduction of anaesthesia did much to help the upward movement. Men of better education and finer feelings replaced the callous but kind-hearted surgeons of the pre-anaesthetic age.

Taking a typical representative of each phase in the evolution of the London surgeon, Mr. Power first speaks of Master John Arderne, a member of the knightly family of Saxon origin which was the first in England to adopt the Norman custom of a surname. He was born in 1307 and lived until nearly the end of the century. He was contemporary with Chaucer and with the Black Prince, whom he seems to have known personally. Mr. Power thinks it just possible that Arderne may have been present at the battle of Cressy. He seems to have gone abroad as a young man in the suite of Henry Plantagenet, the first Duke of Lancaster, and to have served later in the train of John of Gaunt. He mentions cases under his care at Antwerp, at Algeciras in Spain, and in Aquitaine. From 1349 until 1370 he practised at Newark-on-Trent, and he only moved to London late in life. His fees were enormous, but the standard of living was then higher than it is now, and the doctor's reward was proportionate to the largesse distributed by his lordly and knightly patients and the magnificent style in which they lived. In the fifteenth century the tradition was carried on by Thomas Morstede and John Harvey, the King's surgeons. In 1428 active military operations were recommenced in France, when the Earl of Salisbury invested Orleans. The surgeons trooped out of England again, and on their return the Wars of the Roses had reduced everything to chaos. Surgery in London underwent a remarkable revival in the sixteenth century, which began in part within the walls of St. Bartholomew's Hospital and at the hands of surgeons who had received their training in the wars. Richard Ferris and Robert Balthrop exercised a powerful influence for good on the whole of the succeeding generation of surgeons. Passing to the surgeons of the Elizabethan period, one of the best known names is that of William Clowes, a Warwickshire man, who was born in 1540 and was admitted to the Barber Surgeons' Company in 1569. He was appointed Surgeon to St. Bartholomew's Hospital in 1575, and in 1588 he served in the English fleet against the Spanish Armada, after which he was appointed surgeon to Queen Elizabeth. He died in 1604. Clowes published his books at intervals between 1575 and 1596. There were all in English, and the author gives his own experience and relies but little upon other people's work. In the following generation Mr. Power takes John Woodall as the type. He was born about 1569, and, seeing service in war, he travelled for many years in France, Germany, and Poland, settling in London during the great epidemic of 1603. He became surgeon to St. Bartholomew's Hospital on January 9th, 1616, and was elected Master of the Barber Surgeons' Company in 1633. Woodall published, in 1617, the *Surgeon's Mate*, and in 1628 the *Viaticum*, being the pathway to the *Surgeon's Chest*, textbooks of surgery which long formed part of the library of every surgeon and surgeon's mate by sea as well as by land. He was followed by Richard Wiseman, one of the best and most practical surgeons who had as yet appeared in England. Woodall to a certain extent, but Wiseman pre-eminently, gave to surgery the tone which enabled it to emerge from a mere handicraft and become a profession. In the next generation came William Cheselden, who was intimate with Alexander Pope and with Sir Hans Sloane. He attended the deathbed of Sir Isaac Newton. He was remarkable for his many talents. He was no mean artist, for he published a magnificent Osteographia or anatomy of the bones. He is said to have drawn the plans for Old Putney Bridge and for the Surgeon's Hall in the Old Bailey, so that he had pretensions to be an architect. Percivall Pott added to the reputation of London surgeons in much the same way as Cheselden. He was before all things a well-educated gentleman. He deserves, says Mr. Power, to be remembered as one of the first surgeons who lectured publicly on surgery in a medical school; many foreign surgeons attended his lectures, and he thus exercised a great influence on contemporary surgery. No one before him had taught with equal authority or had been able to impress upon a whole body of students the individuality which was afterwards carried to perfection by his pupil John Hunter. Hunter's influence on British surgery remained until our own times—for good, because he made surgery a science based on experiment; for evil, because he was brusque, wanting in manners, and quarrelsome. His pupils were somewhat inclined to follow his example, and none more so that John Abernethy, of whose common sense and real kindliness of heart, concealed under a very rough exterior, innumerable good stories are told. The brusqueness of Abernethy was more than counterbalanced by the geniality of Sir Astley Cooper. The good work done by surgeons during the early Victorian era has been almost eclipsed by the glories of the later age. Lawrence, Benjamin Brodie, Savory, worthily maintained the Hunterian tradition of scientific surgery, whilst Robert Liston carried manipulative skill to its acme. Surgeons in that day seem, says Mr. Power, to have lost somewhat of the spirit of tolerance which marked their predecessors. They hated each other very cordially and they were sudden and quick in quarrel. With the introduction of anaesthesia came a more cultivated class of surgeon, foremost amongst whom was Lister, to whom Mr. Power pays a graceful tribute.

The *Canadian Journal of Medicine and Surgery* for May is a "Lister Number." Among much other interesting matter it contains an article entitled "A Memoir and an Appreciation" by Sir Hector Cameron. Sir Hector relates that he saw Lister in London shortly after he had been made a Privy Councillor, and in the course of conversation he said to him: "What pleased me far more than even the honour of being made a Privy Councillor was the fact that when my turn came to step forward and shake hands with the King (King Edward VII), he said to me, 'Lord Lister, I know well that if it had not been for you and your work I would not have been here to-day.'" Some one, says Sir Hector Cameron, had evidently informed His Majesty how abdominal surgery had been rendered possible entirely by his investigations and teaching.

British Medical Journal.

SATURDAY MAY 11TH, 1912.

MR. LLOYD GEORGE AND THE BRITISH MEDICAL ASSOCIATION.

DURING the debate raised by Mr. Grant in the House of Commons last week Mr. Lloyd George was reproached—very justly as we think—with his failure adequately to consult the representative bodies of the medical profession with regard to medical benefit under the insurance scheme before the introduction of the insurance bill. Mr. Lloyd George retorted, "We saw the British Medical Association not once, or twice, before the bill was introduced," and went on to say, "They came to see me; I gave them as much time as they asked. When they asked to see me a second time, I saw them; and when they asked to see me privately afterwards, I saw them." This account of the circumstances was traversed by the letter written by the Medical Secretary, by direction of the Chairman of the State Insurance Committee, to which reference was made in the SUPPLEMENT last week, page 430. It was there stated that "the only deputation from the British Medical Association received by the Chancellor prior to the introduction of the bill" was that which had an interview with him on April 4th, as briefly mentioned in the BRITISH MEDICAL JOURNAL at the time (April 15th, 1911, p. 894), and reported to the meeting of the Representative Body on May 31st, 1911. On Tuesday last Mr. Lloyd George said, in reply to Mr. William Peel, that on three separate occasions he received deputations during the months of March and April, 1911, at the request of the British Medical Association, and on a fourth occasion at the beginning of the year 1911 a deputation from members of the medical profession. We find some difficulty in reconciling these statements as to the British Medical Association with the facts in our possession.

Early in 1910 two reports were issued by the Council for the consideration of the Divisions of the British Medical Association. These were: (1) A report, prepared by the Special Poor Law Reform Committee of the Association, on "the relief of distress as at present conducted," published on February 5th, 1910; and (2) a report embodying a set of model rules for the conduct of a Public Medical Service, issued by the Council and published on May 7th, 1910. In July, 1910, when it was generally understood that the Government had under consideration the proposals for medical attendance under a sickness insurance scheme, the Chairman of Representative Meetings, Dr. Maclean, had an interview with the senior secretary of the Chancellor of the Exchequer, and as the result of that interview furnished to the Chancellor of the Exchequer on October 22nd, 1910, a memorandum expressing the views of the Association, as then understood, on the provision of medical attendance under a national sickness insurance scheme.

On January 30th, 1911, the then Medical Secretary addressed a letter to the Chancellor of the Exchequer stating that the Association had noted the public assurances the Chancellor of the Exchequer had given to the effect that the Government would not introduce a scheme of national insurance without previously affording to all persons and bodies interested full opportunity to put forward their views; it was pointed out that the matter gravely affected the medical profession, and that the British Medical Association was the only organization in the United Kingdom representative of the medical profession as a whole. The letter asked the Chancellor of the Exchequer to receive a deputation from the Association to lay its views before him. On March 21st Mr. Smith Whitaker had, by invitation, an interview with the Chancellor of the Exchequer, and on April 4th Mr. Lloyd George received a deputation consisting of Dr. E. J. Maclean (Chairman of Representative Meetings), Dr. Lauriston Shaw (then President of the Metropolitan Counties Branch, and one of its representatives on the Council), Dr. J. H. Taylor (Honorary Secretary of the Manchester and Salford combined Divisions, and representative of the Branch on the Council), and the Medical Secretary. No other deputation from the British Medical Association waited upon Mr. Lloyd George before the introduction of the bill on May 4th. It may be noted in confirmation of the facts as here stated that on May 17th, 1911, Mr. Lloyd George, in reply to a question in the House of Commons, spoke only of having received one deputation from the British Medical Association; his reply is thus given in the official reports: "I consulted several representatives of the profession, and received a deputation from the British Medical Association."

But on Mr. Lloyd George's own showing it is clear that he cannot escape from the accusation that he launched his scheme of national insurance without adequate consultation with the medical profession, although he has now acquiesced in the resolution of the House of Commons that "until such co-operation is ensured the Act will fail efficiently to provide medical benefit." At the most he claims that he received deputations during March and April, 1911, and the bill was introduced on May 4th. Yet we know that he had been in consultation with the National Conference of Friendly Societies in October, 1908, and had had three important conferences with their representatives before the end of that year. At the last of these a provisional scheme was agreed upon, and submitted to the Government actuaries for the purpose of fixing the rates of contribution. The report of the actuaries was issued to the representatives of the National Conference Committee in March, 1910, and that committee was again invited to meet the Chancellor of the Exchequer. The story is thus taken back to a date nearly two and a half years earlier than that at which Mr. Lloyd George thought fit to make arrangements to receive a deputation from the medical profession.

As was stated in our report of the seventh meeting of the State Sickness Insurance Committee (JOURNAL, May 4th, p. 1039), a form of pledge, complementary to the undertaking of the British Medical Association signed by over 26,000 practitioners last year, was issued last week to the honorary secretaries of Divisions and Branches of the British Medical Association and to honorary secretaries of Provisional Medical Committees in England, Scotland, and Wales. It is desired to obtain the signature to this complementary pledge of every practitioner who signed the undertaking, and its terms, together with a form of resignation of club appointments to be used if necessary, will be brought to the notice of members by the honorary secretaries of the bodies mentioned. The newspapers have got hold of the terms of the pledge

and form of resignation, and a great deal has been made of both as evidence of a new policy on the part of the British Medical Association. Members of the profession, however, will recognize that the pledge which they are now asked to sign is a logical development of the policy which the Association had pursued all through. It was hoped that the representations of the profession would receive sympathetic consideration from the Government, and that a further development of a fighting policy would not be necessary. As this hope has not yet been fulfilled, and as the date at which the Act is to come into operation is approaching, the Association, as an ordinary act of prudence, is compelled to go on with its policy. Last week, Mr. Lloyd George accepted a resolution stating that in the opinion of the House of Commons the Government should take immediate steps to ensure the co-operation of the medical profession in the administration of the Act, and that until such co-operation is ensured the Act will fail efficiently to provide medical benefits. Mr. Lloyd George's attitude then was that the resolution only expressed what the Government is doing, and laid stress on the fact that the Advisory Committee was to meet this week. He recognized the gravity of the responsibility which rests upon those who have to administer medical benefit, but his observations on the financial consequences of accepting the demands of the profession were indefinite. Mr. Lloyd George said that he was willing to negotiate, and in the British Medical Association he has a body competent to negotiate. In answer to Sir Philip Magnus's question on May 8th he said that negotiations would commence as soon as the Advisory Committee met: but we must point out that the matter cannot be decided by the Advisory Committee nor by its medical members, but only with the British Medical Association acting through its constitutional machinery. At the present time no negotiations are taking place between the Association and the Government or the Insurance Commissioners. Should it in future be deemed proper to enter into such negotiations, the fact will be made public and the points at issue will be stated.

Mr. Lloyd George's answer on May 8th appears to show that he has not yet fully appreciated the attitude of the profession. He said that the pledge the Association is now inviting members of the profession to sign related to conditions in existence before the Insurance Act, which the Act neither extended nor perpetuated. This is a statement which cannot be accepted by the profession, if only on the ground that the Act would extend the conditions in existence before it was passed, which were applicable to some 4 million persons, to 14 or 15 millions, and would place the system on a permanent basis, since it is embodied in an Act of Parliament. We must therefore emphatically insist that the Act does both extend and perpetuate the system to which the profession objects. Moreover, he himself went on in the same breath to make a statement which seems in practical contradiction to the earlier part of his answer. He said that the general operation of the Act could not be affected by any decision as to the particular form medical benefit might take, whether the panel system with free choice of doctor, or the alternatives of special arrangements by the Insurance Committees or Commissioners with the approved societies, or the payment of a monetary equivalent to each insured person. He seems, therefore, to occupy very much the same position with regard to the medical profession which he has taken up all along.

Rumours that the Government is ready to allot the much larger sum required if medical benefit is to be efficiently administered must be received with all reserve. In spite of any rumours which may have circulated in the lobbies, Mr. Lloyd George is not pledged, and, as we have said, it is no more than an act of prudence for the Association to go on with the development of its policy to meet an emergency the risk of which has not yet been averted. Attempts are being made by some of the Government henchmen in the press to divide the profession. One of the most barefaced is contained in an article in the *Daily News* of May 8th, which appeals to the ambition or cupidity of the younger doctors, who may, it says, "by the strike obtain openings beyond all their present hopes." We have more confidence, founded upon experience of their conduct in the past, in the younger members of the profession. They have on many occasions shown their loyalty to the profession and their public spirit by refusing to play into the hands of public authorities and friendly societies which have endeavoured to exploit their want of cash to the disadvantage of the profession they had joined. They have other ideals, and a higher standard of public duty, and we do not doubt that they will respond to the demand now made upon those qualities of loyalty and public spirit by the gigantic attempt which some politicians are making to delude the profession to its eventual ruin.

QUACKERY IN RUSSIA AND GERMANY.

In commemoration of the late Professor Manassein, the founder of *Russkij Wratsch*, and an indefatigable opponent of quackery and unlicensed medical practice, Dr. Berthenson has published, in the *Petersburger medicinische Wochenschrift* (No. 9, 1911), a careful analysis of the state of unlicensed medical practice in Russia and Germany. Russia, it appears, has a number of laws which protect with the most paternal care the ignorant and foolish from the wiles of the mountebank and the quack. Some of these laws are quoted. The first was framed by the Russian Medical College in 1788, and in 1845 the penalty for its violation was fixed by the Government. Of the laws now in force, Article 220 states that "neither a Russian subject nor a foreigner who possesses no recognized medical qualification may practise any branch of the medical profession." Article 224 states, further, that "it is the duty of the senior medical inspector to superintend medical practice, and to take measures against the harmful influence of unqualified practice." Article 226 defeats its own purpose, and has proved a veritable El Dorado for the elusive charlatan. It states that "those who, without a proper medical qualification, use poisonous or powerful drugs, shall be liable to punishment and the confiscation of their stock in trade. This clause does not apply to those who without reward and for philanthropic purposes give advice and remedies." As nothing further is stated as to the status of unqualified practitioners, the law as it stands forbids medical practice by amateurs on the one hand, while on the other it allows the use of dangerous drugs by charlatans masquerading under the guise of philanthropy. The notorious Baron Wrewski, who gave his advice gratis, but dispensed Neva water at 2 roubles a bottle, is a striking illustration of the harm caused by carelessly worded legislation. Still, the number of such impostors who do business on a large scale is relatively small, and, imperfect as the law is, Dr. Berthenson prophesies an overwhelming growth of

charlatans of all kinds should the laws at present limiting their activity be at any time repealed. In the villages hosts of wise women, clairvoyants, and the like, practise without let or hindrance, for little objection is made to this class of practitioner in the absence of more rational medical aid.

Turning to the state of affairs in Germany, Dr. Berthenson makes statements which would seem almost incredible were not reliable statistics quoted in their support. During the first half of the nineteenth century the regulations dealing with the quack were stringent and effective; but in 1869, on the initiative of the medical society of Berlin, these regulations were done away with, and were replaced by complete freedom for the unlicensed practitioner. It was argued at the time by one of the medical representatives in Berlin that the old regulations had no influence on the harmful action of quackery, and that they merely tended to make the practice of medicine a monopoly for the medical profession —a state of affairs which the medical profession itself repudiated and considered superfluous, seeing that the highly educated and intelligent German nation no longer required leading strings in this matter. Another representative even went so far as to argue that it was not the duty of the State to care for the health and the medical treatment of its citizens. The result of the acceptance of such arguments as these is shown by the following figures: In 1869 the number of quacks in Berlin was 28. In twenty-four years this number had risen to 1,013, while the quacks practising in the whole of Prussia numbered 5,148. In certain districts the unqualified outnumbered the qualified practitioners in the ratio of two to one. In Saxony the number of quacks rose from 323 in 1874 to 1,001 in 1903, exclusive of 945 unqualified dentists. Graack in 1906, using official statistics, estimated the number of quacks in Prussia at 10,000, and predicted a further increase if the law of 1869 remained in force. But even these statistics fail to do justice to the changes which have taken place since 1869, for previous to this date quackery was mainly limited to herbalists and bonesetters, whereas now the quack's sphere of action is not bounded. Unqualified practitioners now possess elaborate organizations to protect their professional interests, and conduct schools and institutes which provide a four months' course of training for the quack in embryo. There are 835 societies for the study of "nature healing," with a total membership of 112,000. The output of literature by quacks is enormous, and there are over fifty quack periodicals, the circulation of some of which exceeds 100,000 copies. A million copies of *Das neue Naturheilverfahren* have been sold, and from 1881 to 1901 14 millions marks have been paid for literature of this stamp.

The income of some quacks, as given by official figures, is apparently large. The art of diagnosing disease by examining the hairs at the back of a patient's neck brought 600 to 800 patients daily to a quack who charged 3 marks for a consultation. The famous Herr Nordenkötter of Berlin made an income of about 160,000 marks a year, while the inventor of the "electrovalidor" belt made, it is said, a daily haul of 10,000 marks.

The class from which the ranks of quacks are recruited possesses little or no education, and domestic servants constitute 58 per cent. of the total number of female quacks. The official list of convictions is startling. In the years 1902 and 1903 the number of quacks convicted of criminal offences—such as perjury, criminal abortion, and theft—was 302, and for fraud and blackmail alone 81 persons.

This state of affairs has led to the formulation of definite schemes to amend the law. The most important of the reforms proposed are the supervision by the authorities of unqualified medical practitioners and veterinary surgeons, and the prohibition of treatment at a distance, mystical treatment, the treatment by quacks of such diseases as small-pox and cholera, venereal diseases, and cancer. It is proposed also that treatment by hypnotism, and treatment which requires general anaesthesia or subcutaneous or intravenous injections, shall be prohibited, and that the authorities shall be vested with extensive powers to deal with those quacks whose treatment threatens the health or life of man or beast. Other clauses deal with the traffic in drugs, and special attention is devoted to abortifacients.

Although the proposed laws leave the quack considerable freedom in the treatment of the numerous minor ills which flesh is heir to, they have evoked a powerful and well-organized opposition, which was shown by the chilly reception which the first reading of the bill received in the Reichstag. It was apparent that the bill was looked upon as a scheme for the sole advantage of the medical profession rather than as a valuable reform for the benefit of all classes. Until this bill, or some substitute, has become law, it seems that Dr. Berthenson is justified in claiming for Russia greater immunity from this social evil than Germany can boast.

IS INSANITY INCREASING?

A Mad World, My Masters! is the title of a play by Middleton, written at the beginning of the seventeenth century. If the world was mad then, it is much madder now, and, if we are to accept statistics in their crude form, it is getting madder every day. A number of causes have been assigned for the assumed increase of insanity. Among them are alcoholism, syphilis, and the changes in conditions of life brought about by the rapid development of scientific invention such as the telephone, the automobile, aëroplanes, and wireless telegraphy. The last-named invention in particular brings the horrors of shipwreck and battlefield so close to us that they are reflected in the scare headlines of the newspapers that provide mental food for the masses. Then industrial conditions tend to make the struggle for existence harder than it has ever been before. We live generally at higher pressure than our forefathers of the early Victorian period. There is greater haste to become rich, greater luxury in living, and constant craving for excitement in every form. Among the poorer classes there is seething jealousy of the rich, the "divine" discontent preached as a gospel by many reformers, and class hatred kept alive by party politicians and professional agitators. This leads to strikes, and these again to acute distress. In the intellectual sphere there is restless curiosity, which leaves no old belief or tradition unquestioned, and which makes us have our being in a whirligig of "new ideas." These are, indeed, for the most part almost as old as man; the thing that matters is that, instead of being confined to the thinking few, they are now leavening the unreasoning masses of humanity. From all this there results a certain amount of mental instability. The "crank"—that is to say, if we may borrow a phrase from Johnson, a man who has only one idea, and that a wrong one —is probably more abroad than used to be the case. But a "crank" is not the same thing as a lunatic.

Dr. Mott, in the lecture recently delivered at the Royal Sanitary Institute, which is published else-

where, says he is continually asked whether insanity is not greatly on the increase. As he points out, before such a question can be answered we must know exactly what constitutes insanity at the present time. This is often by no means easy. A person is judged to be sane or insane by his conduct, but Dr. Mott holds that behaviour by itself without consideration of the social environment is an insufficient criterion. He says that a person of the upper classes who adopted the customs and social usages of the lowest classes would be regarded as insane, or at least eccentric. Yet it is not altogether rare to hear of lords marrying ballet girls, and some have been known to assume the garb and habits of the costermonger without their sanity being impugned. The explanation of this kind of behaviour is in many cases impatience of the restrictions with which the social usages of a man's class surround him. This has sometimes led wealthy nobles, and even members of royal families, to give up their position and embrace the hardships of a seafaring life. Doubtless, too, such conduct may sometimes be a manifestation of the degeneracy that follows, though it may be with a halting step, on a dissipated and aimless life.

In forming a judgement as to the existence of insanity, Dr. Mott lays great stress on a neuropathic inheritance. Of all symptoms of mental disorder the hearing of voices is the most frequently met with. Yet how large a part in history has been played by persons with a visionary temperament! Martin Luther, Mahomet, Joan of Arc, and Swedenborg were all visionaries. It is not now fashionable, says Dr. Mott, to see visions and hear voices, for this might be considered proof of insanity; "yet a number of healthy people exist who see visions, but they keep quiet, because in our matter-of-fact days it is not considered correct." Aristotle noted long before Dryden the near alliance of great wits to madness, an observation which he embodied in the aphorism, *Nullum magnum ingenium sine mixtura dementiae.* It is an inborn tendency to variation from the common type that produces sometimes genius, sometimes insanity, sometimes, it may be, both. This explains the frequent occurrence of both genius and insanity in the same stocks.

It is comforting that so distinguished an authority as Dr. Mott has been led by the analysis of the large amount of material at his command to the conclusion that the increase of insanity is more apparent than real. One explanation given is that many harmless idiots and weak-minded persons who formerly were left at large are now swept into asylums and registered as lunatics. Again, the death-rate in the London county asylums has fallen very considerably during the last few years, owing to the diminution of deaths from dysentery, tuberculosis, pneumonia, septic and other microbial infective diseases. This leads to a growing accumulation of chronic incurable cases in the asylums. Moreover, the improved administration of asylums and the safeguards provided against ill-treatment have removed the objections formerly felt by many to placing an insane relative in confinement. Further, a large number of old people suffering from dementia, formerly treated in the infirmaries, are now sent to the asylums where they can be better cared for.

Dr. Mott touches on a most important point when he says that, apart from certified lunatics, there are two very numerous classes which constitute a grave danger to society, but are not registered or controlled. There is first the chronic incurable inebriate; to him is due a large proportion of crimes of violence. Then there is the higher grade imbecile, almost destitute of will power and lacking in moral sense. This class goes to swell the ranks of criminals and prostitutes, and forms a large proportion of the unemployable. Dr. Mott says that, although the feeble-minded may be met with in all grades of society, they are especially to be found among the submerged dwellers in the one-room tenements of our large cities. He gives some appalling statistics as to the number of feeble-minded persons; a special investigation made by the Royal Commission on the Feeble-minded in England and Wales disclosed the fact that 4.6 per 1,000 of the total, or 0.46 per cent., are not at present registered. These defectives are more numerous than the registered insane. What makes this fact all the more serious is that, unlike persons afflicted with the severer forms of mental deficiency, these defectives who are at large among the general population are capable of begetting offspring. And every child, says Dr. Mott, in a defective school costs the ratepayer three times as much as a healthy child, and the results are in no way commensurate with the cost. This being the case, one is inclined to ask if the State has any duty sedulously to keep alive the weeds of civilization. This is a thing that affects not only the present generation but the future of the race, and the question whether "defectives" should not be left to private charity may be submitted as a subject for consideration to social reformers.

In view of the immense mass of insanity that has to be dealt with, the question naturally arises whether anything can be done to prevent its origination or, at any rate, its propagation. Among preventable causes are drink, syphilis, pauperism, bad housing, bad conditions of life, and oppressive industrial conditions. But, in regard to most of these, moral influences are more likely to be effective than State control. A man who is sober merely because he cannot get alcohol cannot be considered a desirable member of a community. The tendency of socialist theories so prevalent at the present time is to remove or lessen the sense of personal responsibility. This means that people look more and more to the State for everything, instead of to their own efforts. This is not the way to breed a race of efficient, self-reliant citizens. Recent discoveries seem to offer a hope of largely diminishing general paralysis and other conditions directly or indirectly due to syphilis. The segregation of the feeble-minded would be an almost unbearable burden on the ratepayer. There is another way, much talked of at present—that is, sterilization by surgical operation. This question opens up a number of difficult social problems which are not yet ripe, and the public mind is not yet prepared to accept so drastic a solution. Observation has shown that there is a great tendency for insane offspring to suffer from a more intense form of the disease at an earlier age than their parents, and this has a practical bearing on the question. This intensification of mental disease in the young—this "anticipation," as it is called, which is one of Nature's methods of ending or mending a degenerate stock, is specially important in connexion with sterilization, as the figures given by Dr. Mott show that when the first attack of insanity occurs in the parent the children have for the most part all been born. Sterilization, therefore, would be applicable in relatively few cases.

The cure of insanity can be effected only by proper treatment applied under proper conditions at the right time. Hitherto insane persons of all kinds have been, for the most part, herded together in huge asylums, and thus acute cases, in which there

is a good prospect of recovery if rightly dealt with, gradually drift owing to their surroundings into a chronic condition, and sooner or later all hope of cure is lost. For the cure of insanity accurate observation and study of the pathology underlying the condition are above everything essential. This has been almost impossible in institutions where the medical officers have been harassed by clerical and other duties unconnected with the professional care of the patients. The necessity for the establishment of a hospital for acute cases has frequently been advocated in the British Medical Journal, and reference has many times been made to Dr. Maudsley's munificent offer of £30,000 towards the building of a hospital with a pathological laboratory. The realization of this scheme is now within view, after many difficulties have been overcome. A site has been obtained, and the plans have been sent to the Commissioners. This country has lagged sadly behind in this matter. Already there are hospitals of the same kind in Baltimore and in Boston, and there are several in Germany. A further step forward is the establishment of a diploma in psychological medicine. We know what the D.P.H. has done for the diffusion of a knowledge of preventive medicine and it is reasonable to hope that similar good results will follow the establishment of a diploma in mental science. Another sign of progress is the recent foundation of a Section of Psychiatry in the Royal Society of Medicine. This cannot fail to give an impetus to the study of insanity. In this lies the hope of discoveries that may show the way to cure, even in cases which in the present state of knowledge are the mere despair of medicine.

That there is a very large field for study is a point that need not be emphasized. The investigator should include within the scope of his work not only the pathology of insanity and feeble-mindedness, but the social conditions that tend to produce them. For instance, one very suggestive remark made by Dr. Mott is that an apparently sound stock may in reality be unsound. Successful men in the eyes of the world may be really degenerates. Not infrequently so-called self-made men form the first step in the process of degeneration, the selfishness and moral guile by which they acquire wealth showing themselves in the children in the form of vicious habits and criminal propensities which bring them to prison or to the madhouse. The same remark holds good of an aristocracy, unless its vigour is constantly maintained by fresh infusions of what George Sand called *le bon sang plébéien*.

Dr. Mott has treated a subject of vital interest to the race with an abundance of knowledge and a breadth of view that make his paper a notable contribution to the literature dealing with insanity. He has thrown light on many obscure problems, but mental disease still remains one of the dark places of pathology. We commend his results to the serious attention of all who have to do with the care of the insane, and his methods as an example to all working at the elucidation of the subject of mental diseases.

THE RODDICK ACT.

We recently announced that, by the adoption of an enabling Act in Quebec, all the provinces of Canada had agreed to the Dominion Medical Act of 1911, with the exception of Ontario. We now learn that this province also has agreed, so that there is nothing to prevent the Act coming into force at an early date. It is understood that the first Dominion Medical Council will be established within a few months. The need for a Dominion Medical Act in Canada arose from the fact that when the Dominion was constituted by the British North America Act, 1867, the control of educational matters was left in the hands of the several provinces; each province had its own medical board or medical council, which alone was authorized to give a licence to practise in the province, but such licence did not entitle the holder to practise in any other province. The inconveniences—and worse—which arose from this multiplicity of medical councils and local licences soon became obvious, and nearly twenty years ago Dr. T. G. Roddick, then Professor of Surgery in McGill College, Montreal, took up the subject. He dealt with it at some length in his address as President of the British Medical Association at the annual meeting at Montreal in 1897, and from his seat in the Canadian House of Commons, as representative of the St. Antoine Division of Montreal, he introduced a measure to bring about uniformity. This bill was passed in 1902, but certain provinces raised objections on the ground that the rights reserved to them at the constitution of the Dominion were infringed. Dr. Roddick has steadily persisted in his advocacy of the Dominion measure, and the several provinces have gradually been won over. In 1911 the Dominion Parliament passed an amending Act which provided that each province might assent to the principle of the Act by passing a bill to this effect in its own Legislature. As already stated, all the provinces have now done this, and Dr. Roddick is warmly to be congratulated on the result of his labour for the profession to which he has most unselfishly devoted himself. He was actuated throughout by a statesmanlike conception, and the achievement is one with which his name will always be honourably associated.

"A HUGE REVENUE THREATENED."

Under this subtitle, *The Newspaper Owner*, a journal published in the interests of newspapers, refers to the promised appointment of a Select Committee to investigate the sale of patent medicines. The conclusion reached appears to be based on purely mercenary grounds, and to have reference not to the well-being of the community, but to the exchequer of the newspaper. We are told that the capital expended by the owners of proprietary articles during the last hundred years is "in the region of one hundred millions," and, no doubt, a large proportion of this vast sum has gone into the pockets of newspaper owners, who, during those hundred years have given a wide publicity to the plausible puffs of the pill-maker and the scarcely veiled announcements of the abortion-monger. The present advertising expenditure of the 300 members of the "Owners of Proprietary Articles Section" of the London Chamber of Commerce is estimated at two millions a year, and whilst morning newspapers are said to derive at least a third of their revenue from the advertisement of proprietary articles, the evening and weekly papers, it is said, receive a half, or even three-quarters, of their income from this source. "Am I to risk losing my share of two millions per annum?" is the question each newspaper is invited to ask itself; and again: "The broad question for the newspapers will shortly be: Which shall we support, the people who have advertised, are advertising, and will keep on doing so, or the people who don't advertise and don't believe in it, and who, if they did, haven't the money to spend upon it?" The answer of the press should be short and sharp—deeds not words—for the tendency of British legislation in recent years has been inimical to vested interests, and on this very question it is doubtful if any exception will be made if things are allowed to drift." This in a few words is the case, and, from the newspaper owner's point of view, the whole case, for the unrestricted sale of quack medicines. It could scarcely have been put more frankly, and *The Newspaper Owner* deserves thanks for its candour. There is no beating about the bush, no

hypocritical special pleading that to take these yearly millions from the public by announcements highly coloured, overdrawn, and making up by plausibility for what they lack in veraciousness, is for the good of the community. The magnitude of the figures given would seem ample reason for investigation into this trade. The enormous advertising expenditure connotes a much more enormous expenditure by the public on the patent medicines. When in exchange for articles, often not worth a few farthings, the public pays not only the advertising bill, but provides the expenses and profits of the vendors, as well as the Inland Revenue stamp, the time has come to ask if the outlay of so stupendous a sum of money is benefiting the community.

INFECTIOUS DISEASE IN ENGLAND AND WALES IN 1911.

THE introduction of compulsory notification of cases of infectious disease in 1889, though applied only to a portion of England and Wales, enabled the Local Government Board to carry out a scheme which had been initiated in the previous year by Dr. Tatham, then Medical Officer of Health of the borough of Salford, for the interchange of information relating to the incidence of those diseases notifiable among certain medical officers of health. The scheme was in force for twenty years, but it applied only to urban districts and to such of these as chose voluntarily to enter into it. In 1910 about one-fourth (252) of the total number of urban districts in England and Wales and 55 port sanitary authorities furnished lists to the Board each week of cases notified in their districts, and to them the Board transmitted the details of the complete returns. Although the information thus supplied related to an aggregate population of over twenty million persons, its usefulness was restricted. The Local Government Board therefore took the opportunity of the issue of a new Order relating to the duties of medical officers of health to apply the scheme to the whole country, and since the beginning of 1911 the medical officers of health of every urban and rural district have been required to send to the Board and in the case of administrative counties to the medical officer of health of the county a weekly return of the cases of infectious disease notified, and the Board sends back to the medical officers of health a tabulated statement of those returns arranged in counties. A complete return for the year 1911 has now been issued.[1] The total number of cases of small-pox, scarlet fever, diphtheria, typhoid fever, puerperal fever, and erysipelas is given for each sanitary district, together with the rate per 1,000 of its population in 1911. In a preface to the return Dr. Arthur Newsholme has given an interesting historical statement of the attempts made from time to time to secure not only the notification of cases of sickness, but the transmission of the information obtained to those to whom it would be valuable. As long ago as 1857 the Metropolitan Association of Health Officers, which subsequently became the Society of Medical Officers of Health, collected and distributed returns of sickness of all kinds attended at the public expense in hospitals and dispensaries, and by Poor Law medical officers. Through various stages there has now been evolved the more complete scheme carried out by the Local Government Board, which must be of increasing value as time goes on, and as diseases other than those at present compulsorily notifiable are dealt with. For example, at the end of the present year valuable information will be available with respect to the incidence of pulmonary tuberculosis, a disease which is now notifiable throughout England and Wales.

[1] Reports to the Local Government Board on Public Health and Medical Subjects. Statistics of the Incidence of Notifiable Infectious Diseases in each Sanitary District in England and Wales during the Year 1911. Wyman and Sons. Price 6d. (New Series No. 64.)

THE ROYAL ACADEMY.

THIS year, as on some former occasions, we have had to note and to deplore the absence from the walls of the Royal Academy of pictures displaying dramatic action or depicting subjects which might be of specific interest to our readers. But the explanation is not far to seek. Art, like so many other things, is swayed hither and thither by gusts of fashion, sometimes proceeding from combination of dealers, and at others the result of public opinion, led peacefully through the nose by those irresponsible persons known as "critics," the very mention of whose name is to the art world like a red rag to a bull. The result of all this is that painters, who, however high their aspiration, must condescend to consume the prosaic bread and beef of domestic life, have to produce what they can sell. We once tackled Luke Fildes, whose splendid "Doctor" was the success of its year, and asked why he had given up his class of subject, and his answer was complete, "I have to keep myself and an expensive family, and I can get as many portraits at good prices as I have time to paint. It would take me a year to send out of my studio a subject picture worthy of my reputation; it would take all my time for a year, would cost money for models, and in the end probably I should not be able to sell it." The cogency of this reasoning cannot be denied, but one effect of this decision on the part of one of our ablest artists, and of others like-minded, is to make the Royal Academy much less interesting to the man in the street, and to diminish its "gate money." For we have been told on undeniable authority that one of John Collier's problem pictures, which set people a-thinking, was worth thousands in a year to Burlington House. This being the case, we naturally turned to the catalogue to see if this well-known practitioner in this line of business had got anything to shake us out of the dull monotony of the commonplace. But all that rewarded our search was a portrait of Mr. Bland-Sutton, sufficiently like to be recognizable, and only mysterious in so far that we are not quite sure whether the table beside which he is standing will eventually hold one of the victims of his swift and steady knife. Caton Woodville's "The Microscope" has a somewhat remote dash of scientific interest, which is fully maintained by a marvellously realistic representation of Lord Avebury, friend of the bee and the ant, from the practised brush of Sir H. von Herkomer, whom we cordially congratulate on his recovery from his long and severe illness. Not far off Sir Patrick Manson beams upon us from a somewhat unnecessary elevation, and perhaps we may include in our list the altogether admirable portrait of John Cales, in which Herkomer has absolutely excelled himself, difficult though the task might seem, by bringing before us in life-like conjunction the shrewd and kindly features of the chairman of the Medical and Clerical Insurance Office. Sir William Richmond has an able reproduction of an able man, Dr. Bridges, and Sir David Gill, released from his star gazing at the Cape, seems to have renewed his youth under the sympathetic brush of George Henry. Sir William Collins in marble has been endowed with a severity out of harmony with the genial nature, combined with the firmness and tenacity of purpose which made him such a useful member of Parliament and caused so many regrets at his absence from St. Stephen's. Finally, let us congratulate two hardy veterans—Sant, aged 92, sends a charming landscape, and C. G. Johnston at 80 is as much at home as ever in Nature's best rural scenes. Long may they live and paint and flourish!

"CAGOTS."

THERE has always been a certain amount of difference of opinion over the real meaning of the word *cagot*. Whilst many authorities believe it to be merely the old French term for a leper, others regard it as another name for the

crets'n; and a far more ancient theory than either accounts for these poor outcasts by putting them down as the degenerate descendants of the Goths, Saracens, and Jews conquered by Charles Martel. Dr. H. M. Fay, who contributed an interesting account of "Les Cagots à l'Eglise" to the February number of *Aesculape*, believes *cagotisme* in the Middle Ages to have been synonymous with leprosy, and gives a vivid description of the treatment of mediaeval *cagots* in the country districts round the Pyrenees. One thing which is evident from Dr. Fay's article is that, whatever cagotism was, it was regarded with the utmost horror by all classes of society; and the drastic measures adopted for its suppression testify eloquently to the popular belief as to its extreme contagiousness. The origin of *cagotisme* is very obscure. Mediaeval physicians believed leprosy to have been introduced into Gaul in the very early ages by the Phoenicians who settled in Aquitaine. The disease, however, had almost died out when the invasion of the Franks in the sixth century stirred the slumbering embers into flame, and leprosy increased to so alarming an extent that the first leper hospitals ever founded in Gaul date from that epoch. These establishments owe their origin to the monks, who both founded and maintained them; and a few years later the Church placed all lepers under the direct jurisdiction of the bishops. One consequence of this decision was to make the leper a subject of the Church instead of the State (a privilege, by the way, which he enjoyed in Brittany down to the end of the eighteenth century). Another was to make each bishop responsible for the food and clothing of such lepers as might be found in his diocese—a precaution of which the object was to prevent the disease being spread throughout the country by leprous beggars wandering from place to place in search of work or alms. Two centuries later a determined effort was made to exterminate the evil root and branch. Under Pépin le Bref and Charlemagne, leprosy was solemnly declared to constitute a legitimate cause for divorce; and little by little, as time went on, the civil power gradually separated the leper from his fellow men until his ostracism was complete. Happily, his only protectors, the bishops, did all in their power to lighten his terrible burden, or his case would have been hard indeed. As it was, so intense was the fear of infection, that the *cagots* were pariahs even in church. An ecclesiastical decree of the fourth century ordered them when hearing Mass to remain under the belfry in the porch of the church, a rule which was religiously observed in certain parts of France until the opening years of the nineteenth century, and which was not even relaxed at the request of Pope Leo X and the Emperor Charles V, when leprosy had died out amongst the *cagots*. Antiquaries are not, we believe, agreed that the "leper's squint" which is seen in so many old churches in this country was in all cases intended to enable lepers to be technically present in church during Mass, but in many cases the opening in the wall is in a position that strongly suggests that purpose. In many French churches a side door was made especially for the use of *cagots*, who were also provided with a separate basin or font for holy water, though the latter seems to have been frequently administered to them, as was the *pain bénit*, at the end of a stick; whilst tradition tells us that the water used for the baptism of a baby *cagot* was immediately thrown away. Separate altar-rails were also provided for *cagot* communicants; and even their cemeteries were apart from the last resting place of other Christians. Wherever it was possible a separate chapel was erected for their use, such as the one at Balère, a little hamlet at the foot of the Pyrenees, where, by the way, it is still considered a deadly insult to remind a neighbour *Qu'as l'aieu à Balère*, that he has an ancestor buried amongst the *cagots*. In view of the stringent laws made by the early Carlovingians to check the propagation of the disease by marriage, it is interesting to find that the Church, on the contrary, permitted not only the intermarriage of *cagots*, but also of *cagots* with untainted persons, though the latter were naturally very rare. In the province of Béarn, such marriages were accomplished only with great difficulty, and according to the strict letter of the law the healthy partner thenceforward ranked as a *cagot*. In reality, however, this rule only held good in the case of women, for an untainted husband was considered to *décagotiser* his wife. *Cagot* weddings were always performed in the strictest privacy, all outsiders being carefully excluded from the church. If by chance any were invited to the subsequent feast their seats at table were indicated by the position of the round rolls of bread intended for their consumption, these being placed as usual on the flat part of their surface, whilst those belonging to the *cagots* stood upside down. It is not surprising that men condemned to what was literally, in many instances, a living death, should have had recourse to every means within their power to rid themselves of their hideous affliction. Pilgrimages were a favourite method amongst mediaeval *cagots* of propitiating the Providence which had seen fit to set them apart so completely from "the kindly race of men," and the village of Navailles, in particular, was for many years a centre for hundreds of unfortunate beings who came to implore the help of their patron, St. Loup. The parish church at Navailles contained a rude effigy of the saint which was credited with miraculous powers of healing, and it was believed that the *cagot* pilgrim had but to cover the stone face with a cloth, which he then applied to his own, to find himself freed from his lifelong disfigurement. The pilgrimages ceased long ago, but St. Loup's battered countenance is still to be seen in the church, though it no longer occupies its former position over the *cagots*' door. It lies in a corner amongst other débris, a testimony to the faith of former years, and a silent witness of the hopes and fears that once drove generation after generation of suffering humanity to seek relief at his shrine.

NOSES TO MEND.

THERE is in London an institute of facial perfection which is under the direction of Mr. C. H. Willi. That gentleman, doubtless philanthropically impressed by the number of misshapen noses that he sees in this great city, has issued a translation of a pamphlet by Dr. Fritz Koch entitled *Disfigured Noses and Their Correction*. The pamphlet is introduced by a preface by Professor Gustav Eberlein, a sculptor. Speaking of the photographs of rectified noses laid before him by the author, that artist says: "Amazed I consider the perspective of the future, when the human race will consist of men and women who all possess ideal noses, or at least no deformed ones." Truly a sublime vision! Walt Whitman, writing before the science of eugenics was thought of, foresaw America peopled by millions of magnificent persons, but he says nothing about their noses. For our own part we think we shall miss the present infinite variety of nose that presents itself in the streets, in the omnibus, or the train. A community of men and women with ideal noses would, we venture to think, be very tiresome to each other. We sympathize with poor little Dombey's reflection that the Romans must have bored each other fearfully with their uniformity of hooked noses. Dr. Koch takes a very serious view of the nose, and this has impelled him to write on a subject "which is deeply rooted in surgery, while it also closely touches natural history and plastic art." He thinks it necessary to begin with a sketch of the history of surgery, in which we learn incidentally that Simpson discovered chloroform in 1849. Passing to the surgery of the nose, we are told that a certain type must be taken as a standard of comparison. "Let us suppose," says he, "that the nose possesses the shape of a three-cornered pyramid, of which the longest side is represented by the bridge and which is based upon the face. In

that case the sides of the nose form two scalene triangles, while the plane of the nostrils forms an equilateral triangle. Experience teaches us that the average nose has a length of about double its height, while its width is less than its height. Furthermore, the length of the nose should be about one-third of the entire length of the face—that is to say, from the beginning of the scalp to the point of the chin." Based on these data, the surgery of the nose must, we infer, be carried out on geometrical principles, and the modern corrector of noses doubtless takes his measurements with a theodolite, like the tailor in Laputa. It may be remembered that the results of that highly scientific method were not altogether successful in practice. Dr. Koch would seem to be more fortunate, if we may judge from the pictures he gives of cases before and after his treatment. We cannot, however, say that they strike us as such triumphs of plastic art as they seem to Professor Eberlein. We next wander with the author to the part played by the nose in the science of physiognomics. The Roman nose, he says, is believed to give to its possessor something of the heroism of the old Romans. We had heard that the strength of Samson lay in his hair, but the idea that the heroism of the antique Roman lay in his nose is new to us. Yet there is something in the nose besides the "Blood" which Hamlet's Aunt, in *David Copperfield*, could see there. Napoleon was a good judge of men, and he is said to have connected a solid-looking nose with force of character. Nature has played the stepmother towards many of us in this matter. But there is hope for all, for Dr. Koch undertakes to change facial expression entirely by means of a slight surgical operation. He touches lightly on the making of new noses, but here he loses himself in the mist of history. "It is on record," he says, "that over three hundred years ago (!) an Indian named Susruka (*sic*) tried to reconstruct a destroyed nose." He formed new noses by cutting a piece of skin from the forehead and bridging therewith the chasm of the nostrils. Then came Tagliacozzi, who took the skin for a new nose from the arm instead of the forehead. According to the author of *Hudibras*, the Italian surgeon went even further afield to get the raw material for his artificial noses.

> So learned Taliacotius from
> The brawny part of porter's bum
> Cut supplemental noses, which
> Would last as long as parent breech,
> But when the date of Nock was out
> Off dropt the sympathetick snout.

We know that the lease of the new nose is not thus determined. But we once had the opportunity of seeing an old lady who figured in a classic textbook of surgery as a brilliant example of the effects of rhinoplasty. Alas! the new nose had in the course of years shrunk till it looked like a piece of skin stuck on her face. In the way of mending there is nothing apparently beyond the art of Dr. Koch. He treats grog blossoms, "potatoe (*sic*) nose," "bull dog nose," "duck bill nose," "devil noses," noses with humps, crooked noses, pointed noses, with equal success. He repairs the ravages of lupus and syphilis with more than the skill of "Susruka" or his Italian successor, transforms ladies with noses tip-tilted not "like the petal of a flower" but like a crooked spout, into recognized beauties, and actresses with too marked a nasal curve into the sweet simplicity of what he calls the "Ingenu" form. He removes the Jewish "ligament" with such success as to make a fugitive unrecognizable by the police who are after him. He modestly claims for himself that "what the revolutionary ideas of Lister have done for Samaritan surgery . . . the art and the work of correcting disfigured noses is a brick in the same building." But though the book is a record of successes, the importance of which from the social and other points of view is throughout impressed upon the reader, there is a baffling vagueness as to how these triumphs are achieved. A "special device" designed by himself seems to be the instrument of Dr. Koch's success, but no particulars are given as to this "device." Another thing about which we are somewhat in the dark is that, assuming Dr. Fritz Koch to be a legally qualified German surgeon—a point on which we have no information—who is the operator at the Institute of Facial Perfection?

A SIXTEENTH CENTURY MEDICAL OATH.

In the JOURNAL of May 4th we gave the text of the Hippocratic oath, and compared it with the oath taken by Indian candidates on their initiation to the study of medicine according to an ancient rite. It may be interesting to give an example of another kind of oath taken by a German functionary who to some extent combined in his own person the functions of our medical officers of health and Poor Law doctors. The oath was taken by J. J. Wecker on his appointment as municipal doctor or *Phisikus*—apparently the first appointment of the kind—to the city of Kolmar in 1570. After swearing obedience to the mayor and council of the town in everything that was good and just, he bound himself by the terms of the oath to notify the municipal authorities of everything which to his knowledge might become injurious to the town, and to promote everything that might turn to its advantage and its honour and to that of religion. He bound himself to serve with zeal and fidelity, as becomes a pious, honest, and skilful doctor, every person who seeks counsel of him and asks for his services, not refuse himself to anybody, and to visit twice a day every patient confined to bed. He pledged himself not to pass the night outside the town without the authority of the mayor if there were any patient in the town who was anxious not to be deprived of his presence. Further, he bound himself to visit the pharmacies of the town once a year accompanied by representatives of the municipal authority, and to make to the mayor a report on those which he found defective: to this report he had to add such information and advice as might serve to remedy these defects and prevent the repetition of them, so that the pharmacies might at all times be kept in good condition. He swore not to make in his own house any of the preparations which are within the special domain of pharmacists, and to confine himself to prescribing his own remedies and to leave the dispensing of them to the sworn pharmacist, so that things might be done normally and in a regular manner. Should it happen that there were in the town two or more sworn pharmacists, the doctor bound himself not to give prescriptions in favour of, or to the detriment of, one or other, nor to send patients to one and keep them away from the others. He must leave the client free to go where he pleased. If the municipal medical officer discovered a leper, he undertook on his hope of salvation to declare the same without omitting any detail and without favouring any one. He bound himself to the following scale of fees: For an examination of urine, 1 batz (rather less than 3 sous); for a first visit, 5 batz; then weekly, 10 batz. Each new examination of urine, each new prescription, every other care given to the same patient during the course of the week, was to be included in the sum named. If he wished to resign, he had to give notice in person before the assembled council six months beforehand. On its side the council engaged to apply only to him for every case that might occur while he was on duty. In exchange for these services the town must give to every sworn *Phisikus* outside the imperial domain a free dwelling, every four months 4 gulden, and a stack of wood, which made yearly 32 gulden (something less than £3 to £3 10s.), and four bundles of wood. If the council saw fit to withdraw this princely salary it had to give him notice six months beforehand that he might have time to provide for employment elsewhere. There is much in this oath that recalls present day conditions. The binding down of the doctor in his use of

remedies by the inelastic scale of fees is an example of the shortsightedness of public authorities in nearly all their dealings with the medical profession, which is still as prevalent in this country as it was in Germany in the sixteenth century, and which will doubtless be illustrated whether the Insurance Act is worked as it stands or the profession be forced to establish a public medical service. This Kolmar oath may be taken as a *reductio ad absurdum* of the principle of contract practice.

ROYAL SOCIETY CONVERSAZIONE.

The Royal Society held its first *conversazione* for this year on Wednesday. One of the most striking exhibits was that of the desiccated brain of an aboriginal Tasmanian, shown by Professor G. Elliot Smith. For reference he had placed beside it a careful drawing made to bring out the sulci of the brain, and other drawings showing that of a gorilla and of a specimen reconstructed from the skull of a primitive man. The specimen is the only one of the kind; the brain is asymmetric; it is of extreme simplicity, and has the ape-like fissure well marked on the left side, though on the right side it has been pushed back. The Cambridge Scientific Instrument Society showed a full-size string galvanometer as arranged by Professor Einthoven for the recording of heart sounds. The instrument, which consists of a stethoscope communicating with a microphone in a primary circuit, alters the electrical condition of the secondary circuit, in which the string galvanometer is connected with every variation in the sound. It was found possible to demonstrate a movement in the galvanometer by the snapping of the fingers close to the instrument. The special apparatus used to secure photographic records was also demonstrated. The National Physical Laboratory showed an apparatus for measuring the visibility of point sources of light. It contains a small standard light, and can be so arranged as to be directed to a distant source of light, such as a ship's light, and give an exact measure of its visibility. It was explained by the exhibitors that the laboratory is now engaged in devising, with the help of this instrument, lights that shall adequately meet with the requirements of the Board of Trade. Mr. J. H. Mummery exhibited his preparations illustrating the paper he read some months ago before the society on the distribution of the nerves of the dental pulp. His slides showed that in human teeth the bundle of medullated nerve fibres which enter at the apical foramen lose their medullary sheath as they approach the periphery of the pulp and enter into a fine plexus of neurofibrils immediately beneath the odontoblasts. From this plexus they could be seen passing between and around the odontoblast cells to a narrow marginal plexus at the dentine margin. From the marginal plexus fibres could be seen to arise, to enter the dentinal tubules in company with the dentinal fibrils, and to pass along them to their final distribution in the fine divisions of the tubules beneath the enamel and the cementum. Other exhibits of special interest were the collection of motor gyrostats formed by Dr. Gray and Mr. Burnside, Mr. Burnside's specimens showing the possibility of sealing copper wires directly into vacuum tubes and lamps; Dr. Gardiner's copies of paintings from the Egyptian tombs; Dr. C. J. Patten's specimens illustrating bird migration; Mr. J. Rheinberg's apparatus for colour photography by the micro-spectra method; Mr. C. T. R. Wilson's apparatus for making visible the track of ionized particles; Mr. H. S. Ryland's instrument for measuring the distance between the centres of rotation of the two eyes; Mr. R. L. Mond's antiquities from the Sudan; a large exhibit by the Marine Biological Association of Great Britain, showing the feeding and respiration of molluscs; Professor Poulton's specimens of butterfly mimicry and imitation, illustrated by types of marine plankton from the Irish Sea, shown by Professor W. A. Herdman and Dr. W. J. Dakin; and some specimens illustrating heredity in dogs by Professor Karl Pearson, Mr. E. Nettleship, and Mr. C. H. Usher. Demonstrations were given during the evening by Mr. C. V. Boys on soap bubbles; by the Hon. R. J. Strutt on active nitrogen, showing in particular the striking effects of pressure and temperature; and by Dr. J. S. Haldane on the scientific results of the Pike's Peak Expedition, 1911, to study mountain sickness and acclimatization to high altitudes.

CREMATION.

The announcement that the remains of Dr. Charles William Stubbs, Bishop of Truro, were to be cremated, and that the urn containing his ashes were afterwards to be placed in a niche in his own cathedral, may have startled some, but must have been welcomed by all friends of sanitary progress. To us this is an example which, we hope, will have a good effect in showing people that, to the enlightened Christian, there is no profanation of the "temple of the Holy Ghost" in this way of disposing of the bodies of the dead. It seems to us singularly beautiful and appropriate that the ashes of a high dignitary of the Church should repose as a visible reminder of his activity in the edifice with which he was so intimately associated. In connexion with this subject, we take this opportunity of replying to a correspondent who has asked as to the cost of cremation. We need only repeat what we said on this subject in the British Medical Journal of February 8th, 1908, p. 340: "The belief that cremation is a costly process has no foundation in fact. At Golder's Green, for instance, the average cost of cremation, together with a niche in the columbarium and a memorial tablet, is 13 guineas. An estimate of the cost of burial, with a memorial stone, based on the average cost of interment at six London cemeteries, is 18 guineas. Cremation has therefore the advantage of economy as well as greater decency in the disposal of the dead than the insanitary method still generally adopted." The cost of cremation itself, including the use of the chapel and waiting-room and all attendance after the body is placed on the catafalque table by the undertakers, is 5 guineas: this does not include the undertaker's charges. It is important that any one wishing his body to be cremated should make known his wish to the executors and nearest relatives; it is not sufficient merely to insert a direction to that effect in a will, because that document is rarely looked at till after the funeral. Moreover, any such direction, having no effect in law, would not bind unwilling executors. It is advisable, therefore, to appoint executors who can be relied upon to respect the testator's wishes in regard to cremation. It may not be amiss to state that special forms for recording a desire for cremation can be obtained from the Cremation Society of England, 324, Regent Street, London, W., which will also give advice as to arrangements.

A WARNING.

The case reported under the title "A Debt Collecting Agency," in our medico-legal column this week, contains a warning so plain that he who runs may read it. For some time past the comprehensive enterprise of the South-West London Tradesmen's Provident Society, Limited, has attracted the attention of the press, and the suspicion has not unnaturally arisen that the promises held out might prove illusory in practice. The Medical Defence Union has been watching the matter, and the case heard last week was undertaken by that body on behalf of the plaintiff in the action, who is a member of the Union. The collection of debts is a duty which is to many men irksome, and doctors, perhaps, have a larger share of this amiable weakness than those engaged in some other callings. But, after all, business is business, and it is difficult to see what good grounds a doctor or any one else can have for entrusting the responsible business of col-

leeting debts to people of whom he can really know nothing beyond the statements they make about themselves—statements, of course, not free from that personal bias in their own favour from which the most conscientious and impartial of men are not wholly free. Those who find reason to suspect that their confidence has not been well placed are often loth to confess their disillusionment, and prefer rather to cut their loss than take the case into court, and that the conductors of this particular enterprise are also averse from publicity appears from the remarks of counsel and from the observation of the judge that he agreed that the defendants had done all they could to prevent the matter coming into court. It appears that the plaintiff in the case had entrusted to the defendants the duty of collecting debts amounting to nearly £18, but neither the plaintiff nor the Medical Defence Union could obtain remittance of amounts admittedly collected. The matter was accordingly placed in the hands of Messrs. Hempson, the solicitors to the Union, by whom an account was claimed, together with payment of the amount collected. Failing to secure this, process was issued in the Wandsworth County Court. In the course of these proceedings certain orders of the court as to disclosure of documents and answering questions in the nature of interrogatories on oath failed to be complied with by the defendants, but a few days before the case was to be heard in the county court one of the defendants attended and tendered 4 guineas and the cost of the summons. The view taken by the judge is shown by his decision, and any further developments in the case will be awaited with interest.

THE ENGLISH AND SCOTTISH ADVISORY COMMITTEES.

THE names of the members of the Advisory Committees appointed by the English and Scottish Commissioners respectively have been published. The medical members of the Advisory Committee for England are the medical members of the Joint Advisory Committee whose names were published in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of April 13th, including all those nominated by the British Medical Association, with the following additional members selected by the Commissioners: Mr. G. C. Belcher, M.B., B.Ch., Assistant Medical Officer of Health for the county borough of West Bromwich, Miss A. H. A. Boyle, M.D., of Hove, Sussex; Mr. A. Crook M.R.C.S., L.R.C.P., of Norwich; Mr. A. Hamilton, M.B., C.M., of Hoole, Cheshire; Dr. Arthur Latham, Physician to St. George's Hospital; Dr. R. A. Lyster, county medical officer for Hampshire, and a member of the State Sickness Insurance Committee; Miss M. C. Murdoch, physician to the Victoria Hospital for Children, Hull; and Sir Shirley Murphy, consulting medical officer to the London County Council. In Scotland, in addition to the Scottish members of the Joint Advisory Committee, the medical members include Dr. D. Elliot Dickson, surgeon to the Lochgelly and other coal companies, Fife; Dr. G. R. Livingstone, surgeon to the Dumfries and Galloway Infirmary, and Honorary Secretary of the Border Counties Branch and of the Scottish Committee of the British Medical Association; and Dr. J. E. Moorhouse, Honorary Secretary of the Stirlingshire Branch of the British Medical Association.

THE LIGHTING OF PRIVATE HOUSES.

IT was all very well for the physician of a former day to counsel his elderly patient "never to attempt to read anything smaller than the nine of clubs after dinner." Such advice would be scorned by a modern world which lives its most crowded hours, not indeed by the flicker of the midnight oil, but by the steady glare of carbon or metal. At first sight it seems odd to discuss questions of foot-candles, zonal distribution, and initial intensity when considering the lighting of our living rooms, when all we ask is that the illumination there should be cheerful and subdued. Nevertheless the technicalities involved in the lighting of private houses gave rise to a brisk if de[illegible] discussion at the April meeting of the Illuminating Engineering Society, when, to keep the balance even, one paper was read on the subject of gas illumination and another on that of electrical lighting. The author of the latter, Mr. W. R. Rawlings, confined himself to the town and country mansion, while the gas expert, Mr. W. H. Y. Webber, as became his subject, was rather more democratic, and sketched the lighting installation of a £40 house. An interesting point made by Mr. Rawlings was that artificial daylight, if one may use the term, is by no means the ideal illumination for the home. Do we not desire rather to prolong the ruddiness of the sunset than to have evening lamps which imitate the white radiance of mid-day? Hence, the yellow carbon is likely to be more appreciated domestically than the white filament. The same speaker urged that it was the duty of the illuminating engineer to co-operate with the medical profession in pointing out the objections to glare and even its danger, although in some cases it is found that people do not object to glare; an outstanding difficulty is that in the matter of fittings and the general disposal of the lamps the man who pays the piper thinks that he—or more frequently his wife thinks that she—has the right to call the tune. The authors of both papers seemed generally to prefer small scattered units to a central illumination, except of course, in the dining-room. The gas expert laid stress upon the value of a white tablecloth in a working apartment, in addition to a white ceiling and frieze. But his happiest plea was for the retention of the soft *chiaroscuro* of old memories, and although he admitted that it was past praying for, he was of opinion that the mellow light of a good Argand gas lamp, suitably shaded, was still the most comfortable and innocuous of all means of localized illumination in the study. He proceeded yet further away from the mighty Welsbach when he went on to declare that the wax candle was a thing of beauty, and that good candle light was still hard to beat. Few general conclusions emerged from the discussion, save that engineers, like the rest of mortals, can be sentimental on occasion, and that, so far as lighting is concerned, *laissez faire* might be inscribed on every domestic portal.

VILLAGE WATER SUPPLIES.

THOSE who are concerned with public health administration have no greater problem to solve in many rural districts than that of the provision of a proper water supply. There are to be found in the gardens of a large number of country cottages two large holes not far distant one from the other. From one hole—the well—is drawn the water supply of the dwelling, and into the other hole—the cesspit—is discharged the liquid drainage. No inquiry seems to be made by the occupants as to whether there may be any underground intercommunication between the contents of these two holes. As a fact there very constantly is, and with disastrous results. This is what the late Professor Corfield used to call the circulatory system of sewage disposal and water supply. At a conference recently held in Cambridge, Professor Henry Kenwood made some practical suggestions as to rural water supplies which merit consideration. He admitted that in some places water must be obtained from shallow wells, and suggested that in such cases privy cesspits should be converted to earth closets in order to lessen the risk of contamination under ground. He advocated better and more adequate means for storing rain water, and very properly stated that although the roofs of average village cottages were not always desirable gathering grounds for drinking water, yet the water thus collected and stored under ground was infinitely safer than that from the average shallow well, and being soft was generally preferred for use in making tea and for cooking. The roof

surface of a cottage is not, however, sufficiently extensive to provide an adequate water supply unless the storage capacity is far greater than that usually found. For this reason Professor Kenwood suggests that the rainfall should be collected on a suitable small catchment area, stored in a small reservoir and thence conducted by gravitation to the cottages. He urges that the cost of such schemes might be borne in whole or in part by the State, or that there should be greater facilities for borrowing money for the purpose of carrying out small undertakings. The owner of a house unprovided with a proper water supply which was occupied before 1878 can only be compelled to provide a supply if the capital cost does not exceed about £8, or in certain circumstances £13. There are many instances in which a group of cottages could be well provided with a joint supply at an expenditure considerably less than the aggregate of these sums. One reason why they are left unsupplied is that as a rule a rural authority has no official competent to advise on a scheme or to carry one out. If some assistance in this particular could be forthcoming from a central authority many local authorities might be persuaded to undertake water schemes upon which they dare not now, for want of knowledge, embark.

DINNER TO THE LORD MAYOR.

The Lord Mayor, Sir Thomas Boor Crosby, M.D., F.R.C.S., was the principal guest at a dinner at the Royal College of Surgeons on May 3rd. The President of the College, Mr. Rickman J. Godlee, was in the chair, and among the guests present were Lord Reay, Sir Herbert Cozens-Hardy, Lord Justice Fletcher Moulton, Sir Archibald Geikie, Sir Savile Crossley, Sir John Tweedy, Sir R. Douglas Powell, Admiral Sir John Durnford, the Dean of St. Paul's, Sir James Porter, K.C.B., Surgeon-General Sir William Gubbins, K.C.B., Sir Philip Magnus, M.P., Sir W. Goscombe John, Sir James D. Linton, Sir William Church, Lieutenant-Colonel D. Prain, Mr. A. W. Mayo Robson, the Sheriffs of the City, the Masters of several City Companies, the Council of the College, and the College officials.

It is proposed to endow a pathological laboratory at St. Vincent's Hospital, New York, as a memorial of Dr. William Francis Norman O'Loughlin, the senior medical officer of the *Titanic*, in which he went down after rendering all possible assistance in saving others. Dr. O'Loughlin, who was a graduate of Trinity College, Dublin, and a licentiate of the Royal College of Surgeons in Ireland, had been forty years in the service of the White Star Line. He was a man of singular unselfishness and self-sacrifice, and the devotion with which he gave up his life was a fitting end to a career of unostentatious heroism.

Medical Notes in Parliament.

[From our Lobby Correspondent.]

National Insurance Act.

British Medical Association.

Mr. William Peel had put down a question for May 6th to ask the Chancellor of the Exchequer how many deputations he received from the British Medical Association before the introduction of the National Insurance Bill on May 4th, 1911, and on what dates; did he, before the introduction of the bill, invite representations from the British Medical Associations; and did he afford the Association any opportunity of becoming acquainted before May 4th with the special provisions of the bill affecting the medical profession? Mr. Lloyd George, in a printed reply, said: I interviewed members of the medical profession on several occasions before the introduction of the bill on the question of the medical arrangements under the bill. On three separate occasions I received deputations during the months of March and April, 1911, at the request of the British Medical Association.

On May 7th Mr. Peel asked a question on the same subject verbally, and we reproduce the question and replies from the official report:

Mr. William Peel asked the Chancellor of the Exchequer (1) what steps he proposes to take to carry out the terms of the resolution moved by the hon. member for West Cumberland on Wednesday last with regard to the co-operation of the medical profession in working the National Insurance Act, and accepted by him on behalf of the Government; and (2) how many deputations he received from the British Medical Association before the introduction of the National Insurance Bill on May 4th, 1911, and on what dates; did he, before the introduction of the bill, invite representations from the British Medical Association; and did he afford the Association any opportunity of becoming acquainted before May 4th with the special provisions of the bill affecting the medical profession?

Mr. Lloyd George: I would refer the hon. member to the answers to this and the next question which appear in the Official Report for yesterday. I have nothing to add to these answers except, with regard to the latter, I had overlooked the fact that, in addition to the deputation to which I have already referred, I received a deputation from members of the medical profession in my room at this House at the beginning of the year 1911.

Mr. Peel: May I ask the right hon. gentleman whether it is not a fact that the doctors were appointed to the Advisory Committee so long ago as March 16th, and, if so, how is it that the Committee is only going to meet for the first time, as I understand, next Friday—nearly two months after the doctors had nominated their members?

Mr. Lloyd George: That does not quite arise out of the answer which I gave, but I may be allowed to answer the hon. gentleman. The Advisory Committee does not consist merely of members of the medical profession. We had to get nominations from the great employers' associations in the country, the friendly societies, the trade unions, and several other bodies. The Advisory Committee meets on Friday to consider the Regulations. They were not ready for consideration earlier.

Mr. Peel: May I ask whether, in view of the report of the actuaries, it is really any use for the doctors to be allowed to present their case to the Commissioners as regards further payment.

Mr. Speaker: The hon. gentleman should give notice of that question.

Some further conversation ensued with regard to the circumstances under which Mr. Peel's question on the previous day had been answered in writing. Finally, Mr. Crawshay-Williams, Parliamentary Secretary to the Chancellor of the Exchequer, made the following statement:

> In order to oblige the official reporters, an advance copy is sent down early so that the answers to the questions may not be delayed in the Official Report. When a member postpones his question, it sometimes happens that it gets through, whereas the others are stopped. Yesterday all copies of the questions were stopped, except that of the official reporter, and the question which the hon. member did not ask I think did not appear in the press, and was not sent to him. The one that appeared in the press was sent to him.

Sir Philip Magnus had given notice of the following question, which, in his absence on May 8th, was asked by Lord Balcarres: To ask the Chancellor of the Exchequer whether his attention has been called to the terms of the pledge contained in a document addressed by the Medical Secretary of the British Medical Association to all members of the medical profession, whether engaged in club practice or not, and to the form of resignation of contract practice appointments now held by club doctors to be used in the event of the Commissioners being unable to arrange terms of practice satisfactory to the medical profession; and if so, what action he proposes to take; and whether, having regard to the document issued by the British Medical Association, it is still the intention of the Government to bring the Insurance Act into operation on July 15th of this year, notwithstanding the fact that any Act for the cure of sickness and prevention of disease cannot become operative without the assistance and voluntary support of members of the medical profession.

The Chancellor of the Exchequer replied: I am aware that statements have been made in the press as to a form of pledge which is alleged to have been issued by the British Medical Association to members of the medical profession in reference to conditions which were in existence before the Insurance Act was introduced, and which that Act neither extends nor perpetuates. The pledge appears only to relate to action to be taken if the Commissioners and Insurance Committees fail to come to agreement with medical men as to work under the Act. Negotiations will commence as soon as the Advisory Committee meets. The first meeting has been fixed for Friday next (May 10th). Medical benefit does not commence until next January, and no decision on this matter is necessary before bringing into operation such portion of the Act as comes into effect in July. Moreover, the general operation of the Act cannot be affected by any decision as to the particular form medical benefit may take, whether the panel system with free choice of doctor or the alternatives of special arrangements by the Insurance Committees or Commissioners with the approved societies or the payment of a monetary equivalent to each insured person.

Lord Balcarres: Are we to understand negotiations on this matter do not begin till Friday? Mr. Lloyd George: Certainly.

Mr. Fred Hall: Is the right hon. gentleman still of opinion that medical benefit will take effect as from January 15th next? Mr. Lloyd George: Certainly.

Mr. J. Ward: Why not decide in a reasonable time to place a certain sum to the credit of each insured person? Mr. Lloyd George: As I have said, that is one of the possible alternatives.

The Resolution of May 6th.

Mr. William Peel on May 6th asked the Chancellor of the Exchequer what steps he proposed to take to carry out the terms of the resolution adopted by the House on May 1st, with regard to the co-operation of the medical profession in working the National Insurance Act, and accepted by him on behalf of the Government? Mr. Masterman, in a printed reply, said that since the passing of the Act the Commissioners had invited all representative bodies of the medical profession to confer with them with a view to securing their co-operation in arrangements for the working of the Act, and were prepared to consider any representations which any section of that profession might desire to place before them. The meetings of the Advisory Committee appointed to assist the Joint Committee of Insurance Commissioners in the preparation of regulations would begin on Friday next, and would be proceeded with as rapidly as possible. Among the regulations to be considered in due course would be those relating to medical benefit. In the drafting of these the medical members of the Advisory Committee, who included twelve representatives nominated by the British Medical Association, would have full opportunity of presenting the case of the profession for the consideration of the Commissioners.

Alternative Benefit.

Mr. T. E. Harvey asked the Secretary to the Treasury (1) how many societies had submitted schemes to the Insurance Commissioners providing for an alternative benefit in lieu of sickness benefit, how many such schemes had been approved by the Commissioners; and (2) whether the Insurance Commissioners would issue any actuarial statement showing what alternative benefit, in the form of an annuity or similar payment, could reasonably be offered by approved societies as an alternative benefit in lieu of sickness benefit. Mr. Masterman replied that under Section 13 (3) the Commissioners were placed in a judicious capacity to confirm or reject schemes of alternative benefits submitted by societies as giving benefits equivalent in value to the ordinary benefits of the Act for which they had been substituted, and suitable to the special circumstances of members or classes of members coming under the scheme. Full material for the actuarial calculations necessary would be available for all societies very shortly. No schemes had yet been submitted.

Sick Pay.

Mr. Charles Duncan asked the Secretary to the Treasury whether a person in receipt of a salary of £60 per annum, who could receive six months' sick leave with full pay and six months' sick leave with half pay, would require to become an assured person under the provisions of the National Insurance Act.

Mr. Masterman replied that a person employed on the terms mentioned would require to be insured under the the Act, unless he came under one of the specially excepted classes or was entitled to a personal exemption. Special provision was made in Paragraphs (*b*) and (*c*) of Part II of the First Schedule to except Government and municipal employees, and railway clerks and salaried officials with rights in statutory superannuation funds, if the provision made for them in sickness and disablement was certified by the Commissioners as on the whole not less favourable than the corresponding benefits of the Act. Provision was also made under certain conditions by Section 47 of the Act for making an equivalent reduction in contributions in cases where wages were guaranteed for six weeks of illness. If his hon. friend would give particulars of any class of persons he had in mind, he would see whether he could inform him of their position under the Act.

Bovine Tuberculosis.

Mr. Courthope asked whether the Commissioners responsible for the National Insurance Act would consider the adoption of preventive measures, including those affecting bovine tuberculosis, such as the provision of compensation for the slaughter of cattle suspected of being tuberculous. Mr. Masterman said that the Commissioners responsible for the administration of the National Health Insurance Act were, strictly speaking, only concerned with the provisions necessary for the detection and proper treatment of tuberculosis when occurring among insured persons and their dependents. Other Government Departments were, however, concerned with preventive measures affecting the whole population, and he would see that the suggestion of the hon. member was brought before them.

Casual Agricultural Women Workers.

Mr. Harry Hope asked the Secretary to the Treasury whether he had read the answers given by the Chairman of the Scottish National Health Insurance Commissioners at a meeting of Fife farmers held in Cupar on Tuesday, April 23rd; and if it was the case, as he stated, that where a farmer employed the wife of a ploughman, she being not dependent on such employment for her livlihood, to do a few days' potato gathering, he would have to pay a contribution in respect of her, while she would be exempt from paying; and what would be done with the money contributed by the farmer. Mr. Masterman said he had seen a report of a meeting at the place and time mentioned, at which the Chairman of the Scottish Commission was asked certain questions as to persons entitled to exemption. The statements referred to in the report were correct. Under Section 4 (4) of the Act, the employers' contributions paid in respect of persons who, though employed were not insured because they held certificates of exemption, were to be carried to such account and dealt with in such manner as might be prescribed by regulations made by the Insurance Commissioners; and such regulations might provide for applying the money to the benefit of the persons in respect of whom it had been paid if they subsequently become employed contributors.

University of London.

Proposed Site.

Sir Hildred Carlile asked whether it was still proposed to constitute a body of trustees to receive gifts offered in connexion with the proposed site for the University of London, and, if so, who was making the appointment of such trustees; whether the Senate of the University of London, as constituted by the Act of 1898, was empowered to receive gifts offered for the purpose of providing for the accommodation and needs of the University as part of their duties as the supreme governing and executive body of the University; and whether the Royal Commission on University Education in London, now sitting under the chairmanship of Lord Haldane, had other than advisory powers. The Prime Minister said that, although certain sums of money had been offered for the purchase of a particular site for a reconstituted University, no body of trustees had yet

been effectively appointed. Nothing that might be done in anticipation of the needs of a reconstituted University was any bar to the present Senate exercising the power which it had under the Act of 1898 to receive gifts for the purpose of providing for the accommodation and needs of the present University. The answer to the third part of the question was in the negative.

Mr. MacCallum Scott asked the Prime Minister whether he would state to whom the anonymous gift had been made towards the acquisition of a site and new buildings for the head quarters of the University of London; whether a condition attached to the offer was that a particular was to be acquired; whether the particular site in question was that of four plots on the Bedford estate to the north of the British Museum; whether the price asked for that site was £375,000; and whether he would state the value placed on that site by the London County Council. The Prime Minister replied that he was informed that various sums of money had been offered anonymously to Lord Haldane on behalf of the trustees proposed to be appointed. Some of these offers were made conditionally upon the purchase of a particular site. The answer to the third part of the question was in the affirmative. As regards the fourth part, he understood that a less sum than that mentioned would be accepted. He was not aware that the question of the value of the site referred to had ever come before the London County Council.

Mental Hospitals and Asylums.—Mr. Chancellor asked the Home Secretary whether he had received from a number of mental hospitals and asylums application for a grant of money to be expended on research; and whether, before any such grant was made, he would give the House an opportunity of expressing an opinion on the use of public money for experiments on living animals to discover methods of mental treatment. Mr. McKenna said that the answer to the first part of the question was in the negative, and therefore the second part of the question did not arise. He might add that he had no funds at his disposal from which any such grant could be made.

The Housing of the Working Classes Bill, for which Sir Griffiths Boscawen obtained a second reading, seems likely to have hard times in Committee. In the second reading debate it was pointed out that it required half a million of money from the Government to carry it out. Mr. Burns said that this demand was not likely to be met, but at the same time gave a benevolent support to the bill: he failed in his attempt to refer it to a Committee of the whole House which would have settled it for this session. In the Standing Committee, to which the bill was referred, the President of the Local Government Board on Monday expressed clearly the grounds of opposition. The Government were opposed to the suggested subsidy and also to the proposal to appoint three Housing Commissioners. The Local Government Board had a special department for housing problems and a staff of some fifty expert officers who could all be concentrated on housing questions. Sir Griffiths Boscawen defended his bill, and said the Local Government Board was not sufficient for the housing work required. Mr. Burns said that the first three clauses of the bill must be rejected, but there were other clauses which were not objectionable and which might be discussed with advantage. The Committee negatived Clauses 1, 2, and 3, and afterwards adjourned. It will have to be considered whether what remains of the bill is worth going on with.

Lead Poisoning (Potteries).—In reply to Mr. Noel Buxton, the Home Secretary said that the number of cases of lead poisoning in potteries last year was 92; in 1910, 77; during the first three months of the present year, 24. The new Regulations based on the recommendations of the Committee had not yet come into force. In accordance with the procedure laid down by the Factory Act, they had first to be published in draft, and on the publication of the draft a large number of objections on details were received from those engaged in the industry, both employers and operatives. It appeared to him that the most satisfactory, and probably the speediest, method of settling the matter was to ask the Chairman of the Committee, who was thoroughly familiar with the whole question, to confer with the objectors, with a view to arriving at an agreement on the points raised. The Chairman undertook to do this, but, partly through ill health, he had been prevented up till the present from taking up the question. He understood that he now hoped to do so very shortly. Unless the objections could be settled by agreement, it would be necessary to hold a formal inquiry in accordance with Section 80 of the Factory Act.

Carbon Monoxide Poisoning.—Mr. George Roberts asked the Secretary of State for the Home Department if the inquiry into diseases which should be scheduled under the Workmen's Compensation Act would include carbon monoxide poisoning; and, if not, whether he would consider the desirability of extending the scope of the inquiry to admit of this being done. Mr. McKenna answered that the inquiry did not include carbon monoxide poisoning. The previous Committee which inquired into the subject of the application of the Compensation Act to industrial diseases reported that the evidence was to the effect that poisoning by carbon monoxide gas was almost invariably sudden, and therefore, as an accident, entitled the injured person to compensation. They held that they had no sufficient evidence of slow poisoning by carbon monoxide to show that it could be regarded as a trade disease. Mr. Roberts had called attention in 1909 to a case which appeared to be one of gradual poisoning by the gas, and the matter had been carefully watched since. No further cases, however, had come to light, nor had any fresh evidence on the subject been obtained, and, in the circumstances, it did not seem that anything would be gained by reopening the question.

The Factory and Workshops (No. 2) Bill.—The second reading of this bill was moved in the Lords last week by Lord Willoughby de Broke, who said the bill sought to remedy the evils connected with underground workshops. Dressed as a sanitary inspector, he had visited several of these places. Sedentary work underground all day long by artificial light and without proper ventilation was undesirable in the interests of public health, and ought not to be allowed. Lord Ashley St. Ledgers, on behalf of the Government, said they were prepared to agree with the provision that existing underground workplaces that came within the schedule of trades must have a certificate from the local authority, but they could not agree to prohibit all underground workplaces for the future. The insanitary conditions had in some cases been overcome, and in the future it would be possible to do more. He hoped the proposer of the bill would accept certain amendments, and the Government would then help the bill in its remaining stages. After some remarks from Lord Salisbury in support of the bill the second reading was passed.

Milk Bill.—Mr. George Roberts asked the President of the Local Government Board whether he had received a request from the National Union of Dairy Employees to receive a deputation on the question of inserting in the forthcoming Milk Bill provisions regarding the conditions of labour of dairy employees; and whether he was prepared to accede to the request. Mr. Burns said he had received the request, and was willing to receive a deputation, but, as he had intimated on March 12th, he did not think the matters complained of could be properly dealt with in the Milk Bill. In answer to Mr. Charles Bathurst, he said it was still his intention to reintroduce the Milk Bill this session, but he could not yet fix the day.

Health Resorts and Watering Places Bill. This bill seeks "to empower local authorities in England and Wales to levy a rate for advertising." It was presented last week by Sir Thomas Roe, supported by Sir Luke White, Sir John Bethell, Mr. Theodore Taylor, Mr. Herbert Nield, Mr. Alden, and Mr. Raffan, and ordered to be read a second time upon Wednesday, May 8th.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

LONDON.

London County Council.

Local Authorities and the Inebriates Bill, 1912.

THE Parliamentary Committee, in a report to the London County Council on May 7th, dealt with the provisions of the Inebriates Bill, 1912, as they will affect local authorities. The Committee pointed out that the obligation on local authorities to provide for the reception and maintenance of persons in their areas committed to certified inebriate reformatories was a new and important one.

The Public Control Committee pointed out that the provisions of the bill were founded mainly on the recommendations of the Departmental Committee of 1908, and the Council had approved generally of the conclusions of that committee.[1] In the opinion of the Committee, however, it was very undesirable that there should be any obligation on local authorities to provide reformatory accommodation for inebriates, and this power should be permissive only. An effort should be made to obtain some indication of the amount which it was proposed the Treasury should contribute towards the expense of persons committed to certified inebriate reformatories. Since the passing of the Inebriates Act, 1898, the Government had reduced its contribution towards the maintenance of each person committed to a reformatory from 10s. 6d. to 8s. 6d. a week.

The Finance Committee remarked that the effect of the bill would be to bring under treatment a great number of persons who could not be dealt with at present, and that a serious increase of the responsibility of county councils was involved. The Departmental Committee recommended that the State should provide at its own cost for the accommodation and maintenance of all inebriates committed by the courts, and that existing reformatories should be taken over by the State. The London County Council had urged this point upon the Government by deputation, and the Home Secretary, in foreshadowing legislation on the subject, indicated that assistance from the Treasury might be reasonably expected. The bill now put forward left the financial position as between the local rates and the Imperial Exchequer in the same state as before, the provision of the Act of 1898, giving the Treasury a general power to contribute, being re-enacted in the bill. In view of the fact that the contribution hitherto made by the Treasury had been considered quite inadequate, the proposal to leave the subject as at present was very unsatisfactory. The Finance Committee did not agree with the suggestion of the Public Control Committee that the local authorities should receive an assurance from the Government as to the exact amount it would be prepared to contribute, but was of opinion that the Council should adhere to the position it had hitherto taken up, and that the Government should be pressed to allow grants to local authorities equivalent to the whole of the reasonable and necessary cost of the accommodation and maintenance of all inebriates committed from the courts. The Finance Committee also drew attention to the fact that notwithstanding the proposal to make the provision of inebriate reformatories compulsory on county councils, the bill re-enacted the powers given by the Act of 1898 to the Home Secretary, through the Prison Commissioners, to continue existing and establish new reformatories; it seemed to indicate a possible alternative line of action. The bill further provided that, in the event of a board or commissioners being constituted under any other Act of Parliament to exercise powers with respect to the supervision, etc., of the mentally defective, the Secretary of State might by order transfer to such board or commissioners the powers and duties of the Prison Commissioners under the section. This appeared to suggest the intention of the Government to take up the subject of the report of the Royal Commission on the Feeble-minded, which Commission recommended the appointment of a central board to supervise the local administration of services relating to feeble-minded persons, including inebriates.

The Parliamentary Committee submitted the following recommendation:

> That the Council, whilst approving of the provisions of the Inebriates Bill, 1912, with respect to the method of dealing with inebriates, is of opinion *that no part of the cost of providing the accommodation for and maintenance of inebriates committed by the courts should be borne by the local authorities*, and that an amendment be sought to the measure to give effect to this view.

Mr. A. J. Shepheard moved an amendment to substitute for the words in italic the words:

> That, as regards expenses in connexion with the erection of inebriate reformatories, reasonable terms should be arranged with the Government.

He said that if this were a purely national question the Council might fairly ask the Government to bear the whole expense, but it was also a local matter, and local authorities must expect to bear a part of the cost. As a matter of fact the Council already bore a great deal of the expense of inebriates, and to oppose a bill containing a number of beneficent proposals, unless the Government agreed to undertake the whole of the cost, seemed an unwise proceeding.

Mr. W. C. Johnson seconded.

Mr. P. E. Pilditch, Chairman of the Parliamentary Committee, said that the Council was already charged with an expense of some thousands a year for the maintenance of inebriate retreats. The Committee was anxious to secure that inebriates committed to inebriate reformatories, who were dealt with at present under the penal law at the expense of the taxpayers, should not become chargeable in future to the rates. He agreed that the Committee should be in a position to negotiate with the Government, and he was willing to accept an amendment securing that. The matter was of the utmost importance because, although definite estimates were not yet obtainable, officers of the Council thought that the cost of inebriates might rise under the bill from £10,000 a year to ten times that amount.

Mr. T. C. E. Goff pointed out that as the Council already found £12,000 a year in respect of inebriates, it could not very well say to the Government that it would not find any of the money in future.

Mr. Edward Smith was glad to think that the bill was likely to inaugurate a more efficient and scientific method of dealing with inebriates. The Council would be accepting a grave responsibility if it took a hostile attitude. The Council should content itself with declaring that there should be no further cost imposed upon it than it already met, and leave financial questions open for negotiation.

On being put, the amendment was lost by 44 votes to 29, but a further amendment was unanimously agreed to:

> That no part of the cost of inebriates committed by the courts to certified inebriate reformatories should be borne by the local authorities.

A second resolution was also approved as follows:

> That the Council is prepared, as regards the expense of the erection and maintenance of inebriate retreats, to enter into reasonable arrangements with the Government.

Appointment of Coroner for the South-Western District.

The Public Control Committee reported with regard to the appointment of a coroner for the South-Western District of London in place of the late Mr. John Troutbeck. The Committee stated that the area over which Mr. Troutbeck exercised jurisdiction, although practically continuous, comprised three distinct districts in respect of which three different bodies, including the Council, exercised the right of appointment of coroner, although in each case the salary was paid by the Council. The following table gave particulars of the three districts in question (see p. 1100).

It would be gathered that the total salary paid to the late coroner was £1,366 16s. 2d. The Council had decided, in connexion with the appointment of a coroner to the Central District in the place of the late Dr. Danford Thomas,[2] not to adhere to the practice of calculating the coroner's salary upon the average number of inquests, but to fix a definite amount as the salary. The Committee thought this course should be adopted in the present case,

[1] BRITISH MEDICAL JOURNAL, vol. i, 1911, p. 962.

[2] BRITISH MEDICAL JOURNAL, vol. ii, 1910, pp. 1180 and 1738.

District.	By Whom Coroner Appointed.	Salary Assigned to District.	Basis of Salary.	Average Number of Inquests Held When Salary Fixed.	Area Comprised in District.
South-Western	The Council	£ s. d. 733 4 2	£1 1s. an inquest	760½	Metropolitan borough of Battersea and parts of the boroughs of Wandsworth and Lambeth.
Westminster City and Liberty	Dean and Chapter of Westminster	564 12 0	£1 10s. an inquest	376¾	City of Westminster (except the Savoy).
Duchy of Lancaster Liberty (Savoy portion)	The Crown	4 0 0	—	—	The Savoy.

and it had fixed the salary of the coroner for the three districts in question at £1,150 a year, apportioned as follows—South-Western District, £786; Westminster City and Liberty, £360; the Savoy, £4. This amount would include the expenses, estimated at £200, of the office, comprising any payment to a deputy coroner, the provision of office accommodation, clerical assistance, travelling expenses, stationery, etc. The Dean and Chapter of Westminster agreed that in the public interest it was desirable that the same coroner should be appointed for the South-Western District and the Liberty of Westminster, and had agreed, as had the Chancellor of the Duchy of Lancaster, to appoint the candidate selected by the Council to the vacancy under their jurisdiction.

The vacancy had been duly advertised, and thirty-eight candidates had offered themselves for the appointment. In accordance with Standing Orders, the committee submitted three names: those of Mr. R. L. Guthrie, Mr. S. Ingleby Oddie, and Mr. R. Henslowe Wellington, but specially recommended Mr. Oddie as the candidate best qualified for the appointment. Mr. Oddie had had considerable experience both as a barrister and as a medical practitioner, while as deputy coroner for the Western District of London since 1903 he had gained knowledge of the duties of coroner.

The Council postponed its decision for a week, in order that the name of the suggested candidate might be submitted to the Dean and Chapter of Westminster.

Contributions to Hospitals and Sanatoriums.

The Council decided to continue the arrangement whereby £500 a year is set aside for contributions to hospitals, convalescent homes, or similar institutions in which employees of the Council receive treatment.[3] The General Purposes Committee stated that a scheme of administration had been adopted whereby speedy admission to sanatoriums and convalescent homes was obtained for employees in need of such treatment. It was impossible to say what the expenditure in any year would be, as this depended upon the number of persons sent to sanatoriums and convalescent homes, in which direction the bulk of the expense was incurred. As to hospitals, to which acknowledgement was made by means of grants at the end of each year of the valuable services rendered without charge, it was impossible for the Council's grants to bear any relation to the cost of the treatment of its employees, nor, in the opinion of the Committee, was this desirable, as the employees had a claim in common with other citizens to treatment without payment.

THE WATER SUPPLY IN A WET MONTH.

Mr. C. Perrin, Water Examiner under the Metropolis Water Act, 1871, has just issued his report on the condition of the metropolitan water supply during the month of December, 1911. He states that during that month at twelve stations selected as giving equal representation for all parts of the London Basin the rainfall was 6.67 in., being 4.02 in. above the average mean rainfall for that month during the previous twenty-eight years. The average daily natural flow of the Thames at Teddington Weir during the month was 3175.4 million gallons, being 1280.9 million gallons above the daily average for the twenty-eight preceding years. The maximum daily flow was 5150.7 million and the minimum 614.5 million gallons. The average daily flow of the Lee at Feilde's Weir was 191.934 million gallons, the maximum daily flow 717.444 million gallons, and the minimum 30.636 million gallons. The general rainfall of the whole valley above Feilde's Weir was 4.90 in. The following table shows the sources from which the water supplied by the Metropolitan Water Board during the month was obtained, the average daily supply from each source, and the relative proportions of the supply from each source.

District.	From the Thames.	From the Lee.	From Springs and Wells.	From Ponds.	Total Supply from all Sources.
Eastern	4,859,300	34,423,300	6,374,700	—	45,657,300
Kent...	—	—	19,790,300	—	19,790,300
New River ...	11,284,000	19,825,600	12,322,400	186,600	43,618,600
Southern ...	54,582,300	—	721,300	—	55,304,700
Western ...	56,369,700	4,100	2,400	—	56,376,200
Supplies in bulk	1,401,900	—	35,968	—	1,436,968
Total ...	128,496,900	54,253,000	39,247,568	186,600	222,184,068
Percentage of total supply...	57.834	24.418	17.664	0.084	= 100

The total number of supplies furnished during the month within the Water Board's area of supply was 1,105,192. The total supply divided by the number of supplies shows a daily average of 200 gallons for each supply. Mr. Perrin gives in an appendix the results of the chemical and bacteriological examination of the London waters for the month of December by Dr. Houston, Director of Water Examinations, Metropolitan Water Board; and also an advanced report, giving briefly the general chemical and bacteriological results for the month of January, 1912.

LANCASHIRE.

THE LANCASHIRE COUNTY COUNCIL AND THE TUBERCULOSIS PROBLEM.

A REPORT on the administration of sanatorium benefit under the Insurance Act in the administrative county of Lancashire prepared by Dr. Serjeant, medical officer of health for the county, was considered by the Lancashire County Council last week. It is estimated that the administrative county has a population of about 1,750,000, and in the year 1910 the deaths from phthisis numbered 1,441. It is then assumed that the average period from the reception of infection to the death of a consumptive is about three years, so that the number of deaths in any one year multiplied by three will roughly represent the number of cases of consumption living. On this basis there would be about 4,320 persons in the administrative county suffering from phthisis at any one time. Assuming also that about half of these come within the Poor Law administration, there would remain 2,160 to be treated elsewhere. On this calculation it would appear that if four months' treatment in a sanatorium were allowed for each case about 700 beds would be required, or if only three months' treatment were allowed 525 beds would be sufficient. This allowance would not be too much for the crowded urban centres, but in districts mainly rural or semi-rural showing a rapidly declining death-rate from phthisis, and allowing about 25 per cent. of the cases to be treated at home under suitable conditions, a minimum of 400 beds would be necessary to start with. Analysing the question still

[3] BRITISH MEDICAL JOURNAL, vol. ii, 1911, p. 1618.

further, it ought to be possible for existing joint hospital boards to extend their work, and there is reason to suppose that in that way about 200 beds could be provided readily and without any great expenditure. This still leaves 200 beds to be provided presumably by the county council, and Dr. Serjeant thinks this could best and most economically be done in a single institution, which ought to be associated for harmonious working and for interchange of patients with the other county and borough sanatoriums within the county. Such an institution on a suitable site with permanent administration buildings, shelters, and the usual requirements for the treatment of phthisis would, in Dr. Serjeant's opinion, cost about £35,000, which is allowing about £175 a bed, exclusive of land. This contrasts with the Departmental Committee's estimate of £150 a bed, including site. The annual cost of maintenance is taken at about £75 a bed, which would come to about £15,000. In addition to this, any complete scheme would have to include the establishment of tuberculosis dispensaries for urban or rural districts or groups of districts, where each patient would be carefully examined, and his condition considered medically as to its suitability for tuberculin treatment, or for drafting into a sanatorium or a hospital, or for home treatment. Arrangements might be made on equitable terms for the treatment or interchange of patients among county councils, county boroughs, and other local authorities. For instance, contiguous county boroughs might be associated together for the joint exercise of their powers in relation to the provision and maintenance of sanatoriums.

At the meeting of the county council on May 2nd, Dr. Sephton, who moved the adoption of the report, estimated that the county of Lancashire would be entitled to a little over £51,000 out of the capital sum of £1,500,000 provided by the Finance Act, 1911. The amount for the upkeep of sanatoriums, reckoned on the basis of 1s. 3d. for each insured person, would be about £31,000 a year. He considered that the county would need nine or ten tuberculosis dispensaries, and he feared that whatever the Council did, a considerable extra cost to the rates could not be avoided. Dr. Trimble thought that the expense in this matter ought to be met by the Exchequer, and not taken from the local rates at all. A member of the Council suggested that the standing orders of the Council should be suspended for the purpose of passing a resolution of protest against the expenditure which it was proposed to put upon the Council by the Insurance Act. Dr. Sephton replied that the report of the Departmental Committee was only an interim report, and that in speaking of the cost to the rates he had only been giving his own private views, as nothing essential was said in the report about finance. It was not proposed to take any immediate steps, and Dr. Serjeant's report was only intended to show the requirements of the county; as he suggested, advantage would have to be taken not only of the Government grants, but of the grants obtainable under Clause 21 of the Insurance Act and in other ways from the Insurance Committee, for the establishment and maintenance of dispensaries and the appointment of nurses for the purpose of visiting the homes of notified cases and rendering other assistance.

The National Association for the Prevention of Consumption.

The City of Manchester and the County Borough of Salford have united to invite the National Association for the Prevention of Consumption and other forms of Tuberculosis to hold its fourth annual conference in the Lord Mayor's parlour of the Town Hall, Manchester, on June 5th, 6th, and 7th, 1912. The circular announcing this is signed by Lord Balfour of Burleigh, chairman of the council of the National Association, and the Mayors of Manchester and Salford, and various societies interested in the subject have been invited to send delegates. Among these the Joint Committee of the Divisions of the British Medical Association in Manchester and Salford has been invited, and has appointed as its representatives Dr. A. Fraser, Dr. C. H. Melland, and Dr. R. G. McGowan. The subjects to be discussed will be arranged in three sections as follows:

Section 1.—Tuberculosis in Childhood: its human and bovine sources; the measures for its detection and prevention; its prevalence in the school; open-air and hospital schools; surgical tuberculosis and the effect of treatment. A day and a half will be allotted to this section, and papers will be contributed by eminent authorities.

Section 2.—A discussion on the powers and duties of sanitary authorities and the working of the National Insurance Act in connexion with tuberculosis. One day will be allotted to this section, and the discussion will be thrown open to all delegates.

Section 3.—The position and work of voluntary societies under the Insurance Act, to which one sitting will be devoted.

The Tuberculosis Exhibition of the National Association, which has met with so much success during the last three years, will be on view in Salford at the time and for a week or two afterwards.

Hope Hospital and Provision for Tuberculosis.

A few weeks ago it was announced that the Salford Board of Guardians proposed to erect a special building in the grounds adjoining Hope Hospital for the treatment of cases of consumption, for which the guardians are liable, and the opinion was expressed in this column that it would be better for the guardians to wait a short time until it was seen what action would be taken under the Insurance Act. It now appears that the Local Government Board is of the same opinion, as it has sent a letter to the guardians referring to the Departmental Committee on Tuberculosis, and suggesting that the guardians should wait for the report of the committee before proceeding with the building. The letter was referred by the guardians to the Hospital Committee for consideration. The interim report of the Departmental Committee, published in the last issue of the British Medical Journal, insists on the necessity of obtaining the co-operation and inclusion within the schemes proposed of all existing authorities, organizations, and institutions. This would evidently include arrangements by boards of guardians; and though, according to Clause 16 of the Insurance Act, the Insurance Committees may not enter into arrangements with Poor Law authorities for the treatment of insured persons under sanatorium benefit, it is specially recommended by the Departmental Committee that councils of counties and county boroughs should draw up schemes for dealing with the problem, which should be available for the whole community. Thus it is not clear as yet how far it may be necessary for the guardians to make separate arrangements of their own. Hope Hospital is at present full of patients suffering from all sorts of diseases, and, though the consumptive cases are, as far as possible, kept separate from the rest, further accommodation is undoubtedly needed for them. But to proceed at once with the erection of a new building, when schemes of co-ordination with other authorities are being considered which may render such a building unnecessary, would evidently, in the opinion of the Local Government Board, not be wise.

The City Council and School Clinics.

At the last meeting of the Manchester City Council a proposal was made by Councillor McLachlan and seconded by Councillor Dr. Chapman in the following terms:

> That, in order to deal effectively with cases of physical defect and disease amongst children in Manchester schools, the Education Committee shall, in compiling the estimates on account of elementary education for the year 1912–1913, make provision for the establishment of at least one school clinic, in accordance with the recommendation of the Chief Medical Officer to the Board of Education.

Mr. McLachlan, who has for some weeks past urged in the local press the importance of the matter, said that a school clinic is an institution in which school children can be treated for defects largely of a minor character which were at present mostly untreated during school life. The hospitals and dispensaries in Manchester did not meet the needs of such cases, while general practitioners, as a rule, did not deal with them. The Education Committee was losing something like £8,000 a year through the absence of children from school owing to illness, and by the establishment of even one school clinic a good deal of money would be saved because of the increased Government grants due to better and more regular attendance at school. The proposal was strongly opposed by Councillor Miss Ashton, who said she was not against the children being properly cared for, but was entirely opposed to taking education money for the purpose. The health of the people was the business of the Sanitary Committee, not of the education authority; and she objected to matters concerning health

being imposed on the Education Committee. On being put to the vote, the motion was lost, 26 voting in its favour and 34 against.

WALES.

The Hospitals of Wales.

A little book, the *Hospitals of Wales*,[1] which Dr. G. Arbour Stephens, of Swansea, has published, contains a short account of the hospital accommodation in the Principality. His figures show that the number of beds available is surprisingly low, even in the populous counties. To take Glamorgan as an instance, there are only 467 voluntary, and, excluding mental and fever cases, only 1,740 rate-aided beds for the large population. Even more serious than the shortage of beds is the fact that most of them are long distances from the seats of industry, and many very large districts have no hospital accommodation at all. As a remedy Dr. Stephens suggests the establishment of rate-supported cottage hospitals. Barry has set the example by exercising the powers given in Section 131 of the Public Health Act of 1875. The Barry Accident and Surgical Hospital has 28 beds, and is rate-supported. Any resident medical man may serve on the staff, according to a rota. The local authority pays £300 per annum for medical services. Residents are admitted free; non-residents pay not more than £3 weekly. Should the disendowment of the Welsh Church be carried through, Dr. Stephens may see his wish realized, as the Chancellor has said that part of the diverted income may be used for founding cottage hospitals in Wales.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

Poor Law (Ireland) Bill.

The text of the bill to provide for amending the administration of the Poor Law system in Ireland has been printed. This bill is intended to carry out, so far as may be practicable, the reforms advocated in the report of the Viceregal Commission on Poor Law Reform in Ireland. The report dealt with many changes, involving the abolition of the workhouse system and distribution of the poor requiring the aid of the Poor Law into classes to be separately provided for in different county institutions, such as almshouses, sanatoriums, county nurseries, and labour houses, the amalgamation of certain institutions, and reorganization of the whole Poor Law system in Ireland. The Commissioners recommended the appointment of a temporary commission to draft schemes for the carrying out of these reforms. The present bill is intended to give effect to this recommendation, and is founded on the model of the Educational Endowments (Ireland) Act, 1885, under which a temporary commission was able to solve with a single exception the vexed questions relating to the whole of the endowed schools in Ireland, under like powers of amalgamation, alteration, and abolition, as are recommended by the Commissioners in their report on Poor Law Reform in Ireland.

National Insurance.

When the Women's National Health Association first determined to start an insurance society, we pointed to the almost certain danger that it would be considered either sectarian or political or both, and that the work of the Women's National Health Association might suffer in consequence. At the opening of a Hibernian Hall at Mountmellick last week the Dublin President, representing the National Executive, in discussing the application of the Insurance Act to the Hibernian Society, said that he always had a natural suspicion of societies that called themselves non-sectarian, because in his opinion non-sectarian always meant anti-Catholic, as non-political meant anti-National. He said that the name of the National Health Society had been changed to the Sláinte Society in order to catch those who would not otherwise join it, and there ought not to be a moment's doubt for any Roman Catholic as to what society he or she should join, as the Hibernian Society was a Roman Catholic society.

Census Returns in Ireland.

Further census returns published by the Registrar-General for County Tipperary and King's County exhibit the same features as the returns for the counties already published, a general decrease in the population, but at the same time an increase in some of the urban areas, pointing to a migration of the inhabitants from the country to the towns. There is again a marked decrease in the number of persons receiving Poor Law relief. In Tipperary the proportion has fallen from 1 in every 30 of the population in the 1901 census to 1 in every 40, and in King's County from 1 in every 38 to 1 in every 44.

Milk Prosecution.

Last week in the Southern Police Court, Dublin, a man was charged, at the suit of the Public Health Department of the Corporation, with selling milk adulterated with 30 per cent. of water, and both he and his wife were also charged with refusing to sell a sample of milk asked for by the Corporation inspector. It was shown that there were five previous convictions against the man. It also appeared that a pail of water was kept beside the tureen in which the milk was, so that as the milk was sold more water might be added. The magistrate sentenced the man to two months hard labour without the option of a fine. Afterwards the hard labour was remitted, and the man's wife was fined £2 for refusing to supply the sample to the inspector.

The Tuberculosis Committee.

In its interim report the Tuberculosis Committee has recognized clearly that there are marked differences between the conditions in Ireland and those in the rest of Great Britain. For instance, the Irish population is largely rural, whilst the English is largely urban. The deaths per 1,000 from tuberculosis in Ireland are much higher than in the rest of the United Kingdom. The law, also, in many respects is different. In Ireland there are no county medical officers of health, and the notification of tuberculosis is not universally adopted. The schools are not rate-aided, and there is no system of medical inspection or treatment of school children. Finally, the infectious disease hospitals are, for the most part, in the hands of the Poor Law boards. With the exceptions of the beds provided by the boards of guardians, very little provision has been made by local authorities for the treatment of tuberculosis, and no dispensaries or sanatoriums have been provided by county councils under the Tuberculosis Act, 1908. A certain number of beds have been provided, and one dispensary, through the enterprise of the Women's National Health Association. A few hospitals for the treatment of early cases have also been provided by voluntary effort. Altogether the provision available in institutions outside the Poor Law is extremely small, having regard to the high death-rate. As will be seen by reference to page 1026 of the Journal for May 4th, the Committee expresses appreciation of the work done in Ireland by the Women's National Health Association, and recommends that notification of pulmonary consumption should be made compulsory throughout Ireland, that county councils should be entrusted with administrative public health functions, and the appointment of county medical officers of health and the medical inspection and treatment of school children to be provided for by means of a Government grant. The committee is also of opinion that so far as it may be found practicable, aid from the grant should be afforded to those voluntary institutions which are found to be doing good work in the treatment and prevention of tuberculosis, and are willing to provide further accommodation for the treatment of tuberculous patients. These recommendations of the committee will be received with favour by all those who in Ireland are interested in the question of public health and specially in the fight against tuberculosis. It has long been urged by many of the best authorities on the subject that compulsory notification of tuberculosis should be made universal, and the medical inspection and treatment of school children is a matter that has been much before the medical public recently, having been the subject of addresses at meetings held in Dublin and of letters from doctors to the public press.

[1] *The Hospitals of Wales.* By G. A. Stephens, M.D. Swansea: Lewis Evans. 1912. (Cr. 8vo, pp. 64.)

Hitherto the great objection always raised has been the expense, and it is satisfactory that the committee has not hesitated to state clearly that both the inspection and treatment should be provided by a Government grant. The suggestion that those voluntary institutions which are found to be doing good work in the treatment and prevention of tuberculosis should receive aid from the public grant will, we believe, be generally approved, and may stimulate others to follow their good example.

Canada.

BRITISH COLUMBIA.

IN the annual report of the British Columbia Board of Health, Dr. Fagan of Victoria urges strongly the establishment of a Government laboratory for the manufacture of serums, and particularly of diphtheria antitoxin. He states that supplies of impure antitoxin are constantly being placed on the market, and argues that the establishment of a Government laboratory would not only decrease the cost of the antitoxin, but would ensure its purity and potency.

The number of cases of typhoid fever reported during 1911 was 360, with a death-rate of 28 per cent., but there is reason to believe that the actual number of attacks was considerably in excess of that stated. This year the disease has again appeared in certain districts, including Selkirk, where the men employed by the Public Works Department in excavating a new ship canal were attacked. In the course of their work they were employed in bulkheads driven under the ice in sewage-laden waters. Dr. Fagan draws attention to the sanitary evils existing in the logging, railway, and mining camps in the vicinity of Victoria, and reports that Dr. Davis has been appointed an inspector to take charge of this branch of the work. Dr. Fagan also directs attention to the risk of the importation of infectious diseases, especially small-pox, into the ports of British Columbia.

PUBLIC HEALTH IN ONTARIO.

With a view of improving the public health administration in Ontario, legislation is proposed to divide the province into ten districts, each composed of five or more counties. There will probably be two or three divisions in Northern Ontario, Temiskaming and the mining districts comprising one, and the rapidly developing territory to the west with Fort William and Port Arthur, Saulte Ste. Marie and Kenora probably making two more. The new provision will not apply to the larger cities which possess efficient health departments. The proposed formation of districts is approved by the medical profession, and it is thought will not be opposed in the Legislature.

UNDER the will of the late Mrs. Elizabeth Rebecca Johnson, Radcliffe Infirmary, Oxford, and the Royal Berkshire Hospital each receive £5,000 for the endowment of a ward. Other medical charities which benefit under the same will are the Victoria Hospital, Bournemouth, and the Gore Farm Convalescent Home, Dartford (each of which receives £4,000), the Royal Hospital for Incurables and Her Majesty's Hospital, Stepney (each of which receives £3,000), the Bournemouth Sanatorium for Diseases of the Chest, the Boscombe Hospital, Royal National Hospital for Consumption, Ventnor; Waterloo Hospital for Children and Women, National Hospital for Diseases of the Heart and Paralysis, the British Home and Hospital for Incurables, the Northern Convalescent Hospital, the Margaret Street Infirmary for Consumption and Diseases of the Chest and Throat, the Free Home for the Dying, the Wimbledon Hospital for Infectious Diseases, the Royal Free Hospital, and the Central London Ophthalmic Hospital (each of which receives £2,000); the Mildmay Mission Hospital, Bethnal Green, the North-Eastern Fever Hospital, Nottingham General Hospital, Dorset County Hospital, the West End Hospital for Diseases of the Nervous System, the Invalid Children's Home (each of which receives £1,000); the National Society for the Employment of Epileptics, the Chelsea Hospital for Women, the London Temperance Hospital (each of which receives £500). The same testator left £2,000 to the National Antivivisection Society, and £4,000 to the Antivivisection Hospital.

Correspondence.

APPENDICITIS—AND QUICKNESS.

SIR,—Mr. Edmund Owen, in his article in your issue of May 4th, points a moral on a subject which is not only of frequent anxiety and importance to the general practitioner, but is one which can be looked at from different aspects with advantage. Perhaps you will be good enough to allow me to present it from another. Taking the case of the boy whom he mentions, there could be no difference of opinion that the sooner he was operated upon the better, and, to extend Mr. Edmund Owen's principle still further, this case in itself would be in favour of the argument that the appendix should in every case be removed, because perforation may even occur as the very first symptom. The point I would like to raise is that it is often better, in the general interest, to take a little increased risk by waiting than subject a great many patients to unnecessary operations.

In this question of "quickness" the point of view of the man unnecessarily operated upon should surely come into consideration. Those who have the opportunity of seeing the after-results of these cases know well that it is many months before they have recovered their usual health and strength, quite irrespective of the expense and interference with their livelihood which has been necessitated. As far as this class is concerned, they have been injured by interference.

The case which presents the most difficulty to the general practitioner is that of colic which looks very like being appendicular in origin but in which we have no local symptoms sufficient to make such a diagnosis. The patient may present the aspect of it and have a temperature and pulse compatible with that condition, but yet, when we examine the region of the appendix, we find no swelling, special tenderness, or rigidity. In very many of these cases a few hours or a day shows subsidence of all the severe symptoms, there is no sign of appendicular or other serious trouble, and the patient is practically well. I do not think Mr. Edmund Owen would intend his quickness of operation to include all such, for each case must be judged on its own merits, but the principle of quickness is such a vague one that it would be a help if we could get a more definite interpretation of it.

As a contribution to this, I would suggest that in such cases we should wait a few hours at least for one of two things:

1. Something objective pointing to local trouble.
2. No subsidence of the constitutional symptoms which themselves begin to threaten the life of the patient.

My main object, however, is to suggest that in deciding how quick this quickness should be, the harm that is done by being too quick should be considered as well as the harm that accrues by being too slow.—I am, etc.,

London, S.W., May 7th. F. J. DIXON.

PEREZ'S SIGN AND AUDIBLE MOTOR CRACKLES.

SIR,—Having read in your issue of April 6th the article by Dr. Wm. Ewart on "Perez's Sign," and also his letter on the same subject on April 13th, it may not be out of place for me to make a few comments. When I found in 1895 that elevating and lowering either arm produced very curious crepitant friction sounds and crackles over the sternal region in a patient with a distinct tuberculous history who had repeatedly suffered from what others as well as myself had diagnosed as attacks of dry pericarditis (mediastinitis?), probably also of a chronic tuberculous nature, I little suspected that identical sounds could be produced in or about the shoulder-joint in other cases. In 1896 Dr. Wm. Ewart, in company with Sir Kingston Fowler, examined my patient very carefully, and I remember well that the former dwelt strongly on what was then new to me—that is, that the clavicle and other bones, including the scapula, can conduct sounds quite as well as a stethoscope; and I distinctly recollect seeing Dr. Ewart patiently auscultate the clavicle and scapula and the shoulder-joint during the elevation and lowering of the arm, also the neighbourhood of the sterno-clavicular joints where those curious crackles were also well heard, although the region of *maximum* intensity, at any rate in

that particular case, certainly appeared to be the middle part of the sternum.

Now that Professor Poncet of Lyons affirms that chronic tuberculosis is at the bottom of most cases of chronic rheumatism, and that nearly all the periarticular changes and adhesions, etc., are almost invariably of the same nature, it has struck me that in my original case there might well have existed chronic inflammatory tuberculous trouble behind the sternum and chondro-sternal articulations, with matting together of the cellular tissue in the retrosternal region, and that, as on raising the arm both the sterno-clavicular and the chondro-sternal joints are more or less moved and stretched, it is quite likely that the sounds in question may have been produced in this way.

Dr. Cooper's three cases, where the so-called *crépitations sous-scapulaires* of French authors were proved to be produced at the shoulder-joint, are instructive. Surgeons in France have more than once cut down upon a subscapular bursa supposed to be diseased, when to their astonishment the bursa itself was not to be found. It is probable that in these particular cases the crackles were merely conducted from the shoulder-joint along the scapula. Terrillon is quoted by Ducroux in his thesis as stating that the subscapular crepitations can be heard along the humerus.[1]

Nothing but patient eliciting of this sign during the examination of suitable cases by those who have at their disposal abundant material can satisfactorily allow us to classify the cases and explain their exact causation; but if Professor Poncet's views are correct we may have at our disposal in this sign an easy and simple clinical method of diagnosing some of these more or less latent tuberculous lesions.—I am, etc.,

Puerto Orotava, Teneriffe, April 24th. GEORGE V. PEREZ.

THE FUTURE OF GENERAL PRACTICE.

SIR,—The present position of the general practitioner is so critical, in the light of events taking place around us, that no one can say Dr. Devis's forecast of the future is in any way exaggerated. Unless a way can be found to unite the profession in firm opposition to the State exploitation that we see on every side, the sooner the general practitioner consents to be "socialized," according to Dr. Milson Rhodes's scheme and receive an annuity of £200 or £300 a year for an indefinite amount of work, and with loss of all personal independence, the better it may be for him, for only in that way will he be able before long to gain a "living wage."

The latest attack on his well-being is foreshadowed in the Interim Report of the Tuberculosis Committee, a body recently appointed without a single representative of the general practitioners of the country among its number, with the exception of Mr. Smith Whitaker, and in the light of recent events it is at least doubtful whether his representation would be regarded with much enthusiasm. A scheme is proposed that, without any great stretch of imagination, might remove from the scope of general practice nearly one-half of our present patients. It proposes, as the *Times* puts it, "Two clearly connected units, the first being the Tuberculous Dispensary, and the second Sanatoria Hospitals." These are to be "related to the general public health, and medical work carried on by medical officers of health working in harmony with the general practitioner." It is not suggested how this harmony is to be brought about. It seems to be taken for granted that, whatever loss may accrue to his income, the medical practitioner will always work in harmony with any scheme the promoters of which aver to be good for the public interest. At least, it has not been proved to his satisfaction that the financial ruin of his class is a necessary factor to promote that interest.

Speaking in the House of Commons on May 1st, Mr. Lloyd George said, when complimenting the "hon. member for Plymouth and his colleagues for the skill and ability of that (Tuberculosis) Report":

> That the whole burden and expense of curing tuberculosis is outside the ordinary normal practice and the arrangements of societies with doctors. That makes an enormous difference to the doctors, etc.

However advantageous that might be to doctors under a capitation system, it would make "an enormous difference" to their loss under any other system, and must practically result in taking away from the ordinary practitioner many of his present paying patients. The notification of tuberculosis, no doubt, fits in admirably with this scheme. The "harmonious working" with it will be to carefully notify all the cases he comes across, so that he may be relieved of their care and the emoluments derived therefrom; and, instead of receiving the payments for a long attendance, have to content himself with 1s. or 2s. 6d. fee for their notification. Under the proposed "interim report" and its interpretation by Mr. Lloyd George, it seems not unlikely that at a near future the treatment of pulmonary tuberculosis—and why not the other forms of tubercle?—in all its stages may be as completely removed from the field of the general practitioner as scarlet fever is at the present time.—I am, etc.,

London, N.E., May 4th. MAJOR GREENWOOD.

[1] *Journal de médecine et de chirurgie pratiques*, 1906, article 21,004.

SECTION OF MEDICAL SOCIOLOGY.

SIR,—The Representative Meeting at Sheffield in 1908 decided that, if the Council approved, a Section of Medical Sociology should be held at the annual meeting, at which members of the laity as well as of the medical profession should be invited to read papers and take part in the subsequent discussions. This decision was come to after the fears of some of the members at the Representative Meeting were allayed by an assurance that sociology did not mean socialism, or any one of its three subheads—communism, collectivism, or syndicalism.

The Council having approved the recommendation, the section was held at the meetings in London and Birmingham, and will be held again at the coming annual meeting at Liverpool.

This section offers a special opportunity for medical practitioners to meet members of the laity in order to discuss subjects which are not entirely confined to medicine, and gives an opportunity for the consideration of many problems on a broader basis than would be the case if discussions were confined to members of the medical profession. The assistance such a section can be to the medical profession at the present juncture in its discussions of social problems affecting medicine would seem apparent.

Accepting as a working definition of sociology that it is the scientific study of society and of all the phenomena it exhibits, including the various forces and processes at work within and upon it, it is to be hoped that the selection of subjects for papers will be made with such a definition in view, and that these as well as the discussions will be assisted by members of the laity known to be interested in the medical branch of sociology. Recognizing that the last century in its relation to medical science has been a century of discovery, it can be expected that the present century will be one for putting wrong right based on such discoveries; and medical practitioners cannot any longer afford to consider questions of medical sociology solely from how they will affect their own immediate interests.

It is with a hope that this section may be further extended in its usefulness that I venture to forward this communication to you.—I am, etc.,

Brighton, April 29th. E. ROWLAND FOTHERGILL.

SIR THOMAS BROWNE AND WITCHES.

SIR,—I have only just seen Dr. Clippingdale's letter in your issue of April 27th, p. 982, and I shall be glad if you will allow me to correct his reference to my article in *Notes and Queries* in two respects. I am credited with having discovered that there is no evidence that Sir Thomas Browne was at Bury at the time of the trial of the two women, and that his name is not mentioned in the contemporary report quoted by me. Dr. Clippingdale has, I am afraid, misread what I have written, as it is clear from the article itself that Sir Thomas Browne was not only at Bury at the time of the trial, but that at an early stage of the proceedings he was actually in court. His name is mentioned at p. 41 of the 1682 report of the trial, and the statement made by him in reply to the judge will be found at pp. 41 and 42.

My article was directed to show that although present in court Sir Thomas Browne had very little to do with the

proceedings, and that the suggestion that he was responsible for the hanging of the two women is not in accordance with the facts of the case as reported at the time.—I am, etc.,

London, E.C., May 4th. MALCOLM LETTS.

Universities and Colleges.

UNIVERSITY OF LONDON.

KING'S COLLEGE.

Special Lectures in Physiology: Heredity.

A COURSE of four lectures on heredity considered from the point of view of physiology and pathology will be delivered by Dr. F. W. Mott, F.R.S., in the Physiological Laboratory, King's College, London, at 4.30 p.m. on the following Mondays: May 20th, June 3rd, 10th, and 17th.

The following is a synopsis: Heredity, variation, and evolution. The morphological basis of heredity. The cell theory and reproduction. Cell growth and reproduction as studied in living organisms. Loeb's studies in parthenogenesis. Weismann's theory of the continuity of the germ plasm. The chromosome theory and its application to the inheritance of disease. Galton's law of ancestral inheritance. The Mendelian doctrine of inheritance. The transmission of acquired characters in relation to the inheritance of disease. Modes of transmission of heritable diseases. Sex limitation in transmission. Stability of the germ plasm and elimination of poor types.

These lectures are free to all members of King's College, London, to internal students of the University of London, to medical students at London medical schools, and to medical men on presentation of their visiting cards.

LONDON SCHOOL OF MEDICINE FOR WOMEN.

SCHOLARSHIPS of the value of £60 per annum for three or five years, and £30, will be awarded on the result of an examination to be held on May 28th and following days, for the course of medical study beginning October next. Forms of entry must be sent before May 21st to the Secretary and Warden, from whom all particulars can be obtained.

APOTHECARIES' HALL OF IRELAND.

THE following candidates have been approved at the examinations indicated:

FIRST HALL (*all subjects*).—J. A. Wilson.

SECOND HALL (*all subjects*).—C. E. R. Norman.

THIRD HALL (*Practical Pharmacy only*).—D. McLaughlin, T. J. Magill, P. O'C. White.

FINAL (*all subjects*).—C. E. R. Norman, L. A. Hynes, T. J. Magill. (*Medicine only*: J. Boyce, M. Keogh. (*Midwifery and Gynaecology only*): M. Keogh.

The Services.

ROYAL NAVY MEDICAL SERVICE.

NEW MEDICAL SCHOOL AT GREENWICH.

THE new Royal Naval Medical School at Greenwich College was opened on May 1st by Admiral H.S.H. Prince Louis of Battenberg, G.C.B., G.C.V.O., K.C.M.G., the Admiral-President of the college. The Medical-Director-General, R.N. (Admiral Sir John Durnford), and members of the committee and the teaching staff of the Dreadnought Seamen's Hospital and the London School of Tropical Medicine, who are giving material and most valuable assistance in the work of the school, were also present.

Prince Louis congratulated the newly entered acting surgeons, and said that it was most necessary to the efficiency of the service that they should fully avail themselves of the increased advantages now afforded by this school.

It owes its inception to the recommendations of the recent Durnford Committee. The central idea underlying the scheme is that naval medical officers should be enabled to keep more closely in touch with all that is best in professional life in London.

The new pathological laboratory occupies the Queen Anne block of Greenwich Hospital buildings. This has been completely and carefully rearranged with a view to efficiency and convenience. The fittings and appliances leave nothing to be desired, and the laboratory as a whole is a most satisfactory and up-to-date establishment. The private research rooms, the museums, and the well lighted and perfectly equipped class room, with accommodation for twenty-six students, particularly attracted attention. There is ample room for all kinds of research work. The extensive and well known chemical and physical laboratories already existing at the college are, of course, ready to hand and will be fully utilized. The possibility of future expansion has also been fully considered and provided for.

MESSRS. SUMNER AND CO., of Liverpool, have issued a new catalogue which is exceptionally comprehensive, inasmuch as it includes drugs, pharmaceutical products, surgery sundries, instruments, laboratory appliances, and a series of vaccines and serums.

Obituary.

JAMES CHALMERS CAMERON, M.D.,

PROFESSOR OF OBSTETRICS AND DISEASES OF INFANTS, MCGILL UNIVERSITY, MONTREAL.

THE death of Dr. James Chalmers Cameron, Professor of Obstetrics and Diseases of Infants, McGill University, which occurred suddenly on March 16th, produced a profound sense of regret throughout the profession in Montreal, and, indeed, in every part of Canada to which the graduates of McGill penetrate. He had been for some time aware that his blood pressure was unduly high, and had somewhat moderated his daily work, but on the night before his death he visited a patient during a heavy storm then prevailing, and on his return home died almost instantaneously from cerebral haemorrhage. Dr. Cameron was the son of the late Rev. James Y. Cameron of Niagara Falls and was born in 1852. He received his early education at Upper Canada College, and in 1874 graduated in medicine at McGill University, where he was a Final Prize man. After serving as House-Surgeon at the Montreal General Hospital until 1877 he attended the Rotunda Hospital at Dublin, and afterwards studied in Berlin, Paris, and Vienna. He first occupied the Chair of Obstetrics at Bishop's College and became a Professor of Obstetrics and Diseases of Children in McGill College in 1886. He was accoucheur-in-chief of the Montreal Maternity Hospital, and saw it grow under his direction from very restricted quarters to its present condition as one of the largest and most important institutions of the kind in Canada. He was President of the Section of Pediatrics at the Pan-American Congress in Mexico in 1886, a Fellow of the American Gynaecological Society and a member of the Royal College of Physicians of Ireland. He was an accomplished physician and as a lecturer he was remarkable for fluency of speech and lucidity of statement. He made many contributions on obstetrics and medical jurisprudence especially to the *Montreal Medical Journal* and to the *Journal of the Canadian Medical Association*. He was always genial and never failed in generosity to the young practitioner. He was an accomplished German scholar and acted as medical examiner for the German army in Canada. He was himself surgeon to the Prince of Wales's Fusiliers. He held a high rank in Masonry and was Master of a lodge in connexion with McGill which was to have been dedicated on March 29th. He leaves a widow and one son.

WE regret to announce the death of Dr. JOHN WYMAN, of 22, Nottingham Place, W., which took place on May 1st at the age of 66. He leaves a widow, a son, and a daughter. He was educated at Epsom College, and subsequently entered as a student at St. Bartholomew's Hospital; he obtained the M.D.Lond. in 1873, and was later resident physician at the West London Hospital. Dr. Wyman volunteered for the English ambulance in the Franco-Prussian War, and saw much active service. He had all the qualities necessary for the attainment of a high position in his profession, but, owing to his inheritance of John Wyman's wholesale druggist business, he turned to a more lucrative occupation. Nevertheless, Dr. Wyman always maintained a keen interest in the advancement of medical science, and showed a sound judgement and an analytical mind in the discussion of medical questions of the day. He was a keen lover and connoisseur of art in its higher form. In religion the late Dr. Wyman was a Positivist, and was averse to all mysticism, form, and ceremony. Sincerity was the keynote of his character. A service was held in the chapel of the Crematorium at Golder's Green on Saturday afternoon, May 4th, and was attended by a large number of medical and other friends.

WE regret to record the death of Dr. WILLIAM VALENTINE BIRD, a medical man who at one time was a frequent contributor to the medical journals, and reproduced work of this order in a volume entitled *Contributions to Practical Medicine*. He received the M.D. of King's College, Aberdeen, in 1855, and four years later became M.R.C.S.Eng., L.R.C.P.Lond. He was also a Member of the latter college, being admitted thereto in 1878. In the early part of his career Dr. Bird was in practice in the North of England,

where he held office as Physician to Bootle Infirmary. Later on he established himself at Brighton, and finally at Kew. During his work in the metropolis he held office on the staff of the Infirmary for Children at Sydenham. Since his retirement from practice, which took place a good many years ago, he had lived in Kensington, and there died at an advanced age on May 1st.

Dr. WILLIAM COULTER of Calcutta died at his residence, Highwick, near St. Albans, on April 22nd, at the age of 64, after a long illness. He was the son of Rev. George Bartlay Coulter, vicar of Frankford, Castleblayney, Ireland, and was educated at Belfast and at Trinity College, Dublin. He took the degrees of M.D., M.Ch., Royal University of Ireland, in 1870, and became a member of the Royal College of Surgeons of England in 1871. He went out to India in 1873, and for seven years practised in the tea district in Cachar. He then returned to London and spent three years in strenuous post-graduate work at St. Thomas's Hospital and the Moorfields Hospital. In 1884 he started in practice at Calcutta. At that time there was no well known non-official doctor there, and it was uphill work for an unknown man to acquire a practice. In a few years, however, Dr. Coulter was doing well. He subsequently took into partnership Mr. Arnold Caddy, and when Dr. Coulter retired from practice in 1903 he was doing one of the largest practices, if not the largest practice, in Calcutta. He had a very large circle of friends, and his retirement was much regretted. He had unbounded energy, and never shirked hard work. His geniality and Irish humour contributed to his success no less than his professional skill and ability. He was a man of keen intellect, and of an open and frank nature. He was always straight and honourable in all his dealings with his fellow men. He has left a widow, and one son, Mr. W. H. Coulter, who has recently been gazetted to the Fifth Lancers.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. Elie Lambotte, one of the leading surgeons of Belgium, who had been Surgeon to the Bon Pasteur Hospital, Brussels, for more than twenty-five years, author of several monographs on the treatment of diseases of the stomach by operation, and other surgical works, and an Honorary Fellow of the Royal College of Surgeons of England, in his 56th year; Dr. Louis Lande, Professor of Forensic Medicine in the Medical Faculty of Bordeaux and President of the French Medical Association, in his 69th year; Dr. Adolph Sieligmüller, Extraordinary Professor of Neurology and Psychiatry in the University of Halle, and author of numerous monographs and other contributions to the literature of his special province of practice, aged 75; Dr. Leopold Thumim, a well-known gynaecologist of Vienna, formerly assistant to Leopold Landau; Dr. Unverricht, sometime Professor of Clinical Medicine in the University of Dorpat; Dr. Paul G. Freer, Director of the United States Scientific Bureau in the Philippine Islands and Dean of the Philippine Islands Medical School, aged 50; Dr. L. N. Warneck, Surgeon-in-Chief to the Pirogoff Municipal Hospital, Moscow, and a well-known gynaecologist; Dr. Theodor Gies, Extraordinary Professor of Surgery in the University of Rostock, in his 67th year; and Dr. Sigmund Mirabeau, of Munich, a well-known gynaecologist.

Medico-Legal.

A DEBT COLLECTING AGENCY.

A CASE, justly described by the prosecuting counsel, Mr. H. C. Dickens, as of considerable importance to the medical profession, was heard at the Wandsworth County Court on April 30th. The plaintiff was Dr. Ritchie, of the Greys, Cavendish, Suffolk, and the defendants were the South-West London Tradesmen's Provident Society, Ltd., whose registered office is in Balham High Road, Balham. The claim, Mr. Dickens said, was to recover 4 guineas which had been received by the defendants on behalf of plaintiff and for an account. The case would not be defended. The South-West London Tradesmen's Provident Society carried on business by very grandiloquent methods of advertising and under a grandiloquent title; but, as a matter of fact, their registered office proved to be over a small jeweller's shop, and the business was carried on by two gentlemen named Rackham and Cook. These people had apparently been successful, by means of advertisements, in obtaining a considerable amount of money from various persons throughout the country. The promises they made in return for a guinea were very generous indeed. Those who paid the guinea were entitled for the rest of their lives to advice on any matter free of charge; to solicitor's advice on all legal matters, etc. A bait was held out to medical men—particularly those resident in remote parts of the country—in the form of appointments as medical officers for the society. There was a further branch of the society in which the plaintiff was more especially concerned, and that was the debt-collecting department. Not only did the society collect debts, but it did not hand them over. An enormous number of complaints had been received against the society. There had been warnings about it in the medical journals and in *Truth*. Dr. Ritchie, who practised at Cavendish, Suffolk, got in touch with the society in 1910. He placed in their hands a list of debts he wished to have collected, amounting to £17 19s. 6d. Later he heard the society had recovered certain debts, and he wrote on several occasions for the money that had been collected. He received no answer, however, until March 17th, 1911, when they admitted having collected the sum of four guineas. He wrote again and again for the four guineas, and then placed the matter in the hands of the Medical Defence Union, of which he is a member. The Union wrote several letters, and, receiving no satisfactory reply, placed the matter in the hands of their solicitors, Messrs. Hempson, who wrote both to Cook and to Rackham, and received a reply to the effect that it should receive prompt attention. The defendants sent in what they called a statement of accounts, showing that £4 17s. had been collected, and claiming commission on £17 4s. 6d., which they said had been withdrawn by the plaintiff. The Registrar had made an order for interrogatories and another for discovery, but neither had been complied with, and the defendants had placed themselves open to attachment for contempt of court. The defendants evidently had no intention of coming into court, and had done their best to prevent publicity, for on Saturday Rackham came to the court with four guineas and the costs of the summons. They did that to avoid publicity, which he (counsel) hoped the case would bring upon them. It was impossible to say what had been collected on plaintiff's behalf.

His Honour agreed the defendants had done all they could to prevent the matter coming into court. They seemed to rely on the fact that probably it would not be worth while for people from whom they had obtained money, or on whose behalf they had received money, to commence proceedings against them. He would therefore give judgement for the plaintiff for the amount paid into court and for an account, also an order for an injunction restraining the defendants from collecting further debts on plaintiff's behalf, and for a mandatory injunction ordering the defendants to return to the plaintiff all papers of his in their possession. He (the judge) would award costs on Scale C.

Public Health
AND
POOR LAW MEDICAL SERVICES.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

City of York.—The population of the City of York at the last census was 82,297, or about 6,000 less than the estimate of the Registrar-General. The birth-rate in 1910 was 24.1 per 1,000, the death-rate from all causes 12.7 per 1,000, and the infantile mortality-rate 94 per 1,000 births. In the preface to the report Dr. Edmund Smith refers to the delay in its issue, which he states is partly due to the fact that the first six months of the year are in many ways the busiest part of the year in a public health department. It is convenient that new schemes and new methods of administration should come into being at the beginning of a calendar year, but it would be an advantage if a longer notice were given of such schemes and methods. The Housing, Town Planning, etc., Act, for example, came into operation on December 3rd, 1909, with all its vital alterations, and, as a consequence, many of the proceedings in connexion with insanitary dwellings had to be recommenced *de novo*.

City of Coventry.—The population of Coventry at the last census was 106,377, an increase of 36,399 on that recorded in 1901. The birth-rate in 1910 was 26.2 per 1,000, and the death-rate from all causes 11.4 per 1,000. Dr. Snell points out that if the death-rate recorded in 1900—namely, 17.5 per 1,000—had prevailed in 1910 there would have been no less than 622 more deaths in the latter year. Taking these lives at the low value of £150 each, which was the value placed upon the life of an agricultural labourer by the late Dr. Farr, there had been a gain to the city of Coventry of a capital value equal to £93,330 through the reduction in the death-rate due to the improved sanitary conditions which had been brought about. In no part of the city was the death-rate in 1910 unduly high. The highest rate—15.7—was in the Cheylesmore ward, while in Stoke it was 10.0 and in Hearsall only 7.0 per 1,000, both of these districts having a rapidly growing population.

Medical News.

QUEEN ALEXANDRA has appointed Dr. Harold R. D. Spitta, D.P.H., to be bacteriologist to Her Majesty's household.

PRINCE DAMRONG, Minister of the Interior in Siam, has recently founded a Pasteur Institute in memory of his daughter who died of hydrophobia.

THE lectures and demonstrations for the summer term at the Hospital for Consumption and Diseases of the Chest, Brompton, will commence on Wednesday, May 22nd, at 4 p.m., and continue weekly until Wednesday, July 24th.

FOR the present session of the London School of Tropical Medicine fifty students have entered, including ten for the advanced courses in protozoology, entomology, and helminthology.

THE Cavendish Lecture of the West London Medico-Chirurgical Society will be delivered by Professor Karl Pearson, F.R.S., at the Kensington Town Hall, on June 21st. The subject will be Darwinism, Medical Progress, and Eugenics.

DR. CARMICHAEL (Boddam), on the occasion of attaining his semi-jubilee as a medical practitioner, was, on April 26th, presented with a purse of sovereigns; at the same time he, along with Mrs. Carmichael, was presented with a silver rose bowl.

THE annual general meeting of the Asylum Workers' Association will be held at 11, Chandos Street, W., on Wednesday, May 22nd, at 3.30 p.m. Among the speakers will be Sir William J. Collins, M.D., and Sir Robert Jardine, K.C.I.E., M.P., president and president-elect of the association respectively.

MR. HENRY HOLDEN, a member of the firm of Holden Brothers, 3, Harewood Place, W., has published a seventh edition of a pamphlet by himself on the nature, causation, and treatment of splay-foot, in which the subject is interestingly set forth from the point of view of an instrument maker.

DR. EMMA SLATER, 33, Chepstow Villas, W., informs us that applications for the Dr. Edith Pechey Phipson Post-Graduate Scholarship for medical women, value £40, should be sent to her by the end of this month, and that information concerning it can be obtained by prospective candidates on application to her.

THE following official correction of a passage in the Final Report of the Royal Commission on Vivisection has been sent to us for publication: At page 17, line 44, for "We now see a marmot, the spinal cord of which had previously been divided by a vivisector," read, "We once saw a marmot, the spinal cord of which had previously been divided, bite a vivisector."

AS the question of petrol consumption is one of importance to medical men, we may note that at the recent Herts County A.C. trial the first and second prizes were won by the De Dion Bouton cars driven by the owners. The cars had been in use—in the case of the first prize four years and in the second eight years. The consumption of the first was at the rate of 48.7 miles per gallon.

WE have received from Messrs. Wratten and Wainwright, of Croydon, a sample of their new "London" x-ray gelatine plates. They are, we are informed, the final result of a series of experiments made with the object of increasing the speed of the emulsion, and the claim is made for them that they give not only good density and contrast but an appreciable increase in sharpness of definition in fine detail. A trial exposure with the plates certainly seems to bear out these claims. The plates are remarkable for their fastness; they give good contrast, and are easy to work.

A VERY successful nursing and midwifery conference was held at the end of April in the Technical Institute of the London County Council in Vincent Square, the proceedings lasting four days, and including papers by Dr. Jane Walker and several other well-known members of the medical profession. In connexion with the conference an exhibition of preparations and appliances specially intended to facilitate nursing was also held, its most interesting feature being the stall of our contemporary the *Nursing Times*. On this were exhibited about a hundred appliances devised by nurses, which had been sent in competition for certain prizes and medals offered by the publishers of the journal in question.

THE Society of Tropical Medicine and Hygiene held a very interesting laboratory meeting at the Royal Army Medical College, London, on March 15th. The *Transactions* of the society for April, 1912, gives an account of the specimens shown there. Dr. Carr described an ulceration noticed in Persia in the discharge from which spirochaetes were abundant; Dr. Cropper a rapid method of diagnosis in malaria; and Fleet Surgeon Bassett-Smith, C.B., *Schistosomum japonicum* infection in a European. Dr. Carnegie Brown showed specimens of human entamoebae, and Dr. G. C. Low showed a series of sections demonstrating the development of the *Filaria emmitis* in the Malpighian tubes of the *Anopheles maculipennis*. Further demonstrations were given by Dr. Kerr, Sir William Leishman, the President; Captain Kennedy, Major Harrison, and Captain Bousfield. A feature of the meeting was the excellence of the specimens exhibited, some of these being unique and of the greatest interest.

WE are informed that a medical reference bureau in Berlin, under the management of a medical director and a staff of thirty medical men, is prepared to supply the profession with information in regard to publications on medical subjects. The practitioner can obtain extracts of articles, the titles of all articles on specified subjects, with or without a brief summary of the contents, translations, and similar assistance. The bureau has been in existence for about a year. The fees appear to be moderate, and while we are not in a position to state whether the work is well done or not, the scheme appears to us to be one which ought to be useful. The bureau is prepared to deal with medical men of all countries. Applications for terms, etc., should be made to Oberstabsarzt D. Berger, Medizinisch-literarische Zentralstelle, Berlin-Friedenau, Knaustrasse 12.

AT an inquest which took place in Stockport on May 6th the death of the deceased was shown to be due to a scratch in the nostril received from a hatpin protruding from the bonnet of another lady. The precise cause of the scratch was that both ladies stooped simultaneously to pick up a child which had fallen. The coroner took occasion to address to the jury certain remarks on the "deadly hatpin." There must be undoubtedly, he thought, a large number of cases in which such pins had caused injury, including loss of sight. Possibly the Legislature should endeavour to stop the danger by a statute imposing fines on people who used excessively long and unprotected hatpins; or possibly local authorities should secure the passage of a by-law to prevent their use. In any case, women should take the greatest care that no one was injured by anything they wore in their hats. The hatpins now in use varied from 8 to 15 in. in length, and it was no uncommon thing to see the extremity of one protruding three or four inches from the hat. They were very dangerous, especially in tramcars and trains, and when people were crowded together in any circumstances. In several cities in America injuries from hatpins had resulted in legal proceedings, and in Hamburg ladies were compelled by law to cover the points of hatpins by shields. The present case was an object lesson which showed that something of the kind should be done in Great Britain.

JUDGING from a report recently published by the British Fire Prevention Committee, the crusade against inflammable flannelette has not hitherto met with any marked success. No doubt mothers and children's nurses are somewhat more alive to the fact that flannelette catches light with facility and burns with great rapidity, but there seems to be a tendency on the part of certain manufacturers to endeavour to increase the sale of their goods by assigning doubly misleading names thereto. The report in question deals, for instance, with two samples of flannelette forwarded by the National League for Physical Education and Improvement and carefully tested by the Fire Prevention Committee. In both instances the tissue was flannelette of the "fine finish" variety, one a red twill and the other a plain blue flannelette. They were sold at somewhat high prices, and were put forward under titles indicating that they were safe to use. As many as 78 yards of these flannelettes were tested one by one, but in every single case the specimens caught fire when a flame was held beneath their lower edge for a few seconds, and as many as fifty-six of the samples were entirely consumed during the minute that each test lasted. In fact, the largest proportion of flannelette that remained in any instance at the end of one minute was one-third of the original length. In view of the fact that the fluffed-out cotton stuff known as flannelette affords something of the warmth of real flannel so long as it is comparatively new, and yet can be obtained at a relatively low figure, the Legislature could probably not altogether abolish its use even if this were desirable. It might, however, prevent the use of a word which gives a false idea of the constitution of this material, and should certainly authorize the establishment of a standard of inflammability, and make the sale of any flannelette as a "safe" flannelette an offence if such tissue failed to come up to the standard of inflammability.

Letters, Notes, and Answers.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone unless the contrary be stated.*

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, London, W.C.; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Office, 429, Strand, London, W.C.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

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2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2631, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

SUGNA asks for advice in the treatment of a case of very chronic albuminuria with marked arterio-sclerosis. Rest in bed, dieting with abundance of fluids and ordinary diuretics have been tried without avail; the albumen may be practically absent for a day and very abundant a few days later. The patient suffers from headaches only relieved by profuse sweating.

EFFECT OF SCOPOLAMINE AND MORPHINE IN LABOUR ON THE CHILD.

DR. J. G. HAYES (Sydenham) asks if it has come under the notice of any practitioner that the administration of these drugs to the mother has affected the infant after birth. He adds: Personally I have administered them some twelve times, and on three occasions the child was very drowsy for forty-eight hours, followed during the first week by slight attacks of faintness. I might add that in each case there was a gas stove burning in the room. That, I thought, was quite possibly responsible for the faintness.

ANSWERS.

DR. H. D. MCCULLOCH (London) writes: In reply to the query by "L. H. B.," I would advise a minimal dose of the *x* rays over each of the five areas of the scalp—say one-tenth of a pastille dose every third day during a fortnight. Seborrhœa, like hyperidrosis, responds to such treatment if judiciously administered.

INCOME TAX.

A. B.—Where board and lodging are provided in addition to a salary, the value of the board and lodging is not required to be returned for income tax purposes; but as our correspondent's inquiry relates to a period in 1910, and he then paid the income tax charged on an inclusive basis, it is now too late for him successfully to raise the question for that year.

EXCESSIVE AXILLARY PERSPIRATION.

H. J. T. writes to recommend "E. S. W. W." the following application for the treatment of excessive axillary perspiration: Boric acid, 5 parts; borax, salicylic acid, of each 15 parts; glycerine, alcohol, of each 60 parts—to be rubbed in three times a day.

LETTERS, NOTES, ETC.

TWO CASES OF LOCALIZED PARALYSIS.

DR. J. W. MARTIN (Newbridge, Dumfries) writes: A child, aged 3½ years, had very marked paralysis of the right side of the face, the features being drawn to the left side when she smiled or tried to laugh. There was nothing noticeable on protruding the tongue. There was some enlargement of the glands in the neighbourhood of the ear, possibly secondary to decayed teeth, and probably in this way facial nerve was affected. There had been sore throat amongst the residents in this house. The second case was that of a woman over 60, who used a crutch for lameness of the right leg. She showed me her left hand, which she was unable to extend, and which hung in the prone position. The hand was slightly drawn to the flexed side. It looked like "wrist drop" at first, but she said that the other hand was perfectly strong. On considering I saw that the crutch was most likely the cause of the trouble, that it was a case of "crutch palsy" as described in the textbooks, and the nerve implicated is the musculospiral, which supplies the extensors of the wrist and fingers muscles of the wrist and forearm. Both cases have got well with rest and appropriate treatment.

THE WAITER'S NAPKIN.

R. G. H. writes: Apropos of your leaderette (BRITISH MEDICAL JOURNAL, 1912, i, p. 915), "The Waiter's Napkin," I remember some thirty years ago there was in *Punch* or *Fun* an illustration of this subject: Restaurant or coffee-house. Old gentleman, with a look of horror on his face, regarding waiter vigorously rubbing a plate with a cloth: "Why! Why! Waiter, you are wiping my plate with your pocket handkerchief." "Oh, no matter, sir; it's only a dirty one!"

CHRONIC INTESTINAL STASIS.

DR. JOS. S. BOLTON (Nottingham) writes: In a highly interesting lecture by Mr. Arbuthnot Lane, published in the JOURNAL of May 4th, these words occur: "In almost every case of cancer of the breast a previous history of chronic intestinal stasis can be demonstrated. I need hardly lay stress on the great importance and interest of this sequence." The dire results of autointoxication are becoming more evident every day, and others of us have observed the close relation between this condition and cancer, though we would not limit the source of the poison to the bowels only. If every doctor would study this relation in the cases that come under his notice, we should very shortly be in possession of sufficient data to prove or disprove it. I will only add that the treatment suggested by Mr. Lane does not exhaust the methods at our disposal. Any one who will carry out deep abdominal massage for a quarter of an hour twice a day, with suitable physical exercises, and the occasional use of vibration and electricity, will obtain satisfactory results. The addition of sour milk to the diet will be useful in some cases.

THE WARMING OF BEDROOMS.

WE have received from Mr. W. B. Palmer (18, Waverley Road, Cotham, Bristol) a number of verbal and other communications on the subject of the warming of bedrooms. Some twenty years or more ago he came to the conclusion that a liability which he evinced towards attacks of bronchitis and asthma was largely influenced by the temperature of his bedroom. He therefore set to work to determine what was the best fashion of raising the temperature of a sleeping apartment of fair size to a desirable temperature before occupation and of maintaining it thereat during the hours of sleep. He experimented in turn with coal fires, gas fires, and oil lamps, and concluded—partly from thermometric observations, but chiefly by noting his own relative freedom from bronchial attacks—that a 50-candle power oil lamp placed on the floor of a room of over 3,000 cubic feet capacity afforded the most desirable atmosphere. Occasionally such a lamp proved objectionable either by smoking or by emitting unpleasant fumes, but eventually he got over this difficulty by having a burner-top, which admits an unusually large supply of air to the combustion chamber. His experiences are at the disposal of all those interested.

"AN OBSTETRIC CONTRAST."

DELTA writes: Dr. Parrott's curious experience (BRITISH MEDICAL JOURNAL, May 4th, 1912, p. 1052) is paralleled by the following cases in my own: (1) I was engaged to attend a confinement by a woman of 36, who had already had three children. About the time expected I was summoned early one morning, and found the nurse in attendance and the baby clothes, etc., all arranged. The woman herself was apparently in labour, having had the "pains" for about an hour. On vaginal examination I was mystified at not being able to find a presentation; the os was perfectly normal, and further examination showed that she was not even pregnant. (2) A couple, who said they had been recently married, came to reside near me. One evening the husband came in a great state of perturbation and exclaimed, "Oh, doctor, please come at once; my wife's got a baby!" On my arrival I found the woman, dressed in her ordinary clothes, standing by the bedside and a full-time child lying on the floor, with the umbilical cord snapped. The woman said that she had only had one long, strong pain; but the curious fact is that neither she nor her husband had had the least idea that she was pregnant—a fact which was confirmed by the previous announcement in the neighbourhood of their recent marriage! This case is even more remarkable than Dr. Parrott's, inasmuch as his was in a multipara, while my patient was a primipara.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page	8	0	0

An average line contains six words.

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

NOTE.—It is against the rules of the Post Office to receive *poste restante* letters addressed either in initials or numbers.

A Scheme
FOR
THE TEACHING OF ANATOMY.

BEING A PAPER READ IN OPENING A DISCUSSION ON THE TEACHING OF ANATOMY BEFORE THE ROYAL ACADEMY OF MEDICINE IN IRELAND.

BY A. C. GEDDES, M.D.,
PROFESSOR OF ANATOMY, ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE professional instruction of the medical student provides unlimited material for discussion and for legitimate differences of opinion, and of these the most acrimonious and the widest seem to centre around anatomy. Why this should be, it is not difficult to understand.

In the past anatomy was the only non-clinical subject taught practically, and naturally everything centred upon it. Anatomists taught not only the structure of the human body, but also its functions and its diseases. As knowledge grew and the subject became too large for one man to handle, the teaching of morbid anatomy passed into the hands of pathologists, and of function into the hands of physiologists. But in order to give the physiologist of that day enough work to do, and in order to allow him to earn from his students' fees something approaching a living wage, it was necessary for the study of microscopic anatomy to be treated as if it were a department of the study of function. In result, anatomy, shorn of much of its living interest, tended to become more and more a pedagogic exercise, and its most hopeful development appeared for a time to be as a sort of preliminary to surgery—a technical, but still a dead, preliminary. With the coming of anaesthesia and antiseptics the average surgeon concluded that it was no longer necessary for him to possess an accurate anatomical knowledge, and anatomy, no longer a preliminary to anything in particular, slipped more and more into the bog of pedagogy. No wonder the enthusiastic educationalist asked, "Why is anatomy allowed to occupy so much time?"

How appalling a subject anatomy was most medical men can testify. Arteries were alleged to possess minute branches, which could never be found in the dissecting room, and these had to be learnt painfully from books, and, with a host of other unconnected details, fixed in the mind by "tips" about the disappointed lover; salasap; lazy students; the inflictions of Timothy or Turner; twenty-two, twelve, eleven; the triangles based on Sisp; and all the rest of it. Then came formalin and methods of hardening and all the sorrows they brought in their train, facets on the kidney, right-angled triangular prismatic livers and tetrahedral spleens. And anatomy sank deeper and deeper into the bog of pedagogy. It was almost as dead as the material it pretended to describe; and then came the stirrings of the new life which is now driving it forward to its rightful place in the scientific education of the physicians and surgeons of to-morrow.

No longer hampered by absurd and absolutely artificial boundaries, anatomy claims that it is the science of the structure of all living things, both plants and animals; and human anatomy, a small compartment of anatomy, that it is the science of the structure, both macroscopic and microscopic, of the human body, of the origin and development, the relations, correlations, and variations of the tissues and organs ancestrally, racially, and individually considered. Its place in the curriculum of the schools is no less clearly defined. Standing as it does at the very commencement of medical study, it claims that it is its primary function to instil habits of accurate observation and scientific thought into the minds of medical practitioners in making, utilizing as its machinery the study of the architecture of the human body. Simultaneously it lays the foundation of technical knowledge upon which the physiologist, pharmacologist, pathologist, and clinician will build.

To secure these ends didactic teaching is worse than useless, and dissection, although it is and must always be the backbone of anatomical study, by itself insufficient. If carefully supervised, dissection teaches much, but little if students are left to work out their own salvation. At best it confers familiarity with the macroscopic structure of the tissues and organs of the body, and serves as an introduction to the study of the interrelations of the organs. From dissection each may learn to act for and to rely upon himself and to see things as they are, not as authorities say they are. It is much for a student of medicine to learn the fallibility of the printed word. But from dissection alone it is hard to gain a conception of the stereoscopic relation of the elements which have been dissociated. It is still harder for a student, in the time at his disposal for the study of anatomy, to appreciate the range of individual variations, the sexual and age differences in relation and structure, and the meaning which these variations and differences possess. Dissection, therefore, requires to be supplemented. Rather than beat the air discussing what this supplementation might be, I shall describe the course of anatomical study pursued by medical students working in the Schools of Surgery, R.C.S.I., for the Second Professional Examination of the Conjoint Board in Ireland. It is arranged as follows:

A.—COURSE FOR FIRST YEAR STUDENTS.*

This, in my opinion, is the most critical course in the whole curriculum. By its success or failure the whole outlook of each student is permanently affected.

The principle upon which it is based is to work from the known to the unknown. We do not confine ourselves to descriptive anatomy; all the teaching given in it deals with function as well as with structure. In other words, it is a preliminary course both to anatomical course B, the course for second year students, and to the course in physiology which also comes in the second year. The first six months of it are also preliminary to the course in histology which is taken out in the first summer, but which is so weighted by the necessity of teaching histological method in preparation for pathology and clinical side-room work that it cannot hope adequately to deal with structure unless the students who attend the course are to some extent already familiar with its details.

At the commencement of this first-year course in anatomy about one-half of the students are wholly ignorant of biology; the other half have already studied and have passed the first professional examination in this subject. It is practically safe to ignore this difference. Even those who know their biology well can derive much benefit from what is for them to some extent a revisal course, while those who still have to study biology are given a sure foundation.

The course, therefore, starts from the very beginning. This is best effected by commencing with a short series of introductory demonstrations. In these the effort is made to fix the student's point of view, to instil into the minds of each of them that it is the thorough performance of daily work that matters, and that examinations are a mere episode in an orderly progress towards knowledge and not a goal.

Further, the attempt is made to teach in a somewhat general way the denotation and connotation of the names of the common tissues and structures—for example, cartilage, bone, ligament, artery vein, lymphatic. This occupies about five hours.

Section 1: Classes Limited to Twelve Students.

The first section of the course proper is entirely practical and deals with the surface and palpable anatomy of the body. In it all the teaching is done upon the body of a living model, and is illustrated by such wax and plaster models and natural specimens, both macroscopic and microscopic, as are requisite.

The regions of the body are first discussed, and these are described by their popular names, their technical names being introduced later. When this is mastered, the study of the skin, hair, and nails is taken up, and every point is practically demonstrated by the teacher and by each student upon the surface of the body. This completes the first section. Time available, five hours.

Section 2: Classes Limited to Twelve Students.

The second section of the course is designed to introduce the study of the framework of the body. It is conducted generally as follows:

Each student examines the shoulder region of a rather thin living model, and demonstrates upon the skeleton the

*The courses described in the text are those given during the session 1911-12, with one or two minor modifications which experience has suggested as advisable. These have been adopted for the courses 1912-13.

bones that he can feel under the skin. He then picks out from a pile of bones a clavicle and scapula of the side under observation. These he places in proper position, guided entirely by his palpation of the model. He checks his placing of the bones by reference to the skeleton. Next he demonstrates to the teacher which parts of the bone he can feel and which he cannot feel. By examination of a dissection of the region he is guided to discover what prevents him from palpating certain parts of the bone. This introduces him to the study of muscles, which he has already heard of in the introductory demonstrations.

In this way the regions of the shoulder, arm, and forearm are studied. The next step introduces the idea of the muscles moving the bones. This in turn introduces the student to the further idea of joints, which are explained to him carefully, but the specific examples of the shoulder, elbow, and radio-ulnar joints are not at this time departed from. Throughout, no structure is mentioned that is not shown to the students and handled by them, and no movement is spoken of that is not fully demonstrated upon the model and performed by the students themselves. Time available, five hours.

During the progress of this section of the course the work of dissection is commenced (*vide infra*).

Section 3: Classes Limited to Twelve Students.

The third section of the course is devoted to the detailed study of the framework of the body. It is conducted as follows:

One long bone—for example, the humerus—is taken. Macerated specimens are first considered and the surface texture of the various parts discussed. The bone is then studied in section. When this is completed the microscopic structure of compact and cancellated bone is dealt with. Next a recent specimen is considered, and the marrow, periosteum, and articular cartilages studied by the students. Next a series of young bones is dealt with and the whole question of the relations of cartilage and bone considered. At this stage cartilage requires to be studied microscopically. Next the different types of epiphyses require to be dealt with. In the study of the joint epiphyses it is best to consider those of the knee-joint region, because there the problem is simplified. The lower femoral and upper tibial epiphyses are treated as together constituting a joint unit, which "joints" immovably with the femoral shaft above and the tibial shaft below. This introduces the immovable class of joints.

The epiphyses throughout the body are next demonstrated by means of *x*-ray projections, and their distribution in the region of joints and of the insertion of powerful muscles insisted on.

Once the students know what bone and cartilage are, and what a bone in the living body is, and what epiphyses are, they are in a position to commence the detailed study of the framework of the body. This is conducted by a continual process of cross-reference between the living model and the skeleton, the *x*-ray projection, the macerated bone, and the recent bones of adults and young persons.

The shapes of the articular surfaces of adult bones are discussed in connexion with the range of movement possessed by the joint they form. To fix the shapes of these surfaces in the minds of the students recourse may be had to modelling in clay. It is waste of time to make the students model whole bones. It is not found to be desirable to study completely the ligaments of the joints at this time. The complete study of these, which is undertaken in the second year, provides an opportunity of revising many facts in connexion with the framework of the body. The time devoted to this section of the course is about fifty-five hours.

Section 4: Class not to exceed Fifty.

The fourth section of the first year's course runs concurrently with Sections 1, 2, and 3. It grows naturally out of the introductory demonstrations, and is devoted to a study of the abdominal and thoracic viscera. It is designed to lay the foundations for the physiological work of the second year, and to prepare the students for the dissection of the thorax and abdomen. In its general arrangement it describes structure from the point of view of function. It consists of a series of lecture demonstrations in which the students can handle every structure described. It is freely illustrated by means of the episcope and projecting microscope. The time available for this is about thirty hours.

Section 5: Class Unlimited, One Demonstration for every Twenty Students.

The fifth section of the first year's course is devoted to the dissection of the limbs of an adult and a child. One hour in each day is particularly devoted to supervised dissection. The remainder of the time available is utilized for the careful cleaning of structures exposed, and to the study of the stereoscopic relations of parts by means of transverse and longitudinal sections. The time available for the work of this section and for the private study in the laboratory of the subject matter of Sections 1 to 4 is about 300 hours.

In summary, Course A, First Year for Medical Students, is arranged as follows:

Introductory demonstrations	5 hours.
Section 1 (Introductory).—The study of the surface of the body	5 hours.
Section 2 (Introductory).—The recognition and study of structures which can be felt from the surface of the body	5 hours.
Section 3.—Detailed study of the framework of the body	55 hours.
Section 4.—The study of the abdominal and thoracic viscera...	30 hours.
Section 5.—Dissections: The limbs of the adult and the child	300 hours.
Total	400 hours.

Note 1.—The 300 hours nominally allotted to Section 5 include time devoted to the private study in the laboratory of the subject matter of Sections 1 to 4.

Note 2.—The total of 400 hours is an average total. It is exceeded by all the better students. At the end of this course each student is expected to be familiar with:

(*a*) The surface of the body and all the bones palpable therefrom.
(*b*) The structure of the skin, hair, and nails.
(*c*) The framework of the body, including its post-natal development, but excluding the ligaments.
(*d*) The anatomy of the limbs and the stereoscopic relations of their parts.
(*e*) The viscera of the thorax and abdomen as such and their physiological relations. (This implies a general knowledge of the physiology of the respiratory, circulatory, and alimentary systems upon which the physiologist can build.)
(*f*) The microscopic structure of all structures studied. (This is intended to reduce the load thrown upon the class of histology conducted by the physiological department concurrently with the latter part of the first year class of anatomy.)

B.—Course for Second Year Students.

This is an easier course to arrange than Course A. It runs concurrently with the course in physiology and succeeds the course in histology. Further, the students are possessed of some self-reliance and initiative. It is therefore advisable to entrust them more with the work of self-education. Five hundred hours are allotted to it in the scheme; in practice this total is exceeded by the better men.

Following the principle laid down for Course A, it works from the known to the unknown.

Section 1: Class Unlimited.

This section of the course repeats to some extent the first year work upon the framework of the body, but it deals more fully with its mechanism and growth. Number of hours required about twenty.

Subsection a: Classes Limited to Twelve Students.

In this subsection of the course groups of students are taught practically the details of the joints and study for themselves the facts demonstrated in the unlimited class. Time allotted, twelve hours.

[Note.—This is in addition to the dissection of joints made by the students in the dissecting-room.]

Subsection b: Classes Limited to Twelve Students.

In this subsection the cranial bones are studied by small groups of students under supervision. This class is regarded as a guide to and a check upon private work. Time allotted, five hours in half-hour periods.

Both subsections (*a*) and (*b*) are conducted as round table conferences.

Section 2: Class Unlimited; Lecture Demonstration Class of Systematic Anatomy.

In this section the attempt is made to place at the disposal of the students a greater anatomical experience than they can possibly acquire in the dissecting-room. Each of the systems except the nervous system is demonstrated in detail, individual, age, and sexual variations being especially considered. The epidiascope and projecting microscope are freely employed. Nothing is described without being demonstrated, except certain of the variations of which no specimens exist in the teaching museum. These are illustrated by lantern slides. Time allotted, seventy hours.

Note.—The demonstrators are particularly required to demonstrate in the dissecting-room to groups of the class the facts dealt with in the lecture demonstrations.

Section 3: Practical Classes Limited to Twelve Students; Lantern and Model Demonstrations Unlimited.

This section deals with the anatomy of the nervous system, and is conducted two-thirds practically, and one-third by means of lantern demonstrations. The practical work is done under direct supervision, and deals with the macroscopic structure of the brain and spinal cord. The lantern and model demonstrations deal with the tracts of the cord and brain, with the segmental distribution of the spinal nerves and with the sympathetic system. Time allotted, thirty hours.

Section 4: Class Limited to Twelve Students.

This section consists of a short series of demonstrations upon the models of the organs of special sense, and is regarded as ancillary to the work of the dissecting-room. Time allotted about five hours.

Section 5: Class Unlimited.

This section comprises the main part of anatomical study in the second year—namely, the work of dissection. The work of the demonstrators chiefly is to ensure the balanced study of the student's own dissection and of the frozen sections provided. The object of this is to develop a sense of the stereoscopic relationships of organs. The students are at first to be helped to make graphic reconstructions for their own information, and then left to do so themselves. Their results alone are supervised. Quizzing students over "parts" is absolutely forbidden.

In short, the students are shown methods and left to make their own use of them under a general guidance.

Section 6: Classes Limited to Twelve Students.

This section deals with topography and the projection of internal organs upon the surface of the body (surface anatomy). It is limited to ten hours, and is regarded as the final drawing together of the facts already learnt, so that they may be conveniently fixed in the mind for clinical use.

In addition to attending each of the six sections detailed, each second year student is invited to write once a week a brief report upon some selected anatomical specimen, group of specimens, or subject. The majority of the second year students regularly respond to the invitation. These reports are carefully considered, corrected, amplified, and returned to the students writing them.

Summary of Course B.

SECTION 1.—The framework of the body and its mechanism (to connect with first year work)	20 hours.
Subsection (a).—Arthrology	10 hours.
Subsection (b).—Osteology of the skull ...	5 hours.
SECTION 2.—Systematic anatomy	70 hours.
SECTION 3.—Neurology	30 hours.
SECTION 4.—Organs of special sense ...	5 hours.
SECTION 5.—Dissection and study of sections	350 hours.
SECTION 6.—Topographical anatomy ...	10 hours.
Total	500 hours.

At the end of this course each student is expected to have acquired sufficient knowledge of the structure of the body for technical purposes, and, more important, to have acquired habits of accurate observation and self-reliance. Those who have not are infallibly weeded out by the practical parts of the pass examination. The percentage of such failures is, however, small, and in normal years does not exceed 10 per cent.

The courses outlined above are designed for students who are candidates for the Conjoint Licence. All the better students now go on to undertake the work required for the Primary Examination for the Fellowship of the Royal College of Surgeons in Ireland. In addition to the requirements for the Second Professional this examination demands a fair working knowledge of human embryology, and more especially of those processes of prenatal and postnatal development which if incomplete give rise to abnormalities requiring surgical interference or medical advice.

The Advanced Anatomy Course comprises a course of special dissections spread over a period of three months and forty meetings of one and a half to two hours, including lantern demonstrations, demonstrations of models, discussion of series of human and mammalian embryos, etc., and is a most important part of the anatomical training of the student.

The subjects discussed in the last course were:

1. Human Ovum.
   Human Spermatozoon.
   Segregation, Growth and Maturation of Ovum and Sperm (including homo- and hetero-typical karyokinesis).
   Ovulation.
2. Fertilization of Ovum. } Subjects pertaining to Uterine Tubes. — Concurrent consideration of growth of embryo and maternal adaptations for supply of nutriment to it.
   Division of Ovum (Bilateral symmetry).
   Implantation of Ovum.
   Menstruation. Time relations of foregoing to.
3. Delamination (Gastrulation).
   Yolk-sac, Allantois and Body Stalk.
   Placentation (early).
   Role of Yolk-sac and Allantois.
4. Growth of Embryo and Amnion.
   Formation of Flexures.
   Primitive skeleton, chorda dorsalis.
   Early divisions of Coelom.
   Segmentation of Mesoderm of Trunk.
   Mesoderm of Head. Head Cavities. Pericardium.
5. Differentiation of External Form.
6, 7, 8. Differentiation of the various systems during the first three weeks, including ductless glands.
9. The Central Nervous System, Development and Malformations.
10. The Heart, Development and Malformations.
11. Recent advances in the knowledge of the Heart Structure and Mechanism.
    The Auriculo-Ventricular Bundle.
12. The Great Arteries and Veins, Development, Malformations and Variations.
    The Aortic Arches.
    The Arterial Buds.
    The Venous Trunks.
13. The Lymphatic System, Development and Variations.
14, 15. The Arrangement of the Lymphatics of the Body.
16, 17, 18, 19. The Alimentary System, including the Digestive Glands, Development and Malformations.
20. The Arrangement of the Visceral Moorings of the Abdomen in the Adult and during Development.
21. The Anatomy of the Abdominal Wall with special reference to Hernia.
22. The Factors determining Variations in the Topography of Viscera.
23, 24. The Urogenital System and Cloaca, Development and Malformations. Sex Homologies.
25. The Pericardium, Pleura, and Peritoneum, Development and Malformations.
26. The Mechanism of Respiration.
    Sex Variations, etc.
27. The Head Skeleton, Development in Relation to Brain and Sense Organs.
28. The Axial Skeleton and Limb Skeleton, Development and Variations.
29. The Theory of the Limbs.
30. The Segmental Development of the Central Nervous System.
31. The Anatomical Basis of Referred Pain.
32. The Mechanism of the Erect Attitude:
    Spinal Column and Pelvis.
    Hip and Knee Joints.
    The Foot. Stability and Mobility.
33, 34, 35, 36, 37, 38, 39, 40. The Surface Anatomy of the Body, including the Visible and Palpable Anatomy of the Accessible Cavities of the Body.

But even after this course the training of the student in the architecture and composition of the body should not be regarded as complete. It is the duty of the physiologist, the pathologist, and the clinicians to carry on and to develop the student's knowledge of man's body. It is

quite impossible for the teachers of anatomy in two short years to turn raw boys into anatomists who know everything about structure, or, indeed, know all the details of structure which possess definite clinical and pathological significance.

During the first year a student learns slowly; he is in a new world, and unfortunately his whole school training has too often had the effect of unfitting him to adjust himself readily to that new world. When he starts his anatomical study the average freshman is absolutely ignorant of everything beneath the skin. The heart?—a blank. The brain?—another blank. The circulation?—the word is meaningless. Muscle?—no conception that flesh is muscle. But that is not all. New methods of learning have to be brought into play; fingers, eyes, and nose have to be educated. Words, words, words are too often the weapons of the boys' school; but in spite of all the words they have suffered from, most students have to be taught how to use words accurately. A sense of form has to be inculcated. In short, anatomists are educationalists rather than technical instructors. They prepare the site and lay the foundations upon which the clinicians, pathologists, and physiologists rear the temple of medical knowledge.

In conclusion, just two questions to the clinicians:

1. Would it not be a great help to students if all clinical teachers took the trouble to learn at least one recognized name for each structure in the body, instead of making use of local or fancy names that are not to be found in any standard work?

2. Would it not be a great help to students if all clinical teachers were quite sure that the structures they describe at great length are of importance, and in fact really exist?

Remember that, though pedagogic anatomy is dying, it was full of vigour a short time ago, and that some of the things that the clinicians of to-day learnt yesterday when they were students were purely pedagogic in origin. It is no use beating about the bush. Some clinical teachers badger students about wretched little pseudo-anatomical, pedagogical points, and suggest that any student who does not know these alleged facts knows no anatomy. The bewildered student comes to the anatomist and asks with superficial innocence, What is So-and-so? The real answer to his question not infrequently is the single word "Rubbish." But anatomists have to be moderately tactful even in their appeal to reality. "Would it not be a good thing to dissect it out for yourself and really see?" is what they usually say. And two days later the student begins to doubt if the clinician is quite such an authority as he has announced himself to be. After two or three attempts to find what his clinical teacher has described as an essential and a touchstone of knowledge, the student's growing scepticism blossoms into certainty that the clinician was simply talking, and another teacher's reputation vanishes in a blaze of blasphemy. It is a way medical students have.

GOVERNOR DIX of New York recently signed the bill passed by the Legislature providing for the sterilization of certain classes of male criminals and defectives confined in State institutions. The new law, says the *Medical Record* of April 27th, which is in the form of an addition to the public health law, creates a board, to be known as the Board of Examiners of Feeble-minded Criminals and other Defectives, to have supervision over the matter, the board to be made up of one surgeon, one neurologist, and one other medical practitioner, each with ten years' experience. If, after examination, this board decides that an inmate of the class affected by the law would transmit to his offspring a tendency to crime, insanity, or feeble-mindedness, or that his own mental condition would be improved thereby, it is to appoint one of its members to perform the necessary operation. The law applies to those who have been convicted of rape or of such a succession of offences as the board may consider to afford sufficient evidence of confirmed criminal tendencies. The operations of the law are safeguarded by the provisions for a judicial review of the findings of the board before any operation is performed, and no order of the board can become effective until it has been on file for five days. Careful records are to be kept of the effect of the law's application. New York is the sixth State to adopt such a law, New Jersey and Illinois being among those in which such action has already been taken.

An Address

ON

PYELONEPHRITIS OF PREGNANCY.

DELIVERED BEFORE THE STRATFORD DIVISION OF THE BRITISH MEDICAL ASSOCIATION.

BY

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PYELITIS or pyelonephritis of pregnancy is a condition that has been recognized only comparatively recently, and some textbooks published within the last seven years contain no reference to it. Twenty years ago (1892) Rebland reported 6 cases. During the last ten years a large number of papers on the subject has been written and many cases have been recorded, and it is gradually being recognized that the condition is common. Although not often causing danger to life, it may cause so much pain and impairment of health that its early recognition and treatment are important.

Symptoms and Physical Signs.

The symptoms usually begin during the second half of pregnancy, and vary greatly in severity. In some cases there is only aching in the lumbar regions with no constitutional disturbance. I believe that cases in which there are no acute symptoms are comparatively common. I see them fairly often in the out-patient department. If they are unrecognized, and therefore untreated, the patient undergoes a considerable amount of pain and discomfort, which might be relieved fairly easily.

The symptoms in more severe cases are pain in the loins and lower abdomen, sometimes very severe, with acute exacerbations, suggesting renal colic, and accompanied by vomiting. The pain may be so severe that the patient's sleep is interfered with to a serious extent. It may be impossible to say whether the affected kidney is enlarged or not, the presence of the pregnant uterus rendering palpation of the kidney regions difficult, but tenderness of one or both kidneys and tenderness along the course of the ureters is found on pressure. In some cases there is little impairment of general health and nutrition; in others the patient is obviously very ill. The temperature is usually raised, and there may be a high degree of pyrexia, usually with oscillations, and rigors may occur. The pulse-rate is, of course, rapid when there is much pyrexia. On vaginal examination the intrapelvic portion of the ureter may be found to be tender, and if there is cystitis the base of the bladder is tender to the touch.

Micturition may be frequent and painful. The urine is usually acid, and on superficial examination, even when severe symptoms are present, it may show little that is abnormal. After it has been allowed to stand for some time, however, or after centrifugalization, a deposit of pus is found. Sometimes there is a very large amount of pus, but pus may be almost or entirely absent on a single examination. It is possible that the occasional absence of pus may be accounted for by temporary blocking of the ureter on the affected side. Bacteriological examination reveals the presence of micro-organisms, most commonly the *Bacillus coli communis* or a "coliform" bacillus. Recurrence in subsequent pregnancies is common.

Etiology.

There is no consensus of opinion as to the method of infection of the kidney. The most obvious suggestion is that there is an ascending infection from the bladder—that is, a cysto-uretero-pyelonephritis, and there are a good many points in favour of this view.

Cystitis is certainly more common in women than in men, and often exists in pregnant women without its presence being suspected, frequency of micturition and discomfort being explained as results of pregnancy. Engelhorn examined the urine of 35 pregnant women and found it sterile in only 14 cases. In only 10 out of the 21 cases in which the urine was not sterile were there any symptoms of cystitis.

Dilatation of the ureters undoubtedly occurs fairly often in pregnancy, as is proved in *post-mortem* examinations of cases of eclampsia, and when present will favour ascent of micro organisms from the bladder. This dilatation may be caused by the pressure of the uterus at the pelvic brim. The right ureter is more commonly pressed on by the uterus than the left, as it lies rather farther from the middle line and so gets less protection from the projecting promontory of the sacrum.

Pilcher is of opinion, from cystoscopic examination, that obstruction to the flow of urine along the ureters is due to a distortion of the vesical portion of the ureters in the middle months of pregnancy. In some cases he found that the bladder was pressed down from above by the pregnant uterus so that the ureter was made to bend sharply at the point of its entrance into the bladder, or was kinked in its passage through the bladder wall. In other cases compression of the bladder from before backwards also offered the possibility of distortion of the ureters. The presence of this distortion was proved by catheterization of the ureters. The rate of flow of urine through ureteric catheters was increased 15 to 20 times when the patient was raised into a sitting position.

Mirabeau considers that cystoscopic evidence proves that dilatation of the ureters in pregnancy is due not only to their compression against the brim of the pelvis, but also to pressure exerted by the swollen mucous membrane of the bladder. Saurage holds that compression of the intra-pelvic portion of the ureter can cause kinking in the upper portion and that such kinking may cause permanent obstruction to the flow of purulent urine.

D. J. Evans says that in cases of pyelonephritis of pregnancy dilatation of the ureters is invariably present. Kendirjy believes that compression of the ureters by the uterus and the consequent dilatation of the ureters and the pelvis of the kidney is the cause of pyelonephritis. He quotes Olshausen as having found dilatation of the ureters in pregnancy in 25 cases out of 34, Löhlein in 8 out of 32, and Pollak in 35 out of 130. Opitz looks on the lower part of the ureter as containing a stagnant column of urine. He quotes experiments of Guyon and Albarran on animals, showing that when a stagnant column of urine is present in the ureter there is really a free communication between the bladder and ureter, so that organisms can pass upwards without any obstruction being offered by the valve-like opening of the ureter.

However, if dilatation of the ureter is accepted as a factor in the development of pyelonephritis, it is not necessary to postulate the presence of a column of stagnant urine to explain the ascent of micro-organisms from the inflamed bladder to the kidney. The researches of Bond of Leicester, recorded a few years ago at the annual meeting of the British Medical Association, show that micro-organisms may travel along the mucous membrane of the ureter against the stream.

The main objection to this obvious suggestion, that the cause of pyelonephritis of pregnancy is ascent of micro-organisms from an inflamed bladder along a dilated ureter to the kidney, is that in the majority of cases there is no cystitis present. Many observers are agreed on this point while admitting that pyelonephritis occurring during the puerperium may arise from cystitis. However, Engelhorn's evidence, quoted above, shows that absence of clinical signs and symptoms of cystitis is no proof that the bladder does not contain micro-organisms.

The explanation which receives most support is that which accepts the fact that there is some dilatation of the ureter and pelvis of the kidney, but attributes the origin of the micro-organisms to the blood or bowel rather than to the bladder. The renal epithelium is damaged partly as the result of increased pressure from below and partly from toxaemia of pregnancy, that is, its resistance is lowered.

C. B. Reed does not agree that pyelonephritis of pregnancy is due to urinary stasis from compression of the ureters by the growing uterus, and infection by micro-organisms through the systemic channels or by ascent from the lower urinary passages, but considers that pyelonephritis may be regarded as a distinct disease of gestation due to degenerative changes in the renal epithelia or parenchyma from transudation or excretion of toxins of pregnancy together with bacterial invasion, probably of vesical origin.

The frequent occurrence of constipation during pregnancy may explain the entrance of the *Bacillus coli communis* into the pelvis of the kidney. The close relation of the ascending colon, often containing an accumulation of faeces, to the right kidney is held by Mirabeau to account for the frequency of right-sided pyelonephritis. Cumston suggests that there may be an exalted virulence of the colon bacillus due to some gastro-intestinal disturbance. It must be remembered that a statement made by the patient that the bowels are open regularly is not inconsistent with the presence of chronic constipation. The bowels may be open daily, but each evacuation may be a day or two late.

Diagnosis.

From consideration of the symptoms it will be seen that diagnosis of the condition may be simple and easy. In other cases it may be difficult, usually, however, because pyelonephritis is not thought of. Suspicion of the presence of pyelonephritis should always be raised by complaint of pain in the abdomen, loins, or back, or by pyrexia during pregnancy. If the pain and tenderness are confined to the right side appendicitis may be wrongly diagnosed. I have known a case in which the appendix was removed before the correct diagnosis was made. Sometimes enteric fever has been diagnosed, also other gastro-intestinal troubles and influenza. In some cases which were at first thought to be pyelonephritis of pregnancy it has been proved later that a renal calculus was the cause of the trouble.

As a rule, careful abdominal and vaginal examination, and examination of the urine, if necessary on more than one occasion, including bacteriological examination, will leave no doubt as to the correct diagnosis.

Treatment.

Almost all writers on the subject are in agreement that the treatment of pyelonephritis of pregnancy should be as conservative as possible.

The general treatment consists of rest in bed, milk diet with plenty of harmless fluids to drink, and regulation of the action of the bowels. Violent purgation must be avoided as being likely to cause miscarriage. Some authorities advise administration of small doses of calomel—for example, grain $\frac{1}{4}$ t.d.s.

More special treatment includes administration of diuretics, and urinary antiseptics, alteration of the reaction of the urine, etc. Diuresis is secured by administration of infusion of buchu and sometimes by digitalis. Several writers mention distension of the bladder as causing a reflex diuresis. I have no experience of this method of treatment. The most popular urinary antiseptic is urotropin, grains xv to xxx of which may be given daily. As the organisms are growing in an acid medium the urine should be rendered alkaline or neutral. This is done by administration of potassium citrate, grains xx to xxx t.d.s., or of alkaline waters. Antitoxin treatment has been tried with good results (Dudgeon quoted by Thomson Walker). Results of vaccine treatment are disappointing, at any rate in acute cases.

Pain is treated by warm applications to the loins, and if necessary to the abdomen, by administration of tincture of hyoscyamus mxxx t.d.s., and by posture. Sometimes great relief is obtained by having the foot of the bed raised 1 or 2 ft., while in other cases a sitting posture may be found to give relief. As a rule the pain soon yields to treatment.

Interruption of the pregnancy should be avoided if possible, and expectant treatment always given a fair trial. Some writers emphasize the increased risk of puerperal infection on account of the septicity of the urine, but in Leguen's 52 cases there was no puerperal sepsis. If both kidneys are affected, and the condition does not yield to medical treatment, and the patient's general condition is going from bad to worse, it may be necessary to empty the uterus.

Surgical treatment, nephrotomy (which is seldom called for in pyelonephritis of pregnancy), does not come within the scope of this paper.

I have collected the records of 19 cases treated in the wards of the London Hospital.

The average age was 26.

Eight of the patients were primigravidae; 9 had been pregnant before.

The average time at which the trouble began was during the

sixth month, in 2 cases it began during the fourth, and in 5 cases during the fifth month.

In 6 cases the presence of constipation was noted. In 5 others it was stated that the bowels had been opened regularly.

In 8 cases the trouble was right-sided, in 8 cases the symptoms and signs pointed to an involvement of both kidneys, and in 1 case the left kidney seemed to be affected alone.

One patient gave a history of a similar attack in former pregnancy.

In 2 cases there was no rise of temperature. In all the others there was pyrexia, in 14 cases as high as 102° F., and in 6 cases as high as 104°. In cases where there were rigors, which did not occur as frequently as I had expected, the temperature sometimes reached 105° or 106° F.

The urine was acid in 18 cases, alkaline in 1.

In 13 cases bacteriological examination of the urine was made. In 7 cases the *Bacillus coli communis* was found, in 5 cases a coliform bacillus, and in 1 case *Streptococcus albus* and a diphtheroid bacillus.

The symptoms complained of were pain in one or both loins, pain and tenderness along the course of one or both ureters, sometimes pain at the end of micturition, sleeplessness on account of the pain, malaise, etc.

There was 1 case of spontaneous abortion at five months and there was 1 case of spontaneous premature labour. In the latter case the temperature became normal thirty-six hours after labour, and all the symptoms disappeared, although the urine still contained pus. The case in which miscarriage occurred was the only one in which the patient did not make a good recovery.

She was a primigravida, aged 32, five months pregnant. Both kidneys were affected, and the *Bacillus coli communis* was found in the urine. Miscarriage occurred four days after the operation of exploration of the left kidney, and the patient died the next day. At the *post-mortem* examination pyelonephritis was found on the right side, pyonephrosis on the left side, the kidney being a mere shell filled with pus.

Premature labour was induced only once:

The patient was a primigravida, aged 27, seven and a half months pregnant on admission. She had been ill at home for some weeks, with pain in the loins so severe that she screamed when paroxysms came on, and had been unable to sleep. Raising the foot of the bed gave immediate relief from the pain, she slept well, and her general condition improved a little, but the pain became so acute again that it was thought necessary to empty the uterus. The patient made a good recovery, but the child lived only a few hours.

In none of the other 17 cases was it found necessary to bring the pregnancy to an end or to resort to surgical treatment, medical measures—that is, complete rest in bed, diet consisting chiefly of milk, and administration of urotropin, sometimes potassium citrate, sometimes acid sodium phosphate, with vaccines in a few cases—freeing the patients from pain and pyrexia, though not always from pyuria.

The success of conservative treatment was well shown in the case of a multipara, aged 28. For the first five weeks after admission she had a high degree of pyrexia, the temperature reaching 104° F., and there were several rigors. The question of emptying the uterus was considered, but under medical treatment the temperature eventually came down and stayed down. About fourteen weeks after admission labour came on naturally at term, and both mother and child did well.

Pyelonephritis in the Puerperium.

In cases that occur for the first time during the puerperium the diagnosis may be difficult at first, mainly because pyelonephritis is not thought of. If it is always borne in mind in cases of pyrexia coming on at the end of the first week of the puerperium—that is, at a time when uterine infection is improbable, the correct diagnosis will be made fairly often. This was taught by Olshausen ten years ago. Pyelonephritis occurring during the puerperium is likely to be mistaken for puerperal infection of the uterus, especially in cases in which there is no complaint of pain.

In cases in which there is localized pain a wrong diagnosis of appendicitis or of salpingitis may be made.

The fact that in spite of high temperature with great oscillations for several days the patient's general condition remains fairly good, points to pyelonephritis rather than puerperal infection.

I have seen a case in which the correct diagnosis was not made for many weeks.

Ten days after a normal labour the patient became ill with a fairly high degree of pyrexia. No abnormal physical signs could be found, the uterus was well involuted, the lochia had almost entirely ceased, there was no evidence of any inflammatory trouble in the pelvis, there was no evidence of cystitis, and the urine was apparently normal. After a few days all the untoward symptoms subsided, and the patient got up and about. After a chill contracted when driving the symptoms returned, fever, sweating, and abdominal pain not specially localized. A normal appendix was removed without any benefit to the patient, and then, and not till then, was a deposit of pus found in the urine. With appropriate treatment all the symptoms disappeared and did not return.

A month or two ago I saw a patient who, after induction of premature labour, had no rise of temperature during the first six days of the puerperium. On the seventh day I was called to see her, as she had had a shivering fit and a temperature of 102° F. at 8 a.m. For twelve hours before this she had had great frequency of micturition. There had been nothing else complained of. No catheter had been passed since the confinement. The uterus was rather flabby, and larger than it should have been on the seventh day, but it was not tender, and the lochia were sweet and not unduly profuse. The urine contained pus, and I made a diagnosis of cystitis. In the evening of the same day the patient had a severe rigor, the temperature rising to 105° F. Two hours later, in spite of profuse sweating, the temperature was 106.8° F., pulse 160. The uterus was explored, and nothing was found in its cavity except a small fragment of inoffensive clot. She had had no urinary symptoms whatever during the day, and it seemed unlikely that pyelitis, with no tenderness to be felt in either kidney region, could produce this amount of pyrexia. The temperature next day was normal, and continued to be normal, but the right kidney became tender, and bacteriological examination revealed the presence of the *Bacillus coli communis*. The condition soon cleared up.

The occurrence of pyelonephritis in the puerperium emphasizes the importance of preventing retention during the second stage of labour and the avoidance of catheterization as far as possible after labour.

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THE ETIOLOGY OF THE EXCESSIVE VOMITING OF PREGNANCY.

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By most authorities it is agreed that the cause of the excessive vomiting of pregnancy arises within the uterus and acts through the nervous system, chiefly the sympathetic. Others consider that it is reflex, while some hold that a neurotic temperament is the cause. I have heard it stated that in the early months it is due to a neurosis, and in the later months of pregnancy to toxaemia. The various explanations may therefore be classified under three main groups: (1) Toxaemic; (2) reflex; (3) neurotic.

Toxaemic.

The toxaemic seems to be the most rational explanation of this complication of pregnancy, so that it may be considered first. The questions then arise, Where are these toxins produced, and by what channels do they act?

Dirmoser[1] has given what seems to me the most feasible explanation of the origin and progress of the toxaemic condition. He considers that the excessive vomiting is a reflex irritation of the sympathetic nervous system, commencing in the internal sexual organs, and through the secretory and motor fibres of the sympathetic leading to the production of changes in the biochemical processes, more particularly of the digestive tract, followed by atony of the gut and increased production and absorption of toxins in the gut. In the urine of patients suffering from this complication of pregnancy he found an increased amount of uric acid, aromatic sulphates, indoxyl, phenols,

etc., and also in certain cases urobilin, acetone, diacetic acid, etc. When the intestinal contents of these patients were administered to rabbits and mice the animals soon died, while the contents of normal persons were negative. The urine (catheter specimens) of the cases which have come under my notice was examined: in 11 the reaction for albumen was present, in 4 granular casts were observed, 6 gave the reaction for acetone, and in all cases the urea output was diminished.

Cazeaux[2] lays stress on the severe constipation associated with excessive vomiting; in my cases I found bad teeth present in all, in addition to constipation.

Williams[3] of Baltimore emphasizes the value of the ammonia coefficient of the urine, which is high in the toxaemic type, but if there are no manifest changes in the urine, he holds that the cause of the vomiting is reflex or neurotic.

Behm[4] refers the autointoxication to syncytiolysin, and thinks this theory proved by the cessation of vomiting with the cessation of pregnancy. He maintains that the toxins are produced in the periphery of the ovum and not by the metabolism of the fetus, thus explaining the excessive vomiting of the early months. He supports his theory by the excellent results obtained clinically by the administration of rectal salines.

Many years ago Smellie[5] wrote:

> Perhaps this complaint is chiefly occasioned by a fullness of the vessels of the uterus, owing to obstructed catamenia, the whole quantity of which cannot as yet be employed in the nutrition of the embryo; over and above this cause it has been supposed that the uterus, being stretched by the increase of the ovum, a tension of that part ensues, affecting the nerves of that viscus, especially those that arise from the sympathetici maximi, and communicate with the plexus at the mouth of the stomach.

Playfair,[6] about 150 years later, wrote in a similar strain regarding the cause of excessive vomiting. In the Hippocratic writings the cause is attributed to *φλέγμα*. Matthews Duncan[7] in 1879 had a fatal case of excessive vomiting in which, *post mortem*, was found acute yellow atrophy of the liver, which condition he suggested was a factor in the production of the vomiting.

Champetier de Ribes and Bouffe de Sainte Blaise[8] had a case in which *post-mortem* haemorrhages and areas of cloudiness were found in the liver somewhat similar to those found in eclampsia. They considered that the excessive vomiting was the result of intoxication due to hepatic insufficiency.

The *post-mortem* examination of the fatal case which came under my notice (BRITISH MEDICAL JOURNAL, July 8th, 1911), showed the liver to be enlarged with fatty infiltration, the spleen slightly enlarged, and the kidneys congested. There was a slight congestion of the mucous membrane of the stomach, with a small patch of superficial ulceration near the pylorus. Nothing abnormal was found in the brain.

Freund[9] thinks the source of the toxins is in the periphery of the ovum or corpus luteum or placenta, but as the toxins in the great majority of cases do not produce excessive vomiting, he advises looking for predisposing causes, such as anaemia, chlorosis, nervous diseases, etc. Giles[10] considers that there are three factors in the etiology: (1) Increased nervous irritability; (2) a local peripheral source of irritation; (3) a ready efferent channel for nervous energy (the vagi).

Reflex.

Displacement of the womb was held by Graily Hewitt[11] and others to be the commonest cause of the sickness of pregnancy, but Giles[10] states that out of 300 pregnancies, 200 had vomiting, and he found it difficult to believe that two out of three women had a displaced uterus. McClintock[5] met with several cases of retroversion of the gravid uterus where vomiting was not a prominent feature, and in some vomiting was entirely absent. Playfair[6] found that displacement was the exception in cases of excessive vomiting. Williams[3] states that displacement may occasionally be the cause, and considers this is proved by the fact that vomiting sometimes ceases immediately after replacement. I have assisted at two Caesarean sections where ventrifixation had been performed on both patients some years previously. In each case the uterus was so held down that at the operation the uterine incision was wholly on the posterior wall, as the anterior wall had taken no part in the uterine enlargement. In both cases there had been no excessive vomiting, and in each there was considerable uterine displacement, so much so that the children could not be born alive through the natural passages. I have had a patient with excessive vomiting and retroversion. The uterine displacement was left alone and the hyperemesis ceased with treatment.

Hydramnios and twins are also mentioned as causes. Copeman,[12] Cazeaux,[2] and others considered the cause often lay at the cervix, so that rigidity, deep tears, erosions, etc., should be attended to at once, the first-named by dilatation of the internal os, a procedure which, I think, would involve the risk of miscarriage. Bennet[13] maintains that where vomiting is excessive and obstinate there is almost always inflammation or disease of the cervix or a diseased uterus, and recommends the local condition to be energetically treated. Freund[9] records 3 cases in which the turbinals, especially the inferior turbinals, were enlarged and congested; by attending to the nasal condition, he states, he cured the hyperemesis. Giving careful consideration to the above alleged causes, is not one justified in regarding each as a coincidence merely?

Neurotic.

Williams[3] has cured several cases by a vigorous lecture on the dangers attending the induction of labour. V. Winckel[9] holds that hysteria is almost always the cause; but many women are hysterical, while the excessive vomiting of pregnancy is not common. Kaltenbach[14] considers hyperemesis gravidarum to be the exhibition of a latent neurosis, while others have satisfied themselves by the results of treatment that neurosis is a cause in many cases.

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FEVER IN THE NEWBORN.

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It is customary to reserve the term "newborn" for an infant in the first week of life. I propose to use it somewhat less definitely, so as to include all infants in whom the cord is still attached to the navel, for it is in this respect that such infants differ from older ones. As a general rule the cord separates in seven to twelve days, leaving a healed surface. Sometimes the process of separation takes longer, or a raw surface may be left, which perhaps does not heal until two or three weeks after birth. During this period the infant is peculiarly liable to septic and other affections of the cord and navel. In the earlier days it may show abnormal effects of confinement, some of which are prolonged or even permanent—for example, asphyxia, atelectasis, cephal-haematoma, sterno-mastoid tumour, various injuries, intracranial haemorrhage, birth palsies, and ophthalmia. In addition the respiratory tract has to adapt itself to changes in temperature, and the alimentary system to undertake the digestion and absorption of food. Unsuitable diet easily and quickly induces serious illness. Many of the affections mentioned are associated with a rise of body temperature.

"*Fever*" means a rise of temperature of definite duration. The temperature should be taken in the rectum. In the newborn it is normally the same as, or slightly higher than, that of the mother. It generally oscillates about 99.5° F. (99° to 100° F.). Exposure, bathing, and lack of food quickly reduce it to 96° or 96.5° F., and it may not reach the normal level for three or four days—perhaps in twenty-four hours, perhaps not for ten days or even longer

in premature infants. It then ranges between 98° F. and 99.5° F., being slightly higher in the evening than in the morning. It is important to bear these facts in mind and to remember that the temperature range in the infant is unstable and easily upset. An occasional rise for a few hours has no special significance, but a daily rise or the persistence of a temperature a degree above normal is indicative of mischief. Fever in the newborn is frequently overlooked, for there may be no other sign of illness or evident cause of the fever, and the temperature of the baby is rarely taken unless it seems ill. Yet experience shows that the temperature is often raised, for a few hours to several days at a time, during the first ten days of life.

Inanition or Thirst Fever.

Some of these attacks of fever, occurring during the first few days after birth, have been called "inanition or thirst fever," because the temperature has subsided abruptly on the free administration of water or a plentiful supply of breast milk. It is also assumed sometimes that sepsis rarely produces fever before the fifth day of life, an assumption not supported by facts. I regard the evidence as opposed to the view that the cause is lack of fluid or of food, for few infants receive any great amount of either during the first two or three days, and yet fever is not common at this period. Probably the pyrexia is due to mild sepsis, and the ingestion of fluid, if curative, acts by inducing elimination of toxins. Some of these cases may be due to intestinal or renal irritation, the absorption of abnormal intestinal products, the swallowing of liquor amnii or vaginal secretions, nasal catarrh, etc.

Diagnosis.

The difficulty of diagnosis in pyrexia during the first few days of life can be illustrated by short details of a case:

A baby was born at term weighing 8 lb. 11 oz., after a difficult confinement: a high forceps case with considerable injury and left facial palsy. The babe was continually crying and sleepless, and thirty-seven hours after birth developed convulsions and a temperature of 104° F. Under treatment by chloral the child rapidly recovered, but there was slight fever for another four to five days.

Possibly the crying and sleeplessness, as well as the subsequent convulsions, were due to injury to the brain. At first I was afraid of a secondary encephalitis, but the rapid recovery and subsidence of the convulsions are opposed to such a diagnosis. On the other hand, meningeal haemorrhage is generally associated with a subnormal temperature. There was no evident cause of sepsis, although I incline to that diagnosis, and normal meconium was passed.

In another babe, weighing 5 lb. 12 oz. at birth, the temperature rose to 100° F., within forty-eight hours, and there was slight twitching. Next day it was 105° F., and the twitching increased. A few hours later the child became unconscious and grey, with gasping respirations, and passed a bad stool. He died in another three hours.

Here, too, the diagnosis was probably sepsis, perhaps of gastro-intestinal origin. The diet consisted of cream, lactose, and water. Labour was difficult, and had been induced two weeks before term, so there may have been cerebral injury.

Injury at Birth.

This is an evident explanation of a few cases.

Thus, a first child, born after a very difficult labour, had a little bleeding from the left ear. Twelve hours later, and again a few hours after that, he had some haemorrhage from the urethra. When I saw him, thirty hours after birth, he had a pulse rate of 144, very frequent respirations, and showed considerable bruising. He had passed no water for fifteen hours, and cried a good deal. Next morning, forty-four hours after birth, he was convulsed and refused to swallow. There was much sleeplessness and crying, pulse rate 144, temperature 103° F. Two days later the pulse was very irregular, and at times convulsions were continuous. The spasms were most severe on the right side. Undoubtedly the child was suffering with meningitis, from which he died on the sixth day of life.

But injury at birth may lead to death more indirectly, through setting up local gangrene.

A lady lost her first child from meningitis, fracture of the base of the skull being due to forceps, the child being over time. Her second labour was induced two weeks before term, and proved a difficult forceps case. The child had some bleeding after birth from the left ear and there was much bruising in front of it. Convulsions began on the twelfth day. Examination next day showed a black slough in front of the left ear, twitching on and off, and temperature 103.4° F. The cord had separated and the navel was healed. The child had been circumcised successfully. He was very lethargic and passed stools containing curds. There was a reasonable hope that the illness depended on intestinal irritation. The temperature fell rapidly, being nearly normal on the fourteenth day, and during the next five days progress was good. The temperature then rose to 109° F. on the nineteenth day. The stools were frequent and contained mucus. The gangrenous slough had separated but there was no sign of healing. The liver had enlarged considerably, the child's colour was bad, and twitching was frequent. Although the temperature subsided to nearly normal during the day it rose again to 104° F. at night and then fell gradually until death from asthenia six hours later. Lethargy and lack of vital reaction of the tissues were marked characteristics.

Sepsis.

Roughly speaking, sepsis is the cause of quite 50 per cent. of the cases of fever in the newborn. About 25 per cent. can be ascribed to gastro-enteric infection, but it is probable that many of these are really septic in origin and the alimentary affection purely symptomatic.

Various causes account for the remaining cases. We may leave out of consideration the occurrence of fever transmitted by the mother while suffering from some specific fever, malaria, or variety of sepsis. Such cases would be readily diagnosed by the medical attendant. The malarial parasite may be present in the blood at birth, yet not cause fever until some days or weeks have elapsed. My experience is that sepsis is the chief and most common cause. All the illustrative cases quoted have been seen in consultation. Patients of this type do not often reach the hospital wards.

The sources of septic infection are numerous. It may be antenatal, maternal, or congenital; natal, due to infected liquor amnii or vaginal secretions; or post-natal, due to dirty hands, scissors, ligatures, powders, dressings, bath water, sponges, flannels, etc. Often it is impossible to ascertain the portal or source of infection. Sepsis may occur, although apparently the strictest precautions have been taken throughout. It would be interesting to know the experience of the lying-in hospitals.

Occasionally the evidence of infection by the mouth is fairly conclusive.

Mouth Infection.—The mouth of a baby, 6 lb. in weight at birth, was full of meconium, and was possibly slightly damaged in the process of cleansing. She was partly fed on the breast, partly on the bottle. At 1 week of age she had lost 6 oz. in weight, and had stomatitis. When seen at the age of 10 days she had lost another 2 oz., and showed erythematous stomatitis, a general pimply rash, green stools, and temperature 100.2° F. In the evening the fever reached 104° F. She had never taken well or passed a good stool. Next day there was definite ileo-colitis, with frequent green mucoid stools. She lost weight rapidly, 10 oz. in five days, but recovered from the ileo-colitis in about a week. Death resulted from the effects of toxaemia and marasmus on the twenty-ninth day of life.

In a more remarkable instance the primary cause was apparently a pustular dermatitis, which came out first on the face on the fifth day and spread all over the body.

Pustular Dermatitis.—The child was born without difficulty, and weighed 9 lb. 3 oz. Twitching began on the seventh day. When seen on the ninth day she had attacks of spasm, mainly affecting the upper limbs, the arms being flexed and raised and the hands clenched. In severe attacks the whole body twitched. The stools were practically normal. There was a teat ulcer on the roof of the mouth. Next day the temperature rose to 105° F. There was much general twitching, most in the right arm and hand, and a little cyanosis in the worst attacks. The fever persisted at a comparatively high range for two weeks, and then came down, with big intermissions, to normal in another week. After this the spasms, which had persisted throughout with great severity, gradually became less frequent and milder, and finally ceased on the thirty-ninth day of life. The child lost 11 oz. in the first week of illness, and gained 1 oz., 7 oz., and 6 oz. in the succeeding three weeks. Food was taken well, except during actual spasm. The subsequent progress of the child was excellent, and no sign of mental defect was present three years later.

Umbilical Sepsis.

The cord and navel are the most important portals of infection. Sepsis via the cord begins on the second to the fifth day of life; via the navel, at any time until healing has taken place. The process may start in the cord and extend through the navel, setting up arteritis or phlebitis. Arteritis, usually a periarteritis, is the more common. It induces pyaemia without jaundice, and ends fatally from peritonitis, pneumonia, or asthenia. Pus can sometimes be

squeezed out from the end of the cord, and thickened arteries and abscess may be found under the abdominal wall if the disease spreads along the vessels and as far as the bladder. Phlebitis rarely causes local signs, unless associated with arteritis. It affects the umbilical vein, and gives rise to thrombosis, pus formation, and secondary hepatitis with progressive jaundice. Peritonitis and pneumonia are not infrequent, and are almost invariably fatal.

Clinically there are various types of septic infection. There may be no symptoms except sudden collapse, rapid fall of temperature, and death—a type most common in premature infants. Often it simulates acute gastro-enteritis, with vomiting, diarrhoea, and high fever. In other cases, cerebral and meningeal symptoms, or pneumonic conditions, predominate. Or there is severe toxaemia, with fever, greyish pallor, and haemorrhages. Haemorrhage after the second day of life is almost always septic. Many cases of haematemesis, melaena, and adrenal apoplexy are of this type. Tetanus, haemorrhagic disease, and the affections named after Winckel and Buhl are also septic in origin.

The chief affections of the navel giving rise to fever are omphalitis: gangrenous lymphangitis, probably a variety of erysipelas; umbilical ulcer, subnavel abscess, and gangrene; and erysipelas, usually localized at first and insidious in onset, but generally fatal. In these affections the fever begins at the end of the first or beginning of the second week of life, sometimes later. A few illustrative cases may be quoted:

An infant, 10 lb. at birth, had a temperature of 102° F. on the seventh day of life and was passing good stools. Two days later there was twitching of the left arm and leg. The sutures were overlapping, the scrotum red and thickened, and there was a gangrenous odour of the cord and slight swelling of the navel. The fever and twitching lasted for six days. A drop of pus came from the navel on the thirteenth day and the cord separated next day.

In a second child the cord separated on the eighth day and there was a drop of pus. Two days later there was diarrhoea and temperature 100° F. Next day twitching began and the temperature rose to 105° F. The twitching became more severe during the night; the stools were slimy and offensive; temperature, 101° F. The buttocks were excoriated, the navel sore and exuding pus, and there was a petechial rash on the abdomen. Death ensued a few days later.

Another babe was seen on the ninth day for fever of two days' duration, anorexia, occasional colic, and one attack of lividity. A diagnosis of umbilical infection was made. Death from asthenia took place a week later, without any further symptoms.

Finally, I must refer to a case of doubtful causation.

The child, a forceps case, did not breathe well for about twenty minutes after birth, weight 9 lb. 13 oz. On the fourth day twitching began. Temperature, 101° F. Ol. ricini and grey powder were given. On the evening of the next day the temperature rose to 106.4° F., and there was much twitching, especially of the eyes, face, and hands. Probably some of the fever was due to the too liberal use of hot bottles. The child was in a state of continuous spasm. The stools were dark green, and contained mucus. No water had been passed for fourteen hours. Possibly this was of gastro-intestinal origin, as mucus and bile were vomited for two days after birth. The temperature fell gradually during the night to 102° F., rose once to 105° F. next day, and then fell gradually to 99° F. The babe was very feeble at times, but took food fairly well. During the next night she had attacks of respiratory spasm and collapse, and, though revived three times by artificial respiration, she died at 5 a.m. from respiratory spasm while being fed.

These cases are sufficient to indicate the importance of septic infection, via the cord or navel, as a cause of fever in the newborn. Such a cause must always be looked for and excluded before even thinking that an attack of fever, especially when associated with spasms and bad stools, may be due to erroneous feeding. Too much importance has been attached to dietetic factors. The incriminated organism is not necessarily a very virulent one. It is impossible to estimate its virulence, except by the height of the fever and the severity of the symptoms.

Treatment.

Treatment is primarily preventive. The greatest care must be taken during and after confinement to prevent infection. Dress the cord properly, using dry antiseptic gauze and an antiseptic powder, such as starch, containing 5 per cent. salicylic acid. It is even safer to disinfect it first with rectified spirit or alcohol. Once symptoms arise the treatment is symptomatic. Chloral is far the most potent and most valuable drug for the relief of spasms. It can be given in doses of gr. ii to gr. iv by mouth or rectum. It should be given every two to four hours, the repetition of the dose depending on the effect on the child, a further dose not being given during sleep. Bromides are of much less value. Hot saline rectal injections are useful in assisting elimination of toxins. In bad cases subcutaneous injection of saline is needed. Small doses of grey powder are beneficial if the stools are bad. It is rarely necessary to give astringents for severe diarrhoea; bismuth in frequent doses is more useful. Brandy, 2 to 5 m. every two to three hours, or even in larger doses, is required in toxaemia and collapse.

Prognosis.

The prognosis depends on the type and severity of the case. Localized infections—for example, of the navel—are comparatively benign. As long as there are no grave signs, such as jaundice, profuse diarrhoea, recurrent haemorrhages, peritonitis, pneumonia, or profound asthenia, there is a prospect of recovery. Anorexia, or refusal of food, and lethargy are bad symptoms. Even prolonged fever, with almost continuous spasm, may terminate favourably, though the possibility of subsequent mental defect must be remembered, as it is not always certain there is no encephalitis. Local or general palsy, due to encephalitis in the motor region, is unlikely to end in complete recovery.

FUNCTIONAL DERANGEMENT OF THE LIVER.

BY

WILLIAM BAIN, M.D., F.R.C.P.,

HARROGATE.

Functional disturbance of the liver has received scant attention from medical writers. While functional disorder of the nervous system and of the heart are treated at some length, hepatic insufficiency is not even mentioned in the principal textbooks of medicine. This is rather surprising when we consider the complex and varied functions performed by this important organ, for, in addition to the formation of bile, the liver is actively engaged in processes related to the metabolism of proteins, carbohydrates, and fats. The functions of the liver may be briefly enumerated:

1. It regulates the supply of glucose to the body by manufacturing it from proteins when the supply of carbohydrates is insufficient, and by storing it as glycogen when the carbohydrate element is in excess.
2. It not only prepares fats for combustion into their final products, but it synthetizes the more complex fatty compounds.
3. In relation to protein metabolism its chief functions are to convert amino acids into urea, and it plays an important part in the formation of uric acid, creatinin, and other waste products. These processes are chiefly carried out by intracellular ferments produced by the liver cells.
4. It is also the chief antitoxic organ. Further, the liver is concerned in the destruction of haemoglobin, and is a source of animal heat.

From this brief summary of its more important activities it is obvious that any interference with the work of the organ must produce some symptoms.

What are the manifestations of so called hepatic inadequacy? A large proportion of the symptoms ascribed to insufficiency of the organ, such as flatulent distension of the abdomen, constipation, etc., are due to digestive disorders, and are themselves the cause of the liver disturbance. It may be dogmatically stated that functional derangement of the liver is generally secondary to disturbance in some other part of the organism. Further, it must be acknowledged that in certain individuals the functional activity of the liver becomes very readily depressed; in other words, there is a liability or a predisposition to functional derangement of the organ.

During the past season I measured the vertical dullness of the liver in 300 consecutive patients. The measurement was taken in the nipple line. The normal measurement is about 4 in. Exclusive of cardiac and gall-stone cases, in 36 the normal average was exceeded—in the large majority by one or two inches. Normal liver dullness may measure 6 in., but the percussion area is then very little affected by stimulation and counter-irritation of the organ. In most of the cases, after a series of liver packs, the vertical dullness was only 3½ in.

I will now mention some of the symptoms I observed in those cases in which the liver was enlarged: A coated tongue, a bitter taste in the mouth, nausea, perverted appetite, flatulence, constipation with pale clay-coloured stools; sallowness of the complexion and irritability of the skin; dull headaches, mental depression, lassitude, insomnia, irritability of temper, drowsiness after meals, and a disinclination for work; a sense of weight, or a feeling of discomfort in the right hypochondrium, and occasionally an aching in the tip of the right shoulder. The pulse was often slow.

It is my impression that when the liver is involved the tongue takes a longer time to become clean than in ordinary cases of dyspepsia. In support of this opinion I may relate a rather peculiar case:

The patient had taken alcohol to excess for some years. His tongue was covered with a thickish yellow fur. He told me it had been in the same condition for many years. He remembered a doctor drawing his attention to it twenty years ago. The liver was increased in size (6 in. of vertical dullness), and the organ was tender on pressure. He took strong sulphur water daily, and had liver packs every alternate day. At the end of six weeks he felt quite well, the liver dullness being 4½ in., but there was no improvement in the condition of the tongue. As he was then leaving Harrogate I advised him to continue the liver packs during the winter, and I substituted iridin and colalin for the sulphur water. When I saw him in the following year his tongue had improved, and before he left it was perfectly clean.

Not uncommonly one meets with this type of case. The patient does not complain of anything very tangible. He has had a good deal of worry, but has led a healthy life. To use his own expression, he is somewhat "out of sorts." He feels a little depressed, is less energetic, and is inclined to take a pessimistic view of things in general. He does not suffer from indigestion or constipation. The liver may be found to be slightly enlarged, and in some instances slightly tender on pressure, but there is no other tangible sign. After a week of sulphur water and half a dozen liver packs the patient feels quite well, and the liver is normal in size. Two of my cases had liver packs only, without internal medication, and the result seemed to be equally good. I take it that these cases are examples of primary hepatic inadequacy.

The functions of the liver may be disturbed without any detectable enlargement of the organ.

I will cite a case in illustration. A lady was sent to Harrogate for recurring attacks of eczema of the face. The liver dullness measured 4 in. in the vertical diameter. She was a gouty subject. The treatment consisted of strong sulphur water and alkaline sulphur baths. At the end of a fortnight the eruption had disappeared. A few days later she was threatened with another attack, which she attributed to cold, but this quickly subsided under the influence of calamine lotion. Shortly after her return home she had a severe attack followed by others. Her medical adviser sent her again to me on May 30th, 1911. On this occasion I adopted a different line of treatment, namely, vigorous stimulation of the liver. She had liver packs daily, took colalin and podophyllin at bedtime, and strong sulphur water in the morning. In a week the eruption had vanished and has not reappeared.

It is an inference from this and other cases that in refractory irritative skin lesions functional disturbance of the liver ought to be taken into account.

The liver adapts itself to the extra functional demand made upon it with great celerity, and sometimes under stress displays sudden variation in size. I will briefly mention a case where the liver dullness became reduced 4 in. in ten days.

The patient suffered from sciatica. The liver dullness on July 8th, when I first saw him, was 5 in., and the organ was slightly tender on pressure. On July 17th he got ptomaine poisoning. I saw him on the 18th; the liver dullness was then 7½ in.; on July 22nd it was 4½ in., and on July 28th 3½ in.

It has been suggested, and there is some evidence in support of the suggestion, that an increase of oxalic acid in the urine is an indication of hepatic insufficiency. Possibly alimentary glycosuria may also be an indication, but it is generally considered that this condition is associated with derangement of the pancreas.

The chief causes of functional derangement of the liver may be briefly summarized as follows: Dyspepsia, gastro-intestinal disturbance, alcoholic excess, rich and highly-seasoned food, fevers, nervous influences, and residence in the tropics.

Treatment.

The best method of treatment is to diminish the amount of work the liver has to perform and to facilitate the circulation through it. The work of the liver depends chiefly upon the quantity and composition of the food: therefore, in order to restore normal hepatic function there must be a limitation of the food supply; but it must be borne in mind that too rigid a dietary may interfere with the nutrition of the liver cell, and thereby injuriously affect its activity. The restriction in the quantity of food should therefore be compatible with the maintenance of normal nutrition. A mixed diet is the best, the articles being of simple composition. Three meals a day are advised unless the gall bladder is involved. Carbohydrates and fats should be limited, as the former tend to ferment, and the latter are not easily absorbed if the quantity of bile excreted is diminished. Alcohol should be forbidden. Other irritants such as mustard, pepper, red pepper, horse-radish, ginger, cloves, strong meat broths, large quantities of salt, and the empyreumatic substances that are formed in baking and roasting should be avoided. In most cases it will not be necessary for the patient to exercise dietetic self-denial for more than a week. Rest after meals should be enjoined so that the functional hyperaemia of the organ is not disturbed. Exercise such as golf is very important. With increased respiratory effort the liver is rhythmically compressed, and the venous blood flows more rapidly to the heart. For those unsatisfactory individuals who take little or no exercise massage, general and special, is desirable.

Regarding drugs, I would suggest a pill containing colalin and iridin, or podophyllin and colalin, at bedtime, followed by a dose of sulphate of soda or Carlsbad salts in the morning for a week or longer. If the stools are clay coloured, calomel may be substituted for either of the pills.

CONGENITAL ABSENCE OF THE COLON.

BY

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In reporting the following case I have in view not so much the interest due to the tuberculous lesions in the abdomen, with symptoms simulating recurrent appendicitis, as the rare abnormality of an entire absence of the colon, which was revealed, so to speak, accidentally in the course of operation. While congenital absence of the colon can be very easily explained on developmental grounds, I have not been able to find any clinical record of such a case. Neither can I recollect having come across an example of this condition in the dissecting-room during the years when I was a demonstrator of anatomy in the University of Glasgow.

The patient, a man aged 23 years, was admitted to the Western Infirmary, Glasgow, on September 7th, 1910, as a case of recurrent appendicitis, with a view to operation. During the previous two months he had had several attacks of pain in the right iliac region, lasting for a few days and then passing off. At the time of admission he was just recovering from one of these attacks. There was slight tenderness and rigidity in the iliac fossa, and a distinct mass could be felt, which certainly gave me the impression that we had to do with a lesion of the appendix with adhesions. The pulse and temperature were normal.

Five days later I operated with a view to removal of the appendix. On opening the abdomen by the usual gridiron incision I found a portion of the small intestine bound down by adhesions in the right iliac fossa, forming the mass which had been felt through the abdominal wall, but no trace of caecum or appendix. Having enlarged the incision in order to get free access to the abdominal cavity, further evidence of tuberculous disease was found. There was quite a variety of lesions exhibited. In addition to the adherent bowel above mentioned several distinct bands were present, under one of which a loop of intestine was caught and constricted almost to the point of strangulation. Having freed these bands, a number of enlarged glands were next observed in the mesentery, in the upper part of which one large glandular mass had softened and formed a tuberculous abscess as big as a hen's egg. This was incised and scraped out thoroughly, then closed by carefully suturing the edges of the peritoneum over it. Further examination of the bowel revealed several softened tuberculous patches on the surface of the gut, which were also scraped and covered in by Lembert sutures.

Finally I made a careful examination of the whole intestine and satisfied myself that the colon was entirely absent. The

small intestine could be traced into the rectum at the pelvic brim, with no apparent trace of caecum or appendix.

The abdominal wound was closed in layers, and united by primary union. The patient made an uneventful recovery and left the hospital at the end of sixteen days. Quite recently I had a note from him to say that he went to work a fortnight after leaving the ward and has remained perfectly well since.

A SIMPLE HAEMOGLOBINIZED SALINE CULTURE MEDIUM

FOR THE GROWTH OF LEISHMANIA AND ALLIED PROTOZOA.

BY R. ROW, M.D.LOND., D.SC.LOND.

(From F. D. Petit Laboratory, Byculla, Bombay.)

ROGERS, to whom belongs the credit of the discovery of *Leishmania donovani* of kala-azar going into fully formed flagellates in culture, made use of a saline solution containing a certain proportion of sodium citrate, to which he added the parasite-laden blood derived from the splenic puncture. Later the same author recommended the addition of a little citric acid, as this medium gave more abundant cultures. I believe a similar medium was used by workers who subsequently confirmed Rogers's discovery in India and in England. Nicolle of Tunis made use of Novy-McNeal medium in his early cultures of *Leishmania infantum* of Algeria. This medium consists of the water of condensation of ordinary peptone agar slopes, into which, while yet fluid at 55° C., is incorporated 25 to 33 per cent. of defibrinated rabbit's blood. This medium was utilized also by Leishman and his collaborators in their culture work. Nicolle simplified the classical Novy-McNeal medium by using only agar and NaCl without peptone or meat extract. It is this medium which is now generally used in Leishmania culture work, and it goes by the name of Nicolle-Novy-McNeal or N.N.N. medium. It is also in this medium that Nicolle grew and demonstrated for the first time the cultural forms of *L. tropica* of the Tunisian oriental sore. Row of Bombay utilized dilute human blood (in saline) for his first cultures of *L. tropica* of the oriental sore of Cambay. Later, Carter used a similar medium for his cultures of *L. tropica* of the oriental sores of Northern India. Carter's formula consists of 4 parts of heated serum, 4 parts of red blood cells of the rabbit, and 3 parts of 10 per cent. sodium citrate in saline.

While working out the comparative merits of all these media, two things forced themselves on attention.

1. That haemoglobin seems to be essential for the growth and development of Leishmania.

2. That any changes in the character of the growth of these bodies seem to depend entirely on the way in which haemoglobin is present in the culture fluid, namely, according as it is free in solution or only in the red blood corpuscles unhaemolyzed.

Culture fluids containing red blood corpuscles unhaemolyzed offer a distinct resistance to a vigorous growth of flagellates, while those containing free haemoglobin in solution offer no such resistance. This is one of the reasons why it is difficult to obtain a series of successive cultures by using culture fluids containing unhaemolyzed red blood corpuscles, while vigorous cultures and subcultures are obtained indefinitely by the use of N.N.N. medium which contains free haemoglobin in abundance. The better results obtained in his later experiments by Rogers in the acidified citrate medium are perhaps to be accounted for by the haemoglobin set free by the citric acid. The presence of free haemoglobin in the alimentary canal of blood-sucking insects like the mosquito, the flea, or the bug (which retain the ingested blood for several days), explains the cultural forms of the parasites found in these, after they have been made to suck blood rich in the parasites.

Further, it may be of interest to note that while free haemoglobin in the saline medium of a certain density is eminently favourable for a rapid and vigorous growth of flagellates, the presence of unhaemolyzed red blood corpuscles seems to favour the multiplication of the original parasites as such. This is what takes place in Nature—for example, at the seat of disease, namely, the spleen or liver in kala-azar, or the lesion in oriental sore—as well as *in vitro*. It is easy to demonstrate this by planting a clot, say, from the needle of a kala-azar splenic puncture in a saline solution, when an examination of the clot, even at the end of four days, will reveal an enormous number of ⊙ bodies which have apparently multiplied in the meshes of the clot. A similar result is observed in an N.N.N. culture, as this becomes concentrated by age. Thus a culture containing vigorous flagellates about the fifth day shows about the twelfth to fifteenth day a large number and masses of ⊙ bodies resulting from the post-flagellate growth of the parasite. This was referred to in another communication, and will form the subject of a separate memoir.

From the foregoing it is clear that the condensation fluid of Nicolle-Novy-McNeal medium fulfils all the conditions for a vigorous growth and multiplication of flagellates. But in practice in tropical laboratories the following difficulties present themselves:

1. The quality of blood available from a rabbit, even by a direct cardiac tapping, is so small that one cannot expect to obtain more than a dozen tubes for one rabbit sacrificed.

2. The quantity of condensation fluid obtained is not more than 1 to 1.5 c.cm.

3. This fluid gets concentrated in the course of a few days, owing to the tropical heat, but chiefly owing to the large surface of the agar slopes exposed to evaporation, so that the culture tubes are available from three to four days after they are prepared and before they are ten to twelve days old.

This gives an interval of only six days or so for subculturing. Further, it entails an enormous sacrifice of rabbits on the one hand, and on the other hand a great deal of labour in preparing the culture medium freshly every week.

It is to meet these difficulties that an attempt was made to simplify the process of making a suitable culture fluid, which would be like the condensation fluid of the N.N.N. medium in composition and be at the same time available readily and in larger quantity.

Details of Technique.

1. With the usual antiseptic and aseptic precautions about 5 c.cm. of blood are collected from the punctured marginal vein of a rabbit (blood can be aspirated easily to the extent of 5 to 8 c.cm. from one of the superficial veins of the forearm in man—thanks to Major Glen Liston's advice—when human blood is required) and poured into a sterile test tube containing a few glass beads. The tube is shaken to defibrinate the blood.

2. The defibrinated blood is now rendered laky by the addition of sterile distilled water in quantity requisite to dissolve all the haemoglobin available (1 in 8 to 10 of distilled water is found sufficient for the rabbit's blood in Bombay). The haemolysis may be also induced by repeated freezing and thawing, and is perhaps preferable when a stronger solution of haemoglobin is required.

3. The next step is to utilize the laky blood to dilute the NaCl solution so as to ultimately have a strength of 0.8 to 0.9 per cent. NaCl with a fair colour of the haemoglobin (after a great many experiments this strength has been found to be the best), and for this final admixture I follow the following routine:

From a stock solution of 1.2 per cent. NaCl two portions are sucked up with a sterile pipette and nippie and transferred to empty sterile test tubes of about ⅝ in. diameter.

These tubes are kept in a water bath at 56° C., and when they are at this temperature one portion of the laky blood is added to each saline tube. This gives a strength of about 0.85 to 0.9 per cent. NaCl. The heating of the saline previously is done with the double object of ensuring sterility and of destroying any complement that may be present in the defibrinated blood.

By this method, with about 5 c.cm. of blood, as many or more culture tubes are made as can be prepared with the sacrifice of a rabbit, and the quantity of the culture fluid is at least 5 c.cm. in each tube, instead of being only 1 c.cm. to 1.5 c.cm. of the N.N.N. medium. The tubes thus prepared are ready for immediate use (after cooling), and from start to finish take twenty to thirty minutes to prepare.

In this culture fluid flagellates flourish and multiply even after five to six weeks, so that subcultures can be made at leisure any time during this period, as the fluid does not get so easily concentrated, as does the condensation water of the N.N.N. medium, which by this time completely dries up owing to the large surface exposed to evaporation by the agar slope.

The following advantages may in brief be claimed for the haemoglobinized saline medium:

1. The culture medium can be made at once when

Communicated to the Bombay Branch of the British Medical Association.

urgently required, without any loss of time, as the technique is simple.

2. The technique involves less labour, and entails no sacrifice of rabbits—that is, it is economical.

3. Human blood can be used for the preparation of this medium when required for special purposes or for general use.

4. The fluid does not alter appreciably by age within the limit of four to six weeks, owing to the small surface exposed to evaporation.

5. A larger quantity of the culture fluid in each culture tube is available, so that when abundant cultures are required—for example, for the preparation of vaccine—this gives a decided advantage.

6. The culture fluid keeps sterile during the working period of six weeks more easily than does the N.N.N. medium in the tropical laboratories.

NOTES ON FOUR CAESAREAN SECTIONS.

BY

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THE following four cases requiring Caesarean section fell to my lot within the short period of nine months; in each case, except No. 1, one or more craniotomies had been previously performed, the narrowed pelvis being caused by rickets.

Sterilization was done in each case by the following method: The tubes were clamped with small forceps close to the uterine cornua, the mesosalpinx transfixed by double ligature, one ligature tying off the proximal end of the tube close to the uterus, the other ligature being brought round the fimbriated end, thus removing the whole tube: the serous coat of the uterine end of the tube was stitched over. In two of the cases I was able to deliver the uterus, which I think is an advantage, although it needs a slightly longer incision; but there is less bleeding, as the uterine arteries can be easily controlled by an assistant and cloths are placed behind the uterus, completely shutting off the intestines. The placenta in all four cases was attached to the anterior uterine wall: this occurs in 75 per cent. of cases, but there is no difficulty in recognizing the placental tissue on incising the uterine wall. With regard to sutures for the uterus, I think No. 3 catgut for the main and No. 2 for the intermediate, both specially prepared to resist absorption for twenty-one days, is preferable to silk or Pagenstecher's material. Ligatures should not be tied too tightly, as the tissues of the gravid uterus are soft and easily cut through; a double hitch for the first half of the knot, and completed, followed by a single knot, is, I think, preferable to three single knots.

As to the time of operating, the best, in my opinion, is before the commencement of labour pains, the operation can then be conducted in daylight, adequate assistance secured, and the usual preparation for an abdominal operation can be carried out; the fear of haemorrhage and uterine inertia need not be considered seriously.

Sterilization was done in each case by the patient's desire, and I think the method described above is likely to prove satisfactory. It is stated that excision of a "portion" of the tube has been followed by pregnancy, even when the ovaries have been removed; this I can well understand, if a small portion of ovary has been left behind. This matter is fully referred to and discussed by A. J. Wallace and Sir W. Sinclair, in the *Journal of Obstetrics and Gynaecology of the British Empire*, 1907.

CASE I.—S. L., aged 31, primipara, had arrived at full term. She was first seen by Dr. Anderson, of Bodmin, May 6th, 1911, who says, "There was no dilatation of the os, or other signs of labour. Next morning the pains were few and infrequent, and the os just admitted the tip of the index finger, but was too high up to make out the presentation; she was a short, rickety woman with a contracted pelvis; the antero-posterior diameter was 2½ inches."

She was brought into the East Cornwall Hospital, Bodmin, and I was asked to see her with a view to Caesarean section. On May 8th I was able to confirm Dr. Anderson's notes, and performed an immediate Caesarean section. The child was dead, but the mother did well, the wound closing by primary union. On the fourteenth day she developed slight thrombosis of the left femoral vein, which delayed her convalescence. She left hospital in six weeks quite well.

Case.	Age.	Date.	Doctor.	Previous Labours.	Convalescence.
1. S. L.	31	May 8, 1911	Dr. Anderson	Primipara	Good; child stillborn; in hospital six weeks.
2. L. W.	33	Sept. 28, 1911	Dr. Wagner	1 Craniotomy	Good; child strong; in hospital 24 days.
3. M. S.	30	Dec. 21, 1911	Dr. Hodge	3 Craniotomies	Uninterrupted recovery; in hospital 33 days.
4. L. G.	28	Feb. 3, 1912	Dr. Anderson	1 Craniotomy	Uninterrupted recovery; in hospital 30 days.

The Arris and Gale Lectures

ON

THE MECHANISM AND TREATMENT OF SHOCK.

DELIVERED AT THE ROYAL COLLEGE OF SURGEONS, MARCH 22ND, 1912.

BY

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(Concluded from page 1072.)

LECTURE II.—PART II.

THE PELVIC ORGANS AND GENITO-URINARY SYSTEM.

Pelvic Viscera.

PELVIC and perineal structures do not share in the local vascular mechanism referred to in connexion with the abdomen proper. We have shown that all variations from these regions are eliminated by blocking afferent impulses. Blood-pressure variations, therefore, from interference with these structures are a true indication of the shock value. In the human subject sigmoidoscopy, with the accompanying inflation of the bowel, causes a definite rise in blood pressure of the pressor type. A study of the blood pressure, pulse, and respiratory-rate shows: (1) That the vasomotor variations are not due mechanically to increased pressure in the abdominal cavity. For the pulse and respiratory-rate are increased instead of being slowed, as

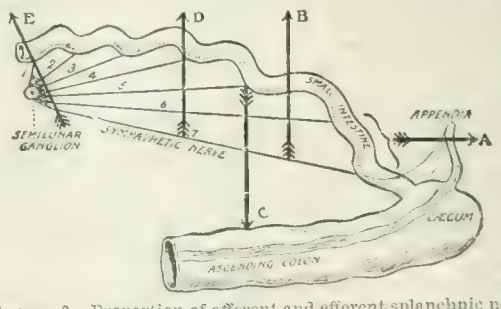


Diagram 2.—Proportion of afferent and efferent splanchnic nerve fibres mechanically stimulated by traction on mesentery in different situations.

would then be the case. (2) That direct stimulus to the bowel wall is not responsible. For our experiments have repeatedly demonstrated that manipulation of the bowel wall is without any ascertainable effects on the blood pressure. (3) That distension of the intestine induces tension upon the mesentery, and from the stimulus to this

structure, with its contained nerves, arises the impulse to the vasomotor centre; to this the rise in blood pressure is responsible. The stretching and stimulation of the mesenteric nerves during intestinal distension has, we believe, an important bearing on intestinal activity, blood supply, and shock (from afferent impulses) in clinical medicine and surgery. The time at our disposal, however, does not permit detailed reference to this subject. (See Diagram 2.)

The Bladder and Urethra.

We have taken tracings during cystoscopy (and distension of the bladder) under chloroform and under spinal anaesthesia. The passage of instruments through the urethra under chloroform induces impulses of a definite pressor type, accentuated in the case of vesical distension. This latter is not due to a mechanical increase of intra-abdominal pressure, for (1) the gradual fall after vesical distension argues a tolerance to the stimulus, and (2) distension under spinal anaesthesia does not produce a similar rise. Postponing deductions for a moment, we present Chart 48.

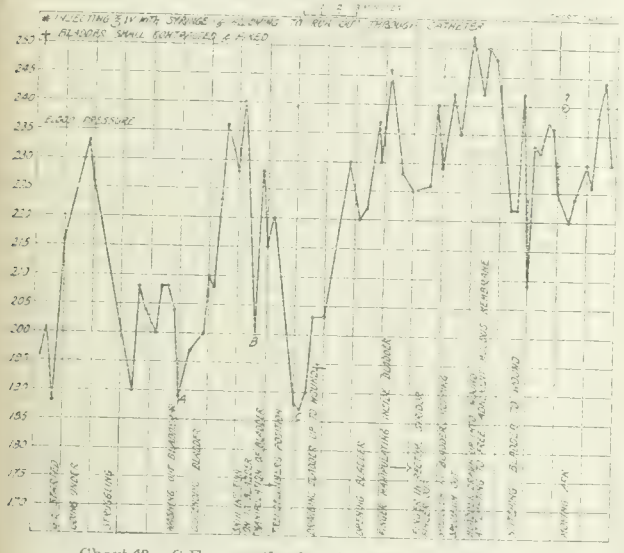


Chart 48.—C.E. anaesthesia. Suprapubic cystotomy.

representing suprapubic cystotomy in a man of 64 years with malignant disease of the bladder under C.E. anaesthesia. The contracted nature of the bladder rendered considerable amount of traction essential, in order to bring the fundus up to the abdominal wall. Vesical distension in its relation to the blood pressure is well shown from *A* to *B*. *B* to *C* represents the incision of the integuments and fascia; and at *C* the blood pressure fell approximately to the original level during the cessation of manipulations and while the patient was placed in the Trendelenburg position. The enormous pressor effect from stimuli to the trigone of the bladder at *C* is really remarkable; for the original level is never regained during the tracing, and surpasses in degree all the pressor variations hitherto studied, except perhaps in the case of circumcision (Lecture I). Further evidence in the confirmation of this tracing is to be found in a chart representing enucleation of the prostate in an old man of 72 with markedly thickened arteries, under chloroform anaesthesia. The enormous pressor rise of pressure is well marked; and the fall in the interval between manipulations is also to be observed. Attention should further be called to the fact that this pressor effect continues some time after the cessation of the stimulus; for the blood pressure had not sunk to the original level three minutes afterwards. In Lecture I cystectomy in the dog was demonstrated in an original tracing. Consecutive blood pressure readings of this tracing, plotted out in the same manner as in the case of the human tracings we have studied, reproduce these features in a striking manner. At the same time the greater susceptibility of the lower animals to the depressor effects of chloroform makes the interval fall of blood pressure more abrupt than in the human subject (Chart 50).

To sum up: The prepuce, urethra, and the bladder all show marked pressor types of curves, and have, therefore, a low shock value. The susceptibility of the bladder and urethra to infection is well recognized; and in these structures, therefore, and in the viscera of the abdomen proper (where the reverse condition obtains) the *law of*

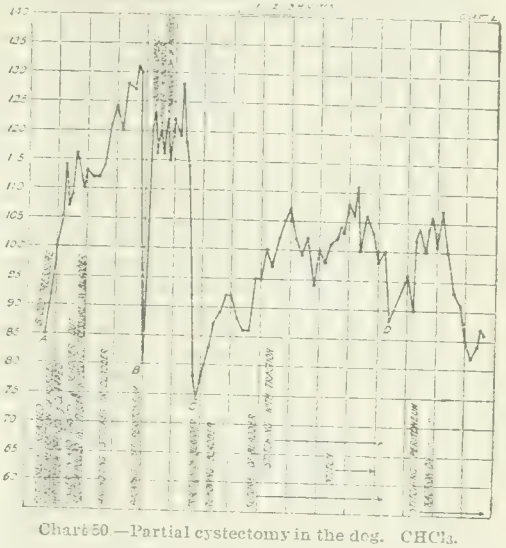


Chart 50.—Partial cystectomy in the dog. $CHCl_3$.

inverse immunity is again supported. The enormous rise of pressure in prostatic operations may cause sudden death in two ways: (1) Failure of a hypertrophied heart which cannot resist such a sudden enormous increase of pressure; (2) possibly, in some cases, cerebral haemorrhage. The indications for nerve blocking in these operations will be referred to shortly.

The Kidney.

Interrupted readings in an operation for the removal of vesical calculus in a small boy show the following features: Traction on the renal pedicle is accompanied by a marked rise in blood pressure, and this rise gives way to a fall to about the same level. (Chloroform anaesthesia was employed.) There is hardly any increase in the pulse-rate commensurate with this rise of blood pressure. Further, release of traction is not accompanied by a fall, but a marked rise in the pulse-rate. The explanation is as follows: This rise in blood pressure (confirmed by animal experiment) during traction on the renal pedicle is due to a direct stimulus to the solar plexus—that is, direct splanchnic stimulus and vaso-constriction, such as has been observed in previous tracings in the abdomen (see Trace 16*a*, *hh'*). The failure of the pulse to rise proportionately to the blood pressure supports this view, as also does the sudden drop to the original level on the release of traction, with, at the same time, acceleration of the pulse-rate. Clearly, then, pressor manifestations in the case of the kidney are not evident, and we conclude that this organ has a high shock value, while, in accordance with the *law of inverse immunity*, and in view of the importance of this organ with regard to the functions of excretion, the high immunity of the kidney to bacterial infection cannot be denied. In the case of the kidney, blood-pressure readings are again of *no value whatever* in the estimation of shock from interference with this organ.

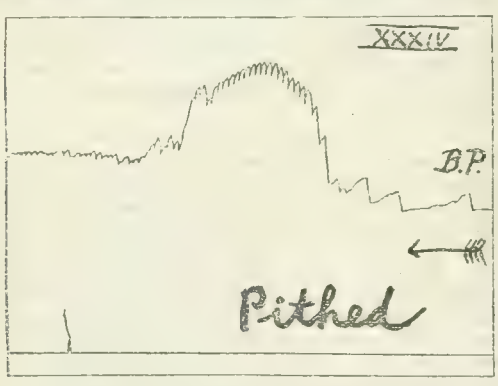
Finally, traction on one kidney, by the direct stimulus to the solar plexus, induces vaso-constriction in the opposite kidney. If this be continued long enough vaso-constrictors are fatigued, and a *reversal* is established—that is, vaso-dilatation. We believe this alternation of vaso-constriction and vaso-dilatation in operations on the kidney (when both organs are diseased), with consequent physiological disturbances, is of greater importance than the anaesthetic in the production of *post-operative urinary suppression*.

THE NATURE AND SITUATION OF AFFERENT FATIGUE IN SHOCK.

Experimental.

There is abundant evidence to show that in ordinary clinical shock there is no fatigue of the efferent vasomotor fibres. Splanchnic shock can be induced experimentally, but probably does not occur in surgical practice. The

nature of fatigue of the vessels in splanchnic shock seems to be partly associated with exhaustion of the suprarenals (Elliott). Priestley found absence of chromaffin in 84 per cent. of cases of low blood pressure, especially in advanced asthenia; but this fact has probably a bearing only on the tone of the vessels (collapse), and not to their reaction to nerve stimulus (shock). In systemic shock, however, depending as it does on afferent stimulus and efferent response, we have already produced evidence that the centres and the blood vessels are both active. Thus, in Lecture I the depressor stage of shock was shown to be due to active depression. Further, the injection of strychnine in this case converted depressor impulses again into pressor (Chart 28). This chart afforded clinical evidence that the centres are not exhausted in shock and that strychnine did not contribute towards such a conclusion. Again, if strychnine acts on the synapses, as has been stated by Cushny and others, we should infer that in this case the pressor synapses were fatigued, and that this fatigue established the domination of the depressor impulses, whose synapses were more or less intact. Strychnine therefore restored pressor impulses by reopening paths of conduction across these synapses. Now, electrical stimulation of the sciatic nerve in a fresh dog (under chloroform anaesthesia), and the steps of the operation to expose this nerve show a rise of blood pressure proportionate to the degree of stimulus. In an animal shocked from operation on the trunk and lower limbs vasomotor reaction becomes less and less, and finally disappears in proportion to the degree of shock: so that finally electrical stimulation of the cut central end of a



Trace 34.—Dog pithed in last stages of shock.

dog's sciatic induces no variations in blood pressure at all. Further, stimulation of any part of such a nerve at its origin (that is, a mixed spinal nerve within the dura) produces no effect on the blood pressure, even though a convulsion is excited. The block to centripetal impulses probably occurs, therefore, in the central nervous system and not in the peripheral nerves. Now, in a dog shocked to a degree such as we have described, if the spinal cord be divided in the lower dorsal or upper lumbar region, electrical stimulation of its central end produces hardly any effect on the blood pressure. This seems to show that, even if the block occurs in the segments corresponding to the stimulated area, this is not the main situation where afferent impulses are prevented from reaching the vasomotor centre. At the same time electrical stimulation of any of the component parts of the brachial plexus in such an animal induces a slight rise in the blood pressure. While, in profound splanchnic shock, electrical stimulation of a mixed segmental nerve within the dura induces a definite rise of blood pressure, as also does mechanical stimulation of a nerve of the brachial plexus, the variation being more marked in the latter. A study of such tracings as these seems to show that fatigue is most complete in those afferent paths supplying the area of operation: but that these impulses overflow their own synapses and fatigue, to a less extent, afferent paths from other regions. These facts again negative the view that the centres themselves are fatigued or paralysed. If, in an animal, shocked to such a degree that stimulation of the central end of the cut spinal cord does not induce any rise in blood pressure, electrical stimulus is applied to the floor of the fourth ventricle, a marked alteration in the blood pressure results, that is, the blood pressure is raised and the pulse is markedly quickened. Finally, if at the moment of death from shock of this degree, a stout needle is driven into the centre of the floor of the fourth ventricle, a still more marked rise in blood pressure, with acceleration of the pulse, is observable. (Trace 34.) Experimentally, then, it seems to us that failure of the centres does not take place until the moment of death, a fact which is further supported by the marked Traube-Hering curves observable in profound shock in many of our tracings.

We conclude that the failure of transmission of afferent impulses occurs at the afferent synapses.

The nature of the synaptic block is a matter for speculation; but, bearing in mind the probable nature of fatigue of the end-plates in voluntary muscle by sarcolactic acid, we thought it possible that hyperexcitation of the afferent nerves in shock might be responsible for the formation of a waste product inhibiting the normal conduction through the synapse. Professors Mott and Halliburton have described the formation of choline in nerve degeneration. We performed a few experiments with a view to ascertaining whether some analogous waste product may not be responsible for these phenomena. These investigations were very limited, owing to our insufficient knowledge of physiological chemistry. A tracing from a fresh dog into whom choline was injected showed the typical fall in blood pressure. Professors Mott and Halliburton described this action of the drug as being directly on the vessel wall. But if a small incision in the abdominal wall of a fresh dog is made, and choline injected into a vein, mechanical stimulation of the semilunar ganglion, in the middle of the resulting fall of blood pressure, definitely breaks this fall, and produces a spike in the normally even curve. Immediate stimulation of the central end of the cut sciatic nerve, after this phenomenon, fails to evoke any alteration in the blood pressure, though, immediately previous to this, a marked rise of blood pressure with electrical stimulation was obtained. Finally, it is known that if choline be repeatedly injected into an animal, this characteristic fall of blood pressure is absent, and a small rise is observed in its stead. If, after this phenomenon, amputation of the leg at the hip-joint be performed, characteristic blood-pressure variations are entirely absent (a condition resembling extreme shock). On these incomplete experiments we suggest that choline acts on the afferent vasomotor synapses (as probably all toxins do), blocking the transmission of afferent impulses through them—a view which would support the immunity so quickly established to this drug, with repeated injections at short intervals.

Dr. Rosenheim, of King's College, has kindly examined some clinical specimens for us. In a case of post-operative shock he could find no choline in the cerebro-spinal fluid. In the spinal cord and medulla from two infants who died from shock twelve and twenty-four hours respectively after their injuries, no choline could be found; while a similar negative result obtained in the case of a child who died from whooping-cough. Clearly such a waste product as we suggest is not identical with choline, though it may possibly be a toxic substance which acts in a similar manner on the synapses.

Histological.

Histological investigations (prompted by the results obtained by Crile and Dolley) have been carried out by us to determine whether there is any recognizable change in the central nervous system in shock, and, in particular, in that part of the central nervous system in which the vital centres are situated—that is, in the medulla, between the level of the striae acousticae and the tip of the calamus scriptorius. We have examined serial sections of various segments of the spinal cord, medulla, cerebellum, and cerebral cortex of dogs which have been shocked to death. Our observations are based on the careful examination of many thousands of cells. The brains and cords were in each instance removed directly after the death of the animal, and preserved in 10 per cent. formalin, hardened in graded alcohols, passed through chloroform, and embedded in paraffin. Sections 6μ in thickness were cut and stained by a modified Nissl's method, ½ per cent. aqueous thionin blue being used. Some sections were counter-stained by eosin, others by erythrosin, others not at all. Differentiation was carried out by means of aniline alcohol. The sections were cleared in bergamot and

benzole, and mounted in acid-free xylol balsam, benzole balsam, or benzole dammar. In comparison with these specimens we were fortunate to obtain a human brain a few hours after death. The case was that of a healthy fireman, who was run over by a motor engine, and died from shock and haemorrhage. The injuries were very extensive, but the skull was not fractured. The examination was performed by one of us about fourteen hours after the time of the accident. The brain was preserved in the way described; and we examined serial sections from just below the tip of the calamus scriptorius to the level of the eighth nerve. In view of the difficulty of definite results being obtained from such methods of examination, we shall content ourselves by stating generally what, in our opinion, is the interpretation of these changes; reserving to ourselves the right to modify our opinions later if necessary. Too much must not be expected from cytological changes thus demonstrated; for Nissl himself states that we cannot be too sceptical in correlating cortical changes with mental diseases.

In the spinal cords of dogs shocked to death we could find no cytological changes whatever. We lay stress on the fact that these results refer also to segments of the cord which were responsible for the innervation of the operation area. The cerebral cortex showed very little change, and Purkinje cells of the cerebellum showed no striking alterations. Most of our attention was directed to the medulla, which was studied in serial sections. If the vasomotor centre is fatigued in shock, we should expect to find some existence of that centre in the deviation from the normal Nissl pattern of certain groups of cells, even though this centre has, in all probability, never been localized histologically. No such evidence has been found; a few scattered cells, in which chromatolysis was seen, on each side of the median raphe, might possibly represent it. This does not imply that a definite group of cells, forming a centre, does not exist (although this is probable); but rather that in shock there is no fatigue of such a centre to be detected histologically.

We have examined carefully the motor nuclei of the bulb, and found them normal. Only very scattered evidence of mild chromatolysis was detected. In a few cells there was marked chromatolysis of a degree described by Professor Mott as occurring in the cat when all four cerebral arteries have been tied. We lay stress on the fact that these motor nuclei are in a condition to respond and respond well, if they can be activated. Therefore, fatigue of the motor cells does not occur in shock. (In the human medulla the same conclusions are arrived at.)

In the sensory cells of the gracile and cuneate nuclei and in the olivary nucleus (much less so in the sensory nucleus of the vagus) there are more definite changes. Many cells show chromatolysis, but rarely in extreme degree. It seems that the scattered cells near the raphe, together with the sensory cells, are less resistant than the motor cells; and these features are more pronounced in the human medulla we examined.

We conclude that the motor nuclei are more resistant than the sensory nuclei under adverse circumstances.

These observations support our view, arrived at clinically and experimentally, that such cell changes as are noticeable are largely the secondary outcome of the altered vascular conditions existing in shock (for in the human medulla haemorrhage played an important part), and not due to direct fatigue, or indeed fatigue at all, by afferent impulses—that is, they are due to starvation.

Clearly the motor cells are in a position to respond to stimulation, but the activating influence fails. This influence may fail from (1) defective transmission of the synapse round the motor cells. (2) The intermediate sensory neuronic system being unable to pass along stimuli received, owing to failure of the cell. (3) A block at the cell of this system (a block round the synapses of the efferent fibres from the cerebral cortex, or functional failure of the pyramidal cortical cell, does not play any direct part in the mechanism of shock; these are only secondarily involved). The second possibility—namely, failure of the cell of the sensory intermediate neurone—has little support, for we lay great stress on the experiments of Professor Mott, Sir Victor Horsley, Ehrlich, and Professor Leonard Hill, as showing that cerebral activity may be maintained in chromatolysis from practically complete anaemia, with a strong stimulus. A similar activity in the cells we are discussing is to be inferred; and the chromatolysis being most marked here, combined with the remarkable absence of cell changes in the rest of the medulla (particularly the motor nuclei), leads us to conclude that the block occurs at the afferent synapse round the cell of the intermediate sensory neuronic system. Therefore, on experimental, clinical, histological, and possibly chemical grounds, we suggest that the failure occurs at these synapses, which are to be regarded as a protection to the medullary centres by their failure.

Conclusions.

Shock cannot accurately be defined, for the term does not express a state or condition of an animal, but rather a mechanism which establishes, first, a defence of the organism against the harmful effects of injury, and, next, the protection of the vital centres from a degree of exhaustion from which they could not recover. The primary conception of shock should be:

Shock is the reaction of the central nervous system to exaggerated or abnormal afferent impulses.

In other words, a study of shock means the study of pathological vasomotor reflexes regarded as a symptom of the activity of the central nervous system. In their order of importance the centres most concerned are (1) the vasomotor and cardiac centres, (2) the respiratory centre, (3) the centres of consciousness and special senses. Their susceptibility to trauma of any sort is in the inverse order. Clearly shock commences with the first abnormal or exaggerated afferent impulse, and continues until death. Clinically, therefore, surgical shock commences with the skin incision, and it is continued long after the operation, until the abnormal or exaggerated afferent impulses cease and physiological conditions are once again restored. It is necessary to realize that *collapse* is associated with a low blood pressure and its sequelae; but that it is not peculiar to shock, though it is a sequel of the second stage; and it may be induced by many other agencies—for example, haemorrhage, toxaemia, prolonged loss of heat, etc. Collapse is only an end result of, and not identical with, the reaction to abnormal or exaggerated afferent impulses constituting shock.

Finally, we have shown that a low blood pressure is not an essential accompaniment of the clinical picture of shock; for in Lecture I we showed that the classical symptoms of shock occurred when the blood pressure was at the highest recorded point. It is of interest to note the fact recorded by Takaki that in sudden perforations during enteric fever the pulse tension is high, for this phenomenon is accompanied by the classical features of shock. These classical features may be marked in the pressor stage of shock as well as in the depressor, though in the former the high pulse tension and the widely-dilated pupils contrast with the low pulse tension and the intermediate pupils in the stage of collapse.

Mental Shock.

The activity of the higher centres raises the blood pressure proportionately to its intensity, while the individual variations are proportionately increased. In pain the mean blood pressure is not markedly raised but the individual variations are well marked. One cannot help being struck by the approach from pressor to depressor type of chart with the increased violence of afferent impulses from the outside world to the centres of consciousness, as evidenced by their efferent impulses to the vasomotor centre. Fatigue of the pressor paths from the centres of consciousness to the vasomotor centre, establishes the domination of the depressor impulses. And this varies with (1) the duration of the stimulus; this is familiar to all in the effects of prolonged mental strain; and (2) intensity of the stimulus. Sudden, very violent stimuli may fatigue the pressor and initiate immediately the domination of depressor impulses—that is, the extent of the stimulus is carried to a more marked degree than in the charts we have studied. Such a sudden stimulus may cause sudden active depression, leading to collapse and even to death; and this is the mechanism of mental shock (also of shock from blows on the head, etc.). This collapse may be maintained, or rather its persistence may be favoured, by the exhaustion of the suprarenals, which Cannon has demonstrated to take place in the cat, when terrified.

So-called "traumatic shock" is an exaggerated type of mental shock. It is initiated by a slight trauma, which might have been, and by mental anticipation was pictured as, serious and painful. The persistence of the mental picture of the trauma, coupled with the possible suprarenal exhaustion, may initiate a progressive active depressor stage of shock, leading to death in the same way as in delayed surgical shock.

The mechanism of mental shock is identical with that of surgical shock, the stimulus being "manufactured" in size and nature by the hyperactivity of the centres of consciousness.

Toxins.

Toxins (amongst these we class general anaesthetics), by their effect on the synapses, render pressor fatigue more likely; and this is notoriously the case in the toxaemia of hyperthyroidism and exophthalmic goitre, lymphatism, etc. In exophthalmic goitre the prolonged toxaemia, and constantly magnified small stimuli, tend to place the sufferer, figuratively speaking, on the precipice of pressor fatigue. The additional toxaemia of chloroform, the stimulus of the operation, and the pre-existing mental excitation, all tend to initiate pressor fatigue and active depressor impulses. We believe, with Crile, that sudden deaths under operation in these cases are really manifestations of extreme mental shock.

Pain.

The depressor type of chart obtained in pain renders the control of this, before and after operation, of paramount importance, since it appears to be an active agent in initiating active depressor impulses.

(Inhalation anaesthesia, lumbar puncture and spinal anaesthesia, abnormal reflexes in surgical operations, relations of vasomotor changes to the onset of "surgical shock," shock-values and shock-index, and shock-values as applied to the central nervous system, etc., have all been sufficiently considered in Lecture I, and need not detain us further in the present lecture.)

The Abdomen and Genito-Urinary System.

We would emphasize again the importance of the fact that elimination of centripetal impulses by transection or excision of the cord showed that a very definite improvement in the blood pressure, action of the heart, and general condition of the animal, resulted from intestinal manipulations. This is due to direct splanchnic stimulation unhampered by central depressor stimuli. This beneficial effect of blocking afferent impulses, combined with the local splanchnic stimulus of the operation, on the condition of the patient is similarly observed in spinal anaesthesia, and forms one of the strongest recommendations for its employment in suitable cases. It is within the experience of most surgeons that severe intra-abdominal manipulations are "deceptively" well borne by the patient during their continuance, and that such patients often rapidly get worse during the suture of the abdominal wall. This feature is due to the relaxation of the visceral vessels when the local stimulus is stopped. Consequently a sense of false security is likely to be rapidly disillusioned when the splanchnic stimulus ceases. Clinically, however, the raised blood pressure, combined with the slow pulse, gives an indication that the phenomenon is of peripheral origin. The exhaustion of the suprarenals is probably an accessory factor in maintaining the progressive collapse from the depressor stage of shock.

TREATMENT.

The treatment of shock naturally falls into two groups —*preventive* and *curative*. Only the briefest indication of the principles is possible.

PREVENTIVE.

This consists in the maintenance of pressor impulses and the avoidance of the domination of depressor ones. Factors directly concerned are:

A. Nature and degree of violence.
B. Duration of the stimulus.
C. Area involved—that is, number of fibres stimulated.
D. Shock value of the tissues.

Taken together, these (A, B, C, D) constitute the shock value of the operation—that is to say, the onset of shock is influenced by technique and the nature of the operation. With regard to technique, it only requires to be said that the surgeon's aim is maximum speed combined with, but never at the expense of, gentleness of manipulation and perfect haemostasis. One point in particular which we would refer to is the question of traction on the intestinal mesentery. This is to be avoided whenever possible, but, if necessary, traction should always be exerted upwards —that is, towards the semilunar ganglia (see Diagram 2).

E. Shock value of the individual—that is, resistance of the central nervous system to pressor fatigue. The following factors require consideration:

1. *Age.*—Perhaps the most important consideration—resistance to pressor fatigue—is directly proportionate to the age. Thus, an operation which involves equal stimulus, and is performed under identical circumstances, may induce the depressor stage of shock in a child; whereas, in an adult, the same operation, lasting an equal time, would only evoke the normal pressor response.

2. *Physique.*—This probably depends on the presence or absence of circulatory toxins; we do not refer to muscular development.

3. *Toxaemias.*—These form the most important consideration after that of age:

(a) Autointoxications.

We do not use this term in the general clinical sense, but reserve it for true autointoxications arising from the absorption of excessive or perverted secretions of the ductless glands. Paramount in surgery are hyperthyroidism and exophthalmic goitre, and lymphatism.

Hyperthyroidism.—(1) The toxin, perpetually acting on the pressor synapses, places the patient on the "precipice of pressor fatigue." This is enhanced by depressor stimuli which may be initiated from the outset of operations. (2) The afferent impulses of the operation accentuate this tendency. (3) The manipulations of the thyroid add a powerful dose of toxin to a susceptible subject. (4) The constant small, but magnified, mental stimuli in such patients gradually induce a condition of pressor fatigue, accentuated by previous anxiety and the sudden emotion preceding the operation. (5) General anaesthesia, particularly chloroform, assists in accelerating pressor fatigue. (6) The heart muscle is degenerated, and the rhythm is accelerated by the excessive sympathetic stimuli excited by the least afferent impulse—there is, therefore, liability also to heart failure. On these grounds the following routine is suggested: Absolute rest in bed for at least a fortnight before operation (Kocher); during this period every afferent stimulus to the higher centres is to be eliminated as far as possible. The toxin is to be eliminated by copious administrations of fluids before and after operation. Carbohydrates, diophoretics, diuretics, and laxatives are to be given appropriately.

The emotion of the operation is to be mitigated by Crile's method of "stealing the thyroid." Morphine is to be given without stint; atropin is to be avoided until after anaesthesia is induced, owing to its stimulation of the higher centres.

During the operation afferent impulses are to be blocked by infiltration anaesthesia, which is to be combined with general anaesthesia; of these ether, to unconsciousness only, is preferable; chloroform is strongly contraindicated. The manipulations of the thyroid are to be reduced to a minimum, and removal of the excess of toxin by temporary drainage is advocated. The condition of the heart is to be treated during the preliminary rest.

Lymphatism.—A totally opposite picture is presented in this condition. (The enlargement of the thymus in both conditions forms the only point in common in these two diseases.) We have shown that in animals and man operations in regions where the vagus stimulus predominates are accompanied by marked cardiac and respiratory inhibition. The fullest doses of atropin, almost to poisoning, at least half an hour beforehand (and continued afterwards) are strongly to be recommended. Direct cardiac inhibition is particularly well seen in operations on the fauces and pharynx, etc.—for example, operations for tonsils and adenoids, retro-pharyngeal abscess, etc. (We believe the credit for advocating atropine in such cases is due to Scharlieb.)

(b) Infective.

Acute.—Toxaemias of bacterial origin can of themselves initiate pressor paralysis. The rapidity varies with the

virulence and with the age, younger patients being the most susceptible. Operations on the infected area are to be considered in the following light:

The danger of pressor fatigue is influenced by the following: (1) The factors already referred to—A, B, C, D, comprising the shock value of the operation. (2) The existing toxaemia is inducing a synaptic block. (3) The steps of the operation accelerate pressor fatigue; and are aided by the after-stimulus, pain, etc. (4) Fresh raw surface, for the absorption of additional toxin, is exposed to infection by operation. (5) General anaesthesia adds *another toxin* to the already poisoned synapses. (The same considerations apply to chronic infections in a lesser degree.) These observations apply, further, to acute and chronic infections where toxaemia is of independent origin from the lesion calling for interference—for example, pneumonia with strangulated hernia.

(c) General Anaesthesia.

General anaesthesia has been shown to precipitate pressor fatigue, chloroform more than ether. We present Chart 52 showing the depressor stage of shock initiated in

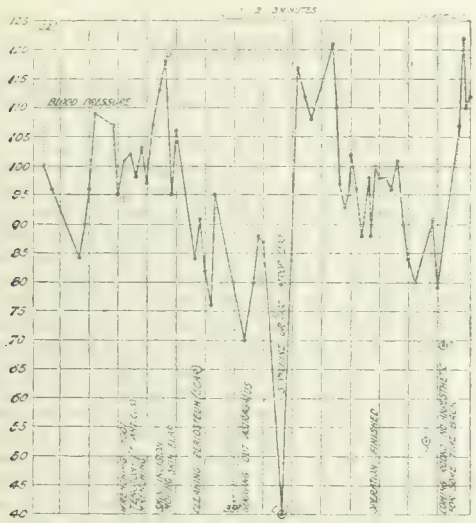


Chart 52.—Depressor stage of shock, initiated by excessive CHCl₃ narcosis. Pressor stage restored by strychnine.

a simple operation from an overdose of chloroform in a child. The conversion of the depressor stimulus into the original pressor stimulation by strychnine is also well shown in this chart.

4. *Haemorrhage*, *loss of heat*, and *mental shock* all precipitate pressor fatigue.

The control of these factors which have been shown to favour the onset of the depressor stage of shock is to be considered in the following way:

1. *Indications for Nerve Blocking.*

Local, and intravenous local, anaesthesias are of limited application; with the exception of operations in more or less superficial regions they do not institute a complete nerve block (direct cocainization of large nerve-trunks is included).

Spinal anaesthesia is the most efficient method of inducing a complete afferent block over a large area; and experience has proved that it can be safely, scientifically, and accurately administered to those cases where its employment is called for. The principles on which indications for its employment are based have been referred to. Two broad groups of cases, therefore, will be briefly considered (it being granted that *age always predominates* as an indication—that is, the younger the child the more urgent is the need for the protection of the synapses by spinal anaesthesia likely to be).

1. *The Shock Value.*—Consideration of the shock value, arising from factors A, B, C, D, in conjunction with the age, form the principles on which a surgeon will act according to his experience.

2. *Toxaemia.*—When toxaemia is paramount, the shock value of the operation, together with the age, will decide the advisability for nerve blocking. In our limited time detail is impossible, and the line of reasoning to be recommended is best illustrated by two examples:

A child, aged 5 years, suffering from acute osteomyelitis of the femur; toxaemia profound. The dangers are: The existing toxaemia is paralysing the pressor synapses; the age of the child is young; the shock value of the femur is great; the shock value of the operation is very high; general anaesthesia adds another toxin: the opening up of fresh tissues increases the surface for the absorption of the toxin, accordingly toxaemia is increased afterwards. If the pressor synapses are fatigued by the operation (a likely contingency) the increased toxaemia and pain afterwards will induce progressive depression leading to death perhaps a day or two later. A block to afferent impulses by spinal anaesthesia is indicated in such a case.

In a child aged 5 years, suffering from gangrenous appendicitis, with diffuse, spreading peritonitis, toxaemia was profound. Here similar conditions obtain; but another important factor is also to be considered. In order to minimize the violence of manipulations ample exposure is advisable; this, however, would expose the synapses to further poisoning, due to increased septic absorption from the additional raw surface created. On the other hand, if, for this reason, a small exposure is made, the synapses are exposed to increased afferent impulses (from more prolonged and violent manipulation, wide retraction, etc.). In these cases, therefore, the surgeon is situated between the Scylla of pressor fatigue and the Charybdis of increased toxic absorption, both equally dangerous in a child. If spinal anaesthesia be employed, the complete block to afferent impulses permits almost any degree of retraction and manipulation through a quite small exposure, without accelerating pressor fatigue (indeed, we have shown that the patient's condition improves during these manipulations); the duration of the stimulus is lessened, and the increased "after-toxaemia" is minimized. The synapses are then in a better position to withstand such increased subsequent toxaemia as may exist. Further protection of the nervous system is affected by copious rectal and subcutaneous saline infusions, to which the addition of dextrose is recommended. Morphine in full doses is also advisable, in order to minimize all afferent impulses, particularly those of pain. The bowel is to be kept absolutely at rest by complete starvation, in order to diffuse as little toxin as possible (that is, "an inflamed part should be rested"). It is the recognition of these principles which at the present time enables us to say with confidence that the prognosis of acute appendicitis in small children is excellent in all but moribund cases (probably well over 90 per cent. of recoveries may be expected).

Finally, nerve blocking, by spinal anaesthesia, is indicated where there is danger of the failure of a hypertrophied heart against a marked increase of an already high blood pressure—for example, in operations for prostatectomy, where this danger exists.

2. *The Control of Mental Shock.*

In susceptible persons the following suggestions are offered: (*a*) Rest in bed previous to operation, as has been advised; (*b*) the patient should be educated and familiarized with the idea of anaesthesia and operation (see exophthalmic goitre); (*c*) the administration of morphine and scopolamine before operation; (*d*) the control of the mental factor during the induction of anaesthesia; (*e*) continuation of morphine after operation to control impulses to the higher centres, etc.

3. *The Control of Collapse.*

Collapse due to Haemorrhage.—The first indication is to make good the loss of fluid by mouth, by rectal infusion, by subcutaneous infusion, and by intravenous infusion. Details need not concern us at the present time.

Drugs.

Strychnine.—Strychnine acts by virtue of two properties—(1) by establishing the conduction of impulses across synapses which are blocked; (2) by direct stimulation of the heart. Strychnine is not indicated in collapse from haemorrhage, except, perhaps, as a cardiac stimulant in moments of emergency.

Suprarenin is valuable both as a vaso-constrictor and also because it stimulates the suprarenal glands to activity

(Elliott); and there is probably no exhaustion of these glands in haemorrhage.

Atropin is valuable in checking the loss of fluid and heat by sweating; while brandy and ether are excellent cardiac stimulants, provided the haemorrhage has been stopped and suprarenin has not been given.

Collapse due to Toxaemias.—The elimination of these is strongly indicated. We need not discuss the methods beyond saying that the copious administration of fluids is essential, and that *suprarenin* is contraindicated, since vaso-dilatation is to be desired in order to promote excretion.

Drugs.

Strychnine is exceedingly valuable during and after operations on toxic subjects. For it possesses a power of restoring the paths of conduction across the pressor synapses in such patients. This is well illustrated in Chart 52.

Curative.

With the limited time at our disposal we propose to consider very briefly some sudden deaths under operation. These are to be strictly differentiated from respiratory failure due to the anaesthetic, where the prompt performance of artificial respiration and the administration of cardiac stimulants are practically always successful. We refer in particular to those cases where anaesthesia is not primarily responsible for this contingency, and will confine our remarks to such illustrative instances as exophthalmic goitre, status lymphaticus, prostatectomy, and respiratory failure in increased subtentorial pressure.

Exophthalmic Goitre.—We believe that sudden death in these cases is due to rapid pressor fatigue, followed by an equally powerful depressor stimulus, and consequent inhibition of the heart. The indications are cessation of the stimulus and injection of strychnine to restore the pressor paths and stimulate the heart; after the restoration of the pressor paths by strychnine, stimulation of the skin by cloths wrung out in hot water, etc.; the immediate adoption of artificial respiration combined with indirect cardiac massage is advised, etc. We would emphasize the importance of not applying any stimulus until after the administration of strychnine. These recommendations are based on theoretical deductions only.

Status Lymphaticus.—The characteristic clinical features of sudden death in these cases are sudden pallor, wide dilatation of the pupils, and cessation of respiration in inspiration. In unfavourable cases the pupils assume an intermediate size and remain thus fixed. These phenomena are due in the first instance to a powerful sympathetic stimulus, dominated subsequently by the direct vagus inhibition of the heart. The indications are—cessation of the stimulus; artificial respiration combined with indirect cardiac massage at once*; strychnine, to stimulate the heart and reopen the pressor synapses; atropin, to inhibit the vagus and stimulate the higher centres; powerful peripheral stimuli—for example, hot cloths, dilatation of the sphincter ani—after the injection of strychnine. We have had many opportunities to put these principles into practice, and have never had any failures with this routine.

Enucleation of the Prostate.—Sudden deaths in these cases have been already referred to. The improbability of recovery accentuates the importance of prevention by nerve blocking.

In *respiratory failure*, from increased subtentorial pressure, we should not hesitate (on the strength of the views expressed in Lecture I) to practise lumbar puncture combined with venesection as a temporary measure until operation could be performed.

The treatment of *progressive collapse from the depressor stage of shock is twofold:* (1) To treat the cause. Here the administration of strychnine during and after operation is of paramount importance. We are quite unable to agree with those who condemn this drug; such a condemnation we feel to be based on an inaccurate recognition of the pathology of shock. Morphine after operation is indicated for reasons we have given. (2) Further treatment is directed towards the alleviation of symptoms due to collapse and its sequelae, and does not come into the scope of the present lecture. We may state, however, that adrenalin is contraindicated in our opinion. For Elliott has shown injections of this drug to excite secretion from the adrenals; and these are probably already exhausted in shock. Thus their recovery by rest, rather than their further activity, is to be desired.

In conclusion, Mr. President, Fellows, and Members of the College, we both thank you heartily for your kind attention, and ask your indulgence for what may appear a summary dismissal of some of the important points in this study. But time has been our enemy. However, we hope to have convinced you that surgeons should cease to rely on a high blood pressure as an indication of the absence of shock, or on a low one as necessarily symptomatic of its presence. And if you hold that we have in any degree contributed towards the elucidation of the mechanism of shock, or that we have adduced strong evidence in support of the plea for the adoption of nerve blocking as a means of controlling shock (particularly in toxaemic children), we shall be amply repaid.

Finally, should this research incur the accusation of a strong advocacy for the use of spinal anaesthesia in suitable cases, this accusation we will gladly accept.

* The value of cardiac massage is demonstrated by tracings in animals.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

DEATH AFTER SALVARSAN.

An athletic man, aged 23, developed a non-ulcerating chancre for which he entered a nursing home, where two intravenous injections of 0.6 salvarsan were given with an interval of a week. There was no pyrexia after the first injection nor any ill effect. After the second, within forty-eight hours there were pyrexia and aching of legs. He returned home. At 7.30 p.m., when in bed, the temperature was 101.6° F. in the axilla; there was no perspiration. The next morning he was seen walking in his room in a dazed state, muttering gibberish, and dribbling from the mouth. An hour later he could talk distinctly though with difficulty, yet was unable to account for his earlier state. The temperature was 97.6° F. There was a punctate red rash on the chest and abdomen and he was sweating. At 6 p.m. he was still sweating; the temperature was 98° F.; he was seen in an epileptiform fit. The following morning there was another fit, and more followed; he was unable to swallow; respiration was rapid; fit followed fit till only the eyes and depressors of the jaw retained power to contract, and he died from respiratory failure. The breath became so faecal, though there had been no constipation, that it was thought an involuntary action of the bowels had occurred. There was no involuntary action. Urine was retained, about 10 oz. of urine being withdrawn by catheter. There was profuse secretion of mucus in the upper airway. He was unconscious for twenty hours.

W. Campbell M'Donnell, M.R.C.S., L.R.C.P.

London, N.

ETHYL CHLORIDE SPRAYING IN VENEREAL SORES.

The following experiences of the curative action of spraying with ethyl chloride on venereal sores may prove of interest. It is more especially valuable in the services, as it accelerates considerably healing of the chancre, thus limiting bubo formation. The time spent in hospital is thus reduced by about 50 per cent. in average cases.

The method employed is as follows: The ulcer is well dried and cleansed with dry cotton-wool and well frozen three times in succession with the ethyl chloride spray, until the surface of the ulcer is quite white, like hoar frost. It is more effectual to warm the ethyl chloride glass tube in a tumbler of warm water before applying it, as a better spray results. Dry iodoform and dry gauze are then applied. This is repeated daily until cure results.

This method is superior to the local use of pure carbolic acid. I have not found it valuable in commencing phagedaena in a chancre, but when active phagedaena has been prevented by pure nitric acid, free exposure and baths, it will then accelerate healing. It is not painful, and requires little experience.

It is superior in my experience to *x* rays, which I have utilized and have published the results in the British

MEDICAL JOURNAL (1909, vol. i, p. 464). I have not tried hot air, which is well spoken of and should prove valuable. I have been in the habit of applying ethyl chloride to some 15 or 20 venereal sores every morning for the past two months, and it is a distinct advance on dressings with mercury perchloride and lotio nigra, whether with or without iodoform. The patient is allowed up from noon to 6 p.m. after the first two applications, and then all day if exercise is not taken; this limits bubocs. The cost is slight, as the price of a tube of ethyl chloride is about 2s. 6d., and will suffice for 15 patients for two days. This is roughly a penny a day each. After two or three days a healthy healing ulcer results, and small ulcers do not usually develop into large ones as with some other methods.

I do not say that the method is applicable to every chancre, but it is valuable in the majority. I would like to learn whether freezing kills the *Spirochaeta pallida* as effectually as it does Ducrey's bacillus, the cause of non-infective (soft) chancre, and the pus organisms so favourable to the extension and growth of venereal sores.

H. C. FRENCH,
Major, R.A.M.C.

Malta.

MINERS' NYSTAGMUS.

IT seems to me that the cause of this condition is a necessity for movement of the eye in order to be able to see with the fovea. I have shown that the fovea is blind when there is no visual purple in it, and this diffusion of the visual purple into the fovea is caused either by light falling on an adjacent portion of the retina containing rods or by movement of the eye. In the conditions usually obtaining in a mine sufficient light does not fall upon adjacent portions of the retina, and so the eye is in continual movement. It is easy to see how the repetition of this unnatural movement may cause nystagmus. I should be glad to hear from workers on the subject how this explanation of nystagmus on my theory of vision agrees with the facts observed by them, also whether the arrangement of the light in accordance with the above suggestion is beneficial.

F. W. EDRIDGE-GREEN.

The Institute of Physiology, University College, London.

ABDOMINAL ANGINA.

THE importance of the rather puzzling condition called "abdominal angina" is my apology for placing on record one other case that seems to suggest the view that such a condition is more frequently met with than understood.

At the present time I have a male patient, aged 55, suffering from typical angina pectoris; sometimes, however, instead of the pain being related to the heart it is limited to the umbilical region, the patient imagining that he has a pain in his stomach. Occasionally the patient has severe pain of neuralgic type in the rectum.

I have no doubt that the rectal and abdominal pains are related to the anginal condition, as the attacks are much less severe since the blood pressure has fallen from 190 to 150, and are at all times relieved by amyl nitrite.

WILLIAM JOHNSON SMYTH, M.D.

Bournemouth.

THE TREATMENT OF GLEET BY IONIZATION.

I WOULD like to describe a simple means for the ionic treatment of gleet, which I have lately found most efficacious. I went to many electric instrument makers hoping to find suitable applicators, but could procure an instrument for the anterior urethra only. As chronic gleet springs especially from the posterior urethra, something beyond a short straight instrument is required. It is only needful to procure a stout zinc wire some nine inches long, and bend it to catheter shape, a loop being made at its proximal end. A soft rubber catheter is perforated by a sharp punch here and there for a few inches at its distal end, or for about seven inches if the entire urethra is to be acted on. One perforation is made at the proximal end. Into this perforation the zinc rod is pushed as far as the loop. The positive pole of a galvanic battery is connected with the loop, and the negative applied to the suprapubic or other skin area by means of a moistened pad. The solution used (usually zinc or alum sulphate) is made to flow slowly through the catheter, and the apparatus is complete in action. An expensive battery is not required; a few Leclanché cells will do.

JAMES MACMUNN.

London, E.C.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

MANCHESTER ROYAL INFIRMARY.

CASE OF RETROGRADE INTUSSUSCEPTION OF THE ILEUM ASSOCIATED WITH MECKEL'S DIVERTICULUM.

(By W. H. KAUNTZE, B.A., M.B., Ch.B.Vict., House-Surgeon.)

THE patient in the following case, a boy aged 10 years, was brought to the infirmary on February 20th, with a history to the effect that he had been taken ill suddenly two and a half days before with acute abdominal pain and vomiting, and that both had persisted up till the time of admission. The patient began to vomit soon after the onset of pain, and this continued throughout, being at one time, according to the parent's statement, faecal. The pain was first of all situated round the umbilicus, and later settled down in the hypogastric region. The bowels had not been opened for four days, although enemata and purgatives had been given freely. No blood or mucus was passed per rectum throughout the illness. It was also stated that, though the patient had never been a very strong boy, he had had very fair health except for occasional attacks of colic. These attacks came on at intervals varying from four to six weeks. They were usually associated with diarrhoea, and the pain was relieved by defaecation.

Condition on Admission.—The general aspect was typical of acute intestinal obstruction in an advanced stage. The eyes were sunken, the cheeks fallen in, and the skin yellowish-grey. The patient was much wasted. Pain was localized in the lower part of the abdomen, principally on the right side, but there was a good deal of tenderness in the left iliac fossa. The abdomen was greatly distended, and the outline of coils of intestine could be plainly observed. The umbilicus was everted.

On palpation the abdomen was extremely tense, though there was little true muscular rigidity. In the right iliac fossa, a mass could be distinctly felt, which was fairly definitely limited, extending upwards to the level of the umbilicus, backwards into the right flank and inwards to within an inch of the middle line. The mass gave a distinct fluid thrill and was dull on percussion. There was also dullness in both flanks, which moved when the patient's position was changed, and indicated free fluid in the peritoneal cavity. The abdomen elsewhere gave a tympanitic note.

A rectal examination was made. This showed a soft but solid mass in the recto-vesical pouch of peritoneum, and at one point of the mass the tip of the finger could be introduced into a small depression apparently at the apex of this mass. During the course of the examination the patient vomited two or three times. The vomit showed no faecal characters, but contained much mucus, and some material, resembling coffee grounds, which was changed blood.

The temperature was 100.8° F., and the pulse 136.

Operation.—Mr. Rayner, under whom the case was admitted, decided that an immediate operation was necessary. A general anaesthetic was administered, and the abdomen opened by a vertical incision, 3 in. long, just to the right of the middle line, and going through the lower part of the right rectus muscle. When the peritoneum was opened a quantity of turbid fluid escaped. The gut was distended and paralysed, and dark purple in colour. Lying in the pelvis a large intussusception was discovered, and with some difficulty brought out of the abdominal wound. It was then seen that it was a retrograde enteric intussusception, involving the last 2½ ft. of small intestine, the neck being situated 1 in. from the ileo-caecal valve. The small intestine for a foot above the intussusception showed small patches of gangrene. The whole intussusception, together with the gangrenous piece of ileum, was excised, leaving an inch of ileum attached to the caecum.

As the child's condition was so bad as to contraindicate any prolongation of the operation, and as, furthermore, the gut was so distended and inert as to make it impossible to suture it, a Paul's tube was ligatured into each end of the severed gut. About 1½ pints of faecal material were drained away at the time, and the wound was then closed temporarily with a view to establishing an anastomosis forty-eight hours later.

As soon as the patient had recovered from the anaesthetic, salines alternating with nutrient enemata were administered through the tube leading into the large gut. The patient was also allowed liquid food by mouth (beef tea and Benger's food).

Result.—Unfortunately some sixteen hours after the operation the patient, though apparently doing well up till then, suddenly showed signs of collapse, and, despite all treatment, died four hours later. Permission for a *post-mortem* examination could not be obtained.

After the operation was over, the intussusception was examined, and sketches of its appearance are reproduced.

The first figure shows the gut when just taken from the body while distended with fluid. The whole intussusception is formed by small intestine. A marks the position of the cut end of the gut, where it was separated from the caecum. Here the neck of the intussusception D is situated. At B the gut is somewhat dilated, and it was in this part that the intussusception lay curled up when removed; B is continuous with the rest of the ileum E. In addition to a retrograde intussusception the specimen shows the presence of a Meckel's diverticulum, C; this was about two inches long, and attached to its apex was a fibrous band, F, which ran with the mesentery into the intussusception. The Meckel's diverticulum was distended with liquid faeces. The adjacent peritoneal surfaces of the intussusception were united by adhesions.

The second figure shows the specimen laid open. Here the whole intussusception is seen, lying more or less coiled up in the part of the gut marked B. The apex of the intussusception is at G. The other letters are used as in the first figure.

The case seems worthy of report, in the first place, owing to the rarity of the retrograde variety of intussusception in the small intestine. As far as I am acquainted with the literature of the subject, Leichtenstern records 593 cases of intussusception, of which 8 were of the retrograde type. He is dissatisfied even with these 8, since in all of them peritonitis was present, and retroperistalsis had already been established. D'Arcy Power has recorded

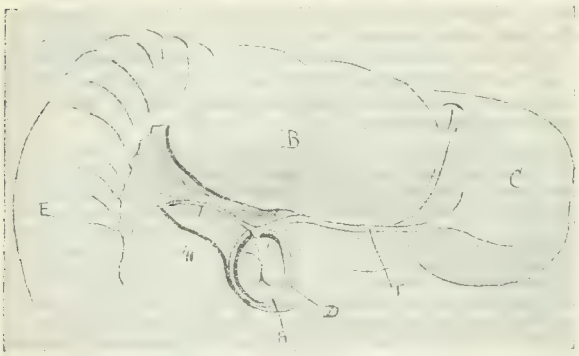


Fig. 1.—A, Distal end of ileum; B, dilated portion of ileum lodging the intussusception; C, Meckel's diverticulum; D, neck of intussusception; E, proximal portion of ileum; F, fibrous band attached to apex of Meckel's diverticulum; H, cut edge of mesentery.

an ordinary ileo-caecal intussusception associated with a retrograde intussusception which had apparently surrounded the former. He also records one in the colon (transverse into ascending colon), and Jones (quoted by Nothnagel) also one in the colon (descending into transverse colon), which survived eight weeks. Hektoen and Rigby each record a case in which a retrograde intussusception of the small intestine had occurred.

It has been stated that retrograde intussusception only occurs during the death agony, when violent peristaltic waves in all directions lead to abnormal conditions in the abdomen. This case, however, completely disproves the truth of this statement, since in the first place symptoms lasted over two days; secondly, the boy, though very ill, was not moribund; and, lastly, peritonitis had led to the formation of adhesions between the adjacent peritoneal surfaces of the intussusception.

An interesting feature of the present case was the absence of the passage of blood and mucus per rectum and the presence of altered blood in the vomit. It would seem that this was an important fact for the diagnosis of the case, since we know that the blood in the case of an intussusception comes from the mucous surface of the intussusceptum. In the ordinary form of intussusception there is no bar to the passage of blood downwards in the gut. In the retrograde form, however, the blood is prevented from passing downwards by the intussusception shutting it off from the lower part of the bowel, hence when retroperistalsis is set up blood is naturally vomited along with the other contents of the small intestine above the obstruction, as in this case.

It may further be noted that a Meckel's diverticulum was present. This in itself is not so extraordinary as to occasion remark, but the fact that apparently it had no causal connexion with the intussusception is most interesting, since so many cases of a Meckel's diverticulum causing an intussusception have been reported. It is possible that the recurrent colicky attacks associated with diarrhoea noted in the history of the case are explained by the presence of this diverticulum, but there is another explanation which still more correlates the sequence of events in this case. It has been noted that the fibrous band attached to the apex of Meckel's diverticulum was found to run with the mesentery into the intussusception. It is possible, and even probable, that this fibrous band had some attachment to the gut, leading to kinking of the bowel. This kinking would explain the recurrent colic. Then the kink would become so bad as to lead to actual intestinal obstruction with the setting up of retroperistalsis in the gut, thus bringing about a condition of affairs which favoured a retrograde intussusception, the kink in the bowel forming its apex. This seems a theory which is probably correct since it explains all the essential features of the case.

Mr. H. H. Rayner, to whom I am indebted for permission to publish this report, has kindly added the following note:

When I saw the patient, a few hours after admission, his condition was desperate, so much so that I had some doubt as to the advisability of operating at all.

The intestine for several feet above the intussusception was



Fig. 2.—A, Distal end of ileum; B, dilated portion of ileum lodging the intussusception; C, Meckel's diverticulum; D, neck of intussusception; E, proximal portion of ileum; F, fibrous band attached to apex of Meckel's diverticulum; G, apex of intussusception; H, cut edge of mesentery.

extremely distended, and had that bluish-black appearance so suggestive of a fatal termination; furthermore, the presence of gangrenous patches in the bowel wall for several inches above the mass necessitated a resection of some 3 ft. of intestine in all. A considerable quantity of faecal fluid and gas was drained away in the course of the operation and for some hours following it.

It would, I thought afterwards, have been better to have tied a full sized rubber catheter into the distal end of the bowel instead of the Paul's tube, so as to facilitate the injection of saline into the large bowel. However, a satisfactory quantity of fluid was administered through the Paul's tube in the lower end of the bowel, though not so easily or conveniently as might have been done had a catheter been used.

GEH.-RAT. PROF. BAELZ, the well-known expert on tropical diseases, who passed a number of years in Japan, and who claims a number of the most eminent Japanese bacteriologists as his pupils, has been compelled on account of ill health to resign his position as President of the German Tropical Society. His place will be taken by Professor Nocht, the Director of the Tropical Institute in Hamburg. Professor Nocht is well known by many bacteriologists in this country, and enjoys a world-wide reputation as a sound investigator and cautious critic.

WE feel a certain amount of diffidence in venturing to express an opinion as to the value of a new *Centralblatt* dealing with the subject of psycho-analysis. The subject is beset with difficulties and perhaps even dangers, and while the voice of the medical world has not yet spoken the last word on this subject and time will tell whether Freud's views are sound or not, it seems that the publication of a monthly journal dealing exclusively with this matter is a little premature. The journal appears in monthly numbers and the general editor is Professor S. Freud. It costs 15s. per annum, and is published by J. F. Bergmann of Wiesbaden and F. Bauermeister of Glasgow.

Reports of Societies.

EDINBURGH OBSTETRICAL SOCIETY.

Wednesday, May 8th, 1912.

DR. HAIG FERGUSON, President, in the Chair.

Complete Absence of the Vagina.

DR. W. FORDYCE recorded a case of complete absence of the vagina, with regurgitation of blood from the uterus into the peritoneal cavity. The patient had had attacks of pain irregularly for a year, and for six months regularly once a month, the attacks being accompanied by epileptic seizures. Between attacks she was never quite free from pain. She was mentally and physically defective. On examination, the ostium vaginae and hymen were absent, the external genitals normal. Per rectum, an irregular swelling, thought to be blood in a cul-de-sac of the upper vagina but later found to be the dilated cervix, was made out. The uterus was small, and the Fallopian tubes were not distended. Two unsuccessful attempts were made to establish a communication between the swelling and the external genitals. Then laparotomy was performed, and, owing to trouble with the anaesthetic, removal of the ovaries was alone carried out, in the hope of stopping menstruation and relieving the epilepsy. At the next period the pain was again severe, and it was resolved to remove the uterus. At the time of the first abdominal operation a considerable quantity of dark, fluid blood was found in the peritoneal cavity, the small uterus was somewhat distended, the right tube was half dilated, and blood oozed from its fimbriated end. At the next operation, after the ligation of the tube, it was found that the menstrual discharge of one period had tightly distended the uterus to the size of a two and a half months pregnancy. It was punctured, and amputated as low as possible through the distended cervix. No trace even of the upper part of the vagina was found. No similar case of regurgitation of blood into the peritoneal cavity without great dilatation of the uterus and Fallopian tube had been recorded. In this instance, the interstitial part of the tube was, as it happened, patulous. The attacks of pain must have been due to the contact of blood with the peritoneum. He suggested that some cases of dysmenorrhoea might be due to blood reaching the peritoneal cavity, say from a ruptured corpus luteum. He knew from his operative experience that such blood might leave no trace of its presence, but might be absorbed without the formation of any adhesions.

THE PRESIDENT recalled a case of entire absence of the vagina with a similar clinical history. The paired swelling, thought to be double haematosalpinx, was due to distension of a uterus didelphys. He believed that rupture of the corpus luteum, with escape of blood into the peritoneal cavity, had an association with dysmenorrhoea. He agreed that blood might be absorbed from the peritoneum without the formation of any adhesions.

Fibroids in Twin Sisters.

DR. R. W. JOHNSTONE (for Professor Sir Halliday Croom) recorded the case of twin sisters, closely resembling each other in external appearance, who began to menstruate on the same day, and had regular periods till the age of 30, when in both the discharge became profuse. One sister discharged spontaneously a submucous fibroid, and later had one ovary removed for multiple tumours of the uterus, the other ovary being too adherent to admit of removal. The other sister had both ovaries removed for the same condition. In both the menopause occurred long after, at the age of 50. After an interval of a year or two, haemorrhagic discharges recurred, and each developed adenocarcinoma of the uterus, spreading from the mucous membrane to the neighbouring tissue, and in one involving a fibroid nodule.

Pubiotomy.

DR. LAMOND LACKIE recorded three cases of pubiotomy performed for contraction of the pelvic brim. In all the conjugata vera measured 3¼ in. In the first, delivery in the Walcher position was easy. Convalescence was delayed by phlebitis. In the second the head was delivered in the R.O.P. position with difficulty, and severe pain in the left and later in the right, sacro-iliac joint supervened. In the third, delivery was again easy, but retention of urine persisted for ten days, and was followed by a slight cystitis. Dr. Lackie thought the operation a thoroughly good one in carefully selected cases, with a conjugata vera between 3 and 3¾ in. Forceps should first be tried, and, if unsuccessful, left *in situ* till the bone was severed. He thought the conjugate diameter was increased half an inch by pubiotomy, and another half-inch by the Walcher position. The operation should not be tried in primiparae. The infantile mortality was much lower than in induction of premature labour, and the operation was safe for the mother. The statistics also compared favourably with those of Caesarean section.

DR. W. FORDYCE said he had learnt that in Manchester the death-rate under 1 year and under 5 years was smaller in prematurely born than in full time children, perhaps because of greater care on the part of the mothers.

DR. KEPPIE PATERSON said that the immediate fetal death-rate of 35 per cent. in the induction of premature labour compared unfavourably with his figures in private practice.

DR. JAMES YOUNG referred to a case of pubiotomy recently communicated by him to the society, performed for contraction of the pelvic outlet. Like Dr. Lackie, he had found that the bones did not spring apart immediately after section. It was doubtful if any extra space was given by the adoption of the Walcher position after pubiotomy.

DR. ARMOUR asked whether the Walcher position had been made use of before pubiotomy, and, if so, with what result.

DR. JOHNSTONE said it had been urged against pubiotomy that it resulted in a diminution of the size of the outlet. He believed this did not occur in practice.

THE PRESIDENT said that he thought pubiotomy should not be performed when the head was above the brim, but only when forceps had been applied and the head was partially engaged. He did not agree that 1 in. was gained by the combination of pubiotomy and the Walcher position. The great benefit obtained by the operation was an increase in the cavity and at the outlet. Hence it was indicated in contractions at the outlet.

DR. LAMOND LACKIE said that the separation of the bones occurred only when the head entered the brim. He quoted other authorities in support of his view that pubiotomy along with the Walcher position gave an increase of an inch. Pubiotomy must add something, seeing that in two of his cases delivery was not effected by the Walcher position alone. He did not agree that it should not be performed unless the head was engaged at the brim.

Exhibits.

Specimens were shown by DR. B. P. WATSON (for Dr. Barbour), and by DR. W. FORDYCE. Among them were a fibroid tumour of the uterus weighing 32 lb., and a large fibro-myxomatous tumour of the mesentery.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF STATE MEDICINE.

Friday, April 12th, 1912.

DR. M. J. NOLAN, President, in the Chair.

Non-notifiable Infectious Diseases.

SIR JOHN MOORE drew attention to the fact that certain infectious diseases not notifiable in Ireland—measles, whooping-cough, influenza, diarrhoea, and pneumonia—levied a high death-toll on child life. In 1910, for example, they were responsible for 29 per cent. of the total infantile mortality. As remedies, he advocated: (1) The extension of the principle of notification as laid down in the Infectious Diseases Notification Act, 1889—a measure which should be universally adopted in Ireland as it had been long since in Great Britain; (2) a reform as to the lower limit of age for school attendance, so as to forbid the admission of children to schools under five years; (3) the introduction into Ireland of systematic inspection of schools; and (4) the appointment of female sanitary inspectors by all urban and rural sanitary authorities under the provisions of Section 11 of the Public Health (Ireland) Act, 1878.

THE PRESIDENT said that permissive legislation in medical matters ought to be discontinued, and especially so

with regard to notification of infectious diseases. He also agreed that children should not be sent to school before the age of 5, as epidemics usually arose amongst the very young children.

Sir William Thompson (Registrar-General) pointed out that Pembroke was the only district in Ireland where the notification of measles was compulsory, and the death-rate in that district from the disease was very much lower than in others.

Dr. Kirkpatrick did not look upon notification as the panacea for infectious diseases. Measles some time ago was a notifiable disease, but, as a result of the experience obtained, it had been given up, not by the local authorities but on the recommendation of the medical officers of health in England, on the ground that notification had failed to be of any use.

Dr. J. M. Day was of opinion that it was wrong to attribute all these deaths to measles. Measles was the scavenger disease of a city. Notification would not effect an improvement. One of the powers which medical officers of health had was the appointment of nurses, and he wondered why this power had not been exercised in Dublin. As to the age when children ought to be sent to school, children were sent there so that mothers might have more time to attend to household duties. He could not see what use it would be to notify cases of pneumonia, as there was little evidence that there were many cases contracted by contact.

ROYAL SOCIETY OF MEDICINE.

Obstetrical and Gynaecological Section.

At a meeting on May 2nd, Dr. Herbert Spencer, Vice-President, in the chair, Dr. Macnaughton-Jones recorded a case of *Ganglion neuroma* of the mesentery in a girl aged 18. The tumour which it formed had been noted when she was aged 5. It was not painful, the only symptoms being constipation and sickness; but since in the past year it had increased in size with some rapidity it was decided to remove it if possible. The tumour was situated between the layers of the mesentery, and was attached by some nine inches through the root of the latter to the vertebral column. There was rather severe haemorrhage during its final delivery. The patient ultimately made a good recovery. The exhibitor pointed out that such tumours were extremely rare, and he could find no previous record of one in this particular situation. Mr. Cuthbert Lockyer recorded a case in which he had had to perform *Embryotomy* after bipolar version for placenta praevia. The cervix, which admitted two fingers, continued to be resistant for two hours after a leg had been brought down; so, since the fetus had died about half an hour previously, it was decided to reduce the size of the fetal breech by incising the pelvic bones with stout, curved scissors. With difficulty the breech, and subsequently the shoulders and head, were delivered. The placenta was expelled spontaneously. The vaginal mucous membrane escaped laceration, but the perineal body and skin sustained a Λ-shaped tear, the apex of which was at the fourchette, and the two limits of which diverged to either side of the anus. The patient made an uninterrupted recovery. The fetus weighed 9 lb. Dr. A. W. Russell (Glasgow) described a method devised by himself for the performance of *Extraperitoneal Caesarean section*. He had employed it in 7 cases, including one case in which, owing to the bladder when filled not rising above the brim, the peritoneum had to be incised and the classical operation was performed. This patient was again admitted under the care of Dr. Munro Kerr a month ago, and the child delivered by the ordinary Caesarean section. Except for a few peritoneal adhesions, there was no sign of the previous operation. The other 6 cases were deliberately arranged, and completed as extraperitoneal Caesarean sections. They all had deformity; were all more or less advanced in labour; had all been handled, and 2 of them had a temperature at the time of the operation. One patient, who died as the operation was being completed, was a case in which, owing to the fetal heart being reported to be irregular and feeble, the patient was submitted to the full test of labour in the hope that the cervix would dilate and moulding of the head take place. When some hours later the fetal heart was found to be regular and strong, the extraperitoneal operation was decided upon, and but for the accident of the anaesthetic the patient would also have done well. Dr. Walter Sawyer (Clifton), in a paper on the *Clinical significance of acidosis in pregnancy*, drew the following among other conclusions: (1) The existence of albuminuria in pregnancy should always lead to investigations to ascertain the presence or absence of diacetic acid and acetone, and in certain cases, if these are absent, to the calculation of the urea and ammonia-nitrogen ratio; (2) the presence of albuminuria being one indication of the pre-eclamptic state, if diacetic acid and acetone are present the indication so given is confirmed; (3) in the presence of any symptoms which indicate the presence of a pregnancy toxaemia the tests for diacetic acid and acetone should be applied, and urea-ammonia-nitrogen ratio worked out; (4) the presence of acidosis in cases of vomiting is not due to starvation alone, but in great part to a pregnancy toxaemia; (5) acidosis, as generally found in diabetes, indicates the breaking down of fat owing to absence of glycogen. In pregnancy it probably indicates the same thing, but administration of glucose neither prevents it altogether nor leads to excretion of sugar in the urine.

Section of Laryngology.

At a meeting on May 3rd, Dr. StClair Thomson, President, in the chair, the following were among the exhibits: Mr. Douglas Harmer and Dr. Lewis Jones: A demonstration of diathermy in connexion with malignant growths of the mouth and pharynx. Several cases illustrating the beneficial action of the method were exhibited. Mr. W. Stuart-Low: A case of *Chronic loss of voice* in a man. The epiglottis was reduced to a stump, and the ventricular bands and vocal cords had been deeply eroded. The President regarded the case as one of lupus, and remarked that the date of onset of hoarseness, depending as it did upon the date of infection of the vocal cords, was no criterion as to the actual duration of the disease. Dr. A. S. Cobbledick: A case of *Double ethmoidal mucocele*. The general opinion was that such cases should be treated by the intranasal route. Dr. Lambert Lack: A case of *Chronic oedema of the fauces and larynx*. The condition had shown no alteration during the five years that the case had been under observation. Sir Felix Semon held that the term "chronic oedema" was inappropriate to conditions such as this, since pathological examination revealed nothing but round-cell infiltration. Inasmuch as the swelling might recede, a term which had been proposed as an alternative—namely, "sclerotic hyperplasia"—was also inapplicable. The exhibitor believed the lesion to be of syphilitic origin—a view which was supported by a positive Wassermann reaction. Dr. D. R. Paterson (Cardiff): A case of *Sarcoma of the thyroid*. Death had occurred as a result of haemorrhage into the trachea, following perforation of the latter. Dr. Bardswell: A case of *Laryngeal stenosis* brought about by what was probably tuberculous infiltration. Mr. Norman Patterson: A case of *Malignant disease of the pharynx and tongue*. The patient, a man aged 56, had been successfully operated on two years ago; so far no recurrence had been observed. Mr. Seccombe Hett: A case of *Laryngo-fissure*. The operation was performed for intrinsic carcinoma affecting the left vocal cord and anterior commissure. The voice had not returned since the operation, and this the exhibitor and other speakers thought might be remedied by vocal exercises. Mr. Cyril Horsford: Another case of *Laryngeal stenosis*, which was due to syphilitic infiltration, and was improving under iodides and mercury. Mr. G. J. Jenkins showed a case of *Epignathus*, or teratoid tumour of the nasal septum and base of the skull. The patient was a child aged 1½ years with cleft palate. Dr. StClair Thomson related the case of a patient who had worn a *Tracheotomy tube* for fifty years without obvious injury to health. Dr. Andrew Wylie: A case of *Specific ulceration of the tongue*, nasal septum, and larynx. The tongue showed an area of hardness which had raised suspicions of malignancy. Dr. William Hill: Skiagrams illustrating successful treatment of *Non-malignant stricture of the gullet*. Dr. Dan McKenzie: A case of *Bilateral oedema of the ethmoidal septum*, associated with nasal sinus suppuration. Drs. Fitzgerald Powell and L. Colledge: A woman exhibiting *Fixation of the left half*

of the larynx. Dr. J. MIDDLEMASS HUNT (Liverpool): A woman, aged 44, with a *Bony growth of the nose and naso-pharynx.* Malignancy was suspected.

LIVERPOOL MEDICAL INSTITUTION.

AT a meeting on May 2nd, Mr. ROBERT JONES, President, in the chair, Mr. G. NEWBOLT showed a case of *Subclavian aneurysm* in a woman aged 50. He had successfully ligatured the first part of the left subclavian artery, 1½ in. of the clavicle having been first removed. Dr. G. V. FLETCHER read a note on the *Treatment of whooping-cough* by the oral administration of small doses of adrenalin. Dr. R. A. BICKERSTETH, in a short paper on the *Catheterization of the ureters* and its uses, said he rarely used a general anaesthetic, as with the patient conscious there was less chance of injuring the parts. The catheter was useful as a probe or searcher in aid of the cystoscope, as in villous growth where the stalk involved the ureteral orifice, and in sacculated bladder. It might be used to obtain specimens of urine from each kidney, but as the catheter was of fine calibre the separator was preferable for this purpose. It was useful for strictures and obstructions in the ureter. The renal pelvis or the ureter could be washed out by its help. It could be used to estimate the degree of dilatation of the renal pelvis and calyces by injecting normal saline; the patient felt the same pain when these cavities were filled as in his attacks. In operating it was useful to have a catheter in the ureters for their protection. Mr. Bickersteth showed lantern slides illustrative of various points. Dr. C. J. MACALISTER, in a paper on the *Aesthetics of medicine*, spoke of the effect of medicine in increasing beauty, especially by the prevention of small-pox, and quoted Steele in the *Spectator* and Dickens in *Bleak House* as illustrative of the effect of the loss of beauty on the mind. Civilization was responsible for some defects, desuetude and constitutional disease produced deformity, as in the case of the teeth, which suffered from the use of soft, starchy food; mothers might be educated in the principles of a dietary. Dr. Macalister alluded to the effect of outdoor life and fresh air on the children at the Country Hospital for Children at Heswall in increasing the physical beauty of those who were under treatment for any length of time. He thought children in our large towns suffered from the environment of unrest.

WIGAN MEDICAL SOCIETY.

AT a meeting on April 17th, the PRESIDENT (Mr. T. M. Angior), in a paper on the *Value of suprarenal extract in Addison's disease*, expressed his adherence to the adrenal inadequacy theory of the causation of the disease, and then read the following notes of some cases which had been under his own care. Case I. A middle-aged man, father of three healthy children; no phthisis or tuberculous history. Complained of pain and tenderness in the back, and of weakness. On examination he was found to have a very compressible pulse, considerable muscle weakness, various pigmented areas in the skin and buccal mucous membrane, and he had had several attacks of syncope. Under treatment with tonics, nux vomica, etc., there was no improvement, but he began to improve shortly after being put upon 6-grain doses of suprarenal extract three times a day, with complete rest in bed at first, and good feeding. After a time he returned to work, and later still relinquished his medicine. Some months later, following some extra trouble and anxiety in his business, he again got symptoms of heart failure, etc., but was soon picked up again by the extract. Case II. Another man; no history of phthisis. Usual symptoms present, pigmentation being much more prominent than in the first case. Here also there is improvement, and the man is at present under treatment. Case III. Yet another man, aged 48; again no history nor signs of phthisis. Gastric symptoms and syncopal attacks a leading feature, and also some pigmentation. This case is under treatment and improving steadily. One group of cases seen by him at the Stanley Hospital, Liverpool, contained a mother, son, and daughter, all under treatment at the same time. The mother was getting as much as 20 grains of suprarenal extract three times a day. He had been able to attend *post-mortem* examinations in two cases, where the only discoverable lesion was some fibrous degeneration of the suprarenal glands. Dr. REES thought long-continued use of suprarenal extract might produce arterio-sclerosis. Dr. CAMPBELL said arterio-sclerosis could not result from treatment, as the extract was not absorbed owing to its action on the gastric blood vessels.

NORTH OF ENGLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

AT a meeting on April 19th, Dr. LLOYD ROBERTS, Vice-President, in the chair, Dr. BRIGGS (Liverpool) described (1) a case of *Benign adenoma* of the body of the uterus, accompanied by salpingitis and an old pyosalpinx. The patient, aged 51, had been married twenty-five years, and the youngest of her five children was aged 15 years. Her uterus had been prolapsed for about fifteen years, and a pessary was worn without discomfort until nine months ago, when a persistent daily metrostaxis commenced; a chronic cervical erosion and a recent senile vaginitis complicated the diagnosis. The case was treated by vaginal hysterectomy, the left tube being also removed. (2) A case of abdominal section for localized *Suppurative puerperal peritonitis*, accompanied by right oöphoritis, cellulitis, and slight salpingitis. The patient was aged 21, and the condition followed natural labour on February 21st. Cultures from the Fallopian tubes were obtained on blood serum of a short Gram-positive bacillus, giving an acid reaction in litmus media, forming gas in glucose and lactose and coagulating milk. (3) Another case of the same kind, which was similarly treated. Cultures on blood serum from the left Fallopian tube consisted of a Gram-positive diplococcus. Dr. GEMMELL (Liverpool) read a note on 3 cases of *Pregnancy with complications.* (*a*) Left chronic inflammatory appendage disease, with adhesion to the pelvic floor and to the uterus, simulating a fibroid in the left cornu of the uterus, leading to fixation of the uterus and previous abortions at ten to twelve weeks. With the uterus pregnant the adhesions were separated and the patient well, with the pregnancy now advanced beyond the fourth month. (*b*) Pregnancy at the third month, with signs and symptoms of peritoneal crises and internal haemorrhage. Abdominal section disclosed a normal pregnancy and severe haemorrhage from an intercapsular rupture of the spleen, without any history or sign of trauma. The spleen when removed was twice the size of the normal, with an extravasation of blood on its outer edge, subcapsular, and giving the appearance of a soft spongy growth. Microscopical sections had so far not exhibited any definite pathological change in the splenic tissue, but the histological investigation was not yet complete. Death took place in forty-eight hours, and at the necropsy all the other abdominal viscera were found to be normal. (*c*) Pregnancy at the sixth month, with a large appendicular abscess completely shut off from the general peritoneal cavity, and filling the utero-vesical pouch, forming a broad cystic swelling in front of and moving with the uterus. Incision and drainage was followed by premature labour, and improvement for a few days, with subsequent uterine infection and death. Dr. LEITH MURRAY (Liverpool) read a short paper on *Red degeneration of fibroids*, confirming a previous communication. The most thorough investigation by culture had proved three further specimens sterile both aërobically and anaërobically. A certain amount of thrombosis was present in all, but this had no relation to the haemolysis, but appeared rather to be proportionate to the severity of clinical symptoms. The conclusions drawn were that the condition is not an infection, that the thrombosis is secondary to a lipoidal haemolysis, that haemolysis is going on in every necrobiotic fibroid, but that this may be masked by a rapid bleaching action which can readily be demonstrated *in vitro*, and that the degeneration does not necessarily produce typical or in particular acute clinical signs.

ULSTER MEDICAL SOCIETY.

AT a laboratory meeting on May 9th, Dr. MCKISACK, President, in the chair, Professor SYMMERS, in opening a discussion on *Diphtheria and diphtheria carriers*, confined himself to one point. While working with urea, he

noticed its strong disinfecting action; it was very soluble, harmless in strong solutions to animal tissue, and he suggested it as a spray to infected throats. Dr. Wilson said it was remarkable that as the diphtheria bacillus disappeared a staphylococcus took its place; in addition, yeast became more and more evident, which was not found in tonsillitis. He had inoculated three guinea-pigs—one with diphtheria culture, another with diphtheria *plus* staphylococcus, and a third with diphtheria, staphylococcus, and yeast. The two former died quickly; the third was apparently uninjured. This problem was worth working out, and he suggested tablets of glucose to suck in cases of convalescent diphtheria. As regards microscopic diagnosis, he thought that Gram-positive bacilli without granules were frequently a form of the true bacillus. Dr. Dickson believed that the clinical examination was uncertain in its results. He had made something like 1,100 swab examinations and described his method; 75 per cent. of his positive results from direct examination were confirmed by cultural methods. Some 35 per cent. of all swabs were positive. There were cases where the clinical examination was against diphtheria, which proved on bacteriological examination to be positive; others in which clinical examination suspected diphtheria, that revealed a streptococcal growth, Vincent's angina, etc. Lastly, there were cases in good health, in which the microscope revealed the diphtheria bacillus, either in contacts or in carriers. Dr. Robb said that in his experience clinical examination was more reliable than bacteriological. Some 7 per cent. of healthy children in schools showed the presence of the diphtheria bacillus, 15 per cent. of a children's hospital gave the same result. The figures from Copenhagen showed a larger number of "returns" from the negatives than from the positives. At Purdysburn only 2 out of 800 cases gave "return" cases. On the whole he thought there was some *tertium quid*, and they had not reached finality. Sir John Byers thought there should be a close union between bacteriology and clinical work; there was something beyond the bacillus. What proof had they that the "return cases" were infected by the previous patient?

MEDICO-PSYCHOLOGICAL ASSOCIATION.

The spring meeting of the Northern and Midland Division of the Medico-Psychological Association was held at the Garlands Asylum, Carlisle, on April 18th, under the chairmanship of Dr. Farquharson. Dr. J. R. S. Anderson, in a paper on *Insomnia*, dealt with the various causes of the condition, and especially its relationship to the insane. He considered the various drugs in use for producing sleep and the methods of treatment that might be beneficial. Dr. Farquharson, Dr. McDowall, and others spoke on the paper, and a suggestion was put forward that a collective investigation on the use of sedatives in certain classes of cases might be attempted by the association. Dr. T. W. McDowall read a paper written jointly by himself and Dr. Colin McDowall on *Abnormal development of scalp*. He referred to a case reported by Poggi in 1884, and said that since that date a few writers had published cases and ventured on various explanations. He himself had published an account of a case in 1893. He gave a short description of cases recorded by Poggi, Lombroso, Gatti, Bravetta, and others, stating that Bravetta was of opinion that the furrows described by Poggi, etc., and found in degenerates, are only the continuations and exaggerations of the frontal furrows; they are found in some animals, as dogs, cats, lions, and monkeys. He described and illustrated by photographs a case at present in Cheddleton Asylum. He said that two questions were naturally suggested—on what do these abnormalities depend, and what significance should be attached to them? After a description of Langer's lines, illustrated by several photographs, he said that he was inclined to agree with the opinion of Professors Kundrat and Kaposi that "the brain had not advanced in growth, but the skin was sufficient for a normal skull and had developed independently in accordance with its own capacity for growth. But because the contents to be surrounded remained too small, the normally large skin was forced to arrange itself in folds over the small skull and in parts became atypic—that is, hypertrophied during development." Several members joined in the discussion. Dr. Parker read a paper on a case of *Dementia praecox*. The patient was a Jew, aged 36, admitted to Wakefield Asylum. He had a neurotic family history, and when admitted was suffering from melancholia, being impressed with the idea that there was a plot to convert him to Christianity. He improved rapidly in the asylum, and was discharged "recovered" after three months. Four days later he was readmitted—excited, violent, talkative, and destructive. He gradually lapsed into a cataleptoid state, becoming deeply stuporose, and requiring feeding and catheterization. This state gradually merged again into one of excitement, singing, dancing, etc. The question this case suggests is—what significance, especially in a prognostic sense, is to be attached to the mild delusional state which the patient presented when first admitted? Dr. Parker considered that the early paranoid symptoms in the case bore a close resemblance to those of acute curable paranoia, though the subsequent development was essentially different. It would thus appear that dementia praecox might first manifest itself in an atypical form by a mild delusional state, only differing from other mental disorders with a much less serious prognosis by the presence of hallucinations.

ASSOCIATION OF REGISTERED MEDICAL WOMEN.

At a meeting on May 7th, Dr. Dickinson Berry in the chair, papers were read dealing with various aspects of the work of *School medical inspection*. Dr. Seekings, Assistant School Medical Officer to the Tottenham Education Committee, gave an account of the routine duties of a school doctor. Mornings were usually devoted to the systematic examination of children entering and leaving school, in accordance with the statutory requirements of the Board of Education. Afternoons were occupied by such varied duties as the examination of special children sent up by attendance officers, the visitation of schools to investigate sanitary conditions or outbreaks of epidemic disease. School dinner centres had also to be inspected and classes on infant care, hygiene and mother craft to be supervised. At Tottenham one whole day a week was devoted to the recently inaugurated eye clinic. Increased interest in the welfare of their pupils had been aroused among teachers generally. Routine inspection entailed the examination of many normal and healthy children, but the conditions frequently revealed were of the greatest interest, and afforded material for research work in various directions. Dr. Wilson, Assistant Medical Officer of Health at Acton, speaking of some of the difficulties encountered in school work, said that first among these was that of obtaining the active co-operation of parents. Industrial conditions in the district, where a large amount of female married labour prevailed, were largely responsible for this. Other factors which militated against the aims of inspection were short hours of sleep among many of the children, and work out of school hours to augment the family income. Endeavours to combat these defects consisted in the provision of school dinners, of country holidays, and similar institutions. The speaker deplored the lamentable ignorance displayed by many parents as to the value of eye examination, the work of the oculist being often frustrated by very trivial excuses. Unsuitable clothing was another difficulty that had to be dealt with. By far the commonest mistake made was to overclothe the children, the garments in some cases reaching an almost incredible number. Defective carriage and postures were not infrequently due to tight or ill-fitting clothes. Reference was made to the numerous entertaining superstitions encountered among the parents, above all to the mysticism surrounding the charmed age of 7. Dr. Prudence Gaffikin, School Medical Officer at Enfield, dealt with some of the side-issues and underlying principles of the work, the interest of which was greatly enhanced if some special subject were taken up for investigation. As examples were mentioned problems in connexion with the economic side of child life, the influence of the period of lactation, or of the quality and quantity of food supplied. The speaker herself was particularly interested in rickets, laid stress on the frequent manifestations of the disease, and mentioned an interesting association she had observed between rickets and profuse menstruation. Investigations such as these robbed statistics of their proverbial dullness.

Reviews.

PARASITIC PROTOZOA.

IT is remarkable to find a third edition of a work such as Professor DOFLEIN'S *Lehrbuch der Protozoenkunde*[1] following so closely upon the second (1909). It is not a book which can appeal to a very numerous circle of readers, even admitting that it is indispensable to those interested in the subject; and, although the issue of the previous edition is exhausted, the chief necessity for a new edition must arise from the fact that advance in knowledge has been phenomenally rapid. Hitherto it was not unusual for a work of such compass to remain unedited and unchanged for a decade or even a generation without challenge and without loss of prestige. Modern science, however, moves more swiftly, and the present-day scientific mind is above all things *studiosa rerum novarum*. We have grown so accustomed to the kaleidoscopic changes that we are impatient of any monotonous run of "accepted beliefs," and we are always only too ready to replace the facts of yesterday by the discoveries of to-day and even the anticipations of to-morrow. Yet Professor Doflein's textbook is a sober record of steady progress. The general plan of the work is not materially altered, as will be gathered from Professor Minchin's exceedingly comprehensive and able review of the second edition (BRITISH MEDICAL JOURNAL, January 15th, 1910, pp. 142–3). The chief interest is to note the changes and improvements which have been made. In the first place there has been a considerable increase in bulk—nearly 150 pages—and a like number of illustrations have been added. Such an increase brings us near the limit of magnitude of a single volume, and it would be perhaps advisable that any further increase should be accompanied by a division into two parts. The illustrations, as in the second edition, are particularly good, and we are glad to notice that many, and indeed not a few of the best, are reproductions from the work of British artists. As might naturally be expected, it is in the "special part" that the principal changes have been made. The changes, however, are not of any sweeping character, and chiefly relate to matters of detail. One of the most important alterations is in regard to the taxonomy of the trypanosomes and their allies. Professor Doflein has radically altered his opinion in this matter, and has come into line with the view expressed in the previous review. The genera *Herpetomonas*, *Leptomonas*, and *Leishmania* are now included with *Trypanosoma* in the family *Trypanosomidae*. Several changes are to be noticed in the classification and relationships of the *Coccidia*, though none of these are of striking interest from a medical point of view. It may be remarked, however, that the haemogregarines are included along with the *Coccidia* and so removed from the *Haemosporidia*. That most remarkable group the *Chlamydozoa* is merely mentioned, and the author, although not denying their existence as organisms, considers that they are of bacterial rather than protozoal nature. As a work of reference and as a guide to existing knowledge Professor Doflein's textbook could hardly be improved upon at present. Its usefulness is greatly aided by a very full index of authors and subjects.

In *The Parasitic Amoebae of Man*,[2] Captain C. F. CRAIG deals with a subject to which he has devoted a considerable amount of personal attention, and one which is of no little importance to the student of tropical medicine. It was only fifty years ago that Lambl made the first discovery of amoebae in the faeces of man. No great importance was attached to these observations, and it was not until twenty-five years later that Kartulis demonstrated the close connexion between amoebae and dysentery. Even these results, in spite of the obvious interpretation to which they were open, were ignored, and it required the classical monograph of Councilman and Lafleur in 1891 and the later epoch-making researches of Schaudinn in 1903 to establish the pathogenic nature of the amoebae and their relation to disease. Captain Craig himself has, during the last decade, been largely instrumental in furthering our knowledge of these organisms, and his present work has on that account the much-desired advantage of being a summary of first-hand knowledge. It is therefore a competent work, treated in a satisfactory and able manner. It gives, as one would expect, a general account of amoebae and of the technique for their identification and cultivation. It also gives a very full account of the morphology and life-history of the numerous species of Entamoeba which have been described from man, not only from the intestine, but also from the mouth, from the urinary tract, and from various lesions in the body. In addition to full descriptions of the various species, their bionomics are discussed. Numerous carefully executed illustrations enhance the value of the book, which can be thoroughly recommended to all those interested in the subject.

Four years have elapsed since the publication of the second part of Mr. JACKSON CLARKE'S *Protozoa and Disease*, and now the third volume appears boldly under the title of *The Cause of Cancer*.[3] Over ten years ago, before the transplantability of animal tumours gave such a fruitful field for the experimental investigation of malignant disease, the parasitic theory of the causation of cancer had many supporters, and though, indeed, it cannot be said that recent observations have definitely excluded such a causal agent, yet it is doubtful if, of the various writers who believed that they had identified a parasite in malignant disease, many now adhere to their former faith. Mr. Jackson Clarke is still faithful. His cancer "protozoon" is the same as the "psorosperm" that he demonstrated twenty years ago to the Pathological Society of London. The Morbid Growths Committee of that society reported on his preparations and severely criticized his views, and much of the book is given up to this long-forgotten matter. He is now anxious that his claims should be retried by other judges conforming more to his standard of capability. "In all this land," he says, "there may be but *one* so fitted, and it is he that brings this appeal." He gives no very definite reasons why he concluded that he was dealing with a parasite. Several figures in the text and numerous drawings at the end of the book show the various stages of the protozoon as they appear to him—not, perhaps, as they would appear to others, for he has found that "you may take a pathologist to the microscope, but you cannot make him try to see what is under it." To Mr. Clarke's eyes the "cell-inclusions"—a loose though convenient term for various microscopic structures, the real origin and nature of which are in most, if not all, cases perfectly well known nowadays—are stages in the life-history of some protozoon, and, consequently, this protozoon is the cause of cancer.

THE UPPER RESPIRATORY PASSAGES.

THROUGHOUT the whole gamut of laryngology, and, in fact, of medical and surgical practice, it would be difficult to mention a condition more distressing to the patient and to the friends of the patient than that of laryngeal stenosis. It would be equally difficult to mention a condition that at times has so hopelessly baffled the resources of medical and surgical science. Reference is not made to sudden cases of laryngeal obstruction that have to be relieved by tracheotomy, but more particularly to cases of gradual onset, and to those in which tracheotomy has been performed, and subsequently the tracheotomy tube cannot be dispensed with. The patient—not uncommonly a child—exhibits a condition in which a structure which should be a joy to the parents becomes a veritable citadel of misery. This subject has been discussed within recent years in the medical societies, but it was more fully discussed at the meeting of the British Medical Association in Belfast in 1909; it came up again incidentally for discussion at the Royal Society of Medicine in May, 1911. Those desirous of gleaning the modern views on this matter could not do better than study the reports of these two discussions (BRITISH MEDICAL JOURNAL, October 16th, 1909, pp. 1140–1149; *Proceedings of the Royal Society of Medicine*, vol. iv,

[1] *Lehrbuch der Protozoenkunde*. Von Dr. F. Doflein. Dritte stark vermehrte Auflage. Jena: Gustav Fischer. 1911. (Sup. roy. 8vo, pp. 1055, 951 Abb. M. 26.50 broschiert; M. 29 gebunden.)

[2] *The Parasitic Amoebae of Man*. By Charles F. Craig, M.D., Captain, Medical Corps, United States Army. Philadelphia and London: J. B. Lippincott Company. 1911. (Med. 8vo, pp. 263, figs. 30. Price 10s. 6d. net.)

[3] *The Cause of Cancer*. Being Part III of *Protozoa and Disease*. By J. Jackson Clarke, M.B., F.R.C.S. London: Baillière, Tindall, and Cox. 1912. (Fcap. 4to, pp. 124; 11 plates. 7s. 6d.)

No. 7; *Proceedings, Sec. Laryngology*, April, 1911, pp. 109–112), but in addition, we would refer readers to Professor Bokay's[4] monograph on intubation of the larynx. In his preface the author cites authorities for the statement that intubation of the larynx is "one of the great advances in this age of medical discovery." Dr. Joseph O'Dwyer died in New York on January 7th, 1898, and with his name will ever be associated the form of medical relief with which we are dealing. For various reasons, partly owing to the difficulty at times in introducing the tubes, and partly owing to a lack of experience as to the length of time that the tubes ought to be left *in situ*, intubation of the larynx has not received the attention to which it is entitled, and has fallen out of practice. Readers of the discussion at Belfast will realize that their views about intubation of the larynx have been completely revolutionized by the work done in America. They will realize that it is useless to put in an intubation tube for a week or two, or only for a night, but that such tubes have to be worn night and day continuously for months, and even for years. Of course, time alone will prove the value of this procedure, but, in view of the distressing conditions which have to be relieved, Professor Bokay's monograph will be studied by a large number of practitioners directly interested in the subject. Professor Bokay has dealt exhaustively with the technique and the indications for the practice of intubation; his work is most welcome at a time when the means of remedying the stenosis of the larynx resulting from cicatricial conditions is occupying the attention of the profession.

In the flood of textbooks and atlases describing and illustrating the appearances revealed by modern endoscopic methods the pathological picture has been far from prominent. It is, therefore, with the greatest interest that we turn to Dr. Mann's *Atlas of Killian's Tracheo-bronchoscopy*,[5] which consists of a collection of coloured pictures of the pathological appearances in the organs removed in cases in which the nature of the disease had been revealed, or, at all events, investigated clinically by means of bronchoscopy and oesophagoscopy. It is a collection of twenty life-size coloured plates to which are attached short accounts of the clinical symptoms, the endoscopic appearances, and the causes of death. They are taken from 15 cases which were chiefly characterized by tracheal stridor; 4 of them were concerned with the thyroid gland; in 2 cases carcinoma of the oesophagus had invaded the trachea; aneurysm accounted for several; and among the whole collection of cases there were 3 of carcinoma, involving respectively the right and the left main bronchi, the lower portion of the trachea, and both bronchi. A case of scleroma is included, and in some cases there were evidences of syphilis, quite a common cause of tracheal stenosis, though from the curable nature of the disease less frequently found on the *post-mortem* table than at the bedside. Among the interesting endoscopic appearances we may note spreading out of the carina produced by a growth below the bifurcation. The cases are extremely typical, and the appearances very artistically and realistically produced. This atlas should be carefully studied by every laryngologist and endoscopist. The English translation has been made by Mr. Thomas Guthrie of Liverpool, who has already done service to British specialists in a similar way. This work affords the most rigid criterion of the value of this method of clinical examination, and it will be agreed that it has stood the test thoroughly, as this atlas shows. It is no wonder that such pictures as were demonstrated before the Society of German Laryngologists won the approbation of all who saw them.

In reviewing the second edition of Dr. Fein's little volume[6] of hints in the treatment of diseases of the nose and larynx, there is little to be added to the praise given to the first edition. Only a few slight additions have been made. There is now a section on acute catarrh, and there are a few further illustrations. The author has wisely avoided packing and expanding the text with details and information unessential for the general practitioner, for whom the book is intended. The hints with reference to nasal haemorrhage are useful, also those with respect to blowing the nose, a point generally neglected but of real importance to the subjects of nasal disease. Stress is laid upon the importance of proper breathing exercises after the removal of adenoids and tonsils. Attention is also drawn to the aid that prosthetic dentistry can give in cases of bony deformity of the jaws in these cases. There is nothing but praise for this small book, and, for those who do not read German, there is an English translation of the first edition, which is practically identical with the second, and which can be confidently recommended to the general practitioner.

GALL STONES.

The chapter in Professor Albu's encyclopaedia on the present position of the pathology and treatment of gall stones[7] is by Dr. Ludwig Arnsperger, Privatdozent at Heidelberg. It is a good summary, without any pretension to add anything new. He accepts the conclusion expressed by Aschoff and Bacmeister in their very important monograph on cholelithiasis and the pathogenesis of gall stones, reviewed on May 21st, 1910, p. 1237. These observers seem to have proved that Naunyn was wrong in contending that inflammation of the bile passages or gall bladder is essential to the precipitation of cholesterin. They showed that there are two kinds of stones, one composed of pure cholesterin around a nucleus of pigment, displaying on section a structure of radiating rods. Such a stone is to be found in non-infected gall bladders, arises independently of inflammation, and is generally solitary. On the other hand, stones caused by inflammation and secondary to infection show a laminated structure and are composed of cholesterin, lime salts, and pigment mixed together. A pure cholesterin stone may, however, set up inflammation and be enclosed in a layer of laminated deposit. Dr. Arnsperger accepts these conclusions. Every one knows of the frequency with which gall stones are found after death; they are said to be present in 10 per cent., though in 95 per cent. of this tenth there have been no clinical symptoms during life. They become much more common as age advances, and over 60 years of age 50 per cent. of all women are said to have gall stones. The increased frequency in women is very remarkable; according to statistics of the Heidelberg clinic gall stones were found in 46 males and 346 females; they are much more common in women who have borne children. The common belief that gall stones give rise to cancer of the bile passages is due to the frequency of the association, but the author follows Aschoff and Bacmeister in doubting this relation and believing that carcinoma frequently develops from a congenital adenoma of the gall bladder. In the matter of treatment Dr. Arnsperger has nothing novel to suggest, and while he mentions the various well-known measures, he says little to guide us in our choice. With regard to surgical operation, although he says that at Heidelberg recurrence has been very rare after cholecystotomy, he thinks extirpation of the gall bladder is the better operation.

MEDICAL ENTOMOLOGY.

Of the classes and orders, of the genera and myriad species, of insects, to write a full and comprehensive account would be a superhuman task. To deal even with the comparatively small number which directly or indirectly affect the well-being of man is in itself no light labour, and Lieutenant-Colonel Alcock, in his *Entomology for Medical Officers*,[8] has attempted to cover the whole realm, not only of *Insecta* proper, but also of *Arachnida* and *Crustacea*. His book is a guide, and a very good and reliable one, but

[4] *Die Lehre von der Intubation.* By Professor Dr. J. Von Bokay. With 113 illustrations and 2 tables in the text. Leipzig: Verlag Von F. C. Vogel. 1908. (Demy 4to pp. 262. M. 10.)

[5] *Atlas of Killian's Tracheo-bronchoscopy.* (Coloured plates representing pathological preparations from cases examined during life by means of tracheo-bronchoscopy.) By Sanitätsrat Dr. Mann, Director of the Ear, Nose, and Throat Department in the City Hospital, Dresden Friedrichstadt. Translated by Thomas Guthrie, M.B., F.R.C.S., Liverpool. London: John Bale, Sons and Danielsson, Ltd.; and Würzburg: Curt Kabitzsch. 1911. (Imp. 4to, tables 15. 22s. net.)

[6] *Rhino- und Laryngologische Wirke für praktische Aerzte.* 2 Auf. By Dr. Johann Fein. Berlin and Vienna: Urban and Schwarzenberg. (Demy 8vo, pp. 208; plates 7; figs. 42. M. 6.)

[7] *Sammlung zwangloser Abhandlungen aus dem Gebiete der Verdauungs- und Stoffwechsel-Krankheiten.* Herausgegeben von Professor Dr. A. Albu in Berlin. Band III, Heft 3. *Der Gegenwaertige Stand der Pathologie und Therapie der Gallensteinkrankheit.* Von Dr. Ludwig Arnsperger. Halle a.S.: Carl Marhold. 1911. (Med. 8vo, pp. 79. M. 2.)

[8] *Entomology for Medical Officers.* By A. Alcock, C.I.E., M.B., LL.D., F.R.S. London: Gurney and Jackson. 1911. (Med. 8vo. pp. 367; figs. 136. Price 9s. net.)

its small compass prohibits any full treatment. The chapter on fleas is a case in point. Only eleven pages can be afforded for this important group, carriers as they are of bacterial, protozoal, and helminthic infections. Only the generic character of these forms can be mentioned, and these only briefly; of the specific characters barely a mention in a few cases can be given. The same criticism might be applied to some other groups, although in certain cases the description is remarkably full. What Dr. Alcock would have needed would have been half a dozen or even a dozen volumes of a size similar to his present work. Such an extended work would be extremely useful to those who have to deal with medical entomology. Dr. Alcock's volume will serve as a reference guide to a host of other works, far exceeding a dozen in number in any particular case, all of which must be turned up by the conscientious worker, and many of which are inaccessible to the worker in the tropics. This criticism applies not particularly to Dr. Alcock's work, but to all works purporting to give an account of the animal parasites of man. In most cases they fail, owing to their small scale, to give the isolated worker in the tropics an adequate and up-to-date account of the subjects treated.

It is, however, easier to criticize this defect in current medical literature than to suggest a practical remedy. There are serious commercial considerations to be taken into account as well as difficulties of transport in undeveloped countries. Possibly a solution might be found by the way of the thin tough modern paper favoured by the printers of the Universities of Oxford and Cambridge if the school in which Dr. Alcock is a distinguished teacher could obtain a special subsidy from the Colonial and India Offices. Such introductory works as his will act as a stimulus to scientifically minded workers, and may help to create a demand for the larger work they need. For such a purpose the value of the book depends not only on the mode in which it treats the subject, but also, to a greater extent, on the references to literature dealing with the subject. As Dr. Alcock correctly remarks, the work of Manson and Ross has necessitated an acquaintance with medical entomology, and, we may add, with medical protozoology and helminthology as well. But, at the same time, it must not be forgotten that the same work has, during the course of twenty years, called forth an enormous mass of literature, both directly and indirectly concerned with it. Dr. Alcock's book, as we have already remarked, is worthy of the highest commendation so far as it goes; its inadequacy to accomplish all that is desirable can have been apparent to none more than to its accomplished author.

THE MILK SUPPLY.

THE safeguarding of the milk supply is and has been for some time a matter of great public concern, and if for no other reason Dr. SAVAGE'S *Milk and the Public Health*[9] will be eagerly welcomed by public health authorities. Constituting as it does one of the most important individual articles of human food, and intimately connected as it is with the spread of tuberculosis and other infectious diseases, it is not surprising that an enormous number of intricate scientific and administrative problems have grown up around milk and its supply, and that those have found partial expression in an ever-increasing mass of legislation. Dr. Savage's work is one of the first to deal in a comprehensive fashion with these all-too-numerous problems. The various matters have in most instances furnished the subject of extensive official reports, and have been summarized more or less adequately in general works on public health and food inspection; but it has seemed to the author—an opinion with which most will agree—that the subject warranted a much fuller general treatment. Now that we have this in the shape of Dr. Savage's volume the result may at first sight appear not a little disappointing. Such a feeling will be engendered chiefly for two reasons—first, that, in spite of the enormous amount of work and anxious thought which has been expended, many of the questions involved remain almost *in statu quo*, and, secondly, that no new ideas or suggestions of prime importance are put forward, Dr. Savage having confined himself, except in certain instances, to a somewhat non-committal treatment. These matters of disappointment, however, are to be laid to the blame of the subject, not of the book. For the most part the latter justifies, and in some cases exceeds, expectation. The general chemical and bacteriological facts relating to milk are reviewed in the routine fashion, albeit in considerable detail. Although, as might have been expected, Dr. Savage shows a thorough acquaintance with this part of his subject, yet he has not avoided a few slips. For example, it is unnecessary to point out the obvious inconsistency on p. 7, par. 3, in regard to the fat in cow's milk. Again, he gives a confused impression as to whether he regards *B. acidi lactici* (Hueppe) and *B. lactis acidi* (Leichmann) as one and the same organism. One or two other instances might be pointed out, but they are so essentially trivial as not to merit mention. Some of the best chapters are those on milk in relation to the infectious diseases, that on child mortality being particularly welcome. Special mention should be made of the addendum on milk-borne sore throat outbreaks. Such epidemics, especially of a mild character, are not always thoroughly investigated by public health authorities; but, as Dr. Savage definitely indicates, they undoubtedly owe their origin in not a few instances to the milk supply. Details of twenty of these outbreaks are set forth at some length, and they will certainly do much to direct attention to this matter. Part III, which deals with the administrative control of the milk supply, affords, as might be expected, the most interesting reading. As to what we want, Dr. Savage, like most other authorities, is in no manner of doubt; how to get it remains a hard question, tempered by his personal experience. The matter of the control of milch cows, for instance, especially of tuberculous cows, has a multitude of irritatingly sharp points. The tardiness in the diagnosis of tubercle bacilli in milk has been and still is an obstacle in the way of administrative procedure. The segregation of infected animals is another serious problem for which Dr. Savage sees little hope of solution in this country for the present. His chapter on the existing conditions of the milk supply and suggested reforms are well written and particularly well illustrated, while in another part of the book he has selected some of the more feasible reforms advocated and practised in other countries. In conclusion, it may be noted that Appendix VI contains a very hopeful sign of the times in the shape of the "Sanitary Rules, etc." enforced by Messrs. Welford and Sons at their farms and dairies.

[9] *Milk and the Public Health.* By W. G. Savage, B.Sc., M.D., D.P.H., County Medical Officer of Health, Somerset. London: Macmillan and Co., Limited. 1912. (Medium 8vo, pp. 469, 38 figures, price 10s. net.)

GUY'S HOSPITAL REPORTS.

THE sixty-fifth volume of the *Guy's Hospital Reports*,[10] like its immediate predecessor, includes a good article on the surgery of the ileo-caecal region. Following Mr. Nathan Mutch's monograph on the treatment of appendicitis, based on over 500 cases, we find in the present volume a communication by Dr. Herbert French, Mr. R. P. Rowlands, and Mr. E. P. Poulton, on tuberculous stricture of the ileo-caecal valve, with a successful excision of the caecum and ascending colon. It includes instructive skiagrams. Year by year we witness wonderful advances in intestinal surgery, based, it can hardly be doubted, on the great frequency of operations on the appendix during the past twenty years. Experience of the surgical anatomy of the caecum and its valvular communication with the small intestine was gained as surgeons grew bolder in tackling complicated cases of appendicular disease. Mr. Philip Turner directs attention to the surgery of an intestinal anomaly in his three cases of persistent Meckel's diverticulum. An operation on a man aged 22 proved perfectly successful, as did another on a female child aged 3, while in the third case, a female child not quite 2 years of age, surgery came too late to save life. Mr. L. Bromley contributes an important article on the operative treatment of exophthalmic goitre which deserves to be read in association with Dr. W. Hale White's paper on the outlook of sufferers from exophthalmic goitre, which, reprinted from a recent number of the *Quarterly Journal of Medicine*, heads the present volume. Dr. Bellingham Smith and Mr. W. Wilson have contributed an article occupying over sixty pages on the administration of radium and its derivatives

[10] *Guy's Hospital Reports.* Edited by F. J. Steward, M.S., and Herbert French, M.D. Vol. lxv, being vol. 1 of the third series. London: J. and A. Churchill. 1911. (Med. 8vo, pp. 452.)

with reference to their possible application to cancer. The series of experiments and observations on mouse cancer deserve close study. The writers do not find that radium, whether employed externally or internally, has anything like a permanent curative influence on cancer. This volume also contains some good papers on medical subjects, among the most important of which we may distinguish Dr. H. L. Attwater's pontine haemorrhages, a review of nearly seventy cases under observation at Guy's Hospital during the past thirty-six years.

TOBACCO AND NERVOUS DISEASE.

THE extent to which the use or abuse of tobacco is responsible for disorder of the nervous system has been much disputed. At the present time the evil effects of excessive smoking are being more fully recognized than they were a few years ago. Professor VON FRANKL-HOCHWART[11] has published a pamphlet in which he summarizes his own observations on the nervous disorders of tobacco smokers, or rather of cigar and cigarette smokers, for he has had little experience of what he calls the Anglo-American method of smoking cigarette tobacco in short pipes. The patients were mostly from his own private practice; 570 out of 800 of them smoked, and of the 570, 245 smoked cigars, 325 cigarettes. He divides smokers into four classes—light, moderate, heavy, and excessive smokers; he estimates that 15 per cent. of smokers are heavy smokers, and that 13 per cent. are excessive smokers. The nervous signs and symptoms of tobacco poisoning he describes in three chapters, according as they are cerebral, spinal-peripheral, or affect the internal organs. A fourth chapter discusses the relation of nicotinism to other disorders and intoxications; it is interesting to note that 41 per cent. of 202 patients with probably true nervous syphilis were heavy or excessive smokers, as compared with the normal, 19 per cent. of heavy or excessive smokers found among 800 persons; and similarly, 34 per cent. of 583 men with tabes or general paralysis were heavy or excessive smokers. The author himself has never smoked; he generally contents himself, however, with advising moderation in smoking rather than abstinence, and in the case of alcohol he advises temperate use rather than teetotalism. Details of 34 cases with nervous symptoms due to tobacco, mainly observed by himself, are given in an appendix, with about 100 references to the literature. The author writes without any *parti pris*, and his book rather opens one's eyes to the multiplicity of the symptoms that may be set down to over-smoking; it may be warmly commended to the specialist and to the general practitioner alike.

The author of *The Tobacco Habit*[12] is more comprehensive, for he traces business blunders, national hebetude, domestic infelicity, gambling, drinking, acute homicidal mania, delirium tremens, chronic insanity, sterility and other ills to tobacco smoking; from an analysis of the number of children born to 38 non-smokers and 57 smokers he draws the conclusion that the nation is not only losing its male offspring, but is on the high road to extinction.

NOTES ON BOOKS.

Evans's Analytical Notes for 1911[13] consists of selections from the records of work done during the year in the laboratories of Messrs. Evans, Sons, Lescher, and Webb, Limited, in testing samples of crude drugs and manufactured products before accepting them for use in medicine. Out of the 1,700 samples referred to, over 200 failed to come up to the requisite standard. This is, of course, chiefly due to variations in drugs as collected—for example, differences in alkaloidal strength of belladonna root, etc.; such variations may be caused by differences in the weather of different years, and similar natural circumstances. In some of the cases recorded manufactured products are dealt with, and grave deficiencies are occasionally revealed. Such accumulations of data as are here given are very useful to those engaged in carrying out such work, and give evidence of great care in the selection of drugs for use and sale.

In an address[14] delivered before a meeting of the Church of England Temperance Society at Devizes, Dr. MACKAY of that town recognizes that a cool draught of beer appeals to the thirsty man, and the bouquet of matured wine to the educated palate, and concludes that those who use alcoholic beverages "to relieve natural thirst or as a substitute for water at meals, or merely for the satisfaction of the palate" are not those with whom a temperance society is concerned. Although he accepts Dr. Archdall Reid's view that the alcoholic question will settle itself by elimination of the unfit, if those who want alcohol are allowed to have it in plenty, he does not undervalue the effects of education, good cookery, and healthy dwellings in helping to check intemperance. Von Bibra estimated that coffee is used by two million people, Paraguay tea by ten million, coca by as many, chicory by forty million, cacao (as chocolate or in some other form) by fifty million, hashish by 300 million, opium by 400 million, and China tea by 500 million; whilst all known nations use tobacco, either for smoking, chewing or snuffing. In fact, no considerable tract of the earth's surface is without some special indigenous plant used by the natives, either medicinally or in everyday life. The problem that confronts the world is to restrict the use of these toxic substances within harmless limits. Dr. Mackay's pamphlet will help to do this; whilst the rejoinder he makes to a pro-alcohol critic of his address is very much to the point. Dr. Mackay refers to the lessened consumption of alcohol in hospitals. At the Salisbury County Hospital, for example, in 1865 the milk bill was £94, that for alcoholic stimulants £302. Thirty years later (in 1896) the figures were reversed, milk costing £335 and stimulants only £95. The difference between present-day practice in the prescription of alcohol and that which obtained after Dr. Todd's advocacy of stimulants is doubtless very great. Though subsequent experience has modified their theories and practice as to alcohol, our obligations to Dr. Todd and his school, for demonstrating the futility of wholesale bleeding, leeching, and cupping, remain. The wonder is that in his short life Dr. Todd effected so marvellous a revolution in medical practice. He died at the age of 51 from haematemesis secondary to cirrhosis of the liver—apparently an example of a doctor who followed his own prescriptions.

Bibby's Book on Milk[15] is, if nothing else, good value for the money. That it is more than that, however, may be readily admitted. It is a serious, and, so far as it goes, highly successful attempt to collect the material facts and the opinions of the most eminent authorities with regard to the production, handling, and use of milk. Seven sections are arranged for, and the present one deals with bovine tuberculosis. It is chiefly the work of Mr. John Hanley, the laboratory manager of Messrs. J. Bibby and Sons, and it can certainly be affirmed that it redounds greatly to his credit. Such a work can hardly fail to be of great service and utility if it finds its way into the hands of farmers and milk producers, for whom it is intended.

The long arm of coincidence is perhaps unduly strained at times in unravelling the mystery of *The Squatter's Bairn*,[16] but those of Mr. E. J. MATHER'S readers who are prepared not to cavil at a few improbabilities will find plenty to amuse and interest them in this story of a South Australian sheep farm. The little English girl who is rescued from the tribe of aboriginals amongst whom she has been brought up, lives to marry her rescuer and to be restored to the arms of her distinguished father, though not before a series of mild adventures has threatened her happiness. The story is rather too long, but it contains some pretty descriptions of Australian scenery; and Mr. Mather has added an appendix full of useful information for the benefit of intending settlers or tourists. A large number of really charming photographs are included in the volume, which also boasts a coloured frontispiece by Mr. Harold Copping.

[11] *Die nervosen Erkrankungen der Tabakraucher.* Von Professor Dr. L. von Frankl-Hochwart. Vienna and Leipzig: A. Holder. 1912. (Roy. 8vo, pp. 91, Abb. 1, M. 2.80.)

[12] *The Tobacco Habit, its History and Pathology.* By Herbert H. Tidswell, M.R.C.S., L.R.C.P. London: J. and A. Churchill. 1911. (Crown 8vo, pp. 246, 3s. 6d. net.)

[13] *Evans's Analytical Notes for 1911.* From the laboratories of Evans, Sons, Lescher, and Webb, Limited, Liverpool, London, and New York. February, 1912. Gratis on application.

[14] *The Scientific Aspect of the Temperance Question.* Published at the *Advertiser* Printing Works, Devizes. 1d.

[15] *Bibby's Book on Milk.* Section IV: *Bovine Tuberculosis: Causes, Cure, and Eradication.* Liverpool: J. Bibby and Sons. 1912. (Med. 8vo, pp. 475; figs. 22; plates 23. Price 10s. net.)

[16] *The Squatter's Bairn.* By E. J. Mather, with a coloured frontispiece by Harold Copping. London: Rebman, Ltd. 1912. (Demy 8vo, pp. 352, illustrations 25, 6s.)

MEDICAL AND SURGICAL APPLIANCES.

A New Design of Clinical Thermometer.

DR. T. WILSON PARRY (Crouch End Hill, N.) writes: For many reasons the ordinary straight clinical thermometer now in use is not an ideal instrument. The general practitioner, to his sorrow, is constantly reminded of this. He inserts, with punctilious care, the glass bulb of the tube under the patient's tongue. A few seconds later, experience having taught him that in certain cases it will not long remain there, he takes a peep to see whether the bulb still lies in the position in which it was placed. Instead, however, he finds it lying complacently on the top of the tongue, the patient being blissfully unaware that anything is wrong. Even if placed in the proper position under the tongue of an expert for a minute, or half-minute, as the case may be, the registration of

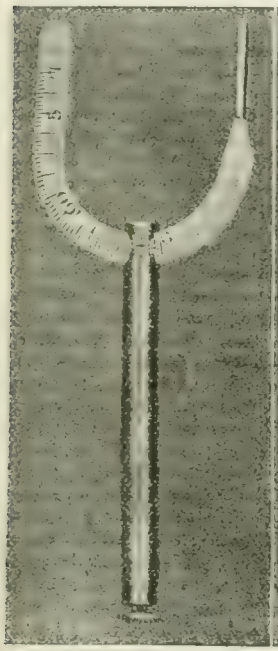


Fig. 1.

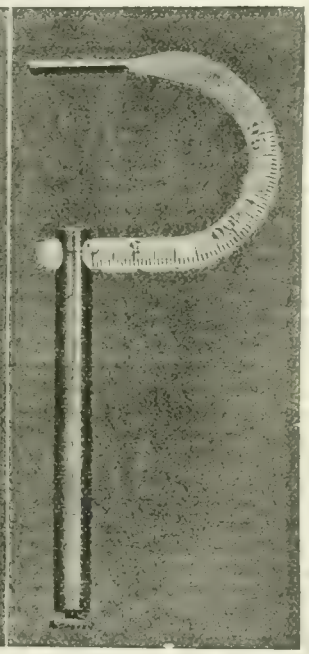


Fig. 2.

temperature is not scientifically accurate. In the process of graduating a clinical thermometer the whole instrument is immersed in water of known temperature while the marks to signify the different degrees are being made on the glass tube. It follows logically, therefore, that the whole thermometer ought to lie under the patient's tongue, in order to ascertain the temperature in that part. The thermometer I now wish to place before the profession is an ordinary small one which has been carefully curved to lie on the floor of the mouth, under the tongue, without the possibility of rising above it (Fig. 1). For convenience sake, there is a small shaft, to serve as a handle, with a hole at one end, through which the glass tube passes, and a screw at the other, which can be adjusted to fix the thermometer at any required angle. To shake the mercury down, the handle is moved for a moment to the distal end, the screw readjusted to hold it in this new position (Fig. 2), and a few vigorous jerks will bring about the desired result.

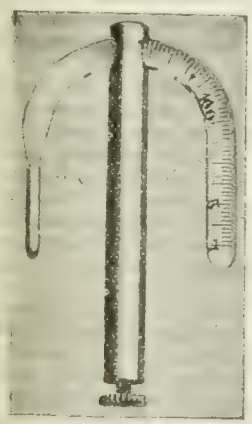


Fig. 3.

The practical advantages of this new thermometer are:

1. That, on account of its shape, it can be easily placed and retained sublingually in the best possible position for obtaining an accurate temperature.

2. That, on account of its total submersion under the tongue, it gives a more scientifically accurate registration than the ordinary straight thermometer.

3. That the increased leverage obtained by fixing the handle at the distal end of the tube enables the mercury to be the more readily shaken down.

4. The risks of breakage of the thermometer by the patient's teeth are entirely obviated.

The thermometer has been made for me by Mr. Francis Cooper, Tottenham Lane, Hornsey, from whom both it and all information respecting it can be obtained.

THE INTERNATIONAL ASSOCIATION OF THE MEDICAL PRESS.

ON the day previous to the meeting at Rome of the International Congress on Tuberculosis the Committee representing the International Association of the Medical Press assembled at the Castel Sant Angelo. Two sittings were held. The first was devoted mainly to the lengthy report presented by the General Secretary, Dr. R. Blondel. It was at Rome that the idea of forming the association arose, as a result of the great difficulties encountered by the representatives of the press who attended the International Medical Congress which met there in 1894. The Congress on Tuberculosis which has just terminated its labours illustrates the benefits resulting from the organization of the medical press. Before this congress had begun, Dr. Blondel was able to explain that arrangements had been made to issue to the press a daily printed summary of the proceeding in each section.

The report of the proceedings of the International Medical Press Association, of which a draft was submitted at Lisbon in 1906, had never been published because among other reasons they had waited for a reconciliation to take place in Italy, the Italian Medical Press Association having split into rival organizations. A reconciliation had now been happily effected, and it was proposed to proceed with the publication in question. A lengthy discussion followed as to how the affiliated journals should be mentioned in the report of proceedings.

A good deal was said about the permanent committee of the Medical Congress which has its head quarters at The Hague, and it was accused by the French and Italian representatives of interfering too much with the methods of proceeding each country thought fit to adopt. Dr. DEJACE, Vice-President, who presided, in the absence of the President, Dr. Lucas-Championnière, detained at Florence by illness, pointed out that this discussion showed how nations differed and that this rendered internationalism difficult. In Belgium the instructions from The Hague had been well received and carried out successfully.

An important debate followed on the reporting of the extemporary discussions that should be encouraged at congresses. Papers and reports could be read at home; the real interest arose when the author of a paper was brought face to face with those who differed from him. More translators and more shorthand writers were needed to render such debates fruitful.

In the afternoon the decision to publish a report of proceedings gave rise to the question of ways and means. So far the Association had incurred very little expense. At Budapest its printing was included in that of the Medical Congress, and it did not pay anything, but it cost £6 8s. in postage to distribute what was then issued. Therefore it will now be necessary for every affiliated National Medical Association to bear its allotted share of the expenses of the international organization. There then followed a long discussion on medical terminology, which is becoming more and more complex. For new words it was urged that Latin was the best language, and in any case a mixture of Latin and Greek should not be sanctioned. Where it was a question of a series of symptoms the name of the author or discoverer might be the shortest way of conveying the desired meaning. For surgical operations a word should be selected that described the operation or the part on which the operation was to be performed. In regard to words now current, the Latin term should be added to the national or the popular term. It would be easier to assimilate by adding the Latin than by attempting to break down established customs.

The last business treated consisted of a special vote in regard to the American medical press. It was decided that should Mr. Adolphe Smith attend the International Congress of Hygiene which meets in Washington next

September, he should be empowered to convoke a meeting of representatives of the American medical press and invite them to join the International Association of the Medical Press.

Professor Agusto Tamburini, on behalf of the Italian medical press, entertained the Committee to a sumptuous lunch at the Hôtel de Russie, and an evening reception was given by Dr. Ascoli at the offices of *Il Policlinico*. Altogether the members of the press were well pleased with what their Italian colleagues had done to facilitate their work and with the kindness and courtesy shown them on all sides.

THE SEROLOGICAL DIAGNOSIS OF CANCER.

III.—ISOHAEMOLYSINS.

THE property of the serum in certain diseases occasionally to produce haemolysis of normal red blood corpuscles has received considerable attention from American observers, with respect to cancer chiefly. The original stimulus to such observations was given by Richard Weil,[1] who in 1907 showed that the serum of dogs the subject of the so-called lymphosarcoma—an infectious and transplantable tumour—haemolysed the red blood corpuscles of normal, but not of sarcomatous, dogs. Proceeding to the study of human disease, he found that 46.5 per cent. of serums of early malignant cases haemolysed normal corpuscles (isohaemolysis); in 71 per cent. of these cases the patients' own corpuscles were resistant; whilst in late cases isolysins occurred in 71.5 per cent., with an absence of autohaemolysins in 80 per cent. of the latter. In other diseases he found 21.5 per cent. of isolysins; but in these cases autohaemolysins were more frequent, and in this group there were several cases of tuberculosis.

It is an interesting fact that though cancer serum is haemolytic to the corpuscles of a normal individual, yet the patient's own corpuscles are not so acted upon in the great majority of cases, and it has been supposed that in the case of cancer the erythrocytes have become immune to the particular substance in the serum which is capable of dissolving fresh corpuscles. This explanation is not in conformity with the fact that the corpuscles of another cancer patient are not so protected.

Of the nature of the haemolytic substance very little is known; from the fact that it is destroyed by heating the serum to 50° C. and that its action is restored by the addition of fresh normal serum it may be concluded that it belongs to the class of immune bodies, and it is possible that it may be the secondary expression of a primary reaction body to the cancer "toxin." Of more practical interest from the point of view of diagnosis is the fact that isolysins are found by no means infrequently in tuberculosis. Crile holds that in that disease there is here a reverse reaction to that in cancer—the serum of normal individuals lyses the corpuscles of the tuberculous, an observation which so far cannot be said to be established. Ascoli has pointed out the occasional presence, in small quantities it is true, of isohaemolysins in normal serums, and this has to be borne in mind in estimating the results of several observers, who, though all employing practically identical technique, have neglected to appraise the degree of haemolysis in reckoning positive reactions.

The method employed is simple. A few cubic centimetres of blood are withdrawn from the median basilic vein, and, after clotting, the serum is separated. Of this 0.5 to 1 c.cm. is added to washed red blood corpuscles of a normal individual and incubated for two hours at 37° C.; at the end of this time a reading is taken, and again next day after the tubes have been in the ice-chest overnight. Upcott has worked with quantities of serum and corpuscular emulsion so much smaller that venepuncture is not necessary.

The percentage successes of different observers vary considerably. Fischel[2] obtained a haemolytic reaction of the serum in 50 per cent. of all malignant tumours, but he did not consider the reaction specific because he also found it in cases of pernicious anaemia and in tuberculosis. Crile[3] had surprisingly good results. He tested the reaction in 591 cases. In 153 cancer cases 130 were positive (85 per cent.); isolysins were found to be absent in all (37) post-operative cases without recurrence, and present in all (11) with recurrence; none of the benign tumours, of which 55 were examined, reacted positively; 211 normal serums were all negative; haemolysis was obtained in the case of tuberculosis (92 per cent.) and also in pyogenic infections (10 per cent.) Crile says that in the cancer group when the tumour was entirely removed the haemolytic property of the serum was lost in from twelve to twenty-one days after operation.

The high percentage results of Crile, obtained as they were over a large series of cases with a satisfactory number of controls, have not been approached by the figures of other observers. Janeway[4] noticed haemolysis in 4 of 7 early cases and in 8 of 20 late, agreeing closely with the findings of Weil. Butler and Mefford[5] found isolysins in 13 out of 22 cancer serums, in 2 of which autohaemolysins were also present; but they did not regard the phenomenon as of diagnostic value, seeing that they obtained isolysins in 4 of 9 normal individuals, in 3 tuberculous cases, in 2 of 5 cases of pneumonia, in 2 cases of gastric ulcer, and in miscellaneous diseases, such as malaria, pernicious anaemia, post-diphtheritic palsy, salpingitis, and even in pregnancy. Whittemore,[6] too, doubts its value in diagnosis, for, though he noted haemolysis in 36 per cent. of cancers, he also found it in 17 per cent. of normals. Richartz,[7] on the other hand, thinks that in all cases in which tuberculosis can be excluded the reaction is of great diagnostic value, though he admits that it does occasionally occur in other diseases. It was present in 48 per cent. of cancer and in 52 per cent. of tuberculous serums. The haemolytic substance, according to this observer, is not a product of the tumour, but a reaction of the organism to the disintegration of the corpuscles brought about by the toxin of the tumours. Alessandri[8] found haemolysis in 65 per cent. of all cancer cases, while in epithelioma of the skin, in very cachectic malignant cases, in benign growths, sarcomata, and other pathological conditions, the reaction failed. Johnstone and Canning[9] got haemolysis in 45 out of 51 cases of carcinoma. Schleiter[10] 15 times in 20, Ottenberg and Epstein[11] in 28 of 38 cases, Blumgarten[12] in 72 per cent. of all malignant cases, Krida[13] in 75 per cent. of cancers and in 8 per cent. of non-cancerous diseases, Upcott[14] 20 times in 36 malignant cases. Smithies[15] found the reaction in several healthy individuals, as well as in the tuberculous and syphilitic, though, on the other hand, more than half of the malignant cases gave a positive reaction. Agazzi[16] concludes that the reaction is without importance in the diagnosis of cancer, because he found it to occur in quite healthy men, and it was not wanting in simple tumours, though he agrees as to the relative frequency in cancer and tuberculosis. Weinberg and Mello,[17] by rejecting as negative partial haemolysis, consider that about 30 per cent. of cancers give haemolytic reactions, though it is much more frequent in tuberculosis. Leitch,[18] whilst admitting that isohaemolysins are found in about half the number of cases of human cancer, met with them only occasionally in the transplanted tumours, carcinoma and sarcoma, of mice.

It has been calculated from a summation of the figures given by the various writers on the subject (upwards of 700 cases) that about 40 per cent. of cancer serums are haemolytic to normal corpuscles, whilst probably three-fourths of tuberculous cases give the same reaction. Though the reaction undoubtedly occurs in infectious diseases not infrequently, as well as in other diseases, and even sometimes in normal individuals, yet the sign is not without importance as a subsidiary phenomenon in the diagnosis of cancer.

Elsberg,[19] by injecting a suspension of normal red corpuscles under the skin of cancerous cases, claims to have obtained a specific cutaneous reaction. A 20 per cent. suspension of washed defibrinated blood is injected under the skin of the forearm, in a quantity of 5 minims, care being taken not to puncture any of the superficial veins. In from three to twelve hours after injection, in the case of a cancerous patient, the area is slightly raised and tender, with a more or less well-defined margin; it measures 2 to 4 cm., and is of a dusky red colour. The changes in the skin reach their maximum in one to two hours, and then the red area begins to fade; eight to twenty-four hours after the injection it has entirely disappeared, or more often a brownish, bluish, or lemon-yellow discoloration persists for a few days. The injection of the fluid

constituents of laked blood produced similar apperances. Elsberg obtained a positive reaction in 100 per cent. of known cancers, and in 3 out of 4 sarcomas, whilst it was absent in all but 3 of 100 controls. In suspected cases where the reaction was positive operation confirmed the diagnosis.

According to Leitch, the appearances are often so equivocal that the reading depends too much on the personal bias, yet he has met with no typical reaction in the test controls. On the other hand, the results in some cases went against the clinical diagnosis, and were confirmed by operation or autopsy.

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MEDICAL SICKNESS, ANNUITY, AND LIFE ASSURANCE FRIENDLY SOCIETY.

THE twenty-ninth annual general meeting of the members of this society was held in the rooms of the Medical Society of London, Chandos Street, W., on May 9th. Dr. DE HAVILLAND HALL, Chairman of the Executive Committee, presided.

Chairman's Address.

The CHAIRMAN said that during the year 210 new proposals had been received; after allowing for deaths, lapsing of membership, and members reaching the age limit, this left a net gain of 115, bringing the total membership up to 3,038. He had always hoped that the membership of the society would have reached 5,000 while he was chairman, and he trusted that the numbers would continue to increase and that in the course of a few years they would number over 5,000. The average age of members was slowly rising; it was now 44 years, as against 43½ years in the previous year. The sickness fund at the beginning of 1911 was £140,623, while at the end of the year it had risen to £149,812. During the year £15,100 had been paid in sickness claims. The premiums received for the sickness fund amounted to £19,412, which was a record. On the whole the sickness experienced showed a slight margin in favour of the society. The number of chronic cases of sickness was gradually growing; in 1911 there were 42 as against 36 in the previous year. While there had been a diminution in the number of accidents there had been rather more sickness. During the year a change had been made in the system of bonuses; hitherto they had only been paid to members on reaching 65 years of age, and it had been thought that this was rather unfair to the representatives of those members who died before attaining the age limit. During the past year £724 had been paid to those reaching 65, and £55 to the representatives of members who had died before that age. There would probably be a large increase on the last item, for already in the present year, 1912, the sum of £123 had been paid to the representatives of deceased members. It was a great satisfaction to him to know that the society's contribution to Epsom College had been increased from 20 to 100 guineas, and he was sure it would be a great boon to the widows and children, and even to members themselves in their old age. The society also subscribed 100 guineas a year to the British Medical Benevolent Fund; this also had been of use to members, and would be of increasing usefulness in the future. As in the past the society owed a great debt of gratitude to the medical journals, especially the BRITISH MEDICAL JOURNAL, the *Lancet*, and the *Medical Press and Circular*, for the very kind way in which they had always brought the advantages of the society before the profession. Referring to his retirement from the society, Dr. Hall said that he had worked for it upwards of twenty-five years; for seven of these he acted as medical examiner, and for nearly eighteen years he had been chairman. It had been to him a labour of love to watch the gradual development of the society; but a chairman would not be of much use without a good committee behind him to back him up, and he thought the Medical Sickness Society had been most fortunate in its committees. As an instance of the harmonious working of the society, he mentioned the fact that since he had been chairman it had not been found necessary to refer any case to the arbitrators. The report of the committee testified to the excellent work done by Mr. Addiscott, their present secretary, and the assistant secretary, Mr. Sutton. The chairman concluded his address by wishing the society Godspeed in the future, and said that he would always be glad to do anything in his power to assist the society.

Dr. VINRACE referred to the matter of the election of the committee, and suggested that some system should be introduced by which all the members of the society should have an opportunity of electing the committee. He also thought that, instead of continually adding to the reserve fund, some alteration should be made in the tables and rules by which members could remain in benefit up to the end of their lives instead of ceasing at 65.

Dr. DUTTON disagreed with the manner of the distribution of bonus.

It was proposed by Dr. BURNHILL, seconded by Dr. VINRACE, and resolved:

That the method of the re-election of officers and the question of the extension of benefits beyond 65 be referred to the committee for consideration.

The CHAIRMAN then moved:

That the report of the committee and the audited accounts for the twelve months ending December 30th, 1911, be received and adopted.

The motion on being put to the meeting was carried with one dissentient.

Election of President.

On the motion of Dr. PALMER, seconded by Dr. BRINDLEY JAMES, Dr. de Havilland Hall was elected President, in order that the society might retain his unique experience and have the advantage of his advice on matters in general.

Election of Officers.

The officers and committee on the printed list before the meeting were elected *en bloc*, Dr. F. J. Allan being appointed Chairman of the Executive Committee.

Vote of Thanks.

A vote of thanks to the Chairman for presiding at the meeting was proposed by Dr. DENNIS VINRACE and carried, and the CHAIRMAN's acknowledgement brought the proceedings to a close.

JAPAN IN 1909.

THE annual report recently issued of the Central Sanitary Bureau for the Home Department of Japan for 1909, the 42nd year of Meiji, is published under the direction of Ichita Kohashi, the Director of the Central Sanitary Bureau of Japan. It is printed in English, but the statistical tables are given both in English and Japanese in parallel columns at the end of the book, where is printed in Japanese what is presumably the report.

Population.

The population of Japan is investigated once in every five years; the last occasion was in 1908. At the end of 1909 it was estimated at 26,254,778 males and 25,486,787 females, a total of 51,741,565. The total number of houses at the end of 1908 was 9,250,234; this gives an average of 5.59 persons for each house. The proportion of males to females at the end of 1908 is 103.01 males to 100 females. Generally speaking, in those flourishing regions where large cities are found, the number of males seems to exceed that of females. A comparison is made in the report with England, where the ratio is 93.63 males to 100 females; France, 96.84 males to 100 females; Germany, 96.88 males to 100 females. The cities contain 11.52 per cent. of the population, while the country has 88.48 per cent.

Births.

The total number of normal births during the year was 1,662,815, which works out at 33.5 births per 1,000

inhabitants, the proportion of males being 104.9 to 100 females. The number of stillbirths is given—162,676, a rate of 3.3 per 1,000 inhabitants, and 9.8 stillbirths per 100 births.

Deaths.

The number of deaths was 1,029,447, or 20.9 per 1,000 inhabitants. Infantile mortality in Japan, like elsewhere, is high—153 per 1,000 normal births. The principal causes of death during the year were: Pulmonary phthisis 74.4 per 1,000 deaths, meningitis 68.5 per 1,000 deaths, pneumonia 64.4 per 1,000 deaths.

Infectious Diseases.

In the autumn of 1909 cholera was imported into three prefectures; there was a total of 328 cases with 221 deaths. Dysentery seems to have been very prevalent; no fewer than 28,006 cases occurred, with a death-rate of 24.41 per cent. Typhoid is another disease of frequent occurrence; 25,106 cases were reported, with 5,470 deaths. Of diphtheria there were 18,102 cases, with 5,121 deaths.

Vaccination.

Vaccination is compulsory in Japan, and is rigidly enforced. During 1909 the total number of persons who were regularly vacinated was 3,006,267, which is 6.14 per cent. of the entire population; about half the number were vaccinated for the first time, and the other half for the second and third times; 88.74 per cent. of the total number of the vaccinations were successful in the first vaccinations, and 31.64 per cent. in the second and third vaccinations.

Poisoning.

The total number of persons poisoned in 1909 was 1,963, with 420 deaths; this is an increase over the previous year. The chief causes were ptomaine and fungi. Generally speaking, cases of ptomaine poisoning are numerous in regions far away from the sea, and most of them are attributed to the eating of putrefied fish.

Enthetic Diseases.

A Contagious Diseases Act is in force in Japan; 2,784,258 examinations were made, and 2.61 per cent. of those examined were found to be affected.

Medical Practitioners.

The number of medical practitioners licensed during 1909 was 1,028, which was 74 less than 1908. In all there were 36,673 physicians (including 60 foreigners) in practice. The average number of inhabitants to one medical practitioner was 1,347.

It is interesting to note that under the "Law of Physicians" the following rules are enforced:

The physician shall keep the patient's book, and such patient's book shall be preserved for ten years.

No physician is permitted to make any advertisement, whatever may be its means, as to his art, method of treatment, or personal record, except as to his degrees and titles and the name of his speciality.

With reference to the giving of prescriptions to patients, there is the following rule:

In case the physician gives a prescription to a patient whom he has medically examined, he shall state therein the name and age of the patient, the name, amount, use, and dose of the medicine, and the date of issuing such prescription, and sign his name or affix his seal.

The penalty for infringement of any of these rules is a fine not exceeding twenty-five yen.

Bacteriological Institute.

A large amount of work was done at this institute during the year, and thirty-seven different reports were published, including "A Study of the Rat-Flea Native to Japan," "A Study on Beri-Beri," and a "Report on Plague." Vaccine lymph is prepared and distributed at the institute, and the various kinds of serums are prepared and sold. The bottles of diphtheria serum sold amounted to 106,427; tuberculin, 1,006; typhoid fever serum, 2,872; plague serum, 2,427.

Sixty-five students completed a course of study at the institute and obtained certificates.

Statistics.

Appended to the report is an elaborate series of statistical tables covering 140 pages. These tables, 85 in all, deal with every conceivable subject connected with public health, and must have entailed an enormous expenditure of time and trouble in their preparation. The report is, from a statistical point of view, well worthy of perusal, and affords an indication as to how public health matters are dealt with in this go-ahead country.

PARLIAMENTARY COMMITTEE ON PROPRIETARY MEDICINES.

The Select Committee appointed by the House of Commons to inquire into the law and advertisement of proprietary articles met for the first time to receive evidence at the House of Commons on May 9th. Sir Henry Norman, the Chairman, presided, and evidence was received as to the existing law with regard to the question and the relations to it of the various Government departments.

The Board of Inland Revenue.

Sir Nathaniel Highmore, Solicitor to H.M. Customs and Excise, the first witness, gave information regarding the historical development of the law relating to the sale of patent medicines and proprietary articles, and the amounts of the yields to the revenue from these sources. He said that the duties in respect of medicines were first imposed in 1783 by the Act of 23 George III, chap. 62. In introducing the Budget of that year, Lord John Cavendish stated that quack medicines, in his opinion, were very proper objects of taxation. He proposed that in certain cases there should be a licence, and that a duty of 8 per cent. should be charged. This he believed would produce a revenue of £15,000—an important sum at that time. The duties were imposed upon persons not possessing certain qualifications—for example, those who had not served a regular apprenticeship to a surgeon or apothecary. They were required to take out an annual licence, and for the articles they sold under the licence there were three rates of duty—namely, 3d. when the price of the article did not exceed 2s. 6d.; 6d. on articles from 2s. 6d. to 5s.; and 1s. from 5s. upwards. A further Act bearing on the subject of proprietary articles was that of 25 George III. chap. 79. These Acts were repealed by a measure passed in 1802, which was the foundation of the present law in reference to medicines. The three main Acts affecting the question were passed in 1802, 1804, and 1812. These imposed two duties, one upon the licence and one upon the medicines sold, and this principle had been maintained throughout by the Legislature. Taking the licence duty first, there were three rates imposed, and these remained in force until 1875. They were—in London and Edinburgh, £2; in Manchester, Birmingham, and Sheffield, 10s.; and in other parts of Great Britain, 5s. All these duties up to that time were stamp duties. In 1864 the duty on the licence was made a duty of excise, and in 1875 the three different grades of duties for different parts of the country were repealed, and a uniform duty of 5s. was imposed upon the licence; this duty remained to the present day. There was no exemption from the obligation to obtain a licence for the sale of proprietary articles except one granted in the case of mineral waters. The licence commenced on September 1st in each year, and the penalty for selling without a licence was £20, imposed by the Act of 1802.

The duty on the medicine itself was charged by an Act of 44 George III, chap. 98. An Act of 1812 contained a very long list—nearly twelve columns—of articles specifically charged, but he did not think that many of them were known at the present day. One or two were patented articles, and some had peculiar names. Not only medicines were included, but articles such as "medicated snuff," "toothache pills," "drops for fits," and so on. Occasionally appliances were mentioned. At the end of the list of names appeared a long statement of what was to be included in the charge of duty, and this read:

And also all other Pills, Powders, Lozenges, Tinctures, Potions, Cordials, Electuaries, Plaisters, Unguents, Salves, Ointments, Drops, Lotions, Oils, Spirits, Medicated Herbs and Waters, chemical and officinal Preparations whatsoever, to be used or applied externally or internally as Medicines or Medicaments, for the Prevention, Cure, or Relief of any Disorder or Complaint incident to or in anywise affecting the Human Body, made, prepared, uttered, vended, or exposed to sale, by any Person or Persons whatsoever,

Or which have at any time heretofore been, now are, or shall hereafter be, by any public Notice or Advertisement, or by any written or printed Papers or Hand-bills, or by any Label or Words written or printed, affixed to or delivered with any Packet, Box, Bottle, Phial, or other Inclosure containing the

same, held out or recommended to the Public by the Makers, Vendors, or Proprietors thereof as Nostrums, or Proprietary Medicines, or as Specifics, or as beneficial to the Prevention, Cure, or Relief of any Distemper, Malady, Ailment, Disorder, or Complaint, incident to or in anywise affecting the Human Body.

The duty on these medicines was charged by the Act of 1804, and varied according to the price of the article, as follows:

Value 1s., 1½d.; exceeding 1s. and not exceeding 2s. 6d., 3d.; exceeding 2s. 6d. and not exceeding 4s., 6d.; exceeding 4s. and not exceeding 10s., 1s.; exceeding 10s. and not exceeding 20s., 2s.; exceeding 20s. and not exceeding 30s., 3s.; exceeding 30s. and not exceeding 50s., 10s.; exceeding 50s., £1. There were eight items in the scale, as compared with three in the original scale. In practice there were six items, the highest of which was 3s., there being no demand for the two items of 10s. and £1.

With regard to exemptions, all medicinal drugs whatsoever, without mixture or composition with any other drug or other ingredient supplied by any surgeon or apothecary, chemist, or druggist who had served a regular apprenticeship, or by any other person licensed to sell any of the medicines chargeable within the statute, were exempt. This was known technically as the exemption of pure drugs. The other exemption applied to what were called "well-known remedies." There was an exemption in favour of these, provided they were sold by a chemist without a recommendation as a remedy by the maker thereof. A further exemption existed in favour of ginger or peppermint lozenges unless they were sold with a recommendation as a remedy. The penalty for infringement was £10.

The witness went on to describe the procedure of the department of Customs and Excise with regard to levying duties, explaining that foreign medicines were dealt with in much the same way as home-manufactured ones. Eau de Cologne was treated under the ordinary customs duty in respect of perfumed spirits, unless it was held out as a medicine beneficial for the cure of an ailment. A preparation for the hair merely recommended as a hair wash and not for the prevention or cure of any ailment affecting the scalp, would be exempt, but a tooth salve which was claimed to be a cure of toothache would be liable to duty. As to medicated wines and spirits, these were sold by chemists without a wine or spirit licence if they were sufficiently medicated as to ensure that they would not be taken as beverages, but if they were sold with a recommendation as a medicine the stamp duty would attach. Replying to the Chairman, the witness explained that the question whether the wines were sufficiently medicated or not was decided by the Government chemist.

Sir Nathaniel put in a number of specimens of the different forms of stamps used by the Government in respect of proprietary articles, and mentioned that a special form could be obtained by any manufacturer. Considerable use was made of this privilege, as was shown by the fact that the unappropriated 1½d. stamps printed numbered 10 millions; appropriated, 19 millions; unappropriated 3d. stamps, 3 millions; appropriated, 5 millions. As to the yield of the duties, he gave the following figures:

Year ending March 31st, 1912.

Licences issued	43,117
Amount received in respect of above...	£10,781 5s.
Duties on medicines apart from licences	£327,856

The whole of that duty, except a little less than £4,000, was paid in England. The sum of £820 10s. for licences and £2,999 in respect of medicines was paid in Scotland. The witness also put in the following table, based upon a return for 1908 made to the House of Commons:

Number of Stamps sold of Different Denominations.

1½d. stamps...	33,037,202
3d. stamps	7,565,822
6d. stamps	1,002,549
1s. stamps	122,249
2s. stamps	18,445
3s. stamps	11,308
Total	41,757,575

The gross receipts amounted to £335,878 9s. 2½d. The figures given above represented a fair average for some years past. The manufacture of these articles was very much greater in England than in Scotland; there were no figures with regard to Ireland, as the duty did not apply to that country.

Asked by the Chairman as to his view of the law generally, Sir Nathaniel Highmore said he regarded the present law as very much out of date. The exemptions were very wide, and some were entirely obsolete. He regarded it as possible to place on the Statute Book a fairly simple Act of Parliament which would do away with any question of concession and make it clear what was intended to be covered and what exempted. It was a difficult matter to administer Acts of Parliament passed over a century ago.

The Chairman: Do any particular difficulties arise in the administration of the law?

The Witness: Nothing that calls for special mention. We have to consider the terms of the labels and advertisements, and occasionally have to deal with cases where there are attempts to fix labels which are calculated to deceive the public as to whether they are stamps or not. Occasionally imitation labels are sought to be used.

In reply to other questions, the witness said it was the duty of the Commissioners of Customs and Excise to set the law in motion if it was being evaded. The Board had a large staff of Customs and Excise officers.

Sir Philip Magnus asked whether any trader, in obtaining a licence, had to make a declaration as to the composition of the medicines, and the reply was in the negative.

The witness put in an advertisement which, he said, consisted of a statement that a certain article was made according to the formula of Beecham's pills, as published in *Secret Remedies*, issued by the British Medical Association. These people endeavoured to get the advantage of the advertising of Beecham's pills. The question arose as to whether they should be proceeded against by the Board of Customs and Excise. It was felt, however, that it was impossible to say the pills were advertised as a proprietary or secret remedy because they were merely stated to be according to a published formula.

The Chairman: The alleged formula. The analyst is fallible in law.

The witness added that before very long the vendors added a recommendation of their own, and this brought them in conflict with the Board of Customs and Excise. As a matter of fact, they were prosecuted the previous day and fined for selling medicines which they recommended as a remedy, without having a licence.

The Chairman: Is this one of the cases that would lead you to think the law is inadequate?

The Witness: It is.

In reply to Sir Henry Dalziel, the witness said that the question whether the law was strong enough to deal with obvious fraud, and to protect the public as regards the sale of pernicious remedies, did not affect his department, which was concerned merely with the collection of duties.

Mr. Glyn Jones: What is the practice of the Board in regard to the proprietary medicines advertised in technical papers, such as the BRITISH MEDICAL JOURNAL and the *Lancet*? Do the Board regard that class of proprietary medicines as coming within the scope of the Act?

The Witness: I think a preparation recommended in a paragraph in either of those papers will be used probably for dispensing purposes. The Board does not require stamps to be put on them provided they are really used for dispensing.

Mr. Glyn Jones: I am referring to a class of articles held out to be for the prevention or cure of ailments. This is done by travellers who call on medical men, or by means of circulars, or by advertisements in papers circulating amongst medical men. All the grounds of duty are there, but the Board does not enforce the stamp duties.

The Witness: The Board's practice is, if the medicine is received in bulk by a chemist without any label attaching to it, and received solely for the purpose of making up doctors' prescriptions of which it forms an ingredient, and an undertaking is given that it will not be sold except as part of a medicine, not to require payment of duty.

The Chairman: Are these sold in bulk or in small quantities?

The Witness: I think they are generally sold in larger quantities than they would be supplied to the public.

Mr. Haydn Jones asked if it was possible for a person to register any preparation and patent it without making a declaration of contents.

The witness replied that the term "patent medicine" was really a misnomer, although it was so commonly used. There were very few medicines that were patented.

Mr. Haydn Jones: It is open to any one to foist on the public a preparation that is absolutely worthless.

The Witness: We cannot possibly undertake in our department to say what is the value of a preparation.

In reply to Mr. Cawley, the witness said it would be difficult to arrive at the actual amount paid by the people of this country for proprietary articles merely from the amount of the duty, owing to the fact that the graduations of the scale made it impossible to arrive at an exact computation.

Dr. Chapple: Could you give a rate over a series of years to show whether the consumption is increasing or not?

The Witness: It would be difficult, because some years ago certain remedies could not be purchased for less than 2s. 6d., and now they are made up in smaller quantities.

Dr. Lynch: Do you discriminate between drugs having a real medicinal value and those that are pretty well worthless?—No.

Can you say what proportion of patent medicines sold here is manufactured in America?—No, I do not think it would be possible to trace them.

The Chairman: Could you not supply such a list? I am sure the Committee would regard it as important.

The Witness: I will ascertain whether it can be obtained.

In reply to other questions by Dr. Lynch, Sir Nathaniel said that in deciding whether a medicine was "well known" or not, the evidence of certain periodicals was accepted. If the name appeared in the *British Pharmacopoeia*, the Board would regard that as conclusive.

Dr. Lynch: Can a proprietor sufficiently advertise his medicine—boom it, so to speak—and so make it a well-known medicine, thus evading the duty?—There would have to be no proprietary rights attached to it. The fact that he described himself as the proprietor would make the article liable to duty.

As to the Government guarantee, does not the phrase "No Government guarantee" on the stamp tend to convey to the public mind that a Government guarantee of some proprietary articles does exist?—The phrase was used because some proprietors advertised "None genuine unless guaranteed by the Government stamp."

Could it not be made more explicit?—I do not think it could, except by getting rid, perhaps, of the use of the word "patent" in the popular description of chargeable medicines. That word may be taken to imply that the articles were under the protection of letters patent, but the use of the ordinary stamp could not be a guarantee of any sort.

The Chairman: To which Government department should a person apply for information with regard to the sale and advertisement of patent medicines, apart from matters connected with payment of duty?

The Witness: To the Home Office, perhaps, or the Local Government Board. I think both those departments may be concerned.

Does not the fact that you are unable to reply to that question definitely point to an extraordinary position of the law?—One is not always prepared with a definite reply to questions put without any notice that the point to which they relate is likely to arise.

Is there anything in law to prevent any person making any mixture containing anything except obvious poisons, advertising it as a cure for any disease, and selling it broadcast to the public on payment of stamp duty?—No, if you exclude poisons.

I am excluding poisons. I am anxious to have your definite answer on that?—There is nothing, to my knowledge.

Mr. Harry Lawson: Is it not the case that the police can take action where there is manifest fraud?—Possibly they might proceed on the ground that it was a false trade description.

The Chairman: Are the police entitled to take action on the ground that offering a certain mixture for the cure of a certain disease is a fraud?—I hardly think so. It would depend upon the nature of the evidence available.

Mr. Lawson: Is it not the case that the police have not wished to take action from motives of public policy—that they have felt that to institute a prosecution would advertise the article?—I should not think so. I think in a case of positive fraud the police might possibly take proceedings.

Mr. J. C. Ledlie, deputy clerk to the Privy Council and chief clerk to the Privy Council Office, gave evidence as to the relations of the Privy Council Office with the law as to proprietary articles. This, he said, was only indirect and incidental; the Privy Council Office was in close touch with the different branches of the healing art—the doctors, dentists, chemists, veterinary surgeons, and midwives—and it exercised in regard to the bodies representing these classes a certain amount of supervisory influence. That influence could be exercised by nominees on the governing bodies; the General Medical Council, for instance, had five nominees of the King and Council. Influence might also be exercised through the right of approving the acts of the various bodies. As an instance of indirect relations the witness put in a report as to practice of medicine and surgery by unqualified persons in the United Kingdom. The jurisdiction of the Privy Council was statutory; it probably arose from the fact that the branches of the medical profession were moved by certain associations which had applied at one time or another for Royal Charters. For this purpose they must come to the Privy Council, and in the charters were reservations requiring that the by-laws must be approved by the Council.

The Chairman: It is not clear to me how the Poisons Act comes under the Privy Council.

The Witness: It is probably due to the fact that the Pharmaceutical Society in 1843 obtained a charter from the Privy Council.

What machinery have you for dealing with the sale of poisons?—The Acts are administered by the Pharmaceutical Society, which has its inspectors to detect the illegal sale of poisons.

Then a non-official body takes action?—That is so.

Supposing the Committee desires official information on any point as to the sale or advertisement of proprietary articles, to what Government department should the inquiry be addressed?—It would depend upon the nature of the information sought.

My point is that the control of all this is so split up; each department seems desirous of placing the responsibility upon another. I want to know how the public stand; there are the Privy Council, the Home Office, the Customs and Excise, all exercising some powers—I don't know whether the Local Government Board acts in this matter. What are the functions of the Home Office?—So far as I am aware, it acts in criminal proceedings. In my experience there has never been any difficulty as between the Home Office and ourselves as to which should take action.

But there is a confusion of departmental control in this matter?—I think the working of the law is very defective. It is open to any one to make or sell or advertise any preparation so long as it is not a poison, and it may be perfectly useless.

Are there any statutory regulations affecting the sale of proprietary articles as such?—Not that I know of, except the stamp duty.

Dr. Lynch: Is it the business of any Government department or any official whatever to concern themselves with the growth of the use of pernicious drugs, and to do something to protect the public?—No.

Is there known to you any check of any kind which would prevent a man having no qualifications whatever putting some worthless drugs together, bolstering them up by advertisement, selling them at prices absurdly out of proportion to their real value, and not coming within the purview of the law, except as regards the stamp duty?—No, unless it be by an individual action brought by some one who complained that the preparation had not had the results claimed for it.

Have you heard of such a case?—No.

There is practically no check whatever?—That is so.

In reply to Mr. Harry Lawson, the witness expressed the opinion that the Privy Council should be empowered to exercise any new duties with reference to regulating the sale of deleterious products. He did not think it would meet the case if the provisions of the Poisons Act were applied so that the term "poison" was used in regard to all deleterious so-called remedies. Separate legislation

would be required. A body under the Privy Council would be needed to carry out the duties of inspection, and so on.

Mr. Glyn Jones: Am I right in saying that any proprietary article which contains any of the drugs mentioned in the schedule to the Pharmacy Act comes within the regulations of that Act?—Yes.

And if it is suggested that any article not in the schedule is deleterious or poisonous, and that the regulations should apply to it, the Pharmaceutical Society can pass a resolution which is submitted to the Privy Council, and that body says "Aye" or "No," whether the article shall be added to the list?—That is the practice.

Then the present law provides machinery for adding to the list anything which should be regarded as a poison, and when thus added proprietary medicines come within its scope?—Yes, under the Act of 1862.

Dr. Lynch: But you would not go so far as to say something could be added which was not a poison, but which might be deleterious?—No, I would not go as far as that.

The Committee then adjourned until Thursday, May 16th.

Nova et Vetera.

THE TEN PLAGUES OF JERUM THE PHYSICIAN.

A TALE OF PHOENICIA.*

JERUM THE PHYSICIAN once lived in the city of Tyre in Phoenicia, and was famed for his learning and skill, so that the sick came to him from Egypt, and from Syria, and from other lands, and gave for his advice and help presents of gold and silver and precious stones. Yet was he not proud or puffed up like his neighbour Joram of Sidon, who disdained to go to the poor and needy because they could not pay. After Jerum had spent the whole morning among the sick of the city, one might see him in the evening riding on his grey mule about the villages, where he went from house to house, bringing everywhere comfort and help. Both rich and poor in Tyre knew how to prize such service, and they honoured Jerum above all other physicians.

One day at noon, as he returned to his house to eat hastily the simple meal which his wife Astaroth had prepared, he found before his door a man from Judaea. He was shaking the dust from his feet, and he crossed his arms on his breast and asked, "Are you he whom I seek, the physician Jerum?" "I am he," said Jerum; "tell me quickly your desire, for lo! I am in haste." Then the man raised his hands and said, "Praised be Jehovah, who has guarded me on my journey and brought me safe to your house. I am Amos, servant of the High Priest Ezekiel in Jerusalem, and I am sent by my master to beg you to visit him in Jerusalem that you may free him from his heavy affliction."

"That," said Jerum," is easy to say, but hard to do. Why did not your master himself come to me, that I might see him face to face, and know his sickness?" "Through long illness he is weak as an infant. May Jehovah soften your heart to go with me to my master!" "How can you ask such a thing," said Jerum. "Can I leave the many sick here and in the villages around?"

"It is Jehovah's will that you follow me," cried Amos, and raised his hands once more beseechingly. "Think well what you say. If you fulfil my lord's request Jehovah will bless you in all your ways. If you tarry you will have only trouble and sorrow, and no work of your hands will prosper." "What is this that I hear?" said Jerum, and he strode into the house, leaving the man from Judaea standing at the door.

When Jerum had eaten and was satisfied he mounted his mule and rode out to the next village where one of the king's woodcutters had that morning fallen from a tree, and had broken his right arm. Jerum pulled the bone till it was straight, laid it on a splint of wood, and bandaged it as he had learned, and then in good spirits rode to his home. But that night as he lay in bed a man knocked at his door. "Come speedily to the woodcutter whom you bandaged to-day, for his pain grows always worse." And Jerum arose and took his mule from the stable and rode out to the man. The hand was swollen like a pillow, and all feeling had gone from the fingers, and Jerum took off the splint and bandages straightway, and rode out every day to rub the arm with powerful salves, yet the fingers remained numb, and the bone healed up awry and the man was a cripple. Then the man's wife took her husband into the city and pleaded before the judge, and the judge ordered Jerum to pay the woodcutter an hundred pieces of silver. From that day the heart of Jerum was sad, and the best dishes which his wife Astaroth could prepare were tasteless. Then said his wife, "Husband, you are sick and need rest. Take my counsel and go up into the mountain of Lebanon where you have friends among the herdsmen. Abide with them till you are well." "And who will care for the sick who need me while I am away?" asked Jerum with a troubled face. "Have no care for that," said his wife. "Is there not Hanno, my sister's son, who has just come from studying under the most famous physicians of Greece? Let him come and take your place so long as you are away." And it was so, and Hanno came from Sidon where he lived with his mother, and Jerum bade farewell to his wife and his young son Hamilcar and his nephew, and, staff in hand, he climbed up into the mountain.

And it came to pass some time after he had left the town that a great feast was held in Tyre in honour of the god Baal, and one of the bullocks for the sacrifice brake loose and struck the high priest with his horn in the body so that the man was borne off for dead. And the whole people cried out for the physician Jerum, and when he was not found at his house they brought his nephew Hanno to the place, and Hanno washed the wound with a sponge and bandaged it with all care as he had learned to do in Greece. But the priest died in great agony in the following night, and a man of Tyre who had helped at the dressing of the wound told how he had seen with his own eyes that Hanno had sewed up a sponge in the belly of the high priest. And there was a great outcry against the young physician so that he fled by night to his home at Sidon, for the people would have cast him out.

And when Jerum was well and returned to his house from the mountain he saw from afar his wife Astaroth approach, and come to meet him, with his son Hamilcar. And Jerum was glad and showed his joy, and after he had greeted them he said, "Why is not Hanno come also with you to meet me?" But Astaroth hid her face and began to weep and told him with tears all that had happened. Then Jerum tore his hair and his beard, and cried, "Woe is me that I went into the mountain and left the care of my people to a fool. Now is this plague worse than the first, and the children on the street will mock at me." And he was more sorrowful than before and feared to leave his house, thinking himself despised of the people of Tyre.

But Hiram the King remained well disposed towards him and bade him come to the castle to heal his wife Baaltis. Now the king had lately received from the Queen of Cyprus a beautiful young slave as a gift, and he was well pleased with her, and proposed to keep her in the women's apartments beside his wife. And his wife was wroth, and she fell into convulsions so that her maidens could not hold her. And Jerum came and gave her the most precious of medicines, but the convulsions would not leave her. Then went one of the maids to Joram, the physician of Sidon, and received from him a box with small white pills and a vial of clear liquid, and of these she gave the queen each day three pills moistened with one drop of the liquid. And on the third day when the queen had taken the second pill she had news that sudden death had befallen the beautiful slave from Cyprus; and she rose from her bed and was well as heretofore. And the queen began to praise the physician of Sidon who had given again her life and health, and she spake evil of Jerum so that he lost the favour of the king and might no more appear within the palace.

This pleased the other physicians of Tyre more than if the king had given them presents from his treasury, and

* Dr. Ludwig Hopf (Philander), of Stuttgart, has issued two series of medical fables. The story of Jerum is taken from the first series, *Medizinische Maerchen*, von Philander, published by Messrs. Levy and Müller, Stuttgart (price M. 2.40 in paper, 3.50 bound and gilded). The second series, *Neue medizinische und anthropologische Maerchen*, von Ludwig Hopf, is published by Franz Pietzcker, Tübingen. The translator has to thank Messrs. Levy and Müller and the author for their permission to issue this translation.

one of the most cunning went secretly to Sidon and learned from Joram the way to prepare the pills and the clear liquid. And when he returned he made known in all the streets of the city that he had studied the Sidonian art which had cured the queen and was prepared to treat all patients according to this art and half as cheap as Jerum with his expensive medicines. And all the people ran to him, and Jerum sat in his house and listened with wrathful heart to his wife, Astaroth, who said, "Will you not also study this Sidonian art? For see the king and the nobles and all the people have left you, and the money in our store grows daily less." "Far be it from me," answered Jerum; "rather let me fall in the sea where it is deepest than to give a sick man instead of medicine a worthless pilule and to deceive him with the hope of cure." And he hardened his heart and grew daily more silent. But his wife sat at the window and wept. And she saw the man from Judaea come again towards the house, and said, "Here is again the man from Judaea coming hither. Will you not this time go with him to heal the high priest that no further plague come upon us? For verily the man hath prophesied truly." "No," said Jerum; "I will not go with him. Said I not that I could not leave the sick in Tyre and its villages? Therewith must he be content." And he went down and shut the door in the face of the man from Judaea. Then Amos lifted up his voice and said, "Four plagues has Jehovah sent upon you. Ere I come again will they be multiplied." And he took his staff and turned his face towards Jerusalem.

And when it was evening and cool, Jerum rode to the next village to see a sick woman. And as he rode from the gate there sat the man from Judaea by the brook, bathing his hot feet. And Jerum made as if he saw him not and spurred his mule to hasten past. But the mule backed, and Jerum raised the stick which he bore in his right hand and smote the beast on the head, so that it reared and threw its rider to the earth. And Jerum fell upon a sharp stone and lay with broken heel before the watchmen of the gate. And they raised him and bore him on a plank to his own house. And there was great grief and lamentation from his wife and son; and he must lie six weeks in bed with his foot bandaged, and when he left his couch he must long go on crutches as one who is cripple. And when he was again well the people of Tyre went from him and made as if they knew him not. Then it became dark before his eyes and he staggered in his anger and went towards his house like one drunken. And he cursed himself and said, "Cursed be the day on which my mother bare me! Cursed be the hour in which my father sent me to become a physician! Is this the thanks for the many cures I have wrought and the reward for the good I have done to the poor and needy?" And he began to weep bitterly. And his wife Astaroth laid her hand on his arm and said, "Be comforted, the friends who cleave to you are not all gone. After you went out the rich Berosos of Samos, who dwells at the harbour, sent his servant that you might come and heal him from the boils against which all the skill of the other physicians has been vain. Go, then, and make your fame live anew."

And Jerum went and opened the boils with a sharp knife, and the man was healed. But Jerum noted not a little scratch which a thorn had made on the first finger of his left hand. And the poison of the boils entered into the scratch and poisoned his blood, so that his arm swelled to the shoulder as if a snake had bitten him, and he was bent upon his bed with pain. In this time of trouble, when he believed that the end was not far distant, there appeared to him in the night the figure of the man from Judaea, in form as he had seen him, and he heard his voice, which spake, "Six times Jehovah warned you to put away your hardness of heart and to go to Jerusalem to heal His servant Ezekiel. But you have stiffened your neck as at the first: therefore hath He sent and smitten you in the marrow of your bones. Repent, then, and say that you will follow me when you are again well." Then Jerum turned in his sleep and cried, "Depart from me, thou spirit of evil. I will have no dealing with thee." And his wife Astaroth awoke from sleep and asked in fear, "Wherefore, Jerum, do you cry aloud?" And he said, "See you not the man from Judaea with his long beard come to torment me? But I will take my staff and chase him away." Then Astaroth saw that he spake in fever, and she gave him a fresh drink and cooled his forehead with water and with vinegar so that he slept peacefully. And when the morning brake and Astaroth would dress the arm, it was issued in the night and all the pain had gone. And Jerum was well again and could go to the patients who called him. Then Berosos gave a feast in his honour and invited all the nobles of Tyre, and praised Jerum as the first of his friends and that he had given his life for him and had saved him. And all who were bidden came to Jerum and embraced him as if they had never forsaken him. And from this time his repute increased so that the sick would have no other physician and his house was ever full of those who desired his help. And when it was night and Jerum, wearied with the work and heat of the day, had laid him to bed they still knocked at his door and would not rest till he had gone to them. And when he came home and went again to rest he in his dreams heard still a knocking on the door and rose and called, "Who is it that desires me?" but there was no one to be seen. And Jerum said to his wife, "Am not I the most tormented man in the world? Verily if I have not rest from the many sick my strength will fade like grass in the summer drouth." And Astaroth laughed and said, "Are not you well and strong? If you would not go when the sick call you why do you not become one of the priests who lead an even life by day and have their rest by night?" And Jerum knew that he would get no consolation from his wife and he bare his trouble in silence. And at this time the king gave orders to the governor of Tyre to find out how many children were born each year and how many at each age died in the city from disease and accident. And the governor sent for Jerum and gave him tablets whereon to write the children of the last year, and still others for the dead and the nature of their diseases and accidents. And when they were ready and fairly written he was to bring them again and deliver them into the hands of the governor. Then Jerum pleaded with the governor earnestly and said, "I pray you hold me excused, for lo, the hours of the day are given each to his appointed task and my work for the sick leaves me no time for other things." Then was the governor wroth, and said, "It is the king's command that I have laid upon you, and if you do not obey it shall be my care to prepare for you meet punishment." Then Jerum sighed and bore the tablets to his house, where he sat over them many nights while others slept. And when all were ready he took them to the governor. And the governor was gracious unto him and said, "Since you have prepared all these so exactly the king has provided for you that you be the physician to all those who work in the royal workshops. And each shall pay a part of his wages, and when he is ill he shall have no other physician, and he shall receive a portion of his wages, and you Jerum shall write for each the days of his illness." Then Jerum thought of the money which would flow into his purse, and he thanked the governor, and merry at heart he went to his own house.

And it came to pass as the governor had said. He set overseers over those in the king's workshops, and they went on the first day of every month and collected from each a share according to the tale of his wages, and bade him when he was ill go to Jerum at midday when he had eaten, for this was the time when Jerum came home. And each day at midday there came the dyers and the glassworkers and the workers in amber and they stood at Jerum's door awaiting the medicine for their ailments. And those who had recovered came again and brought their tablets, that he might write thereon the days of their illness. And Jerum was hungry and thirsty, but could not be satisfied till all the tablets were written. And Astaroth his wife was grieved, and came to the door and asked, "Why do you not come to eat with our son and me the meal which I have prepared?" "How can I eat with you?" said Jerum. "See you not the many who still wait for their writings? Accursed be this new law that has made me a clerk instead of a physician." And he stamped his feet in his wrath; but day by day it was ever the same, and Jerum felt ever more weary and all the joy and pleasure had gone from his life. And there arose a lively voice within him, "Had you gone to the sick high priest at Jerusalem this plague had not come upon you." And he said, "If it was impossible for me to leave Tyre before on account of the many who sought me,

it is to-day even more so, for each day sees an increase in the load that is laid upon my shoulders. Are there not physicians in Jerusalem or in all Judaea? To them should he send and call them to his bed."

And it fell about this time that the children of Tyre were smitten with an evil plague, and there was no house where there was no child laid down. And Jerum went from house to house and gave the children medicines and cooling drinks. And when the sickness waxed day by day he said, "Till now I have guarded my son Hamilcar and kept him from illness. Lo, now will I send him and his mother into the mountain that he may not be ill also." And he sent to his wife to bid her get ready to go into the mountain. But when he came to the house the boy lay already in fever and none of the medicines which had healed the other children did him good, and he became weaker and weaker and died in the selfsame night. Then Jerum rent his clothes and put ashes on his head, and would neither eat nor drink while his son lay dead in the house. But when the boy was buried he ordered his servant to saddle his mule and began to prepare his satchel with food for a journey. "Whither do you ride?" said his wife Astaroth. Then he answered, "Ten plagues already are come upon me, but the last is worse than all the rest. Therefore will I go to the high priest that is sick at Jerusalem that greater evil come not on me and my house." And Astaroth wept and said, "Alas! had you followed the man from Judaea, our son Hamilcar had yet lived."

And he departed from his wife and rode silently on the road that leads to Jerusalem.

And on the eighth day, when the sun was already low in the heavens, he came to the gate of Jerusalem. And about midnight the gate was opened and a bier was borne forth, which many people followed with weeping and lamentation. And as they came near, Jerum said to one in the train, "Friend, will you not tell me to whom they give thus the last convoy?" And he knew not that it was Amos to whom he spake. But Amos knew the physician from Tyre, and said, "He whom you see upon this bier had yet lived had you come to his aid. Last night he bade them carry him to the roof of his house, and he looked towards the west if peradventure he might see you come. And when you came not he bowed his head and departed." "How can he then forgive my sin?" said Jerum. "He has already forgiven you," said Amos. "And as you have repented and have come even thus late the measure of your affliction is full, but that your obstinacy and delay be not forgotten, the plagues which have been laid upon you shall not be removed from the faculty of the physicians from now till the end of years. Depart now in peace and return to your wife."

And Jerum returned again to Tyre and lived long in honour in his native city, and they gathered him to his fathers and laid him beside his wife Astaroth. And the prophecy of Amos the servant of the high priest has been fulfilled, and there is no physician who has not suffered from the plagues of Jerum the Phoenician.

THE CHILD STUDY SOCIETY.

ANNUAL CONFERENCE.

THE opening of the annual conference of the Child Study Society, which was presided over by Sir RICHARD MARTIN, took place on the evening of Thursday, May 9th, at the University of London.

President's Address.

The presidential address was delivered by Sir JAMES CRICHTON-BROWNE. Referring to the report of the Royal Commission on the Care of the Feeble-minded, he said inspection revealed a serious state of affairs. The returns from the Board of Education agreed closely with the estimates of the Royal Commission, and it would appear that there were 150,000 feeble-minded persons in England and Wales, of whom 48,000 were children in public elementary schools. The local education authorities were now in possession of information as to the number and condition of these children, which should lead to their proper classification, and to the provision of suitable education. The important point was that the education provided should have regard to the limitations and prospects of improvement of those for whom it was devised. The danger was that the education provided for the weak-minded would involve an outlay out of all proportion to the benefits which could possibly accrue from it. Humanity was inclined to lavish on them more than was really necessary, and it was deplorable to think that large sums were expended on the education of some of the feeble-minded who were ineducable, while other children of average intelligence, who would profit by education, were being reduced to feeble-mindedness by poverty and malnutrition. Another interesting and promising branch of child study still much in need of elucidation was that relating to the order of development of sex differences and characteristics, mental and corporeal. It would seem probable that the broad mental differences between men and women must have differences in cerebral organization underlying them. A well-established physiological difference between men and women was the composition of the blood. The blood of the adult male averaged 5 million red blood corpuscles per cubic micromillimetre of blood, the average in the adult female being 4½ million. The composition of the blood varied with the ages considered, and in girls at the rapid growth period the changes were of great significance, and should be well weighed in connexion with educational arrangements. There was a large amount of slight anaemia that escaped detection. Girls grew sluggish in their work and were pronounced lazy, or looked pale and were urged to more active outdoor exercise, but all the time it was poverty of blood that was at fault, and that could not be relieved by tutorial monitions or violent hockey.

Education of the Deaf.

The second meeting of the conference took place on Friday, May 10th. Dr. J. KERR LOVE read a paper on the influence of defects of hearing in relation to the mental and physical defects of the child. Educational knowledge was chiefly gained by the eye and the ear, and it should be the business of the school to see that both those avenues of learning were developed as far as possible. The absence or great defect of hearing arrested mental progress, with the result that a deaf child at 7 years had a brain as much as half an inch smaller than that of the normal child. Thought processes were slower in the deaf than in those whose hearing was normal, but wherever hand and eye, muscle and bone, and tendon and nerve were the chief factors making for success the deaf were equal to those without defect of hearing. Deaf children should commence language training at 3 years of age, or as soon as the fact of deafness was discovered. The school period in schools for the deaf should be extended to the age of 18. The semi-deaf and the semi-mute should attend special schools from which the true deaf and dumb should be excluded. An animated discussion followed, in the course of which Mr. MACLEOD YEARSLEY drew attention to what he described as an absurd anomaly in British law. While it was compulsory for the blind child to begin his education at 5 years, the compulsory age for the deaf child was 7 years. He quoted statistics to show that the percentage of mental defect in hereditarily deaf children was considerably lower than in sporadic cases of deafness. It was important that special provision should be made for the education of the deaf, and the speaker warned teachers to make every effort to prevent the production of acquired cases of deafness. A suggestion was made by another speaker that the hearing of school children should be tested periodically in order that those whose hearing was impaired might be gradually drafted into these special schools.

Influence of Defective Vision.

A paper on the defects of vision was next read by Mr. N. BISHOP HARMAN, who commented on the difficulty of stimulating the remaining sense faculties of blind children. In the London County Council it had been found desirable to segregate the short-sighted, and to teach such script as was necessary by blackboard work, the main part of the curriculum being oral teaching and handicraft. To strain the growing eye of the child was to do the child grievous bodily harm. It was necessary strictly to limit the eyework of the young child and to detect and treat defect by the provision of effective school inspection and a suitable curriculum.

Treatment of the Tuberculous Child.

A paper on the tuberculous child was read by Dr. Jane Walker. Tuberculous infection in children was nearly always domestic and not scholastic in origin. In the case of children suffering from non-pulmonary tuberculosis, an indispensable element in treatment was after-care, and it was possible in special sanatoriums to combine treatment and education. She also referred to the value of the dispensary and the sanatorium as the chief lines of defence against the disease. She urged that cases of tuberculosis should be admitted to the general hospitals. Miss M. A. Broadbent, who opened the discussion, gave details as to the success of open-air school treatment in cases of tuberculosis. Dr. A. E. Hayes urged that the use of the open-air school and other methods that had been found of value for special classes of children should be adopted for normal children.

Dangers of Over-Education.

The third meeting was held on the morning of Saturday, May 11th, when Dr. Theo. B. Hyslop read a paper on mental hygiene in relation to the development of the child. He said he would hail with thankfulness the day when they could adopt the Japanese system and exclude from school all children under the age of 6 years. In the meantime, it was to be hoped that all local authorities would adopt the system which had been started already in this country of excluding children under 5. The habits of cleanliness, temperance in eating and drinking, and all the various factors which were comprised under the term "hygiene" should be part of the development of the child, and none of these elementary conditions should necessitate the displacement of any of the subjects now taught in schools. It was necessary that teachers should have definite and reliable information on the subject of hygiene. The brain of the nation was now taxed to excess, and it was the brain of the nation that was showing such formidable signs of decay. Our educational system of endeavouring to force all brains to a high standard of competency was not only often useless and unprofitable, but actually deleterious.

Sir J. Crichton-Browne said that on reading the school literature of to-day it sometimes occurred to him to ask whether the doctors might not be inclined to go a little too far and dictate to the teachers. A scientific tyranny of this country would be quite as bad as the tyranny of priestcraft ever was. What the medical man had to do was to provide the teachers with a little better material on which to operate, and they could do that by improving the physical conditions under which the child spent its early life.

Dr. Mumford (Manchester Grammar School) said his inquiries tended to show that the breakdown of children arose, not from pressure at school, but chiefly from not having sufficient sleep. Miss Bathurst (ex-Inspector of Schools, Board of Education) urged the prohibition of the three R's for children under 6 years. Dr. Kirkpatrick (Fitchburg College, Massachusetts) advocated the abolition of all examinations and degrees. To force a child to learn a given thing at a given time, and, worst of all, to pass an examination on it, was to do injury to its mental health. It was not necessary to force a child to learn, for he was a living interrogation point. The wisdom of this opinion was questioned by various other members, who contended that young children were better off in schools than on the streets, or in unhealthy home conditions.

Instruction of Children in Sexual Hygiene.

A debate on the question of organized instruction in sexual hygiene for school children was opened by Dr. Eric Pritchard, who said the home had shirked the duty in the past and would probably continue to do so. What the home neglected the school must undertake, and in many ways the teachers were better fitted for the duties, though they were not equipped with the necessary scientific knowledge to instil lessons of that kind with confidence and complete detachment. He thought they should invent a new class of experts, selected from among school doctors, endowed with special gifts of understanding the psychological side of child nature. Dr. Taylor, of Halifax, said parents would not give the desired instruction. The school doctor was too scientific and too physiological, and he thought it would be necessary to go back to the teacher. Dr. Kirkpatrick said that what was needed was the development of a proper vocabulary. He believed the time would come soon when they might depend upon the mother for the early instruction of the children. A similar view was expressed by Mrs. Cloudesley Brereton, who said it would be unwise as well as impossible to wipe out the parents altogether: every mother knew best her own problem; whilst Dr. Alice Corthorn declared that the mother was becoming the greatest expert in their midst. Their work should be to stimulate her to action, and leave her to do the work which no one else could do as well.

Conclusion of the Conference.

A meeting of the Council took place on Saturday afternoon in the rooms of the Royal Sanitary Institute, Buckingham Palace Road; and the conference terminated with a reception held in the evening at the private residence of Sir Richard Martin, President of the London branch of the Child Study Society.

LITERARY NOTES

The *Review of Bacteriology, Protozoology, and General Parasitology*, edited by Alexander G. R. Foulerton, F.R.C.S., and Charles Slater, M.A., M.B.Camb., assisted by S. R. Gloyne, M.B.Leeds, D.P.H., and H. K. Whittingham, M.B.Lond., D.P.H., which has hitherto been published as a monthly supplement to the *Medical Officer*, now makes its appearance as a separate publication. Five parts will be issued during 1912, but in future six parts will be published each year. It is published by Science Reviews, Limited, 36–38, Whitefriars Street, London, E.C.

Thomas Love Peacock, the author of *Headlong Hall*, *Nightmare Abbey*, and many other books in prose and verse, is a classic; but his fate has been that of so many classics—he is read only by the few. He deserves a better fate, though his peculiar intellectual quality must always make him "caviare to the general." A good deal of his satire on "perfectibilians," "deteriorationists," and "morbid visionaries" could be applied to the present day when the reformer is so much abroad in all directions. In glancing through some of his verses recently we came across the following lines, which might almost be taken as showing that the author beheld in a prophetic vision the attitude of Mr. Lloyd George as expressed in his earlier deliverances on National Insurance:

> After careful meditation,
> And profound deliberation,
> On the various pretty projects which have just been shown,
> Not a scheme in agitation,
> For the world's amelioration,
> Has a grain of common sense in it, except my own.

The animated correspondence which has recently appeared in the daily press concerning the origin and nature of sardines has its parallel in the April number of *L'Hygiène*, in which M. Francis Marre discusses the characteristic features of the sole, and the means whereby it may be distinguished from other and less delicate varieties of flat fish. The position of the eyes is the surest indication that the so-called sole is not the more economical brill, plaice, or flounder, but has a legitimate right to its title; and M. Marre adds some useful rules for the guidance of the would-be purchaser, which, if carefully observed, should enable him to avoid food poisoning by procuring absolutely fresh fish for his table. Articles of food, however, are by no means the most prolific source of infection. In the same number of *L'Hygiène*, M. Emile Gautier draws a vivid picture of the risks incurred through handling ordinary playing cards, though he frankly confesses himself unable to propose an adequate remedy for a state of affairs which is more or less unavoidable since it applies to bank notes, newspapers, letters, and all the other appurtenances of civilized life. In the same issue there is an interesting article by Dr. Robert Leroux, on the principal causes and symptoms of nasal obstruction; whilst Dr. Maurice Nigoul contributes a short account of the treatment of tuberculosis in its earliest stages, and a writer who signs himself "H. B." has paid a generous tribute to the memory of Lord Lister, and the part played in popularizing his teaching by his great disciple, Professor Lucas-Championnière.

British Medical Journal.

SATURDAY, MAY 18TH, 1912.

FIRST MEETING OF THE JOINT ADVISORY COMMITTEE.

THE Advisory Committee of the Joint Committee of Insurance Commissioners at its first meeting last week did little business of direct interest to the medical profession beyond consenting to work in two sections, rather against the preference of the friendly society representatives, who claimed to be interested in both. The one section, which dealt with questions of contributions, accounts, book-keeping, sub-contracting, and the like, held a very long sitting under the chairmanship of Mr. Masterman, M.P. The other, to which medical matters had been referred, continued under the presidency of Mr. Lloyd George; but after it had been made plain that it would act as an advisory and not as a drafting committee, and after some minor matters of procedure had been settled, it shortly separated for want of any programme of the work it was proposed it should do.

At the opening of the proceedings, when the full Committee sat together, Mr. Lloyd George, who presided, made a speech the most important point in which was perhaps his recognition of the constitutional position of the Committee, namely, that it was to advise and assist in the preparation of regulations, not to negotiate their acceptance. Mr. Lloyd George and his immediate advisers have, no doubt, learnt a good deal since this time last year, and in addressing the meeting last week, when among his audience he had a number of medical men representing more or less directly all departments and kinds of practice, he refrained from those taunts which fly so readily from his tongue and rankle so long and so deeply in the hearts of those he has chosen to regard as his adversaries. So far from being the adversaries of his ostensible, and, we believe, quite sincere, desire to better the health of the nation, the members of the medical profession would have been his strongest allies and best instructors had he realized, some three years ago, when the serious work of preparing a national insurance scheme was undertaken, that he and those who were assisting him in drafting the insurance scheme stood in need of the better and fuller information which the medical profession alone was really competent to supply. Instead of this, he seems to have allowed himself to be influenced by empirical data which must have been furnished by persons very imperfectly acquainted with the true facts, or interested, as were, perhaps, some of the friendly society officials he consulted, in concealing them.

It is only necessary to compare the speech which Mr. Lloyd George delivered when introducing the bill into the House of Commons on May 4th, 1911, with the remarks which he addressed to the Advisory Committee on May 10th, 1912, to see how far the truth of this has, mainly through the recent action of the British Medical Association, been brought home. It would be to enter a fool's paradise were we to affect to suppose that their full significance has yet been appreciated, and any tendency to stray from the straight path would be at once neutralized by the perusal of some passages in the earlier part of his speech last week. His observations on the duty of the loyal citizen to obey the law of the land were platitudinous, and, so far as the medical profession goes, wholly inappropriate. There has been no hint of passive resistance to the new tax; we shall stick on our stamps with as much zeal or resignation, according to individual beliefs and temperaments, as the rest of the community. The objections formulated by medical men in their professional capacity are not against the general purpose of the scheme or the taxation it imposes, but as to certain important points in the administration of the powers and funds it brings into existence. The medical profession has been free, as is the Bar, or as the Church in Wales is to be. It has educated itself, organized itself in the face of much short-sighted political indifference or opposition, maintained itself, and provided as best it could for the mischances of life and the disabilities of old age. Without any adequate consultation or inquiry it has suddenly been called upon to sacrifice its freedom in return for annual payments which it considers to be wholly inadequate, and to allow to be imposed upon it a form of practice—contract practice, partly at least on the capitation system, and largely under friendly society control—which it knows by bitter experience to be as a rule inimical alike to its own interests and to those of the public health. It has been called upon to make, as it believes, serious pecuniary sacrifices, and it has seen its temperate and courteously-worded suggestions for the improvement of the scheme and the safeguarding of its own interests and those of the community largely set aside, often without due consideration or adequate reason assigned, and sometimes with contumely. Is it to be wondered at that it has delivered an ultimatum, and is preparing to find a method of continuing to discharge its duty to the nation by organizing a public medical service, conducted by it independently of the insurance scheme?

Attention has again and again been directed in these columns to the policy of the State Sickness Insurance Committee, acting in accordance with the decisions of the Representative Body which registered the clearly-expressed wishes of the members of the Association. It is that any negotiations which may presently be set on foot must be carried on between the Insurance Commissioners and the constitutionally chosen and accredited representatives of the British Medical Association, the only body capable of ascertaining and expressing the considered opinion of the whole body of the profession. The Chancellor of the Exchequer, indeed, himself told the Committee last week that its functions were not administrative or executive but advisory. At the same time, there seemed to be some disposition to seek to induce the Association to submit draft regulations as to medical benefit for the criticism of the Insurance Commissioners. This would have been the converse of the proper constitutional order of business, and in flat contradiction to the Act. It provides that for the purpose of administering medical benefit every Insurance Committee shall make arrangements with duly qualified medical practitioners in accordance with regulations made by the Insurance Commissioners, and specifies certain of the conditions which the Commissioners must lay down in their regulations. The point recurs so often in the text of the Act, and is so much a part and parcel of the whole plan for getting it to work, that it cannot be seriously disputed. The duties

and powers of the Advisory Committee are to advise and assist the Insurance Commissioners in making and altering regulations: it cannot advise about regulations which are not in existence. When the first draft of the regulations has been submitted to the medical section, as it may be called for convenience, of the Advisory Committee, and after its criticisms have been considered, it may probably be found expedient to submit the regulations to the whole Committee sitting as a single body. After the text of the draft regulations has been published it will remain for the profession to judge whether the advice given by the medical members, which we cannot question will be in accordance with the reiterated expression of the wishes of the profession, has been accepted by the Commissioners. Discussion on this point arose at the meeting last week, but, as it took place after the Committee had divided and reporters had been required to leave the room, we are not in a position to give our readers an authoritative account of what took place. Those members of the Committee who are there as the representatives of the British Medical Association will, we surmise, have had little difficulty in defining their attitude, but it is to be regretted that the whole proceedings were not open, and are, apparently, not to be open in future. All the points likely to be in issue are well known, and the debates ought to be common property.

In a country in which the democratic principle is so deeply rooted, absence of concealment is so much of the very grain and substance of our conception of the proper conduct of public business that secrecy quickly breeds rumours, and rumours suspicion—the suspicion that what is not told is deliberately concealed because likely to be distasteful. The Commissioners, if sincerely desirous of finding a *modus vivendi*, as no doubt they are, would be well advised to raise no objection to the publication of the proposals they make to the medical section of the Advisory Committee, together with the remarks made thereon by the members present, who, as last week, will no doubt include representatives of friendly societies as well as of the medical profession. Nothing would conduce more to a calm consideration of the problems which arise, and nothing less will satisfy public opinion. We are not very sanguine that this advice will be accepted, but of its soundness we have no doubt. By its acceptance many occasions for misunderstandings and misapprehensions likely to create fresh difficulties and embarrassments for all parties would be avoided.

THORIUM AS A THERAPEUTIC AGENT.

THE high price of radium is a bar to its more general use, which, though it has indeed been partially overcome in this country by the establishment of the Radium Institute, still operates to prevent the general adoption of the treatment in many cases for which it might possibly be useful. Not long after Becquerel's fundamental observation in 1896 that uranium was radio-active, Madame Curie, by a systematic examination of a large number of elements, showed that thorium possessed the same property to a degree comparable with uranium. Professor Rutherford, now of Manchester, who has given special attention to thorium, has pointed out that for many purposes active preparations of thorium would be as valuable as radium itself, and that, as thorium is a commercial product—used, for instance, in the manufacture of incandescent mantles—the amount of active matter which might be made available from this source would be greater than that at present obtainable from the separation of radium from uranium metals.

The first product of thorium to be recognized was the emanation, which was shown to consist of four bodies—thorium A, B, C, and D. Rutherford then found that there was another product called thorium X antecedent to the emanation, and Hahn proved that this again was preceded by a very active substance emitting alpha rays, which he called radiothorium; it has a period of about two years. Hahn further showed that this was preceded by a rayless product, mesothorium, into which thorium is first transformed. Mesothorium when first separated is believed to be inactive, but in consequence of the production of radiothorium it is in practice active, and the activity increases, the maximum being reached in a little over three years; it then diminishes, so that its potential is about halved in five and a half years, as compared with radium in eighteen hundred years. This diminution of activity is less rapid when radium is present, as is said always to be the case in the preparations made from the monazit sand of Brazil.

For therapeutic purposes, therefore, mesothorium or thorium X are possible substitutes for radium. Professor v. Czerny and Dr. A. Caan, who have recently[1] related their experience of these substances, call attention, in the first place, to the fact that mesothorium exerts at least the same energy, weight for weight, in the same time as radium, as determined by the effect on a photographic plate. The superficial action on living tissues appears to be stronger than that of radium. They observed the effect on malignant growths, and report that mesothorium acts just like radium. A lymphoid infiltration is noted, and this is followed by a proliferation of connective tissue at the cost of the carcinomatous tissue. In their 120 cases of various forms of malignant disease and lupus the results obtained were not uniform. Of 32 mammary cancers, 19 showed a distinct subjective and objective improvement; of 6 carcinomata of the face, 4 were favourably influenced; of 10 oesophagus cancers, 4 responded fairly well to the special treatment. Two out of 9 cases of cancer of the tongue showed improvement, and a certain number of cases of malignant disease of the rectum, upper jaw, lip, uterus, stomach, gall bladder, lower jaw, cheek, testis, and hand did well under the treatment.

Practically all the cases of angiomata and lupus gave good results. Thorium X was given by intravenous injection, but, as animal experiments had demonstrated the highly dangerous properties of this substance, it was necessary to exercise great caution in its use. The time since the beginning of these trials is too short to admit of conclusive deductions being made, but Czerny and Caan find that the tumour frequently becomes smaller under the treatment and the subjective symptoms less marked; reactive swelling of the tumour occurs soon after the injections. The cases treated were advanced, hopeless cases, in which little, if anything, could be expected from any treatment, and they believe that mesothorium and radium are not specifics for cancer, but only very useful local remedies. They are fully satisfied with the results obtained, and promise themselves more when the apparatus has been improved and the technique perfected. Dr. W. Friedländer[2] has employed mesothorium locally, and reports most favourably on the action. He states that he was able to cure psoriasis plaques in one sitting, after *x* rays had failed. He is less positive in

[1] *Münch. med. Woch.*, April 2nd, 1912.
[2] *Berl. klin. Woch.*, April 8th, 1912.

regard to his cases of lupus erythematodes, which had proved refractory to all other forms of treatment, and which healed up in about ten weeks. His doubt is based on the experience that these cases at times undergo spontaneous remissions. Naevi were readily influenced by the treatment. Friedländer's conclusion is that mesothorium acts better than radium in skin affections. It will thus be seen that there are grounds for the belief that the products of thorium are valuable therapeutic agents, and that they may possibly prove even more generally useful than radium. It remains to be proved in how far either is able to influence malignant disease, and what disadvantages may attend its employment in other diseases.

THE TROPICAL DISEASES BUREAU.

WE stated a short time ago that the name of the Sleeping Sickness Bureau would probably soon be changed; this expectation is now about to be realized, and we are officially informed that from July 1st the bureau will be known as the Tropical Diseases Bureau.

The new bureau will deal with all exotic diseases which are prevalent in tropical and subtropical regions, and will publish at frequent intervals a *Tropical Diseases Bulletin*, which will take the place of the present *Sleeping Sickness Bulletin*. The director will have the help of an assistant director and a number of experts, who will be responsible for the different subjects, and will furnish authoritative reviews and summaries of published papers, to appear in the *Bulletin*. Thus, the results of the most recent researches on every tropical disease in every country, new methods of treatment, improved means of prevention, will quickly become available for the remote worker in the tropics. The tropical diseases of animals will be treated in a separate publication. To represent veterinary science Sir John McFadyean and Mr. Stewart Stockman have joined the committee, which includes among its members Sir P. Manson, Sir D. Bruce, Sir W. Leishman, and Sir J. Rose Bradford. Both the medical and the veterinary bulletins will be supplied free to medical and veterinary officers of India and the subscribing colonies; to others they will be on sale.

It may be recalled that the Sleeping Sickness Bureau had its origin in the International Conference on Sleeping Sickness held in London, under the presidency of Lord Fitzmaurice, in June, 1907, and March, 1908, to concert measures for the control of that disease, which was spreading rapidly in tropical Africa. It was then proposed to have a central international bureau "to extract and circulate all new literature on sleeping sickness." This project fell through, because the delegates were not unanimous as to the seat of the bureau, or even the necessity for its separate existence. Arrangements were therefore made by Lord Elgin, then Colonial Secretary, for the establishment of a British Bureau, maintained by imperial funds, with a contribution from the Sudan Government. The Royal Society agreed to house the bureau, and was thus indirectly a third contributor. Lord Elgin appointed an honorary committee, with Sir J. West Ridgeway as Chairman, to manage the bureau, and the first meeting took place in April, 1908. The bureau initiated the dispatch of several expeditions to investigate sleeping sickness in tropical Africa, and has supplied information to many inquirers.

It was not long before it became evident that what the bureau was doing for sleeping sickness could and should be done in the same way for tropical diseases generally. Medical men in the tropics have no facilities for consulting the very numerous papers published in many languages in journals all over the world. Even in London few have the time to read, much less digest, the vast mass of new literature relating to tropical diseases. Lord Crewe, when Colonial Secretary, and the present Colonial Secretary, Mr. Lewis Harcourt, have both interested themselves in the expansion of the bureau, and increased expenditure entailed will be provided by the Treasury, the Indian Government (now represented on the Committee by Sir A. Branfoot), the Sudan Government, the Union of South Africa, Ceylon, the Federated Malay States, Southern Nigeria, the Gold Coast, Sierra Leone, the Gambia, Fiji, Trinidad, and Jamaica: the annual available sum is approximately £3,000. The bureau, having outgrown the accommodation generously provided by the Royal Society, will have its quarters at the Imperial Institute.

The Sleeping Sickness Bureau has already issued 36 numbers of its *Bulletin*, each containing an account of current work in the field and laboratory on sleeping sickness and other trypanosome diseases, maps of distribution of sleeping sickness and tsetse flies, an exhaustive bibliography, a popular pamphlet on the means of prevention of sleeping sickness, and more recently *Bulletins* on kala-azar. The circulation of the monthly *Sleeping Sickness Bulletin* is 1,100 copies, of which about half go to Africa. The present library, in which current files of all the journals of tropical medicine are to be found, forms the nucleus of a good tropical diseases library. It is expected to grow rapidly, and to become of great value to medical officers home on leave from the tropics.

STATUS OF MEDICAL DEFENCE SOCIETIES.

IN our medico-legal column this week will be found an account of an action of much interest to medical men. The matter is one in which the London and Counties Medical Protection Society is fighting not only its own battle but that of all allied societies. It will be noted with satisfaction that so far the society has been successful, but inasmuch as, presumably, it is possible that the case may go to the House of Lords the final outcome is not yet assured. The offence alleged against the society—that of Maintenance—is one of which little comparatively is heard nowadays. Judging from the judicial deliverances on the most recent occasion on which it had previously come before the appeal court—some four years ago—it is an offence not easy to define, since though its germ perhaps remains unaltered its relation to its environment has been greatly modified by the complexity of modern social conditions. As a legal offence reference is made to it several times in rolls of Parliament and records of English guilds dating back as early as the fourteenth century. At that time the offence seems to have represented a very human kind of charge, since it had a near congener in the feeling which even nowadays makes spectators of a quarrel "keep the ring" and tend to turn upon those who so far do not mind their own business as actively to aid one combatant or the other, even though fairly matched. Though one of the judges in the previous case said it was much easier nowadays to say what maintenance is not than what it is, legal authorities in past generations, when speaking of the offence as it then stood, did not hesitate to define it positively as well as negatively. It is described by Blackstone, for instance, as "an officious intermeddling in a suit that in no way belongs to one, by maintaining or assisting either party with money or otherwise to prosecute or defend it"; while Coke, an earlier authority

still, described it as "a taking in hand, bearing up or upholding of quarrels and sides to the disturbance or hindrance of common right." Other offences of the same order as maintenance, and possibly governed by the same considerations, are barratry and champerty. The former term figures largely in marine insurance policies, where it has a special significance, but as otherwise used represents the act of habitually stirring up legal and other strife. Champerty, on the other hand, is aiding a plaintiff in return for a promise of half or other share of the proceeds if the action proves successful.

PHONO-CINEMATOGRAPHY.

THE Friday evening discourse at the Royal Institution last week was given by Professor William Stirling, of Manchester, who demonstrated the remarkable degree of perfection to which the apparatus for obtaining a simultaneous record of sight and sound has been brought by the well-known inventor, M. Leon Gaumont, of Paris. The conditions to be fulfilled were, he said, absolute synchronism between the phonograph and the cinematograph, both in recording and in reproducing the result; registration of sound by the phonograph at the proper distance at the same time as the registration of the pictures on the moving film, without the phonograph being in the field of the cinematograph; and, finally, the amplification of the sound so that a large audience could hear the sound and observe the exact correlation between the movements of the speakers, actors, or singers, and the audible sounds as regards pitch, loudness, and quality of tone. Professor Stirling said that the problem had occupied the attention of many investigators for fifteen years or more. Among these experimenters was Emeritus Professor J. G. McKendrick, a photograph of whose apparatus, with its inventor seated beside it, was shown. All difficulties had at length been overcome by M. Gaumont and his collaborators, who had reported their first success to the Académie des Sciences over a year ago. The two essential parts of the apparatus—the phonographic and the cinematographic machines—were driven, each by an electrical motor of identical pattern and of approximately the same power, actuated from the same source. The speed of the phonograph was the controlling factor. It was kept constant, and any correction in speed required to synchronize the two machines was achieved by accelerating or retarding the speed of the cinematograph instrument through a differential gearing introduced between it and its motor. The apparatus had been fitted up in the lecture theatre by MM. Gaumont, and some very striking demonstrations were given, including a crowing cock, a lion trainer in the lion's den, a person enduring, not very patiently, the agonies of an attempt to carry on a telephonic communication when the line is crowded, a sailor reciting the "Ballad of the Clamphercown," a musician playing on the banjo, the retribution which befell a grumpy railway traveller, and a version, unintentionally burlesque, of the reception of the toast to the King at an English public dinner. The synchronism in all cases was remarkable, and, as far as the eye and ear could detect, perfect. That the combination may be of use in medicine cannot be doubted and was made obvious by one of the demonstrations. In conclusion, Professor Stirling showed an interesting series of cinematographs of natural objects obtained by M. Gaumont by the three-colour process. They included flowers, butterflies, and moths. In the case of some of the butterflies the lecturer first demonstrated the effect of a beam of light falling upon the actual specimen in rotation, and then showed the cinematograph film, which reproduced in striking manner the iridescence on the wings of some species. Owing to the perfection of the three colour process, the projections were quite free from the green tinge which seriously detracts from the effectiveness of the exhibitions of colour cinematography commonly to be witnessed.

SECONDARY *X* RAYS IN THERAPEUTICS.

Two years ago Sir J. J. Thomson interested radiotherapists by his suggestion that secondary *x* rays might have medical utilities. If a beam of *x* rays from a tube is allowed to fall on metals, or even on non-metallic substances of a certain nature, secondary rays are produced by the substances in question. It may even be said that these substances become temporarily radio-active. The secondary radiation can penetrate tissue to a definite depth, and the extent of penetrability varies with the atomic weight of the element concerned in its production. The rays from iron, for example, proceed only for an infinitesimal distance, while those from silver have a range many times as great. But whatever the character of the primary *x*-ray beam, providing only that it has a certain degree of "hardness" or penetrability, the secondary radiation is specific to its element. It is obvious that we have here a valuable property, especially in view of the fact that ordinary *x* rays from a tube are heterogeneous and to a great extent incalculable, and that although they can be made to reach a deep-seated lesion, their therapeutic action is feeble. One of the most resourceful of the investigators on the medical side of this subject is Dr. F. Hernaman-Johnson; in a paper read recently before the Electro-Therapeutical Section of the Royal Society of Medicine he stated that he had employed these secondary rays both to augment the primary radiation and as a substitute for it. In considering the first of these uses he suggests a new nomenclature for the various directional types of these secondary rays. If a thin plate of zinc, for example, be placed in the path of the primary beam, secondary radiation will be produced on both sides of the plate and also within its substance. The rays which come off from the zinc in a direction opposite to that of the exciting rays—as though they were reflected, which, however, is not the case—he calls "anadrastic"; those which leave the other side of the zinc in company with the primary beam still sweeping onwards he calls "syndrastic"; and those which act in all directions within the metal "pandrastic." In order to obtain therapeutical effects with rays of the first of these types it is necessary to have the plate of metal or other "intensifier" placed behind or below the lesion; to obtain effects with the second type it must be placed in front of or above the lesion; and in the case of the third type the molecules of the substance have to be scattered in finely divided form throughout the mass of the diseased tissue. The "anadrastic" rays are useful largely for ulcers, and silver in these cases is the most suitable substance, for the "silver ray" has an effective therapeutic range of 1 cm., that of tin 2 cm., of zinc 0.5 mm., and of iron 0.25 mm. In only a few situations, such as the nose and mouth, is it possible to place metal plates on the other side of the lesion, and therefore resort is made to injections of precipitated silver in suspension in some viscid fluid. A rodent ulcer at a standstill under *x* rays of the ordinary type has been stimulated to heal when, in addition to the continued *x*-ray action from without, some precipitated silver has been introduced beneath its base. The silver acts as an intensifier of the primary ray, and the tissues immediately above it are subjected to a double bombardment from opposite directions. Under special conditions, this method has even been applied to the relief of pain and discomfort in malignant tumours of the alimentary tract. "Syndrastic" rays appear to be chiefly of value in shortening exposures in superficial skin lesions; while an effect from "pandrastic" rays is obtained by injecting within the mass of malignant cells a diffusible salt containing an element of suitable atomic weight, such as bromine and strontium, which give rays having a range of 1.25 mm. and 2.5 mm. respectively. Thus the whole of the tumour becomes the seat of a soft radiance. Treatment in which no primary rays reach the

part, secondary rays only being concerned, is carried out by an arrangement called a "ray transformer." This is a little box in which the x-ray tube is effectively shielded, and the transforming plate, which may be coated with any substance, is placed at such an angle that when the secondary radiation is excited its pure beam alone issues from the opening below. The effect is slow, of course, compared with the ordinary exposure, but the rays are at least of known penetrability, and this advantage is considerable in view of the risk involved in an indefinite bombardment in the neighbourhood of certain organs. Although the author mentions that he has treated 35 cases of his own, chiefly by some form of intensification, and that the results encourage him to further trials, the paper necessarily presents rather more theory than practice, but for those who in future try this method—and doubtless they will be many—it will be of great value.

THE FRENCH HOSPITAL.

THE forty-fourth annual dinner of the French Hospital took place at the Hotel Cecil on May 11th, under the presidency of His Excellency the French Ambassador. Among those present were the Lord Mayor, the Sheriffs of London, various members of the Corps Diplomatique, the hospital staff, and over 300 supporters and contributors to the hospital. Despite the depressing effect of the Insurance Act and the depletion of the public purse by the large sums collected of late for other charitable purposes, subscriptions to the amount of £3,800 were announced by the Secretary. After the usual loyal and official toasts, the Ambassador proposed "The Medical Staff." Dr. George Ogilvie, Senior Physician to the Hospital, who spoke in French, replied to the toast. After some introductory remarks, he proceeded: "Il est presque superflu de dire que le but de notre profession est de prévenir ou de guérir la maladie et si nous n'obtenons pas ces résultats, alors notre but est de soulager l'humanité souffrante et de prolonger la vie. Dans l'esprit du médecin il reste toujours une vive et durable impression de deux phases de son travail: l'une, la reconnaissance de ceux qu'il a secourus; l'autre, la résignation paisible dans la souffrance, qui est en vérité un tribut à la noblesse de la nature humaine. Messieurs, la reconnaissance des malades n'est-elle pas la plus douce récompense d'un médecin, car, si c'est la curiosité des malades qui fait le savant, c'est l'amour des malades qui fait le médecin."

THE WELFARE OF CHILDREN UNDER SCHOOL AGE.

THE Executive Committee which organized the two national conferences on infantile mortality in London in 1906 and 1908, attended by a large number of members of local authorities, has resolved to form a national association for the prevention of infant mortality and the promotion of the welfare of children under school age. The national conferences and the Executive Committee have hitherto dealt principally with matters affecting infants during the first year of life. The extension of the work is due to recent legislation, especially the institution of medical inspection of school children, and the National Insurance Act. The Committee considers that the time has come when the sphere of operations should be extended to include children between the ages of 1 and 5 years, who, up to the present, have not been specially provided for. The new association will have for its object the co-ordination of the work of existing societies and associations interested in matters pertaining to the prevention of infant mortality and the protection of child life, and the committee hopes to enlist the co-operation of public health and Poor Law authorities, medical organizations dealing with maternity and child life, and also philanthropic agencies, such as day nurseries, country homes, and associations of voluntary health visitors. The ultimate aim is the promotion of a child welfare movement which would ensure the supervision of the infant population until the age when children statutorily come under the supervision of education authorities. The Committee is making arrangements for a public meeting to be held at the Caxton Hall, London, on the afternoon of Tuesday, June 4th, to which the King and Queen have graciously extended their patronage. The President of the Local Government Board, the Right Hon. John Burns, M.P., will preside, and it is expected that Sir William Osler, Mr. A. J. Balfour, and the Archbishop of York will also take part. Further information can be obtained from the Secretary, Mr. William Jones, Sanitary Chambers, Glasgow.

HEALTH COLUMNS IN LAY PAPERS.

ATTENTION has been drawn from time to time to the practice of lay newspapers publishing a special column in which they profess to give medical advice and prescribe treatment to individual correspondents. The essential feature of such columns is that advice is given and treatment prescribed to patients who have not been seen by the medical adviser, who consequently has to rely upon the patient's description of his ailment, or upon his statement of his former medical attendant's diagnosis; both are obviously untrustworthy guides, and may easily lead to improper treatment. Apart from the fact that such a system may cause interference with patients already under the care of some medical man, it induces people to think it is possible for medical men to treat patients without seeing them, whereas such treatment may not only be harmful, but in many cases may cause serious delay in the application of proper treatment. Any procedure calculated to encourage self-drugging is obviously to be condemned, and the public should clearly understand that drugs should only be taken on the advice of a medical man after examination of the patient. The whole subject has frequently been discussed, and the propriety of medical men acting in this way on behalf of newspapers has been vigorously challenged, but "health columns" are still to be found in many weekly and Sunday papers. Whatever may be said in defence of such columns, we cannot shut our eyes to the fact that the Association has condemned them in plain and unmistakable language, and on grounds which we think will fully justify its action to all reasonable and fair-minded men. The last Annual Representative Meeting adopted the following resolution: "That the practice of medical men taking charge of columns in which answers to correspondents on medical questions are printed is highly detrimental to the public interest, and most improper from a professional point of view." We can hardly believe that any member of the profession will deliberately disregard this expression of opinion.

PARLIAMENTARY GRANT FOR SANATORIUMS.

THE Local Government Board in England has issued a circular letter to the councils of counties, boroughs, and urban and rural districts with regard to the parliamentary grant for sanatorium purposes to be made in accordance with the provisions of the Finance Act, 1911, and the National Insurance Act. The Board states that it has had under consideration the distribution of the sums so allotted, and goes on to give an outline of the recommendations of the Tuberculosis Committee. It points out that as sanatorium benefit under the Insurance Act will come into force on July 15th it is important that some arrangements should be available at that date, although it will not be possible for complete schemes to be in operation throughout the country so early. The Board suggests that the medical officer of health should be asked to submit a report setting out the existing means for the treatment of tuberculosis within the area, whether in the hands of the local authorities or otherwise, together with an

estimate of the needs of the area. The outlines of a scheme of completely correlated administrative action against tuberculosis in the area or for a combination of areas should then be formulated. In developing such schemes, the needs of children should be carefully borne in mind, and it is pointed out that in some instances it may be desirable to provide special schools for children affected or threatened by tuberculosis, and that with regard to making any such provision the Board of Education should be consulted. It is further suggested that, in order to avoid delay, interim schemes for providing dispensaries and beds urgently required should first be submitted, the outlines of the complete organization being at the same time indicated as far as practicable. The Board agrees with the Committee that a reasonable measure of latitude and elasticity is necessary to suit varying local conditions, and that at this stage it is not desirable to attempt to lay down hard and fast lines. In conclusion, the Board directs special attention to the views of the Tuberculosis Committee as to the necessity of having suitably experienced medical men for the senior appointments in connexion with dispensaries and sanatoriums, and agrees with the Committee that the effectiveness and economy of the administration of a scheme will be dependent in a large degree upon the judicious selection of these officers. The Board asks for a reply before June 8th, and requests that the reply may include particulars as to the salaries, and arrangements generally, proposed in regard to the staff, together with an estimate of the annual expenditure.

THE BRITISH MEDICAL BENEVOLENT FUND GUILD.

On the afternoon of Thursday, June 5th, the day, we are informed, which will fall between the Derby and the Oaks, Sir George Alexander has arranged to lend the St. James's Theatre for a matinee in aid of the British Medical Benevolent Fund Guild. The programme is extremely attractive, the number of distinguished actors and actresses who are giving their services being remarkably large. The performance will open with the first act of *The Second Mrs. Tanqueray*, and among those who will interpret it are Mrs. Patrick Campbell, Sir George Alexander, and Mr. Cyril Maude; a scene from *Colonel Newcome* will be given by Miss Marion Terry, Miss Lilian Braithwaite, and Sir Herbert Tree; Miss Violet Vanbrugh and Mr. Arthur Bourchier will appear in a one-act play; Miss Irene Vanbrugh, Miss Hilda Trevelyan, and Mr. Gerald Du Maurier will appear in Mr. Barry's *A Slice of Life*, and Miss Lena Ashwell in *The Constant Husband*. Tickets can still be obtained from, among others, Lady Fripp, 19, Portland Place, W.; Lady Critchett, 21, Harley Street; Lady Bradford, 8, Manchester Square; or Lady Mackenzie Davidson, 26, Park Crescent, W. Our readers are already well acquainted with the objects of this Guild. It seeks to obtain additional support, especially from women, for the British Medical Benevolent Fund, and to supplement the work of the Fund by giving help and practical sympathy to its beneficiaries and others. That there is plenty of room for work of this kind must be evident to those who have read the reports of the cases assisted by the parent fund published in our columns from time to time; and it must be remembered that the Fund receives many more applications hardly less pressing to which it is unable to grant annuities. A point on which the managers of the Fund lay special stress, and one which will undoubtedly appeal to men and women alike, is that there are many children in the homes of the annuitants of or applicants to the British Medical Benevolent Fund who, without timely and discriminating personal sympathy and assistance, run the risk of never becoming useful and self-supporting members of the community. The Guild through its voluntary workers is able to do much good in this direction.

ANAPHYLAXIS IN THE HUMAN BEING.

A few cases of severe shock or even death resulting from induced hypersensibility to serum from a previous injection have been recorded since the study of anaphylaxis or hypersensibility has been introduced. Rosenau and Anderson examined one of these cases some time since, and a few other cases have claimed attention from time to time. The work of von Pirquet and Schick in describing "serum sickness" has thrown some light on the processes of the absorption of albumens, and the latest researches point to a rational explanation of the whole phenomenon. It may now be accepted that the absorption of the first dose of albumen produces a substance which has the faculty of rapidly splitting up albumen into the amino acids and other bodies. A number of these complexes of albumen act toxically and produce those symptoms which form what is termed the anaphylactic shock. Friedberger suggested that the shock might be due to one definite substance, but failed to establish the theory. Many other workers have also suggested that one or other of the amino acids is responsible for the shock. While a second injection in the guinea-pig is practically always fatal, when hypersensibility has been established, it has been found that the result occurs with a far lower degree of hypersensibility when the albumen is introduced into the vascular system than when introduced subcutaneously. It has, therefore, been stated that a second injection of serum in a patient should always be carried out subcutaneously. Lenzmann was led by two non-fatal shocks following intravenous injection to support this recommendation. Dr. J. Dreyfuss[1] has published a remarkable case of a boy who, having received a year previously a prophylactic injection of diphtheria antitoxin, was injected subcutaneously for the same disease and exhibited all the typical symptoms of anaphylaxis, including itching, vomiting, and clonic spasms, followed by obliteration of the radial pulse, and of the pupil reaction, and unconsciousness. Death took place about twenty minutes after the injection. Other causes could be excluded, and it was considered certain that the death was due to hypersensibility. Dr. W. Asam[2] also reports a case in which after a second injection of serum into the subcutaneous tissue very alarming symptoms came on, though the patient recovered. These accidents are undoubtedly disturbing, but, as Dr. Dreyfuss points out, they should not be taken as indications for the giving up of the use of antitoxin or other serum treatment. It must be remembered that they are very rare, and that the good done by diphtheria antitoxin far outweighs the evil of such untoward occurrences. Various suggestions have been made as to the means which could be adopted to avoid them. The most practical seems to be that of using the serum of an animal other than the horse when a patient has to be injected a second time with antitoxin. Goat serum or sheep serum would do well, and it should be easy to maintain small supplies of antitoxin from a fairly large variety of animals. Until more evidence of its value has been produced reliance cannot be placed on the power of calcium chlorate to prevent anaphylaxis. The deliberate induction of antianaphylaxis may prove a valuable method if it can be worked out for human beings. On the other hand, it should always be borne in mind that ether anaesthesia maintained for a considerable time masks the shock and finally saves guinea-pigs; so that if the physician fears the onset of the shock in a case of a second injection, or when the patient complains of itching immediately after the injection, ether anaesthesia should be resorted to and kept up until all risk of anaphylaxis has passed. This may be for one-half or one hour, or even longer. The anaesthesia may be allowed to pass off during the time, but must be immediately renewed as soon as any twitching indicates that

[1] *Muench. med. Woch.*, January 23rd, 1912.
[2] Ibid., April 9th, 1912.

the period of danger is still present. Doubtless future research will succeed in teaching us how to prevent these accidents altogether.

CENTRAL COUNCIL ELECTION.

MEMBERS are reminded that voting papers for the election of the Central Council for 1912–13 will be issued from the Head Office on June 8th. No member whose subscription is still outstanding for the year 1911 is entitled to vote. Members whose subscriptions are still outstanding should forward the amount to the British Medical Association, 429, Strand, London, on or before June 8th next.

THE next session of the General Medical Council will open on Tuesday, June 4th, when the President, Sir Donald MacAlister, K.C.B., will take the chair at 2 p.m.

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

National Insurance Act.

Sick Benefit.

COLONEL BATHURST asked the Secretary to the Treasury whether his attention had been called to the fact that, under the National Insurance Act, a man, having paid six months' (twenty-six weeks') contributions and then falling seriously ill, was able to draw six months' sick benefit only, and could under no circumstances draw further benefit of any kind until he had paid 104 contributions; and whether he would take care that this point was made clear by means of a leaflet or through the lecturers engaged in explaining the Act.

Mr. Masterman said that after paying contributions for six months—that is, twenty-six weeks—an insured person was entitled not only to sickness benefit for six months, but also to the other benefits of the Act, including medical benefit, sanatorium benefit, and maternity benefit when and for as long as they were required, with the single exception of disablement benefit. Permanent disablement benefit could only be drawn after 104 contributions had been paid. The position was exactly and fully stated on page 2 of the official explanatory leaflet No. 10, and was also explained by the official lecturers.

Sanatorium Accommodation.

Mr. Wright asked the President of the Local Government Board what steps had been taken to collect information as to what accommodation in existing sanatoriums or other institutions would be available on July 15th, 1912, for the use of persons entitled to sanatorium benefit on that date.

Mr. Burns replied that in December last he had directed a form to be sent to each medical officer of health in England and Wales asking for information as to the number of beds provided for the treatment of cases of phthisis in his district, and as to the arrangements for the use of such beds. Over 1,750 of the 1,800 forms which were issued had been returned, and from these it would appear that, apart from beds in Poor Law institutions and excluding beds for which 30s. a week or more was charged, nearly 4,000 beds had been provided. He was not aware what proportion of these beds could be approved for the reception of cases under the National Insurance Act, nor could he say how many of these beds would be unoccupied on July 15th next. It was proposed to ask the councils of counties and county boroughs to organize schemes of treatment, either separately or in combination, and in the organization of schemes it would be necessary for them to take into account any existing suitable accommodation, and to consult other local authorities and bodies who might be interested.

Maternity Benefit.

Mr. Godfrey Locker-Lampson asked the Secretary to the Treasury whether there was any foundation for the statements made by lecturers on the National Insurance Act that in the case of the Post Office contributor class the right to maternity benefit like the right to medical benefit continued till the end of the calendar year, even though the funds to the depositor's credit were exhausted; and whether there was any foundation for the statement that maternity benefit would be paid to a deposit contributor without any time limit, even though his credit was exhausted.

Mr. Masterman answered that the maternity benefit of a deposit contributor was paid when it was due out of the sum standing at the time to his or her credit, and was limited to the amount of that sum. He was not aware that any statements to the contrary had been made by official lecturers.

Medical Expenses.

Mr. Cooper asked the Chancellor of the Exchequer (1) if the Government or the Insurance Commissioners had yet determined the amount to be paid to chemists for medicine, drugs, and appliances under the National Insurance Act: if so, what was the amount per insured person; and what was the definition of what a chemist had to supply for this sum; (2) if it was now the intention of the Government to allow, or if it had agreed to allow, doctors to do their own dispensing; and (3) if the proposed payment of 6s. per head of insured persons for medical attendance would be increased; would chemists still receive 1s. 6d. per head of insured persons; and would that sum be provided by the doctors or by the Insurance Fund.

Mr. Masterman said that questions connected with the administration of medical benefit were being considered in conference with the medical representatives on the Advisory Committee, and he could make no statement at present as to the result of these deliberations.

The Housing of the Working Classes Bill.

After all, the Government means this measure to be utilized in Grand Committee and made useful for amending their own Act.

After striking out the clauses which were objectionable, the Local Government Board this week proceeded to add an amendment enabling a local authority to use land for the erection of houses of a higher type than workmen's dwellings, and to sell and lease land on the approval of the Local Government Board. Mr. Keir Hardie wished to strike out power to sell land, but Sir Arthur Griffith-Boscawen opposed this view, and said the amendment would act beneficially by securing a mixture of varied classes of people in a given area. Mr. Burns strongly supported this view, and said there would be no chance of the department allowing sale or diversion of land unless it was clearly for the public benefit.

After further discussion the amendment was carried by 25 to 10. Later on Mr. Wedgwood, representing the extreme Land Reformers, moved the adjournment, and when this was opposed by Mr. H. Lewis and Sir A. Griffith-Boscawen, he characterized the proceedings as "a put up" job between the Government and the Opposition." The Committee was simply carrying out the wishes of the Conservatives under the cloak of a Liberal Government. Mr. Burns defended the action of the Government in amending the bill, and finally the motion for adjournment was withdrawn.

Clause 5, which gives power to acquire land in advance of requirements for the purposes of Parts I and II of the principal Act, as well as for housing, was then carried with Government amendments by 26 to 4. Clause 6, referring to the relaxation of by-laws, was under discussion when the Committee adjourned.

Clause 5 as passed provides that local authorities shall be empowered to purchase slum property as it comes into the market without giving any public notice. They will thus be able to buy at the market value. If this power had existed in the past a large expenditure on slum property would have been saved, and speculative purchases made with a view of resale to the local authority prevented.

The Poor Law (Ireland) Bill came on for second reading on May 10th. It was an appropriate subject to occupy the last day of the Home Rule week, but the excitement of Thursday over the second reading of the Home Rule Bill had evidently exhausted the House of Commons. The Poor Law Bill could not retain forty members in the Chamber, and the absence of a quorum, which lasted from half-past one to four, forced the House to adjourn without the bill being considered. Sir John Lonsdale and

Mr. Moore, who moved and seconded the second reading, were answered by Mr. Birrell, who pointed out the difficulty of undertaking Poor Law reform at the present time. Mr. John Dillon, speaking for the Nationalist party, accused the promoters of the bill of ignorance, and then the count came, and no more was done.

Hospital Ship.—Lord Charles Beresford asked the First Lord of the Admiralty whether he was aware that the Admiralty stated on March 16th, 1911, that a hospital ship would be built for the navy; that the sum of £8,000 was allocated for this ship last year; and that this year £68,000 had been allocated for this ship; would he say what amount of money had already been spent out of these two sums, giving the amounts separately; whether tenders had been called for and received; and whether he would state to the House the amount of the tender and the earliest date that this ship would be fully equipped to take her place in the fleet. Dr. Macnamara said it was the fact that it had been stated that a hospital ship would be built for the navy, that the sum of £8,000 was allocated for this ship last year, and that this year £68,000 had been allocated for this ship. So far no money had been spent. Tenders had been called for and received, but it was contrary to Admiralty practice to quote the amount of the tender. He was afraid he could not say when the ship would be equipped to take her place in the fleet.

Post Office Medical Officers.—In reply to Mr. Watt, the Postmaster-General said that Post Office medical officers, alike at Glasgow and elsewhere, were remunerated by a uniform capitation fee of 8s. 6d. per annum in respect of each member of the local staff placed under their charge, no distinction being made between picked lives and others. The remuneration thus calculated covered the supply of medicines, and all such ordinary medical treatment as was sought from a general practitioner besides periodical sanitary inspection of Post Office buildings, reporting on the physical or mental condition of all officers whose retirement was in question, or whose fitness for a particular duty might be in doubt, and, speaking generally, assisting the Postmaster-General with their professional knowledge, and performing such advisory functions as were necessary to the welfare of the Post Office staff.

Vaccination (Conscientious Objections).—Mr. King asked the Secretary of State for the Home Department whether his attention had been given to the practice of a certain bench of magistrates who had agreed that none of them would on any occasion sign the form for conscientious objection to vaccination if applied to individually; whether, in consequence, every conscientious objector was obliged to apply to the bench at sittings of the court, thus being obliged, in many cases, to travel long distances and to lose a day's wages; and whether he would inform clerks to justices that this practice was a breach of the spirit of the law, and was calculated to shake the confidence of the public in the administration of the law. Mr. McKenna replied in the affirmative, but said that he had no authority to give instructions to magistrates in this matter. He fully agreed that poor persons should be enabled to make these declarations without unnecessary expense or trouble, and he could not think that there were many magistrates who desired to refuse them facilities for this purpose.

Vaccination Rules in Madras Schools.—In reply to Mr. Keir Hardie, the Under Secretary of State for India stated under the regulations made by the Madras Education Department in regard to small-pox and vaccination for schools receiving grants-in-aid the amount of the grant-in-aid might be reduced by not more than 25 per cent. on account of certain specified defects, one of which was "the presence of pupils unprotected from small-pox." In the case of secondary schools no teacher who was not protected from small-pox might, without express sanction, be permanently employed in an aided institution; and in schools for boys and native Christian girls no pupil who was not protected from small-pox by vaccination or otherwise might be admitted.

The Care of the Feeble-Minded.—Last week the Home Secretary stated in reply to Mr. Alan Sykes that he hoped very shortly to bring in a bill dealing with this subject.

THE INSURANCE SCHEME.

STATE SICKNESS INSURANCE COMMITTEE.

Eighth Meeting.

The eighth meeting of the State Sickness Insurance Committee was held on May 9th.

Mr. T. Jenner Verrall was in the chair, and the members present were: *England and Wales:* Dr. R. M. Beaton (London), Dr. John Brown (Bacup), Dr. T. M. Carter (Westbury-on-Trym), Mr. E. J. Domville (as Chairman of the Public Health Committee), Dr. S. Hodgson (Salford), Dr. R. E. Howell (Middlesbrough), Dr. Constance E. Long (London), Mr. James Neal (Birmingham), Dr. H. F. Oldham (Morecambe), Dr. E. O. Price (Bangor), Dr. Lauriston E. Shaw (London), Dr. W. Johnson Smyth (Bournemouth), Dr. D. G. Thomson (Thorpe, Norwich), Dr. D. F. Todd (Sunderland), Mr. E. B. Turner (London), Dr. A. H. Williams (Harrow on the Hill), Mr. D. J. Williams (Llanelly), Mr. E. H. Willock (Croydon). *Scotland:* Dr. J. Adams (Glasgow), Dr. Bruce Goff (Bothwell), Dr. R. McKenzie Johnson (Edinburgh), Dr. J. Munro Moir (Inverness). *Ireland:* Dr. Mark F. Cahill (Belfast), Dr. J. S. Darling (Lurgan), Dr. R. B. Mahon (Ballinrobe). *Ex Officio:* Dr. J. A. Macdonald (Chairman of Council), Dr. E. Rayner (Treasurer).

Apologies for absence for unavoidable reasons were received from the Chairman of Representative Meetings (Dr. E. J. Maclean), Miss Frances Ivens, M.S. (Liverpool), Dr. J. Pearse (Trowbridge), Dr. F. W. Kidd (Dublin), and Dr. R. A. Lyster (Winchester).

Minutes.

The minutes of the last meeting of the Committee held on April 25th were confirmed and signed by the Chairman as correct.

Chairman's Report to Central Council.

The Chairman reported that at its meeting on May 1st the Council had before it a report of all action taken by the Committee. Some members of the Council had, he stated, taken exception to the action of the Committee in issuing a supplementary pledge without submitting it to the Council, and in having selected members to act upon the Advisory Committee. The Chairman said that he had explained that the Committee deemed it essential in existing circumstances that it should take any necessary action itself and report thereon to the Council. This view had been accepted by the Council, which had approved the quarterly report of the Committee.

The Chairman also reported that the Council had referred to the Committee (1) a motion dealing with the question of the areas of Provisional Medical Committees, and (2) a report by the Hospitals Committee upon the question of the position of members of the medical staffs of voluntary hospitals. These matters, he said, would be brought before the Committee at its next meeting.

National Health Insurance Joint Committee.

The letter received from the Secretary of the National Health Insurance Joint Committee acknowledging the letter addressed to the Committee on behalf of the British Medical Association on April 26th was received. The letter, which was published in the Journal of May 4th, p. 1039, contained a statement to the effect that the Commissioners would be pleased to arrange a conference with the State Sickness Insurance Committee should circumstances arise which made it desirable for such a conference to be held.

The Chancellor of the Exchequer and the British Medical Association.

The Chairman reported that in view of the speech of the Chancellor of the Exchequer in the House of Commons on May 1st, 1912 (Supplement, May 4th, p. 425) he had instructed the Medical Secretary to address a letter to the *Times*, which had been published in that paper on May 2nd (Supplement, May 4th, p. 430). The Chairman also drew attention to the fact that the Chancellor of the Exchequer had since stated in the House of Commons that he had received three deputations from the Association, prior to

the introduction of the bill into Parliament. The Chairman read a detailed statement as to personal communications and interviews with the Chancellor of the Exchequer on behalf of the Association prior to the introduction of the bill. The substance of this statement is given in the JOURNAL of May 11th, page 1086. The action of the Chairman was approved.

REGULATIONS SUBCOMMITTEE.

The minutes of the meetings of the Regulations Subcommittee held on March 29th, April 2nd, and April 18th were received, and various recommendations bearing on principles which should be adopted in the regulations were discussed at length: it was agreed that in criticizing the draft regulations to be submitted by the Insurance Commissioners for the consideration of the Advisory Committee, the medical members of that Committee representative of the Association would keep the principles enunciated constantly in view.

JOINT INSURANCE ORGANIZATION AND REMUNERATION SUBCOMMITTEE.

The minutes of the meeting of this subcommittee held on April 25th and May 2nd were presented. The instructions of the committee were to consider the minutes of the Representative Meeting with regard to the organization of the profession failing the provision of adequate remuneration of medical practitioners and a fixing of a definite wage limit under the National Insurance Act, and for the organization in that event of a Public Medical Service to be administered by the medical profession in each insurance area.

The subcommittee had considered the following minutes of the Special Representative Meeting of February, 1912.

> 54. That the Council be instructed to take steps to organize the profession so as to secure that, failing the provision of adequate remuneration of medical practitioners and the fixing of a definite wage limit under the National Insurance Act, no medical practitioner shall give medical or surgical treatment to persons insured under the Act under a contract practice appointment held at lower rates than those which may be agreed upon as adequate by the Representative Body, after reference to the Divisions, for attendance upon insured persons, and that no contract practice be introduced into any district against the wishes of the majority of the members in that district. Further, after obtaining the adequate rate, the Representative Body shall insist that before any member of the profession can agree to accept work under a contract appointment, free choice of doctor by patient and of patient by doctor must be granted.
>
> 59. That the Council be instructed to direct the attention of Divisions to the desirability of preparing a scheme for a public medical service to be administered by the medical profession in each insurance area.

The subcommittee had accordingly prepared for submission to the State Sickness Insurance Committee two alternative schemes for a public medical service, one based on the capitation system of payment and the other upon the system of payment per attendance; each scheme provided for medical attendance and treatment on (*a*) persons insured under the National Insurance Act, and (*b*) persons not so insured. The reports led to considerable discussion, which was not concluded when the Committee had to pass to other business. The further discussion of the scheme was according postponed until the next meeting of the Committee.

MATERNITY BENEFIT AND OBSTETRIC INSTRUCTION.

It has already been reported that at its meeting on April 18th the Committee had a conference with the President and one of the honorary secretaries of the Obstetrical and Gynaecological Section of the Royal Society of Medicine with reference to the probable effect of the provisions as to maternity benefit contained in the Insurance Act and in certain of the model rules issued by the Insurance Commissioners upon the teaching of clinical midwifery. A Subcommittee, consisting of Dr. Maclean, Dr. Beaton, and Mr. Willock, was appointed to consider the matter further. It was empowered to consult with representatives of the Obstetrical and Gynaecological Section of the Royal Society of Medicine, and to obtain from the Insurance Commissioners any necessary explanation for its assistance in preparing a report on the subject.

SUPPLEMENTARY PLEDGE.

In response to an inquiry the Committee reported its opinion that the supplementary pledge applied in all cases of contributory contract medical appointments.

RESIGNATION OF CONTRACT APPOINTMENTS.

An inquiry from the honorary secretary of a Provisional Medical Committee as to the date at which the holders of certain contract appointments terminable at notices of one or two months should be sent in, should it be necessary to do so, was considered, and the Committee expressed the opinion that while it was desirable that all practitioners holding contract appointments should put their resignations in the hands of the Provisional Medical Committees, such committees should have regard to the wishes of the practitioners, and should not hand in any such resignations until the proper time was reached to ensure that the resignations should take effect synchroncusly with other resignations in respect of which it might be necessary to give longer notice. The object the Committee had in view, it was pointed out, was to ensure that, should resignation become necessary, all resignations should take effect at the same time—namely, in January, 1913.

RESIGNATION OF HOSPITAL APPOINTMENTS.

A communication was received from the Honorary Secretary of the Sunderland Provisional Medical Committee stating that while that committee approved of the action of the State Sickness Insurance Committee with regard to the resignation of contributory contract medical appointments, it had adopted the following resolution with reference to holders of voluntary hospital appointments:

> That it be a recommendation to the State Sickness Insurance Committee to immediately issue a form of notification of the provision of the supplementary pledge relating to the treatment of persons coming under the provisions of the National Insurance Act through any voluntary medical charity: this form of notification to be signed by the whole of the honorary and salaried staff of a charity on the one form, and the completed forms to be sent to the governing bodies of the charities involved at the discretion of the State Sickness Insurance Committee.

The Committee resolved to reply as follows:

> That the form of the supplementary pledge had received the very careful consideration of the committee, particularly with regard to the holders of voluntary hospital appointments, and that the committee cannot see any reason to alter the form of the pledge or issue a form of resignation of hospital appointments.

NEXT MEETING.

The next meeting of the Committee was fixed for Thursday, May 16th.

CONFERENCE WITH MEDICAL MEMBERS OF THE ADVISORY COMMITTEE.

In the evening an informal conference took place, with Dr. J. A. Macdonald in the chair, between the members of the State Sickness Insurance Committee, and some of the medical members of the Advisory Committee not nominated by the Association. In the absence of the detailed agenda paper for the meeting of the Advisory Committee a general conversation took place during the course of which the attitude of the Association as expressed by the State Sickness Insurance Committee with the approval of the Council was explained.

AT a meeting of the Nursing Division of the Bolton Corps of the St. John Ambulance Brigade on May 8th, Dr. J. Johnston was presented with an inscribed silver inkstand, in acknowledgement of his services to those who attended his lectures last winter on first aid and nursing work.

THE allotment of the Florence Nightingale memorial annuities has been entrusted to the Trained Nurses' Annuity Fund. The fund now invites applications from disabled trained nurses for these annuities, which it is expected will be each of the value of 10s. a week. The names of all suitable applicants, whether successful or not, will be recorded, and if they are eligible will be considered when a vacancy occurs among the annuities of the fund. Regulations and forms of application can be obtained on application by letter only to the Honorary Secretary, Trained Nurses' Annuity Fund, 73, Cheapside, London, E.C.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

BIRMINGHAM.

Presentation to Dr. Robert Saundby.

At the General Hospital, Birmingham, on May 9th, a presentation was made to Dr. Robert Saundby on his retirement from the position of senior honorary physician, in recognition of his great services as honorary physician for the past twenty-seven years. The Right Hon. the Lord Mayor of Birmingham, vice-president of the hospital, was in the chair, and a large number of the governors and of the medical and nursing staffs of the hospital were present. The chairman of the Presentation Committee, Mr. J. C. Vaudrey, presented a portrait of Dr. Saundby, to be hung in the board room of the hospital, on behalf of the ninety-five governors. The portrait, which was accepted by the Lord Mayor on behalf of the hospital, is a most excellent one, and represents Dr. Saundby in his robes as Doctor of Medicine, wearing the badge of the Presidency of the British Medical Association. The portrait has been painted by Mr. Frank W. Carter. Sir Robert Simon, senior physician to the hospital, asked the Lord Mayor to present to Dr. Saundby a gift of a silver gilt rose bowl and an illuminated address with a list of the subscribers. He spoke of the long and valuable services Dr. Saundby had rendered to the hospital, not only to the patients under his care, but also to the members of the medical staff. Dr. Saundby had always been a strong personality in the direction of the affairs of the hospital, and it was his splendid example, his high professional attainments, and his untiring energy that had helped so much to maintain and advance the reputation of the hospital. The Lord Mayor, in making the presentation, expressed the regret felt by all connected with the hospital that Dr. Saundby had given up his post as honorary physician, but added that they were glad to know that it did not mean his retirement from private practice. The silver gilt rose bowl was a copy of one in the collection of Louis XV, and the address was written and illuminated by Mr. E. Treglown, of the Birmingham Municipal School of Art, with borders of naturalistic ornament. It contained sketches of the old hospital in Summer Lane, and of the present hospital, in proper colour, signed by the ninety-five subscribers to the special fund, and bound in Niger leather with gold tooling by Mr. F. Garrett.

Dr. Saundby, who was loudly applauded on rising to reply, said it was difficult to find suitable words to express thanks for the honour which had been done him, and for the unvarying kindness he had received during the past thirty-six years. He spoke of the many changes he had seen in the institution and of its present honourable position. There was one aspect of the changes which he wished to refer to, and that was the different spirit in which every member of the staff now devoted himself to the work of the hospital. It was not as merely something to which he could give time he could spare from his private practice, but as the first and main call upon his time, strength, and energy. The demands were enormously greater than thirty or forty years ago; yet the response had been equal to it. At present the hospital had a staff of which it might justly be proud. They were training a set of young men who would worthily fill the places of the senior members when they had to retire. There was nothing he had more at heart than the success of the hospital, and he was confident that its future could not be in more capable hands. He thanked them most sincerely for the presentation which had just been made to him and for the opportunities and advantages he had received by being connected with the General Hospital.

A necklace of gold and silver, set with emeralds and pearls, designed by Mrs. G. C. Gaskin, was presented to Mrs. Saundby. Sir John C. Holder, Chairman of the House Committee, in making the presentation, said how very great had been her help to Dr. Saundby in his work, and also how much her services on the Samaritan Fund were appreciated. Mrs. Saundby returned thanks in a charming little speech, and said she was proud to know that her husband's portrait would hang in the board room of the hospital.

The proceedings terminated with a vote of thanks to the Lord Mayor for presiding.

LONDON.

London County Council.

The Annual Estimates.

The London County Council on May 14th spent the greater part of the session in considering the annual estimates of expenditure of a number of its committees. Estimates were approved in respect of asylum maintenance amounting to £269,651, and some discussion took place as to whether the sum—£50,000—allotted to upkeep of buildings was adequate to meet the requirements of the Lunacy Commissioners and the Home Office. In particular, the suggestion was made that the duties of the medical officers would be lightened if the telephone systems at some of the asylums, installed nearly thirty years ago, were improved. An estimate of £705 was passed to meet the cost to the Council of the administration of the Midwives Act, 1902, and the estimates of the Public Health Committee, amounting to £109,854, were approved without any discussion. From the latter estimates it appeared that the examination of samples of milk cost £2,855 a year, and the administration of the various Dairies, Cowsheds, and Milkshops Orders, £2,300.

Delay in Providing an Ambulance Service.

The General Purposes Committee had set down an item of £100 as "provision money" to meet any expenditure to which the Council might be put during the year in the preparation of a scheme for providing an ambulance service for London.

Mr. A. Wilson inquired what steps had been taken since the passing of the Metropolitan Ambulances Act, 1909, to organize this much desired service.

The Chairman having ruled, under advice from the Clerk, that an item of "provision money" could not be discussed,

Mr. H. L. Jephson moved the adjournment of the Council. He had, he said, been put off with various indefinite replies since February, 1910. When asked whether he would bring up a report in time for a sum to be included in the estimates for 1912–13, the Chairman said: "I am unable to pledge the Committee to bring up a report by a given date, but provision has been made in the estimates for any expenditure likely to be made during the current year." The only provision was the item of £100. A committee ought not to stand between the Council and the discussion of a very important question. There were 17,000 people injured every year, and about 300 killed, through accidents in the streets of London. Parliament had had the matter under consideration and had declined to pass Mr. Peel's bill making the Metropolitan Asylums Board responsible, and had passed instead Sir William Collins's bill which made the London County Council the ambulance authority for London.

Mr. H. J. Greenwood, Chairman of the Committee, said he was quite prepared to admit that, owing to circumstances over which he had no control, it had not been possible to keep his word and bring up a report in time for the estimates. The question was one of great magnitude, and not one on which the Council would wish to embark without making exhaustive inquiries on the working of ambulances throughout London. This had taken a considerable time, but it could not be said that the committee desired either to burke the question or postpone its consideration.

The motion for the adjournment was lost, and the estimate was then approved.

Pressure on Asylum Accommodation.

Mr. A. Wilson asked the Chairman of the Asylums Committee whether he was aware of the existence of a circular letter sent by the County Council to the boards of guardians stating that there were no vacancies in the county asylums for persons certified as insane. Was he aware that this was causing overcrowding in the observation wards of infirmaries, and what steps were being taken to obviate this?

Mr. Goodrich, the Chairman, replied that though there

had been within the last few days a scarcity of places for male patients, no case of lunacy had been kept waiting for more than six days. He was informed that no authority had more than 3 cases waiting. The committee had already taken steps to obtain contracts with out-county asylums, and it was expected that the temporary pressure would shortly be relieved.

An Insanitary Area at Bethnal Green.

Mr. Edward Smith asked the Chairman of the Housing Committee whether the Council had received urgent representations from the metropolitan borough of Bethnal Green, through its medical officer, asking that the Council would deal with the insanitary area known as the Brady Street district, where, according to the medical officer, there were 528 houses, mostly unfit for human habitation, accommodating 3,058 persons. The death-rate for the area was 25 per 1,000, against 17 for the whole of Bethnal Green. The incidence of zymotic diseases was 4.4 per 1,000 against 1.7 for the whole of Bethnal Green; of tuberculous diseases 3.7 against 2.0; of diseases of the respiratory organs 6.3 against 3.8 for the whole borough. The number of deaths from these causes was double that of the whole borough. Would the committee consider the area with a view to an improvement scheme?

The Chairman promised a report on the subject as soon as possible.

The Reorganization of the Public Health Service.

The General Purposes Committee reported as to the amendment of the designations of several of the principal officers consequent on the fusion of the general and education branches of the public health department, and the appointment of a deputy medical officer of health and school medical officer.[1] The committee proposed that Dr. J. Kerr, the medical officer (education), should be styled in future "medical research officer," and it understood that Dr. Kerr considered this title appropriate. Dr. C. J. Thomas and Dr. W. McC. Wanklyn were now styled "assistant medical officers." This designation should remain unchanged, but it should also be applied to the part-time officers now styled "assistant medical officers (education)." The officials concerned offered no observations on the suggested alteration of their designation.

The Council approved these recommendations.

The Coroner for the South-Western District.

The Council appointed Mr. S. Ingleby Oddie, M.B., C.M.Edin., to be coroner for the South-Western District of London at a salary of £1,150 a year.[2] The suggestion was made that the Council would be following the precedent established in the case of the appointment of a successor to the late Dr. Danford Thomas if it appointed Mr. R. Henslowe Wellington, who has acted as deputy to Mr. Troutbeck, but the Chairman of the Public Control Committee recommended Mr. Oddie as a candidate of exceptional merit, and the Council came to a unanimous decision.

Mr. Oddie attended and signed the declaration on taking office. In reply to the congratulations of the chairman, Lord Cheylesmore, he said the coronership was one for which he had tried to qualify himself for many years, and he hoped the experience he had gained as a deputy coroner, a barrister, and a medical man would help him to carry out the duties to the satisfaction of the Council and of the public whom he would be serving.

SOUTH WALES AND MONMOUTHSHIRE.

TREATMENT OF PHTHISIS.

SOME important advances were made last week in the direction of interesting public bodies in the sanatorium treatment of tuberculosis. A deputation of the National Memorial Committee, with Mr. David Davies, M.P., as spokesman, laid before several committees the suggested scheme. This scheme has three factors, namely:

1. An educational propaganda from the preventive point of view.

2. The establishment of tuberculosis dispensaries and hospitals.

3. The provision of sanatoriums, one in South Wales with 250 beds, and one in North Wales with 100.

Chronic and incurable cases would not receive treatment in sanatoriums, but would be dealt with in the dispensaries. The Memorial Association would provide the capital expenditure, while the Insurance Committees and local authorities would be responsible for the maintenance. The Memorial Association would be composed of representatives of county councils and county borough councils in proportion to population, and the Insurance Committees would also have representation. It was estimated that for the first year in Wales and Monmouthshire £47,000 would be available for sanatorium treatment. This would not be enough, and it was thought probable that a ½d. rate would be necessary in order to provide sufficient funds. An amount equal to the ½d. rate would be contributed by the Treasury.

The scheme, as explained by Mr. David Davies, has met with approval in Cardiff, Merthyr, and the county of Monmouth, and the deputation will continue its work in the near future.

Ireland.

[*FROM OUR SPECIAL CORRESPONDENT.*]

IRISH ASYLUMS.

THE deputation appointed by the recent conference of representatives of Irish district asylums, and asked to lay before the Treasury the facts in connexion with the failure of the Irish Local Taxation Account to discharge its liability for payment of the grants in aid of lunatics in Irish asylums, had an interview with the Financial Secretary of the Treasury at the House of Commons last week. In the JOURNAL for April 27th a short account of the conference was given. The following is a brief review of the facts as they were explained to the Financial Secretary.

In 1874 the Chancellor of the Exchequer asked Parliament to sanction a grant of 4s. a week in aid of the maintenance of pauper lunatics. Parliament consented, and the grant was paid in full with regard to Irish asylums up to the end of the year 1908. In 1898, on the passage of the Local Government (Ireland) Act the Chancellor of the Exchequer, in spite of strong protests from the Irish members, allocated certain items of Imperial revenue to a Local Taxation (Ireland) Account to meet the grant in aid of pauper lunatics, hitherto paid out of the Consolidated Fund. The Chancellor maintained that he was making generous provision, but seems to have omitted to provide for the extra cost which the transference of all lunatics from workhouses to asylums would entail on local taxpayers, although this transference was ordered to be made under the Act. In addition, this responsibility placed the Local Taxation (Ireland) Account in a condition of bankruptcy from the start. For the past three years this account has failed to meet its liabilities with respect to the grant in aid for lunatics, and now owes the local bodies the sum of £82,000 under this head alone. The circumstances which led Parliament to make this grant in aid in 1874 exist now in a greatly aggravated measure. In 1869 Mr. Gladstone estimated that the cost of maintaining lunatics in Ireland would ultimately reach £200,000; the actual cost last year was £580,135. In 1870 the proportion of lunatics in 100,000 of the population was 189, in 1910 that figure had increased to 558. The asylum authorities in Ireland, in the absence of any declaration from Parliament that the obligations assumed in 1874 have ceased to exist, regard the sum claimed by them as a debt of honour due to them by the Imperial Parliament. The Financial Secretary asked for further information on several points, and said he would call for information from his department at once, and, after consideration of the case, would reply to the deputation at the earliest possible moment.

IRISH CREAMERIES AND DAIRY PRODUCE BILL.

The Irish Creameries and Dairy Produce Bill, introduced in the House of Lords, provides that from January 1st, 1913, the term "creamery," if applied to Irish butter, is to be taken as a trade description signifying that the butter has been manufactured in a creamery registered under the Act. It provides also for the keeping of a register of all creameries and cream separating stations registered under the Act by the

[1] BRITISH MEDICAL JOURNAL, vol. ii., 1911, p. 243.
[2] BRITISH MEDICAL JOURNAL, May 11th, p. 1099.

Department of Agriculture for Ireland. The Department shall not register any premises as a creamery or cream-separating station unless it is satisfied that the premises are suitable as regards cleanliness, freedom from liability to contamination, adequate supply of pure water, and efficient machinery. Butter is to be made only from cream separated on the premises or obtained from another registered creamery or cream-separating station. The Department would have power to remove any premises from the register. Any person who knowingly supplied or accepted unclean milk for use in a creamery would be liable to a fine. Any officer of the Department would have power to enter at all reasonable times (*a*) any premises registered under the Act; (*b*) any other premises in Ireland at which milk supplied by two or more suppliers was used for the manufacture of butter, cream, or other articles of dairy produce for sale; and to inspect any process of manufacture or treatment used therein, and to take samples of any butter, milk, or cream. Further, if the Department had reason to believe that at, or in connexion with, any premises in Ireland other than premises which an officer has power to enter under the above section, an offence under the Act has been committed, or that the term "creamery" has been falsely applied to butter manufactured, sold, or consigned in or from the premises, the Department may specially authorize any officer of the Department to enter the premises, when he shall have power of entry, inspection, and sampling.

Poor Law Reform.

The reform of the Irish Poor Law has again been postponed for an indefinite period. When the bill mentioned in last week's JOURNAL came up for second reading in the House of Commons on May 10th the Chief Secretary for Ireland announced the Government's inability to do anything, and the House was "counted out." The urgent need of Poor Law reform in Ireland is universally admitted, and two Commissions have established it in reports which constitute a scathing indictment of the existing system. The present Chief Secretary since his appointment has always professed to recognize the urgency of the Poor Law question. It was recognized by its promoters that the bill in question was not perfect and that many difficulties would arise, but it was capable of amendment; they felt that it would at least be a beginning, and would formulate in a definite way the problems that must be solved. The main objection urged by the Chief Secretary was that the recent Viceregal Commission recommended that the rateable area for Poor Law charges should be the county instead of the union, and that the wealthier unions would resist this proposal, and therefore the scheme must fail.

Emigration.

The emigration returns for the past month show, as compared with the same month of last year, a welcome decrease of over 1,600. This is a particularly important index of the decline in the flow of emigration in view of the fact that April is the month when the number of emigrants is usually greatest. Still, the total number of persons who left Ireland last month was 5,600. The bulk of these, over 4,500, went to swell the numbers of town-dwellers of the United States; nearly 1,000 were recruited from the agricultural class, and sailed for Canada in the hope of better farming prospects. In connexion with this question of emigration the figures issued by the Registrar-General in the census returns for Galway County are of interest. The number of emigrants from this county alone during the last ten years was 26,464, almost exactly one-seventh of the present population of the county, while during the past sixty years over a quarter of a million emigrants have left the county. In the case of Queen's County the numbers are smaller, 2,542 in the last ten years, about one-eighteenth of the entire population, and 59,206 during the last sixty years.

Cork Branch of the National Association for Prevention of Consumption.

The final meeting of the Executive of the Cork Branch of the National Association for Prevention of Consumption was held on May 4th. It was decided to wind up the branch, mainly because the Women's National Health Association of Ireland has in recent years been doing the work which had been begun under the National Association's auspices, and further, because under the Insurance Act Government is making provisions for the treatment of consumption by sanatoriums, dispensaries, etc. The association had a sum of £106 to its credit, and it was decided that as the Cork Branch of the Women's National Health Association was in need of funds for the payment of the tuberculosis nurse who has been doing good work amongst the poor consumptives in the city, a sum of £50 should be handed over to that association and the further sum of £50 sent to Her Excellency the Countess of Aberdeen, President of the Association, to be devoted to the wants of the county or in any other way Her Excellency should think fit in the antituberculosis movement.

The University of Belfast.

Two ladies—the Misses Riddel—whose generosity has already provided the university with the valuable studentship in pathology and bacteriology, have again come forward to meet a great want in this institution. A large number of female students have entered each year, and, having completed their course of study in the arts, science, and medical faculties, have graduated, many with high distinction. The Misses Riddel, believing that there is a great necessity for a hall of residence near the university for young Protestant girls coming from the country, have now placed in the hands of trustees until a proper governing body is established £25,000 for the erection and establishment of such a hall and subsequent partial endowment.

As there are many lady medical students in the university this will be of great interest and pleasure to the medical school. These ladies have recently petitioned the board of management of the Royal Victoria Hospital to be allowed to enter as resident pupils; their application has received the cordial imprimatur of the visiting medical staff, and every effort will no doubt be made by the board to provide suitable accommodation, although at present it presents many difficulties.

Correspondence.

APPENDICITIS—AND QUICKNESS.

SIR,—I am glad that Mr. Owen has thrown the weight of his opinion into the scale in favour of early operation in every case of acute appendicitis. In America this principle is accepted almost universally, but in this country the hereditary teaching of so-called conservative surgery has hitherto prevented medical opinion being unanimous on this point.

The arguments used by opponents of early operation are contrary to the experience of the operation theatre, and I think that Dr. F. J. Dixon's criticism of Mr. Owen, which appeared in your issue of May 11th, should not pass unnoticed. Consideration of space forbids my dealing with all Dr. Dixon's statements, so I will refer to three only.

Dr. Dixon says that it is "often better, in the general interest, to take a *little* risk by waiting than to subject a great number of patients to unnecessary operation." This simple statement contains two false premisses. For, in the first place, the risk in waiting is *not* little but *great*, and, secondly, granted that a patient has appendicitis, operation is never unnecessary. The only question arguable is not *whether* but *when* an operation should be performed.

Our old beliefs must be revised in the light of modern operative experience. We know now that the much-talked-of protective "walling off" of the diseased appendix is often conspicuous by its absence, and, further, that after a severe attack of appendicitis the appendix is not, as was formerly taught, destroyed, but more often persists, and frequently gives rise to serious trouble at a subsequent date.

No patient who has had an attack of appendicitis is safe until the offending member has been removed. There is, therefore, no question of submitting a great many patients to unnecessary operations. It is true that immediate operation may not be necessary in all instances; many patients get well without operation, but it is equally true that many die who might have been saved by early surgical treatment; and as it is absolutely impossible to say in which case operation is imperative, and in which case it is not, the only safe course is immediate operation in every case. If this principle were acted upon, acute appendicitis

would cease to be a "source of anxiety to the general practitioner."

In surgery our aim should be to take no chances; to procrastinate in the presence of acute appendicitis is hazarding the patient's life unjustifiably.

Dr. Dixon says that each case should be judged on its merits. This high-sounding phrase has a pleasant ring, but in practice such teaching has deadly results. So long as it is acted upon, so long will continue the annual sacrifice of life from this disease. As Dr. J. B. Murphy pithily remarks, "We should have no deaths from appendicitis, but we are having them."

More than 1,500 deaths occur every year from appendicitis in England and Wales, and it is no exaggeration to say that the great majority of these deaths ought not to occur, and would not occur were it recognized that no clinical acumen can tell what is happening in any given case or can prophesy what may occur within the next few days. If this be true—and I imagine that few would venture to deny it—then it seems to me to be flying in the face of Providence to delay operation.

Dr. Dixon suggests that we should wait to see if there be "subsidence of the constitutional symptoms which themselves begin to threaten the life of the patient." I maintain that if we wait till the constitutional symptoms begin to threaten life we have already waited far too long.

In an article published last year on the "Hidden Dangers of Appendicitis,"[1] I detailed several cases similar to the one related by Mr. Owen, in which the local and constitutional symptoms gave no indication whatever of the serious condition inside the abdomen. Such cases are by no means rare. My experience more and more confirms me in the belief that in acute appendicitis the symptoms are so deceptive, the signs of danger so slight, and the ultimate issue so uncertain, that clinical observation, the living pathology of the disease, and the results obtained by the surgery of to-day point most emphatically to early operation in every case as the only safe treatment.—I am, etc.,

London, W., May 14th. HERBERT J. PATERSON.

GREEN URINE DUE TO A PROPRIETARY PILL.

SIR,—The following facts are interesting in view of the communication of Drs. Golla and Rolleston in the JOURNAL of May 11th. On April 24th, a maid of one of my patients was brought to me. She was alarmed at passing urine of a bluish-green colour. She denied having taken any medicine or pills whatever, nor had she eaten any sweets. I informed her mistress that, in my opinion, the maid had somehow been taking methylene blue. A few days later I heard from the mistress that some pills, De Witt's, had been left in the letter-box, but that the girl denied having taken any. This statement the girl herself stoutly maintained to me when she again visited me about ten days after her first visit, the urine meanwhile having cleared.

I have no doubt De Witt's "kidney and bladder" pills were in this case also the cause of the colour in the urine.—I am, etc.,

London, W., May 14th. A. J. RICE-OXLEY, M.D., M.R.C.P.

SIR,—I was much interested in Dr. Rolleston's account of his patient passing "green urine." A week ago I had a similar case of a woman, aged 23, who had taken several of these same "De Witt's" pills. I could find no sign of illness, but examined the water and found it of a bright green colour. I thought it might have been artificially coloured, but I made her pass some while in the house. No sugar, no albumen, and no deposit of any kind. It struck me it might have been caused by methylene blue.—I am, etc.,

Tottenham, N., May 11th. W. H. PLAISTER.

THE NATIONAL MEDICAL UNION.

SIR,—A manifesto has been issued by the chairman and secretaries of the National Medical Union in the name of the union, but without submission to the members of the union for their approval or disapproval. This manifesto is already spoken of by the lay press as a "Union Onslaught on the B.M.A."

The folly of a policy of attempting to accentuate differences in the profession instead of drawing closer the bonds of union at a point of our campaign so soon after the delivery of our *unanimous ultimatum* to the Government is too transparent.

As one who took part in the mass meetings of Manchester and London, as a result of which the union was formed with the *avowed object* of uniting the rank and file and strengthening the hands of the members of the British Medical Association, I feel it my duty to at once dissociate myself *in toto* from the tactics now adopted by a small circle in the name of the National Medical Union, and to acquaint my fellow practitioners that I have resigned my membership of that union.

With your permission I hope to be able to give my reasons more fully in a subsequent issue.—I am, etc.,

Manchester, May 14th. T. ARTHUR HELME.

THE FUTURE OF GENERAL PRACTICE.

SIR,—As a general practitioner I was much interested in Dr. Major Greenwood's letter. He quite correctly, I think, foresees that all tuberculous disease in the future, and certainly consumption in the immediate future, will become an institutionally-treated disease, as scarlet fever, enteric fever, etc., are to-day, and for the same reasons—namely, that consumption is a microbic disease and highly infective. It therefore calls for segregation, and no argument based on monetary advantage or disadvantage to the medical profession will have any weight.

I cannot, on the other hand, agree that we have any cure at present for tuberculous disease. Sanatoriums are not; tuberculin is not at present, although I think it is on the right lines. Still, neither of these are cures, in my experience—and I am unfortunately of a phthisical stock, and know. So that segregation I regard as of the highest value in stamping out this disease. Therefore notify and remove them.

As for charging fees over a long illness, are we not, by taking up this position, saying, "Your money and your life"?—for we know we shall never cure the man. I am astonished at Dr. Major Greenwood taking up such a position.—I am, etc.,

Dumfries, May 11th. JAMES COOK, M.B.

THE FINANCES OF THE ASSOCIATION.

SIR,—The number of candidates in the field for seats on the Council of the Association is an indication that the members are not yet satisfied that their interests are cared for by the present officials. If any justification were necessary for the widespread opposition to the councillors seeking re-election, the financial report in last Friday's JOURNAL furnishes it—a more grave statement can scarcely be imagined. And it is a matter of amazement that any Representative of his constituents who had any share in bringing the Association to such a pass should have the temerity to *offer* himself for election! Those of us who have watched carefully the extravagance of the Medical Secretary's department—the wanton waste of money upon worthless literature, the silly extension of the "Division" schemes, small areas ruled by a tiny coterie of officials—are not in the least surprised at our present dangerous position. It must be altered. How is it our "laws" are so involved that no one inside the Association can decide what power, *if any*, a general meeting has. The only hope of reinstating the Association, of placing it on a sound financial basis, and making it of real use to the part of the profession it represents, is to simplify its constitution; and this can only be done by changing its officials. The Medical Secretary's department must be closed, and I trust Mr. Edmund Owen's suggestion that it should be will be determined at the approaching annual meeting.

Every means will be carefully thought out to prevent a repetition of the Birmingham fiasco: there shall be no repetition of the action adopted by the Chairman on re-opening the so-called Representative Meeting, after the hurried termination of the Annual General Meeting, when he, in a manner in my mind approaching rudeness, prevented Dr. John Haddon from speaking. Others—I amongst them—had something to say; we shall not again submit to the closure by one man.

A resolution will be proposed in Liverpool to instruct the Council or so-called Representative Meeting to close the Medical Secretary's department forthwith, and another to instruct those to whom such a function belongs to take

[1] *Lancet*, May 13th, 1911.

steps forthwith to so alter the laws of the Association that the "shareholders" can use the funds of the Association as determined in a duly constituted general meeting.

What is the necessity for the spending of £67,000 in a year? What have we had for it?—I am, etc.,

Old Trafford, May 14th. JAS. BRASSEY BRIERLEY.

POOR LAW GUARDIANS AND PUBLIC APPOINTMENTS.

SIR,—Ever since domiciliary visits by the public vaccinator were instituted by the Act of 1898 there has been a considerable amount of discontent amongst the medical practitioners of this country. They have felt it an injustice that an official who is usually in general practice in the district and not a whole-time officer, should in this way obtain an introduction to their private patients. Medical practitioners have naturally felt that such an arrangement is unsatisfactory to themselves, and, further, that it is certain that were the parents of infants allowed free choice of doctor, the percentage of infants vaccinated would be increased, inasmuch as parents prefer to have their children vaccinated by the family doctor. This "free choice of doctor" for vaccination is the accepted policy of the British Medical Association, and the grievances of medical practitioners upon this point are well known to boards of guardians.

Under these circumstances the public may be surprised to learn of the recent autocratic and high-handed procedure of the Salford Board of Guardians—a procedure undoubtedly inimical to the interests of the public and the medical profession.

The executive of the Broughton Medical Union, a union which represents all the practitioners in the district, having heard recently that the appointment of public vaccinator for the district had become vacant through the resignation of the incumbent, wrote to the Salford Board of Guardians, asking them if this were the case, and, if so, to receive a deputation from the Broughton Medical Union before they proceeded to advertise the appointment. A reply was received stating that the board of guardians did not propose to advertise the appointment.

Feeling that it was contrary to the public interest that a valuable appointment should be made without any advertisement, and doubting the legality of such a procedure, a communication was sent to the Local Government Board. A reply was received stating that advertisement was not necessary.

A letter of protest against their proposed action was sent to the Salford Board of Guardians. The guardians, however, proceeded to appoint a public vaccinator for the Broughton district. Whilst it must be admitted their action was strictly within their legal rights, the executive of the Broughton Medical Union has been instructed to protest against it in the press. It does so upon the following grounds:

(*a*) That it is in the public interest that all such public appointments should be advertised in order to prevent any possibility of jobbery.

(*b*) That upon former occasions the Salford Board of Guardians have advertised this appointment.

(*c*) That it was a most remarkable line of action to be taken at a meeting of a board of guardians, several of whose members had been defeated at the polls, and before the newly-elected members had taken office.

(*d*) That their action was most discourteous to an organization representing the medical practitioners of the district affected, and who are also their constituents.

(*e*) That there was no urgency in the matter, and that their action in proceeding to make the appointment without any advertisement, after they had been asked to receive a deputation, was contrary to the public interest.

The Broughton Medical Union, while severely criticizing the method adopted by the guardians in making the appointment, does not wish to cast any reflection upon the gentleman appointed.—I am, etc.,

R. B. FLETCHER, M.D.,

May 13th. Honorary Secretary, Broughton Medical Union.

"A HUGE REVENUE THREATENED."

SIR,—In your reference to an article contributed to the *Newspaper Owner*, under the heading "A Huge Revenue Threatened," you rather seem to favour the impression that the *Newspaper Owner* is opposed to any legislation that might have the effect of curtailing newspaper advertisement revenue, whatever the nature of the advertisements paid for may be.

This is not so. The *Newspaper Owner* is strongly opposed to the publication by newspapers of swindling announcements of any kind, and has emphasized this point in its columns on hundreds of occasions during the past fourteen years. It has always drawn a distinct line between ordinary proprietary articles, such as foods, etc., and what are known as secret remedies; and in the latter connexion has reproduced, with endorsement, much of what the BRITISH MEDICAL JOURNAL has had to say, as well as the analyses made for the British Medical Association, and published under the heading *Secret Remedies: What they Cost and what they Contain*.

On the other hand, the *Newspaper Owner* does not want to see newspaper proprietors deprived of legitimate advertising revenue, which might easily be the case if all proprietary articles, useful and useless, were dealt with legislatively on the same basis.—I am, etc.,

THE EDITOR, "NEWSPAPER OWNER."

London, E.C., May 14th.

Medico-Legal.

STATUS OF MEDICAL DEFENCE SOCIETIES.

THE Court of Appeal heard on May 7th an application from the London and Counties Medical Protection Society praying for the setting aside of an Order made against the society by Mr. Justice Bucknill in chambers on April 26th. Such Order directed the society, its servants, and its agents, to desist and refrain from "unlawfully maintaining" one of the parties to a certain action already commenced in the High Court, until after its trial or until further orders. The circumstances originating that action occurred in September, 1911, and on November 6th, 1911, a Master directed that it should be heard at the next Bedford Assizes (commencing May 31st, 1912); but the writ claiming the restraining order was not issued until April 22nd, 1912.

When the appeal was heard, counsel (instructed on behalf of the society by Messrs. Le Brasseur and Oakley) stated that the appellant society was one incorporated about twenty years ago as a company limited by a guarantee, and that leading medical practitioners were interested in it. One of its objects was to indemnify wholly or in part those who were members of it in regard to actions, proceedings, claims or demands, made by or against them, or in any wise affecting their professional character or interests. It was also an object of the society to indemnify its members against costs which might be given against any of them as the result of any legal proceedings of the kind indicated, and similarly against any damages in which they might be cast. In pursuance of its duties towards its members, the society had undertaken to prosecute a case on behalf of one of them, and the question now at issue was whether that action of the society amounted to maintenance.

The case was one between two medical men, and involved questions of professional misconduct. The appellant society had endeavoured to get the case settled by arbitration, but such arbitration had been refused by the defendant. The result was that the case was going into court, and the appellant society admitted that it was now conducting the plaintiff's side of it. The defendant, who was the respondent in the appeal, now sought to restrain the society from performing work which it had contracted to perform with its members, this being work for which provision was made in its articles of association. No order such as that which had been issued against it could rightly be imposed upon the society unless the person who applied for it had fulfilled certain conditions. He must make his application promptly, and also must show that the loss in which he might be involved by the absence of the order was something serious which could not be compensated for in damages. Mr. Justice Bucknill had granted the application for the order on the ground that the application must be governed by a previous case. As a matter of fact, however, the respondent had not fulfilled any of the conditions which would justify an order being granted to him.

Counsel on behalf of the respondent argued that there was no reason to set Mr. Justice Bucknill's order aside. As regards the delay which had occurred in asking for it, the action to which it related was one in which no one other than the parties themselves could be interested. Moreover, the order interfered with that action only so long as the behaviour of the appellants amounted to maintenance. Strong grounds for holding that the appellants were guilty of such maintenance had been adduced. The affidavits in the matter showed that the plaintiff in the action was not anxious to protect his own interests thereby, because he said he did not care whether he won or whether he lost. It was clear that the action would not have been brought at all were it not for the fact that the plaintiff was maintained by the appellant, and that in default of the aid or assistance of the appellant the action would be dropped. Hence counsel asked the court to hold that the appellant society was doing what it had no right to do, and to refuse its request that the order should be set aside.

In the event the court, consisting of three Lords of Appeal,

decided unanimously that the appeal must be granted and the order set aside. The facts to which attention had been directed did not of themselves show that there had been maintenance, but only that maintenance might be inferred as a *prima facie* conclusion. Hence the issue of an order was not justified by them. It was very likely that when the memorandum and articles of association relating to the society were examined it would be found that no offence of maintenance had been made out.

SECRET REMEDIES.

AT the North London Police Court on May 8th the Excise authorities proceeded against John James Buggins and George Douglas Buchanan, who had traded as Jap and Co. at Isledon Road, Holloway, for selling dutiable medicines—namely, Jap's Pills and Jap's Balm—unstamped and without a licence. The case was before the court some weeks ago (BRITISH MEDICAL JOURNAL, April 27th, p. 985) and dismissed on the technical objection that the defendants had been jointly summoned, though then Mr. Hedderwick, the magistrate, offered to deal with the matter by imposing one penalty only on Mr. Buggins. The latter objected, as he could not come to any arrangement with his co-defendant. The circumstances were then fully reported. Now both the defendants, through Mr. C. H. Nash, their solicitor, pleaded guilty, and Mr. Hedderwick ordered each defendant to pay £15, or one month's imprisonment.

Alice Dane, a general shop keeper, of Isledon Road, Holloway, was ordered to pay 4s. costs for exposing these medicines for sale without a licence and unstamped. In this case no conviction was recorded.

PUBLIC VACCINATORS NOT ENTITLED TO SUPERANNUATION.

THE question has often been asked, Are public vaccinators entitled to superannuation under the Poor Law Officers' Superannuation Act, 1896?

Until April 30th this question had not been tested in the law courts. On that day an action was brought in the Chancery Division by Dr. Lawson of Avebury, Marlborough, against the guardians of the Marlborough Union, claiming superannuation allowance on his vaccination emoluments. In September, 1911, he resigned his appointments as district medical officer and public vaccinator on account of permanent bodily infirmity. After legal arguments on the import of various enactments, Mr. Justice Neville held that the plaintiff as public vaccinator was not a person in the employ of the defendants within the meaning of the Act of 1896. Under his contract with them for the office of public vaccinator he was in the position of a person who had contracted with them to render certain services for certain payments, and was not a person who had entered into an engagement of service. He was, therefore, not entitled to include his fees as public vaccinator as part of the emoluments on which the amount of his superannuation allowance ought to be calculated.

The parties then agreed that the superannuation allowance of the plaintiff as district medical officer at £37 17s. 6d., should commence from October 1st, 1911, and that there should be no order as to costs.

POLICE CALLS: UNQUALIFIED DENTISTS.

PUCHAN-NESS (Scotland).—(1) The police are not entitled to free verbal reports on accidents, sudden deaths, etc. The procedure in connexion with sudden deaths is that the Procurator-Fiscal calls for a report, the fee for such being one guinea. We would recommend our correspondent to refuse information relating to accidents unless asked for in writing, when he should draw up a report for which a fee would be paid. (2) The usual fee for emergency calls by the police is 5s., with double fees at night; but our correspondent must remember that, if called to see a case by a police constable, the local authority may repudiate liability and leave him to recover his fee from the constable. It is a better plan to have an arrangement with the chief constable as to the fees to be paid in cases of emergency. (3) Unqualified dentists adopt various devices to advertise themselves, such as "artificial teeth supplied," "painless dentistry," and also "dental surgery." The Dentists Act, 1878, states that "a person shall not be entitled to take or use the name or title of 'dentist' (either alone or in combination with any other word or words), or of 'dental practitioner,' or any name, title, addition, or description implying that he is registered under this Act." . . . "Any person who . . . not being registered under this Act, takes or uses any such name, title, addition, or description as aforesaid, shall be liable on summary conviction to a fine not exceeding twenty pounds, provided that nothing in this section shall apply to legally qualified medical practitioners." Our correspondent might communicate with the Secretary of the British Dental Association, 19, Hanover Square, London, W.

AT a meeting of the Medical Society of London, on May 13th, the following officers were elected for the ensuing year: *President*, Sir Watson Cheyne, F.R.S.; *Vice-Presidents*, Sir David Ferrier, F.R.S., Dr. William Ewart, Dr. Percy Lush, and Mr. A. E. Barker; *Treasurer*, Sir John Tweedy; *Librarian*, Dr. A. F. Voelcker; *General Honorary Secretaries*, Mr. Edred Corner and Dr. R. A. Young; *Honorary Secretary for Foreign Correspondence*, Dr. F. Parkes Weber. A council of twenty members was also appointed.

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

THE following degrees have been conferred:

M.D.—A. Goulston.
M.B.—J. M. Smith.
B.C.—R. J. B. Leney, R. A. Ramsay.

UNIVERSITY OF LONDON.

LONDON SCHOOL OF MEDICINE FOR WOMEN.

Courses and Bursaries for Dental Students.

THE school has received a gift of money for the foundation of bursaries for dental students, and the following course in dentistry has been arranged in conjunction with the National Dental Hospital.

The courses are full courses for women students for the study of dentistry, and in preparation for the Licence in Dental Surgery of the Royal College of Surgeons of England. They will be given at the London School of Medicine for Women and the National Dental Hospital, Great Portland Street, W.

The course is arranged to cover five years:

First and Second Years.—Chemistry, Physics, and Mechanical Dentistry.

Third Year.—Anatomy, Physiology, and Special Dental Courses.

Fourth and Fifth Years.—Courses in Medicine and Surgery, General Hospital Course, Dental Hospital Course.

The combined fees at the London School of Medicine for Women and the National Dental Hospital are £180, if paid in one sum on beginning the course, or £191, if paid in three annual instalments.

The Council of the London School of Medicine for Women will award annually (until further notice) an "Agnes Guthrie" Bursary of the value of £60 to a student fulfilling the required conditions who enters for the full dental course. The first award will be made at the end of September, 1912, for the course beginning in October, 1912. Candidates for the bursary are required to send in applications on or before September 15th, 1912, to the Secretary and Warden, from whom a prospectus of the school and all particulars can be obtained.

UNIVERSITY OF EDINBURGH.

THE following are the numbers of matriculated students of medicine in the University of Edinburgh from 1889 to 1911: 1889-90, 2,003; 1897-8, 1,405; 1900-1, 1,364; 1907-8, 1,487; 1908-9, 1,440; 1909-10, 1,377; 1910-11, 1,374.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

A COMITIA was held on Thursday, May 9th, Sir Thomas Barlow, Bart., K.C.V.O., President, being in the chair.

Admission of Fellows.

The following Members who had been elected at the previous comitia were admitted to the Fellowship:

William Bain, M.D.Durh., Harrogate; Edward John Cave, M.D. Lond., Bath; Robert Briggs Wild, M.D.Lond., Manchester; Henry John Davis, M.B.Camb., London; John Roger Charles, M.D.Camb., Clifton, Bristol; Frank Charles Shrubsall, M.D. Camb., London; Arthur John Jex-Blake, M.B.Oxon., London; Charles Scott Sherrington, M.D.Camb., F.R.S., Liverpool.

Diploma in Tropical Medicine.

The following gentlemen who had passed the requisite examination were, in conjunction with the Royal College of Surgeons of England, recommended for the diploma in Tropical Medicine:

Solimser Azmy, L.R.C.P. and M.R.C.S.; Henry Robert Brown (Major I.M.S.), L.R.C.P. and S.Edin. and L.R.C.P. and S.Glasg.; Ardeshir Kowali Contractor, L.R.C.P., M.R.C.S., M.B.Lond.; William Alfred Murray, M.B., C.M.Aberd.; Denis Joseph Fitzgerald O'Donoghue (Capt. R.A.M.C.), L.R.C.P. and S.I.; James Charles Stewart Oxley (Capt. I.M.S.), L.R.C.P. and M.R.C.S., L.R.C.S.Edin.; Reginald Oliver Sibley, L.R.C.P. and M.R.C.S., M.B.Lond.; Satyendra Nath Roy, M.B.Calcutta, F.R.C.S.Edin.

Report.

A report was received from the representative of the College on the Medical Board of the University of Wales (Dr. F. T. Roberts). The President then dissolved the comitia.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary Council was held on May 9th, Mr. R. J. Godlee, President, in the chair.

Grant of Diplomas.

Diplomas of Membership were granted to ninety-five candidates found qualified at the recent examinations.

Diplomas in Tropical Medicine were granted jointly with the Royal College of Physicians to eight candidates found qualified.

Jacksonian Prize.

The prize for 1911 was not awarded.

The subject for 1913 is: The Malformations of the Small Intestine, their Mode of Origin, the Morbid Conditions which Arise from them, and their Treatment. The prize is open to Fellows and Members of the College only.

Donations to the College.

On behalf of Dr. R. C. Priestley, Sir Alfred Pearce Gould presented a lithotomy knife used by the late Sir William Fergusson.

Professor Weliaminoff of St. Petersburg, Honorary Fellow of the College, presented to the library twenty-one volumes of the journal, *Archives de Chirurgie*, of which he is editor; two volumes on the Finsen treatment, and one volume on syphilis of joints.

Proposed Memorial to the late Lord Lister.

A letter was read from Sir Archibald Geikie, K.C.B., President of the Royal Society, with reference to a proposed memorial to the late Lord Lister.

The Council agreed to act with the Royal Society, and to nominate representatives to serve on its behalf in connexion with a conjoint project, the character of which is to be hereafter determined.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

At a meeting on May 14th the following candidates were admitted to the Fellowship:

G. Blair, A. Burton, A. Croll, C. H. Evans, G. A. Hicks, F. E. Jardine, K. B. Kanga, H. Kramer, H. R. Lawrence, M. E. Mackay, J. McPherson, A. P. Mitchell, J. B. de W. Moloney, J. I. Parer, G. R. Petersen, D. Rodger, B. P. Sabawala, L. P. Stephen, G. H. Urquhart, E. A. Walker, and N. Wood-Hill.

On the same occasion the Bathgate Medal and Microscope in Materia Medica was awarded to Rachel Mary Barclay, and the Ivison Macadam Memorial Prize in Chemistry to Frank Bertram Macaskie.

CONJOINT BOARD IN ENGLAND.

At meetings on April 25th and May 9th respectively the licence of the Royal College of Physicians and the diploma of membership of the Royal College of Surgeons were conferred on the following candidates:

E. S. Abraham, R. B. Adams, C. Aldis, J. A. Andrews, D. G. Arthur, T. E. Banister, P. S. Bedale, T. I. Bennett, A. H. Birks, A. B. H. Bridges, D. S. Bryan-Brown, R. E. R. Burn, F. W. Campbell, P. N. Cave, D. G. Cherrington, P. E. Christofferson, J. W. H. Chun, A. J. Clarke, J. J. Clarke, C. J. W. Clayton, C. F. Constant, H. J. Couchman, W. A. Curry, W. E. S. Digby, H. A. Douglas, R. J. C. Douty, G. E. Dyas, W. H. Eggar, J. Y. Fiddian, C. E. Freeman, C. A. R. Gatley, W. S. George, H. M. Gilbertson, P. W. Green, G. H. C. St.G. Griffiths, A. S. Hahn, *J. W. B. Hanington, L. P. Harris, A. K. Haywood, E. H. Heaton, R. Hodson, J. F. Holmes, A. Jones, R. S. Kennedy, W. S. Lacey, S. Lal, E. A. LeMaistre, A. R. N. MacGillycuddy, R. W. Meller, L. Milton, J. Morris, H. J. S. Morton, E. J. Nangle, V. E. Negus, G. Nelson, F. C. Newman, C. J. Nicholson, R. G. Oram, C. J. B. Pasley, C. L. Pattison, M. Pern, T. H. Phillips, H. Platt, E. G. T. Poynder, T. B. B. Price, J. P. Quigley, M. Radford, H. T. Retallack-Moloney, W. G. Reynolds, G. F. Rigden, L. C. Rivett, F. H. Robbins, H. H. Robinson, E. A. Runting, E. A. Saunders, W. G. Shaw, E. Smeed, G. Stanger, H. T. Stephens, R. P. Stewart, A. Stokes, J. S. Strachan, R. Swyer, C. R. Taylor, W. F. Thompson, A. C. Tibbits, E. A. Tozer, P. Verdon, W. P. Vicary, A. L. J. Vischer, L. C. Walker, R. O. Ward, J. G. Watson, P. Whitehead, F. St. B. Wickham, H. A. Woodruff.

*M.R.C.S. diploma granted April 11th.

LIVERPOOL SCHOOL OF TROPICAL MEDICINE.

An advanced course of instruction will be held during the summer term beginning on June 1st, and ending on June 29th. The course comprises: (*a*) Entomology, Professor R. Newstead; (*b*) Helminthology, Dr. J. W. W. Stephens; (*c*) Parasitology, Dr. H. B. Fantham. The fee for the full course is 4 guineas. A certificate will be given at the end to students approved by the professional subcommittee. A detailed prospectus can be obtained on application to Mr. Alan Milne, Secretary of the School, B 10, Exchange Buildings, Liverpool.

Obituary.

GEORGE MACKERN, M.D.,

FORMERLY VISITING PHYSICIAN TO BRITISH HOSPITAL, BUENOS AIRES.

THE announcement of the death of Dr. George Mackern has caused much regret among a very large circle of friends, as well as those who remember him at Guy's Hospital some five-and-thirty years ago. He had a successful career as a student in the medical school of that hospital, and was House-Physician to the late Dr. Hilton Fagge. He took the diploma of M.R.C.S.Eng. in 1876, graduated M.B.Lond. with first-class honours in 1879, and took the degree of M.D. in the same university in the following year.

Soon after completing his appointment at Guy's Hospital he went out to the Argentine, and for the greater part of his professional life he practised as a physician at Buenos Aires. He took a particular interest in the diseases of the respiratory system, but for some time before retiring from practice he had more and more limited himself to the diseases of the larynx. He held for long the appointment of Visiting Physician to the British Hospital, Buenos Aires, and was a very well known and highly respected practitioner in a great and growing city. We are indebted to his friend and fellow student, Dr. J. F. Briscoe, of Alton, Hants, for the following appreciation:

It was at the close of the Seventies, when George Mackern was House-Physician, that I, being another of the residents, was thrown into contact with him; it was the perilous period to the hospital when the old type of nurse was to be deposed for the new nurse of to-day. Many of us now living remember the noise and disturbance that arose one morning among the students of the hospital, when a stately woman in modern nursing garb sailed down the Colonnade into the heart of the hospital. We who knew George Mackern can imagine he was not of the crowd, for he had a soul for music, and very much objected to what musicians call a noise.

Refined and gentle by nature and handsome in outward appearance, Mackern was a student of no mean professional culture. As a follower of the late Drs. Moxon and Hilton Fagge, he became a figure of some importance in the clinical wards of the hospital, held in high respect and regard by the students. He possessed a thorough knowledge of harmony and could readily detect a bad note. Thus he was a good percussor and auscultator at the bedside, often assisting the juniors who were defective in practical acoustics. He seemed to gauge the vibrations of the musical scale as easily as a book is read. His best stethoscope was his unaided ear, and it was only for decency and appearance that he applied a piece of wood between himself and the patient's chest. And, although the binaural stethoscope was just coming into fashion, he seemed to appreciate the new appliance more as a baton of office than as an instrument of precision. I write these few lines of one to whom I was indebted for kindly sympathy, right heartily and with as sincere a regard for him personally as I had for his refined pianoforte rendering of Beethoven, Mendelssohn, or Chopin.

WILLIAM TAYLOR, M.D., M.R.C.S.,

CONSULTING SURGEON TO THE CARDIFF INFIRMARY.

WE regret to learn of the death and burial at sea of Dr. William Taylor, one of the oldest medical practitioners in South Wales. He was born at Jedburgh, in Scotland, eighty-two years ago, and migrated at the age of 6 years to Cardiff. He was apprenticed to the late Dr. Evans; he afterwards entered Edinburgh University, and graduated in 1856. He was appointed House-Surgeon to Cardiff Infirmary in the same year, subsequently filling almost every appointment in those days possible on the honorary staff. He enjoyed a great reputation as a brilliant surgeon, and was made Consulting Surgeon to the institution on his retirement from practice some fifteen years ago. He was the first medical man to use chloroform in Cardiff, and described with great relish the horror of his colleagues at a proceeding they regarded as risky.

But it was as a public man that Dr. Taylor will be best remembered. He did work on the library and educational committees, and was Mayor of Cardiff in 1877. For some years past he had been chairman of the licensing bench, and was a regular attendant at Llandaff Police Court. He was at the time of his death Chairman of the Cardiff Gas Works, a very large and flourishing concern, and his election to that post in 1908 is evidence of the wonderful alertness and business acumen he retained. His memory was accurate to the smallest detail, and he well remembered events as early as the opening of the Taff Vale Railway in 1840. He was at one time Sargeon-Colonel in the Volunteers, and for many years Medical Officer to Cardiff Post Office. Dr. Taylor leaves four sons and one daughter; his son, Dr. Arthur Taylor, succeeded him in practice some years ago. The voyage on which Dr. Taylor died was undertaken to allow him to recuperate after an operation he underwent recently.

A memorial service at St. John's Church on Saturday last was attended by representatives of practically every section of the public and of the numerous bodies with which he was connected.

THE fourth Congress of Physical Education will be held in Rome at the same time as a series of gymnastic displays in June next (21st to 24th). The previous Congresses were held in Paris, Liége, and Brussels. Excursions and festivities are being organized for the occasion.

Medical News.

A UNIVERSITY with faculties of Medicine, Law, Engineering, Agriculture, Commerce, Pedagogy, and Political Science is to be established at Bangkok, the capital of Siam.

UNDER the will of the late Mrs. Cadwalladr, of Swansea, the General and Eye Hospital in that town receives a bequest of £2,000.

AN examination for twelve commissions in the Indian Medical Service will be held in London on July 22nd and the five following days. Further particulars and forms of application can be obtained from the Military Secretary, India Office, S.W.

AMONG those expected to speak at the annual meeting of the Children's Country Holiday Fund at the Whitehall Rooms next Tuesday afternoon are Mr. Austen Chamberlain and Mr. Pett Ridge. The chair will be taken by Princess Victoria of Schleswig-Holstein.

THE Ingleby Lecture of the University of Birmingham will be given this year by Mr. J. Furneaux Jordan, Surgeon to the Birmingham Hospital for Women and the Maternity Hospital, in the medical lecture theatre, at 4 p.m., on Thursday next, May 23rd. The subject of the lecture is puerperal infection.

AT a meeting of the Medico-Legal Society at 11, Chandos Street, London, W., on Tuesday next at 8.30 p.m., Mr. W. Wynn Westcott, M.B., will contribute a note on the burning of a newborn child, and Mr. D. H. Pettit will read a paper on the distinction between accident and disease under the Workmen's Compensation Act.

A GOOD many charities in Nottingham benefit under the will of the late Mrs. Elizabeth Greaves, whose will has recently been proved. Among them are the General Hospital, the Dispensary, Nottingham and Midland Eye Infirmary, and the Samaritan Hospital for Women, each of which is entitled to one-ninth share of her residuary estate. This appears to be about £40,000.

A REUTER'S telegram announces that Yuan Shih-kai has sent a letter to Dr. Gray, surgeon to the English Charitable Hospital, Peking, thanking him for the services rendered to the wounded during the night of the riots at the end of February, when the soldiers in Peking looted and burned many parts of the city. Accompanying the letter was a donation of 500 dollars to the hospital.

THE next general meeting of the Medico-Psychological Association of Great Britain and Ireland will take place at 11, Chandos Street, London, W., on Tuesday, May 21st, when the president, Dr. W. R. Dawson, will take the chair at 5.15 p.m. The discussion on Dr. Bernard Hart's paper on a case of double personality will be resumed, and papers will be read by Dr. Robert Jones on the classification of dementia, and by Dr. J. F. Briscoe on appendicitis in asylums.

THE annual dinner in London of the officers of the Indian Medical Service will be held on Thursday, June 13th, at the Hôtel Cecil at 7.45 p.m. Further particulars can be obtained from Lieutenant-Colonel P. J. Freyer, 27, Harley Street, W. Sir Alexander Christison, Bart., will preside at the annual Edinburgh dinner of officers of the Indian Medical Service, to take place at the Caledonian United Service Club, Edinburgh, on Friday, May 31st.

THE one hundred and thirtieth Harveian Festival will be held in the hall of the Royal College of Physicians on Friday, May 31st. The Society will meet at 6.45 p.m., when the president, Dr. Charles Watson MacGillivray, will give the Harveian Oration on "Some Memories of Old Harveians, with Notes on their Orations." Dinner will follow at 7.30. Every Harveian is requested to let the secretaries know, by letter, whether he means to attend the festival.

THE annual conversazione of the Medical Society of London will be held on Monday next. At 9 p.m. Mr. J. Bland-Sutton will deliver the annual oration, the subject selected being fertilization in relation to pathology. During the evening Sir Thomas Boor Crosby, Lord Mayor of London, will be admitted an honorary fellow of the society. There will be an exhibition illustrating the history of the society and some of the society's bibliographical treasures will be shown.

IT is announced that the President of the United States has chosen a successor to his aide-de-camp, Major Butt, who went down with the *Titanic*, from the Army Medical Corps. This officer is Surgeon-Major Thomas L. Rhoades, who has been in charge of the Walter Reed Hospital, Washington, and is said to be the first military medical officer ever selected to discharge the duties of aide-de-camp to the President.

ONE of the subjects dealt with at the May meeting of the Council of the National Federation of Ophthalmic Opticians, held at the Crown Hotel, Newcastle-upon-Tyne, was a proposal put forward by Mr. R. E. Heppell, of Gateshead, that the Federation "institute an examination of a practical kind and at a nominal fee." There seemed, he added, to be no hope of the two examining bodies—the Worshipful Company of Spectacle Makers and the British Optical Association—coming together, and consequently little or no progress could be made with the movement for opticians obtaining what they desired—namely, State recognition. Mr. E. Beaumont said that the West Riding Optical Society was strongly against the institution of another examination; and Mr. Thomas Aikenhead, President of the Scottish Optical Association, said he was instructed to vote against the resolution. Mr. J. C. Kidd, President of the Federation, also spoke against the resolution, as did Mr. A. Hershberg, Manchester and North of England Optical Society. Those in favour of the proposal included Mr. L. Moreton Parry, Honorary Secretary to the Liverpool and North Wales Optical Society, and Mr. J. C. Peacock, Past-President of the Northern Counties Optical Society. When a vote was taken, the Chairman announced that Mr. Heppell's resolution had been lost by a majority of one. The annual conference of the Federation will be held in Manchester on July 10th and 11th, and it is expected that the Lord Mayor of Manchester will give the conference an official welcome. It was announced that Dr. William Ettles, of London, would deliver an address on the system to be followed in examining the eyes, and Professor Haldane Gee, of Manchester, on the physical and chemical actions of sight.

A FAMILIAR poster depicts Father Neptune in mid-ocean sending healthy breezes from the Bank of England to Shepherd's Bush. This is only a pictorial way of conveying the fact that the Central London Railway, which has hitherto been ventilated on an exhaust system, has now adopted a new method by which the air supplied to its thirteen miles of tunnel is purified and mixed with ozone. At the invitation of the directors of Ozonair, Limited, a number of journalists and others recently had the opportunity of inspecting this arrangement. To reventilate an underground railway represents a constructional work of no small magnitude. A separate plant has had to be installed at each station, and to be so disposed as to fit in with the pre-existing conditions, which vary all along the line. The incoming air above-ground is drawn by an electric fan through special filtering screens, which are kept moistened and free the air from floating matter and from certain gases. The slight admixture of ozone is obtained from an ozone-generating apparatus, consisting of a series of mica plates and sheets of metallic gauze, the latter connected with a small transformer delivering alternating current. The cooled and ozonized air is then distributed, some of it to the booking-halls and lavatories, but in its main volume to the tunnels. It is conducted down the shafts by means of large sheet-metal conduits to a number of air outlets placed at a height of 7 ft. above the platforms. A larger air outlet is placed in the tunnel 40 ft. beyond the end of the platform, so that the trains by suction carry the freshened air from station to station. The amount of ozonized air pumped into the railway every day is stated to be eighty millions of cubic feet, and the concentration of ozone on the platforms is usually one part in about two millions. At a luncheon after the press inspection Dr. Leonard Hill sounded the praises of ozone, which, he said, relieved atmospheric monotony, neutralized unpleasant smells, and gave to the air a slightly stimulating value for the respiratory tract and the nerve endings. It was stated that after some months of use the railway officials declared themselves to be very well satisfied with the arrangement, and that it was appreciated by the public. The importance of the ventilation of tube railways from the point of view of the health of the community may be judged from the estimate that there are seldom fewer than 4,000 persons, and at certain times of the day as many as 10,000, on the Central London system alone.

The Services.

ROYAL NAVY MEDICAL SERVICE.

IN the list of prizes gained by acting surgeons of the Royal Navy at the termination of the course at Haslar on April 16th, published in the JOURNAL of April 20th, page 931, the following corrections are to be made: Surgeon Alfred B. Clark, M.B., gained the Admiralty Prize for the Naval hygiene group of subjects; Surgeon C. H. Symons gained the Silver Medal, but not the Admiralty Prize, as stated.

Letters, Notes, and Answers.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone unless the contrary be stated.*

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, London, W.C.; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Office, 429, Strand, London, W.C.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London*. The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, London*.

TELEPHONE (National):—
2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

ACID-FAST wishes to study the German system of sanatoriums and tuberculosis dispensaries (if any), and desires information as to the best places in Germany to see these institutions at work.

*** The Report on Sanatoriums for Consumption and Certain Other Aspects of the Tuberculosis Question, made by the late Dr. H. T. Bulstrode to the Local Government Board in 1908, is illustrated by a useful map indicating the German tuberculosis institutions drawn by Professor Pannwitz (Berlin), and completed by Dr. Neitner, general secretary of the German Central Committee for the erection of sanatoriums for consumption.

SUFFOCATION.

A WITNESS would like to know: (1) If there are any grounds for the belief that a person feeling symptoms of impending suffocation clutches at his throat; and (2) if there are, then whether anyone has ever actually seen such a person clutch at his throat.

VALUE OF PART SHARE.

H. E. S. writes: My practice is worth £1,000 per annum gross, and I am going into partnership with two men here whose combined gross income is £2,466 per annum. How much purchase money should I give in order that we may all have an equal share of our combined total? Each of their respective gross incomes is £233 in excess of mine. Am I correct in saying that I am buying one-third share of £466—that is, £155 6s. 8d., which at two years' purchase would equal £310 13s. 4d.?

*** Our correspondent's suggestion appears to be reasonable. It might even be a question whether the increase he is buying is worth more than one year's purchase, but this would depend on the character of the practice.

FIRST COUSIN MARRIAGES.

MR. MACLEOD YEARSLEY asks readers who are in a position to do so to give him information as to any *first* cousin marriages of which they may be aware. The information required is: (1) Whether the contracting parties are themselves the offspring of (*a*) two brothers or two sisters; (*b*) a brother and sister respectively. (2) The physique and intelligence of the children of such cousin marriages. He will be greatly obliged for any information sent to him before the end of June.

ANSWERS.

DR. L. D. PARSONS (Gibraltar) writes in reply to "J. H." (BRITISH MEDICAL JOURNAL, May 4th, p. 1051): I would strongly recommend the patient's treatment by tuberculin if no home can be got for her.

EFFECT OF SCOPOLAMINE AND MORPHINE IN LABOUR ON THE CHILD.

DR. HENRY G. MASSEY-MILES (St. Albans) writes: With regard to Dr. J. G. Hayes's query, may I mention that my small experience of scopolamine and morphine in labour extends to 19 cases—14 primiparae and 5 multiparae. Despite the fact that in 3 of these cases the scopolamine was repeated, and that 6 were instrumental and one required internal version, in no case have I experienced any trouble with the child. That one must not be too ready to blame the anaesthetic for ill effects is shown by one case in which I had intended to administer the drug, but was prevented from doing so by the timely (or untimely?) smashing of my glass syringe; the child was born in a state of blue asphyxia. In all these cases the room was heated by an ordinary coal fire.

LETTERS, NOTES, ETC.

ERRATUM.—In the notice of the Royal Academy Exhibition published last week, page 1091, the name of Mr. John Coles, chairman of the Clerical, Medical, and General Life Office, was incorrectly spelt.

PROPOSED PUBLIC MEDICAL SERVICE.

DR. R. R. RENTOUL (Liverpool) writes: As a number of doctors have asked me to send my draft rules *re* the above, may I tell them, per the JOURNAL, that they can be seen in the *Medical Press* of May 1st, which can be had from Baillière, Tindall, and Cox, 8, Henrietta Street, London, W.C., price 5½d.

IODINE DISINFECTION.

DR. F. PRYCE JONES (Newtown, Mid-Wales) writes: In regard to the recent controversy on the use of iodine for skin disinfection, a friend of mine—an old Guy's man—says that he remembers Mr. Bryant using either tincture or liniment of iodine for that purpose about the year 1878 or 1877. One case in particular he remembers on account of Mr. Bryant remarking that he could get as good results by that means as others could by the then new antiseptic system, but unfortunately it failed in that case (an excision of knee), and my friend does not remember seeing it used afterwards.

MELAENA NEONATORUM.

DR. W. M. FELDMAN (London, E.) writes: Several cases of melaena neonatorum have recently been reported in the BRITISH MEDICAL JOURNAL, and the issue for May 11th contains a record of a case by Dr. Morrison, in which he remarks that he could find no reports of similar cases in which the child recovered, and that during thirty years' general practice he had never seen a similar condition. If he refers to the BRITISH MEDICAL JOURNAL for February 15th, 1905, he will find a complete account and a discussion by Dr. Morris and myself of a case of haematemesis and melaena in an infant 2 days old, probably due to gastric ulcer, which recovered. I have recently seen the boy, who is now a grown-up, well-developed child. About three months ago I came across another case of melaena in a male infant of 2 or 3 days old, which also completely recovered under grain doses of calcium chloride three times a day.

BROMOCARPINE.

DR. G. ARBOUR STEPHENS (Swansea) writes to say that he has prescribed bromocarpine owing to the statement that the bromide salt it contains is free from chlorides, and that this is a virtue not possessed by bromide salts usually dispensed by chemists.

*** Most of the bromide in use contains considerably less than ⅓ per cent. of chloride, and it would be quite exceptional to find any dispensed by chemists containing as much as 1 per cent. Some time ago, however, it was shown that some American makes contained as much as 6 per cent. Presumably, ⅓ per cent., or less, would be of very little consequence.

A CORRECTION.

IN the list of members of the Association who had died during the past year, printed in the Annual Report of Council for 1911, published in the SUPPLEMENT last week, p. 452, the name of Dr. John James Goodlatte Murray was incorrectly given, the surname Murray being omitted in error.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page	8	0	0

An average line contains six words.

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

NOTE.—It is against the rules of the Post Office to receive *postes restante* letters addressed either in initials or numbers.

The Annual Oration.

ON

FERTILIZATION IN RELATION TO PATHOLOGY,

DELIVERED BEFORE THE MEDICAL SOCIETY OF LONDON, MAY 20TH, 1912.

BY

JOHN BLAND-SUTTON, F.R.C.S.ENG.,
SURGEON TO THE MIDDLESEX HOSPITAL.

NOTHING which came under my observation in childhood left a deeper impression on my mind than the realization of the fact that the tadpoles, which swarmed in the ditch bordering my playground, came from the frog's spawn so conspicuous in that ditch in the early days of spring. Many events, apart from watching the conversion of the aquatic tadpole into the amphibious frog, quickened my interest in the phenomenon of reproduction, including the development of worms, moths, fishes, reptiles, birds, and mammals, and the whole subject has retained for me a peculiar fascination. It is scarcely appreciated by men to-day that the human ovum was not discovered until 1827; this discovery (one of the greatest man ever made about himself) we owe to von Baer. So far as man is concerned, the fundamental facts relating to the fertilization of the ovum are matters of inference, for no one has witnessed the union of a spermatozoon with a human ovum. Our knowledge of the development of spermatozoa (spermatogenesis) is founded, so far as mammals are concerned, mainly on observations made on the testes of rats. We know less of the development of the sperm than of ova, but no one denies that a new human being is the result of contact of an active mobile spermatozoon (microgamete) with a passive yolk-laden ovum (macrogamete). After these dissimilar gametes have met, the resulting body, known as the oösperm or zygote, begins to segment, and under favourable conditions produces an embryo.

It is worth bearing in mind that a spermatozoon is the most easily identified of all varieties of the epithelial cell, whereas the virgin human ovum has no specific characters: it is usually recognized by its situation in the reproductive tissues. Some years ago, as a matter of routine, I slit up many Fallopian tubes, removed in the operations of hysterectomy and ovariotomy, and scrutinized their contents with a microscope in the hope of detecting ova in them. I satisfied myself that the old idea of the regular shedding of a ripe ovum once a month by healthy women had no foundation in fact; ova are shed frequently, and it is probable that the Fallopian tubes of a mature woman are rarely without a ripe ovum. On one occasion, after removing a uterus containing fibroids, one of which obstructed the uterine end of a Fallopian tube, I found a recess in the tube lined with mucous membrane containing a number of cells, any one of which would pass for a ripe ovum. The difficulty of distinguishing a free ovum applied in this instance with great force. I do not know an absolute test.

Gametic Attraction.

Every thoughtful man must have asked himself the question, What is the power which leads a spermatozoon to an ovum? The usual description of fertilization leaves an impression on the mind that when environment is favourable, and the genital passages of the female contain spermatozoa, a meeting between an ovum and a spermatozoon is a casual affair. This is far from being the case: ova and spermatozoa are powerfully attracted to each other within short distances by some force of which we know very little, and which we may conveniently call *gametic attraction*. Observers who have studied the fertilization of eggs laid in water notice that when a mature ovum is brought into the vicinity of sperm, the spermatozoa are influenced by its presence to direct themselves towards it, and make energetic swimming efforts to reach it.

Gemmill in his description (1912) of the development of the starfish, *Solaster endeca*, describes the process of spawning. A female and a ripe male were in a tank, and whilst the female starfish was shedding ova, the male, resting near the side of the tank about 2 ft. distant, sent out thin streams of sperm. Although the eggs are much too large and opaque to allow the process of fertilization to be watched under the microscope, it could be readily seen that they attract the sperm strongly as soon as they are shed.

Botanists tell us that the spermatozoids of ferns are capable of spontaneous movements through water, and there is some influence in the neighbourhood of the egg cell which attracts these mobile spermatozoids. In the mature archegonium of mosses some of the cells in the canal leading to the egg cell yield cane sugar which, diffused in the water, exerts an attractive stimulus on the spermatozoids. It is probable that the movements by which spermatozoids approach the female organs are chemotactic. The following simple experiment, which I owe to Mr. J. B. Bergheim, is of the same class:

Take a full-blown flower of the beautiful orchid *Odontoglossum grande*, and with a pointed stick or pencil extract its pollinia in the manner described by Darwin. The pedicel carrying the pollinia sticks so firmly to the pencil by means of its adhesive disc that in half a minute it is

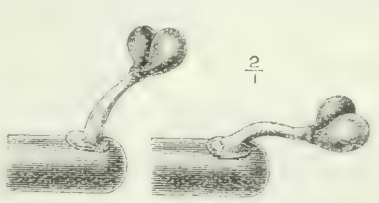


Fig. 1.—The pollinia and pedicel of the orchid, *Odontoglossum grande*. Immediately after extraction, and after the "act of depression."

difficult to detach it without damage, but if the pollinia, immediately after the act of depression, be brought in contact with the viscid stigmatic surface of another ripe flower of the same species, they instantly adhere and leave the stick without damage—indeed, in some instances the pollinia and the pedicel supporting them leave the pencil with alacrity. If the adhesive matter is allowed to harden firmly, then, when the pollinia are presented to the stigmatic surface, they become detached from the pedicel, which remains fixed to the stick.

The changes which follow the pollination of the odontoglossum are represented in Fig. 2. They are worth

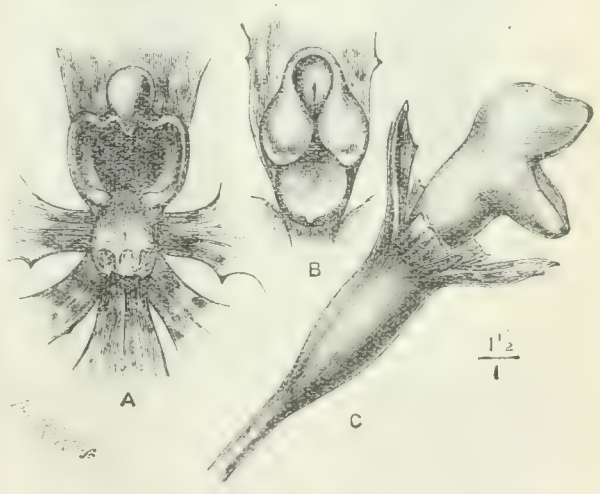


Fig. 2.—The essential sexual organs of *O. grande*. A, Before pollination. B, Seven days after pollination. C, Lateral view of the ovary one month later.

following. The ripe sexual parts are shown at A: after receiving a pollinium they gradually approximate, B; the petals and the labellum quickly fade, and a few weeks later the ovary is enlarged, C. The ovary continues to

increase in size, and five months later has the appearance shown in Fig. 3.



Fig. 3.—A, The ovary of *O. grande* five months after pollination. B, The shrunken remains of the rostellum. The seeds require nine months for ripening.

If we knew the force which impels the spermatozoon to seek an ovum many facts would be plain in pathology. We should know how the embryo of the guinea-worm recognizes its host the water flea (Cyclops), and the embryo of the liver fluke, the pond snail. A hundred similar examples could be adduced from the natural history of parasites.

The selective power possessed by the embryo of the liver fluke (*Fasciola hepatica*) for the pond snail (*Lymnaea truncatula*) has been graphically described by Thomas. The ciliated embryo is exceedingly active, swims swiftly and restlessly through the water. Sometimes it goes directly through the water and then rotates on its longitudinal axis, just turning a little to one side, as if seeking for something. When the embryo comes in contact with any object it pauses for a moment and feels about as if trying to test its nature, and, if not satisfied, darts off hastily again. But if the object be a pond snail, it at once starts to bore, and forces its way into the tissues of the snail (Fig. 4). The embryo has been tested with all the common forms of pond and river snails, but it refuses all except occasionally very young specimens of *L. peregra*, and in this development was arrested at an early stage. It is remarkable that the embryo fluke should be so particular in its selection of a host, for if it is not successful in finding one it dies in eight hours.

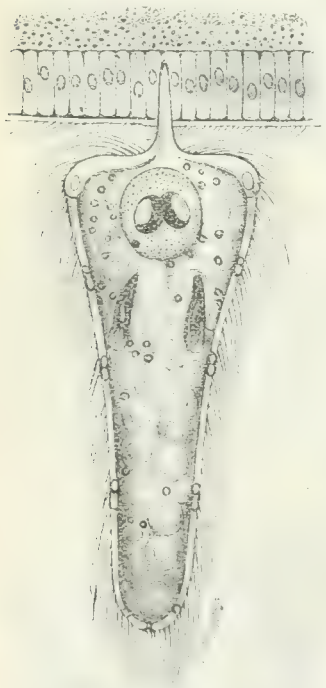


Fig. 4.—An embryo fluke engaged in boring into the tissues of a pond snail—×500. (After Thomas.)

Whatever this remarkable force may be, it has a human interest, for it is doubtless the same influence which leads some men to prefer brunettes and other blondes. If we understood it, perhaps we should be able to explain why some blondes of delicate form and feature are fascinated by men of the type of Hercules and Vulcan, such as wrestlers, boxers, and blacksmiths, resisting the importunities of suitors possessing the attributes of Adonis.

The exquisite description furnished by Thomas of the manner in which the young fluke desperately hunts for a pond snail, is an admirable example of knowledge obtained by observation. Whenever reasoning is uncontrolled by facts, imagination is apt to be riotous. An extraordinary example of the perfervid speculation is contained in the Sardinian Report on Cretinism (Turin, 1848), for the reporters seriously urge that a cretin may be due to sexual connexion between a man and a woman when one or both are drunk. The idea of an encounter between a jovial spermatozoon and a drunken ovum in the Fallopian alley is something peculiarly comic.

Although the idea of sex cells being influenced by the drunkenness of the individuals to which they belong sounds odd, there is no absurdity in the belief that morbid conditions of the parents influence egg and sperm. Those who have made prolonged and careful study concerning the possible causes of those malformations covered by the general term "monstrosities" are unanimous in the belief that the general health of the parents influences the physical development of the offspring. A careful consideration of the facts also justifies the opinion that the union of gametes in a malign environment is often expressed by a malformed embryo. Experimental teratology not only supports this conclusion, but adds trauma as a cause of monstrosity. The observations of those biologists who have studied vegetable teratology offer testimony in the same direction.

Parasitic Castration.

A good example of disturbed metabolism leading to changes in the sexual glands, and in the secondary sexual characters, is that known as parasitic castration, discovered

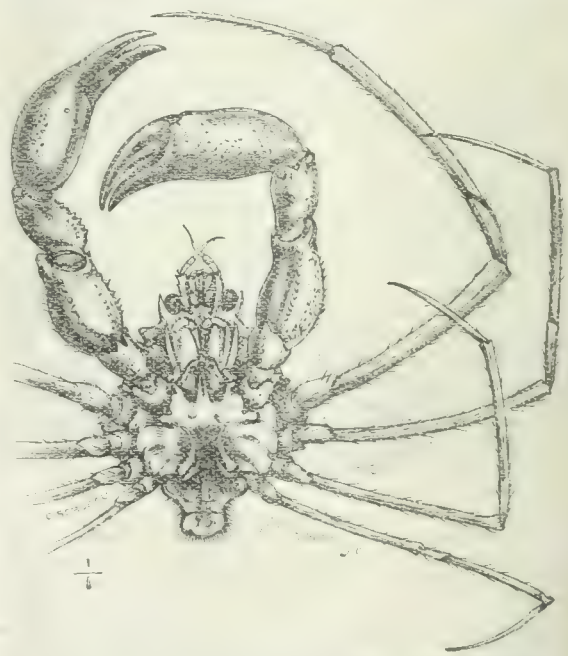


Fig. 5.—The spider crab (male) with large chelipedes, small abdomen, and the large copulatory styles.

in 1887 by Giard. This matter has been particularly studied in the spider crab *Inachus* and in the hermit crab. The facts are briefly these:

The male inachus (Fig. 5) is furnished with long and swollen chelipedes; the abdomen is small and furnished with a pair of copulatory styles. In the female (Fig. 6) the chelae are small and narrow, but she has a larger abdomen, which is trough-shaped and carries four pairs of ovigerous appendages. These crabs often harbour *Sacculina neglecta*, a peculiar barnacle which has taken to live parasitically on the crab. When the sacculina is hatched it swims near the surface of the sea and becomes transformed into the well-known Cypris larva. After living for a time a free existence, it seeks out a crab and fixes itself by means of hooks to a hair on the crab and penetrates its base. The larva then discards its appendages and as a small mass of undifferentiated cells enters the crab's body, and reaches the space round the intestine usually near the stomach and proceeds to throw out roots in all directions. When first discovered, sacculina, being so unlike a crustacean, was regarded as a tumour by one naturalist and as a worm by another.

This invasion has extraordinary effects on the male crab, for it ceases to moult, the chelae diminish in size, the abdomen broadens, ovigerous appendages appear and cause

it to assume the external characters of a female crab. At one time, in consequence of these changes, it was supposed that sacculina only attacked female crabs. In the presence of the parasite the generative organs undergo degeneration and disintegration. The sequel is even more remarkable, for when the parasitic barnacle leaves its host the crab recovers, and, in the case of the male crab which has assumed female characters, the testis not only regenerates but becomes a true hermaphrodite gland capable of producing ova and spermatozoa. These remarkable changes have been especially studied by Geoffrey Smith.

It will at once occur to many that these observations have some bearing on the peculiar alterations of plumage seen in pheasants, peacocks, ducks, and chaffinches, in which the hen moults and, without obvious reasons, assumes the resplendent plumage, more or less complete, of the cock. Such birds are known as cock-feathered hens, and the change of plumage was supposed to depend on atrophy of the ovary. We know nothing concerning its cause, although many clever observers, including Hunter and Darwin, have considered it.

The changes which occur in the testis of a spider crab infested with sacculina, whereby it becomes converted into a hermaphrodite gonad, is a matter of great interest. The history of our own bodies teaches us that at an early



Fig. 6.—Spider crab (female). The chelipedes are small and the abdomen broad. The ovigerous appendages are shown free on one side, and on the other with eggs upon them.

stage the human embryo is hermaphrodite. When the gonad is an ovary the sexual organs assume the female type; when the testis predominates the male type prevails. At the very threshold of our practical acquaintance with human anatomy we learn that vestiges of the male reproductive organs are present in the female, and many vestiges of the special female organs exist in the male; some are present in the gonad itself, whether it be an ovary or a testicle. It is an interesting fact that in the male spider crab the testis, under the influence of parasitism, can produce ova. Although there is an enormous distance between crustaceans and man, these observations do bear on those rare instances in which dermoids arise in the testicle, for these remarkable tumours in men and in horses, though usually described as testicular, really arise, as I have often pointed out, in the ovarian vestiges known as the rete testis.

Ovarian Dermoids.

Apart from observations relating to "parasitic castration," some useful investigations have been carried out in the last twenty years which throw some light on the curious tumours known as ovarian dermoids. In 1880 I saw for the first time an ovarian cyst containing hair, grease, and teeth. I have removed a great many since, but my interest in them persists. Thirty years ago all tumours containing cutaneous structures growing in divers parts of the body were called dermoid cysts: I soon recognized that such tumours were sufficiently important to form a group. Dermoids which arose in the ovary differed in so many particulars from those found in other parts of the body as to demand a genus to themselves. Whilst investigating the structures in ovarian dermoids I found and described the bodies now familiarly known as "ovarian mammae," and exhibited a series of cysts containing them to the Pathological Society in 1888. About ten years afterwards Wilms published his investigations on dermoids, which modified current views on these tumours, for he showed that the curious nipple-like processes and mammary structures, which he named embryonal rudiments, were important elements. Every dermoid, or embryoma, as it is now called, consists of a cyst and an embryonal rudiment. The wall of the cyst is of fibrous tissue, and at one part of its inner wall presents a skin-covered surface beset with hair: the embryonal rudiment appears as a nipple-shaped process projecting from the skin-covered surface. Its size varies greatly, for often it is so inconspicuous as to be easily overlooked, or it may be big enough to strike the eye of the least observant. The cavity which contains the embryonal rudiment is filled with oil, grease, or lumps of suet mixed with hair and epithelium shed from the cutaneous surface. Some embryonal rudiments are more complex, and contain such organs as a thyroid gland, fibrous or osseous capsules lined with pia mater and filled with nerve tissue.

On two occasions an organ like an eye has been found with a cornea, an anterior chamber, and a cavity lined with the conspicuous black uveal tissue (Baumgarten, Frankland, and Cleland). Organs obvious to the meanest intelligence are bones, cartilage, and teeth; less obvious than these is mucous membrane such as occurs in the intestine (Frank, Shattock, and Williamson).

We have been contented in the past with an examination of these bodies by means of microscopic sections, but Shattock, in a brilliant investigation, has shown that when some of these embryonal rudiments are studied by dissection rather than by thin sections, organs may be identified in them. In one example he found nerve matter present in the form of a thin-walled sac: the inner wall of this sac was lined with columnar epithelium and the halves of a spinal cord lay on each side of it. This hydromyelic sac represented the dilated central canal (syringomyelia) of an imperfectly developed spinal cord. In another cyst he found a smooth walled cavity containing a blind coil of gut possessing the structure of small intestine. I have often pointed out that nearly all the organs found in ovarian dermoids are of epiblastic origin. Organs such as lung, liver, and kidney have never been found. This serves to distinguish ovarian dermoids from the teratomatous representatives of conjoined twins.

The great principle underlying tumour formation conceived by Müller and established by Virchow postulates that every neoplasm, using this term in its strict pathological sense, arises from pre-existing tissue of the same structure, therefore we must seek a reason for the presence of tumours in the ovary containing teeth, skin, nerves, and intestine. The conclusion is plain—they are the products of a sex-cell or ovum. From the earliest observations on ovarian dermoids the idea that they were imperfect pregnancies took deep root in the minds of the men who examined them, and the discovery of parthenogenesis, or the development of an ovum without impregnation (von Siebold, 1856), provided a plausible theory.

Conjoined Twins.

Although the observers who described ovarian dermoids before the discovery of spermatozoa regarded them as "imperfect pregnancies," they were careful to point out that these tumours could not be the products of conception in the ordinary sense, for some of them occurred in infants. On examining the "indigested and deformed lump," known as an embryonal rudiment, we have difficulty in believing it to be an embryo, especially when it contains only an eye, or a fragment of spinal cord, or a few teeth connected with an orifice representing perhaps a mouth. All these odd imperfections can be paralleled by twins. It is not an uncommon event for an ovum to give origin to two embryos, and both may attain full development, make their entry into the world, and survive as independent individuals.

Occasionally the twin embryos develop equally, but are

partially joined together, and in this condition survive to the normal period of delivery. Many conjoined twins die in the course of being born, but a few escape with their lives, grow up, and in due course earn money for enterprising showmen as freaks. When twin embryos are conjoined it does not necessarily follow that each goes on to full development; occasionally one of them is represented by a shapeless mass attached to its brother or sister as the case may be. Matthews Duncan tells of a case in which a parasitic fetus of this kind was attached to the buttocks of a young man, occupied as a clerk, who spent the greater part of the day sitting on his sadly deformed twin brother. A shrunken parasitic fetus stuck on an otherwise well-formed individual recalls the delightful conception of Thackeray in the story of *The Rose and the Ring*, wherein the porter, Jenkins Gruffanuff, is transformed into a knocker on the front door for his rudeness to Fairy Blackstick.

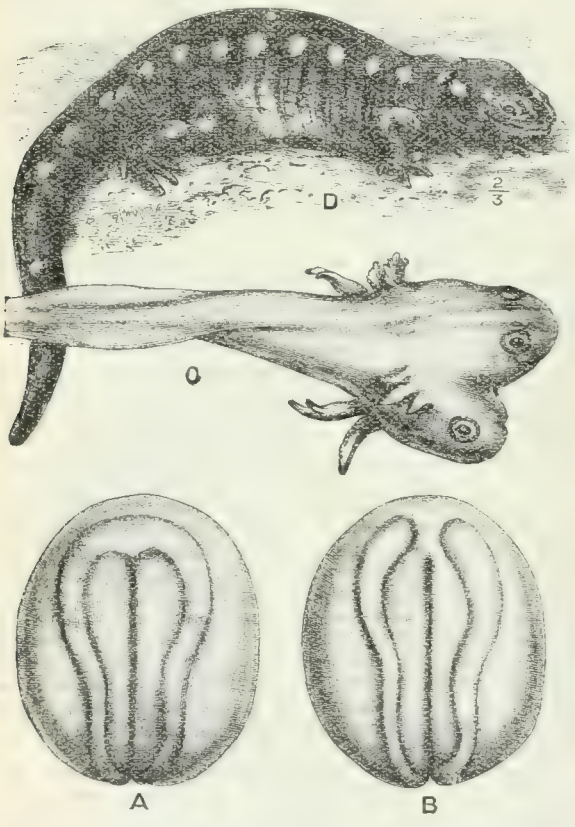


Fig. 7.—A, Normal egg of the American salamander, showing the medullary folds. B, An egg with abnormal medullary folds from which the double-headed embryo C was formed. D, The adult form of the American salamander. (Figs. A B and C after Clark.)

Embryologists agree that conjoined twins are the product of a single egg. A strong body of circumstantial evidence of a most convincing kind can be adduced in support of this opinion. Moreover, the development of a double embryo from a single egg has been actually witnessed in the case of a batrachian. In the spring of 1879 Clark of Boston had in his aquarium 2,000 or 3,000 eggs of the American salamander, *Amblystoma punctatum*, for the purpose of studying their development. He found one with the medullary folds nearly completed, but they had not united at the cephalic end, and appeared to be much rounded at their anterior ends, instead of having the ordinary vague outlines; it was set apart for observation (Fig. 7). Each free portion of the medullary fold developed a perfect head, which, at first partly united, became gradually more so until they were connected throughout their length. Posterior to the heads were no signs of duplicity.

The development of double-headed embryos from single eggs is a frequent event in salmon hatcheries. An instructive series is shown in Fig. 8, comprising twins and bicephalous salmon fry in various stages of dichotomy, but all exhibiting a common feature, for in each the yolk sac is single.

The frequency of such malformation among salmon obtained in hatcheries probably depends on the artificial mode of fertilization. In relation to this it may be mentioned that in some experiments on cross-fertilization made by Gemmill on the eggs of starfishes, he found the ova of *Solaster endeca* strongly attractive to the spermatozoa of *S. papposa* and are fertilized by them; segmentation and development proceeded in some specimens, showing various abnormalities of growth.

It is possible to arrange a series of parasitic fetuses so rudimentary as to parallel the confused and ill-shaped "embryonal rudiments" so common in ovarian dermoids. Such a series and such a comparison make the conclusion irresistible that the embryonic rudiment, like the parasitic fetus, is the product of an ovum. The structure of the embryonal rudiment supports, in a measure, the opinion that it is an embryo arrested at an early stage of its development. The frequent presence of nerve tissue, neuro-epithelial elements, and ocular tissues is not surprising, because the neural tube from which the spinal

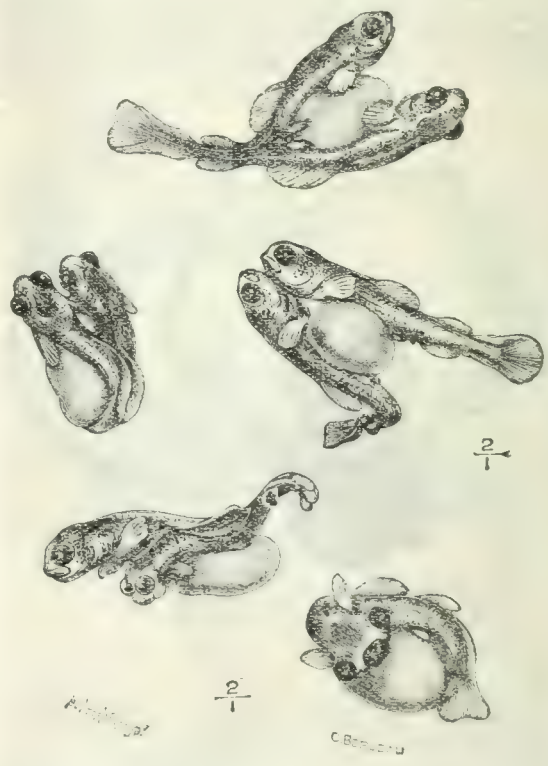


Fig. 8.—Twin salmon embryos from a hatchery, showing monstrous development with one common feature—the yolk sac for each monstrous form is single.

cord, brain, and ophthalmic cups are formed is an early and conspicuous structure in all mammalian embryos.

Traumatic Parthenogenesis.

At the outset I laid special emphasis on the fact that our knowledge of the fertilization of mammalian ova is derived from observation made on the eggs of low animal forms. We have been too long satisfied with the opinion that it is only the contact of a spermatozoon which will start an ovum on its extraordinary career of development, but there are other stimuli which will induce a mature ovum to segment. Loeb's experiments show that the mature eggs of starfishes can be made to develop by the addition of soda water to the sea water of the aquarium or by mere shaking (shock fertilization).

Professor Bataillon, Dean of the Faculty of Science, Dijon, has succeeded in inducing complete embryogenesis by puncturing the virgin eggs of frogs with exceedingly fine metal stylets. The eggs were obtained from the common grass frog, *Rana temporaria* (Fig. 9). The frogs were carefully washed in water saturated with bichlorides to prevent any accidental contamination with spermatozoa. The instruments were sterilized in a flame immediately

before use. The eggs after removal from the oviduct were placed in flat-bottomed receivers and covered with water at 15° C. Each egg was then punctured by a short stylet made of glass, manganin, or platinum, varying in thickness from 20 to 30 micromillimetres. A slight track in the egg marked the line of puncture. In making the puncture Bataillon aimed to get at the egg at a point excentric of

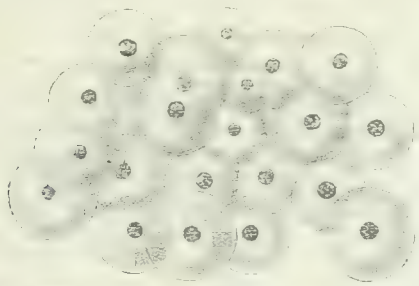


Fig. 9.—Eggs of the grass frog, *Rana temporaria*. (Natural size.)

the black hemisphere. The punctured eggs were covered with water and effected their rotation in forty-five minutes, so that the black spheres were uppermost as in normally fertilized eggs, whilst the virgin unpunctured eggs were disposed irregularly. Four hours later segmentation began in the eggs and proceeded as quickly, and in one-third of the punctured eggs as regularly, as in eggs normally fertilized, but arrest of development took place at all stages. In 10,000 eggs which he punctured three developed complete tadpoles (Fig. 10). Bataillon states that the



Fig. 10.—Three tadpoles produced by traumatic parthenogenesis. The tadpole near the top of the vase was the result of an experiment performed March 9th, 1910; it died June 18th, 1910, in consequence of shock due to changing it into a jar for the purpose of being photographed. (After Bataillon.)

critical period for a tadpole produced in this way is when the tail begins to regress. The consideration of these experiments must make us think that if the eggs of human beings were as big as those of the grass frog many problems in human embryology would be less misty than they are to-day.

The consideration of traumatic parthenogenesis would not be complete without reference to the conduct of the chromosomes in the cells of these segmenting eggs. All animal cells contain in their nuclei a definite number of chromosomes, and though the number varies in different species of animals, it is constant for a given species, but the number of chromosomes in an ovum during its maturation is reduced one half; they are also changed in character. A similar condition exists in the spermatozoon, but when the ovum and spermatozoon unite and form an oösperm or zygote the number of the chromosomes in the zygote equals that of the somatic cells. The significance of the change is not understood, but it has served as a text for much vague speculation, especially in relation to sex and heredity.

It has been ascertained that the chromosomes in the parthenogenetic larva of frogs are of the reduced type. This is a matter of interest, and probably explains the failure of Bataillon's method to produce complete frogs. It also helps us to understand the incompleteness and the unlikeness of the embryonal rudiment to a human fetus, in spite of the high standard occasionally attained by its component tissues. It is undeniable that the organs existing in ovarian dermoids are rarely of the same completeness as those of parasitic fetuses; the muscles even of a shapeless conglomerate twin sessile on the sacrum of its autosite will twitch when mechanically irritated, but no organ in an ovarian dermoid has ever been reported in a functional condition. This indicates the value of the spermatozoon for the production of a complete individual.

Epithelial Infection.

No surgeon will deny that the ovarian dermoid in its common form is the most benign tumour that attacks women, but it is not to be forgotten that the epithelial elements of such tumours often possess remarkable vitality, which is occasionally manifested in a curious way. At least half a dozen cases have been carefully reported where such a tumour has been burst by violence, and its pultaceous contents—hair, grease, and epithelium—spread far and wide through the abdominal cavity. (In one instance, described by Randall and Lawrence in 1908, the leakage occurred from a hole made in the procedure known as tapping.) Some of the epithelium engrafted itself on the peritoneum, so that in the course of an operation performed for the purpose of removing the tumour, the surgeon found the serous surface of the viscera and the omentum beset with nodules, many of them possessing a tuft of hair. These epithelial weeds, to use an agricultural term, differ from those secondary nodules which are such a common feature of cancerous infection of the peritoneum, for they remain as grafts upon the serous membrane, and do not penetrate the underlying tissue nor display the invasiveness which is such a marked feature of the cancerous nodule. This induced me to apply the term *epithelial infection* to this phenomenon. One of the earliest examples was described in 1887 by Moore; the specimen is preserved in the museum of the Middlesex Hospital.

I have satisfied myself that it is not an easy matter for dermal cells to engraft themselves on the peritoneum. These elements may be loose in the abdominal cavity for a long period and fail to become engrafted. Lucy recorded a striking case in which an ovarian dermoid leaked and distended a woman's belly with the usual sebaceous paste; her belly was so full that the mass pitted as if it were plastic clay when pressure was made upon it with the finger. At the operation he removed 11 lb. of the pultaceous sticky stuff. In spite of this prolonged contact of such a large amount of epithelial material with the peritoneum there were only two grafts.

A critical study of cases in which this peculiar epithelial infection has occurred led me to express the opinion, in 1896, that the facts pointed in the direction of occasional malignancy, but a further study of this matter in the wards, *post-mortem* room, and laboratory convinced me that the innocency of these tumours could not be impeached with the scanty and unreliable evidence available at that time. I thought that the few examples which had been published where small dermoids were found on the peritoneum could be regarded as examples of epithelial infection.

Malignant Teratoma.

We know now beyond any doubt of a variety of the ovarian embryoma (or teratoma) in which malignancy is displayed in a very intense form. This tumour occurs in girls and young women as a solid or semi-solid mass, and rarely attracts attention until an increase in the size of the abdomen is noticed by the patient or her relatives. The tumour grows quickly, disseminates like cancer, recurs very rapidly after removal, and destroys life in a few weeks or months. No tumour is more deadly, not even a periosteal sarcoma of the femur, or of the humerus. These malignant ovarian teratomas consist of a hotchpotch of embryonic elements of various kinds, such as

epithelium, neuro-epithelium, pigmented retinal cells, enamel organs, dentine-papillae, skin, hair, cartilage, ganglia, and medullated nerves. These tissues occur in the nodules which grow throughout the abdomen, and in those which grow in the substance of the liver or the lungs. Details of at least fifty examples of the malignant ovarian teratoma are available for study; many of the tumours have been investigated by competent men.

The condition I had in my mind that led me in 1896 to express my belief in the innocency of the cystic variety of ovarian embryomas was the alleged occurrence of cancer in the embryonal rudiment, especially the ovarian mamma. Several surgeons interested in the pathology as well as in the surgery of ovarian tumours sent me occasionally descriptions and sections of specimens which they believed were examples of carcinoma arising in ovarian dermoids. In all the specimens submitted to me none would bear this interpretation, and my opinion has been supported by the subsequent histories of the patients. In 1897 Professor Yamagiva, of Tokio, described a cystic teratoma of the ovary containing a mamma, which he believed had become cancerous, but the evidence is by no means convincing. Since that date we have become familiar with a subtle form of cancer dissemination known as "implantation."

Implantation Cancer.

When a woman is attacked by cancer in the gastro-intestinal tract, gall bladder, breast, or Fallopian tube, the cancerous cells permeate the adjacent tissues and are shed into the belly cavity; these cells, floating in the peritoneal fluid, are dispersed throughout the abdominal cavity. If the woman be so unlucky as to have an ovarian cyst or a dermoid in her pelvis, some of the cells will be deposited on the cyst wall, and some of them grow and form blocks of secondary cancer. I exhibited and described several specimens of implantation cancer to the Society in 1910. Large numbers of cancerous cells which are shed into the abdominal cavity perish, for the peritoneum exercises a defending or prophylactic power against such marauders; but the ovaries are more easily colonized, as they lack a peritoneal investment.

This new knowledge concerning the deposition of cancerous cells on normal ovaries as well as on ovarian cysts is of importance, because it renders previous records relating to specimens of primary ovarian cancer of no account. In future descriptions it will be essential for the recorders to furnish evidence that there was no primary cancerous focus in the stomach, big intestine, gall bladder, breast, or Fallopian tubes. A very small primary cancerous focus in the colon, though it has produced a big block of cancer in an ovarian cyst, will sometimes elude the surgeon's fingers and eyes in the course of an operation. Such small contracting cancers later cause intestinal obstruction, and are found in the course of a colotomy, or at a *post-mortem* examination, weeks or months after an ovariotomy.

In considering primary cancer of the ovary and in ovarian dermoids we have to clear away old records and begin anew. The distinction between a cystic ovarian embryoma and a malignant teratoma is as sharp as the difference between a simple chondroma and a chondrifying sarcoma, but there are, as in other genera of tumours (except lipomas) described as innocent, gradation forms by which we pass from species of undoubted innocency to others of the most pronounced malignancy.

Every surgeon has pondered often and long on that common feature of cancer known as "dissemination," wherein the histologic peculiarities of the primary tumour are reproduced in the secondary nodules; but the nodules due to the dissemination of malignant teratomas contain such structures as hair, skin, nervous tissue and embryonic teeth. These can only come from the activity of a developing ovum. We know that microparasites can stimulate growth in epithelial cells, and it is possible that benign ovarian dermoids and malignant teratomas express variations in the effects produced by minute agents, which are able to provoke segmentation in mature ovarian ova, though in a more subtile way than Bataillon's stylets.

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THE INFLUENCE OF AGE AND TYPE OF PATIENT UPON THE COURSE AND TREATMENT OF APPENDICITIS.*

BY

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So much has been written about appendicitis, and the disease in all its aspects has been so carefully studied, that it would seem that there can be little left for us to learn. So common is it amongst all classes of society that every medical practitioner must frequently meet with it, and has ample opportunity of acquiring a practical as well as a theoretical knowledge of its clinical manifestations. I speak advisedly when I state that of all the acute abdominal diseases appendicitis is most promptly and most accurately diagnosed. We early recognize the disease, we are alive to its dangers, we are familiar with the signs which call for urgent surgical interference, and we continue to lose a certain percentage of our patients. That this is not due to the operative risk of simple removal of the appendix is certain, for Sir Frederick Treves has recorded 1,000 cases of appendicectomy for chronic appendicitis without a death, and in the past five years nearly 400 patients, whose ages ranged from 4 to 69, have been operated upon at the Queen's Hospital, Birmingham, during a quiescent period without a single fatality. These hospital statistics are of special value, in that they represent the work of no particular surgeon, but of several, and are free from the suspicion that any attempt has been made to improve the statistical results by submitting only those cases to operation which were likely to do well.

It is generally agreed that almost equally good results would follow removal of the appendix within the first twenty-four hours of onset of an attack of appendicitis, and ideally this is undoubtedly the best treatment. There are, however, practical difficulties in the way of operating upon many cases at this early stage. It is often difficult at such short notice to get a surgeon and make the necessary preparations, and the surroundings of the patient are often very unsuitable for an operation. The difficulties are not, however, except in rare instances, so great as to prevent operation were it certain that such is absolutely necessary. It is this doubt as to the necessity for operation at all that is responsible for the delay. That many patients recover under expectant treatment is perfectly

* Read before the Worcestershire and Herefordshire Branch of the British Medical Association.

certain. Further, many others are saved by operation at a later stage, when the necessity for it becomes obvious.

I will not discuss the general question as to whether it is better to operate immediately in all cases or to pursue a policy of "wait and see." Good reasons can be advanced in support of both lines of treatment. I do, however, wish to draw attention to the very important bearing of the personal equation of the patient upon the question in each particular case. It is failure to take this factor sufficiently into account which is responsible for most of the deaths from appendicitis at the present time.

As I have already said, we can all diagnose appendicitis accurately and at an early stage. We are all familiar with the danger signals and are quick to appreciate their significance. But in the early stages none of us can tell what course the disease is going to take. Any one who ventures upon a definite prognosis within the first twenty-four hours of the onset will meet with some rude shocks. To me it is this element of uncertainty as to its future course which constitutes the anxiety associated with appendicitis. It is easy to tell whether the patient is seriously ill or not at the moment, but it is impossible to foretell the future course of the disease. Will it subside and operation be unnecessary, or will it progress and a favourable opportunity be lost? Any light which can be thrown upon this difficult and anxious question is of the utmost value. Very little help is to be gained from the surgical textbooks or even from special works upon appendicitis, and it is because of this that I have ventured to call your attention to a few points which I regard as of great practical value.

As in all other acute affections, appendicitis must not be considered as a disease only, but as a disease affecting a particular individual. The type of person attacked influences very markedly its clinical course and prognosis, and should also influence the surgeon in deciding upon its treatment. When confronted with a case of acute appendicitis within a short time of its onset, we know that there are three possibilities ahead: (1) The attack may subside without operation; (2) operation becoming necessary at a later stage may save the patient; or (3) late operation may fail to prevent death. The last result may occur in spite of careful watching by the most experienced surgeons if definite danger signals are waited for before resorting to operation. Danger must be anticipated in some cases if it is to be avoided. The type of patient attacked must be the deciding factor in the question of delay or prompt interference.

I will say at once that in my opinion delay is dangerous and unjustifiable in the case of children under 12, and adults over 40. Operation should follow immediately when a definite diagnosis of acute appendicitis has been made in these two classes of patients. My reason for making this statement, and I wish to make it as dogmatically as possible, is not that many of these patients may not recover without operation, although the percentage of such recoveries is considerably below the average of all cases, but that the mortality associated with late operation is so great. In other words, if the disease progresses, and it is much more likely than usual to do so, many patients will die in spite of late operation.

I would point out that my remarks only apply to comparatively small groups of cases. Appendicitis is far more frequently met with between the ages of 12 and 40 than either before or after that age period. An examination of the statistics of all the cases of appendicitis, acute and chronic, admitted into the Queen's Hospital during the past five years shows that out of a total of 742 cases 168 were children under 15, and 61 adults above 40. For convenience, patients in the hospital records are grouped in quinquennial periods, but taking the higher age of 15, less than 23 per cent. were below that age and less than 9 per cent. were more than 40 years of age.

A closer examination of the hospital records reveals facts which strongly support my contention that acute appendicitis has a higher mortality in the special groups referred to than is the average for all cases. Practically every acute case was submitted to operation within an hour or two of admission, so that the differences in results can only be accounted for by differences in the recuperative powers of the patients; in other words, by the personal equation of the individual.

During the five years 360 patients were operated upon for acute appendicitis complicated either by abscess or peritonitis. Of these, 115 were children under 15, 202 were aged between 15 and 40, and 29 were over 40. The total number of deaths was 48, a general mortality of 13.3 per cent. Amongst the 115 children, 20, or 17.8 per cent., and of the 29 cases over 40, 10, or 34.5 per cent., died. The mortality in the three groups was 17.8 per cent. for children, 9 per cent. for persons between 15 and 40, and 34.5 per cent. for adults over 40. From these statistics, therefore, it would appear that, assuming age to make no difference to the prospects of an acute attack subsiding without operation, in the event of complications developing which demand operation the chances of recovery are only half as good in the case of children, and quarter as good in the case of elderly people, as they are for young adults between 15 and 40. This in itself is a strong argument for early operation upon patients coming within the first two groups. If, in addition, as I am certain is the case, palliative treatment is less successful in children and elderly persons, the argument becomes stronger still.

So interesting and important is the influence of age upon the course and outlook in acute appendicitis that it well repays investigation, and a reference to some of the peculiarities of the disease in the young and the old may not be out of place.

Children.

Anyone who has had much experience of appendicitis cannot fail to have been impressed by the larger proportion of children amongst the more serious cases and especially amongst those ending disastrously. Everything points to the fact that appendicitis is more dangerous in children than in adults. The various stages are passed through more rapidly, less resistance is opposed to the spread of infection, and the associated toxaemia is less well borne. Many times I have been struck by the rapidity with which a child becomes seriously ill: within a few hours the clinical picture will completely change. Seen in the morning everything appears satisfactory; at night the child is extremely ill, and manifests all the danger signals. I believe that this is the reason why one sees so many "late" cases of appendicitis amongst children—they become so in less time than do adults. It is not because the doctor has been negligent, but that he has followed the rules applicable to the adult, and has omitted to take into account the age of the patient. I have long felt that the ordinary teaching with regard to appendicitis needs considerable modification in the case of children. Over and over again I have seen cases where in adults one might reasonably expect resolution, or at worst a localized abscess, in children go from bad to worse. Some of them are indelibly stamped upon my memory as instances of mistaken judgement, the penalty for which has been lost lives.

One reason why a higher proportion of children diagnosed as suffering from appendicitis develop dangerous complications is probably due to the fact that the milder forms of the disease are more often overlooked than in adults. Attacks of abdominal pain, vomiting, and bowel disturbance are very common in young children, and catarrhal appendicitis is easily, and probably is frequently, overlooked. It is only by careful observation and repeated examinations that a correct diagnosis is possible. As a rule appendicitis is only diagnosed when there are definite objective signs of inflammation in the right iliac fossa. In other words, only the more severe forms of appendicitis are recognized, and this fact alone should make us more careful with regard to them.

A point in connexion with the pathology of acute appendicitis in children is the almost constant presence of a concretion. Kinks and strictures are less frequently met with than in older persons. In a very large proportion of children upon whom I have operated during the acute stage a concretion was present and had caused perforation of the appendix. The appendix generally may be fairly healthy, but in some place there is a concretion over which gangrene and perforation of the appendical wall has taken place. It is clearly a pressure necrosis induced by swelling of the concretion from absorption of moisture. The effect of a catarrh of the mucous membrane is increased secretion of fluid. This is absorbed by the concretion, and the effect is that it swells, just as a dried pea would, and becomes too large for the space in which it lies. Such a condition precludes the possibility of resolution. If adhesions have

previously shut off the general peritoneal cavity, or if the perforation occurs on the outer side of or behind the caecum, an abscess forms. If, however, the appendix is free and in its usual position, perforation is at once followed by an acute spreading peritonitis.

Failure to appreciate the significance of the clinical phenomena associated with these pathological events has been responsible for many mistakes. A child during the first few hours of an acute attack of appendicitis suffers from severe abdominal pain, reflex vomiting, a rise of temperature, and a rapid pulse. These symptoms *suddenly* subside—the pain disappears, or almost so, the vomiting ceases, temperature and pulse fall, and the child looks and feels much better. Gentlemen, acute appendicitis never subsides in this way; it disappears by lysis and not by crisis. Sudden improvement means rupture of the appendical wall and relief of tension. It is of ominous import, and calls for immediate operation.

One other vexed question in connexion with appendicitis in children is whether an abscess should be operated upon early or late. An interesting correspondence upon this point appeared in the British Medical Journal about a year ago. It is well known that death from profound toxaemia and collapse may occur within a few hours of operation. This result followed operation in several children of distinguished parents, and created a painful impression. The explanation appears to be that the necessary manipulations lead to an exposure of raw surface from which a lethal dose of toxin is absorbed into the system. The doctrine that it is wise to defer operation in any case of appendical abscess is a dangerous one. The safe course is to open the abscess with a minimum amount of disturbance of tissue, to insert a tube, and to postpone removal of the appendix to a later date. The danger associated with these abscesses in children is, however, only another argument in favour of early operation. Such problems would rarely arise were it accepted that the diagnosis of acute appendicitis in a child carries with it the necessity for immediate operation.

The Middle-aged and Elderly.

As I have already stated, experience, supported by the statistics given, indicates that late operation is followed by an exceptional percentage of deaths in people above 40 years of age. The death-rate at the Queen's Hospital during the past five years has been nearly 35 per cent. This is due to the fact that the resisting and recuperative power of these patients is less, and the risk of complications such as pneumonia is greater, than in the case of younger persons. An acute attack of appendicitis in a middle-aged or elderly person, especially when stout, causes great anxiety to the medical attendant, who realizes that abdominal section in such cases is a very different procedure, as regards gravity, from what it is in the case of a young adult, and his natural inclination is to await developments rather than advise early operation.

I feel strongly that this delay is fraught with grave danger. The risk is almost entirely due to the disease and not to the operation. This is supported by the fact that no death occurred amongst 32 consecutive patients above 40 who were operated upon at the Queen's Hospital during a quiescent period.

In the case of healthy young adults a waiting attitude may be adopted with a certain amount of impunity. If the patient becomes worse, operation still holds out reasonable prospects of successful rescue. But in the elderly the conditions are very different; late operation fails to save in a far larger percentage of cases. It is essential to realize that a man whose condition to-day is so grave that operation would be attended by serious risk, not so much on account of his inflamed appendix, as on account of his age, his fatness, and his general lack of resisting power, will, if his disease progresses, be so ill to-morrow that the chances afforded by operation will be poor indeed. I have known many instances where delay in such cases has led to disastrous results. When the surgeon is forced to undertake a late operation because it is obvious that expectant treatment has failed, the patient almost always dies.

No, the position must be faced and the question of operation settled at an early stage. I have no fault to find with the man who decides at an early stage that in a particular case the whole chances of the patient are better without operation than with it, but I do most strongly deprecate vacillation and postponement of decision until to-morrow. If worse, you cannot save your patient to-morrow. Realizing this fact, there are few cases where the decision will be against operation, and if decided upon, the earlier it is carried out the better. It seems to me that logically, in these cases, to operate as soon as a definite diagnosis of acute appendicitis is made is the only safe course. Only when operation, on account of the patient's general condition, would be attended by very grave risk should the rule be departed from, and then the decision against operation should be final.

In elderly people acute appendicitis manifests peculiarities which may lead to error. My experience is that the course of the disease is very insidious. The symptoms and objective evidence furnish no certain guide to what is going on inside. The temperature, pulse, and general condition often induce a false sense of security, which is rudely disturbed too late. It is not unusual to see a man lying comfortably in bed with a comparatively slow pulse, an almost normal temperature, and who expresses himself as not feeling ill, and who yet has a gangrenous appendix and a rapidly-spreading peritonitis.

In the elderly, as in children, the pathological condition is more often such that spontaneous recovery is impossible. It is common, even at an early stage, to find the appendix gangrenous in almost all its length and with little or no evidence of an attempt to localize infection. This probably accounts for the fact that the early reflex symptoms are so little marked. These precede gangrene and disappear when it occurs. In these cases I have almost invariably found the local condition worse than was expected, and have never had cause to regret early operation. For the reasons that in elderly people it is more difficult to estimate the gravity of the disease by the clinical phenomena, that resolution is less likely to occur, and that if serious complications do develop they cannot be successfully combated, I am of opinion that it is imperative to operate as early as possible.

THE OPERATION FOR ACUTE APPENDICITIS:

PRIMARY CLOSURE OF THE ABDOMINAL WOUND.

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At the discussion on the Treatment of General Septic Peritonitis which took place at the Annual Meeting of the Association in Birmingham last summer,[1] a discussion which was ably introduced by Professor Rutherford Morison, Newcastle, I—in the opinion of some of the subsequent speakers—had the temerity to make the following statement:

> I desire to deal alone with the appendix as the *fons et origo mali* (of general septic peritonitis). The offending appendix—in this class of case usually gangrenous, and possibly perforated with an extruded concretion lying in its immediate neighbourhood—is removed in the usual fashion. The stump must be well buried. The bed of the appendix and the surrounding structures are swabbed with iodine (4 per cent.), mopped dry, and the gridiron wound, after similar treatment with iodine, is closed in layers. I am firmly convinced that this method of closure without drainage is sound surgery. It must be proved, however, to be not only as safe but safer than when drainage is employed. If the cause be removed much more can be left to the peritoneum than was formerly thought possible.

Seventeen cases were reported which had been dealt with in this fashion. One of these 17 cases died six hours after the operation; in 8 the wound healed primarily; in the remaining 8 there was some degree of septic infection of the wound. To obtain primary union at all with such a degree of intraperitoneal septic mischief was to me a revelation, and at the same time a stimulus to find some means of protecting the wound from infection.

In every case where the wound became infected, cutting free the superficial skin sutures was alone sufficient to check the progress of the infection.

I felt certain that in the above-mentioned cases the wound suppuration was the result of contamination by the infective material from within the abdomen, and that if one could prevent this infective material from coming

into contact with the divided and separated healthy tissues, or effectively sterilize these tissues after infection, then primary union should always take place. Within a few hours the peritoneal wound is sealed, and a recollection may occur without wound infection. To prevent the wound from being soiled in these cases we found to be impossible, and we were compelled therefore to fall back upon the plan of wound disinfection.

In every case of primary appendicitis the damaged appendix is attacked—infected—from within its own lumen. The ever-present *Bacillus coli* finds in the devitalized organ a suitable nidus for its increased activity, and in the great majority of cases it is the predominating pus-producing organism present. Acting on this assumption, if we can by adopting any measures keep the infection from becoming a mixed one the virulence of the sepsis is lessened and the resisting power of the tissues encouraged. Hence the same precautions against the introduction of sepsis from without are as necessary as if one were dealing with an absolutely clean case. For these reasons I have been giving, either immediately before or immediately after the operation, 50 to 100 millions of a stock *Bacillus coli* vaccine, followed in ten days by a second dose, if necessary. This is given without testing the opsonic index.

Operative Procedure.

The abdomen is cleansed with spirit and painted with iodine. The gridiron incision is invariably employed—the skin, subcutaneous tissue, and aponeurosis of external oblique in one incision and at right angles to a line between the anterior superior spine and the umbilicus; the internal oblique, transversalis muscle, and fascia in a second incision at right angles to the first; and the peritoneum in a third incision in the same direction as the first. When circumstances do not demand it, why make a uniform large incision? Why divide and separate more tissue than is necessary? It means more damage to tissue and more raw surface to infect. An incision of 2 in. to 3 in. is, as a rule, ample. Having to rely upon disinfection as a means of securing primary union of the wound, we found, after experimenting with various antiseptics, that iodoform was best suited for this purpose, and was best in the form of an emulsion.

Before opening the peritoneum the emulsion is poured into the wound. This fulfils a double purpose: it brings an antiseptic into intimate contact with the freshly wounded surface, an antiseptic—iodoform—which has a particularly inhibitive effect upon *Bacillis coli* growth. The peritoneum is now opened.

The following cases might be considered in two groups; they were all acute cases—urgent cases: Group 1, where there was no localized collection of pus, and in which the appendix was gangrenous, in whole or in part, with or without perforation, and accompanied by a degree of septic peritonitis the actual extent or limit of which was unknown. Group 2, where there was a localized collection of pus shut off from the general abdominal cavity, and in which the appendix was to a varied extent in a condition of inflammatory destruction.

In Group 1, comprising five cases, four males and one female, the appendix was not shut off from the general cavity. In Cases I, II, III, IV (incipient), V (commencing) the appendix was in a condition of gangrene, and perforated in Cases I and II. Free fluid of a foul-smelling, sero-purulent character was present in the general abdominal cavity more or less in all the cases, mopped from the pelvis through the appendix wound in Case I, and through a separate suprapubic opening in Case II. The appendix was removed in each case. The emulsion in some quantity was poured into the seat of the appendix, and again into the wound, except in Case V, where biniodide and spirit were used for the wound. The gridiron wound in each case was closed without drainage.

In Group 2, comprising two cases, VI and VII, there was a localized collection of pus. The gridiron wound was treated in the same manner as in Group 1. The general cavity was protected by strips of gauze before separating the adherent bowel. The pus was carefully mopped out, the appendix removed, the resultant cavity filled with emulsion, the wound closed in layers without drainage, painted with iodine, and sealed with collodion. In Case VII there was an opening in the sheath in the iliacus muscle, about the size of a shilling piece, leading to a collection of pus in the muscle.

The Question of Drainage.

In these consecutive seven cases in which drainage would in each case have been previously adopted either by tube or by packing, a primary healing of the wound has occurred. In Case II. owing to the retro-caecal position and the amount of interference necessary to remove the appendix, I admit my faith wavered, and I made a separate opening behind, and placed a tube for forty-eight hours. This served no purpose as far as drainage was concerned, for nothing came through the tube except a little blood-stained serum. Whether these striking results are due to the vaccine or to the iodoform emulsion, or to both or to neither, I cannot say. It is interesting to consider the question of drainage in abdominal conditions from a historical point of view. Not many years ago it was the routine practice to place drainage tubes in both flanks and in the pouch of Douglas in all cases of perforative stomach and intestinal lesions. With the advent of the Fowler position the flank drainage tubes disappeared, and now the use of a suprapubic drain is considered unnecessary. I never employ now a post-operative suprapubic drain or any drain whatever in perforative stomach or intestinal cases. After mopping out the pouch of Douglas the suprapubic wound is closed.

Risks.

What risks are run by primary closure of the appendix wound when the offending organ has been efficiently removed?

1. A peritonitis which has been confined to a circumscribed area around the appendix might become general. In the cases here reported, and in others previously reported, a septic peritonitis existed at the time of the operation. It may be argued that the peritonitis was, in these cases, limited in extent, confined to the pelvis. In no case, however, did it subsequently become general. In my opinion, if the resisting powers of the tissues themselves be not sufficient to prevent extension of the peritonitis drainage will not help them.

2. Extension of the septic process may occur along the colon or into the pelvis, and a subdiaphragmatic abscess form as a result of the former and a pelvic abscess as the result of the latter. Certainly each of these conditions may happen, but each has happened when free drainage has been employed. No opinion on this point is of value until a comparison be made between the cases treated with and without drainage. The same applies to septic thrombosis and pyaemia.

3. A localized abscess may form at the appendix region itself. This could be treated as in the primary lesion. I have not yet experienced it.

4. Infection of the wound. Up to the present series this has happened in 50 per cent. of my cases, and in each case the infecting organism was *Bacillus coli*. Since the employment of vaccine and of the emulsion only a small infection occurred in one case (Case II).

The advantages of primary union are so apparent that they need not be elaborated. The possibility of subsequent hernia is reduced to a minimum. The formation of a faecal fistula is not encouraged. On this point I have no doubt whatever; when I employed a drainage tube a faecal fistula was not an uncommon complication. The fistula may not have lasted for long, but it retarded convalescence. Since I ceased employing a drainage tube no faecal fistula has occurred.

One word with regard to immediate after-treatment. I do not think it advisable to hasten the administration of a cathartic. If there is some distension or peristaltic pain a turpentine enema usually gives relief. An interval of four to seven days is best before the usual post-operative laxative is given.

Though I have in this communication advocated the abolition of the drainage tube as a routine method of procedure in all cases of operation in acute appendicitis, I freely admit that, in the words of Professor Gilbert Barling at the close of his remarks on the treatment of general septic peritonitis, we "should adopt no hard and fast line of treatment, but treat each case on its own merits." I would add, in extenuation of "early closing," my belief in the words of Professor Rutherford Morison, "that the

peritoneum has a resisting power not belonging to other tissues."

For the reports of the following cases I am indebted to my former house-surgeon, Dr. Charles Cameron, whose kindly help I heartily acknowledge.

CASE I.

W. M., male, aged 9, admitted to the Victoria Infirmary, Glasgow, on February 14th, 1912, suffering from urgent abdominal symptoms of three days' duration. Symptoms consisted of abdominal pain, at first diffuse, but settling later in the right iliac region. On morning of admission, while straining at stool, his pain became suddenly very violent, and on admission was very severe. On admission temperature was 101°; pulse 100 and very weak. Face was flushed, and tongue covered with a dirty white fur. He complained of generalized abdominal pain, most severe over McBurney's point and in right hypochondrium. Abdominal rigidity, tenderness, and hyperaesthesia were intense, especially in right iliac region.

Operation (Mr. Grant Andrew).—Usual appendix incision—gridiron—and use of iodoform emulsion. Abundant foul-smelling, sero-purulent fluid escaped. Appendix lay to the outer side of the caecum, pointing up towards the liver. It was densely adherent to caecum. Adhesions separated and appendix removed in the usual way. Sero purulent fluid was mopped out of the pelvis through the appendix wound with long strips of gauze pushed down on long forceps. More emulsion was poured into the appendix bed and into the wound, which was completely closed in layers. The appendix was perforated near the tip, and actual spurts of faecal matter were seen issuing during the operation. It was long and gangrenous, and contained four coproliths. He received after operation 50 million injection of *Bacillus coli* vaccine. Wound healed by first intention, and he was dismissed well on March 2nd, 1912—eighteen days after operation.

CASE II.

S. T., male, aged 28, admitted to the Victoria Infirmary, Glasgow, on February 23rd, 1912, with symptoms of four days' duration. On admission he was very collapsed and toxic. Temperature was 99.6°; pulse 116, small and thready. Complained of severe abdominal pain. Abdomen was distended and rigid, rigidity and tenderness being exquisite in the right iliac region.

Operation (Mr. Grant Andrew).—Usual appendix incision and emulsion. A great quantity of purulent *Bacillus coli* fluid, containing yellowish flakes of lymph, escaped. Appendix lay retrocaecally, and was densely adherent to the posterior aspect of the caecum and the posterior abdominal parietes. It was partly brought into the wound, but owing to its extreme friability it broke off and the stump was withdrawn into the abdomen. To obtain room for finding the stump the internal oblique was divided in an upward direction. In the search two coproliths were found free in the abdomen and were removed. The appendix stump was found after a long search and dealt with in the usual manner. A lateral incision was then made and a drainage tube passed in behind the caecum. The gridiron wound was completely closed in layers after fresh emulsion had been poured in. A small suprapubic incision was made and the pelvis mopped out with gauze. This wound was closed completely. One hundred million *Bacillus coli* was given immediately after operation. Tube was removed in two days' time. Very slight infection occurred at the upper angle of the gridiron wound. This closed up quickly, and did not in any way impair the strength of the wound. He was dismissed well on March 25rd, having been twenty-nine days in hospital.

CASE III.

J. G., male, aged 25, admitted to the Victoria Infirmary, Glasgow, on February 24th, 1912, with abdominal symptoms of sixty hours' duration. He had had two previous attacks of appendicitis. Very ill on admission and very toxic. Face was pale and tongue dry and furred. Temperature was 103.1°, and pulse 110 per minute. Abdominal pain was generalized, but very severe in the right iliac region, where rigidity and tenderness were exquisite.

Operation (Mr. Grant Andrew).—Usual gridiron incision and use of emulsion. Appendix lay over the external iliac artery and pointed towards the pelvic brim. Removed in the usual manner. Emulsion applied to the appendix bed and to the wound, which was completely closed in layers. Appendix was thick and gangrenous in its whole extent, with a stricture near the base. It was full of faecal matter, contained one coprolith, but was not perforated. Wound healed by first intention, and he was dismissed well on March 16th, twenty-one days after operation. Fifty million of *Bacillus coli* vaccine was given on admission.

CASE IV.

C. H., male, aged 20, admitted to the Victoria Infirmary, Glasgow, on March 16th, 1912, suffering from abdominal symptoms of thirty-six hours' duration. On admission he looked very ill. Face was flushed, skin cold, and covered with a clammy sweat. Tongue was furred. Temperature was 98.2°, and pulse 88 per minute. Abdomen was rigid and hyperaesthetic, especially in the right iliac region.

Operation (Mr. Grant Andrew).—Usual gridiron incision and use of emulsion. Appendix lay to the inner side of the caecum, coiled on itself, with tip hanging over the pelvic brim. There were numerous adhesions round the base. It was removed in the usual manner. There was no free fluid. Appendix was rough on surface, suggesting tubercle, not so microscopically. Mucous coat was very dark, suggesting incipient gangrene. There were two areas, one at the base and one at the tip, over which the coats were thin and where perforation would probably have occurred. Wound healed primarily. Dismissed April 6th, three weeks after operation. Fifty million of *Bacillus coli* was given on admission.

CASE V.

Mrs. F., aged 27, admitted to the Victoria Infirmary, Glasgow, on February 10th, 1912, suffering from abdominal symptoms of two days' duration. Abdomen was very rigid and hyperaesthetic, especially in the right iliac region. Temperature was 100.5°; pulse 104.

Operation (Mr. Grant Andrew).—No emulsion was used here, but wound was swabbed with mercury biniodide and spirit. Appendix was long and pointed towards the pelvis. It was covered with dirty green exudate, contained three coproliths, and showed commencing gangrene at the base. Wound healed perfectly by first intention; it was closed in layers without drainage. She was dismissed on March 1st, having been three weeks in hospital. Fifty million of *Bacillus coli* vaccine was given immediately after operation.

CASE VI.

Mrs. W., aged 43, admitted to the Victoria Infirmary, Glasgow, with symptoms of eight days' duration. Symptoms consisted of abdominal pain, at first diffuse but settling later in the right iliac region. The pain was accompanied by sickness but no vomiting. On admission she was very ill and toxic. A large tense, doughy, tender swelling was palpable over the appendix region. Temperature was 101.1°; pulse 100.

Operation (Mr. Grant Andrew).—Usual gridiron incision and use of emulsion. Distended caecum bulged into wound. This was pushed inwards and a gush (about 2 oz.) of thick yellow, localized *Bacillus coli* pus escaped. The cavity was mopped out. Appendix lay retrocaecally and was buried in the abscess wall. It was removed with great difficulty. Cavity was filled with iodoform emulsion and the wound was completely closed in layers. Some induration and redness of the edges of the wound formed, but this subsided and the wound healed perfectly by first intention. Fifty million of *Bacillus coli* vaccine was given on admission and again on April 8th. She was dismissed well on April 20th, having been three weeks in hospital.

CASE VII.

A. R., female, aged 41, admitted to the Victoria Infirmary, Glasgow, on April 6th, 1912, as an urgent case with history of abdominal pain and sickness of six days' duration. She was very ill on admission. Temperature was 100.5°; pulse was 104. A big mass was palpable in the appendix region.

Operation (Mr. Grant Andrew).—Usual gridiron incision and use of emulsion. Bowel was adherent to anterior abdominal wall. This was separated and pus escaped in huge quantity, particularly from a circular opening in the ilaecus sheath. Appendix lay retrocaecally. It was removed in the usual way. Emulsion was poured in and the wound closed in layers and sealed with collodion. Wound healed completely by first intention. Fifty million *Bacillus coli* vaccine was given on admission and again ten days after.

REFERENCE.

1 BRITISH MEDICAL JOURNAL, October 28th, 1911.

WE have received the prospectus of a new medical index which is about to appear in monthly parts under the title of *Bibliographische Monatsschrift*. It is described as an international journal of all medical literature. It is published by the Claudius Verlag (Amandus M. F. Martens) at Wandsbeck i.-H. Each part will contain about 80 pages of printed matter, and the price will be 30 marks or 20 marks for cash. According to the prospectus, the publication will contain the titles and authors of all newly published medical books and the titles and authors of every article in the various medical journals throughout the world. The aim is to make it more complete than the *Index Medicus*, which does not include every individual article in the journals. There are two aspects from which we can regard this publication. The first is highly practical and is covered by the question, "Is there a sufficient demand for such a publication?" We have been threatened so often with the withdrawal of the *Index Medicus* on the ground that the expense of production is very heavy and can only be covered by a large subscription list, that we are somewhat sceptic as to the chances of an additional index finding sufficient supporters, even though it be fuller than the old one. The second point concerns the manner in which the material will be dealt with. Presuming that the publishers' intentions are carried out fully and every article and other publication is given in the *Monatsschrift*, the utility of the work will depend entirely on the arrangement of subjects; the mass of medical literature is so overwhelming, that unless some practical scheme of classification is adopted, the reference value would be small. If the work proves to be really what it claims to be, it will be of great use to medical men who wish to keep themselves informed about the publications on special subjects.

A Clinical Lecture

ON

EARLY DIAGNOSIS AND OPERATION IN APPENDICITIS.

Delivered at the Hospital for Women, Soho.

BY

JOHN H. DAUBER, M.A., M.B., B.Ch.Oxon., F.R.C.S.Irel.,

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That man must be singularly unintelligent, unobservant, or indifferent who does not draw some conclusions from phenomena which are constantly brought under his notice, so that, as one who in his practice has been dealing for many years past mainly with pelvic and abdominal diseases, I have not unnaturally formed my own opinions about so common and prevalent a condition as appendicitis, together with its treatment. As time has gone on these opinions have developed into convictions—almost, one may say, into a creed—and the sum of my convictions amounts to this: that appendicitis is so dangerous, mischievous, and treacherous a complaint if allowed to make headway that it should be attacked at once and given no chance of obtaining the upper hand. We should take the initiative, not it. It should not content us to merely act on the defensive. It is we who should take the offensive without a moment's delay. So to speak, it should be "shot at sight" as soon as recognized. The frontiersmen of Southern Argentina used to have a saying some twenty or more years ago when I lived amongst them, that an Indian was no good until he was dead, and this is what I feel about a diseased appendix, that it, too, is of no value until dead and outside the human body. Every year I become more convinced that appendicitis should never receive any quarter; there should be no parleying with it, no negotiating with it, no temporizing, no dallying, no treaty, nothing from the very first but war, literally to the knife. As a general rule, when the infection and inflammation are confined within the appendix the disease can readily be treated by operation, but when the infection has spread outside the appendix, then it is often a different matter altogether. A wild cat in a bag can be easily dealt with, but if that same wild cat is once allowed outside the bag and is rampaging around the house and garden it may do a very great deal of mischief before it is caught and exterminated, if indeed it ever is overtaken and caught; and so it is with appendicitis.

Few operations in surgery are easier of performance than appendicectomy when the appendix is free and merely the seat of a simple catarrhal inflammation, and few operative procedures are safer. The mortality in such cases ought to be, and often is, *nil* per thousand under modern conditions of operating, but when the appendix is buried in adhesions or undiscoverable in a large abscess, or black and gangrenous, or in some other condition of advanced destructive inflammation or infection, or when general peritonitis is present or threatening, how difficult and anxious operation may be is known to every operating surgeon, and the risk of such operations is known only too well to the general public.

It is this point which I wish to emphasize. The public only hear as a general rule of the unsuccessful operations. It is these that figure in the daily press: they alone arrest attention, and so operations obtain a bad reputation. Because the patient dies after, and in spite of, operation, the public are apt to think because of it *post hoc ergo propter hoc*, and that if he or she had not been operated upon probably a different result might have followed. I am well aware that in advocating early operation I am preaching no new doctrine. It seems to me that for the last ten or fifteen years operating surgeons have been like preachers calling in the wilderness, for few have heeded them. Had their advice been acted upon, death from appendicitis would be an uncommon event instead of, as now, a far too frequent occurrence. But there are two conditions which are absolutely essential to success—first, that appendicitis should be recognized early; and, secondly, that when recognized operation should be immediately resorted to.

Specialism has at the present time become necessary and indispensable owing to the vast field covered by medical activities; but it has its drawbacks, and one must admit that the different lines of treatment adopted by different practitioners, according as to whether they have a medical or surgical bias, is very often detrimental to the public interest and puzzling to the public mind. It shakes confidence in our profession when for the same complaint one practitioner recommends immediate operation and another, let us say, vibratory massage or horse serum. It is often a lottery whether a patient is operated upon or not, according as to whether he has been seen by a physician or a surgeon. The physician who does not operate is naturally unwilling to admit his inability to deal with a simple case of appendicitis: he knows that many cases, possibly most cases of a first attack, will subside: he sees them do so very often, and so he gets to think that it is not advisable to operate in every case, and that it is better to pause and see which way the case is going, or even to wait until the second or third or yet more attacks have shown that sooner or later operative measures must be adopted. A general practitioner, too, cannot afford to quarrel with his patients: he knows that to the majority of people the knife is distasteful in the extreme. He is very often told at the outset of his attendance that there must on no account be operation, and rather than lose his patient and give up the case he stands by and observes what palliative measures will do; very often he has no other alternative. He feels he has given his advice and the responsibility no longer rests with him: but if he held my views he would speak with a stronger voice, and would use all his powers of persuasion and argument to convince the patient or the friends that with an early case of appendicitis operation is a far less evil than delay. The leading features in appendicitis are its uncertainty and its insidiousness. If it were possible to endow it with personality I should consider treachery to be its leading characteristic, as with the pampas Indian just referred to, who was feared, not for his ferocity, his bravery, or his cruelty, but for his invincible treachery. In appendicitis apparently all may be going well, but within an hour a patient may be on the brink of the abyss of death. Within the shortest period the symptoms may assume so alarming a character that operation is immediately imperative, when it may have to be carried out under circumstances which are far from being ideal—in the dead of night perhaps, short-handed or otherwise handicapped, and we all know that compulsorily hurried operations do not compare favourably in their results with those deliberately planned and executed at leisure.

It is the business of insurance companies to calculate risks; every risk or chance is estimated with them to a nicety, and the premium demanded bears a definite ratio to the risk incurred. Now I would ask you what difference in premium would be required by an insurance company on the one hand from a patient who was to have his appendix removed in the earliest stage in a nursing home, hospital, or room especially prepared for an aseptic operation, performed by a skilled surgeon with picked assistants and trained nurses, after careful preparation, and on the other hand from another patient who had been running a high temperature for a week or more, who was worn out with pain and loss of sleep, whose constitutional powers had been enfeebled and his system poisoned, and who had suddenly taken such a turn for the worse, in popular parlance, that immediate operation offered the only chance of recovery? I imagine the difference in premium demanded would be considerable.

As most people are more convinced by concrete example than by abstract expressions of opinion, I will now instance one or two cases illustrating the unwisdom of delaying operation.

Some years ago a lady, who was a guest in my house, had a mild but clear and unmistakable attack of appendicitis. She quickly diagnosed her own case, and asked if I would operate. However, the fact of her being my guest and the attack not being a severe one made me hesitate. In a few days she had recovered, and I sent her to consult a friend of mine, an eminent abdominal surgeon. He did not take my view of the case at all, and, after a somewhat cursory examination, gave the patient to under-

stand that she was suffering from nothing but an attack of nerves, of which doubtless she had her share. However, in less than a month she had another attack similar to the first. She was away from London then, and consulted a surgeon in the North. He advised operation. She readily acquiesced, and it was performed. The appendix was found lying in a small abscess; it was removed, and the abscess drained by a tube. The tube in due course was removed and the wound healed, naturally after a longer period than if operation had been performed during the first attack before the formation of pus. Well, you will say, this was all right; she had her desired operation, the diagnosis was made more certain, and a good recovery resulted. Now for the sequel. A year or so later a hernia developed in the scar, as it so often will where a tube has remained for some days. A truss was prescribed, and all went well for a time, until one evening the hernia became strangulated, as herniae sometimes do, in spite of trusses. This entailed a somewhat hasty operation; the patient recovered, it is true, but had not too much to spare. It was what is called "a near thing." She was not strong, nor a good subject for operation. Now, I ask frankly, Would it not have been much better for the patient if she had been operated upon within twenty-four hours of the first attack? There would then have been no tube, no abscess, no hernia, no strangulation. The mistake in the first case, I admit, was mine. I spare myself no criticism. I wish to give the reasons for the faith that is in me. Here is another of my mistakes.

Some two or three years ago Dr. Noel Bell of Clapham asked me to meet him one day in consultation over an old gentleman whom he considered to have an attack of appendicitis. I did so. I quite agreed with the diagnosis; but as the patient was between 60 and 70 years of age, exceedingly stout, and altogether by no means an ideal case for operation, I suggested that the attack would probably settle down, and that possibly he might not have another, but die of something else meanwhile, and that I would try in his case the expectant line of treatment. About a fortnight later I received another telephone message saying that all had gone on apparently well until within the last day or two, when he had become very much worse, and Dr. Bell felt sure that something now would have to be done, as there was a decided fullness in the right iliac fossa. Again I went down, and this time arranged for operation within a few hours. The patient refused to leave his home and was in no condition to be moved. The operation was difficult, the light bad, the room small, the patient extremely obese, as remarked before, the ideal aseptic conditions one desires for operation conspicuously absent. On opening the abdomen by McBurney's method the intestines were found to be firmly adherent everywhere both to themselves and to the abdominal wall. Peritonitis had been in progress for a fortnight. In separating the adhesions and trying to find the appendix or the abscess a large hole was made in a loop of intestine, and had to be sewn up. When at last the abscess was reached a pint or more of foul pus was evacuated, and a full-sized drainage tube inserted. I was content with this, and made no search for the appendix. Well, for some time the fate of that patient hung in the balance, but he was ably nursed and most skilfully looked after, and eventually after many weeks he completely recovered: but is there any one who does not think that it would have been safer and better had I operated upon him a fortnight before, when I first saw him?

Yet another case where my delay subjected the patient to more risk than I anticipated, although here again, as it happened, all went well.

An Oxford undergraduate, a relative of mine, about a couple of weeks before going up for his "finals," was suddenly seized with abdominal pain one morning after breakfast. Dr. Turnbull saw him, diagnosed appendicitis, and he was removed to the Acland Nursing Home. Mr. Dodds Parker saw him as a second opinion, and an operation was arranged for 9 o'clock that evening. His mother went up at once to see him and telegraphed for me. Upon arrival, I found the temperature and pulse normal, only slight tenderness over the appendix, and the patient quite comfortable. It seemed to me that, in view of the close proximity of his examination and the extreme mildness of the attack, operation that evening was not imperative, and I said so, and in consequence it was postponed until next morning. He had a good night and the next day felt in his normal health. The squall had apparently blown over, so, after a few days in bed, he left the nursing home, and in due course stood for his final examination. When that was over, he came up to London to Fitzroy House, and was operated upon by me, but for two or three weeks previously to operation he had not been feeling quite well nor comfortable in the abdomen, and on pressure there was always some tenderness over the appendix. The operation presented no difficulty. The incision was made over McBurney's point, by the muscle-splitting method, but the appendix, though free, was large, swollen, congested, and distended with pus. Obviously the patient had been walking about for some while with his appendix in this dangerous condition. Note that there was no rise of temperature to give us any hint or clue to the appendicular condition. The temperature had been regularly taken since the first attack. The patient made an uninterrupted and complete recovery, but my postponement of operation had subjected him to grave risk, which he had been spared if the operation had been performed the first day he was taken ill, as the other medical men advised.

Curiously enough, the resident medical officer of the Hospital for Women rang me up a few evenings ago while I was writing these notes, saying that he had just admitted a patient, evidently very ill, and that he thought she had acute appendicitis, and would like me to see her. A taxi quickly took me to the hospital. The patient was a woman of 22, the wife of a publican, enormously fat, weighing perhaps 18 st., with an abdomen more like a feather bed or gigantic pillow than a stomach; temperature 103.4° F., pulse 134, no abdominal movements at all, recti quite rigid, everywhere very tender, but the greatest tenderness over the appendix region; the liver dullness absent; the whole abdomen exceedingly tympanitic. It was a typical case of what is known as the acute abdomen. One thought of ruptured gastric ulcer and acute pancreatitis, as well as of appendicitis. I asked one of my colleagues kindly to see her with me, and we agreed that the appendix should be first explored. The history was that less than thirty-six hours before the patient was apparently in her usual health, but while carrying a tray at 1 o'clock the previous day she was seized with severe abdominal pain most pronounced above the umbilicus under the costal arch; her doctor at first considered it to be an attack of acute dyspepsia, but next day, recognizing the gravity of her case and diagnosing appendicitis, telephoned to the hospital and sent her up. It was obviously no case that could be postponed until next morning, so about an hour or so later we operated. I made an incision through the right semilunar line. As soon as the peritoneal cavity was opened a large quantity of thin, malodorous pus escaped under high pressure. There were no intestinal adhesions, the pus was free in the abdominal cavity, but the appendix itself was firmly glued down behind the caecum, and was separated with difficulty. It was abnormally large and long, and contained a hard concretion as large as an almond at its extremity. Subsequently our pathologist, Dr. Paramore, reported it to be gangrenous. It was removed as rapidly as possible and the abdomen mopped dry. There were some pints of thin free pus. Large drainage tubes were inserted, one into Douglas's pouch and another to drain the right flank. They were surrounded with gauze packing, and a gauze drain was put down to the stump of the appendix. The best method, in my opinion, of draining these cases is by a large tube, ¾ in. diameter with many perforations, extending from above the pubes, through Douglas's pouch, and out by the vagina. Such a tube was not available in this case. The patient was returned to bed, given continuous rectal saline injections, and kept in the Fowler position, but although the bowels acted and she took her food, yet death ensued on the fifth day from toxaemia. Several large pockets of pus, pent up amongst coils of intestine, were found *post mortem*. The general septic peritonitis present at operation had not been arrested. It had had too great a start. Although no time whatever was lost in hospital, yet operation came too late.

The attack in this case was truly of the fulminating variety. It came on almost literally with the suddenness of a thunder clap; the patient was well at 1 p.m. one day, moribund less than thirty hours afterwards, and the attack

commenced not openly as frank appendicitis but under the guise of acute dyspepsia or gastritis. Too often, like the ghost in *Hamlet*, appendicitis comes in questionable shape. To meet such desperate surgical conflagrations as this we have to be as ever ready as the fire brigade. In this case the mischief had probably been smouldering unknown to the patient for some while. I readily call to mind two cases of such smouldering appendicitis in eminent medical men of my acquaintance. Both were aware of their trouble, but both kept postponing operation, well knowing the risk of so doing. One has since had his appendix excised and congratulates himself on the fact. The other left it till too late, and one day had a fulminating attack of appendicitis similar to the case just related, and met a similar fate to hers. We all remember the famous speech of Brutus commencing, "There is a tide in the affairs of men." To nothing was it ever more applicable than to this complaint.

Here is another case illustrating both the difficult position the general practitioner is often placed in and the danger of delay in operation. One Sunday last year I received a telephonic message from a doctor in the north of London to meet him in consultation as quickly as I could, as a young lady he had been treating for some few days for appendicitis had become distinctly worse, and he was very anxious about her. Upon my arrival, before seeing the family, he told me that I must on no account mention operation: that he had done so from the first, and had nearly lost the attendance on the case, as the parents would not hear of it and were very annoyed, but that his patient was in a bad way, and he did not know what to do. I found her flushed, pulse 165, temperature 104.5°, tongue dry and coated, the abdomen distended, exquisitely tender, but it was hard to say that there was more tenderness on the right side than on the left, because everywhere was tender, but the right rectus was very rigid. It was obvious that unless something was quickly done it would not be worth while doing anything at all: general peritonitis was rapidly supervening—in fact, had commenced. I told the parents that only immediate operation gave the patient any chance, and, my opinion being backed up by their own medical adviser, they reluctantly consented. Within two hours we commenced operation, and found the appendix, black and gangrenous, lying in a foul abscess. It was removed and the abscess drained, but for a week subsequently one could not consider the patient out of danger. She eventually made an excellent recovery, but it was many weeks before the drainage tube could be removed and before the sinus containing it had closed. The illness in this case was an affair of months rather than of two or three weeks, as it would have been if operation had taken place upon the first sign of the appendix being inflamed.

About the same time I also assisted one of my colleagues in a private case, also in a young lady, where operation had been delayed, I think, for nearly a fortnight. In this case also there was an abscess; then drainage tube, one or two operations subsequently, a prolonged convalescence, and even now I hear a sinus persists, six months or more afterwards.

Mr. Dodds Parker showed in the *Lancet* a short time ago how frequently, in those cases in which all that could be done at the time of operation was to open the abscess and drain it and not remove the appendix, the appendix remaining in the body still persisted as a source of danger to the patient. It is evident that the mere opening and draining of an appendix abscess is an incomplete operation, and must not be considered as final, nor the patient as cured and secure from further attacks. A further argument in favour of early operation, which is safe, simple, and final.

A few years ago a lady called upon me and told me she thought her son had just had a mild attack of appendicitis, but that it was of a most transitory nature and so slight that they hardly knew whether it was true appendicitis or not. Still she was anxious about him, and as he was about to go out to Uganda, she asked, supposing her son would consent, if I would be willing to excise his appendix. I replied that under the circumstances I considered I should be justified in doing so. However, the patient thought otherwise and no operation took place. Whilst in Uganda the appendix gave no trouble, but this young man, being somewhat of a rolling stone, some while later found himself in British Columbia, and there he had an attack of appendicitis which very nearly cost him his life. In this last attack he had to be carried down to the coast and operated upon there after some days' delay: an abscess had formed and he had a long and weary convalescence. How infinitely less would the risk of operation have been had the appendix been excised in the first instance before he left this country!

Yet one more case. A gentleman, a member of the Stock Exchange, consulted me for occasional attacks of right-sided abdominal pain. He himself thought it was his liver that was out of order. I saw him once or twice, and after a while told him I thought he was suffering from appendicular colic, and advised him to go into a nursing home. This he did; I watched him for a few days and quite made up my mind that his appendix was diseased. I told him so, and that the wisest thing, in my opinion, would be for him to have it removed. However, as he felt better he left the home, saying the rest and treatment had done him a world of good and he would see what happened. Now for the sequel, which I heard at second-hand. This gentleman was staying at a country house where, luckily for him, an eminent surgeon happened to be a guest at the same time. There he had a definite attack of appendicitis. The surgeon aforesaid acted with promptitude, took the patient up to town by motor car, and operated upon him the same evening in a nursing home. Well, all this was more dramatic and thrilling, partook more of the nature of an adventure, called for more sympathy, evoked more interest, but I think that every one will agree with me that this latter procedure was more risky than if the patient had been operated upon when he was quietly resting in a nursing home on the first occasion; and one must never forget that if operation is submitted to early all the pain and vexation of later attacks are avoided, and this in itself to busy men and women is a consideration of some value.

These few cases that I have recited are examples of the unwisdom of delay in operating. They are but types of too many that I have come across, and of nothing am I more convinced than that hesitation to resort to operation in every case of appendicitis without exception is fraught with risk, very often with the gravest risk. Last year the public read with sorrow of the death of two young noblemen after operation for appendicitis. It was, however, common knowledge that neither of these boys was operated upon within twenty-four hours of the first attack, but after several days' delay. The general public, in estimating the value of operation, does not weigh this most important fact; but without wishing in any way to criticize or to pass judgement upon the actions of others, nothing will convince me but that those boys, had they been operated upon within twenty-four hours of the first onset of symptoms, would be alive to-day. What operating surgeon of any experience but does not agree with me? To the physician and to the general practitioner who do not see the necessity for operating in all cases, I would remark that it is quite possible to cross the Atlantic in a cranky ship, to walk on thin ice without coming to grief, but that if one wishes not to run risks and take chances one avoids doing these things; and where human life is concerned, especially when we are the advisers in such cases as appendicitis, it behoves us to subject our patients to no more risks than are necessary. How bright the picture is when patients are operated upon within twenty-four hours or less of their first attack every one knows. I could quote them by the score, but these cases are so uneventful as to be uninteresting. The operation is easy, the convalescence perfect and uninterrupted; boredom from enforced idleness in bed is the only drawback.

I am not suggesting that every case of stomach-ache should be treated by operation—far from it. We are medical men, and our training should fit us to make a more accurate diagnosis. The pendulum often swings from one extreme to the other. A few years ago the appendix was removed so frequently in America that it was said that no lady could pretend to be a woman of fashion unless she had either been through the divorce court or had had her appendix removed. Remember *in medio tutissimus ibis* in this as in all things. My contention is that when the diagnosis has been made, recourse to operation should follow as surely as the night the day, and appendicitis is what every medical man should be constantly on the look-out for; 90 per cent. of all acute abdominal emergencies are

due to mischief in the appendix. It is infinitely commoner than ruptured gastric ulcer, acute pancreatitis, impacted gall stones, or strangulated bowel. Remember that the pain in the first instance is not always localized to the appendix region, but may be referred to the umbilicus or elsewhere in the abdomen. There may be nausea, there may be rise of temperature and accelerated pulse, but there nearly always is as a constant symptom tense rigidity of the right rectus. This, to my mind, is the key to the situation. It is Nature's effort to protect a sick appendix. This rigidity in conjunction with two or more of the recognized classical symptoms should make diagnosis no very difficult matter. In women it is not always easy to differentiate chronic appendicitis from chronic right tubal or ovarian mischief, but these are chronic cases, and careful examination per abdomen and per vaginam may help one, but I have seen several cases where even at the time of operation, and subsequently by pathological examination, it was quite impossible to say whether the appendix or the right tube and ovary were first affected. Both appendix and tube have been matted together, both inflamed and involved in a similar infective process. It is safe, perhaps, to conclude that if the opposite tube is normal the mischief arose in the appendix, but if both tubes are the seat of pyosalpinx or salpingitis then it is probable that the appendix became involved secondarily, but to enter into this question is beyond the scope of this paper. It has been said that he gives twice over who gives quickly, and I am sure that that surgeon confers a double benefit upon his patient who operates quickly as soon as appendicitis is diagnosed. I shall be amply repaid if anything I have said will add by ever so little to the accumulating weight of evidence in favour of early operation in this disease.

CASES OF PERFORATIONS OF THE STOMACH AND DUODENUM.

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Although the four cases here reported are none of them complete as regards their histories, yet I think each presents some feature worth attention.

Two are cases of perforated gastric ulcers in men aged 45 and 40 respectively; one is a perforated ulcer of the duodenum in a woman aged 37, and one is a traumatic perforation of the stomach in a boy aged 10. The latter was interesting from the fact that although the perforated stomach was for about nine hours full of rice and curry, yet no leakage occurred. I omit this case in the following general considerations:

The three cases of perforated ulcers came in as abdominal emergencies so far advanced that operation, though undertaken, was little more than a forlorn hope, especially in Cases I and III, where interference perhaps only served to precipitate otherwise certain calamity.

In Case II, although two perforated ulcers existed, only one was detected at operation; but I doubt that, even if both had been dealt with, death would have been prevented, owing to the involvement of the ascending colon in an extensive gangrenous process. However, this case proves the necessity of a careful examination for two or more perforated points, which has occurred in as many as 20 per cent. of the recorded cases of gastric ulcer (Mayo Robson).

Only in Case II was there any clue to a correct diagnosis as to the cause of the peritonitis; and here, too, the clinical picture was clouded by signs of appendicitis—a complication more usually associated with perforated duodenal than with gastric ulcers.

The apertures were all on the anterior surfaces, two close to the lesser curvature, one close to the greater. Here the common rule of perforation was not transgressed. For although the location of peptic ulcers is much less frequent in the anterior wall (being commonly situate on the posterior wall of the pyloric end, at or near the lesser curvature), yet the chances of perforation of an ulcer of the anterior wall are 5 to 1 in its favour, owing to mobility which prevents adhesions (Kemp).

In all the cases the ulcers were of the chronic indurated variety; Case II was complicated by a subacute perforation as well.

Sex and Age.—Perforation of duodenal ulcers is more frequent in men (10 to 1, Eisendrath). My case occurred in a woman 37 years of age. Perforated gastric ulcers are more frequent in women (4 to 1, Eisendrath). Robson states that five-sixths of the perforations of gastric ulcers occur in women, but perforation is *relatively* more frequent in men, especially in men over 40. The two gastric perforations here reported occurred in men of 40 and 45 respectively. In the British Medical Journal of February 17th, 1912, Moynihan makes the following statement: "The disclosures upon the operation table prove that duodenal ulcer is decidedly commoner than gastric ulcer. The ratio is probably about 5 to 1."

Complications.—General peritonitis in all my cases—a gangrenous colon in one, with extensive perigastric adhesions; although free gas was present in the peritoneal cavity of two of the cases, I did not observe subcutaneous emphysema in any. Case II presented extensive perigastric adhesions which bade fair to avert death had not a second subacute rupture supervened.

Case I.—*Perforated Chronic Gastric Ulcer.*

J. S., 45, male, Cingalese coolie, came walking into hospital one morning, and was not seen by me until four and a half hours later, when I found him lying in bed profoundly ill. He presented the following symptoms: Restlessness and an anxiety of expression which asserted itself in spite of the drowsiness and apathy which seemed to overcome him. His pulse was imperceptible and his breathing thoracic. He was intolerant both of questions and physical examination. All I could obtain as regards his previous history was that he had asserted on admission that he was an opium eater and had partaken of a quantity of this drug to allay the pain he experienced in his abdomen. This circumstance, although it gave him the energy to walk into hospital, tended to obscure considerably the symptoms of the case and to entail a delayed diagnosis of abdominal emergency on the part of those in immediate attendance. Even when I saw him, drowsiness and apathy coexisted with anxiety of expression, a paradoxical grouping which I was at first at a loss to explain. Whether or no the opium habit was initiated by the pain of chronic gastric ulcer I was unable to determine. The abdomen was uniformly tender and distended, the flanks were dull. No specially painful or tender area could be determined. The bowels had not moved for four days, but responded slightly to an enema of soap, castor oil, and turpentine. Vomited four times since admission. Liver dullness diminished. Duration of illness was said to be three days, although what precisely this term implied was not clear.

Operation.—As a forlorn hope (which, perhaps, would more justifiably have been abandoned owing to the patient's moribund condition) I undertook operation. Air escaped with a rush as soon as I opened into the peritoneal cavity, which was found full of purulent fluid. This was swabbed out and irrigated with warm saline as quickly as possible, and suprapubic and loin drainage established. To look for the causative lesion was hopeless, owing to the patient's condition, and I had at this stage to relinquish the operation, which had not taken more than fifteen minutes. The patient expired a few minutes later.

Post-mortem Examination.—There was an ovoid perforation on the anterior wall of the stomach half an inch from the lesser curvature and pyloric sphincter respectively. The perforation was found to occupy the

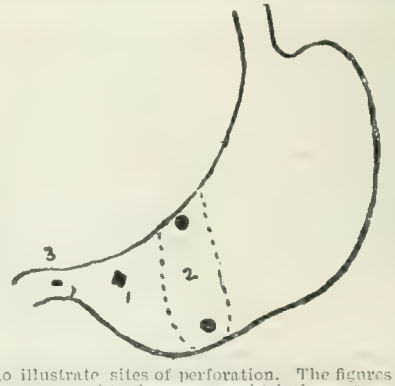


Diagram to illustrate sites of perforation. The figures 1, 2, and 3 correspond to the cases to which they refer.

expanded extremity of the anterior limb of a saddle-shaped chronic ulcer with markedly indurated edges. The ulcer rode the lesser curvature quite close up to the pyloric sphincter, and braced up the first part of the duodenum by adhesions.

CASE II.—*Perforated Chronic and Subacute Gastric Ulcers.*

W., 40, male, Cingalese, was admitted with a history of pain in the abdomen for the last six months. The present illness was of six days' duration, during which time the patient had experienced increasing pain and discomfort. No vomiting.

Present Condition.—Abdomen distended, tympanitic, and tender. Both pain and tenderness were specially marked down the right side of the abdomen and in the epigastric region to the right of the middle line; this was also the case with rigidity. Liver dullness normal. Right flank dull; left tympanitic. Expression anxious. Tongue glazed. Pulse rapid and feeble. 154 per minute. Breathing thoracic. Scanty response to soap and castor-oil enema.

The symptoms referable to the stomach (pain aggravated soon after ingestion of food and relieved on vomiting, etc.) and the site of tenderness and rigidity enabled me to come to a diagnosis of perforated ulcer of the stomach rather than one of the duodenum, although symptoms simulating appendicitis more often accompany perforations of the duodenum. Against appendicitis were the facts that the rigidity was not confined to the right iliac fossa and its environment, but encroached significantly on the epigastric region; added to this was the history of marked digestive disturbance.

Operation.—An incision was made through the right rectus, and disclosed at the very outset dense adhesions between the stomach, liver, colon, and small intestines, disfiguring considerably their normal relations. On cautiously separating the more superficial and tractable of these, gas was heard to escape, and a large opening was found high up and far back against the under-surface of the liver to which its edges were firmly fixed. No attempt was made to close this opening for fear of breaking through adhesions which seemed to shut out the general peritoneal cavity. A drainage tube was inserted into the stomach through the perforation and brought out at the abdominal wound to which it was fixed. The area round the perforation and tube was packed with gauze and a suprapubic drain inserted. The patient expired ten hours after operation.

Post-mortem Examination.—Dense adhesions of stomach to liver, colon, small intestine, and pancreas. Two perforated ulcers were found: (1) Chronic perforated ulcer with indurated edges and dense adhesions to under-surface of liver; situated on the lesser curvature midway between cardia and pylorus. The floor of the ulcer was partially formed by the liver and pancreas about their tuber omentale. It admitted the index finger. This was the ulcer into which I had introduced the drainage tube. (2) A subacute perforated ulcer, admitting index finger, situated on anterior stomach wall in the lower segment of the antrum pylori about 1 in. from the greater curvature. This ulcer was subacute in type, presented no indurated edges or stable adhesions, was the ulcer which I failed to detect at operation, and was, I have no doubt, responsible for extravasation down the colon, and death.

The extravasated stomach contents were shut in by adhesions which limited them to the epigastric region except for a leakage which had tracked down to the right kidney pouch of Morrison, and thence down the ascending colon to the region of the caecum; both the latter were gangrenous, putrid, and perforated, and were responsible for the tenderness and rigidity simulating appendicitis. The appendix itself was neither inflamed nor adherent.

CASE III.—*Perforated Duodenal Ulcer.*

S., 37, female, Tamil, was admitted in an exceedingly serious condition. The pulse was quick, feeble, and scarcely perceptible. The extremities were cold; facial expression very anxious; respirations hurried and thoracic; temperature 98°; vomiting not present. The abdomen was rigid and tender all over; when asked to show painful and tender area, she passed her hand above, below, and around the umbilicus.

I was only able to gather the following meagre previous history: Duration of illness two days; the onset did not appear to be strikingly sudden. No previous history of gastric pain or dyspeptic symptoms. Pronounced constipation, not relieved by enema.

In view of the general tenderness, rigidity, and pain, and the absence of a definite localizing sign or symptom, I could arrive at no definite diagnosis as to the cause of the peritonitis.

Operation.—I made a subumbilical median incision and encountered, free in the peritoneal cavity, a large quantity of grumous bile-stained fluid redolent of a native decoction of offensive odour called a "Kassaye." There was some plastic peritonitis and lymph flakes were adherent to coils of intestine. The omentum was invisible. I next explored the stomach by an incision through the right rectus and found the omentum tucked away and adherent in the direction of the pylorus and duodenum. The omentum was easily dislodged, and a perforation about ¼ in. in diameter was noticed on the anterior surface of the duodenum about ¾ in. from the pylorus, and through it bile-stained fluid and gas escaped. The tissues round the perforation were much indurated and tore through when I began suturing; however, with great care I succeeded in placing a continuous Lembert in the direction of the long axis of the gut, doubling in the edges of the perforation. On this an omental graft was secured. The patient was in a bad way, and I was constrained to mop up quickly the extravasated contents of the stomach, to insert drains into the pouch of Douglas and the vicinity of the perforation, and to close the greater part of the abdominal wounds. The operation lasted twenty minutes. The patient succumbed one hour after operation. Saline proctoclysis, adrenalin, and stimulants proved of no avail.

Post-mortem Examination.—Perforation on anterior wall of the duodenum. Looked at from inside (see illustration) the ulcer presented the appearance of a longitudinal fissure situated in the midst of an elevated and indurated ridge which not only encroached on, but also extended across the pyloric sphincter. In this connexion W. J. Mayo's finding that often pyloric ulcers are found to have their origin in the duodenum and differentiation between the two is difficult, is of interest.

CASE IV.—*Traumatic Perforation of the Stomach.*

J., 10, male, Cingalese, came in with an oblique wound in the epigastrium, said to be the result of an accidental impalement on a stick which he happened to be carrying in his hand, and on which he fell over whilst running. His appearance gave not the slightest clue to a severe abdominal injury. However, as the wound was penetrating, I had the patient anaesthetized for exploration.

Operation.—At the inception of anaesthesia a large quantity of undigested rice was vomited, which I afterwards ascertained he had partaken of just before the accident occurred. I did not wash out his stomach for obvious reasons. The wound was enlarged upwards, and on exploration with the finger I found it enter easily into an opening in the anterior wall of the stomach a little above the attachment of the great omentum. The abdominal and stomach wounds did not correspond in position, the former being placed at a higher level, owing to the oblique direction of the injury. *There was not the slightest trace of leakage of the stomach contents*, although the stomach had received a large meal of rice and curry just before the receipt of the injury, and had remained full until a few minutes prior to operation.

The opening in the stomach was carefully closed by a double row of sutures, and a cigarette drain was inserted down to it. The greater part of the abdominal wound was closed—at the time I did not think further interference indicated. Twelve hours later, however, when tympanitis began to appear, I made a suprapubic incision, and removed a small quantity of clotted blood which had gravitated down to the pouch of Douglas. The pelvis was drained, and saline proctoclysis administered. Evening temperature, 102°. The next day it came down to 99°, and from that time onward convalescence was uninterrupted, and the patient made a good recovery.

The most feasible explanation I can offer for the absence of escape of the contents of the stomach through a hole which admitted the index finger easily is that the rice was welded into a plastic coherent mass; also, owing to the obliquity of the wound, the aperture was perhaps valvular. The meal had been taken ten hours before the operation, and had apparently remained in the stomach for that time; whether Nature had suspended gastric motility and function as a means of protection is a point open to speculation.

RUPTURE OF THE ABDOMINAL WALL, POST-OPERATIVE AND SPONTANEOUS.

BY

A. G. STEWART, M.A., M.D.ABER.,

ASSISTANT MEDICAL SUPERINTENDENT, PADDINGTON INFIRMARY.

RUPTURE of the abdominal wall is a post-operative sequel of which little mention is made in the textbooks of surgery, although it is not a very rare occurrence. I refer to the cases in which the approximated edges of the abdominal wound completely separate, and the intestines are extruded through the opening, not to the common presentation of a knuckle of bowel after removal of a drainage tube.

It is most commonly found after suppuration, and frequently after a stitch abscess which burrows amongst the muscles. It would appear that the omentum, in addition to its many other uses, tends to prevent such an accident. In a series of experiments on cats, Wilkie[1] found that when sepsis developed after abdominal operations, 5 per cent. died from rupture and prolapse of the viscera; where, however, he had removed the omentum, 85 per cent. died from prolapse. He therefore advises that when an abdominal wound has been exposed to infection the omentum should be spread out behind it before suturing up the abdominal wall.

Other causes are too early removal of stitches, and too great hurry in getting the patient up after operation. Sir Alfred Pearce Gould[2] has drawn attention to this latter danger, and has pointed out that the integrity of the abdominal wall cannot be judged by the mere appearance of the skin union. In one case I saw the prolapse occurred about half an hour after the removal of the stitches on the tenth day, although at the time of removal the union was apparently firm. It is rather surprising that in nine cases which I have come across the accident has usually occurred in the second week, and not in the days immediately following operation, the average being on the tenth day.

It frequently occurs in stout individuals with much subcutaneous fat (one of the cases being in a woman of 18 stones), and in those debilitated, for example, by carcinoma. Straining for any reason, such as post-operative vomiting or bronchitis, tends to favour the accident, while, lastly, the use of catgut as an abdominal suture has been said to favour its production.

As regards the usual site, in one case the incision was through the right rectus in a gall-bladder operation, in another in the middle line above the umbilicus, while in the remaining seven it was in the middle line below the umbilicus.

In all 9 cases secondary suture was done as soon as possible under general anaesthesia. Of the 9, 6 recovered and 3 died.

Spontaneous rupture of the abdominal wall is a very rare occurrence, and I have been unable to discover any similar case to the one I now report.

E. H., aged 74, an inmate of Paddington Workhouse, had a severe attack of coughing on the afternoon of June 15th, 1911. A few hours later she complained of feeling faint, and I was called to see her. She had been put to bed, and I found her underclothing drenched with blood, and several coils of small intestine and omentum protruding through a wound about 2 in. in length in the middle line, rather nearer the umbilicus than the pubis. Bleeding was proceeding from a wound in the mesentery.

I had her transferred immediately to the infirmary, and anaesthetized her with C.E. mixture. It was interesting to note that peristalsis, which was exceedingly active in the extruded coils of intestine, came to a complete standstill during the administration of the anaesthetic. A piece of omentum was ligatured and cut off; the rent in the mesentery, which was about 3 in. long and at right angles to the long axis of the bowel, ran close up to but did not involve the bowel, and was closed by a continuous catgut suture, which checked the haemorrhage. The intestines were washed with warm saline, and easily replaced after slightly enlarging the opening in the abdominal wall. The linea alba was very thin and broadened out, the opening being exactly in the middle line. The recti were widely separated, their inner edges being about 5 in. apart, and as the patient was rather collapsed I made no attempt to approximate them, but closed the abdomen by superficial and relaxation sutures, after removing some redundant skin.

The patient made an uninterrupted recovery; her temperature once registered 99° F. but otherwise remained normal, and the wound healed by first intention. She got up on the twenty-first day, wearing a support made by the sister of the ward, and was discharged on August 9th.

The patient had had only one child: she suffered from ventral hernia, for which she had formerly worn a truss, but had discarded it many years ago. No sign of a scar could be made out, but the skin of the abdominal wall was very flaccid. Since her discharge she has enjoyed good health and performed light household duties. On examination on April 15th of this year the interval between the lower part of the recti was found to be almost circular, the vertical diameter of the ring measuring 5½ in., and the lateral 5 in.

I am indebted to the Medical Superintendent, Dr. M. F. Squire, for permission to publish the case of E. H.

REFERENCES.

[1] BRITISH MEDICAL JOURNAL, October 28th, 1911, page 1105. [2] Ibid., December 9th, 1911, page 1517.

DR. ALFRED GREENWOOD, M.O.H. Blackburn, and Dr. J. T. C. Nash, Medical Officer for Norfolk, have been elected Fellows of the Royal Sanitary Institute.

A MEETING to form a South London branch of the Social Welfare Association is to be held at the Horns Assembly Rooms, Kennington Park Road, S.E., on June 3rd, under the chairmanship of the Bishop of Southwark. One of the objects in view is stated to be to promote the health of the industrial community by securing effective administration of the health provisions of the National Insurance Act.

STRANGULATED OMENTAL HERNIA WITH FEW SYMPTOMS:

REPORT ON THE SPECIMEN FROM MR. A. Z. C. CRESSY'S CASE.

By RUSHTON PARKER, M.B., B.S., F.R.C.S.,
PROFESSOR OF SURGERY IN THE UNIVERSITY OF LIVERPOOL.

THIS important and instructive case was related by Mr. Cressy in this JOURNAL on November 5th, 1910. A comment by me appeared on November 12th, and Mr. Cressy's reply on November 19th. In order to form for myself a clear idea of the nature of his specimen I asked him to let me see it, which he promptly and very kindly did. He has also given me permission to publish this report of the same. I found it mounted in first-rate museum fashion, and had it photographed on both sides, while immersed in spirit in a bowl.

The soft unaltered omentum is quite a small portion of the preparation, shown in the upper part of the plate in the form of a narrow tail, of which the free end is that cut from the colon. The rest of the omental mass is swollen, firm, and rounded for the most part, having its surfaces seamed with cicatrices almost everywhere.

The specimen had lost colour during nine months, as he stated, and on coming into my hands the liquid in the jar had already a red tint, which deepened after a few days in the warm room in which I kept it. Having Mr. Cressy's permission, I cut out a wedge and then had the specimen photographed again, showing in the plate the wedge lying loose on the tail and the hole from which it was cut. The dark colour of both gives some idea of the deep purple, almost black, colour of the inside as still existing. That of the outside is already faded.

This deep blackish appearance is due to effusion of blood, tightly distending the greater part of the omental mass, and evidently, as Mr. Cressy says, spreading upwards into the abdomen, but prevented from becoming more diffuse by the inelastic scarred omental surface. Such scarring is not uncommon in old omental herniae, but the degree here is unusual.

Microscopical examination of the wedge shows everywhere closely packed red blood corpuscles with white corpuscles in varying minor proportion, but no atrophy or other change in the tissues, and nothing compatible with either gangrene or inflammation.

The lower edge of the specimen already unfolded by Mr. Cressy and spread out below his horizontal glass rod shows the part that was confined in the hernial sac, the main lump having been the "hard mass extending as far as the middle line like a sausage." (November 5th, p. 1401.)

Remarks.—It is evident from the statement in my letter of November 12th, 1910, p. 1562, and from this report, that the case presents itself to me in two aspects—(1) the clinical emergency, and (2) the significance of the pathological anatomy.

1. I have already spoken definitely in approval of the prompt and effectual way in which the emergency was dealt with. When surgeons undertake emergencies of the kind they cannot always correctly foretell what they are to find. In any case, in hernia a good old rule is: "When in doubt, operate." But Mr. Cressy was not in doubt. He was certain that operation was required, and he was right. Our operations are often right even when the motives differ. Yet even here the motive was the only one possible—namely, to deal with an unreduced hernia in which were present some of the symptoms that may attend so-called "strangulated omental hernia." No prudent surgeon would have refrained. But inside he found something quite unexpected. One of the charms of surgical practice, to those who view it with artistic interest, is the frequency with which "the unexpected happens." He was astonished, very justly, at the black omental mass he found; but that did not prevent him from finishing his operation in first-rate style; and of course his patient got well.

2. Where I do not see my way to agree with him is in the significance of the pathological anatomy. The blackness truly spreads inwards from the stricture at the neck of the sac to the far end of the lump within the peritoneum; and if the condition *had* been one of "gangrene,"

it is clear that it did "*not stop at the stricture, but passed on into the abdomen.*"

Now I have satisfied myself and endeavoured to make clear that the condition was *not* one of gangrene, but a state of haemorrhagic engorgement of omental substance, which assumed the firm sausage-like shape by reason of the cicatricial toughness of its peritoneal covering, the inner fatty constituent being soft and easily permeable by the effused blood.

We do not know how the haemorrhage occurred in the omentum of the hernia. Possibly the exertions of the cabman may account for it. He did nothing, however, as I am informed, to aggravate the condition during the two days before operation, but lay quietly at home. The fact remains that the mass removed was nearly black at first, lost colour after a time in the preserving liquid, which became red in consequence, and is now engorged with nothing but blood, recognizable by the naked eye and certified by microscopical examination, of which the slides show well also in a lantern, but the micro-photographic prints have not come out in recognizable form.

I have sent prints of all the photographs, including that of the microscopic slide, to Mr. Cressy, but the annexed plate is sufficient for the present purpose. The



Specimen of omentum removed in herniotomy. The lower edge was crumpled up in the sac; here straightened out on glass rod sewn to it. The rest of the horizontal portion was the "hard mass like a sausage" found in the peritoneum. On the left a gap where piece was afterwards cut out, dark from congestion.

Vertical portion shows unaltered soft omentum, here fixed by another glass rod sewn obliquely to it. Upper end where cut from colon.

Piece cut out from lower portion laid across upper portion for exhibition; also dark from congestion. (Photograph by Fred. Halliday, Museum Attendant, University of Liverpool. Nearly half natural size.)

case is a curious and interesting example of the many-sided revelations of hernial emergency.

NOTE.—Since this was written Dr. J. Prescott Hedley (BRITISH MEDICAL JOURNAL, November 11th, 1911) has published, with an illustration, a very able report, with comments and statistics, on a case of "torsion of the great omentum, clinically resembling ovarian cyst with twisted pedicle," and which throws light on the possible cause of omental engorgement in Mr. Cressy's case. In both cases there was abdominal distress at first: severe and continuing in Dr. Hedley's. In both the desirability of operation was evident, and in both its performance was attended with permanent relief and complete justification.

THE Royal Dental Hospital, Leicester Square, has received a donation of twenty-five guineas from the Mercers' Company and one of ten guineas from the Skinners' Company.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

A PRELIMINARY NOTE ON THE USE OF TARAXACUM IN "CANCER."

For the last six months I have been systematically giving taraxacum in three cases of cancer, apparently with remarkably beneficial results; and though it is yet too early to decide whether or not the treatment will be a curative one I feel justified in recording the fact, so that others may try the remedy in this disease.

One—Mrs. A., aged 60—is a case of cancer of the bladder. Mr. J. A. Coupland kindly saw the case in consultation with me last October, and agreed with me as to the diagnosis. At this consultation Mr. Coupland used the cystoscope and demonstrated the disease, which was pronounced incurable. A few days after the consultation the patient had prescribed for her liquid extract of taraxacum (P. D. and Co.) 3j thrice a day in an ounce of water. The dose has since been increased to 3ij, and latterly the *B. P.* preparation has been administered. The patient has gained weight, is now up and getting about, and has very little vesical irritation.

The other two cases are cases of cancer of the bowel where attacks of severe subacute obstruction had occurred. In one case colotomy was advised and prepared for, but the patient and friends refused to have the operation done at the last moment. Both these patients are now having regular and normal stools; they have no feeling of obstruction—which before was constant—they have gained weight and are free from abdominal pain.

Leeds. HERBERT J. ROBSON, M.R.C.S., L.R.C.P.

WIRING SAME FRACTURED PATELLA TWICE WITHIN EIGHT MONTHS.

A. J. H., aged 45, on October 25th, 1910, slipped and "felt something snap" in his right knee. I saw him almost directly after the accident, and found a transverse fracture of the patella with about three inches separation of the fragments. I cut down on the fracture four hours later, wired bone and sutured ruptured capsule and fibrous tissue over patella after Lister's method. The after-history was uneventful, the stitches being removed on November 2nd, when the wound was healed. The patient was up on the eighteenth day after operation, and at the end of six weeks was able to flex the joint to a right angle, and get about with a stick, which was shortly afterwards discarded.

On June 17th, 1911, when running he slipped and felt the bone again go. I operated again ten hours after the accident, and found a clean bony fracture; the wire was also broken, but the separation was much less than on the first occasion, as the wire, although broken, kept the fragments to some extent in position, the distance between them being only about a inch. The patella was slightly thickened, and the fibrous tissue over the bone very considerably. The joint otherwise appeared normal. Recovery on this occasion was much slower than on the first; the patient did not get up until a month after the operation, and there was some suppuration under the skin flap, but less reaction in the joint itself than after the first operation. In addition the patient was very nervous, and did not want to run any further risks. As the wire caused some irritation I removed it on January 9th, 1912. At the date of writing (May 5th) the patient walks without a stick and has got as good flexion as before the accidents.

On both occasions the fracture was caused by indirect violence. I have not been able to find a similar case recorded in any of the textbooks, and the Librarian of the Association, who very kindly looked up all the references in journals, etc., for me, was also unable to find one. I have therefore thought the case worthy of publication.

THOS. NORTH, B.Ch.(T.C.D.), F.R.C.S.(Ire.)

London, W.

SCIATICA AND BEE-STINGS.

COMPREHENSIVE as is Dr. B. Watson's article in your issue of April 27th, 1912, on the Diagnosis and Treatment of Sciatica, I should like to add one out-of-the-way item of

knowledge, namely, the successful treatment of a subchronic case of sciatica by bee-stings. The words "successful treatment" are used to shade off a too presumptuous use of the word "cure." Time is the great healer of many complaints.

The patient was a well-built railway fireman aged 31, who two years ago, after a wetting, developed acute lumbago followed by sciatic perineuritis and neuritis, which resisted all the usual treatments continuously applied for six months (including severe blistering). At the end of this time, as the man, though desirous, was almost as unable to resume his work as six months previously, I was allowed by the kindness of Dr. H. M. Henderson to try bee vaccination.

During the ensuing four weeks I submitted the patient to 64 bee-stings along the course of the nerve. The symptoms rapidly improved, and his walk changed from a painful crippled hobble to an ordinary stride. At the end of six weeks he resumed his heavy stooping work of stoking, without pain. Two months later he presented himself to report continued freedom from any trouble, in which state, so far as I know, he has continued. Of course, bee-sting venom is a reputed antidote to rheumatism. An article on this subject appeared in the British Medical Journal about five years ago.

Liverpool. C. Alston Hughes.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

ST. MARY'S HOSPITAL.

SUPPURATING HYDATID CYST OF THE LIVER TREATED BY INCISION AND WAX INJECTION.

(Under the care of Mr. J. Ernest Lane, F.R.C.S.)

The patient was a single woman aged 50, and the history she gave was as follows: About six months ago she noticed a small lump in the upper part of the abdomen just to the right of the middle line, covering an area as large as a florin. It caused her no trouble and did not increase in size. Six weeks before admission a second small swelling appeared, above and slightly to the left of the first, which grew rapidly, and became blended with the first. On admission, the patient presented a swelling in the middle line of the epigastrium, about 2½ in. in diameter. It was soft and fluctuant, the skin covering it was thin and bore a slight dusky red colour. It was partially reducible, and on coughing there was a small but distinct expansile impulse. No signs of a diseased rib were noted, except a little tenderness on pressing the eighth left costal cartilage. The liver was palpable just below the costal margin, otherwise nothing abnormal could be felt in the abdomen. The temperature was 98°, the pulse 96, and the urine normal. Scarlet fever had been the only previous illness, and the patient had never been out of England. When questioned after the operation she admitted having kept a dog for a number of years, and of growing lettuce, cabbage, etc.

On December 4th the patient was operated upon, and it was discovered that the epigastric swelling contained yellowish-brown pus. The extent of the abscess cavity was determined by a probe in order to find the source of the pus, but instead of a carious rib, as had been suspected, the origin of the pus was seen to be a minute hole in the linea alba, from which pus was continually exuding. When this small channel had been enlarged, it was found to communicate with a very large cavity in the right lobe of the liver, full of the same kind of pus, together with some gelatinous membranous material resembling the collapsed walls of hydatid daughter cysts, and one or two unbroken cysts. The walls of the cavity were rigid, and imparted a sensation of grittiness due to partial calcification. The extent of the cavity upwards was to the level of the lower border of the fourth rib and downwards to the costal margin on the right side. The cavity having been evacuated it was irrigated freely and then packed with iodoform gauze. Almost immediately on returning to the ward from the theatre, an urticarial rash appeared over the greater part of the body. It completely disappeared in a few hours. On the next day the serum test for hydatid infection (analogous to the Wassermann test for syphilis) was performed by Dr. Alexander Fleming, yielding a positive result; characteristic hooklets were found in the pus.

During the following five weeks the cavity was dressed daily by gauze packings, but there was a free discharge of pus and the extent of the cavity diminished only very slowly, in fact the patient, though quite well as regards her general health, was in a stationary condition as far as her liver was concerned.

On January 8th an attempt was made to close the cavity by filling it with a mixture of bismuth and wax, first sterilized by standing the jar containing it in boiling water for an hour; it was then allowed to cool to about 45° C., and quickly injected into the cavity through a fine glass nozzle passed to the bottom of the cavity. Enough wax was injected to allow a considerable overflow so as to ensure that the wax penetrated every recess of the cavity.

During the first two days there was a slight discharge of the excess of wax, but on the third day the dressing was clean and the wound completely healed.

On the evening of the fourth day the temperature suddenly rose to 104° F., but the patient complained of nothing except a slight headache, while the local condition was entirely satisfactory, and by six the following morning it had sunk to 98° F., after which it remained at the normal level throughout.

After injection, the region of the liver was submitted to x-ray examination, when the shadow of the cyst full of bismuth was clearly seen as a pyriform area extending to the right.

The patient was discharged from the hospital as cured at the end of January, but presented herself on February 20th with a sinus at the seat of the operation, from which the bismuth and wax were escaping; the cavity was irrigated and a drainage tube inserted.

The chief interest in the case lies in the diagnosis and the treatment. A soft fluctuant swelling in the epigastrium without any symptoms would commonly be diagnosed as a lipoma or a cold abscess, but the symptoms of an enlarged liver and partial reducibility of the tumour into the abdomen, together with the expansile impulse on coughing, should have suggested the origin of the disease in the liver. The case also illustrates the value of the serum complement-fixation test for hydatid infection. Had it been performed before the operation the diagnosis would have been established, whereas if a hydatid cyst had been considered before operation it would probably have been rejected as a diagnosis when the patient stated that at no time had she been out of England. The treatment of the case resolved itself into the treatment of a cavity with rigid walls in a state of chronic suppuration and showing no inclination to obliterate itself.

For the notes of this case I am indebted to my late house-surgeon, Mr. A. W. Bourne, F.R.C.S.

The *Bulletin administratif du ministère de l'instruction publique* states that on January 15th, 1912, the number of medical students in the medical faculties of France was 8,265. Of that number 7,400 were men, including 742 foreigners; and 865 women, of whom 508 were foreign. The students were distributed among the several universities as follows: Paris, 4,170; Lyons, 1,601; Bordeaux, 791; Montpellier, 681; the rest being scattered about Toulouse, Nancy, Lille, and Algiers. In addition to these, there were 1,522 male students in the medical schools, of whom 1,481 were French; and 134 women, of whom 116 were French. Marseilles headed the list of schools with 240; next came Rennes with 147, and Nantes with 116; the other schools had each from 30 to 50. The largest element among the foreign students was formed by the Russians, of whom there were 602 in Paris and 128 at Montpellier. Next came the Turks, of whom there were 71 in Paris; then Bulgarians, of whom there were 63; then Roumanians, of whom there were 57. All nationalities are represented except the Japanese.

Reports of Societies.

MEDICAL SOCIETY OF LONDON.

Monday, May 13th, 1912.

Dr. J. MITCHELL BRUCE, President, in the Chair.

The Sphygmomanometer in General Practice.

DR. F. DE HAVILLAND HALL, in opening a discussion on the subject, said that it was his object to consider whether the sphygmomanometer, with all its fallacies and limitations, was likely to be of sufficient service to the general practitioner to justify the small outlay involved in buying the instrument and the amount of time required to make the examinations. His own experience, though limited, led him to give an affirmative answer. He had nearly always employed the Riva-Rocci instrument as modified by Martin. The sphygmomanometer was of great use not only in enabling definite records of the blood pressure to be kept, but also in revealing instances of increased blood pressure which might otherwise have been overlooked. He remarked on the great advantage it was to be able to keep a record of the blood pressure while the patients were undergoing treatment with the hope of reducing tension and then checking the action of the remedial measures employed. He had contented himself with recording the height of the column of mercury when the pressure in the hand around the arm was sufficient to obliterate the pulse at the wrist. Sir Lauder Brunton's figures as to the normal standard of pressure were quoted, namely, in young men the tension would be from 100 to 120 mm., in middle life 125 to 135 mm., and above 60 145 to 150 mm. The speaker, in order to illustrate the value of the sphygmomanometer, had taken a series of consecutive cases in his case-book, and divided them into six groups:

	Number of Cases.	Number of Deaths.
Arterial pressure of 120 mm. or below ...	35	2
Arterial pressure of 121 to 140 mm. ...	56	2
Arterial pressure of 141 to 160 mm. ...	34	1
Arterial pressure of 161 to 180 mm. ...	19	5
Arterial pressure of 181 to 200 mm. ...	12	5
Arterial pressure above 200 mm. ...	17	9

From an examination of these cases he was of opinion that the sphygmomanometer was capable of affording valuable information as to the condition of the patient. It was not only useful from the point of view of prognosis but also in treatment, by indicating the measures to be taken to lower the patient's tension and at the same time enabling the effect of such on the pressure to be noted. Still, he could not omit a warning against the incautious use of the vaso-dilator group of drugs.

SIR LAUDER BRUNTON said that he now used a manometer of the aneroid type, but found it necessary to compare it occasionally with a mercurial manometer. He considered the systolic pressure usually the most reliable. If the blood pressure was below 100 mm. in an otherwise healthy man it was almost certainly due to excessive smoking. If there was no evidence of this, careful examination should be made for phthisis. In angina, if the tension was high, the prognosis was better than if low, for death often occurred unexpectedly in the latter case. In the treatment of high blood pressure he emphasized the importance of absence of worry.

DR. LEONARD HILL thought that the sphygmomanometer was an accurate means of estimating the blood pressure. It had led to many important physiological observations. In compensated cases of aortic regurgitation the blood pressure was greater in the legs than in the arms by as much as 100 to 150 mm.

DR. GEORGE OLIVER had lately come to the conclusion that the reading obtained of the diastolic pressure was as precise as that of the systolic, and was even more valuable. It was a point worthy of more study by the auscultatory method.

DR. A. M. GOSSAGE thought that for purely clinical purposes Dr. Leonard Hill's small instrument was more suitable, but for research work a larger instrument was necessary. To-day the systolic pressure was the more generally recorded and the more useful, but to-morrow they might find that the diastolic pressure was really more valuable. He thought that no instrument could compare with Dr. Oliver's for recording the diastolic pressure.

DR. BEZLY THORNE favoured the aneroid, 4½ in. in diameter, introduced by Hill and Barnard, which he at times connected by a two-way tube with a mercurial barometer for control purposes. He noted four special data: the systolic pressure, the point of radial obliteration, the area of maximum migration which he denominated balance pressure, and the migration of the needle or mercury at the balance point.

DR. F. W. PRICE was very sceptical of the value of the readings of the diastolic pressure (because during diastole the pressure was continually falling), and also of the records obtained in cases of heart disease with a completely irregular rhythm. It was important also to know the patient's usual blood pressure previously. In some it fluctuated greatly from day to day. Some results of investigations on the action of drugs on blood pressure in the human subject tended to shake his faith in their value.

DR. O. K. WILLIAMSON, DR. JOHNSTON-LAVIS (Vittel), and DR. HAROLD DES VOEUX also spoke, and DR. DE HAVILLAND HALL briefly replied.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

Saturday, May 11th, 1912.

Mr. J. B. LAWFORD, President, in the Chair.

Sarcoma of the Choroid.

DR. LEDIARD (Carlisle) recorded a case in which metastatic sarcoma of melanoid type was found in the liver and intestine of a woman aged 55, during an operation for gall stone. It was learnt that three years previously the patient had had the left eye removed in the Manchester Royal Eye Infirmary on account of an intraocular growth, which was diagnosed as melanotic sarcoma, and proved to be such.

Strabismus Operations.

MR. BISHOP HARMAN (London) described a new operation for squint, which he entitled "subconjunctival reefing and advancement." He had devised it in order to avoid necessity for tenotomy and for keeping the patient in bed with both eyes bandaged. It was comparatively easy to perform, and expeditious. In the 34 cases in which he had employed the operation only one patient had been kept to bed; all the others had been outdoor patients with only the one eye bandaged. The results up to date were distinctly gratifying both to patient and surgeon. Briefly, the operation consisted in exposing the edges of the tendon to be shortened, then with special forceps folding or reefing the tendon, very much in the same fashion that the laundry-maid treats linen frills in the process of goffering. The operation could be varied according to the degree of squint: (1) The extent of the reefing or shortening of the tendon could be varied by the adjustment of the reefing forceps: (2) in high degrees of squint the sutures used to secure the reef were carried forward so as to advance the reef. The steps of the operation (say for convergent squint) were: (1) Securing the eye by the insertion of an anchor stitch at the limbus; this avoided fixation forceps, and the stitch was used to fix the eye in abduction at the end of the operation. (2) Locating the tendon. It was pointed out that there were distinct colour differences in the conjunctiva according as tendon or Tenon's capsule was beneath it. These differences were marked in the young. (3) Two button-holes were cut through conjunctiva right to the sclera above and below and parallel to the edges of the tendon, between the insertion and the canthus. (4) The surfaces of the tendon were rasped with a squint hook the edges of which had teeth. This stimulated the production of adhesions when this part of the tendon was folded. (5) The reefing forceps were applied to the tendon. The forceps were like squint hooks whose short flat handles fitted together and were adjustable so that the hooks coincided or separated by varying widths. Working from the outer canthus one blade was slipped beneath the tendon and the other blade above the tendon and under the conjunctiva. When the forceps were turned from the outer canthus to lie across the nose the tendon was folded over or reefed. (6) The base of the reef was then fixed by appropriate sutures. If the squint was of low degree the operation was then finished. If

it were of high degree, the sutures were carried forward and fixed into the sclera at the limbus, so that tying the sutures advanced the reef and further abducted the eye. (7) Finally, the eye was completely abducted by means of the anchor stitch; this was fixed to the skin of the canthus with strapping. By this means relaxation of the antagonist of the operated muscle was produced, and it protected the reef from too early strain. The eye was bandaged, the spectacles worn with a blinker beside and half covering the open eye, so as to cause the patient to look towards the operated muscle. The anchor stitch was removed on the third day, and the reefing stitches on the tenth day. Mr. Bishop Harman also gave an account of some experiments to ascertain the security of sutures for squint operations. He concluded that a double silk thread placed in the sclera across the axis of the tendon, and therefore transversely to the strain of the suture, had a carrying power from 12 to 18 per cent. greater than the other three possible modes.

Fusion Pictures.

Mr. H. H. B. CUNNINGHAM (Belfast), in a paper on fusion pictures, emphasized the importance of training the fusion sense in young children, but thought that stereoscopes and the like were too complicated and too expensive for general use. He had had devised a series of pictures drawn in two colours which could be seen through a coloured screen. One part of the picture could be seen with one eye and one part with the other. Those for very young children were of a very elementary character, but for older children they were rather more elaborate. In this manner, as in the case of an ordinary stereoscope, binocular vision could be developed and educated.

Cataract Extraction.

Mr. J. STROUD HOSFORD (London), in describing a new method of extraction of cataract in the capsule, said that the operation was justly looked upon as a major operation, and the premier operation in ophthalmic surgery. Very serious dangers could be avoided if removal of the lens in its capsule could be done with safety. During the present year he had performed nine cataract extractions by a new method, which consisted of entering a discission needle into the lens and then rotating the lens on an antero-posterior axis. This caused the zonule of Zinn to be torn, after which the lens in its capsule could be removed without the loss of vitreous. The lens could be thus rotated either before or after the making of the section. If this method were adopted incomplete lenses could be removed, and it had all the advantages of Smith's operation, besides being safer and not so complicated.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF MEDICINE.

Friday, April 26th, 1912.

Sir JOHN MOORE, President, in the Chair.

Myelogenous Leukaemia.

DR. PARSONS, after referring to 4 cases of myelogenous leukaemia which had been under his care, suggested that they supported the following propositions: (1) That a considerable reduction in the size of the spleen in myelogenous leukaemia can be induced by the use of *x* rays, either with or without arsenic. (2) That a marked reduction in the number of the leucocytes follows on the same line of treatment. (3) That there is no material increase in the output of uric acid, phosphates, and sulphates while this material reduction in the leucocytes is taking place. (4) That the improvement under treatment is very striking, but is not permanent. Dr. O'SULLIVAN demonstrated the pathology of these cases by means of lantern slides. He said that in leukaemia myelocytes tended to collect in greatest number in the splenic blood spaces, hence the enlargement of the spleen. The *x* rays destroyed the myelocytes in the splenic blood spaces, and those that were circulating through the spleen. Thus a diminution in myelocytes in the circulating blood and a diminution in the size of the spleen were found after *x*-ray treatment. The fact that *x*-ray treatment was not of permanent use he attributed to an increase in the spleen of connective tissue, which interfered with the penetration of the rays. Dr. BENSON said there was a certain amount of difficulty to be overcome in treating patients with the *x* rays in such cases, namely, to give the patient sufficient dosage of the rays without causing dermatitis. The first two patients showed fairly extensive dermatitis, whereas in the case of the boy treated later there was none, although he had had 175 exposures; this was attributed to improved technique. In cases of relapse, the spleen did not retract at the same rate, and never to the same extent, nor did the blood count go back at the same rate as during the initial treatment.

BRIGHTON AND SUSSEX MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on May 8th, Mr. T. H. IONIDES, the President, in the chair, the following were among the exhibits:—Dr. L. A. PARRY: A case of *Wiring of the humerus* in a boy. The lower end was fractured, and there was difficulty of getting the broken ends in accurate apposition by the usual method of treatment—that is, fixation in the fully flexed position. There had been some musculo-spiral paralysis after the operation, but this had now cleared up, and the result was quite good, there being almost perfect movement in all directions. Dr. BAILEY: A woman of 30, who was probably an early case of *Disseminated sclerosis*. She had nystagmus, tremors, and left lingual paralysis. Dr. WALTER BROADBENT: (1) A case of *Morbus coeruleus* in an undersized boy of 12. He had a blue appearance, very marked on exertion, and his finger ends were much clubbed. There was hypertrophy of the heart, mainly of the right ventricle. On auscultation there was a loud, rough systolic murmur in the third left space. The condition was probably pulmonary stenosis with patent foramen ovale. (2) The heart and brain of a girl of 12, who, during an attack of *Acute endocarditis*, developed a right hemiplegia from embolism, and some weeks later suddenly became comatose. There was retraction of the head, conjugate deviation of the head and eyes to the right, and loss of knee-jerks. *Post mortem* was found a large subarachnoid haemorrhage on the under surface of the medulla, pons and crura. The lateral ventricles also contained blood, the left more than the right. In the heart only the mitral valve was affected and about a square inch of the auricular wall above the valves.

UNITED SERVICES MEDICAL SOCIETY.

AT a meeting on May 8th, Major E. B. WAGGETT, R.A.M.C.(T.), President, in the chair, Lieutenant-Colonel J. F. DONEGAN, R.A.M.C., gave a demonstration of an operating table designed by him for use in the field. It was of aluminium tubing, was 4 lb. lighter than the present pattern, and presented various other advantages. Major F. E. FREMANTLE, R.A.M.C.(T.), in a paper on the *Sanitary service of the Territorial Force*, pointed out that since regimental medical officers of the Territorial Force were not trained sanitary officers, as in the line, there was much greater need for the activities of divisional sanitary officers and of sanitary companies. The duties of regimental sanitary squads were so unattractive that the men should be offered special inducements in the way of extra pay and quicker promotion. The water duty men had no function in camp in peace time, and were not likely to be needed in war time in this country, where water supplies were usually good, and only needed proper protection from pollution by ordinary military measures. Each division should have a sanitary company under the divisional sanitary officer, who should preferably be a county medical officer of health in the area from which the division was drawn. Every effort should be made to keep in close touch with the civil sanitary authorities, so as to get the advantage of their local knowledge. Major CALDWELL SMITH, R.A.M.C.(T.), in a paper on the *Duties of sanitary companies of the Territorial Force*, urged that the number of non-commissioned officers should be increased so as to allow of the company being split up into eight sections for the purposes of their duties in the various parts of the area under their charge. The non-commissioned officers should be recruited from among civilian sanitary inspectors. It was probable that on mobilization the Territorial Force would establish large concentration camps, and that the sanitary companies would find their chief functions in the

sanitary care of such camps. A distinction should be made in the uniform of the men of the sanitary companies, so as to prevent their being taken away from their proper duties.

CORRECTION.—The name of Dr. Walter Swayne, who read a paper on the *Clinical significance of acidosis in pregnancy* before the meeting of the Obstetrical and Gynaecological Section of the Royal Society of Medicine, was incorrectly printed "Sawyer" in the report of the meeting published in our issue of May 18th, page 1130.

Reviews.

HUMAN INITIATIVE.

DR. C. J. WHITBY has written a very interesting book, to which he has given the title *Makers of Men*. Its scope is perhaps better indicated by its subtitle, "A Study of Human Initiative." The author's general plan has been to examine the available facts as to the heredity and environment of forty famous men for indications of any circumstances which may be assumed to have combined to cause them to be initiators or innovators, and their careers to mark epochs in the affairs and the thoughts of mankind; incidentally, the comparison of the antecedent and attendant conditions of their lives raises the question whether any common factors can be discovered in heredity to account for their genius and influence, or, if not, whether some other hypothesis may not be justified.

When all allowance has been made for the *Zeitgeist*, which has been defined as "the drift of thought and feeling in a period," the impartial student of history must admit that men have lived whose deeds or teachings have changed the course of things and thoughts. It may be that they did no more than open the sluices and let out, to do the work it was destined to do, the head of pressure that had been slowly accumulating; it may be, however, that they also directed the course of the flood, and themselves provided at least part of the force. The simile of a flood is not inappropriate, for the really epoch-making men have been, as Dr. Whitby points out, in essence constructive and only incidentally destructive—as the Nile flood is controlled to fertilize the parched lands, and only incidentally to sweep away rubbish.

The bulk of the book is given to a biographical study of the ancestry and lives of the forty great men selected. The field of selection was limited by two considerations. In the first place it was necessary to choose men about whose ancestry and physical characters a good deal was known with reasonable certainty. On this point the author in his preface declares that "it is time that biography were taken seriously as a department of science, that biographers began to realize their responsibilities as purveyors of the raw material of inductive psychology." In the second place, it was desirable to choose persons who lived long enough ago for their achievements to have fallen into proper historical perspective. The forty immortals selected are divided into four chief classes—the man of action, the artist, the philosopher and scientific discoverer, and the ethico-religious pioneer. In succeeding chapters the facts which Dr. Whitby has collected are considered under the several heads of family history, parentage and constitution, physical characteristics, and natural vocation. This section of the book is followed by a chapter on the natural history of purpose, and that by another on "power in the crucible," in which certain characteristics of what may be called the preparatory period of genius are compared or contrasted. Here and there, by the way, the author finds occasion to give expression to conclusions which, as we apprehend, he intends to be taken as provisional. For example, in considering the family history of his subjects, he says: "It is talent rather than genius, character rather than temperament, that repeats itself in father and son. The transforming increment of power and insight, whatever its ultimate, possibly transcendent, origin, has, genetically speaking, commonly a maternal, or at least a feminine, source"; but he adds further on, "it seems to me to be credible that intellectual, as distinguished from aesthetic, genius may be in some cases traceable mainly to a masculine source." There are many other such incidental tentative generalizations which the reader will find give him much food for thought, and help to rivet his attention on the details the author has so carefully elaborated on every aspect of his subject. But so far Dr. Whitby has stuck pretty closely to his facts, leaving them for the most part to produce their own impression on the reader's mind. In his last chapter, on "individuality, its nature and power," he lets himself go, and, to quote his preface, has given "speculative imagination the licence it may on occasion justly demand." He declares that "Back to Leibnitz" must be the cry of all who grasp "the futility of nineteenth century attempts at cosmology," and laments that the result of the disregard of the warning given by the great German teacher should have led to the acceptance of a crudely mechanical empiricism. For Dr. Whitby there is "in individuality a something over and above the multiplicity of psychic potentialities traceable to this, that, or the other ancestor." Further on, he says:

> What, for the sake of convenience, we call individuals are, strictly, mere personalities, more or less limited, more or less flawed and self-contradictory, consequently, more or less transient and unreal. I am not contending for the personal immortality of every Dick, Tom, and Harry; nor, indeed, of even the most exalted souls. I suggest merely that, underlying every subjectivity, there is an unknown factor of whose nature that subjectivity is a genuine, however incomplete, manifestation: and that this unknown factor, whether we call it immortal or decline to commit ourselves to that large word, should be conceived as exempt from the ordinary limitations of time and of space. Further, that this unknown factor be regarded as a source of creative spontaneity, a causal determinant of all phenomena in any way contributory to the development of that personality which constitutes the provisional manifestation of its own essence.

We cannot follow Dr. Whitby further in this concluding chapter, which is a complete essay in itself; but we have said enough to indicate the direction in which he is trending, and have said enough also to show the erudition, industry, and courage which have gone to the writing of a very stimulating book.

[1] *Makers of Men: A Study of Human Initiative*. By Charles J. Whitby, M.D.Cantab. London: Reinman, Limited. 1912. (Med. 8vo, pp. 438; 47 plates. 10s. 6d. net.)

THE GRAMMAR OF SCIENCE.

WE are all familiar with the statement that criticism is the refuge of literary failures, and the dictum is no longer thought to deserve a refutation. It is, however, true that a considerable proportion of those who have essayed a critical examination of the foundations and logic of scientific method have not themselves been conspicuously successful exponents of the methods in question. In consequence of this fact the methodological writings of experienced investigators command a large amount of attention. Professor KARL PEARSON has been the hero, or—depending on the point of view—the victim, of many a stricken field of scientific controversy; but few even of his opponents have denied that Professor Pearson is one of the most brilliant and original investigators of the present generation, and his profession of the scientific faith which is in him merits the most careful study. The book under notice[2] is the first volume of the third edition of a work which has been before the public for some twenty years.

It will be remembered that Professor Pearson's main object was to demonstrate that the function of science is essentially descriptive, that a scientific law is a formula briefly resuming the results of perceptual experience. In other words, science is concerned with the demands of "Madame How," not with those of "Lady Why." The notions of "force" and "matter" current in educated circles were examined from this point of view. The difficulties which arise when, for instance, "force," instead of being regarded as a certain convenient measure of motion, is regarded as the latter's cause, were placed in the clearest light. In the latter portions of the book which dealt with certain aspects of biological science, the method was not so directly epistemological, and these sections have been reserved for a second volume in the present edition. The first part of the book may be instructively compared with the grammar of another distinguished mathematician, *La science et l'hypothèse* of M. H. Poincaré.

The new third edition is an enlargement of the second; a good deal of new matter has been added, in particular an account of the principles of the calculus of correlations

[2] *The Grammar of Science*. By Karl Pearson, M.A., F.R.S. Part I, Physical. Third edition, revised and enlarged. London: Adam and Charles Black. 1911. (Medium 8vo, pp. 414; figs. 25. 6s. net.)

and a chapter (by Professor E. Cunningham) treating of modern physical ideas. In a new preface Professor Pearson, after stating that his views respecting "force" and "matter" have become to a large extent incorporated in the general system of modern thought, makes the following remarks:

> Beyond such discarded fundamentals as "matter" and "force" lies still another fetish amidst the inscrutable arcana of even modern science—namely, the category of cause and effect. Is this category anything but a conceptual limit to experience, and without any basis in perception beyond a statistical approximation? The very idea will be scouted now, as Professor Tait scouted in 1885 the non-reality of force, or Lord Kelvin later the non-reality of the ether. But the real question is, What will men of science be saying twenty years hence?

We cannot presume to guess what men of science will be saying twenty years hence, but we are fairly confident that some at least of them will have been interested and stimulated by Professor Pearson's *Grammar*, and we are sure that its perusal will be of great service to students of any branch of knowledge.

HANDBOOKS OF MEDICINE.

THE modern student of medicine has no reason to complain of the want of good textbooks; his difficulty is rather to make a choice among so many that are excellent. English students will naturally prefer books written by their own teachers, but there is no better American work than Dr. ANDERS'S *Textbook of the Practice of Medicine*,[3] which has now reached its ninth edition. We have read a good deal of it, and tested it in many places, and find its teaching adequate and accurate. It is strongly bound, well printed, and contains numerous good illustrations. The spelling is, of course, transatlantic, all diphthongs being omitted; but an American should not spell the name of Huntington with a "d," and on page 1128 "Gower" should be Gowers. The description of the sequelae of influenza might certainly be more fully discussed, as the heart complications are important and deserve mention; nor is the description of the bacteriology quite up to date. In the paragraph on the prognosis of diabetes it is not very satisfactory to the student or the practitioner to be told that "pancreatic" cases are unfavourable, as the description of pancreatic diabetes (p. 419) gives no clear indication for its diagnosis, and we do not know that any exists. It is a mistake to say that Bass's ale is suitable for diabetics because "all the sugar is converted into carbonic acid and alcohol," for, at least in England, Bass's ale contains about 400 grains of sugar to the pint. The somewhat complicated diagram on p. 1128 is not made clearer by the description, as the letterings do not correspond in the figure and the description. The statement that jaundice and ascites are rare in cancer of the liver strikes us as strange, and it may be doubted whether the condition that Murchison described as "lithaemia" actually exists. While no one in the present day can be at the same level in all branches of such a vast subject as medicine, even after it is divested of the various specialities, Professor Anders has unquestionably succeeded in writing one of the best of modern textbooks on the subject.

In the second edition of the treatise on special pathology and therapy, edited by NOTHNAGEL,[4] we have an old and valued friend, improved, enlarged, and brought up to date. The work does not require commendation, since the first edition has paved the way for the second and has established a thoroughly sound record. We have a few parts before us, of which a short account may be given. Professor STICKER has contributed a very good account of whooping-cough,[5] covering some 231 pages. It is divided into an epidemiological and a clinical part. It is of interest to note how he deals with the treatment of the disease. He, like other clinicians, has experimented with homoeopathic remedies and has attempted to determine what the drug contained in one remedy was. While he was unable to determine this with certainty, he has reason to believe that it was *drosera*. He states that care must be exercised with this drug, since, when the dose is too large, the symptoms are intensified instead of being relieved. He indulges in brief discussions of some little-known views. The article closes with a good bibliography. The article on measles was begun by the late VON JÜRGENSEN and rewritten by VON PIRQUET.[6] The author is a man of strong convictions, and his views are not universally accepted. The account contains little of von Jürgensen's teaching, but is full of "anergie" and doctrines associated with the name of von Pirquet. He defines the anergetic period as one in which the power of the organism to react is defective. This period is said to last one week in measles. The author devotes seventeen pages to an attempt to demonstrate the reduced power of reacting to tuberculin in cases of measles. On the whole, the account is full and good, and a fairly satisfactory bibliography is appended.

CLINICAL SYMPTOMATOLOGY.

THE book by ALOIS PICK and ADOLPH HECHT, translated from the German under the editorial supervision of Dr. KARL KONRAD KOESSLER, of Rush Medical College, University of Chicago, under the title, *Clinical Symptomatology*,[7] is a very valuable work, and the editor has rendered a service to the medical profession by making it available to English readers. It is presented in a volume of 835 pages, just a little heavy for comfortable handling, but well printed in clear type. The following extract from the preface sets forth the aim and underlying principle of the work:

> Clinical instruction aims to banish a set symptomatic therapy from the mind of the student of medicine. It is emphasized again and again that therapeutic measures should not be directed against single symptoms, but whenever possible, against the primary disease. Unfortunately the number of morbid processes in which there exists an effective specific therapy is very small. The physician is obliged to select those symptoms from the total picture which, if successfully combated, will render the greatest benefit to the patient. When it is beyond our power to influence the etiologic factors, the recognition and treatment of the life-threatening symptoms becomes the most important task. . . . In the succeeding pages we have expanded somewhat the meaning of danger. To us danger is not only everything that threatens life immediately, but every symptom which indicates persistent damage, and a difficultly reparable condition.

The authors have succeeded fairly well in keeping these important principles in view throughout the work. In the first chapter, after a brief account of anomalies of the skin, general symptoms, including under that head anomalies of nutrition and development, and anomalies of temperature are considered. The discussion of disturbances of metabolism in children is particularly valuable and interesting. In dealing with temperature there is abundant opportunity of enforcing the therapeutic ideal in treating causes rather than symptoms. The frequent illusiveness of the ultimate cause of an abnormal temperature is also amply illustrated. In succeeding chapters, disturbances of the heart's action, of the respiratory, digestive, and other functions, are treated in the same broad general way. The application of the principles to practical treatment is never lost sight of, and the directions for treatment are generally detailed and precise. The book is not easy to read. In the style there are evidences of its Gothic, and in the spelling of its transatlantic, origin. "Severe" is constantly used as a synonym for great or considerable, with a curious effect in some cases. Words of classical derivation—for example, "amaras," for bitters—are frequently used when the use of ordinary English terms would to most readers seem better. These, however, are slight blemishes, and detract very little from the value of the book as a whole.

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[3] *A Textbook of the Practice of Medicine*. By James M. Anders, M.D., Ph.D., LL.D. Ninth edition. Thoroughly revised. Philadelphia and London: W. B. Saunders Co. 1910. (Roy. 8vo, pp. 1526; 81 illustrations. 24s.)

[4] *Spezielle Pathologie und Therapie* (Nothnagel). Second edition.

[5] *Der Keuchhusten*. By Professor Georg Sticker of Bonn. Vienna and Leipzig: Alfred Hölder. 1911. (Sup. roy. 8vo, pp. 251; 1 plate. 6s.)

[6] *Masern*. By the late Professor Theodore von Jürgensen. Second edition, rewritten by Professor C. Freiherr von Pirquet of Vienna. Vienna and Leipzig: A. Hölder. 1911. (Sup. roy. 8vo, pp. 1.6; 32 illustrations. 5s. 6d.)

[7] *Clinical Symptomatology*. With Special Reference to Life-Threatening Symptoms and their Treatment. By Alois Pick, Professor of Medicine, University of Vienna, and Adolph Hecht. An authorized translation under the editorial supervision of Karl K. Koessler, M.D. London: D. Appleton and Co. 1910. (Royal 8vo pp. 833. 25s. net.)

OPOTHERAPY.

OPOTHERAPY, or the treatment of disease by extracts of various tissues or organs, is a method that has scored brilliant successes. It is necessary only to quote adrenalin and thyroid extract to show its value. A little volume by Dr. HALLION[8] gives a very useful and practical account of the various tissue extracts; he mentions no less than twenty-seven that have met with opotherapeutical employment. The first chapter deals briefly with the general principles of the method, the second explains the properties of the different organs and tissues and of their extracts. The bulk of the book gives in eighty pages an alphabetical list of the diseases in which opotherapy has proved serviceable and an account of the indications for its employment. Finally, the author gives notes on the details and posology of the various treatments. The book is well arranged and clearly written, and it breathes the spirit of optimism that should form part of the opotherapist's outfit; it may be recommended to the attention of the up-to-date practitioner.

DRS. LÉOPOLD-LEVI and HENRI DE ROTHSCHILD have published a second series of studies in the physiology and pathology of the thyroid body and other glands yielding internal secretions.[9] As we remarked about their previous work (BRITISH MEDICAL JOURNAL, June 27th, 1908, p. 1511), the authors believe that doses of thyroid gland are therapeutically efficacious for an extraordinarily wide range of diseases; we think their claims for the success of this method of treatment need, in many instances, independent confirmation at the hands of others before their recommendations can be accepted as proved. They write with enthusiasm, at great length, and in an effusive style; but it is difficult to say how far the new ideas which they deduce from their researches will survive the test of time. In the present volume they discuss the relationship of thyroid deficiency to chronic rheumatism, and argue that treatment with thyroid may be used with success in cases of this affection. They also write profusely upon the physiological and pathological relations of the glands possessing internal secretions to the hair, the teeth, and the nails. Other chapters are devoted to the derangements of the nervous system and of nutrition which may be attributable to thyroid disorder. Much of what the authors say is simply an amplification of well-known facts concerning the disorders attributable to thyroid impairment, and as such calls for no criticism; but an attitude of cautious reserve is desirable when they seek to carry us beyond this well-established ground. Similar effects may be due to a variety of causes, of which thyroid deficiency is only one. The authors view their subject through coloured spectacles, which blur their vision of other possible causes requiring consideration.

NOTES ON BOOKS.

THE volume recording the *Transactions of the American Hospitals Association*[10] at its thirteenth annual conference contains some fifteen papers, among them being a well illustrated report on the best ways of finishing off the interior of hospital buildings and subsequently equipping the wards and their annexes, as gauged by an examination of the most recently constructed hospitals in America and on the European continent. Two other papers of general interest to those engaged in hospital administration in this country deal with the drawbacks and advantages of all hospitals in any given locality purchasing their supplies through a central bureau, such as that which has existed in New York for the past two or three years. They were followed by a prolonged discussion in which the experience in this connexion of a considerable number of institutions was recorded. Upon the whole the verdict was favourable to the system.

Some small volumes which have reached us belong to a series now in course of publication under the title of *The People's Books*.[11] One of them deals with the principles of electricity, a second with botany, a third with heredity, and a fourth with organic chemistry: and in each case the author is a person with an established position in the science with which he deals. In each case, too, the subject is completed in a space equal to about twenty-four pages of this JOURNAL, the ostensible aim being to supply an account comprehensible by a person of average intelligence who is prepared to read what is set before him with some care. There appears to be a demand for publications which attempt to supply a royal road to scientific knowledge by giving an account of the details of sciences as well as an exposition of their general principles, but their real utility is open to doubt. The capacity of the reader of "average" intelligence for totally misunderstanding statements which the writer regards as of lambent simplicity is not easily gauged by an expert in any given subject. Still these particular works are favourable specimens of their kind, and their preparation must have entailed a serious amount of thought and labour on the part of their authors.

Both the main parts of *The Public Schools Year Book*[12] are of distinct utility to parents. In the first, the authors, Messrs. H. F. W. DEANE and W. A. EVANS, supply an account of practically all schools which can claim a right to representation at the Head Masters' Conference; this part would be still more informing if the details supplied covered the same items in all cases. In the second, the authors perform a like task with reference to public school and university entrance examinations and about a dozen of the professions and occupations likely to suggest themselves to the average parent of a public schoolboy. A condensed account is also given of the proceedings at the annual conference, this publication being the official book of reference thereto. The conference held its first meeting in 1869, at which date the number of institutions ranking as public schools appears to have been 37; it is now 114.

Mr. MIDDLEWEEK'S[13] little book contains in some thirty-three pages concise directions for the performance of Swedish remedial gymnastics and massage. The directions are clear, but it would have been better if a few diagrams had been added. We note that the writer recommends gentle massage in acute joint conditions, that he believes that massage of the bladder is useful in various conditions, and that he speaks with approval of its use in the treatment of various uterine diseases and displacements.

[8] *La pratique de l'opothérapie*. By M. L. Hallion. Paris: Masson et Cie. 1911. (Cr. 8vo, pp. 148. Fr. 2.)

[9] *Nouvelles études sur la physio-pathologie du corps thyroïde et des autres glandes endocrines*. (Deuxième Série.) Par les Drs. Léopold-Levi et Henri de Rothschild. Paris: O. Doin et Fils. 1911. (Roy. 8vo, pp. 558, with 26 figures and 18 plates. Fr. 12.)

[10] *Transactions of the American Hospitals Association*. Thirteenth Annual Conference. Volume xiii. Toronto, Canada: The Association Office of the Secretary. 1911. (Roy. 8vo, pp. 512, 48 illustrations.)

[11] *The People's Books: The Principles of Electricity*, by Norman R. Campbell, M.A.; *Botany of the Modern Study of Plants*, by Marie Stopes, D.Sc. Lond.: *Heredity*, by J. A. S. Watson, B.Sc., F.R.S.E.; *Organic Chemistry*, by Julius B. Cohen, F.R.S. London and Edinburgh: T. C. and E. C. Jack. (All fcap. 8vo, averaging pp. 90. Each 6d. net.)

[12] *The Public Schools Year Book*. Edited by H. F. W. Deane, M.A., F.S.A., and W. A. Evans, M.A. Twenty-third year of publication. London: The Year Book Press. 1912. (Post 8vo, pp. 750. Price 3s. 6d. net.)

[13] *Medical Gymnastics and Massage for the Treatment of Disease, Deformity, and Injury*. By Frederick F. Middleweek, L.R.C.P., L.R.C.S. Edin. London: John Bale, Sons, and Danielsson, Ltd. 1912. (Cr. 8vo, pp. 40. 2s. 6d. net.)

MEDICAL AND SURGICAL APPLIANCES.

Forceps for Michel's Clips.

THE illustrations show two pairs of forceps made by Messrs. Allen and Hanburys for Mr. Comyns Berkeley for use with Michel's clips. Fig. 1 shows a pair of forceps for approximating the edges of the wound and for carrying the clips. The teeth of the forceps are wide, so that the surgeon may obtain a firm grip of the cut edges of the wound, and hold these accurately in apposition whilst the clips are being applied. The gallery for carrying the clips is attached to this forceps in such a position that it does not interfere with the fingers holding the instrument, consequently the clips can be removed with the greatest ease. The gallery is made of specially tempered steel, which holds the clips gently but firmly, and they do not slip off after the instrument has been boiled a few times. Fig. 2 is an instrument used for removing the clips from the gallery: it is considered to be an improvement upon the original forceps, being somewhat larger and heavier, and therefore easier to hold, whilst the serrated jaws are grooved, and thus hold the clip firmly and prevent it from dropping.



Fig. 1.

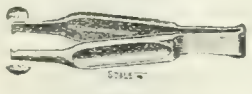


Fig. 2.

Nova et Vetera.

MEDICAL BARONETS, 1645–1911.

May 22nd, 1912, marks the three hundred and first anniversary of the institution of the Baronetcy. Coincidently, there has been established a Bureau or Chancery of the Order, for the purpose of registering genuine titles and excluding fictitious ones. It may be interesting, therefore, to inquire what members of the medical profession have received this hereditary dignity.

Dr. Munk was of opinion—and that learned man always had good reason for his opinions—that James I, when he instituted the order, offered the first patent to his physician, Dr. Henry Atkins.* The offer was declined, probably from financial reasons, as the early baronets, in addition to being gentlemen with £1,000 a year private fortune, were required to maintain thirty soldiers for three years.

To Dr. Munk also is due the credit of pointing out that the first medical baronet was Dr. Edward Greaves, not Sir Hans Sloane, as formerly thought.

The number of baronetcies conferred upon medical men appears so far to have been eighty-seven. Of these twenty-four are now extinct or in abeyance. Five have become merged in peerages—Smithson (Northumberland, D.), Sloane (Cadogan, E.), Pepys (Cottenham, E.) Holland (Knutsford, V.) and Lister (Lister, B.). As to the immediate successors, some have chosen as a profession either the Church, the Bar, or one of the public services; others appear, by the exertions of their illustrious fathers, to have been rendered independent; while in one case the fourth holder of the dignity became an inmate of a metropolitan workhouse. In only six cases—Barry, Broadbent, Christison, Clark, Fayrer, and Laurence—has the son adopted the profession which has been the means of raising his father to hereditary rank, and in no case has this profession been followed in the third generation.

The following list has been compiled from the usual works of reference and verified by reference to the *Complete Baronetage* of Mr. G. E. Cockayne, Clarenceux King of Arms, as far as that work extends. The little list of Jacobite baronetcies has been compiled from the Marquis Ruvigny's work on the subject.

Charles I.

Sir Edward Greaves, premier medical baronet (May 4th, 1645), Physician-in-Ordinary to the King. This baronetcy was conferred while the King was at Oxford. The Civil War being in progress at the time, the patent was never registered at Heralds' College. Hence doubt has been cast upon its reality. The title, however, is now generally conceded, and is admitted by Mr. Cockayne, Clarenceux King of Arms, in his *Complete Baronetage*. Sir Edward left a daughter, but no son.

Charles II.

Sir Alexander Fraser (August 2nd, 1673), Physician-in-Ordinary to the King. This was the physician Pepys refers to as having been so useful to Court ladies in enabling them to "slip their calves." Sir Alexander's son Charles, also a Court physician, is considered to have been the author of *The Turkish Spy in Paris*. The baronetcy became extinct in 1729.

Sir George Wakeman (February 13th, 1660), Physician to Catharine of Braganza, Consort of Charles II. The patent for this baronetcy was engrossed but never sealed. Sir George died, *sine prole*, at Paris in 1690, when the baronetcy became extinct.

Sir Hugh Smithson (August 2nd, 1660), the impoverished grandson of a Yorkshire baronet, (Sir Hugh Smithson of Stanwick), practised as an apothecary in Hatton Garden. He obtained his baronetcy through fidelity to the Royal cause. He married, not altogether with her father's consent, the heiress and only daughter of the Earl of Northumberland. On the death of his father-in-law our apothecary obtained an Act of Parliament enabling him to take the name and arms of Percy.

> No drop of princely Percy's blood
> Through these cold veins doth run.
> With Hotspur's castles, blazon, name,
> I still am poor Smithson.

In 1757 he was created Duke of Northumberland, on which occasion it was suggested that he should replace the strawberry leaves in his coronet by senna leaves!

On the death of his grandfather he inherited a second baronetcy, that of Smithson of Stanwick.

Sir Robert Cuningham (August 3rd, 1673), Physician in Scotland to the King. Extinct by the death of the second holder. This baronetcy was never enrolled, but is admitted by Cockayne.

Sir Andrew Balfour, the eminent botanist. The conference by Charles II of a baronetcy upon this distinguished man depends upon the unsupported statement of Chambers's *Dictionary of Eminent Scotsmen*, no date being assigned for the alleged patent.

George I.

Sir Hans Sloane (April 3rd, 1716), Physician-in-Ordinary to Queen Anne, George I and George II. With the enormous fortune he made by medical fees Sir Hans purchased the Manor of Chelsea. This he left to his daughter Elizabeth, who married Lord Cadogan. Hence the wealth of the Cadogans.

George II.

Sir Edward Hulse (February 7th, 1739), Physician-in Ordinary to Queen Anne, George I and George II. Sir Edward was the first medical baronet to leave an heir to the title. *Present holder*, Sir Edward H. W. Hulse of Breamore, Hants., seventh baronet.

Sir Thomas Molyneux (July 4th, 1730), Physician-General to the Army in Ireland. *Present holder*, Rev. Sir J. C. Molyneux, ninth baronet.

Sir Edward Wilmot (February 15th, 1759), Physician-in-Ordinary to the King. *Present holder*, Captain Sir Ralph Wilmot, sixth baronet.

George III.*

Sir George Baker (August 26th, 1776), Physician-in-Ordinary to the King. This baronetcy is now merged in that of Rhodes.

Sir Edward Barry (August 1st, 1775), Physician-General to the Forces in Ireland. Sir Edward's son, Nathaniel, second baronet, was also a distinguished physician. This baronetcy became extinct on the death of the eighth baronet.

Sir William Duncan (August 4th, 1764), Physician-in-Ordinary to the King. This baronetcy is now extinct.

Sir David Dundas (1815), Serjeant-Surgeon to the King. The King reluctantly conferred this baronetcy upon Dundas, (who had been an apothecary at Richmond) saying "They may make baronets of as many Scotch apothecaries as they please, but I die by the College." This baronetcy is now extinct.

Sir George Elliott (July 29th, 1778), Physician-in-Ordinary to the Prince of Wales. The King, for some reason, disliked Elliott, and resisted the conferring a baronetcy upon him, saying "He shall never be my physician." "Then," said the Minister (the Earl of St. Germains) who proposed the honour, "let him be your Majesty's baronet and my physician." Sir George Elliott left no children. His wife had a daughter named Georgina Augusta, after the Prince of Wales, who claimed parentage (an honour disputed with him by other gentlemen about Court). Lady Elliott eventually eloped with Viscount Valentia. As compensation for the loss of a wife so precious Lord Valentia had to pay Elliott a sum of £12,000 (D.N.B.).

Sir Walter Farquhar (March 1st 1796), Physician to the Prince Regent. *Present holder*, Sir Henry Thomas Farquhar, fourth baronet. The King is also said to have resisted the creation of this baronetcy (Jesse's *Life of George III.*)

Sir Henry Halford, *née* Vaughan (September 27th, 1809), Physician to four successive sovereigns, George III, George IV, William IV, Victoria. Sir Henry Vaughan was created a baronet as above, but on the decease of his relative, Lady Denbigh, widow of Sir Charles Halford, Bart., he inherited the estates of Winstow, and assumed by Act of Parliament the surname and arms of Halford. The baronetcy became extinct on the death of the third baronet.

Sir Caesar Hawkins (July 23rd, 1834), Serjeant-Surgeon. *Present holder*, the Rev. Sir John Caesar Hawkins, Canon of St. Albans.

* See Debrett's *Extinct Baronetage*.

* Dr. Richard Warren, a favourite physician of George III, used to be playfully dubbed by the King "Richardus Warrenensus Baronetensus."

Sir John Macnamara Hayes (February 6th, 1797), Physician-Extraordinary to the Prince of Wales, Inspector-General of the Army. This baronetcy became extinct on the death of the third baronet, the Rev. Sir J. W. Hayes, Rector of Arborfield, Berks.

Sir Everard Home (January 2nd, 1813), Serjeant-Surgeon. Sir Everard left no issue.

Sir Richard Jebb (September 4th, 1778), Physician-Extraordinary to the King, Physician-in-Ordinary to the Prince of Wales. Sir Richard died in 1787, when the baronetcy became extinct. Sir Richard was a great favourite with the King. On one occasion, being sick, His Majesty asked that Jebb should be sent for. On being reminded that it was Court etiquette to send, in the first instance, for the Physician-in-ordinary (Jebb being Physician-Extraordinary), the King replied, "Don't talk to me about your 'Ordinaries' and 'Extraordinaries,' *I want Jebb.*" This baronetcy is now extinct.

Sir William Knighton (January 1st, 1813), Physician-in-Ordinary and Privy Purse to the Prince Regent. This baronetcy appears to have become extinct on the death of Sir William's son.

Sir Francis Milman (December 28th, 1800), Physician-in-Ordinary. *Present holder*, Sir F. J. Milman, late Lieutenant, R.A., fourth baronet.

Sir Lucas Pepys (January 22nd, 1784), Physician-in-Ordinary. This baronetcy has now been merged in the Cottenham Peerage, the present holder being Sir Kenden Pepys, fourth Earl of Cottenham. To this family also belonged the celebrated diarist.

Sir John Pringle (June 5th 1766), Physician-in-Ordinary, Physician-General to the Forces. Sir John married a daughter of the celebrated Dr. Oliver of Bath, but left no descendant.

Sir Matthew John Tierney (January 28th, 1810), Physician-in-Ordinary to the Prince Regent, to George IV and to William IV. Being childless, Sir Matthew obtained a second baronetcy (June 5th, 1834) transmissible to the issue of his brother, Edward Tierney, Esq., of Dublin. The baronetcy, however, is now extinct.

Sir Clifton Wintringham (November 7th, 1774), Physician-in-Ordinary. Sir Clifton died without issue in 1794 when the baronetcy would have become extinct but for a special clause in the patent which conveyed it to the second son of Sir Jarvis Clifton, Bart., of Clifton, Notts.

GEORGE IV.

Sir Gilbert Blane (December 26th, 1812), Physician-in-Ordinary to the King and also to King William IV, President of the Navy Medical Board. *Present holder*, General Sir Seymour John Blane, C.B., third baronet.

Sir Astley Paston Cooper (December 26th, 1812), Serjeant-Surgeon. Sir Astley received his baronetcy after removing from the King's head a sebaceous cyst. *Present holder*, Sir Charles Naunton Paston-Paston Cooper, of Gadebridge Park, Herts, fourth baronet.

Sir Joseph de Courcy Laffan (March 15th, 1828), Physician to H.R.H. the Duke of Kent, Physician to the Forces. This baronetcy is now extinct.

Sir Patrick Macgregor (1831), Serjeant-Surgeon. *Present holder*, Sir Patrick Cyril Macgregor, fifth baronet.

Sir William Russell (April 9th, 1832). Received the baronetcy for services rendered during the great cholera epidemic.* *Present holder*, Sir William Russell, of Charlton Park, co. Gloucester, third baronet.

WILLIAM IV.

Sir Benjamin Collins Brodie (August 30th, 1834), Serjeant-Surgeon. *Present holder*, Sir B. V. S. Brodie, Barrister-at-Law, third baronet.

Sir Charles Mansfield Clarke (September 30th, 1831), Physician to Queen Adelaide. *Present holder*, General Sir Charles Mansfield Clarke, G.C.B., G.C.V.O., third baronet.

Sir Stephen Love Hammick (July 25th, 1834), Surgeon-Extraordinary to the King's Household. *Present holder*, Colonel St. Vincent Alexander Hammick, Oxfordshire Light Infantry, third baronet.

Sir Matthew Tierney. See under George III.

Sir James Macgrigor (1831), K.C.B., Physician-Extraordinary to the King, Director-General of the Army Medical Department. This baronetcy is now extinct.

* This was the epidemic that stopped the University Boat Race.

VICTORIA.

Sir Henry Wentworth Acland (June 16th, 1890), K.C.B., Honorary Physician to King Edward VII. Sir Henry was fourth son of Sir Thomas Dyke Acland, tenth baronet of a 1644 creation. *Present holder*, Admiral Sir W. A. Dyke Acland, second baronet.

Sir William Henry Broadbent (August 10th, 1893), K.C.V.O., Physician-in-Ordinary to the Prince of Wales (King Edward VII). Sir William is succeeded by his son, Sir John Francis Harpin Broadbent, Physician to St. Mary's Hospital, second baronet, who has a son, born 1904.

Sir William Bowman (January 23rd, 1884), a distinguished ophthalmic surgeon. *Present holder*, Sir William Paget Bowman, second baronet.

Sir George Burrows (March 19th, 1874), Physician-in-Ordinary. *Present holder*, Sir Ernest Pennington Burrows, second baronet.

Sir Charles Cameron (August 7th, 1893), M.P.

Sir Andrew Clark (August 9th, 1883). *Present holder*, Colonel Sir James Richardson Andrew Clark, C.B., R.A.M.C., second baronet.

Sir James Clarke (November 11th, 1837), Physician-in-Ordinary. This baronetcy became extinct on the death of Sir John Forbes Clarke, Diplomatic Service, second baronet.

Sir Dominic Corrigan (1866), Physician-in-Ordinary in Ireland. This baronetcy is now extinct.

Sir Phillip Crampton (March 14th, 1839), Surgeon-in-Ordinary in Ireland, Surgeon-General to the Forces. This baronetcy became extinct on the death of Sir John Francis Crampton, K.C.B., second baronet.

Sir Robert Christison (November 28th, 1871), Physician-in-Ordinary in Scotland. *Present holder*, Surgeon-General Sir Alexander Christison, Bengal Army.

Sir John Eric Erichsen (January 1st, 1895), Surgeon Extraordinary. Sir John left no heir.

Sir Joseph Fayrer (February 11th, 1896), K.C.S.I., Honorary Physician, Physician-Extraordinary to King Edward VII, Surgeon-General in the Army. *Present holder*, Lieutenant-Colonel Sir Joseph Fayrer, R.A.M.C., second baronet.

Sir William Fergusson (January 23rd, 1866), Serjeant-Surgeon. *Present holder*, Sir James Rankin Fergusson, Barrister-at-Law, second baronet.

Sir William Withey Gull (February 8th, 1872), Physician-Extraordinary. *Present holder*, Sir William Cameron Gull, Barrister-at-Law, second baronet.

Sir Prescott Gardner Hewett (August 6th, 1883), Serjeant-Surgeon, Surgeon-in-Ordinary to the Prince of Wales (King Edward VII). This baronetcy is now extinct.

Sir Henry Holland (May 10th, 1853), Physician-in-Ordinary. The second baronet, Sir Henry's son, was raised to the Peerage as Viscount Knutsford. His son, the Hon. Sydney Holland, is the well-known Chairman of the London Hospital.

Sir William Jenner (February 24th, 1868), Physician-in-Ordinary. *Present holder*, Sir Walter Kentish William Jenner, late Major, 9th Lancers, second baronet.

Sir William Lawrence (April 30th, 1867) Serjeant-Surgeon. *Present holder*, Sir J. J. Trevor Lawrence, Indian Medical Service, second baronet.

Rt. Hon. Lord Lister (December 26th, 1883), P.C., O.M., Serjeant-Surgeon to the Queen and to the late King Edward. No heir is necessary to perpetuate the name and fame of the noble lord, and none exists.

Sir Charles Locock (May 5th, 1857), Physician-Accoucheur. *Present holder*, Sir Charles Locock, third baronet.

Sir William MacCormac (September 24th, 1897), K.C.V.O., Surgeon-in-Ordinary to the Prince of Wales (King Edward VII). Sir William left no descendant.

Sir Henry Marsh (1839), Physician-in-Ordinary in Ireland. This baronetcy is extinct.

Sir James Paget (August 19th, 1871), Serjeant-Surgeon. *Present holder*, Sir John Rahere Paget, Barrister-at-Law, second baronet.

Sir George Hornidge Porter (June 27th, 1889), Surgeon-in-Ordinary in Ireland. *Present holder*, Sir William Henry Porter, Barrister-at-Law, second baronet.

Sir Richard Douglas Powell (March 5th 1897), K.C.V.O., Physician-in-Ordinary to King Edward VII. *Heir*, Captain Douglas Powell, Royal Welsh Fusiliers.

Sir Richard Quain (January 1st, 1891), Physician-Extraordinary. Sir Richard left no descendant.

Sir James Reid (August 28th, 1897), G.C.V.O., K.C.B., Physician-in-Ordinary to the Queen, to King Edward VII, and to King George V. *Heir*, Edward James Reid, born 1901.

Sir James Russell Reynolds (January 1st, 1895), Physician to the Household. Sir James left no issue.

Sir William Scovell Savory (March 24th, 1890), Serjeant-Surgeon. *Present holder*, Sir William Borrodaile Savory, third baronet.

Sir James Young Simpson (February 3rd, 1866), Physician in Scotland to Her Majesty. *Present holder*, Sir James Walter Simpson, third baronet.

Sir Thomas Smith (September 6th, 1897), Surgeon-Extraordinary. *Present holder*, Sir Thomas Rudolph Hampden Smith, second baronet.

Sir Henry Thompson (February 20th, 1899), Surgeon-Extraordinary to Leopold II, King of the Belgians. *Present holder*, Sir Henry Francis Herbert Thompson, second baronet.

Sir Thomas Watson (June 27th, 1866), Physician-Extraordinary. *Present holder*, Sir Charles Rushworth Watson, third baronet.

Sir Thomas Spencer Wells (May 14th, 1883), Surgeon to the Household. This baronetcy is extinct.

Sir John Williams (October 30th, 1894), Physician-Accoucheur to the Princess of Wales (H.M. Queen Mary). Sir John has no heir.

Sir Samuel Wilks (February 5th, 1898), Physician-Extraordinary. Sir Samuel had no heir.*

Edward VII.

Sir Thomas Barlow (January 1st, 1901), K.C.V.O., Physician to the late King Edward. *Heir*, James Alan Noel Barlow, B.A.Oxon., born 1881.

Sir Thomas Lauder Brunton (July 17th, 1908). *Heir*, James Stopford Lauder Brunton, born 1884.

Sir William Watson Cheyne (July 20th, 1908), C.B., Honorary Surgeon-in-Ordinary to George V. *Heir*, Lieutenant Joseph Lister Cheyne, 16th Lancers.

Sir William Selby Church (June 28th, 1901). *Heir*, John William Church, born 1878.

Sir George Anderson Critchett (November 28th, 1908), Surgeon-Oculist to His Majesty. *Heir*, George Montague Critchett, born 1884.

Sir Dyce Duckworth (July 15th, 1909), Honorary Physician. *Heir*, Edward Dyce Duckworth, Indian Civil Service.

Sir Francis Henry Laking (July 28th, 1902), G.C.V.O., Physician-in-Ordinary to the late King Edward and also to King George V. *Heir*, Guy Laking, Keeper of the King's Armoury.

Sir Henry Morris (July 24th, 1909). Sir Henry has no heir.

Sir Christopher Nixon (July 14th, 1906), Physician-in-Ordinary to the Lord Lieutenant of Ireland. *Heir*, Lieutenant C. W. Nixon, Royal Horse Artillery.

Sir John Burdon-Sanderson (June, 1899). This baronetcy became extinct on Sir John's death.

Sir Frederick Treves (July 30th, 1902), G.C.V.O., C.B., Serjeant-Surgeon to King Edward VII and to King George V. Sir Frederick has a daughter but no son.

George V.

Sir Francis Henry Champneys (July 13th, 1910), Chairman of the Central Midwives Board. *Heir*, John Dalrymple Champneys, born 1889.

Rt. Honble. Sir Leander Starr Jameson (January 1st, 1911), C.B., Member of the House of Assembly, Union of South Africa. Sir Leander is unmarried.

Sir Charles Bent Ball (June 22nd, 1911), Regius Professor of Surgery, Trinity College, Dublin. *Heir*, Charles Arthur Ball, Surgeon to Sir Patrick Dun's Hospital.

Sir Henry Trentham Butlin (June 22nd, 1911). Sir Henry was descended from an old Northamptonshire family, the Boutvileins, of whom Sir William Boutvilian was founder of Pipwell Abbey in the reign of Henry II. In the reign of Edward I the name was spelt Butevillyn. It did not assume its present spelling until late in the seventeenth century. *Present holder*, Sir Henry Guy Trentham Butlin, Trinity College, Cambridge.

Sir James Frederick Goodhart (June 22nd, 1911), Physician to Guy's Hospital and to King Edward's Sanatorium. *Heir*, Ernest Frederick Goodhart, Barrister-at-Law.

Sir William Osler (June 22nd, 1911), Regius Professor of Medicine, University of Oxford. *Heir*, Henry Revers Osler, born 1900.

Sir William Thornley Stoker (June 22nd, 1911), President, Royal College of Surgeons, Ireland. There is no heir to this baronetcy.

Inherited Baronetcies.

The following gentlemen hold, or held, baronetcies of non-medical origin:

Sir Hugh Beevor, Physician to King's College Hospital, descends from Sir Thomas Beevor, created a baronet in 1784.

Sir Thomas Colt, M.D., who died near Torquay in 1893, was seventh in descent from Sir Harry Dutton Colt, created a baronet in 1694. The present holder of the dignity is a clergyman, but the heir-presumptive is Dr. Archer Colt of Southsea.

Sir Richard Croft, who attended the Princess of Wales, wife of the Prince Regent, in her unfortunate confinement, was sixth in descent from Sir Herbert Croft, created a baronet in 1671. The death of the Princess and of her infant so distressed Sir Richard that, notwithstanding every consideration shown him by the Royal Family, he terminated his own existence six weeks later.

Sir Thomas Grey Cullum, a member of the old Corporation of Surgeons (1778) who practised in Bury St. Edmunds, was the seventh holder of a baronetcy of early creation.

Sir Alexander Dick, President in 1756 of the Royal College of Physicians of Edinburgh, was third in descent from Sir James Dick, created a Nova Scotia baronet in 1677.

Sir Alexander Douglas, M.D., 1760, who lived in Dundee, inherited the baronetcy conferred upon his father, a noted historian.

The Rev. Sir James Stonhouse, M.D., for more than twenty years Physician to the Northampton Infirmary, and who afterwards, in 1763, took holy orders, was the eleventh holder of a baronetcy created in 1628.

Sir William Hicks Farrington, M.D., who died at Penhurst in 1901, was fifth in descent from General Sir Anthony Farrington, created a baronet in 1818. Dr. Anthony Farrington of Saxmundham is possible, but not presumptive, heir to this dignity.

Sir George Hampson, M.D., who died in 1724, succeeded to the baronetcy conferred upon his grandfather in 1643.

Sir James Hay, M.D., of Peebles, inherited in 1805 the Nova Scotia baronetcy conferred on his great-great-grandfather by James IV.

Sir Henry Northcote, M.D., born in 1665, was the fourth baronet in a line of which Sir Stafford Northcote, the celebrated statesman, was the eighth.

Lieutenant-Colonel Sir Augustus Alexander Brooke-Pechell, R.A.M.C., is seventh in descent from Colonel Paul Pechell, created a baronet in 1797.

Sir Stuart Threipland, M.D., of Fingask, assumed the baronetcy forfeited by his father for complicity in the rebellion of 1715. Sir Stuart himself was complicated in the rebellion of 1745 and fled the country, but was restored by the Act of Indemnity.

Sir Alexander Douglas, founder of the Edinburgh Dispensary, was seventh in descent from Sir William Douglas, created a baronet in 1625.

Jacobite Baronets.

The following were conferred by "Charles III" in exile:

Dr. Higgins, First Physician to the King of Spain, was created a "baronet," May 6th, 1726.

John Macleod was created a baronet in 1723. His descendants were (1) "Sir" John, M.D., died 1811; (2) "Sir" John, Physician to the Forces in Spain.

Baronetcies Refused.

Excluding recent instances, the following are known to have refused the honour: Abernethy, Atkins, Mathew Baillie, Heberden, Holland, (when first offered in 1841), and Radcliffe.

S. D. Clippingdale, M.D.

*Sir Samuel, on receiving the baronetcy, humorously remarked that only three persons bearing the name "Samuel" had ever obtained eminence. These were the prophet, the writer of the dictionary, and the younger Mr. Weller.

PARLIAMENTARY COMMITTEE ON PROPRIETARY MEDICINES.

THE Select Committee of the House of Commons appointed to consider the law and advertisement of proprietary articles continued its sittings on May 16th, Sir Henry Norman presiding. The taking of evidence on behalf of Government departments and official bodies was resumed.

THE HOME OFFICE.

Mr. G. A. Aitken, a principal clerk at the Home Office, in charge of the department in which the subject of proprietary medicines is dealt with, gave evidence as to the position and authority of the Home Secretary in regard to proprietary medicines. He explained that the Home Secretary's position was parliamentary and not administrative; the Home Secretary answered questions in the House of Commons on behalf of the Lord President of the Council, the Council Office having no representative in the House of Commons. The Home Secretary had no powers with regard to the subject as a whole; he was interested in certain aspects.

The Chairman: We are anxious to know what powers he has. We have had some difficulty in finding out what official individual has knowledge or authority in this matter.

The Witness: As regards patent medicines as such the Home Secretary has no powers or duties. The witness added that the Home Office had received very little correspondence on the subject apart from memorials addressed to it from time to time by the Royal College of Physicians. It had been suggested that patent medicines should be brought within the scope of the section of the Food and Drugs Act, 1875, which imposed a penalty if an article was not of the nature, substance, and quality demanded by the purchaser; but there was an obvious difficulty in doing that, because it would be necessary to prove that the nature, quality, and substance demanded had not been given. He presumed it would be difficult to fix any chemical standard for a proprietary medicine.

The Home Office had also received some complaints as to the attitude of the press. The popular daily papers, religious papers, cheap magazines, Sunday papers perhaps most of all, and some provincial papers, were thought to be greatly in fault in accepting quack advertisements. Some newspapers, according to the BRITISH MEDICAL JOURNAL, refused to insert advertisements of a book exposing secret remedies. The view of the Home Office has been that the advertisement and extensive sale of proprietary medicines was a mischief, but that it was an evil that must be met rather by the spread of education than by legislation. The complaints just mentioned were received from private individuals; they only numbered a few, but one naturally saw newspapers personally and formed some opinion. The Home Office had received very few complaints of fraud. Proceedings for fraud against vendors of proprietary medicines on the ground that they could not effect the cures claimed in their advertisements were practically unknown. The onus was upon people who thought they had been defrauded in this or any other matter to prosecute. The police were not in any way bound to prosecute, and the Director of Public Prosecutions would take proceedings only in cases of quite exceptional importance, where he thought it was necessary to meet the ends of justice. The difficulty of proving fraud in these cases had been found almost insuperable. This had been brought out very well in the well-known Harness case tried in 1893–94. (BRITISH MEDICAL JOURNAL, vol. i, 1894.) Those were proceedings by private people against the vendor of a specific, the charge being that he had unlawfully conspired by false advertisements to defraud, and that he had obtained certain moneys by fraud. Doctors and others came forward to say that the remedy could not possibly cure the diseases it was said to do. But the defence called a large number of persons of respectability who declared that they had been cured, and the result was that the case was dismissed. The magistrate said that, although the management had some reason to believe in the value of their appliance they must have known that it could not be successful in every case. But to make the case indictable there must not only be knowledge, but guilty knowledge. These people received testimonials, and how would it be possible to say that they knew their appliance to be valueless?

The Home Office was cognizant of some separate aspects of the question in connexion with various branches of its work. The Home Office received recommendations to try advertised cures for inebriety in inebriate reformatories; it had, however, not done so. Although these cures might be good for certain patients, the Home Office was advised that the persons who had benefited wished particularly to be cured of their habit, and that was by no means always the case with persons who were convicted and sent to reformatories. The Home Office felt that it would be wrong in using these cures in institutions where these people were received. The Home Secretary was also concerned with the question of proprietary remedies in relation to the use of medicine and appliances for illegal purposes. These came to his knowledge in connexion chiefly with proposals for legislation, but also in the form of complaints from the public. Many difficulties had been found in attempting to frame any measure in regard to what were described as female ailments which would be satisfactory, and neither inoperative nor too wide in its scope. The advertisements which suggested illegal practices were usually framed in carefully veiled language, and in many cases the drugs were so innocuous that it would be impossible to prosecute successfully. It was held by Mr. Justice Darling in 1889 that a charge against a vendor of drugs for this purpose could not be sustained if the drug was in fact, and in the knowledge of the accused, harmless, although, of course, he advertised it as effectual. The Joint Committee which reported in 1908 on lotteries and indecent advertisements recommended that the advertisement and sale of drugs or articles which might be reasonably considered as intended for promoting miscarriage or securing abortion should be made illegal. The Home Secretary already had a bill in draft on the lines of the report of that Select Committee, but whether time would be found this session to carry it into law remained to be seen. The bill carried out the recommendation of the Joint Committee, which made it an offence to publish any advertisement, except in a bona fide medical or pharmaceutical periodical, which suggested directly or indirectly the taking of any drug or thing for the purpose of securing miscarriage or abortion. In other words, it removed the difficulty that at present these things could only be proceeded against when the language used in the advertisement was indecent. As a rule the language was carefully veiled, and could not be called indecent. The bill had been in draft two years.

The difficulty in these matters was to get any one to give evidence. An unsuccessful prosecution did considerable harm in advertising the article. The chance of getting a conviction depended to some extent on the class of person to whom the advertisement was sent. It was much easier to secure a conviction if the advertisements were sent to young persons than to adults. The Director of Public Prosecutions made frequent use of the Post Office Act of 1908, section 63, which made it an offence to send indecent or obscene articles through the post. A man was recently convicted for sending notices about preventives to people whose engagements had been announced in newspapers. He had been in the habit of sending them to people whose marriages had been announced. The Director of Public Prosecutions always took up cases of procuring abortion by means of instruments whenever he thought the evidence would justify it.

In reply to a question, the witness expressed the opinion that Mr. Justice Darling's judgement referred to above only related to drugs used to prevent conception. Replying to the Chairman, he said that if a member of the public wrote complaining the Home Office would refer the case to the local police for inquiry, or to the Director of Public Prosecutions. The Home Secretary did not as a rule decide what criminal cases should be instituted. The police for many years had not taken action against the vendors of proprietary medicines on the ground of fraud. There would not be any other ground on which they could take action except indecency.

The Chairman: In the present state of the law, the sale and advertisement of a medicine for an obviously illegal, and no other, purpose cannot be made the subject of prosecution so long as that advertisement is covered in decent language?—I think that is the fact.

Have there been any examples of the police taking

action on their own account during recent years in matters of this kind?—No, hardly any.

Sir Philip Magnus asked if it was the witness's view that the Home Office could not interfere with the sale of medicines advertised to cure ailments which it was well known they could not possibly cure.

The witness said he did not think the Home Secretary would take action unless it was a very extreme case, and then he would ask the Director of Public Prosecutions to consider it. He did not think such a case had ever arisen.

In reply to Dr. Lynch, the witness said he had no means of ascertaining how much money was spent annually by the public upon proprietary medicines.

Dr. Lynch: Is there in the Home Office any particular officer whose duty it is to exercise an active vigilance—not merely to wait for complaints to be made—but to take action on his own initiative with regard to frauds on the public, or the vending of drugs for illegal purposes?

The Witness: I think the answer is that the Home Office can only wait until it gets information from one source or another. In reply to a further question, he did not see any difficulty in establishing a warranty in regard to proprietary medicines. He thought new legislation might proceed somewhat on the lines of the Food and Drugs Act, giving the local authorities powers and duties to examine proprietary medicines. The Home Office had no definite knowledge, but it believed that the sale of abortifacients was increasing.

Dr. Lynch: Do you think it possible to frame a bill that would meet fairly and squarely the evil of frauds upon the public by selling at comparatively high prices worthless medicines, or the evil of inciting to illegal operation?—I think we could meet the latter part of your question; I am not so sure about the former.

In reply to Dr. Chapple, the witness said prosecutions were rare, not because the evil did not exist, but because it was so difficult to secure a conviction. The Home Office found itself powerless to a great extent to prevent these evils.

In reply to Mr. Lawson, the witness said that it was possible to prosecute vendors under existing laws where there was evidence of fraud, but it was exceedingly difficult to obtain a conviction. He agreed that no amendment of the law in the direction of causing the formulas of the articles to be placed on the labels would help in any way. He did not agree that the Home Office view was that there was no necessity for further legislation. The outstanding difficulty in the way of obtaining convictions was that many people believed they had benefited, and evidence could be produced to that effect. He could not suggest any amendment of the law which would make it easier to obtain a conviction.

Mr. Glyn Jones: Do you know any department of the Government which can give information covering the general scope of this inquiry?—No.

Do you agree that no such official or department exists?—Yes. In reply to a further question, the witness said that there were no separate statistics as to prosecutions of vendors of proprietary articles or of fatalities due to their use.

Mr. Glyn Jones asked if the witness knew of any other Government department or official that should be consulted by the Select Committee in addition to those already heard, and the reply was in the negative; whereupon the Chairman of the Committee remarked that the proceedings were taking the shape of a fishing inquiry. The Committee found itself in some embarrassment as to what source it should apply for information.

The Chairman: Do you think it would be to the public advantage that there should be a general law on this subject?—Yes, I think it would.

Have I gathered correctly from your evidence that the Home Office never acts except when moved by somebody outside, and very seldom then?—No, I do not think that is a correct inference from what I said.

But you have said the Home Secretary's position is not administrative, and you have given very few examples when he has acted.—That is so as regards proprietary medicines.

Should I be correct in saying that in the matter of proprietary medicines the Home Secretary practically does nothing at all except answer questions in Parliament on behalf of the Privy Council?—Yes; he does not regard it as coming within his jurisdiction at all.

THE "BRITISH PHARMACOPOEIA."

Dr. Nestor Tirard, medical expert to the British Pharmacopoeia Committee of the General Medical Council, gave evidence as to the attitude of the Council, and explained that it was the censor of the standard and purity of drugs employed by medical men. For the purpose of the *Pharmacopoeia* the Council had to know what drugs were employed and recommended from time to time, in accordance with alterations of practice or suggestions from pharmacists for improvements in preparations. The *Pharmacopoeia* did not concern itself with any so-called secret or proprietary medicines. At the suggestion of the Chairman, the witness explained for the benefit of lay members of the Committee the objects of the *British Pharmacopoeia* and the authority conferred upon it by statute. Its purpose was to secure a uniform standard in drugs and also their purity. The work was revised and republished in accordance with an Act of Parliament whenever the Committee thought necessary, and the witness did not think it was revised sufficiently often. The last edition was published in 1898, and another was about to be issued.

The Chairman: Then the medicines discovered or synthetically made since 1898 have had no attention?

The Witness: They have to gain general acceptance to be taken notice of in the *Pharmacopoeia*.

Sir Philip Magnus: Your Council endeavours to keep fully informed of recent advances?—That is so.

But they keep the knowledge to themselves sometimes for fourteen years?—If there was any great change we should issue another volume. It is not always fourteen years before another volume is issued.

The Chairman: Are we to infer that during the last fourteen years there have not been many important changes?—Not sufficient to necessitate the issue of a new authority.

The witness proceeded to explain the attitude of the General Medical Council towards proprietary medicines. If it was found from analysis that a proprietary preparation contained a scheduled poison, such as morphine, strychnine, or mercury, when an edition of the *Pharmacopoeia* was made a formula for a substance analogous to this was introduced, the idea being to safeguard the public as regards any possible changes of strength. For instance, an equivalent formula to that of chlorodyne was included in the *Pharmacopoeia;* it was not identical, but by introducing it a definite quantity of the poisonous ingredient was established. Particulars of the ingredients of proprietary medicines were obtained either from the proprietor or by analysis. The object of including the formula in the *Pharmacopoeia* was not that it should be used as a substitute for a proprietary article. It was thought that medical men might prefer a substance of constant strength. Variations of strength were dangerous in many instances. In the case of chlorodyne the Board of Trade stated that it was not always supplied by chemists, but sometimes by wholesale firms, ships' chandlers, and others. In the case of a ship with no doctor on board, if the captain got in the habit of using a weak form of the drug in comparatively large doses, when he received a fresh supply of chlorodyne of a good type there was danger from overdoses.

The Chairman: Suppose some person devises a new combination of drugs which is of a useful and entirely legitimate character and advertises and sells it as a proprietary article, do I understand that the General Medical Council proceeds to analyse this and makes up something to all intents and purposes identical, thus enabling any person to use this combination which the genius and medical knowledge of an individual has enabled him to produce?

The Witness: We do not think there is any great discovery in putting together different drugs. Proceeding, the witness remarked that the genesis of nearly every proprietary medicine was a prescription of a medical man. Much assistance was received by the compilers of the *British Pharmacopoeia* from the Therapeutic Committee of the British Medical Association and from the Pharmaceutical Society. Information for a new issue of the *Pharmacopoeia* was collated, and the drugs most commonly prescribed were tabulated. A certain number of

proprietary medicines occurred in the final list; there were some medical men who, for reasons best known to themselves, preferred to prescribe outside the *Pharmacopoeia;* but because some medical men prescribed the latest preparation on the market was no reason for including it in the *Pharmacopoeia.*

In reply to Sir Henry Dalziel, the witness said the General Medical Council had nothing to do with patent medicines. The Council had no wish to suppress proprietary medicines, some of which—the synthetic preparations—were the result of advancing knowledge. Nevertheless, he would be glad if the Committee could see its way to insist, not on a statement of the full composition of the article being stated on the label, but that when a scheduled poison was present the amount should be definitely stated.

Replying to Mr. Glyn Jones, the witness agreed that the ascertaining of the value of new drugs was left to private enterprise; the Therapeutic Committee of the British Medical Association was the body to which the compilers of the *Pharmacopoeia* were mainly indebted. There were a large number of instances of doctors ordering proprietary medicines. In the nature of things the testing of drugs was a private matter. It depended upon the effect upon individual patients of the drugs prescribed by a doctor.

In reply to the Chairman, the witness said that the statement on the label of the exact amount of a scheduled poison contained in the bottle would convey nothing to the public, but it would be of value to the medical profession as establishing a constant strength.

The Committee adjourned until Thursday, June 6th.

THE MEDICAL PROFESSION IN THE ISLE OF WIGHT.

IN the JOURNAL of May 11th, p. 1082, it was announced that Dr. Barford, who had held the appointment only for a short time, had resigned the office of county medical officer of health and school medical officer. About a year ago the County Council of the Isle of Wight, by a small majority, took a course which, in the opinion of the Isle of Wight Division of the British Medical Association, inflicted a grave injustice upon a medical man who had served the island both faithfully and well, and offered the joint post, which Dr. Barford has now resigned, at a salary regarded as quite inadequate, not only by the local profession but by the profession at large. Dr. Barford indicated that he resigned on the ground that he had not got the hearty co-operation of the district medical officers of health, and of the local practitioners, which was necessary for the efficient discharge of the duties of the combined office. The information supplied to him by the British Medical Association had proved correct.

In view of the vacancy again created, the Isle of Wight Division has addressed the following letter to the Chairman of the Isle of Wight County Council:

The Chairman, the Isle of Wight County Council.

Sir,

We beg most respectfully again to approach the Council on the subject of the terms of remuneration which are being offered for a medical officer of health and school medical officer for the County of the Isle of Wight.

We consider the proposed terms in question to be absolutely inadequate, considering the responsible nature of the work of the appointment and the serious difficulties in connexion with locomotion in the Isle of Wight, not to mention the amount of clerical work involved. At a meeting of the Isle of Wight Division of the British Medical Association, held in Sandown to-day, we have seriously considered and discussed the subject fully, and we are anxious that the county medical officer of health for the Isle of Wight should have the co-operation of the district medical officers and also of the private practitioners of the island, as is recommended by the Local Government Board, *but we cannot recede from our previous opinion that £500 net should be the minimum salary.* We would, however, venture to remind you that, so long as the advertisement of the post is of such a nature that it is refused by the leading medical journals, your choice of candidates must of necessity be extremely limited, and that you will thus have no prospect whatever of getting the best man for the post or one with whom the other members of the profession could co-operate.

These are serious considerations from the point of view of the public health, and we maintain that the medical profession must by its special knowledge be enabled to judge of the health requirements of the community better than it is possible for a Committee which has no doctor amongst its members. We would also wish to draw your attention to the fact that in the short period of twelve months one medical practitioner has refused the work and another has resigned. Is this in the best interests of the community? Is it not better that there should be more continuity of service? We understand that you consider £50 per annum to be an ample allowance for travelling expenses, but cannot understand how such an estimate can be arrived at.

No doubt it is possible that you may find some one who will do, or attempt to do, the work on the terms proposed, but it will be quite impossible for him to be such a one as may be entitled to expect to have the co-operation of the medical profession either of the island or elsewhere. The Council would thus have carried out the letter of the law but not its spirit.

Trusting that you will be able to see your way, in the interests of the public, to reconsider this matter,

I am, Sir,

Yours faithfully,

G. BENINGTON WOOD,
Hon. Sec. I.W. Division, British Medical Association.

P.S.—Would it be possible for you to arrange that a deputation of medical practitioners should wait on some representatives of the Council?

Sandown, May 17th, 1912.

THE MENTAL DEFICIENCY BILL.

IN the fullness of time, nearly four years subsequent to the publication of the Report of the Royal Commission on the Care and Control of the Feeble-minded, appointed so long ago as November, 1904, by Mr. Balfour, the present Government has laid upon the table of the House of Commons "A Bill to make Further and Better Provision with Respect to Feeble-minded and other Mentally Defective Persons." Its short title is "Mental Deficiency Bill." Stimulated, no doubt, by the marked growth of public interest in the question, as well as by the introduction of two private members' bills on the subject, one of which, the "Feeble-minded Persons (Control) Bill," through good luck in the ballot, came on for second reading on May 17th, the Home Secretary hastened the printing of the Government measure so that it might be in the hands of members prior to the debate on that bill.

The bill of the Government consists of 68 clauses, and is divided into four parts, the first setting up central and local authorities for the purposes of the Act, the second prescribing the method of dealing with mentally defective persons, the third regulating certification and provision of institutions, and the fourth containing general provisions with reference to offences, legal proceedings, etc. The Act is to apply to England and Wales, and, with certain modifications, to Scotland.

I. *Central and Local Authorities.*

Part I institutes a new central authority consisting of not more than six Commissioners (one at least to be a woman), to be designated "the Commissioners for the Care of the Mentally Defective," not more than four of whom are to be paid Commissioners. They are to be assisted in the performance of their duties by a secretary and by such inspectors and other officers and servants as the Secretary of State may approve. No qualification is laid down, as is the case with regard to the Lunacy Commission, for appointment as a Commissioner, except the negative one that the person appointed must not be interested in any certified institution or home for defectives.

The general powers and duties of the Commissioners are stated to be:

1. The general supervision, protection, and control over defectives.
2. The co-ordination and supervision of the administration by local authorities of their powers under the Act.
3. The certification, supervision, and inspection of institutions and houses for defectives.
4. Visitation of the defectives in institutions and houses

for defectives, or under guardianship, or (with a view to their certification) elsewhere.

5. The provision and maintenance of institutions for defectives of criminal, dangerous, or violent propensities; and

6. The making of reports and the administration of Parliamentary grants under the Act.

As regards local administration, committees for the care of defectives are to be appointed by county councils or county borough councils in England and Wales, and by District Boards of Lunacy in Scotland; and they are to appoint one or more specially qualified medical officers to assist them in the performance of their duties under the Act. These duties are specified as follows:

(*a*) To ascertain what persons in their area (other than educable defective children under 16 years of age provided for under the Elementary Education (Defective and Epileptic Children) Act, 1899) are subject to be dealt with as defectives under the Act;
(*b*) To take the necessary steps for their supervision, or control under guardianship or in institutions;
(*c*) To keep registers of defectives;
(*d*) To provide suitable and sufficient accommodation for persons sent to institutions under the Act;
(*e*) To appoint the necessary officials to assist in the carrying out of their statutory duties;
(*f*) To make annual and other reports to the Commissioners.

There are certain reservations with regard to defectives dealt with under the Lunacy Acts or the Poor Law.

II. *Method of Dealing with Mentally Defective Persons.*

Part II opens with the following clause (17):

Save as expressly provided by this Act, the following persons, and no others, shall be subject to be dealt with under this Act—that is to say, persons who are defectives and—

(*a*) Who are found wandering about neglected, or cruelly treated;
(*b*) Who are charged with the commission of any crime, or are undergoing imprisonment or penal servitude or detention in a place of detention, or a reformatory, or industrial school, or an inebriate reformatory;
(*c*) Who are habitual drunkards within the meaning of the Inebriates Acts, 1879 to 1900;
(*d*) In whose case, being children discharged on attaining the age of 16 from a special school or class established under the Elementary Education (Defective and Epileptic Children) Act, 1899, such notice has been given by the local education authority as is hereinafter mentioned;
(*e*) In whose case it is desirable, in the interests of the community, that they should be deprived of the opportunity of procreating children;
(*f*) In whose case such other circumstances exist as may be specified in any order made by the Secretary of State, as being circumstances which make it desirable that they should be subject to be dealt with under this Act.

To this follow definitions of the several classes of persons to be deemed defectives, including idiots, imbeciles, feeble-minded, moral imbeciles, and mentally infirm persons suffering from senile decay of their faculties. These definitions follow closely those given in the Recommendations of the Royal Commissioners.

Notification of cases believed to be defective within the meaning of the Act is to be made to the local authority by certain public officials, including Poor Law medical officers and medical officers of health, and a "defective subject" may be (*a*) sent or transferred to and detained in an institution for defectives; or (*b*) placed under guardianship. Any relative or friend of an alleged defective may also make private application (as well as a specially authorized officer of the local authority) to the judicial authority empowered to deal with such cases, and on the latter being satisfied after receiving the petition accompanied by two medical certificates, or in certain circumstances by a statutory declaration signed by the petitioner and by at least one other person, the judicial authority may make an order sending the alleged defective to an appropriate institution for defectives, or appointing a suitable person to be his guardian.

Provision is made for dealing with children discharged from special schools needing further care by empowering the Education Committee to notify the local authority that the child has been discharged from the school, having reached the age of 16, and that it would be for its benefit to be sent to an institution or placed under guardianship. The local authority may thereupon take the necessary steps for causing the child to be dealt with under the Act, and the parent or guardian of a defective who is under the age of 21 may voluntarily place him in an institution or under guardianship, if the case be duly certified by a medical practitioner.

All orders made under the Act expire at the end of a year from their date, but provision is made for their continuation on report.

III. *Certification, Provision, and Management of Institutions.*

Part III deals with the provision of State institutions for defectives of criminal, dangerous, or violent propensities, and with the certification of institutions; local authorities are given power, either jointly or separately, to establish institutions or to contribute to those established by others. Towards the expenses of persons detained in certified institutions for defectives Parliament is to provide a yearly grant of not more than £150,000; and societies assisting in the care of defectives may also be aided by parliamentary grants.

Provisions are made for the certifying of houses in which defectives may be received for private profit.

IV. *General.*

Part IV deals with penalties imposed on those taking charge, for reward, of more than two defective persons elsewhere than in a certified house or institution, for ill-treatment of defectives by relatives or those in charge of them, and for breach of regulations.

Clause 50 marks a new departure in British legislation in the direction of negative eugenics, and deserves to be quoted at length. It enacts that

If any person intermarries with, or attempts to intermarry with, any person whom he knows to be a defective within the meaning of this Act, or if any person solemnizes or procures or connives at any marriage knowing that one of the parties thereto is a defective, he shall be guilty of a misdemeanour.

The distinction between "misdemeanour" and "felony" is of old standing. According to Lord Halsbury's *Laws of England* all indictable crimes below the degree of treason are either felonies or misdemeanours. The main distinction now extant is that on a charge of felony a person may be arrested without a warrant, whereas in misdemeanour there is no power to arrest without a warrant, except in some cases. Again, a person accused of felony has no absolute right to bail, whereas a person charged with misdemeanour may obtain bail from a judge of the High Court. Subject to these observations the distinction between felony and misdemeanour is largely reflected in the punishment which the court is entitled to inflict. By Clause 56 an offence declared to be a misdemeanour under the Mental Deficiency Bill is punishable by fine or by imprisonment not exceeding two years, with or without hard labour; but the accused may, instead of being prosecuted on indictment, be prosecuted summarily, and if so prosecuted shall be punishable only with imprisonment for a term not exceeding three months, with or without hard labour, or with a fine not exceeding £50.

The Act is to apply to Scotland, subject to the modifications made necessary by differences in administrative methods, but not to Ireland. If passed this year it would come into operation on January 1st, 1913.

The report of the Kashmir Medical Mission for 1911 records the performance during the year of as many as 6,000 major and minor operations—an immense number, considering that the staff comprises only four qualified medical men. About one-fourth of the operations were eye operations, while the tumours dealt with included as many as 85 kangri burn cancers. Tuberculosis is stated to be very greatly on the increase, and the number of operations on tuberculous glands to have exceeded 100.

THE KING AND THE ROYAL SOCIETY OF MEDICINE.

OPENING OF THE NEW BUILDING.

THE new buildings in Wimpole Street, W., of the Royal Society of Medicine, which have been erected to house the library, to provide central quarters for the officers and Council, and rooms for the meetings of the various sections, were opened by His Majesty the King, accompanied by Her Majesty the Queen, on Tuesday, May 21st.

The principal feature of the new building, which, architecturally, is an example of the Greek revival in England, is the library—a handsome apartment 110 ft. long by 27 ft. wide and 18 ft. in height. The design of the building provides for another story, and until this is added the structure must necessarily lose something of its dignity. On the ground floor are a handsome and spacious vestibule, two meeting halls (holding 500 and 250 persons respectively), patients' rooms (for both sexes), cloak rooms, and cashier's and porters' rooms. The whole of the first floor is taken up by the library and by the offices of the secretary, editor, and clerks. The main part of the second floor is occupied by the council room and by two committee rooms. On the third floor is a museum and laboratory. The whole of the basement is given up to a book store-room, where specially constructed iron book stacks permit of the storage of the 100,000 volumes comprising the library with the greatest possible economy of space. Many novel features are employed in the fittings of the premises. The lavatories are fitted with the Ajax system of Dr. C. A. James, and there is a commodious lift of open construction. The ceiling lamps in the library are so arranged that light is reflected upward and then downward by the white ceiling. The floors in the meeting halls slope towards the platform.

A large and distinguished assembly awaited the arrival of Their Majesties, who were received on alighting from their carriage by the President, Sir Henry Morris, the Honorary Secretaries, Dr. Arthur Latham and Mr. H. S. Pendlebury, and the Secretary, Mr. J. Y. W. MacAlister. The members of the Council and of the Building Committee waited on either side of the entrance hall. As Her Majesty entered the building she was presented with a bouquet by Mrs. Arthur Latham. Their Majesties proceeded to the Robert Barnes hall, where the President read the following address:

To the King's and the Queen's Most Excellent Majesties.

May it please Your Majesties,

We, the President, Council, and Fellows of the Royal Society of Medicine, desire to convey to Your Majesties, with our loyal duty, our attachment and devotion to Your Persons and to the Throne.

We take this opportunity to express our grateful appreciation of the deep interest which Your Majesties invariably evince in all that concerns the wellbeing of Your Subjects, as well as in the progress of our profession, whose vocation is not only to preserve the individual by curing disease, but to improve the health of the nation by promoting hygiene, and preventing illness.

Our Society was founded in the year 1805, but greater stability and effect were given to its designs by the Charter granted in 1834 by the special grace of His Majesty, King William IV, who thereby declared himself, "and his successors if they shall think fit," the Patron of the Society.

It is our pride and privilege to record that each of the illustrious Successors of King William IV has so thought fit, and that our greatly beloved, and never to be forgotten late Sovereigns, Her Majesty Queen Victoria and His Majesty King Edward VII, have been, and now your own Excellent Majesty is our Patron.

By a Supplementary Charter graciously granted in the year 1907 by Your Majesty's august Father, the Society was empowered to enrol as Fellows the members of several younger Societies having allied objects; the scope of the Society was enlarged; its name was changed from "The Royal Medical and Chirurgical Society of London" to "The Royal Society of Medicine"; and it was specifically ordained that female as well as male persons might be elected Fellows and appointed to offices of the Society.

Thus the Royal Society of Medicine now forms a large Corporation, embracing within its fold the most important Medical Societies in the country, and having for its object the improvement of the art and science of medicine in all branches by means of debate, collaboration, and research.

Your Majesties, who at all times show very active sympathy in the work of the great hospitals and similar institutions, and in everything that tends to alleviate sickness and relieve suffering, take also, as we are well aware, a keen and enlightened interest in every advancement of medical knowledge directed to the furtherance of these humane ends. Such progress is the single purpose of this Society.

To have been distinguished by the gracious favour of Your Majesties on this auspicious occasion has given inexpressible pleasure to all concerned, and is a recognition that reflects the brightest lustre upon the History of the Society.

It is with these feelings of appreciation and gratitude that we very earnestly thank Your Majesties for the great honour you have conferred upon us, and upon the profession at large, by Your Presence here to-day.

HENRY MORRIS,
President.
WILLIAM S. CHURCH,
FRANCIS H. CHAMPNEYS,
Honorary Treasurers.
R. J. GODLEE,
NORMAN MOORE,
Honorary Librarians.
ARTHUR LATHAM,
HERBERT S. PENDLEBURY,
Honorary Secretaries.
J. Y. W. MACALISTER,
Secretary.

HIS MAJESTY replied:

I thank you on behalf of the Queen and myself for the loyal and dutiful address of the Royal Society of Medicine. It gives me great pleasure to open the fine building which will henceforth be the home of the Society, and which will provide adequately for the increase in your membership and for the extension of your duties since a new and enlarged charter was granted to you by my father, King Edward.

The importance of the Society's work is now universally recognized, and it is a matter of satisfaction that the needs of the Society have been so generously provided for, and that its varied functions can now be carried on unhampered by lack of space. The health and well-being of the community are safeguarded by the energies of the medical profession. We look to you to fight sickness and disease; and we claim from you an untiring vigilance in this contest, and unceasing efforts to find, by the investigation of the laws of nature, new means of combating these enemies. Medical science has revealed by experiment and trained observation new securities for life and health during recent years, and none can doubt that the improved public health is mainly due to the discoveries made by the medical profession in this and other countries, to the guidance given by that profession to the civil authorities, and to the sanitary precautions against the spread of disease which they have enforced. It gives us the greatest satisfaction to assist in any way the interests of your noble calling, and the Queen and I will ever watch the progress of your Society with sympathy and hearty goodwill.

It only remains for me to declare this new building opened, which I do with the greatest satisfaction and pleasure.

Their Majesties next proceeded to the basement, the King having expressed a special desire to examine the book store. The Honorary Librarians, Mr. Rickman J. Godlee and Dr. Norman Moore, conducted Their Majesties through this department. Returning to the first floor, the King and Queen entered the library, where the second part of the opening ceremony took place.

The following members of the Council were presented to the King and Queen by Sir Henry Morris (the President of the Society): Sir William S. Church, Sir Francis H. Champneys, Mr. J. Warrington Haward, Dr. Frederick Taylor, Mr. Clinton T. Dent, Dr. Amand Routh, Dr. R. T. Hewlett, Dr. Theodore Thomson, Mr. H. Lloyd Williams, Sir William Osler, Sir Malcolm Morris, Dr. George H. Thompson, Dr. F. W. Mott, Dr. StClair Thomson, Dr. W. J. McCardie, Mr. Richard Gill, Dr. William Milligan, Mr. Arthur H. Cheatle, Dr. G. A. Sutherland, Mr. A. D.

Reid, Dr. W. Deane Butcher, Dr. W. E. Dixon, Dr. R. A. Gibbons, Dr. W. P. Herringham, Mr. R. Clement Lucas, Mr. D'Arcy Power, Dr. H. D. Rolleston, Mr. Charters J. Symonds, and Mr. E. F. White. The following members of the Building Committee who are not on the Council were then presented: Dr. Herbert R. Spencer, Dr. C. Theodore Williams, Dr. Leonard L. B. Williams; and also the architect (Mr. John Belcher), the representative of Lady Fellows (Mrs. Scharlieb), and the Editor of the Society's *Proceedings*.

Their Majesties were then conducted round the library by Sir Henry Morris, Mr. R. J. Godlee, Dr. Norman Moore, Dr. Arthur Latham, Mr. Herbert S. Pendlebury, and Mr. J. Y. W. MacAlister. One of the first things which attracted the attention of the King was a novel electric lighting arrangement for writing tables, the invention of the Secretary. Having realized the inconvenience of the flexible cord which has hitherto been used for supplying the electric current to table lamps Mr. MacAlister devised a small apparatus which entirely does away with the old form of standard lamp attachment. It consists of a socket in the floor connected with the source of electric supply and a plug in the leg of the table which fits into the socket. The plug is kept in position by a spring, the resiliency of which is easily overcome by the weight of the table. By this means the table stands level when it is desired to use it in any other place than that in which it generally stands. A model of this attachment was accepted by the King. Their Majesties then examined the old roll of the Royal Medical and Chirurgical Society, the parent of the new organization, and showed great interest in the names of the eminent medical men therein inscribed. Particularly the King was heard to remark on the name of Sir William Jenner. Previous to the King and Queen inscribing their names on the new roll of the Royal Society of Medicine they examined and conversed about the staff and serpent of the Epidaurian god which is represented at one end of the library by a specimen of *Coluber longissimus aesculapi*, coiled round the traditional staff. Subsequently, copies of the *History of the Royal Society of Medicine* were presented to Their Majesties. Some time was spent in examining books, and on leaving the library Their Majesties were conducted to the second floor of the building, and after passing through and inspecting the various committee rooms proceeded to the Fellows' tea-room, where tea was served, when the following ladies and gentlemen had the honour of being present: Sir Henry Morris, Sir Thomas Barlow (President of the Royal College of Physicians) and Lady Barlow, Mr. Rickman J. Godlee (President of the Royal College of Surgeons), the Lord Mayor and the Lady Mayoress, Lord and Lady Strathcona, Mr. Pierpont Morgan, the Mayor and Mayoress of Marylebone, Sir William and Lady Church, Sir Francis and Lady Champneys, Sir William and Lady Osler, Sir Douglas Powell, Sir James and Lady Reid, Sir Havelock and Lady Charles, Sir Francis Laking, Dr. and Mrs. Norman Moore, Dr. and Mrs. Arthur Latham, Mr. H. S. Pendlebury, Mrs. Leadham, Mr. J. Y. W. MacAlister.

After tea Their Majesties took leave of the Council, the President and Secretaries accompanying them to their carriage; but previous to Their Majesties' departure the King inspected the guard of honour, which was composed of medical cadets from the University of London Officers' Training Corps contingent. The newly-formed band of this corps gave during the proceedings a programme of music.

It may be noted that the Society has enjoyed royal patronage since its incorporation in 1834. Its forerunner was founded under the name of the Medical and Chirurgical Society of London in 1805, and in 1834 King William IV granted the Society a royal charter and became its patron. On the death of His Majesty, Queen Victoria became patron and signed the roll, and His late Majesty King Edward VII, as Prince of Wales, presided over committees of the Society at its house in Hanover Square, and upon his accession became Patron and signed the roll. In 1905 the Prince of Wales, our present King, was elected a Fellow of the Society and attended the centenary dinner, and on his accession became Patron.

The offices of the Society and also the new library for Fellows will be reopened at the Society's new house on Wednesday next, May 29th.

We are asked to state that the new library and halls will be open to the inspection of any member of the medical profession on presentation of his visiting card on and after June 1st until the end of July.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

The annual general meeting of the Society for Relief of Widows and Orphans of Medical Men was held at the Mansion House on May 15th by the kind invitation of the Lord Mayor. The Right Hon. Sir Thomas Boor Crosby was in the chair. Thirty members were present.

The officers for 1912–13 were elected, the Lord Mayor being elected President and Dr. Clement Godson and Dr. W. Culver James Vice-Presidents. Eight gentlemen were elected directors to fill the vacancies in the court.

A cordial vote of thanks was passed to the editors of the various medical journals who from time to time published notices of the society.

It was reported that since the last annual meeting 10 new members had been elected; 3 had died and 2 resigned. The society had 1 honorary member, 150 life, and 153 ordinary members, making a total of 304, which, considering the number of medical men eligible for membership, is but a very small proportion. The directors referred with great regret to the death of Dr. Blandford, who was elected a member in 1869 and president in 1906; he had always taken the greatest interest in the society, and was a constant attendant at its meetings. Reference was also made to the death of Sir Samuel Wilks, Bart., M.D., one the vice-presidents. The invested funds amounted to £101,600, from which was derived in interest the sum of £3,167 8s. 2d. In addition £440 4s. was received in subscriptions and donations. Amongst the annuitants of the charity, namely, 47 widows and 13 orphans, the sum of £3,059 10s. was distributed, each widow receiving on an average £50, besides an additional £10 as a Christmas gift, and each orphan £15 and a gift of £3 at Christmas. The grants to orphans had been increased from £15 to £25 per annum. The working expenses for the year amounted to £215 16s. 7d. The Copeland Fund enabled the society to grant to any widow or orphan already in receipt of the society's ordinary relief, extraordinary assistance in special circumstances of unusual distress, such as blindness, paralysis, insanity, severe disabling accident, or grave permanent disease, and to continue such extra relief in the case of orphans beyond the age of 16 or 18 years (at which under the society's existing by-laws the ordinary relief ceases) for such further period as the Court of Directors might think fit. One widow was elected on to the funds during the year, and on December 31st there were 47 widows and 10 orphans in receipt of grants. One of the widows has been on the books since 1854, and had already received over £2,360. Relief was only granted to the widows and orphans of deceased members, who had paid their annual subscription for three years, or who were life members. During the year thirty letters were received from widows of medical men who, in many instances, had been left practically penniless, asking for relief, but this had to be refused, as their husbands had not been members of the society.

The directors desire to bring to the notice of the members of the medical profession, especially the younger, the advantages of joining the society. Membership is open to any registered practitioner who at the time of his election is resident within a twenty-mile radius from Charing Cross. Should any member remove beyond the limits of the society he nevertheless continues to be a member. The annual subscription is two guineas; every member who has paid this sum for twenty-five years becomes a member for life. Life membership may also be obtained by the payment of one sum, varying with the age of the applicant. Further particulars and application forms may be obtained from the Secretary at the offices of the society, 11, Chandos Street, Cavendish Square, W.

The Chelsea Hospital for Women has received from the Trustees of Smith's (Kensington Estate) Charity £250 for its rebuilding fund.

LITERARY NOTES.

THE announcement that the National Hospital for Diseases of the Heart is to be removed from its present local habitation at 32, Soho Square, recalls the fact that the house was formerly the residence of that munificent patron of science, Sir Joseph Banks. Banks, whose interest in botany had been accidentally aroused when he was at Eton, accompanied Captain Cook in the *Endeavour*, which left Plymouth on August 25th, 1768. He took with him Solander, a favourite pupil of Linnaeus, two draughtsmen, and two other attendants. The journal which he kept was freely used by Hawkesworth in his account of the voyages of Carteret, Wallis, and Cook. After visiting Le Mair's Strait, Tahiti, New Zealand, Australia, New Guinea, Batavia, and enduring many hardships and dangers, the party once more reached England, arriving at Deal on June 12th, 1771. Banks brought back with him a large collection of plants, and the kangaroo and other animals previously unknown to science were discovered. In 1772 he visited Iceland with Solander, and climbed to the top of Hecla. In 1778 he was elected President of the Royal Society, of which he had been a Fellow since 1766. As a naturalist he had to encounter strong opposition on the part of the mathematicians who then formed the largest part of the society, and this made the task he set himself of reforming administrative abuses all the harder. He triumphed, however, and his ascendancy was never afterwards disputed. His house in Soho Square was for many years a kind of Mecca to which scientific men of all nations made a pilgrimage. Not only was he lavish in his hospitality, but he encouraged many struggling men, and his liberality was by no means limited to his own country—a fact particularly creditable to him considering that he lived through a time of wars and rumours of wars. After his death, which occurred in 1820, his collections and books were given to the nation. His library is kept in a room at the British Museum; his scientific collections are in the Natural History Museum at South Kensington. According to the *Morning Post* the old Adams fireplaces of his house are still to be seen in the wards of the hospital, with graceful cameo plaques beneath the mantel-shelves; the mouldings on the walls have been left in position, the rooms for the most part are structurally unaltered, and, as in Banks's day, the hall is still lighted by a grandly-conceived circular window in the roof. The south ward is a magnificent room of lofty proportions, and it was there and in the old dining-room downstairs that Banks used to entertain his guests. The records describe how Banks's house was "open every Sunday evening during the winter season."

In the BRITISH MEDICAL JOURNAL of May 4th the Hippocratic oath was compared with the Vedic formula of initiation as given on a tablet placed by Sir Richard Havelock Charles in the entrance-hall of the Calcutta General Hospital. Want of space prevented anything like a complete comparison. There is one point, however, sufficiently remarkable to deserve more detailed treatment. In the Hippocratic oath nothing is said about gratuitous treatment of the poor; in the form of the Indian oath inscribed on the tablet referred to the candidate goes further and undertakes not to administer medicines to "those that are exceedingly poor"—a remarkable anticipation of one of the provisions of the Insurance Act. On the other hand, he swears not even for his life's sake to extort his patients' substance. These two undertakings appear to be contradictory; possibly they have some esoteric meaning. There are two forms of the Indian oath, one bearing the name of Susruta, the other that of Charaka. The latter is generally assigned to the early centuries of the Christian era; the former is supposed to be of considerably greater antiquity. But scholars differ widely as to the dates of these Indian physicians. The point on which we wish to lay stress is that the older of the Indian physicians imposed much larger obligations in regard to gratuitous treatment than the other. In the form of the oath given by Susruta the doctor takes upon himself as a solemn duty the gratuitous treatment with his own remedies of all Brahmins, spiritual directors, *poor persons*, neighbours, men devoted to piety, orphans and patients coming to him from a distance. This passage is not found in the oath as given by Charaka, which approximates to the Greek text. On the other hand, Charaka is fuller in the matter of the behaviour of a doctor in a patient's house. He says:

> When accompanied by a man well known and authorized to introduce him, the doctor enters the dwelling of the patient, he must . . . observe all possible rules of good conduct. His word, his thought, his attention, should be directed to nothing but the treatment of the patient and that which relates to his condition. He will not allow himself, even in thought, to outrage the wife of another man or to interfere with his belongings.

Charaka adds that he should have nothing to do with the women except in the presence of the husband or his superintendent, nor accept any present from them without the consent of one or the other. Charaka is also stricter than the Hippocratic oath in the matter of professional secrecy. Not only must the things which the doctor sees in the house not be divulged, but nothing must be said as to the probable termination of the illness if this is likely to be hurtful to him or to any other person. Again, as regards devotion to the patient's interest, Charaka says the doctor must devote himself entirely to the good of the person under his care, and even were his own life in danger, he must not consent to do harm to a patient.

Charaka gives sound advice on other matters to those intending to take up medicine as a profession. For instance, he says:

> An intelligent man who wishes to become a doctor must first consider whether his resources, the results he may expect, his motives, the time, and the place of residence are favourable.

Beside this may be placed a fragment from the Hippocratic treatise which goes by the name of *The Law*:

> He who wishes to attain an intimate knowledge of medicine must combine in himself the natural dispositions, an acquired knowledge, a favourable place of residence, an education begun in infancy, the love of work, and a long application.

How many failures would be avoided if these counsels were carefully pondered by those who wish to become practitioners of the healing art!

In his *Recollections of a Parisian*, which was translated not long ago by Lady Theodora Davidson and published by Mr. John Murray, Dr. Poumiès de la Siboutie relates a curious story about Bernadotte, one of Napoleon's marshals, who became King of Sweden. The lancet was then in common use, but the King would never submit to be bled, although he had a private physician who was a great believer in venesection. On one occasion, however, he was forced to submit, as the doctor declined otherwise to be responsible for his life. "Well, do as you wish," said the King at last, "but you must never tell anybody what you see on my arm!" And, turning up his shirt sleeve, he exhibited a tattoo mark, consisting of a Phrygian cap, with the motto "Death to Kings!" When the soldier had caused this regicide device to be engraven on his flesh, he assuredly never anticipated that he would himself become a King. Of Dupuytren, who is unkindly spoken of by most of his contemporaries, Poumiès de la Siboutie says:

> When I joined the staff of the Hôtel-Dieu I was assigned to Dupuytren as assistant for fracture cases. He was a stern taskmaster, but worked quite as hard himself as he expected others to work for him. Winter and summer he was at the hospital by half-past five. He began his rounds at once, passing quickly over slight cases and concentrating his attention on the graver ones. He insisted on careful dressings and rigorous cleanliness. "Clean linen has an important bearing on the success of a case," he would observe. He always had a word of kindly encouragement for the sufferers. He would even laugh and jest with them, if he thought it would do them good, though it was not natural to him to do so. After the round, the out-patients were brought in; then he performed operations, and finally lectured, so that he was seldom ready to leave the hospital before ten o'clock. He never failed to accept and pocket the roll of bread which, according to a very ancient custom, is offered to the doctor at the end of his round. In the evening he would pay a second visit to grave operation cases. It is therefore hardly necessary for me to repeat that, if Dupuytren left a large fortune, it was certainly not at the expense of indigent patients, for he treated them gratuitously.

There are many other passages of medical interest in the book. The author lived through an eventful time, and saw many changes of government. He knew everybody, and a particular charm of his reminiscences is that he spoke no evil of any one—not even of his professional brethren.

British Medical Journal.

SATURDAY, MAY 25TH, 1912.

LEGISLATION FOR THE FEEBLE-MINDED.

THE problem of the feeble-minded has been so long under discussion, both by the profession and the public, that we can but hail with satisfaction the practical interest aroused in Parliament by the presentation this session of no fewer than three measures dealing with the subject.

The bill introduced by Mr. Stewart and promoted jointly by the National Association and the Eugenics Education Society was fortunate in securing a second reading last week, and the debate upon it showed an appreciation by members on both sides of the social dangers of leaving matters as they are and a readiness to put limits on the liberty of defective individuals in their own interests and those of the community. The Feeble-minded Persons (Control) Bill is a modest measure of twenty-one clauses, devised on uncontroversial lines, with the view of obtaining with as little delay as possible powers of control over feeble-minded persons who are admittedly a source of danger to themselves and to the community, leaving for future adjustment financial arrangements which are essentially in the province of the Government. Stimulated, perhaps, by the good fortune of this private member's bill, the Government laid upon the table of the House a more comprehensive measure. Of its details some account is given in another column. We venture here to offer a few criticisms arising on its perusal, though, of course, further information will be forthcoming when the Home Secretary formally explains its provisions. It differs from Mr. Stewart's bill by constituting an entirely new Central Authority for the mentally defective, instead of placing them under the wing of the Commissioners in Lunacy. There is indeed a proviso for possible amalgamation at a future date; but, considering the experience in mental defect of various forms already possessed by the Lunacy Commissioners, it may be questioned whether their services might not advantageously have been utilized, addition being, of course, made to their number. The British Medical Association, in its evidence before the Royal Commission, took the view that the new classes of defectives which it was intended to place under supervision should be brought under the existing Lunacy Commission modified and enlarged to correspond with the extended range of its duties. The guiding principles were that, from the medical standpoint, whatever differences there may be in degree, the matters to be dealt with are in nature homogeneous, and accordingly that the public provision for the care of persons suffering from unsoundness of mind, whatever its degrees or varieties, should be controlled by one central authority. This may be regarded as the key of its position in the matter. Overlapping will be inevitable if there are two authorities dealing with the mentally unsound.

The Medico-Psychological Association also is, we understand, strongly of opinion that the authority which will have to administer the Mental Deficiency Act should be constituted at once in anticipation of any amalgamation, such as is contemplated in Clause 62, and that any such body in the first instance should consist of the present Commissioners in Lunacy with necessary additions; this principle is in strict conformity with the recommendations of the Royal Commission on the Care and Control of the Feeble-minded, and the system actually adopted in the bill in the case of Scotland (Clause 67, Subclause 1).

The persons to be dealt with by the bill are for the most part those who show some form of congenital mental defect; while habitual drunkards and persons found wandering about, neglected, or cruelly treated are included, provided they come within the category of defectives. In this respect the bill, taken in conjunction with the Inebriates Bill, probably goes as far as circumstances allow in the direction of the Association's view that the control of vagrants and persons suffering from habitual inebriety and drug habits should be supervised by the Commissioners. Unconfirmed mental disease is not dealt with in the bill, and could not very well be so dealt with if the authority is to be separate from the Lunacy Commission. In one respect at least the provisions of the bill seem to go beyond its general scope: this is in the inclusion of the mentally infirm, who are defined as "persons who through mental infirmity arising from age or decay of their faculties are incapable of managing themselves or their affairs." It is a little difficult to see how this class fits in with the general idea of the bill.

The bill would throw upon local authorities the duty of providing institutions for persons to be dealt with under the Act, subject, however, to the condition that the money paid by the Treasury to the local authority shall be sufficient to provide 7s. a head for each person for whom it is responsible. The local authority, either alone or in combination with other authorities, might establish an institution for defectives or might contribute towards the expenses of existing institutions; such institutions would have to receive the approval of the Home Secretary, and would be visited by the visitors of licensed houses under the Lunacy Act. A private person might maintain for profit a house for the reception of defectives to which a defective might be sent under the provisions of the bill, but such person must obtain a certificate of fitness from the Commissioners. The bill, however, would appear to allow a person to undertake for reward the care and control of not more than two persons who are defective without obtaining a certificate.

Arrangements for the education of defective children up to the age of 16 are still left in the hands of the education authorities, and there is no provision for the compulsory application of the Elementary Education (Defective and Epileptic Children) Act throughout the country, though doubtless its adoption will be encouraged by the knowledge that there is provision for continuity of oversight after leaving school. So far not more than one-fourth of the requisite special school accommodation for defective children has been provided.

The definition of the extent of the scope of the bill, in Clause 17, is ambiguous by reason of the conditions appended as rendering defectives "subject to be dealt with under this Act"; it might be inferred that the provisions of Part IV were only applicable to certain classes of defectives, and not universally, as is probably intended.

There is one clause in the Government bill which is

a new departure in British legislation and will undoubtedly attract a good deal of attention. The fiftieth clause would make it a misdemeanour for any person to intermarry with or attempt to intermarry with a person he knows to be a defective within the meaning of the Act. Further, any person who solemnizes or procures or connives at a marriage knowing that one of the parties thereto is a defective would likewise be guilty of a misdemeanour. This is a first step along a road which many think the community must set itself to travel.

The Government bill is silent as to qualifications to be possessed by members of the new Commission, but, considering the essential need for medical knowledge in dealing with mental defectives, it is to be hoped that this point will not be overlooked in the discussions which must take place in the House of Commons should the Government proceed with its bill. Upon the judicious selection of skilled and experienced commissioners, and of the inspectors who are to assist them, much of the success of any Act for dealing with defectives must depend.

With certain amendments and the possible incorporation of some of the more elastic principles of Mr. Stewart's bill, the Government bill might be made a sound and effective measure. Legislation is long overdue, and it is to be hoped that opportunity may be found for passing it into law this session.

MEDICAL BENEFIT AND THE ADVISORY COMMITTEE.

AT the first meeting of the Joint Advisory Committee on May 10th the Chancellor of the Exchequer in his opening speech stated that the Commissioners had appointed a subcommittee to collect evidence as to the conditions of remuneration prevailing in general medical practice throughout the United Kingdom. He added that the object of this inquiry was simply to collect facts, and would be without prejudice to any arguments the medical profession or others might desire to base upon the facts, when the time came for considering what the nature of the financial provision ought to be.

The Commissioners subsequently issued a notice[1] stating that they would be glad to receive information from representatives of medical or other associations, or persons prepared to submit statements of fact or to tender evidence on this question. As will be seen by a report published elsewhere, the State Sickness Insurance Committee at its meeting last week directed a letter to be addressed to the Joint Committee of Commissioners drawing attention to the fallacy which would arise if the information asked for by the subcommittee were regarded as a guide to the remuneration which would be acceptable to the profession in connexion with the Act. The letter further pointed out that the present rates of remuneration for such classes are largely determined by the financial position of the patient, and that the medical profession had been actuated on the one hand by a feeling of compassion for the patient, and on the other by the fear of having to undertake entirely unpaid work. The altered financial condition of the patient due to the introduction of compulsory assisted insurance removes or lessens both these factors. The reply, which is also published elsewhere, stated that the inquiry of the subcommittee would not be confined to the amount of remuneration received in the past by the profession for medical services rendered to a class of patient likely to be insured under the Act and entitled to receive medical benefit of the normal type, but would include the collection of evidence of any kind that would assist in the decision as to what would be proper remuneration for the services to be rendered under the Act. It was added that before commencing the inquiry the Commissioners desired a conference with representatives of the British Medical Association, when such points as were raised in the letter could be fully discussed and considered. This is satisfactory in itself, and also as an indication that the Commissioners recognize that negotiations on this point must be conducted with the British Medical Association and not with the members of the Advisory Committee. At the same time it cannot escape attention that the Insurance Commissioners are conducting the business of the Joint Advisory Committee in a dilatory manner. It has held two meetings, and busy men have been brought to London at great cost to them in time and money from all parts of the country, and little or no business has been done.

At its first meeting the Committee, after a speech by the Chancellor of the Exchequer and some general conversation, was supposed to have arranged more or less definitely how it was to tackle the immense amount of work it ought to get through. It was understood that it was to meet in two sections—the one to consider questions of rates, collection, and bookkeeping, the other medical benefit and other matters in which the medical profession is specially concerned, and on which expert medical opinion is therefore necessary. At the second meeting last week (May 17th) the medical members were shepherded into one side of the large theatre in Burlington Gardens, familiar to graduates of the University of London as the meeting place of Convocation in the stormy days before the last reorganization. On the other side were the representatives of the friendly societies, the trade unions, and insured persons generally, and between them representatives of the employers, the midwives, and other miscellaneous interests.

This, then, was another session of the whole Committee, and the first subject it was asked to discuss was how it would do its business, a matter supposed to have been to some extent, at least, settled at the first meeting. This large meeting was then asked to express its opinion on the methods of medical remuneration, and on how lists or panels of medical men should be formed. It was, according to promise, presented with a synopsis of matters to be considered in connexion with the framing of regulations as to medical benefit and other medical questions under the Act. But everybody present knew very well the nature of the matters which would have to be considered, and as specific draft regulations dealing with the several points set out in the synopsis were not presented, the discussion was inevitably of a very general and even academic character. The arguments for and against the methods of payment by capitation and by attendance were set out both in print and speech, and the possibility of a mixed system under which medical services would be remunerated by a fixed sum a head per annum and partly by fees for attendance was mentioned, as was also the system of whole-time medical appointments.

When the Committee separated on May 17th, after some five hours' desultory discussion, it was understood that on May 31st—after the Whitsuntide

[1] SUPPLEMENT, May 18th, p. 538.

recess—the Commissioners would meet the medical members of the Advisory Committee for the serious discussion of draft regulations as to the broad principles of the administration of medical benefit. This at least is the hope. But even if it be fulfilled there must then be a good deal of delay, for it is understood to be the intention of the Insurance Commissioners to submit the result of their discussions with the medical members to other sections of the Advisory Committee —and there may be three or four such sections—and thereafter to call a meeting of the whole Committee to discuss the recommendations of the several sections, which are not likely to be altogether concordant. This takes us well into the middle of June, and the Act is to come into operation on July 15th, from which date contributions will be paid, and the State's bargain with the insured clinched. Yet many important subjects have not been touched upon. For instance, according to our information, the regulations to be made under section 15 (3), commonly called the Addison subsection, have as yet not even been mentioned in the discussions or conversations which have taken place. This is the subsection which provides that the Insurance Commissioners shall make regulations authorizing an Insurance Committee to require any person whose income exceeds a limit to be fixed by the committee and to allow other persons to make their own arrangements for medical attendance and treatment. In connexion with this subsection, it will be necessary to discuss the meaning of the term "income," what it is to include, how it is to be determined, and finally, how the definition is to be made operative. Another matter to which consideration seems not yet to have been given is that of the regulations to be made under section 15 (4), commonly called the Harmsworth subsection, which enacts that the regulations shall provide that in the case of persons entitled to receive medical attendance and treatment under any system or through any institution existing at the time the Act was passed, and approved by the Insurance Committee and Insurance Commissioners, such medical attendance and treatment may be treated as, or as part of, their medical benefit, the Committee being authorized to contribute towards the expenses of such attendance and treatment the whole or any part of the sum which would be contributed in the case of persons who had made their own arrangements. The regulations to be made under this section must define the meaning of the terms "system" and "institution," and there seems ground for believing that it will be suggested that the subsection would not only apply to medical institutes, but that friendly societies, club practices, provident dispensaries, the colliery poundage system, club practices attached to large industrial works, and private doctors' clubs shall also be included.

SCHOOL TREATMENT CENTRES.

A DEPUTATION from the British Medical Association met the President of the Board of Education on Thursday, May 16th, to lay before him the views of the Association on the question of the medical inspection and treatment of school children in London. It is now nearly five years since Parliament passed the Education (Administrative Provisions) Act, which came into operation on January 1st, 1908. In it two things were enacted, the medical inspection of school children, which was compulsory, and the treatment of school children, which was optional. The Act laid upon the local education authority the duty of carrying out the inspection of children, and gave it the power to carry out the treatment, but did not lay upon it an obligation to do so. The Education Committee of the London County Council recommended the Council to treat its school children, and a hybrid committee was appointed to report on the whole question. After considering the matter for fully a year, this committee reported in favour of the adoption of school clinics for the treatment of the children. The Council, however, refused to adopt this report, and called to its help hospitals and existing institutions; arrangements were accordingly made with several hospitals in London to carry out the treatment of the children, and this hospital system is now in its third year, although the Board of Education has only granted it temporary recognition. Besides the natural disinclination of many of the parents to have their children treated at the hospitals, there are difficulties connected with these institutions which make it impossible for them to fulfil the purpose that would be easily accomplished by what is now called a school medical treatment centre. The difficulties in the way of utilizing the hospitals from this point of view are that they are often—indeed, usually—situated at great distances from where the children live; that since a child is not allowed to go alone, the time of another member of the family is occupied in going and coming; that there is also often a long wait at the hospital; and that the parents are put to expense in tube or 'bus fares. Moreover, the hospital authorities have with one accord refused to allow any inspection of their work by the London County Council, with the result that the ratepayers pay money without any control over the work on which it is spent.

As was pointed out to the Board of Education on this and former occasions, the views of the British Medical Association are in favour of treatment centres controlled and worked by the medical men of the neighbourhood. At least two of these (Norwood and Wandsworth) are doing good work for the children of London, and others are under the consideration of the Board of Education. The President expressed himself in favour of these centres, and it is sincerely to be hoped that he will see his way at no distant date to recognize the several treatment centres now under consideration, and give the necessary authority to the London County Council to initiate those centres in the north and north-west of London the schemes for which the Council has already passed. The medical men who would conduct these centres would be men of experience, well qualified for the post, and their final appointment would be in the hands of the London County Council. These school centres would be open at all times to the inspection of representatives of the Council, and the medical men, having their practices in the neighbourhood, would be in touch with the homes of the children; they would be in close connexion with the medical officer of health of the borough, and he again would be in touch with the chief medical officer of the London County Council, who has now been appointed school medical officer for London. Thus a connexion would be formed between the child's home and the school that would be of great value not only for the treatment of the sick child, but also for the early detection of infectious diseases and their more ready stamping out. Here also there would be a great opportunity for supplying the missing link between inspection and the treatment of children, which has been so sadly absent in the Council's work in the past, that the Board of Education, commenting upon the lack of "following up" from inspection

to treatment, said, "experience has amply shown that unless schemes of inspection and treatment are actually worked together and under unified control, the result can only be leakage, waste, confusion, and administrative chaos." This necessity for linking up inspection and treatment was again emphasized by the President of the Board of Education last week, when he said that, "if any real good was to be secured to the community, to the children themselves, and to the State as a result of inspection, it must be supplemented by adequate treatment." A new and pleasant feature in the reply of the President to the deputation was the statement that he had been able to secure a grant of £60,000 to help the local authorities to go forward in the good work of inspection and treatment of school children. To the general practitioners he said that he sympathized with them "when they felt that their own patients were being taken away to a hospital to be treated instead of being treated in the ordinary way."

The members of the deputation put the case for treatment centres, and the employment of general practitioners at these centres in conjunction with the public health service, in a clear and lucid manner, and although the President of the Board of Education did not commit himself to the scheme in full, he said enough to lead the medical men in London interested in this work to hope that another three or four new centres capable of treating school children will be established in London.

STARVING ISLANDERS.

THERE is no more isolated spot in Great Britain than St. Kilda, which, though classed with the Hebrides, is far distant from the outer group. It is the chief islet of a rocky group of sixteen or seventeen in the Atlantic and lies forty miles westward from Lewis. It is about three miles in length from east to west, and two miles broad from north to south, the total circumference being nine and a half miles. It is surrounded by perpendicular rocks of great height, except at one small spot on the south-east, where there is a bay which forms the only landing place. Elsewhere the island is inaccessible, and the bay itself makes a difficult approach, except when the sea is calm. The island is virtually cut off from communication with the outer world during the whole winter. The inhabitants are gathered together in a village about a quarter of a mile from the landing place. St. Kilda belongs to Macleod of Macleod; readers of Boswell's *Journal of a Tour to the Hebrides* may remember that Dr. Johnson laughingly suggested that he should buy it, and offered to be his Lord Chancellor. There is a terrible romance connected with the island. In 1730 Lady Grange, the wife of the Lord President of the Sessions, who had been concerned in a Jacobite plot with Lovat, Mar, and others, was sent by her husband, whom she had threatened to expose, to St. Kilda, where she remained for seven years. An attempt to rescue her failed, and she was removed to Skye, where, in 1745, she died, worn out with sorrow. The natives number about a hundred, and feed largely on the flesh of the solan goose and the oil obtained from it. The island is interesting from a medical point of view. For many years the population remained stationary, owing to the great mortality among the new-born children caused by trismus neonatorum. It was estimated that this scourge, which used to be called the "eight day disease," carried off five out of every nine babies; the cause seems to have been, in addition to general insanitary conditions, infection of the umbilical cord, owing to the children being left wrapped in a dirty blanket till the ninth or tenth day after birth. We believe that the enforcement of proper precautions, such as were pointed out by Dr. G. A. Turner, of Glasgow, in a paper published in the BRITISH MEDICAL JOURNAL of October 24th, 1896, has caused the disappearance of this disease. Another ailment peculiar to the island was "boat cough"; from the descriptions given by various medical men it seems to have been a form of influenza. The natives believed that it was imported by strangers landing on the island. Tuberculosis is unknown. As the islanders practically form a segregated community they suffer from no other endemic diseases; hence in a pathological sense the population is virgin soil, in which, as is well known, infections are apt to rage with peculiar virulence. This winter the island has been more than usually inaccessible, and the inhabitants were reduced to the verge of starvation. On being informed of this, the Admiralty at once ordered H.M.S. *Achilles* to go to their assistance. Our enterprising contemporary, the *Daily Mirror*, at the same time dispatched a specially chartered vessel, the *Victor*, carrying large stores of provisions, supplied mainly by Sir Thomas Lipton. Application was made to the London Hospital for a doctor to accompany the expedition, and Mr. C. J. Taylor, M.B.Oxon., one of the house-surgeons, volunteered for the service. The party left London on the evening of Saturday, May 18th, and the inhabitants of St. Kilda are by this time out of all danger of starvation. The incident may be regarded as another proof of the inestimable boon of modern means of quick communication, for nothing was known of the sad plight of the islanders till news of it was brought to Aberdeen by a trawler which arrived there on Saturday, and announced that the inhabitants of St. Kilda, having exhausted the provisions usually sent to them periodically, had been living for some time on bird's eggs, and had come to their last handful of flour. In days before the telegraph was in use it is probable that the whole population would have perished before news of the state of things could have reached the outer world.

THE INOCULATION DEPARTMENT AT ST. MARY'S HOSPITAL.

IT rarely happens that such prompt recognition of entirely new ideas should be enjoyed by their promulgator, as has fallen to the lot of Sir Almroth Wright. History tells of many a scientific discovery, laboriously developed under difficulties and adverse criticism, overcome only by long years of patient persistence, but in something less than ten years the theories put forward by him to explain the phenomena of susceptibility to, and immunity from, diseases of microbic origin, have not only been recognized by the medical schools of the world, but have been introduced into practice with sufficiently successful results to warrant their more general application. Many distinguished pathologists have laboured to the same end, but it is to Sir Almroth Wright, backed up by public-spirited financial supporters, that the profession in this country is indebted for a remarkable advance in knowledge as to the behaviour of the blood toward infective microbes and as to the means whereby their influence may be neutralized. St. Mary's Hospital has become the centre from which this new knowledge radiates. The importance of the new theories, which had been worked out under difficulties for several years, was formally recognized in 1909 by the appointment of a strong committee of financiers and others, presided over by Mr. Balfour, to organize and control a department of therapeutic immunization. A certain number of beds were allotted to the department in the new wing of the hospital and the generosity of several wealthy men found the means to maintain them. Under these favourable conditions the work has progressed for the last three years, but up to a recent date no official report had been issued. Such a report has, however, been lately published, and dealing as it does with entirely new work, is couched in simple terms explanatory of the whole subject, for the

benefit of the lay rather than of the medical reader. Simplicity of statement is a characteristic of the whole report, and for medical readers who have not had leisure to follow the progress of the study of the problems of immunity we can strongly recommend a careful perusal of it. The ultimate aim of inoculation treatment is preventive rather than curative, although the immediate effect is to diminish the results of present disease. Prevention is to be secured by rendering the body immune to the attacks of the microbe to which the individual may be specially subject. The discovery of the means by which such susceptibility may be found out has been the main achievement of Sir A. Wright, and his methods of treatment are essentially guided by it. The report shows that it is in certain cases not only possible to ascertain within a comparatively short time the precise microbe from which the patient may be suffering, but also to prepare and inject a vaccine of the appropriate strength to bring about annihilation of the effects of the offending organism. In many infective diseases, however, the nature of the infectivity is not known, and only the future can tell to what extent these methods may be of wider application. Of all chronic diseases tuberculosis is the best adapted for the study of the new theories, and although other observers have failed in many instances to obtain any enlightenment from the opsonic index as used by Wright, still in the main his methods have been corroborated. The report, as already indicated, contains no statistical information, and it is only from general statements that any judgement can be formed, but the strong impression left upon the minds of the numerous medical men from all parts of the world who have studied the system and have seen the results of it, together with the faith which has obviously been inspired in many unpromising cases, tells as eloquently as any numerical statement of the estimation in which it is held. Infallibility is not attainable in medical work, and the opsonic index is no doubt as difficult to interpret in some cases as are other more familiar physical signs, but the success that has been achieved under its guidance has not been equalled by any other methods. The question of out-patient treatment by inoculation is hardly considered except to point out its dangers. The risk of autoinoculation as a result of the physical exertion of coming to hospital is great, and must of necessity modify the effects of inoculation from without. Hence the latter is not advised under such circumstances. The experience of other workers who have made use of large doses with success is not touched upon, nor is any precise indication given of the range of doses employed at St. Mary's. For statistical information as to actual results the medical reader must be content to wait and accept the general statements referred to. As regards infective diseases other than tubercle (septicaemia, colitis, chronic arthritis, pneumonia, asthma, whooping-cough, etc.) it may be said that they are all under careful examination, but only partially favourable results can as yet be chronicled. The report as a whole is full of interest, and proves, if proof were needed, that a real advance in scientific therapy has been made. It is to be hoped that it may be followed before long by a further account, intended for medical readers only, in which the failures and their probable causation may be recorded and discussed, and the relative measure of ultimate success may be established beyond question.

THE EFFECT OF SALVARSAN ON THE OPTIC AND ACOUSTIC NERVES.

The number of persons who have been treated with salvarsan is already so large that it might have been supposed that the difference of opinion which exists on the question whether salvarsan produces neurotoxic changes would have been settled. No suggestion to this effect seems to have been made during the treatment of the first twenty or thirty thousand cases, but reports published chiefly in Germany and France appear to prove that a disquieting number of cases have been seen by some observers. In the British Medical Journal of January 27th, 1912, p. 205, a full account was given of the indictment brought against salvarsan by Finger of Berlin at the meeting of the German Congress of Neurologists. He said that in the thousands of cases of syphilis treated with mercury or not treated at all which he had had under observation for two or three years after infection nervous complications had been very rare, but that in his first 500 cases treated by salvarsan 44 examples of nervous complications had occurred. Ehrlich's theory is that when salvarsan fails to kill all spirochaetes, those that survive are probably established in bone and dense connective tissue. To this Finger retorted that in 12 out of his 44 cases of nervous complication affections of the skin and mucous membrane were present at the time of the appearance of the nervous symptoms or followed later. Wechselmann, who recorded some 2,800 cases of syphilis treated with salvarsan with only ten instances of nervous complication, has recently[1] reviewed the statements made by Finger and also by Buschke, and has analysed carefully the publications of Ravaut. Basing his opinion on the results of the examination of the cerebro-spinal fluid in cases of syphilis treated with salvarsan, Wechselmann arrives at the conclusion that there is no scientific reason to suppose that salvarsan exerts any deleterious effect on nervous tissue. It is unnecessary to follow out his arguments, inasmuch as they are directed largely against those employed by Ravaut. Recently also Drs. A. Knick and A. Zaloziecki[2] have published reports of 10 cases of affection of the auditory nerve in early syphilis in patients treated with salvarsan. The doses given in these cases were small, and in some of them the aural affection disappeared after repetition of the injection of salvarsan. The striking point in their account is that the lumbar fluid when examined yielded marked signs of an inflammatory condition of the meninges. They are of opinion that the disturbance of hearing was caused by the syphilis in each case. Dr. J. Fejer,[3] on the other hand, has reported 3 cases of papillitis and severe choroiditis in early syphilis, and has expressed his conviction that these conditions were caused by the salvarsan used in the treatment. His argument is that he has never seen syphilitic changes of the papilla of the same character and intensity before. He quotes Finger's statement that optic neuritis occurs twenty times more frequently after salvarsan has been used than after mercury. Other observers have recorded cases of a similar character. It is possible that under rare conditions a given section of a nerve might be so little resistant that it would respond to almost any foreign substance by some pathological change; but reasoning *a priori* it might be expected that the more destructive and more plentiful poison, namely, the products of the spirochaetes, would be the first to attack these weakened nerve sections. At present the grounds for attributing the changes to the arsenic in salvarsan seem to be insufficient. It is admitted that nervous complications of this nature have been occasionally observed early in cases of syphilis treated by mercury, and the most that is alleged against salvarsan is that they occur more frequently after its use. It has never, so far as we are aware, been alleged that these relatively few cases of nerve implication were caused by the mercury prescribed. On the contrary, the general rule has been to push mercury in such cases, and the results have usually been good. There is evidence that arsenic may produce such changes, but this is not conclusive evidence that the arsenic present in the particular combination in which it exists in salvarsan could produce them. The chief point about which we still

[1] *Berl. klin. Woch.*, April 8th, 1912.
[2] Ibid.
[3] Ibid.

need enlightenment is whether the cures effected by salvarsan are as permanent as they are striking. The question whether it is necessary to give mercury, as well as salvarsan, is not yet decided, though the tendency seems to be to use both drugs alternately, and this, as will be seen by reference to the review of their book in a recent issue, is the plan advised by Drs. Carl Browning and Ivy McKenzie.

EXTIRPATION OF THE PITUITARY BODY.

PHYSIOLOGY is wholly or in great part based on observations made during experiments on animals. There is no part of the body with regard to which this holds good more than the central nervous system, and while many secrets are yet hidden from our ken, the amount of absolute knowledge gained in this manner in the past is very considerable. An addition of no small interest has resulted from the patient and careful investigations carried on during the past three years by Drs. G. Ascoli and T. Legnani in Golgi's Institute in Pavia.[1] They removed the gland in dogs. In each case, two puppies of approximately the same size from the same litter were chosen, the one to serve as the experimental animal and the other as the control. At first the gland was removed through the pharynx, but later the extirpation was found to be easier through the temporo-parietal route; the defect left after the operation, they state, is slight. In the vast majority of cases the puppies died two or three days after the operation. In the few that survived the results were remarkable; absolutely no further growth took place. The puppy remained a puppy. The size of the body, of the head, and of the legs remained the same as it was on the day of the operation, while the control grew rapidly. Next, ossification and dentition were arrested. The bones not only did not grow, but showed signs of defective nutrition. As a rule the nutrition of the whole organism suffered, and the animal, while putting on much fat, so that instead of the subcutaneous adipose tissue weighing approximately one-sixteenth of the body, it weighed about one-third, the other tissues appeared to become wasted. Sexual development was completely arrested, and macroscopical as well as microscopical changes were observable in the spleen, thymus, thyroid, and adrenals. These various changes, which followed the complete removal of the pituitary gland, appear to be so complex and so far-reaching that the authors recognize that they have obviously not yet arrived at a complete solution of the problem.

SCHILLER'S SKULL.

AT the last meeting of the Society of German Anatomists Professor von Froriep appears to have cleared up the mystery which surrounds Schiller's skull. In 1805 the poet's body was placed in a vault which was reserved for the burial of the more outstanding citizens of Weimar. In 1826, when the vault was being cleared out, Bürgermeister Schwabe, who possessed a death mask of the great poet, sought to identify Schiller's skull and bones. A cast of the skull then selected was taken before being finally buried. In 1883 Professor Welcker, while investigating the cast of this skull, found that its outline could not be fitted within the outline of the death mask, and came to the conclusion that the mask—particularly the copy preserved in the library of Weimar—was authentic, and that the skull which had been taken from the vault was not that of Schiller, but of a contemporary. To settle the various questions raised by Welcker's investigation, Professor von Froriep recently examined seventy skulls preserved in the old vault, and succeeded in finding one which exactly corresponds with the death mask of Schiller, thus substantiating Welcker's contention that the skull selected from the vault in 1826 was not Schiller's. Professor von Froriep's investigation will again call attention to the possibility of reconstructing the outline of the head in life from a study of the skull. Recently there has appeared in Germany a treatise by Professor von Eggeling,[1] in which the matter of reconstruction of the living face from the skull is exhaustively dealt with. Some ten years ago Professor Merkel, who was doubtful of the possibility of reconstructing with any degree of accuracy the soft parts of the face from the outline and markings of the facial bones, handed the skull of an Australian native to a sculptor. The sculptor found that it was impossible to fit a face of the European pattern to the skull, and worked one out which agreed with the contour of the bones. The face thus reconstructed showed the essential features of a native Australian woman. There is thus no good reason for rejecting the reconstructions which have been made by various anthropologists of long-extinct races and types of mankind from a study of their cranial forms. With further study and inquiry we may obtain such data as will allow us to reconstruct with accuracy the facial contour of individuals who lived in a geological age which precedes the present.

[1] *Muench. med. Woch.*, March 5th, 1912.

PEKING UNION MEDICAL COLLEGE.

THE evolution of a system of medical education in China is in progress, and medical missionaries are taking a prominent part in its initial stages. For many years individual missionaries have undertaken to train students in medical subjects, and in this way have met the need as best they could. It has, however, been apparent for some time that the progress of general education in China demanded a much more elaborate system of medical training than any of the individual hospitals could afford. It was this conviction that led to the formation of the Union Medical College at Peking, the main building of which was opened in March, 1906. The report for 1911–12, which is before us, is a record of great results achieved by a group of medical men representing some of the chief missions working in Peking, British and American, with the London Missionary Society as the pioneer in the movement. During the past year sixteen students have graduated after a full five years' course, and have received not only the M.D. of the college, but also a diploma issued by the official Chinese Board of Education. The task of preparing this class has thrown a great strain upon the Faculty, which consists of sixteen qualified medical men with five additional lecturers, especially as the teaching has been conducted in the Chinese language. The translation of the necessary textbooks has been carried out for some years by the China Medical Missionary Association, and the staff of the college is helping in this work. The students have during the year rendered splendid help, under the direction of members of the staff, in special plague duty, in which two students lost their lives, and in Red Cross work. The revolution has considerably affected the work, as it was difficult to retain the attention of the students, but great hopes are now entertained for the future. The buildings of part of a new hospital in connexion with the college are now nearing completion. Dr. Cochrane, the first principal of the college, is now in England, and would, we learn, be pleased to send a copy of the report to any one interested in the college who will apply to him, care of the London Missionary Society, 16, New Bridge Street, London, E.C. He is at present engaged in furthering the development of this and other union schools under missionary auspices, which are in process of formation in many important centres.

RESEARCH ON TROPICAL DISEASES.

THE late Lord Wandsworth left a sum of £10,000 to Sir William Bennett to be applied by him at his discretion for the promotion of medical research. It is announced

[1] *Physiognomie und Schaedel.* Von Dr. med. H. von Eggeling. Jena: Gustav Fischer. 1911. (Roy. 8vo, pp. 45, Abbs. 17. M. 1.50.)

that Sir William Bennett has decided to entrust the administration of the legacy to the London School of Tropical Medicine under conditions which include the establishment of a research scholarship, tenable for two or three years, and to be given by preference to a British subject. The Committee of Management of the Seamen's Hospital has been appointed by Sir William Bennett to be the trustees of the fund, and the scholar will be appointed by that body on the recommendation of the Committee of the London School of Tropical Medicine. We have special pleasure in announcing this gift to the school because we have watched its growth from very small beginnings to its present flourishing condition, and have done what we could to enlist public sympathy on its behalf. In doing this we have been moved by a sense of the vast importance of tropical medicine in relation to the prosperity of the empire, and by the conviction that the deadliest foe to colonization is disease. As Sir Patrick Manson said when the study of tropical medicine was yet in the day of small things, success in developing the resources of our dominions overseas depends on knowledge and the application of knowledge. Since he uttered these words at a meeting of the Royal Geographical Society much has been done to increase knowledge of tropical diseases by the London School of Tropical Medicine, which owes its origin to Mr. Joseph Chamberlain, a far-seeing statesman whose enforced retirement from public life has been a grievous misfortune to his country. Much, too, has been done by its friendly rival of Liverpool, which has the advantage of a civic patriotism that, unhappily, does not thrive so vigorously in London, where the feeling of citizenship is swallowed up in larger matters or broken up into small local interests. Lord Wandsworth's bequest will doubtless do much directly to help the work of the London School, but we hope it will also be useful indirectly in stimulating other wealthy men to follow his example. The promised visit of the King and Queen to the school in July will, it may confidently be hoped, have a powerful influence in the same direction. Nothing could better show the breadth of view which our gracious Sovereign brings to the fulfilment of the duties of the ruler of a vast empire. It is stated that the first Wandsworth scholar will proceed to the West Coast of Africa to study the parasites of human blood.

BRAIN EDUCATION.

An interesting analogy between the brain and an electrical machine was worked out by Dr. W. Deane Butcher in an address to a recent meeting of the Roentgen Society. He likened the organ of the mind variously to a telephone exchange, an electrical transformer, and a central power station. Something similar to an electric current accompanied every contraction of the heart and movement of the mind, and, were our senses keen enough, the shock of an angry brain would be felt very much as the passage of electricity through the body. The nerve-cell itself with its nucleus and insulating sheaths was similar to an ordinary galvanic cell. A synapsis strikingly resembled the coherer with its varying resistance as used in wireless telegraphy, while blood and lymph might well be called Nature's electrolytic solution in which the nerve-cells were immersed. On the hypothesis of the brain as an electrical organ, Dr. Butcher proceeded to consider its education. Of first importance was the composition and concentration of the electrolyte. The pedagogue of the future would be a professed cook and caterer, as well as an expert chemist and electrician. Education depended largely upon the regulation of the supply of Nature's electrolyte. To what was the faculty of attention due save to an increased blood supply at a chosen brain centre, which involved not only an increase in the nervous output of the flushed centre, but the inhibition, partial at least, of the other perceptive centres? Any great excitement at one part of the cerebral cortex automatically cut off the telephone exchange to other areas, just as a fire in London might prevent communication by wire to Dover. And what was the mechanism of habit but a decrease of electrical resistance along a path of previous excitation from one spot of the brain cortex to another, so that subsequent excitations travelled along the same path by preference? A given series of motor impulses, however complicated, as in piano-playing, had only to be repeated once or twice in order to give the brain a bias in favour of that particular sequence. The best way of educating this commonwealth of nerve cells was by feeding them, keeping their meshes filled with an electrolyte always fresh and pure and frequently renewed, preserving some sort of law and order among them, imposing upon them the laws of habit, and, to such extent as was possible, stimulating or inhibiting one or other of these "cell guilds." Dr. Butcher was of opinion that the education of the future would be dominated by anatomy and physiology rather than by psychology so-called, and he thought that the consideration of the brain and nervous system from the standpoint of an electrical machine might by its very freshness suggest some wise counsels to the educators of the race.

CLERKS AND TUBERCULOSIS.

The application of the maxim *Volenti non fit injuria*, which is so often quoted in relation to the law of master and servant, was considered in a singular case last week. An action was brought by a man who was until lately employed as a clerk by the Junior Army and Navy Stores. According to the opening statement of counsel, as reported in the *Times*, the plaintiff entered the service of the defendants in 1900; he worked for some five years in the "trading office," but was then transferred to the "deposit office," a room 8 ft. high with a calculated cubic space of 166 cubic feet for each clerk. It had one window, and it was said that about fifty clerks on the average were engaged in this room at one time. In 1911 the plaintiff was compelled to throw up his work owing to pulmonary tuberculosis, and he brought an action against his employers for damages. It was alleged that the office in question was insanitary, dangerous to health, and totally unfit to be used as an office for clerks, and further, that it was a nuisance within the meaning of the Public Health Act. The employers by their defence alleged that they were under no duty to provide and maintain any particular kind of accommodation for the plaintiff or their other clerks. They further alleged that, even if the accommodation was disagreeable or unsuitable, the plaintiff was under no obligation to remain in their service. They relied, in effect, on the maxim quoted. The jury found that the premises were injurious to the plaintiff, but not to the knowledge of the defendants, and that the office was so overcrowded as to be injurious to the health of the plaintiff and other inmates. But they were also asked, "Was the plaintiff, in consequence of the condition of the premises and overcrowding, disabled from following his employment?" to which they replied "No." They also found that he had agreed to run the risk, and in these circumstances judgement was entered for the defendants. It will be seen that the jury was not satisfied that the disease from which the plaintiff was suffering was caused by the conditions of his employment; and even if it had been the judge would probably have been bound to enter judgement for the defendants, on the ground that the plaintiff had voluntarily taken the risk upon himself. The conditions under which clerks are employed might very well form a subject of investigation by sanitary authorities, who have hitherto appeared reluctant to exercise the powers they possess under the Public Health Acts with regard to places in which persons are employed other than factories, workshops, or workplaces. Section 2 of the Public Health (London) Act, 1891, defines a nuisance

for the purposes of that Act as "any house or part of a house so overcrowded as to be injurious or dangerous to the health of the inmates, whether or not members of the same family"; and the same definition in almost identical terms occurs in Section 91 of the Public Health Act, 1875. In the London Act (Section 141) the expression "house" is defined as including "schools, also factories and other buildings, in which persons are employed"; while in the 1875 Act the definition is slightly varied and includes "schools, also factories and other buildings, in which more than twenty persons are employed at the same time." The question as to whether a building in which persons are employed is so overcrowded as to be injurious or dangerous to the health of the inmates has been simplified by Section 3 of the Factory and Workshop Act, 1901, which enacts that a factory or workshop shall be deemed to be so overcrowded as to be dangerous or injurious to the health of the persons employed therein if the number of cubic feet of space in any room therein bears to the number of persons employed in the room a proportion less than 250, or during any period of overtime, 400 cubic feet of space to every person. It seems to be thought that while workpeople have been well looked after by the Factory Acts, the interests of clerks have been neglected by the Legislature. This can hardly be said to be the case, and if any neglect has occurred it has been on the part of sanitary authorities in not enforcing the provisions of the Public Health Acts. It is to be hoped that the action to which we have referred, though unsuccessful as regards the individual plaintiff, may arouse the sanitary authorities to a sense of their responsibilities.

MEDICAL APPOINTMENTS IN THE EAST.

IF we may judge from information which reaches us from time to time, there would appear to be a good deal of discontent among medical men engaged in practice in the East as employees either of official or unofficial bodies. The latter are for the most part rubber, tea, and like companies, the number of which has greatly increased of late years, while among official bodies the principal are the Governments of the Straits Settlements and of the Federated Malay States. Into the nature of the complaints we do not propose to enter in detail, as, apart from their number and variety, the terms in which they are stated are in some cases not sufficiently exact to enable persons at a distance to form a just appreciation of the position, while in others it is obvious that the accounts have been written by men who for one reason or another have forgotten to consider how far the drawbacks mentioned are local and how far incidental to medical life in all parts of the world. These communications, however, leave no doubt on one point—namely, that there are grievances which can and should be remedied, and that a certain number of companies at present take advantage of the readiness of young medical men in this country to take things upon trust. Taking the airy statement of some company secretary at its face value, they leave Great Britain without any real knowledge of the conditions in which they will have to live, of the relative value of the pay offered them, or the work which they will be called upon to perform. It is true that it is not always possible to secure precise information regarding the work to be done on any given estate, but highly useful information as to the general terms of any contract which should be signed, and as to the kind of life which is commonly led by medical men in the same area, can usually be obtained if search for it is made in the right direction. In this respect it would be of great advantage if all medical men in the East made a point of joining the British Medical Association, and if, when aware that a medical vacancy was likely to occur in their neighbourhood, or a new post to be established, they sent a note concerning it either straight home or to the secretary of the local Branch or Division. In this way the common interest would be promoted by lessening the probability of candidates being induced to accept appointments on unfair terms, and thus to help to keep down the standard of medical life in the East. In regard to official employees, the discontent evident in the Straits Settlements and Federated Malay States, or rather the existence of any ground for discontent, is somewhat surprising, since their Governments were among the first to recognize the immense value, both economical and political, likely to accrue from the study and practice of tropical medicine. The Kuala Lumpur research laboratories, for instance, in Selangor, were founded as far back as 1899, and were thus almost the first of such laboratories to be founded in the East. The explanation seems to lie in the fact that their medical services are insufficiently organized to content men who, though prepared to spend their lives in the East, wish to see themselves in a position to marry within a reasonable time, and to feel certain that there is no likelihood of their supersession after many years of good service by men who have not borne the labour and heat of the day. However, both these Governments have in the past done many things towards attracting a good class of candidate, and evidence of their continued enlightenment is forthcoming in the fact that it has already been decided that an inquiry shall be held into the precise causes of the complaints made and the means by which they may be remedied. A satisfactory settlement of matters will be the more welcome and of the greater importance because it is the tone of these services that tends to set that of medical work in the Malay Peninsula and adjoining European protectorates.

SEA-WATER INJECTIONS IN INFANTILE DIARRHOEA.

IT may be remembered that as the result of certain articles which appeared in the BRITISH MEDICAL JOURNAL in September, 1911, there was some correspondence as to the value of sea-water injections in infantile diarrhoea as carried out at the "Quinton Polyclinic." We have no wish to revive the controversy or to refer to the various opinions then expressed, but in justice to M. Quinton, to the profession, and the public, we think it right to state that the question was recently brought before the Paris Academy of Medicine.[1] M. Defrance, Minister Plenipotentiary of France at Cairo, some time ago addressed to M. Poincaré, the Prime Minister and Minister for Foreign Affairs, the following letter: "M. Quinton, who came from Paris to represent the Aviation League of France, of which he is president, took advantage of his stay at Cairo to institute an active propaganda in favour of the sea-water treatment of which he is, if not the inventor, at any rate the resolute champion. In a series of lectures which had a great success and excited considerable attention (two lectures were addressed specially to Egyptian ladies) M. Quinton gave an account of his curative method, based on the analogy existing between sea water and the human plasma, and on the employment of injections of the Quinton plasma. He recalled the fact that, according to statistics, infantile diarrhoea was accountable during the summer for the death of 6,000 in 10,000 newborn infants at Cairo, and he afterwards set forth the results obtained in the dispensaries established in Paris and in London for the application of his method whereby the doomed infants were saved in a proportion of 80 per cent. A serious movement was at once begun in favour of the application of the Quinton method at Cairo. Princes of the Khedivial family at once declared themselves favourable to it. The Director-General of the Wakfs promised a credit of 15,000 francs a month during three months for a trial of the method, and in May next M. Quinton intends to come back to Cairo with several experienced nurses in order

[1] *Bulletin de l'Academie de Médecine*, séance du 14 Mai, 1912.

to combat the diseases for which his serum is, according to him, a sovereign remedy. M. Quinton having a strong desire (for which I can only praise him in principle) to give a French character to the work which he wishes to undertake in Egypt, and having asked me to give him to the greatest possible extent the help of the diplomatic agency, I should be obliged to Your Excellency if you would be good enough to let me know the opinion of the Paris Académie de Médecine on the work and the method of M. Quinton." This communication was accordingly referred to the Académie de Médecine, and M. Wurtz drew up a report on the subject to the following effect: "It is known that the Quinton plasma is nothing else than sea water gathered under conditions of asepsis in the offing at Arcachon, and rendered isotonic by the addition of sterilized water. The Quinton plasma has already long been applied in the treatment of infantile diarrhœa, in particular by MM. Hutinel and Meunier. It sometimes gives good results when, as a consequence of profuse diarrhœa, there is great dehydration of the organism. It must be recognized, however, that physiological serum gives analogous results in these cases of deprivation of water and demineralization of the tissues. The Quinton plasma cannot therefore be considered either as a specific or as a panacea in infantile diarrhœa. Its use should not therefore replace in any way the ordinary prophylactic measures nor the rational treatment of the disease." The conclusions of the report on being put to the vote were adopted by the Academy.

THE TRIAL AND PROBATION OF JUVENILES.

THE Penal Reform League has recently addressed two memorials to the Home Office drawing attention to what is the logical outcome of the Children's Act of 1908 and the Probation Act of 1907. These Acts marked a notable advance. They established children's courts, in which all offenders under the age of 16 years are tried apart from adults, and provided that, instead of being committed to prison, children might be sent to detention or remand homes, free from the taint of prison life. But too often the children's court is the adult court; sometimes it is a room in the same building. And although, in theory, the exclusion of children's cases from adult courts keeps the young mind unpolluted by the scenes and language common in adult courts, the absence of separate waiting-rooms does much to minimize this advantage. The Penal Reform League pleads for the appointment of magistrates to deal exclusively with children, and for the gradual appointment of men with a special love for children and an innate instinct for understanding them. Then the supply of remand homes is inadequate. In many places there is only the workhouse. Staffed with efficient paid probation officers, aided by a band of voluntary helpers, the remand homes and children's courts would become invaluable centres of ever-widening social activity. The scheme of the Penal Reform League contains much of value, and if Government does no more than turn to it the deaf ear of formal politeness, it is to be hoped that the league will endeavour to organize a body of voluntary helpers throughout the country to keep young offenders under supervision. Such an association of voluntary workers has done much in some towns to help to reduce infant mortality, and there should be no insuperable obstacles to pressing forward this portion of the league's programme. Apart from the benefits such a body of workers would confer, they would help to educate public opinion and prepare the way for the other objects the league has at heart.

PARENTHOOD AND ALCOHOL

IN the May number of *Good Health*, Dr. Johnston, of Bolton, the author of a book on the wastage of child life, maintains that the chief causes of infantile mortality are ignorance of mothercraft and alcohol. He points out that by a minute of the Education Department, domestic hygiene, including in the term the care of infants, is to be a part of the education of elder girls, and that in the schools of Manchester over 8,000 girls are now receiving such instruction. There is no doubt that the ignorance and inexperience of undomesticated wives pave the way to the public-house, and to the alcohol which Dr. Johnston regards as the great cause of infantile mortality. Professor Bunge, of Basle, has stated that the daughters and granddaughters of a drunkard lose the power to suckle their offspring, and Dr. Johnston says he has found much evidence in favour of the contention. Whilst the evil influence of alcohol on child life must not be minimized, much less ignored, it is well to remember that a great diminution in the national consumption of alcohol, as shown by the drop of millions in the drink bill, has taken place. Excessive infantile mortality is the Nemesis of densely populated manufacturing centres where women go to work. Burnley and Preston, with an infantile death-rate of about 200 per 1,000, are probably as sober as Burton, where beer abounds; yet the infantile death-rate of the latter is about 120. As Alderman Broadbent, a pioneer in the work of child-saving, says: "We do with our women what no farmer would do with his cattle—make them do not double, but treble duty—bear children, go out to work, and attend to the household." Whilst all will agree with Dr. Johnston as to the pernicious effects of alcohol upon children, and with his recommendation that no healthy child ought to have alcohol, on the larger problem there is room for a broad-minded recognition of other factors, without losing sight of the share of alcohol to which Dr. Johnston so ably draws attention.

INSURANCE COMPANIES AND MEDICAL CERTIFICATES.

IN the JOURNAL of March 23rd last, page 696, we called attention to a communication from the General Accident Fire and Life Assurance Corporation, Limited, addressed to a policy-holder in reference to a servant who was incapacitated. In this letter the policy-holder was asked to hand the servant a form to be filled in by the doctor attending her, and the letter added: "We hope no fee will be asked for completing this paper, but we would mention that any such charge falls to be paid by the injured party, no liability attaching the assured in this direction." In commenting upon this we pointed out the invidious position in which members of the medical profession were placed by such a letter. The general manager of the corporation informs us that the terms of the letter were contrary to the practice of the company, that this particular letter was written by a clerk (who admits that it was an unbusinesslike and incorrect letter to write), and that the company has taken serious notice of the incident in the department from which the letter proceeded.

PROPOSED APPOINTMENTS BY SCOTTISH INSURANCE COMMISSIONERS.

ATTENTION is called to the Warning Notice issued as to two appointments of medical officers proposed to be made by the Scottish Insurance Commissioners. The acceptance of such appointments will be contrary to the policy of the British Medical Association.

THE death of Lord Lister having created a vacancy in the membership of the Royal Society of Science, Upsala, Sir Victor Horsley, F.R.S., has been elected his successor.

HIS MAJESTY has been pleased to approve of the special promotion of Colonel Sir David Bruce, C.B., F.R.S., M.B., F.R.C.P., to the rank of Surgeon-General, in consideration of his eminent services to the cause of science. Sir David Bruce is at present at the head of the Sleeping Sickness Commission appointed by the Government, with the advice of the Royal Society, to continue the study of the disease in Nyasaland.

THE INSURANCE SCHEME.

STATE SICKNESS INSURANCE COMMITTEE.

Ninth Meeting.

THE ninth meeting of the State Sickness Insurance Committee was held on May 16th.

Mr. T. JENNER VERRALL was in the chair, and the members present were: *England and Wales:* Dr. R. M. Beaton (London), Dr. John Brown (Bacup), Dr. T. M. Carter (Westbury-on-Trym), Mr. E. J. Domville (as Chairman of the Public Health Committee), Dr. S. Hodgson (Salford), Miss Frances Ivens, M.S. (Liverpool), Dr. Constance E. Long (London), Dr. R. A. Lyster (Winchester), Mr. James Neal (Birmingham), Dr. H. F. Oldham (Morecambe), Dr. James Pearse (Trowbridge), Dr. E. O. Price (Bangor), Dr. Lauriston E. Shaw (London), Dr. W. Johnson Smyth (Bournemouth), Dr. D. F. Todd (Sunderland), Mr. E. B. Turner (London), Dr. A. H. Williams (Harrow on the Hill), Mr. E. H. Willock (Croydon). *Scotland:* Dr. J. Adams (Glasgow), Dr. Bruce Goff (Bothwell), Dr. R. McKenzie Johnston (Edinburgh), Dr. J. Munro Moir (Inverness). *Ireland:* Dr. Mark F. Cahill (Belfast), Dr J. S. Darling (Lurgan). *Ex Officio:* Dr. J. A. Macdonald (Chairman of Council).

Apologies for absence for unavoidable reasons were received from the President of the Association (Professor Saundby), the Chairman of Representative Meetings (Dr. E. J. Maclean), Dr. F. W. Kidd (Dublin), Dr. D. G. Thomson (Thorpe, Norwich), and Mr. D. J. Williams (Llanelly).

We are enabled to publish the following account of the proceedings in anticipation of the confirmation of the minutes.

MINUTES.

The minutes of the last meeting of the Committee, held on May 9th, were confirmed and signed by the Chairman as correct.

RESIGNATION OF MEMBER.

A letter was read from Dr. F. W. Kidd (Dublin), resigning his membership on the Committee, on the ground of pressure of other engagements. The resignation was accepted with regret, and the Chairman of Representative Meetings was requested to follow the procedure adopted on previous occasions in filling up the vacancy.

PUBLIC MEDICAL SERVICE.

The greater part of the time of the Committee, which sat from 12.15 to 9.55, with short intervals for luncheon and dinner, was occupied in the consideration of two schemes for a Public Medical Service for the provision of medical attendance and treatment for (*a*) persons insured under the National Insurance Act, and (*b*) persons not so insured. The one scheme was based upon a capitation system of payment and the other upon a system of payment per attendance. After amendment both schemes were approved, subject to their final revision by a subcommittee consisting of the Chairman, Dr. Hodgson, the Solicitor to the Association, and the Medical Secretary. The subcommittee was empowered to issue the schemes as soon as this revision had been completed.

The Committee also had before it a communication from the National Medical Union, forwarding for information a draft public medical service scheme based upon a payment per attendance system. With regard to this the Committee adopted the following resolution:

> That the National Medical Union be thanked for the great trouble it has taken in preparing a scheme, the merits of which the Committee fully appreciates, and be informed that the Committee has considered its scheme, but is unable to recommend it for general acceptance because any service based upon the payment per attendance system must have some relation to that based on the capitation system, and the Committee does not feel that the scheme of the Union would harmonize with the capitation system scheme prepared by the Committee.

SUPPLEMENTARY PLEDGE.

The Committee had before it several letters of inquiry with regard to the terms of the supplementary pledge. With regard to its terms, the Committee arrived at the decision that as it had drawn up the form of supplementary pledge and of resignation of club appointments after very careful consideration with a view to their application to all parts of the country, it could not approve of any variation of this document, but at the same time it did not consider it to be within its province to interfere with action taken locally with a view to still further strengthening the supplementary pledge. At the same time the Committee put it on record that it would take care that a very considerable percentage of the pledges shall be signed before actual use is made of them.

MEDICAL MEMBERS OF COUNTY AND COUNTY BOROUGH COUNCILS.

A communication was read from a member pointing out that county and county borough councils would be asked by the Local Government Board to prepare a scheme for dealing with tuberculosis in accordance with the report of the Departmental Committee, and asking whether medical practitioners, members of public health committees and such councils, could act as members of such committees without violating the pledge given to the Association. The Committee resolved to reply that it was of opinion that in the circumstance the undertakings given to the Association would not be violated by acting upon such committees.

RESTORATION OF MEDICAL BENEFITS IN IRELAND.

A communication was received from the Honorary Secretary of a county Medical Committee in Ireland with regard to the restoration of medical benefits in that country. The Committee resolved to inform the Honorary Secretary that it has always been the policy of the Association to press for the restoration of medical benefits so far as Ireland is concerned, and that, though hitherto it had not been possible to obtain such restoration, the Association would lose no opportunity of pressing for it.

REMUNERATION.

Attention was called to the notification by the Commissioners to the effect that they had appointed a Subcommittee to investigate and collect information as to the conditions of remuneration prevailing in general medical practice throughout the United Kingdom (SUPPLEMENT, May 18th, p. 538). The Commissioners notified that they would welcome information or representations from medical or other associations, or persons prepared to submit statements of fact or to tender evidence on the question of remuneration. The Committee resolved to address the following letter to the Joint Committee of Commissioners:

> British Medical Association,
> 429, Strand, London, W.C.,
> May 16th, 1912.
>
> Sir,
>
> I am desired to inform you that the State Sickness Insurance Committee, noting the decision of the Commissioners to form a Subcommittee to collect information as to the amount of remuneration received in the past by the profession for medical services rendered to patients of the class likely to be insured under the Act and entitled to receive medical benefit of the normal type, desires at once to draw attention to a fallacy which would arise if such information were regarded as a guide to the remuneration which would be acceptable to the profession in connexion with the Act.
>
> Present rates of remuneration from such classes are largely determined by the financial position of the patient, and the feeling on the one hand of compassion for the patient, and on the other of fear of having to undertake entirely unpaid work, which are present to the mind of the doctor. The altered financial condition of the patient by the introduction of compulsory assisted insurance removes or lessens both these factors.
>
> I am, Sir,
> Your obedient Servant,
> ALFRED COX,
> Medical Secretary.
>
> The Secretary,
> National Health Insurance Joint Committee,
> Buckingham Gate, S.W.

To this letter the following reply has been received:

National Health Insurance Joint Committee,
Buckingham Gate,
London, S.W.,
May 21st, 1912.

Sir,

In reply to your letter of the 16th inst., I am directed to state that the subcommittee of the Insurance Commissioners on the subject of medical remuneration will not be confined to inquiring into the amount of remuneration received in the past by the profession for medical services rendered to a class of patients likely to be insured under the Act, and entitled to receive medical benefit of the normal type. It will be their duty to collect evidence of any kind that will assist in the decision as to what would be proper remuneration for the services to be rendered under the Act.

The words used by the Chancellor of the Exchequer in announcing this inquiry were as follows:

A subcommittee has therefore been appointed by the Commissioners to go specially into this question and to collect evidence bearing upon it. They will welcome any assistance which the medical profession can give them in collecting these facts, and also which can be given by friendly societies and others who have any data bearing upon it. The subcommittee will communicate to the members of the Advisory Committee, and also to any organizations whose assistance they require, particulars of the procedure which it is proposed to adopt, and the ways in which assistance can best be given, and, of course, they will consider any suggestions as to the form of inquiry which any of these bodies may think well to put before them. The one object is to conduct an inquiry which all concerned will be satisfied is both equitable and thorough.

One word more before leaving this part of the subject. It must be clearly understood that this inquiry will be simply a collection of facts, and will be without prejudice to any arguments which the medical profession or others may desire to base upon the facts when the time comes for considering what the nature of the financial provision in this respect ought to be.

Before commencing the inquiry, the Commissioners hope to have the benefit of a conference with representatives whom they trust the British Medical Association will appoint to confer with them on the nature and procedure of the inquiry, when all such points as are raised in your letter may be fully discussed and considered.

I am, Sir,
Your obedient Servant,
(Signed) W. J. Braithwaite.

Provisional Medical Committees.

The Chairman reported that information had been received that 117 Provisional Medical Committees had been actually formed in England, Scotland, and Wales.

Next Meeting.

The next meeting of the Committee was fixed for Thursday, May 23rd.

Conference with Medical Members of the Advisory Committee.

On Friday, May 17th, at 9 a.m., a further informal conference took place between members of the State Sickness Insurance Committee and some of the medical members of the Advisory Committee not nominated by the Association. Dr. J. A. Macdonald, who was in the chair, commented on the fact that the agenda paper, which was accompanied by certain memoranda, for the medical benefit section of the Advisory Committee had only been received on the previous day, by the majority of members in the afternoon, and several members who had travelled various distances from the country stated that papers had not reached them.

Some conversation then took place with regard to the subjects likely to be discussed and the views of the British Medical Association thereon.

The annual dinner of the Indian Medical Service will be held at the Hotel Cecil on Thursday, June 13th, at 7.45 p.m., Surgeon-General J. P. Greany in the chair. The service will have the honour of entertaining as their guest Sir Richmond Ritchie, K.C.B., Permanent Under Secretary of State for India. Applications for dinner tickets should be made to Lieutenant-Colonel P. J. Freyer, Honorary Secretary, 27, Harley Street, W.

Medical Notes in Parliament.

[From our Lobby Correspondent.]

Feeble-Minded Persons (Control) Bill.

On May 17th this bill came on for second reading, and the discussion occupied the whole of the sitting. As a private member's bill, it was lucky to secure in the end a second reading, in spite of the suggestion of the Home Secretary that it should be put aside in favour of the Government bill, introduced the day before. The interest in the subject was so strong that the second reading was allowed, and the bill will now probably be considered in Committee at the same time as the Government measure.

Mr. Stewart, in moving the second reading, said the bill was the outcome of the Royal Commission appointed in 1904, which reported in 1908. The recommendations of the Commission were far too wide-reaching for a private member's bill, but the present proposal met one of their recommendations and was a step forward in the segregation of the unfit. It proposed to regulate the lives, and if possible to prevent the propagation, of half-witted people. By the bill the term "feeble-minded" did not include lunatics, idiots, or imbeciles. It gave powers to the Commissioners in Lunacy to license homes, residential schools, institutions, or colonies, for the purpose of the detention of persons certified as feeble-minded. The whole bill, he said, lay in the eighth clause, which empowered any stipendary magistrate or justice of the peace, upon application made, to order the removal of the feeble-minded person to a licensed home, school, institution, or colony, provided that the magistrate was satisfied that the person had attained the age of 16 and was in need of further protection and control, and was a source of mischief and injury to himself or others, and provided also that the person had been independently examined and certified by two registered medical practitioners. The number of mentally defective people in this country was, he believed, about 282,000, or 0.83, or nearly 1 per cent. of the population. He mentioned a case where sixteen women of defective mind gave birth in a workhouse to 116 illegitimate children. The ratepayers had to carry the burden from the day they were born till the day they died, and this in addition to their own proper burdens. From this cause the cost of hospitals, homes, schools, prisons, and police was largely augmented, while the guardians had extra work thrust upon them and prodigious expense was incurred by the community. He urged Parliament to insist on some action in order to prevent the deterioration of the race.

Mr. Dickinson seconded.

The Home Secretary welcomed the discussion as useful in bringing about legislation. He showed how great was the evil to be remedied, and how it could be done in properly managed homes. If, therefore, unable to give a very hearty welcome to this particular bill it was not because he thought the subject ought not to be dealt with, but because he could see that this particular proposal would hardly effect the object in view. He recognized to the full that that was not the fault of the promoters of the bill. If they had power to get the money to provide the necessary organization for the bill it would be a different matter. As it was they could not provide the necessary homes. Now, the Government had the money and the necessary powers, and therefore he felt justified in advising the postponement of the measure. He had produced on behalf of the Government a bill which provided for a material contribution by the Exchequer for the purpose of making homes and of providing for their maintenance. The Government bill also would carry out the recommendations of the Royal Commission, which the bill before the House could not do. Later on he said: "It would not be in order for me to discuss on the second reading of this bill the precise proposals of my bill, but the Government bill is before the House. It deals with the subject on a far more comprehensive scale, and it is the firm intention of the Government to proceed with their measure in the course of the present session. Shall we be assisted by accepting this bill? In certain circumstances there might be an advantage in sending two bills on the same

subject to a committee and perhaps combining them, but inasmuch as all the objects of the present bill are included in the Government bill, and, owing to financial power, will be carried out far more effectively by it, I think it would be undesirable to proceed with these two bills at the same time. But I have no hostility to the bill, and, personally, if hon. members wish to push the measure to a division, I certainly should not vote against it."

Mr. Lyttelton spoke strongly in favour of the bill, while Mr. Wedgwood opposed it in the interests of the liberty of the subject, and Mr. Manfield also opposed it as a measure inadequate for the evil to be cured. After several other members had spoken,

Dr. Chapple rejoiced at the recognition of the importance and urgency of the subject, and upon the fact that there had been brought to light a bill which otherwise might have slumbered in the archives of the Home Office. Objection had been taken to the absence from the bill of any definition of feeble-mindedness; but although no definition of insanity was to be found anywhere, there were many asylums for the insane. A feeble-minded person was a person born with an arrested brain development, and the characteristic of almost all such persons was a lack of self-control. The proposal embodied in the bill was to supply an artificial control in such cases. No lessons should be taught to feeble-minded children. To tell them that 2 and 2 made 4 was folly, and to insist that they should learn and remember it was persecution. The attempt should be made to train their hands, and whatever mental development they were capable of should pass through their hands to their minds. The whole object of the bill was humanitarian, and there was no persecution in saving feeble-minded persons from themselves. The mentally defective were increasing in proportion because of the emigration and relative decline in the marriage-rate of the best people from the mental and physical point of view, and that fact impressed the importance and urgency of the question.

The bill was then read a second time without a division and referred to a standing committee.

National Insurance Act.

Treatment of Consumptive Patients.

Sir Thomas Esmonde asked the Chancellor of the Exchequer what steps should be taken by Irish boards of guardians to obtain grants for the treatment of consumptive patients, either in sanatoriums or in the local infirmaries, or for making better provision for their treatment in connexion with the local infirmaries. Mr. Masterman replied that under Section 16 of the National Insurance Act local Insurance Committees were prohibited from making arrangements with Poor Law authorities for the treatment of insured persons. With regard to the distribution to local authorities or other bodies of the sum available for the provision of, or making grants in aid to, sanatoriums and other institutions, in accordance with Section 64 of the National Insurance Act and Section 16 of the Finance Act, 1911, he understood that the Irish Local Government Board were preparing a circular to be addressed to county councils in Ireland dealing with the subject.

Nurses in Private Practice.

Sir Archibald Williamson asked the Secretary to the Treasury whether his attention had been called to the statement of one of the official lecturers that a midwife working on her own account, and subject to no authority but the Central Midwives Board, was exempt from the compulsory clauses of the National Insurance Act, while a nurse in private practice would be compelled to insure, because she was subject to the authority of the medical man in charge of her case; and whether, in view of the number of nurses interested, he would say if the above statement was a correct description of the position of the nurses referred to. Mr. Masterman said that he understood the lecturer in question indicated the liability to compulsory insurance depended upon the actual circumstances attending engagement. Apart from special grounds of exclusion, those who were employed under contract of service must be insured. In view of the different terms and conditions under which nurses and midwives worked, no general statement could be made which would apply in every case. The Commissioners would, however, issue a statement at as early date as possible dealing with the main classes of engagement as nurses.

Medical Treatment of Children. Mr. Edmund Harvey asked the President of the Board of Education whether, in making grants in aid of the medical treatment of children, he would take into account the activity or otherwise of local authorities in making and enforcing by-laws dealing with the employment of children. Mr. J. A. Pease said that the answer was in the negative. The hon. member would find the circumstances which would be taken into account in making the grant referred to set out in the regulation already issued, from which he did not propose to depart.

Death-rate of Children.—Mr. Keir Hardie asked the President of the Local Government Board whether he could give figures showing the death-rate during the months of March and April of this year and the figures for the corresponding months of last year, distinguishing where possible the death-rate amongst children in the following districts: counties of Glamorganshire (South Wales), Lanarkshire (Scotland), Lancashire, Yorkshire, Durham, and Northumberland. Mr. Burns answered that figures for March and April were not available, but the following table gave the death-rates and the rates of infantile mortality during the three months ended March 31st, 1912, and the three months ended March 31st, 1911, so far as England and Wales were concerned:

	Death-rate per 1,000 Persons Living.		Deaths of Children under 1 year of age per 1,000 Births.	
	1912.	1911.	1912.	1911.
Glamorganshire ...	16.7	15.4	156	121
Lancashire	18.3	17.4	128	118
Yorkshire	16.3	17.2	109	127
Durham	15.4	16.3	113	126
Northumberland ...	15.6	16.0	102	124

For figures relating to Lanarkshire, application should be made to the Secretary for Scotland.

Infants Born Blind (Scotland).—Mr. Dundas White asked the Secretary for Scotland if he could give, for each year from 1901 to 1911 inclusive, the number and the percentage of the total births of infants registered as blind. Mr. McKinnon Wood replied that he was unable to give the particulars asked for, as the register of births did not contain any data as to infants born blind. In answer to a further question, Mr. Wood said the only information as yet available on these subjects was to be found in the report of the 1901 Census. In the Census of last year particulars were asked regarding the "totally blind," and the results would be tabulated and published in ordinary course in the third volume of that report.

Vivisection Royal Commission.—Mr. George Greenwood asked the Secretary of State for the Home Department whether his attention had been called to the observations of the Royal Commission on Vivisection in their final report with regard to Dr. Pembrey and Dr. Klein, to the effect that in the case of Dr. Pembrey his application of a theory of pain as a protective mechanism in the scheme of nature to the case of painful experiments on animals had led him into a position which was untenable, and which, in their opinion, was absolutely reprehensible, and that it appeared to them that to grant a licence or certificates to any person holding such views as those formerly expressed by Dr. Klein, and as those entertained by Dr. Pembrey, was calculated to create serious misgivings in the minds of the public; whether Drs. Pembrey and Klein, or either of them, now held licences and certificates, and, if so, what certificates under the Cruelty to Animals Act, 1876; and whether he intended to take

steps to give effect to the opinion expressed by the Commissioners with regard to them. Mr. McKenna replied that, as he recently stated, the licences of these two gentlemen were renewed and their certificates continued for the current year before the report of the Royal Commission was published. Dr. Klein held certificate A, and Dr. Pembrey certificates A (two), B, C (two), E, and EE. He could at present only say that all the recommendations of the Royal Commission were being carefully considered.

Irish Poor Law Reform.—Mr. Meagher asked whether, in the event of the Irish Parliament taking steps to reform the present Poor Law system in Ireland and make it in accordance with Irish necessities and conditions, the existing Irish Poor Law officers would be considered as Irish officers within the meaning of the Act. Mr. Birrell replied that, in the event of the Irish Parliament taking steps to reform the present Poor Law system, it would be open to them to make proper provision for the existing Poor Law officers, and there was no reason to anticipate that they would omit to do so. The Government of Ireland Bill made no alteration in the Poor Law system or the position of Poor Law officials, and it would therefore be impossible to deal with them as Civil servants are dealt with in that bill.

Miner's Nystagmus.—Mr. Lynch asked the Home Secretary whether he was aware that last year 1,618 men in the United Kingdom received compensation in regard to miners' nystagmus, and that in a paper presented to the Royal Society, Dr. Llewellyn attributed the disease in great part to defective light; and whether he would take steps to have the whole question of the illumination of mines investigated, as, for example, by a Special Commission. Mr. McKenna said the figure in the question was that for 1910, as given in the Home Office statistics; the figure for 1911 was not yet available. He was aware of Dr. Llewellyn's researches, and understood that they were still being continued. The illuminating power of miners' lamps was one of the matters which would be taken into account in approving lamps under the provisions of the new Coal Mines Act, and the point was under the consideration of the Committee which was now engaged in formulating the test. He also hoped that the competition which was now proceeding for the prize offered for the best electric miner's lamp would help greatly towards an improvement in the illumination of mines. He did not think there was a case for instituting a further special inquiry at the present time.

Vaccination (Ireland).—Mr. William Abraham asked the Chief Secretary whether he was aware that the Local Government Board (Ireland) sent a letter to the Athy Board of Guardians in reference to their proceedings of April 17th, 1912; that in that letter the Local Government Board asserted that pure vaccine lymph was supplied from their vaccine department to the medical officers of the various unions; whether such letter was issued with his sanction; and whether he was prepared to guarantee the purity of the vaccine issued in Ireland. Mr. Birrell said the facts generally were as stated in the question. The Local Government Board's bacteriologist, before certifying that the glycerinated calf lymph prepared at the National Vaccine Institute was fit for use, satisfied himself as to its absolute purity and freedom from harmful germs, and the Board were thus in a position to guarantee the purity of the lymph distributed to medical officers for public vaccinations in Ireland.

Vaccination (India).—In reply to Mr. George Greenwood, the Under-Secretary of State for India said that in the Punjab the Indian Vaccination Act XIII of 1880 was in force in the larger towns and in the military cantonments. A parent who neglected without just excuse to obey the order of a magistrate directing him to have his child vaccinated was punishable with fine, which might extend to Rs.50. If again convicted for breach of a similar order in respect of the same child, he might be sentenced to simple imprisonment up to six months, or to pay a fine not exceeding Rs.1,000, or to both. For the first offence the offender was not liable to imprisonment except in default of payment of the fine.

Women's Medical Service, India.—Mr. H. W. Forster asked the Under Secretary of State for India whether the Government of India had approved the scheme drawn up by Surgeon-General C. P. Lukis, K.C.S.I., for the formation of a service of medical women for India; and, if so, when would the scheme come into operation. Mr. Montagu said the answer to the first question was in the negative. The Government of India had under consideration a scheme for the formation of a Women's Indian Medical Service which was submitted to the Secretary of State by certain ladies interested in the practice of medicine, but it had not yet expressed its opinion upon it. In reply to a question as to urgency, Mr. Montagu said that there was a considerable amount of interest manifested in it, and he had telegraphed that morning asking when a reply might be expected.

Sleeping Sickness.—Dr. Chapple returned to his question about destroying game, on the ground that it was a reservoir for the propagation of sleeping sickness, but Mr. Harcourt said he had nothing to add to the full answer given in April. Dr. Chapple retorted that no action was promised in the reply referred to and that the sufferings from this disease had grown to be very serious. Mr. Harcourt said he would not for a moment deny the seriousness of the spread of the disease; he was waiting for information sufficiently definite to justify him in destroying species, either of wild or domestic animals. The evidence, so far as it had gone at present, tended rather to prove that wild animals, domestic animals, and man were all carriers of the disease.

City of London Association.—Mr. Ashley asked why all the medical units of the City of London Territorial Force Association were to have their headquarters and train outside their geographical area, at the Duke of York's headquarters, Chelsea. Colonel Seely said that all the units of City Association are outside the City area except the 1st London Brigade, Royal Field Artillery, which would also shortly move out of the City boundaries. It was considered impracticable to find headquarters within the City boundaries. In answer to a further question Colonel Seely said there were a great many considerations involved, but it was quite true that the question of expense came in.

Political Offenders (Prison Treatment).—Dr. Chapple asked the Secretary of State for the Home Department whether, in view of the divergent opinions as to the alleged danger, suffering, and degradation of the forcible feeding of prisoners, he would hold an inquiry into the prison treatment of political offenders. Mr. McKenna replied that he did not think an inquiry was necessary. The law was clearly laid down in the case of Leigh *v.* Gladstone, and the process of forcible feeding was a matter of ordinary medical practice carried out daily in hundreds of cases in asylums, and in a smaller number of cases in hospitals, prisons, or private practice. There was no danger to life or health from the process of feeding by tube; where there was any danger it arose from the violent resistance sometimes offered by prisoners who had gone to prison while suffering from heart disease or broken down in health. Such cases were carefully observed by the medical officers, and where it had been really necessary he had authorized the prisoner's discharge.

THE medical officer of health for Islington has issued a leaflet on the house-fly, in which attention is drawn to the risk of conveyance of infection which its undue prevalence is known to involve, and the public are invited to wage war on flies and their breeding places. The main recommendations as to domestic precautions are to keep dustbins tightly covered, to sprinkle petroleum or chloride of lime over the contents of the dustbin, or a solution of 1 oz. of formalin and 10 oz. of water, to sweep the floors, especially of rooms in which food is eaten, so that no fragments remain, to burn all animal or vegetable refuse daily in the kitchen fire, and to get rid of all old bedding, rags, paper, straw, and like refuse. As to horse manure, it is recommended that it should be kept in fly-tight receptacles and removed twice a week.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

BRISTOL.

OPENING OF THE NEW BUILDINGS OF THE ROYAL INFIRMARY.

THE fact, made known by the Lord Mayor at the council meeting on May 13th, that the King had promised to open the new buildings of the Royal Infirmary, was generally received with much satisfaction, if not with a little surprise. At the present moment the building is far from completed, but with six weeks before them the Committee can no doubt remedy this fault. Indeed, everything that is possible is being done to hurry on the work towards completion. The new buildings will be devoted to the surgical side of the work, and will be provided with all the most recent improvements. The exterior is rather severe in character, with little architectural embellishment. The accommodation for the nurses of the institution has been much increased, and a most delightful garden laid out in terraces has been constructed. For the royal visit a large representative committee has been formed and numerous subcommittees, but at present the details of the visit are not definitely fixed.

BRISTOL EYE DISPENSARY.

The second oldest medical institution in Bristol celebrates its hundredth birthday this year, having been opened on September 29th, 1812. Its first habitation was in a house that stands at the corner of Frogmore Street and Pipe Lane, a house of antiquarian interest from being part of the hospital of the Gaunts, and having a niche in the outside wall from which the statue of the Virgin and Child has long disappeared. The founder was John B. Estlin, a Bristol surgeon, a contemporary and friend of Southey, Coleridge, and Robert Hall, and a well-known pioneer in ophthalmic surgery. At first self-supporting, it was found necessary later to obtain subscriptions, but even to the present day the expenses are small. Mr. Estlin continued his connexion with the institution till about 1849, having five years before received assistance from his nephew, the late Mr. Augustin Prichard, and son of James Cowler Prichard, the well-known ethnologist. In one of the earliest reports (1816) reference is made to the large number of cases of eye disease occasioned by small-pox, and only two years after, owing, no doubt, to his advocacy of vaccination, in which Mr. Estlin was a firm believer, it is stated that no cases of this nature had come under his observation. In 1855 Mr. Crosby Leonard joined the staff, and in 1869 Mr. Arthur Prichard, son of Augustin, was taken there as apprentice to his father. In 1870 the work was transferred to a house in Orchard Street, which stands in the former garden of the Gaunts Hospital. After nearly sixty years' work Mr. Augustin Prichard's connexion with the hospital ended, and since that time the staff has, in consequence of the greater amount of work, been considerably enlarged. Mr. Arthur Prichard, who began, as above stated, in 1869, became full surgeon in 1877, and still continues his connexion. For 100 years the institution has been opened every Monday and Wednesday, except for three Wednesdays: once when there was a prize fight on the Downs, a second time when Queen Victoria visited Bristol, and the third time on the Proclamation Day of our present King. Over 170,000 patients have been seen in this period.

LONDON.

LONDON COUNTY COUNCIL.

The Eleventh Asylum for the Insane.

MATTERS having reached a sufficiently advanced stage, the Asylums Committee of the London County Council on May 21st asked for an estimate of £517,970 on capital account for the building and equipment of the eleventh asylum for patients in the county of London. The committee stated that the working drawings had been informally approved by the Lunacy Commissioners, with the exception of some minor matters of detail. It had been thought desirable to make provision in the plans for a hospital on each side of the asylum for 30 male or 30 female phthisical or dysenteric cases, and the total accommodation would therefore be 2,066 beds. The cost per bed, including an apportionment of the cost of an electricity generating station, worked out as follows:—Horton, £243; Long Grove, £247; and the new asylum (estimated), £235. At the request of the Finance Committee, the Asylums Committee had considered the practicability of building the new asylum in sections. The expense would be somewhat greater, and the only reason for building in sections would be uncertainty that the full accommodation would be required from the first. The asylum was hardly likely to be ready in less than four or five years from now, and the Committee had therefore gone into the question of the probable number of lunatics for whom it would be necessary to find accommodation by January, 1917. The numbers had increased from 16,957 in 1903 to 20,429 in 1912, the average rates of increase having been for the last ten years, 414; for the last five years, 318; for the last three years, 238. The increase in the last two years had been influenced by the larger number of patients transferred from London county asylums to institutions controlled by the Metropolitan Asylums Board, where there existed many vacancies which had now been filled. Any great assistance in this direction, therefore, could not be expected. The Committee felt justified in taking at least the average annual increase for the last five years—318, and on this basis the number of patients requiring accommodation in five years time would be 2,014, this number being arrived at by adding to the number of patients at present boarded out—424, the total of a five years' increase of 318—namely, 1,590. By the time the asylum was built, equipped, and ready for occupation, there would be a sufficient number of patients to fill it.

The estimate of £517,970 was approved.

Medical Treatment of School Children in 1912–13.

The Council was occupied for the first eight hours of the sitting by consideration of the education estimates. Meals for school children were calculated to cost £81,450, medical inspection and treatment £45,675, and special schools as follows: For blind children £9,590, deaf £17,165, mentally defective £55,060, physically defective £43,020, epileptic children £2,460. The estimate for medical inspection showed an increase of £4,000 over the amount spent last year. For medical treatment an increase of £1,260 was provided in respect of children suffering from ear, eye, and skin ailments. Provision was included for three new centres for dental treatment of 5,000 children at an additional cost of £1,470. On the receipts side the Finance Committee reported that it had included £20,000 as the proportion for London of the promised Government grant of £60,000 in respect of medical treatment in England and Wales.

An amendment calling for a supplemental estimate of £5,000 for dental treatment was moved by Mr. Jephson, who criticized the delay in making substantial progress in this matter. He said that at present only about 15,000 out of half a million children requiring dental treatment were receiving it. The proposal was rejected. Mr. Holmes then moved to reduce the estimate for medical treatment by £5 on the ground that a great part of the money now being spent on the hospital scheme was wasted. Mr. Matthew, who seconded, stated that only at the London Hospital was a nurse in regular attendance for the purpose of seeing that the children understood the instructions received and that the doctor's prescriptions did not go to the wrong children—a thing of frequent occurrence elsewhere—and the inference was that all the other hospital schemes were to some extent ineffective. Mr. Gautrey expressed some doubt as to whether the Finance Committee had not, in effect, reduced the estimates for medical treatment this year by £5,000 or more through over-estimating the amount likely to be received from the Government grant. He believed the share of London of the £60,000 would be not one-third but one-sixth. Mr. Cobb, the Chairman of the Education Committee, in reply, quoted Mr. Pease's remarks to the deputation from the British Medical Association last week, that the present system, though not an ideal one, was doing good work. He claimed that the working of the present schemes was being improved month by month. The new medical officer was taking up the question from a new point of view and

was giving the Committee every assistance. This remark drew from Mr. Cotton the inquiry: "Is the Committee giving the new medical officer every assistance?" The amendment to reduce the estimate was lost. The whole of the estimates set down were approved.

The Board of Education and the Hospital Scheme.

At the meeting of the Education Committee on May 22nd the receipt of a long letter from the Board of Education relative to recent proposals of the Council for continuing and extending the present system of medical treatment of school children was reported. The Board stated that it was not satisfied that the establishment of a large number of medical treatment centres, under conditions similar to those existing at the centres managed by medical practitioners at Norwood and Wandsworth, was, in all respects, desirable. The constitution of these centres should be modified in several important respects—principally with a view to the Council exercising a larger measure of control—if they were to form an integral part of the London system of co-ordinated inspection and treatment. In promising to consider favourably, on receipt of further information, a proposal to enter into arrangements for treatment with the Metropolitan Hospital, the Board said it had always regarded the schemes of this nature as provisional and experimental, and it hoped it might be found possible, in most cases if not in all, to transfer to local clinics or centres some of the work now done by the hospitals, thus restricting the hospitals to treatment which could not be properly and adequately undertaken by a school clinic. The Board added that it fully appreciated the efforts of the Council in regard to the medical treatment of school children, and realized the difficulties the authority had encountered in its endeavours to frame a comprehensive scheme to this end. Whilst the Board was anxious to aid in those endeavours, it thought it desirable that the opportunity should now be taken to place the whole scheme on lines which would lead by a natural development to the establishment of a sound and satisfactory system; otherwise both the Board and the Council might find themselves committed to a policy which it might be difficult subsequently to modify, and which might prove unsuited to the needs of the area. The Board asked for a conference on the whole question between its officers and representatives of the Council.

The Education Committee appointed five of its members to take part in the conference on May 23rd.

BIRMINGHAM.

Treatment of Tuberculosis in Birmingham.

The recommendations of the Departmental Committee on Tuberculosis have been considered by the Public Health and Housing Committee of the Birmingham City Council. Most of these recommendations have already been adopted in this city. The committee propose to provide for increased accommodation at Salterley Grange, Cheltenham, and for an extension of the sanatorium in Yardley Road. The latter extension will involve an expenditure of about £30,000. The existing accommodation is for 60 patients, but the new scheme will provide for 145 adults (73 males and 72 females) and 70 children. Provision will be made in a separate establishment for more advanced cases of the disease. An enlargement of the dispensary arrangements will be necessary, and the committee has decided to acquire the offices of the Water Department in Broad Street, which are about to be vacated. Between 2,000 and 3,000 persons, who have been previously under treatment at Yardley Road, will be able to be treated with tuberculin weekly at the proposed dispensary. At Salterley Grange, which holds forty-eight patients, provision will be made for another twenty patients.

Birmingham Medical Benevolent Society.

The ninetieth annual meeting of this society was held at the Medical Institute, Birmingham, on May 16th, the President, Mr. W. F. Haslam, being in the chair. The annual report showed that the invested funds amounted to £16,178, and that there was a balance on the year's work of £76, the total income being £787. Twenty-six annuitants had received grants varying from £36 to £18; and the sum expended in this way was £577. Two annuitants had died, so that at the end of the year twenty-four were receiving grants. Some of the annuitants had received large sums in the past, at least six having had over £1,000 given to them in yearly grants. The total number of benefit members at the end of the year was 375, and of these only 218 were annual subscribers, the remainder having compounded or paid up their subscriptions for twenty-one years. Many of the members who were fully paid up gave annual donations. Six new members were elected during the year, six died, and eleven left from various causes. Attention was drawn to the very large number of medical practitioners in the district who had not availed themselves of the society, and the directors urged all who were interested in the welfare of their professional friends who were not members to make an especial effort to induce them to join. Dr. Langley Browne was elected President; Mr. Frank Marsh, President-elect; and Dr. Quirke of Handsworth, and Dr. Bernard Rice of Leamington, Vice-Presidents. Mr. W. F. Haslam and Mr. Frank Marsh were re-elected Treasurers; Dr. Stacey Wilson, Honorary Auditor; and Dr. Sawyer, Honorary Secretary. Sir Robert Simon, Dr. Malins, and Dr. A. S. Underhill were elected members of the Court of Directors.

Health of Birmingham.

At the census the population of Birmingham was found to be 840,202. During the first quarter of 1912 the births numbered 5,618, giving a birth-rate of 26.5 per 1,000, and the deaths numbered 3,436, which is equal to a death-rate of 16.2. The infant mortality was at the rate of 125 per 1,000, which is not so good as in 1911, but is probably due to the very cold weather experienced about the middle of February. The mortality from the more important of the infectious diseases was: Enteric fever, 5; small-pox, 0; measles, 8; scarlet fever, 19; whooping-cough, 184; and diphtheria, 24. Since January the notification of all cases of tuberculosis of the lungs has been compulsory, and 1,386 cases have been notified. The number of deaths from consumption was 330.

LIVERPOOL.

Presentation to Mr. F. T. Paul.

At the close of the past academic session F. T. Paul, F.R.C.S., was presented with his portrait in oils, on his retirement from active service at the Royal Infirmary. His association with the Royal Infirmary has extended over a period of thirty-eight years, and for a long period he was senior honorary surgeon. The presentation was made at a dinner presided over by Mr. R. A. Bickersteth, and attended by a large gathering of medical men. In making the presentation Mr. Bickersteth spoke of Mr. Paul's many-sided good qualities, his brilliance as a surgeon, his sound surgical judgement, the dexterity and gentleness of his work and the sincere interest he took in his patients' welfare. The gift was an eloquent expression of the regard and admiration in which he is held by his colleagues at the infirmary and the medical profession of Liverpool and the surrounding districts.

The portrait is from the brush of Mr. G. Hall Neale, and is at present on exhibition in the Royal Academy.

Sir James Barr and Dr. R. C. Brown of Preston also spoke in support of the toast of Mr. Paul's good health.

Mr. Paul responded in graceful terms and said that he would value the gift for the sake of the donors, and thanked them on behalf of himself and family.

The evening was a great success, and there were several excellent musical items.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

Richmond Asylum.

At the last meeting of the Joint Committee of the Richmond District Asylum it was announced that the new infirmary wing was finished. The buildings had cost £63,000, showing a saving of £26,000 on the original estimate, largely due to the rearrangement of the plans by the resident medical superintendent. The following report of the Finance Committee on the question of promotion on the medical staff caused by the death of the late Dr. Cullinan was adopted. Though Dr. Eleanora Lilian Fleury, in charge of the Female Home, Richmond, was

next in seniority, the committee did not consider it advisable that the position of medical officer in charge at Portrane should be held by a lady doctor, and therefore recommended that Dr. Fleury should be granted a special increase of £50 per annum, and that she should have the title of first assistant medical officer. Dr. J. M. Redington was recommended to the position at Portrane on the same terms as his predecessor, and Dr. Forde was transferred to Richmond and promoted to position of second assistant medical officer at a salary of £320 per annum, with annual increments of £20 to a maximum of £400. Dr. Sammon was promoted to position of third assistant medical officer and transferred to Portrane at a salary of £200, with yearly increments of £20 to a maximum of £300. Dr. Dwyer and Dr. Sheridan were promoted to positions of fourth and fifth assistant medical officers, and an advertisement was issued to fill the position of sixth assistant medical officer at a salary of £120 per annum, rising to a maximum of £200 by annual increments of £20.

National Insurance Act.

A meeting of representatives of the various maternity hospitals was held in Dublin last week to consider the position of these hospitals under the Insurance Act. After discussion, Dr. Henry Jellett, Master of the Rotunda Hospital, was asked to draw up amendments to the existing regulations and bring them before the Insurance Commissioners, and also to bring to their notice the very large number of maternity cases that are attended annually by the students of the maternity hospitals in single-room tenements.

Flies and Disease.

Sir Charles Cameron, Medical Superintendent Officer of Health for Dublin, has written to the press warning the public of the danger of the common house-fly as a carrier of disease. The Public Health Committee is now grappling with the danger, he says, by purchasing bagsful of dead flies (we believe at the rate of 1d. per 1,000). He asks the public to aid the committee by endeavouring in every possible way to destroy the flies, and suggests the use of fly-papers, or formalin (1 part to 3 of water) in plates, and also excluding flies from the house by having the open space in the windows covered by muslin. Another writer suggests covering the window spaces with wire netting of about $\frac{3}{4}$ in. mesh, which he says the flies will not penetrate, provided there is no light visible to the flies outside. The advantage of the wire netting (if really effective) over muslin is evident from the fact that it would not exclude the light and air at the same time. It would be an inestimable blessing if the hospitals could be kept free of flies in some such way.

Dublin Sanitary Association.

At a recent meeting of the Dublin Sanitary Association, attention was drawn to the careless and clumsy way in which offensive manure is commonly carted through the city, so that the roadways are often littered with particles of decaying refuse of all kinds. Strict measures should be taken to stop this nuisance, which is caused not only by overloaded carts carrying manure from the stables in the city to the country, but also by the public scavenging carts.

Antivaccination in Ireland.

At the last Waterford City Sessions the guardians of the Waterford Union summoned six men for failing to comply with an order made by a magistrate under the Public Health Act, requiring each of them to have a child under 14 years of age vaccinated within six months from July 26th, 1911. Each of the defendants was fined one penny and costs. At a recent meeting of the Athy Guardians a resolution was adopted declining in future to prosecute parents for failing to have their children vaccinated. Replying to this decision, the Local Government Board pointed out that the guardians were the body entrusted by the Legislature with the carrying out of the Vaccination Acts, and any slackness on their part in the discharge of their duties in the matter would expose the infant population to the risk of contracting small-pox and be a source of serious danger to the public health. The guardians decided to take no action in the matter.

Guardians and their Medical Officer's Illness.

An unusual case of the refusal of a board of guardians to accept a medical certificate has occurred in Galway. It appears that Dr. Kirwan, medical officer, has been ill, and was asked by the board of guardians to send a certificate, regarding his present state of health, by an independent man. Dr. Kirwan's son, who is doing duty for his father, sent a medical certificate with a letter saying that as there was no other medical man nearer than Galway, if the board would not accept his certificate they must send out a medical man at their own expense. After some discussion the board decided to refuse to recognize the certificate, and passed a resolution asking Dr. Kirwan, senior, to have himself at once examined by an independent medical man. If he declined to do so the guardians would charge him with the services of a locumtenent from the date of his illness.

Royal Medical Benevolent Fund of Ireland.

The annual meeting of the Belfast branch was held in the Medical Institute, Belfast, on May 17th. The President (Professor J. Symington) occupied the chair. Dr. Fielden, Honorary Treasurer, read the report, which showed a total subscription of £151 13s. The expenses amounted to £5 3s. 6d., so that they were enabled to send to the treasurer of the central fund in Dublin £146 5s. 6d.: this was £17 2s. 10d. less than last year. One subscriber wrote across the counterfoil of his receipt, "Will not subscribe again unless benefits in future confined to those who pay subscriptions." But Dr. Fielden pointed out this society was in its essence a charitable one, not an insurance association; it was to help the widows and orphans of medical men who had died without means, and a few medical men themselves who had fallen wounded in life's battle. It was to be hoped that this subscriber would not only continue his subscription, but increase it, and induce others to join. It was not for medical men to form a court-martial to ascertain whether a medical brother had been his own or his family's worst enemy; it was to render "first aid." The President moved, and Dr. J. Walton Browne seconded, the adoption of the report, which was passed unanimously. The President and Council were then elected. It was noted with satisfaction that, although £146 had been sent to Dublin, the claims arising in the Belfast branch amounted only to £95, so that a substantial sum was contributed for the benefit of other parts of Ireland.

Doctors as Crown Witnesses.

The question of the payment of a medical officer's substitute when he is called to attend at court has again arisen. At a recent meeting of the Swinford Guardians it was unanimously resolved:

> That we ask the Local Government Board to amend the regulation in the dispensary rules which requires that a medical officer, if summoned as a Crown witness at assize or other courts, his substitute must be paid out of the rates. We consider it altogether unfair and unjustifiable that in such a case the ratepayers should be called upon to pay the substitute's remuneration, as they have nothing whatever to do with the absence of the medical officer, who receives substantial remuneration and expenses from the Crown for every day or night that he is absent. It is obvious that in these cases the substitute should in justice be paid by either the medical officer or the Crown.

Whatever may be said in justification of the plea that the Crown should pay the substitute, it is absurd to suggest that the medical officer should do so: he does not attend as a witness at or for his own pleasure; the subsistence allowances are inadequate and do not cover the out-of-pocket expenses; and the daily fee is small—in many cases only one guinea—and is only intended to compensate for the loss of private practice, and certainly does not include the payment of a substitute. If a dispensary medical officer were a whole-time officer, it would be a different matter, though even then, as his attendance at court is an extra duty, he might reasonably expect extra pay for it.

Belfast Ophthalmic Hospital.

The annual meeting of this institution was held on May 13th. The Earl of Shaftesbury, president, occupied the chair. The annual report showed that the work of the hospital was being carried on with increasing vigour; the debt was less than last year. Dr. J. Walton Browne submitted the medical report. The statistics were rising, and an increase of £100 a year in the subscriptions would enable many further improvements to be completed. The work had been hampered by the absence through illness of Mr. Cecil Shaw; however, by the assistance of

Mr. H. H. B. Cunningham and Mr. Wyclif McCready, the care of the patients had been thoroughly carried out. They would all be glad to hear that Mr. Cecil Shaw was greatly improved in health and expected to return to full work in another month or so. The reports were passed and the new office-bearers elected. Lord Shaftesbury, in returning thanks to the meeting, said that they all knew of the skill of Dr. Walton Browne as an ophthalmic surgeon: he wondered, however, whether he could give his patients a "modern eye."

DR. P. MACARTHUR, GREY ABBEY, COUNTY DOWN.

After thirty-eight years' service as medical dispensary officer for Grey Abbey district, Dr. Macarthur has from failing health resigned his position. His resignation has been received with great regret by rich and poor, public boards and private patients; and the high appreciation of his services was expressed by a public dinner on May 1st in the Courthouse, Grey Abbey, and the presentation of a cheque for £325 and a beautifully illuminated address. Major-General Montgomery presided. The usual loyal toasts and that of "The Guest" of the evening were proposed, and Dr. Macarthur replied. The whole proceedings bore eloquent testimony to the position he holds in the hearts of the people, both for kindness, unselfishness, skill, and for his never-ending labours for others. The profession in Ulster joins heartily in the good wishes expressed so frequently that evening.

THE CORK MATERNITY.

On Thursday, May 9th, the City Hall, Cork, was crowded to hear a lecture by Dr. MacNaughton Jones, of London, on "Moore and his Melodies." The Lord Mayor of Cork and the High Sheriff of the City were on the platform to welcome Dr. MacNaughton Jones on behalf of the citizens. The lecturer, who is an old citizen of Cork City, a student of the late Queen's College, Cork, and for many years practised in the city, had travelled from London to give the above lecture to aid the funds of the Cork Maternity. The life of Moore was portrayed, readings from the great poet's melodies were given, and throughout the lecture was illustrated with lantern slides and songs to Irish airs, a selection from Irish bagpipes, together with some exhibitions of the four-handed reel. The Lord Mayor returned thanks to the lecturer, and Dr. MacNaughton Jones, in reply, said it was not an empty phrase when he said that he had come there with great pleasure to help the old institution in whose founding he was interested. Of the work that that institution had done with its slender funds, all felt proud. There was nothing spent on bricks and mortar and of the two things remarkable about it, one was its extremely small mortality. There was only one thing of which the lecturer always felt proud in his life, and that was his connexion with the origin of three institutions in Cork—the Eye, Ear and Throat Hospital, the Cork Maternity, and the Women and Children's Hospital. For the dear old Queen's College, to him the dearest spot on earth, he had always the liveliest affection. Cork people ought to be proud of the men that emanated from that college. They were to be met with in every part of the British Empire and had risen to the highest distinction in their profession.

Hong Kong.

[FROM OUR CORRESPONDENT.]

THE HONG KONG UNIVERSITY AND THE HONG KONG COLLEGE OF MEDICINE.

On March 11th the ceremony of opening the Hong Kong University buildings took place, and a few days later there was signed an agreement handing over the College of Medicine to the University from September 1st, 1912, at which date the university will begin its first session.

The pioneer efforts that have led up to the foundation of a university for Hong Kong were begun and have been continued by a few enthusiastic medical men, and are so striking in their philanthropy and results that a short history of the college and description of its constitution cannot fail to be of interest.

History.

The Hong Kong College of Medicine had its inception at a meeting held on August 30th, 1887, in the then recently opened Alice Memorial Hospital, at which the following gentlemen were present: The late Rev. Dr. Chalmers (in the chair), the late Dr. William Young, Dr. (now Sir Patrick) Manson, Mr. Cantlie, Dr. (now Sir) Ho Kai, Dr. Jordan, Dr. Gerlach, and Mr. W. E. Crow. It was resolved to establish a College of Medicine for Chinese in Hong Kong, and Dr. Manson was forthwith appointed Dean. On October 1st, 1887, the inauguration took place. Five years later two men, Dr. Kong Ying Wa and Dr. Sun Yat Sen, the well-known reformer, obtained the licence of the college. For over eighteen years the college almost owed its existence to the indefatigable exertions of the secretary, Dr. Thompson, and to the enthusiasm he inspired in others. The college has turned out forty-six licentiates, many of whom are doing excellent work in China.

The government of the college is vested in a court of seven members—the Rector, the Dean, a representative of the General Council, a representative of the Alice Memorial and Nethersole Hospitals, the Rector's Assessor, and the Secretary. There is a General Council consisting of all persons holding office or appointment in the college, the licentiates of the college, and such benefactors of the college as may be nominated by the court. There is a Senate consisting of all the lecturers of the college—about twenty in number—and the Director of Studies. The Dean is Chairman of the Senate and official representative of that body in the court and at public functions. The successive deans since the opening of the college have been: Sir Patrick Manson, Mr. James Cantlie, and Dr. Francis Clark.

Until recently all the college lecturers gave their services entirely gratuitously. Now a nominal honorarium is paid to lecturers from the fees of the students, supplemented by an annual Government grant of $2,500 to the college, which was paid for the first time in 1902.

The original name of the institution was the Hong Kong College of Medicine for Chinese; but in 1907 the name was altered by the omission of the limiting phrase since students of other nationalities than Chinese study at the college. The curriculum is a five years one: the preliminary examination is recognized by the General Medical Council of the United Kingdom.

The college has had its head quarters in the Alice Memorial Hospital, and the Nethersole. Ho Miu Ling and Tung Wa Hospitals have also been open to students for purposes of clinical instruction; but, in addition, the college has borrowed accommodation for special purposes all over the city—for example, the surgery lectures have been delivered at the Government Civil Hospital, biology has been taught at Queen's College Laboratory, public health in the Royal Sanitary Institute's lecture hall and on the premises of the sanitary department, pathology and bacteriology at the public mortuary and Bacteriological Institute. A year or two ago a scheme for the erection of college buildings had reached the stage of the preparation of foundations but was abandoned when a larger scheme for the creation of a University of Hong Kong was promulgated. In 1905 the Government reserved a site in every way suitable for the purposes of a medical college, and offered it to the court free of all charges, and in 1907 a generous Chinese gentleman, Mr. Ng Li Hing, an old resident of the colony, was prepared to spend $50,000 in the erection of buildings on the site thus held in readiness. When, however, the late Hormusjee N. Mody, a Parsee gentleman, came forward with an offer to His Excellency the Governor, Sir F. J. D. Lugard, to erect a university for Hong Kong which should incorporate the existing Medical College, the court willingly consented to co-operate in the larger scheme, and Mr. Ng Li Hing transferred his gift to the University Endowment Fund.

The Hong Kong University.

Constitution.—The university was incorporated under local Ordinance, and came into existence on March 30th, 1911. It has recently incorporated the Hong Kong College of Medicine. The constitution of the university consists of a court composed of life, *ex officio*, and nominated members, numbering at present forty; of a council which will eventually consist of some seventeen members, partly

elected by the court, partly by the senate, and partly *ex officio*: and of a senate which will consist of the Principal and staff of the university and the Director of Education of the Colony. The creation of the Senate awaits the arrival of the Principal and staff. The Governor of the Colony is *ex officio* Chancellor. The Director of Public Works, the Director of Education, and the Registrar-General (Protector of Chinese) hold *ex officio* seats on the court and council, thereby identifying the local government with the university, securing their help and long local experience, and ensuring a continuity of policy. The Principal will be Vice-Chancellor and President of the Senate.

Objects.—The objects of the university as declared in the ordinance of incorporation are:

> The promotion of arts, science, and learning, the provision of higher education, the conferring of degrees, the development and formation of the character of students of all races, nationalities, and creeds, and the maintenance of the good understanding with the neighbouring Empire of China.

It is hoped that the Hong Kong University will be largely instrumental in making English the predominant *lingua franca* of the Far East, as pidgin English is already in business. Such a result would no doubt bring in its train important commercial benefits. English will be the medium of instruction. The necessity for this is that, although China has a written language common to the whole country, the spoken language is different in almost every province, and there would be men in almost every class who could not follow the instruction if it were given in any one Chinese dialect; moreover, few Europeans could lecture in a Chinese dialect, and students must learn a Western language, or be cut off for many years from almost all the scientific and medical literature of the West.

Buildings.—Sir Hormusjee Mody undertook to provide the buildings. These include the main buildings, a house for a married principal, and houses for two married professors or four unmarried professors. The main building is calculated to afford lecture-rooms, etc., for the accommodation of 500 undergraduates, and it is planned so as to be capable of extension. The chief feature is the great hall, 80 ft. by 50 ft., with domed roof, 43 ft. high. There are eleven class-rooms and eight laboratories and workshops, with libraries, a common room for students, committee rooms, offices, and coolies' quarters in basement. It is built on, perhaps, the finest site available for the purpose in the island, in the neighbourhood of the hospitals and mortuary, whose proximity is a necessity for instructional purposes for medical students. The site has been given by the Colonial Government, together with a large area immediately adjoining for residential quarters for students and a smaller area for the erection of an anatomical laboratory. Near the university is a site upon which the Church Missionary Society are building a hostel, and it is understood that on the adjoining site the Roman Catholic Mission will build their hostel, while immediately above it is an area acquired by the London Missionary Society for a similar purpose. The cost of the buildings and the preparation of the ground—which has been borne by Sir H. Mody, whose recent death has been an irreparable loss not only to the university, but to the colony—is approximately $345,000. The value of the sites given by the Government is estimated at $176,297. The cost of the anatomical theatre is estimated at $28,450. In addition to the missionary hostels, a residential block is being built by the university at a cost of $59,000: it will provide separate rooms or cubicles for about fifty students, with a large dining hall, quarters for a British professor and for a Chinese house-master.

Endowment. — The endowment and general fund, exclusive of the anatomical laboratory fund, amounts to about 1,429,000 Mexican dollars, collected as follows:

	$
Chinese subscriptions	751,179
British and others, in the East	144,650
British, at home (£870 13s. 0d.)	9,421
Promised by John Swire and Sons and allied firms, (£40,000)	457,145
Interest, etc., $68,464 (less $2,250 expenses)...	66,706
Total	$1,429,099

Of this sum $157,000 is hypothecated to scholarships. From it are also to be deducted the sums necessary for furnishing and equipment.

The Legislative Council of the Colony has voted a sum of £1,200 ($14,000) for the establishment of a Regius Professorship, and it is proposed that this shall be an annually recurrent vote. His Majesty's Government has promised an annual sum of £300 a year for scholarships, the holders of which our late King was graciously pleased to direct should be called "King Edward VII Scholars." Speaking in round figures, it may be anticipated that in 1913 the university will be possessed of an income of about £9,000 (or $100,000) per annum. With these funds it is proposed to open the University in September, 1912, with three faculties, Medicine, Engineering, and Arts, and if, as is trusted, further funds are rapidly forthcoming when once the university is opened, it is hoped to add other faculties without delay.

The appointed Principal of the University is Sir Charles Eliot, K.C.M.G., recently Vice-Chancellor of Sheffield University.

Special Correspondence.

PARIS.

Radical Cure of Varicocele.—Reduction of Blood Pressure by Application of X Rays to Suprarenals.—A New Cancer Cure.

At a recent meeting of the French Military Society, M. Jacob described an operation for varicocele, designed to suspend the testicle from the external ring after extensive resection of the pampiniform plexus; the veins on the anterior surface of the cord especially were carefully removed, and care was taken that the vas deferens was in no way injured, and the artery supplying it carefully preserved. The lower stump of the resected plexus was then attached to the external ring by means of a circular suture, the peripheral end of which passed through the internal pillar, and the other extremity through the external pillar. By this method the stump became attached to the external ring, which was obliterated by the newly formed adhesions. M. Jacob stated that he was thoroughly satisfied with the results obtained.

It is known that *x* rays have an ameliorating effect in hypertrophy and hypersecretion of the thyroid gland, and an effect on the other secretory glands, and that when the blood pressure is high there is sometimes, if not frequently, hypersecretion by suprarenal glands. Drs. Zimmern and Cottenot in several cases have, by the use of *x* rays, reduced the systolic pressure by 30 to 40 mm. of mercury in cases of arterio-sclerosis. The fall of blood pressure was accompanied by marked improvement in the patient's general condition and remained constant for considerable periods.

Dr. Guezada has made a preparation of arseno phospho-albumin with which he says he has treated several cases of cancer successfully. The preparation is applied locally and also administered internally. It is said to have the property of stopping haemorrhage from tumours and also suppuration in cancerous growths. In two cases the results were particularly favourable—namely, in a case of cancer of the neck and in another case of carcinoma of the face in a woman, aged 87. The matter is, however, still in the experimental stage.

THE De Dion Bouton one-cylinder 6-h.p. chassis is well known. The managing director informs us that the eight-cylindered cars, 1912, are now having a larger sale, and may be inspected at 10, Great Marlborough Street, London, W.

THE President of the International Hygiene Exhibition held last year in Dresden, His Excellency C. A. Lingner, has asked the Saxon Government to contribute 2,594,000 marks for the equipment of the National Museum of Hygiene, which is to be established in Dresden. The Government is prepared to give a million marks this year and a second million in the year 1914–15. The municipality of Dresden has announced its intention to give the site for the museum and an annual contribution of 150,000 marks for upkeep. We are not yet in a position to say what amount will be provided out of the profits of the exhibition, but in addition to the contribution of objects for exhibition the money available will certainly amount to a fairly large sum.

Correspondence.

GREEN URINE DUE TO A PROPRIETARY PILL.

SIR,—There can be no doubt that the majority of blue and green urines are due to the administration of methylene blue. Most people who pass these coloured urines are unaware that they have taken any drug. In some cases the methylene blue is administered surreptitiously as a practical joke, pink-coated sweets being sold for this very purpose. In other instances it is introduced into confectionery as a colouring agent. Although the great majority of green and blue urines are due to this drug, they must sometimes be produced by other agents, for cases of blue and green urine were recorded before the discovery of the aniline dyes. Indigo can hardly be regarded as a cause, for very large quantities may be taken without affecting the colour of the urine. Green urines may be due to biliverdin, easily recognized by its characteristic tests, but they are not common.

Methylene blue, which is tetramethyl-thionine-hydrochlorate, is given in doses of from 1 to 3 grains in chronic nephritis, cystitis, and gonorrhœa, and to patients suffering from *Bilharzia haematobia*. A quarter of a grain twice a day imparts a pea-green colour to the urine, whilst the same dose more frequently repeated turns it a peacock-blue. These urines keep well, undergoing decomposition slowly, but after a time they lose their colour, which, however, is speedily restored on shaking from the absorption of oxygen. The addition of a drop or two of formic aldehyde prevents decolorization almost indefinitely. A blue urine which had kept well for weeks became turbid and lost its colour, which was at once restored by filtration. Two months later, when every trace of the blue had again disappeared, withdrawing the cork and shaking for a few minutes produced at first an olive-green colour, then a sage-green, and finally a blue. These colours are not discharged or altered by exposure to *x* rays, nor by the action of a powerful Finsen light.

The chemical tests for methylene-blue urines are fairly characteristic, but those afforded by the spectroscope are still more reliable. Dilute solutions give a narrow dark band in the red and orange, whilst in strong solutions the whole of the red and orange, with parts of the yellow and green, are cut off. In methylene-blue urines these effects are always seen, but when the original urine has a marked yellow colour the violet and indigo are also darkened.

All this is ancient history, for Stockman of Glasgow in the *Edinburgh Medical Journal* of August, 1902, went thoroughly into the matter, whilst in June, 1906, in the same journal, Dr. Wilson Hake and I published an article on "Green, Blue, Magenta, and other Coloured Urines," illustrated with plates of spectra.—I am, etc.,

London, W., May 18th. WILLIAM MURRELL.

We have also received a letter from Dr. H. Wilson Hake, Lecturer on Chemistry and Toxicology at the Westminster Hospital Medical School, in the course of which, after giving the reference to the paper by himself and Dr. Murrell mentioned above, he desires to correct the statement made by Drs. Golla and Rolleston (BRITISH MEDICAL JOURNAL, May 11th, p. 1065) to the effect that the spectra of methylene blue and indigo are practically identical. Dr. Wilson Hake writes: "This is by no means the case if a careful observation is made. It will be seen from the absorption spectra which have been reproduced in the paper by Dr. Murrell and myself, that whereas methylene blue shows an absorption band in the red and orange on or near the C line, indigo shows an absorption band in the orange near to the D line. This difference may be easily observed by means of an ordinary good spectroscope."

SIR,—I was most interested by the communication by Drs. Golla and Rolleston in the JOURNAL of May 11th, as the following case was under my observation at the time I read it:

On Monday, May 6th, I was consulted by a police constable who complained of pain in the head and back of the neck. His temperature was slightly above normal, and I thought he was suffering from influenza. He told me the urine he had passed that day was green in colour. I advised him to go home and keep to his bed for a day or two. He was seen by a neighbour to be at his house in the early part of the evening, but when his wife returned home later on he had gone out, and did not return that night or next day. It was not till the afternoon of Wednesday, May 8th, that he turned up, and I was called to see him in the evening. He then declared that he remembered nothing that had happened from Monday evening till Wednesday afternoon, when he found himself walking towards Huddersfield about three miles from his home. He was still complaining of pain in his head, and I was shown a specimen of his urine which he had passed after returning home. It was still bright green in colour. It remained so until the following day. On questioning him I found he had taken a pill at Bradford on the previous Sunday, as he thought it might do him good for a cold he had. He sent for the box, and I found the pills to be "De Witt's Kidney and Bladder Pills."

An interesting point in this case is the length of time the urine retained its green colour after taking only one pill: it lasted nearly four days. It is impossible to say whether the pill taken on Sunday had anything to do with his loss of memory on the Monday. My patient is an intelligent young man, and I have no reason to doubt his word that he recollected nothing between Monday evening and Wednesday afternoon. From the condition of his clothing when he came to himself he thinks he must have slept out of doors.—I am etc.,

Huddersfield, May 19th. JOHN IRVING, M.B.

SIR,—I have seen five patients during the past few weeks passing green urine, all of whom had taken the pills referred to in previous letters.—I am, etc.,

R. SEAVER DOLLARD, L.R.C.P.Edin., L.S.A.

Catford, S.E., May 19th.

THE STERILIZATION OF THE UNFIT BY MEANS OF THE X RAYS.

SIR,—One of the greatest problems which confronts humanity is that of dealing with the ever-increasing number of insane persons, imbeciles, and idiots who are yearly added to our population. Whilst on the one hand there is a tendency for the total birth-rate to decrease, there can be little doubt that it is on the increase amongst the special individuals who it should be our endeavour to restrain. Our methods up to the present have been to nurture these undesirables, to build homes for them, to pay rates for their keep, and to generally keep them in a state of glorified imprisonment. Many of them are treated far better than are an infinitely large number of persons who do useful work in the world's progress. There can be no doubt that this problem is becoming a more pressing one every year, and sooner or later it will be an absolute necessity that it should be dealt with on scientific lines.

Had Nature her own way in the matter, there can be little doubt that she would make short work of these useless individuals by removing from them the artificial atmosphere with which we surround them, and which conduces to their multiplication rather than their decrease.

Notwithstanding the great efforts which are being made in the better education and better housing of the poor, little effect has been so far produced in lessening the number of undesirables which are yearly added to our list. At the present time we have something like 132,000 insane persons in asylums, who are absolutely useless beings, at an average cost of about 14s. 6d. a head a week, a payment which has to come out of the pocket of the ratepayer. To this number we must add the habitual drunkards, idiots, harmless imbeciles, and criminals who are largely kept in the same manner. The cost involved in keeping these useless individuals entails a tremendous strain upon the public purse; moreover, as when outside the asylum walls they are allowed to marry and bring forth children, the cost is an ever-increasing one. According to the census of 1901 there were 18,900 known married or widowed idiots, imbeciles, and feeble-minded people in the United Kingdom and Ireland; and although many of these are unfit for either citizenship or society, it must not be forgotten that they yet remain physically fit to beget children. To those who take any interest in the progress of the race, the question of a remedy for this unfortunate state of things must occasionally occur. The question arises, Is there a remedy for this? Several remedies have been suggested, but I think the balance lies

in favour of making the unfit unfitted for parenthood in a manner which can produce no harmful results.

Experimental investigation has taught us that in the *x* rays we have an agent which can bring about such changes in the sexual organs that complete sterilization results, and in animals this can be done without producing any ill results, or at any rate, any effects which have so far been noticed. In dealing with males, the procedure is an exceedingly easy one; with females, however, it is more difficult, owing to the amount of tissues through which the rays have to pass, and the danger of producing dermatitis. It is not necessary here to enter into the technique of the procedure, but there can be little doubt that complete sterilization can be obtained with comparative ease.

The chief point about this method to which I particularly wish to draw attention is that whilst it produces sterilization it does not produce impotency; this may possibly be an argument against its use, as there may be some who would be willing to submit themselves to the rays in order to save their purses and themselves from some of the disadvantages of parenthood; but on the other hand, the operation could be so guarded by legislative procedure, that no harm in this respect would arise, and even if it occasionally did, no doubt the good results achieved would more than counterbalance the evil which exists to-day.

It was on account of the sterilization properties in the *x* rays that, some four or five years back, I brought the matter before the council of the then British Electro-Therapeutic Society for the purpose of obtaining the resolution in which it should be set forth that the *x* rays should only be used by medical men, and should only be used by them after their having passed an examination to show their efficiency in dealing with them. On the advice of the committee, I wrote a number of letters to all the then medical members of Parliament; and whilst they almost all agreed that some legislative procedure was necessary, they expressed the opinion that the first step should be taken by a large body, such as the British Medical Association, and afterwards referred to Parliament, if necessary as a private bill.

At the present time the *x* rays are only to a very slight extent used by quacks, for the simple reason that they are so fraught with danger that they are afraid of them. There would be little difficulty in drawing up an Act for bringing about the sterilization of the unfit, and owing to the ease with which it could be done, to the painlessness of the operation, and to the fact that impotency does not result, we may assume that a large number of feeble-minded persons, who are sufficiently sane to be alive to the necessity, would be only too willing to submit themselves for the public good; for the others who are beyond this we need have no consideration.

The matter is of such great and increasing importance that it is well that we should consider it from all its standpoints, and at the present time, when a bill has been brought into Parliament for the restraint and care of the mentally defective, it has a special importance, and is, perhaps, of even greater importance than the imposing of penalties in the case of marriage with defectives.—I am, etc.,

J. HALL-EDWARDS, L.R.C.P., F.R.C.S.Edin.,
Senior Officer in Charge of the X-ray Department,
May 20th. General Hospital, Birmingham.

INTESTINAL STASIS AND RHEUMATOID ARTHRITIS.

SIR,—I have read with the greatest interest Mr. Arbuthnot Lane's stimulating and suggestive lecture on intestinal stasis which appeared in your issue of May 4th. His recommendation "in every case of rheumatoid arthritis in which simple means have failed the bowel should be short-circuited without hesitation" leads me to write a word of caution based on practical experience of this operation.

In November last I was consulted by a young lady suffering from severe rheumatoid arthritis of ten years' duration, the condition being slowly progressive. There were no subjective symptoms of gastro-intestinal disorder, but the frequently repeated examination of the stools revealed an advanced degree of putrefaction in the bowel. The rapidity with which foul-smelling faeculent fluid was secreted immediately after irrigation of the bowel was a very striking feature. Microscopic examination of this faecal matter showed it to be composed entirely of bacteria. Medical treatment by means of various diets, drugs, and lavage, carried out for over two months, failed to effect any relief of the symptoms or to improve the intestinal evacuations, and it then appeared to me that benefit might follow surgical treatment, and more especially irrigation of the large bowel. I was then unaware that any surgical measures had been advocated by Mr. Lane for the relief of this condition, and I asked Mr. Alexis Thomson to see the patient with me with a view to operation. After deliberation, the operation of short-circuiting suggested by Mr. Lane for other conditions was decided on and successfully performed, the patient making a rapid and satisfactory recovery from the operation. I regret to say, however, that there has been no improvement in the rheumatoid condition; on the contrary, the joints are now much more painful and the movement less free than before the operation.

My object in writing is to raise the question of the soundness of the scientific basis of this particular operation. Is it wise to leave a few feet of diseased and septic mucous membrane on the chance that recovery will take place naturally under the influence of the rest, in a surgical sense, undoubtedly afforded by the operation? Mr. Lane has done valuable service in calling fresh attention to the profound importance of intestinal autointoxication or infection as a cause of rheumatoid arthritis. When the truth of this is more widely appreciated, adequate attention will be directed to the systematic investigation of the intestinal functions, and appropriate treatment will be applied which will cure or arrest the disease at its onset, so that the question of appropriate surgical treatment will never arise.—I am, etc.,

Edinburgh, May 12th. CHALMERS WATSON, M.D.

NATIONAL MEDICAL UNION.

SIR,—Dr. Helme's letter under the above heading in your last issue appears too soon after the selection of candidates for the Lancashire and Cheshire Branch for any one to doubt that the one has a direct bearing on the other.

We are not responsible for the unfortunate statements and headings which have appeared in the lay press, and to which Dr. Helme alludes. These statements were challenged by us in the following issue of the paper, which was published on the morning of the day upon which he addressed his letter to you. The article in question was inspired by some person of whom we have no knowledge whatever, and we can only suppose that its purpose originated in a feeling of enmity towards the National Medical Union.

The Union has never accentuated differences in the profession. Testimony of this is to hand from members of Council, leaders of the profession, and members of the rank and file of the Association from one end of Great Britain to the other. An occasional difference as to the best means to secure an end, an honest expression of opinion on a controversial point, is not disunion, is not an attempt to wreck a policy, neither is it the folly which Dr. Helme suggests.

At the last general meeting of the National Medical Union the executive and general committees were authorized, by resolution, to deal with the British Medical Association Council elections, and Dr. Reynolds and Dr. O'Sullivan were finally decided upon by these committees as being the most suitable candidates. Dr. O'Sullivan was nominated at the unanimous wish of the members of the National Medical Union in Liverpool. The nominations were subsequently confirmed, by an overwhelming majority, at an open meeting of the profession of Liverpool and district. It is hoped that the National Medical Union will have accomplished most of its labours when the results of the British Medical Association Council elections are announced.

We believe Dr. Helme has accepted nomination for the Central Council election. If this is so, we would draw his attention to the fact that, by opposing the return to office of the present members of Council for this Branch, he is

actually doing the very thing for which he blames the National Medical Union.—We are, etc.,

G. A. WRIGHT,
Chairman.
T. WHEELER HART,
J. SKARDON PROWSE,
Honorary Secretaries.

Manchester, May 21st.

[We have received the following telegram as we go to press: The National Medical Union entirely repudiate the series of misstatements contained in the election address of Dr. Heaney, of Liverpool, for which there is not the slightest foundation.—Signed, T. WHEELER HART and J. SKARDON PROWSE, Honorary Secretaries.]

SIR,—Dr. Helme's letter, published in the JOURNAL of May 18th, referring to the above organization, is just sufficient to excite curiosity as to the nature of the reasons which, he informs the readers of the JOURNAL, he proposes to give more fully in a subsequent issue.

In his communication he alludes to a policy of attempting to accentuate differences in the profession, but gives no information as to the grounds upon which he bases this allegation against the Union.

It may not have suited Dr. Helme at this juncture to have disclosed that particular information, but it would seem more in accordance with the elementary principles of equity which should be extended to those against whom his charge is directed, if he had, in the first instance, given a detailed account of the circumstances upon which the accusation was based ere he exhibited a desire to produce an effect by primarily levelling the charge with the promise to later substantiate it by his proofs. A wide publicity has been given to the charge, and minds may be prejudiced before the grounds upon which it is formulated are forthcoming and accorded equal publicity.

Dr. Helme girds at the Chairman and Secretaries of the National Medical Union for issuing what he styles a "manifesto" without submitting it to the Union. It would be instructive to learn what are his views as to the functions of executive officials when they are confronted with statements in the daily press vilifying and traducing the body to which they are attached. Are they, as he implies, to summon a meeting of the whole union and lose valuable time before publishing a denial of the statement made? Dr. Helme observes that the Union was formed with the avowed intention of uniting the rank and file and strengthening the hands of the members of the British Medical Association. I would suggest to him that for "hands" he might more accurately have written "head" or "Council"; the hands were already clean and strong; the head not always clear, vigorous, and firm in purpose and execution; hence the real origin of the National Medical Union.

I would like to remind your readers that the objects of the Union were distinctly set forth in the SUPPLEMENT of the BRITISH MEDICAL JOURNAL of May 4th, and I unhesitatingly say that not a member of the British Medical Association could legitimately and with truth assert that they tend in the slightest degree to impair the unity and strength of the Association and the profession as a whole, but, on the contrary, they make for much unity and strength, and are deserving of commendation.

The *volte face* on the part of Dr. Helme is much to be deplored and regretted. It is likewise peculiar, as he was apparently one of the staunchest adherents of the Union until quite recently. His resignation has awakened conflicting and mixed feelings. He certainly was at one with its policy as to the opposition to be offered to the present members on the Central Council representing Lancashire and Cheshire—Messrs. Garstang, Taylor, and Larkin.

He can scarcely controvert the fact that the Union really owes its inception to a desire that, while remaining perfectly loyal to the Association, it should avowedly and determinedly seek to stiffen and strengthen an expedient and temporizing Council, and endeavour to alter its personnel.

Dr. Helme is reported, in a Manchester paper, to have stated that the National Medical Union is in the hands of a small number of men who have nominated two candidates for election to the Council of the British Medical Association, but have not submitted them to the Union, and that such action is not representative of the Union.

My reply to that statement is that I was proposed as a candidate, to my surprise, at a meeting of members of the National Medical Union (mainly members of the British Medical Association) resident in Liverpool and district, and the executive of the Union had nothing whatever to do with my nomination, but accepted it as coming from the Liverpool branch of the Union.

I subsequently, at a mass meeting of the profession held at Hope Hall, Liverpool, was proposed, in conjunction with Dr. Reynolds of Manchester, as a candidate for election to the Central Council to represent the Lancashire and Cheshire Branch, and received practically the unanimous support of the 200 men present.

I only missed being nominated by the Liverpool Division of the British Medical Association, of which Division I am one of the Representatives elected to take office in July, by four votes, and that was due to the intrigues of a clique who resent any member being elected to office unless he stands for election under their auspices and has received the stamp of their imprimatur.

The fact that in my address to the electors of the Lancashire and Cheshire Branch I have emphatically stated that the bed-rock of my candidature is loyalty to the British Medical Association as such, constitutes my answer to those interested individuals who at a critical time are engaged in impeaching the National Medical Union and endeavouring to impair and discount the efforts it has made to strengthen and unite the Association and the profession as a whole while struggling to insist that our just rights and demands shall be conceded.

In conclusion, let me make some slight reference to the letter of Dr. Staveley Dick, who has favoured Dr. Reynolds and myself to some criticism of our addresses. He asks himself what we have done in the past to justify our appearance as candidates. My reply is that Dr. Dick can scarcely have perused history to advantage when he does not bear in mind the fact that during periods of crisis men, who under ordinary circumstances are content to pursue their avocations and confine their energies to such, deem it imperative upon them to enter the arena on behalf of what they may consider to be a just and righteous cause. In particular are they stimulated to do so if they feel that there has been any treachery displayed by those to whom the leadership and conduct of affairs had been entrusted.

I trust that will be sufficient explanation to satisfy the susceptibilities of Dr. Dick for our appearance in the field. —I am, etc.,

J. E. O'SULLIVAN.

Liverpool, May 20th.

APPENDICITIS—AND QUICKNESS.

SIR,—Mr. Paterson's vigorous criticism of the waiting policy in appendicitis only expresses, I am sure, the opinion of the great majority of experienced surgeons. Whatever may be the value of "wait and see" as a political aphorism, it is a most dangerous guide in the surgery of the appendix. The fruits of this policy, still too largely popular, are seen in the 1,500 annual deaths from appendicitis in England and Wales to which Mr. Paterson calls attention. If this number represented a death-rate of 5 per cent. of the total cases, the latter would equal 30,000 cases a year. I have no means of estimating the actual total of cases of appendicitis per annum, but it may well be less than 30,000, in which case the death-rate would exceed 5 per cent. Now, the death-rate of cases operated on within twenty-four hours of the onset of the acute attack certainly does not exceed 1 per cent. Mr. Paterson is certainly right, therefore, in saying that the great majority of the 1,500 annual deaths are preventable.

Although preventable, they will not be prevented until the profession and the public alike recognize the dangers of procrastination. During the last few years it is the experience of hospital surgeons in all parts of the country that cases of appendicitis reach them at a much earlier stage of the disease than formerly, and that their results have correspondingly improved. I look forward with confidence to see within a few years the mortality of appendicitis reduced to 1 per cent., or even less, when the dangers of conservatism have been fully grasped by all classes of the population, and when every surgeon frankly recognizes that the only safe treatment for every case of acute appendicitis is immediate operation.

In addition to the great reduction of mortality to which we can look from the universal practice of immediate operation, we shall obtain a great shortening of the time of illness and of convalescence. In many cases operated on within twenty-four hours it is possible to dispense with drainage, or to remove the tube at the end of twenty-four hours. Cases, on the other hand, in which operation has been delayed till the third day or later have to undergo the inconveniences and dangers of suppuration for at least three weeks, and often twice or three times that time.

I believe that on the advantage of operating within the first twenty-four hours of the acute onset there is little difference of opinion among operating surgeons. Those who still doubt the universal applicability of the rule to operate at once in all stages of the illness are influenced by their experience of unfavourable results which they have seen or experienced in cases operated on at times between the second and the fourth day of the disease, before, as they say, the disease had become "properly localized." They have attributed the fatal result to the disturbance of imperfect adhesions and to the opening up of new tracts of absorption for the toxins. I believe the explanation is erroneous. I have proved in some hundreds of cases that the mere separation of adhesions between a purulent focus and the unaffected peritoneum has no ill result. On the contrary, it often ensures the effectual evacuation of loculi of pus which otherwise would escape observation. The real protection of the peritoneum against spreading of the infective process is not merely the wall of lymph by which the local focus is walled off, but the state of relative systemic immunity of which the formation of the pus is evidence.

The real cause of the fatal results in the period intermediate between the onset and the formation of local pus which I have, like others, experienced is, I believe, nothing but the use of chloroform and the special tendency of this anaesthetic to be followed by acid intoxication in cases of abdominal sepsis. Since I abandoned chloroform in all cases of acute appendicitis and employed ether by the open method I have found no ill results from operating on any stage of acute appendicitis. I think the employment of this anaesthetic will remove the only doubt which some surgeons still entertain as to the expediency of operating on all cases as soon as they are seen, whatever the stage of the disease. But the ideal course, the safest, best, and simplest, is to operate in all cases within twenty-four hours. To that we shall eventually come, and in that course alone shall we find the means of bringing the mortality of appendicitis down to its possible limit.—I am, etc.,

Wolverhampton, May 20th. EDWARD DEANESLY.

PREVENTION OF CHILD MORTALITY: OVERLAPPING OF EFFORT.

SIR,—We are informed by a circular issued last week from Glasgow, that a proposal is on foot to form a National Association for the Prevention of Infant Mortality and the Promotion of the Welfare of Children under School Age.

We desire to call attention to the fact that a national organization of this description is already at work. This body is a special department, known as the Association of Infant Consultations and Schools for Mothers, of the National League for Physical Education and Improvement. The work which has been carried out by the League since its formation in 1905 includes: (1) The co-ordination and extension of already existing health promoting agencies, and the formation of others where none exist; and (2) the promotion of fresh legislation where necessary.

Since its constitution in December, 1911, the special department of the league concerned with child welfare has been at work on lines to a great extent identical with those set forth in the circular already referred to. It has secured the affiliation of fifty societies in all parts of the kingdom, comprising voluntary associations, municipal infant consultation centres, and schools for mothers, and other institutions for promoting the welfare of mothers and infants, and of young children generally up to compulsory school age. It is, further, in close touch and constant communication with the rest of these societies. The general and executive committees, on which the medical profession is largely represented, are on a purely democratic basis, and the members are all active workers on the various institutions they represent.

Already a considerable amount of useful practical work has been done. A great deal of literature (such as case-papers, weight charts, health leaflets, health posters, etc.) has been prepared by experts, and published at a cheap rate for the use of those who are engaged in this work; statistics have been collected and information, advice, and help have been given in starting societies all over the country. One exhibition illustrative of this admirable welfare work has been held, and another is in course of preparation; and, finally, owing to the propagandist efforts of the league, the number of local health societies has been doubled within the last year.

Duplication of effort and overlapping are to be deprecated. It is greatly to be hoped that before this new association comes into being, steps may be taken to ensure that there be no loss of energy or power, through preventable overlapping, in dealing with a question of such vital importance to the well-being of the whole nation.—We are, etc.,

W. BOYD CARPENTER.
LAUDER BRUNTON.
London, W.C., May 21st. JOHN TWEEDY.

THE DUTY TO SERVE ON LOCAL PUBLIC BODIES.

SIR,—May I appeal through the widely-read columns of the BRITISH MEDICAL JOURNAL to the leisured members of our profession to become members of district councils, boards of guardians, and magistrates, and so look after the interests of those members of the same profession who have to act as public servants? There must be many retired men who can spare the time to serve in these capacities, and by so doing can protect the hard-worked and much-criticized servants of these bodies. The profession is now arousing from its long sleep. Never was there a time when so much protection was required.

I trust these lines may be read by some doctors who have sufficient *esprit de corps* to respond to this appeal.—I am, etc.,

Acton, W., May 20th. CHARLES DIXSON, M.D.

FUTURE OF GENERAL PRACTICE.

SIR,—I am glad Dr. Cook agrees with me as to certain grave dangers to the general practitioner foreshadowed in the Interim Tuberculosis Report. He adds, however:

> As to charging fees over a long illness, are we not by taking up this position saying "Your money and your life"? for we know we shall not cure the man.

He then expresses astonishment at my taking up such a position. I must express my surprise at any one taking up so foolish a position. Dr. Cook is quite welcome to put up as many dummies as he likes, and may have all the credit he desires in knocking them down; but I think I am justified in protesting against being identified with any of them. What I did suggest was that in many cases of hopeless disease the patient would reap as much benefit from the services of his own doctor as from the treatment of a State official, and that in my opinion there was no necessity on the ground of public welfare for depriving him of the fees he might gain thereby. My suggestion is, of course, limited to the case of such patients as can be reasonably considered able to pay a doctor, and where proper precautions can be taken to protect others.—I am, etc.,

London, N.E., May 18th. MAJOR GREENWOOD.

FEES FOR EXAMINING FOR INSURANCE COMPANIES.

SIR,—A short time ago I was asked by a patient to examine him for life insurance in a company called the Sceptre Life Assurance, Limited. The sum was for £250. For the examination, which was a very full one, I naturally expected the reasonable fee of £1 1s., but after I had completed the examination and filled in the form I noticed at the very end of the form a statement that the fee for medical examination in cases of insurance for £100 to £500 is 10s. 6d., which the patient pays, but gets refunded from the company. The patient himself was

dissatisfied at paying me only 10s. 6d., and said he would approach the company about it, but simply with the result that the company's secretary wrote me stating that the amount of the medical fee was stated on the medical form. This is true, and no doubt I should have read over the whole form before filling it up. Had I done this I would have refused to examine the candidate under the reasonable fee of £1 1s. I was asked some time ago by the North British and Mercantile to examine a man for 10s. 6d. (I think the insurance was for £200). This I refused to do. I heard afterwards that the company had got the man medically examined by their medical adviser at their chief office in London. I know this is an old grievance of medical men, but it is high time we acted as a body in the matter by refusing to examine candidates for insurance where the sum assured is £100 or over for less than £1 1s.—I am, etc.,

Sidcup, May 17th. T. M. CALLENDER, M.D., F.R.C.S.E.

Universities and Colleges.

CONGRESS OF THE UNIVERSITIES OF THE EMPIRE.

THIS congress will be opened on Tuesday morning, July 2nd, by the Earl of Rosebery, Chancellor of the Universities of London and Glasgow and Lord Rector of the University of St. Andrews. Two subjects will then be discussed—the division of work and specialization among universities, introduced by Sir Alfred Hopkinson, Vice-Chancellor of the Victoria University, Manchester; and inter-university arrangements for post-graduate and research students, introduced by Principal Peterson, McGill University, Montreal. Afterwards the delegates will be entertained at lunch by His Majesty's Government, and Prince Arthur of Connaught will hold a reception at the University of London in the evening.

On Wednesday morning Earl Curzon, Chancellor of the University of Oxford, will preside, and the subjects for discussion will be the relation of universities to technical education and to education for the public services, introduced by Professor A. Smithells, University of Leeds, and Mr. Stanley Leathes, C.B., First Civil Service Commissioner; and the interchange of university teachers, introduced by Dr. J. W. Barrett, University of Melbourne. In the afternoon Mr. Balfour will preside, when Sir Frederick Lugard, late Governor of Hong Kong and Chancellor of the University of Hong Kong, and Dr. J. C. R. Ewing, Vice-Chancellor of the Punjab University, will open a discussion on the problem of universities in the East in regard to their influence on character and moral ideals. This will be followed by a paper by Mr. E. B. Sargant, member of the Royal Commission on University Education in London, on residential facilities in connexion with universities.

On Thursday morning Lord Rayleigh, Chancellor of the University of Cambridge, will preside over a discussion on mutual recognition by universities of entrance tests, introduced by Mr. P. E. Matheson, Oxford Secretary of the Oxford and Cambridge Schools Examination Board; and on the action of universities in relation to the after-career of students, introduced by Mr. H. A. Roberts, Secretary of the Cambridge Appointments Board, and Miss M. G. Spencer, Secretary of the Central Bureau for the Employment of Women. In the afternoon Lord Haldane, Chancellor of the University of Bristol, will preside over a discussion introduced by Mr. J. A. R. Marriott, Secretary of the Oxford Extension Delegacy, and the Rev. D. H. S. Cranage, Secretary of the Cambridge University Extension Syndicate, on university extension and specialized classes for students engaged in professional, commercial, and industrial pursuits.

On Friday morning Lord Strathcona, Chancellor of the Universities of Aberdeen and McGill, will preside, and papers will be read by Dr. J. R. Parkin, C.M.G., Organizing Secretary of the Rhodes Scholarship Trust, on the establishment of a central bureau; by Miss H. M. White, Principal of Alexandra College, Dublin, on the position of women in universities; and by Sir James Donaldson, Vice-Chancellor and Principal of the University of St. Andrews, on representation of teachers and graduates on the governing body of a university.

UNIVERSITY OF LIVERPOOL.

THE freedom of the City of Dublin has been conferred upon Professor Meyer as a recognition of his services in the cause of Celtic studies.

The council of the university has founded a Chair of Civic Design, and appointed to it Mr. G. D. Adshead. The funds for this chair have been provided by Sir William Lever.

The Ravenhead Sanitary Pipe and Brick Company has established an Entrance Scholarship in Architecture of the value of £50, tenable by students of the School of Architecture for two years. The successful candidate is to take the two years' course for the certificate in architecture.

The installation of a wireless telegraphy station at the university is now complete, and messages are being received daily from the Eiffel Tower in Paris and a very wide area. The detailed programme of lectures in the School of Social Science has been issued, and can be obtained at the university. The school is doing excellent work.

Further progress has been made towards the erection of the new Arts Buildings, and in the course of the next few months building operations will commence.

Dr. Alfred Holt has been appointed Reader in Physical Chemistry in the university. The Readership is an honorary post, and has been created by the council in appreciation of Dr. Holt's distinction in this subject.

The trustees of the Albert Kahn Travelling Fellowship have appointed Mr. R. W. Roxby, Lecturer in Geography in the university, to one of the two Fellowships offered each year to members of the staffs of the universities of the country. Each Fellowship is of the value of £660, and the Fellow has to travel for a year and to present a report to the trustees at the end of his tenure of the Fellowship. The appointment of Mr. Roxby is a welcome distinction.

Professor Petsch, successor to Dr. Kuno Meyer to the Chair of German, will deliver his public inaugural address about the middle of October next.

On Saturday, May 18th, Viscount Haldane opened the Harrison-Hughes laboratories for engineering. There was a large and influential gathering at the university to greet him. The Chancellor, Lord Derby, presided over the meeting. Mr. Heath Harrison, as the representative of the donors of the laboratories, formally presented the building to the Chancellor, and also handed to him a gold key, with which Lord Haldane subsequently opened the door of the building. Lord Haldane addressed the audience, and made happy comparisons between the purport of school teaching and university training and development in research.

UNIVERSITY OF MANCHESTER.

Annual Statement by the Vice-Chancellor.

AT a meeting of the Court of the University of Manchester held on May 15th, the Vice-Chancellor, Sir Alfred Hopkinson, made his annual statement on the work of the university. He said that the number of students was now 1,644, a decrease as compared with last year. In all the Faculties except medicine the number of students had been practically constant, there being very little change in the last two or three years. That did not mean that the university had not grown, but there had been a tendency for several years to limit the classes of lower standard, and practically all the classes below the matriculation standard had disappeared, as the policy had been to induce people to attain that standard in the secondary schools which were the proper places for them. On the other hand, the amount of post-graduate and research work had largely increased.

The number of students in the Faculty of Medicine had declined. This was due to causes in operation throughout the whole country. In 1895 the number of students registered by the General Medical Council in England was 1,007 whereas in 1911 it was only 521, the drop having been almost continuous in the intervening years. There had also been a decrease of medical students in Scotland, though not in the same proportion as in England. Without discussing the general causes of this decrease, he would point out that the medical course, both in the character of the study and the number of years required for the course, was very arduous, and men might well ask what remuneration could be expected. There had been a growth in the number of official appointments, and it was possible that in a year or two this might result in an increase in the number of medical students in the country generally, and Manchester might expect to be affected accordingly, though the number of students in any particular medical school might be lessened owing to the increase in the number of licensing bodies. The movement for securing that the preliminary training of medical students in science should be given not at the universities but in the secondary schools was opposed by the Scottish and by some of the English universities, and should be regarded with some mistrust. He thought that the right policy should be to avoid too much specialization of boys of school age, as a wide training was necessary to maintain the liberal education of any profession. When the time came for the preliminary instruction necessary for the medical training it should be given within the university. The Manchester University had made some changes in its first M.B. course with a view to leading up more directly to the subsequent subjects of medical study without in any way interfering with the scientific character of the course.

Referring to the important matter of the Government grants, he was glad to say that the Government grants for universities and university colleges in England had been increased from £100,000 to £150,000; the grants were in future to be allotted by the Board of Education instead of the Treasury. The representatives of the university had met the representatives of the Board of Education, and it was agreed that it was quite impos-

sible for any outside body to have the determining voice as to the manner in which the grants should be expended. The grants would therefore be paid over to the general income, to be spent under the direction and at the discretion of the constituted authorities, on the understanding that they were for the doing of university work, and that work below the university standard would be ruled out. It was also understood that the grants were not to replace local subscriptions and support: if the people showed no willingness to support the university the Government said they would not be inclined to encourage it. Regard, too, would be paid to the amount of good work done by the university, and the amount of work which might be done more efficiently with more money.

The Vice-Chancellor made a sympathetic reference to the recent death of Professor J. Dixon Mann, who was the University Representative on the General Medical Council, and had always taken an active interest in the general education of medical students.

The Court then proceeded to the appointment of members of the Court and Council, and the following were elected: The Duke of Devonshire, Lord Sheffield, Colonel George Dixon, Mr. A. H. Worthington, and Mr. C. T. Needham, M.P. Mr. Edward Fiddes and Dr. Phoebe Sheavyn were also appointed to be members of the Senate, Dr. Sheavyn being the only woman member. A statute was then approved in the form sanctioned by the Privy Council for the institution of a joint matriculation board for the universities of Manchester, Liverpool, Leeds, and Sheffield. A scheme was also sanctioned for the granting of certificates in social work and a certificate in the teaching of art was instituted, the latter being a decentralizing movement which would throw the responsibility of granting certificates on Manchester rather than on South Kensington. An arrangement was approved by which Manchester students taking honours in French might spend one summer term at the Caen University, which would count for one term in the Manchester University. It was stated that there are now 47 students in the Faculty of Commerce, the maintainence of which required about £1,500 a year. Speaking of the Faculty of Public Health, Professor Delépine said it had turned out a large number of men who now occupied important positions; and the Vice-Chancellor said that nothing was more gratifying than the growth of this department. It was a source of great benefit to the public on account of the investigations which it carried out, and it had turned out a large body of efficient public health officers. The Manchester Corporation, in making its grant, suggested that a portion of it should be devoted to the public health work, and the Council of the University had gladly agreed to put £500 of the grant to this use.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

The Fellowship.

THE following candidates have been approved at the examination indicated:

FIRST FELLOWSHIP.—H. G. Alexander, L. Bromley, E. H. P. Brunton, N. Cantlie, R. E. Collins, L. P. Costobadie, N. Duggan, A. T. Edwards, H. Fiecker, H. Gardiner, R. N. Geach, H. D. Harrison, G. Ley, C. W. B. Littlejohn, R. C. McQueen, R. McRae, R. C. Ozanne, A. B. Pavey Smith, J. E. Pearce, H. Platt, W. A. Pocock, N. Purcell, A. A. Rees, G. B. Richardson, S. Ritson, D. C. Taylor, W. C. Toll, M. E. T. D. Vlasto, J. O. D. Wade, J. St.G. Wilson, M. S. Woolf.

CONJOINT BOARD IN IRELAND.

THE following candidates have been approved at the examination indicated:

D.P.H. (*Both Parts*).—E. G. S. Cane, *S. Child, H. V. A. Gatchell, J. F. Gibbons, R. Lewis, H. O'H. H. May, A. M. Watts.

* With honours.

Obituary.

PALEMON BEST, M.B.Lond., J.P.,

FORMERLY OF LOUTH, LINCOLNSHIRE.

MANY old medical friends of Dr. Palemon Best, some of whom were at University College with him fifty years ago, will hear with regret of his death. His health had been failing for some years; of late, attacks of angina pectoris became increasingly frequent, and on Tuesday, May 7th, he succumbed suddenly to a severe attack of cardiac dyspnoea.

Palemon Best was born at St. Ives, Cornwall (a district for which he always retained a deep affection), in 1839. He received his medical education at University College, London, where he had a brilliant career as a student, and was a favourite pupil of the late Sir William Jenner. He took the diplomas of M.R.C.S. and L.S.A. in 1861 and gained the gold medal for his year in Medicine at University College, London. In 1864 he took the degree of M.B.Lond., coming out first in Medicine, thus winning the gold medal and a scholarship of £100.

Although advised by Sir William Jenner to settle in London, he decided, for family reasons, to practise in his native town. On the death of his parents after a few years he settled in medical practice in Louth, Lincolnshire, where he remained until within a few years of his death. He soon gained success in general practice, and with characteristic zeal and energy identified himself with the life of the town, taking a prominent part in municipal and political matters and in philanthropic and educational questions. He was at one time mayor of the borough, a governor of the local King Edward VII Grammar School, and a justice of the peace.

Dr. Best was a keen and reliable diagnostician, and was resourceful and thorough in treatment. His opinion was highly valued in consultation in the neighbouring district. His mind was of the encyclopaedic order, and there were few subjects in which he was not interested. His advice was frequently sought on questions of general and medical education, and several men who have attained to high positions in the medical profession owe not a little to his counsel and help. He was a man with strong convictions and a great hatred of injustice, but with perhaps less power of seeing both sides of a question than others with the same intellectual power: sometimes, therefore, he found himself at variance with those with whom he would gladly have agreed. He was ever ready to lend a helping hand to those in distress or difficulty.

He leaves one son, Dr. W. Jenner Best, of Louth, Lincolnshire, and a daughter, Mrs. F. W. Dyson, wife of the Astronomer Royal for England.

J. E. SIMPSON, M.B., R.U.I.,

ASSISTANT SURGEON TO THE "TITANIC."

THE news of the disaster to the *Titanic* caused the many friends of Dr. Simpson, Assistant Surgeon on the ill-fated ship, a period of acute suspense; but from the first few entertained much hope, as they knew he would do his duty to others. The following letter has been received by Dr. Simpson's father, Dr. J. Simpson, of Belfast. It is written by Mr. C. H. Lightoller, second officer of the *Titanic*, to Mr. R. W. Graham, of New York:

Dear Sir,—In reply to yours of April 30th, I am sorry to say that Assistant Surgeon John E. Simpson was on the *Titanic*. I deeply regret your loss, which is also mine. I may say I was practically the last man to speak to Dr. Simpson, and on this occasion he was walking along the boat deck in company with Messrs. M'Elroy and Barker, Dr. O'Loughlin, and four assistant pursers. They were all perfectly calm in the knowledge that they had done their duty, and were still assisting by showing a calm and cool exterior to the passengers. Each one individually came up to me and shook hands. We merely exchanged the words, "Good-bye, old man!" This occurred shortly before the end, and I am not aware that he was seen by any one after. With deepest sympathy for you in the loss of your friend, believe me,

Yours sincerely,
C. H. LIGHTOLLER.

The late Dr. Simpson was a student in the Medical Faculty in Belfast, and received the M.B. of the Royal University in 1903. He practised for a time in England, but his health failed and it was considered advisable for him to rest for a time. Great sympathy is felt for his father, who is one of the best-known practitioners in Belfast, and for his family.

WE regret to record the death of Dr. DANIEL CATLIN BURLINGHAM, of Hawarden, Flintshire, on May 12th. It occurred at Chester, where Dr. Burlingham took up his residence only about a month ago on his retirement from practice. His death was due to an illness which commenced last November. Dr. Burlingham, a Norfolk man by birth, received his professional education at Edinburgh, where he became M.B., C.M. in 1876. He proceeded to the M.D. some three years later, and meantime had established himself at Hawarden on the invitation of Mrs. Gladstone, who had met him on the occasion of a visit paid by her to the North-East London Hospital for Children, where Dr. Burlingham was then house-surgeon. His connexion with Hawarden thus commenced remained uninterrupted until the date of his retirement. He played an active part in the life of the place, and his abilities and personal qualities made him a favourite with all classes of society. His retirement, not less than its cause, was much regretted, and the feeling of the inhabitants towards him expressed by the presentation to him of a large cheque.

Its acknowledgement was one of the last letters he wrote to Hawarden before his final illness at Chester. By birth Dr. Burlingham belonged to the Quakers, and he received part of his education at their school in York; he joined the Church of England in 1896, and for many years acted as a sidesman in Hawarden Parish Church. A few years earlier he also joined the Freemasons, and became one of the founders of the St. Mark's Lodge. He was a member, too, of the St. Deiniol Lodge, and its Master in 1910. Dr. Burlingham, who is survived by his wife and daughter, was buried at Chester, where his funeral was attended by a representative of the Gladstone family and many people from Hawarden.

The Services.

ROYAL ARMY MEDICAL CORPS (T.).

WESSEX DIVISION.

THE annual dinner of officers of the Wessex Division, R.A.M.C.(T.), was held on May 3rd at the Royal Clarence Hotel, Exeter. Colonel H. J. Mackay, M.D., the new A.D.M.S., Wessex Division, presided. About thirty officers were present, including Major-General Donald, C.B., Colonel Raglan Thomas, K.H.P., Lieutenant-Colonel Davy, Lieutenant-Colonel Elkington, Lieutenant-Colonel Pickard, Lieutenant-Colonel Soltau, Colonel Webb, and Major Duncan, D.S.O. Telegrams of apology were read from Sir Frederick Treves, Sir Launcelot Gubbins, Surgeon-General Macneece, and many others.

After the toast of "The King" had been duly honoured, "The Imperial Forces" was given by Colonel Davy. He said what they wanted was a Minister who, recognizing the pluck in Englishmen, would try and train a large body of Englishmen to serve in His Majesty's Imperial Forces. The Forces at the present time had all the pluck which was possible, considering their training. They were not trained half enough; there were not a sufficient number of men induced or made to join the Forces. Major-General Donald, in reply, said some people said the Territorial Force was dwindling away to nothing. They could not apply that to the Wessex Division, for, according to the last returns, he found that during that month the Division had increased by 35 men. During the last six months the increase had been just short of 900. He hoped the increase would be maintained in spite of the troublous times which were supposed to be in store for the Territorial Force. His aim and that of the staff had always been to make the work of the Division go as pleasantly as possible. He went on to pay a tribute to Colonel Raglan Thomas, and expressed deep regret that he had had to give up his appointment as A.D.M.S.

Major Duncan gave "The Royal Army Medical Corps." The statistics recently published by the Director-General, showing the work which had been done by the regular Army Medical Corps in India, showed results which, he said, were next to marvellous. The death-rate had been lowered by almost half and the ravages of disease greatly reduced. Colonel Elkington, replying, said that, from what he knew of the Wessex Division, he felt sure of it. If the rest of the Force were up to the same standard, the regular army was sure of support in time of war to a much greater extent than had ever been the case before.

Colonel Raglan Thomas proposed the health of "The Chairman," who in reply said it would be his earnest endeavour to carry on the traditions with which Colonel Raglan Thomas had already invested that post. He had read many reports of the inspecting officers, but he could not recollect one in which any disparaging criticism had been made of the efficiency of the units of the R.A.M.C. The returns were in most cases satisfactory, and led them to believe that they had already arrived at a quite creditable state of efficiency in their unit. They had the confidence and esteem of their divisional and brigade commanders. They had also the sympathy and support of the Brigadier-General of the Medical Service and his staff, who he had always found most ready to help in every possible way. It should encourage them to remember that if the Territorial Force were to be mobilized to-morrow the medical service as regards general organization and equipment would be better than that of any other British force that had yet taken the field. They would be grossly wanting in their duty if they allowed that company to separate without expressing that they all felt their keen regret at losing the services of Colonel Raglan Thomas. He had served with distinction, which his Sovereign had recognized in the honour conferred upon him. He had had all the hard work to do. At first the whole of the organization of that division had fallen upon him and he had worked single-handed for some time, and he had done it well. The toast was drunk with musical honours and cheers. Colonel Raglan Thomas returned thanks in a graceful speech. He was glad that although he had to go his staff officer remained. Colonel Mackay took on the duties, he ventured to think, under somewhat more favourable circumstances than he did himself. He was glad to think that those who had been so ably doing the work, with himself at the figure head, were still with Colonel Mackay to help him. He also thanked the officers of the General Hospital, foremost among whom was Lieutenant-Colonel Davy.

Medico-Legal.

ACTION FOR LIBEL AGAINST AN ANTIVACCINATOR.

AT the Yorkshire Spring Assizes at Leeds, on May 9th, Dr. Arthur Drury, of Halifax, brought a successful action for libel against a Mr. George Weir, Honorary Secretary of the Leeds branch of the National Antivaccination League.

The libel consisted in the dispatch to the plaintiff of a certain post card. This first referred to a newspaper controversy in which the plaintiff, the defendant, and other persons had taken part over four years previously, and then, after making sundry untrue and, as described by counsel, disgusting statements about the plaintiff, ended by suggesting that Crippen was a saint compared with the President of the Society of Public Vaccinators (Dr. Drury).

Dr. Drury's counsel said that the action had only been brought after giving the defendant the chance of settling matters by publishing an apology in the *Vaccination Inquirer* and making a payment of ten guineas in aid of the funds of the Halifax Nursing Association. Heavy damages were not sought; all that the plaintiff desired was to obtain protection against attacks of this kind by getting the defendant cast in such damages as would teach him to refrain from a similar course in future.

Mr. Justice Channell, addressing the jury, remarked that vaccination was a subject upon which there were divergent views, and views that were held with confidence on the one side and the other. If defendant thought it was a detestable practice, he had a right to say so, and anything he said in his post card which was merely abusive of vaccination, however erroneous the jury might think it, could not be made the subject of action. At the same time, a person had no right, when commenting on a matter of public interest, to make personal imputations upon the character of the people who had to do with the matter he was commenting upon. To call vaccination murder was an absurd and exaggerated mode of expression. If they found the matter written on the post card defamatory, the question of publication was one of law, and it had been decided over and over again that to write such matter on a post card and send it through the post was publication of that matter.

After a brief retirement, the jury gave a verdict for the plaintiff, with £15 damages, and judgement was entered accordingly, with costs.

Medical News.

THE King will inspect the ambulance corps and nursing divisions of the St. John Ambulance Brigade, which will be under the command of Colonel Sir James Clark, Bart., C.B., late R.A.M.C., the Chief Commissioner, on Saturday, June 22nd, at 3.30 p.m. in Windsor Park. Major-General J. C. Dalton, R.A., Chief Commissioner of the Brigade Overseas, will be in command of representatives of brigade units from the dominions. The inspection will conclude with a display of ambulance work.

THE dinner which some time ago we mentioned as likely to be given at the Mansion House in support of the St. Bartholomew's Hospital appeal is to take place on Wednesday, June 5th.

THE Brussels Medical Graduates' Association will hold an extra biennial dinner at the Trocadero on Wednesday, May 29th, at 7 for 7.30 p.m. Members are invited to bring ladies, and all graduates of the University of Brussels are welcome. Tickets, 5s. (not including wine), may be obtained from the Honorary Secretary, Dr. Arthur Haydon, 23, Henrietta Street, Cavendish Square, W.

THE Glasgow University Club, London, will dine at the Trocadero Restaurant, Piccadilly Circus, on Thursday, June 6th, when Mr. William Lorimer, LL.D., Chancellor's Assessor on the University Court, will take the chair at 7.30 p.m. The annual general meeting of the club will be held at 6.45 p.m. at the same place. Communications should be addressed to the Honorary Secretaries, 30, Seymour Street, London, W.

THE annual meeting of the Society for Training Teachers of the Deaf, and for the Diffusion of the German (Pure Oral) System, will be held at 33, Cavendish Square, W., by permission of Mrs. and Dr. H. E. Symes-Thompson, on Wednesday, May 29th, at 3 p.m. The meeting will be presided over by the chairman of the committee, Mr. B. St. John Ackers.

DURING their visit to Aldershot last week the King and Queen on Saturday afternoon visited the Cambridge Hospital, where they were received by Surgeon-General G. W. Robinson, C.B., Deputy Director of Medical Services, Aldershot Command, Lieutenant-Colonel S. Hickson, R.A.M.C., officer in charge, the medical and surgical staff, and Miss H. W. Reid, the matron. Earlier in the afternoon the Queen had visited the Louise Margaret Hospital, where she was received by Surgeon-General

G. W. Robinson, Major S. F. St. D. Green, R.A.M.C., officer in charge, the medical and surgical staff, and Miss E. M. Beesby, the lady superintendent.

SPEAKING at the annual meeting of the Children's Country Holiday Fund on May 21st, Mr. Austen Chamberlain pointed out that of the total income less than 6 per cent. was absorbed by administration expenses. Over a third of the income was supplied by the parents, who made small weekly payments for weeks beforehand in order to secure the privilege of a fortnight in the country for their children. There were 800,000 children in the elementary schools of London, of whom 480,000 never slept a single night out of London one year after another, and many of them never went out of London for a day. Last year the society provided a fortnight in the country for 45,000 of these children. In reporting its experiences one child said: "I did not see a baby, I mean not to mind it, all the time"; while a boy of 9 wrote: "I do not have to mind any twins; I think them a nuisance." Contributions in aid of the society will be gladly received by the Secretary, 18, Buckingham Street, Strand.

THE annual report for 1911–12 of Dalrymple House, Rickmansworth, shows that of the 35 inebriates admitted during the year only 9 entered under the Act, a method of obtaining treatment which Dr. F. S. D. Hogg, the Medical Superintendent of the Home, regards as much the best for everybody, and especially the patient. Those discharged numbered 48, 5 being persons for whom he considered further residence unnecessary. The average duration of stay was from five to six months, and the plan of allowing patients to leave on parole is praised. The general rule of the establishment is to cut off alcohol directly the patient is admitted (though if a strong desire is expressed for it during the first day or two it is not refused). Alcoholics thus treated recover more rapidly, and there should be no ill results in the way of delirium tremens and alcoholic epilepsy if the patient is kept under close observation and the alcohol replaced for a time by other drugs. But in the case of morphine there is no drug which can be substituted with safety, and gradual reduction is therefore practised. The statistics supplied show that the majority of the 1,026 patients admitted since the foundation of the home belonged to the upper middle classes. Dr. Hogg endeavours to keep in touch with former patients, and supplies figures which suggest that over 40 per cent. of them continue to abstain entirely from alcohol and morphine.

DR. WALTER F. BROWN, Medical Officer of Health, Ayr, has sent us two paragraphs from the *Ayrshire Post*, relating to the suicide of two shoemakers by drinking carbon bisulphide; one took place on Sunday, May 5th, at Ayr, and the other at Troon, on Wednesday, May 8th. The solution is used by shoemakers for dissolving rubber. Dr. Brown, who was called to the first case, tells us that the man had swallowed 1½ oz. He had been left alone on Saturday evening by his wife, who on returning home found him in bed unconscious with a bottle which had contained the bisulphide beside him. Dr. Brown found him unconscious, almost pulseless, the pupils dilated, and the body cold. He had also suffered from severe diarrhœa and vomiting; he died about four hours after he had taken the poison. In the other case, Dr. Mackintosh, who was called in, succeeding in getting the man to swallow an emetic, but the report does not state the interval between the taking of the poison and death. Cases of poisoning by this liquid appear to be rare. It causes disintegration of the red blood corpuscles, with the production of methæmoglobin. Wynter Blyth records a case of attempted suicide in which the dose taken was larger, 2 oz. In this the patient suffered from the symptoms mentioned by Dr. Brown, with the addition of convulsions; evidence of the excretion of carbon bisulphide by the lungs and by the kidneys was obtained: the patient suffered from intense burning of the throat, giddiness, and headache for several days.

A fifth report on "Flies as Carriers of Infection" has been issued by the Local Government Board (Reports to Local Government Board on Public Health and Medical Subjects. New series. No. 66. Price 3d.) It is shorter and of less general interest than the preceding ones, and it deals chiefly with flies other than *Musca domestica*. A few experiments on the range of flight are recorded by Dr. Gordon Hewitt. They differ from the experiments previously carried out by Dr. Copeman, and described in the last report in that they took place in the heart of the City of Ottawa, Canada, and not in the open country. A new method of marking the flies was employed, and it was found that several of them travelled distances over 500 yards within two days. The greatest direct distance was 700 yards. These observations show that flies may travel over considerable distances even in a town. Dr. Hewitt also contributes an article on the bionomics of the smaller house-flies, *Fannia canicularis* and *F. scalaris*, and gives a brief description of the larvæ of these flies. They are readily distinguishable from the maggots of *Musca* by their remarkable bristly or feathery appearance. Both these flies, but particularly *F. scalaris*, make a habit of breeding in human excrement. On that account the latter insect is sometimes known as the "latrine fly." Dr. Hewitt refers to cases of myiasis caused by these flies—a subject, however, which is more fully dealt with by Mr. Austen in the third part of the report. Although not uncommon in warmer countries, myiasis is rare in England; yet a certain number of cases have been put on record. The flies concerned comprise about nine or ten species, and include the house-flies, the bluebottle, and the cheese maggot fly. The infection is caused by the larvæ, which find their way into the alimentary or urinary tract. Occasionally they are found in other situations, such as the ear and ulcerating surfaces. As a rule, they do no harm, except by causing mental distress. Short accounts of the most interesting cases are given.

A LARGE number of headmasters and mistresses, as well as medical officers, took part in the Conference on Public, Secondary, and Private School Diet organized by the National Food Reform Association, which was held at the Guildhall on Monday, May 13th. Amongst those present were the headmasters of Haileybury and Christ's Hospital, together with representatives from Rugby, Sherborne, Clifton, Manchester Grammar School, Cheltenham College, and St. Paul's Girls' School; whilst an interesting exhibition was arranged in order to show how a greater variety of wholesome and appetizing foods might be introduced into the school menu. The conference was opened by the Lord Mayor, who spoke of the diet at public schools some seventy years ago, when better dietetic arrangements were urgently needed. In his opinion, he continued, the food given to growing children should be simple, well cooked, and varied, and, above all, the hours for meals should be fixed and regular, and sufficiently long to allow the children ample time to consume their food without undue haste. Dr. Clement Dukes, the Honorary Consulting Physician to Rugby School, who read a paper on Diet as a Factor in Efficiency, said that the first and most important thing with regard to the diet of children was that it should be sufficient. The kind of food was of secondary importance, and, whereas adults should leave the table hungry, children should reach a sense of repletion before rising from a meal. A larger quantity of all the essential kinds of food was demanded during youth than at any other time of life; and the most indefensible of all schemes of school feeding was the mediæval and barbarous arrangement whereby the parents were forced to supplement by means of hampers the recognized inadequacy of the school table. Breakfast, added Dr. Dukes, was the most important and health-giving meal of the day for youth, and no work should ever be imposed upon children without some previous sustenance. Dr. Robert Hutchison, who represented the British Medical Association, declared that there was far more danger in underfeeding than in over-feeding a healthy growing child. The natural appetite, provided it was not debauched by rich foods or by eating between meals, was the best guide, and the only safe rule to remember was that to have enough one must have too much. The food should be well cooked and abundant, and brain work should never be attempted soon after a full meal. Any idea of the influence of food on mental and moral disposition was purely fanciful, though it was said that the actor Kean believed that there was such a relation, and when playing the part of a villain was accustomed to eat beef, whilst putting himself on a course of mutton if he had to take the rôle of a lover. On the other hand, some of the cruellest races in the world had been vegetarians. Neither had the quantity of food consumed any demonstrable effect upon the character, although, perhaps, underfeeding tended to produce peevishness, irritability, and depression, while overfeeding was apt to cause laziness. It was not safe to try to influence morals in school by playing with the diet, for one might so easily do physical harm without effecting any moral good. The diet at school must be designed to produce healthy animals of maximum physical efficiency, whilst intellect and morals must be catered for by some one other than the cook. The disadvantages of a too luxurious diet at school were touched upon by the Rev. H. Dunkin, of Sherborne College, who deplored the modern tendency to indulge in food fads. We seemed, said the speaker, to be in some danger of injuring the health of the rising generation by over-solicitude; and, if that was the case, were doing an injury not only to the children themselves, but to the country we professed to serve.

Letters, Notes, and Answers.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone unless the contrary be stated.*

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, London, W.C.; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Office, 429, Strand, London, W.C.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London*. The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, London*.

TELEPHONE (National):—
2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

A MEDICAL man practising in the country desires to hear of a reliable local anaesthetic for dental cases to be used not by injection.

CENTRAL INQUIRER would be pleased to know the formula of a larvicide used in Panama, and called by a name somewhat like "Panama Mixture."

L. H. asks for what period it is usual or safe to continue the administration of arsenic in a child, aged 6 years, for psoriasis, and what dose. The condition has improved greatly, but is not quite well, and remains obstinate.

DR. WILLIAM ALLEN, 20, Sandyford Place, Charing Cross, Glasgow, desires to hear from practitioners who have had experience of the results of ileo-colostomy for ulcerative or mucous colitis, in particular as to the condition six months after the operation.

PSYCHO-ANALYSIS would be very grateful for any information *re* the treatment of stammering on psycho-analytical lines, as suggested by Professor Freud of Vienna, and to know whether there is any one in this country working and practising on those lines whose experience might be available, or to hear of any one who has had experience of Professor Freud's method.

HERPES PRECEDING MENSTRUATION.

C. R. I. asks advice in the following case: An unmarried woman aged 30, who has been troubled ever since puberty with a herpetiform eruption on the face, which appears quite regularly a few days before each period. There is great local pain before the eruption appears. At the period there is more or less severe headache, but sometimes this is prostrating and accompanied with biliousness. I have been able to prevent the eruption with a paint of aconite and chloroform, but the headaches are more severe when the eruption is thus prevented. There is no pelvic pain at the period. Arsenic, iron, and strychnine have had a long trial.

DEATH AFTER SALVARSAN.

DRS. STOPFORD-TAYLOR AND R. W. MACKENNA (Liverpool) write: In your issue of May 18th you publish a note from Dr. W. Campbell M'Donnell on a death after salvarsan. It is unfortunate that the report is lacking in several most important details—for example: (1) What was the condition of the urine before the first injection? (2) Had all the arsenic been eliminated from the system before the second injection was given? (3) Did the urine contain any albumen after the first injection was given? (4) What were the *post-mortem* findings? If these facts were available it would be possible to arrive at some sort of conclusion as to how far this unfortunate fatality was actually due to salvarsan. Without these facts we fear that the opponents of salvarsan will seize upon this case as a weapon to use against a remedy which, properly employed, is no more dangerous than chloroform, and equally beneficent in its effects.

INCOME TAX.

H. J. F. B. inquires whether he may, in making his income return, deduct the cost of a locumtenent engaged for a fortnight during his holiday.

*** The outgoing in question is one that is frequently disallowed by surveyors of taxes, on the ground that it is a payment incurred not in carrying on the profession, but in order to get some one else to carry it on. This argument is fallacious, and is not, we believe, applied in the case of other professions and businesses where the expenses must equally include provision for the carrying on of the work while the principal is away. It is absurd to suppose that a full twelve months' fees can be earned year by year by an individual practitioner unless he takes reasonable holidays and makes some provision for attendance on his patients while he is away.

NOVICE holds certain appointments and inquires whether he may deduct the cost of travelling to the place of performance of the duties.

*** Profits of appointments are, strictly, assessable under Schedule E of the Income Tax, and if so assessed are not subject to any allowance for travelling expenses except such as are incurred while performing the duties of the office. If our correspondent is in general practice, with private patients, he may, however, apply to the surveyor of taxes to have his receipts from appointments treated as part of the general receipts of the practice.

REBATE OF LICENCE DUTY ON MOTOR CARS.

C. G. C. inquires whether in order to be entitled to relief of one-half the licence duty he is obliged to refrain from use of his car for such purposes as a run in the country with companions.

It appears from our correspondent's letter that he is in the habit of carrying passengers, and that he has been warned that the local licensing authorities may prosecute him if he does not desist from doing so or pay the full licence duty. The stipulation in the Act is that the car should be "kept for the purpose of the profession." These words are usually taken as not excluding occasional and incidental use for non-professional purposes, but there is no doubt that a court of law would hold that the systematic use of the car for other than professional purposes would involve payment of the full duty.

ANSWERS.

SUFFOCATION.

H. B. C. writes, in reply to "A Witness": I once had an alarming spasm of the glottis. I certainly did not clutch at my throat, though given to amateur theatricals. As far as I remember, I held on to the dressing table in front of an open window.

LETTERS, NOTES, ETC.

GENERAL MEDICAL COUNCIL, NOVEMBER, 1911.

DR. ARTHUR GEORGE HAYDON (Honorary Secretary, Brussels Medical Graduates' Association) wishes to thank all those ladies and gentlemen who kindly voted for him at the recent election of Direct Representatives, especially those in favour of the registration of foreign degrees. He hopes for their support on a future occasion.

EFFECT OF SCOPOLAMINE AND MORPHINE IN LABOUR ON THE CHILD.

DR. G. A. WYON (Bow, E.) writes as to the use of scopolamine and morphine in labour: Of the six cases in which I have tried it, four have given me (and the patient) great satisfaction. In the fifth case the child never breathed, though the heart was beating feebly at birth, which was effected by forceps ten hours after a single administration of the drugs. In the sixth case the child was a little blue at birth, but soon breathed well, and was then put aside. Fifteen minutes later, thinking it was unusually quiet, I uncovered it and found it very blue and not breathing. It came round after prolonged and vigorous spanking, which seemed more effectual than more orthodox methods. There was no fire in the room in this case. I am inclined to attribute the condition in this last case to the drugs, though Dr. Massey-Miles's case in the BRITISH MEDICAL JOURNAL for May 18th makes one question it. One would like to know if such an event as in my sixth case is common where no anaesthetics have been used.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

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NOTE.—It is against the rules of the Post Office to receive *postes restante* letters addressed either in initials or numbers.

Some Points

CONCERNING

THE DUODENUM AND THE APPENDIX IN INTESTINAL STASIS.

[WITH SPECIAL PLATE.

BY ALFRED C. JORDAN, M.D.CAMB.,

MEDICAL RADIOGRAPHER, GUY'S HOSPITAL AND ROYAL HOSPITAL FOR DISEASES OF THE CHEST.

THE symptoms and signs of intestinal stasis are very definite and frequently very severe,[1 11 12] yet one of the most striking points in connexion with intestinal stasis concerns the position of those medical men who are not familiar with the phenomena of the disease when they are brought in their practice face to face with a well-marked case. They are quite unable to make a diagnosis, and they are compelled to seek refuge in some vague explanation, or to use some equally vague "label," such as "neurasthenia" or "dyspepsia," the latter term being usually preceded by an epithet ("acid," "flatulent," "atonic," or the like). It is not until one or more of the secondary changes has set in, or until one or more of the symptoms or signs has assumed great prominence, that the medical man who is

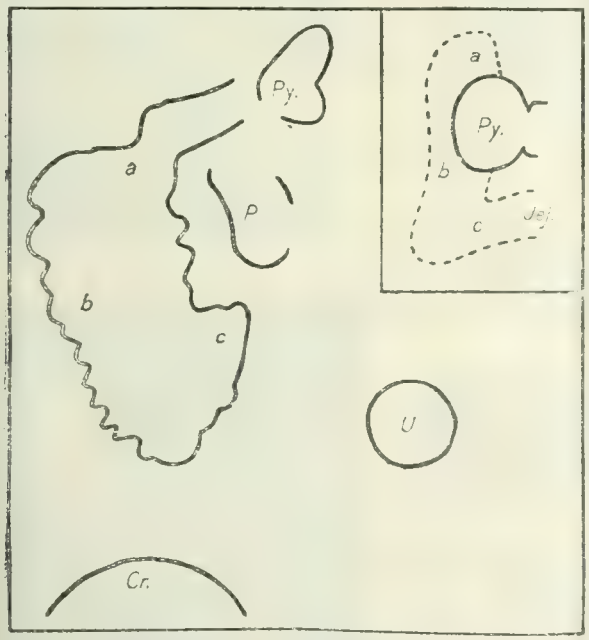


FIG. 1.—Fluorescent screen tracing (reduced in size) of the duodenum and pylorus in a woman aged 32, with the typical symptoms and signs of intestinal stasis. Taken on the couch. The duodenum is half as long again and more than double the width of a normal duodenum. For seven or eight minutes the duodenum was observed undergoing vigorous "writhing" contractions in a vain endeavour to force its contents into the jejunum through the kink at the duodeno-jejunal junction. After seven or eight minutes a very powerful contraction of the duodenum forced a large mass of bismuth emulsion through suddenly into the jejunum, and the bismuth forthwith began to course rapidly through the coils of the small intestine. The small figure in the right-hand corner represents a normal (though somewhat distended) duodenum drawn to the same scale for comparison. The distended duodenum of this patient is shown *in situ* in Fig. 2, and an actual skiagram of the duodenum in Fig. 3. The primary cause of the duodeno-jejunal kinking is shown in Fig. 4. The patient's main symptom was pain in the region of her duodenum, "like something distended which would burst if it were tapped upon either in front or behind." *a, b, c*, First, second, and third parts of the duodenum; *Py.*, pylorus; P, pyloric portion of stomach; *Jej.*, jejunum; U, umbilicus; *Cr.*, crest of ilium.

not familiar with intestinal stasis is able to make a diagnosis. He then diagnoses the secondary condition—correctly—but he mistakes it for the primary disease. In other cases one or other of the typical signs of stasis becomes so prominent that it is taken for a disease itself. Thus the staining of the skin may be so pronounced that the patient is thought to be the subject of Addison's disease. An instance of this came to my notice recently; the general lassitude and depression, the poor circulation, and the attacks of nausea with loss of flesh lent support to the diagnosis, but the subsequent course showed it to be erroneous. One of the most constant signs of intestinal stasis in women is a nodular condition of the breasts, due to chronic mastitis; in more advanced cases the breasts become cystic and ultimately cancerous. A woman was sent into Guy's Hospital a few months ago for amputation of both breasts for supposed malignant disease. They were in a condition of advanced cystic disease. Mr. Arbuthnot Lane sent her to me for *x* ray examination of the intestines, and I found that there was extreme intestinal stasis. Mr. Lane then treated her case by the operation of "short-circuiting," that is, dividing the ileum near its lower end, and suturing the divided end into the rectum. Within a week after the operation the breasts began to improve, and at the end of three weeks they were practically normal, the only sign of disease now being a small nodule in one breast. The woman's general condition had improved greatly.

The Gall Bladder.

One result of stasis in the ileum is to allow bacteria to ascend from the large bowel, and to invade the upper reaches of the small intestine. Thus the duodenum is

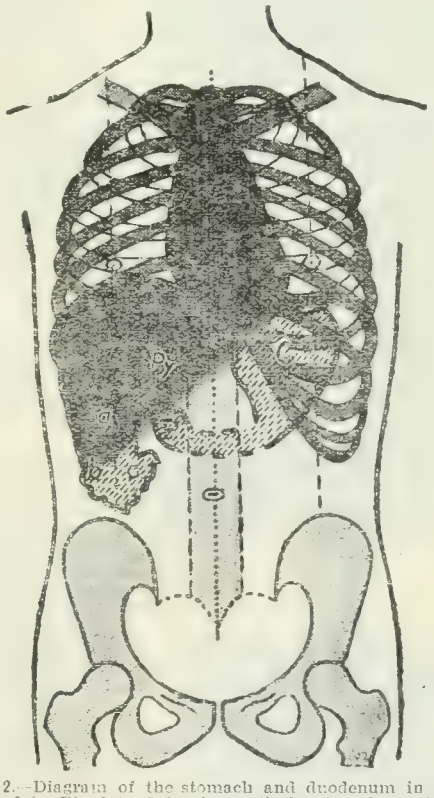


FIG. 2.—Diagram of the stomach and duodenum in the case described in Fig. 1 (and in the text), showing the position they occupied in the body. *a, b, c*, First, second, and third parts of the duodenum; Py., pylorus; C, P, cardiac and pyloric portions of stomach.

invaded by pathogenic bacteria, which ascend the common bile duct and lead to cholecystitis and chronic pancreatitis. Gall stones are then formed in many cases: if a gall stone finds its way into the bile duct an attack of acute biliary colic results and is diagnosed, though it is only a secondary result of intestinal stasis.

Duodeno-jejunal Kinking.

The stasis in the ileum has another effect. The last coils of the ileum are normally placed above the pelvis; if there be any marked delay in the passage of the ileal contents into the caecum, these last coils of the ileum become overloaded and fall into the pelvis. In falling they drag on the mesentery; this drag is carried to the upper parts of the small intestine, and pulls down the jejunum at its commencement. The third part of the duodenum being (normally) firmly fixed over a peritoneal band, while the jejunum is unsupported at its commencement, a kink is produced at the duodeno-jejunal junction and causes obstruction. The duodenum becomes distended and its

* Founded on a demonstration to the Hunterian Society.

mucous membrane congested. We have already seen that the duodenum is invaded by pathogenic microbes; these act on the congested mucous membrane and give rise to duodenal ulceration. This duodenal kinking has been fully described and illustrated by me.[2] I am frequently able to demonstrate it in patients whose symptoms have led the physician to make the diagnosis (correctly) of duodenal ulcer. I have shown the elongated duodenum, dilated in its first part, the stomach small and of good tone (but sometimes elongated and dropped, though still of good tone), the pylorus perfectly normal, the duodenum contracting actively in repeated ineffectual endeavours to forward its contents through the kink and into the jejunum. In severe cases the duodenal contractions are very active, amounting to strong writhing movements.

In the most severe case that has come under my notice the duodenum continued for nine hours writhing vigorously, and with great pain to the patient, in its endeavours to force the bismuth emulsion through the kink at the duodeno-jejunal junction. When finally all the bismuth had got through, the duodenum was still seen writhing although it contained nothing more opaque than Benger's food. (Needless to say the patient was a very thin subject.) At the lower end of the ileum there was extreme stasis in this patient. It is clear that the rational line of procedure is to examine the whole alimentary canal in all cases of duodenal ulcer so as to discover the primary cause of the disease.

The Stomach in Duodeno-jejunal Kinking.

The stomach also contracts very actively in these cases. Often it is evident, on watching the stomach, that it is struggling against an abnormal obstruction. It is equally evident that the obstruction is not at the pylorus, for the bismuth emulsion passes through the pylorus freely. The obstruction is at the duodeno-jejunal junction; this is absolutely unmistakable in well-marked cases.

A striking illustration of a case of intestinal stasis, the true nature of which was not understood before the *x*-ray examinations, was brought to my notice recently.

A single woman, aged 32, had suffered from dyspeptic troubles for a year and a half; she had lost a stone in weight during this time. There was loss of appetite and nausea but no vomiting. She complained of pain in the region of the gall bladder. Her description of the pain was suggestive: "I feel that there is something distended or gorged, and that it will burst if I tap it." The same feeling of a liability of "something distended" to burst if tapped was felt at the corresponding point at the back. The attacks of pain were intermittent, and were sometimes absent for days. The patient's general condition was very characteristic of intestinal stasis: She was weak and depressed; her hands and feet were cold; the complexion was noticed by her relatives to be "muddy" in contrast to her former very clear skin; the breasts showed the nodular condition already described due to chronic mastitis. Two alternative diagnoses had been suggested: Gall stones or a dilated stomach. Renal calculus had also been thought a possible explanation of her symptoms.

I found the stomach elongated and dropped, but normal in other respects. The pylorus was perfectly normal, and the bismuth emulsion passed through the pylorus freely and entered the duodenum. The source of the pain was here encountered, for the duodenum was found to be much elongated and dilated to more than double its normal diameter, except its first part, which appeared to be the seat of cicatricial contraction (Fig. 1). The duodenum was undergoing powerful peristaltic contractions, amounting to strong writhing movements; this continued for seven or eight minutes without a particle of bismuth being able to pass through into the jejunum. The writhing duodenum was observed (and demonstrated to two colleagues) without difficulty, for the duodenum was completely isolated in the fluorescent screen picture, the rest of the bismuth being contained in the cardiac end of the stomach (Figs. 2 and 3). At the end of seven or eight minutes, with a very powerful duodenal contraction, a large mass of bismuth emulsion was sent suddenly through the duodeno-jejunal junction, and forthwith began to course rapidly through the coils of the jejunum. The subsequent examinations afforded a perfect illustration of the fact (already explained) that the duodeno-jejunal kinking is secondary to stasis at the lower end of the ileum. After a night's rest, fifteen hours after the bismuth meal, the stomach and duodenum no longer contained any bismuth; the greater part of it was found to be in the lower coils of the ileum in the pelvis. The caecum also occupied the pelvis and contained a quantity of bismuth, while a small amount was already present in the ascending and transverse colon. Twenty-seven hours after the bismuth meal there was still some bismuth at the lower end of the ileum, and the most advanced portion had reached the sigmoid (Fig. 4). Thus the sojourn of the bismuth in the small intestine was more than three times the normal.

The exact cause of the ileal stasis could not be ascertained, for the caecum occupied the deepest part of the pelvis, and it was found impossible to raise the caecum above the pelvic brim, in spite of endeavours in various postures, including the "knee-elbow." Hence the terminal coil of the ileum could not be examined; however this does not detract from the value of the case as an illustration of the fact that the duodenal distension is secondary to the ileal stasis. Then surely no logical person would advocate the adoption of measures for the relief of the duodenal distension and take no account of the primary disorder—the intestinal stasis. Yet this is the usual procedure at the present time: the duodenal distension is relieved—effectively in most cases—by the operation of gastro-

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FIG. 3.—Skiagram of the duodenum in the case described in Fig. 1 (and in the text). *a*, *b*, *c*. First, second, and third parts of the duodenum; U, umbilicus marked by a penny.

FIG. 4.—Skiagram of the same patient as in Figs 1, 2, and 3, showing the primary cause of the duodenal distension. This skiagram was taken twenty-seven hours after the bismuth meal, and it will be noted that there is still some bismuth in the lower coils of the ileum, the sojourn of the bismuth in the ileum being thus more than three times the normal. The lower ileal coils are dropped so that they occupy the deepest part of the pelvis; they pull on the mesentery, and this pull is carried to the upper coils of the small intestine, and drags down the jejunum at its commencement. (See text.) The prolonged stasis in the lower coils of the ileum was confidently predicted after observing the distended, "writhing" duodenum. U, Umbilicus, marked by a penny.

FIG. 5.—Ileal kink, taken twenty-four hours after a bismuth meal in a man aged 56, the subject of pyloric stenosis due to cicatrizing duodenal ulcers. (Compare Fig. 17.) The terminal coil of the ileum was firmly fixed to the back of the right iliac fossa at a point 3 in. from its termination, though the coil was freely movable immediately above and below the fixed point. The caecum, also, was freely movable, and in the upright posture the caecum fell, carrying the last 3 in. of the ileum down with it, and thus producing a sharp kink at the fixed point. (See text.)

FIG. 5A.—Diagram of Fig. 5 with the caecum displaced to the right to show the normal appendix. The ileal kink is shown; also the dilated and hypertrophied stomach, still containing a large quantity of bismuth after twenty-four hours. (See text.)

FIG. 6.—Taken eleven hours after a bismuth meal in a woman aged 40. There is a considerable collection of bismuth at the lower end of the ileum; the terminal coil of the ileum is much dilated and is irregular in outline. There was great tenderness to pressure in the right iliac fossa, rendering deep palpation in the ileo-caecal region impossible. From some accidental cause a quantity of bismuth had already passed through to the rectum at this unusually early stage. (See Fig. 6A.) U, Umbilicus, marked by a penny.

FIG. 6A.—Diagram showing the conditions found at the operation on the subject of Fig. 6. The appendix was found to wind round the end of the ileum so as to obstruct the ileum when the patient was upright. The tip of the appendix was fixed and its lumen at the tip obliterated. The last 4 in. of the ileum were dilated and very thick walled. There were no ileal adhesions. On removing the appendix a white groove was revealed on the ileum, marking the place where the appendix had lain in contact with the ileo-caecal junction. The removal of the appendix relieved all the symptoms.

FIG. 7.—Taken eleven hours after a bismuth meal in a man aged 41. The distal portion only of the appendix contained bismuth. This portion was not tender to pressure, but there was some tenderness over the nearest part of the caecum. (See Fig. 7A.)

FIG. 7A.—Diagram showing the condition revealed at the operation on the subject of Fig. 7. The appendix was found to be fixed and cord-like for its first inch, with the end of the ileum immediately in front of it, and controlled by it. In the upright posture the ileum must have been partially obstructed by the appendix. The appendix was removed, and the symptoms relieved thereby.

FIG. 8.—Normal appendix. Taken thirty-three hours after a bismuth meal in a woman aged 26; a well-marked case of intestinal stasis. The appendix hung down free over the pelvic brim; it contained bismuth from the seventh hour to the ninety-sixth hour after the bismuth meal. (See Fig. 9.)

FIG. 9.—Normal appendix. Taken ten hours after a bismuth meal in a man aged 45. The appendix contained bismuth from the seventh to the sixtieth hour after the bismuth meal. The apparent "kinks" in the appendix in this figure and in Fig. 8 are due to the fact that the appendix lies only partially in the plane of the picture.



Fig. 3.



Fig. 5.



Fig. 6.

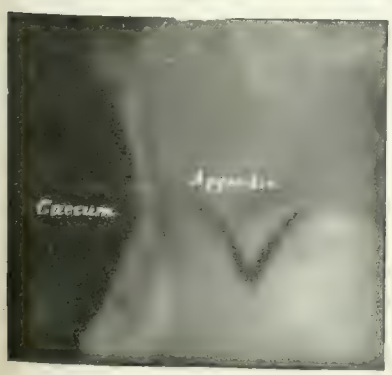


Fig. 7

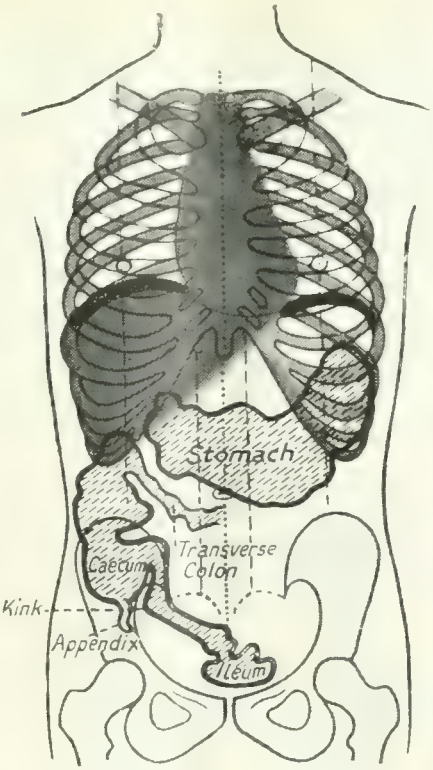


Fig. 5A.

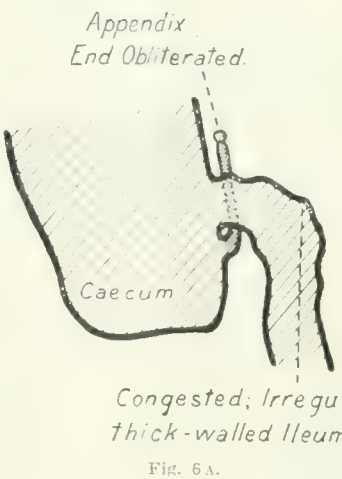


Fig. 6A.

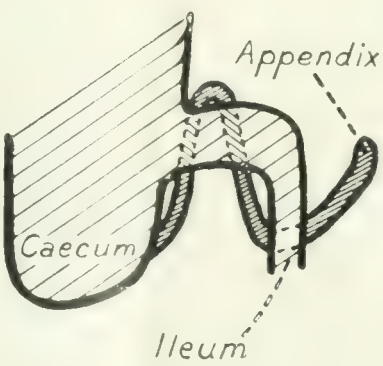


Fig. 7A



Fig. 4.



Fig. 8.



Fig. 9.



Fig. 10.



Fig. 11.



Fig. 12.



Fig. 13.



Fig. 14.



Fig. 15.



Fig. 16.



Fig. 17.

jejunostomy, and the patient is relieved of pain, and is enabled, in many cases, to take full meals and to put on weight correspondingly, but the general symptoms and signs of intestinal stasis are not relieved, even though the immediate benefit may be sufficiently marked to satisfy the patient and all concerned. The staining of the skin remains; the poor circulation remains; the general depression remains or recurs before long; the nodular condition of the breasts is not rectified; headache, backache, and muscular pains often continue unabated; constipation and flatulence go on as before or return very soon.

The results of the operation of "short-circuiting" are very different, for all the signs and symptoms of intestinal stasis clear up at once.*

In a case of duodenal ulcer the recumbency necessitated by the "short-circuiting" is sufficiently prolonged to allow of the cure of the ulcer, and when the patients resume their ordinary mode of living the duodenal symptoms do not recur.

It is scarcely necessary to say that the secondary consequences of intestinal stasis may have been allowed to advance to a stage at which local treatment has become imperative. Thus there may be duodenal (or pyloric) obstruction from the contraction of old cicatrized ulcers (as in Figs. 5 and 17), or there may be one or more impacted gall stones (as in Fig. 12).

A most instructive case bearing on this point is the following:

A man of 56 had been in good health till two years ago, when he began to have pain in the epigastrium immediately after food. The pain was often relieved by vomiting. The vomit consisted of a pint of brown fluid; he never brought up red blood. The pain and vomiting had been especially severe during the last six months, and he had lost weight during these months.

On examination a succussion splash was observed over the stomach, but no other definite abnormalities were detected. The man, however, exhibited the typical signs of intestinal stasis.

The *x*-ray examinations revealed a very definite train of changes. The stomach was greatly hypertrophied and dilated; very active peristaltic waves passed to the pylorus, but were unable to force more than traces of bismuth through the pylorus, this region being obviously the seat of fibrous stenosis. The diagnosis of stenosis was still further confirmed by the occurrence of a series of strong antiperistaltic waves starting at the pylorus and working along the stomach toward the fundus. This is a phenomenon rarely seen, and is considered to afford conclusive proof of pyloric stenosis, though the proof was perfect in the present instance without the occurrence of antiperistalsis. After twenty-four hours more than half the bismuth was still in the stomach (Fig. 5A); there was a small collection of bismuth at the lower end of the ileum, and in the terminal coil of the ileum, which rose as shown in Figs. 5 and 5*a*. The terminal coil was found to be firmly fixed to the back of the abdomen at a point 3 in. from its termination. This ileal kink was demonstrated to a number of medical men and students, who were able to satisfy themselves of its undoubted genuineness. On pressing with the hand upon the terminal coil the kinked point was found to be absolutely fixed, while the parts immediately above and below the kink were freely movable. The result of manual pressure was to convert the angle of the kink from an obtuse to an acute angle. In the upright posture the caecum fell, carrying down with it the upper 3 in. of the terminal coil; the portion of coil above the kink now hung down, forming a genuine sharp angle such as must inevitably have produced obstruction. No better illustration could be had of the fact that an ileal kink may only cause obstruction when the patient is upright. The appendix was shown at this and another examination forty-eight hours after the bismuth meal (Fig. 5A). It was placed immediately above and external to the kink, and it appeared normal. At this latter examination (forty-eight hours) there were still traces of bismuth in the stomach. There was considerable stasis in the large intestine, the greater part of the bismuth being still contained in the transverse colon at the end of seventy-two hours. A definite diagnosis was accordingly made to the effect that the patient had fibrous stenosis at the pylorus or just beyond it, and that he had a well-defined ileal kink 3 in. from the end of the ileum, while the appendix was apparently normal.

An operation was thereupon performed by Mr. Arbuthnot Lane. As anticipated, the terminal coil of the ileum was firmly tied down at a point 3 in. from its end. The fibrous bands were so thick that Mr. Lane found it impracticable to divide them so as to release the coil. Accordingly he divided the ileum below the kink and sutured the divided end into the side of the rectum—his usual "short-circuiting" operation. The appendix lay close to the kinked portion of the ileum (see Fig. 5A). As

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FIG. 10.—Normal appendix. Taken seventy-two hours after a bismuth meal in a woman aged 29. The appendix contained bismuth from the twelfth to the ninety-eighth hour after the bismuth meal. There was a typical ileal kink in the last inch of the ileum. (See Fig. 11.) A high degree of intestinal stasis was relieved at once by the operation of "short-circuiting."

FIG. 11.—Ileal kink, taken twenty-five hours after a bismuth meal in the subject of Fig. 10. Confirmed by operation. There was tenderness to pressure in this region. The appendix was found to be normal and free from adhesion. (See Fig. 10.) U, Umbilicus, marked by a penny. The x marks the ileo-caecal entrance.

FIG. 12.—Normal appendix in a woman aged 42, fixed at its tip in a bed of loose fat at the back of the abdomen. Taken twenty-four hours after a bismuth meal. On respiration the proximal portion of the appendix moved freely up and down with the caecum, but the tip did not move. At the operation, undertaken for the removal of gall stones, a single ileal adhesion was found 2 in. from the ileo-caecal entrance. This adhesion had no connexion whatever with the appendix.

FIG. 13.—Normal appendix. Taken five hours after a bismuth meal in a man aged 49. The terminal coil of the ileum is unobstructed. The appendix is well shown by the bismuth it contains. No tenderness of the ileum or the appendix.

FIG. 14.—Tender appendix, taken eight and a half hours after a bismuth meal in a man, aged 44, suffering from obstinate abdominal pain of two years' duration. He located the pain at a point 1 in. above and to the right of the umbilicus, but there was no marked tenderness to pressure at this point. The only abnormality disclosed by the *x*-ray examinations of the alimentary tract (except moderate stasis in the large intestine) was at the appendix, which contained bismuth up to the forty-eighth hour after the bismuth meal. The appendix appears irregularly dilated in its proximal part, and adherent thence to its tip. It was very definitely tender to pressure at each examination, the tenderness being limited accurately to the appendix.

FIG. 15.—Ileal kink and inflamed appendix, taken seven hours after a bismuth meal, in a man, aged 62, suffering from advanced intestinal stasis. Up to the end of seventy-two hours no bismuth had reached the rectum, while a large quantity was still contained in the caecum and ascending colon. The *x*-ray examinations of this patient revealed the following abnormalities: Atheromatous elongation and dilatation of the thoracic aorta; slight duodenal elongation and stasis; a very long terminal coil of the ileum, rising from the deepest part of the pelvis, freely movable, but hitched up near the ileo-caecal entrance; the proximal portion of the appendix dilated, fixed and tender; the caecum and ascending colon dilated; the sigmoid forming a greatly elongated, dilated loop; great stasis in all parts of the large intestine. The tender appendix was detected at every examination from the seventh to the seventy-second hour after the bismuth meal. The terminal coil of the ileum passed immediately in front of the appendix, but could be displaced inwards at this point almost to the middle line of the body by manual pressure. The fibrous band which was kinking the ileum was also hitching up the appendix near its base. U, Umbilicus, marked by a penny. The x marks the ileo-caecal entrance.

FIG. 16.—Ileal kink, taken eight hours after a bismuth meal, in a man, aged 37, who had been subject to attacks of abdominal pain since the age of 15. For the last ten years the attacks of pain had compelled him to take to his bed for two weeks at a time; they had been especially severe during the last six months, and their character suggested duodenal ulcer, for the pain was at its worst two hours or more after meals, and was relieved at once by taking a little food. The urine sometimes reduced Fehling's solution; this fact was taken to point to catarrh of the pancreas. The *x*-ray examinations, carried out during a period of immunity from pain, revealed elongation of the duodenum, and considerable stasis in the large intestine, most of the bismuth being still contained in the "dropped" transverse colon at the end of fifty-two hours, but the chief abnormality was at the lower end of the ileum. Eight hours after the bismuth meal there was a large collection of bismuth in this region, with a greatly dilated coil of the ileum running horizontally across the upper part of the pelvis and the terminal coil of the ileum, rising from the dilated coil to the ileo-caecal entrance. At the end of eleven hours the dilated coil of the ileum still contained bismuth, but the terminal coil running from it to the caecum contained only traces. The terminal coil was freely movable, except at its lower end, just below the pelvic brim, where it is fixed by adhesions producing obstruction, and giving rise to the dilated coil of the ileum in the pelvis. The appendix was shown at this examination, lying behind the caecum; it appeared normal, and was free from tenderness to pressure. The x marks the ileo-caecal entrance. The narrow streak of bismuth in the ileal coil just below the x is accidental, and of no significance. Compare Fig. 17, in which a permanent obstruction is shown in the same position. U, Umbilicus, marked by a penny.

FIG. 17.—Ileal kink in a man, aged 71, the subject of duodenal ulceration. Taken twenty-four hours after a bismuth meal. At the operation the long terminal coil of the ileum was found to be hitched up for the upper 5 in., and obstructed in the last inch. This patient was found to have an old cicatrizing duodenal ulcer.

* See a letter by Dr. F. P. Bremner in the *Lancet*, February 24th, 1912, p. 535, concerning his own illness. A gastro-jejunostomy had been performed by a very experienced surgeon but the benefit had been slight. Later, another surgeon of equal eminence had closed the pylorus but no improvement had followed. Lastly, he was "short-circuited" by Mr. Arbuthnot Lane after I had ascertained, by a series of *x*-ray examinations after a bismuth meal, first, that the gastro-enterostomy opening was functioning well, and secondly, that there was a well-marked ileal kink, an elongated rectum, and other evidence of intestinal stasis. His general condition, too, had been typical of intestinal stasis. He was restored to health within a few weeks, and he has been carrying on a busy medical practice uninterruptedly ever since July, 1911 (the operation was on May 22nd, 1911).

expected, the appendix was perfectly normal and free from adhesions.

The pyloric region was next examined, and it was found that there was a cicatrizing duodenal ulcer just beyond the pylorus, producing obstruction. Mr. Lane therefore carried out a posterior gastro-jejunostomy for the relief of the obstruction.

The patient made a perfect recovery, and remains in good health.

No more perfect example could be desired of the relation of duodenal ulcer to the ileal kink. Such a case ought to convince any one with an open mind. The presence of the ileal kink has been diagnosed by Mr. Lane, after noting the dilated stomach, and recognizing the signs of intestinal stasis. The *x*-ray examinations were then carried out quite independently, without any information as to the clinical diagnosis already made by Mr. Lane; the result was a detailed and definite diagnosis, as stated already, expressed in clear language, leaving no loop-hole for escape. The *x*-ray evidence was so clear that I felt no loop-hole was needed. Lastly, there was the complete confirmation obtained at the operation, at which I was present.

In this case the diagnosis was made too late to save the duodenum: permanent organic mischief had taken place, and the only remedy was to exclude the duodenum from the circuit. Had this been done and nothing more, according to the usual practice, the relief would have been short-lived; the ileal kink would have asserted itself with increased persistence, and a further operation would soon have been necessary for the relief of the intestinal stasis. Moreover, it is quite clear that the removal of the appendix at the time of performing the gastro-jejunostomy would have been of no advantage in this case, since it was healthy.

The moral is obvious: Make the diagnosis early, before the duodenal distension has proceeded to the stage of ulceration. I have shown how this may be done by *x*-ray examinations after a bismuth meal, and it is now open to all radiographers to supply definite and trustworthy information concerning the duodenum. The value of my method has been challenged by certain observers, who have not, however, attempted to apply it. All must agree that the value of any method of diagnosis is to be measured by its power of supplying trustworthy diagnoses. My method will bear the most severe test that can be applied: It enables the normal duodenum to be examined and to be reported "normal"; it enables all degrees of abnormality of size, shape, and activity to be ascertained and actual *x*-ray photographs to be taken. My results have been checked by competent surgeons at numerous operations, at many of which I have myself been present. The fluorescent screen phenomena of the duodenum have been observed with me by a number of physicians, surgeons, and students. In short, the subject is far beyond the experimental stage, and it has become the business of radiographers to devote the necessary time and patience to the further study of the duodenum.

Effect of the Upright Posture.

The changes which lead to duodenal distension and to ileal obstruction from a kink are only brought into play in the upright posture. When the patient is put to bed the ileum and the jejunum return to their normal position, and the kinks are abolished for the time being except in severe cases. This explains the fact that these patients are often quite comfortable while they are kept in bed, but the symptoms come on again when they get up. It also explains the fact that radiographic evidence of kinking, whether duodenal or ileal, is not always obtainable in patients who are kept in bed. Hence patients should be kept up, and on full diet as far as permissible, until the *x*-ray examinations are completed.

Duodenal Ulcer.

The fact that duodenal ulcer is a secondary condition dependent upon microbic infection arising in the lower tracts of the alimentary canal has been recognized of late by the well-known surgeon Mr. Moynihan,[3] who has performed the operation of gastro-jejunostomy for duodenal ulcer in a very large number of cases. He has also acknowledged the drawbacks of the operation, including the liability to the subsequent formation of a jejunal ulcer, or of a gastro-jejunal ulcer, at the new opening. Mr. Mayo Robson, also a prominent supporter of the operation of gastro-jejunostomy for the treatment of duodenal ulcer, has recently written a paper[4] with the object of drawing attention to the same danger. These ulcers result from the microbic invasion of the small intestine, already shown to be due to the damming back of the intestinal contents at the lower end of the ileum.

The Appendix.

Mr. Moynihan, however,[3] attributes the chief part in the formation of duodenal ulcer to the appendix, and he now removes this organ in ten out of every dozen operations of gastro-jejunostomy. He regards the appendix as the source of the septic infection, but the conditions he describes (and illustrates) are for the most part quiescent cicatricial or obliterative changes such as would certainly not act as foci of infection.

It is true, however, that the appendix is the primary cause of intestinal stasis in a particular group of cases. In this group (of which I have now seen a number of convincing examples) the proximal portion of the appendix is involved with the caecum in fibrous bands in such a way that the appendix actually controls, or even obstructs the end of the ileum while the patient is upright. In one case, the most extreme of the kind I have seen as yet (Figs. 6 and 6A), the ileo-caecal junction was actually indented by the appendix, which was so fixed by a newly formed fibrous band that it held up and obstructed the end of the ileum whenever the patient was in the upright posture. The last four inches of the ileum were dilated, and obviously much hypertrophied. (There had been great tenderness to pressure in the right iliac fossa). In this case the removal of the appendix relieved all the obstruction, and put an end to the stasis. A surgeon unfamiliar with this condition would naturally attribute the cure of his patient to the removal of the appendix, whereas the result is due, in reality, to the relief of the stasis. Figs. 7 and 7A represent a less extreme degree of a similar condition. In the less extreme cases the part played by the appendix in obstructing the outflow from the ileum when the patient is upright, is easily overlooked. In neither case (Figs. 6 or 7) were there any ileal adhesions.

The appendix is shown to contain bismuth in most cases during one or more of the examinations after a bismuth meal, and its position may be ascertained as a rule (Figs. 8, 9, 10, 12, 13, 14, 15). Very often it lies concealed by the caecum, and a view of it is only to be obtained by displacing the caecum by pressing with the hand in the right iliac fossa (Fig. 5A). On removing the pressure the caecum often falls back into place and so hides the appendix, and it is often impossible to obtain a photograph of the appendix although an accurate tracing may be made while the caecum is held out of the way (Fig. 5A). In certain cases the patient is himself able to keep up enough pressure with his right hand in the right iliac fossa to raise the caecum and enable a photograph of the appendix to be taken. The tip of the appendix frequently appears fixed, so that the appendix pivots round its tip during the movements of respiration, and, though the proximal part of the appendix is freely movable on pressure, the tip may be immobile (Fig. 12). This fixation of the tip is, as a rule, no evidence of disease. On inspecting the appendix at a subsequent operation the tip is seen to be fixed loosely in a bed of fat (as in Fig. 12). An *x*-ray photograph of the appendix may show one or more sharp angles (as in Figs. 8 and 9), but pressure with the hand during the fluorescent screen examination will show that these angles are only apparent, being due to the circumstance that the appendix does not lie in the plane of the picture in the whole of its length.

In some cases the proximal or the middle portion of the appendix is found to be fixed by adhesions in such a way as to become kinked when the patient is upright (Fig. 7). In such cases it is usual to find that the distal portion of the appendix alone contains bismuth, that which entered the proximal portion having been forced back into the caecum by the tension upon the appendix produced by the weight of the caecum (Fig. 7).

Tenderness to pressure over the appendix is certainly an important diagnostic point. The tenderness is sometimes localized accurately to the appendix, often to its proximal end (Figs. 14 and 15), and this tender point may be elicited at a number of consecutive examinations. In many other cases, where a tender point exists in the right

iliac fossa and has been thought to arise from an inflamed appendix, careful manipulation during the *x*-ray examinations may show that the appendix itself is quite free from tenderness to pressure, while some portion of the terminal coil of the ileum is the seat of the tenderness. The usual points at which tenderness is found along the terminal coil of the ileum are three: (1) The point at which the terminal coil of the ileum crosses the pelvic brim; (2) the ileo-caecal entrance; and (3) the seat of an ileal kink when one is present.

The Ileal Kink.

Mr. Moynihan stated recently[5] that "he had very rarely found an ileal kink, and never without the plain evidence of an appendicitis, to which he believed the kink to be secondary." As a matter of fact the typical ileal kink, of which I have now seen many examples (see Figs. 5, 5A, 11, 16, and 17), has no connexion whatever with the appendix[14] unless quite accidentally, as in Fig. 15, where the ileum and the appendix are kinked by the same band. I have described the ileal kink elsewhere,[14] and there is no need to repeat the description. The appendix is quite separate from the ileal end coil: I have seen this clearly demonstrated at numerous operations, and I have given several instances in the present communication (Figs. 5, 11, 13, 16, and 17).

The anatomical relations of the parts concerned in ileal kinking have been carefully described and beautifully illustrated by several American surgeons,[7,8,9,10] who are now carrying out Mr. Lane's operation of "short-circuiting" for the cure of intestinal stasis with most satisfactory results.

Intestinal stasis forms one of the most important and far-reaching branches of radiographic research, and the systematic investigation of the alimentary tract by the *x* rays after a bismuth meal is rapidly becoming an essential preliminary to intestinal surgery, and indeed to medical treatment of the digestive system.

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THE AUTOINOCULATION TEST IN TUBERCULOSIS.*

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In 1906 Wright[1] described spontaneous fluctuations of the tuberculo-opsonic index in febrile cases of tuberculosis and affirmed the possibility of determining whether any given fever were associated with the tubercle bacillus, by observing a series of indices, and marking the presence or absence of these fluctuations. The explanation Wright gave of this phenomenon seems quite convincing. He postulated a periodic change in the amount of toxic products entering the blood from a diseased focus. By day increased movement and bodily activity would, even when a patient was confined to bed, result in an increase of the blood flow through the whole organism, and toxic material would be washed out the more readily from the focus of disease into the general circulation. To this the system must respond by an increased production of immune substances. Hence come the fluctuations in the tuberculo-opsonic index, which, in point of fact, is an indicator of the amount of such response. To this periodic flow of toxic material Wright applied the term "spontaneous autoinoculation."

Freeman[2] found that massage applied to a diseased joint was followed by an increased amount of toxin in the circulation, demonstrable again by a very definite fluctuation in the opsonic index, provided only that the index was determined in respect of the causal organism. This he termed an artificial or induced autoinoculation, and he was able to utilize his discovery to elucidate the nature of joint troubles of doubtful origin. The example he first quoted was that of a knee-joint said to be tuberculous: after massage the tuberculo opsonic index did not fluctuate, whilst the index determined in respect of the gonococcus gave a marked and typical fluctuation. The inference drawn by Freeman was that the disease must be gonorrhoeal and not tuberculous.

Hereupon Wright and his collaborators,[3] following out the same line of experimentation, showed that a very considerable number of agencies, such as exercise, operation, Bier's bandage, and even physical examination of the chest, were capable of inducing autoinoculation.

Patterson elaborated his treatment for phthisis, consisting of the scientific induction of autoinoculation by carefully graduated labour, and in connexion therewith Inman[4] found that as long as disease was still present the varying grades of work produced fluctuations in the opsonic index, whilst in those apparently cured the most arduous labour was followed by no fluctuation whatever.

Lastly, I may refer to Inman's recent paper,[5] in which he gives the result of 100 consecutive autoinoculation tests undertaken as a means of diagnosis in cases suspected of phthisis. These tests, however, suffer considerably from the fact that the exercise which was to excite an autoinoculation was frequently insufficient. It is essential that in all tests undertaken for diagnosis this source of error should be rigorously excluded, and as our experience has grown it can now be claimed that such is the case.

The apparatus which I now use is a copy of the one suggested by Dr. Willcox for testing the lungs at St. Mary's Hospital. By its means forced respiration continued over a period of some minutes can be used to induce autoinoculation in a tuberculous lung. The presence or absence of such autoinoculation is then determined by measuring the opsonic index before and at varying periods after the exercise.

Now there is a large number of diagnostic tests for tuberculosis, and it is difficult to decide which is the best unless one has some definite notion of the function and characters which such a test should possess.

It would seem, therefore, to be of advantage to formulate some standard whereby the merits of every test may be adjudicated. A little thought will give us certain canons to which an ideal test should conform. First, it must be harmless; secondly, it must confine itself to pointing out the presence of active or smouldering tubercle—it must not be too penetrative; thirdly, the answer given by it must be unmistakable; fourthly, it must be universally applicable; fifthly, it must be simple; sixthly, it should be practicable after treatment to determine the time when cure is complete; and, lastly, the ideal test must be infallible. Of these seven canons, then, it will hardly be denied that the first and the last are the most important. Harmlessness and infallibility must be our watchwords in the search—the touchstone of our success.

In the series of 61 autoinoculation tests which form the basis of this paper, I have excluded none that have been undertaken for phthisis during the last three years: 23 are crucial cases in which diagnosis of tuberculosis was to be definitely made or denied. In each case a definite answer was given, and in no case, so far, have I had any evidence that the verdict was wrong. The following are examples:

Test 1.—A girl, apparently in quite an advanced stage of phthisis, was sent to Dartmoor by a London specialist with an extremely bad prognosis. In all good faith I treated her rigorously for lung disease. The course of the case, however, threw some doubt on the diagnosis, and it seemed advisable to take steps to decide the question. With a view to obtaining evidence as to the possibility of inducing autoinoculation, she was made to walk for two hours. The opsonic index remained normal. The test was repeated, with the same result. Thereupon further treatment was discontinued, and this somewhat hysterical invalid was told to lead an ordinary life. No further symptoms have developed.

Test 2.—A young woman, four months after an attack of influenza, had a slightly raised temperature at night, but showed no physical signs. She was made to walk two miles, and the index was determined of specimens of blood taken before, one hour after, six hours after, and again the next morning. The readings were: 0.85, 1.15, 0.7, and 1.3, an immediate rise, followed by a fall, and then a second rise. This is a typical result where tubercle is present. I had no

* Read in opening a discussion at the Plymouth Medical Society on the diagnosis and treatment of tuberculosis.

hesitation in giving a positive answer, and the patient went to a sanatorium, whence, after three months, she was discharged cured. The obvious criticism might be raised that phthisis was not actually demonstrated. Clinically there was a doubt, yet, as a matter of fact, to-day she is in bed with fever, sweats, cough, and loss of weight, and her doctor writes that he is most anxious as to her future.

Tests 3 and 4.—Two parallel cases of swollen joints came up for diagnosis. In each case massage was employed as the exciting agent, the blood being taken at the usual intervals. In the one case the index fluctuated, but not in the other. The former was diagnosed as tuberculous, and an arthrectomy, which was later performed, confirmed the opsonic finding, whereas the latter showed a steady normal index and was treated successfully by massage.

Test 5.—A lady suffered from colitis and abdominal pains, continually referred to the appendix region, although the appendix had already been successfully removed. The possibility of tuberculosis was to be excluded. The abdomen was massaged for about half an hour, and the index taken an hour later. It was found to be normal, and although only one index was taken, it was considered that there was no tuberculous trouble. This was four years ago, and the diagnosis has been upheld by subsequent events.

Tests 6, 7, 8, and 9.—These are four suspicious cases in which I was disappointed not to find a fluctuation in the index. My personal bias, if that is a factor in index determination as opponents of the method claim, was all in favour of diagnosing tuberculous mischief. One patient had an elevation of temperature in the evening, with night sweats and loss of flesh; another was languid and also losing weight after a series of bad colds lasting throughout one winter; a third had nursed a tuberculous sister and had been warned by Huggard of Davos to be careful, she also had suspicious physical signs: whilst the fourth had what seemed quite definite apical phthisis, was cyanotic, and grew tired on the slightest provocation. All these gave no fluctuation in the index. The test was negative, tuberculosis was excluded, and none of them has as yet falsified this prognostication, although from twelve months to three years have passed.

Test 10.—A stoker was invalided from the navy for phthisis. Signs were so slight that an autoinoculation test was made to confirm the diagnosis. He walked six miles. The index an hour later was 1.8. This being quite conclusive, he was treated, and later definite signs appeared.

Test 11.—A young child had a gland in the neck in conjunction with an enlarged tonsil. It was found to be tuberculous, since half an hour after massage the index was 0.65; after twenty-four hours it was 1.5.

Test 12.—A phthisical patient developed hoarseness. To determine whether the laryngitis might be tuberculous she read aloud for half an hour. The index before reading was normal, an hour later 1.02, six hours later 1.04, and the next morning 1.05. The result of the test was, therefore, negative, and the subsequent course of the case confirmed the diagnosis here made, as her temporary catarrh rapidly disappeared.

Test 13.—A patient came under review suffering from a cold on the chest. Certain indications suggested the possibility of phthisis. A diagnostic test was undertaken. Readings of the index were 1.1 before the walk, 1.2, 0.3, 0.75 at intervals afterwards. He was sent to hospital and died from an acute haemorrhage a few months later.

Test 14.—A child, who had been ill for some months with pyaemia, developed a swelling of the ankle-joint. It was thought that the joint might be tuberculous. To decide the question, ten minutes' gentle massage was given. The index to staphylococci varied from 1.0 to 1.45 two hours later. The index to tubercle bacillus was constant at 1.3. It was inferred that the ankle was affected by staphylococci, but that the child was somewhere affected by tuberculosis. Later pus containing staphylococci was obtained from the ankle-joint, and the child eventually died of tuberculous meningitis.

Test 15.—A lad developed a massive pleural effusion. On aspiration the fluid was found to be sterile. There was no fluctuation in the opsonic index after heavy breathing exercises. It was decided that tuberculosis was not present, and during the last two years no further signs have developed. The effusion cleared up after treatment by a dry dietary and copious saline purgation.

Though the series of cases, of which the foregoing are examples, are insufficient to lead to a dogmatic conclusion, yet the percentage of error having been reduced to vanishing point, one may perhaps feel justified in hoping that further trial will establish the extreme reliability of the autoinoculation test.

How does this test conform to the canons laid down?

1. *Harmlessness.*—From my own experience I have only once been able to convict the method of having been the cause of increasing the disease, but in that case, shortly to be mentioned, it was certainly rather my inexperience than the method which was really at fault.

2. *Is the Test too Penetrative?*—In comparison with other tests, and I am thinking more especially of the cutaneous and the percutaneous tests, it can be claimed that it is not. One has only to read the records of these to see that under certain circumstances a positive result is given in cases of apparently perfect health, in which afterwards no disease has developed. Bandelier and Roepke may be quoted as the best authorities on the tuberculin tests. In regard to the test of von Pirquet, they use these words:

> The positive cutaneous reaction gives no information as to the character of the tuberculosis, its activity, or the reverse: reactions occur not merely in cases of manifest tuberculosis but in those where there is clinically no suspicion of tubercle. It only indicates that the body somewhere and somewhen has been infected with tubercle bacilli.

In regard to Calmette's test they also say that stress must be laid on the anatomical standpoint rather than on the clinical. These tests, then, are too penetrative for practical use. They are evidence of the tubercle bacillus somewhen and somewhere. But the clinician craves for information as to whether it is now and here, where perchance the symptoms point. This the autoinoculation test can tell him, for it can be applied for suspected lung disease to the lung, for joint disease to the joint, and for glandular trouble to the glands, and the fallacy introduced by some insignificant deposit of tubercle elsewhere is avoided.

3. *Is the Answer Unmistakable?*—Here the hypothetical ground on which the test is performed must be taken into account. It depends on an artificial disturbance of the focus of disease. Granted that this is efficient—and experience must cause us more and more to understand the factors which lead to an efficient autoinoculation—then I think it may be said that the answer is unmistakable, and that at the first attempt, not at the third or fourth, as must be the case before a negative answer can be accepted, when, for instance, old tuberculin is injected.

4. *Universal Applicability.*—Here, one must admit, the test fails. Theoretically perfect in this respect and in the fact that the test can be extended to embrace the diagnosis of many other conditions besides that of tuberculosis, yet in practice the test fails on account of the time and apparatus required—that is, on account of the expense.

5. *Simplicity.*—Here, again, the same considerations are involved in the laboratory part of the test. The technique is difficult. None more so. But as regards the trouble given to the patient and the supervision required, then one can claim that this test is as simple as most of the tests. All that is involved is the act of producing an autoinoculation and the taking of a few specimens of blood, which most patients can do for themselves. Compare this with the prolonged observations which are necessary to exclude tuberculosis in the old tuberculin test.

6. *Can the Completion of the Cure be Determined by this Test?*—This brings me to a second series of tests, which were undertaken to elucidate this very point. The following examples speak for themselves. Let it be understood that the test in such cases must always be as severe as possible, so as to expose the slightest trace of disease which may still be remaining.

Test 16.—A young woman treated herself at home after a course at a sanatorium. The test to determine whether she might live a more ordinary life indicated the continued presence of a tuberculous focus, although the patient was apparently perfectly well. The verdict was confirmed two years later, when I was called in to see her in an attack of what she called acute gastritis, and when I found a cavity at the left apex discharging numbers of tubercle bacilli.

Test 17.—A man with slight apical trouble came under treatment for some four months. It was necessary to decide the earliest possible moment at which it might be safe for him to return to his work in an office. The test was a nine-mile walk taken very fast. There was no fluctuation in a somewhat low index. He has been at work from that time, now three years ago, without sign of a relapse.

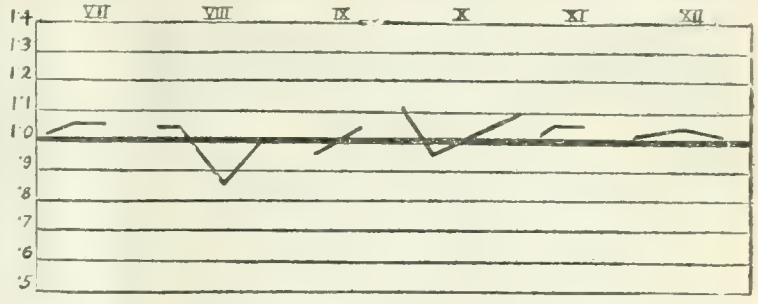
Test 18.—A clergyman suffering from tuberculous laryngitis was considered to be cured. His test was to read a newspaper aloud in his best pulpit manner for an hour. The index readings were 1.0, 1.3, 1.05, and 1.6—a marked fluctuation. Permission to resume work was withheld.

Test 19.—The patient diagnosed by Test 10 after treatment for some time was sent for a long walk. The index before was 1.2, after 2.1, six hours later 1.2 again, and twenty-four hours later 1.3. The cure was not yet complete, therefore treatment was continued.

Test 20.—Small nodules were left after inoculation treatment in a case of mastitis. Could treatment be discontinued? The breast was massaged and the opsonic index determined. The readings were 1.5, 0.9, and 1.4. The cure was not complete.

Tests 21, 22, 23, and 24 were all undertaken on a boy aged 14 years, suffering from phthisis, who had under treatment made remarkable progress. He went to Switzerland to "harden off." On his return he was given a test of a sixteen-mile walk. The index before the walk was 1.0, an hour later 1.1, six hours later

0.9, twelve hours later normal again. There was, in fact, but slight fluctuation, yet as it was in the direction of a rational curve, it was considered that there was a slight trace of phthisis remaining. He was told that if he avoided being overtired he would probably suffer no further from the disease. Twelve months later he took to his bed with an attack of influenza, and for some weeks his temperature at night refused to go down to normal. The question to decide was whether this indicated a recrudescence of his old trouble. He got up and walked one hundred yards. The index did not fluctuate from normal. The test being so slight it was decided that he should now get up daily and that later a second test should be undertaken after he had walked three miles. The index again did not fluctuate, and he was advised to disregard the temperature. After a short time he was quite himself again. Twelve months later he had another attack of influenza. His parents, being rather nervous, decided to have another test performed. This also proved negative, and up till now (two years) the boy has continued quite well. He has taken no particular care of himself and has gone in for all sports at his school, where recently he won the quarter-mile race.



Test 25.—After three months in a sanatorium a patient with slight apical phthisis underwent a test by a sharp walk for two hours. The index, slightly below normal, did not fluctuate. She was advised that she was cured. She continued quite well until twelve months later, when she had an attack of influenza. Her old trouble now started afresh. In the result, then, this test proved to be wrong. This is the only failure which I have to record. There is no doubt that I was at fault, rather than the method, in that I did not provide a sufficiently severe test to disturb the focus of her disease. I do not think that such an error can occur in the practice now in use of forced respiration against a load, as in the water bottles already mentioned.

7. *Infallibility.*—In respect of this, the most important of all, the series of cases speak for themselves, but I may perhaps quote the words of Sir Almroth Wright in regard to the point. He says[2]:

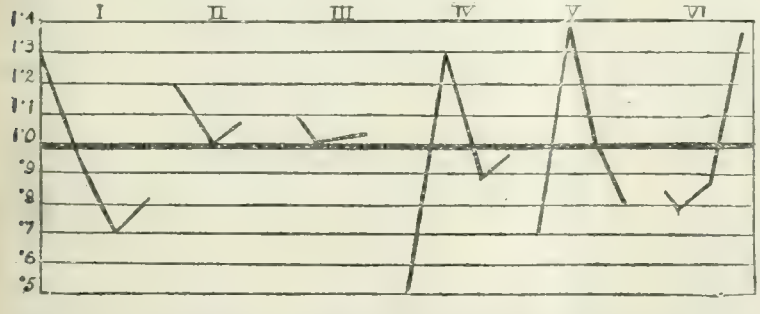
> . . . We have by . . . methods of artificial autoinoculation, combined in each case with measurement of the opsonic index before and after such event, obtained diagnostic results which have up to the present *invariably* been borne out by the subsequent history of the case.

And he then goes on to explain that this test can be used for the elucidation of many problems in the treatment of a patient during the course of his illness.

The remainder of my tests were carried out with a view to deciding such problems. The chart represents graphically a dozen tests carried out on a girl suffering from spinal disease (see chart). The numbers refer to the chart:

I.—May 21st, 1908. After tuberculin treatment for some weeks, the temperature being normal and there being no discharge from a sinus, was it safe for her to get up? She was up for ten minutes. The resultant curve shows a prolonged negative phase. The temperature rose the next day and continued high. The girl was very ill for months, and had a large psoas abscess on each side. This is the unfortunate case I mentioned, where one must ascribe her subsequent illness to an autoinoculation test. In the light of later experience it is clear that a preliminary test of a much less severe character ought to have been undertaken.

II.—May 14th, 1909. A year later she stood up again, but this time in a spinal jacket, the slight variation suggested caution. She was kept at rest for a few weeks longer. Then



we tried again, III, and even allowed her to take a step or two. The resultant variation was so slight that it seemed safe for her to be moved by train to her home in North Devon.

IV.—As a precautionary measure, I examined the index curve during the three days following her return home. It will be noticed that the variation is wide, but there is no marked negative phase. She was told to rest for a while pending the result of a further test.

V and VI.—Both taken to determine the effect of walks of varying distance. Curve V, the first short walk, shows only a positive phase, ending within twenty-four hours. The walk might be extended. Curve VI, taken in conjunction with a longer walk, shows a preliminary negative phase lasting about six hours. The walk was too long. Advice was given accordingly. During this period tuberculin inoculations were steadily pursued.

VII, VIII, and IX.—These tests were also performed with a view to increasing the exercise to the longest limit consistent with safety. The first and last of these show but little effect, whilst VIII, on account of the negative phase, indicates that the walk was excessive.

X.—In March of 1911 the girl seemed to be perfectly cured, and the problem presented itself as to whether it might now be safe to leave off the spinal jacket. I decided to test this question, and under my own eye, the patient coming over by train for the purpose, I had the jacket taken off, and made her walk across the room and back again. The resultant opsonic curve shows a negative phase lasting until the next morning. The jacket was kept on.

XI.—In June, however, when the test was repeated, no alteration was discovered in the index. She was then told to leave it off, and gradually to increase the length of her daily walk.

XII.—A month later I tested the blood in connexion with a considerable walk, and, finding no immunity response, argued that the focus of disease was extinct. I told her that she might consider herself cured, and lead an ordinary life. During the latter days of October I heard from her that she was keeping perfectly well, so that I have hopes that the index will justify its prognostications in this case as in the others.

Other examples of problems in treatment are provided by the following tests:

Test 26.—A phthisical patient with a slightly elevated temperature. Should he get up? In order to test this point he was made to rise and go downstairs, move about, and then return to bed. The index remained constant at 0.91. The answer given was that he might safely leave his bed. In the result his condition improved, and his temperature fell to normal.

Test 27.—The patient desired to play golf. Was it safe for him to do so? He tried a few holes. His index before was 0.65, an hour later 1.2, six hours later 0.65, and the next day 1.5. Obviously the exercise had caused a considerable amount of autoinoculation. He was told to avoid strenuous exercise.

Test 28.—How far might this same patient walk? His usual distance was slightly increased, and it was found that the index fluctuated considerably. He was told that it was dangerous for him to walk farther than was at that time his custom.

Test 29.—A lady suffering from phthisis, complicated by a tuberculous kidney, was anxious to walk. The index did not fluctuate after a short turn; consequently permission was given.

Tests 30 and 31.—A man suffering from extremely chronic phthisis had improved steadily under a healthy régime. Tests were undertaken to determine how far he could walk, and whether he could, without harm, make excursons by train. The index did not fluctuate with any amount of walking, but when an excursion involving a considerable amount of fatigue was undertaken the index fluctuated between 0.9 and 1.7. From these two tests the patient's immediate future was definitely mapped out.

In conclusion, then, my own experience, drawn from some 60 odd tests, leads me to form an extremely high opinion of the value of this method. It will be a matter for sincere regret if the difficulty of the opsonic technique, combined with the carping criticism of a section of the scientific world, who either do not take the trouble or are quite unable to conquer that technique, should delay a general recognition of the fact that in the Wright-Freeman

[2] May, 1912. This patient has relapsed notwithstanding the readings of the index. She underwent a severe strain in connexion with the accidental death of a friend. Within a few weeks a fresh psoas abscess was found. It is clear that the focus was not completely extinct, although the index did not fluctuate. The obvious explanation is that the walk undertaken for Test XII was not sufficiently prolonged. To demonstrate that cure is complete the test must be most rigorous.

autoinoculation test we possess the means of diagnosing tuberculosis in its earlier stages, of the further fact that this test is so extraordinarily reliable, that on its verdict alone treatment may be confidently applied or as confidently omitted, and, lastly, of its utility in directing the course of our treatment and of deciding the moment when cure is complete.

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THE PATHS OF RHEUMATIC INFECTION AND THEIR PROTECTION IN CHILDREN.

BY

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THE admirable work of Drs. Poynton and Paine has clearly demonstrated that a micrococcus, possessing distinct morphological characters, can be isolated from the tissues of the rheumatic patient, cultured on nutrient media, inoculated into animals, producing anatomical lesions identical with those found in acute rheumatism; and further, that this micrococcus can be isolated in pure culture from the blood and tissues of these infected animals, completing the essentials of bacteriological science. The researches of Drs. Poynton and Paine,[1] Beattie,[2] Ainley Walker,[3] D. B. Lees,[4] Apert,[5] Wassermann and Malkoff,[6] Dana,[7] and others have done much to dissipate the scepticism manifested as to the identity of the *Micrococcus rheumaticus*. The paths by which the specific agent finds access to the system as well as the prevention of such invasion still demand attention.

I. THROAT.

(*a*) *Local Invasion.*

The most important, as well as the most frequent, path of infection is undoubtedly the throat. It is occasionally difficult, however, to decide that diffuse congestion of the tonsils and pharynx have any connexion with the rheumatic agent, even when the manifestations of rheumatic toxaemia are more or less general. A relationship is at once suggested by the large percentage of children suffering from rheumatic phenomena who, at the same time, present enlarged tonsils and hypertrophied tissue in the naso-pharynx. The contention that such a condition of the throat increases the susceptibility to rheumatic infection is rational, but enlarged tonsils never produce rheumatism until they become infected with the specific agent, and even then the infective agent may remain localized in the tonsils or pharynx, producing toxins which are projected into the system in variable quantities and at variable intervals. This, I think, accounts for my frequent failures to find the *Micrococcus rheumaticus* in the blood, and also for the erratic behaviour and latency of rheumatic manifestations in children.

There is evidence accumulating which goes to show, further, that in the absence of hypertrophied adenoid tissue in the throat or naso-pharynx there is frequently inflammatory congestion in the region of the soft palate, pillars of the fauces, and pharynx (Holt,[8] Hutchison,[9] and Cheadle[10]) in the earliest stage of rheumatic infection, and from such a rheumatic throat the micrococcus has been isolated by Poynton.[1]

(*b*) *General Infection.*

It has been suggested that the infective agent finds entrance from the throat to the general system through the lymphatics. In many cases the lymphatic glands at the angle of the jaw are enlarged, indicating infection of the lymph channels, due, however, not to the absorption of rheumatic infection through the lymphatics, but to enlarged and infected tonsils. In the purely rheumatic throat the lymphatic glands are not enlarged. This fact, together with the evidence that the *M. rheumaticus* has an affinity for the endothelial cells lining the capillary blood vessels, and the sudden onset of acute rheumatic phenomena when the infective agent comes in contact with an injured surface, force me to the conclusion that the path from local invasion to general infection is direct into the blood stream and not through the lymph channels.

CASE I.

A girl, aged 9 years, previous to the operation of tonsillotomy was in excellent health, presenting only the usual signs of enlarged tonsils and adenoids. Within a few hours of the operation she complained of pains in the knees and ankles. The temperature was then 99.5° F. and the pulse 100. Next day the temperature was 101° F., pulse 120, and there was marked pain and tenderness with effusion into the knee-joints and pain in the elbow-joints. The symptoms subsided after some days under sodium salicylate, but not before cardiac dilatation had supervened. This case may seem a pure coincidence, but I have had similar experience on several occasions, and the interpretation of this sudden onset of rheumatic phenomena is, I consider, the disturbance of a local and latent focus with rapid absorption of the micrococcus into the circulation from the bleeding surface of the tonsillar bed or the pharynx. It is interesting to note (1) that a swab taken from the throat and smeared upon agar, blood serum, and gelatine, gave on each a culture of staphylococci; (2) that a particle taken with aseptic precautions from the centre of the left tonsil after enucleation gave in broth a culture of staphylococci with numerous streptococci in short chains.

To emphasize this point I record here four consecutive cases. They are important inasmuch as none of them, apart from occasional attacks of sore throat and growing pains, exhibited other than the concomitant signs of hypertrophied tonsils and adenoids. The tonsils, on removal, were put in sterilized bottles. With strict precautions a particle from the centre of each was inoculated in broth. After thirty-six hours' incubation films were made, and stained with methyl thionine. A more or less pure culture of streptococci in short chains was found in each case, while on some films were seen scattered nodules of lymphoid tissue with numerous cocci arranged in pairs. The microscopical and morphological characters of each culture were compared with those of the original *M. rheumaticus* described by Drs. Poynton and Paine, and were found to be identical.

Age.	Previous History of Rheumatism.	Remarks.	Bacteriological Result.
8 yrs.	Negative	Frequent sore throat	Pure culture of cocci in short chains with diplococci.
6 yrs.	Mild attack of arthritis six months previously	Occasional sore throat and growing pains	Some staphylococci with numerous streptococci in short chains.
9 yrs.	Growing pains	Sore throat occasionally. Some deafness from recent otitis media	Pure culture of cocci in short chains with numerous diplococci.
10 yrs.	Negative	Frequent mild attacks of tonsillitis	Streptococci in short chains, diplococci and staphylococci.

II. PULMONARY MUCOUS MEMBRANE.

It will not be seriously disputed that many cases of acute and subacute rheumatism in children show no evidence of sore throat, and of late my attention has been directed to the possibility not only of certain mild catarrhal conditions of the bronchial mucous membrane owing their inception to infection with the *Micrococcus rheumaticus*, but also to a general infection taking place through the impaired mucous membrane.

(*a*) *Local Invasion.*

Satisfactory experimental evidence of the local invasion of the pulmonary mucous membrane by the *Micrococcus rheumaticus* in the form of bronchial catarrh or bronchopneumonia is wanting. If a mild bronchial catarrh may proceed to actual bronchitis, and bronchitis to capillary bronchitis and ultimately consolidation of the alveoli, it is difficult to understand why rheumatic bronchopneumonia may not arise in a similar way, and clinically I am persuaded that it does.

CASE II.

A girl, aged 10, was brought to me on account of a persistent cough with occasional muscular and articular pains. There was a history of acute rheumatism and a well-marked family history. No indication of sweating or wasting. The heart was normal, and there was no evidence that this was a throat cough. The only physical sign found in the chest was a harsh respiratory murmur more marked on the left side, and especially between the scapulae and below the angle of the left

scapula and below the left clavicle in front. The pulse and temperature were normal. I could not find any indication either of enlarged bronchial glands, or ear trouble, or gastro-intestinal disturbance, and the mother assured me there was no expectoration. A provisional diagnosis of bronchial catarrh was made; after some days the child had a temperature of 99.2° F., with a dry, hacking cough and indefinite pains. Under sodium salicylate the whole condition, including the cough, disappeared within forty-eight hours.

(b) General Infection.

During a recent epidemic of measles I observed that some children with an ordinary attack had a rather prolonged convalescence. In several cases noted there were varied combinations of mild polyarthritis, cardiac dilatation, anaemia, and erythema nodosum, with slight elevation of temperature and some bronchial catarrh accompanied by cough. There was no trace of throat invasion in any of these cases.

CASE III.

I attended two children suffering from measles, sisters, aged 4 and 6 years respectively. They had a rheumatic diathesis and a strong maternal family history of acute rheumatism. So far as could be made out by examination the throat remained healthy in both children, but there was some bronchial catarrh. On the fifth day both seemed well, with normal temperature and pulse, though the younger presented some twitching movements of the hands and both had an irritating cough. On the sixth day definite choreic movements were noted in the younger child, upon which supervened cardiac dilatation with a mitral systolic murmur, and, after some weeks, fatal pericarditis. On the ninth day the elder child had pain and swelling of the knees and ankles, temperature 100.5° F., with spots of erythema nodosum, from which she made a complete recovery.

Quite recently I had two cases of well-marked erythema nodosum in children suffering from pertussis. In neither case was there any possibility of the symptoms being due to alimentary disturbance, for both at the time were upon invalid diet, and there was neither constipation nor diarrhoea. Further, the only alteration in treatment was the addition of sodium salicylate. I am of opinion that the path of infection in these cases is through the impaired bronchial mucous membrane, and this conclusion has been confirmed occasionally in my experience of bronchopneumonia, for I can recall more than one case accompanied by polyarthritis, peliosis rheumatica, and cardiac dilatation.

III. INTESTINAL WALL.

(a) Local Invasion.

Manifestations of rheumatism frequently arise in children who have neither rheumatic throat nor bronchial catarrh, but who show disorders of the intestinal canal, usually in the form of enteritis or mucous colitis.

It is an everyday incident to see a child between 5 and 10 years brought because of wasting and loss of appetite. There is a history of previous rheumatism, the tongue is dry and furred, breath foul, bowels confined, and faeces enveloped in mucus, or there is diarrhoea alternating with constipation, night terrors and perhaps pain in the upper and left half of the abdomen, or, and much more frequently, muscular or articular pains in the legs. I have treated many such cases strictly on the lines of mucous colitis, with only partial and temporary improvement until anti-rheumatic remedies were exhibited. From such clinical evidence, together with the therapeutic test, it would be difficult to dismiss the possibility of this condition, occasionally representing, in some degree at least, a manifestation of rheumatism, and the primary condition of the bowel would certainly foster the *Micrococcus rheumaticus*.

It is recognized that rheumatic pleurisy occurs, but the theory of the rheumatic origin of appendicitis and peritonitis has been received with suspicion; yet such cases as the following are not, I believe, very rare:

CASE IV.

A boy, aged 9 years, had severe pain over the region of the appendix, a temperature of 101° F., pulse 105, and definite resistance and tenderness around McBurney's point. On the third day of illness there was acute pain in the right knee and ankle joints. Two days later there was arthritis, with effusion into the right elbow and left wrist joints. On the tenth day a definite mitral murmur was heard at the apex, accompanied by dilatation of the left ventricle, with profound anaemia. The family history was positive; a younger sister had had two attacks of acute rheumatism, and the whole condition, with the exception of the mitral murmur, which still persists (nine months after), cleared up under the influence of salicylates and local applications.

A similar case in a young boy has been described by Dr. Eustace Smith:[11] that I now record is one of several cases of which I have had experience with abdominal pain and tenderness over the appendix, accompanied by articular pains and pyrexia, all of which quickly cleared up with antirheumatic remedies.

Whether mucous colitis and enteritis are ever actually produced by the rheumatic agent I am not prepared to say, but I am of opinion that they are conditions which predispose to the absorption by the impaired intestinal wall of the *Micrococcus rheumaticus*, and its toxins accounting for the appearance of rheumatic appendicitis and peritonitis.

PROTECTION FROM LOCAL AND GENERAL INFECTION.

The importance of this cannot be exaggerated, and the time has come when the mind of the profession, and more particularly the general practitioner, must turn to the possibility not only of treating rheumatic phenomena in children early, but of preventing their occurrence.

Throat.

(*a*) Hypertrophied adenoid tissue in the throat and nasopharynx should be removed in the quiescent stage.

(*b*) Simple congestion of the pharynx, palate, and fauces in a child with a rheumatic family or previous history, or with a rheumatic facies, should always be looked upon seriously, and met with local applications of salicylic acid preparations, together with sodium bicarbonate, sodium salicylate, potassium chlorate, and aperients. A 5 per cent. to 10 per cent. of sodium salicylate applied to the tonsils, palate, and pharynx gives a protective film from further contamination, and does not impair the defensive action of the tissues; or a gargle containing 20 to 40 grains to the ounce is equally efficacious. Care should be taken that decayed teeth are stopped or extracted, and the tooth-brush and antiseptic powder should be insisted upon daily.

Pulmonary Infection.

Inhalation for half an hour, three times a day, of 10 m of a solution of equal parts of creosote and carbolic acid with a Burney Yeo inhaler, is I believe, the best method of protecting the pulmonary mucous membrane.

Intestinal Mucous Membrane.

My experience is that sodium salicylate combined with sodium bicarbonate and rhubarb powder is by far the best protective treatment in cases where there is any indication of excess of mucus in the intestine, the alkali acting as a solvent, the rhubarb clearing the offending material away, and the salicylate acting as a sedative and healing agent to the mucous membrane.

CONCLUSIONS.

1. The *Micrococcus rheumaticus* takes the path of least resistance.

2. This may be an unhealthy throat, absorption from which frequently gives rise to general rheumatic infection, including peritonitis and appendicitis, directly through the vascular system.

3. Or it may be localized in the bronchial tubes and give rise to pneumonia, with polyarthritis and endocarditis.

4. An unhealthy condition of the intestinal wall may excite to activity the rheumatic agent, setting up acute rheumatic phenomena with peritonitis or appendicitis as part of a general infection.

5. A mild catarrh is produced at the seat of inoculation, and one or more of three factors in each case are present and promote the inroads of the micrococcus. Either

(*a*) The physical resistance, or
(*b*) The protective properties of the local tissue, or
(*c*) Defensive agencies of the blood, are below par.

6. The distinction between acute and subacute or latent rheumatism is mainly due to general infection with the actual rheumatic agent in the former and with the toxins only in the latter.

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The Science Committee of the British Medical Association.

REPORTS TO THE THERAPEUTIC SUBCOMMITTEE.

ON THE STANDARDIZATION OF PREPARATIONS OF INDIAN HEMP.

PART II.—*THE VALUE OF THE "ACETYL NUMBER."*

BY

C. R. MARSHALL and J. K. WOOD.

In a previous Report (Brit. Med. Journ., May 20th, 1911, p. 1171) it was shown that the so-called "iodine number," which had been suggested as a method of evaluating Indian Hemp products was no certain guide as a means of estimating the pharmacological activity of cannabis preparations, and could not be used as a substitute for physiological standardisation. It was pointed out in the Report that a chemical or physical method of standardisation which could be employed by pharmacists was eminently desirable, and as a determination of the "acetyl number" seemed to offer possibilities in this direction, it was made the basis of further work.

Two considerations mainly induced us to undertake this investigation. It has been shown by one of us that cannabinol distilling at about 260° C., under 15-20 Mm. Hg. pressure, accounts for a large part of the pharmacological activity of Indian Hemp, and that acetylisation of this substance produces an almost inactive product. It was further shown that the terpenes which are present in considerable amounts in Indian Hemp products cause none of the pharmacological effects peculiar to cannabis preparations, and, as they possess no hydroxyl groups, they cannot be acetylised, and therefore cannot give any appreciable acetyl number.

The acetyl number was determined as follows:—The sample (about 3 gms.) was weighed into a round-bottomed flask, three to four times its weight of acetic anhydride and about an equal weight of fused sodium acetate were added, and, after attaching a reflux condenser, the mixture was heated on a sand bath for about two hours. (This time was found to be sufficient for any acetylisation to occur, two samples of the same preparation, one of which was heated for two hours and the other for four hours, giving practically identical results.) The mixture was then diluted with 200-300 c. of water and boiled in order to convert excess of acetic anhydride into acetic acid. After cooling, the liquid was extracted with ether, and the ethereal extract was washed with sodium carbonate solution until the washings showed an alkaline reaction when it was further washed with water. The ether was then distilled off and the residue heated on the water bath with a measured volume of standard alcoholic potash for about half an hour. The excess of potassium hydroxide was afterwards determined by titration with normal hydrochloric acid, using phenolphthalein as an indicator, and the number of milligrammes of potassium hydroxide required to saponify the acetylised product in one gramme of substance calculated. This number is termed the "acetyl number." The pharmacological activity of the different samples was determined in the way mentioned in the first report.

Both crude and purified products were investigated. The crude products employed were a sample of charas fifteen years old, which is almost inactive pharmacologically, a sample of new charas kindly sent to us by Mr. I. H. Burkill, M.A., of the Indian Museum, Calcutta, and a sample of the official extract of Cannabis Indica bought from a retail pharmacist. The presence of inert matter increases the difficulty of determining with accuracy the acetyl number of such crude substances as charas, and if the method were of value it would be necessary to prepare an alcoholic or petroleum extract to facilitate the determination. The following results were obtained. The figures in the first column represent approximate relative values of the pharmacological activity of the three substances, and those in the second column the number of milligrammes of potassium hydroxide required to deacetylise one gramme of the crude substance.

Substance.	Relative Activity.	Acetyl Number.
New charas	20	134
Old charas	1	123
Ext. Cannabis Indica B.P.	16	295

The purified products investigated included cannabinol distilled from an extract of old charas and a mixture of the higher boiling terpenes (chiefly sesqui-terpenes) and cannabinol distilled from a petroleum extract of the new charas, and the residual extract left after the distillation. These seemed to us to include substances varying sufficiently in activity to determine the value of the test.

Substance.	Relative Activity.	Acetyl Number.
Cannabinol from old charas	6	190
Cannabinol from new charas	18	218
Residue	4	173
Sesqui-terpenes	0	14

From the two sets of figures it will be seen that the estimations of the pharmacological activity and the acetyl number do not agree, and in view of the marked divergence in pharmacological activity shown by the two samples of charas and the two canabinols, it would seem that the estimation of the acetyl number by the method we have employed cannot be used as a substitute for physiological standardisation.

THE BACTERICIDAL ACTION OF THE CRESOLS AND ALLIED BODIES AND THE BEST MEANS OF EMPLOYING THEM.

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The investigation described in the following report was undertaken at the request of the Therapeutic Committee of the British Medical Association.

In this investigation the germicidal powers of the various members of the phenolic class of substances have been compared and the effect upon germicidal power of the introduction of different chemical groupings into their molecules have been studied.

As many of these phenols are very feebly soluble in water, it is necessary to use them in the emulsified form. Accordingly a comparison of the efficiencies of the various emulsificants has been made.

The value of the emulsified disinfectants as germicides has been determined when diluted with water and also under a condition frequently met with in practice, namely, the presence of particulate organic matter which is known to have such a detrimental effect upon their germicidal efficiencies. Certain other questions of importance in practice have also been considered such as the toxicity, irritating properties and alkalinity of the disinfectants, and also the cost of their preparation in relation to their germicidal powers.

I.—The Experimental Methods Employed for the Determination of Germicidal Power.

The principle of these methods is that of Rideal and Walker's (1903, Journ. of the Roy. San. Inst., Vol. XXIV., p. 424) and consists in the comparison of the concentration of the disinfectant under examination with the concentration of pure phenol in water required to kill certain micro-organisms in a certain time under standard conditions defined below. The ratio of these two concentrations is called the carbolic acid co-efficient, and this is taken as the measure of germicidal efficiency.

Method (i.) was the modification of the Rideal-Walker method, introduced by Chick and Martin (*Journal of Hygiene*, Vol. VIII., No. 5, November, 1908), the essential modification being the introduction of an arbitrary time during which the disinfectant was allowed to act. In this test germicidal efficiency was determined in the absence of organic matter.

The culture-medium used was a mixture consisting, per litre, of Brand's Meat Juice 10 c.c., salt 5 gms., peptone 10 gms., glucose 10 gms. The mixture was heated and filtered, and the acidity of the filtrate determined by titrating a portion with standard sodium hydroxide. The medium had a standard acidity of +6 to +7, according to Eyre's notation.

Litmus was then added until the medium had a sufficiently blue tint. The addition of litmus facilitated the detection of growths of the organisms used, which formed acid from the glucose. The culture medium was sterilised by steaming on three successive days.

The germicidal powers of the various preparations were determined upon 24-hour cultures of B. typhosus and Staphylococcus pyogenes aureus grown at 37° C. and obtained by inoculating 6 c.c. of broth with a standard loopful

of material removed from a stock agar culture which was grown at room-temperature (16°-20° C.).

In the actual determination of germicidal power the following experimental conditions were kept constant :—

(*a*) The temperature of disinfection=20° C.

(*b*) The time during which the disinfectants were permitted to act=15 minutes.

(*c*) The volume of the disinfecting fluid=5 c.c.

(*d*) The number of organisms introduced=5 drops of a 24-hours culture from a standard pipette delivering a drop ·02 c.c. in volume.

All apparatus—test-tubes, pipettes and flasks—and the distilled water used for diluting the disinfectants being previously sterilised, a series of test-tubes, some containing 5 c.c. of various concentrations of pure phenol and others the same volume of various concentrations of the disinfectants under examination, was placed in a water bath at 20° C. The tubes having taken the temperature of the bath they were inoculated at one-minute intervals with 5 drops of the culture from the standard pipette and well shaken. When fifteen minutes had elapsed since the first tube had been inoculated, by means of a platinum loop of standard size (holding a drop of water ·004 gms. in weight) two loopfuls of the disinfecting fluid were introduced into each of two glucose broth tubes containing 10 c.c. of broth. This process of sub-culturing was repeated at intervals of one minute from each of the remaining dilution tubes in succession, so that samples were removed in each case after the disinfectants in varying concentration had acted upon the germs for exactly fifteen minutes.

The sub-culture tubes were incubated at 37° C. and kept under observation for four days. The results of the incubation (the presence or absence of growth) were referred to the corresponding dilution tubes and indicated that certain concentrations of the disinfectants had killed the germs in fifteen minutes while others had not.

The carbolic acid co-efficient was obtained by dividing the mean of the smallest concentration of the disinfectant that killed the organisms in fifteen minutes and the largest that failed to do so into the mean of the corresponding concentrations of pure phenol.

Method (ii.) was similar to (i.) in technique, except that particulate organic matter in the form of a 3 per cent.* suspension of finely powdered dried fæces was introduced into the dilution tubes.

The particulate matter consists largely of bacteria, cellulose, fat, and other bodies extractable with ether. When fæces are introduced into a disinfectant fluid the tar acids are absorbed by the particles of organic matter, so that a considerable portion is put out of action.

As already stated, the standard time chosen during which the disinfectants were allowed to act was fifteen minutes. In practice, however, it may be of importance to know the germicidal power of a disinfectant when permitted to act in a shorter time such as two minutes.

In the following experiments the effect of time upon the germicidal efficiency of phenol and two coal-tar disinfectants—T and Y, in Table XII. containing respectively tar-acid fractions No. 4 and No. 10 emulsified with castor-oil soap—has been studied. Comparisons were made after 2 minutes' and after 15 minutes' disinfection, using B. typhosus and Staphylococcus pyogenes aureus. In all other respects the tests were carried out in accordance with the standard method described above.

The following results were obtained :—

TABLE I.

Disinfectant.	Organism.	Concentration required to kill in 2 min.	Concentration required to kill in 15 min.	Carbolic-acid co-efficients. After 2 min.	After 15 min.
Phenol	B. typhosus	1·3 in 1000	0·5 in 1000	—	—
Disinfectant Y	,,	·85 in 1000	·75 in 1000	15·3	12·6
Phenol	Staphylococcus	1·3 in 1000	8·0 in 1000	—	—
Disinfectant T	,,	4·0 in 1000	2·7 in 1000	3·2	2·9

The effect of altering the time from 2 to 15 minutes upon the germicidal efficiency of these particular disinfectants was therefore not very great.

Madsen and Nyman ("Zur theorie der Desinfection" Zeitschr. f. Hygiene, LVII., p. 388, 1907 and H. Chick, Journal of Hygiene, Vol. VIII., No. 1, Jan., 1908) showed that the velocity of disinfection increased greatly with rise in temperature. This is of importance in practice, since it shows that by employing a disinfectant in the warm a higher germicidal efficiency is obtained, and it has been taken into account in recommending the concentrations of the various disinfectants to be used for different purposes.

II.—THE GERMICIDAL POWERS OF THE CRESOLS, THYMOL, AND THE HALOGEN DERIVATIVES OF THE PHENOLS.

The phenols are obtained from the distillates of coal-tar, namely, carbolic and creosote oil. The fraction distilling from tar between 170°—230° C. is called carbolic oil and consists chiefly of carbolic acid and naphthalene, but it also contains cresols and some higher homologues of phenol. The phenols are extracted from the mixture by means of caustic soda; the separated alkali solution is decomposed with acid, and crude carbolic acid separates as an oil. Crude carbolic acid contains besides carbolic acid cresols and higher phenols. Pure carbolic acid can be separated by distillation, and the residue, also called crude carbolic acid, containing little phenol, but consisting chiefly of cresols, has been used as a disinfectant. Its germicidal properties are dealt with in this chapter.

The tar fraction distilling between 230°—270° C. is called creosote oil and contains carbolic acid, cresols, the higher phenols and hydrocarbons, such as naphthalene and anthracene. The phenols are separated from the hydrocarbons by extraction with alkali: the alkali extract is decomposed with acid and the mixture of phenols that separates as an oil is called crude mixture of tar acids. Its germicidal power in the emulsified state is dealt with in Chapter IV. By the fractional distillation of this mixture of tar acids the constituent phenols can be separated to some extent. Between 180°—182° C. carbolic acid distils over: the tar acids boiling between 199°—200° C. are chiefly cresols: and the various fractions boiling at higher temperatures contain the xylenols and other higher homologues of phenol. The germicidal powers of these fractions emulsified with soap are described in Chapter IV.

Thymol is also a homologue of phenol, namely, 3 methyl—6-isopropyl-phenol. It is a white solid obtained from Oil of Thyme by extraction with alkali and precipitation from the extract with acid.

A. *The solubilities of the phenols.*

A saturated solution of phenol in water at room temperatures contains 7½ per cent. of phenol; the three isomeric cresols do not form aqueous solutions above 1·25 per cent.; while thymol is so feebly soluble that its saturated solution is 1 in 1,500. The other homologues of phenol and cresol are also very feebly soluble in water. The cresols and higher tar acids are, therefore, usually employed in the form of fine emulsion produced by means of soaps, glue, and gum.

B. *The germicidal power of the cresols and of thymol in aqueous solution.*

Fränkel (1889, Zeitschr. f. Hygiene, Vol. VI., p. 521) showed that the superiority in germicidal power of crude carbolic acid over pure phenol was due to the presence of the homologues of phenol. He found by means of experiments with anthrax spores that the pure ortho, meta, and para cresols possessed germicidal power considerably greater than that of phenol.

Henle (1889, Archiv f. Hygiene, Vol. IX., p. 188) showed that creolin contained cresols and their higher homologues and that both creolin and the cresols possessed a greater germicidal power than phenol upon B. typhosus and Staphylococcus pyogenes aureus. He found that the germicidal powers of the cresols varied with their boiling-points, meta-cresol with the highest boiling point being the most efficient and the ortho-compound with the lowest being the least efficient of the three isomers. He also showed that the phenols isolated from creolin exceeded the cresols in germicidal power. This was due to an admixture of some high boiling-point phenols with the cresols in creolin.

Blyth and Goodban (1907, May, *Analyst*) have shown by experiments with B. coli that the three isomeric cresols emulsified with soap possessed practically the same germicidal power, which was 2·1 times as great as that of phenol also emulsified with soap.

Rapp (1909, Desinfektion, Heft. 12. 2. December) showed that the presence of such substances as pyridin and anthracene, associated with the cresols in coal-tar, decreased the germicidal powers of the latter substances. He also showed that the cresols were more effective germicides when emulsified with linseed oil soap and palmitic acid soap than when emulsified with the soaps of oleic and stearic acids. The addition of resin-soap he found increased the germicidal powers of saponified cresols.

* 3 per cent. faces was chosen as representing the amount of solid matter present if a stool containing 10 per cent. total solids were mixed with twice its volume of disinfectant.

Jalan de la Croix (Archiv f. exp. Path., January 20, 1881) found that on an average 1 in 1,000 thymol inhibited the growth of bacteria, but 1 per cent. solutions were necessary to kill them.

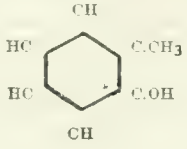
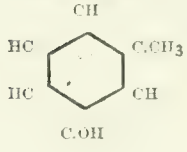
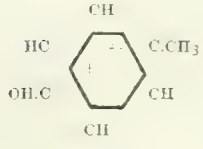
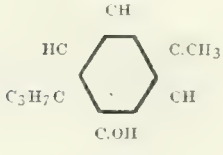
Ratimoff (Biedermann's Centralblatt, Vol. XIV., p. 360) considered thymol a strong germicide, and placed it fourth in his list of disinfectants arranged according to potency (mercuric chloride, silver nitrate, iodine, thymol). Kobert, Kohler, and Stern have used thymol to preserve vaccine lymph.

The germicidal powers of the cresols and thymol were first determined in aqueous solution with B. typhosus and Staphylococcus pyogenes aureus.

(I.) *In the absence of organic matter.*

The results are expressed as carbolic co-efficients in the following table:—

Table II.

Organism.	*Germicide.*	*Carbolic Co-efficient.*
B. typhosus.	Ortho-cresol. 	2·6
"	Meta-cresol. 	2·6
"	Para-cresol. 	2·6
"	Thymol. 	25·0
Staphylococcus pyogenes aureus.	Ortho-cresol	2·1
"	Meta-cresol.	2·0
"	Para-cresol.	2·4
"	Pure commercial cresylic acid. (Admixture of the three cresols)	2·2

The cresols were therefore nearly equal in germicidal power, but were considerably more efficient than phenol.

Thymol, possessing an isopropyl as well as a methyl group in the aromatic nucleus, was twenty-five times as powerful a disinfectant as phenol and ten times as powerful as the cresols to B. typhosus.

These facts show that accumulation of alkyl groups in the benzene ring of phenol may increase germicidal power to an enormous degree. High germicidal power was therefore to be sought in the higher homologues of phenol. These are found commercially in the higher boiling-point fractions of the tar acids derived from creosote-oil.

The carbolic coefficients of the cresols were greater in the case of B. typhosus than in the case of Staphylococcus. This indicates that the difference in the resistances of these organisms to the action of germicides was more marked in the case of the cresols than with phenol.

(*ii.*) *In the presence of particulate organic matter* (3 *per cent. dried fæces*).

Organism.	*Disinfectant.*	*Carbolic-acid co-efficient.*
Staphylococcus py-aur.	Cresylic Acid.	1.7

In the absence of organic matter the same sample of cresylic acid possessed a coefficient of 2·2 (see above).

The presence of organic matter in the form of a 3 per cent. suspension of dried fæces somewhat decreased the bactericidal power of phenol. For, while 9 to 10 in 1,000 phenol killed Staphylococcus in 15 minutes in the absence of organic matter, 11 to 13 in 1.000 phenol was required to kill the same organism in the same time in the presence of the organic matter. The depressing effect of particulate organic matter upon the carbolic coefficient of cresylic acid therefore meant that the bactericidal action of cresylic acid was a little more decreased by the organic matter than was that of phenol.

C.—*The germicidal powers of the emulsified cresols and thymol.*

(I.) *a.* In absence of organic matter. *b.* In presence of 3 per cent of dried fæces.

(i.) *The advantages of employing the cresols in the suspended state.*—(*a*) As has already been pointed out, the limited solubility of the cresols in water prevents their aqueous solutions from always being serviceable as disinfectant fluids. Stronger solutions in water than 1·25 per cent. at ordinary temperatures cannot be obtained, and often stronger solutions are required in practice. Recourse must therefore be had to the method of obtaining permanent suspensions of the cresols in other media. For this purpose a soap is very convenient and has for a long time been employed in the preparation of coal-tar disinfectants. By warming cresylic acid with soft soap until all the soap has dissolved, a dark-coloured fluid is obtained which is freely miscible with water with no separation of cresols, so that much stronger concentrations of cresols can be obtained in this way than by dissolving them in water alone.—(*b*) The same concentration of bactericidal substance may have a greater germicidal power when emulsified than when dissolved, as was shown by Chick and Martin [Journal of Hygiene, Vol. VIII. No. 5, November, 1908] and by Massey [Journal of Hygiene, Vol. IX., No. 3, November, 1909]. This advantage, however, only applies to higher concentrations of the cresol-soap, because in the case of concentrations below 1·25 per cent. that are used in investigating the bactericidal power of the cresols with the moderately resistant organisms—B typhosus and Staphylococcus—the cresol is completely in solution and is no longer suspended in the soap solution. In higher concentrations part of the cresol is emulsified and part is in solution and the bactericidal superiority of an emulsified disinfectant must come into operation. This advantage in using emulsified cresol is therefore not made evident when only moderately resistant organisms are used.

(*c*) That the soap present exerts a small bactericidal action and thus intensifies that of the cresol.

(*d*) That the method of suspension does not destroy the transparency of the diluted preparations.

(ii.) *The best methods of preparing cresol emulsions.*—(*a*) The first method that gave good results was that employed for making up the Liquor cresoli saponatus of the German, Japanese, and the Swedish Pharmacopœias, and the same preparation, official in Belgium and Switzerland, called Cresolum saponatum. Equal weights of the cresols and B.P. soft soap were warmed together until all the soap had dissolved. A reddish-brown fluid resulted which was completely miscible with water, yielding clear dilutions.

Preparations were made according to this method of pure commercial cresylic acid, of the fractions of tar acids from creosote-oil, that came over in the neighbourhood of the boiling-points of the cresols (Fractions I., II., III., 193-205° C.), and also of crude carbolic acid.

The bactericidal powers of these five preparations upon Staphylococcus pyogenes aureus and B. typhosus were determined in the presence and absence of fæces. The results are set forth in the following table:—

TABLE III.

Nature of Cresol-body emulsified with Soft-soap.	Germicidal Efficiency.				Concentrations * recommended for [illegible]					
	Staphylococcus Pyogenes Aureus.		B. typhosus.		For washing hands or sterilising instruments (absence of organic matter).		For the disinfection of typhoid stools.		For the disinfection of pus from empyæmas.	
	Carbolic acid co-efficient, in absence of fæces.	Carbolic acid co-efficient, in presence 3 per cent. fæces.	Carbolic acid co-efficient, in absence of fæces.	Carbolic acid co-efficient.			(The concentrations given below are to be added to ½ their volume of stools or pus.)			
					At 20°C.	At 35°C.	At 20°C.	At 35°C.	At 20°C.	At 35°C.
A. Pure commercial Cresylic Acid	1·2	1·3	—	—	2%	1%	3%	1½%	—	—
B. Tar-acid, Fraction No. I, 193°—199·5° C.	1·4	1·2	—	—	2%	1%	3%	1½%	—	—
C. Tar-acid, Fraction No. II, 199·5°—202·5° C.	1·6	1·2	3·0	1·8	2%	1%	3%	1½%	—	—
D. Tar-acid, Fraction No. III., 202·5°—205° C.	1·4	1·3	—	—	2%	1%	3%	1½%	—	—
E. Crude carbolic acid....	·9	·9	1·5	1·1	2%	1%	3%	1½%	3%	1½%

* The concentrations recommended for practical purposes are based on the experimental results and by means of the preliminary experiments with two-minutes germicidal action are adapted for short periods of disinfection say 2 minutes). An additional allowance has also been made for the fact that organisms that have been living recently in the animal body and therefore at a high temperature are somewhat more resistant to disinfectants than the organisms of a laboratory culture that have not been recently passaged.

The fractions boiling at the temperatures indicated in table III. contained the cresols as the principal constituents. They all yielded when warmed with an equal weight of soft soap a reddish-brown homogeneous fluid completely miscible with water and giving clear dilutions with distilled water, but slightly turbid ones with tap-water, owing to the precipitation of some of the soap by calcium and magnesium salts. The preparations made from pure cresylic acid and these fractions possessed practically the same carbolic coefficient. Their bactericidal power was not influenced by the presence of a 3 per cent. suspension of fæces to a much greater extent than that of phenol.

The germicidal efficiency of the Liquor cresoli saponatus prepared with crude carbolic acid was considerably less than that of the same prepared with the tar-acid distillates consisting almost entirely of cresols and boiling from 193°-205° C.

(*b.*) Another cresol suspension that was worked with was the Liquor cresolis compositus of the United States Pharmacopœia. The formula of this preparation is thus: Cresylic Acid, 50; Linseed Oil, 35; Potassium Hydroxide, 8; Water to make up to 100 by weight. This mixture was gently warmed and a brown fluid resulted. Complete saponification of the fat, however, was not effected, so that on dilution there was a great separation of fat.

The carbolic co-efficient of this preparation determined with Staphylococcus pyogenes aureus and in the absence of organic matter was ·8. Its bactericidal power was therefore less than that of carbolic acid. The carbolic acid coefficient of the cresylic acid used in making this preparation was 2·2 in aqueous solution with Staphylococcus and in absence of organic matter, so that, since the preparation contained 50 per cent. cresylic acid, its carbolic acid coefficient should have been a little over 1·1, as the soap would exert a small bactericidal action.

There was quite a measurable difference between ·8 and 1·1 and the reason for this falling-short in bactericidal power was discovered in the fact that the preparation contained an excess of fat in consequence of incomplete saponification. When diluted with water a milky fluid was formed due to the presence of fat globules. The cresols are extremely soluble in fats so that the active substances were partitioned between water and fat and a considerable portion was thus put out of action.

(*c.*) The difficulty of effecting the complete saponification of linseed oil led to experiments with the next cheapest oil, castor oil. It was found that the bleached and filtered castor oil of commerce, costing 9d. per lb., was very readily saponifiable in the presence of tar-acids.

Disinfectant fluids were first of all prepared with castor oil according to the formula above used in the case of linseed oil, but it was found practicable to alter the formula by reducing the proportion of oil and still obtain equally good emulsions. The formula finally adopted was the following:—

Cresols	50
Castor Oil.....	20
Caustic Potash	5
Water	5, all by weight.

Preparations were made with crude carbolic acid and the fraction III. of tar acids, boiling from 202·5°-205° C. The other two fractions (consisting almost entirely of cresols) boiling at 193°-199·5° C. and 199·5°-202·5° C. could, of course, be substituted for fraction III. if desired.

The castor oil and tar acid in the above proportions were well mixed and heated together in the water bath; the alkali was then dissolved in the water and the solution, being already hot owing to the heat of solution of the potash, was added to the hot mixture of tar acid and fat. Heating in the water bath was continued until the saponification of the fat was complete, this stage being reached when there was no longer a fatty scum produced when a drop of the mixture was diluted with water.

The products were dark-coloured, translucent, homogeneous fluids that gave beautifully clear dilutions with distilled water and somewhat turbid ones with tap-water.

The modification in the formulæ of these preparations, consisting in the reduction of the proportion of fat, had the following advantages:—

(i.) The final preparations possessed a higher tar-acid content and a consequent higher germicidal efficiency.

(ii.) The dilutions with tap-water were much less turbid than those of the preparations containing the excess of castor-oil soap.

(iii.) The cost of production of the preparations was less.

The results of the determination of their germicidal powers are tabulated below:—

TABLE IV.

NATURE OF CRESOL-CONTAINING SOAP PREPARATION.	GERMICIDAL EFFICIENCY.				CONCENTRATIONS RECOMMENDED TO BE USED IN PRACTICE.			
	STAPHYLOCOCCUS PYOGENES.		B. TYPHOSUS.		For washing hands and sterilising instruments.		For disinfection of typhoid or other stools. (Concentration to be added to half volume of stools.)	
	Carbolic-acid co-efficient in the absence of fæces	Carbolic-acid co-efficient in the presence of 3 per cent. fæces	Carbolic-acid co-efficient in the absence of fæces.	Carbolic-acid co-efficient in the presence of 3 per cent. fæces.	At 20° C	At 35° C	At 20° C	At 35° C
H Crude Carbolic Acid .. Tar Acid, 50 by wt. .. Castor Oil, 20 ,, .. Potash, 5 ,, .. Water 5 ,, ..	1·6	1·7	3·6	2·2	2%	1%	3%	1½%
I Tar Acid Distillate .. Fraction No. III. .. 202·5°—205°C .. .. Tar Acid, 50 by wt. .. Castor Oil, 20 ,, .. Potash, 5 ,, .. Water, 5 ,, ..	2·9	1·9	5·2	3·4	1%	½%	2%	1%

From these results the following conclusions can be made :

1. That the germicidal powers of the cresol castor-oil soap preparations were not severely depreciated by the presence of 3 per cent. suspensions of faeces.

2. That the preparations made with crude carbolic acid were less efficient than those containing the cresol fractions.

3. That on comparing the germicidal efficiencies of the castor-oil soap preparations with those of the corresponding soft-soap preparations (Table III.) it is found that the former are the superior germicides owing to their higher content of tar acid (62½ per cent. as against 50 per cent. tar acids).

(D) *The use of alkali-resin as emulsificant.*

The resin used was common amber. The formula for the preparation was the following :—

Tar-acid	...	50
Resin	...	25
Potash	...	6
Water	...	5 by weight.

The tar-acid and resin were heated together on the water-bath until all the resin had dissolved. The potash dissolved in the water was then added and the mixture well stirred and heated until a drop of the mixture gave a milky dilution with water with no separation of tar-acid. Disinfectant-fluids were prepared according to this formula with crude carbolic-acid and one of the cresol-fractions (No. III.) of the tar-acids. They were dark-coloured, homogeneous, somewhat viscous fluids which gave milky dilutions with both distilled and tap-water, in this differing from the corresponding preparations made with soft-soap and castor-oil soap.

The bactericidal powers of these preparations were determined and the experimental results are tabulated below (Table V).

From these results the following conclusions may be drawn :

(i.) The presence of a 3% suspension of fæces depreciated to a certain extent the germicidal value of the cresols emulsified with resin soap.

(ii.) The germicidal power of the preparation containing crude carbolic-acid was less than that of the preparation containing one of the cresol-fractions of the tar-acids.

(iii.) As indicated in the comparative table below, the cresols preparations emulsified with resin soap and containing 50% of tar-acid were generally a little weaker in

TABLE V.

PREPARATION OF	GERMICIDAL POWER.				CONCENTRATIONS RECOMMENDED FOR USE IN PRACTICE.			
	STAPHYLOCOCCUS.		B. TYPHOSUS.		For washing hands and sterilising instruments, absence of organic matter.		For disinfection of typhoid stools. Concentrations to be added to ½ their volume of stools.	
	Carbolic-acid co-efficient in the absence of fæces.	Carbolic-acid co-efficient in in the presence of fæces.	Carbolic-acid co-efficient in the absence of fæces.	Carbolic-acid co-efficient in the presence of fæces.	At 20°C.	At 35°C.	At 20°C.	At 35°C.
J Crude Carbolic-acid emulsified with Resin	1·9	1·4	2·5	1·8	1½%	¾%	2½%	1¼%
K Tar-acid Fraction No. III. [202·5° to 205° C.] emulsified with Resin	3·0	1·7	3·6	2·6	1%	½%	2½%	1¼%

germicidal power than the castor oil soap preparations containing 62·5% of tar-acid :—

TABLE VI.

DISINFECTANT.	CARBOLIC ACID CO-EFFICIENT.		
	Staphylococcus py. aur.	B. Typh. In absence of fæces.	B. Typh. In presence of fæces.
(J) Crude carbolic acid, emulsified with resin	1·9	2·5	1·8
(H) Crude carbolic acid, emulsified with castor-oil soap	1·6	3·6	2·2
(K) Tar-acid, Fraction III., emulsified with resin	3·0	3·6	2·6
(T) Tar-acid, Fraction III, emulsified with castor-oil soap	2·9	5·2	3·4

(iv.) A comparison of the germicidal powers of the cresols emulsified with resin soaps with those of the cresols emulsified with soft soap (Table III.) shows that the resin-preparations were the superior germicides owing to the higher content of tar-acid.

This is indicated in the following comparative table :—

TABLE VII.

DISINFECTANT.	CARBOLIC CO-EFFICIENTS.			
	Staphylococcus.		B. Typhosus.	
	In the absence of fæces.	In the presence of fæces.	In the absence of fæces.	In the presence of fæces.
Crude carbolic acid, emulsified with an equal amount of soft soap.	·9	·9	1·5	1·1
Crude carbolic acid, emulsified with resin according to this formula :— Crude carbolic acid .. 50, Resin .. .. .. 25, Potash .. .. .. 6, Water .. .. .. 5. All by weight.	1·9	1·4	2·5	1·3
Tar-acid Fraction III. (cresols), emulsified with an equal amount of soft soap.	1·4	1·3	—	—
Tar-acid Fraction III. (cresols), emulsified with resin according to this formula :— Tar-acid .. .. 50, Resin .. .. .. 25, Potash .. .. .. 6, Water .. .. .. 5. All by weight.	3·0	1·7	3·6	2·6

(iii.) *A comparison of the germicidal properties of cresol in aqueous solutions and in soap-suspension.*

The results of the comparative experiments are set forth below :—

TABLE VIII.

Nature of Cresol and and medium of solution or suspension.	Organism.	Carbolic-acid co-efficient of *Cresols*.	
		In absence of fæces.	In presence of fæces.
Pure commercial Cresylic Acid examined in aqueous solution	Staphylococcus.	2·2	1·7
The same examined in soap-suspension (containing 50% of tar-acid suspended with 50% soft-soap.....	"	2·5	2·6

By suspending the cresols with soap there results a slight increase in their germicidal power. This is not to be attributed to the condition of emulsification of the cresols in the soap because at the concentrations (5 in 1000) used in determining the carbolic-acid co-efficients the cresols would be in true solution. The increased germicidal power is probably due to the germicidal properties of the soft-soap present.

(iv) *The germicidal properties of emulsified thymol.*

The high germicidal power of thymol in aqueous solution has already been pointed out, but its limited solubility in water is a practical disadvantage.

Although thymol is official in the British Pharmacopœia, there is no official soap emulsion of it. Experiments were therefore carried out to produce such a preparation. The best method of emulsification consisted in heating 50 parts of thymol with 20 parts of castor oil and saponifying the latter with a solution of 5 parts of potash dissolved in five of water.

The product was a dark-coloured homogeneous fluid which gave a white stable emulsion of thymol with water.

The germicidal properties of this preparation were examined and the results are tabulated below :—

TABLE IX.

B. TYPHOSUS.		STAPHYLOCOCCUS PY. AUR.	
Carbolic co-efficient in absence of fæces.	Carbolic co-efficient in presence of 3 per cent. dried fæces.	Carbolic co-efficient in absence of fæces.	Carbolic co-efficient in presence of 3 per cent. dried fæces.
30	C8	23	7·5

The emulsified thymol thus possessed a very high germicidal power which was greater than any of the emulsified tar-acid fractions dealt with in Chapter IV. Its efficiency, however, was greatly decreased by the presence of a 3% suspension of dried fæces.

(ii.) *The effect of the presence of tap-water on the germicidal powers of the preparations of the cresols.*

The determination of germicidal power was carried out in the usual way except that the dilutions of the disiufectants and of the phenol were made with sterile tap-water. Comparative experiments with distilled water using the same culture were also set up.

The experiments were carried out with a disinfectant in which tar-acids fraction No. 1 (consisting of cresols) was suspended with castor-oil soap in the following proportions :—

Tar-acid	50
Castor-oil	35
Potash	8
Water	7 all by weight.

The organism used was Staphylococcus pyogenes aureus.
The results are set forth below :—

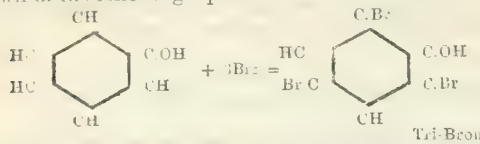
TABLE X.

DISINFECTANT.	DISTILLED WATER.		TAP WATER.	
	Carbolic-acid co-efficient.	Concentration killing in 15 mins.	Carbolic-acid co-efficient.	Concentration killing in 15 mins.
Phenol	—	11 in 1000	—	12 in 1000
Disinfectant G ..	2·3	4·6 in 1000	2·3	5·2 in 1000

Tap-water had, in these experiments, no effect upon the germicidal efficiency of either phenol or saponified cresol, although it precipitated some of the soap of the latter.

(D.) *The germicidal powers of the halogen derivatives of the phenols.*

Chlorine and bromine combine directly with phenols, forming halogen substitution products in which the halogen has replaced some of the hydrogen atoms of the benzene nucleus. This is shown in the following equation :—

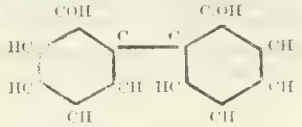


Tri-Brom-Phenol.

Mono-, di-, tetra- and penta-substitution products also exist.

Although these compounds are very insoluble in water, Bechhold and Ehrlich (1906, Zeitschr. f. Physiol. Chem. Hoppe-Seyler 47, p. 173) have determined their inhibitory powers upon the growth of B. diphtheria. They found that inhibitory power increased as the number of halogen atoms introduced into the benzene ring became greater. Thus as an inhibitor penta-brom-phenol was 100 times as efficient as phenol.

They also showed that halogen derivatives of ortho-bi-phenol



possessed great inhibiting power. Thus the tetra-brom-derivative was 500 times as efficient as phenol.

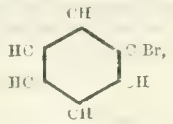
O-biphenol and its isomers are contained in some proprietary disinfectants.

Some of the halogen derivatives of phenol and cresol dissolved in glycerin or sodium hydroxide have been employed for disinfecting purposes, but these are not ideal media.

Attempts have been made to emulsify some of these halogen compounds, but the experiments up to the present have not been successful.

To obtain these substances in a form suitable for germicidal purposes is of importance because according to Bechhold and Ehrlich's work they are not extremely poisonous to the higher animals. For example, the fatal dose by subcutaneous injection for mice of tetra-brom-ortho-cresol is 0.44 gms. for 1000 gms. body weight.

Some experiments have also been carried out with a view to the emulsification of brom-benzene—



a liquid very insoluble in water. Unlike phenol and cresol, however, it does not dissolve soft-soap or castor-oil soap but forms with them yellow pastes of a non-homogeneous character. These pastes mix with water, forming white emulsions which are very unstable. No determinations of germicidal power have been made.

(To be continued.)

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

BREECH PRESENTATION IN THREE SUCCESSIVE LABOURS.

I was sent for on May 21st to a woman, aged 32, in labour of her third child. I found the os about two-thirds dilated and the breech presenting, dorso-anterior position, and could make out that the sex was female. The labour progressed after rupture of membranes, and the child was born alive and was of good size and vigorous.

On inquiry I found that she had had breech presentations in both her previous labours. The first, four years ago, had to be terminated by aid of instruments, the infant, a male, being born alive. In her second labour, when she was attended by my son, Dr. C. H. T. Ilott, the presentation was also breech, and the infant, a female, was living.

As in my experience and reading such a sequence of breech presentations is unknown, I thought it well to place its occurrence on record. It is also rather remarkable that all three children were born alive.

The mother was strong, well built, and healthy.

Bromley, Kent. HERBERT J. ILOTT, M.D.

DELAYED UNCONSCIOUSNESS AFTER CHEST INJURY.

THE following case may be interesting in connexion with Dr. Forsyth's article on coma in the JOURNAL of May 11th. In a fight between two boys, one about 11 years of age received three blows near the apex of the heart. The teacher, seeing him look sickly, asked him to see the doctor and go home. As I was out a boy came with a message, and, judging from the usual run of such cases, I told the boy to tell him to lie down for an hour, and if he was not better to let me know. About half an hour later the teacher came, and I visited the boy. Then he was in deep coma, from which it was impossible to arouse him, and had Cheyne-Stokes breathing, with a weak irregular heart, but no lung trouble. The cornea reflex was abolished, the pupils slightly dilated, the retina pale and anaemic (ophthalmoscope), and the muscles limp. After about an hour of artificial breathing and gentle massage of the heart there was a sign of cornea reflex and crying, or, perhaps more correctly, sobbing, and complaint of pain at the apex of the heart. There was a return to consciousness very gradually, and information was obtained later on as to the nature of the assault. On the third day the temperature was 102°, and there was dullness over the left apex and base. In a day or two he was well. I confess to having suspected haemorrhage, but the heart sounds, when established, were clear, and I could find no heart or lung friction sounds.

The usual effect of a stunning blow subsides with rest. When I broke two ribs I lay on my back for an hour, and was again well; but for symptoms of such severity to come on about two hours after an injury one must search physiology for a cause.

London, W.C. J. REID, M.D.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

THE GENERAL HOSPITAL, MYSORE, SOUTH INDIA.

MOTOR APHASIA DUE TO MALARIA.

(By S. SUBBA RAO, B.A., M.B.Madras, M.R.C.S.Eng., Assistant Surgeon.)

PURE motor aphasia, or subcortical motor aphasia, as Déjerine calls it, is a rare occurrence, and aphasia due to malarial parasites forming an embolus and blocking the artery supplying Broca's convolution is rarer still, even in places where malarial fevers abound. Therefore I venture to report the following interesting and instructive case:

A young lad, aged 19, was admitted on February 26th with the complaint that he had lost the power of speech, and with the following history: On the previous evening he had had a rigor, vomited, and fell down unconscious. The unconsciousness lasted for about two hours, and he had fever. After he regained consciousness it was found that he was unable to speak.

On admission the temperature was 99.4°. The heart, lungs, liver, spleen, urine, etc., were all normal: he could not speak, nor was he able to put out his tongue fully, but he had no agraphia. He wrote answers to all my questions in an intelligent manner. Towards the evening of February 26th his temperature went up to 102.4°. On February 27th it was normal. On the evening of February 28th he again had a rigor, and the temperature shot up to 105°. Microscopic examination of the blood revealed the presence of malignant tertian parasites in abundance—three or four in each field. Now and again I came across a red corpuscle with two rings in it.

Hypodermic injections of quinine were given on February 28th and 29th, and the fever did not recur. On February 29th he regained the power of speech as suddenly as he had lost it. He was given quinine by the mouth for a week more, and was discharged with the advice that he should take 10 grains of quinine once a week for three months. He has had no recurrence.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

STAFFORDSHIRE BRANCH.

Thursday, April 25th, 1912.

Dr. J. A. CODD, Vice-President, in the Chair.

Indiscriminate Use of Atropine in Eye Diseases.

DR. MACTIER read a paper on the indiscriminate use of atropine in eye diseases. He gave a short account of the appearance of the healthy eye, describing the cornea, the conjunctiva, the sclera, and the iris, paying most attention to the last, and giving a summary of five things which can usually be made out by inspection in the healthy iris—namely, uveal ring, pupillary zone, ciliary zone, corona, and contraction furrows. The appearance of the pupil when examined with the ophthalmoscope was also mentioned. Stress was also laid on the importance of testing the tension of all eyes. The appearances in acute iritis were then described. The prominent symptoms—pain, lacrymation, photophobia, redness of the eye, impaired mobility of the iris, exudation of inflammatory products, and disturbances of vision—were dealt with in detail. The symptoms of acute glaucoma, which all depended on the increase of tension in the eyeball—namely, pain, ciliary injection, cloudiness and insensibility of the cornea, dilatation of the pupil, loss of accommodation, disturbances of vision, and shallowing of the anterior chamber—were enlarged upon. He then pointed out how easily acute glaucoma might be mistaken for iritis or for an ordinary inflammation of the eye with irreparable loss of vision, and that the use of atropine or other mydriatics, which were much too readily resorted to by medical men for ordinary inflammations, aggravated this disease. He summed up by giving the differential points of diagnosis between acute glaucoma and iritis as follows:

In acute glaucoma the pupil is larger than usual and does not react to light. In iritis we find it smaller than usual and also fixed.

On examining a case of acute glaucoma with the ophthalmoscope the media will be found to be hazy and will give a greyish-green reflex, but in iritis it will be seen that there are exudations in the media, and that the pupil's irregularity is due to these binding the iris to the lens.

In acute glaucoma the tension will be found increased, but in iritis it is normal.

In acute glaucoma the vision is out of all proportion to the turbidity of the media, and is greatest on the nasal side; in iritis it is often not diminished, except by photophobia, and the loss will be found, if at all, to correspond with the amount of exudation present.

In acute glaucoma the cornea is insensitive, but in iritis it is hypersensitive.

In acute glaucoma the transient obscurations of vision before the actual attack, as well as the colour rings seen around a flame at night time, help to distinguish it from iritis where the obscuration of vision is of a more permanent character and the colour phenomenon is absent.

The presence of vomiting with an inflamed eye is suggestive of glaucoma, though it sometimes occurs in iritis; but in such cases confirmatory symptoms should always be sought for, and on no account should atropine be used if there is the least suspicion of glaucoma.

In conclusion, Dr. Mactier appealed to all practitioners to use atropine with great care in eye cases, and in ordinary inflammations, where the iris was not involved, to have recourse to antiseptics rather than to mydriatics. He also suggested that homatropine, which can quickly be neutralized by the instillation of eserin, should be used for purposes of refraction in all cases of hypermetropia where the age was more than 25.

Dr. Mactier's paper was discussed by Drs. CRIDLAND, COLEMAN, LOWE, PRIESTLEY, STIDSTON, LILA S. GREIG, and COOKSON.

Exhibition of Pathological Specimens, etc.—(*a*) Mr. CHOLMELEY showed: (1) A horseshoe-shaped piece of bone removed from the sheath of the rectus during an abdominal section; (2) an appendix containing a polypus near its tip; (3) a greatly dilated sigmoid removed from a boy, aged 6, who was born with imperforate anus. (*b*) Dr. CODD showed a series of radiograms illustrating (1) the use of bismuth meals for demonstrating strictures and the size, shape, and position of the stomach; (2) aneurysm; (3) fractures and the results of operation for fractures; (4) multiple digits; and (5) stones in the kidney or ureter.

Reports of Societies.

ROYAL SOCIETY OF MEDICINE.

SURGICAL SECTION.

Tuesday, May 14th, 1912.

Mr. CLINTON T. DENT, President, in the Chair.

The Surgical Treatment of Aneurysm.

MR. H. GILBERT BARLING said his experience of external aneurysm was based on 5 cases of popliteal aneurysm, 2 of aneurysm of the third part of the right subclavian with dilatation of the vessels on the proximal side, and 1 of aneurysm of the internal carotid. Four of the popliteal aneurysms were treated by Hunter's method. Two of these aneurysms were in the same patient, one of the four suffered from gangrene of the toes after ligation of the artery. The fifth popliteal case was treated by the obliteration method of Matas, the arterial openings were sutured with fine catgut, the sac obliterated, and the wound closed without drainage. Two years after he was quite well. The two subclavian cases were treated by ligaturing the first part of the axillary and the middle of the common carotid. One died five years later from rupture of an aneurysm of the arch of the aorta, the other five and a half years later with cerebral symptoms, probably embolic, as a result of aortic disease. The aneurysm of the internal carotid was excised, and the patient made a good recovery. The best ligature was catgut, and the speaker preferred the stay knot of Ballance and Edmunds; this produced occlusion of the vessel without rupture of the internal coat. Speaking of the procedure known as endoaneurysmorrhaphy, he said that Matas, after completely controlling the circulation above and below an aneurysm, opened the sac and closed the arterial orifices and the walls of the sac with catgut sutures—obliterative method. In the reconstructive method the walls of the artery were first re-formed, and then the sac was closed in a similar way. The obliteration method could be applied to any form of aneurysm, but was usually limited to the fusiform. The reconstructive method was limited to fusiform aneurysms under favourable conditions. In a few cases of sacculated aneurysm the communication could be closed by suture and the sac obliterated. Endoaneurysmorrhaphy had been employed in 16 cases in the British Isles, and the method was the ideal, but every case should be treated on its own merits and an open mind kept on the subject.

Mr. C. B. LOCKWOOD was struck by the leaking and consequent extravasation to which sacculated aneurysms were liable and the urgent need of operation. He based his views mainly on 5 cases of popliteal aneurysms treated by him. In one he had tried to dissect out the sac, but owing to its being incorporated with the surrounding structures he had to lay it open; the case eventually recovered. In the others he had performed Hunter's operation. He used fine silk to ligature the artery: he first separated the sheath and then closed it over the ligature. He doubted whether the endothelium formed a lining to the sac, and so whether the layers would adhere when brought together.

Mr. D'ARCY POWER showed an apparatus used for the insertion of wire into aneurysms. He had collected the cases in which this treatment had been carried out from 1864 to 1900; they were 16 in number—6 of these were thoracic. Of these cases 3 were alive and well, 2 ended fatally, the rest lived for varying periods from a few days to five years. The insertion of wire was necessary in a few exceptional cases; the contraindications were a rapid increase of pain, a second aneurysm, aneurysm of the transverse arch and the occurrence of sepsis.

Mr. J. BRAINE HARTNELL recorded a case of abdominal aneurysm that extended from the renal artery to the

bifurcation of the aorta. He had inserted steel wire by means of Colt's apparatus; the patient died after six days. The conclusion that he came to was that the wire he used was too thick and that he had inserted too much. The wire did not form a cage as it should have done.

Mr. BALLANCE was sure that Matas's method was not necessary for popliteal aneurysm, though his obliteration might possibly be used with advantage where Hunter's method could not be performed. He doubted if reconstruction ever really occurred, and thought that it would have to be proved by *post-mortem* specimens. He did not think that Matas would improve on the results as obtained by Sir Anthony Bowlby, who in 1890 published a series of 23 cases of popliteal aneurysm with 19 cures by Hunter's method.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on May 21st. Dr. S. LODGE in the chair. Dr. OLIVER, in a paper on *Congenital ptosis*, said the condition usually affected both eyes. It was characterized by a drooping of the upper lids, frequently associated with epicanthus. One form differed materially from the ordinary type, a case in point being a healthy boy with a good family history, affected with complete ptosis of the right upper eyelid. When the left eye was closed the right one could be opened, and at the same time there was a lateral movement of the jaw. On opening his mouth suddenly and forcibly the drooping lid flew up, falling again when the mouth was closed. The same thing occurred when the jaw was moved to the opposite side to the ptosis, so that it was easy to imagine what took place when the patient was eating. The superior rectus was paralysed, for on the boy being asked to direct his glance upwards the left eye alone did so, the optic axis of the right eye not being raised above the horizontal plane. The pupillary movements were normal. Prognosis in such cases seemed to be favourable, since the larger number were seen in children, the inference being that the anomaly disappeared in adult life. Probably by experience the patients gained more or less control over the muscles which had such an unnatural innervation. Most of the recorded cases had been left to Nature. One or two had been operated on quite successfully. As evidence of the infrequent occurrence of the "jaw-winking movement" as it had been called, the speaker mentioned that no instance had occurred among the patients at the Bradford Royal Eye and Ear Hospital among some hundreds of thousands of cases.

SCOTTISH OTOLOGICAL AND LARYNGOLOGICAL SOCIETY.

AT a meeting on May 11th, the CHAIRMAN (Dr. Kerr Love), speaking of *The oral method of educating the deaf*, emphasized the value of remains of hearing in the retention or acquisition of speech by those who had become deaf in early childhood. Some people thought the expense and trouble of teaching deaf-mutes to lip-read and to speak was not compensated for by the degree and quality of speech attained to; but he did not think that one was justified in expecting such a high standard that the subject could go about as the normal hearing person and make himself understood to the same extent. Yet it could not be gainsaid that the power of being able to converse with those about him, of being able to comprehend their wants and make known his own in a language which all understood, was of inestimable value, even if he could not make out what was said from the pulpit or speak sufficiently clearly to the booking clerk at a railway station. Deaf-mutes as a class were quite as sharp and as capable of development as normally hearing children. Dr. J. S. FRASER gave a lantern demonstration of the inner ear in cases of congenital deafness, showing the changes which were found, especially in the organ of Corti, Reissner's membrane, and the membrana tectoria. Dr. ALBERT GRAY gave a lantern demonstration of the changes in the ear in otosclerosis, showing the changes in the labyrinthine capsule, especially in the neighbourhood of the oval window. There were no demonstrable changes in the nerves in uncomplicated cases of otosclerosis. The following cases were among the exhibits:—Dr. KERR LOVE: A man whose left external ear and surrounding structures he had removed six months before for *Malignant disease*. A recurrence in the mastoid process had since been removed, together with the bone. Since then *x*-ray treatment had been adopted. Dr. JAMES ADAM: (1) A woman with a bony swelling on either upper jaw involving the alveolus and the anterior antral wall. He considered these growths to be of the nature of *Hyperplastic osteitis* of infective origin. Several members looked upon them as dentigerous cysts, while Dr. Kelly suggested that from the symmetry the case might be leontiasis ossea. (2) A woman with a well-marked *Tortuous carotid* on the posterior pharyngeal wall. (3) Two boys under treatment by split tooth plates to widen the nasal passages. In one boy, aged 15, the palate had expanded 4 mm. in four months; and in the other, aged 10, 7 mm. in five months. In both, the benefit to the nasal respiration appeared to be decided. Dr. P. N. GRANT: Two patients with ulceration of various parts of the nose, one showing a pure pneumococcal infection, the other a mixed infection—pneumococcus and other organisms. Both were under treatment by vaccines. Some members considered the former case, at any rate, to be syphilitic. Dr. WALKER DOWNIE: A woman, aged 42, with an extensive *Venous angioma* affecting the right side of the forehead, nose, upper lip, and right half of palate. The condition had been stationary for twenty years till a few weeks ago, when the lip portion began to extend. Dr. J. G. CONNAL: A man with a large *Exostosis* of the external auditory meatus. There was still a small chink, so that the patient heard fairly well. As there were no disturbing symptoms he did not think operation was called for. Dr. BROWN KELLY: (1) Four patients illustrating the value of the direct method in the diagnosis of laryngeal conditions. Two of these—brothers aged 3 and 5—were the subjects of prolonged *Adductor spasm*. The children were much below the normal size, were very rickety, and showed signs of delayed mental development. In the younger boy the respiration became so difficult that tracheotomy had to be performed. The condition was at first thought to be abductor paralysis, but as improvement had taken place no doubt the designation adductor spasm was correct. A twin brother of the older boy who had had crowing at night on several occasions was also examined, but nothing abnormal was found. Dr. SYME thought that now the direct method of examination was available it would be found that many cases of so-called laryngismus stridulus were really examples of adductor spasm of central origin, and not due to structural alterations or defects in the framework of the larynx. Dr. ADAM looked upon the condition as related to asthma, and due in great measure to errors in feeding. (2) A case of laryngeal stridor in an infant aged $1\frac{1}{12}$ years. Direct laryngoscopy showed a long tapering epiglottis rolled backwards so as to bring the aryepiglottic folds almost into apposition. During inspiration the arytenoids were drawn forward, the flaccid tissue on their summits made to vibrate, and the glottis was reduced to a small quadrilateral chink. (3) A case of *Compression of the bronchi and œsophagus* in a man of 27. The examination of the larynx revealed left recurrent paralysis. Bronchoscopy showed occlusion of the left main bronchus and flattening of the right. On œsophagoscopy the œsophagus was seen to be obstructed by a smooth, lobed bulging of the anterior wall. There was no abnormal pulsation to be seen anywhere. The underlying disease was probably a rapidly growing neoplasm of the posterior mediastinum. Examination for tubercle was negative. Dr. FRASER mentioned a case, showing somewhat similar conditions on bronchoscopy, which on *post-mortem* examination proved to be a sarcoma of the mediastinum. Dr. W. S. SYME: An infant, aged 2 months, with *Bony occlusion of the posterior nares*. The mother's attention was drawn to the nasal obstruction by the fact that the child was unable to breathe when taking the breast. The nostrils contained sticky purulent discharge, and with a probe the bony diaphragm could be distinctly felt, and the probe could not be passed into the naso-pharynx. It was thought that at present, at any rate, operation would lead to no satisfactory result. The same exhibitor also reported a fatal case of abscess of the brain and lepto-meningitis as a complication of posterior ethmoidal and sphenoidal disease. The patient, a woman of 25, had suffered from post-nasal discharge for some years. A month previous to coming to hospital she developed severe head-

ache, rigors, and vomiting. *Post-mortem* examination showed a large opening in the roof of the posterior ethmoidal cell, destruction of the dura, and of the surface of the brain in the neighbourhood, and a narrow abscess cavity leading from this part just beneath the under-surface of the frontal lobe backwards till it opened into the third ventricle.

Reviews.

THE MECHANICAL FACTORS OF DIGESTION.

THE mechanical factors of digestion are subjectively of the utmost importance, for it is when they are efficient that digestion is performed in comfort; when they are deranged we get indigestion. By the use of the *x* rays it has become possible to see the movements of the stomach and intestine, and to watch the progress of food throughout its whole course in the alimentary canal. Professor CANNON of Harvard was the originator of this method of investigation, and we therefore welcome his book on the *Mechanical Factors of Digestion*,[1] which has been recently published as the first volume of the International Medical Monographs appearing under the editorship of Dr. Leonard Hill, F.R.S., and Dr. William Bulloch.

According to the experiments of Professor Cannon, confirmatory of an old observation of Kronecker's, which seems to have been forgotten, swallowing or the transit of food through the oesophagus is not such a sudden process as has generally been imagined; the peristalsis of the oesophagus occupies a definite time proportionate to the distance to be traversed and the consistence of the food (liquids passing much more rapidly than solids), to the amount swallowed, the force of the swallowing movements, and to the degree of the contraction of the gullet; the time is also to a considerable extent dependent on the proportion in which striped muscular fibre enters into the wall of the oesophagus. "Thus the uniform slow peristalsis of the goose is performed by an oesophagus composed entirely of smooth muscle. The change from rapid to slow peristalsis near the heart region in the cat's oesophagus corresponds to a change from striated to smooth muscle in the structure of the wall." With each swallowing movement the cardia, which is normally contracted, becomes relaxed, but after the food has entered the stomach contraction again occurs. Yet there seems to be a periodical relaxation of the sphincter muscle which allows slight regurgitation of the gastric contents into the oesophagus and persists so long as the gastric contents are fluid and the contents of the stomach have not become distinctly acid. There has been of late a good deal of controversy as to the normal shape and position of the stomach, many observers maintaining that the normal human stomach is shaped like a horn with the pylorus as the most dependent part, so that the stomach tends to empty itself by gravitation. But in animals which do not maintain the erect position—as, for example, the cat—this would not hold good. According to Cannon, the cat's stomach during digestion is distinctly hook-shaped, and he believes that this is true also of the human stomach. Free acid in the stomach relaxes the pylorus, but when the contents reach the duodenum they are neutralized by the action of the bile and pancreatic juice, and the pylorus is kept tightly closed until this neutralization is completed, so that excess of acid in the stomach retards the outflow of its contents. Slight retardation is also caused by the presence of gas in the stomach, or by abnormal degrees of cold and heat, as well as by irritation of the colon. Absence of acid in the stomach, on the other hand, leads to rapid passage of its contents through the pylorus.

Professor Cannon has made some interesting experiments on the relative advantages of end-to-end and lateral anastomosis of the gut, his results being distinctly in favour of the former method, the latter, however carefully performed, having always a tendency to cause blocking. He shows that while all food passes rapidly through the small intestine the passage of carbohydrates is much quicker than that of proteins or fat, the only thing that seems to slow it being lead poisoning. When retardation occurs it is in the colon. In the proximal part of the colon where the food undergoes a final churning, being subjected to movements of peristalsis and retro-peristalsis which in some herbivores may continue for days, the remaining nutriment and the water of the food are absorbed, so that the contents of the mesocolon are as firm as those of the rectum. The ileo-caecal valve prevents any regurgitation into the small intestine during this churning process, and the competency of the valve is aided by the sphincter muscle discovered by Elliott. He admits that this valve is sometimes incompetent for enemata, and that the act of vomiting may bring the contents of the colon into the stomach. He has many original observations upon the sounds to be heard on auscultation over the various portions of the alimentary canal, and his later chapters on the innervation of the various portions of the tract are full of interest. General asthenia seems to be a constant cause of diminished or absent peristalsis, while in animals he has over and over again observed that excitement or emotion, such as anger or fear, stops this process.

The book is one which should be read by every one who is interested in the physiology of the alimentary canal, but it might have been written in a less arid style.

THE SURGERY OF THE THYMUS.

DR. EUGÈNE OLIVIER, who writes a thesis on the topographical anatomy and surgery of the thymus,[2] has had an opportunity of assisting at original and pioneer work on the subject in the clinic of Dr. Veau. He is therefore qualified to discuss the subject with first hand knowledge, and has produced a document of considerable importance.

In the first part he gives a detailed description, illustrated by well executed figures, of the anatomy of the organ and its relations. The thymus is a gland of two lobes, the apices of which reach the neck, having vascular connexions with the thyroid body, the base being in close association with the pericardium. In the thorax it is intimately associated with the great vessels, and on its lateral aspect with the phrenic nerves, in particular the left phrenic. Its chief blood supply is derived from the mammary artery. From the surgical point of view the most important point is its inclusion in a capsule, with which its connexions are loose, and out of which it can be enucleated by blunt dissection.

Three different operations have been devised to relieve the pressure caused by an enlarged thymus: exothymopexy—or the displacement and high fixation of the gland—resection of the manubrium sterni, and thymectomy. Dr. Olivier gives reasons for rejecting the two former on account of their difficulty and danger, an opinion which he supports by reference to the records. Thymectomy he considers the treatment of choice, and the only rational method of dealing with the phenomena produced by hypertrophy of the gland. The removal is subtotal and intracapsular. He refers to the important question of anaesthesia. The 12 cases of which he has had experience were operated on under chloroform anaesthesia without accident and without incident to cause apprehension, and he believes that this is the anaesthetic to be chosen, administered so that the anaesthesia is never profound. The incision to be employed is vertical, and the gland capsule is reached by separation of the muscles in the middle line; after incising the capsule the gland is seized by forceps and is enucleated by blunt dissection with the aid of traction. Dr. Olivier is able to review 39 published cases of thymectomy with 24 recoveries and 15 deaths. Of the 15 fatalities he gives reasons against ascribing death to the operation in 7. One case was imperfectly recorded, and in the remaining 7 the operation was directly or indirectly responsible. In these 7 cases the cause of death was infection, due in one case to a drainage channel. In the others the source was a tracheotomy wound or the simultaneous removal of affected lymphatic glands in the neighbourhood. He concludes that drainage of the wound should not be employed; that, if possible, tracheotomy should not be associated with the thymec-

[1] *The Mechanical Factors of Digestion.* By Walter B. Cannon, A.M., M.D. Illustrated. (International Medical Monographs, edited by Dr. Leonard Hill, F.R.S., and Dr. William Bulloch). London: Edward Arnold. New York: Longmans, Green, and Co. 1911. (Demy 8vo, pp. 238; figs. 37. 10s. 6d. net.)

[2] *Anatomie topographique et chirurgie du thymus.* By Dr. Eugène Olivier. Paris: G. Steinheil. 1911. (Sup. roy. 8vo, pp. 152; figs. 16; radiographs 2.)

tomy; and that when there are infected bronchial glands in the mediastinum as well as an enlarged thymus operation is contraindicated.

The writer then proceeds to consider the clinical conditions which are due to hypertrophy of the gland. He considers that there are only two capital clinical conditions—the one he calls the continuous type, characterized by permanent dyspnoea, the other discontinuous or intermittent, characterized by crises of asphyxia.

With regard to the important question of the association of syncope with enlarged thymus, he says: "We are persuaded to-day that this form is the exception; that it is absolutely abnormal for a child to die suddenly without having previously presented symptoms which reveal the presence of an hypertrophied thymus to any well-informed and careful observer."

He describes at length the clinical phenomena which are met with in the two chief types named above, and defines certain secondary forms. His observations under this heading are presented with admirable clearness, and it appears certain that several obscure conditions in the infant associated with dyspnoea and stridor, the mortality of which is high, are due to the pressure of an abnormally large gland. Regarding the operation he says: "Subtotal subcapsular thymectomy is a simple operation, and its operative technique is easy; it requires about ten minutes for its performance, and is carried out by a median inferior cervical incision."

The author has been successful in collecting and analysing many isolated cases, and his personal experience enables him to write a contribution to the study of the subject which deserves and demands serious attention and study.

GYNAECOLOGY.

THE principal article of interest in *Transactions of the American Gynaecological Society*[3] for 1911 is the address by the President, Dr. Reuben Peterson, on vaginal Caesarean section in the treatment of eclampsia. Dr. Amand Routh[4] admits that the vaginal method is not viewed with favour by the majority of British operators, except in the first three or four months of pregnancy, when in a few rare cases of rigid cervix a moderate anterior cervical incision may be needed to empty the uterus in missed or incomplete abortion. But an incision of that kind, he adds, is a vaginal hysterotomy rather than a Caesarean section. The latter is practised per vaginam by several British obstetricians when delivery is considered urgent owing to certain complications, especially eclampsia, and the fetus cannot pass *per vias naturales* owing to rigidity or disease preventing dilatation of the cervix. British authorities will read with interest Dr. Peterson's address, as it is based on a study of 530 published and unpublished cases. He advocates vaginal Caesarean section for eclampsia because when that complication occurs the sooner the uterus is emptied after the first fit the better for mother and child. Early diagnosis and early operation in *ante-partum* eclampsia will lead to further reduction of mortality. As no time is to be lost, the emptying of the uterus should be undertaken by the method proved to be at the same time the speediest and the safest, and Dr. Peterson considers that vaginal Caesarean section answers these requirements. Dr. Whitridge Williams writes on the funnel pelvis, and declares that in his experience contractions of the outlet are much more frequent than is generally believed. There are some more instructive communications on purely obstetrical subjects, and others of physiological importance on the internal secretion of the ovary; that prepared by Dr. Franklin H. Martin has been already reviewed in our EPITOME. The general surgeon should read through Dr. Douglas Bissel's paper on the "pelvic" kidney, where reimplantation is discussed. Displaced kidney, whether due to prolapse or congenital anomaly, may mislead the clinician and the operator. The volume, like its predecessors, makes a fine book, and the contributions of which it is composed are, as we have endeavoured to explain, all more or less weighty and original.

Into a series of twenty post-graduate lectures on diseases of women, Dr. ABEL has packed a systematic account of the whole subject, from the development of the female genital organs to appendicitis. Neither anatomy, pathology, nor hygiene is neglected. The result is a rather breathless rush, which must have left a poorly prepared auditor lagging, and would make him grateful for the opportunity of perusing the lectures at his leisure. As a systematic textbook the volume is likely in this way to prove useful, though it hardly earns the description, *aus der Praxis*.[5] The chapter on the physiology of the female refers in succession to atresia ani, vaginal catarrh, and gonorrhoea in children, oxyuris, neoplasms, onanism; and as the book proceeds in much the same way throughout, its title is more appropriate to its systematic position in the syllabus than to its content. Dr. Abel's information and his advice are on the whole sound. The volume has an appendix of prescriptions in which we note that proprietary remedies are profusely enrolled, and a list of spas, almost exclusively German.

SOCIAL PATHOLOGY.

"How shall this thing called life be ordered? Of what sort shall it be? What shall be the Art of Life?" This, says Dr. WRENCH, is the question which in *The Mastery of Life*[6] he has set out to answer. He regards the presence or absence of great architecture as the true criterion of the soundness and stability of a given social order, that is, of the wisdom and justice of its rulers and of the happiness and trust of the ruled. And, tried by this test, not only does he find modern civilization lamentably wanting, but considers that, since the close of the long period of Egypt's greatness, about 1179 B.C., the conditions favouring supreme achievement in the social art in question have never been fully and lastingly realized. For, in his opinion, when compared with the sublime remains of Egyptian architecture, the pyramids, the Sphinx, the Colossi of Thebes, and above all the temple of Karnac, described by Mr. Fergusson as "perhaps the noblest effort of architectural magnificence ever produced by the hand of man," the glories of Athens, Florence, and Rome pale into insignificance. Granted the architectural superiority of the ancient Egyptians to all their successors, the question arises how so remarkable a fact is to be accounted for. Dr. Wrench attributes it to the solidity and sanity of their social system, the perfect graduation of civic orders and functions in their hierarchy, of which the pyramids may be considered symbolical; above all to the paternal interest of the rulers in those whom they governed, and the consequent filial trust and lasting content of the latter. In such a patriarchal and durable order of things, rather than in modern individualism with its feverish quest of a chimerical ideal of progress, he finds the true "mastery of life," and the secret of great achievement in the social art—architecture. And he pours contempt on the theory, based "on the hearsay evidence of a witness who lived twenty-four centuries later," that such magnificent works as the pyramids were produced by forced and unwilling labour.

Starting from this position, Dr. Wrench proceeds to examine in succession the aesthetic and in particular the architectural achievements of later periods, from the golden age of Athens down to our own times, as well as the social conditions under which they were produced. And he finds that at all times and everywhere success is directly proportional to the governmental predominance of the Eastern patriarchal over the Western particularist factor in the life of the nation concerned. Thus the testimony of Sergi is adduced in favour of the view that the founders of Mediterannean civilization were African colonists of one blood with the Egyptians. Branches of the same race are believed to have overrun Europe, especially its southern parts, and even to have entered Britain. This Eurafrican people was the principal race encountered by the Aryans in their migrations from the steppes of Southern Russia. Sergi considers that the Aryans, when they invaded Europe, were savages very inferior to the neolithic Eurafricans, not, as commonly taught, the importers of a new and higher civilization. And von Thering describes the Aryans as surpassed by all other nations in the positive

[3] *Transactions of the American Gynaecological Society.* Vol. xxxvi. For the year 1911. Philadelphia: Dornan. 1911. (Roy. 8vo, pp. 667.)

[4] *Caesarean Section in Great Britain and Ireland.*

[5] *Vorlesungen über Frauenkrankheiten aus der Praxis für die Praxis.* Von Dr. Karl Abel, Spezialarzt für Gynaekologie und Geburtshilfe in Berlin. Mit 93 teils farbigen Abbildungen. Berlin: Oscar Coblentz. 1912. (Roy. 8vo, pp. xiv, 583. Price M.14.)

[6] *The Mastery of Life.* By G. T. Wrench, M.D.Lond. London: Stephen Swift and Co., Ltd. 1911. (Roy. 8vo, pp. 518; 15s. net.)

sentiments—parental, filial and paternal affection, friendship, hospitality. Their patriarchal system, as contrasted with that of the Eurafrican tribes, was negatively based on fear and force, not piety and love. In the conflict of these two racial types and ideals Dr. Wrench finds a key to the understanding of Western civilization and of its various expressions in government, as well as in art and science. In this perennial conflict the disintegrating tendencies of the Aryan stock have increasingly prevailed over the Oriental tradition of paternal government and social reciprocity. In the northern countries the large patriarchal family has been completely superseded by the small "particularist" household group. The decay of architecture, though broken by a few great periods like that of the Florentine and Roman renaissance, has upon the whole been continuous. The mutual mistrust of rulers and subjects has culminated in the illusion of natural equality and of the divine right of every individual to be a law unto himself. Democracy is merging into anarchism, and the modern man, having rejected the control of those ruler minds which can alone interpret the world to him, caught in the mechanical toils of his own handiwork, fritters away his life in competitive struggle for the mere means of subsistence.

It is a gloomy picture; and since Dr. Wrench sees no help or hope in science, the outlook he invites us to confront is even less exhilarating. But while admitting the skill with which he has marshalled his facts and the art with which he has presented them, we think that he has overlooked others tending to a different conclusion. The long-continued success of the Egyptian hierarchical system is attributable to the fact that the community was comprised of a few individuals governing a docile herd, immeasurably inferior. To-day we have to deal with a state of things in which practically all members of the community are self-conscious individuals. The task of constructing a stable order of life out of such intractable material is no doubt difficult, but it is not impossible. The logic of events will refute Utopian claims to equality. Already we perceive a tendency to the segregation of social interests into distinct functional units: these may be made the strata of the new social pyramid. One of the great needs of the hour is, no doubt, the defensive organization of all representatives of ideal interests—a need which Dr. Wrench's book may help to supply, and would have helped more if it had not been disfigured by a somewhat shallow criticism of the methods and aims of science, and some very uncalled-for reflections upon his own profession. He may be reminded that his master, Nietzsche, expressed late in life the wish that he had been trained to medicine instead of to philology. There could be few better trainings for a thinker; and our enjoyment of this interesting book has been enhanced by the fact that, despite a certain arrogance of tone and a few arbitrary assumptions, it fortifies our faith in the future of the medical sociologist.

THE AMERICAN CODE OF ETHICS.

THE absence of any corporate bodies capable of exercising disciplinary power may have been the reason why the medical profession in the United States of America found it necessary in 1847 to prepare a code of ethics for the government of the profession in the United States, and although the adoption of this code was not accompanied by the acquisition of any powers to enable its rules to be enforced it has formed a standard of conduct which unquestionably has not been without utility. This code was admittedly based upon that of Dr. Thomas Percival of Manchester, published in the early part of the last century. Dr. GOULEY'S book[7] may be described as a commentary and defence of the American medical code, which is printed in full together with the abbreviated text issued in 1902. The work is written from the American standpoint, and while following the main lines which have from time immemorial been put forward as the guide to conduct in the profession, it does not go much into detail, and does not discuss the innumerable small questions of medical conduct in the relations of one practitioner to another or to patients which constantly arise, and upon which guidance is sought. A good deal of the book is taken up with historical descriptions, and the author is a purist in writing; he objects, and spends a good deal of time in justifying his objections, to many words in common use, such as "practitioner" and "diagnose," yet he speaks of "a crowned head" for a crowned head, and has other peculiarities which do not please. In his advice to a young graduate he tells him that it is unwise to go abroad until he has been qualified for five years and has learnt all that he can learn in his own country, but if this advice were accepted it would mean in most cases that the man would never go abroad at all, or at any rate for too short a time for the visit to be of much value. He would perhaps be too old to acquire the language and at any rate an English graduate of that standing would find it very hard to be absent for more than a brief holiday.

[7] *Conferences on the Moral Philosophy of Medicine.* Prepared by J. W. S. Gouley, M.D. New York and London: Rebman and Co. (Demy 8vo, pp. 268. 6s.)

NOTES ON BOOKS.

IT has often been said that the future prosperity of a nation lies in the hands of its children; and year by year the public conscience seems to become more fully aroused to the fact that the best possible investment any country can make is to secure at all costs the health of its future citizens and defenders. Mr. DOUGLAS PEPLER, in his interesting book on *The Care Committee: the Child and the Parent*,[8] has given a short but comprehensive account of the numerous attempts which are being made at the present moment to lift the burden of poverty from the shoulders of those who are least able to bear it. Mr. Pepler traces the history of the provision of free meals, and the foundation of the system of children's care committees, and discusses the advantages and disadvantages of either system with admirable impartiality. He offers suggestions for their modification and improvement, and having had practical experience of the difficulties which beset the thorny path of the social worker, he is able both to warn and to advise. His book should prove a useful guide to all who are interested in this particular form of philanthropy.

The quarto volume on the lymphatic system of the cow by Dr. HERMANN BAUM, Professor of Anatomy in the Royal Veterinary High School, Dresden,[9] is the product of some five or six years' continuous labour at the subject, chiefly by way of dissection, and a monument of skill and industry. The importance of the study of the lymphatic system is more than ever clear in the present day; the importance of the application of the study to the cow need not be insisted upon. The book is dedicated to Professor Ellenberger of Dresden, and opens with a description of the methods of investigation employed; then follow sections on the lymphatic glands and lymphatic vessels respectively, making up the greater part of the bulk of the book. At the end are thirty-two plates containing seventy-eight drawings on which the distribution of the lymphatic glands and vessels is shown in colours. It is impossible to criticize a book of this kind in the ordinary sense, because it is probably true, as the publishers say, that it is the first systematic attempt to deal with the subject. It will undoubtedly be of very great value as a work of reference not only to veterinary surgeons, but also to those members of the public health service who are concerned in the inspection of meat. We can commend it to their attention as containing a piece of work very thoroughly done and very admirably recorded.

A book of small size and cheap price which will commend itself to those interested is that by Mr. WILFRID SADLER on *Bacteria as Friends and Foes of the Dairy Farmer*.[10] It gives in a brief and popular manner a general account of the micro-organisms concerned in the making of cheese and butter, and of those which may affect the quality or wholesomeness of milk. If for nothing else, the book would be of value for its general advocacy of cleanliness, and for its insistence on the prejudice not only to the consumer but also to the producer resulting from unclean methods. Of more interest to the readers of this volume, perhaps, will be the remarks on "starters," which is the technical term used to designate lactic-acid forming organisms.

[8] *The Care Committee: the Child and the Parent.* By Douglas Pepler. London: Constable and Co., Ltd. 1912. (Cr. 8vo, pp. 117. 2s. 6d. net.)

[9] *Das Lymphgefässsystem des Rindes.* Von Obermedizinalrat Dr. Hermann Baum. Berlin: August Hirschwald. 1912. (D. Roy. 8vo, pp. 180. Abbs. 32. M. 24.)

[10] *Bacteria as Friends and Foes of the Dairy Farmer.* By Wilfrid Sadler. London: Methuen and Co. 1912. (Post 8vo, pp. 127; 8 illustrations. Price 1s. 6d. net.)

CAMBRIDGE HOSPITAL FOR SPECIAL DISEASES.

Attention has many times been drawn in the British Medical Journal to the work that is being done in the Research Hospital of the Committee for the Study of Special Diseases at Cambridge.[1] The committee, which was founded more than six years ago, consists of Sir Clifford Allbutt, Sir William Osler, Sir William Church, Sir Jonathan Hutchinson, Sir Richard Douglas Powell, Sir Henry Morris, Sir W. Watson Cheyne, Professor Howard Marsh, Sir Thomas Barlow, Sir Victor Horsley, and Sir Donald MacAlister. These names are in themselves guarantees of the scientific character of the institution and of the legitimate nature of its objects. These objects may be gathered from an appeal issued by the committee on its initiation. The statement made in that appeal has already been quoted in the Journal, but will bear repetition, as it clearly sets forth the aims of the committee: "Much and fruitful research has been done in acute diseases, but there are many chronic and widespread maladies which have not yet received the attention they deserve. These not commonly immediately fatal to life incapacitate the sufferer from active work, cause great pain and misery, and finally leave the victim helpless and entirely dependent on the kindness and charity of his friends or of strangers. Patients suffering from these diseases, owing to the slow progress and long continuance of their illness, are not suitable for reception into general hospitals, which, as a rule (and rightly so) admit by preference cases of the more acute diseases. The mode of origin or progress of these affections is very imperfectly known, and little, therefore, can be done in the way of their rational treatment. The great need of scientific research on these chronic diseases has been strongly felt by the medical profession for many years."



Cambridge Hospital for Special Diseases

Up to the present time the work of the hospital has been done in a small private house, and the means of its support have mainly come from members of the medical profession. It was felt that the time had come when a larger sphere of operation was necessary; the work was hampered by want of room and other inconveniences, especially by distance from a laboratory. It was therefore decided to build a hospital better adapted for the accommodation of patients, and provided with the equipment necessary for clinical research on scientific lines. As was announced in the Journal of April 1st, 1911, a freehold site on the outskirts of the town of Cambridge was secured, and in July last the foundation stone was laid. The hospital was opened on May 24th by Dr. R. C. Brown, of Preston, in the presence of a brilliant and distinguished assembly of nearly 500 people. Among those present were the Mayor of Cambridge (Alderman A. S. Campkin), Sir Clifford Allbutt, the Master of Trinity Hall, the Master of Christ's, Dr. Norman Moore, Professor and Mrs. Woodhead, Mr. Francis Darwin, Sir Alan Manby, Miss M. A. Sykes, Dr. Helen Chambers, Dr. Emily H. Morris, Mr. H. W. Maguire, Dr. Cairns, Mr. Robert Jones (Liverpool), Mr. Sedley Taylor, Dr. Whitehouse, Professor and Mrs. Cook, Professor Oman, Professor Bradbury, Dr. Malden, Mrs. Finch, Dr. Glynn Whittle, the Rev. C. A. E. Pollock, Mr. R. Brimley Bowes, Dr. Dalton, Dr. Anningson, Dr. Gaskell, and many others. Telegrams and letters expressing regret at inability to be present were received from Sir William Osler, Sir Thomas Barlow, Mr. Godlee, Sir William Church, the Vice-Chancellor of Cambridge University, and many others.

In declaring the building open free from debt, Dr. R. C. Brown said it had fallen to the lot of comparatively few people to live, as he had had the privilege of doing, during the whole of such an eventful period of the world's history as that which had intervened between 1836 and 1912. The progress which had been made during that interval in art, literature, medicine, and almost all other branches of knowledge, had conferred upon mankind benefits and blessings which could not be too highly appreciated, although their great value was apt to be overlooked on account of our familiarity with them. He reviewed the discoveries made in the field of medicine in his lifetime, adding that they suggested the reflection that if during the last seventy-five years such marvellous discoveries had been made, what might be expected during the next seventy-five years? The future depended on research, and research into special diseases was not only important in itself for those diseases, but might throw new light and open new vistas elsewhere. The subject of special research at present for this hospital was rheumatoid arthritis. When that disease had been thoroughly explored others would be taken up.

Dr. Norman Moore, speaking as representative of the Royal Colleges of Physicians of London and the Royal College of Surgeons of England, said the College of Physicians had been engaged in researches such as this new hospital hoped to carry out ever since the year 1518, and had numbered amongst its students most of those who had made great discoveries in medicine. It was the college in which Glisson composed his first book written in England upon any particular disease, his famous treatise on rickets. It was the college of which William Harvey, whose name was associated with the discovery of the circulation of the blood, was a Fellow. In that college the first researches into the true nature of tuberculosis were carried on in the reign of Charles I by Christopher Bennett. These were three examples that would satisy them that any institution such as they were opening that day would have the sympathy and encouragement of the Royal College of Physicians. In that college, comparatively modern though it was, enormous discoveries had been made in relation to many of the subjects illustrated by specimens in that tent. "We in the College of Physicians," said Dr. Moore, "and they in the College of Surgeons have spent our whole lives in struggling with these problems. We know the difficulty, and we welcome every possible contribution towards their solution." The earliest patient in the hospital with which he was connected of which they had any record was a man suffering from chronic arthritis in the reign of Henry II. The man was admitted, detained in the hospital for a very long time, and after a while, somewhat improved, he left the hospital. From that time down to the present day the same thing had been

[1] See British Medical Journal, November 16th, 1907, p. 1642; December 12th, 1908, p. 1764; February 26th, 1910, p. 522; April 1st, 1911, p. 764; October 28th, 1911, p. 764.

occurring. Cases had been coming with chronic arthritis, but the cause of the disease was unknown, and they were entirely ignorant of the method of treating it. Great advances had been made, but enormous tracts of ignorance still remained. This hospital would wholly devote itself to the solution of the problems related to arthritis, and in that they did not doubt that they would contribute in a few years more than others had been able to do in the rest of England from the time of Henry II to that of George V. On behalf of the Royal Colleges of London, he warmly congratulated Dr. Brown and all the early founders of that institution, and hoped that it might long flourish.

The MAYOR OF CAMBRIDGE said that he wished to extend his thanks on behalf of the town for the work that was being commenced there that day. He wished to express the town's appreciation of what the University had done in this direction for many years past both with regard to medical and chemical schools and schools of research. This, he supposed, was the coping stone of that edifice. The Research Hospital had a great future, and it had for some years past been doing a great work, but although so much had been said as to what had been done, there was no end to research.

Sir CLIFFORD ALLBUTT, representing the University, said that there were many benefactors of their institution. He was not speaking merely of those who contributed money, but also of those whose presence that afternoon showed sympathy and interest in the work. It would be impossible to refer to all of them by name, but he thought perhaps it would be considered ungracious if he did not say a few words of special thanks to one or two, for example, Dr. Brown and Miss Sykes, who had impelled them forward almost from the very beginning, and who had contributed much more than their munificent gifts of money. They had given enthusiasm and fired the fervour of them all, and especially of Mr. Strangeways, who was the heart and soul of the institution. They had held up the hands of the workers and given that enthusiasm without which liberality and munificence would have been of comparatively little service. He supposed everybody in Cambridge had heard within the last few days of another most munificent, noble benefaction to Addenbrooke's, not on the same lines, fortunately, but on such lines that they would supplement each other—he spoke of the promised gift of Mrs. Bonnett of a pathological department to Addenbrooke's. The specimens they saw around them represented a comparatively small fraction of the work that had been done chiefly under the auspices of Mr. Strangeways. Something like 4,000 cases had been carefully recorded, observed, photographed, chemically analysed, and thoroughly investigated, so that an enormous amount of material had been gathered together, and the time was already coming when they must be organized, and they sincerely hoped with such success as to enable them in a few years to set the investigation of chronic arthritis aside and carry it into the realms of other diseases.

At the conclusion of the speeches the architect, Mr. Herbert W. Maguire, of London, handed Dr. Brown a presentation key, and the company then proceeded to view the hospital. A description of the building with elevations and plans was published in the BRITISH MEDICAL JOURNAL of April 1st, 1911, and we now publish an illustration of the terrace and loggia. The building in its completed state reflects the highest credit on the architect. The exterior, although quite simple, is tasteful and imposing, and the terrace which runs round the south-east and south-west sides adds greatly to the charm and beauty of the building. The interior, while well adapted to the varied requirements of the institution, has all the refinement and charm of a well-designed private residence.

In a large marquee the museum of specimens and *x* rays illustrating the changes found in the various forms of arthritis, which have been presented to the Committee for the Study of Special Diseases, was on view, and was a source of much interest to those present.

Among the benefactors whose generosity has made the foundation of the hospital possible must be mentioned Dr. R. C. Brown, of Preston, who from the first has been munificent in his donations to the work, and has from the beginning supplied the salary of one of the research students; and Miss M. A. Sykes, of Huddersfield, who had previously given the site on which the hospital stands, most generously gave a cheque of £500 in order to defray the cost of building the Research Laboratories. Special mention must also be made of Mr. Strangeways, the Huddersfield Lecturer in Pathology at Cambridge, whose enthusiasm and energy have supplied the driving power of the work. It is pleasant to add that liberal donations have come from some of the wealthier patients who have already offered themselves as subjects for the special investigations carried on at the hospital.

Although, as already said, the hospital opens free from debt and the expenses of maintenance will not be heavy, contributions will still be required if the work is to be carried on efficiently. The profession has done its share, and we are sure that the public when it has learnt to appreciate the importance of the objects for which the hospital has been founded will not allow a work of such value to languish for lack of funds. The sufferers from the diseases for the investigation of which it is intended are the more fit subjects of pity since their ailments are too apt to excite weariness rather than active sympathy in those among whom their lot is cast.

We believe that the hospital has before it a future of the highest usefulness, and we heartily wish success to those who have taken upon themselves the burden of a task which to many would seem thankless.

Academic Honour for Dr. R. C. Brown.

The University of Cambridge conferred on Dr. Brown the degree of Master of Arts *honoris causa* in recognition of his benefactions to the hospital. We are obliged to the public orator, Sir John Sandys, for a copy of the remarks made by him in presenting Dr. Brown for the degree on May 23rd. He said:

> Medicum modestum, medicum munificum, qui tot alios tam diu salvere iussit, ipsum hodie iubemus salvere. Lancastrensium in comitatu medio, in oppido suo natali, Salutis templo amplificando, et in melius mutando, quantum temporis, quantum pecuniae dedicavit! Ibi pauperum tabernis quantam lucem, quantam salubritatem, quot vitae melioris commoda intulit! Arti musicae deditus, convalescentibus ars illa quantum prosit, quam sollerter indicavit; quod nemini vestrum mirum sit, novimus enim ipsum Apollinem non modo Aesculapii patrem, sed etiam Musarum omnium, atque adeo artis musicae, fuisse patronum. Idem eos, qui inter nosmet ipsos in certos quosdam morbos curiosius inquirunt, liberalitate maxima adiuvit; instrumentis subtilissimis ornavit; militiae denique huius tironibus stipendia quotannis distribuenda curavit. Vir igitur in artem medicam tam munificus, artium magister hodie honoris causa merito nominatur. Idem domicilium novum his studiis benefactorum complurium liberalitate dedicatum die crastino auspiciis optimis inaugurabit.
>
> Duco ad vos medicum insignem, virum et medicinae in studium et in Academiam nostram munificum, ROBERTUM CAROLUM BROWN.

The honour is one that is not often conferred, and in this case it is particularly well deserved. No man can be held in greater esteem or more affectionate regard than Dr. Brown is held by his numerous friends, and we are sure that this latest recognition of his many services to the profession and the public will afford intense pleasure to all who have the privilege of knowing him.

THE INEBRIATES ACTS.

THE report[1] for the year 1910 of Dr. R. W. Branthwaite, Inspector under the Inebriates Acts, was issued last week. It relates solely to the working during the year of voluntary retreats, certified inebriate reformatories, and State inebriate reformatories.

Retreats.

The number of licensed retreats at work during the year was twenty, one higher than in 1909, but four less than in 1906. Similarly reduced was the aggregate accommodation, this being sufficient for 434 patients in 1910, against 500 in the earlier year mentioned. The patients admitted during the year numbered 457 (191 men and 266 women); 299 of them entered as private patients—that is, by simple agreement with the licensees—while the remaining 158 were admitted as patients under the Act—that is to say, they were persons who had made the statutory declarations in virtue of which they could, if

[1] The Report of the Inspector under the Inebriates Acts 1879 to 1900 for the year 1910. London: Published by H.M. Stationery Office. Cd. 6166. (Price 3½d.)

necessary, be forcibly detained. Some 61 of these were on various grounds allowed leave of absence for shorter or longer periods, a certain number being given such leave in order to test their power of self-control before final discharge. All licensed retreats were inspected during the year, and many complaints by patients were investigated: but there was little fault to be found in regard to the retreats generally, and every reason to feel satisfied with the interest shown by the licensees in their work, and their evident desire to produce good results.

A reference to the tables contained in the appendix to this part of the report shows that the voluntary section of inebriate reform work is not making very definite progress. There has been a slight increase of late years in the number of private patients, but the number of those who enter under the Acts is diminishing. In 1899 the number who signed the papers necessary to enable the licensees to detain them for the agreed period (varying from two years to three months or less) was 203. In the year 1902 it rose to 259; but it has fallen with some steadiness in the following years, and in 1910 was the lowest on record.

In this connexion Dr. Branthwaite points out the difficulty of obtaining the consent of inebriates to treatment under the Act. They must themselves sign before a magistrate a request for detention for an agreed period and then surrender their liberty into the hands of others.

Such surrender requires an amount of moral courage and an effort of will which can hardly be expected of one who is acknowledged to be incapable of managing himself or his own affairs. Some do it, as the figures show, but the numbers are insignificant when compared with the host of people who should be under treatment and control to their own advantage and that of their friends. Moreover, very few inebriates realize their condition or the necessity for control, any more than the lunatic realizes the necessity for asylum detention.

The result is delay until sickness or poverty enables friends to interfere and enforce control, and often until the habit has become too confirmed to offer any hope of its permanent abolition.

Certified Inebriate Reformatories.

In certified inebriate reformatories the accommodation for men is still less than it should be, but, owing to the comparatively small number of committals of women during the last year or two, the accommodation for women during the year exceeded actual requirements. An indirect result was that one such reformatory was given up during the year and a second was temporarily devoted to another purpose. The year under review therefore saw a further reduction in the number of certified inebriate reformatories. This reduction, Dr. Branthwaite points out, is to be regretted in view of the difficulty that was experienced in securing the establishment of these institutions, the expenditure of money that their formation entailed, and the certainty that further accommodation will be wanted before long.

The number of persons committed to these reformatories during the year totalled 327 (248 being women and 79 men), but only 29 of these were committed under Section 1. Under this section a judge of one of the higher courts can substitute a period of detention in an inebriate reformatory for a sentence of ordinary imprisonment or penal servitude if he be satisfied that the offence proved was committed under the influence of drink or that drunkenness was a contributory cause. The number of persons committed to reformatories under this section, since the Act came into operation twelve years ago, is 502 (453 women and 49 men); but such a number does not, Dr. Branthwaite holds, represent the true value of this section or its utilization to the extent intended by the Legislature. The main reason why application of this section is so restricted would seem to be that it cannot be utilized by magistrates. If they desire that an offender shall be dealt with under this section they must commit him to assizes or quarter sessions. Apart from the delay, inconvenience, and expense entailed by this course, it is no one's business to see that inebriety is included in the indictment of such person when he is eventually tried. The result is that persons whose cases have been remitted to an assize or quarter sessions court, in order that they may be tried under this section, are eventually often dealt with as ordinary criminals.

The total number of persons dealt with under Section 2 in the same period of twelve years was much larger—namely, 3,134. But this is still a comparatively small total considering the number of persons amenable to this part of the Act. These are "habitual drunkards" who three times during the previous twelve months have been convicted of offences such as being drunk on licensed premises, drunk and disorderly in a public place, drunk when in charge of a vehicle, drunk in charge of a child. If on a fourth appearance for a like offence such a person consents to be dealt with summarily he can be sent to an inebriate reformatory direct from a petty sessional court, but if he refuses to be dealt with summarily he must be sent to assizes or quarter sessions for trial on indictment. There was a slight increase in the number of persons committed under this section during the three years preceding that under review, but the difficulties encountered by magistrates in attempting to make use of this section are still powerful enough, Dr. Branthwaite states, to discourage them from the full use of their powers. Apart from differences of opinion as to what constitutes "habitual" drunkenness and some lack of accommodation for male offenders, there is the fact that when three previous convictions can easily be proved the inebriate has commonly sunk so low that reform is improbable. Few magistrates object to commit inebriates to reformatories when a reasonable number of them can be shown to receive benefit from detention, but many object to commit them so long as the percentage of recoveries is small; it must always be small until the difficulties in the way of committing persons under this section are reduced.

With such certified inebriate reformatories as exist Dr. Branthwaite is satisfied; they run smoothly so far as the unsatisfactory nature of some of the inmates will allow, and they provide evidence of ability to fulfil their object. Many improvements in details of management have been noticed, the cost of maintenance reduced in the majority of institutions to a minimum, advances made in the provision of facilities for the remunerative employment of inmates, buildings maintained in good sanitary condition, additions made here and there which contribute to the welfare of the staff and inmates and to the maintenance of efficiency. Whatever may be said about other phases of reform work, all that relates to the detention and treatment of inebriates is being done well.

State Inebriate Reformatories.

There was a fall also during the year in the number of persons committed to the two State inebriate reformatories—that at Aylesbury for women, and at Warwick for men. At the former the daily number under detention averaged about 54, at the latter 24. These institutions were originally provided for persons committed under Section 1, but they have gradually become places for the care of the refractory, violent, and weak-minded inebriates who, by their conduct, render the work of certified reformatories impossible. Among such people self-control is practically absent, and their peculiar susceptibility to the exciting action of alcohol renders the difference between simple assault, wounding, manslaughter, or murder a matter entirely dependent upon circumstances. Those aware of this realize, says Dr. Branthwaite, how necessary it is that such persons should be restrained, and how unsatisfactory it becomes to have to discharge them to full liberty, simply because a sentence happens to have expired.

The way in which they are treated in the two reformatories in question is highly commended. Firmness and strict discipline are essential, and yet need to be tempered with every possible kindness and forbearance, applied in such a way as to avoid all hint of weakness. No work is more difficult than that done at these State reformatories, and nothing but commendation is due to their superior officers, while the members of the subordinate staff of each institution have proved themselves capable and reliable.

THE statistics for 1911 forwarded by the *Times* correspondent in Paris show a further decline in the number of births in France and an increase in the number of deaths. The births in 1911 numbered 742,114, compared with 774,358 in 1910; the deaths 776,983, compared with 703,777. The number of marriages, 307,788, shows a slight increase, but there is a slight increase also in the number of divorces (13,058).

ST. KILDA.

[FROM A CORRESPONDENT.]

To be dependent for medical advice upon the occasional doctor on holiday bent is the experience of but one community in the United Kingdom, the tiny handful of people whose home is the barren wind-swept rock of St. Kilda. Cut off almost completely from the great outside world except for the mail steamer which calls fortnightly in the summer months, only knowing by hearsay of the great modern developments of steam and electricity, they live their lives to-day much as did their ancestors whom Martin, himself a doctor, was one of the first to visit three hundred years ago. From October to June news from St. Kilda can only leak through such accidental channels as the casual trawler or the old bottle post dropped into the sea in the hope that the tide will throw it up on some shore where any passer-by may pick it up. As a rule the island receives its first official visit by the mail boat in the beginning of May, when it receives its stock of provisions from the agent in Glasgow. This year, as the result of bad weather, no steamer arrived, with the result that an Aberdeen trawler brought the news on May 18th that the islanders were at the end of their resources as far as food was concerned. The Admiralty at once sent orders by wireless to the fleet which was cruising in the neighbourhood of the Mull of Cantyre to dispatch a cruiser with supplies to relieve the islanders. Simultaneously, on the receipt of the news in London, the *Daily Mirror*, ignorant of the orders issued from the Admiralty, set about organizing a relief expedition of its own. It was a Saturday afternoon, and all business premises were closed, but with characteristic energy the staff managed to collect a ton and a half of provisions, thanks to the generosity of various large provision merchants and hotel managers. As the original report suggested that the inhabitants were suffering extreme privations from want of food, the *Mirror* decided to take a doctor with them. They rang me up at 5 p.m., and about one hour later I went up to the office to learn particulars. There I was told that we were to leave London by the midnight train, and that I was to take with me such drugs and apparatus as I might consider necessary. How to select these with due consideration as to portability at first rather staggered me, as I had been led to believe that we might find many people in the last stages of exhaustion. But with the assistance of one of my seniors we collected together in tablet form some strychnine, caffeine, morphine, aspirin, calomel, and Easton's syrup, some bottles of ointment, two tins of oil and malt, a bottle of liniment, some syrup of iron phosphate, and a bottle of ammonia and ether mixture. These, with a bag of instruments enough to meet all ordinary requirements, completed my equipment. At 11 o'clock I met the rest of the party—a reporter and a photographer. We left Euston at midnight, arrived in Glasgow at 9 o'clock, had breakfast and left for Gourock at 11. Our tug was lying at the Prince's Pier, and it did not take long to transfer our baggage and stores, so that 1 o'clock saw us cast off and starting on our errand. The weather was brilliantly fine, and the sail down the river and the Firth was consequently delightful. By 7 o'clock we were off the Mull of Cantyre, the sea here fortunately being unusually calm, Fair Head and the hills of Northern Ireland being plainly seen. We held a consultation with our skipper, and agreed that the inner passage in the shelter of the islands and through the Sound of Harris was the preferable course. By breakfast time on the Monday we were passing North of Lochmaddy, the sun shining brightly, but a stiffish breeze blowing out of the north-east. A tug makes poor weather in a rumpled sea, so that it was not long before each of us in our several ways began to feel the effects of it. G. was almost incapable; E. was not actually sick, but felt thoroughly "rotten"; I was sick, but was otherwise not much the worse. The Sound of Harris is a terror to the mariner, being studded with islands and rocks, many of them covered even at low water. Our little skipper had never been through before, but by dint of much poring over charts and proceeding with the utmost caution we felt our way through without any untoward incident. Well outside the Sound of Harris the sea was running lively, and the tug indulged in all sorts of cantrips. About 3 o'clock we caught the first sight of our destination—a great rugged mass of rock with three smaller satellite islets, two to the north and one to the south. At 6 o'clock we anchored in the bay in twelve fathoms.

St. Kilda lies some 250 miles out from Greenock, and bears 40 miles W.N.W. from the Isle of Monach, the westernmost island of the Sound of Harris. It is about two miles long by one mile broad. Flanked by mammoth cliffs, rising sheer in places to 1,300 ft., on the north-west and south sides, to the east the ground falls down as a grassy slope to the sea, forming a bay which affords moderate shelter from the west and north, and scarcely any from the south-east. Nestling at the foot of the slope in the most sheltered position on the island, and facing almost due south, are the dozen or so houses which form the village of St. Kilda. In the most protected part of the bay a stone quay and launching slip for the local boats have been erected. Our anchor had scarcely taken the ground when a boat containing a number of the able-bodied male population put off to meet us. They were at first inclined to regard us with some suspicion, and hailed us from about thirty yards. On our replying that we had food on board there at once rose a babel which was only quelled when the minister rose from his place of honour in the stern and authoritatively demanded silence. With true northern caution his first question to us was, "Are any conditions attached to these provisions of yours?" On our assuring him there were none, that it was a perfectly free gift, fear and distrust vanished, and the boat came alongside and promptly boarded the tug. We then learnt that H.M. cruiser *Achilles* had been in, landed some stores, and had left some two hours before our arrival. It thus looked at first as if our mission were superfluous, especially as the appearance of the people did not suggest that they were in the last stages of exhaustion from want of food. We heard, however, that before the arrival of the *Achilles* the total provender left, other than the natural supplies of the island in the shape of sea birds, eggs, sheep, and fish, amounted to one small bowl of flour. The islanders had been without tea, sugar, jam—in fact, groceries of all kinds—bacon, etc., for about a month. Thus, though able to keep the wolf from the door, they had been in a sad plight for want of anything but the crudest foodstuffs for a considerable time. The cruiser had only been allowed to land absolute necessaries, such as flour, tea not being included in that category. But the islanders all agreed in praising the extreme kindness of the captain, officers, and men of the *Achilles*. They had spent the night of their passage to the island in roasting beef and baking bread, so that they had arrived on the Monday morning in true navy fashion with a meal fully prepared. Though their orders only permitted them to give absolute necessaries, they had allowed the St. Kildeans to buy what they liked from the canteen, had sent ashore a large supply of tobacco, and had used their wireless for sending private messages from the islanders. The boat's crew which came out to visit us presented the most extraordinary appearance, for their wardrobes had been replenished from the old clothes department of the *Achilles*, with the result that all sorts of costumes of varying antiquity and style were surmounted by navy caps, whilst the clumsiest lout in the island appeared in the full uniform of a Royal Marine!

But though their urgent necessities had been relieved, the islanders gave us a most cordial welcome, and were deeply grateful for our provisions, among which were tea and cocoa, bacon, sausages, and three cases of spirits, and other small luxuries enough to last till their stores arrive in the course of the next week.

To the medical visitor St. Kilda is a remarkably interesting place. It was my misfortune that the exigencies of the press service and the weather combined together to make our visit far too short. I had to rely for my information upon the minister, Mr. McLean, who attends to the bodily as well as the spiritual needs of the islanders, and combines these offices with that of magistrate. As I mentioned before, the natives did not betray by their appearance the fact that they had been on the verge of starvation; moreover, the surgeon of the *Achilles* had attended to such as were sick, so that there was really no work for me to do. But as it is not considered good form for a doctor to visit the island without seeing those who consider themselves invalids, I was

conducted round by the minister's wife, who very kindly acted as interpreter. It should be mentioned here that the language of St. Kilda is Gaelic, and only the younger generations who have been taught in the school can speak English or understand it. The few patients I saw were nearly all women of a certain age complaining of rheumaticky pains such as are to be found in every community. There was only one case of serious illness, and that was in an old lady of over 70 with bronchitis and failing heart. There was one very healthy-looking baby of 9 months with a lichen-like eruption over the trunk and limbs, and one elderly gentleman with sclerodermatous patches about the flexures of his joints.

The population number eighty-one—forty females, forty-one females—and they both look and are, according to the minister, a very healthy body of people. The birth-rate and death-rate maintain an even balance, averaging one birth and one death a year. The number of inhabitants has remained pretty constant for nearly a century. Before that they numbered between two and three hundred, but an epidemic of small-pox almost wiped out the village, and the population has never really reached its former average. For the most part the natives live and die on their rocky birthplace. Now and then one of the men goes forth to seek an outlet for his energies in the wider sphere of Glasgow and beyond, but the women never. And it never happens that a man returns to his home bringing a wife from other parts. The result is that for generations they have intermarried, for no new blood ever reaches them. The close intermingling forbidden by the Prayer Book is banned by the minister, and as the Church is the only matrimonial authority in the island, his word is law, but it is impossible that the relationships between each and every dweller on the island can be anything but of the closest.

What surprised me was the lack of very obvious evidence of physical degeneracy among the islanders; most of the men were sturdy and well set up. Such signs of decay as there were were most marked among the younger generation of males, not that their physical development was conspicuously deficient, but their faces and demeanour suggested that their mental attributes were not of the highest order. The women, on the other hand, appeared to be uniformly mentally and physically sound. The young children, too, without exception, so far as we could see, were the pictures of health. On the whole, the average physique is much the same as that found in the other islands and the villages of the western coast of the mainland of Scotland. The infant mortality of St. Kilda is now practically *nil*. The ravages of the dreaded "eight days' sickness," or tetanus neonatorum, were checked by the introduction of antiseptic treatment of the cord. Mr. McLean informed me that there have been 3 births during his three years' residence on the island, with no deaths. This makes a total of 30 births with only 1 death since the institution of proper antiseptic treatment of the cord, whereas in pre-antiseptic days Osler quotes 84 deaths occurring under the age of 14 days in 125 births. The acute specific fevers of childhood are, according to my authority, quite unknown in St. Kilda; there is no source of infection from which they could spread. It is devoutly to be hoped that the islanders remain in this happy isolation, for were infection to reach them now they would have a very rough road indeed to travel.

Tuberculosis also, I was informed, is not known on St. Kilda. In this instance, unfortunately, a personal investigation alone would have been satisfactory, but that was out of the question. But I could hear of no "chesty" people, and only saw one young cripple. This was a boy with an ankylosed knee. He was not brought up for examination, so I had simply to be content with a distant and covered view of the part. It suggested tubercle to my mind, but I lacked the opportunity of obtaining any confirmatory evidence. If the minister is correct—and I have no reason to suppose that he is not so—a very interesting point is raised, for in some of the other islands of the outer chain, notably Lewis, tuberculosis, particularly in the pulmonary form, is unfortunately rife.

The prevailing complaint appears to be rheumaticky pains among the elderly—nothing peculiar, especially when the climate is considered.

It has always been said that if a visitor lands on St. Kilda the whole populace at once develop very severe colds, to which they give the name "the stranger's cold." The people firmly believe that the stranger brings the cold with him. Various theories have been advanced by different authorities; for instance, that the cold is due to the wind being in a certain quarter, landing being only possible in the old days when the wind was westerly. The facts are beyond dispute that the islanders do at intervals suffer from a very severe form of cold; but my friend the minister considers the "stranger" part of the business as merely islanders' superstition, as neither he nor any member of his family have ever been able to connect a cold with the presence of a visitor. So much, then, for the general health of the people.

The village consists of some dozen or so houses stretched out in a line, the manse and church being nearest the pier. The houses are built along the northern arm of the bay, and are pretty well protected from every direction but the south. With one exception they are good solid stone dwellings with two rooms, one either side of the door, which is in the centre, slate roofed and decently lighted. They were built for the islanders by the owner, Macleod of Dunvegan; I believe it was the father of the present chief, whom all without exception acclaim as the most generous and kindliest of landlords. The only old-fashioned house in the island is inhabited by an ancient dame who crouches over a fire in a murky room like one of Macbeth's witches. This house consists of four solid stone walls and a heavily thatched roof. There is one tiny window to share with the door the honour of admitting a minimum of daylight. The floor is of earth, and in the centre is a peat fire the reek from which converts the natural gloom into an impenetrable fog, for there is no chimney. This was the style of residence favoured by all St. Kildeans before the Macleod built them airy modern cottages.

The sanitary arrangements in the island are of the most primitive nature. Strictly speaking, they do not exist at all, for the only drainage system is the ever-shifting tide. There appears to be a good supply of fresh water, which is quite sufficient for all practical purposes. The one staple industry which enables the St. Kildeans to conduct business with the outside world is the weaving of their justly famous homespun. The islanders do not scruple to tell the stranger that "it is much better than Harris." The weaving occupies their winter months and well on into the summer, and the work is entirely by hand throughout. The wool they obtain from a native sheep, a small, quite wild beast which has to be hunted down like a hare when the shearing season arrives. They scarcely ever kill one of these sheep for eating; their favourite article of diet is any kind of sea-bird. Fish, I was told, they eat but seldom. They raise some dwarf crops between them, mostly oats, but they cannot grow sufficient to feed themselves. There are a few cows kept for milking, and some ducks, and these, with a special breed of collie dog, constitute the domestic animals of the island.

Mr. McLean gives the islanders a very good reputation as hard workers. They rise early—as a rule about 5 a.m.—and sometimes when the nights are light will sit up at their weaving till 2 in the morning. It is interesting to note here that the Parliament—which consists of one male representative from each house, votes for women being not yet established in St. Kilda—meets nightly, and decides what the field of labour is to be on the morrow, and whatever that may happen to be the community set about it *en masse*. If it is to be fishing, then one or two boats' crews are made up; if climbing for birds, then parties of cragsmen are organized. Much of the heavy manual labour is done by the women; for instance, all the carrying of the peat loads falls to the lot of the women, and as this often entails a steep climb of 1,300 ft. and down again, it will be agreed that the task is not one for a weakling. As if to compensate for this reversal of the usual order of things, the ladies' garments are all made by the men. The result is a highly serviceable dress, but one which scarcely sets off the figure to the best advantage.

On the whole, the St. Kildean is a man of peace. Quarrels are very rare and petty enmities are speedily made up without any bearing of malice. Actual fighting is absolutely unknown between individuals or families. Honesty is another well-marked trait in their character.

Of the bird life of the island much has been written and volumes more could yet be filled. Unfortunately, our visit came too early in the year, and it was a disappointment to us that we saw so few birds.

The sharing out among the islanders of the spoil we took them was one of the most amusing sights I have ever witnessed. The people reminded me of nothing so much as a flock of gulls from their excited laughter and chattering. The sight of a small boy with bare feet trotting home with a large German sausage under his arm was a thing to remember.

During our stay in the island we were most hospitably entertained at the manse. What St. Kilda would do without Mr. and Mrs. McLean I do not know, for they are everything to the islanders.

Just as all good things come to an end too soon, so was our stay on St. Kilda far too short. The newspaper men were fretting to get back to a telegraph office, whilst our skipper kept turning an anxious eye windward, so that before we had completed twenty-four hours on the island our anchor was hove up and we were under way once more for the haunts of men and the iniquities thereof.

Probably had we delayed our departure we should have found ourselves boxed up for a week or more, for the wind was piping up out of the north harder every minute. We had a thorough dusting getting back to Harris, and our lot was in no wise improved by our staysail getting torn to shreds. And so regretfully we waked to find ourselves in the land of the hot bath and daily shave, and in our minds only dream of roaring winds and tumbling seas, of soft-voiced islanders and the most glorious visions of hills and skies that the eyes of man can rest upon.

LITERARY NOTES.

MR. STEPHEN SWIFT has published a work in two volumes by Mr. Arthur Lynch, M.P., M.R.C.S., L.R.C.P., entitled *A New System of Psychology*. It is, says the announcement, based on the study of fundamental processes of the human mind. The principles suggested will afford criteria in regard to every phase in psychology. New light, Mr. Lynch hopes, will be thrown on Kant's Categories, Spencer's Hedonism, Fechner's Law, and "finally on the veritable nature of reason." A philosophy of research is foreshadowed. The work seeks to offer a base on which all valid studies may be co-ordinated, and developments are indicated. It presupposes no technical knowledge, and the exposition is couched in simple language.

Messrs. Jarrold and Sons announce for immediate publication a new book entitled, *Sun Yat Sen and the Awakening of China*, by James Cantlie, M.B., F.R.C.S., Dean of the College of Medicine of Hong Kong from 1889–1896, and C. Sheridan Jones. The work includes some hitherto unpublished private letters and remarkable illustrations.

Dr. Barnes (Carlisle) writes: An antiquarian discovery of considerable medical interest has recently been made during the restoration of the old church at Tunstall, near Kirkby Lonsdale. An inscribed stone was found built into the rubble of the three-light window in the north-east corner. Fortunately one of the contractors was an antiquary, and recognizing the fact that the lettering was part of a Latin inscription, he communicated with Professor Haverfield of Oxford, who has visited the place, and declares that the stone is part of a Roman altar, and that the inscription translated would read as follows:

To the Holy God Asclepius and to Hygeia. Julius Saturninus set this altar up.

Asclepius and Hygeia were known among the Greeks as the god and goddess of health, but this is the first time, so far as I know, that they have been found associated on an altar in the North of England. Under their Roman names of Aesculapius and Salus we have records of more than one votive tablet. For example, in 1879 during some excavations at Binchester a tablet was discovered on which two figures are sculptured, one being Aesculapius and the other Salus: the former, larger than the latter, is grasping the left hand of the latter with his right hand; his left hand is on the neck of the serpent coiled round some other object. The first part of the inscription is over the head of Salus, and the remainder beneath the feet of the figures. Some portions of the inscription have been broken away, but what is left has been translated as follows:

To Aesculapius and Salus for the health and safety of the ala of the Vetturians Roman citizens Marcus Aurelius Hubrocanas physician has erected this.

There is also a dedication to Aesculapius and Salus upon an altar found at Chester in the last century, and now in the British Museum.

A perusal of the proceedings of the conference of the Child Study Society has set us wondering what the child of the future will be. We note with pleasure that the wild enthusiasm of the rabid educator was largely tempered with sound sense. Many teachers are evidently beginning to see that the children of the present day are getting more "education" than is good for them. We have no great fear of the result, however, for the "soaring human boy" can successfully resist any amount of educational force that may be brought to bear upon him. We are afraid that girls suffer more, and this is a serious matter, not only for themselves, but for the future of the race of which they ought to be the mothers. It may not be inappropriate to quote here some verses which we have just come across in the May number of the *Maryland Medical Journal*. They are by James F. Morton, jun., and are entitled:

The Modern Child.

Born scientifically,
Studied terrifically,
Clothed very carefully,
Dieted sparefully,
Aired systematically,
Bathed most emphatically,
Played with quite drearily,
Punished Spencerially,
Sweet Infantility,
Steeped in gentility,
Santa Claus banished,
Mother Goose vanished,
Where are the babies,
The real human babies,
The olden time knew?

Harnessed scholastically,
Drilled superdrastically,
Cultured prodigiously,
Lectured religiously,
Classified rigidly,
Reasoned with frigidly,
Loved analytically,
Listened to critically,
Dosed with the "ologies,"
Rushed through the colleges,
Crammed pedagogically,
"Finished" most logically,
Where is the childhood,
The fresh, happy childhood,
The olden time knew?

Children successively,
Reared thus aggressively,
Posing eternally,
Wearied infernally,
Planned for initially,
"Formed" artificially,
Will they submit to it?
Never cry "Quit" to it?
Will not analysis
Stop from paralysis,
Till our distraction
Ends with reaction.
Brings back the childhood,
The bright, careless childhood
The olden time knew?

In the first number of the *Journal d'Urologie*, the publication of which began with the present year, Professor Pousson gives a history of the surgical treatment of stone. He says the first description of cutting for stone is found in one of the books of the *Ayurveda*, written by Susruta. The method described is that which used to be known as "cutting on the gripe." Professor Pousson attributes the authorship of this treatise to Susruta, who, he says, wrote several centuries before Hippocrates. This, we believe, is doubtful, some good authorities assigning the Hindu writer to a much later date. Hippocrates described many affections of the bladder and kidney, even advising nephrotomy in cases of acute renal colic. On the other hand, he left lithotomy, as we know from the famous Oath, to those who made that operation a speciality. Ammonius of Alexandria recommended the breaking up within the bladder of stones too large for extraction. Celsus gives a clear account of cutting for stone as it was practised by the Egyptians and the Greeks. Galen, who was more a physician than a surgeon, nevertheless saw the importance of bringing the operators for stone, for hernia, and for piles, oculists and dentists, within the fold of medicine. The use of solvents for stone was much studied by the Arabs, especially Avicenna; and Hali-Abbas mentions certain mineral waters as useful in urinary lithiasis. Although the Arabs considered surgery forbidden by their religion, some of them were strong-minded enough to recommend the knife on occasion. Of these was Avenzoar, but even he considered lithotomy an indecent operation. This is all the more remarkable since he did not hesitate to deal with urethral calculus. Albucasis, speaking of cutting for stone, deplores the lack of anatomical knowledge among surgeons, owing to which, he says, he has seen part of the bladder torn away in the attempt to extract a stone. He therefore gives a careful description of the operation as it should be practised not only in men, but in women; he complains, however, that in the latter case the custom of

his day forbade men to perform the operation, which was consequently left to ignorant and unskilful midwives. In the West from the seventh to the fifteenth century lithotomy was almost wholly left to itinerant "cutters." Guy de Chauliac may be said to have reintroduced the operation as described by Celsus. Then came the operation with the *apparatus major*, first practised in Italy and afterwards introduced into France by Laurent Collot, who, in recognition of his numerous successes, received from Henry II the title of "Royal lithotomist." The secret was kept in the Collot family for about a century; so eager were the surgeons to discover it that a hole was bored in the ceiling of Jerome Collot's operating room in the Charité Hospital. About the same time that the *apparatus major* was introduced into France Pierre Franco devised the high operation. Having to deal with a stone as large as a hen's egg in a child of 2, he performed the suprapubic operation. But though practised by several surgeons, it was two centuries before it was generally accepted. In fact, it is only within the last thirty years that it has won the *droit de cité* in surgery. Lateral lithotomy, though invented by Pierre Franco or some surgeon of a later date, was made fashionable by Frère Jacques about the end of the seventeenth century. He was an ignorant man, who, before taking up the trade of itinerant lithotomist, had been a soldier. The operation was perfected by our own Cheselden, whose success was so great that the French Académie des Sciences sent over Morand to study his method. The modern history of the surgery of the bladder need not be referred to; the main facts are matters of common knowledge among surgeons, and the subject is in many points so controversial that even a bare narrative would be out of place here. It need only be said that the introduction of lithotrity and litholapaxy has revolutioned this branch of surgery so completely that cutting for stone may be regarded as almost an obsolete procedure in civilized countries.

SCIENCE NOTES.

RATHER a novelty was presented at a recent meeting of the Zoological Society, in the form of cinematograph films illustrating the behaviour of animals under water by natural illumination. Photographs and cinematographic pictures of wild animals in their natural surroundings have been produced in perfection for some time past by not a few skilful and intrepid naturalists. We are also familiar with photographs of aquatic life viewed through the glass walls of an aquarium tank. The pictures presented by Dr. Ward, however, mark a new departure, and exhibit matters in—as near as can be imagined—their natural conditions. By the construction of an ingenious observation chamber he has been able to photograph aquatic life under the water and within a foot or two of the actual objects. He made use of an artificial pond about 30 ft. long by 10 ft. broad, into one side of which was built the observation chamber, separated from the pond only by a sheet of plain glass. In this chamber the pond animals could be watched and photographed without disturbing them, the observers remaining practically concealed owing to the reflection of the light from the surface of the window. Dr. Ward showed a very beautiful series of photographs taken under these conditions, and remarked on the various points which they illustrated. Some of the most noteworthy were those of the waterhen and the penguin. The former is one of those birds which carries down a lot of air entangled in its feathers. The light is totally reflected from these air bubbles, and causes the bird to appear as a bright metallic-looking object in the water. The penguin, on the other hand, carries down little or no air, and on that account it appears as a dark object or in its natural colours according to the illumination. The movements of both these birds were finely illustrated by the cinematograph. The rapid shoot of the waterhen and the curious guiding movements of the penguin's legs were remarkably well shown. Incidentally, it may be noted that, although the feet of the penguin are webbed, it does not use them for swimming, that being accomplished entirely by aid of its wings or "flippers." The next film showed the seal in chase of the finny tribe. The most surprising fact which this showed was the habit displayed by the seal of turning on its back, after the manner of a shark, when capturing a fish. One of the photographs of a seal leaving the surface after "venting" was ludicrously human in expression and caused much amusement. The last series depicted that rather marvellous beast, the otter. Although wonderfully agile under the water, it is by no means perfectly adapted for aquatic locomotion, and is thus no match for fish in the open. What it lacks in agility, however, it amply makes up for in cunning. Its method is to chase the prey into some convenient corner and then to seize it as it dashes past in its effort to escape. When hard at work the otter is almost as sinuous as a snake. Dr. Ward's exhibit met with one of the most hearty rounds of applause which has been heard in a meeting of the society for a long time.

Another use to which cinematography has been put in biology is in photographing the actual growth of animals. Such an experience was put on record not very long ago by Chevroton and Vlès.[1] Their subject was the embryonic development of the sea-urchin, which takes place sufficiently rapidly to admit of being photographed cinematographically. The embryo, of course, is microscopic, so that a photomicrographic apparatus was used. Three stages were followed—namely, from fertilization till the appearance of the segmentation cavity, which took three hours; from the end of the first stage till the occurrence of the first movements of the blastula, lasting three and a half hours; and from that point till the liberation of the blastula, an hour and a half. The three films were together nearly 500 ft. long, and comprised close upon 8,000 photographs.

In a paper by E. Marsden and C. G. Darwin on the transformations of the active deposit of thorium, communicated to the Royal Society on May 9th by Professor Rutherford, the authors related the results of a series of experiments undertaken with a view to discovering the genetic arrangement of the various products in the active deposit of thorium, and more particularly the transformations occurring in the product or products included in thorium C, one of the constituents of the active deposit. These transformations were of particular interest and importance, for it was shown that there was in this case undoubted evidence that the atoms of a single kind of matter possessed two distinct modes of disintegration. The results gave strong reason for supposing that of the atoms of thorium C, 35 per cent. emit α-particles of range 4.8 cm. and become converted into atoms of thorium D, while the remaining 65 per cent. emit β particles and disintegrate into atoms of a very short-lived α ray product thorium C_2. Exhaustive attempts by chemical and physical methods and by recoil failed to separate the atoms giving the different radiations. The experiments also showed that although the β rays of thorium C are extremely penetrating, yet they are practically unaccompanied by γ rays, while the relatively soft β rays of thorium D are accompanied by a very intense penetrating γ radiation containing over six times the amount of energy of the β rays.

A rather curious little pamphlet, entitled *Practical Hints on How to Breed Male or Female Animals at Will*,[2] has been written by a Scottish veterinary surgeon. It contains many shrewd observations, and not a few flounderings in the mazes of embryology and heredity. After a cursory review of various matters bearing on the subject the author propounds his theory in a very few words, illustrated by diagrams. It is to the effect that in mating animals, their sex pedigree, determined from their progenitors, should first be ascertained. A male with a strong "male preponderancy" will tend to produce males, and if mated with a female of weak "female preponderancy" will yield an exclusively male progeny and vice versa. There are three degrees of preponderancy—strong, medium, and weak—and the combinations of these give various results. It is asserted that this theory is borne out by twenty years' practical experience, but we are inclined to question the absolute unimpeachability of such experience. That it may be correct in a majority of cases is probable, but it is certainly not invariable.

[1] *Arch. zool. expér. et gén.*, 1911, pp. 499-517.

[2] *Practical Hints on How to Breed Male or Female Animals at Will.* By J. D. P. Greenock: David Blair. 1912. (Pp. 19. Price 6d.)

British Medical Journal.

SATURDAY, JUNE 1ST, 1912.

A GREAT EXPERIMENT.

AT the Royal Colonial Institute last week there was discussed a matter which appears to be of the utmost importance to Australia's future prosperity and one of the burning questions of the day in the Commonwealth. The subject is open to a great variety of opinion, which may be swayed by sentiment rather than by reason; but medical considerations will in the long run, if not at the very outset, play a large and important part in its settlement. The Australian continent extends well into the tropics, but the only regions at present well populated are those lying in the temperate and subtropical zone. What destiny is in store for the more northern parts, and how that destiny is to be shaped, are questions which await solution. It is essentially a matter of colonization, and the problem to be solved is whether this can be successfully done by Europeans, and in particular by Britons, or whether it will be necessary to introduce a coloured population. The discussion at the Colonial Institute was opened by the Hon. Dr. J. M. Creed, M.L.C., New South Wales, who stated the case for the temporary introduction of a coloured population—in fact, for indentured labour. This system has formed food for much political thought, not in Australia alone, and most of us are familiar with the various economic *pros* and *cons*. To a great extent Dr. Creed followed the usual lines, but he marshalled very skilfully the special features of the problem as it affects Australia. There is at present no very pressing need to colonize the tropical parts of the continent, but looking to the future, it is seen to be highly desirable that immediate steps should be taken to plan out the line of development. As to who shall people Australia there is no diversity of opinion. It is to be reserved for Australians and for immigrants from Europe, preferably from these islands. The point in dispute is how the tropical regions of the continent can best be made suitable and attractive for such immigrants. Mr. Creed holds that coloured labour is absolutely necessary for the development of many industries, the establishment of which will induce and enable white people to take up permanent residence in these parts. He maintains that much of the heavy labour cannot be undertaken by white people, and he proposes the plan of indenturing natives from Java or India, who shall be deported at the expiry of a term of five years. At the same time he considers it necessary that a certain number of coloured people shall act as servants, and so relieve white women of the harder duties of house-work.

The opponents of this scheme repudiate the idea that white men cannot colonize tropical Australia without coloured aid. They maintain that they can do all the work which needs to be done, and that even although it may not be possible to push forward certain industries at first, such a disadvantage is of far less concern than the introduction of indentured labour. They hold that we have no evidence, and are therefore not in a position to affirm that the white man is not capable of permanently colonizing tropical Australia. "A great experiment is necessary, and we are prepared to carry it out"; such are, in effect, the words of the Bishop of North Queensland, who was the first to criticize Mr. Creed's scheme. He asserted that after sixteen years' personal experience of North Queensland he saw no difficulty in the way of colonizing the country efficiently with British people alone. He was followed by a number of other speakers, the majority of whom supported his views. Professor Anderson Stuart of Sydney, expressed the opinion that the colonization of Northern Australia was a matter of immigration and medicine. He pointed to the fact that the southern and more salubrious territories of Australia were not by any means over-populated yet, and that immigrants naturally preferred to settle there rather than go further afield, but that in the course of time they would find it an easier matter to obtain a settlement in the northern parts than in the south. It was, he said, simply a case of filling up, and the rapidity would depend on the rate of immigration. He made a very brief reference to the medical aspect of the question and to the establishment of the Australian Institute of Tropical Medicine at Townsville. It may be remarked that, to extend Professor Stuart's simile of filling a pint measure, the northern territory on his plan might be populated by the froth of the south.

Probably the most effective speech was made by Sir John McCall, M.D., Agent-General for Tasmania, who remarked that he was not surprised at people not going north in greater numbers when they could find a much pleasanter abode in Tasmania. Yet he did not doubt that in the course of time many would be attracted to the tropical parts, and would find there a comfortable and permanent home. He entered more fully into the medical question than any of the other speakers, and gave it as his firm opinion that the chief essential is a correct mode of life. He said that the girls and women who were most healthy in the tropics were those who indulged in regular exercise, not those who lounged indoors "with windows closed to exclude the germs." Reference was made to the report of the Commissioner for the Northern Territory, dealing with the condition and climate of the country, which was couched in glowing terms. These highly optimistic expressions of opinion were met by the pessimistic views of Mr. H. C. Macfie and Mr. T. H. Haynes, both of whom mentioned the trying nature of the climate and the difficulty at present of getting along without coloured help.

In a public meeting it was not surprising that medical matters should have received only very brief attention. The medical questions involved, however, are of extreme interest, not only to Australia, but to every tropical colony. They have been discussed in these columns at some length at least twice during the past two years, but we believe their importance warrants further reference. It will be remembered that at the annual meeting of the British Medical Association held in London in 1910, Sir Richard Havelock Charles and several other authorities expressed the conviction that the tropics in general were unsuitable for permanent habitation by white people. It will also be remembered that in our issue of September 30th, 1911, p. 759, we dealt with Sir Charles Bruce's views on the same matter, which were undoubtedly opposed to those expressed at the annual meeting. Exception, however, was taken by a correspondent (p. 960), who made the unqualified statement that India was not, and never could be, a white man's land. This conflict of opinion leads one to conclude that some extended inquiry

into the conditions affecting white men in the tropics is necessary before any general statement can be made. We are hardly prepared to admit that the question resolves itself into a mere matter of latitude, and that the white man is to be excluded from permanent settlement in the regions enclosed within the tropics of Cancer and Capricorn.

The factors which have an influence upon this matter may be considered under two heads—namely, those which cannot be prevented or substantially modified, and those which can. The first includes the heat, sunlight, and the climatic conditions in general; the second, tropical diseases and insanitary conditions. The continuous glare and heat of the tropical sun is the most serious disability with which colonists from the temperate zones have to reckon. That they have an enervating and debilitating influence upon the human frame cannot be denied, but it is just as certain that man possesses considerable power of adjusting himself to meet such circumstances, provided his constitution is originally sound and that he does not become weakened by disease. We are familiar with men who have spent ten, twenty, or even thirty years in tropical parts without suffering more in health than they might easily have suffered in this country. There can be no question that these men have been able to accommodate themselves to their changed environment. On the other hand, we are only too familiar with men who have been wrecked in body and mind by even a short sojourn in the tropics. On close analysis, however, it will be found in very many cases that these men were originally incapacitated in some way or other for life in the tropics, or that they fell a prey to diseases which are essentially due to bad hygienic conditions. The figures given by Dr. Basil Price at the annual meeting bear out this statement. The unsuitability of the tropics for persons of impaired constitution, and particularly for those with a tendency to nerve weakness, was emphasized by most of the speakers at the annual meeting.

There can be little doubt that white men of sound constitution can live in the tropics; it is a more difficult matter to decide whether they can work, and if so, what the nature and extent of the work may be. These are questions on which we need further experience. The crux of the matter lies, however, with the women and children. It is evident that the country must be suitable for their continued residence if it is to be permanently populated by whites. They are undoubtedly more susceptible to the debilitating influences of a tropical climate than men are. To a certain extent the solution of this difficulty is to be found in occupation and exercise, as emphasized by Sir John McCall; but it is just as important that the exercise shall not be too arduous or the work too severe. How the balance is to be exactly adjusted without the introduction of some alien element is not very evident. With regard to the children and the maintenance of a sturdy race, previous experience in India and elsewhere does not yield us much promise. The conditions in tropical Australia, however, differ greatly from those in India, and it would not be altogether judicious to form conclusions from the latter. There is, indeed, very little to guide us, and we can only cherish the hope that Australia will proceed with the contemplated experiment, and that it will be carried to a successful conclusion.

In regard to the factors involved under the second heading, a much more definite and hopeful pronouncement can be made. The success achieved in tropical hygiene and sanitation is conspicuously great. The advances made during even the last few years give promise that a vast amount of improvement in the conditions of life will be made in the future. We have obtained the means of controlling many tropical diseases, and there is no reason to doubt that in the course of time we shall be able to make hygienic conditions in tropical countries not much less perfect than they are in Europe. To the medical man tropical hygiene is not an affair of to-day or yesterday, but its importance and possibilities are only just beginning to be realized by those in authority.

Many of the essentially tropical diseases are known to occur in Northern Australia, yet it possesses an advantage over most tropical countries in that it has no large indigenous population saddled with disease. It ought therefore to be easy for the authorities from the very first to cope with such diseases as do occur or may arise, provided proper and adequate measures are adopted. It is precisely here that the introduction of a large inferior alien population offers one of its most serious menaces. These aliens cannot fail to introduce and to foster the spread of disease of many kinds. It must not be forgotten that in a community it is as a rule the lowest classes who act as foci in the spread of epidemic diseases, and the lower the class and the more primitive their habits the greater is the resulting danger to the community in general. This is a feature of the case which was not touched on by any of the speakers at the meeting, and it is certainly worth emphasizing, for it seems a pity that Australia should encourage in any measure the introduction and spread of diseases which may add enormously to the difficulties of the situation.

It is gratifying to note that the Commonwealth Government is evidently alive to the importance and necessity of dealing with tropical diseases, and that it is at present engaged in the erection of commodious laboratories for the Australian Institute of Tropical Medicine in North Queensland. It may be safely predicted that this institute will justify its existence and prove a very profitable investment.

THE INSURANCE SCHEME IN THE COMMONS.

A DEBATE on the Insurance Scheme which, in its earlier part, was largely concerned with the attitude of the medical profession, was raised on the motion for the adjournment of the House of Commons for the Whitsuntide holidays. Mr. Masterman, Chairman of the Joint Committee of Insurance Commissioners, who replied for the Government, touched very lightly on this aspect of the scheme, but, no doubt by inadvertence, made use of an expression which gives a misleading impression of the present position. He spoke of the "negotiations which are at present proceeding between the representatives of the doctors of the Advisory Committee and the Insurance Commission," and said that he would be careful to do nothing "which might make these negotiations have a less favourable outcome." The medical members of the Advisory Committee, however, are not negotiating, and have no authority to negotiate—a fact which is, we believe, fully understood by the Insurance Commissioners. The terms, indeed, in which Sir Robert Morant's request to the Association were expressed, inviting it to arrange for the selection of medical men to serve on the Provisional Insurance Committees for counties and county boroughs proposed to be nominated by the English Commissioners, show that they are aware that no definite reply can be made until after the Representative Body has met.

The debate on the motion for the adjournment was raised by Mr. Handel Booth, Liberal M.P. for Pontefract, who has been one of the most ardent admirers of the Insurance Scheme in all its stages. He has recently shown conspicuous anxiety to pose as a champion of the friendly societies, and seems to conceive that the best way to achieve this distinction is to attack the British Medical Association. The friendly societies do not appear to have invited his co-operation, and it may be observed that Mr. Booth is not a representative of labour interests, but himself apparently a large employer of labour. His attack on the Association was founded upon the circumstances which preceded and attended the death of Dr. Richards, of Winkleigh, in Devonshire. By the indulgence of the Deputy Speaker he was permitted to give the House a distorted and inaccurate version of the case, but by the rules of debate Mr. Peel, who was prepared to reply and had the true facts in his possession, was precluded from stating them.

The facts of the case appear to be as follows; two years ago Dr. Norman, then the only practitioner in Winkleigh, died, and was succeeded by Dr. Harvey, who at first carried on the medical officerships of certain local friendly societies, but subsequently found it necessary to notify the officials that he could only continue subject to certain conditions as to a wage limit and otherwise. He stated that he regarded all medical clubs as a form of charity, and was not prepared to treat as club patients, tradesmen, farmers, or other persons able to pay a reasonable fee. His action was approved by the Barnstaple Division of the British Medical Association, and when the friendly societies refused his application and advertised for a successor, a warning notice was inserted requesting any medical man who might be disposed to apply for the appointment to communicate with the Honorary Secretary of the local Division or with the Medical Secretary of the Association. Dr. Richards subsequently accepted the appointments and repeated invitations to him to confer with the Association remained unanswered. The action of the Barnstaple Division was sustained by the South-Western Branch and by the Central Ethical Committee of the Association, and in consequence the Council in April, 1911, after carefully considering all the circumstances, removed Dr. Richards from being a member of the Association. He therefore did not receive professional recognition. Dr. Richards, who, it is now stated, was not in robust health when he went to reside in Devonshire, died last Easter after a short illness. Upon these facts a charge of inhumanity has been founded by members of the local friendly societies, and has been taken up by the *Daily News and Leader*. The statement was made that Dr. Richards was unable to obtain a second opinion in cases of urgency, and it was insinuated that he was unable to obtain medical treatment for his child and wife, and in his own last illness. There is no evidence of any urgent case in which he failed to obtain a second opinion. The only case cited is one of abdominal cancer, which, though, of course, by its nature serious, was not urgent in a medical sense, and the patient did, in fact, receive medical treatment. It is, indeed, most improbable that any case of urgency occurred in which further medical assistance could not be obtained. The rules of the Association, in fact, contain a special proviso, safeguarding the interests of patients who may place themselves under the care of a practitioner who persists in action which compels his colleagues to withhold professional recognition. The proviso states that such recognition shall not be withheld in cases of great urgency. Further, when Dr. Richards himself fell ill, the other doctor in the village wrote to his wife offering his services, which were declined, apparently on the ground that a locumtenent was already present. Mr. Booth appears to have accepted the *ex parte* statement of the friendly societies without examination, and endeavoured to use it as a part of a case he was elaborating against the medical profession in connexion with the administration of the Insurance Act. When he questioned the Chancellor of the Exchequer on the matter he did not receive much encouragement, but he succeeded in raising it again on the motion for the adjournment. He had produced the same inaccurate version of the incidents at Winkleigh, and argued that the Government and the Insurance Commissioners ought to take special steps to hobble the medical profession when the Insurance Act came into force. The statement which appears particularly to have rankled was that club practice, as heretofore conducted, was, in the absence of a wage limit, of the nature of charity. About the truth of this there can be really no doubt; it is historically correct, and, as was pointed out in the letter addressed to the Insurance Commissioners on behalf of the British Medical Association on May 16th, the present rates of remuneration are still largely determined by the financial position of the patient and the feeling, on the one hand, of compassion for him, and, on the other, the fear of having to undertake entirely unpaid work.

The working classes, in whose name Mr. Booth professes to speak, would, he says, repudiate any suggestion of charity. But to repudiate is one thing, to disprove is quite another. A State may repudiate its debt, but this proceeding, not usually reckoned to enhance its reputation, does not alter the fact that it had contracted the obligation. Many members of the working class dislike the suggestion that they are under any charitable obligation to the medical profession, and some at least are recognizing that the slur, as they rightly consider it, should be removed by paying reasonable fees for medical treatment, not by repudiating a just obligation. Since the system came into existence, some half-century or more ago, the financial status of wage-earners has enormously improved, and the contribution by the employer and the State under the Insurance Act will still further improve their position in respect of medical attendance. An end ought therefore finally to be put to the charitable element.

CONSULTANTS AND THE PLEDGE.

THE *Daily News and Leader* is greatly elated by the discovery which it believes itself to have made that at the meeting of the Marylebone Division on May 15th a proposal to circularize the members of the Division in favour of the pledge was moved, discussed, and lost. This it interprets as meaning that "organized Harley Street" has thrown over the British Medical Association's policy, and has thus fulfilled our contemporary's rash prophecy that "when the real crisis came the general practitioner would be left by the consultants to shoulder all the risks of a heroic policy," the consultants, while ever ready to lead the agitation, being unwilling themselves to take the risk of getting into trouble with the lay committees of their hospitals. We are really sorry to have to destroy the web which the *Daily News and Leader* has woven, but its strands are rotten. The meeting discussed the terms of the new pledge at considerable length, and the effect it would have on the position of members of the medical staffs of

London hospitals was freely debated. Eventually it was left to the Executive Committee to settle the wording of a letter recommending the pledge to all members of the Division. The exultation of the *Daily News and Leader* in what it supposes to be a deadly blow to the unity of the medical profession is therefore misplaced. It will find that the consultants and teachers are as determined as the general practitioners to resist to the uttermost, conditions of medical service inimical to the best interests of the profession and of the sick working man or woman, for whose needs our contemporary seems to have little regard.

BRITISH ASSOCIATION MEETING.

WITH Professor Schäfer as President of the British Association meeting, to be held from September 4th to 11th at Dundee, the proceedings seem likely to prove of more than usual interest to the medical profession. In recognition of the honour paid to their subject there will be an unusually large attendance of foreigners in the Section of Physiology. The President of the Section, Dr. Leonard Hill, in his address will deal with the effect of sedentary occupations on the circulation of the blood. In the discussion on "Mind and Body" Sir T. S. Clouston, Dr. J. S. Haldane and Dr. H. J. Watt have agreed to take part. For one of the evening discussions Professor Arthur Keith is responsible, the subject he has selected being "The Antiquity of Man." In the Section of Anthropology the President, Professor G. Elliot Smith, will trace the factors resulting in the development of the characteristically human brain and limb from a simian ancestor. The botanists are to have an address from Professor Keeble on Mendelism under the title "genetics and physiological research." They propose to devote a full morning to a discussion on genetics, in which Dr. Bower and Professor Weiss are to take part, and there is to be a joint debate with the zoologists on the origin of life, to be opened by Professor Minchin. Advantage is being taken of the repute of the district as a cattle-feeding centre to consider several points in connexion with nutrition, and the Agricultural Section will have information laid before it of an investigation on milk yields in the East of Scotland and on the milk records obtained in Lord Rayleigh's herds. In the Education Section an attempt will be made to correlate the work of the practical teachers with that of the psychologist, and there is to be a special debate on the psychological processes involved in learning to read, write, and spell, with special reference to their practical bearings. The Chemical Section will be concerned chiefly with organic chemistry, and the Mathematics and Physical Science Section will join hands with the Engineering Section in a discussion on the scientific theory and outstanding problems of wireless telegraphy. The simultaneous presence of mathematicians, physicists, engineers, electricians, and radiotelegraphists will, it is hoped, help to elucidate many obscure points of wireless telegraphy. Unfortunately, however, it seems to have been forgotten that wireless telegraphy has both physiological and psychological aspects, and it may be hoped that the secretaries of the two sections may see their way to invite the co-operation of those who are in a position to give information on the biological side of the question.

THE FREQUENCY OF LITHOPAEDION.

NOTWITHSTANDING the fact that abdominal surgery has been actively practised for ectopic gestation for quite thirty years, and that this abnormal type of pregnancy is readily recognized in its earlier stages, and still more easily diagnosed towards term, nevertheless a lithopaedion is, it appears, sometimes given time to form even in these days, and in not a few cases it has been discovered accidentally in necropsies on old women, which means that it must be more frequently overlooked altogether. Dr. W. Seaman Bainbridge[1] of New York has collected 36 cases reported from the beginning of the year 1900 down to the end of the summer of 1911, including one in his own experience. In this series all three subdivisions, after Küchenmeister's classification, are placed together, as the distinction was not always made by the original reporter. True lithopaedion signifies a condition in which the fetus alone is the seat of lime deposits; this is said to affect most frequently a fetus lying free in the peritoneal cavity. The vernix caseosa seems to be the foundation for the deposits, which form a crust of progressive thickness around the shrinking fetus. Simple mummification of the fetus, with calcification of the maternal envelope or capsule, to which the fetus does not adhere, is termed "lithokelyphos," and coincident calcification as well of a fetus adherent to a calcified sac is dignified by Küchenmeister with the name "lithokelyphopaedion." According to Dr. Bainbridge, at least ten instances of retention for over twenty years of the fetus calcified, or at least enclosed in a calcified capsule, have been observed in the twentieth century. Brewis reported a case in which the fetus was retained for forty-one years and was discovered at a necropsy. In Wallart's case the fetus was probably as ancient if not older; it was detected under similar circumstances, and the subject was 85 years old. The record specimen, preserved in the museum of the College of Surgeons, was retained for fifty-two years, but it was obtained long before the present century. Haultain's specimen, retained forty-one years, was also discovered at a necropsy on a woman who died suddenly of heart disease at the age of 71, thirty years after her only pregnancy, which did not end in delivery. Van der Veer and MacCabe recorded about two years ago an instance in which a lithopaedion was discovered during a necropsy on a woman aged 65. In this case an instructive clinical history was obtained. She had borne a child normally thirty-eight years before death. Three years later she again became pregnant, but was not delivered, so that she carried the fetus for thirty-five years. Two years after this missed pregnancy she bore another child to term. Falk reported in 1907 a similar experience; the subject was 75 years old. She had carried the lithopaedion for about thirty years, having in the interval given birth to a child at term; the morbid condition had been diagnosed but the patient declined operation. In Lumpe's case a tubal gestation sac, ruptured about the seventh month, and a lithopaedion, associated with a secondary abdominal pregnancy, were successively removed by abdominal section. The patient survived for about twenty-five years. In Keitler's case, true lithokelyphos, a partly calcified sac had been retained for twenty-two years. Van der Linder reported in 1902 an operation in which a full-term, calcified fetus was removed twenty-two years after it had been expelled into the peritoneal cavity through rupture of a tubal sac. At the time the patient had been treated for abortion, and a note was preserved stating that the fetus was not found. The fact was that the rupture occurred early in pregnancy, and the minute fetus developed up to a certain period without causing the patient much inconvenience. Weibel reported in 1908 an "ovarian" pregnancy; the lithopaedion, retained twenty-seven years, was removed by operation. Schuhl's case, in which a lithopaedion was retained nearly twenty-seven years, was even more remarkable than Van de Veer's and Falk's. The patient had four normal uterine pregnancies whilst the lithopaedion lay in the abdominal cavity. There remains Bürger's case, published in 1905, in which the length of time of retention was not ascertainable, but the lithopaedion was accidently discovered during an operation for cervical cancer by the modified vaginal method. The right appendages were imbedded in extensive adhesions in the midst

[1] Lithopaedion: Report of a Case, with a Review of the Literature. *Amer. Journ. Obstet.*, January, 1912, p. 31.

of which a small hard body, which proved to be a lithopaedion, was discovered. Bainbridge's series shows that lithopaedion does not always lie quiescent leaving the bearer to expire of some general malady at a green old age. The lithopaedion caused fatal acute obstruction in two cases. In one (Bryant, 1901) intestine was found adherent to a calcified fetus. In J. W. Smith's case (1903) the intestinal obstruction occurred fifteen years and a-half after the missed labour. Perforation of the bladder—a most distressing complication, which, according to the evidence to be gleaned from Bainbridge's series, is rarer than might be supposed—was reported by Weidlich (1910). The lithopaedion had been retained for the relatively short period of six years; the operation for the patient's relief, though troublesome, was successful. In more than one case in Bainbridge's series the *x* rays proved useful for diagnosis. Dr. Weatherhead publishes a very well documented case in our issue of December 30th, 1911, page 1694. In September, 1872, the late Mr. Tuke brought the patient before the notice of the Sussex Medico-Chirurgical Society with the diagnosis of retained fetus, and later on Sir Spencer Wells diagnosed lithopaedion. During the last four years of her life, when the patient was under the care of Dr. Weatherhead, there was a hard mass in the hypogastrium. The patient died at the age of 78. The fetus lay in its membranes, which were more or less completely calcified, and there was much calcareous deposit in the subcutaneous tissues of the fetus itself, but its deeper tissues were waxy or soapy, like adipocere. This specimen, which is now under preparation for mounting in the museum of the Royal College of Surgeons of England, is a lithokelyphos, or, perhaps, a lithokelyphopaedion. Thus, although ectopic gestation is so frequently treated by the surgeon after recognition in its earlier stages or during the perilous later months, and the hardly less dangerous period immediately following missed labour, nevertheless quite a respectable minority of extrauterine fetal sacs develop into lithopaedia. The employment of the *x* rays in cases of doubtful abdominopelvic tumour ought to save the obstetrician and gynaecologist from errors of diagnosis.

CLINICAL RESEARCH AT CAMBRIDGE.

ALL interested in the progress of clinical medicine will learn with pleasure that the new Research Hospital at Cambridge, the work of which has several times been referred to in the JOURNAL, is at length housed in a manner suitable at once to the needs and comfort of the patients, and convenient for the carrying on of the special work for which it was founded. Hospitals have been established at various times not altogether from philanthropic purposes, and the general practitioner who thought his bread was taken out of his mouth by a hospital dispensing indiscriminate charity may sometimes have been tempted to say with the Chinaman, bewildered by the number of churches of different denominations in Great Britain, "Too much josshouse in this country." No one can justly think the new hospital at Cambridge a superfluity. It has been founded for the exhaustive study of a class of diseases with which general hospitals do not and cannot as a rule concern themselves, and for which indeed medicine in the present state of knowledge can do little. These *opprobria medicinae*, though they seldom directly threaten life, cause an incalculable amount of suffering, and disable their victims from enjoying life or earning their livelihood. But they do not stimulate the flow of the "tear of sensibility," and they do not move the heart of the charitable as do acute ailments, where death hovers about the bed of the sufferer. Nor, it must be confessed, do they arouse the scientific interest of the seeker after new truth in dark corners of pathology where he may find and drag from their lairs monsters like cancer and certain nervous affections and tropical diseases, which claim a large and in some cases increasing tribute of human lives. In the investigation of rheumatoid arthritis there is nothing that appeals to the gallery. All the more honour, therefore, to those who have elected to follow this obscure and difficult path of investigation, which cannot lead directly either to fame or fortune. Doubtless, however, the work itself is to them an exceeding great reward, and they are heartened in their struggle by the thought that they are doing service to the cause of humanity which is glorified by its object. All their brethren will, we are sure, join with us in the hope that their self-devotion will be crowned with success. All honour, too, to those generous spirits who have done so much to encourage the workers and expand the scope of their work. We congratulate Dr. R. C. Brown on the honour which the University of Cambridge has conferred upon him. He was happily described by the Public Orator as a physician at once modest and munificent. It was with no exaggeration that Sir John Sandys said that a man so liberal towards medical art was deservedly created a Master of Arts. Miss Sykes, who has given the site—an acre of freehold ground in a pleasant situation in Hills Road, at the site of an ancient turnpike near the Gogmagog Hills—and contributed liberally towards the equipment of the laboratory, has earned the gratitude of sufferers, and of those who are striving to find means of relieving them. Of the workers and their work—the results of which are published in periodical bulletins—mention has repeatedly been made in the JOURNAL, and we need only say here that the work has fully justified the existence of the hospital. With the added facilities which they now enjoy, the work done by them under the conditions with which they have had to contend in the past warrants the hope that they will be able to carry their investigation on rheumatoid arthritis to a successful issue, and then proceed to deal in like manner with other problems.

SALVARSAN IN MALIGNANT DISEASE.

CZERNY AND CAAN have tried salvarsan in twelve cases of malignant disease; eleven were uninfluenced, and the twelfth patient, who recovered, was probably suffering from a syphiloma. Zieler, who used the drug in two cases, reports its failure in both. All the observers, however, noted that at first a distinct improvement took place. Noehte has recently added a new case to the list.[1] The patient had contracted syphilis ten years previously. He was treated by three courses of mercury during the first year. From about 1905 he had suffered from repeated attacks of giddiness while in bed, associated with headache, loss of clear mental perception, and weakness on the left side. He first vomited in 1910, and in that year a periproctal abscess developed. The Wassermann reaction was negative. A combined treatment with salvarsan and mercury brought about a temporary disappearance of the symptoms. The periproctal fistula also closed. After a few weeks the brain symptoms recurred, and became much more severe than before. Although some doubt was felt whether the condition was syphilitic or not, an injection of 0.2 gram of salvarsan was given intravenously. The patient became much excited after the injection, but this maniacal attack passed off after three days, and all the symptoms then gradually subsided. Two weeks later the old symptoms returned, and a further smaller injection of salvarsan was given. This time the delirium was milder, and later the mental condition improved somewhat. A further injection had no effect. The diagnosis of tumour of the brain was made after the performance of cerebral puncture. The patient died, and on *post-mortem* examination a columnar-

[1] *Muench. med. Woch.*, March 5th, 1912.

celled carcinoma was found in the frontal lobe, and there were several similar tumours in the lungs and in the iliac glands. The internal part of the brain growth was necrosed. The pathologist regarded all the growths found as secondary to one which he could not discover. The author speaks of the remarkable improvement brought about by salvarsan. But on his own showing, was the improvement really so remarkable? In spite of repeated injections the disease steadily progressed, and ended fatally.

ASYLUM WORKERS' ASSOCIATION.

THE annual general meeting of this association was held at the house of the Medical Society of London on May 22nd. The President, Sir William Collins, M.D., in moving the adoption of the annual report for 1911, congratulated all concerned upon the increase of membership during that year to 5,860, the highest number hitherto reached, and the consequent increase of revenue and of credit balance. The development of the Irish division of the association was also a source of satisfaction. Sir William then referred to the chief events of his five years' presidency, noting with gratification the triumph of 1909, when for the first time the principle of assured and definite pensions, so long striven for by the association, was guaranteed to workers in all rate-supported institutions for the insane in Great Britain and Ireland by the passing of the Asylum Officers' Superannuation Act. Experience had shown some imperfections in this Act, and an amending bill had been introduced by Sir Charles Nicholson at the request of the association. It was hoped that in the case of women workers, especially, concessions would be made, enabling them to retire on pensions at an earlier age than 55, the minimum inserted in the bill of 1909 during its passage through Parliament. It seemed essential that at the present juncture their President should be a member of Parliament, and therefore he had much satisfaction in welcoming Sir John Jardine, M.P., whose exertions on behalf of Scottish asylum workers were so well known, as his successor in the presidential office. After speeches by the Bishop of Barking and Sir William Dunn in support, the annual report was unanimously adopted, and a cordial vote of thanks accorded to Sir William Collins for his invaluable services. Sir John Jardine, having been unanimously elected President for the ensuing year, then took the chair, and in the course of his address referred to his experience in lunacy matters in India and to legislation now pending in the House of Commons for the amendment of the Act of 1909, promising to support in every way in his power the best interests of asylum workers throughout Great Britain and Ireland. He spoke also of the projected legislation for the feeble-minded, pointing out that the scope of the association's work would be widened by the creation of new institutions and staffs for the care of this class. The list of Vice-Presidents, Honorary Officers, and Executive Committee was adopted, and it was stated with regret that Dr. G. E. Shuttleworth was desirous of retiring from the post of Honorary Secretary, which he had held with so much advantage to the association for over fifteen years. It was hoped, however, that he would continue to act until the appointment by the Executive Committee of a medical successor. Amongst the speakers were Dr. Hubert Bond (Commissioner in Lunacy), Dr. Dawson (Inspector of Lunatics, Ireland), Dr. T. Draper (Enniscorthy), Dr. J. Carswell (Glasgow), Dr. Percy Smith, Dr. Seward, Dr. Pasmore, Dr. Fletcher Beach, and the Revs. H. Whittaker, M.D., John Peck, M.A., and C. Major Jenkins, M.A.

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

ON May 28th the Secretary of the College issued the usual annual announcement that a meeting of the Fellows will be held at the college for the election of members of council on Thursday, July 4th; the election will begin at 3 p.m. On this occasion there are vacancies for four members, due to the retirement in rotation of Sir Frederic Eve, Sir Anthony Bowlby, C.M.G., and Mr. H. Gilbert Barling, and to the death of the late President, Sir Henry Butlin, Bart. We published the usual analytical table in our issue of May 4th, p. 1048. There are three full vacancies. Last year the late President, though elected in 1903, did not retire, being in the chair. Hence, besides the three full vacancies, there will be one substitute member, who will finish Sir Henry Butlin's third term on the council, which does not come to an end until 1919, or eight years from 1911. We understand that Mr. D'Arcy Power, Mr. J. Ernest Lane, and Mr. L. A. Dunn will offer themselves for election. Blank forms of the requisite notice from a candidate and of his nomination may be obtained on application to the Secretary, and the same must be received by him, duly filled up, not later than Friday, June 7th. A voting paper will be sent by post to each Fellow whose address in the United Kingdom is registered in the college on Tuesday, June 18th.

UNDER-PAYMENT OF MEDICAL OFFICERS OF HEALTH.

THE Urban District Council of Bilston in Shropshire had under consideration on May 23rd, and eventually referred to the General Purposes Committee, a somewhat striking communication from the Local Government Board. This pointed out that the salary at present paid to the medical officer was inadequate, and, after suggesting that the propriety of increasing it should be considered, indicated that ample ground for this course was supplied by the increased work already thrown on the medical officer through the Housing (Inspection of Districts) Regulations, 1910, and the Public Health (Tuberculosis) Regulations, 1911, and by the prospective increase involved through the provisions of the National Insurance Act. Recommendations of this character on the part of the Local Government Board are sufficiently rare to make the incident of interest, so we have looked up the past history in sanitary matters of the town in question. From this it is clear that the case for an increase is even stronger than suggested in the Local Government Board's communication. The town still has the advantage of the services of a medical officer of health who first became acquainted with its needs some two decades ago, and who has since won distinction among those engaged in public health work. On the other hand, he is still drawing only the same salary as that assigned to him some fifteen years ago (£100 per annum). If this were all there might be little to say on the subject; but it is important to note that Bilston is by no means a sleepy country town, ignorant of, or indifferent to, the advantages accruing from public health work. On the contrary, it is a mentally progressive place, which has put into full operation not only Acts fulfilment of which is absolutely imposed upon it by the Legislature, but Acts which it can adopt or not as it pleases. For this reason, there are now in operation within its borders over half a dozen legislative measures, all of which have been passed in the last ten years and impose much additional responsibility and labour on the medical officer of health. This being the case, there is ample ground for a 50 per cent. increase. Nor does it seem likely to be denied: partly because business men, such as presumably predominate on this council, as a class commonly recognize the desirability of meeting increased work by increased pay; partly because in this case the sum involved would be quite trifling, since the Local Government Board must pay half of any approved salary.

EDINBURGH CREMATION SOCIETY.

THE report presented to the annual meeting of the Edinburgh Cremation Society, of which Sir Henry D. Littlejohn is President, and Mr. J. Dan Eason, Secretary, held this week, states that since the date of the last report several persons who had expressed their sympathy with the Society in Edinburgh had died, and their bodies had been cremated. Of the thirty-five cremations carried out at the Glasgow Crematorium during the year to September 30th, 1911, ten came from the Edinburgh district. The Council recently approached the directors of one of the Edinburgh cemetery companies requesting them in the near future to erect a crematorium in one of their cemeteries. Following on this a deputation of the Council waited on the directors and urged them to take action. While the directors expressed their sympathy with the movement they indicated that they could not in the meantime do more than reserve, in one of their cemeteries, a piece of ground which would be available for the erection of a crematorium, if it were found that the Town Council would offer no objection to the erection of one within the city boundaries, and if a suitable site could be agreed on. Advantage will be taken of this offer to have ground retained for this purpose, and in the event of the cemetery company being unwilling to undertake the erection, the Council hopes it will be possible to form a company with sufficient capital to erect the crematorium. In the meantime an application has been made to the corporation for its consent to a crematorium being established in a city cemetery. The Council is confident that the facilities afforded by the erection of a crematorium in Edinburgh would very largely increase interest in cremation, and that it would be taken advantage of in many cases where now it is not even considered.

THE Croonian lecture before the Royal Society will be delivered by Mr. Keith Lucas, of Trinity College, Cambridge, on June 6th, at 4.30 p.m., the subject being the process of excitation in nerve and muscles.

DR. STEPHEN CURRY, Councillor of the Battersea Borough Council, informs us that, in view of the fact that Sir Thomas Boor Crosby is the first member of the medical profession to hold the high office of Lord Mayor of the capital of the Empire, it is proposed to make a presentation to him at a representative dinner to be held in London on a day to be arranged. It is desired to get in communication with all medical men, whether serving as members of Parliament, county, borough, rural, or urban district councils, or boards of guardians. There is no special directory of medical men so serving, and Dr. Curry asks that all who are so serving will communicate with him at Kenilworth Court, Putney, London, S.W.

HER MAJESTY QUEEN ALEXANDRA has graciously given her patronage to the garden fête to be held at Devonshire House on June 14th, in aid of the National League for Physical Education and Improvement.

SPEAKING at a meeting of the National Health Society on May 23rd, Sir James Crichton-Browne said that the society had taken part in winning for health questions that popular interest which was one of the signs of the times. There were two dangerous classes in Great Britain: the faddists who were always running after some new thing or urging on people some preposterous remedy; and the positivists, who clung tenaciously to antediluvian notions and looked with suspicion both on science and on every new hygienic movement. Faddism in relation to matters of a medical kind had never been more rampant than to-day, and was proportionately more prevalent among the affluent than among the working classes. Now that physiological teaching had been introduced into the elementary schools a rapid decline of quackery among the masses of the people might be expected. The work of the society was to promote sound knowledge and thus simultaneously break down prejudice and counteract the pernicious effect of faddist views.

THE INSURANCE SCHEME.

STATE SICKNESS INSURANCE COMMITTEE.

Tenth Meeting.

THE tenth meeting of the State Sickness Insurance Committee was held on May 23rd.

Mr. T. JENNER VERRALL was in the chair, and the members present were: *England and Wales:* Dr. R. M. Beaton (London), Dr. John Brown (Bacup), Dr. T. M. Carter (Westbury-on-Trym), Mr. E. J. Domville (as Chairman of the Public Health Committee), Dr. S. Hodgson (Salford), Dr. R. E. Howell (Middlesbrough), Miss Frances Ivens, M.S. (Liverpool), Dr. Constance Long (London), Dr. R. A. Lyster (Winchester), Mr. James Neal (Birmingham), Dr. H. F. Oldham (Morecambe), Dr. James Pearse (Trowbridge), Dr. E. O. Price (Bangor), Dr. Lauriston E. Shaw (London), Dr. D. G. Thomson (Thorpe, Norwich), Mr. E. B. Turner (London), Dr. A. H. Williams (Harrow on the Hill), Mr. D. J. Williams, F.R.C.S. (Llanelly), Mr. E. H. Willock (Croydon). *Scotland:* Dr. J. Adams (Glasgow), Dr. R. McKenzie Johnston (Edinburgh), Dr. J. Munro Moir (Inverness). *Ireland:* Dr. Mark F. Cahill (Belfast), Dr. J. S. Darling (Lurgan). *Ex Officio:* Dr. J. A. Macdonald (Chairman of Council), Dr. E. J. Maclean (Chairman of Representative Meetings), Dr. E. Rayner (Treasurer).

Apologies for absence for unavoidable reasons were received from the President of the Association (Professor Saundby), Dr. D. F. Todd (Sunderland), Dr. R. B. Mahon (Ballinrobe), and Dr. Bruce Goff (Bothwell).

We are enabled to publish the following account of the proceedings in anticipation of the confirmation of the minutes.

MINUTES.

The minutes of the last meeting of the Committee, held on May 16th, were confirmed and signed by the Chairman as correct.

PUBLIC MEDICAL SERVICE.

As stated in the report of the ninth meeting of the State Sickness Insurance Committee on May 16th, the two schemes for a Public Medical Service were considered. Both schemes provided for medical attendance and treatment for (*a*) persons insured under the National Insurance Act, and (*b*) persons not so insured; the one scheme was based upon a capitation system of payment and the other upon a system of payment per attendance. At the conclusion of the discussion the Committee referred the two schemes for final revision to a subcommittee consisting of the Chairman, Dr. Hodgson, the Solicitor to the Association, and the Medical Secretary. The CHAIRMAN now reported that the scheme had been submitted to the Solicitor of the Association, but his opinion thereon had not yet been received.

We are authorized to state that the two schemes are still at the time we go to press under the consideration of the legal advisers of the Association. As soon as the legal revision has been completed they will be issued in the SUPPLEMENT.

Dr. PEARSE raised the question whether the Committee had authority to issue the two schemes to the Divisions without first submitting them for approval to the Council.

The CHAIRMAN OF THE COMMITTEE having asked the opinion of the CHAIRMAN OF COUNCIL, the latter stated that in view of the minutes of the Representative Body, it was in his opinion quite competent for the State Sickness Insurance Committee to issue the schemes to the Divisions without first submitting them to the Council for approval.

The Committee resolved to issue the Public Medical Service schemes when completed to the Divisions for their consideration, with a notification that the State Sickness Insurance Committee would be prepared to consider expressions of opinion with respect to them, preparatory to a report thereon being placed before the forthcoming Annual Representative Meeting, and asking that any such expressions of opinion should be forwarded to the central offices not later than June 26th, 1912.

The following letter was considered:

National Medical Union,
5, John Dalton Street, Manchester,
May 22nd, 1912.

Dear Sir,

I am directed to thank you in the name of the National Medical Union for your letter of yesterday's date, and for the

consideration which your Committee has accorded the proposals contained in the report recently submitted to you. The Union fully appreciates the importance of the point which your Committee raises, and which appears to make the acceptance of its scheme difficult.

As I understand it that point arises out of the fact that you propose to recommend to the profession two alternative schemes: (1) On the basis of capitation; and (2) on the basis of payment for work done.

I further understand that the funds required for the second scheme, in any district, would be created by pooling the same amount, which, had the capitation scheme been selected, would have been paid in respect of each insured person.

If that be a correct statement of the basis of your proposal I am of opinion that the scheme recommended by the Union could be adapted to harmonize with it. This scheme also is based on the principle of a pool, and it is considered that the pool produced by contributions of 8s. 6d. from insured persons would be fully adequate to finance the insurance it offers.

The Union notes with pleasure the Committee's kindly reference to the merits of its scheme. To realize these my Committee would be ready to make adjustments and sacrifices of detail, in order to bring the proposals into a workable relation with your capitation scheme. With this end in view my Committee would be glad if you could see your way to supply either an outline of your schemes or to give a deputation an opportunity of conferring with your Committee personally, before you place your recommendations before the profession.

In conclusion I should like to repeat the assurance that the only object that the National Medical Union has in view in bringing their recommendations before your Committee is that a course may be adopted which, whilst acceptable to the public, and forming a basis for efficient organization of the profession, yet preserves the valuable features of private practice.

I am, dear Sir,
Yours faithfully,
(Signed) J. WEBSTER WATTS,
Secretary.

Dr. Alfred Cox,
Medical Secretary,
British Medical Association,
429, Strand, London, W.C.

The Medical Secretary was instructed to inform the National Medical Union of the present position of the schemes which were to be sent to the Divisions, adding that the State Sickness Insurance Committee was unable at the present juncture to reconsider the scheme of the Union.

ADVISORY COMMITTEE: COMMUNICATIONS WITH INSURANCE COMMISSIONERS.

The CHAIRMAN made a report of the proceedings of the meeting of the Joint Advisory Committee on May 17th, 1912. He said that practically only two matters were discussed: (1) The method of remuneration of practitioners, and (2) the preparations of lists of practitioners to serve on the panels; the first of these questions had been referred to a subcommittee of the Commissioners for consideration and report. Several members expressed their dissatisfaction with the slow rate of progress which was being made by the Joint Advisory Committee in dealing with medical matters, and after the luncheon interval it was announced that a request had been received from the Insurance Commissioners that the Committee should that afternoon grant an interview to the Chairman, Sir Robert Morant, and the Deputy Chairman, Mr. Smith Whitaker, of the National Insurance Commission for England. Sir Robert Morant and Mr. Whitaker attended accordingly at 5 p.m.

Sir ROBERT MORANT said that the main object in seeking an interview was to inform the British Medical Association that in view of the fact that sanatorium benefit would come into force on July 15th, from which date insured persons would be entitled to claim such benefit, the Insurance Commissioners found that it would be desirable to nominate provisional insurance committees in counties and county boroughs. The Commissioners could do this under the power given to them under the Act to meet temporary emergencies. In the present incomplete state of organization it was not possible to proceed to the election of statutory insurance committees in the manner laid down in the Act. In particular, he instanced the fact that the bodies representing the insured were not yet so organized as to permit of such election. The intention was that the provisional insurance committees now to be appointed should, as soon as possible, be replaced by the duly elected insurance committees. The committees would be instructed to deal with such work connected with the National Insurance Act as required to be dealt with by the insurance committees, and could not be postponed until the statutory committees came into existence. This was particularly, but not exclusively, in connexion with sanatorium benefit. The Commissioners desired that the Association should forward to them the names of suitable medical practitioners to serve upon the provisional insurance committees.

The CHAIRMAN said that the Committee felt considerable apprehension on account of the slow progress made by the Advisory Committee, and further informed Sir Robert Morant of the terms of Minute 78 of the Representative Meeting of February, 1912, as follows:

> That it be an instruction to the Council to take all possible steps to ensure that no member shall take any office or work under the National Insurance Act, other than that of the Advisory Committee, until such time as the minimum demands of the profession are conceded in the Regulations or an amending Act.

Sir ROBERT MORANT said that in view of that minute the practitioners would probably in any case be unable actually to take their seats upon such committees until after the Annual Representative Meeting of the Association. The Commissioners, however, desired to have the nominations in their possession, so that those nominated should take office at once if the decision of the Representative Body was favourable to that course.

Sir ROBERT MORANT then called upon Dr. Whitaker to state the steps which had been taken by the Commissioners to obtain satisfactory information upon the question of the rate of remuneration of medical practitioners. Dr. WHITAKER said that a great deal of information had already been collected and would be supplied to the British Medical Association, which would be invited to state both in writing and orally the interpretation it put upon the facts collected by it or by the Commissioners. The Commissioners desired to take two or three selected towns and to arrange that the books and records of the whole of the medical men practising in those towns should be examined confidentially by accountants with a view to obtaining information as to the total amount of work and the total amount of remuneration received by such practitioners, distinguishing the amount received from those who would be insured under the Act from those who would not be insured. The Commissioners hoped for the assistance of the Association in instituting such an inquiry.

The CHAIRMAN undertook that these matters should be considered by the Committee, and a reply forwarded to the Commissioners at the earliest possible moment.

Sir Robert Morant and Mr. Whitaker then withdrew.

After some general discussion, the Committee resolved to postpone a final decision until it had received the written communication which the Commissioners had promised to send. The following is the text of the letter subsequently received:

National Health Insurance Commission (England),
Buckingham Gate, London, S.W.,
May 24th, 1912.

Sir,

I am directed by the National Health Insurance Commission (England) to state that they have had under consideration the question of constituting Insurance Committees for counties and county boroughs in England, and they would be glad to have the assistance of the British Medical Association in regard to the appointment of medical members of these committees.

Section 59 of the Act provides that an Insurance Committee shall be constituted for every county and county borough, to be composed as follows:

(*a*) Three-fifths to represent insured persons resident in the county or county borough who are members of approved societies and who are deposit contributors, in proportion to their respective members.
(*b*) One-fifth to be appointed by the council of the county or county borough.
(*c*) Two members to be elected in manner provided by regulations made by the Insurance Commissioners, either by any association of duly qualified medical practitioners resident in the county or county borough which may have been formed for that purpose under such regulations, or, if no such association has been formed, by such practitioners.
(*d*) One, two, or three (according to the size of the Committee) medical practitioners to be appointed by the council of the county or county borough.
(*e*) The remaining members to be appointed by the Insurance Commissioners.

The final constitution of Insurance Committees cannot be determined until the number of insured persons resident in the county or county borough and the respective number of members of approved societies and deposit contributors has been ascertained. Inasmuch as no person can enter into insurance before July 15th, it is evident that special arrangements must be made if Insurance Committees are to be established by that date.

The Commissioners accordingly propose to exercise the powers conferred on them by Section 78 of the Act, which enables them to do anything which appears to them necessary or expedient for the establishment of Insurance Committees, and in pursuance of these powers to make arrangements for the setting up of Provisional Committees which will hold office until committees can be regularly constituted in accordance with the provisions of the Act.

The Commissioners feel assured that the British Medical Association will share their view that for many reasons it is important that the medical members of each Provisional Insurance Committee should be included in its membership from the outset, when many matters of great importance from the medical point of view and that of the public health will necessarily arise for consideration, for example, the making of arrangements for sanatorium benefit.

As the short amount of time available between now and July 15th will not permit of the selection of medical members of the committees in precisely the manner prescribed by Section 59 (2) (c), the Commissioners have come to the conclusion that the most convenient arrangement in the circumstances would be for the British Medical Association, if they are willing to do so, to assist the Commissioners by obtaining from the various District or Provisional Committees of the Association the names of two representatives for each Insurance Committee.

The Commissioners would be glad to receive the complete list of the names and addresses of the gentlemen thus selected not later than June 14th, and the Commissioners would thereupon appoint them upon the committee.

A list of the Administrative Counties and County Boroughs for which Insurance Committees are to be set up is enclosed for your information.

I am to add that the Commission are adopting this arrangement, of obtaining from a central representative body suitable names for inclusion on each Insurance Committee throughout England, in regard to the other main elements of each Insurance Committee—for example, the large friendly societies, the trade unions, and the industrial assurance companies that are likely to be approved societies under the Act—and it is hoped in this manner to secure a list of thoroughly suitable names for the composition of these first and strictly Provisional Insurance Committees, so that the meetings of the committee may commence at the beginning of July.

I am, Sir,
Your obedient servant,
(Signed) ROBERT L. MORANT.

The Secretary,
British Medical Association,
429, Strand, W.C.

INSURANCE COMMITTEES IN IRELAND.

Letters were read stating that the Insurance Commissioners for Ireland had, through the Joint Committee of the Irish Medical Association and the British Medical Association, requested the medical practitioners in each insurance area to nominate four practitioners for appointment upon the Insurance Committee to be set up under the Act of whom the Commissioners would appoint two. The opinion of the State Sickness Insurance Committee was asked upon the propriety of accepting such appointments. The Committee directed communications to be addressed to the inquirers pointing out that Ireland was specifically exempted from the limitation with regard to taking office or work under the National Insurance Act by Minutes 78 and 79 of the Special Representative Meeting of February, 1912.

SUPPLEMENTARY PLEDGE: MEDICAL AID INSTITUTES.

It was reported that inquiries had been received with regard to the effect of the supplementary pledge upon the position of medical officers of medical aid institutes. The Committee, while unable to give a definite guarantee to compensate such officers, stated that every endeavour would be made to see that no practitioner suffered loss through resigning any appointment out of loyalty to the profession, and that the whole weight of the Association would be used to prevent any practitioner accepting any appointment so resigned.

APPOINTMENTS BY SCOTTISH INSURANCE COMMISSIONERS.

It was reported that the National Health Insurance Commission for Scotland was advertising its intention to appoint at an early date two male whole-time medical officers, a senior and a junior, whose duties would include organization, investigation, inspection, reporting, and every other work required of him relating to medical, sanatorium, maternity, sickness, and disablement benefits under the Act. Minute 78 of the Special Representative Meeting of February, 1912, was read (see above).

The Committee resolved that the advertisement ought not to be inserted in the JOURNAL, and it was arranged that the appointments in question should be scheduled among the Warning Notices.

TERMS OF SUPPLEMENTARY PLEDGE.

The correspondence reported included several suggestions for modification of the supplementary pledge. The Committee resolved to reply that the terms of the pledge had been very carefully considered, and that it could not see its way to modify them at the present time. With regard to hospital staffs it was pointed out that the spirit of the pledge was a determination to secure that hospitals should not be used as a means for defeating the demands of the profession.

Eleventh Meeting.

At its meeting on Thursday, May 30th, the Committee discussed Sir Robert Morant's letter of May 24th, 1912, and resolved to inform the Insurance Commissioners that, acting under resolutions of the Special Representative Meeting of February, 1912, the Committee found it impossible to assist the Commissioners in the manner desired by obtaining from the various district or provisional committees of the Association the names of representatives for the suggested provisional Insurance Committee.

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

The Association, the National Insurance Act, and the Case of the late Dr. Richards.

ON May 15th Mr. Booth asked the Chancellor of the Exchequer if he was aware of the facts relating to the death of Dr. Richards, of Winkleigh, North Devon; and what steps he proposed to take for the protection of medical men who were loyal to the State and took similar work under the Insurance Act of last year; and what provision it was intended to make to compensate any doctors and their families who, by taking contracts under the Act, incurred the hostility of the local branch of their trade union. Mr. Lloyd George said that his attention had been called to the facts relating to the death of Dr. Richards as reported in the press. With regard to the second and third parts of the question, he was unable to state what course of action might be thought desirable in circumstances which he trusted would not arise.

Mr. Booth then asked if he was aware that this medical officer came to an untimely death through the persecution of the local doctors; was the right hon. gentleman aware of the whole of the circumstances, or would he institute an inquiry. Mr. Lloyd George said that he had seen the statements made by the relatives of Dr. Richards. He had also observed that the Secretary of the British Medical Association challenged the accuracy of some of them. Under those circumstances he could not possibly pronounce an opinion.

Mr. Leif Jones asked whether some steps could not be taken to inquire into this most painful case. Mr. Lloyd George answered that if these facts had arisen in connexion with the administration of the Insurance Act, of course it would be the duty of the Treasury or its officials to look into the matter, but as it had not arisen in connexion with the administration of any Act of Parliament, he did not see that he had any right to interfere in these circumstances.

Mr. Booth gave notice that he would bring forward this case on the motion for adjournment.

On the motion for the adjournment last week, Mr. Booth,

in accordance with the notice he had given, made an effort to discuss the action of the Association in the case of Dr. Richards, of Winkleigh, North Devon. He said: I shall have to tell the House of a poor man who was left to die neglected by the doctors of his own profession, who had been largely guilty of hastening his end. I would like to remind the House, before I give the particulars of that case, what we did when dealing with the Insurance Bill in Committee. The doctors asked that they should be taken away from the purview of the friendly societies in contract practice, and a division took place against what was then supposed to be the doctors' request. There were only a mere handful of men who voted against them. They asked to be put under the county health committees rather than under the approved societies. I voted for them, not because I had lost my faith in friendly societies by any means, but because I thought it was a reasonable settlement. That was the decision of the House. I am bound to say now I consider the House was misled on that occasion. It was led to believe the friendly societies were harsh masters, and that they stood in the light of the deserving doctor. I waited for some exponent of the friendly societies to get up and make a defence; but there was no real defence put up on that occasion. What was the reason? At that time the trade unionists who were thinking of forming approved societies under the Act, the insurance societies which wished to do so, the dividing societies, and the other thrift organizations were not united in one common purpose with the old friendly orders, which were anxious with regard to their own place and their own sphere under this great scheme. I wish to warn the medical profession—and I think I have some authority—that if they pursue their demands extravagantly and unreasonably, and if they persist in a campaign of attack upon the old friendly orders for their treatment of doctors and their club practice, they will find in the future that all approved societies must and will stand together. I hope the medical profession will see that the great friendly orders, the great insurance organizations, the dividing societies, and the great trade unions will have a common interest in seeing that doctors are not too greedy and not too unreasonable. I have hopes that conflict will not take place. I have still some faith in that great and noble profession, and one of my objects in speaking is to appeal to the moderate men, who do not attend meetings and shout their champions down and refuse them a hearing, and who do not agree with their organizations in declining to enter into a conference and in declining to send delegates to meet the Insurance Commissioners set up by this House, but who still have a pride in their profession. Private patients and doctors alike have regarded medical labours in the past on a much higher footing; but now we are face to face with a new state of things, and this combative spirit of which we have had such an unfortunate manifestation in the instance which has taken place in Devonshire is almost beyond belief. I want, before I give my own views with regard to a possible settlement, to point out to the House as clearly as I can where this ultra-combative spirit of the doctors is leading some of the more extravagant spirits. In a beautiful district of North Devon there was a vacancy with regard to a medical practice a little over eighteen months ago; and a doctor, as is customary in this country, bought the practice and went to take up his residence there. The system of buying and selling practices and of exploiting assistants at a small salary is, I think, peculiar to this country. I know it is not tolerated in any of our Colonies, or generally all over the world. If a man asks for a medical man he wants the personal services of the man of his choice; but the medical profession of this country has developed the system of buying and selling practices and employing assistants to an extent which does not prevail in any other country of the world. I have investigated these conditions in many parts of the world, and I can tell my hon. friend (Dr. Chapple) to begin with that it is not so in Canada, where I got all the particulars from the president of the medical association in Canada, and studied the question on the spot. Neither is it so all over the world. This man bought this practice and went down there. Part of the duty which the previous doctor exercised was attendance upon clubs, and I have a document in my hand signed by seven officers of various friendly societies who form the medical club of which this man was the officer. Shortly after the new man's arrival in the village he made use of some remarkable expressions which, I may say, were repudiated by all the friendly societies throughout the country. He said he regarded all medical clubs as a form of charity. I say they have been a business transaction of which the doctors themselves have been very pleased to enjoy the benefits. If the doctor says he regards medical clubs as a form of charity, I reply at once that the working classes repudiate any such designation. I hope that the medical profession will also repudiate it. But this doctor went on to make a rather remarkable addition to his statement. He said: "I am not anxious to undertake club work, and I shall be quite pleased if the clubs referred to will make their arrangements with another medical man." They proceeded to do that, and advertised for a new medical officer on the same terms as were accepted by the old medical officer. He objected, and suggested that they were sweaters. This suggestion that these working men's clubs are sweaters is unfounded, for in this country district they pay the highest subscription—they pay 5s. or 6s. per annum, and that is a very large sum when it is remembered that in crowded towns and in Scottish villages 2s. 6d. is often the allowance. They got a number of applications from duly qualified medical men offering their services, and selected one. But what happened in the meantime? A cruel organization, which has gone further than any trade union ever did, intervened. This was a medical trade union formed in 1832 as a scientific society, and transformed in 1902 into a class organization. It issued one of its favourite warning notices. One of my medical correspondents, an esteemed doctor—I may say he is a Conservative—has sent me a copy of the warning notice which this Medical Association issues. It is an attempt to dictate to people all over the country as to how they shall be employed, and members who may not be familiar with the BRITISH MEDICAL JOURNAL would be aghast to see places near their own constituencies which are tabooed, and in connexion with which doctors are warned off in the same way as a man might be warned off Newmarket Heath.

Mr. Deputy-Speaker: I have listened carefully to what the hon. member has said, but so far I cannot see how he can connect his remarks either with a Government department or with the administration of the Insurance Act.

Mr. Booth: You will be quite able to connect them before my story is finished. Part of my case is that the doctors boycotted the new man who came in under these terms, and said he was doing it against the Insurance Act.

Mr. Deputy-Speaker: I do not see how any member of the Government can reply to that. Whatever the doctors may have said does not affect the fact that no Government department is concerned.

Mr. Peel: Is the hon. member aware that the quarrel which is now under discussion began before the Insurance Bill was even introduced into the House of Commons?

Mr. Booth: That is not so at all. I will of course obey the ruling of the Chair. I am not anxious to avoid it, but I am exceedingly anxious that these facts shall be placed before the House, because I am going to make a strong appeal to the Government, in the name of the working men's societies throughout the country, not to pay the extravagant terms demanded by the doctors. The whole of my argument is based on the warning notice to which I have referred.

Mr. Deputy-Speaker: I want the hon. member clearly to understand that I cannot allow him to proceed with reference to this purely local case.

Mr. Booth: I must appeal to you upon that point, because it is not merely one instance. I have tried to explain exactly what is the club practice, and in order to do that I am quoting a concrete case to this House But in the process of administering the Insurance Act the Commissioners are finding this point constantly recurring, and I claim therefore that I am entitled to throw such light as I can upon the matter and to strongly appeal to the Government to take the stand which I indicate is desirable on the facts I am able to adduce.

Mr. Deputy-Speaker: As far as I understand it the hon. gentleman is dealing with a case which is closed, because the doctor concerned is dead. I believe the hon. gentleman admits that these matters took place before the Insurance Act was brought in. He is, of course, entitled to deal with the general question of contract practices, because they relate to the administration of the Insurance Act, but I do not think he is entitled, and I must rule this definitely, to deal with the case to which he is referring, as it does not come within the purview of any Government department and no Minister can reply to it. As the hon. member must be aware, questions raised upon the motion for adjournment must have some relation, direct or indirect, to a Government department or to matters which come within its administration.

Mr. Booth: I shall have something to say on the general question, but I again appeal to you on the ground that this incident is not closed. There is a poor widow. The Medical Association will not allow her to realize the practice. They have killed her husband by their conduct. There is a woman and child living who have to be provided for. They get no money from the medical fraternity. I saw a letter only to-day in the papers, written by the lieutenant who attended her husband when the rest of the doctors boycotted him, and he appeals in that letter——

Mr. Deputy-Speaker: I do not see how the Government can be held to be responsible in this case. The hon. member, to put himself in order, must suggest some remedy, and as it could only be by special legislation it is out of order to raise this matter on the motion for adjournment.

Mr. Booth: I am not suggesting fresh legislation, but I wish to urge that the Insurance Commissioners, in administering the Act, should take notice of what is going on, and should make such arrangements with the medical profession as will prevent a repetition of this kind of thing. The medical profession at the present time are taking up a very antagonistic attitude—an attitude altogether unreasonable, when compared with the statement they made in their report in 1905, which is largely the foundation of the Insurance Act. I want to appeal to the House to support me in this. The Insurance Act is our work. It was built up in Committee here stage by stage. We all thought we were advancing the interests of the medical profession. I still think so. I still believe they will be far better off working under this Act than under the existing system, and I do suggest that there is no need for this bitter and intolerant spirit of persecution which is breaking out in various parts of the country. I want to make an appeal to the medical profession to be reasonable with members of their own profession. If they are reasonable they will find the House willing to support them in any arrangements they make. But I want to appeal to the Chancellor of the Exchequer and to the Insurance Commissioners, if they find the doctors are led by extremists and by unreasonable men, who will not fairly look facts in the face, to make it clear to them that they must be prepared for stronger criticism and even opposition from the great body of working men throughout the country. I sincerely hope that a way out will be found. What are the facts? In 1905 they issued a report, with calculations as to what remuneration should be given them. As far as one can learn, the principal reason for the deadlock between the Insurance Commissioners and the doctors is the question of money. If that be so, I would refer them to their own document issued by the British Medical Association, and published in 1905. Out of 568 doctors who answered communications as to suggestions with regard to the future remuneration for club practice, no less than 471 were satisfied with 6s. per year or less. The Act provides 6s. It was therefore very clear that when they were bargaining and putting up their top request, none of them dreamt they would get such good terms as the National Insurance Act provides. When people receiving an average of 4s. or less throughout the country find the Insurance Act giving them 6s., then they immediately ask for 10s. or 8s. 6d. As a matter of fact, I estimate that a doctor will get four subscribers to one patient. The best evidence I can get points to the fact that there will be one patient for every four members of these clubs or approved societies. In many cases the doctors have been under the impression that they were going to receive 6s. per patient. They turn up their books, and see that the average patient costs so much per annum. As a matter of fact, I think it will be found right to take one patient for four subscribers—that is to say, the doctors will get 24s. per annum for one case. There is no doubt that under the National Insurance Act, if they accept that figure, the medical profession will receive a much larger amount of money than they are now getting from the same people. In Leeds some of the doctors have been attacking me, or replying to me in the local papers, but the only one who in discussing this Act ventured to give any definite opinion with regard to remuneration agreed that if he were in club practice this would increase his remuneration. I believe the average for Scotland is 3s. and the average for England is not above 4s. There will be an increase in fees to the doctors. If they cannot accept a reasonable scheme, if they are claiming to have the Act defeated because we do not give them fair terms, the only suggestion I can make is that the medical benefit should be deleted from the arrangement, and that the money should be handed back to the societies. The people who would lose by that arrangement would be the doctors. If it is their wish to be so treated—I would warn the medical profession it is the goal to which they are hastening—the alternative is a State system or a municipal system of doctors, which takes in the hospitals and the services of these approved societies.

Sir J. D. Rees: Do I understand the hon. member to say that under the Insurance Act the doctor does not get 6s. per patient per year, but 6s. per visit?

Mr. Booth: It is 6s. per subscriber. The Act enrols all the working classes as subscribers to the medical profession. The people from whom they cannot get money at all now, or from whom they can only get it with great difficulty, are to come upon the books and are to be regular subscribers to the doctor's income to the extent of 6s. per subscriber and per member of the approved societies. I would suggest to the medical profession, to those who are inclined to look at it upon reasonable business lines, that if they cannot get the money from those people who pay weekly they will not get it at all. The working classes cannot pay bills for pounds. Trade unions and societies dealing with people earning weekly wages have solved the problem by getting in small weekly subscriptions. The doctor has not solved it except by club practice. The only opportunity we can afford to large masses of the working population of this country to subscribe for doctors is through the medium of these approved societies and of the National Insurance Act. The doctors are attacking it as an antagonistic scheme. My conception of the bill as it passed through the House of Commons was that it would increase the prestige of the medical profession, add to its income, and put it on a better and sounder financial basis. If they take the opposite view, I will not say it is because of party bias, because I know some of them are as good Liberals as myself. There may be some party bias in the case of some doctors, but I prefer to delete that element. In the meetings I have addressed in dealing with benefits the medical benefit is that which has been least appreciated by the audience. I think the medical profession should understand that the Act makes an effort to strengthen them and to improve their position. If they reject it, the inevitable outcome will be that men like myself, who are not socialists, will be driven at once to the conclusion that the only solution is a State or a municipal service. Business men of the community generally will seek for that solution. It will solve many a question besides the National Insurance Act. I do not want to be driven there. It has been no part of my programme to attempt to set up a State service in the place of the present relations of the profession. But when men can boycott suffering people, when they can refuse to help because men have club practices, when they are asking men to sign pledges now that if they work under the Act they shall be boycotted and ostracised, and refused any help and consultation, it is time to cry halt. The Government must be aware—I do not know what the trade unionists of the House will say—that men are being asked to pledge themselves not to act in consultation with doctors who take work under the Act unless

they are satisfied with the conditions of this Star Chamber which led to the boycotting and death of Dr. Richards, of Winkleigh, and unless this body of syndicalists get them to comply with it, the doctors are not even to consult with regard to people on the point of death and they are not to take cases in hospitals. I cannot conceive of a more terrible way of putting pressure upon a Government or upon the Insurance Commissioners than that. The trade unions of this country, it is true, have always looked after the conditions and wages of their people, and I do not blame the doctors' trade union for doing it One of the chief difficulties of a trade union leader is to repress the extreme spirits in the ranks. The trade union leaders of the present time are experienced men, and they know that they have to restrain some of the bolder and more youthful spirits from time to time. When you come to the medical profession they have not had that experience; they have not got men at the head, trained unionists, who will repress the wilder spirits, and the consequence is an outburst like that at Winkleigh, with such deplorable results which I hope the British Medical Association will repudiate with its whole heart and soul. I agree that there are some difficulties about this matter, but the thing must be faced boldly; the Government must face it boldly; the moderate men in the doctors' ranks must face it boldly, because I can assure them that the inevitable outcome will be either a breakdown of the Insurance Act on the one hand, if the Government are foolish enough to give too much away and to bribe the medical profession to come in, and, on the other hand, if the doctors remain unreasonable and have their demand refused, we shall have to set about making a State or municipal medical service and train our own medical men, who will not turn a deaf ear to the cry of the child or the despairing mother.

Mr. Peel: I do not propose to follow Mr. Booth at any length as to what he said about the doctors, for this reason: We had a discussion on this subject a short time ago, and I understand that the relations between the Government and the doctors are now being discussed by the Advisory Committee. Therefore it is not necessary now to enter into that subject. The hon. member referred to a particular case in Devonshire. I am not at liberty (under the rules of the House) to go into the particulars of that case; but I would say that he made certain assumptions which did not seem to me to be quite warranted. He alleged that the gentleman to whom he referred had been worried to death by certain people. All I have to say is that the Association mentioned absolutely denies that. If I do not say more upon the subject, it must not be taken that I agree with what was said by the hon. member. I am only prevented from going into this matter by the ruling of the Chair.

Dr. Chapple: I desire to say a word or two on a question which was raised by Mr. Booth in regard to doctors and the Insurance Act. Let me say that, personally, I think some of the statements he made with regard to the persecution in connexion with the profession were a little wide of the mark. The right of doctors to refuse to meet others in consultation has never been challenged. It is part of the etiquette of the medical profession to attend where called upon in urgent cases, and no rule of professional etiquette is inconsistent with the health or life of a patient in need. This statement was made in a leaflet:

> And with such rigour was this boycott exercised that not even in critical emergencies as, for example, the one in which the life of a woman may depend upon the assistance of a competent anaesthetist, were the services of his professional brethren available.

It is impossible for such circumstances to exist, and any one would be really violating the spirit of professional etiquette if he denied professional attendance in any circumstances whatever to any patient in need. But when we come to the question of the State commandeering the services of the medical profession in order to retail them out on its own terms we touch on entirely new grounds. I quite agree that many advantages will be gained by the profession as a result of this Act. There will be 8,000,000 new members under friendly society conditions, and they will include a large section of the community whom the doctors now attend without being paid. But for the future they will be paid. That is a new source of income. Moreover, among 8,000,000 new members will be a large number of men who have abstained from joining friendly societies because they enjoy such good health that they never require professional attendance, and continually boast that they never swallowed a dose of medicine in their lives. These men are all roped in under the national insurance scheme, and there will be a new source of income to doctors, notwithstanding that they would not require the services of those doctors. Moreover, the maternity benefit will be practically ear-marked for medical men. That is a new source of income for doctors. Again, practically all cases of tuberculosis will in future go to the sanatoriums, and so doctors of friendly societies will be relieved from attendance on tuberculosis cases which involve severe, long-protracted, and continuance attention, with a great expenditure of money, time, and medicine. Those cases will in future be taken out of contract practice and relegated to the sanatoriums. This is equivalent to a new source of income for doctors under the Act. These are the advantages that are going to come to the medical profession under the National Insurance Act. What are the terms and conditions under which medical men engage to do contract practice? The doctor is paid 5s. per member per year. Dr. Addison said the other day it did not matter whether individual members were employed at 29s. a week, 35s. a week, or 75s. a week, because the services were all the same. But it matters very much indeed: in fact, the whole trouble of the doctors is whether you are going to ask a doctor to attend a man who has 75s. a week for the same amount as the man who gets 29s. a week. That is the whole trouble, and it is where the injustice lies. A doctor takes a contract practice at 5s. per head per year, and if a man has 29s. a week he is presumably a working man with a workman's home. That would rule out a large number of serious diseases. For instance, it would rule out typhoid fever. A man living in a working-class home with that wage could not afford to have professional nurses night and day, and would have to go to a special institution. It rules out also compound fracture of the thigh or of the lower limbs, and all the major operations for which he could not stay in his home. The doctor has to estimate all those things in taking contract practice, and with those serious cases ruled out he would simply have to attend indigestion, rheumatism, the lancing of small abscesses, and so on. If the man with that wage advances and gets a larger wage, say £5 per week, he makes greater demands on his doctor. If he had typhoid, he might say that he would not go to an institution and to spare no expense on professional nurses. If you are going to make those demands without giving a higher fee you are going to do an injustice. That is the basis of the demand for a higher income limit. Are you going to pay any more or not? If you are not, you are going to violate the implied term of your contract. If a man joins a society with a wage of 29s. per week and goes on to 79s. per week, then he is going to demand services from the doctor which were impliedly ruled out. He is going to consult the doctor for simple ailments about which he never would have consulted him if he had been in the enjoyment of 29s. per week. A man who has a small wage has not the time to lie up or consult a doctor. We know that 50 per cent. of the simple ailments cure themselves if you give them time. Club patients do not know that; but if Mr. Booth would carry on a propaganda and tell them that, there would not be so much demand for medical service. If you are going to cause greater demands upon the doctor, are you going to pay him more, or are you going to violate the original terms of the contract? That is the one crucial difficulty; and it is a difficulty which has always existed, and from which the doctors have tried for years to emancipate themselves. The State now comes along suddenly and stereotypes and makes permanent the very thing from which they were endeavouring to emancipate themselves. That is at the basis of the agitation, and is the justification for it. What are the remedies? The doctors' remedy of an income limit of £2 per week is absolutely impossible; and the doctors are beating their heads against a brick wall when they talk about such a remedy. For the future men are going to join the societies at 16. At that age the member may have 10s. per week, and at the age of 25 or 30 he may have £5 per week, and at that time he may require the services of a doctor for the first time. The doctor

comes along and says: "No, you are in the enjoyment of more than £2 per week; I shall not attend you." To that the man replies that he has for ten or fifteen years been paying in contributions, and that he expected during all that time that when he got ill he would have the services of a doctor. In fact, during all those years the doctors have been receiving the contributions of those men. In that sense a £2 limit is impossible, and yet the injustice remains. How are you going to remedy it? I make this suggestion. As soon as a member gets to the enjoyment of a larger income, when admittedly he makes more demands on the doctor, he should pay more. Surely, if he makes more demands he ought to pay more. How are you going to pay the doctor? In my own professional experience I carried it out in this way: If a man were in receipt of a wage beyond a certain sum, then he paid me a proportion of the fee; and I never found any one in the enjoyment of a higher salary than what was considered to be a working man's salary who ever refused to do that. I do not mind saying that they get better service for it. It is worth while for the members of any society to be on good terms with the doctors who attend those societies, because the doctor cannot give the same prompt attention and the same general care to those cases which he feels make unjust demands upon him. I think it is to the advantage of the society and of this Act to remove from the doctors any sense of injustice. You can do it by saying that if any man is in receipt of more than £2 per week, the doctor shall be entitled, the onus of proof being on him, to have an addition to his fee, the scale of fees to be fixed by the Health Committees of the different localities. In the case of over £2 per week, you might say quarter of the fee additional, or, in the case of £3 per per week, half the fee additional; or, if that quarter and half do not seem fair, then some other proportion. Nobody knows so well as the doctor what is the approximate income of the people he attends. He knows roughly the rental of the house, whether it is 10s., £1, or £5 a week; he knows what kind of furniture there is; he has a good idea of its cost. No official of a society can know approximately as well as the doctor the salary of the person he is attending. I suggest that you should allow the doctor, putting upon him the entire onus of proof, if he knows a man is receiving beyond a certain income, to make an extra charge, the capitation fee being a sort of retaining fee. I do not fix what the proportion should be, but I think that would be a solution of the difficulty. The problem is a very serious one. I do not agree with Mr. Booth that members of friendly societies undervalue medical attendance and over-value some of the other benefits under the Act. I think they consider adequate and proper medical attendance a very important benefit, and we shall do all we can to make this medical attendance as efficient as possible in time of need.

Mr. Aubrey Herbert observed that doctors were the best judges of their own lives and their own interests. As to the alternative of a State medical service, that could only mean one thing. The State was dealing with the health of the nation. The doctors refused to accept the Act. The State was to provide its own service. That could only mean that it would provide its service on the terms that the doctors were refusing to-day. That meant lower salaries, lower remuneration. Sweating in any way was a very bad thing, but the worst kind of sweating was to sweat the doctor or the cook.

The debate then drifted away from medical questions, which were only incidentally alluded to by subsequent speakers.

Mr. Forster referred to the danger likely to arise if the friendly societies were driven to abandon medical examinations. Such a result would have a deteriorating influence upon the general level of health.

In his reply on behalf of the Government, Mr. Masterman said: I will not say a word, following the advice of the hon. member for Taunton, in what I thought was the best sentence of his speech, in connexion with the doctors, because most friendly and amicable negotiations are at present proceeding between the representatives of the doctors of the Advisory Committee and the Insurance Commission. I would not by suggestion or word, which might be misinterpreted, do anything which might make those negotiations have a less favourable outcome. It is perfectly true that there will be, and must be, a waiting period, during which many persons will be paying into insurance and not receiving benefits, and during which time misrepresentations may be circulated that they will never receive any such benefits at all. But what are the actual facts, looking to the future? By the end of 1913, after the benefits have been in operation for a year, it is calculated by our actuaries that 800,000 mothers will have received maternity benefit to the value of 30s. by right of their husbands, and another 100,000 mothers by right of themselves being insured; that 2,500,000 persons, men and women, will have received sick pay from the national insurance scheme; that at least 250,000 persons suffering from tuberculosis will have received one of the many varieties of treatment which have been suggested as suitable to their condition by the Tuberculosis Committee, and I should think that, as the result of the Insurance Act, a very large number of those persons will have received restoration of life after a sentence of death. If the hon. member will raise the question of the Insurance Act on the motion for adjournment before the Whitsuntide recess of 1914 he will not find much support for the kind of criticism that we have had this afternoon.

Forcible Feeding and Political Prisoners.—Dr. Chapple asked the Secretary of State for the Home Department whether, in view of the divergent opinions as to the alleged danger, suffering, and degradation of the forcible feeding of prisoners, he would hold an inquiry into the prison treatment of political prisoners. Mr. McKenna said that he did not think an inquiry was necessary. The law was clearly laid down in the case of Leigh *v.* Gladstone, and the process of forcible feeding was a matter of ordinary medical practice carried out daily in hundreds of cases in asylums, and in a smaller number of cases in hospitals, prisons, or private practice. There was no danger to life or health from the process of feeding by tube; where there was any danger it arose from the violent resistance sometimes offered by prisoners who had gone to prison while suffering from heart disease or broken down in health. Such cases were carefully observed by the medical officers, and where it had been really necessary he had authorized the prisoner's discharge.

The Course of Business.—When the Commons reassemble on June 4th they will go into Committee of Supply for the Office of Works vote. On the next day, Wednesday, the Local Government Board vote will be taken, and an interesting debate is sure to occur. On Thursday the Education vote will be taken, and on Friday the remaining stages of the Government of India Bill will be the first business, and some other small bills on the paper will be taken afterwards. In answer to a question, Mr. McKenna said he hoped to take the second reading of the Mental Deficiency Bill before the autumn holidays.

THE annual report of the Visiting Surgeon to the Manchester Residential School for Crippled Children shows that Swinton House and the Parkfield Houses have been fully occupied during the past year; 114 beds have been in regular use, and during the past year 143 crippled children were treated; there were 101 inmates at the close of the year. Of the 42 cases discharged, it is stated that no fewer than 29 were sent out completely cured of their disease or deformity, and able to attend an ordinary day school. Five cases crippled by paralysis were discharged greatly improved by operation or appliance. Two were taken home by their parents, who refused to allow operation. Two failed to respond to treatment, and were discharged. Three were sent to hospital, having developed signs of tuberculous meningitis, from which they all died, and another child died from exhaustion consequent on tuberculous disease of the spine. The discharge of 29 cases cured out of 42 is especially gratifying, and the results are regarded as striking examples of the advantages of the residential school as compared with the treatment available under the present hospital system. During the year 37 operations were performed at the Manchester Infirmary on cripples from the residential school. With the exception of 2 cases of measles which occurred, the general health of the children was excellent.

England and Wales.

[From our special correspondents.]

LEEDS.

Appointments at the University and at the Infirmary.

It was mentioned in this column some time ago that the Eye and Ear Department at the General Infirmary had been divided into an eye department and a department for the diseases of the ear, nose, and throat. The new department, the second of the two mentioned, will be under the care of Mr. G. Constable Hayes, who has been on the staff for some ten or twelve years, and Mr. E. Bain, who has recently been added to it. At the university there has for many years been a lectureship on the diseases of the eye and ear, and this position has been held by Mr. H. Secker Walker since the resignation of Mr. John Nunneley. At a recent meeting of the University Council it was decided to appoint Mr. Hayes to a new lectureship on the ear, nose, and throat, while Mr. Walker should continue to deliver the lectures on the eye.

Consequent on the resignation of Mr. T. Carter, who has held the position of lecturer on operative dental surgery since the inauguration of the school of dentistry, and who has done excellent service, a vacancy has occurred on the teaching staff, and to the vacant post the council has appointed Mr. Stephen D. Hey. Mr. Hey, as a member of the staff of the dental department of the dispensary, has been one of the most active teachers, and those who are interested in the welfare of the Leeds School of Dentistry will welcome his election to this important teaching position.

The amount of work done in the clinical laboratory at the infirmary has steadily increased under the energetic and careful supervision of Dr. Matthew J. Stewart, who has been at the head of this department for some years. The position of director of the clinical laboratory at all the larger hospitals is one which year by year is becoming recognized as of increasing importance, and it is clear that in the future a larger number of workers will have to be engaged in the daily routine if the work is to be efficiently done. For some two years Dr. Stewart has had the assistance of Miss Clara Eglington, M.B., B.S.Lond., and on her resignation some few months ago the Board of the infirmary, acting on the recommendation of the infirmary faculty, appointed Mr. J. G. Greenfield, M.B., B.Sc., as her successor.

In the course of his routine work Dr. Stewart has considerable opportunities of teaching the students and of helping them in their analytical and chemical work. The university has marked its appreciation of the manner in which he has carried out this part of the work, which must be regarded as a purely optional part, for he is the officer of the infirmary and not of the university, by conferring upon him the title of Honorary Demonstrator of Clinical Pathology in the University, after obtaining the consent of the Board of the infirmary to this being done.

The position of medical registrar and medical tutor, which was rendered vacant on the resignation of Dr. G. Watson when he was appointed assistant physician to the infirmary, has been recently filled by the election of Mr. J. le Flemming Burrow, who has come with high recommendations from Dr. G. A. Gibson of Edinburgh, under whom he acted as house-physician.

The vacancy created on the full staff by the resignation of Dr. Barrs, after twenty years' tenure of office, has been filled by the promotion of Dr. W. H. Maxwell Telling, the senior assistant physician. In conformity with the rules of the infirmary, Dr. Barrs now becomes a member of the consulting staff with the right to use six beds. No one who has been connected with the Leeds School of Medicine can fail to be acquainted with the valuable teaching which Dr. Barrs's connexion with the infirmary has ensured. It has been characterized by originality as well as by its thoroughly practical nature. Perhaps it has been marked by that highest of all properties in clinical teaching—it has caused students and others to think for themselves. Dr. Barrs will retain for some time the professorship of clinical medicine at the university.

West Riding Aberdeen Graduates' Association.

The twelfth annual dinner of this association was held at the Queen's Hotel, Leeds, on the evening of May 14th. This annual gathering is held alternately at Leeds and Bradford, and is well attended. On this occasion the guest of the evening was Professor Reid, the occupant of the chair of anatomy at the University of Aberdeen. The chair was taken by Dr. Robert Mitchell of Hooton Pagnell, and among those who were present were Professor Stephenson, who has attended every meeting of the association since it was started; Dr. West Symes, the president of the Edinburgh University West Riding Association; Dr. David Wilson, who holds a similar position in the Glasgow Association; Mr. C. Thelusson, the High Sheriff of Yorkshire; Dr. Forsyth, the secretary of the Glasgow Association, and other guests. Of the members of the club itself there was a good gathering. The toast of the University of Aberdeen was proposed by Dr. Forsyth in an excellent speech. In a large manufacturing town like Leeds it is well to have a man like Dr. Forsyth at the head of the higher grade school, a man keenly alive to the enormous benefits attendant on the presence of a university in its midst, and, as he showed in his speech, one who, while anxious that the modern universities should move with the times, and in some ways in advance of them, is imbued with much of the spirit which one is accustomed to associate with the older universities. On rising to respond to the toast of "The University," with which his name was associated, Professor Reid met with a very cordial reception from the meeting, which had among it a considerable number of his old pupils. Talking of the many changes which had taken place at the university since most of his audience had been there, he made special reference to the efforts, recently initiated and still going on, to secure that there should be a greater amount of time devoted in the Faculty of Medicine to practical, and especially to clinical, work, and he gave some details of the new ordinance which was being framed to that end. The toast of "The Guests" was proposed by Professor Wardrop Griffith, and was replied to by the High Sheriff, by Mr. J. J. Wright, Barrister-at-Law, and by Professor Jamieson, who succeeded Professor Griffith in the chair of anatomy. The last speaker struck a very happy note when he reminded the medical men of Leeds and district that when they found themselves far from their Alma Mater, as all the graduates of Scottish universities must if they settled in Yorkshire, they should look out for what was next best—namely, a good stepmother. Speaking for himself, he said he was always glad when medical men of the district, no matter where they might have been educated, came to his department to consult with him on any special point in anatomy which may have arisen in connexion with their work.

WEST YORKSHIRE.

Typhoid Epidemic in Bradford.

A severe and somewhat remarkable epidemic of typhoid fever has prevailed in one quarter of Bradford since the beginning of May. From May 5th to the time of writing the total number of cases officially notified has been 115. It appears that a milkman who has a milk round in the Otley Road and Undercliffe districts of Bradford had, prior to May 5th, been ill for some weeks with what was supposed to be gastritis. His work was carried on by a youth during this period. The milk was obtained from a place some distance from Bradford. The milk vendor had a milk round of 192 houses, and distributed about 32 gallons of milk daily. The person who acted in his absence assisted the milk dealer's wife in the task of washing and scalding the cans; the wife also waited on her husband. The bulk of the cases notified to the health authority have been traceable to the houses to which the milk was supplied. Grave dissatisfaction is felt among medical men in Bradford as to the initial want of energy shown by the health authority in combating this serious epidemic. For some days after the first cases were notified the medical officer of health was away from Bradford with a deputation making inquiries with regard to one of the medical schemes for which the Bradford health authority is becoming more or less notorious. If it is necessary for the medical officer of health to be so frequently absent in attending to pet schemes of the

Chairman of the Health Committee there should be a responsible deputy medical officer to take his place. Although the medical men in attendance endeavoured to convince the persons acting in the medical officer of health's department of the seriousness of the outbreak and of the probable source of infection, nothing was done until after that official's return. A specimen of the milk was then examined and, having been declared free from infection, was allowed to be delivered as before. It was some days before any energetic action was taken in isolating the milk supply from, at any rate, the last of its possible sources of infection. It was found, too, from an outside source, that even the person who was delivering the milk gave the Widal reaction. In the matter also of disinfection of clothing there seems to have been some unnecessary delay; it is stated that in one case clothes were not removed for forty-eight hours, and in another they were left two days above a confectioner's shop.

SMALL-POX IN BRADFORD.

Here, again, there is grave cause for dissatisfaction. Some time ago a case of small-pox was imported into Bradford and is dated. It appears that a motor van driver employed in the Tramways Department parcel carriage service was employed by the Health Committee to convey by motor van the clothing of the man who had developed the disease to a disinfecting station, and he assisted the official of the Health Committee to remove the bedding. Instead of seeing that this man was revaccinated and isolated, he was allowed to go about until he developed the disease, which he did in due course. How many people he may have infected is apparent after reading the following letter recently sent to medical practitioners in Bradford:

Town Hall, Bradford,
May 24th, 1912.

Dear Sir,

Permit me to call your attention to the fact that a large number of persons have recently been in contact with a case of small-pox, and that more cases may be expected to occur from May 29th to May 31st.

Yours faithfully,
W. ARNOLD EVANS, M.O.H.

THE BRADFORD ROYAL INFIRMARY.

A great amount of discussion has taken place recently in the Bradford press on the inadequate accommodation afforded by the infirmary. Matters were brought to a focus recently by the case of a man suffering from an accident which eventually proved fatal, who had to be refused admission and sent to the workhouse hospital, as there was no room for him at the Royal Infirmary. The medical staff have repeatedly urged that the infirmary is inadequate and even out of date, but the requisite funds for building a new infirmary are not forthcoming. Only about a third of the amount required is promised. Until the funds are obtainable, it will be impossible in the present institution to make the necessary provision for all contingencies. Recently the list of patients waiting for admission varied from 30 to 60 weekly, and some of those admitted have had to be placed on sofas or "shake-downs" on the ward floors. Some correspondents have suggested patching up and extending the present building, but it is in a bad, crowded locality, and is not built on modern lines.

MANCHESTER AND DISTRICT.

THE TUBERCULOSIS CONFERENCE AND EXHIBITION.

THE programme has now been issued of the annual conference of the National Association for the Prevention of Consumption; this is to be held at the Milton Hall, Manchester, on June 5th, 6th, and 7th, under the auspices of the City of Manchester and the County Borough of Salford. Invitations have been sent to all practitioners, and every endeavour is being made to ensure the success of the conference. The opening address on June 5th is to be delivered by Dr. E. W. Hope, medical officer of health, Liverpool. This will be followed by papers on tuberculosis in childhood by Dr. R. W. Philip and Professor Delépine, while Professor G. Sims Woodhead and Dr. Nathan Raw have promised to speak in the discussion to follow. In the afternoon session papers on different aspects of the same subject will be read by Dr. John Priestly, Dr. J. E. Squire, Mrs. W. Leslie Mackenzie, and Mr. E. D. Telford. The same subject will be continued on June 6th, when papers will be read by Mrs. M. D. Power Sweeney, Dr. C. E. Last, and Dr. H. G. Gauvain. At the end of each of the sessions an hour will be set aside for questions and discussion, and several of the papers will be illustrated by lantern slides. At the afternoon session of June 6th and the morning session of June 7th the subject of discussion will be the powers and duties of sanitary authorities and the working of the National Insurance Act in connexion with tuberculosis. Two introductory addresses will be given by Dr. W. Leslie Mackenzie and Councillor Arthur Neal, and an address will be given on the after-care of patients who have been treated at a sanatorium, by Dr. H. W. McConnel; a discussion will then take place. In the afternoon session of June 7th the subject will be the position and work of voluntary societies in connexion with tuberculosis under the National Insurance Act. This session will be presided over by Her Excellency the Countess of Aberdeen, who will give an opening address, and will be followed by Dr. Jane Walker, Dr. H. E. Dixey, and Mr. E. S. Kemp. The morning sessions are from 10 a.m. to 12.30 p.m., and the afternoon sessions from 2 to 4.30 p.m.

The Tuberculosis Exhibition will be held in the Drill Hall, Cross Lane, Salford, from Tuesday, June 4th, to Saturday, June 8th, from 2 to 9.30 p.m. each day. The opening ceremony will be presided over by the Mayor of Salford on Monday, June 3rd, at 7.30 p.m. The exhibition will illustrate by means of models, diagrams, pictures, photographs, etc., the causes and extent of consumption, the manner in which it spreads, how it can be prevented, and how it may be cured. On each evening, at 8 p.m., popular illustrated lectures will be given in the Pendleton Town Hall on June 4th by Dr. Cran of Salford; on June 5th by Dr. J. E. Squire; on June 6th by Dr. R. W. Philip; on June 7th by Professor G. Sims Woodhead; and on June 8th by Dr. Somers of Salford. Admission to all the lectures is free, and working men and women are specially invited. It is hoped that the medical practitioners of the district will do their best to make the conference and exhibition a success, and to avail themselves of the almost unique opportunity of showing the public the proper part which general practitioners should take in dealing with tuberculosis.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

HEALTH CONFERENCE IN DUBLIN.

AT a conference in Dublin called by the Women's National Health Association the administration of sanatorium benefit was considered, as will be seen by reference to the SUPPLEMENT (p. 585). The conference also considered the question of the scarcity of qualified midwives in the dispensary districts. The Registrar-General, Sir William Thompson, said that out of 859 dispensary districts in Ireland there were 142 in which there was either no nurse at all or only an unqualified nurse. A resolution was passed recommending a scheme suggested by the Women's National Health Association for providing assistance to boards of guardians in outlying districts, so as to make up the salary of a qualified nurse to be appointed by them to £1 a week, under certain conditions. Consideration was also given to the question of housing and sanitation for labourers in the smaller urban districts, and the following resolution was passed:

> That the smaller towns in the positions which have been described be advised to confer together, and with the Housing and Town Planning Association, with a view of devising a scheme whereby public opinion may be concentrated on the difficulties in the way of providing good houses for labourers in the smaller towns may be removed.

KING EDWARD CORONATION FUND FOR NURSES.

The annual meeting of the King Edward Coronation Fund for Nurses was held last week in the Royal College of Surgeons, Dublin. The Countess of Aberdeen, patroness of the fund, presided over a large attendance. The eighth annual report was read, showing that there were now 217 members, an increase of 32 over the number for last year. Since May, 1911, grants had been made to sixteen

members who applied to the society for help; these grants varied in amount from £3 to £10, making a total of £133. The honorary treasurer mentioned that the time had now arrived when the society must ask its friends to help it by subscriptions, as it could not possibly be maintained by the interest on its invested capital, and the small subscriptions (2s. 6d. yearly) paid by the members. The past President of the Royal College of Physicians, in proposing the adoption of the report, paid a high tribute to the work done by Irish nurses, and appealed to those present at the meeting to interest their friends in the society, which was intended to help nurses.

The Ulster Hospital for Children and Women, Belfast.

Belfast has been taking stock of its hospitals during the last few years and has made determined efforts to bring them up to date. The Mater Infirmorum Hospital is comparatively a new building; the Royal Victoria Hospital was rebuilt on a new site with new plans and opened in 1903; the Poor-law Guardians have built a new consumptive sanatorium, and added numerous blocks to their infirmary and nurses home; the Forster Green Hospital for Consumption has been enlarged and reorganized; the Maternity Hospital has been rebuilt on a new site; the City Authorities have provided a new and up-to-date fever hospital; the Asylum Authorities are building in the county a new asylum on the villa principle; and as each villa is completed the patients are drafted into it from the old building. With the exception of the first-named institution all these praiseworthy improvements may be said to have been made in the last decennium. The latest born, and so the favourite for the hour, is the Ulster Hospital for Children and Women. This institution is situated on the County Down side of the river, and is the only hospital in the district which has a population of nearly 100,000. It was opened in 1872 in a private house, and after two changes of address was removed to the present site in Ballymacarrett, where a private residence was converted into a hospital; latterly the committee have felt the necessity of new buildings; and gaining the interest and sympathy of many merchants they collected a sum which enabled them to knock down the old walls and to start new premises. These have now been finished and stand completed and free of debt. On May 23rd and succeeding two days a large bazaar was held to raise a sum for endowment. On the first day the bazaar was opened by Lady Shaftesbury, and Lord Londonderry was in the chair, and everything gave promise of a record success.

India.

[FROM OUR SPECIAL CORRESPONDENT.]

Water Supplies.

At a largely attended meeting of representative European and Indian ratepayers in Bangalore to consider an official notification that the service reservoir of the local water supply had run "dangerously" low, there was unanimously adopted a resolution calling upon the Government, among other things, to entrust the control of the water supply jointly to the A.C.R.E. and a subcommittee appointed by the Municipal Commission; to direct the afixment of meters to all water connexions in the military area; to direct the Municipal Commissioner to restore all tanks in the station to their original condition, and, where necessary, further to deepen them and to keep them mosquito proof.

The complaint regarding the inadequate supply of water in Bombay which have been numerous and emphatic of late, again formed the subject of discussion at a recent meeting of the Bombay Corporation. It was pointed out that the standing committee was doing its best to redress the grievances of house owners on the score of inadequate water supply. The Commissioner had once called the hydraulic engineer into consultation, and he emphatically stated that if the water supply were increased there would be a water famine in Bombay. The reason of the present decrease in the water supply was the low level of the Vehar Lake owing to the failure of the last monsoon.

Colonel H. W. Pilgrim.

Many suggestions have been made to commemorate the labours of Colonel H. W. Pilgrim, I.M.S., who is retiring after having charge for some fourteen years of the Presidency Hospital, which he has brought to a high state of excellence. He has long advocated the erection of a sanatorium at Puri, and the land and some of the necessary funds for the purpose have already been acquired. It is proposed that the public should complete the work begun by him and erect the "Pilgrim Sanatorium" permanently to commemorate his name. The matter is to be brought before the Bengal Chamber of Commerce, and it seems likely that the Rs.22,000 still required to erect the building will be obtained and the scheme carried out to the satisfaction of everybody.

Medical Equipment of the Indian Army.

A committee has assembled at Simla under the presidentship of Surgeon-General Sloggett, P.M.O., to consider questions connected with the reorganization of medical units in the field and of their existing equipment, etc. Colonel S. P. Robinson, R.A.M.C., and Major Jay Gould, with a General Staff officer and a Supply and Transport officer, were members of the committee. Colonel Bruce Seton, I.M.S., acted as secretary.

Medical Manœuvres at Peshawar.

Medical manœuvres of a somewhat unique character for India have just terminated at Peshawar. A British and Indian Field Ambulance, fully mobilized, went out to a place some eleven miles off with an escort of British and Indian troops. The ambulances were encamped for four days, and carried out a definite scheme of instruction, which included the medical tactics and strategy required with a victorious and retiring force respectively. Methods of field sanitation were practised, and the medical officers were thoroughly familiarized with the equipment and working of a field unit.

Promotion in the Bengal Medical Service.

The vacancy in the administrative ranks of this service caused by the retirement, on March 25th, 1912, of Colonel Douglas ffrench-Mullen, has been filled by the selection of Lieutenant-Colonel Patrick Hehir. Colonel Hehir's promotion is noteworthy as being the first instance in which an officer of the Indian Medical Service who had previously served in the subordinate medical department has attained to the administrative grade. That a man who, by his own unaided exertions, has raised himself from a subordinate to a superior service must be the possessor of talent and industries beyond his fellows is obvious. But those who have been successful in entering the Indian Medical Service, after having served for a time in the subordinate service, have usually gained their commissions at an age somewhat more advanced than their contemporaries who have come direct from the medical schools; and thus most of them have retired from the service before their turn for advancement has come, and before any question as to their promotion could have arisen. Two only before Colonel Hehir had reached the rank of brigade surgeon, now replaced by that of lieutenant-colonel on the selected list. Charles Edwin Raddock, who was appointed a civil subassistant surgeon in Bengal on June 19th, 1850, entered the Bengal Service as assistant surgeon on January 29th, 1857, retiring as brigade surgeon on August 6th, 1887; and Brigade Surgeon James Keess, who was appointed assistant apothecary in the Subordinate Medical Department of the Madras Army on August 11th, 1848, entered the Madras Service as assistant surgeon on August 4th, 1856, and retired as brigade surgeon on January 4th, 1887, after having for some years held the important post of Principal of the Madras Medical College.

Colonel Hehir entered the submedical department of the Bengal army as hospital apprentice on October 15th, 1873, was promoted to assistant apothecary on January 31st, 1882, and resigned his warrant rank on February 8th, 1884. Coming to England, he took the diplomas of L.S.A. and L.R.C.S.Edin., and the degree of M.D.Brussels in 1883; the diplomas of M.R.C.S., L.R.C.P.Edin., and F.R.C.S.Edin. in 1885, and the D.P.H.Cambridge in 1886. He has since that time also taken the Diploma in Tropical Medicine at Liverpool in 1904, the M.R.C.P.Edin. in 1905, and became F.R.C.P.Edin. in 1908. His medical schools were Calcutta, when in the subordinate service, and Edinburgh University.

He entered the Bengal Medical Service on April 1st, 1886, passing second out of a large batch; became Surgeon-Major and Lieutenant-Colonel after twelve and twenty years' service respectively, and was placed on the selected list on July 12th, 1910. He now attains administrative rank at the age of nearly 53, with twenty-six years' service. When promoted he stood eleventh out of the twenty-one selected Lieutenant-Colonels in Bengal, but several of those above him are on leave prior to retirement. He is known as the author of several works, chiefly on sanitation. His last book, *The Prevention of Disease and Inefficiency in Indian Frontier Warfare*, was published only last year.

Bombay Sanitary Association.

The Bombay Sanitary Association, originally founded by Dr. Turner when he first took up the position of Health Officer of Bombay, does excellent work in teaching the people the elements of sanitation. In his speech at the recent annual meeting, His Excellency the Governor congratulated the association on its progress, and said that the efforts made to instil the elements of sanitation into the minds of the children in the schools were likely to yield the best results. The people were learning that Kismet, or that which is written on the head, will admit of some amendment, and that if the writing is there it is only to indicate what is to be avoided; in these days there was ample evidence that when the East did wake up to a fact it did so completely and with surprising results. "Great advances" he said, "have taken place, and are still proceeding, in the provision of pure water supply in the towns and the mofussil. There have also been signs during large gatherings at fairs of an increasing readiness on the part of the people to accept and act upon the arrangements made to safeguard them against infection, whilst inoculation has made way, is more widely trusted, and has found more advocates. All this is encouraging in a country where we have to try and lead the people quietly and gradually into compliance with natural laws vital to their well-being, and where strong sanitary measures elsewhere enforced are not possible."

Plague and Small-pox in Bombay.

So far there is every indication that this year the annual epidemic of plague in Bombay will turn out to be one of the mildest on record. The weekly increase in the total number of fatal cases has been very slight. Fortunately, too, small-pox, which during the past few weeks has shown signs of developing into a rather serious epidemic, appears to be on the wane, the number of deaths from the disease dropping during the past week from 75 to 59.

The Planning of the Imperial City.

The Town Planning Committee will meet at Delhi almost immediately under the presidency of Captain Swinton. The sanitary authorities of the Punjab and Mr. Ward, superintending engineer, who is acting as subsoil expert, will co-operate.

A Botanist in Aborland.

Mr. Burkhill, Reporter on Economic Products to the Government of India, who went as botanist with the Abor Expedition, recently delivered in Bombay an interesting lantern lecture, in the course of which he pointed out that the rainfall in the Abor hills, of which we have absolutely no record, is very high, two or three times as high as that of Darjeeling. The result is that throughout the year the Abor hills are damp. Records taken by Captain O'Neill showed that in February while in Calcutta the weather was fine, on the Dihong there were only eight fine days in the month. Regarding the size of the trees, a picture was shown of one 42 ft. in girth and about 130 ft. high. Mr. Burkhill next referred to the character of the dense forest, and showed slides depicting masses of creepers climbing up the trees. A curious fact was that some classes of trees were more or less free from creepers, while their neighbours were smothered. There were other trees which had such heavy foliage that they did not allow the creepers to get the better of them in the perpetual combat going on.

Under the will of the late Mr. Thomas Gibson Glover, a retired master mariner, of South Kensington, the Dumfries and Galloway Royal Infirmary receives a donation of £5,000.

Correspondence.

NATIONAL MEDICAL UNION.

SIR,—The National Medical Union came into existence on the wave of an outbreak of feeling which found expression in mass meetings in Manchester, London, and elsewhere, roused by the awakening of the profession to the fact that neither public nor Parliament were aware of the true attitude of the profession towards the Insurance Act, the result of the action or inaction of the Council and deputations of the British Medical Association.

In these meetings I took a part, and did not hesitate to give expression to what I then believed, and still believe, to be the truth.

I joined the National Medical Union in the hope of helping to keep it in active co-operation with, and not in antagonism to, the British Medical Association, and as a means of uniting the members of the British Medical Association with those members of the profession (some thousands) who were not members of the British Medical Association.

This hope has not been fulfilled; the Scottish members preferred their own committee, Birmingham and its district and many others withheld, and the London district formed its own Reform Committee, and thus the Union was deprived of its national character.

Some time before the formation of the Union a small body in Manchester had been trying to form a rival association. One of the present officials of the Union with another called upon me to ask me to assist and take the presidency, but I declined. Later I was invited to attend a meeting at the house of another official of the Union, but I declined on the ground that I would not take part in the founding of an association in opposition to the British Medical Association. Following on this came the astounding report that the Medical Secretary of the British Medical Association was likely to resign with the consent of the Council to take office as a Commissioner under the Insurance Act. I had an interview with another official of the Union and attended a meeting of a committee, at which I urged the necessity of working with the members of the British Medical Association. At this meeting, owing to a pronounced hostility to the British Medical Association, I took up my papers and told the meeting that unless the first plank in the new association was a determination to support the members of the British Medical Association I should retire, with the result that these words were added to the resolution.

The National Medical Union was formed, and at the first meeting of the Provisional Committee the honorary secretary requested that certain members, myself included, should be empowered to advise him in some of the secretarial duties, and this was agreed.

Subsequently, to my astonishment, I was summoned to a meeting of the "Advisory Committee," which I found was composed largely of those members of the small body whom I had met before the Union was formed.

This Advisory Committee continued to meet for about two months, transacting all the business of the Union (the Provisional Committee never being summoned); it even desired to instruct the honorary treasurer as to the payment of accounts, from which I was compelled to dissent, and, finally, to offer my resignation unless the Provisional Committee were summoned. The Union itself was not summoned until a later date, and I believe there has only been one meeting. Meanwhile the Provisional Committee adopted and sent out to the Divisions of the British Medical Association a series of resolutions which had been framed by the Advisory Committee, and which it was urged should be adopted in view of the Representative Meeting of the British Medical Association. These resolutions were not submitted to the general members of the Union, although I with others pressed this course in committee. They were adopted by very few of the Divisions, and the action of the Provisional Committee was resented by many members of the Union.

When at last (in March) the Union was summoned the meeting was attended by a very small number of its members, and at this meeting I took exception to a proposal of the committee for the establishment of a "*permanent* executive committee," which was another name for the

"Advisory Committee," which again was, as I have said, largely the original small local circle which started the Union.

The word "permanent" was explained as meaning "temporary," and was deleted. I urged that the Union should at once frame rules and regulations, but this was opposed from the platform. I thereupon resigned my membership of the committee.

Since that time the committee of the Union—

1. Has sent to the State Sickness Insurance Committee of the British Medical Association a scheme under which the profession, in its opinion, can work the National Insurance Act. This report of the committee has not been submitted to the members of the Union for approval.

2. Has nominated two members to contest the election of Representatives of Lancashire and Cheshire to the British Medical Association Council, and has issued circulars, in which the statement is made that the two members have been invited by many members of the British Medical Association, including *all* those who are members of the National Medical Union. This, I maintain, is incorrect, and is in direct opposition to the wishes of at least one branch of the National Medical Union, which were communicated to the officials of the Union, and of many other members. These names were not submitted to the members of the Union.

3. In the covering manifesto, which was described in the lay press as an "Onslaught on the British Medical Association," emphasis is laid on the point that the action of the Representative Body in nominating twelve members to serve on the Advisory Committee under the Insurance Act is unwise and dangerous; the Union, therefore, is in direct conflict with the Representative Body, and differences are accentuated at a time when every endeavour should be made to cement the union which was arrived at by the Representative Body.

I took part in the meeting of that body, and I spoke and voted against this proposal; it was adopted by a large majority, the Lancashire and Cheshire Representatives being 11 for and 10 against, I think; nevertheless, it was subject to the safeguard that these twelve members must *pledge themselves to resign* when called upon by the British Medical Association; and, further, a special resolution was passed, on the report stage, with the express objects of minimizing differences and cementing union, under which no member of the British Medical Association could take office on the Insurance (Health) Committees or Medical Committees under the Act.

It must be remembered, too, that this same meeting *unanimously* resolved to send an ultimatum to the Commissioners formulating the *minimum* demands of the profession—namely, the six points, from which there can be no withdrawal—adding a seventh point, which I myself moved, that professional discipline should be in the hands of professional men.

Further, the conduct of affairs in regard to the Insurance Act was entrusted to a special committee, directly elected by the Representative Body, with the proviso that *no arrangements* could be entered into until they had been submitted to and voted upon by the Divisions—that is, the rank and file.

Surely this position, which I have briefly sketched, is one on which all can honourably unite. The extremes at both ends met and arrived at a common ground of union, arrived at by men representing all shades of thought and all parts of the country.

On this common ground, whether the Commissioners will accept the conditions on which the profession can work the Act or not, the profession in each district retains its power to form or to refuse to form a panel with the support of the whole Association, the whole Association being bound together to support the local demands. Surely, then, this is not the time to characterize one part of the conclusion arrived at by the Representative Body as "unwise and dangerous," and thus foment discord. Under these conditions I have been compelled to resign my membership of the Union, and shall use what power I have in supporting the just claims of the profession through the Association.

In reference to the election of the Council, may I say that I am opposed to the return of those members who at present represent the Lancashire and Cheshire Branch, and at the same time am opposed to sending to the Council members who are in declared and direct opposition to the action of the Representative Body at a meeting when it was composed of Representatives specially instructed by their Divisions under circumstances when the whole profession was fully aroused to the serious importance of the occasion, and whose deliberations and conclusions must therefore be looked upon as representing those of the vast majority of the profession. The result of such a course—namely, to elect a Council which would be in direct conflict with the elected Representatives of the Divisions—would be to weaken, and divide, and thwart any concerted action by the Association, which is now the only organized body numerically and financially strong enough to carry into execution the just demands of the profession.—I am, etc.,

Anglesey, May 28th. T. ARTHUR HELME.

SIR,—In consequence of the misunderstanding shown and the persistent misstatements expressed by some members of the profession as to the objects of the National Medical Union, it is considered desirable to once again publicly reiterate our policy, which is not in any way in opposition to that of the British Medical Association.

So that the matter may be placed beyond all possible doubt, we would draw your attention to the more important resolutions which have been passed from time to time, and which are appended to this statement. From these resolutions it will be seen that the National Medical Union originated in the desire to strengthen the hands of the members of the British Medical Association and to unite non-members in a solid phalanx, so that the great fight which we have to face might be brought to a successful issue and the dignity and liberty of our profession preserved, and that the ruin that threatens many general practitioners might be averted.

The later resolutions clearly show that this point of view has never been lost sight of, but that the Union has done all in its power to keep the evils and dangers of the Act before the medical profession and to stiffen the backs of our leaders in this struggle.

It will be seen that a general meeting of the Union, feeling the necessity for strong generalship in the crisis, instructed the executive to take the necessary steps to ensure this and to deal with the question of supporting candidates whose views were in harmony with those of the National Medical Union. The action they have taken has received the approval of the General Committee, which consists of sixty members drawn from all over the country. That the men in Manchester are not alone in their opinions of the past leadership (as has been stated) is shown by the voting at the annual general meeting of the Cardiff Division.

Upon the men whom you return to the Council the future of private practice depends, and we would remind you that this is the only form of practice which has stood the test of time.

Great as is the loss already sustained by medical men owing to depreciation of capital value due to the National Insurance Act, it is nothing compared with the loss which they would sustain by the extinction of private practice and the substitution of the cheap contract work the Act proposes.

The National Medical Union would welcome the abolition of all contract practice. It supports the British Medical Association in its aims—although not in all its methods—as the chief representative of the profession. It insists on the principles of the "seven cardinal points" being maintained. It is opposed to any attempt to weaken the position of the profession as the guardian of the public health and of its own rights.

The National Medical Union recognizes that a National Insurance Act on a contributory basis is a necessity of the times, and believes that a scheme could be devised not incompatible with the interests and reasonable demands of the profession. But it cannot admit that the present Act as it stands in any way meets the situation.—We are, etc.,

G. A. WRIGHT,
Chairman.

J. SKARDON PROWSE,
T. WHEELER HART,
Honorary Secretaries.

Resolutions Alluded to Above.

November 18th, 1911 (Mass Meeting, Manchester):

That in the opinion of this meeting the National Insurance Bill as at present framed does not satisfactorily embody the demands of the medical profession, as defined in the six cardinal points formulated by the British Medical Association: that the scheme of the bill in its present form is unworkable, and will create a condition of affairs not only detrimental to the medical profession, but also dangerous to the public health; therefore, this meeting of the medical profession of Lancashire and Cheshire expresses its determination, in the event of the bill becoming law in its present form, to unite with the whole of the profession in declaring its inability to undertake the duties which the bill proposes to assign to it.

December 14th, 1911 (Mass Meeting, Manchester):

This meeting of the medical profession, in pursuance of the resolution passed unanimously on November 18th and generally adopted throughout the country, now recognizes that the only satisfactory method of meeting the situation created by the Government is for the members of the profession to refuse to form a panel under the bill or to undertake any duties which the bill proposes to assign to them.

That in the opinion of this meeting it is advisable to form at once a National Medical Union to deal immediately with the conditions arising out of the National Insurance Bill, and *to strengthen the hands of the members of the British Medical Association* and all other societies and committees now engaged in safeguarding the interests of the medical profession.

The objects of the Union were then stated to be:

(1) "The co-ordination of members and non-members of the British Medical Association."

(2) "The voicing of the attitude of this profession towards the National Insurance Bill, 1911, as it now stands for enactment."

(3) "Facilitating an organized refusal of service under the bill."

December 22nd, 1911 (Provisional Executive Committee):

That the members of the National Medical Union shall promise to oppose the medical service of the National Insurance Act, 1911, by at once declining to go on any panel or committee and by refusing to undertake any of the duties which the Act proposes to assign to them.

January 26th, 1912:

That in the opinion of this Committee of the National Medical Union medical men either in a private or public capacity ought not to take any office under the Act until the six cardinal points are guaranteed.

February 6th, 1912 (resolution for adoption by the Special Representative Meeting):

That it be an instruction to the Council that they notify all those who have signed the pledge of the British Medical Association that they must not go on any panel or undertake any of the duties which the Act proposes to assign to them, and that this instruction remain in force until such time as the six cardinal points are unreservedly conceded in such a manner that they cannot be altered or withdrawn in the future except by Act of Parliament and with the consent of the members of the medical profession.

March 15th, 1912 (Finance and Defence Committee):

That the National Medical Union immediately confer as to the state of club practice and the means to be taken to prevent its further extension, or procure its total abolition if no panels be formed.

March 24th, 1912 (General Meeting of the Union):

That this meeting expresses its approval of the action of the Representative Meeting of the British Medical Association so far as it goes, and assures the British Medical Association of its further support, but regrets that they have thought fit to allow their members to sit on the Advisory Committee before the six cardinal points have been granted.

That the National Medical Union use its best endeavours to ensure that the new Representatives and the members of the new Council shall be as far as possible members of this Union or in sympathy with its objects.

April 24th, 1912 (Finance and Defence Committee):

That all schemes for public medical service be condemned that are on the principle of payment by capitation fee.

April 26th, 1912 (Organization Subcommittee): At this meeting, at which several consultants were present, held to consider the following pledge sent from a local medical society, namely:

That in the event of the British Medical Association requiring that no medical practitioner shall undertake medical service under the National Insurance Act owing to the failure of the Commissioners to embody in the Regulations the six cardinal points of the Association, I, the undersigned, undertake to refuse to see any insured person under the care of any medical practitioner or to meet in consultation any whole-time medical officer or any practitioner serving under the Act or carrying on contract practice contrary to the wishes of the British Medical Association—

the following resolution was passed:

If in the event of corporate action being called for by the British Medical Association (this being contingent on the withdrawal of medical benefit) a pledge be required from the practitioners to undertake no office under the Insurance Act, this Subcommittee expresses its sympathy with the resolution and suggests that the consultants be asked to meet together and to form such rules of conduct as will be agreeable to all concerned.

May 2nd, 1912 (Liverpool Mass Meeting):

(1) That this meeting of the medical profession affirms its absolute adhesion to the "six cardinal points," and, in addition, to a seventh—namely, "That disciplinary powers be vested in some properly constituted and representative medical body." These principles form the basis of the policy of the British Medical Association and of the National Medical Union, and this meeting pledges itself actively to support the Union.

(2) That this meeting supports all candidates for election to the Central Council of the British Medical Association who hold the views of the National Medical Union, and pledges itself to canvass in the Lancashire and Cheshire Branch for the election of Dr. O'Sullivan of Liverpool and Dr. Reynolds of Manchester.

(3) That this meeting protests against the action of the Government in neglecting to give a clear and definite answer to a letter directed to the Insurance Commissioners by the State Sickness Insurance Committee of the British Medical Association of February 29th, in which letter the minimum demands of the profession were stated.

May 9th, 1912 (General Committee):

That the work of the Election Committee and the covering letter proposed to be sent out be approved.

THE CENTRAL COUNCIL ELECTION.

SIR,—The time is at hand for the election of the new Council of the British Medical Association.

It is of vital importance to the British public, and to the welfare of the medical profession, that the men elected to this office should command the confidence of the whole of the members of the Association, and be qualified to deal prudently and vigorously with the difficult position and problems with which the practitioner of medicine is now faced.

It is notorious that in this, the greatest crisis in our history, the present Council signally failed in its generalship.

Since the "great awakening" of the profession, which dates from the mass meetings held in Manchester and London, a much stronger attitude generally has been taken up. There has been a great "stiffening" in the Representative Body; and the State Sickness Insurance Committee, composed of men cognizant of the threatened dangers, has been formed, and is doing good work.

The National Medical Union is convinced that, if universal confidence in the British Medical Association is to be restored, and if the profession is to maintain the high position of the past, a considerable change in the personnel of the Council must be assured. It has given much time to the matter, and it urges upon its members, and upon all members of the British Medical Association, to use their influence in securing the return of those named in the following list:

Yorkshire Branch.—James Metcalfe, M.D., Lynthorne Hey, Frizinghall, Bradford.

Lancashire and Cheshire Branch.—Jerome Eugene O'Sullivan, L.R.C.P.Edin., 37, Shaw Street, Liverpool: Ernest Septimus Reynolds, M.D., Platt Cottage, Rusholme, Manchester.

East York, North Lincoln, and Midland Branches.—Frank Montague Pope, M.D., 4, Prebend Street, Leicester.

Cambridgeshire and Huntingdon, East Anglian, and South Midland Branches.—John George Durrau, M.B., Leighton Buzzard.

Birmingham and Staffordshire Branches.—Albert Lucas, F.R.C.S., 9, Easy Row, Birmingham.

Metropolitan Counties Branch.—Moses George Biggs, M.D., 191, Northcote Road, Battersea, S.W.: Major Greenwood, M.D., 243, Hackney Road, N.E.; Basil Gordon Morison, M.D., 115, Green Lanes, N.; Frederick John Smith, M.D., 138, Harley Street, W.

Bath and Bristol, Gloucestershire, West Somerset, and Worcestershire and Herefordshire Branches.—George Parker, M.D., 14, Pembroke Road, Bristol.

Dorset and West Hants and South-Western Branches.—Charles Henry Watts Parkinson, M.R.C.S., Wimborne Minster, Dorset.

Oxford and Reading and Southern Branches.—Walter John Turrell, M.D., Cherwell Lodge, Oxford.
South-Eastern Branches.—William Joseph Tyson, M.D., 10, Langhorne Gardens, Folkestone.

Yours faithfully,
G. A. WRIGHT,
Chairman.
T. WHEELER HART.
J. SKARDON PROWSE,
Honorary Secretaries.

*** We have received from the Chairman and Honorary Secretaries of the National Medical Union a letter confirming the telegram published last week (p. 1218). They go on to state that a letter was addressed by the Honorary Secretary to Dr. Heaney on May 22nd, inviting him to correct certain statements in his address, and that no reply had been received down to May 28th.

SIR,—Dr. Helme and myself were nominated by South Manchester as advocates of a firm and consistent policy in matters relative to the National Insurance Act.

It seems quite probable, however, that the mere fact that two Manchester men are standing may act inimically to the interests we have at heart. I mean that there are probably many who wish to return one candidate from Manchester and one from Liverpool. To these I would say: Vote for Helme.

I feel it is of great importance that Dr. Helme should represent us, and I would rather not register a single vote than that his return should be in any way imperilled.—I am, etc.,

Salford, May 28th. STANLEY HODGSON.

SIR,—It is impossible to over-accentuate the importance of the future representatives of the Association on the Council, and the report that the State Sickness Insurance Committee is about to issue a scheme on the "club" principle will be a shock to the profession. I do not hesitate to say that the hope we thought well founded—that once and for all this pernicious practice would be entirely abandoned—is farther off fulfilment than ever. Many Divisions sent fresh men to the special so-called Representative Meeting in February—strong men, it was argued—with definite instructions to check further negotiations. How weak their efforts have proved! If the right men are not returned we are lost, and the British Medical Association will be an impotent body. Cardiff has begun well. You report Dr. Maclean is returned as a Representative—but his status. I have the official figures before me. A new chairman, Dr. Mitchell Stevens, had 61 votes, against Dr. Brierley 16. For Representative a new man, Dr. Martin, got 56 votes, Dr. Maclean 36, and Dr. Treasure, the other old Representative, was actually at the bottom of the list of the five candidates for the two seats.

Now I wish to call attention to the boasted democratic government. In Lancashire and Cheshire we have but two Councillors directly representative of the Branch, and we have 2,100 members. We have a third member of Council, but he, like many others, is elected by this *so-called* Representative Meeting. Remarkably few old members of the Council, those who have managed (?) the Association, appear in your list of nominations. Are they afraid of an open contest and prefer to slide out quietly, or are they trusting to the chance of getting into office through their supporters inside the official circle? It is not too late to warn our Representatives to see that they do all they can to follow Cardiff and to support the members of the Association and the whole profession in their determination to stamp out this pernicious work; it is degrading the profession and injurious to the national health. I have grave suspicion that this new pledge was concocted in this neighbourhood; its motive I hardly think a very praiseworthy one.—I am, etc.,

Old Trafford, May 27th. JAS. BRASSEY BRIERLEY.

SIR,—Having been nominated to represent the Dorset and West Hants and South-Western Branches, I desire to explain my position to the members of the Association generally.

It is not from a desire to oppose Mr. Domville, the present member (although I consider the Public Health Committee, of which he is chairman, have not looked properly after the interests of the many general practitioners who hold part-time appointments, and depend largely on these for their living), and, of course, under ordinary conditions it would be impossible for a member of a small Branch to defeat a member belonging to a much larger Branch, but because Mr. Domville having served continuously on the Council for six years is by the rules ineligible for one year, and as the only other candidate I claim the seat.

I was excluded myself under the six years rule, having acted at first as Representative of the Dorset and West Hants Branch alone, and for the three latter years for the combined Dorset and West Hants and West Somerset Branches. I raised the point that the time should run from the union of the two Branches, that this was a new appointment, and that I had, therefore, three years to run. A case was submitted to counsel (and, by-the-bye, I was asked to pay for this) and the opinion was against my contention, and I was ruled ineligible.

Now Mr. Domville is in exactly the same position; he has served for six years continuously on the Council, first as Representative of the South-Western Branch only, and since the union of the South-Western and Dorset and West Hants Branches, for those combined, and what was sauce for the goose should be sauce for the gander.

It cannot be, I presume, that the six years rule having once served the desired purpose, should now be allowed to fall into abeyance.

If I am not mistaken, there are other members nominated for the Council this year who have served continuously for six years, and are ineligible, and the attention of the members should be directed to the matter.—I am, etc.,

Wimborne, May 27th. C. H. WATTS PARKINSON.

APPENDICITIS—AND QUICKNESS.

SIR,—A case recently under my care very forcibly confirms the views advanced by Mr. Owen. On a Sunday, five weeks ago, I was called in to see a patient, and diagnosed appendicitis. The patient had the day previously played two rounds of golf. For certain reasons, and there being no very evident urgency indicated by symptoms, subjective or objective, operation was postponed until Tuesday morning. It was well the delay was of no longer duration. The inflammatory condition exhibited by the intestine was most marked, and it was very evident that in a few hours at most there would have been perforation of the appendix. It seemed quite impossible that with such comparatively slight symptoms there could have been such marked conditions within. This patient had certainly a narrow escape.—I am, etc.,

London, W., May 28th. A. J. RICE-OXLEY, M.D., M.R.C.P.

FUTURE OF GENERAL PRACTICE.

SIR,—Dr. Greenwood charges me with setting up dummies and desiring credit for knocking them down. He then goes on to say what he meant in his letter. Now, I desire no credit in following this subject. I wrote for the simple reason that I thought Dr. Greenwood's position, based as it was on monetary considerations, to be to say the least untenable. That was all. If he had said what he meant in his first letter the chances are I never would have taken it up.

I quite grant that he could do as much for a hopeless case as any other man, but I also say that, from the standpoint of the public health tuberculosis stands in the same category as scarlet fever, and should be notified and removed in the same way. Only thus will you make headway.

I do deplore, in Dr. Greenwood's first letter, the hints as to Dr. Whitaker, and in his second the same as to my motives—namely, "the desire for credit." It comes all the worse from one who could write a letter like that of May 4th. I am, etc.,

Dumfries, May 25th. JAMES COOK.

SIR,—Dr. Devis's letter (May 4th, p. 1046) is certainly not an exaggerated description of things as they will be in the near future. The effect, however, of the Insurance

Act will vary according to the kind of practice one is carrying on at present.

Practitioners of medicine may be divided into six classes:

(*a*) The consultants.
(*b*) Those with high class practices and no clubs.
(*c*) Those with high class practices and clubs.
(*d*) Those with middle class practices and clubs.
(*e*) Those with middle and working class practices and no clubs.
(*f*) Those with clubs or contract practices only.

The effect on the various classes will differ more or less.

(*a*) The consultants—at any rate, those connected with the hospitals—will find ever-increasing work in the out-patient departments. At the present time many employers subscribe, and get their employees to subscribe weekly towards the funds of some hospital close to their works, and by so doing are allowed letters for that hospital. When the employees are taken ill they are often sent to that hospital for treatment in spite of the employee having his own doctor, and they look on it as a right. Patients, too, now that they are to be forced to pay for attendance, will go where they please; and, while some dislike the long waits and other drawbacks connected with hospital attendance, many will flock to the out-patient departments because they are going to be treated by a specialist.

(*b*) The doctor with a high class practice and no clubs will not be affected at all, or very little, unless he chooses to go on the panel of doctors for his district, for his patients will hardly be amongst the insured class, and will continue under him.

(*c*) If a doctor has a high class practice and clubs he will stand to gain by the Act. His high class patients will still remain his patients, and his club patients will probably be increased in number, as the membership of clubs will probably be greatly increased, many if not most of the insured being very likely to join some friendly society. Thus, while this doctor's income from private patients will remain the same, he will have an increased income from the capitation fees of the club patients.

(*d*) Doctors with middle class practices and clubs will find that pretically the whole, or at any rate the major part, of their private practices will be absorbed by the approved societies, and the patients converted into club patients, for many of the insured will join friendly societies. If they happen to join the society of which he is the doctor he will probably retain them, but should they join some other society he stands to lose them, in spite of the "free choice of doctor." Thus, while he may have a few private patients left, he will lose heavily in income from their numbers being reduced, and the loss in income will hardly be compensated for by the possible increase in income from "contract" patients.

(*e*) The doctor with middle and working class patients and no clubs will, as in the case of class (*d*), lose the majority of his private patients and find himself with a greatly reduced income, as the patients will join a friendly society, and, again in spite of the "free choice of doctor," will not all remain his patients; some will go to the regular doctor of the club they join. This class will be the greatest losers, for, having no clubs, they will stand the least chance of retaining their old patients. They are the doctors who, all over the country, have for years, by suiting their fees to the poorer middle class and the working class, ministered to the ailments of these very people, who are bound to come under the Act, and yet they will suffer most for their old philanthropy. Here is the irony of fate! Here we find injury added to the insult of lowering their status as independent professional men. Those who have charged small fees (1s. to 2s. 6d.) to suit their patients' pockets and have scorned the lowest rate of 1d. a week offered by the clubs, are to be hit harder than those who have always boasted that their fees are from 2s. 6d. upwards and yet grab at the clubs for 1d. a week. We are asked to guarantee funds to compensate those who are going to give up clubs, but it would be more just to compensate those who may lose all, if there is to be any compensation at all.

(*f*) Finally, we have the man who has no private practice, if such exists, but derives his income entirely from contract practice. This man will gain in income for the same amount of work, and is the class of man to whom Mr. Lloyd George refers when he says he will be better off under the Act. Of course he will, for 6s. or 8s. 6d. a head is more than he is getting at present. But how many such men are there? They must be a very small minority of the practitioners of the country.

There is one other circumstance that will influence the "free choice of doctor." Human nature is weak, and the ordinary patient who until now has gone to the doctor with a small house and no carriage or motor car because his fees are more suited to the patient's pocket, while his medicine and advice are quite as good as those of his more fortunate fellow practitioners, when he finds he can get advice from the man who lives in a large house and who drives up in a carriage or motor, for the same capitation fee as he would pay for his former doctor, will prefer to be seen going into the larger house and to have the carriage or motor at his own door.

From the foregoing it will be readily seen that many medical men who work hard day and night, and earn a small income, will be so hard hit by this Act that they will be forced to close their doors.

The profession will learn when too late that they would have been well advised if they had decided to have nothing to do with the Act under any capitation system. Our independence is gone, and we will be poorly paid State slaves.—I am, etc.,

Tottenham, N., May 13th. S. L. CRAIGIE MONDY.

PARENTHOOD AND ALCOHOL.

SIR,—In your issue of May 25th, 1912, you kindly favoured the article on this subject which appeared in *Good Health* for May with a notice, from which it might be inferred that I regard alcoholism as "the great cause of infantile mortality."

Such a contention would, of course, be absurd, and it is not attempted. It being impossible, in such an article, to deal at length with the many causes of this evil and of defective parenthood—such as ignorance of the art of mothercraft, parental neglect, improper feeding, slum conditions, overcrowding and bad housing, the factory employment of the mothers of young children, epidemic diarrhœa, heredity, alcoholism, etc.—this having been done in the little book, *Wastage of Child Life*, to which you kindly refer, the ones discussed in the article were limited to (1) ignorance of the art of mothercraft, (2) the factory employment of the mothers of young children, and (3) alcoholism—prominence being given to the last, it is true, but with no desire to exaggerate its importance nor to minimize that of the others.—I am, etc.,

Bolton, May 27th. J. JOHNSTON.

RADIUM EMANATIONS IN MINERAL WATERS.

SIR,—I notice that in a paper, Radium Emanation in Mineral Waters, by Dr. Pagan Lowe, appearing in the BRITISH MEDICAL JOURNAL for April 20th, credit has been given to Dr. Aikins and myself for certain observations on the effects of radio-active waters. The credit for these observations should be given to Dr. William Armstrong, of Buxton, England, who published them in the BRITISH MEDICAL JOURNAL for April 29th, 1911, and to whom credit was given by us in our paper which appeared in the *Canadian Practitioner and Review* for August, 1911.—I am, etc.,

Toronto, May 15th. FREDERICK C. HARRISON.

RESEARCH DEFENCE SOCIETY.

SIR,—This society has taken temporary premises in Oxford Street, between Bond Street and Oxford Circus, next to a very lurid antivivisection shop. I hope that the members and associates of the society will approve of this action. If any should be inclined to think it undignified or vulgar, I hope that they will look into the windows of the antivivisection shop. I feel sure that when they have done that they will not think it amiss for the Research Defence Society to put the facts of the case before the public in the most conspicuous way that is possible.—I am, etc.,

STEPHEN PAGET,
London, W., May 29th. Hon. Sec., Research Defence Society.

Obituary.

C. J. ALLAN, M.B., C.M.,
LASSWADE.

THERE died at Lasswade, Midlothian, on May 15th, Dr. Charles J. Allan, M.A., who had been for forty-five years in practice in the district, and whose demise has caused a deep sense of personal loss to a large circle of patients and friends. Dr. Allan matriculated at Marischal College, Aberdeen, in 1856, at the age of 16 years, and after a highly distinguished undergraduate course was, in 1860, capped M.A. with honours. The prizes awarded him included first prize in Senior Mathematics, second prize in Natural Philosophy, Brown's, and the Boxill prize for distinction in Mathematics. In 1861 he entered the Medical School of Edinburgh, and after an equally brilliant course there, graduated M.B., C.M. in 1867. Thereafter he settled in practice in Lasswade, where his great skill as a physician, and his excellent qualities of heart secured him the confidence of the public. The energy with which he threw himself into the fight with the virulent epidemic of small-pox in 1871–72 attracted widespread notice. He was appointed parochial medical officer to part of the Cockpen parish, and subsequently to part of the parish of Lasswade, as well as M.O.H. for the burghs of Bonnyrigg and Lasswade. He was also for a long period associated with the local Volunteers, 5th Battalion, Royal Scots, retiring with the rank of Surgeon-Lieutenant-Colonel, and in other ways actively supported whatever movements he esteemed to be for the good of the community or the country.

When Dr. Allan resigned his parish appointments last month the parish councils of Cockpen and Lasswade with other public bodies took steps to recognize in tangible form the esteem in which the community held him. They were unfortunately forced to defer consideration of the form their appreciation was to take by the lamentable occurrence of his death.

Dr. Allan had a unique personality. The promise his career as a student gave was in the amplest fashion fulfilled in after-years. He was a student to the end and his knowledge especially of languages was wide. Apart from the classics, which he had studied in his youth, he was intimately acquainted with French and Spanish, and could converse with ease in Swedish and Gaelic. He took much interest in the educational reforms of the last fifty years, and served for twenty-seven years on the Cockpen School Board, acting as chairman of the board for two terms.

It was in the practice of his profession, however, that he attained his chiefest glory. His sympathy, his self denial and kindness to the poor are proverbial in the district. His whole professional life was a realization of the highest function a medical man is called to—the practice of healing for healing's sake.

At his funeral to the Lasswade Churchyard on May 18th the Parish Councils of Lasswade and Cockpen, the Town Councils of Bonnyrigg and Lasswade, and the Cockpen School Board were officially represented, while the attendance of the general public was large. He is survived by a widow, to whom the sympathy of the people goes out in unstinted measure.

WILLIAM F. N. O'LOUGHLIN, L.R.C.P. AND S.IREL.
SURGEON TO THE "TITANIC."

DR. WILLIAM FRANCIS NORMAN O'LOUGHLIN, who lost his life at the post of duty in the sinking of the *Titanic*, was a native of co. Cork. He was a distinguished student of the Catholic University of Ireland, and in 1869 completed his course at the Cecilia Street School, Dublin. He took the Licence of the Royal College of Surgeons in Ireland in 1870 and of the King's and Queen's College of Physicians in Ireland in 1871. He also obtained the Licence in Midwifery of the Coombe Hospital, Dublin. For a short time Dr. O'Loughlin acted as Dispensary Medical Officer in Ireland, but a year or two after receiving his medical qualifications he entered the service of the White Star Line, in which he remained ever since, a period of over forty years. Had Dr. O'Loughlin survived there is little doubt that he would have received a medical degree from the new National University.

In the University College Chapel, St. Stephen's Green, Dublin, last week, his memory was honoured by a Solemn Requiem Mass. As already stated, a movement has been set on foot in New York to promote a memorial to his memory, and it is suggested that funds should be raised for the endowment of a pathological laboratory for St. Vincent's Hospital, New York, an institution of which he was a generous supporter, and to which he had sent many patients in his capacity of Physician in the service of the White Star Line.

JAMES HILL GIBSON, M.D., M.CH., R.U.I.

DR. J. H. GIBSON died at his residence, Parkstone, Dorset, on May 14th. He was born near Omagh, co. Tyrone, on May 7th, 1856, and had thus just completed his 56th year. He was educated at the Belfast Seminary and Royal Academical Institution, matriculating in the old Queen's University in 1874. He had a most successful career at Queen's College, Belfast, gaining prizes every year in almost every subject, becoming Senior Scholar in Medicine, and carrying off the Coulter Exhibition in the Royal Hospital. He graduated M.D. in December, 1878, with the highest honours, securing the gold medal—at that time the blue riband of the medical curriculum.

Shortly afterwards he was appointed Assistant Resident Medical Officer to the Whitechapel Infirmary. A little later he entered on practice in Maida Vale, and was appointed Medical Officer for the St. John's Wood District of St. Marylebone. He also acted as Assistant Surgeon to the Western Ophthalmic Hospital, was Surgeon to the Volunteer Artillery, and took an active part in the foundation of the Mary Wardell Convalescent Home.

Some seven years ago failing health obliged him to retire from active practice, and he settled at Parkstone, Dorset, devoting himself to eye work, in which he was remarkably successful. A chill caught in February resulted in tonsillitis and double pneumonia. Pernicious anaemia supervened, and he succumbed.

A man of wide and varied reading, he possessed the pen of a ready writer, and many of his letters in the lay press on subjects of popular interest were widely read and extensively quoted. A charming personality, a faithful friend, and a cultured gentleman, his remains were laid to rest in the picturesque churchyard of Longfleet, Poole, amidst many tokens of sorrow, and in the presence of several former colleagues who had journeyed from London to pay the last tribute of respect to a highly-valued *confrère*.

DR. THOMAS EDMUND STUART died in Bath on April 28th at the age of 48. He had been in failing health for a considerable period, and on that account had given up practice at Leamington, where he had settled shortly after the return of the troops from the South African war. At the beginning of that war he went out to South Africa as a civil surgeon, and after taking part in the earlier operations contracted typhoid fever and was invalided home. On his recovery he went out a second time, and being again invalided home, was then placed in charge first of the dépôt and Military Hospital at Perth and then of the Military Hospital at Edinburgh Castle. On the creation of the Territorial Forces he joined the R.A.M.C.(T.) as Major, and at the time of his death was attached to the Essex and Suffolk Royal Garrison Artillery. His interest in the auxiliary forces commenced in early life, and in addition to the Queen's medal and four clasps for South Africa he held the Volunteer long service medal.

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

THE following degrees have been conferred:

M.B.—A. E. Rayner, M. W. Baker.
B.C.—A. E. Rayner.
M.A. (*Honoris Causâ*).—Robert Charles Brown, M.B.Lond. (1861), F.R.C.S.Eng. (1862), F.R.C.P.Lond. (1908).

UNIVERSITY OF LONDON.
LONDON SCHOOL OF MEDICINE FOR WOMEN.

THE Vice-Chancellor of the University of London, Sir William Collins, M.D., will present the prizes on Friday, June 7th, at 4 p.m. Mrs. Garrett Anderson, M.D., president of the school, will be in the chair.

Public Health.

LOW BEDROOMS.

DR. THOS. E. FRANCIS, M.O.H. (Llanelly), writes: I beg to draw attention to the fact that the Local Government Board are prepared to sanction by-laws which can only be described as retrograde under Section 23 of the Public Health Acts Amendment Act, with respect to the height of rooms intended to be used for human habitation. The Board's model by-laws allow the walls of bedrooms to be only 5 ft. high in part, if the height from the floor to the ceiling over not less than two-thirds of the area of the floor be not less than 8 ft. When it is remembered that it is the outside (or window) wall that would probably be 5 ft. high, internal measurement, while the outside height, owing to the sloping roof, would be little above 4 ft., it will be seen that it is almost impossible to have the top of the window, unless dormer windows are constructed, more than 3 ft. above the bedroom floor. Thus a man could not look out straight through his bedroom window without going on his knees and then bending his back. The difficulties of ventilation also with such low windows would be insuperable. It is not likely that dormer windows would be constructed, because the idea of this loose by-law is to cheapen construction, while the cost of a large dormer window would be almost equal to the amount saved over a bedroom of satisfactory height throughout. If houses constructed under this by-law become numerous, the public health movement and the conquest of tuberculosis would be delayed at least twenty-five years.

Medical News.

A BENEFACTOR who desires to remain anonymous has sent to the King's College Hospital Removal Fund a cheque for £30,000, together with an intimation that another £20,000 will follow from him, and that £2,500 is to be used in the building of the new premises for the medical school of the institution.

THE matinee to be given at the St. James's Theatre on Thursday, June 6th, in aid of the British Medical Benevolent Fund Guild, will, through the kindness of certain persons who have secured a number of the cheaper seats for their use, be attended by many beneficiaries of the Fund and of the Guild who live in or near London. We are asked to state that only a few stalls now remain under.

TWO courses of instruction for practitioners are to be given at St. Bartholomew's Hospital this summer at a time when other lectures and classes are in abeyance and comparatively few ordinary students will be in attendance. In addition to classes in medicine, surgery, gynaecology, and the various special departments, the technique of gastric analysis, blood examination, remedial exercises, and vaccine treatment will also be taught. Each course will last a fortnight, the first beginning on July 16th, the second on September 3rd. Those joining the classes will be made honorary members of the students' union and have the use of the rooms of the Abernethian Club.

THE Mission to Lepers in India and the East, which already provides for some 4,000 male and female lepers, and also for over 550 untainted children removed from infected parents, is making arrangements to extend its operations to Arabia and Persia. The greater part of its beneficent work for "the dead people," as the Siamese call lepers, has hitherto been done in India, though it also maintains a certain number of asylums in China and Korea. Altogether it owns fifty asylums, and aids in the support and management of some thirty others. The London offices of the fund are at 33, Henrietta Street, W.C.

A SUCCESSFUL Festival Dinner in aid of the King Edward VII Memorial Fund for the provision of a new nurses' home at the Royal Portsmouth Hospital was held in the Banqueting Room at the Portsmouth Town Hall on May 21st. The Mayor (Sir Scott Foster) presided, and £750 was raised, which, with the sum previously collected, brought the total to £4,963 13s. 7d. There still remains £500 to be collected in order to secure the promised gift of £2,000 from an anonymous donor for the completion of the fund. It is not anticipated that there will be much difficulty in doing this. The Mayor referred to recent legislation which might affect the position of the hospital, and to those who advocated the municipalization of the institution, but he believed that the hospital was more economically and better administered under the present system than it would be by the Town Council. He suggested that there should be a round table conference of hospital officials, the Town Council, and the Board of Guardians; he thought that the result of such a meeting would be to keep the institution on its present voluntary basis.

Letters, Notes, and Answers.

ORIGINAL ARTICLES and LETTERS forwarded for publication are understood to be offered to the BRITISH MEDICAL JOURNAL alone, unless the contrary be stated.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, London, W.C.; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Office, 429, Strand, London, W.C.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London*. The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, London*.

TELEPHONE (National):—
2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

EUSTACHIUS writes: What is the prognosis in a case of tinnitus aurium in a man aged 62, coming on gradually during the last two years? There is some deafness in the ear affected. There is no history of syphilis nor of alcoholism, but there is inherited gout. There is a condition of chronic posterior nasal catarrh which nothing will remove. What is the prognosis as to relief and as to the deafness? Treatment of different kinds has been applied, but without relief.

VALUE OF DEATH VACANCY.

"TENAX" inquires as to the value of a practice (death vacancy in hands of a locumtenent for two months) in a manufacturing town of 30,000 inhabitants, its average earnings for the last three years being £1,050?

*** At the present time it is very difficult to give any reliable estimate of the value of a practice. Before the Insurance Act such a practice might have been worth a year's purchase, but in the case of death vacancies it is difficult to estimate practice values unless fully informed as to local conditions. The data furnished by our correspondent are insufficient.

ANSWERS.

DR. J. E. MIDDLEMISS (Cudworth, Yorks.) writes: "Psychoanalysis" is probably acquainted with Brill's translation of Freud's work, *Selected Papers on Hysteria and other Psychoneuroses*, which gives a first-hand account of the Freudian theory and procedure; if not, I shall be happy to lend him the copy which I have in my possession. He adds that there is also a very instructive exposition of Freud's method by Dr. Barnard Hart of Long Grove Asylum, Epsom, in one of the recent issues of the *Journal of Mental Science*, and that he has been much indebted to Dr. Hart for much assistance in the study of the subject.

ADMINISTRATION OF ARSENIC.

P. M. writes in reply to "L. H.": In the quantities sometimes prescribed, the action of arsenic should be narrowly watched. Any intestinal pain or conjunctivitis is a signal for a reduction. So administered it may be continued for months, but 2 minims of Fowler's solution three times a day must be considered a large dose for a child of 6.

DECOCTION OF COMFREY.

DR. NORMAN H. JOY (Bradfield).—Through the kindness of Dr. C. J. Macalister we have received from Messrs. Clay and Abraham, chemists, 87, Bold Street, Liverpool, the following formula for a decoction of comfrey: Take of comfrey root in coarse powder 2 oz., of water 25 oz.; boil slowly for fifteen minutes, strain, and make up to 16 fluid ounces. The addition of a small quantity of allantoin to the infusion (for example, 5 grains previously dissolved in half an ounce of boiling water) makes it more efficacious.

NURSING PROBATIONERS.

HOUNSLOW.—(1) Married women separated from their husbands through no fault of their own are sometimes admitted to hospitals as probationers if otherwise suitable, but in the large London hospitals there are more candidates than vacancies, so that they would probably not be selected. (2) A selected probationer would have to enter at the time fixed at the respective hospitals for the commencement of training. (3) A recent certificate as to fitness would have to be obtained

and papers filled up, and an interview obtained with the matron before admission. (4) The majority of London hospitals do not require premiums if the candidates are admitted as regular probationers for the full term of service. (5) Among hospitals in London of 100 beds and over which do not take medical students are the following:- Seamen's Hospital (Greenwich), Great Northern Central Hospital, West London Hospital, Metropolitan Hospital, Prince of Wales's General Hospital.

First Cousin Marriages.

Dr. Gustave Monod (Vichy) sends, in reply to Mr. Macleod Yearsley's question as to first cousin marriages, the following interesting particulars with regard to a well-known French family: Pasteur Fr. M., married Constance de C., his first cousin (a daughter of his mother's brother). Four children were born—Pasteur J. M. (died at 82), Louise M. (died at 80), C. M. (died at 74), and Pasteur Th. M. (aged 76). All of them, most able men, never complained, to my knowledge, of any ailment. Two of the children of this cousin marriage happened to marry first cousins: (*a*) Pasteur Th. M. married Gertrude M., the daughter of his father's brother; seven children, the offspring of a second generation of first cousin marriages. The eldest, Pasteur W. M., is professor of divinity. (Curious enough to mention, though perhaps out of the subject, he himself in turn married a cousin, the daughter of his father's first cousin.) The second child, a medical missionary, died of tuberculosis of the lungs—the only case in the family record—aged 32. The third, a doctor, was drowned in a shipwreck. Two girls and a boy are in good health. The last child is a medical man with whom I am well acquainted; he is in good health too. (*b*) Pasteur J. M. married Marie B., the daughter of his father's sister; four children—a pasteur, two doctors, and a girl, H.—all alive and well. Further, H. in turn married her first cousin, Pasteur P. M., the son of C. M., her father's brother; four children, normal. So here we have an instance of first cousin marriages, in a straight line, during three generations without any mental or physical deficiency. It may be pointed out that, except for two of them, all the men mentioned above were or are either pasteurs or docteurs.

Mr. H. Linden Pearson, M.B., Ch.B.St.Andrews (Hospital Cottage, Dowlais) sends the following case: The eldest son of a certain family married the eldest daughter of another family; his brother married a younger daughter. Several children were born in both unions. The eldest son in the first family married the eldest daughter in the other; the contracting parties in this marriage were thus, so to speak, double first cousins.

They married some fifteen years ago, and have four children, two boys and two girls, the latter being the elder. The first child born is now 14 years of age; she is somewhat small in stature, but apart from this, her physical condition is quite good. She is in every way an intelligent girl, not specially brilliant at school, but certainly not below the average in intellect. The second child was born two years later, I think, and she gives promise of being quite an ornament to the family. She is already much taller than her sister, and it is quite evident she will be above the average in height. As to her mental ability, although she is rather indolent at school, she gives promise of being distinctly above the average intellectually, even at her early age. She is remarkably proficient at the pianoforte. The youngest child is still an infant (boy), but is quite normal physically, and apparently is as well equipped mentally as any other child.

However, the third child born, also a boy, who is now about 8 or 9 years of age, gives his parents some anxiety. Physically he is quite like other boys of his own age, and exhibits no abnormality. Mentally, he is what his parents call a "strange" boy; he will walk about by himself for hours, speaking to no one and looking very melancholy. He takes a great interest in all kinds of animals, and it is his keenest delight to watch a ship at sea, or in the docks, or to see a picture of one; one only knows this from the rapt manner in which he gazes, for he says very little. His questions on religious subjects are at times ludicrous, and his ideas of God often very puzzling. However, apart from these little peculiarities, and apart from the fact that he is backward at school, he shows no signs of mental deficiency.

There is just one point I should like to mention in addition, and that is that several generations ago one of the ancestors of this boy's father suffered from what was described by those who knew him as weakmindedness.

LETTERS, NOTES, ETC.

Effect of Scopolamine and Morphine in Labour on the Child.

Dr. G. H. A. Barton (London) writes: As one who has given "scopomorphine" as a preliminary to general anaesthesia in hundreds of cases, I think I can help Dr. G. A. Wyon. In the ordinary way, if an individual (whether asleep or awake, or under ether or *light* chloroform narcosis) gets any respiratory obstruction, there is an immediate response shown by increased respiratory efforts, causing stridulous breathing, and attracting the attention of those present. But if "scopomorphine" has been given the respiratory centres are depressed there is no response, and no effort to overcome the obstruction, and the patient, unless observed, would quietly die. The cause of the obstruction in these cases is the falling back of the tongue and jaw. I would advise that in all cases where scopomorphine is used in labour the infant's tongue be drawn forward by a towel clip, and if this be left on and the child laid on its side the weight of the clip will prevent the tongue falling back whilst attention is being given to the mother.

Green Urine Due to a Proprietary Pill.

Dr. P. R. Blake (Whipps Cross) writes: In view of the recent cases published in the Journal of the passage of green urine, I think the following facts are of interest. Three members of one family all partook of De Witt's "kidney and bladder" pills, and all passed green urine; my patient had only one pill, and was affected with severe pain in the right loin as well, the following day.

Dr. J. L. Thomas (Brynmawr) writes: Last week a patient of mine, whose urine usually contains the *Bacillus coli communis*, took one of the proprietary pills for kidney and bladder that are these days being distributed broadcast about the country. I obtained a sample of urine, which was of a deep blue-green colour, and examined several slides with ⅙ objective and oil immersion, and found that, although very numerous and motile, the bacilli were quite unstained. After drying and preparing in the ordinary way they stained well with methylene blue and with carbol fuchsine.

Midwifery Forceps of Early Eighteenth Century Pattern.

Dr. A. Cordes (Geneva) writes: The forceps described by Dr. Hellier in the British Medical Journal of May 4th, p. 1027, is exactly the same as that he can see in Kilian's *Armamentarium Lucinae Norum*, Plate XIV, Fig. 5, and also in Kilian's *Geburtschülflicher Atlas*, Plate XXXIV, except that the latter has a pelvic curve (1746). Levet's forceps (1747), which I have myself, is very similar, except for the lock—a sliding piece and a key for the screw. Its length is 17 English inches, and their weight 870 grams; the greatest distance between the fenestrae is 2½ in.; the distance between the tops is half an inch. The fenestrae have a groove. Dr. Hellier could find much information in Malder's *Historia Forcipum et Vectium* (1794).

Medical Baronets.

Lieutenant-Colonel G. H. Youngs, R.A.M.C. (R.P.) writes: In your interesting list of "Medical Baronets" in the British Medical Journal for May 25th you state that the baronetcy conferred on Sir James MacGrigor (or more correctly McGrigor), late Director-General, A.M.D., is now extinct. May I point out that it is still in existence in the person of Sir J. R. D. McGrigor, the present head of the banking firm of Sir C. R. McGrigor, Bart., and Co., 25, St. James's Street, S.W.

*** Another correspondent writes to the same effect.

Dr. James Cameron (Edinburgh) writes: In your interesting notes on the above is there an error in the case of "Duke Smithson of Northumberland"? You give the creation of the baronetage correctly—August 2nd, 1660, 12 Car. II. Was not the "Earl Percy and Duke of Northumberland" October 18th, 1766, 7 George III, instead of 1757? Further, if the original "apothecary" had been made "Percy" in 1757, he would be at least 97 years old, or, if 1766 were *his* creation, as such he would be 106 years old! As regards Sir James Hay, M.D., of Peebles, there is a printer's error, James IV being meant for James VI. Of the ardent Jacobite, Stuart Threipland of Fingask, the household relics were sold some little time ago, and some are housed in the Edinburgh Museum.

A Warning.

Another correspondent, this time resident in one of the home counties, writes to advise medical men and dentists not to pay a fee in advance to a man calling upon them offering to manicure their hands for nothing, and to treat them for a year for a quarter of his usual charge, payable in advance. It appears that a considerable interval, to say the least, may elapse before a second visit is paid.

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A Lecture
ON
CHRONIC DIARRHOEA IN THE ADULT.

DELIVERED AT THE MEDICAL GRADUATES' COLLEGE AND POLYCLINIC.

BY ROBERT HUTCHISON, M.D., F.R.C.P.,

PHYSICIAN TO THE LONDON HOSPITAL.

IT is important to realize at the outset that diarrhoea is a symptom and not a disease in itself, and that if it is to be treated properly one must spare no pains to discover the nature and site of the disorder in the alimentary canal which is causing it. The routine prescription of an astringent mixture for every patient who complains of diarrhoea of some standing is particularly to be avoided.

In describing the chief varieties of chronic diarrhoea met with in practice it is necessary to adopt some form of classification. Our knowledge, however, is not yet sufficient to make any perfectly logical classification possible, and I propose, therefore, to group the chief varieties partly according to the site of the disorder to which the diarrhoea owes its origin, and partly according to the nature of the disturbance which exists. For clinical purposes this is, I think, the most satisfactory plan.

1. GASTROGENIC DIARRHOEA.

By gastrogenic diarrhoea one means a looseness of the bowels which is due to imperfect digestion in the stomach. It is by no means an uncommon variety, although it is not yet so well recognized as it ought to be. The defect in gastric digestion is due to an insufficient secretion of gastric juice, sometimes amounting to complete achylia. How this leads to diarrhoea is disputed, but it may either be that the absence of hydrochloric acid, which is the natural antiseptic of the alimentary canal, favours putrefactive and fermentative processes, or that the imperfectly dissolved food which leaves the stomach sets up irritation of the small intestine mechanically. The diarrhoea in these cases may last for years, although it often intermits for periods varying from weeks to months, but there is nothing characteristic about it. Nor, surprising though it may seem, is there necessarily any complaint of the ordinary symptoms of indigestion, although the appetite is usually impaired, especially—and this is rather suggestive—for meat. The diagnosis can therefore only be made by the use of the stomach tube after a test meal. It will then be found that little or no gastric contents can be obtained, and that the small quantity which comes away is very imperfectly digested, and shows but little acidity and no free HCl. The following is an illustrative case:

Mrs. D., aged 54, had suffered from almost constant diarrhoea for nine years. Her motions numbered from two to six daily and were watery in character, but contained no mucus or blood. She had always regarded her digestion as "quite good," but had "never been able to eat meat." Lately she had failed considerably in flesh and strength. Physical examination by the ordinary methods revealed nothing abnormal, but a test breakfast yielded a very small result, with a total acidity of only 5 and no free HCl.

Under treatment with hydrochloric acid and pepsine combined with a modified diet, she quickly lost her diarrhoea and gained a stone in weight in five months. She is now (six months after treatment was begun) in better health than she has enjoyed for years.

The treatment of gastrogenic diarrhoea is both simple and satisfactory. The principles of diet to be observed are to give all foods in a finely divided form, so that they will pass readily out of the stomach, and to reduce the amount of meat in the diet to a low level. Dilute hydrochloric acid should be given about half an hour after each meal in doses of from 15 to 30 minims. Any active preparation of pepsine may be given along with it, but the hydrochloric acid is much the most important. Acidol or acidol-pepsine may be used instead of hydrochloric acid, and has the convenience of being easily portable.

2. PANCREATIC DIARRHOEA.

Just as gastrogenic diarrhoea is due to absence of gastric juice, so the form of diarrhoea now to be described arises from a failure of the pancreatic secretion to enter the intestine. This may result from blocking of the pancreatic duct, from chronic pancreatitis, or from an apparently functional pancreatic achylia; but, however induced, the form of diarrhoea is quite characteristic, the stools being pale, or even quite white, in colour, greasy, very offensive, and containing on chemical examination an abnormally high proportion of unsplit fats. The following is an example:

Mr. X., aged 60, had suffered from diarrhoea, with white stools, for seven months, and had lost much weight. He attributed the origin of his troubles to an attack of "ptomaine poisoning" some two and a half years ago, since which time "his digestion has not been right." He looked ill and rather cachectic, and was considerably wasted, with a dry, harsh skin. Nothing definite could be made out on physical examination of the abdomen. The stools were colourless, and contained a large excess of fat. The pancreatic reaction in the urine was positive. A diagnosis of chronic pancreatitis was arrived at, and under treatment with pankreon the stools rapidly became normal in colour, the diarrhoea ceased, and he put on much weight.

Blocking of the pancreatic duct, with subsequent pancreatic diarrhoea, may sometimes result from the impaction of a gall stone at the lower end of the common duct. This was apparently the explanation of the following case:

Colonel L., aged 49, was suddenly seized, whilst travelling in the East three years before, with acute diarrhoea, the stools from the outset being quite white. From this attack he never really recovered, but suffered off and on from morning diarrhoea, with white milky and frothy motions. He had lost about 2 st. in weight. The case was at first regarded as one of "sprue," and he had had much treatment on that supposition without any real benefit. During the last six months he had suffered from several attacks of cramping pain in the epigastrium, which were attributed to "pyloric spasm." On examination he was found to be decidedly anaemic, but not jaundiced, very thin, and the skin dry. There was nothing definite to be made out in the abdomen. A few days afterwards he had three attacks of typical biliary colic in rapid succession, and passed a small stone the size of a pea. After this the stools became normal. A few months later several stones were removed from the gall bladder, since which time he has remained well.

A functional pancreatic achylia seems sometimes to occur as an inborn peculiarity, and to result in chronic diarrhoea of pancreatic character, with great impairment of growth and development. The so-called "pancreatic infantilism," described by Byrom Bramwell,[1] probably has this origin. It is possible, too, that defective pancreatic secretion plays a part in the production of the diarrhoea in cases of "coeliac disease," in which the stools have often the characteristic peculiarities.[2]

In the treatment of pancreatic diarrhoea, the amount of fat in the diet should be reduced as far as possible, and dextrinized or malted foods should replace starches to a large extent. An active pancreatic preparation, such as holadin or pankreon, should be administered about three hours after meals. In cases of chronic pancreatitis or blocking of the duct, surgical treatment is often of great service.

3. FERMENTATIVE DIARRHOEA.

There is a form of chronic diarrhoea occasionally met with which appears to be due to defective digestion of starch, although it is uncertain to what this is due. Men of about middle life seem to be most often affected, the symptoms consisting in the passage of frothy and very acid stools along with a good deal of intestinal flatulence. Microscopic examination of the stools reveals the presence of a large amount of unaltered starch. The treatment consists in reducing the amount of starch in the diet, and in the administration of calcium carbonate. Under this plan the symptoms quickly disappear.

4. ENTERITIS.

Chronic diarrhoea the result of catarrh of the small intestine (enteritis) is not so common as is often supposed; indeed, it must be regarded as distinctly rare in the adult. The most frequent causes of it are alcoholism, cirrhosis of the liver, and phthisis. The prolonged use of certain drugs also, such as arsenic and digitalis, is apt to excite it. The symptoms and appearance of the stools are not characteristic, although the presence of particles of bile-stained mucus on microscopic examination is said to be indicative of a catarrh in the small bowel. As a rule, however, the diagnosis has to be made by a process of exclusion. Sometimes the diarrhoea is so pronounced as quite to overshadow the primary disease with which it is

associated. Thus I remember a boy of 15 being brought to me to be dieted for a diarrhoea which had lasted more or less continuously for seven months. The diarrhoea was accompanied by a good deal of wasting, which was believed to be the consequence of it, but on making the usual routine examination I was surprised to find that he had a small cavity at the apex of one lung, and it was only on careful questioning that one elicited from the patient's father a history of cough of some standing. Tubercle bacilli were eventually found in the sputum, and under rest in bed, careful dieting and full doses of bismuth the patient improved sufficiently to be able to go to a sanatorium.

The diarrhoea in cases of phthisis is due, I believe, to catarrh of the small intestine, and not necessarily to ulceration. Indeed one sees cases of extensive ulceration in which there has been no looseness of the bowels.

The treatment of chronic enteritis is not an easy matter. In diet it is necessary to "individualize," as certain articles —for example, milk—which are useful in some cases are injurious in others. All mechanically, chemically, and thermally irritating foods, such as fruits, vegetables, alcohol, and sour things, iced foods and hot drinks, should be forbidden, and the diet confined to the lighter form of animal food and farinaceous articles. Chill should be carefully guarded against, and it is advisable for the patient to wear a warm abdominal belt. The most useful drugs are the carbonates of bismuth and calcium, which should be given in large doses along with carminatives, but tannic acid (for example, tannalbin) is also helpful. In some cases the best results are obtained from a saline aperient (for example, Carlsbad salt) given each morning. Treatment must always be persevering, and relapses are common.

5. Colonic Diarrhoea.

Disease of the colon is perhaps the commonest cause of chronic diarrhoea. The presence of visible mucus and blood in the motions always points to the colon as the seat of the mischief, but it must be remembered that in many cases these are absent, and the routine use of the sigmoidoscope in all cases of chronic looseness of the bowels is the only way to avoid error.

The three commonest causes of this variety of diarrhoea are (1) malignant disease, (2) catarrhal colitis, (3) ulcerative colitis. We may consider each of these separately.

(1) *Malignant Disease.*

It has probably happened to every one of experience in practice at some time or another to overlook malignant disease of the colon as the cause of a chronic diarrhoea. The mistake is easily made, for there is nothing characteristic about the diarrhoea which results from carcinoma of the colon. Not infrequently it exhibits the character of a "morning" diarrhoea, there being a tendency for an explosive action of the bowels to take place soon after waking, but this is by no means constant. Sometimes the mode of onset is very misleading, as in the following case:

Maria M., aged 51, had suffered from diarrhoea for about a year, the trouble beginning in the summer apparently as the result of eating some decomposed fish. The motions numbered from seven to eight daily, and often contained visible mucus and blood—sometimes they were "fermenting." She had lost about a stone in weight since the beginning of her illness. Physical examination revealed nothing beyond moderate wasting, and there was nothing to be felt on examination per rectum. On an exploratory operation being performed she proved to have a malignant growth in the upper part of the rectum.

Any one might have been excused for regarding this case as one of chronic catarrhal colitis, the result of an initial attack of ptomaine poisoning.

Carcinoma supervening upon an old-standing colitis is very apt to be overlooked. Thus I have known carcinoma develop in a colon which has been the seat of an ulcerative colitis for some years. In the following case it arose in a patient who had long been the subject of muco-membranous colitis:

Miss X., aged 50, had suffered for years from colitis and attacks of "congestion of the liver." She had had a great deal of treatment of various sorts, including a course of colon-douching at Harrogate, removal of the appendix, and a rest cure, with a certain amount of benefit, but lately she had lost weight rapidly and had fairly frequent and rather yellow motions. She proved to have a malignant ulcer of the rectum.

It should be specially noted that the fact that a patient is comparatively young is no bar to his having malignant disease of the colon—I have known it occur at 21—and that there may be no signs of cachexia until late in the disease. A very prolonged history of diarrhoea also does not exclude the possibility of malignant disease, as the following case exemplifies:

Miss W., aged 51, had had diarrhoea for two years, which varied greatly from day to day, the motions often amounting to eight in the twenty-four hours. They were usually light in colour, but occasionally contained mucus and dark blood. She had wasted considerably. On examination there was no marked cachexia and the abdomen showed nothing abnormal, but per rectum one could feel an indurated ulcer rather high up.

The moral of these cases is that one should insist upon an examination with the sigmoidoscope in all patients who suffer from chronic diarrhoea, as this is the only way of avoiding error. Even then one may occasionally be misled, as happened in the following case:

Albert R., aged 35, had suffered for five months from diarrhoea, supervening upon an attack of rheumatic fever, the motions numbering about eight daily. He was a well nourished man, but somewhat anaemic. A test meal showed total acidity 40; no free HCl. Examination with the sigmoidoscope, which was carried out by a careful surgeon, revealed nothing. On several occasions whilst the patient was under observation there was dark blood in the stools, and from time to time he passed pus and fibrous shreds in the urine. The cystoscope showed a condition of "cystitis cystica." As he steadily lost weight, he was explored, and a growth was found in the upper part of the sigmoid, which had a very voluminous loop, and the tumour had early become adherent to and infiltrated the bladder. The position of the growth accounted for its not being seen with the sigmoidoscope, and it was too small to feel bimanually. In an attempt to separate it the bowel ruptured, and the patient succumbed three days later.

(2) *Catarrhal Colitis.*

Catarrh of the colon is a common cause, perhaps one of the commonest, of chronic diarrhoea. The simplest cases are those which supervene upon an acute colitis which does not properly clear up. Examples of this are often met with in children, but may occur also in adults as a sequel of an attack of food poisoning. Of this I have met with many instances. The diarrhoea in these cases is often of the explosive "morning" type, whilst in the later part of the day the patient is comparatively comfortable, for example:

Thomas B., aged 36, had suffered from loose bowels for three or four years, but in the past year had been much worse, the motions often numbering nine daily. They usually came in the morning, the first stool being attended with some pain, but after he had been up for about three hours he found that "his inside settled down." Otherwise he counted himself a healthy man, though rather "nervous." He was a total abstainer. Whilst at rest in bed in hospital there was no diarrhoea, but the motions contained a good deal of mucus. The stomach contents showed a total acidity of 40; no free HCl. On examination with the sigmoidoscope the mucous membrane of the rectum and sigmoid was rather red and oedematous, but there was no ulceration. Under prolonged douching he improved greatly.

Examination with the sigmoidoscope in these cases shows a congested, velvety, or oedematous condition of the mucous membrane, attended perhaps with some superficial excoriation. Not infrequently the process is confined to a limited area of the bowel, such as the lower part of the sigmoid. Palpation of the abdomen often reveals slight thickening and tenderness in that region, and cramping pain is not uncommonly complained of in the left iliac fossa. It is probable that a similar localized catarrh may occur in other parts of the colon, especially, perhaps, in the neighbourhood of the ileo-caecal valve, and in such a case disease of the appendix may be closely simulated. It is possible, too, that in some instances the inflammatory process is actually kept up by an unhealthy state of the appendix, or by its adhesion to the colon.

The treatment of chronic diarrhoea arising from catarrh of the colon is not an easy matter. The diet should be regulated on the same lines as in enteritis. In recent cases small doses of castor oil and opium will often effect a cure, but in old-standing "morning diarrhoea" all one's medicinal resources may fail. Bismuth, zinc sulpho-carbolate, a morning dose of castor oil, or an evening one of Dover's powder, all have their advocates, and each may succeed in one case and fail in another. Local treatment in the form of counter-irritation over the sigmoid, and

washing out the bowel with plain saline or mild astringent solutions, such as ½ per cent. argyrol or protargol, is often more successful than anything else.

(3) *Ulcerative Colitis.*

Ulceration of the colon has become well recognized in recent years as a not uncommon cause of obstinate and chronic diarrhoea. In many cases the disease has originated in an attack of tropical dysentery, which the patient has never properly got over, but a certain number are met with in patients who have never been abroad. The relation of such cases to true dysentery is a matter which I do not propose to go into, as it is still the subject of dispute, and in any case is more of theoretical than practical importance. The stools in cases of ulcerative colitis, whether dysenteric or non-dysenteric in origin, tend to have more of the true colonic character than in any other form of diarrhoea, blood and mucus being usually present, whilst tenesmus is not infrequently complained of. One is aided in the diagnosis by a history of dysentery, but certainty can only be reached by the use of the sigmoidoscope.

The medical treatment of these cases is apt to be unsatisfactory, but in the milder cases one may achieve success by the use of the measures employed in catarrhal cases (see above). I have sometimes also had brilliant results from the prolonged use of an exclusive diet of peptonized milk. Vaccine treatment also has a limited sphere of usefulness, but chiefly as an aid to other methods; it is most likely to be successful when cultures yield an almost pure growth of some organism foreign to the bowel—for example, the pneumococcus. In cases in which there is a fairly recent history of acute dysentery ipecacuanha is worth a trial. It was brilliantly successful in the following case:

Alfred N., aged 35, a soldier, returned from India in December, 1905, and in February, 1907, began to suffer from diarrhoea, with the passage of blood and mucus, and attended by tenesmus. He had had several attacks of dysentery, not only in India, but also in Egypt and South Africa. No amoebae or dysentery bacilli were found in the stools, but only various types of *B. coli*. He was given pulverized ipecacuanha in large doses, beginning with 30 grains, the usual precautions being taken against vomiting, with the result that the diarrhoea immediately ceased and the motions became normal. He left the hospital apparently quite well.

In most cases of ulcerative colitis, however, whether dysenteric in origin or not, I believe appendicostomy to be the best treatment. How successful it may be the following cases show:

Mr. M., aged 34, came under observation in April, 1910. He had an attack of dysentery in Hong Kong in 1905, and in September, 1909, underwent an operation for liver abscess in Borneo. Diarrhoea ensued after this and had continued since. He had been treated with ipecacuanha in America without success.

The stools numbered about five daily, some of them containing blood and mucus. Abdominal examination elicited slight thickening and tenderness of the sigmoid. The sigmoidoscope showed the mucous membrane as high as it could be reached to be congested, covered with glairy mucus, and studded with numerous small superficial ulcers. Appendicostomy was performed by Mr. Furnivall, and the colon washed out daily with normal saline. Seven weeks later a second examination with the sigmoidoscope showed that the mucous membrane was entirely healed; the patient had lost his diarrhoea and had gained 2¼ st. in weight.

In the following case the benefit of the operation was even more striking:

Colonel E., aged 68, was first seen in July, 1907. In 1894 he left India on account of dysentery. On his return home he was treated with ipecacuanha and remained well for two years. The diarrhoea then returned and had persisted more or less ever since, in spite of treatment by various astringent medicines, by all sorts of diets, and by a course of Plombières douches.

On examination he was found to be anaemic but fairly nourished. The motions were small, frequent, extremely offensive, and contained blood and mucus; they were passed with much straining. The sigmoidoscope showed the colon to be studded with small ulcers for a distance of 20 cm. above the anus. Appendicostomy was performed and the colon washed out, first with saline and afterwards with weak protargol solution. Eighteen months later he wrote that he was perfectly well except for a slight tendency to constipation.

6. NERVOUS DIARRHOEA.

By nervous diarrhoea one means that form of chronic looseness of the bowels in which no organic disease or secretory defect is to be detected in the alimentary canal but in which the disorder appears to result from an exaggerated irritability of the nerve mechanism which controls peristalsis. Two types can be recognized. In one the action of the bowels tends to take place immediately after or even during meals. To this type the term "postprandial" or "lienteric" diarrhoea is usually applied. It is specially common in children. The fault here appears to consist in an exaggeration of the normal reflex stimulation of peristalsis which always takes place to a slight degree when food enters the stomach. In the other type the diarrhoea is more affected by emotional impressions. Thus, in one of my patients, a harassed, over-driven business man of anxious temperament, it always tended to come on if he was so situated that he could not easily retire for an action of the bowels—for example, if he was travelling in a railway carriage without a lavatory compartment. In another, a society lady, the trouble was always most assertive whenever she had to attend some specially important function. I have also known it affect a nervous anaesthetist (a lady) whenever she had to give an anaesthetic for a particular and rather exacting surgeon, the sound of the latter's step on the stair leading to the operating theatre being enough immediately to induce an attack.

It is possible, I think, that in some of these cases there is really an underlying degree of catarrh of the colon, which causes the latter to respond forcibly to nervous impulses, which in a healthy individual would only be sufficient to produce a mild stimulation of peristalsis.

In the treatment of the nervous form of diarrhoea not much can be effected by diet, and in any case the condition is one of such chronicity that the patient has usually found from his own experience what it is well to avoid. In the lienteric type small doses of opium before meals act almost as a specific. I know that arsenic and nux vomica are often recommended in such cases, but for my own part I have found opium far superior to them in its power of controlling the disorder. In the emotional type opium should be reserved for use in emergencies and to enable the patient to have confidence in his bowels for particular occasions, whilst one should endeavour to allay the general condition of nervous irritability which underlies the condition by regulating the whole life and by the use of general sedatives, such as the bromides.

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THE RELATIONS OF BIOLOGY TO PATHOLOGY.

BY HASTINGS GILFORD, F.R.C.S.,

READING.

"We have viewed every anatomical and pathologic part as an entity, and man as an isolated phenomenon in Nature. May we not find in the laws of phylogeny and association the master key that will open to us the explanation of many of the pathologic phenomena as they have already explained many normal phenomena? And may medicine not correlate the pathologic phenomena of the sick man with the forces of evolution, as the naturalists have correlated the phenomena of the sound man, and disease as well as health be given its evolutionary setting?"—Crile, BRITISH MEDICAL JOURNAL, 1911, vol. ii, p. 945.

IT seems at first quite preposterous for any one to assert that the work of Pasteur and of Lister has in some respects had a retarding effect upon medical science. But that such is the case can, I think, be demonstrated beyond question. So strong has been the light which has been shed by the two great luminaries upon surgical pathology and upon some departments of medicine that other and quite as important departments have been thrown into the shade. We all know how Pasteur and Lister in more than one sense revived medicine and surgery, much as Schwann revived our conceptions of anatomy, and Virchow of morbid anatomy. Before the discoveries of Pasteur and of Lister surgery had arrived at a stage from which it could not advance. It had become stagnant or chrysalised. From this hide-bound condition it was liberated as by an act of obstetrics into a far freer and more abundant life than it had ever known before, and the instrument by means of which this was accomplished was biology. And

not only was surgery biologized, but our ideas of pneumonia, of rheumatic fever, of tuberculosis, of syphilis, and of many other diseases have undergone similar emancipation.

Nevertheless, in spite of, as well as because of, this great and beneficent change, a large group of diseases still remains in almost as benighted a state in respect to our knowledge of its pathology as it was in the Sixties. That our understanding of bacteriology, instead of enlightening our darkness in regard to these diseases, has tended to their obscurity is shown in many ways, perhaps in no respect more emphatically than by the present status of clinical medicine as a science in comparison with bacteriology. The nomenclature which has cropped up about the new science is also eloquent of the same loss of prestige. Let us take for example the word "research." What can be more arrogant than the modern use of this word. It is applied almost exclusively to investigations into the minuter or more subtle forms of matter. Hence, he who undertakes a test tube investigation of the plague is a "researcher," and is employed in a "research," but he who does equally diligent work on the clinical aspects of, say, Bright's disease, or Hodgkin's disease, has no such dignity bestowed upon him. This use of the word "research" is based upon the tacit assumption that in the one case the worker is engaged in a veritable pioneer exploration, in the other he is not. However good the result of the clinical study may be to the individual, so far as the advancement of learning is concerned it is about as profitable as walking on a treadmill or flogging a dead horse.

There are other words or phrases which point even more definitely to the overwhelming predominance of bacteriological over clinical science. These are words or phrases appropriate to microbial disease, but sometimes forced out of their proper place to do duty in the non-microbial disorders. "Toxins of bacterial origin," "toxaemia of pregnancy," "autointoxication," "toxaemia," or "toxin" itself is full of meaning when appropriately applied in microbial disease, but is vapid, meaningless, and worse than useless as commonly applied to diseases other than microbial. Thus, when acute rheumatism or gonorrhoeal rheumatism is described as an intoxication a more apt and fitting word can hardly be imagined, for it is exactly appropriate to the circumstances. But when arthritis deformans is described as an intoxication, or, still worse, autointoxication, the term as we commonly use it is significant of nothing but a sort of mental flatulency on the part of the user or as a substitute for thought. In the one case the word rings true, as of a genuine coinage; in the other it is as flimsy, as unsubstantial, as a paper currency. Moreover, it has no basis of fact, and represents nothing save a bankrupt exchequer. Being at a loss to account for a disease, and having found bacteriology of so great value when properly applied, we think we cannot do better than foist off a bacteriological term in the hope that it may be accepted as a genuine explanation.

Much the same may be said of the use of these same words to such conditions as cirrhosis of the liver, pernicious anaemia, leukaemia, Graves's disease, progressive muscular atrophy, osteomalacia, muscular dystrophy, cancer. A toxin may in some cases give the malady its first impetus, or possibly may appear as an epiphenomenon in its course, but nothing seems clearer than that the morbid process is not toxic in nature, seeing that it may arise, run its course, and terminate under circumstances in which the toxins seem to play no part whatsoever.

The question now arises: If the disorders alluded to are not the work of micro-organisms, what is their pathology? It is hardly within the scope of this article adequately to answer this question, even if it be possible. One can go no farther than to ask that as surgery, midwifery, gynaecology have been so gloriously revived as the result of biology, ought we not to make use of a similar key in order to unlock the mysteries which are still concealed behind the names of diseases of unknown pathology, some of which have just been mentioned? Moreover, each and every disease of this group has been so often and so persistently regarded as a bacterial product, and with so little success, that it is surely time that we abandoned this department of biology and directed our attention to some other way of accounting for them. That they can be accounted for in another way is, I think, capable of proof. Fortunately, this proof requires no output of genius. All that is required is the use of an average intelligence, a little patience and ingenuity, the resolve to think biologically, not pathologically, and, above all, the ability to purge the mind of those preconceptions and prejudices which do more than anything else to obscure new issues. So equipped, and with the way clear, we find all the materials we require ready at hand and only waiting to be put together in their proper order.

These materials are the common biological facts of variation, heredity, adaptation to circumstances, correlation, interwoven in their proper order with the fleeting changes of age, or with the peculiarities incidental to sex. The doctrines of reversion and of the recapitulation of characters, the facts of comparative anatomy, of anthropology, of palaeontology, must be liberally drawn upon, and adequate allowance must be made for the different effects of similar circumstances upon single cells, upon cell communities or organs, and upon the man as a whole.

In the course of this inquiry we shall speedily realize to the full the reality of the gulf which separates the two groups. In the one group the component disorders are marshalled into systems and organized into a science; in the other group we see little more than a rabble of almost disconnected diseases. These latter do not as yet display any of that orderly arrangement of knowledge which constitutes a science; for, though it is true that their structure has been, and is being, worked out scientifically, this cannot be said of the diseases themselves. Their anatomy is scientific, but not their pathology.

We next find that the diseases in question differ radically from the microbial diseases, in that while the microbial disorders are the products of external agents, each member of this scattered horde is of intrinsic production, or, more accurately, the members of the one group are of contemporary and of the other group of prehistoric origin.

Our next step is to realize that this second group may be divided into two further groups. In the one the disorders are solely of intrinsic (or remoter) production; in the other they are fundamentally intrinsic, but are also in part the outcome of environment. To realize the significance of this division we must go to the doctrine of variation.

Biological variations have been divided by Bateson into two kinds—namely, those which consist in numerical changes, as in polydactylism, and those which consist in an alteration in constitution. It is the latter with which we are now concerned. Of these *substantive variations* some are more emphatic, spring into being with a leap, irrespective of environment, and are variously termed mutations, sports, discontinuous variations. These are handed down from generation to generation, unless of such a nature as to provoke sterility, or in other ways to facilitate their own extinction. Of this form of variation albinism is a good example.

The second kind of variation is less pronounced, is never hereditary, and is amenable to the influence of environment. Hence it is dependent for its existence partly upon intrinsic and partly upon extrinsic causes. This minor order of variation is termed fluctuation or continuous variation. It is this variation which accounts for the whiteness of the Arctic fox. Evidently, therefore, certain wild animals are liable to become affected with whiteness. The one form of whiteness is erratic in its appearance, or, in other words, occurs sporadically, without reason, and animals so affected are prone to transmit the abnormality to their descendants. This is a mutation. The other whiteness comes about partly as the result of an occult factor, termed fluctuation, and partly as the result of an environment calculated to harmonize with this particular form of variation, but is never the result of heredity.

We are so accustomed to regard genetics and evolution in general from the utilitarian point of view as making for the progress of the race, that we ignore and even forget that as "everye white will have its blacke and everye sweete its sowre," so also the very doctrine of the survival of the fit implies that there are also the unfit. It is in this evolutionary scrap-heap that we must make our search for the variations which are diseases. These diseases consist essentially in extremes. For example, a certain brain area is too small or too big, too tardy or too hurried in its development. Either of these extremes is abnormal, sufficiently abnormal, it may be, to constitute disease, and to cause the individual to whom the brain belongs to be

cast on one side as one of the unfit. So after the same fashion with other organs, with individual cells, or with the whole human being. Each division is liable to these variations. Moreover, we have no difficulty in separating from our group of diseases some which are of pronounced degree, spring into being and run their course to all appearances spontaneously, are sporadic, and apt to occur hereditarily. Among these are sporadic cretinism, achondroplasia, idiopathic pernicious anaemia, idiopathic microcephaly, muscular dystrophy, hypertrophic cirrhosis of the liver, osteitis deformans, Friedreich's ataxia. These correspond with the major or discontinuous variations. They are biological mutations rendered pathological by being carried to extremes.

Other disorders show no tendency to heredity, occur partly as the result of some occult influence, and partly as the result of definite causes. These correspond with the fluctuations or minor variations. Among them are endemic cretinism, rickets, atrophic cirrhosis of the liver, chlorosis, and those forms of pernicious anaemia—microcephaly, osteomalacia, and osteitis deformans—which can be traced to the operation of causes. These are in truth of a double origin, for though they originate as variations, their actual appearance is due to the influence of a pernicious environment.

But it is evident that we shall have to enlarge our views of that word "environment." We cannot restrict the word to those circumstances which actually surround the human being, but must also extend it to those things which he takes internally, for it must be obvious that, though not strictly speaking the environment of the whole man, by circulating in his fluids they constitute an environment to his organs and cells. Hence, the poisonous gin which a man swallows at the bar of a low public house is just as truly a part of his environment as are the foul air, the coarse and dirty furniture, and the evil talk of his ragged and grimy associates. So also in respect to endemic cretinism, the environment which starts it into being may be in part some gloomy valley in which such cretins so often live. It may also in part consist of the sediment-laden glacier water which constitutes their daily drink.

We all understand that the normal evolution of a healthy human being is facilitated by a congenial environment. An abundance of good food and of fresh air, comfortable clothes, a temperate climate, cheerful society, good music, paintings, and literature, all tend to soundness of health and to vigour of mind and body. So, also, inadequate food and clothing, over-fatigue, the stale air of unventilated rooms, paucity of sunshine, and poverty, misery, hardship, or any form of mental shock or depression, however produced, all tend to lower the vitality and to facilitate, and in some degree to initiate, disease. The circumstances in the former case act congenially upon normal variations of minor degree to promote evolution. Circumstances in the latter case act congenially upon those variations which are decadent, reversionary, or regressive, tending to throw the man or some part of the man seriously back in the evolutionary scale, causing cells or organs to be at discord with the rest of the body or the man with other men. The one set of circumstances induces biological variations, the other pathological. Under the heading of a pernicious environment, we must include all those substances which taken into the body act inimically upon its constituents, and have, therefore, received the special name of toxins. Though different in kind, these are fundamentally of the same nature in regard to their effects as the circumstances which have just been mentioned. All are indeed toxins, no matter whether they surround the body, are taken internally, are physical or psychical. Failure in business, disappointment in love, conspicuous ingratitude, the depravity of a near relative, the shock of a railway accident, or a serious local injury acts just as truly as a poison upon the body as does scarlet fever, enteric fever, or even alcohol or syphilis. The symptoms produced by an unexpected financial reverse may consist in sleeplessness, loss of appetite, depression of spirits, and a haggard expression of face; and those produced by scarlet fever may consist in fever, loss of appetite, sore throat, and a skin rash, but the differences are differences in detail, and do not affect the main proposition that both are poisonous and capable of acting in conjunction with latent variation to set up a state of intrinsic disease. And this secondary intrinsic disease, say Graves's disease, myxoedema, or rheumatoid arthritis, once established, will continue even if the extrinsic influence be completely withdrawn.

We have now arrived at a point from which we can reconcile our conception of normal evolution with our conception of certain kinds of disease. In both cases we have to do with variations, major or minor. In the one the variations synchronize with circumstances which tend gradually to raise the individual in the scale of creation. In the other the variations are incompatible with normal evolution. They represent biological extremes and are, therefore, discordant. Under ordinary circumstances they remain latent or are suppressed; but if perchance the environment should be of such a nature as to co-operate with or to accentuate them they cease to be latent, but become patent and show themselves in the form of disease.

Pathological variations may be either progressive or regressive. In other words, those variations which ordinarily mark the progress of a thing or of a quality may be exaggerated to such a degree as to cease to be normal, or may even come within the definition of disease. A good example of this kind of variation is the overgrown thyroid of Graves's disease. The other variation is pathological and regressive, because it represents a thing or quality which has so fallen short of its normal standard as to constitute disorder. Thus microcephaly is a regressive variation, seeing that the growth of the brain is arrested long before it has reached a point which is compatible with healthy standards of brain development.

From this it will be gathered that pathological variations are no more than the extreme forms of biological variations. They are pathological not because they are extremes, but because they are discordant. Thus the ears of a lop-eared rabbit are almost certainly the result of a variation of extreme degree, but no one can say they are pathological, for they happen to suit the taste of rabbit fanciers, and though they must be a nuisance to the rabbit, and must interfere with hearing, they tend to prolongation of life and the continuance of the race, and cannot therefore be regarded as morbid or out of place. So, also, when the "caudal appendage" of a dog is, so to say, curtailed as the result of a major variation, as in the bobtailed sheep dog, the result can hardly be termed either a deformity or a disease. And even when the limbs of a dog are shortened by that particular form of variation which we term "achondroplasia," the result is in no sense a distemper. If the dog were a wild dog, it would no doubt have that effect, seeing that it would make it more difficult for the animal to seize its prey, and would render it more liable to be killed by its enemies. But under circumstances now natural to this particular breed of dogs the achondroplasia, so far from unfitting the animal for existence, constitutes a positive advantage, and is a biological asset. The old turnspit dog, the dachshund, the Dandie Dinmont, the Sussex spaniel are all achondroplasic. Though a variation of major degree the achondroplasia is not pathological, seeing that it promotes longevity and tends to the perpetuation of the species. But when a human being is affected with achondroplasia we have to do with a major variation which is pathological, for, other things being equal, the shortness of the limbs, the deformity of the pelvic bones, and the other concomitants of achondroplasia constitute disabilities which both seriously handicap the individual in his progress through life and tend to bring about his racial extinction. Not only are many occupations barred against him because of his incongruous appearance, but he finds it difficult to secure a mate. Moreover, if the achondroplasic chance to be a woman, owing to the deformity of her pelvis she runs peculiar risks at the time of childbirth. Hence for these reasons achondroplasia, which constitutes a normal condition in the dog, is very rightly regarded as a disorder in the man. It harmonizes with the circumstances natural to the dog, and is discordant with the circumstances natural to the man.

Another variation of major degree and progressive in character which is very decidedly pathological is that of the thyroid gland in Graves's disease. In this disorder the excessive growth of the thyroid is so obviously out of keeping with bodily circumstances in general that no one hesitates to call it a disorder. And so also with ill-development or premature degeneration of the thyroid gland, a major regressive variation which gives rise to sporadic cretinism.

These are examples of major variation. An example of minor variation akin to achondroplasia is furnished by rickets. Rickets is due in the first place to some hidden factor. It is this which accounts for the fact that under similar circumstances the disease occurs in some children and not in others. This hidden factor is, of course, the variation or fluctuation. This variation is brought to the surface or fostered by certain circumstances which are favourable to the variation but are adverse to the individual. These circumstances are stale air, thin condensed milk scandalously deficient in fats, and all these other circumstances which we know so well as the causes of rickets.

In some disorders the distinction between major and minor variation is not so marked. This is the case with rheumatoid arthritis. Rheumatoid arthritis or arthritis deformans is a disorder of whose pathology we are at present in complete ignorance and can do no more than conjecture. In the words of Dr. McCrae in the *System of Medicine* of which he is the joint editor,

> There is "no agreement as to what the disease essentially is. To recount the various theories in detail is not necessary. A relationship of rheumatism and gout, an inherited arthritic diathesis, a special kind of degeneration, disturbed nutrition, an inflammatory process, of essential nervous origin, due to injury, reflex irritation, or disease of a supposed joint centre, and some form of infection, have all been suggested at some time or other."

Now let us regard it as a variation and we see how much more precise, how much more just and satisfactory, is our conception of its pathology.

Arthritis deformans is a degeneration of the joints which may be divided into two forms. In the one it arises without ascertainable cause, chiefly in young people, is remarkable for the severity of the damage it inflicts, and for occasionally showing the influence of heredity. As no cause can be found so also is there no remedy, for though it runs a variable course it terminates almost inevitably in the complete ruin of the joint. This form is a mutation.

The other form may or may not arise spontaneously, yet in all cases we can detect the influence of a cryptic element accounting for the way in which, other circumstances being equal, the disease seems capriciously to select some individuals in preference to others. It is a fluctuation, and like all fluctuations, responds to the influence of environment; but the fluctuation being of a decadent nature and having a tendency to thwart or reverse the normal course of evolution this favourable environment is one which is calculated to lower vitality or accelerate old age. Overwork of the joint, anxiety, mental strain, direct damage by dislocation or other injury, the debilitating effect of previous illness, such as influenza, enteric fever, are all favourable to the appearance and continuance of the disease. Probably in most cases the general debility produced by bacterial intoxication constitutes in itself an environment sufficient for the purpose, but in some cases it is possible that a toxin acting locally in concentrated form, as in gonorrhoea or in rheumatic fever, is still more effective. But of all the circumstances favourable to the appearance of rheumatoid arthritis none can be compared with old age.

Though the disease itself is neither an inflammation (arthritis) nor an intoxication it is highly probable that the resisting power of the joints to local invasions is lowered by the morbid process and that they are therefore more liable than are sound joints to become inflamed.

It is the disease *par excellence* for the miracle worker and for the charlatan, for, though induced or encouraged by depressing surroundings, it is capable of being improved or even removed by influences of a contrary nature. The environment of worry or misery, which is in part responsible for the distemper, or the depressing conviction of being a cripple for life, which tends to its continuance, is counteracted by the joyful and confident anticipation of a speedy and permanent cure, such as no one but the religious enthusiast or unprincipled quack is able to infuse into the victim of arthritis deformans. At the same time, it must be understood that this is not written for the sake of upholding such methods. Though it would be idle to deny their efficacy, it is certain that they are neither proper nor expedient. They may answer for the time being, but a more rational and truthful way must be more successful in the end. A doctor cannot impress the imagination of his patients by festooning his rooms with crutches, by unscrupulous promises, or by adopting the blatant methods of the quack: yet, if he once realize the importance of a sanguine outlook and of treatment by suggestion, he can enthuse the patient with his own optimism, and can offer that encouragement which is born of knowledge and experience. These must be far more effective in the long run than any form of exaltation or make-believe, however sensational.

It cannot be pretended that this is an adequate explanation of arthritis deformans, yet it is satisfactory so far as it goes, and may serve as an example of the way in which disease may be approached from its biological aspects. The next step is to inquire into the meaning of variations in general and of pathological variations in particular.

It is of course impossible to furnish such explanation within the limits of this article, but those who wish to inquire further into the nature of variations cannot do better than go to the Mneme theory of Semon.[1] The value of this theory has not yet been fully realized by biologists in this country. Yet German authorities regard it as of momentous and far-reaching significance, and Haeckel has gone so far as to describe it as "the most important advance that evolution has made since Darwin, and the most valuable amplification of his theory of selection."[2] Semon translates the facts of heredity and of variation into terms of memory. As the brain cell is the seat of individual memory, so is the sex cell the seat of racial memory. Racial memory begins with the union of the sex cells. This act by a species of mnemonics furnishes the clue to the next step, just as in brain memory one event by association of ideas recalls another event. Racial memory once set going continues automatically until, on the attainment of middle age, the building of the body is completed. Racial, like ordinary, memory is not infallible. The registration of impressions received in the remote past, when animal evolution was beginning, are very imperfect, so that only the dim outlines of great and widespread changes are repeated. But as the construction of the body approaches completion impressions are reproduced with ever-increasing fidelity. Impressions may be blurred in one case and not in another, and occasionally actual lapses occur, so that important evolutionary events are forgotten. On the other hand, impressions may stand out far too conspicuously, to the derangement of the general effect. It is after this fashion that variations, normal and pathological, arise. An act of racial forgetfulness, if of extreme degree, is a regressive major variation. The memory of a great racial disaster or depression may be so subdued by lapse of time as to remain latent, but the associations furnished by a depressing environment are capable of awakening those long dormant impulses: the memory of the ancient environment is revived by a modern environment of a similar tendency, and the two together give rise to a regressive minor variation.

These meagre outlines of part of a very comprehensive theory may serve to suggest how other kinds of variation may be explained. Perhaps the greatest achievement of the Mneme theory is that, through memory, the theory of evolution is brought into line with the undulatory theories of light, of heat, of electricity, and of other forms of energy.

The nature of the particular variations to which reference has been made can only be understood on inquiry into the principles which underlie growth, development, old age, and the other ingredients mentioned at the beginning as requisite for our biological composition. It is necessary to repeat that this explanation of pathological variations makes no pretence to completeness. All that one can hope to do within the pages of a weekly journal is to indicate, however imperfectly, the beginning of the way in which a host of diseases of unknown pathology may be reconciled with ordinary biological conceptions. Any one who will take the trouble to continue along the same path and will deal after a similar fashion with other diseases of the group will, I am convinced, reap an ample reward, and in the end will possess an understanding of their pathology comparable with that with which we now regard microbial disease. He will find that these disorders which are now among the mysteries of medicine will be no longer mysterious. He will understand the nature of cancer, of pernicious anaemia, of leukaemia, of Graves's disease, as we now understand

that of syphilis, of malaria, and of tuberculosis. Disorders of this sort, like the microbial disorders, will naturally arrange themselves into groups: yet it will be found that all, in the words of Erasmus Darwin, can be brought within the fold of a "theory founded upon Nature, that should bind together the scattered facts of medical knowledge, and convert into one point of view the laws of organic life."[3]

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ULCEROUS LESIONS OF THE TONGUE.

BY

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[WITH COLOURED PLATE.]

WHEN every means at our command has been employed there should be no error in the diagnosis of, and consequently no difference of opinion as to the nature of, any ulcer of the tongue. We may, from a clinical standpoint, consider ulcers of the tongue as: (*a*) Evidently simple, (*b*) definitely malignant, (*c*) doubtful; but to delay the justifiable removal of a malignant ulcer or to excise a non-carcinomatous tongue are errors which will eventually carry with them their own condemnation, because they can be obviated if the precepts laid down in the following pages are closely adhered to and if the fallibility of clinical diagnosis is constantly borne in mind.

The "*simple ulcer*," recent in appearance and of obvious causation—for example, a sharp tooth, local trauma, or glossitis—is characterized by absence of neuralgic pain, absence of peripheral induration, and, though tumefaction may not be evident to the naked eye, a certain amount of local oedema is distinctly seen by means of a lens; further, there is an absence (?) of lymphatic enlargement, an absence of foul deposit on the neighbouring teeth, except that which may be accounted for by delay or neglect of cleanliness.

When the exciting causes are removed—projecting stumps or edges of teeth—or in the case of aphthous sores after due attention to gastric conditions, the general health, and salivary lithiasis, the simple ulcer invariably heals in a few days; if not, there is cause for grave suspicion.

Treatment.

1. *Medicinal*, by mouth washes, for gastritis or for infective folliculitis.

2. *Dental*, for removal of any projecting or irregular tooth; "no dentist should take any responsibility in the treatment of any ulcer of the tongue beyond the limited domain of his qualification as a dentist."

3. *Topical*, by chromic acid solution; by caustics (*a*) actual cautery, (*b*) thermo-cautery—Pacquelin, (*c*) electro-cautery, (*d*) chemical caustics; by radium.

There is always a temptation to treat ulcers of the tongue by means of caustics, but this is a dangerous procedure, owing to loss of time and inefficiency, and should rarely be followed. The treatment by the application of caustics, such as silver nitrate, can do no possible good if the lesion is cancer, though in my opinion its application to simple ulcers or other lesions cannot induce carcinoma.

Whatever radiotherapy may do, such application must be topical, like all other thermal and caustic remedies. Some may object to the application of radium to ulcers, lest its effect be no better than a caustic, and valuable time be lost in the course of an undiagnosticated carcinoma: the effect of radium is beneficial in cancer, and while causing healing superficially it likewise penetrates to a considerable depth.

The practitioner in all cases of soreness of the tongue or mouth must not forget that salivary lithiasis or ptyalolithiasis is of more frequent occurrence than is anticipated, or, in other words, that many conditions of the tongue are due to salivary constituents, and not to gastric conditions.

Treatment includes cleansing of teeth, compressed-air jet containing a spray, revolving brush for removal of tartar, facial massage of the salivary glands; drinking of waters; fruit, especially oranges and pineapple.

Tuberculous Ulcer.

The tuberculous ulcer, situated generally on the dorsum or at the tip of the tongue, is readily recognized as a pallid solitary sore, often of considerable depth with sharply cut edges, indolent base usually devoid of induration, and almost invariably associated with pulmonary or laryngeal tuberculosis in young adults. With such associated manifestations the lesion is recognized with no great difficulty, but when the ulcer occurs primarily on the tongue the question is more difficult from the clinical side.

To the naked eye the bottom of the ulcer may appear to remain stationary, except for extension of its satellitic foci, and cause but little if any inconvenience, yet resisting all treatment except caustics, cautery, or curette; curettage is the ideal treatment. Its slow progress is, however, rendered apparent if examination is closely made with the aid of a good lens.

If an ulcer is suspected of being tuberculous the following considerations should be kept in mind as having a definite bearing on the diagnosis, treatment, and prognosis—namely, age and existence of tuberculosis in other parts of the body.

I will refer to the more recent methods which may assist when doubt or aversion to the use of the knife exists.

Tuberculin Tests.—The more recent modifications of the tuberculin test evolved from the original injection method have led to its more extensive employment, and have given to us a fair idea of their respective values. The following are now extensively employed:

1. The ocular instillation test, or Calmette's ophthalmic reaction. A drop of tuberculin (T.O.A.) is instilled into the conjunctival sac. In twelve to twenty-four hours an inflammatory reaction results in tuberculous patients.

2. The skin inunction test, or Moro's percutaneous reaction. Equal parts of tuberculin (T.O.A.) and hydrated lanolin are rubbed into the skin, when a similar reaction to von Pirquet's will result.

3. The cutaneo-inoculation test, or von Pirquet's reaction. The skin of the forearm, cleansed and scarified, is inoculated with a drop of tuberculin (T.O.A.). In about twenty-four hours a reaction occurs followed by a characteristic papule or vesicle.

The wider use of these methods during the past few years has impressed me with their clinical limitations. The results fall considerably short of the requirements for an ideal diagnostic method in suspected tuberculosis, though relatively good in confirmation of the clinically tuberculous.

The diagnosis demands the employment of:

1. Tuberculin tests.
2. Scrapings of the ulcer (epithelioid cells and tubercle bacilli).
3. Excision of a piece (epithelioid cells, tubercle bacilli, and giant cells).

Scrapings are unsatisfactory, as by this means oftentimes only the detritus of necrotic cells is obtained; as in the case of the tongue a piece can easily be excised for microscopic examination, this procedure should be adopted.

More than one tongue has been excised with the idea that it was the seat of cancer for want of appreciation by the surgeon of these additional and essential diagnostic methods.

Actinomycosis.

Though this disease is not common in the human subject it should be borne in mind (1) that its most frequent avenue of entrance is the mouth, (2) that the only positive diagnostic evidence is the presence of the actinomyces, (3) that the occurrence of this disease is diagnosed absolutely by its yellow granules visible to the naked eye, greasy to the touch, which, when placed under the microscope, reveal the distinctive characters of the growth.

I have seen these points revealed after the tongue had been removed for a lesion which was not too extensive for the remedial processes of scraping, caustics and iodic treatment. A biopsy for microscopic diagnosis prior to operation would have eliminated such a serious error.

Treatment is by mouth washes, progressive increasing doses of iodides, iodoglidine, etc., and locally by iodex, etc.

In the extensive literature on the antecedents to cancer of the tongue and pre-cancerous states of the tongue we find very little attention has been directed to lingual papillitis, which gives rise to more distressing symptoms than leukoplakia with which it may be associated.

Lingual Papillitis.

Lingual papillitis—a frequent associate of gastric disturbance, and often found in syphilitics—is predominated by a burning pain in the anterior two-thirds of the tongue, increased by any food except the most bland diet. Scarcely can any lesion be detected by the naked eye, but a lens will bring into view a varying number of minute red spots, as though they were the truncated bases of hypertrophied papillae with exposed nerve endings in the minute yet exceedingly painful ulcer. How far this may be an antecedent to either the localized or more rare diffuse variety of "carcinoma linguae" I cannot tell, but occasionally it may be the earliest evidence of commencing carcinoma. The only satisfactory line of treatment to adopt consists in: No alcohol, no condiments, no smoking; bland diet of milk and milk preparations; galvanic cautery directed to the small points (local anaesthesia being employed), which are picked out by means of a lens; application of chromic acid (solution of gr. xx in 1 oz. of water).

Syphilis of the Tongue.

This is probably the most common of all diseases of the tongue, being found as the following ulcerous lesions:

Superficial:
- Primary infective focus or chancre—rare.
- Fissures and ulcers on the dorsum of the tongue—irritable and sensitive to the touch.
- Ulcerous indentations around the edge of the tongue.
- Sessile warty growths—often multiple.
- Patches of faint leukomata.
- Denser patches of leukoplakia.

Deep:
- Indurated masses—gummata—which form in the substance of the tongue, with an upheaval of the surface, and on breaking down leave a crateriform excavation with little or no peripheral induration, but with its deep base covered by a dirty greyish-yellow secretion.

A multiplicity of lesions on the tongue, palate, lips, gums, and cheeks, with evidence of syphilis elsewhere—for example, small, hard, multiple posterior cervical glands, with an absence of enlarged submaxillary lymphatic glands, or lymphatic glands which produce a noticeable fullness of the sterno-mastoid muscle—aid in the corroboration of the diagnosis.

Syphilitic ulcers are relatively painless, often symmetrical; the breath has a characteristic (when recognizable) odour distinct from the peculiar fetid smell of cancer. Lastly, protrusion of the tongue is evidence that syphilis very rarely embarrasses its mobility. The real relation of cancer of the tongue to syphilis of the tongue has not been fathomed. Syphilides of the tongue bear no relation in their paucity to cancer of the tongue in the female. The diagnosis of syphilis has now advanced beyond the correct judgement of clinical signs to a scientific and almost incontrovertible certainty by means of (1) detection of the *Spirochaeta pallida*; (2) Wassermann's reaction, which is based upon the theory of complement fixation.

Leukoplakia.

No condition of the tongue to-day occupies a more important position than the white patches—of variable duration, and accompanied by only slight, if any, pain—which, though found not only upon the tongue but also on the cheeks, gums, lips, and palate, are viewed as the too frequent antecedents to "epithelioma linguae." What are these white patches? Some arise after the establishment of the carcinoma, and are evidence of the non-removal of epithelium heaped up owing to the limited movements of the tongue; others are nothing more than the mucous cicatricial coverings which overlie previously existing small ulcers and fissures; these are very liable to fresh crackings and fissurings.

We are told again and again that the history of cancer of the tongue is invariably based upon a life of syphilization and a period of leukoplakia, culminating in the cancerous stage which rapidly runs to death—a painful and distressing death to the patient, associated with much offensiveness to those who minister to his last wants. We are told that some irritation—heaven only knows what may not be included in the category of irritation according to the individual writer—is responsible for cancer.

I fail to see how a leukoplaque of heaped-up layers of epithelium induced by thickening from so-called irritation can be cancerous unless carcinoma is the cause of this proliferation, or unless fresh cracks and fissures allow the ingress of a *contagium vivum*.

In connexion with this question I would lead all cancrologists to ask themselves seriously why a visceral pericardial leukoplaque, commonly known as a milk-spot, is so frequent, whereas we have yet to learn of endothelioma pericardii.

Treatment.

The treatment is shown in the following table:

(*a*) Bland diet.
(*b*) Antisyphilitic régime.
(*c*) Ionization by (i) potassii iodidi gr. x, aq. ad ℥j; (ii) liq. hydrargyri perchlor. on alternate days.
(*d*) Radium.
(*e*) Chromic acid gr. xx, ad aq. ℥j, better employed at intervals, the spots being picked out by the practitioner himself for the following important reasons: (i) The application is more efficiently made; (ii) observation is ensured.
(*f*) Operation. If there be one, two, or even three patches, excision may be urged, as such alone can, with certainty, avert epithelioma from the patch itself.
(*g*) The use of the following paste: Terrae siliceae gr. xxiv, resorcini gr. xlviii, adipis gr. viii.

If the lesion is of simple or syphilitic origin the treatment will correct the trouble, but if the diagnosis is doubtful can any loss of time before making a biopsy be in any degree justifiable?

Carcinoma of the Tongue.

Carcinoma of the tongue vies in frequency with carcinoma of the lower lip. Its occurrence was computed by Butlin as 820 cases per annum in England. The sex-frequency is represented as males 85 per cent., females 15 per cent. The age-incidence as 40+. No satisfactory explanation has as yet been given of this remarkable disparity of occurrence. The scars of syphilis, jagged teeth, smoking, pressure of pipe stem, alcohol, condiments, betel-nut and caustics are among the many accepted factors in the vague category of predisposing causes, but to my mind these one and all produce a condition of epithelium which retards or even prevents the healing of an abrasion, soreness, or ulcer. These factors fail to account for the greater frequency of faucio-glossal, lingno-mandibular and sublingual carcinoma in the male than in the female, whereas carcinoma of the larynx does not evidence such disparity.

The relation of cancer to pre-existing lesions has probably attracted more attention in the case of the tongue than anywhere else, and has led to the common usage of the word "precancerous," a term much to be regretted.

Many conditions regarded clinically as precancerous have been shown microscopically to be definitely cancer. Persons who present long-standing marks of past syphilitic lesions of the tongue—leukoplakia or warty growths—are considered particularly liable to cancer of the tongue. The primary relation to my mind is not a cellular

DESCRIPTION OF SPECIAL PLATE.

Fig. 1.—Simple ulcers of tongue. Female, aged 59. Wearing dental plate.

Fig. 2.—Tuberculous ulcer of tongue. Male, aged 54.

Fig. 3.—Carcinomatous ulcer of tongue. Male, aged 63. White area indicates absence of linguo-palatal or linguo-dental friction.

Fig. 4.—Symmetrical syphilitic lesions. Yellow spots indicate present ulcerous conditions. White areas indicate healed ulcerous conditions. Male, aged 45.

Fig. 5.—Carcinomatous ulcer of floor of mouth. Male, aged 58. Commencing as a fissure across the fraenum linguae.

Fig. 6.—Carcinomatosis of syphilitic tongue. Male, aged 47. Leukoplakia indicate previous ulcerous states, raised papillary regions existing carcinoma.

MR. J. HOWELL EVANS: ULCEROUS LESIONS OF THE TONGUE.



FIG. 1.



FIG. 2.



FIG. 3.



FIG. 4.



FIG. 5.



FIG. 6.

metamorphosis, but a loss of surface which allows of an ingression. As on the skin so on the tongue, carcinoma may follow upon a simple papilloma or a papillary granuloma (syphilitic); the tendency of such lesions to lead to a breach in the surface is phenomenal. It is noteworthy that the disease frequently commences in a fissure or abrasion with gradual extending infiltration.

We cannot disregard the most workable of all hypotheses in the field of cancrology—namely, "that a living parasite lies undiscovered lurking behind the mysteries of carcinoma"; lesions, sometimes gross, oftentimes imperceptible, permitting of the ingress of this *contagium virum*. Consequently you cannot neglect the advocacy of early removal of doubtful lesions, because operation prior to extension beyond the local condition is eminently satisfactory.

From a single small initial lesion the course of all the subsequent progressive and agonizing manifestations can be traced. A minute fissure, excoriation, or ulcer remains for a few weeks without healing, meanwhile being rubbed by the irregularity of a projecting tooth or denture, but at the end of this short period occasional burning with progressively distressing pains radiating from the ear are experienced. The little ulcer has extended, and within the brief space of a few weeks evidences the characteristic marginal induration with a limitation in the free movements of the tongue. The lymphatic glands, at first tender, have now become definitely palpable. Profuse and disconcerting salivation with an insufferably fetid breath hail the falling off of the general health and the presentation of one of the most hideous and piteous sights we meet with in our practice.

Conversely it is neither the leukoplaque nor the single typical ulcer with its indurated, cavernous, ragged edge, nor yet several small nodules which eventually coalesce in the formation of an offensive ragged sore covered with a granular surface, but a diffusedly infiltrated tongue with multiple distinct sores which the clinician finds—a rapid lingual carcinomatosis, as is sometimes seen in other organs—for example, mamma, stomach, and uterus. Though the early appearance of this affection is a fissure or ulcer, hard to the touch, puckered in appearance, and productive of pain, a carcinomatous ulcer of the tongue may continue for weeks and even months without giving rise to pain or any inconvenience.

The patient too often delays seeking medical advice, whereas owing to the absence of the fourfold classical signs—pain, fixation, offensiveness, and deep ulceration—the practitioner applies a caustic, hoping, despite his constant fear of being in error, that the ulcer will heal.

As members of the medical profession we must constantly bear in mind that "success rests with early and accurate diagnosis"; this all-important question demands the co-operation of the laity with the medical profession. Every patient should be subjected to a thorough examination, due caution being taken neither to overlook any suspicious sign nor to disregard any symptom appreciated by the patient. The surgeon should be cognizant of and employ every assistance which pathology at the present day affords, otherwise he is liable to some cruel surprises when the results of his indifferent clinical acumen are exposed by the microscopist's subsequent revelations—the patient may unfortunately suffer and the blunder may never be published.

Situation.—Though any part of the tongue may be affected, especially when the patient has been the subject of syphilis, the edges exposed to trauma from the teeth are the more usual sites for epithelioma.

There are five particular points at which carcinoma linguae is found (see Diagram 1); three points coincide with the situation of glands:

(*a*) Glands of Weber.
(*b*) Intermediate group of glands (Evans').
(*c*) Glands of Blandin and Nuhn.

The other two points are respectively:

(*d*) Anterior sublingual region—sublingual.
(*e*) Posterior paralingual region—faucio-glossal.

A knowledge of the lymphatic system is important, but we are not, despite the work of Poirier and others, completely equipped in this matter; further, we cannot expect to be certain of the lymphatic glands of the neck until a more accurate knowledge is obtained of the embryonal segmentation in its relation to the ultimate complexity of the floor of the mouth and region of the primitive branchial apparatus. From experience based upon a close study of congenital lesions in the branchial region (Hunterian Lectures, 1907) I am led to consider that the lymphatic glands, which demand attention both clinically and operatively, are all situated above the omo-hyoid muscles.

In cancer of the tongue the "lymphatic gland infection-path" leads sooner or later, directly or indirectly, into the deep cervical glands; but be it closely noted that enlargement of lymphatic glands is preceded by (1) an insidious cancer cell growth; (2) a tenderness without distinctly palpable lymphatic glands.

It is even possible that the patient may seek advice for a persistent tenderness in the neck and enlarged lymphatic glands before any attention has been paid to the primary lingual focus.

Cancer of the tongue owes its rapid extension beyond the domains of surgery to the fact that there is almost a complete absence of fibrous tissue in the tongue: accordingly there springs up no barrier to oppose the rapid extension, and the diagnostic hard edge of a carcinomatous ulcer of the tongue is frequently absent, whereas a chronic septic condition may rapidly diffuse and a syphilitic lesion fail to present its typical appearance. Far be it from me, therefore, to criticize severely or adversely those authorities who state that removal of lymphatic glands scarcely



Diagram 1.

affects the final results. If the palpability of a lymphatic gland is the only criterion for its removal, we have not grasped the "invasion paths of cancer" and are negligent of the myriads of "implanted cells" which lie not only between the focus and the lymphatic glands but even beyond the glands themselves, as hereby the operator only removes a centre and disregards the lines of communication and channels of dissemination.

I will not trouble you with statistics of great authorities, past and present—mere records of their work. Experience, which cannot be dispensed, each man has to gain for himself. Nor will I now treat of the details employed in the varying operative procedures which may be adopted in accordance with the demands of each particular case.

Patience, ingenuity, and constant attention are necessary in incradicable cases, because neither in agonizing distress to the patient nor in offensiveness to the attendant—during the later stages of his affliction—is cancer of the tongue exceeded, except possibly by recto-anal cancer.

Cancer of the Floor of the Mouth.

Any ulcer or lump under the tongue demands that the clinician shall not forget consideration of the glands of Blandin and Nuhn, the possibility of calculi in the salivary ducts, and the organization of thrombosed veins, extravascular or intracystic haematomata.

No suspicious focus in the floor of the mouth should escape skiagraphy.

Salivary calculus often presents the following associated

conditions: (*a*) Ulceration of the floor of the mouth; (*b*) enlargement of the cervical lymphatic glands; (*c*) abscess of cervical lymphatic glands.

When incision into an enlarged cervical lymphatic gland consequent upon an ulcer of the floor of the mouth leads to the escape of pus cancer is not necessarily put out of court. It may not be entirely irrelevant to mention here that the commonest causative associate of pyometra is cancer of the uterus, and that, despite the combative effects of the micro-organisms of suppuration as urged by some vaccine-therapists, I can hardly conceive of any gynaecologist urging pyometrosis as a curative treatment for carcinoma uteri.

Diagnosis.

The following are practical points in the examination of the tongue and floor of the mouth which demand careful consideration as aids to early diagnosis. The age of the patient is one of the foremost clinical guides to the diagnostician, because the older the patient the greater the probability of cancer. In a patient over the age of 40 any ulcer of the tongue which does not respond immediately to the simplest treatment should be suspected, an investigatory partial excision undertaken, and the further treatment carried out according to the microscopical findings.

The character of the speech and salivation, both of which are dependent upon the degree of mobility of the tongue, should be carefully observed.

The history of any ulcer demands that an attentive ear shall be given to the patient's tale. Every ulcer should be

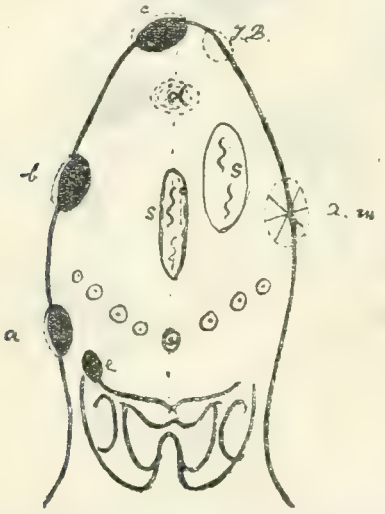


Diagram 2.—Comparing the situations where various distinctive ulcerous lesions are generally found. A, B, C, D, E, Cancer; T.B, tuberculous; A.M, actinomycosis; S, syphilitic.

closely scrutinized, its situation studied, and a careful inspection made of teeth, gums, lips, cheek, palate, and tonsil in a good light. It is advisable that these investigations should be carried out with an illuminated spatula and depressor, aided by a strong lens, while traction is being exercised upon the tongue. (Caspar's lamp and Wolff's apparatus are very convenient for the purpose.)

The lesions mistakable for cancer we have considered; the liability of old syphilitic lesions to become the seat of carcinoma—possibly due to their frequency—increases the difficulty of early recognition, and accounts for frequent delay by the trying of antisyphilitic remedies without having made an absolute diagnosis by the methods advocated in this paper.

Pain in lingual carcinoma is of greater diagnostic value than in carcinoma in any other part of the body. "No matter how malignant may be the aspect of any large or deep ulcer, if free from pain the ulcer is probably not cancerous." Nevertheless, beware of a pitfall. To emphasize these matters, I would add that "the cases of advanced cancer of the tongue or floor of the mouth in which I have met with the greatest success in treatment are those cases of cancer which were not cancer." By this I refer to advanced cases of actinomycosis, syphilomata, chronic septic conditions associated with carious teeth, osteomyelitis of the mandible, impacted salivary calculi or foreign bodies implanted into the substance of the tongue.

Digital palpation of the whole organ, especially at the back, and examination of the structures forming the floor of the mouth by one finger inside the mouth and another in the submaxillary or submental regions must not be neglected. Occasionally the thickness of these structures does not allow of a satisfactory digital palpation: this procedure, therefore, should be carried out at the time of operation by inserting the finger through a preliminary incision in the neck.

Lastly, never fail to remove a piece of the ulcer and secure the report of a competent and reliable microscopist.

Many of the points I have discussed here are familiar to every member of our profession; nevertheless, it is a duty to emphasize them by frequent repetition, so that medical men may adequately inform the public on the question of cancer, because the greater percentage of cancer lesions are hopelessly advanced before they come under medical observation.

Many cases of cancer are cured by extensive radical surgical treatment, though a certain percentage directly or indirectly succumb to operation. A very large number of patients operated upon for a suspicious lesion, which is subsequently proved by careful microscopical examination to be malignant, are found to live for ten, twenty, or even thirty years free from any further evidence of the terrible disease.

A matter of concern is the "reticence of patients" to consult a medical man early. This neglect is due to: (1) The widely promulgated belief that cancer is essentially and even primarily associated with severe pain; (2) the fear lest a lesion may be pronounced cancer; (3) the fact that the symptoms of cancer which are appreciated by or known to the public are pain, offensiveness, and wasting. These are evidences of an advance of the disease to that extent when relief by operation is at least uncertain.

Though the actual cause of cancer is as yet unknown, all scientific surgeons agree that primarily cancer is a local disease, but that we are without any method of recognizing when a cancer is passing beyond the local condition.

In my own personal experience the end results give satisfaction when radical surgical procedures have been applied early; there can be no doubt that the best results are obtained when:

1. The patient seeks treatment early.
2. All suspicious growths are removed.

It would be well for, and induce to early treatment, all affected by carcinoma linguae if information of the following character were known to the public.

SUMMARY.

Cancer.

(*a*) Cancer is very prevalent, and is stated by some authorities to be on the increase in the British Isles.

(*b*) Cancer rarely occurs before the age of 30, but is more and more frequent with advancing years.

(*c*) Cancer is very insidious in its onset; it may present neither swelling, pain, nor discharge, and be far advanced before causing much discomfort.

(*d*) If you have any disconcerting symptom, seek immediate medical advice, as the early treatment of cancerous affections, in spite of their serious nature, is followed by successful results.

Cancer of the Tongue.

Cancer of the tongue is of frequent occurrence in males over the age of 40 who may be addicted to alcohol or tobacco, who frequently partake of irritating condiments, or who practise any of the different habits of chewing.

Any long-continued wart, hard lump, or unhealed ulcer on the tongue or gums is liable to become the seat of cancer.

Close attention to the cleanliness of the mouth and the brushing of the teeth is advisable.

There is no more frequent precursor or accompaniment of cancer of the tongue than syphilis.

Any decayed tooth, any roughness of the teeth or of a denture demands a visit to the dentist, whereas for any soreness early medical advice should be sought, as such alone leads to the early recognition of cancer, and is the keynote to success.

THE ACTION OF SALVARSAN AND NEO-SALVARSAN ON THE WASSERMANN REACTION.

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FROM the beginning of the salvarsan epoch the reports concerning the drug's action on the Wassermann reaction have been very conflicting. This is not surprising, as one had no knowledge as to the time that should elapse between stopping treatment and carrying out the test.

The current opinion for some time was to allow two months to pass from the last day of treatment, and as the majority of cases tested at this period gave a negative reaction, it was considered tentatively that one injection of "606" was sufficient.

Then the observation was made that some cases in the primary stage, giving a negative Wassermann's reaction before treatment, gave a position within a week after an injection, to become negative again two months later.

It was only when so many of these cases developed recurrences, with a reappearance of a positive reaction, that it was recognized that a negative reaction under such circumstances could only signify that the patient was in the latent stage.

Then Gennerich and Milian advised that the blood should be tested at frequent early intervals after each injection, and that so many injections should be given until the reaction was negative on each occasion. Having made some few hundreds of tests with blood withdrawn at frequent intervals after both salvarsan and neo-salvarsan, a brief survey of my results may be of interest.

Primary Stage.

In the primary stage, when the reaction is negative before treatment is commenced, most cases give a positive reaction after: which is most marked about the forty-eighth hour, but commences to show itself about the seventeenth hour. In some cases, on the other hand, the reaction does not become positive until the fifth day. Although it may remain positive for several days, the degree diminishes generally about the third week, till it becomes negative before the eighth. If the reaction is only slightly positive after the injection, it becomes negative much earlier. If the serum is tested in diminishing strengths, to estimate its reagin content, one can estimate how close to the secondary stage the patient is, and roughly how many subsequent injections will be necessary to produce a cure.

If the first injection gives rise to only a weak reaction, then three or four more will undoubtedly suffice to make the reaction permanently negative; if, however, the reaction is strong, then the patient is in the secondary stage, and will require at least 3 grams of salvarsan or neo-salvarsan before the desired effect is obtained.

CASE I.

Intra-urethral chancre, fourteen days' duration, six weeks after intercourse; slight inguinal adenitis; spirochaetes found.

No. of Injection and Result.	24 Hours After.	48 Hours After.	Fifth Day.	Tenth Day.	Fourteenth Day.
First injection ...	−	−	+	+	
Second injection (8th day after first) ...	+	+	+		+ +
Third injection (21st day after second) ...	+	−	−	+	
Fourth injection (8th day after third) ...	+	−	−	−	
Fifth injection (14th day after fourth) ...	−	−	−	+	
Sixth injection (8th day after fifth) ...	+	−	−	−	

The reaction was tested on the 7th, 14th, 21st, and 28th days after the last injection, and was negative on each occasion.

CASE II.

Two chancres on penis, two on scrotum; no adenitis; date of infection not clear; spirochaetes found.

No. of Injection and Result.	24 Hours After.	48 Hours After.	Fifth Day.
First injection ...	−	−	+ +
Second injection (8th day after first) ...	+ +	−	+ +
Third injection (8th day after second)	+ +	−	−
Fourth injection (8th day after third) ...	−	−	−

The reaction was tested on the 7th, 14th, 21st, and 28th days after the last injection, and was negative on each occasion.

CASE III.

Chancre, internal canthus of eye; adenitis, preauricular and cervical; date of infection uncertain; spirochaetes found.

No. of Injection and Result.	24 Hours After.	48 Hours After.	Fifth Day.	Tenth Day.	Seventeenth Day.
First injection ...	−	−	+	+ −	
Second injection (8th day after first)	+ +	+ +	+ +	+ +	+
Third injection (17th day after second)	+ −	+ −	+ −	+ +	
Fourth injection (8th day after third)	+	−	−	−	−	+ +
Fifth injection (21st day after fourth) ...	−	−	−		

On testing the reaction on the 7th, 14th, 21st, and 28th days after the last injection, it was found to be negative on each occasion.

In the primary stage it is necessary to test the blood forty-eight hours and the fifth day after the first injection, and if positive on either occasion to repeat the injection on the eighth day. Then it is necessary to test the blood weekly and repeat the injections until the Wassermann's reaction is negative on the seventh day after the last injection. When this is the case the patient should only be passed when the blood remains negative, tested weekly, for another month.

Unfortunately, it is rare to get a case so early that the reaction does not become positive as the result of an injection. I have seen such, but think it wiser to give a second injection for safety, and a provocative injection six months or a year later.

Secondary Stage.

When the reaction becomes strongly positive after an injection, and in cases in which it is markedly positive before treatment is commenced, no blood tests need be made until before and after the fourth injection, as in my experience four injections are the minimum likely to be required to produce a permanent negative result.

CASE IV.

Chancre on penis, general adenitis, and headaches at night time.

No. of Injection and Result.	24 Hours After.	48 Hours After.	Fifth Day.
First injection ...	+	+	+ + +
Second injection (8th day after first) ...	−	−	+
Third injection (8th day after second)	+	−	+
Fourth injection (8th day after third) ...	−	−	−

The reaction was also found to be negative on the 7th, 14th, 21st, and 28th days after the last injection.

CASE V.

A typical case of early generalized syphilis, rash, sore throat, etc.

No. of Injection and Result.	24 Hours After.	48 Hours After.	Fifth Day.
First injection	+++	+++	+++
Second injection (8th day after first)	+++	+++	+++
Third injection (8th day after second)	++	+++	+++
Fourth injection (8th day after third)	+++	+++	+
Fifth injection (8th day after fourth)	−	+	−
Sixth injection (8th day after fifth)	−	−	−
Seventh injection (8th day after sixth)	−	−	−

The reaction was also found to be negative on the 10th, 14th, and 28th days after the last injection.

Tertiary Stage.

In the tertiary stage the Wassermann reaction behaves much in the same way as it does in the primary and secondary, except for one peculiar phenomenon which is occasionally to be noted—that is, that a case with a strong positive reaction before treatment may become negative immediately after an injection and remain so from twenty-four to seventy-two hours, and then becomes quite positive again. On repeating the injection the same may happen, but more often it is quite the reverse—namely, that the reaction becomes more positive, an occurrence which is seen in the primary, secondary and latent stages.

CASE VI.

The patient contracted syphilis twenty-five years ago, for which he took mercury off and on for four years. For the past five years he had been troubled with cutaneous gummata, which disappeared under mercury and iodides, to quickly reappear after treatment was discontinued. In 1911 the patient had three intramuscular injections of salvarsan, and he came to me for a Wassermann test just after Christmas. There were no symptoms at the time.

No. of Injection and Result.	24 Hours After.	48 Hours After.	Fifth Day.
First injection	+++	+++	+++
Second injection (8th day after first)	+++	+++	+++
Third injection (8th day after second)	+++	++	+++
Fourth injection (8th day after third)	++	+	+
Fifth injection (8th day after fourth)	−	−	−
Sixth injection (8th day after fifth)	−	−	−

CASE VII.

A man, aged 42, contracted syphilis eighteen years ago, for which he was treated with mercury (pills) internally for three years. A few years later he was much troubled with headaches, which were only relieved by mercury and iodides, and the moment treatment was stopped the headaches commenced again. From time to time the patient had cutaneous gummata and some soft nodes (gummatous pericranitis) on his skull. When he came to me he had a gumma over his frontal bone which had eroded a portion of the external table; headaches were bad, and the patient complained bitterly of losing his memory.

No. of Injection and Result.	24 Hours After.	48 Hours After.	Fifth Day.
First injection	+++	−	+++
Second injection (8th day after first)	+++	−	
Third injection (28th day after second)	+++	++	+++
Fourth injection (8th day after third) ...	+++	++	+++
Fifth injection (8th day after fourth) ...	+++	+	++
Sixth injection (8th day after fifth)	++	−	+
Seventh injection (8th day after sixth)	+++	−	++
Eighth injection (8th day after seventh)	++	−	+
Ninth injection (8th day after eighth)	+	−	−

On testing the reaction on the 7th, 14th, 21st, and 28th days after the last injection, it was found to be negative on each occasion.

When arriving towards the end of treatment, and when all the reactions are negative, and in cases in which the amount of reagin is normally small—namely, cases of arterio-sclerosis, cerebro-spinal syphilis, syphilitic epilepsy, and hemiplegia—each serum should be tested in gradient increasing strengths.

When a serum is used stronger than normal, controls should never be omitted, showing that it has no haemolytic power on the sheep's blood corpuscles, an occurrence which is not at all uncommon, especially when the serum has been allowed to remain with its corpuscles for a few days. Therefore pipetting off the serum as soon as possible after the blood has been withdrawn is desirable.

It sometimes happens that cases nearing the end of treatment, for instance, after the fourth or fifth injection, give a weak positive reaction only between the third and fourth week, which becomes immediately negative within a few hours of repeating the injection. Therefore, before a patient is finally discharged, a test should be carried out between the twenty-first and twenty-eighth day after the last injection. Such cases usually only require one more injection before the treatment is complete.

Patients who have had syphilis and give a negative Wassermann's reaction are either cured or in the latent stage, which of the two can only be ascertained by giving a provocative injection of salvarsan and then testing the blood.

CASE VIII.

A man aged 29 contracted syphilis five years ago. The attack was very mild, but nevertheless the patient continued his mercury treatment (pills and injections) for four years. A recurrence never appeared. On three different occasions the blood had given a negative Wassermann's reaction, but the patient, being anxious to marry, was desirous of an injection of "606" to make things sure.

No. of Injection and Result.		24 Hours After.	48 Hours After.	Fifth Day.	Fourteenth Day.
First injection	−	+	+++	−	
Second injection (8th day after first)	−	+	+++	++	
Third injection (8th day after second)	−	+	+	++	
Fourth injection (8th day after third)	+	+	+	+	+
Fifth injection (21st day after fourth)	+	−	−	−	
Sixth injection (8th day after fifth)	+−	−	−	−	
Seventh injection (8th day after sixth)	−	−	−		

The reaction was also negative on the 7th, 14th, 21st, and 28th days after the last injection.

If the previous treatment has been recent—that is, only a few months back—the appearance of a positive reaction may be delayed, or, as happened in several of my cases, was positive in the forty-eight hours blood, and negative again on the fifth or even third day, to become only definitely positive on each occasion after the second injection. I have had two cases in which the reaction was not positive at all until after the second injection—cases of arterial syphilis.

Not only is the reaction determined by the time of the previous treatment, but also largely by the quality of that treatment. If the treatment has been good, then the occurrence of a positive reaction may also be delayed, and only a few injections are required to produce a permanent negative reaction.

I have seen several patients who had been treated with mercury for three to four years, and who had given a negative Wassermann's reaction on several occasions, give a positive after a provocative injection of salvarsan, and require four to six injections before a permanent negative reaction was obtained. I doubt whether prolonged administration of mercury often cured a case of syphilis. It merely abolished symptoms, drove the patient into the latent stage, from which he might on any future occasion return to the active; or what still more often happened, insidious changes took place in his vessels, which could not be detected clinically until the arterio-sclerosis was

well advanced, or serologically because the amount of reagin circulating in the blood was too small to estimate.

An important group of cases belonging to this latent stage are women who have no symptoms, in whom the Wassermann's reaction is negative, but who, in spite of all, beget syphilitic children, and *ipso facto*, are themselves syphilitic. Such cases will, in my experience, give a positive Wassermann's reaction after a provocative injection of salvarsan, thereby indicating how necessary treatment is.

In cases of cerebro-spinal meningitis, in which the cerebro-spinal fluid gives a positive Wassermann's reaction, repeated injections of salvarsan will convert the positive into a negative reaction and at the same time cause the lymphocytosis to disappear. As the cerebro-spinal fluid is both weak in its reagin content and complement-fixing capacity, it should invariably be tested in increasing strengths.

I have recently had two interesting cases in which before treatment the Wassermann's reaction was negative in the blood and positive in the cerebro-spinal fluid, becoming positive in the former only after treatment.

From the foregoing it can be seen that there is a fallacy in the fourteen-day limit which is advocated now. Cases of latent syphilis, especially after the first injection, may give a negative reaction then and not appear positive on the fourteenth day until after the second injection. Further, cases of primary syphilis and cases nearing their end of treatment not infrequently give a negative reaction on the fourteenth day, but a positive between the seventeenth hour and fifth day, and, in my opinion, so long as an injection has the power of producing a positive reaction, whenever that may be, the disease is not eradicated—not until the reaction is negative on every occasion tested.

As an injection of salvarsan will not give rise to a positive reaction in a non-syphilitic, one must regard the occurrence of such as indicative of the presence of disease, and efforts should be made to bring about a cure.

In the primary and secondary stages of syphilis this is possible, but in a large number of tertiary cases it is not, even nine injections being insufficient to change a positive into a negative reaction. Therefore, in the early stages of syphilis salvarsan should be used with the idea of curing the disease, and in some of the late stages of abolishing the symptoms only. This alone will show how imperative it is to diagnose and treat a case of syphilis as early as possible.

One most important point I have noticed in making these various tests—that is, that two individuals in exactly the same stage, with the same lesions, in the one a permanent negative reaction may be obtained after four injections, while in the other six or more may be required.

Another point: A permanent negative reaction is most easily obtained when the treatment is continuous, that is, when the injections of salvarsan follow closely upon one another and when mercury is given simultaneously. For instance, early cases of syphilis which were given one or two injections of salvarsan several months back, have required nearly the number given continuously as presumably would have been required had those previous injections not been given. Therefore, it is of the greatest importance, if a course is going to be started, that it should be persevered with until the desired effect is obtained.

Neo-Salvarsan.

As to neo-salvarsan, the most important point to estimate is whether it is more, or less, powerful than salvarsan. The ease with which it dissolves and the little disturbance following its employment would not alone warrant its use in preference to salvarsan; it must be proved to be more potent in its action.

If films from a primary sore are made at frequent intervals after an injection, and in one case the spirochaetes are found to be absent after seventeen hours, and in another after twenty-four hours, no conclusions can be drawn if the former is found to be the case after neo-salvarsan and the latter after salvarsan, since the time required to kill the spirochaetes varies enormously, and the variation is no doubt caused by the fibrous tissue in the induration preventing a thorough permeation with the drug.

The only means by which one can compare neo-salvarsan with salvarsan is through the medium of the Wassermann's reaction.

I first of all employed weekly injections of neo-salvarsan and tested the blood twenty-four hours, forty-eight hours, and the seventh day after last injection, and found that a negative reaction was obtained after fewer injections, and that some of my tertiary cases which failed to give a negative Wassermann's reaction after seven injections of salvarsan, quickly became negative on using neo-salvarsan.

As my observations of the influence of treatment on Wassermann's reaction have shown me how necessary it is to give the injections following upon one another as soon as possible, much better results are likely to follow neo-salvarsan than salvarsan, because two maximum doses of the former can be given weekly without any ill effect, or three smaller doses. I have used neo-salvarsan—1 gram of which corresponds to 0.6 gram salvarsan—twice weekly, employing doses from 0.9 gram to 1.5 gram, and three times weekly with smaller doses, in all over 200 injections.

When two injections weekly are given the Wassermann's reaction should be tested in the blood withdrawn on the day of injection, and so many injections given till the last blood test is negative. Then the blood should be tested seven, fourteen, twenty-one, and twenty-eight days later. This should also be done when three injections weekly are given.

Conclusions.

Taking all stages of syphilis, I have found that three to seven injections are necessary to cure most cases of syphilis.

There is no doubt that many cases in the tertiary stage can be cured with neo-salvarsan which failed to be cured with salvarsan.

Liable to change as these conclusions may be, I cannot but admit that the alterations in the Wassermann's reaction as the result of treatment are most constant, and that when tested at short intervals give a much safer guide to regulate treatment than by saying that just so many injections will be required, or, as the old syphilologists used to teach, that a three years' pill treatment was sufficient for all cases alike.

As there is a possibility of fallacy, I advise my patients to have a provocative injection of neo-salvarsan six months or a year after they have been discharged, and the blood tested forty-eight hours, the seventh, fourteenth, twenty-first and twenty-eighth day after that injection. I might finally add that all my cases for some months past have had three to nine injections of salvarsan, given at seven to fourteen days' interval, or three to seven injections of neo-salvarsan, given at not more than seven days' interval, with not a single bad manifestation or a recurrence of symptoms.

THE X-RAY TREATMENT OF GRAVES'S DISEASE.

By WILLIAM H. HOOTON, M.R.C.S., L.R.C.P.,
LEEDS.

The numerous remedies, ranging from fresh air and forced feeding to a severe surgical operation or the quasi-specific treatment by serum or milk of thyroidectomized animals, indicate by their very multitude the generally unsatisfactory nature of the treatment of exophthalmic goitre. But it is beginning to be seen that we have in the *x* rays, properly applied, a therapeutic agent of efficacy in the relief of this disease. The Roentgen rays affect the tissues as follows: After a dose has been administered there is a latent period of several days during which no change can be made out; then, if the dose has been a small one, there is increased secretion from glands and increased activity in other structures—for example, the amount of sweat increases and hair grows more rapidly for a time. A full dose, on the other hand, paralyses cell activity, the hair falls, and glandular secretions are diminished. A still larger dose causes inflammation of the superficial structures, which may go on to necrosis, leaving an ulcer often very slow to heal. It is obvious, therefore, that the quantity of rays given must be accurately measured.

It is generally agreed that the symptoms of Graves's disease are due, at least in the first instance, to an unduly great outpouring of the result of thyroid activity into the blood stream. If, then, by administering suitable doses of

X rays, we are able to depress and diminish to within normal limits the secreting power of the thyroid gland, we should expect to be able to relieve the patient's symptoms, so soon, at any rate, as the rate of elimination of thyroid product rose above the rate of its absorption.

Experience shows that this is what occurs, and, moreover, after a sufficient number of applications the effect becomes permanent, and some histological change, probably a fibrosis, takes place in the gland.

The treatment is applied as follows: The patient reclines on a couch, a cushion being placed behind the neck to render it more prominent; collars and neckbands are removed. A focus tube of medium resistance (that is, one having an alternative spark-gap of about 4 in.) is placed so that the distance from the anticathode to the skin is 16 cm. A current of half a milliampère is passed through the tube, which is arranged so as to allow the rays to pass in an antero-lateral direction on each side of the gland in turn. A cylinder of stout lead cuts off all rays other than those passing to the thyroid region, the skin over which is protected from the softer rays (which are liable to cause dermatitis) by a disc of "sole" leather about 6 mm. thick. At first a twenty minutes' irradiation on each side of the gland may be given once weekly, a careful watch being kept for signs of dermatitis. Then, provided the patient is making satisfactory progress (as shown by fall of pulse-rate, lessening tremor and palpitation, etc.), the interval between the applications is gradually lengthened to two, three, four weeks; the duration of the application being cut down to fifteen or ten minutes on each side of the neck. Any sign of erythema would indicate cessation of treatment for a few weeks; and thenceforward smaller doses would be indicated.

The total number of these patients who have come under our treatment and observation is 31—all females except one. Of the whole number, 14 were treated privately, and 17 came under the Light Department of the Leeds General Infirmary. I must discuss the two classes separately, because those patients treated in the hospital do not, on the whole, get on so well as the private cases, and this for various reasons: (1) They cannot, in many cases, secure the requisite rest and abundant food enjoined upon those in more favoured circumstances; (2) they do not attend so regularly; (3) the soreness of the neck induced by the treatment assumes an importance to the untutored mind quite sufficient to act as an excuse for ceasing to attend; (4) cases are probably more developed when first seen.

Of the 14 private cases 10 are apparently cured, 9 of them having been quite well for over a year, the other for some six months; two members of this group have had quite recently a normal pregnancy and given birth, after many years of previously childless married life, to a healthy full-time child. The remaining 4, not classified as "cured," show very marked relief of symptoms and have been enabled to return to practically all the activities of normal life, except, of course, vigorous games, running upstairs, and the like.

Of the 17 hospital cases 7 may be classified as cured, 4 are markedly relieved, 4 show very little improvement, 1 was operated on with a fatal result after only five doses of the rays, and 1 has only just come under treatment. So that of these 17 the result in 11 is satisfactory, and of the 4 who have made but little progress, 1 has phthisis, 1 attends very seldom, and 1 has left the district.

Altogether, therefore, the "cured" and "greatly relieved" number over 80 per cent.

The general progress of the cases while under treatment does not show sufficient variety to justify giving a lengthy series in detail, I will therefore mention two typical instances:

CASE I.

Miss D., aged 35. When treatment was commenced there was extreme nervousness and tremor; marked protrusion of the eyeballs; a moderate goitre, the neck measuring 14½ in.; great weakness, dyspnœa, a pulse-rate of 160; much palpitation.

These conditions gradually diminished, and at present she is free from nervousness and tremor; the exophthalmos is materially lessened; the neck only measures 12½ in.; she can do an ordinary day's housework and can walk three or four miles; is not now troubled with "heart attacks," nor was she distressed in any way by the heat of last summer; pulse-rate now 84.

The thyroid is still easily palpable and feels like a hard fibrous mass; it does not pulsate. Her own doctor says, "Practically all her Graves's symptoms have disappeared and I consider her cured."

CASE II.

Miss F., aged 19. When first seen, about eighteen months ago, there were marked nervousness, shortness of breath, and tremor; the eyes were very prominent and the thyroid much enlarged. Palpitation and amenorrhœa for the previous twelve months. Unable to walk far or to pursue her work as a pupil teacher. Pulse-rate 128. Very anæmic.

After ten irradiations, covering a period of some three months, one noticed a marked improvement. The tremor and palpitation had disappeared; she could walk without distress on the level; the neck was smaller, and the pulse-rate was 88. She has had since then occasional doses of the rays, and when I saw her a few weeks ago she was able to dance and cycle: there is, however, some shortness of breath on climbing hills, and the exophthalmos and goitre are still marked. She is continuing treatment, having a dose once in six weeks or so.

Summing the whole matter up one may say that the noteworthy features are the lessening, often rapid, of the nervousness, the dyspnœa, the tachycardia, and the tremor; the patient's weight increases, and there is a return, in a greater or less degree, to a normal enjoyment of life.

One defect undoubtedly did, and to a smaller extent still does, exist—namely, the soreness of the skin of the neck, a true radio-dermatitis, present as a rule only for a few weeks during the earlier part of the treatment, but unfortunately giving place to a permanent brown stain and patches of dilated capillaries, which to those who wish to wear low-necked dresses is necessarily a great disadvantage. These difficulties, however, are being overcome by filtering out the softer rays which are responsible for the mischief to the skin; and after all, I do not think it is a great price to pay for relief from a distressing disorder.

In conclusion, I should like to express my thanks to Dr. Rowden, honorary director of the electro-therapeutic department of the Leeds General Infirmary, for his kindness in allowing me to make use of his notes in many of the cases.

ON DERMOIDS OF THE TONGUE.

WITH A REPORT OF A LARGE SUBLINGUAL DERMOID CYST.

BY ROBERT OLLERENSHAW, CH.B., F.R.C.S.ENG.,

HONORARY SURGEON TO SALFORD ROYAL HOSPITAL AND TO CHILDREN'S DEPARTMENT, MANCHESTER NORTHERN HOSPITAL.

ALTHOUGH congenital in origin, sublingual dermoids frequently do not attain sufficient size to attract even the patient's attention until many years have elapsed. Surgical interference, however, is usually sought long before the cyst attains a size at all approaching that of the one here recorded.

A few large sublingual cysts have been reported, one of the most interesting amongst them being a case noted by Flinn. In this patient a small rounded swelling, the size of a pea, was noticed lying below the tongue on the second day after birth, and it slowly enlarged to the size of a hazel-nut. It then remained quiescent until the patient had reached the age of 28 years, when it began quickly to enlarge until it filled the mouth and projected in the submaxillary region, its diameter being 5 or 6 inches; it produced rather severe dyspnœa.

In another case the cyst at 10 years of age was the size of a hazel-nut; at the age of 29 the man could not close his lips, and there was huskiness and dyspnœa.

These cysts have their origin in groups of epithelial cells which remain enclosed in the mesoblastic connective tissue; they are of the type called by Bland-Sutton "sequestration dermoids." They are found to originate precisely in the middle line, lying in the septum of the tongue at any point between the mandibular symphysis and the hyoid bone, to one of which bony points there usually runs a firm fibrous band of attachment.

Sublingual dermoids have to be distinguished in diagnosis chiefly from ranulæ, which have a bluish, translucent appearance in contradistinction to the whitish-yellow colour of the dermoid; ranulæ, again, are much softer, and present easy fluctuation as compared with the putty-like consistency of dermoids, which pit on pressure. As the cyst enlarges the first noticeable change is in the speech, which becomes gradually less clear, the "s" sounds being first affected; swallowing is next interfered with, saliva dribbles from the mouth, and if treatment

is still further delayed the patient may actually begin to starve from lack of food, and backward pressure may produce dyspnoea.

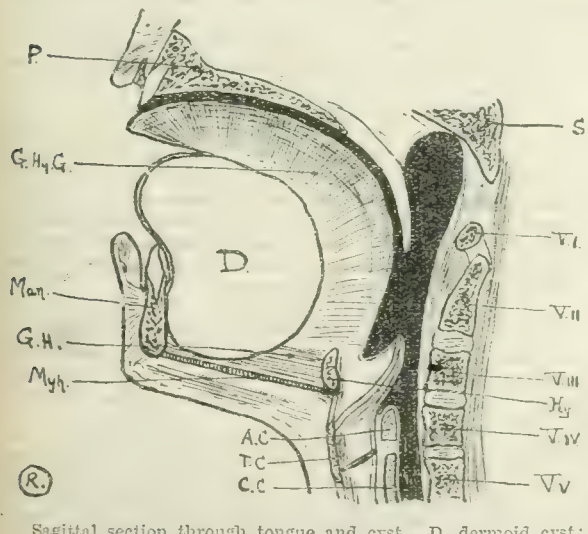
The present case is that of a boy of 13 years, who came under my care at Salford Royal Hospital in January last.

His history was as follows: When 14 days old he was taken to a doctor because of difficulty in sucking; after examining the mouth and tongue and dividing the frænum, the doctor noticed, and pointed out to the mother, a small "lump" the size of a pea in the floor of the mouth. Until the boy was 12 years old this "lump" grew very slowly, but then it began to enlarge so quickly that in less than a year, at the time of admission to hospital, it was so large that the boy could not close his mouth; in fact, he could not even bring his lips together. The tongue, the tip of which could be seen pressed against the upper incisors and hard palate, was only slightly movable. Liquid food only could be taken, and swallowing was performed with considerable difficulty. saliva dribbling from the angles of the mouth all day and night. The sublingual mucosa appeared to be tightly stretched by the cyst, and at one point on the left side, just above the lower lateral incisor tooth, the thinning was so marked that it seemed likely to give way at any moment. The cyst was removed through the mouth under general anæsthesia by simply incising the mucous membrane covering it, and then by blunt dissection, the fibrous band connecting the cyst wall and lower jaw being divided by scissors. Some now redundant mucous membrane was cut away, and the edges brought together by catgut sutures.



After removal, the cyst proved to be about one and a half times the size of a golf ball.

Should a sublingual dermoid be too large for removal in this way, an incision would be necessary, running from the



Sagittal section through tongue and cyst. D, dermoid cyst; P, hard palate; S, base of skull; V. i, ii, iii, iv, v, atlas, axis, and lower vertebrae; Hy, hyoid bone; A C, arytenoid cartilage; T C, thyroid cartilage; C C, cricoid cartilage; G Hy G, genio-hyoglossus; Man, lower jaw; Myh, mylo-hyoid; G H, genio-hyoid.

symphysis menti to the hyoid precisely in the middle line. The right and left mylo-hyoid muscles and genio-hypoglossi are retracted and the cyst dissected out, after puncturing it and removing the contents if necessary.

A CASE OF VIPER BITE IN EPPING FOREST.

BY

B. F. PENDRED, M.R.C.S., L.R.C.P.,

LOUGHTON, ESSEX.

CASES of viper poisoning in this country are either extremely rare or very infrequently recorded, and since the victim on this occasion was an observant, intelligent man, and well able to describe events and symptoms, I have thought it worth while to publish his story:

On a bright sunny morning in April of this year, Mr. F. H., aged 28 years, was cycling through Epping Forest. He dismounted, and sat down on a dry bank covered with thick undergrowth, and almost immediately felt a prick on the back of the right hand. On looking down he perceived an adder, drawn up, head raised, mouth wide open, and prepared to strike again. This occurred at 9.30 a.m. He immediately jumped up, put his foot on the snake, and cut it about the head with a penknife. Whilst doing this his hand was smarting as though stung by a wasp, and at the site of injury he noticed two red punctures, about half an inch apart, with a bluish-white swelling around them. Blood was trickling freely, and he sucked the place vigorously, drawing a quantity of blood, which he estimates at a tablespoonful. It was then about 9.35 a.m.

He now felt considerable pain in the small of the back and stiffness in both arms, like the pains of "muscular rheumatism," and his vision became blurred and indistinct. However, he was able to wrap the snake up in paper and tie it to his bicycle, which he then mounted and attempted to ride home, a distance of about four miles (9.40 a.m.). The pain in the back was not quite so bad, and the left arm had recovered, but he felt giddy.

After riding three-quarters of a mile he got some brandy at a public-house, and was seized with a violent shivering fit, which lasted about ten minutes, then he began to feel sick, and noticed a painful swelling of tongue and lips. Notwithstanding this, he got on his machine again, and struggled on for nearly two miles. A severe pain, paroxysmal in character, had now commenced in the pit of the stomach, and this, combined with the increasing pain in his injured arm, vomiting, and impaired vision, caused him at length to collapse. This was at about 10 a.m. He was picked up by a passing motor car, and conveyed to my surgery, which he reached at 10.25 a.m.

His condition was then as follows: He was unable to walk without support; his face was very pale, had an expression of great agony, and was covered with cold, clammy sweat. Breathing was short and jerky, with much groaning, speech spasmodic, one or two syllables at a time. He had intense pain in the epigastrium, which he described later as being like that produced by a blow on the "mark" or having the "wind knocked out" of one. The position of greatest ease was sitting huddled up with the head between the knees. There was retching and vomiting of clear, pale yellow gastric fluids, almost continuous. The pulse was 120, very soft, and difficult to find. The pupils were dilated; there was no sign of convulsions, and the pain in the hand and arm was completely submerged in the agonizing abdominal crises.

The two punctures on the hand could easily be seen, with a bluish-red areola around them, the hand and arm being already swollen and oedematous. On being informed of the nature of the injury, an elastic ligature was placed round the arm; but on learning that it was an hour since the bite, this was removed as being too late to be of any use. Strychnine and morphine were injected hypodermically, and a teaspoonful of sal volatile in water was given by the mouth. Seven minims of a solution of potassium permanganate, 1 in 30, were injected at the site of injury. About twenty minutes later the symptoms had slightly abated, and the patient was conveyed to the local hospital.

At mid-day the pulse was still rapid, but much better in quality. The severity of the abdominal pain was reduced, partly by hot bottles, and also by a second hypodermic injection of morphine. Retching continued, but was not so incessant.

In the evening the oedematous condition of the tongue and lips was evident, and the arm was very swollen and painful. Temperature was never above normal.

The following day all except the local symptoms had subsided.

On the third day the arm presented a peculiar bluish-green discoloration along the lymphatic routes, like a "black eye" about its fourth day; there were also ecchymoses in places. The axillary glands were tender, but not enlarged.

Recovery was rapid and uneventful, and the patient was out walking on the fifth day, feeling quite well except for stiffness and tenderness of the arm and some vague "rheumatic" pains about the loins and shoulders.

It is some comfort to know that in this country the adder, or viper, is very shy, and will always avoid other creatures if possible. Also that the venom, or the quantity of it, is not sufficient to kill a full-grown man in good health. But deaths have occurred to little children, aged and feeble persons, and drunkards.

The adder in this case was about 23 in. long, and its species was easily recognized by the wide, flat head marked with a V, and the zigzag marking all along the back. It is possible that, owing to the earliness of the

season, it was still in a rather lethargic state, thus permitting a human being to get close to it, otherwise it would have been off at the first approach.

AN ENORMOUS PAROTID TUMOUR IN A CHINESE WOMAN.

By HAROLD BALME, F.R.C.S.Eng.,
SCHOFIELD MEMORIAL MISSION HOSPITAL, TAI YUAN FU, NORTH CHINA.

THE accompanying photograph is that of a Chinese woman, aged 53 years, who was first seen by me at a mission station in Southern Shansi, North China, in February, 1910. According to her history, she had first noticed a lump some eleven or twelve years previously, which she described as a small, round, hard substance, near the right ear. The tumour had grown quite slowly for the first few years, but during the last eighteen months it had increased much more rapidly, until its dimensions and weight had become so considerable that she could not bear it unsupported. For the last few months she had been obliged to sit on the Chinese kang all day long supporting the tumour with her hands. She was advised to make her way to the Baptist Mission Hospital in Tai Yuan Fu, the capital of Shansi, where she arrived some days later.



Condition on Admission.

The patient was very sallow and emaciated on admission; this was attributed to the fact that she was an opium smoker. On the right side of the neck, extending from the malar bone to the level of the breast, and from the middle of the chin to some distance beyond the posterior border of the sterno-mastoid muscle, was an enormous tumour firmly attached to the structures in the parotid region but quite separate from the lower portion of the neck, which it overhung. The tumour was firm and elastic and definitely lobulated; its total circumference, so far as it could be measured, was considerably larger than that of the patient's own head. The skin was freely movable over the growth, on the surface of which several large vessels ramified; the tumour itself was apparently encapsulated.



Before any surgical interference was possible, the patient underwent the ordinary course of treatment for the breaking off of the opium habit, and it was not until she was almost free from opium, and in a more favourable condition of health, that an operation was attempted.

Operation.

With the assistance of Dr. Paula Maier, an enormous elliptical incision was made from the malar bone to the sternal end of the clavicle, and back to the lobe of the ear. Little difficulty was experienced in shelling out the tumour, though a great number of large vessels were met with, and in the enfeebled state of the patient these all needed to be isolated and clamped before section. There was a large hollow between the angle of the jaw and the mastoid process, forming the bed of the tumour, the surrounding bone having to a considerable extent atrophied from pressure. A large portion of skin, which was extremely redundant, was removed with the tumour, and the wound was closed in the ordinary way.

After-Treatment.

It was necessary to give two or three pints of saline intravenously before she left the operating table, and for the first twenty-four hours the patient suffered severely from shock. She needed close attention for some considerable time after this, and for the first two or three days Dr. Paula Maier remained almost continuously with her. Her subsequent recovery proved uneventful. When leaving the hospital she had a remarkable hollow behind the angle of the jaw, but I have since heard that this has to a large extent filled up.

Description of Tumour.

The tumour, which weighed over 20 oz., has been presented to the Museum of the Royal College of Surgeons, and the following report upon it has been received from Mr. Shattock:

Tumour from Neck of Chinese Woman.—This is a myxo-endothelioma. No cartilage found in the sections examined. Some parts of the stroma are very cellular, indicating rapid growth, but the zone of fibrous tissue limiting the growth excludes any sarcomatous change having occurred at the periphery.

PERFORATED ENTERIC ULCER: OPERATION: RECOVERY.

By WILLIAM WASHBOURN,
SURGEON TO THE GLOUCESTERSHIRE ROYAL INFIRMARY AND EYE INSTITUTION.

J. M., male, aged 10 years, was admitted to the Gloucestershire Royal Infirmary on February 3rd, under Dr. Grosvenor, with enteric fever, characterized by dry tongue, constipation, much emaciation, and a temperature ranging up to 102°. There was a positive Widal reaction. On March 1st, during the fifth week of his illness, he suddenly became collapsed, and complained of pain in the right side of the abdomen. His temperature fell to 97 and the pulse rose from 110 to 156. The abdomen was retracted and hard, and there was considerable impairment of movement on respiration.

The house-physician, Mr. H. Hopps, recognizing that in all probability perforation had occurred, immediately sent for me, and within three-quarters of an hour of the onset of the collapse I opened the abdomen in the middle line below the umbilicus, and found a perforation of the ileum ¼ in. in diameter, some 3 in. from the ileo-cæcal valve. The intestines were bathed in clear serous fluid, and there were about 3 oz. of a similar fluid in the pelvis. There was no other evidence of commencing peritonitis. I closed the perforation with a sero-muscular purse-string suture of fine silk, mopped the fluid from the pelvis, and inserted a small rubber drain. The wound was closed with through-and-through silkworm gut sutures.

The patient was back in bed within half an hour of his leaving the ward. The tube was removed twenty-four hours after the operation. Its insertion was probably an unnecessary precaution.

Recovery was uneventful, and the patient is now (May 9th) in excellent health.

AT the request of the Bishop of London, we draw attention to the seaside camps for London working boys. The first of them was opened some twenty-four years ago, and year by year the work has extended, until last year about 5,700 lads were provided with accommodation for a week or two at the seaside. Many readers have probably seen these camps, and none can have any doubt as to the physical and moral advantages likely to be derived from their upkeep. Each boy contributes to the expense on an age scale, but, of course, the total outlay is not covered thereby. Contributions will be gladly received by the secretary of the movement, Mr. A. Abel Bloxam, 22, Northumberland Avenue, W.C.

THE SCIENCE COMMITTEE

OF THE

British Medical Association.

REPORTS TO THE THERAPEUTIC SUBCOMMITTEE.

THE BACTERICIDAL ACTION OF THE CRESOLS AND ALLIED BODIES AND THE BEST MEANS OF EMPLOYING THEM.

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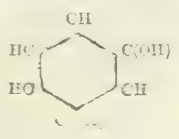
(Continued from page 1249.)

III.—THE BACTERICIDAL POWERS OF THE DI-OXY AND TRI-OXY BENZENES AND OF QUINONE.

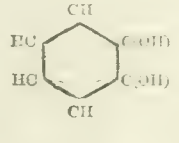
(i.) *The di-oxy-benzenes.*

There are three isomeric di-oxy-benzenes which may be regarded as derived from phenol by the replacement of a hydrogen atom in the benzene nucleus by the hydroxyl (O H) group. The constitutions of the substances are as follows:—

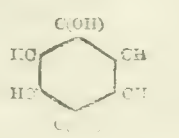
Resorcinol (Meta-di-oxy-benzene)



Pyrocatechol (Ortho-di-oxy-benzene)



Hydroquinone (Para-di-oxy-benzene)



These substances are white solids which are readily soluble in water.

Their solubilities at 15°c are given below:—

(Saturated solutions) Resorcinol 4 parts in 3 parts of water
Pyrocatechol 1 part in 3.2 ,, ,, ,,
Hydroquinone 1 part in 17 ,, ,, ,,

Callias ("Ueber das Resorcin." Wurtzburg. 1880) showed that resorcinol possessed considerable restraining power upon the growth of micro-organisms. A 1 per cent. solution was able to preserve many animal fluids and a 2 per cent. solution prevented milk becoming sour.

Duggan (Amer. Chem. Jour., Vol. VII., p. 62) has compared the inhibiting powers of these di-oxy-benzenes by determining the amounts required to prevent the development of B. subtilis in beef-peptone.

His results are expressed in the following table, the inhibiting power of phenol being taken as the standard:—

Substance.	*Inhibiting co-efficient.*
Phenol	1
Pyrocatechol	1
Resorcinol	1·25
Hydroquinone	1·50

The inhibiting powers of phenol and pyrocatechol were thus equal and were somewhat less than the inhibiting power of resorcinol, which in turn was less than that of hydroquinone.

The germicidal powers of these substances have been determined with B. typhosus in absence of organic matter. Their carbolic co-efficients are tabulated below:—

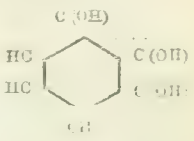
Substance	*Carbolic co-efficient.*
Resorcinol	·5
Pyrocatechol	·5
Hydroquinone	1·0

The introduction of a second hydroxyl group into the phenol molecule was thus accompanied by a considerable decrease in germicidal power, except in the case of hydroquinone the carbolic co-efficient of which was the same as that of phenol.

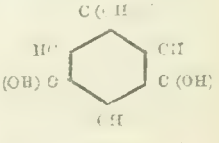
(ii.) *The Tri-oxy benzenes.*

There are three isomeric tri-oxy-benzenes, namely:—

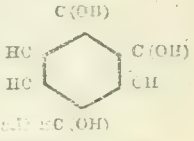
1.2.3. Tri-oxy-benzene, (Pyrogallol)



1.3.5. Tri-oxy-benzene, (Phloroglucin)



1.2.4. Tri-oxy-benzene, (Oxyhydroquinone)



These three compounds are very readily soluble in water.

Bovet ("Revue d'hygiene," 1879, p. 154) found that 2% solutions of pyrogallol inhibited the growth of bacteria and moulds while 3% killed bacteria. Duggan (l.c.) compared its inhibiting power with the inhibiting powers of phenol and dioxy-benzenes and found that pyrogallol was feebler than any of these compounds.

The germicidal powers of pyrogallol and phloroglucin were determined with B. typhosus, and their carbolic co-efficients are given below:—

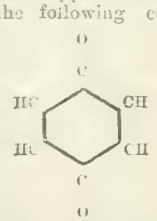
Substance.	*Carbolic co-efficients.*
Pyrogallol	·77
Phloroglucin	under ·35

These two tri-oxy-benzenes were therefore weaker than phenol in germicidal efficiency.

The results with the di-oxy and tri-oxy-benzenes lead us to a conclusion of practical importance, namely, that high germicidal power is not to be sought in phenols containing numerous hydroxyl groups.

(iii.) *The germicidal power of Quinone.*

Thallhimer and Palmer in the Journal of Infectious Diseases, Vol. IX., 1911, pp. 172-189, have shown that quinone, which has the following constitution and which



is an oxidation product of many benzene derivatives, considerably exceeded phenol and cresols in germicidal power. They found that with B. typhosus it had a carbolic co-efficient of about 84. Quinone forms addition-products with many phenols. Phenoquinone—the addition compound of quinone and carbolic acid $C_6H_4O_2$, 2 C_6H_5OH—was also found to possess a high germicidal efficiency which was less, however, than that of quinone itself.

Some experiments have been made to compare the germicidal power of quinone with that of phenol and of an aliphatic ketone, such as acetone, $CH_3.CO.CH_3$, using Staphylococcus pyogenes aureus. The results are tabulated below:—

Substance.	*Carbolic co-efficient.*
Quinone	10
Acetone	Under ·075

The germicidal power of quinone upon Staphylococcus was therefore much greater than that of phenol, while the germicidal power of acetone was insignificant.

Quinone and many of its derivatives are not freely soluble in water, and it would, therefore, be of practical importance to prepare some fluid derivatives and emulsify them.

Quinone dissolves readily in crude carbolic acid, forming presumably a compound with the cresols. On warming soft-soap with this combination the soap dissolves, but the fluid product is decomposed by water with the formation of a black precipitate. Its germicidal power has not been determined.

IV. The Bactericidal Action of the Higher Tar-Acids.

A (*i.*) *In the absence of organic matter.*

(*ii.*) *In the presence of 3 per cent. dried fæces.*

The higher tar-acids used were various fractions of tar-acids derived from creosote-oil boiling from 205°-286° C. Preparations of these were made according to the formula used in the preparation of Liquor cresolis saponatus [50 per cent. Fraction; 50 per cent. soft-soap; the mixture being warmed until all the soap had dissolved]. Reddish-brown fluids were in this way obtained which were miscible with water giving milky fluids. The milkiness of these dilutions is due to the fact that the addition of water to the soap-suspensions of the higher tar-acids causes a separation of the tar-acids in a fine emulsion. A 1 per cent. dilution of the soap-suspension of Fraction IV. boiling between 205° and 209° C., however, was clear, but a 2·5 per cent. dilution was milky. This was probably due to the high cresol-content and low xylenol content of the preparation, the particles of insoluble tar-acid becoming so scarce in the 1 per cent. dilution that the milkiness disappeared.

The carbolic acid coefficients of these preparations were determined with Staphylococcus pyogenes aureus both in the absence and in the presence of particulate organic matter.

Table XI.

Tar-acid body emulsified.	Carbolic acid co-efficient.		Properties of dilutions.	
	In the absence of organic matter.	In the presence of organic matter. 3% fæces.	2·5%	1·0%
M Fraction IV. 205-209°C	1·7	1·4	Turbid. Dark-yellow.	Clear Yellow.
N „ V. 209-213°C	2·4	1·9	Turbid. Dark-yellow.	A little turbid. Yellow.
O „ VI. 213-218·5°C	3.0	1·9	Turbid. Reddish-yellow.	Somewhat turbid. Yellow.
P „ VII. 218·5-225·5°C	3.3	2·0	Turbid. Reddish-yellow.	Somewhat turbid. Yellow.
Q „ VIII. 225·5-240°C	4·5	2·3	Yellow and turbid.	Yellow and turbid.
R „ IX. 240-247°C	8.7	2·4	Pink and milky.	Pink and milky.
S „ X. 274-286°C	11 to 14	1·3	Pink and Milky Considerable immediate separation of emulsified tar acid.	

It is seen that the carbolic-acid coefficients rise as the boiling points of the tar-acids rise. This fact is taken advantage of in various proprietary preparations. It is due not only to the fact that the bactericidal powers of the members of the phenol series increase with their molecular weights but also to the intensifying effect of emulsification upon bactericidal power. Chick and Martin (*Journal of Hygiene*, Vol. VIII., No. 5, Nov., 1908) showed that the increased efficiency of a germicide in the emulsified form was caused by an appropriation of the particles of the tar-acids by the bacteria. This appropriation was demonstrated by mixing a suspension of bacteria and an emulsion of tar-acids together and after allowing to stand for a short time centrifuging. The bacteria carried down a large amount of the tar-acids, while there was very little settlement when the tar-acid emulsion alone was centrifuged. By suitably arranging the proportions of tar-acids and bacteria the emulsion completely lost its opacity.

In consequence of this adsorption of the particles of tar-acids by the bacteria the latter must rapidly become surrounded by a much greater concentration of disinfectant than that which exists throughout the liquid, and by this local accumulation of bactericide the efficiency is greatly increased. Particulate organic matter also removes phenols and cresols from their aqueous solutions, but the extent of absorption is very much less than that which goes on in the case of emulsions, and this explains the superiority of emulsified disinfectants as bactericides. This effect of emulsification was not noticeable in the case of soap-suspensions of the lower tar-acids such as the cresols because at the dilutions used in determining bactericidal power the cresol had passed entirely into aqueous solution. This insolubility of the higher tar-acids thus enables the bactericidal test to give a truer value for the disinfecting-power of their soap-suspensions.

We have seen that the presence of particulate organic matter (3 per cent. fæces suspension) had very little influence upon the bactericidal power of Liquor cresoli saponatus. With analogous preparations of the higher tar-acids this was not the case. The presence of the organic matter had a marked depreciating effect upon the bactericidal powers of these preparations and this increased with the boiling-point of the fractions. The factor of emulsification had again come into operation. An emulsified disinfectant is much more greatly reduced in efficiency by particulate organic matter than a dissolved one; and, as in the dilutions of the cresol-preparations used in carrying out their standardisation the tar-acids were dissolved in water and in those of the higher tar-acid preparations they were still emulsified, the sensitiveness of the latter and the resistance of the former to particulate organic matter are both explicable.

This method of emulsification with soft soap not only afforded a means of obtaining some insight into the bactericidal action of the tar-acids, but was also practicable for the production of preparations containing the cresols (Crude Carbolic Acid and Tar-Acid Fractions I., II., and III.) which yielded clear solutions with water and which were superior to, or at least about equal to, carbolic acid in bactericidal power.

This method, however, was not serviceable for the production of preparations of the higher tar-acids suitable for practical purposes, since the emulsions of the tar-acids generated on diluting these preparations with water were not permanent, but in the course of a few hours the heavy tar-acids began to settle down forming an oily layer on the bottom of the vessel. Further, it was not found possible to emulsify even temporarily Fraction No. X. 276-284° C. with soft soap. On warming equal weights of this tar-acid fraction and soft soap a dark-coloured fluid was obtained, from which on dilution with water there was considerable separation of unemulsified tar-acid, which immediately settled down, and for this reason an accurate estimation of germicidal action of the preparation, the carbolic acid coefficient of which varied from 11 to 14, was not possible.

In the presence of lower fractions these tar-acids of higher boiling-point would no doubt form more stable emulsions.

A search was therefore made for more efficient emulsificants than soft soap, and after examining the emulsifying properties of various substances, which are described in Chapter V., castor-oil soap was chosen as the emulsificant for the higher tar-acids.

It was found necessary to vary the proportions of soap and tar-acids in dealing with the different fractions. The higher the boiling-point of the tar-acids the higher was the proportion of soap necessary to emulsify these.

Fractions No. 4 (205°—209° C.), 5 (209°—213° C.), 6 (213°—218·5° C.), 7 (218·5°—225·5° C.), and 8 (225·5°—240° C.) of the tar-acids were emulsified according to the following formula by the method described in Chapter V.:—

Tar-acid	50
Castor oil	20
Potash	5
Water	5; all by weight.

Fractions No. 9 (240°—274° C.) and 10 (274°—286° C.) were, however, emulsified by the following formula:—

Tar-acid	59
Castor oil	35
Potash	8
Water	7; all by weight.

The products were dark, translucent, homogeneous fluids, which were not very viscous and which were freely miscible with water. Those containing fractions 4, 5, 6 and 7 gave at first clear dilutions with distilled water, which very soon became milky. With tap-water the dilutions were immediately milky owing to precipitation of some of the castor-oil soap by the calcium and magnesium salts and consequent

separation as a white emulsion of some of the tar-acids. The disinfectant-fluids containing Fractions No. VIII., IX. and X., however, immediately yielded milky dilutions with both distilled and tap-water owing to the greater insolubility of the constituent phenols, which on separation were emulsified by the soap.

These disinfectants prepared with castor-oil soap, unlike those containing soft soap, formed stable emulsions with distilled water, there being little deposition of tar-acid on standing. The emulsions with tap-water, however, were just a little less stable owing to the precipitation of some of the emulsificant (soap).

The effects of tap-water and of the age of the emulsions upon germicidal power are described later on in this chapter.

Below are tabulated the results of the determinations of the germicidal powers of the preparations of the higher tar-acids emulsified by means of castor-oil soap.

(iii.) The depreciating effect of fæces upon germicidal power was much greater in the case of the preparations of tar acid fractions VIII., IX., and X., giving very milky emulsions with water, than in the case of the preparations of fractions IV. to VII., that gave milky emulsions less readily. The carbolic coefficients of the latter in presence of fæces were often equal to or even greater than those of the highest fractions. This shows that for disinfection in presence of fæces there is no advantage in employing preparations of the highest boiling-point tar acids.

(iv.) Although phenol exerted under the same conditions nearly equal germicidal powers upon B. typhosus and Staphylococcus, yet the carbolic acid co-efficients of these tar-acid preparations were greater in the case of B. typhosus than of Staphylococcus. This meant that the latter was more resistant to the germicidal action of these disinfectants than B. typhosus.

TABLE XII.

Nature of Phenols Emulsified with Castor-oil Soap and Proportions of Preparations.	Germicidal Power.				Concentrations recommended to be used in practice.					
	Staphylococcus Pyogenes Aureus.		B. Typhosus.		For disinfection of typhoid stools.		For disinfection of pus from empyæmas.			
	Carbolic-acid co-efficient in the absence of fæces.	Carbolic-acid co-efficient in the presence of 5 per cent. fæces.	Carbolic-acid co-efficient in the absence of fæces.	Carbolic-acid co-efficient in the presence of 5 per cent. fæces.	Dilutions required to kill typhoid bacilli in 5 minutes (absence of organic matter).		Dilutions required to kill typhoid bacilli in 5 minutes (presence of organic matter). (Concentrations to be added to ½ their volume of stools or pus.)			
					At 20°C.	At 37°C.	At 20°C.	At 35°C.	At 20°C.	At 35°C.
T. Fraction IV.— (265°–209° C.) Tar-acid ..... 50 Castor-oil ..... 20 Potash ..... 5 Water ..... 5 (All by weight.)	3·7	2·2	6·8	2·4	1%	·5%	1·5%	·75%	—	—
U. Fraction V. and VI.— (mixed) (205°–218° C.). Tar-acid ..... 50 Castor-oil ..... 20 Potash ..... 5 Water ..... 5 (All by weight.)	5·5	2·3	7·2	3·1	·5%	·25%	1·5%	·75%	—	—
V. Fraction VII.— (218°–225° C.) Tar-acid ..... 50 Castor-oil ..... 20 Potash ..... 5 Water ..... 5 (All by weight.)	5·7	3·6	9·5	3·0	·5%	·25%	1·5%	·75%	—	—
W. Fraction VIII.— (225·5°–240° C.) Tar-acid ..... 50 Castor-oil ..... 20 Potash ..... 5 Water ..... 5 (All by weight.)	8·6	2·4	11·1	3·2	·25%	·1%	1·5%	·75%	1%	·5%
X. Fraction IX.— (240°–271° C.) Tar-acid ..... 50 Castor-oil ..... 35 Potash ..... 8 Water ..... 7 (All by weight.)	11·6	2·3	13·8	3·6	·25%	·1%	1·5%	·75%	1%	·5%
Y. Fraction X.— (274°–285° C.) Tar-acid ..... 50 Castor-oil ..... 35 Potash ..... 8 Water ..... 7 (All by weight.)	12·8	1·8	13·0	2·0	·5%	·1%	1·5%	·75%	3%	1·5%

From these results the following conclusions can be drawn:—

(i.) As was found in the case of preparations of the tar acids made with soft soap, the germicidal power of those made with castor oil soap increased with the boiling-points of the constituent tar acids.

(ii.) By comparing these results with those tabulated in table XI. it was found that the castor oil soap preparations of the higher tar acids containing a higher proportion of phenols exceeded the corresponding soft soap preparations in germicidal power. Further, the castor oil soap preparations gave much more stable emulsions with water.

To this generalisation there were two exceptions. The carbolic acid coefficients of the preparations containing the two highest tar acid fractions, IX. and X., were the same, whether the organism was B. typhosus or Staphylococcus. This was an interesting case of selective disinfection and showed that Staphylococcus, compared with B. typhosus, was relatively more susceptible to the germicidal action of the highest tar acids than to that of the lower acids.

The Germicidal Power of Emulsified Crude Mixture of Tar Acids from Creosote-Oil.

The "crude tar acids" form the mixture of phenoloids

obtained by extracting "creosote oil" with soda and decomposing the soda compounds of the tar acids with acids.

By the fractional distillation of this mixture of phenols the various fractions of tar acids are obtained, the bactericidal powers and methods of emulsification of which have been described above.

This mixture of tar acids was found to be best emulsified by means of castor oil soap. The method of emulsification is described in Chapter V. The proportions used were :—

Tar Acid	50
Castor Oil	20
Potash	5
Water	5

The product was a dark-coloured, homogeneous fluid, which gave a permanent pink emulsion with water. Its bactericidal powers under various conditions have been determined, and are set forth in the following table :—

TABLE XIII.—DISINFECTANT Z.

STAPHYLOCOCCUS.		B. TYPHOSUS.				Concentrations recommended for use in practice.					
						Disinfection in absence of organic matter. Sterilisation of hands, instruments.		Disinfection in presence of faeces.		Disinfection of pus.	
In the absence of organic matter.		In the absence of organic matter.		In the presence of faeces.				2 volumes of concentration to be added to 1 of stool or pus.			
Carbolic co-efficient.	Concentration killing in 15 mins.	Carbolic co-efficient.	Concentration killing in 15 mins.	Carbolic co-efficient.	Concentration killing in 15 mins.	At 20° C.	At 35° C.	At 20° C.	At 35° C.	At 20° C.	At 35° C.
2·5	3·6 in 1000	0·8	1·1 in 1000	2·4	4 in 1000	1%	·5%	1·5%	·75%	1·5%	·75%

This preparation of the crude mixture of tar acids thus considerably exceeded phenol and the cresols in germicidal power. Its efficiency was greatly decreased by the presence of particulate organic matter.

B.—*The value of some of these disinfectants in the disinfection of pus.*

Since pus contains organic matter—in the particulate state as pus corpuscles, which frequently undergo fatty degeneration and are, therefore, rich in fat, and in the dissolved state as serum proteins—it was to be expected that its presence would greatly reduce the germicidal power of disinfectants. The pus employed in the experiments came from a case of empyæma. It contained no sporing organisms, but a large number of rod-shaped bacteria similar to B. coli and a few chains of cocci. The organisms grew rapidly on agar, forming a thick creamy growth. The total solids of the pus was first determined by drying a known weight of the well shaken pus over the wath-bath and, when most of the water was driven off, by adding a little absolute alcohol to facilitate the removal of the remaining water from the fatty mass. The pus was finally dried at 105° C.

The sample of pus contained 10 per cent. by weight of total solids. Its specific gravity was 1·016 at 15° C.

The method of determining germicidal power in the presence of the pus consisted in rapidly adding at one minute intervals known volumes of a concentration of a disinfectant to a series of 1·5 cc. of pus to which varying volumes of water had been added. The volume of disinfectant added was such to make the total volume 5 ccs. The tubes were then subcultured in the way described in Chapter I.

As 1·5 ccs. of pus were always employed, the amount of solid matter present was always ·152 gms. in 5 ccs. of dis-

infectant, or 3 per cent. as in the case of the experiments with faeces. The results of the experiments are tabulated below (Table XIV).

From these results it is seen that the carbolic coefficients of the emulsified phenols in the presence of pus decrease as the series of higher tar acids is ascended, until the highest fraction (X.) is about as efficient as the cresols.

It, therefore, appears that the particulate organic matter in pus behaves as the particulate organic matter in fæces in reducing the germicidal value of emulsified disinfectants.

C.—*The influence of tap water upon the germicidal efficiency of disinfectants containing the higher tar acids.*

(1). The effect of tap-water upon germicidal power in absence of organic matter.

The determination of germicidal power was carried out by

TABLE XIV.

DISINFECTANT.	Concentration of disinfectant required to disinfect the pus in 15 minutes.	Concentration of phenol required to disinfect the pus in 15 minutes.	Carbolic Acid co-efficient.	Concentrations recommended for use in practice. One volume of the concentration of the disinfectant to be added to half its volume of pus.	
				At 20° C.	At 35° C.
E Crude Carbolic Acid (Cresols) emulsified with an equal weight of soft soap ...	8 in 1000	10 in 1000	1·2	3%	1½%
W Fraction VIII. Tar-acids (225·5°—240 °C.) emulsified with castor oil	2 in 1000	12 in 1000	6·0	1%	½%
X Fraction IX. Tar-acids emulsified with castor oil	2·2 in 1000	11 in 1000	5·0	1%	½%
Y Fraction X. Tar-acids emulsified with castor oil	7·4 in 1000	11 in 1000	1·5	3%	1½%
Mixture of Crude Tar-acids emulsified with castor oil	4·0 in 1000	11 in 1000	2·7	1·5%	·75%

the method already described, except that tap-water was employed in making up the dilutions. Control experiments with distilled water were carried out at the same time.

The results are tabulated below :—

TABLE XV.

Disinfectant.	Organism.	Dilutions made with distilled water.		Dilutions made with tap-water.	
		Carbolic acid co-efficient.	Concentration killing in 15 mins.	Carbolic acid co-efficient.	Concentration killing in 15 mins.
Phenol	Staphylococcus	—	9·5 in 1000	—	12·0 in 1000
W. Fraction VIII.—Emulsified with Castor-oil Soap	,,	8·6	1·1 in 1000	9·2	1·3 in 1000
Y. Fraction X.—Emulsified with Castor-oil Soap	B. Typhosus	1·0	·58 in 1000	14·6	·65 in 1000
Phenol	,,	—	7·5 in 1000	—	9·5 in 1000
Y. Fraction XI.—Emulsified with Castor-oil Soap	Staphylococcus	12·8	·78 in 1000	12	1·0 in 1000
Phenol	,,	—	10 in 1000	—	12 in 1000
V. Fraction VII.—Emulsified with Castor-oil Soap	Staphylococcus	5·7	1·4 in 1000	6·1	1·8 in 1000
Phenol	,,	—	8 in 1000	—	11 in 1000
X. Fraction IX.—Emulsified with Castor-oil Soap	Staphylococcus	11·6	·82 in 1000	9·6	1·1 in 1000
Phenol	,,	—	9·5 in 1000	—	11·4 in 1000

The presence of tap-water, therefore, appears to decrease by 15 to 30% the germicidal power of the higher tar acids. Depreciation to nearly the same extent was observed with phenol. This does not seem to be experimental error, as the results are consistent (see Table XV.). The explanation is not obvious.

(iii.) The effect of tap-water upon the stability of the emulsions.

As disinfectants will in practice be diluted with tap-water, it is important that the emulsion shall be stable when so diluted. Many emulsified disinfectants on the market show considerable deposition when diluted with tap-water, the deposition varying in extent according to the hardness of the water.

The sample of tap-water used in the experiments came from the Thames Valley.

In the experiments carried out to determine the influence upon stability of the emulsions dilutions of various disinfectants were made with distilled and tap-water and their germicidal power was immediately determined. The dilutions were then allowed to stand several days. After that time there was usually a little separation of tar acid from emulsions made with both distilled and tap-water and the germicidal powers of the supernatant liquids were determined, shaking up being carefully avoided.

TABLE XVI.

Disinfectant	W. Fraction VIII. emulsified with castor-oil soap.	Y. Fraction X. emulsified with castor-oil soap.	V. Fraction VII. emulsified with castor-oil soap.
Organism ..	Staphylococcus.	B. Typhosus.	Staphylococcus.
Carbolic Acid co-efficient determined with *distilled* water and *before* standing	8·6	12·6	5·7
Carbolic Acid co-efficient determined with *distilled* water and *after* standing	9·2	10·0	6
Time of standing ..	48 hrs.	96 hrs.	43 hrs.
Carbolic Acid co-efficient determined with *tap-water* and *before* standing	9·2	14·6	5·04
Carbolic Acid co-efficient determined with *tap-water* and *after* standing	6·5	12·0	5·4
Time of standing ..	48 hrs.	96 hrs.	43 hrs.

The results of these experiments are set forth in Table XVI.

The emulsions of the higher phenols in some cases, therefore, tended to fall in germicidal power on standing a few days and the depreciation was generally greater in the case of the emulsions made with tap water than of those made with distilled-water.

These facts point to the advisability of either employing in disinfection freshly made emulsions of the higher phenols or shaking up the emulsions before use when they have been made for some time.

(To be continued.)

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

FUNGATING ULCER TREATED WITH DECOCTION OF COMFREY ROOT.

History of Case.—W. C., a cab proprietor, aged 83, when I first saw him on October 23rd, 1911, had been suffering for some months from shortness of breath and swelling of the legs. He was removed at once to a nursing home.

His condition was very grave. He had very marked

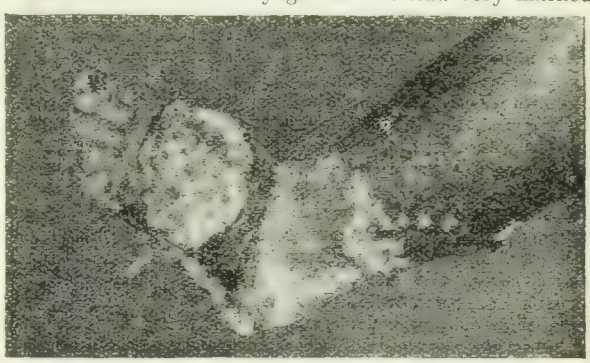


Fig. 1.—January 29th, 1912.

arterio-sclerosis, a loud aortic systolic murmur, with a feeble pulse and low temperature. The urine contained blood, albumen, and casts, but no sugar. There was marked oedema of both legs and some ulceration from neglect. He was treated with cardiac tonics and diuretics.

During December, 1911, a fungating ulcer appeared on the dorsum of the left foot. It rapidly encroached on the foot, eventually exposing the metatarsal bones. It was treated unsuccessfully with boracic fomentations and baths, iodoform, red lotion, calamine lotion, and lead and opium.

In January, 1912, the patient's condition appeared hopeless, he became at times delirious, and was removed home to die.

The first photograph was taken on January 29th, 1912, and needs no description. I then advised four-hourly fomentations made with decoction of comfrey root. The ulcer began to fill up rapidly. The patient's condition at the same time improved.

The second photograph was taken on April 29th, 1912, and requires no comment.



Fig. 2.—April 29th, 1912.

I am indebted to Mr. Horace Coulson, chemist, for his aid in taking the photographs and preparing the decoction. The decoction was made by simmering 1 oz.

of the roots in a pint of distilled water for twenty minutes and occasionally adding a little boiled water to make up for evaporation.

Cambridge. CHARLES SEARLE, M.B., B.C.

WARMTH IN BED.

IT is obvious to the observant layman that whilst many doctors preach, few practise, the principle of open windows. Their houses are often in busy thoroughfares, and the need of quietude may be a special reason in their case, but the fact remains. Perhaps it is from their want of practical experience that their advice—"Sleep with your windows wide open"—does not meet with general response. It is not uncommon to find that patients have abandoned the system because of such affections as stiff-neck, pains in the shoulders and arms, etc.

A likely cause for such troubles is to be found in the difference of clothing afforded to the back of the neck and the shoulder girdle by day and by night. This is particularly noticeable in the case of men who wear during the day a closely embracing collar and a coat often fortified with some accessory deltoid in the form of padding, all of which, beside waistcoat, shirt and vest, are discarded at night for a thin pyjama jacket or nightshirt. However closely one may "snuggle," it is hardly possible to keep the shoulders as warm as the body, and any restlessness immediately exposes them. Such restlessness is apt to happen when open windows are first adopted.

In all but fat subjects the cervical vertebrae and the nerves issuing through them have but scanty covering. Some creaking of the joints in connexion with the atlas, axis, and occipital bones is not infrequently found in cases of rheumatic pains in the shoulders, and so-called neuritis of the arm. Modern treatment of these conditions, which is largely directed to the cervical spine, is so successful that it would seem reasonable to adopt some preventive measures to guard this area against prolonged exposure to the cold of night. Rheumatic pains in the shoulders are so prevalent that some common cause must exist, and, without wishing to too strongly urge the point, is it not possible that this area, whose sensibility to cold and warmth is so blunt, may be adversely affected by vicissitudes of temperature without our being aware of it?

This is not a favourable time of the year to advocate the wearing of additional clothing at night, but I would suggest that when the advice of opening windows is given it should be accompanied by a recommendation to wear a short knitted woollen cape with armholes but without sleeves. This conduces to sleep, and helps to ward off rheumatic pains.

OLIVER BEDDARD, M.R.C.S., L.R.C.P.Lond.

London, E.C.

WIRING SAME FRACTURED PATELLA TWICE.

I OBSERVE in the JOURNAL of May 25th, p. 1181, notes on wiring of the same patella twice in eight months. As that case is stated to be the first recorded, the following brief notes of a case which I was called upon to attend may perhaps be considered worthy of publication.

On July 15th, 1910, W. H., a farmer's labourer, aged about 35, small, but very muscular, tripped over a stone in the dark, and in trying to save a fall fractured his left patella by muscular action. He would not consent to operation at first, and considerable effusion and some inflammation occurred in the joint.

Ten days later he consented to be removed to the infirmary, where the patella was carefully wired by the surgeon. He made an excellent recovery, and returned to his work for several weeks.

On December 13th, 1910, five months later, he tripped over a pail in the dark, and in attempting to recover his balance the left patella was felt to give way. On examination, I found a space of about 1 in. between the upper and lower fragments, with absence of crepitus. He was sent next day to the infirmary, and the patella was again wired together, it being found that the original wire prevented the fragments from separating as widely as on the first occasion.

Recovery was uneventful and complete, and the man returned to his usual work with no lengthened convalescence.

A. H. H. HOWARD, M.R.C.S., L.R.C.P.,
Late House-Surgeon, Charing Cross Hospital.

Little Hadham, Herts.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

DORSET AND WEST HANTS BRANCH.

Bournemouth, Wednesday, May 22nd, 1912.

Mr. F. WINSON RAMSAY in the Chair.

Prolapse of the Uterus.

THE PRESIDENT (Mr. Winson Ramsay) gave his presidential address on prolapse of the uterus. He chose his subject from its importance to the general practioner and the general difficulty in the treatment of the condition. He traced the history of its early recognition, and described some of the strange methods employed in its treatment, referring to the early use of mechanical support. He then described the anatomy of prolapse, discussing the relative importance of the serous, ligamentous, and muscular structures closing the outlet of the pelvis, the principal support being given by the levator ani, the parametria being sufficient to support the organ during temporary relaxation of the muscle, but giving way if exposed to prolonged strain. Injury to both connective tissue and muscle was the most frequent cause of prolapse, the first stage of which was retroversion of the uterus. The symptoms having been related, the President passed to the diagnosis, and laid stress on the importance of examining the patient in the erect posture, by which alone the slighter displacements could be recognized. The treatment of prolapse was palliative or operative; the former included the use of pessaries, now usually the ring or Hodge, or, in procidentia, the cup and stem pessary. Operations on the broad or round ligaments had been rightly discarded; he advised ventrisuspension in young women, ventrifixation in women over 40, or in some cases vaginal hysterectomy; in procidentia no operation had been permanently successful. The President described a new operation he had devised, bringing up the pelvic fascia to the rectus fascia, the uterus being removed at the level of the internal os; a strip of tendon from each external oblique was passed through the stump and fixed to the rectus fascia. He had only performed the operation seven times during the past year; the lapse of time had been too short to allow judgement of the permanent utility of the operation.

Hernia of Uterus and Ovaries.

Dr. T. H. SANDERSON WELLS read notes of a case of hernia of the uterus and ovaries in an infant of 3 months. The patient was a little girl of healthy appearance, suffering from a swelling in the right groin, rightly diagnosed as femoral hernia. No impulse was felt, the swelling was painful on pressure, otherwise the child did not seem to suffer any pain. The swelling got larger and was operated on. At the operation the right ovary was found to be in a state of gangrene. The child had been perfectly well since.

Dr. WHITTINGDALE said he had been present at the operation on the first recorded case of ovarian hernia.

The PRESIDENT remarked that it would be interesting to follow the girl's life.

Obstinate Hiccough.

Dr. W. JOHNSON SMYTH gave a brief account of a case of obstinate hiccough in a man of 45. The hiccough occurred every ten seconds. The patient's condition was very serious; sleep was prevented, and he lost his appetite. All the usual remedies were tried, including morphine, which relieved the condition for about an hour, but caused severe vomiting. Dr. Smyth noticed that the pharynx was slightly congested and prescribed a spray of 10 per cent. cocaine, which effected an instantaneous cure of the hiccough.

Dr. F. C. BOTTOMLEY had found a mixture of belladonna successful in two cases.

Dr. ALEXANDER reported a case which lasted fourteen days and was cured by 2 grains of zinc oxide.

Mr. MAHOMED mentioned a case in a patient dying of cancer of the liver.

Dr. HYLA GREVES described a case in which a few doses of tinct. iodi stopped the hiccough, which had lasted for two years.

The PRESIDENT said he had had a case of hiccough which came on after an operation for malignant bowel and lasted for a week. He tried everything, but in the end it stopped of its own accord.

Removal of Scirrhus of Breast.

Mr. A. HEYGATE VERNON made a communication on the operation for removal of scirrhus of the breast. He said that it was increasingly evident that recurrence was becoming less frequent since *x* rays had been used after operation. It was maintained by some that lymphatic glands have a high resisting power to cancer, and that it would be better not to remove the axillary glands. He himself had not been convinced that this was true, and he had not had the courage to leave the glands; but if he were operating on a case of doubtful malignancy he would remove the breast alone; then, if on section the tumour was found to be malignant, the question would arise, Should the patient be subjected to a second and more severe operation, or should the axillary glands be left to *x*-ray treatment?

Mr. F. BELBEN thought they were not justified in not clearing out the axillary glands in an early case of scirrhus, but he would use *x* rays in any recurrence.

Dr. FOWLER said the question was whether removal of the glands did not take away one of the natural defences against dissemination of the growth. He had seen no serious recurrence in the glands in cases that had had adequate *x*-ray treatment during the last three years.

Dr. SABERTON said that a vast amount of pain was caused by swelling of the arm, which occurred very frequently, and which would, of course, be avoided if the incision was not carried to the axilla.

Dr. BLAKE mentioned 2 cases which were operated on for scirrhus of the breast. Recurrences took place in the glands above the clavicle, which were removed. Later the concatenate glands became infected, and had been kept in check by *x* rays.

Dr. T. H. SANDERSON WELLS asked Mr. Vernon whether the subsequent *x*-ray treatment would be more effective if the axillary glands were left.

Mr. BERNARD SCOTT thought there was no doubt that cases did better now than they did twenty years ago, when the glands were not cleared out; the only question was whether it would be safe to leave the glands for the *x* rays to deal with. He asked Dr. Fowler how long his experience had been. Five years was not enough to prove the treatment successful; he had operated on a growth twenty-seven years after the original operation.

The PRESIDENT said that the application of *x* rays opened up a wide field for discussion. He considered that the glands should be removed, and never had trouble with swelling of the arm afterwards.

Mr. VERNON, in reply, said he was not satisfied at present that it would be safe to leave the glands, but in a case such as he had described, where it was a question of completing the operation in a breast found malignant after operation, he put the facts definitely before the patient; it was sometimes more difficult to get consent to the second operation than it had been for the first.

Dr. FOWLER, replying to Mr. Scott's question, admitted that experience of *x*-ray treatment was necessarily too short to admit of proof; but he claimed that the results of combined operation and *x*-ray treatment were already better than from operation alone, and he was very glad that Mr. Vernon was able to confirm this opinion.

PROFESSOR KRAEPELIN has resigned his membership of the Obermedizinalausschuss (the controlling medical body which is appointed by the Bavarian Government) as a protest against the attitude of the Bavarian Home Office toward the project for the erection of inebriate homes. The Provincial Council of Upper Bavaria and the Municipal Council of Munich have given liberal support to this scheme, but the Government, being asked for the small sum of from £250 to £500, referred the matter to the Home Office, and this department has refused to include the grant in the Budget. Professor Kraepelin considers that by resigning his position on the official body he lays the responsibility of this parsimony and ill-advised policy on the shoulders of the Government.

Reports of Societies.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

Tuesday, May 21st, 1912.

Dr. WILLIAM DAWSON in the Chair.

IN connexion with the bill which had recently been read in the House of Commons for dealing with the feeble-minded, the meeting unanimously passed the following resolution after discussion:

> That the Medico-Psychological Association is strongly of opinion that the authority which will have to administer the new Feeble-minded Persons Control Act should be constituted at once, in anticipation of any amalgamation, such as is contemplated by Section 62; and that, secondly, such body in the first instance should consist of the Commissioners in Lunacy with necessary additions, this principle being in strict conformity with the recommendation of the Royal Commission on the Feeble-Minded, and already being provided for in the case of Scotland in Section 67 (1) of the bill.

Classification of Various Forms of Dementia.

Dr. ROBERT JONES, in a paper on classification of the various forms of dementia, said he wished to elicit opinion as to what was meant by dementia: and as to whether there was such a mental state as one of partial responsibility. His own belief was that there was such a thing as partial insanity and that there was only one form of dementia, namely, primary dementia. One of its main characteristics was unemotionalism, although will power and conductivity might be present.

Sir THOMAS CLOUSTON (Edinburgh), in a written communication, said the term "dementia" should be used to indicate incurable non-congenital conditions of mind and its enfeeblement. New names should be formed and used for acute dementia, and for dementia praecox. The dominating form was the secondary or "sequential," and it covered five-sixths of the incurably insane; it was the type of all the hereditary forms of mental disease. It was the great reversionary condition into which the brain cortex devoted to mind fell, and all the preliminary symptoms in adolescent insanity and dementia praecox were mere preludes and parts of secondary dementia. He could not conceive any classification of mental diseases in which it did not form an essential part; but being one progressive phase of the progressive cortical destruction in general paralysis, he would like to see its use discontinued in connexion with that disease.

Dr. MERCIER wrote that he had always understood dementia to mean any degree of deterioration of mind, whether temporary or permanent, and whether associated or not with active manifestation, such as delusions or disorderly conduct. He had considered it to mean that the demented person was unminded, or deprived in some degree of some portion of his mind, especially of his judgement and intelligence. In every case of insanity there was some loss of judgement, of intelligence, or of moral rectitude, which justified the title of dementia in the sense of weakening or defect of mind. The use of the term "precocious dementia" implied that, in advanced life, dementia was the rule, and that in so-called precocious cases this decay had set in earlier than usual. The term "partial" as applied to dementia might be understood in either of two senses: either to the degree in which the whole of the faculties of the mind were impaired, or to the several faculties as being impaired singly, the others remaining intact. In the first sense the term "completely demented" was not infrequently used. But consideration would show that if a person were completely demented—that is, if the whole of his mind was lost—he must be totally unconscious, and therefore, although the term was accurate when applied to coma, it was inaccurate if applied to any loss or defect of mind short of coma. Any person demented to a less degree than this suffered from partial dementia. In the second sense, the term "partial dementia" raised the questions whether (1) any one or more faculties of mind might be impaired while the rest remained intact: and (2) whether, if this did not occur, one or more faculties might be impaired to a graver degree than others. The occurrence of aphasia settled the first of these questions, for the faculty

of using the right words was impaired, without, apparently, any sensible impairment of any other faculties. Responsibility—that is, liability to punishment—was determined by the same rules in clinical dementia as in other cases of insanity. In every case of insanity a negative as well as a positive factor existed. What was important was not the delusion but the loss of judgement that would prevent the delusion from being entertained. What was important was not the outrageous conduct of the maniac but the loss of inhibition of conduct that allowed the conduct to occur. Those losses were what he meant by the unminding, the deprivation of mind, the dementing in a literal sense, to which he attached the term "dementia."

Dr. Hayes Newington agreed with the view expressed by Dr. Mercier.

Dr. Yellowlees agreed with what Dr. Jones had said about primary dementia. It was a condition by itself, and began in mental enfeeblement, not only in one of the mental areas, but in all of them more or less. That mental enfeeblement was a gradual, progressive, and hopeless condition. There might be intermissions, but the general trend was downwards. He also agreed with Dr. Jones on the question of partial responsibility. Again and again in Scotland cases had occurred in which the establishment of the fact of a prisoner having partial mental disorder led the judge to modify his sentence.

Dr. G. M. Robertson (Edinburgh) thought Dr. Jones's question as to whether dementia might be partial and whether it might be complete, would be answered by most in the affirmative. The position was very well described in a simile by Sir George Savage—namely, that dementia was various in the same ways as the ruins of a house might be. In one case the house might be destroyed by earthquake, in another by fire, and in a third it might simply fall into decay owing to age and neglect. By substituting the mind for the house the simile was very apt. Some noted French alienists agreed with those in Scotland that dementia was not a disease at all, for a disease progressed, whereas dementia did not necessarily do so. It was rather the result of a scarring—a terminus. There was the want of an English term to denote the condition in which dementia developed. But a New York author had given to it the name "primary mental deterioration." That seemed to be a good description. Cases of dementia sometimes recovered.

Dr. Seymour Tuke instanced some cases of apparent recovery from what was regarded as primary dementia.

Dr. Yellowlees, answering Dr. Tuke, said he was sure that cases which recovered were not instances of true primary dementia, but rather cases of anergic stupor.

Dr. Carswell (Glasgow) discussed the legal aspect of responsibility, pointing out that where the jury had evidence of reasonable doubt as to the state of the prisoner's mind, though there might not be proof that he was insane, it was in their power to reduce the charge from the more serious one to a lesser one.

OXFORD MEDICAL SOCIETY.

At a meeting on May 10th, Mr. R. H. Whitelocke, President, in the chair, Dr. W. T. Brooks showed a case of *Polyarticular chronic arthritis* in a girl aged 16. The elbows and wrists were considerably disorganized. The knees were bent and prevented any attempt at walking, and a double arthrectomy was proposed. Dr. W. Collier showed a woman, aged 29, who had just returned from a prolonged stay at Margate. She left the Radcliffe Infirmary with enormous cervical glands simulating those seen in *Hodgkin's disease*, but found to be tuberculous on the excision of a small gland. A general removal had been inadvisable owing to the number and size of the glands and the high temperature. Her present condition was afebrile and the glands had shrunk to an extent which permitted of the question of operation being taken into account. Dr. W. Duigan, in a paper on *The use of tuberculin in phthisis*, recorded his experience with a number of cases treated by the intensive method. In carefully selected afebrile cases treatment on this plan produced a sense of well-being in the patient subsequent to the injection and a drying up of moist sounds in the lungs. The treatment was much cheaper than sanatorium treatment, and the patient, if at work, suffered no interruption.

ROYAL SOCIETY OF MEDICINE.

Clinical Section.

At a meeting on May 31st, 1912, Sir William Osler, President, in the chair, the following were among the exhibits:—Mr. Rupert Farrant: A case of possible *Acromegaly* in a man aged 21. There was some prominence of the lower jaw and malar bones, and to a less degree of the mastoid processes and external occipital protuberance. The lips and tongue were enlarged, and some pigmentation was present. The femora were bowed outwards, their necks being thickened and bent, and heads enlarged, the articular surfaces extending down on the necks; a skiagram showed expansion of the pituitary fossa. Dr. Frederick Langmead: A woman, aged 55, who was probably suffering from *Coarctation of the aorta*, accompanied by an aneurysm of an intercostal artery. A secondary circulation was visible over the back and left axilla, and over the back pulsation and a loud systolic bruit were noticeable. These were most manifest over an area of dullness in the proximity of the third dorsal vertebra, where a dense circular shadow was visible by radiogram. Mr. W. G. Spencer: A man, aged 36, to illustrate relief following *Bilateral nephrotomy* and drainage in a case of nephritis complicated by suppression of urine and uraemic convulsions. The patient appeared to be suffering from chronic nephritis, and an intercurrent attack of acute nephritis caused congestion and arrest of the kidney secretion. The relief of the congestion by bilateral nephrotomy and drainage was followed by a return of the patient to his previous state. He expressed himself as feeling quite well. Besides the condition of the urine, the only noticeable feature was the rather hard radial artery. Mr. Paul B. Roth: Two cases of *Osteo-periostitis of the tibia*, in children aged 8 years and 10 months, and 7 years respectively. The condition was due to congenital syphilis, a positive Wassermann reaction having been obtained in both cases. Dr. James Galloway: (1) A case of possible myotonia in a girl, aged 14, who exhibited tonic spasm of the muscles, chiefly of the extremities. On voluntary movement, the muscles of the left arm and leg passed into a condition of spasmodic contraction, the resulting contractions relaxing very slowly. The condition had been present for five months. The similarity between the rigidity and that of myotonia was remarked upon, and the question of an intracranial lesion discussed. (2) A case of *Sclerema cutis* in a man aged 54. He had so named the condition because it resembled the cases of sclerema neonatorum which had been described in this country. Dr. G. A. Sutherland: A case of *Haemorrhagic disease*, possibly *Scurvy*, in a girl aged 7. In August, 1911, during a severe illness with pyrexia, the head of the left femur became dislocated. Skiagrams showed rarefaction of bone, subperiosteal effusion, and fresh bone formation beneath the periosteum at the upper ends of both femora and humeri. Recurrent attacks of purpura and haematuria occurred, and melaena on two occasions. Mitral disease coexisted, and subcutaneous nodules had been seen. Blood examination showed no changes. Dr. Robert Hutchison: A man, aged 46, who had *Fibro-caseous tuberculosis* of the glands in the neck, and caries of the dorsal spine. It was chiefly remarkable for the latency of the caries, which had probably been present for a long time, but was only suspected after radiographic examination. Mr. C. H. Fagge: A case of *Ununited fracture of the ulna* in a boy, aged 11, treated by bridging the gap with a slice sawn from the tibia. It had been followed by firm union. Mr. Duncan C. L. Fitzwilliams: A case of *Multiple arthritis* in a girl aged 15. He regarded it as an infective arthritis, not tuberculous. Drs. H. Batty Shaw and P. J. Edmunds: Four cases of *Muscular dystrophy* in three generations. They served to show that cases in which no hypertrophy occurs survive to old age, and the existence of types of muscular dystrophy which combine the features met with in pseudo-hypertrophic muscular dystrophy, Erb's "shoulder" type, and the "facio-scapular-humeral type." Dr. F. Parkes Weber: A woman aged 28 with *Aneurysm* of the first portion of the aorta. A diastolic shock was present at the apex. Aortic disease was well marked. Wassermann's reaction was positive.

Reviews.

THE CEREBRO-SPINAL FLUID.

M. MESTRÉGAT has by his original investigations and studies in the chemistry of the cerebro-spinal fluid, published in various scientific journals, including the *Comptes rendus de la Soc. Biologique*, made himself especially well qualified to write a comprehensive monograph on the chemistry of the cerebro-spinal fluid in normal and pathological conditions.[1] Since Quincke in 1891 introduced lumbar puncture as a means of treatment for intracranial pressure, the proof of the simple and safe nature of the operation has led up to a number of investigations relating to the cytology, bacteriology, and chemistry of the fluid in many pathological conditions. The examination of the fluid in nervous diseases has become a valuable aid to clinical diagnosis, particularly in deciding between functional and organic disease, and in differentiating the various forms of meningitis.

The author, after a general introduction, describes all the technical methods which have been employed by various authorities in the examination of the cerebro-spinal fluid, concluding with a table giving the principal facts of analysis. This should prove very useful to all those who are interested in the subject, as the methods are clearly described and the value of each indicated in many instances on the grounds of the author's personal experience. He does not profess to give any details respecting cytological examination, which is perhaps to be regretted in so comprehensive a work: consequently the subject is dismissed in a short paragraph.

The first section of the book deals very systematically with the anatomical and physiological relations of the cerebro-spinal fluid. M. Mestrégat considers that the cerebro-spinal fluid is neither a secretion nor a transudation, for its composition and its non-colloidal nature is opposed to this. He considers, however, that it is formed by the choroid plexus, but nevertheless is derived from the blood plasma, not by a secretory process of the cells but by a dialysis pure and simple. It constitutes with the media of the eye and the internal ear a "homogeneous family," as much by its composition of "mineral serum" as by the part it plays as liquid neuro-protector and by its mode of generation which makes it derived from the blood plasma pure and simple. It may, however, be remarked that it does not very materially differ from the tears, which is a secretion. M. Mestrégat asks the questions, Does there exist a true circulation of lymph in the nervous centres, or does the cerebro-spinal fluid constitute the lymph of the centres? He answers these questions by saying that the lymphatic circulation is made by a true lymph, distinct from the cerebro-spinal fluid. The proofs he adduces, either one way or the other, are not, however, entirely convincing.

Chapter II consists of a most valuable summary of the analytic researches of the author relative to the normal cerebro-spinal fluid. The researches were carried out upon a mixed sample of twenty normal fluids removed by lumbar puncture. The results are given in his tables; besides this, there are tables giving the analysis of fresh fluids considered separately. Seeing that so many mistakes have been made by previous investigators through using fluids from pathological conditions, this authoritative work on the composition of the cerebro-spinal fluid should be of especial value.

He has not estimated the gases, but gives the results Mott obtained in his examination of fluids obtained by lumbar puncture of general paralytics. He remarks that the results agree with his estimation of the proportion of bicarbonates. The cholin question is discussed, and it is assumed that there is no reliable proof that cholin exists in the cerebro-spinal fluid. Mott himself has given up the view that there is any reliable evidence to show the existence of cholin in the cerebro-spinal fluid. The platinochloride test was the initial cause of the error; for it is impossible to get rid of the potassium salts present. Even the physiological test of the fall in blood pressure, upon which Mott and Halliburton also relied, has been called in question, for it is doubtful if pure cholin has a hypotensive action. As regards glucose, he estimates that it is a pretty constant quantity (0.534 gram per litre), therefore much less than in serum; there is no glycolytic ferment.

Regarding the existence of cholesterol in the fluid of general paralytics and chronic dements, he says: "For my part, the study of choline and of phosphates has rendered me sceptical of the passage of the products of disintegration of nervous substances into the cerebro-spinal fluid." It is known that there is a great resistance to the passage of poisons and colloidal substances from the blood into the cerebro-spinal fluid; it is also known that poisons introduced into the subarachnoid space have a much more poisonous effect on the nervous centres and can be soon detected in the blood. There is therefore an impermeability of the capillaries in one direction—namely, from the blood to the fluid, but not from the fluid to the circulation. The meningo-encephalitis of sleeping sickness has been thought to be due to the existence of the trypanosomes in the cerebro-spinal fluid; if therefore arsenic, antimony, and other therapeutic agents cannot enter the cerebro-spinal fluid, then when once the subarachnoid space is invaded by the organisms there is no possible means of ridding the body of the parasite and a constant reservoir of fresh infection remains. It appears that only the minutest traces conceivable of arsenic have been found in the cerebro-spinal fluid after maximum intravenous doses of salvarsan. This may explain the fact that atoxyl injections have not proved of much use in the treatment of this disease.

The changes in the fluid in various metabolic diseases—for example, uraemia, diabetes, etc.—are discussed fully. It is rather disappointing to find that the chemistry of the Wassermann-Plaut reaction does not come within the scope of this work, and is only briefly alluded to.

The last half of the work cannot fail to be of great value to all who are interested clinically in the chemical conditions of the cerebro-spinal fluid in disease. The author has taken infinite pains to summarize all that has been written upon the cerebro-spinal fluid in various diseases, nervous and otherwise.

The great aim of the author of this work is to give a reliable account of the chemistry of the normal cerebro-spinal fluid and upon this basis to establish the clinical value of a chemical examination of the fluid in pathological conditions. He is to be congratulated on the admirable, comprehensive, systematic, and lucid manner in which he has dealt with a difficult subject. The work concludes with a very full and accurate bibliographical index and table of contents. It can be recommended as a valuable work of reference to the physiologist, pathologist, neurologist, and clinician.

[1] *De liquide céphalo-rachidien normal et pathologique, valeur clinique de l'examen chimique.* Par W. Mestrégat. Paris: A. Maloin. 1912. (Roy. 8vo, pp. 697. Fr. 12.)

DISORDERS OF THE HEART.

THE commoner disorders of the normal cardiac rhythm have of late years been studied with ever-increasing ingenuity in most of the schools of medicine. No better account of the results so obtained has been published than the comprehensive work by Dr. T. LEWIS, which was reviewed at some length in our columns in December last (BRITISH MEDICAL JOURNAL, December 9th, 1911). It has now been followed by a smaller work,[2] in which the same author has applied the lessons of his previous treatise to the more practical test of clinical observation. The highly elaborate methods of graphic record, while giving information which is capable of accurate interpretation, are not adapted for daily use at the bedside, but the disorders which they have served to demonstrate can be detected in many cases by less elaborate means, now that their causation is better understood. Cardiac irregularity has, until within recent years, been looked upon as a symptom of valvular or myocardial disease, and the actual cause of the irregular action has been left undecided. The modern appreciation of disordered movements never leaves out of sight the mechanism of normal contraction, but seeks to discover the exact seat and cause of the abnormal change which is disturbing the normal sequence of impulses from

[2] *Clinical Disorders of the Heart-Beat: a Handbook for Practitioners and Students.* By Thomas Lewis, M.D., D.Sc., M.R.C.P., Lecturer in Cardiac Pathology, University College Hospital Medical School, Physician to Out-patients, City of London Hospital for Diseases of the Chest, Victoria Park, London: Shaw and Sons. 1912. (Demy 8vo, pp. 116; figs. 48.)

the sino-auricular node to the ventricle. Dr. Lewis has classed the different forms of irregularity under six headings, and, after definition of the exact meaning of the descriptive terms employed, he proceeds to examine each form in detail. Of these the one most frequently met with, he tells us, is auricular fibrillation. This condition is held to be present in about 60 per cent. of failing hearts, and is defined as being due to "a condition in which the normal impulse formation is replaced by stimulus production at multiple auricular foci." The impulses thus arising are transmitted to the ventricle in more or less haphazard sequence, and hence the ventricular contractions become utterly irregular. Heart-block, which has figured so largely in cardiac symptomatology of late years, is shortly defined as due to a delay or absence of response by the ventricular to auricular impulses. It may come as a surprise to many to learn that heart-block is most frequently met with during the period of life between 10 and 35 years. Although commonly attributable to degenerative or other changes of a permanent character in the auriculo-ventricular path, it may also occur in the course of rheumatic, septic, or syphilitic conditions as a temporary disorder. A very slow pulse is not always indicative of serious disturbance of circulation, as the cardio-vascular system possesses remarkable powers of adaptation. In association with certain other symptoms, however, the outlook is grave. Dr. Lewis's observations on prognosis and treatment are interesting and instructive. Sinus arrhythmia, defined as irregularity produced by interference with rhythmic impulses at their seat of discharge, and premature contractions, due to new and isolated impulses formed in the cardiac musculature, are each in turn described and illustrated and their practical bearings discussed. The difficult subject of paroxysmal tachycardia is closely examined, and many points are noted which may be new to those who are not familiar with recent writings on the question. Although introducing no novel method of treatment, the work will afford to the general reader a much clearer conception of the rational lines on which treatment should be founded. No claim to finality is made, and in time to come new discoveries may lead to other views, but Dr. Lewis has done good service in thus placing before the profession at large so clear an indication of the limits to which modern research has carried the possibilities of successful treatment.

Of the large additions to the literature of heart disease which have taken place of recent years, the latest is, perhaps, in point of bulk, the largest of all. Dr. Ernest Barié, of the Laënnec Hospital in Paris, has issued a third edition of his work on diseases of the heart and aorta, in which these subjects are described and discussed to the extent of over eleven hundred closely printed pages.[3] To attempt an analysis of such a comprehensive book would be impossible within the limits of a review, and it must suffice to say that it has been to a great extent recast, and brought, so far as we have been able to observe, thoroughly up to the limits of modern observation. The elaboration of instrumental means of observing the action of the heart in health and disease has opened up many avenues for fresh study, but for the physician at the bedside there is still need for the most careful consideration of the semeiology of cardiac disorder and a clear understanding of the causes of functional disturbance. This latter point is emphasized in the present work, and the vital importance of it is insisted upon in a preface, written for a previous edition in 1900 by Professor C. Potain, showing the evil results that may accrue from a careless interpretation of temporary disorder. In some of the earlier chapters the actual information to be gained by the use of radioscopy and electro-cardiography is shown with commendable simplicity and brevity, but the writer devotes much more space to the consideration of time-honoured methods of investigation by hand, eye, and ear. The whole work is essentially intended for the practitioner rather than for the purely scientific student of cardiology, and it contains a vast amount of information having a practical bearing which will be found most useful for reference. An important point, by which such reference is facilitated, is the addition to each section of a summarized account of its contents, whereby any special subject may be promptly found without prolonged search through irrelevant matter. Every part of the work has been revised, and the author has sought to embody all that is really of value in connexion with the subject. It is satisfactory to note that the work of English physicians and physiologists is fully recognized and frequently quoted. We can cordially commend this latest edition of a book which has already received the hearty recognition of our medical brethren on the other side of the Channel.

[3] *Traité pratique des maladies du cœur et de l'aorte.* By Ernest Barié, Physician to the Laënnec Hospital, Paris. With introduction by Professor Potain. Third edition, entirely recast, with 82 figures. Paris: Vigot Frères. 1912. (Sup. roy. 8vo, pp. 1136. Fr.20.)

CLINICAL SURGERY.

The second edition of Mr. C. B. Lockwood's *Clinical Lectures and Addresses on Surgery* appears with the new title *Clinical Surgery*,[4] which, though apparently regarded by the author as merely an abbreviation, is perhaps to some extent a misnomer, since the volume still consists of a series of lectures on various subjects. A purchaser who might be disappointed to find the book not a general textbook on clinical surgery need not be unduly sympathized with, for he will find in it much more than the textbook can give him. He will find everyday difficulties freely and candidly discussed; he will find philosophic disquisitions on the nature of his art; he will find innumerable practical suggestions which appear as realistically as if he were standing at the bedside. The additional lectures which fill the hundred new pages are on clinical pathology, salivary calculi, fractures of patella, hip and shoulder amputations, and by no means the least important, the wind after abdominal operations. The last mentioned unconventional title is the heading of a lecture which will appeal to all surgeons and practitioners. It illustrates admirably the author's method. He introduces the lecture by statement of the meaning of flatus and its passage after abdominal operations. Then, by some culture tubes, he shows how the colon bacillus is a gas-producing organism: next he discusses the culture media formed by foodstuffs within the intestine, and that leads to a description of how to prevent gas formation, the conditions and operations most favourable to its appearance; and, lastly, the treatment in detail, both very soon after operation and later. The author's style is well known to be forcible and direct. These qualities are found in this volume, though perhaps some careful condensation here and there would increase the directness of the appeal to the reader. This second edition we regard as well worthy of the reputation of its author, and we hope in another four years some more material will have accumulated, and will be added to another new edition.

Dr. Mumford's volume, *One Hundred Surgical Problems*,[5] is one of a number forming the Case History Series. The author thinks that the method of teaching by case illustration was in danger of being forgotten owing to the development of the statistical analytical practice of last century. We will not stop to quarrel with this opinion, though we believe it to be erroneous. Each of Dr. Mumford's hundred surgical cases is "either a problem or an illustration of important features in diagnosis and treatment. Many of the cases are homely and commonplace." This is true, but homeliness and commonplaceness do not necessarily detract from the value of a surgical lesson, nor make less difficult of solution many surgical problems. In many of the little surgical stories—and very well told stories they mostly are—the problem appears to be insufficiently stated, operations appear to be performed without too severe an effort to establish a diagnosis, and in many instances there is an appearance of neglect of pathology and bacteriology. Dr. Mumford's method of teaching is undoubtedly sound on the whole; one outstanding feature is that he never wearies of inculcating the duty of the medical man to study the patient as a sick person, and not merely concern himself with the kidney or stomach, or any other little bit of the sick person. The problems are stated in racy fashion

[4] *Clinical Surgery.* By C. B. Lockwood, Surgeon to St. Bartholomew's Hospital. London: Henry Frowde and Hodder and Stoughton. 1911. (Post 8vo, pp. 397 and 4 plates. 6s. net.)

[5] *One Hundred Surgical Problems: The Experiences of Daily Practice Dissected and Explained.* By James G. Mumford, M.D., Visiting Surgeon to the Massachussets General Hospital, Instructor in Surgery, Harvard Medical School, etc. Boston: W. M. Leonard. 1911. (Db. post 8vo, pp. 354. 3 dols.)

with interesting comments on the patients' habits and personal history, but there is a good deal of rather loose phraseology. Examples of this may be found on page 85, where "eye grounds" is inelegantly used for ocular fundi, and where the patient is described as suffering from "marked congestion of the head": and in Case xxx, where the patient had cut out of his skull "an area of bone about as large as a good-sized butter plate." The book is one which practitioners of any standing and any age will enjoy reading, not as serious study but as surgery of the magazine short story type.

A publication of a somewhat novel sort is *The Surgical Clinics of Dr. J. B. Murphy*.[6] These clinics are conducted by Dr. MURPHY twice a week at the Mercy Hospital, Chicago, and his consent to the attendance thereat of a reporter has been obtained by the publishers of this periodical. The immediate result is the present volume, which contains a verbatim account of this distinguished surgeon's observations on some of the occasions in question. A corresponding volume is to appear every two months. In the present issue nineteen subjects, ranging from carcinoma of the breast to the diagnosis of a case of pleurisy, are covered. One gathers that Dr. Murphy's method is to set before his audience his patient, and a brief clinical history of the facts relating to him up to date, and then discuss both in general terms. The conclusion is also suggested that he has decided views on other than surgical questions. The verbatim reporting system is carried out so completely as in some cases to cover the questions and answers exchanged in conversation between Dr. Murphy and his house-surgeon. Further realism is secured in many cases by excellent photographs.

A MATERIALIST CRITIC OF BERGSON.

IT was only to be expected that dissentient voices should make themselves heard almost before the chorus of approbation with which Professor Bergson's recent lectures on the soul and the English version of *L'Evolution Créatrice* were greeted by the press had died away. Mr. ELLIOT, whose book on *Modern Science and the Illusions of Professor Bergson*,[7] as well as the preface by Sir Ray Lankester, are cases in point, is one of those to whom the display of any serious interest in ontological problems is a provocative. In the March and April numbers of the *National Review* the Bergsonian criticism of Darwin's theory of natural selection is roughly but effectively handled by Mr. George Hookham. And Mr. Balfour's article on "Creative Evolution and Philosophic Doubt" in the *Hibbert Journal* for October, 1911—the same number which contains Professor Bergson's Huxley Lecture on "Life and Consciousness"—although a model of courtesy and generous appreciation, reveals on the part of its author grave misgivings as to the tenability of certain factors of the doctrine discussed.

It would not be surprising if Mr. Balfour's moderate criticism were to prove more effective in disturbing the confidence of the elect than the vigorous onslaught of Mr. Elliot and those of his way of thinking. Purely destructive criticism, by the very fact of its obvious lack of sympathy and of the insight inseparable therefrom, is apt to miss its mark. Mr. Elliot is a staunch advocate of the mechanistic theory, convinced not only that the mind of man can never solve the problem of metaphysic, but that it cannot even say whether there is a problem to be solved. In holding such convictions he is quite within his rights; the only question is whether they are not presumptive evidence of his disqualification for the task he has here undertaken. One would not greatly value the verdict of a colour-blind person upon the art of Titian. Our confidence in Mr. Elliot's claims is not increased by the fact that his chapter on "The Progress of Philosophy" is avowedly based largely on Lewes's *History of Philosophy*—surely a very inadequate substitute for first-hand study of the writings of those thinkers whose lifework he so summarily dismisses as constructively worthless. His own adherence to the crudest form of nineteenth century materialism seems based on a misconception of the true connotation of such terms as "force," "cause," "natural law," etc. For, as Professor Karl Pearson—no friend of philosophy—has clearly shown, the hypostatization of force and the consequent foisting of the notion of necessity into the purely formal nexus of scientific cause and effect are proceedings every whit as metaphysical as any that their perpetrators condemn. "Force" and "cause" are, for science, merely abstract conceptions employed in the endeavour to formulate the routine of experience; their use commits us to no theory as to how the observed sequence of phenomena is brought about.

At present science is far from being able to summarize in the terms of abstract mechanism the simplest function of the lowliest organism. Suppose it were otherwise; suppose even that the highest and most complex activities of a human being could be so described and formulated, we should be just as far from having demonstrated the truth of determinism as Mr. Elliot understands and uses the word. We should have explained the "how," but not the "why," of the processes concerned. We strongly advise him to read, mark, learn, and inwardly digest *The Grammar of Science*. If, as we gather, it be his aim to banish from his mind every vestige of unwarranted hypothesis and to entrench himself within an impregnably scientific position, he must be a great deal more agnostic and a great deal less unconsciously metaphysical than he is at present. The territory annexed and cultivated by science is as yet a small proportion of the whole vast domain of legitimate human interests. There is room in the intellectual arena for a few metaphysicians, and it would not be impossible to adduce evidence that science is under obligations to philosophy for more substantial gains than the destruction of certain superstitions. After all, the seeming impersonality of science is an illusion, and the answers we obtain from Nature are in the long run conditioned by the questions we put. Who can say to what extent Darwin may have been unconsciously and indirectly indebted to Hegel?

We agree with Mr. Elliot as to the inadequacy of Professor Bergson's attack on Darwin's position. Moreover, the moulding effect of natural selection would not be ruled out even if some quasi-purposive factor could be identified in variation.

NOTES ON BOOKS.

DR. WILLIAM ODELL has published a pamphlet entitled *Further Evidence of the Value of the Treatment of Pulmonary Tuberculosis with Ichthyol*,[8] a paper he read at the International Congress on Tuberculosis in Rome last April. In this paper he adds reports of 66 additional patients under his care at the Western Hospital, Torquay, since he read his paper before the National Tuberculosis Conference in London on February 17th, 1909, when the results of 123 were related. The ages of the new patients range from 15 to 38, the majority being between 18 and 28, the proportion of the sexes being about equal. The average period of residence was about three months. In only 16 cases was there loss of weight: 4 of these were classed as unsuitable, and in 1, who was stout and flabby, the loss was attended by improvement in health. The increase in the weight of the other patients was a marked feature, and was accompanied by a bright and cheerful demeanour, which Dr. Odell finds to be one of the invariable effects of treatment by ichthyol. Taking the whole 189 patients he has treated with ichthyol at the Western Hospital since 1901, Dr. Odell summarizes the results as follows: In 43 the disease was arrested, 83 were very much improved, 18 much improved, 27 improved, 6 were stationary, 11 were unsuitable, and 1 died. He begins with the dose of 7½ minims in half a wineglassful of water three times a day after food, and gradually increases to 10 drops thrice daily. In addition he has also given malt and oil. By comparing recent results with those obtained before treatment with ichthyol was adopted, he has no hesitation in saying that their improvement has been due to ichthyol. In some cases in private practice he uses tablets of iron and ichthyol made by Messrs. Cordes Hermanni and Co., and has seen very good results from this form of treatment, especially in cases of enlarged cervical glands.

The writing of verse has always been a favourite relaxation amongst men whose minds are constantly on the stretch; and many doctors seek refuge from the

[6] *The Surgical Clinics of Dr. John B. Murphy* at Mercy Hospital, Chicago. Vol. i, No. 1. Philadelphia and London: W. B. Saunders Company. 1912. (Med. 8vo, pp. 135; figs. 8. 35s. a year (six vols.).)

[7] *Modern Science and the Illusions of Professor Bergson*. By Hugh S. R. Elliot. With a preface by Sir Ray Lankester, K.C.B., F.R.S. London: Longmans, Green and Co. 1912. (Post 8vo, pp. xix, 257. 5s. net.)

[8] Printed at the *Directory* Office, Torquay, 1912.

stress and strain of a busy practice by weaving their thoughts and fancies into rhyme. Dr. AUGUSTUS COOK, who is already known as the author of several small volumes of poetry, has recently published another, entitled *Psyche, and Other Poems*,[9] in which his easy harmonious style may be enjoyed at its best. Dr. Cook writes with admirable simplicity and restraint; whilst his occasional gentle irony and sudden gleams of quiet humour add a certain piquancy to the sweetness of his verse. Probably the stanzas which will find most favour amongst the medical portion of his readers are those ironically entitled "Gratitude," in which the curious change which takes place in the patient's feelings towards his doctor before and after recovery are cleverly indicated in a few lines. The book, which is prettily bound, is illustrated with two most artistically reproduced photographs of Canova's fine statue of "Cupid and Psyche" and Gérard's painting of the same subject, both well known to English visitors at the Louvre.

The title, *Engineering Work in Public Buildings*,[10] would be improved by the substitution of the word "institutions" for "buildings," seeing that Mr. OWEN ALLSOP confines himself to the light, heat, and water-supply of hospitals, asylums, hotels, and such places as are inhabited by a community. We cannot enter into the purely engineering questions which make up the staple of his treatise, but occasionally he lifts us out of mechanical intricacies unto the broad levels of hygiene and public health, and here his outlook is refreshingly wholesome. In the matter of ventilation, for example, he accepts the open-air ideal as the standard to be conserved as far as possible, although, of course, in large and special institutions local conditions have to be studied, and thus a system of forced ventilation by fans has its uses. He also advocates, in addition to hot-water or steam-radiator heating, a generous provision of open fires or cheerful stoves, particularly in hospitals, where their tonic value is not unimportant. We are left with the feeling that the science of warming and ventilating an apartment or ward is still empirical, and that the application of common-sense is required, rather than ready-made formulae. The engineer must exercise his judgement according to the case; to quote the author, "he must clamber up the futtock shrouds, not sidl through the lubber's hole."

[9] *Psyche, and Other Poems.* By Augustus H. Cook, M.B.Lond. London: G. Bell and Sons, Ltd. 1912. (Cr. 8vo, pp. 116. 2s. 6d. net.)

[10] *Engineering Work in Public Buildings.* By R. Owen Allsop. London: E. and F. Spon, Ltd. 1912. (Demy 4to, pp. 168, 75 illustrations. 12s. 6d. net.)

MEDICAL AND SURGICAL APPLIANCES.

Vaginal Clamp and Parametrium Forceps.

DR. FREDERICK J. MCCANN, M.D.Edin., F.R.C.S.Eng., Surgeon to In-patients, Samaritan Free Hospital for Women, London, N.W., has designed a vaginal clamp and parametrium forceps for use in the abdominal radical operation for uterine cancer. Dr. McCann writes: *Vaginal Clamp.*—This clamp has been made for me by Messrs. Krohne and Sesemann. The transverse blades are of sufficient breadth to enclose the vaginal walls; each is grooved in the centre and possesses a serrated margin. The blades are made like the French broad ligament forceps to enable them to grasp tightly a considerable amount of tissue. The handles are set at an angle to the transverse blades which allows the instrument to be applied from the side with greater ease. (This is not sufficiently indicated in the figure (1).) The advantages which may be claimed for this instrument are:



FIG. 1.



FIG. 2.

(1) It is easy to apply.

(2) It can be used where there is considerable enlargement of the body of the uterus as it is applied from one side.

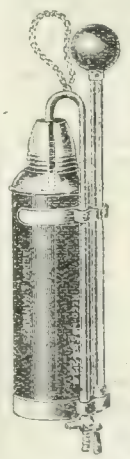
(3) It holds firmly.

(4) It does not interfere with the working space at each side of the vagina as do the Winternitz clamps used by Wertheim and others.

After an extensive trial of this instrument I can recommend it with confidence to those who practise the abdominal radical operation. *Parametrium Forceps.*—As the parametrium forceps used for this operation are so large and clumsy I have had made for me lighter forceps on the Kocher principle. They possess the toothed extremity, and the blades are so curved that a series can be applied close to the pelvic wall on each side. This curve also facilitates the subsequent application of ligatures. The hooked extremity and the serrated blades enable a firmer hold to be obtained (Fig. 2). These forceps will be found easy to apply and to manipulate, and do not occupy too much room in the pelvis.

Thermos Saline Infusion Apparatus.

Mr. H. S. SOUTTAR, F.R.C.S. (London), writes: This apparatus, which has been constructed to my design by Messrs. Allen and Hanburys, Ltd., consists of a vacuum flask, a siphon, a water gauge, and a two-way tap. The vacuum flask is of the ordinary thermos pattern, and holds either one or two pints. The siphon has two limbs, one a rubber tube reaching to the bottom of the flask, the other of plated copper, reaching down outside to a point below the flask and terminating in the tap. Parallel with the siphon tube and connected with its lower end above the tap is a water-gauge of glass tube protected by a metal guard; it carries a rubber ball used for filling the siphon. The flask stands upright in a small tray and may easily be detached. It is closed by a cap which may be removed for refilling without disturbing the siphon. The method of use is as follows: The flask is filled with hot saline, the siphon, etc., being already attached. The tap is closed. The rubber ball is compressed, a small hole below it is closed by the finger, and the ball is released. A rush of fluid follows round the siphon and up the gauge, and the apparatus is ready for use. The flask is hung by means of the chain from any convenient support above the patient's bed, and the needles for subcutaneous infusion or the rectal tube are connected by rubber tube with a nozzle below the tap. The rate of flow is regulated by the tap and observed on the gauge. Should it be desired to discontinue the flow for a short time, the tap is closed and before restarting the siphon is emptied of its now cold contents by the side nozzle on the two-way tap. The temperature at which the saline should be poured into the flask will, of course, depend upon the rate of flow, the length of tube exposed, and the temperature of delivery required. It is found that if the saline in the flask is at 125° F., the rate of flow one pint an hour, and one foot of rubber tube is exposed, the temperature of delivery is about 105° F. in a room at 60° F. At a rate of half a pint an hour, the initial temperature should be 130° F. These figures are only approximate, but are sufficiently accurate for all practical purposes. The temperature of the saline in the flask is almost constant, falling about 1° F. an hour. If, then, the flow remains constant the temperature of delivery will be unaltered so long as the apparatus is not disturbed. For subcutaneous infusion it is essential that the apparatus should be sterilized by filling the flask with boiling water and running this out through the tubes in the ordinary way. The needles should be boiled separately. The advantages of this apparatus are its extreme simplicity, both in construction and action, its reliability, and the fact that it can be readily sterilized. The flask being upright there is no risk of leakage and no danger of breaking the glass lining by inserting a stopper. The whole apparatus can be in action within five minutes of the moment when it is requested, and it requires no further attention. A very remarkable feature is the enormous quantity of saline absorbed by this method. Owing to its constant high temperature it is taken up at once into the vessels, there is rarely any swelling of the legs or return by rectum, shock is successfully combated, and renal excretion is increased. At the London Hospital we constantly give five pints subcutaneously by this method in as many hours and occasionally twice that amount, with no result whatever other than a very remarkable improvement in the patient's condition. In critical cases we use temperatures higher than those mentioned, with striking success. Any excess of fluid given is at once balanced by its rapid excretion, in marked contrast to the water-logged subcutaneous tissues so often resulting in the older methods where the temperature of delivery too often was merely that of the atmosphere.



DUBLIN UNIVERSITY MEDICAL COLLEGE.

BICENTENARY OF FOUNDATION.

The Celebration.

LAST year the Medical School of Trinity College, Dublin, completed the second century of its existence. The bicentenary is to be celebrated this year with appropriate rites and ceremonies on the last three days of "Trinity Week"—on July 4th, 5th, and 6th. On the afternoon of the first of these days there will be a reception of guests in the College Library by the Chancellor, Lord Iveagh, and the Provost; this will be followed by a graduates' dinner in the evening. On the following morning the Provost will unveil a memorial to Dr. John Stearne, founder of the Irish College of Physicians, whose name is intimately associated with Trinity College, and an address will be delivered by Professor Mahaffy. Afterwards the Chancellor and Provost will formally receive congratulatory addresses from other universities and colleges in the Examination Hall. On the morning of July 6th an official visit will be paid to the medical school, when a memorial bronze of the late Dr. D. J. Cunningham, professor of anatomy, will be unveiled by the Regius Professor of Physiology, Dr. James Little. Afterwards the company will go in procession to the Royal College of Physicians, where they will be received by the President and Fellows.

Among the guests who are expected to be present are the Presidents of the Royal Colleges of Physicians of London and Edinburgh, and the President of the Faculty of Physicians and Surgeons of Glasgow, Sir William Osler, Sir Clifford Allbutt, Professor Pavlov and delegates from most of the universities of Europe, and many of those of America and the British Colonies.



JOHN STEARNE, M.D., S.F.T.C.D., Founder and First President of the College of Physicians.

HISTORY OF THE SCHOOL.

A short account of the history of this famous school will doubtless, in the circumstances, be welcome to many of our readers.

Older Universities of Dublin.

Trinity College was founded by Queen Elizabeth, but centuries before her day several abortive attempts had been made to establish a university in Dublin. As far back as the eighth century Ireland was famed throughout Europe for its schools. To Irish scholars has been ascribed the foundation of Paris and Pavia, and through Scotus Erigena, of Oxford. The ancient homes of Irish learning were laid waste by plundering Danes, and later by invading Anglo-Normans. Early in the fourteenth century an effort was made to rekindle the extinguished light of knowledge, and the first University of Dublin was founded by a Bull of Pope Clement V, in 1311. He established a *studium generale* in every science and lawful faculty, and enacted "that such as might be thought worthy to be associated with the honour of doctors in any of the said faculties might obtain the licence of any of the said schools for that end." This Bull would seem to have remained a dead letter, for in 1320 Pope John XXII confirmed his predecessor's Bull and the statues drawn up for the earlier foundation. But even then the university was little more than a name, and soon all trace of it was lost, as is shown by the fact that in 1475 the Dominicans Mendicant Friars obtained from Pope Sixtus the Fourth a Bull decreeing once again the foundation of a university in Dublin. The time was not yet ripe, however, for the birth of a viable university. But about the middle of the sixteenth century the scheme, which the leading citizens of Dublin had long had much at heart, began to assume concrete shape, and in 1590 a petition was presented by the Mayor and Corporation to the English Privy Council.

Foundation of Trinity College.

In response to that petition, a charter was granted for a college that should be "the mother of an university for the better education, training and instruction of scholars and students." The lands and buildings of the Augustinian Priory of All Hallows, situated outside the city walls, which had become the property of the Corporation on the dissolution of the monasteries by Henry VIII. were chosen as a site, and an appeal for help was issued to all the Irish baronies. In this way funds to the amount of £2,000, equal to about £16,000 at the present day, were collected. The foundation stone of the College, *Sacrosanctae et individuae Trinitatis juxta Dublin*, was laid by the Mayor on March 16th, 1591, and in January, 1593, the College was opened for the admission of students. Born in troublous times, it had in its early years a fierce struggle for existence.

> Slow rises worth by poverty deprest.

Queen Elizabeth helped it with a fresh endowment of £200 a year in 1598, and James I endowed the College with land in Ulster, and settled upon it a pension of £400 a year. Its growing prosperity is shown by the fact that, whereas in 1596 the total receipts of the College were under £300, in 1616 they were something over £1,000. A description of ceremonies accompanying the conferment of degrees in the seventeenth century, quoted in Professor W. Macneile Dixon's *Trinity College, Dublin*, makes no mention of graduates in medicine. The Register for 1598 refers to a *Concordatum* for £40 a year granted by Government to the university for a "Physitian's pay"; this is generally understood to be a provision for the chair of physic, but Professor Dixon thinks it not impossible that the grant may have been made in return for medical services to the troops stationed in the city. By Bedell's statutes (1628), he says, it was ordered that one of the Fellows should be professor of medicine, and should deliver one lecture every term. From a passage in a letter from Bedell to Archbishop Ussher it may be inferred that medicine had practically no part in the studies of Trinity College in its early days. He says:

> I suppose it hath been an error all this time to neglect the faculties of law and physic and attend only to the ordering of one poor College of Divines.

Before 1616 only one degree in medicine is recorded to have been conferred by the College.

Trinity Hall.

In 1617 a house called "Trinity Hall" was opened which was intended to serve as a place of residence and

tutorial instruction for students. But it does not seem to have been much used for the purpose, and in 1640 the buildings had fallen into decay. Soon afterwards it was occupied by John Stearne, one of the Fellows, who got leave to repair and use it as a building for the city physicians.

Royal College of Physicians in Ireland.

This was the beginning of the Royal College of Physicians in Ireland. A letter of Bedell to Archbishop Ussher, written in 1628, shows that there had been an intention to found such a college in Dublin. He says:

> At my being in Dublin there came to me one Dr. de Lanne, a physician bred in Immanuel College, Cambridge, who in speech with me discovered a purpose to procure a patent like to that which the College of Physicians hath in London.

Here it may not be out of place to give a short account of the celebrated man who played so prominent a part in the evolution of the medical profession in Ireland. John Stearne was born in 1624 in the palace of Ardbraccan, the episcopal palace of his grandfather, James Ussher, then Bishop of Meath. He entered Trinity College in 1639, but on the outbreak of the Irish rebellion he took refuge in England. In 1643 he went to Cambridge, where he studied medicine in Sidney Sussex College; after remaining about seven years at Cambridge he spent some time at Oxford. He returned to Dublin in 1651, and in 1656 was appointed the first lecturer in Hebrew. He received the degree of M.D. in 1658, and that of LL.D. in 1660. In the same year he became professor of law. While holding these chairs he practised as a physician in Dublin. In 1662 he was appointed professor of medicine in the university. In 1667 the College of Physicians in Dublin received a charter, and Stearne became its first President. This remarkable man died in 1669 in his forty-fifth year, having compressed into a "crowded hour of glorious life" an enormous amount and variety of work. He was buried in the chapel of Trinity College, and is described in the inscription on his tomb as "Philosophus, Medicus, Summusque Theologus."

The arrangement made with Stearne was:

> That the College should have the nomination of the President of the College of Physicians, and that the President and Fellows of that College should give their professional services without fees to the Provost and Senior Fellows of Trinity College and their successors whenever they should require them to attend them during illness.

This College had the right of granting licences, and no one could practise physic in the city or within a radius of seven miles without its permission. It appears that Trinity Hall was also to be used by medical students of the university, but there is no record of any being in residence there at the time of Stearne's death, and his project of a medical college or hall came to nought.

There seem to have been few facilities for the study of medicine in Dublin in the reign of William III. Since the time of Charles I there was always one of the Fellows who was elected Medicus, and who was exempted from taking orders and bound to study physic. The majority of medical fellows, however, do not seem to have taken a medical degree, and they were in no real sense engaged in teaching medicine in the College.

Beginning of the Medical School.

The medical school is of considerably later origin than the university. In the eighteenth century it was felt that there was urgent need of organized instruction in medicine, and accordingly in 1710 the Board of Trinity College proceeded to erect medical school buildings, including a laboratory and anatomical theatre. The school, which was on a very humble scale, was formally opened on August 16th, 1911. At the same time an agreement was made with the College of Physicians, and at the desire of that body it was ordered that

> Besides the usual Acts required by the University regulations every candidate bachelor of physic be examined in all parts of anatomy relating to the *Œconomia Animalis* and in all parts of botany, chemistry, and pharmacy, and that every candidate doctor in physic be examined as to the aforesaid subjects and likewise in the explanation of Hippocrates' *Aphorisms* and in the theory and cure of external and internal diseases.

In 1722 it was ordered by the Board of Trinity College:

> That no person be admitted to take a degree in physic or law unless he first commence as Bachelor of Arts.

This ordinance gave rise some years later to a dispute between the university and the College of Physicians. Fielding Ould, a well-known obstetrician (afterwards knighted, to the amusement of his fellow citizens), who had been a teacher in the medical school, was anxious to get a medical degree. But there was a difficulty in the way: he had no degree in arts. Trinity College tried to make the way smooth by complying with the letter of the law, and created him a Bachelor of Arts. The College of Physicians, however, would not sanction this easy-going procedure. When asked to examine Ould for his medical degree, it refused to do so on the ground that he was a "person who has no academical education and whom you [to wit Trinity College] know to be disqualified by his occupation for a licence to practise in our profession." This was in 1759. The university cut the Gordian knot after the manner of Alexander. It severed its connexion with the College of Physicians, appointed its own examiners in medicine, and admitted Ould to the degree of M.D. in 1761. It must be remembered that at this time the man-midwife was looked upon with contempt by physicians not only in Ireland, but in England.

The breach between the two colleges was not healed for some years. There is no record of fresh arrangements between them till June, 1789, when the following entry appears in the register of the College of Physicians:

> The President having informed the College that Mr. Richard Butler, A.B., entitled by his standing to a degree in medicine in Trinity College, had applied to him for an examination for a licence to practise Physic in this kingdom, it was ordered that the following resolution, made in consequence of the above requisition, be communicated to Mr. Butler:—Resolved: That the College of Physicians cannot agreeable to their rules examine Mr. Butler as he had not produced an authentic proof of having obtained a Medical Degree in any University. But as he is a Student in the College of Dublin and has there obtained a degree in Arts the College of Physicians will be ready to admit him to a licence previous to his taking a degree in medicine when he shall bring them a *Liceat ad examinandum* from Trinity College, and so soon as the Medical Degree shall be granted he will of course obtain a licence.

Although Trinity College had a medical school, its condition could scarcely be called flourishing. Professor Macneile Dixon says that, "judging from the records no medical degrees were granted between 1724 and 1740, and from the latter year to 1773 the average hardly works out as high as 1 per annum." It was not till 1786 that the medical school was established by an Act of the Irish Parliament, which united the College of Physicians with Trinity College in the joint management of the instruction given in the school. Five of the teachers were to be appointed by the Provost and Senior Fellows, and four, called King's Professors, by the College of Physicians. This statute further required that all attending medical lectures, whether students of Trinity College or extern students in medicine, should be matriculated by the senior lecturer.

Students and Graduation.

For the first fifteen years these matriculations averaged only 4.7 in each year. There was a gradual increase until, in the period 1809–1813 inclusive, the average reached 41.4 each year. From 1814 to 1824 they rose to an average of 66.5. In the next five years they increased to 90.8 annually. In the years from 1831 to 1835 the average fell to 63, and in the following two years the number barely exceeded 28 each year.* The great increase in the period between 1814 and 1835 is attributed to the teaching of the University Professor of Anatomy and Chirurgery, James Macartney. He was a native of the county of Armagh and studied partly in Dublin, but mostly in London. He was not a graduate of Dublin, nor does he appear to have ever been a student in arts. In 1800 he was admitted a member of the London College of Surgeons, and shortly afterwards began to lecture on anatomy and physiology in St. Bartholomew's. He died in 1842, aged 73. Macartney was a very great teacher, and when he ceased to hold the professorship the number of students in the medical school fell to what it had been before his appointment.

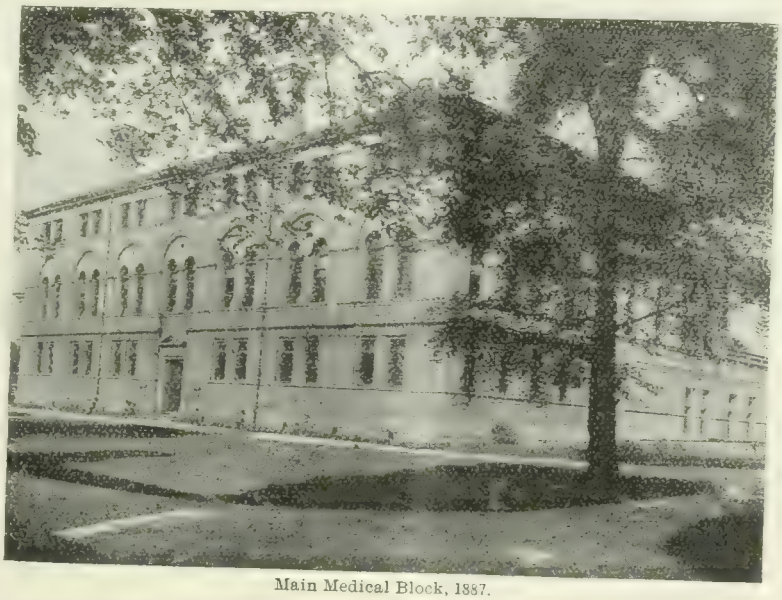
A curious sidelight on the state of medical education in the early part of the nineteenth century is shed in a lecture delivered in 1837 by Lendrick, then professor of the practice of physic. He attributed to Provost Bartholomew Lloyd the improvements which even at that time

* *The Book of Trinity College, Dublin.* 1591–1891. Belfast: Marcus Ward and Co., Limited, Royal Ulster Works; London and New York. Dublin: Hodges, Figgis, and Co., Limited. 1892.

were beginning to be effected in the medical education of the members of the College. He said:

> The candidate for a medical degree no longer finishes his medical education in a single year, nor is he compelled to complete a septennial period of (perhaps) idleness before being permitted to practise his profession.

Owing to various causes the number of students remained at a low level till 1864, when Dr. E. H. Bennett, Professor of Surgery, was appointed University Anatomist. The average number of entrances then rose to nearly sixty-four, and from that time steadily increased. The number of graduates also increased. In the period 1832–1842 the average number of degrees of Bachelor of Medicine annually conferred by the university was 18. In the next decade this fell to 11.7. The number rapidly increased with the improvement in education, and in the decade 1872–1881 the average was 39, and in the following ten years 43.6.



Main Medical Block, 1887.

In the early part of the century the College for a short time granted diplomas in medicine to matriculated students who were not students in arts, but who attended the same lectures and passed the same examinations as the bachelorship in medicine. This system prevailed till 1822, when the board received a letter from the London College of Physicians stating that that College did not regard such a diploma as sufficient to warrant it in granting an examination for a licence to practise physic in England. The issue of these diplomas was then discontinued. For a short time the M.D. was granted to students who had completed two years' study in arts, but this was found to be so unsatisfactory that the university decided that no one should be admitted to a degree in medicine or surgery who had not previously graduated B.A. Stubbs says:*

> As to the method of conducting examinations for degrees in medicine, we gather some curious information from a letter which the College of Physicians sent to the Provost and Senior Fellows in October, 1814, in which they informed the Board that they had ordered the King's professor not to be present at any examination for medical degrees in the University in which any question may be put or answer received in the English language. The registrar was directed to write to the Regius Professor of Physic (Dr. Hill) to inquire whether these examinations were conducted in Latin. In reply, Dr. Hill assured the Board that he would not under any circumstances examine in English. It may be conjectured that the newly elected professor of anatomy (Mr. Macartney), who was not a University man, broke through the old rule as to the language in which he examined.

The Book of Trinity College, Dublin.

Institution of Surgical Degrees.

During the first half of the nineteenth century the university conferred degrees in medicine only. The Irish College of Surgeons, towards the end of that period, declined to recognize the lectures delivered in the medical school of Trinity College as sufficient for a surgical diploma. Consequently the university was in 1851 obliged to institute for its medical graduates a diploma or licence in surgery. This was done in accordance with legal advice under the clause of the charter which gave authority to grant degrees *in omnibus artibus et facultatibus*. This was followed in 1858 by the institution of the degree of Master in Surgery, and in 1872 the degree of Bachelor in Surgery was created, and placed on the same basis as that of Bachelor of Medicine. For admission to either of these degrees the candidate must have previously graduated in arts, and must have spent four years in the study of medicine and surgery. Degrees are now also given in obstetric art. The University of Dublin was the first in modern times to institute degrees in surgery, and its example has since been followed by other universities in England, Ireland, and Scotland. Stubbs says:†

> The change of opinion in the universities with respect to the status of the profession of surgery is well illustrated by a correspondence, which has been preserved in the College Register, between the University of Cambridge and the authorities of Trinity College, Dublin. On June 30th, 1804, a letter was received from the Vice-Chancellor of Cambridge in which it was stated that that university had declined to consider any student who had subsequently to his admission practised any trade or profession whatsoever as qualified for a degree, and consequently had refused this to Frederick Thackeray, who, since the time of his admission as an undergraduate, had been constantly engaged in the practice of surgery. The Provost and Senior Fellows, in reply, informed the Vice-Chancellor of Cambridge that, after consideration of his letter, they had agreed to adopt the same regulations.



School of Pathology, T.C.D.

New Buildings.

The growth of the school made the provision of new buildings necessary, and in 1825 a new anatomy and chemical lecture theatre was erected. These buildings

†*The Book of Trinity College, Dublin.*

remained in use for fifty years, when the great increase in the number of students and the development of science made further accommodation imperative. A new chemical laboratory and dissecting-room were erected, and a histological laboratory and physiological lecture-room were added.

Further Extensions.

In 1884 a bone-room, preparation-room, and private laboratories were built. In the same year the new chemical theatre was opened, and in 1885 a new anatomical theatre, with seats for 230 students, was completed. Since that time the whole of the new great medical schools have been finished. In addition to professors' rooms and lecture-rooms, there is a fine room specially fitted up for the pathological collection, originally purchased from Robert W. Smith, whose lectures as professor of surgery greatly conduced to the growing success of the school. The collection was largely added to by his successor, E. H. Bennett. The anatomy and chemical lecture rooms of 1824 were completely removed in order to make a space for part of the present range of buildings, which were completed at a cost of over £20,000.



New Physics Laboratories. Built by Viscount Iveagh, Chancellor of the University.

The Present School.

The present medical school was built in 1886. It has a frontage in fine cut granite of 140 ft. to the west, with two wings extending 150 ft. at right angles to the façade. The histological laboratory, built in 1880, is 85 ft. long by 30 ft. broad, with two tiers of seven windows, alternately square and round headed, looking to the north. The anatomical museum, built in 1875-76, is at a little distance from the medical school, and has a façade of 150 ft. looking west, and a depth of 45 ft. It is constructed of cut granite. In it are the museum collections, both of anatomy and of natural history, and on the ground floor is the anthropometric laboratory, where measures and records are taken on a somewhat more extended plan than that introduced by the late Sir Francis Galton at South Kensington. The anatomical school has the advantage that all its lecture rooms and laboratories are on the ground floor. The dissecting-room, well lighted and well ventilated, would accommodate 300 students, who can work there at the same time, without inconvenience. It is lighted by electric light. The floor is of oak parquet. Round the walls there is a series of cases containing permanent typical specimens. The whole wall space above these is utilized for diagrams, and in the centre of the room stand two statues, the Venus of Milo and the Boxer. The bone-room and lecture theatre are entered directly from the dissecting-room. The bone-room is lofty and is surrounded by a gallery. On the floor, osteological specimens are arranged in revolving cases on long, narrow tables. The gallery is chiefly devoted to specimens bearing on the applications of anatomy to medical practice. Here also are displayed: (1) A large series of models prepared in the department to illustrate cerebral growth and the cranio-cerebral topography of the child and the adult; (2) a series of models representing the anatomy of inguinal hernia, also prepared in the department; (3) mesial sections of the four anthropoid apes—gorilla, chimpanzee, orang, and gibbon—preparations which are said to be unique. The theatre has seating room for 400 students. There are also museums of surgical and medical pathology and of materia medica. Adjoining the medical school is the chemical department, which has a lecture theatre and two groups of laboratories, and is fitted with all modern appliances for lecture illustrations in the different branches of chemical science.



New Botanical School. Built by Viscount Iveagh, Chancellor of Dublin University.

Sir Patrick Dun's Hospital.

In the early part of the nineteenth century, before the erection of Sir Patrick Dun's Hospital, medical students had little opportunity of getting clinical instruction. The university and the College of Physicians were satisfied with attendance on certain lectures in Steevens' Hospital and the Meath Hospital. In 1800 Sir Patrick Dun's Hospital was founded; it contributed greatly to the development of the "School of Physic in Ireland." Dun was a Scot, and was born at Aberdeen in 1642. He practised in Dublin, and in 1676 we find him described as "Physician to the State and my Lord Lieutenant." From 1681 to 1687 he was President of the College of Physicians, an office which he again held in 1690–3, in 1696, 1698, and 1706. In 1688 he was appointed physician to the army in Ireland. He took an active part in procuring a new charter for the College of Physicians. This charter, which made the College independent of Trinity College, was obtained in 1692. He died in 1713, leaving money for the establishment of two professorships in physic, and for other

purposes connected with instruction in medicine. His house and library were left to the College of Physicians. In 1715 a charter was obtained which incorporated the professorship he had endowed, under the title "The King's Professorship of Physic in the City of Dublin." On the completion in 1808 of the west wing of Dun's Hospital, the clinical teaching connected with the School of Physic was given in the wards and lecture rooms of the hospital, and in 1835 candidates for medical degrees were required to present a certificate of one year's attendance at that institution. Sir Patrick Dun's Hospital was originally intended solely for medical cases; but in 1864 the College of Physicians, which had previously occupied the central position of the building as a library and convocation hall, transferred it to the governors, and it was enlarged and changed into a medico-chirurgical institution for the complete instruction of the students both in surgery and in medicine. This change has been attended with the happiest results, and has materially contributed to carry out the intention of Sir Patrick Dun, who, as appears from his will, considered surgery to be a part of medicine—a view of the subject which Hippocrates and the ancients entertained, and which modern medical science has shown to be correct. Attendance at Sir Patrick Dun's Hospital is no longer compulsory on candidates for degrees; nine other Dublin hospitals are joined with it, and the student may, if he wishes, receive his clinical teaching in any of these.

At one time clinical instruction was given in Latin. Speaking of the crowding of students around a bed, which made it impossible for most of them to see the patient, Graves says:

> When this information was conveyed as it formerly was in Sir Patrick Dun's Hospital in Latin, the student had to encounter another barrier to the acquisition of knowledge. I have called the language Latin, in compliance with the generally received opinion concerning its nature.

Growing Popularity of School.

The growing popularity of the medical school of Trinity College may be gathered from the number of degrees of M.B. which have been conferred at different periods of the nineteenth century. In nearly all cases students of the university who graduate in medicine do so also in surgery and the obstetric art.* The number of medical matriculations for the three years preceding 1891 is given by Stubbs as follows: 1889, students in arts 55, externes 28; 1890, students in arts 61, externes 26; 1891, students in arts 100, externes 28. During the five years previous to 1889 these numbers averaged students in arts 62, externes 34; total average of each year, 96.

Celebrated Teachers.

William Stokes and Robert J. Graves gave to the school of medicine in Dublin a European reputation. Trousseau says:

> As clinical professor in the Faculty of Medicine of Paris I have incessantly read and reread the work of Graves. I have become inspired with it in my teaching. I have endeavoured to imitate it in the book I have myself published on the clinic of the Hôtel-Dieu; and even now, though I know almost by heart all that the Dublin professors have written, I cannot refrain from perusing a book which never leaves my study.

The list of men who have shed lustre on the Medical School of Trinity College whose names are familiar to the lips of all the household of medicine would be longer than Homer's catalogue of the ships. Among the teachers we need only mention Whitley Stokes, John T. Banks, Robert W. Smith, B. G. McDowel, Robert Adams, William Collier, Samuel Haughton, and Arthur Vernon Macan. The medical graduates of Trinity have carried the fame of their *Alma Mater* over the world. Other names come up in association with the thought of Good Queen Bess's foundation. Oliver Goldsmith, though one of the greatest celebrities produced by Trinity College, can hardly claim fame as a doctor. He attended classes in medicine at Edinburgh, and seems to have got a degree of some kind at a foreign university—Padua, according to himself—since he was called "Doctor" by Johnson and other of his contemporaries. His knowledge of medicine, however, must have been meagre to the last degree of tenuity, as he failed to pass the examination for surgeon's mate in the navy—not a very trying ordeal, as readers of *Roderick Random* will remember. Poor Goldy's medical knowledge seems to have been just sufficient to hasten his own death, as he insisted on taking James's powder against the advice of his physicians. Most people know Beauclerk's jest when Goldsmith said that he made it a rule to prescribe only for his friends, "Pray, dear doctor, alter your rule and prescribe only for your enemies."

Other Celebrities.

Mention may be made of a medical graduate of Dublin who did a good work as a doctor in his early days in an epidemic of cholera, but who won fame in another sphere—Charles Lever, whose descriptions of life at Trinity College in *Charles O'Malley* and other novels are said to be faithful reproductions of his own experience.

Sources.

In concluding this brief and necessarily imperfect account of the Medical School we have to express our indebtedness to the Rev. W. J. Stubbs, D.D., author of *The History of the University of Dublin* (Dublin, 1889), and of the chapter on the College during the nineteenth century in *The Book of Trinity College, Dublin, 1581–1891* (Belfast, 1892); and to Professor W. Macneile Dixon's *Trinity College, Dublin* (London, 1892). This article is mostly made up of gleanings from these works, to which the reader who desires further information may be referred. We have attempted to sketch the history of the Medical School of Trinity College, Dublin, from its humble beginnings to the stately institution of the present day. It is the oldest and one of the most justly renowned medical schools in the three kingdoms. Whether in respect of its scientific equipment or the high reputation of its teaching staff it now stands second to none in the world.

* *Clinical Lectures on the Practice of Medicine.* New Sydenham Society. MCCCLXXXIV.

BRITISH MEDICAL BENEVOLENT FUND.

AT the May meeting of the committee 30 cases were considered and grants amounting to £284 made to 29 of the applicants. Appended is an abstract of the cases relieved:

1. Widow, aged 55, of M.D. Left quite unprovided for at recent death of husband, whose practice had been falling off for several years. Children unable to help. Voted £5 and case to be reconsidered at next meeting.
2. Widow, aged 59, of L.R.C.P., L.R.C.S.Edin. For many years has supplemented husband's small earnings as ship's surgeon by letting lodgings, and has to partially support a daughter who is too delicate to do regular work. Voted £12.
3. Son, aged 19, of late M.B., C.M.Edin. Has recently obtained a post in a good office, but asks help to send a younger brother to a technical school and to obtain suitable clothing for himself. Voted £10.
4. Widow, aged 46, of M.R.C.S., L.R.C.P. Since husband's death, two years ago, has been endeavouring to establish a boarding-house, but is now incapacitated by an incurable complaint. Voted £20.
5. Daughter, aged 68, of late M.R.C.S. Was comfortably provided for, but lost most of her property through the defalcations of a solicitor, and now has scarcely sufficient for bare necessities. Voted £5.
6. Daughters, aged 65 and 61, of late F.R.C.S.Edin. Entirely dependent on the rent of a small house, which has been unlet for nine months and upon which a considerable sum has been unavoidably spent for repairs. Voted £10.
7. Widow, aged 60, of M.R.C.S. Since husband's death, eleven years ago, applicant has supported herself by dressmaking, but is now in difficulties owing to trade depression and a long illness last summer. No children. Voted £12.
8. Daughter, aged 73, of late M.R.C.S. Used to have an income of £40 a year, but is now, through unforeseen circumstances, dependent on an old age pension of 5s. a week. Voted £12.
9. Daughter, aged 59, of late M.R.C.S. Has supported herself for many years and helped her mother whilst alive by letting lodgings, but is now practically incapacitated. Voted £12.
10. M.B., C.M.Edin., aged 60. Used to have a fair practice in London, but lost his patients owing to continued ill-health, and will probably not be able to start again. Voted £5.
11. Wife, aged 44, of L.R.C.S.Irel. Is in great distress owing to husband's complete mental breakdown, and has been unable to sell the practice. Hopes to get one or two of her children into an institution and then to maintain herself by taking boarders. Voted £12.
12. Daughter, aged 32, of late M.R.C.S. Has recently lost a post as consulting-room attendant through no fault of her own, and asks for help to support herself whilst looking for another situation. Voted £5.

13. Widow, aged 57, of M.R.C.S. Since husband's death several years ago has maintained herself by teaching, but is now incapacitated by an inoperable new growth. Voted £10.

14. Widow, aged 42, of L.S.A. Is practically destitute and in feeble health. No children. Voted £10.

15. Widow, aged 71, of M.R.C.S. Only income a pension of £21 from a charitable society. No children. Relieved once, £5. Voted £5.

16. Daughter, aged 62, of late F.R.C.S. No income. Was superintendent of a nurses' home for several years, but was obliged to resign on account of ill health. Small savings exhausted in helping her mother and an invalid sister. Relieved once, £12. Voted £12.

17. Widow, aged 56, of M.R.C.S. Helped to support her husband during a long illness by taking resident patients, but is now unavoidably dependent on a sister, who is a housekeeper. Relieved once, £10. Voted £10.

18. L.R.C.P., L.R.C.S.Edin. Incapacitated by complete loss of sight and hemiplegia, and entirely dependent on this Fund and wife's earnings by letting lodgings. Five children, aged 17 to 12. Relieved four times, £72. Voted £18.

19. Widow, aged 63, of L.S.A. Since husband's death, several years ago, has endeavoured to support herself by letting lodgings, but finds it very difficult to make both ends meet. One son still dependent. Relieved ten times, £110. Voted £10.

20. Widow, aged 63, of M.R.C.S. Small provision made by husband exhausted in bringing up her family, and now practically dependent on letting lodgings and the help of this Fund. Relieved seven times, £82. Voted £12.

21. Daughter, aged 54, of late M.D.Aberd. Ekes out an annuity of £20 by teaching music, but finds increasing difficulty in obtaining pupils, and is in poor health. Relieved twice, £18. Voted £12.

22. Widow, aged 51, of M.R.C.S., L.S.A. No income; small earnings from sewing and a little help from a son earning a small weekly wage. Relieved eleven times, £106. Voted £9.

23. Widow, aged 64, of L.R.C.P., L.R.C.S.Edin. Earns a few shillings a week by needlework, and receives slight help from children. Relieved once, £5. Voted £5.

24. Widow, aged 76, of M.R.C.S. Is an Epsom pensioner, but asks for a little help towards expenses incurred during the illness of a daughter, recently deceased. Relieved eight times, £88. Voted £5.

25. Daughter, aged 57, of late L.F.P.S.Glas. Is practically dependent on this Fund and another charity, and has been in bad health for several years. Relieved five times, £60. Voted £10.

26. Daughter, aged 63, of late M.D.Aberd. Has a pension of £21 from a charitable society and earns a few shillings occasionally by giving music lessons. Health feeble. Relieved five times, £50. Voted £10.

27. Daughter, aged 62, of late M.R.C.S. Endeavours to maintain herself by needlework and receives a little help from friends. Relieved four times, £52. Voted £12.

28. Daughter, aged 43, of late F.R.C.S. No income, and health too delicate for regular employment. Relieved twelve times, £110. Voted £2 and case to be reconsidered.

29. Daughter, aged 48, of late M.R.C.S. No means and suffers from a chronic complaint of many years' standing. Relieved three times, £54. Voted £12.

Contributions may be sent to the Honorary Treasurer, Dr. Samuel West, 15, Wimpole Street, W.

SCIENCE NOTES.

THE effect on growth and development of the removal of the sexual organs in the young of either sex is a subject upon which much has been written, but precise information possessing any true scientific value is scanty. Some experiments on horned sheep recently reported to the Royal Society by Mr. F. H. A. Marshall, Lecturer on Agricultural Physiology at Cambridge, are of considerable interest, tending as they do to show that any effect produced is due to the withdrawal of the stimulus furnished by an internal secretion. The experiments were made on Hardwick sheep, a breed which normally is horned in the male and hornless in the female. In one series of experiments three ram lambs were castrated before puberty, but at different ages, and the effects upon horn-growth were noted. In another series three ewe lambs were subjected to ovariotomy. The general conclusions reached were that (1) the development of horns in the males of a breed of sheep in which well-marked secondary sexual differentiation occurs (as manifested especially by presence or absence of horns) depends upon a stimulus arising in the testes, and this stimulus is essential not merely for the initiation of the horn-growth, but for its continuance, the horns ceasing to grow whenever the testes are removed; (2) the removal of the ovaries from young ewes belonging to such a breed does not lead to the development of horns or definitely male characters, except possibly in a very minor degree.

Dr. Andrew S. McNeil, of Liverpool, has been induced by the perusal of the note in this column published on June 1st (p. 1252) to send the following account of the opinion entertained by an experienced breeder of shire horses. Whether or no we accept Dr. McNeil's theoretical explanation, the empirical observation possesses a certain value. Dr. McNeil writes:

Three or four years ago I attended the manager of a large shire stud farm for a serious accident. During his convalescence we often inspected the horses together, and it was on one of these occasions that he proposed the following axiom—namely, that if a stallion were put to, say, six mares in one day, the first two mares would throw colts; numbers three and four mares would throw colts probably, if the stallion were fresh, and had not been "used" for some days, but if he were aged or stale through "use," then they would probably be fillies; numbers five and six mares (especially number six), he "could gamble would throw fillies, if they threw anything" (that is, if they became pregnant at all). This man did not believe the mare had anything at all to do with deciding the sex of the foal. He believed that fillies were conceived when there were "few seeds" in the sire's sperm—for example, at the end of a day "in use." I may mention that he was a very intelligent man, and, like his father before him, had been all his life among shire stud horses; among other noted horses, he was in charge of the shire "Harold" when he won the championship.

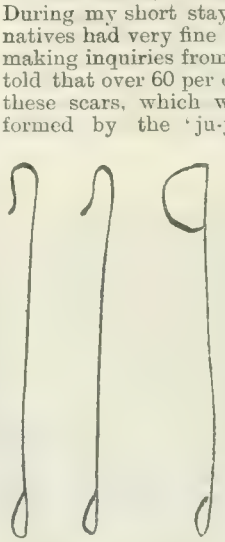
The point would appear to be easily capable of proof, at any rate; but until his ideas are proved or disproved, I think (emanating as they do from a man who has made of this subject a life study) they should not be lightly put aside. If his observations are correct, it would appear that when there are vigorous mature spermatozoa in the semen, one of these in the struggle for existence amalgamates with the ovum to the exclusion of any weaker immature ones, and so begets a male. When, however, there are only immature forms in the semen a female is produced.

SLEEPING SICKNESS.

OPERATIONS BY NATIVES ON CERVICAL GLANDS.

WE have received from Dr. W. Morrison, Medical Officer, Lokaja, Northern Nigeria, the following curious note on the excision of cervical glands by a native doctor, or ju-ju man, in Kabba Province, Northern Nigeria. Dr. Morrison writes:

"Recently I had occasion to go to a case of blackwater fever at Kabba, a distance of over fifty miles from here. During my short stay there I observed that most of the natives had very fine scars in the cervical region, and on making inquiries from the Resident, Mr. Ley Greaves, was told that over 60 per cent. of the pagans in his district had these scars, which were the result of an operation performed by the 'ju-ju' man, or local surgeon. This operation was supposed to cure or confer immunity for sleeping sickness.



Hooks. Knife.
Natural size.

"Seeing that I was interested in the matter, Mr. Ley Greaves kindly got the local 'ju-ju' man to perform the operation before me. His choice of subjects fell on two small boys, one of whom had distinct enlargement of the anterior cervical glands on both sides: the other small boy had one gland of the posterior cervical group enlarged. The instruments used were two small hooks and one knife with a rounded edge, very sharp. The gland was picked up under the skin with the thumb and forefinger of the left hand and a small incision made over the gland. One hook was used to pull the wound open, and with the other hook the operator hooked the gland out of the wound, and, with a few strokes of the knife, liberated the gland from its adhesions. Some native medicine was now pressed into the wound with the thumb. The wound bled freely, which probably accounts for the fact that all the wounds heal by first intention, as nothing was done in the way of preparing either the skin or the instruments. The whole operation lasted less than two minutes."

THE late Sir Francis Cruise, Physician in Ordinary to the King in Ireland, left personal estate amounting to over £23,000.



View of Chester from Curzon Park, showing Cathedral, Town Hall, etc.; Roo Dee in foreground.

EIGHTIETH ANNUAL MEETING

OF THE

British Medical Association

LIVERPOOL, JULY, 1912.

CHESTER.

By JOHN ELLIOTT, M.D., F.R.C.P.,
Physician to Chester General Infirmary.

THE Annual Meeting of the British Medical Association, so near at hand as Liverpool, will afford to the members of the [medical profession resident in Chester the opportunity of inviting a party to visit the city and see some of the many monuments of ancient and mediaeval times in which it is so rich. A brief account of some of these will, it is thought, not be out of place.

THE ROMAN CAMP AND CITY.

On a projecting rock of red sandstone, 100 ft. above sea level, and sloping on its western and southern shores to the tidal waters of ancient Deva, the Roman legionaries founded the military camp of Colonia Devana, afterwards known simply as Deva—the Caer Lleon (City of the Legion) of the ancient British, which still persists as the Welsh name for the city of Chester.

Of the actual date of its foundation nothing is accurately known. Haverfield, who has made a special study of Roman Chester, sums up the evidence as to its earliest occupation as follows:

"The site was probably occupied as a fortress about the latter part of Claudius's reign, A.D. 50–54, and was, no doubt, in existence when Suetonius opened his campaign against Anglesea (A.D. 61). Ten or fifteen years later it was occupied by the Legio II Adjutrix, and after that legion left our island by the Legio XX Valeria Victrix."

Certain it is that in the early part of the year A.D. 79 Roman Chester had a source of water supply at the spring of Barrelwell, three-quarters of a mile without the Eastgate, for various sections of the leaden conduits have from time to time been unearthed, and in 1899 a length was discovered *in situ* bearing the following inscription:

IMP(ERATORE) VESP(ASIANO) VIIII T(ITO)
IMP(ERATORE) VII CO(N)S(ULIBUS) CN(AEO)
IULIO AGRICOLA LEG(ATO) AUG(USTI)
PR(O) PR(AETORE).

This unique inscription, the only one extant bearing the name of Agricola, accurately fixes the date as above, and although it cannot be taken as a proof that Agricola actually resided in Deva, it goes far to suggest it.

Of quadrilateral form, in accordance with the usual construction of a Roman camp, two of the Gates of Deva occupied the site of the modern Eastgate and Northgate; its primae viae were identical with the existing main streets intersecting at right angles at the Cross, and practically on the same ground level, as shown by Roman pillars still remaining *in situ* both in Northgate and Watergate Streets; its north wall stood on the site of the existing wall, for portions of Roman masonry can be seen near the Northgate with the ancient plinth outstanding. Recent excavations have disclosed sections of the Roman east wall with the fosse almost intact; the south-east angle was unearthed on the site of the new premises of the National Telephone Company in St. John Street, thus giving the line of the south wall, which was found to coincide with the foundations previously discovered near St. Michael's Church in Bridge Street, and believed to be those of the south gate of Deva. The site of the Roman west wall is still undetermined, but its identity will probably be disclosed ere long.

Abutting on the Roo Dee, and underneath the city walls in the neighbourhood of Greyfriars, is a section of Roman masonry exposed, consisting of huge blocks of faced stones, forming, no doubt, the base of a quay wall, designed to resist the encroachment of the tidal river, whose ancient bed lay 22 ft. beneath the surface of the Roo Dee, as evidenced by the discovery of a "pig" of lead bearing a date corresponding to the year 74 A.D. The evidence of coins, etc., shows that Deva was a Roman site in all probability as late as the fourth century; in the sixth century it was unoccupied and lay waste.

The numerous inscribed monumental stones, altars, and tiles bearing the stamp of the XXth Legion, antefixes with a figure of the boar (an emblem of that legion), articles for domestic use and other purposes preserved in the Grosvenor Museum, bear striking witness to the extent and duration of the Roman occupation in Chester, whilst the Hypocaust *in situ* and in perfect preservation at the so-called "Roman Bath" in Bridge Street is only one among a series of interesting finds of similar objects—mosaics, pillars, etc.—in that neighbourhood.

Excavations are now in progress at Holt, eight miles

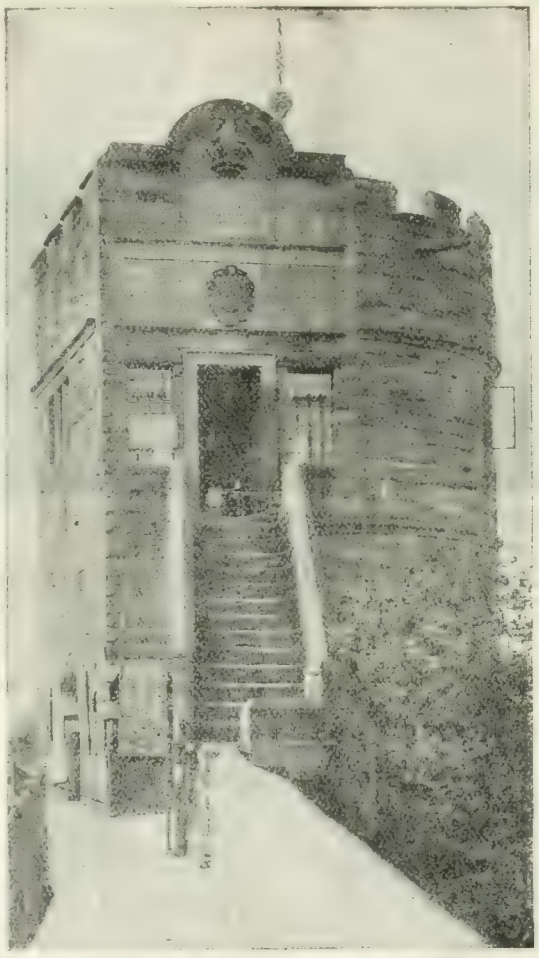
from Chester, on the Dee, where the site of the Roman pottery which supplied Deva with culinary ware has been discovered, and many valuable finds are being made by Mr. R. Acton of Wrexham.

THE WALLS.

Chester is unique in Britain in the possession of its complete circuit of walls, restored and extended in area since Roman times by Ethelfleda, the daughter of Alfred the Great. They form a magnificent promenade $1\frac{3}{4}$ miles in circumference, the favourite rendezvous of old Chester residents, who, up to quite recent times, were in the habit of meeting in their daily walk on the walls and exchanging snuff with their morning salutations.

The ancient gates of the city were removed about the end of the eighteenth century, to be replaced by the less picturesque but more convenient modern gates existing now.

The north wall is the most interesting portion of the fortifications, both from the historical and the picturesque point of view. Standing high above the canal, which now occupies the site of the ancient fosse, its crumbling masonry, flanked here and there by towers, give it the typical appearance of a mediaeval fort. At its eastern extremity stands King Charles's Tower (known also as the Phoenix Tower), illustrated here. From its summit that ill-fated monarch watched the defeat of his army on Rowton Moor. Near the tower are evident traces of the breach made in the wall by the Parliamentarian cannon during the siege of Chester. Hard by the Northgate is Roman masonry with plinth in the lower courses of the wall, and the whole of the interior of this portion of the wall was found some twenty years ago to be filled in with Roman inscribed monumental stones, which were duly preserved in the Grosvenor Museum. Of the ancient gaol in this position, so severely censured by John Howard, the philanthropist, nothing remains but the "Bridge of Sighs," a melancholy memorial of the last journey of the condemned criminal.



King Charles's Tower, or the Phoenix Tower.

The western half of the North Wall commands a lovely view of the estuary of the Dee; with the thickly wooded park of Hawarden and its castle nestling amongst the trees in the near distance, and the Clwyddian range of mountains beyond; the highest peak, Moel Famman, being a conspicuous object.

At the western extremity of the North Wall is the picturesque old Water Tower, to which ships are said to have been moored when the tidal river washed its base and Chester was the port of embarkation for Ireland. Lovers of Milton will be familiar with the poem of Lycidas, written to the memory of Milton's friend, King, who was lost on the perilous voyage to Ireland, "where Deva spreads her wizard stream."

Adjoining the West Wall are the infirmary and the Queen's school. The infirmary field has been traditionally called the "Plague Field," and it was somewhat vaguely stated that a law existed forbidding the soil to be disturbed for building purposes. This, however, is one of the *leges non scriptae*; and the present excavations for the foundation of the new infirmary have cut some 2 ft. of virgin soil, and then struck the boulder clay, thus confirming the view held by the writer that, just as the "sick of the plague" were accommodated in the old days in sheds without the walls near the Water Tower, so the plague victims would in all probability be buried outside the walls. In fact, there is direct evidence confirming this view.*

Beyond the Water Gate is the Roo Dee—a picturesque racecourse—in mediaeval times the playground of Chester. One of the illustrations is a photograph taken from Curzon Park showing the modern city with its cathedral and churches and town hall.



Eastgate Street, with the East Gate.

The south wall has the Castle within, the only part of the old castle remaining being the Square Tower, known as Caesar's Tower, containing the chapel in which James II heard Mass on his visit to Chester. The barracks of the 22nd, or Cheshire Regiment, and the modern Law Courts occupy the remainder of the precincts.

On the south side of the river is the fishing village of Hand-

*Since writing the above the site of the Roman cemetery has been unearthed during excavating for the foundations of the new infirmary in the infirmary field. Several Roman tombs, with skeletons enclosed, have been opened up, and various interesting objects recovered. This "find," which is one of the utmost importance, is being carefully investigated, and will be exhaustively described.

bridge, where the visitor can, from the walls, watch the salmon fishing in operation, with a lively anticipation of the excellent flavour of the famous Dee salmon.

The field adjoining the fishing village is known as Edgar's Field, now used as a public park, and containing, carved on an outstanding rock by Roman hands, a rude figure of Minerva, the guardian goddess of the Dee; for here existed the Roman ford connecting Deva with the Roman road to the South.

It would be a grave omission not to mention the old legend of King Edgar (of pageant fame) being rowed on the Dee from his palace in Edgar's Field to the Church of St. John by the eight tributary kings, of names unpronounceable, but of fame imperishable.

The old Dee Mills, hard by the Bridge Gate, were founded by Hugh Lupus, first Norman Earl of Chester, and now, after some eight or nine centuries of strenuous life—having fulfilled their destiny of being burnt down thrice, as foretold by Robert Nixon, the Cheshire prophet—they are dismantled, and must give place to a water turbine for providing electricity for the city. The occupation of the "Miller of the Dee" has gone!



Chester Cathedral.

At its eastern extremity the South Wall commands a beautiful view of the river, with the old Dee Bridge (Edwardian) and the ancient weir, the Groves, and all the paraphernalia of the boating fraternity.

The East Wall faces the Bishop's Palace and the ruins of the old collegiate church of St. John, crosses the Newgate, with the Cockpit hard by, now used as a shoeing forge. Until the year 1843 cock-fighting was a prominent feature of the race week; an official known locally as "Cockdrum Jones" was in the habit of parading the racecourse, crying, "A main of cocks will be fought" at such and such a time and place. He carried and vigorously beat a sidedrum, and had a picture of a fighting cock painted on his back. One of the last of the devotees of this cruel pastime was the Sedan chairman at the Cross, who occupied his leisure time whilst waiting for his "fares" by making vent-pegs for beer barrels.

Near the Newgate, also, are the foundations of the Roman wall, referred to above, exposed to view on the new premises of the National Telephone Company in St. John Street, and the adjoining premises occupied by Messrs. F. A. Dickson and Sons. Visitors to Chester should on no account omit seeing these interesting relics.

The Eastgate crosses the main street of Chester, and completes the circuit of the walls. Between here and the Phoenix Tower the Cathedral adjoins the walls.



Watergate Row, looking east.

THE ROWS.

Next to the walls, Chester prides itself on its Rows, and justly, for they are unique. Surmounting the shops at the street level is a covered promenade, broad, airy, and dry, providing for an additional tier of shops in the row, recessed from the street frontage; pillars, varying in form, material, and date, supporting the overhanging gables of the houses above.

Singular to relate, Dr. Pigot, a former physician to the Chester Infirmary, wrote an excellent book on the history of Chester in 1815, with beautiful etchings by Cuitt, and omitted all mention of the Rows. It is said that he was so mortified at this omission that he tried to recall the whole edition of his book, which is consequently scarce and valuable. The origin of the Rows has been a bone of contention from time immemorial, and has embittered the relations of succeeding generations of local antiquarians. Pennant and others, somewhat unintelligibly, ascribe their origin to Roman times, and compare them to the colonnaded buildings of that period.

Others date them from the days when the inhabitants of the city were frequently called upon to resist incursions of the Welsh, the Rows forming a vantage ground from which to assail the enemy's horsemen in the street. This is equally unintelligible, for it is clear that the intrusive Cambrian, before encountering the attention of his Cestrian neighbours ensconced in the Rows, must previously and perforce have accomplished the disestablishment of the city walls and gates, the first and all-important line of defence.

The true explanation, due to Professor Robert Newstead, seems to follow from a consideration of the comparative levels of the street in front and at the back of the houses.

The former is practically on the rock, whilst the latter is "made ground," or, rather, accumulated rubbish, at the level of the Rows. It can easily be understood that the ingenious Cestrian of the period accordingly conceived the brilliant idea of having a double row of shops, with a covered promenade, to give access to the upper. Some of the Rows are ancient and dilapidated, the beams and pillars in some cases being fourteenth century work. The illustration is a specimen of one of the older Rows—Watergate Row. Some of the older Rows are being gradually modernized and losing their distinctive features, notably Shoemakers' Row; whilst in other positions only short sections of the original Row remain—as, for example, in Lower Bridge Street.

Ecclesiastical Architecture.

In an old cathedral city ecclesiastical history must of necessity loom largely, and Chester is no exception. The names of streets, White Friars, Black Friars, Grey Friars, refer to the old monastical foundations. Of these little remains but the name. A fragment of the boundary wall of the Carmelite monastery of St. Mary persists in Weaver Street, and excavations in Bollands Court some thirty years ago disclosed some mediaeval floor tiling on the site, together with fragments of pottery, etc.

Only a few months ago the extension of a business premises within this area necessitated rather deep excavations, and the remains of an ancient wine press were unearthed surrounded by masses of grape skins mixed with incinerated earth. Imbedded in this was a skeleton. The writer had an opportunity of examining the skull, which was that of a young adult male; in the occipital region it showed a piece 2 in. by 1 in. shaved off the outer table. Wounded probably in a street brawl, the unfortunate man had been carried in to die and be buried in a nameless grave.



Bishop Lloyd's Palace, Watergate Street.

Two noble monuments of Church history survive—the Cathedral (the old Abbey Church of St. Werburgh) and the Collegiate Church of St. John, the latter situated without the walls on the bank of the river. About the year 660 Wulpherus, King of Mercia, founded a nunnery for his daughter Werburgh, who desired to take the veil. After being abbess of three religious establishments, she died at Trentham and was buried at Hanbury in Staffordshire. About the year 875 her remains were brought to Chester, ostensibly to prevent their desecration by the Danes, but in all probability that they might repose in the abbey originally dedicated to herself as St. Werburgh. Her shrine still remains as the most interesting relic in the Cathedral, and according to ancient legends its possession has led to the miraculous preservation of the city on divers occasions owing to the intervention of the saint. It is a massive stone structure, 8 ft. 9 in. by 7 ft. 6 in. by 4 ft. 8 in., ornamented with six arches, variously carved and having originally a number of gilded images holding scrolls inscribed with the names of the kings and saints of Mercia. Most of the figures have been much mutilated and some of them destroyed, either at the Reformation or during the Civil Wars.

The present abbey church was founded and endowed with lands in 1083 by Hugh Lupus, the first Norman Earl of Chester, moved thereto, it is related, by a desperate attack of the gout, seconded by the entreaties of Anselm, Abbot of Bec, who afterwards became Archbishop of Canterbury. Traces of this Norman church are found in the north transept and baptistery. The remains of Hugh Lupus were discovered beneath the chapter house in 1724, enclosed in a stone coffin. The strings which tied the ankles together were perfect, and the muslin shroud which enveloped the body was preserved.

The See of Chester was included with Lichfield and Coventry until the dissolution of the monasteries by Henry VIII. Chester was erected into an episcopate in 1541, a portion of the Abbey lands being confiscated. The See was in the province of Canterbury for one year and afterwards in that of York. The most famous of the Bishops of Chester was Bishop Pearson, whose exposition of the Creed has perpetuated his fame. He died in 1686, and was buried without inscription in the Cathedral; his remains were discovered in 1844, and were laid in the north aisle of the choir beneath a tomb with recumbent effigy.

Bishop Lloyd was Rector of Thornton and Bangor in this diocese, and Bishop of Man. His palace in Watergate Street is an old timbered house with quaint scriptural carved panels, and a fine fireplace and ceiling within. It is much frequented as a show place for visitors.

The architecture of the Cathedral presents examples of all the various periods. The Chapter House and Lady Chapel belong to the Early English period; the choir and the south transept (Parish Church of St. Oswald's) to the Decorated; the clerestory windows are examples of the Perpendicular style, while Jacobean work is found in the south-west tower and elsewhere. The refectory, with its

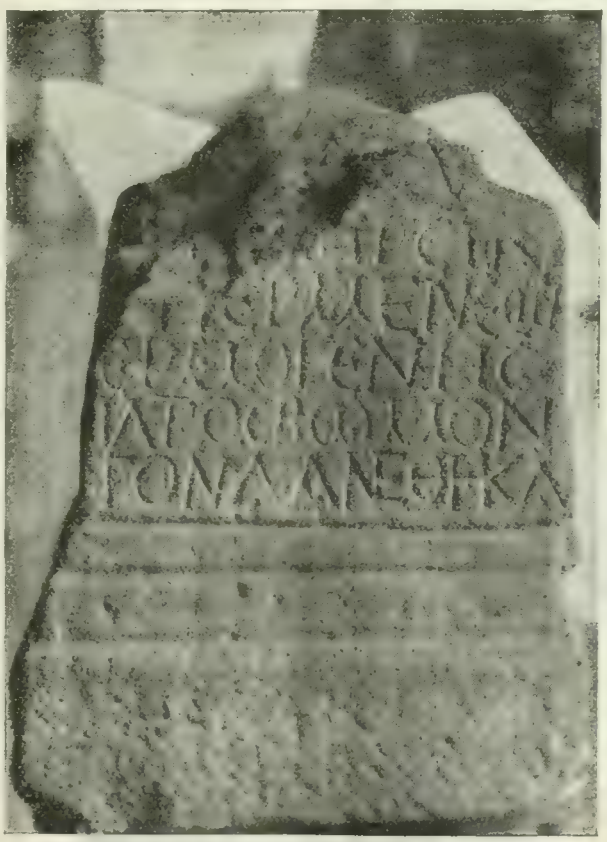


Eaton Hall, the seat of the Duke of Westminster.

reader's pulpit, is an example of Early English. The cloisters, mostly fifteenth century work, are falling into decay, and a movement is now on foot to restore them. Cardinal Wolsey's arms are to be found at one spot in the cloisters. The oak carving in the choir is very beautiful, dating from the close of the fourteenth century, and is very similar to that in Lincoln Cathedral. It was at one time covered with coats of paint, varnish, and dirt, the accumulation of ages, but has now been restored to its original beauty. It is said to have cost £50 to restore each stall. The carved misericordes are very quaint, and only six of them are not original.

In 1868 and the succeeding years the Cathedral was restored by Sir Gilbert Scott during the office of Dean Howson. Visitors in connexion with the annual meeting of the British Medical Association will have the advantage of hearing Archdeacon Barber describe its history and architectual features, of which he has made a long study, and on which he is the recognized authority.

The Church of St. John, whose beautiful Norman nave is now used as the parish church, dates from the seventh century. "King Ethelred, minding to build a church, was told that he should see a white hind, and there he should build a church, which white hind he saw where St. John's church standeth." This vision of the white hind is the subject of an old fresco, dimly restored, on one of the pillars of the nave. St. John's was the cathedral church before the suppression of the monasteries. In 1881 the tower fell for the third time, doing much damage to the fine old porch, which, however, has been restored. It is interesting to note that De Quincey, the opium eater, lived at St. John's Priory, a building within the precincts, in the early years of the nineteenth century.



Lower part of an altar, found in 1851 under the Saracen's Head in Northgate Street, bearing the following inscription:

. . . (σωτ)ῆρσιν (ὑπ)ερμενεσιν Ἑρμογένες ἰατρός βωμον τοιδ' ἀνεθηκα.

Translated: "To (. . .) the saving and mostmighty, I, Hermogenes, a Physician, dedicated this altar."

There are other ancient churches in Chester, notably Old St. Mary's, possessing distinctive and interesting features of their own.

Domestic Architecture.

No visitor to Chester should omit seeing the ancient "crypts," with their beautiful groined arches and pillars of stone. One, in an excellent state of preservation, is on the premises of Messrs. Quellyn Roberts, Watergate Street, and another at Mr. Newman's, in Bridge Street, adjoins it at its extremity. Their date is of the twelfth and thirteenth centuries, and each has an aumbry, or square cupboard, with remains of the hinge sockets. Another very perfect one is under the premises of Messrs. Brown and Co., Eastgate Street. Several have been removed in erecting modern buildings, and traces of others can be found in various parts of Watergate Street, etc. It is generally assumed that these were underground cellars for storing merchandise, but it has always seemed to the writer unlikely that such ornamental work should be put to so commonplace a use. Rather does it seem probable that they were used as abodes of entertainment and conviviality, and we know that such abounded in the city, and in fact were carried to such an extent that they had to be regulated by the city authorities; and the ancient chronicles tell us of sad doings in dim mediaeval Chester.

The following record bears out to some extent the above view: "Wm. Ball, late Mayor, presented 1569 for selling and exposing for sale, in his house and cellar, beer and other victuals on Sunday, etc., and keeping cards, tables, and other unlawful games there." Also in the previous century similar prosecutions had been instituted.

Of the wealth of interesting facts to be unearthed by

research among the neglected houses in parts of the city which were once fashionable, it will suffice to give an illustration. Randle Holme, the Chester Herald and historian, lived in the city about the time of the Civil War; but until a few years ago no local antiquarian had been able to locate his residence. A Lancashire antiquarian entered the old timbered, double gabled inn known as the King's Head, in Lower Bridge Street. There he found an unused, oak panelled room, begrimed with dust, and almost roofless, with an old fireplace showing heraldic signs on the chimney piece. These were the armorial bearings of Randle Holme, and the question of his residence was solved; a fact which was to receive striking confirmation a few months afterwards, when a workman was removing the oak dado from near the fireplace, and there fell out an old letter, excellently preserved, with the following superscription: "For the loving hands of my cousin, Randle Holme—these." It was a letter of introduction from a friend who wanted some information as to his coat of arms. It had slipped behind the panelling, where it had rested for 250 years.

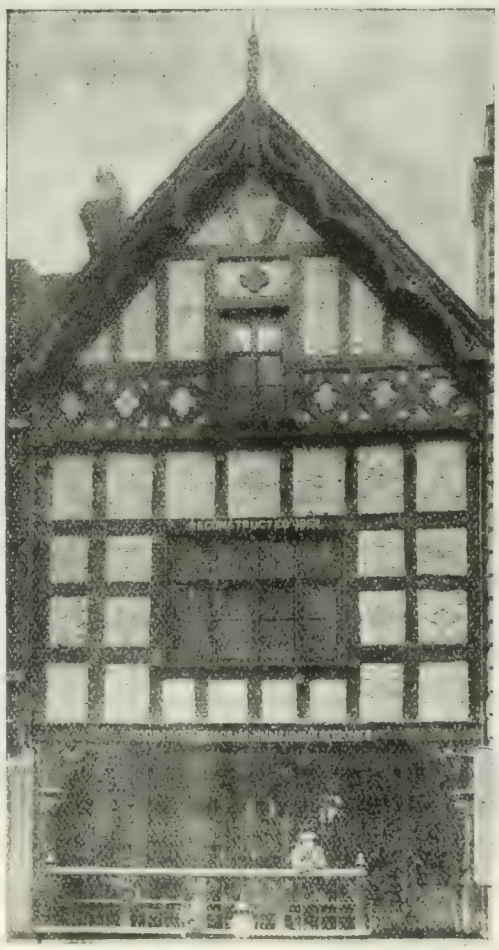


Carden Park, Chester.



Lower Carden Hall.

The Town Hall of Chester is a modern building. An inspection of the city records and plate should on no account be omitted. The Sword of the City, presented by Henry VII, was carried before the King at the Installation of the Prince of Wales (who is also Earl of Chester) at Carnarvon last year. Valuable cups, etc., have been presented to the city from time to time. The records include documents signed by the Black Prince (who was also Earl of Chester), Oliver Cromwell, and other royal and distinguished personages. The earliest charter of the city is by King John, May 3rd, 1201.



God's Providence House, Watergate Street.

The Natural Science Society was founded by Canon Kingsley when Canon in Residence. After his death, with the assistance of the late Duke of Westminster and the principal residents, a handsome and commodious building, the Grosvenor Museum, was built to accommodate the various scientific and antiquarian societies in connexion with the city. In it are deposited the Roman inscribed stones and other objects of value. The museum is noted also for the magnificent stuffed birds, which were prepared by Professor Robert Newstead, F.R.S., when curator of the museum.

There is a flourishing art school and technical day schools in connexion with the museum, and the microscopical section of the Natural Science Society has as its members some enthusiastic and successful workers. The annual *conversazione* is one of the notable events of the year.

Of educational establishments, the King's School and the Queen's School are in the first rank of successful schools.

Eaton Hall, the seat of His Grace the Duke of Westminster, is situated some four miles from the city, and is easily accessible either by steamer up the river or by road through Eaton Park. Built by Mr. Waterhouse, the present hall replaced the Gothic structure on the same site. Its beautiful gardens, magnificent pictures, and other objects of art; its stables, the home of Bend Or and Ormonde, and later of Orme, form an unfailing attraction to visitors. By the kindness of His Grace the park is always open for cyclists, pedestrians, or carriage traffic, and those who visit Chester during the Annual Meeting of the Association this year will be hospitably entertained by His Grace at Eaton Hall.

Another ancestral home within easy distance of Chester is Hawarden Castle, with its beautiful undulating park and historical trees. In the church hard by is the tomb of the Right Hon. W. E. and Mrs. Gladstone; whilst in the pretty village of Hawarden one is constantly reminded by public buildings and statuary of the deceased statesman.

Medical Chester.

The history of Chester, from a medical point of view, presents features of unusual interest, and this, it is hoped, will excuse a somewhat lengthy notice.

Probably the earliest mention of a physician in Britain,

certainly the earliest monumental inscription referring to one, is that inscribed on an altar found in July, 1851, on the site of the Saracen's Head, in Northgate Street, Chester, which is now part of the public market. The inscription, illustrated here (p. 1315), is in Greek. It dedicates the altar "to the saving and most mighty" by "Hermogenes, a Physician." Hermogenes was evidently serving with the Roman forces as physician, and Sir James Simpson suggests that he was the body physician to the Emperor Hadrian, and sent by him to the Roman stations in Britain. The dedication to "the saving and most mighty" suggests that Hermogenes may have undergone a perilous voyage on his journey to Britain.

Another royal physician has left his mark on Chester history — John Leche, a member of the knightly family of the Leches of Derbyshire, the former owners of Chatsworth. Of him as surgeon (leech) to King Edward III the Cheshire Rolls contain the following entry:

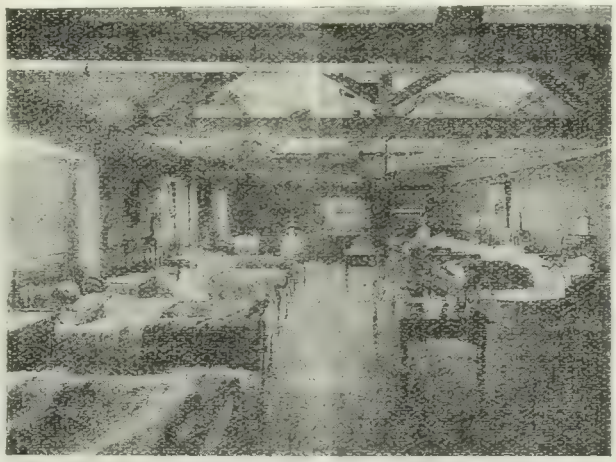
1381-2. January 17. grant to John Leche, the King's Surgeon, by the King (Richard II), of an annuity of £10 to be received out of the issues of the Mills of the Dee in lieu of a like annuity granted to him by Edward Prince of Wales (the Black Prince), to be received at the Exchequer at Chester, 1384, August 13.

Again:

Pardon to John Leche, by the King, in consideration of his good services "per continuam moram suam in hospicio nostro."

So that John Leche was also surgeon to Richard II. The "pardon" spoken of did not imply that the recipient had committed crime. It was a compliment paid to those who had done good service. John Leche married an heiress, Eleanor, co-heiress of Cawarden or Carden, and settled at Carden, eleven miles from Chester, where the beautiful half-timbered old Cheshire mansion exists in a park which contains the descendants of the original herd of deer that he established. In the oak ceiling of the hall is emblazoned his escutcheon—the club with the serpent vert entwining it, the emblem of the physician, and the three golden ducal crowns which were granted to him by the Black Prince after he had entertained the three kings—Edward of England, John of France, and Robert of Scotland—at his mansion of Temple, near Maidenhead on the Thames. Carden Old Hall, the present residence of Mrs. Leche, is a dower house of the family, and has some beautiful twelfth century (?) work in the interior.

As was usual in old Chester, the younger branches of the county families settled in the city as merchants, and the Leche town house persists in Watergate Row, the escutcheon showing a crescent—a mark of cadency—showing that it belonged to a younger cadet of the family.



The Old Ward in the Chester Infirmary which was used by Dr. Haygarth for the isolation of fever patients in 1783.

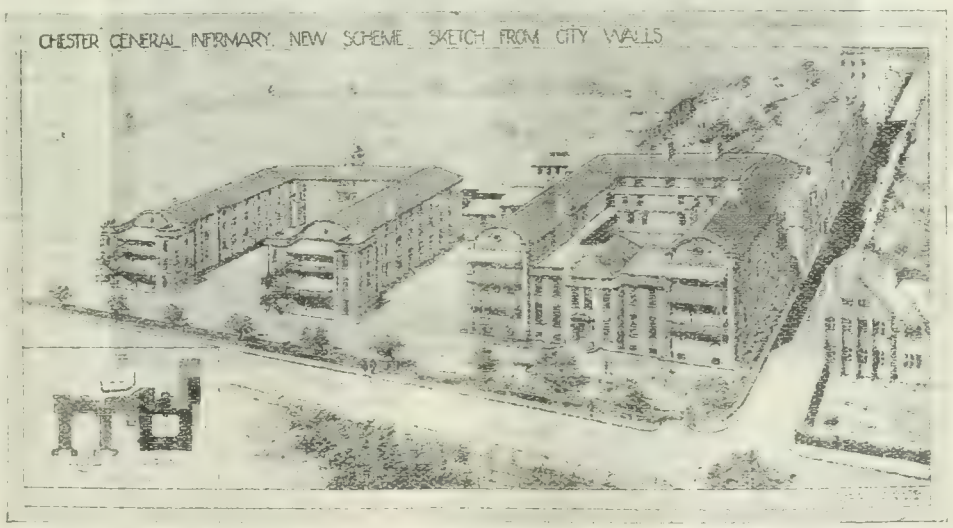
In the south transept of the cathedral is a plaque by Randle Holme with the arms of Alderman Leche, who was drowned in a flood on the perilous journey by road to London, whither he was journeying to spend Christmas with some relatives.

Carden sustained a siege from the Parliamentarians of Nantwich during the Civil War: the squire was captured, his plate and pictures confiscated, and he himself taken prisoner to Nantwich, the only life lost being that of a housemaid who was protecting one of the doors leading into the garden, which is *in situ* to this day.

The records of the Barber Surgeons Company of Chester are extant, the earliest book covering the period from 1606-98. To quote from the *Cheshire Sheaf*: "Chester barbers were prominent citizens, ranking with, and exercising most of the functions of, surgeons and physicians. They dressed wounds, drew teeth, bled their patients in more ways than one, made up ointments and pills calculated either to kill or cure in all sorts of disorders as were to be found anywhere within our ancient wall."

Divers epidemics of the plague devastated Chester during this eventful period. In 1648, about midsummer, the plague broke out and raged so violently that upwards of 2,000 persons died of it, and the city became so deserted that grass grew in the streets at the High Cross. No doubt this outbreak was directly traceable to the effects of the long siege of Chester, with its accumulated filth and destitution. An interesting sidelight is thrown on this question by the following order promulgated in Council:

That the Lord Bishop be enjoined of the unwholesomeness of the puddle near the Eastgate, and the inhabitants be ordered to cleanse the streets before their respective doors *within one month*, under a fine of ten shillings.



Chester General Infirmary: Reconstruction scheme (Mr. Wm. Lockwood, architect).

In Watergate Street is an old gabled house, dated 1652, with the motto—"God's providence is mine inheritance," commemorating the escape of its inmates from the plague, which invaded almost every other dwelling.

In the records of the Barber Surgeons Company it is chronicled that the annual festivities of the company with the election of aldermen, which took place in the Phœnix Tower, were discontinued during the plague year.

The Barber Surgeons were jealous of their privileges, and prosecuted interlopers. They frequently had recourse to law, and the following entries in their accounts speak of their gratitude for legal favours:

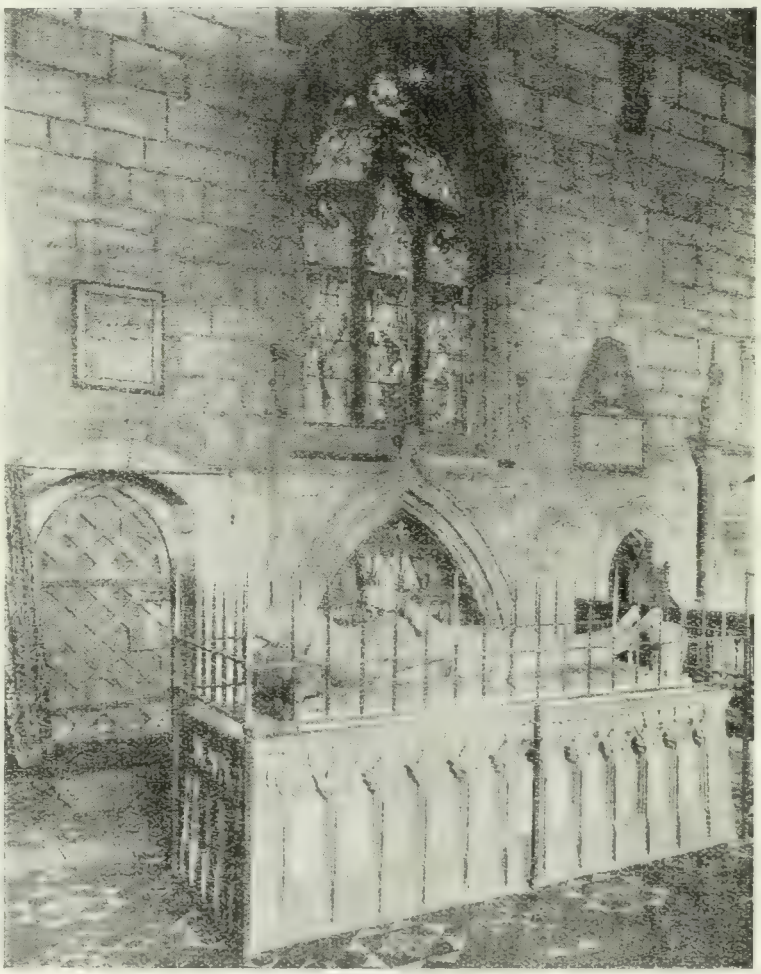
Item for a pottle of sack to bestowe upon Mr Recorder for his trouble in our sute ...	00 . 02 . 08
Paid for a sugar loafe to be sent the Recorders wife	00 . 04 . 08

The Infirmary.

Nothing further of special medical interest transpires in the city history until the foundation of the infirmary in 1755, which was opened in the unoccupied part of the Blue School, Northgate Street, in January, 1756, the staff consisting of four physicians, four surgeons, and a house apothecary.

The existing infirmary was built in 1761 on a site adjoining the city walls, near the Water Tower, about 60 ft. above the level of the river, and commanding a fine view of the estuary and mountains beyond—probably the most satisfactory site that could have been found in the city. The plan of the building was a quadrangle of four stories, fronting the west, with central area of 54 ft. by 42 ft. The principal wards ran the whole length of the infirmary north and south, each containing twenty-four beds, with the east and west sides of the quadrangle taken up with staircases, chapel, and four small rooms for nurses or private patients. The hospital accordingly accommodated 100 beds, affording about 1,000 cubic feet of air space per patient.

In 1766 John Haygarth, whose name will be for ever memorable in Chester, was appointed physician to the infirmary. His life and work form such an interesting page in the medical history of his time that they will form the subject of a subsequent paper in this Journal. It will suffice to say here that, owing to his genius, the Chester infirmary has the honour of having been the first hospital to institute wards for the isolation of fever cases. The long ward in the upper story to the north was divided in two by a wooden partition in 1783, one half being used for male fever cases and the other half for females. During the first year, says the annual report, "thirty cases of fever were admitted, many of them in the most imminent danger, yet they all, except one, recovered." Dr. Currie, another physician to the infirmary, writing in 1802, says: "I constantly attended the infirmary for sixteen years, and there never was at any one time reason to suspect that contagion had been communicated from the fever wards to the other patients in the house."



Tomb of Sir Hugh Calveley, one of Edward III's knights, with Dutton memorial window over it, in Bunbury Church.

A description of Dr. Haygarth's researches on the incubation period of fevers, his institution of the "Small-pox Society" in Chester for the isolation of cases, and the spread of general inoculation, with the incalculable benefits which accrued thereto, must be reserved for another paper. He was made a Fellow of the Royal Society, and enjoyed the friendship of the greatest physicians of his day.

In 1767, Wm. Falconer was appointed physician. Born in Chester in 1744, the son of the Recorder of Chester, by marriage with Miss Wilbraham of Nantwich, he studied medicine at Edinburgh, and afterwards at Leyden. He removed to Bath in 1770, and was made a Fellow of the Royal Society in 1773. He wrote several works on the Bath waters, on influenza (1782), and again in 1803 reprinted in the *Annals of Influenza* (Sydenham Society). He was awarded the silver medal of the Medical Society of London for his dissertation on *Diseases of the Hip-joint* (1805), and also wrote on theological and botanical subjects.

In 1798 William Makepeace Thackeray was appointed Physician. He was first cousin once removed to the great novelist of the same name. Born in 1770, he studied medicine at Cambridge, and was in Paris as a student at the time of the outbreak of the French Revolution, when he witnessed the storming of the Bastille. In 1793 he commenced practice as a physician at Denbigh, but subsequently removed to Chester. He is known to have said that when he first commenced practice there were sixteen physicians within a radius of 40 miles, all of them educated either at Cambridge or Oxford, and that when he should die there would not be one left, so much had the provincial profession fallen off in dignity. He was an enthusiastic planter of forest trees, and thrice received the gold medal from the Society of Arts for his success in this art. He took a great interest in the Blue-coat School, and left a reversionary legacy to it. By the terms of his will the senior physician to the infirmary has the nomination of one scholar. Dr. Thackeray suffered intensely from the gout, and died in 1849. He was awarded a public funeral, and was buried in the Cathedral, universally admired and respected.

It is impossible within the scope of an article such as this to give extended notice of the life-work of others of the honorary staff whose long, faithful, and distinguished services to the infirmary entitle them to an honoured place in its archives—notably Dr. Edward Waters, who died in 1890; Mr. James Taylor, whose obituary notice appeared so recently in the British Medical Journal; and Dr. William Murray Dobie, who still occupies the position of Consulting Physician to the institution. The writer believes that services so recent will be fresh in the recollection of their professional brethren.

By the original plan of the infirmary the large open central area ensured efficient ventilation and lighting for the interior of the building, but the board of management in 1829 decided that the hospital, however suitable it might have been for its original purposes, did not come up to the standard required at that enlightened period, and they proceeded to spend several thousand pounds in filling up the area with nurses' rooms, water-closets, sculleries, etc., effectually blocking out sunshine and fresh air, and necessitating a complicated system of drainage under the building, destined to become a fruitful source of trouble by-and-by.

The consequence of these "improvements" has been that the wards are gloomy and ill ventilated, the passages dark and difficult to clean, and what was left of the central area remains like a well into which the sunshine never penetrated.

In 1910 a movement was set on foot to remedy these defects and renovate the hospital; and the services of Mr. Waterhouse, of London, were requisitioned to consult with Mr. Lockwood, of Chester, the architect to the Infirmary, and advise the Board as to the necessary procedure. A committee was appointed to visit the principal modern hospitals in the kingdom, and the result of their united labours is the scheme, an illustration of which appears at p. 1317. Two new blocks are to be erected in the "Infirmary Field," parallel to the existing structure and facing the walls. They are to be equipped with all the latest appliances—new operating theatre, with adjoining laboratory, anaesthetic room, consultation room, and small isolation wards.

The old building will be entirely renovated—the central area cleared of all its objectionable encumbrances, and cross ventilation and lighting by opposite windows provided in all the wards, ample air space being provided for each patient. An entirely new and up-to-date out-patient department will be constructed, with an adequate number of consulting rooms, new *x*-ray department, and dispensary. The roof of the old building will be raised to provide additional air space to the old gabled wards on the upper floor, the two on the north side being the original isolation wards of Dr. Haygarth. An entirely new system on the latest principles for heating and lighting will be instituted. The nurses' home will be reorganized and enlarged, and tennis courts will be provided for recreation.

Balconies and airing courts for convalescents and open-air treatment are arranged. There will be 150 beds in the new infirmary. The cost of the whole scheme is £40,000. The contract has been given out, and the work on the new blocks is now being proceeded with. The public appeal for subscriptions has not yet been issued, but already £23,000 has been promised. Mr. Albert Wood of Conway has undertaken to defray the cost of the new blocks, and has subscribed £12,500 for this purpose. They will be known as the "Albert Wood Wards." The Duke of Westminster has subscribed £3,000, and Mr. George Barbour £1,000, and an anonymous donor £1,000. The various business establishments have also subscribed handsomely, and a general interest is being taken in the work in the city and district.

BUNBURY CHURCH.

The illustration of Bunbury Church commemorates two Cheshire "heroes," one renowned in war—Sir Hugh Calveley, one of the most distinguished of King Edward III's knights, whose beautiful alabaster tomb was built by his comrade in arms, Sir Robert Knolles; the other, Dr. Everett Dutton, Walter Myers Fellow of the Liverpool Tropical School of Medicine, who died at Kasongo, Congo Free State, February 27th, 1905, of relapsing fever, whilst engaged in studying the sleeping sickness. He was the first to recognize a trypanosome in human blood. The stained-glass window in the illustration over the Calveley tomb was placed there in his memory by his brother and sisters residing in the neighbourhood. I cannot do better, in concluding this short notice of him, than to quote the appreciation of Dr. Dutton by Sir Rubert Boyce:

> He laboured not for himself, nor for a single country, but for the whole of humanity.

LITERARY NOTES.

THE Oxford University Press will shortly publish a study by Dr. H. P. Cholmeley of John of Gaddesden, who was the first English Court physician, and of his chief work, known as the *Rosa Anglica*. The *Rosa*, written in 1314, was first printed in 1492, and is mentioned by Chaucer. John of Gaddesden was a graduate of Oxford in Arts, Medicine, and Theology; he died in 1361, and is supposed to have been born about 1280.

Dr. William L. Storey (Dublin) writes:

> On September 2nd, 1911, I received a letter from a friend in which, *inter alia*, he waxed enthusiastic over a recent purchase—a copy of the *Concise Oxford Dictionary*. The same post brought my BRITISH MEDICAL JOURNAL, and, by a happy coincidence, I had the pleasure a few minutes subsequently of reading your confirmation of my correspondent's opinion. Alas! we have discovered a fly in the ointment, and we ask wistfully if it is likely to reappear when the ointment is repeated. The insect goes by the name of *r*, and the *Concise Oxford Dictionary* declares that it concludes the sound of the word *idea!* Is it any wonder that we "stared at the" intruder, and "looked at each other with a wild surmise—silent"! Could you suggest whether the addition of this foreign body was due to inadvertence, official design, or provincial bias of conspiring proof-reader and compositor? In any case, a new system of practical musketry has been foisted on the young *idear*.

While approving on the whole of the *Concise Oxford Dictionary*, we cannot hold ourselves responsible for everything contained therein. We may inform Dr. Storey, however, that he is not the first in the field in regard to the pronunciation of "idea." In the *Periodical* issued by the Oxford University Press (May 15th) we find the following reply to another critic:

> A correspondent of the *Spectator*, signing himself "Scot," found a mare's nest in the *Concise Oxford Dictionary*. Misrepresenting, for want of a proper phonetic symbol, the entry relating to the pronunciation of idea, he complained that "idea" was given as "idēr." As a matter of fact, it is not "idēr" but "idēr"; and this symbol "er", does not mean that the "r" is to be sounded before a vowel (i.e. "I had no idea rof"). The *Concise Oxford Dictionary* does not, and no small dictionary could, employ the elaborate phonetic system of the great *Oxford English Dictionary*. The editors of the former hold that "idea," once a trisyllable, rhyming with Judaea, Spiraea, and Dorothaea, is now, in actual use, a disyllable. Persons who have not troubled to consult the *Concise Oxford Dictionary* have rushed into print—where angels fear to tread—in support of "Scot" and defiance of facts: hence this plain statement.

This defence does not seem to be altogether satisfactory. "Idea" is a disyllable only in the months of the illiterate. "Idēēr," which the authors of the dictionary profess to regard as the usual pronunciation, may for all we know be the pronunciation "in actual use" at centres of culture like Oxford, or among those styled by Warburton the "better vulgar," who speak of doin', thinkin', and so forth. But it is offensive to educated ears. It reminds us of Uncle Ponderevo in Mr. H. G. Wells's *Tono-Bungay*: "I got an ideer."

At a meeting of the Paris Academy of Medicine held on May 21st, M. Thoinot presented on behalf of the author, Professor Rouxeau of Nantes, a copy of his work entitled *Laënnec before 1806*. The book is founded almost exclusively on unpublished documents in the possession of the Laënnec family. Professor Rouxeau confines himself to the early years of the discoverer of auscultation, tracing his career up to the age of 25. He shows how much Laënnec owed to his uncle, the good priest Guillaume Laënnec, who watched over him most carefully. It was not an easy task, for in addition to interference on the part of a selfish brother, young Laënnec had inherited from his father a somewhat frivolous character, with a tendency to dissipation and laziness. Every day the uncle had to fight against the lad's easy enthusiasm for everything that was new, especially if it was foreign to his studies—poetry, music, dancing, shooting, and all forms of bodily exercise. But happily, although the boy's head was somewhat light, his heart was good, and his affection for his uncle made him work. He went through his school with distinction, and entered the School of Medicine and the Military Hospital at Nantes before he had completed his 15th year. He continued his classical studies, while showing a decided bent for the study of anatomy, zoology, and clinical medicine. After studying medicine at Nantes for six years he got leave from his father to finish his professional education in Paris. There he worked so strenuously that he soon attracted the attention of his teachers and fellow students. His first essay was a discourse on peritonitis. He taught pathological anatomy to large classes during three years, and embodied the results of his researches in his *Traité d'anatomie pathologique*. His unceasing labours undermined his health, and the rest of his life was a struggle against suffering, which he bore with stoical fortitude.

The periodical entitled *Garden Cities and Town Planning*, published by Messrs. P. S. King and Son (May 15th), contains a considerable amount of information on the subject to which, as its name imports, it is devoted. The periodical, which is well printed and illustrated, will be welcome to all interested in social reform.

British Medical Journal.

SATURDAY, JUNE 8TH, 1912.

THE ANNUAL MEETING, LIVERPOOL, 1912.

THE Annual Meeting of the British Medical Association which is to take place in Liverpool next month will be the fourth held in that city. The medical profession in Liverpool has from the earliest days of the Association taken a lively interest in its welfare. The first elected Council of the Association contained the names of several distinguished Liverpool physicians and surgeons, and the seventh annual meeting of the Association was held in Liverpool in 1839. The second annual meeting in Liverpool took place in 1859 and the third in 1883.

As Mr. Bickerton has told us in the interesting articles published during the last six months, Liverpool does not boast a long history, and cannot compare in that respect or in antiquarian interest with its ancient neighbour Chester, of which Dr. Elliott this week gives some account, illustrated by photographs taken for the most part by himself. So intimately were the two places linked at one time that it was only in the middle of the seventeenth century that the jurisdiction of Chester officers ceased and that Liverpool became a free and independent port. Its prosperity was due in the first place to the West Indian trade, but its rapid growth dates from the second quarter of the nineteenth century, when trade with the North American continent began to develop by leaps and bounds. In this trade and in trade to the West Indies and West Africa the port still holds the lead. Though hard pressed by rivals both at home and abroad, competition has served only to stimulate the spirit of enterprise, and Liverpool has responded to every challenge by increasing its shipping facilities. The successful commerce of nearly two centuries has brought wealth in its train, and, though they possess no ancient monuments, its citizens have evolved a city adorned by many fine public buildings, and possessing a very distinct character of its own.

It is not only in commerce that Liverpool has shown foresight and enterprise. A love of culture and of science has grown with the growth of wealth, and the city has given not a few illustrious names to literature and science. Among many evidences of the respect for learning with which the citizens of Liverpool are imbued the most striking is the University, which, through their exertions, has been brought into existence, endowed, and provided with extensive buildings admirably adapted for their purpose. Remembering the many interests which Liverpool has in tropical and subtropical countries, it is very appropriate that one of the most complete and industrious departments of the University should be the School of Tropical Medicine. The workers engaged in it carry on their researches, not only within the walls of the University, but also on expeditions which the school has been enabled to send to investigate various tropical diseases in the localities in which they prevail.

In addition to the annual report of the Council, embodying an account of the work of the Association during the past year, and various recommendations transmitted by the Council from the standing committees, the Representative Body will doubtless have before it a special report setting out the position of the profession in respect of the insurance scheme. What that will be when the Annual Representative Meeting assembles on July 19th it is impossible at present to foresee, but it can hardly be doubted that by that time some progress will have been made in one direction or another, and that the Representative Meeting will have in its hands full materials for arriving at a decision on the various important questions which must arise.

The President, Sir James Barr, will be installed on Tuesday, July 23rd, and will deliver his presidential address on that evening. The Sections will begin their work on the following morning. The annual Address in Medicine will be delivered by Dr. George A. Gibson of Edinburgh on Wednesday, July 24th, and that in Surgery by Mr. F. T. Paul of Liverpool on July 25th. All the sections, which this year number twenty, will, through the courtesy of the Vice-Chancellor and Council find meeting places within the University buildings. The general programme indicating the work which the various sections propose to do is again published in the SUPPLEMENT for this week, and in some instances we are enabled to give the authors' abstracts, indicating the line they propose to take in opening the discussions which will be held in the various sections. A glance at this document will show that the subjects chosen as ripe for discussion include most of those in which medical interest at the present day is greatest, either on account of the frequency of the condition to be considered or because new methods of investigation or treatment have been introduced. Thus we find that the Section of Medicine will consider the diagnosis and treatment of early cardiac complications of rheumatism, while the Section of Pathology will hold a discussion on Bright's disease, during which Sir Clifford Allbutt will deal with cardio-vascular changes. In the Section of Anaesthetics there will be a debate on anaesthesia produced by intravenous infusion, and another on methods for inducing anaesthesia and analgesia, in which special attention will be given to after-effects. The Section of Tropical Medicine will, appropriately, discuss the large and relatively new subject of human trypanosomiasis, including the question of the specificity of trypanosomes affecting human beings and the methods by which these parasites are transmitted to man.

In dealing with subjects on the borderland of two departments of medicine, the plan of holding joint meetings, which has been productive of interesting debates in the past, will be rather more extensively followed on this occasion: thus the Sections of Pathology and of Gynaecology and Obstetrics will combine for a debate on eclampsia, in which its etiology, its anatomy, and the application of recent research to treatment will be considered in introductory addresses dealing with these several aspects of the subject. The Section of Bacteriology will hold two joint discussions—one on *Bacillus coli*, its varieties, and the significance of their occurrence in water supplies, with the Section of State Medicine; and the other, on the standardization and control of vaccine, with the Section of Pharmacology. The Section of Anatomy will hold a joint discussion with the Section of Electro-Therapeutics on the normal stomach, while the Section of Laryngology and Rhinology will discuss the education of the specialist

in laryngology and otology in conjunction with the Section of the last-named subject. The Section of Medical Sociology proposes to combine with the Section of State Medicine and Industrial Diseases to discuss the administrative measures consequent upon the institution of compulsory notification of phthisis.

The Pathological Museum, which appears to grow in importance with each Annual Meeting, will on this occasion be displayed in the Engineering Laboratory of the University, a fireproof building in a central situation. This year the policy of arranging collections of specimens or apparatus having particular reference to discussions in the several sections will be continued and, apparently, extended.

As will be seen, the programme of business and science promises a very interesting week or ten days, all the working hours of which are likely to be fully occupied. But those who know Liverpool will feel sure that hospitality will be generously dispensed, and those who know the country within reach of the city, or who have read the short articles published in our columns during the last few months, will know that Liverpool, by its nearness to sea-coast golf courses and watering places, and its excellent means of communication with the mountains of Westmorland and Cumberland, and with those of North Wales, offers endless opportunities for shorter and longer excursions.

BIOLOGICAL VARIATION AS A FACTOR OF DISEASE.

ONE of the penalties which we have to pay for the benefits we receive from men of genius is a noticeable tendency to persist unduly in the line of thought and investigation to which we have been impelled by their discoveries. A certain "grooviness" is thus induced which leads us to overlook facts, however conspicuous and important, which are not readily explained by the light of what have become our dominant conceptions. It is thus that, as Mr. Hastings Gilford suggests in the article on "The Relations of Biology to Pathology" in our present issue, the epoch-making work of Pasteur and Lister may be held to have had a retarding as well as its acknowledged accelerating effect upon the progress of medical science. Matters pathological are thought about too exclusively in terms of bacteria and bacterial toxins, to the comparative neglect of those methods of research which are based upon more universal factors.

Mr. Bland-Sutton called attention in 1890[1] to the fact that many of the conditions and processes which, when met with in man, we rightly regard as pathological, are normal in other and lower species. Thus the phenomena of inflammation and leucocytosis may be paralleled by the processes culminating in the shedding of the milk teeth of puppies or the tails and gills of tadpoles. Exostoses identical with bony tumours of pathological origin are normal on the bones of the fish *Chaetodon*. The denudation and shedding of the antlers of deer afford a physiological analogue of the process by which a piece of bone, when deprived of its periosteal covering, is necrosed and extruded. The position of the foot and the relation of the articular surfaces which are normal in the adult orang are the same which, when they occur in human infants, constitute equino-varus.

The line of thought thus opened up by Mr. Bland-Sutton did not until recently receive the attention to which its importance and suggestiveness entitle it. For this temporary eclipse of the evolutionary aspect of pathology Mr. Hastings Gilford has, however, made amends by the recent publication of his work on *The Disorders of Post-Natal Growth and Development*,[2] in which the theory outlined by Mr. Gilford in his present article was set forth and explained with characteristic skill, and enforced by a wealth of striking instances.

In the first place the fact is emphasized that with regard to a large number of diseases the bacteriological explanation, if it has ever been seriously entertained as adequate, has more or less completely broken down. Among the examples given are arthritis deformans, cirrhosis of the liver, pernicious anaemia, leukaemia, Graves's disease, progressive muscular atrophy, osteomalacia, muscular dystrophy, cancer. It is not denied that in many of these conditions toxins, whether or not of bacterial origin, may play a part; but the question is raised whether such part is anything more than incidental or epiphenomenal. In comparison with the marshalled system of microbial diseases the above list may suggest a disconnected rabble. "Their anatomy is scientific but not their pathology." But on reconsideration we may find that the members of our non-microbial series have the common property of being diseases which still appear to be wholly or mainly of intrinsic as distinct from external or environmental origin. Or, as Mr. Gilford puts it, whereas microbial diseases are produced by contemporary causes, the non-microbial group are of prehistoric origin.

But while in all members of the non-microbial group the intrinsic factor predominates, in some (for example, cirrhosis, Graves's disease) we can, either invariably or in certain cases, recognize the potency of environmental determinants. Our group thus falls naturally into two main divisions—the wholly and the mainly intrinsic. Mr. Gilford, while regarding all the diseases of both divisions as of the nature of biological variations (substantive, not numerical), considers the purely intrinsic forms to be examples of major variation or mutation, and the others of minor or continuous (non-heritable) variation (fluctuation). From the Darwinian point of view it is axiomatic that variations may be advantageous or the reverse: the former tend to become fixed by natural selection and to enter the routine of normal development; the latter, though of analogous origin, having the weight of natural selection against them, will remain exceptional and be stigmatized as pathological. But, whether advantageous to survival or the reverse, it is only the major variations or, as de Vries calls them, the mutations, which are ever in the strict sense hereditary: the minor variations or fluctuations may appear spontaneously or in response to favouring conditions, but are in either case to be regarded as non-transmissible qualities.

The variations which are diseases consist, in Mr. Gilford's opinion, essentially in extremes. They may be positive or negative, manifesting themselves either in the form of an excess or a defect of growth or function on the part of either of the three components of man's tribasic constitution—cell elements, organs, or the individual as a whole. Among those regarded as mutations or major variations, which are of pronounced degree, spontaneous origin, and in some cases transmissible, he instances sporadic cretinism, achondroplasia, idiopathic pernicious anaemia, microcephaly, muscular dystrophy, hypertrophic cirrhosis of liver, osteitis deformans, and Friedreich's ataxia. Examples of the minor, continuous form of pathological variation, not always of

[1] *Evolution and Disease*, Contemporary Science Series.

[2] London. Adlard and Sons, 1911. Price, 15s. net.

purely spontaneous origin, and non-transmissible, are, he considers, endemic cretinism, rickets, atrophic cirrhosis of the liver, chlorosis, and those cases of pernicious anaemia, microcephaly, osteomalacia, and osteitis deformans in which environmental conditions have been contributory causes. In estimating the potency of the environmental factor, we must include not merely "those substances which, taken into the body, act inimically upon its constituents," but also those which, as the effect of depressing physical or psychical conditions—failure in business, disappointment in love, the shock of a railway accident, or local injury—are elaborated within it. For any such auto-intoxications, acting in conjunction with a latent variation, may set up a state of intrinsic secondary disease, such as Graves's disease or rheumatoid arthritis.

The sole criterion by which a given variation is assigned to the pathological rather than to the physiological category is that by disturbing the functional harmony it in some way handicaps the subject in the struggle for existence. Thus, assuming the correctness of Mr. Gilford's contention that the deformity of the dachshund is the result of the same variation as in human beings produces achondroplasia, it is obvious that, whereas the resulting condition by increasing the dog's value tends to the survival and perpetuation of its type, the reverse will be the case with similarly affected men or women. In a wild dog achondroplasia would be pathological, because it would handicap the subject in many ways. Diseases of this description, which, though biological in origin, become pathological in the event, are "examples of the way in which individual organs enter into a state of disease by falling short of or exceeding their normal growth, or by becoming stayed or unduly accelerated in their development."

Those which are progressive, consisting in an exaggeration of growth or development, or both, commonly arise out of a normal epochal spurt like that of the thyroid in adolescence or pregnancy, or that of the adipose tissues at the menopause, leading in the one case to Graves's disease, and in the other to obesity. But a process which begins as a mere hyperplasia may merge into degeneration, and thence into senilism and hypoplasia; or it may even pass the bounds of organic and enter the realm of cellular degeneration by becoming the seat of cancer. The complication of cirrhosis by primary cancer of the liver would be a case in point. "In an organ undergoing degeneration as a whole a more violent degeneration of certain individual cells may," says Mr. Gilford, "be started into action more readily than is usually the case." And it is a part of his hypothesis that by reverting to their primitive undifferentiated condition cells acquire that capacity for uncontrolled multiplication which is the characteristic of malignancy.

Mr. Gilford points out in his article that under the title of "arthritis deformans" two clinically distinct forms of degeneration of the joints are included: One which arises without ascertainable cause, and, as a rule, in early life; another in which, though the influence of a "cryptic element" may be detected, overwork, mental strain, bacterial intoxication, or senile decay, are common contributory causes. This is, in his view, a good example of the way in which similar pathological conditions may arise, in the one case as a true mutation, and in the other as a fluctuation. There are many other highly suggestive developments of Mr. Gilford's hypothesis in his book upon which we should have liked to have touched, in particular the section dealing with the group of diseases of which pernicious anaemia and leukaemia are prominent examples, and explaining the grounds of his belief in their neoplastic affinities. But our purpose will have been served if we have awakened a thirst for such full acquaintance with his views as can only be slaked at the fountain head.

A theory may be held to have justified its existence if it bring into even provisional unity a mass of hitherto unrelated and seemingly independent facts. For the establishment of an intelligible relation between many isolated facts, whereby they are rendered more assimilable, is not merely a gain to science but a pragmatic argument for the veracity of the theory which combines them. Whether or not, therefore, Mr. Gilford's views prove impregnable in their entirety—and their very breadth and audacity may tempt criticism—we have no hesitation in claiming for him the gratitude rightly due to all who plant the flag of science in regions previously the happy hunting ground of barren guesswork and groundless assumption.

THE EVOLUTION OF A QUACK MEDICINE.

What is the origin of the quack medicine? There is always, of course, a mystery about it which excites the faith of the believer in the marvellous. Either it is made of rare ingredients got from plants only found in the recesses of a trackless South American forest, or the secret of its composition has been learnt from a watcher at a sacred shrine in furthest Asia. Nowadays it is often stated that it is a product of a scientific laboratory, and it is not infrequently hinted that it is extracted from the organs of various animals which are credited with the regenerating properties of Medea's cauldron. Generally, however, the quack remedy has a humbler origin. It may be the cast-off slough of the snake which figures among the emblems of medicine; or it may be nothing more than what Charles Hare called a good remedy gone out of fashion, perhaps made milder and flavoured to suit the taste of a generation that has learnt to be dainty in its medicine as in everything else. James Gregory, whose name, like the good actions of the just, "smells sweet and blossoms" in his *pulvis rhei co.*, says with truth that even quack medicines are not in general bad *drugs*: "Many of them, no doubt, are insignificant, but many of them, as we have frequent opportunities of discovering by their characteristic effects, are just our own best-known and most active medicines given under new names and variously disguised. For example, aloe, jalap, antimony, mercury, arsenic, opium, and above all brandy. But these quack medicines, which a physician or surgeon who knew what they were might employ with safety and advantage, are every year pernicious to thousands by being rashly, indiscriminately, and improperly used. The case is just the same when the same powerful medicines, under their proper names, are employed by ignorant or negligent practitioners, though of the regular faculty."[1] The name is a powerful factor in the success of a quack medicine.

Then there is the power of advertisement, which is really that imperfectly understood force which we call suggestion. The art of advertising is by various devices to stamp a word, or combination of words, into the brain cells of as many people as possible. By most of them it will sooner or later be taken to represent a fact. A man so distinguished as Munsterberg has thought it worth while to discuss the application of

[1] *Memorial to the Managers of the Royal Infirmary*, MDCCC. Second edition. 1805.

psychology to advertisement.[2] He says that for the lack of psychological knowledge many hundreds of millions are probably wasted every year on advertisements that are unsuccessful because they do not appeal to the mind of the reader. The whole art seems to consist in finding out what will strike and stimulate the average person during a short exposure. Munsterberg has collected a large number of wrappings and packings in which industrial establishments sell their goods, and has received confidential information as to the success or failure of the various labels and pictures. It is found that, for instance, the same quality and kind of toilet soap, or chocolate, or breakfast food, that in one packing finds a rapid sale, in another remains a dead weight on the shelves. We gather that Munsterberg does not believe that advertisement has yet been developed into a fine art. He says: "What is needed is the introduction of systematic experiment which will cover the whole ground of display not only in pictures and texts but in the shop windows and the stores. The experiment may refer to the material itself. Before an advertisement is printed the arrangement of words, the kind of type, the whole setting of the contents, may be tested experimentally." We cannot help saying that the psychological laboratory seems to us hardly a proper place for the discovery of methods which are intended to gull the public or to help the credulous type of mind to gull itself. This, to speak plainly, is simply a prostitution of experimental psychology.

The psychology of the advertisement is well illustrated in Mr. H. G. Wells's amusing novel, *Tono-Bungay*.[3] The hero's uncle, a struggling chemist in a country town, always dreaming of making his fortune, suddenly beams upon the world with a new advertisement on the hoardings:

THE SECRET OF VIGOUR,
TONO-BUNGAY.

"That was all. It was simple and yet in some way arresting. I found myself repeating the word after I had passed. It roused one's attention like the sound of distant guns. 'Tono'—what's that? And deep, rich, unhurrying:—'*Bun*-gay.'" In reply to his uncle's invitation, the hero calls and finds him in a shop the windows of which were covered with the same advertisement. The floor was covered by street mud that had been brought in on dirty boots, and three energetic young men of the hooligan type in neck wraps and caps were packing wooden cases with papered up bottles, amidst much straw and confusion. The counter was littered with these same swathed bottles of a pattern then novel, but now amazingly familiar in the world, the blue paper with the coruscating figure of a genially nude giant and the printed directions of how under practically all circumstances to take Tono-Bungay. There is an inner office through the glass door of which can be seen dimly "a crowded suggestion of crucibles and glass retorts"—the usual paraphernalia, in short, of the modern alchemist who makes the panaceas that are to cure all our ills. On the hero asking what Tono-Bungay is, the reply after some hesitation was, "It's the secret of vigour," and it was described as "selling like hot cakes." The fortunate inventor describes it, but the narrator has a scruple about revealing its composition, as he says it is still a marketable commodity. All that we are allowed to know may be gathered from the following.

"'You see,' said my uncle in a slow confidential whisper, with eyes very wide and a creased forehead, 'it's nice because of the' (here he mentioned a flavouring matter and an aromatic spirit), 'it's stimulating because of' (here he mentioned two very vivid tonics, one with a marked action on the kidney). 'And the' (here he mentioned two other ingredients) 'makes it pretty intoxicating. Cocks their tails. Then there's' (but I touch on the essential secret). 'And there you are. I got it out of an old book of recipes—all except the' (here he mentioned the more virulent substance, the one that assails the kidneys), 'which is my idea. Modern touch! There you are!'" The hero frankly describes it as a damned swindle, whereto the uncle replies. "It's as straight as ——; it's fair trading." He adds: "It's the sort of thing everybody does. After all, there's no harm in the stuff, and it may do good. It might do a lot of good—giving people confidence, f'rinstance, against an epidemic." To further objections he replies; "There's Faith. You put Faith in 'em. . . . I grant our labels are a bit emphatic. Christian Science really. No good setting people against the medicine. . . . the world lives on trade." On the nephew protesting that some businesses are straight and quiet, and urging that one should supply a sound article that is really needed and not shout advertisements, he is told that he is behind the times. Scientific research is pleaded, and at once the answer is that it is the enterprising business men who pay for that. "They fancy they'll have a bit of science going on, they want a handy expert ever and again, and there you are! And what do you get for research when you have done it? Just a bare living and no outlook. They just keep you to make discoveries, and if they fancy they'll use 'em they do."

The hero is left to think out the proposal, and one can follow his mental and moral struggles. From first to last he saw the business with his eyes open as a thoroughly dishonest proceeding. The stuff was, he perceived, a mischievous trash, slightly stimulating, aromatic, and attractive, likely to become a bad habit and train people in the habitual use of stronger tonics, and insidiously dangerous to people with defective kidneys. It would cost about sevenpence the large bottle to make, including bottling, and the vendors were to sell it at half a crown, *plus* the cost of the patent medicine stamp. However, his eye catching advertisements of "Sorber's Food" and "Cracknell's Ferric Wine," and the reflection coming to him that Cracknell himself sat in the House, he began to hesitate. Tono-Bungay itself shouted at him from many hoardings, till it began to have the air of being something more than a dream. He thought that after all trade rules the world, and that his uncle's proposition that the quickest way to get wealth is to sell the cheapest thing possible in the dearest bottle, was true. The end naturally was that he threw himself into the business and helped to make Tono-Bungay "hum." It brought them wealth, influence, respect, the confidence of endless people. The uncle was a genius in the concoction of advertisements. "Many people who are MODERATELY well, think they are QUITE well," was one of his early efforts. Then: "Do not need drugs or medicine," and "Simply a proper regimen to get you in tone." People were warned against the chemist or druggist who pushed much advertised nostrums on their attention. That trash, it was said, did more harm than good. The thing needed was regimen, and "Tono-Bungay."

"Regimen" is to the millions—mostly fools—who read the advertisements in the papers like that "blessed word Mesopotamia" in the sermon which brought such comfort to the old lady.

[2] *Problems of To-day from the Point of View of a Psychologist*. By Hugo Munsterberg. London: T. Fisher Unwin, Adelphi Terrace. Leipzig: Inselstrasse 20. MCMX.
[3] Macmillan and Co., Limited, London, 1909.

Various other specimens of advertisements are given. They were cleverly adapted to catch different classes and to make special appeal to the population of different places. The health-giving properties of "Tono-Bungay" were gradually announced in the middle-class London suburbs, then in the outer suburbs of London, then in the home counties, "then going (with new bills and a more pious style of ad.) into Wales, a great field always for a new patent medicine, and then into Lancashire." It is a fact that quack medicines have more vogue among Nonconformists than among sects of a different theological shade. This is reflected in the religious newspapers. The Free Churchman likes to show his independence of authority and discipline by flouting the medical profession. In due course the thing was changed into a company. The inventor of Tono-Bungay asked for £150,000, and among the partners were the drug wholesalers, the printing people, and the owner of a group of magazines and newspapers. "£150,000, think of it! For the goodwill in a string of lies and a trade in bottles of mitigated water. Do you realize the madness of the world that sanctions such a thing? Perhaps you don't. At times use and wont certainly blinded me."

A character in the book makes the following pregnant remark: "Think of the people to whom your bottles of footle go. Think of the little clerks, and jaded women, and overworked people. People overstrained with wanting to do. People overstrained with wanting to be. . . . People, in fact, overstrained. . . . The real trouble of life isn't that we exist. That's a vulgar error. The real trouble is that we don't really exist, and we want to. That's what this—in the highest sense—muck stands for. The hunger to be, for once, really alive to the fingertips." This explains the readiness of these poor people to catch at anything that promises to give them what they want. The same philosopher says, "Advertisement has revolutionized trade and industry. It is going to revolutionize the world. The old merchant used to tote about commodities. The new one creates values. Doesn't need to tote. He takes something that isn't worth anything, or something that isn't particularly worth anything, and he makes it worth something. He takes mustard that is just like anybody else's mustard, and he goes about saying, shouting, singing, chalking on walls, writing inside people's books, putting it everywhere, 'Smith's mustard is the best,' and behold it *is* the best." We need not follow the development of the business and the expansion of Ponderevo into a financier of the largest and wildest schemes and his final collapse. But his "Tono-Bungay" remained after the crash—a sad testimony to the imbecility of mankind.

We commend Mr. Wells's book to those of our readers who may not yet have perused it as the clearest exposition of the mechanism of the quack medicine business and of the advertising that supplies the motor power with which we are acquainted. It is a compendium of the philosophy of quackery.

THE SUPPLEMENTARY PLEDGE.

A MEETING of the joint committee of the licensing corporations and universities in England, appointed to watch the interests of the medical profession in regard to the Insurance Act, was held last week, at which the position of the profession in relation to the insurance scheme was discussed. The question of the supplementary pledge issued by the British Medical Association was raised, and it was resolved to call a meeting of the medical staffs of all the London hospitals at an early date. The meeting will be held at the new house of the Royal Society of Medicine, 1, Wimpole Street, on Friday, June 14th. The Marylebone Provisional Medical Committee will shortly send out to all the medical practitioners resident in Marylebone, over a thousand in number, the supplementary pledge issued by the British Medical Association, with a covering letter commending it to them and urging the claims of the Guarantee Fund. The hesitation of the members of the medical and surgical staffs of some hospitals to sign the supplementary pledge without giving the matter very full consideration and weighing the effect of signing on their relations with the governing bodies of the hospitals is no doubt comprehensible, and some individual members have, we believe, thought that they were under a certain obligation to consult the Royal Colleges before doing so, believing that by this course unanimous action would be better assured. The medical and surgical staffs of some of the largest hospitals in provincial centres have seen their way at once to sign the pledge, and are, we understand, confident that their influence with the public and with the governing bodies of their hospitals is sufficiently strong to ensure their action being upheld. As there seems to have been some misapprehension on the point, it may be pointed out that the supplementary pledge was drawn so as to embrace general practitioners, whether engaged in contract practice or not, as well as members of hospital staffs, but that it is practically only the third paragraph which applies to the latter. As is specifically stated, the first paragraph deals wholly with contract practice, and the resignation to be placed in the hands of the secretary of the Provisional Medical Committee of the area in which the signatory practises is the resignation of club, friendly society, dispensary, and other forms of contributory contract practice. The second paragraph contains an undertaking not to accept any such appointment so resigned. The pledge contains no undertaking to resign a hospital appointment, but it is clear that the whole object of the pledge to resign contract appointments would be frustrated if the Insurance authorities were in a position to exploit out-patient departments of hospitals for the purpose of bringing medical benefit into force, to the detriment of general practitioners who had resigned their contract appointments. The view which the State Sickness Insurance Committee has taken is shown in the letter sent to the Chairman of the Marylebone Division, as reproduced in the report of the eleventh meeting of the Committee, published at p. 1329. It should be noted that the pledge as to voluntary medical charities applies to medical benefit which cannot come into operation before January, 1913, and that if it should then be necessary to put the pledge into action, it would not operate to prevent co-operation with any member of the profession in any case in which the well-being of the patient might be seriously endangered; the interpretation of "urgent necessity" is a matter for the discretion of the individual practitioner. It would appear to be necessary to insist a little on the date, as there seems to be some misapprehension with regard to it. No pledge will come into operation until medical benefit comes into operation, and that will not be for another seven months. Much water will have flowed under Westminster Bridge in that time. The whole object of the pledge is to make plain the solidarity which really exists within the profession in its resistance to the imposition of conditions which will prevent it from efficiently discharging the duty it owes to the nation. It is a question for every man to decide for himself, but if disposed to place first an official obligation to the governing body of a hospital, he may well be asked carefully to consider whether through the bias of custom and habit he is not putting the lesser above the greater and more sacred obligation. A member of the staff of one of the large teaching hospitals in London has written to us to suggest that the business of

the meeting on June 14th would be facilitated if an endeavour were made beforehand at each hospital to obtain the signature of every member of the medical and surgical staff to one of two declarations—either that every member of the medical and surgical staff is prepared to sign the pledge; or, that if the majority of his colleagues are willing to sign, each member of the medical and surgical staff is prepared to sign it. Our correspondent suggests that the result should be placed in the hands of a member of the staff of each hospital who will undertake to attend the meeting, and should be sent also to the chairman of the meeting. He goes on to say that at this crisis unity is strength, and that if one of these declarations be signed by all the hospital doctors, "a great blow will be struck for the liberty of the profession and the welfare of humanity, both gravely threatened by the present Insurance Act." A correspondent who resides in a country town asks us to point out to members of Provisional Medical Committees the importance of seeing personally all medical men who have not yet signed the pledge. He tells us that one day last week he called upon three medical men, and found that in each case the pledge paper had gone unsigned into the waste paper basket, because each thought that as he held no club appointments there was no need for him to sign it. When the matter was explained to them they all readily signed.

THE ATTITUDE OF FRIENDLY SOCIETIES.

AT a Whitsuntide conference of the Manchester Unity of Oddfellows—probably the most powerful of the friendly societies—the Grand Master made use of the following words, reproduced textually in the SUPPLEMENT last week, with regard to the medical profession: "They should consider that they are a protected class—protected by charter confirmed by Parliament—but that which Parliament gives Parliament can take away, and the friendly societies and all other working-class organizations should stand shoulder to shoulder and demand the abolition of the privilege possessed by the doctors, if the doctors are determined to abuse that privilege." To the threat conveyed no great importance need be attached, nor need we comment upon the inaccuracy of the statement about the legal status of the profession. But what seems of more serious significance is the attitude of mind disclosed towards the question of due qualification. It is difficult to place any other interpretation upon the words reported than that the speaker did not attach a very high value to qualification, and that, under certain circumstances, he would be prepared, on behalf of the friendly societies, to accept unqualified medical service. For in no other way could the removal of the "protection" accorded to the profession affect the question, albeit that the preamble of the Medical Act sets forth very plainly that its object is to protect the public so "that persons requiring medical aid should be enabled to distinguish qualified from unqualified practitioners" and not to protect the profession. It is just this want of appreciation of the services which the highly-educated medical man is able to give to his patient, and which no one less well equipped can give, which renders satisfactory arrangements with the friendly societies difficult.

THE TRANSFERABLE VOTE AND THE ELECTION TO THE CENTRAL COUNCIL.

THE Annual Representative Meeting at Birmingham last year decided that the transferable vote system should be used in the election of certain officers and representatives and the method will be used in the election of members of the Central Council by the Branches which takes place next week. The voting papers will be sent out on Saturday, June 8th, to members of all Branches in which the election to the Central Council is contested, and ought, therefore, to be received soon after this copy of the JOURNAL. The voter should number the names of the candidates in the order he prefers, putting 1 to his first choice, 2 to his second choice, 3 to his third, and so on. The voting paper should then be signed and returned to the Financial Secretary, British Medical Association, 429, Strand, London, W.C., not later than June 15th. The system of the transferable vote is a form of proportional representation designed to safeguard the interests of minorities, to ensure that the opinions of the electorate shall be reflected in due proportion in the opinions of the members elected, and to prevent "plumping" from vitiating the results. It is sometimes supposed that the method is highly complicated, but in reality this is not so; the only additional labour involved is the distribution of what are called "surplus" votes, according to the desires of the voters. Let it be assumed for purposes of illustration that five seats have to be filled. Each voter indicates on the paper the member he wishes to be returned first by marking the figure 1 against that name; it is found that more votes than are necessary to secure a seat have been received by one or more candidates. In the example any candidate who has obtained one-sixth of the total number of votes and one additional vote is elected, since the remaining number of votes after five candidates have secured $\frac{1}{6} + 1$ apiece is $\frac{1}{6} - 5$. The right of the voter to record the name of the candidate to whom he would give his vote if his first choice has more votes than are required to elect him now comes into play. He can signify his second, third, fourth, fifth, and subsequent choices by placing the numbers against the names on the paper. But he need not do so. Let us assume in the case supposed that A. has secured 2,501 first choice votes out of a total of 6,000 votes. As 1,001 votes would elect him he has 1,500 surplus votes. These surplus votes will be distributed or "transferred." Let it further be assumed that B. has 1,300 votes, which will allow of his election and 299 votes to be transferred. It must now be determined which of A.'s total number of votes would go to C., D., E., etc., and in this proportion, the 1,500 surplus votes are distributed to the various candidates. Votes are not transferred to a candidate already elected, and in the case of a second choice being already elected the third or subsequent choices are taken instead. The same is done with B.'s surplus votes. In the case of those voting papers on which no second choice is recorded the vote is regarded as a non-transferred vote. If a large proportion of the votes are given without a second choice it might be necessary to waste some votes—that is, not to transfer all the surplus votes to second or subsequent choices—but this has not been found to occur in practice. The majority of voters make a second and third selection. The effect of voting for A. only would not be to give A. any further advantage over the other candidates. It would merely enable the other candidates to secure a seat with a smaller number of votes. After A.'s and B.'s surplus votes have been distributed, the surplus votes of any candidate, who in consequence of the transference of A.'s and B.'s surplus votes has received over 1,001 votes, are distributed in the same way. When all this has been done, the votes of the candidates at the lower end of the poll are distributed, for at this stage no amount of transferring can bring these candidates into the position of being returned. The method has been used with satisfactory results in the past by the Metropolitan Counties Branch.

RICHELIEU FROM A MEDICAL POINT OF VIEW.

THERE can be no doubt that the great historical novelists have much to answer for. Mankind, as a rule, prefers to learn its history from novels, as Marlborough learnt his from Shakespeare, and most people are content to accept

without comment whatever is offered them in so easy and pleasant a form. Few of Thackeray's admirers, for example, either know or care that the James Stuart who figures in *Esmond* is ludicrously unlike the grave and pious husband of Clementina Sobieski: and just as Scott's marvellous portrait of Louis XI will live for ever, despite the attempts of modern historians to whitewash that monarch, so Dumas's conception of the mind and character of Richelieu will probably go down to posterity as a lifelike study of a wonderfully complex nature. Certainly no reader of *The Three Musketeers* is ever likely to forget the terrible picture of the great churchman who for a few years held France in the hollow of his hand; and yet the real man was a vastly different being from the implacable enemy of the gallant d'Artagnan and his companions. Dr. Cabanès, who has contributed an interesting article on the private life of the Cardinal to the May number of *L'Hygiène*, shows that this man, before whom even his own sovereign trembled, was little better than a chronic invalid, worn out with constant pain, and so racked by suffering that he was obliged to transform his medical attendants into secretaries in order that even whilst transacting affairs of State he might have the means of relief close at hand. No man, it has been cynically said, is a hero to his valet; that, as Carlyle pointed out, is the fault of the valet rather than of the hero. But it is hard, indeed, for a man to be a hero to his doctors, and it is a striking testimony to the greatness of Richelieu that it is enhanced by the evidence of his medical attendants. His infirmities were so carefully concealed from the outside world that few beyond those immediately about his person guessed the reason of his fits of melancholy, his nightmares and insomnia, and the gloomy preoccupation which set him so completely apart from the rest of his contemporaries. What was put down by his enemies to the gnawings of a guilty conscience was in reality the effect of a deep-seated disease, and it was only an iron will and extraordinary powers of self-control that enabled Richelieu to rise superior to the weakness of the flesh and retain his place at the head of the State. According to Dr. Cabanès, his symptoms prove him to have been suffering from tuberculosis, the condition being aggravated by his natural tendency to gout. His ill health seems to have began in early youth, and his life was literally made a burden to him by constant violent headaches and attacks of fever, and the existence of haemorrhoids and abscesses which in later life made either walking or driving a veritable torture. The fever and headaches were almost continual, one returning as regularly as the other left him. The beginning of the end was ushered in by an outbreak of abscesses on the right arm, which occurred in 1642, and from the effects of which he never fully recovered. But pain and weakness had no power to damp his energy or courage; and his appetite for work remained so invincible that he read or dictated letters even whilst his wounds were being dressed by his medical attendants. He died at the age of 57, having suffered many things from many physicians. The *post-mortem* examination revealed a purulent effusion in the lower part of the thoracic cavity, on the surface of the diaphragm. Richelieu is a striking example of the part played by invalids in the making of history. His manifold infirmities would have made most men give up all attempt at work, and spend their lives in attention to their diseases. Richelieu struggled on to the end, ever busy with problems of State.

NEO-SALVARSAN.

SOME two years have passed since the first report on salvarsan was published by Alt, and since that time Ehrlich has been experimenting continuously to find an improved form of this medicament. E. Schreiber[1] now reports on a substitution product of salvarsan which bears the number of 914 in Ehrlich's laboratories. This is *neo-salvarsan*. It is a condensation product of formaldehyde sulphoxylate of sodium and salvarsan. The former is anchored to one of the two amido groups of the arsenobenzol. The compound is a yellowish powder freely soluble in water, yielding a neutral solution, which is easily made: sterilized distilled water at about 20° C. is added to the powder, and the vessel containing it is then gently swayed once or twice; violent shaking must be avoided, as this oxydises the drug. If saline solution is used this must not be stronger than 0.4 per cent., since a turbidity is formed with stronger solutions. An isotonic solution can be prepared by dissolving 0.8 gram in 22 c.cm. of water, but Schreiber prefers from 0.6 to 1.5 grams dissolved in from 200 to 250 c.cm. of water. Since the formaldehyde sulphoxylate is approximately one-third of the compound, the dose of neo-salvarsan must be 1.5 grams, to correspond to 1 gram of salvarsan. On the other hand, it has been found that rabbits tolerate nearly three times the dose of neo-salvarsan, and it is also less toxic for mice. Mice infected with the spirilla of relapsing fever and the spirochaetes of *nagana* were treated with neo-salvarsan, and it was found that the new preparation was more active toward these organisms than salvarsan. Schreiber has tried the compound on 230 patients, and has given some 1,200 injections, some intravenously and some intramuscularly. He gives doses of 1.5 grams to men and 1.2 grams to women, but usually begins with a smaller dose and increases it at each injection. The dose, however, must be varied with the constitution of the patient. The therapeutic effects appear to be the same as those of salvarsan, but he is under the impression that the new compound is more active, and that undesirable effects occur less frequently than with salvarsan. While the latter frequently causes gastric disturbances (vomiting, etc.), these symptoms were scarcely ever seen after the use of neo-salvarsan. The fact that the solution has a neutral reaction is a great advantage, inasmuch as no troublesome local infiltration occurs after injection. Albuminuria was not met with, although at times urobilin was found in the urine. A moderate leucocytosis occurred in certain cases. Of 97 of the patients in whom Wassermann's reaction was controlled, 61 showed a negative test after the injection, and 36 a positive one. He adds that these cases included some early patients, in whom the doses were too small. Owing to the neutral reaction intramuscular injections may be given, provided the solution is really injected into the muscle. He prefers intravenous injections. In summing up the results of his experience of Ehrlich's latest remedy, he points out that it can be tolerated in larger doses than salvarsan, that it is at least as active an agent, and that it is better adapted to intramuscular injections than salvarsan.

[1] *Muench. med. Wsch.*, April 23rd, 1912.

MEDICAL INSPECTION OF SCHOOLS IN FRANCE.

THE first congress of French-speaking medical inspectors of schools will be held in Paris on June 20th and two following days. One of the communications to be made to the congress is a report by Drs. Doizy and Gourichon on the organization of medical school inspection in France. The *Semaine Médicale* has recently published a report presented by Dr. Doizy to the Chamber of Deputies on June 30th, 1911, on the same subject. In it the history of medical inspection at schools is reviewed. Dr. Doizy traces its beginning to the Revolution. On June 26th, 1795, Lakanal presented to the Convention, in the name of a committee specially appointed to that end, a scheme for the establishment of public instruction. In that scheme it was provided that an *officier de santé* of the district was to visit in the four seasons of the year all the national schools of the district to examine the children and lay down general and special rules for the maintenance of their health. Many similar projects were brought

forward during the same period, but we gather that in all of them the aim was physical culture with the object of producing useful citizens. One enthusiast said that "excepting persons whose organs had been disturbed by some accident, there was no individual of the human species of whom one could not make a man by going the right way about it." By this he meant physical education, good health being the basis of all the rest. Similar views were expressed by others, all laying stress on physical exercise and the careful regulation of sleep, meals, work, and recreation. The Convention had, however, other business in hand than the safeguarding of the health of children, and none of these proposals became law. With the creation of the university the doctor of the *lycée* came on the scene. In a thesis presented to the Paris Faculty in 1830 Bourjot set forth the services that could be rendered by a doctor in such institutions, and suggested that the family and personal history of each pupil and his state of health as ascertained by quarterly examination should be entered on a register. On April 16th, 1834, Orfila, Vice-President of the Central Committee of Primary Inspection in the City of Paris, sketched out the medical inspection of schools, attaching a doctor to each school for boys, and making it compulsory that he should pay two monthly visits. Two decrees of December 20th, 1842, and May 19th, 1843, established a medical supervision over all public and private primary schools of Paris, ordering a weekly visit, the individual examination of each new pupil on admission, his vaccination, and the elimination of all contagious cases. But no funds were voted: inspection was gratuitous and voluntary, and was not carried out. In 1864 Duruy, Minister of Public Instruction, established a central commission, whose duty it was to advise on all questions of feeding, dress, hygiene, and gymnastics in regard to *lycées*. On June 13th, 1879, the Municipal Council of Paris organized medical inspection, and a few months later Jules Ferry, then Minister of Public Instruction, addressed a circular to all prefects inviting them to create a service of medical inspection throughout the whole of France. This circular contains the germ of the system of medical inspection to which the law of October 30th, 1886, gave legal sanction. In 1893 various decrees were passed and circulars were issued pointing out the measures to be taken in case of epidemic, the duration of exclusion as regards contagious diseases, and insisting on certain hygienic measures. From all this it might be thought that there was no need for further legislation, but all these enactments remained a dead letter. The pay was miserable, and these appointments were left to political wire-pullers. In 1904, 1905, 1907, and 1908, M. Vaillant strove hard to get the law enforced; at last, after a long period of ministerial shuffling and evasion, the Government, on March 23rd, 1910, introduced a bill into the Chamber of Deputies. Again, the game of battledore and shuttlecock was played between Ministers and Commissions, but finally definite recommendations were made, and now the city of Paris has a well-equipped modern service. Other cities have led the way in the matter. Algiers was the first place under the French Government to organize the medical inspection of schools. A system was established in 1871; since then the service has been greatly improved, and now 15,000 children are inspected annually. The town is divided into sections, to each of which there is appointed a doctor, who pays a monthly visit, and in addition examines twice a week pupils found suspect by the master when examined for cleanliness. A form is then given to the child indicating whether he is ill or not. In the former case the child is either looked after by the family doctor, who countersigns the form and states that the child is receiving regular attention, or, if indigent, he is looked after by the medical inspector and the dressings made by an infirmarian specially attached to the service. There is a laboratory for microscopic examination, and cases of parasitic disease are forthwith excluded. Since 1892 revaccinations are carried out. Every month a list of the pupils suffering from contagious diseases is sent to all the schools to ensure that a child may not, by changing its school, disseminate the contagion. Eye diseases are particularly looked after. Lastly, the medical inspectors control the hygiene of the buildings, make a special report on all urgent cases, set down detailed observations in the visit book special to each school, and present a final report at the end of the year. At Havre medical inspection has existed for thirty years. One of the municipal regulations is that the doctors appointed shall visit the schools and communal refuges at least once a month, and oftener, when cases of contagion are reported to them. They must satisfy themselves that all the children are vaccinated, watch cases of contagious diseases of the skin, the scalp, and the eyes, order the exclusion of pupils who might infect the school, and make a monthly report to the mayor embodying their observations and proposals. At Lyons inspection has existed since 1880. In the Gironde there is a service which works very well. The schools of Bordeaux are visited monthly. In other towns (Tourcoing, Nantes, etc.) there are inspection services which Dr. Doizy considers satisfactory.

SIR CHARLES BELL AND WATERLOO.

SIR CHARLES BELL, as is recorded in his *Letters*, seized the opportunity of studying gunshot wounds after the battle of Waterloo. For three days he operated on the French soldiers in their hospital, taking the knife in his hand at six o'clock in the morning and continuing at work till seven in the evening. He says: "All the decencies of performing surgical operations were soon neglected. While I amputated one man's thigh there lay at one time thirteen all beseeching to be taken next, one full of entreaty, one calling upon me to remember my promise to take him, another execrating. It was a strange thing to feel my clothes stiff with blood, and my arms powerless with the exertion of using the knife! and more extraordinary still, to find my mind calm amidst such variety of suffering; but to give one of these objects access to your feelings was to allow yourself to be unmanned for the performance of a duty. It was less painful to look upon the whole than to contemplate one object." Bell made sketches of the wounded of wonderful power and effect, afterwards reproduced in water-colours. Many of these sketches, together with some in oil, were placed in the Museum of the Royal College of Surgeons of Edinburgh, and Lady Bell presented seventeen others, together with her husband's notebook, to the Royal Hospital, Netley, in 1857. Bell visited the field of battle, and his record of what he saw is cited by Dr. W. H. Fitchett in an article entitled "One of the Puzzles of Waterloo," which is published in the current number of the *Cornhill Magazine*. The "puzzle" is as to a scaffolding used by Napoleon, which is represented in a rough painting, but of which Dr. Fitchett has been unable to find mention elsewhere. He therefore dismissed the evidence of this picture as unhistorical till he was confronted with Bell's statement that he had actually climbed some way up to the first platform. He says: "The view was magnificent. I was only one-third up the machine, yet it was a giddy height. Here Buonaparte stood surveying the field." The machine had been placed on the side of the road, but Napoleon ordered it to be shifted, an example, says Bell, of "the power of confidence and resolution of the man." Bell, although he hated the tyrant, was filled with admiration of "a man of his habit of body, who could stand perched on a height of 65 ft. above everything, and contemplate, see, and manage such a scene." Dr. Fitchett wonders whether he did climb it, or whether it was used as the perch of an outlook. He is also puzzled as to where it came from, and how it has dropped so completely out of history. We are inclined to share his doubt whether

Napoleon did climb the scaffolding; at Waterloo the bodily energy he had displayed in so many previous battles was to a large extent lost. Many witnesses describe him as sitting for hours in front of a table, sometimes with his head fallen forward, fast asleep. But clearly there was a scaffolding which Bell believed Napoleon had climbed. Dr. Fitchett is anxious to have the mystery cleared up. Can any reader help him?

DISCUSSIONS AT THE ROYAL SOCIETY OF MEDICINE.

On Monday next, at 4 p.m., a discussion on syphilis will be opened by Dr. Norman Moore, Dr. F. W. Mott, F.R.S., and Mr. D'Arcy Power. The subject will be dealt with under the following heads: (*a*) Its prevalence and intensity in the past and at the present day; (*b*) its relation to public health, including congenital syphilis; (*c*) its treatment. The discussion will be continued on Monday, June 17th, and Monday, June 24th, at 5 p.m. on each day. Among those who intend to take part in the discussion are Mr. Ernest Lane, Mr. Jonathan Hutchinson, Mr. J. E. R. McDonagh, Mr. Macleod Yearsley, Dr. G. Pernet, Mr. H. W. Bayly, Major H. C. French, R.A.M.C., Mr. C. F. Marshall, Sir George Savage, Mr. Campbell Williams, Dr. Douglas White, Dr. F. E. Fremantle, and Dr. H. R. Dean. The debate will be wound up by the President, Sir Henry Morris, Bart. These meetings will be held in the society's new house, 1, Wimpole Street, W. We are also asked to remind fellows and members of the society that the summer meeting of the Otological Section takes place in Manchester this day, Saturday, June 8th, under the presidency of Dr. William Milligan.

We regret to announce the death of Sir Thornley Stoker of Dublin on June 1st, and hope to publish an obituary notice in a subsequent issue.

General Medical Council.

NOTES.

So far as can be judged from the programme of business the session of the Council which commenced on Tuesday does not appear likely to be lengthy.

New Members.—There has been a considerable infusion of new blood. Dr. Lorrain Smith replaces the late Dr. Dixon Mann as representative of the University of Manchester; Dr. Gibson Sir John Batty Tuke as representative of the Royal College of Physicians of Edinburgh, and Dr. Cash Dr. Finlay as representative of the University of Aberdeen; the University of Wales is represented (for the first time) in the person of Dr. Hepburn; and Mr. Verrall, well known in the counsels of the Association, takes his seat as an additional direct representative.

President's Address.—The President, in his introductory address, which is published in full in the SUPPLEMENT, touched upon some points which will not come before the Council in the course of its business. Amongst them was an explanation of the reasons why the invitation of the Insurance Commissioners to the Council to meet them at a conference had not been acceded to. He stated that some of the points raised by the Council's Insurance Bill Committee had been met by the Government, and in the intervals between the sessions no one could be deputed to speak in the name of the Council, if indeed any one could be so deputed at any time. He mentioned also that the unification of the Canadian provinces in respect to medical registration, a reform for which Dr. Roddick has long been working, was now all but accomplished, and that it would soon be possible for the Council to deal with Canada as a whole in the matter of reciprocal recognition of medical qualifications instead of, as heretofore, with individual provinces. The solicitor to the Council, Mr. Harper, has completed a full abstract of the cases which have come before the courts. This volume, which it is intended shortly to issue, will be of the greatest value not only to the members of the Council, but to the whole profession, as well as to all those in any way concerned with the conduct of disciplinary cases.

The Insurance Act.—The reference to the Insurance Bill Committee having been brought to an end by the passage of the Act, a new Committee was appointed to watch the effects of the Act and the administrative regulations to be framed by the Insurance Commissioners. It was pointed out that the operation of the Act would probably have an influence upon medical education. The number of clinical cases might perhaps be diminished, and lying-in hospitals, such as the Rotunda in Dublin, might be starved of patients by a sort of premium being offered to those women who did not enter them. The new Committee consists of many of the old committee, with a few additions, making in all fourteen—perhaps rather too large a number for convenience. It was instructed to report to the Council, but was empowered also to make representations to the authorities. The members are: The President (Chairman), Dr. Norman Moore, Dr. Saundby, Sir Francis Champneys, Dr. Langley Browne, Dr. Latimer, Mr. Hodsdon, Dr. Mackay, Sir David McVail, Dr. Norman Walker, Sir Arthur Chance, Sir Charles Ball, and Dr. Kidd.

The Home Rule Bill.—A motion was proposed by Sir Charles Ball, and adopted *nemine contradicente*, which had for its object the insertion into the Home Rule Bill of provisions laying down that legislation relating to the Medical Acts and the Dentists' Act should be reserved to the Imperial Parliament and should be withdrawn from the purview of the Irish Parliament, a course already adopted with sundry other legislative matters. The President was requested to communicate the resolution to the Privy Council. Many inconveniences, not the least of which would fall upon Ireland itself, would follow were there any distinctions made between the conditions obtaining in Great Britain and in Ireland.

The Sandow Institute.—The case of Mr. J. Robertson Wallace, M.B., M.S., was again considered by the Council and finally decided. In this case the complainant was the British Medical Association, and the charge was that Mr. Wallace has associated himself in his professional capacity with the Sandow Curative Institute, which systematically advertised for the purpose of procuring patients to receive treatment for disease under the personal direction of Eugen Sandow, who is not a registered medical practitioner, and that Mr. Wallace had approved and acquiesced in such advertising. The case was first considered by the Council a year ago, when it found that the facts alleged had been proved, but postponed judgement in order to give Mr. Wallace an opportunity of reconsidering his position. The case next came before the Council in November, 1911, when it was stated on respondent's behalf that advertising had completely ceased. The Council, however, was not satisfied, but again postponed judgment in order to afford Mr. Wallace a further opportunity of producing satisfactory evidence regarding his professional conduct; thereafter advertisements were resumed. On this occasion the respondent adduced no further evidence, and the Council directed that his name should be erased from the *Medical Register*.

Election of Committees.—The business ready for disposal having been got through earlier than usual, several of the committees were elected on the first day of the session. Little change was made in the membership of any of them, except when an actual vacancy had occurred. The election to the Education, Examination, and Public Health Committees is by nomination by the English, Scottish, and Irish Branches, which had not then met.

Dinner to the President.—The members of the Council entertained their President at a complimentary dinner at the Trocadero Restaurant on Tuesday evening in recognition of his able conduct of its affairs.

THE INSURANCE SCHEME.

STATE SICKNESS INSURANCE COMMITTEE.

Eleventh Meeting.

THE eleventh meeting of the State Sickness Insurance Committee was held on May 30th.

Mr. T. JENNER VERRALL was in the chair, and the members present were: *England and Wales:* Dr. R. M. Beaton (London), Dr. John Brown (Bacup), Dr. T. M. Carter (Westbury-on-Trym), Dr. S. Hodgson (Salford), Miss Frances Ivens, M.S. (Liverpool), Dr. R. A. Lyster (Winchester), Mr. James Neal (Birmingham), Dr. James Pearse (Trowbridge), Dr. E. O. Price (Bangor), Dr. Lauriston E. Shaw (London), Dr. Johnson Smyth (Bournemouth), Dr. D. F. Todd (Sunderland), Mr. E. B. Turner (London), Dr. A. H. Williams (Harrow on the Hill), Mr. D. J. Williams, F.R.C.S. (Llanelly), Mr. E. H. Willock (Croydon). *Scotland:* Dr. J. Adams (Glasgow), Dr. Bruce Goff (Bothwell), Dr. R. McKenzie Johnston (Edinburgh), Dr. J. Munro Moir (Inverness). *Ireland:* Dr. Mark F. Cahill (Belfast), Dr. J. S. Darling (Lurgan). *Ex Officio:* Dr. J. A. Macdonald (Chairman of Council), Dr. E. Rayner (Treasurer).

Apologies for absence for unavoidable reasons were received from the President, Dr. E. J. Maclean (Chairman of Representative Meetings), Dr. Oldham (Morecambe), Dr. R. E. Howell (Middlesbrough), Dr. Constance Long (London).

We are enabled to publish the following account of the proceedings in anticipation of the confirmation of the minutes.

MINUTES.

The minutes of the last meeting of the Committee, held on May 23rd, were confirmed and signed by the Chairman as correct.

PUBLIC MEDICAL SERVICE.

The CHAIRMAN reported that the solicitor for the Association had desired to take counsel's opinion upon the two public medical service schemes before they were issued to the Association, that the necessary authority had been given, and that it was hoped that counsel's opinion would be received within a day or two. The one scheme, it will be remembered, is based upon a capitation system of payment, and the other on a system of payment per attendance. The Committee resolved that, subject to the legal advisers not suggesting any material alteration, the special subcommittee appointed on May 16th be authorized to finally settle and issue the schemes.

COMMUNICATIONS WITH INSURANCE COMMISSIONERS.

The letter from Sir Robert Morant, Chairman of the National Insurance Commission for England, published in the JOURNAL of last week, page 1260, inviting the Association to arrange for the nomination of medical men to serve upon the proposed Provisional Insurance Committees for counties and county boroughs was read. The Committee unanimously resolved to inform the Commissioners for England that, acting under resolutions of the Special Representative Meeting of February, 1912, it was impossible for the Committee to assist the Commissioners by obtaining from the various districts or Provisional Medical Committees of the Association, the names of representatives for the suggested Provisional Insurance Committees; and it was further resolved that a copy of the communication received from the Commissioners, together with a copy of their reply forwarded in accordance with the above resolution, should be sent to the honorary secretaries of Divisions and Provisional Medical Committees, asking them to bring the matter before an early meeting of the Division or Committee as the case might be.

The following letter received that morning from the National Health Insurance Commissioners for England concerning the proposed inquiry into the facts bearing on the question of medical remuneration under the Act was read:

National Health Insurance Joint Committee,
Buckingham Gate, London, S.W.,
May 30th, 1912.

Sir,

I am directed by the National Health Insurance Joint Committee to refer to the inquiry now being conducted by the Subcommittee of the Insurance Commissioners which has been appointed to investigate generally the facts bearing on the question of medical remuneration under the Act. It is the desire of the Government that the inquiry shall be conducted on such lines as shall command the confidence of all concerned, and I am to state that the Commissioners will be glad to consider any suggestions that the Association may desire to make as to the procedure which, in their judgement, will best elicit the facts.

In connexion with this Inquiry the Commissioners propose to obtain information of a kind which can only be given by practitioners engaged in private practice among those sections of the community from which the insured will chiefly be drawn.

It is clear from the correspondence in the medical journals and elsewhere on the question of the effect of the Act upon the incomes of such practitioners that much difficulty is experienced in estimating what relation the income of a practitioner receiving any given rate per head under the Insurance Act will bear to the portion of his present income which is derived from private practice among the classes in question.

It appears to the Subcommittee that this difficulty arises chiefly from the fact that in private practice the practitioner only knows the number of those who have actually come to him for treatment in a given period, and has no means of calculating the number of persons not treated by him in the same period, including both those who did not require any medical attendance, and those who, while needing it, could not afford to employ him. The most effective way of elucidating this matter would appear to be to obtain particulars of the total amount of medical attendance given by practitioners to, and medical income received by them from, a definite number of persons in a period of, say, two years. This information could be obtained if all the practitioners in, say, three or four towns would throw their books open for examination by experienced accountants appointed and paid by the Commissioners. It would, of course, be understood that the detailed results of such examination would be confidential. I am to inquire whether the British Medical Association concurs as to the desirability of such an inquiry being made, and if so whether the Commissioners may rely on receiving their co-operation in the matter.

A considerable amount of information has already been collected, and is being put in a convenient form. Copies of the documents will be forwarded for the information of the Association as soon as ready.

In the meantime the Subcommittee will be glad to receive from the Association at as early a date as practicable any evidence which the Association may desire to submit in documentary form. At the same time I am to add that if the Association were prepared to nominate any of their members to give oral evidence on the matter, the Subcommittee would be prepared to hear them on Thursday, the 6th proximo, or at such later date as may be arranged.

I am, Sir,
Your obedient servant,
(Signed) W. J. BRAITHWAITE.

The Medical Secretary,
British Medical Association,
429, Strand, W.C.

After discussion, the following resolution was carried unanimously:

That the State Sickness Insurance Committee has, after serious consideration, come to the conclusion that the time has now arrived when the Insurance Commissioners should be asked to state (i) whether they can or whether they cannot formulate regulations to satisfy the demands of the profession forwarded to them by this Committee on February 29th, 1912; (ii) whether, if they can, they are willing to formulate such regulations, or, if they cannot, what steps they propose to take in the matter.

It was further resolved that the covering letter forwarding the above decision to the Commissioners should state that if it would be of any assistance to the Commissioners in replying to have an immediate conference with the Committee, the Committee was quite prepared to place itself at the disposal of the Commissioners.

A notification was subsequently received from the Commissioners stating that they would be prepared to receive a deputation from the Committee on Friday, June 7th, and it was arranged that the whole of the members of the State Sickness Insurance Committee should form the deputation.

AREAS OF PROVISIONAL MEDICAL COMMITTEES.

A reference to the Committee by the Council instructing it to consider the advisability of at once forming a pro-

visional medical committee coincident with each insurance area was discussed. While it was recognized that certain advantages would attend such an arrangement, the Committee expressed the opinion that the present was not an opportune time for rearranging the areas of present provisional medical committees, but directed that a memorandum should be prepared showing the steps which it would be necessary to take in making such an arrangement when the time was ripe.

Medical Practitioners Called In upon the Advice of Midwives.

The minutes of the Special Representative Meeting of February, 1912, bearing on this matter, together with a schedule of scale of fees adopted by the Birmingham Central Division in 1905, and acted upon by the Birmingham Board of Guardians, were considered, along with the subsection of the Act, as follows:

Section 20. For the purpose of the administration of maternity benefit the Insurance Commissioners may, if they think fit, by special order provide for the reinsurance with them of the liabilities of all approved societies in respect of maternity benefit, and the order may provide for the method of calculating the premiums to be charged against the several societies in respect of such reinsurances, and may contain such other incidental, consequential, and supplemental provisions as may appear necessary for the purpose.

The Committee resolved that in order to provide that medical practitioners may be assured of adequate payment for attendance when called in on the advice of a midwife, the Insurance Commissioners be urged to provide by special order (as contemplated in the above Section) for the establishment of a maternity fund by the Commissioners for the reinsurance with them of the liabilities of all approved societies in respect of maternity benefit.

Supplementary Pledge and the Medical Staffs of Hospitals.

A deputation, consisting of Mr. Atwood Thorne, Chairman, and Dr. F. W. Goodbody, Honorary Secretary of the Marylebone Division, Dr. Roxburgh, Honorary Secretary of the Marylebone Provisional Medical Committee, and Mr. S. Maynard Smith, had an interview with the Committee. After the deputation had withdrawn, the Committee resolved to send a communication to the Chairman of the Marylebone Division in the following terms:

May 30th, 1912.

Sir,

Supplementary Pledge and Holders of Hospital Appointments.

The State Sickness Insurance Committee of the Association having had brought to its notice by you certain misapprehensions on the part of members of Hospital Staffs, which it is very important should be cleared up without delay, has instructed me to write to you to the following effect.

The Committee is surprised to find that some members of the profession are evidently under the impression that holders of hospital appointments may be called upon in certain circumstances by the terms of the pledge issued by the Committee, to resign such appointments. This is not the case. The resignation of appointments referred to in the footnote of the pledge simply refers to the contributory contract practice appointments mentioned in the first and second paragraphs of the pledge.

I am instructed to point out that the main object of the pledge, so far as the holders of hospital appointments are concerned, is to prevent the exploitation of the out-patient department by the insurance authorities, thus undermining the opposition of the profession to arrangements which may be made by the Insurance Commissioners, and which are not in accordance with the policy of the Association.

As regards the in-patient department, the Committee believes that the difficulties of members of hospital staffs will be largely met by a judicious interpretation of the term "urgent necessity" which has designedly been left undefined.

I am,

Yours faithfully,

Alfred Cox,

Medical Secretary.

The Committee also resolved that a similar communication should be forwarded to the Scottish Medical Insurance Council.

Next Meeting.

The Committee, which sat from 10.30 a.m., with an interval for lunch, adjourned at 7 p.m., leaving the date of its next meeting to be settled by the Chairman in relation to the proposed interview with the Insurance Commissioners on June 7th.

Medical Notes in Parliament.

[From our Lobby Correspondent.]

After the Recess.—The House of Commons met again after the holidays on June 4th, thus starting work a week in advance of the Lords. There was not a large muster of members, but when the first division was taken, on a motion of Sir F. Banbury, no fewer than 167 members voted. The House went into Committee of Supply and discussed the vote for the Office of Works. Most of this week has been appointed for the work of Supply, as this work is in arrear, and the demands of the Committee stage of the Home Rule Bill and the Welsh Church Bill are sure to absorb most of the time up to August. The work of the session cannot be finished even then, and a prolonged session lasting to Christmas or even into next year is possible.

The Houses of Parliament require a large vote every year for repairs and improvements, and on Tuesday, when the vote for £50,800 came up, there was a lively criticism of the expenditure. A new larder was required some time back, and Mr. Norman Craig complained that it had been placed with one side next to the wall of the boiler-house, and that a hot water pipe was carried through the larders! The Government, of course, promised to see if anything could be done, and then a discussion arose as to the lighting of the chamber. Many members, it appeared, had complained that the light was insufficient, and that they could not read their notes. The substitution of electricity for gas would save £140 a year, Mr. Wedgwood Benn pointed out, and also improve the ventilation. One of the four bays of the ceiling was being lighted with electric light as an experiment, and Mr. Benn thought with success. Lord Balcarres regretted the proposal to use electric light. He strongly urged that the present lighting was less tiring for the eyes and generally better than electric lighting, and said that the present systems of lighting and ventilation of the House were greatly superior to that of any other place of assembly. Other members spoke, some in favour of the present system, and finally Mr. Benn, on behalf of the Office of Works, promised that no permanent change should be made until members had time to compare the two methods of lighting. As regards the ventilation, Mr. C. Bathurst complained that the front benches might be all right, but members who sat in other places were not satisfied. He himself had a chronic cold throughout the autumn session, due he believed to the draughts of cold air along the back benches. The matter then dropped, and the vote was agreed to.

Seizure of Diseased Animals.—In reply to Mr. Field, the President of the Local Government Board said that the powers conferred on medical officers of health and inspectors of nuisances, under Section 116 of the Public Health Act, to seize, if diseased or unsound, live animals exposed for sale for human food, had been exercised by the officers mentioned in the section, but difficulty often arose in negativing the contention that the animal was not intended for the food of man. In 1907 he had caused a circular to be issued to local authorities bringing the matter under their notice, in order that they might, as far as possible, exercise supervision over the cattle in their districts with a view to anticipating, and so averting, possible or intended infringement of the law. He had also suggested that suitable officers of the local authority should be instructed to watch closely the cattle markets, slaughterhouses, and knackers' yards in the district, with the view of satisfying themselves that no animal, the condition of which appeared to render it unfit for human consumption, was disposed of in such a manner that it was likely to be used for this purpose.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

Presentations to Dr. J. Walton Browne.

The visiting staff of the Royal Victoria Hospital, Belfast, have made a presentation to their senior colleague and chairman, Dr. Walton Browne, on his transference to the consulting staff owing to the age limit. Dr. Browne very kindly issued invitations to the whole staff to dinner on May 31st, which proved a reunion of old and young, all eager to bear testimony to the work of their colleague and their affection for his personality. The visiting staff gave him a large and beautiful solid silver rose bowl, on which were inscribed the names of the donors; the auxiliary staff presented him with a gold cigarette case, and the resident staff with a gold sovereign case. Sir William Whitla, the new chairman of the visiting staff, made the formal presentation in happy terms, enlarging upon Dr. Browne's long service to the hospital, his skill, his happy knack of teaching, his courteous and fair conduct in the chair, and the innumerable acts of kindnesses they had all received from him. Dr. Irwin presented the address from the auxiliary staff, and Dr. Millar that from the resident staff. Dr. Browne, in replying, said that his work at the hospital had been one of his chief pleasures in life, and this was greatly due to his colleagues and his resident staff; it would be one of his great pleasures in the future to think of the kindness of his friends, old and young, and to look upon these gifts. He gave some reminiscences, dating back sixty years, when as a little child he was accidentally admitted to the operating theatre in the old General Hospital while his father was amputating a thigh. He could not find words to express to them his feelings, both for their kindness now and also for their goodness in the past when he suffered a heavy bereavement. Professor Sinclair proposed the toast of "The Chairman, Honorary Secretary and Honorary Treasurer, and the Superintendent of the Hospital." He dwelt upon the cordial relations existing between the board of management and the medical staff. Those gentlemen replied. Dr. Browne then proposed the health of Dr. Henry O'Neill, his fellow consulting surgeon, who had forsaken the paths of surgery for public health. Dr. O'Neill, in returning thanks, expressed the hope that Dr. Browne would now enter the City Council: they might have a vacancy for a Lord Mayor soon, and he knew no one who would fill the office better than Dr. Browne. Sir John Byers said they could not separate before thanking Dr. Browne as a host and entertainer, and the toast was drunk with acclamation.

Honour to Sir Almroth E. Wright in Belfast.

On Thursday, May 30th, the City Council of Belfast formally presented the honorary freedom of the city to four newly elected burgesses. The roll of honour is still a short one of fourteen, but contains such distinguished names as the late Lord Dufferin, Lord Roberts, and Sir Robert Hart. The new freemen are the Hon. Whitelaw Reid, United States Ambassador: Sir Joseph Larmor, who was a distinguished, if not the most distinguished, student of the Royal Academical Institution, a leading school in the town, and of the old Queen's College and Queen's University of Ireland, and who is now Lucasian Professor of Mathematics in Cambridge, and Secretary of the Royal Society; Sir Almroth Wright, who lived for many years in Belfast and also received his early education in the Royal Academical Institution, but subsequently went to Trinity College, Dublin; and Sir James Henderson, M.A., who has been a member of the Belfast Corporation since 1887, Lord Mayor in 1898, and for many years the Chairman of the Library and Technical Instruction Committee. The certificate presented to Sir Almroth Wright stated that it was "in recognition of his distinguished services in the world, by which he has revolutionized the treatment of disease." The casket in which it was contained was oblong in shape and richly decorated with raised work. The panels on either side contain views of the City Hall and Netley Hospital, and on the obverse side views of the Academical Institution and of the Cavehill; it is enriched with emblems relating to science, industry, and learning.

The Lord Mayor (Councillor R. J. McMordie, M.A., M.P.), in making the presentation, dwelt upon the researches of Sir Almroth Wright and the recognition of his work, not only in the British Isles, but also in America, Germany, and Japan. Sir Almroth, in returning thanks, said that it was most gratifying, after living in Belfast so long and then in the larger England, to find himself deemed worthy of such recognition; success in science was obtained by the same means as success in shipbuilding or in linen manufacturing, and what was needed to carry these things to perfection was to think about these things and nothing else. They must not only think about them, but get other people to think about them. The success attained by the North of Ireland was due to the fact that its people had taken their work very seriously. That, together with a sound constitution, was the chief thing in attaining success. The study of microbial disease aroused less interest in people's minds than work in connexion with electricity or steamships. In life there were only two serious things—the evil their neighbours might do them by knocking them on the head or otherwise, and the evil which came from microbes. They all suffered from microbes, and the simplest and smallest microbial disease was worthy of attention. He rejoiced to know that the money collected for the King Edward VII Memorial in that city was to be devoted to an institution in connexion with the leading hospital, where that work would be pursued.

Ulster Medical Society Dinner.

On the same evening the Ulster Medical Society entertained Sir Almroth E. Wright to dinner in the Medical Institute. The President, Dr. McKisack, occupied the chair, and over seventy were present. After the usual loyal toasts the Chairman said that the Ulster Medical Society had elected the guest of the evening an Honorary Fellow of the society, which was one of the oldest in Ireland. Professor Symmers in a happy speech welcomed their youngest Fellow, and gave the toast of his health, which was received with enthusiasm. Sir Almroth, in his reply, dwelt on the necessity of concentration for success. He said the taste for many of the pleasures of life had become atrophied with him, and so there was little left for him but work, and to this he attributed what share of success had come his way. He thought much of medicine would have to be destroyed before a new superstructure of a scientific medicine on a broader base could be erected, and quoted instances to show that many of the generally accepted statements in medicine could not be scientifically proven. The toasts of "Our Guests" and of "The Chairman," proposed by Sir Almroth, and some songs brought the evening to a close.

Royal Medical Benevolent Fund Society of Ireland.

A meeting of the Central Committee was held at the Royal College of Surgeons last week. The resignation of Dr. Macnamara, Honorary Secretary and Treasurer for Clare Branch, was accepted with regret, and Dr. Randal Counihan (Ennis) was elected to fill the vacancy. Applications for grants at the forthcoming annual distribution were considered, and the Secretary was instructed to make the necessary arrangements for holding the annual general meeting on June 12th at 4.30 p.m.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

The Glasgow Royal Cancer Hospital.

The new buildings of this hospital were opened on May 30th by H.R.H. Princess Louise, who intimated that His Majesty the King had been graciously pleased to direct that the hospital, hitherto known as the Glasgow Cancer Hospital, should be hereafter designated the Glasgow Royal Cancer Hospital. The reconstruction and extension has been in progress for some years, as owing to the necessity of carrying on the treatment of the patients the work has been hampered and prolonged. The new buildings, which were opened free of debt, have with the furnishings cost £27,000. They have been designed by Messrs. J. M. Monro and Sons, under the supervision of Dr. D. J. Mackintosh, M.V.O., of the

Western Infirmary. The hospital is now an extensive three-story building in Hill Street. It provides accommodation for 40 patients, and is thoroughly equipped for carrying out the double purpose of providing medical and surgical treatment for patients suffering from cancer, whether in the early curable stages or in the later stages where the only hope is to mitigate suffering by skilful nursing and treatment. With this view the hospital is so designed that all necessary treatment can be carried out with the least inconvenience to the patients. On the ground and first floors are several large wards, a convalescent ward, and small single wards for patients requiring special quiet or isolation. On each floor a large douche room is provided so equipped that all dressings may be carried out in it. To facilitate this the beds are of the balcony type, so that the patient can be easily wheeled about. The lighting of the hospital is good, and this is especially the case in the research department, which is located on the top flat. Equipped as it is on the most modern and scientific lines both for treatment and research, the new hospital will rank as one of the best of its kind in the kingdom.

King Edward Memorial in Scotland.

At a meeting of representatives of burghs and county councils and other public bodies in Scotland, held in Glasgow in January, it was resolved that a fund should be raised to be applied to the erection and maintenance of a "King Edward Memorial Institute of Preventive Medicine," dedicated primarily to research and the dissemination of knowledge in relation to tuberculosis, available to the whole of Scotland. At a meeting held on May 31st in the Glasgow City Chambers, an appeal for £250,000 was issued. Mr. J. D. Borthwick, City Chamberlain, Glasgow, has been appointed treasurer of the fund, and Glasgow Corporation has headed the list with a contribution of £5,000. The appeal states that research work is being carried on in public health and pathological institutes or laboratories in Scotland at present, but these have generally a recognized sphere of work, and there remains a large and useful field of operations for an institute of preventive medicine devoted primarily to research in relation to the prevention and cure of tuberculosis, in respect to which there are still many important and far-reaching problems awaiting solution. The equipment will, however, be sufficient for the simultaneous investigation of a number of other diseases; and a special department, with a small farm as an adjunct, will be necessary for the production and supply of curative serums and vaccines, for which the country is at present largely dependent on foreign sources.

Dental Treatment of Necessitous Children in Glasgow.

The defective condition of the teeth of the poorer classes in Glasgow is notorious. The school board has been considering the question of providing for the treatment of the teeth of the younger children. It was estimated that between the ages of 6 and 8, allowing for dormant cases in older children, in the ensuing year some 6,000 cases would require treatment. The share which Glasgow obtains of the Scottish grant for the medical treatment of necessitous children is estimated to be about £850. If this sum were utilized for dental treatment of necessitous children it would be possible to undertake the work. The board considered two schemes, one employing part-time and the other whole-time dentists, but did not come to any definite decision.

The Extension of Glasgow's Boundary.

The decision of the Select Committee of the House of Commons on the Glasgow Boundaries Bill at present before Parliament gives to Glasgow nearly all it asked for. The districts omitted are the burgh of Rutherglen and the adjoining part of Lanarkshire and one or two smaller areas at present in Renfrewshire. The population of Glasgow within the new contemplated boundary will be approximately 1,029,000, although the area will be only 27,000 acres roughly. The full bill would have given the city 33,000 acres. The new town council will consist of 113 members. The House of Lords has still to give its decision before the bill can become law, although it is hoped that ere the bill comes before the Committee of the Upper House much of the present opposition may be withdrawn. Conferences are being held with this aim in view.

New Child Welfare Organization in Glasgow.

A Council for Child Welfare such as has been already formed in Edinburgh and other centres has now been formed in Glasgow. It consists of twenty-one members representative of existing agencies, and includes the city sanitary and health departments, the parish council, and the School Board. Its aim is to co-ordinate and strengthen co-operation between existing organizations interested in the problems of child life and health. A small committee from the representative bodies is at present organizing the council.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

MANCHESTER AND DISTRICT.

The Government Inquiry about Tuberculosis.

It is quite evident that the inquiry about tuberculosis which the Local Government Board has requested medical officers of health to make will have to be carried out in a very different manner from that which the Sanitary Committee of Manchester has attempted if anything like satisfactory information is to be obtained. Medical practitioners in Manchester have received from Dr. Niven, the medical officer of health, acting on behalf of the Manchester Sanitary Committee, the following letter, dated May 21st:

> A circular letter has been received from the Local Government Board requesting that the medical officer of health should be instructed to prepare a statement on the needs of the district in respect of the treatment of tuberculosis, and it is desired that the information shall be supplied by June 8th next. The Sanitary Committee of this city would therefore be greatly obliged if you would inform them what are the average number of persons belonging to the City of Manchester treated by you and not attending any institution, and also the numbers under treatment by you at the present time. Will you kindly classify the cases in the following manner:
>
> 1. Pulmonary tuberculosis, with or without other tuberculous affections.
> 2. Medical forms of tuberculosis other than pulmonary.
> 3. Surgical tuberculosis, including cases of tuberculous glands but not pulmonary affection.
>
> If you can further state how many of these were in an early and presumably curable condition and how many advanced the information would be useful. The Committee would be greatly obliged if you would supply this information as soon as possible.

It will be seen that the letter makes no mention of any payment for the time and trouble which would be entailed in furnishing the desired information, and it appears that Dr. Niven has no authority to offer any payment. He has stated that he framed the request so as to give as little trouble as possible, and he suggests that possibly there is some misunderstanding as to the requirements, but he says distinctly: "I have no means of paying for the information, and the corporation is not able to offer a fee." It must be clear that statistics of the character required would be useless, and possibly misleading if they were not something more than rough guesses, and no practitioner could give satisfactory information as to the number of his tuberculous patients, classified in the way suggested, without carefully going through his books and considering each case, which would be no small task in anything like a busy practice. The mere request for such information to be compiled and given gratuitously is in itself irritating, as the refusal to be exploited even for the public good carries with it among a certain section of the public some odium; but it is necessary to make it clear to the public that the limit of exploitation of the profession has been reached, and the Sanitary Committee can hardly be much surprised that the Manchester (South) Division of the British Medical Association has passed the following resolution:

> That in view of the ever-increasing calls made upon the medical profession for gratuitous services for local and

national purposes, and having regard to the harsh and discourteous treatment accorded to the profession by those responsible for the passing into law of the National Insurance Act, this meeting is of opinion that all further demands from public bodies for gratuitous services by practitioners (such as that contained in the letter issued by the Medical Officer of Health for Manchester, May 21st, 1912, on behalf of the Sanitary Committee of the Corporation) should be uniformly disregarded, and if necessary strenuously resisted.

The information sought would undoubtedly be most valuable in any consideration of the methods to be adopted for working sanatorium benefit under the Insurance Act, as showing what amount of accommodation is needed for early cases in sanatoriums and for advanced cases in hospitals, and what number of cases would be suitable for dispensary treatment or home treatment. But it is more than doubtful whether any other profession would even be asked to provide valuable information for public purposes gratuitously, and the only reason why the medical profession is thus approached is that it has been so weakly complacent in the past. Perhaps the protest of the Manchester (South) Division will show that any such requests in the future must be on strictly business lines.

THE LATE PROFESSOR J. DIXON MANN.

By the will of the late Professor J. Dixon Mann, who died on April 6th, and of whom an obituary notice appeared in the JOURNAL of April 27th, the Salford Royal Hospital and the Manchester University will benefit to a considerable extent. The gross value of estate was £24,639, of which the net personalty was sworn at £24,516, and of this something like £7,000 is to be devoted to charitable purposes. In addition to bequests to relatives and domestics Dr. Mann has left £1,000 to the Salford Royal Hospital, "with which I have been so long and so pleasantly associated"; £1,000 to the University of Manchester, to be applied as the Council may think fit for the medical department; £100 to the Manchester Medical Society, £100 to the Manchester and Salford Sanitary Association, and £100 to the Manchester Governesses' Institution. The residue of the property, after paying all other bequests, would appear to be between £4,000 and £5,000, and is left to the Salford Royal Hospital, this being in addition to the £1,000 left directly as stated above.

SOUTH WALES AND MONMOUTHSHIRE.

PATHOLOGICAL DEPARTMENT OF KING EDWARD VII HOSPITAL, CARDIFF.

On Saturday, June 1st, another step was taken towards the completion of the medical school at Cardiff by the opening of the new pathological block at the King Edward VII Hospital. A very large and representative gathering was presided over by General Lee, chairman of the hospital, and the new building was formally opened by one of the most generous of the hospital's supporters, Mr. W. James Thomas, of Ynishir. Mr. Thomas has not only made very handsome donations towards the hospital's funds, but has also endowed one of the new wards, which now bears his name. In an inspiring speech, Mr. Thomas referred to the pleasure it gave him to know that so much benefit was derived from the amounts subscribed.



Demonstration Room.

Sir Isambard Owen, Vice-Chancellor of the University of Bristol, delivered an address in which he pointed out that, after the time of the early Greek physicians, the real study of medicine lay dormant for 2,000 years. He reviewed the history of the Cardiff Medical School, with which he has been associated since its inauguration fourteen years ago. He was of opinion that pathological research should not be left for support to private generosity, but should become an active State-supported science.

By an arrangement between the hospital and the university college it has been possible to combine in one institution the examination of material for the hospital, the full training of students in pathology, bacteriology, and research work in a perfectly equipped modern department, which will afford facilities also for post-graduate classes. The new building, which was designed by Colonel Bruce Vaughan, Chairman of the House Committee and honorary architect to the hospital, is a self-contained block four stories high.

In the basement, besides storerooms, there is electrical plant and an ice-making and refrigerating apparatus. There is also a dark-room for photomicrographical work, and a sterilizing room where media are prepared. On the ground floor is the mortuary, fitted with teak shelves and doors, and having in it a refrigerating chamber with racks. Opening out of it is a handsome chapel, beautifully decorated with mosaics and picked out in gilt. There is a spacious, well-lighted *post-mortem* room with two tables, and a terrazzo floor with sloping edges, which allows of thorough cleansing; a chemical laboratory is also provided. On the first floor is the large demonstration room, with complete accommodation for 16 students, two research laboratories, a clinical laboratory, and the professor's private room. The fittings in the demonstration room are from Professor Emrys Roberts's own designs. The top floor contains a spacious museum, with good lighting from the roof, and it is connected with all the other floors by an electric lift.

DINNER TO SIR ISAMBARD OWEN.

Sir Isambard Owen was entertained at a dinner in London (at the Trocadero Restaurant) on the evening of June 4th in recognition of the services he has rendered to Wales, and especially to Welsh education. Lord Kenyon presided, and among those present were Lord Aberdare, Lord Glantawe, Lord Pontypridd, Sir Herbert Roberts, M.P., Colonel E. Pryce-Jones, M.P., Mr. Herbert Lewis, M.P., Lieutenant-General Sir James Hill-Johns, V.C., and Sir W. Goscombe John, R.A. Sir Harry Reichel, Vice-Chancellor of the University of Wales, in proposing the health of the guest of the evening, said that the university, which was largely Sir Isambard Owen's work, possessed the particular distinction of being the first established on a popular basis; it was responsive to the national needs, and was growing in usefulness every year. As an organizer and governor Sir Isambard Owen had for years directed the council, had shown unerring judgement as an academic statesman, and had rendered priceless service to the university. Sir T. Marchant Williams, a member of the Council of the Cymmrodorion Society, supported the toast. Sir Isambard Owen, in returning thanks, said that he could look back on thirty-three years' service in the interest of Wales—a period momentous in the history of the Principality during which great progress had been made. As Bismarck had grieved for the diffidence of his fellow-countrymen, so had he for his; but the Welsh had thrown off their lack of self-confidence, and no one could foretell how great a future awaited them.

India.

[FROM OUR SPECIAL CORRESPONDENT.]

Schools of Tropical Medicine for Bombay and Calcutta.

In February last the Government of India approached the Corporation of Bombay with a proposal for the association of the King Edward Memorial with a school of tropical medicine, which it was prepared liberally to finance. It is stated that the basis of an agreement between all three parties has been reached. Broadly speaking, the suggestion now is that the King Edward Memorial Committee and the Corporation shall make joint arrangements for the construction and equipment of a hospital which will at once meet the needs of the northern part of the island and fulfil the purposes for which the memorial funds were subscribed. In this hospital fifty beds will be reserved for the purposes of the school. The system of control has to be worked out, but it offers no insuperable difficulty. The scope of the work for such a school is incalculable. In addition to the epidemic diseases challenging investigation, there is a wide category of tropical diseases which await inquiry. There are the special fevers, that baffling disease sprue, dysentery, and all those diarrhoeas which take large toll of life. This would at any time make a school of tropical medicine an invaluable institution, but present circumstances double its importance. We are committed to a policy of active sanitary progress. The Government of India has devoted large sums to sanitary works, and if the money is available will give more. If this money is always to be wisely spent, it necessitates a large addition to the number of medical men with special sanitary training. At present that training can be acquired only outside India: when once the school is opened, the graduate will be able to take his D.P.H. or D.T.H. degree in India itself. The Government of India's scheme for the establishment of a school of medicine in Calcutta is now ready, and will shortly be sent to the Secretary of State for his approval. A non-recurring grant of £33,000 has been made in this year's budget towards its establishment.

The King George Antituberculosis League of Bombay.

Recently His Excellency the Governor, halting on his way to the Mahableshwar, opened the tuberculosis sanatorium which has been established at Karla for the benefit of Hindu sufferers. The sanatorium will accommodate two classes of patients—those who are able to pay a small sum and those received absolutely free of charge. During the opening ceremony Major Hutchinson, I.M.S., pointed out that it was not the stage of the disease which was of importance in selecting patients for sanatorium treatment, but the type of disease, the patient's power of resistance, and response to suitable treatment. The medical officers of the Bombay League wisely held that in the campaign against tuberculosis in India the first line of attack must be the dispensary and the isolation hospital, leaving sanatoriums to be developed in careful accord with the habits of the people and their poverty. The sanatorium at Karla has wisely been commenced on modest lines, with capacity for expansion. It will be of benefit not only to the Hindu community, but to the whole Bombay Presidency, for the experience acquired there will be of the utmost value in guiding the Antituberculosis League.

The Hot Weather.

Extraordinarily hot weather has been experienced in Bombay; official records show that such high temperatures have not been recorded here in any April since 1896. The average temperature for the whole month was 83°. These records are regarded by some people as portending a successful monsoon. There has also been a very striking rise in temperature over North-West India, where hot weather conditions were very suddenly established. On April 23rd, the maximum reported from Jacobabad was 96°, 16° below normal, while on April 30th the maximum was 113°, or 5° above normal.

Special Correspondence.

PARIS.

Prophylactic Inoculation in Typhoid Fever.—Subscapular Crepitation.—French and Foreign Students in Paris.

In a letter published on January 6th, p. 51, some account was given of Dr. Vincent's experiences in the use of prophylactic inoculations for typhoid fever among soldiers in Morocco. It was stated that he had used Wright's vaccine, and also a polyvalent serum containing different strains obtained in Morocco and some paratyphoid organisms. M. Vincent has now described a method of preparing this polyvalent vaccine in which the typhoid bacilli are killed by ether instead of by heat. Up to the present date more than 20,000 such vaccinations have been performed, and not only is the method found more thorough but the reaction is slighter. M. Vincent vaccinated 100 nurses in the military hospital (Val de Grace), and in no case was any unfavourable or marked reaction noticed. He stated that in Japan, where vaccination was performed with the heat-prepared vaccine, 38 per cent. of the vaccinated showed marked and painful reaction. Several examples of the immunizing power of the vaccine were recorded, notably one case in which, in a family, the father, mother, and one child were laid up with typhoid; the two other children were vaccinated and escaped entirely. Two more convincing cases are cited; one was that of a young medical man who became infected with typhoid while working in the laboratory; he had previously been vaccinated, and he escaped the disease. In the other case a medical student inadvertently sucked some typhoid culture into his mouth through a pipette and became infected with real typhoid fever. The disease, however, was aborted by judicious vaccination immediately after infection and repeated several times.

M. Miramond de Laroquith read an interesting paper at a recent meeting of the French Military Society of Medicine on subscapular crepitation. This condition, the author states, exists physiologically in about 8 per cent. of all healthy people and in about 19 per cent. of all classes. It is due to the contact of the scapula with the ribs, and is most marked when the patient makes the movement of shrugging the shoulders. M. Miramond de Laroquith cites as pathological causes of this phenomenon: Fracture of the scapula, haemarthrosis, tuberculosis of scapula or rib, rheumatism (chronic), and syphilis.

There has been considerable friction between the Parisian and foreign students working in Paris lately, and several meetings have been held at which the French students have detailed their grievances. They object to foreigners coming to Paris to take a French degree, on the ground that the foreign student requires merely to show some certificate to obtain entrance to the university, whereas the French student must pass the French entrance examination before he is admitted to the classes; this examination is certainly thorough and is possibly stiffer than those foreign students have passed. The foreigner also is exempted from military service, and thus gets ahead of the French student, who has to serve two years of his university life in the army. This hostile feeling is in no way connected with visiting physicians and qualified men who are spending some time doing post-graduate work in Paris; they are always welcome, and everything possible is done to make their stay enjoyable.

BERLIN.

The New Radium Institute in Berlin.—Central Medical Library.

Berlin now possesses an institute which is meant to be used for the biological and therapeutic researches with radium and other radio-active substances. Although radio-active treatment has been used for some time in Berlin hospitals with more or less good results, a central institute was found necessary, chiefly to permit the use of large quantities of these costly substances. The institute is connected with the Königliche Charité Hospital in the old "Quartier Latin," Luisenstrasse. It owes its origin chiefly to the "Kaiser Wilhelm Gesellschaft zur Förderung der Wissenschaft" (Emperor William Society for Promotion

of Science), which has decided to give an annual subscription of 10,000 marks (£500) for three years; during this time the institute will be able to prove its vitality. The director of the institute, which is called officially "Radium Institut der Königlichen Charité für biologisch therapeutische Forschung," is Geheimrat His, who has as his deputy Dr. Gutzent, well known by his radium researches; with them is associated a board of medical men, physiologists, and chemists. The amount of radio-active substances at present available consists of about 200 milligrams of radium bromide and mesothorium, of the estimated value of 60,000 marks (£3,000). This insignificant-looking treasure, contained in small capsules, is kept in an iron safe let into the wall. The institution is temporarily established in an old house, but later on a special building will be erected. There are three laboratories, containing all apparatus necessary for research and providing places for fifteen workers. Two rooms are reserved for the examination of out-patients, there is one large and one small emanatorium, and one room for measuring, etc.; a policlinic is connected with the institute.

Another kind of centralization has lately been realized in Berlin: most of the libraries of the various medical societies of Berlin have been united under one roof. This fact is due in a certain degree to the zealous effort of Dr. Hans Kohn. In the library hall of the Langenbeck Haus there are, besides the 40,000 volumes of the Berliner medicinische Gesellschaft, those of the Verein für innere Medicin with about 12,000 volumes. The same hall contains the libraries of the physiological, laryngological, dermatological, otological, and urological societies, as well as those of the society for social medicine and of the Deutsche Reichs-comité für Krebsforschung (cancer researches). The advantages of such a centralization are obvious. The whole literature being in one place, it is so much easier to get the volume demanded; separate subscriptions by each society will no longer be necessary, and the money saved will be used for the purchase of books. It is to be expected that in the course of time all the libraries for special branches of medicine in Berlin will be combined into one.

VIENNA.

Jubilee of the Vienna Poliklinic.—Outbreak of Small-pox in Austria.—The Public Health Act in Parliament.

THE recent solemn celebration of the fortieth anniversary of the Vienna General Poliklinic has been signalized by the publication of a pamphlet, issued by the managing board, which gives a short history of that institution and its steadily increasing importance for every branch of the medical profession in Austria. The Poliklinic owes its being to the fact that forty years ago it was almost impossible for professors and privatdocents to obtain either sufficient work or experience at the general hospital. A certain number of them, therefore, decided to cut themselves adrift from the hospital, and, having rented a flat, they opened a private dispensary. The new foundation was not long in finding favour with numbers of patients who were wont to apply to the general hospital: and so popular did it become that only fifteen years later it was already looked upon as a valuable addition to the numerous charitable institutions of Vienna, and was sufficiently prosperous to justify its removal from its first home to the more spacious premises which it at present occupies. The addition of a hospital, which now contains 150 beds, naturally added greatly to the excellent teaching possibilities of the establishment, and the Poliklinic is now a fully-equipped up-to-date medical school which is not only an appendix to the great general hospital but in many instances an equivalent thereto. Its teaching staff is composed of well-known physicians and surgeons, such as Drs. Manneberg, Alexander, Koschier, Hamburger, and others, who are not only professors and privatdocents, but specialists as well. A good deal of scientific research is done in the hospital, to which, if the funds permit, a new wing is shortly to be added, so that the staff will soon have 200 beds at its disposal. Profession and public alike have accorded the establishment their confidence and approval, and the Vienna Poliklinic is universally regarded as a most useful and efficient institution.

A certain amount of anxiety has been felt during the last few weeks by the medical officers of this country owing to the sudden appearance of several sporadic cases of small-pox. Thanks to our excellent system of vaccination, Austria at the present moment contains hardly any foci of infection; therefore the history of every fresh case is at once important and instructive. Nearly all the cases reported recently (with the exception of two, which came from Russia) have been traced to Italy; and these, it is said, were carried across the Mediterranean from Tripoli. It is both interesting and significant to note that nowadays the appearance of even a solitary case of small-pox is enough to arouse the interest of the public, whereas forty years ago the disease was regarded as an every-day occurrence. There can be no doubt whatever that vaccination, and vaccination alone, is responsible for this extraordinary change in public opinion.

The reading of the Public Health Act (*Seuchengesetz*) has just been accomplished by the Parliamentary Committee on Public Health. The Act deals entirely with infectious diseases; but, in spite of the urgent need for legislation on this subject, it contains no provisions for the compensation of persons who have suffered any monetary loss, either from the necessary disinfection, or from being detained in quarantine, or from being debarred from their means of livelihood by the enforced closing of their shops. Neither does it legislate for cases of wilful transmission of disease, such as frequently occur in the case of sexual diseases; whilst the question of the payment of doctors for work done in the interest of the public (notification of epidemics and the like) has also been passed over in silence. The sanitary authorities, however, whilst freely admitting the many deficiencies of the Act, have announced their intention of presenting it to Parliament in its present form, since the adoption of the better regulations which they, together with the entire profession, desired is now rendered impossible owing to lack of funds. It is only just to add that the Act, even as it now stands, is a vast improvement on the existing law.

Correspondence.

APPENDICITIS—AND QUICKNESS.

SIR,—Recent issues of the JOURNAL have contained letters from different correspondents on the question of early operation in every case of acute appendicitis. As they give expression to views that I consider are unfortunate in their teaching, and do not indicate what is meant by "immediate operation," I think that this latter point is one which should be made clear and distinct. If the expression implies that operation should be done within twelve hours of the onset of the attack of appendicitis, I have no fault to find with that line of action, but if the word "immediate" is also to mean that operation is to be done as soon as the surgeon sees the case, no matter how long its previous duration, I am entirely opposed to such a course of treatment.

In his letter in your issue of May 18th, Mr. Paterson states that more than 1,500 deaths occur every year from appendicitis in England and Wales, but indicates that the majority of these deaths ought not to take place. Has Mr. Paterson ascertained how many of these deaths were of cases of acute appendicitis that had been operated on? This, I consider, is a very important point. I am satisfied that many of the deaths from acute appendicitis are due to operation done at the wrong time, and until this is recognized by surgeons and acted upon, we will have disastrous results.

As I said in a recent lecture on acute appendicitis, its modern surgical treatment has not won the triumphs that it ought to have done to justify interference in every stage of an acute case of this ailment. There is no doubt that after twelve to twenty-four hours have elapsed, Dr. Dickson is right when he says that every case ought to be judged on its own merits, and I can assure Mr. Paterson that the adoption of that practice has not always such deadly results as he thinks. I have recently published statistics of 273 consecutive cases in hospital work with a death-rate of 3.3 per cent., where in the 151 acute cases this course of action was followed, and I am satisfied that

it is not "flying in the face of Providence" to delay operation. The truth is that the treatment of acute appendicitis, when operated upon in any and every stage of the attack, has had results that can only be described as disastrous, and it is time that this matter was more fully discussed and more definite rules laid down than at present exist.

The clinical lecture by Mr. Dauber in your number of May 25th, 1912, opens with such a graphic account of appendicitis and its dangers, and expressed in such terms, that, were we not dealing with a serious subject, it has its amusing side, for in it he likens the appendix to a wild cat, and speaks of it as if it was rampaging around the abdomen and creating a great deal of mischief wherever it goes. He admits that a wild cat in a bag can be easily dealt with, forgetting that that is really the position of the appendix in a very great proportion of acute cases. The bag is one composed of infected plastic lymph and leucocytes, and it is the attempt to take the appendix out of this bag by the way of the peritoneum, before the elements of infective material with which it is impregnated have died down and have ceased to be dangerous, that is the source of danger. I am satisfied, from a good many years of hospital experience, where I have had every class of appendicitis cases under my care, that the practice of judging every case on its own merits and acting accordingly, as advised by Dr. Dickson, is the proper one to follow, and the one that gives the best results.—I am, etc.,

Glasgow, May 31st. GEORGE THOS. BEATSON.

SIR,—I should like to mention two cases of appendicitis which have recently come under my care, and which along with Dr. Rice-Oxley's case forcibly confirm Mr. Owen's views.

The first case was that of a young Indian student. The day I saw him he had come back from town complaining of a certain amount of abdominal pain, but it was not very severe. There was no rise of temperature, but the pulse was about 90. Next morning the patient felt much better and the tenderness over the appendix was only slight. However, as I had no doubt that this was a case of appendicitis, and as he might have to go back to India at any time, I advised operation. The operation took place on the second day after the initial symptoms, and by that time all pain and almost all the tenderness had disappeared. When we operated we found a gangrenous patch on the appendix penetrating all the coats.

My second case was a little girl aged 11. She complained of abdominal pain on a Tuesday and also vomited. Her temperature was 99.4° and her pulse was 100. On the Wednesday the pain had all gone and the temperature was normal; the pulse-rate, however, was raised. Taken on the whole, the child seemed much better and was clamouring for food. Bearing in mind the case mentioned above I advised operation, and this advice was followed. At the operation we found a gangrenous patch in the mucous membrane extending as deeply as the serous coat.

There can be no doubt that if these two cases had been left they would both have perforated within a very few hours with disastrous results, as no adhesions had formed. Both these cases were to all appearances of a very mild type, and both after the first few hours felt quite well. These two cases have been a lesson to me, and in future all my cases of "mild" appendicitis will be operated on.—I am, etc.,

Ealing, May 31st. JOHN B. MASON, M.B.

SIR,—The correspondence under this title is of peculiar interest from the point of view of the practitioner in the provinces, since to him there are special facilities for quickness in dealing with these cases, for the diagnosis may be made, and the operation performed, within the course of an hour or two.

In every case of acute appendicitis seen in the early stage it has been my custom for the last three or four years to counsel an immediate operation, and never to wait for the appearance of constitutional disturbances. Since the adoption of this principle there have been many cases, and the mortality has been *nil*.

The absolute necessity for these radical measures has been demonstrated often, only when the abdomen has been opened; for in several recent cases, of which I have notes, the symptoms and constitutional disturbance have been so slight that one would certainly not have been led to expect the perforated appendix and early spreading peritonitis which were found at the operation.

I do not believe it possible for any one to estimate with accuracy the extent of the mischief in each case until the abdomen is opened. In my own limited experience of these acute cases the state of affairs found at the operation is almost always either as bad or worse, seldom better, than that anticipated.

Surely under these circumstances early surgical interference can hardly be said to be unnecessary. If, however, the patients be allowed to incur the unjustifiable risk of waiting, and in the process of time get over the attack, there is yet another spell of several weeks of bed in store for them, for it will be admitted that no one should be allowed a second attack; so much valuable time is therefore wasted.

Moreover, there is without doubt a growing fear of the disease amongst the public, and a knowledge that the consensus of present-day medical opinion is in favour of immediate operation, so that now one rarely meets with any serious objection to the adoption of this course.—I am, etc.,

Yeovil, Somerset, May 23rd. NORMAN FLOWER.

THE CENTRAL COUNCIL ELECTION.

SIR,—Will you allow me to say that, though I have been nominated for the Central Council for the Lancashire and Cheshire Branch, it is not my intention to stand at the present election, and I have definitely withdrawn my candidature?

For the time being the extremists, whose object is simply to "smash the Act," appear to have the upper hand, and I cannot help feeling that some of the methods adopted by the State Sickness Insurance Committee are leading to a serious defeat, which will leave us in a far worse position. The refusal to nominate medical members of the Provisional Insurance Committees is an example which is little short of cutting off our noses to spite our faces. The committees would have to deal almost entirely with sanatorium benefit, and seeing that the arrangements for administering this benefit are distinctly favourable to general practitioners, and that practically all the suggestions of the profession have been followed as regards the share to be taken by general practitioners in the working of this benefit, the refusal to assist in its administration can hardly fail very seriously to damage the general practitioner.

Moreover, as regards medical benefit, on which alone the profession has had any quarrel with the Government, none of the suggestions for a public medical service organized and worked solely by the profession are in the least satisfactory. All the schemes overlook two essential factors—namely, that the people who find the money will insist, and justly so, on having a considerable share in the working of the service for which they pay; and, secondly, that anything from 10 to 20 per cent. of the money that ought to go into the pockets of the doctors would have to be spent or wasted on working expenses. The schemes are, in fact, little more than attempts to glorify a provident dispensary system, though they would, in fact, only add to it unnecessary and impracticable conditions. A far more practicable method would be to accept a "pooling system" under the Act, giving an absolute free choice of doctor to all the insured, and, where the profession desired, payment per attendance according to an arranged scale out of the pool, which might be largely in the hands of the profession. If the pool were then proved to be insufficient to meet the cost of medical attendance, it would be perfectly possible under the Addison amendment, Clause 15 (3), to arrange for the well-to-do patients to pay any deficiency.

I am convinced that a fixed and universal income limit of £2, quite irrespective of localities and size of families, will have to be given up, and we shall have to rely for an elastic income limit adapted to circumstances, which can be obtained under the Addison amendment. In other respects our seven cardinal points, if they are liberally interpreted, can be justified, and, I am confident, would be accepted. But with the construction placed on the cardinal points by the extremists in the profession the public will never agree, nor will reasonable members of the profession seriously fight for the extremist demands, especially as they involve the complete loss of any protection to the profession, however slight that may be thought, which the Act has provided.

In spite of any temporary misunderstanding, nothing will prevent me fighting to the best of my ability for the just rights of my profession which has been so shamelessly exploited by a section of the public and by many public bodies in the past. But I fear that practical and moderate counsels, if the least suspicion of "working the Act" can be attached to them, receive but little hearing at present, nor will they until the utter impracticability of the extremists has been demonstrated by a bitter experience, and I only hope that the extremist policy, typified in the National Medical Union, may not bring disaster to the general practitioner far more irretrievable than anything that could possibly occur under the Act.—I am, etc.,

Salford, June 3rd. J. H. TAYLOR.

SIR,—Certain statements appearing in the circulars and letters issued by Dr. O'Sullivan in support of his candidature for election on the Council of the Association require amplification or correction. In an undated leaflet to the electors of the Lancashire and Cheshire Branch, he says "efforts are being made by interested individuals to discount my candidature," "by alleging that my action at the Representative Meeting did not satisfactorily represent the views of the members of the Liverpool Division."

We do not know anything about the alleged attempt to discount his candidature, but it is certainly true that at the Representative Meeting referred to Dr. O'Sullivan voted and spoke on several important issues directly in opposition to his instructions. It may also be pointed out that Dr. O'Sullivan was appointed to attend the meeting as deputy in virtue of his having been elected Representative for the meeting to be held in July, and that the success of his candidature as Representative was largely due to a circular signed by several consultants who specially recommended him as being a gentleman who would "faithfully" carry out instructions.

Dr. O'Sullivan is correct in saying that he received a vote of thanks for his services as Deputy, but it was quite clear from the speech of the proposer of the vote, and the tone of the meeting, that this was purely an act of indulgence.

In a letter to the JOURNAL of May 27th, Dr. O'Sullivan explains his missing his nomination by the Division as being due to an intrigue. There was no intrigue—there was simply a desire that he should not be elected a member of Council.

Dr. O'Sullivan claims to be a strong opponent of cheap contract work.

Resolution proposed by Dr. O'Sullivan at a meeting of a Committee appointed in Liverpool to examine into the Insurance Act:—

That the scale of fees should be one and sixpence per visit, and a shilling at the doctor's house; and, failing this, remuneration should be on a similar scale per capita.

We trust that the members of the Lancashire and Cheshire Branch will not be too much elated by the scale of fees considered, by this modern Cincinnatus, to be adequate remuneration.—We are, etc.,

THOMAS R. BRADSHAW,
THOMAS BUSHBY.

June 4th, 1912.

SIR,—Mr. Parkinson has honoured me with special prominence in a letter to the JOURNAL, and it is necessary in the interest of the Branches I have hitherto done my best to represent to answer his allegations.

In the first place, Mr. Parkinson has probably overlooked the fact—if he ever was aware of it—that the by-laws regulating the election of members to the Council were altered by the Representative Meeting in Belfast in 1909. The by-law touching his eligibility for re-election for one year after six years' continuous service ran as follows:

No. 25. Each member of Council elected by a Branch in the United Kingdom shall be elected for one year, and at the end of that time shall be eligible for re-election unless he have served as such Member of Council for six years successively, in which case he shall for one year be ineligible for election as such Member of Council.

Dr. Johnson Smyth accordingly represented the Dorset and West Hants and West Somerset Branches at Sheffield in 1908, while I and Dr. Eales represented the South-Western Branch, and Mr. Parkinson was the Representative of the Bournemouth Division in the Representative Meeting. At Belfast in 1909 Dr. Eales and I represented the South-Western Branch again, and Dr. Johnson Smyth was succeeded by Dr. Davison as Representative of the Dorset and West Hants and West Somerset Branches.

At the Belfast meeting in 1909 new groupings of Branches for election of members to the Central Council were adopted and new by-laws were passed, so that in 1910 a fresh set of constituencies were in many instances created, and the South-Western Branch had no longer two Representatives of its own, but shared with the Dorset and West Hants in the election of one member. A *new group* was thus constituted, and I had the honour of being the first member so elected, and commenced a *fresh term* of service as a member of Council.

The by-law formerly 25 is now 47, and is:

47 (1). *Term of Office of Members of Council elected by Branches.*—Each member of Council elected by a Branch or group or by the Representatives of constituencies in the United Kingdom shall hold office for one year, and at the end of that time shall be eligible for re-election unless he have served as Representative on the Council of *one and the same Branch or Group* for six years successively, in which case he shall for one year be incapable of being elected as *such* Representative.

I took care to ascertain whether my nomination was valid before the date at which nominations might be sent in, as I understood that Mr. Parkinson had expressed his intention of contesting the validity, in order that the Branches concerned might not have been compelled to accept by a side issue to be represented by a gentleman who would not otherwise be given a preferential chance of election.

I hope all members of the Branches concerned will not fail to mark the voting papers, which will be sent to them in due course on Saturday, and that there will be a sufficient number of votes given to express the wishes of the constituents.

Mr. Parkinson is not pleased with the action of the Public Health Committee with reference to part-time medical officers of health, but I must remind him that his criticisms should be rather directed to the members of the Representative Meeting, who on three several occasions have affirmed the principle of the celebrated Minute 234, by which the policy of the Association, and consequently of the Committee, was decided.—I am, etc.,

Exeter, June 4th. EDWARD J. DOMVILLE.

SIR,—I do not grudge Dr. Brassey Brierley any satisfaction which he may feel at my defeat. I simply tried to carry out the instructions of my Division given to me in the meeting convened for the instruction of the Representative. Apparently my action was endorsed by my constituents at the meeting held to receive the report of the Representatives, as they passed a vote of thanks to me without a dissentient voice—a somewhat gratuitous piece of hypocrisy in view of the subsequent proceedings.

But in regard to Dr. Maclean, I think Dr. Brierley's satisfaction must be tempered by the fact that, in spite of a well-organized opposition, the Division was spared the crowning disgrace of dismissing a man whose self-sacrificing and untiring efforts for the good of his profession, in spite of a little temporary obloquy, will be appreciated by subsequent generations at their true worth.—I am, etc.,

W. B. CRAWFORD TREASURE,
Late Deputy Representative, Cardiff Division.

Cardiff, June 3rd.

SIR,—On a previous occasion the Kensington Division recorded its disapproval of the attempt made to fill *all* the vacancies on the Central Council of the Association with nominees by a "caucus"; at the present moment a similar attempt is being made, though by a "caucus" of a different complexion. The circulation of *four* names combined in nomination for the *four* vacancies which the Branch is called upon to fill tends to suggest to electors not acquainted with current events or the procedure of the Council elections, that the names put forward have the support of some authoritative body. Thus, all the available seats may be filled on the strength of votes given without any knowledge whatever of the merits of these and other candidates.

Estimable though the gentlemen proposed by the "caucus" may be, a list which does not include the names of

such keen, strenuous, and broad-minded workers as Dr. A. H. Williams, of Harrow, and Dr. Charles Buttar, of Kensington, certainly does not contain all the names of those most desirable to fill the Branch's vacant seats. All who have been in or near the front of the fight in the Insurance Act battle have recognized the amount and quality of the work done by Dr. Williams in the Central State Insurance Committee and in the Branch Council, of Dr. Buttar (who was unanimously nominated by this large Division) the same can be said; his chairmanship of the Insurance Committee of the Branch Council and of the Kensington Division has enabled those associated with him to recognize that he also is a man of sound judgement and ability, and therefore worthy of support by all members of the Branch.—I am, etc.,

London, W., June 4th. HERBERT TANNER.

SIR,—I shall be glad if you will allow me space to ask the members of the Metropolitan Counties Branch to support Dr. A. H. Williams, who has been nominated as a candidate for the Council by the Harrow Division, and to vote for him at the forthcoming election. It is important that the large area of the Metropolitan Counties Branch outside the limits of London should be represented on the Council, and Dr. A. H. Williams would apparently be more thoroughly representative of this country area than any of the other nominees. Dr. Williams has been engaged in general practice at Harrow for over twenty-two years, and has had experience of all grades of practice, including a large amount of contract practice work.

As a member of the British Medical Association he has worked indefatigably; he is Chairman of the Harrow Division, and has been a member of the Representative Body for five years. He has been a member of the State Sickness Insurance Committee since that committee was first instituted, and in addition has served on the Contract Practice Subcommittee and on the School Children's Subcommittee. He is also a member of the Advisory Committee set up under the National Insurance Act.—I am, etc.,

C. M. PENNEFATHER,
Honorary Secretary of the Harrow Division.

Harrow, May 28th.

[WE have received some other letters with reference to the Central Council election for which it is impossible to find space. Among them is one from Dr. T. R. Waltenburg, Representative of the Salford Division of the British Medical Association, strongly recommending Dr. Helme's candidature, and adding that though he would personally prefer Dr. Reynolds, he thinks that in fairness to Liverpool the second member to be returned should be Dr. O'Sullivan.]

NATIONAL MEDICAL UNION.

SIR,—Dr. Helme has now favoured the readers of the JOURNAL with his reasons for resigning his membership of the National Medical Union, and the officials of the Union have set forth various resolutions indicative of the work of that organization. Can any man who has perused these resolutions assert with justice and truth that they contain in the remotest degree anything calculated to foment dissension and discord, or impair loyalty to the British Medical Association or unity in our ranks?

The gist of Dr. Helme's letter really exists in the charge that he has levelled against the Union of being hostile to the action of the Representative Body, and of seeking to secure the return of candidates who are in "declared and direct" opposition to the action of that body. As I am involved in that charge, I hasten to offer to it a most strenuous and emphatic denial. Is there an action of mine, or anything contained in my address, that could be distorted or twisted into implying such? I trow not. A pious expression of regret at a certain line of action, resulting in an accomplished fact, is to be read as meaning future "declared and direct opposition." As well say that because a man deprecated a certain line of action adopted by Parliament he was in declared and direct opposition to parliamentary institutions.

Dr. Helme's letter does no justice to the talents he is known to possess, of which talents I am an admirer. It is a production dictated by expediency, and his charges are based upon innuendo and implication, constituting sorry implements with which to erect and buttress a weak case against men who are as loyal to the Association and to the Representative Body as any man, or body of men, who are striving during this time of stress to hold the fort on the part of the profession: and it is not in accordance with our national characteristic to charge such men with disloyalty, and stigmatize them as fomenters of discord and disunion because, though desirous of arriving at the same goal, they may not see eye to eye as to the methods adopted.—I am, etc.,

Liverpool, June 3rd. J. E. O'SULLIVAN.

SIR,—Although we are not writing as members of the National Medical Union, we feel it incumbent on us, as the organizers of the movement which resulted in the mass meetings in Manchester and the formation of the National Medical Union, to reply to Dr. Helme's defence of himself, and his attack on the Union, in your issue of June 1st.

We cannot allow that any candidate is justified in attempting to secure votes by inaccurate assertions against the body of men who have done so much to expose the dangers contained in the National Insurance Act, and to strengthen the position of the medical profession. This is generally acknowledged all over the country. The firm and consistent attitude of the National Medical Union, as maintained from its formation, is, and will be proved to be, the correct one.

The resolutions published in the current number of the JOURNAL disprove beyond doubt Dr. Helme's unjust attack on the union as a "rival association." It is a temporary organization of the profession against the Insurance Act as it stands and to assist the members of the British Medical Association in their fight for their rights, which the Council, whom they trusted to safeguard their interests, had practically thrown away by their feeble opposition and mistrust of the profession. The British Medical Association has been acknowledged by the union, from its inception, as the only channel through which the medical profession could make its demands known.

Our purpose, however, is not so much to defend the Union as to question some of Dr. Helme's opening remarks. We possess notes regarding the proceedings of every meeting which was held previous to the formation of the Union, and we should like to state that the circular convening the first meeting, a copy of which Dr. Helme received, stated that the objects of the meeting were to consider "the formation of a combination of the medical profession of Lancashire and Cheshire, to extend throughout the country, if thought advisable, for the purpose of taking action to oppose the proposals contained in the National Insurance Bill."

This meeting was held on November 4th, the day after Mr. Smith Whitaker's visit to Manchester, when he stated that the British Medical Association had done all it could, and that the only thing now remaining was individual bargaining by the Divisions, which could not begin until the bill had been placed on the statute book.

At this first meeting the Chairman stated that no opposition to the British Medical Association must be thought of, and other speakers emphasized this. Mr. Larkin was present on this occasion, and occupied thirty-five minutes in addressing the meeting, devoting his speech to a justification of the action of the officials of the Association, but chiefly to a very favourable criticism of the bill as it then stood amended, and he summed up his criticism in the following manner: "We have in the bill a great deal we asked for. We have in the bill much more than we would have expected. Indeed, on the whole, I consider it a good bill for the profession."

When Mr. Larkin had left the meeting Dr. John Brown of Flixton proposed that, before we determined to form a Union, the opinion of the profession should be taken, and that for the purpose a mass meeting should be held. This resolution was unanimously adopted.

Dr. Helme was not present at this first meeting; neither was he at the second, at which Mr. Wright presided and a committee was formed to carry into effect the proposal that a mass meeting should be held.

At a later meeting, when Dr. Helme was present, occurred the dramatic incident of his taking up his papers and declaring that he would retire altogether if the movement were not made national instead of local. Dr. Helme adopted the resolutions passed in the

Committee of the Union, and proposed them at Ashton-under-Lyne and other places, and they appeared in the daily press as the "Helme resolutions." At the same time a £500,000 scheme as a guarantee fund was mentioned, and he permitted himself to be credited with the formation of the National Medical Union. Dr. Helme's memory is short for embarrassing facts such as these. His notions, too, of compromise, and loyalty to his colleagues, are not identical with ours.—We are, etc.,

HAROLD B. WOODCOCK.
J. SKARDON PROWSE.
JAS. BRASSEY BRIERLEY.
J. W. STENHOUSE.

Manchester, June 1st.

SIR,—In his letter in your last issue Dr. Helme states that "a small body in Manchester had been trying to form a rival association. One of the present officials of the Union with another called upon me to ask me to assist and take the presidency."

I have asked Dr. Helme which official he alludes to, and he informs me it is myself.

I can only say that Dr. Helme is entirely mistaken as to the purpose for which Dr. Lund of Stretford and I called upon him.

The true history of that interview is that Dr. Lund and myself wished to bring forward a resolution in the West Manchester Division of the British Medical Association to requisition a special meeting of the Lancashire and Cheshire Branch, and knowing that Dr. Helme was fully conversant with the laws and regulations of the Association, we called on him to gain his assistance in properly drafting the resolution so that it could not be ruled out of order. In this he materially helped us.

Afterwards, during a general discussion on medical politics, Dr. Helme said we could not hope for any help from the present officials of the Association, who did not consider the interests of the general practitioner in the least. It was then that Dr. Lund said that the work must be done, and if it could not be done within the Association it must be done outside it, and asked Dr. Helme if he would be willing to lead such a campaign. This was simply a casual conversation, and how Dr. Helme could translate it into an invitation to the Presidency of any body whatsoever I am at a loss to know.

Neither Dr. Lund nor myself represented any other persons, and never in any way suggested that we were a deputation, and any mistrust we may have felt for the British Medical Association during that interview was caused by Dr. Helme's statements regarding its management.

I would add that both Dr. Lund and I are as loyal members of the British Medical Association as Dr. Helme himself claims to be, and that this interview took place at the beginning of last August, long before the idea of a National Medical Union or even any mass meeting was thought of.—I am, etc.,

Stretford, June 4th. T. WHEELER HART.

P.S.—I endorse all the statements contained in the above letter as correct.

J. KNOWLES LUND.

SIR,—In my letter which was printed in your last issue I refer to an interview which I gave to an official of the National Medical Union and another, and at which I was asked to assist in the formation of a new society outside the British Medical Association. I shall be obliged if you will give me the opportunity of stating that I have had a conversation with that official to-day, and am now informed by him that it was not intended that this society should be antagonistic to the British Medical Association, but to the Council.—I am, etc.,

Manchester, June 4th. T. ARTHUR HELME.

A NATIONAL MEDICAL SERVICE SOCIETY.

SIR,—The progress of events in connexion with National Insurance during the past year has brought us all the time nearer to the point of realization that the only outlet to the chaos into which we have drifted is the establishment of a National Medical Service.

There is no doubt that a national scheme for the treatment of men, women, and children could be inaugurated which would retain free choice of doctor to the patient and provide full employment at an adequate salary for all members of our profession.

One of the greatest evils of the proposed insurance system is the inclusion of insured persons only, leaving out the majority of women and the children. Even if all the demanded cardinal points are granted, the undesirability of this arrangement will soon become obvious to the profession after the scheme has been set at work.

Day after day by piecemeal legislation one department after another of the practitioner's work is filched from him. At one time it is an infectious disease (and phthisis soon will be added to the list), next it is his midwifery practice, and presently the treatment of the school child. Organizations of workmen are demanding action as to medical treatment of certain trades and betterment of the conditions of workshops and homes. The two great branches of our profession are being divorced more and more, and preventive and curative treatment are being sundered in a wholly unscientific way.

Surely it is about time to set our house in order by getting in touch with the march of events, and re-habilitating ourselves in a new and impregnable position, in which the amount of our remuneration, and professional prominence and importance, shall not be directly dependent upon the prevalence and persistence of disease and ill health.

My object in writing is to appeal to those who are of the same way of thinking to unite in forming a society for advocating a National Medical Service. I have been written to by several colleagues as to the formation of such a society, and it is hoped to hold a meeting for the purpose at the time of the annual meeting in Liverpool. The society would entirely support the British Medical Association. It would work not for a service composed of a portion of the practitioners, but one in which all would be included at rates of remuneration better than obtain at present. As the service would include every one, free choice of doctor would be maintained. The profession would be adequately remunerated, because a plain statement could be put forward which cannot now be done when only one-third of the population is included. Any subscription to the society would be purely nominally to cover postal expenses only. I shall be glad to hear from anyone who is prepared to join such a movement towards a national solution of our problem.—I am, etc.,

Bio-chemical Department,
The University, Liverpool,
June 3rd. BENJAMIN MOORE.

THE FINANCE OF THE ASSOCIATION.

SIR,—My excuse for troubling you with a reply to Dr. Brierley's letter is that I am one of the veterans who have stuck to the British Medical Association for upwards of forty years, and although my remote place of residence has deprived me of the opportunity of serving my fellow members as I should have desired, nevertheless I have done what lay in my power.

I do not know enough as to the duties of the Medical Secretary to express an opinion so dogmatic as Dr. Brierley's, but I confess I regarded as waste most of the vast piles of literature handed to me for perusal by the Honorary Secretary of my Division, to whom I had to render assistance to enable him, a man in busy practice, to cope with them at all; I fear I must admit that neither of us read half of them.

Watching from year to year the progress of the Association from afar, I was disappointed to find that the nineteenth century craze for parliamentary institutions had got hold of men whose scientific training would, I should have thought, rendered them proof against the delusion that 100 men selected haphazard could manage the business of the Association better than a tithe of that number who could devote themselves to the work. The idea of the Representative Meeting seemed to me futile, inasmuch as members gathered from far and near are called on to decide in a few hours matters that would need weeks of careful consultation, and I regard the making of these members mere pledge-bound voting machines as so very objectionable that I refused to serve.

When I joined the Association, and for years afterwards, it was purely a scientific association as its name stated,

but latterly other duties have been forced upon it until to-day it is required to fight the battles and regulate the conduct of the great bulk of practitioners in these islands.

In my humble opinion the work of the Association could be better conducted as a big company with a paid board of directors and paid officers than in any other way. This leads me to another point.

How can members expect the Association to conduct their business successfully without ample means? When it was proposed to increase the subscription I had hoped it would be doubled at least. £2 2s. per annum would be little enough to pay for the work we want done.

In fine, I think if we want our work done on business lines we should put our hands in our pockets. Many of us are members of one or other of the great motoring organizations, and we do not regard two guineas or more as too much to pay for the benefits we derive from them, which are trifling compared with what the British Medical Association could do for us if it had the means, and I think if the matter was properly explained to the members, and a business-like prospectus of the company put before them as to what it could do for them, there are few who would not be willing to pay up.

All honour to those who have given their time and labour ungrudgingly in the past for our welfare; but times are changed, and the activities of the Association are so extended that is unfair to ask men to sacrifice so much of their valuable time for us without remuneration.—I am, etc.,

Cootehill. T. H. Moorhead.

DEATH AFTER SALVARSAN.

Sir,—Under the above title, Dr. Campbell M'Donnell published in No. 2681 of the Journal a case in such a way that this publication may give a wrong impression, as if the death of the patient in question had been due to the salvarsan. I think that it is not only justifiable but necessary to inquire into each such case, and to ask for more definite and detailed accounts. From the very short paragraph one can only gather the following:

1. That two injections were made within a very short period. Opinions, of course, still vary very much as to the interval at which injections of salvarsan should be given, and there is much to be said in favour of the different views, although it is certain that the early and frequent repetition of injections is inconsistent with the views Professor Ehrlich developed in his original publications on the subject. According to him, frequently repeated doses produce an immunity of the *S. pallida* to the drug, so that if one has not succeeded in eradicating the organisms present in the system by one injection one ought to wait until a generation of spirochaetes has developed which is no longer arsenic-fast, which, of course, takes some time. However this may be, and whatever views one takes on the subject, this is only mentioned as a general statement, not with the purpose of putting the fatal result of this case down to the repeated injections.

2. The second point which strikes the reader who is initiated with this particular kind of treatment is that all the symptoms given by Dr. Campbell M'Donnell are absolutely different from those of acute arsenic poisoning, which would rather have to be expected if death had been due to acute arsenic poisoning.

3. The symptoms given are such as are frequently met with in cases of acute septicaemia due to certain organisms. The septic rash, sweating, and the epileptiform fits I had an opportunity to observe in several cases of septicaemia. The temperature is not an argument against this theory, as also in the cases I am mentioning I have repeatedly found normal temperature. The offensiveness of the breath is another point one finds in cases of general blood poisoning, in which organisms of the putrifying group are the cause of the disease. According to this it may be possible that simultaneously with the injection an infection had taken place which would account for the disaster. This is, of course, only a supposition, as the dates given in the communication of Dr. Campbell M'Donnell are not sufficient to come to any definite conclusion. But, however that may be, I do not think that one is justified in publishing a case without giving the result of a thorough pathological and bacteriological examination of the secreta before and after death, and to blame a treatment which has brought the most excellent results in many tens of thousands of cases for a fatal ending which may have been, and probably was, due to an accident or faulty technique.—I am, etc.,

London, S.E., May 20th. E. v. Oefenheim.

THE SALE OF FEMALE REMEDIES.

Sir,—We have learnt a great deal as to quack medicines from the invaluable analyses published in the Journal, but few of us realize that a certain effete though popular superstition is responsible for much of the enormous sale of the so-called female remedies. One of the mainstays of the quack medicine trade—and, indeed, one of the most curious things about it—is the huge demand for these female remedies or emmenagogues. It is absurd to suppose that these things are all taken for the purpose of procuring abortion, great as the demand for abortifacients unfortunately is. No, the great majority of the women who buy them do so not from any fear of conception, but because of an almost universal superstition that irregular menstruation should be treated like constipation. "If it stops, something must be taken to bring it on."

The history of medical theory throws a curious light on this belief as a folklore survival. For many ages menstruation was regarded as an excretion of poisonous material which was harmful to the woman if not got rid of, and when excreted still dangerous to animal life if accidentally absorbed or mixed with food. To the present day women during their periods are not allowed in certain wine factories and butchers' shops for this reason. This idea, though rejected by modern physiology, still rules the minds of most women, who accordingly look on amenorrhoea as they do on constipation. Just as they use aperients to secure a regular action of the bowels, so they think it a personal duty and even an act of cleanliness to fly to emmenagogues whenever they cease to menstruate. Such women imagine it is a primary necessity that the uterus and bowels should be periodically emptied.

If amenorrhoea occurs, they never dream of an underlying chlorosis, chill, or phthisis; and any bad symptoms or malaise produced by the disease are, of course, ascribed to the amenorrhoea itself. These patients' sole idea is to obtain an evacuant of the retained poison as they imagine it, and usually the first step taken is to buy a box of female pills, "to remove all obstructions." The money spent in this way appears to amount in the aggregate to incredible sums.

The important thing, however, is that if medical men would set themselves to root out this survival of an old superstition, the greater part of the income of the abortionist would vanish. If he lost the lucrative supply of enormous quantities of emmenagogues in ordinary cases where pregnancy is not in question at all, his profits would be so reduced that it would often not be worth while to carry on the purely criminal trade alone. We may, perhaps, go so far as to say that nothing would so quickly reduce the numbers of abortionists in this country as a general revolt against the fashion for emmenagogues. That fashion may be harmless in itself except that it leads people to overlook the real causes of amenorrhoea, but it does tend to develop facilities for criminal objects. The vendors undertake to remove "all obstructions." How that fashion can be attacked and the real teachings of physiology disseminated among the population is a matter for serious consideration. Certainly every general practitioner has opportunities for pointing out the folly of the continual drugging which goes on. Something, too, might well be done by health visitors and lecturers on physiology to get rid of the old idea of retention of a poison. In short, there is an opportunity here for a very useful social work.—I am, etc.,

May 25th. G. P.

ST. KILDA AND THE WESTERN ISLES.

Sir,—In an interesting account of a visit to St. Kilda in last week's issue of the Journal I note that your correspondent writes:

To be dependent for medical advice upon the occasional doctor on holiday bent is the experience of but *one* community in the United Kingdom.

This may be correct now, but it was not so some years ago when I visited Fair Isle. At that time the inhabitants there had to rely "for medical advice on the occasional doctor on holiday bent," and I then drew attention in your columns to a case where a woman in childbed had her life saved by the natives flying signals to a steamer off the island and obtaining therefrom a "doctor on holiday bent." Fair Isle, I believe, has a population of over 100, and there are two lighthouses worked by Government employees. It is possible there is now a resident doctor, although his name does not appear in this year's *Medical Directory*. I remember Mr. Bruce, the owner of the island, whose hospitality I enjoyed at Sumburgh, told me that the whole of the rent roll from Fair Isle would not pay for the services of a resident doctor. I then contended that it was the duty of the Government to provide medical attendance for its employees there. As it is to be presumed that some of the inhabitants of Fair Isle will come under the provisions of the National Insurance Act, it is an interesting question how "medical benefit" can be afforded them in the absence of a resident doctor. A capitation fee of 6s. will certainly not provide it, and the furnishing of "medical benefit" to the inhabitants of some of the islands off the coast of Scotland will be a problem that will tax somewhat the ingenuity of the Scottish Insurance Commissioners.—I am, etc.,

London, June 1st. MAJOR GREENWOOD.

Universities and Colleges.

UNIVERSITY OF OXFORD.

THE following degree has been conferred:

D.M.—E. A. Cockayne, Balliol.

UNIVERSITY OF CAMBRIDGE.

THE following degrees have been conferred:

M.D.—F. P. Franklen-Evans.
M.B.—A. W. Bourne, E. A. Dyson, W. H. F. Eales, F. H. Watson.
B.C.—E. A. Dyson.

UNIVERSITY OF LONDON.

MEETING OF THE SENATE.

A MEETING of the Senate was held on May 15th.

Brown Animal Sanatory Institution.

The annual report for 1911 of the Superintendent of the Brown Animal Sanatory Institution, which was presented, stated that during the year 5,292 animals had been treated in the hospital as out-patients, and 634 as in-patients. The five lectures required under the will of the late Mr. Brown had been delivered by the superintendent, Mr. F. W. Twort, the subject selected being Johne's disease of cattle and the lepra bacilli of man and rats. A considerable number of bacteriological and pathological examinations had been carried out in the laboratory on material obtained from the hospital, the most important being the diagnosis of tumours and of various micro-organisms obtained from inflammatory processes. The report also gave a list of experiments at investigations carried out in the laboratories by different investigators.

Appointment of Representative.

The Vice-Chancellor announced that he had appointed Professor G. D. Thane, to represent the university, in respect of University College, at the bicentenary festival of the Medical School of Trinity College, Dublin, to be held in July, 1912, and Professor H. R. Kenwood as one of the representatives of the university in respect of University College at the annual conference of the Child Study Society held from May 9th to 11th, 1912.

Physiological Laboratory.

Dr. A. D. Waller, F.R.S., and Dr. Mears have been elected respectively Director and Treasurer of the Physiological Laboratory for the year 1912.

The report of the Physiological Committee for the year 1911 gave particulars of the various investigations which had been carried out during the year, and also a list of papers published, the outcome of work conducted in the laboratory during the year.

Report of Professor of Protozoology.

Professor Minchin's report for the year ending June 30th, 1911, contained particulars of investigations carried on and a list of works published from the University Department of Protozoology during the period. It also announced that Miss Muriel Robertson, who had been one of the assistants to the Department since the beginning of 1909, had resigned her appointment in May, 1912, in order to proceed to Uganda and undertake special researches upon the etiology of sleeping sickness and kindred problems.

Studentships and Prize.

The Lindley studentship of £100 will be awarded to a student qualified to undertake research in physiology, and will be held in the Physiological Laboratory. It will be awarded in every third year provided that a candidate of sufficient merit shall present himself.

A university studentship of the value of £50 for one year will be awarded to a student qualified to undertake research in physiology, and will be tenable in a physiological laboratory of the university or of a school of the university.

The regulations for the Paul Philip Reitlinger prize founded by Mr. Albert Reitlinger in memory of his son, who was a student at St. George's Hospital Medical School, and who died on December 3rd, 1911, were approved. The prize, which is of the value of £30, will be awarded in 1912 and every second year thereafter for the best essay embodying the result of some research work on a medical subject. In the alternate years the prize will be awarded for the best essay on a literary, historical, or philosophical subject.

Examinations.

The following candidates have been approved at the examinations indicated:

THIRD M.B., B.S.—*Honours.*—(*a*) E. P. Evans, University College, Cardiff, and London Hospital; (*b*, *c*) Maud F. Forrester-Brown, London (R.F.H.) School of Medicine for Women; (*c*) T. C. Graves, University College Hospital; (*a*, *University Medal*) P. H. Mitchiner, St. Thomas's Hospital; (*a*) D. B. Pascall, St. Bartholomew's Hospital; (*a*) H. Rowntree, Middlesex Hospital; (*a*) Catherine V. Turner, London (R.F.H.) School of Medicine for Women.

(*a*) Distinguished in medicine. (*b*) Distinguished in pathology. (*c*) Distinguished in forensic medicine.

Pass.—J. W. Adams, M. M. Adams, F. J. Anderson, Winifred Austin, G. Barratt, B. Blackwood, J. H. Campain, G. C. Chubb, W. C. Dale, J. L. Davies, A. F. W. Denning, J. R. B. Dobson, M. C. F. Easmon, A. Ferguson, N. F. Graham, A. S. Hahn, A. K. Hamilton, R. S. Harvey, F. J. Humphrys, E. L. Hunt, C. E. S. Jackson, W. H. Kauntze, H. G. Kilner, W. B. Laird, A. B. Lindsay, M. W. Littlewood, J. N. Mehta, E. S. Miller, H. A. Moody, R. N. O. Moynan, A. A. E. Newth, E. L. R. Norton, B. R. Parmiter, R. D. Passey, E. H. Roberts, K. Robinson, S. P. Rowlands, E. A. Seymour, B. S. Simmonds, A. H. Thomas, T. A. F. Tyrrell, F. S. Williams.

THIRD M.B., B.S. (*Group I only*).—Helen P. Barnes, F. C. W. Clifford, H. StC. Colson, Grace M. Cordingley, Gertrude Dearnley, C. A. Ewavitarna, H. W. Hills, A. H. Hudson, G. W. B. James, M. M. Khan, W. Matthews, P. T. Patel, Sara L. Penny, H. R. Prentice, G. F. Rigden, F. Sanders, W. W. Wood, (*Group II only*).—C. Aldis, C. H. Attenborough, H. W. Batchelor, Florence H. Bousfield, B. W. Brown, B. I. Cohen, T. P. Cole, W. H. Eggar, F. W. Hamilton, A. W. Hansell, A. W. Havard, R. G. Hill, B. W. Howell, R. H. Liscombe, G. H. Pearson, J. Potter, W. F. V. Simpson, H. K. V. Soltau, J. Tattersall, T. D. Williams, E. A. Wilson.

UNIVERSITY COLLEGE.

Guild of Graduates.

The University College Guild of Graduates came into existence at the beginning of this year. Its general policy is to act as a binding force in the university, but as the membership must be scattered it is proposed to issue a *Bulletin* whenever the various activities of the university present special interests to its graduates, and though information with regard to noteworthy academic controversy will be embodied in this publication, the Guild will carefully avoid taking any active part in controversial matters. All those who have graduated at the University of London from University College are eligible for membership, but it is not the intention of the Guild to make any invidious distinction between the internal and external departments of the university. Membership is therefore open to graduates who have worked for their degree wholly or in any considerable part at University College. The Guild, as soon as funds are available, proposes to form a register of old students sufficiently full to give graduates an idea of what their fellows are doing and what interests they are pursuing. The Master of the Guild is Sir Victor Horsley, Miss E. N. Thomas is the Science warden, Dr. H. Frank Heath the Arts warden, and Mr. Raymond Johnson the Medical warden. To the first number of the *Bulletin* the Medical warden contributes a note on medical graduates and the Guild. He expresses the hope that his fellow medical graduates who received a part or the whole of their training in University College will not be behindhand in giving all the support in their power to the Guild, thus taking their share in making the University of London a living reality.

Entrance Scholarship and Exhibitions.

The examination for the Bucknill Entrance Scholarship of the value of 135 guineas and for the two Exhibitions of the value of 55 guineas each, tenable in the Faculty of Medical Sciences at University College, will be held this year and till further order in July, and not, as in previous years, in September. The subjects of the examination are chemistry, physics, botany, and zoology. Notice of intention to compete must reach the Secretary of the College not later than Tuesday, July 9th.

UNIVERSITY OF EDINBURGH.

Degrees in Veterinary Science.

UNDER an Ordinance, which has now received the approval of His Majesty in Council, students may obtain the degrees of Bachelor of Science and Doctor of Science in Veterinary Science. It is provided that attendance at the Royal (Dick) Veterinary

College, Edinburgh, shall qualify *pro tanto* for admission to the university examinations for the degrees. The founder of the college, Mr. William Dick, bequeathed the college buildings for the use of the public, while his sister left her fortune to endow a chair of physiology in the college, and also a chair of comparative anatomy in the University of Edinburgh. In 1905 these endowments were supplemented by a donation of £15,000 from Mr. MacCullum, M.R.C.V.S.Edin., for the purpose of founding a chair of pathology, and lately he gave £10,000 towards the building of the new college. The college buildings in Clyde Street have outgrown the needs of the institution, and it is hoped that before long a commencement will be made with the erection of an up-to-date college at the east end of the Meadows. The sum of £4,000 is urgently required to secure the £25,000 promised by the Government.

NATIONAL UNIVERSITY OF IRELAND.

UNIVERSITY COLLEGE, DUBLIN.

THE following were among the degrees conferred on May 25th:

M.D., Ch.B., B.A.O.—H. F. Moore, M. D. Staunton, T. J. Kilbride, A. J. Dempsey, J. C. Denvir, D. J. Foley, M. J. Gallagher, L. J. E. M'Hugh, T. J. R. Maguire, D. Murphy, T. G. Rothwell, J. M. Rowe.

In connexion with the opening examinations in the Faculty of Medicine first class exhibitions of £20 each and first honours have been awarded to H. F. Moore, J. G. J. Green, and P. J. Smyth; and second class exhibitions of £10 and second honours to M. J. Staunton and Mary C. McKenna; and a corresponding exhibition and first class honours to E. H. Coyne.

Medico-Legal.

VERBAL REPORTS TO POLICE (SCOTLAND).

MORVEN, ABERDEENSHIRE.—Our correspondent's position is perfectly clear; he should absolutely refuse to give a verbal report to the police; he is under no legal obligation to do so. He would have great difficulty in extracting a fee from the police for verbal reports. If a report is required, let the Procurator Fiscal ask for a written one, the fee for which is one guinea. This report, as our correspondent may already know, should be given "on soul and conscience."

Public Health AND POOR LAW MEDICAL SERVICES.

POOR LAW MEDICAL OFFICERS' ASSOCIATION OF ENGLAND AND WALES.

A COUNCIL meeting of this association was held at 34, Copthall Avenue, E.C., on May 30th. Dr. Balding, J.P., was in the chair, and the President of the association (Surgeon-General Evatt, C.B.) was also present.

District Secretaries.—With regard to the appointment of district secretaries in different parts of the country, the Honorary Secretary reported that Dr. Allen, of Liverpool, had consented to act, and that Dr. Ellis, of Salisbury, had promised to do his best to recruit members in his district. The council resolved that a list of district secretaries should be drawn up, and published in the *Poor Law Medical Officer*, to improve the organization of the association.

Poor Law Officers' Association.—A letter was read from Mr. Shirley Fussell reporting that the case of Dr. Todd and the Winchester guardians had been before the executive of the National Poor Law Officers' Association, and was to be further considered at its next meeting in June. He desired to be informed of any further particulars. The Honorary Secretary said the British Medical Association had the matter still in hand. Mr. Shirley Fussell had sent also six copies of the report of his council on the recommendations of the conjoint conference of Poor Law officers on the recent report of the Royal Commission on the Poor Laws. It was pointed out that, beyond condemning the medical recommendations of the Commissioners, the council of the National Poor Law Officers' Association had passed over all the suggested reforms in the Poor Law medical service that had been recommended by the conjoint conference. After some discussion, it was resolved that a letter be written to the Secretary of the Poor Law Officers' Association expressing regret that the recommendations of the conference had not been adopted in its report.

Special Fees for Fractures.—A letter was read from a member, asking for advice under the following circumstances: He had attended to two cases of colles fracture in Poor Law patients. Under Art. 177 of the Gen. Ord., July, 1847, he was entitled to £5 for each of these cases if he had treated them throughout their whole case. In fact, had been taken out of his hands after being under treatment for a week, and he had been offered by the guardians £2 10s. for each case. Was he compelled to accept the proposal? The council unanimously condemned this offer as being mean in the extreme. Art. 177 specially ordered that half the fee should be paid in cases of operations coming under that Order where the patient had died within thirty-six hours. At least half the fee should be paid in such cases. It was resolved that the member be advised to ask the guardians to pay him half the regular fees, and, in event of refusal, to go to the Local Government Board. Failing satisfaction, the propriety of taking the case into the county court ought to be considered. It was not certain that the whole fee might not be claimed, as the cases had been taken out of the medical officer's hands.

Treatment of School Children.—Letters were read from two other members, complaining of attempts made by the guardians to include among their duties the attendance on school children found defective on examination with regard to the removal of adenoids, etc. In the case of one, however, it seemed likely that the guardians would pay extra for such treatment. It was resolved that all Poor Law medical officers be advised to resist in every way the imposition of such duties without special payment for the same.

Bristol Meeting.—The council finally took into consideration the special arrangements for the Bristol meeting.

LOCAL GOVERNMENT BOARD REPORTS.

Willington Urban District.—Dr. Carnwath's report to the Local Government Board (New Series, No. 59) is concerned more particularly with an outbreak of typhoid fever which occurred in 1909 and the first half of 1910 in Oakenshaw, a colliery village situated in the urban district of Willington, co. Durham. The population of the village is about 1,280; altogether 74 cases occurred and 7 terminated fatally. Dr. Carnwath found that nearly all the cases were in houses supplied with milk from one farm. The wife and son of the farmer alone had anything to do directly or indirectly with the handling of the milk. In 1908 the son had an illness described as a bad cold which had "struck in," causing inflammation of the lungs and bowels. In August, 1910, the urine and faeces of the wife and son were examined for typhoid bacilli, with negative results as regards the son and positive with respect to the wife. At a later date typhoid bacilli were found to be still present in her faeces. No history of sickness could be obtained from her beyond a "bad bilious attack about four years ago." The outbreak subsided before its obvious cause was discovered and before the farmer's wife had been forbidden to have anything to do with the milk or milk vessels.

Blaenavon Urban District.—The report (New Series No. 62) which Dr. Morgan Rees has made to the Local Government Board on the urban district of Blaenavon, in the county of Monmouth, is not the first which has been made to the Board on this district. In 1895 the late Mr. T. W. Thompson reported upon the unsatisfactory conditions he found with respect to sewerage and house drainage, sewage disposal, excrement and refuse disposal, and water supply. Little appears to have been done in the interval to remedy those conditions, and Dr. Rees expresses the opinion that the urban district lacks those essentials of good sanitary provision and management which when combined do so much to make the life of a community happy and contented. The report bears testimony on almost every page to the neglect of the sanitary authority to carry out its duties. By-laws and regulations have been adopted for various purposes, but little or no attempt has been made to enforce their provisions, with the result that Dr. Rees has to tell of filthy slaughter-houses, a dark, ill-ventilated and dirty common lodging-house, badly paved, dirty, ill-lighted and unventilated cowsheds, and housing conditions such as might be expected to be found within the area of administration of so neglectful an authority. The recommendations which are made in the report are all well considered and do not err on the side of extravagance.

The Services.

UNIVERSITY OF LONDON OFFICERS' TRAINING CORPS.

THE third annual report of the Military Education Committee shows that the Officers' Training Corps has taken firm hold in the University of London. The total strength of officers, N.C.O.'s, and cadets is 926, made up of artillery, engineer, infantry, Army Service Corps, and medical units.

The medical unit, which is organized in four field ambulance sections, has 9 officers and 270 cadets drawn from the London medical schools. Looking down the table giving the number of cadets from the different schools, one cannot help being struck by the fact that some of them have not contributed their quota to the contingent, and we hope that by the time the next report is published this will have been rectified.

Among the events of the year the inspection by His Majesty the King at Windsor takes the first place, and the contingent is proud to have received special commendation from His Majesty. The report of General Sir John French after inspecting the contingent is also very satisfactory.

Other events to be recorded are the annual dinner, at which Lord Haldane was present and proposed the toast of the contingent, and the opening of more commodious head quarters at South Kensington by Colonel Seely.

The Handbook of the University of London Officers' Training Corps for the year 1911-12 gives a detailed list of the officers, N.C.O.'s, and cadets of the various units and also a summary of the important regulations of the Officers' Training Corps. In

addition, numerous hints are given to cadets on details which are likely to be overlooked. The *Handbook* forms a most useful guide to all those connected with the Officers' Training Corps.

THE HOME COUNTIES DIVISION (T.F.).

THE officers of the R.A.M.C.(T.), the Home Counties Division, dined together at the Grand Hotel on May 15th under the chairmanship of Colonel C. Pye Oliver, who was recently in command of the 1st Home Counties Field Ambulance, and is now Assistant Director of Medical Services. The guests of the evening were Colonel J. Turton, V.D., late Administrative Medical Officer, Home Counties Division, and Lieutenant-Colonel J. J. de Zouche Marshall, V.D., late Officer in Command, 3rd Home Counties Field Ambulance.

OPENING OF R.A.M.C. DRILL HALL, CARDIFF.

THE new drill hall of the 2nd Welsh Field Ambulance, commanded by Lieutenant-Colonel William Sheen, was formally opened on June 1st by Sir Launcelot Gubbins, K.C.B., M.V.O., Director-General of the Army Medical Service. A successful smoking concert, at which the Director-General was present, was held in the evening.

INDIAN MEDICAL SERVICE.

The Equipment of Indian Field Ambulances.

A COMMITTEE consisting of Colonel Cobbe, V.C., Major Muscroft (Supply and Transport Corps), Colonel Robinson (Principal Medical Officer, First Division), Major Jay Gould, I.M.S., and Major Gunter, R.A.M.C., assembled at Simla in May to revise the equipment of Indian Field Ambulances in accordance with the experience of recent wars. Surgeon-General Sloggett, C.B., C.M.G., was in the chair, and Lieutenant-Colonel Bruce Seton, I.M.S., acted as Secretary of the Committee.

The Medical Branch of Indian Army Head Quarters.

In conformity with the recent decision of the Army Council the Government of India has sanctioned the following changes in the designation of the medical officers of the Army Head Quarter staff.

The Principal Medical Officer, His Majesty's Forces in India, becomes the Director of Medical Services, Army Head Quarters, India.

The Deputy Principal Medical Officer, His Majesty's Forces in India, becomes the Deputy Director of Medical Services, Army Head Quarters, India.

The Secretary to the Indian Medical Service becomes the Assistant Director of Medical Services (India Service).

The Secretary to the Royal Army Medical Corps becomes the Assistant Director of Medical Services (British Service).

The Sanitary Officer becomes the Assistant Director of Medical Services (Sanitary).

The Sanitary Commissioner with the Government.

The Government of India has appointed Major J. C. Robertson, I.M.S., Sanitary Commissioner, Lucknow, to be Sanitary Commissioner with the Government of India. He will be administratively subordinate to the Director-General, Indian Medical Service.

Obituary.

HENRY WHITAKER, M.D., M.R.C.S., D.P.H., R.C.S.I.,

LATE MEDICAL SUPERINTENDENT OFFICER OF HEALTH, BELFAST.

WE regret to announce the death of this well-known and highly respected member of the profession. Dr. Whitaker had a long and varied career. He was born in 1833 in Belfast, and entered the old Queen's College in 1854, having as class-mates the late Sir William MacCormac and Dr. McCrea. He served his apprenticeship also with Mr. John Grattan as a chemist, and became a licentiate apothecary in 1856, and entered into partnership with the late Mr. W. J. Wheeler. Subsequently he graduated as M.D. in the Queen's University, and obtained other degrees. He became a member of the City Corporation in 1869, first as Councillor, and three years later as Alderman for St. George's Ward. He devoted much time to public health work, and after twenty years' service was, in 1890, appointed Medical Superintendent Officer of Health, and discharged the duties of this office for sixteen years. During this time the population of the city grew from 230,000 to 360,000, and many sanitary difficulties had to be contended with. He was always most courteous, helpful, and ever ready to visit where dangers were greatest. He enjoyed the respect and affection both of his staff and of the profession. He was an ex-President of the Ulster Medical Society, and Lecturer on Sanitary Science in the Queen's College.

He leaves a widow and large family, with whom much sympathy is felt; the six sons have all risen to distinction in law or medicine.

HIS numerous friends in India, as well as elsewhere learnt with deep regret of the death, immediately after his arrival home on eight months' leave, of Surgeon-General M. W. KERIN, C.B., P.M.O. of the 8th (Lucknow) Division. The late Surgeon-General was born in 1856, and received his medical education in Dublin. He entered the Army Medical Service in 1880, and first saw active service with the Burmese expedition of 1885–6. A long period of peace service ensued, until the outbreak of the South African war found him with the troops in Northern Natal. He took part in the energetic operations conducted by Sir George White, and was present at the action of Telana, finally being one of the gallant garrison which was invested in Ladysmith. His services were twice mentioned in dispatches by Sir George White. In 1903 Surgeon-General Kerin was on the North-West Frontier of India, and accompanied the Zakka Khel expedition, again winning distinction of mention in dispatches. Only two years ago his long and valued services were rewarded with the bestowal of Companionship of the Bath. He was promoted Surgeon-General in March last.

Medical News.

THE annual athletic meeting of the United Hospitals Athletic Club will take place on Tuesday, June 11th, at the Stamford Bridge Athletic Ground.

A DISTRICT CENTRE of the St. John Ambulance Association has been formed at Maymyo under the presidency of the Lieutenant-Governor of Burma. Colonel Hehir, P.M.O. Burma Division, is honorary secretary.

THE Cavendish Lecture before the West London Medico-Chirurgical Society will be delivered by Professor Karl Pearson, F.R.S., on Friday, June 21st, at 8.15 p.m. in the Town Hall, Kensington. The subject is Darwinism, medical progress, and eugenics.

The following prizes are offered for open competition by the International Tuberculosis Society: £20, £4, and £2, besides gold and silver medals. Manuscripts must be sent before December 1st, 1912, to the General Secretary, Dr. Georges Petit, 45, rue du Rocher, Paris.

WE have received from Messrs. W. and G. Foyle, of 135, Charing Cross Road, W.C., a copy of their nineteenth book catalogue, its special feature being that all the books described therein are new copies which they have for sale at unusually low prices. The books cover topics of almost every kind.

THE latest catalogue issued by the De Dion Bouton firm relates to its output of vehicles for commercial purposes. These include taxicabs, omnibuses, fire engines, watering wagons, and sweeping machines. The catalogue, which is freely illustrated, can be obtained on application. Also shown are the searchlight, commissariat, and gun-carrying wagons made by the firm for the French army.

THE annual dinner of the Royal Army Medical Corps will take place on Monday, June 17th, at the Trocadero Restaurant, Piccadilly Circus, W., at 8 p.m., under the chairmanship of the Director-General. Officers intending to be present are requested to communicate with Major E. T. F. Birrell, R.A.M.C., Honorary Secretary of the Dinner Committee, 12, Sutherland House, Cheniston Gardens, Kensington, W.

DR. ALEXANDER MORISON will give a course of lectures on the nature and treatment of sensory and motor diseases of the heart, at the Great Northern Hospital, Holloway Road, on Tuesday, June 11th; Friday, June 14th; and Tuesday, June 18th, at 5 p.m. on each day. The course will be illustrated by lantern slides and microscopic sections, and the attendance of medical practitioners interested is invited. The hospital can be reached by tube railways to Highgate or Holloway Road stations.

UNDER the auspices of the National Bureau for Promoting the General Welfare of the Deaf, Dr. James Kerr Love, of Glasgow, is to deliver two lectures at the Royal Sanitary Institute, the first dealing with the nature and consequences of deafness, and the second with the classification of deafness and the prevention of acquired deafness. The date of the first lecture is Tuesday, June 11th, at 5.30 p.m., when Sir Frederick Milner, P.C., will preside. The date of the second lecture has not yet been fixed.

Dr. Louis L. Williams, of Boston, U.S.A., has published (*Boston Med. and Surg. Journ.*, May 16th, 1912, p. 738) a report of a case in which he gave an intravenous injection of 0.6 gram of salvarsan to a mulatto aged 22, subject to syphilitic orchitis, with other secondary lesions. Considerable constitutional disturbance followed, vomiting, high temperature and coryza being marked. On the third day, when the temperature had fallen within forty-eight hours from 50° to 38°, a typical measles eruption developed. Koplik spots were seen on the buccal mucosa, and the conjunctivae were injected. The temperature fell to normal within two days. Dr. Williams observes that the injection was given a few hours before the unexpected onset of measles, and the result, in his opinion, implied that salvarsan does not affect the development and course of that disease. In the view of the antagonism of salvarsan to some of the pathogenic protozoa, the coincidence observed in this case may have some bearing on the question of the nature of the organism concerned in the causation of measles.

The annual meeting of the Society for Training Teachers of the Deaf on the Pure Oral System was held on May 29th at 33, Cavendish Square, by kind invitation of Mrs. and Dr. H. E. Symes Thompson. Mr. B. St. John Ackers presided, and the adoption of the report (presented by the Rev. A. S. Thompson, B.D.) was moved by the Vicar of St. Mark's, North Audley Street, and seconded by Dr. G. E. Shuttleworth. The report expressed the hope that the working alliance in contemplation between the Ealing and Fitzroy Square Colleges would be carried into effect before long. Reference was made to the lectures on anatomy and physiology given by Mr. Macleod Yearsley to the students of both colleges, and to the certificates of teaching qualifications issued by the joint examination body. It was stated that the supply of trained teachers for the deaf was still insufficient to meet the demand, and a hope was expressed that more liberal Government aid might be granted towards the necessarily heavy expense of complete training. Lip-reading lessons had been given not only to children but to adults with advancing deafness, and had proved of signal benefit. The balance sheet showed some improvement on preceding years, but there was still need for more generous financial support to carry out fully the objects of the society, which had recently included the free training of teachers for service in India under the Church Missionary Society. After an eloquent address by Mrs. Rose, who proposed the reappointment of the committee, on the pitiable condition of the uninstructed deaf and the invaluable benefits they received from oral training, the meeting concluded with votes of thanks, in which emphatic reference was made to the immense services rendered to the society by the late Dr. E. Symes Thompson.

The Insurance Commissioners are issuing with rapidity a number of official explanatory leaflets, some of them brief statements in popular language of the provisions of the Act, others in the form of questions and answers. The object of the series is said to be to express in a simple way, for the benefit of persons eligible to become insured, the chief provisions of the Act with regard to various subjects; attention is confined to such main points as can be dealt with in short leaflets, and the various legal limitations, exceptions, etc., that would properly be found in a complete statement of the provisions of the Act are not set out in full. The reader is warned that it must be clearly understood that nothing in any of the leaflets is to be regarded as determining any of the questions still to be decided under the Act, whether by the Commissioners or others. Of these leaflets, the majority are concerned with general questions with regard to the approval of friendly societies, dividing societies, trade unions, and slate clubs, and the advantages of joining an approved society; two are specially devoted to the position of women, and one to domestic servants. In the leaflet on voluntary contributors it is clearly stated that any person who has once become a voluntary contributor, and has completed five years of insurance, may continue to be a voluntary contributor, whatever his income, and whether earning his own living or not. It is pointed out that it will be of considerable advantage to the insured person to become a voluntary contributor through an approved society before January 15th, 1913; if under 45 he will pay only 7d. per week (women 6d.), if over 45, rather more, but not so much as if he joined after January 15th, 1913. It is added that a voluntary contributor will cease to pay contributions after the age of 70, but he will remain entitled to medical benefit. In another leaflet it is stated that medical benefit includes medical treatment and medicine for the insured person, and certain kinds of surgical appliances.

Letters, Notes, and Answers.

Authors desiring reprints of their articles published in the British Medical Journal are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted will be found under their respective headings.*

QUERIES.

E. R. C. asks for reference to any literature or statistics showing the relation (if any) between the presence of goitre and premature birth.

School Medical Officer asks for information as to elementary schools constructed on the pavilion system, that is, each class room with its cloak-room, etc., forming a separate building.

W. asks whether it is worth while suturing a complete rupture of the perineum, first seen fourteen days after delivery, or whether it would be better to wait, and do a flap-splitting operation later.

No. 205 would like to know the best way of preventing or combating thiosinamin poisoning. He means the symptoms—rigor, fever, chill, etc.—which sometimes follow the administration of this drug.

Puzzled has a lady patient, aged 29, who is unable to take a cold bath on account of the intolerable itching which comes on about ten minutes afterwards and lasts for about one hour. She is able to take a hot bath, using water from the same source, without any unpleasant results. The water used for the bath is hard and alkalis have been tried to soften it, but without any effect. He would be glad of suggestions in the way of treatment.

Mr. Adair-Dighton, F.R.C.S. (Liverpool), writes in reply to "Eustachius": The prognosis of the case of tinnitus aurium reported depends entirely on the curability, or otherwise, of the chronic posterior nasal catarrh. This point can only be settled by naso-pharyngoscopic examination. There may be bands, or adhesions, causing obstruction or undue patency of the Eustachian tube, or else there may be a chronic hyperplasia dependent on the gouty diathesis. Chronic post-nasal catarrh includes so many pathological pictures that the only certain method of diagnosis, and so of prognosis, is by means of the naso-pharyngoscope. With this instrument a detailed examination and a positive diagnosis can be made and a definite prognosis given, none of which are possible by any other method.

LETTERS, NOTES, ETC.

"St. Kilda."

In the article entitled "St. Kilda," which was published in the British Medical Journal of June 1st, there is a misprint at p. 1250, line 15 from the top of the left-hand column. It should read "forty-one *males*," giving a majority of one to the male population of the island.

Puerperal Eclampsia.

Dr. D. N. Cooper (London) writes: In puerperal eclampsia one vital point in the treatment is the elimination of the toxin. Free purgation is an aid. The second aid is to keep the patient in a bath of perspiration. This can be done easily by rigging up an apparatus to carry hot air or steam tubes under the blankets, and the temperature regulated by thermometer by the nurse, who should be in constant attendance. Diluents should be freely given, if not by the mouth by rectal injection. The great point is to keep up a Turkish bath till the kidneys secrete the normal quantity of water.

Organization of Post-Graduate Instruction.

Dr. R. Lucius Woodhouse (Huyton) writes: Would it be possible for the British Medical Association to organize a scheme whereby each member would be enabled to attend at least one month's post-graduate tuition each year? Such a scheme would, no doubt, be a complicated one to arrange and carry out, and would involve an extra subscription; but it would, on the other hand, raise the standard of medical practice in this country and, incidentally, enhance the value of the medical practitioner in the eyes of the public.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page	8	0	0

An average line contains six words.

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

Note.—It is against the rules of the Post Office to receive *poste restante* letters addressed either in initials or numbers.

THE EVOLUTION OF OBSTETRIC MEDICINE:

WITH ILLUSTRATIONS FROM SOME OLD MIDWIFERY BOOKS.

BY

SIR JOHN BYERS, M.A., M.D., M.A.O.,

PROFESSOR OF MIDWIFERY IN THE QUEEN'S UNIVERSITY OF BELFAST.

At a meeting of the Ulster Medical Society on January 18th, 1912, the honorary librarian, Dr. W. L. Storey, read some most interesting notes on two old volumes which he showed, and which he subsequently very kindly placed in my hands, dealing with obstetric medicine. At the next meeting, February 15th, 1912, I was able to exhibit two additional ancient books on the same subject. Some details about these works may be worth recording—apart from their own individual interest—for the light they throw upon the early history of obstetrics, and its gradual development into a science and an art.

I.—"THE BYRTH OF MANKYNDE."

In the year 1909 there was found in the library of the Ulster Medical Society, in the midst of a number of other old publications, a beautifully preserved copy of the 1545 (second) edition of *The Byrth of Mankynde* (the first edition appeared in 1540) with this title:

> The byrth of
> Mankynde, other wyse named
> the Woomans booke. Newly
> set furth, corrected and
> augmented. Whose co
> tentes ye maye rede
> in the table of the
> booke, and most
> playnly in the
> prologue.
> By Thomas Raynold
> phisition
> Anno M.D. XLV.

On the back of the book, which is bound in mottled calf is "Raynold's Midwife," while on the last page, below "Imprynted at London by Tho. Ray." is written "S. Sarah Simcock. hoar Booke"—the name, perhaps, of some former owner, who may have been a midwife. The initial S has faded, as if whoever wrote the name made this letter, and then started again to write her Christian name. A little beyond the word "Booke" is a blot, which has spread gradually upwards and backwards as if from the spilling of a drop of ink. What is this book, and who is its author (or authors)? In the year 1513 the first printed work on midwifery was published in Worms by Eucharius Rosslin with the title *Der Swangern frawen und Hebammen Rosegarte* ("The Rose-Garden of the Pregnant Woman's Nurse"). It was compiled largely from the teaching of the famous physicians of the Alexandrian school—Soranus and Moschion—which has come down to us through compilations made, along with works of earlier writers, by Orisabius and Aetius, and in the Muscio MSS. (as pointed out by Fairbairn), which, it is known, were for a time in the Heidelberg Library, where Rosslin, who practised at Frankfort-on-the-Maine, may have had access to them. What makes this work of special interest is the fact that its advent synchronized with the discovery of printing, and so, though it appeared first in German, it was subsequently translated into Latin as *De Partu hominis et quae circa ipsum accidunt, Libellus D. Eucharii Rhodionis Medici*, in 1532. It was from this Latin version that it was translated into so many modern languages, such as Dutch, Hungarian, German, Italian, and French. In the year 1540 the first English edition of *The Byrth of Mankynde* appeared, the work having been translated from the Latin version of Rosslin's (or Rhodion's) book, by Richard Jonas, a man who may have been simply a scribe "a certayne studious and dilygent clarke" (referred to in "a prologue to the women readers" preceding the first book of the second and succeeding editions of the work), or he may have been a connexion of Justus Jonas, the German reformer, who was born at Nordhausen, Prussia, 1493, and died at Eisfeld, Saxe Meiningen, 1555, and who was the friend and collaborator of Luther. The second edition of *The Byrth of Mankynde* differs (as shown by Ballantyne) from the first or "Jonas" edition, in that it is the first of what some have called the "Raynalde" editions, and it is also the first that contains the prologue to woman readers—the man midwife had not yet come—the anatomical figures, the greater part of the first book, and the Latin preface with the reference to Aristarchus, the noted Alexandrian grammarian and critic, who flourished about the second century B.C. In a word, this most interesting book is largely Rosslin, with additions by Thomas Raynalde, an English physician, who it appears practised in London and Paris, and who travelled abroad a good deal, for the epistle dedicating another of his books is dated from Venice. This work is *A Compendious Declaration of the excellent Virtuces of a certain lateli invented oile called for the Worthins thereof oile imperial with the manner how the same is to be used for the benefite of mankinde against innumerable diseases written by Thos. Raynalde Doc. of Phisick. Virtute duce, comite fortuna*, Venice, 1551. Of *The Byrth of Mankynde* there have been, from 1540 to 1676, as many as fourteen English editions, a circumstance which indicates what an influence this book excited on midwifery practice in England. It was the first English book printed on the subject of obstetrics, but not the earliest work in our language on midwifery, for Dr. Aveling has shown (*Obstetrical Journal of Great Britain and Ireland*, ii, 73, 1875) that among the Sloane MSS. in the British Museum there is a work by an unknown author of the fifteenth century written and illuminated, "of which," he says, "two hundred and thirty-four pages are devoted to midwifery and diseases of women." "In some instances the text," according to Dr. Aveling, "is a verbatim translation from Regerius." This reference to the Sloane MSS. is of interest to all medical men, and especially to those of North of Ireland birth or extraction, because these wonderful collections have among them letters and notes by most of the doctors of the century preceding Sir Hans Sloane's death, and they thus form the principal source of the medical history of England during a period of six reigns—Charles II, James II, William III, Anne, George I, and George II—and because they were brought together by Sir Hans Sloane, who was born at Killyleagh, co. Down, April 18th, 1660. Sloane was one of the greatest men Ulster has produced.*

How this beautiful copy of the second edition (1545) of *The Byrth of Mankynde* reached the old "Belfast Medical Library" in 1829 is unknown, and at present the only other copies of this edition—four in number—are, so far as is known, in the British Museum; Royal College of Physicians of London; Hunterian Library, University of Glasgow; and in the private collection of Dr. W. S. A. Griffith of London. One of the most curious features of the book consists in the irregularities of pagination (as occurs even in some of Shakespeare's folios), due largely to want of care and shortness of type. It is beautifully printed in black letter, with woodcut capitals. Round the quaint title-page is a woodcut border, and in the book there are the Vesalius anatomical plate and the Rosslin "Byrthe Fygures," with "The Woman's Stoule."

II.—"THE COMPLEAT MIDWIFE," ETC.

This old book, which I owe to the kindness of a friend and former student, Dr. Mandale Byers, who sent it to me from London, where he had picked it up, is a calf-bound octavo volume, printed in London "for Nath. Brook, at the Angel in Corn-hill, 1663." Unfortunately the title-page is wanting, but there is "The Preface by Sundry Practitioners in and about the City of London," etc., which is signed at the end with the initials of six people—R. C., J. D., M. S., T. B., W. C., M. H.—whoever they may be. This preface is of great interest as throwing a light upon some of the contemporary obstetric literature of the day. It is as follows:

Christian Reader,

It is high time, there being already published many Treatises in this kind, for us to discharge our consciences for

*BRITISH MEDICAL JOURNAL, November 18th, 1905. "Nova et Vetera—Sir Hans Sloane," by Professor Byers.

the good of the Nation: we have perused all that have been in this nature in *English*, and find them strangely deficient, so crowded with unnecessary Notions, and dangerous Mistakes, that we thought it fit to give you warning of them, that for the future the unfortunate Practisers may prevent the *almost guilt* of the crying sin of Murder.

It is admirable to us, that our Country should be so much deluded, to build all their practice upon such Authors, that have at all conduced to any considerable advantage in this so necessary and useful Art, as the preserving of Mankind. Alas! how many miserable Volumes have these late times brought forth? Not to disparage any that have deserved, but in so weighty a concernment as this, we must stand upon our integrity. There hath been a reasonable intention in the publishers of some Books, *viz. The Birth of Man*, the most ancient, but very much unfurnished; as also the Books of *Childbirth*, [this is probably the English translation of Guillemeau's treatise on midwifery which was published in 1612, with the title *Childbirth; or, The Happy Deliverie of Women*. Guillemeau was one of Ambroise Paré's ablest pupils], *The expert Midwife* [this is the English version of the *Hebammenbuch* of Jacob Rueff, published in Zurich in 1554] the worst that hath been written in that kind in French; and it's almost a Miracle to us, that Mr. *Culpeper*, A man whom we otherways respect, should descend so low as to borrow his imperfect Treatise from those wretched Volumes, some of which are before mentioned: And we must deal faithfully with you, that, that small piece of his, intituled, *The Directory for Midwifes*, is the most-desperately deficient of them all; except he writ it for necessity, he could certainly have never been so sinful to have exposed it to the light. Now, Christian Reader, to give thee a true information of what we have here done for thy good, we shall not only justify from our own experiences, but fully demonstrate from the writings of the best Practisers, both of the *French*, *Spanish*, and *Italians*, and other nations; and we must clearly confesse, that we are highly obliged to the incomporable labours of that most Famous Woman of the World, *Madam Loug. Bourgeo*, late midwife to the Queen of *France*: the praises that we read of all these that ever heard of her, are not so much a flourish, as truth; for her reasons are solid experiences, and her witnesses have been all of the most eminent persons of *France*: and not only of her, but as we have already exprest, of the most excellent known Men and Women of this Art of other Countries: It's upon this account that we break the barriers and boldly stand the brunt of all Censures.

The chief occasion of this Book is, to make it a great Exemplary and School, where Medicine married to the Midwife's industry, may teach everyone the admirable effects of the Divinity of this Art of Midwifery.

And now knowing, Reader, that the Receipts herein contained, which have ever had happy successes, are not made publick to the world on any other sign, than of the assistance of such persons, whom either the want of fortune, or opportunity desireth such sudden helps, neither can we be without bleeding hearts, if we but consider how many have been lost by the unskilfulnesse of those that attempted this great Work; nor should we have prostrated our reputation and private experiences, but to correct the frequent mistakes of most *Midwives*, who, resting too bold upon the common way of delivering women, neglect all the wholesome and profitable Rules of Art, which might concern them in the occult diseases of Women, as also of the anatomical parts of the Body. Thus having discharged our consciences, we have no more to write, but refer you to the Book itself, desiring a blessing of God on these our faithfull endeavours. We are the hearty Well-wishers of your good.

The book opens with

The
Compleat Midwife
Her
Practice enlarged.

The serious and most choice secrets of Madam Louyse Bourgioes, Midwife to the Queen of France; which she left to her daughter as a Guide for her: And also for the Practice of all discreet Midwives, to prevent all dangerous Mistakes in a work of so high Concernment; necessary to be known by all Child-bearing Women, and others.

This "Compleat Midwife" occupies 276 pages of the book, the first 242 being contributed by Madam Louyse Bourgioes, with steel plates, one giving "The natural forme of a child lying in ye womb," the other showing figures of the special organs in both sexes, which are fully described in the text, in accordance with the anatomical and physiological knowledge of those days. Hints are suggested for the proper management of pregnancy and for the minor complications of labour; while in chapter xxviii, "Of cases of extremity, and first, what is to be done to a woman, who in her travail is accompanied with a flux of blood, and with convulsions," she shows how well she must have been taught by Ambroise Paré. The cross-bed position is recommended, podalic version is fully described, and when the child is dead in the womb and it is necessary that it should be delivered, the method of using the hook is demonstrated. The use of the *speculum matricis* or apertory, is advised for dilating the womb. In short, all the methods of delivery known at that period are fully explained. In the selection of a nurse for a baby she gives excellent advice, as well as when it is necessary to provide a foster-mother in the case of "those women that either cannot or will not nurse." Attention is drawn to diseases of the womb and of the breast, and one of the causes assigned by her for the "Green-Sickness" (chlorosis) is obstruction (? constipation) of the bowels; "hence arises an ill concoction in the bowels, and the humours are carried into the habit of the body, or become habitual thereunto." Purgation is one of the methods of treatment recommended, so that Madam Bourgioes anticipated Sir Andrew Clark's theory as to the causation and treatment of chlorosis. Finally, she draws attention to the bringing up of children, as well as to their diseases. At page 243 of this book we have

A full supply of such most usefull and admirable secrets, which Mr. Nicolas Culpepper in his brief Treatise, and other English Writers, in the Art of Midwifery, have hitherto wilfully passed by, kept close to themselves, and wholly omitted; now at last made publick for the General good: By T. Chamberlain M.P.

And this runs on for another thirty-three pages. Then follows:

Rare Secrets Brought to Light. Which for many years were Locked up in the Brest of that most famous and Learned Physitian Sir *Theodore Mayern*, Physitian to His Late Majesty, King Charles the First, of ever blessed memory. In which are contained the sufficient Testimonies of the Warranted, and Happy Successes of his Mature judgment in his general Practice, on the greatest Ladies of the Court and Country, in the Faculty of so publick a Benefit, as of the excellent Skill of Midwifery.

In a preface to these "Rare Secrets" the writer, "as being a near relation" of Mayern (his name is not given), tells "the Understanding Reader" that, hearing of a second edition that was "to come forth" of the works of Madam Lowise Bourgeoise, he "thought it most convenient to annex thereunto this collection more considerable for its quality, than quantity."

An account of the principal writers that figure in this book may be of interest:

1. Louise Bourgioes (Bourgeois, or Boursier), who was born in 1563, was à Paris midwife held in great repute towards the end of the sixteenth and the beginning of the seventeenth century. Her husband—an army surgeon named Martin Boursier—and she were educated under Ambroise Paré, and from them both she received instruction in the more difficult parts of the art of midwifery. She was one of the first graduates of the famous school for midwives established at the Hôtel-Dieu in Paris. Her reputation became so high that she was appointed *sage femme jurée* to the Queen of France, whom she attended, as well as the great ladies of her Court. She was the writer of several works, such as: (*a*) *Various Observations on Sterility, Fertility, and Diseases of Women*. (*b*) *The Collection of Secrets*. (*c*) *The True Nature of Births of Men and Women of France*. (*d*) *Directory to my Daughter, The Compleat Midwife, her practice enlarged*. Her fees for an obstetric attendance varied according to the sex of the royal child: 500 crowns if it was a boy, 300 if a girl. What she charged if the child was stillborn or in case of twins is not related. In her old age she enjoyed a pension of 300 crowns per annum. In Dr. J. Munro Kerr's *Operative Midwifery*, p. 139, 2nd edition, 1911, it is stated, on the authority of Fashbender, that she recommended reposition of the prolapsed cord, and the maintaining of it in position by means of a tampon. This would be about 1609. In 1627 she lost popularity owing to the death—from septicaemia—of a royal princess, the Duchesse d'Orleans, whom she had attended.

2. It is difficult to say exactly who "T. Chamberlain, M.P." really was. He may have been a miscellaneous writer who translated *A Treatise of Health*, by Castor Durante.

3. Nicholas Culpepper (1614–1654) was a physician (in the title-pages of some of his books he adds M.D. to his name, though whether or where he graduated in medicine seems to be unknown) who practised at Spitalfields, and who thoroughly understood the arts of the quack advertiser, though there can be no doubt he was a man of considerable attainments and of great powers of work. His *Herbal* was a famous family medicine book for past

g nerations. In addition to being a doctor, he was a s ldier during the Civil War—being probably a Parliamentarian—and was wounded in one of the battles. His *Directory for Midwives* is chiefly remarkable for demonstrating what a contemptible position obstetrics occupied in England, especially as compared with the Continent, in the seventeenth century. Smellie says of him, in his *Treatise*: "His performances were for many years in great vogue with the Midwives, and are still read by the lower sort, whose heads are weak enough to admit such ridiculous notions."

4. Sir Theodore Mayern—or, to give him his full title, Sir Theodore Turquet de Mayern (1573–1655), Baron Aulbone of France—was the son of a French Protestant of Piedmontese origin, while his mother was a daughter of Le Macon, Treasurer of War in the reigns of Francis I and Henry II of France. He was born at Mayenne, near Geneva (hence his name), in 1573. He studied at Heidelberg and afterwards at Montpellier, where he graduated M.D. Starting practice in Paris, he lectured on anatomy to the surgeons, and on pharmacy to the apothecaries. His liking for chemical remedies attracted the attention of Dr. Ribbitz de la Rivière, at that time first physician to Henry IV, and he was himself appointed one of that King's physicians. His defence of chemical remedies aroused the ire of the medical profession, and although King Henry liked him, his Queen—Marie de Medici—was unfriendly and insisted on Turquet's dismissal, and the Medical Faculty of Paris issued a decree forbidding all physicians who acknowledged their authority to consult with him, and exhorted practitioners of all nations to avoid him, and to persevere in the doctrines of Hippocrates and Galen. In 1606 he had fortunately attended successfully an English peer who was in Paris, and who, to show his gratitude, presented him to the King of England, who made him physician to the Queen, and in the same year he was incorporated M.D. of Oxford. In 1611 he came to reside in England, and such was his great reputation that he was appointed physician to James I, a position which he continued to hold under Charles I and Charles II. He had a large and fashionable practice and was trusted implicitly by Kings James and Charles I, and in 1616 he was made a Fellow of the Royal College of Physicians, and in 1624 a knight. Sir Theodore Mayern was a great physician—with a special liking for pharmacy—and a versatile author. He wrote in both English and French, and kept careful notes of his cases, which now occupy twenty-three volumes of the Sloane collection in the British Museum. It is to him we are indebted for an interesting account of the illness and death of Isaac Casaubon, the famous classical scholar and Protestant theologian of French (Gascon) origin (1559–1614), who died in London, and who was a prebendary of Canterbury and pensioner of King James, which Mayern wrote in 1614. The Society of Apothecaries owed to Mayerne their incorporation, and King James I commissioned him to write a dedication to him of the first *Pharmacopoeia* published by the Royal College of Physicians. He invented a famous "Powder de Gotteta" for epilepsy, a gout powder, an ointment for hypochondria, and he discovered the purple colour necessary for carnation tints in enamel painting. He made experiments in pigments which, it is said, rendered him popular with his lady patients, while he used as a scribbling-book, that could be washed, a sort of tablet with a covering of parchment treated with a resinous compound, the prototype of the modern doctor's slate. It is to him, it is said, we owe the introduction of calomel and the use of "black wash." He also practised midwifery, as these "Rare Secrets" show, but more as a physician than as a surgeon, for there is little if any mention of the difficulties of labour in these "Rare Secrets," which are full of recipes for "emplasters," ointments, powders, lotions, injections, and other pharmaceutical remedies, for the minor complications of obstetric practice. In England, where he died in 1655, he used the the name Mayern or Mayerne. Some authorities have suggested that the Dr. Caius in Shakespeare's *Merry Wives of Windsor* is a burlesque on Sir Theodore Mayern, but until some evidence be forthcoming we must hesitate to admit this interpretation. The French doctor type is very common in Elizabethan literature, and hence Ambroise Paré has also been suggested as the original of Dr. Caius. The painting of Sir Theodore Mayern, done by Rubens, after various vicissitudes, was in 1848 bought by the Royal College of Physicians.

III.—"Art of Midwifery."

The third old book, which formerly belonged to the "Belfast Medical Library," is a beautifully calf-bound octavo volume, on the back of which is "Art of Midwifery," and with the following title-page:

The Art of Midwifery Impro'd.

Fully and Plainly laying down Whatever Instructions are requisite to make a Compleat Midwife. And the many Errors in all the Books hitherto written upon this subject clearly refuted. Illustrated with 38 Cuts curiously engraven on Copper Plates, representing in their due Proportion the several positions of a *Foetus*. Also A New Method, Demonstrating, *How infants ill situated in the Womb whether obliquely, or in a strait Posture*, may, *by the Hand only* without the Use of any *Instrument*, be turned into their right Position, without hazarding the Life either of *Mother or Child*. Written in Latin by Henry à Daventer. Made English. To which is added, A Preface giving some Account of this work by an Eminent Physician. London: Printed for E. Curll, at the Dial and Bible, F. Pemberton, at the Buck and Sun, both against St. Dunstans-Church in Fleet-Street, and W. Taylor, at the Ship in Pater-Noster-Row. 1716. Pr. 6s.

Henry à Daventer (or Heinrich van Deventer) was born at Daventer, the capital of Over-Issel, in Holland, and took his name from his native town, as was the custom of the Van-Low. Originally a goldsmith, he afterwards turned to the healing art, and at the end of the seventeenth and beginning of the eighteenth century he had a great reputation as a doctor and accoucheur. He practised for a long time with his wife (a Vroedvrow as he was a Vroed meester) at Groiningen, and in several other parts of Holland, and was called to Denmark by Charles V, who recompensed him well. He was a thorough anatomist and surgeon, and though he devoted great attention to orthopaedics (inventing instruments to correct deformities) his reputation is based specially on his skill as an obstetrician. He wrote a treatise, *Novum lumen obstetricantium quo ostenditur quâ ratione infantes in utero tâm obliquo quam recto pravè siti extrahantur*, Lyden, 1701. In this volume inconveniencies arising from obliquity of the uterus are shown, as well as the means how best to remove them. He also wrote *Ulterius examen partuum difficilium lapis lydius obstetricum et de necessitate inspiciendi cadavera*, 1725. His chief work was translated into English as *The Art of Midwifery Impro'd*. He also wrote *Operationum chirurgicarum novum Lumen exhibitum Obstetricantibus pars secunda*, 1773, which contains all his teaching on midwifery. Numerous editions of this work have appeared in German, Dutch, French, and in English. He wrote a work on rickets, which appeared posthumously. This *Art of Midwifery Impro'd*, by Daventer, is of the utmost importance to any one interested in the history of obstetrics. In the first place, it is addressed both to midwives as well as to "surgeons who practise midwifery," that is, to the men midwives; and in the preface, written, as we are told, by an eminent physician, there is this curious paragraph:

Midwifery has, in all ages, been the study of the most learned Physicians, tho' the Practice of it has best succeeded in this last Age among the *French*: for their Ladies, laying aside all unreasonable Modesty, have provided for their own and children's Safety by admitting of Assistance from both Sexes; and the Men being more Skilful in Anatomy, and being disposed to find out new Help in unforeseen cases, have brought it to greater Perfection than it could possibly attain by other Means in other Countries.

In this passage references are made, doubtless, to Ambroise Paré, Guillemeau, and Mauriceau, who in 1668 published a work on midwifery, which was translated into English by Hugh Chamberlain, who, in a preface, wrote those memorable words forecasting the use of the forceps:

My Father, Brothers, and my Self (tho' none else in Europe as I know) have by God's Blessing and our Industry attained to and long practised a way to deliver women in this case without any Prejudice to them or their Infants,

as well as to the fact that in 1663 Louis XIV was so pleased with the way Jules Clement, a distinguished Paris surgeon, had attended at childbirth one of his favourite mistresses (Madam de la Vallière), whom she had asked to be with her to preserve secrecy, that not only did he attend the same lady on similar subsequent occasions, but he rose rapidly as a Court favourite; and the result was that it became fashionable to have surgeons in full attendance

(and not summoned simply if difficulties arose) at confinements; and a new word, "accoucheur," was coined for this type of medical practitioner. But this book of Daventer was really the first to present anything approaching a scientific description of the pelvis (two admirable figures are given, one being a vertical section), and to indicate any advance in the direction of the mechanism of labour. Daventer was one of the first to study deformation of the pelvis.

If Soranus be regarded as the "Father of ancient obstetrics," as Hippocrates was of medicine, then Daventer may be styled the "Father of Modern Midwifery," just as Sydenham is of modern medicine.

IV.—"Burton's Letter to Smellie."

The last book I have to speak of is a plain calf-bound octavo volume, which I owe to Dr. W. L. Storey, as it is in the library of the Ulster Medical Society. On the back of it is "Burton's Letter to Smellie," and on the title-page:

A Letter to William Smellie, M.D. Containing Critical and Practical Remarks upon his Treatise on the Theory and Practice of Midwifery. By John Burton, M.D. Wherein the various Gross Mistakes and dangerous Methods of Practice Mentioned and recommended by that Writer, Are fully demonstrated and generally corrected. Likewise the several Advantages or Dangers, to both Mother and Child, attending the Turning the last in the Womb to extract by the feet, or that accrue from the Use of each particular kind of Instrument, employ'd in delivering Women, are shown in a more ample Manner than heretofore. Being as an Appendix to both the above-mentioned authors *Treatises on Midwifery*; absolutely necessary to be perused by all who have read the former's Book, or attended his Lectures with a View to Practice. To which is affixed a Copper-Plate, representing several Sorts of Instruments used by the Ancients, with the Fillet as improved by the Author thereof. London: Printed for W. Owen at Homer's Head, Temple-Bar, MDCCLIII.

It was only natural that a great personality like Smellie (1697–1763) should excite the envy of some of his contemporaries, because of the popular prejudice that existed at his time against men-midwives and the forceps; hence a man who, to quote one of his contemporary writers, "was an enthusiast in his profession—man-midwifery was the idol of his heart; he believed in his forceps as firmly as he did in his Bible"—was a ready object for attack. The most personal of his slanderers was the Haymarket midwife—the celebrated Mrs. Elizabeth Nihell—who in her book, *A Treatise on the Art of Midwifery*, speaks, in referring to him, of the "delicate fist of a great horse-godmother of a he-midwife," while a Dr. Wm. Douglas—styled by himself "Physician to His Royal Highness the Prince of Wales' Household and man-midwife," sneers at his "monstrous hands fit only to hold horses by the nose whilst they are shod by the farrier, or stretch boots in Cranbourne Alley." It must, however, be conceded that in this very heated and personal controversy Smellie was not without support, for in his "Reflections upon Slow and Painful Labours," Giles Watts, in censuring Burton for his "Letter to Smellie," charges him with "trifling cavellings, wilful misrepresentations, scandalous plagiarism, unfair argumentation, and abusive language"; and writes that he is himself "ready, if called upon, to prove the truth of the above assertions." John Burton (1697–1771) wrote the "Letter to Smellie" mainly in reply to an early critique on Smellie's "Treatise on the Theory and Practice of Midwifery," which appeared in the sixty-first article of the *Monthly Review* for December, 1751, in which the writer says, "after your long Practice in the Country, and ten whole years in London—after reading 280 courses of Midwifery, to perhaps 1,000 people male and female—after thousands of various deliveries: who can doubt, I say, after these considerations, that this Treatise on the Theory and Practice of Midwifery, together with the Prints mentioned in your Advertisement, and the Volume of cases hereafter to be published, will not compose one of the most complete Systems in the world?" In his remarks in this "Letter," upon Dr. Smellie's book, Burton proceeds to consider "that author in several Lights, as an historical Writer, as an Anatomist, as a Theorist, and a Lecturer or Practitioner," evidently much to his own satisfaction.

John Burton, a native of Ripon, graduated M.B. of Cambridge in 1733, and M.D. of Rheims, and attained to a high position as an antiquary (he wrote in 1758 "Monasticon Eboracense and Ecclesiastical History of Yorkshire") and as a medical practitioner at York. He devoted special attention to obstetrics, and published in 1751 and 1753 an "Essay on Midwifery." Burton's silly attack upon Smellie, who is thus estimated by Dr. Alfred McClintock, an ex-Master of the Dublin (Rotunda) Lying-in Hospital (whom I remember presiding so ably at the 1881 International Medical Congress, London, in the Section of Obstetric Medicine and Gynaecology), in his memoir of Smellie, published in the reprint of that great man's Treatise in 1876 by the New Sydenham Society:

As a teacher, author, and practitioner, there is no British obstetrician—certainly none of the Eighteenth Century—who deserves so high a place in our estimation as William Smellie. Nay more, under whichever of these several aspects we may regard him, he scarce has an equal, whilst of all the men, British and foreign, who have most largely contributed to the advance of sound obstetric knowledge, Smellie may justly stand in the foremost rank. No accoucheur, ancient or modern, unfolded so many of the principles of true obstetric science, and in his practice so consistently acted up to them:—

would have never been remembered had it not been that perhaps his "Letter" may have come into the hands of Laurence Sterne (1713–68) just at the time that the fierce controversy was raging between the woman- and the man-midwives. It so happened that at this particular juncture Sterne was enjoying the living of Sutton, near York, where he tells us he was spending his time "painting, fiddling, and shooting," while Burton was a local physician at York, which Sterne often visited, as he was a prebendary of the Cathedral. As a result, the greatest of the impressionists in English style seized hold of the situation and of a local person—whose political opinions (report said) had rendered him obnoxious to Sterne—to set both off, and as a result we have in *The Life and Opinions of Tristram Shandy, Gent.*, published in 1760, one of the clearest pictures of the state of obstetrics of that time depicted to us in a series of as amusing and satirical situations as have ever appeared in the literature of any country; and in which the obstetrical, religious, and scientific weaknesses of the eighteenth century are mercilessly exposed. Dr. Burton is hit off as Dr. Slop:

Imagine to yourself a little squat uncourtly figure of a Doctor Slop, of about four feet and a half perpendicular height, with a breadth of back and a sesquipedality of belly which might have done honour to a sergeant in the Horse Guards. . . . Imagine such a one—for such, I say, were the outlines of Dr. Slop's figure—coming slowly along, foot by foot, waddling through the dirt, upon the vertebrae of a little diminutive pony.

We are told this obstetrician, who had "devised many curious improvements for the quicker extraction of the fetus in cross births," had lost his front teeth through the unfortunate slipping of his forceps during a previous delivery. It is said in Allport's paper (see bibliography):

Dr. Burton, woefully lacking in a sense of humor—solemnly disclaimed all resemblance to the caricature Sterne had drawn of him. Then another doctor of the neighbourhood, thinking Sterne might have meant him, called up the parson one morning and entered a vigorous protest against the indecent liberties taken with him. After vain attempts to convince the doctor of his error, Sterne lost patience, and remarked sharply: "Sir, I have not hurt you; but take care; I am not born yet; but heaven knows what I may do in the next two volumes."

We forgive Burton for his absurd attack on Dr. Smellie, and think only of him as "Dr. Slop," that remarkable literary creation which will live for all time along with Falstaff, Micawber, Uncle Toby, Corporal Trim, and Widow Wadman.

It is rather an interesting fact—from a literary point of view—that Smellie was brought into direct contact with Smollett (1721–1771), and had the benefit of that great writer's literary adroitness in the revision of his *Treatise on Midwifery*, published about 1751–2, for in Dr. John Glaister's classical work, *Dr. William Smellie and his Contemporaries* (Glasgow, 1894), a facsimile of a letter, dated Chelsea, March 1st, 1754, is given from Smollett to Dr. John Moore (who, as well as Denman, was a pupil of Smellie) showing that he had revised the contents of the second volume of Smellie's work and probably the others. Smollett, who was himself a medical man, was an intimate friend of Smellie and William Hunter. It was Smollett who communicated Case No. II in vol. ii of the *Midwifery*.

The Development of Obstetrics.

The old works on midwifery which I have mentioned throw considerable light upon the history of the develop-

ment of obstetrics, which has been one of gradual progress from the earliest times until the present day: but, as is the case in the sister branches of medicine and surgery, certain landmarks stand out clear and prominent. The first of these is that remarkable book, *The Birth of Mankynde*, which made its original appearance in 1513 and was published in its first English garb in 1540. Intrinsically it is of really no value; but as it was the first printed work on midwifery, and as it was translated into so many different languages, it served to draw special attention to the subject, and it occupies a distinct place between empirical or natural and scientific obstetrics. It was the "woman's booke," and was the popular work on midwifery in England for close on a hundred years, and it and many of the works which followed on the same subject, until Smellie's great treatise on the science and art of midwifery appeared, were those used when the uneducated women-midwives were at the height of their fame.

A new epoch in midwifery began in 1550, dividing the empiricism of the ancients from the commencement of modern scientific obstetrics, when Ambroise Paré (1509–1590), the father of French surgery, perfected podalic version. No doubt this great discovery had been foreshadowed, but Paré and his pupil Guillemeau (whose *L'Heureux Accouchment* appeared about 1598) demonstrated how feasible this operation was and how successfully it might be done. It has been well said that Paré accomplished for the child by this new method of delivery what Semmelweis did for the mother almost three centuries later, in showing not only how puerperal infection arose, but how it could be obviated. But Paré did still more in advancing obstetric medicine, for, by the perfecting of this method of delivery, he laid the foundation for the existence of Midwifery as an independent art apart from Surgery. The one great mistake Paré made was his hostility to Caesarean section, and this was specially unfortunate at a time when such progress was being made in obstetrics in his native country, France, and when, in contrast, the state of this subject was in England deplorably backward, and continued so for the greater part of the seventeenth century.

The next landmark in the history of obstetrics was the discovery of the forceps, which was invented towards the end of the sixteenth or the beginning of the seventeenth century by a member of the celebrated French Huguenot family—Chamberlen—who came to England. Two other names are also associated with the early history of the forceps—Palfyn and Grégoire. In 1723 Palfyn, a Ghent doctor, showed before the Paris Academy of Medicine a forceps which he called "mains de fer," but, owing to its faulty make, it was never much used. It was made by doubling the "crochet en cillier" of Paré, and the two halves did not articulate. In the early part of the eighteenth century two doctors called Grégoire, father and son—about whom it is hard to get any personal information—practised midwifery in Paris. A pupil of the younger Grégoire—Boehmer, when Professor of Midwifery in Halle—published in 1746 an account of a forceps used by these Grégoires, and this was the first forceps known in Germany. The members of the Chamberlen family, to their infinite disgrace, preserved the secret of the forceps for four generations. The head of the family, who came to England from France in 1569, was called William, and among his children he had two sons who became prominent physicians in London, and each of them, curiously, was surnamed Peter. The younger Peter had a son, also called Peter (or Doctor Peter, as he was styled), a man of great talents, who had what would now be called a fashionable practice in London. This Peter had a son called Hugh (1630–1700)—great grandson of the original William Chamberlen—also a doctor; but, being of extravagant habits which required him to raise some money at times, he decided to sell the hereditary family secret. Accordingly, he proceeded to Paris and offered to part with the secret to Mauriceau for about £2,000. Before deciding to purchase, Mauriceau naturally wished to have some practical experience of the value of this method of delivery, and, as there happened to be at the Hôtel-Dieu a deformed dwarf in labour, he asked Chamberlen to deliver her; but he was unable to do so, and thus ended, so far as Paris was concerned, the negotiation for the sale of the secret (the matter is mentioned in Mauriceau's account of his twenty-sixth case). Hugh Chamberlen—not in the least daunted—on his return to England, translated the first volume of Mauriceau's work on midwifery into English in 1672. On the title-page we read: *Written in French by Francis Mauriceau: Translated and Enlarged with some Marginal Notes by Hugh Chamberlen, M.D., and Physician in Ordinary to His Majesty*, and, in the preface, he tells us that the practice of

> fastening hooks in the head of a child in difficult labour, when it came right, has very much caused the report that when a man comes, one or both must necessarily die, and makes many for that reason forbear sending until either be dead or dying.

He adds:

> My Father, Brothers, and myself (tho none else in Europe as I know) have by God's Blessing and our Industry attained to and long practised a way to deliver Women in this case without any Prejudice to them or their Infants.

Hugh Chamberlen afterwards went to Holland and succeeded in selling the secret either to the Amsterdam College of Physicians or to Roonhuysen, and in turn it was sold—of course under pledge of secrecy—according to some authorities, by this medico-pharmaceutical college to each person aspiring to a medical degree. Finally, two public-spirited Dutchmen (Visclier and Van der Poll) bought the secret and made it public, when it was found to be the single blade of a pair of forceps! Whether Chamberlen humbugged the College or the College swindled their students is not known.

The first record pointing to the secret being in the Chamberlen family occurs in 1616, when the English College of Physicians summoned before them the younger Peter (son of Wm. Chamberlen), and accused him of boasting that "he and his brother and none others excelled in these subjects" (difficult labours). For over a century it was thought that the distinction of inventing the forceps belonged to Dr. Peter Chamberlen (1601–1633), a grandson of William Chamberlen, who died at Woodham, Mortimer Hall, Essex, in 1683. Long afterwards, in 1813, the housekeeper of a rich brewer who had come into possession of this mansion found in an old chest in the garret some letters and four pairs of forceps in different stages of development (when I was appointed Professor I found a model of one of these forceps in the Belfast College collection), and Dr. Aveling in his classic work, *The Chamberlens and the Midwifery Forceps* (London, 1882), showed that these instruments were probably invented and used respectively by the three Peters, and that, most likely, the earliest was devised by the elder Peter, son of the original William, a view that was also held by the late Professor Budin of Paris and Professor Sänger of Leipzig. The forceps were used generally in England during the life of Hugh Chamberlen. A Mr. Drinkwater of Brentford, who died in 1728, is believed to have been one of the first accoucheurs to use the forceps after the Chamberlens; Dr. Edward Hody, in 1734, published a record of *Cases in Midwifery*, written by Mr. William Giffard (who died in 1731), the dates ranging from 1724 to 1731, several of which were delivered by the forceps, and in his *Treatise on the Improvement of Midwifery*, published in 1733, Edmund Chapman, who practised midwifery several years in the country before he settled in London, speaks of the use of the forceps "as now well-known to all the principal men of the profession both in town and country." The original or short forceps continued to be used until, almost simultaneously, Levret and Smellie (1747 to 1751) added the pelvic curve, and it was still further improved in 1877, when Tarnier invented the axis-traction forceps, which has since again been simplified as Milne-Murray's or Neville's forceps. I have dwelt rather fully on the forceps, because its discovery may be regarded as one of the most important epochs in the history of obstetrics; to quote the late Dr. M'Clintock, it

> has done more to abridge human suffering and to save human life, than any other instrument in the whole range of surgical appliances. Nay more, the acquisition of this efficacious resource contributed most influentially to open up a new era in midwifery by rescuing it from the hands of ignorant female practitioners.

But, in addition, the discovery of the forceps gave a great impulse to the development of the obstetric art, and it led not only to the establishment of chairs and lying-in hospitals for the obstetric instruction of students, to a better knowledge of the pelvis, to a clearer under-

standing of the relations of anatomy and physiology to pregnancy and labour, but also to a closer study of Nature's methods.

In the nineteenth century two of the greatest of all obstetric landmarks appear, each associated with one year—1847. It was then that Sir James Simpson showed how advantageous anaesthetics were in delivery, his application of chloroform to labour at once revolutionizing operative midwifery; while at the same time Semmelweis (1818–1865), assistant to the Vienna Maternity Hospital, not only discovered the infectious nature of child-bed fever, but by the introduction of antiseptic precautions demonstrated that this hitherto most fatal condition could be prevented, and in this way he anticipated Lister's work on antiseptic surgery, the first public account of which was given in 1867.

Since these great discoveries the history of obstetrics has been one of steady progress, the ideal aimed at now in obstetric practice being not merely a living mother and a living child, but rather a living healthy mother and a living healthy child. Bacteriology has thrown a new light upon puerperal infection, and our antiseptic and aseptic methods have become more scientific and more simple, and they have been greatly helped by the perfection of abdominal palpation and by the wearing of gloves. We try now not only to get rid of mortality but to reduce even morbidity. The advance in abdominal surgery—due so largely to gynaecologists—has helped enormously our management of extrauterine pregnancy, and also the perfection and safety of Caesarean section, and pubiotomy. One of the special aims of modern midwifery is to get rid of craniotomy, and this is being accomplished by placing the treatment of contracted pelves on a more scientific basis by pelvimetry, by estimating the relative size and consistency of the fetal head and its relation to the maternal pelvis, by skilfully selecting the method of operative delivery which will give mother and child the greatest safety, and by carefully examining women before labour. It is interesting to note in the gradual evolution of midwifery how at first women were attended by midwives alone, and that when, with the advance of surgery, men were called in—the surgical period of obstetrics—it was simply to do some operation; hence the term man-midwife arose, and this state of affairs lasted even well on to 1800, from the time Paré perfected podalic version in 1550.

It was in 1663 that it became fashionable first to employ surgeons to take full charge in midwifery cases, and the term "accoucheur" then arose in France to describe this man-midwife-surgeon. The discovery of the forceps and the necessary surgical training required for its use did more probably than anything else to rescue the practice of midwifery out of the hands of untrained and ignorant women. No one did more in this direction than Smellie, but this change in public opinion and custom—from calling men in simply when some operation had to be done, until they were entrusted with the full charge of the cases, and had in this way an opportunity of studying Nature's methods—was a slow and gradual one, and was not accomplished without one of the fiercest discussions that ever took place in the healing art, and which gave Sterne his chance in *Tristram Shandy*. The free discussion of this question had, however, this good effect: it educated the public as to the importance of providing lying-in hospitals, and of the necessity for more careful instruction of both men and nurses in midwifery. From 1800 onwards obstetrics became a specialized subject, and was completely emancipated from surgery. It is interesting to note in the history of obstetric medicine that while at first women were attended almost entirely by members of their own sex, now again, after centuries, this custom is again occurring in many instances, but it is now by thoroughly qualified and scientifically educated female practitioners of medicine.

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WERTHEIM'S OPERATION FOR CANCER OF THE CERVIX UTERI.*

BY

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THIS subject has attracted a great deal of attention during the last few years. There are surgeons abroad who have performed the operation associated with the name of Wertheim in many hundreds of cases. In this country Comyns Berkeley in 1909 applied "to every recognized gynaecologist of the United Kingdom," and obtained records of 313 radical abdominal operations for cancer of the cervix uteri, of which only 243 were stated to have been performed by Wertheim's method; these were distributed amongst twenty-four operators, giving an average of about 10 each. Many more operations of this kind have been undertaken in the last two years, but opinions regarding the position and usefulness of the method are still in the making.

Until recently cancer of the cervix uteri was treated by vaginal hysterectomy, and I think the general experience—certainly my own—was that the results as to recovery from the operation were good, but the remote results were bad, recurrence being the rule, although there was a comparatively small proportion of cases in which a complete and apparently permanent cure was effected. These ultimately successful cases were all treated when the disease was in its first beginnings, or at least strictly localized, and an early diagnosis with prompt treatment seemed to be of paramount importance.

The abdominal operation is designed to apply to diseases of the uterus the well-known rule that cancer wherever found should be removed, if at all, with as wide a margin of healthy tissue as possible, and that the lymphatics coming from the diseased part should also be excised.

It is the custom with many surgeons in operating for fibromyoma of the uterus to take away the cervix also if they remove the corpus uteri, and in doing this all the necessary incisions are made close to the womb. In the operation for cancer of the cervix the surgeon works as far away from the uterus as he can. He begins by opening the broad ligament close to the lateral wall of the pelvis and securing the ovarian plexus of vessels. The peritoneum is divided behind the bladder and low down behind the vagina from side to side. The bladder is pushed off the cervix. The surgeon then seeks for and defines the ureter, and removes all the tissue down to it. Tracing it forward

* A paper read before the Hastings Division of the British Medical Association.

he finds the uterine artery, accompanied by its veins, coming up from the anterior division of the internal iliac, crossing over the ureter, and again descending to reach the cervix. A ligature is passed along the side of the ureter under the vessels, which are tied and divided as far out as possible, and the ureter is traced forward to the bladder. When this has been done on both sides the uterus is held only by the vagina. There is some very vascular tissue attached to the latter within and adjacent to the utero-sacral folds of peritoneum. This connective tissue should be clamped, tied, and divided deep down on each side, and then the vagina may be separated by digital dissection as low in the pelvis as is thought necessary, down even to the pelvic floor, to get well beyond the disease.

The next step is very important. It was suggested by Wertheim, and this is why his name is attached to the operation. He designed a pair of strong clamps with a special curve to crush the vagina. One is placed on each side so that they overlap in the middle line, and so low down as to enclose the diseased cervix in a capsule of vaginal wall. The vagina is then cut across below the clamps, and the uterus is lifted out of the pelvis with the clamps still enclosing the cervical surface within the top of the vagina. There is usually some bleeding from the divided vaginal wall, but the only difficulty in arresting it is from the depth of the bleeding points in the pelvis. Of course, great care is taken to be sure that the ureters and bladder are not nipped by the forceps, nor cut by the knife or scissors.

One of the most important details of the operation which I think is not always sufficiently insisted upon is the cleaning of the parts after applying the clamps. However carefully the vagina is treated before the operation, and even if it is filled by an aseptic plug, the necessary manipulations in the early part of the procedure tend to force the uterine and cervical contents downwards, and these may lie below the line at which the clamps are applied, or may even be drawn down in removing a plug. These discharges are always septic, and as the whole object of putting on the clamps is to prevent the access of septic matter and cancer cells to the newly-cut tissues and to the peritoneum, it is of great importance to cause an assistant to swab out the vagina after the clamps are applied and before the parts are cut away.

Another point of considerable value is to avoid seizing the uterus with any instrument that will pierce or tear its walls, as septic and malignant matter may be forced through the punctures. Vulsella forceps are frequently used to drag up the uterus, and they are figured in use in one of the most recent descriptions of this operation, but a strong piece of silk passed through the broad ligaments close to the body and tied round it forms a much better tractor.

The lymphatics from the uterus lie in the connective tissue between the layers of the broad ligament and pass to the glands at the sides of the pelvis, particularly those along the iliac vessels, and so on to the abdominal glands. A wide margin of this connective tissue should be removed, and, of course, if glands are enlarged they must be taken away with the tissues around them and the tissues between them and the uterus. Enlarged glands are not always infected by malignant disease. Care must be taken to avoid injury to the main vessels.

When all haemorrhage is arrested the divided edge of peritoneum in front of the raw tissues is united to that behind, and thus the large wound is excluded and the peritoneal sac is made continuous over the lower part of the pouch of Douglas.

The operation may require a very great degree of skill, but when the disease has not passed beyond the cervical tissues, when the patient is not immoderately stout, and when she has not previously been the subject of pelvic inflammatory mischief, the procedure is not difficult if the surgeon is accustomed to pelvic work. I rarely pay attention to the clock when I am operating, but I was informed by an onlooker that my first operation by this method occupied fifty-seven minutes—a time I have often exceeded in performing a hysterectomy for myoma. All the conditions were favourable, the ureters leaped into view as soon as the broad ligaments were opened, and the patient is alive and well more than four years later. The fact that I have for many years removed the whole uterus in preference to the operation by which the cervix is left made this new method easier. It seems to me that the death-rate in the simpler cases, before the disease has extended beyond the cervix, should be very low, hardly, if at all, higher than that from hysterectomy for fibroids.

When the disease is of long standing the effects of the operation are very different, and the story of its results is the more unpleasant in proportion to the extent of the growth. When malignant mischief passes beyond the cervix it may spread along the vagina, and if it remains on the surface and is not too extensive it can be dealt with satisfactorily, but after it penetrates the cervical or vaginal wall it extends to the bladder or bowel or out into the broad ligaments, fixing the uterus to the adjacent structures, and even before the diseased mass becomes fixed it may infect the glands, particularly those on the iliac vessels. The difficulties and dangers lie in the exceedingly limited space between the cervix and the rectum, bladder, and ureters. The disease can hardly escape from the cervix without involving one of these structures. The ureters seem to resist its action longer than the others, so that they may sometimes be dissected from the neoplasm apparently free from infection. The ureters also, fortunately, have great powers of vitality, even when a considerable length of them is completely separated from the adjoining tissues. This is well known; but I may add the evidence that in one of my cases nearly the whole of the pelvic part of the left ureter was separated from the adjacent structures, yet the patient made an uninterrupted recovery. I have read somewhere, but I cannot find the reference, that this is possible because there are many fine vessels running longitudinally in the wall of the ureter. Although the great vitality of this duct is well known, it should in all cases be manipulated with the utmost delicacy, for its sloughing after the abdomen is closed is necessarily followed by the death of the patient or the formation of a urinary fistula, which when thus formed will be permanent until cured by a further operation.

It is quite possible to open the rectum, bladder, or ureter deliberately or accidentally, and to avoid fistula formation by closing the wound at once, by reimplanting the ureter in the bladder wall, or by removing the kidney. But the risks of failure are great if the tissues to be manipulated are infected by malignant disease. The new growth and an area beyond it may also be invaded by septic mischief, and this further diminishes the prospects of union of the walls of a hollow viscus which has been opened.

There is no doubt that the primary mortality from the operation is greater as the disease is more developed. Berkeley and Bonney[1] state that the records they collected showed a mortality as follows:

186 advanced cases	... ...	23.1 per cent.
19 moderate cases	... ...	5.2 ,,
33 early cases ...	... ...	6.3* ,,

They also quote from Schauta:[2]

53 advanced cases	... ...	20.7 per cent.
126 moderate cases	... ...	11.1 ,,
79 early cases ...	... ...	3.7 ,,

A death-rate of 6.3 per cent. in early cases, or even Schauta's 3.7 per cent., seems fairly high, and a mortality of from 20.7 to 23 per cent. in advanced cases is such a serious matter that it is only justified if very definite advantages are to be gained.

There are conditions in which the surgeon should recommend without hesitation that an operation should be performed when the expectation of death following immediately is even higher than this. For example, in cases of intestinal obstruction in which treatment has been somewhat unduly delayed the risks of a fatal termination are very great, but then it is a question of interfering to give the patient a chance of permanent recovery when certain and almost immediate death will take place if no operation is performed. Recently I published in the *Transactions of the Royal Society of Medicine* (November, 1911) a case in which a woman 30 years of age had a

* The recorded higher mortality of the cases in this list operated upon early as compared with those operated upon when the disease has become more advanced is not likely to occur. It is probably accounted for by a difference amongst the various operators in estimating the degree of progress of the disease. The second table, showing the work of one man, indicates that the lowest death-rate should be expected when the disease is removed early.

tumour hanging from her buttock to below her knees, and associated with other abdominal growths. These were obviously not malignant, except for their tendency to persistent enlargement, and if the operation had been successful a restoration to perfect health would almost certainly have followed. I therefore, after explaining her prospects to the patient, felt justified in operating, although I knew that the chances of failure were as great at least as the chances of success. But in operating for cancer of the cervix uteri it is known that the risks of immediate death increase as the disease advances. The chances of fistula formation also increase, and of course there is no doubt that the probabilities that an early recurrence will take place are also greater in proportion to the degree of progress of the original growth. Moreover, although in some cases the distress accompanying death from cancer of the cervix is greater than that from a secondary development, yet it is not always so. The secondary disease may be the harder to bear. Under these circumstances it seems to me that a death-rate of 20 per cent. is so high that the surgeon is not justified in recommending radical treatment.

It may be said that the mortality will be reduced as experience increases, and that it has been so reduced by Wertheim and others. Berkeley and Bonney state that Wertheim had a mortality of 40 per cent. in his first 30 cases, and 7 per cent. in his last 30. In his first 200 cases there were 50 deaths, or 25 per cent.; in his last 258 (when the information was obtained) there were 35 deaths, or 13.5 per cent. His total mortality was 15.2 cent. It is difficult to know all the causes of the improvement, but I feel sure that, apart from definite changes of method such as that involved in Wertheim's operation, a real advance will be brought about, chiefly by a gradual increase of knowledge, and particularly by the education of women regarding the importance of an early investigation of menstrual irregularities, so that cases of advanced disease will not exist in such great numbers. In almost every operation if not in all operations on the abdomen, with increasing success and with improved methods there has also been an improvement in diagnosis and a resort to operations at an earlier stage of the various diseases concerned, and this more prompt treatment has in many cases been the most important factor in lowering the death-rate—for example, in all intestinal work. There can be no doubt that similar changes for the better will be produced also in connexion with cases of malignant disease of the cervix uteri.

On the other hand it may be put forward—and the argument may appeal to some—that a woman with this disease is in such a desperate plight that any amount of risk is justified if it gives even a small chance of recovery. The temptation to a keen surgeon to act on this view is very great, but I think it should be resisted. This is not the guide to the treatment of cancer in other parts—in the breast for example. If the surgeon thinks that he cannot remove this disease in the breast with a fair chance of eradicating it altogether he either does not operate or performs an operation which at least offers little danger to life. In cancer of the bowel, also, the surgeon does not perform a radical operation unless he has some prospect of completely removing the disease. He may be compelled in such cases to open the abdomen, but unless he thinks he can effect a complete cure a short-circuiting operation or a colotomy is performed.

For such reasons it seems to me that the surgeon, in dealing with cancer of the cervix uteri, should set before himself the object of keeping down his death-rate within at least moderate proportions rather than that of increasing the number of temporary cures at the expense of a high mortality. It does not appear to me to be for the benefit of patients, or of surgeons, or of scientific surgery, that an operation not urgently necessary to save life should be frequently performed with a mortality of over 20 per cent., and with no certainty—not even a likelihood—of permanent cure. In my opinion there is only one advantage to be gained from such operations, namely, that the enormous death-rate must direct attention to the subject, and to the need for early treatment of cancer of the cervix uteri.

It has been suggested that the abdominal operation should be employed for the more advanced conditions, and that the vaginal method, because it is supposed to be safer, should be adopted in early cases. I do not think that in the latter the death-rate should be lower by the vaginal operation, and its adoption in simple cases would sacrifice all the undoubted advantages of the new method when they are most likely to be useful. It seems to me, therefore, of the utmost importance that Wertheim's method should be applied to the earliest cases. In such the immediate results should be almost if not quite as good as those of hysterectomy for fibromyoma uteri, whilst the remote results also should be very satisfactory. Cancer of the uterus, if completely removed, shows very little tendency to return.

In dealing with these cases we too often do not have a chance of giving an opinion until the disease is so far advanced that there is no possibility of helping the patients except by soothing treatment. It would appear that many women never speak of their menstruation, some no doubt from motives of delicacy, others because they resolutely put from them the idea of any kind of abnormality in themselves. Even when they notice that something is wrong they keep the observation secret as long as they can. Only last Saturday I removed a large sloughing fibroid from a woman who, although her periods had been too free during the last six years, absolutely refused to be examined until the urethra became obstructed so that it was necessary to use a catheter, and recently I saw a patient with a large fixed quite irremovable cancer of the breast which she had successfully concealed for two years until a profuse, almost fatal, haemorrhage could not be hidden. We all know such cases.

Other women have no hesitation in discussing these matters, but it is most unfortunate that irregularities of menstruation in women about the age of 40 to 50 years are very commonly regarded as the natural accompaniments of the change of life, so that it is not considered necessary to seek professional advice about them. We, as medical men, know that, especially about the time of the menopause, every irregularity of menstruation, with the exception of a delayed or scanty flow, should be investigated. A discharge appearing too soon, or too profuse, or lasting too long, does not necessarily indicate the existence of cancer, but such irregularities are abnormal, and they may be caused by cancer of the uterus. They are especially significant if they occur after an interval of amenorrhoea, and indeed a repeated or continuous vaginal haemorrhage is an almost sure indication of the presence of cancer if it occurs three or four years after the change of life.

Another delusion is very widespread and often leads to a fatal delay in seeking advice. It is that cancer is always accompanied by pain and an offensive discharge. These are late symptoms, often too late symptoms. It cannot be too widely known that the beginnings of cancer cause no pain and no discharge—in fact, no symptoms of any kind. In this respect cancer of the cervix uteri in a woman who has not reached the menopause is peculiarly open to recognition, if she will pay heed to the warnings, because of its tendency to cause excessive and irregular haemorrhages by its mere presence apparently, very much as a mucous polypus does. Later, when the cancerous tissue breaks down, it is invaded by septic organisms, and therefore there are foul discharges. When nerves become involved in the growth and when discharges do not get freely away there is pain, but these are late manifestations indicating a stage of the disease which the surgeon never wishes to see.

Another fairly general and entirely erroneous belief is that if a woman has cancer of the womb it does not matter whether she consults a surgeon or not, that the disease is certain to recur if removed, and that therefore, so long as she feels pretty well, she is wise to take no notice of unpleasant symptoms. This is one of the greatest and most fatal mistakes. As already stated, the ultimate results of really early removal of cancer of the uterus are very good.

It is the ignorance of women regarding these points that is responsible for the fact that so many of them first consult a medical man when cancer of the womb has reached a stage which is quite hopeless, and it should be our business to direct attention to the importance of this knowledge on every suitable occasion. The medical man should of course be careful not to be a party consenting to delay in investigating these cases. There is some excuse, par-

ticularly for the more sensitive women, when they hesitate to submit themselves to a vaginal examination.

When a patient does submit to examination on account of irregular or excessive haemorrhages it is not always easy to say whether she has cancer or not. If there is an obvious hard growth standing out from the cervix or excavating its substance, which bleeds if it is scratched by the nail, and which on inspection shows a granular bossy appearance or an obviously eaten-out cavity, there is no difficulty in deciding at once that the patient has cancer, or at least that further investigation, by removing a part for microscopic examination, is necessary, but the evidences of disease may be so slight as to be hard to detect. Under these last circumstances, if there is any suspicious part, a piece should be taken off and examined. Failing the discovery of any sign of cancer in the cervix, the cavity of the uterus should be curetted to exclude or discover disease there.

Sometimes the cause of the haemorrhage is at once discovered, perhaps in the shape of a polypus, the removal of which effects a permanent cure. But it should be remembered that there may be cancer as well as some other more obvious disease. In overlooking this I was misled in one case.

A patient 33 years of age, the mother of one child, complained of irregular haemorrhages, and examination showed a definite mass in the right side of the pelvis, which was diagnosed as a suppurating Fallopian tube. The condition of the cervix uteri attracted no attention, and as any irritation of the ovary may occasionally cause irregular haemorrhages this symptom did not have its true value put upon it. On December 20th, 1909, a distended suppurating right Fallopian tube obliterated at both ends was removed. The patient recovered and went home, but returned in March, 1910, still complaining of irregular haemorrhages. A very slight enlargement of one side of the cervix uteri was observed; a piece taken out of it was found to be malignant, and Wertheim's operation was performed on March 18th, 1910. Although three months were lost in this case, the disease was still in an early stage, so that there was practically no naked-eye sign of cancer in the specimen removed, and there is reason to hope that the result may be good.

Cases such as this, when it is difficult to recognize the existence of cancer, and when its presence can only be shown by microscopic examination of a part removed, are in the earliest and most favourable condition for operation. Probably most operators mean by an early case one in which the mischief seems to be entirely confined within the tissue of a normal-sized cervix.

In more advanced cases, when the cervix is enlarged and of irregular shape and can be felt to bulge in some direction more than another at the top of the vagina, the surgeon endeavours to determine whether it has become adherent to the bladder or rectum. If the whole uterus with the cervix moves easily up and down and from side to side; if the fingers can be placed in the anterior and posterior fornices so as to fix the bladder or rectal wall, and the uterus can still be pushed down without appearing to drag the bladder or rectum, the mischief has probably not extended to these viscera. Of course the uterus moves through a greater space in some patients than in others, but it should always glide a little way on the adjacent tissues. By examination in the lateral fornices the extent of the growth at the sides may be determined. There may be a mere bulge, generally more marked on one side, or there may be a definite thickening of tissue extending right out to the pelvic wall. I would be inclined to describe the extension as "moderate" when it is fairly certain that the disease has escaped from the cervix, and that it is not fixed by adhesion to the rectum, bladder, or ureter. I should describe a case as advanced when there is little or no doubt that some of these structures are involved.

In moderate cases I think the surgeon should operate, that the immediate mortality should not be high, that the prolonging of life should average from one to three years, and that occasionally a permanent cure should occur. When the disease is advanced and the hollow viscera are more or less adherent, the surgeon must make an estimate of the extent of tissue involved and must so determine whether he can remove the disease with immediate safety to life and afterwards with some prospect of a period of relief at least commensurate with the risk taken. As I have indicated, there are various ways of looking at the questions involved. Personally I do not think operative treatment is justified when the disease is so advanced that the mortality is high, because under such circumstances the patients who recover have a prospect of only a short period of relief and incur a danger of living with a fistula for a time or permanently.

One great advantage of approaching these operations by the abdominal route is that as soon as the abdomen is opened the surgeon can examine the parts and form a very accurate estimate of the extent and relationship of the new growth, and he may, if he thinks fit, give up the attempt to remove it with the very smallest chance that the patient will take any harm from the procedure. I have on three occasions found that there were enlarged glands firmly fixed high up on the side of the pelvic wall and quite irremovable. These glands probably would not have been discovered at all if the uterus had been removed by the vaginal method, and it is almost certain that if observed they would have been found after the uterus was removed.

A complication which sometimes gives rise to considerable difficulty in making a diagnosis and in operating is the presence of old or recent inflammatory mischief in the pelvis. Before the abdomen is opened such mischief associated with an early cancer of the cervix may simulate an extension of the latter into the broad ligament, and, of course, may fix the uterus to the side of the pelvis, so that perhaps its removal may seem impossible. If there is any suspicion of such a complication the abdomen should be opened, and an examination from within may show that, so far as the cancer is concerned, the case may be an early one, and that therefore a hysterectomy should be performed.

One of the first difficulties that may arise in the course of an operation is in the finding of the ureters. Their position is variable; sometimes they are well forward at the sides of the vagina, sometimes they lie deep at the bottom of the pelvis, and they may be differently placed on the two sides. If the abdomen is very fat it is often less easy to locate them. They are sometimes felt more readily than seen. A finger and thumb placed respectively in the pelvis and between the layers of the broad ligament so as to grasp the posterior fold of the latter will usually detect the ureter, which feels very like the spermatic cord, and may be made to slip about in the tissues just like that cord.

If the difficulty is very great, it can usually be overcome by incising the peritoneum over the pelvic brim where the ureter passes from the abdomen to the pelvis. It is easily found there, and it may be traced downwards.

I have only failed to find the ureters once, and in that case, as the woman was very fat, and the disease was not in the cervix but in the body of the uterus, the necessity for operating by Wertheim's method did not seem urgent, and I performed an ordinary panhysterectomy. There was a recurrence far out in the left side of the pelvis within a year, and it seems to me that in cancer of the body as well as of the cervix the chances of recurrence would be smaller if the more extensive operation was always performed.

Another serious difficulty in operating which I have met with has arisen from the coexistence of inflammatory disease with a malignant growth. The tissues around the latter are sometimes inflamed, being unduly adherent to neighbouring structures, and along with this condition the ureters and bladder may be very soft and friable. I have frequently had considerable difficulty in separating the ureters, but there has never been any ureteric fistula. On two occasions I have opened the bladder. In both the cancer was in a very early stage, but there was much inflammatory mischief around the uterus. Both cases of bladder wound recovered without fistula formation. In one, a very recent case, the patient had complained of uterine and bladder mischief for fourteen years, and both tubes and ovaries were matted together in the pelvis. The other showed little sign of peritoneal inflammation, but the structures around the ureters outside the peritoneum were so altered that the ureters had to be dissected from their connexions instead of separated by the finger, as is usually possible. This patient was operated on in 1908, and is still alive and well.

I have operated fifteen times by Wertheim's method. My first three cases are alive and free from recurrences. Of the next two one is dead and the other has a definite return of the disease. I have not the exact details of my

later cases. There has been one death from the operation. I was very doubtful whether I should remove the parts before the abdomen was opened. When they were exposed I thought their removal was practicable. The rectum was adherent to the growth, but it seemed to be possible to detach it, and I did so, thinking that I had neither opened the bowel nor divided the newly developed tissue, but an examination of the specimen showed that I had opened the vagina in separating it. On the left the growth extended under the ureter, and it is doubtful whether it was completely removed there. No hollow viscus was opened. After the operation the intestinal condition was never satisfactory. There was no evidence of fistula formation of bowel or of the urinary tract, but on the fifth day the renal functions practically ceased, and the patient died on the seventh day. I was unable to obtain a *post-mortem* examination, and the exact conditions must therefore remain uncertain, but there is little doubt that septic mischief was the immediate cause of death.

I have explored the abdomen with a view to remove the uterus for cancer of its cervix, but did not proceed with the operation, on five occasions. In three already mentioned there were fixed irremovable glands on the side of the pelvis. In another patient I found the disease passing under the left ureter almost exactly as in my fatal case, which occurred later. Thus my earlier judgement seemed to be the better. As I have said, the temptation to proceed to remove the growth is great. In the fifth case of exploration when the abdomen was opened the disease was so closely adherent to the bladder that I did not think its removal could be accomplished.

In another case a nurse consulted me and said that two years earlier her uterus was removed for a fibroid tumour, and I diagnosed a malignant growth in the cervix, which I thought had been left in the body. The parts seemed so mobile that I advised that an attempt should be made to remove them, to which the patient eagerly assented. I found that the body of the uterus and the ovaries had been removed, and the diseased mass was more mobile even than I had thought, but on attempting to separate it I quickly saw that I was dividing the muscular wall of the bladder, and I had to desist. I closed the abdomen and put the patient in the lithotomy position, in order to bring down the new growth. A careful examination then showed that there was no uterine tissue left, but that the disease had developed somewhat in the shape of a cervix. Almost immediately after I operated on this patient a woman upon whom I had performed a Wertheim operation was sent back to me by an experienced gynaecologist as a case of cancer of the cervix, which the conditions closely simulated.

I removed the kidney on May 26th, 1911, from a patient to relieve a fistula after another surgeon had removed the uterus by Wertheim's method on February 13th, 1911. On exploring the pelvis much adhesion of intestine was found over the left ureter, and the kidney was therefore removed. Relief from the fistula was complete, and the health was good until November 15th, when there was a vaginal haemorrhage, which has returned. Now —November 29th, 1911—there is a well-developed recurrence in the top of the vagina. This completes the tale of my attempts to remove cancer of the cervix since I performed my first operation by Wertheim's method.

To sum up, it seems to me that the following conclusions are justified by our knowledge of this very important subject:

The most efficient factors favouring good results, immediate and remote, are an early diagnosis and a prompt operation.

The tendency to irregular haemorrhages accompanying the disease favours an early diagnosis, and it is of the utmost urgency that the possible significance of irregular haemorrhages and the need for investigating their causes should be known as widely as possible amongst women.

The results of early operations are very good, both as regards recovery from the operation and a permanent relief.

In the later stages of the disease the immediate and the remote results are very bad, and the operation should not be recommended unless the death-rate can be kept at least moderately low.

Wertheim's method of operating is a very great advance on any other.

References.

[1] *Gynaecological Surgery*, p. 369. [2] Loc. cit., p. 374.

FRACTURE OF THE LOWER END OF THE HUMERUS IN A CHILD TREATED BY IMMEDIATE WIRING.

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All surgeons are now agreed that fixation in the fully flexed position is the correct treatment for a fracture of the lower end of the humerus. In rare cases it seems impossible, however, to get the two ends of the bones in accurate apposition, or at any rate to maintain them in good position. Then the proper treatment is that adopted here in the following case—namely, to cut down on and wire the two ends together. If the case is left with the deformity unreduced, an elbow practically useless, with little or no movement, is generally the result. It is quite rare to have to resort to the operative treatment of fractures, either at the elbow or at other parts, in children.

A boy aged 7, in September, 1911, suffered from a transverse fracture across the lower end of the humerus, due to a fall. It was put up in the fully flexed position, but the fragments could not be got into anything approaching accurate apposition. On the fourth day after the accident I cut down on the broken ends of the bones and wired them together with silver wire. The result is excellent; the patient has the power of full extension, perfect pronation and supination, and the only limitation of movement is in the direction of flexion, which is very slightly impaired. The *x*-ray photo showed the bone accurately reunited. A week or so after the operation it was noticed that the muscles supplied by the musculo-spiral nerve were paralysed. This may have occurred before it was discovered, for the arm was on splints. I think this was caused by some bruising of the nerve during the operation. The muscles have quite recovered under electrical treatment.

The operation was performed by making a vertical incision over the back of the joint and exposing the fractured ends. These were then perforated and united by silver wire. It sounds very simple to do this, but in reality it is not quite so easy as it might appear. I was much handicapped by the want of proper instruments, and finally had to make use of an ordinary carpenter's bradawl, purchased at an ironmonger's shop for twopence, to perforate the bone. This unfortunately broke after the lower fragment had been drilled, and the half of a narrow pair of scissors was employed for perforating the upper fragment. Fortunately the bone was comparatively soft. The joint was then fixed in the fully flexed position. The result has been quite satisfactory, as there are almost complete movements in all directions.

From the annual report for 1911 of the After-Care Association, founded by the late Rev. Henry Hawkins, Chaplain at Colney Hatch, for the aid of poor persons discharged recovered from asylums for the insane, we learn that much good work continues to be done in assisting those of the above class who are capable of employment in obtaining suitable situations. This involves much personal investigation, as peculiarities and prejudices have carefully to be considered, in finding for each case an appropriate sphere of usefulness. No less than 399 applications for aid (financial and otherwise) were received during 1911, and although some had to be declined as not coming within the scope of the association's work, it would appear that a large number were successfully dealt with, particulars being given in the report of the varied modes of relief afforded, for example, by boarding out so as to confirm convalescence when necessary, by the provision of clothing and of tools, and by the seeking out of suitable situations. We are glad to see that the council report that "the year under review has been in all respects the most successful in the career of the association;" and we note that the total amount received in 1911 was £1,353 11s. The offices of the association are at Church House, Dean's Yard, Westminster, S.W.

ENDOTHELIOMA OF THE PITUITARY GLAND WITH INFANTILISM.

BY

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THE following case, which was under my care in the Royal Prince Alfred Hospital, Sydney, on two occasions, is of special interest in view of the present divergence of opinion upon the true functions of the pituitary gland.

A boy, 16 years of age, a telegraph messenger, was admitted to hospital in 1907, with a history of headache for some considerable time, accompanied by a feeling of drowsiness and disinclination for any kind of food, with some wasting. His height was 4 ft. 8 in., and weight 4 st. 5¼ lb.

History.

The family history was good. All the other members of the family are healthy, and there is no tuberculosis. He had measles six years ago and influenza three years ago.

His present trouble is a continuation of a state he has been in for some years. As long as he can remember he has been subject to headaches, chiefly in the frontal regions, but it is only during the last six months that the drowsiness and anorexia have come on. He has had frequent attacks of vomiting which have always been preceded by a feeling of nausea. He has always been very thin, but has lost weight during the last six months, and he is somewhat anaemic.

Condition in 1907.

Although he is 16 years of age he is undeveloped, skin smooth and delicate, the limbs small, no hair on face, in the axillae or on the pubes; the genital organs are infantile in type, and his voice is effeminate.

He complains of frequent headaches, his intelligence is excellent, memory good, no affection of speech; his eyesight is good, the pupils are equal and react normally to light and convergence, the ocular movements are good, but there is a history of occasional diplopia. The visual fields are normal, there is no optic neuritis, or retinitis, there is no deafness, or tinnitus, and no giddiness. He is always sleepy; there is no paralysis, but all the muscles are weak, the right hand grasp being rather weaker than the left, and the movements of the right leg somewhat weaker than those of the left. There is no disturbance of sensation of any kind. The deep reflexes are brisk, equal on both sides, and no Babinski. The abdominal and cremasteric reflexes are active on both sides.

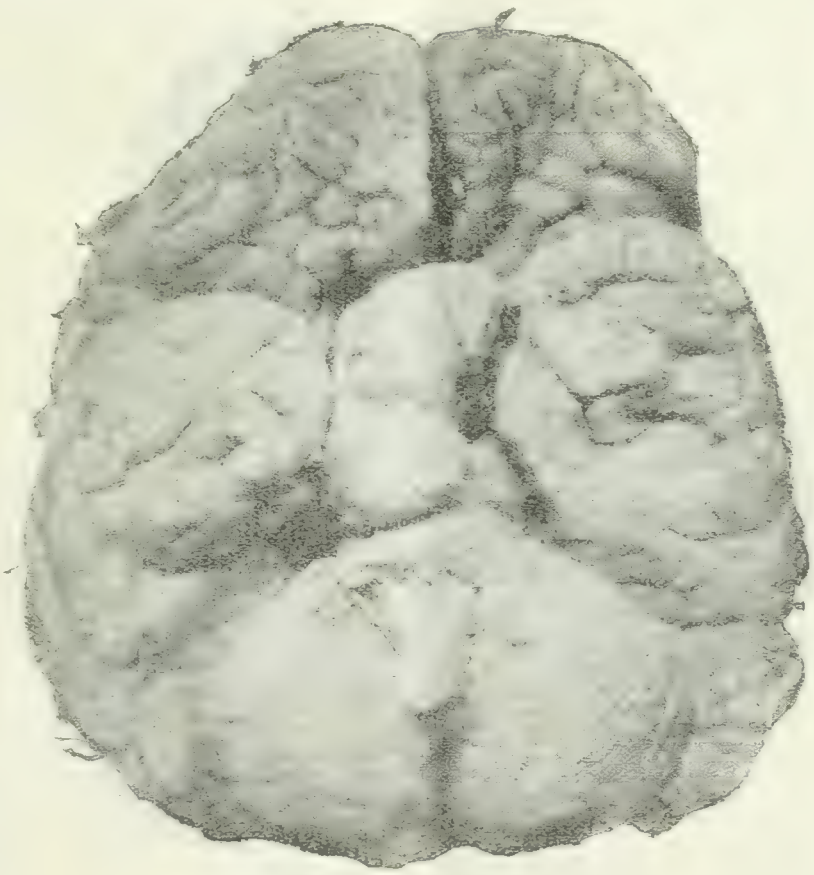


Fig. 1.—Brain with tumour *in situ*.

The heart and lungs are clear, but the aortic second sound is somewhat accentuated. The pulse varies from 80 to 96, rather high tension; the arteries are slightly rigid. He has no appetite—in fact, it is difficult to get him to take food. The abdomen is rather retracted, but there is nothing abnormal to be made out on examination. The bowels generally act normally. There is some frequency of micturition, the urine is very pale, specific gravity 1007 to 1012, faintly acid, contains no albumen or sugar.

He remained in hospital for six weeks.

It will be seen from these notes that the diagnosis was extremely difficult, and the only points to guide one were the high arterial tension, the large amount of pale urine of low specific gravity, the headache and vomiting. In the absence of optic neuritis and any localizing symptoms of brain tumour, we were driven to the diagnosis of chronic interstitial nephritis. He was discharged from hospital slightly improved in general health. He remained in fair general health till readmission to hospital in August, 1909.

Condition in 1909.

He had not apparently grown in height or development since being in hospital on the last occasion, but he was now about 2 lb. heavier.

He complained still of headache and occasional vomiting of cerebral type. His memory was defective, and had been getting worse for the last year. He was quite intelligent, but could not fix his attention. Headache was constant day and night; it disturbed his sleep, and was made worse when he tried to read. Everything seemed a trouble to him. The pupils were small and equal; they reacted to light and convergence and the ocular movements were normal. Examination of the media showed a post-neuritic atrophy in both discs, and investigation of the fields of vision revealed a very definite bitemporal hemianopsia. His vision was $\frac{6}{9}$ in each eye. There was no other cranial nerve affection. His muscular power was feeble, as all his muscles were but poorly developed; he could not walk except with assistance as he tended to fall backwards. There was no disturbance of sensation. His knee-jerks were increased, more so on the right side than the left; there was no ankle clonus and the plantar reflex was flexor in type.

There was now no excess of urine; it was alkaline, sp. gr. 1020, and contained no albumen and no sugar. His temperature on admission was subnormal, pulse 90, and respiration normal.

Six days later he had two or three fits, in which he became completely unconscious, breathing stertorously, and sweating profusely. The limbs became rigid, the reflexes were exaggerated, and a Babinski reflex was present on both sides, but was easily exhausted. He had incontinence of urine during the fits. The temperature

rose to 103°, and remained high for some days, varying from 99.8° to 105°. Lumbar puncture furnished some cerebro-spinal fluid which did not escape under pressure, and microscopic examination showed only a few lymphocytes, but no organisms; the fluid was sterile on culture. There was marked prostration, with dry brown tongue, sordes on the lips, and general hebetude. From this state he gradually recovered, but there was a definite weakness on the right side, and on his discharge from the hospital there was ankle clonus on the right side and double Babinski reflex.

He died in his own home a few months later, but he was seen at intervals from the time of his discharge from the hospital up to the time of his death, and no material change took place in his condition.

On this occasion there was no doubt that he had a lesion of the pituitary gland, but the nature of that lesion was obscure. It was quite clear that this gland was enlarged, because there was pressure on the optic chiasma, the post-neuritic optic atrophy and the bitemporal hemianopsia showing this.

As the patient died outside the hospital, it was only possible to make a partial *post-mortem* examination. The brain was obtained and the photographs show that the pituitary gland was replaced by a large neoplasm, the size of a large walnut. Histological examination by Professor Welsh, of Sydney University, showed that the growth was an endothelioma, which had invaded the gland, and only very little of the glandular tissue remained. It was not possible from examination of the tissue to say which lobe of the pituitary gland had been first invaded.

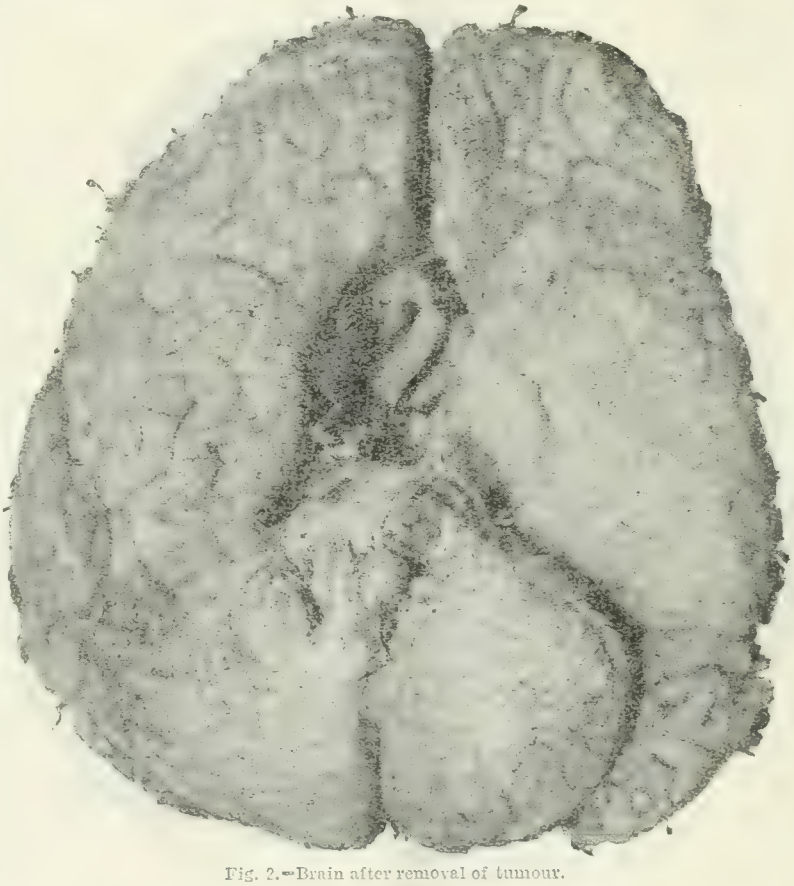


Fig. 2.—Brain after removal of tumour.

Reviewing the clinical history in the light of the *post-mortem* evidence, we can understand the symptoms he presented on his first admission to the hospital. For there can be little doubt that the headache and vomiting were due to the growth in its early stage, and the high arterial tension with increased flow of urine were the result of a hypersecretion of the pituitary gland (anterior lobe). In this connexion it is interesting to note that Harvey Cushing has recorded two cases of tumours compressing the pituitary gland, in both of which the symptoms were mainly urinary, and the diagnosis of chronic interstitial nephritis was made at first. So in making an erroneous diagnosis in the first instance I was in good company.

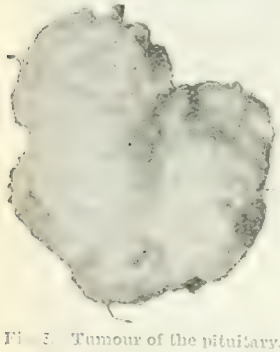


Fig. 3.—Tumour of the pituitary.

While it is well known now that cases of acromegaly have occurred in which no macroscopic lesion of the pituitary gland has been observed, and conversely tumours of the pituitary gland have been observed with absence of the clinical symptoms of acromegaly, so far as I have been able to observe from the literature, no case has been recorded of a large neoplasm involving and completely replacing the pituitary gland in association with a definite infantilism *without adiposity*. (Compare Frohlich's syndrome.) We are left in doubt as to whether the infantilism was really due to the destruction of the pituitary gland and the failure of its internal secretion. There is no doubt that there is a close connexion between the activity of the pituitary gland and the sexual organs. For in acromegaly in men we have complete loss of sexual power, and in women amenorrhoea is a well recognized symptom. There is also good reason to believe that the changes in the body which are associated with the development of puberty in both sexes are due to the activity of the internal secretion of the sexual glands. But if we are to assume that acromegaly is the result of hyperpituitarism, then we must believe that the overactivity of the pituitary decreases the activity of the sexual organs; and if the internal secretion of the latter is suppressed we should get theoretically a failure of the development of the specific body features of puberty. If hyperpituitarism leads to excessive growth of the bony skeleton, then, in view of the symptoms of hyperpituitarism manifested by this boy on his first admission to the hospital, he should have shown rapid growth rather than delayed growth and infantilism. However, our present knowledge does not enable us to dogmatize on these questions. My only object in reporting this case is to furnish further evidence on which future studies of the physiology and pathology of the pituitary gland may be based.

THE annual report of the National Society for the Prevention of Cruelty to Children shows that last year the inquiries made by its inspectors numbered 54,118, and in 52,371 instances the reports leading to the inquiries proved to be true. In the majority of cases the society contented itself with warning the persons concerned, but in 2,356 instances it thought it right to institute prosecutions, and only 61 of the cases were dismissed by the courts. The commonest offence was neglect. The total number of children concerned in the reports which inquiry proved to be well founded was over 156,000. The society now has a bureau at which an immense amount of information relating to children has been indexed on the card system, and this it places at the disposal of those desirous of studying the subject or of speaking thereon. The head quarters of the society are at 39, Leicester Square, and its telegraphic address is "Childhood, London."

THE APPENDICITIS DILEMMA, AND THE PRE-OPERATIVE DIAGNOSIS.

By WILLIAM EWART, M.D.Cantab., F.R.C.P.,
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Appendicitis is pre-eminently a surgical subject, but its enlarging public importance involves the entire profession in some responsibility. A question was once asked in jest, but we are drifting towards its consideration in logical earnest, whether a second Mosaic rite might not be in store for us. Our sphinx presents us with two propositions, which spell, unless we can solve them, "operate quick—and operate always." *Proposition one* reads: There may be no evidence of "gravity," yet the patient's life may be in the balance; and *proposition two:* There may be no "local evidence," yet the patient's dyspepsia or abdominalgia of any site may be the genuine expression of an appendicitis in progress, and if so, possibly of a serious appendicitis. If these premisses are right, there is no escape from a drastic conclusion. Are they right? As the whole question turns upon the uncertainty of diagnosis, there may be some excuse for a preliminary inquiry how we really stand with regard to the latter, reserving for a future occasion any practical suggestions in the direction of improvement.

The Present Situation.

This is not satisfactory for any of those concerned. The patient has to bear the ordeal, the surgeon the onus, and the physician that unearned discredit which may not always be to the best advantage for the interests involved. *Tempora mutantur.* Those days are not so far distant when, in duty to a now vanished etiquette, the physician was shy of the knife and hypodermic syringe; and the surgeon of the stethoscope—content to trust its report at second hand as a guide for an operation which sometimes his medical colleague might have suggested. At St. George's Hospital (in 1883) that honour was once done to a mere assistant-physician by Timothy Holmes, who agreed to cut down upon a small swelling which his junior had traced in the right iliac fossa. My patient long survived its extirpation, one of the earliest, if not the first, of pure and simple appendectomies, for it was none else than a convoluted but fairly healthy though "matted" appendix, which was not, however, recognized as such until the pathologist's report allayed the operator's alarm at having apparently excised a length of the ureter. Incidentally this brings to mind that some "practical use" has at last been found for the appendix, in the shape of its successful transplantation by Erich Lexer[1] to "stop a gap" in the urethra. More wisely our surgeons now trust their own percussion; less wisely, perhaps, they may often neglect that modicum of help which an adequately complete examination by the physician might possibly have contributed. Presumably they had found it wanting; but need that always be so?

Appendicitis "of Physical Signs," and Appendicitis "of Symptoms."

1. Physical signs are at a discount with the surgeon. Present when they are "superfluous" for his decision, they are generally "absent" in a majority of his cases where he would be the first to welcome them. That is the chief gravamen from the side of the patients (though, as will be pointed out, they also have another); they might fairly object if they knew that their operation was being undertaken *without any objective evidence.* Truth to tell, however well justified for ourselves, that position is hardly justifiable to public opinion.

2. The larger group have no physical signs so far: the symptoms or our dread of them decide the operation. The weakness of this broad classification, convenient so far as it goes for our discussion, is that it contains no reference to the gravity of the case. The most awkward of our facts is that some of the worst lesions must inevitably remain truly latent by reason of the occasional slightness of any inflammatory reaction. But, with that exception, taking the bulk of cases, the only "absolute latency" has been in reality that of any adequately efficient method of diagnosis. The desirable under this head would clearly be to reduce Group 2, now almost all-absorbing, to its legitimate limits, which are much narrower than is generally suspected; and to assign to Group 1 its due proportion, which will probably be found to be increasingly considerable.

"Urgency" and "Expediency."

Passing from this confused and comparatively useless grouping to practical clinics, we come to the common-sense surgical classification. "Operate at once for obvious necessity." "Diagnose if you can, but operate always whenever in doubt, and rather sooner than later, for safety." (1) For most of us *urgency* of symptoms is a supreme indication. This has always been true of *pneumonia,* as it is now of appendicitis. The last thing the pneumonic patient required was the exhaustion of an exhaustive examination: there was one thing needful and only one, "immediate treatment" to give him the best chance, his "first" which too often is in reality his last chance, by strictly harmless but efficient help. Yet surgeons there are who are not immediate operators. That is a purely surgical question; but the plain physician's view is that they take upon themselves the serious responsibility for a most careful watch. The excuse of "urgency" being dropped, a complete examination day by day, or at least some adequate examination as to the progress of a probable abscess, would seem to be an unavoidable duty. (2) *Expediency!* Where does it begin and where does it end? In the vast remainder of cases which require a *preoperative diagnosis* there are three views. The patient claims evidence, and all the evidence, for his consent; the physician in these technical matters is his appointed trustee: whilst the surgeon has to bear the brunt of the responsibility, with single eye to the patient's welfare, which is synonymous with the success of his operation. But surgical views and methods vary. For instance, antisepsis had strong opponents in London, even for its mere trial, long after Holmes had first brought it from Edinburgh to St. George's Hospital; a physician's view might sometimes have been of use in those days. Here, however, there is no suggestion as to any revolution; it is simply additional light that is desired, and eventually it would be welcomed by all surgeons. Meanwhile the physician, acting in the patient's best interests, might still sometimes, perhaps, be able to suggest surgical advantages for the surgeon's own consideration. This specially refers to the patients' other gravamen under our present routine of practice. They would, if consulted, insist upon every small guide that might conceivably favour the operative procedure. I admit that, had I to operate upon the usual urgent case, I should make little of the necessity for any searching abdominal examination, seeing that the operation was about to furnish ocular demonstration; and yet there is still a reservation for those cases which do not immediately yield up their secret to the abdominal incision. But as regards all other less urgent cases, we should secure for the patient the full advantage which he might gain from the operator having previously considered all the evidence obtainable from a complete preliminary examination. For the surgeon this is an unobjectionable and eminently satisfactory course, for the patient and his physician it would seem to be the only satisfactory fulfilment.

"Anterior" Appendicitis: "Central" Appendicitis: and "Posterior or Retrocaecal" Appendicitis.

This localizing classification, each member of which has its subvarieties, "urgent," "acute," "subacute," and "chronic," and its varied complications, is not an exhaustive analysis, but is probably as much as any surface exploration can achieve. Yet, speaking under correction, I believe that surgical diagnosis does not quite run to it yet, and that its chief lapses concern the largest group, that of the "retrocaecal" cases, whether these be severe (including abscess), or, as in the majority of instances, subacute and relapsing with comparatively slight lesions. All these almost invariably elude the most searching palpation; only "anterior" appendicitis, and sometimes also, though much less surely, the deep-seated "central" varieties, being amenable to the usual examination.

It is for this large retrocaecal contingent that further help is most needed, of a kind universally available and

both easier and more reliable than skiascopy which has been recently proposed. The method which I have elaborated, and practised for upwards of two years, aims at materially reducing that roll of latency. Some cases must continue to remain latent in the true sense; but it succeeds in demonstrating in a considerable percentage the presence of the abnormality, though not necessarily its nature. Moreover, it also aims at testing by means of a "normal standard" the healthy subjects who may have been passed as apparently quite free from physical signs as well as symptoms, as to the genuine soundness of their retrocaecal district. There for the present the matter must rest, as I am submitting to the Surgical Section at Liverpool the results of my clinical observations, in the hope that in spite of the onus of novelty, of any taint of false doctrine, and of the inevitable imperfections of the thing "im werden" which sometimes may hold more of the future than it quite knows, they may obtain a surgical hearing and a demonstration.

REFERENCE.
1 *Wien med. Klin.*, No. 39, 1911.

NEW METHODS FOR THE CULTURE OF BACTERIA.

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STARTING with the idea that the different tissues of the body possess their own specific salt content apart from having a specific protein content, knowing further that in each individual tissue the essential difference would be one depending on the nuclear metabolism of that tissue, recourse was had to the following procedure, which has been in use by me for nearly one year.

In every case the different organs, such as the brain or liver or skin, are freed as much as possible from blood with the view of eliminating bactericidal principles. The organs are then taken through a sterilized mincing machine and the minced material is placed in an Erlenmeyer flask, the weight of which is known. To every gram of the organ, taken originally, 2 c.cm. of sterile distilled water are added, and finally about 10 c.cm. of chloroform for each 100 grams of the mixture of the organ and water. No definite amount of chloroform can be stated, for certain organs, such as the brain, will bind more chloroform because they contain a higher percentage of fatty substances than will other organs such as the spleen in which the fat content is practically *nil*.

After shaking up the minced organ with the water and the chloroform for ten minutes, and then waiting for ten minutes to allow the excess of chloroform to separate out, at least 5 c.cm. of pure chloroform should be at the bottom of the flask. The Erlenmeyer flask is closed with a well-fitting stopper, perforated by a glass tube having 1 mm. diameter to allow of pressure adjustments, and is then incubated at 37° C. It is shaken up twice the first day and at least once every succeeding day to make sure of the whole content of the flask being saturated with chloroform. After a period varying from twenty-four hours to sixty days the supernatant fluid containing the products of digestion is poured off, and is filtered through a sterile barium sulphate filter paper (using preferably a suction pump) to get as clear a solution as possible.

The filtrate, smelling strongly of chloroform, has next passed through it a stream of sterile air. Originally the air was rendered sterile by allowing it to pass through four successive Erlenmeyer flasks, of which the first contained strong sulphuric acid, the next 5 per cent. potassium permanganate, the next 5 per cent. caustic potash, and the last flask distilled water. Now I use simply a glass tube, a foot long, having an internal diameter of 1 c.cm., and filled with absorbent wool, till sucking air through the tube, by placing it in one's mouth, becomes rather difficult. This tube is slightly drawn out at the ends, and is sterilized in an autoclave along with the Berkefeld filtering plant. The candles generally used are No. N, and should never be relied on till they have been tested with bacterial cultures.

A great difference will be found in the behaviour of extracts made from different organs, even if they have been digested for the same length of time, on sucking air through them, because some will foam a great deal more than will others—for example, the lung (because of the mucus) and embryonic skins are especially difficult to free from chloroform. It will be found best to place the filtered organ extracts into two litre flasks, and to keep the flasks constantly on the move. Apart from organs which contain mucus, which latter is not digested, or which at least does not cease to remain slimy, in all organs the foam formation will be lessened by the length of the digestion, as digestion liberates electrically active amino-acids, which, of course, lower the surface tension. Generally speaking, passing air for one to one and a half hours through 200 c.cm. of organ extract will remove the chloroform completely; but in the case of extracts of the central nervous system it may be necessary to keep the extract at a temperature of 38° C., but not higher. One of the advantages of the method given above is that each tissue has its own specific salt content—by which I mean that some tissues are rich in potash salts, while others are abundant in sodium salts, etc.

What seems at first a disadvantage, namely, the dilution of the salt content from the normal to one-third, by taking two parts of water to one of the organ, is in reality an advantage, because the hypo-isotonicity produced by the addition of water is counterbalanced by the increase in the number of molecules set free by digestion. Only in the case of nucleo-protein extracted by water is it necessary to add salt to bring the solution to about 1 per cent. isotonicity in the preliminary experiments, and then subsequently to dilute or increase the tonicity according to the effect we desire to produce in the morphology of our bacteria or other parasites. In the case of nucleo-proteins another precaution will have to be taken—namely, that of neutralization. I use a modified Locke's solution:

Dissolve $NaCl = 9$; $KCl = 0.5$; $NaHCO_3 = 0.25$; $CaCl_2 = 0.25$ in water 100 c.cm. Sterilize in autoclave, and add one part of this mixture to two parts of the organ extract before filtering the latter.

In the case of auto-digested organs, apart from the nucleo-protein problem, the best results I have obtained so far by using one part of the organ extract—for example, brain or liver—to from one to three parts of Deetjen's solution:

Deetjen's solution for blood platelets, leaving out the 1 per cent. agar, contains $NaCl = 0.6$ g, sodium meta-phosphate ($NaPO_3$) = 0.6 g, di-potassium phosphate (K_2HPO_4) = 0.3 g. Water up to 100 c.cm. Boil till the meta-phosphate is dissolved. I make a stock solution ten times the strength just given and autoclave it.

The time the organs are allowed to auto-digest depends on what special radicals in the tissues we want to study in relation to their effect on bacterial growth. Thus the nucleo-proteins are readily extracted from the cells whenever the fluid medium which was used for this purpose is about one-third of the original isotonicity of the cell. The life of the nucleo-proteins in watery media in the presence of chloroform is, however, not very long, judging by the oxidase reaction of the nucleo-proteins, and therefore it is necessary to use extracts of organs which have not digested for more than twenty-four to forty-eight hours if one wants to study the effects of the nucleo-proteins on bacteria or other parasites.

Of course, if it is a question of simply studying the effect of nucleo-proteins themselves apart from auto-digestion, we would keep the material which we subsequently wish to auto-digest in an ice-chest to allow of the diffusion outward of the nucleo-proteins, then we would decant the supernatant fluid. Now we may add chloroform in the percentage stated above, and allow auto-digestion to go on in the incubator.

If we do not desire to study simply the effect of the nucleo-proteins, but also that of the cytoplasmic radicals, such as mono-amino and di-amino acids both in open-chain and ring compounds, it is not difficult to see that the longer we allow cells to auto-digest the less will the final products of digestion resemble the original combination in which these radicals existed, although the numerical proportion between the individual radicals out of which the cytoplasm was built up will not be altered.

It follows, therefore, that if it is our desire to study how different organs, after a preliminary auto-digestion, will behave towards any known bacterium or other parasite, it

is necessary to shorten the period of auto-digestion as much as possible. The same reasoning, of course, applies if we are in search of an unknown virus, which, however, produces a specific effect on a given organ, as does, for example, hydrophobia on the nervous system, vaccinia on the skin, and the lymph beneath the skin, etc.

In dealing with the immunity factor I was led by the consideration that we have to distinguish between the acquired immunity of the individual and the inherited immunity of the genus or species to which any given individual belongs. Therefore I used, in addition to the tissues and organs of adult individuals, those obtained from embryos and fetuses at different times of life, using especially cow and pig embryos, because these are readily obtained from the slaughterhouse.

The younger an embryo or fetus the less will the acquired immunity be; and the greater the difference in the species—for example, dog and rabbit—the more likely is it that we shall succeed in cultivating dog parasites in auto-digested dog extracts, and rabbit parasites in auto-digested rabbit extracts.

The above mentioned line of research has been applied by me to an investigation of the virus of hydrophobia and of vaccinia, and a detailed account will be published soon.

My reason for having suggested over two years ago to Professor Duval the use of the banana was this—that the skin and adjacent layers of the banana are fairly rich in oxidase, which latter in the presence of oxygen will act as an oxidizing medium, and in the absence of oxygen as a reducing agent. Other media which have been used by me are yellow lentils, from which the oxidases are readily extracted by 5 per cent. sodium chloride; and spleens, from which oxidases may also be obtained in large quantities by ammonium or sodium chloride.

My reasons for suggesting to Professor Duval, in connexion with his leprosy work, the three amino-acids—namely, tryptophane, lysin, and cystin—are these: Henriques showed[1] the absolute necessity of tryptophane for obtaining nitrogen equilibrium, and my own work showed the difference between acid hydrolysis and pancreatic digestion to be simply due to the fact that the former destroys tryptophane, while hydrolysis with alkalis does not destroy tryptophane, and therefore acts as do trypsin and bacteria in general. Lysin is also absolutely essential because it is absent in zein, gliadine, and mucedin, which makes these foods unable to maintain nitrogen equilibrium, as is well known. Cystin was suggested for two reasons—first, because I thought it might be used for binding deleterious by-products from such aromatic compounds as tryptophane, phenols, etc.; and secondly, because at that time I was under the erroneous impression that the leprosy bacilli attacked epithelial cells as well as the subjacent connective tissues, and, as is well known, epithelial tissues are specially rich in cystin. That both tryptophane and cystin may act as reducing agents is explained in my *Chemistry of Proteids*, where also the early history of the use of the amino-acids for bacterial cultures is discussed.

REFERENCE.

1 *Zeitsch. f. physiolog. Chem.*, 44, 406 (1907).

THE French Minister of Marine has granted permission for the use of antityphoid vaccine in the French navy, provided it is entirely optional.

AMONG numerous bequests contained in the will of the late Sir Julius Wernher are several which aim at the promotion of the study of science or at the support of charities of a medical order. Among the former is a gift of £100,000 to the Imperial College of Science and Technology at South Kensington. This institution is also given two-twelfths of the residuary estate, but such extra share is not to exceed £50,000. In regard to medical charities £20,000 is left to the German Hospital at Dalston; £25,000 to King Edward's Hospital Fund; £2,500 to the hospital at Kimberley, South Africa; £5,000 to the London Hospital; £2,500 to the Bute Hospital at Luton; and £1,000 to the Children's Home in the same town. In addition to its direct bequest, King Edward's Hospital Fund is granted one-twelfth of the residuary estate, but the sum accruing thereby is to be treated as part of the capital of the said fund and not as part of its annual receipts. Another important bequest is one of £250,000 for the purpose of assisting in the building, and if sufficient, in partly endowing, a university at Groote Schuur, near Capetown, provided that the constitution of the said university shall be approved in writing by Sir Leander Starr Jameson and Sir Lionel Phillips.

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REPORTS TO THE THERAPEUTIC SUBCOMMITTEE.

THE BACTERICIDAL ACTION OF THE CRESOLS AND ALLIED BODIES AND THE BEST MEANS OF EMPLOYING THEM.

BY E. A. COOPER, B.Sc.,

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(Concluded from page 1297.)

V.—ON THE CHOICE OF EMULSIFICANTS FOR THE HIGHER TAR ACIDS.

SOFT soap was found to be an inefficient emulsificant for the higher tar acids. A search was therefore made for substances superior to soft soap in emulsifying power. They were at first looked for amongst proteins and carbohydrates.

Aqueous solutions of egg-albumen were useless for the emulsification of the phenols, because the protein was immediately coagulated.

Casein, on the other hand, was not precipitated by the phenols and possessed considerable emulsifying power. A 6 per cent. solution of casein was used for emulsification and was prepared by dissolving precipitated casein in a 1·5 per cent. aqueous solution of sodium carbonate with the aid of heat.

Equal volumes of the casein solutions and of the tar acids were triturated together and the tar acids were thereby emulsified, forming a white emulsion. These emulsions, however, were not readily miscible with water and they were also less permanent than emulsions of the same tar acids with soft soap.

Saturated aqueous solutions of glucose, solutions of agar-agar, and 1 per cent. solutions of starch possessed no emulsifying properties towards the higher tar-acids.

Mucilages of gum acacia and gum ghatti, however, were able to emulsify the higher phenols, but the resulting emulsions, although readily miscible with water, were not so permanent as those made with soft soap.

The emulsifying agents of protein and carbohydrate nature employed were thus not as efficient as soft soap, and a further examination of the soap class of emulsificant was made. Resin soap, although it was used as an emulsificant of the cresols, could not permanently emulsify the higher phenols. It had a further practical disadvantage, inasmuch as admixtures of resin soap and the high boiling point phenols were of an excessively viscous nature.

Castor-oil soap, however, was found to be an efficient emulsificant for the higher tar acids. Castor oil and tar acid were mixed and heated in the water-bath; the potash dissolved in water was added to the hot mixture and heating was continued until saponification was complete, this stage being reached when there was no longer a fatty scum produced when a drop of the mixture was diluted with water. The products were dark-coloured fluids, which were not very viscous and which gave stable emulsions with water.

VI.—GERMICIDAL POWER AND COST IN THE CASE OF THE COAL-TAR DISINFECTANTS.

The costs of the various preparations are best compared in terms of their carbolic coefficients. The costs of the amounts of the disinfectants equivalent in germicidal power to 10 lbs. of carbolic acid have been determined. These are obtained by dividing the price per 10 lbs. by the carbolic coefficient.

Soft soap quality P.C., which is 17s. per cwt. or about 2d. per lb., is much cheaper than the B.P. quality. As will be shown in Chapter VII., there is no advantage in using the more expensive quality and it has therefore been assumed in calculating the costs that the former would be employed.

For the purpose of calculation the following costs of other

ingredients used in the manufacture of the disinfectants have been used:—

Resin	2d. per lb.
Potash (purified by 87 per cent. alcohol)	1s.9d. per lb.
Castor oil (bleached and filtered)	9d. per lb.
Phenol (pure crystals)	£2 per 10 lbs.
B.P. liquefied phenol (containing 9-10% water)	10s. per 10 lbs.
Crude carbolic acid	1s. to 1s. 7½d. per gal. [1½d. per lb.]
Thymol	7s. per lb.
Crude mixture of tar acids	3s. per gallon

The separated fractions of the higher tar acids (Fractions I. to X.) are sold at 2s. 6d. per gallon (about 3d. per lb. on the condition that all the fractions are simultaneously bought. If, however, a selection of one or more of the fractions were made the price would be much higher. The costs are worked out below on the assumption that no selection would be made.

In the following tables are given the cost of making the various preparations and also the costs of the amounts equivalent in germicidal power to 10 lbs. of phenol. Since germicidal power depends so much upon the conditions of disinfection, the costs of employing the various disinfectants for different purposes have been made out.

TABLE XVII.

Disinfectant.	Conditions of Disinfection.	Carbolic-acid co-efficient.	Price per 10 lbs. of disinfectant.	Cost of an amount of disinfectant equivalent in germicidal efficiency to 10 lbs. of pure phenol at £2.
				s.
E C D Tar-acid Fractions, I. II. III. emulsified with an equal weight of soft-soap.	Disinfection of Staphylococcus in absence of organic matter	1·6	2/1	1·30
	Disinfection of B. Typhosus in absence of organic matter	3·0	—	0·70
	Disinfection of B. Typhosus in presence of faeces (10% solid matter)	1·8	—	1·15
E Crude carbolic-acid, emulsified with an equal amount of soft-soap.	Disinfection of Staphylococcus in absence of organic matter	2·9	1/8	1·75
	Disinfection of B. Typhosus in absence of organic matter	1·5	—	1·10
	Disinfection of B. Typhosus in presence of faeces	1·1	—	1·50
	Disinfection of pus	1·2	—	1·66
H Crude carbolic-acid 50 Castor oil 20 Potash - 5 Water - 5 all by weight	Disinfection of Staphylococcus in absence of organic matter	1·6	3/9	2·34
	Disinfection of B. Typhosus in absence of organic matter	3·6	—	1·04
	Disinfection of B. Typhosus in presence of faeces	2·2	—	1·70
I Tar-acids, Fractions I., II. or III. - 50 Castor oil 20 Potash - 5 Water - 5 all by weight	Disinfection of Staphylococcus in absence of organic matter	2·9	4/6	s. 1·55
	Disinfection of B. Typhosus in absence of organic matter	5·2	—	0·86
	Disinfection of B. Typhosus in presence of faeces	3·4	—	1·32
J Crude carbolic-acid 50 Resin - 25 Potash - 6 Water - 5 all by weight	Disinfection of Staphylococcus in absence of organic matter	1·9	2/6	1·31
	Disinfection of B. Typhosus in absence of organic matter	2·5	—	1·00
	Disinfection of B. Typhosus in presence of faeces	1·8	—	1·39

TABLE XVII.—*Continued.*

Disinfectant.	Conditions of Disinfection.	Carbolic-acid co-efficients.	Price per 10 lbs.	Cost of an amount of disinfectant equivalent in germicidal efficiency to 10 lbs. of pure phenol.
K Tar-acid Fractions I., II., and III. - 50 Resin - 25 Potash - 6 Water - 5 all by weight	Disinfection of Staphylococcus in absence of organic matter	3·0	3/2	1·05
	Disinfection of B. Typhosus in absence of organic matter	3·6	—	0·88
	Disinfection of B. Typhosus in presence of faeces	2·6	—	1·22
T Fraction IV. (208·209°C) 50 Castor oil 20 Potash - 5 Water - 5 all by weight	Disinfection of Staphylococcus in absence of organic matter	3·7	—	1·23
	Disinfection of B. Typhosus in absence of faeces	0·8	—	0·67
	Disinfection of B. Typhosus in presence of faeces (10% solids)	2·4	—	1·91
U Fractions V and VI (209°-218·5°C) 50 Castor oil 20 Potash - 5 Water - 5 all by weight	Disinfection of Staphylococcus in absence of organic matter	5·5	4,7	0·83
	Disinfection of B. Typhosus in absence of faeces	7·2	—	0·64
	Disinfection of B. Typhosus in presence of faeces	3·1	—	1·18
V Fraction VII. (228·5°—225·5°) 50 Castor-oil 20 Potash - 5 Water - 5	Disinfection of Staphylococcus in absence of organic matter	5·7	4,7	0·80
	Disinfection of B. Typhosus in absence of organic matter	9·5	—	0·48
	Disinfection of B. Typhosus in presence of faeces	3·0	—	1·53
W Fraction VIII. (225·5°—240°C) 50 Castor-oil 20 Potash - 5 Water - 5	Disinfection of Staphylococcus in absence of organic matter	8·6	4,7	0·53
	Disinfection of B. Typhosus in absence of organic matter	14·1	—	0·32
	Disinfection of B. Typhosus in presence of faeces	3·2	—	1·43
	Disinfection of pus	6·0	—	0·76
X Fraction IX. 50 Castor-oil 35 Potash - 8 Water - 7 All by weight	Disinfection of staphylococcus in absence of organic matter	11·6	5/5	0·47
	Disinfection of B. Typhosus in absence of faeces	13·8	—	0·33
	Disinfection of B. Typhosus in presence of faeces	3·6	—	1·48
	Disinfection of pus	5·0	—	1·08
Y. Fraction X. 50 Castor-oil 35 Potash - 8 Water - 7	Disinfection of staphylococcus in absence of organic matter	12·8	5/5	s. 0·42
	Disinfection of B. Typhosus in absence of faeces	13·0	—	0·42
	Disinfection of B. Typhosus in presence of faeces	2·0	—	2·00
	Disinfection of pus	1·5	—	3·00
Thymol - 50 Castor oil 20 Potash - 5 Water - 5 by weight.	Disinfection of Staphylococcus in absence of organic matter.	23	£2 7 11	2·08
	Disinfection of B. Typhosus in absence of organic matter.	30		1·6
	Disinfection of B. Typhosus in presence of faeces.	8·8		5·44

TABLE XVII.—*Continued.*

Disinfectant.	Conditions of Disinfection.	Carbolic-acid co-efficients.	Price per 10 lbs.	Cost of an amount of disinfectant equivalent in germicidal efficiency to 10 lbs. of pure phenol.
Mixture of crude tar-acids - 50 Castor-oil 20 Potash - 5 Water - 5 by weight	Disinfection of Staphylococcus in absence of organic matter.	2·5	0 5 0	2·00
	Disinfection of B. Typhosus in absence of same.	6·8		0·73
	Disinfection of B. Typhosus in presence of faeces (3 %)	2·4		2 03
	Disinfection of pus	2·7		1·82

The following conclusions are drawn from these results :—

(i.) It is more economical to use the resin-soap preparations* of crude carbolic acid than those containing soft-soap and the latter rather than the castor-oil soap preparations. The disinfectants containing rosin-soap have the disadvantage, however, of producing milky dilutions with water while the dilutions of the soft-soap preparations are nearly clear.

(ii.) For the disinfection of Staphylococcus* in absence of organic matter, of typhoid stools and pus it is more economical to employ crude carbolic acid emulsified with soft-soap than the crude mixture of tar-acids preparation.

(iii) It is more economical to employ the higher boiling-point phenols (Fractions IV. to X.) for disinfection in the absence of organic matter than the cresols. This advantage increases with the boiling points of the tar acids, but its practical value is decreased by the great expense incurred in obtaining a large amount of any *separate* fraction. There is no such advantage in the presence of faeces ; in fact, under these conditions it is usually more economical to use the cresols.

iv) The use of the thymol preparation is more costly than that of crude carbolic acid emulsified with soft soap, especially in the presence of organic matter.

VII.—OBSERVATIONS BEARING ON THE ALKALINITY, TOXICITY, IRRITATING PROPERTIES AND ACTION ON RUBBER OF THE PREPARATION OF CRESOLS AND HIGHER PHENOLS.

1. *The alkalinity of the preparations.*

When the soap preparations are diluted with water, some of the soap is hydrolysed with production of fatty acid and potash :—

$$H_2O + K\overline{X} \rightleftarrows H\overline{X} \quad KOH$$

Soap — Fatty acid

The free alkali so formed will for the most part combine with the phenols, forming phenolates. The phenolates are also hydrolysed in aqueous solution :—

$$H_2O + C_6H_5OK \rightleftarrows C_6H_5OH + KOH$$

but as there is a large excess of phenol or cresol present this will be negligible.

(*i.*) *The alkalinity of the soft soap preparations.*

B.P. soft soap should not give a reaction for free caustic alkali when an alcoholic solution of phenol-phthalein is dropped upon a fresh surface of the soap. The soap being moist, the absence of coloration indicates that their is no free alkali hydroxide, and also no free carbonate, borate, and silicate. [If the soap be somewhat dry, no coloration proves the absence of free hydroxide, but not necessarily of free carbonate, borate, and silicate.] A sample of Price's B.P. soap undried gave no evidence of the presence of free alkali.

Price's P.C. soft soap has been used in the above experiments for emulsifying the cresols instead of the B.P. soap on account of its cheapness. It gave, however, a pink coloration with phenol-phthalein, indicating the presence of free alkali.

The total alkali of these two samples was determined in the following way :—10 gms. of the soap were dissolved in hot water and excess of standard acid was added in known amount. The mixture was heated, stirred and then cooled in an ice bath, so that the fatty acids formed by the decomposition of the soap were solidified. They were filtered off and well washed with warm water, and the washings added to the filtrate. The combined filtrate was then titrated with standard alkali in order to determine the amount of acid unused in precipitating the acids and in combining with all the alkali present. This amount subtracted from the original amount of acid taken gave the quantity of acid required to unite with all the alkali—free and combined—present in the soap, and the alkali equivalent of this amount of acid was expressed in terms of potassium oxide, K_2O.

The total alkali content of B.P. soft soap was 8·23 per cent., this being the mean of three determinations.

The mean of three estimations of the total alkali content of P.C. soap was 9·47 per cent. The small difference in the alkali contents of the two soaps suggested that there was no advantage in employing the B.P. soap instead of the cheaper quality in the preparation of disinfectants.

The following calculation shows that this is so. Since the cresol suspensions prepared with P.C. soft soap contained 50 per cent. of the latter, their alkali content would be 4·73 per cent. Two per cent. dilutions with water of these cresols—*i.e.*, the strength commonly employed in the case of these disinfectants—would, therefore, contain ·09 per cent. total alkali.

If the entire alkali in the 2 per cent. dilutions were in the free state it would amount to about 1·50th normal, but only a fraction of the total alkali in a soap dilution is free, and in the presence of the cresols free alkali could not be detected with phenol-phthalien—*i.e.*, its concentration was less than $10^{-3.5}$ normal.

(*ii.*) *The alkalinity of the resin soap and castor oil soap preparation.*

In these preparations a known amount of alkali was introduced since the soap was synthesised from fat in presence of tar acid.

In the following table are given the alkali contents of the various preparations, which are classified below according to their formulæ :—

TABLE XVIII.

Formula.	Alkali-content % of preparation (KOH)	Alkali-content (KOH) of 2 % dilution.
I. Tar-acid 50 Castor-oil 20 Potash 5 Water 5	6·25 %	·125 %
II. Tar-acid 50 Castor-oil 35 Potash 8 Water 7	8 %	·160 %
III. Tar-acid 50 Resin 25 Potash 6 Water 5	7 %	·140 %

If the entire alkali in the 2 per cent. dilutions were in the free state it would amount to a concentration of from 1-33rd to 1-42nd normal, according to the formula of the preparation.

It was found, however, that the concentration of free alkali in the 2 per cent. dilutions of the castor oil soap and resin soap preparations only amounted to 1-170th normal. This strength of alkali can just be tasted and causes slight smarting when applied to the conjunctiva.

The dilutions with water of the various soap emulsions of the phenols, therefore, contained very little free alkali.

(*ii.*) *Toxicity.*

The tar acids exert a poisonous action when injected or taken orally. The minimum lethal dose of carbolic acid for man appears to be 15 gms., but fatal poisoning by phenol has been known to occur as a result of its application to the unbroken skin and also of its injection into the cavities of abscesses.

Tollens (Archiv f. Experiment. Path. u. Pharm., Vol. 52, p. 220) showed that fatal doses of carbolic acid and of the isomeric cresols were nearly the same. His experiments were carried out upon cats, mice, and frogs.

He also showed that there was no difference between the toxicities of aqueous solutions and soap emulsions of phenol of the same strength. This was also true of the cresols. A cresol soap emulsion was, therefore, equal in toxicity to a phenol soap emulsion. For example, Liquor cresoli saponatus was just as toxic as the corresponding phenol preparation. Although the toxicities to animals of phenol and the cresols are equal, the latter are considerably superior to phenol in

* For practical purposes the cost of disinfecting Staphylococcus rather than B. typhosus in absence of organic matter have been compared on account of the higher resistance of the former organism to the action of disinfectants.

germicidal power. This means that the use of cresol preparations is less dangerous than that of phenol preparations, because more dilute solutions of the cresols can be used for disinfecting purposes.

The fact that the soap emulsions are no more toxic than aqueous solutions is also of practical importance, because of the advantages in employing the cresols in the emulsified state as disinfectants.

The poisonous properties of the cresols are also indicated by the fact that many cases of poisoning with lysol have recently occurred in Germany. Lysol has, however, been employed in the treatment of cerebro-spinal meningitis by the injection of its 1 per cent. solution into the spinal cord without any poisonous effects.

There are cases, too, that show that the cresols have not always so great a toxicity as carbolic acid. Thus, 4 ozs. of Jeyes' fluid and 9 ozs of creolin have been taken by the mouth and there has been complete recovery from their toxic effects after a period of unconsciousness. Such results are probably due to the de-emulsification of the higher tar acids in the stomach and their very slow absorption, owing to their slight solubility. Survival would have been unlikely in the case of carbolic acid.

The following information concerning the toxicity of the higher tar-acids is taken from Lewin's "Lehrbuch der Toxikologie, 2te Aufl. 1897," pp. 215 and 361.

A dose of 2·5 gms. of creosote can kill cats and rabbits, the corresponding minimum lethal dose per kilogram body-weight being about 0·7 gm. The minimum lethal dose per kilo. of phenol and cresol is ·09 gm. for cats (Tollen's l.c.), so that creosote is much less poisonous than these substances. One fifth of a gram of creosote can kill pigeons, and dogs are killed by 6 to 7 gms. Cases are recorded in which a dose of 7 gms. of creosote has fatally poisoned a man, and doses beginning at 20 drops and progressively increasing to 1·8 gm. have killed a child.

Thymol is also poisonous, as 3 to 4 gms. of it can kill rabbits by injection and 5 to 6 gms. can kill the same when given orally. Since only a dose of 2½ gms. of creosote is necessary to kill rabbits, it is seen that thymol is less poisonous than creosote, and, therefore, much less poisonous than phenol and cresols.

Cases are recorded in which a dose of from 6 to 10 gms. of thymol has caused toxic symptoms, such as vomiting, collapse, etc., in man.

There is, therefore, some evidence showing that the higher tar-acids are less poisonous than phenol and the cresols. The dangers attending the use of the higher tar-acids are further decreased by their high germicidal power, which permits of their employment as disinfectants in small concentrations.

(iii.)—*The irritating properties of the tar acids.*

The concentrated preparations when spilt upon the skin are very caustic and produce bad wounds. Two per cent. dilutions of them in water however, have no immediate irritant effect upon the normal skin, and at this dilution the preparations exert a reliable germicidal action.

Two per cent. dilutions when placed upon the tongue produce a stinging sensation.

0·25 per cent. dilutions of all the fractions of the tar acids produce slight stinging when placed upon the conjunctiva.

No striking differences could be made out between phenol, cresol, and a higher fraction of tar acid (No. ix.) boiling at 270°—286° C. in regard to their stimulating properties on the conjunctiva.

0·25 per cent. of phenol or cresol would not effect a reasonable germicidal effect, but 0·1 per cent. of the preparations of the higher fractions, with their much higher germicidal power, could be usefully employed. More concentrated emulsions are not suitable for sensitive mucous membranes.

(iv.)—*The action of the coal-tar disinfectants upon rubber.*

Pieces of rubber tubing in good condition were immersed for twenty days in 2 per cent. solutions of crude carbolic acid emulsified with resin and soft soap and of a higher tar-acid fraction, No. ix., emulsified with castor-oil soap.

The immersion in these dilutions had no effect upon the rubber other than that of softening, which was no greater than the softening effect produced by immersion in water for the same length of time.

It was noticed that the emulsions of the higher tar-acid in which the rubber had been immersed had considerably increased in opacity while control emulsions with no rubber had only decreased slightly owing to a small deposition of tar acid. This showed that some of the latter had been absorbed by the rubber, which would therefore behave as particulate organic matter in decreasing germicidal power.

The concentrations of the various preparations recommended for disinfecting stools can be recommended for disinfecting rubber instruments.

PREPARATIONS FOR DISINFECTION OF HANDS, INSTRUMENTS, &c.

The following preparations are recommended for disinfection of hands, instruments, pus, etc. They possess a reliable germicidal power, are readily manufactured, are considerably cheaper than phenol, and for the same germicidal power are less poisonous.

The fact that rise in temperature greatly increases germicidal power is of importance in practice. The concentrations recommended below for disinfection at ordinary temperatures may be halved if the disinfection is conducted at 35° C. or above.

(I). *Crude Carbolic Acid (Cresols), emulsified with Soft Soap.*

(Disinfectant E. Table III., Chapter II.

Crude carbolic acid, which consists chiefly of cresols, can be obtained from gas companies or disinfectant manufacturers.

Take equal weights of crude carbolic acid and soft soap (Price's P.C. quality); heat them together at 80° C. until all the soap is dissolved and filter the product. The preparation is a dark colored homogeneous fluid readily miscible with tap-water, forming a slightly turbid liquid.

Dilution recommended for hands and instruments	2%
Dilution recommended for disinfection of stools, pus, and other particulate organic matter, on the assumption that for one volume of stools, etc., at least two volumes of the diluted disinfectant be added	3%

The costs of materials to make one gallon of this preparation is 1s. 8d., and that of an equal amount of B.P. carbolic acid is 10s. The disinfectant is therefore much cheaper than phenol, and at the same is equal to it in germicidal power and is less poisonous.

This preparation is identical with the Liquor creosoli saponatus, official in the German, Japanese, and Swedish Pharmacopœias, and with the Cresolum saponatum of the Belgic and Swiss Pharmacopœias.

(II.) *Crude Mixture of Tar Acids from Creosote Oil, emulsified with Castor-oil Soap.*

(Disinfectant Z. Table XIV., Chapter IV.)

The "crude mixture of tar acids" contains cresols and their higher homologues, together with some carbolic acid, and is obtained by the extraction of creosote oil with soda and acidification of the extract.

Creosote oil is the fraction collected between 230° C. and 270° C. in the distillation of coal tar.

The "crude mixture of tar acids" can be obtained from gas companies and disinfectant manufacturers.

Take 50 parts by weight of this mixture of tar acids and 20 parts of castor oil (bleached and filtered oil of commerce), mix well and heat to 90° C., add a solution of 5 parts of potash in 5 parts of water, and heat and stir until a drop of the mixture gives a pink emulsion with tap water with no fatty scum.

The product is a dark-coloured fluid, miscible with water, giving a stable pink emulsion.

Dilution recommended for hands and instruments	1%
Dilution recommended for disinfection of stools, pus, and other particulate organic matter, on the assumption that for one volume of stools, etc., at least two volumes of the diluted disinfectant be added	1·5%

The cost of the materials to make one gallon of the disinfectant is 5s. and is therefore much greater than that of one gallon of the crude carbolic acid preparation (1s. 8d.). The crude tar-acids disinfectant is both in the absence and presence of organic matter, however, superior to the crude carbolic-acid preparation in germicidal power, so that the cost per germicidal unit of the two preparations is approximately the same. Furthermore, the disinfectant made with the crude mixture of tar acids is considerably less poisonous than the crude carbolic-acid preparation, and this advantage is increased by the fact that, owing to its higher germicidal power, the concentrations of the former preparation recommended to be used in practice are much smaller than those of the latter.

The emulsions of the crude tar-acids disinfectant with tap

water deposit a little tar acid on standing, so that it is important to employ its freshly-made dilutions or to shake thoroughly long-standing ones.

I desire to express my best thanks to Dr. C. J. Martin, F.R.S., for giving me the opportunity of conducting this investigation and also for help and advice in the course of the work, and to Messrs. Burt, Boulton, and Heywood for supplying samples of various tar acids.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

THE PAINLESS OPENING OF SMALL ABSCESSES.

ONE of the first lessons handed down to us from the days before anaesthesia is that an incision made from within outwards, after transfixion, is far less painful to the patient than an incision from without inwards, since the sensory nerve endings are not touched until their deeper connexions are divided. For the last two years, prompted by a personal experience, I have used this method so successfully in the case of small abscesses that it seems worth pointing out the small modification of the ordinary curved bistoury which experience very soon showed to be necessary for complete success. The ordinary bistoury carries too little curve, and is too broad in the blade, for the painless preliminary transfixion, which is an essential point. The accompanying sketch shows the shape of a



fully curved, narrow-bladed bistoury, which Messrs. Salt of Birmingham made for me in different sizes, which answers the purpose admirably. With this narrow sharp-pointed blade a small abscess can be transfixed practically without pain. As soon as the point reaches the abscess cavity pain ceases, and the point can be brought out through the skin at the required distance, and the incision completed by *slow* sawing movements with an absence of painful sensation which is often surprising. The incision, after transfixion, can of course be completed, if preferred, by one rapid stroke of the knife, but I have found practically that the procedure is less startling and more truly painless if the skin is divided quite slowly by short sawing movements.

H. CAMERON KIDD, F.R.C.S.

Bromsgrove, Worcestershire.

THREE OCCIPITO-POSTERIOR PRESENTATIONS IN THE SAME PATIENT.

DR. ILOTT'S note in the JOURNAL of June 1st, p. 1240, has suggested to me that the following case may be of interest. Two days ago I attended a woman, aged 26, in her fourth confinement. On arriving, I was told that she had been in labour for four hours, and the membranes had recently ruptured. I found the os fully dilated, the head low down, with the occiput behind. The pains were infrequent and feeble. I made her stand beside the bed for a few minutes until a stronger pain came on, when, with the nurse's help, she was placed on the bed, and the child was born during the same pain; the perineum was slightly torn. A partially adherent placenta led to rather severe haemorrhage till it was detached by hand.

I have attended her in each of her former confinements. The first was occipito-posterior, forceps being applied above the brim of the pelvis, and the extraction proving very difficult, the perineum being badly torn. The second child presented in the same way, and also required forceps. In the third labour the presentation was occipito-anterior, and forceps were used on account of primary uterine inertia; in this case also the placenta had to be removed by hand. The membranes had always ruptured before my arrival, so no attempt was ever made to turn the head round.

Banwell. KENNETH ANDERSON, M.B.

SALVARSAN.

A PATIENT of mine, wishing to have salvarsan, was given 0.6 gram; he at the time had a very troublesome cough which had lasted some months, although there were no serious physical signs. The day after the injection he did not cough and has had none since, and when I gave him a second intravenous injection a few days ago, an interval of six weeks between the two injections, he remarked that he had never felt better.

I watched the last batch of a series of about 600 cases, which have not been reported, treated by salvarsan, and the operator showed me a record of each case, pointing out that there had not been a single fatal result, and that only two cases—nervous cases—had slight reaction.

It was also pointed out to me that after an injection these cases looked many years younger. Owing to the great prominence given to the cases that have been fatal, I think that what appears to be a very useful remedy runs a great risk of neglect. I use the Allenbury apparatus invented by Mr. McDonagh.

Gillingham, Kent. IAN JEFFERISS.

ARTERIO-SCLEROSIS IN RELATION TO BLOOD PRESSURE.

THERE has been a great deal of discussion of late on the question of the relation of arterio-sclerosis and arterial atheroma to increased blood pressure. One school has maintained that the arterial pressure is independent of local changes in the artery wall; another has held, and sought to prove by many experiments, that thickening of the vessel wall will give a high reading when tested with the mercury manometer, quite irrespective of the true arterial pressure, which may, in fact, be below normal. I have for some years been uncertain as to which school was right, and I have sought to arrive at some definite conclusion as to which was the correct view. If a local arterial thickening will affect the reading of the pressure as given by the mercury manometer, then the latter instrument becomes practically useless to the clinician, for how is he to tell in a case giving a high reading whether it is due to a general increase of blood pressure or to local thickening or rigidity of the brachial artery? For several years I have sought an answer by taking a sphygmographic pulse tracing in all cases of high or low arterial pressure, but after prolonged trial and comparison of numberless cases, I have been forced to the conclusion that a sphygmographic pulse tracing is absolutely useless as a guide to arterial pressure. I have tracings of cases of only 90 mm. Hg pressure giving an exactly similar tracing to those of 200 or more. The old teaching that a marked tidal wave, with absent or diminished dicrotic wave, indicates a high arterial pressure is a myth, as is also the theory that an increased dicrotic wave, with an absence of the tidal wave, signifies a low blood pressure.

I have recently, however, had a case under my observation which conclusively proves that the mercury manometer does give a true reading of the arterial blood pressure, quite apart from any local thickening of the brachial artery. A man of 73 has given a pressure reading of 200 mm. Hg or more when tested by the mercury manometer for some years. His arteries are generally thickened, and his pulse feels poor and of low pressure to the finger, in addition a pulse tracing has always shown an absence of the tidal wave, and a high percussion stroke. I therefore naturally concluded that this was a case of low blood pressure, but giving a high blood pressure reading when tested with the manometer, owing to the thickening of the arterial wall. About a month ago, however, owing to increasing circulatory trouble, I advised my patient to undergo a course of Nauheim baths at home. The result has been that the systolic blood pressure has fallen from 220 mm. Hg to 120 in three weeks, while the pulse has increased in volume, and the tracing has become more normal.

I think this case conclusively proves that the high arterial pressure was due to arterial spasm, and not to the atheroma and sclerosis of the arterial walls. In future I shall therefore know that a high reading given by the sphygmomanometer means high arterial pressure, and not the presence of local arterial thickening, with low blood pressure.

Woking R. THORNE THORNE.

BREECH PRESENTATIONS.

In connexion with Dr. H. J. Hott's case of three successive breech presentations in a married woman, aged 32, the following instance of four successive breech presentations may be worth recording: Mrs. H., married at the age of 20, had five children, all of whom, with the exception of the eldest, a boy, were breech presentations—two girls and two boys. All the children were born alive, and lived healthy lives for several years. The mother is a small woman, and the pelvis somewhat contracted.

Hove. W. Ainslie Hollis.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

MACCLESFIELD GENERAL INFIRMARY.

A CASE OF RETROPERITONEAL HERNIA.

(By J. Hedley Marsh, Honorary Surgeon to the Infirmary.)

The patient in the following case, a man aged 34, was recently admitted under my care. He had previously been treated for "indigestion and duodenal ulcers," and was suddenly seized with violent abdominal pain, vomiting, and collapse.

State on Admission.—He was admitted within four hours of the onset, and was then vomiting incessantly, had much pain all over the abdomen, and the right rectus was markedly rigid. He had subnormal temperature and pulse 140 a minute. He was obviously suffering a serious abdominal catastrophe, probably in the right half of the abdomen.

Operation.—I operated at once, and opened the upper half of the abdomen by a right paramedian incision, displacing the rectus outwardly. The stomach and duodenum were carefully examined for perforation and found normal; the stomach was much distended, and a large quantity of clear, odourless, serous fluid escaped from the abdomen. The incision was extended downwards and the appendix sought for, but it could not be readily found. On tracing down the anterior longitudinal band and making firm traction upwards on the caecum, the appendix suddenly escaped from a pouch lying behind the caecum, and a mass was then seen projecting behind the caecum and pushing the ascending colon outwards and lifting up the mesentery of the lower ileum at its insertion into the iliac fossa, where it passes to the postero-internal aspect of the caecum and colon. Several feet of small intestine, probably jejunum or upper part of ileum, were slowly withdrawn in a collapsed state from a sort of peritoneal tube which extended upwards to the right kidney.

Result.—The opening was dealt with and the abdomen closed. The man made an uninterrupted recovery and is now in robust health.

The drawing on page 116 of Mr. Moynihan's book—*Retroperitoneal Hernia*, second edition—exactly illustrates the condition found excepting that the appendix in this case was tucked away in the pouch. I am well aware that genuine cases of pericaecal hernia into this particular pouch are considered to be rare.

The history and onset misled me into opening the abdomen high up, but the paramedian incision, which I frequently find excellent, permitted rapid, safe, and efficient extension downwards with no risk of subsequent yielding of the abdominal wall.

Although a considerable number of cases of intestinal obstruction and "acute abdomens" are annually dealt with in our infirmary I have been unable to find any previous record of what I believe to have been a hernia into the retrocolic fossa.

Sir William Macewen, quoted by Moynihan, describes three pericaecal fossae—ileo-colic, ileo-caecal, and subcaecal or retrocolic. Moynihan points out that if the posterior surfaces of the caecum and ascending colon are covered by peritoneum and are free, these secondary retrocolic fossae are absent.

An International Congress on Eugenics is to be held in London in July next (24th to 30th). The work of the Congress will be distributed among four sections as follows: (1) Biology; (2) sociology and history; (3) legislation and demography; (4) practical applications.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

Cardiff, December 14th, 1911.

Dr. Biddle, President, in the Chair.

Tuberculosis Among the Poor.

Dr. Camac Wilkinson, who read a paper on this subject, said he wished to appeal primarily to those in general practice, who had too many opportunities of observing the misery and suffering this disease brought in its train. Hitherto the medical practitioner had allowed himself to become obsessed with the idea that little or nothing could be done for these victims of consumption except in sanatoriums. A very large number of cases could be successfully dealt with by himself providing he had made himself master of the use of tuberculin in diagnosis and treatment. This system of treatment greatly benefited the patient and should also benefit the medical man. Not very long ago hundreds of thousands of pounds were spent upon the exploitation of the opsonic index in the treatment of tuberculosis—too often spent without any result commensurate with the cost of the system. Again, millions of pounds had been spent upon sanatorium treatment, too often with very partial success. Fortunes had been wasted on quack remedies. If large sums of money had been spent in the past upon these systems which had been absolute or relative failures, it was certain that money would be freely spent upon any system which proved to be superior to those that had virtually failed. Here in Wales, through the energy and generosity of Mr. David Davis, M.P., a large amount of money, nearly £200,000, had been collected for the special purpose of dealing with this problem in Wales—an object so meritorious that the scheme had been chosen as the means for perpetuating the memory of King Edward VII, the Peacemaker. It was to be hoped that this splendid amount of money would be spent so as to bring the greatest good to the greatest number. If this were the main object of the scheme it was certain that the money should not be devoted to sanatoriums. Let them suppose that Wales was ready to devote £250,000 to the problem of dealing with tuberculosis. The local colouring of their illustration would help the argument. In Wales there were about 5,000 deaths each year from tuberculosis, and there were probably at least 20,000 persons needing help under the Insurance Act. From the Insurance Act Wales would be entitled to £80,000 for buildings and about £50,000 a year for maintenance. Thus about 400 beds would be provided which could deal with about 800 cases—800 cases out of 20,000 needing treatment! Thus provision was made for less than 10 per cent. of the sufferers, and the money, being spent, nothing could be done for the 90 per cent. of sufferers outside the pale of grace. Let them consider, too, the share that thus fell to the doctor, upon whose work must depend the success or failure of treatment. Certainly not more than ten doctors would be required to look after 400 beds. Suppose each doctor received £250 a year—£2,500 was the doctors' share by this scheme; £50,000 was provided each year for maintenance, out of which the doctors, who did all the work, received no more than £2,500. Now let them consider the cost of tuberculin dispensaries, the number of patients that could be properly treated at the dispensaries, and the share that the doctors received for applying the treatment. He had calculated that it was quite easy to treat 250 cases a year at a tuberculin dispensary at a cost of £750 a year, of which £400 or £500 a year was paid to the doctors for medical services. Accordingly, 20,000 cases could be treated for about £60,000 a year, of which £40,000 would be the doctors' share for special medical services. By this scheme, not 10 per cent., but every man, woman, and child in Wales could be treated for about the sum which was allowed in the Insurance Act for the treatment of tuberculosis, and the individual results would be better. It was, therefore, reasonable to expect that the authorities with whom the decision rested would choose the scheme of tuberculin dispensaries, which could treat *all* persons suffering from consumption in Wales at no greater cost than that

necessary for the treatment of 10 per cent. of the cases by means of sanatoriums, and at the same time secure better individual results. Medical men should certainly support this scheme—first, because it was the best for the patients, and secondly, because the doctors' share in tuberculin dispensaries was £40,000 a year, while under sanatoriums the doctors' share was no more than £2,500 a year. However, he urged tuberculin dispensaries as infinitely the better scheme because practically all the cases could be treated with satisfactory results. All that required to be proved was that tuberculin treatment was at least as successful as sanatorium treatment. That was the problem he had attempted to solve by using tuberculin as the essential remedy, and practically ignoring the existence of sanatoriums. The problem could not be solved until the results of tuberculin treatment, *per se*—that was to say, as distinct from the results of sanatorium treatment—had been reviewed and judgement given. In Germany and America the value of tuberculin treatment, quite apart from sanatoriums, had not been thoroughly and deliberately investigated. For fifteen years he had devoted himself to the consideration of this very problem, and he had shown, not merely by the extraordinarily good results achieved in the first stage, but also by the results obtained in the later stages of the disease, even when severe laryngeal complications existed, that the results of tuberculin treatment were superior to any hitherto published results of sanatorium treatment. In his book he had said that the worse the prognosis the better the remedy that could save or prolong life. If successes could be secured in the later stages of this disease with tuberculin—and he had shown this to be possible—it was easy to secure successes in the early stages. One knew that many considered that sanatorium treatment should be applied mainly to early cases. But if, as he maintained and was ready to prove, tuberculin treatment yielded more satisfactory results at a far less cost, what sense could there be in preferring sanatoriums as a means of dealing with the disease among the poor? For evidence in support of this rational plea for tuberculin dispensaries he could best refer to his results published in his book, *Tuberculin in the Diagnosis and Treatment of Tuberculosis*. The striking popularity of the system among the patients themselves, who should be fair judges of the value of the method, was evident, not only at the dispensaries in London, where there were several, but at Portsmouth, at Inverness, at Irvine, and even in Cardiff itself, where Dr. Fairfield Thomas was carrying on this method of treatment. He hoped that the general practitioner would see that this method of treatment should naturally be part of his own work. It was quite possible for any medical man to learn enough of the system if he would attend a properly organized tuberculin dispensary for two or three months. If he did this he would increase his usefulness in the community, and money which might otherwise be wasted upon sanatoriums, and sometimes even upon quack remedies, would become instead the well-deserved reward of his own satisfactory and successful work. Thus tuberculin dispensaries were not merely for the purpose of treating the poor who could not afford to pay doctors, but the means of instructing medical men in the use and methods of tuberculin treatment in private practice. It was therefore the duty of the medical profession in Cardiff to organize, so as to establish tuberculin dispensaries in that town for the treatment of the poor. Then, when the Insurance Act was put into effect, medical men would be in a position to claim their large and rightful share of the money which would be devoted to the best method of dealing with tuberculosis among the insured. It would be to the benefit of the victims that they should receive treatment at tuberculin dispensaries, and by this system alone could the ordinary practitioners of medicine receive the share that they might justly claim, *if they were thoroughly competent to carry out tuberculin treatment*. Let the medical profession render themselves fit and ready to seize the opportunity which was sure to come.

UNDER the will of the late Mr. R. J. Winsor the London Hospital receives a bequest of £1,700 to be used primarily for the treatment and care of any patient injured through experimental work with x-rays or radium; and, secondarily, for the promotion of treatment by these means.

Reports of Societies.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Wednesday, June 5th, 1912.

Mr. J. M. COTTERILL, President, in the Chair.

The Teeth at School Ages.

MR. L. STORROW SHENNAN, L.D.S., in a paper on the care of the teeth and the health of children at school ages, said that dental defects were present in upwards of 80 per cent. of the school population. These dental defects had a bearing on many diseased conditions—oral sepsis, alveolar abscesses, tonsillar inflammations, gastro-intestinal disturbances, neuralgia, and even epilepsy. While tuberculous invasion via the teeth had not as yet been demonstrated, the chronic inflammation of the cervical glands associated with dental caries was a factor in that invasion. Dental caries, too, had been proved to have a deleterious effect upon school attendance and work. Much of this dental disease was preventable, and, in view of its many evil consequences, the dentist could regard his work as an important branch of preventive medicine. Of late years much attention had been directed in this and other countries to the problem, and he gave a sketch of the provisions in various European centres for the examination and treatment of dental defects in school children of the poorer classes. In Great Britain the Education Act only imposed inspection, and did not provide for treatment. He gave his own experience of eighteen months at the Dunfermline Carnegie Trust School Dental Clinic. With a weekly attendance of twelve hours, he treated 1,400 children in the year, and, using this experience as a basis, some 30 dental clinics would be required for an educational centre like Edinburgh. He suggested as a subject for discussion the provision of school dental clinics as a solution of the problem of dental caries. Dr. GUY, L.D.S., said the need of attention was unquestionable, but the question was largely an economic and administrative one. With regard to Mr. Shennan's experience at Dunfermline, he wished to know the number of permanent fillings per annum and the total cost of the clinic. He feared that dental clinics would break down because of finance; and in addition their effect in removing teaching material from the dental teaching hospitals would be injurious. Dr. J. RITCHIE (Primus) related his experience as medical officer to a school. Dental caries was the commonest defect, and in a large majority of cases where defects had been pointed out to the parents nothing had been done; where the defects had been remedied there was a noticeable improvement in the general appearance and condition of the boys. He was in favour of using already existing institutions in dealing with the problem. DR. MACRAE TAYLOR said he had examined the teeth of 300 volunteers some years ago, and less than 6 had a good set of teeth. He called attention to injurious effect of sweets and chocolates on the teeth, and for children advised ending the last meal with a biscuit and apple. Dr. J. S. FOWLER said it was easy to condemn the soft foods given to children after weaning, but by no means easy to frame the details of a diet which would encourage mastication and prevent caries. Dr. T. SHENNAN said it was too often forgotten that all children did not start with an equal equipment in enamel and cement substance, and that therefore the same food might be harmful to one child and innocuous to another. It was curious to know that the best chocolates, retaining the original oil of theobromine, were more injurious to the teeth than the cheaper varieties. Dr. JAMES SMITH showed how with the funds at disposal it was impossible for the School Board of Edinburgh to establish dental clinics on an effective scale. In this they must restrict their efforts to the necessitous child. Dr. J. H. GIBBS, L.D.S., said the problem was unmanageable on the lines indicated by Mr. Shennan. The percentage of caries in civilized countries was as high as 95 per cent. Not only was money wanting to deal with it, but there were not enough men, trained dentists, to cope with it. It could only be solved by prevention. In savage races the percentage of caries was only 5 per cent., and this was due to their more physiological diet. The prevalence of caries among civilized peoples was due to faulty diet in early childhood, and especially to excess of sugar and soft, starchy foods. After

weaning, the child should get its meals as hard and dry food, followed by liquid. An apple given at night performed the functions of toothbrush and mouth wash.

Acromion Process of the Scapula.

Mr. J. W. STRUTHERS showed a series of skiagrams of the shoulder to illustrate the ossification of the tip of the acromion process. This remained cartilaginous until about the fourteenth year. Several centres of ossification appeared from the fourteenth to the sixteenth year, but the tip did not become united to the rest of the acromion process until about the twentieth year. In a few rare cases the tip remained permanently separate, and then exactly resembled in its skiagraphic picture the appearance of fracture. In these cases the fact that the condition was bilateral distinguished it from fracture. He showed two such cases of bilateral separate acromion processes in patients aged 40 to 50 years in whom there was no history of injury or disease. Apart from the anatomical interest of the condition, it might have medico-legal importance in questions of compensation; and where the *x*-ray picture of an injured shoulder showed an apparent fracture of the tip of the acromion a photograph of the other shoulder should be taken to exclude this bilateral anatomical irregularity.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF MEDICINE.

Friday, May 24th, 1911.

Sir JOHN MOORE, President, in the Chair.

Oesophagismus in a Child.

Dr. GEORGE PEACOCKE recorded a case of oesophagismus in a child aged 3, who was admitted to hospital on account of vomiting, which had started after a severe attack of whooping-cough, and had been more or less persistent for the past eighteen months. A brother had died, when 5 years old, of vomiting, which had commenced when 3 months old, and had, with short intervals of freedom, continued through life. The child appeared well nourished, and nothing abnormal could be detected on examination except a loaded colon, which was easily relieved by enemata. Vomiting would occur after a few spoonfuls of food were taken, and the remainder of the food might be retained. Some days the vomiting was more severe than on others, and the character of the food seemed to make little difference. *X*-ray examination after a small bismuth meal showed the oesophagus full, none of the meal having reached the stomach. Examination with the oesophagoscope did not reveal any growth or stricture. Dr. MCVITTIE said he had met with a similar case in an adult. He submitted a rough sketch of Russell's dilator, an instrument which, he said, he had found useful in his patient, who was a man aged about 40. The oesophagus was capable of containing from 6 to 7 oz. He passed the Russell's dilator, and trained the patient to do so himself after each meal. The patient gradually got better, and finally the condition disappeared altogether. Dr. CAHILL said that in a similar case he had devised a dilator himself which he found produced a good effect. He suggested that if Dr. Peacocke's patient were fed for a time by stomach tube good might be done.

Meningitis due to Bacillus Typhosus.

Drs. O'CARROLL and PURSER gave an account of a boy, aged 9, who had been admitted to the Hardwicke Hospital as a case of typhoid fever. Widal's reaction was obtained on the fifth day of the illness. None of the usual signs of typhoid were present—no rose-spots, no enlargement of spleen, no diarrhoea. On the other hand, the mental condition was most suggestive of meningitis, and headache, retraction of the neck, and Kernig's sign were marked. Typhoid bacilli were grown in pure culture from the cerebro-spinal fluid, which contained as well 1,100 leucocytes per c.mm.; of these, two-thirds were polynuclear and one-third mononuclear cells. The patient died three weeks after onset of illness. The membranes over the convexity of the brain were covered with a purulent exudate. Over the occipital lobes the exudate was haemorrhagic. *Bacillus typhosus* was separated in pure culture from the exudate. The bacteriological examination was made by Dr. T. A. Hughes, I.M.S. There was some slight congestion of the lymphoid tissue in the intestine, and in the right lung were three small patches of bronchopneumonia. The other organs, including the spleen, were normal. The PRESIDENT said that the patient's chart showed that at two periods in the fever there was a remarkable slowing of the pulse, which was familiar in cases of meningitis. The case illustrated what he had long felt—namely, that any abnormal localization in a specific poison is bad. If enteric localized in the lungs or brain it was bad. The same remark, he said, applied to pneumonia, which if accompanied with severe cerebral symptoms was very likely to prove fatal.

NORTH OF ENGLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

AT a meeting on May 17th Dr. E. C. CROFT (Leeds) recorded: (1) Two cases of *Uterus didelphys*. In one case each of the two sides of the uterus had been pregnant in turn. During the first delivery the septum forming a double vagina was partially ruptured; its remains were removed about the sixth month of the second pregnancy, which was not interrupted by the operation. In the other case pregnancy also occurred, but abortion took place about the third or fourth month. The abortion was associated with pyosalpinx of gonorrhoeal origin on the side opposite to the pregnant half of the uterus. It was as a result of an operation necessitated by the pyosalpinx that the didelphic uterus was discovered. (2) An instance of *Absence of the Fallopian tubes*. The condition was revealed by an exploratory laparotomy undertaken in consequence of persistent pain in the right ovarian region. The left ovary consisted of a small, slightly elevated patch of ovarian tissue lying flat on the posterior layer of the broad ligament, with no development of a mesovarium. On the right side the condition was similar, but a cyst about the size of a large plum had developed in the ovarian tissue. Dr. HELLIER (Leeds) narrated the case of a primipara, aged 18, who was sent with *Acute inversion of the uterus* to the Leeds Infirmary from a distance of 36 miles. On the fourth day after her delivery she was blanched and very ill, the pulse varying from 128 to 140, temperature about 102.5°. The vagina was occupied by the fully inverted uterus, which felt like a large polypus with a pedicle 2 in. thick. The endometrium had a grey sloughy appearance, and the vagina was full of dirty brown offensive discharge. A small portion of placenta remained adherent to the uterus. After the patient had been anaesthetized with hedonal, and the vagina and uterus thoroughly disinfected with lysol, the inversion was reduced by manual taxis after about fifteen minutes' perseverance. At first the uterus seemed so large and the pedicle so small and unyielding that reduction seemed unlikely to be accomplished without resort to a repositor, but at the end of the time mentioned it went up somewhat suddenly and easily. As the uterus was already in a condition of septic endometritis daily irrigation was ordered for the uterine cavity. Convalescence was retarded by a slight degree of phlebitis in the left leg, but this soon subsided, and she was discharged cured. Dr. OLDFIELD (Leeds) related: (1) A case of *Tetanus occurring twelve days after abortion*. Antitetanic serum, given subcutaneously, and repeated in large doses, gave no relief. Chloretone and other vaunted curative drugs had no effect, and the disease progressed until the patient was unable to swallow, had general convulsions, became enfeebled, and looked like dying very soon. By spinal puncture a few drachms of cerebro-spinal fluid were withdrawn, and 10 c.cm. of antitetanic serum injected. Within twenty-four hours the patient could open her mouth, and in forty-eight hours she had little or no spasticity anywhere. She made a complete and rapid recovery. (2) A case of *Gartnerian cyst* in a woman aged 35, who had had an abdominal tumour for several years. The symptoms were pain and menorrhagia and relative sterility. The tumour was thought to be a fibroid, but found to be a slightly distended

broad ligament cyst. It contained blood-stained fluid and a large quantity of blood-stained friable solid growth. It was adherent to neighbouring structures, but could be enucleated except from the uterus near the cervix, where it was firmly adherent by a broad band of fleshy tissue. Sections of the solid growth showed an adenoma-like structure, the cells being long and cylindrical, and the interstitial tissue densely infiltrated with small round cells.

GLASGOW OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

AT a meeting on May 22nd, Dr. A. W. RUSSELL, President, in the chair, Dr. RUSSELL recorded a case of chronic ovarian pain treated by *Oöphorectomy*. The patient, aged 37, subsequent to the birth of a healthy child, now aged 10, had two miscarriages, and was curetted after the first, but not after the second. She had abdominal pain and ill health, which were assigned to these incidents. Tamponnage, douching, pessaries, applications of iodine, holidays in the country, etc., were tried, with no beneficial result. No gross pelvic lesion could be made out on examination. There was extreme pain and tenderness over the ovarian regions. Nothing further was discovered by an examination under an anaesthetic. Her condition was so serious that a radical operation was performed. The ovaries showed a condition of cystic sclerosis. It was now three years since the operation, and the patient was quite well. Such cases seldom responded to medical treatment, though this should be tried. Dr. NIGEL STARK advised caution in removal of the ovaries. Dr. SHANNON always tried prolonged medical treatment first. Dr. MACFARLANE stated that in 180 cases in which he had performed oöphorectomy, 85 per cent. of the patients stated they were quite cured. Dr. DUFF said it must not be forgotten that constipation caused pain over the ovarian region. Dr. W. D. MACFARLANE, junior, described a case of *Pyelitis complicating pregnancy*. The patient from early in pregnancy complained of pain in the back and vomiting, lasting all day. Four weeks ago, when the patient was four and a half months pregnant, the condition became more severe. She was then admitted to hospital with a pulse of 120, temperature 103°, and a considerable amount of pus in the urine. This was found to contain *B. coli* and *B. grünthal*. Vaccine treatment was tried without any good result, and, as the patient was getting worse, the uterus was emptied. The progress thereafter was good. The speaker was of opinion that vaccine treatment was useless in acute cases, but very good results were obtained in those which were not acute. Over 70 per cent. of such cases went on to full term, and the risk of infection was slight.

NOTICE has been given by the Royal Society of Medicine that next Friday, June 21st, is the last day on which nominations of candidates for the council in addition to those already nominated by the council can be received. Nominations made by the council are as follows; *President*, Sir Francis H. Champneys, Bart.; *Honorary Treasurers*, Sir William S. Church, Bart., K.C.B., and Sir Henry Morris, Bart.; *Honorary Librarians*, Mr. Rickman J. Godlee and Dr. Norman Moore; *Honorary Secretaries*, Mr. H. S. Pendlebury and Dr. E. Farquhar Buzzard. Other members of council: Drs. W. P. Herringham, A. Latham, G. Newton Pitt, Sir James Reid, Bart., Sir Almroth Wright, F.R.S., and Messrs. Clement Lucas, D'Arcy Power, Charters Symonds. The council is completed by those who have been elected presidents of the various sections by the members thereof and in consequence are vice-presidents of the society and therefore *ex officio* members of council. The elections and annual meeting take place on Monday, July 1st.

IN his report for the six weeks ending May 25th, the Medical Officer of Health for the City of London mentions that for some time past tuberculous lesions have been found in Argentine beef certified by the Argentine authorities as sound. On their attention being drawn to the matter these authorities have undertaken to increase the number of inspectors, and have also arranged for a number indicating the name of the inspector to be attached to each carcass, so that if the latter should be found unsound the responsibility in the matter may be brought home to the person concerned.

Reviews.

THE DICTIONARY OF NATIONAL BIOGRAPHY.

THE first of the three volumes which are to constitute the second supplement of the monumental *Dictionary of National Biography*[1] has just been issued by Messrs. Smith, Elder and Co. It contains the lives of men born within these islands who died between January 22nd, 1901, and December 31st, 1911, and whose names begin with one or other of the first five letters of the alphabet. There are some thirty-eight names of medical men who have distinguished themselves either in medicine or in some allied science or calling to so notable a degree that Sir SIDNEY LEE has been able to give them entrance to this national Valhalla during these past eleven years. To be strictly accurate, there are thirty-seven medical men and one medical woman. The woman is Elizabeth Blackwell, "the first woman doctor of medicine," who, born in England, was educated in America, practised medicine there, spent the last years of her long life (1821–1910) in the south of England, and now lies buried at Kilmun, in Argyllshire, which she called "the most beautiful Campo Santo I know except Genoa." On the tombstone she is remembered as "the first woman of modern times to graduate in medicine (1849), and the first to be placed on the British *Medical Register* (1859)": and this is a more accurate description than that of "first woman doctor of medicine" given in the *Dictionary*.

Turning now to the medical men, we find that whilst the majority of them gained fame in the spheres of medicine or surgery, not a few abandoned more or less completely these callings to cultivate other fields of knowledge or of usefulness. One, for instance, is designated "philanthropist," and rightly so, for it is Dr. T. J. Barnardo who is thus named; another (Dr. J. H. Bridges) appears as "positivist philosopher"; and another (Dr. J. E. Dutton) as a "biologist." With regard to Dr. Dutton, it may be pointed out that his was the shortest life of all those recorded here, for he was born in 1874 and died in 1905; yet he discovered the first trypanosome in man, made other important contributions to tropical medicine, and met his death in the course of his experiments. We wish there had been devised some other mode of designating this young martyr to the study of tropical medicine; but we suppose "biologist" must be allowed to stand in the absence of such a term as "tropicalist," which should more accurately describe his life-work.

It is interesting to note the hobbies which medical men have conjoined with their more purely professional work; thus, one man is described as "Canadian physician and poet," another as "physician and Chinese archaeologist," another as "lunacy specialist and antiquary," and yet another as "physician and anthropologist." One only appears as "homoeopathist," and his name is more familiar to most of us in connexion with a very handy form of sphygmograph than as a follower of Hahnemann. It does not seem to us, hurriedly turning over the pages, as if the surgeons were as numerous as the physicians; but there are many letters of the alphabet to come, and in the remaining two volumes of the *Dictionary* we may find more of our surgical brethren entering the Valhalla. There are three obstetricians and gynaecologists, to wit, Lombe Atthill, Robert Barnes, and C. J. Cullingworth. Eight—five physicians and three surgeons—bear titles.

An analysis of the birthplaces of the 38 shows that 23 were English, 6 Scottish, 6 Irish, 1 was born at Gibraltar, 1 at the Cape, and 1 in Germany. When, however, we search out in which of the three countries they received their medical education, we learn that 19 qualified or graduated in England, 12 in Scotland, 4 in Ireland, and 3 elsewhere (New York, Bombay, Montreal); it ought to be stated, however, that some gained medical qualifications in more than one of these countries, and that one graduated first in Germany and later in London.

London and Edinburgh are a long way ahead of all the other medical schools in the number of men educated within their walls, the former having about fourteen and the latter about nine, one or two more being shared.

[1] *Dictionary of National Biography*. Edited by Sir S. Lee. Second Supplement, Vol. I. Abbey—Eyre. London: Smith, Elder and Co. 1912. (Roy. 8vo, pp. 650; cloth, 15s. net; half morocco, 20s. net.)

The longest life was that of Sir John Thomas Banks, born either in 1812 or 1815, who died in 1908; both his father and his grandfather were surgeons in their day, and his father was the youngest of a family of twenty-four. He is described as having been the virtual head of the profession in Dublin and Ireland. In comparison with the lives of men of other professions and callings, those of medical men receive a fair share of space in the *Dictionary*. Dr. Brockbank, of Manchester, who has between four and five pages for his life of Sir William Henry Broadbent, does justice to his work as general physician and neurologist, and in promoting the campaign against tuberculosis. Of Sir William Banks, of Liverpool, Mr. D'Arcy Power justly says he deserves recognition as a surgeon and great organizer, instancing his advocacy, in the face of strenuous opposition at a time when most surgeons were contented with a partial operation, of the modern extensive operation with removal of the axillary glands for cancer of the breast, and his services in building up the medical school in Liverpool and bringing about the erection of the great infirmary of that city. Altogether, there are 500 names in the volume, and 644 pages. The largest space of all (64 pages) is given, and rightly, to the life of King Edward VII. and was not he an Honorary Fellow of the Royal College of Physicians, and did he not say the memorable words, "If consumption be preventable, why is it not prevented"?

DIAGNOSIS OF GASTRIC DISEASE.

A good many books have been published on the methods of examining the stomach, but none is better than that of Dr. Emil Schuetz.[2] He admits that there are many dealing with the subject, but claims that during the last few years there have been so great changes that his book may be justified, especially as in it he gives the results of his personal experience and opinions, based on more than thirty years' practice in this department of medicine. He thinks that the chemical examination of the stomach contents, in spite of criticism, still holds its place as a valuable aid to diagnosis, but advises that more attention should be paid to palpation, which has, he thinks, been too much neglected. Like everyone else, he recognizes that the Roentgen-ray examination has come to be one of the most important means at our disposal for exploring the stomach; on the other hand, he regards gastro-diaphany, gastroscopy, the quantitative estimation of acidity, and the various chemical tests for motility as being only of restricted use. He thinks the biological diagnosis of cancer is destined to play a large part in the future, and for that reason he supplies a chapter upon this subject. By this he means such methods as that of Emerson and others who have asserted that the stomach contents of cancer contain a proteolytic ferment or a substance which possesses the power of splitting off peptids. He describes the method at some length, but adds the criticisms of many subsequent writers who have found it either misleading or uncertain. Another method is that based on the presence of haemolytic substances in the cancerous stomach, a method described by Graefe and Roemer; its diagnostic value is diminished owing to the difficulty of excluding the regurgitation of haemolytic bowel contents. Thirdly, Maragliano found that when animals were inoculated with the wash-water of stomach cancer their blood serum precipitated in the presence of cancerous secretion, and this method, as modified by him, seems to have given good results to some observers. Livierato has also succeeded in getting positive results with extract of cancer in the fixation of the complement, there being complete arrest of haemolysis in all cancerous cases, while with the normal stomach juice haemolysis was invariable. The same author also describes an anaphylactic action of the cancerous stomach juice. He found that normal gastric juice had no poisonous effect when injected subdurally into rabbits in doses of 0.1 c.cm., but that cancer juice was very toxic and often fatal. When the dose was reduced to 0.05 c.cm. it was inert, but if the rabbit had been sensibilized with a watery extract of cancer 0.05 c.cm. of cancer gastric juice produced typical anaphylactic effects, while, on the other hand, gastric juice from a case of simple ulcer of the stomach had no effect in ten times the dose. There are several other methods which may be included in the biological tests for cancer. The author admits that so far the soundness of none of them has been proved, but he is sanguine that something will come of them, and, as early diagnosis of cancer of the stomach is greatly to be desired, we may all hope he is right. We may add that the book is not merely a handbook to the examination of the stomach, but is a guide to the differential diagnosis of the various diseases of that organ.

The volume on the diagnosis and treatment of the diseases of the stomach and intestine,[3] by Dr. Walter Zweig, of Vienna, has reached a second edition. It was reviewed by us five years ago (July 27th, 1907, p. 205). Since that time considerable progress has been made in this department of medicine, and Dr. Zweig has done full justice to it by revising the chapter on the physiology of digestion and by adding new sections on the nervous supply of the viscera, on chlorine-free diet, enteroptosis, ulcerative colitis, sigmoiditis and sphincteric proctitis; in an appendix he has given an account of the simple methods for chemical and microscopical examination of stomach contents and faeces which are carried out in his laboratory, and are designed especially for the use of the busy practitioner. The book is on the whole a good one, and contains a well written, abundantly illustrated, and clear account of its subject matter. We think, however, that it is misleading to say that the healthy fasting stomach contains microscopical remains of food and living bacteria, and we do not understand why on p. 461 it is directed that Ewald's test breakfast should be removed after three-quarters of an hour, and on p. 462 after one hour; it is important that there should be uniformity in this matter as the results are empirical and can only be comparable *inter se* if they are carried out in an identical manner. Nor do we agree that it is a good test of stomach motility to estimate by measuring in a graduated glass the amount of stomach contents recoverable by the tube at the end of an hour, as the amount obtained depends to such a large extent upon varying circumstances. It is better by far to give a larger meal and expect to find the normal stomach empty at the end of six hours, judging any defect of motility by the greater length of time it takes to get rid of its contents. In the examination of the faeces the author follows Schmidt and Strassburger, but he regards the microscopical examination as the most valuable part of their methods. He attaches less importance to the chemical examination except in looking for blood, and he thinks the fermentation methods suggested by them not very feasible in ordinary practice. The book bears the marks of being based upon a wide experience.

Dr. G. Lefmann's little book on the examination of the stomach by test meals has special reference to the diagnostic value of the method, and is illustrated by many clinical observations and a certain number of experiments.[4] The author's conclusions are that, with regard to the chemical examination of the stomach contents, only serious departures from the normal are of any diagnostic significance, as the amount of secretion depends upon so many factors, and the variations seen in the same individual under different circumstances are so great. In no case must these results be relied on by themselves. There are no means of distinguishing between secretory changes due to functional nervous derangements and those due to organic disease, and there are no absolutely characteristic chemical changes in cancer. The same is also true of the results of the various tests of motility—that is to say, although stasis may be present, we have no means of knowing by these tests alone to what the stasis is due. The two methods should be combined whenever possible with the use of the *x* rays, the value of which in the diagnosis of stomach diseases is becoming more and more appreciated; but the last means are not always available, and as many practitioners will have to do without them it is just as well that they

[2] *Die Methoden der Untersuchung des Magens und ihre diagnostische Verwertung.* Von Dr. Emil Schuetz. Berlin und Wien: Urban und Schwarzenberg. 1911. (Sup. roy. 8vo, pp. 248; Abbs. 29. M. 9, Geb. M. 10.)

[3] *Diagnose und Therapie der Magen- und Darmkrankheiten.* Von Priv. Doz. Dr. Walter Zweig. Zweite, vermehrte Auflage. Berlin und Wien: Urban und Schwarzenberg. 1912. (Imp. 8vo, pp. 517; Textabs. 36; Tfl. 1; Mk. 14; Geb. M. 16.)

[4] *Die Funktionsprüfung des Magens nach Probekost.* Von Dr. G. Lefmann, Spezialarzt fuer Innere Krankheiten in Heidelberg. Mit 8 Abbildungen im Text. Wiesbaden: J. F. Bergmann; Glasgow: A. Bauermeister. 1911. (Sup. roy. 8vo, pp. 105. 2s. 6d.)

should understand the true value of the test meal methods. We are on the whole disposed to agree with Dr. Lefmann in his criticisms, especially with regard to the chemical examination of the stomach contents, which are of considerable interest. On the other hand, the existence of stasis—if we define that as meaning the presence of the remains of food in the stomach six hours after a small meal, is of definite significance, always implying the presence of pyloric obstruction, and therefore constituting a sound basis for surgical interference.

EXPERIMENTAL PSYCHOLOGY.

DR. C. S. MYERS has brought out a second edition of his *Textbook of Experimental Psychology, with Laboratory Exercises*.[5] He deals with the sensations, the specific energy of the sensations, statistical methods, reaction times, memory, muscular and mental work and effort, local signature, sensibility and sensory acuity, experiences of identity and difference, binocular and binaural experience, the visual perception of size and direction, time and rhythm, feeling, attention, thought, and volition. As the author says, "experimental psychology is not engaged merely with general problems—for example, studying thresholds, determining the scope of attention, or fixing the limits of memory. It has also to determine how such 'properties' of the mind are affected in any given individual by different conditions, and how far and for what reason they are different in different individuals." The troubles which beset the physiologist and psychologist are essentially identical. Vital activity to the one presents the same difficulties as mental activity to the other. Dr. Myers has performed his task very well, and given the student a concise, well-written account of the subject.

It is interesting to note, in the discussion on local signature, the evidence which leads the author to conclude that the local signs of the retina are innate in the retina and not due to kinaesthetic impressions. In cases of recovery from congenital blindness the individual is at once able to recognize differences in size and in form of images received by his retina. "So instantly is a round object seen to differ from a triangular one that the judgement is clearly independent of the training which would be needed before the eyes could be moved in a fashion orderly enough to follow the outlines of the object." Again, in certain cases of retinitis where the retinal elements are separated by inflammatory products, distortion of vision is produced owing to the fact that the displaced retinal elements retain their normal sign.

In the chapter on feeling we note the incorporation of Dr. Head's recent work on the thalamus. Sensibility may or may not be affected by lesions of this organ; the striking change consists in a marked increase of the pleasure and displeasure produced.

In regard to the appreciation of time, the author says the interval between two sparks which are heard seems shorter than the same interval between two sparks which are seen. The apparent length of the interval elapsing between two stimuli is influenced by the number and nature of experiences occurring during that interval. "Even when our surroundings are absolutely quiet, respiratory, and cardiac movements are still occurring, and the muscles of the sense organs or other parts are always undergoing contraction."

The apparent enlargement of the sun or moon when seen at the horizon is attributed to their greater apparent distance when their rising is viewed in this position. The reviewer would point out that when the moon is seen through a tube it shrinks at once in size. It is, then, the comparison of the size with some distant large object, such as a tree, which causes the illusion.

Dr. Myers says that few are able to appreciate more than five different figures or objects when viewed on an illuminated screen for a momentary time. It is possible for most to detect the difference without counting between seven and eight bells when the bells are struck rapidly one after the other, but not between nine and ten.

Compared to the rapid extension in other branches of physiological science, we cannot help feeling that the progress of experimental psychology is slow, and that the methods employed are not leading at present to any great extension of knowledge.

[5] *A Textbook of Experimental Psychology, with Laboratory Exercises.* By C. S. Myers, M.A., M.D., Sc.D. Second edition. Cambridge: University Press. 1911. (Med. 8vo, Part I. pp. 358; figs. 21, plate i. Part II. pp. 107; figs. 40. 10s. 6d. net, two vols.

THE WELLCOME TROPICAL RESEARCH LABORATORIES.

IT is with some trepidation that one turns for review the pages of a report such as the *Fourth Report of the Wellcome Tropical Research Laboratories*.[6] One feels almost unconsciously that the ground is delicate, and that allowances of one kind or another have to be made. In the first place, it cannot be ignored that Khartoum is not London, and that the conditions of research are essentially different in the two places. At the same time, it must not be forgotten that almost all the greatest discoveries in tropical medicine have been done on the spot, so to speak, although it is true that many of them required the work of European authorities to interpret their intrinsic importance and their bearings on science and medicine in general. Partly on this latter account, it is, unfortunately, not an uncommon habit for these stay-at-home *savants* to belittle the efforts of their more enterprising, if in many cases, it must be admitted, less able scientific brethren. There can be no question that in not a few cases such an attitude has some justification, but these cases are usually of men isolated, far from civilization, and cut off from literature and current thought. Such difficulties cannot be ascribed to the Gordon Memorial College, Khartoum, and we venture to think that the work done there is, for the most part, of a comparatively high order; the name of Dr. BALFOUR on the title-page is indeed sufficient guarantee that everything included in the volume possesses scientific value. The first volume (A, Medical) contains very little of an epoch-making or revolutionary character, yet the greater part of its contents represents sound and valuable work. It is three years since the last report was published, and the present volume can hardly be regarded as an excessive production for the intervening period. As in the previous reports, Dr. Balfour himself has contributed a large part of the material, and his activities in the present instance range over such a variety of subjects as spirochaetosis, kala-azar, diphtheria, fevers, tropical sanitation, water supply, veterinary notes, and a large number of miscellaneous notes. To each of these subjects he has contributed several interesting scientific and clinical observations. He has, in addition, been extremely fortunate in his choice of medical staff and collaborateurs. Captains Archibald and Fry, both now of the Egyptian Army, have made several valuable contributions to tropical pathology and bacteriology. Those deserving chief mention are papers on animal trypanosomiasis, parasitic granuloma, the lactose-fermenting bacilli in surface waters and botryomycosis. The other contributors to the present volume include such well-known workers as Colonel Mathias, and Captains Bousfield, Thomson, and Marshall. Their work has been chiefly concerned with sleeping sickness and kala-azar, and they have furnished some important items of information regarding the special features of these diseases as they affect the Sudan. Captain Marshall's contribution deals with a number of interesting pathological observations on kala-azar. It will be noted that practically all the departments of tropical medicine are represented in this report. The absence of any helminthological contribution appears to deserve comment, but apparently the worm diseases as they affect Egypt and the Sudan are left entirely in the hands of the able and competent professor of biology at Cairo. While it is true, as we have already remarked, that there is no discovery of first-rate order in the present volume, yet there is a lot of sound fundamental stuff which will be of use in future investigations. In making this criticism we must decidedly dissociate ourselves from the method of appraising the value of a scientific work from the fact as to whether it contains a new and startling discovery or not. Scientific work

[6] *Fourth Report of the Wellcome Tropical Research Laboratories.* Volume A, Medical; Volume B, General Science. By Andrew Balfour, M.D., B.Sc., F.R.C.P.Edin., D.P.H.Camb., Director. London: Baillière, Tindall, and Cox. 1911. (Imp. 8vo. Volume A, pp. 404; plates xx; figs. 101. Price 21s. net. Volume B, pp. 334; plates ix; figs. 150; maps and plans 30. Price 18s. net.)

is a lottery and, *ceteris paribus*, it is not always the most deserving who pick the plums. A high word of commendation must be given to the excellence of the illustrations and the coloured plates, which, as on previous occasions, are a feature of the report.

The second volume (B, General Science) contains a mine of information. It covers a very wide area, including chemistry, entomology, ornithology, the study of scorpions and snakes, gold mining in the Sudan, tribal customs of the Nyam-Nyam and Gour people inhabiting the Bahr-el-Ghazal, and municipal engineering problems in the tropics. All of these articles are worthy of careful study, especially by those working at the different branches themselves. The chemical section, dealing as it does with the composition of soils and with fertilizing experiments on such soils, must necessarily be of the greatest value to administrators and to all agriculturists in the Sudan, and the same holds good of the entomological section, ably written by Harold H. King, the economic entomologist. This section deals, amongst other things, with the control of locusts, the control of mosquitos, and other insects injurious to man and animals. The Chironomidae, Simulidae, Psychodidae, Tabanidae, Muscidae, Hippoboscidae, Cimicidae, and Oestridae are all represented in the Anglo-Egyptian Sudan; a list is given with localities. It is interesting to note that three species of Simulium are found, and if these are also eventually proved to exist in Lower Egypt, where pellagra is common, some experimental work might be carried out to prove or disprove the connexion between these flies and the latter disease. A new departure in the volume is a paper on the finches and weaver birds of the Sudan, being notes on the group containing the birds injurious to grain crops; it is written by Mr. Butler, Superintendent of the Sudan Game Preservation Department. This chapter should prove of great interest to ornithologists as well as to agriculturists. Mr. Butler believes that the whole question of the relation of birds to agriculture would repay careful study, and brings forward many interesting points in support of this contention. The Sudan Government must certainly consider itself fortunate in having a laboratory such as that at Khartoum. The amount of work done by this institution up to the present time has been very great, and everything points to still more being done in the future. Dr. Balfour is to be congratulated on the success of the laboratories and of the reports which emanate from them.

PHYSIOLOGY FOR LAYMEN.

PROFESSOR MCKENDRICK has employed the leisure of his retirement in writing a little book on the *Principles of Physiology*[7] "in such a way as will be understood by an intelligent reader who has had no special scientific training." The author has performed his task very well, and, so far as simplicity of expression and the wise selection of essentials can take the reader, he should find an easy passage through the book. The great stumbling-block would be the complete lack of anatomical information. The book has no diagrams or illustrations, and the man who tackles the conceptions of physiology without having seen the dissection of any animal or the microscopic structure of any organ, and without having even the help of diagrams, must gather a most imperfect and distorted knowledge of these conceptions. For example, Professor McKendrick writes: "Essentially the nervous mechanism consists of centres, nerves, and nerve-end organs. The centres are in great masses, constituting the brain and spinal cord, and in smaller masses found scattered here and there, known as ganglia." Again: "The central nervous system is built up largely of masses of neurones supported by neuroglia. These masses constitute what is called the grey matter, found in the centre of the spinal marrow, and in, and more especially on, the surface of the brain." Anatomical knowledge is inferred all through the book, and to those who know none the use of the words "centre" (in a double sense, too) and "masses of neurones" must give little clearness of vision. A bibliography and glossary are added at the end of the book. The former will be useful in helping the reader to extend his inquiry.

Professor HALLIBURTON has a facile style in the writing of textbooks and one that is popular, as is shown by the several editions he has been called on to publish. His last work is a little primer of physiology,[8] published by Messrs. Dent in a series edited by Professor REYNOLDS GREEN. This primer is written in simple language suitable for the general reader, and will serve its purpose well. The following passage exhibits the author's power of expressing scientific facts in a simple way. "We may roughly compare an enzyme to an ill-disposed person who comes into a room full of good-natured people, and who succeeds in setting them all by the ears. He has produced a change in them without undergoing any change himself, by his mere presence. He is, moreover, able to repeat the process over and over again in fresh roomfuls *ad infinitum*." In the section on ventilation Professor Halliburton does not draw attention to the fact, which cannot be too widely spread, that the discomfort of a crowded, close room is due rather to the stagnation of heat lost from the body than to chemical impurity of the air.

NOTES ON BOOKS.

By an oversight, for which we must apologize both to the author and to our readers, we have failed to announce the appearance of a second edition of the *Sexual Disabilities of Man and their Treatment*,[9] by Mr. ARTHUR COOPER. The text has been revised, and additions have been made to most of the chapters. It is the best book of its kind with which we are acquainted, and is one which will be found very useful for reference in the treatment of a class of cases often of a very troublesome nature.

It is very seldom that one has the good fortune to meet with a really life-like and unbiassed account of hospital life. Most writers who approach the subject are, either consciously or unconsciously, guilty of exaggeration, and so manage to convey an utterly misleading impression to the minds of the uninitiated. Miss E. C. LAURENCE has therefore rendered the nursing profession a real service by the publication of her delightful book, *A Nurse's Life in War and Peace*.[10] Sir Frederick Treves, who has supplied the introduction to this most interesting volume, remarks that "those who wish to know something of a nurse's life and times will find in this writing a convincing narrative, unemotional and matter-of-fact"; and it is precisely these latter qualities which constitute at once the charm and the value of Miss Laurence's memoirs. Composed of extracts taken from the author's own letters, this modest record of a singularly interesting and useful career extends over a period of ten years, from the time of her entrance as probationer in a children's hospital in London to the date of her departure from South Africa before the close of the Boer war; and since the exigencies of her calling have led Miss Laurence to many lands and brought her into contact with many well-known people, it is hardly surprising that her book should prove far more attractive than the average novel. To many of her readers, of course, the most interesting chapters will be those relating to her experiences during the South African campaign: and certainly these hurried letters, scribbled at odd moments during the rush of almost unceasing work amongst the sick and wounded, give a wonderfully fresh and vivid picture of the more sordid side of the "pride, pomp, and circumstance of glorious war." But the chief merit of the book lies in its sane and wholesome tone and the total absence of cheap sentiment and sensationalism. Miss Laurence writes of what she has seen, not of what she has imagined; and her letters, with their infinite charity and tolerance, their cheery courage and steady loyalty to duty, should be put into the hands of every girl who meditates entering what is one of the noblest, as it is certainly one of the most arduous, professions it is possible for a woman to adopt.

[7] *The Principles of Physiology*. By Professor J. G. McKendrick. Home University Library of Modern Knowledge. London: Williams and Norgate. 1912. (Cr. 8vo, pp. 256; cloth 1s. net, leather, 2s. 6d. net.)

[8] *Physiology*. By W. D. Halliburton, M.D., LL.D., F.R.S. *Dent's Scientific Primers*, edited by J. Reynolds Green, Sc.D., F.R.S. London: J. M. Dent and Sons, Limited. 1911. (Fcap. 8vo, pp. 187, figs. 44. 1s. net.)

[9] *The Sexual Disabilities of Man and their Treatment*. By Arthur Cooper. Second edition. London: H. K. Lewis. 1910. (Fcap. 8vo, pp. 204. 5s.)

[10] *A Nurse's Life in War and Peace*. By E. C. Laurence, R.R.C., with a Preface by Sir Frederick Treves, Bart., G.C.V.O., C.B., LL.D. London: Smith, Elder, and Co. 1912. (Cr. 8vo, pp. 322. 5s. net.)

THE CONFERENCE ON TUBERCULOSIS AT MANCHESTER.

The fourth annual conference of the National Association for the Prevention of Consumption was opened in the Milton Hall, Manchester, on Wednesday, June 5th. About 600 delegates were present, including representatives of numerous municipal authorities.

On the first day Dr. Hope, M.O.H., Liverpool, was in the chair in the unavoidable absence of the Lord Mayor, who, however, attended on the second day and gave the delegates an official welcome to the city. On that day also Dr. D. Stuart gave a greeting to the conference from the National Association of Canada, and spoke of the movement against the disease now going on in the Dominion.

In his opening address, Dr. Hope discussed the various methods which have been used in the effort to prevent consumption, dealing especially with sanitary reforms such as the provision of proper water supply and the control of housing accommodation. He showed that in Liverpool in large areas of insanitary dwellings where the mortality from phthisis had been 4 per 1,000 the mortality only reached 1.9 per 1,000 after clearance and rehousing schemes had been carried out. He laid emphasis on the need of providing healthy schools for children and on the great value of open-air schools, and showed the remarkably good effects that had followed the municipal control of the milk supply in Manchester and Liverpool. Dealing with the Insurance Act, he said it contained provisions from which great benefits would result, and afforded opportunities which the nation had never before possessed to render the struggle against tuberculosis more effective. While its main object was treatment, it dealt in the broadest manner with that powerful preventive agency—education. Speaking of the place and value of the sanatorium, he said that the extravagant expectations of the earlier advocates of sanatorium treatment had inevitably led to disappointment, but the true value of the sanatorium as a curative institution and a means of segregation and education was now fully recognized.

Tuberculosis in Children.

Professor Delépine read a paper in which he summarized the results of sixteen years' research on the parts played by human and bovine tubercle in the infection of young children. Koch's theory that bovine tuberculosis was not communicable to man in any great degree was not now held, and the bovine form must be considered a source of danger, more especially to infants. Summarizing modern teaching, he said that it was now fairly well established that tubercle might be conveyed from man to man and from cattle to man; that tuberculous sputa were the most important source of infection of human origin, either in the dry state when reduced to dust or in the shape of fine particles projected from the mouth of consumptives in coughing; and that tuberculous cow's milk was the most important infecting material of bovine origin. Infective matter conveyed by the air might either reach the lungs direct or might pass into the alimentary canal and cause infection through that channel; the alimentary canal was the usual channel of infection by food. He gave statistics showing that probably 20 per cent. of fatal cases of tuberculosis in children were caused by infection through the alimentary canal, presumably by food, and that in 22 per cent. of persons dying at various ages from tubercle of various organs there was evidence that infection was of bovine origin. He had come to the conclusion that infection through the alimentary canal was predominant in infancy, that infection through the air passages became more and more common after the ages of 10 to 15, and that bovine tubercle was one of the most important factors in determining tuberculosis other than phthisis before the age of 5. Elaborate statistics were also given showing that after making due allowance for improvement due to better sanitation, the municipal system of milk inspection in Manchester had been of the greatest value. This, he said, was only to be expected, because it was possible to say without exaggeration that not less than 25 per cent. of the children under 5 years of age suffered from tuberculosis of bovine origin.

Dr. R. W. Philip, of Edinburgh, read a paper on the presence and prevalence of tuberculosis in childhood. There was, he said, ample evidence to show that tubercle existed in the majority of school children, and the existing system of medical examination of such children, however serviceable it might be from an administrative point of view, was entirely misleading as regards the incidence of tubercle in children.

Dr. J. Priestley said that the tuberculin test had shown tubercle infection to be extremely common in children, so that by the time the age of 15 was reached, 75 per cent. of the children had been tuberculized. In 93 cases out of 100, however, it either came to nothing or its development was indefinitely postponed.

Dr. J. E. Squire said that the primary requirement for preventing the infection of school children was to be sought in improving the condition of their homes, though open-air schools and the boarding of weakly children in the country were of the greatest value.

Dr. Nathan Raw laid strong emphasis on the danger of infection from tuberculous milk, and thought that it might be a wise economy to spend £2,000,000 in destroying all cows with disease of the udders, as the almost certain result would be the total disappearance of certain forms of tuberculosis among young children.

Mr. E. D. Telford spoke on the subject of the hospital school, and gave an interesting account of the great value of the Manchester Residential School for Cripples, especially in dealing with surgical forms of tuberculosis.

A general discussion then followed, in which a considerable number of the delegates took part.

Mrs. M. D. Power Sweeney, of London, submitted a paper going into great detail, of which she only gave the meeting a summary, in order to show by a number of lantern slides the methods adopted in the London open-air schools, and described the work of open-air schools in Germany.

Dr. C. E. Last spoke of the results of treatment of pulmonary tuberculosis in childhood, and, basing his remarks on observations of about 800 children, said that it was wrong to suppose that it was always an acute and rapidly fatal disease in childhood. In reality it often began insidiously, and was not always easy to detect. It was thus of paramount importance to the nation that the children should be treated, especially as the results of treatment showed recuperative possibilities greater than in adults.

Dr. H. J. Gauvain discussed the subject of surgical tuberculosis, and especially advocated the conservative treatment of tuberculous bone disease. He said that in 700 patients suffering from tuberculous disease of the bones or joints during the last three years he had only performed one amputation, and that was owing to sepsis resulting from a previous operation. He thought that large institutions in the open country away from towns were needed for the treatment. With the aid of a fine series of lantern slides he described the treatment and methods used at the Alton institution.

Industrial Tuberculosis.

Dr. Ransome discussed the need for more fresh air for workpeople. Some years ago, as the result of an inquiry, regulations were made limiting the amount of carbonic acid gas allowable in the atmosphere of humidifying sheds to 9 parts in 10,000, but the Home Office now allowed 11 parts, a retrograde step against which he hoped the National Association would protest. He proposed a resolution, which was seconded and carried unanimously, protesting against the lowering of the standard of ventilation in any of the workshops of the kingdom.

National Insurance Scheme.

The afternoon session was presided over by Dr. Philip, and was devoted to questions arising under the national insurance scheme.

Dr. W. Leslie Mackenzie read a paper on the work of local authorities under the Act. He pointed out that the term "sanatorium benefit" covered every form of treatment applicable to tuberculosis, either in institutions, including sanatoriums, dispensaries, convalescent homes, open-air schools, or rural or seaside homes. As indicated, too, in the interim report of the Departmental Committee on Tuberculosis, sanatorium benefit would include every form

of home treatment if carried out under proper conditions. To attempt, however, to treat any form of tuberculosis in overcrowded one or two roomed tenements was to trifle with the known factors in the spread of the disease, and, as the vast proportion of industrial workers lived in such houses, he put it as a question for the conference to consider: "Can we say that sanatorium treatment at home is likely to constitute on any great scale an effective method for the prevention of tuberculosis?" He thought that by the combination of the Public Health Acts and the added powers of the Insurance Act public health authorities would be in a much better position to prepare schemes of treatment and prevention for the community as a whole, including the non-insured. It was essential that children from the age of 1 year should be looked after as well as insured persons at the age of 16. He was inclined to think that the tuberculosis hospital would be a better starting-point than the tuberculosis dispensary for treatment in the great proportion of cases, as a short period of observational treatment in hospital beds should be of the greatest value.

Dr. H. W. McConnel read a paper on the after-care of patients who have been treated in a sanatorium. He thought it was a defect in the Insurance Act that no reference was made to the after-care of such persons. Efforts were being made to impress the Commissioners with the importance of this. He pointed out how after-care could be linked up with the local authorities and the Insurance Committees.

Dr. Chalmers, of Glasgow, said that the great problem in after-care lay in the indifferent housing and bad feeding of a large section of the population. It was ludicrous to suggest that people could live an outdoor life in a top room of a four or five storied tenement, as often happened in Scotland, and the only way to help them was to look into the economic condition of the people.

Dr. Trimble suggested that local authorities should not be hustled. He caused some laughter by saying that the attitude of the doctors, when once their legitimate demands were met, would be highly sympathetic.

The discussion was resumed the following morning, when Dr. Anderson presided, and the Countess of Aberdeen and the Lord Mayor and Lady Mayoress were present.

Mr. A. Neal, of Sheffield, said that any scheme for dealing with tuberculosis to be effective must be national in scope, otherwise there would be the injustice of one local authority neglecting its duty while another carried it out. The fear had been expressed that insured persons would have no guarantee of sanatorium treatment because of the cost, but he felt no doubt on that point. The right to sanatorium treatment would have to be recognized by the Insurance Committees and the health authorities, and he hoped the Insurance Committees would make arrangements with institutions which had been giving treatment in the past; there would still be ample scope for new institutions when that had been done, and it would be a pity if the activity of any of the existing institutions were reduced. The Act had been criticized on the ground that patients could not be compelled to accept treatment in sanatoriums, but he took it that the Insurance Committees could deprive such persons of other benefits if they refused the treatment recommended. It would be necessary to take care that overlapping beween authorities did not occur.

Work of Voluntary Societies under the Insurance Scheme.

The Countess of Aberdeen, who presided at the afternoon session, said that most of them must have heard the fear expressed that under the operation of the Insurance Act voluntary work in the antituberculosis campaign would diminish and the contributions towards the work would fall off. But the Act had been carefully framed with the view to inducing voluntary work to supplement what official work could not do. It might be hoped that the operation of the Act would bring together all the different agencies at work and give them that unity of aim which up to now had been lacking. Lady Aberdeen then went on to speak of voluntary work against consumption in Ireland, and claimed that the reduction in the death-rate from tuberculosis during the last few years might be attributed to the work of the association. She pointed out that the county councils of Ireland were in a peculiar position, as they had no general powers as health authorities, and were therefore startled when they learnt that they would be the proper authorities to deal with the tuberculosis clauses of the Insurance Act. Many of them were very unprepared to take up the work at once, and the Women's National Health Association had therefore been entrusted with the duty of making temporary provision for those counties, a portion of the grant allotted to Ireland having been placed at the disposal of the association for the purpose of meeting this national emergency.

Miss Broadbent, of the Invalid Children's Aid Association, said that the Insurance Act mentioned amongst future benefits the treatment of the families of insured persons, and it was certain that where parents were suffering from tuberculosis at all advanced, some of the children would also need treatment. In addition to open-air schools there would be need for home supervision, and there was ample scope for voluntary work in connexion with the care of infants and young children exposed to tuberculosis.

Mr. E. S. Kemp, of the Charity Organization Society, said that the society had found that in 52 per cent. of the cases it dealt with the patients became well and fit for work. Only cases suitable for sanatorium treatment were sent to these institutions, and while they were away from home their families were maintained, and on their discharge every effort was made to find them suitable work, and constant supervision was kept up as long as necessary. He feared that there would be many insured persons, especially deposit contributors, who would need more help than that available from the insurance funds, and that the voluntary associations would find ample scope for their activity.

Vote of Thanks.

At the close of a general discussion of the papers a vote of thanks to the corporations of Manchester and Salford was passed, on the motion of the Countess of Aberdeen; and Dr. Niven, M.O.H. for Manchester, replied on behalf of the Lady Mayoress.

Receptions.

On the evening of the first day there was a reception for the delegates at the university, and on the evening of the last day the delegates were received at the Town Hall by the Lord Mayor and Lady Mayoress.

The Tuberculosis Exhibition.

The Tuberculosis Exhibition of the National Association for the Prevention of Consumption was opened in the Drill Hall, Salford, on Monday, June 3rd, by the Mayor of Salford, and remained open during the week. Admission was free, and there was a very satisfactory attendance each day, especially of the working classes, for whom it was particularly intended. The exhibition was divided into nine sections. In (1) the statistical section, a large number of wall diagrams and tables were displayed, giving in a striking manner every imaginable sort of statistics about consumption as it affects various ages, trades, and towns. The effects of poverty and overcrowding in Shoreditch and Hampstead and in Glasgow were depicted, and at the same time encouraging statistics showed that among the nations of Europe, England stands best in its death-rate from consumption, Russia having a death-rate of 39.8 per 10,000 of the population, Austria 36.2, while England comes lowest on the list with a rate of only 11.4. Some figures for Salford showed that the death-rate in 1878 was 26 per 10,000, while in 1910 it was only 13, much of this improvement being put down to improved sanitation. In Sections (2) and (3), showing where the disease lurks and how it can be prevented, some interesting full-size models were exhibited of foul and dirty rooms, badly lighted and badly ventilated, in which four to six people lived and slept. Side by side with these were models of rooms of the same size, but airy, sunny, and healthy. Bird's-eye views of back-to-back houses in St. Pancras were shown, and sunless courts and dilapidated houses at Nottingham and Newcastle. Exhibits had been sent from St. Thomas's Hospital and from various tuberculosis dispensaries, most of them being diagrams or photographs of the various means used by the dispensaries for the prevention of consumption. In (4), the sanatorium section, a large collection of photographs depicted the routine of life

in a sanatorium, and numerous models were shown of various sanatoriums in England, Scotland, Switzerland, and elsewhere, with their shelters and open-air chapels. Models also were on view of the Edinburgh co-ordinated dispensaries and hospitals for consumption, and models of shelters for the home treatment of the disease suitable for gardens, back yards, and house-tops. In the children's section (5) were shown cheap and home-made apparatus for the sterilizing of milk, various kinds of feeding-bottles, cradles, cheap and hygienic, made from banana cases, weighing machines, plaster-of-Paris models of defective teeth, and a large number of pictures and photographs showing patients undergoing various forms of treatment or engaged in various exercises at open-air schools. The pathological section (7) was, perhaps, the least complete, consisting only of a few photographic enlargements of normal lung and bronchial tubes, and of tubercle bacilli in lung, spleen, and sputum. In (9), the municipal section, the exhibits were mostly copies of literature dealing with precautions against consumption issued by various towns with charts and diagrams showing in a graphic way the methods used to prevent the spread of infection. An interesting map was shown, prepared by Professor Delépine, of farms sending tuberculous milk to Manchester. A large assortment of leaflets, pamphlets, wall cards, and rules for consumptives were on sale at the literature stall at cost prices, and there appeared to be a great demand for them.

The stay of the exhibition in Salford ended on Saturday. Since then it has been at the Milton Hall, Manchester, and from there it will be taken to the Hulme Town Hall. In connexion with the exhibition a series of popular lectures on various aspects of consumption were given in the Pendleton Town Hall, Salford.

THE PARLIAMENTARY COMMITTEE ON PROPRIETARY MEDICINES.

THE Select Committee of the House of Commons appointed to inquire into the law relating to the sale and advertisement of proprietary articles resumed its deliberations on June 6th, at the conclusion of the Parliamentary Whitsuntide recess. Sir Henry Norman again presided. Evidence was heard principally as to the laws regulating the importation of proprietary medicines into the Commonwealth of Australia, but as to the supply of such articles to the public in Australia the Committee found it would be necessary to call for evidence from representatives of each State Government.

Mr. Neal, an officer of the Customs of the Commonwealth of Australia, gave evidence as to the Commonwealth law with regard to the importation of proprietary medicines. He said that the only legislation at present operative in the Commonwealth was the Commerce Trade Descriptions Act, 1905, which related to the trade descriptions to be applied to imported goods. Under Section 7 of the Act regulations might be made prohibiting the importation of any specified goods unless there was supplied with them a trade description as prescribed. Amongst the articles specified were "medicines, and medicinal preparations for internal or external use." In regard to proprietary medicines the description must include a statement as to the nature and purpose of the goods. A "fancy" name would not be accepted as a true description because it would not indicate the nature of the goods. It was not required that the formula of a proprietary medicine should appear on the label; if the preparation included certain specified drugs, those particular drugs, and the proportion contained, must be stated. The Customs had prohibited entirely the importation of certain drugs and articles; these included an "oxygenerator," manufactured in the United States of America; a preparation called "tuberculosene," manufactured in London; and an instrument or appliance called "oxydone," manufactured in the United States of America. The importation of indecent or obscene books, or of preventives of conception, mechanical or medicinal, was prohibited.

The Chairman: What of goods manufactured within the Commonwealth? Could they be made?

The Witness: So far as I know there is no bar. The Commonwealth law is not operative, and I believe the State laws do not prohibit. The witness added that for information as to the law relating to the sale and advertisement of proprietary medicines in the various States of the Commonwealth of Australia it would be necessary to apply to the Agents-General in London. He mentioned the report of Mr. Octavius C. Beale, who was appointed by the Commonwealth Government to inquire into the importation of patent or proprietary medicines. As a result of that report Government legislation was introduced, but was not proceeded with. From time to time the Customs Office issued departmental orders intended to safeguard the public. For example, an order was issued that with all goods purporting to be a remedy for gonorrhoea and its local sequelae there should be on the label a statement that if the disease did not readily yield to treatment a medical man should be consulted. Proprietary medicines were subject to a duty of 15 per cent. *ad valorem* on being imported into Australia.

In reply to Sir Philip Magnus, the witness said that the prohibition of the importation of certain of these articles was not intended, in his belief, as a protection to the home manufacturer, but for the safeguarding of the public against medicines that might be injurious. It was unfortunate that the Commonwealth had no control over the home manufacture; it said that certain of these articles should not be imported, and it hoped that the different States would follow suit.

In reply to various members of the Committee, the witness said he did not know of any cases in which a manufacturer whose goods had been prohibited entry had manufactured them in Australia through agents, but this, of course, was possible. The order in regard to the prohibition of the importation of preventives of conception did not specifically make any exception in favour of medical men. All questions as to the efficacy or otherwise of proprietary medicines were submitted to the Commonwealth Director of Quarantine, who was a medical man of high standing. He was not aware that since the enforcement of these customs restrictions there had sprung up numerous manufactories of proprietary medicines in Australia. The law requiring a true trade description did not operate more stringently in the case of proprietary medicines than in the case of other goods.

Mr. Guy Stephenson, Assistant Director of Public Prosecutions, gave evidence with regard to the policy of the Director of Public Prosecutions in cases of alleged fraud in connexion with the sale of proprietary medicines. He mentioned the extreme difficulty of obtaining convictions in these cases, where as a rule the seller was not the manufacturer of the article. It was necessary to prove that the vendor himself knew the statements on the labels to be false. In the case of drugs sold for illegal purposes it was specially difficult to obtain evidence because the person who bought and used the goods had also committed an offence. If the evidence of such a person was obtained it was necessary, in accordance with the practice of the courts, to call corroborative evidence, and in the nature of the case this could not often be done. The witness gave a summary of various cases in which prosecutions had been instituted during recent years, and he had not concluded his evidence when the Committee adjourned until Tuesday, June 11th.

On June 11th Mr. Stephenson continued his evidence, and gave particulars of proceedings under the Post Office Act against persons advertising through the post appliances for the prevention of conception and circulating other offensive printed matter. He mentioned the difficulty of successfully prosecuting in these cases owing to the differences of opinion of judges and magistrates as to what was and what was not indecent. In almost all the prosecutions for procuring abortion by mechanical means undertaken by the Public Prosecutor it had been proved that drugs had previously been administered, but without effect.

Replying to Mr. Glyn Jones, the witness said it had been held by the judges that the mere puffing of goods was not a false description of a kind that could be made the subject of a criminal prosecution. If a preparation was being sold which was proved to be doing serious harm to the health of a number of persons, an application was made to the Director to take proceedings; and if it was a medicine which came within the criminal law, the matter would be taken up. The mere fact of the description of a medicine

or drug being untrue or even fraudulent would hardly make the case one which the Director could take up unless he had evidence before him showing that his intervention was required.

In answer to further questions, Mr. Stephenson said seventeen convictions for procuring abortions were obtained by the Director last year. The offenders were chiefly women, but there were cases in which medical men were defendants. One man who had been struck off the *Medical Register* was convicted. There were certain drugs legitimately used in connexion with the cure of certain disorders which were also used to procure abortion, and the difficulty lay in deciding whether the use was legitimate.

Questioned by Mr. Harry Lawson as to whether any legislation had been promoted in regard to the advertisement and sale of drugs for the promotion of miscarriage and the prevention of conception, the witness said he had seen a bill dealing with the matter, but he did not feel justified in saying why the Home Secretary had not presented it to Parliament. He thought that if a label had to be affixed to every bottle of medicine containing a statement of all the drugs contained in it, fraud might be prevented, providing the person selling it was made liable for the sale, quite apart from his knowledge of the contents. Without legislation making it an offence to advertise a drug with a false description, the mere publication of the formula would not prevent attempts at fraud.

Dr. Chapple: Would you suggest that the placing upon a bottle of medicine of a label claiming that it was a certain cure for cancer should be made an offence?

Witness: I think it would be valuable for protecting people, but, short of absolute prohibition, I should find it difficult to suggest any kind of legislation.

The Chairman: What puzzles many members of the Committee is why a lying advertisement and a truthful analysis are not sufficient evidence. If this Committee supplied you with such analysis and advertisement what would you do?—I think we should go to the Attorney-General for his direction. Prosecution in connexion with medicines has not hitherto come within the purview of the Director.

The Chairman: My object is to find out whether the law at present is effective in any respect, or wholly ineffective; and it seems to several members of the Committee that we are up against a legal quibble.

The witness pointed out that it was always difficult to get a prosecution unless a number of people came forward on the ground that they had been induced to part with money on false representations and that their health had been injured by taking the article advertised. In several cases the vendors of the drug were able to get people to come forward and declare that the stuff had done them good. The prosecutor often made out a clear case, but some factor would arise meeting with the disapproval of the court. For instance, in the case of a police trap to obtain a bottle of worthless medicine, the prosecution had failed because the magistrate held that the chemist had been entrapped into doing what he did.

The Chairman: Does it follow from that that the existing law is gravely inadequate with respect to the sale and advertising of drugs?—I think it does.

There is nothing in the law to prevent any person making up any mixture containing anything except obvious poison, advertising it as a cure for any disease, and selling it broadcast on payment of the stamp duty?—It is possible to prosecute in such cases provided that somebody comes forward and says that he has parted with his money on the faith of the statement made in the advertisement, and provided also that it can be proved that the vendor knew that the drug was not capable of doing what he said it would do.

The difficulties are so great that, whatever may be the case theoretically, practically the state of things is hopeless?—Yes.

The Committee then adjourned.

THE International Congress of Neurology, Psychiatry, and Psychology, which held its last congress at Amsterdam in 1907, will meet again at Berlin in September, 1914. The President of the Organizing Committee is Dr. Dubois of Bern.

SCIENCE NOTES.

IN the Croonian Lecture on the process of excitation in nerve and muscle, delivered before the Royal Society on June 6th, Dr. Keith Lucas, of Trinity College, Cambridge, said that attention had lately been drawn to the slow progress made by physiologists in understanding the physico-chemical nature of the nervous impulse. In the lecture an attempt was made to examine one aspect of the experimental knowledge which must precede the formulation of any hypothesis of this nature. The first problem was to analyse by experiment the relation between each of the phenomena observed in an excited nerve or muscle and that central disturbance which constituted the nervous impulse. This analysis determined what phenomena must be taken into account in any hypothesis of the nervous impulse. It revealed the fact that work on the propagation of the disturbance in nerve and muscle had been hampered by the want of a method by which a quantitative measure of the disturbance might be obtained. It showed also that there could be distinguished from the propagated disturbance a preliminary local excitatory change, which was produced by an exciting agent at the seat of stimulation, and constituted the necessary condition for starting the propagated disturbance. By the recognition of the local excitatory process there was opened a fresh possible line of advance in the direction of determining what the nature of the propagated disturbance might be. The former constituted the condition which initiated the latter, and a knowledge of the physico-chemical nature of the local change might therefore form an important step towards formulating a hypothesis of the nature of the disturbance which was the basis of propagation. The hypothesis of Nernst, that the local excitatory process was a concentration of ions at a membrane impermeable to those ions, was examined critically. Some objections already brought against it proved unfounded, and the genuine difficulties of the hypothesis were in themselves of service in suggesting experimental work which was needed for the complete verification of any such hypothesis. Until such work had been done it would be useless to accept or to reject the hypothesis, which remained for the present a valuable means of attack and a guide to future work.

At the Royal Society annual *conversazione* Dr. Fantham and Miss Porter exhibited some preparations of *Nosema apis*, the parasite of a deadly form of bee disease, which has become notorious within recent years owing to its prevalence in the Isle of Wight. The disease is a form of enteritis which spreads with great rapidity and frequently decimates a hive. The queen often falls a victim, and the hive perishes. This disease is very similar to the well-known disease of silkworms, called "pébrine," and it is due to a closely allied form of parasite. It was only a year or two ago that the nature and cause of the disease were discovered, and it was found to be due to a protozoon belonging to the Microsporidia. It attacks the intestinal epithelium, but it may spread into various other organs of the body. The epidemic usually starts in the spring. Although other bee diseases are known, this particular parasite has probably been responsible for most of bee disease in this country during the past half-dozen years.

Newton Miller has little to tell us that is new, but much that is interesting, concerning the reproductive habits of the common brown rat.[1] He has made an extended and very careful study of the animal in captivity. As is well known, the rat is extremely prolific, and in its multiplication it recks neither of time nor of season. Gestation is over in twenty-four days, and six to twenty young rats may be brought forth in one litter. Not infrequently half a dozen litters are reared by a single pair in one year. One female produced seven litters in as many months. In captivity half the progeny, however, are devoured by the fond parents, especially the female, and it is not improbable that the same thing happens to a less extent in the wild state. The young do not become full grown till they are about 1½ years old, but they attain sexual maturity long before that, as a rule about the end of the fourth month. On that account as many as four generations may make their appearance within a year. Rats

[1] *American Naturalist*, 1911, pp. 623–35.

do not worry much about courtship formalities. The males are inveterate fighters, and the losers have rather a rough time. The females show a certain resistance to the advances of the male, but this is not prolonged. These observations will do much to fix our knowledge of the habits of our formidable enemy, the brown rat.

An interesting study of the amount of accommodation exerted by the eye during microscopical work has recently been made by Brocher.[3] He made use of a camera lucida attached to the microscope in the usual way. Alongside the microscope he placed a mirror reflecting a view of the landscape into the camera, and on this mirror he gummed a small piece of paper. On looking through the camera three objects may be seen—namely, the object in the microscope stage, the landscape, and the piece of paper—but only two of these will be distinct. If the first two are distinct the observer is obviously making no effort of accommodation, provided he be emmetropic; but if the first and third are distinct, an effort of accommodation is being made, to the extent, in a normal eye, of about 2½ diopters. It is evident that, in the first case, no eye fatigue is involved, which explains why so many experienced microscopists can work for long periods without tiring. Certain persons, however, find it impossible to avoid accommodating when looking at an object with the microscope, and they naturally experience a considerable amount of eye-strain. With practice, however, the trouble may be overcome, and the eye be maintained in a condition of relaxed accommodation.

In a recent number of *Science* (March 22nd) Professor Pratt attempts an enumeration of the species of animals known at the present day. All the numbers he quotes are at best approximations, but he arrives at a grand total of 522,400. When one considers what a species means and remembers that the average person, even of zoological tendencies, is not acquainted with more than a hundred or two animals by sight or by repute, such a figure is almost stupendous. Even although each species were no more numerous than mankind, the gross total of living individuals would be at least 1,000 billions. Such a figure, short as it is of the mark, conveys about as much meaning as the distance of the nearest fixed star, but it illustrates the enormous wealth of life on this small globe of ours. One of the most distressing features of all lists like that of Professor Pratt's is the inconceivable number of insects. They comprise three-quarters of the whole, or, in other words, three out of every four animals is an insect. When we are further assured by competent authorities that the known species of insects are practically only a fraction of the unknown forms, which are to be numbered by the million, the brain begins to reel. It is comforting to find that molluscs make a bad second, being outnumbered to the extent of six to one. Somehow we do not feel the same antipathy to the multitude of shellfish, provided they be not of the *genre* octopus. Far behind these come the crustacea and spiders, further representatives of the multijointed leg type. The vertebrates as a whole are third, but of their several divisions the birds and fishes are inferior in number to the crustacea. The mammals occupy a very lowly position. For comparison, Professor Pratt gives corresponding lists compiled by Ludwig in 1866, by Agassiz and Brown in 1859, and by Linnaeus in 1758. These are interesting as showing the progress of knowledge. Linnaeus's total was a little over 4,000. A hundred years later that had been increased thirty-fold, and that total has been doubled during each of the succeeding quarter centuries. If the present rate of increase is maintained we ought to reach a million within twenty years. During the hundred years following Linnaeus's list the greatest proportional advance was made in regard to protozoa and insects, the smallest in regard to vertebrates. The next twenty-five years was especially remarkable for the advance in echinoderm and worms, while the most notable increase in recent times has been in myriapods and sponges. Although these figures are only approximate, and though they only deal with the enumeration of species, they may be taken as a fair index of the general progress which zoology is making in these latter days.

[1] *Rev. méd. suisse romande*, 1911, p. 69.

LITERARY NOTES.

THE lecture on "How to use the British Museum Reading Room," delivered on several occasions during 1911–1912 at the Museum by Mr. R. A. Peddie, has now been revised and enlarged for publication, and will be issued by Messrs. Grafton and Co., 69, Great Russell Street, Bloomsbury, London, W.C., in popular book form before the end of the month. The book will doubtless be of great service to many engaged in literary or scientific research who at present often lose their way in the tangled jungle of the Catalogue.

Messrs. J. and A. Churchill have ready for publication a new book by Professor E. H. Starling, F.R.S. The volume is entitled *Principles of Human Physiology*. The aim of the work may be gathered from the following passage which occurs in the preface:

> This mutual stimulation and co-operation among the different sciences have as their result a continual modification of our attitude with regard to the fundamental problems of physiology. The present time has seemed to me, therefore, fitting for the production of a textbook which, while not neglecting the data of physiology, should lay special stress on the significance of these data, and attempt to weave them into a fabric representing the principles which are guiding physiologists and physicians of the present day in their endeavours to extend the bounds of the known and to increase their powers of control over the functions of living organisms.

The book contains 645 illustrations.

There is at Goschenen in Switzerland a superintendent of the refreshment room who devotes the time he can spare from catering for the bodily needs of passengers to providing them with food for their minds in the form of novels. His name is Ernst Zahn, and according to Madame Noémie Valentin, widow of a professor of laryngology in the University of Bern, his novels are marked by much tragic power. His latest work, entitled *The Woman of Tanno*, is based on facts interesting to the pathologist. "Tanno" is Tenna, a little village in the Grisons, which is well known in medical literature, for it is remarkable for the number of "bleeders" among its inhabitants. As is the case with haemophilia elsewhere, the condition runs in families, selecting males as its victims. There is nothing in the climate of the place, or in the food of the people, that throws any light on the prevalence of the disease, which runs in families that go back to remote times. It is said that at one time the women of the village bound themselves by a solemn covenant not to marry, so that the transmission of the disease might be checked. Zahn has taken this renunciation, this vow of chastity independent of religious considerations, as the subject of his novel. The struggle between the natural desire for wedlock and motherhood, with the sense of duty to future generations, would seem to present fine opportunities for artistic treatment.

We have received a copy of W. B. Saunders Company's new illustrated catalogue of books on medical, surgical, and allied subjects which, as usual, is remarkable for the beauty of the specimen illustrations it contains. The number of new books and new editions in the catalogue serves to give an idea of the rapid growth of medical literature.

The doctrines of Christian Science have attained such widespread credence that at the present moment there is probably hardly a civilized country in the world which cannot reckon amongst its inhabitants a certain number of Mrs. Eddy's votaries. Even the death of the foundress seems to have had little or no effect upon the faith of her followers: and it may be truly said that the career of this remarkable woman offers one more testimony to the eternal folly of mankind. A brief sketch of her life and teaching is given by Dr. Et. Burnet in the May number of *L'Hygiène*, which also contains an interesting account by Dr. Maurice de Fleury of the great International Tuberculosis Congress recently held in Rome. The same number includes a short article by M. Francis Marre on the different brands of tea and the best means of obtaining a good and harmless infusion; whilst Dr. Maurice Nigoul writes on the dangers indicated by a sudden loss of flesh in an apparently healthy subject, and Dr. Paul Le Gendre contributes some useful advice as to the causes, treatment, and, above all, the prevention of rheumatism.

The fourth number of *The Arena*, a new illustrated monthly periodical dealing with university and public school life and amateur sport, contains a short article on the medical profession, forming one of a series on "openings and opportunities available for public school and university

men." The article is, however, mainly concerned with the medical curriculum, and does not adequately set out its difficulties nor the length of time which the vast majority of students must devote to it. The statement that to obtain a university medical degree "involves a longer and more expensive training than for a diploma" is not true as a general proposition. The writer speaks of "many lucrative appointments in connexion with public institutions at home and in the colonies and under local government authorities," but the word "lucrative" seems usually to bear a shade of meaning which means large salary or profits, and it would have been better to have used the non-committal term "salaried." We have felt bound to call attention to these matters, for *The Arena*, through its excellent illustrated articles on the universities and great public schools—in this number there are such articles on the Cambridge Union and on Winchester—will make a strong appeal to those it addresses.

ANENCEPHALOUS MONSTERS.

One of the commonest of all monstrosities in man is that known to teratologists as Anencephalus. The brain is more or less deficient, and the prominent eyes, the head extended backwards, and the relative over-development of the trunk and extremities give the fetus a most repulsive appearance, terrifying to the ignorant. In ancient days a monster born to a woman of rank would have been a portent; in the middle ages the mother of an anencephalus was liable to be taken for a witch or the victim of an incubus, a demon in the form of a man. Neither teratological theories nor "occult" doctrines about monsters are of immediate interest to the practitioner, but the alleged increase in the birth of anencephali is to him and to the public a matter of some importance. Did the Western World still hold the superstitions of the Ancients, then without doubt these monstrous births, so often published, would have been associated with a fearful shipwreck, with the sudden death of a king, with the dread of the evils of Syndicalism, and with the burden of armaments. The Western World, however, though it may be saturated with illusions which only later ages will recognize, can trace no law of cause and effect between monstrous births and the evils associated with civilization. As for the alleged increased frequency of anencephalous monsters, some of our correspondents have turned attention to the subject. Mr. George Morgan referred to it in the Journal of April 6th. The fact that since then we have received several communications might be thought to support the idea that this monster is becoming more frequent. Dr. Richard Craven, of Longridge, Preston, informs us that two cases occurred in his own practice last autumn. On November 14th a woman who had given birth to one normally-formed child was delivered at the seventh month of her second. It was stillborn, and the breech presented. The calvaria, frontal, parietal, and occipital, was entirely deficient and the extension of the skull extreme, so that there was no neck posteriorly. On December 4th another patient was delivered by Dr. Craven at the seventh month. She had borne three normal children, all healthy. On this occasion the fetus was anencephalous, and as completely so as in the first case, and it was likewise dead when born. The malformed head presented, and at first the presentation was suspected to be transverse with a spina bifida. On delivery spina bifida as well as failure of closure of the cranial vault was discovered. This point is of interest to the obstetrician. Dr. Mona Roberts, Assistant Medical Officer to the St. Pancras South Infirmary, reports the labour of a primipara at the seventh month, last February. When the membranes ruptured a great quantity of liquor amnii escaped, and a dark, discoloured mass presented. It was the head of an anencephalous female fetus, 1 lb. 12 oz. in weight, and it had apparently been dead for several days. There was no difficulty about delivery. The deficient closure of the vault was as conspicuous as in Dr. Craven's cases, and there was almost complete spina bifida reaching to the beginning of the cauda equina. A vestige of brain was detected on dissection. Dr. Jessie Balsillie of Burton-on-Trent has supplied us with notes of a case under observation a few years ago at the Dundee Royal Infirmary. In this instance delivery occurred at term; the labour was slow but otherwise normal. The encephalocele presented; it was a prominent bilobed tumour. One lobe was born after the other. The photographs which we publish show this peculiarity, which might puzzle even an experienced obstetrician. To the touch, it might easily simulate a congenital sacral tumour. On the other hand, there was no spina bifida. As usual (especially when, as in this case, pregnancy had gone on to term) the body of the fetus was greatly over-developed. The explanation of this familiar phenomenon in anencephali may be left to embryologists and physiologists. There was also double talipes varus. Dr. Gill, of Rilla-Mill, Cornwall, informs us that in the course of twenty-five years' active midwifery practice he has only once come across an instance of this kind of monster. The mother was healthy, but had recently suffered some trying experiences. She had been four times pregnant, and her fourth child was a boy with six digits on both hands and feet. Two years later (in December 1910) the patient gave birth to an anencephalous monster, stillborn.



The above evidence, compared with numerous reports in past volumes of the Journal, certainly prove that anencephalous monsters are frequent. But relative questions suggest themselves to us. Is the amorphous acardiac twin so very much rarer? An anencephalus is a big, ugly monster, and the presentation of its head puzzles the obstetrician. The case is not likely to be forgotten. On the other hand an "amorphus" gives no trouble, and may be taken for a placental outgrowth. So, again, is it with several other types of monster. But, as in the instance of the single anencephalus, we know that the double thoracopagous and pygopagous monsters cannot well be overlooked. They sometimes live, they may make a livelihood trading on their weird deformity, and may even bear children, as in one case reported a few years ago in the Journal. Anyhow, anencephalus is common. But there remains another factor to be taken into consideration. The profession is much better trained to observation than was the case forty or fifty years ago. We cannot help noting the care with which our above-named correspondents record certain facts which their predecessors in the mid-Victorian age would most probably have neglected or overlooked altogether. Many would have failed to make any public mention of the monstrous birth at all. Therefore it seems probable that anencephalus is not necessarily commoner than in past days, but it is certain that it is more frequently published by those who observe it.

British Medical Journal.

SATURDAY, JUNE 15TH, 1912.

THE GENERAL MEDICAL COUNCIL.

THE General Medical Council sat for five days last week and concluded its business without difficulty on Saturday afternoon. The President's address, which, as usual, sketched in some detail the work the Council had to do, was printed in full in the JOURNAL of June 8th, and in the same issue attention was directed to some of the business done in the earlier part of the session. A full report will be found in the SUPPLEMENT this week, but reference may here conveniently be made to some matters of general interest.

One of these was the recognition of instruction in preliminary sciences given in secondary schools. The presentation by the Students' Registration Committee of an additional list of secondary schools for approval afforded to Dr. Caton, the representative of the University of Liverpool, the opportunity of moving a resolution, seconded by Dr. Lorrain Smith, the new representative of the University of Manchester, to the effect that no further additions be made to the list. Some little discussion ensued in which all of the old arguments *pro* and *con.* reappeared. The supporters of the amendment reiterated the opinion that physics, chemistry, and biology, should be taught, even in the first year, with a regard to their applications to medical science, though no one was bold enough explicitly to maintain that during the first year the general grounding in those subjects could be carried to such an advanced point as to bring the medical applications of the matters taught well within the grasp of the student. Sir Thomas Fraser (University of Edinburgh) supported the amendment, as also did, though in more uncertain tones, Mr. Pye-Smith (University of Sheffield); it was opposed by Sir Clifford Allbutt, Dr. F. Taylor, Sir Henry Morris, and Dr. Norman Moore. The amendment was lost; had it been passed it would have amounted to a reversal of the all but unanimous decision arrived at by the Council a year ago—a decision, we may add, that seems to be in the best interests of medical education.

The Committee formulated certain requirements to be fulfilled by secondary schools applying for recognition. These embraced evidence that the school was a public foundation; that it had been recognized for the purpose by one of the licensing bodies; that it was inspected at a given date; and that it desired recognition in specified subjects. Sir Henry Morris and Dr. Mackay were responsible for a motion that the period for which instruction in preliminary science taken at recognized institutions other than medical schools should be allowed to count towards making up the five years of the curriculum should be limited to six months. This was carried, and its adoption was of some importance in relation to Dr. Caton's amendment, in so far as it limits the practical effect of the recognition of school study, though, of course, it does not touch the question of principle.

Last December, during its winter session, the Council adopted certain recommendations by which the resolutions of the Council in regard to professional education were affected, and the Education Committee was in consequence instructed to recast the resolutions. At this session it submitted the revised resolutions, and asked that they should be placed on the minutes for the information of persons and bodies concerned. Among the resolutions in the draft was one advising examining bodies and schools so to frame their rules that attendance on systematic courses should be concluded at the end of the fourth year of study, so as to permit of the student devoting the fifth year to clinical work. Exception was taken to this recommendation, and Professor Saundby, who was seconded by Dr. Gibson, proposed that it should be deleted. It was pointed out that if educational bodies liked thus to arrange the work it was perfectly open to them to do so, but that a hard and fast ruling on the subject would hamper them, and would in many cases lead to students having half of their day not occupied by any definite work, as it would not be possible to let the fifth-year students be in the hospital during the whole day. The motion to omit the recommendation was carried, although some speakers considered it a retrograde step.

Another educational question which engaged attention was that of the position of Indian students who desired to obtain a registrable qualification in this country, and asked that the curriculum in India should be recognized. The exigencies of that country require the institution of several grades of persons who, whilst in some respects receiving a less complete medical education than obtains at home, do undergo systematic courses of instruction and pass examinations. In some cases the candidate after a four years' course receives a licence which is not registrable; in other cases the education received is still less complete. The question before the Council had relation principally to those who, whilst receiving a fairly complete course, have not obtained a registrable qualification, and who desire to offer themselves for examination in Great Britain, the special issue being the extent to which their period of study in India should be allowed to exempt them from the fulfilment of the entire home curriculum. The Examination Committee recommended that no recognition should be accorded to the examinations which they had passed, but that the courses they had attended in India might, subject to appropriate precautions, be accepted as the equivalent of (at most) three of the five years of the curriculum, and that at least two years' study of specified subjects in the United Kingdom should be required. The Committee recommended also that the applicant should be required to have passed a preliminary examination in arts recognized by the Council, and that evidence of Indian study must be provided by certificates furnished through the India Office. These regulations were drafted in consultation with the Indian authorities, who are co-operating with the Council in the matter. A little opposition to the report was shown on the ground that its adoption might open a back door to obtaining a British qualification on easy terms, but the Committee were able to satisfy the objectors on this point, and the report was adopted.

Arising out of this discussion and out of the list of exemptions furnished to the Council on an earlier day was a resolution adopted on the motion of the Senior Treasurer instructing the Education Committee to report whether it was desirable that any intermediate examinations held by bodies whose diplomas or licences were not registrable in this country should be accepted by the home licensing bodies in lieu of any of their own examinations. It appeared that there were instances of such examinations, of the standard

of which the Council could have little knowledge, having been so accepted by certain of the licensing bodies in the United Kingdom.

The Education Committee presented a report containing certain conclusions as to the scope and conduct of preliminary examinations in arts, and asked that these should be published in the minutes of the Council without being previously discussed or approved in order that examining bodies might see them and communicate with the Committee. The advisability of placing on the minutes resolutions which had not received the approval of the Council but which might thus appear to have its endorsement was discussed, and it was good-humouredly pointed out that the examination set up as the model to which others should conform was a Scottish one, and that only Scotsmen had spoken in favour of the insertion of the report on the minutes. However, when it had been stated that as certain examinations were to be excluded from recognition in 1914, the bodies conducting them might naturally wish to see to what standard they would have to rise in order once more to obtain recognition, it was agreed to receive the report of the Committee and to place it on the minutes. Publicity is thus given to the report but the Council is not pledged to its adoption.

HEDONAL AS A GENERAL ANAESTHETIC.

THIS synthetic product—methyl-propyl-carbinol-urethane—more powerful than its congener urethane, was introduced some few years ago as a hypnotic. It may be prepared from methyl-propyl-carbinol, which is warmed and acted upon by urea nitrate.[1] It forms fine, long, needle-shaped crystals which melt at 76° C., are slightly soluble in cold water, although more readily so in hot water. Its taste resembles that of menthol. In action it is similar to trional, and, according to de Moor, it is strongly diuretic when administered in solution. With alkalis hedonal when boiled decomposes, but boiling in neutral solution does not alter its composition.

Dreser, who has studied the pharmacology of this drug, regards it as a powerful diuretic, and attributes its action in this direction to its being split up in the organism into carbon dioxide, water, and urea. He asserts that it is ten times more powerful as a hypnotic than urethane; that it lowers blood pressure, but does not interfere with respiration, but upon this last point his experiments are in conflict with the clinical experience of Fedoroff and others.

Guided by the experiments of Lampsakow upon lower animals, Krawkow was led to employ hedonal as an antecedent to the administration of chloroform. He found that about 3 grams (45 grains) lessened the quantity of chloroform required and diminished the severity of all after-effects. S. P. Fedoroff was led by experiments on animals, which revealed the fact that intravenous infusion of hedonal produced anaesthesia without danger, to extend its use to man. In his first cases he employed 4 grams of hedonal in mucilage as a rectal injection two hours previous to intravenous infusion of 0.75 per cent. hedonal in saline solution introduced immediately before the operation; 200 to 300 c.cm. produced anaesthesia, and subsequent infusion of 50 to 100 c.cm.—that is, 6 to 10 grams—sufficed for a single anaesthesia. Subsequent experience has led Fedoroff to dispense with the rectal injection and to rely solely upon intermittent or continuous infusion of a 0.75 per cent. warmed and filtered solution of hedonal. He plunges a curved needle into the peripheral part of a vein. After 100 to 150 c.cm. have entered drowsiness supervenes, and in a minute or two deep sleep occurs. If the flow is too rapid respiration stops, but in his experience is readily restarted by a few compressions of the chest. He has employed the drug in this way in 530 cases. The utmost amount which should pass into the vein in a minute is 100 c.cm. The limits of quantities which are requisite for operations lie between 400 to 8,000 c.cm. It must be remembered that given by the mouth the dose is reputed to be from 15 to 45 grains.

A. T. Sidorenko has recorded similar experiences, and concurs in Fedoroff's statements that the after-effects are usually extremely slight. He points out, however, that excitement may occur during the stage of recovery, and that the patients sometimes remain soporose for a long time after the operation, and that when in that state the tongue is liable to fall back and lead to suffocation. Jeremitsch, pursuing Fedoroff's method, failed when making the infusion into veins of the leg in 2 cases out of 65. The limits of quantities used by him were 325 to 1,100 c.cm.

This system has up to the present been used with equal success in various Continental clinics and in this country to some extent, notably by Mr. C. M. Page at St. Thomas's Hospital. After an experience of over 100 cases, Mr. Page, who employs a continuous infusion method, regards the plan as valuable in many cases; so soon as anaesthesia is established, he only permits a very slow rate of flow, and graduates the dose to the age of the patient; his patients have included young children as well as adults. He has met with no deaths due to the hedonal, and after-effects have been trifling or wholly absent.

It is impossible to estimate the mortality, as so few cases in which the drug has been used to produce general anaesthesia have been reported. Last week an inquest was held as to the death of a man, aged 48, in the Golden Square Throat Hospital, London, where hedonal had been given as a general anaesthetic; he appears to have died in the post-operative stage. The verdict, in accordance with the medical evidence, was that death was due to heart failure from blood poisoning, accelerated by the administration of the anaesthetic and the operation. A death has also been reported from Hull; in this instance Mr. Page's technique was followed, and the death appears to have resulted from respiratory failure some few hours after the operation was completed and all apprehension of danger had passed. A third death, recently reported from the Hospital for Sick Children, Great Ormond Street, was that of a girl, aged 8, whose respiration failed as the stitches were being inserted. In this case the pathologist considered that status lymphaticus was a contributory cause of death.

The obvious objection to drugs such as hedonal is the long time their hypnotic effect persists—a peculiarity which is an advantage during the operation, but a danger during the period of recovery.

[1] $CO.NH_2.NH_2HNO_3 + HO.CH.CH_3.C_3H_7 = CO.NH_2.O.CH.CH_3.C_3H_7 + NH_4NO_3$.

THE DEPUTATION TO THE CHANCELLOR OF THE EXCHEQUER.

As announced in an official communication issued to the press and published in many papers on June 8th (see page 1385), the State Sickness Insurance Committee, at its meeting on Friday, June 7th, received and accepted an invitation from the Chancellor of the Exchequer and the Insurance Commissioners to an

immediate interview with regard to the matters set out in the resolution of the Committee on May 30th inquiring whether the Commissioners could formulate regulations to satisfy the demands of the profession, as stated in the letter addressed to the Commissioners on February 29th, after the Special Representative Meeting in that month, and, if so, whether the Commissioners were prepared to make such regulations.

The interview was held the same day. Mr. Lloyd George presided, and a general conversation took place during which the members of the deputation elaborated and defined the demands of the profession as formulated by the Representative Body of the British Medical Association. The only definite outcome was a strong appeal from the Chancellor of the Exchequer to the deputation to the effect that the representatives of the profession might reasonably be expected by the Government to furnish the facts and figures on which it claimed 8s. 6d. a head as a minimum rate of remuneration, not including extras and drugs. Mr. Lloyd George outlined a plan for obtaining statistical information as regards existing conditions in respect of medical attendance and remuneration. He proposed that some half-dozen towns in different parts of the country should be taken, and that all medical practitioners in those towns should be asked to permit their books for two years (1910 and 1911) to be examined by an independent actuary who should be instructed to make a report on the amount of work done and the amount of remuneration received by the medical profession, as a whole, in the several towns. At this point the deputation was adjourned with the understanding that a memorandum on the amount of remuneration which medical practitioners should receive under the Insurance Act would be sent to the Chancellor of the Exchequer before the deputation had its next meeting with him and the Insurance Commissioners, which was fixed for Wednesday, June 12th. Such a memorandum was accordingly sent in to the Chancellor of the Exchequer on Tuesday, June 11th, and will be reported to the Divisions and the Representative Meeting.

The deputation was resumed on Wednesday afternoon, June 12th, but did not lead to any conclusive result. The Chancellor of the Exchequer reiterated his plan for making an actuarial investigation in various towns and explained it more fully. The statement which has appeared as a rumour in the *Times*, and possibly in other papers, that a settlement with the medical profession may be arrived at on the basis of an 8s. 6d. capitation fee to include the provision of drugs is not founded on fact. No such proposal was made. Had it been made, the State Sickness Insurance Committee would not have been in a position to do more than undertake to report the proposal to the Association and the Representative Meeting next month.

The only new fact is that the State Sickness Insurance Committee, when it resumed on Wednesday evening, June 12th, had before it a letter from Sir Robert Morant, inviting it to approve the proposal to make an independent actuarial investigation in the manner indicated by the Chancellor of the Exchequer. The letter, which, together with a memorandum by the Commissioners, is published at p. 1385, also asked the Association to furnish to the Commissioners, in further illustration of the memorandum on remuneration, any other facts already in its possession which would throw light upon existing conditions of medical practice and remuneration, whether as to types of practice or particular practices. While fully realizing the difficulties which must attend any such actuarial investigation as the Chancellor of the Exchequer proposed, the Committee resolved to inform the Commissioners that it was prepared to give every possible assistance in the collection of the information desired. It pointed out to the Commissioners the obvious fact that the Committee had no power to compel practitioners to open their books to such an investigation, but added that it was prepared to advise practitioners in the selected towns to assist in the collection of the information. The Committee refrained from making the observation that it was a little late in the history of the insurance scheme to institute such an investigation.

It may be added that the Chancellor of the Exchequer had intimated to the deputation that if a trial of his plan showed it to be impossible to obtain complete returns from the selected towns, he would still be glad to have the results of as complete an actuarial investigation in each town as possible, the totals of work and remuneration in the towns being reached by instructing the actuary to make estimates in respect of those practices the books of which could not be investigated by him.

SANATORIUM OFFICERS UNDER THE INSURANCE ACT.

AT its meeting on June 12th the State Sickness Insurance Committee had before it a communication asking the opinion of the Committee in regard to the attitude to be adopted with reference to the appointment of sanatorium officers by the Insurance Commissioners. The inquiry raised the question whether the decision would be affected by the circumstances that the appointments were offered by county councils or by local Insurance Committees. In this connexion attention was called to the resolution (Minute 78) of the Special Representative Meeting of February 22nd, 1912, instructing the Council to take all possible steps to ensure that no member shall take any office or work under the National Insurance Act. other than that of the Advisory Committee, until such time as the minimum demands of the profession are conceded. It may be noted that succeeding resolutions provided that this did not apply to Ireland, and would not preclude a medical officer of health from giving advice to an Insurance Committee in his official capacity. Having regard to the resolution (Minute 78), the State Sickness Insurance Committee felt that there was no other course open to it than to decide that no medical appointments should be accepted for the administration of sanatorium benefit until such time as the minimum demands of the profession are conceded.

MEMBERSHIP OF PROVISIONAL INSURANCE COMMITTEES.

THE resolution with regard to Provisional Insurance Committees adopted by the State Sickness Insurance Committee at its meeting on June 7th, reported elsewhere (page 1384) in this issue of the JOURNAL, calls for the particular attention of the secretaries of Divisions and Provisional Local Medical Committees, and indeed of all members of the Association. On the general point the letter addressed to Sir Robert Morant on May 31st (SUPPLEMENT, June 8th, p. 600) conveyed the decision of the Committee. This was that, acting in accordance with the decisions of the Special Representative Meeting of February, it was impossible for the Association to assist the Commissioners in the manner indicated—namely, by obtaining from various medical committees of the Association the names of representatives for the suggested Provisional Insurance Committees—until such time as the Association is satisfied that the minimum demands of the profession

in regard to the Act are or will be conceded. A further matter considered by the Committee was the position of practitioners who are members of county or county borough councils, and, owing to that membership, are asked to act upon Provisional Insurance Committees. The Committee expressed the opinion that if a member of a county council were appointed by the council to fill a position which could equally well be filled by a layman, and was not appointed as a medical practitioner to fill a position which could only be filled by a medical practitioner, no objection to the acceptance of such appointment could be raised.

MEAT AND MEDICATED WINES.

IN an address to the Women's Union of the Church of England Temperance Society on meat and medicated wines, Dr. Mary Sturge suggested that a circular should be issued to the medical profession calling attention to the dangers of these preparations. There is certainly here a good work ready to the hand of temperance societies. The lavish advertisement of these wines could not go on without adequate return; and the attractive baits scattered broadcast in newspapers and magazines connote an indulgence in these wines at once widespread and mistaken. It cannot be doubted that it is the alcohol in them that gives these wines their hold on public favour when once the bait of advertisement has captured a purchaser. A seductive sense of comfort may follow a dose of alcohol, whether the alcohol be taken in the form of wine, or mingled with hot water or malt and meat extractives. Though there has been a steady decrease in male intemperance, there are reasons to suggest that the drink habit among women is either increasing or is not diminishing. Many women slide unconsciously into inebriety, and these much-advertised wines smooth for them the slippery path. *Facilis descensus inebrietatis* ought to be engraven on the label of every bottle. In the belief that they are useful tonics or harmless strength-givers, these meat wines are ignorantly consumed, bottle after bottle. Some, it is said, even regard them as teetotal drinks. And those who, from conscientious motives, could not be persuaded to touch a glass of claret, with its low percentage of alcohol, swallow, without a qualm, glasses of meat or medicated wine containing as much alcohol as there is in port, and sometimes more. Of the samples of well-known brands of meat wine analytical reports on which were published, only two contained less than 19 per cent. of alcohol, and three held over 20 per cent. That the consumption of a drink charged with so high a percentage of alcohol should prove harmful and dangerous is not only what one would expect, but is proved by cases related by Dr. Mary Sturge. One girl got into the habit of taking meat wine, and eventually consumed each day three bottles, which naturally made her drunk. A gentleman, who grew weaker every day, and became unsteady on his legs, always had a bottle in his pocket. As soon as he gave up the "strengthening wine" his strength and equilibrium returned. A woman, who shrank in horror from ordinary wine, turned to meat wine on the advice of a friend, and in five years went to a drunkard's grave. Dr. Sturge's phrase that women are "tricked" into taking alcohol by these wines may often be true. Their use rests upon a thin stratum of distorted physiology, which has the usual seductiveness of a half truth. It is satisfactory to learn that some retail chemists, realizing the harm these highly alcoholized preparations may spread, refuse to stock them. In Birmingham two of the leading chemists will not supply them, an example, we are told, followed by a majority of the chemists of Glasgow. This sacrifice of commercial profit for the good of the commonweal is worthy of recognition. But the ubiquitous grocer steps in where the conscientious chemist refuses to tread; and those in whom the liking for alcohol has been roused by these wines have no difficulty in keeping it alive by recourse to the grocer's counter. We are wont to plume ourselves on our increased sobriety and the beneficent changes which have permeated the nation's habits. The hospitality which dispenses afternoon tea has banished the wine bottle from the drawing-room; but the use of these speciously puffed preparations, more alcoholic than the once proferred wine, are likely to undo much of the good which has resulted from the displacement of the decanter by the teapot. Medical men are cognisant of the dangers of these preparations, and it may be hoped that the education and enlightenment will extend to the public at large. Temperance societies would do a good work by spreading and emphasizing the lessons of Dr. Mary Sturge's address by every means in their power. Medical men should lose no opportunity of enlightening their patients as to the real nature and composition of these wines, and to those bent on taking them the doctor might point out the superiority of good sound wine purchased at a reputable wine merchant's over a bottle of one of these medicated products bought over the grocer's or chemist's counter. The buyers would not only get better value for their money, but would be under no delusion as to the alcoholic constituents of the beverage.

ELLIOT'S OPERATION FOR GLAUCOMA.

MR. E. TEMPLE SMITH of Queensland has recently visited the clinic of Colonel R. H. Elliot in Madras, who is one of the pioneers of the operation of trephining the sclerotic for glaucoma. In a paper published in the *Ophthalmoscope* for May, 1912, he discusses very fully the operation of Freeland Fergus. He endeavours to show that in this operation, which is really a combined trephining of the sclera and cyclo-dialysis, it is impossible, owing to the site of the operation, for the ciliary body to be really detached, as is supposed to be the case. He contends that the instrument which is intended to accomplish this really enters the eye in front of the ciliary body. He also quotes Fuchs, who stated at the Belfast meeting of the British Medical Association that he had given up cyclo-dialysis owing to the fact that the symptoms recurred after it; pathological examination showed that in the situation where the operation was performed the tissues cicatrized, and no permanent communication existed between the anterior chamber and the subchoroidal space. The operation as performed by Colonel Elliot is essentially different from this. He clearly lays down the rule that the trephined disc shall be taken so far forward that from one-fourth to three-fourths of it shall be in the clear cornea. The iris is only dealt with if it prolapses into the hole on the completion of the trephining; this is done in about half the cases. A buttonhole iridectomy is then made by snipping off the prolapsed iris *in situ* with fine scissors; this is done solely for the purpose of preventing the blocking of the wound, otherwise the uveal tract is left completely alone. It will thus be seen that the operations are entirely different. Mr. Temple Smith concludes by expressing the opinion that, if the operation is carried out according to Colonel Elliot's directions and on the lines indicated above, it is the simplest and safest method of obtaining an effective fistulation of the anterior chamber.

MUSIC AS MEDICINE.

IN presenting Dr. R. C. Brown, of Preston, for the honorary degree of Master of Arts at Cambridge, in recognition of his benefactions to the new Research Hospital, the Public Orator took occasion to refer to the connexion between medicine and music arising from the fact that Apollo was the father of both Aesculapius and the Muses. On this ground it may be claimed that medicine and music are sister arts. But it is no mere poetic fancy that music is related to medicine. Much has been written in this JOURNAL and elsewhere on the therapeutic effects of music. Some years ago a society called the St. Cecilia Guild was

founded for the purpose of testing its action in various kinds of disease. The movement, though it received countenance and practical help from the late Sir Andrew Clark and other well-known members of the medical profession, had rather a flickering life, and soon died out. Some twelve years ago a similar movement was started in America with the approval, if we remember rightly, of Dr. Peterson, whose name is familiar throughout the world as an expert in mental diseases. The effect of music on a man has been measured by means of the ergograph. Experiment with that instrument has shown that when a lively air was played on a harp the man's tired muscles almost instantly regained their full vigour. The mandolin had the same effect. On the other hand, when a violoncello was used the man's arm became almost powerless, and his vitality decreased. In *Aesculape* for February last, Dr. Leon Demonchy discusses the influence of music on the organism. He says it has been demonstrated that it produces very singular reactions, varying in different persons, in the respiratory and circulatory systems. The degree of expansion of the lung is modified in accordance with the musical rhythm, and the pulse in certain people seems to keep time with the music. In nervous and impressionable subjects the Funeral March of Chopin played in the minor key caused diminution of the pulse and irregularity of respiration. The same piece afterwards played in the major key quickly restored fullness to the pulse and calm and regularity to the respiration. Church music has an effect all its own in bringing back peace and quiet to hearts bruised by the experience of life. But if music can calm, it can also excite. The legend of Orpheus is an expression of a belief in the power of music to excite energy and stimulate effort. We all know the effect of military music; it is recorded that when Napoleon was crossing the Alps he made the bands play when a particularly difficult place had to be passed. The *Marseillaise* and other airs have moved even timid men to deeds of heroism. In the treatment of disease music must be carefully adapted to the individual. There are some who share the feeling of Théophile Gautier that music is only the most expensive of noises. Sir George Trevelyan is careful to record the one occasion on which Macaulay is known to have recognized a tune. In such cases no good effect could be expected from music. It must also be adapted to the morbid condition. In depression lively strains are indicated; for insomnia what Dryden calls a "dying fall" is likely to lull the senses to oblivion. The late Rev. John Kill Harford, Minor Canon of Westminster Abbey, the moving spirit of the St. Cecilia Guild, wrote some music intended to produce this effect. We once showed it to a professional musician much given to "fireworks" in his execution without telling him what it was meant for. On asking his opinion he replied scoffingly, "Why, that stuff would put me to sleep!" He was surprised when informed that that was precisely the effect intended. Mothers and nurses have hit on a special kind of music which takes form in the lullaby. This is all on the medium notes. On deeper notes it has a bad effect on the children and makes them cry. It would be absurd to say that music has a direct curative effect; it does not play the part of morphine or the surgeon's knife. Nevertheless, as Pope says, "Music can soften pain to ease." Dr. Demonchy mentions a case in which a patient suffering from orchitis got relief by dancing all night to the sound of lively music. The music soothed the pain, and the rhythmical movements of the dance reduced the congestion of the inflamed organ! We scarcely think this method likely to be widely adopted. Another effect claimed for music is that it brings the patient to a state of mind that will prepare the way for cure. It is frequently used in our asylums, and has a sedative effect in cases where there is much cerebral excitement. Every year concerts are given at the Salpêtrière in Paris. At present there is a scheme for the organization of concerts in all the Paris hospitals, especially in those where there are patients suffering from mental disorder. Dr. Demonchy looks forward to a time when musicians will write music for a definitely therapeutic purpose, preventive and curative, soothing and exciting, according to the requirements of the case. Experiments made on dogs with a glandular fistula have proved that a difference of a semitone may produce or arrest the secretion of a gland. Haller noted that after venesection the blood flowed faster to the beat of a drum, and, if we are to believe Shakespeare, there are some "when the bagpipe sings i' the nose" cannot contain their urine." But our knowledge of the physiological effect of music is very vague. Nevertheless, an ingenious American, Robert Haven Schauffler—we must apologize if we misspell his name, which we take from an Italian journal—has, it is said, suggested a veritable musical pharmacopoeia. After close observation of the influence exercised by music on different kinds of pains, he, with the aid of expert musicians, compiled what may be called a musical prescriber's companion. For instance, against maniacal depression he recommends Wagner's "Ride of the Valkyrie," and the prelude of Dvorák's *Carnevale*. In cases of nervous exhaustion following intense work he prescribes the *Moldava* of Smetana, and some songs of Grieg. Against intense grief he suggests the execution of some studies of Chopin, the *Patetica* of Beethoven, and Dvorák's *Concerti* on the violoncello. Some of Bach's fugues are indicated in cases of mental somnolence consequent on the abuse of alcohol. Furious mania is to be treated by pieces with a solemn movement—as, for instance, the Choir of Pilgrims in *Tannhäuser*. Even for jealousy there is a musical remedy in the Prelude of the *Meistersingers*. Mr. Schauffler is convinced that there is a great future for the musical pharmacopoeia, and that it will not be long before a new class of doctor comes into existence—medical musicians, who after having examined the patient will, instead of a prescription, place in his hands a copy of a musical composition. There are already medical orchestras in Vienna and Paris, but what is here suggested is treatment by doctors who have made a special study of the effect of different kinds of music on different diseases. Should this dream be fulfilled it will add one more to the manifold problems that confront the Insurance Commissioners: What will be the place of the medical musician under Mr. Lloyd George's scheme?

STARCH AS A FOOD FOR YOUNG CHILDREN.

THERE is overwhelming evidence that the digestive disorders to which many young children are subject have resulted from the practice of feeding them upon certain foods largely composed of starch. Hitherto no very great effort has been made to prevent these foods being sold, beyond the general advice which is given to mothers and nurses by doctors and health visitors as to the harmfulness of them. The medical officer of health of the county of Rutland, Dr. Christopher Rolleston, has, however, succeeded in obtaining a conviction before the local justices against a chemist for selling a preparation of infants' food which contained upwards of 70 per cent. of practically unaltered starch, and which was therefore held to be not of the nature, substance, and quality demanded by the purchaser. The preparation was described as being suitable for an infant only a few days old. A dessertspoonful of the mixture was directed to be put into a basin to be mixed to the thickness of a smooth cream with cold milk or water; to this was to be added half a pint of milk and water in equal parts, and it was then to be brought to the boil. It was contended by the chemist that the boiling would convert the starch into sugar, and this view was supported by a member of the Society of Public Analysts. There are some artificially prepared infants' foods in which the

conversion of the starch into saccharine bodies is complete, but they do not contain 70 per cent. of starch. It is not very satisfactory that the harmfulness or otherwise of the preparation should be left to the decision of a local bench of magistrates—a course which may well be compared with that which it is now possible to adopt in Queensland under the provisions of the Health Act of 1911. Section 17 of that Act enables the Health Commissioner to cause to be examined any food which is advertised, for the purpose of ascertaining its composition, properties, or efficiency. He may then report the result of the examination to the Government and publish his report in any newspaper which circulates in the colony. Moreover, the Governor in Council may, on the recommendation of the Health Commissioner, prohibit the advertising or sale of any food which, in the opinion of the Commissioner, is injurious to life or health. Until such enactment is in force in this country it must be left to other medical officers of health to follow the example of Dr. Rolleston.

LIVINGSTONE'S FORESIGHT.

THE medical speaker on the occasion of the commemoration day proceedings at Livingstone College on Wednesday, June 5th, was Sir Havelock Charles, who stated that he did not think that Dr. Livingstone had received due credit for many of the suggestions in his diaries in which discoveries of subsequent workers were foreseen. For instance, on the subject of mosquitos, Dr. Livingstone wrote: "They appear so commonly at malarious spots that their presence may be taken as a hint to man to be off to more healthy localities." Then, again, "None appear on the highlands, on the lowlands they swarm in myriads: and myriads of mosquitos showed, as probably they always do, the presence of malaria." Again, in writing of the sickness caused by the bite of the tsetse fly, he considered it was due to "a poison in the blood"—"the germ of which enters when the proboscis is inserted to draw blood"—"the poison germ is capable of reproducing itself." Again, on the game reservoir question, now under inquiry, he wrote: "It is probable that where the game will perish, as has happened in the South, the tsetse, deprived of food, may become extinct simultaneously with the smaller animals." Sir Havelock Charles also considered that no one could give better advice regarding quinine than that given by Dr. Livingstone in the following words: "Quinine is invaluable in fever and never produces any unpleasant effects in any stage of the disease if exhibited in combination with an aperient." Sir Havelock warmly approved of the spirit of union which prevailed at the college, and said that all missionary societies would be well advised to send their students to take advantage of the opportunities afforded. He asked whether it was morally right for societies to send their men unprepared, willing though they were, to encounter disease, from which instruction would preserve them, while through such ignorance they would perish. He heartily wished success to the Livingstone College. The Principal, Dr. C. F. Harford, stated that the British missionary societies as a whole did not realize the importance of the facilities for elementary medical training offered at the college, and he hoped that the Board of Missionary Study, whose Secretary, the Rev. H. C. Weitbrecht, D.D., was one of the speakers on commemoration day, would be able to lead to a better recognition of the importance of this department of missionary preparation. He stated that a Livingstone Centenary Fund was being inaugurated in view of the centenary of Livingstone's birth in 1913, the sum of £10,000 being needed to clear off the mortgage on the college, to make necessary improvements, and to form the basis of an endowment.

"SHUTTLE-KISSING."

THE report of the joint committee of the Home Office and the Local Government Board on the alleged danger of transmitting certain diseases through the practice of what is known as "shuttle-kissing" is mainly interesting to the medical profession from the negative results reached. No absolute proof could be obtained that any out of the diseases which it had been suggested could be spread, or had been spread, by this means had, with the exception, perhaps, of dental caries, been so communicated. Information could only be obtained with respect to the following alleged instances of transmission of disease—namely, cancer at Oswaldtwistle (1 case), tonsillitis at Rawtenstall (4 cases), tuberculosis at Bacup (3 cases), phthisis at Tyldesley (2 cases), scarlet fever at Burnley (4 cases). None of these cases, however, could bear the brunt of inquiry. A male weaver had been detected with a foul cancerous growth of the mouth, and when he ceased work his looms were taken over by another without any cleansing of the shuttle, but no information could be obtained respecting transmission. As regards the cases of tonsillitis, there was an epidemic in the neighbourhood, and other cases, apart from those mentioned, existed in the same shed, so that, if of an infectious character, there would be no difficulty in two youths (not four), who had worked at the same looms, contracting the complaint in an ordinary manner. Personal investigation did not elicit any evidence definitely incriminating the shuttles, but showed that a girl who also used them was not affected. The 3 cases of tuberculosis at Bacup had undergone such magnification that one London paper had gone so far as to state that "eleven women working on the same looms, who had kissed the same shuttles, in one factory, had died of consumption," so that the committee was very exact in investigating the history of these cases. There was no evidence that the first case contracted the disease from shuttles, and a brother, who worked at the same looms, is still healthy and well; it was shown that the woman had consumed a large quantity of milk from a cow which had died from tuberculosis two years before her own death took place. The second case worked for a short period at the shuttle used by the preceding, but it is pointed out that as the effort is inspiratory—not expiratory—and as the saliva is not infective in this disease, there would be little likelihood of tubercle bacilli being deposited on the shuttle. There was, further, some doubt as to diagnosis, the death being certified to be due to tuberculosis of the peritoneum, whilst she had previously been treated for malignant liver disease; there was no necropsy. With respect to the third case, it is pointed out that if the shuttle had been infected by No. 1. it must have remained infected from September, when she was last at work, to the end of October, when No. 3 began using it, or that if infected by No. 2 the disease must have commenced, developed, and become infective in the short space of one month. Both these propositions are regarded as untenable. Investigation into the Tyldesley case of phthisis showed that a woman who worked with the phthisical weaver contracted the disease, but that "shuttle-kissing" had been the medium of infection was no more than an assumption. The 4 cases of scarlet fever occurred during the height of an epidemic, and other cases arose in the same shed without any apparent connexion with "shuttle-kissing"; it was not suggested that any of these latter led to secondary cases among weavers following them at their looms. Two of the patients were sisters living at the same house. In all the cases there appears to be no doubt that the origin of the disease could be accounted for through the more ordinary sources of infection. As regards the evil that has been made most of—namely, consumption, provided a weaver be in the requisite low state of health which permits of the development of this disease, the necessary bacilli could be picked up more easily and plentifully under common social conditions than through "shuttle-kissing." Reference has been made to saliva being non-infective, and

to the kissing effort being inspiratory, but it is worth while to point out that there are two other factors which tell against the ease of infection. The length of the weft contained in a cop varies, of course, within wide limits, but a very commonly used count will run to about 800 yards. This means that if the cloth is one yard wide, the shuttle pushes its way through the warp 800 times between "kisses." The shuttle itself is made of hard, close-grained wood, and has a very smooth surface, so that whilst there is practically no chance for absorption, any superficially deposited infected material would, it seems probable, be rubbed away as a result of the brushing received during a high-speed journey of nearly half a mile. The other point is that the eye has a portion of its surface rubbed by the weft during the whole of the time the shuttle is working, and in addition gets a complete wipe round at every reverse, that is to say, 800 times during this same journey. Undoubtedly, whilst there is very little in favour of this theory of contamination, there is much to be brought against it. As regards injury to the teeth, the committee is inclined to accept the view that dental caries is promoted by the practice, and, although the evidence is far from clear, the finding is probably correct. At the present time it is being strongly driven home to the public mind that the root of evil is the undisturbed deposit of starch in the various resting places to be found among teeth, and its subsequent decomposition in these positions. The weft contains no starch, but the warp is sized with a mixture of flour and soapy material, and a quantity of this is bound to get into the hollow part of the shuttle when working, and be sucked through the eye by the weaver. Any suitable resting places in the front teeth (which are said to be particularly affected) are kept well supplied with starch during the whole of the working hours. We do not incline to the belief that the lungs are much affected by the cotton fibres; the respiratory diseases which weavers were formerly much more subject to than at present are more correctly ascribed to defective steaming processes. The committee is content to sum up the whole position by quoting a recent resolution passed by the North-Western Branch of the Society of Medical Officers of Health—namely, "that this branch is of opinion that the habit of 'shuttle-kissing,' common in many districts in Lancashire, is objectionable and potentially dangerous to health; and thinks it desirable that means be taken by which the continuance of this practice may be rendered unnecessary." Various appliances are described, and it is thought that the adoption of those which may be considered most suitable may, at any rate for the present, be safely left to the employers.

ST. BARTHOLOMEW'S HOSPITAL.

SINCE Fate has ordained that St. Bartholomew's Hospital must fall into line with its fellows in the matter of begging, it is well that its first donation dinner on June 5th should have been held at such a centre of hospitality and philanthropic effort as has been the Mansion House for centuries past. The circumstances would seem to be a good omen for the success of the new departure. On the roll of St. Bartholomew's have been some of the greatest names in medicine in this country, and in the wards of the hospital, as the Lord Mayor pointed out, medical science in its progressive stages has constantly been focussed ever since the year 1123. At one time there were those who pretended to detect a tendency on its part to rest too much on its laurels; but there is certainly nothing suggestive of undue conservatism at the present date: indeed, the out-patient and pathological departments which were completed a few years ago may be regarded as on the whole almost unequalled, both in design and administration, by any like buildings in the kingdom. The financial difficulties in which it at present finds itself are in some degree due to the purchase some eight years ago of part of the old site of its neighbour, Christ's Hospital. Apart from the direct expenditure involved, the discussion which arose on this project had the unfortunate effect of creating in the public mind an impression that the institution was entirely independent. Whether the policy of the governors at that time was entirely wise is a question upon which there is, perhaps, room for difference of opinion, but in any case they had the support of a committee of independent business men and others who inquired into the matter, and there can be no doubt whatever that the claim of its treasurer, Lord Sandhurst, that the present management of the institution is proper and economical is fully justified. Despite this fact, there is now, besides a bank overdraft of some £57,000, an annual deficit of between £7,000 and £8,000, this being due partly to interest on building outlay in connexion with the two new buildings already mentioned, partly to corresponding efforts to keep abreast with scientific progress, and partly to a fall in the income derived from landed estates. In the course of the evening it was announced that the donations and annual subscriptions promised for a definite number of years represented a little over £33,000. Many of the larger donations came from the City guilds, whose close connexion with the hospital was interestingly described by Dr. Norman Moore in proposing a toast in their honour. Other speakers whose remarks helped to build up the case for generous support of this institution were Dr. Samuel West and Mr. Bruce Clarke, who spoke for the visiting staff. The toast to the latter was proposed by the Bishop of London, who mentioned that a predecessor of his had helped to secure the site of the hospital many hundred years ago. The concluding toasts were to the visitors, moved by Sir Alfred Cripps and acknowledged by Lord Aldenham, and to the Lord Mayor, whose professional knowledge of the merits of the hospital and its needs was, no doubt, one factor in his decision to give the appeal a send-off in the way of a Mansion House dinner. In acknowledging this toast, which was moved by Lord Hollenden, Sir Thomas Crosby said that the hospital was much indebted to Sir William Soulsby, C.B., C.I.E., for work in connexion with the appeal. The honorary secretary of the committee is Mr. Edwin Layton, of whose energy and enthusiasm over his task due acknowledgement was made.

SCIENTIFIC RESEARCH FOR THE LOCAL GOVERNMENT BOARD.

THE President of the Local Government Board has authorized the following special researches to be paid for out of the annual grant voted by Parliament in aid of scientific investigations concerning the causes and processes of disease: (1) Further investigations (*a*) as to the distribution of tubercle bacilli in children having died between the ages of 2 and 10 years, and the special characteristics of such bacilli; and (*b*) in collaboration with the General Register Office, on the incidence of different forms of tuberculosis in different parts of the country, according to age, sex, occupation, and other conditions. (2) A continuation of a research into the causes of premature arterial degeneration in man, by Dr. F. W. Andrewes, of St. Bartholomew's Hospital. (3) A joint investigation into the virus of poliomyelitis, by Drs. F. W. Andrewes and H. M. Gordon, of St. Bartholomew's Hospital. (4) A continuation of an investigation into the micro-organisms known as non-lactose fermenters occurring in the alimentary canal of infants, by Dr. C. J. Lewis, of Birmingham University, Dr. D. N. Alexander, of Liverpool University, and Dr. Graham-Smith, of Cambridge University. (5) A continuation of the investigation by Professor Nuttall, of Cambridge University, on fleas, and on the range of flight of the domestic and allied flies.

THE INSURANCE SCHEME.

STATE SICKNESS INSURANCE COMMITTEE.

Twelfth Meeting.

THE twelfth meeting of the State Sickness Insurance Committee was held on June 7th.

Mr. T. JENNER VERRALL was in the chair, and the members present were: *England and Wales:* Dr. R. M. Beaton (London), Dr. John Brown (Bacup), Dr. T. M. Carter (Westbury-on-Trym), Dr. R. E. Howell (Middlesbrough), Miss Frances Ivens, M.S. (Liverpool), Dr. Constance E. Long (London), Dr. R. A. Lyster (Winchester), Mr. James Neal (Birmingham), Dr. H. F. Oldham (Morecambe), Dr. James Pearse (Trowbridge), Dr. E. O. Price (Bangor), Dr. Lauriston E. Shaw (London), Dr. Johnson Smyth (Bournemouth), Dr. D. F. Todd (Sunderland), Mr. E. B. Turner (London), Dr. A. H. Williams (Harrow on the Hill), Mr. D. J. Williams, F.R.C.S. (Llanelly), Mr. E. H. Willock (Croydon). *Scotland:* Dr. J. Adams (Glasgow), Dr. Bruce Goff (Bothwell), Dr. R. McKenzie Johnston (Edinburgh). *Ireland:* Dr. Mark Cahill (Belfast), Dr. J. S. Darling (Lurgan). *Ex Officio:* Dr. J. A. Macdonald (Chairman of Council), Dr. E. J. Maclean (Chairman of Representative Meetings), Dr. E. Rayner (Treasurer).

Apologies for absence for unavoidable reasons were received from the President, Dr. S. Hodgson (Salford), Dr. J. Munro Moir (Inverness), Dr. D. G. Thomson (Thorpe, Norfolk), Dr. A. G. Dampier-Bennett (Dublin).

We are enabled to publish the following account of the proceedings in anticipation of the confirmation of the minutes.

VACANCY ON COMMITTEE.

THE CHAIRMAN OF REPRESENTATIVE MEETINGS stated that as the result of the voting by representatives of constituencies concerned, Dr. Dampier-Bennett, Dublin, had been appointed to fill the vacancy upon the Committee created by the resignation of Dr. F. W. Kidd.

ADJOURNED MEETING.

In the absence of Mr. Verrall, who was attending the General Medical Council, Dr. MACLEAN took the chair.

PROVISIONAL MEDICAL COMMITTEES.

It was reported that 188 Provisional Medical Committees had been formed, an increase of 15 since the last meeting.

PROPOSED CONFERENCE WITH COMMITTEE OF LICENSING BODIES OF ENGLAND.

The question of co-operation with the joint committee of the licensing bodies of England was again raised. At its meeting on March 21st, 1912,[1] the Committee had adopted a resolution in which it stated that it would welcome the co-operation of the joint committee of the licensing bodies of England, and suggesting that the best form that such co operation could take would be to hold a conference for discussing any matters as and when occasion arose. The Committee was now informed that, as stated last week, a meeting of the joint committee had been held, and had resolved to hold a conference of representatives of the medical staffs of the various London hospitals on June 14th. Under these circumstances the further consideration of the matter was postponed.

LOCUMTENENTS.

Resolutions from the Wandsworth Provisional Medical Committee, stating that the medical practitioners in the area had refused to engage any locumtenent who had not signed the pledge, and recommending the State Sickness Insurance Committee to bring the matter under the notice of other Provisional Committees, were considered. The Committee expressed approval on both heads, and on consideration of a further resolution from the same Provisional Committee resolved to inform the medical agents of the action being taken by the Association in endeavouring to influence members not to engage locumtenents who had not signed the pledge of the Association, and pointing out that it would probably be to the advantage of medical agents similarly to ensure that all locumtenents supplied by them should have signed the pledge.

[1] BRITISH MEDICAL JOURNAL, March 30th, 1912, p. 719.

MEDICAL PRACTITIONERS AND PROVISIONAL INSURANCE COMMITTEES.

A communication was read from the Honorary Secretary of the Reading Provisional Medical Committee, and the Committee adopted the following resolution:

> That the Honorary Secretary of the Reading Provisional Medical Committee be informed that, so far as invitations from the Commissioners are concerned, the decision of the Committee was conveyed to the Commissioners in a letter of May 31st, published in the BRITISH MEDICAL JOURNAL of June 8th,[2] but that, so far as practitioners are concerned who are members of county or county borough councils, and who are appointed by their councils *qua* members to fill positions which could equally well be filled by laymen and not *qua* medical practitioners to fill positions which could only be filled by medical practitioners, the Committee raises no objection to the acceptance of such appointments.

REMUNERATION.

Arising out of the deputation that morning to the Insurance Commissioners, the question arose whether the Committee should forward to the Insurance Commissioners before the next meeting (June 12th) information in the possession of the Association supporting the demands for a capitation fee of 8s. 6d. It was resolved that the Committee should forward such information, and it was left to Mr. Verrall (Chairman of the Committee), Dr. Pearse (Chairman of the Remuneration Subcommittee), and the Medical Secretary to prepare such a statement, and forward it to the Commissioners.

PUBLIC MEDICAL SERVICE SCHEMES.

The Medical Secretary reported that the Public Medical Service Schemes had been submitted to counsel and to the Solicitor of the Association, that certain alterations had been made in the form of the schemes; that the Special Subcommittee appointed (Minute 374, Meeting, May 6th, 1912) to settle and finally issue the schemes had approved these alterations; that the schemes would appear in the SUPPLEMENT of the BRITISH MEDICAL JOURNAL of June 8th, 1912; and that the attention of Provisional Medical Committees and Divisions had been specially drawn to the matter as demanding their urgent consideration. The Committee approved the action taken by the Special Subcommittee in issuing the schemes.

Thirteenth Meeting.

The thirteenth meeting of the State Sickness Insurance Committee was held on the morning of June 12th.

REMUNERATION.

The Committee had before it a memorandum on the amount of remuneration of medical practitioners under the Insurance Act which had been drawn up by the Subcommittee in accordance with the resolution of the Committee on June 7th (see above). This memorandum, which will be reported to the Divisions and the Representative Meeting, contained an analysis of the figures put to the Committee by the Chancellor of the Exchequer at the deputation on June 7th, and further evidence based on conditions of present contract practice, pointing out the defects of the system and the deficient remuneration. The memorandum had been placed in the hands of the Chancellor of the Exchequer on the previous day, and its terms were approved by the Committee and a cordial vote of thanks passed to Mr. Verrall and his colleagues on the subcommittee.

SANATORIUM OFFICERS.

The Committee had before it a communication from the Scottish Medical Insurance Council asking its opinion with regard to the attitude to be adopted with reference to the appointment of sanatorium officers under the Insurance Act. The inquiry asked whether the decision would be affected by the circumstance that the appointments are offered by county councils of Insurance Committees. In considering the matter, the Committee had before it Minute 78 of the Special Representative Meeting of February 22nd, 1912, as follows:

> That it be an instruction to the Council to take all possible steps to ensure that no member shall take any office or work under the National Insurance Act other than that of the Advisory Committee until such time as the minimum demands of the profession are conceded in the regulations or an amending Act.

[2] SUPPLEMENT, p. 600.

Having regard to this resolution, the Committee decided that, in view of Minute 78 of the Special Representative Meeting, *no medical appointment* be accepted for the administration of sanatorium benefit until such time as the minimum demands of the profession are conceded.

The Committee after transacting some further business, which will be reported, adjourned at 9.15 p.m.

DEPUTATION TO THE CHANCELLOR OF THE EXCHEQUER.

June 7th.

As stated in the report published last week, p. 1239, the Committee in expressing its inability to comply with the request of the Insurance Commissioners to obtain from various Provisional Medical Committees of the Association the names of representatives for the suggested Provisional Insurance Committees until such time as the Association was satisfied that the minimum demands of the medical profession in regard to the Act had been or would be settled, had intimated to the Commissioners that if it would be of any assistance to them to have an immediate conference with the Committee the Committee was quite prepared to place itself at the disposal of the Commissioners. To this intimation the following reply was received:

National Health Insurance Joint Committee,
Buckingham Gate, London, S.W.,
June 3rd, 1912.

Sir,

In reply to your communication of the 31st ultimo, the Commissioners have pleasure in stating that the deputation which your Committee propose to send to the Commission to obtain information on the two points specified at the commencement of your letter will be received here on Friday next at eleven o'clock.

I am, Sir,
Your obedient servant,
(Signed) W. J. BRAITHWAITE.

The Medical Secretary,
British Medical Association,
429, Strand, W.C.

The Committee thereupon, at its meeting on June 7th, resolved to accept the invitation, and that the whole of the members present attend such deputation.

The Committee accordingly adjourned and proceeded as a deputation to the offices of the Insurance Commissioners.

The deputation was received by the Chancellor of the Exchequer, who was accompanied by Mr. Masterman, Sir Robert Morant, and certain members of the English, Scottish, and Welsh Commissions. At an early stage, owing to the crowded state of the room, the deputation left the offices of the Insurance Commissioners, and the interview was continued at the Treasury, Mr. LLOYD GEORGE being in the chair throughout. A brief report was issued to the press, as follows:

At the request of the Chancellor, the members of the deputation elaborated and defined the demands stated in the letter in question, and in the course of the discussion the Chancellor found himself able at once to state that on several of these points the Act and the regulations to be made under it would secure the objects which the profession had in view, while on others further discussion would be necessary.

On the important point of the amount of remuneration for medical services under the Act, the Chancellor pointed out that the Government had acted on the information available to them in framing their original estimates, and that, when challenging that estimate as inadequate, and demanding a rate of remuneration of "8s. 6d. as a *minimum* capitation fee not including extras and medicines," the representatives of the profession might reasonably be expected by the Government to furnish the facts and figures on which they based this higher demand.

It was finally arranged that the deputation should meet the Chancellor again next Wednesday, and would then lay before him the facts in their possession in support of their claims. The proceedings closed at 2 p.m.

June 12th.

The Committee again attended as a deputation on June 12th, and had an interview with the Chancellor of the Exchequer, at 3.45 p.m., at the House of Commons. The Chancellor criticized the memorandum prepared by the Association paragraph by paragraph, and recurred to his request that the Association should furnish facts and figures upon which it based its higher demand. He desired information with regard to the conditions and remuneration of actual practice at the present time among the industrial classes, and proposed that an independent actuary be appointed to investigate the books of all practitioners in certain towns in Great Britain. He appealed to the Association to assist him in inducing medical practitioners to allow such an investigation to be made, and agreed to send a copy of the report made by the actuaries to the State Sickness Insurance Committee at the same time as it was submitted to himself. The interview did not lead to any conclusive results, and the rumour published in certain papers that a settlement had been arrived at on the basis of an 8s. 6d. capitation fee to include the provision of drugs is altogether incorrect. No such offer was made, and had it been made the Committee was not in a position to accept it, and could not have done more than receive it for report to the Divisions and the Representative Meeting.

The Committee resumed at 6.30, when it received the following letter from Sir Robert Morant:

National Health Insurance Commission (England),
Buckingham Gate, London, S.W.,
12th June, 1912.

Sir,

I am directed by the Chancellor of the Exchequer to advert to the Memorandum forwarded by your Association on Monday last regarding the question of medical remuneration under the Insurance Act. In that Memorandum your Association put forward arguments in support of the Association's demand for a general capitation fee of 8s. 6d., to which (as is shown) is to be added remuneration for certain extra services and the cost of provision of drugs and appliances. You will remember that, in reply to the Chancellor's request at the conference this afternoon for the facts on which the Association based its views as to the figures in your Memorandum, it was admitted that facts were not, as yet, available (except for certain small sections of the subject) as a basis for those estimates. The Chancellor accordingly indicated that in his view an investigation was clearly necessary in order that ascertained facts might be made available as regards existing conditions in respect of medical attendance and remuneration, without which facts it is not possible for the Government or Parliament to form a considered judgement as to those demands.

I am now directed to forward you a Memorandum, prepared in accordance with the request made by your Committee this afternoon, indicating the nature of the facts required.

I am to add that the statement of facts arrived at by the Investigator in the case of each of the towns will be placed at the disposal of your Association at the same time that they will be given to the Chancellor, and that it will, of course, be open to your Association to use the facts in whatever way may seem to you best for your purposes.

It will, of course, be understood that no names will be given in the Investigator's reports, and that every step will be taken to secure that all information as regards individuals shall be kept strictly confidential by the Investigator and his assistants. As requested by your Committee, each practitioner will be given an opportunity of considering and making observations on the Investigator's Abstract of the facts relating to his own practice before the Investigator submits to the Government any report based on those facts.

The expenses incurred by the Investigator will be borne by the Government.

The Chancellor would also be glad if your Association would place at his disposal, in further illustration of your last Memorandum, any facts already in the possession of your Association that would throw light upon existing conditions of medical practice and remuneration, whether as to types of practice or particular practices. And he considers it would be useful if, by circularizing the members of your Association or otherwise, you would let him know the actual facts at the present time in regard to the question on which various views were

expressed this afternoon — namely, the number of Assistants now employed in professional practice.

The Chancellor requests that, in order to save time, you will let him know at once should you find any reason for preferring to substitute some other town for any one of those suggested by him. I am also to ask that you should furnish him with the name of an Accountant whom your Association would regard as suitable for the purpose in view, or three names of which the Chancellor might select one, if this be preferred.

You will observe that, in view of the difficulties pointed out this afternoon by your Association as likely to cause delay in attempting to distinguish those who are in future likely to be insured from the rest of the population, it is recognized to be necessary that no section of the population be excluded from the scope of the inquiry in the towns named, and the instructions to the Investigator have been drafted accordingly.

I am,

Your obedient servant,

Robert L. Morant.

Memorandum.

Proposed instructions to the Investigator to be appointed by the Chancellor to inquire into existing conditions of medical work and remuneration.

1. The object of the inquiry is to ascertain certain facts as to the total medical attendance given under existing conditions by all the medical practitioners of certain specified towns to the total population of those towns, and the total income received by the total practitioners of those towns in respect of such medical attendance.

2. The towns to which the inquiry is to relate are to be six in number. The selection will be determined by the Commission after consultation with the Committee of the Association.

3. The particulars required are to be ascertained from the books of the medical practitioners of those towns and from certain other sources specified herein in respect of the years 1910 and 1911.

4. The particulars both of work and remuneration relating to persons residing outside the towns named, who employ as their ordinary medical attendants practitioners resident in those towns, must be stated separately from particulars relating to attendance given to, and money received from, residents of the towns.

5. Particulars, if any, of services rendered to patients attended under contract in respect of a capitation fee, and in respect of any part time public or other medical appointment, and of remuneration received in respect of such services, must be kept separate from work done and remuneration received in the course of ordinary private practice.

6. The particulars as to work are to show separately:
   - (*a*) Visits paid at the patient's house.
   - (*b*) Attendance on the patient at the doctor's surgery.
   - (*c*) Medicines supplied.
   - (*d*) Operations and other services in respect of which special fees are charged.
   - (*e*) Certificates and reports for the furnishing of which a charge is made.
   - (*f*) Fees for attendance at coroners' inquests; work such as giving evidence at law courts which are not part of medical treatment, and in respect of which fees are received. And
   - (*g*) Any other properly separable items of medical services.

7. The particulars of remuneration received should show—
   - (*a*) The gross income of the practice from all sources.
   - (*b*) The ordinary fees charged to patients.
   - (*c*) So far as ascertainable the amount of bad debts.
   - (*d*) Deductions that should be made from gross income, to arrive at net income, in respect of—
     - (i) Cost of drugs and other materials supplied to the patients.
     - (ii) Salaries of assistants (if any) [each assistant to be stated separately and whether indoor or outdoor].
     - (iii) Cost of collection of accounts.

8. Particulars of patients attended in hospitals and other charitable institutions, and in Poor Law infirmaries, to be obtained by the investigator from the authorities of the institutions.

The Committee having considered the letter resolved to inform the Commissioners that it was prepared to give them every possible assistance in the collection of the information desired, but at the same time to point out to the Commissioners that the Committee had no power to make practitioners throw open their books for investigation, though it was prepared to advise practitioners in the selected towns to assist in the collection of the information.

Medical Notes in Parliament.

[From our Lobby Correspondent.]

The Local Government Board.

The vote for the expenses of the Local Government Board came on, as arranged, last week, but, although it produced a very lively and critical debate, it ended inconclusively, and the money will probably be voted without further discussion. Many members feel that this is very unsatisfactory, as there is no department which has more to gain by adequate debate.

Sir A. Griffith-Boscawen, who opened the discussion, moved a reduction of £100 in the salary of the President of the Board in order to call attention to the administration of the law relating to housing. There were two great branches of the housing problem—namely, the rural and the urban. In regard to the rural problem, the incontestable fact was that in many parts of England it was quite impossible to obtain decent, sanitary houses. In many villages there was a large number of insanitary dwellings which might be closed and demolished under the Housing and Town Planning Act, but that could not be done because there were no other houses for the people to live in. As regards the urban aspects of the problem, slums must be stamped out. About 200,000 deaths a year were attributable to overcrowding. A housing policy on the part of the Local Government Board was lacking. What was urgently needed was a special expert department, having an intelligent policy and power to make suggestions to the local authorities. He had ventured to submit such a proposal in a bill which he had brought in.

Mr. Hills, who seconded the motion for reducing the vote, criticized the department for slowness in reforming Poor Law administration. In spite of urgent appeals, there were still some 9,000 healthy children of school age in the workhouses. At the present rate of progress he calculated that it would take the Board twenty to twenty-five years to get them out.

Mr. Allen, Mr. W. Guinness, Mr. Bentham, and Lord H. Cavendish Bentinck followed, and all condemned the want of progress in rural and urban housing.

Sir A. Spicer spoke strongly in favour of better administration for Poor Law children.

Mr. Astor complained of the neglect of the President of the Local Government Board to deal with the Poor Law system. The right hon. gentleman claimed that the Old Age Pensions Act and the Insurance Act had each carried out some of the recommendations of the Poor Law Commission, but Mr. Astor maintained that the right hon. gentleman had no right to bring forward such a plea, more especially in regard to the problem of the feeble-minded. The system under which these people were dealt with had been condemned by all the experts who had looked into it and by a Royal Commission, yet the right hon. gentleman had done nothing to give the local authorities a lead or to make them recognize the importance of the problem.

Mr. Peto called attention to the case of the vaccination officers. Mr. Lansbury supported him, and then spoke of the feeding of school children.

Dr. Addison supported the appeal made on behalf of the vaccination officers whose salaries had been reduced by the action of Parliament. He drew the attention of the Committee to the condition of our milk supply, which he described as deplorable. In our existing legislation there was nothing which was in a more hopeless tangle than the law with regard to milk, and what was wanted was for the Local Government Board to bring forward a national scheme on simple and uniform lines.

After some other speeches, all critical,

Mr. Burns rose to reply to the three and a half hours' criticism. Answering first the questions put last in regard to the milk supply, he stated that the President of the Board of Agriculture and himself hoped to pass this year the Milk Bill introduced on a former occasion. It was probable that the measure would be less contentious now because the interval of time since this legislation was first proposed had enabled interests which appeared to be almost irreconcilable to adjust their differences. In regard to the milk and cream regulations, he undertook that the various interests affected should be made aware of the intention of the new order before it was enforced. As to the milk supply, there was a great deal that local authorities could do under existing powers. How much could be done by good administration was seen in London, where last year 1,144 milkshops were struck off the register because the premises were unsuitable, the authorities responsible for the action taken being the borough councils, the London County Council, and the Local Government Board. Explaining the preparations made by his department for the administration of the Insurance Act on the public health side, he said that as soon as there were signs that the measure would be passed directions were given respecting the operation of the clauses relating to tuberculosis and sanatoriums. Steps had been taken to ascertain from local authorities the number of beds they had for patients and the number wanted, and the information collected had been placed at the disposal of the Treasury and the Insurance Commissioners. With regard to the question of outdoor and indoor relief children, he said that the Durham Union had taken two houses in different parts of the city for their thirty-one children; and a number of the adjoining unions, including Sunderland, Hartlepool, and Hexham, either had transferred their Poor Law children from their workhouses or were engaged in doing so. He held that there was no place like London for experiments as to the treatment of vagrants and casuals. It was impossible to have a satisfactory state of things so long as twenty-four boards of guardians worked on different plans. He had, therefore, centralized the work and made the Metropolitan Asylums Board the body for dealing with this part of the Poor Law problem. The various authorities were working most heartily together, and he trusted that out of this system of centralization a plan of dealing with casuals might be evolved which might apply to other parts of the country. Of the three cardinal points in the Minority Report—namely, labour exchanges, insurance against unemployment, and the introduction of day training centres—two had been carried out by a Government department. The introduction of day training centres was not the work of the Local Government Board, but lay with the Board of Education on the educational side, and on the criminal side with the Home Office, but there, again, he maintained that considerable progress had been made. Much had been done by segregation, by special classification, and by special treatment during the last year or two to deal with the feeble-minded persons under the care of the boards of guardians. Boards had been combined for this purpose, and existing buildings, which were not so full owing to old age pensions and other reasons, had been used. It had been said that the pauper lunatics had increased from 111,000 to 121,000, but the actual increase in lunacy was not commensurate with the statistical increase. Lunatics, who years ago were allowed to wander round the countryside, were now gathered into institutions. There was reason to hope for a diminution in lunacy, seeing that the drink bill had dropped 25 per cent. in ten years, and £40,000,000 less was now spent on intoxicating liquor. Another remarkable fact was that lunatics were now far less violent, and even in large asylums there were often several months when there were no padded-room cases. There had been a large reduction in the number of children in workhouses during the last four or five years. In London there were practically no children in the workhouses who could safely be detached from their mothers. London had solved the problem, and the methods which had been successful there would be forced upon recalcitrant boards of guardians. In some areas 50 to 70 per cent. of the accommodation in hospitals for infectious diseases was not required, and where possible it had been used for the treatment of sick children on outdoor relief. In two institutions alone 9,000 children had been treated in two years. It had been asked whether it would be possible for children of school age to go to the education authorities. There was no evidence that the education authorities were willing to do the work, but they would consider it when they discussed the prevention of overlapping. There had been a diminution from fifty to seventeen in the past year in the number of workhouses used as places of detention, and he hoped the number would be further diminished. It had been urged that children dependent on out relief ought to receive more relief than they were now getting. Generally speaking, that was true, and the Local Government Board was doing everything within its power to persuade, and, in some cases, to compel, the guardians to treat widows with children more liberally. Of course, it was necessary that precautions should be taken to ensure that the increased amount really went to the children. It was also necessary to see that it was not, as had happened in the East End of London, taken advantage of by employers to establish sweating wages. The suggestion that boards of guardians should be allowed to subscribe to care committees to take over the children who now received outdoor relief should be taken into consideration. There had been twelve formal complaints under the Housing Act. Of these, seven had been inquired into, and, as a result, houses were being provided in three cases. The Local Government Board had never said, and did not intend to say, that everything was right in the matter of housing. Considering the short time the Housing and Town Planning Act had been in operation, and the slowness with which some local authorities, including even the London County Council, moved, he thought that, on the whole, reasonable progress had been made. He could not accept the suggestion that three housing commissioners should be appointed; but he might appoint four or five housing inspectors, who would do more good in one year than the hon. member's three commissioners would do in five or six years. The amount of loans sanctioned in no sense represented what had been done in the way of the provision of housing accommodation. To take as the measure of housing reform what local authorities themselves did was entirely to ignore what private enterprise was doing, and which was seventy or eighty times more than what local authorities attempted. It was quite true that only one town-planning scheme had been finally sanctioned. But one of the chief merits of the Act was that they could peg out the whole county into possible town-planning schemes, and he was more concerned to get local authorities to suggest, as they had suggested, town-planning schemes than he was to give final sanction to one, two, or even half a dozen schemes. The case of the vaccination officers lay in a nutshell. There were 1,420 vaccination officers, of whom only 61 had made complaint. Of these, 41 had been compensated by boards of guardians since the complaints were made, and in two other cases the guardians had been compelled by him to give compensation. In eight cases no compensation had been given, and the remaining ten cases were under consideration. Apart from these 61 cases a large number of vaccination officers had received fees or gratuities by way of compensation for loss of income. These men had been treated not only fairly, promptly, and generously, but they had received more consideration than they ever asked for.

At this point the debate was interrupted by the motion for adjournment over the transport workers' strike. Mr. Hunt was speaking at the time, and continued his speech when the motion for the adjournment was withdrawn. Mr. Hunt called attention to the London Meat Market, and Mr. King, who followed, asked about the census.

Mr. Burns stated that the complete census would be delivered to the public not later than the middle of July next, and that therefore it was not considered advisable to go to the expense of reprinting the preliminary census. The vote had not been obtained at 11 o'clock, when the debate stood adjourned under the standing order.

The Housing of the Working Classes Bill.—This bill still continues its eventful career in Grand Committee. When its consideration was resumed after the Whitsuntide recess the question of the relaxation of by-laws was resumed. The Government met the relaxation proposed

in Clause 6 limiting it to schemes proposed by a local authority and approved by the Local Government Board. Sir R. Baker moved to amend the amendment by extending it to private schemes. This was strongly opposed by Mr. Burns, who said the effect of the amendment would be to cover the country with cheap and nasty buildings. Sir R. Baker then moved the closure, which was carried by 16 to 14, and the amendment passed by the same numbers. The Chairman said the Clerks had pointed out that the closure to be effective had to be carried out by 20 votes for it, but under the circumstances he ruled that the voting on the amendment was in order. Sir Griffiths-Boscawen said he supposed the Government would next reject the amended clause, which would destroy the bill. Mr. Lewis protested against this remark, and said the responsibility would rest with those who had amended the bill too strongly.

The Vote for Education.

This vote, amounting to some 14½ millions, was before the Committee of Supply on Thursday of last week, and the new Education Minister, Mr. J. A. Pease, made the usual statement. His speech was a straightforward, practical account of the work of his Department. He devoted some time to the feeding of the children and to medical inspection and treatment. He said: I want for a moment to touch upon the medical branch, which, I think, is one of peculiar interest. The number of meals given to school children in the country throughout the past year was 16,872,000. In London 9,138,000 meals were given to the children attending the schools. The cost of the food was £89,600, and the other cost in connexion with the provision of these meals was £63,000, making a total of £153,000, and we only recovered from the parents voluntary contributions of £1,370. Sir George Newman's report, I think, has been read by a great number of Members in this House, as well as being interesting to a great number of people outside. I do not propose to deal with many matters to which the report relates, but I may remind the Committee what was the result of the medical inspection of the children. It proved that 10 per cent. of the children in attendance at our elementary schools were defective in eyesight, 4 per cent. were defective in hearing, about 7 per cent. suffered from adenoids or enlarged tonsils, 40 per cent. were suffering from decayed teeth, 35 per cent. were verminous, and 1 per cent. were tuberculous, and between 1 and 2 per cent. had heart disease. I am glad to say the local education authorities have already been doing a good deal to try and deal with the ailments of these children. Seventy-eight authorities have established nurses, seventy-two authorities are practically giving free spectacles to the children who require them, children are treated by twenty-two authorities in their hospitals, and forty-eight authorities have already established clinics. I have secured from the Treasury a grant this year of £60,000 to help and encourage the local education authorities in treating these ailments, and I believe that amount will have to be extended in the years to come. The House has so far been kindly disposed in not criticizing me too much in regard to the regulations which I have circulated in connexion with the distribution of this £60,000. It is the first year we have had at our disposal any grant to help the local education authorities in treating children for their ailments. I have indicated in these regulations and by replies to questions in this House that as a general standard we hope to be able to pay £1 for £1 in connexion with the work done, but during the first year we desire a certain amount of latitude to be given by the House, because we are not quite sure how much work may be undertaken during the current year by the local education authorities, and we shall have to do the best we can with the £60,000 at our disposal. I may perhaps be allowed to say one word in connexion with the care committees. A large number of care committees have been established throughout the country to look after the children and to act as go-betweens between the local education authorities and the parents and to try and assist children who have to be operated upon or who require attention. There are in London in connexion with this work 990 committees, and there are 6,500 individuals who are already sacrificing a great deal of their time in voluntarily undertaking this work on behalf of the elementary school children in London. They are doing excellent work, and I think we are fortunate in having in our country so many people ready to come forward and do this kind of work. More strength to their elbow. I should like to say one or two words with regard to the mentally defective. There are 48,000 mentally defective children of school age, and of those we believe that about 32,000 are educable. Of the 32,000 that are educable, about half can be treated in special schools, and be taught to maintain themselves and become satisfactory and excellent citizens. If they are not treated in special schools, they will degenerate and become, as they do now, to a large extent, wasters. They may tend to become criminals and help to fill our gaols, or they may tend to become imbeciles and help to fill our asylums, or they may tend to become paupers and help to fill our workhouses. Therefore, from a national investment point of view, it is of importance that everyone should do their best to try and see that special schools are created in this country with a view of educating all the children who are apparently mentally defective but who are educable. One-third of these children, I say, can be taught to maintain themselves, one-third can be taught to partly maintain themselves, while one-third are uneducable and will have to be treated by the authority that is about to be set up for the mentally defective by the bill which I trust may before many weeks be passed through Parliament. I admit in connexion with this matter that more money ought to be given by the State, and I am glad to say that at the present time the Government are considering how they can encourage local education authorities to build special schools in order to look after the educable mentally defective children. The discussion lasted the whole sitting after an interruption on a motion for the adjournment, and in the end, like the Local Government Board vote, the money was left over for further debate.

Tuberculosis in the Navy (Writers).—Mr. Middlemore asked whether tuberculosis was more prevalent among writers than any other class in the navy: and, if so, whether this was shown to be attributable to the badly ventilated and lighted offices in many of His Majesty's ships. Dr. Macnamara said that the ratio of cases of tuberculosis per 1,000 of all ranks in 1909 was 2.83; of naval writers, 2.54. The ratio per 1,000 of all ranks in 1910 was 2.29; of naval writers, 3.84. No inference of any particular value could be drawn from these ratios, as the total number of writers borne compared with the total of all ranks was small. In 1909 the total number of writers borne was 787 with two cases of tuberculosis. In 1910 the total number was 782 with three cases.

Malay States: Sanitation.—Mr. McCallum Scott called the attention of the Secretary of State for the Colonies to the report of the Selangor Health Department, and to the difficulties and obstruction offered by certain planters to sanitary regulations, the neglect of the medical inspection of the labourers' dwellings, and asked what steps he proposed to take. Mr. Harcourt said he had seen in the press an extract from the report to the effect quoted in the question. He had no doubt that the Local Government would take any steps that might be necessary or desirable.

Tuberculosis Grant.—Mr. Sanders asked the Chancellor if his attention had been called to the recommendation made by the Departmental Committee on Tuberculosis that any scheme dealing with that problem should provide institutions and methods available for the whole community; whether any portion of the £1,500,000 set apart last year for the treatment of tuberculosis would be available for the treatment of non-insured persons; whether capital grants to be made in accordance with the report of the Departmental Committee would be available for beds to be occupied by non-insured persons; and, if not, was the cost of providing the necessary accommodation for non-insured persons where charitable institutions did not exist for the treatment of tuberculosis to be made entirely out of the county rates. Mr. Masterman said that the answer to the first three parts of the question was in the affirmative. The fourth did not therefore arise.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

LEEDS.

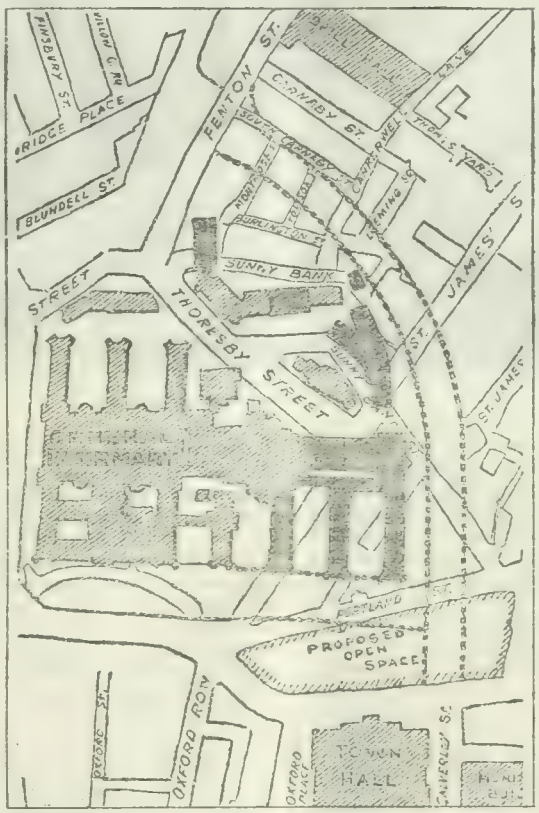
KING EDWARD MEMORIAL.

Extension of the General Infirmary.

IT will be remembered that the great memorial to King Edward in Leeds is to take the form of substantial extensions and improvements in the general infirmary, and in these columns some indication of the ideals of the board of management has already been given. These comprise the provision of additional ward accommodation, so that a greater number of in-patients may be dealt with, the building of a new suite of operating theatres, the provision of additional accommodation for nurses, and the modernizing of the existing wards and of other parts of the buildings which, it must be remembered, were opened in the year 1868.

Some of these ideals have been attained; thus eight of the large wards have been thoroughly overhauled and are now all that could be desired, the block which was damaged by fire has been opened for work for some time, and its reconstruction has secured an addition of thirty beds to the infirmary, and some increase has been effected in the accommodation for nurses.

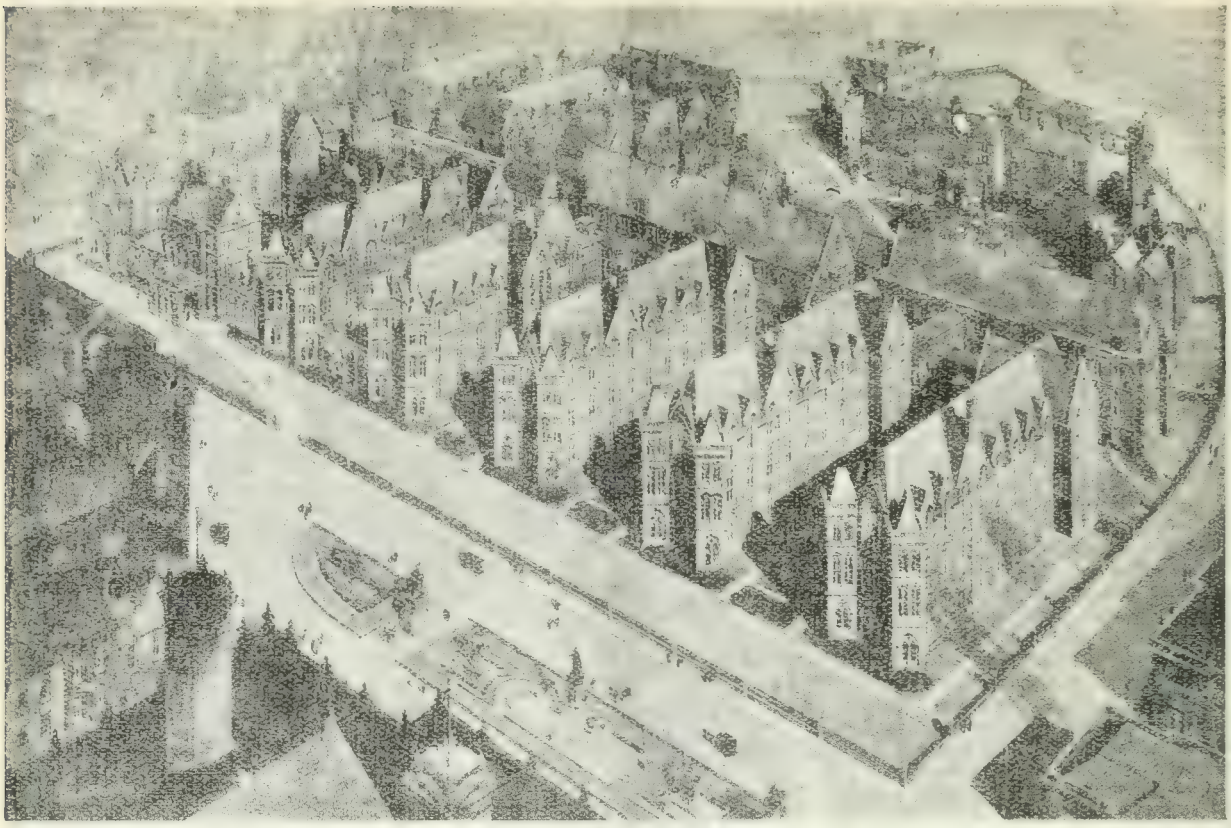
Before these alterations and extensions were decided upon a careful consideration was given by the board to the capabilities of the present site of the infirmary for any future and possibly extensive developments. Surrounded as it is by thoroughfares, any extension in continuity with the present site did not at first occur to any one as possible. It is true that the new nurses' home, which the infirmary owes largely to the generosity of the late Mr. James Stables, a member of the board, as well as the isolation department, are situated on the far side of Thoresby Street, and are connected with the main buildings by subways.



Plan of Infirmary Extension (the new portions being shown black) and the proposed new street.

Happily, it occurred to Mr. Charles Lupton, the chairman of the weekly board, that the purchase of some property to the north of the infirmary might enable a rearrangement of some of the streets surrounding the infirmary to be carried out, whereby, partly by the closing of Thoresby Street, and partly by the utilization of some of the new area secured, a considerable extension of the infirmary could be carried out. The whole future of the infirmary depended on the decision which had to be taken on this important point. If it were not done, then any necessity in the future which might arise for a substantial increase in the hospital accommodation of Leeds would have to be met by a new infirmary, and it is generally held that one of the points in which Leeds is fortunate is the possession of one large general infirmary, for there is under this condition less danger of hospital abuse and better teaching facilities for the students of the school. The present site of the infirmary has many and obvious advantages; it is central, convenient for the railway stations, and close to the medical school and to the medical centre of the city. The property was purchased, and as was anticipated, permission was given for the alteration in the streets, and the possibility of some considerable extension of the infirmary was secured. All this became common knowledge some months ago. It soon became clear that the future of the infirmary could be safeguarded for probably at least a couple of generations if a considerable amount of additional property could be secured to the east of the present site. Strengthened by the knowledge that what they had in mind would be not only an admirable scheme for the infirmary, but would enable a great improvement touching some important traffic routes to be carried into effect, and confident therefore that the scheme would command the support of the public and of the corporation, the board has adopted the bold course of acquiring a very considerable amount of property to the east of the infirmary. The knowledge of this has been made public during the last few days, and on June 6th a deputation consisting of certain members of the board, along with the president of the special memorial fund, Mr. William Middlebrook, who was Lord Mayor at the time of its inception, waited upon the corporation, when the scheme was explained in detail by Mr. Charles Lupton.

The scope of the original scheme and that of the larger scheme, which it is now decided to carry out if possible, will be understood by a reference to the accompanying plan of the infirmary and its surroundings. The present buildings are indicated by the outline area, shaded with oblique lines. On the far side of Thoresby Street are the isolation department and a part of the nurses' home. In the original scheme a road was to be run by the infirmary from Fenton Street to St. James's Street; Thoresby Street and some of the smaller streets were to be closed. In this way all the buildings of the infirmary were to be brought within the boundary railing of the institution, and room for a considerable amount of expansion would have been secured. The main feature of the amended and larger plan is that a new wide thoroughfare should be run north in line with Calverley Street, through the property at the back of the town hall and passing with a curve until it reaches Fenton Street. All the area on the south-west of this new street would be available for the purposes of the infirmary, and the institution has purchased practically the whole. It has also acquired the land necessary for the construction of the new street. As an additional alteration, not essential to the carrying out of the scheme, it is also suggested that the property occupying the area marked "proposed open space" should be removed. This would greatly improve the surroundings of the town hall and would give a completeness to the scheme which it would not otherwise possess. The land required for the new street and forming the plots on its eastern side comprises 10,587 square yards. Already a little over 6,066 square yards have been bought by the infirmary board, who ask from the corporation for this portion £21,649, which, with legal expenses, works out at £3 11s. 4d. per square yard. The other properties could be acquired by agreement with the owners, or, failing that, by arbitration. It is estimated that if the scheme is carried out in its entirety the cost to the corporation will amount to £131,000. This would be made up as follows: For purchase of land for site of street and for laying out of the street, £50,000: purchase of land to the east of the new street, £31,000. This amounts to £81,000, and is all that is absolutely essential for the carrying out of the



Proposed Extension of Leeds Infirmary.

scheme. If the corporation decide on clearing the area behind the town hall an additional £50,000 will be required. Of course, it is pointed out that the corporation will derive substantial financial benefits in the way of rates, while it would also recoup itself to a great extent by the sale of surplus land and improve the character of the district generally and secure the removal of a very squalid slum, which is a discredit to the city.

The scheme has been very favourably received by all the different parties on the city council, and there is every expectation that it will be carried out. In anticipation of this a scheme of infirmary extension, and to some degree of reconstruction, has been carefully thought out, and plans have been drawn up by Mr. E. T. Hall, of London, whose work in connexion with the Leeds City Fever Hospital at Manston and the Manchester Royal Infirmary is so well known, and Mr. Sydney D. Kitson, of Leeds, who has proved his ability in planning the new buildings of the Leeds Public Dispensary. In the outline plan the black areas show the extensions planned. Three new ward pavilions are shown serial with and to the east of the four existing pavilions. Each of these will contain about one hundred beds, and it is proposed that one of these be proceeded with in the meantime. To the north of this will be the new operating theatres. The other black areas represent the new laundry department and the necessary extensions of the nurses' home. Making allowance for the sum which it is expected the infirmary will obtain from the corporation the scheme will cost the institution about £100,000, of which £50,000 will go in land. There will be an immediate increase in the number of beds by about one hundred, and room will be secured for two other pavilions, each for one hundred beds, which may be required in the future.

There can be no doubt that the scheme is an excellent one. It is earnestly to be hoped that the public and the corporation will support the bold action of the Infirmary Board and secure the carrying out of a scheme which will be of benefit to the city and to the greatest of the charities of Yorkshire.

MANCHESTER AND DISTRICT.

The Manchester Provisional Insurance Committee.—It appears to be understood by the Manchester Corporation that the Provisional Insurance Committee for the county borough of Manchester is to consist of sixty members; of these the corporation has to appoint twelve, of whom, following the model of the Act, at least two must be women. The council also has to appoint two medical practitioners, though there is nothing in the Act to make it necessary that these should be members of the council. It is to be noted that the two women at least who are to be appointed by the council are included in the twelve representatives, but the two medical practitioners are in addition to the twelve, so that the council will appoint altogether fourteen members out of the sixty. The approved societies and deposit contributors will be represented by thirty-six, either elected by the societies or, until the organization is complete, by the committee itself to represent the insured, and the medical profession of Manchester will have the right to appoint two members of the committee. Though the Act does not preclude the medical profession from electing laymen, these two would naturally be medical practitioners resident in Manchester. This would leave eight members of the committee to be appointed by the Commissioners, of whom two at least must be women and one at least a medical practitioner, in the choice of whom the Commissioners are unrestricted. Thus, assuming that the two representatives appointed by the profession were medical men, the committee would contain altogether at least five medical practitioners, and more if the Commissioners appointed more than one or if the council liked to include additional medical men among its twelve representatives.

In pursuance of this scheme a meeting of the Special Insurance Committee of the City Council was held on June 7th for the purpose of nominating the twelve representatives of the council and the two medical practitioners to be appointed by the council. Councillor Dr. Chapman was proposed as one of the two, but he declined to stand,

and he has stated that his refusal was made in loyalty to the British Medical Association, and that until the just demands of the profession are conceded he must refuse to take any part in the working of the Act. At the same time, though he could not act as one of the medical nominees, he stated that he might not have been unwilling to serve as one of the twelve council representatives in his capacity as a representative of the ratepayers. Two members of the profession who are in the service of the corporation were named, but, according to the press report, it was stated that as they were officials they could not serve on the Committee, as the Act laid emphasis on the necessity of the medical nominees being "practitioners"; whether this interpretation be correct or no, the suggestion was withdrawn. It need hardly be said that the profession itself in Manchester has not taken any steps for the appointment of the two representatives that might be elected by the profession.

The South Manchester Guardians and the Insurance Act.

At a meeting of the South Manchester Board of Guardians, held on June 7th, a discussion took place as to the effect the National Insurance Act will have on the various officers employed by the guardians. A petition had been presented signed by 240 officers at the workhouse who will be affected by the Act, pointing out that the employees of the board already received most of the benefits to be provided by the Act, and asking that the board would continue in the future as in the past its treatment of the staff during illness, as the officers preferred to trust to the justice and generosity of the guardians. The Clerk to the guardians calculated that if the guardians provided free medical attendance and medicines, sanatorium treatment, and payment during sickness and disablement as they had done in the past, and also provided for maternity cases, they would effect a saving of at least £150 per annum. The petition had been considered by the Workhouse Committee, which recommended that the board should apply for exemption from the Act, and the committee believed that if this were obtained an arrangement might be made that Dr. Orchard should give medical attendance and treatment to all the indoor officers at the workhouse, the Rhodes Memorial Home and all the employees of the guardians resident within the area of Manchester, and also that arrangements might be made with the medical officers at the Cottage Homes and the Sanatorium to give medical attendance to the employees at those institutions. The Clerk said he had also received another petition from the staff at the board's offices asking that those affected by the Act should come under the protection of the guardians.

The Baguley Sanatorium.

As already reported, the Manchester Corporation has decided to transfer cases of infectious disease and puerperal fever hitherto treated at Baguley to the Monsall Fever Hospital, and to use the institution at Baguley as a sanatorium for phthisis. This has made it necessary to draw up a new agreement with the Bucklow Joint Hospital Board for the transfer of its cases of infectious disease and puerperal fever from Baguley to Monsall, and as the Monsall hospital is further removed from the Bucklow district, the Corporation proposes to provide motor ambulances to convey cases of the Bucklow Board to Monsall. The Corporation also offers to reserve accommodation at the Baguley sanatorium for a maximum number of 15 cases of phthisis from the district of the Bucklow Board, charging in respect of them a retention fee of £5 a bed, and also £2 a week per patient maintained by the Corporation. Moreover, if the accommodation proves to be sufficient, the Corporation will be willing, on six months' notice, to receive another ten patients from the Bucklow Board at the same weekly rate. In the event of the death at Monsall of any patient from the district of the board, the Corporation will at its own cost remove the body to any point within the district of the board desired by the relatives of the deceased. The retention fee of £10 a bed and weekly maintenance fee of £3 3s. a patient now charged to the board for infectious cases are to be reduced to £3 and £2 respectively.

ESSEX.

The Sanatorium Benefit.

At Chelmsford on June 4th Dr. J. C. Thresh, County Medical Officer for Essex, laid before a conference (at which were represented nine boroughs, urban and rural authorities) a scheme for adoption under the sanatorium clauses of the National Insurance Act. The representatives of Chelmsford included Drs. T. H. Walker and H. W. Newton and Alford; of Maldon, Dr. H. Reynolds Brown; of Burnham, Dr. T. D. White; Drs. J. Stirling-Hamilton of Ingatestone, and W. F. Corfield of Colchester were also present. Summed up, the scheme divided the work into two parts: sanatorium treatment and tuberculosis dispensary treatment, the former being left to the county council, and the latter to the authorities of various areas into which it was proposed to divide the county as a whole. As for sanatoriums, the county council should provide one or more buildings with an aggregate accommodation of 100 beds to begin with, and not less than 200 later on. Two-fifths of the cost would have to be provided out of the county rates, the remainder being paid by the Treasury. Maintenance could be provided either by an annual grant from the county insurance committee, or by weekly payments from the same committee for each patient admitted. In either case any balance required would be charged either entirely against the county rate, or in respite of structural and establishment expenses against this rate, and the rest against the authorities who sent in the patients. In regard to dispensaries, the suggestion was to divide the county into nine areas, each of which would establish, administer, and maintain one chief and a certain number of branch dispensaries. The latter would be attended by the dispensary physician at stated times. An integral part of the system was the attachment to each dispensary of a certain number of beds for local patients in the proportion of 1 to 5,000 of population. The proposed Chelmsford area, for instance, would require 18, of which 8 could be found at Chelmsford Isolation Hospital and 5 each at the corresponding institutions at Maldon and Billericay. In regard to expense, Dr. Thresh put that of the area of which Chelmsford would be the centre at £4,600. This sum would cover payment for the patients sent to the county sanatorium, the nursing and maintenance of the patients occupying the local dispensary beds, and the annual expenditure (£1,600) on one chief and four branch dispensaries—including a salary of £500 a year for the officer in charge of them and £200 a year for the travelling expenses of this officer and a nurse. On the other hand, the area would probably receive as its share of the grant received by the Insurance Committee £1,590, so the balance which the Chelmsford area would have to provide out of the rates would be £3,010. One question which would have to be determined was whether this should be apportioned in proportion to the population or to rateable value. The conference approved the main features of the scheme.

LIVERPOOL.

University Lectures for Workers.

On Saturday, June 8th, Mr. Patrick Abercrombie, lecturer in civic design, gave an interesting lecture on Town Planning. In a review of the legislation which had been passed during the last sixty years, he pointed out that the issue had been to limit the right of the individual property owner to do what he pleased with his property, and this in the interests of the public. He considered that the Public Health Act, by standardizing everything with regard to the construction of houses and by the rigidity of its by-laws, had led to a depressing uniformity in dwelling-houses and limited enterprise in the architecture in private houses. A reaction had taken place, as evidenced by Port Sunlight and Bournville, and led to the garden city movement and Town Planning Act, which admitted relaxation and discretion in construction with good surrounding space and distinction of character, combined with facilities for individual and collective recreation.

Death of Dr. A. T. H. Waters.

It is with extreme regret that we have to announce the death of Dr. A. T. H. Waters, of Liverpool, which took

place at his residence on Saturday, June 8th, at the age of 86. Dr. Waters, who was Casualty Physician to the Liverpool Royal Infirmary, was the oldest member of the profession in the city, and had been the recipient of many honours, including the Presidency of the British Medical Association when it last met at Liverpool in 1883. A full memoir will appear in an early issue.

Dr. Caton writes:

In the person of Dr. Waters Liverpool lost on Saturday last, at the age of 86, a veteran physician, esteemed and lamented by all who had the privilege of knowing him.

At all times inclined to a retired and studious life, he had, of late years from impaired health, withdrawn himself from public and professional work, but in his earlier days he had rendered important services to the public and to medicine.

As President, many years ago, of the British Medical Association and an active participant in its work, he had been well known to the profession throughout the country. For a lengthened period he held the post of Physician, in succession, to the Northern Hospital and the Royal Infirmary, where his services were marked by skill, thoughtfulness, and conscientious care for the welfare of his patients. As a clinical teacher he supplemented with much ability the excellent systematic lectures which he delivered as Professor of the Principles and Practice of Medicine in University College.

Nor was he only successful as a consulting physician and teacher; he also engaged in valuable original research. His papers read before the Royal Society, his articles in *Quain's Dictionary of Medicine* and in many professional journals were of sterling merit, dealing mainly with tuberculosis and lung disease.

A keen advocate for higher education, he was one of the first to labour hard for the establishment of a college or university in Liverpool. As early as 1873 he was chairman of a committee established for that purpose, and he lived to see the university, for which he had hoped and striven, rise to importance and success. He was very unselfish, and for all this good work he neither sought nor received any special recognition.

He enjoyed the great blessing of a singularly happy domestic life. Those who knew Dr. Waters well found his companionship highly attractive: he had refined tastes for certain departments of literature, he loved travel, and greatly enjoyed beautiful scenery. His character won unfeigned respect on account of his excellent judgement, his strict code of honour, his natural kindliness and courtesy, while the lofty ideals he set before himself were an inspiration to those who penetrated the secrets of a strong but modest and reserved nature.

The writer has often regretted that, owing to failing health and the need for quiet and retirement, Dr. Waters's influence was, of necessity, less widely operative during his later years, for he was the very type of a gentleman and of a high-principled and cultured physician of the older school, and such an example is precious.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

Dublin Corporation and Trinity College Bicentenary.

At the last meeting of the Dublin Corporation a letter was read from Viscount Iveagh, Chancellor of the University of Dublin, and the Provost, inviting the Lord Mayor and members of the Corporation to appoint two of their number to represent the city at the two hundredth anniversary of the foundation of the Medical School of Trinity College on July 4th and following days. A resolution was passed tendering the congratulations of the Corporation to the Medical School on the celebration of its two hundredth anniversary, and the Lord Mayor and Alderman McWalter were appointed as delegates. The Lord Mayor said that when he saw that the graduates of Trinity College, Dublin, found that they had a difficulty in obtaining a room large enough for their purpose he instantly placed the Red Room of the Mansion House at their disposal.

New Buildings for the National University.

Nearly four years ago Parliament passed the Irish Universities Act, under which the National University of Ireland, with its constituent colleges in Dublin, Cork, and Galway, and the Queen's University, Belfast, were constituted. These institutions superseded the Royal University, whose college buildings in Earlsfort Terrace, Dublin, have fallen to the National University. These buildings, which were originally constructed for the purpose of housing an industrial exhibition, were never suitable for purposes of a college, although they were converted and adapted as well as possible. It was realized that the buildings were utterly inadequate to the requirements of the new university, and the payment of £150,000 was authorized by the Universities Act for buildings in Dublin. Of this, £40,000 goes to the Senate for offices, and only £110,000 is left towards the cost of erecting buildings worthy of the dignity of the university. The governing body of the university has now decided that the present site is the best, though the ground space is somewhat limited. But Lord Iveagh, with characteristic generosity, has given two extra pieces of land in the vicinity, so that there are about four acres at the disposal of the authorities. The governing body has invited architects to submit designs for the new college buildings. The building is to be started as soon as possible, as the work of the college is seriously hampered by the present scattered condition of some of its teaching faculties. There are at present over 800 students at the college. The inconvenience arising from the present arrangements may be understood when it is stated that the medical faculty is so dissevered that some of the students attend at 86, St. Stephen's Green, some at Earlsfort Terrace, and others—the more advanced—at the Cecilia Street establishment. Another important consideration is the lodging of the students who come up from different parts of the country. A number of approved hostels have been opened in quarters convenient to the college. The Jesuits are building a large hostel in Leeson Street for the reception of students who have been at Clongowes or others of the colleges under the charge of that order. Similar houses are being provided for the girl students, under the direction of nuns.

Insurance Act Administration.

The committee appointed to consider the provision of the outdoor staff for the administration of the National Insurance Act recommends the appointment for Ireland of a chief inspector at a salary of between £550 and £700 a year, five inspectors, fifteen assistant inspectors, and twenty-five insurance officers and of two medical officers, one at £700 and the other at £550 a year.

Medical Substitutes' Fees.

A serious situation has arisen in Edenderry Union regarding the payment of medical substitutes. The local doctors demand a guinea a day for temporary work, but the Local Government Board has written pointing out that the guardians cannot pay more than 4 guineas a week and *pro rata per diem* for any period of three days or over. This ruling has given general dissatisfaction to the medical practitioners in the union, and they are insisting on the payment of a guinea a day irrespective of the duration of the temporary work. The guardians allowed Dr. Hamilton (Rhodes) 3 guineas for acting as locumtenent for three days, and at a recent meeting a letter was received from the Local Government Board pointing out that if the guardians paid more than 2 guineas they would be surcharged. A fee of 11 guineas for eleven days' work as locumtenent was claimed by Dr. Waters (Carbury), but the Local Government Board declined to sanction more than the rate of 4 guineas a week; and at the same meeting the clerk read a letter from Dr. Waters stating that he questioned the legality of the Local Government Board's ruling, but as he did not wish to have the guardians surcharged he would accept the smaller amount, but would not again act as a substitute. It was suggested that the Board might compel the doctor to act as locumtenent, but the Clerk gave it as his opinion that the Board could not compel any doctor to act outside his own district.

Another case showing the general dissatisfaction of the doctors throughout the country with the Poor Law service has arisen in Sligo. Dr. E. C. MacDowel, of Sligo,

who is not in the Poor Law service, was summoned in consultation by a Poor Law medical officer seven miles away. In due course he sent in a bill for 10 guineas. The guardians offered 1 guinea, being the sum fixed by their scale. This Dr. MacDowel refused to accept, and the matter was referred to the Local Government Board. The Board replied that the scale applied to all medical men who accepted consultations in Poor Law cases. The result of such an attempt to dictate to independent members of the profession without consulting them when drawing up the scale of fees is that medical men who value their own services will refuse to consult in Poor Law cases.

Plucky Act of a Dublin Doctor.

At an inquest last week on a boy who was drowned in the Liffey, the plucky action of a doctor was brought to light. It appears that Dr. A. L. Hoops, who was cycling along the quay, observed a crowd on the river wall and a man with his hand on a lifebelt. He saw a body in the water and at once removed his coat and dived in. The lifebelt was thrown to him, and with its aid he got the boy out of the water and applied artificial respiration, but without result, though the body was still warm when brought to land. It was full tide at the time, and a strong current was running. Dr. Hoops was a student of Trinity College, and took his degree in 1901. He was wounded in the South African war and was invalided. He is now in the Colonial service, being Senior Medical Officer of Kedah, Malay Peninsula, and is at present at home on leave.

Borstal Institution of Ireland.

Last week the annual meeting of the Borstal Institution of Ireland was held at Clonmel. This institution has been engaged upon its work of reclaiming young criminals for only six years, but in that short time, as the report shows, its activities have gained wide recognition. Its work has the supreme advantage of being entirely non-sectarian. The report is encouraging, in that it shows that though the boys committed to the institution belong almost exclusively to the one class, those who are either homeless or who come from homes whose influence is essentially vitiating, yet the results obtained from this apparently hopeless material are wonderfully good. Since the institution started, 65 per cent. of its boys have been turned into useful and well-conducted members of society. It would appear that every committal to the institution should be for the maximum term of three years, as it gives stimulus to good conduct; the boys can be set at liberty on licence when they have served only a portion of their sentence, but with the watchful eye of the authorities still upon them. There is a great need that a similar institution should be started in Ireland for young girls, as at present criminal young girls have to be sent either to the prisons or the reformatories. This is a matter that needs immediate attention.

Census Returns.

According to the census returns for the County Sligo, just published, there has been a decrease in the population of 5,038 since the last census, but in the town of Sligo the population has increased by 293. There are 909 one-room tenements in the county, and 112 cases in which there were 5 to 7 occupants in the one room, 36 where the occupants exceeded 7, including 4 cases of 10 persons and 2 cases of 11 persons in the one room. In the last ten years the number relieved by the Poor Law has fallen from 1 in every 50 to 1 in every 69 of the population. The number of emigrants during the last ten years was 9 157, over one-ninth of the present total population. In County Meath the population has decreased by 2,406. The number of persons relieved by the Poor Law has fallen from 1 in every 25 ten years ago to 1 in every 43 last year. During the last ten years there have been 3,416 emigrants, or one-nineteenth of the present population. All the returns issued so far show a considerable excess in the number of males over females in the various counties.

Royal College of Veterinary Surgeons.

The sixty-eighth annual general meeting of the Royal College of Veterinary Surgeons was held last week in Dublin for the first time. Professor A. E. Mettam, B.Sc., M.R.C.V.S., presided. The report which was laid before the meeting states that the number of students (456) presented for professional examinations during the year 1911 showed continuance of the falling off, which has been going on since 1906, when the number was almost 200 higher. The decline in the income of the college noticed during the last six or seven years reached a point last year which compelled the council to sell out capital to meet the growing deficit and current liabilities. A sum of £788 13s. was realized, but the excess of expenditure over income being £656 16s. 4d., authority has been granted the Treasurer to realize a further like sum. At the annual dinner, held in the evening at the Royal College of Surgeons, His Excellency the Lord Lieutenant was present.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

The Caledonian Medical Society.

The thirty-second annual meeting of the Caledonian Medical Society will be held at Stonehaven on Saturday, June 22nd, under the presidency of Dr. W. A. Macnaughton, Medical Officer of Health for Kincardineshire. The annual dinner will be held the same evening. This is the second occasion on which Dr. Macnaughton has been elected president of the society, and it is a unique honour. Dr. Macnaughton is not only one of the founders of the society, but has been the editor of its journal, the *Caledonian Medical Journal*, for many years.

Thorium Emanation.

At the meeting of the Royal Society of Edinburgh on June 3rd, the President (Sir William Turner, K.C.B.) in the chair, Dr. Dawson Turner read a paper on experiments in radio-activity, the production of the thorium emanation, and its use in therapeutics. Thorium X and its volatile product, the emanation, were, he said, readily obtained from radiothorium. The latter was derived from thorium through two intermediate products, named mesothorium No. 1, and mesothorium No. 2. Mesothorium No. 1 had been used of late in place of radium in the treatment of skin affections and growths, and for superficial conditions it was reported to be quite as good as radium. It was much cheaper than radium, but its average life was only about eight years. The action of mesothorium must depend upon its disintregration products, mesothorium No. 2, radiothorium, thorium X, the emanation, etc., because mesothorium No. 1 was rayless. The presence of the thorium emanation could be shown by its ionizing effect in discharging an electroscope, by the phosphorescence it imparted to zinc sulphide, and by its behaviour as a condensable gas. Its average life was 76 seconds. It radiated alpha rays and formed an active deposit called thorium A. This disintegrated into thorium B, this into thorium C, and this into thorium D. There were various methods of preparing the active thorium compounds for therapeutic use: (1) By inhalation. Air which has been aspirated over radiothorium contained the emanation. Patients could be given this air to breathe. (2) By injection. Thorium X could be dissolved in water and administered as a mineral water. (3) By baths, containing a solution of thorium X. (4) By injection of a solution of thorium X either into a tumour mass or into the veins. Czerny and Caan treated in this way 36 cases of tumour. The injections were at first followed by a swelling of the growth and by pain, and later by a diminution in its size, due to the replacement of the cancer cells by dense fibrous tissue. The thorium emanation could be used in place of the radium emanation for the treatment of gout and rheumatism. The body ferments were activized and metabolism increased. Dr. Dawson Turner said that he had used the emanation with apparent benefit for spraying the interior of cancerous cavities. Large areas could in this way be attacked and a radio-active deposit left *in situ*.

Cancer in Scotland.

At a recent meeting of the Royal Society of Edinburgh Sir Geo. T. Beatson, M.D., K.C.B., Surgeon to the Glasgow Cancer Hospital, read a paper on the cancer statistics of Scotland for the years 1861–1900, and their indications as to the prevalence, age incidence, and distribution of the disease in Scotland. Sir George Beatson said that the

study of a disease surrounded with the apparently impenetrable mystery which enshrouded cancer could not exclude any method of examination, and a very important one was the information furnished by statistics. It was known that cancer affects all races of mankind, in all climates, and under all conditions of living; but statistics showed that it did not affect them all equally, and the study of this inequality, so as to ascertain the causes underlying it, might assist in throwing light on the nature of the disease, and thus give a clue to what it was that produced personal liability to it. Another reason for inquiring into the statistics of cancer was that it was not on the wane, but the very reverse; and it was important to know to what extent it was increasing, and whether Scotland was sharing in the greater prevalence of the malady. If the latter were the case—and there were good grounds for thinking that it was—it was desirable to ascertain whether there were any particular districts in which this was happening, or whether the increase was general all over the country. Taking the last decade of the period under review (1891 to 1900), it was found that 30,908 deaths were recorded as being due to cancer. During the same period the deaths from all causes numbered 781,860, so that cancer formed 3.95 per cent. of the total. There was a striking difference, however, in the proportion occurring among males and females, as the following table showed:

Scotland, 1891–1900.

	Males.	Females.	Both Sexes.
All causes	389,336	392,524	781,860
Cancer	11,714	19,195	30,908
Proportion of total due to cancer	3.01 %	4.89 %	3.95 %

In absolute numbers the female deaths formed almost two-thirds of the total, and amounted to 4.89 per cent. of all the deaths among that sex, as compared with 3 per cent. among males.

Age Incidence.

The second point to which inquiry was directed was to ascertain the age or ages at which the disease proved most fatal.

The Death-rate from Cancer per 10,000 Persons of Each Sex in Various Age Groups.

Ages.	Males.	Females.	Both Sexes.
0-5	0.199	0.215	0.207
5-10	0.110	0.096	0.103
10-15	0.150	0.097	0.124
15-20	0.255	0.203	0.229
20-25	0.437	0.374	0.405
25-35	0.927	1.610	1.286
35-45	3.715	8.363	6.123
45-55	13.098	21.968	17.806
55-65	30.161	37.509	34.222
65-75	51.559	53.207	52.517
75-85	61.751	58.774	59.929
85	62.214	58.929	60.071
	5.691	8.773	7.274

The Large Towns.

Dealing with the distribution of cancer throughout the large towns and counties of Scotland, Sir George Beatson said that it would appear that no general conclusion could be drawn as to the incidence of cancer in the counties of Scotland. Considered geographically, there was a suggestion that the counties of Caithness, Sutherland, Ross and Cromarty, and Inverness afforded examples of low cancer death-rates over a wide area similar in character. It was probable, however, that incomplete medical certification of deaths might have had some influence on the rates for these counties, and for this reason it was not safe to dogmatize. On the other hand, counties with similar features as to social condition, but geographically removed, such as Nairn and Roxburgh, presented high death-rates. Midlothian and Dumfries, again, were counties whose population differed socially and industrially, although they compared in high cancer death-rates. The principal towns compared unfavourably with other districts, although, having regard to the general mortality of towns, the rates were such as might be expected. Among the individual towns contrasted, Edinburgh stood much above the others. With the exception of a slight advantage over Aberdeen among females, Glasgow showed the lowest rate. The excessive incidence of the disease in Edinburgh was evidenced by the high rates prevailing at the later ages. In Glasgow the saving occurred at these later ages, and the difference was very marked in the highest groups.

Causes of Cancer.

Regarding the causes of cancer, Sir George Beatson stated that he was afraid nothing definite could be brought forward. It had been, of course, attributed to various facts. Some thought that the increase synchronized with the changes in the social life of the people. A certain class held that the disease had become more prevalent along with compulsory vaccination; others with the greater amount of meat eaten. To attribute such important effects to these concomitant causes was to venture on dangerous ground. It might be safer to say that the wider diffusion of luxury and the accompanying artificiality and strain of daily life had some share in the matter, because surroundings, although they might not be the actual cause of the disease, might produce it in those predisposed to it.

The Fatal Periods.

In connexion with the age incidence of cancer and the periods of life most prone to suffer from the malady, it was most interesting to note that just as these periods were not the same in men and women—the highest incidence in women being from 34 to 45, and in men from 45 to 55—so it had been observed that different organs of the body seemed also to have different age liability. That for cancer of the uterus was 45.7, and for cancer of the mamma 49.8, while for the other parts of the body taken collectively it was 53.7.

Need for Research Work.

One thing that the heavy toll of cancer death called for was research in connexion with the disease in Scotland. Such research should include (1) the starting and equipment of special laboratories to be entirely devoted to research on cancer; (2) the development of cancer research work in the hospitals and institutions where clinical cases were available; and (3) the provision of means for a systematic investigation generally into the causes, prevention, and treatment of disease. Glasgow had taken a wise step in establishing a research department in connexion with the Cancer Hospital, and that was a course which might well be followed in Edinburgh, where the statistics showed the disease to be specially prevalent. By such co-operative research in Scotland a great deal might be done to elucidate the mystery of a disease which was one of the heaviest afflictions that fell to the lot of suffering humanity.

A PELLAGRA commission, equipped with a full field laboratory, started from New York on May 27th with the object of studying pellagra at Spartansville, South Carolina. The members of the commission are Dr. Joseph F. Stiler, of the United States Army; Dr. Philip E. Garrison, of the United States Navy; and Dr. Ward J. MacNeal, assistant director, Department of Laboratories of the New York Post-graduate Medical School. On reaching its sphere of operation the expedition will be joined by two entomologists who have been on the field for some time working under Dr. L. O. Howard, of the Department of Agriculture. The expedition has been organized under the direction of the Division of Tropical Medicine of the Post-graduate laboratories. It is intended to spend five or six months in South Carolina.

Correspondence.

APPENDICITIS—AND QUICKNESS.

SIR,—Sir George Beatson apparently considers that it is unwise to operate on all cases of acute appendicitis within the first twelve hours: at any rate, he says he has no fault to find with such a line of action, but after that time (twelve to twenty-four hours) he says every case must be "judged on its own merits." If we turn to the end of his letter we see why he is not in favour of operation in all cases after the first twelve hours. It is evidently because he considers that by that time the appendix may be safely walled in by "infected plastic lymph and leucocytes," and that the danger of operation when this has occurred is in dissemination of the infecting organism. But how can any surgeon possibly tell that this walling-in of the diseased appendix has been safely accomplished by Nature? When we operate after the severe initial pain is over, and perhaps the patient only feels pain when he turns in bed, and when the pulse is under 80, when we might certainly think that the appendix was being safely walled-in by plastic exudation, we often find on opening the peritoneum that no such sequestration has occurred, and that a partly or wholly gangrenous appendix is lying where it is just ready to infect the general peritoneal cavity, or has already infected it to a limited extent, without such infection leading to the formation of any protective adhesions. I am quite sure Sir George Beatson cannot tell us clearly what are the clinical signs of a safe walling in of a diseased appendix, and that we cannot, therefore, be guided by the "merits of the case," as he calls it. If we abstain from operating, believing that the appendix is getting safely walled in by plastic exudation, we shall every now and again get a rude shock, when, finding that things are not as quiescent as we imagined, we decide to operate a little later, and find a perforated appendix and commencing diffuse infection.

But, supposing the appendix has become well walled in, that does not necessarily bring the disease to an end, for around many walled-in appendices an abscess forms, and I suppose Sir George Beatson would agree that this requires operation, and that to evacuate the pus the surrounding adhesions must, at one spot, at any rate, be broken down, after well packing off the general peritoneal cavity, unless, of course, the disease has unfortunately advanced so far that an abscess is pointing through the abdominal wall. Is it not better, then, to remove the diseased appendix as early as we can before pus has formed, even though we have to break down the adhesions of omentum and intestine around it to get it away? Of course, I quite recognize that in a certain number of cases no pus forms, but we can never tell whether in the case under our care pus is forming or not, or, more important still, we cannot, I maintain, tell whether any protective adhesions have formed or not, and that we are not leaving an already gangrenous appendix just ready to infect the general peritoneal cavity.

Even under careful observation in a surgical ward, I do not think it is safe to leave cases of acute appendicitis without operation on the chance that protective adhesions are forming around the appendix, and I feel sure that sooner or later the surgeon who does so will deeply regret he did not operate before. But to see such cases in consultation and then to leave them under the observation of others is likely to be still more disastrous in practice.

I am quite ready to admit that there is a distinct danger in disturbing protective adhesions, not so much from spreading infection to the surrounding peritoneum, for with careful temporary packing at the time of the operation and the retention of iodoform gauze packing in the track leading from the infected area to the abdominal incision around the drainage tube for some days after in suppurating cases the risk of spread of infection is very small (especially if we always operate with the abdomen well on the slope from the chest to the pelvis and the patient well over on his right side); but there is a very real danger from absorption of toxins set free by the breaking down of protective adhesions. But it is in evacuation of an abscess that such toxins are usually liberated and absorbed, and I suppose no one would suggest that therefore abscesses around the appendix had better be left alone. We have to take the risk and deal with them. If the disease in the appendix were not serious enough to lead to abscess formation but only to dry adhesive peritonitis, the risk of breaking down these dry adhesions in order to remove the appendix would be very small indeed, and we might very likely find when we had removed it that there was an ulcer in its interior on the point of perforating or a patch of gangrene of the mucous membrane, which would very likely soon have involved the whole thickness of the wall.

Sir George Beatson is to be congratulated on his small death-rate in 151 acute cases, but I feel sure the death-rate in acute appendicitis will not be raised by operating on a certain number of walled-in, non-suppurating cases, that could not possibly be distinguished from dangerous ones, with gangrene or early perforation or abscess formation. I am, however, confident that if Sir George Beatson's teaching, that after the first twelve hours all cases must be treated on their merits with regard to operation, be followed, a certain number will die because they are not operated on at a time when life might be saved by doing so, and many will be dangerously ill from spreading peritonitis or toxic poisoning associated with localized suppuration.—I am, etc.,

Bristol, June 9th. CHARLES A. MORTON.

RELATION OF BIOLOGY TO PATHOLOGY.

SIR,—In his interesting paper in your issue of June 8th, Dr. Hastings Gilford refers to the "Mneme" theory of Richard Semon, which he suggests—and, I believe, rightly—is destined to exercise a powerful influence on biological and pathological thought in the future. It should, however, be made plain at this stage, just when Semon's victorious career is about to commence, that he has been anticipated in the main principles of his theory by several writers. Its essential features, largely implicit in the teaching of Lamarck, appear in a book published in 1870 by Professor Ewald Hering of Vienna.[1] I should like, above all, however, to draw the attention of my medical brethren to a most able and delightfully written book, *Life and Habit*, by Samuel Butler, published in 1878.[2] Quite independently of Hering, Butler arrived at similar conclusions. Partly, however, because at that time the all-sufficiency of natural selection as an explanation of evolution had taken possession of men's minds, and also partly, no doubt, owing to the fact that Butler did not possess the orthodox academic qualifications, his theories fell flat. He was before his time. His teaching has been summarized in a later work, *Unconscious Memory* (1880), in four main principles—namely:

(1) The oneness of personality between parent and offspring; (2) memory on the part of the offspring of certain actions which it did when in the persons of its forefathers; (3) the latency of that memory until it is rekindled by a recurrence of the associated ideas; (4) the unconsciousness with which habitual actions come to be performed.

To which, as Professor Marcus Hartog points out, we must add a fifth—

The *purposiveness* of the actions of living beings, as of the machines which they make or select.

Dr. Hastings Gilford's idea of disease as something out of proportion—as a disharmony between organism and environment—is, I believe, one which must in the end prevail. I question, however, whether the gap between bacterial and other diseases is as wide as he imagines: he may yet find that there is something of his "cryptic element" in the former as well as in the latter group. We have not fully "explained" tuberculosis when we have discovered the tubercle bacillus.

Dr. Hastings Gilford is to be congratulated on having once more emphasized the fact that man, whether in health or disease, is only to be understood ultimately from the point of view of the race.—I am, etc.,

Edinburgh, June 9th. ARTHUR J. BROCK.

[1] *Das Gedächtniss als allgemeine Funktion der organisirten Substanz.* (Memory as a universal function of organized matter.)
[2] New edition, 1910, Fifield, 5s. net.

THE AUTOINOCULATION TEST IN TUBERCULOSIS.

SIR,—According to his paper in the BRITISH MEDICAL JOURNAL of June 1st, Dr. Warren Crowe has done sixty tests of the opsonic index to the tubercle bacillus in patients suspected of tuberculosis, and from the fluctuations observed he has set forth with evident exhilaration the facility by which he thinks tuberculosis can be diagnosed.

Of course, enthusiasm is a good thing, which many think too rare nowadays, but it is at least desirable that it thrives in company and not in discord with the facts. The work of Strangeways, Fitzgerald, of Greenwood and White, Hort, and Glynn and Cox showed, several years ago, that the fluctuations of opsonic index estimations were largely instrumental, being evidences of mathematical fallacy and not necessarily signs of real differences in the amount of opsonin.

Dr. Warren Crowe, however, attempts to ignore this unpleasant but dominant truth, and concludes his paper by a miserable slur on the scientific labours of those he calls carping critics, who cannot or will not master the technique. It is surprising that Dr. Warren Crowe has found the technique difficult, but it is certain he should have commenced by repeatedly testing the same serum against itself. If his memory is good, he will recall the evening of March 19th, 1912, at the Royal Society of Medicine meeting (Pathological Section), when I had the privilege of reading a paper on the subject of opsonic index measurements. I related that the opsonic index of the same serum had been repeatedly tested against itself with exactly the same materials, and the liability to mathematical fallacy stood revealed in its almost amusing absurdity, amply confirming the results of the pioneers in opsonic reform.

Now since Dr. Crowe followed me with a paper on another subject, why did he not say one word on the matter, and fight for his opsonic faith in the presence of one of the critics? Instead of doing so he writes this contemptuous charge—that we have not the necessary dexterity nor the care to acquire it. When, however, Dr. Warren Crowe does attempt to test the same serum against itself and finds that only once in several trials does the same value turn up, I believe the critical faculty will arise within him, and he will (in the words of the poet) "tremble, and turn, and be changed." Then, and not till then, will he realize that not sixty, nor even six thousand, opsonic tests are really worth while upon these long-suffering patients until a method is available of measuring opsonin with an accuracy worthy of the name. I recommend him to study seriously the works of these other authors named above, and to try and do some real hard testing work by which he will realize the folly of his present opsonic notions and assertions.

After such an experience he will come forward in high respect for the works of those I have named. These were they who saw the faults, and had the courage and energy for the laborious and gratuitous experiments required to prove the truth.—I am, etc.,

London, W., June 3rd. CHARLES RUSS.

SIR,—Dr. Warren Crowe's paper is very interesting. If he would in the future give a more detailed explanation of his method it would be still more interesting.

The general practitioner it is who sees most of the tuberculous cases, who has most of the work in treating them. Being one of this class, I would like to know what is the negative phase and what is its clinical equivalent. If the negative phase is an important indication of danger, surely it has some clinical manifestation that can be demonstrated in some way less artificial than the doing of an opsonic index.

If the treatment of tuberculosis depends on the determining of the opsonic index on every patient every now and then, I fear that the burden and expense laid on the general practitioner and his patient is greater than they can bear.—I am, etc.,

Lisburn, June 6th. J. L. RENTOUL.

A NATIONAL MEDICAL SERVICE SOCIETY.

SIR,—Right gladly would I join such a society as Professor Benjamin Moore suggests for advocating the formation of a National Medical Service.

I feel, as many more must do, that when we have obtained our six cardinal points I shall still be far from satisfied. For with all the improvements that have been or may be introduced into the National Insurance Act, the medical part of the scheme will still remain the old club system. The Chancellor has taken the worst system he could find, and has made it as universal as he could. It is on wrong lines and cuts right across the natural lines of evolution along which preventive medicine was making such rapid strides.

What is needed is a National Medical Service, working in harmony with the excellent machinery which already exists in our medical officers of health, our municipal hospitals and sanatoriums, etc. An excellent scheme was sketched out in the Minority Report of the Royal Commission, and its details have been worked out by Mr. and Mrs. Sidney Webb. But it is not the time now to dwell upon the details of the scheme. The fact that we are at one upon the general principle should be a sufficient bond of union.

I sincerely trust that Professor Moore may feel encouraged to go forward with his suggestion.—I am, etc.,

Manchester, June 9th. E. VIPONT BROWN.

CENTRAL COUNCIL ELECTION.

SIR,—If I was desirous that the readers of the JOURNAL should be afforded an object lesson as to the existence of a certain class of men in Liverpool, to which class I referred in a previous communication, I would have invited Drs. Bradshaw and Bushby to indite an epistle of a character such as is published from them in the JOURNAL of June 8th. I read their effusion with Homeric laughter, regarding it as a crude joke, and hesitated if I should not treat such a production with the contempt it merits and deserves, but I determined to comment upon it. It consists of a tissue of not truths and half truths; the latter, as is usually the case, calculated to be the most injurious in incidence.

The personal element and bias are obvious throughout, and it should only be too patent to your readers that those men, irrespective of any possible service I might be privileged to render, at the present tide in the affairs of the profession, are alone concerned to gratify their personal animus by endeavouring to cajole and prejudice against me the electors of the Lancashire and Cheshire Branch. I am consoled, however, by reflecting that men like myself who possess, as I trust I do, the courage of their convictions, are invariably doomed to experience similar obstruction, and to be misrepresented according to the qualifications of those peculiarly conversant with, and adapted to, such congenial employment. They first state that I issued a leaflet to the electors of the Lancashire and Cheshire Branch. That statement is not true. I issued to the electors of the Liverpool Division alone—and was induced to do so in fairness to those who elected me to the Representative Body—a leaflet to controvert certain imputations that were being made by interested individuals as to my action at the Representative Meeting.

Next they go on to remark that the success of my candidature as a Representative was largely due to a circular signed by several consultants—evidently a most heinous offence—but they deem it quite unnecessary to say that the number of general practitioners who also signed the circular in question far outnumbered the consultants whose names were appended to it, and that at the meeting of the Division at which I was proposed for election it was plain that I would there and then have been elected, but it was moved that a postal vote—the first taken for the election of a Representative—should be the method adopted, doubtless in the hope that I would have been defeated.

Their chagrin was, and is, great that I came in second on the poll, and constitutes the real *fons et origo* of their action towards me since.

They admit that I received a vote of thanks for my services at the Representative Meeting, but have the consummate impertinence to assail the proposer of the vote and to interpret the tone of the meeting to suit their own views. This fact ought to prove of interest to your readers as serving to illustrate the machinations of those

gentlemen. They omit to observe that when concluding my address, in which I rendered an account to the Divisional Meeting of my actions at the Representative Meeting, I remarked that "there was not a rift in my armour." If they thought such existed, I challenged them to point it out. They had not the courage to do so, as they well knew that there was none; hence the vote of thanks, which they now demean themselves by endeavouring to discount, craftily timing their action.

The nomination of Dr. Heaney was, I assert, the outcome of opportunism and intrigue, and was sprung upon the meeting at which he was nominated at the last moment to confuse the issue and prevent my being nominated by the Division. He has proved a fitting *protégé* of Drs. Bradshaw and Bushby, as his election address indicates. Therein he makes charges against an organization without a tittle of foundation, and when invited to substantiate his assertions he, contrary to all the canons of good taste and to the rules presumed to exist amongst men of honour, makes no reply.

Your correspondents write that "Dr. O'Sullivan claims to be a strong opponent of cheap contract work." So he does. Then they proceed to quote a resolution proposed at a committee meeting in Liverpool. I am by no means sure that I proposed the resolution alluded to, and being from home cannot verify the minutes: I am of opinion that I seconded; I undoubtedly supported it. I did so because I am profoundly opposed to cheap contract work, and consider the method of payment for attendance infinitely more independent and not degrading like cheap club work. Even though the remuneration be small it is much to be preferred.

The resolution referred to was for payment for work done, and had no bearing on cheap contract work whatever, as Drs. Bradshaw and Bushby well know, but they seem as usual to confuse the point.

I never suggested the equivalent per capita of the sum they quote as I was against that system, though had I done so the equivalent would be on a par with, if not more than, the per capita rate proposed by the State Sickness Insurance Committee in their recently published Medical Service scheme (based upon a capitation system of payment), and if the cost of medicine were to be added to the sum proposed in the resolution it would be a rate of payment equivalent to that proposed by the committee in their scheme (based upon payment for attendance system). Messrs. Bradshaw and Bushby are aware, but consider it quite irrelevant to mention, that at the committee meeting I proposed that if the committee were to decide in favour of the per capita system of payment the rate should be £1; being defeated, I voted for one of 15s., which was rejected. I refused at that meeting to go lower, and at the Representative Meeting voted for the 10s. per capita.

The sum proposed in the resolution they seek to decry was for a mile radius, not two, as in the Insurance Committee's scheme. Medicine was not included, neither did it refer to night or special visits, and was intended to apply solely to those included in the £2 per week limit. So much for the mare's nest those sapient individuals have discovered, and so much for their invitation to the hard-headed electors of Lancashire and Cheshire not to be too much elated by the scale of fees considered by this modern Cincinnatus (*sic*) to be adequate remuneration.

To indicate the kind of men Drs. Bradshaw and Bushby are, and to point a moral for the general practitioner who permits them to masquerade as their "guide, philosopher, and friend," I may mention that, at a meeting of the committee appointed in Liverpool to examine into the Insurance Act, they took it upon themselves to advise the general practitioner as to what he should charge for medicines under the Insurance Act, and displayed such ignorance of their subject that Mr. Larkin, who was present, was constrained to jump to his feet and pour ridicule upon them, pointing out that they had never dispensed a bottle of medicine in their lives: they made no response, being covered with confusion. Yet these are the men the upholders of the acts and policy of the Council in the past, who seek to vent their spleen upon me, and to gull the electorate into the belief that they are competent.

In conclusion let me observe that the simile to Cincinnatus is really too much. Those gentlemen should really consider my innate modesty, and not put it to too severe a test. However, if, struggling hard against their natural tendencies, they are anxious, by instituting such comparisons, to buckle fame upon me, I must fain strive to bear it with that modesty and equanimity which I am confident they will be prepared to admit characterizes and becomes me so well.—I am, etc.,

Paramé, June 10th. J. E. O'SULLIVAN.

SIR,—In your issue of June 1st there is a letter over the signatures of Messrs. Wright, Hart, and Prowse wherein members are exhorted to vote for certain candidates for the Council of the Association, and it singles out for preference one of the two candidates for the combined Southern and Oxford-Reading Branches, ignoring altogether the other candidate, Dr. B. H. Mumby, who receives the practically unanimous support of the Southern Branch.

If the writers had taken the trouble to ascertain Dr. Mumby's views on current medico-political matters and had found them very much at variance with those advocated by the National Medical Union, I could have understood their interference with our affairs; but as, so far as I can learn (and I have taken some trouble to ascertain), they seem to have done nothing of the kind, their action seems to be as unreasonable as it is intrusive. Judging from Dr. Helme's letter in the same JOURNAL, it would appear that they have enough to do to settle their domestic differences, and without further comment on the above I think I can leave them at that.—I am, etc.,

Portsmouth, June 7th. JAMES GREEN,
Honorary Secretary, Southern Branch.

"OFFICIAL DUTIES" OF MEDICAL OFFICERS OF HEALTH.

SIR,—In the SUPPLEMENT to the BRITISH MEDICAL JOURNAL for May 11th, 1912 (Report of Council) there appears on pages 462 and 463 a statement, with respect to the following resolution of the Annual Representative Meeting at Birmingham, namely:

I.—PUBLIC HEALTH AND POOR LAW.

Question of Definition of "Official Duties" of Medical Officers of Health.

106. With reference to the following resolution of the Annual Representative at Birmingham:—

> Minute 141-3.—Resolved: That the following amended form of Minute 234 of the Annual Representative Meeting, 1909, be adopted:—
>
> That, in the general interests of Public Health and the Medical Profession, it is desirable (i) that Medical Officers of Health should, as a rule (and without prejudice to those at present holding part-time appointments), be required to devote their whole time to official duties; (ii) that all Medical Officers of Health should be adequately paid, districts being grouped where necessary to make this practicable; (iii) that all Medical Officers of Health should be admitted to participation in a Government Superannuation Scheme; and (iv) that all Medical Officers of Health should be protected, in the proper discharge of their duties, against capricious dismissal or reduction of salaries;

and the instruction (Minute 142) that in view of the last memorandum of the Local Government Board, the Council should frame a definition of the term "official duties" as used in paragraph (i) of Minute 141 (see above), the question of such definition has been considered.

It is then stated that the Association of Medical Officers of Health has been consulted, and a reply from that body has been received and considered; and next that the Council of the British Medical Association recommends:

Recommendation.

The Council recommends:

> That the term "official duties" occurring in Minutes 141-3 of the Representative Meeting, 1911, be understood to include such duties as are comprehended under the terms of any definite official appointment which does not offer any opportunity for competition with any private medical practitioner.

Whilst we appreciate the courtesy of the British Medical Association in having consulted us on the matter, we are unwilling that any impression should be created that this Association of Medical Officers of Health is in any way responsible for the form that this recommendation of the Council of the British Medical Association has taken.

We therefore beg to enclose copies (1) of a letter from the Public Health Subcommittee of the British Medical Association submitting for our consideration the draft of the recommendation now made by the Council; (2) a copy of a letter addressed by our association to the Public Health Subcommittee in reply. We do not desire at the present moment to comment on the importance to the general practitioner of the situation created by the attitude of the Council of the British Medical Association, as the correspondence is in itself sufficiently explicit.—We are, etc.,

RASHELL DAVISON,
Chairman.
D. A. BELILIOS,
Honorary Secretary.

Correspondence with the British Medical Association.

January 10th, 1912.

Dear Sir,

The Public Health Committee of this Association has at the present time under consideration, on instruction of the Representative Body of the Association, the question of drafting a definition of the term "official duties" contained in the accompanying Minute 141 of the Annual Representative Meeting, 1911, concerning appointments of Medical Officers of Health.

The following definition has been provisionally approved by the Committee:

> "That the term 'official duties' occurring in Minute 141 of the Annual Representative Meeting, 1911, be understood to include such duties as are comprehended under the terms of any definite official appointment, but which do not offer any opportunity for competition with any private medical practitioner."

I am asked by my Committee to state that it will be glad to receive any suggestions that your association may desire to make upon the above draft definition before it is reported, through the Council of the Association, to the forthcoming Annual Representative Meeting to be held at Liverpool in July next. In order that the suggestions may be of any use for the above purpose they should be received here before March 28th.

I am,
Yours faithfully,
ALFRED COX,
Acting Medical Secretary.

Dr. D. A. Belilios,
Honorary Secretary, Association of Medical Officers of Health,
109, Queen's Road,
Wimbledon, S.W.

Association of Medical Officers of Health,
109, Queen's Road, Wimbledon, S.W.,
9th February, 1912.

Dear Sir,

I am obliged to you for your letter and enclosure of January 10th, 1912. In reply I am directed to observe that the provisional definition of the term "official duties," as therein occurring with relation to a particular context, does not appear to be altogether free from ambiguity.

For instance, is an appointment as lecturer on public health "a definite official appointment"? Would an appointment as physician to a general hospital be considered such an appointment? And does the medical superintendentship of an isolation hospital fall within the category?

Again, it may be asked, What is the definition of a private medical practitioner? Is a public vaccinator, engaged in private practice, a private medical practitioner? If so, equally a medical officer of health engaged in private practice is a private medical practitioner, and comes within the protecting scope of the resolution.

Moreover, it does not appear how the words "opportunity for competition" are to be construed. If they have reference to competition arising in the course of candidature for appointments it would appear, then, that any appointing committee would easily evade the intention of the resolution by making it a condition of the appointment that applicants should *not* be engaged in practice. If, on the other hand, it refers to competition arising in the course of the *execution* of duties, it appears that there are two varieties of such competition to be considered. First, there is that form of competition generally referred to as "attracting other people's patients."

Medical officers of health are to be debarred from this, of necessity, if the policy of the British Medical Association is fulfilled, though public vaccinators, police surgeons, and other officers are, we understand, not to be restrained by any but ethical considerations. No doubt the British Medical Association has cogent reasons for assuming that medical officers of health are less inclined to submit to purely ethical considerations than are other practitioners. But these reasons have never yet been stated.

The second variety of competition that may arise during the execution of official duties is that which depends on the very nature of the duties themselves. For instance, the duties of a factory surgeon are fulfilled without the slightest direct or indirect competition with others. That is to say, the inspections made by a factory surgeon in no way tend to decrease the income of any other practitioner. But a medical superintendent of an isolation hospital, it may well be maintained, is, by being a party to the treatment of persons in hospital, decreasing the income of, and entering into competition with, the practitioner who would willingly treat the sick persons at home.

It appears, indeed, to my Council, that the Public Health Committee of your Association is endeavouring to express, in the terms of one resolution, two distinct principles. The first: That medical officerships of health which at present carry with them the privilege of engaging in practice, ought to be converted into medical officerships which do not carry with them such a privilege. The second: That this change should be carried out (*a*) without detriment to the general medical practitioner who holds *other* than medical officerships, and (*b*) without detriment to the holders of certain official posts (other than medical officerships of health), who may or may not engage in private practice.

The difficulty, in the opinion of my council, depends on a truth, which is evidently appreciated by the Local Government Board, namely, that no practical way has yet been shown of carrying into effect your Association's *first* principle without serious conflict without your Association's *second* principle.

My association has always been of the opinion that no action can easily be taken in the way of abolishing the "medical officer of health engaged in practice" that does not seriously tend to injure the general practitioner at large, whether he be an actual or only a potential holder of appointments.

A further difficulty is that which may shortly arise in connexion with the working of the National Insurance Act.

Will appointments under this Act be "definite official appointments"? Or are they elements of private practice? Or both? Or neither?

Your Association is no doubt aware that it is the plan of the Government to supplement the incomes of "blackleg" medical officers under the Insurance Acts, by conferring on them, as opportunities occur, such posts as medical officerships of health, etc., with the view: (1) Of rendering them free from the calls of ordinary practice; (2) of causing them to become dependent entirely on the State for their professional income. Incidentally, it will doubtless be stated that, in carrying out this plan, one of the greatest principles of the British Medical Association—that general practitioners should not be allowed to hold posts as medical officers of health—will be realized.

It would seem, in all seriousness, that the present time is one for a reconsideration of the whole matter. My Council hope earnestly that your Committee, realizing the common danger of the profession, may feel the time opportune for recommending that, in view of the present circumstances, the opposition of the British Medical Association to general practitioners being medical officers of health should be dropped, as this opposition can hardly materialize without injury to the whole body of practitioners; and, if it does not so materialize, any resolution expressing the present policies of the Association must necessarily be ambiguous, unsatisfactory, and a constant cause of irritation and misconstruction.

I am, Sir,
Your obedient Servant,
D. A. BELILIOS,
Honorary Secretary.

Alfred Cox, Esq.,
Secretary,
British Medical Association.

"SIR CHARLES BELL AND WATERLOO."

SIR,—With reference to your annotation in last week's issue under the above heading, I have not had the pleasure of reading Dr. Fitchett's article in the *Cornhill Magazine*, entitled "One of the Puzzles of Waterloo," but in case the observations of Henry Houssaye, in his "1815," have escaped his notice, I would draw his attention to them. In the sixty-fifth edition of that scholarly work, and in that volume which deals with Waterloo, this distinguished writer, a member of the Académie Française, whose studies of the two closing years (1814 and 1815) of Napoleon's career are classical, makes the following comment (p. 323):

> La carte de l'état-major belge indique inexactement comme l'emplacement de l'observatoire de Napoléon le point 150, à 700 mètres à l'ouest de la route. On avait élevé là, en 1815, un observatoire trigonométrique en bois de charpente pour des opérations cadastrales. (Voir le plan de Craan et Mauduit, II, 255.) Mais Napoléon n'y vint pas. Wagner (IV, 62) est bien renseigné en disant que cet observatoire ne servit pas aux Français.

The Emperor, according to Houssaye, at first posted himself on an eminence near the farm of Rossomme, which was hard by the route from Brussels to Charleroi, and later he was located at or in the neighbourhood of the house of the guide Decoster. The author, as usual, gives references in support of his statement.

The myths about Napoleon are no doubt more numerous than the facts. This, about climbing a scaffolding, is only another story, differing from others in that it is somewhat "taller."—I am, etc.,

Cardiff City Mental Hospital, June 10th. EDWIN GOODALL.

Obituary.

SIR WILLIAM THORNLEY STOKER, BART., M.D., DUBLIN.

By the death of Sir Thornley Stoker Irish surgery has lost one of its most brilliant exponents, and Dublin society one of its best known and most widely esteemed figures. He was the son of Abraham Stoker, who for fifty years occupied an important position in the office of the Chief Secretary for Ireland. Born sixty-seven years ago, the eldest of a family several of whose members have won distinction in varied fields and in diverse parts of the empire, young Stoker was sent to an English public school, and thence to study medicine at the Royal College of Surgeons, Dublin, and Queen's College, Galway. He took the degree of M.D. in the Queen's University (subsequently merged in the Royal University) in 1866 and at once devoted himself to private teaching. His success was remarkable from the outset, and in a very short time he was appointed to the surgical staff of the City of Dublin Hospital. In 1873 he migrated to the Richmond Hospital, as the group of hospitals—Richmond, Whitworth, and Hardwicke — are popularly known wherever Irish students congregate. In the wards of the old Richmond, made famous by the work of Adams, Smith, Corrigan, and many others, he proceeded by hard work and the accumulation of experience to train himself for the distinguished place he was afterwards to fill in Irish surgery. He filled the Chair of Anatomy at the School of the Royal College of Surgeons in Ireland for some years, resigning it, when his outside work expanded, into the hands of the late Professor Daniel Cunningham. He held the Examinership in Surgery in the Royal University of Ireland, and earned the reputation of being exacting as to knowledge but generous in marking. He was Surgeon to Swift's Hospital, the famous foundation of the great Dean, "for fools and mad." He was Inspector of Vivisection for Ireland, and held the office of His Majesty's Inspector under the Anatomy Acts, in succession to his brother-in-law and hospital colleague, the late Sir William Thomson, C.B.



SIR WILLIAM THORNLEY STOKER, BART.
Photograph by] [*Werner and Son, Dublin.*

These multifarious duties did not exhaust his activities. He took great interest in hospital administration. He was a Governor of Swift's Hospital, and also of the Richmond. On whatever administrative board he sat his was a dominant voice, for he spoke out of full knowledge, and with manifest and unselfish earnestness. The late Sir William Thomson and he were responsible for the establishment of the school of nursing at the Richmond; and it was to their courage and energy that the rebuilding of the Richmond surgical block in 1899–1900 was largely due. Had their courage failed them the block would have been far from the beautiful building it is to-day; with less energy the hospital might have been crippled by debt. But they nerved the Board of Governors to build on the most generous scale, and they found equally generous donors to pay for it.

The character of Sir Thornley Stoker's surgical work may be judged by the titles of some of his contributions to the *Proceedings* of the old Surgical Society and of the Royal Academy of Medicine. They included: "Hysterectomy and Ovariotomy," 1880; "Removal of Thyroid Gland," 1883; "Excision of the Knee-joint," 1887; "Epidural Haemorrhage Treated by Trephining," 1888; "Laparotomy in Ectopic Gestation," 1889, and many others on matters which then were, or have since become, "live" problems. On account of his connexion with Dean Swift's foundation, he took a special interest in the surgery of the cerebro-spinal cavity. He drained cerebral abscesses successfully in the Eighties, and performed decompression operations long before the name was invented. He attained great skill in lithotrity, and was among the first to practise prostatectomy, advocating that operation as warmly as the late Sir William Thomson. As of another great Irishman, it may be said of him, *Nihil tetigit quod non ornavit*.

He was, however, no mere individualist in his profession. His was eminently the social mind. He took a warm and fighting interest in medical affairs and many public movements. The grievances of the Irish Poor Law doctor, the evils of the workhouse system, the prevention of cruelty to animals evoked his enthusiasm. And his profession gave him in return all its honours. He was President of the Royal College of Surgeons in Ireland in 1894–6, and President of the Royal Academy of Medicine—the most honourable prize of the profession of medicine in Ireland—in 1903–6. The Royal University gave him the degree of M.Ch. *honoris causâ*. In 1895 the honour of knighthood was conferred on him, and last year, to the great satisfaction of the whole profession and of his fellow-citizens, the Coronation honours brought him a baronetcy to crown a career of brilliant surgical and social work.

But during all those hard-working years Sir Thornley Stoker was by no means a man of one pursuit. He had always been interested in art; had held the honourable if not very onerous office of Professor of Anatomy in the Royal Hibernian Academy of Art; had been a useful and energetic governor of the Dublin National Gallery; and had built up what was, for a practising medical man at least, a unique collection of objects of antique art. Old English and Irish silver, bronzes, Oriental porcelains, and exquisite old furniture made his house a place of pilgrimage for connoisseurs. His circle of friends corresponded to his tastes; and it is safe to say that few artistic or literary persons spent much time in Dublin during the last twenty years without gravitating to his beautiful residence, Ely House, and enjoying a hospitality as large-hearted as it was refined.

Two years ago, feeling that the strain of work was beginning to tell upon him, he resigned the surgeoncy to the Richmond Hospital. It cost him a bitter pang; softened by the fact that at the unanimous wish of his

colleagues the Board of Governors appointed him to be the first Consulting Surgeon to the hospital. He continued to attend the meetings of the Board of Governors assiduously, and his love for the hospital was as warm and active as ever. But his friends were pained to see that his own anticipations were but too well justified by the manifest failure of his health. The pain of declining out of active life was mitigated by the devoted attention of a group of friends whose love was the best testimony to his worth. To him were given in abundance "honour, love, obedience, troops of friends." Recently he began to suffer from cardiac weakness, as a sequel to arterio-sclerosis, and the end came gradually, painlessly, and peacefully, as sleep to a child, on the first day of this month.

No estimate of his character would be complete which did not emphasize two outstanding points—namely, his almost too sensitive devotion to his poor hospital patients and his unusual quickness in appreciating and generosity in encouraging merit in young men. Over and over again, in every year of his hospital work, had he been in the wards, not once, but twice and three times a day, making sure that all was well with patients whose only reward to him could be a prayer. Not ten days in the year, apart from his month's vacation, failed to find him at work in the hospital. His readiness not merely to recognize, but to force out and bring to public notice, whatever was good or original in his younger colleagues, was the work of a man conscious of his own strength, but conscious also that each age must lean not merely on that which precedes, but on that which follows it, if it is itself to bring forth its best fruit. He retained to the end a sensitiveness to all high ideals which the rough friction of the world too often dulls in men of common mould. His family motto, *Quid verum atque decens* ("whatever is true and honourable"), fitly sums up Sir Thornley Stoker's life.



ROBERT NIGHTINGALE HARTLEY.
Photograph by [*James Bacon and Sons, Leeds.*

Mr. ROBERT H. WOODS, ex-President of the Royal College of Surgeons, a former colleague of Sir Thornley Stoker, has sent us the following appreciation of his friend:

It is difficult in the gloom of the shadow of death to describe in adequate terms the qualities and character of the man whose loss we mourn to-day. Sir Thornley Stoker's many-sided personality cannot be summed up in a few words, and except to those who knew him intimately any account of it might well seem exaggerated. His wide sympathy with almost every phase of human activity was such as is only to be found among the most richly endowed of men.

He was a born surgeon. His early training as an anatomist equipped him for surgical work of the highest order; and when to this was added a delicate muscular sense, accuracy of observation, a habit of logical and reasoned thought, and the courage born of strong conviction and a high sense of duty, it is no wonder that we had in him one of the first surgeons of our time.

He was an earnest student of literature and a keen critic of style. His professional writings were forceful and terse, while his private letters show a mastery of elegant English. He was an acknowledged authority on questions of art, and had an unerring judgement of the artistic values of form, colour, and material.

His hospitality was unstinted. In his house his guests found themselves in an atmosphere of geniality, cordiality, and ease of no common order. This delightful effect was enhanced in no small degree by the presence and influence of the remarkable woman he had married, whose charm, attainments, and strength of intellect made her as conspicuous among women as he was among men.

But however one may speak of his professional eminence, his literary, artistic, and social proclivities, yet when all is said, one has scarcely touched the man himself—intensely human, entirely lovable, genial, sympathetic, and great hearted.

ROBERT NIGHTINGALE HARTLEY, M.B., B.S.LOND.

IT is a peculiarly difficult and delicate task to attempt to convey in a brief sketch a just and true impression of the striking personality of the late Robert N. Hartley, and of the sad, strenuous, memorable life that has just closed; but it is a life that ought to have its record here, for he was regarded with great sympathy and with deep respect and affection by a large circle of friends, patients, and students, and the world is better because he lived.

He was born at York in 1854, and was son of the Rev. John Hartley, afterwards Principal of the Handsworth Wesleyan College at Birmingham. Various members of this family have rendered eminent public service in Church and State, amongst them the eldest son, the late John Anderson Hartley, Vice-Chancellor of the Adelaide University, and Inspector-General of Schools in South Australia, whose name is still a household word in that province. Robert N. Hartley was educated at Woodhouse Grove School, near Leeds, and at the Leeds School of Medicine, being also pupil to Dr. Thomas Dobson, who lived to be the patriarch of medicine in Leeds. Hartley also studied for a time at King's College under Lister, and at Moorfields Ophthalmic Hospital under Bowman. About 1875–6 he was Resident House-Surgeon in the Leeds Infirmary—a post which at that time could be held before qualification. It was at this time that the catastrophe happened which overshadowed his whole after-life. One night, when returning to the infirmary from a visit to a medical friend, he was decoyed into a dark street, assaulted, and robbed of watch and purse. He believed he was struck with a stick. He was brought unconscious to the infirmary, when his empty pockets, the condition of his clothing, and a rent through his hat quite bore out the above statement. He was ill for several days with symptoms of concussion, and after recovery was advised to give up study for a long time. He neglected this advice, and proceeded to take his degree. After this time he began to suffer from epileptic attacks. At first the attacks were slight and at long intervals, and as the condition was traumatic it was hoped that he would grow out of them. He used to point to a painful area on the forehead and say that the mischief was there, and would even talk of being trephined, but this was never carried out.

It seemed to those who knew Hartley then, and to many of us now on retrospect, that, had his health been restored, his path to distinguished success was assured. He was appointed on the staff of the medical school, became Surgeon first to the Leeds Dispensary and then to the infirmary; he established himself in practice as a specialist in surgery and ophthalmology, and was associated with Mr. T. Pridgin Teale. His intellectual endowments were great; he was an able ophthalmic surgeon, and possessed administrative ability, powers of inspiring confidence in patients and practitioners, and the highest personal character. But the hope of recovery was not realized. In 1896 he was obliged to retire from the infirmary on grounds of health. Such a painful and disastrous crisis in a life's career would have caused many men to give up the profession and to become soured, morose, and misanthropic; but to give up, to whine and mope were not in him, and it was now that he began to show what manner of man he was. His nearest friends never heard him complain of his lot. He sought to lose himself in doing carefully day by day what public and private work came to hand, and especially in seeking out and helping any who were in trouble. In his long course of work at the medical school he demonstrated anatomy for three years, and then for twenty years was Lecturer or Professor of Public Health; he took a prominent part also in the administrative work, and promoted by his personal influence the welfare of the school during the critical period of its evolution from the Leeds School of Medicine into the Faculty of Medicine in the University of Leeds.

He gave away his time and money lavishly, and rendered an extraordinary amount of gratuitous professional service to any whom he could find excuse for attending for nothing. He took the keenest interest in the special schools for the blind, deaf and dumb in Leeds. He was an associated member of the municipal committee for this purpose, and honorary advisory ophthalmic and aural surgeon to the schools. He visited these schools constantly, almost daily, knew every child individually, and sought methods of promoting their enjoyment—such as accompanying parties to the seaside, and the like. He was also a member of the governing body of the Normal Institute at Norwood. He had a peculiar gift for helping men who needed help, and there are many who acknowledge the deepest obligation to him, especially amongst the medical students of his day, whom he influenced by advice and friendship. He served on the boards of various philanthropic institutions, which made great demands on his time and strength, but he thought no trouble too great for such work. He had special interest in medical missions, and in attempting to secure their conduct on the best scientific lines, and was much interested in the work of the Students' Christian movement. How much more he did no one can say, for he did good by stealth and was as much annoyed at having his good deeds brought to light as other men at the exposure of their misdeeds.

Fond of seclusion and retirement, he found recreation in good literature, and in such retreats as the Yorkshire dales and the Lake district afford to those who love Nature. He had many warm friends, especially amongst those whom he had himself befriended. He never seemed well for long periods, and suffered from many forms of illness. His work was done in spite of all this, often when he was not fit to go about. If he was sometimes found fagged out almost to incoherency and unlike himself—with perhaps queer lapses of judgement, which puzzled his friends—the explanation is now very obvious. He was a man of strong convictions, which he was quite able to express with emphasis and even vehemence and without fear of persons. When well, he was a delightful companion and conversationalist.

He worked up to a few months ago, when laryngeal disease developed and his health rapidly failed. A voyage to the Cape was undertaken without benefit, and he returned home to die. Fortunately he was spared the worst possibilities of his ailment, and passed away rather suddenly and very peacefully from heart failure, on May 21st, at Ilkley. He was never married, but he was nursed and cared for by his sister with a devotion that could not be surpassed. A man of purer spirit, more unselfish, generous, patient, and brave has never lived amongst us. The simple plan and aim of his life was to carry out in the work of every day the teaching of the New Testament. Will those who knew Robert Hartley say if they ever met a man who succeeded better?

J. F. M. MILES, J.P., L.R.C.P., L.R.C.S.EDIN.,

MEDICAL OFFICER TO THE WORKHOUSE HOSPITAL AND DISPENSARY DISTRICT, DINGLE, CO. KERRY.

THE much lamented death of Dr. Miles, of Dingle, has removed a familiar face from the medical profession in Munster and in the south-west of Ireland. It has been the lot of very few to gain the universal esteem and love of his fellow men as Dr. Miles secured it. To rich and poor alike in the district the news of his demise came as a grievous shock. Their kind friend and skilful physician had been taken from them, a martyr to his devotion to his work. He was operating on a case of bone disease and got cut either by bone or bone forceps. Acute septicaemia rapidly followed, to which he succumbed on the evening of May 16th, aged 67 years.

It was said by one who had a close knowledge of him for eleven years: "I have had much opportunity in the past of becoming intimately acquainted with all classes of medical men, and do not hesitate to say that I look on Dr. Miles as one of the most careful, and at the same time best qualified man I have ever met. He has besides the advantages resulting from a large hospital and other wide practice, wisely derived the highest benefit from both, inasmuch as he has kept up his reading, and is fully abreast with modern discovery and modes of treatment. I have seen a great deal of Dr. Miles in the sick-room both of rich and poor—keen, ready, cautious, cool, never noisy nor rough, a gentleman to all alike, calm and sympathetic, always kind, and never hasty in his manner, and is in consequence most thoroughly esteemed and loved."

This was written of him in 1887, being as true then as on the day of his death twenty-five years later. He never wearied in his devoted attention to any needing his care, and his genial and kindly hospitality to any who might visit the lovely and interesting country of Corcaguiney in which he resided will be forgotten by none of those who were privileged to enjoy it.

He obtained his diplomas in 1869, and succeeded his uncle, Dr. Williams, in 1870. The remoteness of Dingle, the town in which he practised through the whole of his medical life, it might have been supposed would have caused him to get out of touch with the great advances in science, but from Dr. Miles the poor of his wide district had everything that modern research has unfolded. His workhouse hospital was by his intelligent care made one of the most perfectly equipped in Ireland. All connected with it were dominated by his cheery hopeful manner, and co-operated with him with confidence and zeal to carry out the main object of his life—the care of the sick poor. In his relations with patients and his fellow practitioners in Kerry self-interest never came in. Dingle will long cherish his memory for the cordial self-sacrifice with which he threw himself into any project for the good of the locality and its people.

Dr. Miles was sprung from a good old Kerry family. He was born at Callinaferey, Milltown, co. Kerry, the residence of his father, Mr. William N. Miles. He was educated for the medical profession at the Cork Medical School of the Queen's University, and took the Licences of the Edinburgh Colleges in 1869. He married, in 1871, Miss Mary Pearde Nash, only daughter of the Rev. Robert Spread Nash, of Fermoy, co. Cork, and had nine children, of whom five survive him. One son, Dr. George Miles, entered the medical profession, and is in practice at Farnham, Surrey.

All that was important as regards medical politics had his earnest solicitude, and he recently came the long journey from his home to attend the mass meeting of the Munster medical men, held in Cork to consider the Insurance Act. He was, in fact, so recently in our midst discharging his duties as a practitioner, and upholding our professional dignity, that it is difficult to realize we shall see him no more.

The large funeral and the great number of wreaths bore sorrowful testimony to the general esteem in which he was held.

The well-known and beautiful lines from *In Memoriam* will ever be recalled by those who knew him well and loved him:

I climb the hill: from end to end
Of all the landscape underneath,
I find no place that does not breathe
Some gracious memory of my friend.

THE LATE DR. O'LOUGHLIN.—The Royal College of Physicians of Ireland has adopted the following resolution on the death of Dr. F. W. N. O'Loughlin, L.R.C.P.I., late Senior Surgeon White Star SS.Company:

The President and Fellows of the Royal College of Physicians of Ireland desire to place on record their deep sorrow at the tragic death of Doctor Francis William Norman O'Loughlin, a Licentiate of the College, who, with so many others, lost his life at the sinking of the ss. *Titanic* on the morning of April 15th, 1912.

Dr. Loughlin's long professional life was spent in the service of the White Star Company, and by a faithful and conscientious discharge of his duties he had won for himself a high place among its officers. As his life was spent so he met his death, ministering to the wants of others in the last dread moments that preceded the sinking of the ship.

The President and Fellows feel that Dr. O'Loughlin, by his conduct both during his life and at his death, has maintained the highest traditions of the profession and of his College, and they tender to his relatives the most sincere sympathy of the College in their sad bereavement.

Universities and Colleges.

UNIVERSITY OF LONDON.

UNIVERSITY COLLEGE.

THE post of Senior Assistant in the Department of Zoology and Comparative Anatomy has been filled by the appointment thereto of Mr. W. J. Dakin, D.Sc., at present Assistant Lecturer and Demonstrator in Zoology in the University of Liverpool.

LONDON SCHOOL OF MEDICINE FOR WOMEN.

Prize Distribution.

The prizes for the year were distributed on June 7th by Sir William Collins, M.D., Vice-Chancellor of the University of London.

Mrs. Garrett Anderson, M.D., the President of the school, who was in the chair, said that in the twelve months under review there were 147 students in attendance. Seventeen took the M.B. and B.S. degrees of the University of London, and nine former students the M.D. degree, while four secured degrees at Durham. Miss Davies-Colley, M.D., a former student, was also the first woman to become a Fellow of the Royal College of Surgeons.

Sir William Collins, in an address, said that the University of London was the first body to recognize that women should be accorded the same opportunities as men in respect of higher education and should be allowed to proceed to degrees under the same conditions. It was in 1878 that it first put this principle into practice and threw open its doors to women. The extent to which the latter had taken advantage of this circumstance was shown by the number of women graduates on the rolls of the various faculties of the university. Bachelors of arts numbering over 2,000 headed the list, then came 600 bachelors of science, 180 masters of arts, 170 bachelors of medicine, 80 doctors of medicine, 25 doctors of science, 6 masters of surgery, 4 bachelors of law, 4 bachelors of divinity, 3 doctors of literature, 3 bachelors of music, and 2 doctors of law. In addition two members of the Senate were ladies. The higher education of women was therefore now an accomplished fact. Their advent in medicine would, he thought, operate in the direction of importing into practice high ideals and aspirations which would remove from it a certain commercialism and materialism apt nowadays to beset it.

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

The Election of Councillors.

THERE are seven candidates for the four vacancies on the Council of the College to be elected on Thursday, July 4th. All three retiring members have offered themselves for re-election, and there is a vacancy caused by the decease of Sir Henry Butlin; the substitute member will hold office till 1919. The retiring members of Council are Sir Frederic S. Eve (Fellow, December, 1878; Member, August, 1876); Sir Anthony A. Bowlby, C.M.G. (Fellow, June, 1881; Member, July, 1879); Mr. Gilbert Barling (Fellow, December, 1881; Member, July, 1879). The new candidates are, in order of seniority as Fellows: Mr. James Ernest Lane (Fellow, December, 1882; Member, May, 1880), Senior Surgeon to St. Mary's Hospital; Mr. D'Arcy Power (Fellow, December, 1883; Member, January, 1882), Surgeon to St. Bartholomew's Hospital; Mr. L. A. Dunn (Fellow, June, 1884; Member, April, 1882), Surgeon to Guy's Hospital; and Mr. B. G. A. Moynihan (Fellow, October, 1890, Member, November, 1887), Surgeon to the Leeds General Infirmary, and Professor of Clinical Surgery in the University of Leeds.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE annual election of the President, Vice-President, Secretary, and Council for the ensuing year was held on June 3rd, and the following were elected:

President, Mr. Richard D. Purefoy.
Vice-President, Mr. F. Conway Dwyer.
Secretary, Sir Charles A. Cameron, C.B.
Council, Mr. R. H. Woods, Sir John Lentaigne, Sir Henry R. Swanzy, Sir Arthur Chance, Sir Charles B. Ball, Bart., Sir Thomas Myles, Mr. R. Lane Joynt, Mr. E. H. Taylor, Mr. W. I. Wheeler, Mr. W. Stoker, Mr. H. G. Sherlock, Mr. A. Blayney, Mr. F. T. Porter Newell, Mr. R. C. B. Maunsell, Sir Lambert Ormsby, Mr. Wm. Taylor, Mr. Trevor M. Smith, Mr. R. Bolton McCausland.

The Services.

GLASGOW R.A.M.C. TERRITORIAL UNITS.

THE Glasgow units of the Royal Army Medical Corps (Territorial Force) held a combined field day at Blackhill Farm, near Maryhill, on June 8th. The programme was arranged by Lieutenant-Colonel A. Dryden Moffat, M.D., commanding the units. The Lowland Mounted Brigade Field Ambulance formed collecting and dressing stations, while the 2nd Lowland Field Ambulance acted as a bearer company, and transferred its wounded to a dressing station formed by the 1st Lowland Field Ambulance. The Mounted Brigade Field Ambulance was under the command of Lieutenant-Colonel H. Wright Thomson, M.D., the 1st Field Ambulance under Lieutenant-Colonel G. H. Edington, M.D., and the 2nd under Major P. F. Shaw. Lieutenant-Colonel A. D. Moffat, M.D. (T.F.), was in command of the combined units, and during the afternoon the operations were inspected by Colonel D. J. Mackintosh, M.V.O., the Assistant Director of Medical Services for the Lowland Division.

The church parade of the combined units, including the 3rd and 4th Scottish General Hospitals, took place in the Bute Hall of Glasgow University on the afternoon of June 9th. The Rev. Dr. Thomas Adamson, chaplain, officiated, and the lessons were read by Lieutenant-Colonels Moffat and Edington.

The field units, which are at full strength, hold a combined camp at Lanark during the last fortnight of July.

Public Health AND POOR LAW MEDICAL SERVICES.

POOR LAW MEDICAL OFFICERS' ASSOCIATION OF ENGLAND AND WALES.

THE annual meeting of this Association will be held at the Council House, Bristol, by invitation of the Lord Mayor, on Tuesday, June 25th, at 2 p.m. A paper entitled The Poor Law Service as affected by the National Insurance Act will be read by J. J. Simpson, Esq., Clerk to the Bristol Guardians. Another by Dr. C. E. S. Flemming, of Bradford-on-Avon, is entitled Difficulties in the practice of the Poor Law medical officer. Dr. C. H. W. Parkinson, Medical Officer of Health for the Wimborne Minster Urban District Council, will open a discussion On the necessity of union among all medical officers holding part-time appointments. It is hoped that many part-time medical officers will attend, and a cordial invitation is issued to all who care to be present.

The usual dinner will take place in the evening at the Royal Hotel, College Green, Bristol, at 7.30 p.m., when the Lord Mayor and Lady Mayoress, the High Sheriff of Bristol, and the Right Revs. the Lord Bishop of Bristol and Bishop of Clifton are expected to be the guests of the association. Tickets 7s. 6d., not including wine. Application for tickets should be made to Dr. William Brown, Park View, Fishponds, Bristol. Members are invited to bring ladies with them.

ATTENDANCE ON BOARDED-OUT CHILDREN.

A CORRESPONDENT who is one of the district medical officers of a union was requested to attend two children in cottage homes by the boarding-out committee. He declined, and after some discussion at the next board meeting, the relieving officers were instructed to issue medical orders for all such children requiring attendance. He asks whether this is within the power of a board of guardians.

*** If the cottage home where the children are boarded out is within the district of the medical officer he is bound to attend any requiring medical services on receiving a lawful order from the relieving officer. Such a practice is not unusual.

Medico-Legal.

BELL *v.* BASHFORD AND THE BRITISH MEDICAL ASSOCIATION.

(Before the LORD CHIEF JUSTICE *and a Special Jury.)*

THIS was an action brought by Dr. Robert Bell to recover damages for an alleged libel from Dr. Ernest Francis Bashford and the British Medical Association. The libel was said to have been contained in the JOURNAL of May 27th, 1911. The defendants, by their defence, admitted publication, but pleaded that in so far as words used consisted of allegations of fact they were true in substance and in fact, and that in so far as they consisted of expressions of opinion they were fair comments made in good faith and without malice upon the facts which were matters of public interest.

Mr. Shearman, K.C., Mr. Lewis Thomas, K.C., and Mr. W. de B. Herbert (instructed by Messrs. W. H. and A. G. Herbert) appeared for the plaintiff; Mr. Duke, K.C., Mr. Holman Gregory, K.C., and Mr. R. F. Colam (instructed by Messrs. Hempsons), for the defendants.

Mr. Shearman, in opening the case, said that it was one of serious import. The defendant, Dr. Ernest Francis Bashford, was a distinguished member of the medical profession. The plaintiff was also an eminent member of that profession, and had at one time been Senior Physician at the Women's Hospital in Glasgow. During the last few years he had devoted—counsel used the word devoted in the strict sense—his attention to the study and cure of cancer. In these circumstances the defendant, Dr. Bashford, had made a savage attack upon him, and had described him in the pages of the BRITISH MEDICAL JOURNAL—a paper which came into the hands of the entire medical profession—as a quack. It was therefore necessary that the jury should know something about his client. He had written on the treatment of diphtheria; he was the pioneer of the discovery of the secondary treatment of small-pox, having written an article on that subject in 1876. He was an early advocate of the open-air treatment of consumption; and since 1894 he had devoted himself to the cure of cancer. He had often operated for cancer; but after much study he came to the conclusion that operations for cancer were useless, and in 1894, after years of experience, he decided never to use the knife again. For the last eighteen years he had been devoting his life to the study of the question whether this disease could be alleviated. The defendant, Dr. Bashford, adhered to the old and orthodox view that cancer could only be surgically treated. The orthodox or surgical theory was that it was a local disease. The late Sir Henry Butlin thought it was a germ disease. Dr. Bell's view was that it was a blood disease; and he believed that prevention was better than cure. He also thought that it could be treated by an alteration of diet. His view was that the disease should be prevented at an early stage; and that by adopting a diet consisting of cheese, milk, uncooked vegetables, nuts, etc., by making sure of an evacuation once a day, and enjoying plenty of fresh air, the onset of the disease could be prevented. The surgeon, in his view, forgot that if one took away the breast of a woman suffering from cancer one did not remove the source of the disease. It will recur. The plaintiff had applied various remedies—for example, thyroid gland, formic acid, and hot air, and finally, always keeping his mind open to any new discovery, he had advocated the use of radium. He did not desire to keep his remedies secret, and for many years he was taken as a collaborateur. But the Cancer Research Committee had issued their final ukase to the effect that there was no cure for the disease and that the knife was the only remedy.

In May, 1911, the British Medical Association had published a special number of the JOURNAL, entitled "Quacks and Quackery." It contained an article by the defendant, Dr. Bashford, and it would be necessary for them (the jury) to see the whole article. The words "Quacks and quackery" were important for them to consider. Quack was defined in *Johnson's Dictionary* as "a pretender to medical skill not possessor." *Webster* defined it as "a boastful pretender to medical skill." In *Skeats's Slang Dictionary* it was defined as "one who cries up pretended nostrums." He (counsel) suggested that when one uses the word "quack" the suggestion is that a man is lining his pockets by selling something which he knows to be useless. It appeared from the correspondence that the Editor of the BRITISH MEDICAL JOURNAL desired to have an article on quack remedies in relation to cancer. The article complained of (see BRITISH MEDICAL JOURNAL, May 27th, 1911, p. 1221) was headed "Cancer, Credulity, and Quackery," and was written by Dr. E. F. Bashford. That article contained the passages of which the plaintiff complained. Counsel here read and commented upon extracts from Dr. Bashford's article, "Credulity and Quackery," which were said to constitute the libel. In the course of his article he stated that a study of information received by him revealed an astonishing amount of credulity on the part of "the public towards cancer cures." "What is much more serious," he went on, "is the evidence obtained that a few members of the medical profession screen, or countenance, the rankest forms of quackery. I have good reason for believing that to-day in London, and elsewhere throughout the country, members of the medical profession, practising as 'cancer curers,' knowingly and deliberately trade upon the anxieties and credulity of the public in all that pertains to the etiology and the treatment of cancer." Counsel said that the most serious part of the article was the publication of stories of quacks of a former time, of whom, in a later part of the article, the plaintiff was said to be the modern exponent. The article set forth two stories from a lecture by Sir Spencer Wells in 1857, "which depicted a state of affairs still obtaining after sixty-five years." These stories related to one quack who killed his patient by destroying the coats of a large artery with caustic; and to another who was so ignorant of medicine that he did not even know the signs of life, and was found applying a poultice to the breast of a dead woman. The defendant had also written in his article: "The opportunities for the quack are great for this reason alone, that all are familiar with the term; all dread the disease, no man comprehends it, and the quack seizes every opportunity to exploit uncertainty, ignorance, fear, and credulity when honest men offer no alternative to the knife." That paragraph, said counsel, came to this, that no honest man can suggest any alternative to the knife. Was that legitimate controversy? Was it fair comment on a matter of public interest? The defendant appeared to attribute the vilest motives to the plaintiff. In other parts of the article Dr. Bashford had set forth, and made comments upon, passages in the plaintiff's books. Thus the plaintiff had written: "Consider the various effects of a contaminated blood stream upon the epithelial cell, the culminating point of the pollution resulting in cancer. It is of no more avail to excise the local manifestation of blood contamination, which cancer undoubtedly is, and then expect to eradicate the constitutional affection than to cut out a piece of dry rot in a ham without adopting means to remove the cause of the mischief." "These quotations," wrote Dr. Bashford, "are from a chapter entitled 'The Evolution of the Cancer Cell,' in a booklet by Dr. Robert Bell, and are avowedly intended to divert the cancer sufferer from the assistance of surgery." He alleged that Dr. Bell kept alive the old fallacies about cancer being a "blood disease. . . . Such books as that of Dr. Robert Bell appeal especially to those fearing lest they be victims of cancer, and can hardly be expected to serve for the enlightenment of the medical profession." At the part of the JOURNAL where these words appear there appeared the picture of a gentleman who was supposed to represent a quack. What he (counsel) complained of was that this article grouped Dr. Bell with persons who were selling humbugging medicines and quack remedies of all kinds. The article went on to describe Dr. Bell as the modern representative of the practitioners referred to by Sir Spencer Wells; it criticized his use of formic acid as a caustic by saying that in Dr. Bell's use of formic acid he (Dr. Bashford) "saw only a reproduction of what was written more than half a century ago of arsenic and zinc sulphate"; and said that by employing atoxyl Dr. Bell had reverted to the centuries-old use of arsenic, his atoxyl—the form which he employed for injections—being merely a solution in water of an organic compound of arsenic. He also wrote:

> The moral of all the familiarity with cancer and all the quackery associated with the exploitation of those sufferers who would fain find an alternative to the knife is simply this. A secret remedy for cancer is possessed by no man nor woman. If it existed, its success would speedily cause all human endeavour to concentrate upon its divulgence, and no quack could retain it for himself alone. That form of treatment which is public property—namely, removal by surgery—has nothing to fear, but, on the contrary, much to gain by comparison with its only competitor, removal by caustics. In this one word, "caustics," can be summed up the direct application of all the suggested substitutes for the knife, from trypsin and radium to potassium bichromate, formic acid, formalin, and arsenic. Thus Dr. Robert Bell, Dr. John Shaw, and others in London, Dr. Fenwick in Accrington, Dr. Hugh Murray in Glasgow, have not taught the medical profession or the public anything new. The removal of the cancer by caustics is not of their invention, but one of the oldest procedures in medicine, the only new thing about this treatment being its application to a new generation of the suffering. Notwithstanding the clear demonstration that cancer is circumscribed and not constitutional in origin, the credulous are still deluded into a belief that this method has the advantage of extracting something which the knife simply cuts off and leaves behind. Such people accept a false pathology and—to give one last quotation from one of the most advertised cancer cures of our time—also a misrepresentation of surgical treatment:
>
> "If one desires to clear a piece of ground of weeds, will one succeed, think you, if he contents himself by merely lopping the heads off the obnoxious plants?"

What was the defence raised in the action? In effect the defendants came to court deliberately to prove that the plaintiff worked on the credulity of the public in order to make money. The truth was that the plaintiff was not a rich man; and in point of fact he attended the poor for little or nothing. As to the British Medical Association, it was important to see what their attitude was with regard to Dr. Bashford's article. In that number of the JOURNAL from which the above extracts were taken, there appeared an anonymous editorial article, headed "Quackery and the Medical Profession," in which the following passage appeared:

> Dr. Bashford's paper on cancer is the most damning exposure of the vilest and most cruel form of quackery that has appeared since Spencer Wells's *Cancer and Cancer Curers*. He has had large opportunities of learning the innumerable forms—some of them particularly insidious—which it assumes: these he fully describes. The time has come for plain speaking on this subject, and Dr. Bashford speaks without reserve or ambiguity.

From this they were entitled to draw the inference that the editor of the paper supported the views put forward by Dr. Bashford.

The plaintiff, examined by Mr. Shearman, said he was 57 years of age, and that he became an M.D. of Glasgow in 1868. Two years later he wrote a thesis on cholera, and was made F.F.P.S. For twenty-one years he had been senior physician at the Hospital for Women (Glasgow), but he resigned in 1896. He studied surgery under Lister, having been one of his dressers. In 1873 he wrote a pamphlet on antiseptics, and in 1875 he wrote on diphtheria. In 1876 he published in a medical journal an account of the secondary treatment for small-pox, which was now in general use, and had tended to decrease mortality. In 1894 he ceased to operate in cancer cases, because he had met with no success. He never succeeded in saving life. He always found that cancer was associated with constipation, which was due to excessive meat eating. He also began to make a special study of the blood in cancer cases, and in 1904 came to the conclusion that cancer was a manifestation of poisoned or diseased blood. He devoted ten years, from 1894 to 1904, to the study of cancer. His treatment might be thus summarized: Clearing the bowels once a day; special diet; administration of thyroid gland as a medicine to supply the deficiency in the body. Fresh air was also of importance. He had used this treatment for eight years with success in cases considered too bad for surgical treatment. Under him there had been recoveries. Over all, he was successful in 10 per cent. of his cases. In 1907 a Mrs. Reilly, who had been discharged as incurable from King's College Hospital, came to him, and he cured her. As to local treatment, he had frequently injected formic acid in solutions of varying strength, and had found it beneficial. He had also successfully applied hot air to the surface of a tumour, the air sometimes being at a temperature of 500°. In 1903 he published a work known as *Cancer in its Causation and Cure without Operations*. That described his treatment at the present time, but there had been a few additions since. He did not object to the removal of a cancer by surgery in addition to his treatment if the blood was in the right condition. He could identify the blood of a cancerous patient.

The Lord Chief Justice: Are you able by your microscope to say what blood is always present in a case of cancer?—Yes.

Continuing, witness said he had made scores of experiments. The experiment of injecting poisonous blood into a tumour had been made. He had been appointed physician in charge of the Cancer Research department at the Battersea Hospital.

By the Lord Chief Justice: The abandonment of operations caused him a loss of income. His books had proved to be a loss, and he sold no medicines. He had never tried to practise on the credulity of the public.

Cross-examined by Mr. Duke: When he had a patient who could pay he asked for fees, as he liked to pay expenses, but he did not need to practise for profit.

Mr. Duke: Do you agree with your counsel's statement, "No one comprehends cancer"?—I do not. I think I comprehend it.

He also said, "The plaintiff has no cure"?—Quite correct. There is no specific cure for cancer. I have always maintained that.

Continuing, he said that it was the most terrible disease in existence, and that the death-rate had gone up 180 per cent. during the last forty years. He regarded it as due to the increased consumption of butchers' meat, neglect of the condition of the bowels, and absence of fresh air.

Mr. Duke: Do you think that sanitary conditions are better now than they were?—Yes, as regards fresh air.

Continuing, witness admitted that he had dealt severely with persons holding rival theories. In a lecture on vaccination he had spoken of serum "quackery." In his work, *Cancer without Operation*, he had used the phrase "quacks with their serum have been enabled to prey upon the country," but had not libelled any one. It was the system he objected to. In various books he had said that surgical operations almost amounted to a crime. He had also said that if he had operated under certain conditions he would not be acting in the interest of the patient. In his work, entitled, *Cancer and its Remedies*, he had said that "the patient's welfare would not seem to be the primary consideration."

Mr. Duke: But that is not a criticism of your own conduct?—It is, if I so acted, because I am a surgeon myself.

Continuing, witness admitted that he had made strong criticisms upon the use of the knife. He began research into the causes of cancer sixteen years ago, but within the last ten or twelve years several centres of investigation had been organized. He read the reports of their proceedings. They had had a special department of cancer at the Middlesex Hospital for ten or twelve years. His teaching was contradictory of all the conclusions at which these bodies had arrived up to the present time. His treatment of cancer had passed out of the experimental stage. It passed out of that stage in 1896, when he cured two cases of cancer of the abdomen. He read a paper to the Gynaecological Society, but did not describe the use of anything except thyroid gland. He maintained that his present treatment was merely a development of the treatment then advocated. He never wrote "popular" works; he may have given a lecture or written a letter to the papers. On June 11th, 1907, he wrote a letter to the *Daily Mail*, describing treatment with trypsin. In that letter he stated that cancer was not only curable, but easily prevented. He adhered to that view now.

Mr. Duke: Is that a position which you have taken with a view to impress the public mind?—Certainly.

Continuing, witness said that the *Daily Mirror* published a statement to the effect that he (witness) said there were 30,000 cases of cancer which were curable. It was his view that cancer was easily preventable, and that there were invariable symptoms which would enable it to be discovered (Mr. Duke read from *Cancer and its Remedies*, p. 126). Witness always found rheumatic pains; a dull complexion; susceptibility to cold. They were associated with cancer; they were not premonitory of any other disease. He had written, "It is a well-known fact—at least, I am convinced upon this point—that cancer is invariably preceded by a certain and undeviating train of phenomena, which should give ample warning of not only the possibility of the disease being in sight and long before its actual presence has become an established fact." He now adhered to that. The treatment advocated was the consumption of living tissue as far as possible in place of dead tissue. He would remove constipation, which would be to a large extent responsible for the three symptoms. He also recommended (in *The Cancer Scourge*) examination of the blood, and that a competent authority should be consulted.

Mr. Duke: Is there any other gentleman besides yourself who adopts your methods?—Yes, one; but examination of the blood is common.

Who else, besides yourself, examines the blood in cancer cases by microphotography?—No one. The microscopic examination is the only one I have found to be any use.

Do you know of any medical man who agreed with you that cancer can be detected by examination of the blood?—No.

Continuing, he said he knew of no method of examining the blood except his own which would show the presence of cancer.

Continuing, witness said that (*inter alia*) raw turnips, carrots, and onions should be taken as food in the form of salads. Unfired bread was also advisable. It was three times as nourishing as cooked bread. In *Cancer and its Remedies* he also recommended sour milk. Dietetic treatment and the clearing of the bowels was the most important. Local treatment was also necessary occasionally. Hot air, for instance, applied to the part tended to attract the blood to the place and promoted absorption.

In a recent pamphlet he had expressed the view that the only successful treatment for the cure of cancer was dietetic. He would recommend the diet above mentioned independently of cancer.

Mr. Duke: How is it a treatment for cancer if you recommend it for all of us? Does it amount to this, that you say the body should be kept healthy?—Yes.

Continuing, witness said cancer was difficult to diagnose, that a benign growth could not always be distinguished from a malignant. He did not agree that they could not be distinguished otherwise than by microscopic examination of the tissue. It was impossible to get the tissue in a normal condition under the microscope, as the tissues were frozen.

Mr. Duke: Do you know that thousands of operations are performed in which cancerous growth is extirpated in the strict sense?—I know there are numbers of cases, but do not know the results.

Take Sir Felix Semon, did he not extirpate cancer successfully in many cases?—I do not know about his cases, but I do know that operations are not generally successful. In my own experience operations did not succeed at all.

You suggest that operation aggravates the disease?—Yes.

Continuing, witness said that every case which he had referred to as cured had been cured by his method. The treatment, which he published in 1896, was the use of extracts of the thyroid gland. The combination of dietetics made the treatment more rapid. In 1903 he adopted cocaine. In 1903 he began the use of hot air. In 1904 he also added salicylate of soda; but that was not now necessary, having regard to the dietetic treatments. He had tried *x* rays locally, and had recommended high-frequency treatment. The only other person who recommended the use of hot air was a Frenchman who practised medicine. In a work known as *Health at its Best* v. *Cancer*, he had written that a 1 per cent. solution of caustic potash, taken subcutaneously, afforded some temporary relief. Last year he had recommended radio-active drinking water. These were all experimental means founded upon sensible facts. The blood of a healthy patient and the blood of a cancerous patient were different under the microscope.

Mr. Duke: Is there a different appearance of the blood according to the length of time the blood has been taken from the body?—Yes.

Continuing, witness said the blood corpuscles were supposed to be like bi-concave lenses, but they behaved like spheres. In a cancer patient there was a heaping up of corpuscles. This condition was illustrated on page 3 of *The Cancer Scourge*. That was the only sign that he was aware of. It amounted to uneven distribution of the blood corpuscles. In advanced cases there was a diminution in the number of cells, as in pernicious anaemia. This theory had not been presented anywhere before it was published in a lecture at the hall of the Society of the Golden Age. It was a discovery of supreme importance in the history of cancer. He had not heard of it being discussed amongst learned men. He denied that the photographs in his books showed symptoms in the blood which could be produced wholly irrespective of cancer. Formic acid, if not properly applied by injection, might produce ulcers. He was of opinion that formic acid had a selective action in that it would act more quickly on a weaker or diseased cell. It only acted locally. Atoxyl was a preparation of arsenic. Arsenic was not cumulative in effect. He had used atoxyl; 54 to 55 grains of atoxyl would be given in the first

fifteen days; in the next he would give 37 grains, that would be about 6 grams of atoxyl in the month. He had never heard of a case in which 0.6 of a grain of arsenic in a month had even produced symptoms of blindness.

The Lord Chief Justice: We have not yet heard of the composition of atoxyl.

Mr. Duke had not finished his cross-examination when the hearing was adjourned.

When the Court resumed on the following day the cross-examination of Dr. Bell was continued.

The thyroid extract did not act specifically on the tissue, but on the blood. The cure of cancer must be by the action of Nature, and not by medicinal or surgical means. There was 24 per cent. of arsenic in the drug "atoxyl," but it was forty times less poisonous than arsenic. The use of arsenic in treating cancer had been abandoned by the common sense of the profession.

At this point Mr. Duke put to the witness certain photomicrographs. The witness said that one of them (1 *a*), by the clotting together of the corpuscles, indicated cancer. The same photograph indicated a highly neurotic condition of the patient.

Mr. Duke: Is there any indication in the blood of a cancerous patient which you do not see in No. 1 *a*?—That is the blood of a patient who has had cancer. It is a highly toxic blood.

As to No. 7 *a* what do you say?—That is blood having two or three points indicating that cancer has been present, but the blood is improving.

As to No. 9 *c*?—That is clearly the blood of a healthy person, but the patient is neurotic.

The Lord Chief Justice: You may leave out that the patient is neurotic. You have said it has nothing to do with cancer

Assume No. 1 *a* to be the blood of Mr. Barnard (who is standing here), do you still say it is the blood of a cancerous patient?—I still say that there is indication of cancer.

As to No. 7 *a*, that was also taken from Dr. Barnard within an hour of No. 1 *a*?—The statements are not incompatible: they all indicate an unhealthy condition of the blood.

Continuing, witness did not say that one part of the blood might be cancerous while another might not.

Mr. Duke next put in a photograph of a drop of blood which he said had been taken from a patient suffering from cancer in the tongue. Witness said that there was nothing in that photograph compatible with a cancerous condition of the blood. As to the photo No. 9 *c*, he would be surprised to hear that this was taken of the blood of a patient who was suffering from inoperable cancer of the stomach.

Down to 1904 he was in general practice in Glasgow. He had been physician at a women's hospital. In 1890 there were three indoor patients at the hospital. He was not exactly the founder of the hospital, but the chief instigator. Up to 1894 he had operated, on an average, eight times a year. Between 1892 and 1894, however, he had not operated ten times. He had no successful operations. As to the alleged success of the surgeons, it generally happened to be something other than cancer. He did not agree that while the tumour was within the breast it was impossible to say whether it was cancerous or not. From 1904 until now he had seen above 100 cases of cancer. Notes of them appeared in his case-books. Many of his patients had been brought to him by his books and letters in the press; others on the recommendation of the persons whom he had cured. He had vouched Dr. James Mangham as one who could support his claims. Dr. Maugham had had good opportunity of studying his methods. He employed atoxyl, but the patient died in each of three cases. The tumours disappeared, but the patients died. He recalled the case of a naval lieutenant which was referred to in his book.

He was referred to in his book (dated 1906) as having been successfully treated. That lieutenant died some months later of sarcoma, but he was then out of his care. He had referred to Dr. Marshall of Cirencester as being able to vouch his claims. He treated a certain patient about the end of 1908. He now heard for the first time that the patient died of cancer in 1909. It was a cure for the time. He did not know Dr. Marshall personally.

Mr. Duke: Take the case of an operation and a recurrence of cancer a few months later, that would not be a cure?—No.

Continuing, he said he could give several cases known to be cured by his method. There was a case of cancer of the breast—one of Dr. Brockman's, Stafford Square; several of Dr. Cowen's, Half Moon Street (Mr. Cowen lived in the same house as the witness); and one of Mr. George Brown, editor of the *Medical Times*.

In the preface to his book, *Cancer and Its Remedies*, he had stated that surgical treatment was invariably followed by the recurrence of the disease in a more aggravated form. He adhered to that. As to an interview with the *Daily Mirror* on August 27th, 1908, he had said that "hundreds worry in secret about some growth which they do not understand, fearing that the doctor will diagnose it as cancer and hoping to put off the evil day. Let them go to their family physician, and if he thinks the matter serious, let him come to me." If that was in print he must have said it.

In re-examination, witness said the naval lieutenant was not under his (witness's) treatment at the time of his death. He went back to the former treatment before his death. As to the consumption of flesh, he found that in Egypt cancer was practically unknown among Arabs who eat no flesh. In India the results of investigation was not so satisfactory. He had been a member of the British Medical Association for forty years. He offered them a paper on cancer in 1909 to be read at Sheffield, but he was eventually only allowed to speak under protest. He tried next year, but the paper was refused on the ground that there would probably be no time to read it. He had attempted to publish his views on the subject. A paper which he had subsequently sent to the editor of the JOURNAL was refused as unsuitable.

The Lord Chief Justice: They were not bound to publish everything. It contained the phrase "a mean advantage."

The Lord Chief Justice: How many cases of undoubted cancer have you cured?—Forty per cent. of my cases.

But the jury will want to know how many?—During the last three years I have treated 70 cases which I believe to be cancer, and can certainly guarantee that 25 have been cured by my treatment.

Have you got your case sheets here? Mr. Duke's witnesses might want to see them.—I do not think it is right that they should; but I do not mind if they do.

The Lord Chief Justice: We are not trying the question, Is this treatment successful? Some independent medical gentleman should be allowed to look at them.

Mr. Duke: Mr. Lazarus-Barlow can do so.

In further answer to the Lord Chief Justice, the witness said that it was essential the blood to be examined microscopically should be examined when fresh. His experience was that it was only conglomeration of the blood corpuscles in the blood that was indicative of cancer. Rheumatism also caused conglomeration, but the presence of a lump or tumour helped to distinguish between the two. He had not exploited this theory for monetary purposes. He was poorer now than when he came to London. He had never known one of his patients suffer from arsenic poison.

Mr. Valentine Knaggs, L.R.C.P.E., M.R.C.S., 41, Welbeck Street, said he was partly a general and partly a consulting practitioner. He had known Bell's treatment for cancer for three years and had used it for his patients. He believed in the dietetic treatment but did not adopt the local treatment. He also used "radium emanation treatment." As to examination of the blood, he was bound to say that it was only in advanced cases that one found granular matter and could make a definite diagnosis. In the early stages the condition of the blood was such that it might indicate cancer, tuberculosis, or Bright's disease. He had two or three hundred photomicrographs. Healthy blood always varied according to the vitality.

Photographs were produced by the witness showing the condition of the blood in various stages of cancer. The periodic weekly examination of the blood was useful to see whether the disease was advancing; but, in order to see whether cancer was present, the body must be examined. He would not like to say whether treatment of the blood would cure cancer, although he was sure it was the right principle. What Dr. Bell described as "conglomeration" might be caused by any disease. He had watched three or four cases treated by Dr. Bell's method. In the first he saw what was, in his judgement, cancer of the tongue gradually disappear. Three others were inoperable, and the patients died; but, in his view, the dietetic treatment greatly relieved the patients' sufferings.

In cross-examination, witness said that the treatment of the case of cancer of the tongue took place last year, and went on for six months. He had had experience of syphilitic cases which produced similar conditions of the tongue, and they yielded to treatment. In the case in question, the symptoms were those of cancer, because they were so serious; but syphilis would, of course, yield to treatment more easily. As to the cases that died, they were all treated for about six months. No remedies were used other than diet and radium. In the first there had been cancer for several years. The diet was partly of uncooked vegetables. He did not believe in uncooked bread, as people would get tired of it. If there was other evidence of cancer in the body, the microscopic evidence was of value. He only attached value to conglomeration because it occurred in every septic disease. He had not distinguished the granular matter in the blood, because it was difficult to get it.

The witness was not re-examined.

The Lord Chief Justice: When you saw this man who was suffering from a growth in the tongue you were not thinking of this case?—No.

Suppose you found a tongue with a growth, would the condition of the blood at that stage help you to say whether it was a cancerous growth or not?—Yes.

Dr. John Pollock Simpson, examined by Mr. Herbert, said that he had known of Dr. Bell's system since last year. He agreed with the dietetic treatment. He had sent patients to Dr. Bell and had kept them under observation while they were there. He had sent a case of cancer of the breast, and had also seen the "tongue" case of which Mr. Knaggs had spoken. Altogether he had seen half a dozen of these cases, but atoxyl had not been used to his knowledge. In one, where there was cancer of the pharynx, which was quite hopeless, there was relief from pain.

In cross-examination, witness said he was in practice at 8, Upper Montagu Street, Montagu Square. He had heard of treatment with formic acid in one case. One of the cases he had seen had died; one (the coachman) had recovered health; the others were still suffering from cancer. In two there was an absence of objective signs, and they were in normal health. In one, which was a tongue case, the patient was a gardener; there had been ulceration of the tongue, but it had nearly passed away when he saw it. In another there was tumour of the breast, and he could not say whether it was cured or whether it was cancer. There was swelling, but no ulceration or inflammation. Constipation was not a symptom of cancer.

He was of opinion that a vegetable diet would ameliorate and might cure.

Mr. Robert Simpson of Plymouth said he read of Dr. Bell's treatment in the *Medical Times*. He sent a patient to Dr. Bell, and he was unable at present to form any opinion of the treatment. Atoxyl was used, and there were no symptoms of arsenic poisoning. The first case was one of cancer of the uterus. For the first month or two he thought there was an improvement in the local conditions. The second case appeared to him to be inoperable, and he placed the possibilities of Dr. Bell's treatment before the patient, and it was begun in August, 1911, and still continued. The appearance of the breast had altered, as it had become dark in colour. The patient had gained in weight. As regards pain she was worse. The atoxyl had been injected nineteen times, but there was no sign of poisoning.

In cross-examination he said that the dose of atoxyl began at 15 minims and went up to 25. It was a 10 per cent. solution. He had seen no reason for abandoning the surgical treatment.

Dr. Thomas Dutton, 35, New Cavendish Street, M.D.Durham, etc., said that he was a colleague of Dr. Purcell for many years, and had often discussed cancer with him. He had come to the conclusion ten years ago that in cases of internal cancer operation was inadvisable. Rightly or wrongly he had also come to the conclusion that the disease was due to a toxin in the blood.

Cross-examined, he saw a patient in Dr. Bell's consulting room last August. An external cancer might be removed, but the patient's health must be seen to first.

Mr. Duke: Cancer produces a toxin in the blood?—Yes.

The Lord Chief Justice: Just think. You said just now, "toxin produces cancer." Which is it?—It is that toxin produces cancer, but he has never traced any toxin in the blood which be associated with cancer. A toxin would be detected by analysis.

Mr. Cowen, practising in Half Moon Street, said he had administered Dr. Bell's treatment for seven years. He had given thousands of injections of atoxyl, but he never found any traces of arsenical poisoning. Early in 1911 he saw a case of cancer of the breast under Dr. Bell's treatment, and there was a marked improvement in her health. Her name was Mrs. Compton. He knew of another case of cancer *en cuirasse*. It was a bad case, both breasts having been removed. She was put on Dr. Bell's diet, and had injections of atoxyl. She died eventually of heart failure. The treatment did not have any effect on the heart, and she really improved very much. She was treated at witness's house. He had grave doubt whether cancer could be removed by the knife. He was of opinion that a toxic condition of the blood was produced by absorption of putrescent animal food. He was certain that cancer itself produced toxic matter which was disseminated in the blood.

In cross-examination he said there was a book by Mr. Ross, published four years ago, termed *Studies in Cell Reproduction in Cancer*. This bore out Dr. Bell's theory.

There was no evidence that the poisonous substances from the bowels had been found in cancerous growth, nor had they been found in blood. They had been found in the intestines of flesh-eating people. If cancer was due to an affection of the blood, excision could not cure cancer. He had grave doubt whether excision had ever effected a cure.

The Lord Chief Justice: How, then, do you explain that some persons who are operated upon get well?—The blood stream may have ceased to be affected.

Continuing, witness said that operation was a useful adjunct in many cases, but was not essential. Cancer was rarer among vegetarian than among flesh eating races, and was rarer amongst savage than among civilized peoples. Cancer occurred in fishes—in fish which are found at the estuaries of rivers, where there was much offal; but it was also found amongst codfish on the banks of Newfoundland.

Mr. George Brown, who had been for many years a general practitioner and was formerly a member of the General Medical Council, also gave evidence.

Mr. Edward Foster Drake-Brockman, F.R.C.S., L.R.C.P., said he became aware of Dr. Bell's cancer-treatment in May, 1910. A patient of his was then suffering from a mammary tumour; it had all the signs of a malignant tumour. He suggested that she should see Dr. Bell and took her there himself. The patient was now well, the tumour having disappeared in about eighteen months. She had fallen into the diet that she will take nothing else. (Laughter.)

Mr. Duke: There was a doubt about its being cancer?—Yes, that is so.

That was the case for the plaintiff.

Mr. Duke, in opening the case for the defendants, said what the jury had to decide was whether, having regard to the state of knowledge, and the claims of Dr. Bell, the criticisms were justified. The basis of his claims was that cancer was a disease of the blood. That disease, according to him, was due to the consumption of flesh food, and the discovery was one of the first importance. If, however, cancer could be extirpated by the knife, the blood theory was exploded. He, however, would adduce professional witnesses of great eminence to prove that the theory of poison passing from the intestine into the blood, and so causing cancer, was mere speculation. Dr. Bell had said there were three symptoms of cancer, which were really symptoms of constipation. It was sufficiently startling merely as stated. As to the process of a diagnosis by photomicrographs. "If I find the three symptoms," said the plaintiff, "I recommend the examination of the blood. Having examined the blood I can say whether it is that of a cancerous patient." He would show, with reference to the photographs produced, that Dr. Bell had been mistaken in both cases. He had actually stated that the blood of Mr. Barnard was indicative of cancer! Moreover, another witness who had been called disagreed with Dr. Bell's theory as to what could be discovered from examination of the blood. He would call witnesses who would prove that a vegetarian diet was no protection against cancer either in the race or the individual. As to formic acid, that when introduced into the body had some action, but no curative action. As to "atoxyl," he would call Dr. Maugham to state his experience. If the use of that was to produce arsenical poisoning, it was a most serious matter.

Sir Felix Semon, K.C.V.O., M.D.Berlin, F.R.C.P., examined by Mr. Gregory, said he had had a large experience of operating for cancer from 1891 to 1909. He had operated in 25 cases of cancer of the larynx. In each of these cases he was certain of the existence of cancer by examination of the tissues. Eighty per cent. of these cases were successful; three patients had died from other causes. He took care to follow the history of his patients after the operation. From his experience he thought cancer was certainly not a primary blood disease, because if that were so none of his cases could be lastingly successful.

Cross-examined by Mr. Shearman, he said that he had never had the blood of his patients examined.

Dr. Ernest Francis Bashford, M.D., said he had been in charge of the Imperial Cancer Research Institute. He had engaged in research under Sir Thomas Fraser, and he had studied in Berlin and in Frankfurt under Dr. Ehrlich. In August, 1902, he was assistant Professor in Edinburgh, and he left there to go to the Cancer Institute. He was not in practice, and never had practised. He was in charge of a laboratory which did not treat people for cancer or admit patients; but he and his colleagues had access to patients in the hospitals. He had attended the Cancer Congress, representing the Government, and had read everything important on the subject of cancer. The object of the appointment which he held was to search for a cure for cancer without the use of the knife. He first studied the plaintiff's books in 1909. He first became acquainted with his name by seeing it in the press. As to the theory that cancer was a disease of the blood, that was not true in the form in which Dr. Bell stated it. It used to be so held, but the last serious discussion was held in 1874, and since 1880 it had not been held. The reasons which disposed of the idea were (1) the enormous improvement in surgery which showed that cancer could be excised, (2) the investigation of the structure of the minute areas in which cancer arose. The "three symptoms" were not distinctive of cancer. He was familiar with the examination of the blood, but nothing had been discovered which supported the theory that cancer resulted from a toxin in the blood stream. As to the proposition that the toxin in the blood was caused by the flesh diet, it was true that there had been theories.

There were 30,000 deaths each year from cancer in Japan and there were many cases among the peoples of India. Cases of cancer also occurred among Arabs, but there were no statistics. There was scientific knowledge as to the use of atoxyl. He was familiar, too, with formic acid. Acetic acid had been used in the treatment of cancer, but had been given up. As to treatment by the thyroid extract, there were records of cases having been so treated. The results were very inconstant, and in 1903 he came to the conclusion that it was valueless. His experience of surgical operation was that surgery was the only method by which a cancerous growth could be cured. He had tested the effect of operation on mice, frogs, and horses. As to the article, he had written it at the request of the Editor of the BRITISH MEDICAL JOURNAL. He had no knowledge of Dr. Bell except through his writings, nor had he any interest in promoting the surgical treatment of cancer. Having read *Cancer and its Remedy* and certain articles by Dr. Bell, he came to the conclusion that his views were erroneous. In forming a judgement upon the book he remembered that it was by a medical man. To the patient who was suffering from cancer the book would be most misleading. To induce persons not to submit to operation was a very bad thing. Delay in such a case might be fatal. He came to the conclusion that the plaintiff's treatment as a substitute for operation would be disastrous. It was upon this ground that his criticism was made. He believed it was made in good faith.

Cross-examined by Mr. Shearman, witness said he knew nothing about Dr. Bell. He intended to make the charge that he was trading upon the credulity of the public with a view that they should become his patients. He had not changed his view that the books were written for personal gain.

Mr. Shearman: Is it your opinion that he wanted to make money out of frightened persons?—Yes and no. I have now formed the opinion that in addition he wrote his books out of vanity or ignorance. I do not think he is an earnest or disinterested person

Do you think that he has given honest evidence in the witness-box?—Yes.

Continuing, witness said that he accepted the statement that Dr. Bell lost money by adopting his cure. Once the use of anæsthetics became general, operations became more frequent. It was true that in some respects surgery had ousted therapeutics. Their information at the Cancer Institute was largely derived from hospitals, so that the mass of their information came from places where operations were used. Since 1792, or thereabouts, they had been trying to cure cancer at the Middlesex Hospital. He attached the greatest importance to the question of cure without operation. In the last report from the institute he had said, "Prevention and cure are still remote." General good health was a predisposing advantage to

a man who was suffering from cancer. There was nothing in his statistics to show that the consumption of alcohol had any effect upon cancer. There was little evidence that flesh-eating people suffered from cancer more than others. He did not agree that the cancer was caused by an external parasite.

The court then adjourned till the following day.

PENAL SERVITUDE FOR PROCURING ABORTION.

IN the High Court of Justice, Edinburgh, on June 4th, Dr. George Bell Todd, of Glasgow, was charged on an indictment in which there were eighteen charges of procuring abortion and one of murder. He had pleaded not guilty in the Glasgow Sheriff's Court on May 24th, but on this occasion he pleaded guilty to four charges. His counsel, who addressed the court in mitigation, pointed out that in all four charges, to which the accused pleaded guilty, the women were married, and at least three of them had gone to Dr. Todd with their husbands entreating him to perform the operation. Dr. Todd had held a good position in Glasgow, and as the result of this case his name would be removed from the *Medical Register*, and he would no longer be in a position to earn his living by practising his profession. The presiding judge, Lord Guthrie, said that though he had listened with great attention to what had been well put by counsel, he had great difficulty, although he had been anxious to find them, in hearing any circumstances which could properly be called palliative. He could not accept the contention that because the women were married and accompanied by their husbands that was palliation. In ordinary cases of this nature the sentence had been from three to five years, and in one very exceptional case it was only eighteen months. This case was not an ordinary case. He had difficulty in not going beyond a sentence that had been pronounced in the case of a poor woman unskilled and in the case of a man also unskilled. So far as was known, this was the first case, he was glad to say, of a medical man being sentenced for this offence in Scotland. He thought he would be doing his duty in the interests of the State, in the interests of such wretched women as had been concerned in this case, and in the interests of the noble profession which the prisoner had dishonoured, if he imposed a sentence of seven years' penal servitude.

WORKMEN'S COMPENSATION CASES.

Small-pox from Corpse.

AT Folkestone County Court, on May 21st, the judge gave his decision in the case in which the widow of an undertaker's employee claimed compensation for the loss of her husband, who was alleged to have contracted small-pox from a corpse which he assisted to place in a coffin, there being no knowledge that the deceased had died from small-pox.

It was alleged by the defence that there was no proof that the claimant's husband contracted the disease from the corpse. Three men who, it was stated, assisted at the burial developed small-pox.

His Honour found that the applicant was entitled to compensation, the amount to be arrived at in the usual way.

A Claim in respect of Anthrax.

In a case at Durham, on May 21st, it was alleged that deceased had contracted anthrax through coming into contact with the carcasses of animals which had contracted that disease. In July last a horse belonging to the respondent died suddenly, and was found to have died from anthrax. The deceased had cut up the horse for the purpose of feeding some sporting dogs, and it was alleged that he had then contracted the disease.

His Honour said that, having regard to the facts, he was unable to say how or when or under what circumstances the deceased contracted the disease, and therefore, in his opinion, he had not died from an accident which arose out of and in the course of his employment. He therefore gave judgement for the respondents.

Medical News.

THE fifth annual dinner of the Medico-Legal Society is to take place at the Holborn Restaurant next Thursday, June 20th. The chair will be taken by the President of the Society, Sir John Tweedy.

UNDER the will of the late Mrs. Catherine Wilkin, Sidmouth Cottage Hospital, the Royal Hospital for Incurables, Putney, and the Hayes Cottage Hospital, Middlesex, each receives a bequest of £500.

WE commend to the notice of readers a movement for the establishment of a memorial to the late Dr. Charles James Allan, of whose useful and unselfish life some account appeared in our issue of June 1st. It includes two objects: the placing of a fitting memorial over his grave in Lasswade Churchyard, and the provision of an annuity for his widow. Subscriptions may be sent to the honorary treasurer of the fund, Mr. Archibald Gilchrist, Thornhill, Lasswade, N.B.

At a meeting of the Isle of Wight County Council on June 5th, the post of county medical officer and schools medical officer, vacated by Dr. Barford, was filled by Dr. James Pixton Walker, assistant county medical officer for Hampshire. There were said to be several other candidates, but the names of only two were mentioned, these being Dr. Gordon Evans, of Evesham, medical officer to the Pebworth Rural District Council, and Dr. F. G. Bushnell, of Worthing.

THE report of the Nightingale Fund for 1911 shows that after the payment of grants towards the cost of the training school at St. Mary's Infirmary, to the Metropolitan Nursing Association for District Nursing, and to Queen Victoria's Jubilee Institute, the year's working ended with a balance in hand of over £200. The list of those who have received their training at the school now includes 64 matrons, 8 assistant matrons, 5 superintendents of district nursing, 1 sister and 2 nurses in the Indian Nursing Service, 3 sisters and 6 nurses in Queen Alexandra's Army Nursing Service, and 3 sisters and 1 nurse in the Naval Nursing Service.

THE twelfth excursion of the V.E.M. (Voyages d'Etudes Médicales) is fixed this year for the first fortnight of September. It will visit the health resorts of the centre of France and Auvergne. The starting place will be the sanatorium at Lamotte-Beuvron (Orleans line), and among the places visited will be Mont Dore, La Bourboule, Royat, Chatel-Guyon, Vichy, and Bourbon l'Archambaut. The excursion is under the scientific direction of Professor Landouzy, Dean of the Medical Faculty of Paris. The organizer is Dr. Carron de la Carrière, 2, rue Lincoln, Paris (8e). Those who wish to take part in the excursion should notify him of their intention before August 20th. The subscription (230 francs) should be sent to Dr. Jouast, 4, rue Fréderic-Bastial, Paris (8e). A reduction of 50 per cent. on the ordinary fares will be given by all the French railway companies on application.

THE first of the three special cinematographic demonstrations which we recently announced to be in prospect, took place on June 5th before a large gathering of medical men and medical students. With one exception, all the films shown were supplied by Messrs. Pathé Frères, the subjects being the movements of the stomach, the mosquito in relation to campaigns for its destruction, the amoeboid movements of leucocytes, the phenomenon of agglutination, the organisms of spirochaetosis gallinarum, syphilis, Vincent's symbiosis and relapsing fever, and the trypanosomes of Lewis and Bruce. The object of these demonstrations, which have been organized by our contemporary *The Bioscope*, is to show what has already been done in the way of obtaining permanent records of the movements of living organisms as seen under the microscope and ultramicroscope, and to prove how great are the possibilities of cinematography both as an aid in scientific research and as a force in ordinary and special education. On this point Mr. C. H. Heydemann, Ph.D., who introduced the proceedings on the occasion in question, rightly suggested, we think, that the future of motion pictures largely rested on their educational value.

THE spring dinner of the Glasgow University Club, London, took place at the Trocadero Restaurant on June 6th. Mr. William Lorimer, LL.D., Chancellor's Assessor on the University Court, was in the chair, and the gathering included many representatives of medicine. In proposing the toast of the University and the Club, Mr. Lorimer said that as a man engaged in industrial and commercial work for many years past, he would at once declare himself as having no sympathy with those who would abolish or diminish classical education. Such limited training therein as he had himself received had left him with an abiding conviction that classical training provided the finest instrument for expression of thought the world had ever known. In regard to the future of the university, the problem of the application of scientific knowledge to construction work had been fairly well met and solved by it, but there still remained the problem of how best to distribute the results of manufacturing enterprise. In commerce there could be no peace, the struggle was unending; and in this warfare the university could be helpful both to engineers, manufacturers, and merchants. He was in favour, therefore, of the establishment of a faculty of commerce, a project which was already being considered by a special committee. If and when the qualifications necessary for a commercial degree came to be considered, he would urge as indispensable the inclusion of mental philosophy in the curriculum. A great merchant should not only have wide knowledge of the world, but a capacity for lucid thinking and succinct statements, and nothing could better assist him in these directions than a training in the subject in question. The toast to the guests was acknowledged by Professor G. C. Ramsay. The evening ended after the chairman's health had been drunk, on the proposal of Sir Donald MacAlister.

Letters, Notes, and Answers.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone unless the contrary be stated.*

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CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London*. The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, London*.

TELEPHONE (National):—
2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

BOOTERSTOWN asks for suggestions for a line of treatment for a gentleman, over 60 years of age, who for five or six years has been tormented with a metallic taste; he has had facial paralysis some years ago, also an attack of otitis media, and is now more or less of an invalid from mitral regurgition; all ordinary treatment has been of no avail.

TREATMENT OF TRACHOMA BY CO_2 SNOW.

T. W. asks: In the treatment of trachoma by carbon dioxide snow is it safe to apply a pencil of the snow in two or three places to the everted lid, thus freezing the lid in sections; or is it necessary to make a special mould of the snow to cover the whole everted surface, by this means freezing the lid by one application only? If the latter method is indicated, where can these special moulds be obtained?

ANSWERS.

£ S. D. is anxious to know what is contained in an injection for chronic urethritis, which is known on the Continent as "Lap," and much used, he believes, in military practice.

*** Inquiries made among those familiar with French practice of various kinds, including a French military surgeon, would appear to indicate that, so far as France is concerned, there is no remedy known by this title.

LETTERS, NOTES, ETC.

"DUBLIN UNIVERSITY MEDICAL COLLEGE."

IN the account of Dublin University Medical College, line 14 from the bottom of the left-hand column of p. 1396, there is an obvious misprint; "1911" should be "1711."

INUNCTION TREATMENT AND THE PREVENTION OF SCARLET FEVER.

M.D., M.R.C.P.E., D.P.H. writes: Some eighteen months ago I saw a child who presented a febrile sore throat and a history of a transitory rash. The mother, who had noticed the rash, thought it was one to which the child was accustomed; she imagined she had often seen such a rash on the child's skin before. The soreness of the throat was slight and not distinctive, and under these equivocal circumstances I and the mother decided to try Dr. Milne's method of inunction. This was done by the mother, an honest, capable, untaught (in this respect) woman. Other children started with scarlet fever, the father took it, the mother took it, three weeks after the first child commenced. I concluded that the first child had infected the others. The question was, when—before or after the inunction method? I was in doubt. No one else was. It appeared that the inunction had failed. If any one wishes to try this method, I would say to him: Be sure of your nurse, be sure of your disinfection, and even then tremble for the success of the process.

INTESTINAL OBSTRUCTION.

DR. J. REID (London) writes: Among the group of cases of obstruction published in 1912 in *St. Bartholomew's Hospital Reports*, I find no record of suppression of urine; hence the case to follow may be of interest. The attendance on a boy of about 2½ years extended from the 3rd to the 10th. He had bronchopneumonia, chiefly on the right side, and had had slight diarrhœa. On the 4th I gave calomel for constipation. On the 5th rigid abdominal wall, no motion, vomiting, no urine voided for some hours. The bladder was empty, and pulse was not strong. I gave enemata of belladonna and ether, and failed to find definite bulging with finger in rectum. Nothing came after the enema except the water (warm). With raised buttocks I attempted to manipulate the cæcal region by the finger in the rectum. Operative treatment was refused. After thirty-six hours of suppression of urine (total) a little urine was secreted, the evidences of pain vanished, and, after being treated for bronchitis and constipation, he was discharged well on the 10th. I may say that on the 4th there was trouble with the water, but with hot water and some manipulation of the bladder it was passed. There was very little in the bladder. On the 5th I felt the empty bladder per rectum

A GREAT EXPERIMENT.

DR. A. W. GILCHRIST (Nice) writes: I can understand that the Bishop of North Queensland, although his attitude is ethically illogical, should consider "a great experiment necessary," and that he should be "prepared to carry it out" and that he should be confident of a favourable result (BRITISH MEDICAL JOURNAL, June 1st, 1912, p. 1253). It is more difficult to understand why you advocate the same project and cherish the same hope of success. It seems to me that Sir Richard Havelock Charles and the several other authorities who expressed the conviction that the tropics in general were unsuitable for *permanent* (my italics) habitation by white people are right, and that those who oppose this view, including Professor Anderson Stewart, Sir Charles Bruce, and the BRITISH MEDICAL JOURNAL, are wrong.

The facts already possessed by general pathology should be sufficient to discourage any such experiment as that suggested; I should add, perhaps, general pathology as it is understood, especially in France. I refer to a belief in diatheses, to the significance of constitutional tendencies, and to the superior importance of the "soil" over the germ, or most germs, in the genesis of disease.

The Bishop of North Queensland is inspired by a belief in the metaphysical equality of the white man. the BRITISH MEDICAL JOURNAL in his physical or constitutional identity of aptitude. Both imply, in more definite language, that the white man is plastic enough to be converted into a coloured man. This opinion is probably both theoretically and practically erroneous. Wiedersheim (*The Structure of Man*, p. 171) tells us that the average weight of the liver in the white races is 1,451 grams, in the black races 1,266—a difference of over half a pound; that the cranial capacity of the white exceeds the average of the various coloured races by from 250 to over 500 c.cm.; and that with greater volume in the frontal races the brain presents corresponding morphological and presumably histological differences. Why are these facts, as striking and suggestive as the colour and functions of the skin, not more generally known and appreciated? The presumed incapacity of the Caucasian to thrive in tropical climates is thus based upon biological factors. The nutritive processes, again, in the white man can be said to be different from the dark races. The northern races with big livers have great assimilative powers characterized by increased acidity (real or virtual) of the body fluids; the tropical races with bile-forming rather than glycogen-forming livers have higher disassimilative aptitude with decreased acidity of the body fluids.

One of the earliest effects on the white races (especially, I should say, on Britons) of residence in hot climates is a modification in this character of the liquid constituents of the organism; it is probably accentuated in the children. Eventually there is evolved the tendency to organic hypoacidity, a favourable soil (see Bouchard, *Maladies par ralentissement de la nutrition*—chiefly tuberculosis and probably cancer, Gautrelet) for the development of most of the degenerative diseases.

The leading article I have been quoting states finally: "It must not be forgotten that in a community it is, as a rule, the lowest classes who act as foci in the spread of epidemic diseases. It seems a pity that Australia should encourage in any measure the introduction and spread of diseases" (by aliens). "This would add enormously to the difficulties of the situation." Here again I must venture to differ. The aliens in question are less likely to suffer from epidemic diseases than a white population, for these coloured communities will be indentured, we hear; and we are also reminded that the success achieved in tropical hygiene and sanitation, already conspicuously great, will undergo marked advances in the future. The means of controlling tropical diseases under such conditions will obviously be greater in the case of indentured labour than in the case of whites, especially of whites claiming such freedom from sociological restraints as the average working classes of Australia.

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A Clinical Lecture
ON
COLIC.

DELIVERED AT THE LONDON SCHOOL OF CLINICAL MEDICINE.

BY

GUTHRIE RANKIN, M.D., F.R.C.P.,

PHYSICIAN TO THE DREADNOUGHT AND ROYAL WATERLOO HOSPITALS.

THE word "colic" was originally meant to be descriptive of a sudden, acute, paroxysmal pain produced by some abnormal condition of the colon. A wider significance is now attached to the term, which has come popularly to connote pain of this description occurring anywhere throughout the body, when it is dependent upon either irregular active contraction or excessive passive dilatation of involuntary muscular fibre.

The varieties of it with which we are most familiar, and with which only we are concerned to-day, are those met with in the abdomen, where it is symptomatic of a large variety of disorders. The most homely example of colic is that due to muscular spasm of the intestinal walls resulting from the presence of irritating and unsuitable food. The pain arising from this cause comes on suddenly, but is often preceded by eructations, nausea, borborygmi, and a sense of abdominal discomfort. It is mostly referred to the neighbourhood of the umbilicus, whence it may radiate in various directions. It is griping in character, and often so acute as to cause the sufferer to cry out, and to toss about in search of relief first in one and then in another position. It is controlled by pressure, and this is a point of primary diagnostic importance as differentiating it from the pain of peritonitis. It usually consists of a series of paroxysms which vary in duration and severity, and are frequently relieved by the escape of flatus or by an action of the bowels. The abdomen is nearly always distended, and in a thin person it is sometimes possible to note the passage of the peristaltic wave along the course of the intestine coincident with the paroxysm of pain. The griping discomfort is similar to that produced by a dose of aperient medicine, and is due to the forcible contraction of the muscular coat of the bowel in its effort to dislodge an obstruction. The cause may be a simple condition of constipation, but more frequently there is in association the presence of indigestible and irritating food. When the pain is due to faecal impaction, a history of previous constipation will be forthcoming, with scanty and infrequent stools that are always dry, hard, and scybalous. If the abdominal walls are thin, the colon may be felt to be loaded with faecal masses. An anal examination will often reveal their presence in the rectum. It is very easy to mistake a simple intestinal colic for more serious disease, and the greatest danger arises from the possibility of an acute intestinal obstruction being responsible for the colicky pains. Under such circumstances purgatives are, as we know, the worst possible drugs to use, and yet, how often, under the belief that some unwholesome article of diet is responsible for the pain, are purgatives administered not once only, but repeatedly! The pain of perforation is of sudden onset like ordinary colic, but it is accompanied by a quickened pulse and is speedily followed by evidence of collapse.

Another striking variety of colic is that produced by gall stones impacted in the cystic or in the common duct. The patient is very often—though by no means always—a fat plethoric woman past middle life. The pain is sudden in onset, severe in character, and is referred to the right hypochondrium, whence it is reflected through to the back and up to the right shoulder; also sometimes obliquely towards the umbilicus, but rarely below that level. It may be so agonizing as to double the patient up or cause her to writhe on the floor or bed. It is often accompanied by rigors and vomiting, and induces rapidly a condition of collapse, with profuse clammy perspiration and a soft, small, rapid pulse. It may cease as suddenly as it began, or it may be continued with intermittent periods of comparative quiescence over several hours or even some days. If the obstruction has occurred in the common bile duct and is complete, bile pigment speedily appears in the urine and the patient becomes jaundiced. When the stone is impacted in the cystic duct and does not, therefore, prevent the flow of bile through the hepatic and common ducts, there will be no jaundice. Cases of a milder degree of severity are met with in which it seems likely that the cause is not a calculus but an inspissated condition of the bile, which becomes so sticky and tenacious as to be unable to flow freely through the passages. When a stone becomes arrested in the ampulla of Vater, it may happen that the bile is forced up the duct of Wirsung—which also opens into this ampulla—into the pancreas, where it may set up an acute or even a haemorrhagic pancreatitis. This sequence of events is also possible without the presence of a stone to account for it, and here again it must be assumed that a viscid state of the bile is sufficient to cause the obstruction. The following cases are illustrative of such an occurrence:

A woman of stout build, and 56 years of age, was suffering from jaundice, which had lasted for two months. She had no acute pain and no vomiting, but she complained of constant nausea, with much tenderness and weight over the upper part of the abdomen. The urine was loaded with bile, contained indican, a trace of albumen, and copious urates. The motions were pale, but not entirely without bile. The liver was tender and smoothly enlarged to three fingerbreadths below the costal area. There was no special tenderness over the gall bladder region. The patient's age, the duration of her jaundice, and the fact of her having lost two stones in weight, all pointed to the likelihood of a malignant growth as the explanation of her symptoms; but against such an explanation were the facts that the hepatic enlargement was smooth, and that there was no evidence in any other organ of a primary lesion. Under careful dietary, rest in bed, and treatment by mild mercurials and ammonium chloride with taraxacum, the jaundice gradually disappeared, the liver diminished in size, and the patient made an uneventful recovery.

A man of 45 years of age, of gouty antecedents, and engaged in arduous sedentary work, had suffered repeatedly from minor abdominal attacks characterized by shivering, vomiting, paroxysmal pains referred to the upper part of the belly, highly coloured and concentrated urine containing bile and urates in excess, and on two occasions a temporary condition of icterus. After a period of unusually strenuous work he was suddenly attacked with pain such as he had experienced before, but of much greater severity, and followed within two days by jaundice, which deepened day by day until at the end of the week it was of the most acute description and accompanied by clay-coloured stools, urine loaded with bile, and tenderness to touch over the hypogastric and epigastric regions. The pain never achieved the intense degree that usually belongs to the passage of a calculus, and there had been no vomiting, but otherwise the symptoms pointed to the impaction of a stone, probably in the ampulla of Vater. His abdomen was opened and the gall bladder and bile ducts were found free from stones, but the pancreas was swollen and inflamed, though fortunately not haemorrhagic. The jaundice, in this case, was probably due to pressure of the enlarged head of the pancreas on the common bile duct, with which it is in close contact. The gall bladder was drained and the patient made a slow but satisfactory recovery. Some years later he developed a mild but persistent glycosuria, probably the result of secondary fibrotic changes in his pancreas. A point of diagnostic importance in this case was the rapid and extreme emaciation which accompanied the acute stage of the illness. Within a fortnight he lost 2½ st. in weight.

Comparable with biliary colic, and announced by the same sudden series of symptoms—rigors, pain and vomiting—we meet frequently, and most commonly in men, with another variety of colic in connexion with the kidney, the result of spasmodic contraction of the muscular fibres of the ureter when irritated by the passage of a stone or other foreign body. The pain is situated in one loin and flank and radiates downwards to the groin and testicle; sometimes also to the thigh of the corresponding side. It is quite as acute as in biliary cases and doubles the patient up; it may even be so severe as to induce collapse. The testicle of the side affected is retracted and often tender to touch. If the stone falls back into the pelvis of the kidney, or is passed on to the bladder, the pain ceases as suddenly as it began. While it lasts, micturition is frequent, the urine is scanty and often voided by a few drops at a time, and it may contain both blood and albumen. If a cystoscopic examination be made, the orifice of the ureter on the affected side may be observed to be swollen and irritable, the urine flowing slowly from it and being turbid or blood-stained. On manipulation the affected kidney is frequently tender to touch and may be enlarged. Renal colic is not always due to the presence of a calculus; it may also be produced by an excess of uric acid, blood clot, mucus, or fragments of new growth detached from the pelvis of the kidney. Pain not unlike that of calculus may be produced

by pyelitis, in which case the urine will generally be found to contain either pus or blood.

Another variety of colic is that dependent upon lead poisoning. The patient whose circumstances of life have exposed him to the influence of lead, after suffering during several weeks from headache, lassitude, nausea, and increasing pallor, becomes the victim of severe colicky pains of a twisting, knotty character, centring round the umbilicus. The bowels are always obstinately confined, the muscles of the abdominal wall are firm and contracted, and the local misery is relieved by steady pressure. The presence of a blue line on the gums, and the discovery of the metal in the urine, added on to a history of exposure to lead, and often confirmed by the occurrence of wrist-drop from paralysis of the extensors of the forearms, removes any doubts as to diagnosis when such arise.

Besides these classical examples of paroxysmal pain due to irregular contraction of non-muscular fibres which are met with in the abdomen, there are other important though less common varieties of colic encountered in that region to some of which I desire now to draw your attention.

It is almost certain that much of the pain associated with neurotic dyspepsia is produced by spasm of the muscular walls of the stomach. In a typical case of this description the patient suffers from flatulence, heartburn, and pain some hours after a meal. The discomfort is rapidly relieved by an alkali. On examination the stomach is found dilated; there is temporary tenderness on deep pressure over the pylorus; and the condition is often mistaken for duodenal ulcer. Here is an example:

An active man of 48 years of age had suffered over many years from recurring attacks of digestive disturbance the leading manifestations being heartburn, pain four or more hours after food relieved by another meal, epigastric fullness, constant eructations, constipation, disturbed sleep after 3 a.m., mental depression, and emaciation. His illnesses lasted over several weeks, always came as the result of overwork, and he invariably got well after rest, simple food, and antacid tonic remedies. There never had been haematemesis or melaena. Each attack was ushered in by colic in the upper abdomen, and the physical signs comprised a coated tongue, a moderately dilated stomach, tenderness on deep pressure over the pyloric region, a soft, rapid, and irritable pulse, and very active reflexes. Between times his health was quite satisfactory, except for occasional subjective discomforts which were of neurasthenic type. He saw many doctors, underwent much treatment, and had been strongly urged to have a gastro-enterostomy done as the only hope for relief. Time, patience, easier conditions of life, and careful management made this gentleman quite well, and for many years now he has not known that he is possessed of a stomach.

Sudden colic of an intense type is produced by the impaction in Wirsung's duct of a pancreatic calculus. The pain is centred in the epigastrium and radiates to between the shoulders and down into the deeper parts of the abdomen. It is accompanied by nausea, often by vomiting, and occasionally by syncope. The calculus may be passed into the duodenum and found in the stools. If retained, its presence leads to dilatation of the duct and may be the exciting cause of pancreatic fibrosis or suppuration. Glycosuria is a common sequel and indicanuria is present in many cases. The faeces contain an excess of fatty matter and also sometimes undigested muscular fibres. Jaundice may occur as a secondary complication from induration of the head of the pancreas.

Another form of abdominal colic is associated with spasm of the appendix, causing a partial occlusion of its lumen and leading to violent and irregular action of its muscular coat. When the pain is localized in the right iliac fossa it is not likely to be misinterpreted, but it is often reflected to the epigastric area, and then it is apt to be mistaken for an ordinary gastralgia. It may be unimportant and of short duration if the muscular efforts of the appendix succeed in dislodging the mucus or other obstruction to which it is due, but it may also be the precursor of an acute appendicitis. There may be one attack only, but it is more commonly the case that the first is the forerunner of subsequent seizures. Under these circumstances the risk of inflammatory developments must never be lost sight of. On examination of such a case the wall muscles over the situation of the appendix are abnormally resistant when compared with those over the corresponding situation in the left iliac fossa, and on gentle deep pressure over McBurney's spot tenderness will be complained of. Many attacks may be experienced without the condition going further than that of colic, but there is no security, under such circumstances, against serious developments, and a person with such an appendix can only be rendered safe by having it removed.

Closely allied to this appendicular variety of colic is another with which it may be associated and for which it may be mistaken, namely, that form of it which we find preceding the discharge of mucus in the alvine evacuations. It is of frequent occurrence in children and in adults of the neurasthenic type. In children the attack may be due to indigestible food, but in adults it is most commonly induced by some unusual worry or emotional disturbance. The patient experiences acute griping pains which are either distributed throughout the abdomen, or localized to one portion of it. In many instances careful palpation will enable us to ascertain a greater or less degree of localized hardening merging into neighbouring distension somewhere in the course of the large intestine. When this localization chances to be in the situation of the ileo-caecal valve the resemblance to appendicitis is very great. If the stools be carefully examined they will be found to contain a quantity of tenacious mucus which may be of a slimy and gelatinous appearance or stringy and membranous. The condition is not accompanied by disturbance of temperature, or acceleration of pulse, but constipation is a marked feature of most cases. Treatment on ordinary principles quickly succeeds in relieving the discomforts of the attack, but recurrence is the rule rather than the exception.

Yet another form of colic, in which the pain is referred to the right side of the abdomen, and met with more frequently in women than in men, is that which is associated with a loose right kidney. The colic under these circumstances is dependent upon a kinking of the upper part of the ureter from a temporary dislocation of the kidney or from torsion of the renal vessels. It is often brought about by some unusual and awkward muscular movement, and is especially liable to occur in a person who wears tight and unwisely adjusted corsets. This variety of colic, first described by Dietl, is characterized by severe, sudden pain referred to the kidney region, nausea, vomiting, collapse, and sometimes haematuria. It is liable to become complicated in time with an intermittent hydronephrosis, in which case this sequence of symptoms will be accompanied by a tender swelling occupying the renal region. The diagnosis is made evident when this tumour suddenly disappears with the passage of a large quantity of water. Cases of this description may be of congenital origin. The following is an interesting example:

A young man of 18 had suffered for upwards of six years from recurrent attacks of haematuria, which always came on after undue exertion or exposure to cold. The attacks were associated, in every instance, with rigors, pyrexia, vomiting, and disturbance of digestion. They bore all the outward characteristics of paroxysmal haemoglobinuria, but this diagnosis was negatived by the presence of abundant blood corpuscles in the blood-stained urine. When about 17 years of age he experienced a more than usually acute attack similar to those that had occurred previously, but this time accompanied by a feeling of pain and fullness in the left flank, which was immediately relieved by the passage of a considerable quantity of urine. When seen the day after this attack the kidney was enlarged and tender to touch, but he had no subjective symptoms of discomfort. An *x* ray photograph confirmed the diagnosis of enlargement of his kidney, but negatived the suspicion of a caculus as a possible explanation of the cause. After an interval of a year, another similar attack occurred, and an operation was decided upon. When the kidney was exposed the condition was ascertained to be extremely interesting: "a congenital condition, causing intermittent hydronephrosis, and the congenital cause an aberrant branch of the renal vein. The kidney was sacculated, but not at the moment much distended. The renal pelvis was greatly distended. The ureter was quite normal. The obstructing vein passed across the point of juncture of the ureter and renal pelvis."

Another cause of sudden acute colicky pain in the abdomen—and fortunately a rare one—is occlusion by embolism or thrombosis of the mesenteric vessels. Endocarditis or arterio-sclerosis are the conditions upon which infarction depends, while thrombosis may be sequential to cirrhosis of the liver, syphilis, or pylephlebitis. In acute cases the onset is sudden and is manifested by colic, vomiting, collapse, abdominal distension, and loose, blood-stained stools. Death frequently occurs within two or three days. The diagnosis is always difficult, the condition being frequently mistaken for intestinal obstruction.

There is a variety of paroxysmal abdominal pain which seems to occur for the most part in patients of a gouty

type whose vessels have become atheromatous and who suffer from continuous high arterial pressure with, it may be, occasional anginal attacks. The cases I have seen of this description have all been in persons past middle life and mostly in men. The patient usually comes with a story of previous attacks, which he had been led to believe were due to gout in the stomach, and this suggestion is strengthened by the fact that there is often a record of classical gout in one or other great toe. The pain comes on suddenly in the upper part of the abdomen, and is accompanied by nausea, vertigo, sickness, an icteric tint of the skin, often a smooth enlargement of the liver, and invariably a high-tension pulse. The case has all the appearance clinically of gall-bladder colic, but there is never absolute jaundice, and the sickness is of moderate amount. The patient, instead of being doubled up and restless, is afraid to move lest he increase the pain, which yields rapidly to nitroglycerine and iodides. The attack is always succeeded by a copious evacuation of lithates in the urine, pale stools, and complete anorexia, all of which disappear rapidly under the influence of rest, a restricted diet, and simple alkalis. It seems not unlikely that these symptoms may be produced by arterial spasm, giving rise to a state of abdominal angina similar to the angina pectoris with which we are all familiar. Here is a strikingly illustrative case:

A man of 68 years of age was suddenly seized during the night with acute pain in his abdomen, associated with tightness in his chest and pain radiating down his left arm. For years he had suffered from attacks of angina pectoris of moderate severity, for the relief of which he always carried with him a supply of nitroglycerine tabloids. The chest discomfort on this occasion made him take one tabloid, followed in half an hour by a second. To his surprise, not only was the chest spasm relieved just as it had often before been cured by the same procedure, but the abdominal pain also entirely disappeared. About a year after this attack he experienced another precisely similar and found himself again quickly restored to comfort by nitroglycerine. He is a full-blooded man, who, in his earlier years, suffered repeatedly from articular gout. His vessels are atheromatous, his arterial tension is always plus, he has a systolic aortic murmur with a loudly accentuated second sound, his kidneys have undergone interstitial changes, and he has occasionally a slight glycosuria. The pain in his abdomen is a new experience, and is, he says, a repetition in another place of the attacks he has so frequently suffered from in his chest.

Sir Lauder Brunton has told us of cases in which he believes abdominal pain is due to a spasm of the vessels similar to that met with in ordinary migraine. If migraine can thus express itself in the abdomen, it is not unreasonable to suppose that angina may also declare itself in that situation, and many cases are on record which support such a theory.

Yet another curious form of abdominal colic is illustrated in the following case. I am unable to explain the etiology, but the sequence of events has been repeated on so many occasions in the experience of this lady that its most likely elucidation would again seem to be some form of arterial spasm probably connected in this instance with disturbance of the vasomotor centres.

A lady, 54 years of age, had suffered in earlier life from urticaria of considerable severity, sometimes of prolonged duration. She is neurotic, comes of a family with a long gouty history, and has led a life of unusual activity. Since her menopause, about eight years ago, she has had at least five or six attacks of typical angio-neurotic oedema, the part affected being mostly the face, and to a less extent the hands. The swelling comes suddenly, is accompanied by tingling and a sense of heat, and after a few hours subsides as speedily as it arrived. But the interesting point in connexion with our present inquiry is the fact that each recurrent attack of oedema is accompanied by gastro-intestinal disturbance of quite remarkable severity. She experiences acute colicky pain throughout the abdomen, which ends always in diarrhoea, and is accompanied by distressing feelings of nausea and collapse. The pain on two occasions was so severe as to require morphine hypodermically for its relief. She is most careful in her habits of life, and is unable to refer the gastric disturbance to any indiscretion in her diet. On the other hand, she attributes all her attacks to undue exposure to cold, happening under circumstances when, from one cause or other, she had been run down and poor in health.

The explanation of angio-neurotic oedema is obscure, but a case like this suggests some form of intestinal toxaemia as one of the causes, and the hypothesis is strengthened by the record of attacks, earlier in life, of ordinary urticaria.

In certain cases of diabetes the terminal event is ushered in by abdominal disturbance of which the first manifestation is acute griping pain. The colic is sometimes extremely severe, and seems to radiate from a point of greatest intensity situated deep in the abdomen between the umbilicus and the ensiform cartilage. It is rapidly followed by distension, pyrexia, nausea, and sometimes diarrhoea. The patient is restless and speedily falls into a condition of coma, which ends in death. The sweet smell of the breath may suggest the existence of acidosis, but unless the fact is appreciated that diabetic coma may be ushered in with acute abdominal manifestations, the true explanation of this variety of sudden colicky disturbance may be altogether missed. In every case of acute abdominal pain for which no adequate reason can be found the urine ought to be examined for sugar.

Other conditions which may be responsible for abdominal pain of the colic type and which must be carried in remembrance are: Aneurysm of the abdominal aorta; malignant disease of one of the abdominal organs or of the retro-peritoneal glands; hysteria; and the visceral crises of locomotor ataxia. The concomitant circumstances and symptoms by which the pain is accompanied in each of these varieties of disease will, if carefully considered, serve to direct the diagnosis in the right direction.

There are no doubt many other causes of acute paroxysmal pain in the abdomen, but those which have been cited are sufficient to prove that the subjective symptom of colic is of no inconsiderable importance, and one which serves as an indicator to many and various disorders altogether apart from those of inflammatory trouble, with which we are not now concerned, but of which, as we all know, it is a constant accompaniment.

I have not time to consider this symptom of colic in its relationship to pelvic disorders. In women disorders of the tubes, the ovaries, or the uterus may all give rise to colicky pain, but it is not so fully appreciated that the bladder may also be responsible for this symptom. We are familiar with the pains associated with the presence of a stone or the existence of a urethral caruncle in women; and we know that crises in connexion with the bladder may occur in locomotor ataxia. Also it is common knowledge that colicky pains and urgent micturition may be associated with a highly acid and irritating condition of the urine, or with the occurrence of infection by *B. coli*. But, in addition to these, there is yet another form of discomfort, which may not inaptly be described as bladder colic, encountered both in men and women, which is, though not serious to life, very trying for those who suffer from it. The condition is probably a neurosis, and happens in people of neuropathic tendencies. The patient, either when in a condition of unusual depression of general health or as the result of some form of emotional disturbance, is suddenly seized with pain in the urethra and a commanding desire to pass water. Urination is a matter of some difficulty, particularly the commencement of the act, but, though a sensation of scalding is produced as the water passes through the urethra, the acute suffering is at once relieved. There seems some difficulty in completely emptying the bladder, and the patient requires to return, once or oftener, to void with effort a few remaining drops. After micturition is completed there remains a sense of heat and burning, accompanied sometimes by acute tenderness over the orifice of the urethra. After a short interval—in many instances less than an hour—the pain returns and again produces the same urgency of evacuation. The paroxysmal attack is frequently finally alleviated by the excretion of a large quantity of pale colourless water. The urine presents no abnormality either chemically or microscopically, but the attack is accompanied by much nervous irritability and unrest. A case at present under observation is illustrative:

A lady, very stout, and for many years neurasthenic, has suffered since her menopause from recurrent attacks of this description. Recently the sudden illness of a member of her family caused her intense anxiety, and no sooner was the crisis of her daughter's illness over than she developed the attack from which she is now recovering. Suddenly during the night she was awakened with acute twisting pain in her urethra. On attempting to pass water she found it impossible except under the persuasive influence of a steam hip bath. The amount passed was small, and accompanied by a sensation of scalding, but the flow relieved the acuity of the pain. From 2 o'clock till 8 the attack continued, and she was disturbed to pass water during that period no fewer than nine times, the quantity on each occasion being inconsiderable, but the appearance normal. Gradually the annoyance subsided, and in two days she was restored to her usual comfort. This attack is

typical of many she has had, and was ultimately relieved, as many of its forerunners had been, by hot douches of boracic solution, and a mixture, frequently repeated, of urotropine, henbane, and valerian. In this patient's case the tenderness of the urethra is such a marked feature that in her present attack the local application of a strong solution of cocaine was required for her relief.

ENTEROSPASM AND COLIC FROM THE SURGICAL POINT OF VIEW.

BY

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Pain, vomiting, and collapse constitute the cardinal symptoms of most acute abdominal crises, and we have to rely upon other symptoms than these to differentiate one case from another.

This may be easy in such conditions as renal colic, appendicitis, twisted ovarian pedicle, and similar well-defined ailments; but it frequently happens that surgical aid is sought in less urgent affections, where the existence of one or more of the three important symptoms referred to produces a mimicry of serious abdominal trouble of ill-defined origin.

Every surgeon of experience occasionally meets with cases in which the severity of these symptoms is strongly suggestive of intestinal obstruction or some other important abdominal lesion; but on opening the abdomen nothing abnormal is found, the symptoms cease, and the patient soon recovers.

Some of these cases are of purely functional origin, those of an acute type being probably due to painful contraction of the small intestine—enterospasm—and those of a chronic type being associated with pain of the nature of "colic" in the large gut.

It is mainly these functional cases to which reference is now made, though it will be seen that it is not uncommon for a definite organic mischief to be the cause of some of the obscure cases of repeated colic.

It is not intended to suggest an explanation of the immediate cause of the interference with the physiological integrity of the muscular or nervous apparatus of the intestines which results in this painful spasm, but rather to discuss its clinical manifestations with a view to avoiding needless surgical intervention. To prevent confusion, the term "enterospasm" will be used to indicate acute cases apparently arising in connexion with the small gut, and the term "colic" will be used for chronic cases which appear to originate in the large intestine.

That enterospasm is capable of simulating an acute abdominal crisis is suggested by the fact that recovery follows operation when the pain and vomiting are sufficiently severe to necessitate a coeliotomy, which is performed in some of these cases because of the impossibility of being certain that the symptoms are merely due to a functional intestinal disturbance. Moreover, in some cases the intestines are actually to be seen markedly contracted at the time of opening the abdomen.

Case I.—*Enterospasm resembling Acute Intestinal Obstruction.*

Male, aged 63. The patient was subject to constipation, for which he had taken aperta water, and for six months had complained of dull pain in the left flank. On May 5th he had acute pain in the left flank, lasting twenty-four hours. This recurred on June 5th, and again continued for twenty-four hours, accompanied by sickness, nausea, and absolute constipation. After a brief period of improvement in the pain and a slight action of the bowels after repeated enemata, the pain became much worse.

On June 7th I opened the abdomen in the mid-line. The small intestine was empty and contracted, and was greatly congested. No lesion was found. The bowels acted after a turpentine enema on June 9th, and the patient made a rapid recovery. During convalescence sodium sulphate brought away large scybalous masses.

Case II.—*Enterospasm resembling Acute Appendicitis.*

Male, aged 32. On January 14th he was suddenly seized with pain in the right loin and subsequently in the right iliac fossa. The pain was described as "agonizing," and his doctor gave him a hypodermic injection of morphine. When I saw him, about three hours after the attack commenced, he appeared to be in great pain, and was said to have vomited "about twenty times." The abdominal muscles were very tense especially on the right side, and there was tenderness near McBurney's point. The urine was normal, tongue clean, and temperature normal.

The sickness continued for twelve hours, but the following day the pain was much less after a turpentine enema had brought away a constipated action, though McBurney's point was a little tender. Further actions of the bowels followed after enemata, and the patient was practically well twenty-four hours after the beginning of the attack.

Case III.—*Enterospasm resembling Perforated Gastric Ulcer.*

Female, aged 25. This patient was subject to vomiting, and was said to have had gastro-enterostomy performed four years previously for gastric ulcer.

On July 11th she was suddenly seized with violent abdominal pain and vomiting, persisting for twenty-four hours. The bowels had acted several times before I saw her on July 12th. The face was flushed and the patient complained of severe pain, chiefly on the left side of the abdomen. The pulse was rapid, and she appeared unable to bear the slightest pressure in the left epigastric region. The abdomen was not so rigid as is usual with a perforated ulcer, and suspicion was aroused by the fact that she had previously had appendicectomy and nephropexy performed, in addition to gastro-enterostomy. She was regarded as a "neurotic," but fearing lest there might be some perforative peritonitis an exploratory operation was performed. Nothing abnormal was found, and she speedily recovered.

The narration of these cases is sufficient to show how difficult it is to be certain that the symptoms are merely due to functional disorder, and though the patient referred to in Case III was so markedly neurotic that it was more than likely that we had to deal with a case of enterospasm, it had to be borne in mind that "neurotics" may suffer from organic trouble as much as ordinary individuals.

The seat of the greatest intensity of the pain generally appears to be referred to the neighbourhood of the umbilicus, there is often a history of irregular action of the bowels, and the abdomen is frequently retracted. In this last respect the condition resembles the early stage of most acute abdominal lesions, and when associated with considerable superficial tenderness it is extremely difficult to exclude some forms of peritonitis. Nevertheless, in many of these cases the general condition of the patient does not suggest a serious mischief, and it is not uncommon to find that the diaphragm acts freely, so that a deep breath may be drawn without adding to the patient's suffering.

In doubtful cases of severe intestinal trouble a gradually increasing distension in association with pain and vomiting may be regarded as a clear indication for operation: but it is not often desirable to wait for this as a means of diagnosis, and it is far wiser to run the risk of operating unnecessarily in a case of enterospasm than to neglect to interfere in an obscure case of acute intestinal obstruction or other morbid abdominal condition which may be amenable to surgical procedures.

Just as enterospasm, by its sudden onset, tends chiefly to resemble organic mischief in the small gut, so colic originating in the large intestine, by its chronicity, is more apt to simulate disease of the lower bowel.

"Colic," as applied in this sense, is much more common than enterospasm, but it must be remembered that the pain associated with such conditions as gall stones, chronic appendicitis, or movable kidney may be mistaken for the functional trouble now under consideration. Some form of intestinal adhesion may be the cause of intestinal pain, and I have occasionally been consulted with a view to operation for supposed appendicitis in cases of colicky pain due to mucous colitis. These and other causes (including "lead colic") of abdominal pain must be considered as possible factors in the production of colic: but, putting such cases aside, we have to deal with "colic" as a functional manifestation independent of organic mischief.

Most of these patients seek the advice of the surgeon because they are supposed to have a commencing obstruction from a growth in the large intestine. The recurrent paroxysmal pain, constipation, meteorism, occasional vomiting, and even loss of flesh in these cases form a collection of symptoms which may be difficult to distinguish from the early signs of stenosis due to an intestinal neoplasm.

A few typical examples may be recorded:

Case IV.—*Colic resembling Intestinal Growth.*

Male, aged 55. For ten months the patient had suffered from indigestion, and had severe abdominal pain, which appeared to

be behind the umbilicus and passing towards the pubes. These pains were almost of daily occurrence, but he had gone as long as a week without pain. For the past six weeks the pains had been more severe, and he had lost 7 lb. in weight. The pain was accompanied by flatulence and distension, and if he was able to pass flatus the pain was somewhat relieved. During his illness he had been subject to constipation. Nothing abnormal was found on opening the abdomen. He was treated with enemata and purgatives, and had no more pain. When seen about ten months after operation he continued to be free from pain.

CASE V.—*Colic resembling Intestinal Adhesions.*

Female, aged 44. Subject to marked constipation and colicky pains in upper part of abdomen for several years. For some months the pains have been more severe, more frequent, and accompanied by distension. With the pain there was a feeling as if "there was something she wanted to get rid of." Medical treatment was advised, and the pains disappeared. Three years later she was still free from attacks.

CASE VI.—*Colic resembling Cicatricial Stenosis of Intestine.*

Female, aged 44. The patient stated that she had "typhoid fever and peritonitis," during which she passed a "large quantity" of blood per anum ten years previously. Subject to marked constipation since that illness. For the past three years has been subject to abdominal pain and slight distension, and feels as if there had been a "stoppage on the left side of the bowels." Under treatment by purgatives, abdominal massage, and electricity she quickly got well, and continued so when seen four years later.

I have met with many such cases as those recorded above which sufficiently exemplify the difficulty of arriving at an exact diagnosis.

The exclusion of a malignant neoplasm is of the greatest importance. The presence of "occult blood" in the faeces may be found in cases of ulcerating growth, and the prolonged retention of a bismuth meal, as shown by the *x* rays, is of some value in suggesting a definite organic obstruction, but it is unwise to attach much importance to this symptom, and therefore it is generally desirable to keep the patient in bed under observation for a week or two. The food should be light and nutritious, the bowels should be opened regularly with purgatives and enemata if necessary, and the patient weighed at definite intervals.

If under these conditions the symptoms show no signs of improvement and there is a progressive loss of weight, an exploratory coeliotomy is desirable. Even then nothing abnormal may be found, though such cases are usually caused by some form of intestinal adhesion or new growth.

As in the acute cases, it is inevitable that exploratory operations should occasionally be necessary if we wish to safeguard the patient against the overlooking of serious organic disease, but we may justifiably delay operation where the patient shows continuous signs of improvement under the regimen referred to.

In both acute and chronic cases where coeliotomy has proved the absence of any organic lesion the patient is generally cured of his symptoms—at least, temporarily. This is, doubtless, mainly attributable to the rest in bed necessitated by the operation, accompanied by careful dieting and regular action of the bowels.

Constipation is a causative factor in so many of these cases that attention to the proper and regular evacuation of the bowels is of the highest importance if future attacks are to be avoided.

THE annual meeting and launch party of the Brussels Medical Graduates' Association will be held on Saturday, July 13th. The saloon launch *Empress of India* will start from Maidenhead at 12.30 p.m., returning about 8 o'clock. The launch is provided with a cabin and an awning, so that weather conditions are immaterial. The train leaves Paddington at 11.15 a.m. for Taplow, which is the nearest station to Maidenhead Bridge. Tickets, 12s. 6d. each, to include launch, luncheon (not including wine), and tea, may be obtained from the honorary secretary, Dr. Arthur Haydon, 23, Henrietta Street, Cavendish Square, W. At the biennial dinner of the association, which took place at the Trocadero on May 29th, the chair was taken by Dr. Arthur Haydon, owing to the absence of the president in the country. The following were elected officers for the year: President, Dr. Edward Osborne Fountain; vice-president, Dr. Robert Wilkinson; honorary treasurer, Dr. Major Greenwood; honorary secretary, Dr. Arthur Haydon; Council, Drs. Cowburn, Callender, Cullinan, Sington, Howard Humphris, Smallwood, Fielden Briggs, Henry Dutch, and Bryce Macaulay.

Remarks
ON
THE SALVARSAN TREATMENT OF PERNICIOUS ANAEMIA.

BY
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IN March, 1911, I published in this JOURNAL two cases of pernicious anaemia in which great improvement resulted from the administration of salvarsan. In this paper I propose to record the future progress of these cases—they have remained well without any further treatment—and the results in five (all the) other cases treated in the same way. Since I commenced to treat cases of pernicious anaemia with arsenic in the year 1875 I have had a large experience of the disease; the impression which has been made upon my mind by the results of the salvarsan treatment in the seven cases which I am now about to record is, on the whole, very favourable. If my observations are confirmed by further experience, and by other observers, I am disposed to think that salvarsan will probably be found to be a more efficient remedy than arsenic given by the mouth, and indeed than any form of treatment which has as yet been employed in this very grave and intractable disease.

CASE I.

J. S., aged 49, married, electric hoist man, formerly a soldier, admitted to the Edinburgh Royal Infirmary on October 12th, 1910, suffering from marked pernicious anaemia.

Previous History.

The patient came under my observation as an out-patient in October, 1909, suffering from pernicious anaemia, was treated with arsenic, and rapidly recovered. He remained at work and fairly well until the beginning of October, 1910, when he got a chill and rapidly became markedly anaemic. The patient denies venereal disease. The bridge of his nose is sunken; this developed spontaneously at the age of 18, and was, perhaps, due to congenital syphilis; there are no other stigmata of that condition.

State on Admission to Hospital.

The patient presented all the typical symptoms of pernicious anaemia.

The blood count was as follows: Red corpuscles, 1,035,000; haemoglobin, 30 per cent.; colour index, 1.5; whites, 7,800. Differential count: Polymorphs, 56.6 per cent.; mononuclears, 41 per cent. (large 15 per cent., small 26 per cent.); eosinophiles, 2.3 per cent. Marked poikilocytosis, polychromasia and granular degeneration. No nucleated reds were seen.

The patient was very short of breath on exertion; his feet and ankles were oedematous; there were no retinal haemorrhages. The systolic blood pressure was 88 mm. of mercury. Blowing systolic murmurs were present in the mitral, pulmonary, and aortic areas. The tongue was clean and moist. There had been no sore spots on the tongue or mouth. The patient had had no teeth for several years; his gums were perfectly normal; the false teeth which he wears had given rise to no irritation. The urine was pale, specific gravity 1012, and contained no abnormal constituents.

Treatment and Results.

Rest in bed; milk diet; arsenic (Fowler's solution), commencing with 2 minims, three times daily. When the arsenic was increased to 4 minims three times daily, diarrhoea developed; this was, however, easily restrained (as I have found to be the case in other cases) by combining a small dose of morphine (5 minims of the liquor morphinae hydrochlor.) with each dose of the arsenic. The arsenic was gradually increased to 12 minims three times daily. The patient improved considerably under this treatment as regards his general symptoms, appearance, and the condition of the blood.

December 16th. Fowler's solution stopped. Red corpuscles, 1,830,000; haemoglobin, 52 per cent.; colour index, 1.44.

From December 16th to 21st no drugs were administered.

December 21st. Red corpuscles, 1,720,000; haemoglobin, 50 per cent.; colour index, 1.4. On this date the first dose of salvarsan (0.2 gram) was given, the remedy being injected into the left buttock. On January 5th and 19th and on February 9th the injections of salvarsan were repeated, 0.3 gram being given on each of these occasions. Each injection was followed by inflammatory hardness and pain in the buttock, but little constitutional disturbance. The first and third injections were made into the left, and the second and fourth into the right buttock. Coincidentally with this treatment very marked improvement occurred.

February 23rd, 1911. Red corpuscles, 3,580,000; haemoglobin, 78 per cent.; colour index, 1.1. The white corpuscles, which before the administration of salvarsan were 4,600, now numbered 8,030 per cubic millimetre. The systolic blood pressure had increased to 135 mm. of mercury.

Subsequent Progress of the Case.

June 23rd, 1911. The patient stated that he had been quite well since his discharge from the infirmary on February 23rd, 1911, and had had no treatment. Red corpuscles, 4,530,000; haemoglobin, 78 per cent.; colour index, 0.87.

On October 25th, 1911, the patient stated that since last seen he had continued quite well without any treatment and had been doing his full work as an electric hoist man. In July he did a march with the Territorials from Kilmarnock to Troon, a distance of twenty-five miles, without any difficulty or distress.

On March 7th, 1912, the patient stated that, owing to the coal strike, he had been unable to get a train and had had to walk ten miles to a station in order to get to the infirmary in time for the clinic. He was looking and feeling quite well, and showed no disturbance as the result of his ten mile walk. Red corpuscles, 4,680,000; haemoglobin, 94 per cent.; colour index, 1.

The condition of the blood at different dates is shown in Table I.

TABLE I.

CASE I.—*Pernicious Anaemia. Showing the Results of Treatment.*

Date.	Treatment.	Red Corpuscles.	Haemoglobin.	Colour Index.
			Per Cent.	
Oct. 12, 1910 ...	Arsenic begun, 2 m., t.i.d.	1,035,000	30	1.5
Dec. 16, 1910 ...	Arsenic stopped, 12 m., t.i.d.	1,830,000	52	1.44
Dec. 21, 1910 ...	"606," 0.2 gram	1,720,000	50	1.47
Jan. 5, 1911 ...	"606," 0.3 gram	2,500,000	68	1.3
Jan. 19, 1911 ...	"606," 0.3 gram	2,960,000	70	1.18
Feb. 9, 1911 ...	"606," 0.3 gram	3,200,000	72	1.1
Feb. 20, 1911 ...	—	3,380,000	78	1.16
Feb. 23, 1911 ...	—	3,580,000	78	1.1
June 23, 1911 ...	—	4,530,000	78	0.87
March 7, 1912 ...	—	4,680,000	94	1.0

Remarks.—I have seen many cases of pernicious anaemia temporarily restored to apparent health as the result of arsenical treatment, and a few in which the patients have remained well for several years, but rarely, if ever, in the whole of my thirty-seven years' experience of the arsenical treatment, have I seen any cases in which such complete restoration to health has resulted as in this and the next case (Case II). In most cases of pernicious anaemia which apparently have recovered under ordinary arsenical treatment, and in which the normal number of red cells has been regained, the colour of the patients is not, in my experience, quite normal; there is often a yellow tinge of the skin and mucous membranes mixed with the normal red, which to the experienced eye is very suggestive that the blood is not yet quite normal, and the cure is not likely to be lasting. In this and in the next case (Case II), the colour of the patients is absolutely normal; they appear to be in robust health. The fact that this patient (Case I) could march twenty-five miles without any distress seven months after the treatment was commenced, is a striking fact. The condition of the blood (red corpuscles, 6,210,000; haemoglobin, 120 per cent.; colour index, 0.97) in the second case, fifteen months after the treatment was commenced, is remarkable. I do not remember to have seen any case of pernicious anaemia in which such a high blood count was observed as the result of treatment.

CASE II.

Mrs. E. P., aged 40, married, admitted to the Edinburgh Royal Infirmary on November 15th, 1910, suffering from marked pernicious anaemia of four months' duration. The disease commenced soon after the birth of her last child; this and her previous seven confinements were all attended with considerable haemorrhage.

Previous History.

Two years ago a tuberculous tumour was removed from the sternum, otherwise she had enjoyed good health until the present illness commenced. Some three weeks before her admission she suffered from sore spots on the mouth and tongue. For many years past her teeth have been extremely bad. There is no suspicion of syphilis, unless two miscarriages and the death of a child, aged 8 months, were due to syphilis. The patient has six children alive and well.

State on Admission to Hospital.

The patient was very pale; during the past two years she has lost more than a stone in weight. There is a curious patch of herpes on the nose.

The condition of the blood was as follows: Red corpuscles, 990,000; haemoglobin, 30 per cent.; colour index, 1.6; whites, 4,600. Differential count: Polymorphs, 74 per cent.; mononuclears, 17 per cent. (large 6 per cent., small 11 per cent.); eosinophiles, 7 per cent.; basophiles, 2 per cent. Marked poikilocytosis; some nucleated reds; no granular degeneration or polychromasia.

Blowing systolic murmurs were present in the mitral, pulmonary, and aortic areas. The pulse numbered 100. The systolic blood pressure was 108 mm. of mercury. The tongue was pale and clean; the teeth very bad. The urine was dark, specific gravity 1010, and contained no abnormal constituents. There were no haemorrhages in the retina.

Treatment and Results.

The arsenical treatment was commenced on November 15th: 2 minims of Fowler's solution three times daily. The dose of arsenic was gradually increased until December 16th, when the patient was taking 9 minims of Fowler's solution three times daily. On November 26th, 1910, a slight thrombosis developed in the lower part of the right calf, but this rapidly yielded to treatment.

December 16th. Fowler's solution stopped. Red corpuscles, 1,460,000; haemoglobin, 45 per cent.; colour index, 1.5.

From December 16th to 24th no drugs were given. December 24th: Red corpuscles, 1,760,000; haemoglobin, 52 per cent.; colour index, 1.48.

On December 24th, January 7th and 24th, and February 9th, 0.3 gram of "606" was injected into the buttocks.

Considerable swelling, hardness, and tenderness resulted from each injection, but there was little or no constitutional disturbance except after the last, which was followed for a few days by a swinging temperature.

Coincidentally with this treatment very marked improvement occurred.

February 21st. Red corpuscles, 4,020,000; haemoglobin 88 per cent.; colour index, 1.1. The white corpuscles, which before the administration of "606" were 3,000, now numbered 6,200. The systolic blood pressure remained practically unaltered during the treatment.

March 3rd. Since the last note there has been pain and pleuritic friction over the lower part of the left chest, and some painless enlargement of the glands in the neck.

March 16th. Patient discharged from the infirmary looking and feeling well.

Subsequent Progress of the Case.

October 13th. Looking and feeling well; doing all her housework. Red corpuscles, 4,800,000; haemoglobin, 96 per cent.; colour index, 1.

March 7th, 1912. Looking and feeling quite well; doing all her housework. Has had no treatment since discharged from the infirmary on March 16th, 1911. Red corpuscles, 6,210,000; haemoglobin, 120 per cent.; colour index, 0.97.

The condition of the blood at different dates is shown in Table II.

TABLE II.

CASE II.—*Pernicious Anaemia. Showing the Results of Treatment.*

Date.	Treatment.	Red Corpuscles.	Haemoglobin.	Colour Index.
			Per Cent.	
Nov. 15, 1910 ...	Arsenic begun, 2 m., t.i.d.	990,000	30	1.6
Dec. 16, 1910 ...	Arsenic stopped, 9 m., t.i.d.	1,460,000	45	1.5
Dec. 24, 1910 ...	"606," 0.3 gram	1,760,000	52	1.48
Jan. 7, 1911 ...	"606," 0.3 gram	2,450,000	68	1.38
Jan. 24, 1911 ...	"606," 0.3 gram	3,125,000	74	1.19
Feb. 9, 1911 ...	"606," 0.3 gram	3,350,000	78	1.16
Feb. 18, 1911 ...	—	4,140,000	88	1.07
Feb. 21, 1911 ...	—	4,020,000	88	1.1
March 11, 1911 ...	—	4,420,000	94	1.1
June 2, 1911 ...	—	4,420,000	90	1.0
Oct. 13, 1911 ...	—	4,800,000	96	1.0
March 7, 1912 ...	—	6,210,000	120	0.97

CASE III.

Mrs. P., aged 54, admitted to the Edinburgh Royal Infirmary on September 1st, 1908, suffering from profound pernicious anaemia.

Previous History.

The patient was a strong, healthy woman until three years previously; then had an attack of "jaundice" which lasted for seven weeks; has had two other attacks of the same sort since, the last about a year ago. For thirteen years has been troubled with bleeding piles, worse for the past few months. No evidence or suspicion of syphilis.

State on Admission to Hospital.

Profoundly anaemic; blowing murmur in all the cardiac areas; liver enlarged; feet swollen; no retinal haemorrhages. Red corpuscles, 545,000; haemoglobin, 15 per cent.; colour index, 1.2; white corpuscles, 3,800. Differential count: Polymorphs, 73 per cent.; mononuclears, 26 per cent. (small 19, large 7 per cent.); eosinophiles, 1 per cent. Marked poikilocytosis; no normoblasts or megaloblasts seen. Appetite poor; thirsty; bowels constipated. Patient stated that for three years she had had no teeth, and that for a long time previously she only had one or two teeth; she had not suffered from dental caries or from a sore mouth; her teeth simply dropped out, and did not decay. The urine contained a trace of albumen, but no casts or other abnormal constituents.

Treatment.

Gradually increasing doses of arsenic, commencing with 2 minims of Fowler's solution three times daily, increased every fourth day by one drop. The maximum dose which the patient was able to take was 10 drops three times daily.

Progress of the Case.

Under this treatment great improvement rapidly took place. On October 1st the patient was looking and feeling very much better: red blood corpuscles, 1,800,000; haemoglobin, 50 per cent.; colour index, 1.2. From October 1st to November 10th, although the general condition improved, there was no alteration in the state of the blood. On November 11th, Robertson's Blaud's pill capsules—one No. 3 capsule (equal to three Blaud's pills) three times daily—were prescribed. Under this treatment striking improvement in the condition of the blood immediately took place. November 20th. Red corpuscles, 3,100,000; haemoglobin, 60 per cent.; colour index, 0.9.

On November 21st the patient was discharged from hospital, and advised to continue the iron.

Subsequent Progress of the Case.

On January 13th, 1909, the patient stated she was perfectly well. She looked very well—many years younger than on her admission to hospital. Red corpuscles, 4,100,000; haemoglobin, 65 per cent.; colour index, 0.7.

September 15th, 1909. The patient stated that she had been well since last seen. Red corpuscles, 2,800,000; haemoglobin, 60 per cent.; colour index, 1.

Readmitted to Edinburgh Royal Infirmary on March 30th, 1911.

After her discharge from the infirmary she remained well for a year; then suffered from severe pain in the abdomen, due to gall stones; was operated upon by Mr. Miles on December 25th, 1909, fifteen gall stones being removed. Made an uninterrupted recovery, leaving the hospital at the end of January, 1910.

Readmitted eight weeks later, when a second operation was performed: an abscess of the gall bladder was opened and drained. Left the hospital three weeks later. Gradually improved and remained very well until January, 1911; then became very weak and anaemic, and has been in bed since.

State on Readmission to Hospital.

Profoundly anaemic and very weak; markedly short of breath on exertion; feet swollen; loud systolic murmurs in the mitral and pulmonary areas; spitting up a good deal of white frothy mucus; vomiting frequently; abnormally sleepy. Red corpuscles, 680,000; haemoglobin, 18 per cent.; colour index, 1.3; white corpuscles, 5,200. Differential count: Polymorphs, 52 per cent.; mononuclears, 44 per cent. (large 6, small 38 per cent.); eosinophiles, 3; basophiles, 1. Many normoblasts and megaloblasts. Coagulation time very much increased; marked poikilocytosis; granular degeneration and polychromatophilia. No retinal haemorrhages. Urine dark coloured, specific gravity 1008, containing a trace of albumen. For some months past had been taking arsenic by the mouth, but not regularly.

Treatment.

Arsenic (2 minims three times a day), digitalis, etc., prescribed.

April 5th. Patient seemed to be in a dying condition. Red corpuscles, 580,000; haemoglobin, 17 per cent.; colour index, 1.47; white corpuscles, 3,600. Arsenic by the mouth stopped.

April 6th, 0.3 gram salvarsan injected into buttock. This was followed by a slight rise in temperature and pulse, but very little local pain.

April 13th. Red blood corpuscles, 972,000; haemoglobin, 22 per cent.; colour index, 1.16; white corpuscles, 3,400.

April 15th. Hypostatic pneumonia of right base. Temperature, 101°. Strychnine, brandy, digitalis prescribed.

April 19th. Red corpuscles, 1,085,000; haemoglobin, 24 per cent.; colour index, 1.15; white corpuscles, 5,100.

April 22nd. Has gradually improved during the past few days; lung is clearing up; pulse better.

April 24th to 28th inclusive. Vomited frequently.

April 29th. All medicine and food by the mouth stopped; nutrient and medicinal enemata.

May 4th. Extremely weak. Respirations 36; heart very feeble; some oedema of feet and hands. Red corpuscles, 490,000; haemoglobin, 18 per cent.; colour index, 1.8; white corpuscles, 6,100. 0.3 gram salvarsan injected into buttock.

May 5th. Somewhat brighter and feeling a little better.

May 8th. Much brighter to-day, but very restless; constantly wanting to be turned from one side to the other.

May 10th. Much better; can lie on her back, which she has not been able to do for a fortnight.

May 16th.—The buttock at the site of the last injection is red and tender. Is talking rather incoherently.

June 1st. Very bright and cheerful; much better in every respect; appetite improving. Red corpuscles, 870,000; haemoglobin, 31 per cent.; colour index, 1.8; white corpuscles, 4,200.

June 9th. General condition very much improved; enjoyed being at an open window and seeing the trees and flowers. Red corpuscles, 970,000; haemoglobin, 32 per cent.; colour index, 1.6; white corpuscles, 6,100.

June 18th. Blaud's pill (one, three times daily) prescribed; increased on July 18th to two capsules.

June 23rd. Vomiting and diarrhoea due to eating strawberries and sweet cakes surreptitiously given her during Coronation festivities.

July 11th. Diarrhoea still troublesome, notwithstanding the administration of tincture of opium. Red corpuscles, 1,020,000; haemoglobin, 28 per cent.; colour index, 1.4; white corpuscles, 4,800.

July 25th. Removed home by her friends, still in a very unsatisfactory condition.

On September 5th, 1911, died. (The patient was not seen after her discharge from the infirmary.)

The condition of the blood at different dates is shown in Table III.

TABLE III.

CASE III.—*Pernicious Anaemia. Showing the Results of Treatment.*

Date.	Treatment.	Red Corpuscles.	Haemoglobin	Colour Index.
			Per Cent.	
Sept. 3, 1908 ...	Arsenic, 5 m., t.i.d.	545,000	15	1.2
Nov. 5, 1908 ...	Arsenic, 10 m., t.i.d.	1,600,000	45	1.2
Nov. 8, 1908 ...	Iron begun. 1 Blaud's pill, t.i.d.	1,800,000	50	1.2
Nov. 20, 1908 ...	—	3,100,000	60	0.9
Dec. 2, 1908 ...	Iron, 2 Blaud's pills, t.i.d.	2,900,000	55	0.8
Jan. 13, 1909 ...	—	4,100,000	65	0.7
Sept. 15, 1909 ...	—	2,800,000	60	1.0
March 30, 1911 ...	Arsenic, 2 m., t.i.d.; digitalis, etc.	680,000	18	1.3
April 5, 1911 ...	Arsenic stopped	580,000	17	1.47
April 6, 1911 ...	"606," 0.3 gram	—	—	—
April 13, 1911 ...	—	972,000	22	1.16
April 19, 1911 ...	—	1,085,000	24	1.15
May 4, 1911 ...	"606," 0.3 gram	490,000	18	1.8
June 1, 1911 ...	—	870,000	31	1.8
June 18, 1911 ...	Iron begun (Blaud's pill)	—	—	—
July 11, 1911 ...	Iron (2 Blaud's pills)	1,020,000	28	1.4

Remarks.—This was a very severe case of pernicious anaemia. During the patient's first stay in hospital a splendid recovery resulted from arsenic by the mouth and iron (Blaud's pill capsules): it is one of the few cases of pernicious anaemia in which I have seen striking benefit, with a fall of the colour index, from the administration of iron; in the great majority of the cases of pernicious anaemia in which I have given iron, I have seen either no benefit or distinct deterioration result.

When the patient was readmitted to the infirmary on March 30th, 1911, she appeared to be in a dying condition. Salvarsan was given as a last resource, but none of us who saw her expected that she would even temporarily recover. The results on paper do not perhaps look very striking, but the way in which she temporarily rallied was very remarkable; all of us who watched the case attributed the temporary change for the better to the salvarsan. I have, of course, seen many remarkable temporary rallies and recoveries in cases of pernicious anaemia, but I have seen very few cases, in which the patients were in such a grave condition as this patient was, improve and temporarily recover in the way this patient (and Case VI) did.

CASE IV.

Mrs. H. P., aged 41, admitted to the Edinburgh Royal Infirmary on March 28th, 1911, suffering from profound pernicious anaemia.

Previous History.

Since childhood has suffered off and on from diarrhoea. In March, 1905, had the appendix removed; before this the bowels used frequently to move as many as twelve times a day; after the operation the diarrhoea ceased for twelve months; then had three or four motions a day. No suspicion of syphilis.

In October, 1910, began to suffer from abdominal pains; was

at that time six months pregnant. The child was born on December 30th, 1910; the labour was normal, and there was no excessive loss of blood; she did not nurse the child. After the confinement the diarrhoea became worse—nine motions per day; at the same time she began to have a swinging temperature (betwen 100° and 102°) and persistent vomiting. She got paler and thinner. Her doctor prescribed arsenic, which she took for about ten days with some slight improvement; she has not, however, taken the medicine regularly.

State on Admission to Hospital.

Profoundly pale and anaemic. Red corpuscles, 695,000; haemoglobin, 16 per cent.; colour index, 1.15; white corpuscles, 3,200. Marked poikilocytosis; many megaloblasts and normoblasts; coagulation time increased. Very short of breath on exertion; palpitation and dizziness on assuming the upright position. Systolic murmurs in all the cardiac areas. Numerous small retinal haemorrhages. Tongue large, flabby, and pale, but clean. Teeth all false; has had no teeth for four years; before the teeth were removed the gums used to be sore, but there has been no trouble about the mouth since she was fitted with false teeth. Urine amber colour, specific gravity 1010; no abnormal constituents.

Subsequent Progress of the Case.

April 6th. 0.3 gram of salvarsan was injected into the right buttock. This was followed by considerable swelling, pain, and tenderness; ½ grain of morphine was administered on the evening of the injection.

April 12th. The patient looked and felt decidedly better. Red corpuscles, 1,260,000; haemoglobin, 31 per cent.; colour index, 1.24; white corpuscles, 3,400.

April 21st. Second injection of "606" (0.3 gram); this was followed by very little pain or discomfort.

May 2nd. Looking and feeling very much better. Red corpuscles, 1,495,000; haemoglobin, 34 per cent.; colour index, 1.2; white corpuscles, 2,200.

May 6th. Insisted upon going home in order to nurse her young baby and look after her husband and family. Was warned as to the serious nature of her condition.

April 17th, 1912. Nothing more was heard of this patient until she called to see me by request. Though still somewhat pale, she was looking wonderfully well. She stated that since her discharge from the infirmary she had had no treatment of any kind. For the first three weeks after her discharge her feet remained swollen and she was very pale and weak. Since then, she had slowly and gradually improved. Since her discharge she had done all her housework, washing, etc., herself; she has four children, aged respectively 15, 12, 9 years, and 15 months. Her husband only earns a small wage, and she had not been able to procure proper or sufficient nourishment. She spontaneously stated: "My case has been a marvellous case, and the talk of a great many people." She stated that for the past week she had had a cold and had not been so well: the cold produced herpes oris and diarrhoea. The condition of the blood was: Red corpuscles, 3,880,000; haemoglobin, 54 per cent.; colour index, 0.7; white corpuscles, 7,800. Considerable poikilocytosis, some myelocytes and nucleated reds. Differential count: Polymorphs, 39 per cent.; mononuclears, 52.5 per cent. (small 29, large 23.5 per cent.); neutrophiles, 4 per cent.; basophiles, 2 per cent.; myelocytes, 2 per cent.; nucleated red, 0.5.

The condition of the blood at different dates is shown in Table IV.

TABLE IV.

CASE IV.—*Pernicious Anaemia. Showing the Results of Treatment.*

Date.	Treatment.	Red Corpuscles.	Haemoglobin.	Colour Index.
			Per Cent.	
March, 28, 1911 ..	—	695,000	16	1.15
April 6, 1911 ...	"606," 0.3 gram	820,000	24	1.49
April 12, 1911 ..	—	1,260,000	31	1.24
April 21, 1911 ..	"606," 0.3 gram	1,230,000	34	1.4
April 28, 1911 ...	—	1,260,000	34	1.3
May 2, 1911 ...	—	1,495,000	34	1.2
April 17, 1912 ..	—	3,880,000	54	0.7

Remarks.—This also was a very severe case of pernicious anaemia. The improvement which has resulted—and it was apparently altogether due to the two injections of salvarsan—is very striking, for since her discharge from hospital this patient has been heavily handicapped by her circumstances and surroundings. The condition of the blood shows that she is still suffering from the disease, but her general appearance and condition are remarkably improved.

CASE V.

W. S., aged 50, married, mason, admitted to Edinburgh Royal Infirmary on May 12th, 1911, suffering from profound pernicious anaemia.

Previous History.

For the past five years has occasionally, for a day or two at a time, suffered from diarrhoea, but in other respects was a strong, healthy man until six months ago.

In October, 1910, began to feel his hands numb and sleepy, and gradually lost strength and colour. Eight weeks ago became short of breath on exertion. A week ago had a sore tongue; had never suffered from sore tongue before. Had lost 2 st. in weight during the past six months. Denies syphilis; no appearances suggestive of that disease.

State on Admission to Hospital

Very pale and anaemic. Red corpuscles, 970,000; haemoglobin, 28 per cent.; colour index, 1.4; white corpuscles, 5,400. Marked poikilocytosis and polychromatophilia. Differential count: Polymorphs, 76 per cent.; mononuclears, 23 per cent. (small 17, large 6 per cent.); eosinophiles, 1 per cent. Systolic murmurs in all the cardiac areas. Some retinal haemorrhages. Urine amber coloured, specific gravity 1009; no abnormal constituents.

May 15th. 0.3 gram of "606" injected into the left buttock; this was followed by a rise of temperature to 100° F., and a good deal of pain, with subsequent hardness and tenderness.

May 21st. Temperature continues to rise at night to about 100° F.; buttock pain and tenderness still marked. Blood somewhat improved (see Table V.).

June 9th. The local pain and tenderness have almost disappeared, but the temperature still continues swinging. The patient looks much worse. Blood worse (see Table V.).

June 16th. Temperature has been better lately. The patient says he feels better, but there is no improvement in the condition of the blood.

June 19th. 0.3 gram "606" injected into the right buttock. Very little pain or tenderness resulted.

June 22nd. Looks very ill; diarrhoea. Red corpuscles, 810,000; haemoglobin, 24 per cent.; colour index, 1.5; white corpuscles, 5,400.

June 23rd. Diarrhoea worse; patient collapsed; temperature, 96.2° F.; pulse very feeble, only just perceptible. Transfused with 1 litre of normal saline solution.

June 24th. Temperature fell to 95° F. Vomiting. Died at 5.30 p.m.

Post-mortem examination showed all the typical appearances of pernicious anaemia.

In the left buttock a deep incision showed an extensive necrosis of the muscle substance surrounded by a zone of well-formed fibrous tissue infiltrated with inflammatory cells. In the right buttock deep incision showed a more recent but extensive necrosis of the muscles with marked polymorph infiltration at its margins, but no fibrous tissue formation.

In the midst of each of the necrotic areas there was a large mass of unabsorbed salvarsan.

The condition of the blood at different dates is shown in Table V.

TABLE V.

CASE V.—*Pernicious Anaemia. Showing the Results of Treatment.*

Date.	Treatment.	Red Corpuscles.	Haemoglobin.	Colour Index.
			Per Cent.	
May 12, 1911 ...	—	970,000	28	1.4
May 15, 1911 ...	"606," 0.3 gram	1,030,000	30	1.4
May 21, 1911 .	—	1,440,000	36	1.25
June 3, 1911 ...	—	1,120,000	28	1.3
June 9, 1911 ...	—	750,000	22	1.45
June 16, 1911 ...	—	825,000	26	1.5
June 19, 1911 ...	"606," 0.3 gram	860,000	26	1.5
June 22, 1911 ...	—	810,000	24	1.5

Remarks.—In this case a slight temporary improvement in the condition of the blood followed the injection of salvarsan, but there was no real improvement; the treatment was entirely unsuccessful.

Post-mortem examination, six weeks after the first injection, showed that a large mass of the salvarsan emulsion was encapsuled in the depth of the gluteal muscles. This is, I think, suggestive and instructive. When I commenced the salvarsan treatment of pernicious anaemia I selected the intramuscular method of administration for two reasons. First, it seemed to me that in pernicious anaemia it would be best to give the remedy in a way which would tend to its gradual absorption and prolonged action. We are yet ignorant as to the exact cause of pernicious anaemia. In syphilis the object is to give it in such a way as to kill outright the spirochaete. In pernicious anaemia no definite micro-organism has as yet been demonstrated. If the disease is due to a micro-organism, that organism is possibly ultra-microscopic.

Secondly, I was afraid that the intravenous injection of salvarsan in severe cases of pernicious anaemia, in which the blood is so profoundly affected, might be attended with dangerous results. Perhaps I am wrong in reasoning in this way; perhaps it would be better to administer the remedy intravenously. My friend, Dr. John Love, who did me the honour of frequently coming through from Glasgow to attend my Wednesday clinic, and who saw some of the cases which I am now recording, tells me that he has treated several cases of pernicious anaemia by the intravenous method with good results.

CASE VI.

P. S., aged 31, married, farm grieve, admitted to the Edinburgh Royal Infirmary on May 17th, 1911, suffering from profound pernicious anaemia.

Previous History.

The patient was quite well till a year ago. In March, 1910, he was confined to bed for ten days with an attack of influenza, and was unfit for work until the middle of May. He was at work from May till September; then the weakness increased, he became anaemic and short of breath, his feet swelled, etc. He was treated with arsenic, which caused diarrhoea and had to be discontinued. A few days before his admission to hospital he had a severe epistaxis. Denies syphilis; no appearance suggestive of that disease.

State on Admission to Hospital.

Profoundly anaemic. Red corpuscles, 955,000; haemoglobin, 26 per cent.; colour index, 1.4; whites, 3,900; marked poikilocytosis and polychromatophilia. Differential count: Polymorphs, 44 per cent.; mononuclears, 56 per cent. (small 44.5, large 11.5 per cent.). Considerable number of nucleated reds present. Systolic murmurs in all the cardiac areas; no retinal haemorrhages. Has never had a sore mouth or tongue. Several of the molars are carious. Tongue pale, clean, and moist.

May 22nd. Complained of pain in the left ear, followed by a purulent discharge and rise in temperature.

May 29th, 0.3 gram salvarsan injected into buttock. Still complaining of pain in the ear; temperature still continues to rise at night; pulse quick.

June 5th, 3 grains of quinine sulphate, three times daily, prescribed.

June 12th. Ear discharge slightly less; 0.3 gram salvarsan injected into the buttock, followed by a good deal of local pain and tenderness; relieved by morphine hypodermically and an ice-bag.

June 16th. Much *in statu quo*. Red corpuscles, 920,000; haemoglobin, 28 per cent.; colour index, 1.55; white corpuscles, 5,300.

July 3rd. Has been in much the same condition till last night, when his temperature went up to 102° and pulse to 120; he complained of some pain and tenderness behind the ear in the region of the mastoid. Red corpuscles, 620,000; haemoglobin, 23 per cent.; colour index, 1.5; white corpuscles, 4,200.

July 10th. Looks very ill; blood condition not improved.

July 12th, 0.3 gram salvarsan injected into buttock; this caused considerable local reaction.

July 28th. No improvement; temperature still swinging; pulse 92 to 124; respirations slow, 12 to 20; passing large quantities of pale urine (to-day 112 oz.). Red corpuscles, 585,000; haemoglobin, 17 per cent.; colour index, 1.45; white corpuscles, 4,500.

August 7th. Removed by his wife to Kinross; not expected to survive the journey.

Subsequent Progress of the Case.

I heard nothing more of this patient until the middle of October, when his doctor told me that he was quite well. For ten days after leaving the infirmary he continued in a semi-comatose condition, then began to improve slowly, and in the course of a short time improved more rapidly.

November 11th. The patient saw me by request at the infirmary. He said he felt quite well and was able to walk considerable distances. He looked somewhat pale. Red corpuscles, 3,100,000; haemoglobin, 66 per cent.; colour index, 1.1.

He continued in good health and without any return of the anaemia until February, 1912, when he took an attack of acute croupous pneumonia and died.

The condition of the blood at different dates in shown in Table VI.

TABLE VI.

CASE VI.—*Pernicious Anaemia. Showing the Results of Treatment.*

Date.	Treatment.	Red Corpuscles.	Haemoglobin.	Colour Index.
			Per Cent.	
May 17, 1911 ...	—	955,000	26	1.4
May 21, 1911 ...	—	1,180,000	32	1.4
May 29, 1911 ...	"606," 0.3 gram	—	—	—
May 30, 1911 ...	—	1,300,000	34	1.3
June 12, 1911 ...	"606," 0.3 gram	810,000	23	1.45
June 16, 1911 ...	—	920,000	28	1.55
July 3, 1911 ...	—	620,000	23	1.5
July 12, 1911 ...	"606," 0.3 gram	730,000	22	1.55
July 28, 1911 ...	—	585,000	17	1.45
Aug. 5, 1911 ...	—	600,000	19	1.6
Nov. 11, 1911 ...	—	3,100,000	66	1.1

Remarks.—This was a very severe case of pernicious anaemia, complicated with otitis media. During the patient's stay in hospital the salvarsan treatment seemed to produce no benefit; when he left the hospital he was apparently in a dying condition; no one who saw him expected him to rally even temporarily; and yet, after getting home and being in a semi-conscious condition for ten days, he made a splendid recovery. Now, seeing that one knows that the salvarsan remains for many weeks encapsuled in the gluteal tissues and in a position to be absorbed into the system, I am strongly tempted to attribute the recovery to the salvarsan. The way in which Case IV has gradually improved during the past year, without any other treatment, lends, I think, some support to this view. I am, of course, aware that remarkable temporary rallies and apparent recoveries sometimes occur, apparently spontaneously, in cases of pernicious anaemia. I do not wish to attribute too much importance to the result in this case; all I say is that it is. I think, suggestive that it was perhaps due to the salvarsan.

CASE VII.

T. S., aged 55, married, foreman warehouseman, admitted to the Edinburgh Royal Infirmary on October 24th, 1911, suffering from profound pernicious anaemia.

Previous History.

Was well until July, 1910; then became weak, had occasional diarrhoea, and was confined to bed for two months; was treated with arsenic, recovered, and was able to work for eight or nine months. In May, 1911, had an attack of sciatica; has gradually got paler and weaker since, notwithstanding arsenical treatment. Denies venereal disease; no appearances suggestive of that disease.

State on Admission to Hospital.

The patient is feeble and old-looking, profoundly anaemic, very short of breath, feet swollen. Red corpuscles, 790,000; haemoglobin, 27 per cent.; colour index, 1.7; white corpuscles, 9,600; marked poikilocytosis, many megaloblasts, some normoblasts. No retinal haemorrhages.

October 27th, 0.3 gram "606." given subcutaneously produced very little pain and local reaction. Red corpuscles, 1,030,000; haemoglobin, 26 per cent.; colour index, 1.3.

November 4th. The patient has improved considerably. Red corpuscles, 1,460,000; haemoglobin, 25 per cent.; colour index, 0.8; white corpuscles, 5,600.

On the evening of this day he had a rigor, followed by a rise of temperature and the development of acute bronchopneumonia; he died on November 6th.

Post-mortem examination showed acute bronchopneumonia, with all the characteristic appearances of pernicious anaemia in the different organs and tissues.

The condition of the blood at different dates is shown in Table VII.

TABLE VII.

CASE VII.—*Pernicious Anaemia. Showing the Results of Treatment.*

Date.	Treatment.	Red Corpuscles.	Haemoglobin.	Colour Index.
			Per Cent.	
Oct. 24, 1911 ...	—	790,000	27	1.7
Oct. 27, 1911 ...	"606," 0.3 gram	1,030,000	26	1.3
Nov. 4, 1911 ...	—	1,460,000	25	0.8

Remarks.—In this case bronchopneumonia occurred, and caused death a week after the administration of salvarsan. Whether the treatment had anything to do with the production of the bronchopneumonia it is, of course, impossible to say. During the week which supervened between the administration of the remedy and the occurrence of the bronchopneumonia, the general condition of the patient and the condition of the blood showed a distinct improvement.

ON THE TREATMENT OF SYPHILIS.*

BY

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Syphilis has been so much discussed and its cause and pathology have been made so clear within the last ten years that the treatment has been revolutionized, and it has become necessary to focus our newly acquired knowledge, avoiding rash generalizations on the one hand and an undue conservatism on the other. The field is already so large that it cannot be surveyed satisfactorily by any single observer, and the Royal Society of Medicine has done wisely, therefore, in choosing several Fellows to open this discussion and in allotting to each of them a separate plot. To me has fallen the consideration of modern methods of treatment, partly, perhaps, because I am engaged in general surgery, and so have no special bias towards any particular plan of treatment, partly because, for some years past, I have kept one or two beds in my male and female wards at St. Bartholomew's Hospital for the especial purpose of comparing the relative value of the new methods of treatment.

My colleagues at the hospital have placed me under an obligation by allowing Mr. J. E. H. Roberts to collate the results of the cases of syphilis which they have treated, whilst Mr. Roberts himself has done excellent service in bringing forward the cases upon the present occasion. The pathological department of the hospital, too, under the able superintendence of Dr. F. W. Andrewes and Dr. Mervyn H. Gordon, has given unstinted help in determining the Wassermann reaction in the patients sent to them, so that we have been able to assure ourselves that every patient who was treated really had syphilis, a point of considerable importance and less easy to determine than might appear at first sight.

Schaudinn and Wassermann.

The modern treatment of syphilis dates from the years 1905-1909. In 1905 Schaudinn discovered the spirochaete; in 1907 Wassermann published his test; in 1909 Ehrlich issued his remedy "606." It is necessary to remember these dates, for they show how recent is our knowledge and how tentative must be the results in a disease which has such long-continued and far-reaching results as syphilis. It is still much too early to arrive at any final conclusion, and for many years to come it will be necessary to reconsider the results, and perhaps to abandon many of those points which we now consider to be of the greatest importance.

The first advance towards a scientific method of treating syphilis was made when Schaudinn discovered the spirochaete and brought the disease into line with other diseases of microbic origin. Schaudinn was a skilled biologist, the advances of modern tropical medicine were well known to him, and the weight of his authority was sufficient to stamp the value of the discovery, to fix the position of the micro-organism in the animal kingdom, and to point out by analogy the most likely methods of destroying its virulence.

The second step in the treatment of syphilis was also purely scientific. It was made when Wassermann gave a test founded upon the broad principles of pathology. At first, I fear that I was somewhat sceptical as to the value of the Wassermann reaction, and exactly in those cases where I now know that it is of the very greatest help. It was difficult to believe that a young man, seemingly in perfect health and without a blemish, was suffering from a spirochaete infection simply on a pathological report. I had been brought up in the old school which required some clinical evidence of syphilis before a patient is placed upon a mercurial course. I knew and had taught for years that syphilis was a deceitful disease, the signs and symptoms being intermittent, because periods of apparently perfect health are intercalated with other periods when the manifestations are plain, but it was difficult to rely upon a test made by another person, however skilful and assured he might be. Two or three cases, however, convinced me. In these cases the absence of symptoms, with a very doubtful history of a sore, led me to give too sanguine a prognosis, and decided me to await further evidence although the Wassermann reaction was positive. Mercury had to be given in each of these cases, and I now have faith in Wassermann's test, especially in the very difficult cases where it is necessary to obtain evidence of syphilis apart from the ordinary clinical signs. We must recognize, however, that the test has its limitations. The reaction is not given by every patient even when there are obvious signs of syphilis; it is not usually positive until five to eight weeks after infection, when the disease has ceased to be local and has become generalized in the body; it is positive in 95 per cent. of cases of "secondary" syphilis and in 75 per cent. of "tertiary" syphilis, whilst it is said to be positive in only 50 per cent. when the disease is latent. Moreover, it labours under the disadvantage of being a laboratory test requiring a skilled worker to carry out the technique. In the future this may be overcome in one or two ways: either the test will be simplified, or we shall educate the next generation to become more skilled pathologists than we are ourselves. For the present it is necessary to rely upon the report of another person, and this is somewhat repugnant to my surgical instinct.

Mercury.

Knowing the cause and being provided with a test, it is possible to employ a course of rational treatment in a disease, and this is what has happened in the case of syphilis within the last few years. Mercury, even in our own times, was administered in all cases of venereal disease associated with a sore. The more cautious, indeed, awaited the appearance of "secondary" symptoms; the bolder gave mercury at once if there was a "hard sore" or "Hunterian chancre." But the drug was given for the most part without any system and without any very clear idea of what was to be expected from its use. Too often it was given merely for the relief of syphilitic manifestations and its administration was stopped as soon as these signs disappeared. Little was known of visceral syphilis; still less of syphilis of the nervous system. It is no wonder, therefore, that syphilis was looked upon as incurable, and it actually was so when mercury was given in this haphazard fashion. The remedy further fell somewhat into disrepute, because it was recognized that many syphilitic manifestations disappeared spontaneously whether or not mercury was given. A school arose, therefore, which maintained that guaiacum, potassium iodide, arsenic, and other drugs were just as efficacious. It was difficult to gainsay these statements so long as the cause of the disease was unknown and there was a prevailing ignorance of its natural history. We know now that all these drugs may be useful adjuvants, but that they do not cure, that is to say, they do not destroy the causal micro-organism in the same thorough manner as is done by mercury.

In this country the rational administration of mercury with a view to cure syphilis, and not merely to relieve the signs of syphilis, is due largely to the teaching and practice of Sir Jonathan Hutchinson. We have learnt from him that small doses of the less irritating forms of mercury administered for long periods of time, whether or not signs are present, are more serviceable than large doses given irregularly and for short periods. But as the cause of syphilis was unknown, Sir Jonathan had only his own acumen and experience to guide him, and it was impossible for him to communicate his knowledge personally to any very large number of medical men. His methods, however, came into general use, and even before the discovery of the spirochaete it was admitted that syphilis was curable by those who were prepared to take an infinitude of time and trouble about their disease. There was, however, no test upon which reliance could be placed as to whether or not a patient was cured, and the answer to the question had to depend upon time and circumstances. It was impossible, therefore, to lay down any definite rule as to the duration of a mercurial course, or when it might safely be stopped. The length of a course was dependent upon the presence or absence of symptoms after the administration of mercury had been stopped for a longer or shorter period. It resolved itself eventually into the administration of mercury with regulated intervals for about two years. If at the end of this period no fresh symptoms appeared within the next three months the

* An address delivered at the opening of the discussion on syphilis at the Royal Society of Medicine.

patient was thought to be cured. It is needless to say that this empirical method often led to disappointment, and sometimes to disaster. It became clear, too, as our physicians learnt to associate some of the commoner diseases of the brain and spinal cord with imperfectly treated syphilis, that very many cases of the disease were never really cured, although there had been no external signs for many years after treatment had been discontinued. The Wassermann reaction seems to give us the necessary clue to the process of cure, and syphilis can only be said to be cured, in the light of present knowledge, when the test is negative and the patient remains without symptoms for at least a year after the use of mercury has been discontinued.

The first variation from the methodical and routine administration of mercury by the mouth or by inunction was the use of intramuscular injections. Experience soon taught that it was especially serviceable in those terrible forms to which the term "malignant syphilis" is applied, when mercury was not well tolerated by the digestive tract, and when the patient could not be trusted to follow out his orders. The method of intramuscular injection was reduced to a system by the late Colonel F. J. Lambkin, A.M.S., whose recent untimely death in South Africa we all deplore. The creams of calomel and metallic mercury which he invented give excellent results. Less pain attends their use than when other formulae are employed, and in no case in my own wards was their administration followed by troublesome symptoms when care was taken to avoid the nerves and blood vessels of the part where the injections were made. We learnt that it was better to have the creams dispensed in single doses, each in a hermetically sealed tube, rather than to fill the syringe from a larger supply which had been repeatedly heated to render it fluid. It was necessary also to sterilize the syringe by boiling it in olive oil immediately before use. The cream and the oil then mix readily, whereas bubbles are formed when the cream is drawn up into a syringe which has been boiled in water. The routine treatment was identical with that recommended by Colonel Lambkin, namely:

1. Four injections of calomel cream delivered deeply into the gluteal region. Each injection consists of 10 minims of cream, the dose containing ½ grain of calomel. The cream is made according to the formula:

℞	Calomel ...	...	...	5 grams.
	Creosote }	...	...	āā 20 c.cm.
	Camphoric acid }			
	Palmitin basis ...	...	...	100 c.cm.

2. The injections are made at intervals of a week, and at the end of a month they are replaced by a cream containing 1 grain of metallic mercury in every 10 minims. The composition of this mercurial cream is:

℞	Metallic mercury	...	...	10 grams.
	Creosote }	...	...	āā 20 c.cm.
	Camphoric acid }			
	Palmitin basis ...	...	...	100 c.cm.

Two weekly injections of this metallic mercury cream are given.

3. No injections are given for two months after these six doses have been administered.

4. An injection of metallic mercurial cream is then given every fortnight for two months—that is, four injections.

5. No injections are given for four months.

6. An injection of metallic mercurial cream is given every fortnight for two months—that is, four injections.

7. No injections for six months.

8. An injection of metallic mercurial cream is given every fortnight for two months—that is, four injections.

9. No injections for one month.

10. An injection of metallic mercurial cream every fortnight for two months.

Colonel Lambkin's method marks a distinct advance in the treatment of syphilis. He regarded mercury as a curative agent, and gave it systematically to that end. It is well adapted for the army and navy, and it can be employed advantageously in hospital practice if the patient can be interested in his cure and will attend once a week for the injection. It is less fitted for private practice, where the mere mention of a needle prick is often sufficient to frighten a patient, whilst the needle itself is necessarily longer and stouter than that of a hypodermic syringe. Unskilful technique, too, has caused haematomata, painful indurations, and, occasionally, deep-seated abscesses. The knowledge that such accidents have happened has also had some effect in limiting the more extensive use of a valuable method.

In private practice, therefore, when a patient has declined to be treated by intramuscular injection, and recourse has been had to mercury perchloride and potassium iodide, I have tried to make the mixture somewhat less nauseous than that usually prescribed. I applied to Mr. Langford Moore and Mr. S. Tweedie, the dispensers at St. Bartholomew's Hospital, who recommended the following formulae after making a large number of experiments. In both prescriptions the metallic flavour of the mercury and the acridity of the potassium iodide are successfully masked. The first prescription is for those who like sweet tastes; the second is for those who prefer bitters.

(A)	℞	Liq. hyd. perchlor. ...	...	℥j
		Potassii iodidi	...	℥j
		Syrupi	...	℥j
		Mucilag. tragacanth.	...	℥ij
		Ol. amygdal. essent. (sine HCN)	...	♏ij
		Ol. cinnamomi...	...	♏ij
		Aq. chloroform.	...	ad ℥viii

M. Fiat mist. Sig., Take an eighth part three times daily.

(B)	℞	Liq. hyd. perchlor. ...	...	℥j
		Potassii iodidi	...	℥j
		Tinct. chirettæ... ...	...	℥jss.
		Elixir glucidi	...	♏xl
		Infusi. gentianæ	...	ad ℥viii

M. Fiat mist. Sig., Take an eighth part three times daily.

SALVARSAN.

I cannot speak from personal experience of the value of the arylarsonates and soamin. The accounts of these remedies did not appear to be very satisfactory, and before I had made up my mind to employ them they had been replaced by salvarsan. It has been extensively employed in my wards, and I think highly of it as a remedy for syphilitic manifestations, although we have not yet sufficient evidence to prove that it cures the disease. I have always used it, therefore, as an adjuvant to mercury, and never by itself or in place of mercury. The present working hypotheses are that salvarsan kills adult and free spirochaetes, whilst it has but little effect upon those which do not lie in close relation with the blood and lymph paths, upon the immature forms, or upon those which are in an intracellular stage. Whether or not we choose to employ one of these hypotheses, two great facts stand out in connexion with the action of salvarsan in syphilis—it cures the symptoms of syphilis in a shorter time than mercury, and it can be employed as a test for syphilis, because in many cases when salvarsan is given to a syphilitic patient whose Wassermann test is negative, the first effect of the injection is to render the reaction positive, although in a short time it again becomes negative. Salvarsan promises, therefore, to be useful as a test for the cure of syphilis effected by other means.

Much benefit is derived undoubtedly from the use of salvarsan, but it is useless to expect miraculous effects from a single injection. It is necessary to use salvarsan methodically if the best results are to be obtained, and the injections must be repeated at intervals of a fortnight to a month. If they are given too near together time is not allowed for the large dose of arsenic to be eliminated, and the symptoms attending the second dose may be more severe than the first.

The net outcome of our experience with salvarsan has been that it serves as an excellent adjuvant to mercury in the treatment of syphilitic lesions. It has proved especially useful in cases of chronic superficial glossitis, in active syphilitic periostitis, and in ulcerating syphilides of the skin. It has been less serviceable in craniotabes, and in cases of osteitis associated with the formation of sequestra, because in these conditions the pyogenic organisms are more important that the syphilitic infection; neither have the results been very satisfactory in cases of syphilitic arthritis, doubtless because many of these inflammations are also associated with a tuberculous infection. So far as we have been able to ascertain no serious accident has occurred in our cases. We have recognized that we were dealing with a powerful arsenical compound and we have endeavoured to eliminate the more obvious risks.

In Parasyphilis.

Personally I have not hesitated to use it in private when the patient desired it, and in one case of parasyphilis I administered it—against my own wish, but at the earnest desire of the patient himself.

A gentleman who had suffered for many years from tabes had a definite Wassermann reaction, he was nearly blind, and he

was unable to walk more than a short distance. I assured him that there was very little probability, on pathological grounds, of his obtaining any good from salvarsan and that he might be made worse. He decided, however, to take all risks, and felt so much relief from the first injection that he determined to have a second. The first injection was given on July 5th, 1911, the second on October 4th—0.5 gram each time. He writes on May 8th, 1912: "I can now hold my water unless the bladder is overfull from drinking three cups of tea or taking a little sherry, and then I pass it more easily than I used to do before treatment. I have improved in balance since the last injection, as I can stand up on my toes without touching anything; my hearing has remained almost normal since December—that has improved more than anything else—my sight has improved a little. I can see light more strongly, but it is very little better. My knee-jerks are no better, and my memory, I think, is not so good for names of people and places." To this his wife adds: "His memory is quite as good or better. I am very pleased to tell you what I think of the treatment you gave my husband last year. It has done him a great deal of good and his life is more worth living, though the cure is, of course, not complete. To give you details: Before the treatment I always had to wait for a favourable opportunity. Now his mind is clear and he can grasp and discuss serious affairs at any time. Formerly he could not be left alone at any time. He could not remember to sit still, and he could not cross a room without help. His balance is now so much better that he can walk anywhere in the house and garden by himself. He is safe not to fall. I am to tell you he can stand up straight alone and put on his coat by way of proving that the balance is good. His hearing is very much improved. The control of the bowels returned, but I regret to say that since January it has failed, and it appears to be weaker than during the previous six months. The bladder remains as before. Now and then he can pass water without the catheter, but with no regularity. As regards distance: Leaning heavily and distressing himself considerably, he could walk two miles. He can now walk the same distance with ease and not leaning on anyone—simply being guided—and will probably walk another mile later in the day. His eyesight is not improved.

This patient seems on the whole to have received benefit from salvarsan, and it will be interesting to discover from similar cases how far this was due to the drug and to what extent it was the result of a firm belief in its efficacy. The positive Wassermann proves that the spirochaete infection was still active, though it was many years since he contracted the disease. The results seem to show that—as might have been predicted—his cerebral functions have improved, whilst his spinal nervous system remains unaltered.

Technique.

The routine of our technique for administering salvarsan has always been the same. It has been given by intravenous injection, and the patient has been kept in bed for twelve or fourteen hours previously. The skin has been prepared by sterilizing it with a 2½ per cent. solution of iodine in rectified spirit. The veins are rendered prominent by the application of a fillet, and when the veins at the bend of the elbow have been used the patient has been made to grasp a ruler or a staff, as in the days of blood-letting. The needle used is that recommended by Mr. J. E. R. McDonagh, which is bevelled to a point on the upper surface instead of beneath, as is usual, and it is provided with a slightly concave plate of metal to allow it to rest more securely on the skin—two small modifications which make the operation of puncture of the vein much easier. It is unnecessary to give either a local or a general anaesthetic when the veins can be made prominent, as is usually the case. A skin incision is unnecessary, and with a well-directed and sharp needle the pain is momentary and infinitesimal. The syringe and needle are filled with freshly prepared and sterilized salt solution and the vein is punctured obliquely upwards. The fillet is then relaxed, and the contents of the syringe are emptied into the vein. This will show whether the vein has been fairly entered, for if it has been missed or transfixed the salt solution will form a bulla owing to the extravasation of fluid into the surrounding tissues. If the salt solution enters the vein freely the syringe is filled with salvarsan solution, which is then injected by syringefuls at a time until the whole pint has been introduced. When all the salvarsan solution has been introduced a syringeful of salt solution is injected to wash out the needle and to free the tissues from any salvarsan which might be adherent to them. Both the salvarsan and the salt solution are kept at a temperature of 105° F. The needle is then withdrawn, a pad and bandage is applied over the prick, the arm is kept in a sling for a few hours, and the patient is allowed to get up when he feels inclined to do so. The salvarsan solution is made by dissolving 0.6 gram of salvarsan in a pint of sterilized salt solution made from freshly prepared distilled water. The solution is neutralized or rendered faintly alkaline by the addition of a 1 per cent. solution of sodium hydrate. It is necessary to have everything sterile, and it adds greatly to the ease of the operation if the rubber junctions connected with the three-way tap of the syringe are made of such thick rubber with so small a bore as to make it difficult to fit it on to the tap, because the ordinary thin rubber tubing is apt to slip off or become flattened if it kinks whilst suction is being made. When the needle is once fairly introduced care must be taken that it does not slip out of the vein. It is therefore handed over to the sole care of the patient if he is competent to look after it, or, if he is nervous, it must be given in charge of a nurse. If the needle slips out, or if the vein is not punctured fairly at the beginning of the operation, it is much better to employ another vein rather than to attempt any rectification in the one first chosen.

One chief difficulties have been to find a suitable vein. Many of the men have been so self-indulgent as to become fat with lax tissues, whilst in women it is by no means easy to make the veins of the arm prominent. In some cases we have used the internal saphenous, in others it has been necessary to give a general anaesthetic and dissect out the vein at leisure.

Value of Salvarsan.

The sequelae have been trivial—headache, a rise of temperature to 103° to 104° F., with or without a rigor, vomiting, diarrhoea, and stomach-ache, but they have caused no anxiety, and the patient has always been well on the following day. In the majority of cases the patients felt no inconvenience at all. Two bad results have come under my observation, and in both an intramuscular injection of salvarsan had been made. In one case there was extensive sloughing of the tissues at the seat of the injection; in the other an oedematous and painful swelling occurred just below the angle of the left scapula where salvarsan had been injected. The swelling suppurated, was laid open, and in due course healed; but it was a long time before the oedema disappeared.

It seems, therefore, that salvarsan is a useful remedy if its limitations be recognized. How far it is useful in the initial stage of syphilis I do not know from personal experience. It is said that primary sores heal much more quickly if salvarsan is given than if it is not given, but the glands which enlarge as the result of the infection remain harder than normal although they have returned to their natural size. The drug is very useful in the secondary and tertiary stages in those cases where the lesions are due more to syphilis than to pyogenic micro-organisms. It is serviceable, too, in some cases of parasyphilis, but to what extent and under what conditions I am again ignorant from want of personal experience. We still need more information about the treatment of hereditary syphilis with salvarsan, whether it is best to treat the child through the mother, by means of an intermediary, as a goat or cow, or directly—that is, the child itself.

Broadly, I do not think that syphilitic lesions are more completely cured by salvarsan than they are by mercury, but the result is certainly brought about more speedily; and as the administration of salvarsan does not prevent the simultaneous employment of mercury, the two remedies may be serviceably used together. But until we have much more evidence and have proved its efficacy in a very large number of cases for a period of several years, we shall not be justified in saying that salvarsan cures syphilis.

It is necessary to ask, What are the contraindications for the use of salvarsan? About twenty-three fatal cases have been recorded, but several of these were moribund at the time of administration, some were associated with a faulty technique, and in others it was clear that the drug should not have been employed. It seems from the evidence at present available that the intravenous injection of salvarsan is a safe method of procedure if care be taken to administer it in a rational manner and to reasonably healthy persons. The further question then arises, At what period in syphilis should salvarsan be given? The working hypothesis is that the drug destroys the active spirochaetes with which it is brought into contact. If

this hypothesis is correct the sooner a dose is given after infection the more likely it will be to answer its purpose, for we must assume that the microbes are localized at first to the seat of inoculation and to the neighbouring lymphatics and glands. We should also like to know how often salvarsan must be given and at what intervals, remembering that it is desirable to give as few injections as is consistent with a due regard to complete destruction of the spirochaetes. I hope that these points will be emphasized and that we shall obtain answers from those who will take part in the discussion with a larger and more special knowledge than I possess.

Combined Treatment.

What is the best treatment for syphilis in the present state of our knowledge of the disease? Taking, for the sake of example, the case of a surgeon or of a nurse who is inoculated in the course of professional duty, the wound should be well washed under running water, like a wound obtained in the *post-mortem* room. It should then be dried and covered with an ointment consisting of 10 grams of calomel in 30 grams of lanoline. This mercurial ointment should be gently rubbed into the wound for five minutes, and a dose of salvarsan (0.6 gram) should be given intravenously. The prophylactic action of the mercurial ointment appears to end—at any rate experimentally—within twenty-four hours of inoculation; the salvarsan is said to be serviceable in checking the generalization of the disease even when the seat of inoculation has become characteristically indurated and the lymphatic glands are enlarged. The fact, however, that the lymphatic glands do not return wholly to their natural condition after the administration of salvarsan in early syphilis rather inclines me to distrust the drug as a sole remedy, and should lead one to give mercury in some form or another as soon as possible.

A Wassermann test should be made at an early period after inoculation, although it will probably be negative in the very earliest stages, for, as has been stated already, our present knowledge shows that it is usually positive in five to eight weeks after infection; it is positive in 95 per cent. of cases during the secondary stage, and in 75 per cent. during tertiary manifestation, but it is only positive in 50 per cent. of cases where syphilis is latent. Mercury should be given at once when the infection is undoubted, but in the more difficult cases, where the diagnosis is doubtful, it may be withheld until a positive Wassermann's reaction has been obtained.

Preferably the mercury should be given by intramuscular injection, and Colonel Lambkin's formulae are quite satisfactory as far as I have used them. If, for any reason, the intramuscular method cannot be employed inunction may be employed. But when, as in ordinary private practice, the drug has to be given medicinally, I think the perchloride is better than the grey powder which has been used in England for a long time past. It seems to me that so long as mercury is given in small doses, systematically, and for long periods of time, the exact preparation used does not matter very much. The mercury should be given with regulated periods of rest, and a Wassermann's test should be made at the end of each period just before the mercury is recommenced. If the test is negative an intravenous injection of salvarsan may be given with a view to elicit a positive result. If the test still remains negative after this injection the mercury may be discontinued for a further period so long as there are no signs of syphilis, and at the end of a further period of two months the test should be again employed. Marriage may be permitted under these conditions when the Wassermann test has remained negative and there have been no syphilitic symptoms for at least a year.

In this manner we shall avoid giving mercury for a longer time than is absolutely necessary, whilst the drug will be continued until the syphilis is cured, even when the absence of symptoms might seem to make a further mercurial course unnecessary. We shall also have taken a step in advance of Colonel Lambkin, who was obliged to take a time limit with absence of symptoms as a guide for discontinuing a mercurial course because the scientific test had not yet become available.

There are two objections to the use of Wassermann's test as an answer to the question whether or not an individual is cured of syphilis. In the first place, it is purely a laboratory test, and we are consequently at the mercy of the pathologist who makes this examination. This objection is easily surmounted by always employing the same pathologist. The second objection is much more serious. It involves the fallacy that Wassermann's test is an absolute proof of the presence or absence of spirochaete infection, and even in the light of our present knowledge it is certain that we are not justified in making such an assumption, for the figures given above show that the test remains negative in a certain percentage of cases in every stage of syphilis. Clinical experience and the caution begotten of it must still guide our advice therefore, but recent advances in the treatment of syphilis have been so great that we need not despair of obtaining some reliable test even in the immediate future.

ELECTRO-CARDIOGRAPHY AND ITS IMPORTANCE IN THE CLINICAL EXAMINATION OF HEART AFFECTIONS.

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Part I.

The Method Employed in Obtaining Electro-cardiograms.

The electro-cardiographic method is one by means of which curves are obtained of electric changes which result in the body from the activity of the heart's muscle. The installation required for this work comprises a sensitive galvanometer and its accessory switchboards, and an arc light and camera.

The galvanometer used for the purpose is a peculiarly sensitive one;† it is composed of a heavy electro-magnet, the poles of which are closely approximated. Between the poles, and lying in the magnetic field, an extremely light conducting fibre is stretched, which consists of a finely drawn platinum or silvered quartz thread. It is this thread which acts as the recorder. If a small current is passed through it while it lies in the magnetic field, it becomes deflected and takes up a new position, a position which is governed by the direction in which the current flows through it, by the strength of the current and the sensitivity of the instrument. The sensitivity of any given instrument is controlled by the magnification of the string and its tension. The magnification is arranged by means of a microscope driven through one pole of the magnet; the other pole is bored to contain a condenser. A beam of light, falling through the condenser and concentrated upon the string, projects the magnified image of the string upon the screen of the camera. The magnification usually adopted is approximately 600 diameters; it is kept constant. The sensitivity of the instrument, from time to time, consequently depends upon the tension of the conducting fibre, and this is arranged to give a standard deflection for a given electric change. The standard adopted by all who practise human electro-cardiography is the same. When the ends of the string are connected to form a circuit and an electro-motive force of $\frac{1}{1000}$ volt is introduced into this circuit, the deflection of the projected string image amounts to 1 cm. The deflection of the string is in exact proportion to the strength of current which passes through it. Thus, if $\frac{2}{1000}$ volt are introduced into the circuit a deflection of 2 cm. results. If, instead of introducing an electro-motive force from a battery, the human body is connected to the string by suitable means, the string moves in response to changes of potential produced in the body as a result of the heart beat; and the movement of the string's shadow in response to these natural cardiac electric effects is of sufficient amplitude to permit it to be photographed upon a moving plate surface. The photographic apparatus consists of a moving plate camera, the string is vertical, and its shadow falls upon the vertical screen on the front of the camera. Its movements are from side to side across the front of the camera, and across a horizontal slit in the front, behind which the plate

* Working the tenure of a Beit Memorial Fellowship.

† Such a galvanometer is supplied by the Cambridge Scientific Instrument Company.

travels. As the plate travels the shadow of the moving string protects the sensitive surface of the plate from the light, and when the plate is developed the record of the movements remains upon the plate as a white band upon a black background. Prints from this plate, such as are here reproduced, show a black band upon a light background. The plate falls on its end in the camera, the print is turned upon its side for reproduction. As the plate moves the light is also prevented from falling upon its surface by a screen on which fine lines are ruled at intervals of 1 mm. These lines are horizontal in the records and serve to facilitate measurement; each is equivalent to $\frac{1}{1000}$ volt (see Fig. 1). The light is also shaded by a vibrating time marker, which records thirtieths of a second upon the plate.

The object of standardizing the movements of the string is as follows: If allowance is made for the whole resistance of the circuit, consisting of string, the human body, and the connecting wires, the development of a given potential difference at the points of the body from which the current is led off gives rise to a deflection of the string of a definite value, which may be compared with the deflection resulting from the employment of a potential difference of known amount. The same heart will give electro-cardiograms similar in outline and magnitude from time to time; and it will yield similar records with different instruments, providing that the body is connected to the galvanometer in the same manner. Thus an absolute comparison may be made of curves taken from the same subject from time to time; and to a lesser extent of curves from patient to patient. The electro-cardiograms from no two subjects are the same; they differ slightly both qualitatively and quantitatively. Such being the case, and the type of electro-cardiogram remaining constant in any healthy person for long periods, the identification of any individual from his electro-cardiograms is a matter of no great difficulty.

It is customary in leading off the heart currents from the patient to adopt three leads: *I*, horizontal, from the right arm to the left arm; *II*, oblique, from the right arm to the left leg: and *III*, vertical, from the left arm to the left leg. I shall speak of these leads hereafter simply as leads *I*, *II*, and *III*. In the illustrations these leads are marked in the upper left-hand corner of each strip of curve. The limbs are connected to the instrument by plunging them in baths of salt water, the baths being themselves connected to the string. As soon as the string is placed in circuit with the body in this fashion its movements commence, and may be recorded when appropriate adjustments have been made. And within certain limits it is a matter of indifference how far away the patient sits from the instrument; the wires which carry the current from his body may be several miles in length. Providing that they are properly protected, and that their own resistance is allowed for, the records remain unchanged.

The Form of the Human Electro-cardiogram.

The form of the human electro-cardiogram varies according to the points of the body from which the current is derived. As I have said, three leads are commonly employed. For the time being let us consider a single one, the most serviceable—namely, that which is

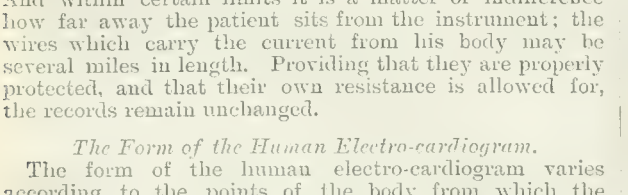


Fig. 1.—A normal electro-cardiogram from lead *II* (R. A. to L. L.). It shows two heart cycles; each consists of *P*, the auricular summit, and the deflections *Q*, *R*, *S*, and *T*, the ventricular deflections. The line is straight and horizontal during diastole. The normal electro-cardiogram is inscribed only when the heart-beat starts at the normal site, traverses the auricle and the auriculo-ventricular bundle, and is distributed to the ventricle and through its substance by the usual and recognized channels. The time marker of this and subsequent figures is in $\frac{1}{30}$ seconds, and is seen along the bottom edge of the curve. The fine horizontal lines at millimetre distances facilitate measurement. Each centimetre of a heart deflection is equivalent to $\frac{1}{1000}$ volt.

in the nearest line to that of the heart's axis, the right arm to the left leg (lead *II*). Such an electro-cardiogram from a normal subject usually consists of five separate phases, and these are called *P*, *Q*, *R*, *S*, and *T* (see Fig. 1). It is necessary to examine but briefly the meaning of these phases. *P*, the first phase, is due to the simultaneous contraction of the two auricles. *Q*, *R*, *S* and *T* (of which *R* and *T* are the most prominent) are the result of simultaneous contraction of the two ventricles. We will be content with this statement for the time being, without further attempting the explanation of the various summits and depressions of the curves. We have in electro-cardiography the only certain method of obtaining separate records of the movements of the upper and lower chambers of the human heart: and, as we shall see, these records may tell us a great deal as to how the separate chambers are fulfilling their functions.

The curves from the other leads, *I* and *III*, are not altogether dissimilar to those derived from lead *II*; though they never duplicate it (Fig. 2). The main summits,

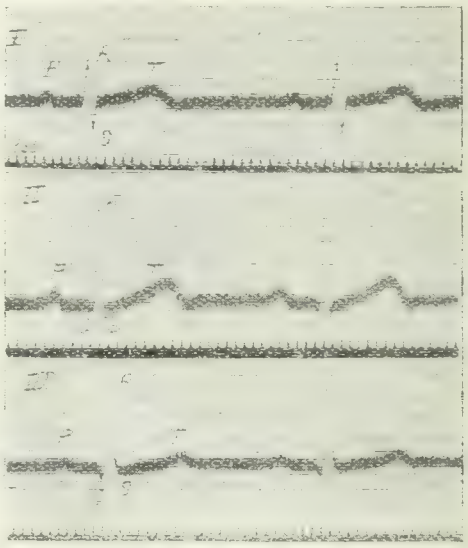


Fig. 2.—Three normal electro-cardiograms from the same subject as Fig. 1. They were taken from lead *I* (R.A. to L.A.) lead *II* (R.A. to L.L.) and lead *III* (L.A. to L.L). Each shows *P*, the auricular representative, and *R* and *T*, ventricular representatives, *Q* and *S* are present in varying degrees. Note the conspicuous *R* summit in each lead and the variations in height of the several deflections from one lead to another. The heights of the peaks in the second lead are similar to those found in Fig. 1. The two figures were taken from the same subject and same lead, but on different days.

P, *R* and *T* are still seen, and *Q* and *S* also appear in varying degree. We shall understand the special values of these leads almost immediately.

The Direction of Lead.

In speaking of the value of electro-cardiograms in the diagnosis and management of cardiac affections, we may choose certain illustrations; in selecting them at the present time, I shall not only choose them as illustrations of the method, but I shall also specially select those which have an immediate and unquestionable practical value. And the first illustration is a simple one: it shows that the direction of lead is all-important, and demonstrates the particular value of a given lead under certain circumstances. Supposing that in a normal subject we lead off from right arm to left arm (lead *I*). The curve which results will be similar to that shown in Fig. 3A. But supposing that we lead off in the reverse direction—that is, from left arm to right arm, what will result? We change the direction in which the same currents flow through the string. Its movements will consequently be of similar amplitude and similar form, but *opposite in direction*. The two pictures will differ from each other in one respect, and one only. The second will be upside down (Fig. 3B). The practical value of this fact is seen when we turn our attention to transposition of the heart. Regarded from the point of view of the heart, the right arm in the subject of heart transposition is where the left should be; the left is where the right should be. Consequently an electro-cardiogram from lead *I* in a subject who has a transposed heart will be similar to an electro-

cardiogram from a normal subject from lead *I*, *but it will be inverted*. In other words, all the summits and depressions of the curve will be upside down. This reversal of the picture applies to lead *I* alone, for it is *the only symmetrical lead*. Now transposition of the heart is a rare condition, but it not infrequently happens that the human heart is displaced, and it is also by no means uncommon that the cause of its displacement cannot be found; in all such instances the question of transposition may arise. The electro-cardiographic method returns a perfectly clear answer to the question, Are we dealing

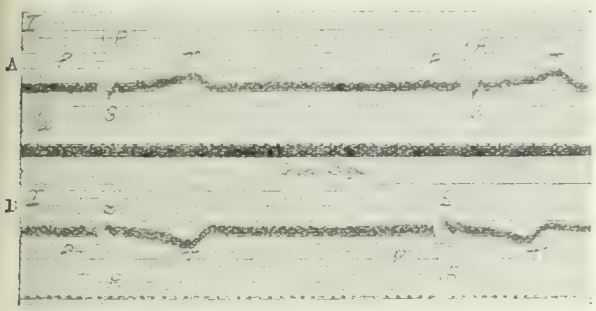


Fig. 3A.—A normal electro-cardiogram from lead *I* (R.A. to L.A.), the only symmetrical lead. *P* is small, *R* and *T* are conspicuous. The deflections are in the usual directions.

Fig. 3B.—An electro-cardiogram from the same subject. The lead was from L.A. to R.A. (lead *I* reversed). The electro-cardiogram is upside down. Such curves are obtained from lead *I* (R.A. to L.A.) when the heart is transposed, and in this condition alone.

with a transposed heart? Displacement of the heart certainly alters the form of the electro-cardiogram, and deforms the normal curve in definite and known ways, which I do not propose to consider at the present time. It is sufficient to know that displacement never yields the completely inverted electro-cardiogram; transposition always does. The electro-cardiographic test is the most certain means of differentiating the two conditions.

Enlargement of the Heart.

The chief object of recording the electro-cardiographic curves of one subject by means of three leads is the attempt to differentiate between right-sided and left-sided hypertrophy of the heart. If curves are taken from normal subjects, it is the rule to find that the summit *R* is a *prominent* upward deflection in all leads (see Fig. 2); *S*, if present, is a *small* downward deflection. If, on the other hand, the same leads are adopted in a case in which there is clear evidence of right-sided hypertrophy, certain changes in the shape of the curves are discovered (Fig. 4). In lead *I*, *R* is *small* or absent and *S* is deep. In lead *III*, *S* is small or absent, and *R* is relatively high. If the curves (Fig. 4) are examined it will be seen that the prominent

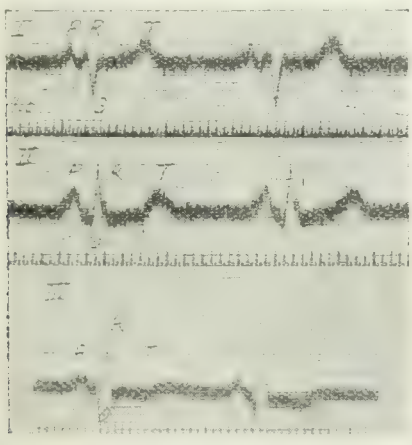


Fig. 4.—Three electro-cardiograms (leads *I*, *II*, and *III*) from a case of mitral stenosis. The figure demonstrates the exaggerated *P* summit in lead *II*, which is so frequently found when there is auricular hypertrophy; it shows the modifications of the ventricular deflections which consort so commonly with right ventricular hypertrophy; *R* is almost absent in lead *I*, while *S* is deep; *R* is tallest in lead *III*, while *S* is absent.

deflections in question, *R* in lead *III*, and *S* in lead *I*, point *towards each other;* the deep *S* of lead *I* and the tall *R* of lead *III* are directed upwards and downwards towards the centre of the figure. If the same three leads are adopted in a frank instance of left-sided hypertrophy the reverse picture may be anticipated (Fig. 5): *R* is large in lead *I*, *S* is small or absent; *R* is small or absent in lead *III*, *S* is large. The exaggerations of the peaks *R* in lead *I* and *S* in lead *III* are *away from each other*.

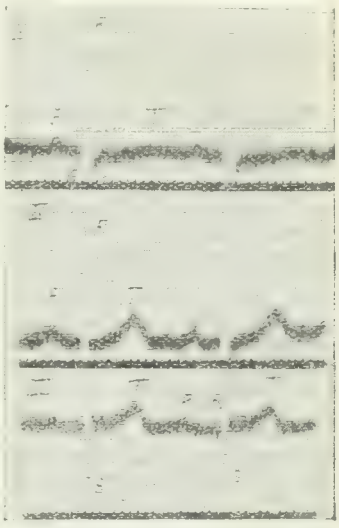


Fig. 5.—Three electro-cardiograms (leads *I*, *II*, and *III*) from a case of aortic disease and enlargement of the heart. The figure shows the modification of the deflections so frequently found where there is left-sided hypertrophy. *R* is tallest in lead *I* and *S* is short. *S* is deep in lead *III*, while *R* is almost absent. The arrangement is the reverse of that seen in Fig. 4.

It is in the new-born child, in pulmonary stenosis, and in mitral stenosis that the first grouping (Fig. 4) is so frequently encountered; it is in aortic and renal disease that the last grouping (Fig. 5) occurs most commonly.

The difficulty of differentiating right as opposed to left-sided hypertrophy in anything but the frankest of cases by ordinary physical signs is well known; often—indeed, frequently—it is impossible. The electro-cardiographic curves are not the least valuable indications which we possess to-day; and they may be of special service in several groups of cases. Apart from the intrinsic value of the differentiation, it is of special importance to ascertain the relative degree of right and left-sided hypertrophy in cases where there are murmurs at the base of the heart. It may be that, with the presence of a diastolic murmur in the aortic area in a patient who has a rheumatic history, a presystolic sound or actual murmur is heard at the apex; and the question arises as to whether stenosis of the mitral valve is present, or whether the apical murmur is of the kind described by Flint and attributable to the aortic lesion also. If it can be decided that left-sided hypertrophy predominates, such a fact emphasizes the aortic lesion; if right-sided hypertrophy predominates, the presystolic murmur may be attributed to constriction at the mitral orifice. Confusion not uncommonly arises in young subjects between the diagnosis of pulmonary and aortic lesions. The two valves which guard the respective arteries are near to each other; lesions of the former are accompanied by right-sided, and lesions of the latter by left-sided, hypertrophy. Again, how frequently one meets with cardiac patients—patients who have mitral stenosis, but in whom the presystolic murmur is absent; in such cases electro-cardiographic examination is often of great value, for it indicates that the muscle of the right side predominates. And this is especially the case, as will appear hereafter, when the heart's action is irregular.

(To be continued.)

THE Section of Balneology and Climatology of the Royal Society of Medicine held its annual meeting this year at Woodhall Spa, in Lincolnshire, on June 1st. The proceedings included a reception given by the directors of the Spa Company, an inspection of the hydropathic establishment, and a demonstration of the various methods of treatment adopted thereat.

THE American Medical Association held its sixty-third annual meeting in Atlantic City from June 3rd to 7th. Dr. Abraham Jacobi was installed as President in the room of Dr. John B. Murphy, and delivered an address on the best means of combating infant mortality. The report of the secretary stated that the membership of the association on May 1st, 1912, was 34,283, a net increase for the year of 323. The report of the treasurer showed that the total assets of the association were 511,759 dollars (a little over £102,351); the net income for the year was 53,815 dollars (£10,763).

THE RAPID CURE OF AMOEBIC DYSENTERY AND HEPATITIS BY HYPODERMIC INJECTIONS OF SOLUBLE SALTS OF EMETINE.

By LEONARD ROGERS, M.D., F.R.C.P., I.M.S.,
PROFESSOR OF PATHOLOGY, CALCUTTA.

IPECACUANHA is a drug with an interesting past and a brilliant future. The Brazilian root was first brought to Europe by Piso in 1658, and was successfully used by Helvetius in the treatment of Louis XIV, and sold as a secret remedy to the French Government. It was given for dysentery, chiefly in small doses, by Twining and many other Anglo-Indian physicians, but it was not until 1858, exactly two centuries after Piso, that Surgeon E. S. Docker, I.M.S., introduced the use of large doses (60 grains two or three times a day) of powdered ipecacuanha in the treatment of severe dysentery in Mauritius, with the remarkable result of reducing the death-rate of the disease from a former annual rate of 10 to 18 per cent. to only 2 per cent. His excellent results were rapidly confirmed by numerous physicians in India, but it was not until 1880 that Docker's great services to humanity was tardily rewarded by the Government with a gratuity of £400! Maclean and Norman Chevers in 1886 advocated the use of ipecacuanha in the treatment of acute hepatitis, but two or three decades later the pendulum again swung in the opposite direction, and the drug was largely replaced by ammonium chloride in hepatitis and by salines in dysentery, chiefly as a result of the success of the latter in very early and mild attacks of colitis. Indeed, only a few years ago a committee of London pharmacologists actually advised the omission of this invaluable drug from the medical panniers to be taken on field service by the army in India, so far had the Brazilian root fallen in the estimation of the medical profession. During the last few years ipecacuanha has once more gained ground, mainly on account of Sir Patrick Manson's advocacy of it in dysentery, and of the writer's success in the treatment of early acute amoebic hepatitis.

Doubtless, the principal cause of the vicissitudes of ipecacuanha is the production of very disagreeable and exhausting nausea and vomiting by the large doses which are essential to obtaining its full curative effects. This serious drawback is only partially overcome by the present methods of giving the drug in salol or keratin coated pills, and the use of opium, chloral hydrate, or tannic acid to check vomiting. Last year Vedder showed that emetine, the principal alkaloid of ipecacuanha, has the power in high dilutions of destroying amoebae in broth cultures, although it is not clear that this was a pathogenic form, which most recent authorities believe has not yet been cultivated. I have, therefore, tested the effect of the soluble emetine hydrochloride on *A. histolytica* in dysenteric stools. I have found that, on placing a piece of mucus containing numerous active amoebae in normal saline solutions of this salt, the pathogenic organism is immediately killed and materially altered in its microscopical appearances by a 1 in 10,000 solution, while after a few minutes they are rendered inactive, and apparently killed, by as weak a solution as 1 in 100,000.

I therefore decided to try if this powerful alkaloid can be safely administered hypodermically in the treatment of amoebic disease, and have obtained such striking results in a few patients that it seems to be advisable to make them known to others before the ensuing rainy season of widely prevalent amoebic disease. The following three cases, which have been selected because in none of them could the patients take ipecacuanha by the mouth, will suffice for this purpose, although much further experience will be necessary before the full value and limitations of the method can be ascertained.

CASE I.—*Acute Haemorrhagic Amoebic Dysentery, in a Patient who could not retain Ipecacuanha, Rapidly Cured by Emetine Hydrochloride Hypodermically.*

A Japanese female, aged 29, was admitted to the cholera ward under my care with a history of diarrhoea and sickness for three days, with four or five black stools daily, and severe epigastric pain. Specific gravity of the blood 1052, pulse fair, transfusion not necessary. A small stool containing blood and mucus was passed soon after admission, but I could find no amoeba in it. Castor oil mixture and bismuth ordered.

Second Day.—Three stools containing black blood passed during the night. Severe epigastric pain and vomiting of glairy mucus, without blood, still present. Calcium chloride given. By the evening four large black haemorrhagic stools had been passed; the pulse was feeble, restlessness and deep sighing respiration were present, as well as severe epigastric pain. Duodenal ulcer was suspected, and 20 minims of tincture of opium ordered.

Third Day.—At 7.30 a.m. the condition was still grave, but there was less restlessness. A large black haemorrhagic stool had just been passed, in which I noticed a few yellow pus-like streaks, and at once suspected amoebic dysentery. The transverse colon could now be felt as a thickened and tender mass in the middle line above the navel. Ten grains of Dover's powder were ordered. On examining the stool microscopically I found numerous large amoebae having the characters of *A. histolytica*. As the Dover's powder had been vomited, 10 grains of ipecacuanha with 5 of tannic acid was given, but this also was vomited, and the position became critical. As I had recently obtained emetine hydrochloride from England, I dissolved some in sterile normal salt solution, and at 3.30 p.m. injected hypodermically one-sixth of a grain, being the equivalent of 15 grains of ipecacuanha. This small dose was used for the first trial. No local irritation was produced, while, to my surprise, neither nausea or vomiting ensued. At 7.30 p.m. one-third of a grain more was injected, which also produced no ill effects, not even temporary depression of the pulse.

Fourth Day.—Only one small black stool was passed during the night; the general condition much improved. One-third of a grain of emetine hydrochloride was injected at 10 a.m., making the equivalent of 75 grains of ipecacuanha in sixteen and a half hours, without the slightest unpleasant effect on the patient, who had been unable to retain 1 grain when administered by the mouth.

The further progress was uneventful. The next three stools contained steadily decreasing quantities of blood, no further dysenteric motions were passed, and the thickening of the transverse colon could no longer be felt. After another week, during which ipecacuanha was given by the mouth, the patient left hospital, and she sailed for Japan with her husband a few days later in apparently good health.

The remarkably rapid recovery from the very grave haemorrhagic type of amoebic dysentery in this case can, I think, be safely attributed to the hypodermic administration of the active principle of ipecacuanha.

CASE II.—*Severe Chronic Amoebic Dysentery, of Three and a Half Years' Duration, Rapidly Cured by Hypodermic Injection of Emetine Hydrochloride.*

A high class Indian patient, who had suffered from repeated attacks of dysentery for three and a half years, and continuously for six months, during the last four of which he had been bedridden, had been variously treated by a number of eminent medical men, and had had a course of dysentery vaccine, but without avail. Recently four very experienced surgeons had advised colotomy as the only chance of getting the extensive ulcers to heal, but his Indian medical adviser did not think he was in a condition to stand the operation. The stools had been sent to me for examination, and I found amoeba having the characters of *A. histolytica*. When I first saw him in consultation he was extremely emaciated, over twenty foul-smelling stools of pure mucus and blood were being passed daily, his pulse was 120 and over and intermittent, and his general condition very bad. As he was quite unable to take ipecacuanha by the mouth, I advised subcutaneous injections of the emetine hydrochloride. The first dose was one-sixth of a grain, which was rapidly increased to one-third twice a day, being equivalent to 60 grains of ipecacuanha.

On the second day the blood had disappeared from the stools, and faecal matter appeared in them; the mucus then became steadily less, and disappeared finally after ten days. Much pain and trouble arose from extensive ulceration of the rectum, for which 10 grains of calcium permanganate in a pint of water was injected daily, with a good effect, an alum solution being later substituted for it.

After ten days he was able to be weighed, and scaled only 80 lb., although a tall man. His diet was now gradually increased, and during the next two weeks he put on 8 lb. in weight. The emetine was gradually reduced until only one-sixth of a grain was being given every other day to guard against a relapse. He was now eating solid food, and able to get out into the verandah morning and evening, and was passing two or three faecal motions daily, being quite free from all dysenteric symptoms.

His relations were much astonished at the result of the treatment, while I can testify that his recovery is by far the most remarkable I have seen in chronic amoebic dysentery, the difficulty in dealing with which is so well known to all workers in the tropics. I have no shadow of doubt that he owes his life and rapid recovery entirely to the new method of administering the active principle of ipecacuanha. He never once vomited during the treatment, while after the first few doses there was also no nausea, although he received the equivalent of 1,000 grains of ipecacuanha within four weeks.

CASE III.—*Acute Hepatitis, in a Patient who could not take Ipecacuanha by the Mouth, Rapidly Cured by Emetine Hydrochloride Hypodermically.*

A European lady who had been suffering from fever and pain over the liver for ten days had had an attack of dysentery some two months before. Widal tests for typhoid and paratyphoid were negative. Ipecacuanha was now given by the mouth for three days, with the result that the hepatic pain became less and the temperature declined to a lower level.

On account of the great nausea and vomiting she now refused to continue the ipecacuanha, and during the next three days the temperature rose steadily to reach 103° F. in the evenings, and the hepatic pain recurred. At this period I was asked to see her in consultation, and injected one-third of a grain of emetine hydrochloride in the afternoon. The temperature fell steadily during the next twenty-four hours to 100° F., and the pain had also disappeared. I now gave a second injection of half a grain, equal to 45 grains of ipecacuanha. No vomiting, and practically no nausea, was caused by these doses, and her medical attendant reported to me that she was much better.

Four days later I was again asked to see her, as the temperature had once more risen to 103° F., and it was feared that liver abscesses would result if the disease was not quickly cured. I repeated the former doses on that and the following day, and the temperature declined steadily, to reach the normal in three days, when two more similar doses were given to guard against any recurrence, and no more fever or other trouble has occurred.

Emetine hydrobromide may also be given subcutaneously, but is not quite so soluble as the hydrochloride.

In view of the strikingly good results obtained in these three cases, which are illustrative of the most important types of amoebic disease, and in each of which the administration of ipecacuanha by the mouth was impracticable, I venture to think that no apology is needed for bringing this method of treatment to the notice of physicians in the tropics without delay. Should further results fulfil the great hopes raised by the successes above recorded, it will be difficult to exaggerate the boon which will be conferred on the numerous sufferers from the intractable and deadly amoebic form of dysentery and its very serious hepatic complication.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

ON THE GENESIS OF THE VENOUS PULSE.

I AM sorry not to have replied earlier to the letters of Dr. Wilkinson and Dr. Verdon which appeared in the JOURNAL of May 4th, but my absence from home prevented my attending to them.

Dr. Wilkinson says that the *a* wave of the venous pulse ought to be greater in the vertical position, if my suggestion that it is an inertia wave be true, "for then the inertia of the column of blood in the vein is augmented by the effects of gravity." He forgets, however, that the amount of blood which comes down from the head depends on the amount which goes up, and gravity opposes its going up in the arteries quite as much as it encourages it to come down by the veins, and consequently has no resultant effect on the flow. The second part of Dr. Wilkinson's letter is probably correct, but I was not discussing in my communication what takes place in abnormal conditions, such as the instance he gives when the auricle and ventricle contract together, where, obviously, if the auricular contraction be forceful enough to effect anything it must be a regurgitation.

Dr. Verdon definitely states that the blood "stream is swifter" in the jugular vein in the upright position than in the recumbent. Whether this statement is based on observation or inference I do not know, neither can I judge whether Dr. Verdon means that more blood comes down the jugulars in the erect than in the horizontal position. A "swifter" flow may go with less blood if the jugulars are contracted. If more blood comes down more must have gone up, and it would seem on this supposition that a fainting person gains nothing by lowering the head, which is contrary to experience.

Whatever the origin of the *a* wave the horizontal position is likely to develop it, since the tone of the vessels relaxes, and oscillations in them are far more easily produced. Moreover, the acclivity and declivity of the *a* wave is not necessarily steep, as Dr. Verdon maintains it would be if it be caused by inertia and the block be sudden. The steepness depends chiefly on the yield of the jugular, which is gradual, the oncoming blood being stored in it as it arrives.

The jugulars commonly dilate considerably on lying down, and are capable of much bigger oscillations, to which rather than to auricular regurgitation is to be attributed the exaggerated appearance of the *a* wave in the horizontal position.

Clyst St. George, Devon. D. W. SAMWAYS.

REPEATED BREECH PRESENTATIONS.

I READ with interest Dr. Ilott's letter, *re* breech presentation.

Last year I was called in to see a woman in labour (I had never seen her before), and on arrival I found her sitting on the edge of the bed suffering from a great fit of depression. On inquiring the cause, she informed me that her three previous confinements had been breech cases, the children dying immediately after birth; she also said she felt convinced that the coming child would be a breech presentation and would die like the rest, hence her depression.

On examination, I found that there was a breech presentation, and, to cut the story short, I delivered her of a male child, which, after some artificial respiration, took to life with great gusto, and is now as fine a baby as it is possible to find. The patient informed me that her first youngster (now some 8 years old) was a normal head presentation, but that all the others were breech presentations.

Cosham, Hants. H. TAYLOR MORGAN, M.D.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

Swansea, April 25th, 1912.

Dr. BIDDLE, President, in the Chair.

Plumbism.

Dr. ARBOUR STEPHENS read a paper on plumbism. He said that, as appointed surgeon under the Factory Act for lead processes, he had had considerable opportunities of observing men employed at lead works, their dangers, and the consequences. The symptoms were more or less classical and fairly well known. One symptom he would draw attention to, because it was unreported but had been observed by himself, was a tenderness over the sciatic nerve in its lower third, the upper part being practically free from such tenderness. The difficulty was to decide in a large number of cases what part alcohol had played. *Mode of admission:* (1) *Skin*, said to have occurred by the use of cosmetics; (2) *lungs*, which Dr. Goadby has tried by experiments to prove is the main one, but with which Dr. Arbour Stephens could not agree; (3) *stomach*, into which lead got by eating food with dirty hands, chewing, cigarette smoking, and suchlike methods. The foremen and undermanagers never got plumbism. The test for KCNS in the saliva was interfered with if the man had been eating any sugary material. All persons working before furnaces developed a red line on the gum, and on this red line the lead was readily deposited. What was the origin of this red line? Was it inflammatory? Prevention could be brought about by cleanliness as to food and other habits. Cigarette smoking ought to be stopped, and chewing was most injurious. The rotten teeth should be removed, as they tended to give rise to gastritis. A preliminary gastritis by the accompanying increase of absorbing surface tended to produce absorption of lead, and so hastened an "attack." The plentiful supply of fruit last summer increased the number of cases of lead colic. The blue line was nearly always preceded by a red one, which was always found with furnace men. The best treatment for the early stages of plumbism was by means of the internal administration of calcium permanganate.

Reports of Societies.

ROYAL SOCIETY OF MEDICINE.

SPECIAL MEETING OF FELLOWS.

Monday, June 10th, 1912.

Sir HENRY MORRIS, Bart., in the Chair.

Discussion on the Prevalence, Relations, and Treatment of Syphilis.

THE PRESIDENT having briefly introduced the debate, called upon Dr. Norman Moore to deal with syphilis from the point of view of its prevalence and intensity in the past.

Dr. NORMAN MOORE then drew attention to the poem of Hieronymus Fracastorius which was published in 1530, and which had provided the name for the group of diseases due to specific infection, and usually acquired during sexual intercourse. This poem showed clearly that at the time it was written syphilis was not only a very prevalent disease, but also one of recent introduction. A supposition, first put forward by Freind in the second volume of his *History of Physic*, was to the effect that syphilis had been imported from America by those who accompanied Columbus home at the end of the fifteenth century. But recent investigation had thrown doubt on this point; for instance, examination of the skeletons of natives of America found in tombs of a date earlier than the voyage of Columbus showed no evidence of syphilis; while on the other hand there was evidence of several kinds that after that date the natives of America suffered from syphilis very severely indeed. He then showed how far the writings of Galen and others might be held to support a belief that syphilis prevailed in the days of early European civilization, and of Imperial Rome. It was now generally admitted that syphilis was the principal, if not the sole, cause of locomotor ataxy and general paralysis of the insane. These were conditions not likely to be overlooked by such an acute observer as Galen; yet there was nothing in his works to indicate that he had ever seen instances of them. An examination of the *Commentaries* of Hippocrates suggested that he too had not observed these diseases. This consideration, coupled with the fact that it was generally admitted that in classic writings there was no direct reference to syphilis, seemed to justify a belief that though syphilis was not imported from the American continent, yet it did in fact for some at present undiscovered reason make its first appearance in Europe at the end of the fifteenth century.

Mr. D'ARCY POWER then dealt with syphilis from the therapeutic standpoint in a paper which is published in full at page 1418 of this issue.

The opening of the debate was then concluded by Dr. MOTT, who dealt with syphilis in relation to public health. He said there were no reliable statistics to show that syphilis was really less prevalent than formerly, and suggested that the common belief to this effect might be quite ill-founded, the disease now assuming latent forms, but otherwise being quite as prevalent as ever. It was quite natural that among people syphilized for generations past the form of the disease should be degenerative, and therefore more or less latent in its exhibitions. Latency was still more comprehensible in an age when the *locus minoris resistentiae* was the nervous system. In any case a vast amount of acquired nervous disease was due to syphilis, and a large proportion of all congenital idiocy was brought about by congenital syphilis. Some fifteen years ago he had published a number of cases which seemed to him to justify a belief that syphilis of the central nervous system could be entirely cured, but subsequent experience had modified his views.

The debate was then adjourned until June 17th.

On its resumption Mr. ERNEST LANE led off with a careful statement of his view regarding the arylarsonates, showing that though double optic atrophy with incurable blindness had now and then occurred after their use, there was usually a rapid disappearance of the symptoms of syphilis. Salvarsan he regarded as a valuable additional remedy for syphilis, though he did not find its influence so striking as had been alleged, and that opinion was based upon an experience with 300 cases. His practice was to follow the salvarsan with mercury intermittently for two or more years, according to the result of the blood test. Mercury was a cure for syphilis if continued sufficiently long. He had even advocated its administration for seven years. Injections for syphilis should not be given by any one but those who saw injections frequently given by others. Two cases of death following the injection of salvarsan had occurred at the Lock Hospital, but in neither of them could he say death was not due to the severity of the disease, though perhaps greatly helped by acute arsenical poisoning. He had treated 17 cases with neo-salvarsan, and found it followed by less reaction than in the case of salvarsan. In some there was temporary jaundice, and a rise of temperature accompanied by drowsiness. Johar, a method of introducing salvarsan intramuscularly, was less likely to be followed by necrosis at the site, or by pain or toxic symptoms. The best results seemed to follow a combination of salvarsan and mercury.

Mr. JONATHAN HUTCHINSON described a fatal case following the injection of salvarsan, in which, however, the solution was strongly acid. This was much more dangerous than when alkali. He quoted from Dr. Mackintosh's statistics at London Hospital, that of 160 patients treated at that institution by mercurial pills alone, 92 per cent. gave a positive Wassermann reaction during the first year, and examined after the second year, 54 per cent. Cases treated more than two years reacted positively in 30 per cent. Statistics from different users of mercury seemed to show that it was practically immaterial which form of the drug was employed, but all agreed that the patient must be kept steadily under its power for a long time. Salvarsan seemed to fail absolutely against leucoplakia, as did other remedies; but bone pains, such as cephalalgia, disappeared magically under salvarsan. Interstitial keratitis was very difficult to influence. Salvarsan was a valuable addition for malignant precocious syphilis. He concluded with a carefully propounded expression of opinion that Shakespeare himself was, later in life, a victim of the disease.

Mr. J. E. R. MCDONAGH spoke vigorously and definitely on the subject from the public health standpoint. The reluctant public attitude he attributed to the scourge being looked upon as a punishment for sin and not as a disease, and if a parliamentarian were to ventilate the subject he would soon lose his seat. A few deaths had recently been found to be due to anterior poliomyelitis, and every care was at once taken, yet hundreds of thousands died of syphilis and no public voice was raised to stamp out the disease. Boys and youths in schools and colleges should be taught the dangers, and the view insisted on that extramatrimonial indulgence was wrong, and abstention from it was no reflection upon their manliness. In the army, members of the Royal Army Medical Corps should lecture on the subject to soldiers. He insisted especially on a knowledge of venereal diseases being taught in general hospitals. He favoured such diseases being made notifiable to a central bureau composed of specialists. Every case should be notified to head quarters, giving particulars but no names. Medical advice given on the subject by chemists and quacks he would make criminal. He insisted that a woman could give birth to a syphilitic infant without herself showing signs of the disease. He had given over 200 injections of neo-salvarsan and found it preferable to salvarsan, but its influence should be augmented by mercury given intramuscularly. Cases of malignant syphilis were sometimes made worse by the mercury, but Zittman was good for those. Neo-salvarsan should not be kept at a temperature higher than 80° F. In the case of both salvarsan and neo-salvarsan, the higher the temperature of the preparation the more toxic was the solution.

Mr. MACLEOD YEARSLEY devoted his remarks to auditory nerve deafness in congenital syphilis. Dr. Kerr Love, of Glasgow, and he were working at the subject. At the London County Council schools for the deaf he found that of 570 cases of acquired deafness of which the cause was ascertainable, 39, or 6.7 per cent., were due to congenital syphilis. Ordinary antisyphilitic remedies seemed to be of but little use in these cases. Repeated blistering did good in some instances, and he had seen good follow the use of pilocarpine in the early stages.

Mr. BRISCOE spoke of the ravages in family life caused by syphilis, and its dire effects on public health. The

latter should be placed fairly before the Legislature. He considered it was the exception for the syphilized person to be really cured, and gave a picture of the cruel results of syphilis in inmates of lunatic asylums, often as the result of one sexual lapse with an unclean woman. He looked hopefully for preventive measures to stay the inroads of the disease.

Dr. G. PERNET considered everything pointed to syphilis having been imported by Columbus. He much preferred the term "congenital" syphilis to "inherited," as there was no proof of inheritance of this disease any more than of tuberculosis and leprosy. He preferred the original Wassermann test to recent modifications of it. He did not agree with Mr. McDonagh's attitude about notification, holding that the confidential relations of doctor and patient should be maintained inviolate. He agreed that salvarsan should be followed up by mercury, though that might not be necessary with neo-salvarsan. He was eclectic. In conclusion he emphasized the need for teaching the dangers of infection by syphilis in hospital: he had known students and nurses contract digital chancres owing to the lack of such teaching. In this respect England was far behind the Continent.

Mr. C. F. MARSHALL sent a contribution in which he expressed his adherence to the old remedy, mercury. The time during which salvarsan had been in use was too short to permit of any very accurate generalizations in regard to it. Potassium iodide he regarded as the chief auxiliary, and preferred it to iodipin.

The debate will be concluded on June 24th.

SURGICAL SECTION.

Tuesday, June 11th, 1912.

Mr. CLINTON T. DENT, President, in the Chair.

Operative Treatment of Constipation.

MR. LOCKHART MUMMERY recorded 30 cases of intractable constipation treated by operation. Such cases were quite common, and usually came to the notice of a surgeon after some years of ineffective medical treatment. They fell into three main groups—the obstructive, the atonic, and those due to increased viscidity of the faeces. The symptoms produced were loss of weight, headache, loss of appetite, mental depression, enteroptosis, and pigmentation accompanied by a dull, earthy pallor. These symptoms were due to the absorption of toxins, though some persons appeared to be immune. The majority of cases were due to some obstruction; the sigmoidoscope was invaluable in their diagnosis, especially in the detection of adhesions. He had no faith in the diagnosis of intestinal kinks by *x* rays. He thought *x* rays were useful in cases of intestinal ptosis. Kinks were caused by adhesions, and led to pain, which came on two to three hours after food or before defaecation. The cause for the adhesions was not always apparent; they occurred after abdominal operations, but could be prevented by perfect asepsis and haemostasis, providing no raw surface was left and the peritoneum was undamaged. The best results were obtained in those cases caused by a single adhesion; when multiple adhesions were present a short circuit was often necessary, as they were liable to re-form. Appendicostomy was useful to wash out the colon and so remove the intestinal toxaemia. Intractable constipation was produced by many different causes. He could not agree with Mr. Arbuthnot Lane that there was practically only one—namely, ileal kinking. Dr. HALE WHITE thought that most cases could be cured without operation by a long course of medicinal treatment. No obstruction was produced in cases of peritonitis, though the intestines were often matted in an inextricable mass. His objection to operation was the frequent re-formation of adhesions. Mr. GORDON WATSON said that kinks were usually non-pathological: adhesions would neither form or re-form if during abdominal operations asepsis and haemostasis were carried out. Mr. CHAPPLE pointed out that no ileal kinks occurred in the fetus. He had frequently seen cases of intractable constipation caused by ileal kinks; they were diagnosed by *x* rays, found at the operation, and the patients were cured by their removal. Mr. CARSON said pericolitis often passed unobserved owing to the point of maximum pain being situated over McBurney's point; appendicectomy was performed through a small incision, and the real condition not diagnosed. Mr. LOCKHART MUMMERY, in reply, said that a single band was more liable to produce obstruction than a number of adhesions. He did not think that ileal kinks, or so-called membranous pericolitis, caused any symptoms at all, and that the caecal angle was liable to certain abnormalities.

Venous Thrombosis of the Colon.

Mr. H. W. CARSON recorded a case in which the symptoms were alternate diarrhoea and constipation, with passage of blood per rectum; a diagnosis of malignant disease of the sigmoid was made and a laparotomy performed. A portion of the colon was found to be much swollen, owing to venous thrombosis, and was removed.

SECTION OF LARYNGOLOGY.

AT a meeting on June 7th, Dr. STCLAIR THOMSON, President, in the chair, the proceedings related to *Sphenoidal sinus suppuration*, and a large number of cases, specimens, and instruments in point were shown. Among them were the following:—Dr. STCLAIR THOMSON: Four patients as exemplifying the results of operative treatment of sphenoidal sinus disease. In three cure of discharge had resulted; the fourth patient, who had suffered from severe ocular pains which prevented her using the eyes, had been relieved of this disability, although there was still some nasal discharge present. Dr. WATSON-WILLIAMS: A number of instruments, old and new, employed in operating on the sphenoidal sinus, together with a series of pathological specimens, stereoscopic and other diagrams. Mr. HERBERT TILLEY: Cases illustrating the good results of operation on the sinus. Mr. W. STUART LOW: Two cases, in one of which sphenoidal sinus suppuration had induced considerable loss of vision in both eyes. Dr. W. H. KELSON: A case of suppuration in the antrum, ethmoidal cells, and sphenoidal sinus, in which operative measures had been followed by benefit. Dr. W. JOBSON HORNE: A series of sphenoidal and other bones illustrating the anatomy of the region. Dr. H. FITZGERALD POWELL: A case of sphenoidal sinus suppuration causing severe occipital headache which had been cured by opening up the sphenoidal sinus. Further cases of ethmoidal and sphenoidal sinus disease were shown by Mr. CYRIL HORSFORD, Mr. G. SECCOMBE HETT, and others, while Dr. H. J. DAVIS had on exhibition a number of *x*-ray and other photographs illustrating sphenoidal sinus suppuration and its complications. In the discussion the question of the differential diagnosis between sphenoidal cell suppuration and cerebral tumour was considered. It was agreed that expert examination of a skiagram of the skull served, in most cases, to establish the diagnosis on a sure basis. Regarding operative technique, preference was expressed for the use of cutting forceps rather than hooks; chiselling the thick floor of the sinus had been practised, but caution was needed to prevent the point of the chisel entering the cranium through a thin-roofed sinus. Dr. WATSON-WILLIAMS advised the removal of the posterior part of the nasal septum when it was necessary to open and drain both sphenoidal sinuses. With reference to the after-history of these cases, the general view seemed to be that they tended to get well slowly and of their own accord, and the PRESIDENT advised against too frequent surgical interference. Several speakers bore testimony to the value of vaccines in hastening the cure of chronic discharge from a sinus which had been opened.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF OBSTETRICS.

Friday, May 31st, 1912.

Dr. A. J. HORNE, President, in the Chair.

Vaccine Treatment.

DR. R. J. ROWLETTE, in a paper on the use of vaccines in the treatment of puerperal sepsis, recorded 54 cases thus treated in the Rotunda Hospital. In 39 of these the treatment had been based on a bacteriological diagnosis. The diagnosis was made from the lochia obtained by Döderlin's tube. Thirty-one of the 39 cases were of streptococcal infection, the remaining 8 of staphylococcal. The dosse

given were, in the case of streptococci, 2½ to 10 million; in the case of staphylococci, 20 to 50 million. Injections were given at intervals of forty-eight hours. The typical result of an injection was a drop in temperature and pulse occurring in from twelve to thirty-six hours. In streptococcal injections better results were got by combining the use of antistreptococcal serum with that of the vaccine. Three deaths occurred in the streptococcal series. One patient was in advanced phthisis, another was moribund from gangrenous appendicitis when she entered hospital; the third showed considerable improvement under vaccine treatment, but died from an abscess of the lung when the supply of autogenous vaccine had been exhausted. Of the staphylococcal series, one patient died of pyaemia the result of thrombosis of the ovarian veins. Tables, with full particulars of all the cases, were submitted, and charts were shown illustrating special points. The general conclusions drawn were: (1) Vaccines in small doses do no harm in puerperal sepsis; (2) in a large proportion of cases they do good; (3) autogenous are more effective than stock vaccines; (4) antistreptococcal serum simultaneously increases the effect of streptococcal vaccine; (5) failure in treatment is generally the result of failure in diagnosis. Drs. LUMSDEN and A. N. HOLMES recorded a case of vaginitis treated by vaccines. The general condition of the patient greatly improved, but the local condition did not become cured. Lactic acid douching of the vagina was combined with the vaccine treatment.

Haematocolpos and Haematometra.

Dr. M. J. GIBSON showed (1) a specimen removed from a girl aged 20, who was both mentally and physically defective. She could not give a clear account of her symptoms, but it was ascertained that she had suffered from pelvic pains for about four years, and had never menstruated. Examination showed a large tumour occupying the lower abdomen, reaching to the umbilicus. A vagina was not to be seen. Examination by the bowel showed that the tumour filled the pelvis completely. The abdomen was opened and the tumour removed entire. The patient's convalescence was uneventful. The uterine arteries were not to be seen during the operation. The patient was now in a much better state of health, and her mental condition was improved. (2) A specimen removed from a girl aged 19, who had been menstruating regularly since she was 15 years of age. Fourteen months before operation she began to suffer from sciatica, and twelve months later a tumour was to be felt a little above the pelvic brim. The pain at this time was intense, needing injections of morphine. The patient was then sent to him, and he found that the pelvis was occupied by a tense cystic tumour, at one side of which a small uterus was to be felt. The vulva, vagina, and vaginal portion of the cervix were apparently normal. The tumour was fixed in the pelvis, and was considered to be a pelvic abscess. On opening the abdomen, a uterus with only one tube and ovary was to be seen at the right side of the pelvis, and at the other side, well above the pelvic brim, the left tube and ovary were seen attached to the apex of the tumour. A diagnosis of double uterus and vagina was then made, and the mass was removed entire, leaving the ovary. The patient recovered very well from the operation, and is menstruating normally.

A DISCUSSION on tuberculosis and sanatorium benefits under the Insurance Act will be opened at a provincial meeting of the Royal Sanitary Institute at Torquay on July 5th by Dr. George Adkins, County Medical Officer, Devon.

IN an appeal on behalf of the National Association for the Feeble-minded, signed by Sir William Chance, Sir Clifford Allbutt, Lord Avebury, and others, it is stated that the feeble-minded at present form 10 to 20 per cent. of prisoners, 62 per cent. of inmates of inebriate homes, 50 per cent. of the inmates of rescue homes, and 20 per cent. of the inmates of workhouses. There is a debt of £6,000 upon the five homes at the Princess Christian Farm Colony at Hildenborough, where feeble-minded persons of both sexes, aged from 15 and over 30 years, are housed. Twenty-four other homes are affiliated with the association. The prospect of early legislation encourages the committee of the association to appeal for funds for carrying on this work in all directions. The office is at Denison House, Vauxhall Bridge Road, S.W.

Reviews.

ANAESTHESIA AND ANAESTHETICS.

THAT eminent physiologist Professor VERWORN of Bonn has interested himself in the study of general anaesthetics and their mode of action for many years. A few months ago he read an account of his general conclusions to the New York Harveian Society,[1] and reviewed the work done by other experimentalists or theoreticians in this difficult field of research. According to one view, an anaesthetic is efficient in proportion as it is a solvent for the fats and lipoids of the body, and in especial of the brain; the exact mechanism of its action, however, cannot yet be defined. According to a second view, the general anaesthetics act as such in virtue of their influence upon the protoplasmic colloids of the cells. Professor Verworn lays stress on the fact that general anaesthesia has certain features in common with asphyxia. Anaesthetized living cells—the red blood corpuscles of birds, the liver cells of the dog, the amoeba—are proved unable to absorb or make use of oxygen supplied to them, even though their need for it has been increased above the normal by exhaustion or asphyxiation. Yet the processes of chemical disintegration continue to go on in the anaesthetized cell; catabolic changes without oxidation take place, the tissues become more and more asphyxiated, and when the anaesthesia is over this asphyxia can be abolished only by the supply of oxygen. The paralytic features of anaesthesia are simply due to the rapid cessation of oxidative changes in the tissues; the anaesthetic rapidly makes these changes impossible, however free the supply of oxygen may be, and this is its chief characteristic. But the mechanism of this inhibition remains an unsolved problem. Various hypotheses suggest themselves here, and are reviewed in turn. It might be supposed that the anaesthetic hinders the access of oxygen to the cells of the brain or body; or that it absorbs the oxygen that reaches the cells, and prevents them from employing it for their own oxidative processes; or that it acts on the cellular protoplasm in such a manner as to make it less capable of being oxidized; or that it hinders the actual access of oxygen to the oxidizable substances in the cells—it might do so by interfering with oxygen carriers or oxidases, for example, and the lipoids might be these oxygen carriers. All these are unproven hypotheses, and it is towards the last of them that Professor Verworn's mature judgement inclines. He observes that a "general" anaesthetic is really only an anaesthetic acting on the cerebral cortex, and that the cortical cells are extremely sensitive to any interference with their oxygen supply. The time-honoured comparison of general anaesthesia to sleep is wholly mistaken, as he points out. In sleep a *restitutio ad integrum* of the functions of the brain takes place, with an increased consumption of oxygen in the tired cerebral cells. In anaesthesia exactly the opposite occurs; there is no repair of wastage, oxidization is brought to a standstill. Anaesthetics and narcotics, while acting as such, do not bring with them the blessings of sleep, though sleep may often remain behind, and benefit the patient after their paralysing influence has passed off.

In an interesting pamphlet[2] Dr. KUHN brings before the medical profession another instance of German ingenuity and thoroughness in its attention to detail and experiment. For his conclusions are based upon numerous experiments upon animals, and in the application of these to surgery they have received the sanction of many of his colleagues. His method of administration of chloroform is of great interest to both general surgeons and laryngological specialists as well as to anaesthetists, to whom, if half of his promised results are obtained, it will be more than welcome. In a small book on intralaryngeal tubage, he explains his method, which he claims is best adapted to a certain class of cases. He deals first with certain physiological principles of death from asphyxia, in which he maintains that the presence of excess of CO_2 in the lungs is underestimated, and the beneficial effect of the administration of O_2 is overestimated, with the inference that the important fact

[1] *Narkose.* Von Max Verworn, Bonn. Jena: G. Fischer. 1912. (Roy. 8vo, pp. 37; figs. 2. M.1.)

[2] *Die perorale Intubation.* Von Dr. F. Kuhn. Berlin: S. Karger. 1911. (Sup. roy., 8vo, pp. 168; Abbs. 22. M.5.)

is an open airway into the lungs, which is possible by means of his spiral tube, introduced into the mouth and extending beyond the vocal cords. Numerous experiments upon animals are adduced in support of this. Through this flexible tube chloroform, he states, can be administered with greater safety and under better conditions than by the customary methods. His idea is, in short, the administration of chloroform directly into the lungs, as is now done through a Hahn's cannula after a preliminary tracheotomy in certain oral and laryngeal operations, but without the dangers of the tracheotomy. Full directions as to the technique and sizes of instrument are given, and it is really no more difficult than the introduction of an O'Dwyer's intubation tube. He discusses fully the *pros* and *cons* of his method in the various operations upon the throat and nose—as in removal of the tongue, of tumours of the base of the skull, operations upon the upper jaw, sphenoid, palate, base of the brain, and spinal cord—claiming, and with justice, that the operation field is thereby rendered cleaner, more aseptic, and in many cases more open to inspection than under the present methods. He states that bronchial spasm resulting from the action of chloroform upon the nasal mucosa is obviated, that the anaesthetic acts more rapidly, and that therefore the patient need not be so deeply under its influence. It is claimed that the margin of safety is greater, and that a smaller quantity of chloroform is required. The danger of bleeding into the larynx is entirely obviated by careful packing around the tube, and therefore post-operative pneumonia is very much less likely to follow. The entrance to the oesophagus can also be packed. The book would be improved by more careful reference to and fuller illustrations. This method, used with discretion and in capable hands, bids fair to be almost epoch making in anaesthesia production.

The inclusion of the study of anaesthetics as part of the compulsory curriculum of dental students has induced Mr. FRANK COLEMAN and Mr. HARVEY HILLIARD to write a manual on *Anaesthetics in Dental Surgery*,[3] hoping by the collaboration of dentist and anaesthetist to make clear every practical point in the domain of each. The book begins with a short history of anaesthetics, omitting, however, the name of Joseph Hickman, to whose pioneer work on nitrous oxide attention was lately drawn in these columns. The next chapter, on the choice of anaesthetics, though short, indicates the extensive range of medical knowledge the dentist who proposes to administer even nitrous oxide should possess. In the following five chapters every form and combination of general anaesthetic is well and fully described, with the one exception of anaesthesia by intravenous injection. The various forms of apparatus are described, and the authors give sound reasons for their preferences. Ethyl chloride is accorded but a limited field of usefulness, but the authors think it has been somewhat unjustly condemned by inexpert users. In dealing with the accidents of dental anaesthesia the authors have apparently overlooked the records of cases in which teeth or stumps have passed into the air passages without producing any symptoms, immediate or on the patient's recovery from the effects of the nitrous oxide. The chapter on local analgesia gives an excellent summary of the physiological effects of the drugs used, but no account of regional anaesthesia of the jaws—the most useful to the dentist of all methods of obtaining local anaesthesia. The book is clearly written, but p. 76 shows some confusion of thought. The dental student who studies the book should be master of his subject, so far as reading can enable any one to master a practical subject, and many dentists will be inclined to recommend it to the general practitioner who comes to give gas for his patient.

PHYSIOLOGY.

SIR DAVID BRUCE, in evidence given to the Vivisection Commission, spoke of a textbook as the most contemptible form of literature, and there are examples which might seem to justify this sweeping assertion. Under the compulsion of the examination system the student reads and re-reads his textbook, and learns the bare skeleton of a science. He has no time to think out the problems; he must get through his examination: that, to him and his teachers, is the immediate end in view, and experience shows that he can be taught to give the right answers to the ordinary run of questions set without having attained to any real grasp of the science in which he is passed as proficient. The epoch-marking monographs of the great men in the history of each science are unopened and unread. The student draws no inspiration from them; as a rule, he does not even know of their existence. Dr. H. WILLOUGHBY LYLE has been impelled to write a new *Manual of Physiology*,[4] "so that the student may have a book of convenient size." Having retired from the occupation of lecturer on physiology and taken to the pursuit of ophthalmic surgery, Dr. Lyle has issued his swan's song and "endeavoured to place before the student as concisely as possible the chief facts of physiology, and with this end in view has embodied the notes of the lectures, somewhat elaborated, which during the last sixteen years he has given to the members of his class." Thus does he exactly describe the book before us—"lecture notes, somewhat elaborated." The work is one which the student may find useful just before an examination; we do not think it will stimulate his enthusiasm or give him any insight into the methods of investigation by which the science of physiology has been created. This is not a book which should be placed in the hands of the untaught student. He alone can profit from it who has been through a proper course of study and wishes to refresh his memory. For such a purpose the book is well arranged and in many of the sections the facts marshalled are well chosen and clearly stated under heavily-printed headings, which catch the eye and arrest the attention. On page 498, and again on page 536, we note printer's errors in these headings. Dr. Lyle has a singular habit of citing, as an authority for his statements, the author from whom he derived the information, who is by no means always the original investigator, but the writer of some other textbook. As an example may be mentioned a paragraph concerning the current of injury in nerve, to which the name of N. H. Alcock is appended. This leads us to the conclusion, confirmed by other internal evidence, that the substance of this book is derived from other textbooks, and represents the fruits of sixteen years' work as a teacher for examinations. Such a use of names must lead the student to an erroneous conception of the authorities in physiological science. On page 169 we note the mention of "(1) the sinu-auricular bundle (Flack)." There is no such structure known to us as a sinu-auricular bundle. Keith and Flack discovered the sinu-auricular node, and we know of no bundle connecting this with the auriculo-ventricular node. We quarrel with the expression "the function of the heart is to empty the veins and fill the arteries" (page 206); and the student may draw an entirely erroneous conclusion from the paragraph on page 209, in which it is stated that the blood pressure depends on the atmospheric pressure, and may be controlled "by enclosing an individual in a pneumatic suit into which air can be pumped." If the individual is entirely enclosed in such a suit, the blood pressure will be unaltered. On page 339, concerning respiration, we read: "Oxygen accumulates in the blood, which is consequently becoming rapidly arterial, until its tension rises to 38.5. It is obvious, therefore, that there must be another factor at work besides diffusion to account for this difference of oxygen tension." We presume Dr. Lyle means 38.5 per cent. of an atmosphere. If so, where does he get his authority for such a statement? Haldane, upholding the secretory action of the lung when there is lack of oxygen in the atmosphere, agrees that the normal process is one of diffusion. The active secretion of oxygen into the blood under any conditions is disputed by almost every other physiologist. The secretory doctrine ought not to be given to the student as a definite unquestioned fact. On page 341 the student is told that the tension of CO_2 in the venous blood is over 5 per cent., and 5 per cent. in the alveolar air of the

[3] *Anaesthetics in Dental Surgery*. By Frank Coleman, M.R.C.S., L.R.C.P., L.D.S., Assistant Dental Surgeon, St. Bartholomew's Hospital and the Royal Dental Hospital, and Harvey Hilliard, M.R.C.S., L.R.C.P., Anaesthetist to the Royal Dental Hospital, Assistant Anaesthetist to Charing Cross Hospital. London: H. K. Lewis. 1912. (Crown 8vo, pp. 310, 6 plates, and 38 figs. 7s. net.)

[4] *Manual of Physiology for Students and Practitioners*. By H. Willoughby Lyle, M.D., B.S.Lond., F.R.C.S.Eng. Oxford Medical Publications. London: Henry Frowde, and Hodder and Stoughton. 1911. (Post 8vo, pp. 762; 137 figs. 15s. net.)

lungs, and that it is by diffusion that the CO_2 leaves the venous blood and enters the air in the alveoli, and by diffusion leaves the air in the alveoli and enters the bronchioles. A few lines lower down he learns that the flattened cubical cells lining the alveoli prevent the CO_2 from diffusing back to the arterial blood, where the tension of CO_2 is only 2.8 per cent. The lack of clear physical conception here shown is unfortunate. On page 435 the author states dogmatically that the excretion of urine depends upon the capillary blood pressure in the glomeruli. He may surmise with justice that this is so, but no more, for he does not cite a single experiment which proves the assertion. On page 623 the heading, "Sensations Derived from Bone," strikes our attention. Under it there is this two-line paragraph: "This is called vibration sense, and is usually tested by means of a tuning-fork." We wonder what a student fresh to physiology would make of this statement. The best sections in the book are those which deal with the chemistry and metabolism of the body. In these the material and arrangement are both good.

Dr. EMIL ABDERHALDEN, one of the most prolific writers on the Continent, has added to his other publications a textbook of practical physiology.[5] The chemical part is naturally dealt with in the greatest detail, but with a curious want of balance in contrast with English books on the same subject. Thus thirty pages are devoted to Dr. Abderhalden's own particular subject, the amino-acids and their synthesis and that of the polypeptides, while only nine pages are devoted to the urine, three to bile, and two to milk. Methods of estimating ammonia in the urine, also of demonstrating phenol and preparing hippuric acid are given, but no quantitative methods of estimating urea, uric acid, or of demonstrating the chlorides, sulphates, or phosphates. The experimental part contains the usual exercises on muscle and nerve, viscera, etc. The book is very well illustrated with diagrams showing all the chief physical and chemical methods.

The seventh edition of HAMMARSTEN'S well-known *Textbook of Physiological Chemistry*[6] has been translated by Dr. JOHN MANDEL, who is professor of chemistry in the New York University. The edition contains a new chapter on physical chemistry in biology by Professor S. C. Hedin of Upsala, and all the other chapters have been revised and rewritten by Professor Hammarsten. As the result, and thanks to the translator, we have in the English language a textbook of advanced physiological chemistry which is of very great value, giving us, as it does, the latest developments of the science. We find the introductory chapters particularly interesting; therein Hammarsten deals with such subjects as the formation of formaldehyde in the photolytic decomposition of moist carbonic acid by chlorophyll and the possible formation of sugar by condensation of the aldehyde groups and the production of heat by plant organisms. In a few of the higher plants—as the Aroideae when bearing fruit—a considerable development of heat has been observed.

> The contrast which seemingly exists between animals and plants consists merely in that in the animal organism the processes of oxidation and splitting are predominant, while in the plant chiefly those of reduction and synthesis have thus far been studied.

The contrast between a tiger and a tree would seem to a man who takes refuge therein a little more than that! The discussion of the various theories of animal oxidations engages the attention of the reader. Loew maintains that

> the instability of the active protein molecule is due to the simultaneous presence of aldehyde and unstable amine groups. These occur separated from each other in the active proteins, and when they combine the protoplasm dies, the molecule being changed into a stable condition.

If we suppose the living protoplasmic protein is not, like protein in the ordinary sense, indifferent to neutral oxygen, it may bring about a cleavage of the oxygen molecule, and a secondary oxidation of other "difficultly oxidizable substance" will result from the oxygen atoms thus set free. The translator unfortunately uses a slipshod style, and is not happy in such expressions as "difficultly oxidizable substances," although his meaning is clear enough. Hammarsten points out that the ordinary methods of chemical analysis following incineration are wholly insufficient for the study of the mineral constituents of the fluids or tissues of the body. Modern physico-chemical methods must be employed, and the results of such inquiry show that apart from the importance of the mineral bodies in regard to the osmotic tension, the part taken by them in cell life is essentially dependent upon the action of the ions. A physiologically balanced salt mixture, suitable for normal functions, may be produced by the antagonism of the ion action in a complex colloidal solution. Changes in one or other direction among the ions must determine changes in the colloid. For example, the flocking out of precipitates by ions which have an opposite charge to the colloid particles. Professor Hedin deals with these important physico-chemical matters in a suggestive way. Turning to quite another subject—the metabolism of uric acid—we read that:

> the endogenous uric acid elimination is not higher in chronic gout, but rather lower than normally, and gout is more probably characterized by a diminished enzymotic formation of uric acid as well as by a decreased enzymotic destruction of uric acid. This last moment is the cause for the appearance of uric acid in the blood and its accumulation in certain tissues.

We wonder when the vendors of proprietary drugs will begin to realize that uric acid is not regarded as a chief sinner but a much maligned and innocent excretory product of metabolism by the leading physiological chemists of the day. In the respiratory chapter we are surprised to find no mention of Haldane's simple method of obtaining the pulmonary alveolar air. On page 105 the heading "Animo-acids," in place of "amino," looks curious. An excellent bibliography is given, and author and subject indices, which greatly increase the value of the work.

NATIONAL INSURANCE.

THERE can hardly be better testimony to the complexity and far-reaching effects of the National Insurance Act than the fact that so many books aiming at explaining its purport and relations have already been published. Additional testimony of the same kind is furnished by the fact that at least one of them has reached a second edition in a few short months. The first edition of *National Insurance*,[7] by Messrs. A. S. COMYNS CARR, W. H. STUART GARNETT, and Dr. J. H. TAYLOR, of Salford, was published last February, and now a second and revised edition has been necessitated by the fact that in the intervening months new regulations and other documents throwing light on the administration and working of the Act have been issued by the various departments concerned therewith. Furthermore, continued discussion of the Act in all, and especially its medical, relations has thrown into relief certain points and suggested to the authors modifications or amplifications of their original comments. The result is that this new edition is considerably more bulky than its predecessor, though its general form and arrangement remain unchanged. Though all three parts of the volume contribute, the greater part of the increase is due to additions to the chapters in which an endeavour is made to show how the various clauses must be interpreted unless there is to be a departure from precedents established either by previous legislation or by case law.

The first part of the volume—that which serves as a general commentary on the whole Act, including its effect on the medical profession and the public health—has been increased by some nine or ten pages. In this part the pooling arrangement, advocated in some quarters as the best way of administering medical benefit, because it would enable payment to be made per attendance instead of per head, is now considered. This pooling, if coupled with an arrangement by which the insured would have to meet any deficit created by the calls on the pools being greater than the amount in hand, would, it is suggested, have the advantage of inducing the insured to restrict their demands for attendance for the same reason as do private

[5] *Physiologisches Praktikum.* Von Prof. Dr. E. Abderhalden. Berlin: J. Springer. 1912. (Roy. 8vo, pp. 295. M.10; Geb. M.10.60.)

[6] *A Textbook of Physiological Chemistry.* By Professor Olof Hammarsten. Authorized translation from the author's enlarged and revised seventh German edition by John A. Mandel, Sc.D. Sixth edition. New York: John Wiley and Sons: London: Chapman and Hall, Ltd. 1911. (Roy. 8vo, pp. 972.)

[7] *National Insurance.* By A. S. Comyns Carr, W. H. Stuart Garnett, Barrister-at-Law, and J. H. Taylor, M.A., M.B., Ch.B. With a preface by the Right Hon. D. Lloyd George, M.P. London: Macmillan and Co., Ltd. 1912. (Med. 8vo, pp. 587. 7s. 6d. net.)

patients. It is argued, also, that it would have the advantage of obviating the objections to contract practice entertained by a large proportion of the profession, but it would need to be worked out carefully to avoid hardship, especially to chronic invalids, who would complain that they were not getting a full insurance.

The demand formulated by the British Medical Association on behalf of the medical profession for a payment of not less than 8s. 6d. a head is also considered, the statement being made that to satisfy this demand the total sum which would have to be set aside by the Commissioners to meet the cost of medical benefit, including medicines, appliances, and extras such as night visits, mileage, anæsthetics, and consultations, would certainly be not less than 10s. 6d. per insured person, and probably 11s. 6d. would ultimately be nearer the mark. This, it is said, could be found either by an increase in the contributions, or a lowering of other benefits, or an extra grant from the Treasury. Other demands made by the Association in respect of the formation of panels, free choice of doctors, and other like matters, are also considered, and the opinion expressed that considerable delay may occur before any satisfactory arrangements are concluded. Nevertheless, the time will, it is thought, be well spent if the result is a contented profession and the establishment of a satisfactory domiciliary medical service for the insured.

On the other hand, the position of the Commissioners in dealing with what "is not quite correctly called the strike of doctors" is described as extremely powerful. By way, seemingly, of exemplying this fact it is suggested that among other things the Commissioners could throw any trouble in the matter off their own shoulders by placing it on those of the friendly societies. These are represented as being very ready and willing to take up the gauntlet, confident in their previous success in managing the profession: and their belief that the latter when it comes to the point will probably see that it will be in a better position if it relies on the fairness and justice of its demands, supported by all the protecting clauses of the Act, rather than on a "suicidal strike policy."

A section, much of which is new, deals with the various questions arising out of the sanatorium benefit clauses. The suggestion throughout is that if due effect is given to the intentions of Parliament, tuberculosis treatment of every kind will be placed in the hands of specialists, and that this will lessen the task of the ordinary medical attendants of insured persons, but at the same time may thus give rise to disputes as to the responsibility of any given medical man for an insured person who, so far as the nature of his illness is concerned, is entitled to sanatorium benefit. In the financial section reasons are adduced for holding that approved societies may find themselves during the first few years of the operation of the Act in possession of considerable surpluses, but since this state of affairs is likely to be transient, distribution of such funds might prove hazardous. Elsewhere the model rules for approved societies and other like matter have been carefully collated with the Act, while the index contains a considerable number of additional entries. The authors of the volume, therefore, may be regarded as having brought their work as thoroughly up to date as can be expected of them, for they are dealing not with a finite measure, but with a kind of Burghley's nod which the Commissioners can interpret practically how and when they please.

NOTES ON BOOKS.

On the task of compiling *The Law Relating to Medical Practitioners and Dentists*,[1] Mr. J. N. MORTON has brought to bear his knowledge as a solicitor and his experience as secretary of the Western Medical School of Glasgow, and the result is a very clearly worded volume. The method pursued is first to set forth the general effect of the law on any given point—a reference being usually supplied to the Act in question—and then to quote any case in the courts by which such law has been extended or modified. Taken as a whole, the volume supplies medical practitioners with a good idea of their general position in the eye of the law, and thus should be of much service to many of them. It would not of course solve all problems which might arise, for the relationships between medical practice and public and private life are so complex that a complete guide-book on the legal problems arising in the course of practice would be a very voluminous one.

Mr. H. DE CARLE WOODCOCK'S book on *The Doctor and the People*[2] is opportune, and brings to the subject a freshness of idea and virility of treatment at once attention holding and thought compelling. The book is a robust *confessio medici* by an observant man who, with a mind and pen which scorn the conventional, plunges into the essence of things, and holds up the pains and pleasures, the cares and responsibilities of a doctor's life in their true bearings. The consultant and the general practitioner, the hospital and the specialist, medical training, contract practice, the organization of the profession, the power of revolt, the Midwives Act, the Poor Law doctor, public health work, tuberculosis and its treatment, post-graduate work, with graphic sketches of well-known teachers and the doctor in literature, all are dealt with. Asylums, instead of being worked on highly scientific lines, he says, are, "with a few brilliant exceptions, prisons with overworked medical warders." Of medical legislative measures, he says, "the peers may confirm them, and the King give his assent to them: but without our assistance all such legislation is useless. If only a great and universal impulse passed through our ranks, bidding us act as one man, a battle between the doctors and the politicians would be the shortest ever fought." We can cordially commend this strong, sensible, well-written book.

Though the International Conference on Pneumonic Plague[3] held in Manchuria last year came to an abrupt end, it managed to get through a good deal of work of a scientific kind, and of this a full report has now been produced by the Bureau of Science of the Government of the Philippine Islands. This bureau was asked to undertake the task by the Chinese Government, and its biological chief, Dr. R. P. Strong, with the assistance of three colleagues, Drs. Martini, Petrie, and Stanley, has performed it very effectively. It was an undertaking of no small difficulty, for, apart from the necessity of redrawing all the diagrams and charts presented to the conference, and the fact that thereat three languages were employed, the bacteriological evidence was not complete, and further experiments had to be performed. Some of these which related to the susceptibility of dogs and donkeys to pneumonic plague, and to the efficacy of vaccination against the same type of plague, were carried out at the special request of the conference by Dr. Strong and Dr. Teague, and the results are included in this volume. An appendix contains a number of charts and plates, some of them in colours.

During the recent uprising in China to destroy the Manchu dynasty there was much anxiety for the safety of Europeans within the danger zone of the rising. That the dangers were imminent is well shown in Mr. ERNEST F. BORST-SMITH'S plain, unvarnished narrative, *Caught in the Chinese Revolution*.[4] Engineered by the revolutionary "Society of Elder Brethren," the storm broke fiercely in Shensi, where the Baptist Missionary Society has a station, and although the decree went forth, "protect the foreigners," they were for a considerable time in danger. Houses were attacked, the wife and five children of a Swedish missionary were slaughtered, and another missionary and his wife left for dead in the road. Of the perils and trials of the mission workers, of their flight from danger, of the courageous rescuers who came to meet them, of their adventures in the wake of a conquering and in the path of a retreating army, of how a battle was postponed till they had passed through the lines, all these things are set down with a simple directness which carries conviction.

The latest volume of *The Transactions of the American Laryngological Association*[5] relates to the proceedings of

[1] *The Law Relating to Medical Practitioners and Dentists in Great Britain*. By J. N. Morton, M.A., Solicitor, Secretary of the Western Medical School, Glasgow. With an Appendix of Statutes. London and Edinburgh: William Green and Sons. 1912. (Med. 8vo, pp. 148. Price 7s. 6d.)

[2] *The Doctor and the People*. By H. de Carle Woodcock. London: Methuen. 1912. (Crown 8vo, pp. 312. 6s. net.)

[3] *Report of the International Plague Conference*, held at Mukden, April, 1911. Issued by the Bureau of Science, Manila. (Sup. roy. 8vo, pp. 500 plates 18. Price unbound 2.50 dols.; bound, cloth, 3.50 dols.)

[4] *Caught in the Chinese Revolution*. A Record of Risks and Rescue. By Ernest F. Borst-Smith. London and Leipzig: T. Fisher Unwin. 1912. (Cr. 8vo, pp. 125, 21 illustrations and 2 maps. 2s. 6d. net.)

[5] *Transactions of the Thirty-third Annual Meeting of the American Laryngological Association*, held at Philadelphia, Pa. New York: Published by the Association. 1911. (Roy. 8vo, pp. 329.)

this society at its thirty-third annual meeting a year ago. It includes some thirty-one papers, many well illustrated, and some of general as well as specialist interest. Among these may be mentioned Dr. L. B. Lockard's exposition of the reasons for regarding epiglottidectomy as the rational treatment of cases of tuberculosis of the epiglottis when sufficiently advanced to cause dysphagia; a review of the question, Are the tonsils a menace or a protection? by Dr. L. Swain; and Dr. G. C. Stout's paper setting forth the comparative frequency with which the initial lesion of syphilis occurs in the larynx.

EPIDEMIC PNEUMONIA.

Dr. Martin Ashley has presented to the Gloucester Rural District Council and the Local Government Board the following report on four cases of epidemic pneumonia, which occurred recently in a village in the district:

On May 20th, 1912, having received a complaint of the insanitary and dirty condition of a house, I visited the house and found that the death had that day occurred of one of the inmates, a woman aged 42 years, from pneumonia. On making further inquiries I found that three of the woman's children, aged 14, 10, and 5 respectively, had suffered from the same disease, one of whom at that time was still very ill. The details of the previous cases have been kindly supplied by Dr. St. Johnstone, who was in attendance, and Dr. Hopps, the house-physician at the Royal Infirmary, Gloucester.

The first case, Wallace, aged 10, was visited on February 11th, and found to be suffering from acute lobar pneumonia; pleurisy developed almost immediately, and the boy was sent to the infirmary on February 15th. His temperature was then 102°, and on the following day he was operated on, and the fluid drawn off. As a result, the temperature gradually came down, so that on February 22nd it was 99°. The temperature now oscillated between 99° and 100° until April 2nd, when it gradually rose, until on April 7th it stood at 102°, and remained at that height until April 9th, when a further operation was performed, a portion of the rib resected, and the pus which had now collected, drawn off. As a result of this operation, the temperature came down to normal within twenty-four hours, and the boy made satisfactory progress, until his discharge on May 2nd. No bacteriological examination was made of the expectoration or pus, but the smell of the latter was very strongly suggestive of *B. coli*. The respirations in this case fluctuated between 45 and 60 during the illness, and the pulse-rate between 130 and 145.

On May 6th Harold, aged 5, was found to be suffering from pneumonia, and on May 7th he was removed to the infirmary, when his temperature on admission was 104°. On May 9th the temperature came to normal by crisis, and from that date he made an uninterrupted recovery.

On May 9th George, aged 14, was found to be suffering from pneumonia, which extended within a few days to both lungs. The disease terminated by crisis, and the boy went on well. This case was treated at home.

On May 14th Hannah, aged 42 (the mother), developed pneumonia, after suffering for two days with sickness and diarrhoea; both lungs rapidly became involved, and the patient died on May 19th.

Two inmates of the house, the father and one child, escaped the disease.

As the first case was discharged from the infirmary on May 2nd, and pneumonia was diagnosed in the second case on May 6th, the incubation period in the second case was evidently not more than four days, and probably less, as the termination of the second illness occurred by crisis on May 9th. The incubation periods of the third and fourth cases were uncertain, as it is impossible to say whether they did not contract the disease from the first boy, who was discharged from the infirmary on May 2nd.

The occurrence of sickness and diarrhoea, the short incubation period, and the complication of empyema are features which have been before recognized in connexion with epidemic pneumonia. A fatal termination on the fifth day of the disease is also not uncommon. The absence of marked prostration or cerebral symptoms is opposed to the usual record of such cases.

As regards the cause of this sequence of pneumonia in one house, there is very little doubt that the immediate cause was an infecting organism, fostered by insanitary surroundings. The house was extremely dirty although not overcrowded. The water was derived from a shallow well, which was insufficiently protected from the surface contamination of the garden on which was emptied the contents of the bucket closets. An inmate of the adjoining house had been in the habit of purchasing fish for the purpose of feeding pigs, and possibly the resulting offal contaminated the well, the water from which was used by the inmates of both houses. Twenty pigs were kept on the adjoining premises, although probably too far away from the houses to affect the water supply, yet sufficiently near to be a nuisance and dangerous to health.

THE PARLIAMENTARY COMMITTEE ON PROPRIETARY MEDICINES.

The "British Pharmacopoeia."

Dr. Nestor Tirard, the medical editor of the *British Pharmacopoeia*, attended to explain certain answers given by him at a previous sitting.[1] He stated that although long intervals sometimes occurred between the issues of the *Pharmacopoeia* the knowledge at the disposal of the compilers was not kept back, as a question put to him seemed to imply. It was issued in the shape of reports, which were placed on sale and supplied to medical and pharmaceutical journals. The section of the public to whom the reports were most useful were the druggists. With regard to his answer concerning the analysis of new drugs, the witness stated that the General Medical Council wished to see established a Government laboratory for the standardization of drugs which it was found difficult to standardize by the usual physical methods. There were certain tests involving vivisection which chemists could not be expected to perform. The Government laboratory they asked for would also be concerned with the standardization of the various serums and vaccines introduced. It was difficult to put into the *Pharmacopoeia* any test which the average chemist would not be able to perform himself. On the other hand, the Council would strongly oppose the publication of any official book which might attempt to supersede the *Pharmacopoeia*.

In reply to Dr. Lynch, the witness said he was personally of the opinion that the *Pharmacopoeia* should be produced at more frequent intervals; a book containing criticisms and inviting suggestions was issued, however, every two years. Dr. Tirard reasserted his view that every bottle of medicine should have upon it a label indicating the amount of the scheduled poisons contained in the composition. He also associated himself—although he feared it was a counsel of perfection—with the Royal College of Physicians in its desire that exaggerated claims on behalf of remedies should not be permitted. The Royal College recommended that no statement of the disease or symptoms that the substance claimed to cure should be put on the label. Of course such a step would kill the quack medicine trade entirely.

Replying to Dr. Chapple, Dr. Tirard said the proper laboratory for ascertaining the medical value of drugs was the hospital. The out-patient department was absolutely useless for this purpose. Reliable knowledge of the medicinal value of drugs came from the medical profession alone. It was utterly opposed to the traditions of the profession for a medical man who made a discovery concerning the medical value of any drug to claim the exclusive right to sell it to the public. As he had said on the previous occasion, the compilers of the *Pharmacopoeia* were greatly indebted to pharmacists and to the Pharmaceutical Society for assistance in many directions.

Dr. Chapple: And yet a layman can claim the exclusive right to sell such a thing, although he has had no part in the discovery?

Dr. Tirard: More than that, he can go to a consultant and get a prescription which he can patent.

Is it not a very remarkable thing that the State should allow this?—Yes; I feel most strongly on the point.

The witness, in answer to further questions by Dr. Chapple, said it was possible for a sufferer to derive advantage from newspaper advice on medical matters, but it was unsound and unsafe. It put on the sufferer the whole burden of diagnosing his own complaint, and it was almost impossible for him to do this should he be seriously ill.

In reply to the Chairman the witness said the *Pharmacopoeia* had a circulation of about 2,000 copies per annum. Some 20,000 to 23,000 copies were usually sold in the first year. The present issue had had a circulation of about 40,000.

Replying to Mr. Newton, the witness said the insertion in the *Pharmacopoeia* of formulas analogous to those of

[1] British Medical Journal, May 25th, 1912, p. 1192.

newly introduced drugs involved no question of rivalry, and he deprecated strongly any such suggestion. The only advantage was derived by the public.

THE BRITISH MEDICAL ASSOCIATION.

Dr. Alfred Cox, Medical Secretary of the British Medical Association, attended to give evidence on behalf of the Association. At the outset he asked the Chairman whether evidence put before the Committee was strictly privileged. His reason for asking was that some of the things he and others would have to say might be libellous. He would like a definite assurance.

The Chairman: I anticipated your question, and in view of the importance of the matter and the grave responsibility attaching to the anwer, I have consulted the Speaker of the House of Commons as to the question of the privileged character of the evidence given before this Committee and of the documents handed in by witnesses. I have to say, with Mr. Speaker's authority, that evidence given and documents handed in by witnesses are privileged in the sense that if a witness were to be cited before any court of law for any statement he might make, or furnish, or which is printed in the official report of the proceedings, that citation would be a breach of the privileges of the House of Commons, and the House would protect him. But if a witness before a Committee makes a false statement, he is liable to be punished by the House of Commons, and, if a false statement is made on oath and wilfully, he is also liable to penalties under the Perjury Act, 1911.

Dr. Cox: That is quite satisfactory.

Witness then read a memorandum of evidence on behalf of the British Medical Association.

LITERARY NOTES.

MR. DOOLEY complains that there is too much literary matter in the magazines. He says:

Th' fellow that runs thim magazines must be growin' rich out iv th' potes an' novelists. But I think they're goin' too far in their greed f'r gold. There must be a limit to their avarice. I don't object, mind ye, to their makin' a fair profit out iv their business iv idjacatin' people where to get th' best breakfust food or th' most sparklin' hair dye * * * That's all right. But what I object to is whin I pay ten or fifteen cents f'r a magazine expectin' to spend me avenin' improvin' me mind with th' latest thoughts in advertisin', to find more thin a quarter iv th' book devoted to lithrachoor.

This, of course, is like Falstaff's one half-pennyworth of bread to the intolerable deal of sack. And Mr. Dooley fears there may be a further decrease in the "bread."

Th' first thing ye know there won't be as many pages iv advertisin' as there is iv lithrachoor. Then people will stop readin' magazines. A man don't want to dodge around through almost impenthrable pomes an' reform articles to find a pair iv suspinders or a shavin' soap.

Therefore, Mr. Dooley thinks the magazines ought to be compelled to mark all their literature plainly, so that the reader cannot be deceived. There are, he admits, magazines which keep literature in its proper bounds. It is not allowed to encroach on the advertising space. The proper proportion between them is, we gather, eight pages of advertising to one of literature. Mr. Dooley admits that this is not bad, but he hopes the time will come when there will arise some publisher bold enough to issue a magazine entirely devoted to advertising. There are some magazines in this fossilized old country which come very near Mr. Dooley's ideal.

Autolycus writes:

Please excuse the following remarks apropos the pronunciation of "idea" referred to in the Literary Notes in the JOURNAL of June 8th. To Englishmen the phonetic spelling "idēer" represents very fairly the pronunciation used by them, because they do not roll the final "r" of a word taken by itself or at the end of a clause or sentence, but give to it an indefinite vowel sound or vanish. When the final "a" of one word immediately precedes another word beginning with a vowel or silent "h," many Englishmen, even educated ones, interpolate a slightly rolled "r," thus, "idea-r-of it." The same with "peninsula," "India," etc. This of course is a blemish.

To Scotchmen and Irishmen, who always more or less roll their "r's," even before consonants, "idēer" is a sheer barbarism.

If one aims at being "syllabic" I suppose that "ideah," "Judaeah," etc., would be the correct phonetics; but as such a pronunciation would sound pedantic or prolonged, neutral sound or vanish is conventionally used for the last syllable. Would not "idēuh" be a better phonetic representative than "idēer"? Scotchmen and Irishmen would be saved a shock if such were used, though Englishmen would probably say "'Idēer' is good enough for us."

Our correspondent has, it seems to us, somewhat missed the point. It is not "idēer" that is given in the *Concise English Dictionary*, but "idēēr," making the word a disyllable. Such the authors contend the word is now "in actual use." We have no particular quarrel with "idēah," but "idee," which is what the pronunciation indicated comes to, seems to us not merely illiterate but vulgar. There is no question as to the interpolation of the letter "r" before another word beginning with a vowel. This the authors of the *Concise Oxford Dictionary*, in common with all Englishmen of any education, expressly disavow.

To the *Canadian Practitioner and Review* for May Dr. John Stewart of Halifax, Nova Scotia, contributes some interesting personal recollections of Lord Lister. He accompanied the great surgeon to London on his appointment to the Chair of Clinical Surgery in King's College Hospital. The beginning of his London career would have disheartened a man less confident in his cause. Dr. Stewart says:

On October 26th (1877) Lister operated for fracture of the patella, and this occasioned much comment, for it was a very daring thing to do—at that time. And this is what one of the brightest ornaments of London surgery said when he heard of it, said it to his students, too: "Now, when this poor fellow dies, it is proper that some one should proceed against *that man* for malpraxis!" And a few days later we admitted a young man who had been discharged from one of the leading hospitals as inoperable. He had a large tumour of the upper end of the femur, and it was supposed he had metastasis in the lungs. Neither Cheyne nor I could find evidence of this, but hospital etiquette required to have the medical examination made by one of the medical staff. This gentleman shook his head and looked more than dubious. I think he really did not wish Mr. Lister to tackle so doubtful-looking a case. I have my doubts if Mr. Cheyne communicated these forebodings to the Chief. At any rate the limb was removed at the hip-joint, not by any showy flap method, but by a careful dissection (Furneaux Jordan's method), and with most satisfactory results. And I think it was when this case was dressed at the clinic a few days later, and members of the hospital staff and students came into the ward and saw a comfortable and happy patient, with no rise of temperature and a normal pulse, reading the morning paper, and then saw the dressings removed and the large wound with no trace of inflammation and no pus, that their eyes were opened to the wonder of it all. At any rate, next day Mr. Wood asked Mr. Lister to be with him and supervise the antiseptic precautions while he removed a goitre. Wood was a masterly operator, but I suppose this was the first operation of the kind he had ever done in which the wound healed without any suppuration. It was a very pleasant thing to see how our dear Chief won the hearts of all who came into contact with him. Having mentioned Mr. Wood, I may refer to another case. Ovariotomy at that time was, taking the average statistics, one of the most fatal operations. Experience at King's had been so disastrous that the Governors had forbidden the staff to undertake it. But the impression made by Lister's cases led to a reconsideration of this rule, and special leave was given to Mr. Wood to undertake a case. Well do I remember the day. The patient had a small ward to herself. A carbolic spray had been kept going in it for hours, all night, I think; the atmosphere reeked with carbolic acid; the disciples, as is so often the case, thinking to improve on the master. I was present. The little ward was full of surgeons, many more than the staff of King's. Amid breathless silence, and in a veritable Scotch mist of carbolic vapour, John Wood advanced with an air of stern resolve. The incision was made, the cyst exposed, the trocar plunged in. In a few minutes the operation was over, so everyday a matter now. But men were as much impressed as we to-day are in presence of the gravest complication. Was she to die like the rest? She was never even ill. She made a good recovery, and there was no prouder man in London than John Wood.

Dr. Stewart records his impressions of Lister as a surgeon and a teacher. He says:

It was said by some that he was not a good operator. Well, what is meant by a good operator? Operating is the smallest part of surgery. It is by the results we judge. Up to Lister's time no man had had such brilliant results. I think if we were the patients we should prefer a careful, painstaking, thorough-going surgeon to any one with ambitions for a spectacular exhibition to the gallery. There were men who could amputate a breast with two strokes of the knife, and leave the wound to

granulate. Lister might spend more than an hour, carefully removing it, clearing out the axilla, and bringing the edges of the incisions together. There is no one who hesitates as to who was doing the best operation. But I should be sorry to convey the impression that Lister was inexpert or hesitating in his manner. Where there was need for speed he was not lacking in this accomplishment of the surgeon. And all who are familiar with his plastic operations must have admired these. The bold, swift, unerring strokes of his incisions, the perfect apposition of the flaps, the provision against tension, gave him better results than I have ever seen elsewhere. In one thing more Lister was a truly great surgeon—he was of infinite resource. No unlooked-for accident, no complication found him unready. He was pathologist as well as surgeon. And yet one thing more. There is no man who remembers Lister's hospital work who was not impressed by his humane spirit, his tender regard for the mental and physical suffering of the poor who came under his care.

Speaking of his former chief as a teacher, Dr. Stewart says:

As a teacher Lister was peerless. His earnestness, enthusiasm, and energy were contagious, and inspired "such love and faith as failure cannot quell." He made it his business to define and expound principles. His teaching at the bedside was invariably interesting and practical, and it had then all the novelty of a new-found world. His lectures were models of English speech in clearness and simplicity, and the musical voice in which he spoke made them a delight. Through all his teaching there ran a golden thread of high moral earnestness. I find in my journals occasional quotations which illustrate this attitude of his mind. Here is one: "To intrude an unskilled hand to such a piece of Divine mechanism as the human body is indeed a fearful responsibility." And the practical bent of his mind is shown in this: "Act upon thoughts as they come and strike the iron while hot. If I have ever done anything it has been by acting upon thoughts as they occurred to me."

SCIENCE NOTES.

SYNTHETIC rubber has been known as a laboratory product for some years. In 1906 Professor Wyndham Dunstan, in his address to the British Association, dealt with the transformation of the hydrocarbon isoprene by polymerisation when in contact with certain substances into rubber possessing, it was said, all the properties of the natural substance. Isoprene was obtained from oil of turpentine, and the high cost of the oil put the method as a commercial process out of court. But isoprene can also be made from butyl alcohol, which can be obtained from starch by fermentation. The subject has been investigated for some time past from the commercial point of view by chemists both in Germany and England, and much interest has been excited by a paper read by Dr. W. H. Perkin, Professor of Chemistry in the University of Manchester, before the London section of the Society of Chemical Industry last Monday. He described the process of making synthetic rubber which he said would probably yield a profit at a price of half a crown a pound and might possibly be carried out at a cost of a shilling a pound. The initial step in the process would appear to be the production of butyl alcohol by fermentation. The butylic ferment is held to be *granulobacter butylicum*. It would appear that the practical application of this knowledge had been carefully studied by M. Fernbach at the Pasteur Institute in Paris; the product is purified by fractional distillation and by treatment with chlorine converted into a product which when heated yields isoprene. Rather less than a year ago Dr. F. E. Matthews and Professor Carl Harries, of Kiel, both independently ascertained that isoprene left for a considerable time in contact with sodium was converted into solid rubber. It would appear that Professor Harries was the first to publish his results, but Dr. Matthews the first to make the observation. The action is of the catalytic order, and appears to be continuous. There are also other methods known of bringing about this change in the constitution of isoprene. What the future of the process will be of course remains to be proved; it is said that rubber is now obtained from the tree on many plantations at a cost of less than one shilling a pound, and that it is probable that as experience increases improvements will result in a still further reduction in the cost of the new product.

In a paper communicated to the Royal Society by Professor Rutherford, on June 13th, Mr. H. G. Moseley, Lecturer on Physics in the University of Manchester, reported that he had determined the number of beta particles emitted at the disintegration of each atom of radium by measuring the current carried *in vacuo* by the radiation from a known quantity of active material. It is found that one atom of radium B and an atom of radium C together emit 2.20 beta particles on an average; that an atom of radium B emits the same number of particles as an atom of radium C, and that an atom of radium E appears to emit less than one beta particle. From measurements of the ionization produced by active deposit of radium emitting a measured number of beta particles, the number of ions produced by a beta particle per c.cm. of path in air has been calculated. Using the data of Geiger and Kovarik for the ionizing power of the beta radiation from a radio-active atom, the number of beta particles emitted by an atom of uranium X, actinium D and thorium D had been calculated. From measurements of the number of secondary beta particles produced by the gamma rays, it has been deduced on certain assumptions that an atom of radium C emits two gamma rays. A secondary radiation is set free in surfaces traversed by beta rays. This radiation closely resembles the delta rays, but does not leave the surface unless assisted by an electric field.

At the last scientific meeting of the Zoological Society for the present year several interesting communications were made. Chief amongst these was an appeal by Mr. Mead Waldo, Vice-President of the Society, on behalf of the rarer animals of this country. He pointed out that, as zoologists and students of animal life, it ought to be our first duty to preserve our native creatures so far as consonant with practical utility. He instanced several cases of beautiful and interesting mammals and birds which are practically on the verge of extinction. Some of those are going to their doom as martyrs to commerce; others are being exterminated by ill-considered destruction. Various suggestions were put forward towards remedying this undesirable state of matters. The law, a great help in such circumstances, is quite adequate as it stands at present; there has, however, been a lamentable failure on the part of the authorities in carrying it out. The speaker made an appeal to public opinion, and more especially to landowners, for a more strict observance of the law. Several members endorsed Mr. Mead Waldo's remarks, and mentioned various factors which called for improvement or remedy. Amongst a number of other papers having a more or less technical interest, Dr. Nicoll gave an account of the parasitic worms which had been collected from the animals dying in the Gardens during the past eighteen months. He referred to the able work which has been done by the prosectorial department in acquiring information concerning these parasites and to the value which such work possesses both from a zoological and economic point of view. He maintained that the labour expended in this direction had been more than amply justified by the large number of new and important facts brought to light, and by the valuable scientific contributions published dealing with those. He mentioned that during the period 180 animals had been found to be infected with worms, the majority of which were nematodes. In view of the fact, however, that all the animals which died could not be thoroughly examined, he expressed the belief that the actual number of infected animals was in reality very much greater. We may add that it seems to be an established fact that animals in captivity tend to lose their intestinal parasites after a certain period. Cases have been noticed, however, at the Zoo when the introduction of a particular infected animal or animals has caused a widespread infection amongst its comrades. These observations are of some interest, and lend support to Dr. Nicoll's remarks on the value of these investigations.

THE Great Eastern Railway Company has issued a pamphlet relating to the Moselle district of Germany, and showing by photographs how beautiful is the scenery along this comparatively little known river. Copies can be obtained by sending a postcard to the Continental Manager, G.E.R., Liverpool Street Station, E.C.

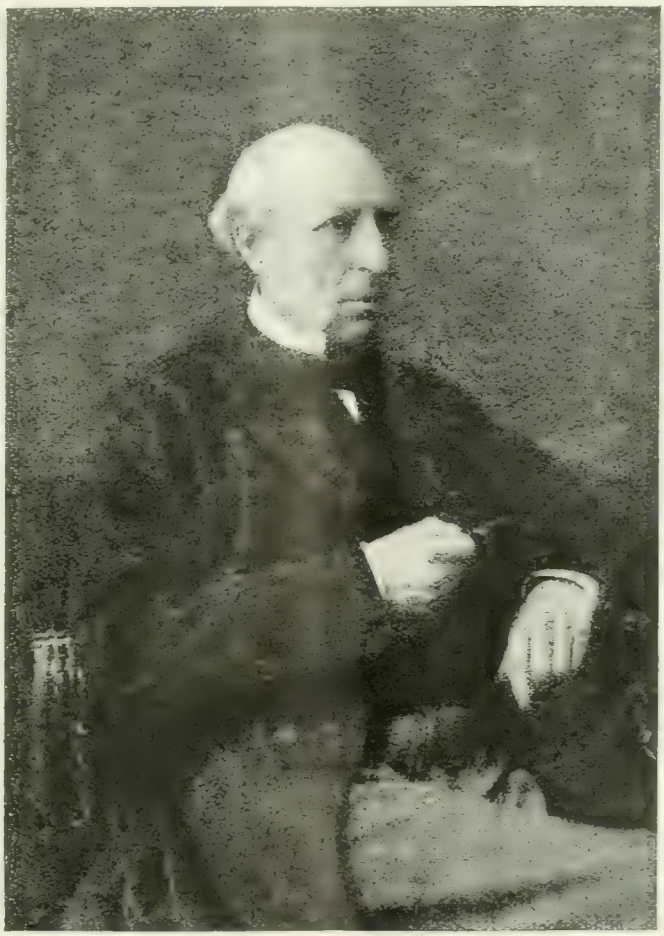
Obituary.

ALDERMAN THOMAS HOUGHTON WATERS,

M.D.ST.AND., F.R.C.P.LOND.,

CONSULTING PHYSICIAN TO THE ROYAL INFIRMARY, LIVERPOOL; EX-PRESIDENT OF THE BRITISH MEDICAL ASSOCIATION.

THE late Dr. Waters was born at Northampton on June 5th, 1826. His early education he received at Northampton, afterwards at the Collegiate School at Leicester, from which he passed to a school at Lille in France, where he gained a good colloquial knowledge of French and acquired a taste for classical French literature. Whilst there he made a short tour to Belgium with his head master and some of his schoolfellows, and acquired a delight in foreign travel which clung to him until advanced age, and from which during his holidays from professional work he derived some of the greatest pleasures of his life.



Photograph by *J. Weston and Son.*

T. H. Waters

In 1848 he began the study of medicine, and became a pupil of Mr. Howlett, who lived in Cambridge Terrace, London. He entered Mr. Lane's School of Anatomy and Medicine and St. George's Hospital. Famous among his teachers were Caesar Hawkins, Edwin Lankester, Sibson, R. Nairn, Bence Jones, and Prescott Hewitt. He worked steadily, and allowed nothing to interfere with his one great object—namely, to acquire a good knowledge of his profession. He gained prizes in nearly every subject of the curriculum, and it is worth noting that he gained a clinical prize in diseases of the chest. The only subject in connexion with his medical studies to which he admitted he did not take kindly was botany. In 1852 he obtained the diploma of M.R.C.S.Eng., the examination for which only lasted an hour, and was entirely *viva voce*. In the autumn of the same year he was appointed Demonstrator of Anatomy in Mr. Lane's school.

In January, 1853, on the recommendation of Mr. Lane, he was offered, and accepted, a lectureship in sanitary science and physiology under the auspices of the Manchester and Salford Sanitary Association. Although his connexion with Manchester only lasted a comparatively short time, he always looked back upon it with extreme satisfaction and pleasure, for during this period he met with much kindness, and formed friendships with medical men and others which became permanent. In August, 1853, he obtained the diploma of Licentiate of the Society of Apothecaries.

His election to the office of Senior House-Surgeon of the Liverpool Royal Infirmary in September, 1853, was the turning-point of his life, and his connexion with Liverpool, which lasted almost fifty-nine years, thus began. He was one of twenty-seven candidates, and his election was, no doubt, due to the brilliant testimonials given to him by his teachers—testimonials which show clearly how deeply interested his teachers were in him, for they laid stress on those very points of character and ability for which he was chiefly noted throughout his whole life. He more than justified the choice of the committee, which valued his services so highly that when his health broke down he was granted leave of absence for three months. Many years afterwards, when he had risen to the post of Senior Physician to the Infirmary, the tradition was still current that he was the best house-surgeon the institution had ever known.

During his period of residence at the infirmary he volunteered to go out to attend to the sick and wounded soldiers during the Crimean war, but his offer was declined.

On leaving the infirmary in 1855 he was appointed Lecturer on Anatomy, Physiology, and Pathology at the Royal Infirmary School of Medicine, jointly with Mr. Fletcher, and the same year he settled in practice in Hope Street, and was elected Honorary Medical Officer to the North Dispensary; this office he filled until his election as Honorary Physician to the Northern Hospital in 1860. In 1857 he was appointed Secretary to the Lancashire and Cheshire Branch of the British Medical Association. This appointment afforded him a great deal of pleasure and was instrumental in bringing him into relation with a large number of medical brethren. He resigned this post in 1863. He was President of this Branch in 1866–7. In 1857–8 he worked very hard at the preparation of his essay on the anatomy of the human lung, for which he was awarded the Fothergillian gold medal of the Medical Society of London, an honour of which he was justly proud.

In 1859 he passed the examination for the Membership of the Royal College of Physicians of London, and delivered the address on Physiology at the Annual Meeting of the British Medical Association. In 1860 he was elected Honorary Physician to the Northern Hospital without opposition. In 1861 he received the Doctorate in Medicine of St. Andrews University. In 1867 he was elected a Fellow of the Royal College of Physicians of London after being eight years a Member. In 1871 he was elected Honorary Physician to the Royal Infirmary without opposition, and occupied that position until he attained the age limit in 1886, when he became Consulting Physician in due course. In 1872 he was appointed Lecturer of Medicine to the Royal Infirmary School, and when in 1881 the school became part of the University College, he became the first Professor of Medicine. He was President of the Liverpool Medical Institution in 1878–9.

Dr. Waters was always closely associated with the British Medical Association, and was honoured by being elected to the office of President during the last visit of

the Association to Liverpool in 1883. The attendance was the largest up to that date, and the meeting was considered a remarkable success. As was the custom, the President was elected Vice-President for life. It is sad that his death should have taken place during this year, when the Association is to meet in Liverpool again, for it would have been a great pleasure to have had him present at such a time.

In 1884 he resigned the Chair of Medicine, having been connected with the Liverpool Medical School for twenty-nine years. He continued in active practice until about 70 years of age, and for some years afterwards occasionally saw patients at his own house, or in consultation.

In the spring of 1905, and when in his 78th year, he celebrated the jubilee of his membership of the Liverpool Medical Institution, and delivered to a large and enthusiastic audience a delightful address, consisting of notes and reminiscences, dealing especially with his student days in London and Paris.

Dr. Waters was a frequent writer and an original investigator of high order. Had he not resolved to devote himself to practical medicine it is certain he would have reached an eminent position in one of the auxiliary sciences, anatomy or physiology. The list of the articles, papers, etc., which he contributed to medical literature contains thirty-four entries. They deal with many subjects, but those to which he attached the most importance, and which will be longest treasured by the profession, are the essay on the anatomy of the human lung, published in 1860, and his book on *Diseases of the Chest*, of which the first edition appeared in 1868, and a larger second edition in 1873; it was also published in the United States of America. The essay of 1860 on the anatomy of the human lung was a great advance on any previous work on the subject, and for accurate and patient investigation, vigour of deduction, and lucidity of exposition could not be surpassed. He was the first to employ the term "air sacs" in describing the ultimate pulmonary tissue, and the first to recognize the exact disposition of these structures. He also established the true anatomy of the vascular supply to the bronchi and the course of the venous flow.

As a physician his practice chiefly lay in diseases of the chest, for which he enjoyed an immense reputation. He was constantly called in consultation throughout Lancashire and the adjacent counties and in North Wales. His students recognized in him a master on the physical examination of the lungs.

In 1879 he married Matilda, daughter of the late William Rotheram, a merchant of Liverpool. He leaves a widow, but no family.

Dr. Waters was a man of scholarly and literary tastes, which led him to recognize the necessity of the development of a higher education in Liverpool, and so he became an active mover in the establishment of the University College in that city, taking a leading part in the public movement to this end, and ultimately in the founding of the University of Liverpool, of which he was elected a life governor.

Although he lived to a great age, he never was physically strong, and on February 20th of this year he was stricken down with influenza, which was followed by a surgical complication of a very painful nature. He was attended with unremitting solicitude by Mr. R. Bickersteth and his nephew, Dr. T. R. Bradshaw. He passed away on June 8th at his residence, 69, Bedford Street, Liverpool. When his decease became known it was generally felt by all those who knew him personally, and by many members of the profession generally, that the world of medicine had lost one of its most scholarly and dignified members, and a man whose uprightness of character and high sense of honour, both in professional work and social environment, had always exercised an exemplary influence.

The large attendance of medical and other gentlemen at the memorial service held at St. Luke's Church testified to the marked esteem in which Dr. Waters was held by his fellow citizens. The service was fully choral, and was conducted by the Ven. Archdeacon Madden. The chief mourners were: Dr. T. R. Bradshaw (nephew), Messrs. Walter Gair, W. Crawford, W. Rotheram, H. Gair, Morris P. Jones, the Rev. Alex. Crawford, Mr. Robert Bickersteth, Nurses Knowles and Gibbon, and the Misses A. Byron and A. Fogg.

The general body of mourners included Sir James Barr (President-elect, British Medical Association), Dr. Percy Marsh (Chairman, Liverpool Division, British Medical Association), Mr. F. C. Larkin (representing the Council of the British Medical Association), Mr. Robert Jones (President of the Liverpool Medical Association), Dr. Bushby (Secretary, Liverpool Medical Institution), Vice-Chancellor Sir Alfred Dale (of Liverpool University), Professors Paterson, Sherrington, Glynn, Buchanan, Abram, and Rushton Parker. Representatives of the various hospitals and other local institutions were present and also a large gathering of medical men of the city and surrounding district. The interment took place at Childwall Church.

Sir DYCE DUCKWORTH writes: I should like to add an appreciation from one who has known Dr. Waters for many years. In my early days in the Liverpool Infirmary School, Dr. Waters was an energetic and respected teacher. He carried on original work, which was not then a frequent pursuit. As a physician he was thorough and painstaking. His demeanour was always calm and dignified, and he kept aloof from strife and discord. Few members of the profession in Liverpool have been regarded with greater respect and esteem. He was the fifth on the list of senior Fellows of the College of Physicians, and I have heard that he was complimented by Dr. Mayo, the President, when he passed his examination for the membership in 1859.

CHARLES HENRY ALLFREY, M.D., F.R.C.S.,

LATE PRESIDENT, SOUTH-EASTERN BRANCH, BRITISH MEDICAL ASSOCIATION.

IN the death of Dr. Charles Henry Allfrey, of St. Leonards-on-Sea, which occurred with tragic suddenness on April 16th, while he was walking on the Parade, we have to record the loss of an honoured member of the profession and of a useful and highly respected citizen.

Dr. Allfrey commenced his medical studies at King's College Hospital, and when he had completed his course there secured the post of House-Physician. He graduated M.D.Edin. in 1862 and took the diploma of M.R.C.S. in 1861, and afterwards spent some time in Paris in the study of medicine.

On entering practice he joined Dr. J. Hickstall Smith, of St. Mary Cray, and it was here that he spent the best years of his life.

He took an active part in the foundation of the Chislehurst and Cray Valley Hospital, as he did in all matters affecting the sanitary welfare of the neighbourhood; and in order to qualify himself more fully for the special demands made upon him in this respect he took the D.P.H.Cambridge in 1876, having some nine years previously become by examination F.R.C.S.Eng.

It was not till 1890, after some twenty-seven years of strenuous and useful work, that he moved to St. Leonards-on-Sea. His existence in the new home, however, was not to be one of leisure, as he immediately threw himself into public life, while he carried on practice as a consulting physician, with a view to which he had previously acquired the Membership of the Royal College of Physicians.

In 1892 Dr. Allfrey was elected Assistant Physician to the East Sussex Hospital, and was Consulting Physician to the hospital at the time of his death. For a number of years he occupied a seat on the Town Council, where he was particularly active as Chairman of the Sanitary Committee at the time of the establishment of the isolation hospital. In politics he was a keen Conservative, and was an energetic supporter of the Church, taking especial interest in the welfare of Church schools.

As a J.P. for the borough of Hastings he was a regular attendant on the Bench.

Of the British Medical Association he was always a warm supporter, and his election to the chairmanship of the South-Eastern Branch a few years ago was a fitting reward for the good work he had done on its behalf.

Among his colleagues he was deservedly popular, and the example that he set of disinterested and untiring labour in the public service may well stand as a stimulus to a younger generation.

THE death took place on May 28th, after a somewhat prolonged illness, of Dr. J. F. BUTLER-HEGAN, a medical man well known in the north of London as Medical Officer

of Health for the district of Tottenham. A Tipperary man, he entered the medical profession in 1889 as a holder of the Scottish Conjoint diploma. But before this he had been a student in the Faculty of Arts of the Royal University of Ireland, receiving the B.A. degree in 1887, and his studies did not cease with his attainment of a medical qualification. Working in turn in Ireland, London, and on the Continent, he became D.P.H.Camb. in 1893, M.D.Brux. in 1894, LL.B. of the Royal University of Ireland in 1904, and then, some twelve years later, M.D.Durh. and LL.D. of his own university. Meantime, too, he had been admitted to the Bar as a member of Gray's Inn, and had obtained in Scotland and Ireland exhibitions in jurisprudence and hygiene. His official connexion with Tottenham commenced some ten years ago, and he served the district not only as Medical Officer of Health but also as Medical Officer to the Education Committee. At one time and another he published a good many papers and two or three books on subjects connected with his special department of medicine. He was a member and Fellow of many professional associations, including the British Medical Association, the Royal Society of Medicine, the Society of Medical Officers of Health, the Medico-Legal Society, the Association of School Medical Officers, and the Royal Sanitary Institute. The interment took place at St. Patrick's Cemetery, Leytonstone, on June 1st, a Requiem Mass being held at the Church of St. Francis de Sales on the same day. Dr. Butler-Hogan was married, and is survived by his wife and by five daughters.

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

Degrees.

THE following degrees have been conferred:

D.Sc. (*Honoris Causâ*).—F. H. Marsh.

M.D.—R. L. Prenlen, W. W. Jendwine, M. Phillips, H. H. Riddle, A. E. Show.

M.B.—H. W. Barber, H. G. Boyens, G. G. Johnstone, A. W. Gaye, N. F. Lock, P. A. O'Pie.

B.C.—H. G. Boyens, A. W. Gaye, N. F. Lock.

Honorary Degree of D.Sc. for the Master of Downing.

The Public Orator, Sir John Sandys, spoke as follows in presenting Professor Howard Marsh, Master of Downing College, for the complete degree of Doctor of Science *honoris causâ* on June 13th, 1912:

> Adest Collegii recentissimi Magister novissimus, quem hodie propterea inter benefactores nostros posuerim, quod ad Doctoris gradum perfectum iure dignitatis voluit accedere; qui honos non modo ipsi laudi est, sed etiam Academiae aliquatenus lucro et emolumento. Abhinc annos prope novem eundem, Chirurgiae Professorem auspiciis optimis electum salutavimus; virum ingenio vivido, iudicio subacto, rei chirurgicae denique scientia singulari praeditum laudavimus. Postea a Collegio Regali socium electum vidimus, atque abhinc annos quinque a Collegio illo Magistrum expetitum, quod olim fundavit Georgius Downing, baronettus. Ibi, adiutricis optimae non sine auxilio, omnia Magistri munera comitate summa explevit. Idem, in oppido nostro et Magistratus et Universitatis nomine Consiliarius constitutus, ne Martis quidem munera neglexit, olim pro patria etiam proeliari paratus. Viro tali, ut vitae suae totius propositum verbis idoneis exprimat, licet fortasse locum quendam Tullianum celeberrimum mutuari et suos in usus mutare:—cara nobis est Chirurgia; cara Collegia nostra; cari propinqui et familiares; "sed omnes omnium caritates patria una complexa est."*
>
> Duco ad vos et militem et magistratum et Magistrum optimum, virum scientiarum laude insignem, FREDERICUM HOWARD MARSH.

* Cicero, *De Officiis*, i. 57.

Examinations.

The following candidates have been approved at the examinations indicated:

FIRST M.B.—*Part I, Chemistry:* G. H. Bickley, J. M. Downie, A. G. Irving, E. G. Snaith. *Part II, Physics:* W. H. Blackburn, A. G. Irving. *Part III, Elementary Biology:* W. H. Blackburn, C. V. Braimbridge, F. T. Burkitt, A. E. Clark Kennedy, J. M. Downie, E. O. Goldsmith, A. G. Irving, H. J. T. Neilson, G. S. Taylor.

THIRD M.B.—*Part I, Pharmacology and General Pathology:* J. H. Baldwin, W. N. Child, M. Donaldson, H. A. Douglas, A. G. Evans, J. C. John, A. Kennedy, W. M. Lupton, E. L. K. Sargent, V. F. Soothill, D. L. Spence, H. A. Watermeyer.

M.C.—J. L. Austin, F. J. Cleminson.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN Ordinary Council was held on June 13th, Sir Rickman John Godlee, Bart., President, in the chair.

Diploma of Fellowship.

Diplomas were granted to twenty-five candidates found qualified for the above. Three further candidates passed the examination, but, being under age, diplomas were not granted to them.

Diploma of the Licence in Dental Surgery.

The diploma was granted to forty-three candidates.

Practical Anatomy.

A committee was appointed to inquire into the difficulties that have arisen with regard to obtaining bodies for purposes of examination and dissection and for the teaching of operations, with power to confer with the teachers of anatomy and with other bodies.

Communication from the Deans of Dental Schools of London.

The following communication was read:

> On behalf of the four Dental Schools in London, we the undersigned ask the Royal College of Surgeons to so alter the regulations relating to the Diploma in Dental Surgery of the College that the Preliminary Science Examination shall be passed by all candidates before they commence any portion of the work required for the Second Professional Examination.
>
> SIDNEY SPOKES, Dean, National Dental Hospital.
> WILLIAM WRIGHT, Dean, London Hospital.
> HERBERT L. EASON, Dean, Guy's Hospital.
> W. H. DOLAMORE, Dean, Royal Dental Hospital.

The matter was referred to the Board of Examiners in Dental Surgery to consider and report thereon.

Addresses of Congratulation.

The President was requested to present an address of congratulation to Trinity College, Dublin, on the occasion of the bicentenary festival of its Medical School next month; and also an address of congratulation to the Royal Society on the celebration next month of the 250th anniversary of its foundation.

Election of Four Fellows into the Council.

A meeting of the Fellows will be held at the College on Thursday, July 4th next, for the election of four Fellows into the Council of the College in the four vacancies occasioned by the retirement in rotation of Sir Frederic Eve, Sir Anthony A. Bowlby, and Mr. Gilbert Barling, and by the death of Sir Henry T. Butlin.

The full list of candidates is:

Sir Frederic Samuel Eve (Fellow, 1878).
Sir Anthony Alfred Bowlby (Fellow, 1881).
Harry Gilbert Barling (Fellow, 1881).
James Ernest Lane (Fellow, 1882).
D'Arcy Power (Fellow, 1883).
Louis Albert Dunn (Fellow, 1884).
Sir Berkeley Moynihan (Fellow, 1890).

Revised Synopsis in Dental Surgery.

The Board of Examiners in Dental Surgery report that in their opinion the time has now come when it is desirable that the synopsis of surgery and surgical pathology for the final examination adopted in 1905 should be revised. The Board have accordingly carefully considered the synopsis and have decided to recommend the Council to adopt the following revised synopsis, which adds very little to the scope of the examination, but arranges the subjects more systematically.

The Board further recommend that the revised synopsis should come into force on May 1st, 1913.

Surgery and Surgical Pathology.

Micro-organisms.—Elementary knowledge of in their relation to pathological processes.

Inflammation.—Causes. Vascular and structural changes. Clinical signs and constitutional symptoms. Terminations.

Boil. Abscess. Carbuncle.

Ulceration.—Nature of process. Chief varieties of ulcers of skin.

Sinus and Fistula.

Gangrene.—Causes. Varieties.

Erysipelas.—Sapraemia. Septicaemia. Pyaemia.

Tetanus.—Cause and symptoms.

Tuberculosis.—Modes of infection. Changes in the tissues. Terminations. General principles of treatment.

Tuberculosis of Lymphatic Glands and of Bone.

Actinomycosis.—Modes of infection. Signs and treatment when occurring in head and neck.

Syphilis.—Modes of infection. Stages, symptoms, and treatment of acquired and congenital forms.

Haemorrhage.—Varieties. Arrest of haemorrhage.

Haemophilia.

Syncope. Collapse. Shock.

Wounds.—Classification. Process of healing. Treatment.

Fractures.—Causes, varieties, signs, and symptoms. Process of union. General principles of treatment. Signs and treatment of fractures of the bones of the face.

Joints.—General signs and treatment of dislocations. Special knowledge of dislocation of shoulder-joint and of temporo-maxillary joint.

Blood Vessels.—Injuries of vessels and their consequences. Atheroma. Calcification of arteries. Causes and chief forms of aneurysm. Varicose veins. Thrombosis and embolism.

Nerves.—Results of injury to nerves. Common causes of paralysis. Neuritis. Neuralgia. Special knowledge of affections of the Vth and VIIth cranial nerves.

New Growths.—Meaning of terms "innocent" and "malignant." General structure and classification of tumours. Diagnosis and treatment of the more common tumours.

Cysts.—Varieties and classification. Diagnosis and treatment of cysts of the head and neck.

Diseases of Bones.—Periostitis, osteitis, osteomyelitis, caries, necrosis. Symptoms and treatment of diseases of the bones of the face.

Tumours of Bone.

Rickets.—Causes and signs. Changes in bone.

Scurvy.

Surgical Affections of the Head and Neck.—Wounds of head and neck. Cut throat. Foreign bodies in the air passage and in the food passage. Dysphagia. Dyspnoea. Laryngotomy and tracheotomy.

Diseases of the Lymphatic Glands in the Neck.

Diseases of Temporo-Mandibular Joint. Closure of Jaws.

Mouth and Lips.—Stomatitis—causes, varieties, symptoms, treatment. Salivary calculus. Ranula and other cysts of mouth. Hare-lip. Epithelioma. Herpes. Syphilis. Tubercle. Naevus. Papilloma. Cancrum oris. Oral sepsis; its influence in the causation of disease.

Tongue.—Glossitis, acute and chronic. Papilloma. Epithelioma. Ulcers. Gumma. Wounds of tongue.

Palate.—Cleft palate. Tumours of palate. Ulceration. Necrosis.

Tonsils.—Varieties of tonsillitis, diagnosis, consequences and treatment. Chronic enlargement of tonsils. Ulceration of fauces.

Gums.—Surgical affections, causes, diagnosis, and treatment.

Maxillary and Frontal Sinuses.—Surgical affections, causes, diagnosis, and treatment.

Nose and Pharynx.—Inflammatory affections. Ozaena. Polypi. Foreign body in nose. Lupus and syphilis of nose. Rodent ulcer of nose and face. Epistaxis. Adenoid vegetations.

Parotid and Submaxillary Salivary Glands.—Surgical affections.

Submaxillary Cellulitis.

Larynx.—Scald. Spasm of glottis. Œdematous laryngitis. Diphtheritic membrane in nose, throat, or larynx.

Neck.—Torticollis. Causes of stiff neck. Caries of cervical vertebrae. Cervical abscess. Bronchocele.

Eye.—Conjunctivitis. Iritis. Corneal ulcers and opacities. Ptosis. Strabismus.

Anaesthetics.—With special reference to their use in dental surgery. Preparation of a patient for the administration of an anaesthetic.

Artificial Respiration.

Admission to Fellowship.

The following candidates have been admitted to the Fellowship:

R. P. Wilson, Major I.M.S., L. Cook, Captain I.M.S., R. M. Carter, Captain I.M.S., G. H. L. Whale, E. D. Davis, H. F. Strickland, E. R. Flint, K. A. Lees, J. Everidge, R. W. Rix, C. C. Holman, A. L. Candler, A. C. Sturdy, G. G. Alderson, A. H. Richardson, D. Wood, E. G. Stanley, F. J. Clemiuson, T. D. M. Stout, T. E. A. Stowell, J. P. I. Harty, E. E. Hughes, W. Phillips, A. L. Walker, and G. B. Warburton.

Three other candidates—namely, Messrs. T. T. Higgins, H. L Martin, and A. L. Robinson—will be admitted so soon as they have attained the requisite age.

Public Health AND POOR LAW MEDICAL SERVICES.

JOINT COMMITTEE OF MEDICAL OFFICERS' ASSOCIATIONS.

WE are informed that a meeting of the above Committee was held at the Holborn Restaurant on Friday, June 14th. Owing to the unavoidable absence of Dr. Bott, Dr. Owen Fowler was voted to the chair. The Honorary Secretary submitted the two following resolutions from the Association of Medical Officers of Health:

(*a*) That the conjoint committee of the several associations of medical officers holding part-time appointments be requested to consider the advisability of organizing as quickly as possible local branches throughout the country of medical practitioners holding part-time appointments under Government and local authorities to work in conjunction with the central committee.

(*b*) That the conjoint committee be requested to consider the best means of securing at the annual general meetings of the constituent associations the attendance of members of other associations.

After a full discussion it was unanimous decided to take steps to organize branches as outline in resolution (*a*), and to ensure as far as possible the attendance of members of the constituent associations at the annual meetings as outlined in resolution (*b*). Attention was drawn to the forthcoming meeting of the Poor Law Medical Association at Bristol, on Tuesday, June 25th. The Committee expressed the hope that many practitioners holding part-time appointments will attend, when some important questions will be discussed. It was resolved that Dr. Major Greenwood be asked to bring up for discussion the desirability of establishing at Bristol a branch for the West of England.

Dr. Bott was again elected Chairman for the ensuing year, and Dr. Parkinson, of Wimborne, and Dr. D. A. Bellios were elected Honorary Treasurer and Honorary Secretary respectively.

THE ILFORD COUNCIL AND ITS M.O.H.

THE *Ilford Recorder* of June 14th reports an incident at the meeting of the Ilford urban district council which the information so far made public leaves very mysterious. At the ordinary meeting of the council on June 11th a minute adopted by the council in committee was confirmed. It was to the effect that during last month Dr. C. F. Stovin, the medical officer of health, had caused a builder employed by him to lop or cut down a tree on certain premises of which Dr. Stovin was the owner, that the council had interviewed Dr. Stovin, and had thereafter passed a resolution stating that he had forfeited the confidence of the council and asking him "whether he is prepared to tender his resignation forthwith; failing which, a deputation apprise the Local Government Board of the full facts of the matter, with a view to determining his appointment as medical officer of health, school medical officer, and medical superintendent of the isolation hospital." Dr. Stovin, when informed of this resolution, stated that he would resign if required to do so by the Local Government Board. It appears from the report that a letter had been received by the district council from the Local Government Board asking to be furnished with a statement in writing of the full facts of the case. The chairman of the public health committee, who had not been present at the previous meeting, protested that the matter ought to be cleared up, and desired to know definitely whether the purpose was to hold an inquiry into all that was going on in the public health department. No definite public answer was given to this inquiry, but it would appear that the council afterwards considered the matter in committee. The *Ilford Recorder*, in commenting on the case, says: "It certainly is not usual in English public life to disclose to an uninformed public a piece of evidence so completely condemnatory of a man as to suggest the very worst, while withholding the actual data upon which the impressions of the censors have been based"; and every one will agree that whatever reasons the district council may have for inviting the resignation of its medical officer should be made public without delay. As Ilford has grown to be a big place with some 80,000 inhabitants, and Dr. Stovin is a whole-time officer, the seriousness of the position is obvious.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Borough of Dudley.—In the report for 1911 of the Medical Officer of Health for the Borough of Dudley (Dr. J. H. Wilkinson) the death-rate from all causes is estimated at 15.69 per 1,000, being a slight increase on the figures of the previous year. The increase was due to an epidemic of measles, which caused the deaths of 33 children and young persons. The birth-rate was slightly higher than in the previous year, being 27.5 per 1,000. During the year most valuable work has been done in extending the water-carriage system. The work of improving the cleanliness, dryness, and general sanitary condition of certain dwelling-houses has been attended with much difficulty at times, owing to the existence of much old and badly constructed property in the town, but many valuable improvements have been effected. An improvement scheme is much needed for dealing with some of the streets and courts in the centre of the town. A large proportion of the town consists of small cottages, originally bad in construction and design, and many of them are grouped in narrow streets and courts, without any sort of orderly method or arrangement. On the other hand, there are few back-to-back houses and practically no congested areas. The sanitary conditions of the schools have been much improved. A public abattoir would be of great benefit in protecting the people against diseased meat, but, in the opinion of the medical officer of health, it would be useless unless the council had the power to close all private slaughterhouses. The town council has not provided or assisted in providing any accommodation or treatment of consumption.

A NEW edition of the *Souvenir of Royal Tunbridge Wells* has been issued. It is now adorned by some admirable pictures of the town and its neighbourhood in colours as well as by reproductions of ordinary photographs. The text gives a good account of the attractions of the place both for visitors and residents. Copies can be obtained on application to the Town Clerk, post free in return for two penny stamps.

British Medical Journal.

SATURDAY, JUNE 22ND, 1912.

NATURE AND NURTURE.

SINCE the days of Charles Darwin three names stand out prominently as contributors to the advances made in the theoretical aspects of biological knowledge. These are the names of Francis Galton, Gregor Mendel, and August Weismann. Not only has the individual work of each of these men been of vast importance, but the impetus which their investigations have given to research into all the many-sided problems of heredity has been enormous. In this country at least the name of Bateson will also always hold a prominent place, since it is largely through him and the school which he has established that the epoch-making work of the Abbot of Brünn has been made familiar to us. As one outcome of this may be mentioned the increased attention now paid to the facts of inheritance in relation to disease in the social as well as in the individual organism.

In thus accentuating the importance of the work of the so-called Mendelian school, there is no intention to minimize the value of the work done by the biometricians. The ultimate aim of both is the acquirement of exact knowledge, the application of which may lead to race betterment, but the method of attacking the problems differs. The biometrician deals with statistics, with evidence in bulk. The Mendelian investigates inheritance in individual cases. The greater the number of cases recorded the more reliable the deductions, but the evidence is of necessity based on relatively smaller numbers. To mention but one instance, the inheritance of brachydactyly. The evidence deduced from the reported cases is of great value, but from the biometric standpoint these cases are so few in number as to be of relatively little importance. It is for this reason that the Mendelian principles of heredity appeal most to the clinician, as he can individually, by the careful and exact study of a few cases, materially assist in the advancement of knowledge.

The investigation of these principles in their relation to disease-transmission is one of the great features of the past decade. In support of this it is only necessary to mention the work of Nettleship and Mott. In a recent number of *Brain* the latter has added yet another valuable contribution to the subject from the clinical standpoint. In this article Dr. Mott deals with the "inborn factors of nervous and mental disease," and gives a series of illustrative pedigrees.

Among the many results brought to light by a careful analytical inquiry into the facts of the hereditary transmission of disease not one is of greater interest than the discovery that certain diseases are sex-limited—by which is meant that the disease may be limited to one sex, but is transmitted by the sex in which the disease does not appear. A very remarkable and complete instance of such a case has recently been published by Nettleship showing the pedigree of congenital night-blindness with myopia.[1] In addition to night-blindness, there is evidence for believing that colour-blindness, haemophilia, pseudo-hypertrophic paralysis, and Leber's disease may very probably be included in the list of sex-limited diseases. In the known cases of transmission it is the males who inherit; the females transmit.

In studying the transmission of disease the contributing factors of nature and nurture have to be carefully analysed and weighed. To arrive at an estimate of the proper contribution of the former is the main object of an inquiry into family histories, and Dr. Mott, in the article mentioned, shows the many pitfalls which beset attempts to arrive at just conclusions in nervous and mental diseases. He gives a word of warning when he states that he is "of opinion that various causes, such as alcoholism, infective diseases, auto-intoxications, physical injury, especially head injuries and shocks, emotional shock, sexual excesses, and unnatural practices are too often wrongly assigned as the *sole* cause of nervous and mental disease, to the neglect of the inborn factor." There is no doubt much truth in this. Alcohol may be the cause in a certain number of cases of insanity in persons without any hereditary taint; but it more readily affects those who have an inherited mental weakness and in whom there is less power of control to withstand the temptation.

Dr. Mott is evidently a strong believer in the potency of the inborn factor, and with this belief many biologists will be disposed to agree; but this very belief raises the perennial question of the inheritance of acquired characters. Ever since the publication of Weismann's theory of the germ plasm, the possibility of the transmission of acquired characters from parent to offspring has very generally been regarded as highly improbable, if not impossible. There are not wanting signs at the present time that many biologists are beginning to waver, and a consideration of the facts of disease transmission would appear to have a direct bearing upon the argument.

To say that a disease, or even the tendency to disease, is inherited is but to shift the problem a stage further back. Disease is not the normal condition of a healthy organism, or to put it another way, organisms were originally by nature healthy; disease must therefore have been at its inception an acquired character, that is to say, disease is a somatogenic character. Weismann defines acquired or somatogenic characters as "those which are not preformed in the germ, but which arise only through special influences affecting the body or individual parts of it. They are due to the reaction of these parts to any external influences apart from the necessary conditions of development." Many pathological states at the very commencement of their evolution must have satisfied this definition. If, then, disease cannot be entirely a matter of germinal variation, such variation must be due to influences operating upon the germ plasm from without, that is, influences acting through the somatic cells. The existence of such bodies as hormones furnishes a possible explanation of how such influences might take effect. Confirmation of the inheritance of acquired characters is to be found in Bordage's observations on peach trees in the island of Réunion.[2] This is no mere academic discussion, for, if disease at its inception is a somatogenic character, then it is possible that environment may originate it in an otherwise healthy stock.

Many writers at the present time appear to regard heredity as the last word in all matters appertaining

[1] *Trans. Ophthal. Soc.*, vol. xxxii, 1912.

[2] *Bull. scientifique de la France et de la Belgique*, Tome 44, 1910.

to eugenics in the widest sense of the term. Some enthusiasts are even clamouring for a health certificate before marriage. Legislation, on the other hand, has hitherto ignored heredity and has regarded environment as the sole object of its attention. It is obvious that both factors must be taken into account concurrently, not only in the study but also in the prevention of disease.

A further point to which Dr. Mott directs attention is what is called the "law of anticipation." Nettleship has also previously discussed the matter. By this term it is meant that the manifestation of an inherited morbid change tends to appear at an earlier age in successive generations or in the successive children of the same parents. In this connexion Mott makes an important pronouncement as the result of his wide experience. He says that he has "often observed that there is a general tendency for insanity not to proceed beyond three generations. There is frequently either a regression to a normal type or the stock dies out. Not infrequently the stock dies out by the inborn tendency to insanity manifesting itself in the form of congenital imbecility or in the insanity of adolescence. Such patients, especially paupers, are prone to die of tuberculosis; thus rotten twigs are continually dropping off the tree of life." In support of this conclusion reference is made to Morel, who in 1859 pointed out "that progressive uninterrupted transmission leads finally to special degenerative forms, to imbecility and idiocy, and with the diminished capability of propagation of the latter kind the stock therefore gradually becomes extinct."

Such statements are of hopeful augury, but it is necessary at present to accept them with reserve. In the first place, Is it true that there is this "diminished capability of propagation" in aments? The report of the Royal Commission on the Feeble-minded, and the pedigrees furnished by Mrs. Hume Pinsent and others, seem to point to an opposite conclusion. Even if it be admitted, for the sake of argument, that this power is diminished below the normal, it at least appears to exceed the present average capacity of the desirable stratum of society. Of course the diminished capacity in the latter may be the result of a purposive artificial lowering, but to whatever cause it may be due the danger to the community remains. Again, if by the law of anticipation insanity tends not to proceed beyond three generations, but the stock tends to die out "by the inborn tendency to insanity manifesting itself in the form of congenital imbecility, or in the insanity of adolescence," yet so long as the congenital imbeciles are at liberty to procreate children at all, present experience teaches that these children are likely to become more or less permanent charges upon the State. There may be a natural tendency to a reduction in the total number of dements, but, if this is correlated with an increase in the number of aments, we are, in the present state of the law, in a parlous condition. In those cases in which there is a regression to a normal type is there any evidence that the offspring may not again exhibit mental instability? It would be quite in keeping with Mendelian characters for it to do so.

Such considerations do not in the least detract from the value and scientific interest of the investigation of the law of anticipation, neither do they lessen the importance of the opinions expressed by so eminent an authority as Dr. Mott, but there is the danger that such statements may be used as arguments in support of the policy of legislative inactivity, from which the community is, in this connexion at any rate, suffering. It would be so easy for self-complacent persons in authority to say that expert opinion declares that the general tendency is for insanity to die out in three generations—the power already exists to control the insane—therefore nothing more is required. Upon every ground, therefore, the need is urgent for statutory powers to deal with aments above the age of 16, and, above all, for the establishment of a central board of control to superintend the care and management of aments and dements alike. Such a board was recommended by the Royal Commission.

As yet there has not been time to keep records of the hereditarily tainted for more than three generations, except in a very few cases. It is of the greatest importance that they should be carried further. Adequate provision for the continuation of the investigation is, no doubt, made in asylums by the card system, but this is not sufficient. The establishment of a statistical bureau connected with the local authority of each of our large towns to keep, over a period of several generations, a record, as far as possible continuous, of all persons mentally affected, either aments or dements, would be of the greatest value. It can hardly be doubted that the information so obtained would enable action to be taken which would in the long run result in economies that would much more than counterbalance the initial expenditure.

RUSKIN'S VIEWS ON THE MEDICAL PROFESSION.

THE appearance of the general index in a volume of the noble Library Edition (in thirty-nine volumes) of Ruskin's works[1] makes it easy at once to discover all that the author, scattered through the 2,750 items enumerated in the bibliography of his writings, said about any one subject in the course of his sixty years of authorship. Passing over Mr. Ruskin's references to his friends in the medical profession—amongst whom were Dr. Jephson of Leamington, Sir Henry Acland, Sir William Gull ("the living Aesculapius"), Sir John Simon ("my old friend and Knight of the Hammer"), and Dr. George Parsons of Hawkshead—we turn our attention to the things said about doctors in general.

For instance, in pleading with the architects of his day for imagination in their work, Ruskin says (*The Two Paths*): "Observe, nearly every other liberal art or profession has some intense pleasure connected with it, irrespective of any good to others"; and adds: "As lawyers, or physicians, or clergymen, you would have the pleasure of investigation and of historical reading as part of your work; as men of science you would be rejoicing in curiosity perpetually gratified respecting the laws and facts of Nature." Now, without pursuing Ruskin's argument with the architects—whom he would have to be sculptors—we find here a fact often lost sight of by the medical man sick of the monotony of daily practice and unable always to find happiness in the good he is doing to others: he can have intense pleasure in investigation, he can perpetually gratify his curiosity regarding the laws of Nature, and rejoice. We may smile a little at Ruskin's enthusiasm; but is there not after all truth, cheerful truth, in the heart of it, and may not a doctor "with this clause make drudgerie divine," and even contract practice fine? We must grant him sufficient spare time, of course.

In one of his writings upon political economy (*Unto this Last*) Ruskin enters on the prickly path of

[1] *The Complete Works of John Ruskin.* Library Edition. Edited by E. T. Cook and Alexander Wedderburn. Vol. XXXIX: General Index. London: George Allen. 1912.

adequate remuneration. He seems, with delightful liberality, to concede the guinea as the medical man's proper fee. "Sick," he says, "we do not inquire for a physician who takes less than a guinea. . . . Caught in a shower, we do not canvass the cabmen to find one who values his driving at less than sixpence a mile." He admits, however, that the number of candidates for the office may make a difference. "If it were thought that the labour necessary to make a good physician would be gone through by a sufficient number of students with the prospect of only half-guinea fees, public consent would soon withdraw the unnecessary half-guinea." It has, Mr. Ruskin, it has, and that without waiting for the sufficient number of contented students! It is curious to note how fixed our author's view was about the guinea fee. In a later book (*Fors Clavigera*, Letter 14) he announces that his books are all to be sold at half a guinea for those without plates and a guinea for the illustrated volumes; and he gives as his reason, "I do not care that anybody should read my books who grudges me a doctor's fee per volume." He rather came to grief over this matter of the doctor's fee per volume, for a Glasgow man wrote to him, saying, "No doctor, here at least, would ever think of charging me a fee of 10s. 6d.," and pointing out that "Doctors who have acquired, either professionally or otherwise, a competence, often—nay, very often—give their advice gratis to nearly every class, except that which is really wealthy." Ruskin answered the Glasgow man, but we think that he had scarcely the best of the argument.

He is on safer ground when he deals with the duty the medical man owes to the public, and for the doing of which he is honoured. "Whatever his science," says Ruskin, "we would shrink from him in horror if we found him regard his patients merely as subjects to experiment upon; much more, if we found that, receiving bribes from persons interested in their deaths, he was using his best skill to give poison in the mask of medicine." He sets a high standard for the medical profession. There "have hitherto existed," he says, "five great intellectual professions, relating to daily necessities of life—three exist necessarily in every civilized nation: the Soldier's profession is to defend it; the Pastor's is to teach it; the Physician's is to keep it in health; the Lawyer's to enforce justice in it; the Merchant's to provide for it. And the duty of all these men is, on due occasion, to *die* for it." Ruskin defines "on due occasion" for the soldier as "rather than leave his post in battle," and for the physician as "rather than leave his post in plague." But, of course, "the labourer is worthy of his hire," and in another book (*The Crown of Wild Olive*) Ruskin puts the fee question fairly and finely for all time: "Doctors like fees, no doubt—ought to like them; yet if they are brave and well educated, the entire object of their lives is not fees. They, on the whole, desire to cure the sick; and—if they are good doctors, and the choice were fairly put to them—would rather cure their patient, and lose their fee, than kill him, and get it. Their work is first, their fee second—very important always, but still *second*." We shall all agree with Ruskin here.

We have not by any means exhausted Ruskin's references to doctors; but we must close with two more, and two only. One is the remark in a letter to his Edinburgh friend, Dr. John Brown (author of the world-famous *Rab and his Friends*): "I cannot fancy any study or work in this age so noble as that of a physician." The other is in *Fors Clavigera:* "You ought to read books, as you take medicine, by advice, and not advertisement." As an afterthought, Ruskin adds, "perhaps, however, you *do* take medicine by advertisement, but you will not, I suppose, call that a wise proceeding? Every good physician, at all events, knows it to be an unwise one, and will by no means consent to proclaim even his favourite pills by the town-crier."

THE SERUM DIAGNOSIS OF HYDATID DISEASE.

HYDATID infection is so rare in the United Kingdom that few practitioners have had opportunities to become familiar by personal experience with the difficulties which may arise in its diagnosis, with the risks attending its course, and with the serious problems which arise in its treatment. It is far otherwise in Australia, where the possibility of hydatid disease can never be absent from the mind of the physician in any obscure case. In British textbooks the diagnosis is not, as a rule, adequately discussed, and, according even to some of the most recent, the main diagnostic signs are the recognition of the "hydatid thrill" and the results of exploratory puncture revealing the presence of the characteristic hooklets. The thrill is by no means always present. It is not usually to be observed when the cyst is small, a period when suitable treatment gives the best result, and is apparently hardly ever present in hydatid of the lung. Dr. Lendon, of Adelaide, whose book on hydatid disease of the lung is probably the most comprehensive hitherto published, at any rate in English,[1] says that "the peculiar fremitus of the hydatid cyst—which is a rare sign at any time—is still more rare in connexion with thoracic cysts," and adds that he has only met with it twice. From his discussion of the diagnosis of an unruptured cyst of the lung—and to make the diagnosis at this stage is the chief aim of the physician—it is to be gathered that impairment of the movements of the chest, enlargement of the chest and possibly some obliteration of the intercostal spaces, alteration of resonance on percussion over the area of deficient movement and loss of the respiratory murmur in the same area, are the most characteristic physical signs of a cyst which has not attained a size large enough to produce obvious pressure symptoms. It is clear, therefore, that the diagnosis may raise very nice problems. Dr. Lendon sums up by saying that "there is no single physical sign which is pathognomonic of an unruptured pulmonary cyst; that localized bulging, though most suggestive, may be also caused by a localized empyema; that a curved upper border of dullness is common in pleurisy with effusion; that when situate in the upper lobe it may simulate phthisis, and in the lower lobe it closely resembles pleurisy; that pleural effusion may co-exist and mask the hydatid disease; and that a secondary growth in the lung may be mistaken for a cyst. We may be, and frequently are, right in our diagnosis; we can never be absolutely certain."

Formerly, as some textbooks still advise, it was the rule to establish the diagnosis by making a puncture, and occasionally this simple procedure was followed by cure; but Lendon, in accordance with most authorities, says that the dangers of this method of treatment far outweigh any possible advantage, and that "it is now on all sides acknow-

[1] *Clinical Lectures on Hydatid Disease of the Lungs.* By A. A. Lendon, M.D.Lond., Lecturer on Obstetrics and Clinical Lecturer on Diseases of Children in the University of Adelaide. London: Baillière, Tindall and Cox. 1902.

ledged that the only effectual treatment of hydatid cysts of the lung is surgical, and that such treatment should, if possible, be radical in its scope, and not merely palliative." A piece of rib is excised, the cyst incised and emptied, and the mother cyst extracted with appropriate forceps from the cavity in the lung. As early operation before the cyst has attained a large size or ruptured is obviously the object to be aimed at, any new method of examination which would enable an early diagnosis to be made with increased confidence will be welcomed by those who have most to do with the disease.

As in several other cases, where ordinary clinical signs and symptoms have proved inadequate for diagnosis, recourse has been had to serological methods, and such good progress has been made that already, it may be assumed, the tentative stage has been passed, and there is some show of practical applicability. Although the subject is not yet more than six years old the output of literature dealing with it has already become very considerable. An important monograph on the serum diagnosis of hydatid disease has just been completed by Pfeiler of Berlin.[2] He enumerates over 120 references, representing work of some 70 independent observers. All the methods in common use in serum diagnosis have been applied, in particular the precipitin reaction, the complement deviation method with its several modifications, and the meiostagmine reaction. Chief attention has been directed to the first two, and with regard to them a large number of reliable observations are available. From these it may be gathered that the method which offers the most promise, which affords indeed a very sound and reliable means of diagnosis, is the complement deviation method. It would appear that it is certainly as least as reliable as the corresponding reaction in syphilis, and probably more so. Estimates vary as to the percentage of equivocal or erroneous results, but probably they do not greatly exceed 10 per cent.; a positive reaction may be regarded as almost absolutely diagnostic of *Echinococcus*. The antigen is specific to a very high degree. The only possible exception to this is afforded by some experiments of Meyer which go to show that animals harbouring *Taenia* in their intestine may exhibit a positive reaction. That the same applies to man has not yet been demonstrated, but the possibility is one which should be borne in mind. With regard to negative results there is one universally recognized source of error—namely, cases in which the cyst has become septic. Such cases almost invariably give a negative reaction. Most of the technical modifications employed in the case of syphilis—such, for instance, as those of Stern, Bauer, Hecht, and Noguchi—have been made use of, and successful results have been obtained with each of those by various observers.

In comparison with the complement deviation method the precipitin reaction has given much less reliable results. It is certainly accurate in a considerable percentage of cases, but unfortunately there appears to be no doubt that for some reason or other it fails in not a few instances. It has therefore not the absolute value of the deviation method, but it may be ascribed a certain importance as an aid to diagnosis. In regard to Ascoli's meiostagmine reaction, which is a surface tension phenomenon, much less work has been done, and the results are conflicting. Ascoli made two positive observations, and Izar ten; but, on the other hand, Weinberg and Jonesco-Mihaiesti report ten absolutely negative results.

More work will probably be required before the true value of this last reaction in hydatid disease can be ascertained. In any case, however, we appear to have obtained in the complement deviation method a very valuable and important means of diagnosing a highly dangerous disease. It remains to be seen whether Henius's encomium,[3] "one of the most brilliant advances of serum diagnosis," will be justified by results.

[2] *Zeitschr. f. Infektionskrankh. der Haustiere.* 1912. Bd. xii. Heft 1, pp. 70-96; Heft 2, pp. 153-169; Heft 3-4, pp. 255-304.

[3] *Deut. med. Woch.*, 1911, p. 1212.

BIRTHDAY HONOURS.

THE birthday honours list issued on June 14th made the announcement that the King had conferred a baronetcy upon Mr. Rickman John Godlee, President of the Royal College of Surgeons of England, Honorary Surgeon in Ordinary to the King, Surgeon to the University College Hospital, and Holme Professor of Clinical Surgery in the University College Hospital Medical School. Mr. Godlee, who graduated M.S.Lond. in 1873, and took the diploma of M.R.C.S.Eng. in 1872 and that of F.R.C.S. in 1876, was elected President of the Royal College of Surgeons in succession to Sir Henry Butlin last November. The list also contains the announcement that the King has conferred the honour of knighthood upon Mr. Berkeley G. A. Moynihan, F.R.C.S., Surgeon to the Leeds General Infirmary, and Professor of Clinical Surgery in the University of Leeds; upon Lieutenant-Colonel David Prain, F.R.S., late I.M.S., formerly Director of the Royal Botanical Gardens, Calcutta, and since 1905 of the Royal Botanic Gardens, Kew; Mr. John Bland-Sutton, F.R.C.S., Surgeon to the Middlesex Hospital; Dr. StClair Thomson, Physician for Diseases of the Throat, King's College Hospital, and Professor of Laryngology in the College; and Dr. Abraham Garrod Thomas of Newport, Monmouthshire, who was President of the South Wales and Monmouthshire Branch of the British Medical Association in 1900–1, and is now Chairman of the Monmouthshire Division, Consulting Physician and Chairman of the Board of Management of the Newport and Monmouthshire Hospital, which, largely through his exertions, was re-erected in 1895 on a better site with suitable surroundings. He was High Sheriff for Cardigan in 1900–1, and is a Justice of the Peace for Monmouthshire, Cardiganshire, and the County Borough of Newport. Surgeon-Major-General Alexander Frederick Bradshaw, C.B., who has been appointed K.C.B., served in the Indian Mutiny 1857–9 and accompanied the Zhob Valley Expedition in 1884 and the Hazara Expedition in 1891 as Principal Medical Officer. The following have been appointed as Companions of the Bath: Surgeon-General William Babtie, V.C., C.M.G., Deputy Director-General, Army Medical Service, and Colonel Robert N. Campbell, C.I.E., I.M.S., who served with the Naga Hills Expedition in 1877–80 and with the Akhla Expedition, 1883–4. The King has conferred the dignity of K.C.V.O. upon Professor Alexander Ogston, M.D., Surgeon in Ordinary to the King in Scotland, Consulting Physician to the Aberdeen Royal Infirmary, and Emeritus Regius Professor of Surgery, University of Aberdeen. The distinction of C.V.O. is conferred upon Mr. G. L. Cheatle, C.B., F.R.C.S., Surgeon to King's College Hospital and to King Edward VII Hospital, and upon Dr. P. Horton-Smith Hartley, M.V.O., M.D., Physician in charge of Out-patients, St. Bartholomew's Hospital, and Physician to the Brompton Hospital for Consumption, and upon Inspector-General Belgrave Ninnis, R.N. (retired) M.D. The distinction of M.V.O. of the Fourth Class is conferred upon Mr. Willie Netterville Barron, M.R.C.S., of Ascot, Surgeon-Apothecary to the Household of Their Royal Highnesses Prince and Princess Christian. The distinction of C.S.I. is conferred upon Surgeon-General Henry Wickham Stevenson, I.M.S.,

Surgeon-General to the Government of Bombay, and an additional member of the Council of the Governor of Bombay for making laws and regulations; and that of C.I.E. upon Lieutenant-Colonel Charles Henry James, I.M.S., Medical Adviser, Patiala State. The Kaisar-i-Hind Gold Medal for public service in India has been conferred upon M. R. Ry T. Madhaven Nair Avergal, M.D., a commissioner of the Madras Municipal Corporation. The distinction of C.M.G. is conferred on Dr. Andrew Balfour, Director of the Wellcome Tropical Research Laboratories at the Gordon Memorial College, Khartoum. The King has conferred the Decoration of the Royal Red Cross upon Miss Amy Nixon and Miss Mary Wilson, matrons, Queen Alexandra's Imperial Nursing Service.

THE PROPOSED EXTENSION OF THE GENERAL INFIRMARY AT LEEDS.

THE scheme for the enlargement of the Leeds Infirmary, of which we gave an account in our last issue, is one which must commend itself to all those who are interested in the welfare of the institution, whether that interest depends mainly on its charitable or on its teaching aspirations. As was pointed out in the description by our Leeds correspondent, there is but one general voluntary hospital in the city, and this is an advantage as leading to concentration of teaching and as guarding against overlapping in the dispensing of charitable benefits. Any one who studies the scheme in detail, more especially any one who is well acquainted with Leeds and with the surroundings of the infirmary, must be struck with the boldness of the scheme and with the enterprise which has been shown by the board in taking steps to secure the various properties required for carrying it out before the matter was made public. Especial credit is due to the chairman of the weekly board, Mr. Charles Lupton, for it was in his mind that the scheme originated, by him the board have been guided in completing the purchases, and he it is who has enlisted for the scheme the sympathy and the support which its intrinsic merits indeed should command, but which might not have been forthcoming had the presentment of the case from the point of view of the infirmary been in less capable hands. The cost of the scheme would of course have been much greater had the intentions of the infirmary as to the purchase of the adjoining property leaked out, and when one considers the large number of people who were of necessity cognizant of what was going on, it is, if not indeed matter for surprise, at least creditable that no such leakage did take place. After the matter was brought before the city council it was referred to a special committee, which we understand has reported favourably on the scheme as a whole, though there are some matters of detail calling for discussion and possibly amendment. There is, however, every prospect of the immediate requirements of the infirmary in the way of extension and improvement being generously met; provision will be secured for further extension when that is necessary, and a great public improvement will be carried out at a cost which will be much less than if the property had had to be purchased after the intentions of the corporation had been made public. It must be pointed out that the appeal for £150,000 was made at a time when the larger scheme was not in contemplation. As this larger scheme appears to be essential for the future development of the infirmary, it is unavoidable that a large proportion of the money must go in land. About £110,000 has been either promised or subscribed; should the terms mentioned in our last issue as having been submitted to the corporation be agreed to, then the infirmary will have expended some £50,000 in the purchase of land. If the public of Leeds and of Yorkshire generally desire an altar for their offerings we can commend none better to them than that which is afforded by the present and pressing requirements of the General Infirmary at Leeds.

THE PSYCHOLOGY OF "MARROWSKYING."

ALL actors live in dread of "marrowskying," that curious transposition of syllables which often illustrates the truth of the saying that from the sublime to the ridiculous there is but a step. The actor who said, "Stand back, my lord, and let the parson cough" (instead of "coffin pass") may have made a solitary slip, but in some persons "marrowskying" amounts to a veritable infirmity. We knew an excellent clergyman who was the delight of the more frivolous among his hearers because he was never known to preach a sermon without introducing a reference to a "farren big tree," or dwelling on the fact that "many are called but chew are fosen," ending the text with the impressing exhortation, "Be ye therefore of the fosen chew." We remember a fastidious lady shocking the porter at a railway station by telling him that she had only a "rag and a bug," meaning, of course, a rug and a bag. The name of the head of a famous college at Oxford has become proverbial for this kind of defect of speech. How does this kind of inversion arise? Professor Joseph Jastrow, the well-known American psychologist, says it is due to an "intrusion of the subconsciousness" of the speaker. We subconsciously construct our sentences before uttering them, and sometimes the preliminary framework gets mixed up with the permanent timber. According to the *Literary Digest*, Professor Jastrow says: "The complexity of speech requires the occupation with many processes at once, and some of these—the nicer, more delicate, less familiar ones—will receive the major attention, while the routine factors engage but a minor degree of concern. Slight fluctuations in the condition of the speaker—physiological ones, such as fatigue, and, for the most part, psychological ones, such as excitement, apprehension, embarrassment—will induce variations in the nicety of adjustment that are recognizable as typical slips of tongue or pen, and, still more significantly, of the tongue-and-pen-guiding mechanism. . . . There are the anticipations, the persistencies, the interchanges, the substitutions and the entanglements of letters, and of words and parts of words, and of phrases—all of them indicative of shortcomings in the minute distribution of attention and co-ordination." He gives a number of examples, and shows that "marrowskying" is not confined to the tongue, but occurs in writing. This is one of the many sources of error in copying printed or manuscript matter. The mind runs on ahead of the eye, and a jumble of syllables is the result. Should this by any chance happen to make sense, it leads to a corruption of the text which may have far-reaching consequences. Copyists' errors have been classified; it would be interesting if "marrowskyers'" blunders could also be classified and the etiology and mechanism of the condition elucidated. The occurrence of an accident of the kind engenders a fear of a repetition of the misadventure, which may lead a man to give up all attempts at public speaking.

RAG FLOCK REGULATIONS.

FOUR years ago inquiries were made on behalf of the Local Government Board by Dr. Reginald Farrar with respect to the manufacture and sale of unwashed rag flock, samples of which were examined bacteriologically by Professor Nuttall and Mr. Graham-Smith and chemically by Dr. F. C. Garrett, D.Sc. Mr. Cecil Warburton at the same time made an investigation into the possibility of vermin being distributed by means of this material. The reports of these investigators published in 1910 were very disquieting.[1] Dr. Farrar was able to show that the rags employed in the manufacture of the flock were of the lowest and cheapest grade, consisting generally of cast-off clothing and strips of old carpet, which might have been picked out from refuse heaps. From 70 to 90 per cent. of the flock was neither washed nor sterilized. Mr. Warburton found that lice and, *à fortiori*, their eggs,

[1] BRITISH MEDICAL JOURNAL, April 23rd, 1910, p. 1013.

might pass through the flock-making machine without being crushed, and that although the lice themselves were incapable of surviving more than three or four days without food, the eggs, which take a month or more to hatch, might quite possibly be found in bedding. One result of the disclosures made in these reports was the passing last session of the Rag Flock Act, which enables the Local Government Board to make regulations prescribing the standard of cleanliness which must be adopted for flock manufactured from rags. The Act comes into force on July 1st next, and after that date it will not be lawful for any person to sell or to have in his possession for sale rag flock which does not conform to such standard. The bacteriological examinations of rag flock which were made by Professor Nuttall and Mr. Graham-Smith led them to express the opinion that it was impracticable to set up a bacteriological standard of the purity of flock. Dr. Garrett was, however, more successful as regards a chemical standard, and he came to the conclusion that by estimating the amount of chlorine there would be little difficulty in discriminating between clean and dirty flocks. Dr. Farrar suggested that it would be reasonable to fix 30 parts of chlorine in 100,000 parts of flock as the permissible limit of impurity, and this is the standard which the Local Government Board has prescribed in the Regulations it has made under the provisions of the Act. The duty of administering the Act has been entrusted to the local sanitary authorities, the method of procedure following very closely that of the Food and Drugs Acts. The penalty for contravening the Act is for a first offence £10, and for a second or subsequent offence £50.

THE REMAINS OF NAPOLEON.

IN the lives of saints it is often stated that the body was found incorrupt long after death. For instance, the body of St. Charles Borromeo, preserved in a crypt in the great cathedral of Milan, is shown to the curious—for a consideration. It is said to be incorrupt, but a very cursory inspection shows that it is mummified. In other cases the flesh of the holy person has been transformed into adipocere. It is a fact, however, that decay may be delayed sometimes for centuries by natural causes, and thus there are many cases of the bodies of persons who have no claim to a place in the Calendar being found incorrupt. In a recent number of the *Journal Médical de Bruxelles* there is an article by Dr. Max Billard on the exhumation of Napoleon's remains in 1840. Although, owing to the lack of the necessary materials, it had been impossible to embalm the body after death, the remains were found in an almost perfect state of preservation. They were enclosed within four coffins, one within the other, one of mahogany, one of lead, a second of mahogany and one of tin-plate. When the last of these was opened the whole body was seen as if enveloped in a transparent cloud. The head of the conqueror rested on a pillow. The large head with the lofty brow was seen covered with yellowish, hard, and very adherent integuments. The same condition was observed about the contour of the orbits, on the upper edge of which the eyebrows were visible. Under the eyelids could be seen the eyeballs, which had lost little of their volume and shape. Some hairs were still seen at the free edge of the eyelids. The bones of the nose and the integuments covering them were well preserved; the nostril and the alae alone had suffered. The cheeks were puffy; the integuments of that part of the face were remarkable by their softness and suppleness to the touch and the whiteness of their colour. Those of the chin were slightly bluish. The chin itself showed no change. The thin lips were parted; under the upper one, which was a little raised on the left side, were seen three extremely white incisor teeth. The hands showed no change; "the skin seemed to have preserved that particular colour which only belongs to that which has life." It is interesting to recall that among those present when the remains were brought back to Paris was an old man of 74, representing, among so many heroes of the sword, that war-surgery in which he had won such renown. This was Larrey, clad in his old uniform, and wrapped in his campaigning cloak, leaning on the arm of his son Hippolyte. To him it may be remembered Napoleon left £4.000 as to the most virtuous man he had known. The remains are now enclosed in five coffins, made respectively of tin-plate, mahogany, lead, a second one in lead separated from the other by sawdust and pieces of wood, and one of ebony. For a long time the face of Napoleon was shown every year on August 15th, the anniversary of his birth. Crowds passed before his tomb; the upper part of the coffin was raised, and through a glass could be seen the face of the Emperor. But it is to be presumed that at length signs of decomposition became visible, and the order was given that the face should no longer be shown. M. Jean Richepin, the poet, has described what he saw. In a lecture delivered on January 25th, 1909, he said: "The General (M. Mellinet, then Governor of the Invalides) took us down into the crypt. . . . My father took me in his arms, raised me in the air, and I saw the Emperor. I have never forgotten that sight. I was eleven years old. What is seen at that age makes a deep impression, and nothing can remove from my brain that extraordinary image: the eyes closed, the beard slightly grown, the face of the whiteness of marble, on which spread some yellow spots which seemed a bronze. When there mingle in my memory that face of wax, showing some signs of decomposition which I have seen, and those eyes which I have seen, I see the Emperor truly as if I had known him." Dr. Billard attributes the preservation of the remains during their long repose at St. Helena to the hermetic closure of the coffins in which they were enclosed, preventing the access of the micro-organisms—the real "conqueror worms," to use Edgar Allan Poe's phrase—that cause decomposition.

TABLES OF STATISTICAL ERROR.

MANY biological and medical investigators are now fully alive to the importance of applying some quantitative test of the accuracy attaching to the results obtained from limited samples. Thus, having ascertained from a sample of 500 leucocytes that 15 per cent. of them are large mononuclears, what is the likelihood that another sample of 200, found to contain 12 per cent. of large mononuclear cells comes from the same "population" as the first? Numerous other questions of a similar kind often require an answer, and although in the majority of cases the problem presents no difficulty to a trained statistician, the laboratory worker may be puzzled to lay his hand upon the correct solution. Inquiries of this kind would be much facilitated by the existence of a set of numerical tables with a clearly worded introduction, and this has been a long-felt want. Sir Ronald Ross and Mr. Walter Stott have recently done a good deal to smooth the path of the laboratory worker in this way, and their *Tables of Statistical Error*[1] should receive a general welcome. The tables, which are provided with adequate numerical examples, will be found very useful in answering questions similar to that proposed above, and the labour involved in their preparation can only be realized by those who have themselves attempted to construct tables. It is, however, necessary to remark that there are limits to the applicability of these tables. The authors write: "If the observed result, *plus* the error, exceeds 100, or if the observed result, *minus* the error, is less than 0, we conclude that the number of things hitherto examined is not large enough to yield a useful result." This is

[1] *Tables of Statistical Error*. By Professor Sir Ronald Ross, K.C.B., F.R.S., and Walter Stott. (Reprinted from the *Annals of Tropical Medicine and Parasitology*, V. 1911. Price 2s. 6d. Liverpool: The University Press.)

hardly a sufficient account of a difficulty which will arise if the tables are used in all cases. The entries seem to have been based upon the assumption that what is called the "normal curve of probability" describes the frequency of random errors. As a matter of fact, this assumption is not justified in cases where the character measured occurs in a very small or a very large proportion of the population. Roughly speaking, we should say that the values deduced from these tables cannot properly be employed in testing samples which yield less than 10 or more than 90 per cent. of a character; in such cases the frequency distribution of deviations on either side of the most probable value is not symmetrical. We believe that tables covering these extremes will shortly be published, and in any case the medical worker should be thankful for Sir Ronald Ross and Mr. Stott's useful publication.

THE POLLUTION OF SWIMMING BATHS.

AT a recent meeting of the Medical Officers of Schools Association a discussion on the pollution of swimming baths was introduced by Dr. J. Graham Forbes, who gave an account of investigations he had made in connexion with a small swimming bath at the London County Council Industrial School in Drury Lane. An examination of the water in the bath before and after it had been used resulted in evidence being forthcoming of definite pollution, the micro-organisms which were found after a few days' use, but which were absent in the fresh water, including *B. coli communis*, *B. pyocyaneus*, and *Streptococcus faecalis*. Several methods of purifying the water in swimming baths have been introduced, one of the best known being that which has been applied for the past three years to the five public baths in the metropolitan borough of Poplar. Dr. Alexander, the medical officer of health of the borough, has for some years used for disinfecting purposes an electrolytic disinfecting fluid containing hypochlorite of magnesia, and which is said to yield 4 to 6 grams of chlorine per litre. This fluid has been added to the water in the Poplar swimming baths, when they are first filled, and again at intervals of two or three days, until the baths are completely emptied. Bacteriological examination of the water has shown that the fluid has a very distinct germicidal effect, and it is maintained that the water, from its purification, is far pleasanter to bathe in, is clear and invigorating, and free from the unpleasant odour so often associated with public baths. There must obviously be difficulties in directly connecting either a single instance or outbreaks of disease with the water in swimming baths, though an outbreak of typhoid fever in the Royal Marine Dépôt at Walmer in 1908, and investigated on behalf of the Local Government Board by Dr. R. J. Reece, was most probably due to the water of the swimming bath having become infected with specific organisms. There is, however, quite sufficient evidence of the possibility of pollution of public bath waters to warrant the utmost care being taken to minimize the dangers arising from such pollution.

THE CARRIERS OF SLEEPING SICKNESS.

IN the JOURNAL of April 27th, 1912, p. 969, reference was made to the remarkable new results obtained by Drs. Kinghorn and Yorke in the course of their investigations on sleeping sickness in Nyasaland and Northern Rhodesia. These investigations have brought to light several facts which are of the most far-reaching importance. In our previous note we dealt more particularly with the game "reservoir" question. Here we wish to draw attention to the matter of the "carrier"—namely, the tsetse fly. For some years it has been an accepted doctrine that the only tsetse fly which carries the disease is *Glossina palpalis*. Kinghorn and Yorke, however, have demonstrated that in Northern Rhodesia the "carrier" is *Glossina morsitans*. In correlation with this fact it must be remembered that the strain of trypanosome causing infection in Rhodesia is different from *Trypanosoma gambiense*. The outstanding importance of this new discovery is that it appears to prove that a much vaster expanse of the African continent is open to infection than was previously believed. It was one of the few consolations in connexion with sleeping sickness in Uganda and the neighbouring regions that the carrier of the disease was such a species as *Glossina palpalis*, which is of markedly restricted distribution. The fact that this tsetse fly is confined to certain localities, and is rarely found at any great distance from water, gave a complexion of comparative simplicity to the problem of dealing with it. The entry of *Glossina morsitans* as a "carrier," however, places a much more serious aspect on the whole matter. Its distribution is very much wider than that of *Glossina palpalis*, and it is not handicapped by the necessity of living close to water. It is on that account a much more formidable transmitter of disease. The full significance of these new facts and their bearing on administrative measures have been discussed by Dr. Oylmer May, Principal Medical Officer of Northern Rhodesia, who, in an address delivered to the South African Branch of the British Medical Association at Johannesburg, gave a detailed account of the work of Kinghorn and Yorke and other members of the Sleeping Sickness Commission in Rhodesia. So far as known at present, there are only three affected areas in this region, namely, the shores of Lake Tanganyika, the banks of the river Luapula, and the Luangwa Valley. In the first two areas the "carrier" is *G. palpalis*, in the third *G. morsitans*. It was the occurrence of cases of the disease in this last-named district and the absence of *G. palpalis* which first drew attention to the necessity of incriminating some other "carrier." That *G. morsitans* has been found guilty accords with the views held by some authorities for some years past. It has been shown, further, by Kinghorn and Yorke that a single feed on an infected animal renders a fly infective, and that it remains infective all its life. An added source of danger is that infected animals may harbour the trypanosomes and yet show no signs of disease. The administrative problem has been rendered exceedingly more complex by these new findings. The difficulties of the situation are serious enough even in the case of *G. palpalis*, but there is no doubt that its evil influence has been materially arrested by the expedient of removing the population from the infected areas. In the Luangwa Valley, however, even this measure is denied us. The population there is comparatively large and difficult to handle; it would be an enormous task to transfer them all to positions of safety, and, moreover, they are not particularly anxious to be interfered with in such a manner. This measure, however, is being adopted to the modified extent to which it is practicable. We are again faced with the old question of destruction of game and destruction of flies. Dr. May is not one of those who favour the former measure. He sees more hope in the fact that the British South Africa Company is about to appoint a staff of expert entomologists to investigate the whole question, and to determine the manner best suited for dealing with and destroying the flies. With regard to the extension of the disease further south, a certain measure of safety is afforded by the Zambesi river. No sleeping sickness has yet occurred south of this, and stringent precautions are being taken to prevent infected persons crossing, and so spreading the disease.

HOSPITALS AND RELIEF COMMITTEES.

IN the *Charity Organization Review*[1] for June there appears an article by the almoner of St. Thomas's Hospital, entitled The Co-operation between Hospitals and Relief Committees, which is deserving of attention.

[1] London: Longmans, Green and Co.

It is an admirable summary of what is being done through voluntary workers to assist the deserving poor in various ways, and to promote the teaching of sanitary science among the masses. It shows how much can be done by sympathetic and intelligent health visitors to improve the condition of many of the sick and helpless poor by seeing that the advice of the medical men they have consulted is carried out in their homes as far as possible, and thereby rendering efficacious what otherwise would have been of little utility. Amid the hurry and rush of the out-patient department the sufferer is apt to be confused by the directions given by the consultant, often ignorant of his or her home conditions; and although, if regarded intelligently, they might often be conveniently modified by the patient to suit his or her particular case, unfortunately, it too often happens that the intelligence is lacking, and the advice is like the good seed that fell by the roadside. The health visitor supplies this intelligence, and points out to the patient how the advice may be utilized, and how by some little variation in the home life very considerable advantage may be obtained from it. But it is not all health visitors who can do this, and the almoner alludes to a class—we fear it is rather a numerous one—which makes all kinds of impossible suggestions, and whose members are satisfied and think their duty done, after inculcating a few well-recognized health laws, which, however good they may be in the abstract, are quite useless until their application to the concrete case in question has been explained. To cut the coat according to the cloth is a trite adage, and must never be forgotten by sanitary reformers when dealing with the homes of the poor. The writer speaks with some enthusiasm of the "system of social service" that has sprung up in our midst, and says that without its co-operation it would be impossible to attempt half the work that is now done. It is in this respect that so much has been gained. In the past there was a greater waste, but modern methods bid fair to check this regrettable loss of power. In the complexity of the present social system, co-ordination and co-operation are the key to progress, and we may well wish success to the work that is here so ably delineated. It is divided into two parts, (1) dealing with material relief, (2) the system of friendly visiting, and it is only by a combination of the two that really good results can be expected to be obtained. The illustrations given are simple and convincing, and we cordially commend the article to all interested in the welfare of the poor. There are many difficult problems to be faced in connexion with the subject, but it may be safely admitted that in following the lines here laid down, we are on sure ground. Whatever modification of our abstract views the future may bring about, whatever system in dealing with these problems may finally be adopted, work of this kind will always have its value, and will adjust itself to the practical carrying out of that which science and experience teach us is most desirable.

ERRORS IN OPHTHALMOSCOPIC DIAGNOSIS.

The difficulty of making an exact diagnosis in many borderline cases by the use of the ophthalmoscope is familiar to everybody who is accustomed to employ that instrument. To determine whether the appearance of the optic discs in any given case is pathological, or is only some extreme degree of what may be found within the limits of the physiological, is by no means a rare experience for even the most expert ophthalmologist, even when he has the assistance afforded by the history of the case and by tests of the extent or acuity of the vision. In other words, the normal fundus oculi presents most variable pictures in different individuals, and may even be ophthalmoscopically indistinguishable from the diseased fundus. Professor Salzer of Munich has recently drawn attention once more to this well-known fact, describing in text[1] and pictures a number of the variations in the normal disc that may simulate such pathological states as optic neuritis or optic atrophy. His coloured pictures show very clearly how the colour of the optic disc, the sharpness of its margins, the prominence with which it stands out beyond the rest of the fundus, and the arrangement or tortuosity of its blood vessels, may simulate disease. Thus the healthy disc may be almost white, whether from deep physiological excavation or from other cause, giving the appearance of total optic atrophy. Professor Salzer leaves it uncertain how far this healthy pallor may be due to poverty in capillaries, to greater or less transparency of the non-medullated fibres of the optic nerve, to variations in the density of its neuroglia, or to the persistence of medullated fibres further forward in the papilla than is normal. He is of opinion that such terms as "pallor," "redness," and "temporal pallor of the papilla" should be employed with great reserve, except in cases that have been under observation for some time. In the same way he points out that a normal blurring of the edges of the disc, particularly by means of fine radiating streaks that seem to spread from its centre and are reflections from non-medullated nerve fibres, may be very hard to distinguish from a pathological blurring. And in some instances swelling of the disc may be closely imitated by the non-pathological projection forward of one of its vessels, the vessel being accompanied by the retinal elements in its vicinity. But it is when these variants in colour, margination, and projection are combined that the greatest difficulties in diagnosis are encountered, and neuritis may be suspected when nothing worse than pseudo-neuritis—the bark without the bite—is present.

[1] *Diagnose und Fehldiagnose von Gehirnerkrankungen aus der Papilla nervi optici.* Von Professor Dr. Fr. Salzer. Munich: J. F. Lehmann. 1911. (Roy. 8vo, pp. 18; 29 illus. M. 1.50.)

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

The seventy-first annual meeting of the Medico-Psychological Association of Great Britain and Ireland will be held on Thursday and Friday, July 11th and 12th, at Gloucester, under the presidency of Dr. James Greig Soutar, Medical Superintendent of Barnwood House, Gloucester. The business meeting will be held in the morning of July 11th, when among other reports from committees one on the medical inspection of school children will be presented, and a proposal to elect as honorary members Dr. Thomas Ivor Considine, Superintendent of Lunatic Asylums, Ireland, and Dr. Henry Maudsley, will be made. After luncheon the President will deliver an address, and papers will be read by Dr. J. F. Briscoe on appendicitis in asylums, and by Dr. McKinley Reid on the bacteriology of diarrhoea, with special reference to asylum dysentery. The discussion on Dr. Bernard Hart's paper on a case of double personality will then be resumed. The annual dinner will take place that evening at the Guildhall. On Friday morning, a discussion on mental deficiency will be opened by Dr. Theo. Hyslop. On Wednesday, July 10th, when certain committees will meet, the Gloucester County Asylums (at Wotton and Barnwood) and Barnwood House will be open to inspection both morning and afternoon, and on Friday afternoon Dr. and Mrs. Soutar invite members to a garden party and pastoral play at Barnwood House. On Saturday excursions will be made to Berkeley Castle and Church.

AN EXHIBITION OF INSTRUMENTS AT THE COLLEGE OF SURGEONS OF ENGLAND.

The Annual Show of additions to the Museum of the Royal College of Surgeons of England will be held on July 4th and 5th from 10 a.m. to 5 p.m., and on July 6th from 10 a.m. to 1 p.m. On this occasion a remarkable array of instruments will be on view. The first place must be given to a collection which has been presented by the executors of the late Lord Lister through the President, Sir Rickman Godlee. It comprises surgical

instruments, appliances used in early researches, records and tracings of experiments, drawings, and pathological specimens. The manuscripts of published papers and the clinical records which were bequeathed to the College are now in the library. A fine collection of obstetrical and gynaecological instruments, formerly the property of the Obstetrical Society of London, has been presented to the College by the Royal Society of Medicine. This collection includes a great part of the celebrated series exhibited at a conversazione held by the Obstetrical Society at the Royal College of Physicians in 1866. Some foreign pelvimeters of beautiful workmanship deserve inspection, but their actual utility seems questionable. The modern obstetrician will view almost with amusement the huge cephalotribes collected from foreign parts fifty years since. It was questioned then, even by Barnes and Braxton Hicks, whether British instruments were superior or inferior to the heavy weapons employed in feticidal operations abroad. The Obstetrical collection will be most instructive to the visitor to the Annual Show, as it marks what progress has been made since 1866, above all in Caesarean section. Most significantly, it will be on view side by side with the instruments actually employed by Lister.

BELL *v.* BASHFORD AND THE "BRITISH MEDICAL JOURNAL."

THE report of the trial of the action brought by Dr. Robert Bell against Dr. Bashford, Director of the Imperial Cancer Research Fund, and the British Medical Association is concluded in this issue. The summing-up of the Lord Chief Justice, the judge who tried the case, is published in full (page 1461) from the shorthand writers' notes. The jury found a verdict for the plaintiff, with damages of £2,000.

THE University of Liverpool will hold a special convocation on July 26th, during the Annual Meeting of the British Medical Association, at which honorary degrees will be conferred.

DR. C. J. MARTIN, F.R.S., Director of the Lister Institute of Preventive Medicine, London, has been elected an honorary member of the Royal Society of New South Wales.

A MEMORIAL service in honour of Robert Koch was recently held in a temple dedicated to him, which has been erected at Tokyo. The temple owes its origin to the pious care of Professor Kitasato. Among those present at the service were the widow of Robert Koch, the German Ambassador, and a number scientific men and Government officials.

IN order to facilitate the arrangements, it is very desirable that members intending to be present at the Annual Meeting at Liverpool should fill in and dispatch the form printed at page 607 of the SUPPLEMENT of June 8th. On the receipt of the form duly filled in, railway vouchers enabling members and their friends to travel to Liverpool and back at the rate of a single fare and a third will be supplied.

A BAZAAR in aid of the Hospital for Women and Children, Harrow Road, is to be held at the Knightsbridge Hotel on June 27th and 28th. The first day's proceedings will be opened by H.R.H. Princess Henry of Battenberg, who will receive purses presented by children, and the second day's proceedings by the Right Hon. the Lord Mayor of London. On each day the doors will be open from 2.30 p.m. to 10 p.m., the prices of admission at various hours ranging from 5s. to 1s. on the first day, and from 2s. 6d. to 1s. on the second day. The Chairman of the Committee of Organization is Mr. Ernest Lane.

THE INSURANCE SCHEME.

STATE SICKNESS INSURANCE COMMITTEE.

Thirteenth Meeting.

THE thirteenth meeting of the State Sickness Insurance Committee was held on June 12th.

Mr. T. JENNER VERRALL was in the chair, and the members present were: *England and Wales:* Dr. R. M. Beaton (London), Dr. John Brown (Bacup), Dr. T. M. Carter (Westbury-on-Trym), Dr. R. E. Howell (Middlesbrough), Dr. S. Hodgson (Salford), Miss Frances Ivens, M.S. (Liverpool), Dr. Constance E. Long (London), Mr. James Neal (Birmingham), Dr. F. H. Oldham (Morecambe), Dr. James Pearse (Trowbridge), Dr. E. O. Price (Bangor), Dr. Lauriston E. Shaw (London), Dr. W. Johnson Smyth (Bournemouth), Dr. D. G. Thomson (Thorpe, Norfolk), Dr. D. F. Todd (Sunderland), Mr. E. B. Turner (London), Dr. A. H. Williams (Harrow on the Hill), Mr. D. J. Williams (Llanelly), Mr. E. H. Willock (Croydon). *Scotland:* Dr. J. Adams (Glasgow), Dr. Bruce Goff (Bothwell), Dr. R. McKenzie Johnston (Edinburgh), Dr. J. Munro Moir (Inverness). *Ireland:* Dr. Mark Cahill (Belfast), Dr. J. S. Darling (Lurgan). *Ex Officio:* Dr. J. A. Macdonald (Chairman of Council), Dr. E. J. Maclean (Chairman of Representative Meetings), Dr. E. Rayner (Treasurer).

A part of the proceedings of this meeting, including the interview which the Committee had, as a deputation, with the Chancellor of the Exchequer and the Insurance Commissioners, was reported in the JOURNAL of June 15th, p. 1384 et seq.

We are enabled to publish the following account of the remaining proceedings in anticipation of the confirmation of the minutes.

The minutes of the last meeting of the Committee, held on June 7th, 1912, were confirmed, and signed by the Chairman as correct.

SUBCOMMITTEE OF ADVISORY COMMITTEE FOR DRAFT REGULATIONS.

The Chairman reported that at the meeting of the Advisory Committee the previous day it had been suggested that a small medical subcommittee, consisting of, say, ten members, half to be appointed from the medical members of the Advisory Committee selected by the Commissioners and half from the members of that Committee appointed by the Association, should be appointed to assist the Commissioners in the actual drafting of regulations, and that he understood that such subcommittee would commence its work after the results of the recent meeting of the medical section of the Advisory Committee had been considered by the Advisory Committee as a whole.

The Committee resolved as follows:

That the following members be suggested to the Insurance Commissioners for appointment upon any subcommittee of the Advisory Committee appointed to assist the Commissioners in drafting regulations under the Act: The Chairman (Mr. Verrall), Dr. R. M. Beaton, Mr. James Neal, Dr. D. F. Todd, Mr. E. B. Turner.

INCOME LIMIT.

In the course of a discussion which took place during the meeting of the Committee before the deputation that day, it was agreed that if necessary the following elaboration of the Association's demands with regard to the income limit should be placed before the Commissioners:

The claim is that whenever an Insurance Committee shall make arrangements with medical practitioners to provide insured persons with ordinary medical attendance at a specified capitation grant per annum, or at a fixed rate per visit, notice shall be given to each insured person that his right to participate in the arrangements made on his behalf by the Insurance Committee is liable, at any time, after due notice, to be withdrawn, should he, if called upon to do so, fail to make a declaration carrying penalties under the Act which satisfies the Committee that his average income from all sources does not exceed £104 per annum or such lower sum as may be agreed upon between the Insurance Committee and the local Medical Committee, and that if such right be withdrawn the insured person will, in lieu thereof, receive from the Committee to assist him in making private arrangements for

his medical attendance a sum of money equal to that which would have been expended to secure his medical attendance in the ordinary way.

The Insurance Committee shall call upon any insured person to make declaration that his income is below the agreed limit when requested to do so by the Medical Committee or by any person to whom the right of challenge is given.

Provisional Medical Committees.

It was reported that 191 provisional medical committees had been formed, being an increase of three since the last meeting of the Committee.

Examination of Candidates for Approved Societies.

A communication was received from a provisional medical committee asking the two following questions, to both of which the Committee resolved to reply in the negative:

1. An approved society desires to retain one's services for admission of candidates. If the member, who has signed the pledge, consents to do so, for a fee, paid by the Society, is he violating his pledge?
2. An applicant for admission to an approved society presents himself for examination to a member who has signed the pledge, with the distinct intimation that he desires to join an approved society. If the member examines him, gives him a certificate of health and accepts a fee from the applicant, is he violating his pledge?

Sanatorium Benefit.

The position of practitioners in respect of the administration of sanatorium benefit was raised by inquiries received, and it was resolved:

> That, in view of Minute 78 of the Special Representative Meeting, February, 1912, no medical appointments be accepted for the administration of sanatorium benefit until such time as the minimum demands of the profession are conceded.

It was resolved to call the attention of the secretaries of Divisions and provisional medical committees to the above resolution, and also to the resolution adopted by the Committee on June 7th with reference to medical practitioners serving on provisional insurance committees. The resolution pointed out that the Committee had informed the Insurance Commissioners that, acting under the decisions of the Special Representative Meeting of February, 1912, it was impossible for the Association to assist the Commissioners by obtaining through their provisional medical committees the names of representatives for the suggested provisional insurance committees until such time as the Association was satisfied that the minimum demands of the profession in regard to the Act are, or will be, conceded, and added that, so far as practitioners are concerned, who are members of county or county borough councils, and who are appointed by their councils *qua* members to fill positions which could equally well be filled by laymen, and not *qua* medical practitioners to fill positions which could only be filled by medical practitioners, the Committee raises no objection to the acceptance of such appointments.

At a later part of the meeting—namely, after the interview with the Chancellor of the Exchequer—the question of the administration of sanatorium benefit and the relation thereto of Minute 78 of the Special Representative Meeting of February, 1912, was again discussed, and the Committee resolved as follows:

> That the Insurance Commissioners be asked whether the Association may expect shortly to learn the arrangements that are proposed to be made with regard to sanatorium benefit.
>
> That the Insurance Commissioners be asked whether there is any possibility of the date at which the sanatorium benefit will come into force being postponed in order that the arrangements proposed may be considered by the Representative Meeting of the Association on July 19th next and the following days.

Scottish Medical Insurance Council.

A communication from the Colliery and Public Works Surgeons Committee of the Scottish Medical Insurance Council having been read, the Committee expressed its appreciation of the fact that the Scottish Medical Insurance Council was working in harmony with the Association in the matter of the signing of the supplementary pledge and the handing in of resignations to the Provisional Medical Committees by holders of colliery and works appointments.

Pledge by Members of Hospital Staffs.

A communication was read from the Honorary Secretary of the Leicester and Rutland Division stating that the local infirmary staff had unanimously agreed to sign the following pledge, which was not exactly the same as that issued by the Committee, the local profession having modified it so as to strengthen the position of their Public Medical Service.

> We, the undersigned, individually and severally hereby place in the hands of the Secretary of the Leicestershire and Rutland Public Medical Service our resignation (to take effect on the 31st December, 1912, or such earliest date thereafter as the same can be lawfully terminated) of all club, friendly society, dispensary, and other forms of contributory contract appointments which we hold, and we authorize him on behalf of each and every of us to give notice of such resignations respectively or to tender such resignations respectively on behalf of each and every of us to the bodies concerned, if and when he is called upon by the Public Medical Service Central Committee to do so. We also undertake not to accept any appointment so resigned, and we will not render any professional service on a contract basis to persons who come within the wage limit laid down by the respective Subdivision Committees of the Leicestershire and Rutland Public Medical Service except on terms approved by the respective Subdivision Committees in the said counties.
>
> After that portion of the National Insurance Act referring to medical benefit comes into operation, and until the terms and conditions of administering medical benefit under the Insurance Act have been approved by the profession, we will not, except in cases of urgent necessity, render professional services to an insured person through any medical charity unless he be a subscriber to the Leicestershire and Rutland Medical Service, or be receiving medical attendance privately on terms approved by the said service; and we will not co-operate with any member of the profession who is under contract to render service to insured persons upon terms which are not approved by the profession.

The Committee resolved to inform the Division that it was of the opinion that the pledge issued by the Association was such as was most applicable to the whole country.

Next Meeting.

The meeting adjourned at 9.15 p.m., having resolved to meet again on Thursday, June 20th, at 10.30 a.m.

Medical Notes in Parliament.

The Insurance Act.

Postponement Proposed in the House of Lords.

There was quite an interesting debate in the Lords last week, when Lord Henecage moved:

> That it is most essential, in the interests of all those affected by its provisions as well as of the taxpayers and ratepayers of England, that the operation of the Act should be postponed by a Privy Council Order under the powers given in the Act until January 1st, 1913, in order to give sufficient time to the official Commissioners to understand and explain its provisions, and, if necessary, to suggest such amendments as will render the Act workable and really beneficial as a scheme of national insurance.

He appealed to the Government to give his resolution their friendly consideration. The first list of approved societies was only published on Friday last, no terms had yet been made to the medical men, and only last week a circular was sent to all the county councils asking them for their regulations with regard to sanatoriums. Although only about a month intervened before the date fixed for the Act to come into operation, nothing had yet been decided with regard to medical and sanatorium benefit, and he was satisfied that in the interest of the Act itself and of the system of national insurance, the date of its coming into operation should be postponed.

Lord Camperdown, who seconded the motion, said that it seemed to him that the bill was being brought into operation absolutely regardless of cost. He doubted if the Chancellor of the Exchequer cared what it would cost if he could bring it into operation on July 15th, that he might go about and point to an enormous benefit given to the people.

Lord St. Audreys supported the motion in consequence of the confusion as to the intentions of the bill in the

minds of the farmers, agricultural labourers, and rural residents.

The Marquess of Crewe said that the Government, far from objecting to this discussion, welcomed it, because they recognized that there did exist, particularly in the remoter parts of the country, uncertainty as to the actual provisions of the Act, and still more perhaps as to what was going to happen when it came into operation. He also fully recognized that the attitude of noble lords opposite was not one of hostility or fundamental objection to the Act as an Act. The ideal of noble lords opposite was that the measure should not come into operation until everything was cut and dried, until everything, in fact, in relation to the Act was comprehended by practically everybody concerned. The view of the Government, however, was that that was an impossible manner in which to deal with a measure of this kind. Their view was that this measure was one to which it was necessary to apply the principle of *solvitur ambulando*; that it was only in that way that it would be possible by the discovery of error to bring such an Act into full and complete operation in this country, in which the people's main dread was of being bureau-ridden. On the question of delay, the argument of the Government was that even if they postponed the coming into operation of the Act they would not be able to bring the process of explanation and information home until the Act was actually in operation. When the Act was actually in operation the public interest would be increased to a large and almost a surprising extent. He fully admitted the difficulties which attached to the dissemination of information, and particularly in the rural districts. Speaking generally, he could not believe that the Government would be wrong in starting the machinery in the manner proposed. It was inseparable from a great measure of this kind, involving so much novelty in principle and detail, and affecting hundreds and thousands of people not accustomed to study details closely, that there should be some confusion as to details; but he remained unconvinced that that state of things would be at all bettered by a postponement for three, or even six, months to an extent which would outweigh the inconvenience which must necessarily result from postponement.

The Marquis of Lansdowne said, in reply, that it was not insisted that everything should be cut and dried before the Act came into operation. He might well believe that there were points and difficulties unsolved when the Act came into operation, but the desire was to emerge from the region of chaos and confusion. The noble marquess had suggested the method of *solvitur ambulando*. But suppose they ambled into a quagmire. Was he quite sure that these experiments *in corpore vili* might not result in very great hardship and injustice to a number of people. The fact was that the successful operation of the Act depended on a vast network of machinery of any extraordinarily delicate character; and it had been shown that that machinery, far from being ready to be set in motion at an early date, was out of gear and incomplete. The House of Commons lately passed without a division a resolution that the Act would fail to afford the medical benefits until the co-operation of the doctors was assured. Were the Government in a position to hold out any hope that the co-operation of the doctors had been secured? The doctors had been alternately cajoled and intimidated, but, so far as he had been able to observe, neither the cajolery nor the intimidation had been successful in driving them away from their point. It would be interesting to know whether, supposing His Majesty's Ministers were not able to come to terms with the doctors, they had in view any other plan for obtaining the assistance of the medical profession. Was it their intention to bring in the "strike breakers" for the purpose?

The Lord Chancellor (Lord Haldane), who was received with cheers, said that no one who had listened to the debate could regret that it had taken place. It had given evidence of interest in, and study of, the subject, and had brought out points of difficulty to be made clear. The present issue was whether it would not be better to postpone bringing the Act into operation. There were good reasons against postponement. He was well aware of the difficulties, well aware of the time taken, but he reminded the House that the object had been to work the Act through existing societies, and to postpone the coming into operation would injure the societies in a very serious way, a number of them were already dropping off, and they would regard postponement as a great evil. People could not learn to swim without going into the water, and one of the advantages of bringing the Act into early operation was this—that they would all learn to swim. The Government thoroughly realized the position as regarded the doctors, and the extreme desirability of carrying them with them in a cordial spirit, and of enlisting their co-operation in this great experiment; but in view of the delicate negotiations that were going on, he thought it was undesirable that he should say more on the subject at present.

The motion was then negatived without a division.

Sanatorium Grant (Ireland).—Sir John Lonsdale asked whether the sanatorium grant under the National Insurance Act would be allocated among the counties in Ireland on a basis of population; and whether, if grants under the Act were applied for by voluntary associations to be used for the establishment of sanatoriums or other purposes for any of the counties in Ireland, the councils of those counties would be consulted by the Local Government Board before such grants are recommended to the Treasury? Mr. Birrell: While any exceptional incidence of tuberculosis and economic differences might be taken into account as modifying factors, population would be the primary basis of distribution of the grant by the Local Government Board between the several county areas in Ireland. The circular issued by the Local Government Board to secretaries of county councils and town clerks on May 20th stated that the Local Government Board would notify to each county council any applications for grants by voluntary associations for the service of that county. Mr. Birrell, in answer to further questions, said an application had been received from the Women's National Health Association for a Government grant from the sums at the disposal of the Insurance Commissioners for this particular subject. That grant had been most favourably acceded to by the Treasury. Assent had been given to a sum to be placed at the disposal of the association under the Local Government Board's supervision.

The Mental Deficiency Bill.

Mr. McKenna, in moving the second reading of this measure, said he could not hope to get the second reading of this bill with such unanimity as the last, because on this subject the flag of individual liberty had been raised, but he hoped to be able to convince his hon. friends that the provisions of this bill would not assail any of the accepted principles of individual liberty. The bill would not interfere with the individual liberty of the subject in the case of the feeble-minded any more than we already interfered with that liberty now. Under the existing law, when we clapped the feeble-minded into prison, when we put them into workhouses, and when we taught the children in special schools we interfered with the individual liberty of the feeble-minded person. Unfortunately we interfered with that liberty in the wrong way. The feeble-minded person ought not to be dealt with in prison for an offence which was no more than the offence of being feeble-minded, and he ought not to be treated in the workhouse, because his case was one in which workhouse treatment was no good to him. But treatment in a suitable home, if it did not cure him, would give him a prospect of leading a fairly honourable life. A man was not sent to the homes in perpetuity. A feeble-minded person was only sent to a home after being committed by a Court of Summary Jurisdiction. A medical certificate had to be obtained and the right of appeal was given. He would be prepared to consider any criticism on that part of the bill in Committee. The majority of the cases which would be dealt with under the bill would be those of persons who were now sent to lunatic asylums or kept in workhouses. They were only providing an appropriate method of dealing with persons who were now dealt with most inappropriately. There had been considerable criticism of the bill on account of the definition of defective persons. Most of these critics had evidently not read the whole of the definition. Clause 17 provided that the persons subject to be dealt with under the Act should be persons who were defectives and were

found to be wandering about neglected or cruelly treated, or who were charged with the commission of any offence or were undergoing imprisonment or penal servitude or detention in a place of detention or a reformatory or industrial school, or an inebriate reformatory, or who were habitual drunkards, or in whose case it was desirable in the interests of the community that they should be deprived of the opportunity of procreating children. This, he admitted, was a particularly debatable point to be more closely examined in Committee. The clause was also to apply to persons in whose case such other circumstances existed as might be specified in any order made by the Secretary of State. That also was a case which the House would naturally wish to examine very closely in Committee. Compulsion was undoubtedly an element of the bill. The first compulsion in the bill was compulsion on the local authority to make an investigation relative to the feeble-minded persons within its area, and to provide for them. There was a limitation, however. There was no compulsion on the local authorities to provide and maintain homes for feeble-minded persons beyond such number as that for which the State contributed. The power was given to the local authority to provide for all the feeble-minded within their area, but they were under no compulsion to exercise that power if their means did not allow. In order to start the local authorities' work it was proposed that there should be a payment from the Exchequer of £150,000 a year. There would no doubt be economies in respect of people taken out of the workhouses, lunatic asylums, and prisons. It must also be borne in mind that to a considerable extent the feeble-minded homes would be self-supporting. He was therefore not without hope that while the grant of £150,000 would not cover the whole ground, it would be sufficient to enable the local authorities to make a substantial start in the work which lay before them. The local authorities were to act through a committee of their own, and were bound to appoint medical and other officers to assist them in carrying out the Act. They must keep a register of the defectives within their districts, and provide accommodation for those requiring custody. Power was given to the Secretary of State to establish and maintain prisons for dangerous criminals.

Sir P. Magnus: Can the right hon. gentleman explain the chief differences between this bill and the private member's bill the second reading of which was passed recently?

Mr. McKenna said that the difference was that this bill threw compulsion on the local authority to inquire into the feeble-minded within its area, to keep a register of them, and provide accommodation subject to the limitation of the amount of money provided by the State. In the private member's bill there were no compulsory powers or means of meeting the cost. They proposed to set up a body of Commissioners who would be the Commissioners for the Feeble-minded, very much on the same lines as the Prison Commissioners were the Commissioners for dealing with all questions of prisoners and prison treatment. The bill had been limited to the actual needs of the case, and he thought it provided all the necessary securities against unjustifiable interference with individual liberty, against any measure which would shock or even go far in advance of instructed public opinion.

After critical speeches from Mr. Leslie Scott and Mr. Wedgwood the bill was read a second time. It consists of 68 clauses.[1]

Vivisection. Sir P. Magnus asked the Home Secretary whether his attention had been called to a shop in Piccadilly and to one recently opened in Oxford Street, in which were exhibited stuffed animals tied down for an imaginary operation and suggesting that animals were tortured by vivisection; and whether, having regard to the congestion of passenger traffic due to the nature of such exhibits and the bad effects thereby produced on sensitive and uninformed people, he would take steps to prevent the public display of such shows. Mr. McKenna said: My attention has been drawn to these shops, but the police report that they have not caused any congestion of traffic. I regret that I have no power to prevent such displays. The persons responsible for them can only damage their cause by adopting methods which are calculated to spread the false belief that in this country cutting operations are allowed to be performed on animals without anaesthetics. The recent report of the Royal Commission condemned this method of propaganda. Mr. Chancellor asked the Home Secretary whether it was not a fact that these illustrations were illustrations of actual experiments; that the instruments shown were themselves for sale; and that the illustrations were taken from medical publications? Mr. McKenna: I understand that my hon. friend was in conflict with the report of the Royal Commission on the subject. I can only remind him that the whole of the circumstances were carefully considered by the Commission, and that they reported against this particular form of propaganda. Mr. Chancellor further asked the Home Secretary whether, although the Cruelty to Animals Act, 1876, purported to protect animals from suffering through vivisectional experiments, persons licensed under the Act were allowed to hold certificates enabling them to perform experiments without anaesthetics and to keep animals alive after the effects of the anaesthetic had passed off; and whether his attention had been called to the statement made before the Royal Commission by Sir William Byrne, of the Home Office, that the framework of the Act was to lay down a number of very strict conditions and then to allow all except three to be removed by certificate; and whether, under these circumstances, he could see his way to introduce legislation dealing with this state of affairs. Mr. McKenna said the Act provided for the grant of the special certificates referred to, but the scope and operation of these certificates could not conveniently be stated within the limits of an answer in the House. They were fully described in the report of the Royal Commission, and it was, he believed, well known that vivisection in the sense of cutting operations without anaesthetics was not allowed in this country. He was aware of the statement quoted, and could only repeat what he said in reply to a recent question, that all the recommendations of the Royal Commission were being carefully considered.

Work in Potteries (Lead and Dust).—Mr. Noel Buxton asked the Secretary of State for the Home Department whether any fresh action had been taken to put into force the proposed rules for the regulation of work in potteries in respect of lead and dust; and whether he was aware that nearly two years had elapsed since the report of the Departmental Committee was issued. Mr. McKenna said that, as he had stated in reply to a question on April 30th, he had arranged for the objections which had been received to the proposed rules to be discussed in conference between the chairman of the Departmental Committee and the objectors, with a view, if possible, to arriving at a settlement without the holding of a formal inquiry. Conferences for this purpose were now proceeding. He was aware that two years had elapsed since the Committee presented its report, and he had already explained in his previous reply, and also in a reply to the hon. member for Durham on December 8th last, why it had not been possible to bring the proposed rules into operation more speedily.

Hospitals and Telephone Service.—Mr. Stuart Wortley asked the Postmaster-General whether it was the practice of the National Telephone Company to grant to hospitals specially favourable terms in the form of reduced rates; whether, since the transfer to the State, these favourable terms had been in all or any cases withdrawn; and, if so, whether it was intended to persist in such withdrawal. Captain Norton said that the National Telephone Company came to the conclusion that such reductions ought not to be allowed and they began to discontinue the practice some years ago. At the time of the transfer the hospitals generally were paying for their services at public tariff rates, but a small proportion were still receiving reductions which were now being discontinued. A general obligation was imposed upon the Postmaster-General by statute not to show favour or preference; and this obligation precluded preferences such as those mentioned, and required him to provide telephone services on uniform terms as telegraph and postal services were provided.

[1] See BRITISH MEDICAL JOURNAL, May 25th, p. 1193.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

LIVERPOOL AND DISTRICT.

JOINT SANATORIUM.

AT a meeting of the St. Helens Health Committee on June 12th proposals in connexion with the erection of a joint sanatorium were discussed. The committee confirmed the minutes of the conference of representatives of Bootle, St. Helens, Warrington, Leigh, Widnes, and Hindley, held on June 3rd, when it was resolved that these towns, together with Southport, Wigan, and all the towns and authorities in South Lancashire, should consider a scheme for the formation of a joint committee under the National Insurance Act for the erection and maintenance of a sanatorium for curable cases of tuberculosis with one bed per 5,000 population, provided that the authorities representing a population of 500,000 were willing to co-operate, and that the application be made to the Local Government Board for a grant of at least four-fifths of the cost. The committee also resolved to establish a tuberculosis dispensary, provided that the income be assured, and that the Local Government Board be asked for a grant of at least four-fifths of the cost of provision and equipment.

MEDICAL INSTITUTIONS AT WEST KIRBY.

The Lord Mayor (Earl of Derby) paid a visit on June 12th to the West Kirby Convalescent Home. During his visit he was informed that his horse Steadfast had won the Royal Stakes. He at once intimated that £50 of the prize money should go to the convalescent home. As a donation of £25 qualifies for life membership, Lord and Lady Derby were both elected life members. He also visited the Children's Convalescent Home, West Kirby. In the afternoon Lord Derby formally opened the King Edward Memorial Ward at the Hoylake and West Kirby Cottage Hospital. The Hoylake and West Kirby District Nursing Committee was formed about twelve years ago, and at the end of 1905 a house was taken on lease and equipped as a temporary hospital. As time went on these premises were found inadequate. Appeals were made to the residents, and the present hospital was built and opened in June, 1910, and has accommodation for 16 beds. During the four years ending December last 397 persons have been treated as in-patients, while the district nurse has attended 922 patients. Lord Derby unveiled a bronze plaque as a memorial to King Edward, and remarked that no better memorial to the late King Edward could be desired, and that the convalescent home was the best he had ever seen.

BREAST FEEDING OF INFANTS.

The annual report of the Medical Officer of Health of Bootle (Dr. W. Allen Daley) states that the estimated population at the middle of 1911 was 70,100. The rate of increase during the last decade was only 16 per cent., compared with 20.7 per cent. in the previous intercensal period. Hence the population in the intervening years was over-estimated. The death-rate was equivalent to 18.3 of the population; when corrected for age and sex distribution was 20.2. The infantile mortality-rate was 145 per 1,000 births. Despite the high atmospheric temperature of the third quarter of the year, the infantile mortality from diarrhœa and enteritis was less than recorded in previous years with similar weather conditions. He attributed this to the work of two lady superintendents, who visited the children of the poor below the age of 12 months, distributing leaflets, and giving advice as to the feeding of children. He paid tribute to the work of the Bootle Health Society—a voluntary association of ladies of the town, who visit necessitous cases, and provide nourishment when required for both mother and child.

An interesting feature is the contrast between Mersey ward and Knowsley ward, the former being in a congested area occupied by the poorest inhabitants of the borough, while the latter is residential, and contains the largest houses in the town. The death-rate in Mersey ward from diarrhœa was 14 per cent. below the mean, whilst in Knowsley ward it was 44 per cent. above the mean. This was due to the fact that although the inhabitants are poorer than in Knowsley ward, yet in the former a larger portion of the infants are "breast-fed." The percentage at the age of 6 months fed entirely from the breast was 78 in Mersey ward and 53 in Knowsley ward. The infantile mortality in Mersey ward was proportionately high from marasmus and wasting diseases, and from measles and whooping-cough. Some of the deaths from marasmus and atrophy could probably have been prevented with greater care in feeding the infants. The instruction given to school girls on infant management had proved valuable. The lady inspectors also give instructions to mothers on the subject. The number of cases of scarlet fever and the deaths from it in 1911 were the lowest in the records of the borough. The type of the disease was very mild, and a mortality of 2 or 3 per cent. prevailed, compared with one of 10 or 12 per cent. some twenty years ago. Efficient control of mild cases of the disease had proved difficult. Symptoms in some were almost trivial, and the danger lay in the fact that from the mild cases the debilitated child might become infected with a severe form of the disease.

MANCHESTER AND DISTRICT.

DISCUSSION ON DENTAL CLINICS.

THE annual meeting of the North Midland Branch of the British Dental Association commenced its sittings in Manchester on June 14th. The new president, Mr. W. Simms, of Manchester, in his address, after a short historical reference to the position of dentists at the present time compared with 1879, when the British Dental Association was first formed, passed on to consider the present condition of the teeth of the race. A comparison of the teeth of civilized races with those in the skulls of primitive races was all in favour of the uncivilized, and recent investigations, especially into the state of school children's teeth, revealed a condition of dental decay which called for the serious attention of all who take an interest in the physical well-being of the race. The examinations by school medical officers were admittedly imperfect, but they showed defective teeth in 40 per cent. of the children examined, and a more thorough examination by dentists gave results much in excess of this. Of 10,500 English and Scottish boys and girls, 86 per cent. had carious teeth, while at Halifax the percentage was 95, at Birmingham 94.7, and at the Cambridge dental clinic 96.5 per cent. had carious teeth. Examination of children at Eccles near Manchester fully confirmed these figures, and he calculated that in Manchester, with an elementary school population of about 120,000, it would be safe to say that a thorough examination would reveal some such condition as the following: Number of teeth hopelessly decayed and needing extraction 180,000; number that require filling 240,000; irregularities in need of dental treatment 6,000. Mr. Simms went on to urge the need of dental clinics, as the poverty of many of the parents made it impossible to expect any substantial alleviation from the voluntary efforts of parents, and any effectual benefit must come from the provision of treatment clinics. It was found that a dentist working whole time could attend to not more than 3,000 children a year, at a cost, including materials and service, of between £450 and £500. The chief objection in Manchester had been on the ground of the expense; the State had shown its sympathy with the formation of dental and medical clinics by a grant of £60,000, and he felt sure that if once wealthy citizens realized the value of the work, they would come forward and by paying the initial cost of the necessary appliances of these clinics, which, in regard to dentistry, is estimated at about £50 each, commence a work which is of national importance.

Mr. Campion read a paper on the organization of dental clinics, and said that at present there were different opinions as to whether dental and medical treatment should be carried on at the same clinic or separately, but the tendency was in favour of associating the two. Clinics had already been established under 30 education authorities, in some cases by the authority and in others by voluntary agencies. Of these, 5 were for dental treatment only, 8 for combined medical and dental, and 17 for medical treatment only. He urged numerous objections against the children being referred for dental treatment to hospitals which cannot fulfil the requirements necessary in the case

of elementary school children. The initial cost of treatment would be heavy, and the accumulated work of years of neglect could only be grappled with by an expenditure out of the reach of any education authority if it were proposed to deal with all the children at once. It would be necessary to take only certain ages at first, and taking the figures of the Cambridge clinic, he thought that the average cost per child was less than 2s., though for considerably less than this a large amount of treatment could be carried out of the greatest value to the children.

After some discussion the President suggested that a subcommittee should be appointed to draw up a tentative scheme for the consideration of the Manchester Education Committee.

In the evening the annual dinner was held at the Midland Hotel.

BIRMINGHAM.

The Birmingham Hospital Saturday Fund.

Last year the amount raised was £21,940, and this year the committee are aiming at £22,500, a sum which there seems every reason to hope will be obtained. On the first day of receiving the contributions, which was Saturday, June 15th, £15,885 was paid into the bank, as compared with £15,862 twelve months ago. On the first day the contributors included 1,242 firms, as against 1,365 on the corresponding day last year, and the committee interpret this to mean that many contributions have been delayed. Out of twenty-two firms which have helped the fund to the extent of £100 this year, seventeen have sent in increased amounts. Altogether about 2,200 firms contribute to the fund. The past year has not been quite normal, and strikes, national and local, have affected the collections; the sum sent by one local firm is £71 below the amount paid in last year.

The Birmingham Hospital Saturday Fund has now reached its fortieth anniversary. It has contributed annually £10,000 to the funds of twenty-six hospitals, dispensaries, and nursing societies in the city, and has maintained convalescent homes—Tyn-y-Coed for men, Marle Hall for women, and the Red House, Great Barr, for children. Last year 3,432 patients enjoyed the privilege of treatment in these homes. It is expected that in the autumn the Hospital Saturday Home for Consumptives—the Sir William Cook Memorial—on Romsley Hill, will be opened to receive patients. It is sincerely hoped that the Insurance Act will not have a detrimental effect upon the fund. The honorary secretary, Mr. W. S. Aston, refuses to believe that the workers of the city will discontinue their support of the hospitals of the city and of their own convalescent homes. In a recently published pamphlet he points out the following reasons why the working men should continue their contributions: (1) Birmingham hospitals must still be supported from the fund, inasmuch as the new insurance contribution does not provide for hospital treatment, even for workers, who will be insured for medical attendance and medicine. (2) The Insurance Act makes no provision at present for convalescent home treatment even for workers who are insured, while the Birmingham Hospital Saturday Convalescent Homes treat 3,500 patients annually. (3) The proposed Government sanatoriums cannot be in working order for some time yet, whereas the Hospital Saturday "Home" for Consumptives will be ready in the autumn of the present year.

Memorial to the late Mr. U. V. Milward.

On June 14th, at the General Hospital, Birmingham, the dedication plate of a bed was unveiled by Mrs. Victor Milward and Mrs. F. V. Milward to the memory of the late Mr. Frederic Victor Milward, F.R.C.S., who was assistant surgeon to the hospital at the time of his death in March, 1910. Mr. John Henry Lloyd (deputy chairman of the House Committee) expressed in the name of the Board of Management and of the House Committee the gratitude and appreciation of the gift of £1,250 for the dedication of the bed by the wife and other members of the family of the late Mr. F. V. Milward. There were also present Mr. Gilbert Barling, Mr. F. S. Goodwin, Mr. W. F. Haslam, Mr. John Lowry, Mr. and Mrs. H. Milward, Miss Milward, Sir Robert Simon, Mr. B. B. Tilley, Dr. Thomas Wilson, and Mr. Howard Collins, House Governor.

LONDON.

London County Council.

Reorganization of School Medical Staff.

The Education Committee of the London County Council had before it on June 19th a long report as to the revised arrangements for medical inspection and treatment and care of children necessary in order to earn a share of the grant of £60,000 promised by the Board of Education towards the cost of these services. The General Purposes Subcommittee stated that in order to carry out the Board's requirements as to reinspection and re-examination it was essential that the staff of school doctors should be reorganized without delay. At present only in East London was systematic re-examination of all the children found defective on medical inspection carried out; in the rest of London the proportion of available time spent on routine inspection was too great to allow the existing quarter time staff to re-examine all the defective cases. The Board also required a complete system of records to be kept. If the children attended hospitals and centres with which the Council had an agreement, complete information was available, and if treatment was obtained from private doctors, dispensaries, and hospitals not included in the Council's scheme, the latest form of "following-up" card would make it possible to keep a complete record. Re-examination, as carried on in the East End, must be extended to the whole of London, and by extending the full-time system of engaging medical assistance, the additional work could be carried out without any considerable increase in cost in respect of staff. The experience obtained in East London showed that one full-time doctor could inspect between 8,000 and 8,500 children a year, and also reinspect each term all the children found defective in the previous term. There were at present for routine inspection 80 quarter-time and 6 full-time doctors. On the assumption that the number of children to be inspected annually was 250,000, 30 full-time doctors would be required for the whole of London. The subcommittee was of opinion, however, that the appointment of the 24 additional full-time officers required should not be permanent: that 12 of the appointments should be for five years (at salaries of £400, rising by annual increments of £25 to £500 a year); and that 12 should be for one year at £400 a year. For the purpose of supervision it was proposed that London should be divided into four divisions, and that an assistant medical officer should be attached to each. Various rearrangements of existing posts and duties would be required, and the proposals of the subcommittee as summarized were:

1. The present 80 quarter-time school doctors should be replaced as from August 26th, 1912, by 12 full-time school doctors appointed for five years, and 12 for one year.
2. The three permanent school doctors in the public health department appointed in December, 1911, should be placed on a scale of salary rising to £500 a year.
3. Four temporary quarter-time school doctors should be employed for one year each at a salary of £120.
4. The equivalent of two-and-a-half additional assistant medical officers should be appointed as divisional officers at a salary of £500 each, rising by £25 yearly to £600.
5. The salary of Dr. E. E. Argles, assistant medical officer, should be increased to £500, rising by £25 yearly to £600.
6. The equivalent of two additional full-time assistant medical officers should be appointed at a salary of £400 for work in connexion with institutions for higher education.

The merits of whole-time and part-time appointments were discussed at some length, and ultimately the committee decided to amend the first recommendation to provide that five full-time doctors be appointed permanently and nineteen full-time doctors be appointed on a yearly agreement. All the other recommendations were approved.

National Insurance Act.

At a meeting of the Council on June 18th Mr. Kingsley Wood asked the chairman of the General Purposes Committee whether, inasmuch as sanatorium benefit under the National Insurance Act would begin on July 15th, and that the Chairman of the Insurance Commission stated at a meeting of the County Councils Association that county councils were under a virtual obligation to see that some sanatorium accommodation was available immediately, any steps had been taken in the matter. Mr. Greenwood replied that a communication asking the county councils to take the matter into consideration forthwith had been addressed by the Local Government Board to all county

councils except that of London. The Public Health Committee was collecting information on the subject.

The Council is entitled to sixteen representatives on the Insurance Committee for London, and will, in addition, select as members three medical practitioners. At the invitation of the Insurance Commission the Council on June 18th appointed fourteen members to a provisional committee for London and two medical members—Sir John Collie, M.D., and Sir Shirley Murphy, F.R.C.S.

BRISTOL.

THE PROVISIONAL INSURANCE COMMITTEE FOR THE CITY. The first skirmish of the Insurance campaign took place on June 11th at the meeting of the City Council. One of the members brought forward a motion to appoint the representatives to the proposed Provisional Insurance Committee, and brought forward the names of eight gentlemen and two ladies. The Committee will finally consist of fifty persons. The contest of the Labour party to obtain more representation need not be noticed, except to call attention to its failure, all their candidates being defeated. Incidentally, one member made a violent attack on the tyranny of the doctors' union, no doubt feeling sore at the successful action of the Branch in preventing any one accepting an advertised post at an inadequate salary. What may be particularly emphasized was the election on the Committee of Dr. Prowse, Senior Physician of the Royal Infirmary, not only without his consent, but even without approaching him on the matter. Such an action does not reflect much credit on the City Council, for it was admitted at the meeting by the member who proposed the composition of the Committee that he had been warned that no medical man in Bristol was prepared, under the present circumstances, to work under the Act. This was clearly put by Dr. Devis, a member of the council and Chairman of the Bristol Branch. On the following day appeared a letter in the local press to say that Dr. Prowse was not willing to accept any position under the Insurance Act. Since then no further action appears to have been taken.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

POST-GRADUATE TEACHING IN EDINBURGH. In addition to the general and surgical courses in September and the course on internal medicine in August, there has been arranged this year a course on diseases and defects of children suited for medical inspectors of school children and others. The place of meeting in the forenoons will be the Royal Hospital for Sick Children, where medical, surgical, and out-patient clinics will be held. In the Royal Infirmary clinics will be held in the skin department, at the ear, nose, and throat department, the eye department, and the dental department. Meetings for practice in anthropometric methods will take place on the Saturday forenoons in the anatomy department of the university. Clinics on mental defects of children will be held in the Institution for the education of Imbecile Children at Larbert. Eight lectures upon physical defects of children, methods of medical inspection, etc., will be given in the afternoons at the Royal Hospital for Sick Children. The course will begin on Monday, July 15th, and last for two weeks. The fee is five guineas. Entries must be made on or before July 1st. Full particulars can be obtained on application to the Secretary, University New Buildings.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

TRINITY COLLEGE BICENTENARY. THERE is every reason to expect that the celebrations in connexion with the bicentenary of the Trinity College Medical School will prove a great success. In addition to delegates from practically all the medical faculties in Great Britain, a very large number of foreign universities are sending delegates, including Bonn, Bordeaux, Christiania, Copenhagen, Geneva, Ghent, Groningen, Helsingfors, Liège, Moscow, Paris, St. Petersburg, Stockholm, Tomsk, Upsala, Utrecht, Kyoto, Tokyo, Lahore, Calcutta, Cairo, and several of the colonies, in addition to many of the most famous medical schools in America. The following programme has been drawn up:

Thursday, July 4th.—Afternoon: Reception of guests in College Library by the Chancellor and Provost. Evening: Graduates' Dinner.

Friday, July 5th.—Morning: Unveiling of memorial stone to Dr. Stearne by the Provost. Address on Dr. Stearne by the Rev. J. P. Mahaffy, C.V.O. Reception of addresses in the Examination Hall by the Chancellor and Provost. Afternoon: Garden party. Evening: Dramatic performance by the members of the Trinity College Amateur Dramatic Club. Ball.

Saturday, July 6th.—Morning: Visit to the Medical School. Procession to the Royal College of Physicians and Reception by the President. Special Commencements, with conferring of honorary degrees. Afternoon: Garden party in the Fellows' Garden.

As the invitations for the various functions are now being compiled, it is hoped that medical graduates who have not already notified to the honorary secretaries of the Graduates Committee their intention to be present will do so without delay, in order to avoid disappointment. A special letter has been sent to this effect to all graduates whose address could be found. The graduates' dinner is to be held in the Mansion House, by kind permission of the Lord Mayor; there will be accommodation for about 400 diners.

The Court of Directors of the Apothecaries' Hall of Ireland have decided on presenting a congratulatory address to the College on the completion of the second century of its existence. The Governor, Dr. E. Magennis, has been appointed to represent the Court of Directors, and the interesting event will take place during the ceremonies which are fixed for the last three days of Trinity week, commencing July 24th.

IRISH MEDICAL ASSOCIATION. The seventy-third annual meeting of the members of the Irish Medical Association was held on June 12th in the hall of the Royal College of Surgeons, Dublin: Dr. J. Cotter, was the outgoing President, in the chair, and there was a large attendance of members. According to the report of the Council, read by the Secretary, the membership on December 31st, 1911, numbered 577. Thirty-eight names of members, who owed three or more years' subscriptions, were removed from the register. The report stated that the Conjoint Committee, appointed at the meeting held in Cork, was unanimously of opinion that if the National Insurance Act applied to Ireland, it should apply in its entirety.

Dr. R. H. Woods, who was elected President, spoke in his address of the abuses and anomalies of the Irish Poor Law Service. He said that through the efforts of the Association between four and five hundred medical officers had had their salaries increased by an average of £40 per annum. Speaking of the Insurance Act, he said it would be their duty, in the public interest as well as their own, to see that the additional medical benefits were administered through the Insurance Committee. He suggested that the abuses of the Poor Law service should be allowed to occupy a secondary place for the present, for while the Home Rule Bill was on the table of the House of Commons they were only beating the air in trying to move Parliament to alter existing Irish laws. They should, therefore, expend their energies on the working of the Insurance Act, when every effort they made would have a sure and certain result.

Dr. J. Donnelly (Dublin) said that though more than half the unions of Ireland had adopted graded salaries, yet in unions where private practice was small there was no grading. He proposed the following resolution, which was adopted:

(*a*) That as more than half the unions in Ireland have now fixed graded scales of salaries for their medical officers, the time has come to ask the Local Government Board to use their power of fixing salaries, to insist that those unions which have refused to grant graded scales of salaries should give reasonable increases in each case. (*b*) That as the Local Government (1898) Act only secured superannuation for a limited number of existing offices, and that as a great many are now in even a worse position owing to the changes inevitable under the Insurance Act, we deem it necessary that the Government be asked to extend without delay Section 118 of the Local Government (1898) Act, so as to include all existing officers, as was primarily intended.

Dr. Kinkead (Galway) proposed the following resolution, which was adopted:

> That the Council be instructed to use every effort to secure the insertion in the bill for the better government of Ireland provisions securing superannuation for existing prison medical officers and other medical civil servants not at present included in the bill.

In the evening the annual dinner was held in the Board Room of the Royal College of Surgeons, at which Dr. Woods presided. On the following evening Their Excellencies the Lord Lieutenant and the Countess of Aberdeen gave a party at the Castle to meet the members of the Association, and on Friday Dr. and Mrs. Woods invited the members to an afternoon garden party at Killiney, co. Dublin.

Tipperary Doctors and the Insurance Act.

The medical practitioners of the South Riding of Tipperary held a meeting in the Town Hall, Clonmel, recently to consider their position under the Insurance Act. It was decided to instruct Dr. Power, the local representative on the Central Advisory Committee, to urge on the Insurance Commissioners the importance of granting a suitable capitation fee to medical men for giving certificates to persons insured under the Act, and the determination of the profession not to accept an inadequate fee for such services. The following pledge was signed by all the doctors present, and it is understood that this pledge has been, or is immediately about to be, signed by every medical man in Tipperary South Riding:

> I hereby undertake that I will not accept any club or other contract medical practice or position except upon such terms as shall be approved by the County Medical Committee representing the entire profession of that county.

This is practically the same pledge as was recently signed by the medical men of North Tipperary.

Ulster Medical Society.

The annual meeting of this society was held on June 6th in the Medical Institute, Belfast. The President, Dr. McKisack, occupied the chair. Colonel G. Davis, I.M.S., was elected a Fellow. The Treasurer, Librarian, and Secretary presented their reports, which as amended were adopted. Resolutions of condolence on the deaths of Dr. R. C. Parke, of Newtownards, and Dr. H. Whitaker, of Belfast, were passed and copies ordered to be sent to their friends. On the motion of Dr. Calwell, seconded by Mr. Fullerton, Dr. R. W. Leslie (Strandtown) was unanimously elected President for the ensuing year. The following other officers were then elected: *Vice-Presidents*, Mr. A. B. Mitchell and Dr. J. Huston (Carrickfergus); *Council*, Dr. A. G. Robb, Mr. R. J. Johnstone, Dr. J. S. Morrow, Dr. V. Fielden, Mr. Howard Stevenson, and Mr. W. McLorinan; *Treasurer*, Dr. J. Rusk; *Librarian*, Dr. W. L. Storey; *Secretary*, Dr. J. C. Rankin; *Editorial Secretary*, Mr. S. T. Irwin.

Cork District Lunatic Asylum.

At the monthly meeting of the Committee of Management of the Cork Asylum, held on June 17th, the question whether officers, including medical officers, should be granted 10s. a week in lieu of rations while on annual holidays was discussed. It was decided to grant the subordinate staff 7s. 6d. while on holidays, but the officers, including doctors, should receive no money in lieu of rations on holidays.

The board next took up the recommendation that the four assistant medical officers be requested to give lectures and act as tutors to the male and female staff, to enable them to qualify for the Medico-Psychological Certificate, and that each member of the assistant medical staff receive a sum of £12 10s. per annum for such services, the number of lectures for such purpose to be not less than 100 per annum. A deputation of the medical staff appeared before the board and stated their case, that the delivery of these lectures was not included in the terms of their appointments, and that they were doing it through courtesy. The Psychological Association had altered the conditions of its examination, and it was now much harder and much stricter. They did not see their way to give the required instruction without remuneration, such as the superintendent got for delivering lectures at the University College. In the discussion it was stated that it was unusual in other asylums to pay medical officers for this work. On a poll being taken, 10 voted against the proposal, while 3 voted for it.

India.

[FROM OUR SPECIAL CORRESPONDENT.]

The Reorganization of the Sanitary Service in India.

The decision to retain the Sanitary Commissioner with the Government of India, while placing him under the head of the Medical Service, has been quickly followed by an important resolution of the Supreme Government laying down the lines on which it is proposed to organize and extend the sanitary department. The essential features of the new departures are to increase the number of whole-time sanitary medical officers, and at the same time to decentralize by giving more powers to the local governments in the control of this class of official. In order to carry out the first desideratum, at a time when all increase in the Indian Medical Service is strictly tabooed by the Secretary of State for India, the field of recruitment is to be widened by throwing open the higher posts to fully qualified Indians of proved aptitude, and who possess either an English or an Indian university Diploma in Public Health. This step is necessary, as it is already very difficult to get Indian Medical Service officers to enter the sanitary department, in which they have to give up all private practice, and to spend most of their time in touring and inspection duty. Eight new appointments are to be added to the grade of Deputy Sanitary Commissioner, two to go to each of the provinces of Madras, the United Provinces, and Bengal, and two which were to have gone to Eastern Bengal and Assam, one of which will now probably be allotted to Assam, which is at present without a special malaria officer. The selection of the candidates for these important posts will be left with the local governments, subject to the conditions that they are taken from the list of accepted candidates for the Sanitary Department, who must hold a Diploma of Public Health. A liberal scale of pay is laid down for non-Indian Medical Service men appointed (who will not be allowed private practice), beginning with 500 rupees a month and rising to 1,000 rupees. The first appointments will be made on probation for not less than two years, but this period may be dispensed with in the case of men who have rendered approved service as municipal officers of health.

In addition to the substantial increase in the number of deputy sanitary commissioners, the present scheme also provides for the appointment of whole-time health officers for the larger municipalities, who will be graded in two classes. Those of the first class will be required to have a British or Indian Diploma in Public Heath, as soon as arrangements can be made for Indians to be trained in their country to become first class health officers. For those of the second class the main qualifications will be a good general education supplemented by a course of training in public heath approved by the local government. The pay of the first class will be from 300 rupees to 500 rupees, and of the second grade from 150 rupees to 300 rupees. The provincial governments will be left to see that duly qualified men are appointed and reasonable security of tenure is ensured. In order to assist the local governments in establishing the new posts an annual subsidy will be granted where necessary, *plus* half the cost of the municipal health officers, the balance to be found by the local authorities. The Government of India also thinks that a service of trained sanitary inspectors should be organized in municipalities, as was some time ago successfully done in Madras by Colonel King, I.M.S., when he was Sanitary Commissioner of that Presidency.

Lastly, the resolution deals with provincial sanitary boards, the constitution of which is to be left to the local governments to determine, their functions being mainly to advise regarding the more important and expensive schemes, such as those of water supply and drainage. Altogether the new departures mark an important advance in sanitation in India, which should lead to much-needed improvement in the conditions of the large cities of India and at the same time open up a useful field of employment in Indian medical graduates.

Major J. C. Robertson, I.M.S., the newly-appointed Sanitary Commissioner with the Government of India, took over charge of his office on May 15th.

Special Correspondence.

PARIS.

A Muscular Reflex in Meningitis.—Absence of Recurrence after Operations for Sarcoma.—Congenital Bradycardia. – Corneal Grafts.

DR. GUILLAIN has described a muscular reflex which, he says, is present in all cases of cerebro-spinal meningitis, and in some cases of meningitis from other causes. If the patient lies in bed with both legs extended, and the examiner grasps the quadriceps femoris of one leg between his thumb and fingers, and thus pinches the muscles, there results a reflex action of the other leg, the thigh being flexed towards the abdomen. This reflex is present in both legs, and is quite independent of the condition of the tendinous and superficial reflexes. When the case is about to end fatally this reflex disappears. If the case is progressing favourably and other signs of meningitis disappear, this collateral reflex decreases gradually, and disappears as the temperature returns to normal. Dr. Guillain considers that this reflex may be useful in the diagnosis of doubtful cases.

At a recent meeting of the Surgical Society of Paris M. Schwartz showed a patient on whom he had performed resection of the femur for a myelogenous sarcoma some eighteen years ago, and in whom no signs of recurrence had ever been manifest. The shortening of the leg amounted to about 6 or 7 cm., but, apart from some slight limp, the patient was well and strong. M. Auvray reported two cases of sarcoma of the lower jaw, which had been operated upon with no signs of recurrence, and M. Delbet reported on six patients on whom he had operated for sarcoma of the long bones, in each case with perfect cure and no recurrence.

Dr. Camille Lian read an interesting paper on congenital bradycardia at a recent meeting of the Paris Hospital Medical Society. He recognizes two forms of congenital bradycardia: the one due to a dissociation of the ventricles and auricles, the second described as total bradycardia. When the Stokes-Adams symptom-complex is present Dr. Lian regards the case as grave; nervous complications may occur about the fourth year of age. In such cases a lesion is found in the bundle of His and occasionally congenital malformation of the heart. In the cases coming under the heading of "complete congenital bradycardia" the prognosis is favourable and no curtailment to life is to be expected.

M. Majetot has reported a case in which he had used a corneal graft from an eye enucleated for disease, but in which the cornea was healthy. The cornea of the patient who received the graft was opaque, as the result of a burn from quicklime. M. Majetot made a small window and transplanted the corneal graft, which became attached to the opaque portion of the patient's cornea. The grafting of the cornea is not a new idea, as Dr. Wolff, then of the Glasgow Ophthalmic Institution, many years ago grafted a portion of cornea. Where M. Majetot has made advance is in the fact that he did not use fresh cornea, but cornea which he had preserved in human haemolized serum for a period of fifteen days. The cornea was kept in this serum, and the temperature of the serum was maintained at between + 4° and + 7°.

BERLIN.

Prevention of Infant Mortality.—Notification of Tuberculosis.—Central Medical Library.

THE abnormally hot summer of last year caused a very high mortality of infants. In Germany there died in the three months July to September about 30,000 more than in the previous year at the same period. In most of these cases gastro-intestinal diseases were the cause of death. The authorities of the Berlin Kaiserin Augusta Victoria Haus have now issued a pamphlet and a popular *Hitze Merkblatt* on the prophylactic precautions which should be taken. In short, clear sentences, the necessity for: (1) Judicious feeding: (2) the prevention of overclothing: (3) sufficient ventilation of rooms is insisted on, and attention is drawn to the easy decomposition of milk: advice is given how to preserve it by boiling and keeping it cool, and it is pointed out that mother's milk is preferable.

Among the suburbs of Berlin, Charlottenburg is prominent by its sanitary and social hygienic arrangements. It is fortunate in possessing in the well-known hygienist and medical statist, Dr. Gottstein, an authority in the department of hygiene, while even Berlin does not yet possess an "Stadtmedizinalrath" (official medical adviser). Dr. Gottstein has been commissioned by the magistrate of Charlottenburg to write a pamphlet on the "Introduction of Compulsory Notification of Tuberculosis of the Lungs and the Larynx." The Armendirection (guardians of the poor) of Charlottenburg was one of the first in Germany to draw attention to the necessity of early notification of cases of tuberculosis, and in 1897 requested medical men, Krankenkassen (sick funds), and nursing homes to give information of all cases of tuberculosis to the "Städtische Fürsorgestelle für Lungenkranke" (local board for lung diseases). The Prussian Diet had at the time refused to make the notification of tuberculosis compulsory. As legal regulations on this subject do not exist, Dr. Gottstein suggests that those towns which can afford to take sufficient care of their patients, as in the case of Charlottenburg, should proceed independently. Although for some years a decrease in the mortality from tuberculosis has been observed, this fact being due chiefly to improved sanitary arrangements, tuberculosis is still among the diseases which claim most victims. As there is not much hope for an early change or amplification of the existing legal regulations, the Denkschrift requests the Preussische Städtetag to use its influence to declare valid the suggested compulsory notification of tuberculosis in such cities as Charlottenburg.

The statement as to the Central Medical Library in Berlin[1] requires some amendment. The originator of the scheme was not Dr. Hans Kohn but the eminent Berlin physician and Director of the Kaiserin Augusta Hospital, Geheimrath Professor Ewald, who in 1909, when librarian of the Berliner Medicinische Gesellschaft, had taken the initial step towards centralization: all that has been done since by others is the outcome of Ewald's suggestions. An entirely satisfactory result, however, is only to be expected if the Rudolph Virchow Haus, which has been planned for some time, should provide room for the books.

Correspondence.

TEACHING IN SECONDARY SCHOOLS FOR THE PRELIMINARY SCIENCE EXAMINATIONS.

SIR,—The report in the JOURNAL scarcely represents the full grounds of the objection raised in the General Medical Council against the above. Some of us believe that the rapid advance of physiology, pathology, and practical medicine demands a fuller acquaintance with certain departments of chemistry, biology, and physics than our students at present obtain. We believe that these earlier subjects will need in the future to be specialized. A knowledge of organic and biological chemistry is becoming essential, and unfortunately these departments are barely touched upon in many of the courses delivered at present, while, on the other hand, branches of chemistry, which have little or no relation to medicine, are included and fully dealt with. Likewise in biology, study of the structure and life-history of parasites and disease-bearing animals and insects, and of bacteria, bacilli, moulds, and ferments, is a fundamental necessity. The ordinary systematic study of animal and vegetable types and their classification, though of interest, has less practical value to the student of medicine. In physics the principles of faradic and constant electric currents, currents of high frequency, *x* rays, ionism and diathermics, with the principles of heat, light and sound, ought to be thoroughly comprehended.

The medical curriculum is exacting and lengthy, commonly occupying more than the required five years. It should, in my view, be lightened by the omission of all that is unnecessary. In fact a remodelling of preliminary science studies and examinations is yearly becoming more

[1] BRITISH MEDICAL JOURNAL, June 8th, p. 1335.

and more needful. Thirty years' experience as a teacher in earlier and later subjects of the curriculum has made me fully convinced of this need, and I confess sympathy with first-year students when they complain of work and examinations which stand in no direct relation to later studies and to their future work as medical men. Various medical schools and examining bodies are already modifying the teaching of elementary science with these views, with excellent results, and I hope all will eventually do so. The general courses of chemistry, biology, and physics given at our great public schools are good in most cases, but they are not, and cannot be, specialized in they way I have suggested. If, however, their teaching could be regarded as merely preparatory, leading up to more specialized teaching later, the value of such instruction would be great. It would not be reasonable to expect secondary schools to supply the special knowledge bearing on medicine which needs to be imparted, and which, I believe will be required in the future, for the preliminary science examinations in medicine. Therefore, to relegate this teaching to them seems to me an error. The difficulties of the advanced teacher are considerable at the present time in consequence of the insufficient preparation of the student in those departments of science which bear specially on, and ought to lead up to, his advanced studies. I am one of those who believe that if we give our students the right training there is a wonderful future before medicine.—I am, etc.,

Liverpool, June 18th. RICHARD CATON.

MEDICAL PRELIMINARIES FOR LONDON STUDENTS.

SIR,—To parents about to enter their sons for the medical profession the question as to what preliminary examination should be taken is a matter of importance, as much unnecessary time may be spent in school work. If one turns to the prospectuses of the various London hospitals no mention is made of the Medical Preliminary of the Educational Institute of Scotland (held in London), which seems to me to fulfil the requirements of the ordinary school boy intending going in for medicine. The old examination held by the College of Surgeons was conducted much on the lines of the Preliminary above mentioned, and why this was relinquished I never could quite understand.

The College of Preceptors is much vaunted in the prospectuses of the London schools, but it must be obvious to those who have gone into the matter that the standard required by this college is equal to a University Matriculation, and at the same time none of the universities recognize it, even as part of their entrance examination. It is essentially a preliminary for the Conjoint Board, so are the Junior Locals. Why, therefore, should a student waste his time on a higher Arts Examination when the lower ones allow registration and an earlier start in his medical work?

It is well understood that the larger majority of medical students in London take the diploma of the Conjoint Board, a smaller percentage proceeding for a university degree in addition.

I may state, I believe, without any detriment to other medical schools and hospitals, that London has the finest material for training in the British Isles. This being admitted, why is it that so few proceed to the London University degree? The examinations in medical subjects are in every way fair and not outside the pale of the average student. Is it the London Matriculation which acts as a stumbling block? If so, there are other entrances which can be taken in lieu thereof if passed at one and the same examination. These are numerous, and may be briefly summed up as follows:

1. Scottish school leaving certificates.
2. Senior Locals, higher certificates, and school certificates of Oxford and Cambridge.
3. Joint Matriculation Board, or school leaving certificate of Manchester, Liverpool, Leeds, and Sheffield.
4. Senior certificate of Intermediate Examination Board of Ireland.
5. School leaving certificate of University of London.

Responsions of Oxford or the Previous of Cambridge are of course interchangeable with London, but a man who has passed one of these is hardly likely to go in for the London degree.

A rule is in force at the Durham University whereby a student who has passed a preliminary registrable by the General Medical Council may, by passing in three additional subjects, obtain the university Matriculation. If with this object Latin, elementary physics, and chemistry be taken, two of the subjects of the medical curriculum may be made use of. A further advantage of this university is that with one year's residence the First and Second M.B. will take the place of the corresponding examinations of the Conjoint Board.—I am, etc.,

Coventry, May 28th. EDWARD PHILLIPS, M.B.Durh.

OPERATIONS FOR GLAUCOMA.

SIR,—I have not the advantage of seeing the *Ophthalmoscope*, and therefore had it not been for the paragraph in your issue of June 15th of this year I would not have been aware of Mr. Temple Smith's paper. May I say at once that the operation which he seems to call mine is performed by me only occasionally, and that the operation he assigns to Colonel Elliot is the operation which I performed in the autumn of 1909 and still do perform on suitable occasions? The best description of my 1909 operation is that to be found in the recent edition of Sir Henry Swanzy's textbook, where he erroneously attributes it to Colonel Elliot. I have not given up that operation, but sometimes still employ it. Further, I think Colonel Elliot has very frankly admitted my priority in the matter. The facts of the case are briefly these: In the autumn of 1909 I was much interested in the accounts which we received of Professor Lagrange's operation and in the controversy which he was conducting with Charles Abadie. It seemed to me, however, that Lagrange's operation involved a certain changing of instruments, and that the same thing might be more rapidly effected if a flap of conjunctiva were dissected up, laid over the cornea, and a trephine used as near the corneal margins as possible. That was the operation which I introduced into ophthalmic practice in the autumn of 1909, and is one which I still employ.

The records of that operation are to be found in the hospital journals. I made no publication of it, for the simple reason that in dealing with so very grave a condition as glaucoma there can be nothing worse than publication till you know precisely the ground on which you stand. Established practice ought not to be upset, except on a very sure basis of clinical observation. That favourite device, the usual "preliminary note," is, in so serious a matter as glaucoma, thoroughly wrong and unjustifiable. I was therefore much surprised in March or April, 1910, to receive a very courteous letter from Mr. Sydney Stephenson asking me to come to the Oxford meeting of 1910 and demonstrate my glaucoma operation. I was at a loss to know how he, living in London, got to hear of it. In a letter with which he favoured me, he said he learnt of my operation from one of my Edinburgh friends. I had made no communication to anybody, except to my personal assistants, but apparently some of my friends in Edinburgh had heard of it, probably from some colleagues who had visited the Eye Infirmary in Glasgow and the Royal Infirmary in Edinburgh. Be that as it may, I was requested to operate at the Oxford meeting in the summer of 1910, and I availed myself of that invitation. If my recollection is right, the patient on whom I operated there was one of those whom I thought proper to treat by cyclo-dialysis. An event of that kind showed me that although I myself had said nothing about the operation it was tolerably well known in other towns.

It certainly was known in London and in Edinburgh before it was known here, for I had Mr. Sydney Stephenson's invitation to operate, he having heard of the operation, not from any publication by myself but from some colleague in Edinburgh. Colonel Elliot happened to be in Great Britain in the spring of 1910. He did not return to Madras till the summer of 1910, and, so far as I am informed, did not begin this operation till his return home in the autumn of 1910. These being the facts, it would appear that I used this operation nearly a year before Colonel Elliot did.

This is not the time to enter into a discussion of the operation with and without cyclo-dialysis. I hope, perhaps on an early occasion, to discuss in some detail the various substitutes for iridectomy, which still is to me the standard operation.—I am, etc.,

Glasgow, June 17th. FRELELAND FERGUS.

APPENDICITIS—AND QUICKNESS.

SIR,—In reply to Mr. Morton I would say that it is both unwise and unnecessary to operate on all cases of acute appendicitis within the first twelve hours, and that this procedure should be reserved for those severe cases whose clinical symptoms put them on a par with the gastric ulcer that has perforated direct into the general peritoneal cavity—a class of case that forms a very small minority of acute appendix cases, but quite recognizable when they occur. In my experience, if we are not unduly apprehensive, there is not such a difficulty as Mr. Morton would have us believe in diagnosing clinically the cases of acute appendicitis that may be left alone.

The point, however, in Mr. Morton's letter that I wish to specially emphasize is that I do not consider an abscess in connexion with a well walled-in appendix should be immediately dealt with. In fact, this is the point that I am directly opposed to, because I hold that it is the interference with this form of appendicular suppuration that is at the root not only of the heavy mortality in operations for acute appendicitis, but also of the slow convalescence, with recurring abscesses, of many of those who do recover. I do suggest, and most emphatically, that limited "abscesses around the appendix had better be left alone" until they have had an opportunity of being absorbed or their pus losing its virulence. If Mr. Morton will read my lecture as published in the *Lancet* for May 11th, 1912, he will find there my reasons for this course of action. Mr. Morton says, "We have to take the risks and deal with them." I can assure him this is not the correct position of matters. The risks to the patients of leaving them for a time are small compared with those that we create by immediately dealing with them, for the danger is not to the peritoneum that has been packed off, but to that portion of it that must be in the field of operation and that too often suffers. I do not agree with Mr. Morton that "the risk of spread of infection is very small." On the contrary, the condition of the local tissues in the early days of an attack of appendicitis is such that it is very great, and that it is so the heavy mortality in operations for acute appendicitis is, in my opinion, a confirmation.

The fact is that this whole question of acute *localized* intraperitoneal abscesses connected with the appendix and their treatment requires more consideration than it has had, and it is not on a satisfactory basis at present. When Mr. Morton says that such cases of localized suppuration "will be dangerously ill from spreading peritonitis or toxic poisoning," I can assure him that that has not been my clinical experience, but the very reverse, and I have found that such cases can be safely left for two or three weeks, during which the pus will either absorb or lose its virulence, thus allowing the cases to be operated on with the safety of that "interval period" which has given in the hands of all surgeons such satisfactory results.—I am, etc.,

Glasgow, June 16th. GEORGE THOS. BEATSON.

SIR,—In your issue of June 8th Sir George Beatson comments on some statements in my recent letter. Incidentally he asks what is meant by "immediate operation." By "immediate operation" I mean operation as soon as the diagnosis is made.

Sir George says "that if the expression implies that operation should be done within twelve hours of the onset of the attack, he has no fault to find with that line of action." Why twelve hours? It seems to me that these time limits are illogical, misleading, and out of place in surgical practice. I agree that if the operation be done within twelve hours so much the better, but if it is not done within twelve hours, surely it is better to do it within twenty-four, forty-eight, or more hours, rather than to take the risks incidental to delay.

Sir George asks if I have ascertained the proportion of deaths following operation in the 1,500 deaths which occur annually. I have not, nor do I think it is germane to my argument. My point is that had an operation been performed early the vast majority of these deaths would not occur. Sir George says he is satisfied that many of "the deaths from acute appendicitis are due to operation at the wrong time." I agree, because I maintain that every postponed operation is an operation "at the wrong time," and that the right time is as soon as the diagnosis is made. Were this principle acted on, little would be heard of deaths from appendicitis. Sir George Beatson says "that modern surgical treatment has not won the triumphs it ought to have done to justify interference in every stage of an acute case of this ailment." I venture to think that the great reduction in the mortality in neglected cases of acute appendicitis which have progressed to general peritonitis is one of the greatest triumphs of modern surgery. Whereas formerly one expected to lose two out of every three cases of diffuse spreading peritonitis, now one is disappointed if one loses more than one in eight. Sir George Beatson gives statistics showing a death-rate of 3.3 per cent., but if only the acute cases in his series are considered the death-rate is 5.9 per cent., which I maintain is far higher than the death-rate for acute appendicitis ought to be. I would refer to the splendid results obtained by Murphy, Hotchkiss, Morris, Deaver, and others in America. I do not hold with making a fetish of statistics, but may I say that in my own practice, since I have adopted the principle of operating on every acute case, my death-rate has been exactly 5 per cent., and in all the fatal cases there was diffuse peritonitis at the time of operation? If interval operations during the same period are included, the mortality-rate is 3.1 per cent. I am confident that had I followed Sir George Beatson's teaching, my death-rate would have been far higher.

Sir George Beatson compares his results with those of his colleagues. The practice as to allotment of cases differs so much at various hospitals that it would be interesting to know whether an equal proportion of emergency cases are admitted under his care. His statistics rather suggest the contrary. I notice that in his 151 acute cases there were only 8 cases of general suppurative peritonitis. This in my experience is a very low proportion. In my own series, in 20 per cent. of the cases, diffuse peritonitis was present on admission.

Sir George Beatson, in his recent lecture, implied that in the majority of cases of acute appendicitis the diseased member is walled off by plastic adhesions. This I regard as a hoary and venerable superstition, and I believe I shall be supported in saying that it is contrary to the experience of operating surgeons. In a really acute case of appendicitis limiting adhesions are more often conspicuous by their absence.

I think it is to be regretted that Sir George Beatson gives support to the dangerous teaching of "judging cases of acute appendicitis on their merits." The risk to life involved in acting on this principle is at once apparent if we consider what it implies. To carry it out with safety the surgeon must be able to picture to himself what is going on within the abdomen. This I maintain to be impossible even by the most experienced and skilful clinician. I have not yet met with any one who, when challenged, has claimed this prescience. Will Sir George answer the question, Can he or can he not judge accurately the condition of the appendix in a given case, and foretell the future course of the disease, whether resolution will occur or whether gangrene with general peritonitis will ensue? Nothing short of such insight and prophetic talent can justify procrastination in a case of acute appendicitis.—I am, etc.,

London, W., June 14th. HERBERT J. PATERSON.

SIR,—The discussion on when to operate in acute appendicitis illustrates the two different views which unfortunately still exist in the profession on this important matter. One view is expounded in the letter of Dr. Dixon and is supported by Sir George Beatson. It is briefly that of "judging each case on its merits." The physician or surgeon holding it claims by his diagnostic skill to be able to discriminate between the cases it is safe to leave and those it is dangerous to leave without immediate operation. It is my conviction that any one holding this view has only to go on long enough acting up to it to sooner or later make a mistake. A concrete case, taken from my notes, will illustrate my meaning better than any abstract argument:

One afternoon about three years ago I was asked to see a boy in consultation with Dr. Adamson, of Lee-on-Solent. Fifty-four hours previously he had been seized with pain in his right iliac fossa, and had vomited once. His doctor was not quite sure. He felt better the next day and went out for a walk, though he still felt some stiffness in his right side. This uneasiness in his right side continued to be present on the following

day, and his parents sent for Dr. Adamson, who asked me to see him. His condition was as follows: Pulse 90, temperature 99½°. He was a fine, healthy-looking boy, did not complain of feeling the least ill, and did not look ill. On placing my hand over the appendix region a lump could be felt, which was tender. The rest of the abdomen was soft, and without tenderness. There was no doubt about the case being one of appendicitis, and a diagnostician, further speculating on the picture inside the abdomen, would have probably said, and reasonably said, "a mild attack of appendicitis with some plastic lymph or a roll of omentum wrapped round it and walling it off from the general peritoneal cavity." As, however, my experience had long since convinced me that such musings were purely theoretical, frequently fallacious, and not to the point, I told the boy's father that all I knew was that the case was one of appendicitis, that it was apparently a mild attack and might get well, but that as I could not see the condition of the appendix, I would not take the responsibility of advising delay, and that if he wanted to be absolutely secure of his boy's recovery he had better have him operated upon at once. The operation was performed the same day. The lump that had been felt turned out to be the appendix greatly enlarged and acutely inflamed lying close beneath the abdominal wall, perfectly free, without the vestige of an adhesion about it. After removal it was found to be converted into a bag containing about ½ oz. of very foul pus, and at its base was a slough as thin as a wafer paper, so that the gentlest pressure with the blunt end of a probe caused immediate perforation. There is not the slightest doubt but that within a very few hours this appendix would have perforated and discharged its foul contents without let or hindrance into the general peritoneal cavity.

Now, judging this case on the condition actually found, no surgeon or practitioner would in his senses have countenanced a moment's delay in its removal; but, "judging it on its merits"—in other words, on the clinical picture—it was an appendix safe to leave. On the advocates of "picking and choosing" in cases of appendicitis, it appears to me, lies the onus of giving us the information which will enable us to *safely* "pick and choose."

The exponents of the other view (myself among the number) take up a different attitude. They believe that there are no signs which enable the surgeon to "pick and choose." They therefore say this: "If a patient has appendicitis, remove the appendix without any delay." They admit of no compromise, and countenance no doubt about what to do. To the practitioner holding this resolve clearly and firmly in his mind when called to see a case, the only question arising is one of diagnosing whether appendicitis is present or not. If he is in doubt he will, of course, closely watch the case for a few hours, and not advise the appendix to be removed for a stomach-ache, but having once diagnosed that the case is one of appendicitis (and it is seldom difficult to decide within twenty-four hours), the removal of the appendix forthwith follows inevitably. Such an attitude, I maintain, removes all anxiety as to the outcome of a case of appendicitis. The practitioner knows that the case will recover. If, on the other hand, he decides to "wait and see," he knows nothing about what is happening or going to happen within the abdomen and eventually to his patient's life. There is no doubt that the frank admission of ignorance of the condition of the appendix in appendicitis in place of an overweening confidence in fine points of diagnosis, coupled with decision to act in place of a feeble hesitancy, would almost abolish the 1,500 deaths which occur annually in England and Wales from appendicitis, and this, I take it, is what Mr. Paterson means, whether, as Sir George Beatson suggests, many of them under the existing order of things occur after operation or not.

The only remaining cases are those in which the practitioner is not called in till the third or fourth day or later. If he diagnoses appendicitis, again I say without the slightest hesitation operate. It may not be absolutely safe to do so then, but it is safer than waiting. My experience of operation in appendicitis leads me to the following conclusion: If a patient is seen late in an attack and if he is not suffering from profound toxaemia as evidenced by his general condition, he can be perfectly safely operated upon. I say operated upon, but I do not mean by this that he can always have his appendix removed safely. I agree that deaths at this stage are frequently due to a too elaborate operation and a determination to remove the appendix at all costs. I believe this to be wrong treatment. Subject to this proviso, if the general condition is good the patient almost invariably recovers at whatever stage the operation takes place. Of course, the ideal time is within the first twenty-four hours.

If, on the other hand, the patient is suffering from profound toxaemia and the surgeon decides to give him the chance of operation (and this is probably his only chance), and the patient dies, it is a matter of speculation whether the death is exactly due to the disease or operation, or both combined. The patient would probably have died in any case. But of this there is no doubt whatever, that it is a death caused by delay in operating, and, as Mr. Edmund Owen suggests, should be so described in obituary notices. When appendicitis is universally recognized as an acute surgical affection whose only treatment is immediate removal of the appendix, both the 1,500 deaths alluded to by Mr. Paterson and the 3.3 per cent. in Sir George Beatson's series will disappear—*and not till then.*—I am, etc.,

Portsmouth, June 15th. CHARLES P. CHILDE, F.R.C.S.

SIR,—It has come as a shock to me to learn that there is still any doubt as to the propriety of operating on every acute case seen within twenty-four or even forty-eight hours after the onset.

The cases which give most anxiety are those the surgeon sees on the third or fourth day. They may be divided roughly into two classes: (1) Bad acute cases which ought to have been operated on at once and are in danger of death; (2) subacute cases which will either (*a*) resolve, (*b*) suppurate, or (*c*) occasionally perforate.

I must confess that I do not like operating at this time, and prefer to wait a few days, unless the severity of the symptoms forbids. In past times I have seen a good many patients die, in less than twenty-four hours after the operation, simply poisoned by a big dose of toxin. My experience is that operations done, say, at the end of a week give rise to far less constitutional disturbance than those done on the third or fourth days, and do not place the patient's life in jeopardy.

I believe that after a certain time there is—circulating in the blood—sufficient antitoxin to neutralize the toxins which will be liberated at the operation.—I am, etc.,

Lancaster, June 17th. A. S. BARLING.

SIR,—As a physician I venture to ask permission to say a few words on the subject of operation in appendicitis, because my views are at least free from the suspicion of being influenced by any desire for operation. For some years I have seen a considerable number of cases both in hospital and private practice: in most cases I have seen the operation, examined the condition of the appendix, and known the result. In age they have ranged from 20 months to 84 years; the latter was the only one in which an operation was not performed. As a result I am an uncompromising advocate of immediate operation, whatever the stage of the disease. Surgical technique and anaesthetics being what they are to-day, I believe the risk of operation is far less than the risk of leaving a case whose exact condition at the moment it may be impossible to gauge, whose condition in twenty-four hours' time it is even more impossible to forecast. Who can say, to use Sir George Beatson's words, whether the elements of infective material with which the peritoneum is impregnated will die down and cease to be dangerous, or spread into a fatal peritonitis? Have we not most of us seen within twenty-four, or even twelve, hours of the initial symptoms, especially in children, the beginnings of a local peritonitis without any sign of a protective barrier? Any one who can give us the indicia on which they rely to determine the course of such a case without opening the abdomen will confer an inestimable boon on medicine. No one, I suppose, doubts that some cases may be left with safety for a few hours when under surveillance in a hospital or home, but if there is any doubt operation and not delay should be the rule, and with children I do not think any delay is admissible. I have not the figures as to cases that I have seen in hospital, but in some 50 cases seen in private and operated on by various surgeons, many in children under 10, there has not been a single fatality.

One great objection to not operating in private practice is that the patient may repent as he improves and go about with a damaged appendix, waiting for that second attack which may be his last. I believe it is sheer madness to leave a damaged appendix in any person who

wishes to lead an active life. When I recall the number of disasters, merely in the circle of my own friends and acquaintances, I have myself known during the last ten years, from the attack occurring in some remote part of England or Scotland where surgical aid was not forthcoming, I find that it is difficult to write more strongly than I feel on this point.—I am, etc.,

Brighton, June 12th. EDMUND HOBHOUSE.

HEDONAL AS A GENERAL ANAESTHETIC.

SIR,—In the JOURNAL of June 15th I see a reference is made to a death which occurred at Golden Square Throat Hospital after hedonal infusion anaesthesia.

As the administrator of the anaesthetic in this unfortunate case, it was, and is, my intention to report the facts fully on some suitable occasion to my fellow specialists. In the meanwhile, as your account conveys a somewhat erroneous impression, I shall feel obliged if you will allow me briefly to supplement it. The two most important things discovered at the *post-mortem* examination were that the lungs were absolutely studded with small miliary tubercles, and that the trachea and bronchi contained a quite large amount of fluid blood which had doubtless been inhaled during the two and a half hours he lived after the operation. I should state that the operation was for double frontal sinusitis, and that during its performance the posterior nares were plugged. The case was in no sense one of *poisoning* by hedonal. That this drug contributed to the death by depressing the respiratory centres and abolishing laryngeal reflexes is, I am afraid, only too obvious.

The above stated *post-mortem* conditions were mentioned by Dr. Trevor in his evidence, and to omit them in an account of this fatality would be unfair to this method of producing anaesthesia.—I am, etc.,

London, W., June 15th. G. A. H. BARTON.

POOR LAW GUARDIANS AND PUBLIC APPOINTMENTS.

SIR,—Dr. Fletcher's letter (p. 1160) once more calls attention to the discontent felt by medical practitioners in a district where the public vaccinator is also in general practice and whose domiciliary visits to patients may in some instances cause a grave injustice.

On the whole, Dr. Fletcher and his colleagues may consider themselves well off, or at least in a better position than a district where the public vaccinator is also registrar of births, marriages, and deaths.—I am, etc.,

Kencott, May 20th. F. W. PILKINGTON.

THE FINANCES OF THE ASSOCIATION.

SIR,—Dr. Brassey Brierley's letter in the JOURNAL of May 18th is very much to the point at the present time. I see from the statement of accounts (SUPPLEMENT of May 11th) that the Association has during 1911 overspent its income by the amount of 7s. 9d. per member (p. 451, par. 28), by almost exactly the amount apportioned for JOURNAL and SUPPLEMENT, or well over £9,000. Not content with that, the Executive (par. 29) project expenditure involving for 1912 a deficit of £8,500. A financial policy of this description calls for very critical examination. I append side by side a few of the figures for 1910 and 1911, omitting shillings and pence:

	1910.		1911.
Central Meetings—expenses...	...£4,984	...	£11,135
Representative Meetings—printing ...	334	...	1,336
Council Meetings—printing ...	116	...	709
Election Returns Committee—printing	10	...	56
Finance Committee—printing ...	6	...	81
Finance Committee—railway fares	12	...	111

These differences in expenditure call for something more than a mere statement that they are accounted for by so many extra pages of printing and so many extra railway fares for members of committees. As Dr. Brierley inquires, "What is the necessity for it?" and "what have we had in return?" This increased expenditure must be justified by results. Also there is in the JOURNAL account (abstract G, p. 447) an item of £3,429 for contributions and reporting—some £65 per week. How much of this is for reporting, and reporting what?

In conclusion, I would like to draw attention to a current fallacy. It is frequently taken for granted, but does not in the least follow, that the leaders of the profession in medicine and surgery must necessarily be its leaders in its politics, finance, and organization; and the "rank and file" are accused of disloyalty to their "leaders" if they break away from this external "leading" of this eminent surgeon or that eminent physician. This is simply ridiculous, the result of a silly straining of metaphor. At the present time it is the interests of the general practitioners which are imperilled. They constitute some nine-tenths of the profession, and their interests and those of the "leaders" of the profession are by no means always identical, else there would have long since been an end made to hospital abuse in London.—I am, etc.,

Southsea. E. A. SHAW.

THE BRIGHTON EDUCATION COMMITTEE, MINUTE 97, AND THE BRITISH MEDICAL ASSOCIATION.

SIR,—I shall be obliged if you will allow me to direct the careful attention of your readers to the report of the sixth ordinary meeting of the Brighton Division, which will be found on page 559 of the SUPPLEMENT to the BRITISH MEDICAL JOURNAL for May 25th.

The matter under discussion was the action of the Brighton Education Authority in appointing a school medical officer whose duties should include both inspection and treatment. (It should be added that the full scheme of the Education Committee includes the subsequent appointment of an assistant medical officer whose time is to be divided between the department of the education and that of the sanitary authority.)

It will be noticed that no objection is made in this resolution to the appointment of a whole-time officer as such. Nor is there any objection to the salary offered by the Brighton Corporation as being inadequate.

Now, it may perhaps be doubted whether, as a general rule, the inclusion of the duties of inspection and treatment in the hands of the school medical officer is desirable. Probably in many places it would be found to be undesirable or impracticable. In other places it might work well. In Brighton, where the organization already in existence, both on the administrative and on the medical side, happens to be of a high order, the plan would perhaps have an unusually good chance of succeeding. There is, in fact, no very wide basis of experience upon the matter at the present date, for the working of the Act is still in an early stage.

All this, however, we are told, is not for us to consider. We are to shut our eyes altogether to the fact that a large and intelligent Education Committee, awake to their responsibility to the ratepayers, and thoroughly anxious to administer the Education Act in the best interests of the children, have deliberately decided, after plenty of consideration, that the scheme is one which they wish to try.

We are to know nothing but Minute 97, and are to care not at all whether or not the interests of the community are best served by this or some other scheme. The resolution which condemned the appointment did so simply and solely "*because the terms of the appointment are contrary to the principles of the British Medical Association as laid down in Minute 97, etc.*"

That no one might have any doubt upon the matter, Dr. Cox, Medical Secretary to the Association, came to the meeting of the Brighton Division on purpose to support the resolution with all the authority of his office, and to urge upon us as loyal members of the Association the line of action which we ought to adopt.

We were told very emphatically that we must not stop at Warning Notices in the JOURNAL, and resolutions of disapproval, and deputations to the Board of Education, but that we must go on to secure the expulsion of Dr. Hutt from the British Medical Association, and must see to it that should he determine to take up the appointment his continued tenure of it should be rendered socially and professionally impossible.

Now, Sir, I contend that all this is simply preposterous. I have had the honour to hold the position of Chairman of the Brighton Division for the last two troublous years. During this period I have had opportunity of showing my loyalty to the Association by heading two deputations to members of Parliament in defence of the principle that a

National Insurance Act shall not make use of the medical profession upon impossible and unworthy conditions. I have twice gone with deputations to education committees in defence of the principle that when parliamentary or municipal authorities have decided to pay for inspection and to order treatment, they shall provide means to carry out such treatment, and shall not expect it to be done by the charitable work of doctors and hospital subscribers. I have also acted as spokesman to the Brighton Board of Guardians in defence of the principle that boards of guardians who appoint operating surgeons to workhouses shall not offer an honorarium but a salary.

In each of these cases I have had the satisfaction of feeling that the cause which I was defending was in accordance with the principles of the Association, and was at the same time capable of defence on the common grounds of reason and justice.

But on common grounds of reason and justice, it is hard to see how any such defence could be attempted on behalf of the above resolution. Still more difficult is it to see how the methods by which the resolution is to be enforced can be expected to justify themselves at all.

The Brighton Education Committee has, of course, a perfect right to select from among various possibilities whichever scheme it believes to be best suited to its wants.

On the other hand, the Association may fairly use its influence to secure that whatever scheme is adopted the doctor or doctors employed shall be properly paid. This done, any further action on their part surely becomes a merely impertinent interference with what is not the business of the Association, but is purely the business of the education authority.

To the attitude of the Brighton Division, and, I suppose I must now add, to the attitude of the British Medical Association, upon this matter I have been consistently opposed throughout.

I had hoped that I might be able to regard the question as one of those upon which a wide divergence of opinion would not be incompatible with continued membership of the Association. This resolution, which was passed by a large majority at the Division meeting, and the pronouncement of the Medical Secretary of the Association, have satisfied me that, for me at any rate, such a position is no longer tenable. I am therefore resigning both the chairmanship of the Brighton Division and membership of the Association.

I should like to add one question in conclusion. Quite apart from what may be reasonable and just in the matter, is it a wise proceeding at the present juncture to adopt a policy which is an invitation to all practitioners who intend to occupy themselves with public health to hold aloof from the British Medical Association?—I am, etc.,

Reginald John Ryle,
Late Chairman of the Brighton Division.

Brighton, May 26th.

MEDICAL MEN IN THE HEBRIDES.

Sir,—In 1900 I spent a month in Iona, where there is a population of about 250. No doctor is to be had nearer than the other side of Mull, between forty and fifty miles away. One day I was asked to see a Mrs. M., whom I found with an enormously swollen foot and an incipient abscess at the root of the great toe, but otherwise strong and healthy. With much mystery she produced a very large needle, japanned to a fine glossy black, which she informed me she had extracted that morning, but for the appearance of which she could in no way account, though it might have been put there by *others*. Luckily I had by me a small bottle of otto of roses. This is a powerful diffusible antiseptic, which is very slightly irritant, and I have used it in my own person for anthrax with the best results. It will also disintegrate and loosen almost any crust in a few minutes, leaving a clean surface, and quickens the separation of sloughs. I used this on my patient, after squeezing out a drop or two of purulent fluid, and she made a complete recovery in little more than a week, whilst she had intended to go in search of aid as far as Glasgow on the following day, in which case probably deep-seated suppuration would have set in, and a severe operation have been necessary.

The Mull doctors, one of whom has a fine Gothic tombstone in the Reilic Oran at Iona, were long looked on as the first in Scotland. These were the Beatons, who succeeded each other from time immemorial, and were occasionally summoned to Edinburgh to attend royalties. A daughter of one of them was amongst the four Maries of the old song. The old herb garden in which they grew their simples still keeps its name in the south-east of Mull, and it looks as if the only other medical attendant formerly available in the Hebrides was in Islay, if one may trust an old Gaelic saying: "In sickness fare to Islay, if Islay fails try Mull, if Mull says, 'I canna,' the de'il has ye."—I am, etc.,

Bath, June 8th. J. A. Goodchild.

The Services.

FIRST WESTERN GENERAL HOSPITAL.

Lieutenant-Colonel Nathan Raw, M.D., Officer Commanding First Western General Hospital, entertained the medical and nursing staff to dinner at the Exchange Station Hotel, Liverpool, on May 29th. The Earl of Derby, Lord Mayor of Liverpool and Chairman of the Territorial Association, was also present as a guest: and also Sir Launcelot Gubbins, Director-General of the Army Medical Service; and General Bethune, commanding the West Lancashire Division. The nursing staff of the hospital was represented by Miss Glover, principal matron, Miss Purves, matron, and sixty sisters and nurses. In making the annual report for the year, the commanding officer laid special emphasis on the fact that the personnel of the hospital was up to full strength, and that the nursing and medical arrangements were in perfect order and ready for any duties which the hospital might be called upon to perform. About 160 members of the staff of the hospital sat down to dinner and afterwards enjoyed a most excellent concert.

INDIAN MEDICAL SERVICE.

The annual dinner in London of the Indian Medical Service took place at the Hotel Cecil on Thursday evening, June 13th. Surgeon-General J. P. Greany was in the chair, and the guests were: Sir Richmond Ritchie, K.C.B., Under Secretary of State for India; Sir Thomas Barlow, Bart., K.C.V.O., President, Royal College of Physicians; Sir Henry Morris, Bart., President, Royal Society of Medicine; the Editor, the *Lancet*; the Editor, the British Medical Journal. At these dinners no speeches are usually made, but the customary loyal toasts were given by the Chairman. Afterwards Surgeon-General Cleghorn, C.S.I., proposed the health of Lieutenant-Colonel P. J. Freyer, who had organized this and many previous dinners; and Lieutenant-Colonel Freyer, who was warmly received on rising, briefly replied. The following members of the service were present:

Surgeon-Generals: Sir A. M. Branfoot, K.C.I.E., W. R. Browne, C.I.E., J. Cleghorn, C.S.I., J. P. Greaney, G. W. R. Hay, Sir L. D. Spencer, K.C.B. *Colonels*: C. W. Carr-Calthrop, W. E. Cates, D. ffrench-Mullen, D. E. Hughes, M. D. Moriarty, A. Porter, W. A. Quayle, P. A. Weir. *Lieutenant-Colonels*: W. Alpin, J. Anderson, A. W. T. Buist, Sir R. Havelock Charles, K.C.V.O., D. G. Crawford, T. E. Dyson, P. J. Freyer, W. Gray, P. de H. Haig, C. T. Hudson, D. F. Keegan, J. Lloyd Jones, D. P. MacDonald, R. C. MacWatt, H. McCalman, J. Moorhead, T. R. Mulroney, C. W. Owen, C.M.G., C.I.E., T. H. Pope, K. Prasad, W. H. Thornhill, D. Warliker, H. R. Woolbert. *Majors*: H. Ainsworth, H. J. K. Bamfield, R. Bryson, S. H. Burnett, R. Heard, J. H. Hugo, J. C. Holditch Leicester, R. H. Price, R. F. Standage, A. E. Walter. *Captains*: C. Brodribb, C. A. Gill, W. Gillett, W. G. Hamilton, D. Heron, J. H. Horton, D.S.O., R. McCarrison, J. McPherson, A. E. Hayward Pinch.

Under the will of the late Rev. James Marshall, of South Hampstead, formerly assistant master at Westminster School, the Westminster Hospital receives a donation of £500.

The French Surgical Association will hold its twenty-fifth congress this year, under the presidency of Medical Inspector-General Delorme, Chairman of the Army Technical Health Committee, in Paris, on October 7th and following days. The questions proposed for discussion are: Diagnosis and treatment of cicatricial stenoses of the œsophagus; clinical indications furnished by radiology in surgical affections of the stomach and intestine; coxa vara: its relations with fracture and stripping off the epiphysis of the upper end of the femur. During the congress there will be an exhibition of surgical instruments, medical electricity, dressings, and so forth, in the hall of the Faculté de Médecine.

Medico-Legal.

BELL v. BASHFORD AND THE BRITISH MEDICAL ASSOCIATION.

(Continued from page 1407.)

(Before the LORD CHIEF JUSTICE *and a Special Jury.)*

AT the sitting of the court on June 13th the Lord Chief Justice asked for Dr. Ross's book, which he said he would like to see.

Cross-examination of Dr. Bashford resumed: He had read a lecture delivered by Sir Henry Butlin in which Sir Henry Butlin said cancer was the result of a parasite. Many eminent men differed from him, and witness did not agree with him. He still held the view that operation was the only cure. The views of Sir Alfred Pearce Gould on cancer would certainly be considered by the Cancer Institute. He heard Sir Alfred deliver the Bradshaw Lecture on cancer.

Mr. Shearman read a passage in which Sir Alfred said that "there is a cure for cancer apart from operative removal."

Witness said that he (Sir Alfred) was not a quack. He knew Mr. Stephen Paget, who was Secretary of the Research Defence Society, but did not know that it was the duty of that society to inquire into cancer, or that it had made any such inquiries.

Mr. Shearman read a passage from a paper by Mr. Stephen Paget in which he said that in dogs malignant tumours had been reduced by transfusing blood from other dogs which had been rendered immune to this tumour.

Witness said he would not dispute the fact.

In re-examination witness at first said that it was wrong to put forward the treatment of blood with a public profession that it would provide a cure for cancer. It was wise for medical men to point out the result of their observations. It would be wrong to put it forward as a means of preventing the 30,000 deaths from cancer which occurred annually.

In answer to the Lord Chief Justice he said that since 1860 deaths from cancer in males had gone up from 200 to 800. In females it had gone up from 500 to 1,000. At present, from his scientific research, he was not able to give a reason. The increase represented only the total number of deaths which had been recorded from year to year, and did not give the true picture.

The Lord Chief Justice: What is the true picture?—The figures must be considered in relation to the parts of the body. There has been little increase in cancer of the uterus, but there has been an increase in cancer in the stomach and intestines.

The Lord Chief Justice: Have you any reason to give the jury for the large increase in cancer?—The figures must be analysed in such a way that instead of dealing with persons they deal with the different sites of the body in which cancer occurs. Again, cases were formerly said to originate in the liver. They are now allocated to their real position, and the increase is far more real than apparent.

Mr. Duke: I think the witness has an answer which he would like to give.

The Lord Chief Justice: What is the fact, due to scientific research, which accounts for the increase?—I cannot answer you, because we do not know.

Continuing, witness said he did not receive any payment for the article. He did not agree that cancer was a local manifestation of a toxic condition in the blood caused by the absorption of alkaloids.

The Lord Chief Justice: Have you any fact from your own research inconsistent with that view?—Yes; the whole occurrence of cancer in animals is incompatible with it. I have found that, on the removal of small growths from the tongue, there has been no recurrence of the disease.

Further examined by Mr. Duke: He thought that atoxyl was useless in the treatment of cancer. His knowledge was derived from papers. It was claimed by some people to effect a cure, but the results were uncertain. The drug was dangerous, in that, as was reported by Professor Koch, it induced blindness, the dangerous ingredient being arsenic. It was abandoned in favour of a new organic compound of arsenic, "salvarsan." He did not know whether that drug was useless, but Professor Czerny of Heidelberg had pronounced it useless in cancer. He had in his possession as Director of the Institute certain photographs of Arabs which formed part of the ground of his statement that there was cancer in Arabs.

Further cross-examined: He took the statement of Dr. Christopherson, who sent the photographs, that they were either Arabs or Copts. They were photographs of the most uncivilized races in the world. He had seen in Dr. Bell's book that he had been to Egypt to make inquiries himself, but he did not know that he had in consequence been made a member of a learned society. As to the increase of cancer, he did not know that in the period mentioned the amount of meat brought into the country had doubled. He knew that sleeping sickness was a disease of the blood, and that atoxyl was *a* remedy for it.

Mr. Duke: It is not *the* remedy?—No.

Dr. Lazarus-Barlow, a Director of the Cancer Research Laboratories, and Lecturer in Pathology in the Middlesex Hospital, said he had studied and written upon these various matters. As to the foundation at the Middlesex Hospital, it had existed since 1792, and had been established for the very purpose of studying cancer. From and before 1903 treatment of cancer otherwise than by operation had been steadily pursued, and a great number of remedies had been tested under his own observation. He had tried thyroid extract, high-frequency current, *x* rays, various medicinal and herbal appliances, treatment with serum, trypsin, and "radium" water. By "radium water" he meant water containing the gas given off by radium. None of these remedies were effective in the cure of cancer. He had also tried atoxyl, giving one-sixth of a grain six times a day, but it had to be given up because it caused vomiting. That was in 1909. In the conduct of his institution there was no tendency to prefer operative treatment, but to dispense with operation would be a great public boon.

In cases of operable cancer there was nothing but operation which would produce cure, and operation did produce cure; but he did not mean that operation always cured. Operation should be early. Delay was dangerous to the patient. He knew of no means of anticipating cancer in any person, and he never knew of any claim to anticipate cancer prior to Dr. Bell's book. Cancer was not, in his confident opinion, a blood disease. He had examined the blood of cancerous and non-cancerous patients, and had discovered no difference. He had seen the plates on which Dr. Bell relied, and they did not, in his opinion, throw any light on the matter. That extended even to the granulation; which, in his experience, was often the result of bad technique in taking the blood. Delay in taking the blood, pricking the finger with a blunt needle, failure to wash the finger, or pressure when taking the blood—all these things might produce granulation. Dr. Bell's "three symptoms" were of no value in the diagnosis of cancer as they occurred in other diseases. The special diet recommended, and the vegeterian diet were, in his opinion, valueless. Dr. Bell's statement that at least 50 per cent. of the tumours of the breast were not cancer at all, was not his experience. He considered that over 70 per cent. of those tumours were cancerous.

Cross-examined, witness said that his deliberate conviction was "operation and operation alone." That was properly described as the orthodox opinion at present. He had read Sir Alfred Pearce Gould's Bradshaw Lecture. He remembered something about "natural cure" (on pp. 1672–1673), and the statement that *there is cure of cancer apart from operative removal.* Witness did not disagree with that passage, nor did he disagree with Sir Alfred's view that one should look in the future to therapeutic remedies, and that such views should be seriously discussed. He did not think that if a man differed from the received opinion it was proper to attack him without inquiry. If a patient came with a tumour, it was sometimes difficult to diagnose cancer. The received view was that it should be excised at once.

In re-examination, he said Dr. Bell's books added nothing to medical knowledge. There was no authenticated case in them. There was no case there cited which was proved microscopically to be cancer.

By the Lord Chief Justice: The parts of the body where cancer generally appeared were the mouth, throat, rectum, stomach, breast, and uterus. Patients generally complained, in the first instance, of swelling. They generally came when the disease was far advanced, the period varying according to the place where the disease was seated. A patient might come as late as six months; but, even if he came early, there was no remedy without operation.

At what stage of the internal cases can you diagnose cancer? Within four months?—No; it might be going on for that time without any one being able to diagnose it.

You said in chief, "There is no cure apart from operation," and yet you said you agreed with Sir Alfred Pearce Gould?—My answer is that no human individual can cure without operation. In a few cases Nature cures without operation, but no man knows how Nature works.

Continuing, the witness said that the treatments at the hospital to which he referred either dealt with the health of the person or were remedies applied externally.

Dr. Bulloch, bacteriologist in charge of the bacteriological laboratory at the London Hospital, etc., said he had devoted twenty years to pathological study, including the microscopic examination of blood. He had seen the plates in Dr. Bell's books. They threw no light upon cancer. He had examined the blood of numerous cancer patients and the blood of patients in normal health and there was no difference. Examined as to the photographs of blood which had beeen submitted to Dr. Bell in the course of his evidence, he gave evidence to the effect suggested by Mr. Duke in his questions to Dr. Bell. There was a "crenated" appearance in Dr. Bell's photographs which sometimes appeared in films of blood which had begun to dry. Again, the manipulation of the glasses on the slide might cause the appearance. Advanced cancer might, in his view, show a perfectly normal blood. As to the leucocyte described by Dr. Bell, he thought it was an air bubble. The apparent "nucleus" was probably a red corpuscle beneath. He had never seen a leucocyte with a dark rim. Blood might alter in a short time.

The Lord Chief Justice: It is common ground that the photographs of blood vary according to the way in which the specimen is prepared and the photograph taken.

Continuing, witness said that in his view cancer was a local disease. No one doubted that it depended upon the general processes in each individual person. Cancer was not confined to old people. There was nothing in either of Dr. Bell's books which threw light on the origin of cancer. He had had experience of the use of atoxyl. It was uncertain in its action, and was tried in cases of syphilis and sleeping sickness. It had a selective action and was cumulative in effect. It was used in sleeping sickness, but had to be given up as it caused blindness, and was a drug to be used with the greatest caution. He had given as much as two grains.

In cross-examination he said there were a number of persons being treated at the London Hospital for cancer without operation. A number of surgeons thought that there were cases in which operation should not be resorted to at once. He had not much acquaintance with veronal, but a very small dose of it might be poisonous. His objection to atoxyl was its insidiousness. There were over 60 cases of blindness since 1906. The medicine "606" differed from atoxyl and was an improved form, although it also contained arsenic. The examination of the blood was frequently undertaken for purposes of diagnosis. It was a very small part of his work to look for bacilli in the blood. Many modern diseases were treated by injection of a curative agent into the blood.

By the Lord Chief Justice: His own photographs were taken two or three hours after the extraction of blood. Dr. Bell's photographs were untrustworthy, because they were reproduced by a different method, the films were not all of a uniform thickness and the lighting was eccentric. The variation in thickness appeared on the films themselves. There was no difference between the appearance of the corpuscles in the case of a healthy and a cancerous patient, except that in an advanced stage there was a breaking down of the red corpuscles, but that was common to a number of diseases.

Mr. Barnard, Fellow of the Microscopical Society, Lecturer in Microscopy at King's College, said he had experience of examining and photographing blood. He had had no medical training whatever. He had received the samples of blood from Dr. Bulloch himself. The photograph was taken at once. There were not many hospitals where the photographs were taken direct. He also took 1 *a*, 12 *a*, and 7 *a* from his own arm.

In cross-examination, he said that his preparations were made for the purposes of this case. When he drew his own blood it went straight upon the glass. He took blood from his ear on three separate occasions.

Mr. Shearman: How do you classify yourself; are you neurotic, or normal, or what?—I am not conscious of anything subnormal at present.

Continuing, he said he did not know who was the first medical man to make use of photomicrography. The book by Dr. Bell, which was published in 1877, contained pictures, but he did not look upon them as photomicrographs. He would not regard Dr. Bell as an expert at the art of taking photomicrographs, but he only judged by the appearance of the pictures produced.

By the Lord Chief Justice: The difference between photographs of the same blood at practically the same time could be explained by shifting the illuminating apparatus.

Arthur Edwin Boycott, M.D., Lecturer on Pathology at Guy's Hospital, said he agreed with Dr. Bulloch's evidence as to the appearance of the blood. He had been examining the blood microscopically for many years. He could not say from the examination of blood whether a man was suffering from cancer or not.

Cross-examined, he said he had never made a particular inquiry as to whether it was possible to make the distinction. It was easy for the expert to distinguish between healthy blood and the blood of a unhealthy person. There were marked appearances in a case of advanced cancer, but they were not distinctive of that disease.

Dr. James Maughan, one of the police surgeons of London, said he had had experience of the treatment by atoxyl under the plaintiff's method between 1908 and 1910. Anaemia and asthenia—that is, general weakness—were characteristic of those cases. He gave a grain and a half every alternate day. Apparently there was very marked improvement in the cancerous condition. The tumours almost vanished. One tumour was abdominal, another in the bladder, and another in the tongue. He did not, however, continue the use of atoxyl, as a result of his experience in those cases. In the bladder case death resulted from haemorrhage; in the abdominal case death was due to syncope; and, in the case of the tongue, he believed that poison from the tongue has been inspired into the lungs, setting up gangrene.

Cross-examined: It was true that in this case the lumps were rapidly reduced. If an equivalent for atoxyl which had no after-effects could be found, it would be most valuable.

Re-examined: Arsenic had been used for the reduction of tumours for generations.

By the Lord Chief Justice: The use of atoxyl might improve the condition of the patient, even if death ultimately supervened. When he used atoxyl the conviction was forced upon him that life was prolonged in each case.

Sir Alfred Pearce Gould said that the two books of Dr. Bell were wholly valueless from a scientific point of view. He found so much that he knew to be incorrect that he did not attach importance to the other statements, of the truth of which he had no practical experience. He did not believe in the method of diagnosis. As to the treatment of cancer, he did not find evidence in the book that the treatment had been successful. He had tried it, or some parts of it, without success. There were elements of it which he, in common with other surgeons, recommended—for example, ventilation, fresh air, etc. There was not a tittle of evidence in the books to support the blood theory. Men and animals which never ate flesh got cancer. As to the use and effect of atoxyl, he knew it had been used by other surgeons in cancer, and it had been given up. It had never been an "accepted" remedy for cancer, but it had been tried. He had given it up because he failed to notice any advantage to some patients, while others had suffered from their eyes. It was untrue to say that operation invariably aggravated the disease. He had seen cases of undoubted cancer cured by operation. X rays and radium were used for rodent ulcer, which was the least malignant form of cancer. As to the alleged origin of cancer, it was a local manifestation. He did not believe that there was any evidence of the previous accumulation of the deleterious alkaloids.

Cross-examined: His Bradshaw Lecture was published under his supervision in the *Lancet*. It would certainly be a great thing to find a cure for cancer which did not necessitate operation. He read Dr. Bell's books a day or two ago. He was not there to suggest that the accounts of what Dr. Bell did to his patients were not accurate. If the cases were genuine the treatment which Dr. Bell advocated deserved to be fairly considered by medical men, but in his view Dr. Bell's claims had no secure foundation. He would never recommend an early case of cancer which was capable of free removal, and in which there was no preindicative condition of the patient, to be treated by *x* rays. He recommended the use of *x* rays in certain inoperable cases; *x* rays sometimes produced cancer.

Mr. Shearman: One of your remedies is dangerous?—Both are; the knife is also dangerous.

Continuing, witness said there was nothing in Dr. Maughan's evidence to make it clear that the reduction of the tumours was due to atoxyl.

Re-examined, witness said that when he referred to "cures" in his lecture he meant natural cures. Cases which were not subjected to any special form of treatment at all sometimes got well.

In answer to the Lord Chief Justice, he said that the general practice and belief of medical men was that the only way to cure cancer was by surgical removal. He was at pains to say that, in spite of that widespread opinion, he knew of cases which were cured without operation and without any special treatment at all. He did not know what cured those patients. He did not say, "I know a cure": he said, "There is a cure," and that certain cases were cured but did not say he knew the cure. He was of opinion that the hot air treatment was useless. Cancer patients suffered much pain, but the suffering got less towards the end of the disease.

The Lord Chief Justice: Are you able to say whether the treatment Dr. Bell has used might tend to reduce suffering? It has been proved that in certain cases he treated there was an extraordinary diminution in the suffering?—I think it might.

At this point the jury indicated that they had had enough of what the Lord Chief Justice called expert evidence.

Mr. Duke said he had no more that he intended to call. To say he had no more would not be accurate.

Dr. Bell, called and further cross-examined, said he had produced certain case-books for examination. He only sent some books, as he did not keep others which were not required for reference. They referred to 325 cases which were not all cancer patients; 25 per cent. of them were apparently cancer. Each one had a blood examination, but notes were not always made. In some cases hydrocyanic acid was prescribed for vomiting, but they were not necessarily cancer patients.

In re-examination, he said that atoxyl had to be used when it was fresh.

Mr. Duke, in addressing the jury, said he, too, like the Lord Chief Justice, desired to emphasize the importance of the case from the public point of view. The plaintiff was a gentleman who had developed views of his own upon cancer. He abandoned operation in 1894, and in 1904 he came to London, and apparently had to be dealt with for the purposes of this case as a specialist in cancer.

Dr. Bashford, who had been spoken of somewhat contemptuously as a young man, had had a distinguished career both as a student and as Director of the Imperial Cancer Research Laboratory. Coming to the question at issue, had the defendants done more than exercise their right of fair comment? It was honest criticism. If the criticism was honest, it was within the protection of the law even if it was erroneous—even if it was extravagant. It was his task in this case to show that this was honest criticism. It had been suggested on behalf of the plaintiff that there was a kind of combination on the part of the surgeons of this country to maintain the position of operative treatment of cancer. It had also been said that the defendant, Dr. Bashford, had shown a want of humility. Had not an institution existed for cancer research in London since 1792? Was not the attention of medical gentlemen focussed upon this scourge of the human race in every country in the world? They were trying everywhere to find a remedy; and the common sense of the medical profession had united in the belief that there was no remedy except the knife which could be used with reasonable certainty. But let it not be supposed that there was a conspiracy between physicians and surgeons to impose upon the public and their patients that operation was the only remedy. They had only to look into the plaintiff's literature to see that he made that charge in relation to cancer. He could not consent to treat the plaintiff merely as a good Samaritan. His books, his newspaper articles, his lectures in the Hall of the Golden Age, were part of his machinery as a consultant in cancer. He sold his books for profit; he made appeals to the public; no doubt he treated some patients who could not pay gratuitously. He had taken means to put himself before the public since he set up in London in 1904. Such a man was not in the position of a philanthropist. In a passage in one of his books he pointed out how, under certain circumstances, much valuable time was lost by the failure to consult "a competent medical authority." Who was "competent" according to the plaintiff? They might presume that all the medical practitioners who supported his views had been called before them. Who was the "competent" person? It must have been the plaintiff himself; and,

according to the interview in the *Daily Mirror*, the matter was sufficiently clear. Dr. Bashford was not even a practitioner; and if the case must be put on that base ground, the physicians who had been called were not interested when they said, "We cannot treat for cancer." His learned friend had spoken of cancer, saying, "No one comprehends cancer"; he had also said, "The plaintiff has no cure for cancer." The eminent surgeons who had given evidence had stated that there was no remedy but the knife. But the plaintiff had said (according to the *Daily Mirror*) that there were 30,000 deaths from cancer which were preventable. Imagine the effect of such a statement upon the sufferer from cancer! All Dr. Bell's statements must be examined in relation to that announcement. His announcements went before the public; not only before the medical profession. His photographs were calculated to mislead the people. If his pretensions were false, were people to be mealy-mouthed in criticizing him—criticizing a man who did not hesitate to say of the whole of the medical profession that they did not always regard the health of the patient as the primary consideration? Eliminate the errors of the plaintiff's system, and what was left? "Cancer," he said, "was a disease originating in the blood."

For this there was a supposed scientific explanation—the entry of putrescin and another alkaloid into the blood. But the blood showed nothing definite. Dr. Bell believed it: two or three other medical men believed it, contrary to the experience of their professional brethren. Was there one man who could believe upon the evidence that if you cleanse the blood you necessarily eliminate cancer? It was at one time thought that it was a disease induced by a meat diet; but that had been exploded by statistics from Japan and India, not to mention Egypt. What did they know from the evidence of their senses during the last few days? It had been the most mysterious of diseases from an early period in the earth's history; yet in his book, *The Cancer Scourge*, Dr. Bell had written that he was convinced that cancer was always preceded by certain definite symptoms. It was easy, he said, to diagnose cancer. "Most easily preventable" said Dr. Bell. All the evidence went to show that a toxic condition of the blood might be due to many different diseases. Dr. Bell had said a most illuminating thing about the diet treatment and sunlight, ventilation and fresh air. Dr. Bell said he even prescribed it for people in good health. The fallacy of his boasted cures was that there was no scientific proof that his were cases of cancer. The great body of the profession had been driven to the view that the plaintiff's claims were mere pretences. He discussed the members of his profession severely, and then he was in turn discussed in terms of great severity.

Alluding to various passages in the alleged libel, Mr. Duke invited the jury to consider them all in the light of the plaintiff's denunciation of the medical profession. The stories told by Sir Spencer Wells were but classic instances of the practice of quacks. Dr. Bashford said in his article, "No one comprehends cancer"; Mr. Shearman said, "No one comprehends it"; but the plaintiff had said, "I comprehend it," and founding upon that he had asserted that the use of the knife was dishonest. Small wonder, then, that his conduct should be severely criticized. As to the analogy of dry rot in a beam, what Dr. Bell demanded was that you should treat the disease of cancer without eradicating the local manifestation. What was the judgement of the eminent medical men who had been called upon the plaintiff's books? They came to the conclusion that there was nothing in those books which was of any use. That was the opinion of men of wide experience, some of whom were not surgeons—were not even engaged in actual practice. They had devoted their lives to the investigation of this obscure disease. As to atoxyl, that was the most powerful preparation of arsenic which any one had ventured to use in modern times. It had a curative power, no doubt; but it was a power which threatened life by other means. What they really had to consider was whether the severity of Dr. Bashford's criticism showed that he was not honest.

It was a phenomenon in the medical profession that a man should advertise himself in the halfpenny press, and in the lecture room as a curer of cancer. Was Dr. Bashford not justified in describing Dr. Bell "as one of the most advertised curers of our time"? Finally, the Editor of the JOURNAL had summed up Dr. Bashford's article as he was entitled to do. They must consider Dr. Bashford's paper as a general criticism of quacks, and also as a particular criticism of Dr. Bell. It was clear from the evidence that Dr. Bell's pretensions could not be justified. What was his extenuation? That, if he did not cure the disease, he alleviated the lot of the sufferer. That should have been stated in the advertisements. They had only to consider whether the criticism went beyond the occasion. Was it not justified in the light of the public interest?

Mr. Shearman, in reply, said he was not going to address the jury at any length. Mr. Duke had carefully avoided the real point at issue. The action was not only against Dr. Bashford; it was against a journal which represented the orthodox view of the medical profession. His client did not ask them to say, "The surgeons are wrong and I am right." The heresy of one day was often the orthodoxy of another day. Was there not intolerance and bigotry amongst scientific people? Dr. Bell said, "The defendants may attack my system but they must not attack my honesty." The real and only question in the case was, Was there any ground for saying that the plaintiff had practised upon the credulity of the public? There might or might not be grave errors in Dr. Bell's system; but if they were satisfied that there was something serious in that system, that was enough for the plaintiff. Were they satisfied there was nothing in it? He had not exaggerated the number of his cures; but he had instanced cases proved to be cancerous where tumours had disappeared under the influence of atoxyl. It was sufficient for him to say that treatment had been tried and was being tried by other persons as a cure for cancer. His client's system was "treat the blood." He asked them to believe that Dr. Bell had a message to deliver to the public. His plan had produced definite and tangible results. He submitted that the action was undefended. No general practitioner would send a patient to Dr. Bell after having read this article.

When the court sat on Friday morning the Lord Chief Justice said that he had received a large number of letters from various people with reference to the case, but he did not desire to pay any attention to any of them except one, which was from a gentleman apparently of authority, who stated that the Japanese were largely eaters of fish. He desired to ask Dr. Bashford a question upon that.

Dr. Bashford, recalled, said, in answer to his lordship, that he knew from conversations with various persons that the Japanese ate rice.

The Lord Chief Justice: Do you know whether they are largely eaters of fish?—I do not know whether they are or not. I know they eat rice.

SUMMING UP.

THE Lord Chief Justice: Gentlemen of the jury, this case has lasted four days, and has been most ably conducted on both sides; but it will be necessary for me to direct your attention to certain questions of law, and, only shortly I hope, to call attention to the evidence upon which some of the questions must to a great extent depend.

Gentlemen, I will assume, for the purpose of what I am going to say to you, as a matter of law, that you are of opinion that this article charges the plaintiff with being a "quack." That would not of necessity entitle the plaintiff to a verdict: because, even although he is a qualified medical man, you may be of opinion that what he has done may be fairly described, as a matter of comment, as "quackery." Although it is a very important matter to be considered, when you come to deal with some of the questions which have been raised, that the plaintiff is a qualified medical man, and has practised for upwards of thirty years as a qualified medical man, you must not assume as against the defendants that the article is of necessity a libel because it calls him a "quack." You must, of course, when you come to consider the later questions, bear in mind that the plaintiff is a qualified medical man, practising his profession in this city; because, as Mr. Shearman told you a few minutes ago, there cannot be anything much more serious than charging a medical man, with all his knowledge, with "quackery." I caution you on this because I once made a mistake on this matter, and therefore it is in my mind. All I say is, a qualified medical man may be guilty of "quackery"; but when you come to consider the evidence you must consider whether what he has done justifies that term.

Then I have to tell you distinctly that a great deal of the observations made by Mr. Duke yesterday and to-day were not founded upon a correct view of the law. He over and over again referred to Dr. Bashford's honesty. You may, in one aspect of the case, have to consider, if you think it is a libel, how far you are satisfied that Dr. Bashford has been perfectly honest in the matter; but it would not be the less a libel because Dr. Bashford honestly believed what he wrote. If he, honestly believing it, called the plaintiff a "quack" and described his system as "quackery," and if you in your judgement come to the conclusion that that is not fair comment, then I tell you the fact of Dr. Bashford's honesty has nothing to do with the matter. You may consider that presently, if it becomes necessary, in the consideration of the question of damages; but to suggest that it is fair comment because Dr. Bashford honestly believed it is not the law if you come to the conclusion that it is a libel upon the plaintiff and is not fair comment. Of course, when you come to consider the question of fair comment, you will have to consider very carefully what the libel really suggests.

It was rightly said to you at the beginning of Mr. Shearman's reply that the only question is whether or not the plaintiff has been libelled and whether this article is fair comment. If you come to the conclusion, having regard to the statements of facts, strong as they are, that you think that they are fair, you will be entitled to say so; but you have not, except in so far as it bears on that question, to deal with the somewhat difficult and complicated medical questions that arise. They do have a material bearing upon some parts of the case and that is why I shall have to direct your attention, at not too great length, I hope, to the evidence.

One other word of caution, which has been given by judges of far greater distinction than I: if you think the real comment is justified, then do not trouble about strong language. It has been said by a great judge that you are not to deprive an article which is fair comment of the protection which is given to fair comment, because it is couched in strong language. If you think the article is not fair comment upon the true facts before you, then of course the strong language becomes very material, but I wish to say to you, and I do say to you, that the plaintiff cannot complain of strong language if it is justified, because, without going through the words again, he has himself used very strong language. He has spoken of serum, which we know nothing much about, as "serum quackery." He has said that the surgeons who operate for malignant disease by operation are in some cases—I will not say in all—guilty of a crime; which is, of course, strong language. I refer to page 110 of *Cancer and its Remedy*, which has been often read before.

"It may not have escaped the notice of my readers that an eminent Paris surgeon recently expressed the opinion that 'to operate for malignant disease is a crime.' If this is true, then it is a 'crime' which is too frequently committed with impunity, for it is not as yet generally recognized as such, but every day would seem to be bringing us nearer to the time when there will be no doubt in the public mind on the subject." In the preface which Mr. Duke read to you there is: "Unfortunately, surgery has all along adopted this principle. Hence the invariable result of operation in cases of cancer has consisted in the speedy recurrence of the disease in a more aggravated form than that which previously existed, increase of pain, curtailing the life of the patient, and moreover in many instances interfering, fatally, with the therapeutic measures which might otherwise have proved efficacious." Then on page 16 of *Ten Years' Record of the Treatment of Cancer without Operation* he speaks of the number of operations which might have been avoided and does very severely criticize those who operate. It is quite true he does not refer to an individual, and thereby it cannot be said he has libelled anybody; but if you think the criticism is justified, it does not lie in the plaintiff's mouth to complain of strong language, and it would not be just to decide this case only on the question of strong language. Of course, as I said a moment ago, if it is not justified the strong language becomes important; but do not deal with this question from the point of view of seeing whether the language is strong until you have made up your minds on the merits of the article and decided whether it is fair comment or not.

We are dealing with a very important matter, and I ask you to consider the matter very carefully from both points of view. If you think, assuming as I do for the moment, that this article charges the plaintiff with being a quack, and you come to the conclusion that he is one, do not hesitate by your verdict to say so. If, on the other hand, you think that he has been unjustly criticized and that his work has not been fairly commented upon, do not hesitate to find for the plaintiff; because in such an important question it would be a most lamentable thing that research, experiment and attempt to find some cure for this dreadful disease, this scourge of mankind, should be checked by unjustly criticizing and commenting upon the action of such a man as Dr. Bell.

Now what is the position at the present time? Before we deal with this case I will put to you, as shortly as I can, the facts, which are entirely for you; but what is the position when this matter comes to be discussed? It is not denied that against any person who goes in for the cure of cancer by medicine or treatment, or by other than operation, there is practically the whole body of surgical opinion against him. It is not disputed by Mr. Shearman, and it is fortified by the evidence that all the surgeons and practically all the doctors are against there being any cure except by operation. One of the most eminent surgeons, Sir Felix Semon, was called to say that in cases of the throat he had been successful in no less than 20 out of 25. There is no doubt that, for that particular cancer, operation may be said to be very successful. Now we come to what are the other views which existed at the time that Dr. Bell began to do some work. What he did I shall have to refer to later on. It is quite plain that people are still striving to avoid operation, and for very merciful reasons. You know, as this case has told you, that it is sometimes weeks and months—that is what the witness said to me—in some cases before you can diagnose the lump in the inside of the body as being cancer, and very often it has no malignity, and therefore you have a long period when the patient may be getting worse, and he may have arrived at such a stage that when it does come to the doctor you cannot operate. Then, as is referred to by the witness, there is the dread and reluctance of people to be operated upon which leads people suffering, and particularly women, to delay being operated upon; they dread the knife and hope the thing will pass away. Therefore the desirability of some other remedy is admitted by these gentlemen, although they think there is no other remedy. Then we have it that there has been a department of the great Middlesex Hospital for Cancerous Research, and witnesses for the defence have been here and said (Dr. Barlow among them), "We are trying to do it, and we are treating cases therapeutically, and we are treating cases by diet, and we are treating cases by medicine at the present time to try and find out some cure." Therefore, that people ought to enter into these questions and try to bring their ability to bear upon it is quite clear. But really there is nothing more wanted than the evidence of the lecture given only a year ago by Sir Alfred Pearce Gould, a gentleman of whom I speak with the greatest respect, because I have known him for many years. I am bound to say this, his evidence in the box did not appear to me quite to correspond with the meaning which an ordinary individual would gather from what he said; but, of course, that may be because he was addressing people who knew more about the subject. Although Dr. Barlow did say that they were trying to treat cancer by these two means at the Middlesex Hospital, he rather takes the view that the article does not mean as much as the ordinary man in the street would have thought. I will read the passage which has been referred to as to cure. This is only last year: "This is not an exhaustive list of such cases that I have myself seen, and I am sure that my experience is not singular. In some of them the disease was not 'cured' in the sense of being wholly and permanently removed"—you will remember the importance of that, because it is admitted that the pain in many cases is intense, and that improving the pain for the time being might be of great value as rendering the last few months of the patient's life less painful, and himself not suffering as in other cases he would have. But Sir Alfred Pearce Gould is certainly speaking of more than that. "In some of them the disease was not 'cured' in the sense of being wholly and permanently removed, but in several there is strong reason for thinking that this word 'cure' may be justly used. In many of the cases treatment directed to this end has been carried out"—that means special treatment, as you will see in a moment—"in some there has been no special treatment." Therefore he is dealing with cases where there has been special treatment apart from operation, and in other cases where there has been no special treatment. "In my brief records of these cases to-day I have not mentioned the treatments employed, because my present purpose is not to vaunt a remedy but to state a fact." It is entirely for you, but it is suggested by Mr. Shearman, and you must consider it, that the ordinary reader of that article would at once have understood Sir Alfred Pearce Gould as saying: "There are treatments which have been successful, but I do not want to quote them because I do not want to vaunt a particular remedy." Then it goes on, "but to state a fact—that cancer even when advanced in degree and of long duration, may get better, and does sometimes get well. There is cure of cancer apart from operative removal. All therapeutic cures are obtainable only by the working of physiological forces, and the first hope of therapeutic success comes with the observation of the efficiency of unaided Nature to accomplish cures." It is entirely for you, but it is suggested by the plaintiff—I will not express my own opinion—that the ordinary reader of that article would have understood Sir Alfred Pearce Gould as saying: "There are treatments which have been successful, but I am not going to tell what they are, because I do not want to vaunt a particular remedy," but in italics it says: "There is cure of cancer apart from operative removal." Gentlemen, it is a strong fact in favour of the suggestion made by the plaintiff and his counsel, that this question of cure of cancer is a matter in which medical men may fairly examine and publish their results, that one of the most distinguished surgeons, who was called to say the only cure is by operation, published that last year. It is not conclusive, but it is entirely a matter for you.

Then there is the question which has been raised as to whether or not cancer is a disease which comes in by the blood. Nobody denies that cancer occurs in many cases in people who have got into an unhealthy condition. Whether or not the plaintiff's witnesses are right or not in saying the blood is always in a septic condition is not very material; but Dr. Barlow and others all said that people when they are suffering from cancer have got into a bad condition of health, and Dr. Barlow admitted—I think it was he, or at any rate it was one of the defendants' witnesses—that when you get an advanced stage of cancer the blood is in a very different condition from healthy blood, not that he was able to diagnose it thereby, but that in fact it was in a very different condition. Upon that point the plaintiff not unnaturally relies upon what Mr. Shearman elicited in cross-examination from one of the defendants' witnesses—namely, the opinion of Mr. Stephen Paget, which was expressed in March, 1909: "In dogs malignant tumours in advanced stages have in several consecutive stages been cured by bleeding the animals and transfusing into the veins the blood of dogs previously rendered immune to this tumour." If that applies to the human being it shows that you can get at the cancer by working through the blood. Neither you nor I have to form an opinion upon this subject, but it is the kind of question which has to be meditated upon by people who are writing in favour of the one view or the other. I will quote a witness who struck me as giving his evidence clearly, whether he is right or wrong. Dr. Cowen, to whom I shall have to refer in another connexion. Dr. Cowen said that in his opinion cancer was a local manifestation of a toxic condition of the blood produced by constant absorption of alkaloids formed from putrescin or decomposing compounds. "Cancer itself gives out a further toxin which kills the patient." That may be right or it may be wrong, but that is the view of a competent medical man. On the other hand, the witnesses for the defendants say that is not right; they do not agree with it at all. That shows you the sort of controversy which was going on in the medical profession at the time that these articles were written or these books published.

In view of that you have to consider the conduct of the plaintiff which has given rise to this action and these strictures upon him. Here I tell you (of course you may have special knowledge, and you may bring it to bear upon the case) that you must act upon the evidence in this case, and that is why I am obliged to bring your minds back for a moment to what the evidence is. This is not a scientific theatre, and it is not a case in which you by your verdict have to express an opinion in favour of Dr. Bell's treatment or against it, except in so far as it bears upon the question of whether or not he has been libelled in this article, or the article is fair comment upon what he has done. He is a medical man, 67 years old, who was for twenty-one years physician in the Hospital for Women at Glasgow. He had performed about eight operations for cancer each year up to 1894, and in 1894 he ceased operating. One really must deal fairly with people. The defendants do not suggest there was any wicked motive in doing that. He says (and this, of course, he could have been cross-examined about), "I came to the deliberate conclusion that operation was not successful." It may be he was not skilful enough, but he says, "In my operations the cancer returned." He says, "For ten years I declined to operate. I lost money by it, and

therefore any suggestion that I did it for gain is not well founded." During that time he was a medical man with certainly considerable qualifications for research. He told you he was with the great Lord Lister, then Professor Lister, and wrote a pamphlet upon his system, and that he studied the potato disease, which is only important in another connexion, and about which I shall have a word to say to you later on. Then in 1876 he contributed to this very JOURNAL a paper on diphtheria, and then a paper on the prevention of secondary fever in small-pox by preventing the formation of vesicles, which has now become the general practice, and he said he was the first to point it out. He says also he was the first, in about 1874, 1875, or 1876, who used microscopic examination of the blood to aid his general medical position. Gentlemen, that does not prevent him being a quack or being called a quack if what he does afterwards deserves that name. But it is quite a just observation of Mr. Shearman that it is not the case of a man making or selling a medicine or some specific which he says will cure people, but it is the case of a man who says, "I honestly came to that conclusion." Then he came to London, and with regard to his coming to London we must consider a little more about him. He says that he has been treating cancer and reading everything he could about cancer during the whole time, and that he has had considerable practice in cancer during ten years in London. He says: "I have had a fair amount of success, and, taking all my cases, I have had 10 per cent. of successes; but if you exclude the hopeless ones which were frequently sent to me—I have had cases in which the cancer is inoperative and given over by the doctor sent to me—I have had 30 per cent. successes."

Now comes what is to my mind an important matter for you to consider. Excepting as to the use of the drug atoxyl, and possibly formic acid, no objection is taken to his treatment. It may be said not to be curative, but no one has suggested, except with regard to atoxyl, about which I shall have a word to say, that his treatment is not such as a respectable responsible medical man might use. The whole controversy is: Is he justified in saying that he has been successful? Gentlemen, you have seen the man. Mr. Duke asks you, of course, not to believe him. I thought it of sufficient importance that he should be tested, and I said I thought his case-books ought to be shown, because they would to a certain extent enable a competent medical man to see whether or not he has been treating people in the way he suggested, which is one indication of whether the man's treatment is an honest treatment or not. If the books had shown nothing of the kind the observations by the defendants would have been stronger. I am bound to say that what was read out by Mr. Duke is matter in favour of the plaintiff which you must take into consideration. His books were submitted to one of the most hostile witnesses against him, Dr. Barlow. I am not sure that he was quite the sort of man I meant the books to go to, but that does not matter. I thought they would be given to some man who was himself practising in cancer. As it was they sent them to the head of the Research Laboratory at the Middlesex Hospital, a witness against this gentleman, and a witness about as unfavourable a critic as the man could have. He produces his case-books, which roughly ran over eighteen months, and he said in the last three years he had 70 cancer cases, but it turns out that there were 325 people, and of them 25 per cent. were treated with the treatment which Dr. Bell says he treats cancer patients with. They may not have been all cancer patients—I think it is highly probable they were not entirely cancerous patients—but all of them were patients with tumours. As you know, the malignant character of the tumour cannot be always diagnosed. I will not go through the parts of the body. You heard what I got from Dr. Barlow yesterday with regard to the parts of the body where it may occur. There are many internal parts where there is no means of seeing it, and one of the criticisms of Dr. Bell against operation is, whether it is right or wrong, that the surgeon operates at once without waiting to consider what it is.

Mr. Holman Gregory: I am loth to interrupt, but 325 was general practice, not cases with tumours.

The Lord Chief Justice: Certainly, I said so.

Mr. Holman Gregory: Your lordship said, "They may not have been cancer cases."

The Lord Chief Justice: No, I beg your pardon: I referred to 25 per cent., and I made it quite clear. I am always glad to be corrected, because you always do it most fairly, Mr. Holman Gregory. There were 325 cases with notes of cancer, but 25 per cent. of the cases were apparently cancerous. There were only 16 of them noted as having blood examination (this is Mr. Duke's own words), and there is not the slightest reason for disbelieving him. Dr. Bell said he had in every case a blood examination, and there is no ground for thinking he is not telling the truth about that. So that it stands in this way: that submitting his case-books to the other side it appears that out of 325 cases, 25 per cent., or 81, were patients to whom he had administered that treatment, and he says, whether you believe him or not, that in 10 per cent. of those cases they were successful, and if you exclude the bad cases he says he had 30 per cent. of success.

Gentlemen, I do not propose to go into the question of blood examination, and I will tell you why. It is a controversy between these people. Dr. Bell said, if I may use a popular expression, that he sticks to this: "I can from the condition of the blood see a tendency to cancer. I can detect it. I have been working at this for many years, doing many microscopic examinations and my own photography." He has a right to say it if he believes it, and the fact that other people come to say that they cannot find anything does not show it is not right, although it throws a doubt upon how far he is successful in diagnosing.

Then comes a curious incident which is introduced into this case; it is entirely for you to say what weight it has with you. The defendants last week, quite properly, laid a trap for him. They got photographs of blood taken. Every one agrees that a good deal may depend upon how soon it is taken, and how soon after it comes from the body, and how the blood has been treated; but we will assume it all to be fair. Mr. Barnard said: "I took the drops from my own body," and Dr. Bulloch said: "I gave one from a cancerous person, one from a non-cancerous person, one from a healthy person, and one from a cancerous woman." It is quite true that if the photographs had been correctly arranged, and have been properly, so to speak, numbered, than Dr. Bell's evidence does not agree with what was the condition which you would expect to see in the blood from the cases which were given. For instance, in one case he described as a cancerous blood blood which was said to have come from a healthy man, and so on. Gentlemen, it is entirely for you. It is said by Mr. Shearman that it would have been much more satisfactory if we had had the slides used by some person who was taking them in the course of his practice. It is an observation which must not be altogether disregarded, although, of course, Mr. Shearman makes no attack beyond saying it is quite satisfactory. They have not produced any slides actually used by persons who were treating patients for cancer. All they did was to get these slides up last Monday, and they were, of course, a very formidable test for the plaintiff to have. You will probably not consider them as conclusive if he was wrong, but of course it is entirely for you to say what weight you attach to that evidence as throwing doubt upon what he said, that he could from the blood slide see the kind of condition of the body which is likely to lead to cancer. Now, he is not corroborated as to his method of doing it by the next witness who was called. I will refer to him in a moment, but I am taking this point now. It is equally true that in the case of Dr. Knaggs, who also works by photography and produces his own slides, that he says he works by granulation, and he gives the instances, whereupon the defendants' critic in court says that Dr. Knaggs is entirely mistaken, and that what he is looking at is only light in the photographs. These are matters entirely for you. They may be right or they may be wrong, but I never like to spend time upon detail. You have had evidence on the one side and the other. You have seen Dr. Knaggs and you can judge of the man. He produced photographs, and said, "I do act by observing granulation; I do not rely upon conglomeration," which was the word Dr. Bell used. This incident as to whether or not the blood diagnosis is an accurate guide to treatment is one which you will only consider incidentally; it is not of very great importance.

I now come to what is much more important: is this corroborated or not? The common suggestion made when this sort of libel action is brought is that the man stands alone, that there is nobody who has ever seen his cases, that his books are not properly kept (that is not said in this case) and that it is unsatisfactory. Now just for a moment or two let us consider what is the evidence on plaintiff's side before we come to that of the defendants. The plaintiff called altogether seven people. You have seen Dr. Knaggs; he says he has been diagnosing blood for ten years, and "I am bound to say it is only in advanced cases you can diagnose cancer." Therefore he is not so confident about that particular point as Dr. Bell, but he says he confirms Dr. Bell in his view as to cancer being a blood disease. He says that he has watched four cases treated by Dr. Bell: the coachman with the malignant cancerous growth in the tongue, and three other cases of cancer of the breast, all died, but the suffering was greatly mitigated. You have seen him, and you can judge whether he is an honest man; of course the defendants say he is entirely mistaken. He said that this treatment mitigated the suffering in all those cases, and in the case of the coachman he said he was cured. I forget whether that particular coachman is alive now, but it does not matter for this purpose, because the question is: Did the treatment, so far as medical men can judge, cure in that case? The fact that he comes back is an incident, because it is not a total cure, but it depends to some extent upon this theory, which I do not want to go into again, whether it is a blood disease or not. We know it was supposed to be so in early days, but according to modern research, it is thought that it is not. He is cross-examined (and it is very easy to do it) as to whether the coachman's tongue might not have been the result of a syphilitic disease. One does not quite know where they got that information from, but, of course, you must consider whether it might have been a syphilitic disease. I do not know whether syphilis is supposed to cause cancer or not, because I was not told, but he is saying: "Syphilitic conditions do produce similar conditions of the tongue, but I formed the opinion that that was cancer."

Then came Dr. Pollock Simpson. He said he had seen Dr. Bell's treatment, and has had it under his notice since the beginning of 1911. He says that his diet is excellent, and he first refers to the hot air treatment. It is rather remarkable that none of the defendants' witnesses have ever experimented or expressed any opinion, except generally, upon the hot air treatment. I put it to Sir Alfred Pearce Gould, and he said he used hot fomentations. I have no knowledge about it, and it is entirely for you. The plaintiff brought his apparatus down, which consisted, as you know, of a means of heating air at a

considerable pressure to 500° F., and directing it on to the cancer, ulcer, or whatever the thing is, and he says it does dry it up and ultimately assists in the removal. That may be true or false, but it is a most remarkable thing, that although that evidence with regard to that specific method of treatment was proved three days ago, yet the defendants have not ventured to criticize it or say a word about it. All I say is it is for you and not for me that you must consider this as a whole. Dr. Bell says: "I have thought out and arranged that system whereby that current of cool air coming into the pipe is heated up by an electric heater, and I direct it on to the cancer." That may be right or wrong, but the defendants have not suggested that all Dr. Bell's remedies are not worthy of using—they have not directed their attention to his system on that part of the evidence at all. You may know enough to say that it is not important, but still all they have said is that Dr. Bell has only used old remedies. Dr. Bell says he was the first to use the thyroid gland, and nobody denies that it may have some effect, although nobody suggests that by itself it is a complete cure. It appears in the first three cures about 1895, which Dr. Bell explained to the Gynaecological Society in 1897, and said that he thought the thyroid gland would do it, but he said in a distinct and specific manner, when cross-examined by Mr. Duke, that he had gradually improved what he had done, and he further said in most distinct terms: "It is quite correct; I have no cure for cancer. I have always maintained that there is no specific cure." Therefore, what he was doing, with what success we will see presently, was to develop all those cures and the study of the matter.

Then Dr. Pollock Simpson speaks as to the hot air treatment, and he speaks to having had experience of half a dozen cases all improved, and in one case of inoperable cancer of the pharynx there was great relief from pain and an improved condition.

Then came Dr. Simpson, and he said: "In 1910 I became acquainted with Dr. Bell's treatment"—and this is important—"I have not at the present time formed a definite opinion upon it, but I have not formed any unfavourable opinion. The first case was cancer of the uterus. There had been three operations—the patient declined the fourth operation." For the first month he thought that there was an improvement, but then he did not think that the improvement was maintained. Then he said: "In the other case of cancer of the breast I tried Dr. Bell's treatment," and then he described what happened. "The patient gained in weight, the tumour altered in colour, but ultimately the disease was not cured in that specific case." No one suggests that the fact that the patient dies afterwards proves that he has not been properly treated, because even in operation itself, apart from Sir Felix Semon's very large average, in the throat only, many people have said that it does recur after operations in some cases, principally because they have not come early enough.

Then came Mr. Dutton, who said: "I have formed the opinion for ten years that operation for internal cancer is not desirable. I consider cancer is caused by the toxin in the blood. There was one case of cancer of the breast not operated upon but treated, and I saw the patient last November."

Then came Dr. Cowen. He is in the same house, and was a tenant of Dr. Bell's. But, fairly enough, Mr. Duke did not suggest that his evidence was not fair on that ground. You will remember what he said. He made a great impression upon me, but it is entirely for you. He was the man whom I have quoted more than once as giving the clearest opinion as to what cancer is caused by. It is said by the defendants that his evidence is wrong, but it is entirely for you to say what you think of Dr. Cowen's evidence. He said he had seen several cases, and his treatment is identical both as to diet and objective treatment. Then he said: "Every case of a swelling, except the small nodules, which remained after four months' treatment, had been diminished, but the particular person in that case died of heart failure. She had improved very markedly." Of course, no one suggests that a person may not die of heart failure, especially if they have got into the condition in which they may be when they have cancer. Then he gave the evidence which I have read to you. He is a very important witness upon one point upon which Mr. Duke has severely attacked the plaintiff's treatment, and that is the question of atoxyl. It is entirely for you, but I do not understand it at present, what the defendants mean in attacking him on the atoxyl point. One witness said it was used first in 1902, but the witness called yesterday said 1905; that was Sir Alfred Pearce Gould. Several of the defendants' witnesses have used it for cancer but have abandoned it, and they have abandoned it because they say it is proved to have dangerous results. Upon that you have the evidence of Dr. Cowen before you, who was not cross-examined to it, and he says: "I have administered thousands of injections, and I have never had any results of toxic poisoning or arsenic poisoning or anything deleterious." Of course an immense deal would depend upon the drug administered and upon the patient. Dr. Bell says he has never had a case of anything wrong happening to the patient, and Dr. Cowen says although he has made thousands of injections he has never had such a case. It is a very strange thing that according to the evidence of the defendants called yesterday a substitute is now being used called "salvarsan," and which is also known as "606," containing arsenic in it. All this is a contest between medical men. This morning formic acid was suggested, and the only evidence about formic acid is that it is seven times stronger than acetic acid, but it all depends on the amount that is administered. So far as I recollect (I will not be certain) there was no cross-examination as to how Dr. Bell administered the formic acid, or whether the strength was too much, or whether any harm came from the use of formic acid. The defendants come into court, quite rightly, to criticize what Dr. Bell has done. It may be that Dr. Bell in his experience is using a weaker solution. He said that atoxyl was only one-fortieth as poisonous as arsenic, and it appears that this new "606" is even less open to objection as it is reduced in its toxic properties. What I venture to put to you is this, that you cannot decide this case on that sort of controversy. If you believe the witnesses who have been called to support the plaintiff (I have not quite finished them) the plaintiff has been successfully treating cancer patients. I should think they are not all cancer patients, because probably, as the literature tells us, a great many cases are treated as cancer which, if they could be fully diagnosed, would turn out not to be cancer.

Then come Dr. Brown, the house-surgeon at Charing Cross Hospital and a general practitioner for thirty years. He said: "I have seen three or four of Dr. Bell's patients—the coachman with the cancer of the tongue. I have experience of cancer. It was undoubtedly cancer. Saw him twice. First time satisfied: the second time the cancerous lesion was actually healed. Another case of cancer of the breast in healing condition." That is the evidence of the house-surgeon at Charing Cross Hospital. Mr. Duke naturally was not able to criticize these witnesses, but it is entirely for you to say how far you are satisfied that the plaintiff has wholly, or in part, by old methods arranged in a new way and partly by new methods and by greater attention to diet as he said, been able to devise better schemes for the cure of cancer than have gone before.

Then Dr. Brockman said: "I first became aware of Dr. Bell's treatment in May, 1910; patient suffering from malignant tumour. I thought she should lose no time. There were radiating pains and a tumour about the size of a walnut. She is now perfectly well after two years; after eighteen months the tumour disappeared." It is all very well for men who believe in operating to come and say, "This is all quackery." It is for you to say whether you believe this evidence, and if you do believe the evidence then you will pass your judgement upon it from that point of view and form your opinion, notwithstanding the plaintiff may have attacked the operating system much too much, whether he has devised by old remedies a new and better method of cure. It is not the least to the point that people have thought of arsenic, or thought of formic acid, or thought of these things years before. Many of the modern treatments are nothing but a revival of the old treatment with better concomitants. That was the plaintiff's evidence. I must say I thought the observation made by Mr. Shearman was well founded with regard to Dr. Maughan. He was a particularly honest witness—I do not say the others were not—and this is how he struck me. Dr. Maughan was vouched by the plaintiff but called by the defendants. He said he had given up the use of atoxyl because he found it had uncertain and possibly dangerous results, but he gave evidence which, from the point of view of cancer, was most remarkable. He said of these three cases, two died from causes which he did not know, and one from heart failure, but the tumours had disappeared almost to nothing in a most remarkable way. The defendant called people of great experience, but he does not call Sir Felix Semon as a witness against the plaintiff's alleged system. What he did say was that in cases of cancer he had had successful operations in no less than 20 out of 25, and he gave evidence which everybody would believe. Sir Felix Semon and Sir Alfred Pearce Gould are practically the only practising men called by the defendants. Mr. Duke called Dr. Bashford, who is one of the defendants and the head of the Research Institute. He called Dr. Barlow, the Director of the Cancer Research Laboratory at the Middlesex Hospital, but he has no patients under him, although of course he can see them. Then Dr. Bulloch was called, and he is in the Bacteriological Laboratory at the London Hospital. Mr. Boycott was the lecturer at Guy's, and I do not think he was asked whether he practised or not, but I will assume he did.

Mr. Holman Gregory: He does not.

The Lord Chief Justice: That is very fair. Dr. Maughan is a practitioner and a police surgeon. Therefore, the defendants' witnesses consist of Sir Felix Simon, who is a very important witness on the question of successful operations in throat cancer; Sir Alfred Pearce Gould, whom I have already commented upon; Dr. Maughan, a police surgeon; and three or four experts in research. You very naturally said yesterday you had had enough of that type of evidence. They might have been able to call practitioners in cancer cases. I do not know what evidence they could have called, but that is the evidence they have given.

It is for you to say whether, after what the plaintiff has proved before you he has done, you consider that this article is fair comment. I caution you again not to decide against the defendants because they used strong language. The plaintiff himself has used strong language. Do not hesitate to decide against the plaintiff if you disbelieve the substantial part of the plaintiff's evidence, but if you believe he has told you a true story of what has been happening during the last eighteen years, and particularly what has been happening during the last eight years in London, and if you believe that the witnesses did see what they have said, you will have to ask yourselves the simple question, is it right to describe this man, a competent medical man, as a quack because of what he has done or preached? If you consider, after examining this evidence, that he has been exploiting the credulous and the timid to his own advantage, then, of course, he would be quack, although he is a

qualified medical man; but if you think he has told you the honest result of eighteen years' work after he had himself abandoned operation, and if you come to the conclusion that, as he says, he has not been making money by it at all, but rather the contrary, and he is a poorer man, of course you will be of opinion that there is no ground whatever for calling him a quack.

I am not going to read the article again, but I will only make three observations about it. It is not denied by Dr. Bashford, and he has been consistently fair about that, that he did mean to accuse Dr. Bell. He says, "I meant to make the charge that he was trading on the credulity of the public in order to make money. My charge is that he meant to frighten people so that they should come to him and pay him money." A more disgraceful charge against a medical man it is impossible to conceive. If it is justified then Dr. Bashford is to be commended for having the courage to make it. If you think that what has been written and published of Dr. Bell is fair comment, and that he did it for that purpose, do not hesitate to find for the defendants. With regard to Dr. Bashford's attitude, there are men and men. There are men who take such a view that they will say almost anything, but it was very sad indeed for Dr. Bashford to decline to say that he believed what Dr. Bell said, and to volunteer the statement: "I still believe he wrote the books for personal gain from fees that people would pay him, but it may have been from vanity or sheer ignorance." If the case justifies that language, of course Dr. Bashford is right; but whether it is or is not fair comment is entirely for you.

Of course, gentlemen, you must not forget that this action is not only brought against Dr. Bashford, but is brought against the paper, the BRITISH MEDICAL JOURNAL, and that they, as you remember, on page 1290, practically endorse everything Dr. Bashford had said: "Dr. Bashford's paper on cancer is the most damning exposure of the vilest and most cruel form of quackery that has appeared since Spencer Wells's 'Cancer and Cancer Cures.'" Gentlemen, I am not going to read the libel, as I said, except for two or three observations. One is, unless it be to intensify the effect of comment and criticism, one does not understand why these terrible stories of Sir Spencer Wells should have been introduced. You, of course, have seen the article with its photographs of quack notices, and with its pictures showing quacks; but, after all, from the point of view of what we are considering, perhaps the most important thing is the introduction of those stories, and the statement, twice repeated, in different words, "Were it not for the overwhelming evidence that Dr. Bell, formerly of Glasgow, is the modern representative in London of some of the practitioners referred to in Sir Spencer Wells's publications."

Gentlemen, if it be justified and is fair comment say so without hesitation. If it be not it is one of the most serious libel actions I have ever had to try. A competent medical man, practising in London, is held up to contempt, and said to be a medical man so ignorant that he is the modern representative of two such men as were capable of the gross and wicked conduct spoken to by Sir Spencer Wells in his stories.

Gentlemen, if you find this not to be a fair comment, and if you consider this article goes beyond fair comment and is a libel and a serious libel upon the plaintiff, you will have to assess the damages. That is entirely for you. I say no more to you than the two things which I am obliged to say in these cases. You have to consider the position of the plaintiff and the possible effect of such an article by the BRITISH MEDICAL JOURNAL upon him; and you have also to consider this, that up to the moment of your giving your verdict that article is justified as being fair comment. I have to say it. Not infrequently juries consider and are entitled to consider the case up to the moment the verdict is given. The defendant has not, of course, apologized. That would be quite inconsistent with his evidence. He had not said, now he has heard Dr. Bell's history, that he regrets any of the particular passages; but he comes to you to justify every word of that article. If you consider it is not fair comment, you will be good enough to say what damages you award to the plaintiff against the defendant and the proprietors of the paper, because both are responsible, and the paper itself has endorsed every word that Dr. Bashford has written. Gentlemen, will you be good enough to consider your verdict?

The jury retired from court.

On their return they found a verdict for the plaintiff, with £2,000 damages.

Applause in court was immediately suppressed.

Judgement was entered accordingly.

On the application of Mr. Holman Gregory, a stay of execution for ten days was granted on condition that the money was brought into court.

[Dr. T. Young Simpson (Plymouth) requests us to state that he is not the Dr. Simpson of Plymouth who gave evidence in the case.]

RECEIPTS AND EARNINGS DURING INTRODUCTION.

OCTAGON writes that he is buying a practice with a year's introduction, and it is agreed that during that year "the vendor and self are to equally divide the receipts." He wishes to know whether the vendor is entitled to share in bills sent out but not paid during that year.

*** It would seem that strictly speaking, according to the wording of the agreement, the vendor would not be entitled to a share in anything beyond money received during that year, and the buyer would also be entitled to share in money paid for work done before he purchased the practice if any old bills were paid. But this is very unusual. In the circumstances detailed, the vendor and buyer should share equally in the proceeds of all work done during the year of partnership, and the buyer has no claim to any part of the book debts paid during that year for work done before he bought the practice, unless he has purchased the same.

Medical News.

THE King, who is patron of the Seamen's Hospital Society, will visit the Branch Hospital, Royal Albert Dock, on July 17th, and will lay the foundation stone of the new wing of the London School of Tropical Medicine.

LORD ROSEBERY, Chancellor of the University of London, will distribute the prizes at the London Hospital Medical School on Monday, July 1st.

ON Friday, June 14th, H.R.H. Princess Louise formally opened at Merton, S.W., the new Nelson Hospital, which takes the place of the old Cottage Hospital in Merton Road, South Wimbledon.

THE annual garden party will be held in the grounds of Guy's Hospital on Thursday, July 11th. The wards, school buildings, and museum will be open for the inspection of visitors from 2.30 p.m. During the afternoon the prizes will be distributed by the Marquess of Salisbury.

DR. F. G. BUSHNELL, whose name was mentioned in our issue for June 15th as that of one of the three candidates for the appointment of County and School Medical Officer in the Isle of Wight who were interviewed by the County Council, desires us to state that his application for the appointment was only conditional, and that he was not prepared to accept the post on the terms advertized.

THE annual general meeting of the Research Defence Society will be held this day, Friday, June 21st, at 5 o'clock, at the Royal College of Physicians, Pall Mall, S.W. The President will give a short address and the annual report will be presented by Mr. Sydney Holland. Other speakers will be Sir William Ramsay and Professor Starling. The society has now more than 5,000 members and associates.

THE annual report of the Children's Country Holiday Fund shows that last year over 45,000 children were sent to the country for a fortnight's holiday under its auspices. They were selected by workers and visitors connected with sixty-three London and local committees, and were received at cottages chosen for the purpose by one or other of over a thousand voluntary workers in the country who undertake to make all the arrangements required. As the moral and physical benefit accruing from these holidays must no doubt be very great, the fund seems to deserve support. Donations may be sent to the Earl of Arran, the Honorary Treasurer of the fund, at 18, Buckingham Street, Strand.

PROFESSOR LANFRANCHI, Director of the Medical Clinic of the Higher School of Veterinary Surgery of Parma, lately contracted trypanosomiasis from a dog on which he was investigating the results of infection with the *Trypanosoma brucei*. The diagnosis was confirmed by Professors Bertarelli and Castellani and by the Pasteur Institute of Paris. This, says *Il Policlinico*, from which we take these particulars, is the first known case of transmission to man of the parasite which causes such ravages among cattle in South Africa. We are pleased to be able to add that Professor Lanfranchi is said to be on the way to recovery.

THE Insurance Commission in England has issued a notice stating that a preliminary meeting of every provisional insurance committee will shortly be held on a date to be fixed by the Commissioners, and that this meeting will be attended by one of the officers appointed by the Commissioners who will be ready to give advice and assistance. The meeting will elect a temporary chairman and will then proceed to elect representatives of the two sections of insured persons not yet represented on the committee—namely, those who belong to any county, local, or small friendly society not included in the sections of friendly societies already represented, and deposit contributors.

THE University of London, through the board appointed to promote the extension of university teaching, has authorized the holding of a summer school of town planning. The rapid progress of the town planning movement and the coming into force of the Town Planning Act have made it necessary for those engaged in the offices of architects, municipal engineers and surveyors, to possess a knowledge of the subject. This, however, is at present

difficult to acquire, since university and other courses on the subject are only available in one or two places, and in ordinary architectural and engineering textbooks the question is hardly discussed at all. The school will be held at the Hampstead Garden Suburb from August 3rd to August 17th. This place has been selected because in itself it represents an object lesson in careful town planning, and the 240 acres already laid out and occupied by about a thousand houses are about to have added to them 400 other acres, the laying out of which will be in active progress at the time the school is held. The various lectures arranged include two by Dr. G. F. McCleary, M.O.H. for Hampstead, on the public health aspect of the town planning movement, and one on the ethics of suburb planning by Mrs. S. A. Barnett. On the opening day the students will be received at the Institute Library of the Garden Suburb by Mrs. Barnett and Sir Henry Miers, Principal of London University, while later on in the evening a meeting will be held under the chairmanship of the Right Hon. Alfred Lyttelton, to hear an inaugural address from Lord Crewe.

THE fourteenth annual dinner of the West London Hospital and Post-Graduate College took place on June 11th, under the chairmanship of Dr. Arthur Saunders. The guest of the evening was Sir W. L. Gubbins, K.C.B., Director-General of the Army Medical Staff, who, in acknowledging the toast proposed in his honour and that of the other guests, mentioned, as a satisfactory example of the increased importance now attached to science, the fact that Sir David Bruce had been specially promoted to the rank of Surgeon-General as a recognition of his work in relation to sleeping sickness. Mr. Bidwell said that since both the Army Medical Department and the Royal Naval Medical Service now had their own arrangements for the post-graduate instruction the college would no longer be recruited from these services to the extent that had formerly been the case. On the other hand, it was becoming the practice for officers in the West African Medical Staff to put in their study leave at the college; so that if the college was losing in one way it was gaining in another. In any case, the entries for the current year were larger than last year. In regard to the hospital, both Dr. Saunders and Mr. C. F. Marshall expressed some anxiety. It was doing excellent work, but it was impossible to feel certain as to the circumstances in which it was to continue to do that work. The speeches were interspersed by music, and the evening ended with a toast to the Chairman, which was proposed by Dr. Shuter and duly acknowledged.

AT the annual meeting of the Society for the State Registration of Nurses on June 6th, it was mentioned that its membership now numbered 3,187, and that the number of States in America which had adopted registration of trained nurses had now risen to thirty-four. An address was delivered by Dr. W. A. Chapple, M.P., who said that he had been invited to speak because of his experience in New Zealand, and was aware of the beneficial result which had accrued in that country from the introduction of the Nurses' Registration Act. That Act was introduced not for the benefit of nurses, but as a safeguard for the public. It obliged every registered nurse to wear a badge, and the public soon learnt to expect its appearance on the uniform of any woman offering her services as a nurse. In this way a large proportion of persons possessed either of little knowledge of nursing or of no knowledge at all were gradually winnowed out. It seemed the duty of every Government to assume ignorance on the part of the average layman as to what constituted an efficient nurse, and to protect his interests in similar fashion. Among various resolutions passed at the meeting was one protesting against the exclusion of nurses from direct representation under the Insurance Act. There was a danger in the fact that the only members of the nursing profession nominated by the Commissioners to seats on the Advisory Committee were three officials of a charitable institute which recognized and inspected midwives acting as nurses through county nursing associations under lay control. This was a dangerous abuse which had crept in all over the country, and provided very cheap contract practice to the real poor. As a charity, it was argued that this was better than nothing; but under the Insurance Act the sick had a distinct right to receive their nursing from thoroughly trained persons. To ensure such nursing the privilege of representation on the Advisory Committees in England and Wales should be accorded to nurses not less than to certified midwives and to chemists. It was probably the fact that so far a legal status had been denied to the nursing profession which was responsible for this failure to accord nurses a rightful position in the administration of the National Insurance Act.

Letters, Notes, and Answers.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

H. A. L. desires to place a patient in a home or house in the country near London. He is blind, but otherwise in fair health, and can pay 30s. a week.

ALPHA asks what district is likely to be beneficial for residence for a case of so-called muscular rheumatism, or, as some would call it, gout, which is worse in cold damp, and also in hot weather, but better in ordinary medium cold weather.

INCOME TAX.

Depreciation of Motor Cars.

MOTORIST and others complain that the surveyor of taxes has refused to allow any sum for depreciation of a motor car used for professional purposes, although an allowance under this head has been made in the past.

*** Hitherto there has been a divergence of practice in different localities on this point, but it appears that common action is now being taken by surveyors of taxes in the direction of refusing such allowances. The ground of refusal is that the special Act granting the allowance of wear and tear of "machinery and plant" applies in terms only to a "trade, manufacture, or concern in the nature of trade." From an income tax point of view, the practice of medicine might well have been regarded as falling within this general description, but the Inland Revenue has ruled otherwise, and on a strict interpretation of the words it might be difficult to resist its reading. The allowance for depreciation is regarded as a yearly contribution towards the expense of renewing the car when the time comes for renewal, so that where the depreciation allowance is refused the practitioner should take care to see that in due course when he has to replace the car by a new one full credit is given in his accounts for the cost of renewal. If during the past three years the cost of renewal has been incurred, but not allowed by the surveyor of taxes, application should at once be made to him for an adjustment of the current year's assessment.

ANSWERS.

TREATMENT OF TRACHOMA BY CO_2 SNOW.

MR. C. DEVEREUX MARSHALL (London) writes to refer "T. W.," who asks for directions as to the treatment of trachoma by CO_2 snow, to a paper by Mr. Leonard J. C. Mitchell, formerly house-surgeon at Moorfields Ophthalmic Hospital, now of Melbourne, read in the Section of Ophthalmology of the annual meeting of the British Medical Association at Birmingham last year, and published in the BRITISH MEDICAL JOURNAL of November 4th, 1911, p. 1176.

LETTERS, NOTES, ETC.

A WARNING.

THE Greenwich police have issued the following "description of a man who is calling upon doctors in South-East London, and informs them that they have been appointed President of the local branch of the Boy Scout's Ambulance Brigade, and then solicits a subscription to the funds of the brigade; if successful gives a printed receipt for same, signed W. T. Rogers, Captain and Instructor. Age 21, height 5 ft. 5 in., clean shaven; dress, brown suit; wears button badge of St. John Ambulance Association. A revolver was seen in his possession when calling on a doctor in this district." The police ask to be informed should the man call.

ERRATA.

IN the article by Sir John Byers on "The Evolution of Obstetric Medicine," published in the JOURNAL of June 15th on p. 1345, for "Orisabius" read "Oribasius"; on p. 1347 for "Groningen" read "Groningen," and for "Madam de la Villiere" read "Madame," and on p. 1350 for "anæthetics" read "anæsthetics."

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page	8	0	0

An average line contains six words.

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

NOTE.—It is against the rules of the Post Office to receive *postes restante* letters addressed either in initials or numbers.

PRURIGO, PRURIGINOUS ECZEMA, AND LICHENIFICATION.*

BY SIR MALCOLM MORRIS, K.C.V.O.,
SURGEON SKIN DEPARTMENT, SEAMEN'S HOSPITAL, GREENWICH.

PRURIGO.

Historical.

HEBRA was not the first to describe the prurigo which is specially associated with his name. It had already been described, though not clearly discriminated, by Willan under the name of *lichen agrius*, and by Cazenave, Devergie, and other French writers under the designation of *lichen agrius*. But Willan's prurigos included all affections in which itching is associated with a special eruption and other phenomena; thus he recognized general prurigos and a number of local prurigos—prurigo of the anus, of the prepuce, of the scrotum, of the urethra, of the vulva, of the pubes; and he ranked them with strophulus and the so-called lichens of the day in the Order of the Papules. To Erasmus Wilson prurigo was simply "a pruritus associated with an organic change in the tissues of the skin," and its pathognomonic characteristic was the pruritus—"a pruritus without obvious or apparent cause." In Wilson's day, therefore, the distinction between prurigo and pruritus had not emerged, and dermatology is perhaps indebted to Hebra at least as much for his insistence upon this distinction as for his classic description of the severe form of prurigo known by his name.

In limiting the term "prurigo," however, to a single type of the affection, Hebra fell short of the truth. To him prurigo was an incurable and ultimately fatal affection, beginning in infancy as an urticaria, which is soon followed by characteristic papules that give rise to intense itching. Enlargement of the lymphatic glands follows, and later the skin undergoes the changes now known as lichenification. Kaposi saw that his master had described only the grave form of a disease which sometimes manifests itself in a milder form, *prurigo mitis*, not necessarily incurable, and showing no tendency to develop into the severer type. French dermatologists were quick to seize upon the same error, and also to question another of the Vienna master's statements—namely, that the papules precede the itching. On these points they have long been virtually agreed, but there have been and still are very considerable differences among themselves. Thus Vidal[1] preferred to style the prurigo of Hebra a lichen, maintained that from the anatomico-pathological point of view prurigo is only a large papule of lichen, or lichen only a small papule of prurigo, and declared that it is not rarely cured. Besnier[2] included among the prurigos many other itching conditions which he had separated from the eczema group, qualifying them all as diathetic prurigos because he regarded them as associated with individual conditions of tissues and of organs, provoked or maintained by an abnormal mode of nutrition. To him prurigo was nothing more than an itching dermatosis accompanied by a visible eruption—a position not very dissimilar from Willan's. Brocq[3] differs from both Vidal and Besnier. In his view there are three forms of prurigo: (1) *Prurigo simplex*, with no eczematization or lichenification—the urticaria papulosa or strophulus of many other writers; (2) *prurigo of Hebra*, which may be either severe or mild, and of which the milder forms may begin much later in infancy and may die away, sometimes within a few months; and (3) *prurigo ferox*, in which the papules are larger and harder, the itching is frightful, and the gland enlargement considerable, but in which the lichenification is less extensive than in the prurigo of Hebra. Darier[4] also recognizes three forms of prurigo, which, however, do not tally completely with Brocq's. The first, like Brocq's, is *prurigo simplex*, or strophulus (urticaria papulosa). The second he styles *prurigo of Hebra*, but he regards it as including not only (*a*) the type of Hebra-Kaposi, but also (*b*) a mild French type, and (*c*) prurigo ferox. His second prurigo, therefore, includes Brocq's second and third types. Darier's third prurigo is styled *prurigo vulgaris*, which may be either (*a*) diffused, or (*b*) circumscribed. This corresponds with Brocq's *névrodermites*, or *prurits avec lichénification*, which that author does not admit into the category of the prurigos, but regards as forms of pruritus.

It was not until the year 1881 that the prurigo so precisely and luminously described by Hebra was recognized as such in England. In the Diseases of the Skin section of the International Medical Congress held in London in that year Morrant Baker exhibited 3 cases which were accepted as examples of true prurigo of Hebra by Kaposi and the younger Hebra, as well as by Unna. The event constitutes one of the landmarks of the history of prurigo in these islands. For, strange as it may seem, in the country of the founder of the Order of Papules, who had described, though he had failed to give clear identity to the disease, the severe form of prurigo had up to this time been overlooked. That it was, and still is, of less frequent occurrence in this country than on the Continent, is no doubt true; but in the discussion which followed Morrant Baker's paper the younger Hebra affirmed that he had seen undoubted cases at St. Bartholomew's.

At the Third International Congress of Dermatology, held in London in 1896, there was a discussion on prurigo which brought into relief the wide differences of view that prevailed on this subject. Paraphrasing a famous apophthegm, it might be said, As many dermatologists, so many views of Prurigo. By apt citations from all the leading authorities, J. C. White,[5] of Boston, showed that there was the widest divergence on almost every phase of the disease—its age-incidence, its course, the character of the eruption, the causal relation between the neurosis and the papule, and the pathology. He enumerated nine different conceptions of the essential nature of the disease, as (1) a pruritus, (2) a Sensibilitäts-neurose, (3) a Motilitäts-neurose, (4) a pruriginous diathesis, (5) a neurodermatosis, (6) a mixture of lymphatism, arthritism, and nervosism, (7) a vasomotor transudation, (8) a trophoneurosis, and (9) a dyscrasia. To which was added a tenth view, undoubtedly the most modest, possibly the most candid of the series—pathology unknown.

During the intervening sixteen years prurigo has continued to excite the lively interest of dermatologists of all nations, but there is still nothing approaching a consensus of opinion on any of its various aspects. I have already touched upon the different views that prevail in the French school. But I do not know that English-speaking dermatologists are much nearer unanimity. The chief difference between the two schools, indeed, is that we have been rather more sensible of the difficulties of the subject than have our French *confrères*, and have been less prone to the confident elaboration of theories. On a question so involved in obscurity dogmatism would be eminently out of place, but one may hope that as the result of free discussion some progress, however slight, may be made towards common agreement.

Nomenclature and Classification.

It was Besnier who proposed that the severe type of prurigo described by Hebra should be known by that master's name, although it would have been better, he considered, to find a new designation for what he considered to be in some sense a new malady. There is certainly need for simplification in the nomenclature of prurigo. That members of the same school of dermatology should regard "prurigo of Hebra" as including and as excluding the severest type of the affection is admirably calculated to produce misunderstanding. Sensible as I am of the obligations we are all under to Hebra in this matter, it appears to me that it would be better to cease to attach his name to the affection, since it has come to be, in a sense, a symbol of confusion and discord. The milder affection which he failed to recognize is as truly prurigo as the one he actually described. They are, in fact, but different types of the same affection. Why, then, not speak simply of *prurigo gravis* and *prurigo mitis*? Prurigo gravis might be held to include the worst cases of the affection, the rare type with which the name of Vidal is linked. But the differences between these two groups of cases, the less severe and the more severe, are, perhaps, sufficiently pronounced to make it convenient to preserve for the worst type of prurigo the expressive name *prurigo ferox*. If other prurigos are to be recognized, they may be similarly qualified. Thus, it is believed by some that there is a *prurigo gestationis*, which can be differentiated from

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herpes gestationis, and a *prurigo lymphadenoma*, in which, it is held, true prurigo papules are present. To me, however, the evidence for these so-called prurigos seems to be by no means conclusive, and I am not prepared at present to recognize more than the three forms of the affection mentioned above—prurigo gravis, prurigo mitis, and prurigo ferox.

With regard to classification, I cannot regard as a prurigo any itching affection which does not present an eruption of discrete, hard papules, of the kind and in the situations to be presently described, followed sooner or later by the peculiar roughening and thickening of the skin known as lichenification. Besnier claimed that there was a prurigo senilis, a prurigo of the scrotum, of the anus, of the vulva, and so forth; but such affections are now regarded as belonging to the great pruritus group, and it is convenient, I think, to limit the term "prurigo" in the way suggested. From prurigo, thus understood, the prurigo simplex of Brocq and of Darier, which appears as the first of their three types, and is identical with the lichen urticatus of Bateman, the urticaria papulosa of Kaposi, Duhring, and other writers, is excluded by the absence of lichenification, while the prurigo vulgaris which is the third of Darier's types, and is regarded by Brocq not as a prurigo but as a pruritus with lichenification, is excluded by the absence of the characteristic papules. I confess that I have sometimes been disposed to admit this last affection into the group of prurigos, but further consideration has led me to adhere to the definition of prurigo formulated above. A classification which rests on a purely clinical basis can, of course, make no pretension to finality; but so long as the etiology of prurigo is veiled in its present obscurity, and the pathology is little more than a collection of rival theories, no other mode of classifying the affection is possible.

Symptoms.

Whether of the mild or of the severe type, prurigo usually begins in early infancy, between the eighth and the twelfth months of life. Hebra and Kaposi[6] went further, and taught that it always begins in this period, but cases have been reported commencing between the ages of 10 and 15, and even later. According to Hebra and Kaposi, again, it appears first as an urticaria, which manifests itself in the form of wheals, of itching, of excoriations, and of insomnia, and as an urticaria it persists until about the beginning of the second year, when the characteristic papules begin to appear. In this interpretation of the first signs of prurigo I am unable to acquiesce. It is not unlikely that one form of urticaria, namely, urticaria papulosa, forms a connecting link between urticaria and prurigo, but, like Besnier, the late J. F. Payne, Colcott Fox, and other dermatologists, I have never seen an urticaria develop into prurigo. The papules are hard, small, often perceptible only to the touch, pale or reddish in colour, and distributed principally on the extensor surfaces of the limbs, the lower part of the abdomen, the sacral region and buttocks, and the back and front of the chest, but sparing the joint flexures. They give rise to violent itching and, when subjected to the irritation of scratching, become reddened and increase in size. When a papule is excoriated serum and blood exude, which quickly dry into a brown crust. Other lesions appear, which may resemble those of eczema (except that the flexor surfaces are still usually spared) and of urticaria, and finally the skin becomes lichenified. One crop of papules succeeds another, and the disease becomes chronic, but usually there is some abatement in summer, with exacerbation in winter. In severe cases the integument takes on a brown colour, there is desquamation, the hairs are extruded, there are pustules and sores, and the femoral and axillary glands enlarge and may go on to suppuration.

One peculiarity of the disease is that after the third year of life it undergoes no further evolution, so that there is no essential difference in pathological physiognomy between a patient of 3 and a patient of 30 years of age. Another peculiarity is that prurigo mitis never develops into prurigo gravis. In the former type, as a rule, the papules are less numerous, the eruptions less frequent, the itching is much less intense; the lesions, too, may be limited to the lower limbs. In the severest and rarest form of the disease, which may be called prurigo ferox, the papules are much larger, varying in size from a small pea to a small cherry (Brocq), are noticeably raised above the level of the skin and give to the touch a sensation of hard nodosity; the colour varies from a pale pink to a vivid red. They are crowned with a large thick-walled vesicle, sometimes filled with a purulent liquid. Disseminated in no traceable order over the body, and even upon the face and scalp, they are most numerous upon parts exposed to friction. They are accompanied by itching of the intensest kind, and the patient, in his frenzy, seeks relief by excoriation that may not stop short of tearing off pieces of flesh. The lymphatic glands are usually much enlarged. Lichenification is present in all cases, but is not so widespread in prurigo ferox as in the other forms of prurigo. As in the other types, the symptoms are worse in winter than in summer.

Hebra, and after him Kaposi, held that the papular eruption precedes and is the cause of the itching, and the former considered it probable that the itching is due to irritation of the papillary nerves set up by the serum which quickly accumulates in each efflorescence. Cazenave was one of the first of the French school to maintain that the itching precedes the papule, and this view, which prevails generally among French dermatologists, was crystallized by Jacquet into the epigram: "Ce n'est pas l'éruption qui est prurigineuse; c'est le prurit qui est éruptif." A clinical experiment of Jacquet's has been adduced by Besnier in support of the theory that the itching and the papules are independent of each other. The right arm of a girl who had for two years suffered from classical prurigo, and who presented daily upon the trunk and the limbs a discrete eruption of typical papules, was occluded with prepared wadding and a bandage, the bandage being removed each morning for inspection and then reapplied. The itching continued, but not a single papule appeared, while each day, on the left arm, there was an eruption of from three to six fresh papules. The left arm was now similarly occluded, when, though the itching continued, there were no fresh papules, while crops appeared daily upon the right arm. An interesting experiment, certainly; but if this question is ever decided it will be by a concurrence of clinical testimony rather than by the experiments of a single observer—experiments, too, which set up abnormal conditions. Jacquet's experiment, I suggest, proves too much, just as his epigram expresses too much. It has been repeatedly noticed—I am not sure, indeed, that this is not common ground—that the papule, when it has appeared, is a centre of itching. If this be so, it follows that whether the papule or the itching comes first, the two are not independent, as Jacquet's experiment is intended to prove. I would go further than this and say that experience inclines me to the belief that Hebra was to some extent, at any rate, right in his view that the papule precedes the itching and scratching. In many cases the papules appear at an age so early that scratching is hardly possible; the papules, moreover, occur in situations in which they are not accessible to the infant's fingers, and they have been observed to efflorescе in groups, as though in obedience to internal impulse rather than in response to external influences such as scratching or friction. But the question is one in which none of us can profess to have had more than a limited experience; while, owing to the early age at which the affection usually begins, it is exceptionally difficult to accumulate satisfactory evidence. Since others who have had cases of prurigo under observation are satisfied that the itching precedes the eruption, I am prepared to regard it as possible that both views are correct. I cannot regard the papule as more than a focus of the itching. The actual cause of the affection, whatever its nature, lies behind the papule. Neither the papule nor the itching, whatever the order of their appearance, is more than a manifestation of the disease—the one a sign, the other a symptom. Is it not, therefore, conceivable that, owing possibly to the accidents of the individual case, the itching may sometimes come first, and in other cases the papule? This view may at least claim the advantage of reconciling the apparently conflicting testimony of observers who are equally competent and equally veracious.

Etiology.

The exciting cause of prurigo has been found in bad hygiene, in overcrowding, in defective alimentation, in

digestive troubles, in gastro-intestinal fermentation, in dentition, in autointoxication, etc. Brocq admits the influence of these various factors in provoking and maintaining attacks of the disease, but denies that they are essential causes. The true cause he finds in hereditary cross breeding (*un métissage héréditaire fort complexe*), in which four influences co-operate, namely, (1) the neurotic condition of one or both parents, either of long standing or operating during the mother's pregnancy; (2) lymphatism, either idiopathic or due to tuberculosis or syphilis; (3) autointoxications, originating in arthritism and aggravated by bad hygiene and by life in crowded cities; (4) chronic intoxications, in which alcoholism and caféism take the principal rôle. More shortly, he describes the prurigo of Hebra as a cross-breeding (1) of arthritism, (2) of neurosis, (3) of lymphatism, tuberculous, or due to hereditary syphilis, and (4) of hereditary intoxications (alcoholism and caféism). In his view, it is on the soil thus prepared that the occasional causes enumerated above, and especially defective alimentation, digestive troubles, troubles of the nervous system and bad hygiene, play their part. Darier's etiology is much more simple, and as much less confident. He attributes the disease to hereditary influence and perhaps ("peut-être") to gross errors of alimentation in early infancy; and he mentions that he has seen several cases in which prurigo coincided with asthma. Kaposi contented himself with pointing out that prurigo is met with much more frequently among the poor than among the rich, and more seldom in healthy than in feeble, badly-nourished, and neglected, or scrofulous infants. We may, however, in my opinion, safely include heredity among the etiological factors of this disease. It is difficult to believe that from a neurosis so severe and inveterate, and usually (though not invariably) manifesting itself in early infancy, hereditary influence is absent. But it requires more mental enterprise than I am conscious of possessing to adopt the elaborate theory of Brocq, which looks as though it were less an induction from ascertained facts than a speculative endeavour to assemble all the hereditary influences which could possibly count in this connexion. That this ingenious and distinguished author handsomely meets the craving for a comprehensive etiology cannot be denied; but I know of no other merit to urge in favour of his theory. We are on firm ground in recognizing the influence of the occasional causes which he enumerates. That they are more than predisposing causes is, I agree, doubtful, for in some cases they cannot be traced, and this is another reason why it seems almost inevitable to regard heredity as at least one of the causes, and possibly the essential cause, of prurigo. There is, indeed, one other possibility to bear in mind—that prurigo may be due to a micro-organism. Finding the changes in the epidermis and the hair follicles to bear some resemblance to those produced by micro-organisms in certain infectious diseases of the skin, Unna suggests that the disease may belong to the microbic group. I know of no facts, however, beyond that just mentioned, to support this hypothesis; and prurigo has always been regarded as non-infectious.

Pathology.

The principal theories of the nature of the papule of prurigo are: (1) That of Riehl—that they are spastic oedematous papules of the cutis, closely allied to urticaria; (2) that of Auspitz—that they are pseudo-papules, depending on the contraction of the arrectors; (3) that of Caspary—that they are epithelial papules due to acanthosis. More recently Leloir and Tavernier claim to have observed a degeneration of the prickle cells with the consequent formation of cysts containing a clear fluid, some altered epithelioid cells and leucocytes, and their finding has been confirmed by Kromayer and other pathologists. Hebra was the first to teach that the papule of prurigo has analogies of structure with the vesicle; but the view of Leloir and Tavernier is that it is *sui generis*. Darier states that he has failed to observe the intra-Malpighian cavity described by Leloir and Tavernier, nor has he found the oedema reported by Riehl; but he agrees with Caspary that the papules are the expression of an acanthosis. Unna[1] reports, with Riehl, that there is a spastic oedema of the cutis, and that the prurigo papule has an urticaria-like basis, but there is also, he says, a proliferative inflammation of the vessel sheaths as well as still more characteristic changes in the epidermis—a degeneration of the prickle cells into a pulpy mass, forming a vesicle, and later, in some instances, an impetigo pustule, which, however, contains no staphylococci. These vesicles he identifies with those found by Leloir, but, unlike Tavernier, he could determine no connexion between them and the sweat pores. Unna, continuing to play the part of a reconciler, holds that Auspitz and others who have described changes in the hair follicles are in some measure correct. He found the arrectors in some of the follicles thickened, and persisting in spastic contraction, so that the hair follicle was erected and the point of insertion of the muscle in the papillary body appeared funnel-shaped. He is unable, however, to agree with Auspitz that the characteristic lesion of prurigo is a mere pseudo-papule due simply to a contraction of the arrectors, for the same hair follicles show proliferative and exudative inflammatory changes and necrosis, so that the contraction and enlargement of the arrectors is nothing more than an accompanying or secondary symptom. The epithelial proliferation described by Caspary he compares with the acanthoses present in the neck of the follicle and its neighbourhood in certain infectious diseases of the epidermis.

It will thus be seen that Unna has found something to agree with in most of the prevalent theories of other pathologists. But considerable differences still remain, and it is not unlikely, as he suggests, that the workers whose investigations he discusses had before them the results of entirely different conditions.

Prognosis.

Hebra declared that prurigo, as he understood the term, was incurable. Kaposi concurred, although he held that if treatment is begun in early infancy the disease may be so favourably influenced that at times the patient may believe himself to be cured. Even in cases of moderate severity, he believed, there is no hope of cure, while cases of the mild type are only curable if treatment begins in early infancy and is perseveringly applied. There are grounds, I think, for giving a rather more hopeful prognosis in cases of the mild type. Not seldom, under judicious treatment, such cases recover during childhood or in adolescence. At best, however, the affection is a serious one, entailing much irritation and nervous depression and suffering; at worst it is one of the most distressing affections in the whole range of dermatology.

Diagnosis.

When it has reached the typical stage, prurigo, in the sense in which the term is employed in this paper, is, as a rule, easy of recognition. The positive characters are the usual origin of the affection in infancy, its persistence, the poor general health, the preference displayed by the papular eruption for the extensor surfaces of the limbs and the immunity enjoyed by the bends of the joints. The glandular enlargement, in association with the eruption, is one of the distinctive features. In the early stage the diagnosis from urticaria papulosa is, however, exceedingly difficult, and it may be necessary to defer judgement. In later stages, also, the characteristic lesions of prurigo may be masked by eczematous crusts or by pustules, etc., and the eczematous phenomena may even extend to the parts spared by the prurigo. In cases thus complicated the diagnosis as between prurigo and such conditions as chronic eczema, chronic urticaria, scabies and pruritus may have to be postponed until the secondary lesions have healed. The distribution of ichthyosis is similar to that of prurigo, and the former disease, like the latter, may be complicated with eczema, but in ichthyosis the prurigo papule is absent, and the skin is extremely dry and scaly; and it is seldom difficult to distinguish between the two conditions.

Treatment.

This must be mild or vigorous according to the intensity of the affection, but whether this be of the one type or of the other, the measures must be applied again and again, as the symptoms reappear. As intimated under prognosis, treatment in the early stages is of special importance. The complicating lesions having been dealt with, the indications, as Colcott Fox[2] says, are to improve the patient's nutrition by good hygiene, generous diet, and cod-liver oil; to control the itching by baths medicated with starch, sulphurated potash, creolin or izal, and to dissipate any coexistent eruption. All irritating preparations must be

avoided. The external remedies employed by the Vienna school are sulphur, tar, soap, and naphthol. The sulphur is used in the form of soap, of solution of sulphur of potash or of thermal waters; the tar, either pure or mixed with olive or cod-liver oil. The tar is used especially to control the itching. Brocq holds that the best of the topical remedies is cod-liver oil, one recommendation of which is that it can be used in all stages of the affection, even the most acute. If the surface is smeared with the oil the applications must follow each other quickly; and he considers it better to envelop the parts in an impregnated many-folded bandage covered with an impermeable varnish. He speaks highly of a preparation of cod-liver oil and white wax in the proportion of three to one, used as a pomade, with or without covering. Cod-liver oil may also be used in the form of ointment, with which, when there is intense itching, β-naphthol or carbolic acid may be incorporated. Colcott Fox has had excellent results from the use of a carbolic-acid ointment. Wolff from alternate injections of carbolic acid and pilocarpine. In severe and rebellious cases the patient may be soaped in a warm bath, and a tar preparation or Vleminckx's solution applied, the patient continuing in the bath or lying in bed with the application still on. If such vigorous measures as these be employed they must, of course, be carefully watched. Friction with Wilkinson's ointment, ten or twelve times repeated, is also said to give relief in bad cases. Occlusive dressings, such as Unna's glyco-gelatin, or caoutchouc, have been found useful in preventing the eruption, though occlusion, as Jacquet's experiment shows, fails to influence the itching. Radcliffe Crocker's[9] chief means of treatment were rest in bed, the application of naphthol ointment, and the administration of cannabis indica. Thyroidin is well spoken of as favourably influencing the eruption, at least temporarily.

Thibierge[10] has employed lumbar puncture in a long series of cases of pruriginous dermatoses, and while he reports temporary benefit in some "diathetic prurigos" and in dry chronic eczemas, he has been unable to draw any conclusion from the few cases of prurigo of Hebra which he has submitted to this treatment. The itching affection in which he has found it to yield the best results is lichen planus. Bayet[11] has used radium extensively in a number of pruritic affections, including Darier's third prurigo, with almost constantly good results, even in refractory cases. The itching disappeared almost suddenly, and the relapses were few and easily amenable. But his report does not include cases of prurigo proper. Brocq believes that he has seen cases of even rebellious prurigo mend under radium-therapy, and I am disposed to think that radium and the *x* rays may prove to be the least unpromising methods of treating this affection. It will be seen that there is as little concurrence of opinion in treatment as in other phases of this baffling affection. I have thought it desirable to enumerate the chief remedies that have been well spoken of, for in prurigo, as in other pruritic affections, the same agents yield different results in different hands, or in the same hands in different cases, and the practitioner, when he fails with one, must try others.

Pruriginous Eczema.

Just as urticaria papulosa, as mentioned above, is a link between prurigo and urticaria, so do the pruriginous eczemas form a chain which connects prurigo with eczema. These allied affections may appropriately be briefly discussed before passing on to consider the lichenification which is common to them and to so many other pruritic conditions.

Pruriginous eczema corresponds with certain of Besnier's diathetic prurigos. With Brocq I do not admit their right to be regarded as forms of prurigo, though Unna holds, on both clinical and histological grounds, that the changes which take place in the skin in these forms of eczema, and which he interprets as an increased vascular tone, suggest that both processes have a common basis. The itching which characterizes these eczemas is so intense that their right to be qualified as pruriginous is incontestable, while the distinctly eczematous lesions which effloresce at times of exacerbation and are mingled with the equally unmistakable marks of lichenification fully justify their being ranked among the eczemas. The lesions are of the most varied kind—erythematous, urticarial, papular, vesicular, impetiginous, with a preponderance of the urticarial element, and thus they extend by almost imperceptible gradations from eczema on the one hand to prurigo on the other. From true prurigo they are differentiated by always having an antecedent history of eczema, by running a less regular and more varied course, and by not being limited to the extensor surfaces, though it is these surfaces that are most affected by the itching, the lesions on the flexor surfaces corresponding rather with those met with in papular squamous eczema of the ordinary type. It is usual to find scales, crusts, and vesicles in situations where the scratching has been most unrestrained. There is seldom profuse "weeping," but in rare cases the whole surface of the skin may be moist. As a rule there is some glandular swelling, less pronounced, however, than in prurigo.

There is, perhaps, no pruriginous affection, not even prurigo ferox, in which the itching is more intense and intolerable than it frequently is in this group of eczemas. Such itching, as I have heard patients declare, is far harder to bear than pain: the pain of excoriation, indeed, is the only assuagement that can be found. Not seldom the pruritus is psychical: often, too, it is periodical, undergoing nocturnal or seasonal accessions and remissions, in some cases for long periods together, with singular regularity.

Frequently, though by no means invariably, the affection begins in infancy or in early life. The patients often have a flabby skin with more pigment than normal. Sometimes the eczema is in close relation to dentition: it may also be associated with asthma, with uterine disorders, with mental strain or shock, with insomnia, migraine and other nervous phenomena, or with xeroderma. I have known a distinct alternation observed time after time between asthma and pruriginous eczema, as though the one or the other were a necessary manifestation of the underlying morbid state. The itching may be due to disorders of the secretions which so far defy detection, or to the influence on the nerve centres of morbid conditions of the blood, or to changes in the nerve-endings of the skin, or to hereditary cutaneous irritability, or to microbic agency, or —as is indeed more probable—to a combination of two or more of these pathological states. Whatever the cause, there is between the itching and the consequent lesions the reciprocal reaction already noted in connexion with prurigo. The itching provokes scratching, the scratching sets up lichenification, which irritates the nerve-endings and provokes further itching; and the main object of treatment is to break this vicious circle by reducing the lichenification and restoring the damaged tissues to the normal state. The most effective means of attaining this end will be considered in the next section.

Lichenification.

The word "lichenification" was applied by Brocq in the year 1891 to the peculiar roughening and thickening of the skin which so frequently follow scratching; but the changes themselves had been clearly described long before. Brocq expounded his theory of lichenification and proposed the term in a lecture delivered on May 29th and June 3rd, 1891, and published in that year, and it was not until May 12th, 1892, that Besnier proposed the term "lichenisation" for the condition. Brocq was therefore first in the field, and his also is the more appropriate name, since there is implied in it the idea that the changes in question, instead of being the direct consequence of the itching, or of the primary lesions, are *made*, caused by the scratching. Lichenification, as Brocq says, is not pathognomonic of a definite morbid state, but rather a general process which may develop without a preceding dermatosis, or may occur in the course of such dermatoses as prurigo, chronic eczema, pruriginous eczema, psoriasis, psoriasiform parakeratosis, pityriasis rubra, lichen planus, certain artificial eruptions, and, according to Sabouraud, chronic streptococcic infections. Lichenification, then, may be, on the one hand, primary, or on the other hand secondary, as when it supervenes upon an anterior dermatosis. Primary lichenification may be due to so simple a cause as slight habitual friction, as in a case mentioned by MacLeod,[12] that of a timekeeper in a

factory, who, spending his time leaning on a counter checking the time of the workmen, got into the habit of rubbing his arm on the counter, with the result that a patch of lichenification appeared on the ulnar aspect of the left forearm. Primary lichenification may also be due to friction of corsets, hernial bandages, and the like, or to contact with irritant liquids, or secretions, as in the thighs of women who do not keep themselves scrupulously clean. Brocq's great example of primary lichenification is the group of conditions which he styles *névrodermites* or *prurits avec lichenification*—the chronic or papular eczema of the Vienna school, the *lichen simplex chronique* of Vidal, the *prurigo vulgaire* of Darier. This pruritus may be either circumscribed or diffuse. In the former the only cutaneous lesion is the lichenification, and this is usually true also of the latter, though rarely there may be urticaria as well as itching.

Clinical Features.

The first change in the skin is a darkening of the colour. On close inspection the integument is seen to be finely grained, and then flat, imperfectly defined, somewhat shiny pseudo-papules appear. These various lesions become more pronounced, both in colour and in form. The skin is infiltrated with embryonic elements, grows thick and hard and ragose, the normal striae become exaggerated and cross each other, so that the surface is broken up into a network of square, lozenge-shaped or polygonal "meshes," presenting some resemblance to the glossy facets of a miniature mosaic. Sometimes there is a covering of fine scales. The surfaces affected by the process vary greatly in extent, and the borders are ill-defined.

Lichenification is seen in its most typical form in the cases which Brocq designates *névrodermites*. In the circumscribed form the affected surface is about as large, on an average, as the palm of the hand; in the diffuse the lichenification occupies very extensive and imperfectly delimited areas. In *circumscribed* lichenification the patch is usually somewhat oval in shape but the form varies greatly in different cases, as also does the site, but the favourite situations are the neck, the upper and inner parts of the thighs, the antero-extensor aspect of the legs, the lumbar region, the scrotum or the vulva, the female waist, the axillary and popliteal spaces, the plantar and palmar surfaces. The face is usually spared, but MacLeod has seen characteristic lesions on the lower eyelids and behind the auricles. The patches may be single or multiple and are frequently two or three in number; occasionally they are symmetrical, especially when they are in the neighbourhood of folds. A complete plaque, according to Brocq, presents simultaneously three concentric zones: (1) An irregular external zone, some two or three inches in breadth, made up of tiny papules, varying in colour from *café au lait* to clear brown or to brownish yellow; (2) a middle or papular zone, pinkish in colour, composed of glistening papules irregular in contour, often flat topped, and varying in size from a pinhead to a small lentil; (3) an inner zone, or zone of infiltration, usually oval in shape, in which the process of lichenification is seen at its height. It is in this third zone that the infiltration, the thickening, and the quadrillation of the skin are most marked, and, except in regions where there are abundant secretions, the surface is covered with fine scales. These, then, are the zones of a *complete* plaque. But much more frequently the plaque is *incomplete*, and is composed only of discrete, more or less developed papules, or of a zone of infiltration. The itching is worse towards evening and soon after the patient has gone to bed. It is often intermittent and at times may be completely absent. In some cases it is so intense as to induce nervous crises, and the patient is only calmed when he has excoriated the seat of the pruritus. When a plaque is about to disappear the itching becomes less severe and then entirely ceases. On an average a plaque continues for several months, and it may subsist for years.

In *diffuse* lichenification the process is much the same as in the circumscribed form. The regions most affected are the arms and the forearms, the thighs, the upper part of the thorax, and sometimes the flanks, the lower part of the abdomen, the legs, and even the face. When the limbs are affected the lichenification is frequently symmetrical.

Pathology.

The histological structure of the skin in lichenification is less altered than one would suppose from the marked changes on the surface. Darier interprets the process as essentially a hyperacanthosis, an active proliferation of the rete mucosum, with considerable lengthening of the papillary processes, and a cellular infiltration, moderate in degree, in the papillary layer.

Etiology.

In lichenification, as in the itching which precedes it, heredity is not improbably a factor. Women are more liable than men, possibly because of their inferior nervous stability, and it is most often met with in adults. Why it is not a sequel of long-continued scratching in all pruriginous affections, and why some subjects of the affections in which it usually appears escape, are obvious questions. To the first, Brocq's reply is, that some cutaneous affections may so modify the vitality or nutrition of the tissues that lichenification is easily produced, while in others the resistance of the integument to trauma appears to be normal, or even augmented. To the second question he finds the answer in personal idiosyncrasy. Some subjects, he says, seem to be more predisposed than others to lichenification; he thinks it possible, indeed, that in lichenification individual predispositions may play the capital rôle. For the production of lichenification, then, not only itching and scratching are necessary, but the affection which is the cause of the itching should predispose to the lichenification, and the patient should also have a similar predisposition. It need hardly be remarked that the very tentative terms in which this explanation is couched show that it is nothing more than a speculation, however plausible. In the present state of our knowledge it is certainly difficult to understand the incidence of lichenification, except by assuming a predisposition either set up by the affection, or pre-existing in the patient, or both the one and the other. With that, for the time being, we must be content.

Diagnosis.

Lichenification, as a rule, is easy of recognition. It is most closely simulated by the lesions sometimes met with in the genito-crural region in women affected with gleet, but, according to Brocq and L. Bernard, the surface of the skin in these cases is more velvety. In some cases it is difficult to distinguish between lichenification and patches of lichen planus, and there is much to be said for the view that the two processes are intimately related. Brocq, however, contends that in lichenification the initial lesion is essentially unlike that of lichen planus, in which the typical lesion, instead of being a macule, or an ill-defined flat or round papule, is a flat polygonal papule, not seldom umbilicated and lilac-tinted, with puncta and milky lines on the surface which have no analogies in lichenification.

Prognosis.

Untreated, the patches may persist for many months, or for years, or, the itching and scratching ceasing, they may gradually disappear.

Treatment.

The large question of the treatment of the pruritus which precedes lichenification is foreign to my present purpose. The lichenification itself may be treated either with *x* rays or with radium. Some dermatologists prefer the former: I have had my best results with the latter. I need only cite one case, that of a woman of 36, who had suffered for seven years from intolerable irritation, originating in a severe nervous attack; she was unable to sleep, and was emaciated and neurotic. In shape the lichenified area was roughly triangular, with the apex at the nape of the neck and the base line connecting the spines of the scapulae. At the Radium Institute an apparatus 4 sq. cm. in extent, containing 80 mg. of pure radium bromide, and shielded with $\frac{1}{10}$ mm. of aluminium, was applied for ten minutes to successive patches until the whole area had been treated; the exposures were twice repeated at intervals of four weeks, with the result that, save for a very small patch at the nape of the neck,

the lichenification disappeared. There was great improvement, also, in the patient's general condition, and she gained 7 lb. in weight.

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CERTAIN FORMS OF FEVER OF OBSCURE ORIGIN IN INFANCY AND CHILDHOOD.*

BY

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FEVER of obscure origin is not uncommon in most forms of medical practice, but it is in dealing with children that this puzzling symptom is most often seen.

Those who are called upon to solve the riddle and point out the cause of the fever do not find the solution any the less difficult because of the inability of the child to give reliable information about symptoms, or any the less urgent if there is an over-anxious mother armed with a thermometer of almost uncanny efficiency.

In children the heat-governing mechanism is under unstable nervous control, and rises of temperature follow comparatively trivial causes, while the normal temperature taken in the rectum is, according to Finlayson, subject to considerable variations, and shows a very rapid fall between the hours of 6 and 8 p.m. I should like in passing to draw attention to the well-known fact that a temperature taken four-hourly often shows rises which are not shown on the morning and evening chart.

When confronted with a case of fever in a child—fever which has no obvious cause on clinical examination, and which is not merely temporary, passing off with a purgative—it is best to proceed by a process of exclusion. We must examine carefully first for chest conditions, such as deep-seated or apical pneumonia, localized empyemata, collections of pus; then for tonsillar, pharyngeal, or naso-pharyngeal conditions, and for otitis media (this last a by no means uncommon cause of fever, and one needing some skill to diagnose); and, finally, for abdominal conditions, such as appendicitis. Usually these causes of fever can be diagnosed after careful examination and due attention to the history.

Post-influenzal conditions may give rise to much anxiety, because there may be so little to show for the temperature, and visions of many far more serious conditions pass across the mind of the medical attendant, who can only have recourse to the process of elimination.

Another common but obscure cause of fever is the presence of caseous glands, either bronchial, mediastinal, or mesenteric. In some cases they are so marked as to be obvious on palpation or percussion, but in most cases they are by no means easily diagnosed, the only symptoms being of a general nature. The cutaneous tuberculin reaction and the history are both valuable, while careful palpation of the abdomen is needed, and examination by the *x* rays is a very important asset to our means of making a diagnosis. By the last method we can see bronchial or mediastinal conditions which were formerly inaccessible. The temperature does not necessarily rise more than one or two degrees, but may be quite high enough to cause anxiety.

Rheumatism.

Rheumatism is perhaps one of the most important of the causes of fever in children, and, what is more, its ravages may be of an obscure nature. A noticeable feature of this disease in children, as distinguished from adults, is that it rarely takes the acute articular form, except, perhaps, in older children. Much more often there are only sore throat, some vague shooting pains, and some heart lesion. This may be definite endocarditis or myocarditis or pericarditis. Both myocarditis and endocarditis may give a systolic murmur (often soft, blowing, and easily missed) and an increase in the size of the heart. Myocarditis is much more common than endocarditis, and, with proper treatment, recovery should be complete, but while it lasts the temperature may be high enough to cause anxiety. Endocarditis may be difficult to diagnose and give few signs at the heart, and yet the rises of temperature may be considerable. Not all such cases are of rheumatic origin. I have under my care one case of septic origin and have seen several following scarlet fever.

I will now quote a case illustrating difficulty of diagnosis:

Girl, aged 9. Symptoms: pallor, bronchitis, persistent unexplained fever of an irregular nature, sometimes reaching 103° and often 102° or 101°. History of three weeks' illness of an indefinite nature. The only sign discoverable was an indefinite systolic apical bruit, indefinite because the child was anæmic and the heart was neither irregular nor enlarged. The cutaneous tuberculin test was negative and the urine normal. Her brother, who was in another ward, had a similar illness. She finally recovered, and the most likely cause of the illness was rheumatism.

Perhaps, whilst dealing with rheumatism, I might mention that, though in cases of osteomyelitis the localizing signs are usually sufficient to establish the diagnosis at once, still I have seen cases in which the pains near the joints and the fever led to a diagnosis of rheumatism.

Again, the eruption of erythema nodosum is often preceded by an irregular temperature and pains in the limbs, while poliomyelitis may give rise to fever and pain, and, if no symptoms of paralysis supervene, the diagnosis is obscured.

Leukæmia and Hodgkin's Disease.

These diseases may run a chronic course with exacerbations, during which there is high fever. In both conditions there is usually sufficient evidence in the way of glandular or splenic enlargement, but this is not always the case, and the lesson to be learnt is that, when in doubt, the blood should be examined. There are not always marked changes in the blood, but sometimes a diagnosis can be cleared up in this way. For example:

B. T., aged 5; illness began one week ago—weakness, irritability, vomiting, and headache, with a temperature of 100° to 101°. The temperature gradually rose irregularly until it reached 105°. On examination Kernig's sign was present; there was no *tache cérébrale*; the heart and chest were negative, but the liver and spleen were big. This led to an examination of the blood, and on the result of that lymphatic leukæmia was diagnosed.

In this case the illness with high temperature had been a source of considerable worry to the medical man in attendance, and only the examination of the blood definitely established the diagnosis, though the large spleen pointed strongly to acute leukæmia.

I have also a case, F. R., aged 3, of Hodgkin's disease, in which the temperature was irregular, often reaching 101° and 102°, and the glands, though obvious enough, were not readily distinguished from other forms of adenitis until the case had been watched and the temperature had been irregular for nearly one month.

Bacilluria.

I now come to an obscure cause of fever to which I wish to draw special attention—infection of the genito-urinary tract with the *Bacillus coli communis*, either in the form of acute pyelitis or in a less severe form of bacilluria. I shall deal almost entirely with those cases occurring in infants or very young children. Perhaps I can best illustrate the condition of pyelitis by describing the two cases which first drew my attention to the importance of recognizing this infection.

Girl, aged 11 months. Illness began four days ago with a temperature of 101° and vomiting; temperature sustained and stools foul, but soon became normal. Patchy, dull red erythema on face, and few pustules on buttocks and groin. Child seems quite comfortable, but shows slight tenderness in the left kidney region. Pulse 144. Urine foul but plentiful. No specimen available. Child curiously quiet and happy, but

* A paper read before the Manchester Medical Society.

acutely ill, and the high temperature naturally caused great anxiety. The urine was found to contain pus and albumen and to be acid. The child was put on potassium citrate to render the urine alkaline, and the temperature gradually fell, though it remained of a swinging type for some time.

Boy, aged 2. Breast-fed to 1 year. Six months ago began to have summer diarrhoea and had it off and on for four months. Then his feet and hands started to swell. When seen he was wasted, but the wasting was obscured by oedema. Soon after admission he had another attack of diarrhoea with a swinging temperature and an enlarged liver. Then pus was found in the urine and a mass developed in the right renal region and the diagnosis of perinephritic abscess was made. At the operation the child had a large perinephritic abscess communicating with the pelvis of the kidney, but the pus was not at all offensive.[*]

These two cases in themselves serve to show the importance of being on the watch for this condition, though perhaps it is only fair to state here that the complication of a perinephritic abscess is probably unusual. Further experience shows that the condition is not at all rare, especially after the summer diarrhoea months, and I have had quite a large number of cases of moderate severity in my ward since last summer.

We must not think that all cases of bacilluria necessarily show alarming symptoms, nor can we say that all cases in which a bacterial growth is obtained from the urine are cases of this nature unless we are sure of there having been no possibility of accidental contamination, but it is no unusual thing to meet with cases in which, although there is not actual pus present, there are still swarms of bacilli and also quite definite symptoms, such as marked irritability, moderate irregular fever, dyspepsia, oedema, and wasting. In pyelitis pus and albumen are present in varying and often only small quantity, and the urine is acid.

A word about collecting the urine. One may want to examine the urine for three conditions—(1) pus, (2) albumen, (3) the *Bacillus coli communis*. In examining for the first two, aseptic precautions are not so necessary in collecting the specimen, and the best method is to arrange a mackintosh sheet in suitable folds under the infant. I have tried the various kinds of apparatus recommended, with poor success, and find them not so good as this simple method. When examining for the bacillus aseptic precautions are essential, because contamination in the passage of the urine to the sterilized receptacle is so very easy. Catheterization is, I think, the only satisfactory method.

Happily, treatment of this condition is usually attended with considerable success. The urine must be rendered alkaline as soon as possible, and for this purpose potassium citrate in 5 to 10 grain doses must be given every three hours. Urotropine is not of any great value in my experience. Vaccine therapy is still of disputed value. Personally I have had two successful cases, and shall certainly employ it in cases which do not clear up under potassium citrate; it seems more likely to do good in cases which have become chronic, and in acute cases does not approach potassium citrate in value.

Time prevents me from discussing other points as regards the pathology and nature of this affection and also the question of dieting, though I might perhaps mention the value of weak tea as a flushing and stimulating agent in infants. I not infrequently use it for this purpose.

Fever due to Digestive Disturbances.

This is a wide term and covers many conditions. In infants and neurotic children slight digestive disorders, such as teething, worms, or undigested food in the intestine, and excess of carbohydrates, may lead to fever. Finklestein holds that in infants food intoxication is common, fever forming a prominent symptom of these attacks. Personally I have only seen one or two such cases, although I have been on the watch for them.

Inanition fever, giving rises of temperature up to 102°, occurs in babies who are getting too little breast milk, and in contrast to this I might mention a case I saw recently in consultation.

An infant of 3 weeks. Breast-fed. Temperature 102°, and blotchy rash (suspected scarlet fever). Stools frequent, about four daily. Nothing else on examination. The mother had a very large amount of breast milk, and was taking a very rich diet. She was overfeeding the child, who made a complete recovery when the amount given at each feed was regulated and the mother's diet revised.

A state of chronic intestinal indigestion is very common in young children, and such cases often have slight but definite rises of temperature of an irregular nature. Typical cases show wasting, a large abdomen, general flabbiness, and other symptoms pointing to a chronic toxaemia. The stools are characteristic, being frequent, of large amount, and very offensive: they usually contain particles of incompletely digested food. Such children are usually being fed on a diet containing too much carbohydrate and too little protein, so that in many cases judicious dieting works wonders. Of course we must be very careful to exclude other and more serious conditions, which may give rise to similar fever and symptoms. Of these the most important are tuberculous ulceration of the intestine or tuberculous peritonitis, and the differential diagnosis may be very hard.

Recurrent fever, due probably to intestinal trouble, also occurs. In such cases there are attacks of irregular fever lasting for a few days; these attacks come on at intervals of a few months or of a few weeks, and may be a serious trouble. In such cases cutting off the carbohydrates often leads to a cure. These cases are not very common, but may be very puzzling when they do occur.

Meningitis.

Acute typical meningitis is easily recognized, but many cases are not typical.

Tuberculous meningitis may be of slow onset, the cardinal symptoms taking a long time to develop, or, on the other hand, the *Diplococcus intracellularis* may give rise to a low form of meningitis, both in infants (as post-basic meningitis) and in older children.

The following cases illustrate these points:

Boy, aged 10, a moderately healthy and well-nourished boy, began to have headache and feverishness on May 10th, 1911. The temperature ranged from 101° to 99°. On examination, the right lung was suspicious of tuberculosis and the cutaneous reaction to tuberculin was positive. The boy was walking about, but was obviously ill. On May 15th I admitted him to hospital, suspecting meningitis from the headache, although a careful examination failed to show any signs or reasons for the temperature, which now ranged from 102° to near normal. The eyes showed no neuritis or tubercles. By May 20th drowsiness and Kernig's sign had developed and the diagnosis of tuberculous meningitis was established.

Girl, aged 8, seen January 28th, 1912. Had been ill for fourteen days; sickness began after a party; she became weak until she could not walk; had much headache, but no crying out. Examination showed the *tache cérébrale* and Kernig's sign to be present, but no head retraction or rigidity. Headache was marked; there was some pyorrhoea of the gums; constipation was present and incontinence of urine. There were no other signs. The case was diagnosed as meningitis, and lumbar puncture was made. The fluid came out under pressure, and on examination was found to contain the *Diplococcus intracellularis* or an allied organism.[†] After lumbar puncture the headache abated. With a recurrence of the symptoms, lumbar puncture was repeated on February 10th, with similar results. The child gradually recovered from the infection without further specific treatment, and is now on the way to recovery. Widal's reaction was negative.

In this case Kernig's sign and the headache were the only symptoms to suggest meningitis, and the case resembled a low form of typhoid fever more than anything else.

Post-basic meningitis in infants may sometimes cause fever without definite signs to guide us to the correct diagnosis.

Meningitis is often difficult to distinguish from pneumonia, either apical or deep-seated, and from typhoid fever; for this purpose we have to try Widal's reaction and to look for the usual signs of meningitis, but the point I wish to bring out is the value and comparative harmlessness of lumbar puncture. With due precautions there is perhaps rather less danger than in exploring the chest, and one should never postpone the puncture for fear of evil effects. Further, repeated punctures are often of great service in relieving symptoms, and, except in cases of tuberculous meningitis, in helping to cure the case. In meningitis the fluid usually comes out under pressure and is clear. Cerebro-spinal meningitis due to the *Diplococcus intracellularis* is said to give turbid fluid, but in my

[*] In the discussion following this paper it was pointed out that the *Bacillus coli communis* does not in itself give rise to the smell which is usually attributed to it.

[†] The organism showed a much greater and more rapid growth than is usual. Possibly because of its diminished virulence.

experience (which has been of sporadic cases in fairly acute stages) the fluid is clear. Under the microscope the cellular elements are seen to be increased, lymphocytes being characteristic of tuberculous and polymorphonuclear leucocytes of meningococcic meningitis. Tubercle bacilli are hard to find without repeated and careful examination, but meningococci may be readily seen.

In conclusion, I may say that I have not attempted to deal with all the obscure causes of fever in childhood—they are far too numerous for that; but I have chosen conditions which in my experience are of great difficulty and importance. I may not have said much that is new, I have made no serious attempt to do that, having in mind rather the promotion of discussion and the gain to our knowledge thereby.

A STUDY OF AN EPIDEMIC OF MEASLES.

BY

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Having had the opportunity of dealing with a severe epidemic of measles, I make no apology for publishing my experiences over well-trodden ground. The total number of cases observed was 437.

In the table and chart I have grouped together as pulmonary complications, bronchitis, pneumonia, and bronchopneumonia, excluding croup, laryngitis, and catarrh: the former proving the death producers. In the accompanying percentage chart it is clearly shown that death depends on these pulmonary complications. In the first five years of life the fact is remarkable that the curves of pulmonary complications and death percentages are parallel, so exact is the relation between them. The maximum in the second year of life is very striking. The cases under the age of 6 months—2.29 per cent. of all cases—occurred as young as 2 months. Some attacks were severe. One commenced with a profuse rash with epistaxis and laryngeal catarrh, diarrhœa and bronchopneumonia followed. Recovery took place. I attribute the apparent immunity of babies under 6 months to the comparative isolation of cradle life.

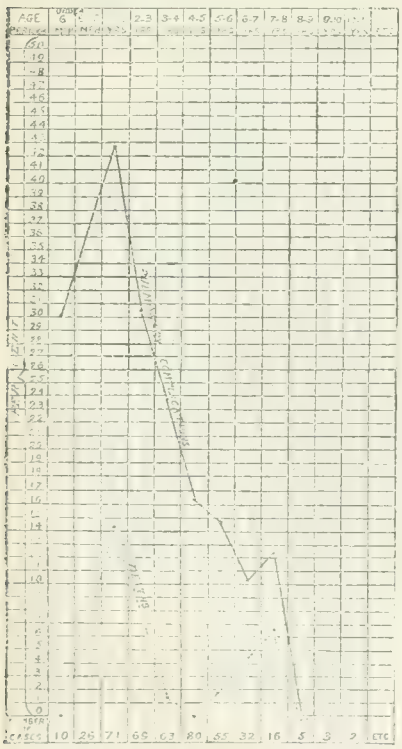


Chart showing influence of pulmonary complications on death curve.

Cases were most numerous in the fourth year of life, with 16 per cent. pulmonary complications, and no deaths. The total death-rate of the epidemic was 5.03 per cent., and all the deaths except two occurred before the end of June. The death-rate before the end of June was 5.31 per cent., and afterwards 3.27 per cent. The two deaths after June 30th were in the second year of life. The death-rate in the second year of life was 14.08 per cent., and was 12.5 in the early months, with 42.1 per cent. pulmonary complications. The high death-rate in the second year is not surprising, therefore. And this is probably the solution to the controversy as to the abnormally high mortality from measles—namely, 15.4 per cent.—of those treated in the Metropolitan Asylums Board fever hospitals in the early months of 1911. These are the severe cases for which the poorer classes would be only too glad to avail themselves of hospital treatment. There were hundreds of mild cases in this district this year untreated. An analysis of ages, condition on admission, and mortality of the Metropolitan Asylums Board hospital cases would be instructive.

Apart from catarrh and laryngitis, severe pulmonary complications supervened in 23.57 per cent. of all cases; 25.5 per cent. in the early months. Pneumococcal infection is the cause of measles mortality. After June 30th a considerable fall in pneumococcal infections and their severity brought down the death-rate, although there were as many smart attacks of measles *per se*.

Ten cases of pneumococcal infection ran to a crisis with recovery out of the total of 104 cases. The remainder varied in type, depending on the virulence of infection, resistance of patient, and presence or absence of diarrhœa. Some cases occurred a few hours after the appearance of the rash, producing a temperature of 102°, 103°, or 104°, with acute dyspnœa and death within three or four days. A large number hung on for weeks and months with unresolved bronchopneumonia, which had come on a few days to a week from the commencement of the rash, the temperature gradually over a week rising to 102°, swinging about this for two or three weeks, and gradually falling to normal. The pulse and respirations remained frequent for some time after the temperature had fallen to normal. These protracted cases, especially when careful nursing was available, nearly all recovered; sorry wrecks doubtless, but they pulled up wonderfully if treated for some time afterwards. Even children one suspected were tuberculous recovered. I always gave an optimistic prognosis in protracted cases; and when they appeared in a dying condition, emaciated, frequent varying pulse, swinging temperature, laboured respirations, râles in the lungs, and often refusing food, and apparently hopeless, I never lost hope. They nearly all recovered eventually. One of these, after two months' illness, succumbed to an operation in the neck for suppurating glands. In these protracted cases a diligent search for tubercle bacilli was made, but never once discovered—a point of some interest in the light of recent controversy as to the presence of active tuberculosis in the lungs of children. Fraenkel's pneumococcus was always present in abundance.

Empyema was conspicuous by its absence. Middle-ear disease was common, but was amenable to fomentations, mild lotions, and hexamethylenetetramine internally. Diarrhœa occurred in 10 per cent. of cases during invasion, with the rash, or afterwards, and sometimes during incubation. Alarming croupy symptoms with the rash sometimes occurred, but quickly subsided. Most dangerous were those cases which with mild coryzal symptoms and rash, apparently a mild attack, when on the second or third day of rash acute dyspnœa suddenly appeared, a rise in temperature, uncountable pulse, and great restlessness, often ending in death in twenty-four to forty-eight hours. They are now, I believe, assigned to collapse of lung.

One of these cases examined *post mortem* showed no collapse of lung to the naked eye. This child simulated laryngeal obstruction so completely that I watched it all one night through, and had everything in readiness for tracheotomy, which was not required. Five and a half days from onset of rash the child died, passing into unconsciousness the last day. The larynx and trachea were quite free. The lungs were studded with yellowish-grey specks under the pleura, the size of an ordinary pin's head. Little fluid in pleural sacs, and some sticky exudate stretching across the cavity like cobwebs. The lungs were pale. Frothy blood could be squeezed out, and muco-purulent plugs from bronchioles. Bronchial glands slightly enlarged. Pericardium externally markedly injected. Sac smooth, and full of albuminous yellow fluid. The stomach showed slight catarrh, also the intestines in places. Blood dark and fluid. Heart muscle pale. Thrombus extending from auricles to ventricles. Brain showed venous congestion, and some sticky exudate. The hemispheres and lobes were cemented together. The blood *post mortem* showed numerous pneumococci. A smear from the laryngeal wall showed plentiful *Micrococcus tetragenus* and pneumococci; also long chains of bacilli as long as the chains of the pneumococci themselves. These long bacilli showed beaded structure and Gram-stained. The pericardial fluid showed crowds of pneumococci.

If cases of this type hung on for any length of time they recovered. One boy, aged 3, with dyspnœa, swollen fauces, and rise of temperature, struggled for breath two weeks. There may have been some bronchopneumonia present not apparent to percussion and auscultation. It was two months before he was out of danger, but he completely recovered. It was the quickly acting, virulent, pneumococcal infection that killed perhaps mostly in weakly children. Death, if it happened, occurred three to ten days after the rash appeared.

One boy, aged 7, had a mild attack. On the third day he was almost felled like an ox with sickness and semiconsciousness, which next day passed into complete unconsciousness, rapid noisy breathing, and passing of faeces and urine in the bed. He never regained consciousness, and died two days later. I diagnosed pneumococcal meningitis.

His sister suffered from measles also, and three days after her brother's death became suddenly ill with severe bronchopneumonia and laryngeal symptoms. She recovered tardily without tracheotomy after life had been despaired of.

In this epidemic epistaxis occurred in 10 per cent. of cases—in the mildest as well as severe cases. It had nothing to do with the haemorrhagic form of measles. I saw no other form of haemorrhage. I soon learnt to use it as a distinct sign of measles, and of use to differentiate a case from rötheln or scarlet fever. It came on just before the rash was visible, or within twelve hours of its appearance; rarely as late as twenty-four hours. Sometimes, but not often, it was severe. One case bled rather copiously at intervals from 10 p.m. till 6 a.m. Koplik's spots were no use to me. Irregular, opaque, pinkish spots on the mucous membrane of the mouth were common on the second and third days.

Three cases developed a swollen condition of lips and cheek, such as one has seen go on to cancrum oris. They recovered without sloughing.

One child contracted measles while convalescent in fever hospital from diphtheria, and had a very mild attack. One boy, 18 months, had a mixed rash of measles and scarlet fever, septic throat, enlarged glands in the neck, and severe bronchopneumonia; he desquamated all over thinly, and subsequently suffered from discharging ears. After two months' severe illness he made a complete recovery. Three cases lost the use of their legs in late convalescence, with reflexes abolished, flaccidity of limbs, and pain on handling limbs. One in both legs; two in one leg (poliomyelitis).

A naevus-coloured rash, usually confluent, was common, making a "blue child." It occurred in every kind of case. I never saw a case of measles without cough more or less distressing. Small abscesses in the eyelids, arising in connexion with eyelashes, occurred in a dozen cases.

One case went on to red, puffy swelling of both eyelids, with purulent discharge.

Another had badly swollen eyelid, with red inflammatory involvement of nose and nasal duct.

Enlarged glands in the neck were not troublesome. All cases tabulated had a definite history of three or four days' previous illness before the rash appeared, coryzal signs and symptoms, cough and characteristic rash. Rash was delayed a day or two in one case, aged 13 months, which proved fatal in seven days from its appearance—from bronchopneumonia.

One case of interest, not in this epidemic, was that of a girl, aged 11, who had a mixed rash of measles and scarlet fever, little temperature, no sore throat, and not a characteristic scarlet fever tongue. On the fourth day acute articular rheumatism occurred. The swollen knees and wrists were not very painful. In three more days a profuse crop of chicken-pox appeared.

Cases Occurring February 13th to June 30th, 1911.

Age Period.	Males.				Females.				Males and Females.			
	No. of Cases.	Deaths.	Mortality per Cent.	Pulmonary Complications.	No. of Cases.	Deaths.	Mortality per Cent.	Pulmonary Complications.	No. of Cases.	Deaths.	Mortality per Cent.	Pulmonary Complications.*
Under 6 months	5	—	—	3	3	—	—	—	8	—	—	3
6 to 12 months	9	2	22.0	5	14	—	—	3	23	2	8.6	8
1 to 2 years	39	5	12.8	18	25	3	12.0	9	64	8	12.5	27 (42.1%)
2 to 3 years	27	2	7.4	7	30	4	13.3	11	57	6	10.52	18
3 to 4 years	28	—	—	6	27	1	3.7	9	55	1	1.81	15
4 to 5 years	39	—	—	6	32	—	—	7	71	—	—	13
Totals under 5 years ...	147	9	6.12	45	131	8	6.10	39	278	17	6.11	84 (30.2%)
5 to 10 years	41	1	2.43	6	52	2	3.84	6	93	3	3.22	12
10 to 15 years	1	—	—	—	3	—	—	—	4	—	—	—
Over 15 years	—	—	—	—	1	—	—	—	1	—	—	—
Total over 5 years ...	42	1	2.38	6	56	2	3.57	6	98	3	3.06	12
Totals all ages	189	10	5.29	51	187	10	5.34	45	376	20	5.31	96 (25.53%)

Cases Occurring July 1st to August 26th.

Under 6 months	—	—	—	—	2	—	—	—	2	—	—	—
6 to 12 months	2	—	—	1	1	—	—	—	3	—	—	1
1 to 2 years	3	—	—	1	4	2	50.0	2	7	2	28.57	3
2 to 3 years	6	—	—	1	6	—	—	2	12	—	—	3
3 to 4 years	3	—	—	—	5	—	—	—	8	—	—	—
4 to 5 years	3	—	—	—	6	—	—	—	9	—	—	—
Totals under 5 years ...	17	—	—	3	24	2	8.33	4	41	2	4.87	7
5 to 10 years	9	—	—	—	8	—	—	—	17	—	—	—
10 to 15 years	—	—	—	—	3	—	—	1	3	—	—	1
Over 15 years	—	—	—	—	—	—	—	—	—	—	—	—
Totals over 5 years ...	9	—	—	—	11	—	—	1	20	—	—	1
Totals all ages	26	—	—	3	35	2	5.7	5	61	2	3.27	8 (13.1%)
Total of epidemic ...	215	10	4.65	54	222	12	5.40	50	437	22	5.03	104 (23.79%)

* Pulmonary complications includes definite bronchitis, pneumonia, and bronchopneumonia only.

She desquamated profusely, and made an easy and complete recovery.

About 15 per cent. of cases were stated to have had measles before. Erythema nodosum on the front of the tibia occurred in numerous cases after measles in children of rheumatic tendency.

Treatment.

Copious and frequent application of nearly saturated borax solution to mouth, eyes, and nose. Rest in bed ten days after appearance of rash and confined to house for two weeks unless complications ensued. Jacket linseed poultices I found of great value in the pulmonary complications, followed by a Gamgee jacket in protracted cases. Brandy, in failing pulse and emaciated cases, and often when no other food could be taken, was of the utmost value. Cough mixtures were given as a routine practice containing squills, ipecacuanha, belladonna, potassium and ammonium carbonate, and liquorice. Tinct. nucis vomicae was added when necessary. I give full notes of the following case, as one of great interest, showing the ten days' struggle from the onset of the rash of a healthy child:

Girl, aged 18 months. Called to her on June 24th. She had the usual history and had had slight diarrhoea for two days. The rash was well out when I saw her. On June 28th, fifth day of rash, the temperature was 101° F., respirations 30, and snuffling in type; pulse 130. Diarrhoea continued in spite of treatment. Poulticing of chest was tried. On June 30th the breathing got worse and she began to be restless. The chest sounds were loud and harsh on inspiration with bronchitic rhonchi. No dullness. On July 2nd a few streaks of blood appeared in motions, and although diarrhoea was much improved the child became semicomatose with great restlessness. Cough was not very severe. Temperature never high, 101° to 102° F. On July 3rd diarrhoea was under control, but in the evening, while at stool, on giving a cough, the mother noticed a swelling in the face and sought me late at night. I found the child collapsed, dusky, and breathing distressfully. The left cheek appeared swollen like a large gumboil. The right cheek was slightly puffy. A further examination revealed a goitrous-like neck, which extended round to the back on both sides and tapered off to the spines of the scapulae. On feeling these swellings their true nature was at once apparent by the crackling feel under the fingers—surgical emphysema. Chest back and front were hyper-resonant. I did not think the child would survive the night. Next day the emphysema had blown out both cheeks to the zygoma and tapered off quickly into the scalp. It passed round to the inion and back of neck. The child died July 3rd at 11.30 a.m.

Necropsy, July 4th, 1911.—Well nourished body; rigidity passed off; buttocks irritated by discharges; surgical emphysema, the knife passing through subcutaneous tissues with crackling sound, like cutting raw blown veal. Some air had penetrated beneath the pectoral muscles. On removing the sternum the external surface of the pericardium was seen to be studded with air vesicles, like bunches of very small grapes. The lungs also, but more discrete. In the lungs the visceral pleura was blown up, forming the blebs. No fluid in pleural sacs. In one place the lung tissue for about ¾ in. was as if cut in two and connected by two thin transparent membranes. The anterior aspect of the upper lobes in both lungs—from anterior margin to half the extent of the lung surface—was most affected, and the lower pole. The apices and posterior border were little affected. The "dog's tongue" was blown out into a bladder. The middle lobe of right lung was similarly affected to the upper lobes. The lower lobes of both lungs contained scarcely any blebs, and presented a nearly normal appearance, except for a bleb or two. (The air pressure, therefore, was least in apices, posterior border, and lower lobe.) The roots of the lungs were a mass of blebs. One root-bleb in the left chest had burst. (Pneumothorax was not diagnosed during life; both lungs were equally hyper-resonant.) From the roots of the lungs the blebs were continuously present into the pericardial surface (external) and mediastinal tissues in all directions, passing upwards into neck and face, and down along the aorta through diaphragm, getting more scarce, but a few blebs reached around the kidneys, and even behind the rectum. The pericardial sac contained ʒiv of yellowish albuminous fluid. The interior of sac and heart surface presented a boiled appearance, otherwise normal. Mitral valves: Opalescent film patches on valve; free border thickened and red, with smooth lentil-sized nodules (2)—swelling, not deposit. Aortic valve normal. Tricuspid and pulmonary valves similar to mitral, but no nodules. A firm white clot adherent to the auricular appendix passed into and filled the left ventricle, adhering to the papillae, and passing 1½ in. into the aorta. Right heart same condition, reaching from auricle to beyond the bifurcation of the pulmonary artery. Section of lung showed no solid raised patches, large or small. Plugs of muco-purulent matter could be expressed from the bronchioles. The lungs were spongy, and frothy bloody fluid exuded. Trachea contained a moderate layer of reddish muco-purulent matter. Larynx similar, with some caked on drab coloured parts. Epiglottis swollen, and also vocal mechanism (vocal cords unrecognizable). Spleen dark and firm. Liver, boiled appearance. Kidneys also, and they showed fetal lobulation. Blood dark and fluid. Stomach showed hyperaemic patches of mucosa at entrance and exit, and contained yellowish fluid. A foot along the jejunum a small patch of hyperaemia, and occasionally a patch, until one reached the last 4 in. of the ileum, where there was marked hyperaemia and a little ecchymosis. The caecum and ascending colon were similarly severely involved. Patches of the same nature, but slighter, occurred in the rest of the intestine. No peritonitis, no fluid in abdomen. No enlarged glands. Appendix normal. Very little air had penetrated along the mesenteric vessels. Brain and membranes showed venous congestion only. The blood taken *post mortem* showed an intense leucocytosis, mainly polymorphs; numerous pneumococci were free in the blood and in the leucocytes. A smear from the laryngeal wall showed plentiful supply of *Micrococci tetragoni* and pneumococci. Also long streptothrix chains unbranched, eight to ten times as long as the pneumococci chains; each member of the chain a bacillus with beaded appearance, and as long as six pneumococci, and Gram-staining. Tracheal smear showed the same fauna. The smear from the exudate from the bronchiole showed pneumococci only, as also did the pericardial fluid.

ANEURYSM OF THE SUPERIOR MESENTERIC ARTERY, WITH RUPTURE.

By ALEX. H. GIFFORD, M.R.C.S.Eng., L.R.C.P.Lond.
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ANEURYSMS of the abdominal aorta, near the coeliac axis, are described as occurring in nearly equal proportions communicating with the anterior and posterior parts of the aorta, but I can find no description of an aneurysm of the superior mesenteric artery. The following is a case of aneurysm of the superior mesenteric artery associated with an aortic aneurysm, with rupture into the lesser sac of the peritoneum.

History.

A Kaffir woman, aged about 33 years, came into hospital complaining of pain and throbbing in the epigastric region, where she had "noticed" a lump for a week. The pain in the abdomen had been felt for three months; it had no relation to the taking of food, but her appetite had been very bad; the bowels had been costive for the same period. There was no history of injury in this region, and no history of syphilis.

Physical Signs and Symptoms.

A tumour the size of an orange was seen and felt in the epigastric region, slightly to the left of the middle line; it was firm, and incompressible on moderate pressure, with a somewhat irregular conformation; there was a strong expansile impulse synchronous with the heart's beats. The tumour was immovable, both from above downwards and laterally. On light percussion there was no resonance. The mass was firmly pushed against the anterior abdominal wall.

Two days after admission the epigastric pain was diminished, but two days later there was a return of this symptom, with a constant severe pain, which was referred to the spine in the lumbar region, and to the sides of the abdomen about the same level. The patient died eight days after admission.

Necropsy.

At the *post-mortem* examination a fusiform aneurysm of the abdominal aorta was found at and around the origin of the coeliac axis and superior mesenteric arteries.

The opening of the coeliac axis artery lay in the right side of the aortic aneurysmal sac, and was normal in size and shape; below this and involving the origin of the superior mesenteric artery was a large orifice, 2 in. in length and 1½ in. in width, opening into a larger, irregular, oblong-shaped aneurysmal cavity, the measurements of which were 4 in. from right to left, 3 in. from above downwards, with a depth of 2 in. from before backwards. In addition there was a conical prolongation downwards and to the right, which was continuous with the antero-duodenal portion of the superior mesenteric artery. Another prolongation of the cavity extended upwards below, then to the right of and finally above the coeliac axis artery and its branches. This prolongation extended up as far as the inferior surface of the liver, and it was at its upper part that the rupture occurred into the lesser sac of the peritoneum.

This large aneurysmal cavity was bounded anteriorly by the head, neck, and body of the pancreas, and by the posterior layer of the lesser sac of the peritoneum; posteriorly the cavity was formed by muscles and various tissues matted together, superiorly the liver, and inferiorly the transverse part of the duodenum and the mesentery bounded the cavity, whilst the right side was formed by the junction of the anterior and posterior walls.

The rupture took place into the lesser sac by a transverse opening ¾ in. in length at the upper part of the cavity, just under the liver, the edges being much thickened and somewhat valvular.

The blood, after rupturing into the lesser sac of the peritoneum, had found its way through the foramen of Winslow into the peritoneal cavity, where about two handfuls of clot and a pint of serum were found at the *post-mortem* examination.

The interesting points of this case were the facts:

1. That the aneurysm must have been one occurring, in the superior mesenteric artery in its course behind the pancreas, remnants of the arterial wall being found lying flat on the posterior wall of the cavity.

2. That the gradual dilatation of the large aneurysmal cavity had exercised a traction on the aorta itself, so that a fusiform aneurysm was formed.

3. That there was a rotation of the aorta, in that the opening of the coeliac axis artery and what must have been the opening of the superior mesenteric artery originally, were found on the right side of the aortic aneurysm.

4. That there must have been a gradual and persistent dissection in the upward direction to the lower surface of the liver where the rupture eventually took place, as is evidenced by the thickening and induration of the walls.

For permission to publish this case I am indebted to the Medical Superintendent of Addington Hospital.

ELECTRO-CARDIOGRAPHY AND ITS IMPORTANCE IN THE CLINICAL EXAMINATION OF HEART AFFECTIONS.

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(Continued from page 1123.)

PART II.

The Auricular Summit in Mitral Stenosis.

THE summit *P*, which corresponds to the contraction of the auricles, is small and pointed or rounded in most normal electro-cardiograms from lead *II*. As a rule its height does not extend for more than one scale division. In mitral stenosis, where there is hypertrophy of the auricular musculature, this summit is considerably modified and is of diagnostic importance. It is generally broad, flat-topped, and bifurcates in its centre (the last-named feature is not of necessity pathological), its height is greatly increased, it often extends to two scale divisions (Fig. 6; see also Fig. 4 *II* of previous article) and may amount to three or even more millimetres.

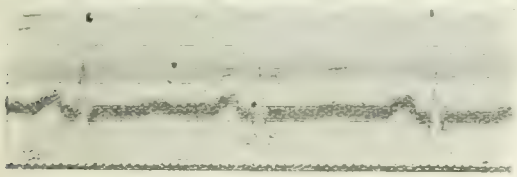


Fig. 6.—An electro-cardiogram (lead *II*) from a case of mitral stenosis. It shows the exaggerated *P* summit, which is broad, flat and divided. This picture is common in mitral stenosis.

The sign is of chief clinical value in cases of mitral stenosis in which murmurs are absent or obscure, and in such cases galvanometric examination may decide an otherwise doubtful diagnosis.

"As–Vs" Interval.

The normal heart beat consists of a sequence of chamber contractions. The contraction begins in the auricle and having passed through it is transmitted to the ventricle through the specialized tract of tissue known as the auriculo-ventricular bundle; the ventricle having received both its charge of blood and impulse from the auricle, contracts. There is an appreciable delay between the contractions of auricle and ventricle in a normally acting heart, and the length of interval between the onsets of the contractions is taken as a measure of the functional efficiency of the bundle in question. This interval is readily ascertained in human electro-cardiograms. It is represented by the distance from the commencement of the auricular summit *P* to the commencement of the ventricular summit *R*. In normal electro-cardiograms this *P–R* interval measures between 0.12 and 0.18 second.

But in pathological hearts the interval is often greatly increased: it often reaches 0.3 second (Fig. 7) and may extend on occasion to as much as 0.4 second. Prolongation of this interval is the first of a series of extremely interesting and important phenomena which are spoken of collectively as "heart-block," phenomena which are due to impairment of the tissue functions in the tract which

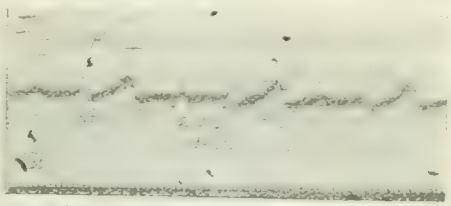


Fig. 7.—An electro-cardiogram from a case of subacute infection of the bladder. The *P-R* interval is prolonged; there is hesitancy in the transmission of the impulse from auricle to ventricle, and consequently evidence of damage of the tissues joining the auricle and ventricle. The disturbance in conduction was the sole sign of myocardial disturbance in this patient at the time when the curve was taken.

conveys the contraction impulse to the ventricle. The impairment of bundle function produces delay or hesitancy of the impulse transmission, which can be discovered with certainty only in graphic records taken from the heart. It leads to no disturbance of the beats which is evident during ordinary clinical examination. Yet we cannot afford to neglect it. It is a frequent sign in heart disease: it may be a forerunner of grave disturbances of the heart's mechanism, which will be spoken of later; it is in itself always serious. The length of the *P-R* interval is one of the important prognostic signs in mitral stenosis, for such hearts when regularly exhibiting prolongation of the interval are hard hit, and the damage is not necessarily confined to the auriculo-ventricular bundle, but is usually disseminated throughout the heart muscle. A prolongation of the *P-R* interval is not at all an infrequent sign during the course of acute infections, especially those of rheumatic type. It may be that a patient who exhibits some slight enlargement of the heart, or in whom a systolic murmur of rheumatic origin is present, develops a sore throat or slight febrile attack or soreness of the joints. At the same time prolongation of the interval may be noticed. It may even occur apart from other manifestations of infection. Whenever it develops it is a sign of considerable consequence, for it indicates involvement of the heart muscle. Clinical medicine has recognized lesions of the heart valves for many years: it has looked almost in vain for signs of early muscle damage. Advanced rheumatic disease of the heart has essentially a long history behind it; it probably results from repeated infection and repeated slight damage of the valves and muscle. Transitory prolongation of the interval between auricular and ventricular contractions is one of the very few signs which we possess of these invasions. The greater part of the ventricular musculature may be spoken of as silent, in the same sense that large areas of the cerebral substance are termed silent. The auriculo-ventricular bundle, like the pyramidal tracts of the spinal cord, gives, when damaged, early indications of such damage, though the lesion may not be, and usually is not, confined to it. The electro-cardiogram thus serves an extremely useful purpose, for it not only gives us an accurate index of the manner in which the functions of the auriculo-ventricular bundle are fulfilled, but it also throws light upon the condition of the myocardium as a whole. A single manifestation of bundle deficiency is spoken of at the present time: others will be noted at a later stage

Lesions of the Bundle Branches.

The auriculo-ventricular bundle divides into two large branches near the ventricular septum and these run and arborize under the endocardium before joining the muscle of the ventricle. Just as lesions of the main stem of the bundle give rise to electro-cardiographic signs, so do lesions of its branches; and a number of such lesions may be recognized to-day, and their significance may be appreciated. A lesion of a bundle branch results, not in a prolongation of the conduction interval, but in profound modification of the manner in which the auricular impulse is distributed to the ventricle through the conducting system as a whole: the result is a profound modification of the type of electric curve which represents ventricular contraction, for the type of electric curve is chiefly dependent upon the point or points at which contraction starts in the muscle from which it is recorded.

* Working the tenure of a Beit Memorial Fellowship.

If there is a lesion, let us say, of the main division of the bundle which runs to the right ventricle, the auricular impulse, instead of travelling to both ventricles and starting contractions in them almost simultaneously, runs to the left ventricle alone; the contraction consequently

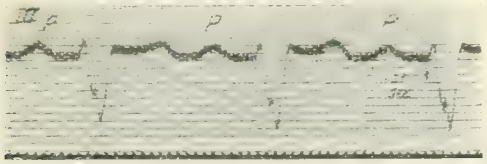


Fig. 8.—An electro-cardiogram from lead *III*, from a patient who had heart enlargement. The auricles (*P*) are beating regularly; each auricular contraction is followed by a ventricular beat of anomalous form, at an increased interval. The *As-Vs* interval is increased to 0.21 second, indicating damage of the main bundle. The shape of the ventricular portions of the curve indicates that the right bundle branch has also been damaged and no longer conducts. The impulse from the auricle is consequently conducted to the ventricle along the left strand only. As a result the contraction reaches the ventricles and starts the contraction in them in an abnormal manner. The normal electro-cardiogram results when the contraction spreads from both sides almost simultaneously. This form of abnormal curve results, as shown by experiment, when the contraction spreads to both ventricles from the left side.

starts on this side of the heart, and spreads in an abnormal manner throughout the chambers. The result is an electro-cardiogram of a definite but abnormal shape. A curve of this sort is shown in Fig. 8.

Following upon each auricular contraction (*P*) is the representative of the ventricular contraction; it consists of a small upward peak, a deep depression of long duration, a short almost horizontal line and a rounded summit, not dissimilar to *P*. The type of curve is well known, and is only produced in the manner described.

Damage of the main divisions of the bundle is not at all uncommon, and is usually the result of fibrosis. Electro-cardiographic examination alone will reveal such lesions; the single example which I have given is sufficient to illustrate the manner in which they may be diagnosed.

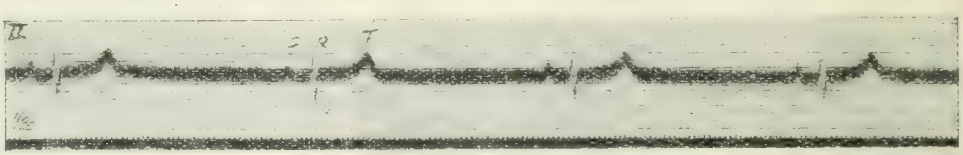


Fig. 10*a*.—An electro-cardiogram from an athlete who exhibited bradycardia. The pulse and ventricular rate were 35 per minute. In the figure each cycle consists of the usual auricular and ventricular summits. The whole heart is shown to have been involved in the slowing.

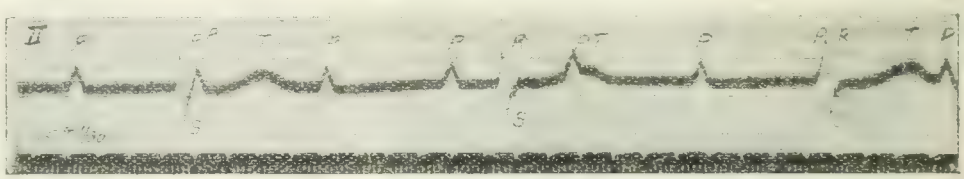


Fig. 10*b*.—An electro-cardiogram from a patient who exhibited bradycardia of a different form. The pulse and ventricular rate were 30 per minute. The ventricular beats are seen in the curve; they are represented by deflections *R*, *S* and *T*, and are placed regularly. In addition, a number of auricular summits, *P*, are seen; they are placed quite regularly in the curve, but fall with varying relations to the ventricular curves. There are two independent rhythms; one, auricular, at the rate of 77; and the other, ventricular, at a rate of 30. The condition is spoken of as complete heart-block, and results from discontinuity of the auriculo-ventricular bundle.

It has been said that prolongation of the *P-R* interval is usually accompanied by more or less widespread muscle change. So also are the curves which indicate damage of a bundle branch. The two signs are not uncommonly found in the same heart, as in the patient from whom Fig. 8 was taken. The auriculo-ventricular interval is prolonged to 0.21 second in this curve; the heart from which it was obtained was damaged in at least two places, namely, in the main bundle and also in its right branch, as demonstrated electro-cardiographically. The actual condition was in all probability one of diffuse cardiac fibrosis.

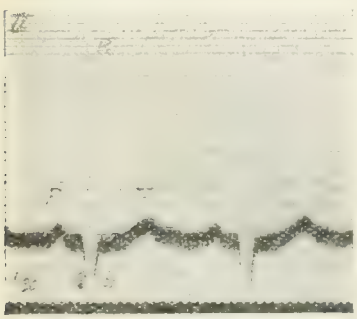


Fig. 9.—An electro-cardiogram from a case of congenital heart disease, illustrating a single point, namely, the exaggeration in the amplitude of deflections which often occurs in this condition.

Curves in Congenital Heart Disease.

Electro-cardiography reveals many other changes in the shapes of ventricular curves in hearts beating regularly and at normal rates, and a number of them are of practical significance. I have already referred to the types of curve which are found in mitral stenosis. It will suffice if I give a single additional illustration. In my first article I spoke of standardization of curves, and it is known that the height of the greatest peak in normal curves rarely exceeds 10 or 15 scale divisions. In congenital heart disease values of 25 or even 30 scale divisions are not at all uncommon (Fig. 9) and sometimes values of 45 and more are found; such exaggerations are consequently of value in the recognition of these malformations.

The Nature of Bradycardia as Portrayed by Electro-cardiograms.

When the *pulse*-rate is slow its slowness may be due, as is well known, to one of two causes. The ventricular rate may be retarded, or a number of the heart-beats may fail to reach the wrist. The last condition will be dealt with more fully at a later stage. The first, or "bradycardia" (a term generally used for slow action of the ventricle), is not, as was formerly thought, a simple condition. It may result from slow action of the heart as a whole, or from deficiency in the conduction of impulses as they travel through the heart from its upper to its lower chambers; and the two states must be carefully distinguished, for, as the life-histories of such hearts are different, so the prognosis and treatment are different. Electro-cardiograms readily distinguish between them.

The ventricular beats are seen in both, and they occur at similar and widely spaced intervals (Figs. 10*a* and 10*b*); but while in slowing of the whole heart a single auricular summit *P* precedes each ventricular contraction (Fig. 10*a*), where there is deficient conduction many such auricular summits are found, and they may fall, as in Fig. 10*b*, with varying relations to ventricular systoles. Two rhythms are established, the one auricular, the other ventricular; each is regular and independent of the other. This is the condition, spoken of as complete heart-block or complete dissociation, which is so often associated with attacks of loss of consciousness (Stokes-Adams syndrome). It is the last stage in the series of phenomena which result from damage to the auriculo-ventricular bundle, and results from grave impairment of this tract, so that no auricular impulses are conducted to the ventricle. If a patient has a ventricular rate of 30, 40, or 50, we are no longer satisfied in describing his symptom as "bradycardia"; a further analysis of the nature of the heart's mechanism, to determine the cause of the slow ventricular action, is essential before we can foretell the future history of the heart or suggest those measures which are best calculated to prolong its action.

The Nature of Regular Tachycardia as Portrayed by Electro-cardiograms.

When the pulse and ventricular beats are regular and rapid, the acceleration may often be ascribed to fever, infection, poisoning, or some specific disease such as exophthalmic goitre. But there is a large class of patients

in which the causation of tachycardia is by no means easy to determine by ordinary clinical means.

A number of patients, who are in reality sufferers from paroxysmal tachycardia, come under observation during the attacks (which may have a duration of a few hours or many months) and the true condition readily escapes detection; a number have *persistent* tachycardia of cardiac origin. The tachycardia, whether paroxysmal or persistent, may be from 120 to 300 in rate. Electro-

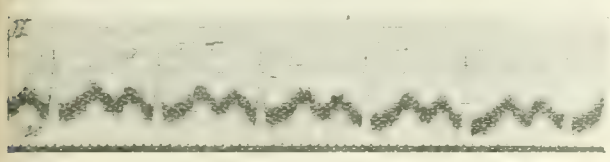


Fig. 11.—An electro-cardiogram showing tachycardia in exophthalmic goitre. The rate is 150 per minute. In this instance the heart beats have started in the usual situation, the junction of the superior vena cava and auricle, as evidenced by the normal shape of *P*. The ventricle (*R*, *T*) has responded to each auricular beat. It is an example of a tachycardia which has arisen as a result of altered innervation or altered nutrition of the normal pace-maker.

cardiography is especially valuable in such cases. When the heart is accelerated as a result of fever, poisoning, or exertion, the general form of the electro-cardiogram is retained. The summits corresponding to the auricular and ventricular contractions are clearly visible (Fig. 11) and are of normal outline. But in the special group of heart cases to which I refer such is not the case. It is customary to find either that the auricular summit has vanished or is obscure (first half of Fig. 14) or that it is inverted (Fig. 12).

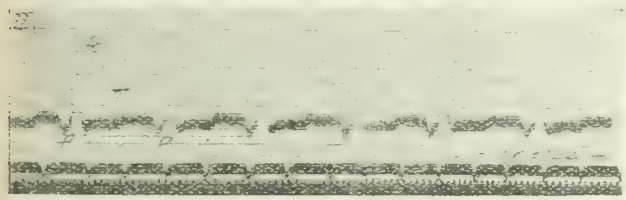


Fig. 12.—An electro-cardiogram taken during a paroxysm of tachycardia. The rate is 132 per minute. The tachycardia has arisen from an abnormal auricular focus, which is known from the inversion of *P*. Each auricular contraction gives rise to a ventricular response (*R*, *T*).

These signs are invaluable, for they immediately acquaint us with a pathological fact which has only recently been discovered, namely, that the site of origin of the heart-beat may suffer displacement.* The normal heart-beat is now known to start in the region of the union of the superior vena cava and the right auricle. The abnormal or dislocated rhythms may start at several other points, for example, near the coronary sinus. The absence of auricular summit or its inversion is a sign of the awakening of new impulses in a portion of the heart muscle at some distance from the normal starting point, and the tachycardias with which such signs are associated are known to belong to a specific and essentially cardiac group; they run their own special courses. Such tachycardias react to rest, drugs, and other agencies in a manner quite their own. Thus, where tachycardia exists, electro-cardiography is not only a valuable aid in diagnosis, but is also most helpful in guiding treatment.

Amongst the tachycardias of elderly subjects one form exists which is of special interest. The pulse-rate and the rate of beat at the apex may be 120 or perhaps 150. The rate persists and the cause is not determined. Electro-cardiography reveals the unexpected fact that the true rate of heart-beat is much greater, for while the ventricle beats at 120 or 150 the auricular rate is 240 or 300 (Fig. 13). The type is of importance not only because it has its own peculiar prognostic features, but also because it reacts in a special manner to drugs of the digitalis group. Often, by suitable treatment, the normal heart action may be restored. These cases are not uncommon. I have seen an instance of a similar kind in which, while the auricles beat at 300 per minute, the ventricles beat at 75, or exactly

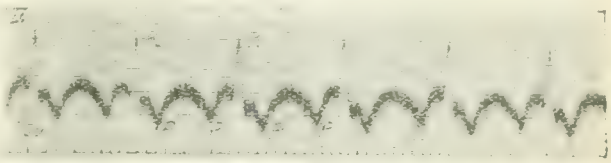


Fig. 13.—An electro-cardiogram from an elderly patient with persistent tachycardia. The ventricle (*R*) is beating at 159 per minute. Before each ventricular summit *R* is an inverted auricular deflection *P*: another *P* deflection is seen in the usual position of *T*, the latter being inconspicuous. The series of *P* deflections occur at regular intervals throughout the curve. The rate is 318 per minute, or exactly twice that of the ventricle. The auricular beats have arisen in an abnormal focus, as evidenced by the form (inverted) of their electric curves.

a quarter of the auricular rate; the rapidity of the auricular action could not be determined in this patient who had a normal pulse-rate by any other means than electro-cardiography.

One of the great lessons which graphic records have taught is the fallacy of judging heart-rate by pulse-rate, or even by the rate of beating of the heart's apex. If a man's pulse is said to beat at 100 per minute, the statement awakens an impression which is governed largely by experience of the reaction of heart-rate to fever, infections and other common causes of altered rate. Judged from this point of view, conclusions drawn from an observation of the pulse-rate are only valid if the pulse is a true guide to the rate at which the heart beats are generated at their normal starting point. It is obvious that conceptions based upon actual pulse-rate are erroneous when apex and pulse fail to agree; the rate of one may be double the other. But the rate of apex beat is often equally deceptive. When we wish to arrive at a conception of actual heart-rate, and of its increase or decrease in response to chemical or nervous influences, it is important that our thoughts should carry us, not to the ventricle, but to the actual starting point of the rhythm. Auricular and ventricular rates may not correspond. And it is equally important, as shown by actual practice, that we should fully avail ourselves of our means of determining the actual site of origin of the heart beats in the individual case; for if, as often happens, the seat of impulse formation has been displaced, none of those rules which customarily guide us in judging of its rate and its reactions are longer applicable. I may illustrate these contentions by referring to the special type of tachycardia exhibited by elderly people. The ventricular rate is usually but

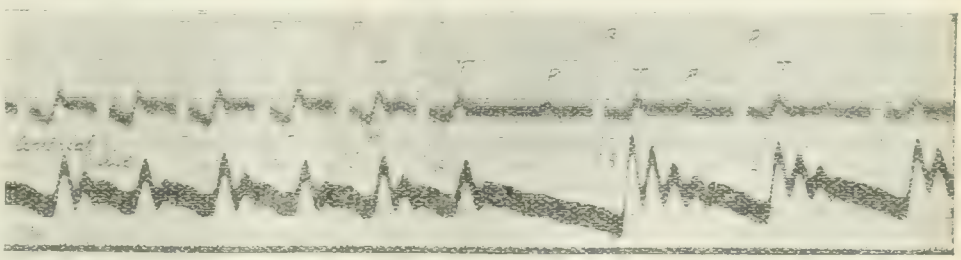


Fig. 14.—An electro-cardiogram and brachial pulse curve from a patient who was the subject of paroxysms of tachycardia. The figure shows the end of a paroxysm; the tachycardia (rate 127) terminates abruptly, and after a pause the normal rhythm is resumed (rate 72). The normal rhythm to the right is represented by the auricular summit *P* and ventricular deflections *R*, *S* and *T*. The tachycardia is represented to the left by ventricular beats, *R*, *S'* and *T*, of the same form; this shows that the tachycardia has arisen above the ventricle, for the impulses have coursed along the normal ventricular channels. The auricular beats are represented obscurely. They are inverted, and fall upon the *T* deflections, slightly deforming all but the last beat of the paroxysm. The paroxysm has arisen in an abnormal auricular focus.

half the full and true heart-rate. Again, the normal heart-rate is influenced in many ways, notably by posture. The rate falls when the subject passes from the upright to the supine posture. In the tachycardia of which I speak that is not the case; the rate is maintained in all positions; and if there is a fall of auricular rate in such a subject, the

*That they signify displacement of the "pace-maker" is known from experimental observations.

fall is not gradual, as in that of the accelerated normal rhythm; it is abrupt, as is the fall in all tachycardias which have abnormal starting points; the change occurs with one heart-beat; the fall comes when the new rhythm vanishes and the old rhythm is resumed (Fig. 14).

The necessity for a clear analysis of the heart action may be further illustrated by the same group of cases. We are dealing perhaps with a case in which auricle and ventricle are beating regularly at 240 and 120 respectively. Alternate auricular impulses alone reach the ventricle and stimulate its contraction. Suppose that this patient is placed upon digitalis. When the drug is administered the pulse is 120 and regular. Digitalis, by increasing the grade of block, may reduce this pulse-rate to 60; under these circumstances it does not reduce the auricular rate, which remains at 240; but it further impedes transmission, so that whereas one impulse in two originally awakened ventricular response, after its administration one impulse in four finds a passage. Thus, though the pulse-rate has reached normal limits, the true heart-rate is as it was before. But before the ratio 240 : 60 (or 4 : 1) is established, the heart passes through a transitional period, during which cycles of 2 : 1 and 4 : 1 ratios are mixed, and the pulse therefore becomes very irregular. *The development of this irregularity*, when the pulse-rate falls from 120 to 100 or 80 and while the patient is upon digitalis, *is a favourable sign*, for it is an indication that the heart is reacting to the drug, and a further fall of pulse-rate and a return to the regular state may be predicted with some confidence if the drug is continued or its dosage increased.

Paradoxical as this conclusion may seem at first sight, and untenable as it would appear were the analysis of irregularities impossible, it is none the less true. It serves to illustrate that conclusions which apply to one form of heart action do not apply to another, and emphasizes the necessity that the mechanism of the beat should receive thorough investigation.

(*To be continued.*)

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

A NOTE ON "GRANULE-SHEDDING" IN TREPONEMA PERTENUE.

Several examinations of the spirochaete of yaws have been made here by the dark ground illumination. The spirochaete is of very delicate character, and varies in length from two to three diameters of a red blood corpuscle. In the majority of instances small spherical highly refractile "granules" are present—usually terminal—one at either end; others may be seen in the course of the spirals, but these gradually gravitate towards a pole.

After prolonged observation extrusion of these granules was observed.

This spirochaete does not show the "corkscrew" action of *T. pallidum*, nor is there any translation across the field. It exhibits, however, a lateral vibratory movement, and, presumably by means of this, the "granule" is shot with some force from the body of the spirochaete into the surrounding medium. Immediately after extrusion it is stationary, but soon it begins to make its way through the surrounding fluid, apparently turning over and over on itself. Motility is distinct, but I have not seen any suggestion of a flagellum.

The extrusion of this "infective granule" is a very striking phenomenon, and its occurrence in yaws may be of interest, following, as it does, on the work of Balfour[1] on syphilis and spirochaetosis of Sudanese fowls, and his observation on "granule-shedding" in these conditions.

H. S. Ranken,
Yei, Lado Enclave, Sudan. Lieut. R.A.M.C., attached E.A.

NOTE ON THE OCCURRENCE OF A SPIROCHAETE IN CERCOPITHECUS RUBER.

In the course of examination, by dark ground illumination, of the blood of a *Cercopithecus ruber*, experimentally infected with *Trypanosoma gambiense*, a spirochaete was observed.

This spirochaete was short and thick—roughly 8 to 12 μ in length—and showed active movement and progression across the field. Spherical terminal refractile dots were present, but extrusion of granules was not observed.

Castellani and Chalmers[2] describe *S. macaci*, and *S. pitheci* was observed by Thiroux and Dafougere[3] in *Cercopithecus patas* in Senegal.

This monkey was captured in the Lado Enclave, Sudan.

H. S. Ranken,
Yei, Lado Enclave, Sudan. Lieut. R.A.M.C., attached E.A.

[1] Balfour: British Medical Journal, May, 1911. *Fourth Report Wellcome Tropical Research Laboratories, 1911.*

[2] Castellani and Chalmers: *Manual of Tropical Medicine.*

[3] Thiroux and Dafougere: *Bulletin Soc. Path. Exotique.*

Reports of Societies.

EDINBURGH OBSTETRICAL SOCIETY.

Wednesday, June 12th, 1912.

Dr. Haig Ferguson, President, in the Chair.

Axial Rotation of the Myomatous Uterus.

Professor Kynoch, in a communication on this subject, recorded the case of an unmarried woman, aged 56 years, who had been aware of an abdominal tumour for twelve years. A month before admission to hospital she had been suddenly seized with acute pain, retention of urine, and extreme constipation. The abdomen was the size of a seven months pregnancy, and the condition resembled a concealed uterine haemorrhage. At operation the tumour was found to be dark purple in colour from haemorrhage into its substance, and the cervix formed an elongated pedicle as thick as a finger, with two and a half twists from left to right. The fibroid grew from the top of the uterus. The tubes and ovaries participated in the torsion. It was suggested that pain associated with a fibroid might, more frequently than was supposed, be due to a slight degree of torsion.

Dr. Barbour asked if the dark colour was due to actual haemorrhage into the substance of the tumour or to transudation of blood pigment, as occurred in necrobiosis.

Dr. Haultain inclined to the opinion that the specimen was an example of necrobiosis. In a case reported by him two years ago the cervix did not form a pedicle, but the whole organ was twisted.

Dr. Fordyce said that on section of some fibroids vessels were seen, which might give rise to considerable haemorrhage. The specimen looked like a marked example of necrobiosis. That form of degeneration frequently occurred during pregnancy and the puerperium.

The President asked if the specimen was as dark at the time of removal. He had never seen such severe symptoms in axial rotation. He mentioned a case in which he had removed during pregnancy a twisted subperitoneal fibroid showing necrobiotic changes.

Professor Kynoch said he appreciated the resemblance to red degeneration of a fibroid, but the specimen was almost black on removal, the cut surface was uniformly dark, and blood oozed from it.

Ectopic Gestation: Difficulty of Diagnosis.

Dr. F. W. N. Haultain read notes on two cases of ectopic gestation in which the diagnosis was difficult. In the first the patient, 25 years of age, had had one child five years previously. In the second pregnancy her doctor had diagnosed a sacculated retroverted uterus. The fetal head was felt at the top of the tumour, 2 in. above the umbilicus. No symptoms had occurred except severe pains on two separate days, and then fetal movements stopped. As her pulse-rate and temperature were high, two gum-elastic bougies were introduced to induce labour. They went in for a distance of 8 in., and could be felt near the apex of the swelling. Labour pains started four days later, but the uterus was found to be empty. When the abdomen was opened the sac was found closely adherent to the intestine; inside it was a fetus 3 lb. 9 oz. in weight. The uterus was pulled high up by the sac, the increase in length to 7 in. being mainly due to elongation of the lower uterine segment. In it lay a semi-detached cast. In the second case the patient was married in October, 1910, and two months later, after one week's amenorrhoea,

she had a severe attack of pain and an acute illness with fever, which kept her in bed for six weeks. Eight months later she had a similar attack, and in February of this year a third. Vaginal examination revealed a tender swelling to the right of the uterus and matting of the left appendages. Gonococcal salpingitis was suspected, but she passed a decidual cast of the uterus. She said this had happened in each of the previous attacks. At operation much free blood was found in the peritoneal cavity, and the right Fallopian tube was pregnant. The left tube was adherent at its tip; it was freed, and left *in situ*. The question was whether the three attacks represented three ectopic gestations. Drs. BARBOUR, KYNOCH, FORDYCE, LACKIE, RITCHIE, and YOUNG, and the PRESIDENT took part in the discussion.

Chorio-Angioma of the Placenta.

Dr. R. W. JOHNSTONE showed a placenta, the seat of chorio-angioma, the structure of which he illustrated by a series of lantern slides. Pregnancy was associated with hydramnios and ended prematurely. The greater part of the placenta was normal, but lying compactly in a crescentic bay was a tumour measuring 3 by 4 in. It was composed of lobules varying in size from a pea to a plum, and aggregated in groups like grapes on a stalk. The surface of the tumour had a greasy appearance. Several vessels going from the base of the cord coursed over it. In section each lobule had a two-layered covering of epithelium, plasmodial and cellular, and it frequently reflected over the vascular pedicle. Underneath the epithelium was a layer of delicate connective tissue, and below it were great numbers of capillaries and some arteries and veins. On the maternal surface of the tumour no decidual tissue was present. The tumour was a capillary angioma, arising almost certainly from the chorion in the terminal branches of the villi. It might have arisen as the result of a circulatory obstruction, and a stricture in one large vein was discovered. If this was present as early as the third week of intrauterine life, angiomatous development might be stimulated in the whole of one cotyledon. Drs. BARBOUR, WATSON, FORDYCE, and YOUNG, and the PRESIDENT took part in the discussion.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

Thursday, June 13th, 1912.

Mr. J. B. LAWFORD, President, in the Chair.

Colour Blindness.

Mr. NETTLESHIP, in a record of the pedigree of four families all containing one or more colour-blind females, said that a congenital digital deformity, crooking of the little finger, occurred in two of the colour-blinds and in one of the normals in direct descent. He had observed the same condition in another pedigree of colour blindness. Two of the pedigrees showed a pair of female twins, in each of which one was colour blind and the other was not. The only other recorded case was one by Reber of male twins. In one of his own cases the twins were probably "similar," for they had a common placenta and both children were almost exactly alike. The tests he used for the detection of the colour defect were wools, Nagel's test, and the spectroscope. In the other pair of twins the resemblance to each other was not so marked, and it was very doubtful if these were "identical" twins. He also gave an account of a pedigree of colour blindness worked out by Mr. C. H. Usher (Aberdeen). It showed the union of two unrelated stocks both containing cases of colour blindness. A colour-blind male married a normal female, who presumably carried the condition. Her family consisted of three sons, two of whom were colour blind, and five daughters, who were all healthy and who showed no defect in this respect. Dr. EDRIDGE-GREEN said that colour blindness prevailed among women to a greater extent than was formerly thought.

Disease of the Choroid.

Mr. MALCOLM L. HEPBURN, in a paper on inflammatory and vascular diseases of the choroid, discussed the present method of classifying diseases of the choroid, and gave a general description of changes which occurred in all inflammatory foci therein. He explained pathologically how loss of function of the retina was brought about, and suggested an anatomical classification of the cases. He described the following clinical varieties of old choroiditis, and the effect that each form had on visual function. (1) Disseminated choroiditis, (2) diffuse, (3) deep patchy, (4) superficial patchy, and (5) macular choroiditis. He discussed the following vascular diseases of the choroid: (1) Retinitis pigmentosa, (2) haemorrhagic retinitis, (3) emboli, thrombosis, and endarteritis, (4) degeneration.

ROYAL SOCIETY OF MEDICINE.

SECTION OF OBSTETRICS AND GYNAECOLOGY.

Thursday, June 6th, 1912.

Dr. AMAND ROUTH, President, in the Chair.

Contraction Rings.

Dr. J. A. WILLETT recorded the case of a multipara, aged 42, in whose delivery it was thought advisable to terminate labour by forceps some sixteen hours after the commencement thereof. The head was easily brought down to the outlet, but the utmost difficulty was experienced in bringing the head over the perineum. The cause of the difficulty was then apparent, as the shoulders were detained above a thick retraction ring, which encircled the lower part of the neck. The child was dead. To overcome the difficulty the author decided to try the effect of continuous weight traction. To this end the head was perforated, a cranioclast firmly fixed, and an 8-pound weight applied to its handle by means of a towel. A hypodermic injection of morphine (½ gr.) was given to relieve spasm. The patient slept for three hours, and on waking the child was rapidly delivered after a few slight pains. The placenta was expelled naturally. After a hot intrauterine douche, it was noticed that the contraction ring had disappeared. Convalescence was complicated by a mild attack of sapraemia, but the patient left the hospital on the fourteenth day. This was an ideal case in which to attempt continuous weight traction, the child being dead and the mother's condition not really urgent.

Dr. HERBERT WILLIAMSON recorded an allied case, the mother being a multipara, aged 40, and the child, whose delivery was obstructed, the second to be born of twins. Its head, legs, and cord had passed into the vagina, but the shoulders were retained by a ring which could be both seen and felt running across the uterus midway between the pubes and umbilicus. As attempts to dilate the ring with the fingers failed, and it was clear that efforts to perform version would cause rupture of the uterus, it was thought best to overcome the spasm by steady traction. The child was therefore delivered by steady traction with forceps, the contraction ring yielding after fifteen minutes. Some haemorrhage followed the birth of the child, and the placenta was expressed. As the bleeding persisted the hand was passed into the vagina, and a tear of the vaginal vault was discovered which extended through the cervix and the lower uterine segment. The rent in the uterine wall was closed with catgut and the broad ligament lightly plugged with gauze, which was removed after twenty-four hours. The patient subsequently made a good recovery. This contraction ring was not a Bandl's ring but a spasm of a narrow zone of the uterine musculature, and strictly analogous to the zone of spasm found in hour-glass contraction of the uterus.

Physiological Influence of Ovarian Secretion.

Dr. LOUISE MCILROY, in a paper on the influence of ovarian secretion, formulated the following conclusions: (1) The ovary controls the nutrition of the uterus and other reproductive organs, since removal of both ovaries causes atrophy of the muscular and glandular elements of the uterus, etc., the degree of atrophy being in direct proportion to the length of time which has elapsed since the operation. There is also a diminution in the uterine blood vessels and a tendency to atheroma—a condition very closely allied to fibrosis of the uterus in the human subject. Menstruation and oestrus do not occur after complete removal of both ovaries. In young animals, after oöphorectomy the infantile type is maintained. (2) Removal of the uterus or retention of the uterine secretion does not affect the functional development of the ovaries, seeing that the elements of the ovary are well preserved after hysterectomy and ligation of the uterine horns. Retained

uterine fluid does not counteract the atrophy of the uterus which takes place after the removal of both ovaries. There is thinning out of the uterine wall at the point of greatest distension, and no compensatory hypertrophy has been observed. (3) Removal of one ovary causes compensatory hypertrophy of the other in the anoestrous state. (4) That the interstitial cells perform the chief rôle in the maintenance of the nutrition of the uterus is evidenced by the survival of these cells in grafted ovaries, the follicles becoming absorbed or cystic, and by the fact that no atrophy of the uterus occurs when these cells are present. The interstitial cells become functionally active during pro-oestrum, as shown by their being enlarged and their cytoplasm becoming infiltrated with a liquid substance (in female dog). That the corpus luteum is the part of the ovary which exerts the most active influence upon the body as a whole is shown by the fact that corpus luteum extract, when injected, causes rise of the general blood pressure. (5) From the result of one experiment it was found that the ovaries do not play such an important part in the elimination of calcium as is supposed, since after castration the calcium output was increased, whereas it was diminished as the result of administration of corpus luteum extract. (6) Removal of the ovaries in rabbits causes an increased deposit of fat in the tissues of the body.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on June 7th, Mr. W. MCADAM ECCLES, President, in the chair, Mr. H. M. PAGE, in a paper on *Nitrous oxide and oxygen in major operations and conservative dentistry*, reported 62 cases of his own, of which 29 were for intraperitoneal operations. He suggested the indications for the use of these agents were as follows: (1) In desperate toxic and traumatic cases, the alternative being spinal anaesthesia if suitable to the case; (2) in operations on diabetic patients—for these cases he maintained its superiority to all methods of general or local anaesthesia; (3) in certain operations for genito-urinary diseases. One of the most remarkable features of the administration of these gases was the rapidity with which the patient recovered from its effects. Indeed, the rapid return to consciousness had been advanced as a drawback, but he believed it to be of great advantage in weakly, exhausted patients. The sitting posture could be adopted at once, and food, stimulants, and medicine given very soon if desired. Mr. BALDWIN said that in some of the cases recorded by Mr. Page he had been the operator, and believed their success was due to the rapidity of the recovery of consciousness; some were so desperate that lacking this advantage he would have anticipated untoward results. Mr. DOUGLAS WAIN said that with its aid conservative operations in dentistry could be performed with such a nicety and freedom from after-effects as to make it superior to local anaesthesia. Mr. J. D. MORTIMER, in a paper on the *Prevention of abdominal rigidity under anaesthesia*, said this symptom was due to mechanical tension and active contraction in varying proportions; some causes were preventable, others unpreventable. It might be set up by a loaded stomach, by common faults of anaesthetization, by local disease. The position of the patient, such as the lateral or Trendelenburg, might increase it: in the latter it was essential that the head and shoulders should be well supported. Reflex disturbances during handling of sensitive structures occurred even under deep anaesthesia, especially in neurotic, alcoholic, and rickety subjects; such general disorders should be previously remedied if possible. Ether by any method set up laboured breathing in unsuitable subjects, even when used for induction only, and rigidity was very likely to occur under nitrous oxide with oxygen. Chloroform was apt to be ineffectual in a low percentage and dangerous in a higher one, but sometimes answered well, especially in the Trendelenburg position. Usually a chloroform-ether mixture was safe and effectual. It was of first importance to avoid needless hampering of the respiratory movements, and to maintain a free air-way. Under spinal analgesia relaxation was usually complete, but it was advisable in most cases to combine this with light general anaesthesia. Under hedonal intravenous anaesthesia it was stated that there was flaccidity, but in addition to intravenous anaesthesia in general the slow elimination of the drug entailed many risks. Injection of morphine or omnopon and atropine before or even during operation was very useful in lessening reflex contractions and saving the anaesthetic; there appeared, however, to be more liability to after-vomiting and intestinal atony. Abdominal respiration in old people might be troublesome to the operator; it could not be abolished, but might be controlled by skill in anaesthetization. The surgeon and the anaesthetist should always try to realize one another's difficulties and exercise mutual forbearance.

Rebiews.

DR. HILL HASSALL AND THE ADULTERATION ACTS.

ALTHOUGH it is generally admitted that the present laws against adulteration of foods and drugs require strengthening in many important respects, it is perhaps well to be reminded occasionally of how much progress has been made and how much worse was the state of things as recently as half a century ago. In his *Memoir of the late Dr. Arthur Hill Hassall*[1] Mr. E. G. CLAYTON gives an interesting account of the campaign carried on by Dr. Hassall from 1850 onwards against the adulteration which was then so rife that scarcely any article of food was free from it. The resources of analytical chemistry were then greatly inferior to what they are at present, but the particular feature of Dr. Hassall's work which enabled him to go far ahead of what any one else had then accomplished was his employment of the microscope in the examination of foods and drugs. His earliest paper on the subject was on the adulteration of coffee, to the investigation of which he was led by a statement in the House of Commons by the then Chancellor of the Exchequer that "neither by chemical nor by any other mode could it be ascertained with any degree of certainty whether a mixture contained chicory or not." This paper was followed in the next few years by a long series of articles written by Dr. Hassall as special commissioner of the *Lancet* to investigate the subject of food adulteration. These articles involved his making some thousands of examinations, chemical and microscopical. Public attention became thoroughly aroused by the disclosure of the prevailing state of affairs, and one result was the appointment in 1855 of a Parliamentary Commission, which led to the passing of the first general Adulteration Act in 1860, and so ultimately to the present laws on the subject. Other public work of Dr. Hassall lightly sketched in this memoir includes his advocacy of a reform of the metropolitan water supply, his investigations in connexion with the cholera epidemic of 1853–4, the advocacy of standard flash-point for petroleum oils, and the founding of the Royal National Hospital for Consumption at Ventnor. The full list of his published books and papers, the titles occupying many pages of this memoir, is striking evidence of his industry and the remarkable range of subjects to which he contributed during a well-filled life. Mr. Clayton writes with enthusiasm and evident veneration for the subject of his sketch, and has produced a very interesting little volume.

DENTAL MEDICINE AND SURGERY.

Dental Disease in its Relation to General Medicine,[2] by Mr. J. F. COLYER, with the assistance of Dr. STANLEY COLYER, aims at "placing before practitioners of medicine those portions of odontology which have a direct bearing on general medicine." The most interesting chapters are those on caries of the teeth, diseases of the periodontal membrane, and oral sepsis and its influence on the body. They will give a useful insight into these conditions, and will tend to lift the veil of mystery which is supposed by some to lie over dental caries and pyorrhoea alveolaris.

[1] *A Memoir of the late Dr. Arthur Hill Hassall, Physician and Sanitary Reformer*. By Edwy Godwin Clayton. London: Baillière, Tindall, and Cox. 1908. (Demy 8vo, pp. 150, 10 illustrations.)

[2] *Dental Disease in its Relation to General Medicine*. By J. F. Colyer, L.R.C.P., M.R.C.S., L.D.S., Dental Surgeon to Charing Cross Hospital and the Royal Dental Hospital; Member of the Board of Examiners in Dental Surgery of the Royal College of Surgeons of England. With the assistance of Stanley Colyer, M.D.Lond., M.R.C.P., D.P.H. London. Longmans, Green and Co. 1911. (Post 8vo, pp. 197, figs. 62. 4s. 6d. net.)

Among other subjects the author deals with disorders of dentition and with diseases arising from reflex irritation of the teeth, agreeing with Still that dentition plays a greater part in the production of disturbances of infancy than is generally supposed, but not ascribing an important part to their reflex action in later life. Dealing with the etiology of dental caries, a strong case is presented showing the importance of sugar as a factor in its production, and on clinical grounds many will heartily agree: but the views advanced as to the importance of mouth-breathing in its production will seem to some to be carried too far. The author rightly insists on the importance of a functional mouth in the prevention of dental caries, but it may be asked, How does mouth-breathing so far militate against a functional mouth as to render it a factor of prime importance in the production of dental caries? Will not attention to cleanliness, it may be asked, undo all that the failure of function has involved? Many again will disagree with the treatment by extraction in childhood recommended on pp. 166–7, but a strong and convincing case is made out for it in the following pages, and we are certain the author has the best dental opinion with him in the matter. In the chapter on oral sepsis we do not find the classification of its results very felicitous; (*c*) "Affections due to the continuous passage of bacteria into the tissues, or absorption of toxins, or other abnormal oro-gastro-intestinal products (sapremia or toxaemic conditions)." does not seem to justify the use of the limiting term "sapremia," nor to be very distinct from "(*d*) conditions due to bacterial infection of the tissues at some point or points in the alimentary tract (septicaemic conditions)." There might also be some reference to conditions of the lower respiratory tract, and of the relation of oral sepsis to malignant growths. This chapter might well be increased, if need be, at the expense of that on diseases of the gums. The book closes with a short but very suggestive chapter on dental disease in relation to life assurance, which is worth the notice of all interested in this branch of medical practice. The illustrations are good and to the point, but it may be doubted whether Fig. 25 is what it purports to be—a deformity due to sucking the "baby comforter." Judging by the "post-normal" occlusion of molars and canines, and by the fact that a similar early deformity has been observed in a case in which no comforter was used, the condition is more likely to have been congenital. The book is the first of its class: it expresses clearly its authors' views, and is the outcome of mature consideration. The general practitioner would probably have been grateful for a chapter on the limitations of artificial repair of teeth, but he will find in the book material which will more than repay its study. There is a useful bibliography to most of the chapters.

Under the title *Prevention of Dental Caries and Oral Sepsis*[3] Mr. H. P. PICKERILL publishes an interim report of his researches into the etiology of dental caries, having, as he thinks, arrived at conclusions warranting publication. The main points appear to be that the enamel of teeth varies in hardness and resisting powers, and that by the use of sapid acid food the flow and alkalinity of saliva can be considerably increased. On both points he has done much valuable work. He divides teeth into native, sclerotic, and malacotic (or soft) teeth, and details experiments showing that "native" teeth—those of uncivilized races—are harder and more resistant than sclerotic teeth, and these again similarly superior to malacotic teeth—the two latter divisions belonging to civilized peoples. He finds "native" enamel harder to scratch and more resistant to the action of weak acids than that of the teeth of civilized peoples. The author also thinks that the outer layers of enamel harden with age, and quotes experiments in support of this view. In his investigations into saliva he has adopted an ingenious and effective method of collecting human saliva secreted during mastication, and of separting parotid from submaxillary and sublingual saliva. He finds that alkalis and sweet substances depress, while weak acids increase, the flow and alkalinity of saliva, and commends the old-fashioned acid-drop as a good form in which to give sugar. The effect on the flow of saliva lasts some fifteen minutes after cessation of mastication. Bread-and-butter diminishes the flow of saliva. To prevent dental caries the author advocates the use of the toothbrush and a dentifrice acidulated with acid tartrate of potash, the eating of fruit at the end of each meal, and more vigorous mastication. He suggests a possible use of *Saccharomyces coagulatus*—that it effects a rapid alcoholic fermentation of sugars remaining in the mouth. There is much more interesting matter which cannot be touched on in a short review; and, naturally, much to criticize—for instance, cooked and uncooked starches are compared with no reference to the possible action of cooking on the cells, and the author is under the impression that saliva is secreted continuously day and night. The book is well worth the study of all interested in dental caries.

In *Applied Anatomy and Oral Surgery for Dental Students*[4] Dr. R. H. Ivy has attempted to collect in one place and in a few words the special anatomy and surgery required by the dental student. The effort is not very successful: the whole book is too sketchy, at times confusing, as on p. 29, where an attempt is made to name the structures of the inferior surface of the skull "from before backwards" without reference to an indexed figure, or even inaccurate, as on p. 24, where the cribriform tube of the mandible is said to pass forward to the symphysis and then to send a recurrent branch to the mental foramen. In general the pathology is weak; but there is a good chapter on anaesthesia, and the author boldly and logically condemns the use of local injections for the extraction of teeth, on the ground that teeth requiring extraction are "usually surrounded by infection," which the injected fluid may drive into the surrounding tissues. In dealing with the fractures of the jaw the author rightly says that a Barton's (or four-tail) bandage will often be the best treatment. With less compression the author would have produced a far better book; as it is, he shows the difficulty of attempting to define the limits of general medicine and surgery needed for the education of the dental student.

MEDICAL HYDROLOGY.

THE subject of medical hydrology and the use of mineral waters has been much written on during recent years, and England, France, and Germany all possess societies at the meetings of which balneological subjects are frequently or occasionally discussed. The chemical and physical basis of the science of natural thermal and mineral waters is admirably and concisely expounded in Professor ALLYRE CHASSEVANT's little work on elementary hydrology,[5] and in spite of the numerous books already in circulation on the subject of mineral waters: it must be admitted that this new volume takes a definite position of its own on account of its clearness, conciseness, and useful information. The various chapters deal successively with the geology, physical geography, and distribution of thermal and mineral waters and their underground sources. The best methods of enclosure of the springs ("captage") are likewise considered in this portion of the work. Then the physical and chemical properties of mineral waters are described and the methods of classification to be adopted. This part of the work discusses the radio-activity of mineral waters, the gases they contain, their osmotic pressure, and the subjects of cryoscopy, ionization, electrical conductivity, and electrical resistance. The last chapter (Chapter XI), which consists only of seven pages, is the only portion of the book devoted to the medical applicability of "hydro-mineral" methods. As an elementary guide to physical and chemical facts connected with the study of thermal and mineral waters and their sources, M. Chassevant's little volume may certainly be recommended to medical practitioners, even to some of those already more or less familiar with the actual methods of treatment in use at famous mineral water health resorts.

[3] *The Prevention of Dental Caries and Oral Sepsis.* By H. P. Pickerill, M.D., Ch.B., M.D.S.Birm., L.D.S.Eng., Professor of Dentistry and Director of the Dental School in the University of Otago. London: Baillière, Tindall, and Cox. 1912. (Demy 8vo, pp. 324; illustrations 57. 7s. 6d. net.)

[4] *Applied Anatomy and Oral Surgery for Dental Students.* By Robert H. Ivy, M.D., D.D.S., Assistant Oral Surgeon, Philadelphia General Hospital. Philadelphia and London: W. B. Saunders. 1911. (Demy 8vo, pp. 280 (with index); figs. 58. 6s. 6d. net.)

[5] *Hydrologie élémentaire à l'usage des médecins.* Par Allyre Chassevant, Professeur agrégé à la Faculté de Médecine de Paris. Paris: Vigot Frères. 1912. (Cr. 8vo, pp. 208, with 24 figures in the text. Fr. 4.)

RESEARCH DEFENCE SOCIETY.

Annual Meeting.

The annual meeting of the Research Defence Society was held in the Library of the Royal College of Physicians on Friday, June 21st. Sir David Gill, the President, was in the chair, and there was a numerous attendance, including many ladies. Among those present were: Lord Cromer, Lady Dorothy Nevill, Sir William Ramsay, Sir David Ferrier, Sir Dyce Duckworth, the Right Hon. Robert Farquharson, M.D., Sir James Reid, the Master of the Temple, and Mr. Stephen Paget. Expressions of regret for inability to attend were received from Sir Clifford Allbutt, Mr. Arthur Balfour, Lord Hugh Cecil, Lord Robert Cecil, Lord Cheylesmore, Sir Savile Crossley, Sir George Darwin, Sir Edward Elgar, Sir Luke Fildes, the Bishop of Grantham, Lord Claud Hamilton, Mr. Rudyard Kipling, Mr. Spencer Lyttelton, Sir Norman Lockyer, Sir William Osler, Sir Frederick Pollock, Lord Rayleigh, Mr. Briton Riviere, Mrs. Romanes, Sir Henry Roscoe, Mr. W. F. D. Smith, Sir Edgar Speyer, the Bishop of Stepney, Lord Waldegrave, the Duke of Wellington, the Dean of Westminster, and several others.

Report of the Committee.

The report of the Committee was presented by the Chairman, the Hon. Sydney Holland. After a graceful reference to the resignation of Lord Cromer, who had guided the fortunes of the society for four years with the utmost wisdom and the most unremitting attention to its welfare, the report went on to speak of the issue of the final report of the Royal Commission on Vivisection. Happily, the report was unanimous. There were certain reservation memoranda, but there was no minority report. It was almost unheard of that a Royal Commission should be unanimous on a subject of such a controversial nature. Happily, also, the changes which the Commissioners recommended in the administration of the Act appeared to be all within the province of the Home Office, none of them requiring any change in the text of the Act. It was, of course, to be regretted that the report was written in a somewhat colourless and rather grudging style, but that was doubtless the price which had to be paid for unanimity. Still, the general tenor of the report had greatly strengthened the position of the society. One paragraph of the report deserved the especial attention of the public. That paragraph, signed by all the Commissioners, even by those most opposed to the views of the society, was as follows:

> We desire to state that the harrowing descriptions and illustrations of operations inflicted on animals, which are freely circulated by post, advertisement, or otherwise, are in many cases calculated to mislead the public, so far as they suggest that the animals in question were not under an anaesthetic. To represent that animals subjected to experiments in this country are wantonly tortured would, in our opinion, be absolutely false.

The reception of the report, alike by the public and by the press, had been abundantly in favour of those whose views were represented by the society; and they might reasonably believe that much of the present improvement of public opinion was due to the work which the society had been doing since 1903. The new Vice-Presidents were as follows: Mr. Waldorf Astor, Mr. Arthur Balfour, Sir William Church, Lord Cromer, Lord Dunedin, Sir Edward Elgar, Mr. Rudyard Kipling, Lord Rayleigh, Professor Schäfer, Sir J. J. Thomson, and the Dean of Worcester. Three new branch societies had been formed, in Leicester, Hampstead, and Barnstaple. They had gained about 600 members and associates during the past year, and now had about 5,200. There had been an increase in the number of drawing-room meetings, addresses, and lantern lectures, given by members of the society. These lectures included a large number of lantern lectures given at the great public schools. Altogether there had been more than 100 lectures and addresses on subjects more or less intimately associated with the work of the society. Anti-vivisection shops had been opened for short periods here and there in London, and at Bath, Bradford, Bromley, Clifton, Ipswich, Oldham, and Yarmouth. Expenses this year had increased as the work had increased. They ought to have not less than 7,000 members and associates to enable them to afford further advances in their work.

President's Address.

Sir David Gill delivered his presidential address. The following is the full text:

My first duty is to express, as I am sure I may do on your behalf as well as my own, our deep regret that failing health, advancing years, and many public calls of duty have compelled Lord Cromer to resign the chair of the Research Defence Society.

From the first formation of this society, in the spring of 1908, Lord Cromer has been its President and one of its most active members. He not only presided at our annual general meetings and delivered an address on each occasion, but he also spoke at important Branch meetings held in Cambridge, Oxford, and Brighton. In the House of Lords, on Mr. Greenwood's Amendment of the Prevention of Cruelty to Animals Act, Lord Cromer spoke in approval of the bill, expressing his satisfaction, as President of our society, that the bill did not interfere with any work of research. In 1911, when certain members of the Royal Society for the Prevention of Cruelty to Animals attempted to procure Lord Cromer's removal from the Vice-Presidents' list of that society, he very wisely did not tender his resignation, and wrote to the papers explaining the real position of things. By this policy he did the very greatest service both to the Royal Society for the Prevention of Cruelty to Animals and to our society. In 1911, when an attempt was made to impose on our society the odium of certain experiments made on patients in Germany, Lord Cromer published a letter stating that our society did not uphold practices of that kind.

Lord Cromer has also greatly helped the work of our society by obtaining leave for us to publish Mr. Taft's admirable address on Preventive Medicine, parts of which I propose to quote to-day; and our Honorary Secretary, Mr. Stephen Paget, desires me to express his own especial gratitude for the valuable introduction which Lord Cromer lately wrote for his book *For and Against Experiments on Animals*.

I feel very strongly how inadequately I can fill a chair which has been occupied by one whose great name and distinguished services entitle him to speak with high authority on all points which concern the well-being of States and their inhabitants. I can but plead, in justification of my presumption, that I have accepted this office only at the earnest and unanimous request of your Committee and with a full sense of the importance and vast public utility of the duties which it involves.

Before preparing this address I endeavoured, as far as time and opportunity would permit, to get into contact with men and women of every shade of opinion on the subject of vivisection, and to put the opinions so collected into logical order. For this purpose I have on the one hand visited several of the research laboratories—such as the Physiological Laboratory of the University of London, the Institute of Physiology of University College, and the Lister Institute of Preventive Medicine—and witnessed the experiments which are conducted there. On the other hand, I have visited the shop opened in Oxford Street by the British Union for the Abolition of Vivisection, and attended the annual meeting of that society at the Caxton Hall on the 6th of the present month. In all these places I explained my position and the objects of my visit, and in every case my inquiries were met with the greatest courtesy. The outcome seems to show that the views held about experimental research on living animals may be classified as follows:

1. *The hyper-sentimentalists*—that is, those who hold that vivisection, vaccination, and inoculation are immoral and disgusting practices which, whether they benefit mankind or not, should be abolished by law.

2. *The unbelievers*, who hold that neither vivisection, vaccination, nor inoculation should be tolerated, because they have not yielded any results of value to mankind; indeed, many of them hold that inoculation and vaccination, so far from being beneficial, lead to creation of disease and suffering in man.

3. *The ultra-scrupulous believers.* Those who admit that results of value to man have been reached by experiments on living animals, but deny that such research is justified, because these results are attained at the sacrifice of animals and not of man.

4. *The scrupulous believers.* Those who are convinced that experimental research on animals has been followed

by great advantage to science and by results of immense benefit to suffering humanity; they hold that such research is amply justified, provided that every precaution is taken to secure the utmost compatible freedom from inflicted pain on the animals subjected to experiment.

5. *The unscrupulous believers.* Those who hold that the claims of human beings are supreme, and that the infliction of pain on animals, however great, is of no importance whatever in comparison with the value of the knowledge thus acquired and the relief it brings to human sufferings.

I venture to believe that this classification and these definitions will be generally accepted, but I am not so sure about the nomenclature, which for want of better terms one has been compelled to adopt for the sake of brevity.

Perhaps the title "Hyper-Sentimentalists" requires apology—for I desire to avoid the use of hard names—but I can find no other word in the English language to express concisely what I mean by those who, without adequate knowledge, condemn a system entirely on the ground of sentiment. The hard thing is that the hyper-sentimentalists are often amongst the most charming and well-meaning of people; emotional of nature, keen of sympathy, of high-strung sensibility, and to whom the idea of pain is abhorrent. The very thought of the possibility that their own beloved dog should come under the knife of the vivisector is to such persons a very real and almost maddening form of suffering. That thought drives from their minds all such questions as the good of humanity in general; to them, as in the words of the old play, "England is only a little island, but *he* is all the world to me."

Naturally, too, under such circumstances, any argument which appears favourable to the practice of vivisection becomes abhorrent to them. They regard scientific literature bearing on the subject with almost equal abhorrence; they do not read it, and seize with avidity on every statement, however ill supported, however isolated from its context, which bears against it. This analysis is based on rather long and very friendly conversations with a considerable number of the working members of the British Union for the Abolition of Vivisection, all of whom were ladies.

They tell me with evident conviction that the idea of inoculation is hateful, for "How can it be otherwise than bad and hurtful to put horrid putrid stuff into one's body?" They point to the stuffed dogs fixed in the terrible-looking machines shown in the window, and assure one, almost with tears, that these machines are in regular use to hold unanaesthetized animals while they are being vivisected.

It was in vain that I assured these ladies that such was not the case, that the law prohibited such disgraceful barbarity, and that persons practising atrocities of that kind were liable to prosecution and severe punishment. They replied that that might be so, but insisted that what appeared in their windows was a fair and true exhibition, and that frequently in England no anaesthetics were used when these instruments were employed. They were sure of this because these machines were purchased from a maker who specially constructed and catalogued them for the horrible purpose above described. In reply to my inquiry as to the name of the maker, they declined to give it because they had promised not to do so, the maker assuring them that if it was known he supplied them for this shop he would lose his customers. These ladies evidently believed the truth of the statements which they made to me and to others who came to that shop. Lord Tenterden is more careful and better informed. He writes to the *Standard*:

> The real purport of these shops, of which we have had some fifty-six, is not to horrify and distress the public, but to induce them to read the arraignment of vivisection supplied by the Union. . . . We do not conceal the fact that anaesthetics are used, and no representation of actual vivisection is given. The instruments themselves show how severe the operations are. There exists, however, one of the most cruelly ingenious gag muzzles, specially designed, according to the inventor's own description, in order that it can be applied without anaesthetics. We make no accusation of wanton torture, but we believe that physiologists and research workers may be too engrossed in their experiments to consider the claims of the living material on which they work.

But, after all, this statement of Lord Tenterden's is just as misleading as the window exhibits at the shops which he defends, *for it succeeded in deceiving his own assistants*, causing them to make specific statements which are not founded on fact. Lord Tenterden, with apparent candour, states: "We do not conceal the fact that anaesthetics are used"; there is, however, no statement in the window to the effect that the operators on animals (in conditions which, in his own words, "show how severe the operations are") *are* compelled by law to anaesthetize these animals into a state of complete insensibility to pain. The suggestion, of course, to any ignorant passer-by is that animals in like condition are about to be exposed to horrible cruelty, and this suggestion is made stronger by the picture of a dog fixed helplessly to a board, its jaws closed by a torturing screw-gag, whilst the poor animal gazes pathetically into the eyes of a man holding a dissecting knife. Are these facts coincident with Lord Tenterden's statement that "we do not conceal the fact that anaesthetics are used"? I think that most honest men would say *No*; and they would be the more justified in so saying if, like myself, they went into the shop and were informed that that machine was expressly invented *and largely used* in England for vivisection without the use of anaesthetics.

The case does not end here. I was informed by the official organizer of the society that I was mistaken in the belief that animals for these operations were always anaesthetized. To bear out this statement, a printed paper was put into my hands—I have it here now. Its first lines read thus:

The Vivisection Act, 1876.

Its palpable contradictions.

Look on this side:	And on this:
1. The animal must be anaesthetized.	1. Certificate A can be obtained to dispense with the use of anaesthetics.

"Now," said the lady who gave it to me, "you see you are wrong, for most of the vivisectors have Certificate A." She did not inform me that Certificate A is never allowed for any experiments involving a cutting operation, but its use is confined to such experiments as inoculation by a needle prick, and for which chloroform is never administered to human beings. For myself, I am convinced that these ill-informed ladies fully believed what they stated to me. But those by whom they were instructed seem to have forgotten

> That a lie which is half a truth is ever the blackest of lies,

and I would be glad if I could believe that they have not deliberately calculated

> That a lie which is all a lie may be met and fought with outright,
> But a lie which is part a truth is a harder matter to fight.

So much for one of the methods by which well-meaning but ill-informed persons are led to hold hysterical views on the subject of experiments on living animals.

One of the antivivisection societies apparently finds it worth while to lease a shop in Piccadilly at a large annual rental, and, as we have seen, Lord Tenterden's society has had some fifty-six shops of the kind. One is apt to wonder whether the kind of information encountered when entering these shops is of the same delusive character as that which was supplied to myself at one of them. I have used the words "ill-informed" and "hysterical" to express the views which are induced by such exhibitions: these words, in fact, offer the only rational and charitable explanation that can be offered in regard to actions and conclusions such as the following. Dr. Waller describes the incident in one of his lectures—"Physiology the Servant of Medicine." I give the account in his own words:

> A few weeks ago in London, England, at the Royal Society, I gave a demonstration of the electrical effects of the heart of man and of the dog. For this purpose the man had to keep his hands quiet in a couple of jars of normal saline connected with a galvanometer; the dog had to stand quietly with a front leg and a back leg in the same fluid. My dog, "Jimmie," being of a patient breed and acquainted with the game, as well as with the satisfaction to his own tastes in which it usually resulted, was used for the purpose. The electrical effects of his heart-beats were projected on a screen, and their irregularity—a feature which, as just mentioned, is characteristic of all the canidae—aroused the commiseration of many persons who witnessed the demonstration. They thought that "Jimmy" was suffering from a bad attack of palpitation of the heart—"allorrhythmia" some one called it who was acquainted with recent medical literature. But the story did not end there, and

in case anyone should feel sceptical as to the literal accuracy of a transatlantic tale, I will finish it by a quotation from the parliamentary report of the *Times* newspaper of July 9th, 1909.

Experiments on Dogs.

Mr. Ellis Griffith (Anglesey, Min.) asked the Secretary of State for the Home Department whether his attention had been called to a public experiment performed by Dr. Waller on a bulldog at the conversazione of the Royal Society at Burlington House on May 12th last, whereby a leather strap with sharp nails was secured around the dog's neck, his feet being immersed in glass jars containing salts in solution, and the jars being connected by wires with galvanometers; whether, in view of Section VI of the Cruelty to Animals Act, 1876, which prohibited any exhibition to the general public of experiments on living animals calculated to give pain, he would say whether a licence had been granted to Dr. Waller for the performance of this experiment; whether Burlington House had been registered by the licensee for this purpose under Section 7 of the Cruelty to Animals Act, 1876; and whether any action had been or was being taken in reference to the matter.

Mr. Gladstone: Yes, sir; and I have made inquiries. Dr. Waller held no licence for this demonstration, and Burlington House is not registered under Section 7 of the Cruelty to Animals Act, 1876. I understand the dog stood for some time in water, to which sodium chloride had been added, or, in other words, a little common salt. If my hon. friend has ever paddled in the sea, he will understand the sensation. (Laughter.) The dog—a finely-developed bulldog—was neither tied nor muzzled. He wore a leather collar ornamented with brass studs. Had the experiment been painful, the pain, no doubt, would have been immediately felt by those nearest the dog. (Laughter.) There was no sign of this, and I do not propose to take any action. (Hear, hear.)

Mr. Ellis Griffith: After this exhibition of humour on the part of the right hon. gentleman- (hear, hear)—may I ask what is the source of his information that no pain was inflicted on the dog? (Hear, hear.)

Mr. Gladstone: I have seen Dr. Waller and made the acquaintance of the dog, who is well accustomed to these exhibitions, and likes standing in the water. (Laughter.)

Mr. MacNeill (Donegal S., Nat.): With a little salt.

Mr. Kennedy (Cavan W., Nat.): Can the right hon. gentleman say what was the purpose of this exhibition?

Mr. Gladstone: To show the pulsation of blood and other functions of the body. It was absolutely painless.

Mr. Kennedy: Has the right hon. gentleman received an assurance that the dog was not drugged for the experiment?

Mr. Gladstone: There is no question of the dog being drugged. It was a perfectly harmless demonstration, which might be carried on at any place without the slightest pain to the dog, and to the edification of the spectators.

Mr. MacNeill: Will the right hon. gentleman inform the person who furnished him with his jokes that there are members in this House who regard these experiments on dogs with abhorrence? (Hear.)

Mr. Gladstone: I certainly shall not. The jokes, poor as they are, are mine own. (Laughter and cheers.)

This is the *Times* report.

The astounding and lamentable truth is that men and women—for lack of a little understanding and a little goodness—should be so ready to impute evil in defiance of all common sense. What, indeed, can be the humour of mind that permits a man to picture, as a rational act of cruelty, the exhibition of a dog at the Royal Society "with a leather strap with sharp nails secured around the dog's neck"?

We come now to the class of "unbelievers" who hold, on the ground of superior knowledge, that vivisection, vaccination, and inoculation should be forbidden by law, because they have not yielded results of any value to mankind—but rather the reverse. Lord Tenterden, in the letter already quoted (and I use his words as a representative of one of the chief antivivisection societies, and not by way of personal attack), writes:

> Moreover, there is an impatience of accepting antivivisection criticism which prevents their studying the exceedingly strong scientific case which can be made out against all these experiments. Inoculation is becoming a mania, and few people know how weak is the general evidence upon which all these theories of serum and vaccine therapy rest. The controversies about Malta fever, diphtheria antitoxin, and the recent plague scare in Suffolk are well worth the attention of every fair-minded critic.

Now, upon what authority does he state that there is "a strong scientific case which can be made out against all these experiments" (on living animals), or that "the general evidence upon which the theories of serum and vaccine therapy rest is weak"? Such pronouncements should surely rest upon high authority. Can Lord Tenterden name in support of his words any physiologists of the highest standing, such as men whose authority has been stamped by election within the past ten years to foreign membership of any of the national academies of Europe or America? I very much doubt if he can do so, and little weight can be attached to the promiscuous statements of doubtful authorities. But a carefully hedged statement like that of Lord Tenterden just quoted does not at all fully convey the views of the speakers at the annual meeting of his society. At this meeting I listened with feelings of sadness and amazement to a number of men who, evidently with deep feelings and with the best intentions, gave vent to the most reckless, unsupported statements. It would be very interesting if the society would publish a verbatim report of these speeches.

Some of the speakers were apparently so carried away by the exuberance of their feelings as to employ language which I venture to hope in calmer moments they will regret. The most horrible suggestions as to wilful breaches of honour and law, without a vestige of proof, were made. One speaker stated that he could have no social intercourse with any man who believed in vivisection, and suggested "that the offspring of the vivisector, in the second or third generation, might well become a Jack the Ripper." This wonderful person told us that he had "met the scientists face to face and had beaten them," and another, that he had "an intellectual contempt for vivisectors and regards them as imbeciles."

All this sort of stuff was apparently accepted as agreeable pabulum by the majority of those present. With the exception of Lord Tenterden's speech, which was more restrained, one might have concluded from the remarks of the speakers that experimental research on animals should be defined as a fiendish occupation followed by certain cruel and degraded people, called scientists, for the purpose of enjoying the sufferings which they wantonly inflict upon animals.

Some relief to these proceedings was afforded by Mr. Bernard Shaw, who entertained the audience for nearly an hour in that delightfully amusing way that is peculiarly his own. He did not want inspectors in laboratories of research, for inspection meant recognition. Burglars, he said, for example, follow a profession, which, like vivisection, exposes them to risk, and demands skill and patience; it should on that account only be carried on by properly qualified persons. Therefore, some people might contend that burglars should be inspected so that they should burgle properly, just as some people thought that vivisectors should be inspected in order that they might vivisect properly. For his (Mr. Bernard Shaw's) part he thought it preferable to abolish both the burglar and the vivisector. Now all this was delightful fooling, which no one enjoyed more than myself. But Mr. Bernard Shaw did give us one bit of useful evidence. He stated that he once had to submit to a surgical operation, and he was afterwards informed that he made numerous violent motions of apparent remonstrance, although he himself felt no pain whatever. Mr. Bernard Shaw evidently remained his own lively and combative self even when completely anæsthetized. The story was delightfully told by him, although he did not in so many words draw the obvious deduction that ignorant persons who had witnessed his gesticulations, and had not heard from his own mouth the after-declaration of his complete freedom from pain during the operation, might have been led to give a vivid account of poor Mr. Shaw's horrible sufferings under the knife of his cruel vivisector.

The most painful exhibition, however, was that of a doctor who ought to have known better. He spoke with contempt of vaccination, inoculation, and of all the other means of alleviating human sufferings which have resulted from experiments on animals, and denied their efficacy, of which he declared there was no evidence. For the benefit of like self-deluded persons it may be desirable to quote the following extract from an address delivered by Mr. Taft, President of the United States, in May of last year:

> By wholesale vaccination of all the inhabitants of the Philippines, carried on carefully and rigorously, we have practically stamped out small-pox of all kinds in the islands, in which the black small-pox of the most virulent type flourished before our coming.

But this wonderful orator at the meeting in the Caxton Hall apparently maintained that microbes, if they exist, are the *result*, not the *origin*, of disease, and that the improved results now obtained in the treatment of wounds

and fevers, etc., are due entirely to cleanliness, drainage, and general hygienic conditions, and not to what is known about microbes or germs of any kind.

It seems almost an absurdity in these days to waste time in contesting such a statement, but as the speaker's views on this subject were loudly applauded by a large audience, one may perhaps be excused for quoting the following extract from a lecture recently delivered at the Royal Institution by Sir William Macewen:

> In Lister's early surgical days in the Glasgow Royal Infirmary he encountered the same phenomena which prevented the healing of wounds in all hospitals throughout the world. Suppuration in wounds was the rule, and very profuse it generally was. Dressing of the wounds had to be done daily and sometimes several times a day.
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> The handling of highly-inflamed wounds was a source of pain, and the dressing was anticipated by the patients with an apprehension akin to terror, especially as the exhausting process, with its accompanying high fever, reduced the resisting powers of the individual to a low ebb. The suppurative process invaded the deeper tissues, affecting the blood vessels, and produced septic clots, from which septic particles were carried to distant parts. The dissemination of the septic material was soon shown in the high temperature, the violent rigors, the profuse sweats, the sweetish sickening odour from the breath, the emaciation, and final delirium, which all too frequently ended in death. Sometimes every patient in a ward who had a serious operation performed upon him would be swept away. The wards would then be emptied, lime-washed, well ventilated, and reopened, soon to be the scene of further pyæmic ravages.
>
> Surgeons and patients alike dreaded operations owing to their terrible results, and only operations of dire necessity were permitted to be performed. Severe compound fractures were treated by amputation of the limbs, as to attempt to save them was to court disaster. Consequently, amputations in those days were common.

It will be seen from this account, based on Sir William's own experience, that *cleanliness alone is no remedy*. Lister was constantly speculating on the cause of inflammation and putrefaction in wounds, and during a discussion with friends it was suggested to him that Pasteur's papers on fermentation might afford the explanation of what seemed to be a somewhat kindred process. These papers of Pasteur came as a revelation to Lister; he at once accepted the theory, and began a search for something which would prevent the entrance of living organisms into wounds, believing that if such were found the healing of a wound would proceed just as if it were subcutaneous.

There is no time now to trace in detail the preceding or succeeding steps by which Lister was first enabled to develop antiseptic surgery. The discovery of the actual bacillus of inflammation by Ogston and Billroth absolutely proved the truth of the theory at which Lister had arrived by inductive reasoning. As microbiology yielded its secrets, and after the antibacillary phagocytic action of the living healthy tissue was demonstrated by Metchnikoff, it was seen that, if too many hostile germs were prevented from coming into contact with the wound, such few of them as *could* enter during a short exposure to air would be destroyed by the living phagocytic cells which permeate all the tissues. This knowledge led to the present *a*septic treatment of wounds—namely, the sterilizing of the skin, of the instruments, and of all material brought into contact with the wound, without allowing the antiseptic chemicals employed to invade the interior of the tissues.

How very different has become the surgery of the present day from that of the pre-Lister days. The wounds heal without inflammation, very often without a second dressing, as soon as the phagocytes have completed their work of removing the deep part of the catgut stitches used to bring the parts together. I have only seen one operation on a living man—an abdominal section. It seemed to me that the poor fellow who had been so vivisected could never recover from the effects. He looked a deplorable object, not only during the operation, but when, with drooping arms and limp, ghastly look, he was wheeled off to bed. I came back a few days afterwards to see how he was; to my astonishment my friend was sitting up in bed, as gay as a lark, playing a tune on a tin whistle for the amusement of his fellow patients in the ward.

To come now to another phase of bacteriological research. It was the terrible death-rate from yellow fever and malignant malaria among the staff and workmen, and not the engineering difficulties of the problem, which rendered the French attempt to construct the Panama Canal abortive. That construction has only been made possible by the subsequent researches of Manson and others, who, through experiments on living animals, showed that the germs of such diseases are conveyed from man to man solely through the intermediary of the mosquito; and, therefore, if the mosquito could be eliminated, further infection would cease and the diseases themselves would be ultimately stamped out.

The larva of the mosquito can only exist in still water, and must have constant access to the surface for air. The thinnest film of oil on the surface of the water deprives the tiny larva of this access and it dies. Petroleum is found to be a very efficient liquid for this purpose, and accordingly great pipes were laid along the line of works to afford an abundant supply of petrol, and a regular service was maintained for applying the oil from time to time on all still water surfaces. In this way the mosquito has been nearly exterminated.

The results are described by President Taft, in his speech already quoted, as follows:

> It took two years for us to make the necessary preparations before we could begin the work of excavation and construction. . . . But we had selected as our medical officer a man who had acquired his knowledge in Havana and had practised the new remedies there; and, with the resources of the Government at his back, Colonel Gorgas changed a pest-ridden zone into a district as free from disease as any of the States of the South. He stamped out yellow fever, so that for more than four years there has not been a single case on the isthmus; and he reduced the malignancy and extent of malaria on the isthmus to such a point that the percentage of deaths in the foreign population in the zone is considerably less than in our large cities. He has made the zone a pleasant and healthful place to live in. Thus the great work of construction goes on without thought now of the dangers which made French success impossible.

The limits of time prevent me from going more fully into the question of inoculation against specific disease. It must be sufficient to quote the most recent experience in the American army, as stated by President Taft. He says:—

> I need not recall the dreadful record of sickness from typhoid fever in the camps at Chickamauga and other camps established during the Spanish-American war. The percentage of cases was so high that it is hard to believe. Of 120,000 men, there were 20,030 cases, with a case mortality of 7 per cent. Of the volunteer regiments mobilized during the Spanish-American war, 90 per cent. became infected with typhoid fever within eight weeks from the date of mobilization. To-day (May 4th, 1911), with the modern health regulations, and by the use of vaccination against typhoid, not one case of typhoid fever has appeared in the entire force, except that of one teamster who was not vaccinated.

Similar experience of the beneficial effects of inoculation against typhoid in our Indian Army might be quoted if time permitted. However, the above incidents for the present are, I think, sufficient for my argument. But for the knowledge of bacteriology gained through experiments on living animals, none of these immense benefits to humanity could have been reached.

This brings me to the consideration of the third class of persons, the ultra-scrupulous believers—that is, those who admit that results of value to man, such as the above, have been reached by experiments on living animals, but assert that such research is not justified because its results are attained by the sacrifice of animals and not of man. I am told that there are not a few who hold this view, although personally I have only met one example of this class, and that was a hypothetical case. When presiding at a research defence meeting at Kensington last year, I asked the audience the following question: Let us suppose that any mother present was convinced that a serum which would cure diphtheria could be obtained, and that her own child was dangerously ill from that disease, how many guinea-pigs would she be prepared to sacrifice in order to save her child? One lady stood up at once and said, "Not one." I could only reply, "Then, madam, God help your Christianity, for did not our Great Teacher tell us, 'Ye are of more value than many sparrows'?"

There I must leave the question, and I trust the number of those who hold that lady's views is small indeed.

Let me turn now to the results of my own experience in the physiological laboratories, and deal with some leading features in the outcome of experiments on living animals since the sittings of the Royal Commission on Vivisection were concluded. My visits were made without notice, and I saw everything that was going on. Upon one of my visits to the Institute of Physiology, University College,

I witnessed probably the severest possible operation performed on a dog by Professor Starling—in fact, one such as is illustrated in the publications of the antivivisection societies as a proof of the horrors of vivisection. Such an operation looks ghastly in the last degree to any one unaccustomed, like myself, to the sight of surgical operations. But I am bound to say that the animal in question was absolutely unconscious of pain, for the limbs of the animal were perfectly free to move, yet no sign of mechanical protest was exhibited.

Of the work going on at University College under Professor Starling, and at Dr. Waller's laboratory at the London University, it is difficult to speak in a detached manner. It is a most difficult thing to teach the layman the practical value of physiology. The practical results of to-day are based on the physiological work of the last twenty years—work, too, which has embraced many different branches of the science, and it is often impossible to say that such and such a practical method of curing or preventing a disease comes from any *given* physiological research. Physiological knowledge is a necessary condition, but it is the knowledge based on many and long-continued researches and rarely on any single one.

1. Take, for example, the diagnosis of heart disease. Thirty years ago Gaskell and Engelmann showed the nature of the beat in the frog's heart and the tortoise heart, and Burdon-Sanderson investigated the electrical changes which accompanied the beat of the heart in these animals. More recent physiological researches showed that the same general laws applied to the mammalian heart; and Waller, Bayliss, and Starling investigated the electrical changes in the heart of higher animals, including man. Einthoven then, by the invention of the string galvanometer, perfected the method of recording electrically the beat of the heart in man, and showed that by this means we may obtain an accurate knowledge of what each part of the heart is doing. During the last five years this physiological knowledge has been applied clinically (especially by Lewis in this country), and it has cleared up many of the difficulties in the diagnosis of heart disease; and the method has proved so valuable that now every large hospital either has or is getting a string galvanometer for ordinary use in the wards. I believe, also, that important discoveries have been made by this method as to the conditions under which we may expect the administration of digitalis to be followed by good results. At Dr. Waller's laboratory I witnessed not only the automatic photographic record of the electrical currents connected with the heart beat of a man, but simultaneously an automatic phonographic record of the heart *sounds* as transmitted from a telephone applied to the breast of the patient.

2. The researches of Schäfer, Cushing, and others on the physiology of the pituitary (a body weighing from 5 to 10 grains, situated at the base of the brain) have shown that the cases described by Pierre Marie of acromegaly—that is, abnormal increase in size of bone—are not the only disorders connected with alterations in this gland, and Cushing has shown the existence of at least three classes of patients suffering from either over-action or under-action of the pituitary. Schäfer's researches on the physiological action of the pituitary body had led to the introduction of extracts of this gland into medical practice, and it is now largely used for the prevention of uterine haemorrhage.

3. The physiological researches of Schäfer on the suprarenal glands led to the introduction of adrenalin into surgical practice to stop capillary haemorrhage. The physiological action of this substance was studied fully by Langley and by Elliott. It was then shown by Dale that somewhat similar effects might be produced by infusions of meat which had undergone bacteriological change, and that one obtained all grades between the action of adrenalin and the action of ergot, so that full range of exact control over the action of ergot in cases of haemorrhage has been arrived at. Barger then succeeded in isolating from ergot bodies allied to adrenalin, which, however, could be easily synthetized artificially, and which differed from adrenalin in that they would exert their full effect when given by the mouth, for adrenalin cannot be so used. In consequence of these physiological and pharmacological researches it is now possible to administer artificially made, pure products, instead of the mixture of unknown and indefinite compositions which was formerly given in the form of ergot. We can thus raise the blood pressure and cause the uterus to contract, or we cause the uterus to contract without any rise of blood pressure.

4. Great advances have been made in the physiology of nutrition as the result of experiments, partly on animals, partly on man. In the latter case the investigator often experimented on himself. Abderhalden has succeeded in keeping animals alive with a food entirely artificial in origin and made in the chemical laboratory. Benedict, in the United States, has measured accurately the chemical changes in the heat output and the heat production in man, and extending his observations to cases of disease, such as diabetes, has been able to predict accurately the course of the disorder. Starling has lately shown the nature of one type, at any rate, of diabetes, and has indicated the direction along which we may seek for curative means.

But the most recent of all the researches which I encountered were those on the disease called beri-beri, the origin of which has been determined by Dr. Casimir Funck at the Lister Institute. Beri-beri breaks out in an epidemic form in certain Eastern countries, and in the Federated Malay States 45,000 cases with fatal result were registered, according to Braddon, during the last thirty years. The investigation of this terrible disease, which ends in most cases fatally, was started in Japan and Dutch India about twenty years ago, but not much progress was made. The disease was considered to be an infectious one. In this state of our knowledge Eijkman, a scientific medical officer in the Dutch Indies, was led to believe that the disease was associated with rice diet only. He fed fowls on rice from the hospital kitchen, and found that they developed a disease which on closer investigation was found analogous to beri-beri. It was then discovered that so long as the pigeons were fed on the ordinary native rice, from which the "silver" skin, or thin outer covering, had not been removed, birds such as fowls, pigeons, and ducks would live on it alone in perfect health, but that if fed exclusively on the modern form of rice, in which this outer silver skin is removed in the process of milling, they will in the course of a few weeks be attacked with beri-beri and die. Clearly, then, this modern or polished rice is deficient in something that is necessary for the maintenance of healthy life—and beri-beri is a disease that is not produced by any poison or by any microbe, but is what is now called a "deficiency disease."[1]

Now, what is this active substance in the silver skin of rice which is requisite to make polished rice a complete healthy diet? The term "vitamine" has been adopted for this substance, but, as nothing was known about its constitution or characteristics and the ordinary chemical methods failed to isolate it, its isolation could only be accomplished by experiments on animals. Just as in chemical laboratories litmus paper is used for the detection of acid or alkali, so pigeons fed on polished rice were used as indications of the presence or absence of vitamine in the different fractionations during the investigations of the rice polishings.

At last vitamine itself was isolated by Dr. Funck at the Lister Institute, and he found that this substance, although so important and vital a constituent of rice as a complete diet, only exists to the extent of about 10 grains to the ton of rice—that is, about 1 part in 100,000. A pigeon fed on polished rice becomes in about three weeks a victim to beri-beri. But if, even a few hours before death would otherwise ensue, one administers a small quantity of vitamine, afterwards the bird will be entirely restored to a normal condition of health in seven or eight hours. Here we have not only gained absolute knowledge of the origin of a devastating disease, but also the means of its prevention and cure.

And this is not all, for the discovery of vitamine has thrown most suggestive light on the etiology of other deficiency diseases, such as scurvy, infantile scurvy, ship beri-beri, epidemic dropsy, and most probably pellagra and rickets, and the prevention and cure of these diseases is of immense importance to Great Britain because of its colonies and its vast mercantile sea traffic.

Already such suggestions have borne fruit in the case of scurvy. The best known treatment for scurvy is a plentiful supply of lime juice. Is there, then, in the lime any similar vitamine to that found in the shell of rice? Dr. Funck has gone into this matter and succeeded in finding another vitamine in the lime, present to the extent of about 1 in 100,000 parts of the fruit. This vitamine of the lime will cure a case of scurvy (or a case of beri-beri), but the vitamine of rice will not cure a case of scurvy. These, and many others besides, are stupendous gains in human knowledge, and confer stupendous new powers on man for the relief of suffering.

There is no doubt that in the process of that gain and the acquisition of these powers the lives of many animals have been taken, and many animals by inoculation, etc., have been subjected to minor degrees of pain.

But we have to weigh the amount of human suffering saved against that of the animal suffering that we necessarily inflict. The latter is infinitely small compared with

[1] The reader is referred to a paper of extraordinary interest on The Etiology of the Deficiency Disease, by Dr. Casimir Funck (*Journal of State Medicine*, vol. xx, p. 341). Time and space prevent my referring to the valuable work done by Drs. Braddon, Fraser, and Stanton, Major Chamberlain, and others, which has rendered Dr. Funck's discovery possible.

the former, not only in the number of cases but in the amount of suffering. Our laws for the regulation of experiments on living animals and their administration have withstood a long and searching ordeal by the Royal Commission on Vivisection, and seem to require but little modification. I have long been interested in this question. From many conversations with old friends like Sir John Burdon-Sanderson, Sir Lauder Brunton, Dr. Waller, and others, as well as from what I have seen of the men and work in modern physiological laboratories, I am convinced that the existing humane laws of England are honourably and conscientiously administered.

If it would tend to diminish the ignorant and mistaken opposition of the antivivisection societies, we should be glad to see a further increase of inspection of our physiological laboratories, but apparently the truth about these matters is the very last thing which some of these societies desire, because they have passed resolutions against granting the increased inspection which we would welcome.

As a society, our position in regard to experiments on living animals is that of the "scrupulous believers" who are convinced that experimental research on animals has been followed by great advantage to science, and with results of immense benefit to suffering humanity. We hold that such research is amply justified, provided that every precaution is taken to inflict the minimum of pain to the animal subjected to experiment. In short, we stand for the defence of research—research scientific and humane.

In the beginning man was given by the Creator "dominion over every living thing that moveth upon the earth"—a dominion which is coupled with a stupendous responsibility; and Christianity and Civilization impose on man the imperative obligation to exercise that prerogative with justice and mercy, and always with the end in view of the greatest good of the greatest number.

Mr. SYDNEY HOLLAND, in presenting the report, said some people might think that after the issue of the report of the Vivisection Commission the work of the society was done. That was not so. It had to continue a vigorous campaign against misrepresentation. It had to educate the people by means of shops, the distribution of literature, and delivery of lectures. For all this, money was much needed.

Dr. ERIC FRANCE said there was one way in which doctors, who were not generally possessed of financial resources, could help the work of the society. They should refuse to treat those antivivisectionists who refused to have anything to do socially with defenders of vivisection.

Dr. SANDWITH, the hon. treasurer of the society, said every effort should be made to counteract the effect of antivivisectionist calumnies by teaching the young the truth about the methods and objects of research.

Professor STARLING, speaking particularly of the use of dogs, said the alternative for stray animals was a painless death in the lethal chamber at the Dogs' Home, Battersea, and an equally painless death in the laboratory. Dogs were necessary for certain experiments. For instance, a means of preventing or curing diabetes was being sought for. The dog was the only animal in which that disease could be produced and studied.

Mrs. MENDL thought more stress should be laid on the advantages to animals themselves derived from experimental research.

Sir WILLIAM RAMSAY pleaded strongly for the right of scientific men to experiment, even if they could not definitely foresee any practical result of their researches.

The MASTER OF THE TEMPLE, in proposing a vote of thanks to the President, said he received many letters, most of them anonymous, respecting his connexion with the society. As there were some twenty bishops and deans among the vice-presidents, he thought he was in good company. He referred to the readiness of the antivivisectionists to fling about charges which could not be substantiated.

The report was adopted unanimously.

ARGYLLS LIMITED ask us to state that the stock of the small celluloid models of their elliptical sleeve valve engine distributed at Olympia has now been replenished, and specimens can be obtained from the company at Alexandria, Dumbartonshire.

THE PARLIAMENTARY COMMITTEE ON PROPRIETARY MEDICINES.

THE MEMORANDUM OF THE BRITISH MEDICAL ASSOCIATION.

THE memorandum of evidence on behalf of the British Medical Association, which, as stated in the last issue of the JOURNAL, was submitted to the Select Committee on the Sale and Advertisement of Proprietary Medicines by Dr. Cox, the Medical Secretary, is divided into two parts: (1) The advertisement, sale, and use of proprietary medicines and appliances in relation to (*a*) health (*b*) morality, and (*c*) fraud; and (2) the proposals of the Association for further legislation. The memorandum considers the injury to health from the use of proprietary medicines and appliances from the points of view of direct and indirect harm. As to the former, it stated that evidence was scanty, either because of the relative inactivity of the ingredients of many proprietary medicines, or because, some disease being usually present, it is difficult to say with absolute precision that the proprietary medicine was the sole cause of death or injury. The most easily defined class of cases of direct injury were those in which the drug or alcoholic habit had been established. Cases of indirect injury arose from proprietary medicines being substituted for proper medical treatment. In this connexion the memorandum mentioned so-called "cancer cures," observing that every hospital surgeon could testify to inoperable cases of cancer in which the affected area had been treated with some secret remedy, and in which life might certainly have been prolonged had appropriate treatment been employed at an earlier stage. In the treatment of tuberculosis isolation of the infected person and early detection of the disease could not be secured by alleged treatment by correspondence or the supply of pamphlets. The various forms of rupture were without exception entirely dependent upon anatomical and mechanical conditions, nevertheless preparations for internal use and external application were advertised for its cure. The claim to enable the sufferer to avoid operation and go without a truss deceived the person who accepted the claim, as the absence of a truss would in many cases expose the patient to the risk of the rupture becoming strangulated, thus causing great suffering and danger to life. The Association put in copies of advertisements of proprietary medicines and appliances. These documents, it said, were melancholy testimonies to the extent of human credulity, to the cynical effrontery of advertisers, and to the extent to which financial considerations apparently outweighed all sense of honourable responsibility on the part of many newspapers of the country. The pamphlet issued by the Proprietary Articles Section of the London Chamber of Commerce stated that members of the section alone expended annually upon advertisements the sum of about two millions. Recent newspaper articles showed that an effort was being made to impress upon the public that the present agitation against this evil was due entirely to the desire of the medical profession to stop the competition of the patent medicine proprietor with the profession. If it was deemed necessary to rebut this charge it would be perhaps sufficient to point out that financially the profession gained by the unrestricted use of proprietary medicines and preparations.

A number of examples were submitted of advertisements of preparations and appliances in connexion with sexual matters, and as to these the Association referred to the moral damage that ensued to the community from their advertisement and use. The claim that a preventive remedy was certainly efficacious was conducive to laxity of morals, and persons disappointed readily fell into the hands of the abortionist. Widespread advertisement brought prominently to the notice of young women and girls sexual questions and the abominable practices just referred to. The advertised remedies for the treatment of venereal disease were a great danger, as no class of case required more careful treatment in the interest of the individual and the community.

The memorandum proceeded to discuss the fraud perpetrated on the public by grossly exaggerated statements as to the curative properties of the advertised remedy and by false statements as to the nature and properties of the drugs of which it was composed. The Association

submitted for the consideration of the Committee the book *Secret Remedies* and the proofs of a second volume now in the press. It mentioned the refusal of advertisements of the first book by several newspapers. Existing legislation bearing on the subject was reviewed, and the fact that the traffic showed a constant increase was pointed out. The Association traversed the statement of the Owners of Proprietary Articles Section of the London Chamber of Commerce that the number of undesirable nostrums on the market was small, and the inference that existing legislation was sufficiently effective. Finally the Association submitted the following suggestions for further legislation:

1. That for medicines which are supplied otherwise than upon medical, dental, or veterinary prescription, no condition of sale short of the publication on each package of medicine of the name and quantity of each of its constituents should be permitted.

2. That the label should be made to constitute a warranty, and that false description, whether on a label or in an advertisement, should be made an offence.

3. That the provisions of the Food and Drugs Act should be applied to proprietary medicines.

4. That legislation should be promoted that would make it the duty of the Home Secretary or other authority to institute prosecutions when the conditions of sale of proprietary remedies did not comply with the foregoing suggested regulations.

5. That the Indecent Advertisements Act should be amended in accordance with the suggestions made by the Association in its Memorial to the Home Secretary.

On June 18th the Chairman mentioned that a request had been received from the members of the Proprietary Medicines Section of the London Chamber of Commerce that they should be given an opportunity of being legally represented and of cross-examining witnesses. Although it was in the power of the Committee to permit cross-examination of witnesses, it would be so entirely contrary to all precedent that the Committee was not prepared to allow it. If those who made the request considered they were unjustly and prejudicially affected by anything said by witnesses, the Committee would be glad to afford them an opportunity at a convenient time of giving rebutting evidence.

FURTHER EXAMINATION OF THE MEDICAL SECRETARY.

The examination of Dr. Cox, Medical Secretary to the British Medical Association, was continued.

Dr. Cox quoted from pp. 183-4 of *Secret Remedies* to show how the estimate in the memorandum submitted by the British Medical Association that the public spent two and a half millions yearly on proprietary medicines was arrived at.

Mr. Glyn Jones asked the witness if the statement was not an under-estimate, in view of the claim of the Proprietary Articles Section of the London Chamber of Commerce, quoted in another part of the memorandum, that its members spent about two millions annually in advertisements.

Dr. Cox replied that he thought there was some discrepancy—the discrepancy was a proof of the moderation of the Association's case. With regard to references to morality in the memorandum submitted by the Association, Dr. Cox added that he was afraid he had left the impression that only sexual matters were alluded to. It was intended to put the case much more broadly than that; the Association felt that this traffic had a bad influence on all who were connected with it.

In reply to Sir Philip Magnus, the witness agreed that if the suggestions of the British Medical Association were enforced the financial value of many proprietary medicines would be likely to be destroyed. This would not occur in the cases of some of the best, especially those whose method of preparation gave them their chief value. He thought the manufacturer, rather than the retailer, should be made responsible for a false description. A special Government officer should be appointed, whose duty it should be to collect evidence with a view to prosecution. At present what was everybody's business was nobody's business.

Sir Philip Magnus: Would not your proposals, if carried into effect, considerably check the sale of medicines which cost a few pence to compound, and are sold at a high price?

Dr. Cox: It would have a very prejudicial effect, but I do not think it would entirely destroy the sale, because there are ignorant people who would not understand the value of the drugs, even if the names were stated on the label.

Dr. Lynch: Would it be any great detriment to the public if the sale of these medicines were checked?

The Witness: I think it would be a great advantage.

Even if the sale were completely destroyed?—One would not like to make such a sweeping statement as that. Some of these preparations may do good. I do not think it would be possible to destroy the trade, but to regulate it would be to the public advantage.

Are any of the proprietary medicines the result of a great scientific discovery?—None that I have seen or heard of.

Would you say that nearly all these proprietary medicines are useless, and are advertised solely to make money for the proprietors at the expense of the public welfare?—I would not say they are always useless. For instance, a man buys a purgative pill; it does its work, but it may be dangerous, because it may not be a purgative that he requires.

As an instance of direct injury arising from taking proprietary medicines, Dr. Cox gave particulars of a governess who died suddenly after severe abdominal pain; on *post-mortem* examination she was found to have two perforated ulcers of the stomach. Several bottles containing proprietary medicines were in her room, and she had apparently taken a dose from one of them shortly before death. This was one of the cases, said Dr. Cox, where the temporary relief given by the quack remedy lulled the sufferer into a false sense of security resulting in delay—sometimes irreparable—in obtaining medical advice and treatment for some serious malady.

Dr. Chapple asked if there was any financial rivalry between those who carried on the traffic in proprietary medicines and the medical profession.

The witness thought the incomes of the profession were increased on the whole from the traffic. From a monetary point of view the profession had nothing to gain from the regulation of the traffic.

It is a common method of vendors of these medicines to pick out perfectly normal physiological phenomena and suggest in their advertisements that these are cases of incipient disease?—Yes.

Can the use of innocuous drugs be deemed harmless if they delay proper treatment?—No; there you get the indirect harm to which the Association has referred.

With reference to the statement in the Association's memorandum that the alcoholic habit could be traced to the use of wines widely advertised as medicines or tonics, Dr. Cox, in answer to Mr. Cawley, gave an instance from his own experience. He admitted that the first suggestion of the Association for further legislation would involve hardship on vendors of patent medicines, but this was one of the cases in which Parliament must face that position if it came to the conclusion that the trade was bad for the public.

Asked to give an example of exaggerated claims on behalf of a proprietary medicine, Dr. Cox handed in a pamphlet containing an advertisement of a medicine which was said to cure bowel complaints with one dose, typhus with two doses, diphtheria with three, scarlet fever with four, cholera with five, and influenza with six. A more infamous advertisement than that he could not conceive.

Mr. Cawley: How many libel cases have arisen out of the publication of *Secret Remedies*?

Dr. Cox: Only one, and that is pending now.

Do you know why proprietary medicines were excluded from the Food and Drugs Act?—I do not; I should imagine some one was there looking after their interests. (Laughter.)

The question then arose whether it would be possible to present to the Committee actual cases in which people had suffered injury from the use of proprietary medicines. Dr. Cox did not think it would be possible for the Association to present such evidence; it could not bring pressure to bear upon private persons, of whom its members might have cognizance, to appear before the Committee. The Chairman pointed out that such evidence could be heard privately, and names and addresses need not be disclosed.

Mr. Glyn Jones remarked that the Committee might exercise its right to require such witnesses, if their names were supplied, to attend.

Mr. Harry Lawson (to the witness): This crusade is undertaken by you in furtherance of public morality?

The witness: Partly. Dr. Cox explained that the Association, in its references to morality, used that term in its general sense and not merely in relation to sexual matters. Any person who was concerned primarily with pushing a remedy and making for it claims which he knew perfectly well could not be substantiated must necessarily suffer in moral character.

I suppose the wish of the Association is that no medical preparation should be sold except under a doctor's prescription?—Not necessarily. The supply of simple remedies to the public by chemists will go on in spite of any suppression of proprietary or secret remedies.

Do you advocate legislation under which it shall be compulsory to put the exact formula of every proprietary article on the label?—I think that is a counsel of perfection.

Would it assist the public if the formula were so printed?—I think it would. I have practised considerably among the artisan class, and I am certain that if a working man was told that pills were composed of soap and aloes he would know they were not worth a shilling a box.

Do you think it is generally true that the newspaper press is unduly tolerant in regard to these advertisements?—With considerable qualifications, yes. Undoubtedly some newspapers do apparently discriminate, and one would be very sorry to include them with those that are lax.

The BRITISH MEDICAL JOURNAL publishes a large number of advertisements of proprietary medicines?—Yes, of a kind.

Some of them are secret remedies?—Not in the sense that we do not know what is in all of them. We insist upon being satisfied, before any advertisement is accepted, of the composition of the substance advertised.

Not only the composition but the value, surely, because you criticize other proprietary medicines on that score?—These are only advertised to men who can judge of that.

Why are these preparations not included in *Secret Remedies*?—Because they are not in the same category.

But they are sold at much more than cost price?—We are not making that the charge at all; that is a side issue.

The Chairman: They are secret preparations as regards the public, but not as regards the Association?

Dr. Cox: No, Sir. They are secret to the extent that the full contents are not necessarily published on the label, as we should prefer the law to require, but they all give an indication of the composition, and before an advertisement is accepted for the JOURNAL we satisfy ourselves as to its bona fides.

After further questions by Mr. Lawson as to advertisements in the BRITISH MEDICAL JOURNAL, Dr. Cox, addressing the Chairman, said he resented the imputation that was sought to be conveyed that these remedies were on exactly the same basis as other proprietary remedies, and that because they were advertised in the JOURNAL the Association did not expose them.

The Chairman could not see that Mr. Lawson's questions were not to the point, or that any reflection was being cast.

Dr. Cox said he was sorry if he was too sensitive. He wanted to make it clear that these advertisements in the JOURNAL were not in the same category; they were excluded if the article was advertised to the public as curing any disease.

Mr. Lawson called Dr. Cox's attention to an advertisement in the JOURNAL of a preparation for which considerably higher claims were made on the wrapper in which the preparation was sold. Dr. Cox said he would deal with the matter; he did not always discover what other advertisements were being issued of an article of which an announcement was offered to the JOURNAL. In further answers, Dr. Cox said he could not undertake to classify all the proprietary medicines as (1) useful, (2) useless, and (3) dangerous. They were all harmful from the point of view of wasting time.

Mr. Lawson: Would it not be possible to take proceedings against fraudulent claims under the existing law?

Dr. Cox: I listened with absolute despair to the evidence on that point. Proceedings are not being taken.

You are urging us to strengthen the law and yet it was given in evidence that a great deal more could be attempted than is attempted now.—Of course one is very suspicious of that, having regard to the fact that nothing is being done.

In reply to Mr. Newton, Dr. Cox mentioned a "cure for morphia" which was advertised and was actually found to contain a large proportion of morphine.

Mr. Lawson: Perhaps it was a homoeopathic remedy?

Dr. Cox: It was not a homoeopathic dose by any means.

Mr. Newton: Is it not a little unfair to the proprietary medicine vendors to put them all in the same category?

Dr. Cox: There are some much worse than others, I admit. There are some that are a scandal to the newspapers in which they appear and a scandal to the whole traffic.

Mr. Glyn Jones called the witness's attention to an advertisement in the JOURNAL of a "sovereign remedy in all cases of constitutional disorders, gall stones, kidney, gravel, diabetes, liver complaints, and all gouty ailments," and asked if that satisfied the standard set up.

Dr. Cox: When you bring it to my notice in that way it does not satisfy the standard, but the way in which it is put would reveal to the doctor that all it could do was to act as a purgative, and he would use it accordingly. I admit the advertisement is not a thing I am at all proud of when you read it to me.

Mr. Glyn Jones: But the British Medical Association receives the income?

Dr. Cox: Yes, and I claim that we exercise a much greater censorship than any other journal. We refuse a great many advertisements.

The whole of the day on June 20th was occupied by the examination of Dr. Cox by Mr. Glyn Jones.

At the outset Dr. Cox made a statement with regard to the policy of the British Medical Association in accepting advertisements of proprietary medicines for the JOURNAL. When such an advertisement was tendered it was the practice to ask the advertiser to state the active ingredients, but not necessarily the details of the methods of making the preparation. In no case was an advertisement accepted of an article for which exaggerated claims were made. Advertisements which appeared elsewhere in exaggerated or misleading terms were declined.

Mr. Glyn Jones directed the attention of the witness to a number of the advertisements of proprietary medicines in the JOURNAL, and asked whether it was not the fact that all of them would require to have the Government stamp affixed if they were advertised also in the lay press.

Dr. Cox said that was so. The reason the articles were not stamped was that the advertisements were addressed only to the medical profession.

The JOURNAL can be purchased at any bookstall?—Yes, but for all practical purposes the public does not purchase it.

In one of the advertisements in the JOURNAL the assertion is made that the remedy is "stated by the British medical profession to be the best in the world"?—You must allow the advertisers some poetic licence, even in a medical paper.

Mr. Glyn Jones produced a preparation which he said he had purchased on the way to the Committee. Wrapped round the bottle was a circular quoting a favourable opinion by the BRITISH MEDICAL JOURNAL and the commendation of a number of members of the profession whose qualifications were printed but not their names.

Dr. Cox said that when the doctors gave the testimonials they would not know they were to be published. They would probably say, if asked, that they were extremely surprised to find their testimonials being sent round to the public.

The Chairman: I rated the common-sense of the medical profession very much higher than that.

Mr. Glyn Jones: Would these doctors ask that the testimonials should remain anonymous?

Dr. Cox: In no case should the names be used. It would be an infringement of medical etiquette.

The Chairman: It would be absolutely contrary to medical etiquette for any of these doctors to have received a consideration?

Dr. Cox: Quite. He added that he was sure the men who gave these testimonials had no idea of the use to

which they were put. They perhaps had a sample sent to them, tried it, found it useful, and out of courtesy said so. If they knew the use to which their opinion had been put, he believed in every case the writers would withdraw them.

Replying to a question by the Chairman, Dr. Cox said this matter of the wrappers round articles advertised in the BRITISH MEDICAL JOURNAL was a new development which had not been brought to his notice before. He would draw the attention of his committee to it. Having found themselves in this position, they would take steps at once to deal with the matter.

Mr. Glyn Jones mentioned another preparation advertised in the JOURNAL, and also in the general press, and read extracts from the label.

Dr. Cox admitted that very strong and exaggerated claims were made as to the efficacy of some of these medicines—claims so exaggerated that he thought legislation ought to prevent such things being scattered broadcast to the public.

Mr. Glyn Jones pointed out that a pamphlet accompanying the bottle contained copies of testimonials from medical men who had used the preparation.

Dr. Cox thought the publication of testimonials in that way was deplorable.

Questioned as to the number of proprietary medicines prescribed by medical men, Dr. Cox said it was mainly indolence which led to ordering these things with a name rather than writing out a prescription. It was an ordinary defect of human nature to take the line of least resistance, and he did not think it was a failing confined to the medical profession.

Mr. Glyn Jones quoted a reference to the sittings of the Select Committee in the *Journal of the American Medical Association*, which said that the wide use by medical men in prescriptions of proprietary medicines was a point that was bound to be raised. The medical profession of Great Britain, although it had done splendid work in exposing the fraud and viciousness of this traffic, had taken no pains to see that its own skirts were clean. While high class British medical journals carried the advertisements of such nostrums, the profession would find difficulty in answering these questions which were bound to arise. Wherein was it worse (asked the writer) for the public to buy medicinal preparations advertised in the public press, than for medical men to prescribe preparations advertised in medical papers of whose composition they were and must be ignorant. Mr. Glyn Jones asked Dr. Cox if he accepted the rather stringent strictures made in the article.

Dr. Cox: The implication is that our hands are not quite clean in the matter. To show how difficult it is to exercise efficient censorship, I may say that there are advertisements to be found in this American journal which we should not allow to appear in the BRITISH MEDICAL JOURNAL. (Laughter.)

Mr. Glyn Jones: What is the attitude of the British Medical Association as such in relation to the ordering of proprietary medicines by doctors?

Dr. Cox: We have no attitude as regards proprietary medicines. As regards secret remedies our attitude is that doctors should not use them.

Does not your evidence go to show that whilst there are some medicines you would desire to suppress, there are others you would not desire to suppress and would even welcome in the columns of the BRITISH MEDICAL JOURNAL?—Certainly; I am not here to pursue a campaign against proprietors of proprietary medicines as such.

You are asking the Committee to suggest legislation to deal with this evil. Is the British Medical Association powerless at present to do something to prevent this traffic?—After listening to Mr. Guy Stephenson, I should say it is.

Might it not be useful if the Association obtained a sample of articles proposed to be advertised in the JOURNAL?—I quite agree.

Could you make it a condition of the contract that the advertiser would give you certain undertakings?—It could be done, but this difficulty has presented itself to us: If we exercised a very rigid censorship—if it was known we were making all sorts of conditions—we should be in the position of guaranteeing the composition of everything in our columns. We do not feel that is a responsibility we dare undertake.

Does not your evidence mean that no one ought to buy a remedy of any kind without having his case diagnosed by a medical man?—I do not think we mean that, and I do not think the public is likely to take that extreme counsel of perfection.

In reply to further questions, Dr. Cox said that the Apothecaries Act of 1815 was practically inoperative in preventing unregistered practice. The Apothecaries' Society, moreover, had only limited funds, and it seemed unfair that a public duty should be imposed on a society whose funds were all got from medical men. The Government should take action.

Mr. Glyn Jones: The vast majority of the industrial population when they go to a doctor are supplied by the doctor with the medicines they require?

Dr. Cox: That certainly applies to England and Wales.

The doctor when he sends in a bill charges for "professional attendance and medicines"?—That is the form very often used.

If a patient contested the account the doctor must allocate a certain amount to medicines in supplying a detailed statement?—Not necessarily.

Is the policy of the Legislature that doctors should not do their own prescribing?—I do not know, but the general practice is not to charge separately for medicines.

Supposing a patient analyses a bottle of medicine for which he has paid the doctor 1s. 6d. or 2s. and finds that the cost works out at one penny, you do not suggest an action against the doctor?—No, the question of price appears to me to be a side issue.

Are the pharmacists assisting the medical profession in this campaign?—I would not like to say; they appear to be divided.

If a patient comes to a chemist and says he has a cough and a pain in his chest, I suppose you would say the chemist should advise the man to consult a doctor, although in all probability the chemist would never see the man again if he did?—I admit there is a good deal to be said for all the dispensing being taken out of the hands of the doctor, and all the prescribing being taken out of the hands of the chemist.

Would it not be a serious thing for the chemist if, as the result of action following deliberations by this Committee, proprietary medicines were not allowed to be sold, and the patient had to be sent to the doctor?—The chemist can make up a simple remedy. We know perfectly well that whatever the medical profession or Parliament may do, so long as human beings have small ailments they will go to the chemist and ask for small remedies, but the chemist by offering well-known combinations of drugs would act more to the patient's advantage than by allowing him to buy remedies for which high-flown claims are made.

If the functions of the doctor and chemist were separated so that the doctor diagnosed and the chemist supplied the medicines, would not that have a very marked effect upon the amount of proprietary medicines sold?—I think it would.

Questioned as to the view of the British Medical Association on the question of dispensing by doctors, Dr. Cox said the profession was pretty equally divided on the matter, with a tendency lately towards getting rid of dispensing. The resolution to the contrary effect passed by the Association in February in relation to the National Insurance Act was passed to meet the views of those who wished all dispensing to be done by the doctors if they desired it. It urged that "dispensing as hitherto should be done or arranged for by the medical practitioner should he so desire."

If fourteen million people have their medical wants attended to under the Act, what effect will that have on the sale of proprietary medicines?

Dr. Cox: It would decrease it.

Is it not the fact that people rush to proprietary medicines because they think they cannot afford the doctor?—They think so, but I fancy it often costs them far more in the end.

ONE thousand guineas have been received from the Rev. Canon Wilson, of Carlisle, trustee of the late Mrs. Morrison, of St. Helen's, Hastings, to name a bed in the Eversfield Hospital for Consumption and Diseases of the Chest, St. Leonards-on-Sea, to be called the "George Edward Morrison bed."

MEDICAL DEFENCE UNION.

THE annual general meeting of this society was held at the West Lecture Hall of the Royal Society of Medicine on Thursday, June 20th, and was well attended. Dr. EDGAR BARNES, J.P., president, was in the chair, and, after the formal opening of the proceedings, gave an address on the progress of the Union since its inception and upon various matters incidental to the report, which had been issued to members the previous week. After the address the report was adopted *nemine contradicente*, and the usual formal resolutions were passed. Three members of the Council under Rule 28—Dr. Barnes, Mr. Gunton Alderton, and Mr. F. Larkin—were drawn by ballot to retire, but, offering themselves for re-election, were re-elected. Mr. L. Hardy, F.C.A., was re-elected as auditor. The accounts and balance sheet of assets and liabilities were adopted, as was also a vote of thanks to the president and council for their valuable services to the members.

The Medical Defence Union continues to hold on its successful career, and the work done for the members by direct defence and for the profession generally is worthy of the support of registered practitioners in the United Kingdom. The legal report contains much which is interesting, and the successes gained in the law courts and elsewhere prove the many advantages which subscribers have at their command by payment of the small annual premium. A copy of the report would, we have no doubt, be forwarded to any member of the profession not already a member of a defence society, by the General Secretary, on application to him at the offices of the Union, 4, Trafalgar Square, London, W.C.

The council is to be congratulated upon the result of its gratuitous and arduous task, and the record of the work is a striking proof of the excellent services rendered to those who are wise enough to seek the protection which is afforded. The advent of the Insurance Act will undoubtedly entail considerable extra work upon the officials of the Union apart from its political aspect, as questions of contracts and due notice for determination of such may easily arise which will require skilled legal advice. The membership of the Union should be increased by this enactment; it stands at nearly 9,000 at the present time.

SCIENCE NOTES.

THE session of the Optical Convention held this week at the Imperial College of Science and Technology has had for one of its main purposes to bring together those interested in optics, who have few opportunities of meeting on a common plattorm. The opticians have met in conference with the photographers, the physicists, the Optical Society, and the astronomers, and on succeeding days a bias in one or other of these directions has been given to the proceedings. In a paper on Gullstrand's cataract lenses, which will be published shortly in the *Proceedings* of the Convention, Dr. von Rohr showed that the advantage of the new glasses were the widening of the field of direct vision as compared with the very small amount available with ordinary glasses. The result is brought about by correcting with the non-spherical glasses the astigmatism of oblique pencils that must always occur when spherical positive glasses are employed. In a paper submitted by Messrs. T. Y. Baker and G. H. Bryan on errors of observation an attempt was made to determine the degrees of accuracy of which the eye is capable in such instruments as the sextant. The curious fact was mentioned that officers of the Royal Indian Marine, presumably owing to long service in a tropical climate, were only able to reach a degree of accuracy considerably below that of other less highly trained observers. Mr. H. L. Taylor drew attention to the ophthalmic significance of facial asymmetry, and urged spectacle makers to pay greater attention to this very common phenomenon in the construction of spectacle frames. Mr. J. H. Sutcliffe demonstrated the working of his instrument, the katoptograph, and showed how it could be applied to corneal photography. As representatives of the Illuminating Engineering Society, Messrs. Dow and Mackinney described some of the recent advances in the measurement of light and illumination, and once again emphasized the importance of adequate lighting being regarded as an important element of ordinary hygiene. Several demonstrations were given in connexion with the Convention, the most important medically being Mr. Fournier D'Albe's "optophone," an instrument to enable totally blind persons to recognize, locate, and estimate light by means of the ear. The instrument takes advantage of the property of selenium in varying its electrical resistance when illuminated. A circuit is formed of two telephones, a battery, and some selenium placed in a tube. Mr. D'Albe demonstrated that a blind person, by directing the tube to a window, could trace its outline, and further, that it was so sensitive that it enabled the user to determine how many persons were present in the room. He stated further that there was reason to hope that it could be so improved as to enable blind persons to read letters printed in large type.

LITERARY NOTES.

WE have received from Messrs. Cassell and Co. their latest catalogue of medical works. The publications of this firm in the domain of medicine justly hold a high position in the eyes of the profession by the eminence of the authors, the value of the works themselves, and the handiness of their form. How clearly they are printed and how well they are illustrated is shown by the specimens given in the catalogue.

Messrs. W. B. Saunders Company will shortly publish *A Collection of Papers* by Drs. Wm. J. and Chas. H. Mayo, of Rochester, Minnesota, in two volumes. The work is a complete record of the writings of the brothers Mayo, from the time of their graduation to February, 1909, the date of the publication of the first volume of *Collected Papers* by the Staff of St. Mary's Hospital.

The *Universal Medical Record* is the title of a monthly periodical which came into existence at the beginning of the present year. It consists of original papers, with abstracts of important contributions to medical literature which appear in British, Colonial, and foreign journals. Each number also contains a series of annotations criticizing, co-ordinating, and assessing current work. There are also notes on therapeutics and technique, and considerable space is given to reviews. Our new contemporary is excellently printed, and shows every sign of journalistic viability. We heartily wish it success.

The following story, which appears in a book recently published, has been largely quoted in the press:

> Whistler rarely met his match, although he did so once in Sir Morell Mackenzie, the famous throat specialist. He called on Sir Morell to treat a French poodle, of which he was very fond. The renowned physician was not too pleased at being invited to diagnose the illness of a dog. But he kept his peace, prescribed, pocketed his fee, and drove away. Next day he sent an urgent message to Whistler, asking him to call quickly. On his arrival Sir Morell said without a smile, "How do you do, Mr. Whistler? I wanted to see you about having my front door painted."

This story is, like most stories, an old one. We ourselves heard it of Meissonier and Nélaton many years ago. Probably older versions exist, for such things are transmitted from generation to generation, the names being changed and the stories increasingly embroidered. One of the most curious things in the history of mankind is the persistence of the anecdote, especially if it is full flavoured. In the *Golden Ass* of Apuleius one may find the substance of many stories still retailed in club smoking rooms; and as his collection is believed to have been gathered from earlier writers, these anecdotes may, if they could be traced far enough back, be found to have had their origin among the cave dwellers.

Dr. J. F. Keenan (Ballinalee, co. Longford) writes:

> *Idēer* is not the only amazing solecism in the *Concise Oxford Dictionary*. If Dr. W. L. Storey[1] will turn to the word *really*, he will find another fly in the ointment. Heretofore the trisyllabic liquidity of this word might usefully serve to distinguish the person of some literary culture from the vulgarian. But according to the *Concise Oxford Dictionary* it is a di(s)syllable, and is pronounced as rerli! Although *idear* has been decorated with an *r*, strange to say, chorea and diarrhoea have escaped. If we turn to the words ending in "ture," we shall find many more flies in the ointment, for, according to the *Concise Oxford Dictionary*, the "new English" pronunciation of this syllable is "tsher." Wherefore in futsher we shall dispense tinctshers, and put in sutshers, listen to lectshers, and view pictshers, etc. Is this "English as she is spoke" at Oxford, or is it the British language as distinguished from the English?

[1] BRITISH MEDICAL JOURNAL, June 8th, 1912.

British Medical Journal.

SATURDAY, JUNE 29th, 1912.

EXISTING CONDITIONS OF WORK AND REMUNERATION.

Paragraphs appeared in the public press last week which seemed to be intended to prepare the public mind to receive an important announcement as to the administration of medical benefit from Mr. Runciman, President of the Board of Agriculture, during the course of a speech he was to deliver at a conference called in Lincoln by the Lincoln Insurance Committee and Eastern Counties Liberal Federation. The conference took place on June 21st, and the announcement was that the Government had reached the first stage of what Mr. Runciman hoped would be the end of the controversy with the medical profession. It was, he said, known that "the doctors had refused to come in on the ground that the amount offered as remuneration was not adequate, and that they would suffer. The Government did not intend that they should suffer. The British Medical Association had agreed that sample accounts of doctors, both in urban and rural areas, should be sent up to London and be examined by Sir William Plender, an independent accountant. When these accounts had been examined the Government would know what would be a fair remuneration, and not an imaginary remuneration, and they hoped to come to close grips with the final stage of the controversy with the doctors."

It is from every point of view very much to be regretted that members of the Government seem unable to understand the position, or at any rate to state it correctly. It is now agreed that a serious mistake was made when the Treasury instructed its actuaries over a year ago to estimate the cost of medical benefits, including medicines, on an average of 6s. per member per annum. It would have been both fairer and wiser if, while acknowledging this by implication, Mr. Runciman had not gone on to say that the results, at this eleventh hour, of an actuarial examination of "sample accounts of doctors" in half a dozen towns and districts in England, Wales, and Scotland would prove what was "a fair remuneration." The attitude of the British Medical Association with regard to the policy of the inquiry proposed by the Chancellor of the Exchequer, and strongly pressed by him at both his recent interviews with the State Sickness Insurance Committee, is clear, and is fully set out in the letter addressed by the instruction of the Committee to the Honorary Secretaries of Divisions. As is stated in that letter, which is reproduced at p. 1503, the State Sickness Insurance Committee has informed the Chancellor that the inquiry is not of its seeking, that the information obtained as the result of the inquiry will probably be inadequate and may be misleading, and that the demand of the profession as regards remuneration cannot in any way be affected by the results of the inquiry. The object of the inquiry was clearly stated by the Chancellor of the Exchequer to be his desire to obtain information which could be used in comparison with figures already placed before him by the Association. The Committee, having absolute confidence in the justice of the case of the profession, felt that no obstacle should be placed in the way of such an investigation, more especially as the Chancellor of the Exchequer promised that the facts obtained by the actuary should be placed at the disposal of the Association at the same time as they were given to the Chancellor. The right of the Association to criticize the figures has been explicitly reserved. It is likewise recognized by the Chancellor and the Commissioners that, in view of the difficulties pointed out by the State Sickness Insurance Committee at the deputation to the Chancellor of the Exchequer in attempting to distinguish those who are in future likely to be insured from the rest of the population, it is necessary that no section of the population should be excluded from the scope of the inquiry in the towns selected. Further, the Chancellor of the Exchequer has asked the Association to place at his disposal any further facts in its possession that would throw light upon existing conditions of medical practice and remuneration, whether as to types of practice or particular practices.

We understand that of the six places finally selected, in Darlington, Dundee, Norwich, and St. Albans the profession has given a general assent to the proposal under the reservations stated above. We understand also that at Cardiff the matter has been taken into favourable consideration, but that a final decision will probably not be reached until next week. With regard to Darwen we have no information.

OUR PRESENT KNOWLEDGE OF LEPROSY.

During the course of the present year several articles dealing with the subject of leprosy have been published in this Journal. They have given evidence that there is a continued and perhaps even growing interest in one of the most ancient of diseases. The study of leprosy has not kept pace with that of other microbial diseases during recent years, owing to a variety of causes. The chief has undoubtedly been the difficulty of experimentation. It is only, for instance, within the last half-dozen years that any success has attended attempts to cultivate the causal organism on artificial media, and successful animal experiments are of equally recent date. Another factor which has undoubtedly retarded progress has been a fast-rooted obsession in regard to the morphology of the organism. Thus we find in such an up-to-date and standard textbook on bacteriology as that of Muir and Ritchie the causal organism still referred to, without qualification, as the *Bacillus leprae*, although a reference is made to Dean's discovery of diphtheroid forms in artificial cultures from rat leprosy. In the same work Clegg's claim to have grown the organism on artificial media in symbiosis with amoebae is dismissed as more than doubtful. It would not, of course, be proper to regard a textbook, however celebrated its author may be, as the most authoritative source of information, but its statements must undoubtedly be taken to indicate the general opinion prevailing at the time. There is naturally always a certain amount of fluctuation of opinion from time to time, and the contrast between the summary in the textbook and what may be regarded as the average opinion among experts at the present moment is striking. It seems advisable that some general notice should be taken of these changes and probable advances in our knowledge of a very important disease, and on that account we venture to bring before our readers the more important

facts in a summary fashion. They may be dealt with under five headings, namely, (1) the nature of the causal organism, (2) its mode of transmission, (3) its growth on artificial media (4) its transmission to animals other than man, and (5) the control and cure of the disease.

It has for some time been recognized that the germ of leprosy bears a close relationship to the tubercle bacillus, and that both, along with a number of other pathogenic and non-pathogenic organisms, are more closely allied to the group of Streptothrices or Schizomycetes or true bacteria. In the light of recent researches the leprosy "bacillus" has a much stronger claim to the elevation of rank than has the tubercle bacillus, for a close and accurate study of its growth on artificial media has demonstrated that it is without question not a simple fission fungus, but a markedly pleomorphic organism. Kidrowsky's suggestion in 1901 that the lepra bacillus has a complicated life-cycle has been generally ignored, and the early observations of Deycke and Rost were generally ascribed to contamination; it is now accepted by such authorities as Foulerton and Beauchamp Williams that, on artificial media at any rate, the lepra organism produces characteristic spores. It is impossible to discuss this matter of morphology at greater length here. For fuller details we would refer to Dr. Foulerton's article on the subject.[1] It may be noted in passing that the correspondence following the publication of Dr. Foulerton's article is of no little interest, more especially Dr. Craik's suggestion that the term "bacteriology" as used at present is a misnomer, and should be replaced by the more inclusive term "mycology." Even that term, however, does not cover all the activities of the modern bacteriologist.

With regard to the transmission of the disease, it may be remembered that in our issue of September 2nd last year two articles by Sandes and Long appeared simultaneously, incriminating the bed-bug as a possible carrier of the disease. These communications were in each case only tentative and preliminary, but they gave a clue which may be followed up with advantage. The question of the transmission by insects has been taken up by numerous observers, but hitherto no unanimity of opinion has been reached. House-flies, biting flies, mosquitos, fleas, lice, bugs, mites and ticks, have all been regarded as possible carriers. The most extensive experimental attempts were those of Borrel in 1909 to incriminate *Demodex folliculorum* as the carrier not only of leprosy but of cancer. The validity of his results was denied the following year by Lefebvre, and they have not met with acceptance. Clegg has shown that mosquitos certainly do not transmit leprosy, but he has an open mind as to the possibility of other insects doing so. The bed-bug undoubtedly holds the field at present, but it may be remarked that the conclusions of Ehlers, Bourret, and With in 1910 were not very favourable to its claims. Into the question of other modes of transmission it is needless to enter. The various hypotheses are well known. One matter does, however, deserve remark—that is, that the nasal passages are the site of the primary lesion, especially in tuberculous cases. This has recently been particularly insisted upon by de Verteuil,[2] but the earlier results of Buircherhoff and Moore in 1909 show that although nasal examination is of some considerable value, it cannot be depended upon as a routine method of diagnosing incipient cases. The fact, however, that it is of value must be borne in mind.

[1] BRITISH MEDICAL JOURNAL, February 10th, 1912, pp. 300-2.
[2] BRITISH MEDICAL JOURNAL, January 27th, 1912, p. 218.

We now come to a consideration of the artificial cultivation of the lepra organism, and here we find perhaps the most considerable advance that has been made in the subject. It was for long maintained that the leprosy "bacillus" could not be grown on artificial media, and we have already referred to the view obtaining in 1910. At the present time, only two years later, there exists little doubt in the minds of experts that the germ of leprosy can be grown with no greater difficulty than the tubercle bacillus. Even thirty years ago such well known authorities as Hansen, Neisser, Babes and Koch claimed to have cultivated it, but for lack of experimental evidence their claims could not be accepted. Within recent years over a score of workers have reported successful cultures, but it is characteristic of the present attitude of scepticism that the greatest difficulty has been experienced in establishing these results. The best known of these attempts is that of Clegg, who in 1909 grew acid-fast bacilli in symbiosis with amoebae and cholera vibrios, and thereafter obtained a pure culture by destroying the symbionts by heating. Reference was made to this and to the further confirmatory work of Currie, Clegg, and Hollmann in our issue of April 20th, page 914. In view of present knowledge, however, it seems not impossible that several of the earlier disputed attempts were in reality successful cultivations of the organism in one or other of its various forms, although at the same time the fact must not be lost sight of that acid-fast and diphtheroid organisms are ubiquitous and are common in man. The criterion hitherto employed in the identification of lepra bacilli in artificial culture has been their property of acid-fastness, but this we know from experience to be a property which tends to be lost on artificial cultivation. We cannot, therefore, attach undue importance to the review of previous attempts contained in Currie, Clegg, and Hollmann's comprehensive papers. Within the last two years this important matter has been taken up by several very able observers, amongst whom may be mentioned Duval, Twort, Williams, and Bayon. Of these, the last two have published articles in this JOURNAL dealing with the subject. Duval confirmed Clegg's work, but found later that the organisms could be grown independently of amoebae and cholera, on media containing amino-acids. Twort, in a communication to the Royal Society, maintained that the organism could be grown on the ordinary Dorsett's egg-medium to which killed ground-up tubercle bacilli were added. Beauchamp Williams, whose lecture (reprinted in the JOURNAL, December 16th, 1911, pages 1582-5) should be read with renewed attention, employed the earlier methods of Rost, and succeeded in cultivating what he regarded as the various stages in the cycle of the lepra organism, namely, non-acid-fast streptothrix, giving rise to acid-fast rods, a non-acid-fast diphtheroid, producing also acid-fast rods, an acid-fast bacillus, and an acid-fast mycelium. Bayon has to some extent confirmed these results, and has emphasized the change from the acid-fast to the non-acid-fast condition.

We have dwelt at what may be considered undue length on this question of the artificial growth of the organism, but there can be no hesitation in affirming that this is by far the most important matter for future experimentalists. In all experimental work the prime essential is that one should be as thoroughly acquainted as possible with the details of the life-cycle of the organism in question, both under natural and under artificial conditions. Neglect of this has, in the past, led to not a few experimental errors, which might have been avoided by a thorough review of the subject.

Passing now to animal inoculation and experimentation, we meet with difficulties perhaps greater than those encountered in the case of artificial cultivation. As in several other diseases, such, for instance, as syphilis and typhoid fever, medical experts have taken up the view that the disease is specific for man, and cannot under any circumstances be reproduced in the lower animals. Recent successes in infecting monkeys and rabbits with syphilis and chimpanzees with typhoid fever have rather upset this established view, and we venture to think we are not too sanguine in hoping that similar success will eventually attend corresponding efforts in the case of leprosy. A summary of all the attempts in this direction up to the present was given by Bayon,[1] and he considers that in at least four cases success has attended the inoculation of human leprous nodules, the animals used being rabbits. He himself gave an account of a fifth successful case, using the rat as an experimental animal. In addition, Rost claims to have produced the disease in monkeys by injecting his streptothrix, a claim also put forward by Duval. Kedrowsky has also produced a similar disease in mice and rabbits by injecting germs cultivated from human cases, and his results are endorsed by Bayon.

With regard, finally, to the cure and control of the disease, some measure of advance is undoubtedly being made. The drug which has been most experimented with has been Deycke's nastin and its modifications B_1 and B_2. Although yielding slight encouragement in several cases, its use on the whole has been disappointing, and in consequence other remedies and methods of treatment have been sought. Amongst drugs which have been employed are iodoform, potassium iodide, eucalyptus, and salvarsan. Of these, eucalyptus appears to have caused the most satisfactory improvement, though no actual cure has been reported. *X* rays have also been used, and Heisper reports a case of apparent cure after two years' treatment. Vaccine therapy has not yet been employed extensively enough to enable any judgement to be passed. As to the necessity of segregating infected persons, the question of notification has agitated the minds of not a few in this country. The discovery by Jeanselme that there are nearly 200 lepers in Paris may give cause for some uneasiness, and lead one to believe that leprosy is not so uncommon in this part of the world as is generally supposed. In conclusion we cannot forbear referring to the letter signed "A Leper" in our issue of April 20th. This gives an insight into a case of uncomplaining and heroic martyrdom worthy of the best traditions of our profession. And it is noteworthy that the writer, even although himself a sufferer, advocates segregation as the best means of stamping out the malady.

[1] BRITISH MEDICAL JOURNAL, February 24th, 1912.

LOCUMTENENTS, ASSISTANTS, RESIDENTS, AND THE PLEDGE.

MEDICAL men who are engaging locumtenents or assistants at this time have probably already realized the necessity of taking care that a practitioner engaged in either capacity has signed the supplementary pledge of the British Medical Association. The State Sickness Insurance Committee had the matter under its consideration at its meeting on June 7th (see report of that meeting in the JOURNAL of June 15th, p. 1384) and again at its meeting on June 27th. The co-operation of medical agents has been invited, but it is clearly a matter to which each practitioner should himself give personal attention. It would be well to introduce a reference to the point into any communication addressed to medical agents or in any agreement or correspondence with an applicant. It may be assumed that those members of hospital medical staffs who are concerned in the selection of candidates for resident appointments are already alive to the importance of giving attention to this matter.

BLIND ALLEYS.

EVEN among the middle and upper classes it is only in the minority of instances that the average boy shows some distinct aptitude and desire for this, that, or the other occupation in life, and thus practically determines his own career. But for the majority there seems to be complete absence of specific inclination in any direction, and it falls to those in authority to settle for them the path in life which they shall tread. It may be said that, for the most part, the sons of the professional respectable working classes are nowadays, in one way or another, so well provided for that no boy in this country need go without occupation, though he may, whether temporarily or permanently, be prevented from entering the ranks of one particular calling which, but for adverse circumstances, he, or those responsible for him, would select as the work-ground of his life. But when we come to consider the application of this problem to the enormous population of boys who spring from the lower sections of society—from the class in which parents and guardians take little heed of those whose steps they should guide, except to get rid of the responsibility of keeping and feeding them as speedily as possible—we are faced with conditions inimical to the health, strength, and stability of a considerable portion of our national manhood. Much has been done by legislation, by municipal enterprise, by educational facilities, and by individual munificence to mitigate the evils and dangers by which boys are surrounded when they are freed from the trammels of the elementary school, and too often thrown loose on the world to do what they please, and as they please, so long as they earn a living somehow. But all that has been accomplished is a mere shadow of what still requires to be done. To all who are interested in this question, a book on the *Problems of Boy Life*,[1] edited by Mr. J. H. Whitehouse, M.P., may be heartily commended. It contains a series of papers contributed by writers who are personally familiar with much of the everyday life of our vast slum population, and who, from the standpoint of individual experience, are able to enlighten us both as to the requirements for a better order of things, and the possible means by which some of these requirements may be met. Mr. Whitehouse expresses his conviction, founded on intimate knowledge of existing conditions, that the time is ripe for educational reform; that street trading by children should be prohibited by statute; and that the supervision of juvenile employment should be committed to the care of central advisory committees acting in conjunction with the Board of Education and in co-operation with the labour exchanges of the Board of Trade. It is contended that the remedy for the evils of "blind-alley" occupations is to be found in "the national organization of juvenile labour, as a whole, from the moment of leaving school, with the elementary school as the centre, and under the direction of the local education authorities, empowered, and in principle controlled, by the central authority of the State." In justification of such a recommendation it is argued that a period of school supervision beyond the age of school exemption would involve no principle of State interference, but would be the legitimate corollary of the action it has already taken. It is argued that "if the State has the right to educate on a compulsory system, it has further clearly the right and the duty to guard from waste the fruits of the education it has given."

[1] *Problems of Boy Life.* Edited by J. H. Whitehouse, M.P. With an introduction by the Right Reverend John Percival, Bishop of Hereford. London: P. S. King and Son. 1912. (Demy 8vo, pp. 350 Price 10s. 6d. net.)

THE PHYSIOLOGY OF THE ORATOR.

SCIENCE is a matter of analysis and measurement, and this being a scientific age, it is natural that attempts should be made to express all manifestations of human energy by chemical formulae or algebraical symbols. The seeker after the secret of the transmutation of metals in Balzac's *Recherche de l'Absolu*, when he sees his wife weeping at his feet, tries to console her for the wreck of their fortune by boasting that he has analysed tears. Thomas Wakley once amused the House of Commons by giving what may be called a prescription for the making of poetry. An Italian writer, Signor L. M. Patrizi, who has, it appears, scientifically assayed the genius of Leopardi, has now turned his attention to the orator, of whose physiology he has made a careful study. He holds that eloquence is conditioned by purely physical laws. The structure of an orator's phrase depends on his respiratory rhythm and the capacity of his thorax. Thus the leanness of Demosthenes rattles, if one may say so, through his rough and broken speech. The long-drawn-out periods of Cicero are explained as being the effect of a chest so constructed that, being obliged to suspend respiration at intervals, he could pause a little more before taking in a fresh supply of oxygen. We are told how the blood circulates during a speech, and how much carbon and phosphorus is expended in the course of an hour's lecture. The effort of a lecture is weighed in kilograms: in short, the whole organic mechanism of eloquence in its infinite complications is disclosed and minutely estimated. Signor Patrizi has studied his subject conscientiously and passes in review the most celebrated orators, ancient and modern. From the point of view of physique the orator is pronounced to be magnificent; next to the dancer, he is the most muscular of artists. Psychologically he is related to the soldier rather than to the philosopher type. On the other hand, he has no reflective power and little judgement; his intelligence is scanty and his memory hypertrophied. The orator has, in short, all the faculties and natural defects of a popularizing talent, which are the opposite of those met with in true creative artists. According to Patrizi eloquence has hardly any intellectual value, though it costs men excessive and often fatal fatigue. He has gone some way to fulfil the object indicated by Mosso in the introduction to his work on *Fear*, where he says: "He that would write a book on the physiology of the orator will render a great service to society which has bitterly to bear the cost of that insensate self-idolatry which leads them to speak in public." Though our author reaches the verge of absurdity in his determination to measure and weigh vital sparks of heavenly flame, it may be admitted that there is not a little truth in what he says. Oratory, it has been asserted, is almost extinct in this country, yet we still have before our eyes many proofs of the mischief it can do by inflaming human passions. Or if we do not care to look at home, let us throw a glance at what is happening at the other side of the Atlantic. The orator may be likened to a megaphone by which commonplace ideas are sounded forth to the world as if they were an inspired revelation. If we compare the effect of a spoken speech with the written record, we wonder how any one of the most ordinary intelligence could have been moved by such feeble arguments, such empty declamation. Of English orators, John Bright is one of the few who can bear this test. The orator acts on his hearers, but, in turn, the audience acts on him and often carries him further than in cold blood he would be disposed to go. This is the real danger of oratory. Signor Patrizi has weighed and measured the orator; if he will next proceed to apply the same processes to the average audience we should have the equation showing the reaction of the two forces on each other. We should then be able to estimate the exact value of a given speech. Party managers and other wirepullers would thus be able to adapt speakers to audiences with scientific precision.

A LIVING EPIGASTRIC PARASITE.

TERATOLOGISTS will be interested in the account which Dr. Marnix Van Duyse[1] gives of the man, Jean Libbera, who, like the Chinaman Aké and the boy Laloo, carries a twin brother attached to himself in the epigastric region. This man, now 28 years of age, was one of thirteen children born of Italian parents in Buenos Aires. It is remarkable that after his birth his mother had conjoined twins—two males united laterally and having two bodies and two legs, who lived for ten years. Further, his mother's brother was born with only one arm, which was malformed. Now conjoined twins, whether symmetrical or asymmetrical, are so rare that the occurrence of two instances in the same family can hardly be regarded as other than family prevalence, a form of pathological heredity. Further, both Libbera's mother and grandmother must be looked upon as monstriparous. The parasite (named Jacques) was, as is usual, rudimentary, and was attached to Jean (the autosite) by the neck, which was embedded in the supra-umbilical tissues of the latter; it consisted of a short trunk without an umbilicus and with no vertebrae, from which sprung two upper limbs joined together at their upper ends and without shoulders, and two lower limbs, markedly flexed and with large feet; the pelvic extremity of the parasite was large and covered with hair, but it had no anus and no intergluteal groove; there was a large scrotum, with one testicle, and a penis with a meatus from which urine escaped drop by drop to a daily amount of from 30 to 50 grams. There was no heart, and the parasite, therefore, probably received its blood from the internal mammary or from the epigastric artery of the autosite. The limbs were only capable of passive movements, and Dr. Van Duyse concluded that their musculature was absent. When the skin of the parasite was pinched, Jean (the autosite) was conscious of it and could indicate the exact spot. An *x* ray photograph showed that the heads of the humeri were lost in a conical mass of bone which may have been a part of the neck of the scapula, and that there was a bony pelvis open in the front. There was a mass of bone which probably represented the scapula, and this lay in the near neighbourhood of the ensiform cartilage of the autosite. This double individual (Jean and Jacques) is to be classified as an example of ventral supra-umbilical asymmetrical duplicity, the parasite being a hemi-acardius; more briefly it may be named an *epigastrius parasiticus*. A practical point is whether Jean can be successfully separated from his rudimentary brother Jacques. Some surgeons in Paris were prepared to try, but Jean resolutely refused to allow the attempt; and Van Duyse points out that in the somewhat similar case, reported by Schwalbe, in which the parasite developed purulent arthritis of the knee, and was on that account removed by the knife, the autosite died two hours later.

[1] *La Belgique Medicale*, Ann. xix, pp. 267–273, 9 Juin, 1912.

THE PREVENTION OF ANAPHYLAXIS.

E. FRIEDBERGER AND S. MITA (*Deut. med. Woch.*, February 1st) describe the various devices recently adopted to avoid serious symptoms of anaphylaxis, and give a detailed report of a procedure which they have found successful in animals. The toxic symptoms which may follow an injection of foreign serum were at first attributed to the antitoxin present in the serum, but it was found that they could be induced in healthy persons by the injection of normal horse serum. In the commonest form, which occurs in 10 per cent. of all injections, fever, a rash, articular swelling, oedema, and slight albuminuria appear eight to ten days after the injection. The symptoms of the second form appear almost immediately after a second injection of serum from the same species of animal as the first injection. They are usually more severe, but also more transitory than in the first form. On rare occasions the reaction is so severe as to cause general collapse.

This more severe form usually follows a second injection, but may follow even a small first injection. As the toxic symptoms are proportional to the amount of serum injected, serums have been selected for their high antitoxic potency, so that the volume of serum might be reduced. Some workers have found that serum partly loses its toxicity on standing, and others have found the toxicity of serum to be reduced by keeping it at a continuous temperature of 55° C. to 59° C. for several days, a process which does not interfere with the antitoxic properties of the serum. Ascoli has lately suggested the use of two serums taken from animals of widely different species. For prophylactic injections he advocates antitoxin taken from the sheep, and, if diphtheria develops, the powerfully antitoxic serum of the horse. Others, again, have found that the addition of a weak solution of hydrochloric acid (3 in 1,000) to the serum renders it less toxic, and yet does not reduce its antitoxic properties. A first injection of serum produces an antibody which, in the presence of complement, acts on the antigen in the second lot of injected serum to form a toxic substance called anaphylatoxin. When the symptoms of anaphylaxis appear eight to ten days after the first injection, the antibody formed has reacted with the antigen still present in the blood after the injection. In the third and rare form of anaphylaxis, when violent symptoms immediately follow a first injection, the antibody, which is in most cases formed by the injection of foreign serum, is already present in large quantities in the blood. The formation of anaphylatoxin, therefore, depends on three substances—the antibody, the homologous antigen, and complement—and it may be prevented by the withdrawal of any one of these. But the antigen cannot be withdrawn without the withdrawal of the serum itself. Complement, it is true, may be withdrawn from the blood for a considerable period, but the process involves difficulties which render this procedure unsatisfactory. Consequently the remaining factor, the specific antibody, must be altered so as to prevent the formation of a dangerous amount of anaphylatoxin. This antibody, which possesses special affinity for the serum from which it has been formed, would be put out of action by a second injection of this serum, but the anaphylatoxin would be formed, the avoidance of which is desired. If, however, a small second dose of serum be given, only a small quantity of anaphylatoxin will be formed, which will not be sufficient to cause serious symptoms, and yet a large quantity of antibody will be put out of action. Hence there will be little antibody left in the blood to form anaphylatoxin when a third and large dose of serum is administered shortly after the second injection. The term "antianaphylaxis" has been given to this increased resistance to anaphylaxis, and Besredka has turned this phenomenon to good account by giving a small subcutaneous injection of serum by which specific antibodies, either innate or produced by a second injection of serum, are put out of action. The disadvantage of this method is that the administration of a large therapeutic dose is delayed, and that even the small preliminary injection may have toxic effects. Friedberger and Mita found that a large amount of antibody is absorbed by antigen if the serum is injected very slowly. Much antibody is thus absorbed by a small quantity of antigen, and only a trace of anaphylatoxin is produced. The susceptibility of guinea-pigs to sheep serum was first increased by giving them small intravenous injections of this serum over a period of two to four weeks. The lethal intravenous dose of serum was then ascertained, after which serum was injected very slowly, when it was found that six times the lethal dose could be tolerated when the injection lasted ten minutes, and that when the injection lasted fifty-eight minutes ten times the lethal dose could be given with impunity. They have constructed an apparatus for injecting serum slowly under even pressure, and advise the adoption of a comfortable and secure position of the arm in children before this lengthy procedure is started.

THE TREATMENT OF LUPUS IN DENMARK.

In a lecture[1] given recently before the Medical Society in Copenhagen, Dr. Forchhammer reviewed the history of lupus in Denmark since 1896, when Finsen's Light Institute was opened. About 2,000 patients, many of them foreigners, have now been treated at the institute, but Dr. Forchhammer confines his remarks to the first 1,200 Danish patients treated from 1896 to 1906, who have been under observation for several years. During the first years of its existence the institute was crowded by a great number of patients whose disease was too extensive and deep-seated to react satisfactorily to the treatment. In later years the proportion of slight and early cases has increased, and much has been learnt of the early phases of the disease, which differ in many respects from the later and more familiar. Dr. Forchhammer recognizes two main types in the early stages. Lupus simplex, of which there were 210 cases, is confined to the face and neck in 91 per cent. of all such cases, and is characterized by slow growth and the absence of ulceration. The infiltration of the skin and the desquamation and hyperæmia are slight. Lupus ulcerativus vegetans, of which there were 227 cases, develops more rapidly, and there is considerable pain and swelling, and ulceration occurs early. It is, as a rule, easily diagnosed by the presence of typical isolated nodules in the periphery of the swelling. But the rapidity of the process sometimes misleads the practitioner whose knowledge of lupus is confined to the more benign type. In the early years of the institute the disease was treated exclusively with ultra-violet light. Later the treatment included other methods, among which that by excision (Lang's method) ranks first. Excision alone is usually insufficient to eradicate lupus from the face, but it is the best procedure in lupus of the trunk and limbs, and in lupus of the neck and face when confined to a few isolated nodules too deeply seated to be affected by the light treatment. Galvano-puncture is often of value for small isolated nodules, though it sometimes fails completely in such cases. The use of Paquelin's cautery, curettage with a sharp spoon, the application of powerful caustics, such as silver nitrate or hydrochloric acid, are directly harmful, for they destroy healthy tissue and propagate the disease in the underlying structures. Pyrogallic acid, which has a selective action on lupous tissue, is too painful to be suitable for extensive use at the institute, where ambulatory treatment is the rule. The *x* rays are a useful supplement to the light treatment, and are useful also in cases presenting much ulceration and infiltration and when the disease has been refractory to the light treatment; sometimes, however, they are quite ineffective. The following results are almost exclusively due to the light treatment: Of the first 1,200 cases, 60 per cent. were cured; 18 per cent. were still under treatment, but with little prospect of recovery, as they consisted chiefly of advanced cases in which the treatment had been given too late; 11 per cent. had left the institute for various reasons; and 11 per cent. had died, chiefly of pulmonary tuberculosis. In late lupus recovery took place in 51 per cent.; in lupus which had lasted only two to five years, recovery occurred in 76 per cent., and the results in the early stages would be still better were it not for such complications as pulmonary tuberculosis and lupus of the throat and the interior of the nose and mouth. In fact, lupus of the mucous membranes reduces the number of complete cures in the early stages of lupus by 20 per cent. Pfannenstill's method of treating lupus of the mucous membranes with nascent iodine bids fair, Dr. Forchhammer says, to revolutionize the treatment

[1] *Hospitalstidende*, Nos. 50, 51, and 52.

of this condition. In conclusion, he pointed out that the success of the combat with lupus since 1896 is largely due to the generosity of the State, which has brought Finsen's treatment within reach of the poorest without the stigma of Poor Law relief. Most of the patients who now come to the institute suffer only from early lupus, which can usually be cured without the slightest disfigurement, so that it may be claimed that lupus has ceased to be a national scourge.

OSTEOMALACIA IN THE OLD AND NEW WORLD.

We know a great deal about osteomalacia or mollities ossium. It is a cause of dystocia and consequently of Cæsarean section. A remarkable physiological phenomenon has also been discovered in relation to osteomalacia. Removal of the ovaries arrests the disease and the bones cease to soften. Curatulo noted that the bones of the skeleton grow dense in eunuchs. Osteomalacia used to be frequent in parts of the Rhine Valley, in the Val d'Olona above Milan, and in other parts of Europe. We learn from Dr. Torkel of Breslau[1] that within two years and a half he has treated 4 cases of osteomalacia, all in the hill country of Waldenburg in Silesia, close to the Riesengebirge on the Austrian frontier. Removal of the ovaries arrested the pain and the softening. The amputated ovaries showed definite lesions. It is highly interesting to find that in the same month (last April) a second article on osteomalacia was published, but in the New World. Dr. Wellington Knipe of New York[2] records how he succeeded in delivering at term a woman under 4 ft. 6 in. in height. She was born in Sicily, was 39 years old, and had been resident in New York for ten years. She had passed through nine spontaneous labours. Dr. Knipe delivered the child, though pelvic contraction was considerable. The disease had begun about a year previously with characteristic pains in the bones, and for six months before labour the patient was bedridden. She was accustomed to sit up in bed, leaning on the left elbow. The left radius and ulna had become fractured in the middle of their shafts, as shown in a skiagram. The pelvis was relatively less involved. Dr. Dock in 1895 reported 10 cases of osteomalacia in the United States. All, let it be remembered, were of American birth, all females, 5 being single and childless. Four of the married subjects had large families—from five to ten children—but the disease began after the menopause. One puerperal case was under observation thirty-five years after the birth of the previous child. Since 1895, Dr. Knipe informs us, 9 instances of osteomalacia have been reported before his own case in the United States. Two of the patients were males, 1 an Englishman, 1 a Norwegian. Out of the entire 10 (Knipe's being included) one-half were under 25 years of age, 4 out of the 7 females had never been pregnant, and one-half were born in the States or Canada. Knipe, however, believes that osteomalacia must be much more frequent than these statistics would lead us to believe. Hirst observed 3 cases in Philadelphia, Whitridge Williams noted 3 more in Baltimore, whilst mild cases may be taken for rheumatism, while some bad cases die of intercurrent disorders, the osteomalacia being completely overlooked. There remains the unsolved question, What is the significance of osteomalacia? There must be like causes for like effects; what, then, are the causes common to cases in the Val d'Olona and in New York?

THE SPINAL CORD IN SULPHURETTED HYDROGEN POISONING.

While much information is available as to acute poisoning by carbon monoxide and sulphuretted hydrogen, little is known of the chronic poisoning caused by these gases. Some time ago Oliver, of Newcastle-upon-Tyne, drew attention to the physical and mental changes produced in blast furnacemen by chronic carbon monoxide poisoning, but it has been reserved for Dr. Elizabeth Kojernikoff[1] to describe the degenerative changes which may occur in the brain and spinal cord in chronic sulphuretted hydrogen poisoning. Even in minute doses this gas is extremely dangerous. Dr. Kojernikoff reports the case of a man aged 38, a dyer, who daily had to handle large quantities of sodium sulphide. Severe headache, fibrillary contraction of the muscle of the thighs, incoordination of the lower extremities, with absence of knee-jerks and of Romberg's sign were among the first symptoms to develop. Some months afterwards the pupils became unequal, and later on dilated, the discs became silvery grey in colour, and eyesight was lost. Oedema of the face, feet, and hands, with paralysis of the limbs, developed, but it was not until nearly the close of the illness that albumen appeared in the urine. Four years after the commencement of the illness the patient died from bronchopneumonia. Into the details of the *post-mortem* examination we need not enter. Several of the voluntary muscles were found to have lost their striation, the cells of the cortex cerebri were many of them atrophied, and undergoing chromolysis; similar changes were observed in Purkinje's cells of the cerebellum; the spinal cord was diminished in size, and there were atrophy of the nerve cells and fragmentation of nerve fibrillæ, as well as degeneration of the pyramidal tracts in the lower half of the cord. From the posterior columns two-thirds of the fibres had disappeared. The neuroglia was increased, and the central canal of the cord obliterated. Dr. Kojernikoff deals with the question of combined true sclerosis, and gives her adherence to the teaching of Obersteiner, Gowers, Déjerine, and others in regard to the existence of such a type of degeneration. The etiology of the case is fully discussed. She finally deals with the two possibilities, syphilis and sulphuretted hydrogen poisoning as causes. The fact that eosinophiles formed 52.3 per cent. of the leucocytes in the blood Dr. Kojernikoff regards as proof that sulphuretted hydrogen was the offending agent. The blood was not examined for sulphmethæmoglobin, owing to the late date at which the patient entered the hospital. There are few instances on record of chronic sulphuretted hydrogen poisoning. Pieraccini, in his *Patologia del lavoro*, alludes to the changes in the nervous system of night-soil men, and Wachsmuth to pseudo-general paralysis consequent upon exposure to sulphuretted hydrogen. The paper is of great interest, but further evidence is needed to establish the relationship of the pathological changes in the nervous system to sulphuretted hydrogen.

EXTENSIVE RESECTION OF SMALL INTESTINE.

The monograph on the effects of extensive resection of small intestine, by Dr. J. Marshall Flint, Professor of Surgery, Yale University,[2] is well worthy of study. As much as 50 per cent. of the total small intestine in the dog may be removed without fatal results. The animal may gradually return almost to its normal weight and metabolism, but more extensive resections prove prejudicial, even though the animal may survive. At first it suffers from diarrhœa with great thirst and hunger, but if well kept and fed it gradually recovers, though it remains highly sensitive to unfavourable surroundings and dietary. At first there is a marked increase in the excretion of the nitrogenous, fatty, and carbohydrate elements in the food, sometimes as high as 66 per cent. of diet ingested. Eventually, however, the dog's digestion goes on normally, except for an increase in the amount of intestinal putrefaction, as indicated by the amount of indican in the urine. The remaining small intestine undergoes hypertrophy and hyperplasia. There is no regeneration

[1] Report of meeting of the Gynæcological Society of Breslau, *Zentralbl. f. Gynäk.*, April 20th, 1912, p. 512.
[2] A Report on a Case of Osteomalacia, with Review of the American Cases, *Amer. Journ. Obstet.*, April, 1912.

[1] *Bulletin de la Société Royale des Sciences Médicales et Naturelles de Bruxelles*, No. 3, Mars, 1912.
[2] *Bulletin of the Johns Hopkins Hospital*, May, 1912, p. 127.

of either the villi or the crypts, but computation makes it probable that in favourable cases the original epithelial area of the intestine is approximately restored by the hypertrophic process. Dr. Marshall Flint further shows that about 50 per cent. of the small intestine may be resected in man, as in animals, without much danger of serious consequences, at least in the majority of cases. The resection of even smaller amounts may, however, be followed by severe metabolic disturbances, and even inanition and death. There are over fifty-eight cases reported in literature in which over 400 cm., or 13 ft. of the small intestine have been resected. The recorded mortality is 16 per cent., which is probably lower than the truth, owing, Dr. Flint believes, to the greater chances of successful cases finding their way into literature. The metabolic disturbances in man bear no definite relation to the amount of small intestine resected. Five patients have recovered after resections of over 400 cm., whilst death from inanition has ensued after the resection of much shorter length. Profound digestive disturbances resulted in one case after the removal of 192 cm., or 74½ in. of ileum, and in another after five excisions of less than 80 in. Dr. Flint is careful to point out that in human cases, factors like difficulty in measurement, pathological conditions, the total length of the intestine, and the resistance of the patient, undoubtedly modify the result, and explain the apparent discrepancies between the amount of intestine resected and the subsequent metabolic disturbances. The prognosis in man should be guarded. Patients in whom resections have been performed apparently with success may succumb ultimately to a slow process of inanition due to lack of suitable compensation. The experiments undertaken by Dr. Flint, and the series of human cases which he has reviewed emphasize the specific function of the three segments of the gastro-intestinal tract. Neither the stomach nor the colon can compensate for the loss of large portions of the small intestine. Resection of the human intestine is only an operation of choice in the most exceptional circumstances. Resection of the minimum amount of small intestine allowed by the pathological conditions is and must ever remain the rule for the surgeon. According to the metabolic studies reported by Dr. Flint, it would seem wise to give the patient an easily assimilated diet, poor in fats and relatively rich in carbohydrates.

CHILDBIRTH IN AIRSHIPS.

CHILDBIRTH has taken place in a railway carriage, in a cab, and even if we may trust that spiteful gossip, de Grammont, in the ballroom of a royal palace. But no case of delivery in an airship has yet, as far as we are aware, been recorded. But in this age of feminism when women face all the adventures of mountain climbing, motoring, and aviation, it is at least conceivable that a birth might take place on an airship. A miscarriage would, of course, be more likely, but in either case the situation would be awkward for the lady and also for any one with whom she happened to be travelling. Nature has, however, like sentimental Tommy, a "wy" with her by which she often copes with the most desperate complications. The French are a logical people, and provide for all emergencies, however remote. It is stated that at the International Congress on the laws of aviation, recently held in Paris, a regulation was made to the effect that, in the event of a birth occurring on an airship, the airman in charge must enter the event in a logbook and send a notification of the birth to the authorities at the first place where he comes down. This is all very well as far as it goes, but we do not see that the question of citizenship is decided. The child of English parents which may happen to be born on the high seas is, or used to be, accounted a citizen of London; but what of the offspring of foreign parents born above the clouds? There is a romantic side to the matter, but the possibility opens up some intricate points of law, and also of medical practice. If flying becomes at all popular among women the expediency of providing for the contingency of parturition will have to be considered. When aviation is more developed an obstetric bag, with a skilled practitioner, may have to be added to the furniture of the airship.

"THE FATHER OF AUCKLAND."

SIR JOHN LOGAN CAMPBELL, of Auckland, New Zealand, whose death is announced, was one of the many members of the medical profession who have played an active part in developing the Empire. Born at Edinburgh on November 8th, 1817, he was in his 95th year at the time of his death. He was the son of an Edinburgh doctor and the grandson of Sir James Campbell, Bart. He was educated at the University of Edinburgh, where he took the M.D. degree; he was also a Fellow of the Royal College of Surgeons. He went to New Zealand in 1840 and started in medical practice. Soon, however, he abandoned medicine for business, establishing a large brewery, of which at the time of his death he and the present Minister for Finance, the Hon. Arthur Myers, M.P., were the head directors. Sir John Campbell also took a prominent part in the public affairs of the Colony. He was superintendent of the Province of Auckland in 1855. Later, he became Member for Auckland in the House of Representatives, and held a seat in the Stafford Ministry. Neither business nor politics exhausted his energies. In 1856 he organized the New Zealand Volunteer Rifle Corps. He established and maintained the Auckland School of Art. In 1901 he was Mayor of Auckland, and in that capacity received the present King and Queen, then Duke and Duchess of York and Cornwall. In memory of the visit of their Royal Highnesses he presented to the people of New Zealand the Cornwall Park, covering 488 acres. His many public services were recognized by the conferment upon him of the honour of knighthood in 1902. A correspondent writes: "The name of Sir John Campbell will long be remembered and reverenced by generations of New Zealanders. A kindly, philanthropic, and good man, he was most truly loved by all classes of the people who, in their affection, called him the 'Father of Auckland.'"

THE ANNUAL MEETING.

MEMBERS proposing to attend the Annual Meeting of the Association at Liverpool next month will find at pp. 7–11 of the advertisements the list of hotels and lodgings, and also the form to be filled in notifying their intention to be present. Members are requested to post this form without delay in order to facilitate the arrangements in Liverpool. On the receipt of the form the necessary railway vouchers enabling members of the Association and their friends to travel to Liverpool and back at the reduced rate of a single fare and a quarter will be forwarded.

THE announcement that His Majesty has graciously conferred upon the Leicester Infirmary Royal recognition has given great satisfaction to the local public, by whom the institution is held in high esteem. The Royal recognition comes at a time when efforts are being made to raise funds for the reconstruction of the Children's Hospital attached to the institution. So much has been done under the chairmanship of Sir Edward Wood to render the institution thoroughly efficient, at a cost of something like £100,000, that the sum of £8,500 now asked for ought, and doubtless will be, forthcoming before the Children's Hospital reopens.

UNDER the will of the late Mr. Henry George White, of Melksham, Wiltshire, the Bath United Hospital receives a bequest of £10,000, while £1,000 each is left to Melksham Cottage Hospital, Bristol Royal Infirmary, and Cardiff Royal Infirmary.

THE INSURANCE SCHEME.

STATE SICKNESS INSURANCE COMMITTEE.

Fourteenth Meeting.

THE fourteenth meeting of the State Sickness Insurance Committee was held on June 20th.

Mr. T. JENNER VERRALL was in the chair, and the members present were: *England and Wales:* Dr. R. M. Beaton (London), Dr. John Brown (Bacup), Dr. T. M. Carter (Westbury-on-Trym), Dr. S. Hodgson (Salford), Miss Frances Ivens, M.S. (Liverpool), Dr. Constance E. Long (London), Dr. R. A. Lyster (Winchester), Mr. James Neal (Birmingham), Dr. F. H. Oldham (Morecambe), Dr. James Pearse (Trowbridge), Dr. E. O. Price (Bangor), Dr. Lauriston E. Shaw (London), Dr. D. G. Thomson (Thorpe, Norfolk), Dr. D. F. Todd (Sunderland), Mr. E. B. Turner (London), Dr. A. H. Williams (Harrow on the Hill), Mr. D. J. Williams (Llanelly), Mr. E. H. Willock (Croydon). *Scotland:* Dr. J. Adams (Glasgow), Dr. Bruce Goff (Bothwell), Dr. R. McKenzie Johnston (Edinburgh). *Ireland:* Dr. Mark Cahill (Belfast). *Ex Officio:* Dr. J. A. Macdonald (Chairman of Council), Dr. E. J. Maclean (Chairman of Representative Meetings).

Apologies for absence were read from the President, Dr. Dampier Bennett (Dublin), Dr. W. Johnson Smyth (Bournemouth), and Dr. J. Munro Moir (Inverness).

We are enabled to publish the following account of the remaining proceedings in anticipation of the confirmation of the minutes.

The minutes of the last meeting of the Committee, held on June 12th, 1912, were confirmed, and signed by the Chairman as correct.

INQUIRY INTO EXISTING CONDITIONS OF MEDICAL WORK AND REMUNERATION.

The CHAIRMAN reported that he and the Medical Secretary had had an interview with Sir Robert Morant, Chairman of the English Insurance Commissioners, with regard to the proposed inquiry into existing conditions of medical work and remuneration. The decision of the Committee, to the effect that it was prepared to give the Commissioners every possible assistance in the collection of the information desired, was communicated, and it was stated that while the Committee had no power to make practitioners throw open their books for inspection, it would advise practitioners in the selected towns to do so. The following resolution adopted by the Committee on June 12th was also communicated:

> That it be suggested to the Commissioners that, in addition to a practitioner whose books are investigated by any accountant having an opportunity of going through his books with the investigator at the time of actual extraction of information, he shall have submitted to him for comment, prior to submission either to the Association or to the Commissioners, any report which the investigator bases on the information thus extracted.

At the meeting of the Committee on June 12th it was reported that the towns suggested by the Commissioners as those in which the proposed investigation should take place were Darwen, Luton, St. Albans, Llanelly, Kilmarnock, and Norwich. The Committee had discussed this list of towns, and while approving the election of St. Albans and Norwich, expressed the desire that either Oldham or Salford should be substituted for Darwen, Darlington for Luton (on the ground that that town did not afford conditions typical of private practice), Cardiff or Wrexham for Llanelly, and either Hawick or Stirling for Kilmarnock.

The CHAIRMAN reported that these suggestions had been communicated to Sir Robert Morant. The Commissioners adhered to their desire to include Darwen, but agreed to substitute Darlington for Luton, Cardiff for Llanelly, and Dundee for Kilmarnock; they objected to Hawick on the ground that it was too far south to be a typical Scottish town, and to Stirling on the ground of it being mainly a residential town. The Commissioners agreed with the suggestions of the Committee that the President of the Incorporated Society of Chartered Accountants should be asked to nominate an accountant for the purpose of the proposed investigation, and the Chairman reported that Sir William Plender, who, it was afterwards found, had just completed his year of office as President of the Society, had been approached, and had expressed his willingness to undertake the proposed investigation himself, and that he intended to begin it on June 24th.

The Committee adopted a resolution expressing its regret that the Commissioners had not accepted the whole of its recommendations as to the selected towns. The places finally selected are therefore Darlington, Darwen, Dundee, Cardiff, Norwich, and St. Albans.

The Committee approved the following letter (D 57), addressed to the honorary secretaries of the Divisions whose areas included the six selected towns, and directed that a copy be forwarded also to the Scottish Medical Insurance Council and to the Commissioners:

Dear Sir,

Government Enquiry into Medical Remuneration.

1. You have already been informed through the columns of the JOURNAL of June 15th (pages 1384 to 1386) that the State Sickness Insurance Committee has promised to give the Chancellor of the Exchequer every possible assistance in the collection of certain information as regards medical remuneration in selected areas to be agreed upon between the Commissioners and the Association. I am to inform you that ——— has been agreed upon as one of the towns from which information is to be sought.

2. The following is the letter from the Chairman of the English Insurance Commission referring to the subject, together with the memorandum containing the instructions to the Investigator:

[The letter and memorandum from the National Health Insurance Commission (England) were published in the issue of the JOURNAL for June 15th, pp. 1385–6.]

3. The Chancellor informed the deputation from the State Sickness Insurance Committee on Wednesday, June 12th, that he hoped to give a definite answer to the Association's demands as regards remuneration under the Act in time for report to the Annual Representative Meeting which begins on July 19th. He indicated that it would be of the greatest assistance to him in making up his mind and if necessary in placing before Parliament a case for greater expenditure on medical benefit, to have the results of this investigation in his hands at an early date. The State Sickness Insurance Committee hopes, therefore, that the practitioners in ——— will give all the assistance they can to the Investigator, as the time for pursuing the investigation is extremely short.

4. The Association decided to ask the President of the Institute of Chartered Accountants to nominate an Investigator, and Sir William Plender, Past-President of the Institute, of the firm of Deloitte, Plender and Griffiths, of 5, London Wall Buildings, London, E.C., has undertaken the investigation.

5. Lists of the practitioners in the selected towns are being furnished to the Investigator and it is his intention to begin work not later than Monday, June 24th, so that each of the practitioners concerned may expect to hear from him within the next few days.

6. It is hoped that you will *at once* call a meeting of the practitioners in ——— to consider the matter. I forward you a sufficient number of copies of this letter to send to every practitioner in the town, and in summoning the meeting I trust you will ask each practitioner to carefully consider the memorandum of information forwarded by the Commissioners so that he may be in a position to assist the Investigator by having as much as possible of the information required previously extracted from his books.

7. Practitioners will also note from the letter of the Chairman of the English Commission with what care and respect for confidential information the inquiry will be conducted.

8. It is most important that the practitioners concerned should understand the exact relation of the Association to this inquiry. The State Sickness Insurance Committee has informed the Chancellor that the inquiry is not of its seeking, that the information obtained as the result of the inquiry will probably be inadequate and may be misleading, and that the demand of the profession as regards remuneration cannot in any way be affected by the results of the inquiry. Seeing that the Chancellor desires to obtain figures which could be used in comparison with those already placed before him by the Association, and that the Committee has absolute confidence in the justice of its case, it was felt that no obstacles could be placed in the way of such an investigation, particularly in view of the promise given that the facts arrived at will be placed at our disposal at the same time that they will be given to the Chancellor, that they will be open to the Association to use in whatever way may seem best for our purpose, and that the expenses incurred by the Investigator will be borne by the Government.

9. I am instructed, therefore, to urge you to bring this matter at once before the practitioners in the town of —— and to ask them to do all in their power to further the proposed investigation so that the results may be arrived at as quickly as possible.

I am, yours faithfully,

ALFRED COX,

Medical Secretary.

The Honorary Secretary.

MEDICAL EXAMINATION OF CANDIDATES FOR APPROVED SOCIETIES.

A reply by the Medical Secretary was approved to an inquiry as to the medical examination of candidates for approved societies to the effect that there could be no objection to such an examination, and that the Committee was of opinion, where the terms of an existing contract did not already provide for examinations, that the fee should not be less than 2s. for each such examination.

PROVISIONAL INSURANCE COMMITTEES: MEDICAL OFFICERS OF HEALTH.

An inquiry was received as to whether there was any objection to a medical officer of health becoming a member of a Provisional Insurance Committee at the request of his Council. The Committee decided that the member making the inquiry should be notified that in the opinion of the Committee his circumstances were not such as to justify his becoming a member of a Provisional Insurance Committee, but pointed out that, as provided by Minute 80 of the Special Representative Meeting of February, 1912, a medical officer of health is not precluded "from giving advice to an Insurance Committee in his professional capacity."

SANATORIUM BENEFIT.

It was resolved to send a letter to all medical officers of county and county borough councils, pointing out that, owing to the delay of the Commissioners in replying to the demands of the profession made in February last, members of the Association are, by Minute 78 of the Special Representative Meeting, February, 1912, debarred for the present from accepting any office or work under the National Insurance Act, and asking them to advise their councils that it is undesirable to take steps for filling medical appointments for the administration of sanatorium benefit until the Annual Representative Meeting of the Association (on July 19th) had had an opportunity of considering the question.

PROVISIONAL MEDICAL COMMITTEES.

It was reported that up to the present 202 Provisional Medical Committees had been formed, being an increase of 11 since the last meeting.

OTHER BUSINESS: NEXT MEETING.

Other matters arising out of the correspondence and the deputation to the Chancellor of the Exchequer were raised, but for various reasons were postponed to the next meeting.

PLEDGE BY MEMBERS OF HOSPITAL STAFFS.

In the paragraph thus headed in the report of the meeting of the State Sickness Insurance Committee on June 12th, published in the JOURNAL of June 22nd, p. 1448, the form of pledge which the local infirmary staff had unanimously agreed to sign was set out; it had been modified so as to strengthen the position of the Leicester and Rutland Public Medical Service. The Honorary Secretary of the Leicester and Rutland Division asks us to state that in forwarding the signed pledge the medical staff sent a covering letter explaining that the second paragraph of the pledge was to be interpreted to read as follows:

After that portion of the National Insurance Act relating to medical benefit comes into operation, and until the terms and conditions of administering medical benefit under the Insurance Act have been approved by the profession, we will not, except in cases of urgent medical or surgical necessity, and except in the case of persons who are unable to pay for the necessary institutional treatment, render professional service to an insured person through any voluntary medical charity, unless he is receiving his medical treatment under the Act upon terms approved by the profession. We will not co-operate with any member of the profession who is under contract to render service to insured persons upon terms which are not approved by the profession. Insured nurses and other insured employees of the infirmary, who now receive gratuitous medical attendance at the infirmary, shall not be deprived by this pledge from continuing to receive that treatment.

The pledge in this form has been approved by the committee of the Leicester and Rutland Division.

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

National Insurance Act.

Sanatoriums.

IN answer to Mr. H. W. Forster, who inquired as to the number of beds in sanatoriums other than Poor Law institutions controlled by local authorities in Scotland, England, and Ireland, the Lord Advocate said the number of beds in sanatoriums and other similar institutions, other than Poor Law institutions, controlled by local authorities in Scotland was about 480.

Mr. Burns said for England and Wales that, as regards phthisis, four local authorities had provided special sanatoriums containing 170 beds, while about 970 beds in small-pox or fever hospitals were now used for phthisis, and about 200 beds were reserved by local authorities at private sanatoriums. As regards other diseases, local authorities had provided about 700 hospitals with approximately 20,000 beds, mostly for the isolation of cases of infectious disease.

The Chief Secretary for Ireland said the two sanatoriums actually established by local authorities in Ireland were Heatherside Sanatorium, containing 77 beds, and Crooksling Sanatorium, containing 50 beds. In addition, arrangements had been made by local authorities by which patients were sent to the National Sanatorium, Newcastle, co. Wicklow, and to the Forster Green Sanatorium, near Belfast. In the latter institution 35 beds were allocated for patients recommended by the Belfast Corporation.

Mr. Newman asked the Secretary to the Treasury whether he could give an estimate of the number of persons of both sexes who would be entitled to sanatorium benefit on or after July 15th, and of the number of beds that would be available as on July 15th for their accommodation in the various sanatoriums of Great Britain and Ireland.

Mr. Masterman said that no estimate could be given of the number of persons employed on July 15th who would be found to be suffering from tuberculosis in such a form as to need treatment of the kind included in sanatorium benefit. He could not at present announce the number of beds which would be actually available for insured persons in sanatoriums on that date. Sanatorium benefit, as the hon. member was doubtless aware from study of the Astor Report, included many other forms of treatment in addition to treatment in residential sanatoriums. A memorandum would shortly be issued explaining the arrangements contemplated for these purposes.

Birth Certificates.

Mr. Goldstone asked the Secretary to the Treasury whether his attention had been called to a notice which had been posted in engineering works and shipyards in Sunderland stating that, in accordance with the requirements of the National Insurance Act, all workmen employed at those works were required to hand in their birth certificates to the timekeeper not later than June 17th; whether he would say if the National Health Commissioners had required the production of such certificates; and, if not, what action he proposed to take in the matter.

Mr. Masterman: The Act gives no employer the right to demand the production of a birth certificate from any employed person. If a dispute arises whether any person is too young or too old to be compulsorily insured, and it cannot be settled by agreement, the decision on the facts rests with the Insurance Commissioners.

"Health Officers."

Mr. Clynes asked the Secretary to the Treasury, with reference to the Insurance Commissioners' Form O.S. 5, whether he could state the reasons why the health insurance officers named in the close of the form would not ordinarily be eligible for promotion to the inspectorate; and was he aware that such a limitation would prejudice the duties of these men.

Mr. Masterman replied that the duties of health officers appointed by the Insurance Commission would be entirely distinct from those of the inspectors, and the two classes would not be a part of the same establishment. If particular individuals who were first appointed as health officers proved to possess the qualities required for the inspectorate they would be eligible to transfer, as persons in the Civil Service generally were eligible for transfer from one department to another. The sentence referred to was inserted to prevent any misunderstanding amongst those who were applying for positions as health officers which might lead them to think that such positions would normally lead to the inspectorate.

The Housing of the Working Classes Bill finished its difficult progress through the Standing Committee, and was reported to the House last week. The bill has been greatly altered, and many Government amendments added to make it a workable and useful little bill. It was put down for its Report stage on June 21st, but the affection displayed by a number of members for the Municipal Corporation Bill, which on the previous Friday they had been able to discuss all day, was still vigorous enough to occupy the whole sitting, and so the Housing of the Working Classes Bill lost its chance. As the Government took much trouble to amend the bill in Standing Committee, it is probable that they may star it later on, and so enable it to reach the Statute Book.

Puerperal Fever and the Metropolitan Asylums Board.—Mr. Cassel asked the President of the Local Government Board whether he was aware that in July, 1910, the managers of the Metropolitan Asylums Board informed the Local Government Board that they were prepared to make arrangements for the reception of certified cases of puerperal fever in their hospitals; and whether any and, if so, what decision had yet been come to in the matter by the Local Government Board. Mr. Burns answered that the question of further extending the functions of the Metropolitan Asylums Board in various directions, including that referred to in the question, had been and still was engaging attention. Recently the managers had, under his authority, made arrangements for the reception of cases of measles and whooping-cough. Cases of this kind were not previously received by the managers. In addition 9,000 sick and weakly children had been treated by the managers at two hospitals formerly used for infectious cases. The Departmental Committee on Tuberculosis had raised the question whether the managers should not be empowered to provide sanatorium beds for London. He hoped that satisfactory arrangements would shortly be carried through for dealing with puerperal fever.

Infant Mortality.—In answer to Mr. William Thorne, the President of the Local Government Board gave the following table:

	Deaths of Infants under 1 Year of Age to 1,000 Births.					
	1906.	1907.	1908.	1909	1910.	1911.
West Ham	150	131	128	124	101	141
Poplar	152	125	123	129	118	161
Stepney	135	118	130	119	112	139
Shoreditch	166	152	139	140	146	177
Kensington	132	128	119	113	106	143
Hampstead	77	69	63	75	60	83

N.B.—Whitechapel and Limehouse were in the Metropolitan Borough of Stepney, and separate figures could not be given for them.

Sanitary Commissioner (India).—Mr. Keir Hardie asked the Under Secretary of State for India whether he was aware that, on page 49 of his annual report for 1910, the Sanitary Commissioner with the Government of India stated that in some districts difficulty was experienced in obtaining the loan of calves for vaccination; whether he was aware that such difficulty was due to the religious objections entertained by the Hindus to the operation of vaccination, and the employment of what they regard as sacred animals for the cultivation of the vaccine virus: and would he say whether these calves were sold for the purposes of human food after having been used as vaccinigers, as in this country. Mr. Montagu said the Sanitary Commissioner's statement referred to two districts only in the Central Provinces, and was based on a statement made in the vaccination report of those provinces. It appeared from that statement that the difficulty was not a religious one, that such difficulties seldom occurred, and that when they did occur the ground of objection was that the withdrawal of the calf might interfere with the milk supply. The superintendent of vaccination in the Central Provinces added, as the result of his own experience in seven districts, that if on such occasions a small reward were given and concessions made there was no real opposition. The Secretary of State was not aware that the calves were sold for the purpose of food. It was believed that ordinarily they were returned to the owners.

Children's Wards in Workhouse Infirmaries.—In reply to Sir Albert Spicer, the President of the Local Government Board said that of the 8,281 children in workhouse infirmaries and district sick asylums on January 1st, 1912, 4,763 were over 3 years of age. The returns did not show how many children were in wards separately reserved for children. There were practical difficulties in obtaining complete separation in all cases, but it was his desire to encourage the separate warding of children wherever possible.

Tuberculosis (Liverpool).—Mr. George Roberts asked the President of the Board of Education whether he was aware that the school medical officers in Liverpool referred all actual or suspected cases of tuberculosis amongst school children to the Liverpool Chest Hospital for the purpose of being submitted to the von Pirquet inoculation test; whether he had sanctioned that practice; and whether, having regard to the experimental and dangerous character of that test, he would give instructions that in future the consent of the parents of children must be obtained before it was applied. Mr. J. A. Pease said that he understood from the report of the school medical officer for Liverpool for 1910 that the facts were as stated in the first part of the question. The Board's sanction to the specific methods of medical inspection adopted by local education authorities was not required. He was informed that the test in question had been freely employed on the Continent for several years and had also been used in England, and that it did not appear to be dangerous or likely to cause physical harm. On general grounds, he thought it was desirable that the nature of the test should be explained to parents and their consent secured before it was applied, and he should be glad to make the suggestion to the local education authority.

Tuberculous Disease.—Mr. Charles Price asked the President of the Local Government Board whether his attention had been called to the experiments made by Professor Poncel, of Paris, when he was reported to have found that the perspiration of almost all tuberculous patients contained germs of the disease, and that after the garments of these people returned from the laundry they still contained traces of these germs, and whether he would take steps to compel every laundry to use a sterilizing plant. Mr. Burns said that his attention had been drawn to the experiments of Professor Poncel. The majority of the twenty-four experiments undertaken by him had a negative result. The apparently positive results would need considerable confirmation before it could be regarded as necessary or desirable to take action on the lines indicated. He was advised that it would be unfortunate if on the basis of limited experiments an exaggerated view of the risk of infection in tuberculosis were to be entertained.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

LONDON.

London County Council.

Medical Inspection and Treatment: Whole or Part Time Appointments.

A discussion took place at the meeting of the Education Committee of the London County Council on June 19th on a proposal to substitute a whole-time system for the present part-time system of medical appointments in the elementary schools. As reported in the British Medical Journal of June 22nd, page 1452, the recommendation before the Committee was that the eighty quarter-time school doctors should be replaced by twelve full-time doctors appointed for five years, and twelve full-time doctors appointed for one year. Mr. F. R. Anderton, however, moved, on behalf of the subcommittee presenting the report, that there be five instead of twelve permanent appointments for five years, and nineteen one-year appointments instead of twelve.

Mr. Anderton said that having regard to the fact that in most cases these officers were being appointed primarily and almost exclusively for the inspection of school children, it might fairly be argued that it was undesirable to make the conditions of employment such that a large number of men would be confined for the whole of their careers to one kind of work, which, however valuable it was, must become monotonous. It was suggested that there would be opportunities for promotion to other branches of the public health service. These opportunities, however, would be strictly limited in number, and therefore the subcommittee considered it wise to limit to five the number of officers whom it was proposed to appoint permanently. There would then be eight permanent full-time officers in London, or two for each of the four divisions into which the administrative county was to be divided.

The Rev. Dr. Scott Lidgett pointed out that this was a new departure. He was by no means certain that it was on the right lines. The principle of part-time medical officers was adopted, not in order to save money, or as a slipshod expedient, but because it was thought best in the interests of the health of the children that those who attended them should be in close contact with general medical practice, and not to be "dried up" by premature specialism. He suggested a week's postponement in order that the matter might thoroughly be considered.

Mr. Bruce expressed a similar view. In deciding for a part-time service the Council wished to avoid having medical officers who for ten or twenty years had gone on seeing children and echoing their old opinions. Young men had less experience, but, on the other hand, a succession of new ideas were obtained from a set of young men fresh from the hospitals who brought in a constant stream of criticism. He would not depart from the present system because the older doctor could get through more cases in the day. He had discussed the matter with a great many medical men, and was more and more persuaded that the present scheme was wise, although he knew that the Board of Education would always be against it and in favour of a staff of permanent men.

Mr. R. A. Bray said that originally he was strongly in favour of the quarter-time system, but experience had shown that it had not worked as the Council had expected. The doctors were naturally principally interested in working up their practices, and directly the Council insisted on their being in attendance at stated times the system became difficult to work. When the doctors attended at any time they pleased, difficulties arose with the Board of Education. He had come round entirely on this question. A full-time system was the only one under which the complicated arrangements now being inaugurated could be worked.

The Rev. Stewart Headlam was sure that the old plan was much better. If the only objection was that doctors did not attend regularly, he thought a change was being urged on a very weak case. The Council wanted young men to whom experience was the main thing, and who would get an enormous amount by examining, and ultimately treating, the school children. He believed, moreover, that more work was actually done by four-quarter-time men than by one full-time man.

Mr. Hobson, who seconded the amendment, said that a quarter-time system was inconsistent with proper administration. At present 75 per cent. of the doctor's energy was outside the Council's work. The object of giving young medical men opportunities of gaining experience was attained by bringing them into the service for one or two years, during which time they would give up the whole of their time to obtaining that special experience which would help them very much in their future careers. On the question of the permanence of a number of the proposed appointments, the medical officer had urged that the Council could not hope to obtain the type of men he (Dr. Hamer) desired to see in its service if an appointment of only five years' duration were offered. Dr. Hamer expressed the opinion that with eight full-time permanent doctors his object would be attained, and that he would be able to attract into the Council's service a sufficient number of men who would be prepared to devote their time with the object of making this branch of work a career. The proposal now before the Committee would meet the views of those who wished to have passing through the Council's service a stream of young men fresh from the hospitals seeking experience and bringing in new ideas, for part of the staff would consist of this type of man and part of men who would be devoting the whole of their time and gaining promotion.

The amendment was carried, and the recommendation as altered was approved.

Appointment of a Psychologist.

The Education Committee on June 26th considered the question of the examination of pupils in public elementary schools nominated for admission to schools for mentally defective children. Various subcommittees reported having discussed proposals for the appointment of additional medical officers, but they were convinced that such arrangements would not entirely meet the case. A careful examination by a psychologist of the pupils nominated for admission to the special schools would show that the admission of some of the children might be advantageously delayed until they had been under special observation for a period. The General Purposes Committee therefore recommended that a psychologist be appointed as a half-time officer in the Education Officers' Department at a salary of £300 a year.

The Committee approved the proposed appointment.

LIVERPOOL AND DISTRICT.

Port Sanitary Authorities.

The annual report of the Medical Officer of Health to the port authorities, just issued, contains a great deal of interesting material indicating the progress of the port and the precautions being taken to preserve the health of residents and of people arriving from other places. They include measures adopted to discover epidemic or infectious diseases on ships and to prevent their introduction into port or their spread on shipboard, and measures taken to control and abate unhealthy conditions of vessels within the area of the port. With reference to cholera, it is interesting to note that former infected vessels all had a clean bill of health when entering the Mersey. Italy seemed to be a special source of this disease, cases having been traced to New York, so that special precautions were taken to visit all vessels reaching Liverpool from New York or Boston on which cases of gastro-intestinal disorder were investigated; none, however, proved suspicious of cholera, and by the end of December cholera was reported to be extinct throughout Italy. Special precautions were taken with regard to plague. One steamer arriving from Karachi was examined, and all on board were found well; forty-nine rats caught on the ship were examined by the corporation bacteriologist and found to be healthy. The vessel proceeded to Glasgow, and eighteen days after reaching that port a Lascar was removed to hospital there, and died of plague two days afterwards. Rats from the ship examined at Glasgow were also found healthy; the crew's quarters were

disinfected, but no fumigation for destroying the rats was carried out. The ship arrived in Liverpool again on July 1st outward bound, when 10 rats were caught, examined, and found to be healthy. It is difficult to account for the occurrence of this case, a period of no less than fifty days having elapsed between leaving Karachi and its occurrence. During the year 3,097 rats were caught on board ships from plague-infected ports, and many hundreds have been caught in the Liverpool and Birkenhead dock sheds: all these were examined and found healthy. With reference to the small-pox cases, there has been an increase in cases from abroad, but they were all dealt with effectively. Thirty-five cases of enteric fever came from abroad in 1911. The inspection of imported foods was carried out in Liverpool, Birkenhead, and Garston docks, the docks on both sides of the Mersey being in the jurisdiction of the port sanitary authorities. In the year 1911 the amount of meat condemned was greater than in 1909 and 1910; large quantities of beef from Australia required close examination, owing to the presence of a parasite which, though disfiguring, is believed to be harmless. The work of the inspectors was increased because of the large importation of Chinese and other pigs. The importation of frozen and chilled meats is enormous; the amount of the latter imported from the United States of America has decreased very greatly, but the deficiency has been more than made up by large consignments from the Argentine. There was a decrease of 24,000 in emigrants compared with the previous year. The majority of British emigrants go to Canada, while the foreign emigrants go to the United States of America.

The Liverpool Theatrical Gala.

At a meeting of the executive council of the above Gala Committee held on June 18th, the Chairman announced that they were prepared to distribute £1,055 between the various local charities. Since the gala was first instituted it has been the means of collecting and distributing for charitable purposes £17,000.

MANCHESTER AND DISTRICT.

The Tuberculosis Exhibition.

The Tuberculosis Exhibition, organized by the National Association for the Prevention of Consumption, has been visited during the time that it has been on view in Salford, and later at the Midland Hall, Manchester, by upwards of 40,000 people. It has now been removed to the Hulme Town Hall, which is in one of the most densely populated parts of Manchester, and on June 21st it was formally opened by Dr. Niven, M.O.H. for Manchester, the chair being taken by Councillor Jackson, the Deputy Chairman of the Manchester Sanitary Committee.

Councillor Jackson said that over 1,000 persons died every year from consumption in Manchester, and there were between 4,000 and 5,000 suffering from the disease at any one time. If the estimate were correct that one-seventh of the cost of the Poor Law was due to tuberculosis, it must be costing Manchester £50,000 a year.

Dr. Niven, in declaring the exhibition open, said there was no district in Manchester to which it could more usefully come than to Hulme, which had the highest death-rate from consumption among children and women. He had calculated from the best data that he could obtain that the families in Manchester into which consumption was known to have penetrated sustained a loss of some £400,000 a year, not to speak of the loss to the community from inefficient work by persons in the early stages of the disease. The exhibition showed how the disease was slowly retiring before the onslaught of medical science and sanitary reform. It showed how the resolute effort to keep down tuberculous infection in cow's milk was followed by a great reduction in the death-rate among children. Dr. Niven laid stress on the need for fresh air. There was no room for open-air shelters in Hulme, but recent experiments had shown that moving air was much more wholesome than the same air when it was still, and even in Hulme they could get moving air in their homes by keeping windows open. He then alluded to various features in the exhibition (which was described in the BRITISH MEDICAL JOURNAL for June 15th), and said it was an inspiring thought that the nation was now rousing itself to grapple with the great evil and to cast it out.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

Treatment of Incipient Mental Disease in Dundee Infirmary.

At the annual meeting of the directors of Dundee Royal Lunatic Asylum a special report was submitted on the scheme established three years ago for the treatment of early mental cases in Dundee Royal Infirmary. It is stated that during the year 15 out of 24 such cases had been discharged relieved, and that many of the cases which had been so treated had made satisfactory recoveries. The prognosis was much better if early treatment were instituted. Only by early recognition could victories be won over tuberculosis and cancer, and the same rule applied to mental disorder as forcibly as to disease of body. Frequently months were allowed to elapse without anything being done, in the vague hope that things would come right by themselves. As a rule, the sooner a case was placed under favourable conditions the shorter would be the duration of attack, provided that recovery was possible. The scheme was, no doubt, limited in scope so far, but by it something was being done on rational lines to meet the increased needs of the community.

Local Government Board for Scotland.

Annual Report.

The seventeenth annual report of the Local Government Board for Scotland has just been issued. With regard to the administration of the Poor Law, the Board states that there is a general tendency on the part of house committees to improve the buildings and the fittings of every poorhouse, and much good work was being done. The number of poor of all classes, including dependants, in receipt of relief on May 15th, 1911, was 105,251, of whom 16,064 were lunatics. Of the sane poor, 76,426, or 84.7 per cent., were receiving out-door relief, and 13,761, or 15.3 per cent., were receiving relief in poorhouses. The ratio of persons in receipt of relief was 22 per 1,000 of the population as compared with 24 per 1,000 in 1910. The decrease in the total number of paupers in the year was 7,761. The expenditure of parish councils on poor relief during the year, as far as it was not defrayed out of loans and other capital receipts, amounted to £1,565,041. The ratio which the sane poor and lunatic poor respectively bear to each thousand of the population is 19 of the former and 3.4 of the latter. Since 1868 the sane poor have decreased from 130,446 to 90,187, a diminution of 40 per 1,000 to 19 per 1,000. Taking the increase of population into account, there has been a relative decrease in the sane poor in round numbers of 52 per cent. During the same period the number of lunatic poor has increased from 5,790 to 16,064—an increase from 1.8 to 3.4 per 1,000 of the estimated population, or, allowing for the increased population, nearly 89 per cent.

Cost per Head.

Excluding general administration charges, the cost of poor, including vagrants, during the year was: Sane poor, outdoor, £7 18s. 8¾d. a head; ditto, indoor, £27 4s. 3½d. a head; lunatic poor, wherever situated, £26 4s. 4½d. The number of parishes having poorhouses, either singly or in combination, was 503, with an aggregate population of 4,037,881.

Colony for Sane Epileptics.

Plans have been approved by the Board for a colony for sane epileptics which the Glasgow Parish Council proposes to establish on part of the Lenzie estate attached to Woodilee Asylum. Hitherto, these cases have been treated either in the parish hospitals or in the district asylum. The parish council is making provision for 300 cases (150 of each sex) in six villa blocks, each containing accommodation for 50 patients. Each block will consist of two large wards, for 25 beds and 21 beds respectively, with two small wards for 2 beds each attached. Each block will contain kitchen, bathrooms, etc.

Boarded-out Pauper Children.

Reference is made to an investigation by Dr. John MacPherson, Lunacy Commissioner, into charges directed against the system of boarding out pauper children. This investigation was the result of an article by Mr. C. P. Mudge in the *Mendel Journal* of February, 1911. The result of Dr. MacPherson's investigation was a complete vindication of the system. He states in his report:

The enterprise of the Glasgow Parish Council and the wonderful organization of the system by its officials are, in my opinion, not only vindicated, but amply justified.

In connexion with the Children Act, 1908, attention is called to the good work performed by the Scottish National Society for the Prevention of Cruelty to Children.

Public Health.

The report states that those local authorities which have not added pulmonary phthisis to the list of notifiable infectious diseases are not hereby absolved from their duty to deal with and control such cases as may come to their knowledge.

Deportation of Tuberculous Immigrants.

Following on correspondence between the English Local Government Board and the Colonial Office, arrangements were made during the year whereby information will be supplied by the Canadian Government regarding the deportation from Canada of tuberculous immigrants reaching that country from the United Kingdom. Where the destination of the returning patient is in Scotland, the information will be forwarded to the Scottish Local Government Board.

Model Villages for Miners.

It will be of interest at the present moment of unrest in the mining districts throughout the country to refer to what is being done in connexion with the housing of Scottish miners. The report says:

The county medical officers of Lanark, Fife, Stirling, and Dumbarton and Ayr during 1910 furnished us with reports on the housing conditions of the miners in these counties, and similar reports were in December of that year called for from the medical officers for the counties of Midlothian, Linlithgow, Haddington, Kinross, and Clackmannan. These medical officers have now provided us with excellent reports, affording a wealth of information as to the housing conditions existing in their respective counties. We conveyed to these medical officers and to their local authorities our appreciation of the valuable information contained in the reports. We are glad to note that even apart from town planning schemes the Act has given an impetus towards better housing generally that deserves the fullest recognition. In August, for example, our attention was drawn to the erection on a large scale of miners' cottages in the village of Kirkconnel, on the south bank of the River Nith. Most of the cottages have a southern aspect, with a small garden plot in front and a garden behind. The gardens are to be enclosed with wooden fences, and the sloping bank of the river will be planted with shrubs. The company have restricted the number of houses to the acre to fifteen or sixteen cottages, and in addition to these it is proposed to build a hostel to accommodate forty young unmarried miners. In connexion with the scheme, we instructed our architectural inspector to examine the site and plans, and note the sanitary arrangements. A similar scheme is also being proceeded with at Balleyfield by the Fife Coal Company. The houses -one story in height—are being built in blocks of twenty-four, and each block forms one side of a crescent, in the centre of which it is proposed to place a shrubbery. The space connecting the crescents and abutting on the main road is 60 ft. wide, and is to be reserved for shops. The site is an open one, beautifully situated, with a southern aspect overlooking the Firth of Forth, and if the miners attend to their gardens the village will form a model for future schemes. Such schemes illustrate how much can be done by private enterprise, and we believe that if other mining companies will follow these examples the problem of the housing of miners in Scotland may be satisfactorily solved.

Town Planning Schemes.

In connexion with this subject the report narrates what is being done by Dunfermline and Inverkeithing with regard to the future of Rosyth, and at Gourock and Greenock with regard to the torpedo factory on the Clyde. Other towns are also bestirring themselves. Not only burghal but district local authorities are considering the provisions of the Housing Acts with a view to improving housing conditions. It is also pointed out that the towns and districts in which town planning schemes have been under consideration are the very areas in which the housing question becomes most acute, and this is especially the case in connexion with mining localities, where it is difficult to forecast the laying out of land, even for a short time ahead, by reason of change of circumstances.

SANATORIUM SHELTERS IN ABERDEENSHIRE.

Dr. Watt, Medical Officer of Health for Aberdeenshire, intimated, at a recent meeting of the Aberdeen district committee of the county council, that Baroness Cowdray of Dunecht had given him authority to procure what shelters were required for the sanatorium treatment of patients on the Dunecht estates. It may be mentioned that there are now no fewer than twenty-seven of these shelters directly under the supervision of the county council, and among those who have taken a keen interest in providing them have been the Queen and the Countess of Aberdeen. It has also been pointed out that Aberdeenshire leads the way among Scottish counties in the provision of these shelters apart from those which are in use in sanatoriums.

OUTBREAK OF TYPHUS IN GLASGOW.

The most serious outbreak of typhus fever which has occurred in Glasgow for many years was reported last week by the medical officer of health. It has occurred in a densely-populated district on the south side of the city, and contains a very large proportion of alien immigrants. Already over twenty cases have been removed to hospital, while fifty contacts are under observation. The last epidemics of this disease in Glasgow were in 1864, 1865, and 1868, when the number of deaths were respectively 1,138, 1,177, and 970. Sanitary regulations have made many changes, however, since those days, and the present outbreak is not likely to have as serious results.

Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

THE NATIONAL INSURANCE ACT.

Meeting of Medical Delegates in Dublin.

ON June 11th a meeting of the delegates appointed by the medical men in each county and county borough in Ireland was held in the Mansion House, Dublin, to consider the position of the profession in Ireland with regard to the Insurance Act. Mr. Robert H. Woods presided over the meeting, which lasted, with a short interval for luncheon, from 12 to 7.30.

Though medical benefits do not apply to Ireland, the friendly societies are arranging to supply medical attendance as an extra benefit, and the rates they suggest are exceedingly low; if accepted now they are likely to form the basis of future arrangements if the Act should be amended so as to include Ireland in the medical benefits. It was decided to adopt practically the same demands for payment as are at present being made by the profession in England, and by a large majority the meeting refused to express an opinion as to whether medical benefits should be extended to Ireland or not.

A resolution was passed demanding that in the large towns a fee of 2s. 6d. should be charged as a minimum for sickness certificates. The medical members of the Advisory Committee have put forward a demand for payment on a capitation basis, and the Insurance Commissioners have made the startling suggestion to approved societies that medical evidence of sickness is unnecessary, and that lay visitors can decide whether an insured person is entitled to benefit or not. A resolution was carried declaring the importance of administering the sanatorium benefit on such lines as would secure the hearty co-operation of medical practitioners, and expressing the belief that the benefit might thus be made of inestimable value in suppressing tuberculosis.

A resolution was also carried demanding that the conditions governing the maternity benefit should be so altered that they would not interfere with the treatment of maternity patients in or by hospitals.

Finally, the meeting decided to establish a Central Conjoint Committee for Ireland, representative of the profession in the various districts, and of the various medical societies and corporations, to carry out the policy decided at the meeting.

The Treatment of Tuberculosis.

Last week the Countess of Aberdeen attended a conference of the Limerick County Council and the Limerick Corporation with regard to the erection of a sanatorium and dispensaries in the district for the treatment of tuberculosis. The Chairman of the Limerick County Council, who presided, informed the meeting that the County Councils of Clare, Kerry, and North Tipperary had been written to on the subject. Clare had replied, and replies were expected shortly from the others, which were at present holding their meetings; but whatever the reply was, the County of Limerick meant to go on and have a sanatorium of its own for the city and county. It was also its intention to have dispensaries in the city and throughout the county. Lady Aberdeen, speaking on behalf of the Women's National Health Association, said that it placed itself at the disposition of the committees to help in any way. Sir William Thompson, Registrar-General, then gave statistics of the cases of tuberculous disease in the district. In the county, he said, there were 950 persons suffering from tuberculosis, and in the city of Limerick 900. He estimated that the payment of 1s. 3d. per capita for the insured patients would yield £1,560 for the county and £560 for the city. Subdispensaries, nurses, and appliances would come to about £1,000 per annum, and of the total cost to the county of £3,000, £1,500 would be paid by the Treasury, the remaining half having to be raised by the rates. The county rate would be less than a halfpenny, but the city rate would be about 2d.; he suggested that it would be advisable that the city and county should act conjointly in this matter.

RICHMOND ASYLUM.

The new infirmary buildings erected in the grounds of the Richmond Asylum, Dublin, were opened by the Lord Lieutenant on June 20th. They consist of four blocks, situated in different parts of the grounds of the asylum. One wing is attached to the private section; another is in the centre of the grounds, and is to be used as an infirmary for female epileptics; a third wing is attached to the male section, and a fourth is to be used as an extension to the dormitories for patients suffering from acute insanity. The Chairman of the Asylum Committee said that these buildings had been added in fulfilment of the obligation placed upon the joint committee by the provisions of the Local Government Act in respect of the taking over of pauper lunatics hitherto cared for in the several Poor Law unions within the district. At the same time other extensive structural alterations had been made in the female house. Altogether additional accommodation had been provided for 350 patients. The cost of these additions and alterations amounted to £44,000, which worked out at £125 a bed, a figure much lower than the average cost of beds in asylums in any of the three kingdoms. The present Joint Committee, since its formation in 1898, had erected the asylum at Portrane at a cost of £384,000, and had altogether made a total capital outlay of £538,700 on building, equipment, additions, and alterations. The number of patients under its care in 1897 was 1,808, at present it was 3,220, not including the pauper lunatics which the asylum was now prepared to receive. The Medical Superintendent said he was not without hope that in the near future the asylum might be in a position to join actively in the crusade against consumption. Owing to the better heating and ventilation of the wards, a very decided improvement had been observed in the bodily health of the patients. The asylum was now able to take over practically all the certifiable insane in the district, and the infirmary arrangements had been completely modernized.

MUSEUMS ASSOCIATION.

The annual conference of the Museums Association is to be held in Dublin in the second week in July. The association held a conference in Dublin in 1894, under the presidency of Dr. Valentine Ball, C.B., F.R.S. It was founded twenty-two years ago, and includes in its membership representatives not only of the principal museums in England, Ireland, Scotland, India, Africa, and Australia, but also of Germany, Sweden, Norway, France, Holland, and the United States. Its purpose is to bring together and establish confidential relations between those who have charge of public and other educational collections. A Reception Committee has been formed from representatives of many of the public bodies and societies in Dublin, including the Royal Colleges of Surgeons, Physicians, and Science, and the Royal Veterinary College.

The council meets at the Gresham Hotel at 8.30 p.m. on Monday, July 8th. On Tuesday morning the President will deliver his address, and papers will be read at a meeting in the lecture theatre of the Royal Dublin Society from 10 to 1. There will be a garden party at the Vice-regal Lodge in the afternoon and a conversazione in the evening in the National Museum. Wednesday will be devoted to the reading of papers, followed by a dinner at the Gresham Hotel. On Thursday excursions will be arranged to Glendalough, New Grange, Monasterboice, and Mellifont. On Friday morning the remaining papers will be read, and in the afternoon various places of interest in the city will be visited.

The President for this year is George Noble, Count Plunkett, F.S.A., V.P.R.I.A., Director of the National Museum of Ireland; and the Local Secretary is Mr. Aubrey J. Toppin, of the National Museum, Dublin.

THE LATE DR. W. J. MOYNAHAN.

An election of a medical officer for Mallow Workhouse was rendered necessary by the death of the late Dr. W. J. Moynahan, who passed away with tragic suddenness in the midst of his professional duties. There were three candidates for the position: Dr. J. J. Vaughan, Dr. Pierce Cotter, and Dr. Richard Moynahan—a brother of the late medical officer. A poll was taken, and Dr. Cotter fell out, and on a second poll between Drs. Moynahan and Vaughan the latter came highest. Dr. Moynahan took the opportunity of thanking the Chairman and Board for their great kindness to his brother as expressed by the Chairman, Mr. Longfield. He also thanked the gentlemen who had supported him on the present occasion; he knew that many of them had done so from pure and sincere love of the memory of their friend who was gone. Though he felt proud that so many had supported him, it gave him more pride and more consolation to think they had such a regard for the memory of his brother.

CANCER CURES IN IRELAND.

To judge by the lay press, "cures" for cancer must be very commonly used in the country parts of Ireland. In one issue of the *Irish Times* last week there was a report of a meeting of the Navan Board of Guardians, at which one of the members stated that patients were coming from all parts of Ireland to a lady in the neighbourhood who had in her possession the "Aylmer Cancer Cure." A resolution was adopted requesting the Governing Body of the Meath County Infirmary, in the interest of science and the sacred cause of humanity, to give this cancer cure a fair test. In the same issue of the paper is a report of a case heard in the King's Bench Division in which it was mentioned that the plaintiff was possessed of an income derived from a secret cure for cancer which had been handed down from one generation to another in her family.

ROYAL MEDICAL BENEVOLENT FUND.

The annual meeting of the Royal Medical Benevolent Fund Society of Ireland was held on June 12th in the Royal College of Surgeons, Dr. R. Dancer Purefoy, President of the College, occupied the chair, and there was a representative attendance. The annual report stated that the number of applications for awards during the year had been very large, being 100, and the amount of the grants was greater than usual, the total amount recommended since the last distribution being £1,554. A considerable number of students attending the Dublin hospitals had sent subscriptions.

HEALTH OF LURGAN.

Dr. Agnew, Medical Superintendent Officer of Health for the Lurgan sanitary district, has lately issued his annual report for 1911. The population of the town has risen to 12,135, an increase of 353 from the last census (1901). The mortality from all causes for the year was 17.5, although there was a high death-rate for the first quarter and an epidemic of whooping-cough during the last. The birth-rate was 27.9. The zymotic death-rate was 2.6, due altogether to measles and whooping-cough; there were no deaths from typhoid fever or diphtheria. Dr. Agnew devotes several pages to tuberculosis, the milk supply, and other matters of public interest; his remarks

on tuberculosis and the Insurance Act will do much to educate his district in taking full advantage of the opportunities offered, and in realizing the evil that lies around them. Both Dr. Agnew and his board are to be congratulated on the energetic and advanced policy in public hygiene that is adopted in a comparatively small town. If all Ireland pursued the same sound course, the next census would show an equally gratifying result.

New South Wales.

[FROM OUR SPECIAL CORRESPONDENT.]

QUEEN VICTORIA HOMES FOR CONSUMPTIVES.

THE medical report of the sanatorium for men, King's Tableland, for the year 1911, stated that 106 patients had been admitted to the sanatorium during the year 1911 and 109 discharged. Fifty-three patients were in residence on December 31st, 1910, and 51 on December 31st, 1911. The average number of beds occupied daily was 46. The total number of patients under treatment since the opening of the sanatorium in 1903 was 917. In respect to the districts from which patients were admitted the city showed a preponderance, Sydney and suburbs 72 per cent., country districts 28 per cent. The age of the patients varied from 15½ years to 52 years, the average age being 29. Tubercle bacilli were found in 84 per cent. of the cases. The main complications met with were 3 cases of appendicitis; 1 of these recovered with ordinary medical treatment, 2 were operated on successfully. Treatment was on the usual lines, increased use, however, was made of the patients' services in the outdoor department. It was found that the work, besides improving the physical condition of the patients, gave them more self-reliance, and resulted in an improved disciplinary tone. The total number of cases treated was 95; the disease was arrested in 39 instances. Those which improved numbered 49, unimproved 4; there were 3 deaths. From these statistics 13 cases were omitted whose stay in the institution was not long enough to justify inclusion. One case was shown by the tuberculin test to be non-tuberculous. The total number of cases improved was 88 (92.6 per cent.); total number unimproved 7 (7.4 per cent.). The average increase in weight was 9 lb., the maximum being 38 lb. Tuberculin was used on all suitable cases during the year.

The medical report of the sanatorium for women, Thirlmere, for the year 1911 showed 115 patients had been admitted to the institution and 111 discharged; 36 patients were in residence on December 31st, 1910; 40 on December 31st, 1911. The average number of beds occupied daily throughout the year was 42.1. Ninety-three of the patients admitted during the year came from Sydney and surrounding suburbs, and 22 from various country districts. The average duration of residence in 111 cases was 124.6 days. In arrested cases the average duration of residence was as follows: In 24 first-stage cases, 111 days; in 10 second-stage cases, 223 days; in 2 third-stage cases 160 days. Gain in weight occurred in 84 per cent. of patients discharged during the year. The average gain was 12 lb., the maximum gain 45 lb. The average gain in arrested cases was 14¾ lb. in first-stage cases, 22½ lb. in second-stage cases, and 21 lb. in third-stage cases. Tubercle bacilli were present in 47 cases amongst 60 patients with expectoration. In 51 cases no sputum was available for examination. A family history of consumption was admitted in 42 cases, probable in 8 others, and denied in 61. Exposure to infection by contact with tuberculous patients, whether relatives or not, was definitely known to have occurred in 59 cases, and probably in 10 others. It is interesting to note that only three patients gave a history of consumption in the family without exposure to infection as well, while 20 cases, with a family history free from tuberculosis, gave a definite history of exposure to infection. Four patients were readmitted for further treatment, after intervals varying from one to three years. Two deaths occurred in the institution—one from advanced pulmonary and laryngeal tuberculosis, the other from double pyopneumothorax. During the winter of 1911 the exercise of the patients was varied by the introduction of gardening (with the use of light, long-handled implements), twice each week. It was found that patients welcomed the change, and took an interest in the work. Tuberculin in different form was used in all suitable cases. The total number of cases treated was 98. The disease was arrested in 36 instances, 33 showed much improvement, 13 improved, 14 were unimproved, while there were two deaths.

THE ROYAL PRINCE ALFRED HOSPITAL.

The annual report of this institution, presented at the annual meeting on April 29th, stated that during the year 29,317 patients were treated at the hospital: 5,888 were admitted as in-patients. The daily average number of patients in the wards was 363, but in some of the months the number far exceeded this. In every department of the work there was an increase, the number of operations performed being 4,080, representing 69.20 per cent. of the admissions. The nursing staff was considerably increased, and the resident medical staff was increased by four officers. Changes have been made in the out-patient department. For many years the system of admission to this department has been by recommendation on forms specially supplied by the hospital. It has now been decided to abolish this, and in future all recommendations will take the form of special letters. The honorary treasurer, the Honourable H. E. Kater, M.L.C., in speaking on the financial side of the work, pointed out that five years ago they could easily have carried through the work of a hospital of this size on the income which was available in 1910—about £28,000—and it was interesting to compare the cost of maintenance in 1906, with a hospital of 295 occupied beds, as against the cost of the hospital last year, with 363 occupied beds. In 1906 the total expenditure was £26,429, with a cost per bed of £68 10s. 6d., while last year the expenditure was £35,076, an average cost per bed of £87 7s. Approximately, therefore, the cost of maintenance had increased nearly 33 per cent., while the hospital had only increased in size 23 per cent. The chief increase in this period had been as follows: Salaries and wages from £9,722 to £14,265; provisions from £4,835 to £6,851; and drugs and chemical and surgical appliances from £2,817 to £4,445. At the same time, in 1906 they had spent £4,600 on buildings, etc., as compared with only £2,600 last year. Their expenditure, therefore, except on new buildings, had shown a pretty general increase all round. The labour question had been the dominant factor in bringing about this result. During the year the Board had decided that instead of having a bank overdraft to meet its annual deficiencies, it would pay off the accumulated deficiency from the endowment fund. The effect, of course, would be to deplete the fund of part of its interest-earning power, but it would save the payment of bank interest. The report also dealt with the proposed extension of the hospital by buildings estimated to cost about £45,000. A new building—an extension of the nurses' home—has already been commenced.

THE NEW SOUTH WALES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

The annual meeting of the Branch was held on March 29th, in the hall of the new building of the Branch which was opened last year.

The retiring President, Dr. H. L. Maitland, in his address dwelt at length on the various aspects of the cancer question, and, drawing largely from his own extensive experience, again emphasized the importance of early recognition of the disease, and operation in the earliest—if possible, the "pre-cancerous," stage—as well as free removal of all the infected area. The annual report and balance sheet were taken as read. The report referred to the many matters which had engaged the attention of the Council and the Branch during the year. Special mention was made of the new premises which were completed and opened for use during the year 1911. The total cost for the land and the building was £30,300. This cost did not exceed the architect's estimate. Every room in the British Medical Association building, as it is now called, is let at a good rental, and there are such constant inquiries for further accommodation that the question has been asked whether the building may not be raised two stories. The great benefits of the building have been felt by the various organizations of the Branch, and last year during the session of the Australasian Medical Congress, the building was much used. The debenture holders have

received interest at the rate 5 per cent., after allowing for the payment of interest on the money on mortgage. The thanks of the members was tendered to Dr. W. H. Crago for his valuable services as manager of the building. Reference is also made to the fact that the *Australasian Medical Gazette* commenced to appear weekly instead of monthly from the beginning of the year 1912. Its value and influence as a newspaper and its usefulness as a means of communication between the members of the profession and the public are thereby greatly enhanced. Other matters referred to in the Council's report are the question of the federation of the Branches in Australasia and the constitution of the Federal Committee of the British Medical Association in Australasia, the post-graduate medical course at the university, and the organization of the affiliated local medical associations throughout the country.

In view of the increased expenses of the Branch, it was resolved that the annual subscription for metropolitan members be raised to 3 guineas per annum and for country members to 2½ guineas. The following were elected officers of the Branch: *President*, Dr. Clarence Read; *Vice-President*, Dr. Sydney Jamieson; *Members of the Council*, Drs. G. H. Abbott, G. Armstrong, F. Barrington, C. B. Blackburn, A. J. Brady, W. H. Crago, Gordon Craig, J. A. Dick, S. Gillies, H. C. Hinder, H. L. Maitland, J. Morton, F. A. Pockley, C. Parser, G. E. Rennie, F. P. Sandes, D. Thomas, R. H. Todd. Dr. R. H. Todd has been re-elected Secretary, Dr. W. H. Crago, Honorary Treasurer and Manager of the *Australasian Medical Gazette*, and Dr. G. E. Rennie, Editor of the *Australasian Medical Gazette*.

FEDERAL QUARANTINE.

Dr. Norris, the Director of Quarantine under the Federal Government, has just returned from a seven months' tour round the world, during which he made a special study of quarantine methods and procedures in different countries. He has furnished a report to the Minister for Customs, in which he outlines what he considers to be the actual requirements of the Quarantine Department throughout the Commonwealth. This involves for new buildings an expenditure of £187,000, to be spread over the next two or three years. He is very emphatic upon the unprotected condition of Australia against small-pox owing to the lack of compulsory vaccination and revaccination. He suggests the classification of chief ports and substations. By the equipment of a number of substations, vessels on board of which infectious diseases had occurred could, after removal of all evidence of infection, be allowed to continue the voyage in quarantine, and the detention at subsequent ports might be reduced or even cancelled. The chief ports would be Sydney, Melbourne, Brisbane, Fremantle, Albany, Adelaide and Hobart. At Sydney, the chief terminal port in Australia, the station will be capable of dealing with the largest vessels that visit Australia. A station capable of accommodating at least 600 people should be provided at Brisbane with temporary accommodation for another 400. By a rearrangement of quarantine procedure at Fremantle it would be practicable to avoid any large expenditure, as a station at Albany would be necessary in any case. At Adelaide and Hobart the stations need not be larger than to provide 100 beds. Substations were required at Broome, Darwin, Thursday Island, Townsville and Bunbury. Here provision should be made for accommodation of cases, equipment for cleaning, fumigation, and disinfection, and at Townsville and Bunbury limited detention accommodation. As Darwin was likely to become an important quarantine centre, he recommended the enforcement of vaccination and revaccination throughout the territory. He made the same recommendation as to Thursday Island and Broome, and urged that representations should be made to the State Governments on this question.

Although the Minister for Customs has provisionally approved of this report, and suggested placing a sum of money on the Estimates to meet Dr. Norris's requirements next year, strong exception has been taken in some quarters to the large amount of money it is proposed to expend, and as the matter must go before the Federal Parliament, it is quite possible that some modification in the scheme may be demanded.

VITAL STATISTICS.

The vital statistics for the metropolis for the month of April show that there were born 797 boys and 757 girls. This is the highest number of births for April since 1897, and 11 per cent. above the average for the previous five years. The mortality rate was high, being 20.2 per cent. above the average of the previous five years. The infantile mortality—86 per 1,000 births—is equal to the average of the previous five years. There were 43 deaths from consumption and 82 from heart disease.

New Zealand.

MEDICAL CONFERENCE AT TIMARU.

A conference of members of the British Medical Association in New Zealand was held on February 19th. The Deputy Mayor, accompanied by Dr. Loughman, the Honorary Secretary of the Branch, extended, on behalf of the citizens of Timaru, a very hearty welcome to the visitors, and expressed the hope that they would spend a pleasant and a profitable time there. The Mayor, who was unable to be present on account of his parliamentary duties, wrote expressing his regret that he was unable to welcome the first meeting of members of the British Medical Association that had been held in Timaru.

After the official welcome, Dr. H. V. Drew, President of the South Canterbury Branch, was formally introduced by Dr. Moore of Napier, and delivered his presidential address. After welcoming the visitors, he proceeded to review the vast progress that had been made in medicine and surgery during recent years. He thought that the future would see the medical profession doing even more comprehensively useful work, and that the keynote of their efforts would be that prevention was better than cure. Taking consumption as an illustration, he said it was to the children they must look if they seriously hoped to eradicate this disease. The children must be adequately fed and housed and their physical and mental requirements attended to. If this were properly done, they would be in a condition to resist contracting the disease, and would be far more capable of overcoming it if attacked. In the older lands the waste of child life was positively criminal, and most of it was preventable. In the midst of vast wealth there were many thousands of children on the verge of starvation, and he expressed the opinion that if some scheme was not evolved to deal with this travesty of civilization it would evolve one of its own, perhaps more comprehensive and radical than is required. Every one of these children should have three good meals a day, clean homes, and a month's holiday in the country every year, and he thought it would pay the nation to do it, as they were its most valuable asset. The point he wished to drive home was that, in spite of the vast wealth of the nation, health, which could only be preserved to people who were closely packed in the cities by the free and intelligent use of money, was lost, because the money was wasted when the disease was beyond cure. Even in New Zealand one often met children squinting badly, breathing badly, walking badly, talking badly, and looking sickly. For though imperfect medical supervision was mainly responsible, this was not altogether the fault of the medical profession, for there was at present no scheme for the medical inspection of children. After referring to the increase in the prevalence of cancer and to the delay of patients in coming for treatment, to insanity and the premature decay of the teeth, Dr. Drew went on to speak of the alcohol question. He said it seemed to him a mistake to deal with it by attempting to abolish it from the country. There seemed to be a natural craving in the human race for alcohol, and he believed that every native race had some equivalent for the wine of the country. If the manufacture and use of alcohol could be stopped, it was, he thought, very doubtful whether some pernicious drug would not take its place. The method advocated by some of attempting to deal with this subject by prohibiting healthy people, for the sake of attempting to reclaim a few degenerates, who would from a radical standpoint be far better out of the way, seemed to him not worthy of a free and self-respecting people. That was another attempt to begin at the wrong end,

which must result in disaster: for with prohibition would come laxity in training the children, and the resisting power of the individual as the result of deficient moral training would undoubtedly be weakened. The President then said a few words on quackery, alluding to the value of the analyses made of many of the best known proprietary medicines on behalf of the British Medical Association. Referring to the British Insurance Act, he said its object was apparently to confer distinct benefits on the public at the expense of the medical profession. By attempting to compel treatment by the medical profession at a starvation rate, no good could be done to the recipients, and a great deal of harm would be inflicted on the profession. The profession was passing through a transitional stage. The ultimate goal would possibly be something in the nature of a State service. This would, no doubt, have its disadvantages, but he thought would have the effect of abolishing many of the disadvantages and objectionable methods which seemed to be inseparable from present-day practice. The president concluded with some words of general advice. He said, first, it was the duty of every grown person to be medically overhauled once a year at least, and this applied to teeth also. Secondly, the mentally unfit must be controlled, and also the feeble-minded and criminal: the detail of this must be thoroughly worked out and radically applied. Thirdly, all schools, public and private, should be placed under thorough medical supervision and frequently and thoroughly cleansed. He thought it would be a good plan to teach in the open air when weather permitted. Fourthly, no alcohol in any form should be used by people under 21. By that time no habit would be formed, and the moral resisting power of the individual would come into play. He thought the existing laws, if properly enforced, were quite sufficient to control the use of alcohol.

Dr. Barnett (Auckland) in proposing a hearty vote of thanks to Dr. Drew for his address, said he was pleased to note that the president laid stress on the preventive aspects of medical treatment. Every year fewer cases of tuberculosis were reported, though they were not so successful in regard to cancer, which was still very prevalent. In 1910 (the last year for which statistics were published) there were more deaths in New Zealand from cancer than from all the tuberculous complaints put together.

Victoria.

MEDICAL INSPECTION OF SCHOOL CHILDREN.

THE systematic medical inspection of school children in Victoria was first undertaken in 1910, when Dr. Harvey Sutton, Dr. Mary Booth, and Dr. Jane S. Grieg were appointed to organize the work. There are about 200,000 children attending the State schools of the Colony, and over 80 per cent. of this number are in daily attendance. The number who attend the schools in Melbourne and other towns is rather more than one half the total number of school children. The medical officers at the outset reported upon the teaching of hygiene in the schools, the condition of the school buildings, the use of playgrounds, the utility of open-air classes, sight testing, the medical examination of the children, the treatment of certain diseases revealed by inspection, and upon the problem of the mentally defective. They recommend in their first report that universal and systematic courses of hygiene should be instituted in the schools, and that medical examination and treatment of certain classes of defects and disease, such as dental, should be undertaken by the State. For the inspection of the children in the urban areas the suggestion was made that six full-time medical officers should be appointed at salaries of £400 per annum, and that in the rural districts the local medical practitioners should carry out the inspections, being paid at the rate of £50 per annum for attending a school and examining children once a week during a school session of three hours.

In his report on the work of his department for the year 1909–1910 the Minister of Public Instruction refers to the need which exists for an investigation of the health of the children attending State schools as shown by the results obtained during six months by the three medical officers appointed. The large amount of hitherto unsuspected defects, he points out, has clearly demonstrated the necessity of possessing an agency for its detection, which is the essential preliminary to the treatment and removal of the evils.

The detailed arrangement for inspection follow very much on the lines of those in this country, with such necessary deviations as the exigencies of a sparsely populated country necessitate.

India.

[FROM OUR SPECIAL CORRESPONDENT.]

ANTITUBERCULOSIS CAMPAIGN IN THE UNITED PROVINCES.

As previously announced, the King Edward Memorial funds are being utilized in the United Provinces, Madras and Burma, in providing sanatoriums for the treatment of phthisis. The first-mentioned province has already made preparations for starting this important work in the present year. In December last a number of roomy tents were purchased at a cheap rate from the Delhi durbar, and have been used as open-air shelters at ten specially selected hospital centres for tuberculous patients: they will be closely associated with the sanatorium to be erected in the Kamaon Hills, to which the patients will be sent in the hot weather, when they cannot well be treated in the plains on account of the excessive heat, high winds, and dust. A very good site for the sanatorium has been obtained through the generosity of His Highness the Nawab of Rampur, who has presented for the purpose an estate of 135 acres on the cart road to Ranikot, with a south aspect and well protected from the north. Cottages are being erected of a class suitable for Indian patients of different degrees, while a large bungalow is being added to and has already been provided with a spacious veranda enclosed by glass, parts of which receive sunlight during all times of the day. Major Cochrane, I.M.S., who has carefully studied the whole question of the treatment of tubercle in Europe, has been appointed superintendent. A limited number of patients will be admitted during the present year, and in 1913 the institution will be fully open. The cold is not severe in the winter in the place selected, while those who do not care to face it can be sent down to one of the hospital centres in the plains, where the conditions are ideal during the cold season. It will doubtless take time to educate the natives of India up to adopting the open-air treatment, as they commonly shut up their phthisis patients in a small, badly ventilated room; but a beginning is being made on the right lines, and something at last is being done to deal with one of the commonest and most fatal diseases of hot as well as of temperate climates.

Bombay and the Punjab are also being provided with sanatoriums for the treatment of phthisis, and Bengal —where the great importance of the disease was first recognized and the necessity of providing a sanatorium on modern lines urged on the Government by a resolution of the medical section of the Asiatic Society—alone has taken no steps in the matter, although nowhere is the need so urgent as in Calcutta. Unfortunately the suggestion put forward by the medical profession that the Bengal King Edward Memorial funds should be used for providing a sanatorium was opposed by the then Lieutenant-Governor, but now that in Lord Carmichael the province possesses a Governor with scientific proclivities it is to be hoped that this blot on Bengal will soon be removed.

THE American Medico-Psychological Association at its annual meeting adopted a resolution urging Congress to provide for the mental examination of arriving immigrants by physicians in the United States Public Health and Marine Hospital Service, trained in the diagnosis of insanity and mental defect, and to provide for adequate facilities for the detention and examination of immigrants in whom insanity or mental defect is suspected and for the safe and humane return to their homes of those whom it is necessary to exclude. It also adopted a resolution to the effect that aliens who had been permitted entrance to the country and became insane, or showed any mental defect within three years after landing, should be deported unless it should be shown conclusively that such insanity or mental defect had resulted from causes arising since they landed.

Correspondence.

ART AND THE ANNUAL MEETING IN LIVERPOOL.

SIR,—With regard to the coming meeting of the Association in Liverpool, may I suggest that it would be a great advantage and pleasure to many medical men interested in art if arrangements could be made by which during that week members could have access to private collections? I believe there are in Liverpool and neighbourhood several fine collections of pictures and prints, and I have no doubt whatever that the possessors of such, if approached, would be pleased to show them to medical men who are specially interested. If this could be arranged it would give an added interest (for several visitors) to the meeting.—I am, etc.,

Halifax, June 24th. D. J. MACAULAY, M.D.

THE ACTION OF SALVARSAN.

SIR,—The article by Mr. McDonagh in the JOURNAL of June 8th will come as a surprise to most workers in this subject. Just when we are buoyed up with the hope that at last we have got a satisfactory cure for syphilis, and when many of us, from an experience of sufficient cases to be of value, have formed the opinion that two injections of salvarsan are usually sufficient to lead to cure (as far as can be judged by the absence of clinical manifestations and of the Wasserman reaction), we are confronted with the statement that from three to seven injections are necessary to cure most cases, and that also we are to give a provocative injection in cases in which there is no evidence of infection in the blood, in order to induce such reaction. The necessity of repeatedly testing the blood of such patients after treatment is also urged upon us. The work entailed by such numerous examinations is so considerable that I venture to think it would necessitate an army of expert "Wassermannites" to carry it out, not to mention the enormous expense that private patients would be put to, and the impossibility of efficiently treating hospital patients, who form, indeed, the most important factor in maintaining and disseminating the disease.

From my own experience with some hundreds of cases, including all phases of infection, under myself and my colleagues, both in hospital and in private practice, I venture to think that Mr. McDonagh has somewhat exaggerated the matter. Our custom is to inject two doses at intervals of a fortnight, and to test the blood after intervals of a month, three months, six months, and a year; and although sometimes—rarely, it is true—the disappearance of the reaction is delayed for several months, usually it disappears within one month. In practically all the cases, with only one or two exceptions, the reaction has remained negative, and there are no manifestations of the disease. Certainly we have only had the drug at our disposal for eighteen months, but many Continental observers have been noting cases for a much longer period than this, with similar results.

As I hope shortly to summarize these cases and the results of many thousands of Wassermann reactions, I need not encroach further on your space, nor would I have written at this juncture were it not for the fact that I think it is of the utmost importance that such questionable conclusions should be immediately discussed by the numerous workers in this field. This is essential, not only for our own satisfaction, but for the satisfaction of that large number of patients who up to the present have been convinced that they have been permanently cured by salvarsan.

I have said nothing about the dangers of injections of salvarsan, as I think that in competent hands these are few, but if the line of treatment laid down by Mr. McDonagh is to become fashionable, then I can foresee a large increase in the list of accidents resulting from it.

In conclusion, I may add that I have no evidence amongst my cases of any such results as described from a provocative injection.—I am, etc.,

London, W., June 18th. JULIUS BERNSTEIN.

THE ARRIS AND GALE LECTURES ON SHOCK.

SIR,—I have been hoping that some of high authority would have commented on these lectures (BRITISH MEDICAL JOURNAL, April 27th–May 18th). However, no criticism has, so far, appeared, so I offer one which at least is honest, as the authors desire.

It has been said that "words shoot back upon the understanding of the wisest, and mightily entangle and pervert the judgement." The word "shock" has always been a guilty one. Although the authors' researches have made clear much hitherto obscure, one finds their use of it confusing; for it is not till near the end that their conception of shock is defined, and then it does not accord with the customary meaning of the word. If shock be "reaction of the central nervous system to exaggerated or abnormal afferent impulses," it is correct no doubt (indeed, it becomes a truism) to say that "surgical shock is present in every operation, and commences with the skin incision." But, rightly or wrongly, "shock" *is* generally understood outside the laboratory to "express a state or condition" easier described than defined, but with certain classical features, and is not applied when these features are absent, although disturbances may be going on which if increased or continued will produce them. A man is not described as "intoxicated" when he has drunk one glass of wine because a dozen glasses would make him so! Even the writers sometimes use the word in their own extended manner, and sometimes in the usual restricted one.

Involved with the above is the use of another word, for reaction to afferent impulses can be called "stimulation" or "shock," according to the elasticity of the latter term. By applying different words to different proceedings, and even to the same proceeding under different circumstances, an impression is given that good is done at one time and harm at another, whereas charts indicate similar effects.

Changes in the estimated blood pressure are so easily brought about, depend upon so many factors acting in various combinations, and need such skilful interpretation that one cannot help doubting whether they (any more than variations in temperature) are necessarily, and always, of "vast importance as a symptom or sign of infinitely grave disturbance to the physiology of the subject." One wishes that in every case fuller details could have been given, especially as regards the presence or absence of "classical symptoms" of shock. During operations vasomotor variations may often be detected (even by feeling the pulse) which do not prove of appreciable pathological significance. The charts, indeed, show considerable alterations in blood pressure from such proceedings as "washing up," "application of hot saline," during which, and during many of those set up by surgical action, it may be inferred that there was no shock in the ordinary sense of the word.

The onset of serious symptoms, besides depending on the force of the impulses, and the state of the medullary centre and its connexions, probably depends largely on the state of the heart—not only its musculature, but also its innervation, of which the responsiveness to stimuli is so variable, even in apparently normal individuals. This point may be suggested for future investigation.

The attitude of the authors to general anaesthetics seems hardly judicial. Diagram 1 must be described as misleading. It indicates that a general anaesthetic merely abolishes consciousness and cuts off impulses from the highest cerebral centres, leaving out all its effects on nervous structures in general, which are important, although they may fall short of paralysis. Further on there are sweeping assertions about anaesthetics (? all kinds of anaesthetics), for which little supporting evidence is adduced. No doubt time and circumstance limited this part of the work, but, such being the case, it would have been better if these assertions had been omitted.

It may be asked, for example, why, if general anaesthetics are to be "classed in their effects with toxaemias," the charts of some patients profoundly under chloroform show no variations attributed to profound toxaemia, as do those in whom there was toxaemia from sepsis.

Then, in dealing with prevention, the value of general anaesthesia in eliminating mental shock does not seem to be fully realized. This may more than counterbalance

disadvantages. For instance, during or after an operation under spinal analgesia alone, mental shock may be very serious. By combination with a light general anaesthesia, as I have remarked elsewhere (*Anaesthesia and Analgesia*, p. 229), the advantages of both may be secured. Morphine and other sedatives are not always admissible or effective in controlling emotion.

I cannot agree that in cases of "respiratory failure due to the anaesthetic, the prompt performance of artificial respiration and the administration of cardiac stimulants are practically always successful." With any degree of respiratory obstruction or failure, there is ensuing cardiac dilatation, from which death may occur, even if the direct effect of the anaesthetic on the cardio-vascular mechanism be disregarded. Children can usually be rescued without much difficulty from perilous conditions, but this is on account of the absence of degenerative changes which are present in so many adults.

As regards treatment when death is impending, we should, I believe, trust mainly to artificial respiration (with ether and oxygen in some cases), intravenous infusion when there has been much haemorrhage, and massage of the heart. It is difficult to understand how drugs can produce an effect when absorption and circulation are almost at a standstill, and (supposing this were possible) I believe I am right in saying that there is no drug whose mode of action is precisely known, or in regard to which (so far as it is known) there cannot be raised objections. It is questionable, too, whether peripheral stimuli, such as dilatation of the sphincter ani, may not do harm by causing depression as a net result, or exciting laryngeal spasm, or throwing sudden additional work on a heart not able to cope with it.

I need hardly add that I have studied these lectures with much interest, and that I appreciate the coherence of the argument and the painstaking work by which it is sustained. I only wish that it had been found possible to approach the subject in a fuller degree from the standpoint of the practical anaesthetist, as well as from that of the practical surgeon.—I am, etc.,

London, S.W., June 8th. J. D. MORTIMER.

TINCTURE OF DIGITALIS: ITS POTENCY.

SIR,—In the BRITISH MEDICAL JOURNAL of April 20th, 1912, there appeared an original article, entitled "Tincture of Digitalis: Its Potency and Keeping Properties," by Dr. Alexander Goodall, which was based upon the results of the physiological testing of galenical preparations of digitalis at the Physiological Laboratory, Surgeons' Hall, Edinburgh.

It is not my intention to say anything in regard to the keeping properties, but in regard to the question of the alleged variability in the potency of different samples of tincture of digitalis may I be permitted to make a few remarks? During the last few years I have been associated with Dr. James Mackenzie and Professor Cushny in conducting, at the Mount Vernon Hospital for Diseases of the Chest, a series of investigations dealing in detail with the action of digitalis and some of its allies on the human heart. In the first instance we limited our observations on the *B.P.* tincture of digitalis. Professor Cushny experimentally tested the relative efficacy of a fair number of the different samples which we used, and these samples were not all obtained from the same firm of chemists. He found a remarkable uniformity in these. The difference did not amount in any case to 10 per cent. I have no doubt that Dr. Goodall's observations were made with the scientific accuracy which we are accustomed to expect in connexion with any work carried on at the Physiological Laboratory, Surgeons' Hall, Edinburgh. But I can only point out what has been our experience at Mount Vernon.

Undoubtedly the ideal is to use standardized digitalis. But, failing this, the danger is that the practitioner, thinking that there is a great variability in the potency of different samples of the tincture, should resort to the use of the alleged active principles. Now, it cannot be too strongly insisted that there is no pharmacological or clinical evidence that these alleged active principles are either pure substances or that different samples of them are uniform in potency, and therefore there is no reason to belive that they are more reliable than, and possibly they are not so reliable as, different samples of the tincture.—I am, etc.,

London, W., June 19th. FREDERICK W. PRICE.

APPENDICITIS—AND QUICKNESS.

SIR,—In reply to Mr. Paterson, I should like, first, to say that there is no difference in the allocation of appendicitis cases to my wards and to those of my colleagues. We each have a "receiving day" once a week.

I cannot agree with Mr. Paterson's definition of "immediate operation" in acute appendicitis. It is not a good one, nor a safe one to follow, as the attack may have existed for one or more days before the patient is seen and the diagnosis made, thus allowing of changes taking place that make an operation more risky than the adoption of the expectant treatment. I mentioned twelve hours as a limitation period for immediate operation, because within that time nearly all cases—save those of direct perforation into the general peritoneal cavity, with its typical sequelae that call for immediate surgical treatment as much as does the perforated gastric ulcer—there is probably not time for those pathological changes to take place that, if they do arise, are in my opinion a bar to operation inasmuch as they add to its risk, while if not interfered with they will most certainly cut short the attack, especially if supported by proper dietetic and other treatment. I can assure Mr. Paterson my plastic adhesions are not "a hoary and venerable superstition," but a reality this side of the Tweed.

It is, I consider, very germane to the matter under discussion to know the proportion of deaths in the 1,500 quoted by Mr. Paterson in his previous letter, because I hold that a large number of these annual deaths are due to operation, and would probably not have occurred had the treatment I advocate in my lecture been followed. Mr. Paterson admits that every postponed operation is an operation "at the wrong time." This being so, surely it should not be performed—the very point I am contending for.

Put briefly, the position of matters is this. The "interval operation" in appendicitis is in all hands one in which the mortality is practically *nil*, so that it is the condition under which we should operate, if possible. This being so, can or cannot the acute cases be brought to this interval stage by dietetic and medicinal treatment without undue risk? I say the majority can, and that there are only a certain proportion, small in number and easily recognizable, that cannot be so dealt with and need immediate operation. In support of this view I give my hospital cases for fourteen years. On the other hand, it is held that such a procedure is "a most dangerous guide in the surgery of the appendix" (as a previous correspondent puts it), a view strongly supported by Mr. Paterson. I am quite satisfied that this opinion is an incorrect one, and that it is harmful in that it disparages therapeutic measures that are of the greatest use in subduing inflammation of the appendix, and has created an atmosphere of panic about acute appendicitis that is not warranted and has been accompanied by anything but satisfactory results.—I am, etc.,

Glasgow, June 23rd. GEORGE THOMAS BEATSON.

SIR,—Not long ago I happened to visit on behalf of an insurance company a surgeon to a hospital in a large town who had broken his ankle whilst in camp.

Chatting with me he told me that he had given up operating on his appendicitis cases, "and although his son had told him he would lose all his cases he actually found that they all recovered."

I was present at the private hospital of a surgeon, who has a well deserved reputation as an abdominal specialist, when he was operating for a badly flexed uterus. On opening the abdomen he failed to see the appendix, which caused him to remark to me that he had often met with cases in which the appendix was missing owing to it having sloughed off. It seems a fair inference from this that even a sloughing appendix, horrible as it is, does not necessarily mean death, and that Nature has a *modus curandi* even for this.

We have had many tables of statistics from surgeons showing their varying percentages of mortality after surgical treatment, but it would be much more interesting to obtain from the registrar of a district a list of those dead from the disease, and to find out what percentage were surgically treated.

History is always instructive, and when we think of the excessive zeal of our predecessors who bled their patients,

and each other, for fevers, etc., extracting from the body the very means by which Nature was elaborating antitoxins and sending regiments of leucocytes to exterminate the invading bacilli, and to repair the damage they had done, it behoves us to be cautious. Nowadays we are very humbly bending the knee to Nature, and adopting her methods in infectious and other diseases. Appendicitis must very often be due to faecal block at the mouth or in the lumen of the appendix, and the immediate result of this must be that the pressure of the increasing secretion behind the obstruction must naturally tend to clear a path, and if, in place of the faecal mass so often blocking and filling the ascending colon, we can substitute a softening and solvent fluid by means of a saline aperient the obstruction will break down and be expelled. There can be little doubt that this often happens naturally, and that diarrhoea is a useful aid to spontaneous recovery.

I know one practitioner who has for years treated all his appendicitis cases with ½ or 1 oz. doses of magnesium sulphate every second day or so, and he finds that the temperature tends to fall after every evacuation, and the patient is convalescent in a week or ten days at most—a great contrast to the tedious and slow recovery after surgical treatment. He also administers cannabis indica to free the patient from anxiety and pain, and to keep him at rest. Since adopting this treatment he has never had a a death, although he has treated many dozens of cases. Perhaps his luck may turn some day; perhaps not.

I should like to add my modest protest against speaking of the appendix in a disrespectful way, as though it were a dangerous and useless member of the body corporate. It is obviously placed at the bottom of the ascending colon to lubricate the faecal masses, and to facilitate their climb up a very stiff ascent.—I am, etc.,

Sunderland, June 17th. THOMAS A. WATSON.

THE AUTOINOCULATION TEST IN TUBERCULOSIS.

SIR,—Dr. J. L. Rentoul asks (p. 1396) for a more detailed explanation of the method described in my paper of June 1st. He will, I think, find all that he requires in Wright's *Studies in Immunization* (Constable, 1909), and more particularly in the original paper which appears on page 377 of that work, and is entitled "Studies in Connection with Therapeutic Immunization," by Wright, Douglas Freeman, Wells, Fleming, and others. This was published in the *Lancet* on November 2nd, 1907.

In regard to the lung testing apparatus of Dr. Willcox, a description has not as yet been published, but I would be glad to give the required information.

Dr. Rentoul also inquires as to the nature of a negative phase, and whether it can be recognized clinically. An inoculation of tuberculin in a tuberculous subject is frequently, possibly always, followed by a negative phase, or period of lowered resistance, and if this is at all excessive, it is plainly recognizable clinically by a rise of temperature, drowsiness, and malaise, or some one or other of these symptoms. Their appearance would be a signal for caution, and since they are fairly constant the physician can well be guided by them when treating a case of phthisis. Frequent observations of the opsonic index during treatment of a consumptive by tuberculin is too arduous to be practicable, save in a very few cases. Therefore, for the general public, the value of a daily opsonic chart for guidance is of purely academic interest; but Dr. Rentoul will agree, I feel sure, that if it is possible, by the use of the opsonic method, to diagnose or exclude tuberculosis with certainty, and if it is also possible to decide authoritatively when the disease is extinct, and when further treatment is unnecessary, then any trouble to attain that end is worth while.

Turning from Dr. Rentoul's courteous inquiries to the letter of Dr. Charles Russ—surely the latter is written with more heat than the occasion warrants, unless it be that Dr. Russ has fancied in the words "carping criticisms" (not "critics," as he wrongly quotes) an allusion to himself, and regards the phrase as a "slur" on his own recently published work. If this should be the fact I can assure him that he is wrong, as my paper was read several months before the meeting of the Royal Society of Medicine (Pathological Section) at which Dr. Russ delivered his contribution, and at which I had the honour of becoming acquainted with his name.

Dr. Russ contends that the diagnosis of tuberculous disease by means of measurements of the opsonic index is impossible, and he recommends to my notice certain adverse criticisms, published several years ago. I am already acquainted with them, and I have learnt much from their perusal in managing the opsonic technique, especially in regard to sources of error. If, however, in Dr. Russ's opinion, I have no right to ignore these, by what conceivable sophistry does he himself ignore the many and convincing papers upholding the reliability of the opsonic test? May I particularly call Dr. Russ's attention to a recent publication by Hayden and Morgan (*Proceedings of the Royal Society of Medicine*, 1911, vol. lxxxiv), if he has not already studied it, where conclusions are reached which explain and correct the cause of certain observed inconsistencies in opsonic determinations. In support of his contention he adduces his own work on the varying phagocytosis of staphylococci in different samples of the same serum, and also takes me to task for not having expressed my opsonic faith on the occasion of his reading the paper. I was interested in his experiments, but certainly I did not gather that his paper was intended to prove that the opsonic method is useless, and this, I now gather from his letter, is Dr. Russ's more matured opinion. Surely if a method is useless the best thing to do is to scrap it at once and not waste further time on it. In all innocency I understood him to be making an honest effort to improve the method, and on perusing his paper I still get that impression. There did not therefore seem any urgent necessity for my speaking when I was about to occupy the time of the members by reading a paper on a different subject.

In any case, to argue that the same error as may occur with live staphylococci must necessarily be repeated when counting dead tubercle bacilli suspended in an emulsion containing much bacillary detritus (*cf.* paper by Hayden and Morgan *supra*) is certainly rather dangerous.

Dr. Russ suggests very strongly that I should test the same serum against itself for tubercle, and thus put in some hard work in order to arouse my critical faculty. For five years it has been my practice to do so, as it is that of all genuine workers who would rely on their results. In the case of the tuberculo-opsonic index, I am unable to endorse Dr. Russ's finding that the same serum will give widely differing results under equal conditions. As a matter of fact, many of the series of bloods examined for the purpose of the tests described in my paper went through the whole process of opsonic estimation twice, and on several occasions three times (in order to test the value of modifications in technique), and that, not by myself alone, but simultaneously by another worker in my laboratory, and it was an unusual occurrence to find discrepancy between the several results.

The value of the method of diagnosis which I am advocating must be judged by facts, not by opinions. The tests I published occurred in fact, and the after-histories, confirmatory as they so far have been, are capable of verification. Here there is proof that in these tests the opsonic index gave reliable results, and Dr. Russ's statement that I ignore the fact- (meaning, of course, opinion)—that the index is of no value, seems to transgress the bounds of fair criticism.

Medical men who have much to do with consumptives will realize what it means to be able to diagnose phthisis at the earliest stage, with a degree of positiveness amounting almost to absolute certainty, and surely it is self-evident that if, in a position of responsibility, one has the temerity to tell a patient that he is free from tuberculous trouble, and that no treatment whatsoever is necessary, then one must have unbounded confidence in the test employed, yet Dr. Russ criticizes my "evident exhilaration" at the facility by which I think tuberculosis can be diagnosed, and he suggests that not even 6,000 tests like mine (where, judged by results, the error is reduced almost to vanishing point) would be of the smallest value!—I am, etc.,

Yelverton, June 17th. H. WARREN CROWE.

MILK—BOILED AND UNBOILED.

SIR,—In the paper in the JOURNAL of April 27th on Dr. Lane-Claypon's report it is stated that infantile scurvy is exceedingly rare, and that with few exceptions, it occurs only in those children who have been fed upon milk which

has been boiled for a long time or sterilized. Two cases which I have seen just lately within a few days of one another raise a further question as to how far the bringing up of children on patent foods may be responsible for the disease. In both cases the children have been given foods differing in their constitution but resembling one another in the fact that they both contain a considerable quantity of starch. These foods had been mixed with milk which, supplied fresh morning and evening, had only just been "brought to the boil" and then removed from the fire. Much of the milk was consumed within a short time of it being received, whilst it was delivered directly after the milking of the cows. This is against the theory that scurvy might follow from the formation of some ingredient formed in the keeping or preparation, though it is possible that raising the milk to the boiling point, even for a short time, while insufficient to thoroughly sterilize it may be sufficient to destroy its feeble antiscorbutic properties.—I am, etc.,

J. Bruce-Bays, M.D., B.S.,
M.D.Midw. Lond.

Capetown, May 17th.

THE BRIGHTON EDUCATION COMMITTEE, MINUTE 97, AND THE BRITISH MEDICAL ASSOCIATION.

Sir,—As Secretary of the Brighton Division and one of its Representatives, I should be glad if you would allow me to make some observations on Dr. Ryle's letter.

Far more important than the question whether in the matter of a certain dispute the Association is right or wrong, is the constitutional question, "Are we to be loyal or disloyal to the policy of the Association?"

Now, Sir, I hold that every loyal member of the Association is bound by the principles laid down by the Representative Meeting, whether he is in agreement with them or not. Unless this is admitted as an axiom by every member of the Association, we might as well save ourselves the anxiety and trouble of holding Representative Meetings at all, and quietly accept such crumbs as the bounty of Chancellors of the Exchequer, Education Committees, and Boards of Guardians choose to throw us.

On every important principle of the Association, even on the "six cardinal points," there is a minority. It is the duty of that minority to accept loyally the decisions of the majority until it can obtain their rescission by constitutional means. If such minorities are to resign each time a difference of opinion occurs, there would in a very few years be no British Medical Association left.

The Brighton Division has asked Dr. Ryle to reconsider his resignation, and it is our hope that he will yet adopt the only proper course, namely, to use such constitutional means as are open to him and to every member of the Association to get this policy reversed, by moving to rescind the resolutions of the Brighton Division and Minute 97. I am prepared to combat every point in Dr. Ryle's letter, both in the Division meeting and in the Representative Meeting; but if these resolutions and this minute are rescinded, I shall loyally accept the decision of the majority, in spite of my personal opinion. Till then, I do not propose to enter into a controversy in the columns of the Journal, more especially as the personal question with regard to Dr. Hutt is in the hands of the Ethical Committee of the Division for consideration and report.

I regret deeply that such a valued personal friend as Dr. Ryle should feel it his duty to rush out into the wilderness and wail. I cannot help feeling that it is from a feeling of modesty that he so under-rates his influence in the Division that it does not seem to him worth while to attempt to alter its decisions. Unless he or some other member takes the course I have indicated, the policy of the Division and the Association will most certainly be carried out without regard to the feelings of individuals or classes of individuals.—I am, etc.,

C. H. Benham.

Brighton, June 25rd.

THE FUTURE OF GENERAL PRACTICE.

Sir,—At the risk of being tiresome, I should like to put my attitude to this question as briefly as possible. Our highest ethic as a profession is the elimination of disease. In proportion as we fulfil that so will we rise above the common herd.

The State recognizes that its wealth depends on the wealth of its components or individuals, and their wealth depends again on their individual health. It is, therefore, the paramount duty of the State to neglect nothing which makes for the health of the individual. We as the class best fitted to deal with disease are naturally called on by the State, and while we are quite right in insisting on proper hire for our labour, we dare not refuse our faithful service. We must evolve to meet altered circumstances or perish.

The day is coming when all or nearly all disease will be found to be microbic in origin. The elimination of the microbe is the fulfilment of our ethic. Medicine is steadily tending to be more and more preventive, less and less curative.

The State will not halt till every ailing individual has at his immediate call the best of environment, nursing, and doctoring. Hasten the day!—I am, etc.,

James Cook, M.B., Ch.B.

Mainsriddle, nr. Dumfries, June 1st.

THE POLLUTION OF SWIMMING BATHS.

Sir,—The admirable results which have been obtained by the use of ozone in aquaria point to the organization of the water as the best method of treatment.

A rotatory pump could easily be arranged, which would keep the water continually circulating through the organizing tower.—I am, etc.,

Leonard Hill.

London, E., June 24th.

FORCIBLE FEEDING.

Sir,—It occurs to us that it is about time the medical profession, in its corporate capacity, made a protest against the forcible feeding of suffragist and other prisoners.

Without doubt, the position of gaol surgeons is one of some delicacy and difficulty, for when a prisoner refuses to take her food the doctor is between the devil of prison routine and the deep sea of the prisoner's strength of will.

To us the duty of the gaol surgeon seems clear: To allow the patient to go without food, and, in the event of serious symptoms arising, to acquaint the superior authorities of the fact. Assuredly it is no part of a doctor's duty to feed forcibly and against her will anybody (except an unconscious person or, perhaps, a lunatic). It may be argued that the contrary is the case: That a doctor is justified in inflicting any bodily indignity, however repulsive, at the bidding of those in authority. This plea, in our opinion, should be vigorously opposed by members of our profession.—We are, etc.,

Ernest W. Jones,
Aldridge, Staffs.
Frank G. Layton,
Walsall.

June 25th.

OPERATION FOR GLAUCOMA.

Dr. Freeland Fergus (Glasgow) desires to correct two errors of date which he inadvertently made in his letter published in the Journal of June 22nd, p. 1456. For the date 1909 that of 1908 should be substituted, and in like manner 1909 for 1910.

Medico-Legal.

PROSECUTION UNDER THE MEDICAL ACTS.

The *Bristol Times and Mirror* of June 20th contains the report of a case heard before the magistrates on the previous day.

Fortunato Vigna, of 292, Christchurch Road, Boscombe, Bournemouth, was required to answer to five summonses charging him that he, on various dates between the months of November, 1911, and April, 1912, contravened the Medical Acts. The terms of the summonses were as follows:

"That he, at Brigstocke Road, Bristol, not then being a registered medical practitioner within the meaning of the Medical Act, 1858, and the Medical Act, 1886, and the Acts amending the same, and not being a person recognized by law as a physician, surgeon, licentiate in medicine and surgery, practitioner in medicine, or an apothecary, did unlawfully and falsely pretend to be, and take and use the name, title, and description of M.D. U.S.A., thereby implying that he was registered under the said Medical Acts of 1858 and 1886, and Acts amending the same, and that he was recognized by law as a physician and surgeon, licentiate in medicine and surgery, practitioner in medicine, and an apothecary, contrary to the Statute 21 and 22 Vict. cap. 90."

The information was laid by Detective-Sergeant John Hagley.

The prosecution was conducted by Mr. E. J. Watson, solicitor instructed by Messrs. Hempson, the solicitors to the Medical Defence Union; and Mr. H. R. Wansbrough was solicitor for the defence.

Mr. Watson, in stating the case to the magistrates, said the defendant some months ago took rooms at No. 20, Brigstocke Road, City Road, Bristol, and there set up an establishment which he called the "Cosmopolitan Medical Institute." He issued thousands of circulars, together with a list of names of people alleged to have been cured by him. Among the contents of the handbill were the following:

> "To help the working classes who cannot afford to pay our usual fee (two to six guineas) for a course of treatment, this private Medical Institute will give three months' medical attendance by our specialists free of charge to all patients booked at this institute from 6 till 9 evening. Medicine, 6d. and 1s., according to the nature of the disease. Chronic diseases only. If you have suffered for a long time with a disease of any kind, and ordinary doctors have declared it incurable, or if they have failed to cure you, try homoeopathy, and you will be sure of regaining your health, as this is the only system of treatment for the cure of the most inveterate diseases."

The names of a large number of people cured and of others still under treatment were given. Another document stated that this medical institute had founded a special staff of graduated medical doctors and assistants to attend patients at their homes entirely free of charge, except for those who could afford to pay 6d. or 1s. to cover part of the expense of medicine, and concluded with an appeal to the benevolent for voluntary contributions. Evidence was given with respect to Miss Frayling, whose death occurred while under the defendant's treatment. Her brother stated that having read the circulars the defendant visited his sister, and stated that she was suffering from indigestion, constipation, and chronic rheumatism. Vigna said his fee was 6 guineas for three months, and Mr. Frayling paid him 3 guineas before the interview terminated. Miss Parsons, of 292, Christchurch Road, Bournemouth, who gave evidence, stated that she delivered packages of medicine for the defendant and saw the patients. The defendant had been at 20, Brigstocke Road, Bristol, from November until February: he had had two other stations in Bristol. There were four girls, each of whom distributed 200 circulars a day at houses. Though the defendant resided at Bournemouth, he was in Bristol from Monday to Friday every week during last January. The powders supplied in Bristol were obtained from the head quarters at Bournemouth. She produced a diploma belonging to defendant.

Mr. Watson protested against the document being received; Mr. Wansbrough thought it undignified to take a technical objection. Mr. Watson replied that he had known of the document for some months, and if the matter were pressed he would challenge Mr. Wansbrough to prove that the document had any connexion with the defendant.

Miss Parsons, in cross-examination, stated that Miss Frayling was the only patient of the defendant's she recollected dying of the 200 patients on his books. Some patients were treated free.

Mr. A. E. Barker, coroner, produced the evidence taken at the inquest on Miss Frayling.

The defendant did not appear; he sent a letter dated from Bournemouth (June 18th) enclosing two medical certificates to the effect that he was suffering from atrophy of the optic nerve, should use his eyes as little as possible, and abstain from excitement and worry. The letter contained the following passage:

"I confess to have used wrongly the title "M.D., U.S.A.," instead of "M.D., New Jersey;" but this was done in bona fide, as there was no reason whatever on my side for not using M.D., New Jersey. What difference would it have made to me either one way or the other? I thought it was (not) necessary to add to the M.D. any indication that shows to the public that I was not on the register, and that I think it is the spirit of the Act of Parliament on this point. In fact, as soon as I heard from Mr. Barker, the coroner, that this was wrong, I did not use any more M.D., U.S.A., and Mr. Barker himself can prove so, as about one month or six weeks ago I signed a paper, which was sent to me through his officer Hagley, and I used M.D., New Jersey, and no more U.S.A. Therefore I apply to you, as judge of England, where only judges have full power, and they look deeply in the matter, to find out if there was intention to commit a crime or was done in bona fide."

Mr. Wansborough, in addressing the magistrates on behalf of the defendant, said that the woman on whom the inquest was held had been given up by a large number of doctors and died from cancer. He submitted that all the magistrates had to consider was whether the defendant used the letters M.D., U.S.A., and whether he was entitled to do so. Foreigners need not register in this country; they could practise so long as they did not deceive people. The defendant did not represent himself as being registered under the Acts—on the contrary he described what he was.

Mr. Watson, in reply, said that there was no such title as M.D., U.S.A.; a diploma might be granted by universities in cities, but not by a country.

The justices retired to consider their decision, and on their return the Chairman said: "We consider the onus of proof—that the defendant is qualified as described by himself"—rests with him; and as the clerk advises that the documentary evidence should come from its proper custody, we do not consider that the case for the prosecution has been answered, and we therefore decided to convict."

Mr. Watson observed that, as the magistrates had decided to convict, he desired to add that he had documents to prove that the defendant had been personating for fifteen years another man, who was in New Jersey, who actually held the titles of M.D., New Jersey, and of Turin.

Mr. Wansbrough raised an objection, and was proceeding to make it good, when

The magistrates said they would proceed as they had intended without giving heed to the final statement of Mr. Watson, and would impose a fine of £10 and £10 costs. They allowed a week for the money to be paid, at the request of Mr. Wansbrough.

LIABILITY OF EMPLOYER IN RESPECT OF INFECTION.

W. B. desires to know (1) what are the obligations of public bodies towards medical men who are employed in their institutions, and contract illness, such as infectious disease, in the performance of duties; (2) whether the Association has ever discussed the matter or taken any action therein.

"a" (1) It is doubtful whether any special obligation would exist unless the contract between the two parties (the medical man and the public body) directly provided for the point. This, we believe, is not usually the case. If, however, the position of the employee could be shown to be legally comparable to that of a servant, he would enjoy a certain measure of protection against the consequences of infectious disorders, even in default of any special reference to the matter in his contract. In other words, the public body would have to provide him with board and lodging, and his ordinary monetary remuneration up to the end of the agreed period of notice of termination of employment. If, again, he were in the sole employ of the public body, and his remuneration did not exceed a total of £250 per annum, the question whether he was entitled to claim compensation under the Workmen's Compensation Act might possibly arise. But the number of diseases which must necessarily be regarded as accidents under that Act or as otherwise entitling their subject to compensation is very limited, and the courts so far have shown no willingness to rule in any others. Nor would the Employers' Liability Act seem helpful in this direction, and the general chances of success may fairly well be gauged from relative cases reported in this and recent issues. Similarly, in the JOURNAL of May 4th (page 1050), will be found a case in which the Court of Appeal unanimously disallowed the claim of a hospital porter for compensation in respect of scarlet fever acquired by him during his work in the mortuary. (2) The subject would appear, so far, never to have been discussed, possibly because exposure to infection is a natural feature of a medical man's existence, possibly because such special risk as may be entailed by attendance at the institutions of public bodies may be regarded as one of the considerations on which the salary assigned is based.

WORKMEN'S COMPENSATION CASES.

Is Enteric Fever an Accident?

IN a case at Goole (May 8th), Judge Alexander dealt with an unusual claim for compensation. A claim for £150 was made by Mrs. Hannah Suddaby, of Caistor, Lincolnshire, against the Goole Joint Hospital Board, in respect of her daughter, Lily Suddaby, a probationer nurse, who died at the Goole Hospital in December last, after contracting enteric fever. It was stated that another nurse contracted the disease, but remained in the residential block, and during convalescence took her meals with the other nurses. Then Suddaby was taken ill, and was at once removed to the isolation block. It was contended for the Board that the case did not come under the Act. His Honour held that there was no "accident," and found for the respondents. He suggested that the Hospital Board should not apply for costs.

Bite from a Mosquito.

In a case at the Marylebone County Court (April 24th) the question was raised whether a bite from a mosquito was an accident within the meaning of the Workmen's Compensation Act "arising out of and in the course of the employment." The applicant was Cosmo Ducas, and the respondents the owners of the ss. *Cayo Bonito*. The case for Ducas was that he acted as ship's cook on the vessel, and that while he was making bread for the crew at Antilles, Cuba, he was bitten by a mosquito on the eyelid, with the result that he lost the sight of the left eye. Herbert Eason, senior ophthalmic surgeon Guy's Hospital, called by the respondents, said the blindness resulted from atrophy of the optic nerve, which, in his opinion, was entirely unconnected with any such injury as was suggested. Dr. Hewkley, called on behalf of the applicant, agreed that the blindness was the result of atrophy of the optic nerve, but considered that it was possibly traceable to the mosquito bite, which might cause suspension of the circulation of the optic

nerve. His Honour held that the loss of sight was due to the mosquito bite, but said he did not think applicant was exposed to special risks from mosquitos beyond those to which other people who had cause to go to the West Indies were subjected. He found in favour of the respondents.

Chimney-Sweep's Cancer.

In Rogers *v.* Westminster Colliery Company (April 24th) application was made for an award against the Westminster Colliery Company in respect of incapacity arising out of an industrial disease alleged to have been contracted through following the occupation of a collier.

The applicant was certified by Dr. J. E. H. Davies to be suffering from epithelioma, commonly known as chimney-sweep's cancer. In his opinion Rogers had contracted the disease through working as a collier. In cross-examination Dr. Davies said he had never met with epithelioma in a collier before, whilst Dr. Moss said that this was the second case in his experience so far as a collier was concerned. Dr. Moss further stated that the disease was not now common. It was peculiar to chimney-sweeps years ago, when they had to climb inside chimneys. In the present case the symptoms were quite consistent with the man's having contracted the disease in following his employment.

On behalf of the respondents, it was contended that there was no liability, because epithelioma, though extending in the schedule to the process of chimney sweeping, did not extend to the process of coal mining. The applicant's argument, in reply, was that all the diseases in the schedule could apply to any employment, whether the cause and effect were directly associated in the schedule or not.

His Honour thought the applicant was right in submitting that he was not excluded from the provisions of the Act merely because the disease was not contracted in the process of the work mentioned in the parallel column opposite to "Epithelioma." The burden of proof having shifted upon the applicant that this disease had been contracted by him as a miner, he (His Honour) did not think the evidence satisfied him that the applicant had discharged these circumstances. The award would be in favour of the respondents.

Obituary.

It is with great regret that the death is announced of Dr. C. G. Knight, of Chorlton-cum-Hardy, Manchester, as the result of a bicycle accident. On the evening of June 22nd Dr. Knight attended to his evening surgery at Chorlton-cum-Hardy, and then started to ride on his bicycle to Penistone, where he intended to stay with some relatives for the week-end. The ride involves the crossing of the Pennine range of hills with some sharp ascents and descents, and it was near the foot of one of these descents on the Yorkshire side of the hills that the accident occurred, two cyclists finding him lying unconscious on the road near his machine. The cyclists at once rode back to Penistone for assistance, and Dr. Wilson motored to the place, only to find that nothing could be done, as Dr. Knight had sustained a fatal injury to the head. The body was removed to Penistone, being identified from markings on his linen and from a slip of paper in a bag which he carried. Dr. Knight graduated at Belfast in 1906, and afterwards held the post of house surgeon at the Belfast Maternity Hospital. He settled in Manchester about two years ago in general practice, and during that time took an active interest in the work of the Manchester West Division of the British Medical Association, of which he was elected honorary secretary only a few weeks ago.

Deputy Surgeon-General Watson, M.D., I.M.S., died at his residence, The Lee, Corstorphine, near Edinburgh, on June 16th. This distinguished officer was born at Aberdeen in 1832, his father being the late Sheriff Substitute Watson of that city. He graduated at Aberdeen University, and he entered the service of the East India Company as assistant surgeon in 1853. He served through the Mutiny, and, while in charge of the staff station at Mynpori, distinguished himself in an engagement at Agra, where disaffection had broken out and a fight had taken place. The native troops were on the point of retreating with their guns, when, unfortunately, the English guns ceased firing owing to the ammunition having become exhausted. The mutineers, guessing what had happened, returned rapidly, and a heavy fire forced the English troops to retire on the fort. During the retreat a European soldier fell, severely wounded. General Watson observed the main position, and, as all conveyances for removing the sick were engaged at the time, realized that only immediate action would save the soldier's life. He retraced his steps alone, and, lifting the wounded man on his back, carried him safely to the fort. Watson's work in fighting cholera in India was well known. He returned to Scotland in 1883, and was closely identified with a number of scientific and philanthropic bodies in Edinburgh. He was for many years a member of the Botanical Society, and until a year or two ago regularly attended the meetings and excursions, and interested himself generally in the society's work. He was also a member of the Field Naturalist's Society, and acted as honorary secretary to the Hellenic Club for many years.

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

Degrees.

The following degrees have been conferred:

M.D.—E. A. Shaw (not A. E. Shaw as previously stated), A. E. Carsberg, F. Clayton, J. P. Buckley.
M.C.—L. J. Austin.
M.B., B.C.—H. M. M. Coombs.

The following candidates have been approved at the examinations indicated:

Second M.B., Part I (*Anatomy and Physiology*).—G. F. V. Anson, J. V. Bates, C. C. Brewis, E. L. Caldwell Smith, M. T. Clegg, S. J. Cowell, C. D. Day, J. Fairbrother, H. Gardiner Hill, H. L. Garson, G. L. Grant, G. Habgood, R. Hargreaves, W. Hillbrook, P. K. Liang, J. B. McFarland, C. R. Mackenzie, T. W. Melhuish, N. F. Norman, C. C. Okell, G. Y. Oliver, J. H. Parry, J. S. Pooley, R. A. W. Procter, W. Raffle, T. S. H. Shäfer, E. J. Selby, J. A. B. Snell, T. T. B. Watson.

Third M.B., Part II (*Old Regulations*), *Surgery, Midwifery and Medicine.*—W. B. Alcock, G. V. Bakewell, A. H. Birks, A. E. Bonny, J. S. Burn, E. G. S. Cane, J. W. H. Chun, J. W. Dew, G. E. Dyas, R. Ellis, J. Ellison, W. J. Fison, A. C. Gemmell, E. F. W. Grellier, J. B. Hance, J. M. Jarvie, W. L. Johnson, A. Kennedy, R. S. Kennedy, B. H. C. Lea-Wilson, J. R. Marrack, G. Moore, R. S. Morshead, W. M. Oakden, J. H. Pendered, W. S. Perrin, C. H. G. Philp, H. B. Pope, E. Rayner, C. E. Redman, F. H. Robbins, F. G. Rose, G. N. Stathers, C. R. Taylor, C. B. Wainright, H. K. Waller, Lt. McI. Weeks, J. B. A. Wignore, R. W. Willcocks, H. F. Wilson, J. Winterbotham, C. Worster-Drought, C. R. Wright.

Third M.B. (*New Regulations*), Part I, *Surgery and Midwifery.*—P. W. Ransom, T. H. G. Shore, H. A. Williams. Part II, *Medicine, Pathology, and Therapeutics.*—Ff. Roberts, T. H. G. Shore.

THE UNIVERSITY OF MANCHESTER.

The Chair of Forensic Medicine.

The Chair of Forensic Medicine and Toxicology at the Manchester University, rendered vacant by the death of Professor J. Dixon Mann, has been filled by the appointment of Dr. William Sellers, who is coroner for the Salford District of the county of Lancashire. Dr. Sellers is M.D.Lond. and D.P.H.Vict., and is also a barrister of the Middle Temple. From 1903 to 1912 he was Deputy Coroner for Manchester, and has been succeeded in that by Mr. Ernest Gibson, barrister. Dr. Sellers was Medical Officer of Health for Radcliffe between 1883 and 1900, when he gave up medical practice, and was called to the bar. He is the author of a *Handbook of Legal Medicine*, published in 1906.

TRINITY COLLEGE, DUBLIN.

The following candidates have been approved at the examinations indicated:

Final M.B., Ch.B., B.A.O. (*Part II., Surgery*).—*A. Chance, *J. H. Counihan, H. P. Harpur, H. G. Trayer, W. O. W. Ball, O. V. Burrows, E. C. Crichton, A. C. Redelinghuys, R. G. Flood, T. F. Breen, B. D. Crichton, R. H. C. Lyons, J. Colgan, R. E. Tottenham, R. Johnson, Marjorie Chapman, E. F. O'Connor, J. T. D. Higgins, P. Murphy, A. P. Draper, L. Shiel.

* Passed on high marks.

ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

The Licence in Midwifery has been conferred, after examination, on—

C. E. Bulteel, L.R.C.P., M.R.C.S.Eng. (1901).

CONJOINT BOARD IN IRELAND.

The following candidates have been approved at the examination indicated:

L.P.H.—E. G. S. Cane, S. Child, (*with Honours*); H. V. A. Gatchell, J. F. Gibbons, R. Lewis, H. O'H. H. May, A. M. Watts.

Medical News.

THE Local Government Board in Scotland has issued regulations under the Rag Flock Act, 1911, similar to those issued by the Local Government Board in England, and referred to in the JOURNAL of last week, p. 1443.

MR. GEORGE BAXTER, of Shepherd's Bush, whose will has recently been proved, bequeathed £1,000 each to the West London Hospital, Middlesex Hospital, Westminster Hospital, and the National Hospital, Queen Square.

A VACATION course of clinical medicine will be given at the Hôtel-Dieu, Paris, by a staff of hospital and laboratory teachers under the direction of Professor A. Gilbert in the autumn. Beginning on Monday, September 23rd, it will last a fortnight. Those attending it will have the opportunity of making individual examinations of the patients, of reading the prescriptions, and making themselves familiar with the handling of apparatus, and laboratory work. They will be allowed to keep preparations made by themselves. A certificate will be given at the end of the course. The fee is 100 f. (£4), payable at the Secrétariat de la Faculté (Guichet No. 3).

THE annual meeting and launch party of the Brussels Medical Graduates' Association will be held on Saturday, July 13th, 1912. The saloon launch *Empress of India* will start from Maidenhead at 12.30 p.m., returning about 8 o'clock. The launch is provided with a cabin and an awning, so that weather conditions are immaterial. There will be a piano on board. The train leaves Paddington at 11.15 a.m. for Taplow, which is the nearest station to Maidenhead Bridge. Railway tickets at reduced fare may be obtained from the Honorary Secretary. Tickets, 12s. 6d. each, to include launch, luncheon (not including wine), and tea, may be obtained from the Honorary Secretary, Dr. Arthur Haydon, 23, Henrietta Street, Cavendish Square, W. Early application for tickets is essential. All graduates of the University of Brussels will be welcome.

AT the annual dinner of the Medico-Legal Society on June 20th the toast to the society was moved by Sir Samuel Evans, President of the Probate and Divorce Division of the High Court, who congratulated the society on its existence, and showed that it fulfilled a useful part in the world. Recent events had proved that the medical profession, if it were properly organized, could take good care of itself, and he hoped there would be a satisfactory solution of questions which were at present exercising the minds of many of its members. The responsibility of medical men who appeared in the courts as witnesses was very great. There was, perhaps, a tendency among them to forget that their work on such occasions was not to advocate the views of either one side or the other, but to assist the court in determining the truth. When it was clear that they remembered this, very great weight was attached to their evidence. In recent years great advances in medicine, and especially surgery, had been made. Many of them were due to the work of the late Lord Lister, whose life, it seemed to him, had proved more useful to the nation than that of any individual produced by it during the last one hundred years or more. The toast was acknowledged by Sir John Tweedy, who said that, though the society was named "medico-legal," its membership included rather more lawyers than doctors. It dealt with subjects lying on the borderland between the work of both professions, and the discussion on the Food and Drugs Act at its last meeting was one of the most interesting debates to which he had ever listened. Many of the subjects commonly discussed were primarily of medical interest, and he had often been struck by the acumen shown by the legal members in seizing on the outstanding points. In dealing with many subjects the medical and legal members of the society exhibited like mental tendencies, but on others a difference was apparent between them. A case in point was the Workmen's Compensation Act, in regard to which the medical members showed a certain degree of scepticism, and the lawyers a like degree of credulity. The toast to the guests—who included Sir Thomas Barlow, President of the Royal College of Physicians; Sir J. Rickman Godlee, President of the Royal College of Surgeons; Sir Henry Morris, President of the Royal Society of Medicine; Sir David Ferrier, and Dr. Mitchell Bruce—was proposed by Earl Russell. The evening concluded with a toast to the President, which was proposed by Sir Rickman Godlee. In acknowledging it Sir John Tweedy expressed the indebtness of the society to its executive officers—namely, the honorary treasurer, Mr. Walter Schröder, and the honorary secretaries, Mr. Roland Burrows, M.A., LL.D., and Mr. J. Howell Evans, M.A., F.R.C.S.

Letters, Notes, and Answers.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone unless the contrary be stated.*

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, London, W.C.; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Office, 429, Strand, London, W.C.

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AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):—
2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

X. Y. Z. desires to hear of a home or sanatorium in the country or seaside suitable for a medical man, unable to pay more than 2 guineas a week, who is suffering from enlarged spleen and persistent diarrhœa, with slight ascites.

MIDLOTHIAN asks if any reader can recommend any hydro or spa—preferably in Scotland—suitable for a male patient of middle life suffering from symptoms pointing to alimentary glycosuria. The patient is otherwise in good health, and the amount of sugar passed is not more than ½ per cent. He also asks if drug treatment is of any value for the condition.

ARTHRITIS asks for advice as to the treatment of a case of traumatic arthritis of the metatarso-phalangeal joint of over two years' duration, apart from operation. Rest, iodine, and ointments, etc., have been tried in vain. Would electrical light or *x*-ray treatment be likely to prove beneficial?

DELTA asks for suggestions short of washing out the bladder in the following case. A patient has tuberculous disease of the bladder, with great pain and frequency of micturition. His testes were removed five years ago for tuberculous disease. He has been treated with hyoscyamus and buchu with no success as regards relief of pain or frequency. There is no cystitis, but the urine is swarming with tubercle bacilli. The patient has considerably improved in general health with open air treatment.

DR. J. A. BENSON (Green Hammerton) asks for information as to the use of fibrolysin in contractions caused by burns. He has used it successfully in Dupuytren's contraction, and is now trying it in the case of a patient whose hand is contracted as the result of severe burns five months ago. Our correspondent particularly wishes to know how often the injection should be given and for how long continued.

INCOME TAX.

R. T. H. was refused allowance of subscriptions to the British Medical Association and other professional associations by the surveyor of taxes some years ago on the ground that it had been decided that subscriptions to some engineering society were not admissible.

E. Q. raises the same point, and inquires also as to the right to claim fees paid to a locumtenent during the principal's holidays, cost of books and instruments, and accident insurance premiums.

*** There is, unfortunately, no complete schedule in the Income Tax Act of outgoings that may be claimed as professional expenses. The Act provides for the proper treatment of repairs, capital expenditure, bad debts, and rent, and then proceeds to exclude "all other disbursements or expenses" unless they represent "money wholly and exclusively laid out or expended for the purposes of such profession." The admissibility of any outgoing as a deduction from the gross receipts of a profession depends upon whether the expense is incurred in the carrying on of the individual's profession. The test in regard to a particular subscription should be whether the subscription is paid by the practitioner in order

to benefit himself in the carrying on of his profession or whether it is paid for purposes such as the furtherance of the general interests of the profession as a whole. In the former case the deduction should be allowed, on precisely the same grounds as the expense of professional journals and periodicals is allowed. We are not aware of any judicial decision to the contrary.

The question of the title to deduct the fees paid to a locumtenent has been discussed from time to time in the JOURNAL. The Revenue authorities at present refuse allowance under this head, though they allow the cost of an assistant whose duties are to all intents and purposes the same as those of a locumtenent. In regard to the cost of books and instruments, while the initial outlay is perhaps capital expenditure, there is no doubt that the cost of maintaining in an efficient state both the library and the supply of instruments is an expense properly chargeable to revenue and admissible as a deduction. An accident insurance premium can be claimed only under the provisions allowing *life* insurance premiums, and the allowance is therefore restricted to that part of the premium that represents insurance against the risk of loss of life.

HOUSE RATING AND INCOME TAX.

A. V. is building a house with professional rooms communicating with the rest of the house by a door in the front lobby, and wishes to know how to get it properly rated.

*** Such a house is rateable in one sum on the same footing as an ordinary dwelling-house. There is nothing for our correspondent to do beyond seeing that the gross estimated rental is not greater than the rent at which the house would let on a yearly tenancy.

INCOME TAX (ASSISTANTS).

J690 inquires whether he should be charged tax on the value of the rent of house, coal, and light provided by his principal as part of his remuneration.

*** Tax is chargeable only on such remuneration as is received in the form of money or in a form that the recipient can turn into money. If therefore the principal definitely provides these matters for his assistant, in lieu of paying a larger salary, the value of the benefit is not chargeable to income tax. On the other hand, if the principal hands the assistant so much money "to enable him to pay his account for rent," etc., or gives a round sum in lieu of providing a house, etc., the benefit is received in money form and is chargeable. In any case the principal is entitled to deduct the cost in making his own income tax return.

DEFORMITY OF THE EARS.

F. M. writes: On April 9th, 1911, Mrs. P. was delivered of a full-time female child, quite normal except for its ears. These were about one-third the usual size, and a thick fleshy band, apparently composed of muscle and skin, connected the helix with the tragus, blocking the external auditory meatus in both ears, although at the upper and lower borders of the fleshy bands were depressions. Over the left tragus, and also over each sterno-clavicular articulation, was a small nodule, about half the size of a pea, apparently connected only by skin with the rest of the body. A skiagram taken less than a month after birth showed no trace of semicircular canals, though, owing to the baby not keeping perfectly still, the plate was indistinct. When the child was 4½ months old she seemed to show signs of hearing, and these became more evident when the nodules were removed at 6½ months. She is now 14 months old, and will clap her hands, throw a kiss, stroke her mother's face, and do other things when told to do so. I should be grateful for an account of any similar cases, and also for advice as to the age at which an attempt should be made to open up the auditory meatus if the evidence that internal ears exist is substantiated.

ANSWERS.

A. E. B. (East Anglia).—The Royal Eastern Counties Institution for Imbeciles at Colchester will probably take such a case for care and training as our correspondent describes. The ordinary charge for payment cases is £60 per annum. Application should be made to Mr. J. J. C. Turner, Secretary and Superintendent, Station Road, Colchester.

HERPES PRECEDING MENSTRUATION.

P. M. writes: After all there is such a condition as plethora. If "C. R. I." thinks venesection barbarous, reduction of diet is almost as ready and equally sure. In the absence of further details, one would expect 12 oz. of solid food a day—or, better, 8 oz. in two meals, with nothing between—to meet such a case.

LETTERS, NOTES, ETC.

THE NATIONAL DEPOSIT FRIENDLY SOCIETY'S SCALE.

I. J. writes: I would like to draw the attention of medical men to the scale of charges of the National Deposit Friendly Society as quoted to me recently. I operated on a member for removal of varicose veins. I paid out one guinea for the anaesthetic, and found that the fee altogether as paid by this society was that amount. Total recompense for doing one's own work and not sending it to hospital—*nil*. A timely warning to those unacquainted with this scale of charges.

EXCESSIVE AXILLARY PERSPIRATION.

E. H. C. writes, with reference to H. T. T.'s reply to E. S. W. W., published in the JOURNAL of May 11th: May I suggest to the latter that, in addition to using any medicaments that may seem advisable, the axillae should be shaved two or three times a year. I used to be troubled with excessive axillary perspiration, with occasionally, especially in summer, a slight degree of chromidrosis, as evidenced by my vest. For some years past I have been in the habit of shaving my axillae (the job is an interesting "physical exercise," but one soon acquires the knack), generally about the beginning of summer, again in the course of that season, and once, if necessary, during the remainder of the year. The comfort is great, and (either *propter* or *post*) the perspiration has never been troublesome since I adopted the plan.

ANENCEPHALOUS MONSTERS.

DR. F. A. EVISON (March, Cambs.) writes: Regarding the birth incidence of anencephalous monsters recently reported in the columns of the JOURNAL, I may say I was present at the still-birth of one some seven or eight years ago. In a rash moment I accepted it as a curiosity from the mother. I have it by me now in a large glass jar containing spirit. If any of your correspondents contemplate forming a collection of such monsters I shall be glad to dispatch it to them free of cost.

INUNCTION TREATMENT AND THE PREVENTION OF SCARLET FEVER.

DR. W. J. YOUNG (Harston, Cambs.) writes: Unction is not inunction. The test of inunction is the absence or presence of desquamation. I have treated many cases during the last three years, the 10 per cent. eucalyptus in olive oil being thoroughly rubbed into the skin over the whole body. Peeling never occurs, and I only isolate for three weeks, during which time the patient is kept in bed. Whereas "return cases" are pretty frequent after a sojourn of seven weeks or more in hospital, I have no instances of spread of the disease where this method is followed. As an extra precaution I always warn against kissing or mingling with the family after the isolation.

WARNINGS.

DR. C. LEONARD TRAYLEN, Willesden Green, N.W., adds his warning to others already published with regard to a man who calls upon medical practitioners offering to act as a manicurist and chiropodist at reduced fees, and stating also that he is a masseur. Having offered to manicure once free of charge, he asks for a fee in advance. Dr. Traylen, we gather, would advise medical men not to comply with this suggestion.

THE General Secretary of the Medical Defence Union writes: May I ask you to allow me to caution your readers that should a man calling himself Richard Nunn, and giving his qualifications as M.B., B.Ch., apply for either "locum" work or monetary aid, before giving either they should communicate with me at the offices of the Medical Defence Union, 4, Trafalgar Square, W.C.?

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

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Eight lines and under	0	4	0
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NOTE.—It is against the rules of the Post Office to receive *postes restante* letters addressed either in initials or numbers.

THE

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THE JOURNAL OF THE BRITISH MEDICAL ASSOCIATION.

EPITOME

OF

Current Medical Literature,

JANUARY TO JUNE, 1912.

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READERS in search of a particular subject will find it useful to bear in mind that the references are in several cases distributed under two or more separate but nearly synonymous headings—such, for instance, as Brain and Cerebral; Heart and Cardiac; Liver and Hepatic; Renal and Kidney; Cancer and Epithelioma, Malignant Disease, New Growth, Sarcoma, etc.; Child and Infant; Bronchocele, Goitre, and Thyroid; Diabetes, Glycosuria and Sugar; Eye, Ophthalmia and Vision, etc.

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AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

1. Cerebral Influenza.

STEPP (*Wien. med. Klin.*, No. 34, 1911) discusses influenza affecting specially the brain, and describes 3 cases which have come under his own care. The patients in each case were between 40 and 50 years of age, with sound hearts and arteries. Paralysis came on gradually in each case, so that haemorrhage could be excluded. In one case the first symptoms of paralysis appeared on the second day of a typical attack of influenza; in the other two, after the subsidence of the acute influenza symptoms. There was complete left-sided hemiplegia in the first case, and, though power was finally regained in the leg, the arm remained stiff and useless. In the second case the hemiplegia was right-sided; recovery from it was rapid, but fourteen days after the first onset of paralysis on the right side left-sided hemiplegia began to develop, and recovery on the left side was never complete. In the third case, also, the left side was affected about a fortnight after the right side. In all three cases influenza must be regarded as the cause of the brain affection. The nature of the affection is not at first sight clear. An inflammatory process could be excluded, because of the absence of fever, except when the original fever of the influenza had not yet subsided. The probable explanation which is suggested in the article is that in such cases the finest capillaries are affected either by the bacilli or by influenza toxins, and that as a result there is gradual effusion of blood from these vessels, and at the same time serous infiltration of the tissues.

2. Dullness in Paravertebral Region on Left Side of Thorax.

IN the early part of 1910 Grocco drew attention to an area of dullness to the left of the vertebrae at the base of the thorax, continuous with the liver dullness, and extending from 3 to 7 cm. beyond the middle line. Grocco noticed this dull area in more than 300 cases. Ferrannini (*Rif. Med.*, June 19th, 1911) has corroborated the existence of this dull area at the level of the tenth and eleventh dorsal vertebrae in 200 observations. In nearly half the cases the posterior dullness equalled the anterior dullness as far as extension to the left of the middle line was concerned. In half the cases the posterior dullness exceeded slightly (between 1 and 2 cm.) the anterior. From a consideration of various anatomical plates and from actual experiments on the dead body, the author concludes that this dullness is not due to the liver, which at this point is too far away and too slender as a rule. The dullness appears to be due to the upper part of the kidney, the upper part of the spleen, and the upper part of the pancreas. When the liver is normal, and even in the majority of cases where it is enlarged, it does not extend posteriorly beyond the first paravertebral line. The results of auscultatory percussion also showed that this dull area was not intimately connected with true hepatic dullness. The existence of the area, as described by Grocco, was fully confirmed, but the assumption that it was due to the liver cannot be verified.

3. Tracheo-bronchial Adenopathy in the Child.

GRENET (*Ann. de méd. et chir. infant.*, 1911, xv) says that every broncho-pulmonary infection can cause adenitis of the mediastinal glands; it has also been found in typhoid fever, mumps, and pharyngeal infections. Chronic adenopathy occurs in hereditary syphilis, leukaemia, lymphadenoma. The chief cause is tuberculosis and is found in children of all ages, but most often between the ages of 2 and 6. The glands can be affected with a simple adenitis or a tuberculous form. In the former the glands are red, soft, and enlarged, and do not suppurate. In the latter form the glands are much increased in size and are of three kinds: partially affected tuberculous glands, totally caseated glands, softened glands, in which the gland forms a cyst containing creamy pus. *Symptoms:* The most important signs result from compression of the nerves. If the pneumogastric nerve is compressed cough similar to pertussis occurs; sometimes marked dyspnoea, similar to asthma, results. Compression of the recurrent nerves produces hollow cough and spasm of the glottis; other signs of nerve compression are tachycardia, vomiting, hiccup, unequal pupils. Compression of the trachea and bronchi produces dyspnoea, and of the veins, cyanosis, swelling of the face. *Physical signs:* Percussion of the anterior of the thorax reveals marked dullness and resistance to the finger if the adenopathy is large; if small, there is a slight elevation of tone. *Auscultation* of the lung frequently gives an expiratory souffle, which may be cavernous in character; there are ordinarily no râles. Bronchophony is an early and important sign. A venous murmur is often heard when the head is pressed backwards. *Palpation* is only of value when the glands are large, when the glands can sometimes be felt. The prognosis, if the case be diagnosed early, is frequently favourable, as the condition is perfectly curable. The treatment consists in fresh air, good hygienic surroundings, and good food. Cod-liver oil, iodides, arsenic, are indicated. Belladonna and opiates are valuable remedies for the cough and attacks of dyspnoea.

4. Pseudo-Meningitis Due to Helminthiasis.

MAZZUOLI (*Gazz. degli Osped.*, July 4th, 1911) reports the case of a child, aged 9 years, who first showed signs of illness about a month before, becoming strange and excitable, losing colour and appetite, and showing dark circles under the eyes. After a month's indefinite malaise the child was seized with general tremor, cold sweats, and loss of consciousness and chronic generalized convulsions. The pupils were small, acted slightly to light, and were rotated upwards. Opisthotonos was present, very marked dermography, boat-shaped abdomen, and Kernig's sign were also to be observed. Pulse slow, temperature 37.6° C., pulse 58 respirations 16. No vomiting. Nothing special about the urine, and the state of the discs not mentioned. The chief fact about the blood was the presence of marked eosinophilia (95 per cent. eosinophiles). Lumbar puncture was not tried. The eosinophilia made the possibility of some parasite being present not unlikely, and on examining the faeces large numbers of ascarides' eggs were detected. Anthelmintic treatment was practised, and about fifty *Ascarides lumbricoides* evacuated. After this the child got rapidly well, and eventually the eosinophiles came down to 2 per cent.

5. X-Ray Examination of the Stomach in the Horizontal Position.

THE vertical position is generally preferred in radiological examinations of the stomach, but Desternes, in a paper read before the Société de Radiologie Médicale de Paris (*Bull. et mém.*, No. 26, 1911), pleads for the horizontal position, not to the exclusion of the other, but in association with it. The differences between the two positions bear upon the situation of the stomach, its form, its contractility, and its mode of evacuation. In decubitus a normal stomach of the hypertonic or orthotonic type, studied after the ingestion of 250 to 400 grams of bismuth fluid, is raised by 5 or 6 cm., and the pylorus shows a tendency to be carried away towards the right. In atonic stomachs this ascension may reach 10 or 15 cm. With regard to the form in decubitus, the objection that as the bismuth is then distributed solely according to the loss of weight it cannot reveal the true gastric contours, only holds good, says the author, when there is inertia of the gastric muscle or when an insufficient quantity of the liquid has been ingested. In abdominal decubitus the stomach takes an oblique direction, the pylorus being carried towards the right, while the bismuth mass appears to be broken up and the borders of the stomach to be more or less irregularly plaited. In dorsal decubitus the great curvature of the stomach takes the form of a rounded ball of complete opacity. The image furnished by fundus, antrum, and pylorus differs according to the case observed and according to the degree of slackening or contraction of the gastric muscle. If the stomach is normal these portions may be simply raised without being altered in form; in the case of atony or dilatation all form disappears and nothing remains except some traces of bismuth of irregular aspect. The general direction of the stomach in the horizontal position varies considerably. In perfectly normal subjects it may be very oblique from summit to base, taking a left-to-right inclination, but more frequently it is found wholly to the left of the vertebral column, and taking an almost vertical direction, or one which is slightly inclined towards the right. The contractility of the

stomach in decubitus introduces another differentia[1] factor. The great curvature is contracted in its entirety and not by peristaltic waves as in the lower portion. Finally, the gastric evacuation is modified. The author possesses radiographs taken in the horizontal position showing bismuth in the small intestine, whereas radiographs of the same cases taken in the vertical position only one or two minutes sooner showed that the stomach had not begun to empty. He insists strongly upon the fact that the horizontal position always accelerates evacuation.

SURGERY.

6. Transplantation of Appendix.

Erich Lexer (*Wien. med. Klin.*, No. 39, 1911) describes a case of successful transplantation of appendix tissue to make good a urethral defect. The patient was a young man who had suffered a pelvic fracture and a urethral laceration in a railway accident. External urethrotomia was unsuccessful, and a catheter could not be passed until a sectio alta had been performed and the central lumen thus found. Extensive phlegmon of the perineum developed and prolonged the illness to twenty-seven weeks. The regular passage of bougies was then needed to keep the urethra patent. In the following year the patient suffered from bladder symptoms, due to cystitis and to the pressure of a large stone, which was removed by a second section. The passage of bougies was increasingly difficult, and it was decided to try to remove the mass of scar tissue which caused the stricture. This was done, and a large splinter of bone was found and removed. The part of the urethra lined with scar tissue was cut out. The two cut ends of the urethra were too much fixed for it to be possible to bring them together. The patient's appendix was therefore made use of. The appendix was exposed, the mesentery divided, a circular incision made at the base, and the serous covering of the appendix peeled off before removal. After removal of the appendix the contents were cleared out, the apex cut off, and the lumen cleansed by passing Koch's solution through it. The larger end of the appendix was then united by a circular stitch to the central end of the urethra. To unite the peripheral ends was no easy matter, and finally, instead of this, the appendix was guided into the urethra by means of a thread and the thread fastened to the glans, but with no tension upon the thread. The perineal soft parts were drawn together as far as possible by deep stitches above the transplanted appendix, and the wound plugged externally. To allow the urine to flow out above the transplanted tissue the old scar of the two operations was opened to admit a catheter which was passed in. The perineal wound healed up in three weeks' time. The catheter was changed weekly. The urethra was washed out for the first time during the fourth week, and it was now found that if the catheter were compressed urine could be passed through the urethra. In order to remove the last traces of cystitis and to accustom the bladder once more to larger quantities of fluid, Koch's salt solution was passed into the bladder from an irrigator through the catheter for half an hour daily, the patient emptying the bladder by the urethra. In the eighth week the catheter was removed, and the bladder fistula healed up. Urine passed afterwards in a good stream and practically without symptoms. No more bougies were passed. In the seventh week the inner surface of the urethra was examined by means of an endoscope cautiously inserted, and the whole surface found to be uniformly lined with mucous membrane. Six months after the operation the patient is still well, and has no urethral symptoms except that water is passed with rather more frequency than before the operation. The serous membrane was removed from the appendix in this case because in cases of hypospadias in which the author made use of transplantation of the appendix complete failure resulted, and he came to the decision that the serous membrane interfered with the nutrition of the transplanted tissue. Success can only be expected with sound and fresh transplanted tissue and when the patient's own tissue—not that from any other case—is employed.

7. Omentopexy in Ascites due to Cardiac Disease.

Bozzolo (*Rif. Med.*, January 2nd, 1911) reports the case of a woman, aged 30, suffering from mitral disease and secondary ascites, with hepatic cirrhosis. The usual medical treatment gave temporary relief, but the ascites, in spite of repeated paracentesis, returned again and again. The woman was tapped five or six times, and the amount of fluid withdrawn increased from 8 litres up to 13 litres. It was then resolved to try the effect of Talma's operation, and accordingly a piece of the omentum (which was a good deal reduced in size) was fixed to the cellular tissue beneath the skin. The wound healed by first intention. Twenty days after the operation, in order to diminish the size of the abdomen, 6½ litres of fluid were withdrawn; eighteen days later another 8 litres were removed, and after that no reaccumulation took place, diuresis was established, the oedema of the legs disappeared, and the cardiac condition improved greatly, and after about three months the patient left the hospital, and was able to do her work as a cook. A year later the patient was admitted into hospital, and stayed there for two months, with a severe bronchitis, but there was no trace of any ascites. The heart, liver, and spleen were as before. The latest news of the patient (eighteen months after the operation) was satisfactory, and there was no return of the ascitic condition.

8. Acute Haematogenous Infection of the Kidney.

Frederick J. Cotton (*Ann. of Surg.*, November, 1911) calls attention to the possibility of such a condition apart from general infection. Brewer and Cobb have already described the disease under this title. Cotton suggests alternative titles, "septic infarcted" and "infected infarcted" kidney. The symptoms are pain and tenderness in the loin, pyrexia and rapid pulse, leucocytosis, slight albuminuria, with blood cells, leucocytes, and squamous cells in small numbers in the urine. In the author's cases the kidneys were movable. The kidneys were exposed by incision in the loin, and in each case the organ was found to be cyanotic; several whitish patches were present conspicuous against a background of purple, congested, enlarged kidney. The capsule was incised and rolled back, and the infarcts cut into freely; there was no pus. The capsule was sutured to the muscle layers, and a cigarette drain left in. The author draws attention to the fact that in his cases the kidney was movable, and suggests that this may account for the localization of an infection which must primarily have been a general blood infection. The method of incising the affected kidney is defensible so as to endeavour to save it, at all events in the earlier cases.

9. Oesophageal Diverticulum.

F. Erkes (*Wien. med. Woch.*, No. 36, 1911) describes a case of radical operation on an oesophageal diverticulum with, finally, a good result. The patient was a man 54 years of age, who had had oesophageal symptoms for two years. With the help of *x* rays, bismuth ingested could be clearly seen to pass into a diverticulum to the left of the middle line at the height of the last cervical vertebra. The shadow here was somewhat larger than that of a walnut. Two operations were performed. In the first the incision was at the anterior edge of the sterno-cleido-mastoid muscle. The search for the diverticulum was unsuccessful, the difficulty being caused by the shortness of the man's neck and the presence of an enlarged thyroid gland. It was decided that food should be given just before the next attempt in order that the diverticulum might be full and more easily found. Three days later a second operation was performed, and the diverticulum found at the level of the seventh cervical vertebra, behind and to the side of the larynx. The diverticulum was removed like the sac of a hernia, the neck being closed by catgut stitches in two stages. On the following day an attempt was made to pass a bougie, but as it proved to be unsuccessful gastrostomy with the formation of a fistula had to be carried out. Eight days later an oesophageal fistula formed at the site of the incision. It continued to be impossible to pass a bougie, and after an interval of about seven weeks the oesophagus was again exposed, the opening was increased downward, and a bougie inserted; the bougie, however, was arrested behind the manubrium sterni. The gastric fistula was also enlarged, in order, if possible, to pass a bougie from below, but the cardiac end of the oesophagus could not be found. A month later the patient began to taste in the mouth wine put into the stomach. It was now found that some fluid could pass from the mouth to the stomach. Bougies were again introduced, this time with success, a uterine sound being first employed. After three weeks' treatment, the patient could swallow soft food, and bougie size 11 passed easily. Seven months after the first operation, both gastric and oesophageal fistulae were closed. A month later the patient could eat anything, and appeared to be quite well. With *x* rays, bismuth could be seen as a

median shadow to pass down to the stomach without any stagnation. The cause of the post-operative stricture is not clear. The first idea that it was the result of a too radical excision proved mistaken, as the stricture was well below the site of the operation. The two other possibilities were either that there had been a persistent, possibly a congenital, stricture of the oesophagus behind the manubrium sterni, which had become absolute after the operation as a result of inflammatory swelling, or that the stenosis was functional in character. Kaufmann and Kienbock have reported on cases of spasm of the oesophagus below a diverticulum, the spasm being caused in some instances by catarrhal changes in the mucous membrane due to the decomposed food in the diverticulum, in others by injury to the vagus. Whether in this case the stenosis was organic or functional cannot be decided with certainty.

OBSTETRICS.

10. Prolonged Pregnancy.

WRIGHT (*Canadian Med. Assoc. Journ.*, October, 1911), in a paper in the *American Journal of Obstetrics* two years ago on the "Induction of Labour at Term as a Matter of Routine," recommended the induction of labour in all cases within two or three days after the expected date without waiting for signs of commencing labour. He bases his advice upon the rapid growth of the child between the ninth and tenth month, loss of flexibility, and hardening of the head, together with the depressing effect of delay upon the mother and the added difficulties likely to be met with. The gravest danger is the growth of the child, and labour induced aseptically is practically devoid of risk, and at any rate involves much less risk than a labour prolonged to ten months. The difficulty of always being able accurately to calculate when "term" should be reached can be overcome by careful measurements, and in case of doubt it is safer to induce labour one or two weeks before term than a fortnight late. After placing the patient in the lithotomy position and administering an anaesthetic, labour should be induced by gently introducing a sterilized No. 12 English gum elastic bougie into the uterus up to the fundus without, if possible, rupturing the membranes. After the bougie has been introduced the vaginal tampon may be used, the patient having been turned into the Sims's position and the vagina "ballooned" with a Sims's speculum. About an inch of the bougie usually projects below the cervix, and this having been turned to a right angle, iodoform gauze is packed tightly over and round it, the aim being to pack very tightly the vault and upper two-thirds of the distended vagina. A strip of gauze 4 in. wide and 4½ yards long usually suffices for one packing, and cheese cloth may be preferable to gauze if the membranes have ruptured, because it is more likely to keep the liquor amnii within the uterine cavity. Protracted pregnancy occurs in about 15 per cent. of all pregnancies, and to the extent of one month in about 6 per cent. of the cases when there is no interference. In the interests of both mother and child the induction of labour in all cases within a few days after term should be made a matter of routine.

GYNAECOLOGY.

11. Treatment of Vaginitis.

LAURENCE recommends (*Journ. des prat.*, 1911, xlii) the following treatment for the various forms of vaginitis:—*Acute:* Due to gonococcus or other germs, and trauma. In the early stage, baths of starch, or sitz baths containing leaves of jequirity, belladonna, and aconite, āā 30 grams, and poppyheads. When injections can be tolerated, if the gonococcus is the cause, a solution of potassium permanganate, 0.50 to 1.000 (three injections a day), or protargol, 1 in 2.000. Between the injections the vaginal walls should be kept apart with a septic gauze or tampons covered with vaseline, lanoline, and zinc oxide, āā 10 grams, and camphor 3 grams, or vaseline 18 grams, lanoline 12 grams, collargol 3 grams. A non-gonococcal vaginitis is best treated by injections of oxygenated water or moistened gauze with ectogan. *Chronic:* The gonococcus is the commonest cause, and Doléris recommends twice daily potassium permanganate, and between the injections a tampon of vaseline 20 grams, iodoform and dermatol, āā 5 grams, or vaseline 25 grams, benzoin, cubebs, and camphor, āā 5 grams. Landau recommends injections of yeast, and Ilkevitch lactic acid—as acid. lactic. 3 grams, glycerine 100 grams, applied on a tampon. Chronic granular vaginitis of pregnancy is best treated by an ointment of lanoline three parts and one part of Neapolitan ointment. Chronic exanthematous senile vaginitis can be successfully treated by applying for one or two minutes a tampon of freshly made tincture of iodine 5 grams and glycerine 20 grams. Immediately afterwards a tampon or gauze containing vaseline 25 grams, zinc oxide 10 grams, should be inserted. Hot tampons should be applied every day, and when withdrawn an injection should be used of Goulard water ʒss, boiling water 1 pint; after micturition lavage of the vagina with Goulard water, and powder with zinc oxide. *Emphysematous vaginitis:* In this form and in the fetid forms a solution of carbolic acid should be added to oxygenated water, and following the injections applications of glycerine, thygenol, or ichthyol.

THERAPEUTICS.

12. Salvarsan.

B. C. CORBUS (*Medical Record*, November 18th, 1911) reports the results of one year's experience with salvarsan. The number of injections given was 230 in the various stages of syphilis, with special reference to eye and ear complications. There were no bad effects. The drug is especially useful in the early stages of the disease, and often gains in action by being combined with inunctions of mercury. In this way it acts with remarkable rapidity and cures syphilis clinically and biologically. The author continues the treatment until there is a negative Wassermann reaction. In rabbits absolute sterilization is obtained with one dose. In man several doses are required, and only time can tell whether the sterilization will remain permanent. There are recurrences in the nervous system under its use, but these occur also under mercury alone. The author has not noted any bad effects in syphilitic eye diseases, in which, however, the drug has been of great benefit. Recurrences are especially liable in recent secondary cases, extragenital chancres, severe skin phenomena, and headaches. This simply means that not all the spirochaetes can be reached and some escape and grow again. In early cases of tabes dorsalis the disease may be stayed by efficient use of salvarsan. The author uses the drug intravenously, and intramuscularly in the gluteal muscles. The prognosis is very good in all recent cases after large doses have been given. Abscess and induration are the usual complications.

13. Deaths from Salvarsan.

TWO other deaths from salvarsan are reported by Oltramare and Caraven (*Ann. des mal. vén.*, December, 1911). Oltramare's case was that of a man aged 48 with syphilis of fifteen years' standing. He had previously been treated with mercury and iodides for ulcerated gummata, and at the time of injection of salvarsan was apparently in good health. An intravenous injection of 0.6 gram of salvarsan was followed in five days by general convulsions and death. At the autopsy chronic syphilitic meningitis and aortitis were found, besides chronic bronchitis and emphysema. Oltramare remarks that his case resembles other fatal cases recently published by Hoffmann and Jaffé, Leven, Kannengieser, Almkvist, and Fischer (*Muench. med. Woch.*, August 22nd, 1911): the case reported by Hallopeau at the Paris Academy of Medicine, October 10th, 1911; and one of the cases reported by Ravaut at the Paris Society of Dermatology, June 1st, 1911. All these cases, except Fischer's, were old syphilitics, and in most of them it was the second injection which proved fatal. The doses varied from 0.4 to 0.6 gram, and in the fatal case reported by Gaucher at the Academy of Medicine, October 31st, 1911, it was only 0.3 gram, so that the fatalities cannot be attributed to large doses. In these cases death occurred on the fourth, fifth, or sixth day after convulsions, high temperature, and coma. At the autopsies, besides encephalitis, chronic leptomeningitis has been found in some cases, and Oltramare suggests that salvarsan reacts on the brain in a subject with leptomeningitis in evolution. However, this theory does not explain such cases as Gaucher's and Caraven's, in which signs of meningitis were absent, but signs of congestion or acute inflammation of the kidneys present. It is far more probable, as Gaucher remarks, that such cases are of a uraemic nature, due to direct arsenical nephritis.

14. Treatment of Gastric Ulcer.

GLAESSNER (*Wien. med. Klin.*, No. 36, 1911) discusses the medical treatment of gastric ulcer. In all treatments an effort is made to paralyse the digestive action of the gastric

pepsin and hydrochloric acid upon the ulcer, and this may be accomplished either by diminishing the secretion, by neutralizing it, or by a combination of the two methods. Bickel, working on Pawlow's lines on man, found that among foods which excite secretion are skimmed milk, yolk of egg, coagulated white of egg, and raw or roasted meat, while full milk, carbohydrates, pure albumen, and fatty vegetables check secretion. In spite of Pawlow's experiments, which show that meat and meat extracts strongly excite gastric secretion, it is clear that a purely vegetarian diet is not beneficial in gastric ulcer. Putting aside morphine, the two drugs which lessen gastric secretion are atropine and H_2O_2. The side-effects of atropine cannot, however, be considered negligible, while H_2O_2, even in ½ per cent. solution only, is liable to set up gastritis. With regard to neutralization of the gastric secretion, albumen is well known to render the secretion inactive, and this explains the value of eggs in the diet of a gastric ulcer patient, even though eggs excite secretion. Fat not only neutralizes the action of the gastric juice, but also checks secretion, and the administration of a wineglassful of olive oil three times a day has given good results; in order to lessen the danger of vomiting the author gives sugar and cognac with the oil. Sodium bicarbonate, although it has not as great a neutralizing power as calcium phosphate or magnesium usta, has more effect in relieving pain. Bismuth subnitrate has, in the author's opinion, been greatly overrated, but he admits that one of its most marked actions is to reduce appetite and so bring about a hunger cure. Pariser recommends that bismuth subnitrate should be replaced by a mixture of talc and creta alba. The salts of the alkaline springs, especially Carlsbad water, are very useful. In rectal feeding there may be excessive absorption of decomposition products from the intestine, and also the injection may excite gastric secretion. Leube's cure and Lenhartz's cure are the two chief feeding cures for gastric ulcer. Leube orders ten days' rest in bed, and in cases of haemorrhage gives no food for the first days, but 30 drops of adrenalin, morphine, and bismuth. In cases without haemorrhage he gives milk and meat-juice in the first week, adds Zwieback in the second week, and finely-minced meat in the third week. He aims at 18,000 calories in the first ten days. His mortality is given at 0.5 per cent. Lenhartz orders rest in bed for from three to four weeks where there is haemorrhage, and gives both more food and more proteids; thus, on the first day he gives 200 grams (7 oz.) of milk and a raw egg cooled on ice, and increases the amount of each daily; sugar is added on the third day, scraped meat on the sixth, and a full diet is reached on the twelfth day. He gives 26,000 calories in the first ten days. His mortality figure is given at 3 per cent. The patients appear to feel better on Lenhartz's cure than on Leube's, and the author holds that the Lenhartz diet is more suited to ulcers with haemorrhage, Leube's to those without. Senator has found the three foodstuffs which do good service are gelatine, fat (iced butter), and sugar. V. Noorden recommends a course of strict dieting in each of three successive years. The author has had good results from washing out the stomach with a 1 per cent. solution of silver nitrate and then washing away the solution. Iron chloride and iron chloride gelatine have both been used for haemorrhage. Adrenalin, in doses of 8 drops three times a day, has also been given with effect. In spite of all medical treatment, however, it has to be admitted that only about a quarter of the cases recover, while a simple gastro-entero-anastomosis often brings about recovery even in chronic, complicated cases. Laboratory results suggest that recovery in these cases is due to regurgitation of the alkaline bile and pancreatic secretion into the stomach. The author, working with Stauber, has carried out experiments to determine whether the administration of intestinal secretions would have an effect similar to that obtained by operation, and their results have been so favourable as to warrant further and more extensive trial of the method.

15. Maretin in the Treatment of Pleurisy.

GHEZA (*Gazz. degli Osped.*, November 7th, 1911) has treated 40 cases of pleurisy (with effusion) and 10 of multiple serous effusion by means of maretin. This drug has been used for some time as an antipyretic, especially in pertussis. It is composed of carbamidic acid, and is a tasteless grey powder insoluble in cold water, but soluble in alcohol, ether, or in warm water. The dose given was 50 grams per diem in two equal doses, occasionally 75 grams were given, but the usual dose was 50 grams. No ill results were observed. The temperature was reduced in a very short time, and the general condition much improved. The more recent the pleurisy the better the result. The author assumes that the majority of primary pleurisies are tuberculous, and he believes that the good results he noticed from the use of maretin are not explicable merely on the ground of reduction of fever, but that the drug has some specific action.

PATHOLOGY.

16. The Cultivation of Treponema Pallidum.

HIDEYO NOGUCHI (*Journ. of Exper. Med.*, August, 1911) describes his method of obtaining pure cultures of the syphilitic spirochaete. Instead of attempting direct cultures from human tissue, he uses the testicles of rabbits previously inoculated with the virus, the advantages of this procedure being: "(1) The ease with which large quantities of spirochaete-containing material may be obtained at any time; and (2) the fact that the spirochaetes are almost free from common bacteria, especially after several passages through rabbits." The only culture medium which he has found suitable is serum water (sheep, horse, or rabbit) to which a piece of sterile rabbit tissue is added, preferably a piece of kidney or testicle. He uses tubes 20 cm. high and 1.5 cm. wide, and fills them with 16 c.cm. of serum water (1 part serum to 3 distilled water). After sterilization for fifteen minutes at 100° C. on three successive days, a small piece of freshly removed sterile tissue is placed in each tube, which is then incubated at 37° C. for two days to test its sterility. To each tube a layer of sterile paraffin oil is then added to shield the medium from contact with the air and prevent evaporation. As strict anaërobiosis is required, particularly for obtaining the primary culture, the author employs a combination of hydrogen gas, vacuum, and pyrogallic acid in an anaërobic apparatus. The temperature of incubation should be from 35° C. to 37° C. Working with ten different strains which had each been passed through rabbits for several generations, the author, after many unsuccessful attempts, has obtained cultures from six on his serum-water tissue medium. Except in one instance, the primary cultures were not pure. One method by which he obtained purification was to permit the spirochaetes to grow through a Berkefeld filter, which they succeeded in doing in about five days. Subsequently he observed that certain strains would grow together with the contaminating bacteria along the stab of a serum agar tissue medium. But while the bacteria did not grow out into the surrounding medium, the spirochaetes grew out gradually, as was indicated by a light, almost transparent, zone of haziness. From this zone pure cultures from four different impure strains were obtained. In the serum-water tissue medium *Treponema pallidum* commences to multiply after forty-eight hours, and continues to grow slowly for four or five weeks at least. In young cultures short, rather thick forms with only a few curves are seen, but in cultures ten or twelve days old the spirochaetes are of the usual length, and have typical curves. With subcultures in solid media the morphology of the organism is quite typical, and resembles specimens taken direct from human or animal lesions. So far he has only tested two of his cultures for virulence. Both of these strains have produced in the testicle of the rabbit typical lesions containing the spirochaetes in large numbers.

17. Cultivation of Tissues in Alien Plasma.

LAMBERT AND HANE (*Journ. of Exper. Med.*, August, 1911) have observed in microscopic preparations in the warm stage the capacity of animal tissues to grow in plasma derived from an alien species. They find that rat sarcoma may be cultivated in mouse plasma and guinea-pig plasma, the growth differing only in extent from that observed in rat plasma; in guinea-pig plasma the cells may show active wandering after thirty days, if transferred at proper intervals to fresh medium. Rabbit plasma is less suitable; the growth of rat sarcoma in this medium is slow, but may continue for twelve days; in dog plasma its growth is limited to two or three days, and in pigeon plasma to four or five days. No growth whatever of mouse and rat tissues can be observed in goat plasma, which appears to contain a substance toxic for these tissues. In preparations of rat sarcoma in human plasma liquefaction of fibrin is regularly observed; the cells wander outwards along the cover-glass, and in from four to six days giant cells are formed; such giant cells are also produced in large numbers in the cultivation of rat spleen. No strict parallelism is observable between the nutrient properties of the alien plasmas and the closeness of relationship to the animal from which the tissue is derived.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

18. Action of High-frequency Currents on Arterial Hypertension.

FEW questions in the practice of electro-therapy have given rise to so much controversy and so many contradictory conclusions as the action of high-frequency currents on high blood pressure. Guilleminot (*Arch. d'électr. méd.*, August 25th, 1911) says that formerly he so often found a striking series of successes followed by an equally striking series of negative results that he was at a loss to state any general principle whatsoever. The introduction into medical practice of Dr. Pachon's sphygmo-oscillometer, which was described in the BRITISH MEDICAL JOURNAL of December 3rd, 1910, has permitted him now to control the ambiguous results, and he is able to make a modest contribution to the solution of this difficult question. Guilleminot's high-frequency apparatus is somewhat special, but he states that the results are the same in kind as those obtained with the ordinary large solenoid or cage of auto-conduction, which he has discarded only because he has found the new arrangement more efficacious. He employs the field of auto-conduction produced by two large spirals, which are coupled in such a manner that the direction of the current at a given moment is the same in both. The subject is seated on a chair placed between the spirals, the electrical oscillations being effectuated on the longitudinal axis of his body from the head to the knees. The results of a single sitting vary according to the person. Sometimes the current will reduce the tension to a greater extent than mere rest: at others it appears to have about an equal value. Guilleminot's main contention, however, is that, although the tension may be lowered only slightly in the course of one sitting, there is an appreciable modification in the average of arterial tension after a course of high-frequency treatment extending to eight or fifteen sittings. The history of one case, which he has been able to follow for seven years, may be tabulated:

Date.	High Frequency.	Pressure in Centimetres of Hg.
1904–6	—	About 20
1907–8	—	25–25
February, 1909	Ten sittings	Fall to 19
March–June	—	Increase to 23
June	Twelve sittings	Return to 19
July–November	—	19–20
December	A few sittings	No modification
January to April, 1910 ...	—	Increase to 22
May	Ten sittings	Fall to 18
June to September ...	—	Increase to 20
October	Twelve sittings	Fall to 13
Nov., 1910, to Jan., 1911...	—	Increase to 22
February, 1911	Ten sittings	Fall to 17–18

Auto-conduction, therefore, appears to produce a progressive diminution of longer or shorter duration, although only slightly marked in the course of each sitting. The author adds nearly fifty observations of cases in which from eight to fifteen sittings had been given. The alterations in pressure before the course of treatment and after it may be classified as follows:

Lowering of Pressure.	In Centimetres of Hg.	Number of Cases.
None	—	7
Insignificant	1	5
Appreciable	2–3	20
Noteworthy	4	7
Very considerable ...	5, 6, or even 7	7

The diminution due to auto-conduction is in some cases clearly superior to that which can be attributed to repose alone. Circumstances, however, interfere with the readings. In some cases the patient, when submitting to the treatment, has quitted his occupation and altered his régime; in others he has supplemented the electricity with medical treatment, and these are the cases in which the effect has been most radical. But, remembering the care with which he has formulated his averages, sufficient data remain for the author to accept the theory of a hypotensive evolution clearly coinciding with the period of treatment.

19. Acute Sepsis in Infancy.

BAGINSKY (*Rif. Med.*, January 2nd, 1911) records two cases of acute sepsis in children. (1) A boy, aged 10, admitted with a history of two days' fever and pains in the hypogastrium. On admission, the boy was unconscious and delirious; the only obvious lesion was a small boil on the left forearm. The pulse was 170, and the hypogastric region full and a little tender, but not especially so in the appendix region. The heart and lungs appeared normal, and the liver and spleen were not enlarged. The right thigh appeared tender, but no swelling could be detected. The throat was normal. Temperature 41.6° C. As the child was very ill and osteomyelitis suspected, the thigh was cut down upon, but no pus and no definite signs of osteomyelitis discovered. Death followed forty-two hours after admission. During life *Staphylococcus aureus* was found in the blood. *Post mortem*, the tissues around the little boil were unchanged, and the cutaneous veins normal. The blood of the heart was very fluid, and of a red-brown colour. The heart muscle was flaccid, and there were minute haemorrhages on the internal surface of the pericardium. The cardiac valves were healthy. There were haemorrhagic infarcts in the lungs, and very minute purulent infarcts in the kidneys and lungs. Punctiform haemorrhages on the pericardium and pleura. The femur was healthy. (2) A child, aged 5, who died after a very short illness from acute pneumococcic infection, the chief stress being on the tonsils and appendix. Both tonsils were enlarged and spongy, and on pressure exuded a creamy pus; liver and spleen enlarged. Appendix long and rigid, its mucosa thickened, and containing creamy pus at the apex; no perforation, no ulcer. Peyer's patches swollen. Pneumococci were found in the blood. Both cases illustrate the extreme gravity of these rapid cases of acute septic infection in children.

20. Fibro-fatty Perinephritis.

L. BOBBIO (*Giorn. d. R. Accad. di Med.*, Turin, 1910, lxxiii, 371) reports the case of a machinist of 52, who had gonorrhoea treated and cured in 1893, a left pleural effusion in 1898, but was otherwise healthy. For two months before coming under observation he had evening malaise, with pain across the abdomen just above the umbilicus, loss of appetite and weight, indigestion, nausea, constipation; for the last month the pain had been mainly in the right hypochondrium and made worse on movement. Nothing abnormal was found in the thoracic viscera; the urine was scanty but qualitatively normal. In the region of the right kidney was a tumour the size of the head of a fetus at term, solid, smooth, ovoid in shape, tender; it did not move on respiration, was fixed, fluctuated on bimanual palpation, and lay above the transumbilical line. The bladder appeared normal when cystoscoped; the right ureter secreted normal urine at the same rate as the left. Von Pirquet's reaction was negative; the temperature and blood count and differential leucocyte count were normal. The diagnosis of a malignant renal neoplasm was made; an exploratory laparotomy discovered a yellowish mass consisting of the much thickened fibro-fatty renal capsule, for the most part easily separated from the kidney, but densely adherent to its hilus, upper pole, and anterior surface, as well as to the ascending colon. It was thickest—three fingerbreadths—in front; the kidney and its pelvis seemed normal. Most of it was removed, and the patient made a good recovery. Microscopically it was found to consist of hard fibrous tissue, hyaline in places, in others infiltrated with small round cells or small abscess formations or fatty deposits; the diagnosis of adiposclerous perinephritis was made. Bobbio concludes that the inflammation was extrarenal in origin; he makes no mention of the condition of the appendix, and leaves the source of the infection unsettled.

21. A Form of Psychasthenia.

CLAUDE (*Journ. des praticiens*, September 20th, 1911) states that the characteristics implied in this condition are to be met with in a minor degree in quite normal persons, but that after a certain point it becomes pathological. The patient in this case was 35 years of age, with no neurotic inheritance. She had undergone a series of attacks of weariness and distress, and became quite incapable of entering any employment. The symptoms in these cases consist chiefly in difficulty of fixing the attention and a state of continual doubt. The patient is never sure of the

reality of what she sees, and continually hesitates to undertake anything. She constantly requires support and advice, and has to ask whether she ought to do or not do certain things. These patients, too, have a frequent habit of counting by the fingers, and "washing the hands" constantly. The dominating feature of the disease is the idea of doubt. Janet and Raymond also include the condition under the psychasthenias. It acts as an obstacle to psychological activity, and in acute cases there is a diminution of intellectual activity, especially in the case of the psychic functions. It is a psycho-neurosis connected with the neurasthenic state, and results immediately in incapacity of judgement and a state of doubt. In slighter cases the doubt is fleeting, but when pronounced it extends over everything, to the extent of metaphysical delirium. A series of obsessions are often superadded. These patients frequently imagine that if they do not pronounce a certain word it will bring them misfortune. Some complain of not having the free exercise of their organs. They do not "feel their bodies." Others, again, are inconvenienced by contact of any kind. They cannot bear their clothes. Predisposition must be admitted, but it would be difficult to consider the condition as a congenital malady. It has been observed in children of 15 years of age. It has followed castration and hysterectomy. As to treatment, isolation and psychotherapy are essential, and ovarian and pituitary substances may be tried. Amelioration is possible, but remissions occur, and the prognosis is grave.

SURGERY.

22. Operability of Intramedullary Tumours of the Spinal Cord.

ELSBERG AND BEER (*Amer. Journ. of Med. Sciences*, November, 1911) report two operations on intraspinal tumours, with remarks upon their extrusion, and if this can be performed with little or no injury to the cord, there is no reason why localized growths should not be removed. The operation should be performed in two stages. If after laminectomy and incision of the tumour a localized intramedullary growth is discovered, a small incision, about 1 cm. in length, should be made in the posterior median column, a few millimetres on the outer side of the posterior median fissure, at the spot where the growth seems to be nearest to the surface, and sufficiently deep to cut the pia and the substance of the column down to the tumour. The tumour will then bulge through the incision, but however marked the bulging appears to be, removal of the growth must not be attempted at this stage, as such a procedure would cause serious injury to the cord. The further extrusion of the tumour will be accomplished naturally, since the increased intramedullary pressure set up by the growth will tend to readjust itself to normal, the tumour being thereby slowly pushed out of its bed with a minimum of injury to nerve fibres. As soon, therefore, as the above small incision into the cord has been made, the muscles and skin must be carefully sutured, and a dry dressing applied, which can be left for about a week, at the end of which time the dressings should be removed, the wound reopened, and the tumour, which by this time will have been extruded from its intramedullary position on to the surface of the cord, can easily be removed, by dividing a few adhesions, with practically no haemorrhage, and without injury to the cord substance. The pia should then be closed with fine silk sutures, and the dura, muscles, and skin closed as at the first operation. In cases where the intramedullary tumour extends over a large number of segments, and infiltrates the cord substance, by making a small incision into the cord at the level of the most marked symptoms, partial extrusion may take place with some amelioration of the condition. Of the two operations described, the first, for an intramedullary glio-sarcoma of the fifth, sixth, and seventh cervical segments, was performed in two stages with ultimate considerable improvement in symptoms, while in the second the tumour extruded so rapidly that it was removed at one operation, but the patient, after fully regaining consciousness, died about three hours later from respiratory failure, a result which might have been avoided had the operation been performed in two stages, thus allowing the cord structures to become accommodated to their new relations of altered pressure, etc., before entering upon the second stage for the actual removal of the tumour.

23. Large Fibroma of Mesocolon, with Lymphocytosis.

I. SCALONE (*Giorn. internaz. d. Sci. med.*, Naples, 1911, xxxii, 1009) records the case of a man of 53 who had received a blow in the abdomen four months previously, causing him pain and constipation. He was seen by two medical men, who ordered purgatives, but found no abdominal lesion. The pain continued in the right hypochondrium and flank; a tumour appeared and grew larger. On admission to the hospital he was found to have an asymmetrical abdomen and a large tumour coming down from under the right costal margin; it was hard, elastic, the size of a man's head, not tender, with a fairly smooth and regular surface, and was slightly movable. Insufflation of the colon showed that it lay above the tumour and was displaced inwards. The spleen, liver, and stomach seemed to be normal. Eight examinations of the blood were made, and showed from 5,000,000 to 6,700,000 red cells, haemoglobin 65–70 per cent. (von Fleischl), white cells 23,700 to 35,200; differential counts of the white cells showed 35–57 per cent. of polynuclear neutrophile cells, 40–65 per cent. small mononuclears, 4–15 per cent. large mononuclears, 2–10 per cent. of eosinophiles. It was decided to remove the tumour; laparotomy was performed, and it was found adherent to the liver, and the hepatic flexure of the colon showed a sort of traction diverticulum which ruptured in the process of separation. The intestine was sewn up; there was much haemorrhage, and many vessels had to be ligatured; the growth was removed. Four days later a faecal fistula established itself, and four months later was still found necessary, as natural defaecation seemed impossible. The tumour on removal weighed 12¾ lb. and was reniform, with a fibrous capsule excepting where the adhesions to the colon came. On section its tissue was whitish or pink, fleshy, soft, vascular, trabeculated with fibrous tissue, haemorrhagic in a few places. Microscopically no true capsule was found; the structure was that of a pure fibroma, with cells for the most part adult, elongated, arranged in bundles or irregularly, stratified towards the periphery. The central parts showed much fibrous substance, with here and there degenerative change. The author thinks the growth began in the mesocolon at the hepatic flexure, and argues that it probably was not caused by the blow in the abdomen, but was present long before that date (five months before the operation), because its structure connoted a very slow rate of growth. Two and a half months after the operation the white cells had fallen to 15,000 per c.cm., remaining at this high figure, no doubt, in consequence of the irritation about the colotomy wound; the previous leucocytosis the author attributes to the presence of the tumour, which showed no microscopical signs of inflammation at all. The literature is quoted.

24. Tuberculosis of the Kidneys and Bladder.

LEOPOLD CASPER (*Wien. med. Woch.*, No. 39, 1911) emphasizes the importance of ascertaining with certainty, before proceeding to operation in cases of tuberculosis of the kidney, that one kidney only is affected. As a rule a tuberculous kidney can be recognized by the changes at the ostium of the ureter, but the absence of such changes does not exclude disease of the kidney. Catheterism of the ureter, combined with microscopical examination and, if necessary, animal experiment, is the decisive test in cases in which pus is passed from both kidneys. Even if the urine from the doubtful kidney is clear and free from pus, injection of guinea-pigs may yet show that it is infected, and animal experiments are therefore needed, even though the urine is apparently normal, whenever, either from functional examination or other cause, doubt has arisen as to the state of the second kidney. The author describes a case which shows how, in spite of the greatest care, a mistake in diagnosis may be made. A patient, a young girl, passed urine which was turbid, contained pus and blood, and had been frequently found to contain tubercle bacilli. The cystoscopic examination showed an ulcerated bladder with the ostia of both ureters normal. Catheterization of the ureters, twice repeated, gave from both sides apparently normal urine. Nothing was palpable in the kidney region. Injections of urine from each kidney into guinea pigs were negative. The diagnosis was of primary tuberculosis of the bladder. Six months later the case was again investigated. Pus and tubercle bacilli were now found to come from one kidney. At the operation there were found on the affected side a kidney with two ureters and a divided pelvis—the one sound, the other tuberculous.

25. Disinfection of the Hands.

FONTANA (*Rif. Med.*, August 28th, 1911) reviews recent methods of disinfecting the skin (iodine, petrol and benzol, tannic acid, etc.), and, whilst realizing the excellent results obtained by the iodine method, suggests that perhaps even better results may be obtained by picric acid solution, inasmuch as this penetrates more deeply

into the skin, and yet is less irritating, and may be used for the hands. He uses a 1 per cent. solution in alcohol, and applies it as in the iodine method. The yellow stains of picric acid are easily removed from linen by washing in soda, or from the hands by fairly strong solution of lysoform. The author has used the picric acid method in forty-eight major operations (craniectomy, herniotomy, appendectomy, etc.), and in every case healing occurred by first intention.

OBSTETRICS.

26. Solitary Hepatic Abscess in Pregnancy.

CHAVANNAZ AND LOUBET (*Rev. de gynéc. et de chir. abdom.*, December, 1911) have studied a series of cases where a large and single abscess developed and set up symptoms during pregnancy. This complication simulates the big tropical abscess, and must not be confounded with the more frequent suppuration of the liver not unknown after puerperal infection, where numerous collections of pus are scattered over its substance. The solitary abscess, however, seems to be a very deadly complication—as bad, in fact, as disseminated suppuration. Five cases, including one under Chavannaz and Loubet's own observation, have been recorded with fairly complete details. Neither dysentery, typhoid, or appendicitis had troubled any of the patients, and in only one was there a history of puerperal infection, and in that instance it had occurred three years before the abscess developed. Glycosuria and eclampsia were noted in the authors' case only. In none was there any evidence of injury. Careful observation seemed to prove that the abscess began to develop during pregnancy in all the collected cases. The infection, no doubt, arises in the intestine. In pregnancy and the puerperium the virulence of the *Bacillus coli* is greatly increased, hence the frequency of auto-infection. It is, therefore, rather remarkable that the complication in question is rare. The abscess is nearly always single, only in one case could a few smaller collections of pus be detected, and in four out of five it occupied the right lobe. In only one did it project from the convexity of the liver towards the thorax. The amount of pus was considerable—at least half a pint—whilst in one case the liver was almost entirely converted into a vast abscess cavity. The pus may be creamy, chocolate-coloured, or almost black. In three cases there were no adhesions, so that incision was attended with manifest peril. In three the pus was sterile, and in one only were microbes found in quantities. The *Bacillus coli* abounded, and there were staphylococci which seemingly played a secondary part in the infection. Local pain in the right hypochondrium or base of the right thorax is the chief symptom, and it is generally severe, but does not radiate to the shoulder. Dyspnoea and fits of coughing without hiccough seem frequent, but diarrhoea occurred only in one case. In another there was no rise of temperature. In no instance was distinct jaundice reported. Temporary glycosuria developed, as above noted, in only one case. The prognosis is very bad. In the author's case the patient suffered from eclampsia and glycosuria, the abscess developing in the puerperium. It was incised, and fortunately there were free adhesions protecting the peritoneal cavity. Over three pints of pus came away. Seven months later the patient seemed well and had gained flesh. But the authors question whether she was cured, as there was still much sugar in the urine, and they could testify that this glycosuria had developed in the course of the illness. The child was born dead, premature labour having been induced on account of the eclampsia. All the remaining four cases ended fatally for the mother, yet in none had eclampsia occurred. One patient survived incision for over four months; that was the case where the liver was so freely invaded by the abscess. One child only was saved: the abscess had in this case developed late in pregnancy. Free incision is the only treatment for large abscess of the liver in pregnancy.

GYNAECOLOGY.

27. Phlegmon of the Pelvis or Broad Ligament.

NIKOLOFF (*Echo méd.*, 1911, xv) considers suppuration of the subperitoneal cellular tissue of the true pelvis, also called phlegmon of the broad ligament, under the following headings: (1) Historical: (2) surgical anatomy. Pelvic suppuration is bounded above by the pelvic peritoneum and below by the diaphragm of the pelvis formed by the muscles of the anus and the ischio-coccygeal covered by the superior perineal aponeurosis. The cellular tissue is crossed by two vascular pedicles, the superior one containing the ovarian artery, and the inferior, the uterine artery and the veins from the hypogastrium. These two pedicles enclose lymphatics, the first the lymphatics from the fundus uteri, the Fallopian tube and the ovary, and the second, the lymphatics of the cervix and vagina. The cellular tissue and the lymphatics may be inflamed simultaneously or separately; the superior one, the phlegmon of the broad ligament properly called, and the lower one, the phlegmon of the hypogastric sheath, called also the parametrium. This latter is the more frequent. (3) Symptoms, etc. Parturition and abortion are the most frequent causes. It also results from operations on the cervix. Symptoms usually show themselves about ten days after confinement, with fever and sudden pain, not increased by superficial palpation. Vomiting is rare. The pulse is quick, but regular; if more than 130 beats per minute the peritoneum is probably affected. The face is red. Vesical tenesmus is frequent. Twenty-four to forty-eight hours after the commencement of the fever swelling in the true pelvis is to be felt, palpable through the vagina. If the phlegmon attacks the broad ligament a superficial mass is palpable, crossing the body of the uterus. There is no tumour on vaginal examination. The inflammation may be absorbed or suppurate. Four of the author's cases out of eight underwent absorption. If pus forms, the usual signs of suppuration become manifest, save in the insidious form in which the abscess becomes encapsuled. (4) Treatment: (*a*) Before suppuration, rest, cold applications, vaginal douches, and suitable diet. (*b*) When suppuration has occurred, if directly accessible, approach it from that side, and if not directly accessible, some attack it from the vagina, but the author does not recommend this method owing to the danger of wounding the ureter and large vessels. He prefers the paraperitoneal or subperitoneal. An incision is to be made above the Fallopian tube, the external part of which incision is to be prolonged towards the superior iliac spine. Total removal of the abscess and drainage. (*c*) If the abscess has burst spontaneously, the opening may require enlargement, or another opening made at the seat of election.

THERAPEUTICS.

28. Recent Advances in the Treatment of Diphtheria.

FRITZ MEYER (*Berl. klin. Woch.*, November 6th, 1911) summarizes the recent advances in the treatment of diphtheria under the following headings: (1) The methods of administering antitoxin, (2) the dosage of antitoxin, (3) the prophylactic use of antitoxin, and (4) the modern non-specific treatment of diphtheria. (1) By changing from the subcutaneous to the intravenous or intramuscular injections of antitoxin many authorities have found the results from antitoxin improved, especially in severe haemorrhagic cases. These conclusions have been confirmed by experiments on animals, and Tachau alone records the occurrence of toxic symptoms after intravenous injections without any compensatory results. In children it may be difficult to find veins large enough for the purpose, in which case intramuscular injections are advisable. It is superfluous to prepare special carbolic-acid-free antitoxin for either intravenous or intramuscular injections, as a solution containing 0.8 to 0.5 per cent. carbolic acid does not cause carbolic acid poisoning. Although antitoxin given intravenously raises the blood pressure and soon improves the pulse, respiration, and general condition, it has no apparent effect on the local condition, the false membrane and bacilli taking the usual time to disappear. (2) The dosage of antitoxin has been greatly increased of late, and in severe cases large doses are now repeated till death or recovery occurs. The wisdom of this procedure has been demonstrated on animals by the writer and others, who found that large doses of antitoxin were most effective in preventing immediate death, myocarditis, a dangerous fall of blood pressure, and persistence of diphtheritic cachexia. Many writers have lately shown that the mortality from diphtheria has been reduced by the administration of large doses of antitoxin, and in the recent epidemic in Hamburg Fette never gave less than 3,000 units. The serum rash which sometimes follows a dose of antitoxin is not serious enough to warrant timid doses of this remedy. (3) Prophylactic injections of antitoxin were at one time given indiscriminately whenever infection was feared. This attitude was supported by experiments on animals, who were found to be immune to diphtheria after

three weeks of prophylactic injections. This procedure also enabled Heubner to free from diphtheria his wards devoted to measles. But soon the tale of sudden deaths from this treatment led to its restriction, and at present it is only indicated (*a*) in children already suffering from a severe disease such as measles or scarlet fever, and (*b*) in weakly children exposed to a severe epidemic of diphtheria. Prophylactic injections should never be given to persons exhibiting susceptibility to the smell of stables nor to asthmatic patients. Chronic disease of the respiratory organs is also a contraindication, and the physician should always have camphor or caffeine in readiness should collapse follow an injection of antitoxin. The phenomena of anaphylaxis may also be avoided by using antitoxin prepared from the sheep instead of the horse. (4) It has been found both experimentally and clinically that though antitoxin may prevent a dangerous fall of blood pressure it does not affect it if already present. If, therefore, the blood pressure has fallen dangerously low, subcutaneous injections of adrenalin should be given. Cardiac failure and myocarditis require cardiac tonics, and the diphtheritic membrane should be softened and liquefied by the application of pyocyanase—a product of *Bacillus pyocyaneus* found by many authorities to clear the throat rapidly. Post-diphtheritic paralyses have recently been cured by large doses of antitoxin, 10 to 80 thousand units, given for several weeks. Hitherto the dangers of anaphylaxis have not been overcome, and thyroid tablets, calcium lactate, atropin and the salicylates do not lessen them. But it has been found that the serum of some horses is more dangerous than that of others, and by the rigid exclusion of the former the dangers of anaphylaxis have lately been reduced.

29. Iodocitin.

Isaac (*Wien. med. Klin.*, No. 40, 1911) has during the last year and a half treated 400 patients suffering from syphilis or from one or other of the para syphilitic diseases with a new iodine preparation, iodocitin. In each of the cases the drug was well borne: in none had its use to be discontinued because of side-effects, and the author considers it to be the most ideal preparation of iodine yet produced. In iodocitin, iodine is combined with lecithin, and, as regards the rate at which iodine is set free from the compound, it holds an intermediate position between the inorganic compounds from which iodine is liberated too quickly and the purely organic compounds from which iodine tends to be too slowly liberated. Iodocitin is supplied in tablets, each tablet containing 0.06 gram ($\frac{1}{100}$ grain) of iodine. The tablets have a slightly earthy, not unpleasant taste. At first three tablets are given daily; later the amount is increased to six or eight. To protect syphilitic patients against relapse the tablets are taken for eight days out of each month. The effect of the lecithin component of the drug is beneficial in syphilis and in arterio-sclerosis. The author found iodocitin especially useful in restoring the appetite of patients who were depressed as the result of salvarsan treatment or long-continued mercury cures; in such conditions potassium iodide has a great tendency to set up vomiting and a distaste for iodine treatment. In syphilitic patients suffering from nervous depression iodocitin, probably as a result of its lecithin component, brings about almost immediate improvement. In all cases of syphilis the iodine effect of iodocitin was fully equal to that obtained from the administration of potassium iodide. A case is described of a patient suffering from glycosuria, with loss of flesh and great weakness. The patient had been under treatment for syphilis ten years before, and Wassermann's reaction was now strongly positive. An inunction cure was without effect. Salvarsan could not be given on account of the glycosuria, and the patient had never been able to take potassium iodide. Iodocitin was begun, with the result that after ten days, not only was the patient obviously improved, but the sugar had disappeared from the urine and has not since then returned. In this case the author considers the wonderful benefit to have been due to the combination of iodine with lecithin. In another case of a tertiary syphilide which had persisted in spite of treatment with both iodine and mercury, iodocitin had an immediate and permanent effect. As a result of his experiences the author finds that iodocitin is the best of the newer preparations of iodine because (1) it does not cause iodism, (2) it is non-irritant to the stomach, (3) the appetite and general condition improve under its use, and (4) through the large amount of lecithin which it contains it has an excellent effect in causing the speedy retrogression of syphilitic symptoms, especially after an earlier mercury or salvarsan cure.

30. The Electric Lavement in Intestinal Spasm.

The electric lavement, which is a method of combining rectal injection of water with a galvanic current, is not greatly favoured in those cases of constipation in which there is a predominance of intestinal spasm. Delherm (*Arch. d'électr. méd.*, November 10th, 1911) shares this opinion, and says that although the method may produce good results at the beginning its ultimate effect is generally unsatisfactory. On the other hand, in certain cases of obstruction or occlusion, even though there may be spasmodic contraction, the electric lavement may be excused as an intervention of urgency. In this connexion he relates the case of a child of 4 years, who had violent abdominal pains and alimentary and bilious vomiting, the vomit being stained with blackish blood. At the same time the child had diarrhoea sanguinolenta. He had previously undergone an operation for appendicitis, so that this condition was out of the reckoning. The painful manifestations were most marked in the left iliac fossa, and it appeared to be a case of semi-obstruction. A radioscopic examination with a rectal injection of bismuth having proved the existence of a point of intestinal contraction in the iliac fossa, the electric lavement was determined on. The child's abdomen was distended and painful on palpation: he had taken no food, and had only one very small motion forty-eight hours previously. A plate forming the negative pole was placed on the abdomen, and the probe was employed as the positive pole. Between 200 and 300 grams of water were introduced, and a current of 10 to 15 milliampères was passed for six or eight minutes, without interruptions, shocks, or polar inversions. Immediately after this operation the patient ceased the crying which he had continued almost incessantly during the later stage of his illness, and slept on his mother's knee. It was feared at first that this was the calm of prostration, but it persisted, and the child improved. In the course of the evening and the night he had abundant motions, and his course was then favourable. The author thinks that this is the first case in which diagnosed spasmodic contraction, or invagination diagnosed radiologically, has been submitted to an electric lavement.

31. Hepatic Opotherapy and Diuresis.

Perrin (*Paris méd.*, 1911, iii) notes that liver extract promotes diuresis when the liver is sluggish and the urine is diminished in quantity, the amount of urea is also increased. This does not occur if the patient is suffering at the same time from glycosuria. The same treatment is of value in patients suffering from dysuria as a result of cardiac, renal, or cachectic diseases.

PATHOLOGY.

32. Agglutination of Non-motile Micro-organisms.

Raynaud (*Ann. de l'Inst. Pasteur*, August, 1911) has investigated the agglutinating powers of normal serum upon non-motile bacteria. *Micrococcus melitensis*, as is well known, is capable of being agglutinated by normal serum in low dilutions, for example, in a dilution of 1 in 30. But Raynaud finds that this agglutination does not take place if the serum is heated at 56° C. for thirty minutes. This non-specific agglutination, which is abolished by heat, is therefore to be contrasted with agglutination by specific serum, which does not lose its property when heated at this temperature. Other non-motile organisms, including staphylococci, *Micrococcus tetragenus*, and pneumococci, react in the same way, being agglutinated with unheated normal serum in dilutions between 1 in 20 and 1 in 40, but failing to agglutinate if the serum has previously been heated at 56° C. Comparing serums from persons with a normal temperature with serums obtained from febrile cases, the author finds that this non-specific agglutinating property is more frequently present in the febrile state. Comparisons between agglutinin content and alexin content of the serums investigated appear to show that there is no relation between the two; some serums with a high amount of alexin failed to agglutinate and others which were very poor in alexin showed strongly marked agglutination. Nor, again, could any relation be found between agglutination and diminution in the number of the leucocytes. Whilst unable to provide a thoroughly satisfactory scientific explanation of the phenomenon, the author lays stress on the practical conclusion that in making a serum diagnosis with a non-motile organism the precaution must be taken of first heating the serum at 56° C. for thirty minutes.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

33. Gouty Albuminuria.

RATHERY (*Journ. des prat.*, October 28th, 1911) discusses this subject. He does not include under this heading cases of chronic nephritis with arterial hypertension, but a less known group of cases which suffer from gouty albuminuria properly so called. The patients are for the most part young people, who have only had one or two attacks of gout. The urine is diminished in quantity, high in colour, rich in salts, uric acid, and urates, and contains a large quantity of albumen. But the condition is intermittent and cyclic, being most marked at ten or eleven in the morning and three to four in the afternoon. There is no arterial hypertension in these cases, nor ventricular hypertrophy. Often enough there is hypotension. The liver is usually found to be hypertrophied, and is tender on pressure. Renal permeability appears to be little affected. Certain authors, while admitting the existence of the condition, affirm that there is a renal lesion, although of a specific type, and insufficient to damage the renal epithelium seriously. According to this theory very small sections of the kidney tissue are affected. In the author's opinion it is an argument against this theory that in such patients uraemic symptoms are never noted. It is further stated that the nephritis is caused by the passage of uric acid through the kidneys. But albuminuria is not seen in all gouty persons, and uricaemia is a constant factor. So, too, the type of nephritis referred to, if dependent solely upon uricaemia, ought to be always present. It is not shown that uric acid is toxic for the kidney, or that its presence necessarily determines a renal lesion. In other words, according to the author, it is not proved that this type of gouty albuminuria results from a renal lesion of any kind. Grandmaison supports the view that there is no alteration of the kidney in these cases. According to him the albuminuria arises from hepatic insufficiency. The liver does not completely fulfil its function with regard to albuminous material introduced into the alimentary canal, and allows these, in the form of peptones, to pass into the circulation, and the lowered arterial pressure in these cases favours dialyzation. The author does not agree with this theory in its entirety, but admits that it contains an element of truth as regards the rôle played by the liver. In the gouty albuminuric of the type under discussion, the fault is neither purely renal nor hepatic, but contains an element of both. The hepatic error may arise from hypofunction or hyperfunction of that organ. In the former case the liver ceases to play its defensive rôle with regard to intestinal poisons, and these circulating in the blood cause albuminuria; in the latter case there is too great destruction of red cells, setting at liberty an excessive quantity of globulin which is eliminated by the kidneys. The condition is not serious and is largely influenced by the state of the digestive organs. Treatment must be directed to these organs in the first place.

34. Echinococcus of the Spleen.

BIONDI (*Rif. Med.*, April 3rd, 1911) records the following case. A woman aged 42, after the birth of a fourth child seven years ago, noticed a swelling in the left hypochondrium. It gave her no pain until a few weeks ago, when she was seized with severe pain in the back and epigastrium, vomiting, shivering, and fever; the acuteness passed off, leaving the swelling somewhat tender on pressure. Previously it had been quite painless. There was nothing of importance in the family or past history, except that she had mixed a good deal with dogs. There was no evidence of malaria or other disease. The tumour in the left hypochondrium had all the characters of a splenic tumour, and reached below the umbilicus. There was no glandular enlargement and no evidence of hepatic disease. The blood count showed eosinophilia, but no leucocytosis. There was some slight albuminuria, but no casts, and a diminution in the amount of uric nitrogen from the left kidney. The tumour varied in consistency, being elastic in parts, and the spleen was partially fixed in a transverse direction. The woman suffered from constipation. Upon opening the abdomen the spleen was seen to be extensively bound by adhesions to the diaphragm, colon, and vena cava; it was removed after much difficulty, and found to contain multilocular echinococcal non-suppurating cysts.

35. Ascites in Typhoid Fever.

MCPHEDRAN (*Canadian Med. Assoc. Journ.*, October, 1911) records several cases of ascites occurring in typhoid fever, in two of which the presence of fluid was proved at operation performed on account of perforation of the intestine. The quantity of the exudate coincided with that demonstrated by previous examination, and in character it was a clear serous fluid. Its cause is uncertain, but can easily be understood, since there must necessarily be some degree of inflammatory exudate in the peritoneum overlying the deeper ulcers, and even this slight degree of inflammation must cause some serous effusion. In peritoneal effusions of moderate or small quantity there is always fullness of the flanks, the degree of fullness depending both on the quantity of fluid and also on the relaxation and thinness of the abdominal wall. If much relaxed, there is more or less flattening of the abdomen anteriorly. If there is no subcutaneous fat the slightest flip of the finger in front, as far inwards as an uninterrupted layer of fluid extends, causes a ripple easily felt by the hand in contact with the outer and posterior wall. Such ripple is evidence of the extent of the fluid, since it can be obtained on lightly tapping the abdomen as far from the palpating hand as the fluid is in uninterrupted contact with the abdominal wall but not further, as the intervention of a coil of intestine will arrest it. Such fluctuation can be demonstrated in each flank, but not across the abdomen from flank to flank unless the amount of fluid is sufficient to raise the abdominal wall away from the intestines, thus permitting a continuous layer of fluid to be in contact with the anterior abdominal wall from flank to flank. In order to demonstrate a thin layer of fluid beneath the abdominal wall, the pleximeter finger must be held rigidly in contact with, but not supported by, the abdominal wall, and the percussion blow must be very light. With a moderate degree of effusion beneath a thin abdominal wall, the ripple-like fluctuation is easily detectable if the hand is not placed too near the spine, but the thicker the abdominal wall, whether from fat, muscle, or oedema, the more difficult does it become to determine the presence of fluid.

36. The Pupillary Reflex to Light.

C. NEGRO (*Giorn. d. R. Accad. di Med. di Torino, Turin*, 1911, lxxiv, 249) finds that when the normal pupil is exposed to light it does not at once contract as it is commonly supposed to do, but first exhibits a slight and very brief dilatation. This dilatation is at once followed by the contraction customarily noticed. This preliminary dilatation is consensual, and in a tabetic patient with one normal and one Argyll Robertson eye was observed when the latter was illuminated. It is absent in tabetics with fixed pupils. The author holds that illumination of the retina sets in action two reflexes—one through the sympathetic, dilating the pupil, the other causing miosis through the third nerve. The actual reaction observed is the algebraical sum of these two. The latent period for mydriasis on stimulating the cervical sympathetic is about 0.3 second; the latent period for miosis due to light is about 0.5 second. The slight hippus seen in testing the reaction to light is due to the struggle that goes on between these two reflexes. Extirpation of the Gasserian ganglion should prevent this alleged sympathetic reflex dilatation of the pupil, as the sympathetic fibres pass through the ganglion, and should be removed with it.

SURGERY.

37. The Operative Treatment of Asthma.

A CASE of asthma successfully treated by operative means is reported by Hirschberg (*Volkmann's Samml. kl. Vortr.*, No. 604), whose patient was a 12-year-old girl. For six years she had suffered from typical attacks of asthma, which had increased in severity and frequency till they were of almost daily occurrence, and made her a complete invalid. Even when at rest her rigid, "pigeon" chest made respiration laborious, and it therefore seemed

probable that the faulty chest formation, by limiting the capacity of the lungs, lessened their resistance to those other factors which induce an attack of asthma. In order to increase the chest's range of movement and the capacity of the lungs the writer performed subperiosteal resection of the fifth, sixth, and seventh ribs for a length of 6½ to 7½ cm. on the right side. In spite of a small wound of the pleura the operation was successfully performed. Respiration was at first painful and difficult, but on the second day it had already become far easier than before. Three weeks later the patient caught a heavy cold with tracheitis, and yet no asthmatic attack occurred. Her general condition improved greatly, and she was able to play with other children. Four weeks after the operation an asthmatic attack recurred, and during the following month two more attacks followed, but they were less severe than before. It was now found that the chest had again become rigid owing to the formation of bone by the periosteum left behind at the first operation. Instead of repeating the resection of ribs and removing adjacent periosteum, the writer made a sternal pseudarthrosis by chiselling a 1 cm. wide furrow in the sternum between the attachments of the second and third costal cartilages. The posterior lamina of the sternum was carefully divided by a couple of blows on the chisel, but the membrane sterni posterior was left in place to prevent dislocation of the new joint. The pseudarthrosis was made at the above site, and not at the junction of the corpus with the manubrium for fear lest a pseudarthrosis at this level would favour the compression of the underlying structures. The operation was followed by a slight asthmatic attack lasting for two days. On the third day respiration had again become easy. Systematic exercises were carried out at home and at the hospital, the chest being alternately compressed and allowed to expand. The child regained almost perfect health and attended school. A few slight attacks of asthma occurred, and as the pseudarthrosis showed signs of ossification the writer intends in the future to remove all the periosteum in its neighbourhood. The part which the formation of the thorax plays in pulmonary disease has lately received much attention, and Freund has claimed that in certain forms of pulmonary tuberculosis and emphysema the rigid thorax is the cause of and not the sequel to the pulmonary disease. His advocacy of mobilization of the thorax for the above conditions has been abundantly justified by the success which has followed this treatment in many cases of emphysema. He also advocates resection of the first rib in certain forms of apical pulmonary tuberculosis which are favoured by a rigid and narrow thorax. Rothschild-Soden and Braune prefer the formation of a sternal pseudarthrosis, for they have found in such cases that the angulus Ludovici is entirely obliterated instead of being 13 degrees to 16 degrees, and that the junction between the corpus and the manubrium is osseous and not cartilaginous or fibrous. Braune has further shown on the dead body that by severing the connexion between the corpus and the manubrium the capacity of the lung is increased by 400 to 500 c.cm., and that not only is the diagonal diameter of the chest increased but that there is also an increase in the elevation and rotation of the ribs.

38. Fractures about the Elbow in Children.

TRINCI (*Archiv. di Ortoped.*, An. 28. N. 5), with the help of many radiographs, discusses 33 cases of the above injury, and gives the chief results of his experience. In the first place he shows that epitrochlear fractures are much more common than is generally believed, and on the other hand the so-called T fractures are more rare. These fractures are specially common in childhood from 3 to 14 years. The commonest are the supracondyloid, the external condyle, and epitrochlear. The neck of the radius and the olecranon are seldom fractured, in the author's experience. In discussing fractures of the elbow in children one ought to be familiar with the development of the bony parts, and a radiographic study of this reveals one or two important facts. From this point of view the author shows that separation of the epiphysis is unlikely after 3 years of age. The centre of ossification of the olecranon appears, according to the author, earlier than is usually taught; he has noticed it well developed at 10 years. As regards the supracondyloid fracture, it is usually oblique from above downwards, displacement, either antero-posterior or lateral, is the rule, but there may be exceptions. The upper fragment is in front and the lower behind. Extensive stripping of the periosteum is frequently seen. In fracture of the external condyle there is usually displacement downwards and outwards, but it may be displaced anteriorly, and in very rare instances laterally. Fracture of the internal condyle is very rare, and the same may be said of the olecranon. Osteophytes sometimes cause deformity and disability, and it seems probable that in some cases they are caused by massage and passive movement, which, contrary to common teaching, is likely to cause more harm than good in these elbow injuries. Another bad result—namely, valgism or varism—occasionally follows elbow injuries, and this may be the effect of inefficient replacement of the fracture or due to irregular growth later. As to the best position of the elbow for these fractures, the author advises extension rather than flexion. Flexion hides the possibility of a varus or valgus position being recognized early, and the necessary manipulations on flexion are very apt to cause a fresh displacement of the fragments. Every case cannot be treated by extension. The author is opposed to open operations in these cases. The paper is illustrated by several radiograms.

39. Surgical Treatment of Pulmonary Emphysema.

DELBET (*Journ. des praticiens*, November 4th, 1911) narrates the successful result of operation in a case of this kind. The patient was a woman who had marked cyanosis of the face and lips, a degree of permanent dyspnoea, aggravated by violent crises of asphyxia and attacks of syncope. Local anaesthesia in the form of novocain-adrenalin was given. The costal cartilages from the second to the fifth inclusive were resected and the relief was immediate. Three months after the operation the general condition was very satisfactory. The author attributes the theory of the operation to Freund (1858), whose conception was that certain cases of emphysema were due to an alteration in the costal cartilages, which became rigid, and as a consequence caused immobilization of the thoracic cavity in a state of forced inspiration. Cases of this nature, according to the author, do occur, and the one under notice was such a case. The immobility is due not to ankylosis of the costo-vertebral articulations, nor is there necessarily complete ossification of the costal cartilages. The resection in this case was done on the right side, but the author questions whether it would not be better to remove the ribs on the left side owing to the advantage accruing to the heart, the right side of which is always affected in emphysema. The author does not recommend resection of fewer than four ribs. He discusses the effects of a resection done on both sides in such cases, but is not satisfied that there would be commensurate benefit.

OBSTETRICS.

40. Protection of the Perineum.

R. DE BORIS (*Sem. méd.*, December 20th, 1911) discusses the methods of protecting the perineum and their efficacy. Compression of the perineum with the open palm has been condemned in textbooks for at least thirty years, and is now only practised by a few old midwives. The manœuvre is now generally replaced by the following one: The fork formed by the thumb and index finger is applied to the genito-crural furrows, and an attempt is made to drive back the skin towards the middle line. Brock (of the St. Petersburg Maternity) condemns this method. A perineum, he says, only ruptures when it attains the limit of distension, and by applying the fingers to the sides of it one prevents its proper distension and favours rupture. He advises that nothing should be done to the perineum itself, but that the delivery of the head should be retarded; to this end he applies a hand to the fetal head and only allows it to advance slowly, at the same time directing the head towards the pubes by pressing on the bregma and afterwards on the forehead with the tips of the fingers. During ten years he has seen no case of rupture under this method, except when it has been used by inexperienced pupils in cases of violent contractions. Every year, continues de Boris, one or two "new" methods of protecting the perineum are introduced, each author partly or wholly disagreeing with his predecessors, so that one is naturally inclined to question whether any method is of any use at all. In general, two methods are in vogue, one directed to the perineum itself, the other to the fetal head. As regards the first, it is extremely doubtful if a finger and thumb stretched out in the genito-crural folds can press much tissue towards the middle line. From the perineal side there is only one means of helping the parturient woman, and that is by pressing the head towards the pubes: this is done by applying the "digital fork" deeply in the genito-crural folds where the

skin is fairly thick and not likely to slough, and, in default of the sinciput or forehead, working on the parietal bones of the fetus. But the real efficacy of this manœuvre is extremely doubtful. As regards the second method—that of retarding the advance of the fetal head and drawing it towards the pubes—de Boris questions whether that is of much use either. Consider the force necessary to keep back a fetal head driven onwards by uterine contractions: by fixing the foot against the foot of the bed and either working on the perineum in the manner above described, or on the pubes, one can accomplish little or nothing. The hand of the accoucheur presses the head towards the pubes and helps the natural rotation round the symphysis. The intention is excellent, but if the perineum resists it is the first to drive the presenting part towards the pubes. When the head threatens to be born it is good practice to support it and guide it towards the pubes, but the effect in protecting the perineum is small. If the protection of the perineum as usually practised were really efficient there ought to be a great difference between spontaneous confinements and those attended by competent persons. Amongst the latter, according to Auvard, the proportion of ruptures is 30 per cent. in primiparas and 10 per cent. in multiparas. Among 157 precipitate confinements, of which only 49 were primiparas, Scanzoni found only 26 ruptures—that is, 39 per cent. in primiparas and 6 per cent. in multiparas. For purposes of comparison the same author allowed 112 parturient women to be delivered without assistance, and there resulted only 20 per cent. (22 cases) of rupture: for this experiment primiparas were in the majority. In conclusion de Boris says: Apply yourself to retarding the delivery of the fetal head if you think it necessary or possible; tell the patient to moderate or increase her efforts if she is capable of listening to reason in such a predicament: but do not boast overmuch about your prowess in protecting the perineum. Here, as elsewhere, the multiplicity of methods is not the mark of great efficiency.

GYNÆCOLOGY.

41. Chorion-epithelioma of Fallopian Tube.

MILES PHILLIPS (*Journ. of Obst. and Gynæc. of Brit. Emp.*, December, 1911) reports an instructive instance of this disease, of which Risel collected 11 cases in 1905 (*Zeitschr. f. Geburts. u. Gynäk.*, vol. lvi). Phillips's patient was 28 years of age. She weaned her third child when it was 10 months old, and two months later the catamenia returned. She entered hospital at the end of five months on account of profuse, though regular, menstruation, with lumbar and abdominal pains, the latter occasionally acute. A tender mass could be defined on each side of the slightly enlarged uterus, the left being the larger. At the end of three weeks an acute attack of pain occurred and abdominal section was performed. The left Fallopian tube, converted into a cylindrical swelling 5½ in. in length, was removed, blood issued from a minute opening on its posterior aspect near the uterus. A bleeding patch was noted on the peritoneum over the right side of the bladder; its significance was misunderstood at the time. The left ovary and the right appendages were normal. The left tube was healthy in its outer part, the ostium was patent. Its inner half was filled with a solid mass resembling organized clot; it proved to be a true chorion-epithelioma, and there were no chorionic villi nor fetal relics. The curette was applied to the uterus, but no decidual or chorion-epitheliomatous tissue could be found. Seven weeks later, as there was evidence of recurrence, a second operation was undertaken. The uterus, with the left ovary and the right appendages (perfectly healthy), were removed. A recurrent growth was excised from the left broad ligament, a nodule cut away from the wall of the bladder, at the point where a bleeding patch had been noted at the first operation, and another dissected out of the vagina behind the neck of the bladder. A nodular mass, half the size of a fist, was found at the root of the mesentery; it could not be removed. It was apparently a collection of enlarged lymph glands. All the excised growths proved on microscopical examination to be chorion-epitheliomatous, but the uterus bore no such growths. Three years after the second operation the patient was in good health and free from any sign of recurrence. The clinical resemblance of the case to tubal abortion, when the first operation was performed, is remarkable, and the appearances of the tube itself strengthened such a diagnosis. The microscope showed that the tumour was no fetal sac, but a highly malignant new growth. Thus care should be taken about structures resembling tubal sacs. The further history showed the necessity for speedy operation when the least indication of recurrence has appeared. Phillips reminds us that chorion-epithelioma of the tube has proved fatal in all but two cases. His own is probably the fourteenth on record.

42. Absence of Vagina Discovered Accidentally.

DIVABINE (*Revue de gynec. et de chir. abdom.*, December, 1911, from *Practich. Vratch*, July 31st, 1911) was consulted by a married woman aged 26 on account of a spontaneous fracture of the left humerus. In endeavouring to ascertain the cause of the lesion, he found out that his patient had never menstruated, nor had experienced any menstrual molimen, or noted any haemorrhages of any type. She had been married about eighteen months, and at first dyspareunia was severe, yet latterly coitus was apparently normal, and associated with a certain amount of orgasm. The breasts were well developed, as were the pubic hairs, labia majora, and clitoris, whilst the labia minora were almost suppressed and the vagina absent. There was not even a trace of a depression between the labia to represent it. The meatus urinarius admitted two fingers; directly one finger was introduced urine escaped, and the flow ceased when the finger was withdrawn. Thus the urethra was dilated, but its sphincter acted well: at least the patient admitted that there was but a trifling amount of incontinence of urine. By aid of the speculum the orifice of each ureter could be detected without difficulty. On palpation, no uterus nor ovaries could be defined.

THERAPEUTICS.

43. Diet in Persistent Vomiting in Infants.

HANS HAHN (*Wien. med. Klin.*, No. 38, 1911) has had excellent results, in cases of persistent vomiting in infants, from giving food more solid than milk. This cause was suggested to him by the frequent reports of mothers and nurses that infants with persistent vomiting had shown immediate improvement when milk thickened with flour or when zwieback was given, and also by the consideration that babies recovering from severe illness with no appetite for milk will often willingly take more solid food. The author's plan is to give milk containing 5 per cent. to 6 per cent. flour, and such an amount of sugar as brings the calorie value of a litre of the thickened milk to about 1,000 calories. The food is given in five or six portions a day, so that the child receives about 100 grams of milk per kilogram of body-weight. Slightly older infants may be given milk thickened with potatoes or zwieback, which has been crumbled into milk. In order that this form of treatment may be applicable the vomiting must be independent of intestinal symptoms: cases resulting from overfeeding or wrong feeding are excluded. Cases of pyloric spasm are also unsuitable, and the diagnosis here is not always easy. Pyloric spasm is diagnosed from the history, from the pain, from the presence of visible peristalsis, which shows up the contour of the stomach, and from the constipation, and finally, if necessary, from the effect of a few days of the more solid diet. The adoption of the test diet in these cases is a rational treatment, since it is still a matter of doubt whether habitual vomiting is due to nervous hyperæsthesia of the mucous membrane of the stomach, the result of a general neuropathic condition, or whether it is due to reflex spasm of the pylorus. The author suggests that the diet is effectual by virtue of its solidity, since it is more difficult for the stomach to exclude a solid than a fluid mass. The article concludes with a description of three illustrative severe cases. In the first of these different methods of feeding, including feeding on human milk, had been without result, as had frequent lavage of the stomach. The more solid diet quickly brought about cessation of vomiting. In the third case, besides different modifications of milk, protargol, belladonna, and cocaine had all been tried unsuccessfully, with a view to diminishing the irritability of the stomach. In all the cases the babies put on weight on the more solid diet, and were discharged in good health.

44. Veronal in Whooping-cough.

FRITZ ROSENFELD (*Berl. klin. Woch.*, September 11th, 1911) has, during the last three years, treated a large number of cases of pertussis with the above remedy or

its soluble derivative, medinal. Except in one single instance, that of an infant aged 3 months, which was being reared on the bottle, and which died of convulsions, the remedy has been uniformly satisfactory. In nearly every case (which for the most part came under his treatment during the early stage of convulsive cough) eight to fourteen days sufficed to abolish all night attacks, and to reduce those during the day to not more than two to four. He prefers "medinal" (natrium diaethylarbituricum) to veronal on account of its solubility and its pleasanter taste. It is given in doses of 1½ to 3 grains, according to the age of the child, either alone, in distilled water, or combined with sweetened or flavoured expectorants. For adults he adds a dose of antipyrin equal to that of the medinal; the children are apt to become faint and a little somnolent under the influence of the drug, and it is important to impress upon the mother the necessity of constantly watching the patient, that the dose may be adjusted to not more than will diminish the attack of coughing. The author finds this in practice not difficult. As a rule, even severe coexisting bronchitis soon subsides when the irritation of the cough is removed. Only exceptionally was more energetic antibronchitic treatment necessary. The greatest caution is necessary in treating infants under 6 months old with this remedy.

45. Ionotherapy for the Removal of Warts.

MARQUÈS (*Arch. d'Électr. méd.*, December 10th, 1911) relates a case in which the magnesium ion was very effective in the removal of warts. The dorsal face of both hands in a patient was covered with a large number of warts of different sizes, some of them dating back for four or five years. The right hand was treated with the magnesium ion, and excision with the bistoury was practised in the case of the left. Absorbent cotton impregnated with a 2 per cent. solution of magnesium sulphate was wrapped around the right hand, and on the cotton was fixed a zinc positive electrode, a negative electrode of large surface being placed on the back. A current of 20 milliampères was given for twenty minutes, three sittings per week—sixteen sittings in all. When the patient left the hospital the warts of the right hand had disappeared. Under electrical treatment they became detached little by little, leaving only small and almost invisible cicatrices. On the left hand, which had been treated surgically—excision with bistoury and painting with silver nitrate—there were larger and more visible cicatrices, and a certain number of small warts still remained untouched. Ionotherapy certainly gave a better aesthetic result as well as a more complete operative one. The same author has treated a case of severe lymphangitis of the forearm and wrist with zinc ionization. The result was a rapid easing of pain and a disappearance of abnormal temperature and coloration.

46. Deaths from Salvarsan.

HALLOPEAU AND GAUCHER, at the Paris Academy of Medicine, recently reported three more deaths from salvarsan, all occurring in young and healthy subjects (*Bull. de l'Acad. de Méd.*, October and November, 1911). In the case reported by Hallopeau, two intravenous injections of 0.3 and 0.4 gram were given with an interval of six days, the patient being a robust man of 35 with palmar and plantar syphilides. The first injection was borne well, but the second was followed by nausea and vomiting on the following day, convulsions and coma on the third, and death on the fourth day. This patient had been previously treated with mercury and hectine, the last injection of the latter (10 cg.) being given about three months before salvarsan. The onset of symptoms so soon after the injection of salvarsan points to the latter as the cause of death. Hallopeau mentions similar cases published by Fischer, Hoffmann, and others, and asks whether other cases have occurred which have not been reported. He remarks that a drug which may cause the death of comparatively healthy subjects is contraindicated, and urges that salvarsan should be abandoned like atoxyl and arsacetin. He considers that hectine is equally efficacious and free from the dangers of salvarson. The case reported by Gaucher occurred in Beurmann's clinic at the St. Louis Hospital, and concerned a healthy man of 19 with primary syphilis. Two intravenous injections of 0.6 gram were given with an interval of three days. The second injection was followed by vertigo, headache, and vomiting, with epigastric pain and rise of temperature. On the second day epileptiform convulsions occurred, soon followed by coma and death. The autopsy revealed acute nephritis, all other organs being healthy. Death was attributed to uraemia following acute nephritis due to arsenical poisoning. The third cause of death, in a young and healthy girl of 18, was reported by Ravant. Gaucher concludes that, however efficacious its action, salvarsan is a dangerous drug, which should only be used with extreme prudence, and should be reserved for cases in which mercury fails or is not tolerated, but such cases are extremely rare.

PATHOLOGY.

47. Serological Diagnosis of Malignant Tumours.

E. KRAUS, E. V. GRAFF, AND E. RANZI (*Wien. klin. Woch.*, No. 28) discuss the clinical value of the Freund-Kaminer cell reaction and the cobra reaction in the diagnosis of malignant tumours. Freund and Kaminer found that while normal serum dissolves cancer cells, the serum of carcinomatous patients does not, and therefore decided that normal serum contains an active substance destructive of cancer cells which is absent in the serums of cancer patients. The investigations of Ranzi and Amiradzibi and of Arzt support this theory. The present authors, when testing the practical value of the reaction, found considerable difficulty in obtaining a suitable emulsion of cancer cells; these, to be of use, must be from tumours without retrogressive changes, and even then the cells may often clump so as to make counting impossible. When, however, a suitable emulsion has been obtained, it often keeps well, and has given good results, in the authors' experience, even after as long as five weeks. The cell reaction was tested on 78 cases. The serum was considered to be solvent, doubtful, or non-solvent according as the diminution in the number of cells was above 50 per cent., between 50 per cent. and 25 per cent., or less than 25 per cent. of the original number. Each of four normal serums from sound persons dissolved the cells almost completely. Twenty out of 28 cases of malignant tumour gave no solution of the cells, 1 case of carcinoma of the oesophagus gave slight solution, and the remaining 7 failed to give the cancer reaction. In 3 out of the 7 cases which failed to give the reaction the tumours were still localized and of a comparatively benign type, and the absence of reaction may have been an index of the comparative absence of malignity, but this explanation would not apply to the remaining 4 cases. Of the 39 patients with diseases other than cancer, 6 gave the cancer reaction. In one of these the possibility of the presence of cancer could not be excluded; the other cases were of heart disease, elephantiasis, diabetes, cirrhosis of the liver with jaundice, and adenoma mammae respectively. Altogether, of the tumour cases 71.4 per cent. gave a positive reaction, 25 per cent. a negative one, and 3.5 a doubtful one. Of the non-tumour, or benign tumour cases, 61.2 per cent. gave a negative reaction, 15.3 per cent. a positive one, and 23 per cent. a doubtful one. The cobra reaction—that is, the power of haemolysis of cobra poison in different dilutions mixed with inactivated serum from different sources, and tested on horse blood corpuscles—was tried with serums from 127 cases, 5 normal ones, 43 of malignant tumour, 68 of other diseases, and 11 of cases of carcinoma, which clinically appeared to be free from relapse; 81.2 per cent. of the tumour cases gave a positive result, but 41 per cent. of the other cases did the same, while neither as regards the cell reaction test nor the cobra reaction did the same serum absolutely invariably give the same result. The value of a cancer reaction for clinical purposes will depend largely (1) on its presence in early cases; (2) in doubtful cases, and (3) its presence or absence after extirpation and in cases of relapse. Freund's reaction was positive in 1 and negative in 2 early cases of tumour, while the cobra reaction was positive in 2 and negative in 1. In 4 doubtful cases the cobra reaction was positive in 3 and negative in 1, which turned out to be of cancer. Freund's reaction was negative in each of 7 cases after radical removal, the cobra reaction positive in 8 out of 11 such cases, and negative in the other 3. Of the two methods, the authors consider the cell reaction to be the more trustworthy, but even this reaction can only be considered of subsidiary value, and the nature of the reaction would not be enough in itself either to justify the carrying out or the abstaining from operative treatment, as the case might be. They do not find the reaction to rest upon any acquired predisposition to cancer, but rather to result from changes in the serum due to abnormal products of metabolism from the tumour.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

48. Umbilical Infections of the Newly-born.

Brindeau (*Journ. des prat.*, October 25th, 1911), after relating the result of the introduction of a child suffering from erysipelas into a children's ward, in the form of an acute streptococcal infection of the umbilicus of several infants, discusses the varieties and treatment of this condition. The gravity of the condition, he points out, is not so much due to the proximity of the peritoneum as to the fact that we have to deal with an open wound. Infection can occur *in utero* following too early a rupture of the membranes. More frequently it results from the cutting of the cord by a septic instrument, the use of unsuitable dressings, or inefficient sterilization of the thread. In addition to the streptococcus there is to be found, although more rarely, the bacillus of Nicolaier, and the *Bacillus proteus*. Premature infants and the children of diseased parents are, of course, the most frequent victims. Two varieties of the condition may be recognized: (*a*) Local infections, which are comparatively benign, and which often take the form of a moist gangrene of the cord. It is usually easy to deal with these by bathing with alcohol to dehydrate the tissues and dressing with iodoform gauze. Another variety of localized infection is characterized by the presence of suppurating fleshy points after separation of the cord. In this case also treatment is simple. The stump is thoroughly dried, touched with tincture of iodine, and covered by a sterilized dressing. A much rarer occurrence is abscess or ulcer of the umbilicus. (*b*) General infections. Erysipelas of the umbilicus must be included in this category, although to begin with it is a localized infection. As a rule, it begins insidiously. When seen at the commencement there is a rose-coloured flush, rather than redness, of the umbilicus. Some hours later the genital organs are affected, and also the thorax and lower limbs. At the commencement the temperature is considerable, but this quickly disappears, and in debilitated children there is a subnormal temperature. The face becomes drawn, there is vomiting and diarrhœa, nearly always icterus, and death follows almost inevitably. Sometimes the child dies some days after birth without showing any local phenomena, the umbilicus appearing quite healthy, and yet a pure culture of streptococcus can be obtained from the umbilical vessels. In such cases there is generally a state of local cyanosis accompanying a hard œdema. There are also fugaceous erythemata, petechiæ and umbilical hæmorrhage. The diagnosis is sometimes difficult, but suprapubic œdema is often, in the opinion of some, a preliminary indication. With regard to prophylaxis, the cord ought to be cut under strictly aseptic conditions and bathed with alcohol at every dressing. Only dry dressing should be used, never moist dressings or ointments. Treatment unhappily is, in the great majority of cases, of no avail. Isolation must, of course, be carried out, and Brindeau has seen a cure result from the employment of Marmorek's serum.

49. Congenital Heart Disease.

Gasperini (*Rif. Med.*, June 5th, 1911) records the following case. A woman, aged 56, was admitted into hospital suffering from heart failure and marked cyanosis. She was said to have been cyanosed since birth, but up to the last two years had been able to carry on her work as a sempstress, and had frequently done fairly laborious work in gathering and carrying loads of wood. She was married at 29, and had two miscarriages, but no living children. On admission she presented typical cyanosis, but the fingers were not markedly clubbed. She was orthopnoeic, ascitic, and showed the usual signs of heart failure. There was a loud and rough systolic murmur heard all over the cardiac area and even posteriorly, but loudest over the pulmonary area, and conducted up towards the left clavicle, but not into the veins of the neck. The right side of the heart was enlarged. In addition to the systolic murmur, there was a soft presystolic murmur conducted transversely across the sternum towards the middle left clavicular line in the second left intercostal space. At the *post-mortem* examination marked stenosis of the pulmonary artery and patency of the interauricular septum near the fossa ovalis was discovered. The interventricular septum was normal. The diameter of the orifice of the thickened pulmonary valves was 5 mm. During life the cardiac sounds at the apex were normal, the second aortic sound unaltered, the pulse full and registering a pressure of 165 mm. Hg in the right brachial artery. In spite of this congenital defect, the patient survived up to her 56th year, and apparently suffered in no way until the last two years of her life, when signs of failing compensation began to appear.

50. Poliomyelitis Affecting Two Members of a Family.

Lemoine (*Gaz. des prat.*, October 1st, 1911) calls attention to an occurrence of this kind. The patients were a brother and sister, aged 2¼ years and 1¼ years respectively. There was no abnormal family history. The elder child was first attacked by "green" diarrhœa and high fever, the younger becoming very constipated, and also feverish. Calomel and benzo-naphthol were prescribed. The boy improved, but in the case of the female child the temperature kept up, and along with flaccidity of the limbs there was evidence of marked intestinal paresis. The boy went on well for some days, but it was noted that when he laughed there was obvious facial paralysis of the left side. In the case of the younger child there was found to be paralysis of the head and neck muscles, and it evidently occasioned the child pain to attempt to turn the head. The hands and forearms were little affected, but both upper arms were paralysed. In the case of her lower extremities movement was only possible to a slight extent on the left side. The plantar and patellar reflexes were abolished. Warm mustard baths were given twice a day, and frictions along the vertebral column. Twelve days after evidence of the attack electrical treatment was begun, and in both cases improvement rapidly set in. The shoulder blades remained prominent, and all the muscles of that region were slightly atrophied. In the boy's case all that was left of the facial paralysis at this period was a slight lowering of the left labial commissure. The author concludes that these cases show that children of the same family can be attacked simultaneously from the same source of infection. He comments upon the curious localization of the paralysis in the case of the elder child to the facial nerve. The improvement brought about was largely due to the early use of electrical treatment. This should be begun as soon as the temperature comes down.

51. Septicæmia in Scarlet Fever.

Hutinel (*Arch. de méd. des enfants*, March, 1911) describes a case of septicæmia in scarlet fever. In the first days of the fever symptoms of a severe intoxication presented themselves, especially a marked erythema. There were, however, no albuminuria, arthropathies, cardiac or pulmonary symptoms. The whole infection was implanted on the throat, nasal fossæ, and larynx, and to a slight extent on the lymphatic glands. The mucous membrane became gangrenous and sloughed. The child died, and on *post-mortem* examination the viscera, to the eye, presented no abnormalities save a certain degree of congestion. On microscopical examination, the thyroid, hypophysis, and suprarenal glands were inflamed, and all showed signs of hypofunction. Hutinel believes that the absence of function of these glands caused great lowering of arterial pressure and general asthenia, and paved the way for the appearance of the suppuration of the pharynx and larynx. He is strengthened in his opinion by the fact that Tixier and Troisier found on *post-mortem* examination, in a case of malignant scarlet fever, that the suprarenals were destroyed and the pancreas seriously affected. Basing his opinion on these facts, Hutinel considers that the treatment of individual cases should depend on the organ chiefly affected: if the liver is chiefly to blame, this organ should be treated; if the suprarenals, then adrenalin or extract of the whole gland should be administered, in addition to symptomatic treatment.

SURGERY.

52. Nerve Anastomosis in Facial Paralysis.

Dori (*Rif. Med.*, October 30th, 1911) reports a case of complete left facial paralysis of four years' duration, occurring as the result of cold in a girl, aged 18, successfully treated by anastomosis with the spinal accessory.

Before operation, the tactile, heat, and pain sensations were normal on the left side, and the sense of taste, smell, and hearing unaffected on either side. The main trunk of the facial and the superior branch did not respond at all to the faradic current; the lower branch gave sluggish, vermicular contractions. The galvanic current gave a typical reaction of degeneration. In June, 1909, an anastomosis between the external branch of the spinal accessory and the facial nerve was practised. Soon after this operation the paralytic symptoms were more marked and the patient complained much of the heaviness of the left shoulder, but all the movements of the head and shoulder were possible. Some slight wasting of the sterno-mastoid and trapezius was noticeable, but this and the heavy feeling gradually disappeared. In the early part of January, 1910, the asymmetry of the face was much less marked, although in repose it was still possible to make out signs of paralysis. The left eye could be closed almost completely, and the left corner of the mouth could be raised with associated shoulder movements. She could not frown on the left side. Fibrillary twitchings could be seen on the chin and above the eyebrows. On electrical examination a reaction of degeneration was present in the various branches of the facial nerve. At the end of February, 1910, the tonicity of the muscles was equal on both sides of the face and the patient could move the muscles of the left cheek at will, and there was some return of power in the frontal muscles. Improvement in the faradic excitability was also noted. The associated shoulder movements eventually disappeared. When last seen, in May, 1910, there was still further improvement. The author refers briefly to 85 published cases of nerve anastomosis for facial paralysis and discusses the subject generally.

53. An Early Sign of Cancer of the Throat.

Sebileau (*Paris méd.*, 1911, ii) finds that certain cancers at the back of the mouth and at the junction of the respiratory and digestive tracts early give rise to deviation of the tongue to the diseased side when the tongue is protruded slightly; but if pushed out as far as possible, the body of the tongue turns to the diseased side and the point to the sound one. The author finds this sign nearly constant.

54. Dermoid of the Floor of the Mouth.

Heinrich Trümper (*Wien. klin. Rund.*, No. 38, 1911) describes a case of dermoid of the mouth. The patient, a man 25 years of age, had noticed since childhood a small thickening under the chin, which, however, gave rise to no symptoms. Three years before he came under treatment the swelling began to increase, and he began to suffer from lancinating pain, from gradually increasing pain on swallowing, and from breathlessness, which finally led him to present himself for treatment. On inspection, a tumour about the size of a fist was seen in the submental region in the middle line of the neck: the tumour extended downwards to the hyoid bone, and laterally almost to the angle of the jaw. The under-lip was thickened, the alveolar edge of the lower jaw seemed to be pressed forward. The swelling was not tender, and the skin over it was unchanged and not adherent. The hyoid was pressed downwards. On opening the mouth a tumour was seen behind the lower teeth about the size of a goose's egg. The mucous membrane over it was stretched and thinned. The tumour almost filled the mouth, and the tongue could not be seen until the tumour was depressed. Pressure on the external tumour showed that the external and internal tumours were parts of the same growth. The tumour was soft, and the impression of a finger on it remained. Fluctuation could not be made out. The buccal mucous membrane showed no inflammatory changes. The tumour was extirpated under chloroform, an incision being made in the middle line from the middle of the chin to the hyoid. The operation was complicated by the presence of firm adhesions between the tumour and the hyoid bone, and since the patient showed signs of asphyxia during the attempt to remove the tumour *in toto*, it was opened, and a thick yellowish fluid containing a few hairs was allowed to escape before completing the operation. The patient made a complete recovery. A macroscopic and microscopic examination of the tumour was carried out, and justified the diagnosis. In a second case described the tumour had only been observed for a few months. In this case also the tumour, which was first noticed under the tongue, filled nearly the whole cavity of the mouth; speech was difficult, and there were marked respiratory symptoms. The operation was performed under chloroform. Here, too, there were difficulties of respiration, which grew worse in spite of emptying the tumour, and tracheotomy was necessary before the tumour could be removed. This patient also made a good recovery. The whole question of the development of the parts is carefully gone into in connexion with the genesis of dermoid of the floor of the mouth. The diagnosis from ranula is also considered. In removing a dermoid of the floor of the mouth the size and position of the tumour determine whether it should be removed from the mouth or from the outside.

55. Cysts of the Omentum.

Charles N. Dowd (*Ann. of Surg.*, November, 1911) narrates a case which came under his observation and was successfully operated upon. His patient, a young man of 26, had for four months been aware of a movable mass in the abdomen, the origin of which he traced to a sudden acute illness about a year before, when he felt something "snap." This mass was found to be a cyst, the size of an orange, covered with peritoneum, filled with pale-coloured clear fluid. The pedicle was composed of omentum twisted on itself many times. The cyst wall was formed of peritoneum, fibrous tissue, and an inner layer of coagulated fibrin. The author suggests that this cyst was originally an omental haematoma, and points out that the conversion of blood into clear limpid fluid with no trace of blood except the presence of modified blood pigment in the capsule is no uncommon finding in the brain, thyroid gland, and scalp. The torsion of the omentum with consequent oedema and transudation of the watery elements of the serum into the cyst cavity may also play a part in formation of fluid contents. The symptoms of torsion of the omentum simulate those of strangulated hernia and acute appendicitis. A usual classification of mesenteric cysts is into (1) embryonic cysts, (2) cystic malignant disease, (3) echinococcus cysts; and the author thinks it may be used as well in classifying omental cysts. But many of the latter are reported as containing blood pigment, so that the possibility of these being originally haematomata requires to be kept in mind. A tabulated list of all the known cases of omental cyst, exclusive of those due to the echinococcus and to malignant disease, has been prepared by Charles E. Farr, and is included in the paper.

OBSTETRICS.

56. Appendicitis and Abortion.

Peritonitis and general infection after neglected abortion are complications familiar in hospitals, whilst appendicitis is yet more frequent. When the patient has aborted and conceals the fact, hypogastric tenderness, especially if marked towards the right iliac region, may mislead the surgeon should he neglect pelvic exploration. The reverse error of diagnosis seems, however, to be more frequent. MM. Hartmann and Le Grand (Appendicite méconnue, avortement, mort, *Bull. et mém. de la Soc. Anat. de Paris*, October, 1911, p. 581) state that it has twice occurred in their own experience; nor is the error surprising when we remember that if a woman informs us that she has recently miscarried and is suffering from severe pains in the right iliac fossa, we may naturally ascribe the symptom to a common sequel of abortion. Hartmann and Le Grand report one instructive example of an error of this kind. A woman aged 32 was admitted into the Hôpital Bichât last autumn suffering from acute abdominal pains following an abortion at the second month. Five days before admission an attack of acute hypogastric pain occurred, with bloody discharge which became fetid next day. On the third day there were several rigors, and on the fourth, according to the patient's account, the curette was employed. Next day there were sharp pains, occurring at irregular intervals, in the right iliac region, with vomiting. On admission, there could be no doubt about recent abortion, as after dilatation some placental tissue was removed: it had caused very fetid brown discharge. The abdomen was slightly distended, but the pain was not increased by pressure nor was there any muscular spasm. A development of formidable complications followed the removal of the placental tissue. There was fever, much higher in the evening than in the morning, and dull pain developed in the right hypochondrium posteriorly. Two days later the patient vomited fetid grey pus freely. Oedema was definable in the right flank, and dullness on percussion over the right side of the thorax reaching to the fourth rib in front. The abdomen was still distended, but not particularly tender. The patient died very suddenly on the twentieth day after admission from very acute asphyxia. The ascending colon was found to possess a complete mesentery through-

out its entire length. Behind it the appendix vermiformis was seen: it was greatly elongated, running from the caecum to behind the lower part of the right kidney. The tip lay in a small collection of pus, but no trace of any perforation was present. A big subphrenic abscess, full of very fetid pus, lay above the liver. The diaphragm was not perforated, but there was right pleurisy with empyema. The uterus was slightly enlarged but empty. Hartmann and Le Grand believe that the sequelae of appendicitis caused the abortion. As retained placenta was found and removed, it would seem possible that fresh general infection had followed the abortion.

GYNAECOLOGY.

57. Thrombosis and Embolism after Vaginal and Abdominal Coeliotomy.

KLEIN (*Zentralbl. f. Gynäk.*, No. 45, 1911), in a recent discussion on thrombosis and embolism, at a medical congress, spoke strongly for the relative safety of vaginal operations for relief of diseases of the pelvic viscera as compared with abdominal sections. In one institution 50 cases of post-operative thrombosis and embolism were registered in a series of 5,524 operations: 29, or 1.7 per cent., followed the 1,720 laparotomies in that series. Turning to the vaginal coeliotomies, 1,992 in number, the percentage was only 0.8, not half as high as in the abdominal sections. Klein noted that Wertheim admitted that in his practice thrombosis was three times more frequent after abdominal section for myoma than after vaginal myomectomy and hysterectomy for fibroids. Klein was struck by the great difference in the mortality of embolism in his own series; 9 proved fatal in the 1,720 abdominal sections, but not one in the 1,992 vaginal operations. The latter, he insisted, were in many cases quite as difficult and as prolonged as any abdominal section. Therefore vaginal operations were, on the whole, preferable, especially when certain constitutional or organic maladies complicated the case. Thrombosis and embolism are specially probable where there is increased abdominal pressure owing to tumours, ascites, etc., anaemia, cachexia, valvular disease, arterial sclerosis, varicose veins, and, without doubt, infection of the wound. Corpulence and narcosis have to be taken into account, and also injuries to big vessels.

58. A Case of True Hermaphroditism.

O. UFFREDUZZI (*Arch. per le Sci. med.*, Turin, 1910, XXXIV, 241), after a consideration of the literature, describes the case of a child of 7, brought up as a girl. A few years previously bilateral inguinal hernia had appeared; the child was well developed, of female aspect and musculature. A skiagram showed that the sella turcica and frontal sinuses were somewhat enlarged. Respiration was mainly costal: the pelvis showed no sex characteristics. The penis was 3 to 4 cm. long, with a normally-sized but imperforate glans: from the under side of the balano-preputial fossa to the root of the penis ran a fibrous cord, short enough to hold the organ curved downwards. A little lower down, and also in the middle line, was the slit-like orifice of the meatus, leading into the urethra. This was concave anteriorly as it passed to the bladder, just as the proximal end of the normal urethra is. Just behind the meatal orifice was a very slight transverse ridge, dividing into two the furrow in which the meatus debouched. The posterior part contained no opening, and nothing resembling vagina or uterus could be felt here per rectum; no prostate could be felt either. On either side of the meatal orifice and penis were folds roughly comparable to labia majora, and within them two smaller folds suggesting labia minora; but transverse and oblique folds and pigmentation showed that the former folds were really ununited scrotal sacs. In the hernial sacs could be felt structures like testes; the sacs were regarded as pervious vagino-peritoneal ducts: the hernias were thought to be congenital, and the diagnosis of male androgynoid pseudo-hermaphroditism, or, better, hypospadias and cryptorchis, was made. Operation was decided on to cure the hernia and to relieve the doubts of the family. It was found that there was a testis, with epididymis and a normal vas deferens: but on the upper pole of the testis was a whitish structure, like a thickening of the albuginea, containing a cyst, and by the side of the epididymis an elongated body ending blindly. For various reasons the whole was removed with the sac of the hernia, and was examined microscopically. The testis was found to have the structure normal in retained infantile testes, with a well-marked but rudimentary rete. At its upper pole its structure passed into that of an ovary, with numerous round primordial ova in it (10 to 12 to a field), some showing the early stages in the development of a Graafian follicle. The cyst, 1.5 mm. in diameter, was a well-developed Graafian follicle, with a cumulus proligerus in which, however, the ovum was not found. Above the testis and ovary was an epididymis, with a caput and a vas deferens which passed up into the abdomen; and, in addition, a tube 2.25 mm. in diameter with cylindrical and ciliated epithelium on an internal surface thrown into deep longitudinal folds: its lower end was open just above the ovary and showed fimbriae on its margin, one fimbria adhering to the ovary itself. Its other end was a cul-de-sac. No sign of a parovarium was found. Uffreduzzi remarks that the male characteristics preponderated in the external genitals of this case, the female in the internal genitals. The sexual gland was an ovo-testis. The individual would grow up with complete sexual incapacity, and would really be a neuter—of a sex not reckoned to exist by the law. Four figures showing the microscopical structures of the various parts are given.

THERAPEUTICS.

59. Artificial Pneumothorax in Phthisis.

ROB. PERSCH (*Wien. klin. Woch.*, No. 38, 1911) discusses the treatment of phthisis by compression of the lung through an artificially produced pneumothorax, and reports on four cases. The object of the treatment is immobilization of the lung. Nitrogen is used more frequently than sterilized air for injection into the pleural cavity because it is less readily absorbed than is oxygen. The severe symptoms of natural pneumothorax are seldom seen in the artificially produced condition, and when present are usually of very short duration. The number of fatal cases which have been reported is very small, and is diminishing, and their occurrence points to the need of a careful selection of cases, but does not at all contraindicate the treatment. The number of favourable cases reported is very large. As a result of *post-mortem* examinations Bruno and others have found that the lung after long compression is empty of air, and is the seat of a diffuse new growth of connective tissue: old tuberculous areas are filled with dense or chalky masses, and surrounded by strong connective tissue capsules, masses of connective tissue have replaced previously existent cavities, and only extremely seldom are there signs of recent tuberculous processes. Lung tissue after months of compression would still appear to be functionally perfect. The compression of the lung prevents the spread of infection by aspiration; compression of the blood and lymph vessels leads both to a slower absorption of toxins and to a condition of venous congestion. Compression of one lung is also likely to cause active hyperaemia of the other, and this may be beneficial or harmful according to the condition of the sounder lung. Changes in the positions of other thoracic and abdominal organs will obviously occur as a result of the pneumothorax. The presence of pleuritic adhesions will obviously affect the result obtained. If the adhesions yield, and strands of tissue which contain blood vessels stretch across the artificially produced space, the tearing of the blood vessels may result in even fatal haemorrhage: this danger can be avoided by making the rise of pressure more gradual. A pleural exudate is found to develop in a large proportion of the cases. The explanation of some of these cases is probably that the exudate was already present, but was only recognized after inflation of the pleural cavity. In a large number of the cases, according to Saugmann, the exudate is specifically infected, and the inflammation has therefore spread from a superficial tuberculous area. Infection may also result from minute particles of skin having been carried in by the needle. The exudate is usually serous throughout the whole course of the illness, but it may become purulent from the bursting of a cavity into the pleural space. Non-purulent exudates which do not threaten life should be left untouched, but since the amount of fluid may vary rapidly, the pressure of air should be frequently tested. The possibility of change in the pleural endothelium is still under dispute, but some change is suggested by the rapidity with which pleural adhesions usually form as soon as the air is withdrawn. The condition of the second lung has an important bearing upon the suitability of the case for the treatment, but complete and definite rules cannot yet be formulated. The treatment is especially indicated in cases of one-sided progressive disease with free pleura. It is contraindicated when the second lung is not intact and there are pleural adhesions on the side most affected. Progressive disease of the second lung is

an absolute contraindication. Extensive chronic disease of the second lung is unfavourable for the treatment, but isolated smaller areas of chronic disease are not necessarily a contraindication if the general condition is good; indeed, in such cases the second lung may be benefited by the artificial hyperaemia produced. In doubtful cases it is better to avoid the treatment. A tendency to haemoptysis may justify the production of artificial pneumothorax, and the operation appears to be a life-saving one in desperate cases of haemoptysis; care is required to make sure from which side the haemorrhage proceeds. Cases of unilateral or chiefly unilateral chronic disease with frequent exacerbations, or cases in which the patient feels well when at rest but becomes worse on return to exertion, are specially suited for the treatment. A disadvantage of the treatment is that it may need to be continued in some cases even for as long as two or three years. Too early removal of the compression often has a bad effect, and when once the air has been allowed to escape the tendency to the rapid formation of pleural adhesions is such that a repetition of the process is probably impossible. On the other hand, the later treatment can be carried out by any general practitioner who has a knowledge of the technique of the operation and does not necessitate the patient being an in-patient. The method of carrying out the operation is fully described. Four illustrative cases are given. The first was an apparently hopeless one, which had been under treatment for years; the patient was emaciated, had fever, had suffered from haemoptysis, and the larynx was also affected. An artificial pneumothorax was first produced in November, 1910, and the patient, who had put on 2 kg. of weight (4.4 lb.) by April, 1911, was reported in July to be in a moderately good condition. The beneficial effect of the treatment was obvious from its first introduction. In a second very severe case the treatment had apparently a very favourable effect on the local condition. The third case appeared to be moribund when the operation was performed, and it might be considered to have been life-saving, since the patient survived twenty-two days, and died as a result of the gradually developing insufficiency of the second lung. The fourth case was a severe progressive one, in which, in spite of unfavourable conditions during the treatment, a complete clinical recovery was obtained.

60. Ascitic Autotherapy.

GALUP (*Journ. de méd. et chir. prat.*, Art. 23447, November 25th, 1911) makes some observations on the treatment of ascites by autoserotherapy, a form of treatment first introduced by Gilbert of Geneva for cases of pleuritic effusion. The results of the treatment hitherto have been very variable; in cases due to alcoholic cirrhosis the successes have been few, though in tuberculous ascites the results have been far more encouraging. Seeing the uncertainty of the results, Sicard and Galup determined to try large intravenous injections, following the idea of Castaigne, who has advocated large injections into the cellular tissue. A woman suffering from cirrhosis, who had been tapped fifteen times at intervals of twenty days, and who had undergone without benefit all kinds of treatment, including subcutaneous autotherapy, was given intravenous injections of successively 300, 200, 150, and 500 c.cm. at intervals of three days. Similar series of injections were made at intervals, till in the course of four months she had had 5 litres 300 of ascitic fluid introduced into her circulation, with the result that her strength returned, her general condition was improved, and the formation of fluid was arrested. In another case cited the results were far less favourable. There are two methods of applying autotherapy in cases of ascites:—(1) *The method of small subcutaneous injections:* The abdominal cavity is tapped and from 3 to 10 c.cm. of fluid are withdrawn by means of a glass syringe; then, after making sure that the fluid is not purulent, the needle is withdrawn as far as the cellular tissue and the fluid is reinjected under the skin. (2) *The method of large subcutaneous or intravenous injections:* By this method the fluid may either be aspirated afresh for each inoculation or it may be stored in aseptic and hermetically sealed vessels each containing enough for one dose; by this latter means the patient is spared the discomfort of a number of abdominal punctures; but there is the disadvantage that the stored fluid becomes in some way altered, and sometimes gives rise to considerable febrile reaction. The injection of freshly aspirated fluid is free from this objection, and by the use of novocain the discomfort is reduced to a minimum. The dose is from 200 to 500 c.cm. Whichever method is employed, injections must be made at intervals of from two to seven days, and it is important to combine the treatment with a milk or chloride free diet. Autotherapy has been used in all varieties of ascites, and the only absolute contraindication to its use is purulence of the fluid. The method of small subcutaneous injections may always be tried first; it generally fails in cases due to cirrhosis, but, on the other hand, it is the only method admissible in tuberculous ascites. Large intravenous injections may succeed in cases due to cirrhosis after small subcutaneous injections have failed, but such injections must on no account be used in tuberculous cases for fear of setting up a general infection.

PATHOLOGY.

61. Gonorrhoea and Gonococcus in Blood.

F. LOFARO (*Il Policlinico*, Sez. Chirurg., Rome, 1911, xviii, 49) goes through the literature of local and general gonococcal infections and the frequency with which the gonococcus is found in situations other than the urethra. The gonococcus was discovered by Neisser in 1879, and was first cultivated from the circulating blood by Howes in 1894, the patient having gonococcal arthritis. Doubtful cases of its cultivation or discovery the author rejects, and he has not concerned himself with the many instances in which it was sought but not found. Lofaro's method was to take 10 c.cm. of blood from a vein in the patient's elbow, using a Tursini pipette. The blood was then mixed with broth-serum-ascitic fluid, to 10 c.cm. of which two to three drops of blood were added, while one tube received 5 to 8 c.cm. of blood. The tubes were then incubated forty-eight hours at 37°; after this their contents were mixed with more serum-ascitic fluid, plated with an equal quantity of agar, kept forty-eight hours at 37°, the colonies being finally examined microscopically. The blood of 67 gonorrhoeic patients was examined, and was found to give growths of the gonococcus in 39. In 8 cases of acute gonorrhoea, 8 to 30 days old, the blood was uniformly sterile. Of 26 cases with gonorrhoea and unilateral or bilateral epididymitis, the blood gave cultures of the gonococcus in 19. Of 19 patients with chronic gonococcal arthritis, 11 gave positive results. Lofaro believes that the blood infection takes place through the lymphatic stream. Many references to the literature are given.

62. Scarlet Fever.

VIPOND (*Arch. of Ped.*, 1911, xxviii), in a preliminary note, states that he has discovered what he considers to be the organism—a bacillus—of scarlet fever, which has the following characteristics: (1) The bacillus was obtained from 7 cases of scarlet fever; (2) it will grow on all ordinary media, growth occurring in 3½ hours; (3) it is to be found in the lymph nodes; (4) inoculation into 5 monkeys and 2 rabbits produced typical scarlet fever; (5) the same bacillus has been recovered from the lymph nodes in each instance, and the typical growth has developed on the different media; (6) the bacillus is a long one, with rounded ends, staining variably with Gram, and occasionally showing a beaded structure; (7) some cultures show oscillatory motility; (8) the organism produces spores.

63. Gangrene Due to Bienstock's Gas-producing Bacillus.

G. ROCCHI (*Lo Sperimentale*, Florence, 1911, lxv, 211) records the case of a man of 29 who, while carrying another man of 10 stone on his shoulders, jumped a small ditch, and in so doing dislocated his right knee forwards (in all probability) and injured his popliteal vessels. The dislocation was reduced on the spot. The patient was brought to the hospital, and it was found that the skin of the leg was quite unbroken. No collateral circulation established itself; pain in the leg and fever supervened; in four or five days the foot and leg turned purplish. On the seventh day the leg was incised, giving issue to dark red, fetid, gas-containing liquid. On the ninth day the leg was amputated in the lower third of the thigh, and the patient made a good recovery. Cultures of the leg tissues were made, and Bienstock's anaërobic *bacillus putrificus* was isolated in pure culture. It has only been found under all similar conditions once before, and that was in a gas-containing abscess (Rodella). The gangrenous muscles showed dissociation, fragmentation, liquefaction; there was no infiltration with small round cells anywhere. The patient's blood on the fifth and sixth days showed a slight polymorphonuclear leucocytosis. Rocchi thinks that the infection of the limb must have occurred through its unbroken skin. The bacillus is one very commonly met with both in the intestine and outside the body.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

64. Idiopathic Pleurisy and Pulmonary Tuberculosis.

The frequency with which pulmonary tuberculosis follows an attack of idiopathic pleurisy has been so variably estimated by different authorities that, while some companies accept a candidate for insurance as a first-class life after an attack of idiopathic pleurisy, others reject this class of candidate altogether. A laborious investigation, carried out in Sweden by H. Allard and H. Köster (*Hygiea*, October, 1911), brings out several points of interest which are of special value, as the observations represent many years of work on a large amount of material. Allard's series deals with with 200 cases of idiopathic pleurisy treated in Gothenburg from 1881 to 1893, their subsequent fate being investigated in 1910. Köster's series deals with 371 cases of idiopathic pleurisy and 62 cases of specific pleurisy treated from 1894 to 1908 and reported on in 1910. An analysis was also made of the frequency of idiopathic pleurisy in the histories of 2,123 cases of pulmonary tuberculosis. The two series were compiled on the same principles independently of each other. In the first series, representing 180 cases of serous and 20 cases of dry pleurisy, it was found that sixteen to twenty-eight years later 87 patients were alive and well, 28 were tuberculous, 61 had died of tuberculosis, and 24 had died of other diseases. In the second series, representing 334 cases of serous and 37 cases of dry pleurisy, it was found that two to sixteen years later 164 patients were alive and well, 118 were tuberculous, 62 had died of tuberculosis, and 27 had died of other diseases. In 650 cases there was a history of idiopathic pleurisy among the 2,123 cases of pulmonary tuberculosis which were investigated. Taking the two series together, the writers find that idiopathic serous pleurisy is followed sooner or later by pulmonary tuberculosis in 47.7 per cent., and that even in the case of idiopathic dry pleurisy this percentage is as high as 42. The prognosis after idiopathic pleurisy is, however, much brighter in early than in middle life, and while the subsequent incidence of tuberculosis is only 30 per cent. when the pleurisy has occurred between the ages of six and ten years, it is as high as 60.4 per cent. when the pleurisy has occurred between the ages of 31 and 35 years. Even at the high age of 66 to 70 years idiopathic pleurisy is followed by tuberculosis in 40 per cent. of all cases. Tuberculosis following idiopathic pleurisy is usually more acute and is oftener fatal in the adult than in the child. In the majority of cases (85 per cent.) tuberculosis flares up within five years of the pleurisy; but up to the age of 15 the development of tuberculosis is slower, and it flares up more often after than before a lapse of five years. Curiously enough, neither series contains a single case of dry pleurisy in childhood. The occurrence of tuberculosis subsequent to pleurisy due to other infectious diseases was found to be most rare, and the writers therefore conclude that in such cases the patient's is a first-class life, whereas for five years after idiopathic pleurisy he is unassurable, and even after this period his chances of developing tuberculosis are considerable. Their findings are, therefore, in opposition to those of Pollock and Chisholm (*Medical Handbook of Life Assurance*, 1889), who write: "... But, after the convalescence from such attacks, the life is assurable. A contracted side from the absorption of a former effusion with slight dullness and lessened or distant breath sounds at the base, need not invalidate the life."

65. Radioscopic Appearances in Cases of Enlarged Colon.

Barjon (*Arch. d'électr. méd.*, January 10th, 1912) describes the appearances noted in the *x*-ray screen examination of megacolon. The first case was one of total and permanent megacolon in a child aged 5 years. The striking feature was the intense brightness of the upper abdomen, which appeared even clearer than the thorax. In the pelvic region was an opaque zone limited by a mobile horizontal line just above the iliac crests, indicating clearly the existence of fluid in the abdomen. The appearance was that of an abdominal hydro-pneumothorax, for which the name of "hydro-pneumocolon" is proposed. Further examination showed that the fluid had two levels, the lower one to the right and corresponding to the caecum; the other, higher by some centimetres and much more extended, occupying, indeed, almost the breadth of the abdomen, and corresponding to the much-dilated lower segment of the great intestine. A bismuth injection per rectum well brought out this difference between the two fluid levels. Stomach, small intestine, spleen, and kidneys gave no appreciable image, only the liver producing a light shadow. Auscultation of the abdomen revealed hydroaëric sonorousness, amphoric souffle, metallic ringing, *bruit d'airan*. Hippocratic succussion—in short, all the signs of abdominal hydro-pneumothorax. The second case was that of an infant in whom the megacolon was less developed, the great intestine appearing distended in an intermittent fashion. A clear peripheral zone was found, in horseshoe form, occupying the flanks and the whole of the subdiaphragmatic region. In the centre, in the peri-umbilical region, a dark mass was distinguished corresponding to the small intestine. A bismuth injection did not pass the sacro-iliac. In the third case, which was that of an adult, the megacolon was partial and limited to the left portion of the great intestine. There was an enormous distension of the splenic angle of the colon and the whole of the descending colon. All the left side of the abdomen was excessively clear, while the right was remarkable for its opacity. The stomach had an abnormal situation to the right, under the lower border of the liver. The bismuth collected in the caecum and the transverse portion of the great intestine, and was not able to clear the splenic angle, which was heightened and distended. In all these cases there was an obstinate constipation, which was explained by the troubles of contractility. Further, in each of the cases there was a noteworthy elevation of the caecum. Its high situation was due to the abnormal distension of the lower segments of the great intestine which filled the pelvic cavity.

66. Albuminuria in Healthy Infants and Children.

C. Cotta-Ramusino (*La Pediatria*, Naples, 1911, xix, 113) has examined the urine of infants and children for protein by taking 100 c.cm., adding 10 c.cm. of baryta water, collecting the precipitate, drying it on the water bath, and applying colour tests (Adamkiewicz's, Millon's, Acree's) to the white residue. He found a positive result in all of twenty-two children aged between 13 months and 9 years fed on a general diet. But a negative result was obtained in all of eighteen infants aged from 2 weeks to 17 months that were being fed on mother's milk, cow's milk, or cow's milk with farinaceous food. He attributes the albuminuria to the mixed diet.

67. Bronchial Asthma Due to Coprostasis.

Ebstein (*Deut. med. Woch.*, October 19th, 1911) pointed out several years ago the relation between bronchial asthma and constipation, but his observations have subsequently been verified by only a few writers. Of these, Pinz has recently shown that bronchial asthma is frequently associated with such cutaneous diseases as urticaria, prurigo, and eczema, which are commonly attributed by dermatologists to intestinal complications. The writer has now collected a series of cases in which coprostasis and bronchial asthma were combined, and in which the removal of the former led to the permanent cure of the latter. In 1900 he saw an 8-year-old boy who had suffered from bronchial catarrh and asthma for two years. The patient had improved somewhat after hydropathic treatment and the removal of adenoids, which had caused mouth breathing. Nasal respiration was, however, still snuffling, the diaphragm was lower than normal, and sibili were audible over different parts of the chest. The patient was an intelligent, excitable lad. The action of the bowels was said to be regular, but abdominal palpation revealed a number of swellings throughout the course of the large intestine. The urine was normal. A number of large oil enemata were prescribed, by which the bowels were evacuated, and the asthma cured. Almost a year later the lad was found to have grown strong and healthy, and the asthmatic attacks had not returned. It may be urged that the disappearance of asthma after the cure of constipation is accidental; but it is improbable, as this phenomenon is too frequent to be accounted for by coincidence only. Besides, the manner in which asthmatic attacks gradually decrease, as the

action of the bowels becomes more regular, is often most striking. The writer was consulted by a married woman, aged 42, who had suffered for many years from constipation, progressive emaciation, and general weakness, for which she could not account. After the constipation had lasted for about three years, she began to suffer at night from attacks of dyspnœa, which were relieved when she sat up or got out of bed. These attacks became very severe, and were accompanied by whistling sounds in the chest, and a little colourless sputum was expectorated. On examination, a few râles were heard over the lungs. There was slight spinal curvature, and there was a systolic murmur over the apex of the heart and the large blood vessels. The bowels were said to act twice a day; but the large intestine was found on palpation to be distended with faeces throughout the whole of its course. The urine was normal. Large oil enemata were followed by saline enemata. The constipation was cured, and no asthmatic attack occurred for nearly nine years, after which both the constipation and the asthma returned. Treatment with oil and saline enemata again restored the patient to complete health. Probably constipation leads to the absorption of toxins which provoke asthmatic attacks, and it is generally recognized that chronic constipation may be followed sooner or later by a great variety of nervous phenomena which are only cured by systematic purging. These phenomena include mental aberration, sensory and motor disturbances, as well as secretory changes. Many of these symptoms may also occur in the same patient; but the nature of toxins which constipation gives rise to is unknown. In the treatment of every case of bronchial asthma the action of the bowels should be studied, and the abdomen should be carefully examined for faecal accumulations. Doubtless cases exist which present both asthma and constipation, but which retain their asthmatic attacks after the constipation has been cured. It is also impossible at present to predict which cases of bronchial asthma will be cured by the removal of constipation, and therefore all patients suffering from both asthma and constipation should be systematically treated for the latter condition.

SURGERY.

68. Nervous Affections in Chronic Appendicitis.

LAMBRET (*Arch. prov. de Chir.*, October, 1911) reports two cases in which chronic appendicitis seemed to find an echo in the nervous system. (1) Chronic appendicitis and ophthalmic migraine: In this instance a young physician who had had an attack of acute appendicitis at 10 years of age began to suffer at 12 years attacks of ophthalmic migraine, which appeared almost daily, and were made worse by physical exercise and constipation. The scintillating scotoma was exaggerated by laxatives, which appeared to cause traction on adhesions in the neighbourhood of the caecum. The mildest purgatives precipitated an attack of migraine. The appendix was removed when he was 29 years of age; numerous adhesions were found. A very violent crisis of scotoma occurred forty-eight hours after the operation, but that was the last. The operation was performed four years ago, during which time he has been actively engaged in both physical and mental work, with no special alimentary regimen, and migraine has never returned. Neither the author nor the patient has any doubt that the relation of cause and effect existed between the chronic appendicitis and the occurrence of the ophthalmic migraine, which appeared to owe its origin to reflex vasomotor reaction. (2) Chronic appendicitis and epilepsy: In this observation these reflex vasomotor reactions appear to the author to be still more evident. The patient was a young man of 25 years, who had been epileptic since infancy. Since his third year the fits were serious, and were sometimes of daily occurrence. His digestive functions were sadly deranged. He suffered from pronounced hyperchlorhydria, due to prolonged administration of bromides, which now produced no other effect; habitual constipation, dilatation of caecum, with pain and tenderness on pressure; even walking determined painful dragging sensations in the caecal region. The author's attention was directed to the appendix by the fact that the epileptic fits were preceded by a sort of aura whose point of origin seemed to be in the caecal region. The patient during the prelude to a fit experienced a painful sensation in the right flank, placed his hand there, then redness of the face supervened, and the fit was in full progress. The operation was performed in December, 1910: a long appendix adherent to the caecum was found and removed. The fits have not disappeared, but they are much less frequent and less severe, so that during the whole of June, 1911, no fits occurred at all. The author disclaims any intention of maintaining that the epilepsy had its origin in chronic appendicitis. But he does think that in this particular case the existence of an inflammatory lesion in the abdomen increased the intensity of the concomitant disease, and even provoked fits, probably on account of reflex vasomotor reactions engendered by the permanent irritation of the pericaecal peritoneum.

69. Sterilization of Osseous Cavities.

A DISCUSSION took place on this subject at a meeting of the Surgical Society of Paris and notes were published in the *Mémoires* of December 11th, 1911. Pierre Delbet had made clinical experiments for two or three years. He cleaned the old osteomyelitic cavity carefully and then insufflated with hot air. He then curetted the cavity again and made bacteriological examination of the particles of bone removed: these particles always yielded cultures. He found that if he applied tincture of iodine instead of hot air the bony particles were sterile. The hot air employed was of temperature 200° to 300°, but the temperature of the bone was very little raised. Quénu had been disappointed also in the use of hot air. He doubted the efficiency of tincture of iodine, and pointed out that although the experimental media of the bacteriological laboratory might remain sterile the tissues of the body might not. Pierre Sebileau's opinion was that the great advantage of hot air was that it dried the cavity thoroughly so as to permit the adhesion to its wall of any antiseptic material introduced. Odontologists knew quite well that in using hot air they did not sterilize the pulp cavity, but they dried the cement surface, an essential for perfect stopping.

70. Transplantation of Free Flaps of Fascia.

JOHN STAIGE DAVIS (*Ann. of Surg.*, December, 1911) gives an account of an experimental study on this subject. The experiments were performed on dogs: the fascia was obtained chiefly from the ilio-tibial band of the fascia lata, sometimes from the abdominal fascia. The fascia was transplanted in both single and double layers. Where adhesions were not desired the fascia was placed with the inner or muscle surface exposed—that is to say, if used in a peritoneal defect towards the peritoneal cavity, as dense adhesions were found to be less likely to occur. The series of experiments is divided by the author into eight groups, and details of typical experiments in each group are given. His comments on each group are of great interest and value. In the first group free fascia flaps were successfully transplanted into the subcutaneous tissue, into fat, on muscle, periosteum, bone, cartilage, tendons, and ligaments. Microscopic examination showed that the fascia retained its own structure and was healthy and well nourished even after being kept in cold storage for thirty-five days and then transplanted into another animal. In the second group muscle and tendon defects were bridged over by free flaps of fascia, which was found to unite firmly with both muscle and tendon. For the latter structures it is a great advantage to have at command long strips of fascia such as are obtainable from the ilio-tibial band of fascia lata. There was no liability to adhesion to surrounding structures. In the third group fascia was transplanted around arteries, veins, and nerves without compressing these structures. In the fourth group bones were fractured and then sutured with strips of fascia. Fascia does not act as a foreign body, and has strength enough to withstand any reasonable strain. In the fifth group flaps of fascia were inserted in skull defects between the dura and bone edges, and found to heal, giving a strong membrane capable of resisting considerable pressure from within or without. When dura is removed in addition to bone the fascia tucked under the bone edges will unite with the dura and become firmly adherent to the bone edges. Defects in trachea were also covered and mucous membrane was found to grow across the fascial flap covering the defect. In the sixth group free flaps of fascia were sutured into peritoneal and musculature defects in the abdominal wall and were found to incorporate themselves into the surrounding peritoneum and muscle edges, without adhesion of the bowel or any other abdominal organ to the fascia. In experimentally produced hernia of abdominal wall repair was greatly facilitated by introduction of free fascial flaps. In the last two groups of experiments fascia was transplanted on stomach intestine, liver, kidney, spleen, and bladder, and incorporated itself with the peritoneum. In the human being it might be used to strengthen suture lines and weakened areas. Fascia when applied to raw bleeding surfaces seemed to have a haemostatic effect. In all the experiments no muscle hernia

occurred. The fascia retained its own structure and remained tough and strong. It seemed, further, as if the fascia received sufficient nourishment if only one surface were exposed to living tissues.

OBSTETRICS.

71. Pituitrin in Labour.

JOSEF SCHIFFMANN (*Wien. klin. Woch.*, No. 43, 1911) gives the results of his experience of pituitrin as a means of exciting labour pains. The first case described was of a primipara 32 years of age. When seen the cervix admitted one finger, the head was fixed, and the membranes had ruptured. Two days later and again four days later a colpeurynter was introduced, but no pains set in. On the fifth day the cervix was plugged without result. On the sixth day, since there were still no pains, 0.7 c.cm. of pituitrin was injected subcutaneously. Strong pains began after fifteen minutes, and the child was delivered spontaneously an hour and a quarter afterwards. The next case was one of *ante-partum* haemorrhage with weak pains: 1 c.cm. of pituitrin was injected, and here also strong pains set in after fifteen minutes and the child was delivered after an hour, the placenta following immediately with little haemorrhage. In the third case also pituitrin caused the development of strong pains, although finally forceps were needed because of a secondary inertia after fourteen hours of strong pains. All these cases were of full-time pregnancies. A further series of fourteen cases is described in which pituitrin was given for abortion. In three of them it had no effect in inducing the onset of pains so long as the cervix was closed, but after dilatation of the cervix pituitrin was effective in two out of the three cases. In one case of weak pains the injection appeared to strengthen the pains. Out of seven cases in which abortion was already in progress and the cervical canal was patent, the injection was effective in four, ineffective in three, and it failed also in one case of severe haemorrhage with an undilated cervix. In some cases the author found repeated injections to be successful where a single one had failed. As a result of his experience he finds that pituitrin is exceedingly useful in full-time pregnancies as a means of inducing strong labour pains, especially where pains have already set in but have become weak or ceased. It is not suited for the induction of abortion. It may in some cases be useful in abortion after artificial dilatation of the cervix where introduction of the hand into the uterus is, for any reason, inadvisable.

GYNAECOLOGY.

72. Hernia of Fallopian Tube and Ovary.

PAKOWSKI AND SÉGARD (*Bull. et mém. de la Soc. Anat. de Paris*, October, 1911) report a case where several points were clear. There was no hermaphroditism; the ovary proved on microscopic examination to be a true ovary, and the uterus, as far as could be made out by palpation, was normal, with the body slightly anteflexed, and it lay in its normal relation to the middle line, not inclined towards the herniated appendages. Lastly, although the ovary lay outside the abdominal cavity, it was neither tender nor painful, even during menstruation. The patient was a virgin, aged 17, under Rochard in the Hôpital St. Louis. She had noticed from her earliest youth a swelling in the left groin, and disliked wearing a bandage; therefore she requested a radical operation, which was performed after Bassini's method. The hernia was round, smooth, and of the size of a pigeon's egg. It occupied the outer orifice of the inguinal canal, and was partly reducible, with impulse on coughing, whilst there was no gurgling. A stout pedicle could be felt running from the hernia into the inguinal canal. The sac being opened, the left tube and ovary were discovered. They were its sole occupants. The ovary bore a few small cysts on its surface; it was pinkish-grey, flattened, and slightly elongated. Externally it was closely connected with the round ligament. It was sclerosed, showing hyaline changes and thrombosed vessels, whilst it bore true Graafian follicles, though they were scanty and at some points cystic. The Fallopian tube was rather thin, about 1½ in. long.; its fimbriated extremity, with the ovarian fimbria well developed, lay at the upper end of the hernia; its uterine end was truncated, and presented at the outer end. The mesosalpinx was normal, and beneath the ovary it ran into the sac.

73. Dermoid Cyst of the Labium Majus.

MORESTIN (*Bull. et mém. de la Soc. Anat. de Paris*, October, 1911) relates an instance of a cyst of the labium which proved to be a true dermoid and not a teratoma, which appears to be the real nature of the ovarian dermoid, even of the common kind (Shattock). The patient, aged 34, had noticed the tumour for about a year: it had grown very slowly and was as big as a hen's egg, the broad end lying forward. It occupied the entire right labium majus, the lesser labium lying on its inner side. The integuments were stretched but uninflamed and not adherent at any point to the tumour, which fluctuated distinctly on pressure and was neither tender nor painful. There was no evidence of disease of the internal genital tract. The patient's youngest child was eight years old: there was no history of discharge or urethritis, and cyst of the vulvo-vaginal gland had been diagnosed. However, Morestin noted the greater prominence of the cyst anteriorly, so that it seemed to be of a congenital type, external to the deep fascia. No connexion with the inguinal canal could be traced. Morestin removed it by dissection, and had to expose the bulb of the vagina and the sphincter. Haemorrhage was very free, and oozing hard to control, so that the wound had to be plugged with gauze, removed within forty-eight hours. The wound, nevertheless, healed well. The tumour contained a turbid yellow fluid holding pellicles of sebaceous matter. There were no hairs. The cyst wall was thick and fibrous and lined with a yellowish-white layer of grease. It consisted of true epidermis and corium.

THERAPEUTICS.

74. Roentgen Rays in Surgical Tuberculosis.

AFTER reviewing the technical improvements which have recently been introduced in the *x*-ray treatment of surgical tuberculosis, B. Baisch (*Berl. klin. Woch.*, October 30th, 1911) summarizes the results obtained by himself and others in this field. Of the various forms of surgical tuberculosis, tuberculous lymphadenitis is that which reacts most satisfactorily to the *x* rays. This condition may be classified into three groups according to the severity of the disease. The first group contains glands which are simply enlarged. In the second group the glands are also purulent or caseous, and in the third they are ulcerated and fistulous. Glands in the first group rapidly improve under *x*-ray treatment alone, and the slight inflammatory reaction caused by the first exposures is soon followed by the rapid involution of the glands, which finally regain their normal size and consistency. Sometimes involution is arrested by small deposits of caseous matter, which become encapsuled without complete absorption. In such cases the consistency of the glands is more firm than usual, but the glands are in other respects normal, and the disease has been arrested. The purulent or caseous glands in the second group constitute the bulk of tuberculous glands in surgical practice. They also improve satisfactorily under *x*-ray treatment, which effects rapid reduction of infiltration and swelling after pus or caseous matter has been evacuated through a small incision. This incision leaves a small linear scar very different from the irregular and thickened scars so frequently seen after the excision of tuberculous glands. The treatment by *x* rays is superior to treatment by excision also, because it affects those small glands which the surgeon often fails to remove and which subsequently become enlarged and troublesome. Excision of the glands has the further disadvantage of robbing the patient of a barrier to a new infection and of removing the immunizing action of the affected glands. The small incision necessary for the evacuation of pus or caseous matter may become fistulous, in which case local antiseptic treatment is frequently necessary before exposures to the *x* rays are given. In many cases the *x* rays benefit the fistulae as well as the tuberculous glands, but great care is required to prevent eczematous skin receiving a too powerful dose of the *x* rays. This intolerance of eczematous skin to prolonged exposures is a serious drawback to *x*-ray treatment of the third group of glands, which are ulcerated and fistulous. Good results may yet be obtained by short exposures cautiously repeated after fistulae have been excised and abscesses opened. In most of the 20 cases of lymphadenitis treated by the writer the evacuation of pus through a small incision was effected before exposures were given. In 12 cases the glands were reduced to their normal size, and only a small scar remained. In 2 cases swelling and infiltration were much reduced, but complete involution was prevented by the presence of caseous

matter within the glands. In 4 cases the treatment, which was giving satisfactory results, was still being continued, and in 2 cases the patients abandoned the treatment before its completion, although satisfactory progress was being made. The *x* rays are less effective in tuberculous disease of the bones, joints, and soft tissues, as the disease is usually more deeply seated, and therefore requires prolonged exposures. To prevent *x*-ray dermatitis, long intervals between each exposure are necessary, and the patient consequently often abandons the treatment as soon as a certain degree of improvement has been attained. But, in spite of this disadvantage, the *x* rays are very useful and are of special value in the fungous forms of tuberculosis involving joints and tendon sheaths. Even when the bones are also involved, tuberculosis of the wrist and ankle joints is more effectively treated by the *x* rays than by ordinary conservative surgical treatment. Conditions such as spina ventosa are also suitable for *x*-ray treatment, the efficacy of which is less pronounced in the case of such large joints as those of the knee, hip, and shoulder. Yet, after these joints have been excised, the *x* rays are of great supplementary value, as they often cure the small, scattered foci of disease which the surgeon frequently overlooks or is unable to remove. Tuberculous fistulae, whether they are post-operative or are due to a deep-seated focus of disease which cannot be found, rapidly heal under the *x* rays, which are often effective after every other method, including excision, has failed and after the condition has existed for several years. A combination of *x*-ray treatment with a course of tuberculin is frequently advisable, and the writer reports a case of tuberculous peritonitis in which the diagnosis was confirmed by a laparotomy and in which combined *x* rays and tuberculin effected marked improvement with a gain of weight and the disappearance of ascites. The action of the *x* rays is local only, and consists of the rapid degeneration of lymphocytes followed by the regeneration of fibroblasts, which, in the case of articular disease, strengthen the joint by the contraction and fibrosis they produce. This is well illustrated in the case of the wrist, which soon loses that limpness so characteristic of tuberculosis of this joint when the splints have been removed.

75. The Action of Radium Emanation.

J. de Nobele (*Arch. d'électr. méd.*, January 10th, 1912) says that radium emanation is neither absorbed nor eliminated by the skin, but it is taken in chiefly by the pulmonary and digestive mucosa and by means of subcutaneous injections. In the organism it quickens the activity of the autolytic and diastatic ferments, and uric acid in the blood is rendered more soluble or is even destroyed under its influence. Radium D, one of the substances obtained by the decomposition of the emanation, appears to be the active agent in the dissolution of uric acid in gout, and, although no actual emission of rays from radium D has yet been proved, it is not improbable, according to Rutherford, that in the process of decomposition this body does emit rays, most likely of the alpha or soft beta type. The emanation has also a clearly anti-inflammatory action, and, thanks to this property, the inflammation following upon the introduction of foreign bodies—notably sodium mono-urate—under the skin or in the abdomen is considerably modified and its phenomena reduced to a minimum. The method of administering the emanation by drinking water has a feeble efficacy when compared with the quantity absorbed. As to the baths, the fact that the intact skin does not absorb emanation makes it evident that here the action must depend upon the absorption by the respiratory passages of the emanations which are liberated, and therefore the bath-cabin must not be too large, it must be well closed in, and the water must be agitated. Inhalation is the most efficacious means by which emanation can be administered. In order to obtain a curative effect in gout it is sufficient to remain daily for two hours in an atmosphere containing 2 to 4 Maché units per litre. The therapeutical application of emanation is indicated in articular and muscular rheumatism, chronic and subacute; gout and uric diathesis; neuralgia, particularly sciatic, and the flashing pains of tabes; catarrhal affections of respiratory passages, and inflammatory affections of the heart (myocarditis and endocarditis). The author relates the remarkable results in rheumatism and gout already chronicled by His, and states that his own best results have been obtained in the subacute form of rheumatism and in sciatic neuralgia. In the latter case electrolysis was associated with the emanation-therapy. One patient who had suffered for years from rheumatic polyarthritis was cured by means of baths and the drinking of radio-active water, the pains ceasing at the different articulations successively. The cure has been completely maintained for three years.

76. Collargol in Septic Infection.

K. Vogel (*Wien. med. Klin.*, No. 33, 1911) has, during the last four years, made use of collargol in more than 200 cases. Collargol was given by the mouth, by the rectum, and intravenously, the last method proving to be the most effective. The author has had under his care a large number of cases of recent injury of soft parts and of bone, caused most frequently either by machinery or by accidents in coal mines; many of the wounds were infected and often a general infection had already set in when the patients came under his care. The author gives 11 illustrative cases showing the effect of collargol in different septic processes. In the first 8 of these cases, in spite of treatment directed to the local infection, metastatic infection or general infection occurred; fever persisted after the primary area had been laid open or excised; the wound did not clean up, the general condition was always bad, the patients were without appetite, slept badly, and some had frequent vomiting. A typical case was that of a child whose condition appeared to be almost hopeless; in spite of all treatment the fever continued, and the patient's strength had been greatly reduced by the profuse discharge from the large wound of the soft parts. Here the temperature fell after the first injection of collargol, but rose again after three days. A further injection was given, with the result that the fever disappeared, and the abscess cavity cleaned up; later a sequestrum was expelled and healing followed. Other cases treated successfully were one of appendicitis and one of phlegmon of the hand. In a case in which multiple intra-abdominal abscesses formed as a result of puerperal infection, collargol given per rectum was without effect, but a most speedy improvement, going on to recovery, followed an intravenous injection. In another case, one of fracture of the base of the skull, an abscess of the lung developed; this was thoroughly laid open, but stinking pus continued to be discharged, and the temperature did not come down; collargol, however, had a prompt action. The author has also treated with collargol injections a somewhat large number of cases of extensive burns, and believes the treatment to have been useful. He has also used it prophylactically in three cases in which healing by first intention of an operation wound was specially desirable, one case being of a wiring of bone, another of extirpation of a tumour of the spinal cord, and the third of transplantation of bone; collargol was given in each case on the occurrence of a small rise of temperature, even though there was no local sign of infection of the wound. The method of action of collargol is not known with certainty. The injection results in an increase in the number of leucocytes, which, according to Beyer and Brunner, appears after six hours, reaches its maximum after twenty-four hours, and disappears in two days. Collargol appears to check the development of the infecting organisms rather than to be truly bactericidal. The number of injections varies with the virulence of the infection and the power of resistance of the organism. In a few cases the author has given three injections, but as a rule one or two have sufficed. An initial rise of temperature and a rigor may follow the injection, but in the author's cases this happened comparatively rarely. In his experience the intravenous method of injection was the only reliable one.

PATHOLOGY.

77. Leishmania Donovani in Cultures.

G. Francini (*Malaria e Mal. d. Paesi caldi*, Rome, 1911, ii. 253) gives a summary of previous work on the growth of *Leishmania donovani* on artificial media; it was discovered in a patient with kala-azar by Leishman in 1900. Francini notes that the Italian and Tunisian forms of the parasite grow best on Novy-McNeal-Nicolle's medium (a form of blood agar), and gives eighty-one coloured figures of the forms assumed by the parasite in cultures from 8 to 50 or more days old, fixed in absolute methyl alcohol, and coloured by Giemsa's stain. He points out that there are still obscure points in the parasite's morphology; forms with two flagella occur, and in old cultures in which the parasites are still alive after 50 or 80 days there appear cystic forms that are no doubt degenerative in origin. At 22° C. forms suggesting conjugation appear in the cultures. The author is continuing his studies.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

78. Aberrant Forms of Acute Anterior Poliomyelitis.

IN his report on the general outbreak of acute anterior poliomyelitis in Norway in the summer of 1911 Dr. H. M. Gram (*Tidsskrift for den Norske Laegeforening*, October 1st) devotes special attention to the aberrant and abortive forms of this disease, which, although they were probably more numerous than the typical and severe forms, would probably have escaped notice altogether were not the variability of this epidemic disease known. In most cases the abortive forms of this disease were characterized by fever, headache, vomiting, coryza, or a sore throat, and digestive disturbances, such as diarrhoea or, less frequently, constipation. Frequently these abortive forms, which were unaccompanied by paralyses, constituted a long series of links between two typically severe cases ending in paralysis or death. The epidemic began in the north of Norway, and it spread rapidly to the south-eastern provinces, where it steadily increased. With a few exceptions the west coast escaped, and two provinces which were extensively ravaged by the epidemic of 1899 remained practically free. The nature of the epidemic varied sometimes with the locality, and while it was characterized by headache, cervical rigidity, pain and rigidity of the spine, vomiting and diarrhoea, in most districts, it was associated with constipation in the majority of cases in one outbreak. Convulsions and partial loss of consciousness were frequently observed, and when combined with cervical rigidity, vomiting, and fever were often attributed at first to cerebro-spinal meningitis. The subsequent course of the disease was often typical, but in many cases death occurred before the appearance of paralyses. In severe cases paralyses often appeared two to four days after the outbreak of fever, and they were occasionally limited to single nerves, such as the facial or abducens. In one district four typical cases of paralysis succeeded an extensive epidemic characterized by fever, general malaise, angina, vomiting, diarrhoea, and abdominal pain. Pain and rigidity in the back and neck were also noticed by many adults. The fever lasted two or three days, and was followed by great weakness, which continued for a few days, and was most noticeable in the lower limbs. On June 20th the first typical case exhibiting paralysis of the lower limbs occurred, the patient being a 15-year-old lad. A fortnight later his uncle, aged 30, who lived in the same house, was suddenly seized with fever and pain in his head, neck, and chest. There was no subsequent paralysis, but when the fever fell in the course of two or three days, the patient felt extremely weak for four days longer. On July 15th his medical attendant became feverish, and he suffered from pain in the back and abdomen, vomiting, and diarrhoea. He could scarcely drag himself about, but on the 18th he was quite well again. On July 16th the doctor's 3-year-old son became feverish, and suffered from diarrhoea and vomiting. The illness lasted three days. On the 18th his 5-year-old brother became ill with fever, sore throat, and gastro-intestinal disturbances lasting three days. On the 22nd the third brother developed angina, fever, diarrhoea, vomiting. Three days later convulsions, with loss of consciousness, supervened. On the 26th the temperature fell to normal, and rigidity of the neck and left facial paralysis were observed. Consciousness returned on the 28th. Although the lower limbs were not paralysed, the patient had the greatest difficulty in walking at first. On the 22nd the fourth brother, aged 1 year, developed symptoms similar to those of the first and second brothers, and lasting for three days. On the 25th his nurse developed angina, gastro-intestinal symptoms, and cervical rigidity, and shortly afterwards the doctor's wife and sister-in-law were similarly affected. At the same time a playmate of the doctor's children developed typical acute anterior poliomyelitis. During a widespread influenza-like epidemic in the north of Norway several cases presenting meningeal symptoms and two typical cases of acute anterior poliomyelitis were observed. The possibility of acute anterior poliomyelitis being conveyed from the chicken to man is raised by Einar Mo (Ibid., November 15th), who records the following: The father of two children who were suffering from acute anterior poliomyelitis told him that five chickens in the poultry yard had become paralysed, one after the other, and were unable to follow their mother. They were accordingly carried by the two children to the mother. Three of the chickens died and the other two were killed. The two eldest children who handled the chickens developed the disease, while the youngest child, who had nothing to do with them, remained well.

79. Lesion of the Cauda Equina.

E. CEDRANGOLO (*Giorn. Internaz. d. Sci. Med.*, Naples, 1911, xxxii, 913) gives an account of the structure of the caudal region and the symptoms to be expected when it is injured. In most cases, he remarks, the lesion is traumatic, as it was in four out of his five patients—falls in the sitting position being the usual trauma: in the fifth patient tuberculosis was probably the cause of the lesion. Full details of these five cases are given, with a full commentary on each. Loss of control over the sphincters is probably the most troublesome of the signs; in some cases erection and ejaculation are lost, together with sensation over all but the root of the penis. Loss of sensation occurs about the anus, nates, scrotum, and down the legs, in areas corresponding to those shown in the well-known maps of nerve supply and sensation of Head and others. Loss of motor power is often relatively more extensive than loss of sensibility to touch, heat, cold, or pain: fibrillary twitchings may be seen in the affected muscles as atrophy proceeds. If the atrophy appears rapidly, the lesion is probably in the upper part of the cauda and involves the lower end of the conus medullaris, rather than in the lower part where the conus has come to an end. If the symptoms and signs are symmetrical, Cedrangolo argues that the lesion is probably medullary: if so, the prognosis as regards recovery is not good. One patient, a man of 38, had an injury to his back while at work, which left him with paralysis of both legs; soon he lost control over micturition, but recovered it in ten days, while the rectum was not involved. Afterwards laminectomy was performed. He came under the author's observation eighteen months after the accident, showing much wasting of the left leg, but no loss of sensation in either leg. On the right side the muscles seemed in normal condition with the exception of the vastus internus, which showed the reaction of degeneration. The affected muscles of the left leg showed marked fibrillary twitching.

80. Acute Neuro-fibromatosis.

SABRAZÈS AND DUBOURG (*Gaz. hebd. des sci. méd. de Bordeaux*, 1911, xxxii) describes the following rare case. A man at the age of 28 years presented a fibromatous tumour in the left hypochondrium, which fibroma was removed two years later. Four years later, in a few days some hundreds of neuro-fibromata appeared. Within that period he had undergone many privations and suffered family troubles. The tumours are both sessile and pediculated, the most recent ones sensitive to pressure. The skin is of a reddish tint. Most of the tumours are intradermic, subcutaneous, and symmetrical in places. The increase in their numbers coincides with respiratory troubles (simple bronchitis), and a generalized polyadenopathy. The arterial pressure is normal. Wassermann's reaction is negative. The patient is weak in his intellect, and laughs and cries without reason. There is a diminution of the field of vision. An acute attack of neuro-fibromatosis is very rare, and the authors can recall only one other case, described by Marie and Couvelaire. Microscopical examination of a few of the small tumours gave the usual appearance of conjunctival tissue and filaments of nerves. The authors consider that the fusiform cells found in the tumours belong to the conjunctival and not the nervous tissue, as held by some.

81. Mumps and Affections of the Pancreas.

ERNST FREUND (*Wien. med. Woch.*, No. 49, 1911) describes eight cases of mumps with complications referable to the pancreas, all of which were observed during the course of a widespread epidemic of mumps during the first three months of 1911. The cases ran a somewhat typical course. As a rule, on the third or fourth day, when the swelling of the parotid had reached or passed its height, the temperature rose and abdominal pain and severe vomiting set in; in the slighter cases the fever was never high, and quickly subsided. Other symptoms were loss of appetite,

constipation, and weakness. Objectively, abdominal tenderness was found over a somewhat circumscribed area between the umbilicus and the ensiform process. The tenderness extended in several of the cases to the left side, only in one case to the right side. Sugar was never found in the urine. In one case there was a slight trace of albumen, and a few leucocytes and epithelial cells. In the same case, also, a suspicion was aroused that fat was present in the urine, but the methods of investigation did not permit of certainty. The author suggests that the matter is well worth investigation in cases which may come under observation later. The symptoms of a pancreatic affection lasted for from three to eight days in the different cases, and in one case the loss of appetite persisted for somewhat longer. In one case the abdominal symptoms were the first to appear, and after two days swelling of the parotid became recognizable. All the cases recovered. The localization of the abdominal tenderness, the structural connexion between the parotid and the pancreas, and the vomiting—all were in favour of a diagnosis of a pancreatic disease. A spread of infection to the pancreas by way of the digestive tract and the ductus Wirsungianus seems probable. This view is supported especially by the case in which the abdominal symptoms made their appearance first, and in which the infective agent must have reached the mouth as a result of vomiting.

SURGERY.

82. Mingazzini-Foerster Operation in Tabes.

CARL DOERR (*Wien. med. Woch.*, No. 45, 1911) reviews the results obtained from this operation in cases of tabes. As long as twelve years ago Mingazzini recommended that the posterior sacro-lumbar nerve roots should be divided in tabes with unbearable lancinating pains, for which no relief could be obtained. Such an operation may lead to slight ataxia, but the muscle sense can be re-educated by Frœnkel's method, and in any case ataxia is preferable to unbearable pain. Mingazzini limits the treatment to cases of inferior tabes not in the ataxic stage, and recommends a most careful suture of the dura mater, since in two reported cases death has been caused by escape of the cerebro-spinal fluid from the dural sac. Foerster extended the use of the method to cases of gastric crises in tabes, and recommended in these cases the division of the posterior dorsal roots from the sixth to the ninth. Schlesinger, at the end of 1910, reported on seven cases in which the Mingazzini-Foerster operation had been performed by different operators in cases of gastric crises. The limits of division of nerve roots were the sixth dorsal root above and the tenth below. One patient died from sepsis. In the other cases there was complete cessation of the pains. The patients were, however, only under operation for times which varied, in the different cases, from two to five months. In one case, in which only the seventh, eighth, and ninth roots had been divided, a slight relapse occurred after three months. One patient who had taken morphine for five years because of attacks of pain, was freed both from the pain and the morphine habit as a result of the operation. Becker more recently has reported a successful case of relief from gastric crises as a result of the operation. Schlesinger, on the other hand, reports a case which he himself observed, in which the condition became worse instead of better after the operation. Mainzer reports a case in which the gastric crises returned a few days after the operation, and incontinence of urine resulted from the operation. Modifications of the operation have been suggested. Thus, Guleke would divide the roots extradurally. Francke recommends neurectomy of the intercostal nerves, carried out in a manner similar to that adopted in trigeminal neuralgia. It is too early as yet to decide as to the value of the treatment. Experience has, however, already shown the wisdom of restricting the treatment to cases of inferior tabes and of gastric crises, in which the pain is unbearable and cannot otherwise be relieved, and in which the patient is not in the ataxic stage of the disease.

83. Sapheno-Peritoneal Anastomosis (Ruotte's Operation).

T. CELSO (*Il Morgagni*, Milan, 1911, Rivista, liii. 675) reviews the literature of Ruotte's operation in cirrhotic ascites. The operation had been used many years before, but without success; Ruotte in 1907 brought it forward again, using the comparatively large internal saphenous vein. Local anaesthesia with cocaine suffices; spinal anaesthesia is often indicated; the terminal three or four inches of the vein up to its entrance into the femoral vein are dissected, the incision is prolonged up to Poupart's ligament, the peritoneal cavity is opened and emptied, and the cut end of the vein is sewn with catgut into the opening in the peritoneum. A similar operation on the other side of the body may be carried out eight days later if necessary. Celso has collected twelve cases from the literature, ten having cirrhosis of the liver; only two, for one reason or another, proved successful after periods of twelve and eighteen months. It is necessary that the valves in the upper end of the internal saphenous vein should be competent, as otherwise haemoperitoneum would occur. If the vein is small or the ascitic fluid fibrinous, occlusion of the vein will occur. If the vein bifurcates close to its entrance into the femoral vein, the operation is contraindicated. Out of nine cases that could be examined *post mortem*, the anastomotic tract of the saphena was occluded in four, patent in five. Celso doubts whether the operation has yet established its claim to value.

84. Value of Leucocyte Count in Acute Surgical Diseases.

HERBERT W. HEWITT (*Ann. of Surg.*, December, 1911) points out that it is not sufficient to rely on the total leucocyte count, as it is influenced by so many factors—digestion, pregnancy, violent exercise, etc. As the polymorphonuclear cells are principally affected in inflammatory diseases, it is best to estimate the total number of leucocytes and compare with it the percentage of polymorphonuclear cells; the former may be regarded as 6,000 to 10,000 normally, and the normal percentage of the latter 60 to 80. Some general rules may be laid down as follows: (1) The total count is an index of the patient's resistance to the infecting organism; (2) the relative polymorphonuclear count is an index of the degree or the severity of the infection; (3) a percentage of polymorphonuclear cells from 75 to 80 means that infection is probable, if from 80 to 85 infection is usually found, and if above 85 infection is almost invariably found, and this regardless of the total leucocyte number. By reference to both counts some important points can be decided: (*a*) Bodily resistance, whether high or low; (*b*) infection, whether severe or mild; (*c*) infection, whether well borne or poorly resisted; (*d*) infection, whether circumscribed or uncircumscribed. Relative disproportion between the differential and total counts may be a means of clearly defining bodily resistance, and therefore of value for prognosis and diagnosis. It has been suggested to represent this disproportion by means of a chart. If two columns of figures are made, to the left side the leucocytes in thousands from 5,000 upwards, and to the right side the percentage of neutrophile polymorphonuclear cells from 70 per cent. upwards, let the normal minimum of the former be 5,000, that of the latter 70 per cent., and let each ascending thousand of the leucocytes be represented by a rise of 1 per cent. in the column assigned to the polymorphonuclears, then the line drawn from the total leucocyte side across to the percentage of polymorphs side may be straight or oblique (ascending or descending). This line has been called Sondern's resistance line, and its obliquity determines the prognosis in any given case. If the blood count is made frequently in an acute case the lines may be joined up and the graphic method carried fully out. In acute inflammatory diseases in the pelvis the polymorphonuclear counts are low. In the appendix region the count is usually higher, and in the upper reaches of the abdomen there is marked increase in both total and polymorphonuclear counts. A relative percentage of polymorphonuclear cells below 70 with an inflammatory leucocytosis of any degree excludes the presence of pus or gangrene at the time of the examination, and usually indicates good bodily resistance towards infection. A rise in polymorphonuclear percentage while the total number of leucocytes remains stationary or falls is a call for immediate operation. Differential blood count may assist in diagnosis, and the author cites a case where it determined the diagnosis between small ovarian cystoma with twisted pedicle and pyosalpinx or appendicitis. Several charts are given in the text to illustrate the method.

OBSTETRICS.

85. Treatment of Eclampsia.

JEANNIN'S recommendations are as follows (*Paris méd.*, 1911, iii.): In the prodromal stage absolute isolation, water to drink, 60 grams of ol. ricini, with a drop of croton oil,

and then an enema of 2 to 4 litres, chloral (2 to 4 grams), potassium bromide (4 to 6 grams) in 150 grams of warm milk as a beginning; venesection of 300 to 400 grams if the tension is high; if the symptoms do not improve rapidly, artificial labour. Attack: Chloroform to be administered if fibrillary contractions of the face occur, with the object of endeavouring to cut short the attack; the patient should be prevented from biting the tongue. No food, only a little water if necessary; 300 to 400 grams up to 800 grams of blood should be removed; drastic purgatives and enemata; inhalations of oxygen, complete isolation. If the eclampsia occurs before the sixth month, artificial labour should be produced. In the last three months of pregnancy, if the coma is some time from term before the ninth month, and if the attacks are slight, premature labour should not be brought about; if the coma is in the ninth month, the attacks repeated, and coma profound, the uterus must be emptied without delay, and dilatation best effected bimanually or by Bossi's dilator. Treatment after the attack: (1) During coma complete isolation, and water should be introduced into the system; if anuria persists, decapsulation of the kidneys should be considered. (2) After the attack and coma are over, milk and water diet, then milk; vegetables or meat should not be given if there are more than a few centigrams of albumen in the urine. The bowels must be kept open.

86. Toxaemias of Pregnancy.

S. H. BLODGETT (*Med. Record*, January 13th, 1912) speaks of two types of toxaemia in pregnancy: the one of uraemic nature and the other indicating imperfect pancreatic action. Uraemic poisoning may develop slowly or rapidly. In slow poisoning there is greater danger to the child; in rapid poisoning there is greater danger to the mother. If nitrogenous food is not decreased in slow poisoning the excretion of urea gradually decreases. One should therefore limit the amount of nitrogenous food. If these cases are recognized early enough one need not order a strictly milk diet, but a large amount of liquid should be given. The amount of physical exercise should be limited, as exercise will often precipitate the attack of convulsions. The fetal heart beats should be watched carefully, and if they weaken labour should be induced. In the uraemic form of toxaemia headaches, pains along the nerves and in the epigastrium, and loss of appetite come on suddenly, with scanty urine of high specific gravity. Labour should be induced at once. Pancreatic toxaemia is characterized by nausea and vomiting, with diacetic acid and acetone in the urine. There is soreness on deep pressure over the head of the pancreas. The treatment is sodium bicarbonate, given in daily doses of from 30 to 60 grains, with hot or cold water.

GYNAECOLOGY.

87. Ovarian Cyst containing Teratomatous, Sarcomatous, and Papillomatous Elements.

STEWART AND EGLINTON (*Journ. of Obstet. and Gynec. of the British Empire*, November, 1911) describe a tumour belonging to the enormous group known as malignant ovarian teratomata. The tumour was removed from a woman, 40 years of age, who had been unwell for two years and ill for six months. It was a large semicystic mass originating in the right ovary and implicating the uterus and left ovary. The patient died some weeks after leaving the hospital, of symptoms pointing to peritoneal dissemination. The mass measured 7 in. in length; on the upper surface was a piece of adherent omentum on which a cauliflower-like growth the size of a hen's egg was situated. The right tube was not distinguished; the left tube and ovary were stretched over the tumour. The uterus contained several small intramural fibroids, but the cavity appeared to be normal. The largest portion of solid growth lay immediately behind the fundus and had undergone central softening; thus a large cavity had formed which communicated freely with some of the loculi of the cyst. The loculi, except two, are similar to those usually found in multilocular ovarian cystomata. A cauliflower-like mass of growth the size of a raspberry projected into one of the loculi, and a second small cyst was filled by a similar papillomatous mass. These growths were similar to the mass growing in the omentum, which had originally been intracystic, but the cyst had ruptured and now formed a sort of collar of membrane surrounding the attachment of the growth. Another cyst situated on the inferior surface was clearly a dermoid; it contained the nipple-like process characteristic of ovarian teratomata, associated with a special tuft of hair and a hair lining of the cyst. The histological examination established its teratomatous character and defined the cauliflower-like growths as ovarian papillary adenomata without any histological evidence of malignancy. Portions of the solid tumour were examined and showed well-marked evidence of malignancy, corresponding to the type of mixed-cell sarcoma. The central cavity of the cyst was separated from the tumour in some parts by a broad zone of sarcomatous tissue, which appeared to be infiltrating the wall of the organ from without and not originating from within. The microscopic fibroids presented the usual histological characters. The large cystic teratomata or ovarian dermoids are in the great majority of cases benign, but every now and then a malignant case occurs. Three possibilities have to be considered: 1. Malignant transformation of carcinomatous or sarcomatous, of some one or other of the various structures composing the teratoma; 2. the independent origin in the same ovary of a teratomatous cyst and a malignant neoplasm; 3. the occurrence of metastatic deposits of new growth in an ovary already the seat of a teratoma. Most of the recorded cases belong to the first category, examples of the other two classes being very rare. The author's own case is one of multilocular ovarian cyst, partly dermoid, in which sarcomatous transformation of the stroma has taken place. While one of the loculi is teratomatous, several others contain papilliferous in-growths. In addition, masses of sarcomatous growth are present in the walls and septa of the cyst, while a large secondary papillomatous mass is growing on the omentum. There seems to be little doubt that the sarcoma originated in the stroma of the multilocular cyst; there is nothing to suggest that it originated in the teratomatous portion or in the uterus. Appearances suggest that the uterus has been invaded from without. The [illegible] are independent of the [illegible] and are in the experimentally [illegible] ovary. Though histologically benign, they possess a certain degree of [illegible] and [illegible] given rise to a metastatic mass in the [illegible].

THERAPEUTICS.

88. Radium and Cancer.

NAHMMACHER (*Wien. med. Klin.*, No. 41, 1911) discusses the value of radium in operable cancer as a secondary treatment after operation, and in inoperable cancer as a primary treatment. Roentgen and radium rays have an elective action on any cancerous tissue which may have been left after operation, and radium, because it acts on deeper tissues, is more effective than are Roentgen rays. Yet the radium applications are painless, and seldom result in scar formation. The author has never seen injury to the surrounding tissue result from the application for weeks at a time of radium bromide to the portio or cervix or body of the uterus. In cases of rectal carcinoma under his care 10 to 20 mg. of radium bromide laid in the rectum for ten to twenty hours daily for periods varying from five to ten weeks have been harmless to the surrounding tissue—a fact which shows clearly the elective action of radium. The preparation of radium most commonly used is radium bromide. In cases of carcinoma a new formation of connective tissue becomes evident a week after the raying. The newly formed tissue increases rapidly, and invades the cancer nodules; two weeks after the raying small vacuoles appear in the cancer cells, and degeneration sets in. Finally, the cancer cells become wholly replaced by newly-formed connective tissue. In sarcoma the sarcomatous tissue is transformed into fibrous tissue. In malignant epithelioma the cancroid cells atrophy, and are replaced by connective tissue. Exner, whose observations extend over six to ten years, reports permanent recovery in 4 cases of inoperable cancer of the face and 6 of the jaw. Cancroid tumours gave, on the whole, the best results. In all inoperable carcinomata the best results were obtained from intensive and long-continued treatment with radium bromide combined with injections of highly active radium salts. In deep inoperable carcinoma of the uterus a combination of radium treatment with curettement is to be recommended. In far-advanced inoperable tumours a checking of growth and a temporary improvement are often all that can be hoped for. In operable cases, when operation has to be for any reason postponed, radium treatment will often prevent the growth from becoming inoperable in the meantime. The author's results in cases of operable new growth

treated by operation with a radium after-cure have been excellent. Not one of 16 patients on whom a radical operation for carcinoma of the uterus, followed by radium treatment, had been performed have had a relapse, though the observations go back over a period of eight years; 4 similar cases could not be followed up after leaving the hospital, and the result in these cases is therefore not known. In the author's clinic during the last few years every cancer patient has had after operation a two or three weeks' course of prophylactic radium treatment. The author believes that his results for cancer of the breast are better than those of other operators because of this practice. He was able to follow up 18 cases. Relapses occurred in two cases only, and in these earlier small operations had previously been performed outside the hospital. One of these patients died five years after the operation from a metastatic growth in the spinal canal; the second had to be operated upon again because of a relapse above the operation scar: the open wound was treated with radium, and transplantation was performed after three or four weeks' treatment by radium. In cancroids of the face, only 10 per cent. of which could be also treated surgically, the author reports 93.5 per cent. of recoveries. In cases of relapse after operations for mammary cancer performed by other surgeons, small nodules have been removed by radium.

89. Technique of Medullary Radiotherapy.

In seeking for an explanation of the contradictory nature of the results in radiotherapy of the spinal marrow, Bordier (*Arch. d'électr. méd.*, November 25th, 1911) has attempted to measure the quantity of *x* rays which actually penetrates to the cord. He has carried out his experiments upon a skeleton, threading the vertebrae upon a metal rod bearing reactive pastilles, and covering them with absorbent cotton impregnated with a 7 per cent. solution of NaCl, so as to represent as nearly as possible the absorptive capacity of muscles and other tissues for *x* rays. The author finds a considerable difference in the quantity received in the medullary canal according to the region irradiated. With the pastille under the first dorsal, 5 per cent. of the unfiltered rays incident upon the skin reach the place of the spinal cord: under the fifth dorsal the proportion is 9 per cent., and between the second and third lumbar it rises to 15 per cent. Using a filter of 1 mm. of aluminium, which is most frequently employed in medullary radiotherapy, he finds that in the case of the fifth dorsal the proportion transmitted is no longer 9 but 13 per cent. The best technique will be arrived at by taking into consideration the form of the vertebrae. The author thinks it an advantage to introduce the ray bundle by an oblique path instead of making the irradiation in the median plane. Usually the median plane of the tube coincides with that of the body, in which case the rays, before reaching the marrow, have to traverse the whole thickness of the spinous apophyses on the vertebrae. But he employs the tube so that the rays enter between the spinous and transverse apophyses, at an angle of about 45 degrees to the usual symmetrical position. In this way they traverse a smaller amount of osseous substance, and, indeed, examination of the vertebrae shows that the spinous apophysis is joined on each side to the transverse apophyses by a plate of only about ½ cm. in thickness. An oblique irradiation should be made to the right and another to the left for each region to be treated, and in order to avoid too severe a cutaneous reaction the one side should be shielded with a sheet of lead or caoutchouc while the irradiation is made on the other. By the oblique method the proportion of the rays transmitted to the pastille occupying the position of the spinal cord under the vertebral sheath of the fifth dorsal is raised from 13 to 17 or 18 per cent., using the same filter as before. Thus with three irradiations of two Bordier units I on the skin under the filter, one unit I (about 2 Holzknecht) would be received in the medullary substance. Repeated several times, this dose should be effective, and the author points out that the oblique method of introducing the rays presents a means of reaching some of the most important regions in tabes.

90. The Dietary of the Albuminuric.

Springer (*Journ. des praticiens*, September 2nd, 1911) recommends a rigorous examination of the urine, and an estimation of the amount of albumen at the commencement of treatment. Two classes of cases come under notice: (1) Those in which the general condition improves under treatment and the albumen disappears, and (2) those in which the albumen rapidly diminishes, but in spite of all treatment never quite disappears. A milk dietary is essential to begin with, and that being so, physical and mental repose is necessary. In an average case a freer dietary may be begun after fifteen days, and a careful examination of the urine should be undertaken each time any variation is made in the diet. It is important to regulate the amount as well as the character of any aliment given the patient by his digestive capacity. In addition to milk diet the author recommends semolina, fine vermicelli, and macaroni. Rice, potatoes, peas, and lentils may follow. When these are well tolerated, cooked fruits and fresh cheese may be given. In the matter of drink, apart from milk, pure water or one of the mineral waters such as Evian is best. Weak tea or coffee or extract of malt in a glass of water may be given to vary these. This dietary may be extended according to circumstances by the addition of roast chicken, cutlets, or saddle of lamb. The author sternly interdicts fish on the ground that, clinically and experimentally, it notably increases the albumen. He has injected the urine of healthy persons on a milk dietary, and found that it exhibited the minimum of toxicity, whereas the urine of a person on a fish dietary resulted in a maximum of toxicity. The reason of this, he thinks, is to be found in the rapid putrefaction of fish, which is rarely obtained fresh, and the consequent formation of alkaloids. Vegetables and bread, if toasted, are often well borne. Milk soups and vegetable soups may also be given. Fruits may be taken cooked, especially peaches, prunes, apricots, greengages, and dates. Salt and salted foods are forbidden, as are meat soups, veal, beef, and game, especially if "high." Among vegetables, sauer-kraut, asparagus, mushrooms, spinach, artichokes, tomatoes, and rhubarb are all undesirable. Of fruits, gooseberries, oranges, and new fruit in general are not recommended. The author forbids any form of alcohol except in the form of a little white wine. These rules are not, of course, applicable in their entirety in every case. Experience alone must be the guide in individual cases.

PATHOLOGY.

91. Dislocation of Neck followed by Haematomyelia.

E. Tramonti (*Il Policlinico*, Soz. Med., Rome, 1911, xviii, 1) describes the case of an alcoholic pointsman of 55 who received an accidental blow on the back of the neck. He was unable to get up, and was carried to his home. Retention of the urine and faeces followed, and next day he was taken to hospital. Movement at the neck was painful; the finer movements of the hands and arms were lost; the legs showed flaccid paralysis and loss of reflexes both superficial and deep. There was complete anaesthesia up to the iliac crest on the right, the nipple on the left; there was continuous formication in the arms. Marked depression could be felt in the region of the spine of the fifth cervical vertebra, and pressure here caused paraesthesias over the whole body. Lumbar puncture discovered normal cerebro-spinal fluid free from blood. Three days later the anaesthesia was less, reaching to the right thigh and the left iliac crest, and there was a slight Babinski's sign on each side. $CHCl_3$ was given, and a plaster collar with extension applied to the neck. Nine days after the accident the functions of the upper limbs were restored almost to the normal: a slight amount of voluntary movement was seen in the legs; the bladder and rectum were not under control; the temperature was normal, but two days later the patient died suddenly from respiratory failure. *Post mortem*, the heart and lungs showed nothing abnormal: there was a forward dislocation of the fifth cervical vertebra on the sixth, with rupture of all the intervertebral ligaments. The spinal cord here was flattened (by the upper and posterior angle of the sixth vertebra) and soft to the touch, and minute submeningeal haemorrhages could be seen. On section, the cord showed a large central haematomyelus, largest at the level of the fifth pair of cervical nerves, extending down to the eighth pair. This haemorrhage destroyed and took the place of much of the grey matter of the cord. At the level of the sixth pair of nerves the crossed pyramidal tracts showed degenerative changes, which were more marked on the right side at the level of the eighth pair, where the haemorrhage bifurcated into a smaller left and a larger right effusion. Tramonti discusses the case, and concludes that the haematomyelus appeared late, the injury first causing acute compression of the cord, then a traumatic myelitis. The vessels of the cord generally showed some sclerosis, no doubt due to alcohol, that would predispose to haemorrhage.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

92. Venous Pulse of Lung in Mitral Lesions.

BUICLIU AND DANIELOPOLU (*Arch. des maladies du coeur, des vaisseaux, et du sang*, June, 1911) relate the following case. The patient, a girl 17 years of age, was admitted to hospital November 20th, 1910, with advanced cardiac failure. There was nothing of any importance in her previous history until December, 1909, when she suffered from acute rheumatism. A month after the disappearance of all articular symptoms she began to suffer from palpitation, precordial oppression, and dyspnoea on exertion. In August, 1910, oedema about the ankles first appeared, and gradually increased. By September the dropsy had invaded the thighs and the abdominal wall, and the abdomen began to increase in size. Treatment by cardiac tonics resulted in some improvement, which, however, was not maintained. When admitted to hospital she was in a very serious condition, being very short of breath, and complaining of palpitation and oppression over the heart and of acute pain in the right hypochondrium. The face was cyanosed, the jugulars distended and pulsating, and there was much oedema of the legs, abdominal wall, and face. The apex beat was in the fifth left intercostal space, 16 cm. from the mid-sternal line. By percussion the apex was located behind the sixth rib and 18 cm. from the mid-sternal line. Cardiac dullness was greatly increased, especially transversely. The right border of the heart extended 3 cm. to the right of the edge of the sternum at the level of the fifth intercostal space. There was a systolic thrill at the apex. The pulse-rate was 110 per minute, and it was very irregular. At the apex region was heard a very loud murmur, which was propagated towards the left axilla. The murmur was heard over the whole of the back of the thorax and also in the right axilla. There was a systolic murmur at the base of the xiphoid appendix propagated towards the manubrium. Faint diastolic murmur and a sound of opening of the mitral valve were heard at the apex beat. In the intercostal spaces was seen a pulsation which appeared to be synchronous with ventricular systole, and was most manifest at the end of expiration, and gradually diminished, to disappear completely at the end of inspiration. It was as evident on the back as in mid-axilla. This pulsation was more obvious to palpation, appeared synchronous with the apex beat, and presented the same irregularity as the cardiac contractions. It also appeared to be synchronous with the jugular and liver pulses, which were very manifest. A few sibilant râles were present in both lungs. Ascites was present; the liver extended three fingerbreadths below the right ribs; the urine passed varied from 200 to 400 c.cm. in the twenty-four hours, and contained 1½ to 2 grams of albumen per litre. Tracings of the radial pulse showed an extreme irregularity, no two pulsations being alike. Tracings of the jugular pulse showed the presence of the ventricular form of venous pulse characteristic of nodal rhythm, the wave *a* of Mackenzie being absent. Each jugular pulsation occurred at a little less than a tenth of a second after the beginning of the cardiac pulsation, and each pulsation showed two rises separated by an acute depression corresponding to depression *x* of normal jugular pulse, and followed by a more deep depression corresponding to *y* of the normal jugular pulse. Tracings were also taken from the fourth and fifth right intercostal spaces in the mid and post axillary lines and from other spaces, and the following characters noted: Pulsation commenced a little less than one-tenth of a second after the commencement of the cardiac pulsation. The summit of the pulsation was composed of two rises corresponding to the two undulations of the jugular pulse, but the depression *x* was less marked. One found also during diastole a diastolic undulation similar to that found in the jugular tracing, and there was no doubt that the pulsations obtained from the intercostal spaces were synchronous with those obtained from the jugular vein. In commenting on this case, the authors conclude that the patient was suffering from mitral insufficiency and stenosis, together with tricuspid regurgitation, and that a condition of nodal rhythm was present. They consider that they have demonstrated pulsation of the lungs, and this they consider to be due to a reflux of blood from the left ventricle into the pulmonary veins through the incompetent mitral orifice.

93. Bradycardia in Jaundice.

S. D. DANIELOPOLU (*Wien. klin. Woch.*, No. 37, 1911) discusses the pathogenesis of icteric bradycardia. Bradycardia is found to be present in catarrhal jaundice, less frequently in liver colic, and still less frequently in other forms of jaundice. The pulse-rate as a rule is between 40 and 60, and bradycardia is less noticeable when the patient is in the upright position. It is maintained by most authors that the slowness of the pulse is the result of impregnation of the myocardial tissue with gall salts, but Röhrig and others have shown that experimental bradycardia due to gall salts continues even after division of the vagus, or after poisoning by atropine. In man the atropine test has almost always been negative in jaundice, but when investigating the effect of atropine on the rhythm of the heart the author has been struck by the differences which exist in the way individuals react to atropine, both in health and disease, and he does not consider that atropine can be considered to have failed to quieten the pulse unless as much as 2 mg. (0.03 grain) of atropine sulphate have been injected. The author describes two typical cases of bradycardia during catarrhal jaundice. In both cases the bradycardia was total, the graphic curve showing that the auricle as well as the ventricle was affected. The heart's rhythm was in both cases affected by deep breathing and by swallowing movements. In both the atropine test was positive: the pulse-rate rose in one from a rate of 44 to 48 before the injection to 102 forty-five minutes after it, and in the other from 44 before it to 124 an hour and fifty minutes after it. It is clear that in these two cases, and therefore in at any rate some of the cases of icteric bradycardia, the change of pulse-rate is nervous in origin.

94. Post-tabetic General Paralysis.

P. CIUFFINI (*Il Policlinico*, Sez. Med., Rome, 1911, xviii, 285, 363) gives an account of 52 cases in which an initial tabes dorsalis was followed by general paralysis of the insane; in 19 a *post-mortem* examination was made. Six of the 52 were women. All the cases were between 30 and 65 years old, 20 between 40 and 45: a neuro-psychopathic heredity could be excluded in only 6; 26 gave a history of syphilis, 10 of these having also been heavy drinkers, at a period of 8 to 39 years (average 19) before the onset of the tabetic symptoms. The interval between the onset of the tabes and the onset of the general paralysis could not be determined in 13 cases: in 38 it varied from 2 months to 19 years, and was 6, 12, and 12 months in three instances. The average interval was 5 to 6 years. As regards the clinical form of the tabes, in 8 it was superior, in 38 inferior, in 6 mixed. The tabetic lightning pains habitually disappeared when the symptoms of general paralysis came on, persisting in 3 patients only. Transitory hemiplegic attacks may occur in tabes before or without the onset of general paralysis; these attacks were noted in 3 of Ciuffini's patients from 2 months to 3 years before the onset of the general paralysis. Oculomotor paralyses were found in 14 patients, optic atrophy in 20, facial paresis in 29. In 35 fatal cases he found the average duration of the paralytic stage to be 16 months, with a maximum of 4 years and 3 months; in 27 cases the average duration of the tabes and the general paralysis together was 7 years and 3 months, with a maximum of 20 years.

95. Obesity in Children.

HUTINEL (*Journ. des praticiens*, September 2nd, 1911) discusses obesity in children. He quotes the case of a boy of 12 years of age, the son of a gouty father and a tuberculous mother. He weighed 8 lb. at birth, and was nourished at the breast. At the present time his marked obesity is the most striking feature, and this is due apparently to his extraordinary appetite. Vomiting has often occurred, and also diarrhoea, but the urine contains neither sugar nor albumen. As he is of small stature, the adipose tissue covering his chest and abdomen causes almost a pendulous appearance. The testicles were normal in size, but the subcutaneous test for tubercle was positive, although there were no clinical signs. According to the author, obese children eight times out of ten have diabetic parents or

grandparents, and an arthritic heredity makes up the remainder. The condition is a dystrophy, but the author offers no opinion as to its cause. In many of these cases the children have not been large eaters. They frequently suffer from diarrhoea, and get fat in spite of malassimilation. Their stature is often slight, and there are also signs of hypothyroidism. They are clumsy children, and intellectually and physically are slothful. Thyroid extract activates combustion in these cases, and leads to diminished weight and increased growth. Another type has been described by Lannois under the name of the "syndrome adiposo-genital." The author describes a case of his own, a youth of 20 years of age, in whom the genital apparatus, both testicles and penis, were very atrophied. Such patients behave more or less like eunuchs. This dystrophy appears to be caused, in part at least, by changes in the hypophysis. Thyroid insufficiency may be suggested as the cause of obesity in children, and hypophysial insufficiency in adult cases of the kind. In the present case thyroid extract is to be tried alternately with hypophysial opotherapy. In atrophy of the genital glands orchitic extract may be associated with the treatment in the case of boys. To opotherapy general regiminal treatment is added.

96. Gout and Basedow's Disease.

P. F. ARULLANI (*Il Morgagni*, Milan, 1911, Arch., liii, 428) argues that gout and exophthalmic goître are both auto-intoxications presenting many analogies to one another. He quotes 4 cases of his own in which chronic hereditary gout and exophthalmic goître occurred together; all the patients were women, and he is inclined to regard the symptoms of Basedow's disease as manifestations of gout in the nervous system, pointing out the numerous signs or symptoms that are common to both the diseases. The nature of the toxin that causes gout he leaves undetermined, but he thinks it may often be the initial cause of the disturbance in the functions of the thyroid gland that underlies Basedow's disease. He quotes Bialokur, who argues that an attack of exophthalmic goître should at once raise the suspicion not of gout, but of pulmonary tuberculosis.

SURGERY.

97. Radiography and Radioscopy of the Appendix.

ACCORDING to Desternes, chief of the radiological laboratory in the Hôpital Beaujon, the ileo-caecal appendix, both in the normal and in the pathological subject, may be rendered visible radiographically with the aid of bismuth much more frequently than is generally supposed. In a communication to the Société de Radiologie Médicale de Paris (*Bull. et mém.*, December, 1911) he gives particulars of the results furnished by an *x*-ray examination of the caecum and appendix in a case of chronic appendicitis, with adherences in the region of the caecum and ascending colon. Palpation had discovered a tumefaction of sausage-like form in the right flank, ascending towards the umbilicus, with vivid pain at McBurney's point. Subsequent radiographs, one of them taken with the patient standing and the other with the patient reclining, showed a displacement of the caecum by 1 cm. in the change of position, the appendix, which was clearly visible in both radiographs, remaining at the same point. The bismuth-filled appendix appeared at the lower end of the caecum as a thin opaque strip, enlarging progressively and forming a curve with downward concavity. The length of it that was visible was about 7 cm., and its calibre was 2 mm. at the beginning and 4 mm. in the middle. The slender terminal part was in contact with a clear zone which might have related to a small intestinal convolution distended with gas. Ultimately the resection of the appendix was carried out under the control of the radiograph, and its situation and dimensions were found to correspond exactly with the indications given by the *x*-ray picture. The author thinks that the radiological examination will make it possible to eliminate the diagnosis of appendicitis in certain cases by revealing the exact site of lesions in another organ than the appendix, and that by giving information with regard to the appendix and furnishing an image of the different segments of the large intestine, it will also make evident the cause of conditions superadded to appendicitis or persisting after operation. Belot (same society and journal) also draws attention to the possibility of seeing the appendix filled with bismuth in the course of an *x*-ray screen examination. He administered to a normal but especially thin subject 80 grams of bismuth milk. Fifteen hours later the large intestine and the caecum were almost filled with bismuth, but no trace of the appendix was brought to his notice until a further examination five hours later (twenty hours after the meal), the patient in the meantime having had a motion. In this second examination no trace was found of the descending and transverse colon or of the rectal tube, but the image of the caecum and ascending colon was visible, and from the lower extremity of the caecum there projected a twisted and slender cylindrical shadow. The appendical image and its mobility were thus clearly demonstrated. The examination was made in the upright position.

98. Exostosis of Os Calcis and Talalgia.

RECLUS (*Rif. Med.*, January 1st, 1911) discusses "painful heel," what the French call "talalgie." At one time it was attributed to gonorrhoeal infection, gout, rheumatism, tuberculosis, and syphilis, and these may still act as more or less active causes. But, thanks to *x* rays, we know that the majority of these cases are at any rate associated with, if not largely due to, a spur on the os calcis. The curious thing is that although there may be a spur on each foot the pain may be only in one foot, and only be intermittent. Indeed, it is quite common for the pain to vary at times from great severity to the vanishing point. Probably these spurs date from early adolescence, and only give rise to trouble many years later. You may have talalgia without a spur, but in the author's experience a spur is almost always to be found. Tenon's bursa is hardly ever found in adults, although it may be seen in children, and since talalgia is a disease of adults, it does not seem likely to be due to inflammation of this bursa. These spurs on the os calcis are fairly common, since they were found in one out of every six or seven radiograms of the foot. They seem to be merely an exaggeration of a natural tendency, and may be seen in all degrees from a mere increase of the line of the tuberosity up to a definite exostosis. They are usually in the shape of an osseous lamina, 1 to 2 cm. in length and breadth. Probably more remains to be discovered as to the exact causation of the pain in these cases, but as regards treatment, removal of the spur is generally successful.

99. Treatment of Purulent Pericarditis.

SCHWARTZ (*Paris méd.*, 1911, iii) quotes statistics to show that pericardotomy is to be preferred to punctures in all purulent cases, and also that the former, with resection of the ribs, is superior to simple incision. The operation should also be performed as early as possible. The author even goes the length of stating that puncture is contraindicated.

100. Tuberculosis of Parotid Gland.

FIORAVANTI (*Rif. Med.*, October 16th, 1911) reports a case of this rare condition in a man aged 34. Up to the present only 13 cases have been recorded, and of these only 8 have been certainly verified as tubercle. It seems to affect persons of mature age by preference, and has been more often observed on the left than on the right side. It is often a primary affection, and occurs in healthy individuals free from previous or hereditary tuberculous manifestations. There are two types—a localized and a diffuse form with multiple foci; ulceration is comparatively rare. Histologically the chief features are the scarcity of tuberculous changes, the excessive rarity of tubercles of complete histological type, and the intensity of the connective tissue reaction. Bacilli are scanty in numbers, and of a low virulence. The condition may arise as a spreading infection via the parotid duct, or may arise as a haematogenous infection. There is nothing specially characteristic in the symptomatology; hence, especially in the frequent absence of any tuberculous history, the diagnosis is difficult. The treatment is surgical, and in view of the localized character of the affection is satisfactory.

OBSTETRICS.

101. Caesarean Section.

ASA B. DAVIS (*Bull. of the Lying-in Hosp., City of New York*, June, 1911) publishes a study of Caesarean section based on 104 operations. The principal aims of the operation should be to deliver a full-term healthy child without having submitted it to prolonged compression, to subject the mother to the minimum of shock due to exposure and handling of the abdominal contents, to avoid undue haemorrhage, to

plan the wounds so that adhesions will be avoided, to avoid interfering with proper involution, to prevent post-operative hernia, and to make the puerperal period as short and uneventful as possible. Sänger's procedure, first published in the early Eighties, fails in many respects to meet these requirements, and therefore the writer in November, 1904, introduced a new method in which the abdominal incision is made entirely above the umbilicus, and he has continued to use it almost without exception. Caesarean section is indicated in cases of obstruction to delivery from various causes, in some cases where ventral fixation has been done, some cases of impacted breech or face, some cases of tonically contracted uterus and accidental haemorrhage; a very large proportion of eclampsias are best delivered in this way, as also are well-marked cases of placenta praevia. When it is a question between Caesarean section and some other procedure such as *accouchement forcé*, pubiotomy, etc., the surgeon seldom regrets electing Caesarean section. The most favourable time to perform the operation in cases which are under observation is as soon as labour has begun, but in a large percentage of cases the women are already in labour when they come under observation, and the operation is an emergency one. The preparation of the patient is as for any laparotomy, and shortly before starting the anaesthetic 25 minims of ergotole are injected deep into the muscles to guard against atony of the uterus and undue haemorrhage. The operation advocated is as follows: The abdomen is opened by a median incision 6 to 10 cm. long from above down to the umbilicus. The omentum and intestines are held back by gauze pads. An assistant makes pressure with his hands against the side walls of the abdomen, rotating the uterus so that its anterior wall looks directly forward, and so regulating his pressure that the uterus is held well up to the abdominal opening until it is emptied of its contents, and until several of the deep sutures are in place and tied. The uterus is carefully opened so as to retain the membranes intact by a median incision a little longer than the abdominal opening. If the placenta presents, it should be pushed aside or torn through, and, with a hand in the uterus, the membranes should be separated from the uterine wall. Whichever thigh of the child is most readily found is grasped and breech extraction is done, turning the child after delivery of the shoulders so that it faces the mother. Then, with the middle and index fingers of the right hand astride the neck, and the same fingers of the left hand in the mouth, the head is carefully delivered so that there is no jolting of the uterus. The cord is divided between two clamps, and the child is removed by an assistant. Two fingers of the left hand are now hooked into the uterus at the upper angle of the wound, and with the right hand the uterus is cleared of placenta, membranes, and clots. A suture of No. 3 chromic gut is passed at each angle of the wound, and the first assistant, releasing his pressure on the abdominal walls, holds the uterus up in the abdominal opening by these sutures. The uterus is closed with eight or ten interrupted sutures passed just beneath the cut edge of the uterine peritoneum well out into the muscle and down to the endometrium, and these sutures are buried by a continuous suture of No. 2 chromic gut arranged so as to fold the peritoneum over them. The abdominal pads are then removed, and very little attempt is made to cleanse the uterus and the abdominal cavity of clots. The abdominal wound is closed in three layers, and a gauze dressing is held in place by adhesive bands drawn tightly across the wound. Elsewhere the dressing is loose so allow the uterus free play in the lower abdomen, and thus reduce the liability to adhesions. The head of the bed is elevated to allow descent of the uterus and to favour drainage. After forty-eight hours the after-care is that of any *post-partum* case; the patient nurses her child. She is allowed up on the eighth day and may go home on the twelfth day. Haemorrhage is seldom considerable, being controlled as soon as the uterus is opened by the pressure of the operator's wrist in the wound and afterwards by the pressure of the child's body and head as it is withdrawn. After delivery, hooking up the uterus in the way above described flattens out the sinuses and stops bleeding. If there is much haemorrhage on detaching the placenta its site may be temporarily packed. Repeatedly these operations are done without a clamp being used or a vessel ligated. The writer does not consider it justifiable to render these women sterile by operative means, and he does the Caesarean section repeatedly on the same woman. Rupture of the uterus in subsequent labours is a real and considerable danger, and it is necessary to warn women who have had one or more Caesarean section to consult an obstetrician early in the event of subsequent pregnancy.

GYNAECOLOGY.

102. Ovarian Tumour developing in Hernial Sac.

CULLEN (*Journ. Amer. Med. Assoc.*, October 11th, 1911) records at full length, with illustrations, an instance where an ovary lay in a hernial protrusion in the abdominal wall on the right side. It became the seat of cystic disease. When the patient was 56 years old it could be defined as a kidney-shaped tumour, slightly below and to the right of the umbilicus. The patient had noticed a small lump several years before: it had remained quiescent for a long while, but had gradually increased in size during the last year. At the operation the tumour was found to be invested with integument and subcutaneous fat; the sac had forced its way outside the muscles. The pedicle passed through a hernial ring to the outer side of the right rectus, and obliquely across the lower abdominal cavity to the normal insertion of the right ovarian ligament into the uterus. It was a true papilliferous cystic adenoma with much solid, fibromatous tissue and no evidence of malignancy. It measured 4¾ in. in its longest diameter; the hernial opening in the parietes was 1 in. wide. Cullen collects some recent reports of ovaries in hernial sacs. Puech collected a series of 88 cases in 1879. Bloodgood has twice found an ovary in a femoral sac. Cullen discovered the ovary and tube in an inguinal sac in a child, and in another case under his care both ovaries lay in the corresponding inguinal canals. The uterus and left kidney were undeveloped and the right kidney was pelvic. Cullen reports also an instructive case where an incisional hernia developed after the removal of a suppurating appendix. The wound was drained. The resultant hernia in the scar was tender, and in dissecting it away Cullen found that the sensitiveness was due to the presence of the right ovary in the sac, to which it adhered. Cystic disease in herniated ovaries, as in Cullen's recent case, is not unknown. Rheinstädter and Marchand discovered an ovary, subject to angiosarcoma, in a left inguinal sac, and the right ovary lay in a similar sac. Cazati and Beigel report a case where a large ovarian cyst had partially entered an inguinal sac. Guersant and Englisch wrote of a solid ovarian tumour found in a hernia. In Fargas's case a large multilocular ovarian cyst lay in the right inguinal canal and was removed. There was a left inguinal hernia with an ovary, easily reducible, in the sac. Seymour of New York's case was somewhat similar to Cullen's; a tumour developed in a herniated ovary, but the new growth was a spindle-celled sarcoma. Baldys defined a pedunculated tumour in the right groin. It proved at operation to be part of an ovarian cyst which lay in the abdomen; a pedicle ran from the cyst into the inguinal canal on to the tumour. Delhaes discovered a similar condition in a left femoral hernia, a pedicle running between an intra-abdominal and extra-abdominal portion of an ovarian cyst. The right ovary was converted into a large tumour. Hopkins found a strangulated pedunculated lobule of an ovarian cyst in operating for what seemed to be a strangulated umbilical hernia.

THERAPEUTICS.

103. Sunlight and Surgical Tuberculosis.

MAX JERUSALEM (*Wien. med. Woch.*, No. 33, 1911) describes the treatment by sunlight of surgical tuberculosis as carried out at Rollier's clinic at Leysin. The surgical treatment which is combined with the sunlight treatment is conservative rather than radical in its nature. The air at Leysin is pure and dry, the place is sheltered from wind, and the treatment can be carried out throughout the whole year. The first exposure is only a few minutes in length; later it can be continued almost throughout the day. The patient's head only is protected against the sun by an awning at the head end of the bed. The fixative plaster bandages have wide spaces in order to render the diseased area more accessible to sunlight. The result of the treatment is, in the first place, a quick disappearance of local pain, and then increase in appetite, regulation of the stools, and increase in body weight. The patient's bed is rolled out on to the balcony, and thus rest is combined with an open-air life. Ulcerated surfaces clean quickly, and there is a rapid diminution in the amount of discharge from fistula: indeed Escherich found that he was able to tell from the appearance of the wound whether the sun had shone or not on the preceding day. Another point noticeable in the patients is that they are able to overcome accidental

injury of the diseased area without a coincident relapse of the tuberculous process. Most important of all is the fact that a movable joint rather than a fixed one is obtained with relative frequency. Rollier states that the Alpine climate is peculiarly suited to the treatment, because the rays of the sun can pass through the dust-free air without losing their strength, and, at the same time, the air itself is fresh and pleasant. Heliotherapy causes a local hyperaemia, and has a bactericidal action which Wiesner found to be more marked when the air was dry than when it was damp, and to be increased by intermittent raying. The quick evaporation of the secretion also, no doubt, plays a part in the result, as does the formation of pigment in the skin. All these factors are, however, insufficient to explain the effect of the treatment on deeper tissues such as bones and joints, and it must be accepted that in addition to the direct effect there is a great effect from the action of the climate and sunlight on the organism as a whole as well as from the dietetic and general treatment carried out at the institute. The author describes 4 out-patient cases treated by himself at Vienna under conditions necessarily much less favourable. In one of these a cold abscess formed and perforated on the inner side of the knee; the tuberculous area was periarticular. The wound healed after ten weeks with no treatment except exposure to sunlight of fifty-five hours' duration in all. In another case a fistula which had persisted for four months after an operation for caries of the olecranon healed in seven days after the ray treatment had been begun. The third case was of severe fungus and caries of the right wrist, with pathological subluxation and loss of power and movement; 148 hours' exposure in all was given, and recovery was complete after six months of treatment, the movements being good both at the finger and wrist joints. The author has also successfully treated cases at his sanatorium at Grimmenstein, which is at a height of 760 metres (2,430 ft.) above sea level. Here he followed the plan adopted at Leysin of completely separating the cases of surgical tuberculosis from those of phthisis. He reports on 4 favourable cases. The time is too short as yet for a definite decision as to the value of the treatment when carried out at other than high mountain places; the author wishes to see an extensive trial of the system.

104 Treatment of Gout by the Emanation of Radium.

W. His (*Progrès med.*, November 18th, 1911) states that radio-active baths and waters owe their therapeutic value not to radium itself but to the emanation which is constantly given off in the auto-decomposition of the metal. In the treatment of gout it is necessary to charge the blood with this emanation in such a manner that it will be retained as long as possible. If a patient is given to drink water charged with the emanation, the greater part of the gas will be quickly eliminated by the expired air, only a small amount being retained in the arterial blood. By giving several doses a day, one can maintain a fairly constant amount of the gas in the blood. But the best method of application is by inhalation. The patient is shut up in a carefully closed room the air of which is charged with the emanation by allowing a thin stream of oxygen to bubble through a cylinder containing a strong solution of radium bromide; the air is freed from excess of carbon dioxide by being passed through another cylinder containing lime. The gas is absorbed by the alveolar endothelium, but in returning by the pulmonary circulation it cannot be completely exhaled because the emanation contained in the blood and the emanation contained in the air of the room are in equilibrium. This equilibrium is maintained as long as the patient remains in the atmosphere; an hour after leaving it his blood is free from the emanation. An inhalation of two hours' duration is therapeutically sufficient. Baths and subcutaneous injections are also employed. Baths owe their virtue to the fact that the evaporation of the water converts the room into an inhalatorium. Subcutaneous injections are used to obtain a local effect, for example, in sciatica. After three years' experience observations have been taken on over 100 cases of gout, and the large majority have been so obviously benefited that His considers the results cannot have been due to chance. Seeking the means by which the emanation acts the author postulates the following facts: (1) Uric acid salts occur in two forms, the one more soluble than the other. The insoluble form is the one found in the blood of the "gouty"; under the influence of the emanation it is converted into the soluble form. (2) The emanation decomposes uric acid into urea and carbonic acid. (3) The inflammatory process which follows the injection of sodium urate into the tissues of a rabbit is entirely changed in presence of the emanation; the emigration of leucocytes ceases and the foci of urates disappear, not by phagocytosis as in the case of the control rabbit, but by solution and reabsorption. (4) The amount of uric acid excreted in the urine is increased under the influence of the emanation. Clinically it is found that under treatment the uric acid excretion returns to the normal and uric acid generally disappears from the blood. Observations were made on 49 cases, the blood being analysed before and after treatment; 9 stopped treatment after twenty sittings and their blood had not lost its uric acid; 3 others were restored to perfect health, but did not lose their uricaemia; in the remaining 37 uric acid completely disappeared from the blood. Twenty-four sittings sufficed in most cases. The blood of some of the cases was again analysed some months after finishing the treatment (in one case a year and a half after), and the uric acid had not reappeared. His considers that these experiments furnish an index of the efficacy of treatment, which should be continued till the patient's blood is free from uric acid. In some cases the results are unsatisfactory. A reaction often sets in after eight to fourteen days' treatment, bringing a return of the pain, and sometimes even a true attack; it is not necessary to stop the treatment except in very severe cases. But the majority of the patients are cured of their recurrent attacks and lose their neuralgias, their myalgias, and even their eczema.

105. Autogenous Vaccines in the Treatment of Disease.

Henry A. Craig (*Med. Record*, November 18th, 1911), without claiming that bacterial vaccines are a cure-all for disease, believes that they are a great addition to our armamentarium in the treatment of bacterial infections, and come much nearer to a specific action than any drug that has ever been used. They do not interfere with other methods of treatment, and in his experience do no harm. In every operation upon an infected case a culture should be taken and an autogenous vaccine prepared for possible subsequent use. Vaccines are not intended to take the place of surgical measures, but are often a useful adjunct. Good results have been obtained with stock vaccines, but autogenous vaccines are better. Vaccines are more useful in local than in general infections. When the resistance of the patient is small, care should be taken in the injection of vaccines lest the organism be overwhelmed instead of assisted. The writer bases his conclusions on the treatment of eighty-five cases.

PATHOLOGY.

106. Tumours of the Pineal Body.

Bailey and Jelliffe (*Arch. of Intern. Med.*, December 15th, 1911) report a case of teratoma of the pineal body with an account of the pineal syndrome, and abstracts of previously reported cases. Among the earliest symptoms are headache, and signs of increased intracranial pressure due to the hydrocephalus. The headaches are mostly occipital, having the general characteristics of brain-tumour headaches, and liable to exacerbations with vomiting and giddiness. Papillary oedema of varying grades is present, together with drowsiness. The hydrocephalus alone may later cause various motor phenomena, for example, increased muscular tonus, weakness of the extremities, increased tendon reflexes, and even ankle-clonus and Babinski's sign. From pressure upon the corpora quadrigemina, ocular and pupillary signs develop, isolated eye palsies being often an early sign, and conjugate palsies, especially those for upward movements, are specially frequent. The pupils are usually widely dilated and unequal, with sluggishness to light and accommodation. Giddiness is a constant symptom, and staggering gait has occurred early in nearly half the cases. Of metabolic symptoms, adiposis, early sexual maturity, and cachexia are frequently associated. Brief histories of 59 cases from the literature are appended, together with notes of a case under their own observation of a boy, aged 12, whose pineal gland was replaced by an encapsulated soft tumour, 1½ in. in diameter, consisting of sebaceous matter, hair, and cartilage. The ventricles were enormously dilated, and the corpora quadrigemina flattened, and the aqueduct of Sylvius almost obliterated.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

107. Stomach Symptoms in Intestinal Disease.

Axel Borgbjaerg (*Ugeskrift for Laeger*, October 19th, 1911) points out that delayed emptying or motor insufficiency of the stomach is almost exclusively attributed in textbooks to disease of the stomach itself. But atony of the stomach may also be due to intestinal complications such as stenosis of pars horizontalis inferior duodeni or of the jejunum. Enteroptosis and stenosis of the large intestine due to various causes, as well as prolonged intestinal catarrh, may also give rise to stomachal symptoms, and the writer found that in 25 per cent. of all his cases of intestinal disease there was delayed emptying of the stomach, particles of food being found in the stomach six hours after Riegel's test meal. Kemp has argued that atony of the stomach is merely associated with, but not caused by, intestinal disease, and that when the two conditions occur simultaneously the stomach itself is almost invariably diseased. The writer, in support of his view, quotes Cohnheim's and Dreyfus's recent experiments on dogs, by which they showed that the motility of the stomach could be affected by the injection of saline solutions into the intestine. Clinically, the justification of the writer's view is a difficult matter, for even if dietetic treatment of intestinal disease relieves the symptoms referred to the stomach, it may yet be argued that dieting had also cured a condition such as slight gastritis, latent ulcer, nervous dyspepsia, or primary muscular weakness of the stomach itself. The first case which drew the writer's attention to the existence of stomachal symptoms in intestinal disease was that of a woman, aged 20, who had suffered from tapeworm, segments of which had appeared in the faeces at different times for many years. She suffered occasionally from stabbing pain in the right iliac region. Six hours after a test meal the stomach still contained particles of food. On November 7th, 1907, the head of a *Taenia mediocanellata* was expelled. A fortnight later there was no longer any hypersecretion of gastric juice, and the stomach was found to be completely empty six hours after a test meal. The following case also supports the writer's view. A farmer, aged 20, had suffered for over eight years from a sense of pressure in the cardiac region one hour after meals, this sensation being most troublesome after a heavy meal, especially in the spring and autumn. The patient's condition became worse, and he suffered from pain in the back, much nausea, and ructus. There was also constipation, headache, and general lassitude. Over an area extending from the ensiform process to the umbilicus there was pain on pressure, which was also present over the abdominal aorta and McBurney's point. A fingerbreadth below the umbilicus, in the middle line, a small, hard, movable tumour could be felt. A test meal showed delayed emptying of the stomach. Laparotomy was performed, and the tumour, which was the size of a child's fist, was found to consist of a mass of caseous and calcareous mesenteric glands connected with the small intestine. At this point the intestine was kinked and much retracted. The tumour, together with about 2 ft. of intestine, were resected. An uneventful recovery was made, the constipation was cured, and the stomach was found to be empty five hours after a test meal. Two other cases are reported in which stomachal symptoms were traced to chronic appendicitis without adhesions. In the first case the symptoms referred to the stomach were so pronounced that gastric ulcer was diagnosed. Dieting suitable for this disease was prescribed with no effect; but as soon as the appendix was removed all the symptoms disappeared, and there was no longer atony of the stomach, even after a full meal. The frequency with which chronic appendicitis gives rise to symptoms referred to the stomach is probably not great, and in four cases of chronic appendicitis in which the diagnosis was confirmed by operation, the writer found the function of the stomach before operation to be normal. In two cases of tumour of the caecum associated with atony of the stomach, the removal of the tumour was followed by the disappearance of the stomachal symptoms. The writer concludes that tumours of the intestine below the caecum do not interfere with the motility of the stomach, but that tumours involving the small intestine and the ileo-caecal region, as well as chronic appendicitis, may delay the emptying of the stomach. The reflex mechanism which exists between the intestine and the stomach is, however, insufficiently understood for the caecum to be dogmatically pronounced as the point below which such reflex action cannot take place.

108. Kernig's Sign in Infancy.

Cannata (*La Pediatria*, July, 1911) has examined 290 children of various ages and suffering from various maladies (75 nervous, 87 digestive, 52 respiratory, etc.) with a view to defining the value of Kernig's sign. To elicit the sign he put the children in the dorsal position, and, keeping one hand on the thighs, raised the child into the sitting posture with the other hand, and looked out for any flexion of the thighs. The net result of his observations is to confirm the value of the sign up to a certain point—namely, not as an absolute sign of meningitis, and in this respect not so valuable as lumbar puncture, but relatively and in association with other symptoms and signs it is of some value. Thus, in 15 cases of undoubted tuberculous meningitis it was positive in 7 and negative in 8. In 4 cases of cerebro-spinal meningitis it was positive in each case, and also in 2 cases of meningism (acute gastro-enteritis and pneumonia). In the great majority of the other cases it was negative. Practically it would seem that the sign may occur whenever there are marked symptoms of meningeal irritation, which, however, may not proceed from definite meningitis. In some cases the signs may exist intermittently.

109. Perforation of the Intestines due to Tuberculous Ulceration.

Cruice (*Amer. Journ. of Med. Sciences*, November, 1911) records thirteen instances of intestinal perforation in 475 autopsies on chronic pulmonary tuberculosis (2.7 per cent.). Adopting Fenwick's classification into "complete" perforation, where the ulcer perforates directly into the peritoneal cavity, and "partial" perforation where adhesions had formed shutting off the general peritoneal cavity, 10 of the cases were complete and 3 partial. Although in the majority of cases the symptoms are characteristic, commencing with sudden violent pain, accompanied by shock, which may be rapidly fatal, or followed by acute peritonitis if the shock is survived, it is possible for advanced peritoneal disease to be present in chronic tuberculosis without any marked signs. In 5 of the cases the symptoms were most indefinite, 2 having absolutely no abdominal symptoms, while the others presented such signs as may frequently accompany ulceration only, so that it is often impossible to diagnose the condition during life. In the cases of partial perforation the symptoms were no more than are to be found in a great number of cases of chronic phthisis, since, of the 462 cases who had no intestinal perforation, diarrhoea was present in 49 per cent., tenderness in 22 per cent., pain in 20 per cent., and rigidity in 14 per cent., showing how impossible it is to attempt a certain diagnosis from these symptoms alone. From the author's own observations, and from a study of previously reported cases, perforation of the intestines in chronic phthisis occurs in from 1 per cent. to 5 per cent. of the cases. In only a limited number of instances where complete perforation occurs is it possible to diagnose the condition during life, while it is never possible to diagnose with certainty a partial perforation, and the existence of a local abscess due to perforation can only be diagnosed when the mass can be felt.

110. Sokodu (Rat Fever).

Frugoni (*Rif. Med.*, November 20th, 1911) records an interesting case of infection due to the bite of a rat. The condition is said to be common in China and Japan, and the disease is known under the name of "sokodu" in Japan. It appears to be a specific infection and may be caused not only by a rat bite but by the bite of animals who have fed on infected rats. Agada has found a parasite of a protozoal type in the blood. But in the author's case and in 3 cases recently reported by Horder no parasite was found. The author's case was that of a man, aged 54, of good health, who was bitten badly in the right thumb in May, 1908, by a rat, whose teeth remained in the wound twenty-four hours before they were extracted. The patient washed the wound with vinegar and wine and

three days later it appeared to be healed. Fifteen days after the bite, when in perfect health, the man was seized with shivering, fever, etc., and rapid swelling of the thumb, going on to ulceration in the site of the bite; the thumb swelled up to the size of the wrist. Meanwhile the epitrochlear and axillary glands became enlarged and tender. This lasted five or six days, when there appeared intense erythematous swelling in the right pectoral region and a little later similar cutaneous swellings about the waist and thighs, more marked on the right side. This sort of thing went on for about a month and then cleared up. No suppuration occurred. The patient kept well up to May, 1909, when a similar attack of cutaneous erythema and fever (but without any manifestations in the throat) occurred, and again in September, 1909, and May, 1910. In November, 1910, the patient had an alarming retrobulbar swelling of the right eye, with extensive exophthalmos (no alterations in the disc, or in the vision), associated with the old erythematous manifestations elsewhere. This time he was given atoxyl injections. He left the hospital cured and has only had some very slight attacks of erythema since. As has been previously noted, no parasite was found in the blood. The chief and constant feature was a marked eosinophilia (8 to 11 per cent.). No helminthiasis was present, no malaria, and the Wassermann test was negative.

SURGERY.

111. Does Traumatic Appendicitis Exist?

PROFESSOR SPRENGEL (*Deut. med. Woch.*, December 14th, 1911) is guardedly sceptical as to the existence of traumatic appendicitis, the general belief in which he traces to *post hoc ergo propter hoc* reasoning. In support of his view he reports the following case: A servant, aged 18 years, was kicked by a horse on the lower part of the abdomen on the right side. He was at once seized over this spot with violent pain, which abated somewhat, to return in three hours with renewed severity and vomiting. On admission to hospital, thirty-six hours after the accident, his temperature was 100.8° and his pulse 102. The liver dullness and diaphragmatic respiration were normal, but the whole of the abdomen was painful on pressure. Its lower aspect was rigid, and there was dullness on percussion on the right side. Abdominal trauma was diagnosed, and the possibility of traumatic appendicitis was entertained. The abdomen was opened on the right side and a large amount of sero-purulent fluid was found within the peritoneum. The appendix was much thickened and its distal end was much distended. The patient, whose appendix was amputated, made an uneventful recovery. The writer considers that the appendicitis bore no relation to the injury, because in the course of the laparotomy there was no evidence of haemorrhage into the abdominal cavity nor into the appendix or its mesentery. Further, the microscopic examination of the appendix showed no changes, such as haemorrhages or laceration of the tissues, traceable to external force. The condition of the appendix was, in fact, characteristic of an inflammatory, destructive process only. Reviewing the literature on the subject, the writer concludes that in no case has the diagnosis of traumatic appendicitis been confirmed by microscopic and macroscopic evidence. Nordmann has suggested that faecal concretions within the appendix may rupture it when the abdomen is kicked, but no reliable evidence in support of this view is forthcoming. In one case operated on two months after the injury the distal end of the appendix was separated from the other portion by an interval of 2 cm., and the conclusion was drawn that the appendix had been torn apart by the injury. But it is well known that complete necrosis may occur in the middle of the appendix without trauma, and that in consequence the appendix becomes divided and separated by an interval. In one such case the writer found that a new attack of appendicitis had occurred in the detached portion of the appendix. In a case reported by Fink the patient's abdomen was injured by a fall in January, and was operated on in September. There was an abscess in the distal end of the appendix which presented a moderate degree of torsion, but it was not tied down by adhesions. The absence of adhesions and of scars in the peritoneum impairs the credibility of the traumatic theory in this case, and it is more probable that the torsion of the appendix alone caused stagnation and abscess formation in relatively harmless secretion. In spite of the lack of scientific evidence of the existence of traumatic appendicitis the literature on the subject contains detailed accounts of the various hypothetic changes such as oedema, thrombosis, and finally gangrene, which a blow over the appendix is supposed to cause. Distinctions are also drawn between the effect of trauma on the appendix when it is healthy or diseased, when it is free or adherent, and when it is normal or abnormal in various respects. Aschoff in his investigations into the causation of appendicitis has found particles of pigment in the periglandular connective tissue of the mucous membrane; but whether this pigmentation is due to physiological haemolysis or to inflammation is not evident. Even if it were due to trauma, as has been suggested, the condition may yet be due to injuries inflicted at the time of operation. The inclusion of the appendix in a hernial sac has never resulted in appendicitis, although its liability to injury in this position must be considerable. The fact remains that in about two out of every hundred cases of appendicitis there is a history of injury to the abdomen, the pelvis, or some other part of the body. But convincing evidence of any but an accidental relationship between the injury and the appendicitis has yet to be proved.

112. Balsam of Peru and Wounds.

JOSEF MALANUIK (*Wien. med. Woch.*, No. 46, 1911) describes the effect of balsam of Peru on the treatment of wounds as seen by him in 150 cases at the Stanislau Military Hospital. In many of the cases the injuries were extensive and the wounds already infected when they came under treatment. In a case of complicated fracture of the humerus an area of 4 sq. cm. of bone was exposed and the soft parts lacerated. A majority of the cases of cellulitis treated were in the initial stage. Cases of whitlow, whether superficial or deep, were first widely opened and then treated with balsam. In all cases the wound was first mechanically cleaned and treated with hydrogen peroxide. It was next covered with a pad of gauze and tincture of iodine applied to the surrounding skin. After this the wound was filled to the point of overflowing with balsam. In no case was there any unpleasant side-effect due to the absorption of balsam. Fomentations were not made use of in this treatment, but Bier's congestion was freely employed. The bandage was not changed for at least two days and often remained in position for five days; the author arrived at the conclusion that too early change of the bandage only injured the granulating surface. On removal of the bandage a thick yellowish secretion, without odour, and intimately mixed with balsam, was always present. There was a thin shining film over the surface of the wound and under it the new granulations. No signs of inflammatory reaction were found at the edges of the wounds. Fever, when present, quickly disappeared. The length of treatment of cases of whitlow was definitely shorter than when the treatment was on different lines. In recent cases granulations were evident on the first change of bandage, though in cases of longer standing the course was slower. The author believes that balsam, because of its lipoidal and toxin binding properties, is especially suited for dirty wounds from which it is feared that tetanus may result. He finds balsam of Peru to be bactericidal and at the same time non-irritating to the tissues; it forms a covering layer and is protective against secondary infection; it provides for the speedy expulsion of dead bacteria and of necrotic fatty tissue; through positive chemotaxis it increases the protective power of the organism, and as a lipoidal substance it has antitetanic properties.

113. Bier's Treatment of Mastitis.

W. v. BIEHLER (*Wien. klin. Rundschau*, No. 51, 1911) has treated during the last five years 89 cases of mastitis by means of Bier's cupping. Fourteen cases were early ones of inflammation of the superficial lymphatics. The symptoms were redness of the skin over the glands, local tenderness and swelling of the axillary glands. The treatment in these cases lasted from eight to fourteen days. The general condition improved at once, and after recovery the patient in every case could continue to suckle her child. Thirty-eight cases were of deep lymphatic and duct inflammation. The treatment here lasted as a rule twenty to thirty days, but in each of 3 cases lasted thirty-two days. In 14 of them abscesses had to be opened. Two were complicated by erysipelas, which ran its course in seven to eight days under the cupping treatment. Compresses were applied in the interval of using the cup. In this group, also, all the patients were able afterwards to nurse their children. The scars resulting from the opening of abscesses were never large. Thirty-two of the 89 cases were old and neglected ones. Abscesses and fistulae were present. In these cases, also, the results were good, but the treatment lasted longer, as a rule from three to five weeks, in one case forty days. In only 8 of

them were the patients unable later to suckle the children, and in 4 of these they were able to do so after another pregnancy. The treatment is thus seen to be calculated to preserve the smallest remains of gland. The patients, as a rule, were out-patients. The cup is applied for five to ten minutes at a stretch, with intervals of three to five minutes over a space of forty-five minutes, usually once, but occasionnlly twice, a day. In no case did relapse occur. Pain was relieved almost immediately under the treatment.

OBSTETRICS.

114. Treatment of Eclampsia.

E. ENGELMANN (*Wien. med. Klin.*, No. 51, 1911) reviews a series of 103 cases of eclampsia treated at his clinic during the last five and a half years. The total mortality of the mothers has been at the rate of 21 per cent., the system adopted being one of hastening delivery in all cases brought into the clinic during labour. In some obviously slight cases the membranes simply were ruptured, or in others dilatation was hastened by the use of a hydrostatic dilator; and this, coupled with isolation of the patient, absence of all sources of excitement, and the use of narcotics on Strogonoff's system, was completely successful. In any but obviously slight cases these measures may fail and valuable time may be lost. In a majority of the cases labour was terminated at once, and in those seen early, so that this could be done after the first or second attack, the mortality was only 10 per cent. The mortality in the clinic from eclampsia in the last ten years before the method of hastening delivery was adopted was 38 per cent. These figures speak clearly for the advantages of the system. Strogonoff's method of use of morphine and chloral hydrate is to give a subcutaneous injection of 1 to 2 cg. (0.15 to 0.3 grain) of morphine, an hour later a rectal injection of 1.5 to 2.5 cg. (0.22 to 0.37 grains) of chloral hydrate, two hours later another injection of morphine, and so on. Bleeding, combined with intravenous injections of Koch's salt solution, or, perhaps better, of Ringer's or Lock's solution, proved undoubtedly useful; the author prefers not to withdraw more than a few hundred cubic centimetres of blood, especially if delivery has not yet occurred. The customary cardiac stimulants were freely made use of. All operative measures and, with patients on Strogonoff's treatment, even simple examinations, were carried out with chloroform. A treatment tried by the author in 14 cases, most of them severe ones in which other methods had failed, was the injection of hirudin, a leech extract, which hinders the coagulation of the blood. The treatment is based upon the fact that the different symptoms of eclampsia are finally to be ascribed to the occurrence of multiple thromboses, while experiments show that the placental juice contains substances furthering the coagulation of blood. The treatment was of effect in all but 2 out of the 14 cases, but further trial on a large scale is needed before a final opinion as to its value can be arrived at.

115. Decapsulation of Kidneys in Eclampsia.

ILJIN (*Monats. f. Geb. u. Gyn.*, December, 1911) finds that decapsulation is indicated when urine is scanty or suppressed and the pulse hard, these symptoms not subsiding after delivery. The capsule should be stripped off extraperitoneally without extrusion of the kidney from the wound. He found that the renal tissues are but little damaged by this operation. By the end of three weeks a new capsule has developed and, Iljin declares, this new investing membrane is, like the normal capsule, not adherent to the adjacent renal substance.

GYNAECOLOGY.

116. Defloration Pyelitis.

WILDBOLZ (*Corresp. Blatt. f. schweizer Aerzte*, January 1st, 1912) points out that the greater frequency of pyelitis in woman than in man must be due to the greater facilities for infection which the female genitals offer. The relation of pyelitis to pregnancy is now well established, but its relation to defloration has scarcely been recognized. It is so common for newly married women to complain of painful micturition that the physician usually ignores this symptom, and this non-committal attitude is encouraged by the fact that the condition disappears, as a rule, spontaneously; but when the symptoms of pyelitis persist they are frequently attributed to intestinal catarrh, which is a fairly common incident on a honeymoon, or they are traced to an influenzal infection of the urinary tract. Sometimes there are symptoms of violent cystitis which are followed in a few days by unmistakable signs of pyelitis, such as renal pain, pyuria, and high fever. When the clinical picture is that of cystitis the physician naturally thinks first of a gonorrhoeal infection, and the husband's protestations of innocence are often met with courteous scepticism, even after an examination of the urethra has revealed no discharge. That such a slight injury as defloration may cause pyelitis is shown in 3 cases of acute pyelitis in newly married women seen by Wildbolz. In each case nephrectomy had been performed for renal tuberculosis; the urine had subsequently been repeatedly examined, and marriage had been permitted only after it had become normal and sterile. The pyelitis, which flared up directly after marriage, was at first attributed to a recurrence of tuberculosis due to the activity of a focus of disease previously latent in the kidney; but the urine was found to contain a pure culture of the colon bacillus, which was present in the bladder and the pelvis of the kidney. The patients, whose husbands were innocent of urethritis, made a complete recovery. In the course of the last few years the writer has seen 5 other cases in which painful micturition was complained of by newly married women who had not previously suffered from this condition. In the urine of one, a Gram-positive diplococcus was found; in the purulent urine of the remainder there was a pure culture of the colon bacillus. None of the husbands suffered from urethritis, nor was the gonococcus ever found in the patients' urine. Cystoscopy of 3 of the patients showed that only the region of the trigonum was inflamed. The pyelitis was invariably unilateral, being confined to the right side in 4 cases, and to the left in 1. The following case also supports the writer's contention. The wife of a medical man suffered from a severe attack of pyelitis on the right side due to the colon bacillus. There had been two similar attacks within the last four months, and each had begun with symptoms of cystitis, which were followed in a few days by fever, violent pain, and swelling of the right kidney. The patient rapidly made a complete recovery, but two weeks later there was another attack with high fever, renal pain, and vesical tenesmus. Only the colon bacillus was found in the urine. The husband stated that each attack had been preceded by coitus twenty-four hours earlier, and that the patient had suffered from vaginismus. The husband was elderly, and on account of ill health had not cohabited with his wife for five years. On the renewal of sexual intercourse, the wife suffered from vaginismus, kraurosis vulvae, senile atrophy of the vagina, and a tendency on the part of the external genitals to bruise readily. Whether the infection spread by the ureters, the lymphatics, or the blood stream is not certain; but the fact remains that pyelitis followed coitus with striking regularity, and that it never recurred after coitus had been abandoned. The recognition of defloration and coitus as causes of pyelitis is most important, as it relieves both the physician and the husband of the embarrassment which a diagnosis of gonorrhoea often causes. When internal urinary antiseptics fail to cure the condition early, local treatment should be employed. It is important that even slight symptoms of cystitis in newly married women should not be ignored, for it may be the starting-point of pyelitis gravidarum, which is relatively common in primiparae. Rovsing has reported 3 cases of pyelitis which he traced to trauma of the hymen; but with this exception the condition appears to have passed unnoticed in current medical literature.

THERAPEUTICS.

117. Treatment of Acute Anterior Poliomyelitis.

SCHREIBER (*Pédiatrie pratique*, November 5th, 1911) recommends isolation in cases of this disease, and, in times of epidemics, segregation of members of an infected family and the closing of schools. It is difficult to fix a time for isolation, as cases of contagion, commonly occurring in a few days, sometimes do not appear for several weeks. Seeing that the olfactory mucous membrane and the naso-pharyngeal mucus are charged with the virus, frequent washing of the mouth and nose with an antiseptic solution is indicated as a prophylactic measure, and this should be carried out both with the patients and the healthy. Thymol is useless, but menthol, salol, and hydrogen peroxide have been proved

to destroy the virus *in vitro*. The throat should be swabbed out several times a day with absorbent wool soaked in H_2O_2 (20 vols.), whilst three or four times a day a few drops of a solution containing menthol 0.10 gr. in sweet oil of almonds 20 grams are injected into the nostrils. Or the following ointment may be introduced into the nares:

White vaseline	...	...	...	30 grams.
Salol	...	...	...	3 ,,
Menthol	...	...	...	0.25 gram.

As symptomatic treatment, absolute rest in bed, quinine for the fever, aspirin or sodium salicylate for the pains, calomel for gastro-intestinal trouble, and warm baths as sedatives, are indicated in the acute stage; in meningitic forms lumbar puncture may be useful. At the stage of regression and atrophy, massage should be begun early, and should consist at first of light rubbing, because the muscles are often very tender; later the pressure should be more energetic and applied with the muscles in a position of complete relaxation. Gymnastic movements carried out in a bath several times a day are very serviceable in combating ankylosis and muscular atrophy. As soon as the child is capable of carrying out the slightest movement spontaneously, re-education of the affected limb should be instituted. In the painful cases electrical treatment may be begun early, but only the constant current in mild doses must be employed: this sometimes relieves the pains. When the pains have ceased, interrupted galvanic or faradic currents are indicated. If there are no pains the constant galvanic current should be used. Electrical treatment should be given daily, the negative pole being passed over the paralysed muscles successively; and it is better to treat each muscle separately than to attack them in groups. To avoid tendinous contractions it is necessary to avoid stimulating the antagonistic muscles. Also one may use the electric bath, the positive pole being applied to the spinal column, and the negative being placed in a tepid bath which contains the affected limb. General treatment consists in the use of salt baths, of friction, arsenic and phosphorus, fresh air, and sunshine. As to treatment of the cause, certain antiseptics destroy the virus *in vitro*; urotropine, which is partly eliminated into the subarachnoid space, ought to have the same action *in vivo*, but its real value has not been demonstrated in man. The only hope of a specific treatment lies in serum-therapy.

118. Neurolysis in Sciatica.

A. PERS (*Ugeskrift for Laeger*, October 26th, 1911) gives an account of the results, immediate and subsequent, of 58 cases of sciatica treated by neurolysis. Altogether 70 cases of sciatica were thus treated, but the writer confines his observations to the cases which have been examined more than a year after the operation. Among the 58 cases there were 11 relapses, the period of observation ranging from two to seven years in three-quarters of the writer's material, while the remainder was observed for one to two years after the operation. Although about 20 per cent. of the patients relapse after the operation, which is only resorted to as an *ultimum refugium*, it is still of great value, for the number of cases in which more conservative treatment, such as massage, fails is considerable. The operation consists of exposing the sciatic nerve and freeing it from adhesions through a longitudinal incision extending from the lower border of the gluteus maximus to the middle of the femur. The nerve is sought for between the vastus externus and the biceps muscles, and is freed by the fingers from the surrounding structures. To avoid rupture of the small branches of the nerve the fingers should be passed from above downwards, and with the greatest care. This process is carried out from the sacro-sciatic foramen to the popliteal space. It may be necessary to divide the lower border of the gluteus maximus muscle, and the operator must be specially gentle when freeing the nerve under this muscle, as he is working in the dark. The wound is united by a continuous suture, and the operation is completed in a quarter of an hour. Post-operative haematoma is a troublesome complication which the writer experienced twice, and which delayed convalescence by a week or two. Baracz's modification of the above operation consists of dividing the gluteus maximus and cutting down upon the nerve at its exit from the sacro-sciatic foramen, from the walls of which the nerve is separated. The writer supplemented the original method by Baracz's in 18 cases, and once a patient who relapsed after the former method was cured by the latter. Later, however, when relapses had occurred after a combination of the two methods, the writer, when the sacro-sciatic foramen could be easily reached, preferred the original method as being the least complicated. Baracz's method he considers, should be confined to cases in which a relapse has followed the original method. Many of the patients cured by neurolysis had suffered from sciatica for several years. Thirty-two had been complete invalids before the operation, 23 for a period of three to six months, and 9 for six months to several years. With two exceptions all the patients had previously been treated with drugs and massage. Seventeen of the patients had been confined to their beds for several months before the operation. Two patients, cured by neurolysis, had been treated by neurotomy without effect. The beneficial results of neurolysis are felt at once, and on regaining consciousness the patient finds that he can sneeze and cough without the usual pain in his leg. Patients whose sciatica was preceded by pain in the buttocks and the lumbar region frequently found this pain return, while the excruciating pain over the sciatic nerve was permanently banished. The writer never evoked paresis, paraesthesia or increased pain by neurolysis, but a colleague has reported 2 cases of partial paresis, probably due to faulty technique and the rupture of a branch of the sciatic nerve. The patient is kept in bed eight to ten days after the operation, and is usually discharged six to ten days later. Once the wound suppurated, and once a very fat woman showed signs of pulmonary infarct, which soon passed off. Whether the success of the treatment is due to the liberation of adhesions about the nerve or to the hyperaemia of the nerve which follows the operation, is uncertain; but the writer is convinced that the cures effected cannot be accounted for by suggestion alone. On the assumption that the form of sciatica which reacts best to neurolysis is a perineuritis, the writer considers the treatment indicated when uncomplicated sciatica (unaccompanied by marked muscular atrophy) has succeeded an attack of pain in the lumbar region, and when it has been refractory to ordinary treatment. If, however, sciatica is associated with neuralgic pains elsewhere, neuritis or disease of a nerve plexus is probably present, and neurolysis offers but little chance of success. If adhesions have been found and freed at the operation, and a relapse occurs, Baracz's modification of the operation should be employed.

119. Treatment of Acute Purulent Pleurisies.

VANVERTS (*L'Echo méd. du Nord*, 1911, xv, p. 588) agrees with the universally held opinion that pleurocentesis is superior to pleurotomy in cases of tuberculous purulent pleurisy, and also in non-tuberculous and non-pneumococcic pleurisies. In pneumococcic purulent pleurisies the author strongly advises pleurotomy. The author quotes 7 cases of Deléarde's, only 1 of which died, due, he considers, to delay in operation before it came into Deléarde's hands. In purulent encysted pleurisy the same treatment should be employed. If, on exploring for such a collection, the incision should pass into a sound cavity of the pleura, the opening should be closed before making another exploration. After pleurotomy, aspiration should be practised, as it favours evacuation of the pus.

PATHOLOGY.

120. The Detection of Small Quantities of Blood.

RAVENNA (*Rif. Med.*, December 18th, 1911) gives an account of his experiments with the phenolphthalein test (Meyer's) for blood. A strongly alkaline solution of phenolphthalein is prepared by dissolving 10 grams of sodium hydrate in 50 grams of distilled water and adding 5 grams of powdered zinc and 1 gram of phenolphthalein. This forms a violet-red fluid which should be heated until it becomes completely decolorized. In the presence of peroxide (2 vol. sol.) and haemoglobin, a well-marked red colour is seen. By this test blood can be detected in dilutions of 1 in 5 or 6 millions. For faeces the author finds it better to prepare an aqueous solution of the faeces instead of an ethereal extract. To avoid the fallacy of blood being derived from haemorrhoids, he suggests that the small quantity of faeces necessary for examination can be procured by the use of a sort of spoon forceps. The forensic and prognostic importance of the detection of occult blood in the faeces is too well realized by all to make it necessary to quote the illustrations given by the author. He is satisfied that the phenolphthalein test is one of the best, and quite reliable, although the presence of various substances in urine and faeces tends to reduce the degree of dilution in which blood can be detected as compared with distilled water, yet it is quite sufficiently sensitive, and better than the fluorescin test. The test can be made more delicate, as regards urine, by the addition of acetic alcohol.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

121. Intestinal Tuberculosis.

CECCONI (*Gazz. degli Osped.*, December 17th, 1911) describes certain clinical researches carried out by him on 32 cases of tubercle (18 pleurisy, 8 polyscritis, 8 tuberculous enteritis, and 48 pulmonary tuberculosis). Each case reacted positively to the Calmette and von Pirquet's tests. The chief object of the research was to see how often and in what sort of cases tubercle bacilli and soluble albumen could be detected in the faeces. For the detection of bacilli the antiformin and ligronin method was employed, and for the soluble albumen the method of Calvo and Albu, and the author gives full details of these methods with some modifications suggested by his experience. He found that in some undoubted cases of intestinal tuberculosis neither soluble albumen nor blood could be detected in the faeces. In primary tuberculous enteritis tubercle bacilli often fail to be detected, but they may frequently be seen in the ulcero-caseous forms of tuberculous peritonitis. In pulmonary tuberculosis of the "closed" type with a negative sputum result one rarely finds Koch's bacillus in the faeces, and if present is a sign of a concomitant specific intestinal lesion. In the "open" type of pulmonary tuberculosis it is not uncommon to find a certain relation between the number of bacilli in the sputa and in the faeces; if the bacilli in the faeces are more numerous than those in the sputa this is an indication in favour of the existence of an intestinal lesion. On the other hand, a large number of bacilli in the faeces need not necessarily indicate a tuberculous intestinal lesion, as the bacilli may have been swallowed, for even those who are careful not to swallow their secretions during the day cannot avoid doing so during sleep.

122. Radio-diagnosis of Urinary Lithiasis.

ALL cases of urinary lithiasis should be radiographed, says Josserand of Contrexéville (*Arch. d'élect. méd.*, December 10th, 1911). The chief reason for this measure is that the clinical symptoms in such cases do not always correspond in importance to the affection. On the other hand, the progress of radiographic technique makes it possible to discover all calculous formations, no matter what their size or nature. The two chief symptoms in urinary lithiasis are pain and haematuria, yet one or both of these symptoms may be so inconspicuous as to prevent a precise diagnosis. The author cites three cases—one of renal, one of ureteral, and one of vesical calculus—in which there was no pain to speak of and scarcely any haematuria. In other cases the patients showed a simple lumbar curvature, which was exaggerated by movement, but insufficient in itself to make the diagnosis, and though there was pain it often occurred at a different point from that occupied by the stones. Sometimes the pain was unilateral, while calculi were in both kidneys. Neither pain nor haematuria furnishes evidence as to the size and number of the calculi. One patient with five calculi in one kidney suffered from no severe pain, and had scarcely any haematuria, only the microscope revealing the red globules. On the other hand, a patient who had two calculi suffered violently, and twice had abundant haematuria. The radiograph also gives the differential diagnosis between calculi proper and small gravel, although, from the point of view of pain, and also from the microscopical point of view, no difference may be detected between the two conditions. Further, it is only by means of the radiograph that the situation, size, and number of calculi can be arrived at, and thus a basis laid for appropriate treatment. If small calculi are demonstrated in the ureter or pelvis of the kidney, the taking of medicinal waters combined with rest may suffice, while in the case of a large calculus shown by the *x*-ray picture, surgical measures may at once be taken.

123. Cardiac Murmurs during Attacks of Biliary Colic.

RIESMAN (*Amer. Journ. of Med. Sci.*, November, 1911) calls further attention to the development of heart murmurs during attacks of biliary colic. Among 56 cases of gall-stone disease 6 (or 10.7 per cent.) presented cardiac murmurs, and, since not all of these were seen during or soon after an attack of colic, the murmur would probably be found in a much larger proportion of cases if careful examination of the heart were made at such times. The murmur is usually loud and blowing, systolic, and heard best at the apex, at times being transmitted towards the anterior axillary border. Soon after an attack of colic, or after an operation, the murmur disappears. There is generally some amount of cardiac dilatation. The condition appears to depend on a myocardial weakness with temporary insufficiency of the mitral valve, the chronic infection of the biliary passages leading to a degeneration of the myocardium. During the attack of pain the blood pressure suddenly rises, with consequent dilatation and mitral murmur. Such a murmur may have some diagnostic value, seeing that in a case of repeated attacks of severe epigastric pain of obscure nature, angina pectoris and locomotor crises being eliminated, its development would point to the possibility of the attacks being due to gall-stone disease.

124. Tender Parotid Point in Cerebral Haemorrhage

E. CAVAZZA (*Il Morgagni*, Milan, 1911, Archivio, liii, 300), in tending a patient with cerebral haemorrhage ingravescent for three days, found that traction of the ascending ramus of the lower jaw from behind forwards was very painful. He was applying the digital traction a little above the angle of the jaw, in order to relieve the respiration; the patient was unconscious. Examination of the mouth, neck, and auriculo-mastoid region threw no light on this tenderness. He has confirmed the tenderness of the parotid point in nine other cases. In an eleventh patient the tenderness was present on the unaffected side only; but the hemiplegic side was also anaesthetic. All eleven were fatal cases—death within four days. In most cases the tender spot can be found by pressing lightly inwards on the lobe of the ear; Cavazza finds that the whole region occupied by the parotid gland is tender. Signorelli in 1910 had drawn attention to tenderness of the retromandibular or auriculo-mastoid region as a constant early sign of meningitis. Cavazza prefers the name "parotid point." Why it becomes thus hyperaesthetic in cerebral haemorrhage he is unable to say; but even when profoundly comatose these patients make defensive movements when it is pressed upon, while patients comatose in cirrhosis, diabetes, uraemia, and patients *in articulo* show no such hyperaesthesia. The sign is absent in old cases of hemiplegia, and in cases of recent cerebral thrombosis. Possibly the sign is an indication of increased intracranial pressure: it should be looked for in cases of intracranial tumour, etc. It seems to be of bad prognosis.

SURGERY.

125. Mortality and Morbidity in Congenital Syphilis.

THE question of mortality and morbidity in congenital syphilis has been studied by Leroux at the Fortado-Heine Dispensary, Paris (*Ann. de méd. et chir. infant.*, 1911, No. 11). The percentages of mortality were as follows: In paternal syphilis (15 families), 28.94; in maternal syphilis (23 families), 57.37; in mixed transmission (22 families), 61.42. Thus, paternal syphilis is less fatal to the child than maternal syphilis, and this less fatal than mixed transmission. Paternal syphilis gives rise to more miscarriages, maternal or mixed transmission to more macerated infants. With regard to morbidity, among 166 infants born of syphilitic parents, there were 128 cases of early, 20 cases of late congenital syphilis, and 18 healthy children. The 128 cases of early congenital syphilis comprised 34 benign and 94 severe cases, the latter including cachexia, atrophy, visceral, osseous, and nervous lesions. Of the severe cases 22 died before 15 months. Leroux draws attention to the importance of examining the fundus oculi, degenerative ocular lesions being found in 61 cases, including 7 out of the 18 apparently healthy children. In 16 cases the Argyll Robertson pupil was present, in two cases as an isolated phenomenon. His statistics confirm those of Fournier, and show that syphilitic heredity manifests itself in four ways: (1) Polymortality (fetal, early or late); (2) virulent congenital syphilis, early or late; (3) dystrophic congenital syphilis, or heredo-parasyphilis; (4) syphilitic heredity without symptoms. As

regards the relation of morbidity to the origin and age of the parental syphilis, Leroux has been able to establish the following generalities: (1) Syphilis of paternal origin, when recent, usually gives rise to virulent congenital syphilis, like syphilis of maternal origin, but the duration of transmission of virulence is shorter in the case of the father than the mother. Paternal syphilis more often gives rise to late congenital syphilis, or to heredo-parasyphilis. Healthy children, or those with only ocular stigmata, are more common in paternal syphilis. (2) Syphilis of maternal origin is more often virulent and severe, and the virulence diminishes more slowly. On the other hand, dystrophic manifestations are less common. Both virulent and dystrophic symptoms may be present simultaneously in either paternal or maternal syphilis. (3) In syphilis of mixed origin polymortality is frequent, virulent symptoms generally severe, and parasyphilis more frequent than in pure maternal transmission. The nature of the manifestations of congenital syphilis in the children is influenced by the age of the disease in the parents, but the evolution follows no particular order, and the manifestations in successive pregnancies are very irregular. Both the duration and intensity of transmission vary in different families, but diminish with age. The first-born generally suffer from early virulent symptoms; later children from late congenital syphilis or parasyphilis. Leroux considers the classification of congenital syphilis as of paternal, maternal, or mixed origin is often faulty and incomplete, owing to the fact that in paternal syphilis the mothers may be affected with latent conceptional syphilis. He therefore suggests two groups of paternal syphilis: (1) Patent paternal syphilis with latent maternal syphilis; (2) patent paternal syphilis without maternal syphilis. Again, maternal syphilis should be divided into: (1) Maternal syphilis of extraconjugal or anteconjugal origin, with a healthy father: (2) maternal syphilis with paternal syphilis unknown or denied; this is the more frequent. Leroux agrees with Fournier in attributing the greater virulence of maternal syphilis to the effects of time and treatment. Syphilis in the mother is usually of more recent date than that of the father, and is not, as a rule, so well treated. Therefore the morbidity and mortality of congenital syphilis are greater when the disease is of maternal origin. Leroux admits the purely paternal origin of congenital syphilis, which has been denied by Matzenauer and others, while he recognizes the fact that the mothers may be indirectly infected; but in this case he explains the infection by the occurrence of conceptional syphilis, or the infection of the mother through the fetus. With regard to treatment, Leroux states that the majority of cases of active congenital syphilis are cured by prolonged mercurial treatment, provided this is not begun too late; but the dystrophic phenomena, due to heredo-parasyphilis, are not influenced by treatment. It is, therefore, necessary to treat the parents.

126. Reconstruction of Vaginal Coat of Testicle.

LIBROIA (*Rif. Med.*, January 20th, 1912) gives an account of a series of experiments made by him on dogs. The object aimed at was to see whether, after removal of the vaginal coat of the testis, a new coat could be supplied from the peritoneum. One testis only was operated upon, the other serving as control. The animals were killed and examined at varying periods after the operation—namely, fifteen days to eight months. As a result it was found perfectly possible to supply a new and competent vaginal sheath in this way, and that the effect on the testis was to preserve its integrity and to prevent that degeneration which sometimes occurs after resection of the vaginal sheath. Inasmuch as total resection is occasionally necessary in operating for hydrocele, and the testis has to be left without a serous coat, usually to its detriment, and since it is agreed that the serous coat has a beneficial influence in preserving the activity of the testes, the successful issue of these experiments on dogs raises the question whether a similar practice would not be possible on men. The peritoneum need not be absolutely fresh, it may be kept in physiological solution at a temperature below zero for forty-eight hours or more and still be available for use.

127. Infantile Hypertrophic Stenosis of the Pylorus.

BUNTS (*Amer. Journ. of Med. Sci.*, January, 1912) operated upon 7 cases of infantile hypertrophic stenosis of the pylorus with 3 deaths. In none was there extreme gastric dilatation. For nearly an inch the pylorus in such cases is externally enlarged and of cartilaginous consistency, with almost complete obliteration of the lumen, owing to the mucosa and submucosa being thrown into four folds by contraction of the underlying muscle, the circular layer showing marked thickening and some fibrosis. Although in appearance and consistency resembling a tumour, the condition is a pure hypertrophy. Early recognition is most essential. In order of importance the symptoms are: Persistent vomiting, reflex causes having been eliminated; emaciation; visible dilatation of the stomach, with visible peristaltic waves travelling towards the pylorus; diminution and absence of stools; anuria; and the presence of a palpable enlargement of the pylorus. The latter sign may not always be capable of recognition, as it was present in only 2 of the 7 cases. The prognosis depends mainly upon the stage at which the diagnosis is made and operative treatment adopted; the earlier the diagnosis the better the prognosis. The author thinks that with reasonably promising cases the mortality should be about 25 per cent., which reduction would be more the result of earlier operation than of improved technique. In all the cases the anterior operation was performed, making a long loop, but without an additional anastomosis between the two limbs of the jejunum. In order to prevent any giving way of the incision under the severe straining of a crying infant, chromic catgut sutures are used for both muscles and peritoneum, these being reinforced by silkworm-gut sutures through the entire thickness of the abdominal wall. As soon as the effects of the ether have passed off teaspoonful doses of sterilized water may be given, to be followed the next day by albumen water. For the first three days rectal feeding with peptonized milk must be carried out. At the end of two or three days whey may be given by the mouth, and then breast feeding for short periods. From a study of metabolic conditions following recovery these infants appear to thrive, as well as others of the same age.

OBSTETRICS.

128. Pituitrin in Labour.

ALFRED STUDENY (*Wien. klin. Woch.*, No. 51, 1911) reports on a large number of labour cases and cases of abortion treated by pituitrin at the midwifery hospital in Brünn. Pituitrin is a watery extract of the hypophysis which pharmacologically and in some of its physiological effects is similar to adrenalin. V. Frankl Hochwart and Fröhlich found that in rabbits, both during pregnancy and when giving suck, injections of pituitrin led to an increased excitability of the muscles of the bladder and hypogastric nerve, and to the production of strong and protracted contractions of the uterus. They therefore recommended the use of pituitrin in gynaecological and urological practice. This recommendation has been fairly widely followed with good result. In the author's cases Parke, Davis and Co.'s preparation was used. The original dose of 0.6 c.cm. was found to be too small, and as a rule 1 c.cm. was given in the later cases; larger doses were given in the third stage of labour without harmful result, but without any special advantage. The effect of pituitrin in exciting labour pains was usually apparent in from three to five minutes, but was in one case postponed to eighteen minutes. As a rule, the pains set in moderately, increased gradually, and began to weaken after about an hour. In a few cases, but never in those in the first stage, tonic contraction of the uterus occurred, and persisted in one instance for as long as five minutes. Pituitrin was used in 89 labour cases. In the first stage the effect in strengthening the pains was very marked, and was very noticeable in one case of a primipara 37 years of age. In 5 of the cases the effect, though marked, was very temporary, and in spite of repetition of the dose it could not be stated with certainty that the labour had been shortened in duration. In the expulsive stage pituitrin gave excellent results in 34 cases, most of them protracted cases: in 15 the birth followed during the first quarter of an hour after the injection, in 13 during the next hour, in 6 during the next two hours. On the other hand, the extract failed in some cases of abnormal resistance on the side of the soft parts or bony pelvis, and failed also in 8 cases of primary uterine inertia. Pituitrin was further given in 5 cases of rigidity of the soft parts, 6 cases of disproportion between the head and the pelvis, 3 of craniotomy with contracted pelvis, 9 of placenta praevia, 6 of induction of labour. In 2 out of the 5 cases of rigidity of the soft parts pituitrin had little effect. The result was strikingly good in 6 out of the 9 cases of placenta praevia, but in 2 cases the pains stopped after a short time, and in a third pituitrin had no effect. In the cases of induction of labour, pituitrin was used in combination with operative

measures, and a definite opinion as to its value could not be formed. In one case, however, of a 38-year-old 4-para, who in previous labours had had few pains, had been delivered by forceps, and had suffered twice from severe *post-partum* atony, labour pains set in strongly after 5.6 c.cm. of pituitrin had been given in the course of forty-eight hours, and forceps were only applied with very little force, while the puerperium was normal. In the whole series of cases in which labour ended spontaneously there were only two of *post-partum* haemorrhage, and none of atony. In the operative cases, however, there was a large proportion of cases of haemorrhage, nearly all of them cases in which pituitrin had failed to act. These facts suggest a tonic action of pituitrin on the uterine muscle continuing after labour. The results were not specially good either when pituitrin was given only after delivery, or in cases of early abortion. Pituitrin was not found in any case to be harmful to the child. On the whole the author considers pituitrin to be the most reliable agency for strengthening labour pains which we possess, and also considers that given during labour it lessens the likelihood of *post-partum* atony. It is very unreliable when atony is developed. Pituitrin is non-poisonous. It is without effect in the production of uterine contraction during the early months of pregnancy.

GYNAECOLOGY.

129. Ovarian Transplantation.

FRANKLIN H. MARTIN (*Trans. Amer. Gyn. Soc.*, 1911) reviews the literature and bibliography of ovarian transplantation in the lower animals and women. The reports of operations on human subjects are on the whole favourable, although the technique is not uniform, and Mauclaire, among other experienced authorities, speaks of a large number of failures. Martin concludes that: (1) Autotransplantation of the ovaries or a portion of the ovaries, as a practicable operation which can be performed successfully and expeditiously with a simple technique by any surgeon of ordinary ability and training, is now well demonstrated by the work of many observers. (2) Transplantation of the ovaries or a portion of the ovaries is successfully accomplished by attaching or embedding the cut surface of the graft on to or into a well-nourished tissue without the necessity of anastomosis of blood vessels. By well-nourished tissues Martin signifies the uterine cornu, the broad ligament, the parietal peritoneum, or the muscles of the abdominal wall, "or the subcutaneous tissue anywhere," the transplanted ovary being embedded if transferred to muscle or connective tissue. (3) It seems to be established that a small portion of ovary successfully engrafted anywhere furnishes to the subject of the graft the secretion or influence which preserves her sexuality and prevents atrophy of the genital organs and other changes in the individual that are coincident with complete castration. (4) The same technique in hetero-transplantation of ovaries, even in individuals of the same species, does not give such uniformly successful results as does homo-transplantation, owing to a peculiar heterogeneity that our experiments have demonstrated, but the character of which we do not know, except that individuals of close consanguinity appear to be less antagonistic to grafts one to the other. (5) The personal experience of Martin himself and of Mauclaire, Marshall, Jolly, Sauvé, Casalis, and others in operations on human subjects, and the experience of Pankow and Sauvé as to animals, clearly demonstrate that there is a definite antagonism between the blood or the tissues of one individual and that of another to an ovarian graft. (6) The work of Pankow and Sauvé would seem to show that this lack of homogeneity of conditions exists less between animals closely related by consanguinity. (7) On the other hand, the experience of Doran and the reported work of Casalis, Marshall and Jolly, Mauclaire, and also Pankow and Sauvé, demonstrate that there is practically no antagonism between the blood and tissues of an individual to ovarian grafts from her own ovaries. (8) As the lack of success in transplanting ovaries from one individual to another of the same species is not due, apparently, to technique, but to tissue or blood antagonism, would it be possible, Martin asks, for us to render the blood or the tissues of the donor and recipient homogeneous by some process of preparation of patients, and thus effect more successful tissue implantation?

130. Cyst of Urachus Simulating Dermoid.

WEBER (*Monatsschr. f. Geb. u. Gyn.*, December, 1911) writes that a woman aged 26 underwent operation, dermoid cyst being diagnosed. The tumour was found to be partly extraperitoneal and attached to the fundus of the bladder. A cord, evidently the urachus, was defined on each side of the tumour, which was as big as a fist, smooth, and filled with colloid materials and collections of blood. Its walls were about one-fifth of an inch thick, tough, made up of smooth muscle tissue, and invested with squamous epithelium partly breaking down. The cyst was successfully enucleated and separated from the bladder without opening of its cavity. Recovery was uninterrupted.

THERAPEUTICS.

131. Diphtheria Serum in Erysipelas.

OTTO POLAK (*Wien. med. Woch.*, No. 30, 1911) reports on 43 cases of erysipelas treated by injections of diphtheria antitoxin. The author first tried the treatment for a desperate case of erysipelas in a baby 14 days old, and, when this child recovered, decided to try the serum for all his erysipelas cases. In the case of the baby first treated almost the whole surface of the body was affected: there was great oedema of the eyelids, the scrotum, and the penis: the temperature was 40° C. (104° F.), and the child refused all food. A full dose of Paltauf's Diphtheria Serum II was injected, and, when no fall in temperature followed, was repeated after twenty-four hours. Four hours after the second injection the temperature fell to 37.4° C. (99.3° F.), and remained normal afterwards, the redness and oedema quickly diminished, and after eight days in hospital the child was discharged perfectly well. In the next case the injection was not given until the evening of the second day in hospital, the third after the beginning of the illness. The morning and evening temperature on the day on the evening of which the injection was made was 37.9° C. (100.2° F.) and 39.6° C. (103.2° F.) respectively: on the following day were 37.8° C. (100° F.) and 37.9° C. (100.2° F.), and on the next day were 37.9° C. (100.2° F.) and 36.6° C. (97.9° F.). On the day following the injection the patient's appetite had already returned and the redness was diminishing. She was discharged well eight days after the injection. As a rule, the author's experience is that in young and otherwise sound individuals the temperature begins to fall within twenty-four hours after injection, and ends by crisis within a few hours. In his cases, if the expected fall did not occur within twenty-four hours a second dose of serum was administered, and in his later cases a third dose when necessary. In old decrepit people the results of the serum were not always as good as in young people, although in one patient 80 years of age a prompt action was observed, and the disease, as a rule, in old people seemed to run a less severe course than if the injection had not been made. During the first twenty-four hours before the fall in temperature occurred the patients of all ages often felt an improvement in general condition. The serum did not prove necessarily protective against complications such as abscess formation, retention of pus, pneumonia, thrombosis, etc., nor against the occurrence of relapse. Since Paltauf's serum contains a small amount of phenol, Bugoid's serum was administered in several cases, in order to exclude the possibility that the result was due to phenol, and the two different serums gave the same results. The injection failed altogether in one case of erysipelas starting from a varicose ulcer: although the patient finally recovered, the erysipelas continued to spread for three days after the injection. During convalescence it appeared as if the condition might have been one of phlebitis and periphlebitis rather than of true erysipelas. Five deaths occurred in the series of cases. The first three were already hopeless when the injections were made: the last two were complicated by meningitis and by venous thrombosis with pneumonia respectively, and in these the patients reacted to the serum, but died as a result of the septic complications. From no other method of treatment has the author had such good results.

132. Treatment of Chorea of Sydenham.

MARTINGAY (*Progrès méd.*, May 27th, 1911) reviews in detail the treatment of this condition. He insists upon the regulation of the hygiene of the choreic patient in its minutest details. Isolation must be absolute in cheerful yet calm surroundings. This is important both for the patient and any other children by whom he may be surrounded, as the risk of instinctive imitation is a considerable one. No work ought to be allowed and no conversation necessitating the exercise of attention and imagination. The curtailment of the period of absolute rest must be very gradual and never on the initiative of parents or guardians. The dietary in the case of robust children should be non-excitant, while in anaemic children there is

scope for a more stimulating dietary. No open-air exercise should be allowed until convalescence is firmly established. Slow movements of the limbs, always short of fatigue, may be given in the form of Swedish exercises. Warm baths have a sedative effect in severe cases, whilst cold spongings are indicated in chorea, complicated with cerebral rheumatism. So far as medicaments are concerned, the salicylates are of use only in those cases in which rheumatism is associated with the chorea. Otherwise, in the author's opinion, antipyrin and arsenic in some form are the only two drugs from which good may be expected. The former may be administered in cachet with sodium bicarbonate. To be of use it must be given in large doses. At 6 years of age the author gives 2 grams per diem, and as improvement proceeds the dose is lessened. The gastric intolerance of antipyrin is diminished by the addition of an alkali. Antipyrin is not of much use in the grave cases. In these the treatment by emesis may have to be resorted to. Arsenic administered on bread as arsenical butter gives excellent results, but requires exceptional care in preparation. The liqueur of Boudin, which is an aqueous solution of arsenious acid—one gram of the solution containing exactly a milligram of the drug—is a good form of administering arsenic. It must be given in rapidly increasing doses. The author quotes the practice of Renault, which is to give 4 grams of Boudin's liqueur per diem at the age of 10, increasing daily by 2 grams until the cessation of the choreic movements, which generally occurs on or about the fifteenth day. It is then progressively diminished by 4 grams daily. If signs of intolerance, such as gastralgia, vomiting, or diarrhœa appear the drug must be stopped for a few days. The author does not approve of the intraspinal injections of magnesium sulphate in these cases. Tonics, fresh-air exercise, douches and gymnastics, already referred to, are reserved for the period of convalescence. In all cases relapses must be guarded against, and in view of a certain mental and moral instability which usually persists, the child's parents must be warned against too much indulgence of the patient.

133. Onotoxin or Gonoiodine.

ERNST PAUL (*Wien. med. Woch.*, No. 41, 1911), after a trial in 25 cases, recommends onotoxin as an antigonorrhoeic remedy which can be used in the acute stage of the disease without danger of complications and with hope of bringing about a speedy recovery. The patients during the treatment were kept in bed on a milk diet. The urethra was first cleansed by an injection of lukewarm water and the preparation onotoxin or gonoiodine injected. The strength of the solution employed was 1 in 4, and it was allowed to remain in contact with the urethral mucous membrane for from three to five minutes. If the injection was confined to the anterior part of the urethra, an elastic band was fastened round the root of the penis to avoid any chance of the solution passing into the bladder. Where the posterior part was involved, Guyon Ultzmann's method of irrigation of the urethra from behind forwards was employed. The preparation proved absolutely non-irritating, and as a rule after the first injections the patients noticed that pain on micturition was less. In the acute cases there was a corresponding objective change, the secretion becoming less in quantity and more fluid, until it altogether ceased as a rule after from five to ten days. The number of organisms diminished as the number of injections increased. There were no unpleasant complications in any of the cases. Of the 25 cases treated, 20 were in the acute stage. The number of injections varied between 9 in one case and 42 in another; the ordinary number given was between 25 and 30. In 5 cases the course was abortive, and only a small number of injections were needed.

PATHOLOGY.

134. Recent Researches on Syphilis.

ERNST FINGER (*Wien. med. Klin.*, No. 46, 1911) reviews the recent work in the pathology and treatment of syphilis. Artificial infection of anthropoid and lower apes has demonstrated the fact that the virulence of the syphilitic spirochaete is fairly constant. Landsteiner and the author have passed syphilis from monkey to monkey up to fifty times without obtaining a weakened virus. With regard to the course of the disease, it is now recognized that spirochaetes may have already passed into the lymph and blood vessels before there is a recognizable lesion at the seat of infection. Relapses are believed to occur locally from the late development of organisms which have been deposited at the time of the first eruption, and become encapsuled. The present view with regard to immunity differs from that previously held in that it is now held that a patient suffering from syphilis is not necessarily immune against a second infection, and therefore the occurrence of a second infection is no proof of a previous complete recovery. The comparative constancy of the virulence of the infective organism, combined with the fact that complete immunity is not obtained at any stage of an attack, renders it hopeless to expect to find a successful vaccine. The possibility of the microscopical recognition of the spirochaete has made diagnosis of syphilis possible when no sign of infection, other than an erosion the size of a pin's head, is present. It has also been demonstrated that the rubbing in of a 33 per cent. mercurial ointment locally almost immediately after infection will prevent the development of the initial chancre. Ordinarily treatment cannot be begun immediately, but early wide excision or the energetic local application of mercurials, combined with the prompt beginning of an inunction cure or of injections of the insoluble salts of mercury, may have a distinct effect upon the future course of the disease, either rendering it abortive or much milder in the course it runs: on the other hand, early treatment, however energetic, may fail in some cases to have any effect. Wassermann's reaction is negative in some cases of latent syphilis which are systematically treated, or may become and remain positive, but it is not certain to what extent this denotes healed and unhealed syphilis. Some cases in which the disease remains latent for years and which repeatedly give a negative reaction finally develop tertiary symptoms. With regard to treatment the author considers the use either of atoxyl or arsacetin to be contraindicated because of the danger of side-effects. He recognizes the prompt effect of salvarsan upon the symptoms, but does not believe in the "complete sterilization" by salvarsan, and has seen a recrudescence of syphilitic symptoms with a positive reaction a few months after salvarsan treatment. The unpleasant symptoms seen after injection of salvarsan the author looks upon, not as a specific reaction, but as due to acute arsenical intoxication, and bases this belief on the fact that similar symptoms are seen after arsenical treatment of other diseases, and on the condition found in cases in which a *post-mortem* examination has been undertaken. Neuro-relapses after salvarsan treatment are of the utmost interest. The connexion between the relapse and the treatment is undoubted, and is shown by the frequency with which neuro-relapses occur, and the regular interval of six to eight weeks which intervenes between the injection and the occurrence of the relapse. Finger had 44 cases of neuro-relapse out of 500 cases of syphilis treated by him with salvarsan. Other authorities do not give so high a figure, perhaps because many of the patients were not kept under observation for a sufficiently long period. In the author's opinion the neuro-relapse is the sign of a cerebral syphilis on the basis of a syphilitic arteritis. In one of his cases in which the relapse showed itself as a hemiplegia which ended fatally, the *post-mortem* appearance was of widespread syphilitic disease of the arteries. Since, according to Meyer and Gottlieb, arsenical poisoning causes a primary poisoning of the capillaries, the occurrence of syphilitic disease of the vessels after salvarsan treatment has lowered their resistance to the disease, is comprehensible enough. Another possibility of danger in connexion with salvarsan is lest it should lead to the softening of any tuberculous glands, with a further possibility of the subsequent development of miliary tuberculosis. In two of the author's cases, the patient developed tuberculous meningitis a few weeks after an injection of salvarsan, and the origin in both cases appeared to be a softened bronchial gland. Although the symptoms of neuro-relapse usually yield to antisyphilitic treatment, yet the prognosis is not altogether favourable, since the tendency of cerebral syphilis to relapse is well known. Neuro-relapses occur most frequently in cases treated in the early secondary stage, and salvarsan treatment, therefore, seems inadvisable at this time.

135. Rapid Detection of Negri Corpuscles.

MARTIRI (*Rif. Med.*, June 5th, 1911) recommends the following method: A small piece of the cornu ammonis, either fresh or fixed in alcohol, is placed in a small porcelain dish, triturated with six or seven drops of pure neutral glycerine until it attains the consistency of a homogeneous paste. To this paste is added two drops of 0.30 per cent. solution of marine blue in absolute methylic alcohol, and the whole mixed, and a few seconds later one drop of a saturated ethylic alcohol solution of eosin is added. The preparation is then creamed in the usual way; the Negri corpuscles show up as violet objects inside the blue nervous cells.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

136. Acetonuria in Diabetes.

VON NOORDEN (*Rif. Med.*, January 2nd, 1911), whilst not denying that acetonuria may be very serious in diabetes, points out that there are types which are not dangerous and which may be considered as purely physiological. The most important sources of acetone are the fatty acids and the amino-acids. The glycogen contained in the hepatic cells exercises a restraining influence in this transformation of fatty acids into acetone substances. The diabetic uses his glycogen at a riotous rate, hence the restraining influence is too easily lost. The author next discusses the significance of acetonuria in diabetes, especially as regards treatment. (1) Cases of slight glycosuria, readily cured by the withdrawal of the hydrates of carbon from the diet, but presenting shortly after this diet signs of acetone in the urine. In such cases the acetonuria is physiological and need cause no alarm, nor does it necessitate a withdrawal of the severe diet, as it will disappear in a few weeks. (2) Diabetics with slight glycosuria, in spite of a partially restricted diet, show signs of acetone, which, however, disappear on a more rigid diet. The extra rigidity in diet does not excite the same metabolic disturbance as in the first class of case, where hardly any restriction of diet had been observed. (3) Cases where the glycosuria is marked and where cutting off the hydrocarbons does not suffice and reduction of proteids is also necessary. In all such cases prolonged administration of alkalis is strongly urged as they help the elimination of the acetonuric acid bodies and diminish the acetonaemia. It is necessary to avoid too sudden restriction of diet, and may often be advisable to allow a few days' liberty—for example, giving oatmeal, and so gradually work down to a hydrocarbon-free diet. In the worst cases even the small amount of carbohydrate coming to the liver via the portal vein does not suffice to restrain the production of acetone, and in these cases—with a persistent acetonuria—it is quite indifferent whether we withhold the carbohydrates from the food or not.

137. Certain Clinical Features of Cholera.

B. RADUZKY AND H. GOLDBLADT (*St. Petersburger Med. Woch.*, September 24th, 1911, p. 417) point out that the clinical study of Asiatic cholera has received scant attention of late, partly because the diagnosis and treatment of the disease have been mainly based on bacteriology, and partly because ample clinical material has been wanting in Europe since the great epidemic of 1892 in Hamburg. In the course of an epidemic in Kief, which lasted during the summer of 1910, the writers observed 150 cases of cholera. All the patients, 86 in number, who exhibited the algid or cold phase, presented injection of the posterior conjunctival veins of the sclera. In some cases these veins merely became dilated and tortuous, especially over the lower part of the bulb; in other and severer cases there was marked radiating conjunctival injection, and 2 patients presented small extravasations of blood over the lower part of the sclera. Usually the prominence of this condition was directly proportional to the severity of the disease. It is an early sign, which gradually disappears, to reappear when convalescence has been established for some time. As it is such an early sign, the writers discredit the interpretation of Huppe, who attributes it to exposure of the bulb occasioned by paralysis of the orbicularis oculi muscle, and it is more probably due to the viscid quality of the blood and the subsequent delay of the circulation in the conjunctivae. With the commencement of recovery the patient's face feels hot, and it acquires a curious dusky red colour, suggestive of venous stasis. It is commonly taught that with improvement of the pulse the patient flushes, but ordinary flushing does not resemble this cyanotic colour, which the writer learnt to associate with a favourable crisis. The naso-labial folds, and sometimes also the cheeks, retain their former pallor, which accentuates the colour of the rest of the face. The prognosis at this stage is most favourable, provided cholera-typhoid does not supervene. The pulse in the algid phase is almost invariably much quickened, and oftener than not it is 120 to 140 in adults and 140 to 160 in children. Only in 3 cases, when the patients were old and feeble, was as slow a pulse-rate as 80 to the minute observed. The combination of a low external body temperature with a rapid pulse is most characteristic of the algid phase of cholera and distinguishes it from typhoid fever. At first the pulse retains its normal character, except for a slight increase in frequency. Soon, however, with increasing rate, its wave becomes lower and smaller till it can no longer be detected at the wrist. This disappearance of the radial pulse partly accounts for the lack of observations on its rate in the algid phase of cholera, and the writers had frequently to resort to cardiac auscultation in order to count the pulse in this phase. The rapidity of the pulse usually does not subside till the stage of reaction has set in, when it frequently falls to 50 or 60. In cholera-typhoid the pulse is seldom very rapid, and it is usually under 100. Abdominal splashing on palpation is a commonly described phenomenon, but its localization presents characteristic features hitherto ignored. It is seldom present over the whole of the abdomen, and it is oftenest found in the right iliac fossa over an area corresponding to the caecum and the adjoining portion of small intestine. Frequently it is also present in the left iliac fossa over the sigmoid flexure, and it may sometimes be present over the transverse colon. Bloody stools as a complication of, or as a sequel to cholera, are usually regarded as a fatal sign, but 3 out of the writer's 9 patients who presented this condition recovered. That bloody stools are due to necrosis and ulceration of the intestine in an early stage of the infection, and are not necessarily a late complication or sequel to cholera, is shown by the two following cases: A youth, aged 17, presented a clinical picture typical of dysentery. There was continuous tenesmus with mucous stools, which became more and more bloody till, on the tenth day of the illness, they consisted of almost pure blood. As vomiting had ceased after the first day of the illness, and as the patient, though looking ill, did not present the extreme prostration of cholera, dysentery was diagnosed. After frequent examinations, however, an almost pure culture of the comma bacillus was found, and the patient died on the fourteenth day of the illness. The second patient, aged 55, exhibited the algid phase to a marked degree on admission. The illness had begun with violent tenesmus and watery, bloody stools, of which there were about thirty a day. She died two days after admission to hospital. Symptoms referred to the liver and gall bladder occur seldom in cholera, but the writers report the following cases: A woman, aged 38, who had not previously suffered from hepatic complaints, developed excruciating pain over the liver a week after the onset of cholera. The temperature was about 101°, and the liver, which could be felt extending 4 cm. below the costal margin, was painful on pressure. In the course of a few days the symptoms disappeared. In another case, a girl, aged 9, was admitted to hospital suffering from the algid phase of cholera in a most severe form. As this phase passed off she developed violent pain over the liver, which was found to extend 2 cm. below the costal margin and to be painful on pressure. There was, however, no rise of temperature. In both these cases there was evidently an infectious cholangitis present, due to the comma bacillus. This condition is most rare, for, as Padoa has shown, the liver cells are most resistant to infection from the intestines in general, and to cholera toxins in particular. However, in the bile ducts, and particularly in the gall bladder, the comma bacillus usually flourishes, and here it causes demonstrable cholecystitis in about 10 per cent. of all cases.

138. Chronic Hypothyroidism.

MARCHIAFAVA (*Rif. Med.*, January, 1911) draws attention to conditions which may easily be mistaken for chronic renal disease, namely, chronic hypothyroidism. He describes 4 cases occurring in adults. Amongst the most striking of the symptoms is marked somnolence, and prolonged and deep sleep at the ordinary sleeping hours. The condition is of long duration and of slow development: the face and limbs are swollen but not oedematous, the skin dry; usually the body weight increases. The pulse is slow and weak, the gait uncertain. There is no headache or visual disturbance, and as a rule the digestion is not disturbed. Both intellectual and bodily apathy are commonly present, and there is some loss of memory. The patients complain of feeling continuously cold, and look much older than they really are. The voice is harsh,

and salivation may be troublesome. When the thyroid can be felt, it is found to be small and hard. Unless it is part of a pluriglandular inefficiency, these cases of hypothyroidism are quickly relieved by thyroidin. Albumen and casts may be present in the urine.

SURGERY.

139. Rhino-pharyngeal Infections.

GALLOIS describes (*Arch. génér. de méd.*, 1912, xci) the various diseases that may result from infection from the naso-pharynx. The germs present in the naso-pharynx are usually in a state of inactivity, but, as a result of some intercurrent affection, adenitis may arise. If the germs pass into the Eustachian tube, inflammation of this tube, otitis, and mastoiditis are not uncommon results. Rhinitis may cause ulceration of the nares, and is frequently a cause of erysipelas of the face, sycosis of the beard, and in children impetigo. Chronic rhinitis is a frequent cause of acne and sometimes lupus. The nasal sinuses may become inflamed, and maxillary, frontal, and ethmoidal sinusitis arise. Infection of the nasal canal may provoke a dacryocystitis, ciliary blepharitis, sty, chalazion, conjunctivitis, keratitis, and even internal lesions of the eye. Naso-pharyngitis spreading downwards may cause erythematous, pultaceous, pseudo-diphtheritic, and diphtheritic amygdalitis, and, if chronic amygdalitis occurs, hypertrophy of the tonsil, chronic abscess, and tuberculous tonsil may be observed. A common result of infection from the naso-pharynx is the presence of laryngitis, in children, stridulous laryngitis, tracheitis, bronchitis, capillary bronchitis, bronchopneumonia, pulmonary congestion, and perhaps lobar pneumonia, catarrhal or bronchial asthma. Dry asthma, the author considers, is due to a mechanical consequence of adenoids. A common result of naso-pharyngitis is the implantation of Koch's bacillus on the membrane and invasion of the pulmonary tissue. Swallowing of the muco-pus from the pharynx produces dyspepsia, enteritis, and appendicitis. The infections may spread from the naso-pharynx by the veins or the lymphatics. In the former case arise thrombosis of the cranial sinuses and ophthalmic vein; in the latter cerebral abscess, abscess of the cerebellum, inflammation of the orbit, iritis, irido-choroiditis, detachment of the retina, and perhaps cataract, pachymeningitis externa, cerebro-spinal tuberculous meningitis, and, the author thinks, infantile paralysis. As a result of propagation of the microbes irritation of the nerve filaments may occur, and hence arise neuralgias—suborbital, supraorbital, and occipital neuralgia, optic neuritis, facial paralysis, and ocular paralyses. Inflammation of the lymphatic trunks occasions ganglion fever and enlargement of the glands of the neck and pharynx, with the danger of the implantation of the tubercle bacillus, and a general adenopathy. Acute articular rheumatism, gout, simple endocarditis, ulcerative endocarditis, phlebitis, nephritis, peritonitis, pleurisies of various kinds, pulmonary gangrene, abscess of the lung, pericarditis, thyroiditis, osteomyelitis, chorea, erythema nodosum, purpura, have all, the author believes, been caused on different occasions by a naso-pharyngitis. He treats an acute condition of the naso-pharynx with a solution of carbolic acid, 1 in 100; if less intense, the following solution: Water 500 grams, carbolic acid, sodium salicylate, and sodium biborate āā 2 grams. The solutions should be applied to the nose by a spray.

140. Displacements of the Neck of the Bladder.

THE neck is the most fixed point of the bladder, but its situation is modified by the fullness or otherwise of the pelvic organs. Marquès and Desmonts (*Arch. d'électr. méd.*, February 24th, 1912) have been attempting to determine precisely the position of the vesical neck without having recourse to stiffening reagents, and to study in the same subject its displacement under the influence of the fullness or emptiness of the bladder and rectum. For this purpose a cadaver was taken and radiographic records made by lateral projection. To avoid the double thickness of the innominate bone and the upper epiphyses of the femur, which prevented an appreciable shadow of the bladder, they disarticulated the two lower members while respecting the integrity of the abdominal wall, and injected into the bladder by means of Nélaton's sound a saturated solution of lead subacetate, which is opaque to the *x* rays. For distending the rectum a balloon of caoutchouc was utilized and filled with varying quantities of water. Various radiographs were taken showing the different situations of the neck of the bladder according to the state of the vesical and rectal contents. The neck was shown to be lowered by vesical fullness and raised by fullness in the rectum, in the latter case being more highly situated when the bladder contained a small quantity of liquid than when it was full. As a result of exact measurements of the cervical orifice in a series of experiments, the authors state that the height of the neck of the bladder varies in direct ratio to the fullness of the rectum and in inverse ratio to the fullness of the bladder; that the distance from the neck to the symphysis varies in inverse ratio to the fullness of the bladder and rectum; that the length of the posterior ureter varies in direct ratio to the rectal repletion and in inverse ratio to the vesical repletion, and that the variations in the radius of the perineal curvature of the ureter are in inverse ratio to the variations in the length of the posterior ureter.

141. Endless Oesophageal Sound.

LOTHEISSEN (*Wien. med. Woch.*, No. 2, 1912) points out that in cases of oesophageal stricture in which gastrostomy has been performed it is often possible after a few days to pass a catgut sound 1 to 1½ mm. in diameter into the stomach, but that this may again prove impossible after a short time. In order to overcome the difficulty he recommends that the distal end of the catgut should be brought out through the gastric fistula, a silk thread attached to it, and an endless sound be thus formed. The author has found this method most effective in treatment. Since the entrance to the stricture is not always in the middle of the oesophagus, v. Hacker, who recommended a continuous sound as described above, suggested that if a hollow bougie containing several strands of catgut were passed as far as the stricture one or other of them could be introduced through it. The hollow bougie also prevents the catgut lying always in the mouth in contact with the saliva, and is more pleasant for the patient. It is not always easy to pull the distal end of the catgut out of the stomach, where it becomes entangled in folds of mucous membrane, and the process would be much easier if it could be done with the help of *x* rays. In order to do this the author has substituted for the catgut fine metal spirals like the bass strings of a piano. These will often pass through the stricture as well as a catgut sound, and with the help of *x* rays the distal end can be clearly made out, and can more readily be seized with forceps and pulled out through the gastric fistula. They have the additional advantage that they can be sterilized by boiling. The author has made use of them now for several months.

142. Signs and Diagnosis of Cancer of the Colon.

MATHIEU (*Journ. des prat.*, 1912, xxvi) describes three cases of cancer of the sigmoid and splenic flexure and transverse colon respectively, and draws attention to the great value of spontaneous pain on palpation at a fixed point. This fixity of the pain justifies, he considers, exploratory laparotomy. The tumour as a rule is found to be larger on laparotomy than it seems to be by palpation. Sometimes the contrary occurs, as a result of spasmodic descent or accumulation of faeces. The spasmodic false tumours, without a neoplasm, generally attack the iliac fossa or descending colon. False cancers of inflammatory origin are almost impossible to diagnose clinically, but a suspicion may be entertained if exacerbations of fever occur. Tumours in the iliac fossa are hard to diagnose, as the bone gives a resistance. The patient should be placed on the right side and the knees flexed, and palpation should be made deeply. Radioscopy is much superior to insufflation or injection of water.

OBSTETRICS.

143. Interstitial Pregnancy.

MARKOE (*Bull. of the Lying-in Hospital*, City of New York, June, 1911) reports a case showing a number of interesting features. The patient had been admitted to the hospital five years previously for what was believed to be an incomplete abortion. A curettage was done, but no fetus discovered; she left the wards against advice, but returned in a few days in a condition of collapse, with rapid pulse and high fever. At the time a diagnosis was made of ruptured ectopic gestation, probably infected as the result of some latent tubal disease. Her condition was so bad that it was deemed inadvisable to operate, but she improved under conservative treatment, and left the hospital some

months later. She again applied for treatment on September 28th, 1911, stating that three years ago she was delivered with instruments of a large, full-term, stillborn child. On admission, temperature, pulse, and blood count were normal, the urine showed a trace of albumen with acetone and diacetic acid, and there was a slightly bloody vaginal discharge containing some pus. Bimanual examination showed an extremely tender and slightly movable tumour, about the size of a goose egg, on the right side of the uterus and apparently connected with it. The last period was said to have taken place July 10th, 1911, so a provisional diagnosis of two months' ectopic gestation was made, and an operation was performed. On opening the abdomen the tumour was seen to be directly connected with the right horn of the uterus. The left tube and ovary were congested, and firmly bound down to the intestines and omentum. Some of the adhesions were broken down, and the swollen Fallopian tube and left ovary were removed. The appendix, which was also included in the adhesions, having been removed, the uterus, with its tumour, was removed by partial hysterectomy. Complete hysterectomy was deemed inadvisable for fear of opening up old inflammatory foci on the left side. The subsequent history was uneventful, and the patient was allowed up on the nineteenth day. In reviewing the case it would appear that the patient's illness five years previously was most likely a ruptured ectopic pregnancy on the left side, where the products of conception were eventually absorbed, leaving the dense mass of adhesions found at the operation. The occurrence of an intrauterine pregnancy in the interval is of interest, as showing that the conditions which prevailed to bring about the two ectopic gestations did not prevent one ovum from lodging in the normal mucous membrane of the uterine cavity. Interstitial ectopic pregnancy seems to be the least frequent form met with, and up to 1904 a review of the literature shows about thirty published cases: since then an increasing number of cases has been reported. As the pregnancy develops practically in the wall of the uterus it may proceed to a more advanced date than in the case of the tubal varieties, and for this reason rupture of the sac is more likely to prove fatal. If an interstitial tubal pregnancy is recognized, an operation is necessary without delay. Unfortunately, it is less easy to diagnose than tubal gestation, but it has been claimed that in interstitial pregnancy the amenorrhœa is usually persistent, while in tubal pregnancy more or less irregular bleeding occurs. It is also important to determine in each case whether an excision of the sac is possible or whether hysterectomy is necessary.

GYNÆCOLOGY.

144. Primary Carcinoma of Female Urethra.

BECKWITH WHITEHOUSE (*Journ. of Obstet. and Gyn. of the Brit. Emp.*, December, 1911) describes a case of this disease which came under his own observation, and, in addition, discusses the etiology, clinical features, symptoms, pathology, and treatment of the condition in the light of records of 43 cases which he has been able to collect from the literature. Several cases of urethral carcinoma appear to have originated in urethral caruncle. The inflammatory origin of the majority of caruncles, the preponderance of vulvo-urethral over true urethral carcinomata, and the fact that the most common seat of malignant growth is the floor of the urethra near the external orifice—that is, a similar situation to caruncle—are all points in favour of an inflammatory lesion preceding the malignant growth. Other factors suggested as causative are injuries caused by childbirth or otherwise, and the tendency to the formation of malignant growths at the line of junction of two different epithelia, in this case of the urethral and vaginal epithelia. The cases can be divided into the vulvo-urethral and urethral. Of these the vulvo-urethral are by far the more common, 32 out of the 43 cases belonging to this group. Three definite clinical types of vulvo-urethral growth can be recognized: (1) An irregular, dark, papillomatous growth, which bleeds readily on contact. (2) An ulcer on the floor of the vestibule at the urethral orifice, presenting the usual malignant characters and spreading rapidly. (3) An induration surrounding the urethral orifice, depressing and contracting it, but without ulceration: clinically this form is a scirrhus, and is of slow growth. Two types of urethral growths can be recognized: (1) An irregular, elongated ulcer, involving the mucous membrane on the floor of the urethral canal in the distal segment and exposed only by urethroscopic examination. The ulcer has the usual malignant characters and tends to extend towards the urethral orifice. It rarely involves the bladder. The case described by the author conformed to this type. (2) A peri-urethral induration, free from ulceration until the late stages. A definite tumour is here formed which tends to block the urethral canal. The last stages in all types of growth are similar. The symptoms follow naturally from the clinical features. Pain is most marked in the ulcerating types, either urethral or vulvo-urethral. The passage of a catheter is acutely painful. In the sclerosing types difficulty in micturition is the first symptom, and this may go on to complete retention. The preponderating type of growth is a squamous-celled epithelioma. Whenever possible the treatment should be wide excision of the urethra, together with the inguinal glands. Even if the neck of the bladder is affected and the sphincter must be sacrificed, a good functional result is occasionally obtained. In the advanced cases, however, the better practice is to close the vulval wound completely and establish permanent suprapubic drainage. When operation is contraindicated the cautery, radium, or *x* rays have to be tried.

THERAPEUTICS.

145. Treatment by Radium Emanation.

MORLET has been investigating at the Institut Galvani in Antwerp the physiological and therapeutical effects of the emanation of radium (*Arch. d'élect. méd.*, January 25th, 1912). After discussing what other writers have had to say about its fourfold action—namely, on the nutrition, on the body ferments, on bacteria and toxins, and on the uric acid—he gives synopses of fourteen observations of cases in which it has proved of benefit, either as a means of cure or of relief. The cases are chiefly those of gout and rheumatic pains in the joints, together with a certain number of cases of sciatica, neurasthenia, and insomnia of unknown cause. In one case of chronic arthritis deformans of the hand the emanation proved to be of value on the sudden appearance of violent pain and impotence in other parts than the one originally affected. The pain in a measure disappeared and there was a return of normal movements in these other articulations, although, naturally, the emanation did not act on the old-standing deformity and ankylosis. In such cases of anatomical damage, says the author, the emanation is as fruitless as any other medical treatment. The results are always most favourable in gouty patients, and these, together with arthritic patients, are submitted at the same time to a lacto-vegetarian régime. The emanation is given by means of inhalation in an emanatorium or specially made and well-closed chamber, in which the patient breathes the emanation for two hours daily. The installation is identical with that used by Ilis and Gudzent and others, and consists of a number of tubes, each enclosing a solution of bromide of radium, an oxygen reservoir, a dispositive for absorbing the carbonic acid and water vapour of the respiration, and a refrigerator for neutralizing excessive heat. Gas, whether for heating or lighting, should not be used in an emanation room. In some cases the general emanation treatment may be accompanied by a local treatment with compresses, radiogenous earths, or, better still, injections of radium salt. The patients should be warned of the reaction phenomena, involving pain and in gouty patients an access of gout, which appear about the tenth or fifteenth day. The reaction should not be suffered to interrupt the treatment, however, except in cases in which it is severe and induces considerable enervation. The treatment may then be modified or suppressed for a time. The author concludes by pointing out that this new treatment is not a panacea—that if there are successes there are also checks, and that cases should not be submitted indiscriminately, but that an exact diagnosis should be made beforehand.

146. Tuberculin and Ambulant Patients.

H. ULRICI (*Wien. med. Klin.*, No. 44, 1912) deals with the use of tuberculin for ambulant patients. For purposes of diagnosis he considers von Pirquet's cutaneous reaction of value for children, especially for infants, but not of great value for adults, since more than 70 per cent. of clinically sound persons give a positive reaction. The conjunctival reaction he dismisses as of doubtful value and of some

danger. With regard to the subcutaneous tuberculin test, the amount of the dose to be employed is not yet agreed upon. In the next place, a distinction must be drawn between the general reaction and the local reaction. The general reaction can only be considered evidence of a previous tuberculous infection, not of a tuberculous disease which the infection may never induce. Thus Franz found that out of 1,000 recruits from 40 to 70 per cent. of apparently healthy men gave the general reaction, and that of these scarcely 10 per cent. sickened from tuberculosis during the next four to seven years. The trustworthiness of the local reaction must depend to some extent on the absence of bias in the mind of the investigator, since different workers arrive at such widely different percentage results. In the literature a local reaction in the lung is comparatively seldom noticed compared with a general reaction, though diseased local areas must be present. In only 10 out of 72 of the author's patients who gave a general reaction after the injection of tuberculin were slight lung changes demonstrable on careful observation. Moreover, the subcutaneous test injection is not without danger. Out of 106 general reactions the author has recently had 9 cases of unpleasant results. Thus 4 patients reacted with high fever and appeared to be, and felt, very ill for days; 2 patients developed subfebrile temperatures which persisted for a month; 1 developed a serous otitis media, another severe feverish intestinal catarrh, a third complete paresis of the sphincter vesicae. The psychical effect of the injection may also be unfavourable. The author would therefore keep clear of the subcutaneous tuberculin test. Treatment by tuberculin is much more frequent than the use of tuberculin for diagnostic purposes. The author believes that the method of use of tuberculin is of far more importance than the particular preparation employed. Our lack of precise knowledge on the subject of tuberculin and its action results in its being administered on the most widely different systems. The present position may be stated somewhat as follows: (1) The relative value of the different tuberculin preparations cannot be accurately estimated. (2) Greatest differences of opinion exist as to the method of use of tuberculin. (3) Tuberculin in the treatment of phthisis appears to aid other therapeutic methods, but its value has not been placed absolutely beyond all doubt, either by pathological examinations, by animal experiment, by the treatment of visible tuberculosis in man, or by sanatorium statistics. The author recommends a systematic study of the effect of tuberculin among hospital patients before it is more generally administered.

147. Calomel as a Diuretic.

Rudolf Fleckseder (*Wien. klin. Woch.*, No. 41, 1911) has investigated experimentally the character of the diuresis brought about by calomel, and gives his own experience as to the clinical conditions in which the use of calomel as a diuretic is indicated. These are (1) Severe dropsy in heart disease, if cardio-tonic treatment and other diuretics have failed. Digitalis should be given either with or immediately before the calomel if there is much dilatation with low blood pressure and arrhythmic beat. (2) In cases in which antisyphilitic treatment is also required, as for instance, in (*a*) syphilitic mesarteritis with or without coronary sclerosis when dropsy or pleural effusion develops: (*b*) in syphilitic affections of the liver causing obstruction of the portal system; (*c*) in syphilitic diseases of the kidney accompanied by general dropsy; here the presence of albuminuria does not contraindicate the use of calomel. (3) In ascites through stasis in the portal system, but only when the condition is syphilitic or when a collateral circulation has been established, either naturally or by Talma's operation. A graph is given showing the effect of calomel in a case of atrophic cirrhosis of the liver, in which three months after a Talma's operation, in spite of cardiac, diaphoretic, and diuretic treatment, ascites still persisted, but came down promptly almost to *nil* under calomel. A calomel cure is contraindicated in cases of (1) idiosyncrasy; (2) of peritonitis, of tuberculosis of the peritoneum, or in the different forms of intestinal obstruction, in all of which conditions mercury cannot be excreted sufficiently quickly; (3) of parenchymatous nephritis with kidney insufficiency. It must also be remembered that a calomel cure is always to be considered a last resource, because of the danger of heart failure, or of toxic mercurial symptoms under the treatment. The author usually gives an initial dose of 2 dg. (3.08 grains), combined, as a rule, with 5 mg. (0.05 grain) of extractum opii. If the reaction of the individual to calomel is not known, this is given once, or at most twice, on the first day, and the number of doses gradually increased until four to six are given daily. In favourable cases the effect on the urine is perceptible before the maximum dose is attained. The cure is continued for two or three days more, the dose being rapidly diminished. The total amount of calomel given will vary from 3 to 5 grams (45 to 75 grains). From experiments on guinea-pigs it appears that calomel causes small intestine diarrhoea through paralysis of the absorption of lymph and increased peristalsis: the rapidly increasing quantities of lymph are absorbed from the large intestine, and cause hydraemia with a resulting diuresis. This explains certain facts which have been observed clinically, thus: (*a*) Addition of opium tends to prevent large intestine diarrhoea and so promote absorption; (*b*) the diuretic action of calomel in portal congestion with atrophic cirrhosis is in abeyance until, with the establishment of a collateral circulation, the masses of fluid collected in the portal vessels can escape; (*c*) the most probable explanation of the acute heart failure which is sometimes seen under a calomel cure is that extra work is thrown on an already overburdened heart; (*d*) in non-syphilitic parenchymatous nephritis the calomel cure fails because of the lessened permeability of the kidneys, while the retention of soluble mercurial compounds may lead to a cumulative local action on the diseased kidneys, or to cumulative action in other parts of the organism. As a rule, in a calomel cure of dropsy in man diarrhoea is present during the first few days, and it is only as the diarrhoea subsides that the absorption of water from the intestine reaches its height. The absorption from the large intestine is directly into the blood; lymph absorption is checked by calomel. The resulting fall in pressure on the lymph vessels provides a means of escape for the dropsical fluid, and in dropsy the combined effect of the passage of the intestinal fluid into the blood and the sucking up of the oedema causes hydraemia and diuresis.

PATHOLOGY.

148. Poliomyelitis.

Olaf Thomsen publishes some interesting observations carried out in the Serum Institute of Copenhagen (*Berl. klin. Woch.*, January 8th, 1912). Landsteiner, Levaditi, and Pastia have recently described a case of poliomyelitis in a child in which the mucosa of the tonsil and the pharynx proved to contain the virus, while the lymphatic glands of the neck, the spleen, parotid gland and the mesenteric glands were quite free. The author records a similar case. A child died of poliomyelitis. The tonsils were removed *post mortem* and were extracted under aseptic precautions with glycerine and saline solution. The extract was filtered through a paper filter, and injected into a *Macacus cynomolgus*. The animal sickened on the seventh day and died on the same day, typical signs of poliomyelitis being found *post mortem*. A second *macacus* also developed poliomyelitis and died from it after injection with the same fluid. Another *macacus* was infected with the affected spinal cord of a monkey and contracted the disease. After death the nasal and pharyngeal secretion was carefully removed and injected into another *macacus*. This animal also died of typical poliomyelitis, while the *macacus* which was inoculated with the nasal and pharyngeal secretion of this monkey after death did not show any signs of illness. This proves that the virus may be present in the pharynx, even if the infection takes place through the peritoneum, and further that the pharynx can be either the entrance point or the exit point of the virus. An attempt was next made to infect two *macacus* monkeys by scarification and application of the infective substance to the scarified site. The same technique as vaccination was employed. The experiments proved negative. On the other hand, when the infective material was mixed in equal parts with cow-pox vaccine and then applied in the same way, typical vaccine pustules developed and later the animal sickened and died, the *post-mortem* changes being typical of poliomyelitis. This experiment was carried out in the hope that the virus would be held up in the vaccine pustule, and from this site it might exert an immunizing effect. However, it was seen that the reverse took place, and that instead of a protection, a special susceptibility was developed. Further experiments showed clearly that the virus multiplied within the vaccine pustule and gained an entrance from this site into the circulation. Thomsen calls attention to the similar characters of the virus of vaccine and poliomyelitis.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

149. Vaccination Anomalies.

IN his official report on the vaccinations performed in Bavaria during the year 1910, L. Stumpfl (*Muench. med. Woch.*, December 19th, 1911) deals with various anomalies and complications recorded in connexion with vaccination. A child vaccinated for the first time showed typical pustules on the day of inspection. A few days later inflammation of the lungs set in, when the pustules practically disappeared, to reappear and follow the usual course when the pulmonary condition had subsided. A hydrocephalic child showed no reaction to vaccination on the day of inspection, but several days later one large pustule appeared at the site of inoculation. An abnormally early development of pustules was also sometimes observed, and was attributed to attenuation of the virus. A generalized eruption occurred frequently, sometimes in the form of an erythema simulating that of rubeola, scarlatina, or measles, at other times as urticaria or a papulo-vesicular eruption. All these various eruptions are traceable to the irritability of the skin, which reacts differently according to the individual. In one district the generalized eruption resembled herpes in 4 cases, and when it was maculo-papular it was frequently confused with measles or scarlatina by the relatives. These eruptions were quite harmless, and lasted only for two or three days, and the fever which was sometimes associated with them was merely the typical vaccination fever of short duration. Frequently there appeared in the neighbourhood of the vaccination pustules a quantity of vesicles varying in size and number and filled with serum. These accessory vesicles, which may become confluent, are attributed to the prolonged use of bandages, which prevent the escape of perspiration. Mixed infection due to the patient scratching the pustules with dirty fingers was relatively rare, and out of 15,500 cases only 9 presented abscess formation with glandular swelling. In 3 of these cases abscesses requiring incision appeared in the axilla. Children frequently reinfect themselves in different parts of the body by scratching themselves, and thus conveying the infection from the first site of inoculation. Once a physician accidentally scratched the radial side of his left index finger with his lancet while vaccinating a restless child. A large pustule developed at this spot six days later; both the finger and hand became much inflamed, and the axillary glands grew enlarged and painful. The finger was incised and the upper part of the pustule removed, but no abscess was found. The patient, who had been feverish, made a speedy recovery. Another restless child seized the point of the vaccination lancet with its left hand. The wound inflicted was at once disinfected with lysol, but a vaccination pustule developed at this spot. Several cases of pseudo-erysipelas were recorded. This condition is merely an abnormally extensive distribution about the pustules of the cutaneous reaction, the extent and violence of which depends on the strength and age of the lymph, as well as on the irritability of the skin and the patient's degree of immunity to the inoculation. Sometimes it involves the whole of the upper arm, as well as encroaching on the forearm. Of the 8 cases of true erysipelas reported, 1 ran a curious course. Beginning on the right arm, the erysipelas extended to the chest and thence to the rest of the body. Under treatment great improvement was effected, and the patient was discharged. Three days later erysipelas with fever reappeared without any apparent cause. After prolonged treatment the patient appeared to be cured, and was therefore discharged; but three days later the patient's death was reported, for which no explanation was forthcoming. Thirty-eight patients who were vaccinated for the first time died within three weeks of vaccination. Croupous pneumonia and capillary bronchitis were the commonest causes of death. Frequently the pustules were not fully developed in such cases, but in no case ending fatally was the site of inoculation abnormal.

150. Splenomegaly.

Z. BYCHOWSKI (*Wien. klin. Woch.*, No. 44, 1912) describes a series of cases of idiopathic splenomegaly occurring in one family. The father and three out of seven children all suffered from a chronic benign enlargement of the spleen without any history which would explain it, and without leukaemia. The course of the disease was very chronic, and, though somewhat variable, yet relatively favourable. The father was subject to attacks of severe exhaustion, from which he altogether recovered after four to five weeks of rest. The blood condition was remarkably variable. Thus, when first seen the number of erythrocytes was 650,000, normoblasts and megaloblasts were found, and there was anisocytosis and poikilocytosis; the condition was suggestive of pernicious anaemia. But after seven weeks the number of erythrocytes had increased to 3,600,000, the anisocytosis had greatly diminished, and nucleated forms altogether disappeared. After a year there were 6,320,000 red blood corpuscles. Similar differences were found between the results of two blood counts which were made later. The white corpuscles remained almost unchanged. The father and two of the children both had frequent haemorrhages, which perhaps explained the small number of blood platelets observed in these cases. In the youngest of the patients, a girl 11 years old, who had not had haemorrhages, the number of blood platelets was abundant. The most striking feature of the case was, however, the family predisposition. Isolated instances of splenomegaly as a family disease have been described. Gaucher believed that the anatomical condition of the spleen in these cases was typical, but though it is very possible that the author's cases conform to Gaucher's type, a *post-mortem* examination could not be obtained. Clinically, according to Alice Leiter, the cases can be grouped together by the following signs: (1) A peculiar change of the colour of the skin; (2) a more or less marked anaemia with a tendency to a haemorrhagic diathesis; (3) increase in the spleen and often an accompanying increase in the liver; (4) a chronic and fairly favourable course; (5) the family predisposition. The typical colour is described by Gaucher as being a characteristic greyish-yellow, lead-coloured tint difficult to describe. The colour is not the ordinary colour of jaundice, and the distinction is one of diagnostic importance because families have been described with frequently recurring jaundice and enlarged spleen who do not belong to the same group. In the author's series the colour of two of the daughters was merely pale; the father's a dirty brown, and that of the son not quite normal. Another point of interest in this case was that the three children not affected with splenomegaly all had thyroids which were definitely enlarged.

151. Septicaemic Sporotrichosis.

A SEPTICAEMIC form of sporotrichosis producing fever and anaemia is described by C. Antonio (*Il Policlinico*, Sez. Chirurg., Rome, 1911, xviii, 203). He believes it to be the first Italian case of sporotrichosis to be recorded. The patient, aged 22, for two years a soldier, had never had syphilis; his family history was unimportant; his duty was the distribution of corn. The trouble began with pain in the right knee, followed in two months by swelling, and a swelling appeared in the right middle finger. Next month swellings appeared in the left big toe joint and on the crest of the left tibia. These swellings were not very tender, and that on the shin was indefinite. The man was well-nourished and robust; there was at this time (February) moderate intermittent fever. In April the toe-joint fluctuated, the swellings of the knee and tibia exhibited pseudo-fluctuation; the knee-joint itself appeared not to be involved. A swelling had arisen at the interphalangeal joints of the second right toe. Incisions were made, and creamy pus came in quantity from the shin; while fluid pus and fragments of necrotic tissues issued from the knee. Necrosed bone was exposed in each case. In May an indolent pseudo-fluctuating swelling not involving the joint appeared at the upper and internal part of the left knee. In June the shin lesion had healed, the right knee had nearly healed; carious bone was removed from the left big toe and the right second toe. In July the swelling about the left knee had disappeared, but three more had arisen on the right hand, resembling indolent movable subcutaneous gummas, covered with normal skin. In August these three swellings, on the back of the radio-carpal joint, the thenar eminence, and the ulnar aspect of the first phalanx of the ring finger, were incised; creamy pus came from each. The swelling of the left knee must have reappeared, as it was incised, and pus with small blood clots and fragments of necrotic tissue came out; the

muscles and subcutaneous tissues showed dissection. Other swellings developed on the left hand and right zygomatic region. The fever (up to 100° F.) continued. In September the patient was thin, pale, weak; the chest and abdomen showed nothing abnormal beyond a haemic pulmonary murmur. The axillary and inguinal glands were small, hard, movable, indolent. The urine was normal. A blood count showed red cells 1,400,000, haemoglobin 56 per cent., white cells 8,000, with 4 per cent. of eosinophiles. At this period cultures were made with pus from an unopened subcutaneous gummatous swelling, and *Sporotrichum beurmanni* was grown in pure culture; it was also grown from the circulating blood (1.0 c.cm. taken from a vein in the arm). The serum reaction gave a positive result at a dilution of 1 in 300. From September large doses of iodide were given, and at first with good results; in November, however, Antonio heard that the patient was doing badly once again. No evidence of tuberculosis was obtained by inoculations of guinea-pigs. The author notes that Widal has recorded a case of sporotrichial septicaemia, Beurmann a fatal case of sporotrichosis. The literature is quoted.

SURGERY.

152. X Rays and Intestinal Stenosis.

GOTTWALD SCHWARZ (*Wien. klin. Woch.*, No. 40, 1911) discusses the diagnosis of stenosis of the lower part of the small intestine by means of Roentgen rays, and describes four cases in which the diagnosis was afterwards confirmed at operation. Normally the small intestine should be empty eight hours after a meal and the shadow of the small intestine be not more than the thickness of the thumb in calibre. In the first case reported *x*-ray examination eight hours after the test meal showed looped bands of shadow, which extended from one iliac spine to the other, and dropped down in the middle line to the symphysis. The bands were about 40 c.cm. (16 in.) long, and had a definitely ribbed appearance. In two places they looked as if they had been cut through. The condition was the same twenty-four hours after the meal. These shadows were taken to denote abnormally widened loops of small intestine, in which the ingesta stagnated for as long as twenty-four hours. The diagnosis was therefore of stenosis of the small intestine. At the operation a stenosis caused by scar tissue, apparently tuberculous in origin, was found near the caecal end of the ileum. The "ribbing" of the shadow in this case could only have been caused by hypertrophy of Kerkring's folds. Apart from the Roentgen-ray examination, the condition would have been suggestive rather of a neoplasm. The next case proved to be one of carcinoma of the caecum, and here also the ray picture showed the presence of obstruction without throwing light on the anatomical cause or exact position. The appearance was very similar to that of the first case, but that in this one the presence of bubbles of gas with horizontal bases vertically above the lines of shadow pointed to the existence of fermentative changes in the intestinal contents. In the third case a definite diagnosis of closure of the small intestine could be made, since there was stagnation of the ingesta for as long as seventy-two hours and a great formation of gas and fluid. Operation showed that blockage was due to the presence of metastatic carcinomatous masses. Clinically, but for *x* rays, there was in this case no method of distinguishing obstruction of the small from obstruction of the large intestine, and the *x*-ray picture was therefore of value from the practical point of view. In the fourth case also the diagnosis was made on the *x*-ray picture, the clinical signs being indeterminate. The author concludes that stenosis of the lower part of the small intestine shows itself on *x*-ray examination in the following ways: (1) There is stagnation of the intestinal contents, which can be clearly seen eight to twenty-four, or even in some cases to seventy-two, hours after ingestion. (2) The loops appear widened, and (*a*) either give abnormally long bandlike shadows of the breadth of the colon, with in parts a ribbed appearance, or (*b*) show ampullary, fluid or gas filled cavities, varying in size from that of a fist to that of a child's head, together with parts giving rise to heavy shadows. (3) Either of the conditions under (2) speak for obstruction in the small intestine. Overfilling of the ileum as a result of enteroptosis can be distinguished from obstruction (*a*) by the length of time the obstruction lasts—in enteroptosis it lasts at most from ten to twelve hours; (*b*) by the position of the loops, which in stenosis seem, as it were, unrolled, and look like long hanging strips of shadow across the abdominal field; (*c*) through the size of the lumen of the intestine—in enteroptosis the shadows of the individual loops do not appear widened; (*d*) through the presence in obstruction, but not in enteroptosis, of large collections of gas and fluid.

153. X Rays in Hypertrophied Prostate.

HUNTER, jun. (*Amer. Journ. of Med. Sci.*, February, 1912), gives notes of 7 cases of hypertrophied prostate treated by Roentgen rays. Such treatment is closely akin to that used in exophthalmic goitre, and is largely a question of the histological structure of the gland. Since these rays act chiefly upon the epithelium, and more especially upon that composing glandular tissue, the best results are attained when the growth is young and due to an increase of epithelial and glandular tissue. Less benefit will result from the treatment in cases where there has been considerable increase in the muscle or fibrous tissue, and relief is obtained only by the greater contraction of such tissue, which will be further assisted by massage. In the third degree but little benefit will be obtained beyond the relief of any localized congestion. Since there is no danger of mortality, all hypertrophied prostates may safely be subjected to this treatment at first, when, if there is going to be improvement, it will be rapid, and if no such improvement occurs in a reasonable time, then recourse can be had to other treatment. Since the testicles are generally increased in size, the scrotum may be irradiated also, and seeing that the aim is to reduce prostatic symptoms, such irradiation is desirable in elderly men in whom the question of inducing sterility need not be considered. A full physiological dose, which varies in different individuals, should be given by exposures of from five to ten minutes at frequent intervals until a moderate dermatitis has resulted.

154. Intraoesophageal Abscess.

GUISEZ (*Journ. des prat.*, 1912, xxvi) describes 4 cases of this complaint, due to the presence of a foreign body, the commonest cause, but in some cases no cause can be found. Fish-bones, or other bones, easily produce abrasions of the oesophagus and abscess formation; round bodies, on the other hand, may remain a long time in the oesophagus without producing any symptoms. The formation of an abscess produces severe pain on swallowing both food and saliva. If the body is situated high up, the pain is situated on one side of the neck behind the larynx. When the abscess is opened, blood, thick purulent matter is spat up, the expulsion of which causes pain; the voice is nasal, the breath fetid, and the tongue thickly covered. The general symptoms are bad: temperature may reach 39° C., and the face dull and leaden. It is not often possible to know by the symptoms whether the foreign body is present, and here the oesophagoscope plays a chief part. On examination the oesophagus is found spasmodically contracted, and cocaine is necessary before introduction of the instrument. On the wall of the oesophagus, generally lateral and posterior, never anterior, a red tumefaction is seen projecting into the lumen of the tube. Slight pressure causes exudation of pus, and by the light of the instrument the foreign body, if present, can be detected. The author lays great stress on the value of this instrument as early diagnosis and incision are essential in the treatment. All the cases the author has seen were cured easily without complications.

OBSTETRICS.

155. Tubal Pregnancy or Inflammation(?)

BOLDT (*Amer. Journ. Obstet.*, January, 1912) dwells on a typical doubtful case. A woman, aged 32, married three years, consulted him on account of pain in the left iliac fossa and irregular haemorrhages which appeared two weeks after the missing of a period. Colostrum was present in the breasts and the uterus was slightly enlarged and softened, whilst a distinct enlargement could be defined on its left side. As tubal gestation was suspected, no attempt was made to distinguish the ovary by palpation. Abdominal section was performed and the swelling proved to be an ovarian cyst as big as a walnut, the Fallopian tube being the seat of catarrhal salpingitis. Boldt, in reading his report of this case before a society, turned attention to the absence of pain when the vaginal portion of the cervix was moved forwards during palpation. He found that many patients bearing a tubal gestation sac complained of a pain referred to the lower part of the rectum when the cervix was handled in this manner, a pain which however, he added, sometimes came on spontaneously independent of medical explorations.

GYNAECOLOGY.

156. Intermenstrual Dysmenorrhoea.

DALCHÉ (*Journ. de méd. et de chir.*, January 10th, 1912. Art. 23481) says some women suffer during the intervalary period from pains exactly analogous to menstrual pains, a condition which has been described as intermenstrual dysmenorrhoea. According to Bouilly, ten or twelve days after the end of the menstrual flow there is pain on one side of the abdomen, cramps, uterine contractions accompanied by "whites," or even a pink or sanguineous discharge, or, again, true hydrorrhoeic flow, which sometimes amounts to flooding. Loss of blood, when present, lasts only a few hours, but the attack itself may last for days. The pain is generally unilateral and intermittent: it alternates from side to side and radiates into the groins: there is no fever. The same observer says that the condition occurs in women of about 30, generally nulliparous but desirous of maternity, and whose menstruation is regular and normal, but who have suffered in the past from some slight inflammation or a little ovarian trouble; and he accepts the idea of an intermenstrual congestion of the ovary provoking a false menstruation. Dalché, however, states that it is not only at the age of 30 that the symptoms are observed, but throughout the menstrual life, from puberty to menopause. The antecedent cause is often some constitutional disease, such as tubercle or syphilis: also paludism, ancestral alcoholism, chronic intoxications, and blenorrhagia in infancy, which has a disastrous effect on the development and functions of the utero-ovarian system. Sometimes intermenstrual dysmenorrhoea accompanies long and abundant menorrhagia, but in other cases pain is the most prominent symptom, and may exist alone without any leucorrhoeic or bloody discharge. The writer considers the trouble is ovarian in origin, though former observers attributed it to uterine tumefaction. The prognosis is bad, not from the point of view of danger to life, but because one can never be sure of relieving the pains or of definitely stopping the discharges. The diagnosis is relatively easy, and depends chiefly on the marked periodicity of the symptoms. The treatment consists primarily in improving the general condition, and one of the first indications is to cure the constipation which is usually present. All stimulants must be avoided, and the patient should spend much time lying down. The sedative and depletive mineral "cures" are very helpful. Tepid or hot sitz baths, made sedative by hyoscyamus or opium, should be given; also continuous current sitz baths. Sedative vaginal irrigations may also be used, or tampons of glycerine and ichthyol: but care must be taken to avoid lighting up the very painful utero-adnexial lesions, whether by too great pressure of the injection, or by the speculum, or even by the tampon. Radio-therapy and radium-therapy have also given good results. Internally hydrastis, hamamelis, or cannabis indica should be given between the attacks, but especially recourse should be had to mammary and thyroid gland treatment. During the attack give one or two injections daily of the following: Antipyrin 1 gram, laudanum 10 to 20 drops, warm distilled water 60 grams. If necessary give hypodermic injections of morphine. Try hot wet packs to the abdomen and all the known soothing ointments; in some cases good results have been obtained by the application of ice. Various operations have been proposed to cure intermenstrual dysmenorrhoea—for instance, scarification of the cervix: but this procedure has scarcely given better results than dilatation or incision. In America laparotomies and complete ovariotomies have even been performed: but that is a radical method which can only be thought of after all other treatments have failed.

THERAPEUTICS.

157. Syphilitic Reinfection and Reinduration after Salvarsan.

SCHUELLER (*Berl. klin. Woch.*, January 22nd) holds that the occurrence of syphilitic reinfection after treatment with salvarsan is proof of the superiority of this treatment over the older, symptomatic forms of treatment. Formerly the occurrence of reinfection was so rare that it was thought that a patient who had recovered from a first attack was immune to a second: now it is generally recognized that the patient's apparent immunity to a second infection is due to the activity of the first infection, which has not been completely checked by symptomatic treatment. Since the introduction of the combined treatment of syphilis with salvarsan and mercury, a number of cases have been reported in which reinfection occurred, and 2 cases are recorded by the writer, one being a case of reinfection, the other a case of reinduration. The first patient, aged 23, developed a hard sore, the size of a lentil, on the lower lip. Numerous spirochaetes were demonstrable, and there was considerable glandular swelling behind the jaw and in the neck and axilla. Treatment was begun twenty-eight days after the infection, five injections of salvarsan and four of calomel being given. The doses of salvarsan were 0.5 (intravenous), 0.6 (subcutaneous), 0.3, 0.3, 0.25 gram (intramuscular), and were given over a period of a month. At first the serum reaction was negative. After the second injection of salvarsan it was positive. A day later it was again negative, and it remained so for the following nine months. Eleven months after the first infection he became reinfected, and twenty-nine days later he had a typical primary sore, the size of a pea, on the prepuce. There were numerous spirochaetes, but no general glandular enlargement. The serum reaction was negative. Combined treatment with salvarsan and calomel was again adopted, five intravenous doses of the former being given in the course of a month. The serum reaction was negative at the beginning of the treatment, it was positive eleven days later, and afterwards it was consistently negative. It is usual for relapses after the abortive treatment with salvarsan to occur within five months, by which time (if a relapse has occurred) the serum reaction has become positive. The writer, therefore, concludes that the patient had recovered completely from his first infection at the time of reinfection. The fact that the serum reaction on both occasions followed a similar course also points to the condition on the second occasion being a reinfection and not a relapse. Experience has also shown that in nearly all cases of relapse after treatment with salvarsan the reaction remains positive for a much longer time than in this case, which shows how the early and energetic treatment of syphilis may cure it rapidly. It also confirms Neisser's view that there is no immunity to a second attack when the patient has recovered from the first. The second patient, aged 21, was infected on June 17th, 1911. On June 26th there was a primary sore on the inner surface of the prepuce near the coronary sulcus. Spirochaetes were found, but the serum reaction was negative. Treatment with salvarsan and calomel was begun twelve days after infection, but the salvarsan was not pushed as it caused malaise, anorexia, and slight albuminuria. Three intravenous injections of salvarsan were given, after which the serum reaction was still positive. On September 4th it was negative. On October 7th the patient was again exposed to infection, and on October 11th he presented a hard sore, the size of a pfennig, occupying the position of the first sore. There were numerous spirochaetes and some swelling of the inguinal glands, but no general glandular swelling. The combined treatment with salvarsan and calomel was repeated, six intravenous injections of salvarsan, ranging from 0.4 to 0.45 gram, being given in the course of a month. The serum reaction was at first negative; it was slightly positive for one day, and at the close of the treatment it was again negative. Evidently in this case the cessation of the treatment for two and a half months enabled the latent spirochaetes in the primary sore to develop afresh. The serum reaction on both occasions followed the same course. It therefore seems that the early treatment on the first occasion, although it was not pushed, prevented the generalization of the infection for two and a half months, but that it failed to kill the germs in the primary sore. Reinduration (chancre redux), therefore, became possible on irritation of the scar of the original sore. The case is not one of superinfection, for there was no evidence of generalized syphilis. Further, the sore on both occasions occupied the same position, but on the second occasion it reached its considerable dimensions in a few days. The absence of general glandular swelling after the first occasion, and the limitation of the glandular swelling to the inguinal region on the development of the second chancre, also point to the correctness of the writer's view.

158. Hormonal.

QUADRONE (*Gazz. degli Osped.*, October 17th, 1911) gives his experience with hormonal in 30 cases (25 chronic constipation, 2 intestinal atony, 3 cases of paralytic ileus). Hormonal is a preparation of antiperistaltic hormone prepared from the spleen, in which organ this particular hormone is found in considerable quantity. The substance is prepared by Zuelzer, and put up in phials of two

qualities—for endomuscular or endovenous use. The dose is from 10 to 30 c.cm., and the author gives details as to the technique. His conclusions are distinctly favourable to the use of the preparation in cases of chronic constipation due to inefficient peristalsis (14 cases out of 21). In slight cases 15 to 20 c.cm., subcutaneously injected, are sufficient; in more obstinate cases it is better to use endovenous injections of 20 to 30 c.cm. No anaphylactic complications have followed subsequent injections. Not every case of intestinal atony derives benefit, and at present it is not possible to say what class of case is most likely to benefit thereby or how long the good effect will last; in two-thirds of the author's cases the effect lasted for four months. Some cases of spastic constipation or of atony associated with fermentative changes were considerably improved. And in two cases of paralytic ileus (one a reflex effect of calculus and the other post-infective) very striking results followed, inducing copious discharge of flatus, and of faeces later, and disappearance of marked meteorism. Hormonal should not be used in intestinal obstruction, ulceration, appendicitis, or intussusception. Secondary fever and local tenderness may appear after injection, but these phenomena rapidly disappear. No special inconveniences followed the endovenous method.

159. Radium in Lupus Vulgaris.

A CASE of lupus vulgaris of more than thirty years' standing which has cleared up under radium treatment is cited by Madame Fabre (*Arch. d'électr. méd.*, January 25th, 1912). At the time of commencing treatment the whole of one cheek was strewn with ulcerated points from which a seropurulent fluid exuded. Various forms of medical treatment had already been tried without result, and a series of *x*-ray sittings had been equally unsatisfactory. During the first months of radium treatment, the radium, in an apparatus containing 6 cg. (activity 500,000), and screened by lead having a thickness of $\frac{4}{10}$ mm., together with a layer of caoutchouc and four layers of tarlatan, was applied three times a week and was allowed to remain for a quarter of an hour on each focus. At the end of a month or three weeks a certain period was passed without sittings—a period of three weeks at first, and one of ten days in the later stages of the cure. By such means the general redness quickly diminished and the lupus nodules were flattened. Six months after the first radium application the cure was complete and without cicatrix. The affected cheek was, indeed, slightly more red than the other, but its appearance was almost normal. The suppuration had disappeared after the first two months of treatment. Although the patient was one who had badly supported the *x* rays, which had provoked swelling, with pain and a sensation of heat, the radium caused no particular irritation. The patient was 48 years of age, and the lupus patch first made its appearance at the age of 16 years.

160. Treatment of Small-pox.

CRIADO Y AGUILAR (*Revista de Medicina y Cirugía Practicas*, June 21st, July 7th, 14th, and 21st, 1911) communicates to the Real Academia de Medicina de Madrid a long paper on this subject. Up to the present time no specific or abortive treatment of small-pox is known. The hope expressed by Ehrlich at the Congress in Königsberg last year seems to have been disappointed. The author quotes a case treated by Marañon of Madrid, by intravenous injection of salvarsan, in which absolutely none of the symptoms of the infection were modified. The small-pox followed its usual course: it was confluent and very severe; there was a very high temperature and much suppuration. In the opinion of Criado y Aguilar, the infection of small-pox has run its course and reached its final stage in the formation of the vesicle. He regards the fall of temperature which occurs at this stage as an indication of the exhaustion of the toxicity of the microbes, and the triumph of the organism over them. The further stage of suppuration he looks upon as a superadded phenomenon, and the secondary rise of temperature which accompanies it as not due to the specific toxins of small-pox, but as caused by absorption of poisons produced by extensive and acute formation and decomposition of pus. The greatest dangers and complications of small-pox, he says, are connected with this pus formation, and on the basis of this theory he suggests a new line of treatment. When the vesicles are fully formed, and as the contents begin to grow turbid, he removes with a pair of fine curved scissors the apex and as much of the epidermis which forms the roof of the vesicle as possible. With a small pad of wool moistened with a solution of mercury perchloride 1 in 1,000 he rubs over the base of the vesicle and around it. This treatment is especially useful in the face and exposed parts, where the eruption is usually thickest, as it minimizes scarring. The bases of the vesicles or pustules rapidly dry up and heal with very little more formation of pus after being thus opened and disinfected. He regards it as important to so freely remove the epidermal covering of the vesicle that it cannot refill. When the eruption is confluent and extensive he substitutes a saturated solution of boric acid for the mercury perchloride, to avoid possible symptoms of mercurial absorption. It is also in such confluent cases necessary to perform the little operation in several sittings—the face, say, on one occasion, and after some hours, or on the next day, the rest of the body, according to the extent of the eruption. It is claimed for this treatment that it causes very little pain or local reaction, that a secondary rise of temperature does not take place, that scarring is minimized, and that most of the complications and sequelae of the disease are rendered much less frequent and severe. Lastly, the spread of the infection is limited.

PATHOLOGY.

161. Blood Modifications in X-ray Workers.

A FEW months ago certain German authors, having examined the blood of a number of professional radiologists, discovered some characteristic modifications. These pointed to a condition of mononucleosis, or an excess of the mononuclear elements, together with a diminution of the eosinophiles. Aubertin (*Arch. d'électr. méd.*, February 25th, 1912) states that in some similar investigations of his own the mononucleosis was apparent or comparative and that the actual condition was a diminution of the neutrophile polynuclear elements. He finds also that the condition of polynucleosis with eosinophilia is at least as frequent as the other, and that in all cases, of both classes, there was a clear increase in the oxyphile elements instead of a diminution, as the German workers had stated. Aubertin's work is based upon the haematological examination of 16 of his confrères, 6 of whom showed a diminution of the polynuclears and the remaining 10 light polynucleosis and eosinophilia. The blood examination was made before breakfast or dinner, so as to avoid digestive leucocytosis, and generally it took place after a period of work in the laboratory. None of the subjects presented any acute infection capable of giving rise to leucocytosis. A typical example of hypopolynucleosis; and leucopenia occurred in a patient who had worked with the *x* rays for eleven years. The red cells were 4,200,000. Four examinations of the leucocytes made under exactly the same conditions gave the following result:

	Jan. 15.	Jan. 30.	Feb. 1.	Feb. 5.	Normal Mean.
Leucocytes	4,800	8,400	4,200	3,600	7,000
	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.
Polynuclears	45.5	59.5	49	46	65
Mononuclears ...	39.5	31.5	32.5	44.5	
Lymphocytes	6.5	4.5	8.5	5	34
Large mononuclears	6	3	6.5	2	
Eosinophiles	2.5	1.5	3.5	2.5	1

A reference to the absolute figures showed that the mononucleosis which appeared at three out of four of these examinations was only apparent, in view of the notable lowering of the total figure of the white cells on those occasions. The number of mononuclears per cubic millimetre undergoes little change. It is the polynuclear elements which show the great variation from the normal. The author cites 5 other similar cases, together with 10 cases in which there was a slight degree of polynucleosis accompanied by eosinophilia. To these cases he applies the formula "subnormal," because they are modifications which occur in subjects to all appearance sound. The diminution in the polynuclears in the first series of cases, he thinks, ought gravely to be taken into account, because it is especially by the polynuclears that the organism fights against infection. There appears to be no doubt that these blood modifications are due to feeble doses of penetrating rays, received daily, perhaps over a space of years, by professional radiologists.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

162. Thrombosis of Mesenteric Veins.

OTTO KANIS (*Wien. klin. Rundschau*, Nos. 48 and 49, 1911) discusses the diagnosis of cases of thrombosis of the mesenteric veins in connexion with a case which he describes, and which was due to infection from the intestine. He points out the rarity of cases of mesenteric venous thrombosis as compared with arterial thrombosis. The patient was a man aged 18. The history given was that fourteen days before admission to the clinic the patient had been suddenly attacked by diarrhoea, and eight days later by colic-like pain, which had increased in severity. There had been no vomiting and no fever. On examination the abdomen was moderately distended and slightly tender; there was no visible peristalsis. Pulse was 110, temperature 38° C. (100.4° F.). When seen next morning the patient was in severe pain, and during the attack the abdominal wall was somewhat markedly tense. The diagnosis was of peritonitis, and possibly thrombosis of the portal vein or mesenteric vessels. At the operation certain of the coils of intestine were a dark bluish-red in colour, and the veins in the mesentery were found to be thrombosed, the arteries being patent. About 1 m. (3 ft. 3 in.) of intestine with the mesentery was resected, so that the excision extended into sound tissue. The two ends of the intestine were brought into the abdominal wound to form a faecal fistula. The patient died on the same day. At the *post-mortem* examination there was found to be thrombosis of the portal, suprarenal, renal, splenic and left internal spermatic veins and of the prostatic plexus; a splenic infarct was also present. In the ductus choledochus was a small, sharply rounded catarrhal ulcer. The clinical diagnosis clearly offered great difficulties, and, indeed, the author has only found in the literature accounts of two cases diagnosed correctly during life. Kussmaul and Gerhard have suggested the following five points as diagnostic: (1) The existence of a source of embolism either in the left heart, the aorta, or the pulmonary veins; (2) the occurrence of severe, unexplained haemorrhage from the intestine; (3) rapid and considerable fall in temperature; (4) abdominal pain, which may be colicky and very severe; (5) tension of the abdominal walls and tympanitic distension of the abdomen, with demonstrable exudate in the abdominal cavity. Recent work on the subject, especially that of Deckart, has shown, however, that the cause may be quite different and many of the typical symptoms be absent. The cases of thrombosis or embolism of the mesenteric vessels can, according to the author, be divided into two groups, one acute the other chronic. The majority of the cases belong to the first group, and many authors are inclined to put cases of embolism of the arteries into the first group and those of thrombosis of the veins into the second. The symptoms in the author's case were more of the acute type, but the diagnosis was one of peculiar difficulty because of lack of distinctive signs or symptoms. The special interest of this case, as seen *post mortem*, lay in the fact that the thrombosis was a descending one due to a bacterial infection. The ulcer in the ductus choledochus, due in the first place to a severe gastric and duodenal catarrh, had led to a spread of inflammation through the wall of the duct and of the portal vein, causing thrombosis of the vein, and from this to haemorrhagic infarction of the small intestine and the mesentery. The author has found no other similar case described in the literature. Another point of interest is that the wide resection did not prevent the spread of the thrombosis. The prognosis in acute cases, though very serious, is not, according to Neutra, absolutely hopeless if a chronic process develops and helps towards the formation of a collateral circulation. Kolbing reports on 8 cases of spontaneous recovery out of 58; Deckart reports 6 cases of spontaneous recovery. The mortality figure for cases treated by operation is high. Sprengel reports 3 recoveries in 14 cases, Kolbing 2 in 11, Lindner 3 in 11, Brunner 2 in 26.

163. Painful Brachial Paralysis in Infants.

E. DURLACH (*Berl. klin. Woch.*, November 20th, 1911) reports three cases illustrating the difficulties of diagnosis and treatment of a condition vaguely termed "derangement interne." The patient, who is commonly 2 to 3 years old, suddenly loses the use of one arm, which is limp and motionless. The parents either cannot account for this condition at all or give as a cause some slight and apparently trivial incident. On examination no fracture can be discovered in the arm, the movements of which are perfectly free, with the exception of some restriction of supination. The present pandemic nature of acute anterior poliomyelitis renders its confusion with the above condition most easy, and their differential diagnosis requires an intimate knowledge of the vagaries of derangement interne. In the writer's first case the diagnosis and treatment were easy, for the child's paralysis ceased to exist as soon as it was told to move its arm about freely. The second case presented greater difficulties, and after the affected arm had been simultaneously oversupinated and extended and then flexed at the elbow-joint, it still remained limp. The paralysis was, however, cured by making the child move both its arms while its attention was distracted by various remarks. The diagnosis and treatment were still more difficult in the third case. No fracture or dislocation could be found, but the arm was as limp as ever after it had been manipulated as in the second case. When the healthy arm was held and the child was told to seize an object extended to it, slight movement was detected in its fellow, sufficient to betray the functional nature of the paralysis. The child was sent home with its healthy arm immobilized. In a few hours its fellow was freely used and it remained normal for eleven days, after which the paralysis recurred. The usual manipulation was resorted to, but without effect. The mother was then sent out of the room, when the paralysis was so far cured that the child supported its body for a short time with its paralysed arm when forced to do so. It was also led up and down the room by the paralysed arm, the grip of which was observed to be strongest when the attention was distracted by sudden movements, such as turning in the room. The paralysis returned as soon as the mother re-entered the room. Mother and child were dismissed, the former being instructed to ignore the latter's complaints. These tactics were evidently successful, as nothing more was heard of the paralysis. Discussing the etiology of this condition, the writer inclines to the view that it is psychic, and that the slight injury which sometimes precedes the paralysis is insufficient to cause an anatomical lesion. On the other hand, the slight crepitation which is often detected during manipulation, and which the writer observed in his second and third cases, rather suggests an organic lesion. The above two views may be brought into line by supposing that an articular cartilage has actually been displaced; that it is replaced by manipulation; that in children whose mental and muscular development are healthy the functions of the arm are at once restored, while in spoilt children with flabby musculature the impression still remains that the arm is paralysed after manipulation, and they will not, rather than cannot, use it again. At all events splinting of the paralysed arm is bad practice, for it may leave an irrevocable impression of paralysis on the child's mind, whereas immobilization of the healthy arm is a useful stimulus to renewed use of its fellow.

164. Diabetic Coma.

MARCEL LABBÉ (*Arch. gén. de méd.*, December, 1911) read a paper on the clinical and therapeutic aspects of diabetic coma before the Medical Congress at Lyon, in which he pointed out that the condition is due to acid intoxication, and may be prevented if the acidosis is recognized. This may be accomplished by observing the chemical and clinical signs, of which the former are by far the more reliable, and consist in changes in the urine and the blood. The urine shows an increased acidity, a resistance to alkalinization by the ingestion of alkalis, a quantity of β-oxybutyric acid varying from a few grams up to 30, and the presence of diacetic acid; the last is an absolute indication of the danger of coma, but the presence of acetone is not. The blood shows diminished alkalinity and lipaemia. The treatment consists in combating the acid intoxication by saturating the organism with alkalis, particularly sodium bicarbonate, which may be introduced by ingestion, lavage, or intravenous injections. The dosage and method of administration vary with the conditions. In latent acidosis without clinical symptoms, 10 to 20 grams by the mouth per diem are sufficient, but when it is accompanied by

such symptoms as somnolence, vertigo, and lassitude, at least 40 grams per diem must be given, and if coma threatens the dose must be raised to 100 grams, being gradually diminished as symptoms disappear. Rectal injections are preferable to ingestion, but they often give rise to diarrhoea and tenesmus. The treatment must be continued till the urine has become alkaline. Intravenous injections are indicated in cases of slight acidosis which do not yield to treatment by the mouth, and according to Lépine in the cases which, though showing no premonitory signs of coma, have not improved under dietetic and drug treatment. In cases of serious acidosis with threatening coma, intravenous injections are the method of choice, and when coma has appeared they are indispensable. For the injections Labbé uses a 3 to 5 per cent. solution in distilled water, of which the dose is from 1 to 2 litres; the injections must be made slowly, and the temperature of the solution must not exceed 38° C. The cures by this method when coma has set in are still few, but the author and Carrié have reported one in which the patient, who had sunk into unconsciousness, received an injection of 15 grams of bicarbonate, and was sufficiently restored to take 60 grams by the mouth. For five consecutive days she was given injections, and she was then so much better that the injections were stopped, and the treatment was continued only by the mouth. Two days later the coma returned; she was then given an intravenous injection of 30 grams, repeated the next day, and after a month's alkaline treatment by the mouth she was completely cured. As a substitute for the bicarbonate, sodium citrate is sometimes used; it may be given alone or mixed with equal parts of sodium bicarbonate. The effects of the alkaline treatment on the urine are: A diminution of acidity; a diminution in the ammonium urate; an increase in the excretion of acetonic bodies, especially β-oxybutyric acid; no diminution, but sometimes an increase, in the reaction of Gerhardt (perchloride of iron test); no influence on the glycosuria. Besides alkaline treatment other medicaments may be used in diabetic coma. Eppinger has proposed subcutaneous injections of urea or of amine salts to furnish the ammoniac necessary for the saturation of β-oxybutyric acid. Glutaric acid, gluconic acid, glycerine (5 gram doses), and xylose have all been proved to have an antiacetogenic action in diabetics, and have been recommended by different authorities.

SURGERY.

165. Recto-sigmoidoscopy.

LUDING V. ALDOR (*Wien. med. Klin.*, No. 3, 1912) deals with the technique and indications of recto-sigmoidoscopy and endoscopic treatment. Kelly's preference for a cylindrically-shaped instrument and for the knee-elbow position on the part of the patient are now almost universally accepted: the knee-elbow position causes spontaneous pneumatic opening-up of the passage as opposed to mechanical dilatation. The recto-sigmoidoscope recommended by the author is meant for use in the knee-elbow position. It is 33 cm. (13.2 in.) in length when in full use, and consists of an obturator and of three tubes which fit one into the other, a later tube being pushed into the one already in position when more length is required; the light can be attached to the end of any of the tubes. Both rectoscopy and sigmoidoscopy can be performed with the same instrument without any repetition of the carrying in of the obturator. This instrument is produced by the Berlin medizinische Warenhaus, under the name of a "rectoromanoscope." The author finds that, as a rule, the intestine can be sufficiently cleansed at the time by the use of wool pads soaked in oil, without the need of special preparation beforehand; but if this is not possible, irrigation is carried out eight to ten hours before the next examination. A preliminary anaesthetization of the rectum is unnecessary. The resistance of the external sphincter is tested in a preliminary digital examination. If the sphincter is slack hardly any pressure is necessary; if it is tightly contracted the pressure should be only gradually increased to meet it. When the tube has been once carried 3 cm. (1.2 in.) from the anus into the rectum, the obturator should be taken away, and the further passage of the endoscope carried out under the guidance of the eye. The left hand holds the tube so securely that its position and direction are under control. Unnecessary force is to be avoided, and the tube should only be pushed on further when a free passage at least 1 cm. (0.4 in.) in length can be seen. If a narrowed part of the intestine is reached and there is any suspicion that the narrowing is organic in nature, no effort should be made to pass it. The use of the endoscope for purposes of diagnosis is held by the author to be indicated in all intestinal diseases in which the diagnosis cannot be made out with certainty by ordinary methods. Thus a carcinoma or polypus, situated more than 10 cm. (4 in.) above the anus is altogether inaccessible by digital examination, but by the help of the endoscope, not only does the lesion become visible, but it becomes accessible also for a test excision, so that the pathological changes can be examined. In colitis, also, intestinal endoscopy permits of location of the disease and examination of the anatomical condition. Cases of carcinoma can be diagnosed at an earlier stage by the help of endoscopy. Moreover, the wider use of the endoscope has made a more thorough study of the rectum more usual. Thus many patients thought to be suffering from haemorrhoids only will be found to have what is now recognized as a common disease, a chronic haemorrhagic form of proctitis. Inflammatory disease limited to the sigmoid flexure has also been found to be much more common than was previously supposed, and to have peculiarities due to the site. A case is described of a severe sigmoiditis and perisigmoiditis developing from a sigmoidal constipation and needing division of the sigmoid adhesions by an abdominal operation. The greatest value of the proceeding is, however, undoubtedly in the diagnosis of carcinoma of the sigmoid flexure. A case described illustrates the necessity of making an endoscopic examination in any case of constipation coming on in adult life.

166. Salvarsan in Cancer of Tongue.

BODIN (*Prov. méd.*, February 17th, 1912) has observed a remarkable effect in an advanced case of cancer of the tongue treated with salvarsan. The patient suffered from ulcerous lesions of sanious aspect, which had invaded the left border of the tongue and part of the soft palate, giving rise to an extremely fetid secretion and much pain. Though the clinical signs were scarcely open to doubt, the existence of a previous syphilis suggested to Bodin the trial of an injection of salvarsan. An injection of 0.50 gram was made into the muscles of the buttock, with the result that in from thirty-six to forty-eight hours the pain had disappeared, the ulcers had become clean, and above all the secretions and their horrible fetor had almost entirely disappeared. In a fortnight the improvement ceased, and the patient began to go back to his former condition. Although the epithelial nature of the lesions had meanwhile been demonstrated microscopically, two further injections of salvarsan were given, the one a month and a half after the first and the last ten days after the second. The same favourable results were noted as before, and there was also a temporary improvement in the strength and general condition. Death followed five weeks later from cancerous cachexia, but without the return of the pains and the abominable odour. Bodin considers that the good effects in this case are to be attributed to antispirillary action of arseno-benzol, for it is well known that spirillary infections play an important part in fetid and painful buccal ulcerations.

167. Ossifications Due to Injury.

VEDORA (*Archiv. di Ortoped.*, An. 28, No. 6) concludes his study of the above subject (with especial reference to ossifications consequent on backward dislocation of the elbow), and draws the following lessons from his study. Posterior dislocation of the elbow is frequently followed by the formation of bony growths in the adjoining tissues and para-osteal or para-articular organs. Some of these growths are directly due to injury of the periosteum; others may be looked upon as a traumatic myositis. The usual course of such ossifications is, first, a period of growth, and then a slow and more or less complete involution. A knowledge of the comparative frequency of these new bony growths ought to influence one's prognosis in this injury of the elbow. Possibly other joints suffer in the same way as the elbow after injury, and it might be well to examine whether this is so or not. It is difficult to suggest any treatment which would effectually prevent the occurrence of these ossifications, but when once established the less that is done to them the better, except in very special cases. Even massage or passive movements are contraindicated in the presence of these growths.

168. Transverse Fractures of the Astragalus.

SCHERRER AND LATOUR (*Echo méd. du Nord*, 1911, I.) describe a case of this fracture and find that the astragalus is broken in the line of least resistance, marked on its inferior surface by the groove on this surface, that the most favourable mechanism for producing this fracture is flexion of

the anterior extremity on its internal surface, the posterior remaining fixed. The displacement of the foot observed after the accident is well explained by this mechanism.

OBSTETRICS.

169. Recovery from Acute Yellow Atrophy of Pregnancy.

PASTIKA (*Monats. f. Geb. u. Gyn.*, December, 1911) reports a case of acute yellow atrophy developed in a woman aged 24. She was admitted into a lying-in hospital in St. Petersburg when in the eighth month of her third pregnancy. She was unconscious when admitted on account of floodings. Acute jaundice had appeared a week earlier, and for about twenty-four hours there was disordered vision with mental disturbance. Delivery was effected by dilating bags and turning. The temperature was normal, the pulse did not rise over 90. The area of hepatic dullness could not be defined "owing to tympanites." On the sixth day after delivery consciousness began to return. The hepatic area was percussible and markedly diminished, but on the twelfth day it was found to be much wider. The jaundice did not disappear for a month. When the patient was examined seven months after recovery the area of hepatic dullness was normal. No mention is made of the condition of the urine, and in the discussion which followed the reading of this case at a society much doubt was expressed as to diagnosis. The real malady was probably Weil's acute jaundice; yet no mention of an epidemic was made, and fever was absent.

170. Post-puerperal Neuritis.

DÉJERINE (*Journ. des prat.*, 1911, xxv) narrates a case of a woman aged 42, in whom there existed, a month after a puerperal infection, atrophy of the legs, with marked equinus and a cyanotic appearance. Right deviation was well marked in the right leg, and in the left a diminution of faradic and galvanic excitability. Sensation was much diminished. The nerve trunks and muscles were painful on pressure. In addition, there were amnesia and mental confusion, as have been observed in other cases. The prognosis in these cases is generally favourable. The treatment consists in soothing the pains by antipyrin, and when these are allayed massage, and above all movement, to prevent contractures, and electricity.

GYNAECOLOGY.

171. Sigmoid Flexure and Disease of the Genital Organs.

ARTHUR FOGES (*Wien. med. Klin.*, No. 47, 1911) deals with the connexion between diseases of the genital organs and of the sigmoid flexure. A part of the sigmoid flexure has been shown to descend into the small pelvis, and must have many points of contact with the genital organs. In constipated women, pressure of the loaded sigmoid may well cause displacement of the uterus and ovaries, and, on the other hand, a retroflexed uterus, by interfering with the emptying of the sigmoid flexure, may give rise to constipation, and so eventually to the formation of a vicious circle. Non-inflammatory adhesions about the sigmoid flexure may often give rise to symptoms which are mistaken for disease of the genital organs, as, for instance, perimetritis or perisalpingitis, and such cases have frequently come to operation. Division of these non-inflammatory adhesions will often bring about complete and permanent recovery from the symptoms. A case is described in which adhesions between a normal tube and peritoneum and the sigmoid flexure led to the production of an intermittent volvulus and simulated salpingo-oöphoritis. Recently, attention has been directed to the occurrence of acute and chronic sigmoiditis, which is often wrongly diagnosed. Edlefsen has observed cases of acute sigmoiditis in women in the first days of the puerperium in which parametritis was very closely simulated. In chronic sigmoiditis a tumour, tender on pressure and almost immovable, is often felt in the left iliac fossa extending into pelvis. Here the intestinal symptoms have repeatedly been considered to be secondary and disease of the adnexa or connective tissue of the pelvis as the primary condition. Proctoscopy often makes clear the diagnosis. Severe inflammation of the flexure with perisigmoiditis may lead to secondary disease of the adnexa and uterus, but it is much more frequent for disease of the adnexa, especially gonorrhoea, or for parametritis, to cause adhesions of the flexure, and symptoms which may even simulate stenosis of the intestine. Occasionally a pyosalpinx may perforate into the flexure, and here proctoscopy may clear up the diagnosis. Post-operative adhesions involving the flexure may remain after operation for pyosalpinx, and in one case under the author's care endoscopic examination showed that invagination had taken place about 25 cm. (10 in.) above the sphincter, where the flexure was fixed as a result of an old inflammatory exudate. In the case of tumour in the left iliac fossa, it may be a matter of much importance to be able to decide upon the starting point of the disease. Thus, in one of the author's cases the discovery on the anterior intestinal wall at a height of 13 cm. (5¼ in.) of an ulcerated surface in whose neighbourhood the mucous membrane was fixed by scar tissue, enabled a correct diagnosis of malignant growth of the intestine to be made in opposition to the previous diagnosis of ovarian tumour.

THERAPEUTICS.

172. Salvarsan in Congenital Syphilis.

WELDE (*Jahrb. für Kinderheilkunde*, 1912, lxxv) reports on the treatment of 28 cases of congenital syphilis with salvarsan. Subcutaneous and intramuscular injections were given in the earlier cases, but, on account of the painful infiltrations they gave rise to, intravenous injections were tried, not always successfully. The dose given was usually 0.1 gram, and in some cases two or three injections were given. The cases were of various degrees of severity, and included five older children with keratitis, gumma, etc. The general condition improved, and lesions of the skin and mucous membrane healed rapidly, but there was less effect on visceral and glandular affections. The Wassermann reaction only became negative in one case, but then positive again. A case of interstitial keratitis was improved after two subcutaneous injections of 0.15 and 0.1 gram. No bad effects were noted, and no deaths were attributed to the drug, although five children died a few weeks after the injection from intercurrent affections. The author concludes that good results were obtained, but not better than can be got by mercurial and iodide treatment.

173. Treatment of Acute Articular Rheumatism.

LEMOINE (*Gaz. des prat.*, 1912, xix) believes that inflammation of the throat is one of the earliest symptoms of rheumatism, and recommends a gargle of 20 grams of sodium salicylate in 1,000 grams of distilled water. The author believes this drug is the best remedy in rheumatism, and gives it in cachets (sodium salicylate 0.60 gram, sodium bicarbonate 0.40 gram), or sodium salicylate 10 grams, syrup of currants 80 grams, distilled water 70 grams. This should be given in divided doses day and night, endeavouring to administer from 6 to 8 grams in twenty-four hours in the adult. In children 1 gram per diem if the child is 2 years or less, and 2 grams if 4 or 5. If the drug is not well borne in such large doses, these must be decreased to 5, 4, or 3 grams until tolerance is produced. It should not be given if nephritis with the presence of casts in the urine exists, but if the albuminuria is slight and there are no casts it may be given with caution. If the myocardium is affected, and the pulse irregular, care must be taken not to depress the heart further, but if the endocardium or pericardium are implicated, the salicylate may be given, but it must be withdrawn in cases associated with delirium and other signs of cerebral excitement; in pregnancy it must be given with caution. Aspirin is less efficacious than the salicylates, and should be given in divided doses up to 1 to 3 grams per day, according to age; pyramidon (0.50 to 1.50 gram) also has its uses. If these remedies in succession do not produce an amelioration, they can be combined with advantage—sodium salicylate 0.25, aspirin 0.15, pyramidon 0.15. Painful swollen joints are best enveloped with methyl salicylate, or preferably mesotane—vaseline 20 grams, lanoline 20 grams, mesotane 5 grams. If the heart is flagging—and this organ should be examined every day—digitalis, digitalin, or infusion of the leaves should be given: or *Adonis vernalis* (4 grams of the leaves in 500 grams of water). In cases complicated with nephritis cupping of the loins, milk diet, and laxatives are indicated. In cases of cerebral rheumatism warm baths (37°) every three hours, and cold to the head are essential, and potassium bromide or ammonia but not opium or chloral. In cases of pleurisy a mustard plaster and cupping, or, if the pain is bad, a hypodermic injection of morphine are in place. Patients who have suffered from one attack, being

most liable to a second, should be protected as far as possible from all causes—as cold, damp, overwork, etc.—which tend to produce the disease.

174. Creosote.

Robin (*Journ. des praticiens*, November 4th, 1911) discusses the method of administration of creosote, and advises that it be given per rectum instead of by the mouth or subcutaneously. Taken by the mouth it begins often enough by increasing appetite and moderating gastric fermentation; but these effects are of short duration, and very soon the state of gastric hypersthenia so common in phthisical patients is aggravated. The subcutaneous method again, even apart from certain risks, is useless for the very small doses of the drug which are required. Neither does the author recommend large and increasing doses by way of finding out the maximum of toleration. This need by no means represent the maximum of utility. Such doses may be tolerated by some people, but in many they are followed by chills, profuse sweats, and coloration of the urine. The kidneys are often seriously affected. Even when given in the small doses recommended by the author, the drug ought not to be given for more than ten days together with a corresponding interval. The drug is given each morning after the rectum has been emptied, in the form of an emulsion, the dose being 0.50 of a gram. The author admits that this method has been criticized on the one hand as causing irritation and tenesmus, and again on the ground that the drug is not absorbed in this way, but from his own results he has seen no reason to alter his opinion of its merits. The phosphate of creosote may be used in the case of very sensitive individuals.

175. Embarin.

Heinrich Loeb (*Wien. med. Klin.*, No. 48, 1911) describes his experience of embarin, a new compound of mercury. Embarin is a solution of sodium mercuric-salicyl.-sulphuric acid, and also contains ½ per cent. acoin; 1 c.cm. of embarin contains 0.03 gram of mercury. The mercury is not in the form of a salt, and the solutions do not give the ordinary mercury reactions. Von Hayek, working in the Physiological Institute of the University at Innsbruck, found the toxic action of the preparation weaker than that of the ordinary mercury solution. Dogs and rabbits could bear a dose of embarin twice as big as the fatal dose of other soluble mercury solutions, and the tendency of the drug to cause injury to the tissues at the site of injection was a minimum. The author has made use of the preparation since July, 1908, with increasing frequency. Apart from cases of idiosyncrasy it never gave rise to unpleasant side-effects. In no case were there signs of irritation at the site of injection. The pain of an injection was insignificant. As a rule the injections were made subcutaneously in the gluteal region or back. The initial dose was 1.2 c.cm., given once or twice a day. The average number of injections was fifteen, but twenty were given without injury. The drug was well borne by pregnant patients. Stomatitis seldom developed, and was of mild grade. Albuminuria or other signs of irritation of the kidney never resulted, nor did signs of gastro-intestinal irritation. The specific effect was as a rule good. Cases which had proved resistant to other treatment recovered under embarin, but other cases reacted less well and needed further treatment. A positive Wassermann reaction was repeatedly after sixteen injections found negative. One case of idiosyncrasy against embarin was noted in which later injections of sublimate and of hydr. salicylum caused no inconvenience. The author suggests that this may in reality have been a case of intolerance of acoin. One other patient after six injections had rise of temperature, swelling of the glands of the neck, and symptoms of neuritis, which disappeared on the discontinuance of the drug. These were the only instances of intolerance of embarin out of nearly 100 cases. Graff in Mannheim systematically examined the urine in two cases treated with embarin; he found that the output of mercury in the urine was large at first, became constant after a few days, and fell quickly to a relative minimum when the injections were ended. Mercury was also excreted in the faeces, saliva, and expired air, and the investigations showed that the mercury taken in was for the most part quickly expelled without giving rise to toxic symptoms. Embarin can be combined with Hg salicylate, calomel, or ol. ciner. For some time the author has combined embarin treatment with salvarsan treatment, and believes that in this way a speedier and more certain result is obtained. The effect was very marked in the abortive treatment of cases in the first stage. In cases treated by excision of the primary lesion and combined treatment by salvarsan and embarin the patients remained fully free from symptoms and the reaction always negative, the times of observation varying from two to nine months in the different cases. The author believes that embarin will be found useful for the practical doctor. After an experimental half dose has first been given, the full dose of 1.2 c.cm. is given daily in the first week and later every other day until fifteen have been given.

176. D'Arsonvalization in Hypertension and Arterio-sclerosis.

W. B. Snow (*Med. Record*, December 16th, 1911) defines d'Arsonvalization as the use of certain apparatus devised by d'Arsonval, consisting of solenoids or wire spirals, connected with the outer coats of two condensers, the inner coats of which are connected with a source of electrical energy of high voltage. There are two methods, autocondensation and autoconduction. The author describes the apparatus necessary for both methods of administration. He has employed the d'Arsonval current in a large number of cases; acting on the muscular coat of the arteries, it promptly causes a fall of blood pressure of from 10 to 70 mm., except in the most advanced cases of arterio-sclerosis. In aged persons in whom there is no effect on the sclerosed vessels there is a favourable effect due to changes in the general metabolism. In other cardiovascular conditions relief is given to a labouring heart. The author classifies cases of arterio-sclerosis as follows: (1) Cases in the aged in which the arteries do not relax, but in which benefit results from improvement in metabolism. (2) Cases of failing compensation in old and weak subjects, in which relief is given by this treatment. (3) Cases of advanced arterio-sclerosis with cardiac hypertrophy, in which the blood pressure may be reduced from 250 to 150 in from six weeks to two months. (4) Cases of advanced arterio-sclerosis in mature adults. (5) Cases of hypertension in early life, between the ages of 25 and 45 years, in which hypertension is the forerunner of arterio-sclerosis, and which are relieved by this treatment. (6) Cases of hypertension in athletes who have developed hypertension and hypertrophy. (7) Cases of compensatory hypertrophy. The author presents the histories of 6 cases. He believes that d'Arsonvalization is the most practical method of reducing hypertension, producing no depression of the heart and being contraindicated only in cases of compensatory hypertrophy. Systematic routine treatment delays arterio-sclerosis.

PATHOLOGY.

177. Leucopenia and Typhoid Carriers.

Ernst Leydhecker (*Wien. klin. Rundschau*, Nos. 25, 26 and 27, 1911) has made investigations with a view to discovering whether the condition of leucopenia which can be demonstrated with comparative certainty and ease in the blood in typhoid fever is also present in the blood of typhoid carriers. The question occurred to him in connexion with the case of a typhoid carrier under his observation in Strassburg; in this case the number of leucocytes in the course of repeated blood counts was never found to be above 5,000, and was often below, in spite of the presence of tuberculous peritonitis, fever, and symptoms of gall stones—all conditions likely to cause increase in the number of leucocytes. There are few cases in the literature bearing upon the point. Naegeli comments on the tardiness with which the number of neutrophiles comes back to normal after typhoid, and Tumas finds that leucopenia is very slow to disappear. The present author has had the opportunity of performing repeated blood counts on 11 undoubted typhoid carriers and on one who had been a carrier but in whom the last examination had been negative. There was definite leucopenia in 6 out of the 11 cases. The number was normal—that is, between 7,000 and 9,000—in 4 cases, and was increased—that is, above 9,000—in 1 case. On such figures leucopenia cannot be considered as diagnostic for typhoid carriers, but its presence is at any rate suggestive. In 5 of the cases which were further investigated the diminution appeared to be specially in polymorphonuclear leucocytes and lymphocytes. Several possible causes for the condition, acting singly or in combination, are suggested. The bacilli may press into the glands and give rise to active phagocytosis, and, in spite of increased formation of leucocytes, those formed may be locally absorbed. Bauer suggests a diminished function on the part of the spleen. Naegeli suggests that as a result of the effect of typhus toxins there may be a kind of paralysis of the function of the bone marrow.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

178. Hay Fever.

THE *Gazz. degli Osped.*, November 19th, 1911, publishes a synthetic review of recent work in connexion with hay fever. Not every case of nasal catarh in the early summer is hay fever. The real hay fever is comparatively rare, but can be definitely recognized by applying the pollantin test. It is said that those cases where asthmatic symptoms form the chief feature occur chiefly in mouth-breathers; on the other hand, most hay-fever patients speedily become mouth-breathers whether they were so before the attack or not. In addition to the immediate cause—that is, the pollen albumen—there is some predisposing cause, possibly a vasomotor weakness, an abnormal permeability of the mucosa, or a neurosis. The pollen albumen may act directly as a heterogeneous type of albumen. Whether neurasthenia is a predisposing factor or an effect of hay fever may well be doubted. As to distribution, North America, England, and Germany seem to produce the most cases, and in the order named. Males are rather more affected than females, and the richer rather than the poorer classes of society. More than eighty official remedies have been used, and each has cured in some cases and equally failed to cure in others. Undoubted benefit has followed the use of the specific remedies—for example, pollantin, graminol or maltol. Cotton-wool nasal filters, various ointments—for example, bormalin, rhinoculin, etc.—are useful locally. Operative treatment, cauterization, etc., has not given very satisfactory results. The most recent of the surgical procedures is the resection or paralyzation of the ethmoidal nerve. Internal medication by antithyroidin has been found beneficial. Lastly, there is the climatic treatment—that is, the running away from the pollen areas—and going for a sea voyage or to some island; Heligoland is suggested.

179. Tetanus.

HILL (*Archives of Internal Med.*, December 15th, 1911) reviews tetanus from a general standpoint, and also as it occurs in tropical and temperate zones. Five and a half to six times as frequent in the tropics as in temperate climates, its occurrence in the latter is found to be responsible for about 1 in 1,520 deaths from all causes. Treatment has only had an effect upon prevention, and has not reduced the mortality. In temperate zones 86 per cent. of the cases are of the traumatic and idiopathic variety, while in the tropics a similar percentage of cases occur under 1 year of age, and include tetanus neonatorum. In temperate climates the disease is most common in the summer, while in the tropics the time of year appears to have no influence. As to sex prevalence, the ratio of the sexes is equal in the tropics, but in temperate zones males predominate as 3.29 to 1, the ratio even rising to 9.5 to 1 at various periods of life. Leucocytosis seems to occur, twenty-six counts averaging 13,200, and eosinophiles were diminished in six cases. Excluding patients under 1 year of age, the incubation period is from the sixth to the ninth day, and the mortality with reference to the duration of the disease was 90 per cent. under one day; 78.3 per cent. from one to ten days; 25.8 per cent. from ten to twenty days; and 4.7 per cent. from twenty to twenty-five days, the patient not having an equal chance for life and death until the tenth day, after which the mortality decreases steadily and rapidly regardless of treatment. Antitoxin is of small value except for prevention, but it should always be used in conjunction with other measures. Of four cases in which chloretone was used to produce relaxation from muscular spasm and convulsions it was successful in three, but without effect in one, and though the spinal injection of magnesium sulphate unquestionably produces such relaxation, the same result can apparently be obtained by the administration of chloretone without any of the dangers of the former. Neither of these drugs can be considered as specific for tetanus, but merely as a part of symptomatic treatment.

180. Chylous Ascites and Chylocele in Infants.

COWIE has looked up the literature of this subject, and finds only 8 cases in infants (*Arch. of Ped.*, 1911, xxviii). He divides them into two groups: (1) Those during the sucking period; all of these were under 12 months old, 6 cases in all. The author himself adds one to the list occurring in an infant 7 weeks old. (2) Infants to the end of infancy; 3 cases; the oldest 32 months. He reports the 9 cases in full. Some of the cases recovered and others died. The author concludes that those cases due to some cardio-vascular anomaly or non-inflammatory or cystic condition tend to complete recovery, while those due to intra-thoracic and intra-abdominal growths, such as tuberculous glands, and to inflammatory conditions, tend to dissolution.

181. Brain Tumour Located by X Rays.

LLOYD AND HAMMOND (*Amer. Journ. Med. Sci.*, February, 1912) record a case of psammoma of the brain successfully located by means of the *x* rays. The patient was a youth, aged 17, who suffered from epilepsy between his 8th and 15th years. In one of these fits he fell and struck his right parietal region, and this was followed for some time by numbness and partial loss of power of the left arm and leg. The fits ceased after an attack of typhoid fever at 14. One year prior to admission to hospital it was noted that he carried his head to the right side, and had a sense of stiffness in the neck. This was followed later by an awkward gait and failure of vision, with some vomiting, but no continuous headache. On admission the patient showed a tendency to walk towards the right side, with rotation of his head towards the right. He could walk without assistance, but had difficulty in turning. There was no real loss of power in the limbs, but the left knee-jerk was exaggerated, and there was slight left ankle clonus. Sensation to touch, pain, heat, and cold was impaired below the left knee. Intelligence was clear, and speech normal. There was moderate choked disc on both sides, more marked on the left, and the right external and superior oblique muscles showed restricted movements; *x* rays showed a rectangular shadow, 4 cm. long by 2 cm. wide, in the region of the temporal lobe. On trephining in the lower part of the right parietal bone, over the spot indicated by the *x* rays, the membranes bulged under great tension. Upon incising these a cyst was entered from which a large quantity of fluid under pressure escaped, and deep within this cyst cavity a hard bony mass was felt, freely movable at its anterior end, but attached so deeply at its posterior part that its removal was postponed to a second operation in the hope that it would tend to present at the opening in the skull. All the symptoms disappeared, and his eyesight became practically normal, the papillary oedema having yielded promptly to decompression. With the exception of some slight astereognosis, exaggeration of the left knee-jerk, and slight Babinski reflex of the left great toe, he remained practically well for about two and a half months, when all his previous symptoms returned. A second operation was performed, when the tumour was found *in situ* deep within the right hemisphere. If was removed in separate masses, which came away without breaking, since they were closely packed together almost like a nest of gall stones. Although he stood the operation well, he died about a week later with uraemic symptoms. As in the case of most psammomata, this tumour appeared to spring from the choroid plexus, and the cyst may have communicated with the middle horn of the lateral ventricle. The *x*-ray picture was remarkable, as, besides clearly outlining the tumour, it showed the convolutions of the cerebrum and cerebellum even to the extent of some degree of flattening being detectable.

SURGERY.

182. Surgical Treatment of Pulmonary Tuberculosis.

MAUCLAIRE (*Journ. des prat.*, xxvi, 1912) discusses this subject in a short article. Injections into the pulmonary parenchyma have produced numerous disasters, and is to be condemned. The creation of an artificial pneumothorax with the injection of nitrogen has given good results in many cases; in some various conditions have been evoked: eclampsia, gaseous embolus, pulmonary oedema, subcutaneous emphysema, and pyothorax. The indications for this line of treatment consists in unilateral

disease not too advanced, and frequent haemoptysis. It is contraindicated in advanced bilateral lesions and pleuritic adhesions. The author is not an advocate of the method. Pneumectomy, proposed by Ruggi, has hardly any supporters; all his cases died. Three cases subjected to extirpation of the apex of the lung were cured and remained so many years afterwards. Pneumotomy practised with the view of draining cavities in the lungs has given negative results. Only 1 case of 45 collected by Tuffier has been successful. Thoracoplasty has not given encouraging results. Freund recommends resection of the first or more cartilages, as he considers that the frequent localization of tuberculosis to the apex is due to want of elasticity of the thorax as a result of ossification of the first cartilage—a pure hypothesis. It has given good results in emphysema, but is scarcely indicated in pulmonary tuberculosis. The author sums up by stating his belief that the method of Forlanini—namely, the production of an artificial pneumothorax—is the only operation that merits attention.

183. Incision for Lumbar Exposure of Kidney.

WILLIAM J. MAYO (*Annals of Surgery*, January, 1912) points out the difficulty experienced in obtaining adequate exposure of the kidney pedicle by the lumbar incision. The twelfth rib is the chief obstacle to proper exposure, and, accordingly, many surgeons cut the rib; but in doing so frequently open the pleura. In the author's 203 operations requiring the lumbar incision the twelfth rib was cut 51 times and the pleura opened accidentally 13 times. In not one instance did the lung collapse or harm result, and the author thinks this immunity from risk was due to the position of the patient lying nearly flat on the abdomen, with hips slightly elevated, thereby fixing the chest, and thus preventing collapse of lung. Openings in the pleura were stitched at once, the margin of the diaphragm being included. In a number of cases, while exposing the posterior half of the twelfth rib with a view to division, it was observed that as soon as quadratus lumborum and the lateral arcuate ligament binding the twelfth rib to the transverse process of the first lumbar vertebra were divided, the rib could be pulled upwards, so that division of it was unnecessary. The incision is made thus: Beginning at a point on the eleventh rib 2 to 2½ in. lateral to the dorsal spines, near outer margin of erector spinae muscle, a longitudinal incision is made 2 to 3 in. long. The incision lies behind the twelfth rib from the angle, if present, nearly to the head, and reaches downward to a point ½ in. below the angle. From this point the incision passes obliquely downward and forward along the anterior margin of the quadratus to a point 1 in. above the iliac crest, and there turning runs forward parallel to the crest as far as necessary. After deepening the lower part of the incision the twelfth rib is cleared in its posterior portion upward and backward nearly to the articulation of the rib with the transverse process of the twelfth dorsal vertebra, and the pleura pushed upward. By retracting the erector spinae muscle on the one hand, and the costal margin on the other, a wide exposure is accomplished, and as a rule the kidney can be readily drawn through the incision to the surface with but little traction.

184. Is it Permissible to Operate on External Tuberculous Lesions?

CABOT (*Journ. des prat.*, 1912, xxvi) divides these tuberculous lesions into three groups: (1) Suppurating; these include the serious maladies, as coxalgias and Pott's disease. The author finds that 33 per cent. of these cases are cured by operation, and 98 and 99 per cent. by puncture, and therefore considers the operation *par excellence* is that of puncture. (2) Fistulous; having tried operative and conservative methods, the author believes that injections of medicated ointments are the correct treatment. (3) Dry or fungous. In the adult operative interference may be justifiable where cure can be completed without any fear of leaving a fistula or any other worse condition behind, but the author believes, on his part, that injections are preferable in all cases. In children the author condemns operations in tuberculosis of the skeleton, and still more so of the hip-joint.

185. Surgical Treatment of Gonorrhoeal Epididymitis.

SMITH (*Publications of Massachusetts General Hospital*, October, 1911) describes the modifications of Hagner's operation in the treatment of gonorrhoeal epididymitis which is now in vogue at the Massachusetts General Hospital. Under general anaesthesia a vertical incision 6 to 10 cm. in length is made on the outer anterior aspect of the scrotum over the junction of the epididymis with the testicle, being carried through the tunica vaginalis. The hydrocele is evacuated, and the testicle turned out and wrapped in warm moist towels. The epididymis is punctured with a tenotome through the fibrous covering, the greatest number of punctures being made where the induration is most marked, and the point of the knife is carried through the fibrous coat into the connective tissue where lessening resistance is felt. If there is pus the cavity is evacuated and thoroughly syringed out, the tunica being closed with a running catgut suture and drainage allowed for. Under this method, of which the danger is slight, the infiltration disappears more quickly than with any other method, and the chances of permanent injury are lessened, while pain and systemic symptoms receive prompt relief.

OBSTETRICS.

186. Circulation in Pregnancy.

RUD. TH. JASCHKE (*Wien. med. Klin.*, No. 8, 1912) deals with the circulatory changes of pregnancy. He considers it to be an accepted fact that the mass of the heart undergoes an increase comparable to that of the general increase in mass of the body. Pathological increase is sometimes simulated as a result of the heart being pressed against the chest wall from the pushing up of the diaphragm. There is a tendency to arrhythmia of the pulse in pregnancy, usually taking the form of bradycardia; the immediate cause of bradycardia appears to be irritation of the vagus, and a high grade of it is only seen in persons who are primarily vagotonic. During labour pains the blood pressure rises, the rise being more marked the more severe the pain and being greatest during the pains of the second stage. During the puerperium the blood pressure falls more or less quickly to normal. By the tenth day after delivery diminution in the size of the heart can be demonstrated by Roentgen rays. With regard to pathological conditions, subjective abnormalities of the heart during pregnancy are of little consequence. In about 12 per cent. to 14 per cent. of all cases of pregnancy accidental cardiac murmurs, which are of interest both from the theoretical and practical point of view are present. These murmurs are, as a rule, soft and blowing in character, and are heard usually over the pulmonary area, but occasionally at the apex; the second sound at the pulmonary area is never accentuated. The murmur disappears, as a rule, during the first week of the puerperium. The explanation of it, in a majority of cases, is probably that suggested by Luik—namely, that owing to the pressing upward of the diaphragm and the transverse portion of the heart there is a slight kinking of the great vessels against the base of the heart. The measurement of the blood pressure may be of value in pathological conditions. The high tension of eclampsia probably comes by way of the kidneys. In hydramnios there may be a moderate rise of blood pressure and a rapid fall with rupture of the membranes; such a sudden fall may lead to collapse if the heart be diseased, and may need to be guarded against by regulation of the rate of escape of fluid. Insufficiency of the heart muscle may be a not unimportant accompaniment of pregnancy. Arterio-sclerotic insufficiency of the heart is seen in the somewhat disproportionate frequency in old nulliparae; possibly the strain of frequent pregnancies in women of the lower classes may predispose to arterio-sclerosis. Pregnancy and labour are liable to affect the heart unfavourably in the orthogenetic degenerative diseases, especially in high-grade kypho-scoliosis. The author believes that valvular disease of the heart is a less unfavourable complication than is generally assumed. His own statistics are that only 4 per cent. out of 1,548 women with valvular disease died in labour, and in most of the cases the cardiac disease could not be shown to be the cause of death. Unfavourable cases are only those in which the cardiac muscle is widely affected. In only 8 to 9 per cent. of the whole number of these cases was labour premature. Artificial interruption of the pregnancy was only needed in 1 per cent.

GYNAECOLOGY.

187. Metrorrhagia in Virgins.

DALCHÉ (*Journ. des prat.*, xxvi, 1912) considers the causes and treatment of the following forms of metrorrhagia in virgins. *Menorrhagia in chlorosis:* Instead of amenorrhoea these patients suffer from menorrhagia, as first pointed out by Trousseau. The loss may be very abundant

and even considerable, and distinguished from other forms of menorrhagia in virgins by being free from pain. The patients owe their chlorosis to tuberculosis, syphilis, alcohol, malaria, or hereditary degeneracy. *Virchow's type:* This is characterized by follicular hypertrophy of the ovary with hyperactivity of the organ. *Sexual hypoplasia*, to which Pozzi has drawn attention: Owing to the narrowness of the orifices the canal dilates and becomes of an hour-glass shape, in which clots and débris collect, and as a result of which metritis develops. *Neuro-arthritic form of Richelot:* These are plethoric girls who at puberty suffer from abundant leucorrhoea. Later the menses appear and are exceedingly painful. Some consider them to be a manifestation of tubercle. *Coprostasis:* Constipation produces congestion of the pelvic organs, which congestion is extended to the utero-ovarian veins, and as a result menorrhagia and dysmenorrhoea occur. Free purgation and regular action of the bowels remedy this condition. *Mitral stenosis:* In this case, congestion, and hence metrorrhagia, are produced at the time of puberty, and a true cardiac uterus, of ovarian or uterine origin, is produced. Menorrhagia is also caused by salpingitis, ovaritis, and tumours of the ovary. *Treatment:* In those cases associated with severe loss and where delay is dangerous the patient must be placed in the horizontal position, warmth applied, and stimulants given. Irrigation by very hot or cold water should be employed under moderate pressure, and for some time ice should be applied to the hypogastrium, and injections of ergotine given, and the uterus then plugged. Injections of animal (20 c.cm.) as well as physiological (150 c.cm.) serum are in place. In Virchow's and similar fluxionary types the patient must be placed in bed, kept warm, and enemata of castor oil given. Ergotine 10 centigram, quinine sulphate 2 centigram, powdered digitalis leaves 1 centigram, should be given in a pill five times a day. Opotherapy, mammary extract in powder (2 to 3 cachets, 50 centigrams per diem), thyroid (5 centigrams to begin with), hypophysis, suprarenal, has been found of value. Injections of warm or cold animal serum or warm rectal injections are also in place. Footbaths of cold water of five to ten minutes' duration are also of advantage, and repeated plunging of the hands in hot water is an excellent procedure. All constitutional diseases should receive attention. In tuberculous cases ovarian extract has been found valuable. Hyperplasia of the cervix requires dilatation or else removal.

188. Large Fibromyoma of Fallopian Tube.

Auvray (*Bull. de la Soc. d'Obst. et de Gyn. de Paris*, January, 1912) performed subtotal hysterectomy on a sterile married woman, aged 45, who was subject to a large solid tumour of the abdomen. It weighed over six pounds, and was found to be attached by a thin, slender, twisted pedicle to the upper border of the left Fallopian tube. The tube itself formed a hydrosalpinx, and was malformed, as it did not run into the uterus but ended internally in a blind aberrant tubule. The operation was less uncomplicated than an average hysterectomy for uterine fibroid, as there were omental and very wide pelvic adhesions. The patient made an uncomplicated recovery.

THERAPEUTICS.

189. Pituitrin as a Bladder Tonic.

R. Hofstatter (*Wien. klin. Woch.*, No. 49, 1911) discusses the value of pituitrin as a bladder tonic. In September, 1911, he brought forward before the German Urological Congress in Vienna the fact that by the administration of pituitrin post-operative and *post-partum* atony of the bladder can be successfully treated and the necessity for catheterization avoided. V. Frankel-Hochwart and Fröhlich have shown by animal experiment that pituitrin stimulates the muscles of the bladder and uterus, and also increases the faradic irritability of the autonomous nerves of the bladder and the sympathetic uterine nerves. The author has carried out a series of investigations. He found that in cases of atony of the uterus the injection of pituitrin was almost always followed spontaneously by urination. He next injected 1 to 2 c.cm. of pituitrin in all cases in which, after the most widely different gynaecological operations, the patient suffered from inability to pass water, the bladder being full. In more than three-quarters of the cases—sometimes after a few minutes, sometimes after thirty to forty minutes—the patients became able to pass water. There were no unpleasant side-effects, and catheterization, with its obvious disadvantages, was avoided. The difficulty in urination did not return when it had been overcome as a result of pituitrin. The treatment was not successful in cases of severe injury of the bladder. The author gives an illustrative case of retention of urine due to a pregnant retroflexed incarcerated uterus, in which the bladder reached almost to the umbilicus, but in which injection of pituitrin was followed by a flow of urine, which began slowly about twenty-five minutes later and was continued until full relief was obtained. The use of extract of hypophysis in dysurias and anurias is not only of practical value, but also may be of interest in the study of the mechanism of emptying of the bladder and of the neurochemical and hormonal peculiarities of the hypophysis itself.

190. Bandaging in Gastroptosis.

Leopold Freund (*Wien. med. Woch.*, No. 50, 1912) points out that the causes of gastroptosis are as yet only imperfectly understood, while no form of treatment, either surgical or medical, has obtained general agreement in its favour. At the same time the condition may be a very serious one in its effect upon nutrition. There is no doubt that a slack condition of the abdominal muscles often contributes to the condition, yet it is also found in a large number of unmarried women with tight abdominal walls. For the latter cases v. Noorden's treatment of rest in bed and overfeeding for a period of four to six weeks has been shown radioscopically to have a favourable result: the increased amount of fat in the abdominal walls gives the needed extra support, while the general condition and the tone of the muscular wall of the stomach is improved. But the treatment is obviously not suitable in cases with slack abdominal walls, because the addition of fat would need to be on so great a scale, and at the same time it has not yet been shown that the treatment will succeed in severe cases of displacement, and in many cases it is undoubtedly without effect. Such being the state of the case, the idea of giving support to the stomach and hindering the development of further displacement is a natural one. Many different forms of bandage have been suggested. V. Noorden found that a well-fitting bandage in a case with slack abdominal walls could raise the lower border of the stomach as much as 3–5 cm. But in cases of original splanchnoptosis with powerful muscular walls, although a bandage may cause subjective improvement anatomically, it does not raise the atonic stomach with a dropped pyloric end. Even in patients with slack abdominal walls the bandage itself usually gives rise to unpleasant symptoms and is discontinued. The author has investigated a series of such cases with Roentgen rays, after replacing the pads ordinarily used with celluloid pads which are transparent to the rays. Two illustrations are given of such cases. In the first of these the angle of curvature of the stomach wall was very acute and the fall and subsequent rise to the pylorus almost vertical in direction. The bandage did raise the lower border of the stomach about 4 cm., but a great part of the stomach was found to be compressed by the pad and pressed against the posterior abdominal wall. With the exception of a small gap between the upper limit of the pad and the angle of the lesser curvature of the stomach, there was no space for the stomach contents to pass freely. Under such conditions it was not surprising that subjective improvement did not occur. The time taken for a test meal to pass through the stomach was longer with than without the bandage. The author has attempted to construct a bandage which conforms better to the anatomical conditions, and has made use of it for one of his patients. The curvature of the lower border of the stomach when full was obtained radiographically and the upper border of the pad shaped in the same way. The pad was not applied, as is customary, about in the middle of the abdomen, but with the help of the rays was so fastened to the abdominal binder that the greater curvature passed into the upper part of the pad. The pad was fixed by broad elastic bands which passed round the abdomen to the back. The pyloric end of the stomach was supported by the more horizontal end of the pad. With such a pad the pyloric end was found to be raised 8 cm., the curve of the stomach was no longer at a sharp angle, and the time of passage of a test meal through the stomach was found to be lessened by one to one and a-half hours. The patient felt no inconvenience at all from the bandage, and the symptoms were greatly improved. The bandage was applied just before a meal with the patient lying on her back, and kept in position until the stomach was emptied. As a result of this experience the author recommends that where bandages are applied for gastroptosis they should be constructed under radioscopic control.

191. Antityphoid Inoculation.

RICHARDSON AND SPOONER (*Publications of Massachusetts Gen. Hosp.*, October, 1911) record the results of their experience of antityphoid inoculation as introduced into certain training schools for nurses in Massachusetts. Since the hospital nurse in Massachusetts is about eight times as liable to contract typhoid as the ordinary citizen, many nurses volunteered themselves for inoculation after having the situation explained to them, and the work was carried out at the Massachusetts General Hospital and at nine other institutions. An old stock culture was used, the organisms being grown on agar, suspended in salt solution, heated to 53° C. for one hour, and 0.25 per cent. lysol added to prevent contamination. The site of inoculation was the outer surface of the left upper arm at the insertion of the deltoid, and four inoculations were given at five-day intervals, the initial dose being 50 million, gradually increasing to a maximum of 400 million. At the Massachusetts Hospital 90 per cent. showed but very slight reaction, the remaining 10 per cent. giving moderate results, and in only one instance did a nurse have to give up duty for twelve hours. In contrast to the experience of the ten previous years, when from two to six nurses annually developed typhoid, there were no cases among the nurses during 1909 and 1910 since the inoculations were begun. Two cases of typhoid developed in the other institutions, both of which were apparently inoculated during the incubation period of the disease, and from the type of fever which was then prevalent it is reasonable to assume that the severity of the infection was considerably attenuated by the inoculations already received, so that in the presence of a local epidemic widespread preventive inoculation might be carried out without fear of rendering the individuals more susceptible. From an experience of 1,588 inoculations upon 405 persons without any untoward results, the authors believe that those inoculated acquired an increased resistance which will last them for several years.

192. Rachianaesthesia and Epilepsy.

GIACOMELLI (*Gazz. degli Osped.*, January 18th, 1912) publishes four cases of epilepsy subjected to rachianaesthesia (stovaine) for various reasons, with a result in one case at least which seems worth recording. A man, aged 23, of bad family history and himself a degenerate, was operated upon for right inguinal hernia when 14 years old; at 16 developed, after a fright, typical major epilepsy. In 1909 he presented an inguinal hernia on the left side, and in January, 1910, this was successfully operated upon under stovaine rachianaesthesia (8 cg. in 1 c.cm. of saline acidulated with lactic acid). Since his operation (two years ago) the patient has never had any return of his epileptic fits. The second case was a man, aged 30, with long-standing epilepsy (fits about every thirty or forty days) associated with mental disorder. He also was operated upon for hernia under rachianaesthesia (novocain and suprarenin). In the succeeding eight months he had no fit, and then only a slight one, and considerable improvement occurred in his mental condition. The third case was one of *petit mal* with marked mental affection, and here a spinal injection of novocain and suprarenin seemed to lessen the number and intensity of the attacks. In this case a control in the form of a similar lumbar puncture was tried and did not give the same relief as the spinal injection. In the fourth case, with more advanced mental degeneration, the results were not very marked. Each case had a preliminary hypodermic of morphine. The author believes that the cure of the hernia and the morphine could be excluded as efficient causes of the improvement in the epileptic state.

193. Salvarsan and New-born Infants.

ENGELMANN (*Zentralbl. f. Gynäk.*, No. 3, 1912) has had some experience in the treatment of congenital syphilis when in charge of the municipal hospital for women at Dortmund. He finds that there is no difficulty about intravenous injections. He succeeded, even in the case of two infants under 5 lb. in weight. On the other hand, subcutaneous and intramuscular injections proved unsatisfactory, and in consequence Engelmann considers that it is only in exceptional cases that these methods should be employed. He injected salvarsan into the ulnar vein freely laid open, and the needle cannula which passed readily into the ulnar vein of a premature infant was sufficiently fine to be introduced into the yet smaller veins of rabbits or even white mice. The infants, whether premature or fully developed, bore the treatment well. Where there were marked symptoms, such as pemphigus, large doses, not under 0.04 gram, were found requisite. Full doses even up to 0.1 gram, were well borne by children delivered at term. It is advisable to repeat the salvarsan treatment in many cases, supported by better-known methods of treatment.

PATHOLOGY.

194. Progressive Lenticular Degeneration.

S. A. K. WILSON (*Rev. Neurol.*, February 29th, 1912) gives a detailed account of 4 cases of progressive degeneration of the nucleus lentiformis. This condition was described in 1888 by Sir William Gowers as "chorée tetanoïde." It is a nervous affection, confined to young subjects varying in age from 10 to 25 years. It often attacks members of the same family, but is not hereditary. The principal symptoms are a bilateral involuntary trembling of the intentional type, a spasmodic condition in all the muscles, dysarthria or anarthria, dysphagia, and contraction of the muscles without any certain signs of the pyramidal system being involved. It is an extrapyramidal motor affection. Sensation is normal. In the three cases where an autopsy was possible the lesion was found to be a bilateral and symmetrical degeneration of the corpus striatum, the nucleus lentiformis, above all of the putamen, and in a slighter degree of the globus pallidus. The degeneration begins by a general disintegration in the neighbourhood of the small lenticulo-striate vessels, the nervous elements, both cells and fibres, atrophy and disappear, being replaced by a thick network of connective tissue. After a certain time this network also begins to break up, the result being a cavity. The walls of the vessels in this region are rather thinned than thickened. No signs of arterio-sclerosis were noticed. The nucleus caudatus is slightly atrophied, the thalamus opticus is intact. The capsula interna is quite normal. The pyramidal system shows no sign of degeneration. There is a slight degeneration in the capsula externa. The convolutions of the operculum Rolandi show a slight loss of substance. Finally, hepatic cirrhosis is a constant symptom of this disease. It is always of a mixed type, partly multilobular, partly monolobular. Microscopically, it is evident that the hepatic cells have undergone considerable degeneration, but at the same time some signs of cellular regeneration can be seen here and there throughout the whole area affected. It is remarkable that no symptoms of the affection of the liver were noticed during life, but perhaps the partial regeneration may account for their absence. Following the lenticular degeneration there were certain secondary degenerations observed. The author hopes to give these in detail in an article which is shortly to appear in *Brain*, and also to discuss the pathological physiology of the symptoms of the disease.

195. Blood Pressure in Retinal Artery in Circle of Willis.

RUBINO (*Rif. Med.*, December 4th, 1911) gives an account of certain experiments made by him on rabbits with reference to the blood pressure in the retinal artery in relation to blood pressure in the circle of Willis. The method of estimating the pressure of the blood in the retinal artery was to determine the point at which ischaemia occurred in the retina (in man) as estimated by the interruption in vision. When controlled by ophthalmoscopic examination it was found that ischaemia took place a very little time before the visual disturbance was realized. The apparatus used was the Bloch-Verdin-Chèron sphygmometer applied directly to the globe of the eye. It was found that the retinal arteries responded most intimately to the state of the arteries in the circle of Willis, so that examination of the blood pressure of the retinal arteries might be accepted as a safe guide to the pressure in the circle of Willis, the ophthalmic artery being practically the tube of a manometer placed in circle of Willis. The blood pressure was found to oscillate between 80 and 112 mm. Hg. The experimental part of the work was conducted with a view to determine (1) how far the blood pressure in the retinal arteries was modified (*a*) after occlusion of one or both primary carotids; (*b*) after occlusion of one or both jugular veins; and (2) what relations exist between the pressure in the retinal arteries and in the peripheral or central stump of the carotid. It was found that the retinal artery reflected the haemodynamic state of the circle of Willis and cerebral circulation not less faithfully than the peripheral stump of the carotid. A drawing of the apparatus used and of its use is given.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

196. Chronic Constipation.

Landsberg (*Wien. med. Klin.*, No. 27, 1911) deals with the pathology and treatment of chronic constipation. Roentgen-ray examination has shown that the large intestine can be divided into an upper and lower part—an upper part in which absorption takes place and the intestinal contents take on a faecal character, and a lower in which the hard faecal masses are moved on towards the anus. The ingesta remain for an extraordinarily long time in the caecum and ascending colon, and are here subjected to an antiperistaltic movement in which, probably, the proximal part of the transverse colon takes part. As a result of the antiperistalsis, since the small intestine is firmly shut off by the sphincter ileo-colicus, a thorough mixing of the intestinal contents takes place, and here is the special breeding place of bacteria. The consistency of the contents obviously plays a chief part in deciding the time when antiperistalsis is replaced by a forwardly directed peristalsis. The transverse colon always contains faeces, apparently as a result of the relative hindrance to passage formed by the angle at the splenic flexure. The descending colon is almost always empty, and therefore it would appear that the intestinal contents, when the splenic flexure is passed, are moved on quickly. The greatest individual differences probably occur with regard to the length of time during which the faeces may remain in the sigmoid flexure. A certain amount of localization in chronic constipation is clearly now possible. The regions in which there is a physiological hindrance to the onward passage of faeces are found to be those specially liable to be the seat of pathological hindrance. In the author's experience of cases of chronic constipation the splenic flexure plays only a subordinate part, while, although a stay of over twenty-four hours in the caecum and ascending colon may be normal, yet in a whole series of cases localization at this part is clinically evident. Cases of localization in the rectum and of the so-called proctogenous constipation of Strauss form a large proportion of the whole number. The causes of chronic constipation are next considered. Up to the most recent times a primary motor weakness of the intestine has been regarded as the cause of chronic constipation. Schmidt has shown that the motions in chronic constipation are small with regard to their protein, fat, and carbohydrate contents, and that the cellulose is much better digested than normal. His view is that the food material of the bacteria is reduced by too complete an absorption, with the result that decomposition and the irritant action of the intestinal contents which sets up peristalsis are both diminished. This theory, though it has met with much opposition, must certainly be accepted as true for a number of cases, and seems most plausible where obesity is complicated by constipation. Lipkowski has propounded a theory, which applies only to cases of proctogenous constipation, that there is an abnormally high absorption of water in the sigmoid flexure and rectum, and he has demonstrated that the absorptive power of the mucous membrane is abnormally high by running in physiological salt solution in measured quantities. As a rule, the end products of the digestive processes are very uniform, in spite of individual abnormalities and differences. In chronic constipation the compensatory mechanism to some extent fails. Abnormal peristalsis in the colon and rectum has to be considered in combination with abnormalities of secretion and absorption as causing chronic constipation. Abnormalities of movement might be expected to be most frequent in the colon and rectum, because the movements here are more complicated than higher in the intestine, and the large intestine, especially the sigmoid flexure and rectum, is much more dependent than the small on its external innervation. The psychical factor is also worthy of consideration, although the will power alone cannot overcome the symptom, except in cases of uncomplicated enteropsychosis. In addition to such predisposing causes as those described above, the familiar exciting causes are also detailed in the article. With regard to treatment the author considers that the old maxim of no aperients may need some revision. Regulin in many cases works well except as all drugs may be psychically harmful. Diet is the most important agent. Limitation of meat, but not absolute deprivation, is always to be recommended. High injections by stretching the intestine do harm, and as a temporary expedient Boas's method of intestinal lavage is to be preferred. Enemata cannot altogether be dispensed with, and Atzberger's apparatus is recommended. Lipkowski's paraffin injections have proved a useful substitute for oil injections in some cases. Vibration massage, both abdominal and rectal, and the hot air douches recently recommended by French authorities, are all good. An abdominal binder may be useful in combating the tendency to coloptosis, but overfeeding with a consequent increase in fat may be more effective. The author concludes that in chronic constipation a topical and etiological diagnosis should be made by the aid of the older methods of investigation combined with newer methods, such as the use of Roentgen rays, examination of the stools by Schmidt's method, and finally by rectoromanoscopy.

197. Percussion Signs of Persistent or Enlarged Thymus.

Boggs (*Arch. of Intern. Med.*, November 5th, 1911) discusses certain percussion signs of persistent or enlarged thymus which have not hitherto been noted in the literature on physical diagnosis. Since the gland is attached by thyro-thymal ligaments to the thyroid, which in turn is connected to the hyoid bone, and from this to the lower jaw, a ligamentous chain is thus formed extending from the anterior part of the lower jaw obliquely downward and backward to the thymus, which latter is free to move in the long axis of the sternum. In retraction of the head more tension is put upon the structures anterior in the neck than on those lying close to the vertebral column, so that the former move through a greater arc. The normal adult thymus is too small to give any appreciable dullness on percussion over the manubrium or just to the left of the sternal margin, but if the gland has never atrophied, or for any reason is enlarged, then it gives rise to dullness on median percussion over the manubrium, and in the first and second left interspace, and in some instances in the right interspace. The differentiation of dullness from this or other mediastinal causes has to be considered, but the dullness from an enlarged thymus can be made to move as follows: With the patient sitting up and the back supported by an assistant the chin is depressed towards the sternum, and the dullness behind the manubrium and in the interspaces is outlined. The head is then retracted as far as possible towards the midline of the back, and, on repercussing, the lower border of dullness will have moved upwards an interspace or even more. The pleximeter fingers should be kept constantly in place, and in order to avoid the slight upward movement of the skin this should be pushed up towards the neck before the retraction of the head puts it in tension. In some cases where there may be no dullness in the first interspace, but only in the second or below, a movement may be detected in both upper and lower borders of dullness.

198. Psoriasis.

Carlentini (*Gazz. degli Osped.*, January 4th, 1912) describes a diplococcic organism which he has isolated from cases of psoriasis. The organism in question stains easily in acid fuchsin, gentian violet, or Giemsa's fluid. It usually appears in pairs, so as to suggest it may be tetragenic. It does not liquefy gelatine, and grows in ray form of a silvery colour suggestive of the scales of psoriasis. A culture was made and injected into rabbits and guinea-pigs, but without any specific result. But when the animals were previously given an injection of 1 per cent. peptone solution and then subjected to injection with the culture, an eruption of pearly-white scales appeared about a fortnight later near the site of injection and persisted for several weeks. If the peptone injections were kept up (the idea being to induce a predisposing blood state), the eruption lasted much longer after culture injection than in the cases where only a single peptone injection was given. One of the psoriasis patients was given a culture injection without result. The author gave himself an injection in the left forearm, also without result as far as the arm was concerned, but about ten days later a parchment-like eruption appeared on the sole of the left foot, and a similar but less marked condition on the right foot. As

the result of these experiments some slight support is given to the parasitic theory of psoriasis, but, in addition to the germ, specific or otherwise, there must be the suitable soil.

199. Concurrent Scarlet Fever and Chicken-pox.

J. D. ROLLESTON (*Pediatrics*, February, 1911) describes such a case in a boy aged 8. Chicken-pox manifested itself on the fourth day of scarlet fever by a rise of temperature and a copious eruption of vesicles which were almost confluent on the face and trunk. On the thirteenth day of the disease the temperature rose to 107° and ushered in an attack of cervical adenitis with albuminuria. The case is interesting in that it is rare to find both eruptions fully out at the same time. The author thinks that the favourable course of the case was to be attributed, in part at any rate, to the soothing effect of boracic baths used every morning and evening for a fortnight after the appearance of the varicella.

SURGERY.

200. An Operation for Elephantiasis of the Scrotum.

THE various operations for elephantiasis of the scrotum which have recently been devised show considerable ingenuity, but their very number suggests the want of one method which is entirely satisfactory. In a recent publication (*Finska Laekaresaellskapets Handlingar*, November, 1911) Professor Ali Krugius has described a procedure which he found eminently successful after a number of other methods had failed, but he does not claim to have solved the difficulties which various forms of scrotal elephantiasis may present. The patient was a lad of 19, who had developed elephantiasis of the scrotum two years before, when he had been seized with rigor, headache, and general malaise, the cause of which was obscure. The swelling of the scrotum had increased, and had at last forced the patient to keep to his bed. After several months in hospital there was little improvement effected, although drainage of the scrotum had been attempted by the transplantation of a portion of the saphena vein to the scrotum, within which its lower end was fastened, while its upper end communicated freely with the loose subcutaneous tissue over the pubes. Capillary thread drainage was also ineffective, and after the scrotum had been amputated the skin which had been drawn together over the testicles became so oedematous that a new scrotal swelling was formed with embarrassing dimensions. As a last resort an attempt to drain the swelling by means of the lymphatics of the spermatic cord was decided on, as these lymphatics are not as a rule involved in elephantiasis of the scrotum. An incision was made over the left inguinal canal, through which the cord was exposed and the testicle drawn up. The tunica vaginalis was divided in front and turned inside out, so that its lining came in direct contact with the fluid in the scrotum which it was intended to drain. The eversion of the tunica vaginalis was maintained by the free border of the tunica vaginalis being carried up the spermatic cord, to which it was secured by ligatures. The scrotal swelling rapidly grew less, and had almost disappeared when the patient insisted on returning home. The above operation has been performed for varicocele, but not on the same principles or with the same object. Should there be obstruction to the passage of lymph by the lymphatics of the cord, Professor Krugius suggests utilizing the large omentum the absorptive power of which is considerable. In order to carry the omentum into the scrotum, a plastic operation would be necessary, by which a strip of the omentum would be cut long enough to reach the scrotum without dragging on the upper attachment of the omentum. This is, however, rather a drastic alternative, as it implies an extensive abdominal operation, and it is therefore only advocated in case of the failure of other and less dangerous methods.

201. Surgical Aspects of Membranous Pericolitis.

LEWIS S. PILCHER (*Ann. of Surg.*, January, 1912) says that much interest attaches to the effect upon intestinal peristalsis of certain membrane-like films which in some cases are found during exploration of the abdomen covering to a greater or less extent the caecum and ascending colon. These may vary in strength from a veil-like film to strong fibrous bands. The presence of these was first pointed out by Jabez Jackson, then emphasized by Lane, Mayo, and others. The most probable explanation of their origin is that they are the "result of long-continued or oft-repeated mild infections of the peritoneal covering of the caecum and appendix." It is well known that coexisting with appendicitis may be found perityphlitis and pericolitis. The symptoms produced by these membranes are those of interference with the function and circulation of the part: pain, tenderness on pressure, colicky attacks, faecal stasis from defective peristalsis caused by hampering action of a broad enveloping film or from real obstruction due to a constricting band. Kidney complications may also be found, due to long-standing caecal stasis permitting the escape of organisms from within the bowel along the lymphatic vessels which Franke has demonstrated to exist connecting the caecum and ascending colon with the right kidney. Cases have occurred in which *x*-ray examination of suspected stone in the kidney proved negative, but in which marked dilatation of caecum and colon was found. Both right kidney and ascending colon may be diseased, and it is of importance to find out in which is the *fons et origo mali*. The diagnosis of the presence of these films or membranes connecting and fixing appendix, caecum, and colon is materially assisted by the skiagraphs of the colon twelve hours after giving a bismuth meal. A supplementary enema of bismuth will give a shadowgraph of the colon in its whole extent. The author reproduces several pictures showing kinks, hairpin angles, etc., in the colon caused by these membranes or films of adhesions. He recommends exploratory incision in the right iliac region in such cases, and shows how the adhesions should be cut and the caecum and the ascending colon freed. Careful covering of raw surfaces so produced by peritoneum is necessary to prevent recurrence. Full details of illustrative cases are given in the text.

202. Complete Gastrectomy.

SAVERIO VERSON (*Wien. klin. Woch.*, No. 8, 1912) has successfully carried out a complete gastrectomy on a dog. He had previously made several attempts to perform the operation by the abdominal route, but had been unsuccessful. The method he finally adopted was to make a long incision through the eighth intercostal space on the left side and reach the abdominal cavity through the diaphragm. Through the wide opening the whole stomach was removed with fair ease, the duodenum united to the oesophagus, and the anastomosis returned into the abdominal cavity. The dog, a month later, was apparently in perfect health. Removal of the stomach by this method in test animals should prove helpful in the investigation of questions concerning digestion, metabolism, the histological structure of the oesophagus and intestine and others.

OBSTETRICS.

203. Pyosalpinx in the Puerperium.

JAMES HAIG FERGUSON (*Journ. of Obstet. and Gyn. of the Brit. Emp.*, January, 1912) records a case of this affection, not on account of its rarity but to focus attention on a condition liable to be slumped into the common category of cellulitis. Not a few cases of puerperal pelvic inflammation are secondary to tubal mischief, and the author is inclined to think that where tenderness and swelling start high up in the pelvis the tubes are not infrequently at fault. Many cases of tubal infection in the puerperium recover without operation, but in severe cases the patient's chances of recovery and ultimate restoration to health are greatly improved by timely operation. There are two kinds of cases: (1) Those originating before labour and becoming exacerbated in the puerperium, and (2) those commencing in the puerperium *de novo* from direct infection. The first class is undoubtedly the more amenable to operative interference, because in them the condition is more local, while the second class is often a mere incident in a general infection. In the latter class it is sometimes difficult to determine whether the tube is primarily affected or even affected at all; but the higher the swelling is in the broad ligament and the more movable it is the more likely is it to be tubal. If the swelling is high to begin with, it has probably been tubal in origin, but if it begins in the base of the broad ligament and extends upwards and outwards it is probably the result of a cervical tear and not tubal in its source. When tubal inflammation is suspected during pregnancy and verified by bimanual examination immediately *post partum*, the condition is very apparent, the only thing—apart from appendicitis—likely to be mistaken for it being bruising or twisting of a small ovarian cyst. In such cases the indications for operative interference are pretty clear,

and the only question is when to step in. That will depend on the urgency of the symptoms; but where possible it is better to avoid operating during the acute symptoms, and to wait till they have abated, and then operate if the physical signs and symptoms still call for interference; the physical signs being the recognition of the swelling to one or other side of the uterus, and the distinct localized tenderness. A blood examination does not give great assistance in diagnosis unless the leucocyte count rises very rapidly. In the case under consideration there had been a history of pain in the left side since the fifth month of pregnancy; four days before delivery no extrauterine swelling could be detected, and there was no pain in the fornices; it was not till the fifth day *post partum* that the acute symptoms arose, and yet the pathological report showed that the tube had been affected for some months. Ferguson urges the importance of early pelvic examination of all puerperae who complain of pelvic pain, especially if associated with a rise of temperature, for the physical signs may become very quickly masked by subsequent complications. Many of these cases probably are put down as ordinary cellulitis, and the writer is convinced that lives can be saved and much suffering prevented by a timely exploratory laparotomy.

GYNAECOLOGY.

204. Ossification of the Fallopian Tube and Ovaries.

POZZI AND BENDER (*Rev. de gynéc. et de chir. abdom.*, February, 1912) have collected 7 cases where true bone has been detected in the ovary, and 4 where it has been found in the tube quite independent of teratoma, including the familiar so-called dermoid under that name. Calcified areas in these organs are also strictly excluded. These bony deposits are not osteomas or exostoses. They are identical with the heterotopic osseous formations observed in connective tissue, muscle, and viscera. In 2 cases the bone developed in a fibroma of the ovary, in 2 in the walls of an ovarian cyst, in 2 in a sclerosed ovary, and in 1, very carefully described and figured by Pozzi and Bender, in a corpus luteum. All the cases of ossification of the Fallopian tube have been recorded since January, 1900. In Michaud's case the patient was a young girl, aged 21, who had suffered from haemoptysis at the age of 7, and underwent removal of the vermiform appendix when 17 years old. Symptoms of pelvic inflammation followed, with very severe pain. The appendages were removed; they were the seat of chronic salpingo-oöphoritis. Deposits as hard as stone were felt in both tubes, and they proved to be true bone. In the remaining 3 the bony masses were not diffused, but appeared as a single nodule; 2 were under the authors' care, and they state that these masses precisely resembled, to the naked eye, the nodosities seen where the tube joins the uterus, a condition known as "salpingitis isthmica nodosa." All the tubal cases were closely associated with inflammation, always, apparently, severe; in one there was marked menorrhagia.

205. Relative Size of the Uterus in Cases of Hydatid Mole.

HENRY BRIGGS (*Journ. of Obstet. and Gyn. of the Brit. Emp.*, January, 1912) publishes notes on 23 cases of hydatid mole to support the assertion that undersize and not oversize of the uterus is the more prevalent disproportion in such cases. In 1 case there was a proportionate uterus with abnormal uterine tension; in 16 cases the disproportion was in the direction of undersize, in 4 cases there was oversize, while of 2 cases of chorion-epithelioma 1 was undersized and 1 oversized. Of the 16 undersized cases, in 9 there was ample time during the untreated stages for progress from undersize to oversize; in the other 7 any possible progress was checked either spontaneously or by treatment. Of the 4 cases of oversized uterus, in 2 intrauterine haemorrhage contributed to the enlargement; in the other 2 the molar mass itself appeared to the naked eye to have been sufficient to account for the size of the uterus, but each mole on microscopical examination was found to be mixed with blood. The writer considers that undersize of the uterus in 16 cases, with frequent quiescence and occasional recedence of the mole in the series of 23 cases, widens the differential diagnosis in cases of missed abortion and intrauterine death of the fetus, and modifies the current and contrary statements. In oversize of the uterus the part played by concealed intrauterine haemorrhage is apparently higher in frequency and greater in effect than has been generally stated. The writer points out incidentally that the tendency of cases of hydatid mole towards malignancy comes out in the series with a diminished ratio.

THERAPEUTICS.

206. Intestinal Disinfection.

ADOLF SCHMIDT (*Zentralb. für inn. Med.*, January 6th, 1912), in a communication on disinfection of the contents of the small intestine in gastric and duodenal catarrh and other diseases accompanied by abnormal fermentative processes in their contents, remarks that, although the pessimism which resulted from the very slight degree of success recorded by the earlier authors on this subject (Stern and Mucykowski, Strasburger, etc.) has disappeared since some more recent investigations, the disinfection of the small intestine is still an unsolved problem. From a series of extensive experiments by Berger and Tsuchiya, and also by Hirata, it appears to be certain that when it is possible to introduce nascent oxygen into the small bowel a notable diminution in bacterial growth occurs. Oxygen, in fact, is more efficacious in this respect than any of the other hitherto recognized intestinal antiseptics (calomel, salicylic acid, thymol, naphthol, creosote, etc.). Oxygen possesses the great advantage over the other drugs that it has no undesirable by-effects. Unfortunately, up to the present no method has been devised whereby any considerable quantity of oxygen can be therapeutically introduced into the small intestine. Berger and Tsuchiya employed in their investigations a combination of hydrogen peroxide with agar-agar. In spite of the promising results obtained with this preparation (named "oxygar" by the manufacturer), it has some drawbacks which very seriously interfere with its usefulness in ordinary practice. It only acts at all when quite freshly prepared, as on keeping it very soon loses its H_2O_2. Hirata employed a combination of hydrogen peroxide with coco-butter and beeswax, recommended by Zernich. This has been even further from being a practical success. It occurred to Dr. Schmidt that it would be possible by means of the duodenal tube of Einhorn and Gross to introduce oxygen gas directly into the small intestine. On trial he found that in this way it was comparatively easy to introduce relatively large quantities of gas into the bowel, and that the proceeding was followed by remarkable therapeutic results. Usually 2 to 4 litres of oxygen have been insufflated. This quantity has not been exceeded, on account of the danger of the gas, if under much pressure, obtaining direct entrance into a vein or capillaries and producing embolism of the lungs. The operation is in no way disagreeable to the patient, and is not followed by any peristaltic discomfort or colic. After an hour or two profuse odourless flatus passes per anum—a sign that the gas has reached the large bowel. The effect, although marked, appears to be of rather brief duration, and the insufflation requires to be repeated at least twice daily. Further experiments are in progress with the method in the various maladies in which intestinal fermentation is a prominent feature, and the results will be published shortly.

207. Vaccinotherapy.

MAUTÉ (*Journ. des prat.*, 1912, xxvi, p. 90) discusses various vaccines of which there are two kinds: (1) Stock vaccines prepared from a microbe corresponding to the variety which is to be treated; and (2) auto-vaccines prepared from the patient's serum. The author finds the latter give much better results than the former, and ought to be always preferred. The dose, generally speaking, ought to be large if the disease is mild, and vice versa. Antigonococcic vaccines: The author recommends these vaccines for the complications only, and has good results. He advises a heterogeneous vaccine, commencing with a dose corresponding to 25 million of the micro-organisms; this should be repeated at the end of four days and a dose of 50 million reached. Antistreptococcic vaccines: These should be reserved for local infections, and, above all, cutaneous. Good results had occurred in doses from 20 to 100 million, repeated every four days in erysipelas of the face and obstinate lymphangitis. Anticoli bacillary vaccines: These should be used in diseases due to the colon bacillus, as pyelonephritis, cystitis, prostatitis. An autogenous vaccine should be prepared in doses from 150 to 500 million at intervals of six or seven days. Antistaphylococcic vaccines: The author has treated 250 cases of tuberculosis by this method, and recommends five to six injections at intervals of six days with a dose of 500 million. The presence of sugar in the urine is no contraindication to treatment. Early inter-

vention by this method in cases of anthrax nearly always avoids surgical intervention. In osteomyelitis the vaccine should be used directly after operation to prevent relapses. Where swelling and localized pain already exist, the author has seen three patients cured by the vaccine.

208. Treatment of Sycosis.

Ch. Sabatié (*Progrès méd.*, December 23rd, 1911) writes: Sycosis is a secondary suppurative affection of the pilosebaceous follicle, grafted on to a dermatitis which is generally eczematous. It is necessary, therefore, first to combat the suppuration by antiseptic treatment, then to treat the dermatitis. A. *At the Suppurative Stage.*—Cut the hairs short, and try to obtain asepsis of the skin; first, by antiseptic lotions, or, better, by means of the steam vaporizer, which detaches the crusts and penetrates further into the glandular orifices—vaporizations of 10 per cent. resorcin used three times a day are specially recommended; secondly, by mild aseptic dressings in compresses constantly applied night and day, and changed five times daily. When the inflammation is no longer superficial, but has reached the base of the follicle, it is necessary (thirdly) to open the pustule, or, better, to evulse the hair which is in the centre of it. If the pustules are few, it is enough to open each one as it appears; but if they are numerous and recurrent, it is necessary to epilate the whole of the affected area and a small zone beyond either by radio-therapy, or, if that is not available, by forceps. The operation should, if possible, be carried out at one sitting, and completed by opening any pustules which are not yet open. Then start the treatment again from the beginning till the inflammation is allayed, and repeat, if necessary, after an interval of three or four weeks. B. *At the Stage of Dermatitis.*—Begin with ointments which act especially as antiseptics—for example, dermatol, ung. styracis. but, in particular, the mercurials:

Calomel	1 gram
Zinc oxide	3 grams
Vaseline	30 ,,

These applications will suffice if the dermatitis is simply inflammatory, but if they do not, one must have recourse to the substances used in the treatment of eczema, such as tar, oil of cade, and salicylic acid. Prescribe, for instance:

Salicylic acid	0.50 gram
Resorcin	1 ,,
Oil of cade	5 grams
Zinc oxide	10 ,,
Vaseline	30 ,,

The doses of these active ointments must be varied according to the susceptibility of the lesion and alternated, if necessary, with soothing preparations. Sulphur, very irritating in the acute forms, may be employed with benefit in the inactive forms. In quite chronic cases, with thickening and induration of the skin, use crossed lineal scarifications. C. *General Treatment.*—Attend to (1) local causes. For the moustache the starting point is nearly always a chronic rhinitis, which must be treated by antiseptic lotions, etc., and sometimes by epilation of the vibrissae. (2) General causes. The general treatment is the usual alimentary régime of eczema. In chronic eczematous forms one will prescribe the sulphurous waters, applied both internally and externally; on the other hand, in cases where suppuration is the predominating symptom the antistaphylococcic vaccines of Wright may be tried. D. The preceding treatment applies to the so-called arthritic sycosis; that of trichophytic sycosis is almost the same, but it is necessary to add to the antiseptics the antiparasitic action of iodine, either in the form of tincture of iodine in 10 parts of alcohol or of lotions of an iodo-iodic solution (iodine 1 gram, potassium iodide 2 grams to a litre of water).

209. Hot Air in the Treatment of Ulcerations.

Belot (*Arch. d'électr. méd.*, November 10th, 1911) describes a number of dermatological conditions in which a hyperaemic dose of hot air has at least accelerated cicatrization. The air is heated in a small apparatus by means of an electrical resistance, and is then directed outwards in the form of a jet, the pressure of which can be regulated at will. The direction of the air upon different points of the lesion must be tentative at first until the skin becomes accustomed to the temperature, and afterwards it must be concentrated on the parts most affected, so as to give the maximum heat which the patient will support. It is scarcely possible to get beyond 140° to 160° F., and in certain very painful ulcerations even this limit is not attainable. In the greater number of soft chancres a rapid soothing of pain is obtained, and there is a diminution of oedema and discharge. Sittings usually take place every day or every other day, the applications lasting for a quarter of an hour, broken by some minutes of rest. The jet of hot air is directed on the periphery of the ulceration and on the chancre itself. Care must be taken when the lesion is anfractuous to unpleat the skin, turning it back on the neighbouring regions, so that the air strikes directly on all the diseased points. The sensibility of the patient regulates the temperature, although it must be said that in dealing with those skin phenomena which accompany circulatory troubles it is necessary to proceed with great prudence, for the sensibility to heat is imperfectly conserved, and the production of burns is risked if the impressions of the patient remain the only standard of the temperature which is to be applied. The author states that in his 25 cases of soft chancre a rapid amelioration and cure was almost always brought about if the treatment were regularly followed. In only one of the patients did the condition remain unmodified, and in this case the oedema of the preputial region covered over the ulcerations and stopped the entrance of the air. He believes that thermotherapy acts in these cases by destroying the bacillus and also by stimulating the bioactivity of the tissues, which is a well-known property of hot air in a hyperaemic dose. The clearing up of such ulcerations is certainly more rapid than by means of ordinary dressings. He has obtained good results with hot air in the treatment of certain rebellious ulcerations of indeterminate character, and even in some small *x*-ray ulcers following upon indiscreet radiotherapy. Acroasphyxia and chilblains have also yielded to this treatment. Nevertheless, there are cases which appear to be uninfluenced by this method.

PATHOLOGY.

210. Haemangio-endotheliomas of the Liver.

Veeder and Austin (*Amer. Journ. of Med. Sci.*, January, 1912) record a case of multiple congenital haemangio-endotheliomas of the liver in a female infant, aged 10 weeks. Distension of the abdomen was noted at birth, and this rapidly increased, with concurrent increase in weakness. The liver extended to the left of the umbilicus, and its surface showed numerous dark, purplish, slightly umbilicated nodules, palpable during life, standing out prominently from the smooth peritoneal covering, and varying in size from a pea to a chestnut. Histologically the nodules showed cavernous haemangiomas, the centres being composed of dilated blood spaces, irregularly arranged between numerous narrow trabeculae of fibrous tissue and atrophic liver cells. Each nodule was surrounded by an irregular capsule of compressed and fibrosed liver tissue, with atrophic and vacuolated liver cells. Notes of the only three other previously reported similar cases occurring in children are given, the condition being one of extreme rarity. In the case recorded the tumours are regarded as true blastomas, multiple congenital haemangio-endotheliomas, on account of the marked atrophy of the liver cells, the rapid increase in the size of the liver, the young character of the fibrous tissue in the nodules, the distinct evidence of endothelial cell proliferation, and the clinical course.

211. Pellagra.

Ramella (*Gazz. degli Osped.*, September 19th, 1911) gives the result of a bacteriological examination in two fatal cases of pellagra. In each case he found an organism corresponding to that described by Tizzoni as specific. In the first case the organism was detected in the cerebrospinal fluid taken after death from the lateral ventricle. In the second case the organism was found in the blood in association with a pyogenic staphylococcus derived from a bedsore. Apparently during a remission of the symptoms the specific germ becomes attenuated. The author believes that the presence of specific (Tizzoni) germs in the blood of pellagrous patients is largely a question of degree and severity of infection; in the chronic cases, more or less localized to the intestine, the few specific germs which escape into the blood are readily destroyed; whilst in other cases, either owing to a congenital or acquired susceptibility of the blood or to virulence of the germs, they are able to flourish in the blood. Possibly, the severest cases of pellagrous amentia may belong to a different category, and in these the maize poison only represents a cause predisposing to an infection quite separate. The strepto-bacillus isolated by the author proved pathogenic for the guinea-pig.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

212. Disease of Apex in Women with Sporotrichosis.

Meyer (*Rev. méd. de la Suisse rom.*, January 20th, 1912) reports a case of sporotrichosis which suggests the possibility of this fungus attacking the lungs. The *Sporotrichum beurmanni* is a hyphomycetic fungus, which occurs as a saprophyte on vegetables, but which may be found in certain animals, living or dead. It may be cultivated artificially on the usual media, colonies appearing between the sixth and ninth days. In man the usual mode of entry is through a cutaneous lesion, produced while handling vegetables, fruit, corn, flour, and thorny plants, or by the bites of insects or animals. Thus sporotrichosis has followed a prick in the forearm by a barberry (*Berberis vulgaris*). It may also follow infection from a sporotrichotic abscess. A veterinary surgeon pricked himself while opening such an abscess in a mule, and a hospital attendant was bitten by a rat. Both were infected with sporotrichosis. Usually the first sign is a localized cutaneous lesion at the site of infection, which may or may not give rise to secondary complications. But a septicaemic form is also recognized. The lesions are multiple, and it is often impossible to decide how the disease was contracted or where the organism entered the body. Possibly it may penetrate through the tonsils, pharynx, or digestive tract. Though the skin is the usual site of the lesions, the organism may attack the bones, especially the tibia and phalanges, or the joints and the orbit. Sporotrichosis of the eyelids, conjunctiva, or globe has been described, and there is also a primary sporotrichotic dacryocystitis. Pierre Marie and Gougerot found induration of both pulmonary apices with pleural adhesions during a necropsy on a case of sporotrichosis of the tibia. Though no tubercle bacilli were found in the lungs, they did not feel justified in claiming this as a certain case of pulmonary sporotrichosis; but recently Gougerot has published an indisputable example of this condition. The following case came under Meyer's observation: A married woman, aged 30, was seen on April 10th, 1910, with dullness at the left apex both anteriorly and posteriorly. Respiration over this area was harsh, but there were no adventitious sounds. There was no sputum. The temperature ranged up to 101.3°. Six years previously she had been bitten on the left cheek by a mosquito. This was followed by a painless swelling, which gradually ulcerated. Antiseptic treatment carried out during two months had no effect, but the ulcers rapidly healed under compresses soaked in a solution of potassium iodide. During the following year similar ulcers appeared on the left thigh and leg and the pubes. They were equally refractory to mercury perchloride, but yielded readily to the external application of potassium iodide. Early in February, 1910, the patient was attacked by pyrexia, general malaise, and cough. Influenza was diagnosed. But the symptoms persisted, and after the appearance of dullness at the left apex the condition was supposed to be tuberculous. At Leysin, where the patient was sent, complete rest and continuous open-air treatment had no effect on the temperature. She was given rubidium iodide (77 grains in two days). The temperature at once became normal, and weight was gained. Towards the end of May, 1910, the temperature again rose, and there were articular pains suggestive of subacute rheumatism. Several preparations of salicylic acid were given without effect. The patient then went to Paris, where the pyrexia and articular pains yielded to a preparation containing iodine and aspirin. On December 2nd, 1910, she was again seen by Meyer. Except for the cicatrices of the cutaneous ulcers and fibrous induration of the left apex her condition was normal. The specific serum reaction for the sporotrichum was investigated in Paris and found to be positive. As there was no sputum and tuberculin was not used for diagnostic purposes it was impossible definitely to exclude tuberculosis in this case. Though pulmonary sporotrichosis and tuberculosis may coexist, the prognosis is in such an event most unfavourable. Syphilis could be definitely excluded. Hence the positive serum reaction and the action of potassium iodide indicated a probable sporotrichotic origin of the pulmonary lesion.

213. Septicaemia due to Paracolon Bacillus.

Porak (*Progrès méd.*, January 6th, 1912) relates the history of a case. The patient, aged 31, first came under notice with a temperature of 39.1° C., which had succeeded an attack of hepatic colic. This was shortly followed by icterus, frequent rigors, headache, cyanosis of the lips, and labial herpes. There was also present a generalized erythema occupying areas of skin not affected by the icterus. The conjunctivae and buccal mucosa were bright yellow. The stools were greyish-white, and the liver was hypertrophied, the upper limit being the fifth interspace in the mammary line, and the lower border two finger-breadths below the costal margin. The spleen was also enlarged. The erythematous condition was most pronounced on the face and neck, and resembled a scarlatiniform rash. On the back at the points of pressure in decubitus the erythema was very intense, and appeared to be haemorrhagic. The general condition of the patient was grave and she lay on her back utterly prostrate. The first sound of the heart was weak, and the second sound ringing in character. The respirations were 46 per minute. An intravenous injection of collargol was given, and the temperature fell almost at once. The erythema cleared up, leaving a yellow-tinted skin with furfuraceous desquamation. The icterus meantime persisted, but the patient's condition gradually improved, and after twenty-five days in hospital she was discharged convalescent. A blood culture was made on peptone broth, and an examination of this showed a number of short motile bacilli, some of them moving across the field in an undulating manner, others pivoting round one another. They took up the aniline stain well, but were Gram-negative. All the further tests undertaken went to show that they belonged to the colon group, and the author, following Renault, calls it a paracolon bacillus for the following reasons: (1) The absence of indol in the peptone media. (2) The occurrence of coagulation of milk between thirty hours and four days. (3) The production of gas in carbonated milk broth. The organism in question presented these three characteristics. The author quotes a case of Wien's of a parallel character, in which there was an infective cholecystitis, followed by a colon bacillus septicaemia. The condition of septicaemia in the course of hepatic lithiasis is particularly interesting, and helps to confirm the view that the infective element plays an important rôle in the appearance and evolution of biliary lithiasis. The cure of the case referred to, the author suggests, may have been due to the injection of collargol; certainly the temperature fell and remained normal afterwards.

214. Lumbar Puncture in Diagnosis.

Stertz (*Wien. med. Klin.*, No. 4, 1912) deals with the significance of lumbar puncture in the diagnosis of diseases of the brain and spinal cord. Changes in pressure, changes in colour of the cerebro-spinal fluid, the presence of blood, a tendency to coagulation of the fluid, may all be of some diagnostic importance. Of much greater significance than any of these, however, are the four reactions of Nonne, the cyto-diagnosis and estimation of the albumen of the cerebro-spinal fluid, and Wassermann's test as carried out first on the blood serum and then on the cerebro-spinal fluid. I. Widal and Ravant are responsible for the introduction of the cell examination of the cerebro-spinal fluid. Normally only from one to four cells should come into the field of vision at one time, but in certain pathological conditions the number is increased. The method is of most value in the diagnosis of syphilitic and metasyphilitic conditions in which the number of lymphocytes, which is normally almost *nil*, may be increased, and cell elements normally absent may be present; a pleocytosis is the most correct description of the condition found, because of the different cells present. A considerable degree of pleocytosis is found in: (1) Almost 100 per cent. of cases of progressive paralysis; (2) in not quite such a large proportion of cases of tabes—about 90 per cent. according to Nonne; (3) in many cases of cerebro-spinal syphilis, but the figures cannot be estimated with accuracy, because pleocytosis is to be expected in cases of recent meningo-encephalitis, and in myelitic processes, but not in conditions such as the formation of isolated gummata, or in different forms of endarteritis, and, as yet, in statistics the different cases have not been

systematically grouped; (4) in some cases of early syphilis without obvious disease of the central nervous system slight or moderate pleocytosis is present. Certain limitations to the value of the method of cyto-diagnosis in syphilitic and metasyphilitic diseases exist. Thus, the presence of pleocytosis in these diseases is not quite constant, no distinction can be drawn cytologically between syphilitic and metasyphilitic diseases, differentiation is not always possible between organic nervous disease and functional diseases occurring in syphilitic patients, and pleocytosis may be present in organic disease of a non-syphilitic origin, such as brain and spinal cord tumours, multiple sclerosis, local inflammatory processes of a non-syphilitic nature, hydrocephalus, etc. II. Increase in the amount of albumen contained in the cerebro-spinal fluid occurs under conditions very similar to pleocytosis, and its diagnostic significance is subject to much the same limitations, except that, since the amount of albumen is never increased in functional diseases, the test will be negative in early syphilitics without demonstrable disease of the central nervous system. III. The value and the limitations of Wassermann's reaction as tested on the blood serum are well known. For practical purposes the reaction is almost specific for syphilitic and syphilogenous diseases. IV. The reaction as tested on the cerebro-spinal fluid is of even greater significance, because while a positive blood serum reaction shows only that a patient is syphilitic, a positive cerebro-spinal fluid reaction shows that there is a syphilitic or syphilogenous disease of the nervous system. A negative reaction of the cerebro-spinal fluid speaks strongly against progressive paralysis, since the reaction is calculated to be positive in about 85 per cent. of cases of paralysis. The reaction in tabes is not nearly so constant; Nonne puts it as positive in from 5 to 10 per cent. only of the cases, Kleinberger in 30 per cent. A grouping of cases of cerebro-spinal syphilis, somewhat similar to that suggested for cyto-diagnosis, is also needed for the cerebro-spinal Wassermann's test if statistics of value are to be obtained. Hauptmann has obtained a positive reaction by using large quantities of the cerebro-spinal fluid and concentrated solutions when ordinary methods failed. The different reactions considered do not always give the same results, and just in the cases of clinical difficulty the four reactions taken together may fail to remove all doubt from the diagnosis. In any case the reactions can only be used in combination with clinical observation.

SURGERY.

215. A Plastic Operation Providing a New Sphincter Ani.

THE patient, a labourer of 22, was operated on for circumanal abscess in 1909; a fistula formed, and after a second operation a few months later complete faecal incontinence followed. In 1911 the patient was in a wretched condition, with widely patent anus. C. Mantelli (*Giorn. d. R. Accad. di Med. di Torino*, Turin, 1911, lxxiv, 347) saw him, and decided to apply a modification of Schömacher's (1909) plastic operation, forming a new anal sphincter out of the infero-internal parts of the glutei maximi. With the patient on his face and with the thighs widely abducted, under $CHCl_3$ anaesthesia, two incisions were made, each starting at the level of the coccyx and two finger-breadths outside the middle line, descending vertically 4 in., then running down and out to the linea aspera about four finger-breadths below the summit of the great trochanter. The lower and internal borders of the glutei maximi were then carefully exposed, and from them were isolated stout sections, the thickness of a large thumb. These were separated from their insertions into the linea aspera and up to the point where the nerves supplying them entered. The skin round the anus was then tunnelled freely, leaving bridges of skin to the right and left, and two skin bridges in front and behind. The new sphincter was then formed by passing the section of the right gluteus through the posterior tunnel and round the left side of the anus; the strip of left gluteus was similarly passed through the posterior tunnel and round the right side. Thus the two strips crossed behind the anus, and their free ends were sewn together inside the tunnel passing in front of the anus. The cutaneous incisions were then sewn up with silk. A month later the patient had a completely continent sphincter, and four months after the operation the anal function was normal. Great care was taken not to injure the isolated strips of the glutei during the operation; many vessels bled and had to be ligatured. The author points out that Schömacher did not make the two strips of glutei cross each other: so that the sphincter produced by such an operation would naturally be less efficient than Mantelli's. In addition, Schömacher's operation demands that the two muscular strips should be sewn together in two places, behind and before, thus increasing the injuries to which they are necessarily exposed in the operation.

216. Radiography of the Urinary System.

IN a communication to the Société de Radiologie Médicale de Paris (*Bull. et mém.*, January, 1912) Belot states that, while the radiograph may give the urologist most valuable information, difficulties are likely to arise with regard to the interpretation of the images obtained. Radiographic shadows, the position, form, and size of which might readily suggest calculi of the kidney or of the pelvis of the kidney, are obtained as a result of several causes. They may be due to cicatricial nodules, foreign bodies in the intestine, or calcifications of the kidney secondary to an abscess. Sometimes a precise diagnosis may be established by making several radiographs at different angles of incidence, but there are cases in which a diagnosis cannot be given exactly, and therefore radiography as a diagnostic agent must be regarded with reserve. Ureteral lithiasis, for example, presents a complex problem, for it is in the region of the pelvic ureter that the most diverse radiographic shadows are found. In the normal subject small round shadows neighbouring the ureteral tract are frequently seen, and it cannot be said whether they correspond to phleboliths of the veins of the pelvis or to points of ossification in the ligaments. The latter interpretation is the more probable, but the appearances might easily be taken for calculi. *X*-ray diagnosis may be assisted by introducing an opaque sound into the ureter, or by making radiographs in different directions, or by a stereoscopic examination. A collargol solution may also be injected into the ureter, and this is specially useful when a calculus occupies a diverticulum of that organ. When the abnormal shadow is produced by a point of ossification of the sacro-sciatic ligament it is probable that it will not be displaced if the subject remains motionless, but when it is a ureteral calculus it will be moved, with the organ which contains it, by the contractions and displacements of the intestine. In the first case the shadow will be clear and of well-limited contour, in the second it will be soft and diffused. An interesting aid to diagnosis is to make a first radiograph with a short exposure and an intensifying screen, and a second with a long exposure and without a screen. In the second picture the shadow corresponding to a calculus will show more softness than in the first instance, for during the longer exposure intestinal movements will have slightly shifted the ureter and its calculus, whereas a ligamentary concretion will not have been subject to this displacement, and will be as clear in the one image as in the other. In order to establish diagnosis a series of long and difficult radiographic investigations is often necessary. Nothing should be affirmed that is not clearly shown in the radiographs, and great prudence should be exercised if a delicate and still inconclusive method of diagnosis is not to be unduly prejudiced.

217. Haematuria in Appendicitis.

A. V. FRISCH (*Wien. klin. Woch.*, No. 1, 1912) describes from his own observation a series of cases in which haematuria occurred as a complication of appendicitis, and briefly comments on 13 cases collected from the literature. Rose and Carless in 1905 were apparently the first to mention that haematuria occasionally complicates appendicitis. Of the 13 cases analysed, bleeding in 6 was caused by the formation of adhesions between the inflamed appendix and the lower part of the ureter; in 3 by implication of the kidney in the inflammatory process; in 2 by the occurrence of a toxic nephritis; while in 2 the cause was unexplained. Two cases, somewhat similar to one another, showed that haematuria can be caused by pathological conditions affecting other parts of the intestinal tract. In both of them stagnation of the intestinal contents in the splenic flexure and formation of a faecal tumour led to haematuria from pressure on the left kidney or its vessels. The author next describes 2 cases of his own where the form of haematuria was one which has apparently not been previously recognized. The following were in both cases the characteristic signs: (1) Haematuria always immediately followed an attack of colic whose cause lay in the appendix; (2) the condition was temporary, and the urine had returned to normal after a few days; (3) the urinary sediment was in both cases made up almost exclusively of blood cylinders, with only a few epithelial cylinders, and a few isolated, much altered blood corpuscles. The author was only once able to make a cystoscopic examination, and could not decide as to

whether the bleeding came from both kidneys or only from one. The explanation of this form of haematuria is difficult. Simple congestion of the kidney is not known to give rise to bleeding with such a sediment. The facts that the attack quickly subsided, that after it no trace of albumen, no cylinders, or renal epithelium were found in the urine, and that no renal disease developed later all negative the idea of a toxic nephritis. The author's explanation is that the attacks were caused by embolism or thrombosis, since blood cylinders in the urine point to kidney infarct or thrombosis.

OBSTETRICS.

218. Puerperal Eclampsia.

Zangemeister looks upon eclampsia as a kind of reflex epilepsy. The convulsive mechanism is set going by excitants arising in the uterus, such as contractions, pains, etc., but a predisposition of the central nervous system is an essential factor. In this predisposition he considers that toxins, from the placenta or elsewhere, play a part; also that pregnancy causes greater irritability of the nervous centres. In support of the cerebral theory are the recent observations of Füth and Krönig, which demonstrate the existence of large variations of blood pressure due to uterine contractions: increased pressure would always eventually produce cerebral anaemia, and in eclampsia this anaemia would be evidenced by oedematous extravasations. Acting on this theory, Zangemeister has treated 3 cases of eclampsia by trephining the centre of the parietal bone and making a crucial incision into the dura mater, letting out much serous fluid. After the operation the fits did not cease immediately, but became shorter, less frequent, and less violent. Two of the patients were cured, but one died six days after the operation: in this last the dura mater was resutured (in the others it was left open), so that a recurrence of eclampsia may have been the cause of death. De Boris (*Semaine méd.*, March 20th, 1912), discussing this theory, comments that variations of blood pressure happen in all women in labour, that uterine contractions are the appanage of all confinements, that cerebral oedema is present more or less in all uraemic and asystolic patients, that specific eclamptic toxins have yet to be demonstrated; but that in speaking of a special predisposition of the central nervous system Zangemeister is on the right track. De Boris is convinced that the cortical irritability of an eclamptic is *anterior* to pregnancy. In all his cases he has noted either a hereditary nervous blemish or a grave somatic degeneracy. He admits that there may be exceptions, but thinks that the reason why many doctors fail to note hereditary taints is that, the nervous theory being at present out of fashion, they do not look for them. But such blemishes are not alone sufficient to account for eclampsia, for many women, lunatics and the daughters of lunatics, are confined repeatedly without any sign of eclampsia. One must therefore return for an explanation to autointoxication and the functions of the emunctories. The doctrine of autointoxication he looks upon as an established fact. The genesis of eclampsia may be conceived as follows: Every pregnant woman suffers from a certain amount of autointoxication: if the emunctories work properly this causes no serious symptoms, but if they are insufficient it causes diverse troubles such as ptyalism, intractable vomiting, nephritis, pernicious anaemia, icterus: if on account of hereditary neuropathy or grave somatic degeneration the brain is the point of least resistance eclampsia will arise. These three conditions—cerebral taint, gravid poison, and insufficiency of elimination—which are necessary for the production of eclampsia, may not always be combined either at the same moment of pregnancy or in the course of different pregnancies in the same woman, and thus is explained the great variation in the time of appearance of eclampsia. As regards the treatment by trephining, Zangemeister's results are not brilliant, and at best such treatment is only symptomatic. Still it might be given a fresh trial: but it would be better to employ the method of decompression recommended by Cushing, in which the cranial window is made beneath the temporal muscle.

GYNAECOLOGY.

219. Mastodynia and Pelvic Disease.

In dealing with the pathology of mastodynia, R. Hastrup (*Hospitalstidende*, December 29th) points out that this term is usually confined to pain in the breasts the origin of which is obscure. It has been traced to organic disease of the pelvic organs, to hysteria alone, and to a primary neuralgia of the breast. In support of the view that hysteria is the cause of this condition, Fowler has reported 7 cases of unilateral or bilateral mastodynia in hysterical women. Uterine massage or vaginal exploration alone was sufficient to cure the painful induration of the breasts in all these cases. Primary neuralgia of the breasts probably exists, but it is practically impossible to exclude hysteria or pelvic disease in any case. The frequency with which this condition occurs is the subject of widely divergent views, for, while Velpeau claims to have seen 40 cases in four years, others, including the writer, find that severe mastodynia is relatively rare, and they exclude from this term pain which is caused by tumours or acute inflammation. True mastodynia is, however, accompanied by a certain degree of inflammation, for the breasts feel nodular and painful. The relation of mastodynia to pelvic disease is clearly shown in the writer's case of an unmarried woman who was struck violently on the right breast at the age of 17. She suffered no immediate discomfort, but two to three years later she began to experience pain and swelling in both breasts, particularly the right. Some relief was obtained by the use of a suspensory bandage, but the pain was still troublesome for a few days before menstruation. During menstruation the pain disappeared and the breasts became less firm and distended. Besides the pain, which radiated from the right breast to the right arm, leg, and eye, there was tremor of the right arm, which interfered with the patient's work. There was no history of pelvic disease, and, apart from the pain in the breast and irregularity of menstruation, which recurred at intervals of about six weeks, the patient felt quite well. The breasts, which were large and pendulous, were nodular, but the glands were not adherent to the skin or underlying structures. The right breast was particularly painful on pressure over the upper and outer aspect, but no secretion escaped from the nipple, which was normal in every respect. The patient exhibited neither hysteria nor neurasthenia, and, except for an occasional rise to 100° in the evening, the temperature was quite normal. Treatment with *x* rays was prescribed, but its beneficial effects were only transitory, the pain becoming almost intolerable in the absence of the suspensory bandage. An examination of the patient was made under general anaesthesia, when no hymen was found. The size of the uterus was normal, but it was much retroflexed, and it was impossible to displace it from its position in the pouch of Douglas. The ovaries, which were enlarged, occupied an abnormally low position. Laparotomy was performed, when the uterus and its appendages were found tied down by numerous adhesions. When these were separated the right ovary was seen to be enlarged and cystic. This ovary and the corresponding Fallopian tube, which was swollen and hyperaemic, were removed. When freed from adhesions the left uterine appendages appeared to be normal. The uterus was secured by fish-gut ligatures in a position of anteflexion. The effect of this operation on the pain in the breast was striking, for it had disappeared on the patient's discharge from hospital three weeks later. The suspensory bandage was dispensed with a couple of months after the operation, and the patient subsequently underwent a normal confinement, no difficulty being experienced in suckling the baby. Although the result of this operation clearly showed that the mastodynia was due to the pelvic condition, it is not clear which of the many pelvic abnormalities was to blame, and further knowledge on this subject is required before the nature of the relation between mastodynia and pelvic disease can be fully understood.

THERAPEUTICS.

220. Urobilin in Typhoid Fever.

Lemaire (*Echo méd. du Nord*, November 5th, 1911) states that urobilinuria is constant in typhoid fever as long as the kidney is permeable. It is slight, as a rule, at the commencement of the illness, increasing during the maintenance of the fever, and even persisting for some time during convalescence. There is no correspondence between the intensity of the urobilinuria and the size of the liver. In cases of haemorrhage, however, the amount excreted increases markedly. As the author points out, however, there are exceptions to this. According to Carletti, there is a distinct relationship between the elimination of indican and urobilin, and both are associated with the diazo-reaction of Ehrlich. But whereas

the urobilin continues in the urine during convalescence, the diazo-reaction ceases. The presence of urobilin indicates a perversion of the normal elaboration of biliary pigment. It is formed in the intestine at the expense of the bile, one part of which is rejected in the faeces as stercobilin, the other is absorbed and arrested at the liver if the liver cells are able to deal with it; if not, it is excreted by the kidneys unchanged. The inflammatory state of the intestinal mucosa prevents the destruction of urobilin, and the toxins of the disease acting upon the liver cells cause relative insufficiency of that organ also. The author strongly emphasizes the necessity of seeking for urobilin in typhoid urine. At the commencement of the illness, when the diagnosis is in doubt, the presence of urobilin in small quantity suggests typhoid fever rather than gastro-enteritis or intestinal influenza. If, however, at this stage there is an intense urobilinuria, the diagnosis is rather against typhoid fever and more in favour of pneumonia of a typhoid type. Then the parallelism between urobilinuria, indicanuria, and the diazo-reaction of Ehrlich is in favour of typhoid fever. A marked increase in the amount of urobilin without increase of fever suggests intestinal haemorrhage. Diminution of urobilin with increase of albumen is indicative of a grave renal lesion. The persistence of urobilinuria during convalescence is not necessarily of bad augury.

221. Alkalis in Diabetes.

RATHERY (*Journ. des prat.*, December 2nd, 1911) reviews the question of the administration of alkalis in diabetes. They ought not to be given continuously but at intervals, and are for the most part contraindicated in the debilitated, the anaemic, the tuberculous, or badly-nourished diabetic, except in the presence of acidosis. Alkalis are especially indicated when an antidiabetic regimen has not fully succeeded. Although magnesia in doses of 4 to 6 grams, ammonium carbonate from 1 to 4 grams, have been used in certain cases with satisfactory results, the most commonly employed alkalis are the bicarbonates of potassium and soda or the citrate of soda. The thermal alkaline waters are also of use, such as Vichy in obese diabetics, Pouques in asthenic cases, and Vittel in gouty diabetics. There is no doubt that these thermal stations are of use to diabetics also because of the regular regimen. Various theories have been offered to explain the benefits of alkalis in these cases, one of them being that as in diabetes there is diminished oxidation and utilization of sugar, the addition of an alkali favours the transformation of glucose into glycogen. The author favours the intravenous method of injection of alkaline solutions in cases of acetonaemia, and to be of any real service the injections must be given in the precomatose state. This is characterized by persistent headache, insomnia, and dyspnoeic phenomena. The urine should be examined for Gerhardt's reaction, which if present indicates the existence of acidosis. There is then no time to be lost. In complete coma the intravenous injection of a litre of solution containing 4 grams per cent. of sodium bicarbonate may be given. Recoveries at this stage, however, are rare. Sometimes a certain amount of oedema follows these injections. This has been attributed by Widal to the retention of chlorides, but it is of no special import.

222. Therapeutic Uses of the Aniline Dyes.

OTTO SACHS (*Wien. klin. Woch.*, No. 45, 1911) has had under observation a number of cases of skin affections due to working with aniline dyes. A printer, who had worked with aniline dyes (azo-triphenylmethan dyes) for nine months suffered from papilloma-like excrescences on the face and arms. Two painters, who had worked with chrome green and yellow mixed with turpentine, developed in addition to turpentine dermatitis a papulo-verrucous rash. A woman, who worked with wools dyed with aniline dyes, had a verrucous eczema of the backs of the hands and fingers. In some of these cases the presence of the aniline material in the tissue was histologically demonstrated. The author has carried out a series of experimental observations on rabbits. In the first series of experiments various aniline dyes were rubbed in at different intervals of time on the inner surface of the ears of rabbits. Histological examination of the skin later gave in a large number of the cases the same results, namely, that there was spread of and proliferation of the rete Malpighii, as well as increase of the sebaceous glands, and frequently a verrucous or epithelioma-like appearance. Control experiments with white lead, Berlin blue, cinnabar, and sienna were negative. In a second series of experiments the author repeated Fischer's experiment of making subepithelial injections of scarlet red oil into the ears of rabbits, and confirmed Fischer's result that the injections caused overgrowth of epithelial tissue. The author obtained the same results with aniline dyes chemically quite different from scarlet red oil. Fischer first in 1906 suggested that the aniline dyes might be of value therapeutically. Schmieden first made use of scarlet red as an 8 per cent. ointment for granulating wounds and chronic ulcers of the leg, etc., and obtained good results. Later many different workers have recorded similar results. The author has found a 10 per cent. ointment of azo and triphenylmethan dyes to be of value in cases such as those treated by Schmieden. He finds that brilliant red, either in the form of a 10 per cent. ointment or as a powder, excels scarlet red in rapidity of action. The author comes, therefore, to the conclusion that effect upon epithelial tissue is not specific to scarlet red, but is shared by other aniline dyes.

PATHOLOGY.

223. A Cutaneous Reaction in Syphilis.

HIDEYO NOGUCHI (*Journ. of Exper. Med.*, December, 1911) has used for his experiments on this subject a preparation which he terms "luetin." It is made by emulsifying pure cultures of *Treponema pallidum*, killing them by heating at 60° C. for sixty minutes, and adding 0.5 per cent. of carbolic acid. Experimenting on rabbits, he found that the repeated inoculation of either living or killed syphilitic spirochaetes into the testicles leads to a condition in which the intradermic injection of luetin is followed by a well-marked inflammatory reaction. This reaction is not obtained in normal rabbits, nor is it forthcoming either in rabbits suffering from active syphilitic orchitis, or in rabbits in which this condition has been cured by the administration of salvarsan four months previously. He has also studied the action of luetin upon man in a series of 400 cases, comprising 177 syphilitics, 77 parasyphilitics, and 146 controls. The controls consisted of 46 normal individuals and 100 persons suffering from various diseases of non-syphilitic nature; in none of these was a positive luetin reaction obtained. But in syphilitic and parasyphilitic patients, particularly in tertiary and hereditary affections, the inflammatory cutaneous reaction was well marked. In manifest tertiary affections he obtained it in every case; in latent tertiary affections, in 94 per cent. of his cases; and in 96 per cent. of the hereditary cases. During the primary and secondary stages the reaction is infrequent, and, when present, is of mild degree. Exceptionally, however, he has found severe reactions in cases where energetic treatment has been or is being carried out, and where clinical signs of syphilis are absent. In certain cases of old infection in which no treatment has been taken, and in which no symptoms have appeared for many years, and in the course of which miscarriages have not occurred, the cutaneous reaction has failed to appear. But, despite the absence of symptoms, mothers who have young syphilitic children have usually given the reaction. Comparing his cutaneous reaction with the Wassermann reaction, the author thinks it probable that the latter is more constant in the primary and secondary cases, and the former in the tertiary and latent forms. It appears that the Wassermann reaction is more directly and immediately affected by antisyphilitic treatment than is the cutaneous reaction. He is now engaged upon further experiments with luetin.

224. Bacterium-free Nutrition.

COHENDY (*Ann. de l'Inst. Pasteur*, February, 1912), working in the laboratory of Professor Metchnikoff, has performed experiments which show that the ordinary processes of nutrition may be carried on without the presence of bacteria in the alimentary tract. He took hen's eggs, and, after disinfecting the exterior, hatched them under aseptic conditions. The chickens were received in a sterile chamber which opened out of the hatching chamber, and were fed throughout the experiment with sterilized food. The complete exclusion of bacterial contamination was confirmed by careful bacteriological tests at the end of each experiment. Control experiments were made with chickens reared under similar conditions, but without the exclusion of bacteria. Cohendy found that the "sterile" chickens could be kept alive for several weeks, that their development was in every respect normal, and that their growth was equal to that of the controls. The only difference was that the chickens living aseptically had larger appetites and passed more excreta; from this the author infers that the ordinary intestinal bacteria are certainly an aid to digestion, though not indispensable.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

225. Gastropathies at Various Ages.

Hayem (*Journ. des prat.*, November 18th, 1911) classifies gastropathy under the headings of primary, secondary, symptomatic, simple or complicated. Gastritis exists in nearly every case and plays a prominent part in the various forms of gastropathy. Almost constantly there is found a certain alteration in the gastric mucosa in persons who have reached a certain age and who have died from other causes. In childhood, after the infant has been weaned, the ill-chosen diet for the most part in vogue in both the better and poorer classes is responsible for nervous troubles giving rise to various forms of gastropathy in adult life. From the ages of 2 to 6 this is progressively accentuated. At the school age the rapidity of taking meals, insufficiency of mastication, doing school work in faulty attitudes—often causing pressure on the pyloric region—deficiency of exercise, and the confined atmosphere, all show their evil effects in adolescence. To these causes in certain cases may be added a certain amount of alcoholism and venereal excess. In adult life most of these causes persist, and to add to them is the rush for distraction and pleasure. The taking of an excessive amount of food, which is the custom in nearly all classes of society, worry, boredom, and sexual excess, all play a part also. Further, the abuse of antidyspeptic drugs, their prolonged and intemperate use, adds a medicinal gastritis which is more common than is supposed. The use of the corset in women, by interference with the movement of the lower ribs, compression of the liver and the pyloric region of the stomach, is a fruitful accessory in the maintenance of the morbid condition. Certain types of corset, by forcing down the abdominal organs, are also responsible for ptoses of the viscera. In nearly all these cases there is, from one or other of the causes enumerated, at least a functional alteration of the stomach. The symptomatic and secondary gastropathies must not be confused with the foregoing. They are often of infectious origin, as is the case in typhoid fever, variola, or whooping-cough. In some cases the infection acts locally, in others it arises from the infection of the nervous system. The local lesion may consist of an interstitial leucocyte infiltration or an infective abscess. In chronic infections this is common. Syphilitic gastritis is not so rare as is supposed, and tuberculous gastritis not so common. After a general infection, then, the stomach is more or less in a state of physiological inefficiency. This occurring in youth prepares the way for the gastropathies of later life. Certain states of apepsia or anachlorhydria in patients of 20 to 25 years of age, apparently inexplicable, very often have their origin in a degenerative gastritis following an infectious disease in youth.

226. Benign Hypothyroidea.

Alfred Saenger (*Wien. med. Klin.*, No. 49, 1912) describes a series of 8 cases of myxoedema in which the disease lacked the typical symptoms. Certain facts emerge from a consideration of the cases. These are: (1) That the characteristic symptom—the change in the skin—may be altogether absent. (2) The skin change may be absent, but the condition of the mucous membranes may be typical. Thus in one of the cases described the skin was normal, but the tongue was strikingly thick and plump, and showed the marks of the teeth at the sides, and the gums also looked thick. No trace of the thyroid could be felt in the neck. On the administration of thyroid tablets the patient lost the headache and weariness of which he had complained, and a tremulousness of the head which had been present disappeared, while the tongue and gums lost their swollen look; the diagnosis was clinched by the fact that the symptoms reappeared on discontinuing the tablets. (3) Some change in the skin, though not a typical myxoedematous change, may be present. In the first of the cases reported the skin showed a certain fullness, though it was not hard and firm. (4) The skin may be normal in colour instead of pale, or may even look congested. This was seen in a woman 27 years of age, whose chief complaint was of constant headache with exacerbations. In this case the headache disappeared on thyroid tablets being administered. The patient felt well, but had a pulse of 120 and some tremor of the hands; she was, in fact, developing signs of thyroidism. The patient lost her sensation of well-being as soon as the dose of thyroid was diminished, and suffered from severe giddiness when the tablets were altogether withdrawn. In this case the diagnosis of hypothyroidea rested on the psychical and cerebral symptoms, on the effect of thyroid extract, and the fact that the thyroid gland could not be felt. (5) The characteristic psychical changes may be altogether absent, as was seen in 3 out of the 8 cases described. (6) The only symptoms may be purely neurasthenic symptoms, as, for instance, restlessness and headache. (7) As a help to diagnosis, an examination of the thyroid region of the neck should be systematically made. In the author's experience the thyroid may be atrophic or not palpable at all. Such an examination may be deceptive, because the gland may lie behind the sternum, or there may be subsidiary glands; but the regular examination has always served to put the author on the right track. (8) The more typical symptoms may develop late, as in Basedow's disease; but the condition seems, on the whole, less liable to further development than does an atypical case of Basedow's disease. (9) In making a diagnosis diseases have to be considered in which there is a peculiar condition of the skin, along with a psychical change. Such conditions are nephritis, chlorosis, the status thymo-lymphaticus, and sometimes old age, which may give to the face a look which suggests myxoedema. Both symptoms are often well seen in Mongolism, but the author has never known the administration of thyroid extract do good in such cases. The pathogenesis of this form of the disease is not clear. In one case described—a case of syphilis of the thyroid—the characteristic skin change was altogether absent; while in a case of atrophy of the gland the characteristic psychical change was absent. It is suggested that changes in the adrenals or the thymus gland may play some part, or possibly, in women, the ovaries. The recognition of the condition is of great importance, because of the value of right treatment.

227. Poliomyelitis.

O. Thomsen (*Berl. klin. Woch.*, January 8th, 1912) has carried out some important experimental researches bearing upon the possibility of poliomyelitis anterior acuta being transmitted in vaccine lymph. Also, to the case of Landsteiner, Levaditi, and Pastia, in which the virus of the disease was found in the mucous membrane of the pharynx and tonsils, while the glands of the neck, the spleen, the salivary glands, and the glands of the mesentery were free from it, he adds another. These cases seem to point to the conclusion that the throat is the usual seat of invasion of the virus. From cases in which the author has experimentally infected monkeys (*Macacus cynomolgus*) with the virus of poliomyelitis intraperitoneally, and in which the virus was afterwards found in the mucous membrane of the pharynx and tonsils, it seems that it may also be excreted in the throat. A case is related in which the attempt was made to produce experimental poliomyelitis by rubbing some of the virus (1 gram spinal cord substance with + 3 c.cm. 80 per cent. glycerine) into abrasion of the skin, in the same way in which vaccination is usually performed; this failed. As the experiment appears only to have been once tried, no definite conclusions can be drawn. Next, some of the poliomyelitis virus was mixed with vaccine lymph, and an ape vaccinated therewith on one side, and on the other side with pure vaccine lymph. On both sides typical vaccine pocks developed in usual course. The pock from the mixed lymph and virus was larger and more inflamed than the other. For a week the animal remained well; it then developed tremor in the lower limbs, which was on the ninth day followed by paralysis of both lower limbs and death from what the subsequent examination of the spinal cord showed to be typical poliomyelitis. From the lymph in the pock which resulted from this vaccination two other apes were vaccinated. Both died of typical poliomyelitis, one in six days and the other in a fortnight. From the latter a fourth ape was vaccinated. It died in the same way with even more acute symptoms in five days. The author concludes that the virus of poliomyelitis grows in the vaccine lymph. This, he says, seems to form for it an excellent nutrient substance. The practical bearing of these experiments is obvious. Antivaccinators have from time to time contended that vaccination sometimes caused acute infantile paralysis; and, indeed, cases

have been recorded in medical journals in which acute anterior poliomyelitis has followed on vaccination. Experiments are now being carried out to ascertain whether the virus of poliomyelitis can grow in the lymph of a vaccine pock into which it has been introduced artificially after the development of the pock, and also whether it can grow in vaccine lymph *in vitro*.

SURGERY.

228. Surgical Treatment of Gastric Ulcer.

H. Lindner (*Mucnch. med. Woch.*, March 5th and 12th, 1912) discusses the surgical aspects of gastric ulcer in such detail as he considers may be of interest to the general practitioner. After defining gastric ulcer as a defect in the gastric mucosa, which has both tenacity and a tendency to progress, he sets up the general scheme, that simple ulcers can and should be healed up by the physician, the surgeon only stepping in when the physician fails, and complicated ulcers, which in many cases resist all internal therapy, should be subjected to surgical treatment. The old ideas about the cause of ulcers of the stomach are no longer tenable. Among many other views, it used to be held that hyperacidity was the chief cause, but this cannot be true, since ulcers are at times observed where there is even subacidity. The work of Payr has done something to further our knowledge about the etiology of gastric ulcer. These experiments show that a very extensive disturbance of the blood supply, and marked necrosis are required before hydrochloric acid will produce ulceration. Mahnert thinks there is some causal connexion between appendicitis and gastric ulcer. The author tends toward the belief that the presence of an antibody enables even subnormal quantities of acid to erode the mucous membrane. In dealing with what he terms the simple cases, he enters into some discussion as to those cases in which internal therapy fails. For example, as a rule, the two symptoms which require attention are pain and haemorrhage. Pain rarely, if ever, calls for surgical interference. In the case of haemorrhage it is rare that large, isolated bleedings need an operation. In most cases the physician can stop the bleeding. Repeated small haemorrhages, on the other hand, often prove intractable to internal treatment. The surgeon is then called upon to assist. Before going into more exact details, he turns his attention to the two classes of operative treatment in these cases—the direct and indirect. The former include excision of the ulcer, gastrostomy, and arrest of the bleeding by cauterization or other means, ligature of the vessels leading to the ulcer; the latter is practically always gastro-enterostomy. The direct method is less frequently resorted to than the indirect, partly because it is less certain, and is a much more severe one for the patient. In cases where the operation has to be carried out rapidly and with as little shock as possible, the indirect method is certainly better. Another reason why gastro-enterostomy is usually preferred is that surgeons from time to time have opened the stomach and failed to find a bleeding vessel, which *post mortem* proves to be either very small or in such a situation that it is difficult to find. He then deals with complicated cases, which belong to the surgeon. After tracing the course of a perforating ulcer, he points out that the only chance for the patient after perforation has taken place is a surgical operation. Caution must, however, be exercised, since cases occur in which all the symptoms which point to perforation are present, and at the operation it is found that no perforation exists. He quotes three cases of his own. In one, the condition simulating perforation was phosphorus poisoning with a gall stone in the gall bladder; in a second, death was due to meningitis and enteritis; and in the third, only a slight redness of the peritoneal covering of the duodenum and a slight exudation was found. This case recovered. If perforation occurs, the case must be operated on within the first twelve hours. The symptoms which must guide the surgeon to open the abdomen are collapse, intense pain, rigidity of the abdominal walls, small, quick pulse, and the appearance of dying. He does not think that reliance can be placed on the disappearance of the liver dullness. Again, he points out that the pain of a perforating ulcer may be localized in the right side of the abdomen, and thus give rise to the diagnosis of appendicitis. He also gives instances of other variations in which the gastric contents escaped, either into another hollow viscus or was limited by adhesions, and formed the source of an abscess. He deals in some detail with some of these cases. Returning to haemorrhage, he enters into a longish discussion as to whether resection should be carried out or merely gastro-enterostomy. The difficulties attending gastro-enterostomy are two-fold. In the first place, as long as the pylorus remains open, the gastro-enterostomy opening tends to close, and when this occurs, the operation had not helped the patient one bit. The second disadvantage is that peptic ulcers of the small intestine not infrequently follow the operation, although he shows that when he carried out Hacker's operation this did not take place, while it was frequent after Wölfler's. In favour of resection, it is said that callous ulcers have a marked tendency to become malignant. Whatever may be the true etiology of cancer, Lindner does not agree that this is correct. On the other hand, he admits that it is often impossible to diagnose a malignant ulcer from a simple one at the operation. He further admits that if malignancy is suspected, resection must be attempted. He adds illustrations of difficult differential diagnoses, and also discusses the treatment of hour-glass contracture of the stomach. In conclusion, he believes that gastro-enterostomy yields good results, from 60 to 70 per cent. of cures and from 12 to 15 per cent. of improvements taking place, so that from 70 to 80 per cent. of the cases do well with this form of treatment.

229. Rachianaesthesia.

Ferrero (*Rif. Med.*, October 23rd, 1911) has analysed the records of 21,148 cases of rachianaesthesia collected from various sources. Many points still await solution. First, as to the best substance to inject. Nearly all agree that cocaine is too dangerous a drug, and of the many drugs used in its place, stovaine and tropacocaine seem to hold the most favoured rank. What, if any, drug should be added is still undecided: some add adrenalin. On the other hand, this is said to be the cause of certain unpleasant after-results. Dosage is also not settled—for example, as regards stovaine, the dose varies, for no definite reason, from 4 to 15 grains. Differences also exist as to *modus operandi*, when once the needle has penetrated into the spinal canal, as to how much cerebro-spinal fluid should be let out, etc. In failure of anaesthesia, apart from faulty technique, the result has been attributed to faulty solutions, too large needles, chemical changes, traces of alkali, idiosyncrasy. When anaesthesia occurs, it may last from twenty minutes to two hours. A long list of more or less unpleasant sequelae has been recorded after injections: Fever occurred in 30 per cent. of the cases, and may last for a week; more or less intense headache (68 per cent.), sometimes persisting for weeks, vomiting, collapse, delirium, neurotrophic disturbances, backache, motor and sensory paralysis, neuralgia, and mental depression. Amongst the paralyses—which may be permanent—an interesting group is that of paralysis of the sixth nerve (oculo-motor), which appears to be fairly frequent. To this formidable list of sequelae one must add respiratory, vesical, and rectal disturbances, retention of urine, obstinate constipation. Failure to achieve anaesthesia was noted in 6.15 per cent. of the cases, incomplete anaesthesia (necessitating in many cases a general anaesthetic) in 3.36 per cent., and death in 1.05 per cent. Of the 52 deaths, 40 were directly due to the injection (24 immediate, and 16 occurring later); the remaining 12 were probably due to the same cause. Some have been so impressed by the dangers of this method of anaesthesia that they have discarded its use entirely. The author does not go so far as this, but thinks it should be reserved for that limited number of cases where a general anaesthetic is inadmissible—for example, old people with weak hearts, arterio-sclerotics, with evidence of hepatic or renal cirrhosis. He does not advise rachianaesthesia in children or in bad septic cases.

230. Treatment of Fracture of the Neck of the Femur.

Calot (*Journ. des prat.*, 1912, xxvi) recommends the following treatment:—1. *Recent fractures.* Correct the deviation by placing the limb in abduction from 30 to 45 degrees, with an internal rotation of 10 to 15 degrees, and then render it immobile in plaster-of-Paris, in which young subjects rest in the lying position and older ones walk by means of crutches. 2. *Old fractures with loss of power.* (*a*) If union has taken place, (1) endeavour to undo this by mobilization of the two fragments, after which employ plaster-of-Paris, rest or walking as indicated; (2) if this is not successful, perform subcutaneous subtrochanteric osteotomy, partial osteotomy of the two layers of bony thickening, and rupture by osteoclasia of the other layers, then a plaster-of-Paris bandage. (*b*) If the fracture has not healed, (1) endeavour to produce it by moving the two ends together, and then employ a plaster

of-Paris bandage; (2) if this has not occurred in the limb after four months in plaster-of-Paris, hyperextend the femur and abduct it to an angle of 45 degrees: after three or four months in this position, place the thigh in abduction of 30 degrees, and maintain it in a second and last plaster-of-Paris bandage for two or three months.

OBSTETRICS.

231. Haematuria of Pregnancy.

DOR AND MOIROUD (*Province méd.*, March 30th, 1912) discuss cases of haematuria in which pregnancy is the sole etiological factor. In such cases haematuria appears only during pregnancy and ceases with it: it is independent of any antecedent lesion. It appears at all periods of pregnancy, but generally in the last four months. It may last several days, several months, or appear intermittently, but it always disappears with the puerperium. The amount may be slight but is generally great, and the consequent anaemia has even caused death. As a rule there are no other symptoms and the urine contains no casts, renal elements or crystals, and only an amount of albumen corresponding to the amount of blood; but in some cases, where haemorrhage is very abundant, the passage of clots down the ureters gives rise to colic and the presence of elongated cylindrical clots in the urine; and the clotting of blood in the bladder causes retention with violent pains and tenesmus. The haematuria may be vesical or renal in origin. Cystoscopy shows a well-marked venous plexus in the posterior and inferior segments of the bladder and particularly about the neck, and various observers have described the extraordinary vascularity of the mucous membrane of the bladder in pregnant women. This congestion is often aggravated by retention, so frequent in the later months of pregnancy. The congestive element also plays a large part in the production of renal haematuria. The growth of the pregnant uterus causes obstruction to the renal circulation, but this cause can only be operative in the later months. Guyon and Albarran attribute the cause largely to retention of urine by compression of the ureters, and they have observed that in pregnant women there is only a constant and feeble dribble of urine from the ureters instead of the normal ejaculation. Chiaventone considers the cause is hepato-toxaemia: the liver of the pregnant woman, having lost its protective function permits the reabsorption of toxins, which, acting on the blood vessels, cause a liability to haemorrhage, particularly from the kidney, which is largely composed of vessels. The authors hold that the cause is a combination of the mechanical and toxic factors. The diagnosis is made by excluding all causes other than pregnancy; but several times haematuria has been attributed to pregnancy when in reality it was the first sign of tuberculosis. The treatment, if the haemorrhage is slight, consists in keeping the patient at rest with the head low and washing out the bladder to prevent infection. In vesical cases ice may be applied to the hypogastrium and adrenalin injected into the bladder; boric lavage followed by instillation of 1 per cent. silver nitrate has been found successful. In abundant haemorrhage from the bladder aspiration of the clots is generally sufficient, but Proust recommends suprapubic cystotomy by which bleeding vessels can be clamped or tied or the bladder packed. For renal cases surgical interference such as nephrotomy or decapsulation might check the haemorrhage without interrupting pregnancy but has never been tried. Induction of abortion or premature labour has been tried with success, but seeing that delivery terminates the haemorrhage almost immediately, this treatment should be reserved for exceptional cases.

GYNAECOLOGY.

232. Kyphotic Funnel Pelvis: Caesarean Section.

PÉRY (*Comptes rendus de la Soc. d'Obstét., de Gynéc., et de Pédiat. de Paris*, etc., No. 7, 1911) reports how he managed a very typical case, where a woman subject to angular curvature in the lumbo-sacral region became pregnant. She came under his care when 30 years of age. She had been a victim from infancy to chronic bronchitis and fits of asthma; her father was also asthmatic. When 4 years old she fell out of a first-floor window, but no serious injury was noted at the time. Six months later, however, incipient curvature developed. The deformity increased steadily, yet without any abscess, paralysis, or even pain. No jacket was ever worn; the only treatment was immobilization for a few months. The patient, when she consulted Péry, was pregnant almost to term. She was dwarfed, being only 4 ft. 3 in. in height. The lower extremities were fairly long, the thorax deformed, and the abdomen prominent as in typical kyphosis, and the gibbus corresponded to the last lumbar and two upper sacral vertebrae. The pelvis was extremely infundibuliform, after the variety associated with kyphosis. The ilia were bent outwards and the spines and tuberosities of the ischia approximated. On palpation, the sacral promontory was found to be out of reach and the outlet markedly contracted. The antero-posterior or pubo-coccygean diameter was but 7 cm., or $2\frac{3}{4}$ in., the transverse between the tuberosities of the ischium 5.5 cm., or under $2\frac{1}{4}$ in. The ischial spines could be defined projecting well inwards. The soft parts appeared ill-developed, especially the levatores and the perineum. The fetus was of moderate size, and living; its head presented but lay completely above the brim, and the uterus was strongly anteverted. Péry suspected tuberculous phthisis, as the patient was distressed with coughing and expectoration. He operated without waiting for labour, performing Caesarean section, and delivering a female child nearly 8 lb. in weight. It was found that the patient's thoracic complication was not tuberculous. The patient left hospital on the twentieth day suckling the child, which was well nourished. Péry insisted that symphysiotomy would have been absolutely useless in a case of this kind. The outlet would not have been appreciably widened, and in this patient the vagina and vulvar orifice were ill-developed. He divided and cauterized both Fallopian tubes during the operation.

THERAPEUTICS.

233. The Treatment of Trigeminal Neuralgia by Injections of Alcohol.

AFTER giving a short historic account of the treatment of neuralgia by the local injection of drugs, Professor Braun (*Deut. med. Woch.*, No. 52) discusses the importance of Schloesser's method of destroying the nerve by the injection of alcohol. As this method involves the destruction of the injected nerve, it is unsuitable for such nerves as the sciatic, which contain motor fibres the paralysis of which may be permanent. The injection of alcohol into the second and third branches of the trigeminal nerve, at their exit from the skull, effects, as Offerhaus has put it, a "most elegant nerve resection," without putting the patient to the trouble which the division or resection of these nerve trunks cause. Before injecting the alcohol through an 8 cm. long and 0.7 mm. thick needle, Professor Braun uses novocain locally. Behind the patient's head a skull is held in which a probe is inserted to act as a guide to the correct course towards the foramen aimed at. The severe pain which the alcohol causes may be lessened, after the needle has penetrated to the necessary depth, by passing a few cubic centimetres of a 2 per cent. solution of novocain-suprarenin through it before the alcohol is injected. In the case of a married woman, aged 75, severe neuralgia of the second branch of the trigeminal nerve had been temporarily banished by Thiersch's nerve extraction, the freedom from pain lasting for about six months, after which it returned with such severity that both sleep and appetite disappeared. An injection of 2 c.cm. of alcohol was given close to the foramen ovale. After five months the pain had not returned, and there was still complete anaesthesia over the area supplied by the nerve. In the case of a man, aged 61, severe neuralgia of the third branch of the trigeminal nerve had existed for four years. Other forms of treatment had failed, including the extraction of all the teeth of the lower jaw. The injection of alcohol into the nerve trunk close to the foramen ovale was followed by complete anaesthesia throughout the area supplied by this division of the nerve. In a third case severe neuralgia of the third division of the trigeminal nerve had existed for five years, and had been refractory to various forms of treatment, including the extraction of many teeth. The injection of 2 c.cm. of alcohol close to the foramen ovale was followed by complete anaesthesia over the area supplied by the nerve, and the patient was discharged five days after the injection feeling perfectly well. Professor Braun concludes that

the treatment by injection of alcohol is superior to the peripheral resection of branches of the trigeminal nerve, for though relapses occur after the treatment with alcohol, renewed freedom from pain may be obtained by its repetition. The first division of the trigeminal nerve should not, however, be treated in this manner, for the alcohol may escape into the orbit and endanger other nerves in this region. The results which Schloesser has obtained with his treatment are very striking: 117 out of 123 patients were freed from pain for an average period of ten months, and relapses were easily cured by the repetition of the injection. Ostwald has treated 45 patients thus with success in 90 per cent.; he found that relapses occurred in four to five months, but that they readily reacted to a second injection. Kiliani has treated 190 patients, only 5 of whom derived no benefit from the injections. Similar results are reported by many others including Harris. That the treatment did not at first meet with general approbation is due, in Professor Braun's opinion, to the technique of the operation not being at first clearly described.

234. Treatment of Sebaceous Cysts by Cupric Electrolysis.

DUBOIS-HAVENITH AND MAES, in a communication to the Société Médico-Chirurgicale du Brabant (*La presse méd. Belge*, March 24th, 1912), describe a somewhat remarkable technique for the electrolytic treatment of sebaceous cysts. They employ needle-electrodes of copper and a saline solution, the principal element in which is sodium chloride, thus obtaining by decomposition a salt of oxychloride of copper at the positive pole and the formation of caustic alkali at the negative. The action of alkali at the negative pole, or cathode, is to produce a cauterization followed by a soft, non-coloured, non-retractile cicatrix, while the action of the acid at the positive pole, or anode, is to produce a cauterization which is followed by a cicatrix, hard, pigmented, and retractile. The authors employ a bipolar method, and their theory is that for a few days after the actual electrolysis the caustic and acid elements, or ions, which have been liberated at the two poles, continue to act electrolytically within the cyst and "ripen" the cystic matter for evacuation. All grease is first removed from the skin by ether, thereby reducing the cutaneous resistance and permitting a lower voltage. The two copper needles are implanted so as to compass the radius of the cyst, and to be parallel the one to the other and as close together as possible without making contacts, so that the scar may be almost invisible. The needle connected with the anode is carefully insulated to within 2 or 3 mm. of its extremity in order to avoid the risk of a positive cicatrix: in the case of the cathode needle this precaution is not necessary. The current employed is from 2 to 5 milliampères, and with this intensity, although not with a higher one, the pain is negligible. The operation lasts for three or four minutes, and at the end a greenish-blue tint, due to oxychloride of copper, appears at the point of electrolysis. The current is brought down gradually to zero and then reversed, care being taken that the intensity of the reverse is less than that of the direct current. The purpose of reversal is simply to soften the tissues around the positive needle and thus facilitate its extraction, which otherwise is difficult. The two orifices caused by the implantation of the needles are then closed with a small zinc oxide plaster, and after from three to five days it will generally be found that the negative orifice has enlarged and united with the other, and that the cystic contents, now matured, can be evacuated with an ease which would not have been possible when the needles were implanted. The membrane of the cyst is easily removed by the forceps pincette, but the vascular membrane is not always so readily and completely detachable. If there is any difficulty in this respect, cauterization may be done with potassium bichromate in supersaturated aqueous solution, and, if the bleeding is not stopped, the interior of the cyst may be sprinkled with a little alum. After evacuation the cavity is washed with ether and closed with the zinc oxide plaster. No trace of the operation remains after a very short time. The authors cite 14 observations. In one representative case the sebaceous cyst was of the size of a pigeon's egg on the top of the head. By the bipolar method indicated a current of 8 milliampères was directed for five minutes. At the end of five days there was an opening 5 mm. in diameter between the orifices at which the needles had been introduced, and the contents were readily evacuated in a hard and stony mass. At the end of eight days the wound had closed, leaving a soft cicatrix, slightly tinted, but quite imperceptible two months later. Among the advantages of the method as compared with the bistoury the authors lay stress upon its painlessness, its simple technique, which requires neither local nor general anaesthesia, and the inconspicuousness of the dressings, which is of particular value in the case of the scalp.

235. Urotropine.

EMIL ZAK (*Wien. med. Woch.*, No. 4, 1912), when examining the sputum of a patient with croupous pneumonia who had taken urotropine because of a purulent pyelitis, found that the number of organisms in the sputum was surprisingly small. The idea occurred to him that urotropine might be excreted in the sputum, and might exercise in the sputum as in the urine a bactericidal action. In further investigation of the point he administered urotropine to the amount of 2 to 3 grams (31 to 46 grains) per day, and demonstrated conclusively by a series of tests that urotropine, as such, was excreted in the sputum. Further, urotropine was administered to a phthisical patient, and muco-pus taken *post mortem* from the deeper bronchi was found to contain urotropine. The fact of urotropine being excreted through the bronchi is of great importance, since very few substances employed therapeutically are so excreted. From these investigations it appears advisable to make trial of hexa-methylene-tetramine as a pulmonary disinfectant. Crewe had good results from the administration of urotropine in purulent affections of the gall bladder, and Kuln and Usener from sodium salicylate; Eichler therefore has tested a combination of the two drugs saliformin, and found that the bile gave a clear formaldehyde reaction and was noticeably bactericidal fifteen hours after the administration. The author considers these investigations worthy of further development. The author has also found that hexa-methylene-tetramine has a local action in checking decomposition of the gastric contents. Doses of 2 to 4 grams a day (31 to 62 grains) are well borne. In one case of gastric ulcer with symptoms of stenosis the patient complained of pain, which, however, lasted for a short time only after the administration of 0.5 gram (7.7 grains). This patient had been suffering from very unpleasant eructations, and the gastric contents when withdrawn were rich in fatty acids and had an offensive odour. After four days on urotropine the unpleasant odour had disappeared; the condition recurred when the drug was discontinued, and ceased on its readministration. Such results are hopeful and further trial is needed. As an intestinal disinfectant urotropine does not appear to be promising.

PATHOLOGY.

236. Transplantation Immunity.

GEORG SCHÖNE (*Muench. med. Woch.*, February 27th, 1912) gives some details of his experiments with the transplantation of the skin of the ear of rabbits, both with and without previous immunizing. Autoplastic transplantation succeeded in nearly every case, provided that care was taken that no cartilage was used. When the skin of other rabbits was used the results were different. In some cases the transplanted piece of skin underwent acute necrosis, in others a thick scab formed over the implanted skin, which was cast off later, leaving varying degrees of recognizable graft to be seen. Lastly, he observed cases in which no scab formation took place, but a free desquamation occurred in the neighbourhood of the graft. Seven rabbits were immunized by intraperitoneal injections of finely divided pieces of the pregnant uterus of a rabbit, containing a 10 cm. long rabbit embryo. Two rabbits were pretreated with the injection of kidney and one with liver, similarly prepared. After twenty-four days the ten rabbits and also ten control rabbits were subjected to autoplastic transplantation of skin, the controls giving skin to the experiment rabbits and vice versa. Autoplastic transplantation was simultaneously carried out in the other ear. By comparison Schöne was able to determine the effect of the previous immunizing treatment. In every case the homoplastic grafts showed marked differences from those of the controls. Within the first fortnight the degenerative processes had advanced much further in the experiment animals, and even after thirty-two days a distinct difference could still be made out. The most marked results were seen in the rabbits pretreated with embryo. On the other hand, no difference could be detected in the autoplastic transplantation when comparing the pretreated with the control animals. That a transplantation immunity can exist Schöne claims to have proved. He believes that the immunization affects the vitality of the graft, causing it to disintegrate more rapidly than it would in a normal animal.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

237. Causes of Headache in Children.

PÉRIER (*Ann. de méd. et chir. infant.*, xvi, 1912) divides headaches in children into acute and chronic. *Acute:* In sucklings, the commonest cause is digestive disturbance. Otitis, frequent in children and sucklings, may follow digestive troubles, or complicate other general or local infections. *Brain and membranes:* In the second period of infancy especially, acute headache with fever always suggests inflammation of these structures, and consideration should be given to the characters of the headache, the intensity of the fever, and the concomitant symptoms. In meningitis the headache is continuous, intense, which is not in accord with the temperature, which if not much elevated rarely gives rise to intense headache. The lower the temperature and the more intense the headache, the more likely we have to do with a meningitis. Hyperpyrexia nearly always excludes tuberculous meningitis, in which disease the temperature is irregular, and variable from time to time. Slowing and irregularity of the pulse is also a very important sign when present with headache, and should suggest the idea of meningitis. Suspicion should also be aroused in a case of headache gradually increasing in severity in a child in the second infancy who becomes pale, wastes, and suffers from loss of appetite and sleep, and search should be made for stiffness of the neck, Kernig's sign, and, if necessary, lumbar puncture performed. Very marked headache with little or no fever, in course of an acute cold, may be due to propagation of the catarrh to the *frontal sinuses*. Headache in the course of an *acute nephritis* ought always to make one fear the beginning of uraemia, especially if accompanied at the same time with vomiting. *Exogenous intoxications:* If many members of one family are affected with headache carbonic oxide poisoning should be thought of. Alcoholic intoxication can also produce headache, and the same applies to the action of drugs. *Chronic:* Cerebral tumour, encephalitis, congestion of the brain, due or not to hydrocephalus, softening, and haemorrhage of the brain. The diagnosis of headache due to a chronic affection of the brain is based on the coexistence of other cerebral symptoms, as vomiting, weakening of the intellect, paralysis, and paresis, especially of the ocular muscles, convulsions. *Megrim:* This is distinguished by the facts that the pain occurs suddenly, occupies one part of the head, ends after some hours in vomiting, and is followed by sleep. In the slighter cases vomiting may be absent. It hardly ever is repeated two days following, and if a child complains of headache for some days consecutively it is certainly not due to megrim. *Neuralgia of the infraorbital nerve* is often confounded with megrim, but in the former disease the pain is localized to the infraorbital region and becomes worse on pressure on the infraorbital trunk. It is frequently of malarial origin, and returns every day or every second day at the same hour, and hence intermittent headache in a child or adolescent should suggest neuralgia of this nerve. *General nutrition:* In some children headache occurs, it may be, every day, or at intervals, and shows no especial localization and is supposed to be connected with troubles of nutrition. The diagnosis is made by exclusion of other causes, the presence of anaemia or chlorosis. Gastro-intestinal troubles, chronic appendicitis, worms, onanism, all give rise to chronic headache. *Headache of school children, due to over-feeding and growth*, occurs chiefly in children from 10 to 16 years of age. The former shows itself, above all, in incapacity for mental work, and is frequently due to *errors of refraction*. Affections of the *nose*, such as blocking of the nares by adenoids, are by no means uncommon causes of headache, and the latter is cured by attention to the former. Lastly, Weill has noticed in adolescents a particular type of headache which coexists with deformities of the skeleton, as scoliosis, flat-foot, etc. The headache is dull, not very intense, but continuous, and appears to have its seat in the bones of the cranium.

238. Intestinal Digestion after Gastrectomy.

ADAMS (*Rif. Med.*, January 13th, 1912) gives the results of his experiments in relation to intestinal digestion after gastrectomy in the case of a woman, aged 64, whose stomach was completely removed for adeno-carcinoma. As soon as the patient had settled down after the operation and the digestive functions had become regular an estimate was made of the amount of absorption of carbohydrates, albumenoids, and fats as tested by an examination of the faeces. The fats were estimated by Salkowski's method, the carbohydrates by Fehling's solution, and the proteins by Kjeldahl's method. It was then found that 87.8 per cent. of nitrogenous food was absorbed, 99.9 per cent. of carbohydrates, and 95.69 per cent. of fats. Apparently, therefore, as far as these figures go, digestion goes on nearly as well without as with the stomach. Possibly the adjoining parts of the oesophagus and duodenum, by their glands, provide enough stimulus to set up the normal digestive processes in the intestine.

239. The Independence of the Third Left Frontal Convolution with Regard to the Centres of Speech.

RENÉ SAND (*Sem. méd.*, February 7th, 1912) describes a case of complete destruction of Broca's convolution without aphasia. The patient, who was right-handed, had a sudden right hemiplegia, including the muscles of the face. For twenty-four hours following the seizure he was mentally clouded and could not speak. Then he became quite conscious and recovered his speech, and, though articulation was somewhat slow, his vocabulary was intact. The paralysis, however, continued, and there was also faecal and urinary incontinence. This condition persisted for twelve days, at the end of which time he died. The autopsy revealed in the left hemisphere destruction of the posterior half of the frontal lobe, the anterior part of the parietal lobe, the island of Reil, and the white substance situated in the above-mentioned regions between the convexity and the central grey nuclei. The principal part of this lesion measured 55 mm. from above to below, 35 mm. from outside to inside, and 27 mm. from back to front. The island of Reil and operculum Rolandi had quite disappeared. The following small lesions, about the size of a pea, were found: One in the cingulum, one in the part of the first convolution limbica above the corpus callosum, one in nucleus caudatus, and two in nucleus lentiforme. In the lower part of the *right* nucleus caudatus there was also a small lesion. Microscopically, throughout the lesion the cortex was shrivelled, atrophied, and in part broken up. The white substance presented a débris riddled with cavities crossed by sinuous vessels. These vessels, and collections of fat granules, and fragments of medullated fibres constituted the only recognizable elements. The author quotes analogous cases published by Moutier, Mingazzini, Mott, Byrom Bramwell, and von Monakow. He supports the theory of Pierre Marie, according to which the centres of speech lie in the lenticular region, and not in the convolution of Broca. He considers the hypothesis of von Monakow and Mingazzini untenable. If, as the former supposes, the centres of speech are bilateral, and localized in Broca's area, and extending to the convolutions adjoining the aqueduct of Sylvius, surely a large lesion, such as the one described in the present case, would have caused aphasia at least for some weeks before the right hemisphere had time to take up its function. According to Mingazzini the centres of speech are bilateral, with predominance of the left. They lie in Broca's area, and the triangular part of the third and ascending frontal and fibres of the motor tract go to the nucleus lentiforme through the corpus callosum. In the case just described, the pars triangularis, the island of Reil, and the greater part of the fibres of the corpus callosum going to the nucleus lentiforme were destroyed without any signs of aphasia in the patient, and this fact contradicts Mingazzini's view, according to the author.

240. Pneumo-typhoid Fever.

HUTINEL (*Journ. des prat.*, xxvi, 1912) describes a case of a girl, 8 years of age, in whom both pneumonia and typhoid fever existed at the same time. The condition is rare and by some authors considered extremely serious, showing a mortality of 50 per cent., but Hutinel disagrees with this conclusion, as of eight cases seen by him all recovered. The author recommends balneotherapy, but, if the condition of the heart contradicts this treatment, then ice

should be applied to the heart and belly, and moist applications to the chest. Enemata are preferable to purgatives. Injections of camphorated oil, and, if the arterial tension is low, digitalin or adrenalin are indicated.

SURGERY.

241. Surgical Treatment of Appendicitis.

A. KROGIUS (*Muench. med. Woch.*, March 19th, 1912) discusses anew the question as to when the surgeon should intervene in the treatment of appendicitis. While he recognizes that success in the surgical treatment of this disease depends on the early stage at which the patients are subjected to operation, he is little inclined to advise early operation for all cases. He therefore inquires whether there is no sign which enables the surgeon to differentiate those cases which will do badly if left alone from those which will do well, and whether if any such indication exists the signs are clear enough for the general practitioner to recognize them at once. As a rule, these questions are answered in the negative, but he does not share this view. In the mild cases he has found that as soon as the patient is placed in bed, under a suitable treatment, all the symptoms begin to improve. The pain is diminished within an hour or so, the fever is lessened and vomiting does not recur. The local symptoms are limited to a more or less marked tenderness. These cases never need operation. On the other hand, the severe cases—that is, those which will become dangerously severe later—show no improvement, or even the reverse, of one or more of the symptoms. There may be improvement of some symptoms, but not of all, and the improvement does not last long. Thus, if during the first hours after diagnosis is made and the patient is placed in bed under a suitable tentative treatment, any one of the symptoms does not improve, be it fever, pain, or vomiting, the surgeon should be required to operate at once. He puts this in a nutshell by saying that an "appendicitis case must never get worse." He recognizes that in some cases the signs of perforation or peritonitis exist from the first, but these cases are readily recognized, and, in any case, the prognosis is very bad. He warns the practitioner that under no circumstances may a narcotic be given, until it is certain that the operation is to take place. He claims that these rules have guided him in several hundred cases, and he is convinced that they are safe.

242. Treatment of Fractures of the Humerus.

PECKHAM (*Amer. Journ. of Orthopaedic Surgery*, February, 1912), from experience of cases of non-union of fractures through the shaft of the humerus, considers that the delay is accounted for by the adhesive straps used for fixation of the splint having interfered with the nerve and circulatory supply, thereby retarding the activity of the local physiological process. Consequently, when another case of fibrous union presented at about four weeks, extension and counter-extension were employed, and the whole limb, including the seat of fracture, was thoroughly massaged on alternate days for a fortnight, by which time union was firm. In treating fractures of the shaft, therefore, he advises the use of splints for the first fortnight, care being taken that the circular strapping at the upper and lower ends does not bind too tightly. In the third week the splinting should be removed every other day for massage of the upper arm and seat of fracture, and for passive movements of the elbow-joint to prevent stiffening. The only cases necessitating an open operation are those in which the soft parts interfere with the apposition of the fragments. If the fragments are not being kept in a satisfactory position by the end of the second week good apposition can then be obtained by placing the patient in bed with extension and counter-extension for a further fortnight, with massage to the whole arm and passive movements to the elbow every other day, bony union resulting by the end of the fortnight. In fractures of the surgical neck, since the position of the short fragment cannot be controlled, the long fragment—that is, the whole humerus—must be placed in a position of complete abduction in order to obtain the best apposition, and if at the end of the second week union is not satisfactory extension and counter-extension, with massage three times weekly and passive movements of the elbow and shoulder joints, will produce union. Two cases illustrative of this method are recorded in which excellent results were obtained. Similar methods have met with equal success when applied to fractures of the lower end of the humerus. If by the end of the second week reduction is faulty success will generally attend further treatment for two weeks in bed with extension and counter-extension and massage and mobilization of joints, and the use of metallic methods for fixing the fragments will rarely be required.

243. "Hanging Laryngoscopy."

KILLIAN describes a new method of examining the larynx and of carrying out intralaryngeal operations, which he terms "hanging laryngoscopy," and which he claims yields far better results than the older methods (*Berl. klin. Woch.*, March 25th, 1912). He points out that the examination of the larynx has undergone several modifications in the course of time. The oldest method was direct inspection, using the palpating finger for points beyond the top of the epiglottis. Next came the laryngoscope of Randegger, giving an image in the mirror and causing everything to be done with the aid of the mirror. The first direct improvement on this was the method of Kirstein. The patient was placed with his head hanging over the edge of the table, in the so-called Rose's position. A thick tube, obliquely shortened in front, was used at first as a speculum, but later the inventor introduced a long spatula. Killian was not satisfied with the spatula method and again resorted to the tube, and was able in this way to inspect and manipulate as well through this as by any other method known up to then. But he found that the tube itself prevented a full inspection of the neighbouring parts and could not be freely moved. He therefore carried out a large number of experiments on the dead body, and having found a highly satisfactory method he adapted it to the living subject. The method consists of placing the patient with his head free over the end of the table. The spatula is applied to the tongue and, if necessary, the epiglottis, and the whole weight of the head presses the spatula against the tongue, so that the head is, as it were, hung up by the lower jaw and floor of the mouth. The spatula is attached to a suspensory arrangement, clamped on to the table, which Killian calls the "gallows." An electric handle of this stand can bring about an alteration of the position of the spatula. He does not use a gag, but has fixed a prop to the spatula, which prevents the instrument from slipping out, as it catches the upper incisors, and also keeps the mouth open. The instrument is applied by passing the end of the spatula as far as the uvula, then slowly downwards along the posterior pharyngeal wall to the neighbourhood of the arytenoids. It is then levered forwards and hung up on to the "gallows." When this is done the head is gradually let go, so that it hangs on the instrument. Killian describes a number of operations which he has carried out by means of the instrument. He claims that the surgeon obtains a full view of the mouth, fauces, larynx, and trachea without any obstructions, and that operative interference is very easy in this way. The patients stand the procedure well, of course local or general anaesthesia being used when there is need of surgical manipulations.

OBSTETRICS.

244. Induction of Labour in Contracted Pelvis.

ELLICE MACDONALD (*Journ. of Obstet. and Gyn. of the Brit. Empire*, February, 1912) advocates induction of premature labour in cases of contracted pelvis with a true conjugate of 8 cm. and over. In such pelves two-thirds of the babies are delivered spontaneously, and our effort must be directed to saving the other third by keeping the babies small enough to pass through the moderately contracted pelves and large enough so that they will not suffer from prematurity. This involves a knowledge of the size of the pelvis and of the approximate size of the child, the former knowledge being useless without the latter. The true conjugate is taken as the basis of measurement whether the pelvis is flat or generally contracted, there being little difference in the probabilities of delivery in the moderate degree of contraction under discussion. The two important measurements are the true conjugate and the biparietal diameter. A baby weighing 2,500 grams can be successfully delivered in a pelvis of 8 cm. true conjugate; this is the average size at 36 weeks and has an average biparietal diameter of 8 cm. The most satisfactory means of estimating the duration of pregnancy is to measure the height of the fundus; the patient lies flat, with the sides supported if she is a multipara, one end of the tape is placed at the upper border of the symphysis and the other is held by the thumb into the palm of the hand in such a way that the tape follows the contour of the uterus save at the la-

dip. The duration of pregnancy in lunar months is equal to the height of the uterus in centimetres divided by 3.5. A fixed point of 35 cm. fundal height indicates an average sized child of 3,300 grams, and by deducting 200 grams for every centimetre below 35 an approximate estimate of the weight of the fetus may be made. The weight of the child bears a fairly regular relation to the size and diameters of the fetal head. To measure the fetal head the author uses an ordinary pelvimeter with two rings of adhesive plaster fastened to each tip. The bladder is emptied; the operator stands as though to palpate the head: the occiput and sinciput are located, the index and middle fingers are thrust into the rings, and the knobs of the instrument are approximated to these points, the weight of the hinge side being supported by an assistant. The scale gives the occipito-frontal diameter and from it the biparietal is obtained by subtraction. From an occipito-frontal of 11.25 cm. 2 cm. is deducted, from 11.50 cm. occipito-frontal 2.25 cm., and from 12 c.m. occipito-frontal 2.50 cm. It should be remembered that the average-sized child measures 35 cm. fundal measurement, weighs 3,300 grams, and has a biparietal diameter of 9.10 cm., and with this as a starting point the time of induction is easy to reckon for any known pelvis. It is seldom advisable to induce labour more than four weeks before term, as then the child would be below the minimum weight, 2,500 grams, for good results. A child of this weight has an average parietal of 8 cm., the lowermost limit set for induction of labour, 8 cm. true conjugate. Caesarean section has a mortality of 7 per cent., and should be reserved for cases with pelvic contraction, through which it is not advisable to have a baby pass, or to cases in which the baby has already grown too large to pass through the moderately-contracted pelvis.

245. The Toxicity of Urine and Serum in Eclampsia.

P. ESH, working in von Behring's Institute in Marburg, and also in Zangenmeister's clinic for women, has undertaken some experiments with the urine and serum of women suffering from eclampsia. He has published his results in the *Muench. med. Woch.*, February 27th, 1912. The article is divided into parts. No. 1 deals with the clinical aspects of the eclampsia cases. No. 2 with the experimental technique. No. 3 with the results of the experiments. No. 4 with an attempt to determine the nature of the poison, which he regards as peculiar to eclampsia, and No. 5 is a summary. The chief points of the paper are as follows: The serum, and especially the urine, of eclamptic women is highly toxic to guinea-pigs when applied intracardially. The tables and letterpress give the dose which was necessary at times to kill in the case of eclampsic urine, but no mention is made of the maximum dose of normal urine which the controls were able to tolerate. The author merely contents himself with recording the effect (clinically observed) of the injection of the same dose of normal as of eclampsic urine. He regards the toxicity as identical with the anaphylactic shock. Liquor amnii proved to be non-toxic. He states that the poison contained in the serum is identical with that contained in the urine and is not identical with pure albumen. He finds that the poison is very little stabile, and, further, he found that it disappears rapidly from both urine and serum as the puerperium advanced. The author further deduces other characteristics for the poison, which he expresses with reserve, since the number of experiments on which he bases these claims is small. Recovery from the effects of the poison protects against the toxic effect of a second dose, at least for some hours. The urine poison did not affect a serum anti-anaphylactic animal, and yet was incapable of diminishing an existing serum anaphylaxis. The toxicity of the urine is removed by mixing it with equal parts of the serum of either a normal gravid woman or of a non-gravid woman. The toxic urine did not produce a local reaction when applied in doses of 0.5 c.cm. subcutaneously. In Part 6 the author indulges in some theoretical considerations.

GYNAECOLOGY.

246. Uterine Sclerosis and Haemorrhagic Ovarian Cyst simulating Ectopic Gestation.

GOINARD AND LAFFONT (*Bull. de la Soc. d'Obstét. et de Gyn. de Paris*, etc., February, 1912) relate in full an instance of suspicious symptoms in a multipara, aged 42. Eight years after her thirteenth pregnancy three atypical haemorrhages set in within a month, then one period was missed. One month later vomiting and syncope occurred with irregular discharge of coffee-ground material from the uterus. A few weeks afterwards the patient was admitted into hospital. The uterus was found to be slightly enlarged and deflected to the right, and a resistant tumour, almost fixed, occupied the right fornix. Supravaginal hysterectomy with removal of the appendages was performed, and the uterus was found to present the typical appearances of sclerosis. The Fallopian tubes showed no signs of any gestation sac, but were thickened and congested. The left ovary was much sclerosed, but bore neither any kind of cyst nor any recent corpus luteum. A cystic tumour of the size of a man's fist, adherent to the uterus, occupied the right ovary, opening up the mesosalpinx. It was filled with dark blood, partly coagulated. The essential tissue of the ovary was stretched over the cyst wall, and corpora lutea and other relics of Graafian follicles were detected in it. Not a trace of chorionic villi nor of any other product of conception could be detected. This case, like instances of rupture of haemorrhagic cysts of the ovary recently reported, is important, as showing how pathological lesions, independent of pregnancy, may produce symptoms simulating tubal abortion or rupture of a tubal or ovarian fetal sac.

THERAPEUTICS.

247. The Treatment of Gout and Rheumatism with Radium Emanations.

F. GUDZENT (*Berl. klin. Woch.*, November 20th) reviews the indications for and the results obtained by the above treatment of gout and rheumatism, 400 cases of which he has thus treated in the course of the past three years. The conditions unsuited for the treatment are: The acute forms of rheumatism, acute gonorrhoeal and syphilitic arthritis, acute arthritis associated with erythema or purpura. Senile arthritis is refractory to the treatment, as is also the case with monarthritis deformans, ankylosis of the spine, and cases presenting Heberden's nodes. Conditions such as lumbago are usually too acute for this treatment, which is necessarily prolonged, and in cases of gout in old people suffering from advanced arthritic changes the treatment is contraindicated because it may cause a severe reaction without any subsequent improvement. Tuberculous and syphilitic arthritis are frequently not recognized as such, but are diagnosed as simple polyarthritis. These conditions are therefore frequently treated by radium emanations, although ill-suited for this procedure. The conditions suitable for this treatment are simple chronic arthritis, chronic muscular rheumatism, progressive polyarthritis, and infantile arthritis, which, though it is usually refractory to other forms of treatment, reacts most satisfactorily to radium emanations. Gonorrhoeal monarthritis and polyarthritis also react well. The forms of gout which react best are those in which there has been little or no fibrosis or marked anatomical lesions. Discussing the best procedure, the writer advocates the inhalation of radium emanations in a closed room in preference to other procedures, such as rectal or intravenous injections of the emanations. When treatment in an emanatorium is not possible, the emanations should be prescribed in drinking water. The soluble salts of radium may also be injected into the tissues around the inflamed area, over which radio-active compresses may be applied. The physician must be conversant with the nature of radium emanations and the apparatus necessary for their production so as to control the dosage effectively. A painful reaction frequently follows the treatment at first, but it is soon succeeded by marked improvement, the affected joints becoming less painful and swollen. This improvement is frequently noticeable after two or three weeks of the treatment, the effect of which is usually more rapid on young than on elderly patients. In refractory cases two courses of the treatment, with an interval of a month, are required before definite improvement can be recorded. No serious complications were observed as a sequel to the treatment, which had, however, to be abandoned in one case owing to nervous symptoms. As a rule conditions such as insomnia improve under the treatment, which does not provoke or aggravate albuminuria, as earlier writers have claimed. In 50 cases of gout the quantity of uric acid in the blood was estimated by the Kruger-Schmidt method before, during, and after the treatment, when it was found that the blood of 37 patients was free from uric acid after about thirty-six sittings or less. The failure to banish uric-acid from the blood of the remainder was probably due in most cases to lack of perseverance in the treatment. The

patients often developed an attack of gout after a week or two of the treatment, and this was occasionally the case with patients who had not suffered from such attacks for many years. No prognostic significance is attached to these attacks which, when severe and febrile, necessitate the temporary abandonment of the treatment and the use of such drugs as colchicum and atophan. The writer gives no statistical analysis of his results, and he points out that it is still too early to gauge the duration of the improvement, for though some of his patients have maintained their improved condition, others have relapsed. In two cases slight injury was sufficient to provoke an attack of gout in patients whose blood had become free from uric acid, and who had recovered under the treatment.

248. A Year's Experience of Salvarsan.

MAGNUS MÖLLER (*Deut. med. Wosh.*, January 18th) reviews his experience of salvarsan which he has used at the St. Göran Hospital since August, 1910; 156 cases of syphilis were treated with salvarsan alone, the drug being given subcutaneously in 24 and intravenously in 132 cases; altogether 341 injections were given, Wechselmann's technique being adopted for the subcutaneous injections. Since November, 1910, Schreiber's intravenous method was employed, to the almost complete exclusion of other methods. The subcutaneous and intramuscular injections were abandoned on account of the local infiltration, pain, and stiffness which usually followed. Patients who had experience of both the subcutaneous and intravenous methods preferred the latter, as the subsequent pain and discomfort were less marked and prolonged. Intravenous injections of salvarsan ranged from 0.35 to 0.70 gram for adults. Usually the first injections were followed in four to twelve hours by a temperature which in some cases rose to 104°. The rise of temperature was much slighter or even absent after the later injections, and it is liable to escape attention unless the temperature is taken every two hours. Many of the patients suffered from headache, nausea, vomiting, and diarrhoea; the sleep was also disturbed, and there was sometimes violent perspiration on the following night. In 2 cases thrombophlebitis was observed above the site of the injection, but no ill-effects followed. In 2 cases cyanosis, restlessness, and tremor of the limbs were noticed, and twice scarlatiniform eruption appeared. Relapses referred to the nervous system were also observed. The excretion of arsenic by the kidneys was found to vary with the method of administration of the drug; after a subcutaneous injection it is very slow, and traces of arsenic are found in the urine several weeks after the injection. A considerable amount of arsenic is present in the urine a day after an intravenous injection, and three or four days later there are only traces of arsenic to be found. But in one case 0.97 mg. of arsenic was found in the day's urine twenty days after an intravenous injection of 0.70 gram of salvarsan. When it was found that the symptoms grew worse, or that relapses followed single subcutaneous or intravenous injections, the system was adopted by which the subcutaneous injections were repeated at intervals of two months, and the intravenous injections at intervals of two to three weeks, and later of one to two months. In the case of strong men the intravenous injection was repeated in a week. Although the spirochaetes usually disappear from the primary sore and papules within a couple of days of the injection, they were once found in a chancre of the lip twenty days after an injection, and they disappeared only after a course of mercury. Primary and secondary syphilis reacts even more quickly to salvarsan than to the soluble salts of mercury; in tertiary syphilis salvarsan is on a par with potassium iodide. The action of salvarsan and mercury on hard sores, papules, and scleradenitis is equally rapid, and Wassermann's reaction is not more rapidly affected by salvarsan than by the older drugs. Many of the earlier cases treated with salvarsan improved temporarily, but relapses occurred oftener than with systematic mercurial treatment. The relapses were less frequent after salvarsan had been pushed, and in two tables comparing the effect of the early and less vigorous use of salvarsan with the more recent and systematic procedure, Professor Möller shows that the percentage of relapses was 34 in the first and only 13 in the latter case. In 2 cases of syphilis maligna praecox (pustulo-ulcerosa) salvarsan had a strikingly rapid and effective action. The salvarsan compound which contains jodipin and lanolin, and which is sold as "Joha," was used in 4 cases according to Schindler's technique, but though the pain at the site of injection was less than with the technique of Wechselmann and Duhot, it was still considerable, and the intravenous injections were therefore again resorted to. Professor Möller admits that the combined treatment of syphilis with salvarsan and mercury may be beneficial, but he prefers to continue at present with salvarsan alone, in order that the value of this drug alone may be accurately gauged.

249. X Rays in the Treatment of Rheumatic Conditions.

THE application of *x*-ray treatment to simple chronic rheumatism, according to Jaugeas (*Arch. d'électr. méd.*, March 10th, 1912), has a marked effect upon the objective and subjective symptoms. The swelling and stiffness of the joints are ameliorated, and the pain with them. In arthritis deformans also the *x* rays generally have an influence upon the inflammatory processes, and in some cases the action is rapid, although in others the lesions undergo no modification. One instance of success is quoted in that infectious pseudo-rheumatism which he terms tuberculous, and which is characterized by arthralgia and articular flux. Arthritis blennorrhagica appears to be particularly amenable to radio-therapy. One severe case was greatly ameliorated after two sittings; at the first sitting the *x* rays were applied to the inner part of the tibio-tarsal, which was the articulation affected, and at the second to the outer part. The pain abated immediately, although the swelling did not disappear until after several further sittings. In rheumatismal affections of special localization, such as talalgia, the efficacy of radio-therapy is uncertain. Blennorrhagic talalgia is influenced, but in talalgia of rheumatismal origin radiotherapy has been comparatively a failure. In gout affections some remarkable cures have been chronicled. One case cited is that of a man, aged 65 years, who had pain in the left foot for six months, and was submitted to radiotherapy after the scraping of a uratic node, the size of a plum stone. The foot, which had ankylosis, and was swollen and painful, received four four-minute exposures to *x* rays in the course of twelve days, with the result that the pain and swelling completely subsided, and a few months afterwards the patient was able to make long climbs on the mountains. The technical conditions under which *x* rays are given in these cases are somewhat ill-defined. One worker whom the author quotes irradiated the various sides of an articulation with rays filtered through a sheet of copper 1 or 2 mm. in thickness, and during a time corresponding to half a Kienbock unit or a quarter of a unit of Holzknecht. The author, however, employs the very heavy dose of 5 Holzknecht units, filtering the rays through a sheet of aluminium 1 mm. in thickness. In successive sittings he treats the two opposite surfaces of a single articulation, and refrains for at least a fortnight from re-exposing the same surface. He suggests that the *x* rays have a direct action on the pathological formations in rheumatisms, and also an indirect action, which in some cases is the only action, upon the physiological condition of the articulations by stimulating the processes of defence or by influencing the local circulation.

PATHOLOGY.

250. The Cerebro-spinal Fluid in Syphilitics.

SORRENTINO (*Rif. Med.*, December 6th, 1911) details 26 cases of syphilis and draws attention to the importance of a careful examination of the cerebro-spinal fluid in these cases. He finds that in every case of tabes where the origin is clearly syphilitic a marked lymphocytosis is present in the cerebro-spinal fluid and is an indication of syphilitic meningitis. A similar meningitis exists in patients with pupillary symptoms (irregularity, anisocoria, Argyll Robertson phenomenon, absence of pupil reflex, optic atrophy). The headache and syphilitic pains may be of meningeal origin even in recent syphilitics without marked cutaneous or mucous localizations. All syphilitics who present even slight pains should be examined as to possible lymphocytosis in the spinal fluid, in order to determine whether an intensive form of treatment is necessary. A secondary syphilitic meningitis precedes the nervous disturbances of whatever nature they are, and may be considered the initial lesion of important syphilitic nervous diseases, for example, tabes. In fact, a direct relation exists between the two factors. These are the chief conclusions arrived at by the author, and they are of importance as showing the existence of an early secondary syphilitic meningitis, the forerunner of central syphilitic nervous lesions and of the chronic meningitis which succeeds later.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

251. Nervous Diabetes.

CARL VON NOORDEN (*Wien. med. Klin.*, No. 1, 1912) discusses a case sent to him under a diagnosis of neurogenic diabetes. The patient was a man 40 years of age, with a marked neuropathic family history. Two of his uncles had been diabetics. The patient himself had always been neurasthenical, the prominent symptoms being cardiac in early life and dyspeptic later. Four years ago he began to suffer, under stress of anxiety, from sleeplessness, loss of appetite and weight, and obstinate constipation. The urine was found to contain 1.5 per cent. of sugar. When under von Noorden's care the patient's tolerance for carbohydrates was at first considerable; 180 grams (6.3 oz.) of bread daily only resulted on the eighth and ninth days in a slight degree of glycosuria, and this began to diminish on the first day on which the amount of bread was lessened, and soon disappeared. The patient did well, and put on 1 st. 1 lb. in weight in a fortnight on a diet containing 60 grams of bread (2.1 oz.). Two facts came out as the case went on—first, that a sleepless night may in neuropathic diabetic patients give rise to glycosuria, which, within wide limits, is independent of food; and, secondly, that strong psychical irritation may cause a considerable output of sugar. In this case, as in many others observed by the author, sugar would appear in the urine during the day which followed a sleepless night, even though it might be absent from the urine passed in the early morning, while excitement and anxiety led to such a change in the condition that the patient, who had been tolerating 150 grams (5 oz.) of bread daily began to pass sugar even after a complete withdrawal of carbohydrates. The nervous factor was undoubtedly stronger in this case than the alimentary one, but, in spite of this, v. Noorden did not regard it as a purely neurogenic case and one without risk of alimentary glycosuria in the future, both because there was undoubtedly a certain degree of alimentary intolerance and also because the fact that any excitement was repeatedly followed by the excretion of sugar, showed weakness of the physiological control over the sugar formation of the organism. Present-day knowledge points under such conditions to the presence of some insufficiency, however slight, on the part of the pancreas, and the author has seen true diabetes develop in a very large number of cases from a neurogenic diabetes. This proved to be a case in point. The patient returned to work on a modified diet, and when the urine, a year later, was examined by the family doctor and found to be free from sugar, the doctor recommended a return to a mixed diet. A little later, however, further symptoms developed, and finally, two to three years after the beginning of the first attack, the patient presented himself with all the signs and symptoms of true alimentary diabetes, in which the neurogenic element could no longer be demonstrated with certainty, while limitation of the carbohydrates now produced acetonuria. V. Noorden dwells upon the importance of always regarding neurogenic glycosuria as liable to be followed by true glycosuria, and in any case of the kind here described urges that the true limits of tolerance for carbohydrates should be ascertained and any overstepping of the limit forbidden.

252. Severe Icterus.

MOTY (*Echo méd. du Nord*, December 17th, 1911) points out that the pathogeny, etiology, and symptomatology of grave icterus is still clouded in obscurity. He refers to the case of a man of 26 years which came under his observation. The patient was first treated for submaxillary adenitis—it had been the third attack of the kind—which terminated in suppuration. The patient attributed the condition to malarial fever, and his appearance rather bore this out. A little later he entered hospital suffering from icterus which had come on insidiously. There had been a period of loss of appetite, general lassitude, and a sensation of weight in the right flank. A violent attack of hepatalgia succeeded, and this was followed by vomiting of a brownish-green material, and the state of the urine usual in such cases. The next day delirium supervened, and violent convulsions followed by coma. The pulse was slow, strong, and regular, and the author was much struck by the noisy cardiac impulse, which was heard at a considerable distance from the patient. Soon after another attack of convulsions occurred, followed by rhythmical movements of the head from left to right. The cardiac sounds were now no longer heard at a distance, and the patient died within forty-eight hours of the acute attack. The autopsy showed that the stomach was dilated, the mucosa softened and covered with ecchymotic points. The liver weighed 900 grams, and presented a marbled appearance. The gall bladder contained thick black bile, and the canal of Wirsung was permeable. The kidneys were very congested, especially in the region of the pyramids. There was a quantity of fluid in the pericardium. In the author's view the case establishes the fact that the slowing of the pulse coincides with the degree of cholaemia. If the relationship is at fault in severe icterus it is because there is an element of infection superadded. The author thinks that the perception of the cardiac sounds at a distance in grave icterus is a feature which has hitherto escaped notice. He thinks this symptom is worth noting as indicative of a bad prognosis. At no time was there any tachycardia.

253. Fatal Plumbism due to Snuff.

E. STADLER (*Corr.-Bl. f. schweizer Aerzte*, February 10th, 1912) draws attention to a rare source of lead poisoning. A woman, aged 33, was seen on May 17th, 1910. Three weeks previously she had been suddenly attacked with headache, vomiting, vertigo, and a sense of impending evil. Small grey and black objects floated before her eyes. Three days later she was more composed, but the headache continued, and there was diplopia. During three or four years she had been less energetic than was natural to her, and in 1908 she had had attacks of colic with constipation and anaemia (haemoglobin 40 per cent.) No definite diagnosis was made at the time. Subsequently she had had frequent headaches. On May 17th, 1910, there were bilateral paresis of the sixth nerve and bilateral optic neuritis with retinal haemorrhages. The skin was of a remarkably pale yellow colour, but the patient did not appear to be seriously ill, and was not emaciated. The gums round the two upper canine teeth and the lower incisor teeth were of a bluish-grey colour. The breath was fetid. The urine contained neither albumen nor sugar. The percentage of haemoglobin was 70. A specimen of blood stained by Giemsa's method showed several granular basophile red corpuscles as the sole abnormality. This fact, in conjunction with a satisfactory haemoglobin percentage, the discoloration of the gums, and a history of colic and constipation indicated the presence of chronic lead poisoning. The woman was engaged in ordinary household duties, and her husband and five children, living under apparently identical conditions, were healthy. She was treated in a darkened room, and after a week the abducens paralysis and diplopia had disappeared. After three weeks the optic neuritis subsided, and on June 18th, 1910, she was discharged cured. She was not seen between August 2nd and November 28th, 1910, when she was admitted to hospital unconscious. Four weeks previously she had aborted, but was laid up only a week. On November 17th, during the night, she complained of severe headache, became confused in her ideas, and shrieked loudly. During the night of November 26th she became unconscious. The pupils were dilated and the corneal and pupillary reflexes were abolished. There were convergent strabismus, bilateral optic neuritis, and on the right side retinal haemorrhage. There was a well-marked blue line on the gums. The bladder extended to the umbilicus. The pulse was 84 and the temperature 97.5° F. The urine contained a trace of albumen and a quantity of indican. There were 38,955 basophile granular erythrocytes in a cubic millimetre. Saturnine encephalopathy was diagnosed. Treatment consisted in hypodermic injection of normal saline solution, catheterism, and enemata. Occasionally the woman shrieked loudly and clutched her head between the hands. On November 30th there was some improvement and she put out her tongue when directed, but afterwards she grew steadily worse and on December 4th was deeply comatose. It was of interest that the granular basophile erythrocytes diminished in number during this period, though they never entirely disappeared. Death occurred at 8 p.m. *Post mortem* there were anaemia of all the organs, including the brain, and granular atrophy of

the kidneys. It was elicited that the deceased woman had during the past four years been a great snuff taker. Her habit was to obtain the snuff in packets enclosed in tin foil. After opening a packet she would place it in her pocket and take pinches from it in that position; hence, a certain amount of the tin foil became broken off and mixed with the snuff. But apart from this, analysis of similar packets showed that the moist alkaline snuff had a chemical action on the foil, which was eroded in places. The foil contained 89.9 per cent. of lead, and the snuff contained an average amount of 1.75 per cent. On an average the woman had used 300 grams of the snuff monthly, or 10 grams daily. The latter amount would contain 175 mg. of lead. Though the whole of this amount would not be absorbed, 8 to 10 mg. daily are sufficient to produce chronic plumbism. Though this source of lead poisoning is rare, it was described as long ago as 1842, and several cases similar to the above have been reported.

SURGERY.

254. Intestinal Ulcerations and Perforations Remote from Cancer of the Rectum.

CHALIER AND THOMASSET (*Arch. gén. de chir.*, November 25th, 1911) say that changes in the intestinal wall proximal to a cancer of the rectum always are found, and that these changes frequently result in lesions more or less gross. The wall of the proximal segment of bowel undergoes modifications in thickness and in consistence; its coats are hypertrophied, indurated, and friable. Hypertrophy is frequent, sometimes to double the ordinary thickness; it is analogous to the hypertrophy of any viscus in presence of a stricture. Friability may be such that the bowel wall may tear quite readily; it is quite a special feature of intestinal wall in the neighbourhood of a cancer. Besides the muscular hypertrophy which has been several times demonstrated histologically, there is found a chronic oedema infiltrating the various elements of the intestinal wall. This oedema may be mechanical, due to circulatory disturbances arising from faecal stasis, or inflammatory, dependent upon septic absorption from an ulcerating neoplasm. These changes in the intestinal wall give rise to lesions quite definitely recognizable as ulcerations, which may ultimately penetrate the wall, and so perforation results. Ulcerations are variable in number, but always multiple. They are small generally, but may be 2 cm. in diameter; the border is irregular, the floor brownish in colour. Sometimes the mucous membrane is like a honeycomb, the intervening portions of mucous membrane being thickened, oedematous, haemorrhagic. The large intestine is site of predilection, and there in the transverse, descending, and pelvic portions. The ulcers are not all at the same stage. The mode of their formation has been variously explained: By the mechanical action of hardened faeces (but Kocher says that faeces above a cancerous stricture of the rectum are always soft, often liquid); by obliteration of arteries and veins through thrombosis in the neighbourhood of a malignant tumour; by simple distension of the bowel above the tumour causing venous stasis, thrombosis, localized gangrene, and hence ulceration. But the authors think that the chief rôle in their production is played by intestinal sepsis. For the most part these ulcers are not observed clinically, but are a *post-mortem* discovery. Their presence in cancer of rectum may be suspected if there are signs of colitis, obstinate diarrhoea, abundant and fetid. The treatment of the original lesion—the cancer—by colostomy or removal of the tumour will naturally cure the ulcers, and naturally also prevent perforation. In cancer of the rectum perforation of the intestinal wall may occur in the immediate neighbourhood of the tumour or at a distance from it, the latter being the more frequent. The authors have collected a series of 13 cases of this lesion—3 in the caecum, 1 in the ascending colon, 2 in the transverse and descending colon, 6 in the pelvic colon, and 1 in the small bowel. These perforations, with one exception (due to forceful irrigation of the bowel below the tumour), were spontaneous, and were of two kinds: (1) Diastatic ruptures, brought about by distension and bursting; in these rupture occurs from without inwards, the serous coat yielding first; and (2) gangrenous perforations; in these the perforation begins from within, as ulceration of the mucosa. The first variety is rare, and is generally discovered when acute septic peritonitis has resulted, though a case is reported in which a right-sided laparotomy was performed to establish an artificial anus, and a star-shaped rupture of the serous covering only of the caecum at its junction with the ascending colon was found. These ruptures are found in the small intestine in the vicinity of the insertion of the mesentery, in the large intestine always at the same point—namely, the junction of the ascending colon and caecum to the right or outer side of the anterior longitudinal band. The peritoneal covering tears first in the long axis of the bowel; the musculosa goes next in the transverse axis and the mucosa herniates through the gap, precisely similar to the sequence in traumatic rupture. The second variety or gangrenous perforation is found in the left portion of the colon. It is generally solitary, of small size, with gangrenous eroded edges. The mucous membrane near it is hyperaemic, and is the seat of numbers of small ulcers of varying size, the perforation being essentially the terminal stage of the ulcerative process. There is little to be said as to treatment. If a patient is brought in suffering from symptoms pointing to perforation of a viscus, the possibility of such perforations as have been described must be borne in mind. In inoperable rectal cancer such a catastrophe will be prevented by establishment of an artificial anus. Synopses of 17 cases are given, together with a bibliography.

255. Inversion of Meckel's Diverticulum.

HAMILTON DRUMMOND (*Ann. of Surg.*, March, 1912) reports 6 cases of intussusception due to inversion of Meckel's diverticulum. Persistent Meckel's diverticulum may be adherent to the umbilicus or to small intestine in the neighbourhood; this may give rise to secondary volvulus of a loop of small intestine or to intestinal obstruction by acting as a band. Acute diverticulitis may give rise to symptoms simulating appendicitis. A small diverticulum unattached at its distal end with a broad base and a narrow apex is the type most likely to become inverted into the intestine and so cause intussusception. Only a perfectly free diverticulum can be inverted. In all 6 cases recorded the whole of the diverticulum was inverted and there was an accompanying intussusception of the small intestine. Inversion alone may be present and may lead to an acute abdominal illness with peritonitis or gangrene. The author's view as to causation is that the occurrence depends upon a chronic inflammatory process affecting the mucosa of the base of the Meckel's diverticulum, which results in the first instance in swelling of the mucous membrane and prolapse into the lumen of the bowel. This may account for the pain and haemorrhage, and as the prolapsed mucosa increases in size and becomes more lax it hangs into the lumen of the bowel like a polypus, which the intestine attempts to expel, thus leading to an inversion. The frequent history of previous attacks of pain and haemorrhage points to these chronic changes. In this connexion the author quotes a case of Coffey, in which for four years there had been frequent and comparatively regular (every two months at least) attacks of cramping abdominal pain with blood in motions. At the operation an intussusception was found, the apex of which was formed by a small inverted Meckel's diverticulum, which had reached the transverse colon. In making a diagnosis abnormality at the umbilicus may also assist apart from symptoms of intussusception. Such abnormalities may be: Congenital umbilical hernia, marked tucking-in of the umbilicus, dome-shaped scarred umbilicus, umbilical fistula. The paper is illustrated by three very good drawings.

256. Cystic Tumour Developing from Ilio-psoas Bursa.

THOMAS S. CULLEN (*American Med. Assoc. Journ.*, April, 1910, vol. liv) reports an unusual case of large cystic tumour developing from ilio-psoas bursa containing large, free, cartilaginous masses, and communicating with the hip-joint. The patient was a man, aged 46, who for ten years had limped in walking, and was known to have a tumour of the left hip. For a year in walking he had felt "something slip" in the hip. The swelling was a large oval mass felt in the left iliac fossa, and extending past the middle line. It was continuous below Poupart's ligament with another smaller mass. The larger mass filled the left half of the pelvis. It was hard on palpation, but this in some positions of the leg gave place to fluctuant sensation. At the operation the mass was found to be a large cyst lying beneath the ilio-psoas muscle. Its walls were composed of dense connective tissue containing plaques of bone and masses of cartilage. The inner lining was smooth and glistening, and the contents were clear yellow viscid fluid, and also, lying free in the cavity, six cartilaginous masses more or less circular in shape, nodular, varying in size from 3 cm. to 5 cm. in diameter. The cyst communicated with the hip-joint by a small

opening. The whole cyst was removed and the communication with the joint sutured. The functional result was satisfactory. In discussing the diagnosis the author points out the relationship of the supposed tumour to the ilio-psoas muscle, and also the fact that the tension may be so great or the cyst walls so thick that it may be apt to be regarded as a solid tumour. He gives a very short summary of published cases, and draws attention to the traumatic origin of most of them.

OBSTETRICS.

257. Injection of Salvarsan in Pregnancy.

OUI (*Echo méd.*, March 24th, 1912) records the following case: The patient was in the ninth calendar month of pregnancy. She had two living and healthy children, the same father being, according to her statement, responsible for the three pregnancies. The fetus was living and the presentation was normal. Examination revealed abundant hypertrophic mucous patches on the labia majora. The patient then stated that she had had a single pimple on the external genitals when she was two months pregnant, and that the mucous patches had appeared during the fifth month. It appears that a third party had been introduced into the *ménage* at the beginning of pregnancy, that he had infected the woman, and that she had subsequently infected her husband. An intravenous injection of salvarsan (40 cg.) was given, and in four days the mucous patches had disappeared; the only ill-effect was a slight diarrhoea, which continued till her confinement ten days later. She was delivered of a living girl weighing 4,380 grams, and showing no syphilitic lesion. The placenta weighed 860 grams, and had the appearance of minced pork. Six months after confinement the mother was suckling and showed no symptom of syphilis—she had received a second injection of "606" six weeks after her confinement. The baby cut its first tooth at the age of 5 months and the second a month later; at the age of 1 year it had twelve teeth, and at the age of 14 months it was, as it had always been, free from syphilitic lesions, and was in good health. It is known that when the mother contracts syphilis in the course of pregnancy the chances of the fetus escaping are greatest when infection occurs near term. In this case, when infection occurred in the second month, the writer thought well to try the treatment in the hope of saving the fetus from syphilis, and the hope appears to have been justified. At all events, the case tends to show that the use of "606" during pregnancy is not attended with the grave inconveniences which have been attributed to it by some authors.

GYNAECOLOGY.

258. Primary Mesothelioma of Fallopian Tube.

CLARA EGLINTON (*Journ. of Obst. and Gyn. of the Brit. Empire*, vol. xxi, March, 1912) examined a tube removed last spring by Hellier of Leeds. The patient was a married woman, 47 years of age, and married twice; she had borne two children to term, but suffered from gonorrhoeal infection during the first marriage. She had been married to her second husband twenty years, but had never become pregnant. For no less than thirteen years there had been a fetid, watery vaginal discharge, occasionally sanious. Recently the discharge had become very free, mixed with much blood, and it came away copiously during voluntary micturition. There was also incontinence of urine. The patient had distinctly lost weight. Hellier removed the left uterine appendages; the uterus and the right Fallopian tube and ovary appeared quite normal. The patient recovered, but the bladder trouble continued, and about nine months later a swelling could be defined in the left side of the pelvis rising into the abdomen. The left Fallopian tube was of the usual retort shape, the outer part being dilated into a tumour of the size of a pigeon's egg. The inner or uterine half showed signs of chronic inflammation. The tumour was a friable, shaggy mass: it entirely replaced the mucosa, and infiltrated the superficial muscular layer; it was made up of solid masses and columns of cells, more or less areolar in arrangement. As Müller's duct is of mesothelial origin, Eglinton considers that tumours arising from its direct derivative, the lining membrane of the Fallopian tube, are mesotheliomas. The clinical history of this case was specially important, as there was a clear history of chronic inflammation of the genital tract, confirming the theory that cancer of the tube usually develops on the seat of a chronic inflammatory lesion.

259. Malignant Melanoma of Vulva.

MARKUS (*Monats. f. Geb. u. Gyn.*, vol. xxxiv, 1911, Part 3) came across an instance of this rare but conspicuous type of tumour in a girl only 20 years old. A shiny, blue-black, cress-like protuberance developed on the posterior commissure. It was of firm consistence, and the integument which covered it was adherent yet not ulcerated. A tough, cord-like process ran from the tumour into each labium majus, but the patient believed that this condition was of long standing. Diagnosis was difficult; haemangioma or naevus seemed probable. The tumour was excised; it had developed in the subcutaneous fat. There was no enlargement of the inguinal glands. Under the microscope it was found to be an undoubtedly malignant melanoma. It probably arose from a pigmentary naevus; perhaps the irritation of vaginal discharges caused malignant degeneration, but Markus expresses doubt about that point.

THERAPEUTICS.

260. Radium Emanation.

W. FALTA AND E. FREUND (*Muench. med. Woch.*, April 2nd, 1912) report from Professor von Noorden's clinic in Vienna of the continued observations made with treatment with radium emanation. Up to the present about 192 cases have been treated. The methods employed for these patients include external applications by means of packs, compresses of radio-active water or slime, plasters, radiophor, Dautwitz's radium "carrier," and a new apparatus of the Neulengbacher Radium Works. The external application acts by direct radium radiation through the skin. The same is said to be the therapeutic principle of radium baths. The authors give baths of from 30,000 to 60,000 Maché units. In 1 case they used an electric four-cell bath with emanation added, the bath being covered. A distinct reaction was noticed. Emanation was given in water by mouth, the dose being usually 1,000 Maché units pro die. In a few cases they increased this to 90,000 Maché units. Lastly they applied emanation by means of an emanatorium or special inhalation room. The dosage varied between 22 Maché units pro litre up to 1,200. The results obtained may be briefly summarized as follows:—In acute arthritic rheumatism: In 8 out of 10 cases the swellings of the joints rapidly diminished. At times no result is obtained. The treatment was at times very striking in its effect. They regard this form of treatment as advisable in all cases of acute rheumatism during the acute stage, especially when salicylates are not well tolerated. In secondary chronic rheumatism the result varied, and they conclude that but little can be expected from the treatment if the joint affection is maintained by an infective focus in the body. In 1 case of gonorrhoeal arthritis no improvement was noted. In primary chronic rheumatism 24 patients were improved materially out of 60. The authors divide these cases into four groups, and discuss each group separately. Good results were obtained in neuritis and neuralgia. In the same way 12 sciatica patients out of 14 responded well to the treatment. Less promising were the effects in what they term "polyneuralgia." The effect in bronchial asthma was uncertain, and their cases of Graves's disease got worse under the treatment. An early lytic fall of temperature was seen in each of the 3 cases of croupous pneumonia treated with emanation. The improvement was both subjective and objective. In 1 case of dysmenorrhoea the patient was distinctly worse after the treatment, while in 3 women at their climacteric the periods returned after several months' absence. The period also returned in a case of amenorrhoea. In summing up the authors are of opinion that the contraindications have not yet been fully worked out, and that it is still too soon to judge the indications or the actual effects of this form of treatment.

261. Vaccine Treatment of Gonorrhoea.

FELIX HAGEN (*Wien. med. Klin.*, No. 7, 1912) has employed vaccine treatment in 59 cases of gonorrhoea. The two vaccines he made use of in the different cases were Bruck's "arthigon" or Reiter's vaccine, and the results with suitable doses appeared to be the same whichever was given. The principle for dosage laid down by Reiter is that the negative phase should never last longer than twenty-four hours. The site of injection was the gluteal muscles; the local reaction was insignificant. The vaccine treatment did no good in cases of gonorrhoeal arthritis either when used alone or in combination with local treatment, nor in

cases of prostatitis; it was useful in one case, but only one, of perispermatocystitis. Gonorrhoeal arthritis was present in two cases treated, but did not appear to be affected; the author's opinion is that the only form of gonorrhoeal arthritis likely to be benefited is that of typical large gonorrhoeal joint tumours. The chief result of the treatment was seen in 55 cases of epididymitis without funiculitis. In all but 7 of these improvement was unmistakable, and in many was striking. Thus, without any local treatment except rest in bed and support of the scrotum, inflammatory tumours, as large as a goose's egg, quickly receded, so as to leave only slight infiltration of the epididymis, the time taken being four days in 1 case, six days in 2 cases, seven days in 1, nine days in 1, and ten days in 1. As a rule, however, recovery was slower than in these cases, but the effect of the vaccine was still clearly visible in the sudden softening of the tumour after the injection. Local applications of heat appeared to hasten resolution in some cases but to have no effect in others. Of 7 unsuccessful cases, 4 were complicated by severe funiculitis, which the author believes to be liable to cause relapse when vaccine is given twice. He looks upon the production of hyperaemia of the cord as a specific effect of the vaccine. In the other cases in which no improvement occurred the cause of the epididymitis proved to be non-gonorrhoeal. The author made a few trials of autogenous vaccines, but did not find the results materially different from those obtained by the other vaccines. The treatment is seen to be indicated for cases of gonorrheal epididymitis which are free from funiculitis. Where there is moderate inflammation of the cord special care is needed in dosage to avoid the danger of severe exacerbations. For the same reason the injections should not be given at the first onset of an epidymitis, but only on the second or third day, when the inflammation has reached its highest point.

262. Successful Treatment of Tetanus.

KRAS (*Wien. klin. Woch.*, No. 2, 1912) describes a case of severe tetanus which ended in recovery, apparently as the result of the treatment adopted. Antitetanus serum could not be obtained in less than two days, and was not used. The patient was a mulatto, 25 years of age, who had wounded his hand in doing garden work, some days before signs of tetanus set in. When he presented himself for treatment tetanic spasms had already been present for twenty-four hours. When seen there was severe trismus, so that the teeth could only be separated by instruments for about 4 mm. (0.16 in.); there was also tonic contraction of the back muscles, severe opisthotonos, pulse 104, temperature 39.8° C. (103.6° F.), clear mental condition, and slight dyspnoea. The wound was over the left wrist, and was almost scabbed over; a swollen, somewhat tender, gland could be felt in the bend of the elbow. The wounds and the glands at the elbow were widely excised under chloroform and the bleeding surfaces cauterized. The patient was next bled, 500 c.cm. of blood being taken away and replaced by a corresponding amount of physiological salt solution. Next, lumbar puncture was performed, the cerebro-spinal fluid being allowed to escape drop by drop. The cerebro-spinal canal was twice washed out with salt solution to which 0.3 per cent. of sugar was added, and, after this had escaped, two Pravaz syringes full of the same solution were slowly injected and the wound closed with iodoform collodion. Towards the end of the whole procedure the patient had a severe attack of dyspnoea, opisthotonos became more marked, there were strong contractions of the extremities, and the pulse rose to 140. After about ten minutes, however, these symptoms abated, and the patient fell into a quiet sleep which lasted for six hours. On waking up, there was definite diminution of the trismus and opisthotonos, while the pulse had fallen to 98. A nutrient enema, to which 3 grams (46 grains) of chloral hydrate had been added, was now given, after preliminary lavage. The patient had a bad night; next morning both trismus and opisthotonos were again more severe. On this day 300 c.cm. of blood were withdrawn, and 10 minims of digalen, added to the salt solution, injected into the vein. The cerebro-spinal fluid was again allowed to escape slowly drop by drop, and, after washing out the canal, a solution similar to that of the previous day was gradually injected in such a way as to avoid too rapid changes of pressure. The reaction on this second day was much milder. The patient went to sleep after about an hour and slept for four hours; during the sleep enuresis set in. On the third day the condition had greatly improved, the pulse was 88, temperature 38.2° C. (100.7° F.), opisthotonos weak, trismus clearly reduced; the patient was now able to drink with moderate ease a cup of milk with brandy. Venesection was again performed and the cerebro-spinal canal again washed out. At night an injection of morphine was required for severe headache. The patient slept almost the whole night. The cerebro-spinal canal was washed out again on each of the fourth and fifth days. By the fifth day the patient was almost well. He was discharged as recovered on the twelfth day. The author ascribes the favourable result chiefly to the treatment adopted, since, apart from it, the prognosis was altogether bad.

263. Intrarectal Injections of Antidiphtheritic Serum.

MOURIQUAND (*Journ. des prat.*, xxvi, 1912) considers that in all doubtful cases of diphtheria a rectal injection of serum should be given until the result of a bacteriological examination is known, and if the latter be positive a subcutaneous injection should then be made. Before giving an injection the bowel should be cleared out by an enema. The dose of the injection should vary according to age—5, 10, or 20 c.cm. Evil effects of the serum are possible by this method, but it is exceptional for them to be serious.

PATHOLOGY.

264. The Wassermann Reaction in Heredo-Syphilis.

LEROUX AND LABBÉ (*Arch. de méd. des enfants*, December, 1911) report the results of their researches in the serodiagnosis of heredo-syphilis and family syphilis carried on at the Fortade-Heine Dispensary, Paris. The tests were made in Levaditi's laboratory at the Institut Pasteur, by the method of Hecht, controlled by Wassermann's technique. They consider the Wassermann reaction a useful method in the diagnosis of syphilis, provided it is performed in the same laboratory and according to the same technique. Under these conditions, when repeated several times on the same individual, it is constant in 77 per cent. of cases. A positive reaction, with known exceptions, almost certainly implies syphilis; a negative reaction does not exclude it. The results of serum-diagnosis require to be interpreted, and must always be subservient to clinical evidence. Serum diagnosis is useful in the study of heredo-syphilis, but to be of value should be completed by systematic research of family syphilis, by the same method; otherwise many cases of latent infantile hereditary syphilis or parasyphilis will escape notice, as well as many cases of latent or unknown family syphilis. The authors obtained a positive reaction in nearly all cases of early heredo-syphilis with active symptoms; in 85 per cent. of cases of late heredo-syphilis, but in only 11 per cent. of latent cases (generally after treatment). Healthy children issued from syphilitic families all gave a negative result. In heredo-parasyphilis (dystrophics and degeneratives) the reaction was always negative. In the mothers of syphilitic children the reaction was positive in 71 per cent., whether they had symptoms of syphilis or not. The fathers of syphilitic children gave a positive reaction in 42 per cent. The authors conclude (1) that maternal syphilis is more often latent without manifestations, and more often virulent because unrecognized and untreated; (2) that maternal syphilis is more often conceptional than acquired directly from the father; (3) that the frequency of conceptional syphilis explains Colles's law—a syphilitic child procreated by a syphilitic father never infects the mother, because she is already infected; (4) that the number of cases of purely paternal transmission is small, because in the great majority of cases the mother is also infected; (5) that active maternal syphilis with positive reaction generally gives rise to virulent infantile syphilis, sometimes to latent syphilis without symptoms but with positive reaction, more rarely to infantile syphilis with negative reaction, occasionally to healthy children; (6) that latent maternal syphilis with negative reaction nearly always gives rise to parasyphilitic manifestations or healthy children, occasionally to syphilitic children with positive reaction, with or without manifestations; (7) that paternal syphilis (the mother being apparently healthy and with a negative reaction) only gives rise to parasyphilitic symptoms with negative reaction or to healthy children; (8) that a father with active syphilis and positive reaction never procreates a syphilitic infant with positive reaction without the mother being infected; (9) that treatment has no constant effect on the reaction, and the latter gives no certain therapeutic indication. Serum diagnosis gives no precise information as to cure or immunity.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

265. Lordotic Albuminuria.

FRANZ HAMBURGER (*Wien. klin. Woch.*, No. 7, 1912) agrees with the discovery of Jehle that in many children lordosis can give rise to albuminuria, and believes that most of the so-called albuminurias of puberty arise from this cause. Jehle's explanation of the phenomenon is that it is due to mechanical congestion of the blood in the kidneys. While admitting the explanation, the author believes that there is a second factor—namely, an excitable vasomotor condition. It has frequently been observed that many persons suffering from cyclic albuminuria have an excitable cardio-vascular system, and probably the frequency of lordotic albuminuria at the time of puberty is partly the result of the excitability of the vasomotor system, which is especially frequent between the ages of 7 and 15. This view is strengthened by the observation that in the same individual, under the same conditions, there will be at one time a large amount of albumen, at another little or none, in the urine—a difference which cannot in all cases be explained by variations in the amount of lordosis at the different times. The author describes a case under his own care in which the vasomotor condition evidently was the decisive factor in the regulation of the amount of albuminuria. The patient was a boy of 13 who had suffered for two weeks from headache, sleeplessness, cardiac pain, and loss of flesh. The condition was found to be a neurosis dependent upon a psychic trauma, the symptoms being chiefly referable to the circulatory system. The urine contained no albumen. The patient was put for five minutes into the position of extreme lordosis, "Jehle's test kneeling position," and at the end of the time the urine was again tested; it now contained large amounts of albumen, so that it became solid on boiling; the arteries, which had been quite rigid, had at the same time become soft. Under treatment with valerian, etc., and removal of a misunderstanding which perpetuated the psychic trauma, the symptoms disappeared: the patient was again tested by Jehle's test, but this now had no effect upon the urine, which remained free from albumen. Since this case the author has often made similar observations in other cases, and he has also carried out a series of more exact investigations showing that a position of extreme lordosis will sometimes cause marked, sometimes slight, and sometimes no albuminuria in the same individual.

266. Paroxysmal Tachycardia.

OPPENHEIM (*Progrès méd.*, xl. 1912) recommends the following treatment. Between the crises, treat the organic lesion, if one is present, and, above all, avoid over-exertion, mental and physical, and excitements of all kinds; avoid all excitants in the shape of tea, coffee, and tobacco. The food taken should be eaten slowly, and well masticated, and avoid all foods that overload the stomach. After food take sodium bicarbonate, prepared chalk, and powdered belladonna leaves. Take twice every day, some preparation of valerian, which can be alternated every fifteen days with arsenic or quinine and ergot. During the paroxysm the patient should from the beginning lie on the back and breathe slowly, and a slight compression of the right pneumogastric nerve at the level of the neck may be exercised. Deglutition should be provoked by means of liquid, or better, large pills containing any inoffensive material; best of all, give three cachets of extract of hypophysis (0 gr. 1.25 in each) at intervals of ten minutes. If the attack has not passed off in twenty-four hours, provoke vomiting by giving syrup of ipecacuanha. If this fails, one or more injections of morphine (1 cg.) should be given in the day. If notwithstanding all this the attack lasts for two or three days, and signs of cardiac failure become manifest, injections of strophanthine should be employed intramuscularly, ½ c.cm. or ½ mg., repeated the next day, and increased if necessary to 1 mg., and if this is unsuccessful, then a demimilligram intravenously.

267. Gastric Psychopathy and Uncontrollable Vomiting.

MUSSI (*Rif. Med.*, December 11th, 1911) records an interesting case of uncontrollable vomiting in a healthy man aged 34, due in all probability to psychic causes. The vomiting went on for two months, and did not respond to treatment; during this time the man lost 34 kilos in weight. The vomit was usually of greyish-green colour, with streaks of blood; free HCl absent, lactic acid absent, total acidity 0.90 per cent.; bile and mucin present, albumen present. Temperature varied between 37° and 37.9° C. No trace of blood in the faeces, and no signs of organic disease in the stomach. The urine was 1030 specific gravity, acid, small quantity of acetone and albumen, but no sugar and no bile pigment. The blood in the vomit was probably merely due to straining and some mucous congestion, and stopped when the stomach was washed out. The man had had many worries, much work in the fields under a high temperature; a maternal aunt had habitually vomited at night for years, and the patient himself had easily vomited for slight causes since childhood. The author's suggestion as to the pathology of the case is that it was of psychic or nervous origin, and refers, for example, to such cases as rose fever (hay fever) induced by smelling an artificial rose, sexual orgasms induced by reading amatory passages, etc. If psychic causes will induce complicated acts with these, why should they not in another individual set up gastric symptoms? Possibly the case may be an adult example of the so-called periodic vomiting of children.

268. Septic Rhinitis of Scarlet Fever.

KOLMER AND WESTON (*Amer. Journ. of Med. Sciences*, September, 1911) record the results of bacterin treatment of septic rhinitis of scarlet fever in 100 cases treated in the Philadelphia Hospital for Contagious Diseases. The cases were classified into purulent and non-purulent, the former being characterized by a profuse muco-purulent discharge producing excoriation about the nostrils and upper lip, with congestion and oedema of the lower turbinates, while in the latter the turbinates are enlarged and the discharge is profuse, thin, and mucoid, irritating the nostrils and lip. Such rhinitis is specifically infectious and plays a prominent part in the production of "return cases." On two occasions the introduction of a rhinitis case into a convalescent ward of patients with healthy noses has been followed in from two to four days by an outbreak of the condition. It would appear that the causal micro-organisms of scarlet fever have a saprophytic existence in the mucous membranes, retaining their vitality for a considerable time under the favourable conditions presented by a mucous membrane impaired by either lack of vigour or by a superadded septic infection. The bacterin treatment was commenced rather with the hope of overcoming the septic infection than with the idea of combating the causal agent of scarlet fever itself, since it is thought that the scarlet fever agent will die if the superadded septic infection is removed. The work was confined to those cases of septic rhinitis complicating scarlet fever, four organisms being found—namely, *Staphylococcus aureus* only in 89 cases, *Staphylococcus albus* in 3 cases, a diphtheria-like bacillus in 6 cases, *Staphylococcus aureus* with a diphtheria-like bacillus in 1 case, and *Staphylococcus aureus* associated with *Streptococcus pyogenes* in 1 case. In all the cases a culture was made in order to detect the presence of any organism other than the *Staphylococcus aureus*, and if two organisms were found they were isolated and a separate bacterin of each prepared. In a large number of cases a dose of stock polyvalent *Staphylococcus aureus* vaccine was administered at once, and in many instances one dose sufficed. The initial dose varied from 50 million to 100 million of staphylococci, and 50 million to 80 million of the diphtheria-like organism, the size of the dose depending upon the patient's general condition, and succeeding doses were given every five to eight days if clinically indicated. Beyond slight local redness and tenderness and general malaise, with a temperature reaction falling to normal in about twenty-four to thirty-six hours, no unpleasant symptoms resulted, and in the majority of cases the discharge began to lessen in twenty-four hours, the congestion of the turbinates being promptly relieved, and in two to four days bad cases were cured. The presence of adenoids contraindicates bacterin treatment, as in such cases it proved to be useless. By materially shortening the time required for cure, and by distinctly decreasing the number of "return cases," the bacterin treatment of septic rhinitis is more satisfactory than that usually adopted.

SURGERY.

269. Generalized Tuberculosis of the Lymph Glands.

O. H. CHIARI (*Wien. klin. Woch.*, No. 15, 1911) describes a case of widespread tuberculosis of lymph glands. The patient, a woman 49 years of age, had had no previous severe illness. Enlargement of the cervical glands on the right side had been present for about five years. A few months before admission difficulty in breathing had developed and a cough on exertion; since then the condition had grown rapidly worse. On admission there was much dyspnoea and audible stridor on slight exertion; the auxiliary muscles of respiration were called into play, and the soft parts in the intercostal spaces were drawn in on inspiration. In front of the sterno-cleido-mastoid muscle was a hard gland the size of a nut, not movable, not tender, and two similar glands of the size of a bean were at the anterior border of the scalenus muscle. There was dullness on percussion and increased vocal fremitus downwards from the fourth rib in front and the fifth spinous process behind on the right side. On puncture a clear amber-coloured fluid was drawn off. Over the sternum was a zone of dullness the size of the palm of a hand, which reached above to the level of the second rib, to the left merged into the heart dullness and to the right into that described above. A tube could be passed easily to the bifurcation of the bronchi. At the entrance of the right bronchus was an uneven, granulation-like growth, which appeared to be of about the size of a bean; it projected into the lumen and narrowed it. The diagnosis made was of primary carcinoma of the right bronchus, which had led secondarily to a metastatic tumour of the lymph glands of the mediastinum. A radical operation was decided upon and was attempted, but had to be abandoned because the tumour, which was larger than had been thought, was so firmly adherent to the trachea as to make removal impossible. The diagnosis made after a *post-mortem* examination was of mediastinal tuberculous tumour of the lymph glands, causing marked stenosis of both main bronchi and partial penetration of their walls; tuberculous pleurisy, caries of the ribs, and widespread tuberculosis of the lymph glands (Hodgkin's disease?). The histological examination showed tuberculous granulation tissue in all the affected organs. The process was seen at all stages. In the mediastinal tumour were many epithelioid tubercles, usually with Langhen's giant cells. Extensive caseation was seen in some of the glands, while the early stage was seen in the inguinal glands in a considerable hyperaemia and a strong development of the connective tissue round the vessels and the septa, and further in a patchy thickening of the reticulum. In sections from one cervical gland, but from no other gland, were seen strands of granulation tissue rich in cells, in which isolated multinuclear cells occurred of the type of giant cell described by Sternberg in Hodgkin's disease. Tubercle bacilli were not found in any of the sections, but in sections from the main tumour, the liver, the pleura, and most of the affected glands, Gram-positive granules were present which morphologically fully resembled Nuch's granules. The case is a rare one. The author knows no other instance in which a tuberculous growth of the bronchial wall simulating a malignant growth has been described. The connexion between generalized tuberculosis of the lymph glands and Hodgkin's disease it still disputed. The author looks upon his case as one of pure tuberculous lymphadenitis. The resemblance of the early stages to the condition described by Bartel in animals as the result of the action of a weakened tuberculous virus is a strong one. The author points out, however, that the tendency to connective tissue proliferation seen in the case is less like a tuberculous process, and causes it to resemble to some extent the histological appearance of Hodgkin's disease, as does also the growth into the neighbouring organ after the manner of a malignant growth.

270. Differential Diagnosis of Swellings of the Bones by Radiography.

DESTERNES (*Paris méd.*, vi. 1912) discusses the following conditions of the bones: (1) Tuberculosis. The radiogram shows a greyish uniform appearance, chiefly affecting the epiphyses. The lesions are shown by clear spots or lines surrounded by an atrophic zone. These spots indicate caseation, are generally small, and with irregular contours. (2) Syphilis has its seat of election chiefly on the diaphysis of the tibia, clavicles, ribs, and cranium. Gummata show a clear zone, consisting of the osseous structure, and rarely forming sequestra. Around this zone a dense osteo-sclerosis forms, thickening the diaphysis, and causing hypertrophy of the bone. The cortical layers are thick and opaque, the periosteum thick and uneven. The bone appears increased in size. (3) Osteo-myelitis. In the first stage, up to eight or ten days, the radiogram shows nothing abnormal, save, perhaps, a palish colour. Later a zone, clear, limited at first, with regular outline or more or less uneven. When the disease is advanced the outline is irregular, the colour dark, with clear zones surrounded by opaque parts, with subperiosteal protrusions and thickening of the periosteum at the level of the fistulae and old cicatrices. (4) Tumours. (*a*) Central osteo-sarcoma. If the tumour progresses rapidly the photograph shows diffuse radiations into the healthy tissue, extending to the walls and invading the soft parts; adjoining the healthy bone a large uniform zone exists with indistinct outline, less opaque than normal bone, darker than the soft parts. Tumours *à myéloplaxes* most frequently affect the inferior extremity of the tibia. The photograph shows an area of a clear colour, with clear borders; at the periphery of the zone a semi-calcified area is shown, which later on becomes clear, the periosteum finally appearing folded, and surrounding the tumour.

271. Prolonged Priapism.

BILLAUD (*Prov. méd.*, March 23rd, 1912) relates a case of this nature. The patient was a farm servant aged 26, who had been married a month. There were no pathological antecedents, although the man was of a nervous temperament. Up to the time of entry into hospital the state of priapism had lasted for seventeen days. The condition had commenced suddenly without apparent reason, and the turgescence and rigidity extended to the spongy tissue of the organ as well as the corpora cavernosa. No medical treatment had been of any value. Cold and hot applications and compresses, leeches to the root of the penis and applied to the lumbar region, were equally unavailing. Bromides, morphine, and chloral had only the effect of making him drowsy. They had no local action. Sexual intercourse was out of the question, as introitus became impossible owing to the size and wooden hardness of the organ. Masturbation resulted only in making the continuous pain more severe. The weight of his clothes, the least movement, became insupportable. He passed urine normally and without pain, and this indeed was his sole relief. An anaesthetic having been administered and a gum-elastic catheter placed in the urethra, two parallel incisions—each corresponding to a corpus cavernosum—were made. A quantity of black viscid blood immediately escaped, and the organ subsided. The next day, after a good night, the patient suffered no further pain. There was still some oedema, however, and hot fomentations were applied. The wound practically healed by first intention, and a few days later was only slightly swollen. The patient left hospital after twenty days, and up to the time of leaving had had no erection; the author is unable to say when erection occurred again. He suggests that the man's neurotic predisposition may have contributed to the condition, but is unable otherwise to account for it.

OBSTETRICS.

272. Puerperal Fever.

A NUMBER of experiments dealing with the above subject are described by Zangemeister (*Muench. med. Woch.*, No. 1, 1912) whose conclusions confirm the increasingly common view that puerperal fever is oftener due to endogenous infection than has generally been admitted. Only a few years ago it was taught that most, if not all, cases of puerperal fever were due to infection from without, and Ahlfeld's teaching that autoinfection was an important factor in puerperal fever received, at first, but little support, for it was based on the argument that the disinfection of the hands with alcohol was sufficient to sterilize the skin completely, whereas it has been repeatedly shown that some germs still remain on the hands, however carefully they have been treated. But of late years several writers have confirmed Ahlfeld's contention by observations which are not open to the objection already mentioned, and they have shown that in a large percentage of cases of puerperal fever which occurred in spite of the most rigorous asepsis, the infection was due to organisms flourishing on the genitals of pregnant women. The author has found that though there are germs on the hands after every method of disinfecting them has been carefully performed, they are so deeply seated in the skin that they can only be scratched off, not rubbed off; and that the

are therefore relatively harmless. Besides, the few germs left on the hands after their disinfection would have to be extraordinarily virulent to cause infection of the genitals. The germs, too, which can be cultivated from "sterilized" hands are not identical with those to which puerperal fever is commonly traced, and streptococci have seldom been found even on the most superficially disinfected hands. Although endogenous germs are less frequently virulent than exogenous germs, they may yet be pathogenic if they are derived from an infectious process in the vagina or its immediate neighbourhood. On the other hand, most germs which are found on the hands are seldom virulent, for their vitality has been reduced by their sojourn on an indifferent medium. Only when such germs have recently escaped from their breeding ground on to the hands, are they very virulent. With a view to discovering the sources of the virulent exogenous germs, the writer examined bacteriologically the various objects which might harbour streptococci or other germs in a house, and he found streptococci only on man or on articles with which he had lately been in contact. These germs are common in the nose, mouth, rectum, and vagina; they are less numerous on the hands, and still less numerous elsewhere on the skin. Doctors and midwives were, however, found to be an exception to this rule, their hands being frequently covered by streptococci. Patients suffering from a streptococcal infection were everywhere covered by these germs, luxuriant colonies of which were also found in their neighbourhood. Fortunately these streptococci do not survive a prolonged exposure away from their culture medium, but they may survive for eight weeks when dried on blood-stained linen. Transplanted to human skin, they seldom live for twenty-four hours. The author explains the fact that puerperal fever is commoner after an exploration with sterilized gloves than when no exploration has been attempted by the assumption that the exploration aids the infection of the tissues with endogenous germs, and he applies the same explanation to the frequency of puerperal fever after obstetrical operations. Flies living in laboratories and obstetrical wards were seldom found to harbour streptococci, never haemolytic streptococci; but they were more frequently infected with staphylococci. One fly, after it had settled on a mouse which had died of a streptococcal infection, was found to be infected with a pure culture of streptococci. The danger of infection from insects is, however, slight, according to the writer, who left a mouse, which had died of a streptococcal infection, lying in the same compartment as several other mice which harboured fleas. None of the healthy mice became infected.

GYNAECOLOGY.

273. Vaginal Local Treatment.

M. NASSAUER is of opinion that local treatment applied in the vagina should be considerably modified. He does not like the irrigator and disinfecting irrigation (*Muench. med. Woch.*, March 5th, 1912). In its place he advocates the employment of a powder distributor, which he calls the "siccator," and the substance which he blows into the vagina is *bolus alba*. He claims that since he first called attention to the advantages of this method of treatment, a large number of medical men have taken the treatment up, and in no case have there have been any adverse criticisms. His siccator has even been employed in veterinary practice by Lauterbach for the treatment of vaginitis in cows. In treating a vaginal discharge in women he insists, first of all, that the cause should be sought in every case. The lungs, heart, and blood should always be examined. The action of the bowels must be investigated, since constipation is a frequent cause. Chlorosis (anaemia), early tuberculosis, etc., are also mentioned. Naturally, the cause must be treated first of all. Next, he turns his attention to the local condition, and having decided that the discharge must be treated as such, he tells the patient to buy his siccator, which he says can be obtained at all instrument dealers, and to treat herself according to the directions which he gives her. He controls the condition from time to time. The procedure which he follows is first a bimanual examination. Next the speculum is passed and the vagina is swabbed out well. Then a spoonful of powder is applied to form a thick cover all over. In using bolus he states that it is difficult to use enough. On the following day he examines again, and usually finds that the discharge has ceased externally, having been soaked up into the powder to form a waxlike yellow mass, which can readily be removed with dry swabs. If the vaginitis is acute the mucous membrane tends to bleed and is inflamed. He thereupon orders the patient to blow in bolus with the siccator three or four times a day. Douching is only permitted when after several applications of the powder the discharge reappears. This takes place after about two or three days. The fluid to be used is a solution of soda or camomile. Immediately after the irrigation the powder is again applied. It is desirable to avoid cleaning out the vagina in any other way, and especially to swab out the vagina. The powder is kept up till the discharge is gone. He says that the bolus not only acts by drying, but, inasmuch as it fills out the cervical canal, it acts as a drain. The cervix no longer lies in a bath of pus, and therefore the source of reinfection is removed. He has not tried it in children, but others report favourably on this. He has experimented with a number of other powders, but so far finds bolus the best of all. He gives detailed accounts of the effects obtained in the various conditions associated with vaginal discharge. Suffice it here to mention that he obtains good results in practically every one of the known forms of vaginitis. The advantages are said to be manifold over the moist methods, not only in respect to cure, but also subjectively for the patient. He points out that the siccator blows up the vagina, and thus enables the powder to be distributed all over the mucous membrane, even in niches which are never reached by fluid.

274. Genital Obesity.

RATHERY (*Journ. des prat.*, 1912, xxvii) describes a case of obesity in a woman which he considers was due to ovarian insufficiency. The treatment adopted consisted of a diet of 1 pint of milk, 2 eggs, 100 grams of bread, 200 grams of potatoes; green vegetables, salads, and fruit *ad libitum*; powdered ovarian extract was also given. In one week the patient lost 2.900 kilos.

THERAPEUTICS.

275. Treatment of Passive Congestion of the Liver.

VIRES (*Journ. des prat.*, 1912, xxvi) draws attention to this condition under the following headings: (1) Symptomatology: Congestion of the liver as a result of heart disease is of two forms—(*a*) congestive, (*b*) sclerotic. The first form shows itself by a systole, increase of venous tension, oedema, anasarca, serous effusion, yellowish tint of skin, dyspnoea, and pain in the right hypochondrium. The liver is enlarged, and in some cases pulsation of the liver synchronous with the cardiac systole can be felt at the right costal margin: the jugular veins are frequently dilated. All these symptoms may disappear with local or general blood-letting and the production of diarrhoea. In the sclerotic or cirrhotic form the patient is often an old cardiac case, frequently tuberculous or syphilitic, and always alcoholic. The abdomen is enlarged from ascites, the veins dilated; the liver is hard and enlarged, the spleen moderately hypertrophied. Pains radiate to the shoulders and often cause insomnia, and death results from cachexia as a result of cardio-hepato-renal inadequacy. Death may result from haemorrhage passing into a typhoid state. Certain clinical forms have been described: (*a*) Hepatic asystole of Hanot, dependent on mitral disease. There is no oedema of the lower limbs or fluid in the abdomen, no albuminuria, but simply a feeling of heaviness in the region of the liver, which is enlarged and painful. Dyspnoea is usual, and numerous crepitations are found at the base of the lungs. (*b*) Rheumatismal adherent pericardium. If the right auricle is fixed by adhesions it dilates; the venae cavae enlarge, and icterus, ascites, and dyspnoea arise. (*c*) Tuberculous type. Cardiac and hepatic adhesions result, the peritoneum becomes affected, and effusion forms. (2) Etiology: Mitral disease, myocarditis, pericarditis with and without adhesions, emphysema, pleural adhesions, bronchopneumonia, pulmonary scleroses. (3) Anatomy (*a*) Congestive type: The liver is enlarged, darkish in colour, and on section blood exudes in abundance: the portal areas are intact. (*b*) Cirrhotic: The liver is enlarged and hard, and creaks on section, and abundance of blood escapes from the veins. (4) Treatment: In the congestive cardiac form the venous tension should be lowered by local or general blood-letting, and drastic purgatives employed. Rest should be absolute, both physical and mental. According to the severity of the symptoms, boiled water and then boiled milk and water, and finally milk, should be drunk. After these remedies had been employed digitaline should be given for three consecutive days in doses of 1 mg.

the first day and ½ mg. on the two following days. A large amount of albuminuria is the only contraindication to digitaline. Theobromine (1.50 gram in three cachets per diem) should be given for its diuretic effect. The function of the liver being in abeyance, large intestinal lavages of boiled or alkaline water should be employed. In the cirrhotic form, the specific cause—as syphilis, tuberculosis, and alcohol—should be appropriately treated. When ascites has developed to a serious extent puncture is indicated. Digitalis is not often necessary, but may be given in pills, three a day, each pill containing 0.10 gram of aqueous extract of ergot, 0.10 gram of powdered squills, 0.25 gram of calomel, and 0.25 gram of powdered digitalis.

276. Endovenous Medication.

FORNACA (*Gazz. degli Ospedali*, November 12th, 1911) reviews at some length the progress of endovenous medication. The leading principle is to arrive at the maximum result with the minimum quantity of the drug. A very large field has been covered, and it is only possible to select some of the main lines. The dangers are only treated lightly, as the author assumes endovenous methods are by this time sufficiently well established to make it unnecessary to dwell at large on this aspect. Conspicuously good results have been obtained with quinine in malaria and with mercury in syphilis. Mercury has a leucocytogenic and antitoxic (rather than bactericidal) action, and has been found useful in streptococcal infections, as also in tetragenic infection. In these acute infections endovenous injections of sublimate almost invariably stop the rigors. Good results have also been obtained in pneumonia and other diplococcal infections. In typhoid the records are not so satisfactory. It is interesting to note that some cases of chorea have been benefited by mercurial injections. With regard to the colloidal preparations, the author would limit their use to grave forms of infective disease, and in his experience they do not give better results than the ordinary metallic salts; however, collargol in gonococcal infections, given endovenously, has given some brilliant results. He is strongly in favour of the endovenous method of administering salvarsan in small doses, repeated if necessary, rather than in one big dose, and supplemented by subcutaneous and muscular injections. He is not quite convinced that salvarsan gives decidedly better results than sublimate. In cardiac therapy brilliant results have followed the endovenous use of strophanthin, especially in tachycardia. The results with digitalis—incidentally confirming its leucocytogenic power—are conflicting. Adrenalin has given good results. The various serums (antidiphtheric, antitetanic, etc.) are reviewed, and finally mention is made of two of the most recent of endovenous applications—namely, anaesthesia by means of ether or chloroform injected endovenously and a peristaltic hormone, which has given good results in some cases of constipation. In the author's personal experience this hormone has only given satisfactory results when used endovenously, and in two cases where it was given in this way the result *qua* constipation was good and remained so for more than two months in one case and for a month in the other.

277. Tuberculin in Febrile Tuberculosis.

RÉNON (*Journ. des prat.*, October 25th, 1911) discusses this question, and criticizes the recent tendency to submit nearly every case of febrile tuberculosis to treatment by tuberculin. In spite of the fact that tuberculin is an excellent, and sometimes indeed the only, antithermic remedy of any value we possess in some of these cases, he has seen severe results follow its use. In some there was a violent reaction, with repeated attacks of haemoptysis; in others a rapid generalization of the tuberculous condition, and, indeed, in two cases death followed in about six weeks. The possibility of such consequences necessitates a systematic examination. As opposed to serumtherapy, which determines a passive immunization of the organism, tuberculino-therapy sets up an active state of immunization. In serumtherapy the antibodies are produced by a foreign agency—the diseased organism having to make no new efforts in its own defence, no new army to raise. An army of mercenaries ready and equipped is introduced. Not having to elaborate fresh antibodies, the organism runs less risk of exhaustion. In active immunization, on the other hand, the matter is altogether different. Here the organism is obliged to react in order to immunize itself. The local reaction produced in such cases generally results in a process of sclerosis, and this reaction, in the author's opinion, ought to be hardly noticeable to the clinician if tuberculino-therapy is properly carried out. When the organism does not react at all, theoretically serumtherapy is indicated rather than tuberculin. As a matter of practical experience, however, distinct amelioration of the condition is found in most instances to follow the administration of tuberculin even in febrile cases. It is largely a matter of the resistance of the organism, and unfortunately it is difficult to estimate this accurately. In the author's view the primary indication for the use of tuberculin is a state of "relative apyrexia." The rectal temperature ought not to exceed 37.8° C. in the evening. In all cases with a temperature of over 38° C. the treatment ought only to be undertaken in a hospital or sanatorium under skilled supervision. Tuberculin is contraindicated in all advanced cases, with phenomena of intoxication or recent inflammatory foci. The author recommends almost infinitesimal cases, commencing with the millionth of a milligram. A good tuberculin is essential.

278. Agar as a Vehicle in Intestinal Therapeutics.

EINHORN (*Amer. Journ. of Med. Sci.*, February, 1912) urges the use of medicated agar in various intestinal complaints as a convenient method of applying that remedy, so that it will cover a large area before being absorbed. Since dried agar is eliminated undigested, and takes up during its passage a considerable quantity of fluid, it is useful in conditions in which the faeces are reduced in quantity or are too dry. This property of softening the stool renders it valuable in constipation, since the efficiency of any laxative with which it is impregnated is greatly increased. In the treatment of diarrhoea also it is useful as a vehicle for the administration of astringents, since it prevents the formation of hardened faeces in cases where the mucosa is inflamed or ulcerated. In neurotic intestinal disturbances it may be made to carry a sedative, and impart it to a large area. In order to prepare medicated agar the medicinal agent is dissolved in boiling agar-water solution, thoroughly mixed, and then evaporated to the original dry agar volume, and by knowing the quantities taken the medicinal agent can be standardized. In this way the author has successfully used agar as a vehicle for the administration of phenolphthalein, rhubarb, calumba, gambir, tannin, simaruba, myrtill, ipecacuanha, and sumbul in intestinal therapeutics.

PATHOLOGY.

279. Qualitative Determintation of the Different Albumens in the Urine.

GRIMBERT (*Paris méd.*, vii, 1912) describes the three following kinds of albuminoids found in the urine: (1) Pathological albumen (serum and globulin); (2) soluble acetic albumen of Patein; (3) albumoses and peptones. The first form is coagulated by heat in an acid medium containing sufficient neutral salts. The second form is coagulated by heat in a neutral medium, redissolved by dilute acetic acid, but is entirely precipitated by heat, even in an acetic medium, in a urine saturated by sodium sulphate. The albumoses and peptones are not precipitated by heat, even in an acid medium. The albumoses are precipitated by ammonium sulphate in an acid medium, but the peptones are not. *True albumen:* 50 c.cm. of urine and an excess of sodium sulphate (15 grams) are shaken vigorously, and a few drops of acetic acid, 1 in 10, are added. Filter into a test tube until three-quarters full. A slight cloud indicates albumen. *Patein's albumen* is also precipitated by this method. To examine for the latter, heat, without acidulation, as above with 2 per cent. of NaCl. If there is a cloud it may be due to earthly salts, true albumen, or Patein's albumen. Add a slight excess of acetic acid. (*a*) If the cloud disappears, add nitric acid, 1 in 20, and heat. A new precipitate or cloud indicates Patein's albumen. (*b*) If the cloud persists, it is due to some albumen; filter, and test for Patein's albumen as above. *Albumoses and peptones:* (1) Add 5 per cent. of sodium chloride and acidulate with acetic acid, heat to ebullition, and filter. If the liquid is slightly coloured the biuret action gives a positive reaction. (2) To 10 c.cm. of filtered urine add 1 c.cm. of potassium ferrocyanide 5 per cent., and 10 drops of acetic acid. A cloud or precipitate, soluble by heat and appearing when cold, indicates primary albumoses. If the test reaction is positive, exactly neutralize 20 c.cm. of the filtered urine and saturate in the cold with pulverized NaCl, which precipitates the primary albumoses; filter, and add a slight excess of nitric acid: if a cloud or precipitate, soluble in heat and appearing when cold, occurs, secondary albumoses are present. If these two reactions do not occur, and the biuret reaction takes place, true peptones are present.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

280. Pyloric Stenosis causing Diarrhoea.

I. BOAS (*Berl. klin. Woch.*, February 19th, 1912), in describing the relation between pyloric stenosis and diarrhoea, points out that the dependence of the latter on the former is not generally recognized, and that the irrational treatment of this form of diarrhoea is consequently unsuccessful. The symptoms to which this condition gives rise are often misleading, and prolonged clinical observation is in many cases necessary before the diarrhoea is traced to the stenosis of the pylorus and the associated dilatation of the stomach. While diarrhoea is recognized as one of the commonest symptoms of achylia gastrica, its relation to pyloric obstruction is more obscure, but the writer considers that the diarrhoea is probably due to the products of decomposition which, chiefly in the form of gases, escape from the stomach into the intestine. Since the writer observed this condition ten years ago for the first time, he has frequently recognized it, and in most cases hydrochloric acid was present in the stomach, sometimes in excess of the normal. In the case of a man aged 50, there was a history of several years of periodical illness, attacks of intestinal colic being followed by diarrhoea which afforded temporary relief. A strict diet had been prescribed, but the patient's condition grew worse. Between 1905 and 1908 the abdomen was frequently examined, but with the exception of transitory rigidity over the fundus of the stomach after friction there was no guide to the true cause of the disease. Although all the symptoms were referred to the intestine, the contents of the stomach after fasting were examined, when free hydrochloric acid, numerous sarcinae, muscle fibres, starch, fat, and yeast cells were found. Numerous sarcinae were also found in the faeces, which contained no blood. The Roentgen rays showed that the stomach was not much dilated, but that there was considerable ptosis and peristalsis. Lavage of the stomach was therefore systematically performed in hospital and was continued by the patient twice or thrice a week after his discharge. In a few months his condition was remarkably improved. His stomach was practically empty in the morning when suitable food had been given overnight; his weight rose from 62 to 75 kilos, and he no longer suffered from attacks of colic and diarrhoea. Probably the retention of food in the stomach was due to the cicatrization of an ulcer of the pylorus, but it is also conceivable that the downward displacement of the stomach caused obstruction at the pylorus by the formation of a kink. In tracing diarrhoea to pyloric stenosis the examination of the faeces is a valuable aid, for when these are found to contain sarcinae there is strong presumptive evidence for stagnation and fermentation in the stomach. In such cases sarcinae are less numerous in the faeces than in the stomach, and on this account, and because they are smaller and more shrunken than in the stomach, they are liable to be overlooked, unless the faeces are frequently and carefully examined. Yeast cells have also been found in the faeces in cases of diarrhoea due to pyloric stenosis, but their presence is less constant than that of sarcinae. The author has never known malignant stenosis of the pylorus to cause diarrhoea when the stomach contained lactic acid but no hydrochloric acid. In the following case, however, the diarrhoea was due to malignant disease of the pylorus, although the evidence in support of the diagnosis of benign stenosis seemed overwhelming before laparotomy was performed. The man, who was between 50 and 60 years old, had suffered for several years from digestive disturbances to which he had paid scant attention. In the summer of 1911 there was severe haemorrhage from the stomach, and in the following autumn there was painful abdominal distension with diarrhoea. Under dietetic and medicinal treatment the diarrhoea soon ceased, but the abdominal distension, which was accompanied by nausea and acid eructations, became very troublesome. Sarcinae and altered blood were found in the stomach and faeces, and there was an excess of hydrochloric acid in the stomach. There was no tumour to be felt, and as the obstruction to the passage of food was great, gastro-enterostomy was decided on. But the operation revealed an inoperable carcinoma of the pylorus involving the pancreas. The treatment of diarrhoea due to pyloric stenosis consists of limiting the diet to food which does not readily ferment. Lavage of the stomach may also be necessary, and fermentation may be further checked by giving 2 to 3 grams of magnesium salicylate every day, combined, if necessary, with magnesium usta.

281. Shape of the Chest and Consumption.

MARCOU (*Arch. gén. de méd.*, xci, 1912) considers the subject under the following headings: (1) The flat and narrow form of chest, as is well known, predisposes to pulmonary tuberculosis. (2) Most chronic tuberculous patients show a chest measurement inferior to that of their waist. True thoracic retraction is consecutive to chronic pulmonary tuberculosis. (3) A flat and narrow chest often does not exist at first, and gradually, as the signs of tuberculosis make themselves manifest, the chest becomes flat and narrow, and finally contracted. Again, many narrow, long-chested individuals never become tuberculous. (4) Post-tuberculous contraction of the thorax is due to (*a*) general muscular atrophy as a result of malnutrition, particularly affecting the thoracic muscles reflex, comparable to atrophy from arthropathy; (*b*) kyphosis of the thorax, resulting from muscular atrophy; (*c*) sinking of the ribs, due to atrophy of the intercostals, diaphragm, transverse, large and small oblique muscles of the abdomen; (*d*) pleuro-pulmonary sclerosis and tuberculous sclerosis of the mediastinum. (5) Every person can become tuberculous, be his chest broad or narrow, if subjected to bad hygienic surroundings, want of food, alcoholism, etc. (6) Tuberculosis is not more serious in a long-chested individual than in one with a small chest. A broad-chested individual is no guarantee against a rapidly fatal tuberculosis.

282. The Radio-diagnosis of Gout.

KOEHLER (*Archives of Roentgen Ray*, February, 1912) replies in the negative to the question as to whether the larger joints—the knee, hip, and elbow—can give a typical Roentgen picture in the case of gout. He has examined more than a hundred such cases, and cannot recall a single one in which he found any shadow that could be said to be characteristic of gout. As regards the shafts of the long bones apart from the joints, an irritation or stimulus may produce a gouty deposit and erosion of the bone, or even a small circumscribed periostitis, but this has no appearance which is diagnostic. With regard to the gouty hand, the *x*-ray picture shows clearly the tophi or bubble-like cavities in the phalanges. Alterations at the apposition of the first and second metacarpal bones and in the navicular and trapezoid bones can be readily seen from the commencement of the disease.

283. Contusional Pneumonia.

ERNST V. CZYHLARZ (*Wien. med. Woch.*, No. 28, 1911) describes three cases of "contusional pneumonia" which have come under his care. The name was given by Litten to cases of lobar pneumonia resulting from contusion of the thorax without a recognizable lesion of the thoracic wall, and such cases were differentiated by him from traumatic pneumonia resulting from injury of lung tissue either directly by the instrument inflicting the wound or by broken thoracic bones; the distinction has not, however, always been adhered to by later writers. Aufrecht describes a case of contusional pneumonia in which pneumonia of the lower lobe of the right lung developed ten hours after a heavy blow on the left side of the chest and proved fatal after three days. The diagnosis of contusional pneumonia was based upon the fact that the man had been perfectly well up to the moment of the accident, upon Litten's experience that contusional pneumonia did not always affect the injured side, and especially upon symptoms at the time of the accident reported by an eye-witness which could only, in Aufrecht's opinion, signify shock to the lung. In the author's three cases the pneumonia was always on the injured side. In all three cases the injury was the result of falling from a height; in one of them the patient knocked against some scaffolding as he fell. A rigor and signs of illness began two hours after the accident in one case, four hours in another, and five hours in the third. The patients were all treated in hospital, and the disease ran a typical though rapid course, with the crisis on the third, third, and fifth days respectively. In spite of Litten's view to the contrary,

Stern maintains that contusional pneumonia cannot be diagnosed with certainty if it occurs on the side opposite to that injured, unless other decisive factors are present. In some of the cases reported the sputum has been described as being more strongly haemorrhagic than normally in pneumonia, and this would be suggestive of tearing of lung tissue; in the author's cases, however, this abnormality did not exist. The prognosis is usually favourable and the course short, though some cases of protracted course have been reported. The type is, as a rule, that of typical croupous pneumonia, but some cases resembling bronchopneumonia have been described.

SURGERY.

284. Syphilitic Lipoma Arborescens of the Tendon Sheaths.

LIPOMA ARBORESCENS of the tendon sheaths is extremely rare; the first case was recorded by Haumann in 1887, and only twelve instances have been put on record hitherto. O. Finzi (*Il Policlinico*, Sez. Chirurg., Rome, 1912, xix, 33) records a thirteenth, and in this patient the tumour was undoubtedly of syphilitic origin. In the previous cases the arborescent or racemous lipoma was found in the sheaths of the extensors of the fingers or toes, of the peroneus brevis, of the wrist, of the extensor carpi radialis; in several patients the growths were multiple and symmetrical; in several it was supposed that a chronic inflammatory process, rheumatism, or a definite tuberculous inflammation underlay the condition. Finzi's own patient, a man of 22, who denied syphilis, first noticed the appearance of a tumour on the dorsal and outer aspect of the right wrist a year previously, and five months later a similar growth appeared on the left wrist. The growths gave rise to no pain or inconvenience; they did not adhere to the skin, altered little with different movements or positions of the hand and wrist, were soft but not fluctuating, covered the proximal ends of the three first metacarpal bones on the dorsum of each hand, trilobed on the right side, and bilobed on the left. Their contents seemed irregular, lobulated on the left hand; the diagnosis of papillary tenosynovitis was made. The patient had a general indolent enlargement of the lymphatic glands. Under local anaesthesia the tumour on the right hand was incised, disclosing an orange-red villous membrane, 1 cm. thick, in the sheath of the tendon of the extensor longus pollicis, with a little fluid but no fibrin or caseous material. The fatty mass could not be scraped away by a Volkmann's spoon, being too elastic. Portions were removed with the forceps for examination; the wound was closed and healed by first intention. The diagnosis of syphilitic papillary synovitis was made, and antisyphilitic treatment was applied for ten weeks—calomel injections, mercurial inunctions. The tumours almost completely disappeared in consequence, the enlarged lymphatic glands mostly ceasing to be palpable; no mention of Wassermann's reaction is made by Finzi. Examined microscopically the villous growth showed a more or less complete capsule of connective tissue, containing many blood vessels; in places the structure was angiomatous, with panarteritis and infiltration with small round cells; in others there was endarteritis, with finely fibrous connective tissue; in others there was a considerable amount of fibrous tissue; and in a fourth variety, cells containing fat were conspicuous. The small-celled infiltration was often circumvascular; multinuclear giant cells were found in some sections; fatty tissue composed the greater part of the mass; no signs of degeneration were observed, and *Treponema pallidum* as well as the *Bacillus tuberculosis* were looked for in vain. The author remarks that this is the first case in which a lipoma arborescens of a tendon sheath has been attributed to syphilis. The literature is quoted, and four figures showing the microscopical appearances of the growth are given.

285. Sweep's Cancer of Penis.

ORAISON AND PETGES (*Gaz. heb. des sci. méd.*, 1912, xxxiii, pp. 100–102 and 111–115) describe the case of a chimney-sweep, 32 years of age, in whom an ulcerated mass enveloped nearly the whole of the penis as far as the root. It began as a small red pimple four years previously. The age of the patient and the slow progress of the disease were against the diagnosis of epithelioma; neither was there anything in the history of the case to suggest syphilis. Microscopical examination showed papillary tissue without any trace of epithelial degeneration. The patient was submitted to all kinds of treatment, including the *x* rays, without any favourable effect, and amputation of the organ was performed. Microscopical examination of the part removed showed a papilloma with a tendency to spread and assuming a malignant appearance, and to which the authors give the name of papillary epithelioma, or endo-papilloma. The glands were not enlarged.

286. Phlebitis Migrans.

HERRICK (*Amer. Journ. of Med. Sci.*, December, 1911) reports a case of phlebitis migrans in a widow, aged 60, of good family history, and in whom the third of three normal labours was followed by a right femoral thrombosis. In February, 1909, a phlebitis of the left calf developed without obvious cause, and was accompanied by pain and fever, the whole process clearing up within three weeks. Eight months later redness and induration, preceded by pain and tenderness, appeared around a small group of varicose veins in the upper right calf, completely recovering in a few days. In June, 1910, more serious attacks began, involving the right leg above and below the knee for ten days, followed in three weeks by involvement of the right leg, groin, lower abdomen, and left groin, with fever, and confining her to bed for twenty-four days. In the middle of August a similar condition appeared in the left thigh, lasting for twenty days, and in mid-September the left thigh and knee were involved for ten days. This was followed in three weeks by an attack lasting four days in which the veins of the left leg below the knee were affected. A week later phlebitis appeared on the inner aspect of the left leg, and a group of epigastric veins, and a new group on the inner aspect of the left calf became involved in a few days, followed by attacks below the left Poupart's ligament and over the left tibia. Up to now the treatment had been that of the ordinary thrombo-phlebitis by confinement to bed, etc., but in four fresh attacks occurring a month later the treatment consisted of thorough sweating twice a week in an electric-light cabinet for forty-five minutes at 170° F., massage, active and passive movements to increase the local and general circulation, and insistence that the patient should ignore the condition and pursue her ordinary life. The phlebitis disappeared completely in five weeks without any recurrence. During these attacks there was no thrombosis, and it became clear during the latter ones that the intima of the veins was not affected, the site of the lesion being the media, adventitia, and perivascular tissues. Although swelling of the outer coats may have temporarily diminished the calibre of the veins, thus occasionally causing slight transient oedema, the fact that the intima was not involved removed any fear of embolism, and consequently required very different treatment from ordinary phlebitis. The condition probably originates from some toxin of infectious or metabolic nature, probably the latter in this case, since no portal of entry for micro-organisms could be discovered. The condition tends to heal after a short interval without leaving any sequelae.

OBSTETRICS.

287. Internal Secretion of Mammary Gland.

AD. LEOP. SCHERBAK (*Wien. med. Woch.*, No. 5, 1912) has for three years been investigating by animal research the question whether the mammary gland has an internal secretion, and claims to have directly proved, perhaps for the first time, the existence of such a secretion. The author has not, like Adler, used an extract of the mammary gland, but has traced the effect of the removal of the normal gland. He has found that goats were the animals most suited for his purpose, because in them the mammary gland can be fairly easily removed, and their comparatively long life makes prolonged investigation more possible. The length of duration of pregnancy in these animals, however, and the fact that they become pregnant only twice a year, has resulted in the number of investigations being small. Radical extirpation of the mammary glands was carried out in seven goats, six out of the seven animals being young ones in whom, it was thought, the results of the procedure would be more marked. The first two animals were operated upon in May and June respectively, at ages of about 7 and 11 weeks. Development was normal until the autumn, when the autumn rut was delayed until the end of December instead of the beginning of October in one case and until the end of January instead of the middle of November in the other; the signs of rut were extremely mild, and both animals remained sterile. Since it was thought that sterility might be due to the abnormal conditions of life in

the laboratory, the next four animals were only brought for a few hours to the institute to be operated upon, and were returned on the same day to their mothers; each of the four animals was operated upon in the third week of life. The seventh animal was operated upon at 5 months of age. One of the five later animals died of an intestinal disease. One remained sterile. The remaining three became pregnant at the ordinary time, so bearing out the idea that the sterility of the first two treated was due to abnormal conditions. These two animals were returned to an ordinary life when a year old, and became pregnant after rather more than six months. Taking all the animals together, the rut was very mild in its manifestations and was late. Spontaneous deliveries occurred at normal times, a fact which fails to support Adler's hypothesis that the internal secretion of the breast helps to determine delivery. The weakening of all the signs of rut was suggestive of the internal secretion of the mammary gland having an effect upon the development of the rut. The uterus of the animal which died at 4 months of age appeared to be normal. Four of the fertile animals were, however, killed four to six weeks after delivery, and the uteri were weighed. In each of two cases the weight was 35 grams, in the third was 34 grams, in the fourth was 36 grams, instead of the normal weight of 60 and 80 grams in control animals. This sufficiently constant and striking loss of weight, taken along with the well-known phenomenon of lactation atrophy in women, makes it probable that an internal secretory product of the gland when not at its maximum of functional activity, and also when functionally altogether inactive, may give rise to the loss of weight of the uterus.

GYNAECOLOGY.

288. The Importance of a Bacteriological Examination of the Uterus.

THE bacteriological examination of the secretion of the genital organs of women during labour and the puerperium has often been regarded as a procedure of merely academic interest; but M. Traugott (*Muench. med. Woch.*, No. 4, 1912) holds that such an examination is of great practical importance in certain cases, and that it should be more generally adopted than heretofore. The knowledge to be thus gained is of value in the diagnosis, prognosis, treatment, and prophylaxis of puerperal fever. Thus a bacteriological examination reveals the presence or absence of germs in the uterus of a patient suspected of puerperal fever, and the existence of such fever cannot be denied with certainty without such an examination. A dubious prognosis is indicated when the uterus contains streptococci and certain staphylococci, while a cheerful prognosis is indicated when only such saprophytic organisms as *Bacillus coli* or *Bacillus paracoli*, the pseudo-diphtheritic or other Gram-staining rods, are present. As for treatment, Traugott and Winter have shown that a distinction should be drawn between patients whose miscarriage has been followed by infection with the above saprophytes and those who have become infected with streptococci. In the first case the uterus may be evacuated at once without danger, whereas in the latter case an intrauterine operation is contraindicated, for expectant treatment gives better results. The danger of curetting in such cases is shown by the death of 5 out of 11 patients thus treated, 3 of the remainder suffering from severe puerperal fever, which lasted for eighteen to sixty days. While most gynaecologists skilled in bacteriology hold that local treatment is contraindicated when labour at full term has been followed by an infection with haemolytic streptococci, the writer carries this principle further and includes other than the haemolytic streptococci. By the isolation of women with pathogenic organisms in the uterus the risk of infection for other pregnant women should be reduced, and isolation should also be extended to women who, though apparently well, yet harbour germs which may be pathogenic for others. Much has been said about the danger of removing secretion from the uterus, the process being accused of carrying virulent germs from the vagina into the uterus, but the writer considers this objection to be merely of theoretical importance. After making several hundreds of such examinations he has never seen ill effects from them; nor has he seen haemorrhages or signs of injury, even when the procedure has been carried out by unpractised physicians; but it must be carried out with great care, the cervix being exposed by a sterile single-bladed speculum, through which blunt, fenestrated forceps are introduced and attached to the anterior lip of the cervix. The cervix is dried, and then a swab on a specially constructed holder is introduced, its subsequent examination being carried out by ordinary bacteriological methods. By the adoption of this method by the general practitioner in every case suspected of puerperal fever serious cases will be recognized early and can be sent to a hospital where both operative and other forms of treatment offer the best chances for recovery. While many writers hold that the bacteriological condition of the uterus is reflected in the vaginal secretion, and that it is therefore necessary only to examine the latter, Traugott shows that the flora of the uterus and the vagina differs, as far as streptococci are concerned, in every other case; and he therefore insists on the importance of examining the uterine flora in every suspected case. Even in the vagina alone the distribution of streptococci may vary considerably; and while the writer found streptococci in the lower portion of the vagina in 35.7 per cent. of afebrile women in labour, these germs were present in the upper portion of the vagina only in 18.6 per cent.

THERAPEUTICS.

289. Adalin in Pediatric Practice.

ERWIN KOBRAK (*Wien. medizin. Klinik*, No. 43, 1912) has employed adalin as a hypnotic and sedative in children's practice after a preliminary trial on adults. He administered adalin to 35 children, the youngest of them being only 3 days old, 14 being under a year, 24 under 2 years. In no case did the drug prove to be harmful. It gave good results in 4 cases of nervous sleeplessness and over-excitability. In one of them, in which the tendency to sleeplessness was inherited, 0.35 gram (5.4 grains) was needed instead of the customary dose of 0.25 gram (3.8 grains). Two cases of restlessness and sleeplessness caused by dyspepsia from overfeeding were treated. One of these was a child 8 months old. A dose of 0.2 gram (3.1 grains) proved insufficient, but a further 0.25 gram (3.8 grains) induced restful sleep for the remainder of the night. Adalin gave good results also in several subacute cases of the same nature. One baby, 7 weeks old, who had been overfed with the result that for several days he was almost constantly screaming, was put on a sparing diet but continued not to sleep; sleep was, however, obtained on three successive nights from a nightly dose of 0.125 gram (1.9 grains) of adalin. On the fourth night no adalin was given, and the child was again sleepless, but after ten more nights on adalin he began to sleep naturally. In a case in which the action of chloral and adalin could be compared, adalin proved to be the more satisfactory because it did not, as did chloral, cause sleepiness and loss of appetite on the succeeding day. In 2 cases of severe pneumonia with heart weakness, one in a 7-year the other in a 10-year old child, the administration of adalin gave restful sleep and in no way injured the heart. In 4 other cases of infectious fevers the results were equally good. Adalin was also given in 4 cases of convulsions: 0.125 gram (1.9 grains) given three times a day for three days brought to a standstill convulsions which were occurring almost continuously in a child 9 weeks old with syphilitic hydrocephalus. In another case of convulsions adalin appeared to act just as chloral might have done, while in another chloral and bromides were more effectual than adalin. The author has tested the action of adalin in 30 cases of whooping-cough. In the slighter cases the drug had a purely sedative action, in severe cases the effect on the frequency and severity of the attacks was very small; indeed, he had better results in whooping-cough from eulatin, from euchinine, from aristochin, and from bromoform than from adalin. In cases of moderate severity, however, adalin given every second or third day does result in the patient obtaining more rest. From the author's cases it appears that adalin as a hypnotic and sedative is non-injurious, and is harmless in its side-effects as compared with chloral.

290. Salvarsan Treatment.

OPPENHEIM (Diskussion zu dem Referat Nonne und zu dem Vortrag Benario, *Deut. med. Woch.*, Band 43) discusses the therapeutical value of salvarsan, and gives a long list of cases of syphilitic and metasyphilitic diseases of the nervous system treated by himself, and observed for some time after treatment. He groups them as follows: (1) *Lues cerebri, spinalis and cerebro-spinalis*, 22 cases. In a few of these the result was a success, but the greater number gave a negative result, or were much worse afterwards. (2) *Tabes dorsalis*, 44 cases. In three or four there was

distinct improvement at first, but this was only temporary. In the greater number of cases the result was either negative or deleterious. (3) *Dementia paralytica*, 21 cases. In most of these the treatment had no effect on the disease. In one or two there was a slight temporary improvement. (4) A small group of cases, 7 in number, most of them belonging to the type of poliomyelitis anterior chronica or subacuta. No good result ensued. (5) *Primary and secondary lues*, 8 cases. Following the treatment a secondary nervous disease appeared, mostly in the form of a basal cerebral paralysis, or meningitis basilaris gummosa. The writer concludes that, though salvarsan has sometimes a curative effect in syphilitic diseases of the nervous system, it is apparently not more effective than other specific remedies. Its one advantage over them is that it has the power of working a cure with a single dose. It often fails, however, especially in diseases of the brain and cord in which mercury and potassium iodide have also failed or lost their effect. In some cases it has a distinctly bad effect. In tabes and paralysis its use is very small. It must also be taken into account that it brings about very severe symptoms in the central nervous system, and large doses, according to the writer, can cause polyneuritis arsenicosa. Altogether, he thinks it very doubtful whether this new remedy has any great advantage over the older ones in the treatment of the nervous system.

291. Purgative Action of Olive and Castor Oils.

SOME investigations have been made by Lebon and Aubourg upon the action of olive oil and castor oil on the small and large intestines. In a communication to the Société de Radiologie Médicale de Paris (*Bull. et mém.*, December, 1911) they state that, twenty-six hours after giving to three patients a bismuth meal (100 grams) and 250 c.cm. of olive oil, the intestinal convolutions were clearly delineated, but there were no indices of contraction and none of those fern-leaf images, like frost on the window-pane, which are always more or less numerous in radiographs taken after the ingestion of bismuth in the ordinary way. The olive oil, in fact, made the contractions disappear. They quote Rosenberg as stating that the absorption of a large quantity of olive oil produces an abundant flow of bile. But bile appears to excite the contractions of the muscular fibres of the intestine, and is even regarded by some authors as one of the best stimulants of intestinal contraction, so that if this oil causes an increased discharge of bile into the intestine the bile in that case does not provoke intestinal movements. The certain action of olive oil in lithiasis biliaris is a calming one. Its presence in the stomach is rapidly followed by the diminution or even complete disappearance of pain in subjects suffering from acute colica hepatica—an effect apparently due, not only to the immobilization of the stomach, but also to the arrest of the duodenal contractions. Olive oil further does not stimulate the contractions of the large intestine. A rectal injection of oil, given in the evening, will be retained all night. A litre of olive oil, administered with bismuth, will distend the colon without giving rise, at least for a long time, to those well-known segmentations which are the indices of contraction. Castor oil, on the other hand, certainly increases the contractions of the large and small intestines. It may, like olive oil, have a lubricating action, but it acts chiefly by the direct excitation of the intestinal contractility. Frequently it provokes nausea at the time of taking, followed in some cases by vomiting. But the authors state that if the oil acts on the sensitive terminal fillets of the gastric portion of the nerves of the tenth pair, it is quite without effect on the motor fillets. On making a patient swallow an emulsion of oil and some bismuth in mucilaginous water, they have found that the intensity of the normal stomachal contractions has not increased, nor have they been able to determine antiperistaltic movements. Castor oil is little used as a lavement. Feeble doses injected into the rectum are almost entirely without effect, and 80 grams are necessary if any great purgative action is to be obtained. Linseed oil, with which castor oil is often associated, has no stimulating property, and fails to provoke such contractions of the large intestine as are brought about by castor oil. By attentive examination, the authors add, it is possible to see on the fluorescent screen the segmentation of bismuth pulp and its progress under the influence of castor oil in the intestine; but these phenomena, very evident with other purgative substances, are too slow in the case of castor oil to make any vivid impression. Castor oil contains a particularly fatty body, ricinolein, which is separated under the influence of the pancreatic juice. It is after this separation that the ricinoleic acid acts freely on the intestinal mucosa.

292. Alimentary Galactosuria in Normal Individuals.

PARI (*Gazz. degli Osped.*, January 14th, 1912) has carried out a series of researches on ten healthy people with reference to alimentary galactosuria in normal individuals. He finds that in healthy people the mean limit of assimilation of galactose varies between 22 and 25 grams, but the oscillations in individuals are so great that it is impossible to establish a fixed dose below which the limit of assimilation becomes pathological. These oscillations do not depend simply on differences of weight or of size. On the average the limit of assimilation stands between 0.34 and 0.39 grams per kilogram of body weight and between 0.112 and 0.126 grams per square decimeter of body surface. On the whole they tend to vary more in proportion to weight than to surface area. On the whole the limit of assimilation is lower the stouter the subject. Simple determination of the limit of assimilation can only have diagnostic value (as a test of hepatic sufficiency) when the values determined are so high or so low as to surpass every possibility of mere personal differences, unless one is able from previous observation or from frequent determinations to know the normal limit for each individual.

PATHOLOGY.

293. Tonsils and General Sepsis.

L. RETHE (*Wien. med. Woch.*, No. 7, 1912) has had a series of cases in which the tonsils were the starting point of a general sepsis without themselves showing much, or in some cases any, perceptible change. One case is fully described. The patient was a man 21 years of age. There was a history that at the age of 8 he had suffered from fever which had persisted for six months. He also reported that in the spring of 1910 he had an attack of pains in the joints, headache, cough, respiratory symptoms, and a temperature which varied between 38° C. and 39° C. (100.4° F. and 102.2° F.); from this he completely recovered, and his health subsequently remained good for some months. In the autumn of the same year he noticed blood in the urine, and in November he was admitted to the clinic with fever and headache. While in hospital the temperature was seldom above 38° C. (100.4° F.). Examination showed a systolic murmur in the second right intercostal space; cardiac dullness extended two fingerbreadths beyond the mammary line in the apex region and a similar distance to the right of the right edge of the sternum. The left kidney could be felt as a tumour almost the size of a child's head, and the right kidney also was palpable and tender; the spleen was palpable; the urine contained blood, leucocytes, cylinders, and detritus. Four weeks later the temperature varied between 39° and 40° C. (102.2° and 104° F.), and the liver was enlarged; the amount of blood in the urine was somewhat diminished. At the beginning of February, 1911—two months after admission—there was pneumonic infiltration at the base of the left lung, lobular pneumonia affecting the lower lobe of the right lung, fibrinous pericarditis, and exudative pleurisy. The exudate was found to contain a Gram-positive coccus. No improvement occurred during the next two months, at the end of which the condition was considered almost hopeless. The tonsils were normal in appearance, but, as all causes for the septic process other than the tonsils had been excluded, the author decided to open the tonsils and clear out the crypts; total excision was contraindicated by the bad condition of the patient. From the many plugs removed at the operation pure cultures of a Gram-positive coccus were obtained. The temperature fell to normal a few days after the operation, and the patient was able to be discharged at the end of April. His condition remained very good for several months, but in September he was once more admitted to the clinic suffering from septic haemorrhagic nephritis; from this he recovered in about ten days. In this case there was nothing to call attention to the tonsils as the origin of the trouble, but the result of the operation amply bore out the diagnosis which was made. The author has seen other somewhat similar cases, though none in which, with so little obvious change in the tonsils, there has been so widespread a septic affection. Complete removal of the tonsils is the ideal treatment, although, as in the author's case, less radical measures may sometimes have to be employed. In the case of singers, the author calls attention to the danger of permanent injury to the voice as a result of enucleation of the tonsils.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

294. Hemiplegia in Typhoid.

WILHELM RASCHOFSKY (*Wien. med. Woch.*, No. 29, 1911) describes a case of typhoid fever complicated by hemiplegia. The patient, a man 24 years of age, was admitted to hospital with a temperature of 39.7° C. (103.2° F.) a week after the development of symptoms. The diagnosis was not in doubt. About a week after admission extravasation of blood occurred in patches in both thighs and forearms, and on the following day there was slight haemorrhage from the bowel. A month after admission the temperature was down to between 36° C. and 37.5° C. (96.8° F. and 99.5° F.). Camphor injections were given for cardiac weakness, and these proved to be very painful when made into the right arm, but not into the left. On the day following the injections there was a sudden rise of temperature, with a fall on the second day, and another rise to 40.5° C. (104.9° F.) on the third day. The spleen was not palpable, and a relapse was excluded. Right-sided hemiplegia developed on the fourth day after the tenderness on the right arm had first been noticed: it affected the arm and leg muscles, some of the face muscles, and the speech, which, however, remained intelligible. The fever disappeared after about a fortnight. Recovery from the hemiplegia was gradual, but was almost complete of the leg muscles after about six weeks: recovery of the arm muscles was not so complete. The point of special interest in the case is the diagnosis of the cause of the paralysis. Abscess of the brain was excluded, because of the absence of any general septic condition. Apoplexy was improbable, because of the absence of convulsions, of symptoms of shock, or of much affection of consciousness. The possibility of embolism could not be excluded, because cardiac weakness was present at the time of the development of hemiplegia. A more probable cause was the occurrence of small capillary haemorrhages into the substance of the brain analogous to the haemorrhages which had occurred earlier into the skin: the gradual onset of the symptoms, as shown by the tenderness in the arm a few days before the paralysis, would accord with this diagnosis. The most probable explanation, however, in view of the rapid rise of temperature at the critical time, was that of a circumscribed encephalitis. This diagnosis receives strong support from the fact that a strikingly rapid improvement in the hemiplegic symptoms, combined with a fall in temperature, occurred during the first few days.

295. Erythema Nodosum and Tuberculosis.

MEARA AND GOODRIDGE (*Amer. Journ. of Med. Sciences*, March, 1912) discuss the relationship between erythema nodosum and tuberculosis, and report a case in which the condition occurred as an early manifestation in tuberculous meningitis. The patient, a woman, aged 25, a fortnight prior to admission to hospital noticed an eruption on each cheek, which commenced as discrete papules and vesicles, eventually coalescing into a continuous patch, accompanied by slight itching. A few days later numerous bright red spots appeared on the arms and legs (erythema multiforme), and on the anterior aspect of the legs several hard, raised, tender nodules (erythema nodosum) developed, accompanied by a general feeling of malaise, slight fever, and arthritic pains, especially in the knees. During the three weeks in hospital the temperature varied between 99° and 103° F., and the eruption on the face gradually cleared up, and at the end of twenty-five days she appeared and expressed herself as being quite well, all her symptoms having cleared up, with the exception of the fever, which continued to run a remittent course varying between 99° and 101° F. A week later she complained of epigastric pain, followed by persistent nausea and vomiting, and she became drowsy and apathetic, and totally unable to retain food. Bronchopneumonia at the base of the right lung followed, and she became restless, with cephalic cry, retraction of the head, and rigidity of the neck. The pupils were dilated and irregular, and there was a convergent strabismus and right facial paralysis, while ophthalmoscopic examination showed double choked disc, but no tubercles of the choroid. A well-marked *tache cérébrale* and Kernig's sign were elicited, the left patellar reflex being absent and the right diminished. Lumbar puncture drew off 44 c.cm. of clear fluid under considerable pressure, in which tubercle bacilli were demonstrated. Autopsy findings showed tubercle of the cervical and mediastinal glands, tuberculous bronchitis and bronchopneumonia involving the right lower lobe, with miliary tubercles of the right lung, and tuberculous meningitis. Nothing in the family or past history appeared to have any bearing upon the patient's illness. Reference is made to other authors who have pointed out the association which exists between erythema nodosum and tuberculosis.

296. Blood Dust as seen by the Ultra-microscope.

CATTIN (*Archiv. des mal. du cœur, des vaisseaux et du sang*, December, 1911), in his investigation of blood dust, employed a Leitz microscope with a Cagit optical apparatus, the lamp of which has a lighting power equal to 500 candles. A Leitz condenser was also used. He advises that in this research the blood drop should be as thin as possible, and that it should be examined as soon as possible after being drawn. A well-lighted field is necessary, otherwise some blood dust particles will escape observation. To see if the number of haemaconia was in any way influenced by articles of food, he gave to two persons a meal consisting of 200 grams of honey with a little bread and tea. In both cases he found that the variation in the number of haemaconia before and after the meal was insignificant. After a meal of 200 grams of lean meat with a little bread and tea the number of haemaconia was decidedly increased. After 200 grams of butter with some bread and tea the number increased very rapidly and remained so for many hours after. The effect of allowing only a water diet is to cause a progressive diminution in the number of haemaconia in the blood. In rats fed on seeds, bread and milk, and in a dog fed on refuse, the author found that the blood obtained from the portal and mesenteric veins contained more haemaconia than that from other vessels. Exposure of animals to heat caused an increase in the number of blood dust particles, and a similar result follows exposure of the blood film to heat. Repeated exposure of animals to *x* rays gives rise to a similar result. Equal parts of blood and 0.3 per cent. sodium chloride when mixed together and examined showed simply an increased activity of the leucocyte granulations. With alcoholized distilled water a large number of the granules of the leucocytes are seen to leave the cells. With solutions of sulphuric, nitric, acetic and oxalic acids, and of potash and soda, the amoeboid activity of the leucocytes is greatly increased, and the number of free granules in the plasma is increased. Peptone solution added to blood gives rise to an increase in the number of haemaconia. In the blood of newborn infants the author found that a certain number of red cells contained haemaconia in movement, but that this condition disappeared at the end of the second week. In sucklings moderately ill with gastro-enteritis the number of haemaconia is small, and neither milk and water, rice water, nor vegetable soups nor wetted flour as a meal will cause their number to vary, and the absorption of milk gives rise to only a slight increase in their number. In those severely ill with gastro-enteritis milk gives rise to a somewhat greater increase in the number of haemaconia. In 5 cases of myeloid leukaemia the number of haemaconia was slightly increased; in 2 of lymphatic leukaemia the number was not perceptibly altered. In 2 cases of cancer of the stomach the absorption of 300 grams of milk did not give rise to much variation as regards the number of haemaconia. In 2 cases which were operated on the haemaconia were somewhat increased under the same conditions. Of 7 cases of ulcer of the stomach 5 showed an increase in the number of haemaconia after 300 grams of milk, but not to such an extent as in a healthy subject. Of 4 cases of dyspepsia examined, in 2 (mild) the haemaconia were normal, and in two (severe) the number was reduced. The author draws, amongst others, the following conclusions: The origin of the blood dust particles is at present uncertain; some observers consider them to be fatty, others think them albuminoid, and derived from the red and white cells; whilst others think that they play a part in immunity. The author considers that the majority of these particles are of a fatty origin, but that a certain number are of an intraleucocytic origin.

297. Gastric Symptoms in Migraine.

Ad. Schmidt (*Wien. med. Klin.*, No. 50, 1912) has had under observation during the course of some years about twenty cases of migraine in which periodic gastric attacks were a prominent feature and sometimes replaced other symptoms. In some of the cases there was disturbance of gastric function, either motor or secretory, in others no abnormality could be detected, and the condition appeared to be a pure neurosis. In a large number of the cases examination showed a definite achylia and a strikingly rapid emptying of the stomach. In some of these the administration of HCl improved the gastric symptoms without having any effect upon the accompanying headache; in one the headache disappeared after the first dose of HCl. In three cases described, the gastric attacks replaced the typical migraine attacks. One of these was of special interest. The patient, a woman aged 39 years, had had from adolescence onwards attacks of headache accompanied by vomiting; later the headaches altogether ceased, while the gastric attacks became more severe and the patient believed herself to be suffering from a completely new disease. As a result of careful dieting, the gastric symptoms were relieved, but at the same time the earlier typical migraine attacks began again. Obviously the diagnosis of hemicranial gastric equivalents cannot be arrived at at sight. But the periodicity of the gastric attacks, which are not brought on by any known cause, is suggestive of the condition, and inquiry as to headaches and as to analogous symptoms in other members of the family will usually clear up the diagnosis. With regard to treatment, the author has found washing out the stomach on the first sign of an attack the most valuable measure. General tonic treatment is also often very successful. The author has frequently observed a similar condition in epileptic patients, except that the intestine rather than the stomach has been involved.

SURGERY.

298. Tuberculosis of the Mouth.

Erich Freich v. Redwitz (*Wien. klin. Woch.*, No. 6, 1912) describes a case of tuberculosis of the mucous membrane of the mouth. The patient when sent to the clinic was 40 years of age, with no distinctively tuberculous family history. He stated that between five and six years earlier he had suffered from an induration of the mucous membrane of the posterior part of the right cheek. This had at first been considered to be due to irritation caused by carious teeth, then carcinoma had been feared, but, finally, after excision, the disease had been found to be tuberculous in nature. A relapse occurred five months after the operation, but a second excision had led apparently to permanent healing. Recently ulceration on the left side had occurred, the process had spread, and for ten days the lower lip had been gradually swelling. On examination the mucous membrane of the left cheek showed an ulcerated surface of about the size of a 5-mark piece, the edges of the ulcer being undermined and covered with purulent discharge. There was tuberculous disease at the apices of the lungs. The ulcer was widely removed, the cheek being split up, and the mouth being made somewhat smaller as a result of the operation. The clinical and histological diagnosis was of tuberculous ulceration. A relapse occurred, and a second operation was required before healing of the wound could be obtained, in spite of local and general treatment. The author has seen no similar case in which the disease, after being radically removed, reappeared on the other side of the mouth after so long an interval as three and a half years.

299. Fracture of Cervical Vertebrae resulting in Hypotonia and Hypothermia.

Emerson (*Arch. of Int. Med.*, August, 1911) records a case of fracture of cervical vertebrae in which low blood pressure and low temperature were observed. The patient, a well-developed negro, fell 4 ft. on to his back, resulting in mental confusion and weakness (but not paralysis) in his legs when examined fifteen minutes later; the knee-jerks were present and the arm and trunk muscles appeared normal. The following morning he was less confused, but the reflexes were weaker, and there was increasing disability in the legs and arms. On the next day there was extensive sensory and motor paralysis with incontinence of faeces and retention of urine, but no interference with the special sense organs except a persistent and equal extreme contraction of the pupils. From the region of the fifth to the seventh cervical spines there was moderate tenderness with acute pain on pressure over the region of the sixth spine, and below the level of the distribution of the sixth cervical nerve roots there was a sharp line of loss of power and sensation and abolition of reflexes, roughly complete paralysis below the clavicles and of the arm muscles, except the supinators and deltoid. The patient lived six days, death taking place from failure of respiration preceded by increasing dyspnoea and accumulation of fluid in the lungs. For the first forty-eight hours the temperature ranged from 97.8° to 96.2° F., after which it was always a little over or under 90° F. in the rectum. The pulse, which was small and compressible, ranged from 80 to 44, and the respirations from 18 to 24. The blood pressure on the third day was 88 mm., and it varied but a few millimetres from 90. Complete separation of the posterior arch of the sixth cervical vertebra, with overriding of the seventh on the sixth, and a fracture without displacement of the right side of the arch of the fifth cervical vertebra were found, together with injury to and slight softening of the cord between the sixth and seventh vertebrae. Since such hypothermia and hypotonia should follow complete severance of the cord just below the phrenic nerve origins, the presence of these conditions in injuries to the cord in the vicinity of the sixth and seventh cervical vertebrae tends to prove the existence of a complete functional separation of the cord from the medulla. Also it must be borne in mind that in such cases severe inflammatory processes might occur without the warning of a rise of temperature.

300. Thrombo-angiitis Obliterans.

Coffen and Heyd (*Amer. Journ. of Med. Sci.*, March, 1912) discuss the clinical and pathological aspects of thrombo-angiitis obliterans or presenile spontaneous gangrene. Several distinct morbid processes go to make up the gross lesion, there being (1) an obliteration of the lumen of the large arteries and veins by means of an obturating thrombus, which later becomes vascularized and organized with subsequent canalization; (2) a periarteritis and periphlebitis with a marked agglutinative process due to fibrous tissue proliferation binding arteries, veins, and nerves together into one dense mass; and (3) an associated arterio-sclerosis of varying degree. The condition, though variable in course, usually manifests itself by well-defined clinical signs as typically exemplified by the case of a man, aged 49, who, eight months previously, began to notice attacks of numbness in the right toes in cold weather, with occasionally similar affection of the left foot. He had always previously had excellent health, but had lost an uncle and a cousin from diabetes. At first blanched, exercise or rubbing the toes produced a dark red suffusion turning cyanotic, and sporadic attacks of cramp-like pain in the calf of the leg occurred. After about three months indefinite pains began to be complained of in the sole of the right foot, and elevation of the leg from the pendant position caused great pain, the toes becoming bloodless, and a short time later dyspnoea on exertion occurred. An eczematous, intensely pruritic rash appeared over the arms, legs, and abdomen. Three weeks later gangrenous processes set in, eventually involving all the toes of the right foot necessitating amputation, and after a time pains in the left foot and leg developed, which became so agonizing as also to warrant amputation, from which the patient died, apparently from exhaustion. Dissection of the amputated limb showed changes identical, though less in degree, with those found in the right leg—namely, extensive thrombotic involvement of all the large arteries and veins. This type of gangrene, occurring in non-luetic young men with low pressure and prior to the age of marked angiosclerotic changes, presents a fairly distinct clinical and pathological entity, and while the occlusion is undoubtedly due to thrombosis it is an open question as to whether this or neuritis is the primary agent, or whether the condition is a combined arterio-sclerosis and thrombosis.

OBSTETRICS.

301. Fatal Mercurial Poisoning after Abortion.

Baux and Roque (*Rev. mens. de gyn.*, No. 1) report the case of a woman who brought on an abortion by injecting sublimate of unknown strength into her cervix. Abortion occurred the same evening, but next day a midwife gave her two hot vaginal douches with a sublimate solution containing 0.25 per litre. In a few days the patient died with all the signs of mercurial poisoning. The author questions whether the injection which brought on the abortion could be the sole cause. An injection given by

the woman herself, without proper instruments, and therefore probably remaining intracervical, with an unruptured ovum—that is to say, in the absence of a raw surface capable of absorbing much of the drug—could hardly have accounted for so severe an intoxication. Undoubtedly it was the beginning of the poisoning, for diarrhoea and vomiting set in two hours afterwards, and the midwife on her arrival noticed a slight stomatitis. But part, and possibly the greater part, of the responsibility belongs to the two vaginal injections of 1 in 4,000 sublimate given with an open cervix and a separated placenta—that is to say, in conditions most favourable for the absorption of the poison. In quite recent works 1 in 4,000 sublimate is still given as the liquid of choice for vaginal injections in the puerperium, but such facts as these should, in the opinion of the authors, be sufficient to banish it from current obstetrical practice.

GYNAECOLOGY.

302. Hermaphroditism and Tumours of the Suprarenal Body.

AUVRAY (*Revue de gynéc. et de chir. abd.*, April, 1912) writes about a gynandroid or pseudo-hermaphrodite woman aged 72, who died of intestinal obstruction after refusing surgical aid. There was a uterine fibromyoma, weighing over 3½ lb.: it occupied the entire body of the uterus, and had pressed on the bowel at the pelvic brim. The vagina was very narrow and joined the urethra: the clitoris was peniform. The ovaries were atrophied, but traces of old corpora lutea were found in their stroma. The left suprarenal body was converted into a tumour, which seemed to be cystic, but proved to be a solid adeno-angeio-lipoma. It was of the size of a cocoa-nut. Auvray, after showing that many instances of uterine tumours in pseudo-hermaphrodites have been reported, further reminds the gynaecologist that hyperplastic tumours of the suprarenal body have been found coexisting with hermaphroditic malformations. No fewer than eight cases have been published within recent years. Apert in particular has recorded clinical evidence showing the different results of this coincidence according to the age of the subject. It is when the disease of the suprarenal body begins before birth in a female fetus that hermaphroditic changes develop in the genital tract itself. The uterus remains normal, at least above the cervix, but the external organs assume the male type, and a prostate can usually be distinguished. When the suprarenal disease does not appear till childhood, then puberty is premature. In adult life the advent of suprarenal hyperplasia is associated with the cessation of the catamenia and the growth of a beard; hair also appears all over parts naturally smooth. Adiposity is another complication. After the menopause extreme corpulence seems to be the only symptom, but clinical evidence of late hyperplasia of the suprarenal body is scanty. Glynn of Liverpool, Auvray adds, confirms Apert's views. Auvray finds that other tumours of the suprarenal body, such as blood cysts (*Proc. Roy. Soc. Med.*, vol. i, Surgical Section, and Treu. thesis, Jena, 1909) and malignant and tuberculous growths, bear no distinct relation to sexual peculiarities.

THERAPEUTICS.

303. Treatment of Cardiospasm.

LERCHE (*Amer. Journ. of Med. Sci.*, March, 1912), from an experience of 17 cases of cardiospasm, records his observations upon the treatment of the condition and the use of the oesophagoscope for examination. Although the name cardiospasm implies that it is only the anatomical cardia that is affected, the epicardia, comprising the abdominal and diaphragmatic parts, has been found on examination through the oesophagoscope to be also involved in the spastic contraction. Two groups of diffuse dilatation of the oesophagus are recognized—in the one the spasm of the cardia being primary and the dilatation secondary, while in the other the cardiospasm is secondary to an atony of the oesophageal wall. While some cases of primary cardiospasm with diffuse oesophageal dilatation appear to remain cured after stretching, sufficient time has scarcely elapsed since the operation of stretching has been in vogue to determine the percentage of permanent cures. The initial symptoms vary, being in some patients a sensation of choking while eating, followed immediately by regurgitation of food, whereas in others there is a sensation of food sticking behind the upper part of the sternum and slowly passing down. Later symptoms are regurgitation of food and large quantities of slime at intervals after eating, large draughts of water being taken with meals in order to force the food into the stomach, and there may be considerable loss of weight. The author has devised an oesophagometer for measuring the capacity of the dilated oesophagus, but this can be estimated roughly by means of the oesophagoscope, by which also the other diagnostic data can be obtained, namely, the distance from the incisor teeth to the obstruction, the shape of the dilatation, the presence or absence of a diverticulum, and the condition of the oesophageal wall, which latter knowledge is of importance, since ulcerations, catarrh, etc., may cause recurrence of the spasm after stretching, and disaster might follow thereon if pathological lesions were not previously excluded. Treatment consists in stretching the lower end of the oesophagus by the introduction of a silk-rubber bag attached to a stomach tube into the epicardia-cardia and distending it forcibly with air or water, and leaving it *in situ* for a few minutes, as long as the patient can bear it. The catarrhal condition of the mucous membrane may be treated with silver nitrate solution introduced through a silver cannula designed by the author and protected by rubber tubing, while for oesophageal atony the author has designed an electrode which can be introduced collapsed and then expanded on reaching the part to be treated. Notes of 4 cases, selected from the 17 observed, are recorded.

304. Artificial Pneumothorax in the Treatment of Phthisis.

MOLLE (*Presse médicale*, January 27th) puts forward a theory to explain the mechanism of the curative action of Forlanini's operation for the production of an artificial pneumothorax. Pointing out that the treatment quickly converts cases of mixed infection into cases of pure tuberculosis, and admitting the strikingly good results frequently obtained, he attributes this success not to the immobilization and drainage of the lung affected, but to an excitation of the trophic influence of the pneumogastric nerves. He points out that it is the very immobility and comparatively sluggish circulation of the apices of the lungs which favour the incidence and growth of the tubercle bacillus in those areas, and instances Freund's operation (resection of rib over apex of lung) which actually effects a cure by increasing the mobility of the diseased apex. He argues that as both immobilization and increased mobility seem to produce equally good results, there must be some explanation other than mechanical. This he seeks in the trophic influence of the pneumogastric nerves. He contends that in both cases the pneumogastric is stimulated in Freund's operation by stretching or other traumatism in the neck; in Forlanini's procedure by an irritation of its terminal fibres in the shrinking tissues of the collapsed lung. He goes on to assert that there is a danger of "transferring" the disease to the opposite side—a result which he points out may also be produced by counter-irritation in sensitive patients; and he argues that only patients with a peculiarly stable nervous system should be subjected to Forlanini's operation. He sums up by defining this operation as a form of counter-irritation on a large scale (*revulsio maxima*) with results akin, for good or evil, to those of simple counter-irritation (*revulsio minima*).

305. Acquired Hypersensibility of the Skin.

F. SAUERLAND (*Berl. klin. Woch.*, April 1st, 1912) records some experiments on himself as to acquired hypersensibility of the skin. He was studying the effect of the absorption of various medicaments, when he noticed that he had become intolerant to saligenin (salicyl alcohol). He had used iothion three times, then he took an internal dose of sodium salicylate, then he rubbed in an ointment containing salicylic acid methyl ester (methylium salicylicum), then an ointment containing spirosal (salicylic acid monoglycol ester), and lastly he applied saligenin, when he noted a macular rash. He gives minute details in regard to the nature of the rash, its onset, and disappearance. A repetition of the application caused a reappearance of the rash, this time of a more acute character. No rash appeared when the drug or another salicylate was taken by mouth. The hypersensibility could not be transmitted to experiment animals by means of the serum. On applying the other salicylic acid compounds externally he found that he had become hypersensitive to spirosal, but not to methyl salicylicum. He had, however, become hypersensitive toward iothion. Iodine (tincture) did not produce the rash, nor did cantharidin. The author gives some details of special interest in regard to his observations.

306. Quinine and Urea Hydrochloride in Pneumonia.

COHEN (*Amer. Journ. of Med. Sci.*, January, 1912) records his experience of the use of the double hydrochloride of quinine and urea in large doses in the treatment of acute lobar and lobular pneumonia. The drug is administered hypodermically, starting with a dose of 1 to 1.6 grams (15 to 25 grains), according to the height of the temperature, and repeated in three or four hours. Possibly a third, or even fourth, injection may be needed within the first twenty-four hours according to results, and a similar course may be required on the second and third day, amounting usually to from 6 to 10 grams in all. After that smaller doses of from 0.3 to 0.6 gram (5 to 10 grains) daily may be continued by the mouth. The most striking results are functional, the relief of respiration and maintenance of normal cardiac vigour and blood pressure pointing to the effect being chemical and antitoxic. Cinchonism does not occur, and there is a gradual and proportionate fall in temperature and pulse-rate, the respiration-rate falling more rapidly, with a tendency to restoration of the normal pulse-respiration ratio. The patient professes comfort with marked ease in respiration and diminution in cough, and the termination is by lysis at about the usual time of from five to twelve days. Physical signs are uninfluenced, and resolution takes place at the usual time and is not accelerated, the pathological process appearing to evolve in the customary way, unmodified by the treatment. Eighty-seven cases of acute lobar pneumonia were thus treated in hospital with 16 deaths, and from a wider experience in private the mortality was 12 per cent. (192 cases with 23 deaths). No bad symptoms attributable to the drug were observed, and lobular pneumonia was influenced favourably in a similar manner to lobar pneumonia. Sodium bicarbonate or ammonium compounds were given in sufficient doses to keep the urine alkaline throughout the attack, and tincture of ferric chloride was given when the quinine was withdrawn. In order to prevent the occurrence of cellulitis or abscess formation the injection syringe should be filled with a 50 per cent. solution of the quinine and urea salt in sterilized water and the needle inserted deeply into a muscle, the skin having been previously painted with tincture of iodine. The syringe must be thoroughly emptied, so that none of the solution drops upon the skin upon withdrawal, and the point of puncture should be sealed with iodoform collodion.

307. Digipuratum in Heart Disease.

BOOS, NEWBURGH, AND MARKS (*Publications Massachusetts Gen. Hosp.*, October, 1911) record the experience of over a year's use of digipuratum at the Massachusetts General Hospital in more than 180 cases of primary heart disease or secondary cardiac involvement. The great variation in the strength of unstandardized digitalis preparations, especially the tincture, renders systematic treatment impossible, and even when standardized it is found to be very difficult to keep liquid preparations at all permanent in their strength. Digipuratum is a purified digitalis extract free, not only from digitonin, but also from 85 per cent. of the other bulky and inactive matter which ordinarily passes into a leaf extract. It is a yellow liquid whose active principles are insoluble in cold water and acids, but easily soluble in dilute alkalis—a property which ensures their ready absorption from the intestine. It is standardized physiologically and then taken up with sugar of milk to form a powder, which is still further diluted with sugar of milk until the resulting product is of a definite and constant pharmacologic strength, the unit being the minimum amount of extract which will cause systolic stoppage in thirty minutes of the heart of a frog weighing 30 grams. Eight frog units being the average, digipuratum powder is prepared having a constant strength of eight frog units to each 0.1 gram of the powder. It is usually dispensed in tablet form, each tablet containing 0.1 gram of the powder. As a rule, treatment consists in giving twelve tablets in four days—that is, four tablets the first day, three the second and third days, and two the fourth day. In serious cases the drug may have to be continued in doses of one or two tablets daily for a longer period. The effect upon the urinary output was most prompt, and in no case was there any vomiting or diarrhœa. Cumulative poisoning was never noted, though the drug was in some instances continued for a long time; and while the possibility of such poisoning must be borne in mind the tendency to cumulation with digipuratum seems to be much diminished, so that it is possible to push digitalis therapy safely with this preparation to a greater extent than is the case with any other form.

PATHOLOGY.

308. Interrelations of Glands with Internal Secretions.

FLEISCHMANN (*Wien. med. Klin.*, No. 4, 1912) deals with the relations which exist between the functions of the different glands with internal secretions, the glands with an internal secretion being defined as such that extirpation of the gland or loss of function as a result of disease will give rise to symptoms which will tend to disappear again if the gland be implanted in some other part of the body or if gland substances be injected or administered by the mouth. Certain of the ductless glands are so related in function that disease of one will give rise to changes in one or more of the others. Although the functions of some of the glands, as for instance the thyroid, are well known, those of others are still being worked out. It is now known that removal of the parathyroid gland is followed by tetany, and the implantation of the gland has, according to Eisselberg, been followed by recovery from tetanic spasm in men. Loss of function of the anterior glandular portion of the pituitary body, as from the pressure of a malignant adenoma, causes the development of acromegaly and the symptoms retrogress if the pressure is removed. Little is known of the action of the thymus: according to Hart and Nordmann removal of the gland in young animals is followed by failure in development. The presence of an internal secretion of the pancreas has been demonstrated by the experiments of Minkowski in which parts of the organ were extirpated and transplanted without any subsequent development of diabetes. In addition to facts such as these it is also known that the glands have an effect upon some of the most important processes, such as metabolism, growth, blood formation, regulation of the circulation, irritability of the nervous system, etc. Two glands, the pancreas and the adrenals, have a direct and opposing action upon carbohydrate metabolism: adrenalin always works on the nerves of the sympathetic system, and it seems probable that the pancreatic secretion acts upon opposing nerves. Loss of function of one gland leads to unchecked function on the part of the other. But these two glands are themselves influenced by the internal secretions of the thyroid, the pituitary body, and the parathyroid. According to the Vienna school, the internal secretion of the thyroid checks the action of the pancreas and strengthens that of the adrenals and thus in Basedow's disease with over-action of the thyroid alimentary glycosuria easily arises, and in not a few cases true diabetes. Again, experiments on dogs have shown that injections of pancreatic gland substances leads to the passage of suprarenal gland substances into the blood. The fairly frequent rise of blood pressure in Basedow's disease may not unnaturally be considered the result of over-function of the suprarenals. In myxœdema the pulse is usually slow, and in experiments conducted by the author on cats and rabbits the pulse was frequently slow and the blood pressure strikingly low after removal of the pancreas. Removal of the parathyroid lowers the tolerance for carbohydrates and thus works antagonistically to the removal of the thyroid. It appears that the posterior part of the pituitary body is the part which affects carbohydrate metabolism, causing an increase of function. Just as for carbohydrate metabolism, so also for protein metabolism and that of the salts and fats, the different glands are interdependent on one another. For instance, extirpation of the pancreas causes increased fat and protein metabolism, which is explicable as resulting from the absence of the restraining action of the internal secretion of the pancreas upon that of the thyroid. Again, the posterior part of the pituitary body has an influence on fat metabolism, and the hypophysis obesity is often strikingly combined with atrophy of the genitals, so that it is impossible to decide whether the ovaries or the pituitary body were primarily affected. Another instance of the interdependence of function of different glands is seen in certain forms of infantilism, in which the genital organs, the pituitary body, and the thyroid are all liable to be abnormal. In cases of myxœdema and Mongolism the thyroid gland is obviously primarily affected and the aphasia of the genitals appears to be secondary to that of the thyroid, while in other cases described in French literature as "insufficance pluriglandulere" the aphasia of the genitals is primary, and *post mortem* there is also found atrophy of the thyroid, persistence of the thymus, increase of the pituitary body, and defect of the suprarenals. The effect of the glands on nervous excitability is also considered, the two glands especially concerned being the parathyroid and the suprarenals. Further clinical investigation of the whole subject is still needed.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

309. Brill's Disease.

CHEINISSE (*Sem. méd.*, March 27th, 1912) raises the question whether the condition known as Brill's disease is really a new morbid entity. In 1896 Brill noted for the first time a disease recurring in spring and autumn very like enteric fever, but markedly differing from it in certain characteristics. It was shorter in duration, lasting on an average not more than fourteen days, and ending by crisis. Widal's reaction, while uniformly obtained in the cases of enteric fever present in hospital at the time, was negative in all cases of the group referred to. Brill had also endeavoured, but with no success, to discover Eberth's bacillus in the stools, the urine, and the blood. In 1910 he published a new series of cases, which in the main corroborated these conclusions. The author summarizes the symptoms of the disease as follows: After a period of invasion, lasting three or four days, during which the patient suffers from general malaise, anorexia, and headache, rigors set in, accompanied by vomiting, lumbar pain, and sometimes epistaxis. The cephalalgia becomes intensified and there is a rapid rise of temperature, attaining a maximum of 40° C. in two or three days. The patient's eyes are dull and injected, the face markedly congested, and a condition of somnolence supervenes. The tongue is moist and covered by a white fur, except at the tip and sides, and remains so during the evolution of the illness. The skin is hot and dry, and about the sixteenth day becomes covered by a maculo-papular eruption, which, commencing on the abdomen and back, rapidly spreads to the chest, arms, and legs. Unlike the rosealous rash of typhoid fever, the eruption does not appear in crops. The maculae are not effaced by pressure. Constipation is the rule, and there is no blood to be found in the stools. The spleen is often enlarged and the pulse of low tension and often dicrotic. The urine may show traces of albumen, and more rarely granular casts are present. The diazo-reaction has been observed. There is no leucopenia. These symptoms are maintained until about the twelfth day, when there is a rapid fall of temperature and an abatement of all the symptoms. Convalescence is established in some measure from the first, and there are no relapses. Brill insisted particularly upon the non-contagious character of the disease. Although many of Brill's colleagues in America insisted that the condition was simply an attenuated form of typhoid fever, the author disagrees with this view. He points out, among other symptoms, how profoundly the temperature curve differs from that of typhoid fever. This view was also taken by a medical commission set up to establish the identity of the disease. The author goes on to deal with the three diseases from which Brill made a differential diagnosis. These were cerebro-spinal meningitis, influenza, and exanthematous typhus fever. In the opinion of the author, the last of these bears clinically and, from all the evidence, the greatest resemblance to Brill's disease. The contagiousness of typhus fever is well known, and, although Brill at first affirmed that the disease called by his name was not contagious, in a later monograph he has admitted that it has proved to be. The fact that the disease for the most part affects patients who have come from Russia—most of them immigrant Russian Jews—suggested to the author still more strongly that it was a form of typhus fever. Recent investigations, too, have shown that typhus fever, as seen latterly in Russia, is by no means so fatal a disease as formerly. Other observers, notably Goldberger, by a series of immunizing experiments, claim to have established the identity of Brill's disease with the form of typhus fever seen in Mexico. The author insists on the necessity of familiarity with the symptomatology of typhus fever, rare though the disease now is.

310. Autointoxication by Acids.

OTTO PORGES (*Wien. klin. Woch.*, No. 32, 1911) discusses different forms of autointoxication by acids in man. Acidosis is to be expected either when there is failure in any of the normal ways by which the organism gets rid of, or renders harmless, the acids formed or when acids are formed in too large quantities. The dyspnoea, or rather the hyperpnoea, seen in acidosis is characteristic of the condition, because it is an effort to get rid of CO_2 in larger quantities by way of the lungs. The method of production of acidosis which is of most practical importance is an excessive formation of acids rather than a failure to excrete or neutralize them. In the acidosis of diabetes the acids formed are especially β-oxybutyric acid and diacetic acid, both of which are intermediary products of the metabolism of fats, and their presence results from the inability of the organism to deal with the increased amount of fat given to make up for the withdrawal of carbohydrates. It has been urged that the coma of diabetes is not due to autointoxication with acids, on the grounds that a cure is seldom effected by the administration of alkalis, and also that the blood always gives an alkaline reaction and that it has a normal H-ion concentration. But it is to be remembered that the production of acids by the organism is constant, while the administration of alkalis is intermittent, and that the acids are formed in the cells themselves, so that the chances of neutralization are rendered less favourable. In spite of this the administration of alkalis at the beginning of diabetic coma often has a marvellous effect. The alkalinity of the blood also, as tested by titration, is found to be reduced. There must therefore be in the blood substances which, while not having an acid reaction, are able to lessen the power of the blood to neutralize acids. Kraus has described albumen as being such a substance. Another abnormality of diabetic blood is diminution in the amount of CO_2 present, and since it has recently been shown that CO_2 is of significance in relation to the activity of the heart, it is possible that several of the symptoms of coma result from the lowered CO_2 tension. The hyperpnoea, which as explained above is characteristic of acidosis, accounts for the lowering of CO_2 tension. Acidosis resulting from β-oxybutyric acid and diacetic acid may be met with in other conditions in which fat metabolism is increased. Thus acetonuria may be observed in any condition of inanition, though it seldom results in acid poisoning. Symptoms which recall those of diabetic coma are always liable to occur in the terminal stages of malignant disease, in diseases of the liver, in anaemia, etc., and hyperpnoea has been described in a number of such cases. Children have a greater tendency than have adults to autointoxication by the acids of the acetone series. In pregnancy the acids of this series may aid in producing eclampsia, while in the last stages of hyperemesis the blood always gives the iron chloride reaction. Another acid of intermediary metabolism is lactic acid, which should undergo further metabolism in the liver. It is present in severe injuries of the liver and in conditions in which oxydization is interfered with, especially in insufficiency of the circulation. Here again the author, working with Leimdorfer and Markovici, was able to demonstrate a lowered CO_2 tension the result of hyperpnoea. The kidneys appear to be more or less impermeable by lactic acid, and therefore the amount of lactic acid in the urine may not be increased, even when in failing circulation considerable amounts of lactic acid are present in the dropsical fluid. Lactic acid probably plays a part in the terminal coma of carcinoma and anaemia, and also in eclampsia. The second great group of causes of acidosis fall under the heading of failure of the excretory organs to excrete acids in normal quantities. Although in cases of nephritis with insufficient excretion the CO_2 tension of the blood is found to be lowered, yet uraemic coma cannot be considered to be an acid intoxication because the characteristic hyperpnoea is absent. Acid retention may play a part in the causation of eclampsia. A further possible cause of acidosis is an abnormally great excretion of alkalis, resulting in the so-called alkalipenia; such a condition has been observed in children as a result of abnormal bacterial decomposition in the intestine. Finally, an acidosis of unknown origin, in which perhaps the oxyprotein acids play a part, may be met with in carcinomatous patients before the occurrence either of inanition, acetonuria, or advanced cachexia, and in pregnant women. The characteristic hyperpnoea may be of the utmost value in the diagnosis and subsequent treatment by alkalis of cases of coma due to acid poisoning in which other data for making a diagnosis are lacking. It also appears that while a diet rich in meat and proteins does not produce acidosis it may contribute to it, and therefore the proteins should be diminished where there

is reason to fear the occurrence of acid poisoning. Finally, a theoretical comprehension of the methods of production of acidosis will obviously supply confidence in laying down dietetic rules for patients suffering from the condition.

311. Lumbar Type of Intermittent Claudication.

Hunt (*Amer. Journ. of Med. Sci.*, February, 1912) records a case of intermittent claudication in which the symptoms were located in the lumbar region. Their intermittent character, occurrence during activity, and cessation after rest excluded all organic conditions except one of vascular origin. The patient, a man aged 51, addicted to alcohol and heavy eating, had complained for the past two years of pain in the lower part of the back arising only when walking, and passing off entirely after a few minutes' rest, when he usually leant his weight against a lamp-post or fence in order to take "the weight and strain off the spine." He had a severe attack of articular rheumatism fifteen years previously, but there have been no rheumatic symptoms since then, and he had never had lumbago. These attacks developed only during his walk to the office, but gradually it became necessary to take rest more frequently, and while sitting, lying, or on first rising in the morning there was never any trace of pain or stiffness. When first seen he could walk about half a mile before the pain became severe, but if he walked fast the pain came on sooner. The lower extremities were entirely unaffected, the pain being localized to the lower lumbar region, occasionally, when very severe, radiating towards the sides, but never forward on to the abdomen. Intensely aching in character, it became, if walking was continued, a painful cramp-like feeling, bringing him to an abrupt standstill. Being a heavily built man with a large, pendulous abdomen, a considerable strain was thrown upon the lower portion of the erector spinae group of muscles, but there was no evidence of any lesion in the spinal column, which was perfectly mobile, and the painful area was not tender on pressure. Since the symptoms were limited to the lumbo-sacral region they were probably accounted for by disease of one or more of the lumbar arteries or an arterio-sclerotic process in the abdominal aorta interfering with the flow of blood in these vessels, whereby a sufficient supply for physiological needs in the passive state was possible, but which was insufficient for the increased demands of the sacro-lumbar muscles during activity. Although no similar case has been previously recorded, it seems not improbable that some of the lumbar pains and cramps of advanced life may be dependent upon arterio-sclerotic processes in the abdominal aorta or its lumbar branches.

SURGERY.

312. Haematuria in Appendicitis.

A. von Frisch (*Wien. klin. Woch.*, January 4th, 1912) discusses the difficulties which occasionally arise in distinguishing between appendicitis and renal and ureteral calculus. Many patients have undergone appendicectomy but have obtained no relief from their symptoms until a calculus has been removed from the renal pelvis or ureter. Haematuria would usually be considered to favour the diagnosis of renal trouble, but, though exceptional, it may be a complication of appendicitis. The urinary tract may be affected in appendicitis in various ways. Finochiaro describes a "*réflexe vésico-urétéro-appendiculaire*," in which the symptoms may be renal (colic), but are more frequently vesical — pain after micturition, strangury (*strangurie appendiculaire* of Giordano), cystalgia, urethral smarting, and priapism. These symptoms, provided the urinary tract is found on examination to be anatomically sound, point to incipient appendicitis. The inflamed appendix affects the vesical plexus through the pudendal plexus, and the vesical plexus anastomoses with the renal and hypogastric plexuses. Urinary symptoms may also depend on direct extension of inflammation to the vesical wall. If an abscess ruptures into the bladder haematuria combined with pyuria is the rule. In such cases, Hunner (*Journal of the American Medical Association*, 1908) differentiates between appendicitis and renal or ureteral calculus by the presence or absence of pathological constituents in the urinary sediment. If these rapidly disappear after removal of the appendix the case is one of appendicitis in which some adhesions have probably formed between the appendix and the pelvic portion of the ureter. Hammersley (*New Zealand Medical Journal*, November 6th, 1909) saw, in 1905, an elderly lady with a slightly movable kidney. After August, 1908, attacks of vomiting, colic, and shivering (but without pyrexia) occurred about every three months. As the attacks subsided haematuria regularly occurred. On one occasion the urine had the appearance of pure blood. Nothing beyond the movable kidney could be discovered. In January, 1909, an attack of colic occurred with a rigor and pyrexia and obvious signs of appendicitis. At the operation the appendix, which was on the point of rupture, was found behind the caecum and adherent to the ascending colon and right kidney. The latter appeared normal, and no calculus could be detected. The patient recovered, and had no more attacks either of colic or haematuria. This was probably caused by direct extension of inflammation to the kidney. Carless (*Lancet*, November 20th, 1909) has observed several cases of haematuria in appendicitis. In one case the appendix was found to be so imbedded in adhesions that removal was impossible. The cause of the haematuria was held to be adhesions between the appendix and the ureter, which was the source of haemorrhage rather than the kidney. In another case it could not be decided whether recurrent attacks of colic, localized in the right side, depended on the appendix, kidney, or gall bladder. The presence of haematuria with a deposit of sand in the urine indicated a probable diagnosis of impacted ureteral calculus. But most minute investigation by cystoscopy, catheterism of the ureters, and radiography failed to reveal any abnormality. A week later death occurred from perforation of an appendicular abscess. The only discoverable cause for the haematuria was firm adhesion of the appendix to the ureter. Von Frisch has collected 13 reported cases of haematuria in appendicitis. In 6 adhesions between the appendix and ureter were regarded as the cause. In 3 inflammation had spread directly to the right kidney. In 2 there was probably toxic nephritis, and in 2 no satisfactory explanation could be advanced. He now records 2 cases of his own. Case I. A man, aged 20, had suffered since childhood with attacks of colic localized in the gastric region. In 1897 the character of these attacks changed in so far as the pain became localized chiefly on the right side of the abdomen, and radiated from the right renal region to the pubes. Renal colic was suspected, but the urine was normal. Between the attacks the man was perfectly well. In January, 1898, after a violent attack of colic, haematuria occurred. The urine presented the characters of renal haemorrhage, with a copious dark-brownish-red deposit consisting chiefly of blood and epithelial casts. There were also a few altered erythrocytes, but no crystals or other inorganic element in the deposit. The urine was sterile. The haemorrhage persisted for three days, when it ceased abruptly. The right kidney was neither enlarged nor tender, but this attack appeared to confirm the diagnosis of renal colic. A few weeks later another attack occurred, which exactly resembled renal colic. The temperature rose to 103.4°, and the pulse was 120, small, and intermittent. After repeated vomiting haematuria again occurred. The urine gave a copious deposit of blood casts. During this attack the region of the appendix was extremely tender and resistant. Two days after the onset the urine was normal. But the symptoms of appendicitis became pronounced, and laparotomy was performed. The appendix was extremely inflamed, but was directed outwards, and was not adherent to the kidney, ureter, or bladder. After the operation, an abscess formed in the recto-vesical pouch, and eventually discharged through the rectum. The urine remained normal. Evidently the symptoms from the first were of appendicular origin, and the haematuria was a complication. Case II. A man, aged 30, after an attack of colic on the right side, had haematuria. The colic appeared suddenly after exercise. The urine was of a dark, brownish-red colour, and contained a quantity of altered erythrocytes and a few blood casts, but no crystals. The haematuria was ephemeral and the urine became normal. Six months later a second attack of colic with haematuria of five days' duration occurred. The blood appeared to issue from the right ureter, but as no flow of any kind was observed from the left ureter a bilateral source could not be excluded. The haemorrhage ceased as abruptly as before. Soon the patient began to complain of chronic constipation, distension, and occasional pain in the region of the left iliac fossa and splenic flexure. Nothing was revealed by palpation or the *x* rays. A few months later a third attack of haematuria occurred, with obvious signs of appendicitis. An operation was postponed until three weeks later, during which time there were two further attacks of haematuria. The appendix was found extensively diseased, but nowhere adherent. As it was directed outwards, it did not come in contact with any part of the urinary tract. Nevertheless, the

attacks of haematuria definitely ceased after removal of the appendix, and during a prolonged period of observation the urine remained normal. In both these cases the haematuria was undoubtedly of renal origin, although it occurred only in connexion with attacks of appendicular colic. A satisfactory explanation of its cause is hard to give. The invariably abrupt termination and the normal character of the urine in the intervals rendered toxic nephritis improbable. Septic embolism of the cortex might explain the symptoms, but the urine was sterile. Probably aseptic renal infarction with thrombosis occurred in both cases.

313. Fatal Case of Artificial Pneumothorax.

BALVAY AND ARCELIN (*Archiv. gén. de méd. de Lyon*, May 29th, 1911) ascribe a fatal accident to an operation for artificial pneumothorax in a case of phthisis. The patient, a milliner, aged 37, had extensive disease of the right lung dating from March, 1909. In August, 1910, the evening temperature was usually 103° F., and, as the left lung was apparently sound, it was decided to perform the operation for pneumothorax. On September 25th 600 c.cm. of nitrogen were introduced into the pleural space between the eighth and ninth ribs without any difficulty or discomfort, and every five days subsequently quantities of 1,000 c.cm., 600 c.cm., and again 1,000 c.cm. were injected. The patient complained only of a little constriction in the chest with occasional dragging pain, and her general condition was improved. On auscultation the breath sounds were completely banished, except in a few small areas corresponding probably to the site of adhesions holding the lung to the chest wall. On October 14th the needle was introduced in the seventh interspace. The manometer showed very feeble oscillations and the gas did not flow in. Believing that after the injection of such large quantities of gas there could be no danger of wounding the lung, the operators raised the pressure, and a few bubbles of nitrogen passed through the needle. Immediately the patient became unconscious and coughed up blood. There were spasmodic movements of the left leg with loss of sensation. The pulse was feeble. General convulsions supervened and the patient died comatose in less than forty-eight hours. The authors attribute death to gaseous embolism, and they point out that under no circumstances whatever should gas be allowed to pass through the needle unless the oscillations of the manometer show that the lumen of the needle is in communication with the pleural space. The accident was now caused by the choice of a fresh spot for the puncture—a spot close to the former one but over the site of an adhesion which was holding a portion of lung to the chest wall—and thus gas was forced into a pulmonary vein.

OBSTETRICS.

314. The Diagnosis and Treatment of Post-partum Haemorrhage.

E. RUNGE (*Berl. klin. Woch.*, February 5th, 1912) gives some practical hints to practitioners for the diagnosis and treatment of *post-partum* haemorrhage. The first question to be decided is where the blood is coming from when a woman is losing blood after the birth of the child. It may be from the placental site, from a tear in the uterus, cervix, vagina, or perineum, from a ruptured varicose vein in the vagina or vulva, or from a tear in the clitoris. The most common source of the haemorrhage is from the placental site. This is almost always due to deficient contraction of the uterine muscle. It may arise from too much manipulation on the part of the doctor or midwife in the endeavour to obtain after-pains. In order to determine whether the placenta is detached or not the bladder must be emptied and the cord gently drawn forward until it is taut. On pressing the fundus uteri from the abdominal wall into the true pelvis a greater length of cord appears outside the vulva. On releasing the external pressure the cord returns into the vagina when the placenta is still attached at the fundus, but not otherwise. Besides, when the placenta is lying in the lower uterine segment, a hard round mass of the fundus is felt quite distinct from the lower soft broad mass of the part containing the placenta. After the birth of the fetus the obstetrician should control the condition of the uterus by laying the hand on the fundus about every five minutes, and from time to time inspect the external genitals to see if any material bleeding is taking place. No kneading or rubbing may be carried out. After about half an hour the placenta will have become detached. This is determined as described above. If it is not expelled spontaneously, it may be expressed by gently applying Credé's pressure. If the uterus is relaxed but no bleeding takes place, the next pain should be awaited. But if bleeding takes place and the contractions are weak, the fundus may be massaged from without with the flat hand. As soon as a contraction takes place the massage should be stopped. If the bleeding continues in spite of this, Credé's manipulation may be resorted to. The fundus is first rubbed until a contraction is felt, and then it is seized with both hands and squeezed in the direction of the true pelvis. Should this fail to stop the bleeding, it is a mistake to introduce the hand into the uterus. The same attempt should be repeated after a few minutes' pause and again under anaesthesia, and in the vast majority of cases the placenta will be expressed and the bleeding stopped. In the rare exceptions it is necessary then to detach the placenta manually. The hand, covered with a sterile rubber glove, is introduced into the cavity of the uterus and the placenta loosened with the outer edge of the hand. Only under rare conditions should small parts be scratched off with the finger or nail. After the placenta is removed, the cavity is explored for retained pieces, and then irrigated with sterile water or 50 per cent. alcohol. When the bleeding persists after the birth of the placenta, the same should be examined in order to ascertain whether a cotyledon or a succenturiate placenta has been left behind. In such a case the hand, enveloped in the sterile glove, is again introduced and the retained piece removed, after which a further irrigation is carried out. If the cause of the bleeding is not the retention of a portion of the placenta, it will be due to atony of the uterus. Massage from without, or, still better, gentle continued pressure and at the same time a dose or ergotin, or some similar drug, usually leads to the desired result. Failing this, an irrigation of the cavity of the uterus through a Bozemann's catheter with hot water or solution (120° F.)—but not lysol, lysoform or perchloride—may be tried. As a last resort the uterus should be plugged. Two flat specula are introduced, the cervix is drawn down by two vulsella, and strips of gauze are inserted right to the top of the fundus, packing out every corner. After this the vagina must be plugged. The haemorrhage can be arrested at once in every case by applying a Momburg's rubber tubing tightly around the body above the fundus until the femoral pulse is no longer felt. This can be tolerated for a couple of hours without harm. When the practitioner cannot stay with his patient, a pad should be laid on the uterus and pressed down by a binder. Next, if the bleeding is not arrested in spite of the contractions of the uterus, the site of the haemorrhage must be sought elsewhere. A wound in the clitoris may bleed violently. The same may be said of ruptured varicose veins in the vagina or vulva. The mucosa of the vagina should be examined, as a tear here may bleed profusely. The same may be said of the cervix. All these sources are readily controlled by suture or acupuncture. Lastly the bleeding, which is rarely external, may arise from a ruptured uterus. Runge considers that the proper treatment is either suture or removal of the uterus, and should be carried out in a clinic or hospital. When the patient cannot be taken to a clinic, a plugging of the uterus may be applied as a last resort. In conclusion, he warns the practitioner that cardiac stimulants should not be given while the bleeding lasts. After this has been stopped, he advises camphor, digalen, or similar injections, or saline infusions subcutaneously applied. The extremities should be bandaged with Esmarch's bandages.

THERAPEUTICS.

315. Dietetics in Cardiac Disease.

FIESSINGER (*Journ. des prat.*, xxvi, 1912) considers in this connexion the four following forms of cardiac and vascular disease: (1) Asystole. Here the chief indication is to minimize the work of the heart. The reduction of liquids is of the utmost importance. (*a*) Karell's régime: For the first five days, 800 grams of milk given in quantities of 200 grams four times in the day—at 8 a.m., midday, 4 p.m., and 8 p.m. During the five following days, in addition to the 800 grams of milk, an egg at 10 a.m. and a biscuit at 6 p.m. are added, then two eggs, a piece of bread; and, finally, some hashed meat and vegetables. Twelve days after the beginning of the cure the patient is given his ordinary diet, but not more than 800 grams of liquid in the twenty-four hours. (*b*) Cure of Huchard and Fiessinger: During the first twenty-four hours 1,500 grams of liquid are given (500 of milk and 1,000 of water); on the second

and third day 750 grams of milk and the same quantity of water; on the fourth day milk and vegetables can be taken, but the amount of liquid is to remain the same. The patient is kept in bed. (2) Diet in valvular compensation. Meat should be avoided and salts decreased in amount. Milk, eggs, vegetables, farinaceous food, boiled fruit, and salad can all be eaten; game, condiments, spices, and strong cheeses, and alcohol should be avoided; not more than 2 litres of liquid should be drunk if the patient is at rest and 3 litres if slight exercise is taken. (3) Arterial cardiopathies, arterio-sclerosis. In the first, or arterial phase, the food should consist of milk and vegetables; 2 litres of liquid should be taken at the most; in the second or cardio-arterial phase, characterized by manifest lesions of the vessels, heart, and kidneys, the quantity of liquid should not be greater than 1½ litres in the twenty-four hours, and the diet milk and vegetables. In the third or mitro-arterial stage, characterized by dilatation of the cavities of the heart, with the presence of oedema, a milk diet (1½ litres at the most) exclusively is indicated. In the fourth stage, that of cardiac dilatation, the liquid should be reduced to 1,200 to 1,500 grains at the most. (4) Fatty hearts. At 7 a.m. cold meat, 10 grams of bread, a cup of warm tea without sugar; at 10 a.m. one or two eggs, 5 grams of bread, half a glass of red wine and water; at midday cold or roast meat, grills without sauce, green vegetables, 30 grams of bread, a cup of warm tea without sugar; at 4 p.m. a cup of tea without sugar; at 7 p.m. cold meat, green vegetables, 30 grams of bread, one or two cups of warm tea, salad without seasoning save salt.

316. Salvarsan in Syphilitic Sucklings.

NOEGGERATH (*Jahrbuch fur Kinderheilkunde*, 1912, lxxv) recommends the intravenous injection of concentrated solutions of salvarsan in infantile syphilis. He employs Weintraut's alkaline solution, and makes the injection into the cranial veins, on account of the difficulty in injecting into the veins of the arm without exposing them by operation. The difficulty lies in the escape of salvarsan into the tissues by penetration of the vein, owing to the movements of the child. The concentrated solution contains 0.1 gram of salvarsan in 2 c.cm., and can be injected with a Pravaz syringe. The minimum efficacious dose is said to be 2 mg. per kilogram of body weight, but the dose should be increased whenever possible up to 0.1 gram for each injection. Secondary effects are said to be rare. As regards the effect of salvarsan, while recognizing its rapid symptomatic action, the author says it is doubtful if this action is quicker than that of mercury, and there are some cases which are resistant to both drugs. He recommends combined treatment by salvarsan and mercury. Out of 28 cases 9 died.

317. Dangers of Salvarsan.

GAUCHER (*Bull. de l'Acad. de Méd.*, November 21st, 1911) again drew attention to the dangers of salvarsan. He stated that the drug is not only dangerous in itself by the accidents, sometimes fatal, which it may produce, but also on account of the false security which it gives to patients. Patients treated by salvarsan think themselves cured, and neglect further treatment; relapses occur, and by ignorance or carelessness they spread the disease around them. Gaucher says he often sees patients whose chancres have been rapidly healed by salvarsan, and whose Wassermann reaction has become temporarily negative, return two or three months afterwards with contagious secondary lesions. He therefore regards treatment by salvarsan as a real social danger, and remarks that the medical profession and the public should understand that this drug is deceptive. It heals ulcerations, but does not cure the disease, nor prevent its evolution. Gaucher's warning receives confirmation from two cases published by Berquin (*Ann. des mal. vén.*, January, 1912), in which contagion occurred from secondary lesions soon after "cure" of the chancre by salvarsan. In one of those cases the patient infected his wife.

318. Treatment of Eczema.

CH. SABATIÉ (*Progrès médical*, November 18th, 1911) says: In the treatment of eczema it is important to recognize two stages—an acute stage characterized by vivid redness, exudation, and irritation, and a chronic stage characterized by induration. In the acute stage treatment must be purely soothing and antiphlogistic; in the chronic it must be active. There is also an intermediate stage, and it is in this stage that one encounters difficulties in passing from one form of treatment to the other. In the acute stage powders and hot water should be employed, but all ointments should be avoided. Powders may be vegetable, that is, starch, or mineral, for example, talc and magnesium carbonate; vegetable powders should not be used in situations difficult to keep clean, as they are liable to ferment in the presence of humidity. Hot water is used in the form of vapour and fomentations; the use of the steam spray for ten minutes three times a day is cleansing and antiphlogistic; hot water compresses changed five times a day insure asepsis and protection from changes of temperature. No medicament should be added to the water except in infected cases, when the mildest antiseptics may be used with benefit. Wet dressings should fit the affected area accurately, otherwise they may cause spreading of the disease by maceration of the skin; it is a good plan to surround the diseased region with a ring of zinc paste on which the edge of the dressings rests. When the irritation has been allayed, and oozing and crusts have disappeared, more active measures may be employed, but it is better to continue soothing treatment too long than to stop it too soon. Every change in treatment must be made gradually, and each new application must be regarded as an experiment. For instance, in painting with silver nitrate (excellent for such regions as the ano-genital), begin with a 1 per cent. solution. If it is not well borne, go back to the soothing treatment for some days, and then try again. If it is well borne, the lesion will either be improved in time or it will remain inactive; in the latter case gradually increase the strength to 1 in 75, 1 in 50, etc. In very resistant cases it may be necessary to go up to 1 in 30 or more. Ointments and inert pastes are indicated in the less irritable stage, but the same precautions must be observed. The following are recommended:

Sterilized sweet oil of almonds... ...	10 grams.
Oxide of zinc	20 ,,

or

Prepared chalk Oxide of zinc Lime water Linseed oil	āā 5 grams.

A little later one can add mildly active substances such as dermatol and bismuth subnitrate. In the chronic stage more active medicaments are required—for example, oil of cade. As before, one must start with mild proportions and cautiously work up to stronger. It is convenient to make up two strengths, thus:

Oil of cade	1 gram.
Oxide of zinc	10 grams.
Vaseline	30 ,,

and

Oil of cade	10 ,,
Oxide of zinc	20 ,,
Vaseline	30 ,,

Then by using these ointments, either pure or mixed, in any given proportion, it is easy to obtain the required strength. In all cases the effect of treatment must be watched just as one watches the effect of digitalis in heart cases. As to general treatment, no general rules can be laid down—some cases require milk diet, others vegetarian diet, and others an ordinary diet more or less modified. Each case must be judged by its history, and especially by the digestive, hepatic, and renal functions. Some eczemas will get well under local treatment alone, but in others all local treatment will fail unless supplemented by general treatment. There are even cases in which all local treatment is contraindicated.

PATHOLOGY.

319. The Wassermann Reaction.

JEANSELME AND VERNES (*Paris médical*, March, 1912) consider that the treatment of syphilis should be guided by the Wassermann reaction on the one hand and by lumbar puncture on the other hand. The Wassermann reaction enables us to estimate to a certain extent the virulence of the disease and to follow its fluctuations apart from all objective manifestations. Lumbar puncture informs us of the composition of the cerebro-spinal fluid which bathes the meninges. While the body fluids in general (milk, pus, serous or synovial fluids) give the same degree of Wassermann reaction as the blood, the cerebro-spinal fluid does not. A positive reaction with this fluid signifies a severe meningeal lesion. Inversely the reaction may be positive in the cerebro-spinal fluid and negative in the blood if the disease has concentrated its activity in the arachnoid space. Hence the necessity for the rational supervision of the treatment of syphilis, of combining the indications furnished by the Wassermann reaction and lumbar punctures.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

320. Muco-membranous Colitis.

GERMONT AND DETRON (*Echo méd. du Nord*, April 4th, 1912) deal with the etiology, pathogeny, and therapeutics of this condition. They point out that in the normal state the mucus elaborated in the upper part of the digestive tube dissolves itself in the faeces partly at the level of the terminal portion of the ileum and partly in the colon, and so the faecal bolus on evacuation is free from any appearance of mucus. Roger has shown the mechanism of the coagulation of mucus to be due to a special ferment to which he has given the name of "mucinase." This action can be largely prevented by certain agents, one of the most efficacious of them being the bile. This explains in the normal state the solution of the intestinal mucus in the faeces. The point is borne out by clinical evidence of a number of pathological states in which the frequency of muco-membranous colitis has been noted coincidently with diminished biliary secretion. The authors have further demonstrated by a series of experiments on rabbits the fact that mechanical irritation determines a state of spasmodic constipation with hypersecretion of mucus. An interesting result obtained by the same authors was that faradization of the pneumogastric nerve brought about the syndrome of myxorrhoea. Bacterial infection also was artificially proved to play a part in this condition. For this it is not necessary for the bacteria to be placed in immediate contact with the mucosa. The elimination of certain substances, such as sodium oxalate and uric acid, brought about the same result. This is not, of course, confined to the intestinal mucosa, as it is a general property of mucous membranes. Applying these results clinically, the authors were led to affirm that the causes of muco-membranous colitis are many and complex, and require individual elucidation. In one group of cases mechanical irritation, such as is produced by scybalous masses, may explain the pathogeny of the condition, but this does not follow in every case. The further factor of the chemical composition of the faeces has to be considered. Another cause of the condition, according to the authors, is the practice of enteroclysis, a form of treatment often administered badly and without pressing therapeutic indications. These injections are frequently too hot or too cold, or given at too high pressure. Spasm of the bowel is the preponderating element in another group of cases, although its importance may easily be overestimated. There are many instances of enterospasm occurring in cases in which there is no evidence whatever of muco-membranous colitis; and, on the other hand, there are cases—although these are rarer—of the condition in which there is no spasm but actual atony of the bowel. In the authors' view these cases of enterospasm ought to be regarded rather as a symptomatic than pathogenic group. The origin of the spasm is frequently reflex, and the source of irritation may be quite distant, such as the central nervous system. Or it may arise from a chronic appendicitis, cholecystitis, metritis, or any inflamed abdominal organ. A careful examination of the patient is necessary in such cases, embracing the state of the nervous system, the genital organs, and the digestive apparatus. The group of gastro-intestinal dyspepsias, indeed, are responsible in the case of a considerable proportion of the victims of myxorrhoea. In many of these cases the mucous colitis is the symptom uppermost, and the dyspeptic state causing it is often latent. Insufficient biliary secretion has already been alluded to as being responsible in many cases for the condition. With regard to treatment it is not desirable to have immediate recourse to symptomatic remedies, but to seek systematically the category in which each individual case may fall. This is indispensable. The authors do not recommend the practice of enteroclysis, and point out that in the thermal cures this view is now being taken. Every effort should be made to stallized in an endeavour to unravel the precise etiology of individual cases.

321. The Pineal Gland and the Genital Organs.

PAUL BIACH AND EDUARD HULLES (*Wien. klin. Woch.*, June 10, 1912) discuss the functional relationship of the pineal body to the genital organs. Recently Marburg, in a review of the literature, has described three different groups of clinical symptoms as being caused by abnormalities of the pineal body. These are: (1) Hypopinealismus characterized by abnormal growth, and early sexual maturity, with premature development of the primary and secondary sexual characters. (2) Hyperpinealismus, whose chief symptom is adiposity. (3) Apinealismus. In the author's opinion, the symptom most typical of abnormality of the pineal body is early sexual maturity with premature development of the sexual characters. Experimental evidence as to the function of the pineal body is difficult to obtain, because extirpation of the pineal body in experimental animals has generally proved to be a fatal operation. An indirect method of investigation is to induce alterations in the more easily accessible glands, and trace the changes which result in the pineal body. Marburg and Biedl were of opinion that the secretory powers of the pineal gland were only active in the period of earliest youth, but the authors do not altogether agree with this view, although their own investigations were carried out in all but one case on young animals—cats, three to four weeks old. The method followed was to castrate half of a litter of kittens, leave the other half as controls, and kill all the animals at the age of seven to eight months. The pineal gland in each case was hardened; thin paraffin sections were cut and stained with haemolaene eosin. All the sections obtained from the castrated animals showed characteristic changes—namely, an atrophic condition which was present not only in the gland as a whole, but also in the individual cells. This change was seen in both males and females, and was seen, also, in one case in which castration was not performed until the age of three months, when testicular cells were already mature, and advanced involution of the thymus was present. It is not easy to reconcile clinically observed facts with these experiments. Hypertrophy of the genital organs is the condition observed to accompany teratoma of the pineal body with almost complete absence of the pineal tissue, and, on the other hand, it appears that in the case of the glands having internal secretions, when one gland becomes functionless other glands of the same or similar functions tend to undergo compensatory hypertrophy. Thus Rogowitsch found that after thyroidectomy the hypophysis increased in size, while later experiments have shown that extirpation of the hypophysis is followed by increase in the thyroid gland. The authors' experiments do not agree with Marburg's view that hypopinealismus leads to increased sexual activity, and hyperpinealismus to adiposity, but rather to a contrary relationship. It is, however, difficult to sharply divide the different groups of cases, since mixed cases are reported in the literature of affections of the pineal gland in which adiposity is combined with hypertrophy of the genital organs. A consideration of the hypophysis shows similar difficulties: castration, it is true, always leads to hypertrophy of the hypophysis, but apparently changes in the hypophysis of an altogether opposite character from one another may lead to precisely similar changes in the genital organs. Although Marburg's theory may be too far reaching, the author's experiments bear out the view first expressed by him that there is an opposition in function between the epiphysis and the hypophysis, since castration leads to atrophy of the pineal body, and is known to cause hypertrophy of the hypophysis.

322. Syphilitic Diseases of the Kidney and Wassermann Reaction.

RICHARD BAUER (*Wien. klin. Woch.*, No. 42, 1911) discusses the clinical and serological diagnosis of syphilitic diseases of the kidney. It has been known for some time that the urine in a syphilitic patient with high grade albuminuria may give a positive Wassermann reaction. The present author has shown that it is the globulin fraction of the urine which gives the reaction. It may be that the serum globulins which give the Wassermann reaction in the serum pass over into the urine in such quantities as to give the reaction, or the urine reaction may be the result of localization of spirochaetes in the kidney. The author has examined a large number of cases of kidney disease during the last two years in order to discover with the help of the new serum reaction whether many cases of nephritis of unknown origin might prove to be cases of syphilis of the kidney. During the whole time, however, he has discovered only three instances in which clinically and serologically this proved to be the case. In two of

these cases there was no known cause for the albuminuria, in the third an attack of scarlet fever twenty-four years earlier was considered to be the cause. Syphilis was denied in the first case, but not in the other two. Anti-syphilitic treatment gave a splendid result in the first two cases, but gave none in the third, which was a severe one with general oedema. In all three cases the urine, which was large in amount, contained much albumen up to 20 per cent., 25 per cent., and 40 per cent. respectively, while the sediment was comparatively small, and there was absence of general symptoms, such as cardiac hypertrophy, increase in blood pressure, thickening of vessels, and of uraemic symptoms, even in the stage of general dropsy, so that the condition suggested amyloid kidney disease. In the first two the amyloid disease was limited to the kidneys, in the third there was general visceral amyloid disease. The author is of opinion that symptoms of isolated amyloid disease of the kidneys should arouse suspicion of a syphilitic affection. Both the blood serum and the urine in all three instances gave a markedly positive Wassermann reaction, and it was therefore impossible to draw from the cases any conclusion as to whether the kidney condition was due to syphilitic toxins or to spirochaetes in the kidneys themselves. From the author's experience it would appear that syphilis seldom attacks the kidneys.

323. Enésol in Parasyphilitic Affections.

Frey (*Echo méd. du Nord*, April 4th, 1912) states that arseno-benzol has proved unsatisfactory in these cases. He has found enésol to be of more value in tabes, ophthalmoplegia, and syphilitic myelitis. His results have been especially good in ophthalmoplegia, and in a series of 10 cases there was marked improvement in the ptosis and other signs of this condition in every one of these after fifteen to thirty injections. In tabes the pains disappeared in a majority of cases, and in several, two years after the treatment, there had been no return. Good results have also followed the use of enésol in the intestinal and gastric crises of tabes. The Wassermann reaction was found to be negative after a course of the treatment, when previously it had been positive. Enésol provokes no symptoms of intoxication. There is only a local reaction.

SURGERY.

324. Laryngostomy with Dilatation in Treatment of Stenosis or Tumour of Larynx.

Charles Viannay (*Arch. Prov. de Chir.*, January and February, 1912) gives full details of 11 cases of laryngostomy with dilatation. The operation of laryngostomy consists in median section of the larynx and upper part of the trachea to permit prolonged treatment of stenosis following tracheotomy for diphtheria or for the purpose of ablating tumours susceptible of recurrence. It has been practised since 1898. The operation was employed in the author's 11 cases for laryngo-tracheal stenosis following long-continued carrying of a tracheotomy tube. He divides the operation into two stages—laryngostomy proper and dilatation with repair of the stoma. General anaesthesia is necessary for laryngostomy. The tube being removed, a median incision is made from the indentation of the thyroid cartilage to the orifice of the tracheotomy opening and prolonged downwards through the trachea for 2 cm. The cartilages of the larynx are then split with scissors, unless the stenosis is so great that the branch of the scissors cannot be introduced, in which case careful cutting down with the knife will be required to open up the larynx. The edges of the opening in which the tube lay are refreshed, so that now the whole larynx and upper trachea lie open like a gutter. As much as possible of the cicatricial masses is removed with scissors; if the stenosis is extensive the knife is passed through the laryngo-tracheal canal vertically in its whole length posteriorly and then on both sides. The larynx and trachea are sutured to the skin. Dilatation is begun straight away. The process of dilatation lasts for about six months. Then finally the edges of the wound are repaired and brought together. The stoma closes after a variable period. The following are summaries of two of the eleven cases narrated to show the sequence of events and the time taken to effect a cure: (1) Laryngeal diphtheria, tracheotomy; unsuccessful attempts to remove the tracheotomy tube frequently made; laryngeal stenosis; six months later laryngostomy followed by prolonged dilatation; one year later attempts at plastic operation followed by failure; one year later again second attempt to close the opening successful. (2) Laryngeal diphtheria; tracheotomy; impossibility of removing tube; laryngeal stenosis; laryngostomy followed by dilatation; tendency to recurrence of stricture requiring several repeated excisions of the cicatricial tissue; one year afterwards an attempt to close the stoma failure followed by recourse again to dilatation; at the end of another year closure attempted anew, with, however, formation of a "safety opening"; two years later still operation to close the "safety opening"; ultimate cure complete but with loss of voice.

325. Lateral Anastomosis of Portal Vein and Vena Cava in Treatment of Cirrhotic Ascites.

Danis (*Ann. de la Soc. Belge de Chir.*, December, 1911) points out that the treatment of ascites in cirrhosis of the liver may be symptomatic or causal—that is, directed towards getting rid of the fluid or preventing its formation. The operations directed towards diverting the portal blood by an extra hepatic channel into the general venous current seem to him the more rational. These are: Omentopexy (Palma); section of portal vein and termino-lateral anastomosis in vena cava (Eck-Vidal); suture of the ovarian vein with the mesenteric (Villard and Tarnier). The author is of opinion that the formation of latero-lateral anastomosis of portal vein with vena cava so as to divert incompletely the blood coming from the intestinal tract constitutes a superior method to any of these mentioned. Technical difficulties are great. The first and greatest is that interruption of portal circulation is dangerous; and the second is that thrombosis is common after such operations. The first difficulty is overcome by the employment of haemostatic forceps suggested by the author. This is a strong forceps whose blades curved towards the extremity, terminate each by a large oval window. The grip is regulated by a screw. The windows are intended to bite on the two veins in such a manner as to isolate the fixed portion to be joined by sutures from which the blood will be excluded during the operation. The free portions of each vein are outside the oval windows. In closing the bite the endothelium must not be injured. The suture is performed within the windows. The author has after some attempts succeeded in making in the dog a cavo-portal anastomosis which proved to be watertight and with permeable lumen. He thinks that as the vessels are larger the operation should not prove to be so difficult in the human subject. The vena cava is deperitonized for some centimetres; the portal vein is freed in the neighbourhood of the foramen of Winslow. The vessels are united by a row of continuous sutures of vaselined silk; then the forceps applied so as to include in the windows equal-sized ovals of vein wall. The free portion of the cava lies between the branches of the instrument. An oval piece is cut out of the wall of each vessel 6 to 7 mm. broad and 2 cm. long. The posterior cut edges are sutured with fine vaselined silk by a continuous Lembert suture reversed—that is, introduced on the inner surface of the vein; and the anterior cut edges are sutured by continuous U stitch. By both stitches the cut edges are doubled outwards, so that the endothelium of both vessels is in contact. The author admits that the experiment is still too limited to be of much value, but he hopes to continue his researches. Several diagrams explain clearly the method.

326. Cervical Rib.

Miller (*Amer. Journ. of Med. Sci.*, December, 1911) records his personal observations upon eight cases of cervical rib, all of which had been previously diagnosed as suffering from severe brachial neuritis. In five of these relief of symptoms followed operation. The *x* rays showed bilateral ribs in several of the previously recorded cases, two of which complained of considerable distress in both arms. Symptoms rarely appear before adolescence, and all of the eight were women. The onset is usually gradual and without any obvious exciting cause, the tendency being for the pain to become gradually more severe. At first infrequent and excited by cold or use of the arm, it gradually becomes persistent and independent of any special exciting cause. Numbness and tingling are common even when there is freedom from actual pain. In five cases vascular phenomena existed—for example, ischaemia, cramping, or cyanosis—but in only one was any evidence forthcoming of compression of the vein or artery. The symptoms showed wide variation, the most constant and most significant diagnostic complaint being persistent, intermittent, or continuous disturbance in the arm, it being rare for a simple neuritis to continue for years. The marked susceptibility to moderate cold

another significant symptom, as is also the acute exacerbation of severe pain after slight exposure or moderate use. Posture, especially with the hand on the head during sleep, often affords relief. In no instance could the rib be palpated, and cervical rib should be suspected in every case of prolonged brachial neuritis, resort being had to *x* rays to confirm or refute the diagnosis. A very short rib may cause trouble, either from direct irritation, or on account of the pressure exerted by a tendinous band extending from its tip to the first dorsal rib. Care must be taken in *x*-ray examination not to overlook a cervical rib which curves abruptly anteriorly, so that it is important to have pictures taken at different angles with careful observation for indistinct shadows. The persistence of severe brachial neuritis of unknown origin for more than a year should warrant an exploratory operation, even in the absence of any confirmation of the diagnosis by *x* rays. Five of the eight cases were operated upon, and all were relieved of pain. Though the arm in some cases remained weak, it is probable that this weakness will eventually entirely disappear, judging by the course of the first case, in which, after eight months, the weakness is steadily becoming less, with good prospect of ultimate recovery.

OBSTETRICS.

327. Extraperitoneal Caesarean Section.

ULISZEWSKI (*Wien. klin. Rundschau*, Nos. 15, 16, 17, 1912) describes several methods of suprapubic and extraperitoneal Caesarean section. After a detailed review of the history of the extraperitoneal operation, which, be it noted, was foreshadowed by Jörgs as early as 1806, he describes the method advocated by Franks at the conference at Lisbon in 1906. Franks, and Sellheim who followed him, based their procedure on the fact that the layer of peritoneum which covers the pelvic organs is very easily separable from them, so much so that if the bladder be pushed to one side and downwards, and the peritoneum be well stretched over the fundus of the uterus, the lower segment of the uterus is freed from peritoneum, and almost seems to be specially prepared by Nature for the surgeon's incision. As the peritoneum is rather firmly attached to the top of the bladder, and, being thin, may be torn during delivery, Sellheim cut round the adherent disc, leaving a hole in the floor of the peritoneal sac, which he then stitched up again before proceeding to open the uterus. In 1909 Latzko of Vienna still further improved on this technique. Dividing the skin and fascia, as his predecessors did, by a transverse incision above the symphysis, he makes a longitudinal incision through the linea alba on the left side. On drawing the muscles apart and pushing up the peritoneum, the left margin of the bladder is exposed, because, as he points out, that organ accompanies the uterus in its rotation to the right during the last few weeks of pregnancy. The bladder can now be easily pushed over to the right with the rectus muscle, and, if necessary, downwards towards the vagina, so as to expose the lower segment of the uterus. The incision into the cervical portion of the uterus is made either in the median line or laterally, and is begun as low down as possible so as to minimize the amount of bleeding. The manipulation is facilitated if the bladder is slightly distended with 6 or 7 oz. of water. The author has collected forty-six cases operated on by this method with a loss of only three mothers and one child. Having regard to the low rate of mortality, which with greater experience may be reduced still further, he recommends the operation as the safest procedure, not only in cases of contracted pelvis, but also in placenta praevia and eclampsia.

THERAPEUTICS.

328. Treatment of Tuberculosis in Man by a Curative Vaccine.

[illegible]OUAIRE of Lyons (*Prov. méd.*, 1911, xxiv) uses the following vaccine: Very virulent human bacilli are sterilized at 100°, the fat removed and pounded. It is employed in a similar manner to Jenner's vaccine against small-pox, in addition to a control without vaccine. At the end of twenty-four hours, often longer, and sometimes in 48 hours, a pustule with an indurated base forms, which lasts from five to ten days, and sometimes three to four months. The crust falls off sometimes and is renewed, and the last crust is replaced by small whitish yellow follicles which fall off and are renewed. If the pustules have remained for some time they often leave behind a pigmented spot nearly black and perhaps irremovable. In some cases the crust is preceded by slight ulceration. The axillary glands are sometimes painful and swollen for a few days. If there is no local reaction the patient is free from tuberculosis, general reaction may be marked, consisting in fever, chills, somnolence, lassitude, but such a reaction may be absent. Often a reaction is produced in the affected organ, such reaction showing itself by pain. Local reaction is always present in marked tuberculosis; when the patient is *in extremis* it may be absent. In latent cases, with no sign of tuberculosis clinically, it frequently occurs. The author considers the vaccine acts by producing a considerable quantity of antibody and provokes an active immunization as the tuberculosis and not a passive one as the serums. One séance is all that is required. The author believes he has found a therapeutic agent against confirmed tuberculosis, both simple and cheap. He quotes forty-three observations, but many of them are of very recent date, and in many of the others the symptoms give no reason for the diagnosis of tuberculosis.

329. Treatment of the Vomiting Cough of Tubercle.

H. PAILLARD (*Journ. de méd. et de chir.*, February 26th, 1912, art. 23,532) concludes a thesis on the functions of the diaphragm with a study of the above conditions. Numberless drugs are in use, the patients changing the remedy every four or five days; the vomiting, temporarily arrested, returns more obstinate than ever. Chloroform water—used with success by Matthieu and Roux, though it has failed in the experience of many doctors—seems to give more lasting results than other drugs, but the time of administration is most important. It should be given immediately after the ingestion of food, before the fit of coughing begins. By calming the nervous excitability of the stomach the starting of the reflex is prevented. To the same end Lion gives 20 grams of bismuth subnitrate diluted with two-thirds of a glass of water. Paillard insists on the necessity of rest after meals: exertion brings on breathlessness, which may sometimes cause the vomiting cough. Rest ought to be taken in the right lateral decubitus, which has two advantages: The pylorus is in a position favourable to the emptying of the stomach, and there is the least amount of displacement of the left diaphragm. But the essential therapeutic point is a short inhalation of oxygen at the opportune moment. Paillard instructs his patients thus: "Have a bag of oxygen constantly on the foot of your bed. After a meal, when you feel the fit of coughing coming on, take up the bag and breathe a few whiffs of oxygen; the fit of coughing will not occur, or, if it does, it will be slight and you will not vomit; if there is any tendency for it to return some minutes later, breathe a little more oxygen. Above all, follow your appetite, and do not let the fear of vomiting restrict your diet. Do not forget that you ought to breathe little oxygen at a time and that the same bag ought to last you at least four or five days." Under this treatment Paillard has found that the trouble disappears, generally at the first attempt. The result is lasting in the great majority of cases if the inhalations are continued for some weeks: rarely (three times in thirty-two) the vomiting reappeared, but the combination of chloroform water treatment with the administration was sufficient to effect a complete cure.

330. X-Ray Treatment of Sarcoma.

ACCORDING to Max Levy-Dorn (*Berl. klin. Woch.*, January 1st, 1912), the majority of records of the results obtained in sarcoma by means of Roentgen rays do not give a sufficiently definite insight into the permanency of the cure. Kienböck published in 1906 a statement that of 90 cases of sarcoma, 18 per cent. of the growths disappeared entirely in response to *x* rays, 57 per cent. showed signs of distinct shrinkage, and 25 per cent. were uninfluenced. He further mentions that a cure of two years' duration is recorded by Coley, another by Skinner, and one of four years by Gocht. He gives the details of two further cases which were cured by Roentgen rays, and in which no recurrence had taken place, in spite of the fact that the treatment was carried out six years ago. The first case was that of a woman aged 34 years, who was operated on in 1904 for a tumour involving the cervical glands of the right side. On microscopic examination the growth proved to be a lymphosarcoma. A recurrence took place about four months later, and the left glands from the supraclavicular to the submaxillary areas were then found to be enlarged as well as a fresh gland at the upper end of the scar. Treatment with arsenic and wet compresses did not suffice to check the growths, and a

second operation was decided against on account of the extent of the disease. On December 30th, 1905—that is, six weeks after the recurrence, *x*-ray treatment was begun. The glands were rapidly reduced in size under this treatment, and in April a marked improvement was noted. In December some slight swellings were noticed again, and the *x* rays were once more applied. All signs of disease then disappeared. Three years later the patient noticed some swelling of the inguinal glands, while the cervical and other neck glands were not altered. This was also treated by rays, and the signs disappeared within a short time. The patient, when seen at the end of 1911, was quite well, and no traces of the glandular affection could be detected. The second case was one of periosteal sarcoma of the femur. The appearance of the tumour in the Roentgogram showed a thickened periosteum, numerous linear shadows in the upper half of the femur, some of which took on a network arrangement, while others ran parallel to the bone, and the whole bone was expanded and spindle-shaped. The patient refused operative treatment, and *x* rays were therefore employed. The treatment was begun on April 26th, 1906, and terminated in February, 1907. Atoxyl was also given. On November 25th, 1911, the patient was quite well. Examined by *x* rays, the spindle-shaped swelling of the femur was still present, but all the other changes had disappeared. Levy-Dorn does not think that there could be any question as to the correctness of the diagnosis.

331. Treatment of Tic Douloureux.

CRESPIN (*Province méd.*, February 24th, 1912) recommends the treatment of painful spasm of the facial muscles by neurolytic injections. The condition has long defied treatment. Nervines—aconitine, bromides, etc.—give very uncertain results; electricity is generally disappointing; and heroic surgical measures, such as extirpation of the Gasserian ganglion, often fail to give relief. The treatment by neurolytic injections at the point of cutaneous emergence of the nerves has been accredited for some years and merits attention. The method is simple when the ophthalmic branch is affected, but when the superior or inferior maxillary is involved the technique is more complicated, because the fluid has to be injected into the foramen rotunda or the foramen ovale; in the case of the infraorbital or the mental nerve, however, the difficulty is reduced to a minimum. The patient who forms the text of the article was a typical case of tic douloureux involving the supraorbital nerve. After some months of ineffectual treatment by injections of cocaine, scopolamine, etc., an injection of 1½ c.cm. of carbolized glycerine (40 per cent.) was made under ethyl chloride anaesthesia into the supraorbital notch. Soon after the operation there was total anaesthesia in the supraorbital, frontal, and parietal region—a necessary condition if one is to feel sure that the nerve has been quite destroyed. Next day there was oedema and ecchymosis of the upper lid, which subsided in two days; the attacks diminished in frequency and intensity, but did not completely stop till the fifth day. She remained perfectly well for eight months, at the end of which time the attacks returned, though less acutely than before. She was again anaesthetized with ethyl chloride, but instead of carbolized glycerine she was injected with the following solution, recommended by Sicard: Alcohol (80 per cent.) 20 c.cm., menthol 0.40 gram, novocain 0.20 gram. The result was total anaesthesia in the region supplied by the supraorbital nerve, slight ecchymosis, and progressive attenuation of the attacks, which disappeared on the ninth day. Crespin considers that it may be justly claimed that the method is one which will often bring about the cessation of the intolerable pain for a considerable lapse of time, and sometimes for ever.

332. Treatment of Gonorrhoeal Conjunctivitis.

W. GOLDZIEHER (*Wien. klin. Woch.*, No. 47, 1911) points out how unsatisfactory are the results of the customary treatment of severe acute gonorrhoeal conjunctivitis. He has made trial in fifteen cases of a method of treatment which consists in applying moist heat locally. He bases this treatment upon two facts: The first is that the gonococcus is almost always found on the surface of the conjunctiva attacked or in the superficial cells, and only exceptionally is found in very small numbers in the subepithelial tissue. The second is that the gonococcus bears higher temperatures badly, is destroyed in ten minutes at a temperature of 44° C. (111° F.) and immediately at 45°C. (113° F.) The author has therefore devised an instrument which is convenient and portable, and by which a spray of steam can be directed towards the conjunctivae, from such a distance as to give a temperature of from about 45° C. to 52° C. (125° F.) at the conjunctival surface. At first, before using an instrument by which the stream could be regulated, the process was so painful that it was not adequately carried out. Even with the apparatus the first applications are painful, but later ones are found to give hardly any inconvenience. If the lid is too much swollen to be everted ice is applied in the customary way until this becomes possible. When complete excision is still not possible the steam is applied at the higher limits of temperature. If there is much chemosis the ocular conjunctivitis is also treated. The author has had the most satisfactory results from the treatment, which was only given in very severe cases. The fifteen cases treated were in two groups, according to whether the cornea was or was not already involved when treatment was begun. In the 10 cases in which the cornea was untouched recovery was quick and complete. The lids promptly became less swollen, so that complete eversion became possible, chemosis lessened, and the discharge by about the fourth day had come down to a minimum. The cornea in all cases remained free. In 5 cases there were already corneal defects when the treatment was begun. In 1 case with purulent inflammation of the cornea full recovery was obtained. In 2 in which there was almost complete infiltration a moderate degree of vision was saved with the help also of operative treatment. In the remaining two cases in which the cornea was already destroyed the applications did, at any rate, quickly cause cessation of the purulent secretion. An after-treatment of the conjunctiva may be needed if the secretion, although free from gonococci and non-purulent, still persists. After-treatment with silver nitrate solution is seldom needed. The author has no doubt of the immense value of the treatment as compared with the customary silver nitrate method.

PATHOLOGY.

333. Etiology of Duodenal Ulcer.

H. A. DIETRICH (*Muench. med. Woch.*, March 19th, 1912), writing from the Pathological Department of the Eppendorff (Hamburg) Hospital, deals with statistics and other observations on duodenal ulcer, and discusses some points in the etiology of this disease. He finds that the frequency of the disease is nothing like so high in Germany as it is in England. Moynihan, Mayo, and Mitchell have shown that duodenal ulcer is much more common than gastric ulcer (about twice), and Wright gives the frequency in which these ulcers are found *post mortem* at over 1 per cent. The Hamburg table shows the following frequencies: *Males:* Gastric ulcer (including scars), 52; erosions of the stomach, 47; ulcers and scars of the duodenum, 23; erosions on the duodenum, 1. *Females:* Gastric ulcer and scars, 47; erosion of the stomach, 48; duodenal ulcer and scars, 12; erosion of the duodenum, 1. The duodenal ulcer, therefore, is more common in males than in females, and affects both sexes at any age. As a rule the ulcer is single, but in 10 out of the 35 cases it was accompanied by other ulcers. Scars were only observed twice. It was placed in nearly every case in front of the papilla of Vater, close behind the pylorus. The size varied considerably. In 9 cases the ulcer had penetrated to the muscular coat, in 15 to the serous coat. In 7 cases perforation had taken place, which is much more frequent than with gastric ulcer. Haemorrhage due to the involvement of vessels occurred in 6 cases. In 4 cases the ulcer had led to stenosis of the intestine. In discussing combinations and complications of duodenal ulcer, he finds that the old idea that it is associated with burns is entirely fallacious. The same may be said of the atrophies. He mentions a number of other conditions which were met with in the duodenal ulcer patients, but in discussing the same, shows that no causal relation existed between the two conditions. On the other hand, he finds that duodenal ulcer does occur frequently after operations, and gives details of 8 of his cases in which this took place.

334. Reaction of Russo and Typhoid Fever.

LEMAIRE (*Gazz. hebd. des sc. méd.*, xxxiii, 1912) finds that this reaction is not inferior to other reactions, such as Cammidge's test for pancreatic lesions, fluorescence with formol for the prognosis of diabetes, that of Yeûmow with mercury nitrate for helminthiasis, and others, but does not possess the value the discoverer attaches to it. The test is as follows: Four to five cubic centimetres of urine filtered for choice, are mixed with four drops of an aqueous solution of pure methylene blue; if on shaking the mixture becomes an emerald green or spearmint colour the reaction is positive.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

335. Acute Dilatation of the Stomach in Pneumonia.

FUSSELL (*Amer. Journ. of Med. Sci.*, December, 1911) records 11 cases of acute dilatation of the stomach in pneumonia, 5 under his own observation and 6 from the literature. He regards the condition as a real and dangerous complication, generally unrecognized but easily relieved. In practically every case which has come to autopsy a constriction of the duodenum at the root of the mesentery has been found, the stomach attaining a huge size and often occupying the entire abdominal cavity. Of the 11 cases, 5 recovered and 6 died, dilatation occurring before the crisis in 8 and after in 3. Painless and effortless vomiting, usually of large quantities of dark fluid, is the most frequent symptom. Severe abdominal distension, especially marked in the epigastrium, occurs rapidly, with usually constipation and the symptoms of collapse. Splashing can generally be elicited by palpation and percussion, and peristaltic movements may occasionally be visible. The condition has to be diagnosticated from general intestinal distension not due to obstruction or peritonitis; from general peritonitis; from intestinal obstruction; from pancreatic cyst; from uraemia; from post-anaesthesia vomiting; and from acute haemorrhagic pancreatitis. In most of these conditions the introduction of the stomach-tube will not afford relief as it does in acute dilatation, while in uraemia there is no collapse and no distension. Early diagnosis is essential, and a sudden abdominal distension occurring in the course of pneumonia should bring to mind the possibility of acute gastric dilatation, especially when accompanied by collapse, increased gastric tympany, pain, and vomiting.—As a diagnostic step a stomach-tube should be introduced and lavage performed, from which relief will be instantaneous if the contents are foul and copious or if there is much flatus. The lavage must be performed as often as dilatation occurs, and even extreme collapse does not contraindicate its use. Since there is a constriction of the duodenum, under the root of the mesentery, and the mechanical obstruction is rendered still more marked by the collapsed small intestines being far down in the pelvis, turning the patient on the right side or on to the face may relieve. Nothing should be administered by the mouth. Pituitrin and strychnine and eserine hypodermically appeared to be of value in two of the cases.

336. Early Symptoms of General Paralysis.

WITH the object of calling attention to the frequency with which general paralysis is wrongly diagnosed or overlooked in its early stages, A. Zweig (*Berl. Klin.*, April, 1912, No. 16) gives a concise account of the various symptoms met with and their diagnostic importance. He states that unless all organs are examined errors are likely to be made, and that it is necessary to take into account the condition of the whole nervous system and of the general characteristics of the person, and also to give full consideration to the past history. He advises repeated examinations, since the psychic symptoms may be readily overlooked in a short consultation. Many cases begin with a neurasthenic stage, and he insists on the diagnosis of pure neurasthenia being made only by exclusion. Neurasthenic symptoms in a person with a history of syphilis should awaken the suspicion of an early general paralysis. It is now known that this disease necessarily depends, in part at least, on a past infection of syphilis, and it therefore becomes essential to have a Wassermann's test carried out. A peculiarity of the early stages of general paralysis of the insane is the fact that the patient frequently does not complain himself of any symptoms. He will even deny their presence. Sleeplessness or headache may be overlooked unless great care be exercised. Fainting attacks, giddiness, and even apoplectic attacks may occur quite early, and are usually very mild and short-lived. The changes in the pupil seen before the disturbance is marked may be limited to the loss of the round shape of the pupil and anisocoria, that is, a difference in the size of the two pupils, which was not present before. Neither of these signs is pathognomonic of general paralysis, but may put the physician on his guard. The facial nerve may be affected, and this will be recognized by a slight ptosis, or a smoothing out of the naso-labial fold, or a slight crookedness of the corner of the mouth. The tongue may show some tremor on protrusion. In turning to the quality of the speech, he finds that monotony in talking may be noted. There may be what he terms an undulating tremor in some of the vowels, and the speech is usually slower than before. He cautions the practitioner against confusing the speech defects of this disease and those of arterio-sclerosis with mental symptoms. The knee-jerks are nearly always affected, and may be either increased or diminished in the very early stages. Increase is the rule in cases of tabo-paralysis. In every case where general paralysis of the insane is suspected the cerebro-spinal fluid should be examined. The tests to be carried out are Wassermann, Nonne (albumen), and for lymphocytes. With regard to the psychic symptoms he points out that the chief disturbance which underlies all the symptoms is a want of the power of critical discrimination. A marked change is seen in the attitude which the patient takes towards questions of decency. The emotions are altered, and their expressions largely depend on external conditions. He instances the case of a paralytic who cries sympathetically on reading about an accident which has killed no one but strangers to him, but the same patient may become very merry in the next minute in response to other stimuli. The general intelligence is disturbed quite early, but the recognition of this is very difficult. At times the patient is regarded as an unusually smart individual until a wholly incomprehensible act reveals that the smartness was only a symptom. He adds a number of other interesting details. In briefly raising the question of treatment, he says that salvarsan has unfortunately proved to be useless. In very early stages potassium iodide and mercury may be tried, especially when no energetic antisyphilitic treatment has previously been carried out. The physician must use his influence to prevent the early general paralytic from marrying. This is of the utmost importance. It is also of importance to examine every member of the patient's family in order to detect some very early case and with caution employ antisyphilitic remedies which may prevent the development of the disease. In no case may iodides or mercury be given when the case is advanced or when there are symptoms of tabo-paralysis.

337. Stramonium Poisoning.

H. H. PARKINSON (*Australasian Med. Gazette*, February 24th, 1912) reports a case of accidental stramonium poisoning in a boy aged 4. At 9 a.m. he was given half a breakfastcupful of a strong infusion of stramonium leaves, which had been supplied by a chemist in mistake for senna leaves, and at 1 p.m. he became restless and noisy and rapidly delirious. The immediate administration of an emetic failed to produce vomiting, and when first seen at 2 p.m. he was unconscious and very restless, throwing his arms and legs about wildly. The face was flushed, the pupils widely dilated, temperature 98° F., pulse about 200, and the respirations shallow and rapid. One-fifteenth grain apomorphine hypodermically acted promptly, the vomit being liquid and green, and the bowels acted freely after a simple enema. At 7 p.m. he was conscious but still very restless, occasionally uttering a loud scream, the temperature being 99.2° F., pulse 130, and the pupils moderate in size. He was put upon a mixture of aconite, opium, and HCl. Though feverish during the night, the temperature was down to 98° F. in the morning, and during eight hours he had five loose motions which were green and foul-smelling. The urine twenty-four hours after the onset was normal, and forty-eight hours after taking the poison he was practically well again.

338. Dercum's Disease.

CAMUS (*Journ. des prat.*, xxvi. 1912) describes a case of Dercum's disease in a woman 48 years of age, who showed both forms of the disease combined, namely, fatty infiltration of the subcutaneous cellular tissue of the abdomen, the diffuse form: and lipomatous masses in the buttocks and thighs, the nodular form. Thyroid gland was given, but the dose never exceeded 5 centigrams per diem. On the tenth day after the use of thyroid severe signs of intoxication arose, and the remedy had to be discontinued. The patient died two days afterwards. The author advises great caution in the use of this remedy in advanced cases of the disease.

SURGERY.

339. Bismuth Poisoning in Surgery.

PETER (*Wien. klin. Rund.*, Nos. 17 to 20, 1912) calls attention to the danger of poisoning from the use of bismuth in surgery, whether it be used as a dressing or in conjunction with *x* rays. The symptoms resemble in general those due to poisoning by lead or mercury—namely, dark-coloured patches on the mucous membrane of the mouth, fetid sores on the lips and cheeks, salivation, tenderness and loosening of teeth, and difficulty in swallowing. The urine contains albumen, and is often of a greenish colour, or it may contain a cloudy deposit, which becomes dark on standing. Death usually occurs from nervous exhaustion, accompanied by delirium, convulsions, or paralysis. *Post mortem* the most characteristic changes are seen in the mucous membrane of the alimentary tract, which is stained a dark green or black colour, and the kidneys may also be stained and congested. The author records cases of poisoning in the course of various surgical procedures. (1) In burns. He describes 4 cases in which extensive burns were dressed with bismuth ointment. Severe symptoms of poisoning followed, which in one case ended fatally. In these and in other cases the granulation appeared to be taking up the bismuth in a finely divided state. (2) In sinuses and fistulae. Beck, of Chicago, in order to render the extent and ramifications of fistulae visible by *x* rays, filled them with a vaseline paste containing 30 per cent. of bismuth subnitrate. This procedure had the unlooked-for result of rapidly healing old-standing tuberculous fistulae, and seemed to be an ideal method of treatment for such obstinate lesions. But several cases of poisoning occurred—the author cites 12 cases with 6 deaths; and he considers that the injection of bismuth into sinuses, especially into those connected with joints or with the pleural or peritoneal cavities, is too dangerous to be justifiable. (3) As a dressing for surgical wounds. Kocher introduced bismuth as a substitute for iodoform. Though excellent for superficial wounds, when used freely as a dusting-powder in such operations as excisions, it frequently caused unpleasant symptoms. These were apparent chiefly in the urine, which showed a greenish colour resembling that due to carbolic acid, and indeed it was to carbolic acid that the early symptoms were often attributed. On opening up the wound and scraping out the bismuth the symptoms usually subsided rapidly; but one fatal case is recorded, in a delicate woman of 56, after amputation through the shoulder-joint for osteo-sarcoma. Other preparations containing bismuth, such as dermatol and airol, have also caused symptoms of poisoning when used as a dressing. (4) As the "bismuth meal." When bismuth subnitrate has been administered, either by the mouth or by the rectum, as a preliminary to the examination of the stomach or intestines with *x* rays, very grave and fatal symptoms have occasionally been observed; but in these cases they are of an entirely different type, and resemble those seen in poisoning by the nitrites of amyl or of sodium. These symptoms are referable to the conversion of oxyhaemoglobin into methaemoglobin, and to cerebral irritation and paralysis. Shortly after the administration of the "bismuth meal" the patient becomes cyanosed; the skin of the whole body becomes of a greenish-grey colour, and death occurs in a few hours. Venesection in one case showed the blood to be of the chocolate-brown colour characteristic of methaemoglobin. The author describes 5 cases of this nature with 4 deaths. Maassen and others have shown that certain bacteria, particularly *B. coli*, have the power of converting nitrates into nitrites, and they state that the faeces of children are more active than those of adults in producing this chemical change. In explanation of the great rarity of poisoning by nitrites in this comparatively common use of bismuth subnitrate, it is pointed out that, although they are probably always formed in the bowel from nitrates, they are normally neutralized immediately. Maassen has shown that certain intestinal bacterial ferments have the power of reducing nitrites with the formation of ammonia and nitrogen; and it is probable that symptoms of poisoning only appear when, owing to some unusual distribution of the bacterial flora in the intestine, its neutralizing powers are insufficient to cope with the nitrites formed. In conclusion, the author discusses the question whether the use of bismuth for such purposes as he describes should be abolished. He considers that, having regard to the comparative rarity of poisoning due to its use in surgery, it may be used as a dressing in restricted quantities, especially if a careful watch be kept for early symptoms, so as to avoid more serious results. But he maintains that bismuth subnitrate should certainly be banished from *x*-ray practice, because the symptoms of poisoning are here so sudden and so severe. This, he says, may the more easily be done, inasmuch as various substitutes have recently been introduced. Among these he mentions magnetic oxide of iron, which is sold, mixed with chocolate powder, under the name of "diaphanite." This is harmless; but iron does not give such a dense shadow with the *x* rays as the heavier metals, and the large dose required and its unpleasant taste interfere with its success. The sulphide and the carbonate of bismuth both give excellent results; but, while they are free from the danger peculiar to the subnitrate, there is always the possibility of untoward symptoms arising from the bismuth itself. Red oxide of iron (Fe_2O_3) is fairly satisfactory and cheap. Oxide of thorium, being very heavy, gives an even better shadow than bismuth, and, on account of its whiteness and freedom from taste or smell, can be given to the most sensitive patients. It is, moreover, extremely stable, and undergoes no change in the intestinal canal. But which of all these substitutes is really the best the author prefers to leave undecided.

340. Familial Male Pseudo-hermaphroditism.

R. FOSCARINI (*Rif. Osped.*, Rome, 1912, ii, 225) records details of two patients. One, aged 8, brought up as and looking like a girl, had a tumour in the right scrotal region; there was what seemed to be a well developed clitoris with imperforate glans and two preputial folds, and below the glans two small folds covered with mucous membrane leading to a median urethral orifice, which was completely hidden behind two large folds resembling labia majora. Behind the urethral orifice a median pigmented line led to a slight circular depression corresponding with what might have been a vaginal orifice 1 cm. in front of the anus. No internal female genitalia could be felt per rectum. Stimulation of the clitoris produced a contraction traceable into the perineum. The swelling in the right scrotal (or labial) region was taken to be a hydrocele. Operation was decided upon, and a thick-walled hydrocele was removed on this side with a small infantile testis. On the left side at the external orifice of the inguinal canal a similar infantile testicle was found, and, for some reason not stated, removed. The brother of this patient, aged 26, brought up as a girl, and married for eight years to a husband, presented the appearance of a woman of the male type, very robust. She had no sexual appetite; occasionally a species of ejaculation through the urethra took place; coitus per anum and sometimes per urethram was practised. The mammae were undeveloped; the pelvis was of the male type; the facies was female, with a very slight moustache, and there was a parenchymatous goitre. The pubic hair was limited horizontally above; the penis was 6 cm. in length, the size of a large thumb, with imperforate glans and incomplete prepuce; at the base of the penis, covered by two scrotal folds resembling labia majora, was the urethra. Each scrotal fold contained a testis (normal on the right side, small and soft on the left) and cord; pressure on the testes produced no specific sensation. A slight erection of the penis could be produced artificially. Rectal examination showed that no internal female genitalia were present. Menstruation had never taken place; and another "sister," also married to a man, had never menstruated, and was said to exhibit similar genera anomalies. The second patient described above looke and behaved like a woman, had a rather bass voice, wa apathetic; her husband was said to have expressed desire for a divorce.

OBSTETRICS.

341. Injections of Paraffin in Urinary Incontinence after Labour.

URINARY incontinence, due to injury of the urethra durin labour, has occasionally been treated by injections paraffin, which was introduced by Gersuny in 190 Oscar Semb (*Norsk Magazin for Lægevidenskaben*, Noven ber, 1911) has recently adopted this method with succes in a case which had repeatedly thwarted other operation The patient, aged 32, developed eclampsia during t birth of her first child, labour being terminated by versi and extraction, during which the urethra was rupture For the following five years she suffered from incontinen of urine, except when she was recumbent. In spite of s operations, it persisted, and the patient's social life w wrecked. The anterior vaginal wall was prolapsed a fibrous. A sound, passed through the external urethr orifice, showed the absence of any sphincter, the urethr having apparently been largely obliterated. The uter

was retroverted but mobile. Menstruation had been irregular ever since the confinement, recurring at intervals of three to four months. As further plastic operations were distasteful to the patient and treatment with pessaries was useless, paraffin was injected in the middle line, about 1 cm. below the opening of the urethra, the point of the needle being inserted between the vagina on the one side and the bladder and the urethra on the other. Complete continence of the urine was effected after three injections had been given of paraffin with a melting point of 42° C. The amount of paraffin injected on each occasion was 2, 1.5, and 1 grams. After a month the incontinence began to return, and three more injections were accordingly given, after which continence was restored, micturition being necessary once every third or fourth hour by day and once during the night. When seen one and three-quarter years after the last injection, the patient was able to work in her garden and to climb mountains, but there was still slight incontinence on violent exertion and for a few days before menstruation. The paraffin embraced the lower half of the urethra, to the right of which it also extended in a tongue-shaped wedge. The author has collected 12 similar cases already recorded by others. Of these, 10 were cured, many of them having been chronic sufferers and having undergone this treatment after several other operations had failed. In many of these cases, however, the success of the operation was reported so soon after its completion that its ability to effect a permanent cure is not established. Only in Gersuny's case had the operation stood the test of a probation period of three years. Stolz has recorded a case in which the paraffin caused complete retention of urine, but, as the bladder was previously paralysed, this accident cannot be traced solely to the injection. Stoeckel has found that the paraffin is liable to migrate from its original position, owing to coitus or pressure by faecal concretions. He therefore obtained the best results with this treatment in patients who had previously undergone some plastic operation about the urethra, for this leads to fibrosis, which favours the retention of the paraffin in its original position. Pulmonary embolism appears to be the chief obstacle to the general adoption of this treatment, for, since it was introduced by surgeons for various cosmetic operations, it has led to pulmonary embolism in 11 cases, 1 of which ended fatally. The risk of this complication is considerable when paraffin is injected into the tissues about the urethra, where there are many veins, into which the needle may be thrust and paraffin may escape. The risk of inducing embolism may, however, be diminished by not injecting the paraffin till it has cooled down and its consistence has become that of an ointment. It should also be injected in small quantities at a time, and when the needle draws blood another site for the injection should be selected. To avoid thrombosis, the paraffin must not be very hot when injected. The writer considers that experience of this method is still too limited for dogmatic indications for its use to be given, and, when the incontinence is due to rupture of the sphincter muscles, he favours the preliminary trial of one or other of the plastic operations, which in no way render the injection of paraffin more difficult, should this procedure be finally adopted.

GYNAECOLOGY.

342. Formation of Artificial Vagina.

DE BORIS (*Sem. Méd.*, April 3rd, 1912), reviewing the various methods of formation of an artificial vagina, considers that the simplest is the employment of a loop of intestine, the invention of Baldwin, whose technique is as follows: A tunnel is made between the urethra and bladder on the one side and the rectum on the other. A sound is put in the bladder and a finger in the rectum. A long clamp is placed in the tunnel and the tunnel is tamponed. Then a laparotomy is performed. An ileal loop is taken, choosing the first that is sufficiently mobile to reach the vaginal tunnel without undue tension on its mesentery; it is emptied of its contents, intercepted between forceps to a length of 25 to 30 cm., its mesentery is separated from the neighbouring mesentery, it is divided, and its two ends are closed with a purse-string suture. Intestinal continuity is restored by a Murphy's button and the cut mesentery is sutured over the mesentery of the excluded loop. The peritoneum is then perforated with the forceps in the vaginal tunnel, the loop is seized at its middle and drawn, doubled upon itself, to the vulva. The peritoneal cut is carefully closed all round the mesentery, without compressing it, and then the abdomen is closed. The patient is returned to the gynaecological position, the intestinal loop is opened, emptied of its contents, and packed with iodoform gauze; the edges of the intestinal mucous membrane are sutured to the vulva and a small drain is inserted between the posterior wall of the loop and that of the tunnel. When the patient has recovered from this operation the spur formed by the loop is resected, since, owing to the folding, there are two vaginal canals. There are various modifications of this technique, chiefly concerning the sequence of the operative steps, the method of reuniting the intestine, and the choice or disposition of the vaginal loop. Halban begins with a laparotomy, but De Boris considers that, in the absence of any vaginal cul-de-sac, it is wiser to start by tunnelling the perineum. As regards reuniting the intestine, Baldwin uses the button to save time (the operation takes at least two hours), but others use circular or lateral enterorrhaphy. The choice and length of loop must be dictated by circumstances; the best loop is generally found from 20 to 30 cm. from the caecum; 30 cm. is a desirable length, but one may have to be content with less. Some surgeons dispose the loop in a direct position, that is to say undoubled, but by this method there is perhaps more risk of obliterating the vessels, and the free end is more difficult to apply to the vulvar ring. As for the spur resulting from the folding, it has been shown that it is unnecessary to do much or anything in the way of resection, since one of the canals tends to become spontaneously obliterated. Eleven cases have been published since Baldwin introduced the operation (1904) and in all the functional result has been excellent.

THERAPEUTICS.

343. Treatment of Diarrhoea in Tuberculosis.

ROBIN (*Journ. des prat.*, 1912, xxvi) recommends the following treatment: (1) Diarrhoea due to diet. The diet should be regulated and changed: during the meals rice-water sweetened with quince should be drunk. If the diarrhoea persists, 1 gram of bismuth subnitrate and half a teaspoonful of paregoric elixir (Codex, 1908) in a glass of water at meal times. (2) Diarrhoea due to dyspeptic troubles. If the faecal matter is very acid and there are signs of gastric hyperacidity, give after meals carbonate of lime, sodium bicarbonate and magnesium hydrate. If the treatment avails nothing, prescribe magnesium hydrate 6 grams, bismuth subnitrate 2 grams, sodium bicarbonate 8 grams, sugar 16 grams, precipitated carbonate of lime 16 grams. Divide into twenty-four powders. One after each meal. Also magnesium hydrate 1 gram, bismuth subnitrate 1 gram, white sugar 1.50 gram, to be taken in a little water when abdominal discomfort occurs. (3) Diarrhoea due to tuberculous enteritis. (*a*) Infusion of simarouba (4 grams in 150 grams of water), to be taken twice, (*b*) tannhistol (precipitate tannate of albumen dissolved in a little sodium bicarbonate), 4 grams a day in four powders; or zinc oxide 3 grams, sodium bicarbonate 2 grams, twice a day in a little water; or calomel and extract of opium āā 0.05 gram, powdered ipecacuanha 0.25 gram; divide into six pills, one every hour. (*c*) In addition enemata of opium and starch, and (*d*) cover the abdominal wall with tincture of iodine, then a thick layer of wadding and a compress.

344. Trypanosomiasis and its Treatment.

L. BRIEGER AND M. KRAUSE (*Berl. klin. Woch.*, January 8th, 1912) report in brief their experimental observations on the effect of certain organic and inorganic substances on trypanosomes in the body of the rat. They experimented with *Trypanosoma brucei*. Among the substances utilized a series of triphenyl-methane dyes were used, including fuchsin, as well as certain compounds of the acridin group—for example, the dinitrate of diamidophenylacridin, with the result that the trypanosomes were removed from the peripheral blood for some time, but, inasmuch as these substances exerted some toxic influence on the animal, other agents were sought. They thereupon turned their attention to the oxygen compounds of certain metals and metalloids. The telluric and tellurous salts did not act satisfactorily, although the former proved more harmful to trypanosomes than the latter. No material improvement was attained by combinations of these substances with thymus extract, or with iodides or iodates, and the same disappointing results were seen with the analogous compounds of selenium. Arsenic, titanium, and mercury compounds were also tried, without any benefit. They therefore returned to the inorganic series, and state that

they have found that the trivalent and pentavalent nitrogen compounds could be taken by mouth without exhibiting any toxic symptoms and yet with the result that the trypanosomes were killed. The substances which they believe possess these qualities belong to the safranin group. (The authors do not give any indication of the actual composition of the substance employed.) They claim that the rats treated with these substances were permanently freed from their trypanosomes. The observations now date some three months back. The substances have a bitter taste, but are harmless to human beings. Even in doses of 1 gram per diem, no baneful effect on health is noted. They further state that the effect of these substances has been tested on spirochaetes in the organism.

345. Treatment of Infantile Syphilis with the Milk of Goats Injected with Salvarsan.

Jeanselme, Vernes, and Bertrand (*Paris médical*, 1911–12, No. 1) report the results of treatment of a case of congenital syphilis in a child of 5 weeks with the milk of a goat treated with seven injections of salvarsan into the jugular vein (30 cg. for the first, and 40 cg. for the other injections). The symptoms in the child improved slowly for a time, and then remained stationary, necessitating recourse to mercurial treatment. The milk, tested by Bougault's method, showed no trace of arsenic, and, when compared with milk containing a known quantity of arsenic, led the authors to conclude that the amount of arsenic present in the goat's milk, if any, must have been not more than $\frac{1}{10}$ mg. per litre. The authors mention a case of Jesionek (*Mucnch. med. Woch.*, 1911, No. 22) concerning a child of 5 years who was treated with the milk of a goat injected with 40 cg. of salvarsan on the supposition that the drug was excreted in the milk. In this case rapid improvement was reported, but Jeanselme's observations do not confirm this.

346. Urotropine in Dermatology.

Otto Sachs (*Wien. klin. Wock.*, No. 4, 1912) has administered urotropine in 10 cases of herpes zoster, 5 of erythema exsudativum multiforme et bullosum, and 2 of impetigo contagiosa, and found that formaldehyde, the derivative of urotropine, could be shown chemically by Jorissen's and the phenyl-hydrazin tests to appear in the contents of the vesicles or in the scabs in the cases of impetigo. The derivative of urotropine must, therefore, pass into the blood serum as well as into the cerebro-spinal fluid. Sachs also found that after a few days on urotropine the inflammatory reddening round the vesicles was markedly increased, probably as a result of the chemical action of formaldehyde. From these facts, and from the known facts as to the action of urotropine in meningitis and purulent ear disease, the possibility of the administration of urotropine being clinically useful in cases of skin disease, such as those described, is an obvious one. The author's cases were for the most part not sufficiently long under observation to decide the point. In one case of erythema exsudativum multiforme et bullosum affecting the backs of both hands, the lips, the mucous membrane of the cheeks, and the hard and soft palate, the pains in the mouth had almost completely disappeared after six to eight days on urotropine, and the raw surfaces resulting from the vesicles were almost healed. On the whole, the author inclines to the view that urotropine will be found useful, not only in the diseases already mentioned, but also in a series of other skin diseases, such as impetigo herpetiformis, dermatitis herpetiformis, pemphigus neonatorum et vulgaris, varicella, and variola.

347. Buccal Antisepsis.

Carles (*Gaz. hebd. des sciences méd.*, Bordeaux, February 25th, 1912) advocates the use of iodine as a mouth-wash, especially in cases of foul breath due to dental caries. One gram of potassium iodide should be added to 20 grams of iodine tincture, and of this mixture from 1 to 3 drops should be thrown into a quarter of a glass of warm water. With this solution the mouth should be carefully rinsed. The hotter the water the more drops it will carry. If iodine tincture is used alone the iodine is separated out by the water, and clinging to the mucous membrane causes a lasting and disagreeable taste. Potassium iodide keeps the iodine in solution, and the taste becomes mild and pleasant. The drug penetrates to all the crevices of the mouth, and acts as a deodorant and an antiseptic. The lotion is to be recommended as a prophylactic to those with sound teeth, and the writer is convinced that by employing it regularly, especially at bedtime, caries which has already started can be quickly cured. There is no antiseptic more harmless, more sure, or more easy of application. The colour of the solution is not deep enough to turn the teeth yellow, but even in stronger solutions the yellow colour would be quite transitory.

PATHOLOGY.

348. Pathogeny of Gastric Ulcer.

Sérégé (*Gaz. hebd.*, March 31st, 1912) advances the view that in all cases of gastric ulceration the left lobe of the liver shows objective lesions concurrently with the gastric condition. In support of this he gives the history of a number of cases from various sources added to those in his own experience. He holds that there is an intimate association between the functions of the left lobe of the liver and the stomach, and equally that there is an anatomical and functional independence of the right and left lobes of the liver. He is satisfied from experimental evidence that there is in the portal vein a double current of blood—one being directed from the stomach and spleen towards the left lobe of the liver, the other from the small intestine to the right lobe of the liver. He affirms the existence also of monolobar lesions of the liver corresponding to various affections of the gastro-intestinal tract. In conjunction with Soulé, the author has carried out some investigations to determine the rapidity of circulation passing through the right and left lobes of the liver. Fasting animals of as nearly as possible the same size and weight were chosen. In each case injections of 1 c.cm. of a solution of potassium ferrocyanide were made into the portal vein, and the precise moment of injection was registered. Blood was drawn off the jugular veins at the moment of inspiration, and the presence of ferrocyanide was sought for. According to the author, the results proved that there was a marked difference between the right and left lobes of the liver in respect of the rapidity of circulation, the right lobe of the liver being emptied more rapidly than the left. The author believes this may be explained by anatomical considerations. His view of the relationship of dyspeptic troubles with this state of affairs is as follows: Toxic substances are produced by incomplete digestion. They are absorbed by the gastric mucosa and pass to the left side of the liver. They bring about circulatory disturbance in the first place in the form of vaso-constriction. This results in a condition of venous stasis in the area supplied by the pyloric and coronary veins of the stomach, the vitality of the mucosa is diminished, and interstitial and parenchymatous lesions of varying size result. Ulceration then follows, being favoured by the action of the digestive juices. This, the author holds, is the usual history of the *venous* type of gastric ulceration. This is nearly always chronic and, as stated, is dependent largely on the circulatory disturbance in the left lobe of the liver. The *arterial* type is more often acute and usually arises from a direct lesion of the arterial wall itself. Autodigestion, in the author's view, plays only a secondary rôle in gastric ulceration. He urges a more careful examination of the left side of the liver in all cases of dyspepsia.

349. Infantile Spasmophilia and the Parathyroids.

The exact relation between these two is not yet settled and as a contribution towards solution Petrone and Vital (*La Pediat.*, An. 20, No. 1) have carried out a series of experiments on rabbits and on children. To the objection that in certain children dying from spasmophilia no anatomical alterations have been found *post mortem*, the authors reply that, although there may be no anatomical change some functional alteration may have occurred. Again, the fact that parathyroid opotherapy has given negative results may be explained by different methods of administration—for example, although inactive when given by the mouth, it may be quite active when given hypodermically. Here also different results follow—for example, in four children suffering from spasmophilia the authors gave parathyroidin in two by the mouth and in two hypodermically, but in all four cases it proved of no efficacy. They therefore fall back on the hypothesis that parathyroidin chemically prepared has not the same activity as the secretion from the glands emitted during life. The authors found that parathyroidin given to rabbits whose parathyroids had been destroyed and who were suffering from a spasmophilic condition was inefficacious.

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SUPPLEMENT

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REPORTS OF STANDING COMMITTEES

MEETINGS OF BRANCHES AND DIVISIONS

PROGRAMME OF ANNUAL MEETING

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Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

BIRMINGHAM BRANCH:

WARWICK AND LEAMINGTON DIVISION.

A MEETING of this Division was held on December 30th, 1911, at the Warneford Hospital, Leamington.

National Insurance Act.

The following resolutions were passed *nemine contradicente*:

1. That, inasmuch as the six cardinal principles formulated by the Association are not conceded to the satisfaction of this Division in the National Insurance Act, the Division is of opinion that further negotiation is inadvisable, and calls upon the Council of the Association to take the necessary steps to ensure that no medical practitioner shall hold office or take part in administrative or medical work under the Act.
2. That this Division requests the Council of the Association forthwith to take a Referendum on the following questions:
   (*a*) Are you in favour of the Association continuing the negotiations with the Insurance Commissioners, and making arrangements for the working of the Act? (Yes or No.)
   (*b*) Are you in favour of the Association at once declining to work under the Act?

BORDER COUNTIES BRANCH:

SCOTTISH DIVISION.

THIS Division met in the Galloway Arms Hotel, Newton Stewart, on Thursday, December 21st, 1911. All practitioners resident in the area, whether members of the Association or not, were invited to be present. It was a large and representative meeting. Dr. EASTERBROOK presided.

Confirmation of Minutes.—The minutes of the previous meeting were read and approved.

Apologies for Non-attendance.—Apologies from a number of members for their unavoidable absence were read before the business on the agenda was proceeded with.

National Insurance Act.

This business was to decide on the future attitude of the profession towards the Insurance Act as it now stands.

The CHAIRMAN, in introducing the discussion, said they could either wait and fight the Insurance Committees or begin with the Insurance Commissioners now. They had not got their demands incorporated in the Act. He advised that they be loyal to the British Medical Association, but that did not prevent them from forming another union.

Dr. MATTHEWS then moved the following resolution:

That the members of this Division hereby pledge themselves to refuse to take service under the National Insurance Act.

Dr. COWAN seconded.

Dr. SELBY moved an alternative resolution in the following terms:

That the members of the Association refuse to take service under the Act unless the Executive of the British Medical Association obtain the assurance that the six cardinal points be granted before the Act comes into force.

Dr. SMITH seconded.

A discussion followed, in which Drs. MATTHEWS, EASTERBROOK, LIVINGSTONE, ROBSON, WATT, KERR, DAWSON, RODGER, MCKIE, and SELBY all took part. On a division Dr. Matthews's motion was carried.

It was resolved to send copies of the finding of the meeting to the Council of the British Medical Association and to the Scottish Insurance Commissioners.

The gentlemen present then dined together.

GLASGOW AND WEST OF SCOTLAND BRANCH:

GLASGOW NORTH-WESTERN DIVISION.

AN ordinary meeting of this Division was held in the Burgh Hall, Hillhead, on December 20th, 1911, at 8.30 p.m., Dr. H. G. HAY presiding. There was a large attendance of members, namely: Drs. M. Gilchrist, Todd, Lindsay, G. Graham, Macintosh, McGregor Robertson, W. Ritchie, Sutherland, McLennan, Whitehouse, Henderson, Thomson, Girdwood, McKean, Snodgrass, A. T. Campbell, J. H. Campbell, Wylie, Richmond, Morton, W. A. Stuart, R. W. Bruce, Scott, Baird, H. Robertson, Inglis, Gray, and Caske (Honorary Secretary).

Apology for Non-attendance.—An apology for absence was intimated from Dr. J. C. Middleton.

Confirmation of Minutes.—The minutes of the last meeting were read and approved.

National Insurance Act.

The SECRETARY intimated the receipt of circulars referring to the Insurance Bill with resolutions from the following:

1. Mass meeting of the profession of Lincoln and neighbouring parts of Lincoln.
2. Mass meeting of the profession of South-East Essex.
3. Representative Body.
4. Tyneside Division.
5. Shropshire and Mid-Wales Branch.
6. Norwich Division.
7. Dr. Weekes, Devon.
8. Mass meeting in Manchester.
9. Mass meeting in London.

The Secretary also intimated the receipt of circulars from the British Medical Association relating to Mr. Smith Whitaker's appointment, to School Board lectures on hygiene, to canvass of the Division, and to the meeting convened by the Scottish Committee.

The report issued to Representatives on the present position of the profession *in re* the Insurance Act was then read by Dr. A. T. Campbell and considered.

The approval of Minute 24 of the Representative Meeting contained in it was moved by Dr. A. T. Campbell, seconded by Dr. J. H. Campbell, and carried unanimously. Minute 47 was proposed by Dr. A. T. Campbell, seconded by Dr. Baird, and approved unanimously. Minute 53 was the subject of considerable discussion and elicited a variety and diversity of opinions.

(*a*) Was approved.

(*b*) Was discussed by Dr. Whitehouse, Todd, Wylie, M. Gilchrist, J. Graham, Ritchie, Campbell, Snodgrass, Richmond, Henderson, and others. Dr. McGregor Robertson criticized the resolution unfavourably, indicating that the British Medical Association could do nothing: (1) That the Insurance Commissioners might not recognize the Medical Committees. (2) They might not pay any attention to their recommendations. (3) That the local Medical Committees might only be consulted on questions of general administration.

Dr. Macintosh supported the clause and pleaded for unity and loyalty to the British Medical Association. Drs. Lindsay, Todd, and Richmond also supported the resolution, which was ultimately carried.

Reports regarding the canvass of the Division were given by Drs. Hay, Campbell, Morton, Baird, Lindsay, Bruce, and the Secretary.

Dr. Macintosh proposed that the congratulations of the members be conveyed by the Secretary to Dr. J. C. McVail on his recent appointment as an Insurance Commissioner.

Dr. McGregor Robertson proposed that a small committee be appointed for the purpose of making a brief statement of the provisions of the Insurance Act as it affects the profession. Dr. A. T. Campbell seconded. Dr. Todd proposed, seconded by Dr. Inglis:

That no committee be appointed.

Thirteen voted for the motion, which was carried, 11 voting for the amendment. The following were appointed the committee—namely, the Chairman, Secretary, Dr. A. T. Campbell, M. Gilchrist, and McGregor Robertson, the last being convener. In reply to a question how he was to vote if a motion were proposed in the Representative Meeting to dismiss the Council, Dr. A. T. Campbell was instructed to support the action of the Council.

Dr. T. B. Henderson moved that the whole Council be asked to resign, but this was not seconded.

A short discussion ensued regarding the areas of the different medical committees, and it was suggested that the executive should take the matter into consideration. Drs. Todd and Whitehouse were appointed auditors, and the Chairman was awarded a vote of thanks.

LANCASHIRE AND CHESHIRE BRANCH:

Blackburn Division.

A meeting of this Division was held at the Old Bull Hotel, Blackburn, on Thursday, December 28th, 1911. Dr. Rigby was in the chair, and there were present: Drs. Fenton, Greeves, Bowes, Jamieson, J. V. Fox, Payne, John Barr, R. Y. Aitken, W. R. Tough, Mitchell, Valentine, Kirkness, Bradley, Gregson, Keighley, Cran Duthie, Alex. Cran, Foley, Taylor, Wilson, Prebble, James Craig, Beaton, and A. B. Townley.

National Insurance Act.—The resolution of the Blackburn Division passed on December 12th, 1911, that each member of that Division shall relinquish club practice was then discussed, and every member present signed the undertaking submitted as follows:

We the undersigned medical practitioners do hereby give our word of honour not to treat, prescribe for, or visit or agree to treat, prescribe for, or visit any club, dispensary, or society, or any private club, male or female, at contract price, and six months' notice be given forthwith to terminate on June 30th, 1912.

By "club" to be understood any person or persons who seek medical aid at contract price.

By "contract price" to be understood one guinea per head per annum.

Treatment of Post Office Officials and Municipal Employees.—It was proposed by Dr. Taylor, seconded by Dr. Fenton, and resolved:

That the British Medical Association be approached to consider the medical treatment of General Post Office officials and municipal employees at contract price.

METROPOLITAN COUNTIES BRANCH:

Marylebone Division.

A general meeting of the Division was held at the rooms of the Medical Society of London, 21, Chandos Street, W., on Thursday, December 28th, 1911, at 5 o'clock p.m., Sir Frederic S. Eve in the chair. Fifty-five members and visitors were present.

Confirmation of Minutes.—The minutes of the last meeting as published in the Supplement, British Medical Journal, December 2nd, p. 565, were confirmed.

Letters from other Divisions.—Letters and resolutions forwarded by various Divisions were read.

Consideration of Draft Ethical Rules.—The Honorary Secretary (Mr. Bishop Harman) moved the reception of the report of the Executive Committee thereon. This report contained, besides verbal amendments, a series of considered amendments of principles, which had for their object the limitation of the action of a Division in certain directions.

Page 2.—The Committee proposed that the activities of a Division acting under ethical rules should be strictly confined to members of such Division and to non-members engaged in practice within the area of the Division.

Page 2.—Rule 6 (*c*). The Committee is of opinion that the right of appeal should have a time limit and proposes the phrase "within one month"; that the final appeal in every case should be to the Central Council, not to the Ethical Committee; and that in any appeal, whether to the Branch Council or to the Central Council, the Court shall, if so desired, investigate all the facts of the case.

Page 3.—Rule 7 (*a*). The erasure of all those words which, in certain circumstances, authorize a Division to proceed with a selected course of penal procedure in spite of an adverse finding by the Central Authorities; also

Page 3.—Rule 7. (Form of Notice referred to in paragraph (*a*).)—That the Resolution, as printed in italics, shall read: "*That the conduct of Dr. of is deemed by this Division to be in contravention of Rule (s) or Resolution (s) of the Division.*

Page 4.—The Committee proposed after Rule 10 the addition of the following:

"*Note.*—Should any member of the Association wish to complain of the conduct of a practitioner who is not a member of the Association, he is hereby warned that unless he acts in strict accordance with Rules 9, 10, and 22 he must assume full personal responsibility for his actions."

Page 6.—Rule 20. That there be added to Rule 20 the following: "The practitioner against whom the complaint has been made shall be invited to attend such meeting and to make a statement."

Page 7.—Rule 25. The Committee recommends that for the draft rule as it now stands there be substituted the following: "In any appeal, either to the Branch Council or to the Central Council, from a decision of the Division dealing with a charge brought against any practitioner or practitioners under the above rules, no member of the Division shall sit to hear such appeal either in the Council concerned or in any committee of such Council; and similarly, in any appeal from a decision of the Branch Council to the Central Council no member of the Branch Council shall sit to hear such appeal either in the Central Council or in any committee of the Central Council."

The motion was seconded by Mr. Betham Robinson. The adoption of the report was proposed by the Secretary and seconded by Dr. Lauriston Shaw. Dr. C. O. Hawthorne thereupon moved a series of amendments as a minority report as follows:

That before considering in detail the Draft Ethical Rules and the Executive Committee's Report thereon, the Division

records its opinion that the rules ought to be so amended as to bring them into harmony with the following propositions:

1. That no charge of a breach of any rule or regulation of the Division should be investigated either by the Ethical Committee of the Division or by the Division itself unless the rule or regulation in question has previously received the approval of the Council of the Association.
2. That the Division should be entitled to declare that a practitioner has broken one or more of its rules or regulations and to communicate such finding to the Branch Council or to the Council of the Association, but it should not be empowered to condemn a practitioner as guilty of conduct contrary to the honour and interest of the profession.
3. That within the organisation of the Association no member should be condemned as guilty of conduct contrary to the honour and interests of the Association by any other authority than the Council of the Association.
4. That no member of the Association should be subjected to censure or penalty for having met in consultation any other duly qualified medical practitioner.
5. That it is inadvisable to attempt by penal procedure to enforce the Ethical Rules of the Association against practitioners who are not members of the Association.

He said the powers of Divisions under the proposed draft rules were tremendous, and in experience it was known they were often exercised by quite small numbers of members. The action of a Division was bound to exercise a profound moral influence upon the whole Association. Dr. F. J. SMITH seconded the amendment. The HONORARY SECRETARY thereupon read certain rules already in operation which covered points raised by Dr. Hawthorne. His Clause 1 was more securely covered by No. 17 Article of Association. Clause 2 was in reality an objection to the phrase, "guilty of conduct contrary to the honour and interest of the profession." That clause was also in the Articles of Association, No. 10 (d). Clause 3 was in the majority report. Clause 4, limitation of consultation, was in conflict with Rule F of their own ethical rules adopted eight years ago. Clause 5 was similarly in conflict with their own ethical Rules F and G. Mr. JOHN PARDOE said Mr. Harman's statement showed they had lived in a fool's paradise for many years, and that was due to their own neglect. It was time they set their house in order. He objected to Dr. Hawthorne's amendments; they did not go far enough. He objected to the draft rules because they involved them in the worst features of trades unionism. Under these rules the Association would be judge, jury, advocate, witness, and accuser, and that of a trade rival. They had no power to enforce the proposed penalties, no power to take evidence on oath, and it was plain they were attempting to usurp the powers of the General Medical Council. Dr. LAURISTON SHAW said he had been Chairman of the Central Ethical Committee for two years; it had been his duty to investigate large numbers of cases of professional misconduct of a serious kind, and in some instances to carry cases to the General Medical Council. In his experience, an accused person was never looked upon as a "trade rival," nor did the procedure savour of trades unionism; but it did tend to keep professional duties upon a high level. Was it true they usurped the powers of the General Medical Council? That body could only expel a man and leave him an uncontrolled free lance practising as he liked. The Association sought rather to keep men in the straight path—often with great success and benefit both to the man and to the Association. Dr. G. A. HERON could not support Dr. Hawthorne's amendments. Some of his propositions were detrimental to the interest both of the Association and the profession. There was no necessity for Clause 1. The clamour about "trade rivals" was absurd; who ever heard of a profession whose members were not judged by their colleagues? Dr. Hawthorne had said such rules would not prevent "blackleg" appearing, but he was sure they must be prepared to meet the necessity for dealing with such men, and they could do that with such rules.

On a vote the amendments were carried *en bloc* by 91 to 7.

Dr. JOHN PARDOE then moved the following amendment:

That the Marylebone Division entirely disapproves of the draft Ethical Rules of the Central Ethical Committee even if amended.

Dr. A. E. GARROD seconded this. Mr. BISHOP HARMAN appealed to the members not to press this amendment. It was a rejection, not merely of the labours of their own committee, but it was a contemptuous kicking out of those draft rules which were the aggregation of the working experience of the vast body of the Association, particularly in the provinces. If they felt that such rules were unnecessary for their own Division, yet they were bound to support other Divisions in the matter. Dr. C. O. HAWTHORNE said Mr. Pardoe's motion was at utter variance with the motion Mr. Pardoe had secured at the last general meeting, which had involved the committee in hours of hard labour. Further, it derpived the Division of any power to express its opinion. Mr. MCADAM ECCLES agreed with Mr. Harman that this Division had particular differences from others. For them the existing penal authorities were sufficient. He failed to see the necessity for these draft rules. Dr. LAURISTON SHAW said the last speech would be in order when the rules were submitted for adoption. What was wanted now was detailed criticism of what was best for the whole country in general. The amendment proposed gave no help in this endeavour. Mr. LESLIE PATON said the argument was against the Association taking to itself the right to exercise disciplinary powers belonging to constituted authorities. Mr. CHICHELE NOURSE objected to such rules if they were to be used, as had been suggested, to limit the action of medical men, even in such conditions as might arise under the Insurance Act. Dr. F. J. POYNTON said some speakers underrated the value of the amendment; it was a protest against draft rules, which were nothing less than a "damnable despotism." On a vote the amendment was carried by 30 to 19; as a substantive motion it was also carried.

National Insurance Bill.—Dr. F. J. SMITH moved the following resolution:

That the Marylebone Division strongly protests against the action of the Central Council in advising Mr. Smith Whitaker to accept the post of Medical Commissioner under the National Insurance Bill; that, in the opinion of that Division, such action is altogether out of harmony with the feeling of the medical profession in that area, and greatly tends to promote disunion in its ranks at a very critical period.

He said the present expression of medical opinion made a lengthy explanation of this resolution unnecessary. It was said the Council was merely the executive in steps initiated by the Representative Meeting. Did this meeting think the recommendation of Mr. Smith Whitaker an important step? Where was the resolution of the Representative Meeting enjoining the Council to take that step? The Council acted in a hurry under Government pressure. Why did they yield? Mr. MCADAM ECCLES seconded the resolution. He said there was no suggestion at the last Representative Meeting that such a step should be taken; rather the trend of expression there given was against such action. An amendment to the motion was proposed by Dr. PERCY SPURGIN as follows:

After the words "action of" in the first line insert the following words: "certain members of the Association in the methods they have adopted for expressing their disapproval of the course taken by."

Dr. Spurgin said he was in accord with the majority of the remarks of Dr. Smith: he also held the Council had acted wrongly. But no good could come of criticism of the Council now. An entire change of Council at this critical period would be worse still. He held that the methods of criticism adopted by a certain section of the Association were bad and likely to promote disunion. Mr. BISHOP HARMAN seconded the amendment. He said the action of the Manchester extremists had produced two bad impressions in the mind of the public: That the Council backed the bill; that those of the Association who were not with those extremists were satisfied with the Act. Both these impressions were false; they were the black reflexes of this ill-judged intensity. As for the action of the Council in appointing the Medical Secretary, the real error of judgement was that they had not demanded the right of nomination as a seventh point in their demands instead of waiting for the offer. He differed with Dr. Smith and Mr. Eccles on their interpretation of the instructions of the Representative Meeting. The amendment was lost by a large majority. Dr. ERIC PRITCHARD thereon moved as an amendment:

To insert after the words "National Insurance Bill"—

That the Marylebone Division considers that the Council has forfeited the confidence of the profession, and that the Division calls on the Council to resign.

Dr. Douglas Drew seconded it. Dr. F. J. Smith wished to withdraw his motion in favour of this amendment. Mr. Eccles would not agree to this; he thought the demand for resignation unjustified. Dr. Gordon Holmes said unity was wanted; it could only be got in condemning the Council. Dr. Lauriston Shaw, as one of the condemned, said he did not plead to escape execution. He would impress the fact that unity could not be got by placating the extremists at either end; it rested with the central mass of people. Did they think that to get rid of the Council would secure unity? There were men at the other extreme who thought the Council right. On a vote the amendment was passed by 24 to 13. Dr. C. O. Hawthorne thereon moved an amendment as follows:

That the Marylebone Division deprecates as both useless and mischievous further discussion of the action of the Council of the Association in relation to the appointment of Mr. Smith Whitaker as one of the Commissioners under the National Insurance Act, and in view of the failure to secure the six conditions defined as essential by the Association, and of the absence of any reasonable probability that these conditions can now be secured, the Division is of opinion that the profession should now resume its freedom and should decline to take part both in the administrative scheme of the Act and in the medical services which the Act proposes to institute.

Mr. Betham Robinson seconded the amendment. On a vote it was lost by a large majority. The amended resolution was put as a substantive motion as follows:

That the Marylebone Division strongly protests against the action of the Council in advising Mr. Smith Whitaker to accept the post of Medical Commissioner under the National Insurance Bill; that the Marylebone Division consider that the Council has forfeited the confidence of the profession, and that the Division calls on the Council to resign.

On a vote the resolution was passed by 25 to 5.

The meeting then terminated.

MIDLAND BRANCH:

Derbyshire Division.

A meeting of the Division was held in the Derbyshire Royal Infirmary, at 3 p.m., on Thursday, December 21st, 1911. Mr. E. Collier Green was in the chair. There were sixty-three members present.

National Insurance Act.—Dr. Pope, Representative of the Midland Branch on the Council, who had kindly consented to attend, gave a clear account of the situation with regard to the Insurance Bill, past, present, and possible for the future; and, after a full discussion, the following resolution was passed unanimously:

That this Division, while not quite satisfied with the course of procedure adopted hitherto, desire to urge upon all members of the British Medical Association, and all medical practitioners, to remain loyal to the Association, to the undertakings they have signed, and to the guarantee for which they have been asked.

Lincoln Division.

A special meeting of this Division was held in Lincoln on Friday, December 22nd, 1911.

National Insurance Act.—The object of the meeting was to consider the present position of affairs in relation to the Insurance Bill and to discuss the appointment of Mr. Smith Whitaker as Deputy Chairman of the Insurance Commissioners. Medical men not members of the Association but residing within the Divisional area were invited to attend. A considerable amount of discussion took place, and ultimately the meeting resolved itself into a "meeting of medical men of Lincoln and the surrounding districts." The following resolution was then put:

This meeting notes with approval the reaffirmation of the six cardinal principles by the Representative Meeting held on November 24th last.

That the appointment of a medical practitioner to the post of Deputy Chairman of the Insurance Commissioners fulfils the sixth principle, and that the Council, in allowing Dr. Smith Whitaker to accept the same, have only faithfully carried out the duty imposed on them and have secured the very best representation for the post.

This was not voted upon, but the following amendment was carried with a few dissentients:

That this meeting of the medical profession now recognizes that the only satisfactory method of meeting the situation created by the Government is for the members of the profession to refuse to form a panel under the National Insurance Act as it now stands, or to undertake any duties which the Act proposes to assign to them, either administrative or executive.

Subsequently the proposal:

That this meeting urge all to sign the "pledge" recently issued by the *Practitioner*,

was carried by a large majority.

NORTH OF ENGLAND BRANCH:

Tyneside and South Shields Divisions.

A joint meeting of these Divisions was held at North Shields on December 22nd, 1911. In the absence of the Chairman, Dr. Mears presided.

Confirmation of Minutes.—The minutes of the last joint meeting were read and confirmed.

National Insurance Act.

Dr. Harrison moved the following resolution:

That this meeting is of opinion that the provisions of the National Insurance Act do not incorporate the six cardinal points to which the profession unanimously pledged itself; that they do not secure effectual means whereby the practical working of the Act can be carried out in absolute conformity with the principles of those six points, and therefore, that the Council of the British Medical Association should at once call upon all members of the profession to decline to form a panel, or to undertake any duties (including administrative ones) which the Act proposes to assign to them, and that these two Divisions pledge themselves to carry out this policy.

He said: With regard to the six points, it is a mere farce to say that any of them have been granted—even the boasted one of "free choice of doctor." Take the position. An insured persons are advised to enter the portals of the national insurance scheme through an approved society which possesses a medical officer of its own secured to it by the Harmsworth amendment. The great bulk of these new members will naturally put their names on the panel of the medical man of the society they join; a word from the officials will manage this without difficulty. Consequently the purely private practitioner will have a very small number left on his panel. With regard to freedom from friendly society control, this is moonshine, and how any body of intelligent men could be taken in by it baffles comprehension. The friendly societies hold a majority of the committees, and the bulk of the remaining minority are persons allied to them in sympathy and interest. Again, our representation is ludicrous. Then the all important questions of remuneration and income limit have been quietly shunted on to the local committees. Our bargain was with the Government, not with local committees, and if the Government did not like the six points our duty was to say "The bargain is off," and cease negotiations at once. However, if we are foolish enough to allow this Act to come into operation, whether we get these celebrated six points or not, there are six other cardinal points which we will assuredly get, and they are these: (1) Enormous increase in work; (2) great diminished income; (3) perpetual trouble with the local committees, our masters; (4) continual worry with malingerers and shirkers; (5) loss of social prestige; (6) saleable value of a practice is gone. Dr. Harrison said: It may be said that resolutions of this kind are likely to breed disloyalty and disunion in the British Medical Association, but this is not the case. None of us has any intention of severing our connexion with this body, which has done good work in the past and is capable of doing still more in the future, though unfortunately at the present time it is not doing the work demanded of it by the great mass of its members in regard to the National Insurance Act. Still the British Medical Association is a good ship though manned by a crew apparently indifferent to the strong attitude of the profession, which calls for a firmer and more resolute spirit than that shown by the Council in its dealings with the Chancellor. When the Chancellor began to jib at the six cardinal points, and endeavour to throw the onus of getting them on to the local Insurance Committees—bodies not actually in existence—the Council should have seen at once the dodge was to split and defeat us in sections. They were apparently ignorant of the whole trend of modern

trade union policy, which is collective bargaining on the part of the whole organization, not the use of the feeble weapons possessed by isolated sections scattered about the country, but the whole armour of a strong, united body determined to fight to a finish, even if it brought the whole insurance scheme toppling to the ground. When the Council found the sort of "sympathy" (at 4s. 6d. a head) they were likely to receive from the Chancellor, they should have shut the door to negotiations, and not only shut but bolted and barred it.

The resolution was seconded by Dr. McNAB, and carried with one dissentient.

Dr. FRASER moved:

That this meeting is of opinion that the fight against the National Insurance Act, so far as the profession is concerned, should be general and not sectional.

This was seconded by Dr. MARTIN and carried.

Dr. FRASER moved:

That, in the opinion of this meeting, all medical men should sign the pledge not to accept service under the National Insurance Act which has been issued to the profession by the *Practitioner*.

This was seconded by Dr. MARTIN and carried.

Dr. MEARS moved:

That, unless a Supplementary Bill is passed allowing sufficient money to suitably recompense the medical profession and also embodying the other cardinal points, the British Medical Association shall refuse to negotiate further either with the Government, the Insurance Commissioners, or the local Insurance Committees, and shall also refuse to allow any member to accept service of any kind under the present Act.

He said: The six cardinal points were the irreducible minimum put forward by the Association and agreed to by its members, and ought to have been embodied in the Act. When the Chancellor refused to put them in, negotiations should have been broken off, instead of which the Council and the Representative Body allowed themselves to be talked over, and agreed that some of the points might be settled after the bill was passed, as though we were likely to have more success with local Insurance Committees than with the House of Commons. The agitation now going on should have taken place six months ago. The House of Commons would then have realized that we had no real representative there, and that we were thoroughly dissatisfied with the Bill. Our only plan now is to refuse to work under the Act, and so force the Government either to leave out the medical benefit or to pass a supplementary bill embodying the six points, and as many others as we can all agree to, for example: (*a*) Dispensing should be made optional; (*b*) no insured person should receive medical benefit if his disability was caused by the negligence of some other person from whom damages might be recovered by law; (*c*) neither the local Insurance Committees nor the Insurance Commissioners should have power to remove a medical man from the panel; there should be a special Medical Board to adjudicate in such cases; (*d*) the powers of the Insurance Commissioners should be strictly defined; (*e*) any complaint from an insured person should be dealt with by the Medical Committee, and if proved should be passed on to the special Medical Board; (*f*) the midwifery fees should be paid directly to the practitioner by the local Insurance Committee, and in no case should be less than one guinea. These are a few examples of provisions that could and ought to be made in the bill.

Dr. ADAMS seconded the resolution, which was carried *nine contradicente*.

Dr. ADAMS moved:

That this meeting expresses its strong disapproval of the action of the Council of the British Medical Association in regard to its method of conducting negotiations with the Government, and calls upon them to resign.

Dr. Adams said no member of the Association who had followed the negotiations could do otherwise than express his strong disapproval of the conduct of them by the Council. At such a grave crisis in the history of the profession—the gravest that had ever threatened it—the men to whom the profession had entrusted their hopes of an honourable settlement had shown an ineptitude that was almost incredible. The profession had agreed that the six cardinal points formed the minimum of their demands, and considered the incorporation of them in the Bill as vital to their very existence. Knowing this the Council had yielded all along the line, and had come out of the struggle with nothing but specious promises.

The resolution was seconded by Dr. FORREST and carried.

Dr. MARTIN moved, Dr. CAMPBELL seconded, and it was carried:

That in the opinion of this meeting the action of the Chairman of Representative Meetings, Dr. Maclean, in not informing the Representatives of the proposition of the Chancellor of the Exchequer with regard to Mr. Smith Whitaker, which he was aware of before the Representative Meeting, was not only discourteous to the Representatives, but lacking in that confidence which should exist between the Chairman and his colleagues, and is deserving of censure.

Dr. MARTIN moved, Dr. MACGREGOR seconded, and it was carried:

That a letter be sent to Dr. Major Greenwood, expressing the thanks of this meeting for the stand taken by him at the special meeting of Council in the matter of Mr. Smith Whitaker's appointment as Medical Commissioner.

Dr. FORREST moved, Dr. ADAMS seconded, and it was carried:

That this meeting recommend our members to suspend their liability to the guarantee fund until after an extraordinary general meeting of the Association has been held to consider the action of the Council in their negotiations with the Government.

Dr. MACGREGOR moved, Dr. MARTIN seconded, and it was carried:

That in view of the approval of the National Insurance Act by the late Medical Secretary, implied by his acceptance of the post of Deputy Chairman of the Insurance Commissioners, this joint meeting of the Tyneside and South Shields Divisions desires to have an assurance from the present Acting Medical Secretary and from any future Medical Secretary as to whether he is or is not personally in favour of a State Medical Service and of the National Insurance Act, and as to whether he is prepared to refuse any offer of an appointment under Government.

It was decided that, if necessary, the Branch should support the recent mass meeting of the profession held in London in their requisition to Council to hold an extraordinary general meeting of the Association.

OXFORD AND READING BRANCH:

MAIDENHEAD DIVISION.

A MEETING of this Division was held on Tuesday, December 19th, 1911, at the Guildhall, Maidenhead, at 4.30 p.m. As at the preliminary meeting of the Division held in November last, the Division was not officially constituted, there were no minutes of that meeting. There was a representative attendance, including Drs. Moore, Thomson, Edge, Hollist, Whitting, Cronyer, Ellis, and Munro (Maidenhead); Drs. Jagger and Bailey (Bourne End); Dr. Stone (Cookham Dean); Dr. Dickson (Marlow); Dr. Charsley (Slough); and Dr. Floyer (Egham).

Confirmation of Election of Officers.—The meeting confirmed the election of officers of the Division, provisionally appointed at the preliminary meeting, and Dr. G. E. MOORE (Maidenhead) took the chair.

Apology for Non-attendance.—Dr. A. Royle, of Esher, wrote a letter regretting his inability to be present.

Resignation.—Dr. Croly, of Burnham, wrote a letter resigning the membership of the Association.

Address by Dr. Cox.—Dr. ALFRED COX, Deputy Medical Secretary, then addressed the meeting on the present position of the medical profession with regard to the Insurance Act. He gave an admirable and convincing summary of what the British Medical Association had achieved in connexion with the medical aspect of the Insurance Act up to the present time, and outlined the probable course of events in the future. He clearly indicated the relationship of the local Insurance Committees and the local Medical Committees, and emphasized the importance and power of the latter bodies, although on the local Insurance Committees the medical profession were represented only in a proportion of 1 in 10. They could paralyse the Act if they chose, and would do it if satisfactory terms were not obtained in every district, but this depended entirely upon the profession itself. A hearty vote of thanks to Dr. Cox for his address was proposed by Dr. EDGE, seconded by Dr. CHARSLEY, and carried with applause. The following resolution was

proposed by Dr. Dickson (Marlow), seconded by Dr. A. Thomson (Maidenhead), and carried *nemine contradicente*:

That this meeting of the Maidenhead Division of the British Medical Association hereby pledges itself to support the Association in the enforcement of the six cardinal points agreed upon, and expresses its approval of the action taken by the Association towards this end up to the present time.

Representation of Division.—On the motion of the Chairman, seconded by Dr. Thomson, the following resolution was put to the meeting and carried unanimously:

That representation be made to the Central Council of the Association for separate representation of this Division in Representative Meetings.

The proceedings then terminated.

MUNSTER BRANCH.

A meeting of the Council was held on Thursday, December 21st, 1911. Dr. H. R. Townsend was in the chair, and there was a full attendance of members.

National Insurance Bill.—It was decided to summon a meeting of the whole Branch to consider the action of the Council of the British Medical Association and the appointment of Mr. Smith Whitaker, and also the probable position of Munster medical men in the operation of the Insurance Bill.

New Members.—The following were elected members: Charles Harrison, L.R.C.P.and S. Edin., Castletown, Bere, co. Cork; William W. Shorten, L.R.C.P. and S.Edin., Timoleague, co. Cork; A. V. J. Harrison, L.R.C.P. and S.Edin. Bere Island, Bantry Bay, co. Cork.

PERTHSHIRE BRANCH.

A large meeting of the medical men in Perthshire was held in the Station Hotel, Perth, on Saturday, December 23rd, 1911, after seeing the names of the Scottish Insurance Commission, announced the previous week.

National Insurance Act.—The following resolution was passed:

That the National Insurance Act having been passed without containing legal guarantees, under which the requirements of the medical profession can be enforced, the secretaries be instructed to inform the Scottish Insurance Commission at once that the profession in Perthshire will refuse to work under the Act, unless satisfactorily amended.

SOUTH-EASTERN BRANCH.

Meeting of Council.

The Council of the Branch held a meeting on Wednesday, December 20th, 1911.

National Insurance Bill.

The following resolutions were considered:

That the Council of the South-Eastern Branch expresses its unabated confidence in Mr. J. H. Ewart, and thanks him for his long and valuable services as Representative of the Branch on the Council of the Association.

This was carried unanimously.

That this Branch Council express by vote its complete confidence in the Council of the Association for their assiduity and labours for the good of the profession.

This was carried by a majority of 13 over 10 votes.

That in view of the fact that the Government has not accepted the six cardinal principles, the Branch Council recommend Divisions to inform the Council of the Association that they cannot advise their members to form "panels" until the six cardinal principles be conceded.

This was carried unanimously.

Brighton Division.

The adjourned ordinary meeting of the Division was held on Friday, December 22nd, 1911, at the Dispensary, Queen's Road, Brighton. Dr. Parry was in the chair, and there were present forty-three members and one visitor.

Special Representative Meeting.—The report of the Medico-Political Committee and the report of the Representative on the Special Representative Meeting held at the Connaught Rooms were received. The Secretary proposed, and Dr. Morgan seconded:

That the report of the Representative be adopted.

Whereupon an amendment was proposed by Dr. Johnston, seconded by Dr. Gordon Dill:

That this meeting adopt the report of the Representative, but the Brighton Division is of opinion that the time has arrived when its members shall pledge themselves not to undertake medical attendance under the Act until the six points are legally obtained.

After a vigorous discussion lasting nearly two hours Dr. Clifton Harris proposed:

That the question be now put.

This was carried. Dr. Johnston's amendment was then put to the meeting and carried by 23 votes to 12. The amendment was then put as a substantive motion and carried.

Next Meeting.—The next ordinary meeting of the Division is on Wednesday, January 17th.

Croydon Division.

A meeting of this Division was held on December 19th, 1911.

National Insurance Act.—The following resolution was passed:

That this Division of the British Medical Association protests against the action of the Council in recommending the Medical Secretary's acceptance of the position of Commissioner under the National Insurance Bill.

Hastings Division.

A special general meeting of this Division was held on Friday, December 22nd, 1911, at the Eversfield Hotel, at 5 p.m. Thirty members attended. Dr. Ballingall took the chair.

National Insurance Act.—The following resolution was passed unanimously:

That the members of the Hastings Division of the British Medical Association are determined, as the six cardinal points demanded are not embodied in the National Insurance Act, to refuse to accept medical service under the Act.

SOUTHERN BRANCH:

Salisbury Division.

A special meeting of the Salisbury Division was held on Friday, December 15th, 1911, at 3 p.m. Dr. Johnston was in the chair, and there were present: Drs. J. O. March, W. Gordon, A. Ward, L. D. Saunders, G. Thornton, W. Ord. J. P. Williams-Freeman, W. B. Maunsell, S. Ellis, P. Bardsley, C. R. Straton, L. S. Luckham, Hy. Willcox (Handley), W. J. Harris, F. B. Rutter, R. C. Monnington, E. T. Tison, T. B. Henderson, C. A. Ensor, C. Penruddocke, and J. E. Gordon (Honorary Secretary). Drs. Penrose and A. Longman were present as visitors.

Confirmation of Minutes.—The minutes of the last meeting were read and approved.

National Insurance Act.—Letters were read from Dr. Browne (Amesbury) containing resolutions passed at the meeting of the Winchester Division on December 7th; from the Sheffield Division, containing resolution passed at their meeting on December 12th; from the Shropshire and Mid-Wales Branch, containing resolution passed at their meeting on December 5th. These Divisions and Branches disapproved of the appointment of Mr. Smith Whitaker, and did not consider that the Council of the Association had satisfactorily conducted the negotiations with the Government relating to the National Insurance Bill. After some discussion, Dr. Williams-Freeman proposed the following resolution, which was seconded by Dr. Harris:

That this meeting approve the action of the Council up to the present, and urge them now to devote themselves to the question of remuneration.

Drs. Rutter and Johnston supported the resolution. Mr. Luckham proposed an amendment as follows, which was seconded by Mr. March and supported by Mr. J. E. Gordon:

That this special meeting of the Salisbury Division of the British Medical Association regrets that the Council of the Association have not taken up a firmer attitude as regards the Insurance Bill, but at the same time they hope that the Council will in future more strongly support the profession in their resolve not to work under the bill unless the terms are in full accordance with the six cardinal principles formulated by the Association.

For the amendment 9 votes were given, against 11. D

WILLIAMS-FREEMAN's resolution was then declared carried.

Mr. J. E. GORDON proposed a resolution as follows:

That this meeting deprecates the formation of new associations in the medical profession, which in the opinion of this meeting will tend to weaken any future action in respect to the Insurance Bill, and is against the principle of the unity of the profession.

This was seconded by Mr. HENDERSON, and carried by 23 to 1.

Prior to the passing of these resolutions, Mr. C. R. STRATON, the Representative of the Division, explained the action and steps taken by the Council regarding the Insurance Bill.

The meeting then terminated.

SOUTH MIDLAND BRANCH:

NORTHAMPTONSHIRE DIVISION.

A MEETING of the Division was held in the Board Room of the Northampton General Hospital at 2.30 on December 28th, 1911. Dr. HICHENS was in the chair, and forty-four members and seven visitors were present.

Confirmation of Minutes.—The minutes of the preceding meeting were read and confirmed.

Apologies for Non-attendance.—Apologies for non-attendance were read from Drs. Greenfield, Cox, O'Rafferty, and P. S. White. A letter from the member of Council, Dr. B. H. Nicholson, who had been invited to attend and who was prevented from doing so, was also read.

National Insurance Act.

The CHAIRMAN said the meeting had been called owing to the dissatisfaction of many members of the Association with the results obtained by the Council and the transference of Mr. Smith Whitaker to his present appointment. It was thought well that the Division should have an opportunity of expressing its opinions and that grievances might be ventilated.

Dr. BAXTER then presented a report on the recent representative Meetings. He defended the action of the Council and Representatives, and pointed out that a large number of medical men, possibly sufficient to form a State medical service, had not yet signed the undertaking, he said that a strike must come, but that the time for it was, in his opinion, when the Commissioners published their scale of remuneration. He defended the action of the Council, who were merely executive officers, and had carried out the wishes of the Representative Meetings. He defended the election of Mr. Smith Whitaker to an Insurance Commissionership, which was done in order to get the best possible medical representatives. He had always taken the view that they should only accept service on their own terms, but that the time was not yet come to boycott the Act. He thought that all Representatives should place their resignations in the hands of their constituencies, and he himself did so.

Dr. ELLISTON proposed that Dr. Baxter's resignation be accepted, but this was not seconded.

Dr. TERRY proposed and Dr. CLEMENT DUKES seconded:

That the meeting heartily thanks Dr. Baxter for his past services and requests him to continue in office till his term expires.

This was carried with acclamation, and Dr. BAXTER thanked the meeting.

The following resolutions were then proposed by Dr. W. DRYLAND and seconded by Dr. J. P. ROUGHTON:

That this meeting of the Northants Division of the British Medical Association is of opinion that no contract for giving medical attendance and treatment to persons insured under the Act be entered into by any practitioner in this Division until our six cardinal points have been definitely conceded.

That a meeting of Representatives be convened at an early date to take steps to obtain these points and to suggest a definite constructive policy to each Division for their acceptance.

That a Special Defence Committee be elected to organize and safeguard the interests of all practitioners in the Division, and that this Special Defence Committee be composed of delegates drawn from each of the local statutory Medical Committees in proportion to their numbers, the President and the Representative being *ex officio* members.

In proposing those resolutions the speakers emphasized the fact that there must be no cession from the Association. The resolutions were discussed and the general policy of the Association surveyed by Drs. BUSZARD, LARKING, DURRAN, HICHENS, and LINNELL. The CHAIRMAN then read a number of resolutions from other Divisions, some asking for support in calling a special general meeting.

Dr. DRYLAND's first resolution was then carried *nemine contradicente.*

Dr. ARTHUR proposed, and Dr. OLDACRES seconded, an amendment to Dr. Dryland's second resolution, which then read as follows:

(2) That an extraordinary general meeting of the Association be convened at an early date to take steps to obtain these points.

This was agreed to by the original proposer and seconder and carried *nemine contradicente.*

Dr. HOLLIS proposed as a rider, seconded by Dr. BULL:

That this resolution be forwarded to the secretaries of the other Divisions.

This was carried *nemine contradicente.*

It was proposed by Dr. TERRY and seconded by Dr. HOLLIS:

That the last of Dr. Dryland's resolutions be left until the extraordinary general meeting has been held.

This was carried *nemine contradicente.*

The meeting then terminated.

SOUTH WALES AND MONMOUTHSHIRE BRANCH:

SWANSEA DIVISION.

A SPECIAL meeting of the Swansea Division was held at the Swansea Hospital on December 19th, 1911, at the request of six members of the Division. Dr. FRANK G. THOMAS was in the chair, and some forty members of the Division were present.

National Insurance Act.

Dr. JOHN JONES moved and Dr. OWEN EVANS seconded the following resolution:

That this meeting is of opinion that the provisions of the National Insurance Bill as finally drafted do not incorporate the six cardinal points to which the profession unanimously pledged itself; and that the Council of the British Medical Association should at once call upon all members of the profession to decline to form a panel, or to undertake any duties which the Bill proposes to assign to them.

This was carried—33 for to 5 against.

Dr. T. D. GRIFFITHS moved and Dr. J. JONES seconded the following resolution:

That this meeting of the Swansea Division protest against the action of the Central Council of the British Medical Association in recommending Mr. J. Smith Whitaker to accept the offer of the Prime Minister of the Deputy Chairmanship of the Insurance Commissioners for England to be constituted under the National Insurance Bill.

This resolution was lost.

SOUTH-WESTERN BRANCH:

EXETER DIVISION.

A SPECIAL meeting of the Exeter Division (called on the requisition of sixteen members) was held at Exeter on Friday, December 29th. There were sixty-two members and one non-member present. Mr. DOMVILLE vacated the chair at the outset, and the Deputy Chairman, Mr. J. M. ACKLAND, then presided.

National Insurance Act.

Dr. SHIRLEY STEELE PERKINS proposed the first resolution:

That this meeting of the Exeter Division of the South-Western Branch of the British Medical Association now recognizes that the only satisfactory method of meeting the situation created by the Government is for the members of the profession to refuse to form a panel under the National Insurance Act or to undertake any duties which the measure proposes to assign to them.

In introducing the resolution, Dr. Steele Perkins said the meeting was called by the rank and file for the men who rarely attended meetings and more rarely spoke, to make their voices and votes felt by the Council of the Association. The policy of the Association was "Negotiate and Procrastinate." He criticized the memorandum sent out by the two chairmen on December 11th as being an extremely weak document to send to a body of educated gentlemen. He said that if they consented to form a panel they took the bill and all that was contained in it; they accepted—

1. The Harmsworth amendment.
2. Lloyd George's provisos.
3. The Commissioners' autocracy.
4. Inadequate pay.
5. Service under a committee of working men.

In concluding, Dr. Perkins asked the meeting to accept the resolution and have done with fair words, and to take nothing but definite, binding undertakings, not from the Insurance Commissioners or Committees, but from Parliament itself.

Dr. Cock seconded.

Mr. Domville explained that the Council acted on the instructions of the Special Representative Meeting (which was supposed to voice the feeling of the profession), that the policy of the Association should not be to break off negotiations with the Government, not to smash the bill, but to try to obtain their demands, and, failing this, to make the best possible terms.

Dr. Ash, Dr. Ayshford, Dr. Gordon, and others supported the resolution.

Dr. Sayres, Dr. O. Clayton Jones, and Mr. Russell Coombe opposed the resolution, pointing out that the Act was now passed, and that, instead of wrangling over the past policy of the Association, it would be far more profitable to get their local organizations and Medical Committees into the best possible working order, that they might be in a position to fight the local Insurance Committees, and so obtain their demands.

The resolution was carried by a large majority.

Mr. Henry Andrew proposed:

That the members of this Division desire to express their disapproval of the action of the Council in regard to the appointment of Mr. Smith Whitaker and also the general conduct of the negotiations by the Council, and feel that the only way of reuniting the profession is for the present Council to resign.

Dr. Bradford seconded.

Mr. Domville said he appeared as the prisoner before the bar to answer for the policy of the Council. He remarked that the Council were actuated by no motive except that of doing that which they thought would be in the best interests of the profession, and added that if this resolution were carried in its present form it would mean that he would cease to be their representative on the Council.

Mr. Russell Coombe said that the only accusation which could be laid against the Council was that this appointment was a "tactical error."

Mr. Andrew, Mr. Bell, Dr. Gordon, and others said they hoped the passing of this resolution would not necessitate Mr. Domville resigning. They had every confidence in him and appreciated the time and work he had devoted to the Association; at the same time, however, they desired to place on record their disapproval of the Council sanctioning the appointment of Mr. Smith Whitaker.

Mr. G. L. Thornton then proposed that the resolution should terminate after Mr. Smith Whitaker's name; this was seconded by Mr. Bell, and the resolution—

That the members of this Division desire to express their disapproval of the action of the Council in regard to the appointment of Mr. Smith Whitaker—

was carried with a few dissentients.

Mr. Russell Coombe proposed:

That this meeting expresses its confidence in the British Medical Association as the only organization capable of effectually representing the profession.

He said that the British Medical Association was the only organization upon which they could depend to represent their interests, and if they lost their heads and broke away from it just now, then "Heaven help them!"

Dr. O. Clayton Jones seconded.

Dr. A. Hudson remarked that he considered the two referendums lately sent out by the *Practitioner* an unwarrantable interference with the internal politics of the profession and likely only to unsettle the members of the Association.

Others also supported the resolution, which was carried with acclamation, *nemine contradicente*.

STAFFORDSHIRE BRANCH:

North Staffordshire Division.

A meeting of this Division was held on December 21st, 1911, at Stoke-on-Trent.

National Insurance Act.—The following resolution was put to the meeting and carried by 22 votes to 2:

That this Division places on record its hearty appreciation of the work of the Council of the British Medical Association on behalf of the profession. It declares its entire confidence in the Council, and expresses the hope that the Council will not be deterred in the slightest by any adverse criticisms from continuing its efforts on behalf of the profession according to the declared policy of the Association—a policy which it is convinced is in the best interests of the whole profession.

South Staffordshire Division.

A meeting of this Division, to which non-members were invited, was held in the Star and Garter Hotel, Wolverhampton, on Saturday, December 9th, 1911, at 8.45 p.m. There were thirty-six members and six non-members present.

National Insurance Act.—Dr. Helme's letter in the *Daily Mail* of December 5th was read, and after a considerable amount of discussion the following resolution was carried with two dissentients, Dr. Ridley Bailey being one.

That the Insurance Bill in its final form is unworkable and inconsistent with the six cardinal points of the British Medical Association, and that the medical profession would stultify itself by assisting to establish the administrative machinery of the bill. This meeting therefore demands that the Council shall forthwith cease from negotiations with the Government, and shall at once call upon all members of the profession to refuse to form any panel, or to undertake any duties, including administrative ones, which the bill proposes to assign to them.

It was resolved *nemine contradicente* to send this resolution to the daily press. The following resolution was also passed:

That this meeting disapproves of the action of the Council in recommending the acceptance of the position of salaried Insurance Commissioner by the Secretary of the Association, Mr. J. Smith Whitaker, at the present juncture, without first referring the matter to the Divisions.

STIRLING BRANCH.

A general meeting of the Branch was held in the Golden Lion Hotel, Stirling, on Thursday, December 28th, 1911. Dr. Clark Stewart (Falkirk) was in the chair, and thirty-seven members were present.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Membership.—The membership of the Branch was ninety-one. Only eight general practitioners within the area were non-members.

Defence Fund.—The Defence Fund amounted to £1,495. Only six general practitioners had not subscribed.

National Insurance Act.

Every medical practitioner within the area had signed the undertaking of the Association.

On the motion of Dr. Joss (Denny), seconded by Dr. Lawrence (Polmont), the resolutions of the Scottish Committee, passed on December 16th, were approved unanimously.

It was decided to proceed immediately with the formation of local Medical Committees within the area of the Branch, and the following interim conveners were appointed:

Stirling County.—Dr. Joss (Denny).
Clackmannan and Kinross.—Dr. Dyer (Alloa).
Stirling Burgh.—Dr. McFarlan.
Falkirk Burgh.—Dr. Hunter.

The Secretary was instructed to inform the Insurance Commissioners for Scotland that every medical practitioner in the Branch area had signed an undertaking not to enter into any arrangement for the treatment of insured people until the six cardinal principles of the policy of the Association had been embodied in the regulations of the Commissioners.

EDINBURGH BRANCH:

Edinburgh and Leith Division.

A meeting of this Division was held in the Society of Arts Hall on December 27th, 1911. Dr. James Ritchie, Chairman of the Division, presided. Seventy-five members attended the meeting.

Apologies for Non-attendance.—Apologies for absence were intimated from Drs. G. A. Gibson, Borrowman, J. Orr, and Comrie; also from Mr. Cathcart and Mr. Miles.

Resignation of Joint Honorary Secretary.—A letter was read from Dr. G. W. Simla Paterson intimating his inability to continue in the office of Joint Secretary. Dr. J. D. Comrie was unanimously elected in his place. Dr. J. M. Bowie was unanimously appointed to the vacancy as one of the representatives of the Division on the Branch Council.

Executive Committee.—A letter was read from Dr. A. Walker resigning his position as member of the Executive Committee. For two vacancies on the Executive Committee Drs. F. Porter and R. S. Mowat were elected by the meeting.

National Insurance Act.

A motion adjourned from the last meeting was then discussed:

That this meeting approve the formation of a Scottish National Medical Committee.

After full consideration it was put to the meeting and carried unanimously.

Dr. W. RUSSELL proposed and Dr. T. G. NASMYTH seconded a motion:

That this Division strongly recommend that the Scottish Committee of the British Medical Association shall at once co-operate in such a scheme.

This was unanimously agreed to.

Dr. LUNDIE proposed and Dr. A. A. MATHESON seconded:

That this Division represent to the Central Council of the Association the need of strengthening the Scottish Committee, and of giving to it consultative and executive powers for Scotland, and that there be a paid Secretary, with an office in Scotland.

After discussion, this was agreed to unanimously.

Dr. M. DEWAR moved and Dr. JAMES SMITH seconded the following resolutions:

The reaffirmation of the six cardinal principles,

and

To inform the Scottish Commissioners at once that this Division will absolutely refuse to work under the Act unless the six cardinal principles are conceded in the regulations to be framed by the Commissioners.

These resolutions were passed unanimously. The Secretary was instructed to send a copy of them to Mr. John Jeffrey, Secretary to the Scottish National Insurance Commissioners.

Press Communications.—The Secretary was instructed to send a copy of these five resolutions to the editors of the *Scotsman*, *Glasgow Herald*, *Evening Dispatch*, and *Evening News*.

Proposed Mass Meeting.—Dr. PIRIE moved and Dr. F. PORTER seconded:

That this Division is of opinion that it would be advantageous for the Scottish National Medical Committee to hold a mass meeting of the profession in Scotland to consider their action with regard to the Insurance Act.

Fourteen members voted for the motion and nine against it.

Association Notices.

SPECIAL COUNCIL MEETING.

A SPECIAL MEETING of the Council will be held at 2.30 o'clock in the afternoon of Wednesday, January 17th, in the Council Room at 429, Strand, London, W.C.

By Order,

GUY ELLISTON,
Financial Secretary and Business Manager.

January 4th, 1912.

COUNCIL MEETING.

THE Quarterly Meeting of the Council will be held at 2 o'clock in the afternoon of Wednesday, January 31st, in the Council Room at 429, Strand, London, W.C.

By Order,

GUY ELLISTON,
Financial Secretary and Business Manager.

January 4th, 1912.

BRANCH AND DIVISION MEETINGS TO BE HELD.

LANCASHIRE AND CHESHIRE BRANCH.—The clinical and scientific meeting which was to have been held in Liverpool on January 10th has been postponed until further notice.—J. R. COOPER, M.D., B.Sc., 8, St. Peter's Square, Manchester.

LANCASHIRE AND CHESHIRE BRANCH: LIVERPOOL DIVISION.—The annual meeting of the Division will be held on Friday, January 12th.—FRANCIS W. BAILEY, Honorary Secretary, 51A, Rodney Street, Liverpool.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—The next meeting of the Division will be held, conjointly with the Æsculapian Society, on Friday, January 19th, at 4 p.m., at the Metropolitan Hospital, Kingsland Road, N.E., by invitation of the honorary staff, who will show cases from the wards.—A. G. SOUTHCOMBE, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: HAMPSTEAD DIVISION.—The Hampstead Division will meet at 8.30 p.m. on Friday, January 12th, at the Conservatoire, Swiss Cottage. Agenda: Ethical Rules, and a paper by Dr. Gow on Displacements of Uterus and Vagina.—M. L. DOBBIE, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WESTMINSTER DIVISION.—The next meeting of this Division will be held on Thursday, January 11th, at the Criterion Restaurant, W. Dinner (5s.) at 7.30 p.m. prompt. Business at 8.15 p.m. The following important motion will be brought forward: That the Council of the British Medical Association be instructed to summon a Special Representative Meeting forthwith to consider the following motion: That members of the British Medical Association be requested to refrain from forming a panel under the National Insurance Act, or of entering into any further negotiations, centrally or locally, for the working of the Act, until such time as the six cardinal points demanded by the Association have been conceded. Subsequently J. F. Woods, M.D., will read a paper on The Psychic Side of Therapeutics.—J. HOWELL EVANS, Honorary Secretary.

SOUTH-EASTERN BRANCH: BRIGHTON DIVISION.—The following circular has been issued to every registered medical practitioner resident in the area of this Division:

Dear Sir,—An advertisement having appeared in the local press for a consulting and operating surgeon to be appointed at the Brighton Workhouse Infirmary at "*an honorarium of fifty guineas per annum*," you are hereby earnestly urged to sign the following undertaking, and to return it in the stamped addressed envelope without delay. It is hoped that *every registered practitioner, whether an intending candidate or not*, will support the Association in this effort to maintain the principle of fair remuneration for State-paid work.—R. J. RYLE, Chairman; C. H. BENHAM, Honorary Secretary.

Undertaking by Members of the Medical Profession.

I, the undersigned, hereby undertake that I will not apply for nor accept the appointment of consulting and operating surgeon to the Brighton Workhouse Infirmary except upon such terms as are approved by the Brighton Division of the British Medical Association.

Name .....

Address .....

Members of the Brighton Division of the British Medical Association are urgently requested to attend a special meeting to be held on January 12th, 1912, at 4.30 p.m., at the Dispensary, Queen's Road, Brighton. Agenda: *Appointment of a consulting and operating surgeon to the Brighton Workhouse Infirmary at an honorarium of fifty guineas per annum.* The following resolutions drafted by the Medico-Political Committee will be proposed by the Chairman, Dr. Ryle:

1. That, whereas the guardians have advertised for a consulting and operating surgeon at an honorarium of fifty guineas per annum, the Brighton Division of the British Medical Association considers that this sum is inadequate for the services required. Seeing that the British Medical Association has decided that State medical service should be completely separated from charity, and that the said appointment contravenes this principle, this Division disapproves of the application for or acceptance of this post by any registered medical practitioner.
2. That, having regard to the duties required, the Brighton Division cannot approve the acceptance of the post by any registered medical practitioner unless the salary attached to the appointment be at least 100 guineas per annum.

C. H. BENHAM, Honorary Secretary.

SOUTH-WESTERN BRANCH.—In place of the ordinary winter intermediate meeting of the Branch a special meeting will be held to consider the present aspect of the situation created, so far as it affects the medical profession, by the passage of the National Insurance Bill, and to discuss the policy of the profession in the immediate future. This meeting will be held at the Barnfield Hall, Exeter, on Thursday, January 11th, at 2.30 p.m. In order to simplify the conduct of the meeting all members proposing to submit resolutions are requested to forward copies of the same to me not later than Monday, January 8th, so that overlapping resolutions may be eliminated. All members of the profession residing within the area of the Branch are invited to attend. The President of the Branch will be glad to entertain any members coming from outside Exeter at luncheon at 1.30 in the Small Barnfield Hall, and requests that they will notify him not later than Tuesday, January 9th, of their acceptance of this invitation.—RUSSELL COOMBE, Honorary Secretary, Exeter.

National Insurance.

CORRESPONDENCE.

General Policy for the Future.

Dr. T. B. F. Eminson (Scotter, Gainsborough) writes: Since my letter published in your issue of December 16th I have attended a meeting of the Lincoln Division, met to consider the present aspect of the Insurance controversy. There was marked difference of opinion in the meeting; and though the officers of the division did their utmost to justify the policy of the Association, they unfortunately did not succeed in carrying a majority of the members with them. Under these circumstances, which appear to apply to many other divisions, it becomes the duty of all members to try to anticipate the results of this unforeseen split in our ranks.

Up to the present time we have had reason to congratulate ourselves on the splendid union we had attained under our revised Association; and the country at large has observed with approval the strength and attitude of our Central Council. Our Association, through its elected representatives, has now made a definite bargain with the Government. It has engaged to assist in setting up the preliminary machinery under the Insurance Act, and has already been so fortunate as to secure one of its trusted officers in a post of enormous importance; and in return for this assistance the Government has embodied certain amendments in the Act, and has given the Association definite, and what our representatives accepted as sufficient, powers under the Act whereby our profession might obtain all its just demands after the preliminary machinery is established, and before medical benefit comes into operation. Having made this bargain with the Government through our Association, we cannot now, as honourable Englishmen, Scotchmen and Welshmen, back out without dragging our profession in the mud, and exhibiting ourselves in the most contemptible light before our countrymen. The bargain was that we should assist the Government up to a certain point—the establishment of the preliminary machinery, while on the Government side the arrangement is equally definite; that is, in addition to the points already gained in the Act itself, that Act gives us the statutory right to arrange terms satisfactory to ourselves through the machinery we help to create. Moreover, we have ample time to marshall our forces under our Central Council; and the Government understands quite well that we shall not undertake the work unless the six points are finally conceded to our satisfaction; and that, failing agreement, we shall continue to attend our poor patients independently as heretofore. It is necessary to repeat that we cannot now repudiate this bargain without branding our profession with dishonour, and exhibiting ourselves as a laughing stock to the country at large. I sincerely hope that better counsels will prevail, for we have everything to gain by loyally adhering to the straight course. If not what will happen? We shall at once split into three sections. First, there will be the blacklegs, now a small and negligible body, composed of some honourable men who object to trade union methods, and of others whose motives we need not enter into. Second, there will be a large class of many thousands of men who desire that our profession shall faithfully keep its engagements with the country, by supporting the original attitude of the profession, now embodied in the bargain entered into between the Council of the Association and the Government. This large class will refuse to stultify and degrade the profession by breaking faith, but will give the Government the assistance bargained for, and will make the best terms which the disunited condition of the profession will allow of; thus maintaining its honour as citizens of the Empire. The third class will consist of disunionists, who, while pretending to fight the battle of the profession, will really split it from end to end, and make the task of loyal members of the Association intensely hard. Everything that these gentlemen will accomplish is included in their name. It is inconceivable that these disunionists should capture the Association; for their agitation is based on panic, the child of ignorance, and there is no doubt that numbers of them are now busily engaged in what should have been accomplished long ago—reading the Act and studying the literature issued by the Association; and we may confidently expect that their antagonism to our Council will speedily collapse.

Now is the time for our brethren in Manchester and elsewhere to recognise the Chat Moss quagmire into which they have plunged, so that they may extricate themselves whilst still in a presentable condition. If they do this promptly no harm will result, and we shall be able unitedly to obtain adequate terms, or failing this, present an honourable non-possumus to the Government.

Dr. C. R. Harvey (Bishopston, Bristol) writes: Correspondents on the Insurance Bill hold many diverse opinions, but on one point I think all agree—viz., the amount of remuneration offered by the Act is totally inadequate to provide unlimited attendance on the insured. We know definitely now from the actuaries what we are to be paid per person. Cannot those to whom we have given the command, give us some outline of what we, the rank and file, are to be asked to do for that sum? The Act is law, so that no interests are to be prejudiced by informing us now. Those who lead must know what they are going to fight for. We grow impatient of being told to wait and see, when our very existence is at stake.

The Act as it stands cannot give us more than 4s. 6d. per head. Why not make it a seventh point that we will only give 4s. 6d. worth in insurance risk for a 4s. 6d. premium. Everybody admits that a professional visit is cheap at 2s. 6d. if sufficient care is taken to examine the patient. Why not let our seventh point read that a 4s. 6d. premium entitles an insured person to two free visits or three free consultations a year. That in case of extra illness a fee shall be paid per attendance, contributed in part by the insured person but collected by the Insurance Committee, the doctor to contribute his share in undertaking to accept a reduced fee provided the visit is on his morning round. Your editorial suggests that the House of Commons will realise the necessity of increasing the medical fee and pass a supplementary Act. Let us ask for an extra grant to pay the patients' contributory fees in cases where a contribution means real hardship. It is only fair that the State should at least share the insurance risk with the doctor. This, a combination of "per attendance" and "per capita" systems—already suggested by some of your correspondents—is the only business way I can see out of the present crisis; and a business arrangement which provides sufficient remuneration to attract the best brains into the profession is essential if the object of the Act is to be secured—viz., the stamping out of disease.

This combined system secures the great advantage of the "per capita" system, i.e., a fixed income, and at the same time refuses the unlimited insurance risk which "per attendance" advocates rightly object to. It has another very great advantage—without some contributory payment our lives will be a burden. Some fear unnecessary visits by the doctor; how much greater is likely to be the abuse of free visits by the public! We must have some check upon endless calls. Take the malingerers, intent upon regaining their 3d. or 4d., which has been stopped out of their wages. They must appear "bad" if they are to get sick benefit. The later in the evening that they send for the doctor the worse they must appear to be. If they send during the night no one can doubt the extremity which fetched a doctor out of bed. Poor doctor! And we all know how difficult and hideous a task it is to be certain that nothing is the matter when a patient wishes us to believe otherwise. A mistake is serious; it may mean legal proceedings; it will mean loss of clientele. Then there is the great army of neurasthenics and hypochondriacs. It is only the spur of necessity that keeps them at their work to-day. Will the sick benefit remove this? They take a real satisfaction in having the doctor and telling him of their

illnesses and those of their friends. We must be patient. If we offend them our salary dwindles. At present our only protection lies in our bill.

A new element is introduced when the thrifty housewife finds that if she gets a prescription from the doctor she need no longer pay the chemist for "oil," corn plaster, or other household remedies—and she takes up the doctor's time about every trifle. In short, the genuine sick may or may not grow less in number but, so long as human nature remains the same, our attendance will certainly increase. This means endless entries for the benefit of Government statistics and innumerable certificates, renewable weekly, bearing a legal responsibility, but no financial reward. Let us then have a definite policy, safeguarding us from needless drudgery, claiming at least legal privilege for our certificates under the Bill, and refusing any unlimited insurance risk, instead of the present nebulous "wait and see" which is threatening the unity of the profession.

DR. NORMAN H. JOY (Bradfield, Berks) writes: After a careful study of all the circumstances of the case, and of all the arguments on both sides, one must come to the conclusion that the Council had no alternative but to advise Mr. Smith Whitaker to accept the post offered to him, and I believe there would have been no outcry against this appointment had the Council taken stronger action during the negotiations with Mr. Lloyd George beforehand. But there was already a strong feeling in the rank and file of the profession that the Council were not taking a strong enough line, at least not the strong line they had expected. Many unfortunately have put this weakness down to the political bias of certain influential members of the Council, and some, I am sorry to see, to even baser motives. Some say it is due to Mr. Lloyd George's personal magnetism; but at last it appears to me the cat is out of the bag. It was due to Mr. Lloyd George's threats. He threatened the Council that if it stuck to its points he would appoint whole-time Medical Officers, and the Council appears to have taken that threat absolutely "lying down." Even when, at the Representative Meeting in November, a motion was brought forward threatening Mr. Lloyd George, these so-called Representatives, who, on this occasion, no one can pretend represented their constituencies, were prevailed on not to pass it. The Council has persistently refused to take the members into its confidence and has not yet let us know how many signed the declaration. But worse still, I understand it was suggested by a certain Councillor at the above meeting, that there was a risk of many breaking this pledge. No wonder the members of the British Medical Association have little confidence in this Council, when the Council has so little confidence in the members. Is it not time that we should know where we stand in regard to this point? Indeed, we are to know it in a few days. The *Practitioner* has taken it on itself, apparently with the approval of the majority of the profession, to find it out and publish it to the world. So far I do not think the weak action of the Council has done much harm; it has, perhaps, even united the profession against the Bill even more strongly than did Mr. Lloyd George's original puerile proposals. But this public referendum is a real danger. Everyone, including Mr. Lloyd George himself, will be watching whether the 23,000 sign the pledge, and if they fail, the word will go out that we are beaten. However much we may object to the intervention of the *Practitioner* and *Daily Mail* in this matter, I think it is of the greatest importance that we should sign this pledge. I did not sign the *Practitioner's* first referendum, as I did not consider it possible to answer the question by a simple "yes" or "no," but I signed their pledge by return of post. With regard to Mr. Lloyd George's threat, could he work the Act with 5,000 blacklegs? Most emphatically "no." The Council seem to have entirely forgotten the country practitioners and country districts. It would be impossible for a whole-time man to attend to his 2,000 insurance patients, certainly not more than one-fifth of the population of a country district. The distances would be far too great. Besides, will the insured themselves put up with the blacklegs? Could we not easily work up an agitation against them? There seems little doubt that the Council has made a great mistake in this matter. Even now the threat still stands, and very many fear that at the last moment the Council will give into the threat and advise the profession to accept the 4s. 6d. a head. I must own that from certain speeches of the members of the Council, and letters in support of the Council, this apprehension is not altogether without foundation. It is quite evident that at the present moment the Council has not the confidence of the majority of the members of the Association, as is proved by the adverse resolutions of so many divisions, and I am sorry to admit, by the ready response to the *Practitioner's* referendum. It is not too late for the Council to regain the respect of the members by acting more strongly in the future, and taking them more into its confidence. Let the members of the Council admit their mistake on the question of this threat, which I sincerely hope they will be quite justified in doing, and let them make less bombastic and more tactful speeches, as I am glad to see one Councillor at least is doing. Then, is it not time to consider the advisability of altering the present policy of leaving the fight to the separate divisions, instead of specifying from headquarters a *minimum* tariff, either in the form of a capitation grant, or at so much per visit, or both, not forgetting the extras? One more word: sign the *Practitioner's* pledge, however much you may object to their methods. If the 23,000 sign, it will immensely strengthen the hands of the Council. If they fail, the public and our enemies will look upon us as beaten, which will undoubtedly do our cause much harm.

Dr. J. R. FULLER (Crouch End, Middlesex) writes: The whole of the unrest in the profession appears to me to be due to the fact that very few have a clear understanding of the Act. I doubt if any one really has. I would, therefore, earnestly counsel a policy of "wait and see." (We have six months at least.) What is the use of signing documents that one will not work the Act when one does not know what it is? We can always refuse to work it; but do not let us allow our anxiety to lead us into folly. Let us at least see what the Insurance Commissioners' regulations are before committing ourselves. If there is a sum of £3,000,000 floating about for the medical profession, let us keep that as a nucleus; it can always be used as part payment for work done. The cardinal principles are ours. Does it really matter if they are in the Act or not? We will not work the Act until we are satisfied. We, in North Middlesex, would now be sorry to see the £2 wage limit in it, for then we should have feared that we could not have obtained our 30s. limit which we are now determined to have.

I think that each individual one of us would have dealt severely with any patient who behaved as we did at the Queen's Hall. Although I am in sympathy with the general idea of that meeting, that the Council and the Representative Meeting were too weak, that they compromised when they should have insisted, yet I would prefer that the profession should air their grievance in a constitutional way. If the instructions of the Representative body to the Council were weak, surely that is the fault of the Divisions, and the individuals who make up the Divisions, who should have sent men who would have represented their opinions. The great mistake that most men make is in thinking that the Council deliberately neglected the instruction. Others seem to think that the Council is acting on its own account, which shows they do not understand that the British Medical Association is a democratic body, and the Council can only do what it is told to do.

I plead, therefore, for time to allow men to study the question. I have no fear whatever that we shall not come out on top. Unity is everything. 29,500 different opinions cannot prevail. The outcome must be the mean of all those opinions. On one point we are all agreed, that the present arrangements will not do. Let us see that they are altered as we want them to be.

Mr. A. A. BRADBURNE, F.R.C.S. (Manchester), writes: There must be very many who, like myself, are sitting on the fence of agnosticism whilst the storm rages on either side. Circumstances, not choice, have placed men on the fence, the nature of which varies. In some it is the pos-

session of practice which will be little affected, in others the reverse, in which refusal to serve would mean loss of everything. The former "sitters," including specialists, are inclined to view the storm "as from afar," in the belief that it will not affect them much; but all are willing to step down on the right side when they know which side. We sitters are not throwing straws in the foaming stream to see which way it is setting, because we can see no current: it is all "chow-chow" water, as the Chinese term a seething stream. We receive memoranda asking our pledges to support an elective body, to support the best interests of the profession, and memoranda to condemn the action of this body. We read letters advising us to "try the Bill," and others advising as strongly against. We have imbibed so much that the "negative phase" is setting in, and a general "reaction" may set in before we are aware, which, if prolonged, may produce, as it always does, incalculable harm. Surely, if an educated, elective, elect body of men decide on a certain line of action, the dignified attitude of the remainder is to sit on the fence on their side and come down on their side when told to. It is this instruction which we await. Let them give it, instead of defending their actions in the past. If we submit ourselves to an operation we do not criticise the incision, we judge by the results. If the policy of the British Medical Association has been wrong, and time proves it, its reversal is a very simple matter if they have a united profession behind them which will obey its edicts. Let those, then, who are not in favour of the policy of the British Medical Association marshal their forces to strengthen and not impede the reversal tactics when it becomes necessary, but not before. If they will do this, sitters on the fence will know on which side to get down.

Dr. J. L. THOMAS, (Medical Officer of Health, Brynmawr) writes: The answer I wrote on each of the *Practitioner's* papers was to the effect that their referendum was both premature and unfair, because the method and amount of remuneration—the vital points—had still to be discussed; and that it would be time enough "to strike" when we, as a profession, through our Medical Committees had failed to agree in our bargaining with the Local Insurance Committee. That is my present attitude, and, I am sure, the only common-sense one. All the talk about having been sold by our Council—men of probity and honour, and possessing, necessarily, more knowledge of the question than the six months-old-member of the Association, who has done so much shouting and letter-writing—is mere "talking through the hat," and a cheap form of abuse of and attack on an Act which, if we only keep our heads, is likely to restore us as a profession to the honourable position we formerly held in the public estimation, and which we have lost by allowing ourselves to be exploited by club committees and unscrupulous collectors hungering after their 7½ per cent. The way to attain to this position is to close our ranks, and insist especially on the free choice of doctor and patient, for this last is the only sure answer to club practice and "schemes for controlling doctors and doctors' funds." All those whom I have met who have served on executive committees of their Divisions, and thus have devoted much time to the study and shaping of the Act—for after all the Council have been instructed by the Divisions and by no one else—seem to be of like mind with myself in thinking that the Act can be made to re-establish our profession in, not only an honourable position, but one which will in the near future be generally more lucrative than it has been in the past. I feel sure that the future of the profession in Wales is perfectly safe in the hands of the Commissioners appointed, for they are men who are determined to make the Act a living power for the good of all concerned, and not least the doctors.

THE QUESTION OF FORMING LOCAL MEDICAL COMMITTEES.

Dr. H. LANGLEY BROWNE (West Bromwich) writes: The decision arrived at by the different meetings held in opposition to the Insurance Bill, that medical men shall not undertake the medical attendance and treatment of insured persons will, I suppose, cause any arrangement made in the past with the Friendly Societies and other clubs to be terminated directly the latter become approved societies under the Act. It is also certain that if the regulations issued by the Commissioners for the working of the Act are such as can be accepted by the members of the medical profession, the rule of payment and the limit of income for medical benefits must be the same, whether insured persons are members of an approved society or not. Should not, therefore, the Local Medical Committees be constituted without delay, so that the limit and rate of payment acceptable to every member should be privately discussed and adopted?

Dr. L. A. TAYLOR (Hon. Sec. Dudley Division—Representative Bromsgrove and Dudley Divisions) writes: Why should we have referendums showered upon us by the *Practitioner*? They have sent us three. The first one sent out by them in June they withdrew about two days after. Now they have favoured us with two more in quick succession. Who are the proprietors of the *Practitioner*? Are they medical men or are they laymen? Why should we be asked to give pledges concerning our future work and livelihood to an unknown body. It is curious that the doings of the *Practitioner* are speedily given to the world by the "yellow press."

I have noticed that at the meetings which have been held in London, Manchester, Birmingham and elsewhere to object to the action of the Council in sanctioning the appointment of Mr. Smith Whitaker as deputy-chairman of the Board of Insurance Commissioners, most of the violent speeches have been made by members of the consultant and specialist class—a class which will not be directly affected to any great extent by the operations of the Insurance Act. I attended one meeting in a provincial town of some size and heard a violent diatribe by a consulting surgeon. He preached on the text "Kill the Bill"; he said no one wanted the Bill; if we persisted in our opposition we should kill the Bill and then we should be looked upon as the saviours of our country. One week afterwards the Bill received the Royal Assent and became an Act. The effect of this Act will be felt by the general practitioner engaged in work mainly or entirely amongst the industrial population, amongst the people earning £2 per week or less. The favoured general practitioner, whose practice lies with people mainly or wholly above the income-tax limit, need not be considered.

Now how do people earning less than £2 a week obtain the medical attendance they require now?

By becoming private patients of the general practitioner and paying ordinary and reasonable charges—a small, but honest, class.

By becoming private patients of the general practitioner and paying inadequate fees.

By becoming private patients of the general practitioner and forgetting to pay at all.

By contracts through the club system.

By the hospital out-patient system—a class in the large towns numbered by the hundred thousands, in London by millions.

By the poor law medical system, in which the majority of practitioners employed are most inadequately paid.

Under the Act these various systems, so far as insured persons are concerned, will pass away, they will be "scrapped," and in their place we shall have one of two systems brought into existence. Under one system the general practitioner will get the work, under the other he will not. The general practitioner will work the Act, paid by the capitation or other system to be arranged by the various committees, or he will find a system of whole-time salaried officers installed in his midst. Under the first system his position will be more important, more secure, and in a large number of cases his remuneration will be better than it is now; under the second a large proportion of his work and his living will be taken from him at one blow, the remaining part will then go in a few years with the introduction of other measures of social reform. The fate of the general practitioner lies in his own hands and will have to be decided by himself in the course of the next few weeks or months. He may decree his own extinction or his continued existence as an essential and respected member of the community.

We have been told that the Government considered the system of the whole time officer at first, but afterwards

changed their view in favour of employing the practitioners already in practice by a part-time system. Is this the reason why the Association received no communication from the Government until shortly before the introduction of the Bill? Presuming that we are to be paid 6s. a head, this means that if a practitioner had one thousand of the insured to attend to he would be sure to receive £300 per year. Do medical men, practising among the people, who will be the insurers, now get £300 a year out of every thousand? This means that one hundred of them are ill every year and pay bills amounting to £3 each on an average, or two hundred pay bills amounting to an average of 30s. each, and so on. I should say they do not, and I speak from a long experience in an industrial district where the wages paid are certainly not so high as in Lancashire and Yorkshire, but are higher than in rural and some other districts.

The Education Committees in many parts of the country have appointed whole-time medical officers to do the work of medical inspection, and they have been able to secure the services of competent, qualified men and women at £250 per annum. The British Medical Association has had to make a fight to secure this modest remuneration for them, and has not been successful in every case, as a Committee not far from here has appointed an inspector at £200.

In my view, it will be disastrous for us to refuse at this point to do our part in carrying out the Act. The policy for us to pursue is to elect our strongest men on the Insurance Committee, and to elect the Local Committees, to press for the £2 a week income limit as a maximum, to insist upon adequate, but reasonable, remuneration. By doing this we shall be doing our best for ourselves, for those who succeed us and for the portion of the community which will furnish us with patients, whose health it will then be our duty to safeguard.

Dr. J. FLETCHER (Chelsea) writes: Dissatisfaction with the conditions of general medical practice, and the fear of worse things to come, combined with a feeling of mutual distrust, have found an outlet for expression in the recent appointment of the late Medical Secretary. That will be discussed at our next Representative Meeting; but as the Bill has now become an Act, the most sensible thing we can do is to consider our next move, and act as a well-drilled body on common-sense lines.

Provided we get adequate payment, and, of course, we intend to do so, we shall be in a much better position financially than we are at present. This Act will automatically reduce hospital abuse; it will kill prescribing by chemists; it will to a large extent minimise the evils of club practice, and by making the conditions of general practice less mutually antagonistic it will promote a feeling of friendliness and union among us; the competition for club appointments with the resultant reduction in pay will be abolished, and the cheap jack will undercut us no more. These advantages are worth fighting for, and as nothing in this world is ever obtained without a struggle, it is sheer pusillanimity to shirk the inevitable contest.

Let us form our local medical committees at once, and include every medical practitioner in the local area, a certain proportion of whom shall constitute a quorum. When matters have got into smooth working a large proportion of men will cease to attend the meetings; those who are keen will always attend, but the indifferent ones will feel they can attend whenever they feel disposed, and at the least they will retain a feeling of responsibility, and will attend on urgent occasions.

There surely cannot be any difficulty in getting a sufficient number of men who will volunteer to sit on the insurance committees, and give the ex-friendly society men a taste of trade unionism from our own side. Where is the indignity in telling them that we insist on reasonable working hours and reasonable rates of pay, extra payment for work after a certain hour, just as they insist on payment for overtime—and cramming their own doctrines down their throats? We shall be giving them a liberal education gratuitously, and it is not an utter impossibility that they may ultimately see the reasonableness of our attitude.

If they refuse we have still got the remedy in our own hands, and as the medical committee consists of every man in the local area, every man will take good care to see that his neighbour toes the line.

If the fees for attendance are at the ordinary rate charged in the district, and a deadlock goes before the Insurance Commission we cannot fail to gain our point. This is the first big fight which the medical profession has ever contested. Our opponents think we shall give way at the critical moment, but if we gain the first round we are certain of a complete victory ultimately.

If we refuse to form our medical committees, men will think things are as usual drifting; they will get out of touch and become disorganised, and we shall be devoured piecemeal.

DR. R. R. RENTOUL, M.D. (Hartington Road, Liverpool), writes: As this Act enacts that Local Insurance Committees shall recognise Medical Committees and consult them on questions affecting "medical benefits," and the giving of treatment to insured persons, it will give the best constructive results if doctors at once form Local Medical Committees, to decide what terms they will accept when the Local Insurance Committees ask them. To aid this action I have drafted some suggestions *re* the terms to be accepted by doctors. I shall be glad to send a few copies to any person asking me for them on receipt of one shilling to cover cost of printing and postage. Doctors must act at once, as the Local Insurance Committees must take action within six months.

Dr. C. STENNETT REDMOND, L.R.C.P. and S.I., writes:—A resolution in favour of proceeding to form local medical advisory committees has recently been adopted at a meeting of the Tottenham Ward of the North Middlesex Division.

I strongly dissent from such a confession of weakness, because it violates, I believe, the only logical position we can maintain—viz., to have nothing to do with the Act as it stands. Inasmuch as the very fact of proceeding to initiate an integral part of the machinery required to administer the Act commits us to a tacit agreement with the Act itself, and is an abnegation of the only logical position we can maintain with the certainty of ultimate success, viz., passive resistance—20,000 of us have already declared, in reply to the *Practitioner's* first "referendum," that this Bill is "impossible to work honestly." It is to be regretted, however, that the second "referendum" has not met with equal support—due largely, I believe, to a report current in certain districts that the policy of the *Practitioner* runs counter with that of the Association. Now, however, that it has received the imprimatur of the President-Elect, this canard is at once dispelled, and I sincerely hope it will receive even a larger number of signatures than the first one. Sir James Barr's scathing exposure of the rottenness of this Bill should be read and studied by each one of us, and should be a powerful incentive to all waverers to stand shoulder to shoulder with their brethren in their onward march to certain victory for ourselves and the relegation of Lloyd George and his Act to that obscurity which both are "so eminently calculated to adorn."

A SPECIAL REPRESENTATIVE MEETING.

Dr. H. FALCONER OLDHAM (Morecambe) writes: The Council having deliberately adopted a policy which, according to the report of its meeting as published in the JOURNAL of December 9th, it recognised would cause dismay and disruption in the ranks of the members of the Association, responsibility now lies upon it, and not on its apologists, to allay if possible the not unnatural fears of the members, and to rally their disorganised forces.

Notwithstanding all that has been written and said, there are certain matters upon which we are all agreed.

(i.) The six cardinal principles of the Association must be absolutely guaranteed or we do not serve under the Act.

(ii.) The principles are *not* guaranteed in the Act.

(iii.) The Insurance Commissioners can guarantee them if they choose.

There are also certain other matters about which most—if not all of us—are also agreed.

(*a*) That the principle of the medical benefits of the

Bill under which the State insures, while the medical profession undertakes all the risks, is utterly false and intolerable. We cannot undertake these risks for a State that encourages "conscientious objectors" to vaccination, that does not insist on isolation in infectious diseases, that makes no provision for the feeble-minded and gives us no authority to enforce the most elementary laws of hygienic living.

(*b*) That the insured should be fully covered. As at present foreshadowed in the Act, insurance for medical benefits is a fraud on the insured. Friendly Societies provide medical attendance only within certain specified distances of the doctor's house. The State must provide it wherever the insured person may be at the time he requires it. The Friendly Societies make little or no provision for special lines of treatment or for Institution treatment. The State must, or "free medical advice" is a fraud.

(*c*) All disciplinary control of members of the profession taking part in the service of the Act should be entirely in the hands of the medical profession. The proposal that Insurance Committees should have the power of removing any man's name from a "panel," however safeguarded, is intolerable. Any question of this sort should be decided by the Local Medical Committee, with appeal to a Central Medical Committee or to the General Medical Council.

(*d*) If we are not to dispense, we must be protected from the indiscriminate use of our prescriptions by the pharmacists, and the public must be protected from the dangers of such procedure. I recommend the suggestions of the Lancaster Division to be found in the minutes of the last Representative meeting:

"That under Clause 14 (5) sub-sections should be introduced into the Bill prohibiting under penalty pharmacists from:—

(a) Medically advising or treating patients.
(b) Treating surgical wounds beyond rendering first aid in emergency.
(c) Performing any surgical operation whatsoever.
(d) Repeating any prescription unless re-endorsed by the prescribing medical practitioner.
(e) Compounding any prescription for any individual, except the one for whom it has been prescribed.
(f) Compounding and supplying any drugs for internal or external use on prescriptions which have been copied, and do not bear the autograph endorsement of a medical practitioner."

These further points of pretty general agreement may therefore be enumerated as follows:—

(iv.) The State must take all the risks involved in providing medical benefits.

(v.) The insurance must cover the insured under all circumstances, and everywhere within the confines of Great Britain.

(vi.) Disciplinary control of members of the medical profession must be entirely in the hands of the profession.

(vii.) The indiscriminate use of prescriptions by the pharmacists must be prevented.

From the basis of these seven points of agreement surely an effective policy could be evolved. A special Representative Meeting might be called; the Divisions could be authorised to elect representatives specially for this meeting. The Representatives could be empowered by the Division to elect from among themselves a Central Medical Committee for the purpose of dealing direct with the Insurance Commissioners. The Representatives could be instructed as to what their Divisions considered should be the terms that should be demanded from the Insurance Commissioners, and from this information at its disposal the meeting would be able to arrive at a generally acceptable minimum. The Central Medical Committee could be empowered to lay before the Insurance Commissioners the minimum terms decided on, on which the profession would be willing to act—say, i., iv., v., vi., vii.—as enumerated above, with any additions the Representatives' Meeting might add, together with the proviso that in any districts where special circumstances could be shown modifications might, with the consent of the Insurance Commissioners, be introduced by the Local Medical Committees.

If the Insurance Commissioners undertook absolutely to guarantee what was asked, the Divisions, reassured, could proceed to perfect their organisation, the general solidarity of the profession be secured, and every preparation made for a final struggle if the regulations, when published, did not fulfil the promises given. In the meantime no service, administrative or executive, to be taken by any member of the profession.

If the Insurance Commissioners refused to grant what was asked, the Central Medical Committee could decline to negotiate further, and the British Medical Association would call on the profession to refuse service of any sort under the Act until its demands had been acceded to.

If a generally accepted minimum could in this way be arrived at as between the Central Medical Committee and the Insurance Commissioners we should be spared the awful spectacle of numerous Medical Committees bargaining with their respective Insurance Committees with its almost certainly resultant chaos, very little less fatal than the original proposal of the Act of individual bargaining with these Committees.

Some such policy as this would at least be definite, immediate and intelligible, and in this way our ranks might once more be closed up and filled with new enthusiasm.

It would, at any rate, be better than an irritating reiteration of the policy of procrastination, and suggesting nothing more strongly than that the Council, having made a present of Mr. Smith Whitaker to the Insurance Commissioners, has deprived itself of the one man capable of imagining, fomulating or vitalising any policy whatever.

But as the Council by its vote of December 2nd directly caused, and knew at the time that its vote would cause, disorganisation, as its capacity has been challenged, and even its *bona fides* questioned, it is up to it to take the first steps towards bringing about reunion and heartening those who have hitherto so loyally followed it. And the first step of all would seem to be the summoning of a Representatives' Meeting as early as possible in January.

Dr. Thomas MacCarthy (Sherborne, Dorset) writes:

As Secretary of a Division I have naturally kept in touch with the members of the profession in its area, and I have no doubt that their policy has changed lately. Judging by the reports of meetings all over the country, and by the letters published in the British Medical Journal, it seems clear that this change is strongly in evidence everywhere. Whereas up to a month or six weeks ago the policy of the Council was that of the Divisions, now, I believe, it is not so, for the ideas of the members of the profession have changed steadily in the direction of stern hostility to the Bill or Act as it now is.

I have no sympathy with those who anathematise the Council (a body of gentlemen who have freely given their time, which is their money, without any hope of reward), for it has carried on a very difficult business to the best of its ability, and, with a single exception, in strict conformity with its instructions from the Divisions as expressed at the meetings of Representatives. The single exception was with regard to the appointment of Mr. Smith Whitaker, when the Council committed an error of judgment in not consulting the Divisions, which it might easily have done, as there was really no urgency about the appointment.

For the past six months we have been talking of crises, but *the* crisis is now with us, and any definite decision as to our policy must be a considered one, for on it depends the future of the profession. It seems to me that the profession has been rather hysterical and not in a sound state of mind during the past few weeks; but there are signs that this condition is passing off, and that after a few weeks' hard and steady thinking we shall be in a position to deal with the essentials and give a considered and business-like decision.

As the policy of the Association is, and must be, the policy of the majority of its members, and in the matter of the Insurance Act of the majority of the members of the whole profession, and as the policy seems to have changed of late, surely all that is necessary is the summoning of a special Representative meeting before the end of January, 1912. Divisional meetings will be held, at which definite resolutions will be passed dealing with the matter, and each Representative will be instructed how to vote.

As a result of this the Representative meeting will definitely instruct the Council as to what its policy is to be. All that remains then is for all members of the profession to loyally abide by the decision of the majority, as expressed by the Representative meeting.

Surely, no one can have any doubt that the only organisation capable of dealing with the situation is the British Medical Association, and anyone working against the Association is working directly against the profession. If we want the Council to alter its policy, we have only to show, in the usual constitutional way, what our wishes are. Finally, we must remember that we must not alienate public opinion, which is now on our side.

Mr. W. MOFFAT HOLMES, M.B. (Leicester), writes: I hope that those who read the report of the meeting of the Leicester and Rutland Division, held last week (Supplement, December 30th, p. 710), will appreciate the importance of the resolutions passed by it.

The Manchester resolution was passed with six dissentients out of a meeting of 140, and as a rider thereto it was agreed to instruct the Secretary to proceed to get the necessary number of other Divisions to sign a request for a Special Representative Meeting to consider this resolution. The Council dare not shirk the issue, and as Representatives will be sent up to vote for or against, we will get a definite expression of the feeling of the profession as it is throughout the whole country *at the present time*.

What we really wish to find out is whether the majority of the profession is in favour of declining to touch the Act as it stands in any way whatever, or is willing to wait and take its chance of what the Insurance Commissioners can offer, and we know that they can offer practically nothing more than we have already got. For with all their powers they cannot override the Act, nor can they spend more money than is budgeted for, which means that they must offer a 4s. 6d. capitation grant.

The remaining possible course is surely suicidal. To proceed to form Medical Committees and descend to local bargainings is to accept the Act in part, and if we accept in part we will perforce sooner or later accept the whole. And in this connection may I say that I think Sir Victor Horsley and his co-signatories make out a very poor case for themselves? It is quite well known that meetings are swayed, if not controlled, by Executive Committees, and so also is the Representative meeting swayed by the Council, who can always arrange their procedure beforehand.

Now that the rank and file of us are becoming alive to the danger in which we stand, those who have led us there cry out that it is our own fault.

So it is, but in the days of our blindness we were badly led by those who, if they were fit leaders of a great profession, should have known better, and now that we can see it we are only asking to be led aright, and no one dare say that we have not a right even now to agree that the policy of the past is wrong and must be altered.

I am not one of those who demand a new Council; I only wish to see the existing Council act up to our instructions. There is no need to resign from the British Medical Association. We are the British Medical Association, and the Council is ours, and must do for us what we want if only we will express our wishes in no uncertain voice.

IF PANELS ARE NOT FORMED.

Dr. J. H. TAYLOR (Salford) writes:—May I draw the attention of the profession to the consequences which would inevitably follow if the decision of the Manchester mass meeting not to form panels under the Insurance Act were carried out? I fully realise that the British Medical Association may yet be driven to form the same decision, but we must do so with our eyes wide open to the results, and not the slightest advantage can be derived from any immediate decision, as no panels can possibly begin work for more than a year.

I want specially to call attention to two provisions of the Act—namely, Clause 15 (3) (the Addison Amendment), and the proviso at the end of Clause 15 (2). The Addison amendment is sufficiently well known, but the part of the proviso to which I allude reads as follows, the latter part of it having been added to the Bill in the Report stage:—

> Provided that if the Insurance Commissioners are satisfied after inquiry that the practitioners included in any list are not such as to secure an adequate medical service in any area, . . . they [the Commissioners] may suspend the right to medical benefit in respect of any insured persons in the area for such period as they think fit, and pay to each such person a sum equal to the estimated cost of his medical benefit during that period, and where the Commissioners take any such action themselves they shall retain and apply for the purpose such part of the sums payable to the local Insurance Committee in respect of medical benefit as may be required.

Taking the Addison amendment first, under it any insured person may be "allowed" to make his own arrangements for medical attendance, including medicines and appliances, and will receive a contribution "towards" his private bills. This is authoritatively interpreted as meaning that the whole of any such contribution will have to be devoted to the purpose for which it is given, so that insured persons could not make any profit out of it by forming cheap clubs. If there is any doubt about this, I understand it is to be made clear in the regulations which are to be made to govern this arrangement.

But the proviso at the end of Clause 15 (2) is quite a different thing, as it refers to what would happen if a satisfactory panel is not formed. The Commissioners are hereby allowed to suspend medical benefit and to give the insured a corresponding sum of money, *which the insured may do anything they like with*. There are many places in Lancashire where at present the friendly societies can only get a slight footing; but in a short time not only will the present friendly societies become approved societies under the Act, but it is expected that the industrial societies, trades unions, and societies such as the Weavers' and Spinners' Societies, the Warehousemen and Clerks and others will register themselves, if not already registered, as friendly societies giving medical benefit, and become approved societies under the Act. Now, there cannot be the least doubt that if medical benefit is suspended because a panel cannot be formed, and if a whole-time service is not formed, all the approved societies, numbering over 13,000,000 members, will combine, to a more or less complete extent, in an attempt to form cheap medical clubs *outside the Act*, and, what is still worse, they will be at liberty to make a profit out of the money given in lieu of medical benefit from the Commissioners. In other words, the Commissioners will simply shift the burden of the fight with the profession off their own shoulders on to the shoulders of the approved societies, and we shall have to face a combined attack from all the societies, tremendously reinforced in numbers. The prospect is by no means inviting, considering our failures with the societies in the past, and we are, in fact, placed between the devil and the deep sea.

Without giving any opinion as to whether we should ultimately form panels or not, the alternative positions must be faced. If, on the one hand, we form panels, we shall have to deal with local Insurance Committees on which we have some, though an inadequate, representation of medical men to voice our views, and which must consult the local Medical Committees. There are also the Commissioners, who can refuse to sanction any unfair terms offered by the Insurance Committees; free choice of doctor is guaranteed, and all the resources of the Insurance funds are there to draw on.

Not for a moment do I consider the provisions of the Act ideal; but compare it with what will happen if we refuse to form any panels. Medical benefits would be suspended, and we should have to face 13,000,000 members of approved societies determined to form clubs outside the Act altogether. The free choice of doctor clause would, of course, be suspended, and the societies would retain their present specially appointed club doctors, whose lists would be enlarged, and, if we may judge from the past, fresh club doctors would soon be obtained. This, in turn, would drive us into a struggle with club doctors, who would have a valuable monopoly to defend. The only bodies we could deal with would be the lay Committees of the societies, as the local Insurance Committees would be out of action for the time. The funds would be limited to what the members of the societies

chose to give or could afford, and the cost of administering the clubs would come out of the fixed contribution from the Commissioners, to say nothing of the temptation which the members would have to make a little profit out of that strictly limited sum. The Commissioners could not interfere with any unfair terms offered to us by the clubs which would be outside the Act, and, in short, instead of a struggle with the Insurance authorities, we should be driven to an interminable series of local struggles outside the Act with friendly societies, more than doubled in numbers, acting exactly as they do now, refusing anything like an income limit and bound by nothing in the Act so far as medical benefit is concerned, while we should be deprived of all the advantages which the Act gives, however inadequate and despised these may be. This is what the policy of the National Medical Union would drive us to, and it is perfectly clear to me that the Manchester mass meeting did not half realise to what it was committing itself when it resolved so prematurely to refuse to form panels.

By far the best policy, to my mind, is to take every advantage of the present firm attitude of the profession and to devote all our energies to getting the regulations under the Act moulded, as far as possible, so as to counteract what is bad, and to supply what is deficient in the Act itself. If the very worst happened, and if we failed to get satisfactory regulations, we should be no worse off and there would be still plenty of time to decide whether to form panels or not. This is the policy of the British Medical Association, and seems to me to be plain common sense.

Grounds for Resistance to the Act.

Dr. William Gordon (Exeter) writes: In the very friendly article, published by the *Times* on Friday, December 29th, there are two misapprehensions which cannot be let pass without equally friendly correction.

I. First it is suggested that, because the National Insurance Bill has become an Act, it is too late for the profession to reconsider its attitude towards it!

As well suggest that a thief must no longer be resisted because he has arrived at the silver cupboard!

The facts that:—

(*a*) The Bill was elaborated during many months before its presentation to Parliament as a secret conspiracy against the profession between the Chancellor of the Exchequer and the Friendly Societies;

(*b*) Launched without any opportunity allowed the profession of learning its provisions;

(*c*) Pressed forward at breakneck speed, with kaleidoscopic changes in transit, through a bewildered House of Commons, whilst the most weighty medical remonstrances were brushed contemptuously aside and the concessions given with one hand (under compulsion of public opinion) were dexterously removed with the other;

(*d*) And, finally, that a most difficult and dangerous decision (as to the appointment of Mr. Smith Whitaker) was forced upon the Council of the Association by the Chancellor of the Exchequer at twenty-four hours' notice, when not the slightest necessity existed for such haste.

These facts abundantly justify us in reconsidering our opinions and readjusting our attitude towards this measure, before or after its passing, at any period of its history. In fact, that moment when its consideration—if it can be said to have been "considered"—by Parliament is complete, and would appear particularly favourable for such a reconsideration and readjustment. We are not dealing with ordinary legislation, we are face to face with chaos, and we are dealing, not with a great constructive statesman, but with a dexterous politician. Reconsideration, under these circumstances, is more than a policy, it is a duty and a necessity. As the result of my own reflections on the Bill and its surrounding circumstances—such as the "twenty-four hour trap"—I feel sure that the profession, as Sir James Barr has so much more ably and so opportunely urged, should refuse to serve under it in any capacity whatever.

II. Secondly it is suggested that we should "appeal" for justice to the Press. I hope we shall "appeal" to nobody. Medicine, through these centuries of toil and genius, has amassed invaluable knowledge, the control of which has become an object of political greed. Let it not delude itself into thinking that it can commit its defence to any arms buts its own. Given loyalty and firmness within, its position is impregnable. Without them, no extraneous assistance can avail to avert its catastrophe.

But whilst we must rely solely on ourselves for our defence, we should recognise that one most important means of defence is a clear justification of our attitude to the public. That is where we can advantageously address ourselves to *the Press—the real rulers of this country*—a tribunal far more capable and impartial than the House of Commons, far more imbued with the traditional sense of the justice and fairplay which are still inherent in our race. Such was the line of action which broke down the resistance of the War Office in 1898. No adequate attempt has yet been made, so far as I can discover, to avail ourselves of this valuable aid. I trust that a document will be drawn up placing clearly before the public, through the Press, the exact and complete bearings of our case. In this it should be explicitly pointed out, not only that we are absolutely justified in our course of refusal to have anything to do with this evil measure, but that, in resisting it, we are fighting, not only our own legitimate battle, but the battle of the public against the deterioration of the national health and the battle of civilisation in the defence of intellectual industry of all sorts. If the public and our fellow brain-workers are willing to support us in our hour of danger, we shall cordially and gratefully welcome their help in the best interests of us all. But they must clearly understand that, whether they help us or whether they stand aside, we shall equally exercise the indubitable right of every man and of every community to defend the fruits of its own industry and intelligence.

Loyalty and steadiness must be our watchwords. We have no one to look to effectively but ourselves, and we have no adequate organisation to defend us except the British Medical Association.

Division in our ranks is the enemy's best hope for victory. As the *Times* well puts it: "The medical profession never stood in greater need of calm counsels and clear thinking than at the present moment." It might be added that in respect of this Act the public stands, with us, precisely in the same need.

Dr. G. Baynton Forge (West Malling, Kent) writes: This morning I received a form of undertaking for signature. I have already, in common with some 24,000 other medical men, signed an undertaking not to practise under the Act unless the six cardinal points were conceded and remuneration settled by the Branch. Of what use was this? It appears to have been absolutely ignored by the Executive of the Association. Had they acted on the practically unanimous vote of the profession, it seems to me one of two things must have happened. Either the Government must have included the six points in the Bill, in which case they would have been defeated by Labour members and dissatisfied Radicals voting with the opposition, or Mr. Lloyd George would have been compelled to withdraw the so-called medical benefits, and the Bill would have failed for lack of medical support. How is it that the Executive failed to enforce the views of the profession? I do not, of course, suggest that the Radical members of the Executive allowed their sympathies for their party to lead them to sacrifice their professional brethren, but I do think the Council of the Association should consist exclusively of members having no political ambitions, and having no strong political sympathy on one side or the other. Sir James Barr says the general practitioner is to blame for the present intolerable position of affairs, and that we are making Sir Victor Horsley our scapegoat. Far be it from me to make anybody a scapegoat, but I venture to think Sir Victor owes us an explanation.

Firstly, he says we have obtained our six points—*Times* and British Medical Journal. Secondly, he says, "Get your six points or strike."—Telegram to member of Maidstone Division.

As to the statement that the Council had no mandate to

include the six points in the Bill, I cannot for my part see the object of insisting on any points at all, unless they are provided for in the Act, and I should have thought that the undertaking signed by some 24,000 members of the profession was sufficient mandate for any Council.

Under the present Act 80 to 100 per cent. of all practices must be club practice—only the consultant can escape—and should a man quarrel with the committee and be struck off the panel, he may not be able to get on another panel anywhere; this would mean absolute ruin. We must on no account sacrifice our liberties. With the present Act, in its present form, our liberty is gone.

DR. BERNARD O'CONNOR (London) writes: The general tone of the many meetings held during the summer clearly indicated the idea that the subject matters of the "six points" were to be included in the Bill itself, and the internal evidence afforded by the sense of the language used, and of the resolutions passed at these meetings point to the same idea.

The grand mistake made by those who were entrusted with the functions of exponents of the views of the profession was the fact that they did not at the outset cause it to be widely known and clearly understood that, unless these minimum demands were incorporated in the Bill itself, the profession in the main would boycott the Act when it came into operation. Instead of thus manfully taking up a strong position from the first, they postponed until a later period—too late in the opinion of many—this declaration of the determination of the medical profession, and thus lost the only opportunity for securing the appearance in the Bill of the expression of their demands.

It is all idle fudge for anyone, whether in the House or outside, to allege that these "points" could not have been inserted in the Bill. Anything and everything may be stated in a Bill—*e.g.*, even the interesting, though far-fetched proviso that "the Warden of Wadham may be a married man," which appeared in a railway bill that concerned in no other way the University of Oxford. The medical profession as a body refuse to haggle or bargain with the local committees, constituted as they are.

Whatever may be thought of the methods adopted for the inclusion on the English Commission of its one and only medical member, there can be but one opinion as to his being the best man in the right place.

THE "NATIONAL MEDICAL UNION" AND THE "BRITISH MEDICAL ASSOCIATION."

DR. JAS. BRASSEY BRIERLEY (Old Trafford, Manchester) writes: A few months ago the officials of the British Medical Association asked its members and others of the profession for a mandate to negotiate with the Chancellor of the Exchequer for "concessions" in the then unsatisfactory terms of the National Insurance Bill, and in return for this we were promised that conditions acceptable to the profession should be demanded and the "six cardinal points" absolutely secured. Did anyone doubt these conditions were to be embodied in the Bill? Further, guarantees of money were asked for; the condition was made that the Council should have entire control over the distribution of this fund, although medical men outside the Association were asked to contribute—rather a striking method to adopt.

However, the mandate was granted, the money guaranteed, but very early in the negotiations we saw plainly our leaders had not managed the work well. Apparently, however, they are satisfied with the results they have achieved, and feel quite indignant now the profession has determined to act for itself. Many of us had no faith from the beginning in the prospect of dealing with the Government. We know too well the men who are sent as representatives—at least, those from this district have not distinguished themselves further than making themselves ridiculous by going to the Representative Meeting and voting exactly contrary to the instructions of their Division at the behest of the Chairman of the meeting, who told the special meeting they need not do as they had been told. After the action of this gentleman at the Birmingham meeting—a meeting ever to be remembered as the greatest fiasco in the history of the Association—the statutory annual meeting lasting about ten or twelve minutes, when the Chairman left, the burning question—the National Insurance Bill—not even mentioned. I say, one does not wonder at this official offering such advice; but that a body of 150 or so, educated men—sent to decide questions of the most vital issue to the profession—should act upon it, is simply amazing.

This brings me to the remarkable attitude of these same officials towards the "National Medical Union," a powerful organisation, although but a few weeks old. In this district these men—they have only a handful of followers—have been seduously giving out that the "Union" is opposed to the British Medical Association, and are still labouring the question. We started upon the sound basis that the Association is ours, and we have acted, and still continue to act, with this fact always in view. But there is a tremendous difference between the two; this young Union represents the profession—the British Medical Association does not! Our power, however, is united; we shall work as and with the members of the Association; we hold by the six cardinal points. The Association could not get them; the National Medical Union plus the British Medical Association will, or there will be no Act. We shall have the wage limit, £2 a week as a maximum and the £160 a year out of the Bill altogether; but we shall enter into no negotiations. The Government will come to us if they accede our terms. We are entirely unconcerned about local Health Committees managed by lay people. I am writing for myself, not as a member of the executive of the National Medical Union. What is the position of this Union? It has two definite opponents; first, some of the officials of the Association, with a few of their followers who are going about asserting we are opposed to the British Medical Association. These gentlemen believe the Bill is a very fair one on the whole for the profession, that four of the six cardinal points have been conceded. We must accept their view of themselves. They think the Bill acceptable; we do not.

The next opponent is the Government. Some days ago, in the House of Lords, Lord Ashbourne asked what position was the Bill in after the Manchester resolutions. Lord Beauchamp is reported to have replied: "Such resolutions are not always kept." Would such an unworthy taunt have been hurled at an honourable profession if our "leaders" in the late negotiations had acted as they well knew the profession expected them to? The humiliating position we are reduced to in the eyes of the public—and especially that all-important section, the sick club—is entirely due to the feeble, faltering, frightened attitude our "leaders" have adopted in attempting to carry out the terms of the mandate they asked us for.

The crowded meeting in Manchester on November 18th was a warning to the Council; it was the profession speaking. This was enormously strengthened at the second mass meeting on December 14th, when the National Medical Union was formally created, with a membership within twenty-four hours of well-nigh a thousand; and then followed the remarkable London meeting of December 19th, when again the profession's feeling was voiced. Yet we are told, "You don't understand." One thing is very clear—the originators of this Union understand the profession; this is proved day by day by the numbers being enrolled. Indeed, some men have expressed alarm at the magnitude of the undertaking, and we have striking examples of men who would not even discuss any fresh organisation, lest the British Medical Association should suffer. Dr. Helme is one. He declined to come to the first meeting of a few practitioners at which the proposal to form a new society was formally made; nor was he present at the first meeting under Mr. Wright's chairmanship, when the mass meeting was decided upon, and up to the eve of this meeting fought hard against admitting the Press, for fear of giving the public the impression there was a split. There had been no fear of this from the beginning. But, now, what have we? The impassioned appeal of Dr. Helme to the crowded meeting in Manchester on December 14th not to enslave themselves by taking service under the Bill will not readily be forgotten by those who heard it.

We are united as never before; we are free of the cumbrous machinery of the British Medical Association

and its Divisions; we shall not act through, but with them; our union is a strength which will resist the combined power of the House of Lords, the House of Commons, and that section of the British public which does not know how to appreciate the self-sacrificing and charitable work our profession has done for them for ages past, is still doing, and will continue to do—but not under the slavish conditions of the National Insurance Act.

The Representative Meeting in November.

Dr. Edwin Smith, Barrister-at-Law (229, Balham High Road, S.W.), writes: You have kindly promised to try to find space for a shorter letter than the lengthy one I sent you on December 26th. I therefore now give briefly the grounds of my complaint of the Council of the British Medical Association in relation to the meeting of Representatives held in November.

Firstly, as to the instruction to the Representatives by the Chairman (Dr. Maclean) that they were not bound in their voting by the terms of the resolutions passed by their Divisions. I am not aware of any rule or by-law of the Association empowering a Representative to vote in a direction contrary to the express instructions of his Division. If such a rule does exist, the sooner it is rescinded the better.

Secondly, I complain that the meeting was conducted as if the Council held a brief for the Government as against ourselves, and were determined to prevent, if possible, the passing of any resolution which might place the Government in an awkward position. It was surely one great object of the meeting to hold a full discussion of various resolutions of fundamental importance passed by Divisions all over the country—including resolutions to break off negotiations, to refuse to work under the Act, and so forth. But instead of this, the time of the meeting was frittered away over senseless discussions of details, such as whether we should demand three, five, or eight members on a committee of eighty, just as if our representation would not in any case be hopelessly swamped in such a committee. The Representatives had unfortunately been induced to pass, at an early stage of the meeting, resolutions of a character which enabled the Chairman to rule out of order many of what may be termed the hostile resolutions, and these latter were in many cases only mentioned to be withdrawn from the meeting.

Thirdly, as to Mr. Smith Whitaker's appointment. Can any one doubt that had the Representatives known of the offer that had been made they would have insisted on the matter being referred to the Divisions? Mr. Lloyd George's hurry for an answer was an obvious trick to get the matter through without publicity. Whether the incident was regarded as closed or not the meeting should have been told that there had been an offer from the Government; but from Dr. Maclean's remarks the meeting clearly took the view that there was no truth in the rumours that had gained currency.

I shall not trespass furthur on your space except to say that, as this meeting was conducted in such a way that it was not representative in character, there would be no inconsistency should the next meeting of Representatives rescind any of the resolutions of November and pass others more in harmony with the views of the majority of the members of the Association.

It is impossible satisfactorily to convey in brief the substance of the letter I originally sent you; I hope, therefore, you will do me the favour to publish the fact that I shall be happy to send a copy of that letter to anyone applying to me.

*** As the first point raised by Dr. Edwin Smith is of importance not only in this particular instance, but in its bearing on the status and duties of Representatives, the following verbatim report of the incident on November 23rd is appended. The motion before the meeting was to receive the report of action taken by the Council to give effect to instruction of the Annual Representative Meeting, 1911.

Dr. George Browne:* My Division have instructed me to oppose all the recommendations of the Council. (Order.)

Dr. James Metcalfe (Bradford): Do you consider it possible that a Representative can vote other than he is directed by his Division? Can he be influenced by the arguments adduced here in support of any motion; or is he bound irrevocably to vote as he is directed?

The Chairman of Representative Meetings: That is a very pregnant question. Dr. Metcalfe, I take it, has asked my personal opinion upon that point. Is that so?

Dr. Metcalfe: Yes.

The Chairman of Representative Meetings: Then I do suggest that the Representatives are not delegates bound hand and foot. I am aware that the general sense of the instructions given to Representatives throughout the country is this: "This, so far as we understand, subject to any discussion, and so far as we are informed about its collateral considerations, is our opinion. We ask you to express that opinion as our Representative in the Representative Meeting." I suggest that that in no way, rightly understood, should bind a Representative from taking into consideration the views expressed by Representatives from other parts of the country; and I should say that, on the whole, the Representative who casts his vote in accordance with his clear conviction is a man who really is essentially representing his Division. (Hear, hear).

Dr. Douglas: May I say a word? This meeting is peculiarly constituted, and differs in a great measure from all other meetings that have gone before, in that the Council have sent down to the Divisions certain resolutions, and asked the Divisions to instruct their Representatives on these particular resolutions. (Hear, hear.) It has, therefore, placed us in the position of delegates in this matter. (Hear, hear.) I quite agree that we should use our own judgement and act rather in the capacity of representatives than delegates; but the Council has put us in the position that we have come here in the position of delegates; so that we shall have, in my opinion, to carry out our instructions. I hope these observations are not without point. (Applause.)

[After a short explanation by Dr. Johnson-Smyth (Bournemouth) as to a misapprehension with regard to a motion of which he had given notice],

The Chairman of Representative Meetings said: I do not suggest any extended debate on this subject should take place. I was asked a question as to my personal opinion, and I have given it. As it happens under the circumstances, Dr. Douglas's opinion differs from mine. That is all. I suggest that each Representative must decide the matter for himself. (Hear, hear.)

Dr. F. E. Wynne (Leigh, Wigan): I move that the question be now put.

Dr. George Browne:* I want to know how I am to vote if one Division tells me to vote for one thing and the other tells me I am to vote against it. (Laughter.)

The Chairman of Representative Meetings: I should say, multifarious as the duties of the Chairman of this meeting are, I really cannot settle the question of Dr. Browne's conscience. It has been moved that the question be now put. I put the motion brought forward which has been made by the Chairman of Council, which is: "That the report (Document D 12) of action taken by the Council to give effect to instructions of the Annual Representative Meeting, 1911, be received." (Agreed.)

Dr. James Metcalfe (Bradford) writes: I should like to explain why I, who, on behalf of the Bradford Division, recorded my strong detestation of the Insurance Bill at the last Representative Meeting, voted at the Council Meeting in favour of allowing Mr. Smith Whitaker to take the Deputy Chairmanship of the Insurance Commissioners. In speaking at the Representative Meeting on the Manchester West resolution,

> "That as the Bill in its present form does not satisfactorily embody the demands as already defined under the six cardinal points of the Association, this meeting is of opinion that it would serve no useful purpose to press for further amendments, and instructs the Council to discontinue negotiations with those responsible for the Bill,"

I remarked that I thought Mr. Lloyd George quite incorrigible; he still contended that 6s. was adequate payment for medical services under the Bill, and practically held the medical profession up to ridicule and laughter in the House of Commons. It was time, I said, to break off these negotiations. And I further added that if we did not at once break off the negotiations and show that we could behave as men, and if we could not obtain what was wanted generally over the country, we would have it in our part of the country, whatever happened.

I had also a long argument with the Chairman in reference to the first part of a resolution I wished to move on behalf of the Bradford Division, to the following effect:

> "That the Representative body recommends the Divisions to refuse to accept service under the Insurance Bill as now amended."

This I was not allowed to move, as the Chairman held that it had already been dealt with. I did not, and do not still, agree with his ruling. But I was permitted to move the second part of my resolution:—

* Apparently a clerical error for Dr. John Brown (Rochdale, Bury).

"That they consider the Bill unworkable, detrimental to the best interests of the profession, and a retrograde movement as far as the health of the community is concerned."

The Chairman of the Representative Body, in commenting on my remarks, said "that it was quite unnecessary that we should be called upon to express ourselves in these strong terms at the present time." I may say that both these resolutions were hopelessly outvoted. Perhaps 20 per cent. voted for them. The voting showed that the Representatives were, by a large majority, in favour of attempting to work the Bill if the six cardinal points could be obtained. Some of us thought then, as now, that the cardinal points were impossible of attainment, but this was not the feeling of the majority.

Now, I have the honour of being one of four Representatives representing the Representatives as a body on the Central Council. When the question of Mr. Whitaker's appointment came up, I had to consider my attitude as a Representative of that body. The great majority demanded that an attempt should be made to obtain the six cardinal points, and I naturally thought that as that was the policy of the Representative Meeting, I must sink my personal predilections and endeavour to obtain them. Was it more likely that these could be obtained with Mr. Whitaker as Deputy Chairman of the Commissioners than if a person not in sympathy with the profession's demands was appointed? There seemed to me to be no question as to what should be my attitude. The time, unfortunately, was most unpropitious, but we were informed that if we did not agree at once, someone else would be appointed. So I determined to act as I thought the majority of the Representatives would require me to do. It will be seen that my action was similar to that suggested by Sir James Barr—a strong opponent of the Bill. And, like him, I wish to point out that the Council's action was entirely an executive one. It was quite impossible for the Council to do otherwise than it did after the very decisive voting in the Representative meeting. If the Representative meeting had voted in favour of the Manchester West, or the Bradford resolutions, the action of the Council would have been totally different. As Sir James Barr says, "If there be any composite body—collectively and individually—to blame, it surely must be the Representative body; or, to carry the censure a stage further back, the Divisions of the Association who sent" them (the majority). The wrong instructions received by the majority of the Representatives have been due to the lethargy and inattention to their duty of the large body of practitioners now crying out that they have been betrayed.

Although the Bradford Division is strongly against the Bill and very angry with the Council for not attempting to give a stronger lead in opposition to it, I am proud to think that a unanimous vote of confidence in myself was adopted at what was probably the largest Divisional Meeting ever held here. We yet hope that it will be possible to bring the Representative body absolutely in line with the general trend of medical feeling on the subject.

DR. WILLIAM CLOW (Representative for Renfrewshire) writes:—Dr. Fred. J. Smith asks his critics "to produce and publish the minute or resolution of any Representative or other meeting of any date which authorised the Council to take the very important step of recommending a particular Commissioner to the Government for working the Insurance Act?" Dr. Smith's critics are quite able to do so. But lest they decide not to prolong their correspondence, I desire to make the facts known to my fellow-members.

A resolution was before the Representative Meeting in November, and finally adopted in the following form:—

Minute 47: "Resolved that in the event of the Insurance Bill becoming law, the British Medical Association use every possible means to ensure that no medical practitioner undertakes the medical attendance and treatment of insured persons under arrangements that are not absolutely in accordance with the six cardinal principles of the policy of the Association."

During the discussion on this resolution several Representatives expressed a strong desire to extend it so as to prevent any member of the British Medical Association accepting any duty whatever under the Act, and there was a definite proposal (C. 93) in this sense to prevent anyone becoming a Commissioner without the permission of the Association. It was in this connection that one member made reference to disquieting rumours in the smoking-room of the House of Commons and in the London clubs, pleading that an extension of the resolution to cover all duties would put an end to these rumours. The Representative Meeting discussed the question, and recognised that to exclude members from all office would only do harm, pointing out explicitly that it would open the way for the appointment of a Commissioner who had no sympathy with us. For that very reason the Representative Meeting deliberately resolved not to extend the resolution to cover all duties, but adopt it in the form which I have quoted. C. 93 was withdrawn.

Now, sir, this has only one meaning. It was a deliberate mandate from the Representative Meeting to the Council to recommend any member to the post of Commissioner or to any other administrative office.

One other point. Do those who are demanding the resignation of the Council know the constitutional position of the Council? The Council is composed of individuals with divided counsels, and they are amenable only to their constituents. If these constituents (Divisions, etc.) are satisfied with the behaviour of their Council representatives, where does resignation come in?

MASS MEETINGS AND AFTER.

Dr. J. H. KEAY (Greenwich) writes: In the interests of the Association, I do not think that it is, as a general principle, advisable that members of the Council should express their personal opinions in the JOURNAL. At a crisis, however, like this, which affects me as a general practitioner, I am compelled to depart from this principle and to use plainer words than could be used by any official body. If what I say is wrong, the Council cannot be blamed, as, so far as regards the contents of this letter, I have not consulted any member of Council nor Representative.

A few months ago, an overwhelming majority of the members of the Association were apparently united. It is now well known, not only to ourselves, but to Parliament, the Insurance Commissioners and the public, that we are at the present moment hopelessly divided. For the bitter opposition of not a few members to the Council, and even to their own accredited Representatives, various causes may be assigned. The political situation has changed, and many of the members of the Association are convinced that we have not obtained our six cardinal principles and that we are never likely to do so. The appointment of Mr. Whitaker has led to a climax, but there are other reasons for the present disunion, especially as regards the metropolis, and to these I would like to refer.

It has been well known to many of us for a long time that some of the best known men in our profession were deadly opposed to the British Medical Association. They bitterly resented the fact that an Association should exist which voiced not the mind of a few so-called "leaders of the profession," but of the great body of general practitioners, and that it should have become so strong that it has been regarded, not only by Parliament but by the public at large, as the only body that is representative of the profession. For this reason they opposed the Charter, and up to the present have taken no active part in the work of the Association. An opportunity has now occurred, and they have not been slow to take advantage of it by encouraging disunion in our ranks through attacking the Council and Representatives. This is the type of man that was much in evidence on the platform of the Queen's Hall meeting, a meeting which is of national importance, as it was held in the metropolis and attended by medical men from practically all parts of the country.

If the originators of that meeting had consisted entirely of men who disliked the Association, or who for some reason had withdrawn from it, they certainly found in their chairman, Sir W. Watson Cheyne, a worthy representative. He is, as he himself told us, not a member of the Association. Instead of counselling others to continue as members, it would have been better if he had told us why he himself had withdrawn from its membership and why he has not rejoined it. We were

told, as might, of course, have been expected, that the meeting, as called, had nothing to do with the Council of the British Medical Association. "It was not a matter that came before this mass meeting." Let us throw all the fine protestations that were made to the winds, and turn to plain facts. In a letter, dated December 6th, Dr. F. J. Smith wrote to the *Times* accusing the Council of "shameless betrayal," "traitorous proposals" and "underhand tricks." When challenged to give a reason for these charges, in further correspondence, he evaded reply, and practically ended the matter by stating that "he had arranged for a meeting of the profession" at the Queen's Hall. At the meeting, the first motion was moved by the same Dr. F. J. Smith, who again attacked the Council. And yet we were told by the chairman that the meeting, as called, had nothing to do with the Council. I have stated the plain facts, and leave medical men to judge.

The same spirit was evident in the motions submitted to the meeting. Certain motions were published in the Press, but afterwards withdrawn. After casting about and finding it was bad tactics directly to attack the Council, they put forward a motion in practically the same terms as that which had been passed by the Council and the Representative body themselves. Under cover of this motion, attacks were again made on the Council, and an opportunity was found grossly to insult its Representatives. Tactics of this sort may appeal to the men who sat on that platform. They do not appeal to an ordinary practitioner like myself.

It is needless to speak of the rowdyism that prevailed at that meeting, and of the manner in which it was incited. Enough to say that it has done more to degrade the profession in the eyes of the public than would be possible for the Council, even though they were guilty of more than everything of which they have been accused. Sir Victor Horsley has done more for general practitioners than the whole body of men who sat on that platform. As for myself, I had thought that I would be heard for two or three minutes, seeing that I was in no way distinguished and known to only a comparatively few, who had recognised the fact that for some years I had been using my best endeavours in what I regarded as the interests of medical men and the labouring population. On my first attempt to rise and address the chair, I was forcibly pushed down and held in my seat by one of the attendants. When allowed to speak, I presumed to state a fact which is known to everyone acquainted with Parliamentary procedure—namely, that in no Act, dealing with social legislation, during the past hundred years, had everything been incorporated, but much was left to be fixed afterwards by Commissioners or otherwise. This was regarded as in favour of the Council, and my fate was sealed.

It may be said that for the disgraceful scenes that were witnessed at that meeting, neither the chairman nor its originators could be regarded as responsible. I do not know if they were aware that some fiery spirits went to that meeting with the determination that Sir Victor Horsley should not be heard, or, if they did know, if they took any steps to prevent it. I do not accuse them, but this much I know, that apart from a wave of the hand and "Let Sir Victor Horsley speak," from the chairman, not a word was said on the platform deprecating the treatment given to Sir Victor Horsley, nor has it been said since. If the chairman and originators of the meeting wish to disclaim all responsibility for its conduct, they have had abundant opportunity before this time. That evidently is not their intention, as, when an opportunity was given to Dr. F. J. Smith at a meeting I attended the other day, he culminated his abuse by adding another and equally strong epithet.

From this it appears that the opponents of the Council, as represented by those on the platform at the Queen's Hall, are quite ready to do what they can to gain their ends by inflaming party passion, but not by showing that calm dignity and strength which one would have expected at a great crisis. What is true of London appears also to be true of Manchester.

It might appear that I have said too much on this matter, but as it is not only the position of the Council but the future of the whole Association that is at stake, I cannot forbear referring to a letter which appeared, a few days ago, in the *Times* from someone signing himself "F.R.C.S.," and who is evidently in close touch with Dr. Smith and his friends. After some pompous commonplace, written evidently with a desire to make his readers believe that he was not only unbiassed but a very superior person, he proceeds to tell them that "the action of the Council of the Association is in curious contrast with that of a more dignified and more important body, the General Medical Council," "that the real work of the Association has been left to persons of less distinguished type, often highly esteemed in their several localities, but known only to a limited circle beyond them," "that they are hardly accustomed to deal with a Cabinet Minister on equal terms," etc., etc. The complaint has often been made in Divisional meetings, that there are so few general practitioners in the Council of the Association. The complaint is, I think, unreasonable. General practitioners are so much tied down by the nature of their work that, had it not been for consultants and others on the Council, we would have fared worse than we have done. At the same time, I must honestly say that I regard the men who are in daily contact with the working classes, as better fitted to deal with such problems as National Insurance than those who know practically nothing about them, except as they see them in the in- or out-patient departments of hospitals. I am very desirous to see the best possible men on the Council and not a few general practitioners; and I trust that those of us who are serving the Association in that capacity, have so much backbone that we will not swerve one inch, nor one hair-breadth, from doing what we regard as right because of party passion, rowdyism or the sneers of superior persons.

Putting these matters aside, the question, so far as I see, that we, as general practitioners, have to ask ourselves is this: what are we to gain by resisting the operation of the Act? For my own part, if no higher minimum is obtained than 6s., I shall do what I can to oppose it. I do not trouble about actuarial calculations, nor where the money is to come from. It can be provided in many ways, and the Government have been plainly told by the Council that the resolution of the Association is to refuse to work under the Act until it is found. Can any sober and reasonable man say that we were entitled to go further? In what light could we be regarded by the nation at large, if we refused to work under the Act before we had named our terms or even begun to negotiate? A time may come when medical men will be united in refusing to work under the Act, but, if unity in the profession is to be obtained, the time is not yet.

I am not of the same opinion as many, perhaps most members of Council and Representative Body, who believe that in case of refusal the Government Commissioners would be powerless, and that no great number of whole-time officers could ever be found. A few months ago that would probably have been impossible, but such is now the disunion in the profession that I am quite convinced that a sufficient number would be forthcoming to supply the wants of London and some of the large provincial towns. And other means are possible. Some of us wrought hard and spared no pains to get provision made in the Act in the interests of Lancashire and those parts of the country where private practice still exists among the working-classes. Private practice can now be continued and the insured can make their own arrangements, subject to the sanction of the Insurance Commissioners, who can hand over the money on terms quite favourable to the insured, but I do not think anyone need feel surprised though it was not granted on the terms demanded by Dr. Helme and his friends. In every meeting I have recently attended, I have heard the cry "Smash the Bill." My own opinion is that it will not be so easily smashed, and that if no stronger grounds can be found for attempting to do so than those which have been put forward, and the minority become a majority I can see nothing for it in the near future but chaos and whole-time officers, the breaking up of what was once a united profession and the ruin of many general practitioners.

For these reasons I am strongly of opinion that the time has now come when a protest should be made, not against the Council, but against those who are opposing its action.

Dr. Major GREENWOOD (London) writes: Dr. Cameron Turnbull in his letter (Supplement, December 23rd, p. 677) does not appear to see in what direction his arguments are carrying him. If he really means what he says, he ought to make haste and join Dr. Knight, of Edinburgh, and enrol himself as a member of the National Insurance Medical Association, pledging himself to support the Act in its present form. The pledge runs as follows:—

Feeling that the present National Insurance Act is just to the medical profession, I hereby pledge my word to give my best service, etc.

He says, "If this Union"—meaning the National Medical Union—"carries its point, and persuades the profession not to work under the Act, etc." Why not say, "If this Union, or the British Medical Association carries its point"? All the evils so touchingly described as being likely to affect the profession, must necessarily arise if the official policy of the Association is strictly carried out and the Insurance Committees prove refractory. When the panels and Advisory Committees are formed, unless all the six points are unreservedly granted by the Insurance Committees and Commissioners, many members of the Association have pledged themselves to leave the Act severely alone. It must be admitted that there is at least a possibility of some of these points not being conceded. The evils in question will assuredly arise in any case, unless a united profession show the State that it cannot take any useful "interest" in the public health, except in conjunction with the doctors of the community.

THE CIRCULAR OF DECEMBER 11TH.

DR. H. HOYLE WHAITE (Gravelly Hill, Birmingham) writes: On Tuesday (December 19th), at a meeting of the Birmingham Branch of the Association, I was publicly informed in a discussion on the Insurance Bill, by the President of the British Medical Association, that the memorandum recently issued to members of the Association (December 11th) was not official, and that it represented the views, not of the Council nor of the Representatives, but of the two gentlemen alone who signed the memorandum. Is this a fact that is recognised by the profession generally, or by the members themselves? If not, then the matter should at once be set right, as a purely personal statement, printed and issued privately, ought not to assume the apparently official form which this one did.

I shall be glad if you will publish this letter and your reply as there is considerable misunderstanding on this point.

*** The circular referred to was issued by the Chairman of the Representative Meeting and the Chairman of Council on their own responsibility as a correction of statements and correspondence in the Press. There has been no meeting of the Council since the date of the issue of that document, but the document itself, and the action of Dr. Maclean and Dr. Macdonald in issuing it will, we are informed, be the subject of a report to the next meeting of the Council.

CIRCULARS TO NON-MEMBERS.

Dr. COMYNS BERKELEY (London, W.) writes: So many members of the Marylebone Division having taken exception to the phraseology of "Circular 3," and having written to me and telephoned to me in no complimentary terms on the subject since my last letter in the JOURNAL of December 23rd, I addressed a letter to the Chairman of the Council asking him for some expression of opinion on this circular, so that I might be the better able to deal with the many members of the Marylebone Division who contend that I have insulted them by appending my name to such a circular and forwarding it to them. I was also encouraged to write such a letter because one member has demanded a public apology from the Association as well as myself, and from his further comments I tremble to think what will happen if the Chairman does not accede to his request, whilst another, with a leaning to the law, thinks it very likely I may have committed myself as a "blackmailer," and reserves all rights to deal with me as such.

The following is a copy of the reply I have received from the Chairman, through the Acting Medical Secretary, and it will, I trust, satisfy my persecutors, and if it does not, at any rate I hope it will lead them to address in the future their anything but parliamentary remarks to the Chairman of the Council, and not to me.

Copy of Letter.

Dear Sir,—I did not have until yesterday an opportunity of submitting to the Chairman of the Council your letter with reference to the circular letter issued through the Honorary Secretaries of Divisions asking members of the profession who have not yet signed the undertaking in connection with the National Insurance Bill to sign that undertaking.

He regrets to learn that the issue of the letter has caused any annoyance to yourself, but is surprised at this in view of the fact that practically no objection has been taken to the terms of the same circular in the area of other Divisions. You have doubtless been able to explain to those who objected to the circular that it was issued by you in your capacity of Acting Honorary Secretary of the Division, and that you were not personally responsible for its terms.

The Chairman of the Council directs me to inform you that the terms of the circular in question were settled after careful consideration by a Committee specially appointed to deal with the subject of the organisation of the profession in connection with the National Insurance Bill. The words to which exception has been taken by some of the members of the Marylebone Division were inserted deliberately by the Committee, feeling that the time had come when those who had not yet signed the undertaking should be asked to make up their minds whether they were with or against the Association in its efforts to secure the reasonable demands of the profession in connection with the National Insurance Bill.

I am, yours faithfully,

ALFRED COX (Deputy Med. Sec.).

To Dr. Comyns Berkeley.

CORRESPONDENCE IN THE "SCOTSMAN."

In a letter received on December 27th, 1911, Dr. William Craig requested us to print the following letter, published in the *Scotsman* of December 16th, 1911, in continuation of the correspondence inserted in the SUPPLEMENT of December 23rd, 1911, p. 679. Owing to the pressure created by the Christmas holidays in England we were unable to comply with this request last week.

Medical Profession and the Insurance Bill.

Woodside House, Cowdenbeath,

December 15th, 1911.

Sir,—I observe in your issue of to-day a letter signed by Dr. Maclean, chairman of the representative meetings, and Dr. Macdonald, chairman of Council, in answer to mine of the 9th inst., and in the interests of the profession I welcome it, because there can be no doubt that there are matters requiring to be probed and cleared up.

First, with reference to the letter I wrote Mr. Whitaker and Dr. Buist, the deputy-chairman, on the 25th ulto., I wish to state I did so because I had so pointedly and so urgently said to Dr. Buist, both at the representative meeting and afterwards, that I viewed what was being done as most unsatisfactory in the interests of the profession. To such an extent was this so that I warned Dr. Buist he could not turn back the feeling of the members and of the branches who declined service under the Bill without taking the great risk of doing serious damage to the Association, and in a letter I wrote subsequently to the chairman of representative meetings, Dr. Maclean, I wrote him in the same terms, and these were my views then and told as straightly to those our leaders as I tell them now. I felt I had pushed them hard, and told them plainly; but it was done in no bad spirit, and when this quasi-strike resolution was afterwards brought in and passed I thought it well to write and make them understand that, no matter how strong my feelings had been, it was still my intention to be loyal to the policy of the Association.

Now I am asked what has occurred to change my view again. Well, it was the acceptance by Mr. Whitaker of the deputy-chairmanship of the Insurance Commissioners that caused all my former doubts to recur, and I did as I have done. But even Mr. Smith Whitaker's appointment might be explained on reasonable grounds, but how can we explain it in the light of the chairman, Dr. Maclean's, declaration? Dr. Maclean, in an oration to the representatives, said in effect if any such appointment were offered to him he would spurn it, and his decision would be irrevocable, and yet he

was the first person to recommend Mr. Smith Whitaker to accept. Are these facts not sufficient to make any man wonder?

Now, with reference to figures I quoted, if it were not that in my defence I would take up a great deal of your space, I could beyond question bring facts thereto that call as urgently for explanation.

I know and I realise the great responsibility that falls on anyone who questions a leader; but there is a duty to the profession greater than any policy or any person, and only that made me approach what was given in confidence. I quoted the figures from memory when I wrote them. I have since got the actual figures as they were then given, and noted down at the time, and Mr. Smith Whitaker will notably remember that I called in question one of his statements at the Insurance Committee meeting then and there. He then promised me a fuller statement and explanation; that has never been given—the statement that was to be given to me for my branch was to be given to all secretaries for their branches, and for the other branches besides, but that policy has never been carried out.

This policy was promised by Mr. Whitaker. It has not been fulfilled, and in the light of other happenings what must one think?—I am, &c.,

William Craig, M.D.,
President and Representative for the Fife Branch.
Member of the National Insurance Committee.

Mode and Rate of Remuneration.

Mr. John Drew Moir, M.B., M.S. (Plymouth) writes: Although we are disappointed with what our elected Council has obtained for us, let us thank them for what they have done, as I am sure no other elected council could have obtained more. We want a strong, able, and loyal medical man on the Insurance Commission, and how could the Council have secured a better representative than the Medical Secretary of the Association, Dr. Smith Whitaker.

It must be remembered that the average rate paid by the friendly societies per member was only 4s. a head, and for this medicine was supplied. Medical institutes, by paying whole time men, got their work done at a very much lower rate. Charitable institutions have equally sweated the medical profession, through the gratuitous services rendered by the profession in our hospitals and charitable dispensaries. Even when the assistant staffs are paid, their remuneration works out at very much less than the 4s. rate paid by the clubs; 2s. or less, being an ordinary rate.

I go so far as to state that if Mr. Lloyd George had confined his Insurance Act to the poor—viz., those who did not earn 30s. a week—he would have been a benefactor to the medical profession, by giving them a higher rate, doing away with the battle of the clubs, and, of course, by giving the poor better and more careful advice, have greatly benefited them. It is common knowledge that the institute medical work and some of the friendly society work has been done in a far from satisfactory way. Unfortunately, however, there was at first no wage limit fixed, and finally it was fixed at £160; this is monstrous and undoubtedly would seriously affect the incomes of general practitioners. In any Government scheme, a flat rate must be adopted, as any method of payment by attendance would entail a great many officials to check vouchers, certificates, etc. I suggest, therefore, that the minimum capitation rate in urban areas should be the amount given by the Government to each contributor, viz., 2d. a week. This rate should be confined to contributors with a wage limit of £2 a week or under: contributors with an income of more than £2 a week should be charged 3d. a week, and in each case a deduction of 1s. 6d. a head allowed for cost of medicine. This would give a medical practitioner a 7s. 2d. rate, or an 11s. 6d. rate in the case of the higher income. The Post Office pays an 8s. 6d., and the Army an 8s. rate for contract work, which includes supply of medicines, so that the rate suggested may be considered a fair one and should be our absolute minimum. Allowing that a medical man may at present book £250 or £300 annually from 500 patients under the lower wage limit, it must be remembered that he must deduct 7½ per cent., or 1s. 6d. a head, for cost of medicines; 10 per cent. or 2s. a head for bad debts, and 2½ per cent. at least for cost of collection and book-keeping, stationery, postage, etc.; whereas the £175 would be regularly paid and without deductions. It must also be remembered that contract patients do not give so many night calls as patients of this class, who, hoping to avoid the expense of doctors' bills, only send when alarmed. If they were contract patients they would save no expense by late calls, and would give themselves a considerable amount of trouble in procuring medicine during late hours from a chemist.

In rural areas, the wage limit should be 30s. for the lower rate, and there should be a yearly capitation mileage. Above this income the rate should be from 3d. upwards, depending upon the area, with a yearly capitation mileage. If this scheme is not considered feasible in some areas, contributors with an income of over 30s. a week should have the allowance credited to them and make their own medical arrangements. A notice should be sent to each medical practitioner to this effect:

"That the following contributors under the Act are desirous of securing your services as their medical attendant for the year 1913; their names in full, and addresses are given, and unless an objection to any one of them be lodged within three days, it will be assumed that you are willing to act as their medical attendant."

The State must have a right which it will insist upon to protect itself against malingering, the same right that insurance companies exercise at present. It is also probable that patients will have to be seen by a regulating medical authority in order that they may receive invalidity pay after a fixed period of illness. I would suggest that it would be preferable for the medical attendant under the Act to recommend to the regulating medical authority which should be the administrative and final authority under the Commissioners. The status of doctor and patient should be exactly the same as that which exists at present between them in private practice; if the patient is dissatisfied let him go elsewhere—that is the remedy. I am sure that I am only voicing the wish of the profession that every reasonable facility should be given them to do so, but it would be intolerable if a patient were allowed to complain to a mixed Health Committee. For disciplinary purposes we should be entirely under our elected Medical Committee subject to appeal to the Commissioners.

If the system of payment suggested be adopted, it would be a very simple matter for a cheque to be forwarded at the end of each month. This should be done by the local authority and not by any approved society. Let the approved societies control their members in any way they think fit; we must be responsible solely to the Commissioners, with our local Medical Committees and appointed regulating medical authority acting as intermediaries.

Let us have our concerted plan ready: I give one as a suggestion. I am perfectly willing to adopt a better one or one more pleasing to the majority, but let us have a plan of campaign.

Submit it to the members; let us pledge ourselves and firmly adhere to it, and if we do so we shall get what we want, for it must be borne in mind that to make the Insurance Act a success, there must be a good panel of medical men of standing and probity. Any attempt to work it by any other class would render it a dismal failure and be very unpopular with the compulsorily insured contributors.

[Owing to the great pressure on our space we are compelled to hold over several letters on this subject.]

MEETINGS OF THE PROFESSION.

GODALMING AND DISTRICT.

The following letter reached us too late for publication in the Journal of December 30th, 1911:

Sir,—I should be obliged if you would have the following resolution inserted in the next number of your Journal:

We, the members of the Godalming and District Medical Society, consider that the National Insurance Act fails utterly to embody the reasonable demands of the medical profession, and leaves no prospect of any amicable settlement between the Insurance Committees and the profession being arrived at.

We are of opinion that the provisions for medical benefit are unworkable, disastrous to the medical profession, and detrimental to the public welfare, and we unanimously decline to undertake the duties which the Act proposes to assign to us.

Yours, etc.,

Godalming, Dec. 27th, 1911. Gerald F. Bird.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

In seventy-seven of the largest English towns 7,795 births and 4,911 deaths were registered during the week ending Saturday, December 23rd, 1911. The annual rate of mortality in these towns, which had been 15.7, 16.2, and 16.4 per 1,000 in the three preceding weeks, declined to 15.9 per 1,000 in the week under notice. In London the death-rate was equal to 15.7, against 15.1, 14.3, and 16.0 per 1,000 in the three preceding weeks. Among the seventy-six other large towns, the death-rates ranged from 7.6 in Devonport, 7.9 in Bournemouth, 9.7 in Willesden, 10.6 in Ipswich, and 11.0 in Stockton-on-Tees, to 21.8 in Preston, 23.0 in Burnley, 25.1 in Stoke-on-Trent, 24.0 in Bury, and 24.1 in Stockport. Measles caused a death-rate of 1.4 in Stockport, 1.5 in Smethwick, 1.7 in Walsall, 2.2 in Nottingham, 2.4 in Burnley, 2.5 in Oldham, and 2.6 in Norwich; scarlet fever of 1.7 in Norwich; whooping-cough of 1.7 in Walsall; diphtheria of 1.0 in Huddersfield and in Halifax, 1.3 in Wallasey, 1.4 in Plymouth, and 1.6 in West Hartlepool; and infantile diarrhoea and enteritis of 1.8 in Wigan. The mortality from enteric fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 47, or 1.0 per cent., of the total deaths registered were not certified either by a registered medical practitioner or by a coroner after inquest, and included 11 in the City of Birmingham and 4 in the Borough of Stoke-on-Trent. The number of scarlet fever patients under treatment in the Metropolitan Asylum Hospitals and the London Fever Hospital, which had been 2,141, 2,089, and 2,041 at the end of the three preceding weeks, had further declined to 1,912 at the end of the week under notice; 182 new cases were admitted during the week, against 248, 241, and 224 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

In eight of the principal Scottish towns 809 births and 699 deaths were registered during the week ending Saturday, December 23rd, 1911. The annual rate of mortality in these towns, which had been 16.8 and 17.9 per 1,000 in the two preceding weeks, further rose to 18.6 during the week under notice, and was 2.7 per 1,000 above the mean rate during the same period in the large English towns. Among the several Scottish towns the death-rates ranged from 13.1 in Perth and 15.4 in Paisley to 22.0 in Aberdeen and 25.6 in Greenock. The mortality from the principal infectious diseases averaged 2.1 per 1,000, and was highest in Glasgow and Aberdeen. The 273 deaths from all causes registered in Glasgow included 25 from measles, 5 from whooping-cough, 5 from infantile diarrhoea, and 1 each from scarlet fever, diphtheria, and enteric fever. Eight deaths from measles were recorded in Aberdeen, 3 in Edinburgh, and 2 in Greenock; 3 deaths from diphtheria in Leith and 2 in Dundee; and 3 deaths from whooping-cough in Aberdeen.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, December 23rd, 1911, 490 births and 401 deaths were registered in the twenty-two principal districts of Ireland, as against 615 births and 461 deaths in the preceding period. The annual death-rate in these districts, which had been 18.3, 17.7, and 20.9 per 1,000 in the three preceding weeks, fell to 18.2 per 1,000 in the week under notice, this figure being 2.4 per 1,000 higher than the mean average death-rate in the seventy-seven English towns for the corresponding period. The figures in Dublin and Belfast were 19.9 and 18.1 respectively, those in other districts ranging from 4.7 in Sligo and 5.7 in Waterford to 34.3 in Lisburn and 39.7 in Kilkenny, while Cork stood at 22.5, Londonderry at 11.5, and Limerick at 15.6. The zymotic death-rate in the twenty-two districts averaged 1.8 per 1,000, as against 1.6 in the preceding period.

During the week ending Saturday, December 30th, 1911, 560 births and 396 deaths were registered in the twenty-two principal districts of Ireland, as against 490 births and 401 deaths in the preceding period. The annual death-rate in these districts, which had been 17.7, 20.9, and 18.2 per 1,000 in the three preceding weeks, fell to 16.0 per 1,000 in the week under notice, this figure being 0.2 per 1,000 higher than the mean average death-rate in the seventy-seven English towns for the corresponding period. The figures in Dublin and Belfast were 19.9 and 16.9 respectively, those in other districts ranging from 7.6 in Waterford and 9.2 in Ballymena to 21.1 in Cork and 22.9 in Newtownards, while Londonderry stood at 14.1 and Limerick at 20.4. The zymotic death-rate in the twenty-two districts averaged 1.5 per 1,000, as against 1.8 in the preceding period.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

ETHNAL GREEN INFIRMARY.—Assistant Medical Officer. Salary, £100 per annum.

IRKENHEAD BOROUGH HOSPITAL.—Junior Resident House-Surgeon (male). Salary, £80 per annum.

RIGHTON: CHICHESTER HOSPITAL.—Resident House-Physician (woman). Honorarium, £30 per annum.

RIGHTON: ROYAL SUSSEX COUNTY HOSPITAL.—Assistant House-Surgeon (male). Salary, £80 per annum.

RISTOL ROYAL INFIRMARY.—Dental House-Surgeon. Salary, £100 per annum.

RITISH MEDICAL ASSOCIATION.—Medical Secretary; must devote whole time to the work of the Association.

AMBRIDGE: ADDENBROOKE'S HOSPITAL.—Second House-Surgeon. Salary, £80 per annum.

TY OF LONDON LYING-IN HOSPITAL, City Road, E.C.—Resident Medical Officer. Salary at the rate of £50 per annum.

OYDON MENTAL HOSPITAL, Upper Warlingham.—Pathologist and Third Assistant Medical Officer. Salary, £200 per annum, rising to £250.

DONCASTER: ROYAL INFIRMARY AND DISPENSARY.—Assistant House-Surgeon. Salary, £80 per annum.

DUDLEY: GUEST HOSPITAL.—Vacancy on Honorary Surgical Staff.

EAST SUSSEX COUNTY ASYLUM, Hellingly.—Third Assistant Medical Officer. Salary, £160 per annum.

GERMAN HOSPITAL, Dalston.—Honorary Assistant Physician.

GUILDFORD: ROYAL SURREY COUNTY HOSPITAL.—Assistant House-Surgeon. Salary, £75 per annum.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—House-Physician.

HULL ROYAL INFIRMARY.—(1) Senior Assistant House-Surgeon. Salary, £100 per annum. (2) Assistant House-Surgeon. Salary at the rate of £60 per annum for six months' appointment, or £80 per annum for twelve months.

ITALIAN HOSPITAL, Queen Square, W.C.—(1) Honorary Surgeon for In-patients. (2) Honorary Assistant Surgeon for Out-patients.

LEAMINGTON: WARNEFORD, LEAMINGTON, AND SOUTH WARWICKSHIRE GENERAL HOSPITAL.—Junior Resident Medical Officer to act as House-Physician. Salary, £85 per annum.

LEICESTER INFIRMARY.—Assistant House-Physician. Salary at the rate of £80 per annum.

LINCOLN COUNTY HOSPITAL.—Junior Male House-Surgeon, unmarried. Salary at the rate of £100 per annum.

LONDON FEVER HOSPITAL, Liverpool Road, N.—Assistant Resident Medical Officer. Salary, £150 per annum.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—(1) Medical Registrar, honorarium 40 guineas per annum; (2) Assistant House-Surgeon, non-resident, honorarium at the rate of £105 per annum.

MANCHESTER: ANCOATS HOSPITAL.—Assistant House-Surgeon. Salary, £75 per annum.

MANCHESTER CORPORATION.—Third Medical Assistant at the Monsall Fever Hospital. Salary, £100 per annum.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—(1) House-Surgeon; (2) Assistant House-Surgeon. Salary at the rate of £60 and £40 per annum respectively.

MIDDLESEX HOSPITAL, W.—Assistant Medical Officer to the Electrical Department. Honorarium, £50 per annum.

MILLER GENERAL HOSPITAL FOR SOUTH-EAST LONDON, Greenwich Road, S.E.—Junior House-Surgeon. Salary at the rate of £85 per annum.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Hampstead and Northwood.—House-Physician. Salary, £75 per annum.

NEWCASTLE-ON-TYNE: HOSPITAL FOR SICK CHILDREN.—Honorary Assistant Surgeon.

NORTHAMPTON GENERAL HOSPITAL.—House-Surgeon (male). Salary, £90 per annum, increasing to £100.

OXFORD COUNTY ASYLUM, Littlemore.—Junior Assistant Medical Officer. Salary, £150 per annum, rising to £175.

PADDINGTON GREEN CHILDREN'S HOSPITAL, W.—Honorary Physician to Out-patients.

ROYAL LONDON OPHTHALMIC HOSPITAL, City Road, E.C.—Senior House-Surgeon. Salary, £100 per annum.

ST. BARTHOLOMEW'S HOSPITAL, E.C.—Chief Assistant and Clinical Assistants in the Aural Out-patient Department.

SHEFFIELD ROYAL INFIRMARY.—Junior Resident Medical Officer. Salary, £60 per annum.

SOUTH SHIELDS: INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Senior and Junior House-Surgeons (males). Salary, £100 and £90 per annum respectively.

SOUTHWARK UNION INFIRMARY.—(1) Second Assistant Medical Officer. (2) Third Assistant Medical Officer. Salary, £120 each per annum.

STAFFORD: COTON HILL LUNATIC ASYLUM.—Assistant Medical Officer. Salary, £125 per annum, rising to £175.

STIRLING DISTRICT ASYLUM, Larbert.—Second Assistant Medical Officer. Salary, £130 per annum.

WEST HAM AND EAST LONDON HOSPITAL.—Junior House-Surgeon. Salary, £75 per annum.

WEST LONDON HOSPITAL, Hammersmith Road, W.—Assistant Anaesthetist.

WESTON-SUPER-MARE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

WINCHESTER: ROYAL HAMPSHIRE COUNTY HOSPITAL.—House-Physician (male). Salary, £80 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—(1) House-Surgeon. Salary, £80 per annum. (2) Resident Medical Officer. Salary, £100 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacant appointments: Clara (King's Co.), Kelvedon (Essex), St. Austell (Cornwall), Youlgreave (Derbyshire).

APPOINTMENTS.

BROWNLEES, J. K., L.R.C.P. and S.Edin., L.F.P.S.Glas., Medical Officer of the Strand Union School, Edmonton.

CLARKSON, J. B., M.B., C.M.Edin., Medical Inspector for Northern Queensland in connexion with the establishment of a Health Department as a precaution against the introduction of diseases from the East.

DEANS, R. H., M.B., Ch.B.Glasg., Second Assistant Medical Officer to Govan District Asylum, Hawkhead, near Paisley.

DOCKER, E. N., M.B.Syd., Government Medical Officer at Trangie, New South Wales.

DUNDAS, J., M.D.Edin., D.P.H., R.C.P.S.Edin., Certifying Factory Surgeon for the Ramsgate District, co. Kent.

GLANCEY, Miss M. A., L.M. and S., House-Surgeon, Pestanji Hormasji Cama Hospital for Women and Children, Bombay.

MACMAHON, A. P., M.B., B.Ch., R.U.I., Medical Officer for Ballfarnham No. 2 Dispensary District of the South Dublin Union.

MCMILLAN, Miss A. T., M.B., B.Ch., First Physician, Pestanji Hormasji Cama Hospital for Women and Children, Bombay.

MORGAN, T., M.R.C.S., L.R.C.P.Lond., Medical Officer of Health of the Llandovery Rural District.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTHS.

BURKE.—On December 11th, 1911, at Gurkha Recruiting Camp, Gorakhpur, India, the wife of Lieutenant G. T. Burke, Indian Medical Service, of a daughter (Joan).

HEFFERNAN.—At Barretstown, Fethard, co. Tipperary, on January 1st, the wife of Lieutenant-Colonel W. Heffernan, R.A.M.C. (retired), of a son.

MARTIN.—On December 4th, 1911, at 15, Victoria Place, Eastbourne, the wife of Antony A. Martin, M.D.Lond., D.P.H., of a son.

SANDERS.—On January 1st, 1912, at Hong Kong, to Dr. and Mrs. J. Herbert Sanders, a daughter.

VERLEY.—On November 8th, 1911, at Chorley Wood, Herts, the wife of R. C. Verley, M.B., M.R.C.S., B.Sc., of a son (Reginald Norman).

MARRIAGES.

MCMANUS—MACKENZIE.—On January 1st, 1912, at Bangor, James McManus, Surgeon, of Beaumaris, to Marion Mackenzie, M.B., of Scarborough. At home Beaumaris, Anglesey, February 2nd and 3rd, 1912.

STANSFIELD—BLACKALL.—On January 1st, 1912, at All Saints' Church, Reading, by the Rev. W. J. Holloway, M.A., Tom Stansfield, M.B., B.S.Lond., only son of F. W. Stansfield, M.D.Vict., to Dorothy Kate, youngest daughter of A. T. Blackall, of Surbiton House, Reading.

DEATHS.

SHADWELL.—On December 31st, at Lynburst, Walthamstow, Marion Evelyn St. Clair, youngest daughter of Dr. and Mrs. St. Clair Shadwell, in her 16th year.

WOLFF.—On Tuesday, December 26th, 1911, at 18, Harborne Road, Edgbaston, Birmingham, Alfred Wolff, M.R.C.S., formerly of 6, Hanover Terrace, Holland Park, in his 59th year.

DIARY FOR THE WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Paper by Dr. Harrison Orton: The X-ray Diagnosis of Pulmonary Disease (illustrated by the epidiascope).

TUESDAY.

ROYAL SOCIETY OF MEDICINE:
SURGICAL SECTION, 15, Cavendish Square, W., 5.30 p.m.—Debate on "The Talma-Morison Operation," to be opened by Mr. Rutherford Morison (Newcastle), followed by Messrs. Sampson Handley, W. G. Spencer, Waring, and Drs. Drummond, Hale White, Rolleston, and Essex Wynter.

WEDNESDAY.

UNITED SERVICES MEDICAL SOCIETY, Royal Army Medical College, Grosvenor Road, S.W., 5 p.m.—Paper by Lieutenant-Colonel C. H. Burtchaell, R.A.M.C.: The Army Medical Service with Lord Methuen's Force during the Advance on Kimberley in 1899, with reference to the Present Organization of the Medical Service in War.

FRIDAY.

ROYAL SOCIETY OF MEDICINE:
CLINICAL SECTION, 15, Cavendish Square, W., 8.30 p.m.—(1) Demonstration of Cases. (2) Paper by Dr. H. C. Cameron: The Relative Value of Early and Delayed Operation in Pneumococcal Peritonitis.

LARYNGOLOGICAL SECTION, 11, Chandos Street, W., 4.30 p.m.—Cases and Specimens.

WIMBLEDON AND DISTRICT MEDICAL SOCIETY, 6, Broadway, Wimbledon, 9 p.m.—Clinical Evening.

POST-GRADUATE COURSES AND LECTURES.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat at noon and 4.30 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Tuesday, and noon, Friday; Eye, 11 a.m., Wednesday and Saturday. Radiography, Saturday, 10 a.m. Pathological Demonstration, Saturday, 11 a.m.

MANCHESTER: ANCOATS HOSPITAL POST-GRADUATE CLINIC.—Thursday, 4.15 p.m.—Chronic Enlargements of the Testicle.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Eye. Lectures at 5.15 p.m. each day will be given as follows: Monday, The Present Aspects of Some Cancer Problems (with lantern demonstration); Tuesday, Some Difficulties in Labour during the Second Stage; Wednesday, The Diagnosis and Treatment of Cancer of the Prostate; Thursday, Hemianopsia.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics, X Rays, Operations 2 p.m. daily. Monday: Gynaecology, 10 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday: Gynaecological Operations, 10 a.m.; Demonstration of Minor Operations, 11.30 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m. Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday: Gynaecological Demonstration, 10 a.m.; Lecture—Practical Medicine, 12.15 p.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday: Gynaecological Operations, 10 a.m. Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m. Special Lectures at 5 p.m. daily.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
	JANUARY.
9 TUESDAY ..	LONDON: Public Health Committee, 3.30 p.m.
10 WEDNESDAY	LONDON: Medico-Political Committee, 2 p.m.
11 THURSDAY ..	SOUTH-WESTERN BRANCH, Barnfield Hall, Exeter, 2.30 p.m. BIRMINGHAM BRANCH, Medical Institute, Edmund Street, 3.30 p.m. LONDON: Fractures Subcommittee, 5 p.m. WESTMINSTER DIVISION, *Metropolitan Counties Branch*, Criterion Restaurant, Dinner 7.30 p.m., Business 8.15 p.m.
12 FRIDAY ..	LONDON: Central Ethical Committee, 2 p.m. BRIGHTON DIVISION, *South-Eastern Branch*, Special Meeting, Dispensary, Queen's Road, Brighton, 4.30 p.m. HAMPSTEAD DIVISION, *Metropolitan Counties Branch*, Conservatoire, Swiss Cottage, 8.30 p.m. LIVERPOOL DIVISION, *Lancashire and Cheshire Branch*, Annual Meeting.

Date.	Meetings to be Held.
	JANUARY *(continued)*.
13 SATURDAY ..	
14 Sunday ..	
15 MONDAY ..	
16 TUESDAY ..	LONDON: Organization Committee 2.30 p.m.
17 WEDNESDAY	London: Special Meeting of Council 2.30 p.m. BRIGHTON DIVISION, *South-Eastern Branch*, Ordinary Meeting.
18 THURSDAY ..	LONDON: Metropolitan Counties Branch Council, 4 p.m. NEWCASTLE-ON-TYNE DIVISION, *North of England Branch*, Scientific Meeting, Royal Victoria Infirmary, 3.15 p.m.
19 FRIDAY ..	CITY DIVISION, *Metropolitan Counties Branch*, Meeting conjointly with Æsculapian Society, Metropolitan Hospital, Kingsland Road, N., 4 p.m.

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SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JANUARY 13TH, 1912.

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National Insurance.

STATE SICKNESS INSURANCE COMMITTEE.

THE State Sickness Insurance Committee recently asked the solicitor to the Association, Mr. W. E. Hempson, to express his opinion on the question how far the six cardinal principles of the Association's policy were obtainable under the bill. The Committee have received the following reply, which is published for the information of members. The opinion was expressed upon the bill as amended in Committee and on Report in the House of Commons and not upon the Act itself.

Bedford House,
33, Henrietta Street,
Strand, London, W.C.,
December 14th, 1911.

Dear Dr. Cox,

Re National Insurance Bill.

I send you as a separate document my opinion upon the matters submitted to me with your letter of December 7th instant, and upon which we subsequently conferred on Monday last.

I have felt that it may be more convenient to you to have it in this form than embodied in a letter.

Briefly summarized, the position appears to me to resolve itself into the following, namely: That of the six cardinal principles laid down by the Association, those numbered 2 and 3 are safeguarded and provided for by the bill as it now stands.

Provision is made in connexion with No. 6, it remaining with the profession to decide whether the representation accorded by the bill is sufficiently adequate to meet their requirements.

Concerning Nos. 1, 4, and 5 the requirements of the Association are certainly not met in their entirety in the bill itself. It appears to me that an uniform income limit, suitable methods of remuneration, and adequate remuneration, can only be secured by the medical profession firmly uniting and bringing to bear such pressure as they can by this means command upon the local Health Committees in all parts of the United Kingdom.

Alternatively, there is the possibility of the Commissioners being induced either to make Regulations which will confer satisfactory powers upon the Medical Committees or to modify the terms of the Act itself by virtue of the somewhat unique and drastic power accorded them under Clause 78, which power is expressed as being exercisable with the consent of His Majesty's Treasury at any time prior to January 2nd, 1914.

I am,
Yours faithfully,
(Signed) W. E. HEMPSON.

Dr. A. Cox,
Deputy Medical Secretary,
British Medical Association,
429, Strand, W.C.

Cardinal Principles of the Association Policy.

1. An income limit of £2 a week for those entitled to medical benefit.

2. Free choice of doctor by patient subject to consent of doctor to act.

3. Medical and maternity benefits to be administered by local Health Committees, and not by friendly societies.

4. The method of remuneration of medical practitioners adopted by each local Health Committee to be according to the preference of the majority of the medical profession of the district of that committee.

5. Medical remuneration to be what the profession considers adequate, having due regard to the duties to be performed and other conditions of service.

6. Adequate medical representation among the Insurance Commissioners, in the Central Advisory Committee, and in the local Health Committees, and statutory recognition of a local Medical Committee representative of the profession in the district of each Health Committee.

OPINION OF MR. W. E. HEMPSON.

National Insurance Bill.

I have given consideration in the points raised in the letter of the Deputy Medical Secretary, dated the 7th December instant, and upon which my opinion is required. These involve consideration of the six cardinal principles laid down by the Association in view of determining the extent to which they have been met by or can be secured under the bill as amended in Committee and on Report.

I take these six cardinal principles in their due order and afford my opinion upon each.

Income Limit.

No income limit is, in terms, fixed by the bill except in so far as concerns "Voluntary Contributors" (Clause 1 (3)) and non-manual workers (First Schedule, Part II (g)), in which cases a limit basis of £160 is fixed. Under Clause 15 (3), however, it is provided that the Insurance Commissioners shall authorize the local Health Committee to fix an income limit.

Under Clause 61 the local Health Committee or the District Committee to be formed under the Act is required to consult the local Medical Committee.

If therefore the local Medical Committee suggest as an income limit (say) £2 a week and the local Health Committee refuses to recognize this as the income limit, but fixes it at a higher figure, and the local Medical Committee on behalf of the profession in turn refuses to grant any medical attendance, then the matter would, I infer, be referred back to the Insurance Commissioners who would be compelled to adopt one of three alternate courses—namely:

(*a*) Authorize the local Health Committee to make such arrangements as the Commissioners approve.

(*b*) Make arrangements themselves by importing other medical practitioners to carry out the work—or—

(*c*) Suspend medical benefit under the Act and make pecuniary payments equivalent to those which would have been expended on insured persons in providing medical benefit.

Under the first two of the above alternatives the matter would in a great measure rest upon the question of the unity of the profession and the loyalty of the members thereof to one another, whereas if the third alternative had to be put into operation, due to a solid front being shown by the profession, the service under the Act would, in effect, be broken down and demoralized and the persons attended would be treated as private patients.

Free Choice of Doctor.

Clause 15 (2) Subclauses (*a*) to (*d*) inclusive affords free choice of doctor in the fullest sense.

The question which arises is as to whether this freedom is, in any material respect, controlled or restricted by Clause 15 (4). In my opinion it is not. The construction I place on this last mentioned subclause is that it is merely an enabling or enlarging provision to permit of the insured person continuing to receive medical attendance through some system or institution existing at the time of the passing of the Act which has been approved by the local Health Committee and the Insurance Commissioners.

Administration of Medical Benefit.

The provision in regard to this is contained in Clause 14 (1) of the bill, which requires that "Medical benefit" shall, in all cases, be administered by and through the local Health Committee.

It is, however, open to be contended that the generality of this provision is controlled by Clause 15 (4), with corresponding advantage in the direction of existing officers of approved societies. It is to be noted, however, that it is not compulsory on any local Health Committee to approve the system of medical attendance and treatment then in use, and if it be not so approved the Insurance Commissioners have no power to compel such local Health Committee to make the regulations required by Clause 15 (4).

Method and Amount of Remuneration.

It is convenient to deal with these two matters, which form Nos. 4 and 5 of the six cardinal principles, under one head, and I do so accordingly.

Under Clause 61 the local Health Committee is required to consult with the local Medical Committee on (amongst other things) "the arrangements made with medical practitioners giving attendance and treatment to insured persons," which would include method and amount of remuneration.

In my opinion the strength of the position in so far as the medical profession is concerned lies in this—namely, that they cannot be compelled to accept any bargain as to method or amount of remuneration which is in their view unreasonable. In this respect the bill places them under no compulsion, and they would not by uniting themselves on this head be exposed to an action for conspiracy.

Medical Representation on Certain Bodies set up under the Bill.

By Clause 56 (1) it is provided that there shall be at least one medical practitioner among the English Insurance Commissioners, and similar provision is made in so far as concerns Scotland, Ireland, and Wales, under clauses numbered respectively 80 (1), 81 (1), and 82 (1).

It is also provided by Clause 57 for the appointment of medical practitioners on the Advisory Committee.

Concerning the local Health Committee—if such committee consists of forty persons (which is the minimum number) it would have four medical members; if the committee consists of sixty persons there would be five medical members, and if the committee consists of eighty persons (which is the maximum number) there would be six.

So far as the medical profession is concerned, it appears to me to be as fully represented as any other interest under the bill apart from that of the insured persons themselves.

It must also be borne in mind as worthy of note that the Insurance Commissioners are accorded power under Clause 58 (2) (*c*) to appoint additional medical representatives on the local Health Committee. If, therefore, the Insurance Commissioners of their own volition see fit, or can, by any means, be induced to exercise this prerogative, such additional representation would be secured to the medical profession.

(Signed) W. E. Hempson.

33, Henrietta Street,
Strand, W.C.
December 14th, 1911.

STATE SICKNESS INSURANCE COMMITTEE.

NATIONAL INSURANCE ACT.

Table to show the Instructions to Council in relation to the National Insurance Bill, and how far the Act carries them out.

Representative Meeting, London, June 1st, 1911, Minute 78.

Resolved :—That the Council be instructed to consider what points in the policy of the Association should be secured, if possible, by specific provisions in the Bill, and what points should be kept open to be determined by the Insurance Commissioners; to take the necessary action; and to report to the Divisions at the earliest opportunity.

I.—Income Limit for Medical Benefit.

ORIGINAL BILL.	INSTRUCTIONS GIVEN BY REPRESENTATIVE MEETING.	ACT.
Absent.	*A.R.M., Birmingham, Minute 184.* That the Council be instructed to use their best endeavours to have the £2 limit fixed in the Bill, with provision for a lower limit to be fixed locally, but, failing that, to obtain as best they can the fixation of £2 as a maximum limit with such local option.	15. (3). The regulations made by the Insurance Commissioners shall authorise the Insurance Committee by which medical benefit is administered to require any persons whose income exceeds a limit to be fixed by the Committee, and to allow any other persons, in lieu of receiving medical benefit under such arrangements as aforesaid, to make their own arrangements for receiving medical attendance and treatment (including medicines and appliances), and in such case the Committee shall, subject to the regulations, contribute from the funds out of which medical benefit is payable, towards the cost of medical attendance and treatment (including medicines and appliances) for such persons sums not exceeding in the aggregate the amounts which the Committee would otherwise have expended in providing medical benefit for them.

II.—Free Choice of Doctor.

ORIGINAL BILL.	INSTRUCTIONS GIVEN BY REPRESENTATIVE MEETING.	ACT.
Absent.	*Representative Meeting, London, June 1st, 1911, Minute 49.* That it should be open to each patient who pays any part of the cost of his attendance to choose his own doctor from all who take part in the work of the Service, subject to the consent of such doctor to attend him.	15. (2). The regulations made by the Insurance Commissioners shall provide for the arrangements made (with duly qualified medical practitioners) being subject to the approval of the Insurance Commissioners and being such as to secure that insured persons shall, save as hereinafter provided, receive adequate medical attendance and treatment from the medical practitioners with whom arrangements are so made, and shall require the adoption by every Insurance Committee of such system as will secure— (*a*) the preparation and publication of lists of medical practitioners who have agreed to attend and treat insured persons whose medical benefit is administered by the Committee. (*b*) a right on the part of any duly qualified medical practitioner who is desirous of being included in any such list as aforesaid of being so included, but, where the Insurance Commissioners, after such inquiry as may be prescribed, are satisfied that his continuance in the list would be prejudicial to the efficiency of the medical service of the insured, they may remove his name from the list. (*c*) a right on the part of any insured person of selecting at such periods as may be prescribed, from the appropriate list, the practitioner by whom he wishes to be attended and treated, and, subject to the consent of the practitioner so selected, of being attended and treated by him. (*d*) the distribution amongst, and, so far as practicable under arrangements made by, the several practitioners whose names are on the lists, of the insured persons who after due notice have failed to make any selection, or who have been refused by the practitioner whom they have selected; Provided that, if the Insurance Commissioners are satisfied after inquiry that the practitioners included in any list are not such as to secure an adequate medical service in any area, they may dispense with the necessity

Original Bill.	Instructions given by Representative Meeting.	Act.
		of the adoption of such system as aforesaid as respects that area, and authorise the Committee to make such other arrangements as the Commissioners may approve; or the Commissioners may themselves make such arrangements as they think fit, or may suspend the right to medical benefit in respect of any insured persons in the area for such period as they think fit, and pay to each such person a sum equal to the estimated cost of his medical benefit during that period, and, where the Commissioners take any such action themselves, they shall retain and apply for the purpose such part of the sums payable to the Insurance Committee in respect of medical benefit as may be required. 15. (4) The regulations shall provide that, in the case of persons who are entitled to receive medical attendance and treatment under any system or through any institution existing at the time of the passing of this Act and approved by the Insurance Committee and the Insurance Commissioners, such medical attendance and treatment may be treated as, or as part of, their medical benefit under this Part of this Act, and may provide for the Committee contributing towards the expenses thereof the whole or any part of the sums which would be contributed in the case of persons who have made their own arrangements as aforesaid, so, however, that such regulations shall secure that no person be deprived of his right, if he so elects, of selecting the duly qualified medical practitioner by whom he wishes to be attended and treated in accordance with the foregoing provisions of this section.

(Clause 18 of the Act also provides Free Choice of Doctor in maternity cases).

III.—Administration of Medical Benefit by Insurance Committees, and not by approved Societies.

Original Bill.	Instructions given by Representative Meeting.	Act.
	Representative Meeting, London, June 1st, 1911, Minutes 56 and 57.	
13. (1). . . . Subject to the provisions of the next succeeding section, medical benefit shall be administered in the case of persons who are members of an approved Society, by and through the Society.	That the local Health Committee* should be entrusted with the administration of medical and maternity † benefits for all the insured. That in the event of an extension of the scheme being made as proposed in the Fourth Schedule, Part II., for the provision of medical benefits for the dependants of the insured, the local Health Committee should be entrusted with the administration.	14. (1). . . . . medical and sanatorium benefits shall in all cases be administered by and through the Insurance Committees, additional benefits shall be administered by the society or branch of which the persons entitled thereto are members, except where such benefits are in the nature of medical benefits, in which case they shall be administered by and through the Insurance Committees.

IV.—Remuneration: Method. V.—Remuneration: Adequacy.

Representative Meeting, London, June 1st, 1911, Minute 71.

Resolved: That the method of remuneration of medical practitioners in the district of each local Health Committee should be determined in accordance with the wishes of the majority of medical practitioners in that district.

A.R.M. Birmingham, 1911, Minute 172.

Resolved: That the Representative Body approve of the action of the Council in not pressing for amendments to the Bill as the means of securing the demands of the profession with respect to the method and amount of medical remuneration under the Bill.

Note.—Neither method nor amount of remuneration in respect of medical benefit is anywhere mentioned in the Act.

Domiciliary treatment of tubercular diseases and certain other diseases to be prescribed will be part of sanatorium benefit, and the remuneration for all such treatment will be in addition to the remuneration for the ordinary attendance that falls under medical benefit.

Payment for confinements will also be separate.

VI.—Medical Representation on the various Bodies set up to administer the Act.

Original Bill.	Instructions given by Representative Meeting.	Act.
	Representative Meeting, London, June 1st, 1911, Minutes 60 and 61.	
	(commissioners.)	
41. No mention.	That provision should be made in the Bill that an adequate number of Insurance Commissioners be general medical practitioners.	57. (1) . . . one at least shall be a duly qualified medical practitioner who has had personal experience of general practice; 80, 81, 82 (Scotland, Ireland, Wales).

* In the Bill as first introduced, the Insurance Committees were termed "local Health Committees."

† The stipulation as to maternity benefit was subsequently withdrawn, the latter having been declared to be a purely financial benefit.—A.R.M., Birmingham, July 25th, 1911, Minute 165.

ORIGINAL BILL.	INSTRUCTIONS GIVEN BY REPRESENTATIVE MEETING.	ACT.
	(ADVISORY COMMITTEE.)	
42. No mention.	That provision should be made in the Bill for adequate representation of the medical pro ession in the Advisory Committee to be appointed to assist the Insurance Commissioners; such representatives should include general practitioners who have had experience of practice among the classes from which the insured are drawn. *Representative Meeting, London, November 24th, 1911, Minute 35.*	58. . . . of duly qualified medical practitioners who have personal experience of general practice.
	(INSURANCE COMMITTEES.)	
43. (5.) At least two of the members so appointed shall be duly qualified medical practitioners. **(In Committee of 11 to 22.)**	That the Representative Body approve of the action of the Council in urging that at least one-tenth of the members of each Insurance Committee be elected by the medical profession.	59. (2), (c) two members shall be elected in manner provided by regulations made by the Insurance Commissioners, either by any association of duly qualified medical practitioners resident in the county or county borough which may have been formed for that purpose under such regulations, or, if no such association has been formed, by such practitioners. (*d*) one member, or, if the total number of the committee is sixty or upwards, two members, or, if the total number of the committee is eighty, three members, shall be duly qualified medical practitioners appointed by the Council of the county or county borough. (ii.) . . . of the members appointed by the Insurance Commissioners one at least shall be a duly qualified medical practitioner.

VI a.—Medical Committees.

ORIGINAL BILL.	INSTRUCTIONS GIVEN BY REPRESENTATIVE MEETING.	ACT.
	Representative Meeting, London, June 1st, 1911, Minute 67.	
Absent.	That provision should be made in the Bill for statutory recognition being given to Medical Committees representative of the local profession in each district, who should be consulted on questions concerning medical administration.	62. Where a local medical committee has been formed for any county or county borough, or for any area for which a district committee has been formed, and the Insurance Commissioners are satisfied that such committee is representative of the duly qualified medical practitioners resident in the county or county borough or such area as aforesaid, they shall recognise such committee, and, where a local medical committee has been so recognised, it shall, subject to regulations made by the Insurance Commissioners, be consulted by the Insurance Committee, or district committee, as the case may be, on all general questions affecting the administration of medical benefit, including the arrangements made with medical practitioners giving attendance and treatment to insured persons, and shall perform such other duties, and shall exercise such powers as may be determined by the Insurance Commissioners.

Fees in Cases under Midwives Act.

Though not secured pursuant to instructions of the Representative Meeting, the following part of Clause 18 of the Act—"Administration of Maternity Benefit"—is of importance to the profession:—

(1) . . . the mother shall decide whether she shall be attended by a duly qualified medical practitioner or by a duly certified midwife, and shall have free choice in the selection of such practitioner or midwife, but if, in the case of a midwife being selected, a duly qualified medical practitioner is subsequently summoned in pursuance of the Rules made under the Midwives Act, 1902, the prescribed fee shall, subject to regulations made by the Insurance Commissioners, be recoverable as part of the maternity benefit. (The Midwives Act does not apply to Scotland.)

Measures for securing Completion of Policy of Association.

Representative Meeting, London, November 24th, 1911, Minute 47.

Resolved: That, in the event of the National Insurance Bill becoming law, the British Medical Association use every possible means to ensure that no medical practitioner undertake the medical attendance and treatment of insured persons under arrangements that are not absolutely in accordance with the six cardinal principles of the policy of the Association.

[This means that no panel of doctors will be formed until the six cardinal principles have been secured.]

Minute 53.—Resolved:—That, in order to prevent sectional defeats of the profession through terms having to be arranged locally between local Insurance Committees and the profession, the Council be instructed to take such steps as are necessary with a view to securing:—

(*a*) That the local medical committees throughout the country be kept in touch with one another through the central office of the Association; and (*b*) that no arrangements for attendance on insured persons be completed anywhere until the Association is assured by reports from the local medical committees that terms in conformity with the policy of the Association in detail have been agreed upon everywhere.

January 8th, 1912.

MEETINGS OF THE PROFESSION.

BRITISH MEDICAL ASSOCIATION REFORM COMMITTEE.

A meeting called by the provisional executive of a body of medical men which has taken the name, "The British Medical Association Reform Committee," was held at the Town Hall, Hammersmith, at 4 p.m. on January 9th, under the chairmanship of Dr. F. J. Smith. It was explained that the meeting, though local in character, was intended to inaugurate an organization "to solve the medical questions involved in the Insurance Act," and that it would be followed in quick succession by similar meetings all over London and the country. The number of medical men present was estimated as between two and three hundred. Representatives of the general press had been invited, and were present in considerable numbers. They were entertained to lunch at a neighbouring hotel by Dr. Raiment, and to tea after the meeting. A half-penny illustrated paper took a flashlight photograph of the audience, in spite of the protests of some who thought so much publicity unnecessary.

The Chairman, in the course of a lengthy speech explained the objects of the meeting. He said it was the intention to promote a reform party or committee within the British Medical Association. To speak of "reform" inferred that there were abuses or matters which it was desired should be reformed, and in that connexion it was necessary to consider the action of the Council of the British Medical Association with regard to the Insurance Bill. As members of the Association they had the right to criticize the action of those who represented them. He wished it to be definitely understood that they were not quarrelling with the policy of the British Medical Association—that was a very different thing to the policy of the Council. But even the policy of the Council, as laid down by the Representatives, was not the policy which eventually found its way into the House of Commons. The policy laid down by the Representatives was clear cut and easily understood, but he maintained that those responsible for the negotiations had not carried out the direct mandate to put that policy into force. In support of this statement, Dr. Smith went on to say (1) that at the Representative Meeting at Birmingham it was generally agreed that the six points should form the minimum basis on which negotiations should proceed; (2) that general line of policy was confirmed at all other meetings; (3) generally speaking, the Council was instructed during the busy days of November last to see that the points were at least secured as the bill passed the House of Commons; (4) that, on the authority of many correspondents, and of defenders of the Council, the six points had not been secured in the Act in a manner which satisfied the profession. Therefore, it must be admitted that the Council failed in the work it undertook. Failure was not always synonymous with disgrace, and the opinion of many moderate men was that the Council should be given another chance. He maintained that from the point of view of the profession the failure was a disgraceful one. Looked at from other points of view it might not be a failure, for he believed that the men who managed it attained their ends. As the same minds would be at work, it was impossible to be sure that the same results would not repeat themselves if the further negotiations were left in the same hands. In that day's *Times* a member of the Council wrote that the Act was a very good one, and he thought the profession could improve it. That statement revealed the underlying motive of their Representatives on the Council. Dr. Smith quoted from the report of the Chairman of the State Sickness Insurance Committee of action taken in accordance with the resolutions of the Special Representative Meeting of November 23rd and 24th, 1911, as to the Harmsworth amendment. The report stated:

> The Chancellor of the Exchequer professed himself unable to propose the deletion of the "Harmsworth" amendment, as he would be defeated in the House of Commons if he did.

The obvious answer was: "It is not our bill; we do not want it. If you run a risk, that is your look-out." But no, the negotiators for the medical profession said, instead: "We must not let you run any risk; we must see what we can do to modify our desires." On the matter of medical representation on the Insurance Committees the Government returned a flat negative to the demands of the profession. What could their negotiators do but decline to continue negotiation? The six points were laid down as a minimum, not a maximum. The Council went on even though the profession was being made the catspaw of political parties. (Applause.) Letters to the *Times* incontestably proved that it was through the action of one of the profession's negotiators that the amendment as to the £2 limit was withdrawn. Nevertheless, he had it on the authority of a Member of Parliament that not only was it a misrepresentation of facts to say that a very small number of members would vote for it, but, on the contrary, that a £2 limit might have been carried had the amendment been persisted in. In any future endeavours to improve the Act he hoped to see not only the Association but the General Medical Council and its constituents and representatives of all the teaching and degree-granting bodies given a share. But really to improve medical education the Act must be "improved" off the face of the earth, and that must be their immediate object. To secure that end the reform party must get rid of every obstacle in the way, and must use every legitimate endeavour to get rid of the Council, and of those members of the Council who approved of the Act. Then they would be free to form their own policy, and carry it into effect. Dr. Smith here read a letter received from Dr. Buttar, Chairman of the Kensington Division of the British Medical Association.

> 10, Kensington Gardens Square, W.,
> January 7th, 1912.
>
> Dear Raiment,
>
> I regret that I do not find it possible to attend the meeting on Tuesday next, but I feel very strongly that the wrong method of dealing with the question has been adopted.
>
> Considering the short time that remains for organizing complete unity in the medical profession, I venture to think that the correct procedure would have been to requisition a meeting of the Kensington Division of the Association. The Divisions are the only bodies that can have any effect on the attitude of the Council, and I feel that it is a distinct slight to the Executive Committee of the Kensington Division that an independent organization should be considered necessary to formulate complaints against the conduct of the Council. I am not aware that the Kensington Executive has given any reason for thinking that fair discussion and free expression of opinion are burked at Division meetings; and, even if it were so, it seems to me that a properly organized discussion by the Division itself is the right way to deal with the matter.
>
> I hope that you may be able to read this letter at your meeting, and, in the interest of the unity of the profession, I trust that it may be decided to refer the whole question to meetings of the Kensington and Chelsea Divisions.
>
> I remain,
> Yours very truly,
> Chas. Buttar.

In reply to these considerations Dr. Smith, said that possibly the reform party was in error in calling the meeting as it had, but it had been considered necessary to act in a hurry when dealing with these very urgent matters. He thought the next step would be to requisition a meeting of the Division, but first it was necessary to undertake some preliminary work and ascertain the general feeling of the profession. Having ascertained that the general feeling was in favour of reform let them get to work on the Divisions. In conclusion, Dr. Smith referred to a circular letter issued by him. The word "tampering" used therein might be taken as suggesting dishonesty; while he did not impute dishonesty to any man, he did say distinctly that there was a political element in favour of the Act which induced the Chairman of the Representative Meeting to let Representatives vote as they liked. He found that the Chairman himself was actually speaking in contravention of By-law 39, para. 4, which read:

> In voting upon any matter upon which a constituency has passed a resolution within the three months immediately preceding such meeting, the Representative or Representatives of that constituency shall be under obligation to vote in accordance with such resolution.

Words could not be clearer than that, and yet the Chairman told the Representatives that they could vote as they liked. Members of the Divisions should see that their Representatives went with very clear instructions, and also that a committee was formed to watch the negotiations under the Act. As a reform party they must see that that committee represented their views. Finally, Dr. Smith suggested that in districts where remuneration on contract practice terms was preferred the rate should

be 10s., and that in districts where payment for work done was desired a minimum of 2s. 6d. a visit and 2s. at the surgery, with extras, should be fixed.

Dr. PERCY C. RAIMENT, as secretary of the movement, submitted a scheme for the constitution of the Reform Committee, which was set out in a printed circular as follows:

Objects.

1. The objects of the committee shall be to secure the promotion and the passage of an Act of Parliament amending the National Insurance Act, 1911, in such a manner as to safeguard the interests of the medical profession, as laid down in the "Six Point Programme" of the British Medical Association; and to carry out such reforms in the organization and officers of the Association as may be necessary to achieve this end.

Membership.

2. Membership of the committee shall be open to all such registered medical practitioners as are (i) members of the British Medical Association; (ii) eligible for membership of the British Medical Association and have signified their intention in writing to become members of the British Medical Association.

3. Every member of the committee shall pledge himself to decline to accept medical service under the National Insurance Act, 1911, until it is amended in the manner laid down in paragraph 1.

Subscription.

4. The subscription to the committee shall be the sum of 5s. per annum; such subscription shall be paid at such time as application for membership is made and upon the first day of January in each year for so long as necessary.

It might be asked, Dr. Raiment said, why such a definite policy had been drawn up before it was known what the regulations of the Insurance Commissioners would do for the profession. The answer was that they had waited six months and had got nothing, or next to nothing, and it was difficult to see how the Commissioners could give them what the Chancellor had refused. The reason it was proposed that membership of the Reform Committee should be confined to members and intending members of the British Medical Association was that they could only secure what they wanted through the Association. They would organize with the object of getting a majority at the Divisional Meetings, and ultimately secure control of the Executive. He failed to see what other policy was left to the profession save an absolute refusal to give their services until the six points had been conceded. Within two or three weeks they hoped to have been successful in establishing the reform party in many parts of London and the country.

Dr. MILTON TOWNSEND moved the first resolution as follows:

> That this meeting of medical practitioners in the Kensington and Chelsea Divisions of the British Medical Association, being profoundly dissatisfied with the recent decision of the Council in regard to the position of the medical profession under the Insurance Act, cordially approves of the proposal to form a reform committee of the British Medical Association on the lines suggested, and pledges itself to use its best interests to further the movement among all the Divisions of the Association.

Dr. Townsend declared that this was the last chance of the profession to make an organized stand against the Act; after this it would be guerilla warfare, which meant their ultimate extinction. If they fought in the Divisions without any organization at their back it could only mean their extinction as an organized body. As to the action of the Council, did any member of the profession leave the meeting at the Connaught Rooms without the idea that the six points were to be incorporated in the Act? (Cries of "No.") Whatever might have been the policy of the Council, it was the policy of the Association that the six points should be in the Act. It was the duty of those not affected by the Act to stand by those who were affected, and see that at the Representative Meeting to be held shortly the Representatives were given instructions from which they could not depart. If they worked hard the Reform Committee would be the British Medical Association itself, and it would not have a policy which would be put on record in one issue of the JOURNAL and repudiated in the next. It would have one policy—the six points in an amending Act, or no medical service. (Applause.)

Dr. WM. S. LEE said that no one would deny there was need for reform, and the first step was to ask members to attend Divisional meetings regularly, and make it clear what the policy was that they wished their Representatives to carry out. The Representatives must be told to vote directly in accordance with the instructions of the Divisions, and not heed the Chairman of the Representative Meeting when he stated that they were not bound hand and foot by the Divisions but should vote and act according to their convictions. Since July the Council had coquetted with the bill. Members of the Council had let their own personal and political convictions interfere, and had tried to save the face of Mr. Lloyd George and of the Government against the interests of the profession. To crown all, the Council had sold the Medical Secretary to the enemy instead of giving the rank and file an example in refusing service under the Act. It was claimed that Mr. Smith Whitaker's appointment was not a violation of the pledge, but Dr. Lee claimed that it was a violation of its spirit.

At the suggestion of several in the body of the hall it was agreed at this point, as the hour was growing late, to impose a five-minute limit on all speakers.

Dr. G. CRAWFURD THOMPSON asked permission to move an amendment, but on the CHAIRMAN ruling that his proposal amounted to a direct negative proceeded to speak against the motion. He felt that the Divisions should first be approached before a new Association was formed.

The CHAIRMAN: I only want to promote a party within the Association.

Dr. THOMPSON: I am afraid everybody will consider this a new Association, and it can only lead to a split. He was entirely against the Act; he believed it to be unworkable, and the fact that the profession was put under the friendly societies was an insult. He also believed that the Council had sold their birthright as medical men for the sake of the Act. Dr. Smith had taken up the cudgels on behalf of the general practitioner, and they thanked him. But there was only one weapon by which they could fight the Act—unity. (Applause.) If a new association were formed, within or without the fold, a greater rift would be caused. Why not act through the Divisions?

Dr. O'SULLIVAN, speaking as a former representative of many years' standing and as a whole-hearted opponent of the Act, asked what right had the body calling that meeting to issue circulars broadcast and invite members of the Division to attend? Who constituted them an authority; had they powers from the Central Council? They called themselves the "British Medical Association Reform Committee;" what right had they to use the name "British Medical Association"? They were an excrescence, and nothing else. Amongst the leaders of this movement he did not see the face of one who had done service to the profession as an active member of the Association.

Dr. BURNHILL urged that the reform movement was justified as an endeavour to stiffen the backs of the leaders of the profession. The Association having sold him, as a medical man, he was justified in supporting an opposition movement.

Dr. H. BECKETT-OVERY, without impugning the good faith of those who had promoted the meeting, was convinced that their action was not in the best interests of the profession. Had the Council or the Association power to wreck the Government? It had been assumed that the Council had only to say, "Do this or that, or the bill will be wrecked." The Council had never yet advised the profession to work the Act, or said it was satisfied with what had been obtained. He regretted that the members of the profession could not fight this matter out amongst themselves without the aid of the lay press. The critics of the Council's action were divided amongst themselves. It must not be forgotten that the Council had means of estimating the opinion of the profession not in the West End of London only, but throughout the whole country. Promotors of a split would go a great way to ruin all the work that had been done by the Association in the past—work which had not received conspicuous assistance from those who were now most active against the Council.

The resolution was then put and carried. Eleven voted against.

Dr. E. WOOL LEWIS proposed and Dr. WILFRID KINGDON seconded the next resolution:

> That, pending the formation of the central executive, this meeting instructs the provisional executive to act as the central executive, and to do all such acts and things as it

may consider necessary to advance the principles already enunciated, and gives it power to co-opt members.

This was agreed to.

Dr. E. B. Turner moved:

That, pending the formation of divisional executives, two members from each Division be elected as honorary secretaries for Kensington and Chelsea Divisions respectively.

He said he acted as a thoroughly loyal member of the British Medical Association in moving the resolution, and claimed that the purpose of the Reform Committee would be to galvanize the Divisions into life. The Act would affect the men whose practices were among the class of people included in the measure. It was only right their voices should direct the Divisions, and that those not affected should do their best to help and protect those who would suffer. Dr. Turner added that even if Mr. Lloyd George succeeded in attracting the services of 5,000 whole-time officers at £600 a year or 6,000 at £500 a year it was a physical impossibility that they could cope with the work.

Dr. James, who seconded, said that some had been very ready to blame the Council. He held no brief for that body, but he blamed the members of the profession more than the Council. The general body of the Representative Meeting opposed the proposal from Lancashire that the Association should not negotiate under the bill. Even if the profession secured all the six points it would be ruined and degraded. At the same time, the profession was to blame for not giving its Representatives more careful instructions. He agreed with earlier speakers that the present meeting should have been called in a regular way through the Chairman of the Division.

The resolution was carried.

Replying to a vote of thanks the Chairman alluded to the requisition signed by some hundreds of those who attended the Queen's Hall meeting of December 19th, 1911, calling upon the Council to call a Special General Meeting. The Chairman of Council, he said, had been to the trouble of taking counsel's opinion, and had finally decided that the requisition was *ultra vires*. He admitted he felt angry. He thought the Chairman of Council had gone out of his way in thus treating 564 of his professional brethren in a way which was perhaps strictly legal but not quite correct as between members of the same profession. He felt some responsibility towards those who signed the requisition; it was not his fault that nothing had come of it, and he had written a formal protest.

This terminated the proceedings.

SHEFFIELD.

On December 19th, 1911, some 350 members of the medical profession in Sheffield and district, at a largely attended meeting at the Royal Victoria Hotel, declared in emphatic terms their refusal to accept service under the Insurance Act. The following report is slightly abridged from one published in the *Sheffield Daily Telegraph*:

Mr. Archibald Cuff, who presided, reported the receipt of a large number of apologies for non-attendance, nearly every one of which expressed sympathy with the resolution. He quoted one, typical of many. Professor Sinclair White telegraphed from Dover:

Hope Sheffield doctors will decline to work Act in its present form. Loyally united, we are the masters.

The Act, said Mr. Cuff, even if extensively amended, would fall far short of justice to the doctors, but they held —and always had done—that it contained for some of the poor and unfortunate members of the population elements of good, and it was for that reason that they consented to discuss the matter. The Chancellor of the Exchequer had failed to consult any reliable authority from which he could have learned the feelings of the profession on questions vitally affecting its general well-being, self-respect, and means of livelihood. The medical profession was, he went on to say, actuated by a sense of public duty, and, provided their legitimate interests were safeguarded, their loyal co-operation in the working of a measure aimed at the public good would have been assured. They accordingly submitted their minimum demands; they did not wish to bargain. Those "cardinal points" were, he urged, extremely moderate considering the risks the doctors were undertaking, the complex changes bound to take place, and considering it was practically impossible to foretell how the work would extend. If they accepted less than those minimum demands, they would lose morally, intellectually, and financially, both as regards the profession and the individual. It was, he felt sure, the opinion of the majority of the medical men of these islands that they should require that those minimum demands should be inserted in the bill. Unimportant concessions had been made, but these had been completely nullified and destroyed by other concessions. By these concessions the Chancellor had in effect said, "I will not put your demands into the bill, but I will allow you to fight for them from time to time." Fight with whom? It meant fighting bodies made up of those friendly societies from whose bonds they had prayed to be delivered. The Chancellor, while pouring blandishments and prophesying smooth things to the doctors' representatives, had addressed other meetings where he had been equally glib with his jibes and insults. The leaders whom they had trusted to be foremost in defending their interests had not shown that zeal, care, and energy which might rightly have been expected from them. They had been disposed to capitulate too easily, and accept small concessions when a bolder course would have been better. By no means the least of their failures had been that they had allowed Parliament and the public to believe that the doctors were not in earnest. Nothing was farther from the facts. True there was no legal bar to their attaining their wishes by fighting. It was a crisis, but crises should be fairly met, and could be met, if only they had resolution and determination, and not excitement, panic, fluster, and flurry. They could not be reminded too often that to succeed in their protest they must be united and bold, and he earnestly appealed to them to remain loyal to their organization. It had its failings—grave ones—but by no other means could they make their protest more effective. If their leaders had been weak in the past let them urge them to be stronger in future, and if they failed let them remove them.

Dr. T. C. Jones moved:

That this meeting of the medical profession now recognizes that the only satisfactory method of meeting the situation created by the Government is for the members of the profession to refuse to form a panel under the National Insurance Act, or to undertake any duties which the Act proposes to assign to them.

He described the bill as an iniquitous one. Doctors had to look at the matter from the business point of view. Insurance Act or no Insurance Act they would do their duty to the public, but they must put sentiment on one side, for they had to live. The general principle of the scheme was acceptable to medical men, he believed, but they objected very much to the crude method by which it had been forced upon an unwilling and rebellious profession. He felt that the Chancellor of the Exchequer in framing the Act had been largely actuated by a desire for notoriety, and that there was a selfish motive at the back of his mind. In the House of Commons he had represented that under the Act the position of the profession would be improved and their incomes increased, but as soon as he got on a platform outside the House he threw over the interests of the doctors, and asked them to make sacrifices which would be ruinous to them. Mr. Lloyd George seemed to have been "slow timing" the British Medical Association. Their representatives on the British Medical Association must have been tricked or they would not have made so feeble a resistance to the blandishments put forward by the Chancellor. Taking an average for the friendly societies and the medical aid associations, the payment worked out at about 4s. per head per annum, which practically represented a payment to the doctor of 6½d. per attendance. But then the members of such societies were a thrifty class of people. They were, in fact, selected lives. Under Mr. Lloyd George's scheme the maximum grant was 7s. 3d. per head per annum, but the minimum, which would be adhered to, was 6s. per head per annum, and this would work out at about 4½d. per attendance. The result would be extremely unfortunate for the medical men. Dr. Jones pointed out that in the case of post-office employees there was a medical benefit of 8s. 6d. per head per annum, while the average sum paid to doctors for attendance upon the employees of municipal bodies was 9s. per head per annum, and in these cases the doctor had the advantage that he was dealing with good

lives. Compare the treatment of doctors in those cases with the proposed treatment of the doctors under the national insurance scheme. The scheme would take away a great deal of the doctors' private practice, and would make it practically impossible for him to exist. Finally, the tyranny under the Insurance Commissioners would be infinitely worse than the tyranny under the friendly societies.

Dr. PORTER seconded. Although regretting that the labours of their leaders had concluded in such a lame and impotent manner, he emphasized the appeal of their chairman that they should regard the British Medical Association as still the only organization by which their demands could be expressed. What he regarded as the crux of the matter was the £2 income limit. The doctors' service to clubs and institutions began as a charitable affair, and it had been abused, and unless there was some such income limit that contract system would be extended and still further abused. The best thing for the profession and for the public was to stick together and so render the Act inoperative.

Dr. EDDISON (Leeds), Representative of the Yorkshire Branch on the Council of the British Medical Association, said that in spite of the fact that from all over the country word had come to the Association asking them to say that the doctors would not undertake attendance or treatment under this scheme, the Secretary of the Association had been recommended by the Council to accept office upon the Insurance Commission, and he had done so. If he had wished to accept the post he should have been allowed to take it, but that the Council should have recommended his appointment to the position was an amazing attitude for them to take up in view of the way that doctors were being treated. Unfortunately he (the speaker) was prevented by illness from being present at that meeting. The argument seemed to be that when their late Secretary became a servant of Mr. Lloyd George he would play his part on behalf of the doctors, and would not be an advocate for the other side. But it was a great insult to a man to suggest that when he accepted a salaried post upon the Commission he should continue to be an advocate of the claims of the medical profession. He could not be their advocate. He had got to do the work he undertook to do. He did not believe that the public understood in the least what this horrible scheme meant. The public were under the impression that they would be able to have any doctor they liked. But unless the doctor went on the panel there could be no free choice of doctors. How many of the doctors there would be available? He hoped that not one of them would go upon the panel. (Applause.) Again, when the great employers of labour had to spend thousands, as they would have to do under the scheme, how could they be expected to help as they had done in the upkeep of the great hospitals? And when the working man had paid his insurance contributions, how could he be expected to put his hand in his pocket again and contribute thousands towards the infirmaries? A great catastrophe had fallen upon the country. Although the doctors might have representatives on the Insurance Commission or on the Insurance Committees, those representatives would be altogether in the minority, and would be unable to safeguard the doctors' interests. The right thing for them to do was to have nothing whatever to do with the scheme.

Dr. MONTAGUE (Chairman of the North Notts Division of the Association) declared that if they stood shoulder to shoulder and refused to go on the panel they could win.

Dr. COURT (Staveley) declared that the methods of the Council of the British Medical Association had been those of a "Circumlocution Office." Instead of long-winded statements and bargaining, they ought to have firmly made their demands to the Chancellor of the Exchequer, and told him that unless he gave them the favourable terms asked for they would have nothing to do with the Act. Mr. Lloyd George was relying upon the blacklegs of the profession to carry out his scheme. ("Shame!") The doctors must not give up their resistance until their just claims had been satisfied.

Dr. BEALE (Retford) said that the doctors were told that they must make their arrangements with the local Insurance Committees and certain persons appointed by the local authorities. The doctor might bargain with these people, but he was likely to get very little satisfaction from them. So much money was allowed under the Act, and if any more was wanted it must come out of the rates. And they might be quite sure that the local authorities would not add more to the rates just to benefit the medical men.

Mr. R. J. PYE-SMITH moved that the words:

"Whether the administrative or executive" should be inserted after the word "duties" in the resolution.

This was agreed to.

Dr. DAWES moved an amendment, substituting for the doctors' declared refusal to form a panel a refusal "to enter into arrangements for the treatment of insured persons on terms inconsistent with the declared policy of the British Medical Association." There were, he said, two opposing opinions—one supported the British Medical Association in the action taken by the Council on the instructions of the Divisions of that Association, and the other declared an entirely new policy. He maintained that the implied censure of the Association was a new policy.

The CHAIRMAN reminded the speaker that it was not a meeting of British Medical Association members, but of doctors, and the amendment merely aimed at the continuance of the policy hitherto declared by the British Medical Association.

Dr. TELLES, in seconding the amendment, could not think the 200 delegates were all the tools of Mr. Lloyd George, but had acted in the knowledge of the full facts placed before them. He pointed out that the meeting had been called to support the action of the British Medical Association, and if discussion on those lines was not permitted, the meeting had been called under false pretences. The resolution was certainly not supporting the British Medical Association. The time had gone by for deliberately rejecting any participation in the operation of the Act. They had previously expressed willingness to co-operate with Mr. Lloyd George and the Government, provided their terms could be obtained. The fact that the six cardinal points had not been granted was quite a different thing to saying that they had been denied. He felt sure the resolution would not express the unanimous feeling of doctors in the country, and those who moved the resolution were not friends of the profession.

Dr. SORLEY said that the mover and seconder of the amendment seemed to be out of touch with the necessities of the time. He pointed out how many private patients would be taken from the doctor by the operation of the scheme. When the scheme was in full operation, about 94 per cent. of the population would be receiving medical attention under it. Very few practices in Sheffield would show a 10 per cent. margin of private patients.

Dr. EDDISON appealed to the meeting to sink small differences, and give a solid vote in favour of the resolution.

When the amendment was put to the meeting only five hands were raised in support of it. The resolution was then put, and carried with great enthusiasm.

BRISTOL.

A MEETING was held in Bristol on Saturday, December 30th, 1911. On the invitation of Mr. C. W. C. Herepath, the practitioners residing in the adjoining districts of Cotham and Redland assembled at his house at 9 p.m. The object of the meeting, which was to ensure the absolute solidarity of this section of the profession, was most successfully attained, no fewer than twenty being present. Mr. HEREPATH, having been voted into the chair, briefly explained the object for which the meeting had been summoned. Letters from those unable to attend were read, from which it appeared that, although the invitations (about thirty in number) were issued only on December 28th, answers were received from every practitioner but one, and they were practically all most sympathetic in tone. After a desultory conversation as to the advisability or otherwise of accepting administrative positions under the National Insurance Bill, Dr. BRASHER proposed and Dr. COLLINSON seconded the resolution of the evening. After full discussion as to its meaning and terms, the resolution was unanimously passed and subsequently signed by all present:

We, the undersigned practitioners of Cotham and Redland, collectively and individually pledge our word of honour not to accept any club or other contract appointment, nor any patient directly or indirectly connected therewith that may

be lost or resigned by any of us through loyalty to the principles or policy of the British Medical Association.

It was pointed out that if every local section of the profession were to meet in all parts of the kingdom, and pledge themselves to mutual loyalty by such a bond, complete and invincible union would be assured; and that a pledge thus personally given in a small community would be particularly binding. Further, that the great advantage would be obtained of knowing accurately the number and the names of the enemies within the ranks, if any practitioner should be so shortsighted as to prefer apparent gain for the moment to the real interests of the whole profession and therefore of himself. To render the agreement locally complete, it was decided to invite the signatures of those unavoidably absent from this meeting, and this has been done by volunteers amongst those present. A third resolution proposed by Dr. Carling and seconded by Mr. Herapath was also passed:

That this meeting of medical men residing in Cotham and Redland decline to have anything to do with the Insurance Act as at present constituted.

This, like the others, was passed unanimously.

MONTGOMERYSHIRE.

At a meeting of the medical men practising in Montgomeryshire, held at the Free Library, Newtown, on Friday, January 5th, it was unanimously agreed to form themselves into a medical union, to be called the Montgomeryshire Medical Union. The following resolution was passed:

The members of the Montgomeryshire Medical Union consider that the Insurance Act as it stands is not satisfactory either to the medical profession or the public, and that until the six cardinal points of the British Medical Association have been definitely conceded, including adequate remuneration, they decline to serve on any panel of medical men for the county.

COLWYN BAY AND DISTRICT.

On December 22nd, 1911, a meeting of the medical practitioners of Colwyn Bay and district was called by Dr. Price Morris and Dr. Lord, to discuss the attitude of the profession towards the National Insurance Bill. The meeting was held at Dr. Webster's house, and was attended by all the practitioners of the neighbourhood, except three who had previously signified their entire sympathy with the resolutions to be proposed.

The following resolution was proposed by Dr. Price Morris, seconded by Dr. Lord, and carried unanimously:

That the *Practitioner* journal pledge not to accept service under the National Insurance Bill be signed by all the local practitioners.

This pledge has been signed by all the local practitioners.

The second resolution was proposed by Dr. Lord, seconded by Dr. Nuttall, and also carried unanimously:

That all the local practitioners should join the newly formed National Medical Union.

All the practitioners but one, who wished to know more about its method of procedure, have joined.

The following resolution was proposed by Dr. Nuttall and seconded by Dr. Reginald Jones:

That this meeting of the medical practitioners of Colwyn Bay and district hereby passes a vote of censure on the Council of the British Medical Association for their mismanagement of the negotiations with regard to the Insurance Bill, and calls upon the Council to resign forthwith, and also considers that a Special Representative Meeting of the Association should be summoned immediately.

After a very free discussion this resolution was carried unanimously.

After the resolutions had been disposed of there was an animated discussion on the injustice which the bill proposes to inflict on the profession. One speaker showed that a workman's weekly shave, costing 1½d., would pay the barber more than the medical attendant would be paid for all his attendance.

Another showed that, taking the figures of many years' club practice, the average payment per attendance came to about 7d., and, excluding the cost of horses or a car (£200 a year), the payment under the bill would be 1s. 1½d. per hour! It was also shown that there was no sign that provision would be made for mileage, night visits, operations, fractures, dressings, certificates (lunacy, for example), the supplying of emergency drugs and anaesthetics, the treatment of venereal diseases, and consultation work.

ROSS AND CROMARTY.

At a meeting of the medical practitioners of Ross and Cromarty, held in Dingwall on January 5th, it was unanimously resolved:

That the medical practitioners of the county of Ross and Cromarty are only prepared to work under the National Insurance Act if the six cardinal points framed by the British Medical Association are conceded.

CONFERENCES WITH THE ENGLISH COMMISSION.

Friendly and Benefit Societies.

The following official statement was issued by Mr. Brook, Secretary to the Insurance Commissioners, with reference to the meeting held on January 4th under the presidency of Sir Robert Morant (Chairman):

This afternoon the Insurance Commissioners for England had a conference at the Foreign Office with some officials and prominent members of friendly and benefit societies, to discuss some questions with regard to the bringing of the Act into operation. The conference was called for the purpose of eliciting the opinion of the societies so represented, who will be concerned in the administration of the Act.

It is hoped that similar conferences will be held with some representatives of trade unions, with the collecting societies, and companies connected with industrial insurance, and with others.

Several points of importance were put before the Commissioners, but the discussion was of a purely general character.

The Press Association states that Sir Robert Morant, in opening the proceedings, referred to the Insurance Act as a joint adventure between the societies and the Commissioners, and disclaimed any idea of making the insurance office a Government department, to impose its will upon the people. It was necessary to try and arrange that the different views of the different kinds of societies were considered without fear and without favour. The points upon which he invited opinions are stated to have been:

(*a*) The education of the mass of the population by distributing leaflets.

(*b*) The holding of public meetings at which a speaker appointed by the Commission could attend to expound the Act.

(*c*) The constitution of the first Insurance Committees, so far as the representatives of insured persons are concerned.

It is reported that the views expressed were diverse, but there was a general agreement upon the following points:

1. That the leaflets, if issued, should be of a varied character, so as to meet the case of different classes of insured persons, and should be distributed through the post offices, and that posters containing simple directions to persons to be insured should be distributed to employers for distribution in offices and works.

2. That in preference to meetings an inquiry office should be opened in provincial towns, where authoritative information could be obtained as to procedure.

3. That the members of the first, or provisional, insurance committees in the different county areas should be nominated and elected by societies which had, by a date to be fixed, become approved.

A conference was held on Wednesday with some of those connected with trade unions and friendly societies which have women members, and also with some of those interested in women's societies whose members will be affected by the Act.

Collecting Societies and Industrial Insurance Companies.

On January 5th a similar conference was held with some of the officials of the principal collecting societies and companies engaged in industrial insurance.

Offices.

The temporary offices of the Insurance Commissioners for England are at 55, Parliament Street, Whitehall, S.W., but it is announced that the Wellington House Hotel at the corner of York Street and Buckingham Gate, S.W., erected three years ago, and containing some 200 rooms, has been acquired for the purposes of the central offices of the Insurance Commissioners, and will be taken into use as soon as the alterations necessary to adapt it to its new purpose are complete.

CORRESPONDENCE.

"THE TETRARCHY."

DR. E. LLOYD OWEN (Criccieth) writes: It seems to me to be an excellent principle and sound policy on the part of the British Medical Association to arrange for a Medical Committee to become established the moment a new lay organization likely to affect the profession springs into existence (or even to anticipate the same), and that such a Medical Committee should exactly coincide in the area of its operations with the newly-formed lay body. The same principle would, of course, hold good with reference to any such lay organizations which have been in existence some time, but which have hitherto gone their way without the presence of a special medical body to keep an eye on their operations.

We have recent examples of this policy in the amendments to the National Insurance Bill which have become part of the Act, namely, the provision for county Medical Committees to correspond with the coming local or county Insurance Committees, and for district Medical Committees to be coincident with the district or auxiliary Insurance Committees.

In last week's issue of the BRITISH MEDICAL JOURNAL, under the interesting heading of "The Tetrarchy," you, Sir, reiterated the principle in question by advocating that there should be a central or joint Medical Committee to correspond with the Joint Committee of Commissioners (which latter will be presided over in the first instance by Mr. Masterman, M.P.). In this matter you seem to have slightly misinterpreted, yet improved upon, Dr. Oldham (of Morecambe), for the latter's suggestion was for a central Medical Committee to be appointed "for the purpose of dealing direct with the Insurance Commissioners." It does not seem clear whether Dr. Oldham intended the proposed central Medical Committee to deal with the Joint Committee of Commissioners or with the English Commission or with the four Commissions separately, or with all these groups.

For dealing with the four Commissions separately there should, in my opinion, be a separate medical committee for each nationality. There is already an Irish Committee of the Association, but, of course, the medical benefits under the existing Act do not extend to Ireland. From an account of the proceedings of the Edinburgh Branch in last week's BRITISH MEDICAL JOURNAL one is reminded that there is not only a Scottish Committee of the Association but that a Scottish National Medical Committee has been newly formed, with which it is expected the former Committee will co-operate.

This leads me to call attention to the immediate necessity of appointing separate English and Welsh Committees of the British Medical Association (or English and Welsh National Medical Committees) "for the purpose of dealing direct" with the English and Welsh Commissioners respectively.

I do not see that both National Medical Committees and committees of the British Medical Association are necessary for England and Wales, as would appear to be the case for Scotland, unless, indeed, the former be in the nature of a subcommittee to the latter.

Such a Welsh Committee would be a much-needed bond of union between the North Wales, the Mid Wales (and Shropshire), and the South Wales (including Monmouthshire) Branches of the Association. In addition to the new Welsh Insurance Commission, another factor that loudly calls for such a Welsh Medical Committee is the Welsh National Memorial with its proposed tuberculosis dispensaries. The relation of general practitioners to the latter is an important item on the agenda of certain Divisions in Wales this week.

Reverting to Dr. Oldham's letter, he suggests that the Central Medical Committee should be elected by the pending Special Representative Meeting from among themselves. In this I fully concur. I would only stipulate that the Representatives from the four nationalities should first of all separately choose a certain number from among themselves (and from their compatriots on the Council perhaps) to constitute Irish, Scottish, English, and Welsh National Committees respectively, in order to cope with the four National Insurance Commissions.

This may not be necessary in the case of Ireland and Scotland, as they already have National Committees.

The four National Committees having thus been formed, the Representative Meeting at the same sitting could proceed to appoint a Central or Joint Medical Committee from among the four newly-formed National Committees, with the addition of two or three other members if necessary.

This would be in accordance with the policy of the Association, and would be analogous to the formation of the Joint Committee of Commissioners mainly from the four national bodies of Commissioners.

As regards the payment of doctors under the Act, I have always advocated the incorporation of a *minimum* (not an optimum) or a retaining capitation fee in the Act itself. I am reported to have said at a meeting of the North Wales Branch in July that Dr. Lauriston Shaw was in my opinion too prone to depend on the optional and permissive clauses of the bill, whereas I would prefer them to be compulsory and statutory; also that Dr. Larkin had spoken of circumventing the friendly societies, whereas I would prefer a frontal attack. I held that the minimum fee should not be less than 8s. 6d. if ordinary drugs and ordinary dressings were included, and not less than 6s. 6d. if such drugs and dressings were not so included. I further argued that provision for extra fees should be incorporated in the Act, for example, for mileage, hazardous occupations, operations and the services of specialists, surgical apparatus and drugs like antitoxin, and possibly also for night and Sunday calls.

Mr. Lloyd George had left a margin in his scheme of 2s. 6d. a head for additional benefits, and I was hoping the profession could have captured that. Even now, perhaps, it is not too late to get such terms adopted by the Insurance Commissioners and inserted in their Regulations, for provision is made in the Act for subsidies from county councils and the Treasury in the case of a deficit in the funds of the local Insurance Committee. Besides, it is perhaps not an impossible thing for the Chancellor of the Exchequer by a stroke of his pen to include in his Annual Estimates a special grant-in-aid, as he has already promised to do towards the treatment of school children.

Sooner the better, therefore, that National Medical Committees and a Central or Joint Medical Committee are appointed to cope with the four National Commissions and with the Joint Committee of the Commissioners respectively.

GENERAL POLICY OF THE ASSOCIATION.

Dr. DE COVERLY VEALE (Mumbles) writes: Much ink has been spilt, many opinions expressed, and innumerable resolutions voted upon lately in relation to this much abused Act of Parliament. I am not going, at present, to defend the Act, but it is good in parts.

I fear political bias has been let loose; but what have party politics to do with us as a profession? If we are to split over party politics we had better never have touched the subject. A medical man is better without politics away from his own fireside; moreover the profession contains men of all parties. I plead for the banishment of such a source of discord.

If we stand together we are safe to win, if we divide we must fall. If we fall, let it be remembered that the banner of revolt was raised at Manchester. To such are we fallen that we are being used by party newspapers for party purposes! Let us rise from the mud and make ourselves presentable.

I wish to avoid being personal, but I do not think that Sir James Barr has consulted either the good of the profession or the dignity of the office of President-elect of the Association. I am not going to criticize his letter, though there is much to be said on the other side, but I wish to call attention to one or two things.

The Act does not contain all our six conditions of service, but we can get them all by union and support of the Association. Had the £2 limit been put in the Act, some would have asked why it was not 30s. Had a capitation of 10s. 6d. been inserted, some would have complained because we were not being paid according to work done. Both are questions upon which the profession disagrees within itself. Works and colliery doctors complain because the Act takes no cognizance of women and children, and say, with much truth, that they will never be able to get bills paid for attendance on families.

To obtain our conditions we must be willing to help to

draw up the regulations under the Act and to enter into negotiations for service—that is, we must serve on the Commissions and local Insurance Committees, as well as form Medical Committees. We are not asked to form panels until there is actual medical work to do, and we are all agreed, I hope, that panels will not be formed until we have obtained our reasonable demands.

As to the question of money, all I have to say is that it must be found by the powers that be if our services are wanted; the six shillings is absurd, and the whole of it would cover neither the doctor nor the chemist.

If in the end we fail, let us at once start a national service; I believe the Association already has one outlined. In any case we ought to do something of the sort in all those places where the women and children have hitherto been included in the contract rates. Do not let us forget that we must have the goodwill of the laity, rich and poor, or we shall fall to the ground and be trampled upon. We must be united and support each other; the stragglers always fall, and a scattered force is but a fraction of a force scarce so strong as its strongest fragment. Again, as citizens we have a duty, and if the Act can be made workable it is our place to do our utmost, compatible with self-respect, to make it so. We must act as men in the highest sense, not like spoilt children.

Dr. P. NAPIER JONES (Crowthorne) writes: There are three policies with regard to the National Insurance Act, all involving refusal to form a panel, between which the Association must choose:

(*a*) The policy of unconditional refusal to undertake either medical or administrative duties under an Act which does not fulfil our minimum requirements, accompanied, or not, by a sick insurance scheme of our own, and the resignation of all club and contract appointments. *The wrecking policy.*

(*b*) Refusal to form a panel until the Act is amended, and the promotion of an Amending Act next session. The policy, as I infer, of St. Pancras, Bath, Lowestoft, and North Middlesex.

(*c*) Refusal to form a panel unless the regulations of the Insurance Commission and the arrangements made between the local Medical and local Insurance Committees prove satisfactory throughout the whole country. *The Association's present policy.*

Any one who has tried, by analysing the speeches made, the resolutions passed, and the voting at medical meetings during the past month, to gauge the opinion of the profession on these points, will have found his labour futile, because the distinction between these three policies has not been clear in the minds of all, as shown by the indefinite wording of some of the resolutions passed and the speeches delivered. For instance, all who were allowed to speak at the London meeting on December 19th, appeared to be in favour of "*a*" and triumphantly passed "*c*."

Every one who was present at the Special Representative Meeting in November must have regretted the waste of energy, time, temper, and money on that occasion, and now we are confronted by its wholly inconclusive result. This waste (faulty compression) and failure were due, in the first place, to a system which produced a monstrous pile of overlapping and ill-worded resolutions overwhelming the Executive and making Representatives captious, and in the second place to the futility of that amazing document, D 11, "Report of Council," which endeavoured to guide the opinion of Divisions without even hinting at the essential factor—namely, that in the Council's judgement the Association was not strong enough to pursue a wrecking policy.

The position is this: The Executive Council cannot act except on the resolutions of the Representative Body, and having collected certain information, thinks it indiscreet, "for obvious reasons," to impart it to the Divisions, which instruct Representatives. Our discreet Council on that occasion (Special Representative Meeting, November 23rd, 1911) succeeded in frightening the Representative Body into acquiescence, but never gave it even the bare figures, let alone the means of checking them. And now at a Divisional meeting a secretary can only quote the figures for his own Division, and the meeting is led to estimate the figures for the whole country by them alone.

We want three alternative proposals, embodying the three policies *a*, *b*, and *c* in uncontrovertible terms. These and *all* the information available at the central office should be sent to secretaries of Divisions to be debated at meetings, discussed in private, and canvassed by every one. And finally a *postal vote* should be taken of all practitioners through the secretaries of Divisions.

This would be cheaper and not less expeditious than another Special Representative Meeting, and, what is beginning to be really rather important, bring about a final conclusion of the matter.

Dr. GEORGE B. BATTEN (Chairman, Norwood Division, British Medical Association) writes: Surely the time has come for us to cease wrangling about past events, and to consolidate and prepare ourselves for the present and future campaign for our rights. Do not let us be led astray or exploited by newspapers and others for political purposes. It seems to me to be fairly certain that we cannot "smash the bill," which is now passed into law.

During 1912 four alternatives are possible:

1. That the present Government may be defeated over Home Rule. If this should happen, then the Unionists would probably defer the incidence of the Insurance Bill and give time for its proper amendment. I do not think they would repeal it. Should this, however, not happen, and the vast majority of the medical profession refuse to work it in any way, then the Government would have two alternatives.

2. To bribe 5,000 medical men, British or otherwise, to be "whole-timers" at £900 a year with a pension. Each of these men would have to attend an average of not less than 50 patients daily, or about 30 each day in summer and 70 in winter. This service would be very unpopular, and not conducive to the proper care of the sick poor.

3. The Government would more probably simply extend the provisions of the Addison amendment, and give the money provided for medical benefits to the insured, and let each one of them make their own arrangements for medical attendance. I believe this would affect us very disastrously, for the insured would join clubs and friendly societies in greater numbers than in the past, and these would deal separately with medical men, and continue to sweat them as before. Also the wage limit of even £2 would automatically disappear, to our great detriment. If we now decline to work the bill in any way, how can we prevent the Government from using this last alternative?

What, then, are we to do?

4. Let us use our common sense! Continue the policy of the British Medical Association, which, considering the above alternatives, seems to be the only sane policy; take advantage of the points we have already secured, and use the power of collective bargaining to obtain all the others. Let the Council, old or new, the Divisions and their Representatives, *at once* formulate our demands as to the wage limit, and amount and method of remuneration, and if we can at the same time prove the reasonableness and accuracy of our demands, I believe we shall get them. We need only be united throughout the country and we must get them! I suggest a wage limit of £2 a week for the London district, the same or less for country and other districts, and 8s. 6d. per capita per annum universally throughout Great Britain. To be consistent we should at once refuse to take any club or friendly society work at a less capitation fee. In my immediate neighbourhood we have agreed to do this. Finally, I repeat, do not let us allow the Government deride and overcome us while we indulge in wild-cat quixotic dreams of smashing the bill, but pay our guarantee and fight our battle as sane business men.

Dr. HUBERT C. BRISTOWE (Wrington) writes: The remarks of Dr. H. Beale Collins are either the result of ignorance, an insult to the medical profession, or if it be as I am inclined to believe, an attempted witticism, it is ill-timed, and comes badly from a medical officer of health. "He jests at scars who never felt a wound." He would do well to remember that the whole of the medical part of the Insurance Act is vicarious charity at the expense of the medical profession. It is regrettable that the Council should have failed in their negotiations with the Chancellor, but he never intended them to succeed, and their voting power, or, rather, our voting power, in the country was not enough to force him. The Council have been outmanœuvred in the first battle; they will be outmanœuvred in the second unless they entrench themselves in the

trenches of a strong trade union. That is indeed our only hope, and if they will put their whole strength into that instead of wasting time over useless conferences, we are bound to win our points, or make the Act a dead letter, in spite of a threatened "Foreign Invasion of Doctors."

Dr. ARTHUR E. LARKING (Buckingham) writes: The medical profession has quite made up its mind that it will not work the Insurance Act as it now stands. We have decided that no local Insurance Committees shall rule over us, and that the whips we have borne in the past from the friendly societies shall not be replaced by the scorpions of these Committees. We must at all cost retain our independence and insist that medical attendance shall be controlled by the only body that understands it—the medical profession. We will submit to no lay control or interference. This is our affair.

The Government is to supply the sum of four and a half millions of pounds, quite an inadequate sum—can we not draw up a scheme of our own so that this may be a contribution towards the total cost of medical attendance, the balance to be made up in some other way?

The information obtained by the Council in answer to their circular to the Divisions concerning the formation of a public medical service should now be of much use. The opinions there expressed give a clear indication that the time is ripe for such a service to be started under the auspices and control of the profession.

Let us direct all our energies to putting before the public an alternative scheme to that of the Insurance Act. let us show at once that we can provide what is wanted in a fair and equitable manner without running the danger of ruining many of our confrères. We need a constructive policy. If we refuse to work under the Insurance Act it is our duty to prove that we are willing to carry out its principles, but in a better way,

Dr. G. C. GARRATT (Chichester) writes: I earnestly hope that the profession will recognize, what should have been foreseen from the first, that we must fight for ourselves on our own ground and not by deputy elsewhere. If we would now and for the future gain the respect of Parliament and of the public, we should win by our own united effort and be not beholden to politicians, or even to our Council, for our just due. In our Association we possess an organization such as is presented by no combination that is against us; let us stand by it, by our leaders, and by one another. We are offered, in the aggregate, a large sum of money to do what, for the most part, we are doing already without such assistance; if we undertake more than the full equivalent of work for the price we shall have no one but ourselves to blame. The smaller the sum the lower must be the wage limit and the less the contract service from us. Unasked, it is not our business to name the price; that is a question of imperial finance quite outside our province. It is, however, our exclusive right and duty to declare what we can conscientiously undertake for the money, and to leave to the other party the onus of accepting or rejecting our reasonable and considered offer. This offer should be formulated by our local Medical Committees, after fullest consultation with all local practitioners, with neighbouring committees, and with our Central officers, should be stated through our representatives on the Health Committees and rigidly adhered to. A bond, properly attested, binding each under substantial penalty to be loyal to these terms would be desirable. To me it seems that we have now a unique opportunity to unite and, with public opinion behind us, determine such a limit of wage as shall restrict contract service to those who really need such help, to shake off the control of societies that too long have traded on our disunion, and to take at length the place that should be ours. Let us quit wrangling and futile speculation as to what might have been and combine. Thus shall we gain prestige and a position before the public, a discipline and brotherhood amongst ourselves of incomparable value to our present purpose and of happiest omen for the years that are to come.

Dr. J. STUART ROSS (Edinburgh) writes: The profession has been passing through a bad time, but there are not wanting signs of better things to come. In the first place, we have the welcome news in our JOURNAL of the preparations now in hand for another Representative Meeting. We have all learnt some useful lessons from the past, and the next meeting will speak with the true voice of the profession. If it do not, we shall certainly have no one to blame but ourselves.

Another cup of comfort has been handed to us by Sir Clifford Allbutt in his magnificent letter to the *Times*. For long we have all been feeling in our hearts what is said by Sir Clifford, but it remained for our greatest master of English prose plainly to set forth how utterly impossible it is that the profession of medicine can be allowed to fall before the attack now being made upon it. It is unthinkable that a learned body of gentlemen, who have within the last decade made such vast strides in an upward direction, can be content to hand themselves over bound hand and foot into the hands of those who, be they leaders of friendly societies or Ministers of State, are inspired by the ideas of the Victorian era, and who think more of obtaining a mastery over men whose ideals they are incapable of appreciating, than of securing the health of the public. If anyone doubt that this spirit does animate the leaders of the friendly societies, let him read the *Foresters' Miscellany* for December, a cutting from which I enclose.

We should hardly expect much cheer from the columns of the *Daily News*, but that journal has just published the first of a series of articles upon the effect of the Act upon the profession, which seems to me of a highly encouraging nature. The writer, who is said to be a medical man well qualified to express an opinion, but who, of course, prefers to remain anonymous, begins by admitting that if the Act is to work at all, it must secure the hearty support of the reliable local practitioner, for whose conversion the articles are avowedly written. Evidently even the *Daily News* realizes the hopeless character of the whole-time brigade, with whom in his rasher moments the Chancellor threatens us. Moreover, in order that he may make out any sort of a case for the Act, the writer has to start by palpably misrepresenting the work of others. Certain gentlemen have been writing to the *Times*, and calculating what remuneration it will be possible to obtain for each thousand insured persons taken on to the list, and what amount of work will require to be done in order to earn this sum. I need not enter into details, but will content myself by saying that a doctor will have to be a perfect Hercules in strength and energy to obtain a mere pittance. In summing up this correspondence in a leading article, the *Times* made the small slip of speaking of patients, instead of insured persons. The *Daily News* writer quotes the sentence in which this obvious slip occurs, and represents to his readers that the whole correspondence in the *Times* is founded upon the same error. I venture to think that a trick so obvious and so easily refuted, is a sign of anything but strength in our opponents. And when I add that even the *Daily News* does not suggest as at all probable, that the doctor will get more than 4s. 6d. a head on the average taken all over the country, I fancy I shall have afforded not only encouragement for those who want to fight the Act, but food for thought for those who think we ought to accept the Act in principle. This gentleman's reading of the Act is most interesting, for he says that there is 4s. 6d. a head for each insured person, but that in districts where there are long journeys to go, more will be required, while a correspondingly smaller amount will be available for the towns. If this be a correct reading of the Act, no wonder the Government is in favour of local negotiations. Each group of doctors would be pulling against another—truly a sight for men and gods.

Lastly, Sir, we have the correspondence in the *Times*, and republished by you, which deals with the incidents in the House which led to the withdrawal of Sir Philip Magnus's amendment. Upon certain aspects of that correspondence no final verdict is yet possible, and for the present we might well limit our attention to the letter of Sir Henry Craik. From that it is clear that Parliament is by no means so blind to the true interests of the public, nor so misled by the specious reasoning of the friendly society leaders as we were given to suppose; and if that be not encouraging to us, then are we pessimists indeed.

Our Representatives must reformulate and elaborate our just claims, and lay them before the only body which has the power to grant them to us. That body is the High Court of Parliament, and if it be approached in the lofty

spirit inspired in us by the letter of Sir Clifford Allbutt, and with the united voice which our Association alone can produce, we shall not speak in vain.

From the "Foresters' Miscellany" (December, 1911):

They (the doctors), of course, know their own business best, and are perfectly justified in fighting for such terms as they consider necessary, in the interests of their profession, but we are strongly of opinion that they are over-estimating the strength of their position. The medical profession, like other professions, is overcrowded, and, under ordinary circumstances, there are many young medical men who find it most difficult to obtain a living after considerable sums have been expended on their preparation for practising as doctors. While these circumstances exist, and they surely will continue to exist, it is most difficult to appreciate how the doctors can be able to dictate terms either to the local Insurance Committee, the Insurance Commissioners, or the approved societies. We have had an opportunity of inspecting many hundreds of letters from doctors attached to permanent friendly societies, and it is abundantly clear from these that practically the whole of the gentlemen concerned are satisfied even with the present arrangements; and, further, it is beyond dispute that the thousands of medical men whose practices consist mainly of arrangements with friendly societies will certainly not resign or throw away the major part of their living at the behest of the agitators attached to the British Medical Council.

The leaders may talk and talk about their powerful organization, and may hold out threats of what will happen if they ask the general body of doctors to strike, but they will find if they attempt to bring about such a condition of things that the response will be so small as to give them a rude awakening to the real position.

With doctors who have hitherto acted for friendly societies, the worth of their business as a realizable asset depends to a very great extent on the friendly societies' practices, and is it to be supposed that these thousands of gentlemen would, at the bidding of any council or committee, be content to throw away not only the greater part of their living, but all their opportunities of selling their practices whenever circumstances should render it necessary or desirable for them to do so? It is under all these circumstances, and with the full knowledge of the agitation that is continuing amongst the medical men, that we say unhesitatingly it is but a game of bluff, and that all the talk about boycotting the Bill unless their terms are agreed to is but idle chatter that need not seriously be reckoned with.

A Whole-time Service?

Dr. W. B. Vaile (Aldershot) writes: With regard to the threat of a whole-time medical service to work the Insurance Act, should the profession decline to take the wages of a street scavenger for priceless and never-ending services, I am inclined to think, that like other bogies, it loses its terrors on closer investigation. Someone is certain to trot it out at every meeting of the profession, and then the opinion is always expressed that sufficient blacklegs could never be found to give an efficient service.

Now with this I cordially agree, but let us suppose that a few thousands were tempted.

It is quite obvious that the successful capable man would not dream of treachery such as this, so that the blacklegs would fall into three classes—the very young, the very incapable, and the very drunk. And it seems unlikely that the working classes, already opposed to the whole affair, would be very much soothed when the quality of the medical attendance which they were about to receive was duly explained to them, as of course we should explain it, such a valuable weapon would hardly be allowed to lie idle.

Suppose, however, that this difficulty was overcome, and that the insured were willing to put up with what was offered to them. The distribution of the blacklegs would be an enormous difficulty. It might be possible to supply some of the big towns, or all of them, but what of the village practice? Take the case of a village just large enough to support one doctor, perhaps two. The amount of insurance work to be done would not be nearly large enough to be worth sending down a whole-time blackleg. The nearest may be nine or ten miles off. How are the insured in that village to get anything like decent attendance, unless from their own doctor, who is pledged not to do insurance work. This is no fancy picture; there are many, many such places, and in some areas of thin population whole districts would be in such a position. Now of two things, one: Either proper attendance must be given to these people, or else they cannot be taxed—unless an uproar among the people is desired. The finance of the scheme is upset at once.

A whole-time service would at best produce a very unsatisfactory and very partial attendance. The whole scheme must fail under such circumstances. I believe that neither the Chancellor nor his colleagues would dare to risk such a complete failure—that they realize that unless the vast majority of the profession can be conciliated the Act is foredoomed to failure, and that we are in a position to make our own terms. And even supposing that such a service were duly established and worked perfectly, we are still in a position that is far from desperate.

A refusal to do any charitable work of any kind until the blackleg was withdrawn could have but one result! We are a free profession, in a free country, and are not to be dragooned by any politician that ever drew breath.

Let us perfect our local unity and we have nothing to fear. It may be worth mentioning that in this district, and for at least twenty miles round, we are absolutely solid for resistance to the utmost.

Dr. A. T. Brand (Driffield, Past President of the East York and North Lincoln Branch) writes: I desire, in the following notes, to draw attention to what we, as general practitioners, are confronted with, and to the means by which we can be delivered from it.

The Act consists of two distinct parts: (1) Insurance against loss of income from accident, illness, or unemployment. (2) Free medical attendance, etc.

With the first part we, as medical practitioners, have no special concern. With the second part of the Act, unfortunately, we are directly and specifically concerned. The Chancellor of the Exchequer, not only without consulting the medical profession, but in spite of its repeated remonstrances, has persisted in promoting a bill which is now an Act of Parliament, coolly offering our services to all and sundry whose incomes do not exceed £160 per annum, and dictating to us terms unworthy of serious consideration, on the probable assumption that, because we have hitherto done contract work in the past, we desire more, and also that we are powerless to refuse it.

The medical service demanded of us involves our undertaking an immense amount of contract work. Now, work done by contract is of two kinds: (*a*) Where the work to be done is exactly defined; (*b*) where the work to be done is not limited, and cannot be defined.

In the first case it is usual to have specifications upon which estimates can be made, which should cover all apparent outlay, and leave a greater or less margin of profit. Such contracts are entirely free and fair.

We, however, as medical men, are offered contracts of the second class, which we are expected to accept, not only without demur, but even with eagerness. Indeed, as a matter of fact, we are being treated practically as having no right to a voice in the matter. The work is unspecified, but the remuneration is kept within definite limits, and such contract work is manifestly one-sided and unfair. Contract work has indeed been undertaken hitherto by medical men, but always unwillingly. The profession is already groaning under the yoke of sweated contract practice, and this Act threatens to intensify the bondage tenfold. If entered upon now, this bondage will become permanent.

In club practice, objectionable as such is, the members of the friendly society are all picked lives, passed by ourselves as fit, and general sickness is rare. Under the Insurance Act, on the other hand, no lives will be rejected, however unfit, and much sickness, and chronic sickness, must be expected. The respectable club member naturally desires to return to work as soon as possible, and does so; but, under the Insurance Act, the lazy and the unemployed will have no inducement to dispense with medical attendance quickly; indeed, malingering will be directly encouraged.

Again, as the direct result of the enormously increased amount of contract work forced upon us at a hopelessly unremunerative fee, we are certain to suffer the loss of a very large proportion of ordinary paying patients, with the inevitable result, that while our incomes will be very greatly reduced, our work will be more than doubled, and our practices rendered valueless and unsaleable, except at very great sacrifice. This monstrous exploitation of the medical profession amounts to nothing less than the filching of the greater part of our capital. Finally, our condition will be made intolerable by the inconsiderate and humiliating demands of the insured, who will infallibly realize, and promptly take full advantage of, our helpless

ness. It remains to be considered how we are to meet this Act, for we cannot accept it as it stands.

We can hope for no help to reach us from without. It is futile for any assistance—for example, from the late Medical Secretary of the British Medical Association, now a Medical Commissioner under the Act, for it is unreasonable to suppose that the State will pay him £1,500 a year to serve our interests. On the contrary, he will naturally be expected to enforce the Act to the best of his ability, which cannot be otherwise than to our disadvantage. We must rely solely upon our own efforts, and it is entirely in our own power to save the situation, but our action must be united, preferably unanimous.

It would be as degrading as useless for us to bargain as suppliants with Insurance Committees, composed largely, as they will be, of the insured themselves, to receive just and reasonable terms. We must be in the position to dictate terms, not to have to accept what may seem sufficient to these Committees. We have now an opportunity which we can never hope to have again of cutting ourselves free once for all from the bondage of contract work, from which even the concession of the famous six cardinal principles would not free us. It is only fair that we should be properly remunerated for work done.

What, after all, are the six cardinal principles? They constitute the irreducible minimum promulgated by the Representative Meeting of the British Medical Association on the assumption that the bill must become law and that we must, willingly or unwillingly, work under it. But is there any necessity to accept a position under the Act which, though now on the Statute Book, may never come into operation? It rests with us whether it shall do so or not.

The obvious way to prevent untold misery and disaster is for each individual practitioner to decide now to refuse to adopt any half measures, but to declare emphatically that he will accept no position under the Insurance Act until it has been amended by the concession of such terms as will fully satisfy the medical profession.

Having thus decided, we can, by amalgamating ourselves into such a body as the National Medical Union, strengthen our only medical organization, the British Medical Association, whose services in arranging fair terms would be invaluable.

Nor need the individual practitioner shrink from such a decision from dread of his neighbour or the blackleg. This is no local crisis; it is national, equally affecting each one of us throughout Great Britain. The great majority having revolted, any small minority could not possibly cope with the work, and even if they did try to do so they would be looked at askance by the insured, for even they would have to admit that such a revolt of the profession must be due to some good cause.

I appeal earnestly to the individual units of the profession to take up this attitude of uncompromising opposition to the Insurance Act as at present constituted. Such action would render the whole Act hopelessly inoperative, for, if one part fails, then the other must fail also. This united action on the part of the medical profession would not only relieve ourselves from a degrading and intolerable burden of slavery, but it would also relieve the country at large, and ourselves incidentally, from an annoying imposition; while we should earn from the general public a measure of respect for a profession justly entitled to it, but from whom it has hitherto been withheld—a profession which undoubtedly possesses the unenviable distinction of being regarded as incapable of safeguarding its own interests.

Dr. T. S. WRIGHT (Thaxted, Essex) writes: As Dr. J. H. Keay in his letter last week claims to write merely as a private individual, may I as an ordinary general practitioner be permitted to comment on one of the points in his letter?

He warns us that if we refuse to work under the Act, the Government will probably have no difficulty in finding enough whole-time officers to do the work.

There is one difficulty which appears to have escaped him, one to which I have not yet seen any reference in your pages. A whole-time service is certain to be excessively unpopular among the insured themselves, who will be deprived at once of that free choice of doctor which was promised again and again in the glowing speeches of Mr. Lloyd George, and is definitely presented in the Act itself.

The Government may think lightly enough of its pledges to the profession, but it would hesitate to break a promise made to 15 million electors. Many of the latter already strongly resent the principle of compulsory contribution. Imagine their rage and disappointment when they learn that, instead of being able to choose from a panel of doctors, they are to be forced to go to any outsider whom the Commissioners may bring in to do the work.

Even if the danger of a whole-time service were a real one, surely it would be the duty of the Association to face it boldly and not allow its members to be coerced by the threats of politicians.

The timid counsels of Dr. Keay and his arguments in support of them are not likely to check the growing demand on the part of the rank and file of the Association for a bolder, more vigorous policy.

Dr. JOHNSON SMYTH (Bournemouth W.) writes: I trust there will be no panic nor "infirmity of purpose" because of the threat of a whole-time medical service under the Insurance Act. There is no likelihood of the representatives of the working classes in the House of Commons tolerating for a moment such a crass form of legislative tyranny. A whole-time medical service involves the abandonment of the panel scheme, under which in a given locality the female worker—conscious of some infirmity special to her sex—is denied the right to choose as her medical attendant a doctor well known as one especially competent to deal with her trouble; men conscious of venereal disease, chest trouble, rheumatism, etc., would not be free to select a physician with a reputation of special knowledge in their particular ailments. All are to be fettered like gaolbirds to the tender mercies of the local genius. This phase of the question has only to be placed before the House of Commons to ensure the wreck of such a preposterous way of escape.

If, however, under a whole-time medical service the insured are free to select their medical attendant, the general practitioner will have a better chance of earning a livelihood by pursuing his calling outside the scheme than if he were to aid in its operation under the notoriously impossible conditions now placed before the profession. In view of the present tied club doctor's difficulty in securing the services of a consultant, it is useless to labour the point that his difficulty will be but as a cipher compared with that of the tied whole-time man—who will always be regarded as a professional Ishmaelite!

IF PANELS ARE NOT FORMED?

Dr. F. E. H. DAUNT (London) writes: To my mind, by far the most important letter in your issue of January 6th is that from Dr. J. H. Taylor of Salford, dealing with the question, If panels are *not* formed? The reply he gives is a serious one, and goes very far to justify the action of the Council in recommending Mr. Whitaker's acceptance of the post offered him—assuming, of course that Dr. Taylor is correct in the inference he draws from the text of the Act. I feel sure the profession will be very interested in the replies to Dr. Taylor's letter.

A SCHEME FOR WORKING OF THE INSURANCE ACT.

Dr. W. HESKETH EVANS (Cardiff) writes: I purpose outlining a scheme which I think would, if given a trial, give general satisfaction and, in addition, would, I think, have a tendency to unite all ranks of the profession, particularly those who would be engaged in insurance work or who have working-class practices. In addition, the results attained in working this scheme would, I venture to think, meet with the approbation of the insured as well.

There are medical men who are engaged in contract work, and prefer it; there are others engaged in purely private work, and prefer it. These two classes of medical men I would divide into *four* classes as follows:

1. Men who prefer contract work and would like to dispense their own medicines.
2. Men who prefer contract work and who do not care to dispense their own medicines.
3. Men who prefer to be paid according to work done and who prefer to dispense their own medicines.
4. Men who prefer to be paid according to work done, but who do not care to dispense medicines.

I would suggest in the first place that a small committee be formed in each area of members in that area, and that the first duty of this committee be to ascertain by circular or otherwise the class in which each individual member would prefer to work, if he cared to work at all under the bill. The next step would be to call a meeting of each class separately in order to ascertain their views as to the fee or fees they would accept. The next step would then be to call a joint meeting of the whole of the four classes, so that each might hear of the conclusions as regards fees, etc., the others had arrived at and draw up a final working scheme. The members of each area would now be in a position to form a panel with fees and a mode of work agreed upon, so that when the local Insurance Committee approached the Medical Committee with the request for the formation of a panel they could be presented, there and then, with the panels backed up by the united action of each area.

This scheme could very easily be worked with a little organization and would give satisfaction to all concerned, although the cost would be greatly in excess of 6s. per head, but be it understood that it is quite impossible to do the work conscientiously at such a figure as 6s.

In preparing this scheme, so far as we medical men are concerned, I need scarcely say that it would entail some extra expense in each area, and this expense I would ask each member in the area to assist in defraying. There is one point in connexion with this which I should like to emphasize, as it is a very important one, though not apparently so; it is this—namely, to engage a room or rooms locally in which the deliberations of each committee might be carried on, and in no case to accept the charity of the local hospital or medical society in this respect.

A Special Representative Meeting.

Dr. Ernest C. Hadley (Birmingham) writes: During the next few weeks probably most of the Divisions of the British Medical Association will be meeting to instruct their Representatives in the policy which they now wish the Representative Body to adopt in regard to the medical portion of the National Insurance Act.

My excuse for again trespassing upon your columns is that I may plead with my fellow members of the British Medical Association to be businesslike in the framing of their resolutions at these meetings; let them see that they are clear and decisive and admit of no ambiguity, and that they state accurately and fully their policy.

Do not pass resolutions to the effect "that the Council of the Association have your entire confidence and that you are convinced that their policy is in the best interests of the whole profession," as I read that some of the Divisions have done, but remember that you are a part of the Association, and that it is your duty to definitely define your policy and so guide theirs. In defining your policy remember that the six cardinal points have not been conceded; do not be deceived by the unofficial circular letter of December 11th signed by the Chairmen of the Representative Body and of the Council, which states that four of them have been conceded. Not even the principles have been conceded, for all are followed by clauses in the Act which are loopholes and are undoubtedly intended for escape from the alleged concessions. Two have not been conceded at all, and one—certainly the most important from the working doctor's point of view—namely, adequate remuneration, cannot now be conceded; also bear in mind that by this Act medical men will lose yet another branch of the profession—namely, dispensing.

Finally, let me beseech you most emphatically not to allow yourselves to fall into the next trap of the Chancellor—namely, that of allowing yourselves to be split up into local committees and defeated in sections—but insist now, before it is too late, that your Association remain solid and insist upon collective bargaining only, if the farce of bargaining must still be perpetrated, until the six cardinal points are absolutely conceded. Insist rather that the Association cease further negotiations, and confine themselves to organizing the profession to resist the medical portions of the Act, and to constructing deliberately through the machinery of the Divisions a system of medical benefits, etc., which would be acceptable to the profession, and one that would fit in with the needs of the present Act, and then offer it respectfully to the Chancellor.

Dr. H. Oppenheimer (Representative of the Hampstead Division) writes: There must be many members who, like myself, whilst in full sympathy with the aims and objects of the organizations which have recently come into being both within and without the Association, deeply deprecate their formation, being convinced that it is only through the full use of the fighting strength of the British Medical Association that the profession can hope to obtain acceptable conditions under the system of State Insurance. If concentration thus appears imperative, we cannot spare men who, like Dr. Helme, have fought in the midst of a hostile atmosphere both in Birmingham and in London for what now unmistakably have turned out the true views and the genuine wishes of the profession. We all look for the next Representative Meeting, which must now finally shape the tactics to be pursued in the attitude towards the Insurance Bill. And I think it is now time that the Divisions turn from the unprofitable task of nursing past grievances and engage in a serious consideration of the actual steps which they wish the Representative Meeting to recommend. But it is important that the lessons to be learnt from past errors and past disappointments be taken to heart, and I consider it imperative that the following requirements be fulfilled:

1. The report of the Council to the next Representative Meeting ought to be in the hands of the Divisions two or three weeks before the meeting of the Representative Body, in order that it may be considered by *all* the Divisions, and also to allow time for the publication in the Journal of criticisms and suggestions in reference to the same.

2. The report ought to be as full as possible and ought to contain *all* material facts necessary to enable the Divisions to form their opinions. The necessity will not then arise for Representatives, in the light of the superior wisdom and greater knowledge imbibed at the Representative Meeting, to vote contrary to their instructions.

3. The Divisions ought to be careful to send up to the Representative Meeting men who are content to act as delegates. In a cause that fundamentally affects the life-work and the livelihood of their constituents superior persons who know so much better will never do.

4. The Representative Meeting ought to stick to the one vital question, and not to waste its time in recriminations, votes of confidence and of no confidence. Nor will it serve any useful purpose if we again shout from the house-tops that we will not serve unless our cardinal points are conceded. The main questions to be submitted to the Divisions should be on something like the following lines:

(*a*) Shall we attempt to gain our points through the local Committees? To answer this question in the affirmative is, in my opinion, suicidal, and bound to spell disaster. If the answer to (*a*) is No, then—

(*b*) Shall the Association recommend the profession to refuse to have anything to do with the Act until our six cardinal points have been embodied in the regulations of the Commissioners? or

(*c*) Does your Division hold that we should be satisfied with nothing less than statutory recognition of our claims, and ough the Association to recommend the profession to hold aloof unless and until our claims have been recognized in an amending Act?

If the Divisions choose between these alternatives, and definitely instruct their Representatives, a simple vote taken at the Representative Meeting will clearly define the policy of the Association, and will effectively reduce the Council to that function which it now claims to have been its sole function in the past—namely, that of a pure executive.

5. The dissatisfaction with the unsatisfactory results of the negotiations carried on in the past by the Council has been productive of entirely unproved charges of bad faith and of incompetence against the negotiators. The fault I have to find with the negotiators is that they are not themselves vitally interested in the kind of work which has to be carried out under the Act. It is not enough that those who act as spokesmen of the Association should understand and sympathize with the difficulties to be encountered by those who will do the medical work under the Insurance Act; there ought to be one or more among them who not only know where the shoe pinches, but who actually feel the pinch. Having, perhaps, as little to gain and as little to lose by the Act as any man, I strongly feel that my colleagues, whose very existence is at stake, are bound to view with distrust negotiators who, with all the

best intentions, have yet a purely academic and objective interest in the subject. The Representative Body ought, therefore, to select a few men whose main work will be to treat insured persons to co-operate with the subcommittee that negotiates with the authorities.

Dr. Wm. Craig (President of the Fife Branch) writes: With reference to the Chairman, Dr. Maclean's, ruling at the Representative Meeting on November 23rd and 24th last—that a Representative did not require to vote in accordance with the resolution passed by his Branch—I beg to draw attention to the following rule which is given in the *Year Book* of the Association for 1904, and which I find on inquiry is the last issue published. The rule as stated on page 46 reads:

"A Representative must vote on any matter coming before a Representative Meeting in conformity with such resolution, if any, as his constituency may have adopted on the subject during the preceding three months."

Dr. Edwin Smith (London, S.W.) writes: In connexion with recent correspondence in your columns, my attention has been called to By-law 39, sect. 4, of the British Medical Association Regulations, which enacts as follows:

In voting upon any matter upon which a constituency has passed a resolution within the three months immediately preceding such meeting, the Representative or Representatives of that constituency shall be under obligation to vote in accordance with such resolution.

It is obviously important that in future the Representatives have a clear understanding as to their duties in the matter of voting.

Additional Representation of Divisions.

Dr. B. G. Morison (Highbury, N.) writes: There is one of the by-laws included in the new issue (November, 1911) of the Articles and By-laws of the British Medical Association which I think requires very special consideration. It is No. 31, p. 40. It states (1) that each constituency (fifty members according to By-law 30) shall be entitled to elect one representative to the Representative Body, and it adds:

(2) Each constituency in the United Kingdom having not less than 150 members (according to the annual list in force at the time of the election) shall be entitled to elect one additional Representative for each complete number of hundred members in excess of the fifty members.

In other words, a constituency of 150 members is entitled to *two* Representatives, and one of 250 members to *three*. There is every reason to expect that the next Annual Meeting of the Association will be fully occupied with work of an important character in connexion with the national insurance scheme. As far as I am able to judge from the published reports, the Act is likely to become, where it has not already become, to a marked majority of Divisions a dead letter. Some, I am aware, continue to trust in the amending power of regulations to be framed by the Insurance Commissioners, but these will probably before long be driven to the same conclusion as the others. Their trust is obviously vain, for no body of administrators, whatever its nominal powers, is in the least likely so to interfere with the essential provisions of the Act as to make it satisfactory to the medical profession. Let it be remembered that such a body must succeed where the Government has failed, that it has therefore no reserve to fall back on, and that it must amend destructively the essential fabric of the Act itself in respect of medical benefit.

There can be little doubt, therefore, that the profession, and the Association as representing it, will before long be obliged seriously to decide upon its future procedure in view of novel conditions of practice which have been created in opposition to its judgement.

Under the circumstances, it is clearly most advisable that Divisions should be fully represented at the approaching annual meeting. Furthermore, I may be allowed to emphasize the necessity that Representatives should be truly representative, men of proved quality and stability of character, appreciating and in full agreement with the intentions of those whom they represent, capable of handling responsibility on suitable occasion, but incapable, when pledged to a definite course of action, of divergence from that course.

The Representative Meeting of November 23rd.

Dr. Leigh Day (Colchester) writes: Judging from numerous remarks in the recent Supplements of the Journal, I cannot but feel that there is a great deal of misunderstanding in the minds of many as to the last Representative Meeting.

There can be no question that the general opinion of that meeting was that we were not going to act under the bill unless we gained our six cardinal points—in fact, a resolution was carried, I believe unanimously, to this effect.

There can be no question that the majority of Representatives were of opinion that we could not obtain these cardinal points under the bill as it then stood.

Now, the first resolution put to the meeting, after it entered on the Committee stage, was to the effect that negotiations should be broken off *immediately*. Numerous Divisions, which were utterly opposed to the bill, had instructed their Representatives to vote in the terms of the Lancashire and Cheshire resolution. This resolution contained the words, "in its present form," and was opposed to breaking off negotiations until the bill was through the Report stage. As a consequence, the resolution before the meeting was lost. It seems to have been assumed that, because the Representative Meeting was against breaking off negotiations *at that moment*, it gave its mandate to the Council to go on with an attempt to work the bill, supposing it were passed in the form in which it then stood. Of course, such was not the case.

As a matter of fact, the meeting expressed clearly its opinion that we should insist on our cardinal points; and when the Chairman of Representative Meetings stated that unless we got them we should have to use the strike weapon, great enthusiasm ensued.

Now, to turn to the letter sent by the Medical Secretary to the House of Lords. This letter proves that in the opinion of the Council we had not then gained two of our six cardinal points—namely, free choice of doctor and adequate representation. This letter produced no change in the bill in the House of Lords; and (even supposing we have gained any of our other points, as the Council maintain), how is it that, with two of our cardinal points still wanting, the Council is suggesting that we should attempt to work the Act? And why should the Representative Body be blamed for this action of the Council?

I maintain that if the resolutions of the Representative Body had been acted upon, we should have been instructed long before this to have nothing to do with the Act.

The Sheffield Meeting.

Dr. Paul Telles (Sheffield) writes: Certain curious features of the Sheffield mass meeting (p. 32) should not pass unrecorded. The convening circular had the official heading of the Association, was signed by the Chairman and Secretary as such of the Division, and contained the following statement: "It is hoped you will make an effort to be present and support the action of the British Medical Association." But the motion was directly opposed to the policy of the Association as declared by the Representative Body. Further, every supporter of the resolution who commented adversely on the Association was allowed a free hand. One gentleman, indeed, from Leeds spent the whole time of his speech in attacking the Council. But when the mover of the amendment which represented the official policy began to speak in support of the Association he was promptly pulled up by the Chairman. It must also be noted that, though the amendment was handed in early, six supporters of the motion were called on before the mover of the amendment could get his opportunity. As the arguments relating to the Association all seemed to betray entire ignorance of its constitution and governance, I beg to be allowed to quote from Professor J. T. J. Morrison's letter in your issue of December 23rd, 1911:

The Council has executed the mandate of the Representative Body, which in its turn has expressed the decisions of the Division meetings, to which every member received a summons, containing the agenda. It seems not yet understood that the Association is governed by the members, and that the drivers of the machine are the voters in Division meetings.

But what else can be expected of the general body of members when our local officials seem unaware of this elementary principle? For the meeting was organized by

the officials, and presumably the resolution was their production. Are there no means of convincing these gentlemen that the declared policy of the Representative Body is really the policy of the members? For the rest, let me say that every word of Professor Morrison's statesmanlike letter is applicable to the Sheffield mass meeting.

Mass Meetings and After.

Dr. J. Cameron Turnbull (Bury) writes: May I ask the favour of a little space to reply to Dr. Major Greenwood's criticism (p. 21) of my letter of the 23rd ult.? The object of that letter was to warn younger general practitioners of the risks they run in unreasonable opposition to the Act. Dr. Greenwood does not contravene the argument, but he unnecessarily and illogically draws the conclusion that I should accept the Act on any condition. Let me say that I know and care nothing about the National Insurance Medical Association, except that it is the natural result of the National Medical Union, and good evidence of the split which it has caused.

As I understand it, under the Act we shall be employed by our patients just as we are now, except that the terms of employment will be arranged by collective bargaining (why is the word so odious to some people?) between the representatives of the employers (the local Insurance Committees) on the one hand, and the representatives of the employed (the Medical Committees) on the other. Of course, the terms are not guaranteed by the Act, but it is impossible to fix local terms in any Act. No one has yet denied that the local Insurance Committees have powers to grant all our cardinal principles in the arrangements with the profession, and if we refuse to meet them and state our terms we shall only subject ourselves to ridicule and take the consequences which I have already stated. If, however, the local Insurance Committees refuse our terms when they have the power to grant them, the responsibility will be theirs, and they will have to account for their action to their electors. Our position in the two cases is vastly different, and expresses exactly the wide separation between the National Medical Union and the British Medical Association. In other words, the British Medical Association wishes to face the enemy, the National Medical Union does not. Dr. Greenwood seems to think we shall be beaten in any case—what a fine leader he would make! If we are beaten it will be by renegades, and should the policy of the National Medical Union prevail the proportion of renegades is bound to be much greater than under the banner of the British Medical Association.

Method and Mode of Remuneration.

Dr. J. W. Hunt (Upper Clapton) writes: In the mass of correspondence flooding your columns I see no reference to what seems to me a very important point—namely, that in making our arrangements with the various Insurance Committees, whatever terms we come to should be definitely fixed for a term of years (say five), and not be altered without the sanction of a majority of the medical representatives in the committee. We do not want the contest to be renewed either locally or generally every year. Much more might be said on the various points in dispute, but I will say nothing except to urge unity and a vigorous policy under the banner of the Association.

Dr. M. Tylor (Wisbech) writes: The numerous meetings and mass of correspondence of the last six months should enable us now to form some idea of how we stand at present and what position we should take up under the Act. The profession is divided into two parties: One deems the Act as it stands at present so unsatisfactory that it refuses to have anything at all to do with it; the other is prepared to endeavour to obtain from the local Insurance Committees the terms it considers just. Both parties agree that they will not attend insured persons under the bill if certain definitely laid down demands—the cardinal principles—are not granted, and both support the British Medical Association, though not necessarily agreeing with the action of the Council. Surely it is now the duty of the executive of the British Medical Association to ascertain by Referendum the opinions of its members, expressed individually and not collectively, as in the excitement and enthusiasm of meetings, and act accordingly.

That the remuneration offered us under the Act is absolutely inadequate is the almost universal opinion. The last Representative Meeting made a special statement to this effect, but practically no notice was taken of it by the Government. Our cardinal points are all highly important, but the question of remuneration is the vital one.

The chances of our receiving adequate payment for our services under the bill as it stands appear to me to be of the smallest.

What expectations have we from the Insurance Committees? Half any extra remuneration they may recommend will be granted by the Treasury if the County Councils will grant the other half! As to questions of mileage, night fees, anaesthetics, operations, and the like, nothing is said.

What hope have we from the County Councils?

Mr. Coke, in a very able letter in the Supplement of the Journal for December 30th, 1911, stated that his own member, a Tory, elected by a huge majority, said he could not vote for any increase of medical expenditure because he was already pledged, by his promise to the County Council, to a policy of stringent economy in local taxation. Is it likely the County Councils will relax such a policy on our behalf?

Free choice of doctors we have more or less obtained; real freedom from friendly society control means such increased representation on the Insurance Committees as we are not at all likely to get. Income limit is a difficult question, and will very frequently be evaded; moreover, there are many who do not wish it fixed in the Act, but a minimum remuneration for ordinary attendance upon the insured, exclusive of mileage, night work, etc., could easily have been fixed in the Act. We know well that inadequate pay means sooner or later inadequate attention.

Let the Executive of the British Medical Association, therefore, if the members approve, demand of the Government that a minimum remuneration, say, of 8s. a head for sound lives, or 2s. per attendance for any lives, be definitely guaranteed to those on the panels. If this essential point were gained, it would be worth our while to proceed with our negotiations with the Insurance Committees over the other points. If the Government refused, we should also refuse to work the medical part of the Act. That a mistake has been made in the Government estimate of the cost of medical attendance is not our fault, for we were not asked.

Whether rightly or wrongly, the faith of the profession in the Council of the Association has been rudely shaken, and it lies with the Council by firm and determined action to restore that faith and reunite us more strongly than ever.

Dr. H. Leak (Winsford) writes: Before signing the pledge of the *Practitioner*, or joining the Medical Union, I should like to be satisfied that the terms we require cannot be obtained under the National Insurance Act as at present constituted.

To do this, and also in case we ask for an amending bill, it seems to me desirable that we should, as early as possible, definitely state the minimum terms which we require. So far a procrastinating policy has been adopted in regard to remuneration, and it is time that this was replaced by a definite statement of our terms.

There are those who say that they will only work under a plan of payment by attendance, yet so far they have not stated what their fees would be, and what is likely to be the total cost per head, a statement which is necessary in order that the Government should have a guide in this matter.

Some are willing to work on a capitation basis, but here again no definite figure has been universally fixed as a minimum.

I would suggest that we fix upon a minimum capitation fee for strictly limited and clearly defined necessary attendance in ordinary cases, and that all work outside this should be extra, on a scale of fees which might be laid down.

These extras would naturally fall into four classes:—

(1) (To this I attach very considerable importance.) Attendance to patients at the surgery out of hours, visits of which notice is not given before a fixed time, and night visits should all be extras, payable either directly by the individual or by the benefits accruing to him under the Act. This would mean very little hardship to the 1,000 or so insured persons who would

probably ultimately be upon each doctor's list, whilst it would be a great safeguard against the irregular work which is so irksome and exhausting to the medical practitioner, and could generally be avoided by the exercise of a little care.

(2) Certain extras, such as the taking of specimens, administration of antitoxins and such like in infectious cases, sanitary reports, etc., would fall naturally upon the present health authorities, and should be met from that source, as they are in the more enlightened districts at the present time.

(3) The treatment of fractures and dislocations; major and minor operations; administration of chloroform, etc., should be paid for out of the funds of the insurance scheme; as should also the fees for special reports of cases, beyond the ordinary statement of inability to work now required by the friendly societies.

(4) Mileage should be an extra. This might in some cases be met by a grant towards the upkeep of a conveyance. Whether we proceed by payment for work done, or by a capitation scheme, or by a modified form of the same as suggested above, the latter being in the nature of a compromise, we ought to be in a position to state what will be the probable cost per head to the fund of the insurance scheme, as I consider that the neglect to do this hitherto has been largely at the bottom of all our troubles, and we ought, from facts in our possession, to be able to estimate this cost pretty accurately; and this basis should be such that if the whole of a man's work consisted of attendance on insured persons he should receive a remuneration which would attract good men into the profession. Having ascertained the cost per head, we ought to approach the Insurance Commissioners and get a definite reply as to whether they will secure us our minimum terms under the Act. If they will not guarantee us our minimum, we should refuse to work the Act as it now stands, and get our terms introduced into an amending one.

Dr. A. C. REID (Nottingham) writes: At this stage we may, without compromising our position, consider a few figures that may help us.

For an urban district, I am strongly of opinion that a flat rate of 8s. 6d. without medicine is the irreducible minimum, along with a wage limit of not more than £2.

From figures which I have gone into carefully I find that in this city there will be about 1,000 insured to each general practitioner; and this, I think, will be an average proportion for the country generally. At 8s. 6d. this gives £425 per annum. We are being asked to take on all the chronics, the deposit contributors, rejected by the friendly societies. Why we need do so, except at a very different rate, I know not. If we agreed to take them only on a payment-for-work-done plan we would be quite justified. If we, then, leave these on one side, and agree to take all friendly society members, including those over 65—I think we are pledged to this latter—at 8s. 6d., it will work out at £400 per annum (the deposit contributors, along with those over 65 in friendly societies, being estimated at 6 per cent.).

But I wish to suggest a more excellent way. The risk of the women is much greater than that of the men. I have estimated that I attend between three and four women to one man in general practice. We would therefore be right in making a difference in favour of the men thus:

Out of every 1,000 insured there would be, as estimated from official figures:

	£
638 men; these at 6s. 6d.	= 207
268 women; these at 8s. 8d.	= 116
34 friendly society members over 65, these at 6s. 6d....	= 11
60 deposit contributors	—
Total per annum	334

This would be an increasing figure, as the proportion of women to men is bound to increase.

At 6s. 8d. for men and 8s. 6d. for women the figure is £335 per annum.

The 34 above 65 are regarded as replacing a similar number of insured above a £2 limit, estimating these latter at 500,000 for the country generally.

All these rates are exclusive of medicine.

It is worth while considering if we are getting paid at a higher or lower rate than this per 1,000 of the working population below a £2 wage limit. I think we are not.

Dr. T. R. LOGAN (Liverpool) writes: It seems to me that the National Insurance Act represents a grave and resolute attempt to deal with a very urgent problem—namely, that of providing "adequate medical attendance and treatment" for the majority of the citizens of this country, with certain other very desirable benefits in time of need. It behoves the medical profession, therefore, to hesitate and very seriously think the matter over before setting out on a campaign of wholesale destruction.

It seems to me that the scheme, though very far from perfection, is even yet capable of being moulded into a useful measure, and I trust the doctors may valiantly do their part in the transforming process.

It is surely evident to every reasonable person that there cannot be a continuance of adequate medical treatment without the provision of adequate medical remuneration, but I must say that it seems to me that we as a profession are much to blame for the fact that so far we have made no clear or authoritative statement as to what should be regarded as adequate, nor supplied any reasonable basis for the calculation thereof. It is with the purpose of suggesting a minimum tariff and an understandable basis of calculation that I now write. For I think we should endeavour to meet the author of this valuable Act by, in the first place, accepting the lowest possible fees, on the distinct understanding that we were to give the measure a fair trial for a definite period—say two years—at the end of which time the situation should be reconsidered.

Now for the facts. A good many years ago Sir James Paget, estimating the loss to this country arising from the invalidity of working men, found from the returns of a large number of societies that each man on the average was absent from work because of sickness each year for a period of nine days, and this is probably about the average still, for in a report published in the JOURNAL about six weeks ago of the German insurance scheme as operating in Leipzig it was shown that for each member last year the average duration of sickness was 10.2 days. Now, for a nine days' illness a man would require at least six visits at his house, and we may well calculate that such average man would call at the doctor's surgery at least six times in the course of the year while not ill enough to leave off work.

Some other valuable figures are supplied in an interesting communication from Dr. Exham, of Market Drayton (SUPPLEMENT, December 2nd, 1911, p. 552), in which he shows that, in a fair-sized society and during a period of eighteen years, a sum of 4s. per member gave the doctor 6½d. per "attendance" at the surgery or patient's home, and that with a "healthy population" and in a place with "no slums."

At the Earle Road Provident Dispensary in Liverpool, with which I was connected, a similar capitation fee gave the doctors 2½d. per patient's visit at the surgery, and 5d. per doctor's visit to the patient. These are my facts, and I supply no comment. Now as to suggestions for a tariff, which I make with the explanation that they are to be understood as tentative, and for the purpose of starting the scheme, and that the terms are the very lowest upon which it is conceivable that adequate medical attendance and treatment can be supplied.

Insured persons to be divided into two classes: A to include persons whose income does not exceed £1 a week, and B to include persons whose income does not exceed £2 a week.

I suggest that persons in Class A should be seen at the surgery for 1s. per attendance, and as it has been shown that there would be on an average six such attendances per annum, the yearly charge would be 6s. For attendances at the patient's house I suggest a charge of 1s. 6d., or 9s. per annum. We would, therefore, give the Insurance Committee the option of paying per attendance as above, or at the capitation rate of 15s. per annum.

For Class B the fees should be 1s. 6d. and 2s. 6d., and, on the same basis, 24s. per annum.

These charges, of course, in accordance with the provisions of the Act, to be exclusive of medicines, etc.

Now, in this plan one thing is made plain, that is, the precise relationship of the charge for "work done" to the capitation charge, a point which is generally left quite obscure.

If my actuarial calculations are to be accepted, it should be a matter of indifference to us which method of payment the Insurance Committee should choose to adopt.

The terms seem to me to reach the irreducible minimum, but if any member feels that his services are really not worth so much, let him, by all means, say so. But for those who feel perfectly assured that their work is indeed worth so much, and a good deal more, it is morally imperative for their own sake and that of their patients that they should accept no fraction less. Contract work has not been a success in the past, either for doctor or patient, but now we should resolutely see that there is a fair chance for "adequate medical attendance and treatment," which is quite impossible if there be not provision made for adequate medical remuneration.

What is meant by "Payment for work done," and "Payment per attendance"?

Dr. J. P. Walker (Basingstoke) writes: Many members of the Association, possibly the great majority, believe and hope that the above terms imply that the State would honour in full any accounts that we might present for medical attendance, subject, of course, to a pre-arranged tariff.

Report D 14, page 38, on this matter, however, states:—

"It must be recognised that the liability of the Government if it should undertake to pay fees, according to an agreed basis, for all necessary attendance (some suitable system of safeguards being adopted to put a check on unnecessary attendance) would only theoretically be unlimited."

And on page 40, the same Report says:—

"That if, as is probable, the Government contribution be a fixed amount, unnecessary attendance by some practitioners would entail hardship on all the rest in a given district."

Under the new Act the Government contribution will certainly be a fixed amount. Am I right, Sir, in assuming that under the above systems of payment if the accounts of practitioners A, B and C on the agreed-on basis came to £2, £4 and £6 respectively, and assuming further that only £6 were available for payment of the same, then A would have to settle his bill for £1, B for £2, and C for £3? They could not be paid in full.

It is well to be perfectly clear what we are fighting for, as it seems to me that if we are not to be paid in full, we may as well at once accept a system of payment per capita. Is this a correct view to take of what is meant by "payment-for-work-done," and "payment-per-attendance"?

The National Deposit Friendly Society.

Dr. John Donald (Liskeard) writes: The medical men of Cornwall have also held their mass meeting. It was a meeting that could not but disturb one's equanimity, and cause one to realise painfully how deeply our profession has been wounded. For my part, I left the hall feeling as a Frenchman must have felt at Sedan on foreseeing the impending *debâcle*.

"Poor little lambs who have lost our way." Has it really come to it that our means of subsistence, our status in the country as members of a noble profession, is to be bartered for us to suit the convenient political aims of an autocratic demagogue. Collectively we are indeed even in these days of remarkable unity what we always have been, a supine flock. Who is to blame? No one, of course, but ourselves. Every man amongst us knows it. Now, many years ago, the Association showed us the way out by recommending an excellent public medical service which, if taken up generally thoughout the country, would certainly have taken the wind out of the sails of the present Chancellor. But, no, the thing did not take on, there was not sufficient unity in the profession. In the past six months that unity has sprung up in a manner that has astonished me. Now is the time to snatch the reins. Do it now, and do it quickly, before we find ourselves the victims of the "insolence of office."

"Our England is a garden, and such gardens are not made
By singing: 'Oh, how beautiful,' and sitting in the shade."

The system of the National Deposit Friendly Society is the nearest approach to El Dorado that we may hope for in this world. Whatever faults there may be in its details of working are minor faults that could readily be rectified if the profession were, as a whole, to come to terms with this Society and each doctor sought to bring at least his poorer patients within the scheme. I am convinced that the result would be eminently satisfactory to everyone concerned. To my mind this is the only way out. What is the use of talking about local option and cardinal points that we may attain by wrangling with local committees when we are plainly told by Mr. McKinnon Wood the maximum is 4s. 6d. However, our claims may be admitted for little extras like mileage and operative work, the money is simply not to be had, and we simply cannot do the work for the money.

Adopt the above system and we will yet retain the honour of the profession. When a people gets hold of the idea of sickness insurance, the once cheerfully-paid bill comes to be looked upon as a mill-stone round the neck. Let us, then, move with the times. If we do not we go down and the herbalist or district nurse can take our honoured place in the villages of Happy England.

Note.—It may be convenient here to interpolate the following correspondence forwarded to us on December 19th.

The National Deposit Friendly Society.

To the General Secretary of the National Deposit Friendly Society.

Sir,—We, the undersigned practitioners of medicine in Romney Marsh, beg to inform you that we are not able to undertake the treatment of cases of sickness at the rates of remuneration specified in the Society's rules. We have long distances to travel from patient, and the inhabitants are few and far between, so that fees which may be adequate in towns are not possible here.

The rule says, in the case of a patient requiring visiting oftener than once in two days, the fee for the intermediate visit shall be 1s. 6d. As this visit not infrequently entails a special journey of some miles, the utter absurdity of the rule is apparent.

Again, the mileage is inadequate where one has to go distances for single patients.

There is not enough practice to allow of patients being seen for a fee of 1s. 6d. for a consultation and medicine.

It has been said that the fees work out at ordinary club rates, but we would point out that the Romney Foresters and Oddfellows pay a fee of 7s. 6d. a year, on account of the special difficulties of the district. In view of these considerations, we have to inform you that after the beginning of the New Year we shall decline to see patients under arrangement with the Society, unless the Society can offer better terms.

We are, Sir, yours truly,

(Signed) Henry Hick.

National Deposit Friendly Society.
37, Queen Square, Southampton Row,
London, W.C.,
December 6th, 1910.

Dear Sir,—I have to acknowledge the receipt of the letter signed by three other medical practitioners and yourself.

I regret to note that the local circumstances are such that the ordinary scale is considered inadequate. It may be, however, there is some misapprehension as to the position.

The rule as to mileage (see enclosed rules, par. 195) applies not only to the ordinary visit (medical cases, line 1), but also to "each intermediate visit" (line 2).

I do not know who is responsible for the suggestion that our fees work out at ordinary club rates such as those paid by the Foresters and Oddfellows, but I contend that, calculated on the amount of work done, our payments compare favourably with those paid by any friendly society.

As you are doubtless aware, we pay for actual services rendered, and not on the contract system.

On an average (doubtless owing in great measure to the particular constitution of our Society), our members experience 3½ days' sickness per member per annum. Members of the other Societies to which you refer have, roughly, four times as much sickness. It therefore follows that the members of the Societies to which you refer should pay four times more by way of medical charge per member per annum than that paid by our members. This, however, is not the case.

I can quite conceive there may be special cases of certain members (such as those with a comparatively large income) where our ordinary scale might be reasonably said to be inadequate, but I would point out that the position of a medical practitioner is that he may refuse to attend any member on the Society's scale, and there is nothing to prevent him insisting, in these cases, on treating the member entirely as a private patient. In this case he would make out a private account. This would be paid by the member, and the Society would make allowance upon it in accordance with its scale. It would, of course, be necessary for the Society to have particulars of the attendances, but subject to being in possession of the necessary information, there would be no practical difficulty in dealing with exceptional cases on this basis.

I sincerely trust, in the circumstances I have mentioned, you will give the matter further consideration.

Yours faithfully,
(Signed) C. TUCKFIELD.

Dr. H. Hick,
New Romney,
Kent.

New Romney.

Dear Sir,—I have to thank you for your letter, and would point out that I had taken into consideration the fact that mileage was paid for the intermediate visit, but you evidently have not taken the trouble to see how it works out.

In a sparsely populated district like this, it is practically impossible for a medical man to visit each village every day, and at any rate he could not afford to do so for the amount of work there is to be done. Therefore the general rule is to visit a village on alternate days.

Well, now let us take an example of the working of your rule. At Dymchurch lives a patient of mine, a member of your Society, who keeps a horse and trap for hire; at times, when I have cycled over and found the wind too strong for me to ride back, I have taken his trap to bring me home; he charges me 4s. for the journey. Should I need the double journey he charges 6s. Suppose he sends for me on a day when I do not go to the village, or, as frequently happens, after I have returned from it. Say I cycle over and drive back, he charges me 4s. for the use of his horse and trap, and I debit him with a charge of 1s. 6d. for the visit, and 1s. mileage, so that after cycling four miles, giving the greater part of a half-day, and exercising such skill as I have acquired in fifteen years' education and many years' practice, I owe him 1s. 6d. on the transaction. Should it happen, as it often does, that I cannot cycle, I must pay 6s. for a trap: in this case I lose 3s. 6d. by the transaction as well as all my trouble and time. How we are to live on these terms I fail to see; perhaps you can suggest.

I am, yours truly,
(Signed) H. HICK.

National Deposit Friendly Society,
37, Queen Square, Southampton Row,
London, W.C.,
December 10th, 1910.

Dear Sir,—Yours of the 8th inst. My view is, that in the circumstances you mention, where a special journey of several miles has to be made in respect of one patient, that the patient should not expect the whole of the doctor's charge to be paid by his Friendly Society, but that he should make up the difference himself.

On consideration of the circumstances you have mentioned, it occurs to me that possibly they may, to a great extent, be met by an arrangement which is sometimes made in somewhat similar circumstances: *i.e.*, that medicine is supplied for a longer period than two days. Under this arrangement, if you visit a member, say, on the 1st, and supply medicine for six days, the allowance would be 4s. 6d.; in addition, of course, to mileage.

Were you aware that such an arrangement is permissible?

Yours faithfully,
(Signed) C. TUCKFIELD.

Dr. H. Hick,
Ivy House,
New Romney.

December 11th, 1910.

Dear Sir,—I thank you for your letter of yesterday, and have to say:—

A Friendly Society which does not provide for acute cases of illness seems to be of little use to its members, and I do not think that you would get many to join on the terms that you suggest. As a matter of experience we find it impossible to recover charges over and above the club fees from members of the Society. Your suggestion of one visit in six days does not really touch the matter, there are few cases where such attendance could be given with justice to patient or doctor.

It seems to me that the remedy would be a reasonable scale of charge for special work under rule XVII., sec. 14 sub-section.

If a man is very ill that is the time when he needs the assistance of his Society most, and he needs much attendance; if he cannot get this from his Society it is not much use his joining.

Yours truly,
(Signed) HENRY HICK.

NATIONAL DEPOSIT FRIENDLY SOCIETY.
37, Queen Square, Southampton Row,
London, W.C.,
December 13th, 1910.

Dear Sir,—Yours of the 11th inst. I am sorry to note your observations. I submit that there is no Friendly Society which does as much for the worker in the matter of medical provision as the N.D.F.S. According to your view, the provision made is of little use to members, and few would join the Society. Of course you are entitled to your view on this point, but it is an extraordinary view to take, and is not borne out by the facts. In support of this contention, I have merely to mention that at the present time the N.D.F.S. admits new members at the rate of something like 25,000 per annum.

The Society is unable to consider the suggestion that in special circumstances the scale should be increased for ordinary medical cases. If once a departure were made as to this, I am quite sure there would be no limit to the number of cases where it would be suggested the increased allowance should be made.

Yours faithfully,
(Signed) C. TUCKFIELD.

Dr. H. Hick,
Ivy House,
New Romney.

THE "PRACTITIONER'S" REFERENDUM AND PLEDGE.

Dr. FREDERICK LISHMAN (Rottingdean, Sussex) writes: I herewith send you a letter to the Editor of the *Practitioner* which may be of interest at this time when the "pledge" is receiving much exalted and, as I think, mistaken support:

January 9th, 1912.

The Editor of the *Practitioner*,—

Dear Sir,—In reply to yours of 1st inst., asking my reasons for discontinuing my subscription to the *Practitioner*, I beg to state it is owing to my strong disapproval of the policy initiated by your paper on the Insurance Act. It is calculated to greatly divide the profession at a moment when unity is essential and to weaken the force of the undertaking signed by so great a majority of the members of the British Medical Association, and which is the only weapon the profession can trust to secure proper terms under the Act. I therefore regard the whole movement as ill-timed and ill-advised, and greatly to be deprecated by every one who stands by the policy of the Association. Your referendum was carefully consigned to the waste-paper basket. Your pledge, sir, was the last straw, and left me no alternative but to withdraw my subscription.—I am, yours truly,

FREDERICK LISHMAN.

Permit me, Sir, to add my appreciation of Dr. John T. Hislop's letter in the JOURNAL of 6th inst., and to assure you that many members of Sir James Barr's own political party are equally disgusted at his partisan attitude.

Dr. ALFRED J. PICKWORTH (Lakenheath, Suffolk) writes: I answered "Yes" to the *Practitioner* Referendum No. 1. I presume medical gentlemen give honest and adequate service *now*. If not they can resign or be dismissed. When a man is tired of contract practice or becomes independent it is open for him to give it up. I endorsed the *Practitioner* Referendum No. 2.—"Your request is absurd, and I fear political wirepulling by a section to oust the persons now on the British Medical Association Council. Why should I sign it when under the Act *I may get double what I now get?* It is for me to decide when I get a definite offer." I deplore the Queen's Hall meeting.

[A letter on the National Insurance Act, dated from Bristol, but unsigned, probably by inadvertence, has been received.]

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

ABERDEEN BRANCH:

ABERDEEN DIVISION.

A MEETING of this Division was held in the Medico-Chirurgical Society's Hall, 29, King Street, on Thursday, December 21st, 1911, at 3.30 p.m. Dr. JOHN GORDON, Vice-President, presided over a very large gathering of practitioners.

Confirmation of Minutes.—The minutes of the previous meeting were read and approved.

Action of Central Council.—The CHAIRMAN, as a member of the Central Council of the Association, gave an account of the proceedings which led up to the acceptance of a Commissionership by Mr. Smith Whitaker, and gave the reasons on which he based his action in supporting the recommendation that Mr. Smith Whitaker accept the post offered to him. Dr. BEVERIDGE moved that, having heard the statement of the Chairman, they pass to the next business. Dr. WYNESS seconded. Dr. GRAY (Wartle) moved:

That the action of the Council be deprecated.

Dr. CHRISTIE CROWE seconded. A very free discussion followed, taken part in by Drs. GIBB, WYNESS, DUFFUS (Auchinblae), FRASER, and the CHAIRMAN. While some were inclined to consider the action of the Council wrong from the tactical point of view, the great majority appeared to think that it did not in any way jeopardize the position of the Association in regard to the Act, and that nothing should be done which would cause any division in the ranks of the profession in the fight it was making to attain satisfactory conditions of service under the Act. On being put to the meeting, Dr. Beveridge's motion was carried by an overwhelming majority, only four voting against it.

National Insurance Act.—The meeting next took into consideration the National Insurance Act, and the CHAIRMAN gave a brief survey of the sections dealing with medical benefit, and showed how far the demands of the profession had been satisfied, and what still remained to be fought for. The Act gave the Insurance Commissioners very liberal powers, and it was clear that the profession had now to approach the Commissioners with a view to having the remainder of the six cardinal points incorporated in the Regulations to be drawn up by them for the working of the Act. If this were not conceded then the profession must refuse to work under the Act. He considered that the first of the six cardinal points, namely, that in connexion with the income limit, was in the most unsatisfactory condition. He considered that certain sections of the Act militated against the profession being able to obtain its demand in this connexion. The Act provided that any man who was an insured person for five years had it in his power to be transferred into the voluntary insurer's section, provided that at the time of his transference he was not in receipt of a salary of over £160 a year. Once his transference had taken place he could remain an insured person during the rest of his life, whatever his salary might be. Another point was that any man who was a manual worker could continue to be an insured person under the Act although he was earning £3, £4, or £5 a week from his manual work, either as a foreman or manager where that work had to be done. Such a condition they must resolutely and doggedly fight against. As regards the rate of remuneration, that was a matter for careful consideration, and, having decided on a reasonable rate according to the conditions imposed, it was no concern of the profession whether figures on which the actuarial calculations on which the financial provisions of the Act were based were too small or not. The time for bargaining was long past. They had clearly to outline their policy to the Commissioners, and until their terms were accepted the profession in Scotland would stand outside the Act. Discussion on various points followed, taken part in by Drs. BEVERIDGE, FORBES, LISTER, FRASER, FINLAY (Crimond), COCKBURN (Old Meldrum). Dr. FRASER then proposed:

1. That this meeting reaffirms the six cardinal principles.
2. That the secretaries be instructed to inform the Scottish Commissioners at once that the profession in the Aberdeen Branch will absolutely refuse to work under the Act unless the regulations drawn up by the Commissioners are consistent with the concession of the six cardinal principles.

This was seconded by Mr. H. M. W. GRAY, who favoured the issue to the public of a definite statement showing how the profession viewed the Act and an explanation of the attitude of the profession towards it.

These two motions were unanimously carried.

BIRMINGHAM BRANCH:

CENTRAL DIVISION.

THE following communication has been received for publication:

Birmingham,
January 7th, 1912.

Sir,

Some exception having been taken to the circular letter which was recently sent to all medical practitioners within the area of the Central Division, and which was also published in the JOURNAL (SUPPLEMENT, December 30th, 1911), I have been instructed to write stating that the opinions expressed in that letter represent the views of the Subcommittee appointed to issue it, and not those of the Executive Committee as a whole.—I am, etc.,

W. TRACY LYDALL,
Honorary Secretary Central Division,
Birmingham Branch.

NORTH OF ENGLAND BRANCH:

TYNESIDE DIVISION.

WE have received from Dr. Lachlan Fraser, Honorary Secretary of the Division, the following correspondence sent by direction of his Committee for publication in the JOURNAL:

11, Northumberland Square,
North Shields,
December 25th, 1911.

Dear Sir,

At a joint meeting of the Tyneside and South Shields Divisions I was instructed to send you a copy of enclosed resolution and to ask for your reply.

That in view of the approval of the National Insurance Act by the late Medical Secretary implied by his acceptance of the post of Deputy Chairman of Insurance Commissioners, this joint meeting of the Tyneside and South Shields Divisions desires an assurance from the present Acting Medical Secretary and from any future medical secretary, as to whether he is or is not in favour of a State Medical Service and of the National Insurance Act, and as to whether he is prepared to refuse any offer of an appointment under Government.

I am,
Yours faithfully,
(Signed) LACHLAN FRASER.

Dr. A. Cox.

(Copy.)
British Medical Association,
429, Strand, London, W.C.
Dec. 28th, 1911.

Dear Sir,

I beg to thank you for your letter of the 25th inst., but must confess that I have considerable difficulty in replying, not because I do not know my own personal views but because my duty here does not include the expression of my personal views on matters of professional interest. My duty, which I have tried loyally to carry out, is to carry out the instructions of the Council of the Association. If the Council of the Association gave me instructions which were incompatible with my conscientious convictions I should have to decide whether I would carry them out or resign my position, but such a contingency is, I should imagine, remote. The Division will, I hope, therefore pardon me if I make no statement as to my personal views on either State Medical Service or the National Insurance Act. As to whether I would be prepared to accept an offer of an appointment under the Government, I think the only answer that I can give is that as a loyal servant of the Association my duty and my pleasure would be to place myself entirely in the hands

of the Council of the Association as Mr. Smith Whitaker did. This is all the answer I can give on my own responsibility.

If the Tyneside and South Shields Divisions are not satisfied with it, I shall be glad to place any further letter on the subject before the Chairman of Council.

I am,

Yours faithfully,

(Signed) ALFRED COX.

SOUTH-EASTERN BRANCH:

BRIGHTON DIVISION.

A MEETING of the Executive Committee was held on January 3rd, at the Dispensary, Queen's Road.

Appointment of Consulting and Operating Surgeon to Workhouse.—The report of the Medico-Political Committee with reference to action taken with regard to the appointment of a consulting and operating surgeon to the Brighton Workhouse Infirmary was received and adopted, and the action taken by the committee confirmed by a special resolution. It was resolved, *nemine contradicente*:

That the Executive Committee of the Brighton Division hereby resolve that the Chairman of the Central Ethical Committee be asked to place the appointment of consulting and operating surgeon to the Brighton Workhouse Infirmary in the warning notices list in the BRITISH MEDICAL JOURNAL, pending the special meeting of the Division, which has been summoned for January 12th.

Two hundred and thirty-three signatures have been received from practitioners in the district to an undertaking not to apply for the appointment.

[We are informed that the last day for receiving applications in reply to the advertisement was January 9th, and that none had then been received by the Guardians, who have signified their willingness to receive a deputation from the British Medical Association.]

SOUTHERN BRANCH:

PORTSMOUTH DIVISION.

A MEETING of this Division was held at the Grand Jury Room, Town Hall, Portsmouth, on January 4th. Dr. D. A. SHEAHAN was in the chair, and fifty-three members of the Division were present.

National Insurance Act.

Dr. SCOTT RIDOUT proposed and Dr. J. MILNER THOMSON seconded:

That this meeting of the Portsmouth Division of the British Medical Association call upon the Council to convene within twenty-eight days a Special Representative Meeting, under By-law 34, to consider the conduct of the negotiations with the Government by the Council of the Association, and to instruct the Council as to its future action.

Dr. SHEAHAN declared that it was quite impossible for medical men of the present generation to work the Act on such a financial basis. Not one of the six cardinal points which they looked upon as their minimum had been satisfactorily incorporated by the Government in the measure. It was only by satisfactory arrangements being made with the Insurance Commissioners that it might be possible for the medical men of the British Isles to work under the Act. They wanted to wake up the Council of the Association, and, if necessary, to appoint a new Council and instruct them as to the minimum they required before they proposed working under the Act. One thing absolutely necessary before they could so work was an amending Act. To get that they would have to exercise all the force and energy that they possessed, and to determine as medical men to refuse to work the Act in its present condition. It had been the custom in the past for them to be tried by their peers—the General Medical Council—for conduct alleged to be infamous or degrading to the profession, but under the Act they would be tried by the Commissioners, who would also have the power of refusing to allow them to go on the panel, or of removing them for what the Commissioners deemed negligence of duty. They would have no appeal. There were other provisions of the Act which were equally monstrous. He urged the members to unite in their determination to secure their demands. Some of the members of the General Medical Council had resigned in consequence of their attitude towards the measure.

Mr. A. P. CHILDE observed that he did not think the Government would get the whole-time applicants as medical officers from the most respectable members of the profession. His view was that they should decline to attend any patients sent to the hospitals by any one of the gentlemen holding whole-time appointments under the Government. In urging universal action on the part of the profession, he said that by this means they would put the Government into an absolute *impasse*.

Dr. A. V. MAYBURY protested against the measure, and asked if the medical profession would be satisfied for their private patients to be converted into State patients, and themselves to be under the thraldom of the Insurance Commissioners.

The resolution was carried unanimously.

Dr. A. M. FRASER proposed and Dr. JOHN PHILLIPS seconded:

That a special meeting of this Division be called as soon as the Representative Meeting is summoned, in order to instruct the Representative of this Division.

The meeting declined to pledge the members of the Division until the Representative Meeting had come to a decision upon the action of the Association as a whole, recognizing that the whole fighting strength of the Association depended upon its unanimity.

WINCHESTER DIVISION.

A SPECIAL meeting of this Division was held at the Castle, Winchester, on January 4th.

National Insurance Act.

The following resolutions were unanimously passed:

1. That this meeting of the Winchester Division of the British Medical Association call upon the Council to convene without delay a Special Representative Meeting in accordance with By-law 36, "to consider the conduct of the negotiations with the Government by the Council of the Association, and to instruct the Council as to its future actions."
2. That, in the opinion of this Division, the Council of the British Medical Association should resign.
3. That our Representative be requested to bring the following resolution before the next Representative Meeting:

   That it be an instruction to the Council to consider the desirability of making "the undertaking" of the Association a legal bond.

STAFFORDSHIRE BRANCH.

THE first general meeting of the session was held at Stoke-on-Trent, on Thursday, November 23rd, 1911, Dr. T. RIDLEY BAILEY in the chair, and thirty other members were present.

Apologies for Non-attendance.—Apologies were received from Mr. Spanton (President) and Drs. Mactier, Blumer, Codd, and Cholmeley.

Confirmation of Minutes.—The minutes of the last general meeting were read, approved, and signed.

Correspondence.—The report of the Library Subcommittee of October 31st was read, and, after a short discussion, was referred for further consideration to a special meeting of the North and Mid-Staffordshire Divisions.

Case.—Dr. G. H. LIST showed a man with transposition of the viscera.

Eye-strain.—Mr. R. H. DICKSON read a paper on eye-strain and its consequences. At the outset he quoted Thorington, to show that the ophthalmologist must not think that because a patient had a headache, that was solely and always due to the eyes. It was for the ophthalmologist to find out what part the eyes took in causing the patient's discomfort. The literature on the subject from 1874 onwards was briefly reviewed. The different forms of headache associated with eye-strain were then fully discussed. The local and the general symptoms, and the general lines of treatment were indicated. Finally, the risks run by patients obtaining glasses from advertising sight-testing establishments were dealt with. Drs. RIDLEY BAILEY, H. H. FOLKER, and MCMURRAY discussed the paper, and Mr. DICKSON replied.

Iodine as a Dressing for Operation Wounds.—Mr. REGINALD ALCOCK read a paper entitled "Iodine as the only Dressing for Operation Wounds." He described a new method of dressing operation wounds which he had adopted for the last three months in the case of wounds not requiring drainage. He gave a list of about forty operations in which, after the wound had been closed, the parts were simply painted with the 2 per cent. iodine solution, and the patient sent back to the ward without any

further dressing. The wound was again painted with the iodine solution three hours later, and again after twelve hours, and also on the second and third days. The results had been perfect, not even a stitch-abscess having been seen. The patients showed no desire to touch the wound, which could be inspected easily at any time, and the economy in dressings was great. The paper was discussed by Drs. Ridley Bailey, Hatton, Hind, and Somerville; and Mr. Alcock replied.

Pathological Specimens.—Dr. Hatton showed a calcified ovary he had removed, and also some excellent *x*-ray photographs taken by Dr. List, which had been of great assistance in the diagnosis, which was extremely difficult.

Dinner.—A dinner followed, at which eighteen members were present.

Mid-Staffordshire Division.

A general meeting of this Division was held at Stafford on January 5th. There were twenty-two members present. Dr. Cookson was in the chair.

Confirmation of Minutes.—The minutes of the last general meeting were read and passed.

Special Representative Meeting.—The report of the Representative at the Special Representative Meeting of November 23rd, 1911, was presented.

National Insurance Act.—Dr. Cookson proposed the following resolution:

> That this meeting of the Mid-Staffordshire Division desires to express its approval of the action of the Central Council in recommending Mr. J. Smith Whitaker to accept the post of Deputy Chairman of the Insurance Commissioners; and, while fully realizing that Mr. Whitaker, when his official connexion with the Association ceases, will become a Government official, is of opinion that the most effectual means have been adopted by the Council to safeguard the interests of the profession now that the National Insurance Bill has become law. This meeting also wishes to congratulate the Council, as the Executive of the Association, on the ability with which it has conducted the recent negotiations with the Government.

This was seconded by the Honorary Secretary. Dr. Blumer moved the following amendment, which was seconded by Dr. McVittie:

> That this meeting of the Mid-Staffordshire Division expresses its approval of the action of the Central Council in recommending Mr. J. Smith Whitaker to accept the post of Deputy Chairman of the Insurance Commissioners.
>
> It further wishes to record its opinion that the fact of the demands of the profession, as formulated by the British Medical Association, not being satisfactorily safeguarded in the National Insurance Act is having a serious effect upon the unity of the profession, and is working to the detriment of its interests.
>
> With a view to consolidate the views of the profession, and to again secure its unity of action, this Division is further of opinion that the Central Council should at once take the necessary steps to definitely secure from the Insurance Commissioners the demands not hitherto secured by enactment.
>
> And this Division is furthermore strongly of opinion that, in the event of the demands not being satisfactorily and unequivocally obtained by negotiation with the Commissioners, the members of the Association should then refuse to undertake any of the duties assigned to them under the Act.

Several members took part in the discussion which followed. With the consent of the meeting the original resolution was withdrawn and Dr. Blumer's amendment put as the substantive resolution and carried unanimously.

A Club Dispute.—A member practising in the Penkridge district asked the advice and support of the meeting in a dispute he had with officials of clubs on the question of remuneration, and stated he had been obliged to resign them. The circumstances having been considered, the meeting instructed the Secretary to ask for a warning notice to be inserted in the Journal.

ULSTER BRANCH:

Portadown and West Down Division.

A meeting of this Division was held in Newry on December 29th, 1911, at 4 o'clock. Dr. Marshall, J.P., was in the chair, and twenty-three members were present.

National Insurance Act.

The object of the meeting was to consider the position under the Insurance Act.

Mr. R. J. Johnston, member of Council, attended.

The Chairman, after an appeal for dispassionate discussion and that nothing should be said or done to impair the unity of the profession now so needful, called on

Dr. Darling, who traced the course of events in connexion with the bill up to the present, explaining the policy of the Association and the action of the Council in carrying out this policy.

Mr. R. J. Johnston followed, describing the position of the Irish profession, and pointing out the stimulus the Act would give to extension of friendly societies, and only unity and wise action on the part of the profession would prevent the evils so long suffered from in England coming upon them. He replied to many questions, and explained the recent action of the Council.

Most members present took part in an animated discussion.

On the motion of Dr. Agnew, seconded by Dr. Smartt, it was resolved *nemine contradicente*:

> That the interests of the profession in Ireland demand a united profession; that this can be best secured by getting all those unconnected with the British Medical Association to join; and that we approve the action of the Ulster Branch in appointing an Organizing Committee to secure this object.

Dr. Elliott (Rostrevor) proposed and Dr. Maude seconded:

> That we are of opinion that until such time as the six cardinal points are fully recognized and are included under the Insurance Act, the acceptance of any office under Government in connexion with the Act by any member of the British Medical Association is contrary to the interests of the profession.

Only three members voted for the resolution, and it was lost.

Dr. S. E. Martin moved, Dr. Evans seconded, and it was resolved, with two dissentients:

> That this meeting desires to express its confidence in the policy of the Association and in its Council.

A vote of confidence in Drs. Johnston and Darling and of approval of their action in the Council, with a cordial vote of thanks to the Chairman, concluded the proceedings.

WEST SOMERSET BRANCH.

A special general meeting was held on January 2nd, at 3.15 p.m., at the Taunton and Somerset Hospital, Mr. W. B. Winckworth in the chair. There were present thirty-nine members and three visitors.

National Insurance Act.

The Chairman, in a brief speech, touched on the many groups of agitations that were now working against the National Insurance Act, and remarked that many medical men had been carried away by the party cries of their organizers. He hoped that the members would stand firm and so strengthen and support those who had been working strenuously in the campaign against the bill. He then called on Dr. J. A. Macdonald, the Representative of the Branch, and Chairman of the Council, to address the meeting on the past and future policy of the Association.

Dr. J. A. Macdonald (briefly to summarize his speech) pointed out that considerable misconception had occurred in the minds of many of the profession owing to their not grasping the fact that the Council were, in reality, the Executive of the Representative Body, who were members chosen by the various Divisions throughout the kingdom. The Council in their late negotiations with the Government had been simply following out the recommendations as passed by the meetings of Representatives, each Representative having voted according to the instructions received by his Branch at those meetings. He also referred to Dr. Maclean (the Chairman's) answer to Dr. Metcalfe as to the voting of Representatives at the meeting on November 23rd. That answer, which was expressed as a private opinion, and not as Chairman, was:

> That when a Representative had definite instructions from his Branch he must vote accordingly; but where he was not so tied down, but considered that the arguments he had heard would influence, and be accepted by, the members he represented, he (Dr. Maclean) thought he could use his own judgement.

Continuing, he strongly advised members not to pledge themselves not to work under the Act, but to wait and see what was expected of them. Then, if the conditions of work were not acceptable, they could refuse. It was more

important to use the time waiting, until the regulations of the bill were settled, to confirm and strengthen their bonds of union. There was no truth at all in the false accusation of political trickery, namely, that the Council, owing to the political bias held by its members, had given in to the Government in order to save it from defeat. If any one took the trouble to inquire what the political opinions of the various members of the Council were, they would at once see the absurdity of this canard, as the great majority of the Council were in opposition to the Government. As to the Insurance Commissioners, he spoke of Sir Robert Morant, the Chairman, as a very able organizer. Mr. Smith Whitaker, the late Medical Secretary, knew all the ins and outs of contract practice, and to the uttermost details what the profession required, and would have, before it worked under the bill. Therefore, what better man could there be to represent the profession on the Commission? A misunderstanding had arisen among many, because they had not realized that "work under the bill," as expressed in "the Memorial and Undertaking," referred solely to medical treatment. In conclusion, he stated that when they came to act the Council would be found to be inflexible in their determination not to treat insured persons under the provisions of the Act, and to persuade the members of the profession to the same determination, unless the policy of the Association was fully carried out in the regulations.

Dr. STEWART then proposed and Mr. MOORHEAD seconded the following resolution, which was passed unanimously:

That the West Somerset Branch of the British Medical Association, while viewing with concern the tendency toward dissociation caused by the proposed formation of separate organizations in the profession, are of the opinion that in the present crisis the Association requires extended powers to deal with the administrators of the National Insurance Act.

It therefore instructs its Representatives at the earliest opportunity to bring before the Representative Body the request that it should get into touch with the separate organizations and request them to send their deputies to meet the Representative Body, with the view of forming a collective opinion with the purpose of strengthening the Association to gain the six cardinal points.

The scheme to be referred to the Branches with the opinions and suggestions of the Representative Body.

Dr. WATKINS proposed:

That medical men should refuse to form panels until the six cardinal points have been granted throughout the kingdom.

On Dr. MACDONALD pointing out that this resolution was covered by Resolution 53 (*a*), as passed by the Representative Body on November 24th, 1911, Dr. WATKINS withdrew it.

Dr. JOHNSTONE proposed and Mr. MEREDITH seconded:

That this meeting is of the opinion that the thanks of the members of the Association were due to the Council for the strenuous work they have done and are doing on our behalf.

This was carried *nemine contradicente*.

Dr. JOHNSTONE proposed and Mr. MEREDITH seconded:

That this meeting welcomes the appointment of Mr. Smith Whitaker as an advantageous asset to the general practitioner.

This was carried by an overwhelming majority.

Guarantee Fund.—The HONORARY SECRETARY announced that over £50 had been subscribed towards the Expense Fund, and the Guarantee Fund amounted to £825. Before the members dispersed further guarantees were made, bringing the total sum up to close on £1,000.

The National Medical Union.—Dr. WILLIAMS, a member of the Manchester Committee, was introduced to the meeting, and, after expressing the pleasure he had received in listening to Dr. Macdonald's remarks, stated that their organization wished it to be fully understood that their object was to support and strengthen the British Medical Association.

Tea.—The President then entertained the members to tea.

CAPE OF GOOD HOPE—EASTERN PROVINCE BRANCH.

A CLINICAL evening was held at Albany Central Hospital, Grahamstown, at 8 p.m. on October 27th, 1911. Dr. E. C. DRU DRURY was in the chair, and there were present: Drs. F. A. Saunders, G. E. Fitzgerald, A. Cowper, W. E. Reid, R. T. Harrison, and J. A. Lea. Visitors: Dr. H. Jeans and Dr. S. Williams.

Personal Experiences of Accidental Injuries.—Drs. DRURY and SAUNDERS each read a paper describing their sensations and the conclusions drawn therefrom and from subsequent treatment of their respective accidents, the latter having suffered a compound comminuted fracture of the lower extremity, the former a fracture of the lower end of the radius and some of the small bones of hand, from direct injury.

Cases.—Dr. LEA showed an interesting case of cataract and other lesions of both eyes, following injury from a thorn in the left eye and a blow from a stick on the right. Dr. SAUNDERS showed a case in which he resected a rib for empyema, and asked for the views of the members as to the best treatment for the cavity in the thorax, the lung being permanently collapsed. Two victims of the Blaauwkrantz Bridge disaster were good enough to permit a demonstration of their injuries. Under $CHCl_3$ Drs. Fitzgerald and Reid showed a case for diagnosis. The patient was a native child, aged 8 months, with large fluctuating swelling of right lumbar and inguinal regions. Diagnosed as abscess of hip-joint *plus* perforation of acetabulum.

Votes of Thanks.—The meeting closed with votes of thanks to Dr. Reid (the Resident Medical Officer) and nurses for hospitality.

JAMAICA BRANCH.

A MEETING was held at the Public Hospital on Wednesday, October 18th, 1911, at 8 p.m.

Communications.—Dr. C. H. THOMSON read a paper entitled "Cases of Interest in the Public Hospital." The following were the cases: (1) Cases of beri-beri, dry type. Male Chinese, 33 years old. Arrived in Jamaica from Hong Kong via Vancouver and Halifax in February. Symptoms first appeared in May last. Condition had much improved since his admission to hospital. Patient shown. (2) Case of compound fracture of tibia and fibula due to direct violence. *X*-ray picture showed very considerable displacement of the fragments. Operation for wiring fragments performed with good results. Patient shown. (3) Case of gastro-jejunostomy for pyloric obstruction. Good recovery. Dr. ANGUS MCDONALD read a paper on the control of tuberculosis.

Association Notices.

SPECIAL COUNCIL MEETING.

A SPECIAL MEETING of the Council will be held at 2.30 o'clock in the afternoon of Wednesday, January 17th, in the Council Room at 429, Strand, London, W.C.

By Order,

GUY ELLISTON,
Financial Secretary and Business Manager.

January 4th, 1912.

COUNCIL MEETING.

THE Quarterly Meeting of the Council will be held at 2 o'clock in the afternoon of Wednesday, January 31st, in the Council Room at 429, Strand, London, W.C.

By Order,

GUY ELLISTON,
Financial Secretary and Business Manager.

January 4th, 1912.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

A LIST of periodical publications, official reports, and Blue Books in the Library of the British Medical Association available for issue to members on loan has been printed, and copies can be obtained free on application to the Librarian, at the house of the Association, 429, Strand, W.C. The regulations governing the loan of these publications are stated in the introduction to the list.

The Library is open for consultation from 10 a.m. till 5 p.m. (on Saturdays till 2 p.m.).

BRANCH AND DIVISION MEETINGS TO BE HELD.

BIRMINGHAM BRANCH: CENTRAL DIVISION.—A general meeting will be held at the Medical Institute on Wednesday, February 14th, at 4 p.m., to elect three Representatives and to conduct other business. Nominations for the offices of Representatives must be in writing, signed by three members of the Division, and in the hands of the secretaries by January 24th.—W. TRACY LYDALL, B. C. R. ALDREN, Honorary Secretaries.

LANCASHIRE AND CHESHIRE BRANCH: LIVERPOOL DIVISION.—The annual meeting of the Division will be held on Friday, January 12th. — FRANCIS W. BAILEY, Honorary Secretary, 51A, Rodney Street, Liverpool.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—The next meeting of the Division will be held, conjointly with the Æsculapian Society, on Friday, January 19th, at 4 p.m., at the Metropolitan Hospital, Kingsland Road, N.E., by invitation of the honorary staff, who will show cases from the wards. —A. G. SOUTHCOMBE, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: HAMPSTEAD DIVISION. —The Hampstead Division will meet at 8.30 p.m. on Friday, January 12th, at the Conservatoire, Swiss Cottage. Agenda: Ethical Rules, and a paper by Dr. Gow on Displacements of Uterus and Vagina.—M. L. DOBBIE, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: SOUTH-WEST ESSEX DIVISION.—A general meeting of the profession residing within the area of the South-West Essex Division of the British Medical Association will be held, in conjunction with a meeting of that Division, on Tuesday, January 16th, in the Wesleyan Schoolroom, High Road, Leyton (corner of James Lane, nearest station Leyton Midland Railway), at 4 p.m., for the purpose of considering the present position of the profession with regard to the National Insurance Bill. Members of the Central Council representing the Division will be invited. Agenda: (1) Minutes. (2) Correspondence. (3) Resolutions to be considered:

1. This Division agrees to assist those members residing within the area of Ongar Union in their wish to be transferred to the Mid-Essex Division of the East Anglian Branch, and gives instruction to the Secretary to take the necessary steps to that end. (Recommendation by the Executive Committee.)
2. This meeting desires to express its appreciation of the efforts of the Council, conducted under difficulty, to secure in the National Insurance Bill the six cardinal points accepted unanimously by the profession; and to assert its determination to support the Association in its further efforts to obtain in the regulations whatever of these points is not fully secured in the bill, and in the event of its efforts proving unsuccessful, loyally to abide by the policy decided upon by the Association in the future, provided this policy embodies the six cardinal principles. (Proposed by A. Pottinger Eldred.)
3. This meeting, having regard to the instructions of the Representative Body, to the short time allowed for decision, and the probability of a Government nominee being appointed in case of refusal, considers that the Council adopted the only reasonable and businesslike course open to it in recommending the acceptance by Mr. Smith Whitaker of the post of Medical Commissioner under the Insurance Bill, and is of opinion that in doing so it was actuated by consideration for the true interests of the profession now and in the future. (Proposed by A. Pottinger Eldred.)
4. That this meeting regards with deep concern the semblance of incipient divisions and conflicting counsels following upon the passage of the Insurance Bill into law leaving some of the "six points" still to be settled, and urges all the members of the Division to use every possible opportunity of making it clear to every one, lay and medical, that the profession is still resolutely determined to stand together in demanding these six points as the minimum of its requirements, and is still firmly resolved not to undertake any professional work unless and until these points are all clearly and satisfactorily settled in every part of the kingdom. (Proposed by Dr. C. H. Wise.)
5. This meeting urges upon the Council the great desirability of bringing home to every member of the profession in some short, simple, and easily understood form, the fact that the Association has not departed in any way from the original policy as outlined in the six cardinal points, and that if the remaining points are not satisfactorily obtained in the regulations it will advise and support the profession to refuse to work the bill until such time as satisfactory arrangements have been arrived at all over the country. (Proposed by Dr. C. F. Harford.)

Any gentleman wishing to propose a resolution or amendment is asked to forward the same in writing to the Secretary, Bucklands, Grove Road, Walthamstow, before the date of meeting.—A. POTTINGER ELDRED, Honorary Secretary.

NORTH OF ENGLAND BRANCH: NEWCASTLE-ON-TYNE DIVISION. —A scientific meeting will be held at the Royal Infirmary on Friday, January 19th. Programme:—3.15, Mr. W. F. Wilson: Tumours of the Larynx. 3.45, Dr. D. Drummond: Cerebral Tumours. 4.15, Tea. 4.30, Mr. H. J. Gauvain (Resident Medical Officer, Lord Mayor Treloar Cripples' Hospital, Alton, Hants): Conservative Methods in the Treatment of Tuberculous Bone and Joint Disease.

NORTH WALES BRANCH: SOUTH CARNARVON AND MERIONETH DIVISION.—*National Insurance Bill.* In view of the fact that representations in accordance with the decisions of the Representative Meeting reported in the BRITISH MEDICAL JOURNAL of December 2nd, 1911, have been made to the House of Lords with a view to securing further amendments in that House, the ordinary meeting of this Division, which was to have been held at Barmouth in December, has been postponed until an early date in January. In the interval a full report will be issued by the Council, setting forth the action which it has taken since the Special Representative Meeting, and placing before the Divisions an examination of the Insurance Act in the form in which it becomes law, in order that the Divisions may deliberately consider the subject.—HARRY R. GRIFFITH, Chairman; H. GLADSTONE JONES, Honorary Secretary, Criccieth.

SOUTH-EASTERN BRANCH: BRIGHTON DIVISION.—The following circular has been issued to every registered medical practitioner resident in the area of this Division:

Dear Sir,—An advertisement having appeared in the local press for a consulting and operating surgeon to be appointed at the Brighton Workhouse Infirmary at "*an honorarium of fifty guineas per annum*," you are hereby earnestly urged to sign the following undertaking, and to return it in the stamped addressed envelope without delay. It is hoped that *every registered practitioner, whether an intending candidate or not*, will support the Association in this effort to maintain the principle of fair remuneration for State-paid work.—R. J. RYLE, Chairman; C. H. BENHAM, Honorary Secretary.

Undertaking by Members of the Medical Profession.

I, the undersigned, hereby undertake that I will not apply for nor accept the appointment of consulting and operating surgeon to the Brighton Workhouse Infirmary except upon such terms as are approved by the Brighton Division of the British Medical Association.

Name .....

Address .....

Members of the Brighton Division of the British Medical Association are urgently requested to attend a special meeting to be held this day (Friday, January 12th), at 4.30 p.m., at the Dispensary, Queen's Road, Brighton. Agenda: *Appointment of a consulting and operating surgeon to the Brighton Workhouse Infirmary at an honorarium of fifty guineas per annum.* The following resolutions drafted by the Medico-Political Committee will be proposed by the Chairman, Dr. Ryle:

1. That, whereas the guardians have advertised for a consulting and operating surgeon at an honorarium of fifty guineas per annum, the Brighton Division of the British Medical Association considers that this sum is inadequate for the services required. Seeing that the British Medical Association has decided that State medical service should be completely separated from charity, and that the said appointment contravenes this principle, this Division disapproves of the application for or acceptance of this post by any registered medical practitioner.
2. That, having regard to the duties required, the Brighton Division cannot approve the acceptance of the post by any registered medical practitioner unless the salary attached to the appointment be at least 100 guineas per annum.

C. H. BENHAM, Honorary Secretary.

SOUTH-EASTERN BRANCH: BRIGHTON DIVISION.—The next ordinary meeting of the Division will take place on Wednesday, January 17th, at 4.30 p.m., at The Oddfellows' Hall, Queen's Road, Brighton. Agenda: (1) Minutes and correspondence. (2) Secretary's annual report and financial statement. (3) Election of two Representatives and one Deputy Representative to the Representative Meeting. The following nominations have been received by the Secretary in accordance with Rule 7: Dr. Benham, nominated by Dr. Parry; Dr. Burchell, nominated by Dr. Ryle; Dr. Bushnell, nominated by Dr. Shrubshall; Dr. Ryle, nominated by Dr. Benham; Dr. Shrubshall, nominated by Dr. Bushnell. (4) Proposed appointment of consulting and operating surgeon to the Brighton Workhouse Infirmary. Report of Medico-Political Committee. (5) National Insurance Act: (*a*) Report of Medico-Political Committee on Local Medical Committees; (*b*) Resolution by Dr. Bushnell:

That in view of the vital necessity of adequate representation of the medical profession on the Advisory Committee and Board of Insurance Commissioners, in the interests of the public, the Brighton Division instructs the Council of the Association through its Representatives to add this to the six points which must be granted by law before a panel is formed in any district.

(6) Draft model ethical rules; report of Rules and Reorganization Subcommittee. (7) Any other business. On Wednesday, February 7th, a scientific meeting will take place, at which Sir Victor Horsley has promised to read a paper. Further particulars will be announced in due course.—C. H. BENHAM, Honorary Secretary.

SOUTH-EASTERN BRANCH: FOLKESTONE DIVISION. — The annual meeting of the Folkestone Division will be held at the Burlington Hotel, on Thursday, January 18th, at 7.30 p.m. Agenda:—(1) Minutes. (2) To receive the annual report of the Executive Committee. (3) To elect officers. (4) To receive the resignation of the Honorary Secretary, Dr. P. Vernon Dodd. (5) To receive the resignation of the Representative at the Representative Meetings, Major Falk. (6) To transact any other business. The annual dinner will take place at the same hotel, together with the members of the Folkestone Medical Society, at 8 p.m.—P. VERNON DODD, Honorary Secretary, Folkestone.

MEMBERS ELECTED TO THE BRITISH MEDICAL ASSOCIATION

(JULY 6TH TO OCTOBER 12TH, 1911).

(FIRST LIST.)

BY THE COUNCIL.

Gardner, Henry Rule, Staff Surgeon R.N., M.B., C.M.
Harkness, George Francis Innes, Captain I.M.S., M.R.C.S., L.R.C.P.Lond.
Leckie, Malcolm, Lieut. R.A.M.C., M.R.C.S. Eng , L.R.C.P.Lond.
Smith, Sidney Browning, Major I.M.S., M.R.C.S., L.R.C.P.Lond., D.P.H.Lond.

BY BRANCH COUNCILS.

Bath and Bristol Branch.

Ballard, E. F., M.B., Somerset and Bath Asylum, Wells
Scales, J. E., Esq., Leigh House, Radstock

Birmingham Branch.

Abbott, J. Carson, M.D., Fairfield House, Aston Manor, Birmingham
Alexander, Andrew, Esq., West Bromwich
Baillie, R. T., M.B., 348, Bearwood Road, Smethwick
Beame, E. J., M.B., Jaffrey Hospital, Erdington
Coleman, W. E., Esq., 70, Lower High Street, Wednesbury
Dale, John, M.B., Coleshill
D'Amico, C. De P., M.D., Isolation Hospital, West Heath, Northfield
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CENTRAL MIDWIVES BOARD.

A MEETING of the Central Midwives Board was held at Caxton House, Westminster, on December 21st, 1911, with Sir FRANCIS H. CHAMPNEYS in the chair.

Inadequate Supply of Midwives.

A letter was considered from the Local Government Board, forwarding copies of extracts from the annual reports for the years 1909 and 1910 of the Medical Officer of Health for the Wantage Rural District, calling attention to the inadequate supply of midwives in the district and the causes thereof. The Board resolved to thank the Local Government Board for its letter.

Suspension of Midwives.

A letter was considered from Dr. C. E. Paget, County Medical Officer for Northamptonshire, reporting, in accordance with the provisions of Rule F 2, that he had advised a district nurse, who practises midwifery, to abstain from practice as a midwife for a period of fourteen days after complete disinfection of herself, her clothing, and her appliances by reason of her having been in contact with a case of scarlet fever for a period of eighteen days. Letters were also considered from Dr. W. J. Howarth, County Medical Officer for Kent, reporting the suspension of one midwife for eleven days and of another for twelve days, under similar circumstances. The Board directed that Dr. Paget and Dr. Howarth be thanked for their letters, and that they be informed that the Board approves of their action in the circumstances stated.

A letter was considered from Dr. H. Handford, County Medical Officer for Notts, reporting the suspension of a midwife for fourteen days. The Board directed that Dr. H. Handford be thanked for his letter, and that he be informed that the Board approves of his action in the circumstances stated. The secretary was further directed to communicate with the local supervising authority, pointing out that the matter appeared to disclose a prima facie case of negligence and misconduct against the midwife, and asking the authority whether it so found, and to furnish evidence in support of the statements contained in the letter.

Difficulty in obtaining Instruction.

A letter was considered from an approved midwife at Norwich requesting the Board to reconsider its decision not to recognize a local medical practitioner as a teacher because of the difficulty she experienced in obtaining theoretical instruction for her pupils from the recognized teachers of the Norwich Maternity Charity. The Board directed that the applicant be referred to the medical staff of the Norwich Maternity Charity, who had been recognized by the Board as teachers for the purpose of giving the necessary theoretical instruction to candidates proposing to enter for the Board's examinations from Norwich and the surrounding district.

Prosecuting Uncertified Women.

A letter was considered from the Medical Officer of Health for Birkenhead calling attention to the difficulty of successfully prosecuting uncertified women practising as midwives, owing to the difficulty of proving that the practice is for "gain," as required by Section 1 (2) of the Midwives Act, 1902. The Board directed that the Medical Officer of Health for Birkenhead be thanked for his letter, and that a copy thereof be forwarded to the Privy Council.

False Certificate of Birth.

The SECRETARY reported that a false certificate of birth had been tendered to him by a woman desirous of becoming a candidate for the examination on December 15th. The Board directed that the papers be placed in the hands of the Director of Public Prosecutions, and that he be requested to take such action in the matter as he may think fit.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

FLEET SURGEON E. B. TOWNSEND has been appointed to the *Orion*, on commission, January 2nd.

Fleet Surgeon M. J. SMITH, M.D., has been appointed to the *Hibernia*, on recommission.

Staff Surgeon O. T. NICHOLLS has been appointed to the *Orion*, on commission, January 2nd.

Surgeon H. E. PERKINS has been appointed to the *Hibernia*, on recommission.

Surgeon H. C. DEVAS has been appointed to the *Vivid*, additional, for disposal on ceasing duty at Osborne College, December 21st, 1911.

ARMY MEDICAL SERVICE.

SURGEON-GENERAL SIR FRANCIS W. TREVOR, K.C.S.I., C.B., M.B., K.H.I., is placed on retired pay, dated January 1st, 1912.

ROYAL ARMY MEDICAL CORPS.

Lieutenant T. J. HALLINAN was transferred from Cork to Dublin on January 1st.

Major M. BOYLE, from the Northern Command, has been posted to Jersey for duty.

Major A. J. MACDOUGALL, from Ceylon, has been posted to the Belfast District.

Major H. B. FAWCUS, who recently returned from Bloemfontein, has been appointed Assistant Professor of Hygiene at the Royal Army Medical College, in succession to Major C. F. Wanhill, with effect from January 1st.

Captain V. H. SYMONS, from Bloemfontein, has been appointed to Belfast for duty.

Captain O. IEVERS, from Bloemfontein, has been appointed to Dublin for duty.

Major J. COWAN, from Woolwich, has been appointed to India, embarking about February 29th.

Major H. C. SIDGWICK, from Jamaica, has been appoineed to London for duty.

The undermentioned Captains to be Majors, dated December 4th, 1911: CHARLES S. SMITH, M.B., ARTHUR F. CARLYON, WILLIAM C. CROLY, PATRICK H. HENDERSON, M.B., WILLIAM M. H. SPILLER, M.B., ARCHIBALD D. JAMESON, BERNARD B. BURKE, WALTER B. FRY, PERCY C. DOUGLAS.

Lieutenant JOHN GILMOUR, M.B., is seconded for service under the Foreign Office, dated December 8th, 1911.

INDIAN MEDICAL SERVICE.

THE services of Captain P. HEFFERNAN, M.B., I.M.S., are placed at the disposal of the Government of Madras, with effect from July 9th, 1911.

The services of Major W. E. MCKECHNIE, M.B., I.M.S., are placed permanently at the disposal of the Government of the United Provinces.

Major W. E. SCOTT-MONCRIEFF, I.M.S. Bengal, an Agency Surgeon of the Second Class, is granted privilege leave for three months, combined with furlough leave for three months, combined with furlough leave for one year and sixteen days, and study leave for eight months and fourteen days, with effect from November 19th, 1911.

Lieutenant-Colonel CHARLES HENRY BEDFORD, M.D., I.M.S., has been permitted to retire from the service, with effect from December 18th, 1911.

Major C. B. PRALL, I.M.S., Superintendent of the Central Prison at Bareilly, has been granted privilege leave combined with furlough on medical certificate for a total period of eleven months from November 30th, 1911.

Lieutenant-Colonel G. F. W. EWENS, I.M.S., Superintendent, Punjab Lunatic Asylum, Lahore, is appointed Superintendent, Punjab Lunatic Asylum, Lahore, from October 10th, 1911, on return from privilege leave, relieving Military Assistant Surgeon E. F. Hortingen, Deputy Superintendent, Punjab Lunatic Asylum, of the additional charge.

On relief by Captain Nealor, I.M.S., Captain L. A. B. LACK, I.M.S., is appointed to be Civil Surgeon, Bhamo, in place of Lieutenant-Colonel K. Prasad, I.M.S., proceeding on leave.

Captain TAYLOR is posted as Civil Surgeon, Kumaon.

Captain CROSSLE is posted as Civil Surgeon, Miranshah.

Lieutenant JAMES, I.M.S., is posted as Assistant to the Chief Quarantine Medical Officer, Persian Gulf.

Captain H. S. HUTCHISON, M.B., I.M.S., to act as Deputy Sanitary Commissioner for the Sind Registration District.

The services of Major H. D. PEILE, I.M.S., Superintendent of Central Prison, United Provinces, are on return from leave placed at the disposal of the Government of India in the Home Department.

Captain W. M. HOUSTON, M.B., B.Ch.Dub., I.M.S., on return from leave to act as Medical Officer, Kathiawar Political Agency, and in charge, West Hospital, Rajkot.

Captain W. D. A. KEYS, M.D., B.S.Dub., I.M.S., on relief to act as Civil Surgeon, Karwar.

Captain B. B. PAYMASTER, I.M.S., is granted leave of absence for two years.

Captain R. E. LLOYD, I.M.S., substantively *pro tempore* Professor of Biology in the Medical College, Calcutta, is granted furlough out of India for two years, with effect from November 15th, 1911. Captain R. B. S. SEWELL, I.M.S., Surgeon-Naturalist to the Marine Survey of India, is appointed to officiate.

Lieutenant J. T. H. MORGAN, I.M.S., has been appointed to the officiating medical charge of the 9th Hodson's Horse.

VOLUNTEER DEPARTMENT.

Surgeon-Lieutenant-Colonel J. W. FIELD, V.D., has resigned his commission in the Great Indian Peninsula Railway Volunteer Rifles Corps.

Surgeon-Lieutenant THOMAS HENRY BISHOP, M.R.C.S., L.R.C.P., Second Battalion Madras and Southern Mahratta Railway Volunteer Rifles, Supernumerary List, is transferred in the same capacity to the Active List of the Calcutta Light Horse, with effect from August 9th, 1911.

TERRITORIAL FORCE.

ROYAL ARMY MEDICAL CORPS.

Third Highland Field Ambulance.—Lieutenant-Colonel W. KINNEAR has been granted an extension of two years in the tenure of his appointment from April 1st next. Captain OLIVER EATON, M.B., resigns his commission, dated January 6th, 1912.

Second South Midland Mounted Brigade Field Ambulance.—The following to be Captains, dated November 13th, 1911: Lieutenant ALFRED W. MOORE, M.B.; Lieutenant GURNEY W. BUXTON.

Welsh Border Mounted Brigade Field Ambulance. — Captain ALEXANDER G. HAMILTON to be Major, dated January 6th, 1912: Captain JAMES HERBERT DIXON, M.D., from the list of officers attached to units other than medical units, to be Captain, dated January 6th, 1912.

First London (City of London) Field Ambulance.—ARTHUR DONALD GRIFFITH, M.B., F.R.C.S., to be Lieutenant, dated November 22nd, 1911.

Second North Midland Field Ambulance. — CLAUDE MARRIOTT COWPER to be Lieutenant, dated October 17th, 1911.

Attached to Units other than Medical Units.—The undermentioned officers to be Captains: Lieutenant HUGH RICHARDSON, M.D., dated January 1st, 1909; Lieutenant PERCY MOXEY, dated October 1st, 1911; Lieutenant HARRY F. WILKIN, F.R.C.S.Edin., dated November 19th, 1911.

For Attachment to Units other than Medical Units.—DEVONSHIRE PENROSE HAWKES GARDINER, M.B., to be Lieutenant, dated November 1st, 1911.

COLONIAL MEDICAL SERVICES.

THE following changes have been notified by the Colonial Office:

WEST AFRICAN MEDICAL STAFF.

New Appointments.—The following gentlemen have been selected for appointment to the Staff:—Southern Nigeria: W. I. MARTYN-CLARK, M.B., Ch.B.Edin.; E. J. WYLER, M.D., B.S.Lond., M.R.C.S.Eng., L.R.C.P.Lond.

Resignations.—J. G. COPLAND, M.B., Ch.B.Aberd., Medical Officer, Southern Nigeria; O. G. F. LUHN, M.B., B.Ch.Oxon., D.P.H.Dubl., Medical Officer, Southern Nigeria.

Transfers.—A. BREMNER, M.B., C.M.Edin., Medical Officer, Northern Nigeria, has been transferred to Sierra Leone.

OTHER COLONIES AND PROTECTORATES.

W. GILFILLAN, M.B., Ch.B.Glasg., has been selected for appointment as Assistant Medical Superintendent of the Lunatic Asylum, Trinidad; E. H. SMITH, L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg., has been selected for appointment as Supernumerary Surgeon on the Medical Staff, Trinidad; W. H. C. PATRICK, M.D., B.S.New Zealand, and J. H. COOKE, M.B., B.S.Durh., have been selected for appointment as District Medical Officers in Cyprus; J. G. MORGAN, M.R.C.S.Eng., L.R.C.P.Lond., has been selected for appointment as Medical Officer in Nyasaland: T. S. DAVIES, L.M.S.S.A.Lond., has been selected for appointment as Supernumerary Medical Officer in the Leeward Islands; E. K. LOMAS, M.B., Ch.B., D.P.H.Manchester, has been selected for appointment as Medical Officer in the Straits Settlements.

CHANGES OF STATION.

THE following changes of station amongst the officers of the Army Medical Service have been officially reported to have taken place during November:

		FROM		TO
Colonel	M. W. Kerin, C.B.	Mussoorie	...	Meerut.
,,	Sir D. Bruce, Knt., C.B., F.R.S., M.B., F.R.C.P.	London	...	Nyasaland.
,,	S. C. B. Robinson	Cherat	...	Peshawar.
,,	F. H. Treherne, F.R.C.S.Edin.	Aldershot	...	Ootacamund.
,,	H. J. Barratt	Straits Settlements		India.
,,	A. F. Russell, C.M.G., M.B.	Malta	...	Cairo.
Lieut.-Colonel	J. M. Irwin, M.B.	Tientsin	...	Hong Hong.
,,	S. Westcott, C.M.G.	Chakrata	...	Edinburgh.
,,	R. Kirkpatrick, C.M.G., M.D.	Devonport	...	Cairo.
,,	W. C. Beevor, C.M.G., M.B.	Bangalore	...	Fermoy.
,,	W. Turner	York	...	Aldershot.
,,	N. C. Ferguson, C.M.G., M.B.	London	...	York.
,,	J. S. Green, M.B.	Naini Tal	...	Bangalore.
,,	R. W. Wright	Chatham	...	Fyzabad.
,,	E. A. Burnside	Golden Hill	...	India.
,,	T. McCulloch, M.B.	Calcutta	...	Netley.
,,	H. I. Pocock	Nowshera	...	Sialkot.
,,	C. R. Elliott, M.D.	Lahore	...	Jhansi.
,,	B. J. Inniss	Gravesend	...	Belfast.
Major	W. Hallaran, M.B.	Jhansi	...	Chakrata.
,,	G. S. McLoughlin, D.S.O., M.B.	Chester	...	Golden Hill.
,,	C. W. H. Whitestone, M.B.	Cherat	...	Peshawar.
,,	F. J. W. Porter, D.S.O.	Cosham	...	Reading.
,,	H. P. Johnson, M.D.	Bloemfontein	...	Wynberg.
,,	G. S. Crawford, M.D.	Curragh	...	Dublin.
,,	E. W. Slayter, M.B.	Bellary	...	Mount Abu.
,,	L. P. Moore, M.B.	Portsmouth	...	India.
,,	T. H. J. C. Goodwin, D.S.O.	Aden	...	Devonport.
,,	M. Boyle, M.B.	Leeds	...	Jersey.
,,	G. St. C. Thom, M.B.	Murree	...	Rawal Pindi.
,,	R. J. Blackham	Cherat	...	Peshawar.
,,	H. W. Grattan	Lucknow	...	Benares.
,,	St. J. B. Killery	Jersey	...	N. Commd.
,,	J. McD. McCarthy, M.B.	Naini Tal	...	Rawal Pindi.
,,	H. G. F. Stallard	Cherat	...	Peshawar.
,,	W. H. S. Nickerson, V.C., M.B.	Cherat	...	Peshawar.
,,	W. P. Gwynn	Quetta	...	Karachi.
,,	D. Harvey, M.D.	Naini Tal	...	Nyasaland.
,,	F. J. C. Heffermann, F.R.C.S.I.	London	...	Mhow.
,,	R. H. Lloyd	Exeter	...	India.
,,	J. M. Sloan, D.S.O., M.B.	Aberdeen	...	India.
,,	W. R. Blackwell	Lucknow	...	Delhi.
,,	H. S. Roche	Leeds	...	Lincoln.
,,	W. A. Woodside	Ipswich	...	India.
,,	E. P. Connolly	Cardiff	...	,,
,,	H. H. Norman, M.B.	Shwebo	...	Kasauli.
,,	J. A. Hartigan, M.B.	Malta	...	Tientsin.
,,	T. E. Fielding, M.B.	Woolwich	...	London.
,,	J. M. Cuthbert, M.B.	Edinburgh	...	Leith.
Captain	A. F. Weston	Netley	...	Jamaica.
,,	F. P. Lauder	Youghal	...	Tralee.
,,	A. D. Jameson	Aldershot	...	Meerut.
,,	W. J. Waters	Crown Hill	...	Tientsin.
,,	H. F. Shea, M.B.	Lucknow	...	Ambala.
,,	F. A. Stephens	Birmingham	...	India.
,,	C. D. Myles, M.B.	Gosport	...	Chester.
,,	E. S. Worthington, M.V.O.	London	...	Canada.
,,	J. S. Bostock, M.B.	Aldershot	...	Delhi.
,,	W. Davis	Bareilly	...	Meerut.
,,	W. J. S. Harvey	Chatham	...	Jamaica.
,,	J. McKenzie, M.B.	Pirbright	...	London.
,,	R. L. V. Foster, M.B.	Devonport	...	Crownhill.
,,	J. W. S. Seccombe	Nasirabad	...	R.A.M. Coll.
,,	M. G. Winder	Dover	...	Jamaica.
,,	F. W. W. Dawson, M.B.	Dublin	...	India.
,,	J. E. H. Gatt, M.D.	Allahabad	...	Benares.
Captain	F. C. Lambert	Liverpool	...	Preston.
,,	J. B. Meldon, M.B.	Shorncliffe	...	Dover.
,,	E. M. Pennefather	Fermoy	...	Fethard.
,,	E. M. Glanvill, M.B.	Leeds	...	Newcastle.
,,	M. C. Wetherell, M.D.	Curragh	...	Kildare.
,,	E. C. Whitehead, M.B.	Edinburgh	...	Glencorse.
,,	H. Harding, M.B.	Leicester	...	York.
,,	M. D. Ahern	Chatham	...	Sheerness.
,,	A. A. Meaden	Kilworth	...	Ballincollig.
,,	J. H. Campbell, M.B.	Bury	...	Newport.
,,	H. C. Winckworth	Aldershot	...	Woolwich.
,,	H. C. Sidgwick, M.B.	Jamaica	...	,,
,,	J. E. Hoar	Belfast	...	Dundalk.
,,	G. Ormrod, M.B.	,,	...	Hollywood.
,,	H. H. A. Emerson, M.B.	Limerick	...	Derby.
,,	J. H. Graham, M.B.	Gibraltar	...	Kilworth Camp.
,,	G. E. Ferguson	Cyprus	...	Winchester.
,,	C. E. W. S. Fawcett, M.B.	Thayetmayo	...	Ireland.
,,	E. L. Moss	Dublin	...	Newbridge.
,,	M. B. H. Ritchie, M.B.	Murree	...	Rawal Pindi
,,	P. Farrant	Tidworth	...	Exeter.
,,	M. J. Cromie	Delhi	...	Ireland.
,,	C. J. Wyatt, M.B.	Chatham	...	Maidstone.
,,	F. A. McCammon, M.B.	Quetta	...	Poona.
,,	R. G. H. Tate, M.D.	Kasauli	...	Lahore.
,,	D. M. Corbett, M.B.	Multan	...	Dalhousie.
,,	A. D. Fraser, M.B.	—		Londonderry.
,,	M. P. Leahy, M.B.	Kirkee	...	Satara.
,,	O. R. McEwen	Dalhousie	...	Multan.
,,	T. H. Scott, M.B.	Jullundur	...	Ferozepore.
,,	G. F. Dawson, M.B.	Chakrata	...	Meerut.
,,	J. C. L. Hingston	Madras	...	Wellington.
,,	H. H. Blake, M.B.	Nowshera	...	Cherat.
,,	C. E. L. Harding, M.B.	Poona	...	Quetta.
,,	A. L. Foster	Kalabagh	...	Rawal Pindi
,,	R. O'Kelly	Ranikhet	...	Delhi.
Lieutenant	H. Gall	Simla	...	Ambala.
,,	C. T. V. Benson	Aldershot	...	Deepcut.
,,	R. C. Priest, M.B.	Colchester	...	India.
,,	P. S. Tomlinson	Tidworth	...	Bulford.
,,	J. R. Hill, M.B.	Lancaster	...	Bury.
,,	A. S. M. Winder, M.B.	Curragh	...	Lucknow.
,,	R. H. Nolan	Barian	...	Rawal Pindi.
,,	R. Gale, M.B.	London	...	Egypt.
,,	K. Comyn	Woolwich	...	Dover.
,,	T. H. Dickson, M.B.	Galway	...	Dublin.
,,	P. C. Field	Deepcut	...	Bordon.
,,	J. Gilmour, M.B., F.R.C.S.Edin.	Devonport	...	Cosham.
,,	C. Robb, M.A.	Curragh	...	Egypt.
,,	G. O. Chambers	York	...	Bradford.
,,	E. G. S. Cane	Curragh	...	Dublin.
,,	W. A. Frost, M.B.	—		Devonport.
,,	W. Bisset, M.B.	Woolwich	...	Hounslow.

Lieutenant P. M. J. Brett, M.B., appointed on probation January 27th, 1911, has been stationed at Netley.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

In seventy-seven of the largest English towns 6,673 births and 4,881 deaths were registered during the week ending Saturday, December 30th, 1911. The annual rate of mortality in these towns, which had been 15.2, 16.4, and 15.9 per 1,000 in the three preceding weeks, was equal to 15.8 in the week under notice. In London the death-rate did not exceed 15.3 per 1,000, against 14.3, 16.0, and 15.7 in the three preceding weeks. Among the seventy-six other large towns the death-rates ranged from 4.9 in Hornsey, 7.7 in Hastings and in Halifax, 9.1 in Ipswich, and 10.9 in Rhondda and in Merthyr Tydfil to 21.3 in Stoke-on-Trent, 21.6 in Bootle, 22.0 in Burnley, 22.2 in Bury, and 23.1 in St. Helens. Measles caused a death-rate of 1.3 in Norwich and in Stoke-on-Trent, 2.0 in Nottingham, and 3.9 in Burnley; whooping-cough of 1.1 in Birmingham, 1.6 in St. Helens, 1.7 in Derby, 1.9 in Great Yarmouth, and 2.8 in Walsall; and diphtheria of 2.0 in Wallasey. The mortality from enteric fever and scarlet fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week under notice. The causes of 60, or 1.2 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest, and included 9 in Birmingham, 8 in Liverpool, 6 in Gateshead, and 4 in Preston. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 2,089, 2,041, and 1,912 in the three preceding weeks, numbered 1,913 on Saturday, December 30th, 1911; 162 new cases were admitted during the week, against 241, 224, and 182 in the three preceding weeks.

The Registrar-General's weekly returns will, from the beginning of this year, relate to the 94 largest towns, each of which had a population of 50,000 or over at the last census. In these 94 towns 8,657 births and 5,152 deaths were registered during the week ending Saturday, January 6th. The annual rate of mortality in these towns was equal to 15.3 per 1,000 of their aggregate population, which is estimated at 17,559,219 persons in the middle of the year. In the 77 towns the death-rates in the three preceding weeks were equal to 16.4, 15.9, and 15.7 per 1,000. In London the death-rate last week was equal to 15.5 per 1,000, against 16.0, 15.7, and 15.3 in the three preceding weeks. Among the ninety-three other large towns the death-rates last week ranged from 4.9 in Eastbourne, 5.2 in Hastings, 8.0 in Wakefield, 8.3 in Wimbledon, and 8.8 in Ilford, in Oxford, in Devonport, and in Middlesbrough, to 19.3 in Oldham, 19.5 in York, 19.7 in Enfield, 20.0 in Stoke-on-Trent, 20.7 in St. Helens, 21.3 in Preston, and 23.3 in Dudley. Measles caused a death-rate of 1.3 in Swansea, 1.4 in Warrington, 1.5 in West Bromwich, 1.8 in Salford, and 3.0 in Norwich whooping-cough of 1.2 in Newport (Mon.), 1.8 in Great Yarmouth, 1.9 in Dewsbury, 2.1 in St. Helens and 3.9 in Walsall; and infantile diarrhoea and enteritis of 1.1 in Stoke-on-Trent and 1.2 in Hornsey. The mortality from enteric fever, scarlet fever, or diphtheria showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 45, or 0.9 per cent., of the total deaths in the ninety-four towns were not certified either by a registered medical practitioner or by a coroner after inquest, and included 10 in Birmingham, 10 in Liverpool, 4 in

Gateshead, and 3 in Darlington. The number of scarlet fever patients under treatment in the Metropolitan Asylum Hospitals and the London Fever Hospital, which had been 2,041, 1,912, and 1,914 at the end of the three preceding weeks, had further declined to 1,845 at the end of the week under notice; 193 new cases were admitted during the week, against 224, 182, and 162 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

In eight of the principal Scottish towns 814 births and 568 deaths were registered during the week ending Saturday, December 30th, 1911. The annual rate of mortality in these towns, which had been 17.9 and 18.6 per 1,000 in the two preceding weeks, declined to 17.3 during the week under notice, but was 1.5 per 1,000 above the mean rate during the same period in the large English towns. Among the several Scottish towns the death-rates ranged from 9.1 in Leith and 10.2 in Perth to 18.7 in Greenock and 24.9 in Aberdeen. The mortality from the principal epidemic diseases averaged 2.1 per 1,000, and was highest in Glasgow and Aberdeen. The 274 deaths from all causes registered in Glasgow included 17 from measles, 3 from scarlet fever, 5 from diphtheria, 4 from whooping-cough, 2 from enteric fever, and 3 from infantile diarrhoea. Five deaths from measles, 3 from diphtheria, and 8 from whooping-cough were registered in Aberdeen; 4 deaths from diphtheria and 2 from measles in Edinburgh; and 2 deaths from diphtheria in Dundee.

The Registrar-General's weekly returns will from the beginning of this year relate to all towns, eighteen in number, with populations exceeding 30,000 at the last census. In these eighteen towns, 1,037 births and 705 deaths were registered during the week ending January 6th. The annual rate of mortality in these towns last week was equal to 16.9 per 1,000 of their aggregate population, which is estimated at 2,582,400 persons. In the several towns the death-rates ranged from 8.4 in Partick, 11.6 in Kirkcaldy, and 13.2 in Govan, to 22.5 in Hamilton, 23.3 in Clydebank, and 24.7 in Greenock. The mortality from the principal epidemic diseases averaged 1.9 per 1,000, and was highest in Greenock and Ayr. The 261 deaths from all causes registered in Glasgow included 13 from measles, 3 from scarlet fever, 7 from diphtheria, 3 from whooping-cough, and 1 from infantile diarrhoea. Nine deaths from measles were recorded in Aberdeen and 3 in Clydebank; 3 deaths from whooping-cough in Ayr; and 3 deaths from scarlet fever in Aberdeen and 3 in Greenock.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, January 6th, 598 births and 413 deaths were registered in the twenty-two principal districts of Ireland, as against 560 births and 396 deaths in the preceding period. The annual death-rate in these districts, which had been 20 9, 18.2, and 18.0 per 1,000 in the preceding weeks, rose to 18.6 per 1,000 in the week under notice, this figure being 3.3 per 1,000 higher than the mean average death-rate in the seventy-seven English towns for the corresponding period. The figures in Dublin and Belfast were 23.3 and 17.2 respectively, those in other districts ranging from 4.2 in Drogheda and 4.3 in Lurgan, to 21.4 in Lisburn, and 27.5 in Ballymena, while Cork stood at 17.7, Londonderry at 19.1, Limerick at 9.5, and Waterford at 17.1. The zymotic death-rate in the twenty-two districts averaged 1.3 per 1,000 as against 1.5 in the preceding period.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

BATH: EASTERN DISPENSARY.—Resident Medical Officer. Salary, £150 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Resident Surgical Officer.

BIRMINGHAM: GENERAL HOSPITAL.—(1) Honorary Physician. (2) House-Physician; salary at the rate of £50 per annum.

BRITISH MEDICAL ASSOCIATION.—Medical Secretary; must devote whole time to the work of the Association.

CAMBRIDGE: ADDENBROOKE'S HOSPITAL.—Second House-Surgeon. Salary, £80 per annum.

CROYDON GENERAL HOSPITAL.—Junior House-Surgeon. Salary, £75 per annum.

CROYDON MENTAL HOSPITAL, Upper Warlingham.—Pathologist and Third Assistant Medical Officer. Salary, £200 per annum, rising to £250.

DUDLEY: GUEST HOSPITAL.—Vacancy on Honorary Surgical Staff.

EAST SUSSEX COUNTY ASYLUM, Hellingly.—Third Assistant Medical Officer. Salary, £160 per annum.

FAREHAM RURAL DISTRICT COUNCIL.—(1) Medical Officer of Health. Salary, £120 per annum. (2) Medical Superintendent of Isolation Hospital. Remuneration fixed upon number of patients treated and amount of work done (average £80 per annum).

GLOUCESTER COUNTY ASYLUM.—Male Assistant Medical Officer. Salary, £150 per annum, rising to £180.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway Road, N.—(1) House-Surgeon; (2) House-Physician. Salary at the rate of £40 per annum each.

GUILDFORD: ROYAL SURREY COUNTY HOSPITAL.—Assistant House-Surgeon. Salary, £75 per annum.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—House-Physician.

HULL ROYAL INFIRMARY.—Assistant House-Surgeon. Salary at the rate of £60 per annum for six months' appointment, or £80 per annum for twelve months.

LANCASTER BOROUGH.—Medical Officer of Health. Salary, £400 per annum.

LEAMINGTON: WARNEFORD, LEAMINGTON, AND SOUTH WARWICKSHIRE GENERAL HOSPITAL.—Junior Resident Medical Officer to act as House-Physician. Salary, £85 per annum.

LEICESTER INFIRMARY.—Assistant House-Physician. Salary at the rate of £80 per annum.

LIVERPOOL PARISH.—Resident Assistant Medical Officer for the Workhouse Hospital, Brownlow Hill. Salary, £100 per annum.

LONDON LOCK HOSPITAL AND RESCUE HOME, Harrow Road, W.—Honorary Dental Surgeon.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—(1) Medical Registrar, honorarium 40 guineas per annum. (2) Assistant House-Surgeon, non-resident, honorarium at the rate of £105 per annum.

MACCLESFIELD GENERAL INFIRMARY.—Junior House-Surgeon. Salary, £60 per annum.

MARGARET STREET HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, W.—Honorary Assistant Physician.

NORTHAMPTON GENERAL HOSPITAL.—House-Surgeon (male). Salary, £90 per annum, increasing to £100.

NORTH STAFFORDSHIRE INFIRMARY, Hartshill.—House-Surgeon. Salary, £100 per annum.

PADDINGTON GREEN CHILDREN'S HOSPITAL, W.—Honorary Physician to Out-patients.

POPLAR HOSPITAL FOR ACCIDENTS, E.—Assistant House-Surgeon. Salary at the rate of £80 per annum.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney Road, E.—Surgeon-in-Charge of the Ear, Nose, and Throat Department.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Election to Court of Examiners.

ROYAL LONDON OPHTHALMIC HOSPITAL, City Road, E.C.—Senior House-Surgeon. Salary, £100 per annum.

ST. BARTHOLOMEW'S HOSPITAL, E.C.—Physician.

ST. PETER'S HOSPITAL FOR STONE, ETC., Henrietta Street, W.C.—Junior House-Surgeon. Salary at the rate of £50 per annum.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Junior House-Surgeon. Salary, £80 per annum.

SHEFFIELD ROYAL INFIRMARY.—Junior Resident Medical Officer. Salary, £60 per annum.

SOUTH SHIELDS: INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Senior and Junior House-Surgeons (males). Salary, £100 and £90 per annum respectively.

STAFFORD: COTON HILL LUNATIC ASYLUM.—Assistant Medical Officer. Salary, £125 per annum, rising to £175.

TRURO: ROYAL CORNWALL INFIRMARY.—House-Surgeon. Salary, £100 per annum.

VICTORIA HOSPITAL FOR CHILDREN, Tite Street, S.W.—(1) House-Physician; (2) House-Surgeon. Salary, £40 for six months in each case.

WESTBOURNE PROVIDENT DISPENSARY, Harrow Road, W.—Vacancy on Medical Staff.

WEST LONDON HOSPITAL, Hammersmith Road, W.—Assistant Anæsthetist.

WINCHESTER: ROYAL HAMPSHIRE COUNTY HOSPITAL.—House-Physician (male). Salary, £80 per annum.

WORCESTER GENERAL INFIRMARY.—House-Surgeon. Salary, £100 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacant appointments: Bruton (Somersetshire), Cinderford (Gloucestershire), Kingstown (co. Dublin), Saltcoats (Ayrshire), Stock (Essex).

APPOINTMENTS.

BARNES, J. A. P., M.R.C.S., L.R.C.P., Certifying Factory Surgeon for the Tottenham District, co. Middlesex.

FLEMING, G., M.B., C.M., M.R.C.P.E., Medical Officer to Crooksbury Sanatorium, Farnham, Surrey.

MORTON, R. L., M.B., B.Ch., Honorary Assistant Specialist for Diseases of the Ear and Throat at the Alfred Hospital, Victoria.

WHITE, T. D., L.S.A., Medical Officer of Health of the Burnham-on-Crouch Urban District.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTHS.

HOLCROFT.—On December 6th, 1911, at Mar Lodge, Aliwal North, C.P., South Africa, the wife of W. F. L. Austen Holcroft, M.B., B.Ch., of a daughter.

SIMMERS.—November 30th, 1911, at Goombungee, Queensland, the wife of Eustace M. Simmers, M.B., Ch.B.Edin., of a son.

DEATHS.

GAMGEE.—On January 7th, at 45, York Road, Edgbaston, Marion, wife of the late Joseph Sampson Gamgee, of Birmingham, aged 72.

DIARY FOR THE WEEK.

TUESDAY.

CHELSEA CLINICAL SOCIETY, St. George's Hospital Medical School, 8.30 p.m.—Papers:—Mr. J. D. Mortimer: Preparation for Anæsthesia. Mr. A. F. Penny: The Importance of Early Diagnosis and Treatment in Acute Inflammatory Diseases of the Middle Ear.

LONDON DERMATOLOGICAL SOCIETY, 49, Leicester Square, W.C., 4.30 p.m.—Cases and specimens.

MEDICO-LEGAL SOCIETY, 11, Chandos Street, W., 8.30 p.m.—Paper: Dr. R. R. Rentoul, Sterilization of the Unfit.

ROYAL SOCIETY OF MEDICINE:

PATHOLOGICAL SECTION, 15, Cavendish Square, W., 8.30 p.m.—Dr. J. Turner: Two Cases of Amaurotic Idiocy. Dr. J. A. Braxton Hicks: An Unusual Organism (*M. zymogenes*) in a Case of Malignant Endocarditis. Dr. J. C. G. Ledingham: Phagocytosis from the Absorption Point of View.

ROYAL SOCIETY OF MEDICINE:
THERAPEUTICAL AND PHARMACOLOGICAL SECTION, 15, Cavendish Square, W., 4.30 p.m.—Paper by Dr. W. Bain: The Causes and Treatment of High Blood Pressures.

THURSDAY.

ROYAL SOCIETY OF MEDICINE:
DERMATOLOGICAL SECTION, 11, Chandos Street, W., 5 p.m.—Cases and specimens.
NEUROLOGICAL SECTION, 15, Cavendish Square, W., 8.30 p.m.—Papers:—Dr. Howard Tooth and Dr. Hinds Howell: Case of Tabetic Amyotrophy with Pathological Report. Dr. F. E. Batten: Case of Dermato-Myositis with Pathological Examination. Dr. Wilfred Harris: Two Cases of Haemato-Rhachis.

THE ROYAL SOCIETY, Burlington House, W., 4.30 p.m.—List of probable papers:—Dr. J. L. Haldane, F.R.S., C. G. Douglas, Professor Y. Henderson, and Professor E. C. Schneider: The Physiological Effects of Low Atmospheric Pressures, as observed on Pike's Peak, Colorado. (Preliminary communication.) J. Barcroft, F.R.S.: A paper on the Effect of Altitude on the Dissociation Curve of the Blood. R. Kirkpatrick: Note on *Astrosclera willeyana* (Lister). Dr. H. B. Fantham: *Herpetomonas pediculi*, nov. spec., parasitic in the Alimentary Tract of *Pediculus vestimenti*, the Human Body Louse. Captain A. D. Fraser, R.A.M.C., and Dr. H. L. Duke: Antelope infected with *Trypanosoma gambiense*.

FRIDAY.

KING'S COLLEGE HOSPITAL MEDICAL SOCIETY, 8.20 p.m.—Clinical Evening.

ROYAL SOCIETY OF MEDICINE:
ELECTRO-THERAPEUTICAL SECTION, 15, Cavendish Square, W., 8.30 p.m.—Paper by Dr. C. J. Morton: *X*-ray Prognosis. Demonstration by Dr. James C. Case: *X*-ray Stereo Reductions of Bismuth meals.
OTOLOGICAL SECTION, 11, Chandos Street, W., 5 p.m.—Discussion on the Factors which Conduce to Success in the Treatment of Otogenic Brain Abscess, to be opened by Sir Victor Horsley, F.R.S., and Mr. C. E. West.

POST-GRADUATE COURSES AND LECTURES.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat at noon and 4.30 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Tuesday, and noon, Friday. Eye, 11 a.m., Wednesday and Saturday. Radiography, Saturday, 10 a.m. Pathological Demonstration, Saturday, 11 a.m. Special Lectures: Monday, 3.15 p.m., Rheumatic Fever; Tuesday, 4.30 p.m., Diagnosis of Peripheral Nerve Lesions; Wednesday, 5.0 p.m., Surgical demonstration or lecture; Thursday, 4.30 p.m., Anaesthetics.

MANCHESTER: ANCOATS HOSPITAL POST-GRADUATE CLINIC.—Thursday, 4.15 p.m., Difficulties to the Diagnosis between Diseases of the Chest and Abdomen.

MANCHESTER ROYAL INFIRMARY.—Monday, 4.30 p.m., Demonstration of Medical Cases. Friday, 4.30 p.m., Neuralgia and its Surgical Treatment.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Medical; Friday, Ear, Nose, and Throat. Lectures at 5.15 p.m. each day will be given as follows: Monday, A New Material for Surgical Appliances (with demonstrations). Tuesday, Nasal Catarrh. Wednesday, Animal Parasites in the Skin. Thursday, Glaucoma.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Spinal Tumours. Friday, 3.30 p.m., Spinal Syphilis.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics: 10 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear; 3 p.m., Demonstration on Clinical and General Pathology. Tuesday, 2.30 p.m., Operations; Clinics: Surgical, Gynaecological, 3.30 p.m., Medical In-patient; 4.30 p.m., Lecture: The Value of *X* Rays in the Diagnosis of Chest Affections. Wednesday, 2 p.m., Throat Operations; 2.30 p.m., Medical Out-patient; Skin and Eye Clinics: *X* Rays; 3 p.m., Pathological Demonstration; 4.30 p.m., Lecture: The Therapeutic Lens of *X* Rays; 5.30 p.m., Eye Operations. Thursday, 2.30 p.m., Gynaecological Operations. Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient; Pathological Demonstration.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics, *X* Rays, and Operations, 2 p.m. daily. Monday: Gynaecology, 10 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday: Gynaecological Operations, 10 a.m.; Demonstration of Minor Operations, 11.30 a.m. Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday: Gynaecological Demonstration, 10 a.m.; Lecture, Practical Medicine, 12.15 p.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday: Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday: Diseases of Children, 10 a.m. Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m. Special Lectures at 5 p.m. daily.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
JANUARY.	
12 FRIDAY ..	LONDON: Central Ethical Committee, 2 p.m. BRIGHTON DIVISION, *South-Eastern Branch*, Special Meeting, Dispensary, Queen's Road, Brighton, 4.30 p.m. HAMPSTEAD DIVISION, *Metropolitan Counties Branch*, Conservatoire, Swiss Cottage, 8.30 p.m. LIVERPOOL DIVISION, *Lancashire and Cheshire Branch*, Annual Meeting.
13 SATURDAY ..	
14 Sunday ..	
15 MONDAY ..	
16 TUESDAY ..	LONDON: Organization Committee, 2.30 p.m. SOUTH-WEST ESSEX DIVISION, *Metropolitan Counties Branch*, General Meeting, Wesleyan Schoolroom, High Road, Leyton, 4 p.m.
17 WEDNESDAY	**London: Special Meeting of Council, 2.30 p.m.** BRIGHTON DIVISION, *South-Eastern Branch*, Oddfellows' Hall, Queen's Road, Brighton, 4.30 p.m.
18 THURSDAY ..	LONDON: Metropolitan Counties Branch Council, 4 p.m. FOLKESTONE DIVISION, *South-Eastern Branch*, Annual Meeting, Burlington Hotel, 7.30 p.m.: Annual Dinner with Members of the Folkestone Medical Society, 8 p.m.

Date.	Meetings to be Held.
JANUARY *(continued)*.	
19 FRIDAY ..	NEWCASTLE-ON-TYNE DIVISION, *North of England Branch*, Scientific Meeting, Royal Victoria Infirmary, 3.15 p.m. CITY DIVISION, *Metropolitan Counties Branch*, Meeting conjointly with Æsculapian Society, Metropolitan Hospital, Kingsland Road, N.E., 4 p.m.
20 SATURDAY ..	
21 Sunday ..	
22 MONDAY ..	
23 TUESDAY ..	
24 WEDNESDAY	LONDON: Finance Committee, 2.30 p.m. LONDON: State Sickness Insurance Committee. RICHMOND DIVISION, *Metropolitan Counties Branch*, Richmond, 8.30 p.m.
25 THURSDAY ..	
26 FRIDAY ..	
27 SATURDAY ..	
28 Sunday ..	
29 MONDAY ..	
30 TUESDAY ..	
31 WEDNESDAY	**London: Central Council, 2 p.m.**

Printed and Published by the British Medical Association at their Offices, No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JANUARY 20TH, 1912.

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National Insurance.

British Medical Association.

NATIONAL INSURANCE ACT.

STATE SICKNESS INSURANCE COMMITTEE.

Correspondence with the Insurance Commissioners.

THE following communication was forwarded to the National Insurance Commissioners, pursuant to the instructions of the State Sickness Insurance Committee of January 3rd, 1912:

Offices of the British Medical Association,
Medical Department,
429, Strand,
London, W.C.
January 4th, 1912.

Dear Sir,

I am instructed to inquire on behalf of the British Medical Association whether the Insurance Commissioners are as yet in a position to give any indications as to the procedure which will be adopted in bringing Part I of the National Insurance Act into operation in its medical aspects. The Association desires specially to be informed, so far as such information can now be given, at what stages of the bringing into operation of the Act, and in what manner, the Association can most suitably make such representations as it might find it incumbent upon it to make on behalf of the medical profession.

Can any information now be given on the following specific points:

[1] When are steps likely to be taken to set up the Advisory Committee under Clause 58?

[2] Will there be an Advisory Committee to the Joint Committee to be appointed under Clause 83 as well as to the Commissioners for each part of the United Kingdom?

[3] What steps is it proposed to take with a view to securing that the medical members of each Advisory Committee shall be representative of the medical profession?

[4] To what extent, if at all, is it contemplated that the powers of the Commissioners for England, Scotland, Ireland, and Wales, with respect to administration of medical benefit and other questions of medical concern under the Act shall be vested in the Joint Committee?

The Association would be glad to have any other information beyond the answers to the above questions, which the Commissioners can give for the assistance of the Association in considering the subject.

I am, Sir,
Yours faithfully,
(Signed) ALFRED COX,
Acting Medical Secretary.

The Secretary,
Insurance Commission,
55, Whitehall, S.W.

The following reply has been received:

National Health Insurance Commission (England),
London, S.W.,
January 11th, 1912.

Dear Sir,

I am directed by the National Health Insurance Commission (England) to state, in reply to your letter of January 4th, that the Commissioners have under their consideration the question of the manner and time at which they can invite the British Medical Association to make representations to them and will at a later date address a further communication to you in the matter.

With reference to the specific questions asked in your letter I am to state as follows:

As to questions (1) and (3), the preliminary steps necessary to the setting up of the Advisory Committee under Section 58 of the Act are now under the consideration of the Commission. Before any decision is arrived at affecting the question of the representation upon the Committee of the medical profession the Commission will communicate with the British Medical Association.

As regards questions (2) and (4), the Commission understand that the Regulations to be made under Section 83 of the Act, making provision as to the powers and duties of the several bodies of Commissioners under Part I of the Act which are to be exercised and performed by the Joint Committee, are under the consideration of the Treasury, to whom is committed by the Act the power of making those Regulations.

A copy of the draft of these Regulations will be sent to the British Medical Association as soon as it is available. It is understood, however, that there will be an Advisory Committee for each of the National Commissions as well as an Advisory Committee for the Joint Committee.

Yours faithfully,
(Signed) Claude Schuster.

Alfred Cox, Esq.,
Offices of the British Medical Association,
Medical Department,
429, Strand, W.C.

COMMUNICATIONS TO HONORARY SECRETARIES.

The following communication was sent to the Honorary Secretaries of Branches in England and Wales on January 4th, 1912:

British Medical Association,
Medical Department,
429, Strand,
London, W.C.,
January 4th, 1912.

Dear Sir,

National Insurance Act—Local Medical Committees.

The question of the future action of the Association in regard to the National Insurance Act is now under consideration, and will be the subject of an early report by the Council to the Divisions. It is felt, however, that certain aspects of the organization of the profession in relation to the Act should receive prompt local consideration, and I am instructed to bring the following points to the notice of the Councils of the Branches.

In accordance with the terms of the Act a local Insurance Committee must be constituted for every County and County Borough. Further, Clause 59 (4) provides as follows for the setting up of District Insurance Committees:

> Provided that the Regulations so made shall require the local Insurance Committee of every county (except in cases where, owing to special circumstances, the Commissioners consider it unnecessary) within six months after the commencement of this Act to prepare after consultation with the County Council and submit for approval to the Commissioners a scheme for the appointment of district insurance committees for the county, and prescribing the area to be assigned to each such committee, and in particular the scheme shall provide for the appointment of a district insurance committee for each borough (including the City of London and a metropolitan borough) within the county having a population of not less than ten thousand, and for each urban district within the county with a population of not less than twenty thousand, but if the Insurance Committee, or, on appeal, the Insurance Commissioners consider it expedient in the case of any such borough outside London or urban district any adjoining areas may be grouped with such borough or urban district for the purpose of the appointment of a district insurance committee.

With these provisions must be read Clause 62 setting up local and district medical committees:

> 62. Where a local medical committee has been formed for any county or county borough or for any area for which a district committee has been formed and the Insurance Commissioners are satisfied that such committee is representative of the duly qualified medical practitioners resident in the county or county borough or such area as aforesaid they shall recognize such committee, and where a local medical committee has been so recognized it shall, subject to regulations made by the Insurance Commissioners, be consulted by the Insurance Committee or district committee as the case may be, on all general questions affecting the administration of medical benefit, including the arrangements made with medical practitioners giving attendance and treatment to insured persons, and shall perform such other duties, and shall exercise such powers as may be determined by the Insurance Commissioners.

I am instructed to draw your attention to the fact that the setting up of local medical committees in no way commits the local profession to form panels of practitioners for the purposes of the Act. On the contrary, such committees will be equally useful if, when the regulations are drawn up, it is found that they are such as to justify the profession in refusing to form a panel and in organizing opposition.

The extreme importance of the local and district medical committees in bringing the organized medical opinion of a district to bear upon the local Insurance Committee must be apparent to every member of the Association. It will be found that, with few exceptions, the Division areas of the Association do not correspond with the proposed Insurance areas, and a problem of considerable importance and complexity arises on which the State Sickness Insurance Committee would be glad to have the advice and assistance of the Branch Councils. The question is, How is the machinery of the Association to be used in setting up local and district medical committees? In some places, particularly the county boroughs, it will be found that the Division could quite well set up and control the medical committee for its area. In other areas there will be considerable overlapping. Should the machinery for setting up local and district medical committees in these areas be operated by joint Division committees, by *ad hoc* Branch Committees, or in what other way? What effect will the setting up of these statutory medical committees have on the Association Division and Branch areas? Each Branch will doubtless have its own ideas upon these subjects, and I am instructed to ask if you will kindly place the matter at an early date before your Branch Council, and forward, at your earliest convenience, any suggestions it may make for dealing with its own area, or with the subject in general.

I shall be pleased to send, on request, further copies of this letter for the use of the members of your Branch Council. I am,

Yours faithfully,
Alfred Cox,
Acting Medical Secretary.

To the Honorary Secretaries of Branches
in England and Wales.

A similar letter was also sent to the Honorary Secretaries of Branches in Scotland, with the following addition:

Special Provisions as Regards the Application of the above Clauses to Scotland.

Subsections (4), (5), and (14), Clause 80 of the Act, make the following special provisions as regards Scotland:

> *Clause* 80.—(4) The expression "county borough" means a burgh or police burgh within the meaning of the Local Government (Scotland) Act, 1889 (in this section referred to as the Act of 1889), containing within the police boundaries thereof according to the census of nineteen hundred and eleven a population of twenty thousand or upwards, and includes the burgh of Dumfries and the police burgh of Maxwelltown, as if they were a single burgh, and all other burghs and police burghs shall, for the purposes of this part of this Act, be held to be within the county, and unless already represented on the County Council shall, for the purposes of this Part of this Act, be represented thereon as may be determined by the Secretary for Scotland: Provided that references to the Council of a county borough shall, in the case of Dumfries and Maxwelltown, be construed as references to a joint committee of the town councils thereof which shall from time to time be appointed subject to the provisions of section seventy-six of the Act of 1889:
>
> (5) References to a county and the county council thereof shall, as regards—
>
> (*a*) The counties of Kinross and Clackmannan; and
> (*b*) The counties of Elgin and Nairn;
>
> be construed in each case as references respectively to a combination of the two recited counties and to a joint committee of the county councils thereof which shall from time to time be appointed subject to the provisions of section seventy-six of the Act of 1889:
>
> (14) The expression "borough" and the expression "urban district" mean a burgh or police burgh within the meaning of the Act of 1889, and the expressions "rural district" and "council of a rural district," unless inconsistent with the context, mean respectively a district of a county within the meaning of the said Act and the district committee thereof: Provided that the population limit

prescribed for boroughs and urban districts in the subsection of this Act relating to the appointment of district committees for these areas shall not apply.

The following letter was addressed to the Honorary Secretaries of Divisions in England, Scotland, and Wales:

British Medical Association,
Medical Department,
429, Strand, London, W.C.

STATE SICKNESS INSURANCE COMMITTEE.

January 9th, 1912.

Dear Sir,

National Insurance Act—Remuneration of Medical Practitioners.

I enclose a copy of a letter which it is proposed to send to any practitioner who is likely to be able to supply the information asked for. You will, of course, recognize the extreme importance and urgency of the matter, and I shall be glad to have at your earliest convenience the names of any doctors in your district who, you have reason to think, may have kept figures which would be useful for our purpose.

I am,
Yours faithfully,
ALFRED COX,
Acting Medical Secretary.

To Honorary Secretaries of Divisions
in England, Scotland, and Wales.

British Medical Association,
Medical Department,
429, Strand, London, W.C.,
January, 1912.

Dear Sir,

National Insurance Act—Remuneration of Medical Practitioners.

It is desired to ascertain as accurately as possible the average amount of medical attendance needed per annum by club patients on the present system. The information is sought in order to frame an estimate as to the amount of attendance likely to be required by insured persons under the new Act. This information is necessary in order to form a basis for the calculation of adequate remuneration either upon the capitation system or the payment per attendance system. I am informed by the Honorary Secretary of your Division that you may possibly have kept figures which would be useful to the Committee. If so, will you be good enough to fill in answers to the enclosed questions and return the form at your earliest convenience.

I am,
Yours faithfully,
ALFRED COX,
Acting Medical Secretary.

BRITISH MEDICAL ASSOCIATION.

QUESTIONS CONCERNING THE AMOUNT OF WORK DONE IN CONTRACT PRACTICE—THAT IS, THE NUMBER OF VISITS AND CONSULTATIONS.

[*Private and Confidential.*]

1. What is the general nature of your contract practice work—for example, friendly society, colliery, or works clubs?

2. What is the total number of club members for whom you are responsible?

(NOTE.—Give, if possible, the number of men, women, and children.)

Men.	Women.	Children.	Total.

3. *(*a*) What is the total number of visits per annum?

*(*b*) What is the total number of surgery attendances per annum?

* Please state whether the above figures are taken from actual records or are merely a computation.

4. Is your contract practice urban or rural?

5. To what extent are your figures affected by hospital or dispensary out-patient attendance?

6. Are there any special conditions tending to increase or decrease the amount of attendance required?

GENERAL REMARKS:

Signature .....

Date..... *Address* .....

JOINT COMMITTEE REGULATIONS.

DRAFT, DATED JANUARY 11th, 1912, OF REGULATIONS TO BE MADE BY THE TREASURY UNDER SECTION 83 OF THE NATIONAL INSURANCE ACT, 1911.

IN pursuance of the powers conferred upon them by Section 83 of the National Insurance Act, 1911, and of every other power enabling them in this behalf, the Lords Commissioners of His Majesty's Treasury hereby without prejudice to any further exercise of such powers make the following regulations:

1. These regulations may be cited as the National Insurance (Joint Committee) Regulations, 1912.

2.—(1) Expressions used in these Regulations have the same meaning as in Part I of the National Insurance Act, 1911 (in these Regulations called "the Act"), and

"The several bodies of Commissioners" means the Insurance Commissioners, the Scottish Insurance Commissioners, the Irish Insurance Commissioners, and the Welsh Insurance Commissioners, appointed for the purposes of Part I of the Act, or such one or more of such bodies as in any particular case may be concerned.

"The Joint Committee" means the Joint Committee of the several bodies of Commissioners to be constituted under Section 83 of the Act.

"Part of the United Kingdom" means England, Scotland, Ireland, or Wales.

(2) The Interpretation Act, 1889, shall apply to the interpretation of these Regulations in like manner as it applies to the interpretation of an Act of Parliament.

3.—(1) The Joint Committee shall consist of—

(*a*) The chairmen for the time being of the several bodies of commissioners (who shall be *ex officio* members of such committee);

(*b*) Such other members (if any) of each such body as the Treasury shall from time to time by warrant appoint;

(*c*) So many and such other persons (not exceeding two in number) as the Treasury shall in like manner appoint, and

(*d*) A chairman to be appointed by the Treasury in like manner.

(2) The Treasury may from time to time by warrant appoint any member of the Joint Committee to be vice-chairman thereof, and such vice-chairman shall preside at any meeting of the Joint Committee which the chairman shall be unable to attend. If both the chairman and vice-chairman are absent, the members present at the meeting shall elect from among themselves a chairman for that meeting.

(3) If the chairman of any of the several bodies of Commissioners shall be unable to attend at any meeting of the Joint Committee, the deputy chairman of that body, or, if he is unable to attend, such other member of that body as the body shall appoint, shall for the purpose of such meeting be a member of the Joint Committee in his place.

(4) At every meeting of the Joint Committee four shall form a quorum, and every member present shall have one vote, but in case of an equality of votes the chairman of the Joint Committee, or, in his absence, the vice-chairman (if present), shall have a casting vote.

(5) Subject as aforesaid the Joint Committee may regulate the procedure of its meetings and the manner in which and the times at which meetings are to be called.

4. The Joint Committee may, under Subsection (2) of Section 83 of the Act, make such financial adjustments as may be necessary between the several funds under the control and management of the several bodies of Commissioners, and shall exercise alone the power conferred by Subsection (3) of that Section of making regulations as to the valuation of societies and branches which have amongst their members persons resident in more than one part of the United Kingdom.

5. For the purposes of the provisions of the Act relating to contributions, the Joint Committee shall exercise jointly with the several bodies of Commissioners the following powers, namely:

(*a*) Under Subsection (1) of Section 4 and Subsection (1) of Section 5 of the Act, the power of prescribing the intervals at which contributions payable in respect of employed contributors and voluntary contributors respectively are to be payable.

(*b*) Under paragraph (4) of Section 4 of the Act, the power of prescribing the account to which contributions which an employer is liable to pay under that subsection are to be carried and the manner in which the same are to be dealt with.

(*c*) Under Section 7 of the Act, the power of making regulations for matters incidental to the payment and collection of contributions.

(*d*) Under paragraph (5) of the Third Schedule to the Act, the power of prescribing the employer or employers who shall be deemed to be the employer for the purposes of the provisions of Part I of the Act relating to the payment of contributions, and of that Schedule in cases where a contributor is employed by more than one employer in any calendar week.

(*e*) Under paragraph (6) of the said Third Schedule the power of making regulations with reference to the cases and classes of cases of employment referred to in that paragraph.

(*f*) Under paragraph (10) of the said Third Schedule, the power of making regulations providing for the determinations to be paid in the case of outworkers by reference to the work actually done.

6. For the purposes of Section 10 of the Act (which relates to insured persons whose contributions are in arrears), the Joint Committee alone shall exercise the power:

(*a*) Of prescribing the manner in which a sum credited to an approved society in respect of an insured person who is suspended from all benefits under Subsection (1) of that section is to be calculated, the account to which such sum is to be carried, and the manner in which the same is to be dealt with.

(*b*) Of prescribing under Subsection (3) of that section the proportionate reduction of benefits to which a voluntary contributor who is in arrears is to be liable.

(*c*) Of prescribing under Subsection (7) of that section the manner in which the average amount of arrears for the purposes of that section is to be calculated.

7. For the purposes of Section 15 and paragraph (*d*) of Section 42 of the Act (which relate to medical benefit) the Joint Committee shall exercise jointly with the several bodies of Commissioners the following powers, namely:

(*a*) Under Subsection (1) of Section 15, the power to make regulations governing arrangements for administering medical benefit.

(*b*) Under paragraph (*b*) of Subsection (2) of Section 15, the power of removing names from the list of medical practitioners and of prescribing the inquiry to be made before such removal is effected.

(*c*) The power of dispensing with the necessity of the adoption of such system as is mentioned in Subsection (2) of Section 15, and of authorizing Insurance Committees to make other arrangements and of approving such arrangements, and the power of making arrangements or of suspending the right to medical benefit in manner mentioned in that subsection.

(*d*) Under Subsection (5) of Section 15, the power to make regulations governing arrangements for the supply of drugs, medicines, and appliances.

(*e*) Under paragraph (*b*) of Subsection 5 of Section 15, the power of determining whether the inclusion or continuance of a person, firm, or body corporate in such list as is mentioned in that subsection would be prejudicial to the efficiency of the service.

(*f*) Under paragraph (i) of the lastly mentioned subsection, the power of dispensing with the necessity of the adoption of such system as in that subsection is mentioned, and of authorizing Insurance Committees to make other arrangements and of approving such arrangements.

(*g*) Under paragraph (2) of the lastly mentioned subsection, the power to make regulations permitting arrangements to be made by Insurance Committees with medical practitioners for the supply of drugs or medicines to insured persons.

(*h*) Under Subsection (6) of Section 15, the power of determining, in default of agreement between an approved society and an Insurance Committee, the sum to be paid in any year to such Committee in respect of medical benefit and the cost of administration thereof.

(*i*) Under paragraph (*d*) of Section 42, the power of consenting to any determination by an Insurance Committee of the sum payable in any year in respect of deposit contributors for the purposes of the cost of medical benefit.

8.—(1) For the purposes of the provisions of the Act relating to approved societies, the Joint Committee alone shall, in the case of any society and any separate section of a society which has among its members insured persons resident in more than one part of the United Kingdom, exercise the following powers, namely:—

(*a*) The power of approving and of withdrawing approval, and, where approval has been withdrawn from a society, of making provision with respect to members thereof who are insured persons;

(*b*) The power of approving any scheme submitted under Section 25 of the Act;

(*c*) If the Joint Committee shall so require, the powers given by Section 26 of the Act of determining what security is sufficient to be given, of dispensing with security, of varying the amount of security, and of consenting to a substitution of securities;

(*d*) The power of approving rules providing for any of the matters mentioned in Subsection (1) of Section 27 of the Act;

(*e*) Under Section 28 of the Act the power of consenting to the secession or withdrawal of branches, of approving any provision made by a seceding or withdrawing branch for the transfer of such of its members as are insured persons, of sanctioning the dissolution of societies and branches, and of approving, in the case of a branch which it is proposed to expel, any provision made with respect to any members thereof who are insured persons.

(2) The power of prescribing the character of the constitution which a society not registered or established under any Act of Parliament or by Royal Charter must have before it can be approved by the several bodies of Commissioners or the Joint Committee shall be exercisable by the Joint Committee alone.

(3) Where a society or separate section of a society has been approved by the body of Commissioners concerned, and such approval has not been withdrawn, such society or section may apply to the Joint Committee for its approval, and the Joint Committee may grant the same, and thereafter the society or section shall, but without prejudice to any subsequent withdrawal of approval, continue to be an approved society notwithstanding that it subsequently have amongst its members insured persons resident in more than one part of the United Kingdom.

9. For the purposes of the provisions of the Act relating to the accounts and valuations of and surpluses and deficiencies shown by approved societies and branches of approved societies, the Joint Committee alone shall exercise the following powers, namely:—

(*a*) Under Subsection (1) of Section 35 of the Act, the power of prescribing the form in which the books and accounts under Part I of the Act of such societies and branches are to be kept, and of requiring such societies and branches to render returns.

(*b*) Under Section 36 of the Act, the power of appointing the times at which and of prescribing the basis on which valuations of the assets and liabilities arising under Part I of the Act of such societies and branches are to be made.

(*c*) Under Subsection (2) of Section 38 of the Act, the power of prescribing the manner in which the capitalized value of levies and diminution of benefits is to be ascertained;

and the Joint Committee shall exercise jointly with the several bodies of Commissioners the following powers, namely:—

(i) Under Section 37 of the Act, the power of sanctioning schemes for distributing additional benefits out of any such surplus.

(ii) Under Section 38 of the Act, the power of sanctioning schemes for making good any such deficiency.

Provided that in exercising the powers mentioned in paragraphs (i) and (ii) hereof, the Joint Committee shall be concerned only with the actuarial soundness of such schemes.

10. For the purposes of Section 44 of the Act (which relates to married women) the Joint Committee alone shall exercise the following powers, namely:

(*a*) Under Subsection (1) of that section, the power of making regulations subject to which a married woman ceasing to be suspended from receiving the ordinary benefits under that subsection is for the purposes of those benefits to be treated as if she had not previously been an insured person.

(*b*) Under Subsection (10) of that section, the power of prescribing the manner in which transfer values are to be calculated for the purposes of that section.

(*c*) Under Subsection (12) of that section, the power of prescribing the adjustments to be made under that subsection.

11. For the purposes of Section 48 of the Act (which relates to the mercantile marine) the Joint Committee alone shall exercise the following powers, namely:

(*a*) Under Subsection (5) of that section, the power of approving any scheme prepared by the Board of Trade for the management of the affairs of the Seamen's National Insurance Society;

(*b*) Under Subsection (7) of that section, the power of approving, with the Board of Trade, any scheme prepared by the Committee of Management under that subsection.

(*c*) Under Subsection (12) of that section, the power of prescribing the modifications subject to which the provisions of Part I of the Act relating to the administration of medical benefit and sanatorium benefit are to apply in the case of members of the Seamen's National Insurance Society.

12. (1) The Joint Committee alone shall exercise the following powers relating to financial matters, namely—

(*a*) Under Subsection (4) of Section 54 of the Act, the power of prescribing the rate per annum at which interest is to be credited to the Post Office fund and to the Navy and Army Insurance Fund.

(*b*) Under Subsection (1) of Section 56 of the Act, the power of making regulations with respect to crediting and debiting sums to the several societies and as to the payments to be made by and to the Commissioners to and by societies, the power of prescribing the rate per annum at which interest is to be credited to societies, the power of receiving notices from societies, and the power of prescribing the modifications subject to which the regulations made under that subsection are to apply to a society giving such notice.

(*c*) Under Subsection (4) of Section 56 of the Act, the power of prescribing the manner in which sums received by way of interest or dividend on investments are to be applied by approved societies.

(2) The Joint Committee shall exercise jointly with the several bodies of Commissioners the power under Subsection (2) of Section 56 of the Act, of approving securities in which approved societies may invest sums paid to them for investment.

13. The Joint Committee alone shall exercise the power of making the following tables, namely:

(*a*) Under Subsection (1) of Section 5 of the Act, the tables in accordance with which the voluntary rate is to be ascertained;

(*b*) Under Subsection (2) of Section 6 of the Act, the tables in accordance with which additions are to be made to the reduced rate of sickness benefit payable under that subsection;

(*c*) Under Subsection (4) of Section 9 of the Act, tables in accordance with which the reduced rate payable in the case of the persons referred to in that subsection is to be fixed;

(*d*) Under Subsection (1) of Section 31 of the Act, tables in accordance with which transfer values are to be calculated.

(*e*) Under Subsection (1) of Section 44 of the Act, tables according to which reserve values are to be calculated for the purposes of that subsection;

(*f*) Under Subsection (1) of Section 55 of the Act, tables showing reserve values.

14. For the purposes of the provisions of the Act relating to the making of special orders, the Joint Committee alone shall exercise the power of making such orders:

(*a*) Under Subsection (2) of Section 1 of the Act, providing for the inclusion amongst the persons employed within the meaning of Part I of the Act of any persons engaged in any of the excepted employments specified in Part II of the First Schedule to the Act.

(*b*) Under Section 20 of the Act, providing for the reinsurance of the liabilities of approved societies in respect of maternity benefit.

(*c*) Under Subsection (8) of Section 46 of the Act, specifying the cases in and the circumstances under which that subsection is to apply to a man who was not immediately before the training therein mentioned an insured person.

And the Joint Committee shall exercise jointly with the several bodies of Commissioners the power of making such orders:

(i) Under Subsection (1) of Section 47 of the Act, specifying any such classes of employment as are therein mentioned.

(ii) Under Subsection (7) of Section 47 of the Act, extending the provisions of that section to other classes of employment.

(iii) Under Section 50 of the Act, for any matter in respect of which a special order may be made under that section.

(iv) Under paragraph (*c*) of Part I of the First Schedule to the Act, for excluding outworkers or deferring the commencement of the Act as respects outworkers.

(v) Under paragraph (*k*) of Part II of the said First Schedule, for the purpose of excluding employment as a member of the crew of a fishing vessel in such cases as are referred to in that subsection.

(vi) Under paragraph (*i*) of Part II of the said First Schedule, for the purpose of excluding any class of employment of such a nature that it is ordinarily adopted as subsidiary employment only.

15. The Joint Committee alone shall exercise the following further powers, namely:

(*a*) Under Subsection (1) of Section 32 of the Act, the power of approving societies and institutions established in a British possession or foreign country and so that the satisfaction of the Joint Committee alone shall be required with regard to the matters in respect of which the several bodies of Commissioners are required to be satisfied by that subsection.

(*b*) Under Subsection (2) of Section 32 of the Act, the power of making arrangements for transfers of persons to and from societies and institutions established in a British possession or foreign state from and to approved societies or the Post Office Fund and for the determination of the amount to be transferred, and of the rights to which persons transferred are to be entitled.

(*c*) Under Section 33 of the Act, the power of making regulations subject to which an approved society may transfer to its account under Part I of the Act to its credit independently of the Act any sum which by that section it is entitled so to transfer.

(*d*) Under Section 42 of the Act, the power of prescribing the time allowed to an insured person to join an approved society or, in the case of any such person who has been expelled or has resigned from an approved society, the time allowed to him to join another approved society.

(*e*) Under paragraph (*b*) of Subsection (1) of Section 43 of the Act, the power of prescribing the account to which transfer values are to be carried and the manner in which the same are to be dealt with under that subsection

(*f*) Under Subsection (1) of Section 46 of the Act, the power of prescribing the weekly sums to be contributed by the Admiralty and the Army Council respectively in respect of seamen, marines, and soldiers who have not joined approved societies.

(*g*) Under paragraph (*b*) of Subsection (3) of Section 46 of the Act, the power of prescribing the manner in which sums to be paid into the Navy or Army Insurance Fund under that paragraph are to be calculated.

(*h*) Under paragraph (*b*) of Subsection (1) of Section 51 of the Act, the power of prescribing the manner in which sums payable under that paragraph by the managers of institutions carried on for charitable or reformatory purposes are to be calculated.

(*i*) Under Section 52 of the Act, the power of prescribing the manner in which sums payable under that section to the Board of Education, the Scotch Education Department, or the Superintendent of the Teachers' Pension Office (as the case may be), are to be calculated.

(*j*) Under paragraph (*c*) of Subsection (1) of Section 60, the power of prescribing the form in which the books and accounts of Insurance Committees are to be kept.

(*k*) Under paragraph (10) of Part II of the Fourth Schedule to the Act, the power of prescribing the conditions subject to which contributions may be made to superannuation funds by way of additional benefit.

16. The Joint Committee shall exercise jointly with the several bodies of Commissioners the following further powers, namely:

(*a*) Under Subsection (2) of Section 9 of the Act, the power of consenting to reductions of the rate of sickness benefit or disablement benefit, and to provisions made for the grant of additional benefits under that subsection.

(*b*) Under Section 13 of the Act, the power of confirming a scheme for substituting additional benefits under that section.

(*c*) Under Subsection (2) of Section 39 of the Act, the power of consenting to the formation by societies of an association under that section and of prescribing the conditions on which a society shall be entitled or allowed to join or to secede from an association.

(*d*) Under Section 62 of the Act, the power of recognizing local medical committees, of making regulations subject to which such committees shall be consulted by Insurance Committees and district committees, and of determining the powers to be exercised by local medical committees.

(*e*) Under Section 73 of the Act, the power of granting certificates under that Section.

(*f*) Under paragraphs (*b*) and (*c*) of Part II of the First Schedule to the Act, the powers conferred on the several bodies of Commissioners by those paragraphs respectively.

Provided, that in exercising the powers mentioned in paragraphs (*a*), (*b*), (*c*), (*e*) and (*f*) hereof the Joint Committee shall, except in the case of the powers conferred by paragraph (*b*) of Part II of the First Schedule to the Act with regard to persons in employment under the Crown, be concerned with actuarial matters alone.

17. The Joint Committee shall exercise and perform, either alone or jointly with the several bodies of Commissioners as the case may require, such of the powers and duties of such bodies under Sections 57, 58, and 78 of the Act and otherwise as may be necessary to enable the Joint Committee to exercise and perform the several powers and duties of the Joint Committee under the Act and these Regulations, but without prejudice to the exercise and performance by the several bodies of Commissioners of all or any of their powers and duties under the Act with regard to matters falling to be dealt with by them under the Act and these Regulations.

18. These Regulations shall be deemed to have had effect as from the twenty-eighth day of December, 1911.

Provided that anything done in pursuance of the provisional Regulations made under the Act on the twenty-eighth day of December, 1911, shall, notwithstanding anything in these Regulations, be deemed to have been validly done and have full effect accordingly.

Dated this eleventh day of January, 1912.

THE SCOTTISH COMMISSIONERS.

Official Memorandum.

The Scottish Insurance Commissioners have issued the following memorandum:

The Scottish Insurance Commissioners have had under consideration various questions of importance relating to the National Insurance Act in its application to Scotland. They are very desirous of affording to the public all assistance and information in their power, and of meeting the general convenience of the people of Scotland in every reasonable and practicable manner. The Commissioners wish to make it quite clear, however, that their functions are administrative, regulative, supervisory, and judicial. They cannot possibly undertake to give opinions in advance on questions that may come before them in a judicial capacity. In response to a general desire the Commissioners will favourably consider all requests for information regarding the Act from the official and purely explanatory point of view. They have accordingly resolved to issue a series of explanatory leaflets or circulars. These will be drawn up so as to cover the scope of the Act, and will, it is hoped, save an enormous volume of correspondence, as well as the time and trouble of the general public. Copies of such leaflets or circulars will be sent to the public press throughout Scotland, to town, county, and parish councils, and school boards, to friendly and other societies, to trade unions, clergymen, teachers, librarians, and others.

The Commissioners have not yet had time to consider fully their procedure, but, although their office will be in Edinburgh, they will endeavour to meet the convenience of residents in other parts of Scotland. Accordingly they are about to send a number of accredited representatives to different parts of Scotland in order to furnish by conference, public meeting, and otherwise information with regard to the provisions of the Act. It must, however, be clearly understood that such representatives are merely official expositors; that any opinions which they may express must not be held as committing the Commissioners in cases that may subsequently come before them for decision; and that they will have no authority to represent the Commissioners, either in a supervisory, administrative, or judicial capacity. In short, the sole object will be to afford full and correct official information as to the scope of the Act. It should also be borne in mind that on no account whatever will the Commissioners, or any of their representatives, address meetings under the auspices of any political party. It is suggested that for any meetings that may be arranged an impartial chairman be selected, and that where possible he should be the Lord Provost or Provost of the burgh, the convener of the county, the chairman of the school board or parish council, or the senior clergyman of the district.

The Commissioners desire and hope soon to be in a position to accede to all reasonable requests to receive deputations from representatives of medical interests, friendly societies, trade unions, societies likely to be "approved," local authorities, deposit contributors, and all others concerned.

In conclusion, the Commissioners desire to remind the public that the Act cannot come into operation until July 15th next.

THE NATIONAL INSURANCE SCHEME.

The Financial Basis of the Scheme.

Actuaries' Reports.

The first report of the actuaries consulted by the Treasury, dated May 20th, 1911,[1] was supplemented by another, dated November 28th, 1911,[2] giving estimates revised to meet the amendments which had then been made in the bill; it is understood that a further supplementary report will shortly be issued dealing with the Act itself. It may, however, be useful at the present time to indicate briefly the scope of the new report, and to recall some of the points in the report issued in May.

The actuaries selected were Mr. George F. Hardy and Mr. Frank B. Wyatt, both past presidents of the Institute of Actuaries.

[1] Cd. 5681, price 4½d. [2] Cd. 5983, price 2½d.

The instructions given to the Actuaries by the Treasury on May 3rd were to answer a series of questions asking for estimates as to the number of persons eligible to become insured under the bill, and the cost of the provision of benefits, including the cost of administration, and that for the purposes of these estimates they were to assume:

1. That the rate of interest earned on invested funds will be 3 per cent. per annum clear of all deductions.

2. That the costs of administration chargeable against contributions and the State grants (in like proportion to the benefits) will be the amount produced by a gross rate of contribution of 4s. per member per annum.

3. That the cost of the medical benefit (including medicines) will be on an average 6s. per member per annum.

Of the changes in the bill which rendered necessary changes in the estimates, the principal were the omission of young persons under 16, the inclusion as voluntary insured persons (upon a reduced scale of contribution and benefits) of married women not being employed persons who had been contributors prior to marriage, the extension of the sickness benefit to include the first twenty-six in place of the first thirteen weeks of sickness, the reduction in the sickness benefit of unmarried persons under 21, and of persons between the ages of 50 and 60 at the time of becoming employed contributors, and the extension of the maternity benefit to the wife of an insured person notwithstanding that she is herself an insured person.

In the report issued in May the actuaries stated that they had taken medical benefit as equivalent to 6s. per annum throughout life, and sanatorium benefit as equivalent to 1s. 3d. per head per annum throughout life. In the more recent report they state that medical and sanatorium benefits remain unchanged, and "according to our original instructions have been taken as equivalent to 6s. per head per annum, and 1s. 3d. per head per annum respectively throughout life." Further, they observed that:

> As regards the estimated cost of the medical and sanatorium benefits, we are of opinion that no larger sum than that assumed, namely, 7s. 3d. per annum for these combined benefits, can safely be set aside out of the proposed contributions, and that the whole margin between the estimated contributions and those actually payable under the bill should be regarded as available to meet the heavier rates of sickness and disablements which must be expected in a certain number of societies. Unless this margin is retained it is probable that a considerable number of societies will show deficiencies upon valuation, and this might endanger the success of the scheme.

As now given, the number of contributors is shown in the following condensed table:

Estimated Number of Members of Approved Societies (Compulsory and Voluntary): Both Sexes.

UNITED KINGDOM.

1912-13.	1922-23.
13,036,000	15,562,000

Estimated Number of Deposit Contributors at the Commencement of the Scheme: Both Sexes.

UNITED KINGDOM.

Men.	Women.	Total.
638,000	244,000	882,000

The estimated aggregate contribution to be received from employers and employed persons who are members of approved societies is shown separately for each country—England, Wales, Scotland, and Ireland—and for the United Kingdom. The figures summarized below include the special contributions of 1d. a week a head to be paid by the State in the case of employed persons whose wages are under 2s. a day (Section 4).

In the early report tables were given showing estimates of the annual sums required in each year to meet each class of minimum benefit and the cost of administration. In the following condensed table medical benefits are shown together with total benefits (including medical benefit), the cost of administration, and the total outgo.

Amount Required in the Financial Years Mentioned to Meet the Cost of Minimum Benefits.

Year.	Medical Benefits.	Total Minimum Benefits.	Cost of Administration.	Total Outgo.
	£	£	£	£
1912-13	1,646,000	4,959,000	2,426,000	7,385,000
1913-14	3,957,000	11,104,000	2,474,000	13,578,000
1927-28	5,049,000	18,148,000	3,067,000	21,215,000

In the same report the actuaries pointed out that in determining the total of the amounts to be credited to approved societies, the actual weekly contributions to be paid are in excess of the premiums which are sufficient, theoretically, to meet the benefits. In this connexion they say:

> In the case of men the contribution of 7d. per week, payable jointly by the employer and the insured, is 11.34 per cent. in excess of the contribution for the "minimum" benefits shown above, and in the case of the women the contribution actually payable of 6d. per week, is 12.65 per cent. in excess of the contribution for the "minimum" benefits, including cost of administration in each case. This margin in the contributions will represent a corresponding increase in the present value of future benefits, including allowance for cost of administration since, on the assumption that the cost of these will work out at the anticipated figure, the societies will accumulate surpluses which will be employed to increase the benefits according to the provisions in the bill. Although in this event the increased cost of benefits will not immediately be felt, it must be taken into account in discounting the future and in estimating the reserves necessary to be credited to the societies. It is necessary, therefore, to compute the initial reserve values applicable to the "minimum" benefits by 11.34 per cent. in the case of men and by 12.65 per cent. in the case of women.
>
> On the other hand, as two-ninths of all benefits in the case of men and one-fourth in the case of women will be provided by the State, it will be necessary to credit the societies at the outset with the reserve values in respect of seven-ninths only of the maximum benefits (that is, the "minimum" benefits *plus* cost of administration) for men and three-fourths for women raised by the above percentages.

In their November report they give an estimate of the annual cost of the maximum benefits—that is to say, all the benefits after the above-mentioned adjustments have been made; and they also make estimate of the amount of the State subsidy payable in the three financial years, 1912-13, 1913-14, and 1922-23.

Aggregate Contributions to be Received from Employers and Insured Persons (that is, Members of Approved Societies) in the United Kingdom.

UNITED KINGDOM.

	1912-13.	1913-14.	1922-23.
	£	£	£
Receipts* ...	13,264,600	18,029,400	20,755,300
Expenditure ...	5,406,000	15,088,100	21,683,700
State subsidy ...	1,600,000	4,050,000	5,780,000

* The figures include the special contribution of 1d. a week a head to be paid by the State in the cases of employed persons whose wages are under 2s. a day.

MEETINGS OF THE PROFESSION.

CORNWALL.

A MASS meeting of medical men practising in Cornwall was held at St. Austell on December 19th, 1911. There were fifty-seven present. The following resolution was carried by 51 to 6:

> That this meeting expresses the opinion that the Insurance Bill as at present framed does not satisfactorily embody the reasonable demands of the medical profession; that the scheme is unworkable and financially unsound; not only is it detrimental to the medical profession, but also dangerous to the public health. Therefore, as the bill stands at present, we, the medical practitioners in East and West Cornwall, express our determination to refuse to form a panel or undertake duties which the bill proposes to assign to us.

PAISLEY.

A well-attended meeting of the medical men of Paisley was held on Friday, January 12th, Dr. Donald Fraser in the chair.

After a free discussion of the Act, the following motion, proposed by Dr. Clow and seconded by Dr. Gibb, became the finding of the meeting by a large majority, with two entering their dissent:

> That the members of the medical profession of Paisley inform the Scottish Commissioners that they decline to give medical attendance and treatment under the Act until the six cardinal points are adequately provided for by the Commissioners.

MEETINGS TO BE HELD.

A meeting of medical men resident in the county of Wilts will be held in the Council Room of the Town Hall, Trowbridge, on Saturday, January 27th, at 2.45 p.m. The object of the meeting is to consider the present position under the Insurance Act, and to take what preliminary steps may be necessary to safeguard the interests of medical men, and especially to consider the formation of a county union of practitioners, which shall elect a Medical Committee under Section 62. This meeting is considered advisable owing to the fact that Wiltshire will be the unit for administrative purposes under the Act, but it does not necessarily involve the formation of a panel of practitioners. The circular convening the meeting bears the following signatures: W. T. Briscoe (Chippenham), J. Ellis Crisp (Corsham), J. E. Gordon (Salisbury), T. H. Haydon (Marlborough), H. J. Mackay (Devizes), J. C. M'Lean (Swindon), J. Ogdin March (Amesbury), C. F. Rumboll (Melksham), E. T. Shorland (Westbury), C. R. Straton (Wilton), G. Rodway Swinhoe (Swindon), H. P. Tayler (Bradford-on-Avon), G. C. Tayler (Trowbridge), J. Tubb-Thomas (Trowbridge), G. S. A. Waylen (Devizes), R. L. Willcox (Warminster).

"B.M.A. REFORM COMMITTEE."

We have received the following statement:

To the Members of the Medical Profession in general, and of the British Medical Association in particular.

The provisional executive of the B.M.A. Reform Committee, appointed by resolution at a public meeting of the profession held at the Hammersmith Town Hall on Tuesday, January 9th, 1912, wishes to publish the following as an outline of its objects and policy.

1. This Committee exists solely for the purpose of enforcing the avowed policy of the British Medical Association in contradistinction to the weakened version thereof expressed in the circular letter to Representatives under date December 9th, 1911, which was signed by the Chairman of Representative Meeting and Chairman of Council, and will only continue to exist until the interests of the medical profession under the National Insurance Act, 1911, are adequately safeguarded without evasion, equivocation, or mental reservation of any kind.

2. The Committee is of opinion that the best method of obtaining this end is by the promotion of an Act of Parliament, through the British Medical Association, amending the National Insurance Act, 1911, in such a manner as will embody as a minimum the six-point programme of the British Medical Association. This opinion of the Committee is directly opposed to that of the existing Council of the British Medical Association—namely, that matters may now be left in the hands of the Commissioners to be dealt with in their regulations.

3. The Committee is of opinion that in its recent negotiations with the Government the existing Council of the Association has allowed itself to be too much influenced by political considerations, and by so doing have endangered the interests of the medical profession, and the Committee is further of opinion that the "ending or mending" of the present Council is the only method by which the confidence of the members of the British Medical Association in their official leaders can be restored.

4. In order to reform the existing Council the Committee suggests the enrolment in the Reform Committee of sufficient members in each Division and Branch as to ensure that a representative be returned either to the Representative Body or to the Council who shall be in sympathy with and will pledge himself to vote for the policy laid down in the foregoing paragraphs. It also suggests the establishment of an Executive Committee in London composed of delegates of Divisions to control the business and finances of the Reform Committee.

5. The Provisional Executive suggests that the Reform Committee should confer as soon as possible with all or any of the present medical organizations, which have been formed for the purpose of dealing with the situation created by the Act, with a view to union.

6. The Committee is of opinion that every member of the profession should be a member of the British Medical Association, and urges that every member of the Reform Committee to use their best endeavours to obtain new members and to persuade existing members to continue their membership.

The Reform Committee invites members of the British Medical Association who are in sympathy with the policy as set forth above to assist in the establishment of branches of the Committee in their Divisions, and to lose no time in communicating with the Honorary Secretary, Provisional Executive Committee, at its offices, 34, Villiers Street, Strand, W.C. (Tel. 800 Gerrard.)

Present.—F. J. Smith (Chairman), E. F. Travers, W. Kingdom, P. Spaull, E. W. Lewis, Campbell Boyd, W. S. Lee, E. B. Turner, M. Milton Townsend, P. C. Raiment (Honorary Secretary).

January 11th, 1912.

CONFERENCE WITH THE ENGLISH COMMISSION.

Trade Unions.

On January 11th the Insurance Commission for England had a conference at the Foreign Office with some officials and prominent members of trade unions. The conference was called for the purpose of eliciting the opinion of the unions so represented who will be concerned in the administration of the Act. As in previous conferences of a similar nature, the discussion was of a purely general character.

CORRESPONDENCE.

The Policy Adopted in Scotland.

Dr. John Gordon (member of the Council of the British Medical Association, Vice-President of Aberdeen Division, British Medical Association) writes: I am surprised and disappointed with the opinion expressed by Mr. W. E. Hempson, solicitor to the British Medical Association, in his reply to the State Sickness Insurance Committee. He writes:

> It appears to me that a uniform income limit, suitable methods of remuneration, and adequate remuneration can only be secured by the medical profession firmly uniting and bringing to bear such pressure as they can by this means command upon the local Health Committees in all parts of the United Kingdom.

In my opinion such a line of action would be most unwise. What we have got to do is, through selected representatives acting as delegations, to treat directly with the National Insurance Commissioners in each of the four countries, and to make it clear to each body of Commissioners that we shall treat only with them, and shall recognize no other bodies or committees formed under the Act until these Commissioners shall see their way to have our six cardinal principles completely secured.

To the Commissioners Parliament has delegated powers which it declined to exercise itself in respect of the arrangements with the medical profession.

We failed to obtain in the House of Commons what we stated steadily were our minimum demands; and these demands were passed over to the Commissioners for settlement by them.

Our profession has never recognized the Act. It consistently set forth, during the whole period of the discussion of the bill, certain fixed conditions under which the profession as such would be willing to endeavour to carry out this vast new departure for the treatment of sickness throughout the country. At the same time the profession has with equal persistency declared that with-

out these conditions it would not forego one iota of its present freedom of action.

If we wait till the National Insurance Commissioners constitute their local Insurance Committees and then begin to bargain with the Committees, we tacitly recognize the Act, and we are certain to be outwitted by the mental forces behind it.

Moreover, the National Insurance Commissioners now stand in place of Parliament in relation to our profession, and they must treat with us. If they cannot grant us our six cardinal principles then they must go back to Parliament and obtain an amending Act.

THE FORTHCOMING REPRESENTATIVE MEETING.

Mr. CHARLES P. CHILDE, F.R.C.S. (President of the Southern Branch, British Medical Association) writes: All members of the British Medical Association, as well as all non-members who have hitherto supported it, will welcome the announcement in the JOURNAL last week of an early summons of a Special Representative Meeting to determine the attitude of the profession towards what has now become the Insurance Act.

It will be a meeting of vital importance, and it behoves all Divisions to consider very carefully the policy to be recommended, and to attempt to forecast the moves and countermoves that are likely to result before the final solution is reached. While the bill was passing through its various stages in the House of Commons, the instructions to the Council were to use their best endeavours to secure that certain conditions were embodied in it or reasonably obtainable under its provisions, and it was clearly understood that, in the event of their efforts proving unsuccessful, the medical profession were not prepared to accept service under it. Now that the bill has become an Act, if the profession are not satisfied that these conditions are embodied in it or reasonably obtainable under the machinery set up by it, they are therefore acting quite consistently in taking up any position which appears most advantageous to them in their further resistance to it.

To secure unity of action two axioms must be accepted. The first is that Representatives at the Representative Meeting must receive definite instructions from their Divisions, and must clearly understand that they are merely delegates to voice those instructions and cast their votes in accordance with them. There should not be any doubt whatever on this point; no Representative, as appears to have been the case in some of the recent meetings, should feel himself at liberty to be led by the nose by any member of the Council, however eminent. It is only in this way that the true sense of the Divisions can be interpreted.

The second axiom is that the minority must loyally abide by the decision of the majority, although such decision may be entirely contrary to their own convictions. This, of course, applies to the prior decisions of the Divisions as well as to the final decisions of the Representative Meeting.

If the above two conditions be loyally complied with, we shall, as the result of the Representative Meeting, get at the true sense and determination of the profession as a whole towards the Insurance Act, we shall have evolved order out of chaos, and be in the position to take up a united stand. It does not matter what one individual or a score of individuals thinks; it does not matter what one Division or a score of Divisions thinks. In order to secure united action, the minority must waive their individual opinions and disappointments, and fall into line cheerfully with the majority.

There are three definite policies in the field.

First of all, there is the policy which has hitherto been that of the British Medical Association, for there is no doubt that it was the course recommended by the Representative Meeting, however questionable the means by which it was arrived at. It claims to have secured some of the six cardinal points in the Act itself, and further claims that there is no legal barrier to securing the rest by combined affort in dealing with the local Insurance Committees. Before deciding to abide by this policy, the question which the Divisions should ask themselves is, "Is it likely that they will secure the minimum demands in this way?" Because, if the answer is in the negative, it is clearly a faulty strategical position to take up. Now the opinion is generally, almost unanimously, held that the profession will not succeed in obtaining the necessary concessions in this way without at all events a decided *non possumus*. If, therefore, it will be necessary to strike in the end, why show a conditional acceptance of the Act by appointing local Medical Committees and our representatives on the local Insurance Committees, which will surely compromise and weaken our position? Why wait till appointments are in the air, and temptations to accept them are present? We have a clean slate now, and are not forced into the last ditch, where our defeat if it comes will be final. We should clearly, then, not take up our position there voluntarily.

The second policy is that which has emanated from Manchester, namely, that the profession, convinced that it will not obtain its six cardinal points before the local Insurance Committees without a strike, determines to boycott the Act straightaway. This is going to the other extreme, and inasmuch as it does not take cognizance of the large powers invested in the Insurance Commissioners, would appear to be premature.

The third course of action is the middle one, and seems to be the best, as is generally the case—*Media via tutissima*. It is to instruct the Council, through the Representative Meeting, to approach the Commissioners with the irrevocable decision that unless the regulations are so framed as substantially to secure the six cardinal points to the satisfaction of the profession, the latter is not prepared to bargain for them with the local Insurance Committees, and will take no further part in the working of the Act. If the Commissioners, then, have the power under the Act and the will to exercise that power, matters will be brought to a settlement; if they have not, negotiations with the Government will cease, and the latter will have either to abandon the medical part of the scheme as unworkable or to appoint whole-time officers.

Now the bogey of the whole-time officer has been constantly in evidence during recent negotiations with the Government, and we are told that Mr. Lloyd George has an army of blacklegs ready and willing to serve his purpose. We may well doubt it. If he has, in view of the manifest solidarity throughout the country of the reputable members of the profession, they must be composed of the wastrels and failures, of which no doubt the medical, in common with other professions, has its quota, or else of the very young and inexperienced. Should these be forthcoming in adequate numbers, is it likely, it may be asked, that the respectable lower middle classes—people with incomes ranging up to £160 a year—are going to be satisfied with such a return for their contributions? I venture to think not.

But, as it is necessary to consider even the remotest possibility, suppose such a service were forced upon the public, the profession still holds the ace of trumps in its hand. On the day of appointment of whole-time officers, which, of course, would mean the extinction of thousands of private practices at present existing, the physicians and surgeons of our voluntary hospitals should notify their respective committees of management of their refusal to treat any patient recommended by a whole-time officer, except to save a person from death immediately threatening, such, for instance, as a case of perforated appendix or gastric ulcer. This would be an extreme step, but would be quite justified under the circumstances. If the staffs were invited to resign in consequence it would be impossible to fill their positions from the wastrels of the profession, or to manufacture experienced physicians and operating surgeons at a moment's notice.

Some solution would have to be found quickly, and the medical profession would be in a position to dictate its terms, which, judging from past history, we may be quite sure would not be unreasonable.

It seems that it is the clear duty of the consultants and experts holding high positions in our voluntary hospitals to stand by the rank and file of the profession, to whom they mostly owe their existence, in this crisis if it comes to pushing matters to an extremity.

But I think a resolute stand on the policy I have indicated would result in a solution of the present *impasse* without recourse to any such extreme measures.

Dr. M. BRYSON (Thornhill, Dumfriesshire) writes: I notice with satisfaction that it is proposed to hold a Special Representative Meeting at an early date to

consider the position of the profession with regard to the bill, and that in last week's editorial you draw attention to the by-law which provides that if a Representative is unable or unwilling to attend, his constituents have power to select a substitute. Now, sir, in view of the present crisis, and of the importance of this meeting to the rank and file of the profession, would it not be well that every Representative should forthwith place his resignation in the hands of his Division? The great majority of Representatives have done their duty well, and I have no doubt their constituents would mark their sense of this by unanimously re-electing them. In some cases, doubtless, a fresh selection would be made. Many Representatives are not general practitioners—a number are consultants, a number hold public appointments. The general practitioner, as a rule, can ill afford the time to attend these meetings.

This question is, however, above all, a general practitioner's question, and many of us would feel more comfortable if we were represented by those of our own class, who are fully alive to the varied aspects of the case from our own point of view. A man may be imbued with the best traditions of our profession and enjoy the respect and esteem of his colleagues and yet be singularly unfitted to represent his fellow members at this particular time.

Failing a new election, the various points at issue must be clearly placed before the Divisions, and it must be clearly understood that their instructions to Representatives must be carried out to the letter. Much uneasiness has been caused by the ruling—or, rather, opinion—of the Chairman of the Representative Meeting. Where a Representative has no definite instructions he must, of course, exercise his judgement. Where his instructions are clear, it is nothing short of treachery not to carry them out.

One word with regard to the position of consultants at the present time. Many of them have taken an exceedingly active part in the campaign, and all, I suppose, have signed the general agreement. I would point out, however, that this involves no sacrifice, present or prospective, as the bill will affect them not at all. Some of them are going up and down the country "damning and cussing" the bill generally. We are very glad of their support, of course, but some of us are cynical enough to ask to what, after all, does it amount? I would suggest that consultants should be asked to sign a special agreement binding themselves not to meet in consultation any one who accepts service under the Act contrary to the opinion of the Association. This would be an immense help in the event of a deadlock, and we should then be able to judge if these gentlemen are really in earnest.

In conclusion, if a new election is made, let me implore the members of the Association to exercise the utmost care and consideration. Extremists on either side are bad. The man who, with no pecuniary interest at stake, seizes the occasion to indulge his political animosities and wildly adjures us to die in the last ditch is as much to be distrusted as he who, with equally little at stake, allows a sickly sentimentality to blind him to the interests of his less favoured brethren.

Dr. C. Courtenay Lord (Gillingham, Kent) writes: A Special Representative Meeting will probably be held at no very distant date. Past experience abundantly proves that with Division meetings taking place all over the country at the same time and at short notice co-ordinate action is impossible, as no single Division knows the views of any other Division. The want of a definite lead has led to some dire results in the past, and has much, though not all, to do with the present disastrous position of the profession. It cannot be too strongly urged that the last chance of expressing our determination will arise at the coming Representative Meeting. A clear issue at this meeting must be: Is the policy of the Council as set forth in the British Medical Journal to prevail, or is the policy of the members of the Association to prevail? In other words, will you go forth to bargain with the working man for your right to earn a living, or will you make a firm stand and refuse to look at this Act until your cardinal points are legally safeguarded?

In order that uniformity of action may be possible, the following plan may appear worthy of consideration.

So soon as the Council make known the recommendations and questions to be considered by the Divisions for the purpose of instructing their Representatives let each Division Secretary personally obtain the opinion of every member of the profession in his Division. Let him tabulate the results of his canvass. Mass meetings for each Branch, or, if more convenient, for each county, should be called as soon after the canvass as possible. All should attend who can. Secretaries knowing the opinions of those not present should be entrusted with proxy voting power.

A definite line of action would then be adopted, and when the Division meetings took place each Division would know the sense of the whole county or Branch in which it was situated. If some plan of this kind had been adopted before the November meeting the Harmsworth amendment would not now be in the Act.

The disastrous results of the last Special Representative Meetings should convince all that many of the Representatives do not reflect the views of their constituents. Drastic changes are necessary among the Representatives, or, pass what resolutions you may, you will wake up to find yourselves committed to another weary period of futile negotiation.

Let me impress upon you that the salaried official or the retired man cannot feel in this crisis as does the man whose means of earning a living are jeopardized by this Act. You must be represented by men who are going to feel the pinch, by men who are able and not afraid to talk, and, above all, by men who will refuse to be bound over to secrecy at the instigation of the political caucus which has controlled your destinies up to the present time.

General Policy of the Association.

Dr. William Craig (President Fife Branch, Member State Insurance Committee) writes: With reference to the legal opinion the State Insurance Committee has secured from Mr. Hempson as to how far the Association's six cardinal points have been secured under the bill and as to what points still remain as questions for further negotiation, I think it will be of even greater importance to the profession that, besides knowing what its legal position is so far as those six principles are concerned, it should look at them from an every-day business point of view and seek to realize how they will work out in practice without having recourse to law. I am not laying my views before the profession in any way as questioning the findings of Mr. Hempson in their legal aspect, but simply taking the Insurance Act as it stands and seeking to work out its probable results in the every-day working experience of our lives.

Income Limit.

With the exception of the £160—the income tax limit—no other is fixed in the bill, and any other that may be fixed is to be done locally between the local Insurance Committee and the local Health Committee. The profession has been told both by Mr. Lloyd George and Dr. Addison that to try and fix any other income limit than that of £160 is "unworkable and an administrative impossibility," and if the members of the profession will only calmly look into the matter they will see this is the case. Amongst income-tax-payers the Inland Revenue, with all its powers of the law and its army of officers, is often a failure in establishing the £160; how, then, does the profession hope to establish and to work the new income limit and without any machinery for the working? Further, practically all insured workers are or will become members of approved societies, and with them there is no income limit whatever, though they are guaranteed medical benefit. So that as a working arrangement it is quite clear there is no chance in practice for any other income limit than that of £160 per annum.

Free Choice of Doctor.

In terms of the King's English this has been secured to the patient, but the question is, if in practice the patients will exercise this privilege of choice to their detriment in other ways?

We already find that trades unions and other bodies are seeking to become approved societies, and with the avowed object that in this way they may provide attendance for their wives and children. This, of course, they may do by contracting out, but it is equally possible they may find it more to their advantage to secure attendance for their wives and children by so working the

Act as to have a form of medical aid, and appoint salaried or whole-time medical officers; then, of course, the vaunted free choice becomes a name without a form.

Administration of Medical Benefits.

None of the cardinal points so well illustrates the falling away of the Association and of the profession from their original starting-place. To begin with this cardinal point with the profession was freedom from friendly society control; then through the Association it became administration of medical benefits by the local Health Committee, instead of by the approved societies of the then bill, and the final stage now is to modify the constitution of the Health or local Insurance Committees, that in practical working they will be friendly or approved societies, so that, in effect, all is practically lost to the profession under this point.

Method and Amount of Remuneration.

The method and amount are to be determined locally, but the profession is now well aware that the Act makes no allowance for anything more than 4s. 6d., and if anything more is ever to be had it can only be got with the consent of both the Treasury and the County Council. Putting this to the test of experience, I think the profession must feel that, unless some other arrangement is made, the present chances of its getting more than 4s. 6d. are very poor indeed.

Adequate Medical Representation on Certain Bodies set up under the Bill.

The profession originally sought this cardinal point in order that they, as having an interest equal in importance with the insured person, might be in a position of having a fair chance under the Act that their requirements would have just consideration, but now under the Act in all those bodies the profession's representation has been so cut down that the most they can secure is a hearing for their claims without any power whatever under the bill of carrying them into effect.

Local Medical Committees.

The Council would have the profession make much of the statutory recognition of those committees where formed and where recognized, though in neither aspect is either their recognition or their formation compulsory; but even if they are formed, and if they are recognized, nobody is bound to do more than listen to them, certainly no one need obey them, and they have no power to put any requirement of the Act in force. They are an ornament to the Act, and as a fighting machine they are useful as a scouting party, but have no other function.

The cardinal points in all as affecting the bill have brought few solid gains to the profession: compared with its present position, it is a great and uniform loss both in status and in remuneration, and if it does not mean to go completely under the profession should set its teeth to fight.

Dr. J. EDGAR P. DAVIES (Llanelly) writes: The present attitude of the medical profession towards the National Insurance Act is expressed by those who hold that the Act should here and now be absolutely dropped and that no further notice be taken of it by the medical profession, by those who think the organizations under the Act should be allowed to proceed to the formation of local Insurance Committees, with whom we are to make the best terms we can; but in both views the six cardinal points are *sine quis non*.

Unity in the profession is essential at this juncture, and those who hold the divergent views before mentioned must see eye to eye. This might appear almost impossible if one of these two attitudes was correct and the other incorrect; but, as shown by Dr. Oldham and others, the Act itself presents a way out of the difficulty, and not only so, but opens out the only reasonable course to pursue. It is to inform the Government that unless the six cardinal points of the British Medical Association are incorporated in the Regulations of the Insurance Commissioners the members of the Association decline to negotiate further upon the National Insurance Act.

Under the Act the Insurance Commissioners have very wide powers: § 65; § 66 (1) (*b*) and proviso (ii); § 78.

Of these three policies open to the medical profession there are grave objections to the first and second. To both there is the objection that they are wide apart, and it is possible that if one were accepted by the British Medical Association it would receive the lukewarm support of some of the former upholders of the other policy. Against the first policy there is the objection that it is admitted on all hands (even by the *Times*) to have been undesirable if not impossible to have incorporated every one of the six cardinal points in the Act. The Government has said that it rests between ourselves and bodies created under the Act to secure these points; and surely when there is no need for undue haste, reason and prudence are more useful procedures than panic and hysterics.

Against the second policy there is the strong argument that to divide up our forces for the purpose of local bargaining is unwise. From the medical practitioner's point of view, the essential weapon for the defence of cardinal principles is collective bargaining. If we permit ourselves to be divided up into numerous (possibly several hundred) sections, each to make the best terms it can, we are doomed at best to indifferent success, but much more probably to irretrievable disaster. It is all very well to talk about co-ordinating the terms of the various local Medical Committees so that they are kept in line with the minimum demands of the British Medical Association, or above it, but with all these committees in acute controversy at one and the same time, it would be impossible to secure that each one received suitable terms, and a few reverses here and there in our ranks would mean probably the beginning of a general defeat.

Further, even if it were possible to carry out such a scheme of co-ordination successfully, it is doubtful whether the Association would be justified in incurring the expenditure necessary to maintain a staff efficient for the administrative work such an exacting scheme would require.

On the other hand, from the point of view of the Legislature and the public, one of the essentials for the successful working of the Act is the co-operation of the individual member, and his realization that he has a part to play. Again, the proper supervision of claims for sickness and economic working are best secured by having a local supervising authority, which, acting in conjunction with the individual local members, will be furthering the interests of those members by a careful scrutiny of claims for sickness and hard bargaining for medical attendance. From these people's point of view the essential features of the Act are secured by carrying the principle of decentralization to its further limit, and securing supervision and management of details or economic lines in numerous small areas by giving each member a vested interest in local economy.

It is possible there may be a number of items that are difficult of adjustment without local conditions being considered, and I am not arguing against local discussions after cardinal principles have been settled. Still, our danger lies not so much, if at all, in the loss to be sustained by failure to secure nice adjustment to varying need, as in the poor, often disastrous, results that have usually attended attempts at local bargaining by our profession, to which in large measure, I submit, is due the deplorable state of contract practice to-day—a state that will be continued on a huge scale under the new régime if we continue the old methods of bargaining.

But, quite apart from the disadvantages of local bargaining, by allowing the profession to fight for terms with local Insurance Committees we are going back upon the spirit of one of our own cardinal points, for by the Act the majority on these local Insurance Committees will directly represent, and the large majority will adequately represent, friendly societies.

Now that for the future we would be supervised by these bodies in our work is no argument why we should give way still further on one of our cardinal points and enter into a fight with them on terms of remuneration. The fight is not of our seeking. If it is the duty of the Legislature to provide a National Medical Service it is equally its duty to see that the workers are properly remunerated. Our tussle is with the Legislature in this matter, and with no one else, and we should decline to be forced by them into a pitched battle with friendly societies as to remuneration and such contingent considerations as wage limit.

From this it would follow that the only course open is to inform the Legislature that if our minimum terms as

embodied in the six cardinal points are not included in the Regulations of the Insurance Commissioners, we must decline to have any further negotiations about the Act.

Yet another reason against Policy No. 2 is that it is essential that matters likely to lead to acute controversy should not be left to local Medical and local Insurance Committees, because it is to the interests of all concerned, and especially to the interests of the patients, that all sources of friction between the medical profession and the local Insurance Committee should be avoided as much as possible. However disposed public men may be to force themselves into the sick room and "wrangle" there, not only are we precluded by the ordinary traditions of our profession from taking part in such unseemly conduct, but it is incumbent upon us to use all the discretion and tact we possess to avoid the possibility of such a disturbance.

Policy No. 3 gives the Insurance Commissioners the option of including the six cardinal points in their regulations, or of forfeiting the co-operation of the profession in the working of the Act.

From the point of view of Policy No. 1 we would be to blame if we alienated public sympathy by refusing to entertain an Act of Parliament before the Government had had an opportunity of meeting our demands; further, though it would be unwise to defer matters long, there can be no reasonable objection to a delay of two or three months to see what can be done under the Act towards satisfying our cardinal principles. And, further, by submitting to the third policy, we will not be sacrificing any principle.

If this course were adopted as the policy of the British Medical Association it would inform the Governmant of the united strength of the medical profession opposed, and it would give the Association an idea as to the real attitude of the Government to its demands.

What we are fighting for just now is not so much the general demands of the profession, or things that are essential for the smooth working of a great scheme, as the *six minimum cardinal and vital principles without which this Act is to be absolutely dead* as far as we are concerned. We are not concerned with any fears the Government may have as to whether the friendly societies will acquiesce in such points. It ought to have squared that long ago. If it has taken Mr. Lloyd George three years to raise the superstructure of the Insurance Act, he ought to have established the foundations about four years ago. By ignoring the medical profession he has emulated the example of the memorable gentleman who built his house upon the sand.

Dr. G. L. Kerr Pringle (Harrogate) writes: Now that the Council has seen fit to at last divulge the number of members who have signed the Association's undertaking—which has materially increased since the Council roused the profession by its policy in allowing the Medical Secretary to accept the Deputy Chairmanship of the Insurance Committee—we at last know how we stand. It appears to me that at the coming Special Representative Meeting we have to decide on one of two procedures:

1. That we inform the Commissioners that we will have nothing to do with the Act; or

2. We adopt the Council's policy of "wait and see" what the Commissioners propose.

It appears to me that we can gain nothing by waiting, for the Commissioners cannot give us a higher rate of remuneration, they cannot remove the Harmsworth clause, and they cannot prevent us being under the authority of the insured, that is, the friendly societies. Furthermore, the profession, as the guardians of the health of the nation, cannot truthfully and conscientiously accept the Act because of the clause permitting persons insured under the Act to object to vaccination and inoculation without penalty, nor can we be satisfied that the proposed expenditure of large sums of money in establishing sanatoriums is the most satisfactory method of stamping phthisis out of the country. Again, the profession cannot work under an Act in which the Insurance Commissioners have the power of ruining its members' careers by striking their names off the panel without appeal. The Council's policy of waiting until we know what the Commissioners propose has nothing to recommend it. The further we delay, the greater chance there is for us to be slowly but surely drawn into the net of local disputation, which would be ruination for the profession.

The Council has been taking counsel's opinion as to whether the six cardinal points were obtainable in the Act or not. With all due respect to Mr. Hempson's opinion, it is not worth the paper it is written upon, because he entirely fails to grasp the situation. He does not realize that these six cardinal points are the minimum demands of the profession. He claims that points "2 and 3 are safeguarded and provided for by the bill as it now stands." We as a profession are not satisfied that we have got absolute "free choice of doctor," and though the medical and maternity benefits are to be administered by the local Health Committees, the composition of these committees places us under the control of the friendly societies, even though Mr. Hempson says, with regard to their composition, that, "so far as the medical profession is concerned, it appears to me to be as fully represented as any other interest under the bill *apart from that of the insured persons themselves*." (The italics are mine.) The medical profession are equally as much concerned as the insured persons in the working of the Act. There is another point which seems to have been entirely overlooked with regard to the income limit, and that is, that the £160 applies only to voluntary contributors and non-manual workers.

Before the Representative Meeting takes place let me suggest that the Council take the opinion of Sir Robert Finlay, K.C., M.P., a man with a large experience of parliamentary tactics and legal experience, also the parliamentary representative of over 5,000 graduates in medicine and member of our own profession, and who has not, I believe, been consulted with reference to the bill in its rapid passage through the House. I feel certain that Sir Robert's advice would be of great assistance to the profession at this critical stage. In the event of our deciding now to have nothing to do with the Act, the Commissioners must make terms with us, as they cannot obtain sufficient blacklegs to work the Act, and the Chancellor cannot introduce a supplementary bill as the time of the House during this year will be fully occupied with such measures as Home Rule, Welsh Disestablishment, and the Reform Bill. The Act would, therefore, have to be postponed for another year, in which case we can afford to "wait and see."

Dr. Harry Grey (Bristol) writes: The Council takes refuge behind its mandates from the Representative Meetings; in law, this attitude is, I suppose, impregnable; in fact, it is a poor defence, since the mandates were given with the Council's advice in regard to propositions put by itself.

The history of the efforts made by the Bristol Division and others to persuade the Council to make these propositions honest and comprehensible would make interesting reading at the present time; nor did we leave the Council without warning as to the inevitable effect of a weak, illogical, and consequently indefensible policy. The initial mistake of the Council was to put the matter of National Sickness Insurance into the hands of a Contract Practice Committee, failing to recognize that the entrance of the State into the matter of medical insurance fundamentally altered the position and views of the profession, and rendered unnecessary any further gratuitous or semi-gratuitous work. The attitude underlying this initial mistake was persisted in throughout the sittings of the Conference Committee, of which I was a member, and it was fixed in no mind more strongly than in that of our late Medical Secretary. The issuing of the report of that committee—the very title, "Organization of Medical Attendance on the *Provident* or Insurance Principle," has a taint of the cloven hoof—sounded the death knell of the independence of the general practitioner, for all discussion in the Journal was vetoed while the Medical Secretary traversed the country "explaining" the report; and when, again, the anticontract party, after the May Representatives had been guided by the Council to tabulate their six points—not principles—attempted to show in the Journal how weak, illogical, and *unsafe* that policy was, the editorial veto was called in to burke discussion. How foolish was this crying of Peace, peace! when there was no peace, recent events have proved. Is anything further needed to convince the Council that neither it nor the Representative Meetings know the mind of the profession? The policy that would even now save the Association and the profession is the policy I outlined in my communication

(A National Emergency) to the JOURNAL of April 16th, 1910, and amplified in the JOURNALS of September 3rd and 17th, 1910. A bold policy? Yes, but a sane and logical one, since it is based on principle, and not on expediency or timidity. The principle is "independence and freedom to manage our own business," such as every British subject thought was his inalienable right. Under any system of contract independence is impossible, and, however soft and well-fitting the shackles on the general practitioner may look to the Harley Street physician, the man who wears them finds them shackles all the same.

Now is the time for the Council to declare that at the forthcoming Representative Meeting the subject of State insurance will be discussed without bias towards contract, and that the Council will endeavour to guide the Representatives into formulating a policy on strictly ethical principles. The very first question to be considered is the ethical question—Is contract just? Next, is it safe? Safe as regards the prospect of the practitioner being adequately remunerated, safe as regards the prospect of the patient receiving efficient service, safe as regards its ultimate effect on the advancement of medicine. The answer to both these questions on each several head is No. The misguided attempt to "improve" contract work and the attack on the friendly societies instead of upon the friendly societies' weapon—the capitation system—has cost us dear. As a piece of bluff it has been a signal failure. Let us have done with bluff, and lay all our cards on the table; if they are good enough, as I think, to win, they will win; if they are not good enough, finesse will only make them worse.

The key of the situation is this: In 1905 the Representative Meeting declared that "under present circumstances some form of contract practice is necessary." The "present circumstances" of 1905 no longer exist, therefore the declaration of 1905 is obsolete; the "present circumstances" of 1912 are that the Government desires to buy our services, and our declaration of 1912 should be that our services, if they are to be bought at all, are to be bought only in the manner consonant with the dignity and welfare of the medical profession and of the profession of medicine. If it is found that that manner is for any reason one that the State cannot or will not agree to, then it is the duty of the profession to fight to the last ditch in defence of its honour. I do not mean that we should demand a State system of payment per attendance—there are other alternatives, besides this one, to the capitation system—but we should distinctly base our policy on *principle*, sure that such a policy will command the sympathy of the intelligent public, and will win through in the end. Contract work is opposed to the principle of independence, which is our birthright, and even if a large majority of the profession and the whole of the lay population were willing to forego this principle, they would have no right to thrust on us abolitionists work which is an infringement of our liberty.

Miles behind the ethical question (which has never been seriously discussed by the Association) come such matters of detail as amount of remuneration, illogical income limits, and so on, which have been allowed to obscure the main issue. Practically none of the "six points" are of any importance except as improvements of the club system, and as an official condemnation of that system; since what does the demand for an income limit mean except that contract work is displeasing to the profession and must be kept down, and representation on committees, except that sweating and other abuses need guarding against under this system. If we refuse to be underwriters and reject the club system on ethical grounds, the six points may be left to take care of themselves.

I have received a great number of letters asking where my policy is gone and why I am not moving in the matter. May I here reply to those who have written to me, that my policy stands the same now as it did eighteen months ago, and that I am willing to bring it forward again if members of the Association will authorize me to use their names and will speak for it in their Division meetings. The reason no criticism of mine on the Organization Report, or on the six-point policy, appeared in the JOURNAL is the one I mentioned at the beginning of this letter, namely, that the pages of the JOURNAL at these dates appeared to be closed to the anticontract party.

I have just seen Dr. Walker's letter in the SUPPLEMENT for January 13th, and hail it as an excellent illustration and corroboration of my contention that the March report was misleading and not very comprehensible, and that consequently the answers returned to the questions in that report could not truly reflect the mind of the profession. If that contention is justified, as I think every one must admit it is, it is not surprising that the policy framed in accordance with these answers is not one that satisfies the profession now in the light of the further understanding that has come to them with the passing of events, and it is the more incumbent on our Executive not to ask the Divisions to be bound by any decisions they have arrived at in ignorance of the real issue, but to open up the whole question afresh and consider the subject *de novo*.

Mr. JOHN J. BELL, F.R.C.S.I. and Ed. (Bradford), writes: My object in writing is not to criticize, however much I may lament, the late action of the Council of our Association. While they are undoubtedly to blame, as is also the Representative Body, I do not consider that the main error in tactics and policy can be placed upon either the Council or the Representatives. To my mind, the whole misfortune of our present position with reference to Mr. Lloyd George's Insurance Act lies primarily upon the heads of the practitioners of the country. They, thoroughly well knowing the evils of contract practice in the past, and its tendency to degenerate even the best of men and to reduce their efforts in attaining the highest state of efficiency (which should be one of the profession's glories), while yet complaining bitterly of the principles of contract practice, should one and all have uttered one strong, emphatic "No!" to the Chancellor and to the Government to any attempt on the part of the Chancellor and the Government to establish by law such a corrupt and demoralizing system. Had the practitioners of this country in the various Divisions and Branches of the Association so instructed the Representatives to speak and vote in the early meetings convened for the consideration of the bill, there would have been now no need to recriminate any of our leaders.

At this important juncture of our affairs and before the calling of a further Representative Meeting to direct the Council in the future conduct of the affairs of the Association, I would strongly advise the elimination of the unfortunate and obsolete six cardinal points so much talked of and written about. These points have been a huge deception to the less reflecting members of the profession. While obtaining nothing, they have given away much in consenting to the principle of contract practice in any shape or form. Instead, I would advocate one simple, broad policy and demand payment for work done at the usual rate of fees to the working people throughout the country.

In this division of Bradford the usual scale which has been willingly paid for many years is 2s. 6d. for visit and medicine. I would recommend that the profession unite throughout the country, when approached by the local Insurance Committees, and demand a scale of fees on the following lines, namely, 2s. for visit and 6d. extra for medicine, to be supplied by the doctor or the chemist at the patient's option, between the hours of 9 a.m. and 6 p.m., with 1s. a mile for distance after one mile up to three miles. Any patient requiring a particular medical man from a further distance to bear the extra cost himself. Double fees for night work and extras for chloroform in confinements with forceps, and also fractures. Fees in surgery as at present existing.

I would eliminate the wage limit demanded by the Association, and place it at £160 a year as adopted by the Government.

This policy, I maintain, is the only reasonable one, alike for the patient and the doctor. It would obviate the necessity of forming a panel or the establishment of a local medical committee to sit in judgement upon any of its brethren who might be arraigned by any of the insured persons under the contract system. This can be carried out at much less cost to the Insurance Committees than the contract system. There would then be no need for a staff of lay visitors to investigate abuse, either on account of the profession or of the insured. Should the insured not be satisfied with their medical man, they would act then as they do now, by promptly changing for someone else. Each medical man would therefore do the best possible to

satisfy his clients, and so insure a much higher standard of efficiency in the work done, than could ever be obtained in any form of contract. It would place the working people in a position of great independence and freedom, and remove any possibility of slight to the medical man of being only club doctor.

This can be carried out, the same as is now done by some of the friendly societies, by allowing each patient a blank sheet, so drawn up that the doctor can place his daily report and sign for his daily visit thereon. Such papers should be collected every three months, the amount of visits audited at the Insurance Committee's offices, and the fees due to the individual medical man paid in the following quarter. Should the patient require to change during the illness, there could arise no difficulty, for the second medical man would only require to sign his name and the date of his first attendance, and so continue the case to the end. By this means there could arise no need for a committee of investigation or reconciliation, its great advantage lying in the fairness of the remuneration and the stimulation to do good work, and in the freedom and independence of the sick, fulfilling the well-known dictum that "Britons never shall be slaves."

I would further suggest that the Insurance Committee should appoint a number of local medical referees, nominated from among the profession by the medical men of each district, who should visit and report on any suspected cases of malingering, or on those cases of very prolonged illness, at the usual fee of one guinea. You will, therefore, note that by reducing the working expenses from the lay point of view, there will be much more money to distribute amongst the profession, and much greater harmony in working the scheme.

My contention is that this can be the only true and equitable solution of the present *impasse*. The Government has no right by Act of Parliament to compel any workers to labour for less than a commonly accepted scale of remuneration, neither have the profession any need to fear that any working for such a reasonable rate of return, which has been theirs both by custom and privilege, is incurring or could incur the displeasure of the public. In discussing this question with members and secretaries of clubs, they one and all admit that it is impossible for the doctors to accept anything like the sum offered by the Government, stating that they are well aware that even the 4s. given for the best selected lives do not meet the just remuneration to which the profession is naturally entitled, and is only made possible to the practitioners by some of the member's families accepting the services of the club doctor.

Of what, then, is the profession to be ashamed, in demanding the lowest rate already paid by the working people of this country? Need they fear that if the Insurance Committees do not consider such a reasonable request, that they will be any worse off by refusing absolutely to take any form of contract practice? In this attitude I am sure the public will give us whole-hearted support.

We must not forget that we have a large capital interest in the country created by industry and hard work. Let us endeavour to estimate the huge depreciation in our practice value if we submit to so gross an injustice. We must make the public aware that should we forego this, it would not even redeem the baneful effect of the bill upon the insured themselves. Their true well-being lies in a satisfactory remuneration to the profession and in a consciousness that their interests and health are provided for in our demand of a legitimate fee for our services.

I would ask that the Executive of the Association should be guided by the ordinary lines upon which business of any kind is transacted, and if the reasonable price so fixed by the profession on their labours be not unreservedly granted, that they would once and for all refuse any form of negotiations, barter or alternative with Insurance Committees, and so effectively defeat the Act, and free the public from a cruel make-believe.

Should my suggestion meet with the favour, to which I honestly feel it is entitled, there will be no need to fear the consequence to our profession, either now or in the future. Should the advocates of the contract principle on any scale of fees prevail in determining the policy of the Association, one must dread the consequence to the profession in days to come.

In the scheme contained in this rough draft we avoid any of the evils of contract practice, and we do not in any way interfere with the great medical schools or voluntary hospitals. The work of the latter will be carried on as at present, and if it is the intention of the Government that the public should be made and kept well, let them pay at least on decent lines. The profession has too long been the handmaiden of cheap philanthropists.

Now is the real time for entire union on a true and just basis, and surely this is little enough to ask, as the Chancellor says, from the richest country in the world. Some may ask, Where will you get your money from for your method? This is for the Chancellor and the Government to do. My business is to sell my talents and time; the business of those who wish for my service is to find the money. If they cannot find it, should they become highway robbers? No, not with my consent.

There is no fear in my mind of any blacklegs, or greylegs; few indeed would be the men who dared, in the face of the united profession, to take appointments at such terms. Why? Because no man could honestly say to his conscience that he could do justice to the sick when the rate of remuneration would not even pay decent travelling expenses for the work entailed. And I sincerely hope the profession will reveal its high regard for the health and lives of its fellow human beings by a staunch refusal to traffic with the Government or Insurance Committees in such a base and impracticable scheme as is now before us. Let us nobly stand by the workers, and demand such fair terms as will enable us with a clean conscience to do our whole duty to those who may require our help. In this I feel sure all will agree that the clubs' members do not get treated, with possibly a few exceptions, as well as our private patients. Now, I entreat, let us wash ourselves clean of this leprous spot, and the future will prove our wisdom and fully justify our united decision.

I beg that members who favour contract work will fall into line and help to lift the weaker brethren out of the depths of despicable tyranny and emancipate them. To this end we must all strive by all means and ways through the various avenues open to us under the unfurled banner of our great Association.

Dr. J. W. PRIDMORE, M.R.C.S., L.R.C.P.Lond. (Ryde Isle of Wight), writes: Having for some time studied the various letters in professional and lay journals, it seems to me that the whole attitude of the medical profession in this country is crystallizing into the idea that we should form a large provident dispensary system of our own controlled centrally by ourselves. When the time arrives that the Act comes into working order, we who have refused to enrol ourselves on the panels must either lose all our club appointments or else be ready with a properly organized service with doors open to admit all suitable and eligible persons who might reasonably expect treatment on contract terms. Instead of talking of threatened tyranny let us ignore the whole concern. Upon the severance of our connexion with the friendly societies it will be open to our former club patients to become members of our new system for medical attendance, or to be attended as private patients if their wages exceed the limit. They can, of course, if Mr. Lloyd George is able to provide enough "blacklegs," have recourse to the State doctor; but I think many will agree with me in my belief that they will prefer their own medical men rather than the nondescript collection likely to be available, even though they may have to pay a few shillings a year extra for their services.

Let the Act go on, the two millions Mr. Lloyd George has so kindly promised to us can go into the pockets of the insured, and, having that, they will be able to afford to pay their subscriptions for our services under this provident scheme. It only remains for every Division to arrange for local meetings of club doctors and then call a Divisional meeting to draw up rules and decide fees and method of payment. Then let them send their representative to a central meeting armed with a written draft of their instructions.

This scheme can, I believe, be perfectly well arranged and carried out under the auspices of the British Medical Association, and is a policy which will defeat the Chancellor's object in trying to split us up into sections and local committees.

"IF PANELS ARE NOT FORMED."

DR. MAJOR GREENWOOD (London) writes: In the SUPPLEMENT of January 6th appears a letter from Dr. J. H. Taylor under the above heading. I have been called pessimistic, but my pessimism is as nothing compared with that of Dr. Taylor when considering what is likely to happen to the profession "if panels are not formed." As the writer admits the not unlikely contingency of the official policy of the Association leading us to this result the pessimism is very pronounced, and the policy of Manchester cannot be condemned simply because it declines to form panels. Let us look a little calmly at the stupendous evils that will result if the Commissioners are driven "to suspend medical benefits and give the assured a corresponding sum of money they may do what they like with." No doubt there will be a large endeavour to form approved societies in order to capture the contributions of the employers and the State. Under the Harmsworth amendment arrangements may be made of a derogatory kind with individual members of the profession, injurious to their brethren, as is frequently done at the present time. But Dr. Taylor forgets that whether panels are formed or not, it will be illegal to prevent club members from providing their own medical attendance in any way they choose; and although some may be induced to accept the club arrangement, it may well be that many more will prefer to use the money given them in place of medical benefit for the purpose of paying their private doctor, as they now do. This should be the more likely if the "free choice of doctor" has been so largely safeguarded by the addition the executive has got added to the Harmsworth amendment, and there should be ample opportunity for many club members to go to their present private doctors. Indeed, for those opposed to the "capitation system," there is a far brighter outlook where panels are not formed than under any system where they are. I admit I am somewhat ignoring that item of the "six cardinal points" which would require the "method of remuneration to be such as the local profession might choose," but must confess that my credulity has never been equal to recognizing even the possibility of any such arrangement being made under the provisions of this Act, although there may be nothing in the same to make it an absolute impossibility.

All the evils that Dr. Taylor so graphically depicts must depend entirely on disunion in the profession. United we can protect ourselves just as well under a system where no panels are formed, since we can compel the Commissioners to grant us by their regulations what we demand. But there is this important exception: The Commissioners have behind them the power and influence of the State, whereas in fighting against the approved societies outside the Act we are on more equal terms with those opposed to us. There would be doubtless many of our weaker brethren who might palter with their consciences and make ignoble terms with these societies; but there would still remain a large number who would be able to continue the kind of practice they are used to, which in, my opinion, they could never do under any system where panels have been formed.

Then with regard to "contract practice." If panels are not formed it is unlikely that any approved society would try to pay less than 4s. a head, the present club rate. It seems to me less undignified to accept privately such terms from an individual society, terms which might be varied at will and resigned at any moment, than to have terms very little better stamped on us by the State, which will be much more difficult to vary, and the resignation of which may mean utter ruin.

With all respect to Dr. Taylor's arguments, I think the outlook for the profession is better under a system where no panels are formed, provided this rejection is made by the great majority of the profession. Further, I cannot help thinking that both they who support the official policy of the Association and they who support the Medical Reform party therein will before long find themselves in the same camp, and will equally refuse to work the panels that are proposed to be set up under this Act.

DR. J. H. CLATWORTHY (Denmark Hill, S.E.) writes: If the profession finds itself unable to accept service under the National Insurance Act we have read in last week's SUPPLEMENT what will happen, namely, that medical benefits will be suspended and each insured person will receive a cash payment in lieu thereof.

What will then happen is the question that we have to ask ourselves. A good deal of the money will be spent not on medical benefits at all, but a large number of the insured would go to their club doctor and ask him to take them on as before, and as he has signed no pledge against doing contract practice of a private nature as distinguished from work under the bill, I am afraid that club doctors would take them on, and that our position would be worse than it was before, unless we as a profession are sufficiently of one mind to say that we will not do underpaid contract work in any form. I happen to have recently seen a badly-organized attempt to do this which ended in failure, and I do think that we should have a much harder task to make the profession give up underpaid contract work than it was to get signatures to the "undertaking," even if the attempt was made on proper and business-like lines. This is the line that, of course, we shall have to adopt, and this is an excellent opportunity to do it. Those who think that they can "smash" the Act at once by refusing to form a panel would do well to remember that what I have mentioned above is only one of the lines of least resistance which the public will take, and that if we mean to "smash" the Act this process will take not months but years, and I hope we shall exhibit that unanimity at the end of, say, three years, as we have shown at the end of nine months.

A YEARLY DIFFICULTY.

DR. ARTHUR DANGERFIELD (Little Aston, near Sutton Coldfield) writes: At this time, when there is such an energetic controversy as to whether the six cardinal principles must be included in the Act (by an amending Act) or left to be extracted locally from the authorities constituted under the Act, it seems to me that one very important point in favour of the former course has not been touched upon. It is this: If our minimum principles are not in the Act, then every year there is a chance for the local Insurance Committees to diminish, perhaps insidiously, the advantages which the profession might have gained by local bargaining. Those in favour of the present policy of the Council of the British Medical Association may answer that every year we have the same power to deal with encroachments of that sort on our position. I can only say that I very much doubt if we can perpetually depend on the splendid unity regarding broad principles which we now enjoy.

Furthermore—and this I consider a very important point—if we *were* to preserve our unity in this ideal fashion, we should still have to depend on the British Medical Association organizing the joining of panels every year, to prevent all signing on until every district is satisfied. Now this will involve a very heavy annual expenditure by the profession, and I altogether fail to see why we should meekly undertake this expenditure. If we are going to serve at all on the panels, it will be because we have gained the cardinal principles, and, that being so, they might as well be in the Act, and then only could we be relieved of this annual worry and burden of expense.

With regard to the insertion of the cardinal principles in the Act, it is constantly being said that Nos. (4) and (5) should not be inserted, as we do not wish the method or the exact figures of remuneration made statutory. If any one takes the trouble to read over these two principles, he will see that (4) demands that "the method of remuneration . . . be according to the preference of the majority of the medical profession of the district . . ." and that (5) demands that "medical remuneration be what the profession considers adequate. . . ." I see no mention of figures.

One other point I should like to draw attention to. With regard to the amount of remuneration, which we must settle some time, sooner or later, according as to whether the negotiatory or the non-negotiatory policy prevails at the coming Representative Meeting, there are some very wild statements being made. One sees such suggestions as this—that, if we are to be paid for work done, the consultation fee should be 2s., or, if on the contract system, the capitation fee, 8s. 6d. Now, are these two figures equivalent? We may take it that a capitation fee of 4s. 6d. works out at about 6d. per consultation,

and this is a liberal estimate. Therefore, to be equivalent to a "work done" fee of 2s. per consultation, the capitation fee must be 18s., and not less.

Local Insurance Committees.

Dr. G. C. Garratt (Chichester) writes: The tendency to desire increased pay rather than a low limit of wage seems to me mistaken. We must jealously guard our private practice, and restrict contract service to the really needy, many of whom we now, perforce, attend gratuitously. By so doing we preserve our leisure and our independence, and avoid crushing taxpayers, including our private patients and ourselves, with excessive burdens. The Insurance Committees are by some compared unfavourably with Parliament, and even with friendly societies. Why? A committee of forty carries four doctors and twelve laymen independent of the assured. Since employers are not otherwise represented they will see to it that the bulk of these last are of their own class, educated men, mostly private patients of and personally friendly with local doctors as individuals, concerned to secure an efficient doctor, preferably their own, for their employees, as a body opposed to socialistic legislation pampering the masses at the expense of those above them. The remaining twenty-four will represent not one party but numbers of rival and competing factions, friendly, industrial, deposit, dividing, and co-operative societies, trades unions and the like, having no central organization or power of combination one with another, no unit being, perhaps, better represented than ourselves, and all with a wholesome respect for their employers, who should be our friends. Again, the two delegates chosen by us should be our best and strongest men, known and respected by all the committee, many of whom will be under personal obligation to them, and they should carry with them a pledge bearing signatures (duly attested and open to inspection) of all respectable local practitioners in actual practice, men known to the committee, binding each to do only so much work for so much money, and not to meet or assist professionally any who would do more. Thus armed they would be invincible. On the other hand, what hope is there that a "Doctors' Endowment Bill," as it would be promptly dubbed, promoted by but one section of ourselves, introduced by some private member, backed by no party, and damned by an autocratic Cabinet, will obtain a fair hearing in a House engaged in a Titanic struggle over Home Rule and Disestablishment of the Church? On the committees we—remaining still one great united company, looking to common leaders, and retaining yet the power and will, if need be, to strike as one man—shall meet our old opponents, now happily for the first time split up into 137 isolated camps, each containing many friendly to ourselves. Finally, we shall gain, for the first time, means to meet and convince that huge body of voters who make and unmake Governments, without whose support any approach to the latter are merely waste of time and loss of dignity. This is the weapon we are bid to throw away. Let us at least test it first.

Local Medical Committees.

Dr. R. A. Bremner (Canterbury) writes: Is it not time to cease recriminations and academical discussions as to whether the Council has been right or wrong in its management of the business of the Insurance Bill and what we ought to have done? All these things are past, and little good, but a great deal of harm, may be done by discussing them. What is needed to save the situation now is the statement of a definite policy to which, at any rate, the vast majority of the profession will bind itself in the future. The bill is bad in almost every way, and I think there is little doubt nearly the whole of the profession would wish it withdrawn altogether, as in any case it must interfere with our liberty and under the best circumstances reduce general practice to the level of club work, and we know that it is not possible for any reasonable scale of fee or capitation grant to be paid from the amount voted to medical benefit under it. Grants from city or county councils may be dismissed as out of the question.

I think, however, there may be great danger in the profession merely registering a passive negation, either now or when the bill comes into operation. It seems to me that the Council, as the only central body available, should direct the secretaries of each Division to see that the committees corresponding exactly to what would (or will) be the Medical Advisory Committees, should be formed forthwith in each administrative area. That they meet and formulate their minimum demands as to the rate and method of payment and conditions of work. That a specimen tariff compiled from the answers sent to the Council by the various Divisions before the bill was introduced be sent to each committee as a guide. That the result of these deliberations be forwarded to the Council by a certain early date, and that, after being reduced to some sort of uniformity, they should be returned to the committees for approval. The Council would then be in a position to inform the Government what were really the true minimum demands of the profession, which we must firmly adhere to. Moreover, each committee should discover what number of men in each area were to be depended upon loyally to carry out these demands, and if, as I am pretty sure would be the case, it were found that the whole profession were, under these conditions, practically unanimous, we could then as an Association demand that an amending bill embodying our demands should be passed before the present Act comes into operation; or then give an absolute and unanimous refusal to work under the Act. This will all take time and must be commenced at once. It is not of any use waiting until the Insurance Committees meet, for then we shall be defeated piecemeal. We know *now* they cannot offer us decent terms; the money is not there. If the Council of the Association wishes to regain the confidence of the members—which it is useless pretending that it has now—there is no doubt that it must at once take some active step of this nature. We all want a lead and must have it. No amount of defensive or propitiatory writing or speaking will have the same effect of reorganizing the profession or regaining its loyalty to the Association as the enunciation of a strong and definite active policy.

The Table of the State Sickness Insurance Committee.

Dr. T. G. Crump (Burnley) writes: Some comment is required on the table published by the State Sickness Insurance Committee in this week's Supplement (January 13th), wherein are set out in separate columns (1) the original clause (if any) of the bill, (2) the instructions given by the Representative Meetings, and (3) the corresponding clauses of the Act.

Cardinal point 3 is headed "Administration of Medical Benefit by Insurance Committees and not by Approved Societies" (page 28). I beg to enter my protest against the two last words being "Approved Societies" instead of "Friendly Societies."

Under the heading of the third cardinal point there is a grave omission of a most important resolution of the Special Representative Meeting, June 1st, Minute 36: "That the administration of medical benefit under any Government scheme of insurance should not be placed in the hands of the friendly societies." It ought not to be necessary to point out that the profession is fighting to throw off the control of friendly societies. This point is omitted from column 2 in the table, as also (column 3) is the fact that the majority of the Local Insurance Committees (three-fifth) is made up of representatives of friendly societies and deposit contributors, etc. (Clause 59, 2 (a)). Dr. Taylor in his letter (British Medical Journal Supplement, January 6th, p. 15), points out that under certain circumstances medical clubs could be formed outside the Act, and that they would be financed by money given by the Commissioners. If this is the case—and there does not seem to be any doubt about the possibility—we, as a profession, cannot say that the Act frees us from friendly society control; that is to say, cardinal point 3 is not yet obtained.

On page 26 of the same Supplement is recorded the opinion of the Association's solicitor in regard to the six principles. Here again, under the heading "Administration of Medical Benefit," the question as to the control of friendly societies through the local Insurance Committees is neither mentioned nor discussed.

On page 25 of the same issue is published the solicitor's covering letter, in which he says: "I send you as a separate document my opinion upon the matters submitted to me. . . ." One is obliged, in view of these omissions, to

ask if the opinion of the Association's solicitor has been asked on Minute 36, June 1st, and as to what extent the latter part of point 3 ("and not by friendly societies") has been met by the Act or can be met under the regulations?

MODE AND RATE OF REMUNERATION.

Dr. G. D. THOMSON (Barnt Green, Worcestershire) writes: I read of a meeting held at Hammersmith Town Hall, and a Dr. Frederick J. Smith is reported to have said: "The immediate aim and object of the party must be to improve the bill off the face of the earth." I have read reports of other meetings where others have said their aim was to "smash the bill." Do not you think that at meetings held by medical men in reference to their position under the bill the proper course to take is to confine their energies to seeing that they get fair treatment under it with regard to remuneration, etc., and take no notice of what the effect of their demands has on the fate of the bill? It is no concern of medical men whether the bill is smashed or improved so long as their just demands are met. That is a matter concerning the man who invented it. As medical men let us keep together and enforce fair treatment. As citizens we can work for its improvement or destruction according to our political bias.

THE INCOME LIMIT.

Dr. A. RANDALL DAVIS (Hythe, Kent) writes: Is it not a mistake to insist on the £2 a week wage limit? In most cases it is impossible to prove exactly what a working man earns, for his wages are almost invariably fluctuating. It makes practically no difference to us whether the limit is £104 or £160, but at the latter sum the income-tax collector steps in and settles the matter. I think this is one point on which we ought to give way. Again, Is not the *Practitioner's* "pledge" a mistake? All my *confrères* in this town have signed the agreement with the Association, and we mean to stick to it, but none of us have signed the *Practitioner's* pledge. Why should we? Many thousands of medical men must take this view, and so give an idea of a want of unity in our ranks which does not exist.

Dr. W. T. FREEMAN (Reading) writes: Probably the great bone of contention now left is the wage limit. If the scheme is to be workable, some compromise will be necessary. It would be somewhat fairer and perhaps more acceptable to the profession if the 6s. were paid, the insured person declaring his or her income to be not more than £2 a week, and 8s. 6d., the insured person declaring his or her income to be not more than £160 per annum. It would be quite fair if the insured person earning more than £2 a week made up the difference in the two grades by a personal additional contribution if he or she desired medical benefit.

THE GUARANTEEE FUND.

Mr. DOUGLAS DREW, F.R.C.S. (London), writes: In the excitement that followed the passing of the Act it has been repeatedly stated that if the profession is united the battle is won. This no doubt is true, but, to keep a united front, certain conditions are necessary—that is, good leadership, pluck and endurance of the rank and file, and plenty of ammunition.

In the first engagement, most of us consider we suffered a crushing defeat. Our generals, in whom we had every confidence, were hopelessly outclassed; and, as is usual under such circumstances, suggestions of treachery were made when we were informed that the chief of the staff had been handed over to the enemy; the natural result is that the rank and file have lost confidence in the present leaders.

With regard to the second and third conditions mentioned above, so far the position is promising in that we are presenting a united front and the pledges given show that the army is united in purpose; it remains to be seen how long this will last when the pressure of battle—by which I mean the pressure of financial loss—is upon us.

To win the next battle, when the Act comes into operation, we must have plenty of ammunition, which means money, to meet the attack; it appears to me that unless this condition is forthcoming we are almost certain to meet with another defeat even more disastrous than the first, however good the plan of attack may be, as we are unlikely to obtain from the Commissioners by negotiation what we failed to obtain from the Government.

Now, Sir, how is this money to be obtained? I pointed out in seconding a resolution of want of confidence in the present Council at the Marylebone Division that, so long as the present Council remains in office, the Guarantee Fund is likely to be adversely affected.

At the time of the introduction of the bill the members of the Association had every confidence in the Council; it is equally certain that that confidence no longer exists. Is it likely, therefore, that members will respond adequately to the invitation of the Council to supply a Guarantee Fund when they, the Council, have so utterly failed to carry out the wishes of its members? Is it not a fact that members are withdrawing their guarantees?

If we are to have any hope of success in forcing the Commissioners to grant our demands we must have an adequate fund behind us.

It is useless to talk of refusing to form a panel, or of other more active means of obtaining what is necessary for the well-being of the public and of the profession under the Act, unless we have the money to carry on the fight, and if the present Council continue to hold office the responsibility will rest with them that the money is not obtained.

THE "PRACTITIONER'S" REFERENDUM AND PLEDGE.

Mr. RUSSELL COOMBE (Exeter) informs us that he has instructed his bankers to discontinue his subscription to the *Practitioner*, as he does not consider it to be the function of a clinical journal to undertake ethical work of the nature that journal is now attempting.

Dr. G. R. BLETCHLY (Nailsworth, Glos.) writes that he considers the *Practitioner's* referendum a distinct interference with the British Medical Association, and has therefore instructed his bankers to withdraw his subscription to the *Practitioner*.

SOME REPRINTS.

In compliance with the request of a correspondent, who says that although he signed the undertaking issued by the British Medical Association he has forgotten the exact terms, we reprint it below:

"I, the undersigned, hereby undertake that in the event of the National Insurance Bill becoming law, I will not enter into any agreement for giving medical attendance and treatment to persons insured under the bill, excepting such as shall be satisfactory to the medical profession and in accordance with the declared policy of the British Medical Association; and that I will enter into such agreement only through a local Medical Committee, representative of the medical profession in the district in which I practise, and will not enter into any individual or separate agreement with any approved society or other body for the treatment of such persons."

In reply to the request of another correspondent, we also reprint below certain minutes of the Representative Meeting in November reaffirming the six cardinal principles, declaring that arrangements made under the bill must conform with these principles, and suggesting that the remuneration of medical practitioners should be arranged through local Medical Committees.

Reaffirmation of Six Cardinal Principles.

Minute 24.—That the Representative Body declare the determination of the Association to insist upon the arrangements made with medical practitioners for giving attendance and treatment to insured persons being consistent with the six cardinal principles formulated and approved by the Representative Meeting, June 1st, 1911, and confirmed by the Representative Meeting, Birmingham, in July, 1911.

Arrangements made under Bill must Conform with the Six Cardinal Principles of Association.

Minute 47.—That in the event of the Insurance Bill becoming law, the British Medical Association use every possible means to ensure that no medical practitioner undertake the medical attendance and treatment of insured persons under arrangements that are not absolutely in accordance with the six cardinal principles of the policy of the Association.

Remuneration of Medical Practitioners to be Arranged through Local Medical Committees.

Minute 53.—That in order to prevent sectional defeats of the profession through terms having to be arranged locally between the local Insurance Committees and the profession, the Council be instructed to take such steps as are necessary with a view to securing:

(*a*) That the local Medical Committees throughout the country be kept in touch with one another through the Central Office of the Association; and (*b*) that no arrangements for attendance on insured persons be completed anywhere until the Association is assured by reports from the local Medical Committees that terms in conformity with the policy of the Association in detail have been agreed upon everywhere.

Meetings of Branches and Divisions.

[The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the JOURNAL.*]*

FIFE BRANCH.

A MEETING of members and non-members was held at the Station Hotel, Kirkcaldy, on January 9th, at which there was a large attendance, Dr. CRAIG, President of the Branch, in the chair.

Apologies for Non-attendance.—Apologies were intimated from several members.

Confirmation of Minutes.—The minutes of the meeting of November 21st were read and approved.

National Insurance Act.

The HONORARY SECRETARY (Dr. Balfour Graham) intimated that the various resolutions which had been sent to every practitioner in the area were now submitted for the consideration of the meeting.

The PRESIDENT then made some useful remarks on various points in the Insurance Act. He also referred to the difficulty that Representative members were placed in at the last Representative Meeting by a misunderstanding which arose as to whether they should vote as their Branches directed them or otherwise, and he thought that this was a matter which demanded serious consideration by the members of the Branch. Dr. MCINTOSH then moved Resolution No. 1:

> That this meeting reaffirms its adherence to the six cardinal principles of the British Medical Association, as embodying the *minimum* demands of the profession.

This was seconded by Dr. BRYSON. Dr. ANDERSON objected to the medical and maternity benefits being administered by the local Insurance Committees, and thought that they should be administered directly by the Commissioners, but did not press the point. The motion was unanimously carried.

Dr. ORR (Tayport) proposed Resolution No. 2:

> That this meeting agrees to inform the Scottish Commissioners that the profession in Fife will absolutely refuse to work under the Insurance Act unless the six cardinal principles of the British Medical Association are conceded in the regulations to be framed by the Commission, and that this, along with the first resolution, be communicated forthwith by the Honorary Secretary to the Secretary of the Scottish Commission.

This was seconded by Dr. D. E. DICKSON, who suggested, and it was agreed, that the word "guaranteed" should be inserted in the resolution, which was then carried unanimously. The meeting then considered the question of the further organization of the profession in Scotland in view of the various proposals now before the profession to attain that end. After considerable discussion, the unanimous finding of the meeting was to the effect that, with a view to the maintenance of united action, not only in conserving the interests of the profession under the Insurance Act, but in medical matters generally, the British Medical Association, as the organization already in power, should be the central authority through its Scottish Committee, which might be added to by, amongst others, representatives from the various medical teaching bodies in Scotland, and that it should have an office in Scotland and a paid secretary. The Honorary Secretary was authorized to bring forward a proposal on these lines at the conference between the Scottish Committee and representatives of the medical corporations to be held on January 20th.

The PRESIDENT called attention to the proposals as to the formation of local Medical Committees with a view to looking after the medical profession in Fife under the Insurance Act, pending further development, as indicated in Resolutions Nos. 1 and 2. He said that a similar proposal was being adopted by other Branches, and that it did not commit the profession to anything.

The HONORARY SECRETARY reported that a recent communication received from head quarters contained the statement that the formation of these committees was very important, even supposing the Insurance Act was not accepted in the area, with a view to looking after the interests of the profession, and the opinion of the Branch Council was asked as to the areas in which these local Medical Committees should be set up. He recommended that, as there was an uncertainty as to the situation and numbers of the insurance areas in Fife, it be remitted to the Branch Council to consider the question of the formation of local Medical Committees and to report to a future meeting, and this was agreed to.

The PRESIDENT then intimated that at a meeting of the Insurance Committee in London lately he had been informed that something like 27,000 signatures had been secured to the undertaking. The members received the information with acclamation, as it was considered exceedingly satisfactory.

Dr. BRYSON then introduced the subject of the method and rate of remuneration, and said he thought the matter should be considered and some decision come to for Fifeshire. It was pointed out by other members that this might vary in different areas, and that the matter would probably have to be considered later on by the local Medical Committees.

Dr. ANDERSON gave notice that at the next meeting he would move that the rate be fixed at 8s. 6d., and Dr. EGGELING thought that this question, as well as the various details embodied in the six cardinal points, should be considered at a meeting called for the purpose.

It was therefore agreed to discuss these matters at the meeting at which the forthcoming report of the Council was to be considered if time permitted, or at a meeting to be held at an early date thereafter.

The meeting, which had been characterized by a free and frank expression of opinion, along with which the supreme importance of unanimity and united and cohesive action was the ruling note, concluded by the members enjoying a cup of tea together in friendly intercourse.

GLOUCESTERSHIRE BRANCH.

THE first general meeting of the session 1911-12 was held at the General Hospital, Cheltenham, on November 16th, 1911, at 7 p.m. Dr. GROSVENOR, the retiring President, took the chair, and thirty-five members were present.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Installation of New President.—Mr. G. A. PEAKE, Dental Surgeon, Cheltenham General Hospital, was then introduced by Dr. GROSVENOR.

PRESIDENT'S ADDRESS.

The new PRESIDENT then delivered an address on the Sources and Channels of Human Infection. After some introductory remarks, he proceeded: It is recognized now that the greater number of diseases are caused by poisons introduced to the body from outside. Malnutrition or starvation and physical injury will interfere with normal functions, but, for the most part, one must look to toxins to explain physiological action being changed into pathological behaviour. The study of bacteriology is providing vastly improved methods of treating disease by discovering causes, assisting diagnosis, and providing antidotes. The army of toxins pitted against the physician is so great and so varied in its component parts that it behoves us to discover and recognize every possible line of attack. Probably there is a great deal of infection about which is not recognized by anybody: a review of all the sources and channels may put us on our guard in unexpected places. A newborn baby is sterile. We know that tubercle bacilli can be transmitted via the placenta to the fetus. We recognize that syphillis and, perhaps, typhoid may be transmitted from the mother to the fetus, and one may hazard the opinion, looking to future discovery, that some other maternal blood-infections, perhaps staphylococcal, may be found capable of infecting the fetal blood—still, for all practical purposes, a newborn normal baby is sterile. It very soon becomes infected; for example, *Bacillus coli* is, very shortly after birth, to be found in the intestine; one wonders whence it comes and what it means. It is not my intention to follow up any one infection. I only mention this, in passing, to draw attention to how early in life we are infected. Infection (and by this, of course, one means germ infection), obviously always has its source outside the body. This normal baby may be infected, in common with all humanity, from dust, food, dirt of other people, water, other animals and their parasites.

Dust.—Inhaled, often very much poisoned, especially in cities, by the admixture of decaying septic animal matter and the excrement of animals. Much good would be done by getting rid of all horses from the streets and the adoption of motor traction; to this end, surely, the tax should be taken off motors and put on horses. The keeping of dogs in towns, whose unfortunate habit it is to empty their bowels in the driest and most exposed places in the streets, should be better regulated and the number kept down to a minimum by far heavier taxation. This might be suggested to Mr. Lloyd George with the intimation that the whole medical profession would back him up in robbing such hen-roosts. The harm done by dust was well illustrated in one direction in the South African war. Latrines were always dug for the troops, but the soil was dry and sandy, and lack of time often made deep digging impossible: the sun dried up the soil. The winds, often great, blew all this dust about. Result: the water supplies were contaminated and enteric raged. I can find no record of pyorrhoea; but in the medical history of the American war in Cuba it is reported that pyorrhoea occurred in epidemics.

Food—on which dust has settled and flies have left infection—carried as well as defaecated. Flies are now the deadliest wild animals and the most ferocious beasts of prey humans have to contend with. They are bred in household dirt and dung-heaps, and feed on the same food as we do (indeed we sit at second table to them). They can be the transmitters of tubercle, typhoid, anthrax, dysentery, etc., carrying the bacilli both inside and outside their bodies. A vigorous national campaign against flies should be led by us; strict cleanliness will stamp them out entirely. Surely dung-heaps, stable-yards and refuse heaps should not be allowed near houses or food supplies; wherever situated they should be treated regularly with paraffin. The unavoidable dung-heaps are an additional reason for forbidding the use of horses in crowded localities, such as cities. In connexion with this infection from food one must remember the alarming possibilities of infection from milk—not only tuberculous infection, but infection of streptococcus, staphylococcus, *Streptococcus faecalis*, and others, which may explain some of the many cases of summer diarrhoea in children.

Dirt from Other People.—There is the nurse with the dirty mouth who tastes the food in the spoon before giving it to the child, or who kisses the child; people with dirty mouths who spit in the street, and so add their germs to the dust, or else project them straight at one when speaking; the horrible and filthy "teat" or "comforter," often dropped on the floor and in the street, taken from one child's mouth to another's, sometimes lent from house to house, and generally never washed except in the child's mouth. Other people's dirt may also come via milk. Should the milker have a dirty mouth and cough, or spit on his hands, or even should he talk over the bucket, he will surely infect the milk. It has been proved with Petri plates that saliva, in ordinary conversation, is projected varying distances from a foot or two to two or three yards. So the milker, having a dirty mouth, should he talk while at his work, will infect the milk, even though his hands and the cows' udders have been duly washed and sterilized.

Water.—In regard to water-borne infection one need do no more than mention it. Cholera, typhoid, and summer diarrhoea of children have been well discussed. The infection of water from dust hardly attracts attention.

Other Animals and their Parasites.—One is only discussing our own immediate environment and not tropical diseases, so the *Stegomyia* of yellow fever and his cousin the *Anopheles* of malaria, the tsetse-fly of sleeping sickness, and the rat of plague can be passed over: but in England the mouse has be accused of carrying measles and typhus, and both they, rats, fleas, bugs, etc., may have a far closer connexion with disease than we suspect. In connexion with this, a friend of mine caught a flea in the act of biting him (he slew it). Acute cellulitis followed at the site of the bite, with an ultimate slough about half an inch long, from which was grown a pure culture of *Staphylococcus aureus*.

So much for the external sources of infection. What are the channels by which the infection enters? The channels are: (1) The skin; (2) the orifices of the body. Let us hastily review them.

The Skin.

The skin is an extensive, but probably not a very common, channel, unless abraded or injured by bites of pestiferous insects.

The Orifices.

The Ears.—Uncommon as a primary channel of entry. The external auditory meatus is an open cul-de-sac leading nowhere, and not particularly liable to injury.

The Breasts.—Uncommon as a primary channel of entry; the ducts are not constantly open, so infection by the lacteal ducts is relatively uncommon.

The Urethra.—The urethra is not uncommon as a primary channel of entry, but many cases once thought to be gonorrhoeal rheumatism are now explained as of other origin. It is a closed passage, and should not invite the advent of extraneous matter; it is constantly being flushed from within outwards, which, no doubt, is of advantage.

The Rectum.—The rectum is not a very common primary channel; it is closed by a sphincter, and so is not constantly awaiting the advent of matter from outside.

The Vagina.—The vagina is a common channel; it is obviously exposed to infection, and is also a badly drained cavity, hence we get infection; and the gynaecologist has frequently to treat ulcerated cervix, chronic endometritis, and, be it noted, malignant growths.

The Nose.—The nose is a very common channel of infection. In normal breathers it is the passage for all the air, and it has obvious and extensive opportunities for harbouring infection. Nature protects herself against infection by the chemical action of the secretions and free drainage, assisted by the constantly sweeping cilia of the mucous membrane, *yet* "colds" are very common, showing that "protection" often breaks down. And the nose is exposed to air-borne infection only.

The Mouth.—Consideration of the *normal* mouth leads one to expect that it *should* be found to be the most common channel of infection in the human body. For it is exposed not only to air-borne infection—additionally so in mouth breathers—but also to food-borne infection, and it has no ciliated epithelium to assist cleaning, as the nose has, and the presence of teeth provides a permanent obstacle to cleanliness. Still, Nature has given the mouth its own protection by making the act of masticating *hard* food clean the mouth; to this is added the frequent flushing by saliva and the rubbing clean of the teeth and mouth by the muscle movements of tongue, cheeks, and lips.

Formerly food did not stick to the teeth after a meal because it was rough and non-sticky; what bits did remain after feeding were cleaned off by the flushing of saliva, and the vigorous scouring of mouth and tongue muscles.

Glance for a moment at the teeth—their shape, in circumference all of them are much smaller at the neck than at their masticating surfaces; the crowns all touch, leaving inverted V-shaped spaces between the teeth, and recesses on the sides of the teeth, both lingually and labially. The gum makes a pad in each V-shaped space between the teeth, and all round the tooth it is finished off by an inverted fold, leaving a pocket 1 to 2 mm. deep all round the tooth. This arrangement of teeth, gums, mastication, saliva-flushing and muscle-movements is excellent and most cleaning for hard food, but it invites the stagnation of sticky.

The diet of to-day is bad. Our food, as an almost unbroken rule, is sticky rather than hard; it is very often prepared practically ready for swallowing; mastication is badly used, the teeth are not rubbed, saliva-flushing and muscle-movements fail to clean because they are scarcely used at all. *At the very best* the recesses round the teeth are not reached. Nature is robbed of her protection. This is the root of the trouble. There is stagnation of food débris. We live, as we have seen, in a badly infected area and are taking in germs in large quantities—even the very healthiest of mouths, if carefully examined, have pathogenic germs present in large quantities; these healthy mouths have only escaped because the germs get moved on, and there is no stagnation.

The result of this stagnation, *plus* germs, is local inflammatory trouble, beginning very quietly, insidiously, and nearly always unnoticed; it is, of course, to be found in the most quiescent and concealed spots, namely, in the pockets of the gum round the necks of the teeth.

If proof is needed that the cause of the beginning of oral

sepsis is "a bad diet," and a consequent "holding up of germs," one may remember that:

Fishes' mouths are, of course, being constantly flushed; there is no stagnation and no septic mouths have ever been found. Examine all the fish that come to table; you will never find caries.

The Esquimaux's chief diet is flesh food (blubber), which is hard and stringy: there is no stagnation. Caries, which is an ultimate sign of septicity, is so rare that it is said to be even more difficult for a dental surgeon to make a living in Greenland than it is for a clever Jew to make one in Aberdeen.

Carnivora always bolt their food with very little mastication. It is stringy, so there is no stagnation of débris; pyorrhoea and caries are unknown. Bring the same carnivora into civilized human life, feed them on our diet, then pyorrhoea is common and dental caries fairly often seen. This pyorrhoea in domestic animals, by the way, should be suspected as being a likely source of septic infection in those people who are given to kissing their pets.

The Gauchos of the Argentine plains—pure flesh-eaters—never have dental caries; those that go to live in the cities and eat city diet are noted to have caries to the same extent as the other dwellers in that city.

Kaffirs' chief food is mealie; they have a considerable amount of caries; there would be more, but that the mealies are very coarsely ground in stone hand-mills, and so the flour is very coarse and has some grit in it.

A good illustration of how unnatural food works evil is to be found in the horse. Often he is given, in order that his owner may get full work value out of the amount of fodder used, artificial feeding of crushed oats and chopped hay or grass; he cannot keep his mouth clean, so one often finds buccal cervical caries due to stagnation and sequent infection; this in many cases accompanied by pyorrhoea. This is unknown in the wild horse living on a natural diet of long grass, which has to be drawn about the mouth, bruised, and rolled into a bolus before it is swallowed.

Another good illustration of the evil effects of civilization and civilized diet is beautifully shown in the skull I have here; it comes from this neighbourhood, and was dug up about three weeks ago by my partner, Mr. Holme-Barnett (to whom I am indebted for the loan), on the site of the Roman Villa at Hucclecote. This villa was deserted in A.D. 500. The skull is not of Roman type; it is prognathous; the superciliary ridges are very heavy, the bones are thick, there is small frontal and huge occipital development, the antero-posterior measurement is large, the transverse small—all these points indicate that it is a type of one of the earliest known inhabitants of this part of the country, and was probably a slave at the Villa. It is interesting to note how, owing to his hard and very coarse diet, all the teeth were tremendously ground down; when the molars were ground half-way down—that is to say, about middle life—he went into Roman service and had civilized diet. This soft food got held up; he met with some sepsis, and got gingivitis going on to pyorrhoea. Signs of this are left in the ridges of tartar on all the teeth. The teeth that could clean themselves least suffered most; hence caries and destruction of bone are to be seen where one would expect it—namely, round the molars.

To go back to the mouth: We now have stagnation and germs, leading on to insidiously beginning local marginal gingivitis, clinically seen as a swelling and blood-injection of the gum, the edge of which is rather red or slightly bluish in colour—the old story, in fact, of redness, swelling, heat, and pain, each in its varying degree. It may be local to one or two teeth, or general round all the teeth, and very often it is surprisingly symmetrical, this being due to the two sides of the mouth being exposed to the same chance of infection.

This condition is quite commonly seen in earliest childhood; our sterile baby soon presents oral sepsis. At whatever age it starts it seldom recedes; it nearly always quietly and insidiously spreads. In the case of the child the temporary teeth and the temporary alveolus are absorbed and done away with, but the process repeats itself with the advent of the permanent teeth shortly after they are cut into place, or often even during their eruption. Here, early in life, is the beginning of danger. The bacteriological flora in the mouth, as mentioned previously, is very extensive, and include numerous pathogenic germs, whose morbific properties are well understood and established. But we also should take into account the question of symbiosis, the import of which is as yet little understood. For instance, take bacillus A and bacillus B. A may, by itself, be harmless; B may, by itself, be harmless; but when growing together they may produce some powerful toxin or may mutually increase in virulence. Symbiosis is in this case synergic. On the other hand, A may oppose B, so that "the original sin" of B is frustrated and brought to nought; symbiosis is in this case antagonistic.

This marginal gingivitis marches on and tissue destruction follows. The gum papillae between the teeth are destroyed, leaving pockets between the teeth, and all the while bone destruction (of the alveolus) is going on, deposition of tartar taking place concurrently. Definite pathological changes are now clinically evident. The bacteriologist will claim that these changes are entirely due to the action of bacteria—he is perfectly correct. More stagnant food débris is deposited in these pockets and in the lingual and labial recesses; more germs are caught up; things are going from bad to worse; pus is formed.

Now, but far, far too late, the condition is often noticed, but the earlier signs should have been recognized. The mouth presents, to a greater or less extent, an actual absorbent ulcer, and even now is often passed over though seen by medical men who would not allow an equal ulcerating surface to be neglected in any other part of the body where they are accustomed to looking for and recognizing it.

From such a polluted source one might expect to get a polluted stream likely to infect any place in its course, but more or less certain to infect *stagnation* points in that course. This is exactly what one does get, as witness the frequency of trouble in:

Tonsils,
Naso-pharynx,
Stomach,
Caecum and vermiform appendix,
Anus,

and from this main stream what is more natural than that we should have side-tracks up any available duct—thus:

Laryngitis: Bronchitis and pneumonia.
Pharyngitis.
Eustachian tube leading to middle-ear trouble.
Common duct of the liver and consequent troubles: Cancer, gall stones.
Pancreatic duct and pancreas trouble.
Parotid duct and parotitis.

In connexion with this—to digress for a moment—I remember hearing Mr. Peter Daniell say that out of 22 cases of diabetes that had come under his care there was not one that had a clean mouth; since then I have specially noted the mouths of all the diabetic patients I have seen, and have not found one clean mouth. A patient came to me one day with such a dirty mouth that nothing could be done to clean it except a large number of extractions; otherwise she appeared quite well and had had no medical attendance. A few months after this she was suddenly taken ill one evening; Mr. Buckle was sent for, he found a large amount of sugar, and she died almost at once. Another diabetic patient went to Dr. Johns—he will, I think, remember that *her* mouth showed every sign of having been septic for many years.

I have seen two good cases of parotitis lately—one with Mr. Cardew, a lady who had a small but very painful swelling in the region of the right parotid gland—pain worse on opening the mouth. When I saw her, with Mr. Cardew, she had a very septic mouth and teeth in the upper jaw on that side that had evidently been very septic for years. I removed them, and very shortly after had to open her antrum on that side; this shows how septic she was. Both antrum and tooth sockets healed up well, and the whole mouth is now quite clean. The pain still continues: Dr. Meyricke Jones took some *x*-ray photographs for me to see if there was an impacted wisdom tooth—none. The swelling in the parotid gland continues to-day with much distressing pain, both swelling and pain varying from day to day in amount. I think this is, without doubt, a septic parotitis set up by the septic mouth.

The other case was a patient whom Dr. Johns asked me

to see, and this patient, too, had a swelling in the right parotid, and pain especially marked, as is so often the case, at meal-times, when he was using the muscles and the parotid was secreting. I could find no septic teeth on that side, for the teeth were missing, having been extracted, showing that there had been sepsis there.

From this mouth, which, as we have seen, is nothing more or less than a true absorbent ulcer, in addition to these main and side streams, we are likely to get:

1. Septic infection spreading locally into the surrounding tissues, well illustrated in—

Some cases of necrosis of the jaw and the lesser recognized sequelae, such as orbital cellulitis, retrobulbar optic neuritis, and intercranial diseases.
Cellulitis of the throat.
Chronic septic stomatitis, leading, I am inclined to think, far more often than suspected, to malignant growths.
And in the eye—keratitis.

I saw a patient about a year ago with well-established pyorrhoea, and also some septic upper incisors on the right side. The case was far too advanced to hope for any good from culture injections, so I urged extractions—the patient postponed doing anything: she has since become blind in the right eye, due to keratitis. She was a patient of Dr. Pike, and I think he agrees with me that it is most likely that the septic teeth were at the bottom of the trouble.

2. General blood infection, either toxic or bacterial, leading to, for example, acne, anaemias, arterio-sclerosis, sciatica, lumbago, rheumatoid arthritis, neuritis—things we have hitherto been content to explain by merely labelling with names. And in the eye, oculists tell us, to iritis and iridocyclitis, etc.

Dr. Carter has, I know, been doing a great deal of work on rheumatoid arthritis at this hospital, and Dr. Collins has been doing bacteriological work on it too; it would be interesting to hear from them what their conclusions are.

From this hasty review of the sources and channels of infection one can safely claim that there is, in fact, no disease in which you can afford to neglect the mouth. It is possible for every infection to come from the mouth, but one does not claim everything for the mouth. The mouth, without doubt, is chief offender. The nose is easily second, as witness the very large proportion of children found, on school inspection, to be suffering from adenoids. In comparison with the mouth and nose the other orifices are nowhere.

In actual practice one's *a priori* deduction is not falsified. I may quote Hunter; he has "proved that cellulitis of the neck, necrosis of the jaw, suppurative tonsillitis, middle-ear disease—all common and serious complications of specific infectious fevers—can be almost eliminated by strict mouth cleanliness."

Also, from experience of years, I know that our sterile baby—at least as far as concerns his mouth—almost inevitably develops sepsis dangerous to himself, and becomes a disease-carrier dangerous to others.

To sum up. The conditions of life are such that we are surrounded by hosts of ravening germs seeking whom they may devour, and often forgotten because unseen. Nature has given us power, and made arrangements for us to be able to fight against them and resist infection to a certain point. We have seen that of all the points of entry for sepsis to the body the mouth is easily first, partly because it is more exposed to sepsis, but mostly because we do not use it properly.

It is very easy to pass over early sepsis in the mouth, because it is out of sight and very insidious in its beginnings. Once started, it may do a lot of damage before it is recognized, and such damage may have spread so far in various directions, that removing the cause is then almost equal to shutting the door of the stable after the horse is stolen.

To those interested in the "mouth" part of this, and wishing to go further into the matter, I would recommend a paper by Mr. J. G. Turner, one of the most thoughtful dental surgeons of to-day, on "Drainage and Stagnation."

Clinically, infective inflammatory conditions are present in almost every mouth; such mouth is a constant source of danger both to the patient and to the public.

What is to be done?—We must recognize early sepsis *wherever it occurs* in the body and get rid of it, remembering that those points that are out of sight, where stagnation is likely to occur, are the *most likely places to be overlooked.*

With regard to the mouth, we must remember that in a healthy mouth the edge of the gum is quite thin, pale pink in colour, and in close apposition to the teeth; the papilla of gum between the teeth is of full size and pale pink in colour, slightly receding between contiguous teeth; the sulcus round each tooth should be a little over 1 mm. in depth on both the lingual and labial sides of the teeth, and deeper between the teeth where the gum pad rises. Anything except this is wrong, and should be put right at once; then the subsequent troubles will be minimized, if not avoided.

The first deviation from normal is that on pressure, even when there is no visible sign of inflammation, a pultaceous, whitish mass can be squeezed out from under the gum margin. If the gums are swollen—are red or bluish in colour—forming wads between the teeth, there is gingivitis, and in the gingivitis of children is the promise of pyorrhoea in the adult. If tartar is present it is a sign of stagnation, and by its presence it also helps stagnation.

Dental surgeons must not add to, or start, the trouble by putting crowns on *such* crowns as have their gum edges badly fitting and so *make* ledges for food and germs. Teeth with dead pulps must not be filled till the roots are made aseptic and filled up—far better they should be freely extracted. Any dentist drilling through the side of a tooth to save himself the trouble of removing a dead pulp and packing the root of the tooth, should be dragged outside the city wall and stoned with stones.

Cannot we, as a profession, do something to improve the conditions of life—to clean the sources of infection, and so lessen the amount of sepsis in the world? Surely we should lead a campaign against the dirt of our streets and surroundings and agitate for further reforms in connexion with our food supplies and the medical inspection of the workers connected with them, for example, butchers, bakers, fruit sellers, milk sellers.

Mouth-breathers should, of course, be cured as early in life as possible—not only is mouth-breathing bad for the child from a development point of view, but the child is getting an added chance of infection.

Patients should be well drilled to the danger of neglecting the smallest amount of sepsis anywhere in the body; to the need of a clean mouth and the great importance of a hard diet; they should be taught personal cleanliness. If we can lessen the amount of sepsis in the world shall we not be carrying out the high tenets of our profession—teaching people with joy, and to our own pecuniary loss, to do without us and our services?

Vote of Thanks to President.—A vote of thanks to the President was proposed by Dr. SOUTAR and seconded by Dr. CARTER, supported by Dr. COLLINS, Mr. CUTHBERT, Dr. COX, Dr. PRUEN, Dr. PIKE, Dr. MACARTNEY, Mr. BUCKELL, and carried.

Dinner.—Twenty-five members dined after the meeting at the Cosy Corner, Promenade.

LANCASHIRE AND CHESHIRE BRANCH:

MANCHESTER (SOUTH) DIVISION.

A MEETING of this Division was held at the Holy Innocents' Schools on Tuesday, January 9th, at 3.30 p.m. Dr. GRANT DAVIE presided. There were also present: Drs. Ballantyne, Cotterill, Cameron, Chevers, Conway, Edlin, Gregory, Godson, Crichton-Hood, Heathcote, Hopkinson, Holt, Howe, Mitchell, Morton, McDougall, MacGregor, Russen Rhodes, Robinson, Salter, Sawers Scott, Steinthall, Stocks, Sarjant, Tomkys, Thoseby, Williams.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Correspondence.—Letters containing resolutions were read from the following Divisions: Sheffield, Norwich, North-East Essex, Leicester and Rutland, Macclesfield, Lothians, Birmingham, Northants, Ashton-under-Lyne.

Manchester School for Mothers: Appointment of a Medical Officer.—Correspondence on this appointment was read. The meeting approved of the action of the Executive of the Division in asking the BRITISH MEDICAL JOURNAL to withhold the advertisement for a whole-time medical officer for work in connexion with the School for Mothers (Manchester). While Manchester (South) Division had to take the initiative in withholding the advertisement, it was felt, however, to be a matter which concerned the whole of the Manchester area. In this case the

Secretary was instructed to refer the matter for discussion by the Joint Committee.

The "Practitioner" Pledge.—A MEMBER asked for an opinion as to whether he should sign the pledge issued by the *Practitioner*. A vote of the meeting was taken, and it was in favour of not recommending members to sign it. Most of the members who opposed the signing of this pledge did so on the ground that it was advisable (*a*) not to multiply the number of pledges, (*b*) and not to sign pledges in connexion with any other organization than the British Medical Association.

The Manchester Coroner and the General Practitioner.—A discussion on this subject took place, and the following members took part in it: Dr. SARJANT, Dr. RUSSEN RHODES, Dr. MCDOUGALL, Dr. MARTIN, Dr. COTTERILL. Cases were stated where the practitioner in attendance had been absolutely ignored, and he had not been called to do nor to attend at the *post-mortem* examination, nor to give evidence at the inquest. The following resolution was unanimously passed:

> That this meeting of the Manchester (South) Division of the British Medical Association expresses its dissatisfaction with the present attitude of the coroner in overlooking the just claims of general practitioners called in at the death of a patient to be invited to perform the *post-mortem* examination if necessary, and to attend the court inquiry, and recommends that the whole question be again reopened by the Manchester Conjoint Committee.

The Secretary was instructed to send an epitome of the cases and the above resolution for further consideration by the Joint Committee.

National Insurance Act.—Mr. STOCKS, the Representative of the Manchester (South) Division, gave a summary of the present position in relation to the National Insurance Act. The resolutions down for discussion by the Lancashire and Cheshire Branch at its meeting on January 10th were then discussed, but the meeting made no recommendations as to how members should vote. It was felt to be a matter to be decided by each member individually.

Dr. SCOTT proposed and Dr. EALIN seconded:

> That the Joint Committee of Manchester and Salford be requested to make immediate arrangements for the formation of a local Medical Committee so as to be prepared for all contingencies in connexion with the Insurance Act.

METROPOLITAN COUNTIES BRANCH:

GREENWICH DIVISION.

A MEETING of this Division was held on January 11th at St. Mark's Church Room, Greenwich, Dr. C. J. PARKE in the chair. There were present thirty-six members and eight visitors.

Confirmation of Minutes.—The minutes of the previous meeting were confirmed.

Out-patient Department of Miller Hospital.—The report of the Executive Committee on the out-patient department of the Miller Hospital was considered, and the following resolutions carried:

1. That this Division is of opinion that no patient should be received for treatment (other than emergency cases) except on the recommendation of a local practitioner.
2. That this meeting affirms the decision previously made that the treatment of London County Council school children should be in the hands of general practitioners at school clinics regularly formed.
3. That a letter be sent to the London County Council protesting against the parents of school children being compelled to pay for treatment received at hospitals.

National Insurance Act.—In regard to the Insurance Act the following resolution was carried:

> That the formation of Medical Committees under the Act be postponed until after the Special Representative Meeting.

HAMPSTEAD DIVISION.

A MEETING of this Division was held on Friday, January 12th, at 8.30 p.m., at the Hampstead Conservatoire. Drs. CORAM JAMES, OPPENHEIMER, and OAKLEY occupied the chair in succession.

Minutes.—The minutes of the last meeting as published in the JOURNAL were taken as read.

Letters.—Letters were read from the Central Ethical Committee, inviting criticism of the Draft Ethical Rules; from the State Sickness Insurance Committee, asking for assistance in obtaining information in regard to the average amount of medical attendance needed per annum by club patients; and from a member of the Division suggesting that another meeting should be held to discuss the Insurance Act. Numerous other letters received were referred to the committee for consideration.

Draft Ethical Rules.—The Draft Ethical Rules were then considered. The committee's recommendations were as follows:

In Rule 2 (iii) insert "the number of" before "those voting" in fourth line.

In Rule 2 (iv) delete the words "the previous" in line 4, and insert "iii" after subparagraph in line 5.

In Rule 7 (*a*) delete the words "medical practitioner or practitioners" and insert "member or members" in line 4. Delete lines 11 to 14 inclusive down to "Committee."

In Rule 9, line 2, delete the word "profession" and insert "Association."

Delete Rule 10.

Rule 11 would then become 10, etc., 25 = 24.

In Rule 13 (= 12), line 7, delete the word "person" and insert "member." Delete the words in italics.

In Rule 14 (= 13), line 8, delete "shall" and insert "may."

In Rule 15 (= 14), line 6, delete the words in italics.

In Rule 16 (= 15), (1) (*b*), line 3, delete "of the profession." Delete (iv) and insert the word "or" as alternative to "and" after (v) (*a*), (vi) (*a*), (vii) (*a*), (viii) (*a*) and (*b*).

In Rule 22 (= 21), line 1, delete "Practitioner" and insert "Member."

In Rule 23 (= 22), line 2, delete "person" and insert "member."

In Rule 24 (= 23), line 6, delete "profession" and insert "Association."

In Rule 25 (= 24), at the end of the first paragraph add "but not debarred from giving evidence as to the facts if called upon, nor from attending hearing."

Add "That nothing contained in these Rules shall prevent a Division from considering the conduct of a non-member in the same way as it might have been considered if these Rules had not been passed."

Dr. OPPENHEIMER, in introducing the report of the Committee on the proposed Ethical Rules, made the following remarks: "The Executive Committee recommends the Division to accept in principle the Draft Ethical Rules in so far as they apply to members of the Association, but to decline to assume jurisdiction in ethical matters over non-members. It must be clearly understood that the application of Rule Z to non-members is bound to result in litigation, in actions for libel and conspiracy, and that such legal liability attaches not only to the central authorities but also to the officers of Divisions, and even to individual members who vote for a resolution for the enforcement of Rule Z. It may be argued that the danger lies, not in passing these rules but in enforcing them. But what is the good of making rules if we do not mean to carry them into effect? If the Draft Code is passed in its present form, it will operate as a standing invitation to Divisions to start proceedings which will have to be abandoned in the end for fear of legal consequences, and will in all probability be put a stop to for this very reason by the Central Ethical Committee. Such abortive action is bound to expose the Association to ridicule and contempt. Quite apart from the fact that the application of Rule Z to non-members is tortuous in character, the policy of arrogating to ourselves jurisdiction over the profession at large is more than questionable. There is a statutory body in existence invested with wide disciplinary powers, and the Association is at liberty to institute proceedings before that tribunal, as it has successfully done in the past. Why, then, set up a concurrent jurisdiction? If the Association wishes to enforce upon its own members higher medico-ethical principles than those recognized as binding by the profession as a whole, well and good. It might thus set a higher ideal to non-members, but to enforce it upon them by penal proceedings is surely unjustifiable. But what obligation do these draft rules really intend to impose on the profession, members and non-members alike? Observance of the rules and resolutions of the Division (see Rule 7). Fancy wishing to compel a man to abide by the rules of a society of which he is not a member! Obviously these rules are meant to penalize, not ethical offences, but conduct contrary to the *policy* of the Association. The proper way of converting our professional brethren outside our organization to our medico-political views is to convince them of the justice and expediency of our aims and aspirations, and not to invent a machinery which is sure to be abused by prosecuting, as unethical, conduct which the Association

considers undesirable. The Executive Committee recommends the deletion of the lines mentioned in Rule 7, since to give the Division power to override the calm judgement of the central authority means to allow free play to local prejudices, terrorism, and injustice. Such a procedure is oppressive and unjustifiable, even if set in motion against members." It was moved by Dr. OPPENHEIMER, seconded by Dr. PERCY EVANS, and carried unanimously:

That the Committee's recommendations be adopted.

Paper.—At 9 p.m. Dr. W. G. Gow read an interesting paper on Some Forms of Displacement of the Uterus. Discussion followed, in which Drs. FORD ANDERSON, PERCY EVANS, E. L. PRITCHARD, TRAYLEN, HILLS, and DOBBIE joined.

Vote of Thanks.—A vote of thanks to Dr. Gow was proposed by Dr. MACEVOY, seconded by acclamation.

NORTH MIDDLESEX DIVISION.

THE third ordinary meeting of this Division was held on January 12th at the Hornsey Council Schools, Finsbury Park. Dr. H. B. BRACKENBURY was in the chair, and fifty-two members were present.

Confirmation of Minutes.—The minutes of the second ordinary meeting, reported in the SUPPLEMENT to the JOURNAL, December 23rd, 1911, were taken as read, and signed as correct.

Draft Ethical Rules of a Division.—The rules already considered by the Executive Committee were submitted to the meeting for criticism and approval. Dr. SPREAT (Whetstone) urged that Rule 6 (*b*) should be strengthened in the final draft, so as to prevent the possibility of a practitioner to whom recognition was not generally accorded taking advantage of the recognition granted at times of urgency, to claim urgency (and hence recognition) when there was no urgency. Subject to this modification the rules as drafted were accepted for report to the Central Council.

Medical Officer of Health for Edmonton.—The circumstances of the dismissal by the Urban District Council of this officer were considered at length. Finally, the following resolutions were passed.

1. That this meeting of the North Middlesex Division, having considered all the circumstances, requests the Association promptly to take the following steps to maintain Dr. Laurence in his position as Medical Officer of Health for Edmonton:
   (*a*) To refuse to accept any advertisement offered for insertion in the BRITISH MEDICAL JOURNAL by the Edmonton Urban District Council in reference to the filling of the vacancy.
   (*b*) To issue a warning notice in the BRITISH MEDICAL JOURNAL against any acceptance of the office, if advertised.
2. That the Division approach the Local Government Board with a statement of the case of Dr. Laurence, and a request that the Board will use its powers to prevent the dismissal of an officer against whom no charge has been made.

The Honorary Secretary was instructed to write to the Editor of the *Lancet* asking him to refuse to accept any similar advertisement offered by the Edmonton Urban District Council for the pages of that paper.

Alleged Case of Malpraxis.—This matter, already considered by the Ethical Committee of the Division, was discussed by the meeting, and it was resolved:

That this meeting of the North Middlesex Division, having considered the circumstances of the case, beg to support Dr. Roberts's statement and request to the General Medical Council to take appropriate action in the matter.

It was further resolved:

That a copy of this resolution be forwarded to the General Medical Council, if and when Dr. Roberts forwards his statement to that body.

The proceedings then terminated.

NORTH WALES BRANCH:

DENBIGH AND FLINT DIVISION.

A SPECIAL meeting of medical practitioners residing within the area of the North Wales Branch was held at the Queen Hotel, Chester, on Friday, January 5th, to consider the position of the medical profession in relation to the Insurance Act. Dr. T. Arthur Helme (Manchester) and Mr. F. Charles Larkin (Liverpool) kindly promised to attend to give their views on the matter. To the keen disappointment of those present, Dr. Helme was unable to attend. The following telegram was received from him:

Secretary, British Medical Association
Meeting, Queen Hotel, Chester.

Regret impossible to attend meeting. Would urge meeting to stand firm on six cardinal points, and immediately inform Commissioners that you will not form panel or take office under Act until so amended by amending Act, or, if possible, by the Commissioners, that the six points are absolutely guaranteed; do not form local Committee under Act until the six points are guaranteed to British Medical Association, but form your own independent Committee to formulate local requirements as to payment and conditions of work. Why should practitioners, after building up practice as independent gentlemen, sacrifice their independence, and work as servants of working-man Committee? Do you approve the altered Harmsworth amendment? Stand firm, and win. Wish you success and absolute unanimity.—HELME.

Mr. LARKIN said he was sorry Dr. Helme had not come, as he should have liked to meet him face to face before a fair audience. He pointed out that though charges of the most serious description were being made against the Council of the Association, no one had ever offered a single tittle of evidence in their support. He challenged any one to show that the Council had not faithfully carried out to the best of its power the instructions given it. For members to say that if they had been the Council they could have done better was fair comment. The Scotsman prayed for a good conceit of himself. To some prayer was unnecessary. It was not honourable, or even decent, to impute bad motives without an iota of evidence. Referring to Dr. Helme's telegram, he said both parties in the profession urged members to stand firm by the six cardinal principles, and to form no panel until satisfactory conditions were obtained. He did not see how Dr. Helme's party squared their practice with their policy. Still, the advice to stick to the cardinal principles was good. Where the parties differed was in what was the best way of conducting the struggle. He held that Dr. Helme's methods were mediaeval and played out. It was by such methods they conducted the profession to the glorious victory (!) over the Midwives Bill. The Association policy was new and up to date. It was fighting with full information and by quiet spade-work. It was not showy. It did not give many chances to last-ditch heroes to pose, but it meant work and with work victory. He said: You have, in accordance with the sixth cardinal principle, representation on the Insurance Commissions whether you like it or not. Get all the representation you can on the Advisory Committee, so that your representatives on the Insurance Commission may have the support of medical opinion on the Advisory Committee in drawing up the regulations, or at least may be able to keep you informed of what is going on. Put what representation you can on the local Insurance Committee, so that it can never meet without your knowing what it is doing and putting your views before it. Elect your Medical Committee, and everything concerning you will have to be submitted to it. Then sit tight. You will have full knowledge of all that is going on, and you will be able to act with that full knowledge. The regulations will come down from the Commissioners, and the local Insurance Committee will draw up its scheme. It will have to be submitted to your committee. Your committee can return it or call the profession together to consider it, and so by the very machinery of the Act itself the profession will be organized to resist unfair terms. Contrast this with the know-nothing policy of Dr. Helme. If you take his advice all these committees will be formed and get to work without your knowledge of what they are doing, and they will set to work to get doctors by the old-fashioned friendly society methods we know so well, and in which they have succeeded very well in the past. It is for you to judge whether or not there is any chance of their succeeding. I cannot dismiss their chance as unlikely. Anyway, you are risking your all on a single hazard—*the absolute unity of the profession.* Are you sure the dice are not loaded against you? Mr. Larkin answered numerous questions put to him.

Finally the following resolution, proposed by Dr. E. Moss (Wrexham) and seconded by Dr. H. VENABLES PALIN:

That this meeting desires to place on record its approval of the general policy of the British Medical Association,

was put to the meeting and carried by 38 votes to 8.

SHROPSHIRE AND MID-WALES BRANCH.

A meeting of this Branch was held on Tuesday, January 9th, at the Salop Infirmary. The President, Dr. Exham, was in the chair.

National Insurance Act.—The following resolutions were carried unanimously:

1. That this meeting of the Shropshire and Mid-Wales Branch of the British Medical Association call upon the Council to convene without delay a Special Representative Meeting, in accordance with By-law 36, to consider the conduct of the negotiations with the Government by the Council of the Association, and to instruct the Council as to its future action.
2. That "without delay" means at the earliest possible date that the regulations of the Association will allow.
3. That in the opinion of this Branch the Council of the Association, since it no longer represents the opinions and wishes of the vast majority of the members, should at once resign, and that a new Council should be elected.
4. That this Branch approves the formation of the National Medical Union.
5. That in the opinion of this Branch all medical men should sign the pledge not to accept service under the National Insurance Act which has been issued to the profession by the *Practitioner*.

SOUTH-EASTERN BRANCH:

Brighton Division.

A special meeting, of which fourteen days' notice was given, was held on Friday, January 12th, at the Presbyterian Lecture Hall. There were present seventy-nine members and three visitors. Dr. Ryle took the chair.

National Insurance Act.—It was proposed by Dr. Young, seconded by Dr. Routh, that item 2 on the agenda be taken before item 1. This was carried. Whereupon Dr. Young proposed and Dr. Dods seconded the following resolution:

That the members of this Division of the British Medical Association are of opinion that the members of the Council have not acted with due energy and firmness in their negotiations with the Government, and hereby make known to them their demand that the Council shall forthwith send an ultimatum to the Government and inform them that they have advised every member of the British Medical Association to refuse to take service under the Insurance Act.

Whereupon an amendment was moved by Dr. Johnston seconded by Dr. Dickson:

In line 3 to delete all words after Government, and add "That in our opinion the six cardinal points have not been obtained, and until they shall have been obtained it is the duty of the Council to show by a firm line of action their determination to protect the rights and maintain the unity of the profession, which policy every loyal member of this Division is prepared to support."

Mr. T. Jenner Verrall then spoke defending the action of the Council, and quoted resolutions of the Representative Meeting in support of the line of action taken. Whereupon Dr. Johnston and his seconder asked leave to withdraw their amendment, and the consent of the meeting having been obtained by show of hands, it was withdrawn accordingly. Dr. Young's motion was then put to the meeting and carried by 36 votes to 18.

Operating Surgeon to Brighton Workhouse.—Dr. Ryle then left the chair, which was taken by Dr. Ryding Marsh, Vice-Chairman. Dr. Ryle proposed the following resolutions drafted by the Medico-Political Committee, with regard to the proposed appointment of a consulting and operating surgeon to the Brighton Workhouse Infirmary:

1. That whereas the guardians have advertised for a consulting and operating surgeon at an honorarium of 50 guineas per annum,

   The Brighton Division of the British Medical Association considers that this sum is inadequate for the services required.

   Seeing that the British Medical Association has decided that State medical service should be completely separated from charity, and that the said appointment contravenes this principle, this Division disapproves of the application for or acceptance of this post by any registered medical practitioner.
2. That having regard to the duties required, the Brighton Division cannot approve the acceptance of the post by any registered medical practitioner unless the salary attached to the appointment be at least 100 guineas per annum.

After a short discussion, in which Dr. Whittington and Dr. Fraser, members of the Brighton Board of Guardians took part, the resolutions were put to the meeting, with the following result:

Motion 1.—For the resolution	...	...	33
Against	...	...	0
Abstentions ...	...	...	4
Motion 2.—For the resolution	...	...	35
Against	...	...	0
Abstentions ...	...	...	4

Both resolutions were therefore declared carried by the statutory three-fourths majority required by the Bradford Rules. The Secretary was directed to send a report of the proceedings to the medical and local press, and to the guardians.

Guildford Division.

A meeting of this Division was held at the Royal Surrey County Hospital on Friday, January 5th. In the absence of Dr. Kingsford, who was ill, the chair was taken by Mr. H. Branson Butler, Vice-Chairman. There were twenty-one members and one visitor present.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

National Insurance Act.

The first part of a resolution printed on the agenda was introduced by the Chairman, and passed unanimously in the following terms:

That this meeting of the Guildford Division of the British Medical Association call upon the Council to convene without delay a Special Representative Meeting in accordance with By-law 36, in order that the Representative may express the views of the Division concerning the conduct of the negotiations with the Government by the Council of the Association.

Mr. Butler proposed and Dr. Lyndon seconded:

That our Representative express our disappointment and regret that the Council were unable to obtain terms from the Government which would be satisfactory to the profession at large.

This was carried unanimously.

Dr. Lyndon then proposed and Dr. Pearse seconded:

That our Representative should urge upon the Representative Meeting a future policy for the Council which would be acceptable to the members of this Division, namely, that the Council be instructed to obtain from the Insurance Commissioners all the six cardinal points, and that the Council shall use all their influence to prevent any medical man accepting any office under the Act, either executive or administrative, until all six points have been obtained from the Insurance Commissioners.

This was carried unanimously.

SOUTH-WESTERN BRANCH.

A meeting of medical practitioners in Devon and Cornwall was held at the Barnfield Hall, Exeter, on Thursday, January 11th, under the auspices of the South-Western Branch of the British Medical Association in lieu of the ordinary winter intermediate meeting of the Branch. The President of the Branch (Mr. A. C. Roper) was in the chair. The following ninety-four members and non-members were present: Drs. F. W. Langridge, F. Wellesley Kendle, Herbert C. Jonas, R. V. Solly, A. Hudson, C. N. Lovely, W. Horton Date, W. G. Scott, B. Dyball, J. Bradford, W. H. Macpherson, G. L. Thornton, S. Rees Philipps, J. Beddow, W. A. Valentine, J. W. Haughton, G. T. Clapp, G. B. Elliott, T. Waddelow Smith, A. Goulston, T. A. Goard, Charles G. Gibson, Arthur Budd, J. R. Perdrau, F. F. Laidlow, G. Adkins, G. W. Curtis, A. M. Braund, Walter Fitzpatrick, W. O. Sankey, Robert Simpson, W. Gordon, T. B. H. Wilkinson, Henry R. Corbett, R. H. Wagner, Robert Jaques, H. H. Paulor, E. J. Domville, T. W. Widger Bovey, A. W. Fortescue Sayres, J. B. Fitzsimons, James Culross, A. T. Nisbet, Roger B. Burke, C. J. Cooke, J. H. Torney, F. C. Whitmore, A. E. Ash, George V. Burd, F. J. H. Cann, M. R. Gooding, George Rice, J. G. Macindoe, H. Compton Parsons, Richard Hedden, W. W. Stabb, J. Mitchell Winter, G. Young Eales, J. Harley Gough, J. C. S. Rashleigh, L. H. Tosswill, J. M. Ackland, J. S. Steele Perkins, J. A. W. Pereira, Thomas Duncan, G. P. Hawker, M. Cutcliffe, H. Andrew, Edw. S. Pollock, C. E. Bell, L. P. Black, J. F. Wolfe, Robert T. Fleming, F. Fennell MacCarthy, Arthur E. Hayward, Ellis Pearson, W. H. Evans, J. Raglan Thomas, S. Noy Scott, C. Musgrave, J. Mortimer, H. Goodwyn, F. Eustace Webb, Mark R. Taylor, J. W. Vickers, George Jackson, Ed. Slade-King, C. Fenwick, C. E. Stokes, Henry

Davy, P. Maury Deas, J. W. H. Davie Harris, and the Honorary Secretary.

Apologies for Non-attendance.—Apologies for absence were received from Drs. Dingle (Ilfracombe), Masterman Wood (Barnstaple), Goldie (Tywardreath), Spurway (Oakford), Odell (Torquay), Pearse and Hingston (Liskeard), and C. S. Flemming, Representative of the Grouped Branches on the Council.

Letters.—Letters on the subject of the meeting were received from Drs. Wilson (Penzance), Burd (Okehampton), Pearse (Salcombe), Nicholls (Dartmouth), Donbavand (Plymstock), Ware (Barnstaple), Jonas (Barnstaple), Marmaduke Shield (Budleigh Salterton), Hardwick (Newquay), Weekes (Modbury), Woolicombe (Plymouth), Shaw (St. Austell), Haughton (Falmouth), Leslie Jones (Fowey), Manning (Combe Martin), Ash (Honiton), Tinder (Wadebridge), and Chamberlain (Stratton).

Confirmation of Minutes.—The notice calling the meeting having been taken as read, the minutes of the last intermediate meeting of the Branch were read and confirmed.

National Insurance Act.

Dr. GORDON proposed, and Dr. LANGRIDGE seconded, Resolution No. 1, namely:

> That this meeting records its opinion that the British Medical Association is the only organization capable of serving the needs of the profession in the present crisis, and urges all members to use their utmost endeavours to induce all non-members to join it.

This was carried unanimously.

Dr. VALENTINE proposed, and Dr. M. R. TAYLOR seconded, Resolution No. 2, namely:

> That this mass meeting of medical practitioners pledge themselves to uphold the policy of the British Medical Association by refusing to form a panel unless the six cardinal points are guaranteed by the Insurance Commissioners.

An amendment was proposed by Dr. ROBERT SIMPSON, and seconded by Dr. WILKINSON, to delete the words "uphold the policy of the British Medical Association by" and alter "refusing" to "refuse." The amendment was lost.

Dr. WEBB proposed, and Colonel DAVIE HARRIS seconded, an amendment, namely:

> That the opinion of this meeting be at once taken (*a*) as to whether this Branch is prepared to work the bill if the six cardinal points are granted; (*b*) or whether this Branch refuses to work under the bill at any price;

but it was ruled out of order by the CHAIRMAN. Many members, however, expressing their opinion that it should be put, the Chairman took the opinion of the meeting as to whether it should be discussed, and on a show of hands it was decided that this should be done.

After some discussion it was moved by Dr. SIMPSON and seconded by Dr. WINTER:

> That the meeting proceed to the next business.

This was carried.

Dr. TAYLOR proposed, and Mr. DOMVILLE seconded, as a rider to Resolution 2, the following words:

> Since the bill as it stands does not satisfactorily embody the reasonable demands of the medical profession and is not only detrimental to that profession, but is also dangerous to the national health.

This was carried unanimously, the resolution finally standing as follows:

> That this mass meeting of medical practitioners pledge themselves to uphold the policy of the British Medical Association by refusing to form a panel unless the six cardinal points are guaranteed by the Insurance Commissioners, since the bill as it stands does not satisfactorily embody the reasonable demands of the medical profession, and is not only detrimental to that profession, but is also dangerous to the national health.

Dr. GORDON then proposed and Dr. SIMPSON seconded:

> That Resolution 9 on the agenda be now taken.

This was carried.

Dr. DAVY then proposed, and Mr. DYBALL seconded, Resolution No. 9, namely:

> That the members of the South-Western Branch here present record their opinion that the Executive Subcommittee of the State Sickness Committee, who conducted the negotiations in connexion with the Insurance Bill, have shown a deplorable want of capacity in carrying out the declared policy of the Association, and that the State Sickness Insurance Committee be asked to obtain their resignation and to appoint a new Executive Subcommittee.

After some discussion Mr. DOMVILLE moved the substitution of the words "want of success" for "deplorable want of capacity" and the omission of all words after the word "Association." This amendment was lost.

Dr. NOY SCOTT then proposed and Mr. DOMVILLE seconded:

> That this meeting requests the State Insurance Committee to be much firmer in the future in any negotiations they may have with the Insurance Commissioners.

This amendment was lost.

The original motion was then put to the meeting and was lost.

Resolution No. 4, proposed by Mr. ANDREW, was withdrawn by consent.

Mr. RUSSELL COOMBE proposed, and Mr. ELLIS PEARSON seconded, Resolution No. 5, namely:

> That Sectional Committees of the existing Divisions of the Association be at once formed in all parts of the country to safeguard the interests of the profession.

Dr. DEAS proposed as an addition and Mr. RUSSELL COOMBE, with the consent of the meeting, accepted, the insertion of the words "That it is very desirable" at the commencement of the resolution.

Colonel DAVIE HARRIS proposed and Dr. EALES seconded an amendment as follows:

> That this Branch at once take steps to nominate members to serve on the Medical Committees of the boroughs in and counties of Devon and Cornwall, so that in the event of the Insurance Commissioners issuing regulations compatible with the six cardinal points, such wage limits and remuneration may be fixed as will be acceptable to the medical profession of the Branch area.

This amendment was lost.

On the amendment being lost, the original resolution was put and carried.

Dr. GORDON then proposed, and Dr. DAVY seconded, Resolution No. 6, namely:

> That a Committee of this Branch be now formed to prepare for submission to the Special Representative Meeting a statement of these views suitable for presentation to the press, Parliament, the deans of all medical schools, and the head masters of all boys' schools in the United Kingdom; the Representatives of the Branch being instructed to urge its adoption and use in such manner as the Committee now appointed may advise,

which was carried; and later on Dr. GORDON proposed the following to serve as a committee: The President of the Branch (Mr. A. C. Roper), the Honorary Secretary of the Branch (Mr. Russell Coombe), Mr. E. J. Domville (Representative of the Branch on Central Council, Mr. Andrew (Exeter), Dr. Davy (Exeter), Dr. Donbavand (Plymouth), Dr. G. Young Eales (Torquay), Dr. Gordon (Exeter), Dr. Robert Simpson (Plymouth), Dr. Soltau (Plymouth), Dr. Mark R. Taylor (Helston), Dr. Thomson (Launceston), Dr. G. Lestock Thornton (Exmouth), Dr. E. J. Toye (Bideford), with power to act and with power to add to their number, which was carried.

Mr. RUSSELL COOMBE proposed and Mr. BELL seconded:

> That Resolution 8 (e), referring to medical remuneration, be dealt with at once.

This was carried. (For resolutions on this subject see later on.)

Dr. PEREIRA then proposed, and Dr. BRADFORD seconded, Resolution No. 7, namely:

> (*a*) That the Divisions of the Branch be urged to instruct their Representatives, Divisional or on the Council, to press on this Special Representative Meeting the presentation at the earliest possible moment of an ultimatum to the Insurance Commissioners in each country setting forth the terms without which the profession will not serve under the Act, and asking for a reply within one calendar month.
>
> (*b*) That if no reply be given within the stated time, or if any reply given be unsatisfactory, the profession forthwith refuse to serve under the Act in any capacity.
>
> (*c*) That in the meantime no member of the profession accept any office whatever under the Act.

Dr. NOY SCOTT proposed and Mr. RUSSELL COOMBE seconded the addition at the end, after the word "Act," of the words:

> Except as provided under Section 60 (2).

This was accepted by the meeting and the resolution carried with the addition.

Dr. GORDON then proposed, and Mr. RUSSELL COOMBE seconded, Resolution No. 8, namely:

That a series of resolutions be adopted as stating the terms necessary to be accepted by the Commissioners to secure the policy of the Association.

This was carried.

(*a*) *Wage limit.*

Mr. Russell Coombe proposed, and Mr. Jackson seconded, Resolution 8 (*a*), namely:

That the Commissioners be informed that their regulations must provide for a maximum wage limit of £2 per week with the right to fix a lower wage limit where one of £2 would be too high.

This was carried. A similar resolution by Dr. Robert Simpson was withdrawn.

(*b*) *Free choice of doctor by patient, subject to consent of doctor to act.*

Dr. Fortescue Sayres proposed, and Dr. Burke seconded, Resolution No. 8 (*b*), namely:

That the Commissioners be informed that this condition can only be insured by the deletion of the Harmsworth amendment.

Mr. Russell Coombe proposed, and Dr. Vickers seconded, the following amendment, which, with the permission of the meeting, was accepted by Dr. Sayres and Dr. Burke, namely:

That the Commissioners be informed that this condition can only be insured by a regulation providing that no combination shall employ a whole-time medical officer.

Which was carried.

The following additional resolution was proposed by Mr. Noy Scott for Dr. Donbavand, and seconded by Dr. Pereira, but, after some discussion, was withdrawn by consent of the meeting:

That in the opinion of this mass meeting of practitioners in Devon and Cornwall, the time has come to put an end to all club and similar appointments, and in order to make the Harmsworth amendment nugatory all medical officers to medical aid institutes be requested to tender the resignation of their posts to the Central Office of the British Medical Association by a certain date (to be determined hereafter), in order that the Representative Meeting may hand them in collectively to the various bodies concerned.

(*c*) *Medical and maternity benefits to be administered by local Health Committees and not by Friendly Societies.*

Dr. S. Steele Perkins proposed, and Mr. Jackson seconded, Resolution No. 8 (*c*), namely:

That in view of the fact that Mr. Lloyd George promised the profession freedom from friendly society control, and that the constitution of the local Insurance Committees is such as to practically annul this understanding, the Commissioners be informed that to meet this condition their regulations must provide that the representatives of the insured shall not form a majority on any committee under which medical men have to act.

Mr. Russell Coombe drew attention to the fact that if the resolution he was proposing [see (*f*) later] was carried the importance of Dr. Perkins's resolution would disappear, and on this Dr. Perkins and Mr. Jackson, with the consent of the meeting, withdrew their resolution.

(*d*) *The method of remuneration of medical practitioners adopted by each local Health Committee to be according to the preference of the majority of medical profession in the district of that Committee.*

Dr. Hawker proposed, and Mr. Jackson seconded, Resolution No. 8 (*d*), namely:

That the Commissioners be informed that this condition can only be met by the regulations providing that the method of remuneration be according to the preference of the majority of the local profession,

which was carried unanimously.

Resolutions by Dr. James Culross and Mr. George Jackson were withdrawn with the consent of the meeting.

(*e*) *Medical remuneration to be what the profession considers adequate, having due regard to the duties to be performed and other conditions of service.*

Dr. Thornton proposed, and Dr. S. Steele Perkins seconded, Resolution No. 8 (*e*), namely:

That the Commissioners be informed that, to meet this condition their regulations must provide medical practitioners with a minimum fee of 2s. or a minimum fee of 2s. 6d. per attendance (neither of these to include medicine, consultations with other practitioners, dressings, appliances, night visits or special visits, operations, anaesthetics, or mileage when necessary), with a provision for the payment of higher fees where these appear to be inadequate, and that all payments be guaranteed by the Commissioners.

Mr. Russell Coombe then proposed the following amendment:

That while approving of a capitation fee for members of approved societies, this meeting disapproves of attending deposit contributors on any terms except per attendance.

Dr. Gordon suggested that the first part of this resolution be left out, and Dr. Thornton and Dr. Perkins agreed to accept the amendment in the following form:

That this meeting disapproves of attending deposit contributors on any terms except per attendance.

Mr. Jackson then moved that a vote of the meeting be taken on the question of payment per capita versus per attendance.

The vote was in favour of payment per attendance, with two dissentients.

Dr. Thornton then moved as a rider to Mr. Coombe's resolution:

That the Commissioners be informed that to meet this condition their regulations must provide medical practitioners with a minimum fee of 2s. 6d. per attendance (neither of these to include medicine, consultations with other practitioners, dressings, appliances, night visits or special visits, anaesthetics, or mileage where necessary), with a provision for the payment of higher fees where these appear to be inadequate, and that all payments be guaranteed by the Commissioners.

Mr. Noy Scott proposed, and Mr. George Jackson seconded:

That in case it should be impossible to obtain payment for attendance all round, a capitation fee of 8s. 6d. should be be the amount for members other than deposit contributors.

This was carried by twenty-four to seventeen, and the resolution was redrafted and finally carried as follows:

That the Commissioners be informed that to meet this condition, their regulations must provide for the payment of a minimum fee of 2s. 6d. per attendance for deposit contributors, and for all others a minimum capitation fee of 8s. 6d., or a minimum fee of 2s. 6d. per attendance (neither of these to include medicine, consultations with other practitioners, dressings, appliances, night visits or special visits, operations, anaesthetics, or mileage when necessary), with a provision for the payment of higher fees where these appear to be inadequate, and that all payments be guaranteed by the Commissioners.

Motions on this subject by Mr. George Jackson were withdrawn.

(*f*) *Adequate medical representation among the Insurance Commissioners, in the Central Advisory Committee, and in the local Health Committees, and statutory recognition of a local Medical Committee representative of the profession in the district of each local Health Committee.*

Mr. Russell Coombe proposed, and Mr. Jackson seconded, Resolution No. 8 (*f*), namely:

That it should be definitely stated that no regulation which affects the work of the profession shall be adopted by an Insurance Committee unless it has previously received the sanction of the local Medical Committee.

Dr. Gordon proposed that the word "must" be substituted for "should," and "guaranteed" for "definitely stated." Mr. Russell Coombe accepted this, and the resolution was carried in that form.

Mr. Russell Coombe proposed, and Mr. Jackson seconded, Resolution No. 10, namely:

That the Representatives of the Divisions be urged to obtain such alterations of the Standing Orders of the Representative Meeting as will provide for recording the names of the "Ayes" and "Noes" in a division apart from the taking of a card vote.

This was carried.

On the motion of Dr. Noy Scott, a vote of thanks was accorded to the Chairman.

This concluded the business of the meeting.

EDINBURGH BRANCH:

Lothians Division.

A meeting of this Division was held in the Royal College of Physicians, Edinburgh, on December 27th, 1911, at which between thirty and forty members were present and one or two visitors, including Dr. Wm. Russell, ex-President of the Edinburgh Branch. Dr. John Keay of Bangour occupied the chair.

National Insurance Act.

It was unanimously resolved to intimate to the Scottish Commissioners:

1. That unless the six cardinal points are fully embodied in the draft regulations to be drawn up by them for working of the Act, no practitioner will go upon the panel.
2. That in view of the fact that Mr. Lloyd George promised the profession freedom from friendly society control, and

that the constitution of the local Insurance Committees is such as to practically annul this understanding, we refuse to be put under these committees, but will treat only and directly with the Commissioners.

The above resolutions were proposed from the Chair and seconded by the SECRETARY. In moving the resolutions the CHAIRMAN (Dr. Keay) referred to the importance of the questions with which the Division had to deal. The National Insurance Bill had become an Act of Parliament, Commissioners had been appointed under the Act, the six cardinal requirements of the profession had not been obtained, and they were face to face with what was probably the gravest crisis in the history of the profession. It was necessary that they should come to a decision as to their course of action in this crisis. First of all they had to decide whether they were going to see this thing through and fight to a finish. He sincerely hoped they were determined to fight and to take nothing lying down. He would impress upon them that in that case they would have to fight as one man in order to do so successfully. Multiplicity of organizations meant weakness. Nothing would better please those who were unfriendly to them than to see springing up all over the country a union of doctors here and a league there, to be met and outmanœuvred or overcome in turn. They should sink all minor differences, if they had any, and stand shoulder to shoulder in this matter. They should present their reasonable demands not as sentimental scientists, but as business men. This was no matter of sentiment, but a business transaction, and they had to meet as their opponents keen, sharpwitted, business men who would beat them if they could, and would not be too scrupulous as to how they did so. There were two courses open to them: First, they could simply refuse absolutely to work under the Act, or to have anything to do with it in any shape or form; that is, they could boycott the Act. Or, secondly, they could refuse to undertake any medical work under the Act until regulations had been framed by the Commissioners which were in complete accordance with the six cardinal points required by the profession, and they could intimate this to the Commissioners forthwith. He suggested the second as the wiser course of action, advising that, as a profession, they would do well to keep themselves right in the eyes of the general public, and show themselves ready, and even anxious, to do the work required of them, provided only that the terms on which they were asked to work were fair and reasonable. The Chairman pointed out that as Scotland had now a separate Executive, with separate Commissioners and a separate fund, it was necessary that they as a united profession should have, to deal with this Executive, one central administrative and advisory Committee for the whole of Scotland, and that the Commissioners should be compelled to recognize this Committee as the mouthpiece of the profession. They had the nucleus of this Committee in the Scottish Committee of the British Medical Association. It could be enlarged and strengthened by representatives from the insurance areas when formed under the Act, and by representatives from the Scottish corporations and universities. He understood that this was being arranged. In conclusion, the Chairman said there were three things he would impress upon them: First, that they should be absolutely loyal to one another; secondly, that they should stick with rigid determination to their six cardinal points; and, thirdly, that they should be organized to a man in each insurance area.

The SECRETARY (Dr. A. M. Easterbrook), in seconding the second resolution, said that it was unthinkable and derogatory to a great learned profession to be placed under the heel of committees composed of working men to haggle and wrangle over sordid terms. It was, in fact, the first time any civilized nation had proposed to place the intellectual labour of the country under the government of manual labour.

Drs. MARTINE, FOWLER, SCOTT, MITCHELL, and others spoke, and there was not a dissentient voice against the resolutions.

It was further resolved to intimate to the Scottish Committee:

That in any district where a capitation fee is adopted, such capitation fee should not be allowed anywhere to fall below 10s. per head for ordinary domiciliary attendance, exclusive of medicines and extras; or, where payment per attendance is locally adopted, the minimum scale of fees should be the present Government rate for attendance upon coastguards—namely, 2s. 6d. per attendance, with 1s. per mile mileage.

In connexion with this resolution Dr. R. W. CRAIG informed the meeting that the present Government rate for attendance upon employees in the Ordinance Survey Department was in some respects even better, namely, 3s. 6d. each visit not exceeding a mile, with 1s. 6d. for each complete mile after the first, that is, a mileage rate of 1s. 6d. per mile. The above charges included medicines. An extra fee for night visits (always including the mileage), minor operations, as opening abscesses, etc., was also allowed. For other more important operations special remuneration was allowed, according to circumstances and nature of case.

In passing the above resolution it was made quite clear, in the course of the discussion, that the Division by no means committed itself to a capitation fee of 10s., as eventually it might require to be a larger sum.

The SECRETARY intimated the results of the canvass campaign which was being carried on strenuously and most unselfishly by an army of twelve practitioners throughout the wide area of the Lothians. The undertaking was practically signed unanimously. During the past twelve months the membership of the Association had been nearly doubled, and between eighty and ninety men had promised to guarantee to the Defence Funds.

Dr. WM. RUSSELL heartily congratulated the Division upon its organization, and said that it was in a position to boycott the Act if necessary. He, however, heartily approved of the resolutions that had been passed, and he was cordially thanked for his kindness in coming to attend the Division meeting.

Association Notices.

COUNCIL MEETING.

THE Quarterly Meeting of the Council will be held at 2 o'clock in the afternoon of Wednesday, January 31st, in the Council Room at 429, Strand, London, W.C.

By Order,

GUY ELLISTON,

Financial Secretary and Business Manager.

January 4th, 1912.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BIRMINGHAM BRANCH: CENTRAL DIVISION.—A general meeting will be held at the Medical Institute on Wednesday, February 14th, at 4 p.m., to elect three Representatives and to conduct other business. Nominations for the offices of Representatives must be in writing, signed by three members of the Division, and in the hands of the secretaries by January 24th.—W. TRACY LYDALL, B. C. R. ALDREN, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—The next meeting of the Division will be held, conjointly with the Æsculapian Society, on Friday, January 19th, at 4 p.m., at the Metropolitan Hospital, Kingsland Road, N.E., by invitation of the honorary staff, who will show cases from the wards.—A. G. SOUTHCOMBE, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: LAMBETH DIVISION.—An ordinary meeting of this Division will be held at Camberwell Infirmary, Brunswick Square, S.E. (by kind permission of the guardians), on Thursday, January 25th, at 4 p.m. A. P. Beddard, M.D., will read a paper on "Vomiting in Anæmia."—J. H. CLATWORTHY, Honorary Secretary, 145, Denmark Hill, S.E.

NORTH OF ENGLAND BRANCH: SUNDERLAND DIVISION.—The next meeting will be held at the Royal Infirmary, Sunderland, on Tuesday, January 23rd, at 4 p.m. An address will be delivered by Mr. J. W. Leech, Assistant Surgeon to the Royal Victoria Infirmary, Newcastle-on-Tyne, entitled "Some Remarks on Acute Abdominal Perils." A large attendance of members is desired.—JAMES ADAMSON, Chairman; D. F. TODD, I. G. MODLIN, Honorary Secretaries.

SOUTH-EASTERN BRANCH: BRIGHTON DIVISION.—On Wednesday, February 7th, a scientific meeting will take place, at which Sir Victor Horsley has promised to read a paper. Further particulars will be announced in due course.—C. H. BENHAM, Honorary Secretary.

MEMBERS ELECTED TO THE BRITISH MEDICAL ASSOCIATION

(JULY 6TH TO OCTOBER 12TH, 1911).

(SECOND LIST.)

Burma Branch.

Owens, T. F., Captain, I.M.S., Chemical Examiner to Government of Burma, Rangoon

Griqualand West Branch.

de Koch, S. M., M.B., P.O. Box 321, Bloemfontein
Roberts, C. Dudley, Esq., Kimberley Hospital, Kimberley

Leinster Branch.

Bate, E. B., M.B., 2, Eden Park, Kingstown
Keegan, J. F. L., F.R.C.S.I., 56, Lower Baggot Street, Dublin
Lemass, P. H., M.B., Belgrave House, N.C. Road, Dublin
Lowe, W. H., M.B., 36, North Strand Road, Dublin
McDonnell, R. P., F.R.C.S.I., 20, Lower Leeson Street, Dublin
Pounden, J. C., M.D., Ballywalter, Gorey
Tomb, J. W., M.B., Farnham House, Finglas, co. Dublin

Malaya Branch.

Hickey, J. J., M.B., General Hospital, Singapore
Kennedy, T. D., M.B., General Hospital, Singapore
Masters, Isaac P., M.B., Raub, Pahang

Metropolitan Counties Branch.

Allen, W. P., Esq., 245, Bethnal Green Road, N.E.
Armstrong, E. R., M.B., Lieutenant I.M.S., R.A.M. College, Millbank, S.W.
Austen, A. W., Esq., 19, Howard's Lane, Putney, S.W.
Bagshawe, A. W. G., M.B., The Manor House, Rickmansworth
Battle, H. E., Esq., 73, Southwark Bridge Road, S.E.
Bayley, E., M.D., 46, Finsbury Square, E.C.
Beadles, J. N., M.B., Poplar and Stepney Sick Asylum, Bromley, E.
Bennett, F. T., M.D., 48, Muirkirk Road, Catford, S.E.
Briand, W. S. H., M.D., Bath House, Bath Road, Hounslow
Brown, A. J., Esq., 5, Fielding Road, Bedford Park, W.
Burnhill, W. H., Esq., 298, Uxbridge Road, W.
Campbell, E. A., Esq., 25, Bow Road, E.
Carter, H. B., M.D., 287, Lewisham High Road, S.E.
Child, W. N., Esq., 10, Holland Villas Road, W.
Clementi-Smith, H. D., M.B., 58, Sloane Street, S.W.
Cleminson, F. J., Esq., 52, Wynstay Gardens, W.
Collins, G. W., Esq., The Mall, Wanstead
Cooke, J. D., M.B., Clodiagh, Stanmore
Crawford, J. C., M.B., The Cottage, Hermon Hill, South Woodford.
Cullum, S. J., M.D., Beechwood, Seven Kings
Cumberbatch, E. P., M.B., 79, Madeley Road, Ealing, W.
Dawe, F. S., M.D., 69, High Road, Chiswick
Deane, J., Esq., 38, Uxbridge Road, Ealing, W.
Delmege, J. A., Esq., St. Catherines, Westcombe Park Road, Blackheath, S.E.
Dobrashian, G. S., Esq., 32, Greenhill Road, Harlesden, N.W.
Dollard, R. S., Esq., Torridon House, Catford, S.E.
Downes, G., Esq., 50, Station Road, Wealdstone
Drake, A. T., M.B., Normanhurst, Wickham Road, Brockley, S.E.
Draper, Adelaide, M.B., 69, Vaughan Road, Harrow
Elliott, A. M., M.D., 112, Fernhead Road, Paddington, W.
Faill, C. J. C., Esq., 7, Carlton Chambers, Westbourne Park, W.
Fearnsides, E. G., M.B., London Hospital, E.
Fennell, D., M.D., 624, Old Kent Road, S.E.
Fox, Selina F., M.D., 44, Grange Road, Bermondsey, S.E.
Gardner, T., M.B., Bethnal Green Infirmary, Cambridge Heath, N.E.
Gibson, A. J., Esq., Metropolitan Hospital, Kingsland Road, N.E.
Gibson, W. S., Esq., 318, Sydenham Road, S.E.
Gilder, M. D. D., M.D., 141, Haverstock Hill, N.W.
Govan, R., M.B., 93, Southwark Park Road, S.E.
Hall, E. W., Esq., The Middlesex Hospital, W.
Hands, H. L., Esq., 260, Caledonian Road, N.
Hartley, E., Esq., 44, Thorne Road, South Lambeth, S.E.
Hawthorne, Janie L., M.B., 63, Harley Street, W.
Heron, David, F.R.C.S.Ed., 27, Branford Road, Kingston-on-Thames
Hodi-Walla, Sohrab M., Esq., 34, Fulham Palace Road, W.
Howard, W. H., Esq., 636, Green Lanes, Hornsey, N.
Hughes, W., M.B., 26, Evelyn Mansions, Carlisle Place, S.W.
Jenkins, H. L., M.B., 386, Bethnal Green Road, E.
Jeremy, H. R., Esq., 8, Chingford Road, Walthamstow
Jobson, J. S., M.B., London Hospital, E.
Johnson, E. S., Esq., 6, Hertford Street, Park Lane, W.
Johnston, C. H. F., M.B., 13, Sherborne Gardens, West Ealing, W.
Kennedy, C. M., F.R.C.S., 143, Albert Palace Mansions, Battersea Park, S.W.
Leaning, R. C., M.B., Cromwell House, Gunnersbury, W.
Levick, G. D. B., Esq., Llwyndu, Hatch End, Middlesex
Lovell, Clement, M.B., University College Hospital, W.C.
McCririck, T., M.B., Grove Hospital, Tooting, S.W.
MacKay, R., M.B., 48, Choumert Road, Peckham, S.E.
McKettrick, F. J., M.B., Shrewsbury House, Forest Gate, E.
MacLellan, W., Esq., 129, Dartmouth Road, Cricklewood, N.W.
Martin, E. W., M.B., 34, Pembridge Villas, Bayswater, W.
Mayer, E., M.D., Italian Hospital, Queen Square, W.C.
Melandri, F. G., M.D., 18, Gower Street, W.C.
Millea, W. C., Esq., 3, Wharf Road, Cubitt Town, Poplar, E.
Murray, G. S., M.B., Fernshaw, Burgess Park, West Hampstead, N.W.
Muspratt, P. K., M.B., Fernlea, West Drayton
Orton, W. H., M.B., "Gladwyn," Shoot-up Hill, Brondesbury, N.W.
Phillips, P. C., Esq., White Hall, Abridge
Rawlins, Morna L., M.B., 27, Barkston Gardens, S.W.
Renton, D., M.B., London Homœopathic Hospital, Great Ormond Street, W.C.
Richards, S. H., M.B., 113, Fox Lane, Palmers Green, N.
Ridge, P. B., M.B., 30, Welbeck Street, W.
Roy, S. N., M.B., 2 c, South Hill Park Gardens, Hampstead, N.W.
Salmond, R. W. A., M.D., Hampden Club, Phœnix Street, N.W.
Sandison, A., M.B., The College, Guy's Hospital, S.E.
Shadwell, L. W., Esq., 54, South Parade, Bedford Park, W.
Shaw, A. E., Esq., 159, Great College Street, N.W.
Skinner, A. H., M.D., Hampden Club, Phœnix Street, N.W.
Smith, A. G., M.B., 16, Hereford Square, S.W.
Stuart, R. C., M.B., 18, Cloudesley Square, N.
Style, R. G., Esq., 188, Brady Street, Bethnal Green, E.
Sutherland, H. G., M.D., 15, Allsop Place, N.W.
Sykes, J. L., Esq., 225, West Green Road, Tottenham, N.
Tennent, B. C., M.B., Redlands, Langley Road, Surbiton Hill
Terry, W. F., M.D., 663, Wandsworth Road, Clapham, S.W.
Vincent, J. F., Esq., 15, Ritherdon Road, Upper Tooting, S.W.
Wakefield, R. C., M.D., 24, Mapesbury Road, Brondesbury, N.W.
Webb, C. H. S., F.R.C.S., Middlesex Hospital, W.
Williams, P. G., F.R.C.S., 170, Albion Road, Stoke Newington, N.
Young, W. A., Esq., 63, Harford Street, Stepney, E.

Midland Branch.

Adcock, H., Esq., Middleton, Market Harborough
Agnew, C. S., Esq., 111, High Street, Ibstock, near Leicester
Alderson, R., M.D., 41, Queen's Walk, Nottingham
Allaway, E. E., M.B., Bagthorpe Infirmary, Nottingham
Anderson, F. J., Esq. (address unknown)
Anderson, W., Esq., 53, Hartley Road, Nottingham
Badcock, B., Esq., High Street, Staveley, Chesterfield
Beddoes, J. L., M.B., 32, Bentinck Road, Nottingham
Boulton, A., Esq., The Millstone, Horncastle
Bromhall, C. H., M.B., 132, Radford Boulevard, Nottingham
Cahir, J. P., M.B., Borough Asylum, Leicester
Chase, R. G., Esq., 75, Salter Gate, Chesterfield
Dean, L. T., M.B., Spilsby
Dimond, L., M.B., 248, Highbury Road, Bulwell, Nottingham
Eastmond, R. A., M.B., Mansfield Woodhouse, Notts
Findlay, R., M.B., The Infirmary, Leicester
Ford, M. L., Esq., Gladstone Road, Chesterfield
Gemmill, W., M.B., 20, Trent Boulevard, West Bridgford, Nottingham
Gilbart-Smith, T. B., Esq., 26, Burns Street, Nottingham
Gray, J. S. G., M.B., Dunottar Sileby, Loughborough
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Sawyer, Henry, Esq., Bradford
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Simpson, A. T., M.B., Attercliffe
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Stansfield, F. J., Esq., Ben Rhydding
Taylor, Herbert, Esq., Wakefield
Tinley, W. E. F., M.D., Whitby
Towers, Henry, Esq., Leeds
Trotter, R. H., M.D., Holmfirth
Umanski, Moses, M.B., Leeds
Waite, Henry, Esq., Armley
Walker, M. G. L., M.B., Cross Hills
Walker, Wm., M.B., Doncaster
Ward, Joseph, Esq., Cross Hills
Watson, W. N. W., M.B., Bradford
Williamson, A. S., M.B., Wakefield
Wiseman, Matthew, Esq., Leeds
Withington, G. H., Esq., Ampleforth
Wood F. H., Esq., Wakefield
Worrall, A. G., M.B., Menston

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

In ninety-four of the largest English towns 8,745 births and 5,172 deaths were registered during the week ending Saturday, January 13th. The annual rate of mortality in the seventy-seven or ninety-four towns, which had been 15.9, 15.7, and 15.3 per 1,000 in the three preceding weeks, rose slightly to 15.4 per 1,000 in the week under notice. In London the death-rate last week did not exceed 14.5 per 1,000, against 15.7, 15.3, and 15.5 in the three preceding weeks. Among the ninety-three other large towns the death-rates ranged from 4.7 in Southend-on-Sea, 8.1 in Swindon, 8.3 in Wimbledon, 8.6 in Hastings, 8.9 in Walthamstow, and 9.2 in Northampton to 21.7 in Salford, 22.4 in Dewsbury, 22.6 in Stoke-on-Trent, 23.2 in Halifax, 25.9 in Stockton-on-Tees, and 32.6 in Walsall. Measles caused a mortality of 1.4 in Nottingham and in Oldham, 1.9 in Burnley, and 3.6 in Warrington; whooping-cough of 1.1 in St. Helens and in Cardiff, 1.2 in Newport (Mon.), 1.8 in Bury, 1.9 in Merthyr Tydfil, 2.4 in West Hartlepool, and 4.5 in Walsall; diphtheria of 1.4 in Plymouth, in Grimsby, and in Warrington, 1.6 in Ealing, 1.7 in Norwich, and 2.9 in Gillingham; and infantile diarrhoea of 1.5 in Stoke-on-Trent. The mortality from enteric fever and scarlet fever showed no marked excess in any of the large towns and no fatal case of small-pox was registered during the week. The causes of 50, or 1.0 per cent., of the deaths registered in the ninety-four towns last week were not certified either by a registered medical practitioner or by a coroner after inquest, and included 9 in Birmingham, 7 in Liverpool, 4 in Darlington, and 3 in Manchester. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,912, 1,914, and 1,845 at the end of the three preceding weeks, had further declined to 1,762 on Saturday last; 165 new cases were admitted during the week, against 182, 162, and 193 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

In eighteen of the largest Scottish towns 1,111 births and 781 deaths were registered during the week ended Saturday last, January 13th. The annual rate of mortality in these towns was equal to 18.7 per 1,000 (against 16.9 in the previous week), and was 3.3 per 1,000 above the rate recorded in the ninety-four large English towns. Among the several Scottish towns the death-rates ranged from 11.4 in Partick, 12.0 in Kilmarnock, and 12.3 in Paisley to 20.6 in Greenock, 21.1 in Glasgow, and 21.9 in Aberdeen. The mortality from the principal infectious diseases averaged 2.0 per 1,000, and was highest in Ayr and Clydebank. The 317 deaths from all causes registered in Glasgow last week included 2 from enteric fever, 23 from measles, 3 from scarlet fever, 7 from whooping-cough, 3 from diphtheria, and 4 from infantile diarrhoea. Eight deaths from measles were recorded in Aberdeen, and 5 in Edinburgh; and 3 from diphtheria in Aberdeen and 3 in Edinburgh.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

BARROW-IN-FURNESS: NORTH LONSDALE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Resident Surgical Officer. Salary, £100 per annum.

BIRMINGHAM LYING-IN CHARITY.—House-Surgeon (lady). Salary at the rate of £50 per annum.

BRISTOL ROYAL INFIRMARY.—(1) House-Physician; (2) Obstetric and Ophthalmic House-Surgeon; (3) Resident Casualty Officer. Salary at the rate of £100, £75, and £50 per annum respectively.

CAPE TOWN: SOMERSET HOSPITAL.—Assistant Medical Officer. Salary, £200 per annum for first year.

CROYDON BOROUGH.—Medical Officer of Health. Salary, £630 per annum, increasing to £800.

CROYDON GENERAL HOSPITAL.—Junior House-Surgeon. Salary, £75 per annum.

DONCASTER: ROYAL INFIRMARY AND DISPENSARY.—Assistant House-Surgeon. Salary, £80 per annum.

GLOUCESTER COUNTY ASYLUM.—Male Assistant Medical Officer. Salary, £150 per annum, rising to £180.

HACKNEY UNION INFIRMARY.—Two Assistant Medical Officers. Salary, £120 per annum each.

KILMARNOCK INFIRMARY.—House-Surgeon. Salary, £80 per annum.

LEAMINGTON: WARNEFORD, LEAMINGTON AND SOUTH WARWICKSHIRE HOSPITAL.—House-Physician. Salary, £85 per annum.

LONDON COUNTY ASYLUM, Horton, Epsom.—Junior Assistant Medical Officer. Salary, £170 per annum.

MACCLESFIELD GENERAL INFIRMARY.—Junior House-Surgeon. Salary, £60 per annum.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Resident Medical Officer. Salary, £100 per annum.

NORTH STAFFORDSHIRE INFIRMARY, Hartshill.—House-Surgeon. Salary, £100 per annum.

NOTTINGHAM: RANSOM SANATORIUM FOR CONSUMPTIVES, Sherwood Forest.—Resident Medical Officer (female). Salary, £100 per annum.

OXFORD COUNTY ASYLUM, Littlemore.—Junior Assistant Medical Officer. Salary, £150 per annum, rising to £175.

PARK HOSPITAL FOR CHILDREN, Hither Green, S.E.—Senior Assistant Medical Officer. Salary, £250 per annum.

POPLAR HOSPITAL FOR ACCIDENTS, E.—Assistant House-Surgeon. Salary at the rate of £80 per annum.

PRINCE OF WALES'S GENERAL HOSPITAL, Tottenham, N.—Honorary Dental Surgeon.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney Road, N.E.—House-Surgeon. Salary at the rate of £80 per annum.

ROYAL LONDON OPHTHALMIC HOSPITAL, City Road, E.C.—(1) Senior House-Surgeon. Salary, £100 per annum. (2) Clinical Assistants.

ROYAL WATERLOO HOSPITAL FOR CHILDREN AND WOMEN, S.E.—(1) Junior Resident Medical Officer. Salary at the rate of £50 per annum. (2) Honorary Surgeon to the Throat, Nose, and Ear Department. (3) Honorary Clinical Assistant to the Out-patient staff.

ST. PETER'S HOSPITAL FOR STONE, ETC., Henrietta Street, W.C.—Junior House-Surgeon. Salary at the rate of £50 per annum.

SALISBURY INFIRMARY.—Assistant House-Surgeon. Salary, £50 per annum.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Junior House-Surgeon. Salary, £80 per annum.

SHEFFIELD ROYAL INFIRMARY.—Junior Resident Medical Officer. Salary, £60 per annum.

SUNDERLAND: CHILDREN'S HOSPITAL.—Resident Medical Officer (male). Salary at the rate of £80 per annum.

SUNDERLAND: ROYAL INFIRMARY.—Junior House-Surgeon (male). Salary at the rate of £80 per annum.

TRURO: ROYAL CORNWALL INFIRMARY.—House-Surgeon. Salary, £100 per annum.

VICTORIA HOSPITAL FOR CHILDREN, Tite Street, S.W.—(1) House-Physician; (2) House-Surgeon. Salary, £40 for six months in each case.

WEST HAM AND EASTERN GENERAL HOSPITAL, Stratford.—Junior House-Surgeon. Salary at the rate of £75 per annum.

WINCHESTER: ROYAL HAMPSHIRE COUNTY HOSPITAL.—House-Physician (male). Salary, £80 per annum.

WORCESTER GENERAL INFIRMARY.—House-Surgeon. Salary, £100 per annum.

ZANZIBAR PUBLIC HEALTH DEPARMMENT.—Health and Quarantine Officer. Salary, £600 per annum and a bonus of £400 on completion of service.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacant appointments: Bedale (Yorkshire, North Riding), Crondall (Hampshire), Foxford (co. Mayo), Newcastle (co. Limerick), St. Mary's, Scilly Isles (Cornwall).

MEDICAL REFEREE.—Medical Referee under the Workmen's Compensation Act, 1906, for Morpeth and Blyth, North Shields, Newcastle, Gateshead, Hexham, and Bellingham County Courts.

APPOINTMENTS.

BLACKHAM, N. B. McI., L.R.C.P. and S.Irel., Medical Officer of Health of the Leake Rural District.

CROSS, G. F., M.B., B.S.Durh., Medical Officer of Health of the Downham Market Urban District.

PRICE, Charles E., M.R.C.S., L.R.C.P., Medical Officer to Bromley (Kent) Union Workhouse and Infirmary and Deputy Medical Superintendent to the Bromley and Beckenham Joint Hospital Board's Infectious Diseases Hospital.

PROCTER, G. W., M.B., M.R.C.S., L.R.C.P., District Medical Officer to the Guardians of the West Derby Union for the Garston and Allerton District, Liverpool.

RANKINE, J. L., M.R.C.S., L.R.C.P.Lond., Medical Officer of Health of the Longtown Rural District.

ROBERTSON, D., M.D., R.U.I., Resident Medical Officer of the Prescot Union Workhouse.

STEVENSON, H., M.B., C.M.Glas., Medical Officer of Health of the Rothwell Urban District.

STURDER, E. L., M.R.C.S., L.R.C.P., Certifying Factory Surgeon for the Exmouth District, co. Devon.

STURDEE, E. L., M.R.C.S., L.R.C.P., Medical Officer of Health of the Exmouth Urban District.

WALL, M. C., M.D.Melb., Junior Resident Assistant Medical Officer of the Greenwich Union Infirmary.

WATTS, A. J., M.B., Ch.B.Aberd., District Medical Officer of the Camberwell Union.

MANCHESTER ROYAL INFIRMARY.—The following reappointments have been made:

Director of the Clinical Laboratory: G. E. Loveday, M.B., B.C.Cantab., M.R.C.S., L.R.C.P.

Medical Officer for Radiography and Electricity Department: A. E. Barclay, M.A., B.C.Cantab., M.R.C.S., L.R.C.P.

Second Anaesthetist: S. R. Wilson, M.B., B.S.Lond., F.R.C.S. Edin.

Fifth Anaesthetist: T. Coogan, M.B., Ch.B.Vict.

UNIVERSITY COLLEGE HOSPITAL, W.C.—The following appointments have been made:

Obstetric Assistant, J. Taylor, M.R.C.S., L.R.C.P.

House-Surgeon, J. W. Tonks, M.R.C.S., L.R.C.P.

House-Physician, F. C. Greig, M.R.C.S., L.R.C.P.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTH.

POLSON.—At Seaborough, Highcliffe, Hants, on January 11th, 1912, the wife of J. Ronald Polson, M.D., a daughter.

DEATHS.

HAYNES.—At his residence, Medhurst, Great Malvern, on Wednesday, January 10th, 1912, Stanley Lewis Haynes, M.D., aged 71.

LEE.—On January 13th, at his residence, No. 1, Pryme Street, Hull, Charles Alfred Lee, M.D., aged 86. No flowers by request. No cards.

SHIVES.—On January 5th, in his 68th year, John Shives, M.D., Barrister-at-Law, Arnage, Victoria Park, Shipley, late of Liversedge. Interred at Aberdeen on January 10th.

DIARY FOR THE WEEK.

MONDAY.

ROYAL SOCIETY OF MEDICINE:
ODONTOLOGICAL SECTION, 15, Cavendish Square, W., 8 p.m.—Paper:—Mr. J. F. Colyer: The Treatment of Peri-odontal Disease. Casual Communications;—Mr. A. T. Pitts: Symmetrical Bifurcation of the Roots of the Upper Temporary Central Incisors. Mr. Bertram B. Samuel: A Crowned Tooth with a Perforated Root.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Clinical evening.

TUESDAY.

ROYAL SOCIETY OF MEDICINE:
MEDICAL SECTION, 15, Cavendish Square, W., 5.30 p.m.—Paper:—Captain McCarrison, I.M.S.: The Vaccine Treatment of Goitre.

WEDNESDAY.

HUNTERIAN SOCIETY, London Institution, Finsbury Circus, E.C., 9 p.m.—Clinical and pathological evening.

THURSDAY.

OPHTHALMOLOGICAL SOCIETY, 11, Chandos Street, Cavendish Square, W.C., 8 p.m.—Cases and Card Specimens, 8.30 p.m., Papers:—Mr. J. Herbert Parsons and Mr. E. K. Martin: The Action of Ultra-violet Rays upon the Ciliary Body and Lens. Mr. A. A. Bradburne: Hereditary Ophthalmoplegia in Five Generations. Mr. George Coats: On Crystal-like Bodies of Radiate Structure in the Lens.

ROYAL SOCIETY OF MEDICINE:
BALNEOLOGICAL AND CLIMATOLOGICAL SECTION, 15, Cavendish Square, W., 5.30 p.m.—Paper: Dr. F. M. Sandwith: Bubonic Plague (illustrated by the Epidiascope).

FRIDAY.

ROYAL SOCIETY OF MEDICINE:
SECTION OF DISEASES IN CHILDREN, 11, Chandos Street, W., 4.30 p.m.—(1) Exhibition of Cases and Specimens. (2) Paper:—Dr. P. Turner: The Radical Cure of Inguinal Hernia in Children.

EPIDEMIOLOGICAL SECTION, 15, Cavendish Square, W., 8.30 p.m.—Paper:—Dr. R. J. Reece and Dr. H. Bruce Low: Poliomyelitis.

POST-GRADUATE COURSES AND LECTURES.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.: Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat at noon and 4.30 p.m., Monday, and noon, Thursday: Skin, at noon and 4 p.m., Tuesday, and noon, Friday. Eye, 11 a.m., Wednesday and Saturday. Radiography, Saturday, 10 a.m. Pathological Demonstration, Saturday, 11 a.m. Special Lectures: Wednesday, 5 p.m., Surgical Demonstration or Lecture; Thursday, 4.30, Functional and Organic Paralysis.

LONDON SCHOOL OF TROPICAL MEDICINE, Seamen's Hospital, Albert Dock, E.—Lectures daily (Saturday excepted), at noon and 4 p.m. Practical laboratory work daily (Saturday excepted). Medical Clinics, Monday and Thursday at 3 p.m. Operations, Friday at 3 p.m.

MANCHESTER: ANCOATS HOSPITAL POST-GRADUATE CLINIC.—Thursday, 4.15 p.m. The *X*-Ray Diagnosis of Oesophageal Obstructions, with Fluorescent Screen.

MANCHESTER ROYAL INFIRMARY.—Monday, 4.30 p.m., Banti's Disease and Hodgkin's Disease. Friday, 4.30 p.m., The Result of Some Operations on the Stomach.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week at 4 p.m. each day:—Monday, Skin. Tuesday, Medical. Wednesday, Surgical. Thursday, Surgical. Friday, Ear, Nose, and Throat. Lectures at 5.15 p.m. each day will be given as follows: Monday, Non-Malignant Stricture of the Rectum. Tuesday, Alcoholism and Its Treatment. Wednesday, Surgical Treatment of Lesions of the Brachial Plexus. Thursday, Medico-Legal Relationships of General Paralysis.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m. Cranial Nerve Paralysis. Friday, 3.30 p.m. Clinical Cases.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics: 10 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear; 3 p.m., Demonstration on Clinical and General Pathology. Tuesday, 2.30 p.m., Operations; Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient; 4.30 p.m., Lecture: The Causes of Death under Anaesthesia at the Time of Operation and After. Wednesday, 2 p.m., Throat Operations; 2.30 p.m., Medical Out-patient; Skin and Eye Clinics: *X* Rays; 3 p.m., Pathological Demonstration: 5.30 p.m., Eye Operations, Thursday, 2.30 p.m., Gynaecological Operations. Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient; 4.30 p.m., Lecture: The Points which Determine the Choice of Anaesthetics for Surgical Operations. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient; Pathological Demonstration.

WEST-LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics, *X* Rays, and Operations, 2 p.m. daily. Monday, Gynaecology, 10 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday: Gynaecological Operations, 10 a.m.; Demonstration of Minor Operations, 11.30 a.m.; Throat, Nose, and Ear, 2 p.m.: Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Throat, Nose and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday: Gynaecological Demonstration, 10 a.m.; Lecture: Practical Medicine, 12.15 p.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday: Gynaecological Operations, 10 a.m.: Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m. Special Lectures at 5 p.m. daily.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
JANUARY.	
21 Sunday ..	
22 MONDAY ..	
23 TUESDAY ..	SUNDERLAND DIVISION, *North of England Branch*, Royal Infirmary, Sunderland.
24 WEDNESDAY	LONDON: Finance Committee, 2.30 p.m. LONDON: State Sickness Insurance Committee, 10 a.m. RICHMOND DIVISION, *Metropolitan Counties Branch*, Richmond, 8.30 p.m.
25 THURSDAY ..	LAMBETH DIVISION, *Metropolitan Counties Branch*, Camberwell Infirmary, Brunswick Square, S.E., 4 p.m.
26 FRIDAY ..	BIRMINGHAM BRANCH, Pathological and Clinical Section, Medical Institute, Edmund Street, 8 p.m.
27 SATURDAY ..	
28 Sunday ..	
29 MONDAY ..	
30 TUESDAY ..	
31 WEDNESDAY	**London: Central Council, 2 p.m.** BATH AND BRISTOL BRANCH, Clinical Meeting, Bristol.

Date.	Meetings to be Held.
FEBRUARY.	
1 THURSDAY ..	
2 FRIDAY ..	
3 SATURDAY ..	
4 Sunday ..	
5 MONDAY ..	
6 TUESDAY ..	
7 WEDNESDAY	BRIGHTON DIVISION, *South-Eastern Branch*, Scientific Meeting, Oddfellows' Hall, Queen's Road, Brighton, 4.30 p.m.
8 THURSDAY ..	BIRMINGHAM BRANCH, Medical Institute, Edmund Street, 3.30 p.m.
9 FRIDAY ..	
10 SATURDAY ..	
11 Sunday ..	
12 MONDAY ..	
13 TUESDAY ..	
14 WEDNESDAY	CENTRAL DIVISION, *Birmingham Branch*, General Meeting, Medical Institute, 4 p.m.
15 THURSDAY ..	LONDON: Metropolitan Counties Branch Council, 4 p.m.
16 FRIDAY ..	NEWCASTLE-ON-TYNE DIVISION, *North of England Branch*, Scientific Meeting, 3.15 p.m. to 6 p.m.

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SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JANUARY 27TH, 1912.

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PROCEEDINGS OF COUNCIL.

A SPECIAL MEETING of the Council was held at 429, Strand, London, W.C., on Wednesday, January 17th, 1912, at 2.30 o'clock in the afternoon.

Present:

Dr. J. A. MACDONALD, LL.D., Taunton, Chairman of Council, in the Chair.

Sir JAMES BARR, M.D., LL.D., Liverpool, President-Elect.

Dr. EWEN J. MACLEAN, Cardiff, Chairman of Representative Meetings.

Dr. EDWIN RAYNER, Stockport, Treasurer.

Dr. J. GRANT ANDREW, Glasgow
Surgeon-General P. H. BENSON, I.M.S., Walmer (Indian Branches)
Inspector-General ROBERT BENTHAM, R.N., London (Royal Navy Medical Service)
Dr. R. C. BUIST, Dundee
Dr. W. A. CARLINE, Lincoln
Dr. M. DEWAR, Edinburgh
Mr. E. J. DOMVILLE, Exeter
Mr. J. HENRY EWART, Eastbourne
Mr. C. E. S. FLEMMING, Bradford-on-Avon
Mr. T. W. H. GARSTANG, Altrincham
Dr. E. W. GOODALL, London
Dr. W. GOSSE, Sittingbourne
Surgeon-General J. P. GREANY, I.M.S., Ealing (Indian Medical Service)
Dr. T. D. GREENLEES, London (Cape of Good Hope, Eastern, Western and Border Branches)
Dr. MAJOR GREENWOOD, London
Dr. J. R. HAMILTON, Hawick, N.B.
Lieut.-Colonel F. W. H. DAVIE HARRIS, R.A.M.C., Teignmouth (Army Medical Service)
Sir VICTOR HORSLEY, F.R.S., London
Dr. J. H. KEAY, London
Mr. F. C. LARKIN, Liverpool
Mr. ALBERT LUCAS, Birmingham
Dr. JOHN MACDONALD, South Shields
Dr. D. J. MACKINTOSH, M.V.O. Glasgow
Dr. JAMES METCALFE, Bradford
Dr. FRANK M. POPE, Leicester
Dr. A. J. RICE-OXLEY, London
Mr. C. R. STRATON, Salisbury
Dr. J. H. TAYLOR, Salford
Dr. D. F. TODD, Sunderland
Mr. T. JENNER VERRALL, Bath
Mr. D. J. WILLIAMS, Llanelly

NOTICE CONVENING MEETING.

The SECRETARY read the notice convening the meeting as follows:

A Special Meeting of Council will be held at the Offices of the Association, on Wednesday, January 17th, 1912, at 2 o'clock in the afternoon, to consider a Requisition (addressed to the Council and signed by 564 Members of the Association) for an Extraordinary General Meeting, for the purpose of discussing the following Resolution as Special business:—

> That, in the opinion of this Extraordinary General Meeting of the Members of the British Medical Association, the National Insurance Act does not safeguard the six cardinal points of the policy of the British Medical Association in a manner satisfactory to the Members of the aforesaid Association, and we consider that the Council of the British Medical Association has failed in its duty towards its Members.

GUY ELLISTON,
Financial Secretary and Business Manager.

January, 1912.

APOLOGIES.

Letters of apology for non-attendance were read from the President, Sir Henry T. Butlin, Bart., Mr. Andrew Clark, Dr. J. E. Eddison, Dr. David Ewart, Dr. John Gordon, Mr. Herbert Jones, Dr. F. W. Kidd, Dr. G. R. Livingston, and Dr. H. Jones Roberts.

REQUISITION FOR EXTRAORDINARY GENERAL MEETING.

The CHAIRMAN OF COUNCIL explained that the Meeting was necessary to consider a Requisition for an Extraordinary General Meeting signed by 564 members of the Association, and called attention to the following Articles and By-laws of the Association:

Extraordinary General Meetings.

19. All General Meetings other than the Annual General Meeting shall be called Extraordinary General Meetings.

20. The Council may, whenever it thinks fit, and it shall, upon a requisition made in writing as hereinafter provided by any 100 or more Members, convene an Extraordinary General

Meeting for the purpose of transacting any such business as by Statute or by the Regulations or the By-laws is appointed to be transacted by a General Meeting.

21. Any such requisition shall state the object of the Meeting proposed to be called, such object being to transact some business which by Statute or by the Regulations or the By-laws is required to be transacted by a General Meeting, and the said requisition shall be left at the registered office of the Association.

22. Upon the receipt of such a requisition the Council shall forthwith proceed to convene a General Meeting, and if it do not do so within twenty-one days from the leaving of the requisition, any 100 members may themselves convene a meeting for the object specified in the requisition.

Special Business of General Meetings.

27. Special business includes all business discussed or transacted at Extraordinary Meetings, and also all business discussed or transacted at Annual General Meetings, except the ordinary business referred to in Article 24. No business shall be discussed or transacted in any General Meeting as special business, except such business as by Statute must be dealt with by Special Resolution, and such business as the Regulations or By-laws of the Association may at any time expressly require to be dealt with in General Meetings.

V. Representative Body.

General Powers.

29. Subject to the provisions of any Statute the general control and direction of the policy and affairs of the Association shall be vested in a body of Representatives styled "the Representative Body" and composed of members of the Association elected by the Divisions in the manner prescribed by the By-laws, and of the Members of the Council for the time being in office or elected to take office.

The Chairman of Council went on to state that he had taken the opinion of counsel (Mr. Colquhoun Dill) as to the legality of the Council acting on the requisition, and the opinion was as follows:

COUNSEL'S OPINION.

Re Requisition for the Holding of an Extraordinary General Meeting.

Copy Opinion.

1. The purposes for which an Extraordinary General Meeting may be convened are clearly defined by the Articles of Association. The purpose must be "Special business," viz., such business as by Statute must be dealt with by special resolution and such business as the Regulations and By-laws of the Association require to be dealt with in General Meetings. See Articles 20, 21, 27.

The subject matter of the resolution set out in the requisition dated 19th December, 1911 (but apparently intended to take effect as if left at the office on 1st January, 1912), does not fall within any of the above categories, and therefore is not "special business," and discussion of it in a General Meeting is prohibited by Article 27.

The requisition is, therefore, out of order, and the Council would be acting unconstitutionally if they acted upon it by convening an Extraordinary General Meeting. Nor would the resolution, if passed by a Meeting so convened, be a valid resolution of the Association.

For the reasons above stated it is not competent for 100 members to convene the proposed meeting under Article 22. Under the regulations of the Association a General Meeting cannot be convened at all for the purpose mentioned in the requisition.

2. The period of 21 days mentioned in Article 22 is the period within which the Council must issue the notice convening the meeting; the Article does not require that the meeting should be actually held within that period. But this point does not arise in connexion with the present requisition because in my opinion the Council cannot act upon it at all.

3. The subject matter of the proposed resolution is a matter to be dealt with by the Representative Body (see Article 29). A Special Meeting of that Body can be convened under By-law 36 by the Chairman of Representative Meetings, if so requested, by either the Council or by seven Constituencies.

4. I may add that S. 66 of the Companies (Consolidation) Act, 1908 (as to convening Extraordinary General Meetings) does not apply to a company such as this Association, not having a share capital.

(Signed) T. R. Colquhoun Dill.

Lincoln's Inn,
December 30th, 1911.

After full discussion it was decided, *nemine contradicente*, that the Requisitionists be informed that the subject mentioned in the Requisition does not fall within the category of subjects that can be dealt with at an Extraordinary General Meeting of the Association, therefore is not "special business," and discussion of it is prohibited by Article 27. The Council would be acting contrary to the Articles of Association in convening an Extraordinary General Meeting for the purpose of discussing the subject of the Requisition.

MEETINGS OF THE PROFESSION.

EDINBURGH.

On Saturday afternoon, January 20th, a conference was held in the Royal College of Surgeons, Edinburgh, to consider the question of appointing a Scottish Medical Insurance Council, to act for the profession in Scotland in relation to the provisions of the Insurance Act.

The conference was attended by representatives of the Medical Faculties of the Universities of Edinburgh, Glasgow, and Aberdeen, the Councils of the Royal Colleges of Physicians and Surgeons of Edinburgh, and by members of the Scottish Committee of the British Medical Association. The University of St. Andrews was not represented, because there was a meeting of the Senatus at St. Andrews on that day.

Dr. George A. Berry (President of the Royal College of Surgeons of Edinburgh), who occupied the chair, said the meeting had been called to consider whether united action could be taken by the various bodies represented at the meeting in connexion with the Insurance Act, and if any measures could be taken to help the profession in Scotland at the present crisis. After full discussion it was unanimously agreed that it was desirable to form such a Central Council for Scotland. It was further agreed that the proposed Council should consist of representatives from the universities and Royal Corporations, the Scottish Committee of the British Medical Association, and of representative practitioners elected by postal vote in the various districts of Scotland.

It was further decided that a meeting of these Representatives should be held as soon as practicable, with a view to the formation of an Executive Committee to deal with such matters as might be determined on. A small committee was appointed, with powers to make all arrangements necessary to carry this into effect.

NOTTINGHAM.

A meeting convened by the Nottingham Division of the British Medical Association, to which all the practitioners in the city were invited, was held at the local offices of the Association on January 18th, Dr. A. Fulton, the Chairman of the Division, presiding over a large attendance.

The business of the meeting was to consider what conditions and terms of service should be imposed under the National Insurance Act. The following resolutions were unanimously carried:

1. That in the opinion of this meeting it is highly dangerous to the interests of the profession to allocate the settlement of the two outstanding questions of wage limit and remuneration to the local committees as constituted under the National Insurance Act.
2. That this meeting affirms and adopts the policy embodied in the following resolutions:
   (1) That notice of the conditions and terms of service as arranged by this Branch be forwarded to the Council of the British Medical Association.
   (2) That this meeting strongly urges the Council immediately to obtain from all its Branches the terms and conditions of service as locally arranged.
   (3) That a Representative Meeting be called at as early a date as possible to consider the terms of service as formulated by the Branches.
   (4) That the Council and Representatives fix a minimum rate of remuneration for the whole country, subject to certain necessary local modifications.
   (5) That until a definite pronouncement upon these two points is forthcoming, no member of this Branch shall consent to act on any of the local committees as constituted under the Act.
   (6) That the profession refuse to serve under the Act if their demands as formulated by the central authority be not granted.

The meeting then adjourned to January 23rd, when the terms and conditions for local service under the Act will be discussed.

CARDIFF.

A special meeting of the Cardiff Medical Society was held at the Y.M.C.A. on Tuesday, January 16th, under the chairmanship of Dr. Skyrme (President), to discuss the

National Insurance Act. Not having received any official report, we take the following from the *Western Mail*. There was a large attendance, which included medical friends of members.

Dr. HELME, of Manchester, delivered an address on the subject, after which the following resolution was submitted and carried:

> That, in the opinion of this meeting, the National Insurance Act does not meet the just demands of the medical profession as formulated in the six cardinal points; that it is detrimental to the public interest; and that the situation thus created can only be adequately met by a refusal on the part of the profession to undertake any duties which the Act proposes to assign to its members.

Only members of the society were allowed to participate in the vote.

POPLAR.

AT a meeting of the medical profession in Poplar on January 17th, the following resolution was carried unanimously:

> That a union of the registered medical practitioners practising in the metropolitan borough of Poplar be formed for the purposes of protecting the interests of the medical profession, securing united action in dealing with public bodies, and strengthening the bonds of professional fellowship in the borough, and that it be called the Poplar Medical Union.

A committee was elected to draw up rules. It was pointed out that the union was not in opposition to the British Medical Association, but was to look after the interests of the local professional. The majority of its members are also members of the British Medical Association. The hope was expressed that other boroughs will form similar unions.

"SOCIALIST DOCTORS AND THE INSURANCE ACT."

AT a meeting of Socialist doctors, held on January 21st at 24, Upper Wimpole Street, the following resolutions were passed and ordered to be sent to the press for publication:

> That the only satisfactory method of treating existent disease and of safeguarding the public health is by the establishment of a properly organized State medical service, under which medical practitioners would become public officers employed and paid directly by the community for the purpose not merely of curing but of preventing disease.
>
> That the medical arrangements proposed by the Insurance Act are in the main crude and unscientific, and as they stand will do little towards eliminating disease or reducing physical deterioration, because the Act deals with effects rather than causes.
>
> That the Act will perpetuate the worst features of many of the most unsatisfactory types of practice.
>
> BE IT that having regard to the following facts:
>
> 1. That opinion in the medical profession and amongst the general public is not yet ripe for a nationalized and socialized medical service;
> 2. That the Act will bring an increasing number of doctors into the service of public authorities;
> 3. That the Act must inevitably lead to the public management and control of the voluntary hospitals;
> 4. That on the revision of the Act in 1915 women and children will almost certainly be included, and that there will then be an opportunity of enlarging its scope, and of remedying many of its present defects,
>
> This meeting of medical practitioners advises all Socialist doctors to accept service under the Insurance Commissioners, provided that the capitation system of payment is adopted as the ordinary method of remuneration, and that fair conditions of service are secured for the profession.
>
> That the capitation system, that is, a fixed payment to the medical attendant per head per annum, is the only system (short of whole-time salaried appointments) which harmonizes the interests of the public, the patient, and the doctor.
>
> That it is essential to conduct an educational campaign with a view of influencing public opinion and to ensure that when the Act is remodelled in 1915 every doctor shall become a public health officer whose duty shall be to search out and prevent disease instead of merely acting as a direct or indirect purveyor of physic.

Signed on behalf of the meeting,

C. A. PARKER, F.R.C.S.
W. A. DAVIDSON, Honorary Secretary.
ALFRED SALTER, M.D., J.P.

235, Uxbridge Road, W.,
January 22nd, 1912.

[The meetings of Branches and Divisions on the National Insurance Act will be found on pp. 101-5.]

CORRESPONDENCE.

THE SCHEME AND THE ACT.

DR. R. WALLACE HENRY, Honorary Secretary and Representative of the Leicester and Rutland Division, writes: While there was a possibility of having the legitimate demands of the medical profession conceded in the Act, or even secured by the Regulations of the Insurance Commissioners, I have been in favour of continuing negotiations; but we have now reached a point at which it has become perfectly clear that, whatever else may be granted, the most important of our demands—adequate remuneration for the work to be done—cannot be conceded.

It is perfectly true, as Dr. Lauriston Shaw states in his letters to the *Times*, that there are indications in the Act that *might* suggest that there *might* be some elasticity in the scale of payment; it is also true that the actuarial report has technically no more legal effect than many of the Chancellor's *ipse dixits*, but we must really look the facts straight in the face.

We have before us the report of the actuaries, who have received definite instructions from the Treasury as to the bases on which they are to prepare their conclusions. One of these is that medical benefit, including the cost of drugs, is to be 6s. per head. This, it was estimated, would mean that drugs would cost 1s. 6d., and the doctor 4s. 6d. Since then the amendment proposed by Sir Henry Bentinck providing for the supply of medical and surgical appliances has been accepted, which means that the amount provided for the doctor is nearer 4s. than 4s. 6d. In passing one may note that the same figure (4s.) is to be expended per head, according to the actuarial report, on administrative expenses. The actuaries go on to state that no larger sum can be assigned out of the proposed contributions than 7s. 3d. for combined medical and sanatorium benefits, otherwise there will be deficiencies upon valuation in a considerable number of societies.

The official authority carried by such a report, stating that in the opinion of the Treasury 4s. 6d. is good enough pay for the doctor, and that if more is paid many a society will be bankrupt, must inevitably handicap the local Medical Committees, should they, as it is to be hoped they will not attempt to do, enter into negotiation with the local Insurance Committees.

Few more illuminating articles on the Act have appeared in the JOURNAL than that in last week's issue, entitled 'The Scheme and the Act," which will well repay the study of the members of the Association, as it is an indication that the view which I with others urged when the bill was first introduced—that a strong expression of opinion on the minimum payment acceptable to the profession should be definitely made—may soon become part of the official policy at head quarters.

Dr. Lauriston Shaw's powerful advocacy of the "elasticity" of the sum to be allocated for medical benefit will do the profession the gravest injury, were his statements to be accepted; but if, on the other hand, it has the effect of making men read the actuarial report, in order to find out what it really contains, it will do a vast amount of good, for it will make even the medical "man in the street" realize the danger of further waiting before declaring our minimum, and so by default allowing the original figure of the Treasury to become the stereotyped rate of payment.

Were the Council at this stage to recognize the position, and advise the Representative Meeting to declare that the local Medical Committees should only enter into negotiation with the Insurance Commissioners, and at once inform the Commissioners that no negotiations would be entered into with them until the demands of the profession were conceded, and provision made, if necessary, in the Budget for a minimum capitation fee of 8s. 6d. exclusive of drugs, the Council would again rally the rank and file to their support, and give a much-needed lead to the country at this time.

There is another matter which has recently been a good deal discussed in various quarters, namely, the right of Representatives to be considered as spokesmen of the Divisions, seeing that they are frequently elected at meetings at which but few are present. While this has often occurred owing to the apathy of the average member, yet

it is not always the case, as many Divisions are so large that it is practically impossible for all to come, even if they desired to be present. It may be an opportune moment to remind the Divisions that By-law 32 permits the election of Representatives of Divisions to take place by voting papers, should the Division so decide. It is true it may mean extra expense, and there are certain formalities to be gone through which may cause the Division to lose its vote if they be not observed, but even at the risk of this it might be well were this course adopted, if only to remove the possibility in the future of the repetition of the charge that the Representative Meeting is not truly representative.

The Financial Basis of the Scheme.

Dr. David Roberts (Swadlincote, Burton-on-Trent) writes: The Chancellor said at Whitfield's that "faith is nine points of all healings—spiritual, mental, physical." I agree. But faith, objectively, demands personality and finality, and these are characteristic of the successful doctor. Now I maintain this Act will destroy this, and in this way the patient will come in fixing one eye upon the doctor and the other eye upon the party outside (lay committee). This is double-mindedness which in every instance will destroy "faith" and nullify the doctor's personality. Hitherto the consulting-room has been a private room, but now the inspector may insinuate himself into it and overhaul the work carried on there.

I shall be told that lay committees exist now, and have a right of control; but I answer, Where this control is exercised it does not work. (This is very mild language.) I shall also be told that inspectors have been at work for years. I know. I also know the fallacy and friction of it all. No other profession would submit to lay control. Laymen do not understand, neither do they care, what medical ethics are. The British Medical Association, the licensing bodies, and the General Medical Council are the proper controlling authorities. We must refuse any lay control. This embryonic Act of premature birth, "this joint venture," is to be incubated in the warm—even hot—atmosphere of the Insurance Committee. These Committees will be composed from a similar class to "urban," "town," or "county" councillors, and we all know how proficient these are at "wrangling." Just fancy medical men "bargaining" in such Committees!

The Act states the county councils and the Treasury "may" make up our fees by rate or otherwise, yet the Chancellor of the Exchequer stated in the House of Commons that "there was no obligation at all on the part of the representatives of the ratepayers to incur any liability at all." In face of this dare any committee risk being "surcharged" by going a fraction beyond the four and sixpence? Knowing what I do of boards of guardians, etc., I am perfectly certain they will not stretch a point in our favour. The following is a specimen of my recent "bargaining" with guardians. The fee of one guinea for certifying a case of lunacy was reduced to half a guinea. My fee for an accouchement of fifteen shillings was reduced to half a guinea. The fact is, the profession has done so much charity that the public do not comprehend what adequate remuneration means. Mr. Lloyd George stated in the House: "I do not think it right that we should do our charity at the expense of the medical profession." But four and sixpence is charity. It is said our leaders have been hypnotized by specious promises, but certain it is we are, if we think for a moment that the actuarial estimates will be exceeded. Then out, I say, of this fools' paradise. Let the embargo be raised. What is my remedy? An amending Act with insertion of the six points. Delete the Harmsworth amendment. Restore our prestige by emancipating us from lay control.

Practical Politics: The Special Representative Meeting.

Dr. J. Staveley Dick (Representative, North Manchester Division) writes: In view of the Representative Meeting which is now pending, I think it is important that we, as practical men, ask ourselves: What do we really want, and what are we fairly entitled to ask for, under the Act? No doubt, most of us would like to be paid a guinea a visit, and no doubt many of us would be quite worth the money. It is equally true, however, that some of us—for example, men who have been making money out of "sixpenny" and half-crown club practice for years—would not be worth a guinea a visit. It is probable that their existing fees are not inadequate, having regard to the quality of the service which such practitioners have been accustomed to render. Conditions of practice also vary greatly in different parts of the country. Lancashire cotton towns, for example, contrast very favourably with some parts of the East End of London. To assume that you can at one jump put them on one dead level of equality as regards medical work is to assume something which cannot possibly be done. Therefore, I take it, what we are entitled to ask for is this—that the conditions of practice shall be made better and not worse in each insurance area.

Most of us are agreed that we will not work for a capitation fee of 6s. with an income limit of £2. I think in the interest of the public the minimum ought to be fixed at 10s. for the whole country. This, perhaps, will be more than some doctors are worth; but, if increased efficiency be aimed it, it will be necessary to overpay a few rather than underpay many. In some districts in Lancashire a flat rate of 10s. with a £2 income limit will not be enough. Either the income limit must come down or the capitation fee must go up. It seems to me that agreement could be reached on these lines which would satisfy the great majority of practitioners.

I think we are fairly entitled to demand that if the Government, presumably in the interest of efficiency, intervenes between us and our present patients, its intervention must help and not hinder us in our work. No responsible Government theoretically can aim at less than this. It is the duty of the Association to see that this objective is attained in practice. One hears a great deal about the honour and dignity and independence of the profession, but I say a man is honourable and dignified and independent in so far as he does his work conscientiously to the best of his ability and no further; whether he does his work in private practice, Poor Law, club, or Government work is, I think, quite irrelevant. There is a good deal of high-falutin' nonsense talked on such subjects.

I reiterate that the objective to be kept steadily in view is that this Act must be made to help the profession in each area in its work, and not hinder it. Some one will say, "How is it to be done in some Lancashire towns?" I think the answer is, as I have already indicated, by a proper adjustment of the wage limit, thus conserving the present conditions of practice as far as they are worth conserving. I think the Government could not offer any valid objection to such an arrangement, as efficient medical work is being done in the localities referred to.

Whether such a view will commend itself ultimately to the profession remains to be seen. At present, unfortunately, we seem to have acute differences of opinion both on matters of principle and of detail. I should like to deal with one or two of these differences.

1. Will we or will we not work under the Act on any terms? Previous Representative Meetings have answered this question in the affirmative. But there is no reason why the declared policy of the Association should not be reversed, if it be the desire of the majority of members. If we are to co-operate effectively for any purpose whatever, majorities must rule; minorities must submit gracefully and loyally.

2. If we decide, however, to stick to our present policy to work the Act on terms which will permit of better work being done than is being done at present, it follows that we must continue negotiations until we are put in possession of the precise terms upon which such work is to be done.

It is, as we all know, difficult to get laymen to understand scientific and other medical matters from our standpoint. It seems to me, therefore, imperative, if our negotiations are to run smoothly to a favourable issue, that we avail ourselves of our right to representation not only on the Insurance Commission but also on the Advisory and local Insurance Committees. In that way we may, perhaps, hope to leaven lay opinion on these bodies, and thus have to deal with sympathetic rather than suspicious employers. We must assume that these bodies will be anxious for efficient medical work, but that they will be anxious also to get it as cheaply as possible. In this respect they will be neither much better nor much worse than our average private patient.

Some say that satisfactory terms (that is, terms permitting of better work than is being done at present) cannot possibly be arranged; others affirm the contrary. That, however, is not a point which ought to divide the profession seriously. It is at present a mere matter of opinion either way. Negotiations with the properly constituted authorities will ultimately settle the question one way or the other. Indeed, that is obviously the only way in which it can be settled beyond doubt.

It is, I think, desirable that we come to terms if possible and form panels. Otherwise, as Dr. Taylor has pointed out, the Insurance Commissioners may suspend medical benefit and hand the 6s. per annum to each insured person to spend as he thinks fit. We shall then be faced with the possibility of having to deal with clubs as they exist at present, but on a larger scale. Our struggles with these people in the past do not augur well for victories on our part in the future.

One must give even the devil his due, and we all must admit that one great advantage of the Act, and one which is lost sight of by some, is the opportunity it affords for collective, as distinguished from our present individual, bargaining. If medical benefit be suspended, we at once cease to enjoy this advantage, and we also cease to get contributions from the Insurance Committees toward the payment of bills incurred by insured persons treated as our private patients.

3. With regard to the recent action of the Council which has given rise to so much adverse criticism, I may say that I, for one, would have been prepared, in default of some abler spokesman, to move a vote of censure on the Council if it had not permitted Mr. Smith Whitaker to accept his present position or, at all events, if the Council had failed to nominate some other competent person for the post.

I should have done so upon the ground that the Council had acted contrary to the spirit of the declared policy of the Association.

I feel strongly that the Council has been regarded with suspicion and treated unfairly by a section of the profession. My attitude may be right or it may be wrong. My point is this: There is on this subject a very sharp, indeed almost bitter, division of opinion. We are all agreed, I take it, that our salvation depends upon our unity. I put it, therefore, to my friends who differ from me on this matter whether in such circumstances an attack on the Council is likely to secure that unity and *esprit de corps* which are our only assets in the event of a serious contest with the Government. I suggest that it is for the malcontents to decide what they want the Association to do in regard to practical matters such as I have referred to above. If they succeed in reversing the policy hitherto adopted, and the Council fails to carry out its new instructions, then I shall join with them in demanding "the resignation of the Council forthwith." If they persist, however, under present circumstances in demanding the resignation of the Council, they will bring not peace but a sword into the profession. I for one shall always feel that we have been wanting in that *esprit de corps* which is the real foundation of all effective co-operation, and in that *camaraderie* which is slow to see faults and quick to forgive. I shall feel that our responsible leaders have been treated with impatience and injustice. I shall find it difficult to give people who have persisted in such treatment my loyal and whole-hearted co-operation in the future.

We have had some strong language from the critics of the Council; we have some equally strong feeling on the other side which has not, so far, found full expression. I think we have had quite enough tub-thumping and mass-meeting rhetoric. What we want now is a little more consideration for each other; a little more confidence in each other's integrity and honesty, and, even if an error of judgement has been committed, a little less bitterness in "rubbing it in." In short, if we are to deserve and retain that position in the community to which gentlemen are entitled, we must begin at home and treat each other as gentlemen.

I think it right to make it quite clear that these remarks are not aimed at, and do not in the slightest apply to, my friend and neighbour, Dr. Helme. In my opinion he has been perfectly consistent all through, and though opposed to him on several important points, I cordially admit that his strong lead has done real good in strengthening the feeble-kneed. But I appeal to him now to use his great and well-deserved influence to promote unity and good feeling all round. I feel certain that in so using his influence he will be best serving the highest interests of the profession, which all his friends know he has deeply at heart. It is not upon past history, but only upon a basis of existing facts and a determination to make the best of the situation as it is to-day, that unity and a proper feeling of comradeship can be fully restored.

In my opinion the bedrock of the whole position is that service under the Act must permit of more efficient medical work being done than is being done at present. The cardinal factor in the attainment of this objective is that remuneration for such work shall be greater and not less than obtains at present. We have had much discussion as to the mode but little as to the amount of such remuneration. Is it not time to leave more or less irrelevant and debatable and irritating issues and concentrate our attention upon this and other pressing practical points which will have a serious influence upon the work of the profession in the future, when the teacup storms of to-day are entirely forgotten?

General Policy of the Association.

Mr. HERBERT TANNER, F.R.C.S. (London), writes: I have been a member of the Association for more than a quarter of a century, and during that time have taken an active part in work in its interests; I have recognized (especially since its reconstitution) the great possibilities of the Association as a power in medico-political matters; and I am sure that in this danger with which the profession is confronted, if members will now make up their minds to proceed together with determination tempered with sweet reasonableness, we shall achieve a splendid victory. Although I feel that we should devote our time and energies to future work rather than to discussion of past events, yet I feel impelled to say a few words in "criticism of the critics"—critics who must have been ignorant of many of the facts, who had not carefully read the context, and who in almost every case have failed to give evidence in proof of statements they have made. One can understand the chagrin of those who looked at this matter through the tinted spectacles of political partisanship on seeing the Insurance Bill become an Act; this feeling, to my mind, accounts for the ebullition of criticism from so many members who had not previously made themselves evident in the fight against the bill.

What evidence, may I ask, was there for the statements made that the Council "were a lot of Radicals"? I have it on excellent authority that three-fourths of the members of the Council are Conservatives; on all committees Conservatives largely predominate; the Chairman of Council is a lifelong Conservative; he is President of the Conservative Association at Taunton, and member of the Executive Committee of the Somerset Conservative Union, and has always been an active worker for the party. What evidence had Dr. F. J. Smith to warrant him making such a statement as that the Representative Meeting was "tampered with"? As one of the Representatives present, I resent strongly the suggestion that we were so lacking in the sense of honour as to act otherwise than in accordance with the instructions received by us from our constituents. The Council has received much criticism which to my mind was unfair, and which should, if made at all, have been directed to the Representative Body; the unfairness was, I am prepared to allow, due to what I have already termed "failure to read the context"—for instance, as to the recommendation to Mr. Smith Whitaker to accept office as a Commissioner, did these critics recognize in the "context" that the Representative Body had definitely instructed the Council not to break off negotiations, but to work for the acquirement of powers through the Act's regulations, so as to ensure, as far as possible, that the policy of the Association could be enforced?

Further, did they not read in the published minutes that a motion was proposed by Dr. C. Treasure *and seconded by Dr. Maclean* which would have instructed the Council to use its powers to prevent any member taking any *administrative* or medical office under the Act, and that after discussion the meeting gave permission for the withdrawal of the motion, the sense of the meeting being that such an instruction to the Council would have tethered it

in its efforts to fight for the desired object, namely, the possibility of enforcement of the Association's policy through the Act's regulations. So much for "criticism of critics," and I personally am pleased to make an end to it.

I turn with more pleasure to consideration of our future proceedings. First, I think we should recognize that the Insurance Bill is now on the Statute Book, and that, backed by a resolute and astute Government, there will be an attempt to work it; indeed, the bed-plates of the machine are already in position; also, we must remember that we are now treating under contract millions of His Majesty's lieges at ridiculously inadequate pay and under very unsatisfactory conditions: this constitutes the long-standing feud between the profession and the friendly societies—a feud which we would very gladly end, but our efforts have been futile in the past. One other thing to me is obvious, namely, that—given "grit" and cohesion of that "grit"—the profession can ensure enforcement of its policy, or otherwise can refuse to work under any regulations which do not guarantee a medical service which will be for the public weal and the satisfaction of our profession. We have not yet come to grips with the enemy, we must do so ere long, and then "grit" in the individual member will tell; we shall win if we deserve to do so.

Now, Sir, finally, a few words as to our future plan of campaign. We should, every man of us, put off the spectacles of political partisanship—this is a much more serious matter than the game of party politics; we should at once get to work to investigate the possibilities of the Act's provisions, perhaps taking the opinion of an eminent counsel thereon. We should in the end evolve a scheme of Medical State Service which would be a benefit to the public and also satisfactory to the profession—a good and efficient service which would have as a corollary remuneration proportionate to such a service.

Such a reasonable scheme put forward reasonably should carry the public entirely with us, and who shall withstand the force of such a combination? Having evolved this scheme it should be put before the public through the press, and also transmitted to the Insurance Commission. May I, in conclusion, say that I hope in future in all our meetings, discussions, etc., we shall not forget the continuous use of the "oiled feather" of courtesy?

Dr. P. Arthur Hendley (Littleport) writes: Who is Mr. Colquhoun Dill, on whose advice the Council has decided to set aside a requisition signed by over 500 members of the Association for a special general meeting of the Association? I do not suppose that one out of a thousand members of the Association has ever heard of him; and I certainly never have, nor any one I know. Why should our requisition be refused, backed up, as it has been, by the unanimous vote of the Cambridge and Huntingdon Branch?

I give notice that at the next meeting of the Branch I will move a vote of censure on the Council on this matter, as being an insult to the members of the Branch, which includes amongst its members the teaching staff of one of the chief nurseries of the profession, and to the members who signed the requisition. Why the Council cannot do the straight thing instead of resorting to subterfuges, I cannot conceive. It is of this sort of dubious dealing by the Council that the members of the Association have complained throughout the insurance campaign. Will they not even now play the part of men, instead of covering themselves by a legal opinion which the members of the Association do not respect?

Dr. J. J. Gorham (London, S.W.) writes: It is impossible to avoid the suspicion (and with some of us the certainty) that certain members of the Council have forfeited the confidence of the vast majority of the British Medical Association. It is needless to press the point at this stage of the controversy in your columns and elsewhere. Even Dr. Lauriston Shaw could tell you what the feeling was at a large meeting of the Wandsworth Division which he attended several weeks ago. At that meeting a resolution demanding the resignation of the Council was lost by a small majority, entirely through the action of several members, like myself, who were influenced, not from any consideration for the Council, but from the feeling that our last state, following on a possible resignation (*en masse*) of the Council, would be infinitely worse than the first.

We cannot forget that at a certain meeting the information was deliberately withheld, that the Chancellor had virtually made an offer to the Council for the services of the Medical Secretary, nor are we likely to forget the clever but "smoky" answer of the chairman, which put the meeting off the scent. But, in my opinion, this was exceeded in folly by the action of our ambassador in the House of Commons in assenting to the withdrawal of the amendment to reduce the income limit of insured persons to £104 a year.

It matters little to me at this time of my life what the income limit may be. But there was a time when such a limit as £3 a week, under the rigid rule of the Insurance Bill, would have brought me to the verge of bankruptcy. And there are many hard-working members of the profession to-day who, if this limit is adhered to, will inevitably be reduced to a position between the devil and the deep sea; between the acceptance of the 4½d. a visit offered to them by the Chancellor's friendly agent in a recent leading article in the *Nation*, on the one hand, and on the other, of seeing a "blackleg"—perhaps a threepenny or sixpenny doctor—transplanted in the midst of his practice, and figuring as a "whole-time" practitioner.

Like many of your correspondents, I have bought and sold practices before now, and I found very little difficulty in the conveyance of the "goods." What security can an incumbent offer in such transactions in the future? I confess I am astonished that this subject has received such scant notice in your columns, either editorially or from your correspondents.

And now just one hint before I conclude this, my first, contribution to this controversy. The resignation of a certain number—say, half a dozen—of the Council in favour of a similar number of nominees, if such were practicable, of, say, Dr. Helme of Manchester or of Sir James Barr, might go a long way to restore the confidence of many of us, and prevent a fatal split in the Association.

I have declined to become a member of the British Medical Reform Association on the ground that I fear a wrecking policy, but I am of opinion that its leaders are on the right track in advocating the introduction of a short amendment to the bill incorporating the six points so long dangled before our eyes.

Dr. E. T. Larkham (Heaton Park, Manchester) writes: It is with great dismay that I note so little comment is made *re* our independence—the most important point of all—under the Insurance Act.

As the Act stands three-fifths of the local Insurance Committee is composed of members of friendly societies and Post Office contributors; thus, technically, this seems to satisfy one "cardinal point," but as a matter of actual practice and in effect is is not clearly evident that we are now as badly off or worse than if were entirely under the control of the friendly societies. This point the Council of the British Medical Association, if it claims to represent the profession, must immediately and definitely insist on being rectified.

Surely the silence of the friendly societies on this point speaks volumes, for they know full well if we are fools enough to work under the Act, without a drastic alteration on this particular point at least, no matter how satisfactory our remuneration may be, that they will be able to dictate to us and make our existence not worth living; further, the papers will be full with accounts of medical men hauled up before this precious tribunal.

Are we content, on matters of discipline, to be subject to such a class of men, with only a right of appeal to the Commissioners? Surely the deciding body should be the General Medical Council.

Can any one expect any self-respecting father to permit his son to enter our profession where service under such debasing conditions exist?

Dr. W. D. Gimson (Chelmsford) writes: Considering the way the Government proposes to exploit the profession, might I suggest that the profession generally ceases all subscriptions to outside charities and hands them over to the Medical Benevolent Fund? If the National Insurance Act is worked by the profession, then the Medical

Benevolent Fund will need all the money it can get. It would be interesting to know what would be the answers to the following in a referendum:

1. Did you understand that the conditions set out by the British Medical Association were an ultimatum to the Government to include the six cardinal points in the bill?

2. Will you pledge yourself not to work under any insurance bill if 23,000 practitioners pledge themselves not to work under it?

Our ultimatum has been simply ignored by the Government, therefore we are in no way bound to consider the six cardinal points now, or any offer we made to the Government.

The Policy of Constituting Local Medical Committees.

Mr. F. MARSH (Birmingham) writes: Yet another circular letter not in accord with the policy, definitely and unmistakably expressed, of a large majority of members of the Association—this time to the Branch Councils—signed by the Acting Medical Secretary on instructions from some authority, not stated, but presumably the Council or a committee of the Council of the Association. It is difficult to imagine that the Council cannot now recognize that the present policy of "drift" will not be that of the Association after the meeting of the Representative Body on February 21st, and yet they are pursuing this policy by asking the advice and assistance of the Branch Councils as to the formation of local Medical Committees, and, more especially, by drawing "attention to the *fact* that the setting up of local Medical Committees in no way commits the local profession to form panels of practitioners for the purposes of the Act." They are, however, careful not to point out that the setting up of local Medical Committees would most certainly be construed to be a tacit acceptance of the Act and would stultify a refusal afterwards to carry out its provisions. The loyalty of very many members has already been strained to its limit, and if the Council do not want to see a secession *en masse* and the formation of another professional union—the machinery for which already exists in most of the big centres—they will be wise, as they presumably cannot depart from the letter of their instructions from the Representative Body, to at least pay some heed to the "writing on the wall," and stop any further action on their own part or on the part of the State Sickness Insurance Committee until after the meeting of the Representative Body on February 21st.

An Indian System.

Lieutenant-Colonel G. M. J. GILES, I.M.S.(ret.) (Crown Hill R.S.O., South Devon), writes: It is satisfactory to find that the medical profession appears to be firmly determined to insist upon the concession of the six points formulated by the British Medical Association as a necessary condition of working Mr. George's new Act for national pauperization, and that some Divisions have already stated the terms which they regard as reasonable.

While the proposal remained a bill, our efforts were necessarily confined to attempting to secure the inclusion of our *desiderata* in the coming Act; but now that the latter is an accomplished fact and our six points can only be secured by refusing to conclude a bargain with the administrators of the Act on any other terms, I am somewhat surprised that no Anglo-Indian practitioner has pointed out to the profession in England the suitability of the plan of contract practice adopted in India to the new conditions we have to face.

The advantages of the plan are that it automatically ends all disputes as to a wage limit, there being none, while it absolutely prevents well-to-do persons obtaining treatment on inadequate terms by accurately graduating the cost of treatment to the pocket of the patient, but makes no one a pauper who has not already sunk to that level.

Briefly, the custom in India is for patients to contract for medical treatment on the basis of a definite percentage of their income. Most of these contracts, with us, are for the care of the wife and children of members of Government and business organizations who are themselves provided with medical aid by their employers, and the number to be attended for the inclusive remuaeration may vary, therefore, from one to seven persons, or more; but the plan gives such general satisfaction to all parties that it is very common for private individuals to make a similar arrangement, on the basis of their average income, and some of my most punctual and grateful paymasters have belonged to this latter class.

The rate universally adopted is 2 *per cent.* of the patient's income, or as it is generally put, "a week of his pay *per annum*." It is not suggested that any such rate is applicable to this country, but merely the principle of assessment.

To begin with, the contract is in favour of several patients, and again the incidence of sickness in India is much heavier, especially for children. Here, probably ½ per cent. (so that a man on £2 per week would pay 10s. a year) would fairly meet the case.

In India this system is common to all classes of society, from the Commissioner of a Division, whose "week's pay" may be more than a month's of the doctor's, to the humble railway man, whose monthly contribution may be a rupee or less. It is open, of course, to any one to elect to pay the ordinary fees in place of contracting, and patients with large salaries often do so, but the general impression is that neither party to the contract scores much, one way or another, in the long run, in so doing.

I cannot but think that the plan is worthy of the serious consideration of the profession at home, as it has had a fairly extensive trial with us, and has given rise to little or none of the friction and heart-burning which seems inseparable from contract practice in England.

A Public Medical Service.

Dr. W. J. L. FFRENCH, President-elect of the East York and North Lincoln Branch of British Medical Association (Barnetby, Grimsby), writes: The happiest solution of the present difficulty would be for the Government to invite the British Medical Association, as representative of the profession, to put forward an alternative scheme which, having first been submitted to the profession for approval, and if not accepted by the Government in its entirety, would at all events afford a basis of negotiation and compromise.

Failing such action on the part of the Government I would suggest that it is not yet too late for the Association to put forward a scheme on its own initiative. It would to my mind be the most dignified course to pursue for what has hitherto been an honourable and free profession. If the Special Representative Meeting were to sanction such action, it would, I am confident, meet with the support of the profession.

An amending Act could be pressed for, and with the full weight of the profession behind it, doubtless ultimately passed, which would be satisfactory to the profession and advantageous to the community.

Dr. A. C. REID (Nottingham) writes: I am sure many of us have been seriously considering the likely alternative suggested in Dr. J. H. Taylor's able letter in the SUPPLEMENT of 6th inst. His deductions seem to me to be sound. Another course, however, is open to us—namely, to *form panels outside the Act*, on our own terms, for small wage-earners.

It becomes increasingly evident that not more than 6s. (with medicine, etc.) is to be had from the Insurance Committees. The rate-raising powers of the county councils are not likely to be exercised. The Commissioners cannot vote money; and Parliament will not probably increase its grant-in-aid. A considerable proportion of the insured would, however, I feel certain, be willing to pay direct to the doctor a small additional sum—say, 1d. or 1½d. a week—if thereby an efficient medical service could be secured. This, in addition to the 6s. which is assured to them from the Commissioners, would bring the minimum contract rate to 10s. 4d., for which free choice of doctor would be absolutely secured to them, and medicines would be supplied as is usual in contract practice at present, conducing, as we know, to economy without loss of efficiency.

Such a proposed Public Medical Service has already been formulated in this city, though laid aside for the time being, owing to the Act. Expecting that there would be no medical benefit under the Act, we went into this matter in some detail; and it seems to me that when negotiations with the Commissioners on the questions of

wage limit and remuneration break down, as they will do, we might revert to this scheme.

Those unwilling or unable to pay this small extra sum might be left to the friendly society whole-time service. The type of man who would offer to such a service would not be such as to inspire confidence; the conditions of work would not be congenial to a conscientious man; and the appointments would probably be often a-begging.

Such a public medical service as I advocate would attract the men engaged in contract practice at present. Under the control of the medical men all abuses would be under control and the health of the small wage-earning class safeguarded. Let us go on with negotiations with the Commissioners for the present; but let us be ready with a scheme such as this if and when these fall through.

A Whole-time Service.

Dr. C. H. Glenn (Haywards Heath) writes: If whole-time officers for working the medical section of the Insurance Act have to be obtained by Mr. Lloyd George, it seems he will have to draw his staff from practically two classes of men:

1. The wastrels and failures;
2. The newly qualified.

Of the first there is no need to speak. The second class, as is well known, is in the habit of holding underpaid appointments—for example, school inspectors, house-surgeons, etc.—on the proceeds of which, after deducting expenses, it is barely possible to live, much less to marry and bring up a family. At present such appointments are only held for short periods and but as a preliminary to settling down to general practice.

But what if they accept whole-time work under the Insurance Act? No possible future to look forward to remains; they themselves would have effectually blocked all possible chance of a reasonable competence for their own maturity in old age.

Existing Clubs and New Recruits.

Mr. Penrose Williams, F.R.C.S.Edin. (Bridgwater), writes: May I call attention to a point that appears to have been overlooked and may be of some practical importance? And that is the question whether we are to receive payment for the examination of candidates entering the various existing societies for participation in benefits under the Act.

No payment is made by clubs—with few exceptions—for this necessary work at present.

Present holders of club appointments may be called upon during this half-year to examine hundreds of candidates, and are hardly in a position to refuse to do so under the terms of their present service, unless united action is taken to refuse such work.

The question is somewhat involved with another, namely: At what date do present club appointments die a natural death? The Act comes into force on July 1st next, but no benefits can be enjoyed under it for the first six months. Presumably, therefore, beneficiaries will have to contribute under the Act for that period and at the same time continue the present club arrangements in order to receive medical benefits from July to Christmas.

I suggest that the forthcoming Representative Meeting should be asked:

1. To determine whether we are to ask for payment for examination of "recruits," and, if so, the amount.
2. To fix a date at which all present club appointments should cease, and a date at which payments under No. 1 should commence.
3. To draw up a formal notice, embodying any decisions arrived at under 1 and 2, suitable for presentation by medical officers to their clubs.
4. To request the Council to have such formal notice printed and distributed to members; or to take such other steps as may be necessary to secure that we all act together and at the same time.

It may be said that this is one of the points for discussion between the local Insurance and Medical Committees; my argument is that all this extra work may fall on us now, and, even though a direct consequence of the Act, may be claimed to be part of present appointments, so long as present appointments continue, and the new ones have not even begun.

The Follies of the Past.

Dr. H. G. Dixon (London, E.C.) writes: What is the use of all this outcry against Mr. Lloyd George's offer to buy our services for his big national club at the rate of 4s. 6d. a head? How can we reasonably refuse him when hundreds, perhaps thousands, of us are now working for clubs at that rate and less, and hundreds more are hungering for the jobs? How can we blame the Chancellor for taking us at our own valuation, and offering to buy us at our market price—the price fixed by our own competitive folly in the open, unorganized, medical labour market? No one will believe our demands to be just or earnest so long as our acts thus belie our words. To regularize our position every club should be notified that on and after July 1st our charge would be 8s. 6d. per member (or thereabouts), otherwise all contracts to cease.

Dr. J. S. Boothroyd (Finchley, N.), after warmly vindicating Mr. Lloyd George against attacks which had been made on him, writes: I venture to say that, in so far as Mr. Lloyd George has mistaken our requirements, the fault lies chiefly with us. He has known, for instance, that doctors have "tumbled over each other" for club appointments at 3s. and 4s. per head. Naturally he concluded that 6s. would be welcomed. I confess, with many others, I have been profoundly saddened by the tone and spirit of most medical attacks upon the bill and its author: by the absence of all generous feeling, by the constant imputation of the worst motives, and not infrequently by a stream of mere vulgar abuse. And now many among us are seeking to turn and rend the statesmen of the profession itself, the leaders who have so nobly fought our battles for us with an ability and a dignity worthy of all praise. The public looks on with amazement and something like contempt.

Mode and Rate of Remuneration.

Dr. A. M. Watts (Ashford) writes: I have followed with great interest all the proceedings of the past few months in connexion with the State Insurance Act, and it seems to me the time has come when the profession should make up its mind as to what is adequate remuneration, for, after all, that is the main point to be settled, either with the Commissioners for the whole country or with the local Insurance Committees for each district.

I have noticed that the sum of 8s. 6d. has been mentioned as adequate payment by those who think the capitation method the right one to adopt, but I do most earnestly ask the members of the profession to think very seriously before they decide what is adequate payment.

We all know that the fees which we have received hitherto from friendly societies—4s. or 5s. a head—have been totally inadequate, and we have made our incomes out of our private patients; but in the future we shall have very few private patients, for all workers with less than £160 per annum will be insured persons, and for those who earn their living by manual labour there is no income limit (1st Schedule, Part II, g), and we must remember that in a year or two the families of the insured workmen will be included (women workers are in the scheme now), so that the majority of practitioners will make nearly all their living out of insured persons. I think it is most important that we should not accept less than £1 a head per annum, for we must remember that the State Insurance Act is not to be financed by our charity; we must have adequate payment or we shall be ruined.

I fix the capitation fee at not less than £1 per head, for these reasons: The amount of sickness per head of the Manchester Unity of Oddfellows is about a fortnight a year; this does not include attendances at the surgery when "not on the club," but we must remember that the Oddfellows are all selected lives, whereas we shall have to attend all, for there are the deposit contributors, that is, those who are not accepted by any society as they are "bad lives." Moreover, we have agreed to attend at the same rates as insured persons those who, owing to their being over age or on account of chronic illness, are not entitled to medical benefit (Sec. 15. 2 (*e*)). So I think that three weeks' sickness a head would be a reasonable amount for which to estimate. Then the question is how many visits will be required during the three weeks? I think at least ten, and if we decide on 2s. a visit (we surely could not charge less) we have £1 a head. As will

be seen, even then I have not allowed for night visits, mileage, attendances at the surgery, operations, anaesthetics, etc.

There is another way of looking at the question of a capitation grant of £1 a head, which is as follows: Take a practice of 1,500 people, which is quite large enough for a doctor to work conscientiously, and divide it up as follows, namely: 250 men, 250 women, and 1,000 children; if the men and women each pay £1 and the children 5s. each per head, the doctor would have an income of £750, which is only just sufficient to enable a man to pay his expenses, to bring up a family, and possibly put by a little for his old age. Some practices in the future will average 1,200 insured persons (men women, and children) with 300 private patients, and here, again, unless the capitation fee is £1, the income will be below £750, allowing for what would be made by attending the 300 private patients, equivalent to fifty families.

Dr. D. DUNCAN (London) writes: As it costs 4½d. to 6d. per week to provide 10s. and subsequently 5s. for the insured on the funds, the weekly 1½d. for medical benefits would provide 3s. 4d. to 2s. 6d. a week during full pay and half the amount after six months' illness, *minus* chemist's charges for the insured at all times.

Supposing the 6s. 6d. per annum to be expended in this way, there is nothing left for examining each insured to begin with and reporting; nothing for the first three days of all serious cases; for venereal and alcoholic affections; and nothing for the rest of the real or fancied ailments of all insured at all times.

Even chronic cases on the funds would have to be seen weekly if only to have the paper signed.

Any surplus from the weekly 6d. is for the Post Office contributors who will expect us to make them fit to be insured.

Dr. JOHN L. MARTIN (Chelmsford) writes: My opinion is that the British Medical Association should concentrate its whole power (which is ample if backed by 27,000 signatures) on adequate remuneration for medical men working under the Act. The scale of charges adopted by the National Deposit Friendly Society would, I think, satisfy most general practitioners, the doctor to provide the necessary medicines. The 1s. 6d. per head which is now allocated to the chemist could then be added to the miserable 4s. 6d. of the doctors, making 6s. An extra weekly contribution of 2d. a head should be added on to the present 9d. (whether this extra were paid by workman, employer, or State would not matter to us). This would give an annual amount of 14s. 8d. per head for medical purposes, which, I think, would be enough to give us the fees suggested above.

Dr. W. BLACK JONES (Llangammarch Wells) writes: Several views have appeared lately in your columns on the remuneration the profession should demand under the Insurance Act.

The first questions to be considered are the amount of sickness we shall experience per annum, including the number of attendances upon each person insured.

The Report of the Actuaries (Cd. 5681) gives in Table VII the estimated number of weeks of sickness per contributor per annum, being the experience of the Manchester Unity of Oddfellows. The actuaries state that this rate of sickness "may be safely adopted as the basis for the contributions and for the estimates of the sums required annually to meet these benefits." I have corrected these statistics for the age distribution shown in Table E, and find that on the average each contributor will experience 12.3 days of sickness per annum.

The published statistics of the Independent Order of Rechabites (abstainers from alcohol) experience, when corrected for age distribution, an average of 10.3 days of sickness per annum. Abstainers, it has been shown by many writers, experience less sickness than the general population, and also that they live longer. Considerations of space will not permit me to quote these statistics.

For the past two years the average sickness among the staff of the General Post Office has been 6.0 days per member per annum. It will be remembered that these officials are picked men, and that their occupation is a healthy one.

The capitation fee allowed by the General Post Office is 8s. 6d. for each man. As this includes medicine, perhaps we may assume that 7s. would be for medical attendance and 1s. 6d. for medicine.

The sum of 2s. 6d. per visit is also allowed by the General Post Office for itinerants, by the Admiralty (with mileage) for coastguards, and by the War Office for soldiers on furlough. In the latter case a mileage of about 1s. per mile and extra fees for night visits and for certain operations, are also sanctioned.

In the interesting pamphlet, *The Light of Thirty Years of Provident Dispensary Work on National Insurance* it has been shown that in Manchester and Salford, with a membership of 10,180 persons (men, women, and children), each member received on the average 4.773 attendances per annum.

It will be granted that in many towns the sickness-rate may be slightly lower than in Manchester, and that in rural districts there will be a further diminution.

In the following scheme I have taken as a basis that 2s. should be paid for a visit (without medicine) in a limited area, and that no rate of payment should be made less than that given by the General Post Office, as mentioned above. I hope we, as a profession, will be united in refusing to accept any rate lower than the latter one.

A. GENERAL RATE:
- (i) *Residents in Towns and Urban Districts*:
  - (*a*) General capitation fee ... 9s. 0d. to 10s. 0d.
  - (*b*) Abstainers' capitation fee ... ... 7s. 6d.
- (ii) *Residents in Rural Districts*:
  - (*a*) General capitation fee ... ... 7s. 6d.
  - (*b*) Abstainers' capitation fee ... ... 7s. 0d.

B. POST OFFICE CONTRIBUTORS ... ... 12s. 0d.

C. PERSONS OVER 70 YEARS OF AGE ... ... 10s. 0d.

D. EXTRAS (to apply to each of above classes):
- (i) *Mileage*, for each mile after 1st or 2nd... 1s. 0d.
- (ii) *Night visits* ... ... 5s. 0d.
- (iii) *Operations*.

The minimum tariff in De Styrap's.

Medico-Chirurgical Tariffs.

Inoculations, etc., would be charged for.

The abstainers would be required to make a declaration of their abstinence, and under Section 14 fines could be imposed if they break their pledge. Certain insurance companies have similar rules.

We should probably find that the majority of domestic servants are abstainers.

As this scale of fees will exceed the rate allowed in the Government scheme for the total medical benefit (6s.), the excess will have to be made up, half by a Treasury grant and half by a local rate as described in Section 15.

Dr. T. B. F. EMINSON (Scotter, Gainsborough) writes: The subject in which the profession is now closely interested is the method of remuneration under the Insurance Bill. Many of us are advocates of the capitation system of payment, but perhaps a larger section of the profession wishes to adopt the system of payment for work done. It has occurred to me that, as the powers of the Insurance Commissioners are wide, they may be able to allow each medical man choice of the system best adapted to himself and his patients. I have acted as medical officer of several friendly societies for nearly thirty years; and for insurance patients I should much prefer the capitation system, under which the practitioner's income will be known fully a year in advance, and by which he will be secure from much vexatious clerical work; whereas under the per attendance system his income would be unknown in advance, and fluctuating in amount, while the clerical work would always be heavy and often annoying. I propose, then, that we first ascertain whether the Commissioners can grant us the boon of personal option; if so, one great difficulty will be disposed of.

Our next step will be to discuss the actual rates of payment; and, being a strong believer in capitation, my suggestions will be confined to this system, especially in relation to rural practice. I propose the following rates:

1. Capitation fee for medical and surgical attendance, 6s. 6d. per annum.
2. Capitation fee for medicines, bandages, and similar remedial agents, 1s. 6d. per annum.
3. Mileage and night work:
   - (*a*) For new calls over one mile distant, after 10.30 a.m., 2s. 6d.; or 1s. per mile one way.
   - (*b*) For a night call, between lighting-up time and 7.30 a.m., within two miles of the practitioner's residence, 5s.; over two miles distant, 7s. 6d.

(*c*) Night consultations at the practitioner's house, by or on behalf of a patient, by which the practitioner is detained after 10.30 p.m., or consulted before 7.30 a.m, 2s 6d. each.
(*d*) For every half-hour detained by night at a patient's house, beyond the first, 2s. 6d.

4. Extras:
(*a*) Major and minor operations, according to scale agreed on.
(*b*) Fractures and dislocations, according to scale agreed on.
(*c*) For the administration of a general anaesthetic by the practitioner, or by any other practitioner assisting him, one guinea.
(*d*) Instruments, surgical appliances, and apparatus to be supplied at invoice or cost price, *plus* 1s. in the £, whole or part, to cover postage, carriage, and other incidental expenses.

5. Certificates:
(*a*) "On" and "off" sickness certificates to be supplied on Commissioners' forms without fee.
(*b*) "On" and "off" additional certificates for outside clubs, 1s. to 2s. 6d., payable by the patient at the time.
(*c*) Special report certificates issued in consultation with a Commissioners' medical officer, 10s. 6d.
(*d*) Certificates for workmen's compensation, according to local scale, drawn up by local Medical Committee.
(*e*) Notification certificates to medical officer of health, 2s. 6d., not 1s.; insurance patients being "private patients" under Notification Act.

6. Sunday work.
Patients to understand through Insurance Commissioners' regulations that medical men are not open to be consulted on Sunday, except in sudden and urgent illness. This will check the army of invaders who are rapidly making Sunday a day of convenience for consulting the doctor.

All these items and points will be settled between the Insurance Commissioners and the profession represented by the associated county Medical Committees and the Central Council of the British Medical Association; and if we are united we shall obtain terms fully equivalent to those now in vogue in our private practice amongst this class. More than this we do not want, for we shall have the additional benefit of no bad debts, county court attendances, or collectors' fees.

The anaesthetist's fee cannot, in rural districts, be less than one guinea, for a neighbouring practitioner would usually have to travel several miles. A fee for night consultations, apart from visits, is essential, for in these days the cycle is so convenient that the agricultural labourer often cycles four or five miles in the night, on behalf of some member of his family, a neighbour, or even himself, thus getting early advice without losing half a day's wage; and in acute cases such consultations by the patient's friends are not infrequent. The mileage and night fees are not to be considered as full payment, for the capitation fee theoretically covers all usual attendance, but they are a just and necessary check on inconsiderate and harassing demands. Doubtless the Commissioners will draw up convenient forms for rendering accounts of these night consultations and journeys, and they may perhaps find it necessary to make all such charges repayable by the contracting persons—whether employers or patients—or to deduct the amounts from any special benefit funds standing in the name of the patient. This would be no hardship, as the regulations would be known and extra expense could usually be avoided. Serums, vaccine lymph, and similar products, as well as morbid product examinations, will ultimately be supplied, as vaccine lymph is now to public vaccinators. These and many other minor points will be settled between the Commissioners and the profession after the machinery gets into working order; but the capitation fees and fees for night work must be fixed before medical benefit comes into force. The capitation fee for Post Office contributors (inferior lives) will be at a higher rate; perhaps 7s. 6d. might be tried for a year. The ordinary capitation fee of 6s. 6d., exclusive of medicines, is suggested on the understanding that the income limit of £104 is conceded throughout the country. I fear, however, that the county Medical Committees will have difficulty with this £2 limit; but only experience can test it. Perhaps the Government will ultimately place a small tax on incomes between £104 and £160, at the same time lowering the tax on small incomes derived from real property, seeing the present high rate, with our complicated system of transfer, has a mischievous tendency to check the investment of savings.

Twenty years ago our Association possessed little weight in parliamentary circles, but to-day its influence is great; and all we have to do in order to keep this weapon sharp is to learn to exercise sufficient self-control to avoid mutiny during the progress of a battle; and recognize clearly the central fact that the public good and our own welfare are, at the end, terms of identical value.

Let us then, as general practitioners, escape shipwreck in the storm that has arisen, by avoiding dangerous side-currents and eddies, and making straight for the port which our responsible leaders have declared safe, and where our harbour-master is already at work, leaving our pilot, the Associated County Medical Committees, and our experienced captain, the Representative Council of the Association, to negotiate the bar and steer our ship into smooth water.

Dr. George W. Micklethwaite (York) writes: One of the chief bones of contention in the new Act is the method and adequacy of the remuneration to doctors. Some doctors advocate a capitation fee and others payment by work done. No one, I believe, has suggested a combination of the two methods. The combination could be easily worked as follows:

Each insured person is to be given a card, to which his employer will have to affix a weekly stamp. The card, I understand, is to be divided into thirteen spaces, one space for each week of the quarter. Let the back of the card be divided into similar spaces, and devoted to the medical attendance. On this side of the card is the printed income of the patient, and the name of the doctor he has chosen. The patient, on going to his doctor for treatment, produces his card, and the doctor signs his initials in the space corresponding to the week, and repeats this every week so long as he is attending the patient. When the employer puts the stamp on his side he refers to the doctor's side, and if it is initialled he obliterates the initial with a stamp which varies according to the patient's income, and which the employer deducts from the wages. If the patient is drawing insurance money, the insurance officer is responsible for the doctor's stamp. At the end of the three months the cards are collected by the insurance officer, the doctor is credited with 1s. 1d. capitation fee for every card on which his name is printed *plus* the value of the stamps affixed to his side of the card. I should suggest that for each week the patient is ill the following sliding scale be adopted:

Persons under £52 per annum, a 6d. stamp affixed weekly.
Persons between £52 and £78, a 1s. stamp affixed weekly.
Persons between £78 and £104, a 1s. 6d. stamp affixed weekly.
Persons between £104 and £130, a 2s. stamp affixed weekly.
Persons between £130 and £156, a 2s. 6d. stamp affixed weekly.

This method, I think, is workable, would discourage malingering, and also deter persons with minor and unimportant ailments from running off to their doctor for the least scratch. If the week were to commence on a Monday it would tend to secure Sunday as a medical day of rest.

Dr. J. Reid (London) writes: In the Journal of January 20th you ask for statistics to determine the amount of work in club practice.

I can assure you from experience at home and abroad that it is not to be estimated by the amount of real sickness, but by the honesty of the members. In spite of all your writings on infant mortality, etc., you do not appreciate the factor of amateur medication in the child and adult. The medical man is useful for certificates and such like. On starting a club I had past experience of members as private patients in a very healthy district, and I found the work much less when they paid for work done. The average man and woman—club members—think the doctor at their beck and call night and day, and when nothing is wrong they will call on a doctor for a bottle of medicine. The most exacting as to their own hours, they are the greatest pests the doctor has: Hours are nothing, and the most trivial complaints want immediate attention.

The honest farm servant may not be so troublesome. Of course, when matters become too bad, the doctor *sees* his patient drink an ounce of black draught.

Whatever you may think of the medical attendance part, there is the effect on the race to be reckoned with. Mental degeneracy is already a thriving disease.

THE AMOUNT OF AN ADEQUATE CAPITATION RATE.

Dr. HARRY GREY (Bristol) writes: On two grounds I have consistently deprecated the attempt by medical men to name a capitation rate for medical attendance. The first ground is that, as I have a fundamental objection to medical practitioners being made underwriters, I consider the fixing of the underwriter's premium to be outside the medical man's province. The second ground is the absolute impossibility of more than guessing what premium would be adequate to cover the unknown risk of medical attendance.

Various false comparisons have been made between the risk of medical attendance under the Insurance Act and the sickness risk of friendly societies, Post Office employees, etc. As an illustration of where such comparisons lead us, the argument may be put thus: Certain societies pay their medical officers 4s. per head per annum: it is the universal opinion of the profession that this rate is inadequate and cannot be made remunerative even by taking as many patients as can be had, and giving as little attendance and medicine as possible (witness club rules, extras for bottles, calls before 10 a.m., stringent surgery rules, etc.). We start, then, with the premiss—that 4s. for healthy lives is inadequate to remunerate the doctor for such attendance as it is customary for a friendly society member to exact.

Our second premiss is in two parts: (*a*) That unhealthy lives, of which there will be a great number among the State Insurance Act beneficiaries, will require twice to a hundred times as much attendance as the average friendly society member; (*b*) that the attendance desired (and probably exacted) by the State will be greater than that ordinarily given to the average friendly society member. The inevitable conclusion is that from inexact data we can draw no accurate deduction, and it is quite impossible to name even an approximate figure for an adequate capitation rate. If the Chancellor argues that 6s. is better than 4s., it is because he wilfully blinds himself to the fact that the two prices relate to different articles; and we may argue on our side that the Government estimate of 6s. for attendance on all sorts of lives is worse than 8s. 6d., which latter figure is the actual sum paid by Government itself for attendance on healthy lives.

The correspondents, therefore, who appear ready to stake their acceptance of the Act on the grant of an adequate capitation fee, must realize that they will engage in a double gamble—a gamble with the attendance required, and a gamble with the remuneration they will get for it.

But, though I maintain that medical men must not be asked to gamble on either of these two points, I think we might possibly point out to the actuaries the only method by which they can estimate what sickness attendance may approximately cost the State. It is evident that an insurance company (in this instance the State) must base its calculation of premiums on the capital sum estimated to be necessary for the medical attendance of the total number of the insured, and this capital sum may approximately be found in this manner. The total number of medical men engaged in general practice in Great Britain and Ireland is 32,000, or 1 in 1,400 of population. Let the income of the medical man be determined as wages are invariably determined—namely, by the standard of subsistence, and let us put this standard at £1,000 a year gross income; this figure, allowing two-fifths deduction for business expenses (cars, horses, telephone, premises, etc.), leaves £600 a year net, and cannot be considered too high for a professional man of expensive training and arduous work. Lest any struggling practitioner think he would be content with less than this, let it be noted that not only does the practitioner owe it to his profession, to himself, and to the community to demand a wage sufficient to enable him to keep himself in comfort, and to rear and educate a family to take his place, but that this net income of £600 is the average attainable by the wholly successful man, that is, by him who succeeds in attracting his full share of the community's patronage; if he is remarkably robust and exceptionally skilful, he may possibly attract and be able to attend 1,500 or 1,600; if he is below the average in health and ability, he would have to be content with less. Taking, then, £600 net or £1,000 gross as the standard income for the efficient and normally healthy doctor, we find that each of his 1,400 prospective patients must pay 14s. 3½d. per annum.

It seems to me that this is the only possible method of arriving at a capitation rate. The standard income I take is merely an indication of what a 14s. 3½d. capitation rate would produce; if the income is thought too low (it is hardly possible that even a Chancellor of the Exchequer would consider it too high), the capitation rate can be calculated from a higher one on the same basis of 1,400 insured to each medical practitioner.

There is one fallacy in this calculation; I assume that one medical man is capable of giving adequate attention to a *clientèle* of 1,400 persons, that is to say, that the medical practitioners of the kingdom are sufficient in number for the population.

As a matter of fact they are not; anyone who knows anything of practice among the poorer classes (who comprise eight-ninths of the population), that is to say, every general practitioner is painfully aware that small as are our incomes, and hard as most of us work, we overtake but a small part of the medical treatment that is urgently required to mend the nation's health. The layman has only to think of the large number of persons who die without a doctor in attendance to realize the deficiency of attendance on the living. So in calculating a capitation rate from a standard income, one must be prepared to accept this proviso that this capitation rate will cover only such attendance as is available at the present date, and the insurance company (the State) which starts with this rate must, if it desires the best results for the nation's health, be prepared to increase it if necessary each year in proportion to the number of medical men available and required; though possibly in the course of some years the deficit of attendance may be compensated in another way, namely, by a diminution in the amount of sickness, for there is no doubt that a great deal of sickness among adults is due to neglect of medical attendance in childhood.

There are not such insuperable objections to a State whole-time dental service as to a medical one, but a dental capitation rate can be calculated from the same data. I imagine that an average dentist's net income might be taken as rather lower than a doctor's, say, £500 per annum (though I expect it is actually at the present day considerably more), and his expenses (of material, mechanical assistance, etc.) about the same percentage, say, £300, making a gross income of £800; the capitation rate then for dental treatment would be—

£800 × 1,500 (dentists) ÷ 45,000,000 (population) = 6d.

This result brings out pointedly the fallacy to which I referred above, namely, that this rate will provide not for the actual amount of dental treatment required, but merely for such as the present number of dentists is capable of giving. It points also a warning to both professions as to the suicidal nature of the proposal that they should relieve the State of the insurance risk by accepting the capitation system, since both might find themselves in the position of having undertaken a contract they could not carry out even if paid to do so.

I hope that Mr. John J. Bell's eloquent appeal in the SUPPLEMENT of January 20th may rouse the profession to a sense of its danger in tampering with the principle of independence, though I think he does the practitioners of the country injustice in blaming them for the present *impasse*, since they decided as long ago as last April, by a majority of 76 Divisions to 54, that the capitation system must go. It is pertinent at this moment to ask why their decision was not acted upon, and to suggest that even now it is not too late to take this stand. An example of a method of doing so that might be universally copied may be found in the report of the business-like meeting of the South-Western Branch (SUPPLEMENT, January 20th, p. 82, col. 2, line 16):

> That the Commissioners be informed that to meet this condition—adequate medical remuneration—their regulations must provide medical practitioners with a minimum fee of 2s. 6d. per attendance—not to include medicine, consultations with other practitioners, dressings, appliances, night visits or special visits, anaesthetics or mileage when necessary—with a provision for a higher fee where this appears to be inadequate, and that all payments be guaranteed by the Commissioners.

It is a pity that Mr. Scott and Mr. Jackson spoilt the simplicity and force of this resolution by adding, "If we cannot get that, you may give us something else."

("That in case it should be impossible to obtain payment for attendance all round, a capitation fee of 8s. 6d. should be the amount for members other than deposit contributors.")

It is my opinion that the issue need only be put fairly before the profession for it to return a unanimous verdict in favour of the total abolition of the contract system, and I trust that, as I suggested on January 20th, our Executive will at any rate give the Divisions a chance of doing so.

A Scottish Joke.

Dr. J. E. Moorhouse (Stirling) writes: The following letter appeared in the correspondence column of the *Glasgow Herald* on January 22nd. It would be a pity if such a gem were buried in the files of a daily newspaper

DOCTORS AND THE INSURANCE ACT.

Sir,—Dr. Leitch's letters in the *Herald* on the above subject are, I believe, truly illustrative of the attitude of the best—and also of most—medical men. I feel assured that Dr. Leitch personally would consider himself well paid and eager to undertake full duty under the Act at a maximum annual fee per individual treated of half a crown a head. More than that would be wastry, as medical men all over the country compete for appointments at that rate when they become vacant. Any deficiency on hospital subscriptions could be simply met by a charge on every doctor of, say, £50 a year. This would yield about £20,000 to £30,000 a year in Glasgow. The infirmary appointments would carry with them a payment by the doctor holding them, say, not less than £100 a year each. A small committee of clear-headed, impartially-minded working men to control and direct surgical work in the hospitals would be a distinct advantage. A small fee of, say, half a guinea each case to each of these workmen for duty in their spare time would complete the system.—I am, etc.,

Trade Unionist.

To attend 400 individuals at half a crown a head in order to pay any "charge" to the local infirmary, supplemented by attendance on another 800 to meet any payment for the luxury of holding an appointment on the staff is a sufficiently alluring prospect in itself. But to operate on a case of appendicitis under the control and direction of a "committee of clear-headed impartially minded working men," dressed in their Sunday clothes, and looking forward to the modest honorarium of 10s. 6d. each, surpasses my wildest dreams. The difficulty would be that I should not know what to do with my "spare time."

"When Doctors Differ."

On January 14th *Reynolds's Newspaper* published a cartoon representing the Insurance Act as a sturdy boy undergoing stethoscopic examination by two doctors. Dr. Glum exclaims, "It's a hopeless case," but Dr. Bright thinks him "as sound as a bell." A medical correspondent sends us a copy of a letter his wife addressed to the editor, which was published in *Reynolds's Newspaper*, "after some use of the editorial scissors," on January 21st. The letter was as follows:

The Editor of "Reynolds's Newspaper."

Sir,

Apropos of your cartoon, "When Doctors Differ," have you not forgotten the old saw, "When doctors differ then the patient dies"? Let us hope that will not be the case in the present instance. I think the majority of doctors think the Insurance Act a capital one for the people, but in its present form, there being no guarantee for proper remuneration for the profession, that they would be asses to work it. Let us suppose that a doctor has on his list a thousand patients—good, bad, and indifferent lives. Now to attend to the health of a thousand persons would involve time, care, and attention, and would leave very little time for conducting much further practice, and for this he would receive the magnificent sum of £225 per annum—less income tax. What does this penny a week per patient amount to? The value of a glass of beer to each member per week, or half the amount of a dog licence, which so many of the working classes pay. It is true that many medical men have clubs at the same average, but these are composed of good lives and mostly those of married men at a wage limit of £1 10s., and when over that it is looked upon as an abuse of the club. It is now proposed to sweep the whole working classes into the scheme—people who have been quite content and able to pay a small fee, amounting in many cases to two or three pounds a year.

Another side of the question is, the money invested in practices in working-class communities. I know of a case in which a thousand pounds was paid for a practice, and which now, with the Insurance Act looming in the future, would not fetch £200. Is it fair to the hard-working, struggling, general practitioner, to rob him of his little capital invested in his practice, and which he has looked upon as a provision for his wife and children? Many, too, have houses on long leases and will be quite unable to reduce their expenses commensurate with the reduction of their incomes. The bill, in its present form, would mean financial ruin to general practitioners in working-class communities. A living wage is only justice to the doctors most of whom—that is, the general practitioners—die in harness.

A Doctor's Wife.

LIBERAL FEDERATION CAMPAIGN.

The campaign on the Insurance Act undertaken by the National Liberal Federation, with the assistance of a National Insurance Committee, is to be opened at the London Opera House, Kingsway, on Monday evening, February 12th, when Mr. Lloyd George will make a speech reviewing the situation. The National Insurance Committee consists of the officers of the National Liberal Federation, the Government Whips, and a number of members of Parliament interested in getting the Act into working order. Offices will be opened at Millbank House, Westminster, this week. The training classes for speakers will begin on January 29th. The instruction will be given by Mr. A. S. Comyns Carr, Barrister, who, as was mentioned last week, is one of the editors of a book on the Act which is to appear at the end of the month.

THE "B.M.A. REFORM COMMITTEE."

The following is published in the *Times* of January 25th:

"At a meeting of the British Medical Association Reform Committee yesterday at 138, Harley Street, the resolution given below was adopted, and copies were ordered to be sent to each Division of the British Medical Association for consideration before the meeting of the Representative Body of the Association on February 21st or 22nd:

> This Representative Meeting directs the Council to inform, in plain and unmistakable language, the Commissioners appointed under the Insurance Act, 1911, that unless the six cardinal points as originally formulated by the British Medical Association be embodied in a Bill amending the Insurance Act, 1911, which shall become law in the next session of Parliament; and unless in the meantime these six points be incorporated in the Regulations to be issued by the Commissioners in such a manner as shall be effectual and permanent until such amending Act is passed, it is the intention of the British Medical Association to call upon all its members and upon all other medical practitioners to decline to form panels or undertake any other medical duties which may be assigned to them under the Act, in conformity with the undertaking which has already been signed by over 25,000 medical practitioners.

"This resolution will be proposed at all the Divisional meetings to be held before the assembling of the Representative Body.

"We are informed that the next step in the campaign of the Reform Committee will be the consideration of a bill to amend the Insurance Act so far as the medical benefits are concerned. The terms of this measure have been drafted under the guidance of counsel and will be issued to the members of the Reform Committee as soon as possible.

"A hope was expressed by members of the Reform Committee that practitioners who are in sympathy with their policy would join the Committee, co-operate in pushing forward the amending bill, and help to meet the necessary financial calls that the promotion of such a measure will make inevitable. In the ten days in which organizing work has been carried on by the Reform Committee support has been received from all parts of the country, but it is urged that if the views of the members are to prevail at the Representative Meeting, it will be necessary to create more branches and receive a large accession of members. The offices of the Committee are at 29, Old Queen Street, Westminster, S.W."

The name of Dr. Wilfred Kingdon was incorrectly spelt in the list appended to the statement of the "B.M.A. Reform Committee," published last week, p. 64.

Meetings of Branches and Divisions.

[The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the JOURNAL.*]*

BIRMINGHAM BRANCH.

THE fourth ordinary meeting of the Branch was held at the Medical Institute on Thursday, January 11th, at 3.30 p.m. The chair was taken by Professor MORRISON, the President. There were thirty-one members present.

Confirmation of Minutes.—The minutes of the previous meeting were read, confirmed, and signed.

Pityriasis Rosea.—Dr. DOUGLAS HEATH showed two cases (a man and a woman) of pityriasis rosea.

Splenectomy for Traumatic Rupture.—Mr. LEEDHAM-GREEN showed a youth, aged 15, on whom he had performed splenectomy last April for traumatic rupture. The injury occurred as the result of a railway accident, and necessitated at the same time the amputation of the thigh in the upper third. In spite of his severe injuries the lad made a good recovery, and is now in excellent health and at work again. An examination of the blood now shows no deviation from the normal both as regards the haemoglobin and blood cells. This was discussed by Mr. GEO. HEATON and Dr. CARSON-ABBOTT, and Mr. LEEDHAM-GREEN replied.

Ovarian Dermoid with Twisted Pedicle.—Dr. PURSLOW showed a specimen of ovarian dermoid with twisted pedicle removed during labour. The patient, who was seen in consultation with Dr. Darlington, was in the middle of the eighth month of her fourth pregnancy. Forty-eight hours before being seen she was suddenly seized with severe abdominal pain and vomiting; there had also been rigors and rise of pulse and temperature; a tender mass could be felt in the right iliac fossa. The abdomen was opened by a lateral incision over the mass, and a dermoid cyst, the size of a cricket ball, was removed. Before and during the operation labour pains were occurring at regular intervals, and, at its close, a vaginal examination showed that the canal of the cervix was taken up, and that the external os admitted the finger; the head was presenting. Pains went on steadily, and a still-born fetus was delivered, without assistance, fourteen hours later. The patient made an uninterrupted recovery. The specimen showed a bilocular dermoid cyst containing yellow sebaceous matter and hair. The walls of the lobules were stained a dark red colour, and were thickened by extravasation of blood due to the twisting of the pedicle.

Perforated Duodenal Ulcer.—Mr. FRANK BARNES read a paper on thirteen cases of perforated duodenal ulcer with one death. This was discussed by Mr. GEORGE HEATON, Dr. CARSON-ABBOTT, and the PRESIDENT. Mr. FRANK BARNES replied.

COVENTRY DIVISION.

Farewell Dinner to Dr. Milner Moore.—On Tuesday, January 16th, a farewell dinner was given to Dr. Milner Moore by the practitioners of Coventry at the Masonic Hall. Dr. Moore has practised in the city for nearly forty years, and has for some years been Representative of the Division. Dr. J. ORTON, the Chairman, presented him with a silver salver, bearing a suitable inscription, which had been subscribed for by a large number of the local medical men. Dr. A. HAWLEY, the Vice-Chairman, seconded the presentation. In replying to the toast and presentation, Dr. MILNER MOORE said that he greatly appreciated the handsome gift that had been made to him. He added that during the thirty-nine and a half years of his residence in Coventry he had met with many diversities of fortune. It had ever been his aim to live in harmony with his colleagues and he was unable to recall any occasion where he had wittingly done to others that which they should not do to him, and he considered that that comprised the ethics of every state of society. He then recalled many colleagues long since dead, or gone away. He alluded to his public duties to the Division as Chairman and Representative, and added that he knew not the result of the present revolt against the decision of the Council of the Association, but felt confident that unless the profession pinned its fate to an organization there would not be a chance of obtaining its just demands from the Government. He said that he should stick to the Association, and would be willing still to act as the Representative of Coventry. Finally he quoted the poet's words as the best means of expressing his feelings

> The gleam of household sunshine ends, and here no longer can I rest.
> Farewell, you will not speak, my friends, unfriendly of your parted guest:
> I count you kind, I hold you true, but what may follow who can tell?
> Give me a hand, and you, and you. And deem me grateful—and farewell!

EDINBURGH BRANCH:

SOUTH-EASTERN COUNTIES DIVISION.

A LARGELY attended meeting of this Division was held at St. Boswells on December 28th, 1911, Dr. OLIVER (St. Boswells) presiding.

National Insurance Act.

The following resolutions were passed:

1. While expressing no opinion on Mr. Smith Whitaker's qualifications for the post, the meeting expressed their regret that the Council should have given their official recommendation to his acceptance of the appointment of Commissioner.
2. Numbers 2, 3, and 4 of the Glasgow resolutions were unanimously adopted with the addendum that no medical practitioner should have his name placed on a panel until satisfactory conditions have been secured for the whole of Scotland.
3. That the Scottish Committee should be urged to immediately take steps to formulate what is meant by adequate remuneration, and draw up a minimum rate of charges for extras, such as mileage, operations, night work, consultations, etc.

GLOUCESTERSHIRE BRANCH.

A GENERAL meeting was held at the Royal Infirmary, Gloucester, on December 21st, 1911, the PRESIDENT in the chair, and twenty-seven members were present.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

The late Sir Joseph Hooker.—It was proposed by Mr. G. A. PEAKE, seconded by Dr. CARTER, that a letter of condolence be sent to the relatives of the late Sir Joseph Hooker.

The late Dr. Bond.—It was also proposed by Dr. MACARTNEY, seconded by Mr. DYKES BOWER, that a similar letter be sent to the relatives of the late Dr. Bond.

Paper.—Mr. FIRMIN CUTHBERT read a paper on "Some Surgical Considerations in Relation to the Workmen's Compensation Act." A discussion followed, in which Dr. SOUTAR, Dr. FOWLER, Mr. DYKES BOWER, Dr. BRAINE-HARTNELL, Dr. ANCRUM, Dr. PIKE, Dr. AFFLECK took part; and Mr. FIRMIN CUTHBERT replied.

Election of Representative.—Dr. D. E. Finlay was elected Representative at Representative Meetings for 1912.

LANCASHIRE AND CHESHIRE BRANCH.

A SPECIAL meeting of the Branch was held, on the requisition, in accordance with Rule 15, of the Ashton-under-Lyne and Manchester (West) Divisions, at the Central Hall, Renshaw Street, Liverpool, on Wednesday, January 10th, at 3.30 in the afternoon, Dr. GREENWOOD, President, in the chair; 230 members and one non-member were present.

National Insurance Act.

The following resolutions were carried, in each case by a majority:

1. On the motion of the Ashton-under-Lyne Division:

That this meeting is of opinion that the provisions of the National Insurance Bill as finally drawn do not embody the six cardinal principles to which the profession has pledged itself; nor do they secure efficient means whereby the practical working of the bill can be carried out in absolute accordance with these principles, and requests the

Council of the British Medical Association at once to call upon the medical profession to decline to form any panel under the bill or to undertake any duty which the bill proposes to assign to it.

2. On the motion of the Manchester (West) Division:

That this meeting of the Lancashire and Cheshire Branch of the British Medical Association expresses its strong disapproval of the action of the Council, first in regard to its methods in conducting negotiations with the Government, and, secondly, in recommending the acceptance by the paid Secretary of the Association of the post of Commissioner under the National Insurance Bill, and accordingly demands the resignation of the Council forthwith.

Liverpool Division.

The first annual meeting of the Liverpool Division was held on January 12th, at the Medical Institution, Liverpool. There was a fairly good attendance, upwards of ninety members being present. Dr. N. P. Marsh was in the chair.

Officers and Executive Committee.—The officers and members of the Executive Committee were re-elected as reported in the Journal of December 23rd, 1911.

Report of Executive Committee.—The report of the Executive Committee was adopted. The following is the text: The Liverpool Division came into existence by the amalgamation of the five Liverpool Divisions—Bootle, Northern, Central, Southern, and Western. The first meeting of the new Liverpool Division was held on December 15th, 1911, when the standing orders and rules of the Division were adopted. At this meeting the officers and Executive Committee were appointed, practically the same as those who were serving on the Joint Committee at the time of its passage into the new Liverpool Division, with the exception of the Honorary Secretary (Dr. K. Grossmann), whose resignation was received with regret, as he had devoted so much time and energy to the work of the combined Divisions since its inauguration. The Executive has met on two occasions, on December 22nd, 1911, and January 3rd, 1912, and amongst other business formed the following standing Subcommittee, Ethical and Hospital, also a Ward Secretaries' Subcommittee and an Insurance Act Subcommittee, the latter being composed of all the Executive Committee as well as medical practitioners resident in and about Liverpool, being members and non-members of the Association. It held its first meeting on December 29th, 1911. The number of members of the Division is upwards of 370. The Committee would especially urge the necessity of getting every medical practitioner resident in the Liverpool Division to become a member of the Association, as it is only by unanimity and effective organization we can obtain what we ask for, in all momentous questions affecting the medical profession. The Secretary (Dr. Francis W. Bailey) pointed out that only about half the practitioners resident in the Liverpool Division were members, and urged that all should join the Association, as it was the only organization working for the professional interest and aims.

For the first time in the history of the Liverpool Divisions there were more nominations for the Representative Body than vacancies, ten members being nominated for four seats at the meeting.

Mode of Electing Representatives.—It was resolved that the election of the Representatives should be by voting paper as prescribed in By-law 32 of the Association.

National Insurance Act.—The following motion was submitted by Dr. R. R. Rentoul and seconded by Dr. J. E. O'Sullivan:

That this meeting of the Liverpool Division, British Medical Association, instruct the Executive Committee of the Division to forthwith call a general meeting of all medical practitioners resident in Liverpool, for the following purposes:

1. That at and by such meeting of medical practitioners a committee composed of three-fourths of members of the Division and one-fourth of practitioners not members of the British Medical Association shall be appointed by the meeting to inquire into all those sections of the National Insurance Act, 1911, relating to medical practice under this Act.

2. That upon the completion of this work by this committee the Executive Committee of the Liverpool Division shall have such report printed and shall send a copy of it to each medical practitioner resident in Liverpool.

3. That a second general meeting of all medical practitioners in Liverpool shall be forthwith called by the Executive Committee of the Liverpool Division to discuss this report, and either to adopt, amend, refer back, or reject it.

The following amendment was moved by Dr. Heaney and seconded by Dr. Bushby:

That insomuch as an Insurance Act Subcommittee of the Executive of the Liverpool Division, consisting of both members and non-members of the Association, is at present studying the provisions of the Insurance Act in their relation to local conditions, this meeting instructs the Executive to continue the services of the Insurance Act Subcommittee, which should, at as early a date as possible, place before a general meeting of the profession a definite and detailed scheme of future action, especially as regards income limit, adequate remuneration, medical representation, and conditions of service.

This was carried, as was the following amendment moved by Dr. Utting:

That the National Insurance Act being now law, this general meeting of the Liverpool Division of the British Medical Association pledges itself to use every possible means to ensure that no medical practitioner undertakes the medical attendance and treatment of insured persons under arrangements that are not absolutely in accordance with the six cardinal principles of the Association.

Those voting for these amendments were 33 for and 12 against, which when put as substantive motions were carried unanimously.

METROPOLITAN COUNTIES BRANCH:

South-West Essex Division.

A meeting of the Division, to which the profession residing in the area of South-West Essex were invited, was held on Tuesday, January 16th, in the Wesleyan Schoolroom, Leyton. Forty-nine practitioners were present. Two members of the Council, Sir Victor Horsley and Dr. Major Greenwood, attended. The chair was taken by Dr. C. J. Horner.

Condolence with Dr. Shadwell.—A vote of condolence and sympathy with Dr. Shadwell on the loss of his daughter was passed unanimously.

Transference of Members.—The following resolution, a recommendation of the Executive Committee, was proposed by the Chairman, seconded by Dr. Harford, and carried unanimously:

This Division agrees to assist those members residing within the area of Ongar Union in their wish to be transferred to the Mid-Essex Division of the East Anglian Branch, and gives instruction to the Secretary to take the necessary steps to that end.

National Insurance Act.

The meeting then proceeded to consider the position of the profession with regard to the National Insurance Act.

The Chairman, in his opening remarks, said that, although after the uncertainty of the past nine months there remained sharp division of opinion on points of procedure, the profession was to be heartily congratulated on its solidarity and loyalty to the Association. Between 26,000 and 27,000 had already signed the undertaking, and more were coming in every day, so that it would be impossible for the Act to be worked unless they were satisfied with the conditions and the amount of remuneration. They all agreed that under the present actuarial conditions they could not and would not undertake to work the Act. The Council had been subjected to severe criticism for its method of procedure, but members of the profession were not themselves free from blame, for they had not fully realized the momentous questions which would arise, when they had instructed their Representatives how to vote. In his opinion the free choice of doctor was to a great extent nullified by the Harmsworth amendment; freedom from friendly society control was destroyed by the composition of the Insurance Committees; and 5 in 60 or 6 in 80 could hardly be called adequate representation.

Dr. A. Pottinger Eldred, Honorary Secretary of the Division, proposed the following resolution:

That this meeting desires to express its appreciation of the efforts of the Council, conducted under difficulty, to secure in the National Insurance Bill the six cardinal points accepted unanimously by the profession, and to assert its determination to support the Association in its further efforts to obtain in the Regulations whatever of these points is not fully secured in the bill, and, in the event of its efforts

proving unsuccessful, loyally to abide by the policy decided upon by the Association in the future, providing this policy embodies the six cardinal points.

He wished, he said, neither to praise nor to denounce the Council, but to ask those present to put upon record their appreciation of the services rendered by that body during a most critical period. The treatment meted out to members of the Council had been outrageous, and their actions had been misrepresented and misunderstood. They had worked under very great difficulties, the chief of which were: That the profession as a body was not consulted before the bill was introduced into Parliament, the hostile attitude of the Government, the opposition from the united forces of the friendly societies, and the want of organization and well-known apathy of the profession. In spite of this, the bill had been transformed by the Association from one under which there had been no hope of securing the six cardinal points into one under which, with continued unity, they could obtain all of them. He hoped they would accept accomplished facts and devote their intellect and energy to consolidating their position and in promoting unity.

Dr. HARFORD, in seconding the resolution, observed that in the grave crisis through which the medical profession was passing, the danger lay not so much in the Insurance Act, but in the divisions which were breaking down the splendid unity they thought they had secured. Four out of the six cardinal principles had been granted. Clause 62 was the pivot upon which the power of the profession under the Act was to be exercised. If the medical practitioners in each locality acted together in the committee instituted by this clause, and if the various local committees acted in concert with one another through the British Medical Association, the future of the Insurance Act was in their hands, and they could dictate their own terms. The most important points which had been left for decision by the Insurance Commissioners were the income limit and the amount of remuneration. Seeing that it would not be possible or desirable that the same income limit should apply everywhere, it was probably a benefit that this matter had not been fixed under the Act, and that the amount of remuneration was left to local option, to be decided mainly by the local Medical Committees. It was a suicidal policy to engage in wranglings within the profession when their vital interests were at stake. They should rather do all in their power to support their Representatives instead of talking of choosing new leaders and dispensing with those who alone had the knowledge to lead them to victory.

Dr. HARDING TOMKINS proposed and Dr. ROBERT JONES seconded an amendment:

> To delete all the words from "and in the event of" to the end of the resolution and substituting "and to attain that end desires to impress upon the Council the necessity of an immediate refusal to act under the Act until the Commissioners have embodied the six cardinal points unequivocally in their regulations."

Dr. SCOTT proposed and Dr. DUNLOP seconded an amendment:

> To delete the remainder of the resolution after the words "accepted by the profession," and to insert "but since these cardinal points have not been secured in the Act, this meeting calls on the Council at once to break off negotiations with the Government and Insurance Commissioners, feeling that it is not the business of the British Medical Association to attempt further to amend this unworkable and intolerable Act."

Sir VICTOR HORSLEY said that the responsibility for the position of affairs lay entirely with the Representative Body. It was impossible for the Association to ask the Insurance Commissioners to settle a wage limit at the present time, because at the meeting held last May Representatives from all over the country had been unable to agree among themselves on this point, and until the Association were in possession of the necessary facts they could not take any conclusive step in the matter.

Dr. MAJOR GREENWOOD made a short speech in support of the views of those who are opposed to the Act and desirous of at once breaking off negotiations. Both amendments having been negatived, the original resolution was carried by 19 votes to 16.

It was proposed by Dr. A. POTTINGER ELDRED:

> That this meeting, having regard to the instructions of the Representative Body, to the short time allowed for decision, and the probability of a Government nominee being appointed in case of refusal, considers that the Council adopted the only reasonable and business-like course open to it in recommending the acceptance by Mr. Smith Whitaker of the post of Medical Commissioner under the Insurance Bill, and is of opinion that in doing so it was actuated by consideration for the true interests of the profession now and in the future.

He thought any unbiassed person who knew the facts could only come to the conclusion that there was no other course open to the Council than to agree to Mr. Smith Whitaker's appointment. It had never been the policy of the Association to include all the six points in the bill. Mr. Smith Whitaker had placed himself in the hands of the Council, and four possible courses had been open to that body: (1) To refuse to accept responsibility, which would have been weak and cowardly and shirking its duty; (2) to refuse to allow him to accept, which would have caused the withdrawal of the opposite extremists; (3) to agree to acceptance (the course taken); (4) to ask for time to refer the matter to the profession. The last, which seemed the best solution, had been rendered impossible by the Government requiring an immediate answer in order that the names of the Commissioners might be announced before the end of the Report stage. The Council had therefore been obliged to act as they had done.

This resolution was seconded by Dr. ROWLAND JONES.

An amendment was moved by Dr. ALDRICH to the effect

> That this meeting express no opinion on the matter.

The amendment, having been seconded by Mr. BONNEFIN, was passed by 19 votes to 5.

Dr. WISE proposed and Dr. HARDING TOMKINS seconded:

> That this meeting regards with deep concern the semblance of incipient divisions and conflicting counsels following upon the passage of the Insurance Bill into law leaving some of the six points still to be settled, and urges all the members of the Division to use every possible opportunity of making it clear to every one, lay and medical, that the profession is still resolutely determined to stand together in supporting the policy of the British Medical Association—that is, to demand these six points as the minimum of its requirements, and is still firmly resolved not to undertake any paid professional work under the Act unless and until these points are all clearly and satisfactorily settled in every part of the kingdom. And, further, this meeting pledges itself to use every endeavour to maintain unity of action within the area of the Division, and not to form or support any other association, union, or committee which might tend to divide the local profession.

He said his object in putting forward this resolution was to make it known among the general public that the medical profession was united and determined to secure the six points as a minimum. After some discussion, the words "leaving some of the six points still to be settled" were altered to "leaving our six points still incompletely settled," and the resolution was unanimously agreed to.

On the motion of Dr. HARFORD, seconded by Dr. ALDRICH, the following resolution was carried unanimously:

> This meeting urges upon the Council the great desirability of bringing home to every member of the profession in some short, simple, and easily understood form the fact that the Association has not departed in any way from the original policy, as outlined in the six cardinal points, and that if the remaining points are not satisfactorily obtained in the regulations, it will advise and support the profession to refuse to work the bill until such time as satisfactory arrangements have been arrived at all over the country.

STRATFORD DIVISION.

A MEETING of this Division was held on Thursday, January 11th, at 9.15 p.m., at the West Ham Hospital, Dr. SANDERS in the chair. Thirty-three members were present.

Confirmation of Minutes.—The minutes of the previous meeting were read and approved.

Surgical Treatment of Infantile Paralysis.—Mr. A. H. TUBBY gave a very interesting lecture on "The Surgical Treatment of Infantile Paralysis, including Muscle and Nerve Transference." A few members spoke afterwards, and Mr. TUBBY replied.

Vote of Thanks.—A very hearty vote of thanks on the motion of the CHAIRMAN, seconded by Dr. R. MILNE, was accorded.

MIDLAND BRANCH:

Nottingham Division.

A meeting to which all practitioners in the city of Nottingham were invited was held at the local offices of the Division, 64, St. James's Street, Nottingham, on January 18th. Dr. A. Fulton, Chairman of the Division, presided, and the meeting was largely attended.

National Insurance Act.—The business of the meeting was to consider conditions and terms of service under the National Insurance Act. The following resolutions were proposed by Mr. T. Davies Pryce, seconded by Dr. J. H. Johnson, and unanimously carried:

1. That in the opinion of this meeting it is highly dangerous to the interests of the profession to allocate the settlement of the two outstanding questions of wage limit and remuneration to the local committees as constituted under the National Insurance Act.
2. That this meeting affirms and adopts the policy embodied in the following resolutions:
   (1) That notice of the conditions and terms of service as arranged by this Branch be forwarded to the Council of the British Medical Association.
   (2) That this meeting strongly urges the Council immediately to obtain from all its Branches the terms and conditions of service as locally arranged.
   (3) That a Representative Meeting be called at as early a date as possible to consider the terms of service as formulated by the Branches.
   (4) That the Council and Representatives fix a minimum rate of remuneration for the whole country, subject to certain necessary local modifications.
   (5) That until a definite pronouncement upon these two points is forthcoming no member of this Branch shall consent to act on any of the local committees as constituted under the bill.
   (6) That the profession refuse to serve under the Act if their demands as formulated by the Central Authority be not granted.

The meeting was then adjourned till January 23rd, at 8.30 p.m., when it was arranged that the terms and conditions for local service under the Act should be discussed.

NORTH WALES BRANCH:

South Carnarvon and Merioneth Division.

An ordinary meeting of this Division was held at the Corsygedol Hotel, Barmouth, on Thursday, January 4th. Dr. H. R. Griffith, Chairman, who presided, explained the reasons for postponing the meeting until that date. There was a large attendance.

Confirmation of Minutes.—The minutes of the previous ordinary and special meetings were read and approved.

Apologies for Non-attendance.—Apologies were read from Dr. Jones (Festiniog), Dr. Lloyd Owen (Criccieth), Dr. Livingstone Davies (Criccieth), Dr. H. Jones Roberts (Penygroes), and Captain Beauchamp Williams, I.M.S. (Criccieth).

National Insurance Act.—Dr. Hugh Jones (Dolgelly), Deputy Representative to the Special Representative Meeting, gave an excellent account of the proceedings of that meeting and the position of the British Medical Association in regard to the Insurance Act. The following members took part in the discussion that followed; Dr. Vaughan Roberts (Festiniog), Dr. Lewis (Nevin), Dr. Rowlands (Llanaelhaiarn), Dr. Myles (Dolgelly), Dr. Dingle (Barmouth), Dr. Cox (Llanbedr), Dr. Pugh Jones (Barmouth), Dr. Edwards (Dolgelly), Dr. Jones (Penrhyndeudraeth), Dr. Wilbraham Griffith (Pwllheli), Dr. Rowlands (Towyn), and others. Dr. Jones (Penrhyn) proposed and Dr. John Jones (Dolgelly) seconded:

That the Manchester Resolution be rescinded.

This was carried. The following resolutions were passed unanimously:

1. That this meeting of members pledge themselves to adhere to the policy of the Association as embodied in the six cardinal points, and approve the resolutions of the Representative Body, Minutes 24, 47, 53. [Proposed by Dr. Hugh Jones (Dolgelly), seconded by Dr. Pugh Jones (Barmouth).]
2. That the members at this meeting do not approve the action of Council in sanctioning the appointment of Mr. Smith Whitaker without submitting the matter to the decision of the Representative Meeting.
3. That local Medical Committees be arranged throughout the area of the Divisions as soon as convenient to discuss the question of remuneration, mileage, operations, drugs, appliances, consultations, etc., and that the views of these Committees be submitted for consideration at the next meeting of the Division. [Proposed by Dr. Jones (Penrhyndeudraeth), seconded by Dr. Wilbraham Griffith (Pwllheli).]

Election of Representative at Chester Meeting.—Dr. Cox (Llanbedr) proposed and Dr. Williams (Barmouth) seconded:

That Dr. Hugh Jones (Dolgelly) be asked to represent and express the feeling of the Division to the meeting of general practitioners in North Wales at Chester.

This was carried.

Welsh National Memorial.—The relations which members consider should exist between the general practitioners and the dispensaries which are to be established for the treatment of tuberculosis were discussed. Dr. John Jones (Dolgelly) proposed and Dr. Pugh Jones (Barmouth) seconded:

That the matter be adjourned to the next meeting.

Vote of Thanks to Chairman.—A vote of thanks to the Chairman for presiding, proposed by Dr. Dingle (Barmouth), was carried unanimously.

SOUTHERN BRANCH:

Jersey Division.

The annual general meeting of this Division was held on Tuesday, January 16th, Dr. A. N. Symons, Chairman, presiding.

Confirmation of Minutes.—The minutes of the last annual meeting were read and confirmed.

Report of Executive Committee.—The annual report of the Executive Committee was read and approved, and was ordered to be printed for distribution among members.

Financial Report.—The Treasurer presented his financial statement for 1911, which was adopted.

Election of Officers.—The following were elected officers for the ensuing year: *Chairman*, A. N. Symons; *Vice-Chairman*, E. O. B. Voisin; *Honorary Secretary and Treasurer*, R. W. S. Walker, M.D.; *Representative on Branch Council*, H. C. Major, M.D.; *Executive Committee (ordinary members)*, F. Hardwood Hardman, M.D., and J. Leask, M.B.

SOUTH-WESTERN DIVISION:

East Cornwall Division.

The annual meeting of the Division was held at St. Petroc's Hotel, Bodmin, on January 10th, the following being present: Drs. Stephens, Hardwick, Anderson, Hingston, Dudley, Webb, Trinder, Derry, Wade, Pearse, and Salmon, jun. Dr. Webb was elected to the chair for the business of the meeting.

Confirmation of Minutes.—The minutes of the last meeting were read and approved.

Resignation of Representative.—Arising out of the minutes was a letter from Dr. Hammond, resigning his position as Representative for Representative Meetings. Dr. Hingston proposed, and Dr. Trinder seconded, that Dr. Hammond's resignation be accepted, and the meeting agreed.

Election of Officers.—The following officers were elected for the ensuing year: *Chairman*, Dr. Webb, proposed by Dr. Trinder, seconded by Dr. Hingston; *Vice-Chairman*, Dr. Wade, proposed by Dr. Hingston, seconded by Dr. Trinder; *Secretary and Treasurer*, Dr. Salmon, jun., proposed by Dr. Trinder, seconded by Dr. Derry; *Representative for Representative Meetings*, Dr. Webb, proposed by Dr. Trinder, seconded by Dr. Hardwick; *Representative on Branch Council*, Dr. Hingston, proposed by Dr. Pearse, seconded by Dr. Stephens. The appointment of delegates for interviewing parliamentary candidates was left open.

Vote of Thanks to Dr. Pearse.—Dr. Hingston, in proposing a hearty vote of thanks to Dr. Pearse for his work as Secretary to the Division during 1911, drew attention to the amount of work he had done, the time and energy he had devoted for the welfare of the Division at a critical time in its history. Dr. Trinder, in seconding the resolution, described Dr. Pearse as "indefatigable in his efforts on their behalf." The resolution was carried unanimously. Dr. Pearse, in reply, expressed the pleasure it had given him, and thanked the meeting for the consideration they had given him during his association with them.

Defence Fund.—Dr. PEARSE stated that he had written to head quarters at the wish of the last meeting to inquire if it were possible to do away with the local Defence Fund and transfer all the guarantees from it to the Central Defence Fund, as it had led to some confusion among members. He had received a letter in reply in the form of a circular, which might be sent to individual members, the substance of which proposed to do away with the local Defence Fund, and members could transfer their whole guarantee to the Central Fund. The meeting postponed the matter until further developments had taken place.

"Practitioner" Pledge.—A resolution was carried recommending all members and general practitioners to sign the *Practitioner* pledge.

Local Medical Committees.—A suggestion that a representative meeting of general practitioners in Cornwall be called to consider the question of formation of a local Medical Committee for defensive purposes as soon as possible terminated the proceedings.

ULSTER BRANCH.

THE autumn meeting of the Branch was held on Thursday, November 16th, 1911, in the Medical Institute, Belfast. Dr. CALWELL (Belfast) was in the chair; forty-nine members were present.

Confirmation of Minutes.—The minutes of the previous meeting were read and passed.

Apologies for Non-attendance.—Apologies were received from Drs. Shaw (Belfast) and Harris (Cookstown).

Installation of President.—The President-elect, Dr. J. G. Cooke (Londonderry) was then installed.

Vote of Thanks to Retiring President.—A vote of thanks to Dr. Calwell for his conduct in the chair during the preceding year was proposed by Dr. COOKE, seconded by Dr. MITCHELL, and passed with acclamation.

Report of Council.—The report of Council showed that two meetings had been held since the last general meeting, and ten new members had been elected.

President's Address.—Dr. COOKE gave a most interesting address on the history of medicine, as illustrated by the careers of several great surgeons and anatomists.

Vote of Thanks.—On the motion of Sir JOHN BYERS (Belfast), seconded by Dr. THOMPSON (Omagh), a vote of thanks was passed to the President for his interesting address.

Cases.—Mr. MITCHELL showed seven recent cases of gastro-enterostomy, all of which had done extremely well. Mr. Mitchell also showed a patient on whom he had operated for perforating typhoid ulcer with complete success. Dr. DARLING showed a patient a year after the performance of excision of the rectum for cancer: patient was in good health and without recurrence. Mr. HANNA showed: (1) A case of trachoma with an unusual form of pannus, treated by operation; (2) a case of sympathetic ophthalmia following perforating phlyctenular ulcer. Mr. FULLERTON showed a case of plastic operation on eyelid.

National Insurance Bill.—The HONORARY SECRETARY made a statement on the present position of the National Insurance Bill as it applied to Ireland, and gave an account of what had been done in the interests of the profession by the Insurance Committee appointed at the July meeting of the Branch and by the Conjoint Committee for Ireland. A number of questions were put as to the present position of the Irish profession under the Act; and these were replied to by the SECRETARY and by Dr. DARLING.

Tea.—Through the kindness of the President (Dr. Cooke) the members present were given tea before the meeting.

BRITISH GUIANA BRANCH.

THE following are the office-bearers of the Branch for the year 1912: *President*, E. H. Gewand, L.R.C.P., L.R.C.S., L.F.P. and S.; *Vice-Presidents*, W. J. von Winckler, M.R.C.S., A. T. Ozzard, M.R.C.S.; *Council*, W. J. Duncan, M.B., B.S., K. S. Wise, M.B., B.S., B.Sc., D.P.H., F. R. Edmonds, M.R.C.S., W. H. Wharton, L.R.C.P., L.R.C.S., L.F.P. and S.; *Auditors*, W. J. Duncan, M.B., B.S., T. B. MacQuaide, M.D., B.S.; *Honorary Secretary*, T. B. MacQuaide, M.D., B.S.; *Assistant Secretary*, Robert E. Allison.

TRANSVAAL BRANCH.

THE annual general meeting of the Branch was held in Pretoria on December 20th, 1911.

Election of Officers.—The following officers were elected for the ensuing year: *President*, Dr. G. E. Murray (Johannesburg); *Vice-President*, Dr. Boyd (Pretoria); *Honorary Secretary*, Dr. Jefferies (Pretoria Hospital); *Honorary Treasurer*, Dr. T. Water (Pretoria); *Members of Council*, Sir Kendal Franks, Dr. Maynard (Johannesburg), Dr. Dunstan (Pretoria), Dr. Troup (Pretoria).

To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.

Association Notices.

COUNCIL MEETING.

THE Quarterly Meeting of the Council will be held at 2 o'clock in the afternoon of Wednesday, January 31st, in the Council Room at 429, Strand, London, W.C.

By Order,

GUY ELLISTON,
Financial Secretary and Business Manager.

January 4th, 1912.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

A LIST of periodical publications, official reports, and Blue Books in the Library of the British Medical Association available for issue to members on loan has been printed, and copies can be obtained free on application to the Librarian, at the house of the Association, 429, Strand, W.C. The regulations governing the loan of these publications are stated in the introduction to the list.

The Library is open for consultation from 10 a.m. till 5 p.m. (on Saturdays till 2 p.m.).

BRANCH AND DIVISION MEETINGS TO BE HELD.

BIRMINGHAM BRANCH: CENTRAL DIVISION.—A general meeting will be held at the Medical Institute on Wednesday, February 14th, at 4 p.m., to elect three Representatives and to conduct other business.—W. TRACY LYDALL, B. C. R. ALDREN, Honorary Secretaries.

SOUTH-EASTERN BRANCH: BRIGHTON DIVISION.—On Wednesday, February 7th, a scientific meeting will take place, at which Sir Victor Horsley has promised to read a paper. Further particulars will be announced in due course.—C. H. BENHAM, Honorary Secretary.

SOUTH-EASTERN BRANCH: BROMLEY DIVISION.—A meeting of the Division will be held at the Bell Hotel, Bromley, on Thursday, February 1st, at 8.30 p.m. All members of the profession resident and practising within the area of the Division are requested to attend and to take part in the discussion. Agenda: (1) Report of Representative of Special Representative Meeting. (2) The following motions will be put:

(*a*) That it be the first business of the Special Representative Meeting (to be held in February, 1912) to ask Dr. Maclean to resign the chairmanship of the Representative Meetings, and that the Representatives forthwith proceed to elect a chairman.
(*b*) Representative Meetings—alteration of Standing Orders. That voting on all matters sent down by the Council for the consideration of Divisions be taken by means of card vote.
(*c*) That the Bromley Division reaffirms its adherence to the six cardinal principles as embodying the minimum demands of the profession.
(*d*) That the deletion of the Harmsworth Amendment by the Insurance Commissioners be incorporated in the six cardinal principles under (1) free choice of doctor, and (2) abolition of friendly society control.
(*e*) That the Bromley Division decline to take any part in the formation of a panel of doctors until the six cardinal principles have been accepted by the Insurance Commissioners.
(*f*) That the Bromley Division decline to have any negotiations with the Insurance Committees until a favourable reply has been received by the Association from the Insurance Commissioners regarding the six cardinal principles.
(*g*) That the South-Eastern Branch Council be requested to call a meeting of delegates from all Divisions in Kent at a near date with the view of arriving at a common understanding regarding the Insurance Act prior to the Special Representative Meeting.
(*h*) Preliminary discussion regarding method and rate of remuneration.

—A. TENNYSON SMITH, Honorary Secretary.

MEMBERS ELECTED TO THE BRITISH MEDICAL ASSOCIATION

(OCTOBER 13TH, 1911, TO JANUARY 18TH, 1912).

(FIRST LIST.)

BY THE COUNCIL.

Babington, Harold Hubert, Surgeon R.N., L.R.C.P.E., L.R.C.S.E., L.F.P. and S.G.
Browne, Edward Moxon, M.R.C.S.Eng., L.R.C.P.Lond., Surgeon R.N.
Hall, Sydney Octavius, Major R.A.M.C., L.R.C.P. and S.Edin., L.F.P. and S.Glas.
Jennings, William Oscar, M.D.Paris, M.R.C.S. Eng., 3, Route de la Croix, Le Vesinet, France
Jeudwine, Wilfrid Wynne, Captain I.M.S., M.B., B.C.Cantab.
Moss, Charles Frederick Arrowsmith, M.D. Edin., M.R., C.M., Tananarivo, Madagascar
Palit, Anath Nath, F.R.C.S., Lieutenant I.M.S.
Scaife, Cecil, Captain R.A.M.C., B.A., M.D., D.P.H.
Stallybrass, Theodore William, M.B., B.S., Lieutenant R.A.M.C.

BY BRANCH COUNCILS.

Aberdeen Branch.

Beveridge, A. T. G., M.B., Central Police Chambers, Aberdeen
Calder, N. J., M.B., Anatomical Department, Marischal College, Aberdeen
Carmichael, Duncan, M.B., Norwoodville, Boddam, S.O.
Croll, W. F., M.D., 41, Albert Street, Aberdeen
Johnston, John, M.B., 55, Holburn Street, Aberdeen
Maitland, C. D., M.B., Royal Hospital for Sick Children, Aberdeen
Nicol, Patrick, M.D., County Buildings, Aberdeen
Philip, Frederick, M.B., 183, Great Western Road, Aberdeen
Robertson, J. D., M.B., The Falls, Glenlivet
Turner, E. R., M.B., Ashfield, Kintore
Watt, Jas., M.B., Public Health Department, Marischal College, Aberdeen
Williamson, G. A., M.D., 10, Bayview Road, Aberdeen

Bath and Bristol Branch.

Aldridge, F. J., M.B., Park House, Glastonbury
Alford, H. T. M., Esq., Stafford Lodge, Weston-super-Mare
Aubrey, T., M.B., Bitton, near Bristol
Bacque, W. J., Esq., Pierrepont House, Bath
Benson, J. R., F.R.C.S., 11, Circus, Bath
Bernard, Claude, Esq., 702, Fishponds Road, Bristol
Bolt, R. A., Esq., General Hospital, Bristol
Cassels, Thos., Esq., 14, St. James's Square, Bristol
Clarke, R. C., M.B., Amherst House, Clifton Park, Bristol
Clarke, W. J., Esq., 11, Whiteladies Road, Clifton
Dermott, E. J., Esq., 702, Fishponds Road, Bristol
Finzel, H., M.D., Newbridge Road, St. Anne's Park, Bristol
Fligg, W., M.B., 2, Albert Quadrant, Weston-super-Mare
Gough, B. B., Esq., Compton Martin, near Bristol
Gerrish, D. Smith, Esq., 330, Church Road, St. George, Bristol
Green, G. S., Esq., Walliscote Lodge, Weston-super-Mare
Grieves, J. B., Esq., Fairlawn, Portishead
Harper, J. Maurice, Esq., 3, Grosvenor Place, Bath
Harvey, C. R., M.B., 27, Seymour Road, Bishopston, Bristol
Harvey, T. Reginald, Esq., Comptons, Broad Hinton, Swindon
Howse, A. E., Esq., Delamere, Nunney, Frome
Huston, J. J., Esq., Peasedown St. John, Bath
Irwin, S., M.B., Olveston
Jarvis, John, Esq., 38, Gay Street, Bath
Kemm, F. St. J., M.D., Worle
King, R. de Vell, Esq., West Lodge, Frome
Lewis, D. J., Esq., Glendower, Winscombe
Lindsay, Jas., M.D., 24, Bennett Street, Bath
MacWatters, J. C., Esq., Almondsbury
Marle, S., Esq., General Hospital, Bristol
Marsden, W. H., Esq., Tintagel, Weston-super-Mare
Mason, P. W., M.B., Park House, Swindon
Morris, C. G., Esq., Combe Down House, Bath
Morris, L. N., Esq., 263, Stapleton Road, Bristol
Peters, B. A. I., M.B., Ham Green Hospital, Bristol
Phelps, H. L., Esq., 20, Elton Terrace, Bishopston, Bristol
Pickin, F. H., Esq., General Hospital, Bristol
Powell, J. J., M.B., Highworth
Pratt, Dr., General Hospital, Bristol
Rolfe, Richard, M.B., Park House, Avonmouth
Rudge, C. King, Esq., 145, Whiteladies Road, Clifton
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CENTRAL MIDWIVES BOARD.

A meeting of the Central Midwives Board was held at Caxton House, Westminster, on January 18th, with Sir Francis H. Champneys in the chair.

Certificate of Birth.

A letter was considered from the Director of Public Prosecutions with regard to the case of a woman who had tendered a false and fraudulent certificate of birth with the object of being accepted as a candidate at the examination of December 15th, 1911. The Board decided that the Director of Public Prosecutions be thanked for his letter, and that he be informed that the Board acquiesced in the course which he proposed to adopt.

Mistake at Examination.

A letter was considered from Mr. T. H. Barlow, of 30, Rodney Street, Liverpool, with regard to the difficulty which arose through a mistake having been made at the October examination at Manchester. The Secretary presented a draft reply which, after discussion and amendment, was approved by the Board.

Insurance Act.

Sir George Fordham asked leave to propose that application should be made to the Insurance Commissioners that their draft regulations in regard to maternity benefit should be sent to the Central Midwives Board with a view to the Board's making any observations upon them. The Chairman admitted the resolution as a matter of urgency, and it was agreed that the request should be preferred to the Commissioners through the Privy Council.

Naval and Military Appointments.

ROYAL NAVAL VOLUNTEER RESERVE.

Surgeon Walter Kenneth Wills, M.B., to be Staff Surgeon, dated January 8th.

Surgeon Frank Wybourn Smith to be Staff Surgeon, dated January 15th, 1912.

ARMY MEDICAL SERVICE.

Surgeon-General W. Babtie, V.C., has been promoted to that rank after holding it temporarily since he was made Deputy Director-General, Army Medical Service, in 1910.

Colonel W. G. A. Bedford, C.M.G., late Principal Medical Officer, Hong Kong, has assumed the appointment of Principal Medical Officer, London District.

Royal Army Medical Corps.

Lieutenant-Colonel C. Birt, at Dublin, has been appointed a member of the Army Advisory Board as expert in Tropical Disease.

Lieutenant-Colonel F. P. Nichols, now at Jersey, is to take over medical charge at Bodmin.

Lieutenant-Colonel T. B. Winter has vacated his appointment on the London Recruiting Staff, and taken up duty at Colchester.

Lieutenant-Colonel S. Westcott, C.M.G., has arrived in the Scottish Command from India, and on January 1st assumed charge of the Military Hospital, Edinburgh.

Lieutenant-Colonel C. A. Lane, from Hounslow, who has been appointed to India, will embark on February 27th.

Supernumerary Lieutenant-Colonel Charles C. Reilly is restored to the Establishment, vice H. C. Thurston, C.M.G., supernumerary, dated December 20th, 1911.

Major Arthur E. Thorp retires, receiving a gratuity.

Major A. Chopping, from Cherat, has been appointed to the Eastern Command on duty.

Major A. J. MacDougall has been ordered home from Ceylon to take over duty at Belfast.

Major F. S. Irvine from Aldershot has taken up the appointment of Assistant to the Commandant of the Royal Army Medical College.

Major C. F. Wanhill has vacated the appointment as Assistant Professor of Hygiene at the Royal Army Medical College, and left for India.

Major A. C. Fox, from Tientsin, has been appointed to Dublin for duty from February 1st.

Major W. Egan has been granted eight months' general leave, and to revert to Home Establishment on expiration thereof.

Captains H. L. Howell and W. C. Smales have each been granted eight months' leave from India.

Captain H. G. Sidgwick, from Jamaica, has been appointed to London for duty.

Captain V. T. Carruthers, from Ceylon, will join at Cork for duty, January 19th.

Captain M. B. H. Ritchie has been granted general leave for six months and five days.

Captain Herbert O. M. Beadnell, from the Half-pay List, is restored to the Establishment, dated January 17th, 1912.

Captain R. L. Argles is appointed to the medical charge of the 23rd Fortress Company, 3rd Sappers and Miners, of the Southern Army, India, in addition to his own duties, vice Captain A. D. O'Carroll, R.A.M.C., relieved.

The undermentioned Captains to be Majors: C. S. Smith, M.B., A. E. Carlyon, W. C. Cholmeley (December 31st, 1911), P. H. Henderson, M.B., Wm. H. Spiller, M.B., A. D. Jameson, B. B. Burke, W. F. Fry, P. C. Douglas (December 21st, 1911).

Lieutenant J. Gilmour is seconded for service under the Foreign Office, December 8th, 1211.

Lieutenant J. A. Manifold, who has been serving in Scotland, left for Bermuda for a tour of service on January 1st.

Lieutenants E. S. Calthorp and R. T. Vivian, on arrival in Ireland for duty, are posted to the Dublin District, and Lieutenants H. J. G. Wells and W. L. Webster to the Cork District.

INDIAN MEDICAL SERVICE.

Lieutenant-Colonel H. B. Melville, M.B., Civil Surgeon at East Simla, has been appointed to the medical charge of the Army Head Quarters Staff and Establishment, remaining at Simla during the winter.

Major R. Brysom, I.M.S., to be District Medical and Sanitary Officer, Tinnevelly, with medical charge of District Jail, Palamcottah, Madras.

Major C. Hudson, D.S.O., I.M.S., has been granted leave of absence out of India for eighteen months.

Captain P. Hafferman, I.M.S., to be Lecturer on Mental Diseases, Medical College, and Superintendent of the Lunatic Asylum, Madras.

Captain B. B. Paymaster, I.M.S., is granted leave of absence up to two years.

Captain F. W. Summer, I.M.S., Officiating Civil Surgeon, Second Class, to be substantive *pro tempore* in that department.

Captain R. T. Wells, I.M.S., Officiating Civil Surgeon, Dera, Ghazi Khan, is appointed Plague Medical Officer, Rohtak, from October 28th, 1911, relieving Captain S. B. Mehta, I.M.S., whose services were placed at the disposal of the Government of India, Department of Education, from the same date.

Captain W. W Jendwine, I.M.S., Officiating Civil Surgeon, Multan, is appointed Plague Medical Officer, Rawal Pindi, from November 16th, 1911.

Captain S. H. Lee Abbott, I.M.S., Civil Surgeon, Dalhousie, is appointed Civil Surgeon, Ferozepore, from November 14th, 1911, relieving Lala Mava Das, transferred.

Captain W. D. A. Keys, I.M.S., has been appointed Civil Surgeon, Karwar.

Captain Wm. Houston, I.M.S., has been appointed Medical Officer, Kathlawar Political Agency, and in charge of West Hospital, Rajkot.

Captain F. H. Shea has been appointed a Specialist in Advanced Operative Surgery, 3rd (Lahore) Division.

Captain Tucker, I.M.S., has been granted fifteen months' leave.

Captain D. M. C. Church, I.M.S., has been granted leave for one year out of India.

Lieutenant A. L. Sheppard, I.M.S., has been appointed to the medical charge of the 122nd Rajputana Infantry.

The undermentioned officers of the Indian Medical Service, having completed their courses at the Royal Army Medical College and at Aldershot, have been finally admitted to the service: Edward Slade Goss and Percival Connellan.

Volunteer Department.

Surgeon-Lieutenant-Colonel James William Field, V.D., has resigned his commission in the Great Indian Peninsula Railway Rifle Volunteer Rifle Corps.

TERRITORIAL FORCE.

Royal Army Medical Corps.

Second East Lancashire Field Ambulance.—Major William R. Pritchard to be Lieutenant-Colonel, dated November 18th, 1911. Lieutenant George A. Jelly resigns his commission, dated January 20th, 1912.

First West Lancashire Field Ambulance.—Honorary Lieutenant Charles G. Bishop resigns his commission, dated January 20th, 1912.

First South Midland Field Ambulance.—George Henry Dawes (late Lieutenant, North Midland Divisional Transport and Supply Column, Army Service Corps) to be Transport Officer with the honorary rank of Captain, dated October 12th, 1911.

Second Welsh Field Ambulance.—Lieutenant Henry John Dunbar, M.B., from the 3rd Lowland Field Ambulance, to be Lieutenant, dated January 20th, 1912.

Fourth London General Hospital.—Major Sir Hugh R. Beevor, Bart., M.D., resigns his commission, dated January 20th, 1912.

Second Western General Hospital.—Lieutenant Henry Herbert Rayner, M.B., F.R.C.S.Eng., from the 3rd East Lancashire Field Ambulance, to be Captain, dated January 20th, 1912.

Captain Henry Wade, M.D., F.R.C.S., serving with the Edinburgh University Contingent, Senior Division, Officers' Training Corps, resigns his commission, dated January 20th, 1912.

For Attachment to Units other than Medical Units.—Surgeon-Captain Robert J. R. C. Simons, from the Glamorgan Royal Garrison Artillery, to be Captain, dated January 20th, 1912.

Territorial Decoration.

The Territorial Decoration has been conferred upon the undermentioned officers, who have been duly recommended for the same under the Royal Warrant dated August 17th, 1908:

First Lowland Field Ambulance.—Lieutenant-Colonel William Francis Somerville, M.D.

First Eastern General Hospital.—Colonel Joseph Griffiths, M.D.

Vital Statistics.

VITAL STATISTICS OF LONDON DURING THE FOURTH QUARTER OF 1911.

[Specially Reported for the "British Medical Journal."]

In the accompanying table will be found summarized the vital statistics of the metropolitan boroughs and of the City of London, based upon the Registrar-General's returns for the fourth quarter of the year. The mortality figures in the table relate to the deaths of persons actually belonging to the several boroughs, and are obtained by distributing the deaths in institutions among the boroughs in which the deceased persons had previously resided. The 27,018 births registered in London during the three months under notice were equal to an annual rate of 24.0 per 1,000 of the population, estimated at 4,522,628 persons in the middle of last year; in the corresponding quarter of the three preceding years the rates were 26.9, 24.9, and 24.6

Analysis of the Vital Statistics of the Metropolitan Boroughs and of the City of London after Distribution of Deaths occurring in Public Institutions during the Fourth Quarter of 1911.

BOROUGHS.	Estimated Population middle of 1911.†	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Infectious Diseases.	Deaths from Principal Infectious Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Enteric Fever.	Diarrhœa and Enteritis (Under 2 Years).	Phthisis.	Deaths of Children Under 1 Year of Age to 1,000 Registered Births.
COUNTY OF LONDON	4,522,628	27,018	16,143	24.0	14.3	0.98	1,103	—	140	45	190	89	57	582	1,573	113
Paddington	142,541	651	446	18.3	12.5	0.87	31	—	4	1	5	1	1	19	33	112
Kensington	172,296	694	501	16.2	11.7	0.67	29	—	1	1	5	—	4	18	41	111
Hammersmith	121,837	710	431	23.4	14.2	0.96	29	—	—	2	7	—	3	17	44	96
Fulham	153,726	951	536	24.8	14.0	0.97	37	—	1	1	12	3	3	17	61	108
Chelsea	66,218	264	227	16.0	13.8	0.78	13	—	—	—	2	4	—	7	24	117
City of Westminster ...	159,709	512	507	12.9	12.7	0.49	19	—	1	2	7	—	—	9	50	109
*St. Marylebone ...	117,844	980	426	33.3	14.5	0.61	18	—	—	4	—	1	1	12	44	52
Hampstead	85,599	288	214	13.5	10.0	0.42	9	—	—	—	6	—	1	2	12	97
St. Pancras	218,031	1,260	807	23.2	14.8	0.82	44	—	1	5	9	5	3	21	86	126
Islington	327,234	1,834	1,149	22.5	14.1	0.85	69	—	4	5	20	1	4	35	97	105
Stoke Newington ...	50,669	224	163	17.7	12.9	0.56	7	—	1	1	2	—	1	2	11	107
*Hackney	222,674	1,303	794	23.5	14.4	0.74	41	—	—	1	8	3	4	25	87	110
*Holborn	49,084	334	201	27.3	16.4	0.64	8	—	2	—	1	1	2	2	31	75
*Finsbury	87,639	778	415	35.6	19.0	1.02	22	—	—	3	3	3	3	10	36	104
City of London	19,475	126	66	25.9	13.6	0.42	2	—	—	—	1	1	—	—	7	40
Shoreditch	111,284	831	497	29.9	17.9	1.58	44	—	2	2	9	3	1	27	45	154
Bethnal Green	128,247	902	511	28.2	16.0	1.03	33	—	3	2	5	2	1	20	47	152
*Stepney	279,560	2,121	1,053	30.4	15.1	0.92	65	—	1	1	8	6	1	48	109	112
Poplar	162,290	1,235	672	30.5	16.6	1.53	62	—	—	3	13	14	8	24	59	143
Southwark	191,595	1,285	877	26.9	18.4	1.32	63	—	19	—	8	10	1	25	90	146
Bermondsey	125,840	927	551	29.5	17.6	1.40	44	—	7	—	2	3	1	31	59	156
*Lambeth	298,032	2,043	1,130	27.5	15.2	1.08	80	—	7	2	14	11	4	42	125	105
Battersea	167,765	980	538	23.4	12.9	0.93	39	—	3	—	3	2	2	29	60	108
Wandsworth	313,389	1,538	867	19.7	11.1	0.87	68	—	—	4	7	5	3	49	68	111
Camberwell	261,407	1,483	913	22.8	14.0	0.85	55	—	19	1	5	2	—	28	92	101
Deptford	109,475	704	449	25.8	16.5	2.93	80	—	47	2	6	5	1	19	35	148
Greenwich	98,982	634	381	22.3	15.9	2.00	48	—	16	2	6	1	1	22	40	129
Lewisham	161,677	825	452	20.5	11.2	0.70	29	—	1	—	11	1	3	13	26	87
Woolwich	121,509	701	369	23.1	12.2	0.50	15	—	—	—	5	1	—	9	54	70

* No correction is made for births in lying-in institutions; the boroughs principally affected are marked thus (*).
† Calculated from the unrevised returns of the recent census.

The lowest birth-rates last quarter were 12.9 in the City of Westminster, 13.5 in Hampstead, 16.0 in Chelsea, 16.2 in Kensington, and 17.7 in Stoke Newington, while among the highest rates were 29.5 in Bermondsey, 29.9 in Shoreditch, 30.4 in Stepney, 30.5 in Poplar, and 35.6 in Finsbury.

During last quarter the deaths of 16,143 London residents were equal to an annual rate of 14.3 per 1,000, against 15.6, 14.4, and 15.8 in the fourth quarter of the three preceding years. The death-rates last quarter ranged from 10.0 in Hampstead, 11.1 in Wandsworth, 11.2 in Lewisham, 11.7 in Kensington, and 12.2 in Woolwich, to 16.6 in Poplar, 17.6 in Bermondsey, 17.9 in Shoreditch, 18.4 in Southwark, and 19.0 in Finsbury.

The 16,143 deaths from all causes included 1,103 which were referred to the principal infectious diseases; of these, 140 resulted from measles, 45 from scarlet fever, 190 from diphtheria, 89 from whooping-cough, 57 from enteric fever, and 582 (among children under 2 years of age) from diarrhœa and enteritis. The deaths from diphtheria were slightly in excess of the average number for the corresponding period of the five preceding years, while those from measles, scarlet fever, whooping-cough, and enteric fever were below the average. The lowest death-rates from these infectious diseases in the aggregate were recorded in the City of London and Westminster, and in Hampstead, Stoke Newington, and Woolwich; and the highest rates in Shoreditch, Poplar, Southwark, Bermondsey, Deptford, and Greenwich. The greatest proportional mortality from measles was recorded in Holborn, Southwark, Bermondsey, Camberwell, Deptford, and Greenwich; from scarlet fever in St. Marylebone, St. Pancras, Stoke Newington, Finsbury, and Greenwich; from diphtheria in Hammersmith, Fulham, Hampstead, Islington, Shoreditch, Poplar, Greenwich, and Lewisham; from whooping-cough in Chelsea, Finsbury, the City of London, Poplar, Southwark, Lambeth, and Deptford; from enteric fever in Kensington, Hammersmith, Holborn, Finsbury, and Poplar; and from diarrhœa and enteritis (among children under 2 years of age) in Shoreditch, Bethnal Green, Stepney, Bermondsey, Battersea, Wandsworth, Deptford, and Greenwich.

During the quarter under notice the deaths from phthisis among London residents numbered 1,573, and were equal to an annual death-rate of 1.40 per 1,000; the rates in the corresponding quarters of the three preceding years were 1.54, 1.43, and 1.41 per 1,000 respectively. The death-rates from this disease last quarter ranged from 0.56 in Hampstead, 0.65 in Lewisham, 0.87 in Stoke Newington and in Wandsworth, 0.93 in Paddington, and 0.95 in Kensington to 1.67 in Greenwich, 1.68 in Lambeth, 1.78 in Woolwich, 1.88 in Southwark and in Bermondsey, and 2.53 in Holborn.

Infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to 113 per 1,000, the rates in the fourth quarters of the three preceding years being 123, 116, and 128 per 1,000. Among the boroughs in which the lowest rates were recorded were 40 in the City of London, 70 in Woolwich, 75 in Holborn, 87 in Lewisham, 96 in Hammersmith, and 97 in Hampstead; while the highest rates recorded were 143 in Poplar, 146 in Southwark, 148 in Deptford, 152 in Bethnal Green, 154 in Shoreditch, and 156 in Bermondsey.

HEALTH OF ENGLISH TOWNS.

In ninety-four of the largest English towns 7,638 births and 4,979 deaths were registered during the week ending Saturday last, January 20th. The annual rate of mortality in these towns, which had been 15.3 and 15.4 per 1,000 in the two preceding weeks, declined to 14.8 per 1,000 in the week under notice. In London last week the death-rate did not exceed 14.0 per 1,000, against 15.5 and 14.5 in the two preceding weeks. Among the ninety-three other large towns the death-rates ranged from 5.2 in Gloucester, 8.7 in Acton, 9.1 in Ipswich, 9.4 in Leyton, 9.8 in Lincoln, and 10.1 in Aberdare to 21.2 in West Hartlepool, 21.3 in Walsall, 22.7 in Merthyr Tydfil, 25.0 in West Bromwich, 26.3 in Dewsbury, and 30.4 in Dudley. Measles caused a death-rate of 1.1 in Manchester, 1.3 in Norwich, and 1.4 in Warrington and in Burnley; whooping-cough of 1.3 in Gateshead, 1.6 in St. Helens, 1.9 in Gillingham and in Merthyr Tydfil, 2.0 in Barnsley, 2.3 in Edmonton, and 2.8 in Walsall: and diphtheria of 1.1 in Tottenham and 2.9 in Gillingham. The mortality from enteric fever and scarlet fever showed no marked excess in any of the large towns. One fatal case of small-pox was registered in London, but none in any other of the large towns. The causes of 51, or 1.0 per cent., of the deaths registered in the ninety-four towns last week were not certified either by a registered medical practitioner or by a coroner after inquest, and included 10 in Birmingham, 4 in Stoke-on-Trent, 4 in Liverpool, and 3 each in Bootle, St. Helens, Preston, and Newport (Mon.). The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,914, 1,145, and 1,762 at the end of the three preceding weeks, had further declined to 1,654 on Saturday last; 162 new cases were admitted during the week, against 162, 193, and 165 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

In eighteen of the largest Scottish towns 1,024 births and 725 deaths were registered during the week ending Saturday last, January 20th. The annual rate of mortality in these towns, which had been 16.9 and 18.7 per 1,000 in the two preceding weeks, declined to 17.3 in the week under notice, but was 2.5 per 1,000 above the mean rate in the ninety-four large English towns. Among the several Scottish towns the death-rates ranged from 7.9 in Hamilton, 8.4 in Partick, and 9.2 in Falkirk, to 20.1 in Coatbridge, 22.0 in Greenock, and 26.4 in Ayr. The mortality from the principal infectious diseases averaged 2.5 per 1,000, and was highest in Ayr and Greenock. The 285 deaths from all causes recorded in Glasgow included 3 from enteric fever, 43 from measles, 1 from scarlet fever, 4 from whooping-cough, 3 from diphtheria, and 4 from infantile diarrhœa. Four deaths from measles were recorded in Greenock, 3 in Aberdeen, and 3 in Clydebank; 2 deaths from scarlet fever in Leith; 4 from diphtheria in Dundee; and 6 from whooping-cough in Aberdeen.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, January 13th, 683 births and 450 deaths were registered in the twenty-two principal districts of Ireland, as against 598 births and 413 deaths in the preceding period. The annual death-rate in these districts, which had been 18.2, 18.0, and 18.6 per 1,000 in the three preceding weeks, rose to 20.3 per 1,000 in the week under notice, this figure being 4.9 per 1,000 higher than the mean average death-rate in the ninety-four English towns for the corresponding period. The figures in Dublin and Belfast were 20.7 and 19.5 respectively, those in other districts ranging from 8.7 in Newry and 12.9 in Lurgan to 34.4 in Armagh and 54.6 in Kilkenny, while Cork stood at 25.2, Londonderry at 15.3, Limerick at 14.9, and Waterford at

19.0. The zymotic death-rate in the twenty-two districts averaged 1.3 per 1,000, or the same as in the preceding period.

During the week ending Saturday, January 20th, 566 births and 483 deaths were registered in the twenty-two principal districts of Ireland, as against 683 births and 450 deaths in the preceding period. The annual death-rate in these districts, which had been 18.0, 18.6, and 20.3 per 1,000 in the three preceding weeks, rose to 21.8 per 1,000 in the week under notice, this figure being 7.0 per 1,000 higher than the mean average death-rate in the ninety-four English towns for the corresponding period. The figures in Dublin and Belfast were 25.4 and 20.8 respectively, those in other districts ranging from 5.1 in Clonmel and 6.9 in Armagh to 38.6 in Lisburn and 49.6 in Kilkenny, while Cork stood at 19.7, Londonderry at 10.2, Limerick at 25.8, and Waterford at 17.1. The zymotic death-rate in the twenty-two districts averaged 1.8 per 1,000, as against 1.3 in the preceding period.

Hospitals and Asylums.

CUMBERLAND AND WESTMORLAND LUNATIC ASYLUM.

THE annual report of Dr. W. F. Farquharson, the Medical Superintendent of this asylum, for the year 1910 shows that on January 1st of that year there were 846 patients in the asylum, and on the last day of the year 842. The total cases under care during the year numbered 1,025, and the average number daily resident 853.

During the year 179 were admitted, of whom 174 were direct admissions. Of these latter, in 65 the attacks were first attacks within three and in 15 more within twelve months of admission; in 39 not-first attacks within twelve months, and in 4 more also within twelve months it was unknown whether the attacks were first or not; and in the remaining 51, including 10 congenital cases, the attacks were of more than twelve months' duration on admission.

The direct admissions were classified into: Recent mania, 60; chronic and recurrent, 10; recent melancholia, 42, and chronic, 5; senile and secondary dementia, 19; delusional insanity, 10; insanity with epilepsy, 9; general paralysis, 8; stupor, 1; and congenital defect, 10. As to causation, alcohol was assigned in 21, syphilis in 3, and influenza in 4; epilepsy in 13; various bodily affections in 4; critical periods in 22; child-bearing in 11, and mental stress in 16. An insane heredity was ascertained in 38 and an epileptic heredity in 3, whilst congenital defect was returned as cause in none.

During the year 68 were discharged as recovered, giving a recovery-rate on the direct admissions, and also of recoveries in and on the direct admissions, of 39.1 per cent.; also 20 as relieved and 17 as not improved. During the year, also, 78 died, giving a death-rate on the average numbers resident of 9.1 per cent. The deaths were due in 16 to diseases of the nervous system, including 11 from general paralysis; in 18 to diseases of the heart and blood vessels; in 1 each to bronchitis, empyema, and gangrene of lung; in 1 each to enteritis and peritonitis; in 2 to kidney disease; in 1 to suicide by hanging, and in the remainder to general diseases, including 3 from senile decay, 2 from colitis, and 12 from tuberculous diseases.

The general health was satisfactory throughout the year, but after many years' freedom from dysentery, 7 cases of this disease, of severe type, broke out during 1910.

DORSET COUNTY ASYLUM.

THE annual report for the year 1910 of Dr. P. W. MacDonald, the Medical Superintendent of this asylum, shows that on January 1st of that year there were 826 on the asylum registers, and 878 on the last day of the year. The total cases under care during the year numbered 1,046, and the average number daily resident 856. During the year 220 were admitted, of whom 120 were county cases, 37 out-county, and 55 private. But for the admission of an unusual number of aged cases there would have been an actual decrease of county patients in 1910. Of the total admissions, 158 were direct and 62 indirect admissions. Of the direct admissions, in 78 the attacks were first within three, and in 16 more within twelve months of admission; in 38 not-first attacks within twelve months, and also in 8 in whom it was not known whether the attacks were first or not; in the small remainder the attacks were of more than twelve months' duration, including 9 congenital cases and 4 in whom the attacks were of unknown duration. The direct admissions were classified according to the forms of mental disorder into:—Recent mania, 61, chronic and recurrent, 20; recent melancholia, 15, recurrent, 14; senile and secondary dementia, 21; general paralysis, 6; primary dementia, 5; delusional insanity and confusional insanity, 3 each; insanity with epilepsy, 1; and congenital defect, 9. Notwithstanding the large proportion of cases of recent mania, Dr. MacDonald describes the admissions as a whole as deplorably unfavourable. As to causation, alcohol was assigned in 16 of the direct admissions, or 10.1 per cent., and syphilis and influenza in 5 each: epilepsy in 14, critical periods in 63, including senility in 33, bodily trauma in 2, and mental stress in 28. An insane heredity was ascertained in 44, and a neurotic or eccentric heredity in 3. During the year 64 were discharged as recovered, giving a recovery-rate on the direct admissions of 41.02 per cent., or of recoveries in and on the direct admissions of 36.07 per cent.; also 6 as relieved and 17 as not improved. During the year 81 died, giving a death rate on the average numbers of 9.47 per cent. All deaths were from natural causes, and were due in 15 to nervous diseases, with only 4 from general paralysis; in 6 to diseases of the heart and blood-vessels; in 7 to diseases of the alimentary tract; in 23 to diseases of the respiratory system, including 11 from phthisis, and in the remainder to general diseases, including 24 from senile decay. The deaths from tuberculous diseases formed 14.8 per cent. of the total deaths.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

BARROW-IN-FURNESS: NORTH LONSDALE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Resident Surgical Officer. Salary, £100 per annum.

BRENTFORD UNION.—Medical Officer for the No. 8 (Hounslow) District. Salary, £175 per annum.

BRIDGWATER HOSPITAL.—House-Surgeon. Salary at the rate of £100 per annum.

BRISTOL CITY AND COUNTY.—Assistant Workhouse Medical Officer of the Stapleton and Eastville Workhouses and Receiving Homes for Children. Salary, £125 per annum.

BRISTOL ROYAL INFIRMARY.—(1) House-Physician; (2) Obstetric and Ophthalmic House-Surgeon; (3) Resident Casualty Officer. Salary at the rate of £100, £75, and £50 per annum respectively.

BRITISH LYING-IN HOSPITAL, Endell Street, W.C.—Resident Medical Officer. Salary at the rate of £50 per annum.

BUXTON: DEVONSHIRE HOSPITAL.—Assistant House-Physician. Salary, £100 per annum.

CAMBRIDGE: ADDENBROOKE'S HOSPITAL.—Second House-Surgeon. Salary, £80 per annum.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—(1) House-Surgeon (male); salary, £80 per annum. (2) Clinical Assistant.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—House-Physician (male). Salary at the rate of £75 per annum.

KILMARNOCK INFIRMARY.—House-Surgeon. Salary, £80 per annum.

LEEDS GENERAL INFIRMARY.—(1) Resident Ophthalmic Officer; (2) Resident Aural Officer; (3) Resident Ophthalmic and Aural House Surgeon. Salary for (1) and (2) £100 per annum, and for (3) £50 per annum.

LONDON COUNTY COUNCIL.—Women Medical Practitioners to be added to list of Lecturers in First Aid, Home Nursing, etc. Salary, £1 1s. a lecture.

MACCLESFIELD GENERAL INFIRMARY.—Junior House-Surgeon. Salary, £60 per annum.

MANCHESTER ROYAL INFIRMARY.—Medical Officer for Out-patients and Accidents to the Central Branch. Salary at the rate of £100 per annum.

MILDMAY MISSION HOSPITAL, Bethnal Green, E.—House-Surgeon (male). Salary at the rate of £70 per annum for first six months, rising to £80.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Resident Medical Officer. Salary, £100 per annum.

NEW HOSPITAL FOR WOMEN, Euston Road, N.W.—(1) Pathologist; (2) Assistant Pathologist; (3) Clinical Assistants to Out-patient Department.

NOTTINGHAM GENERAL DISPENSARY (BRANCH).—Assistant Resident Surgeon. Salary, £160 per annum.

NOTTINGHAM: RANSOM SANATORIUM FOR CONSUMPTIVES, Sherwood Forest.—Resident Medical Officer (female). Salary, £100 per annum.

PLAISTOW: ST. MARY'S HOSPITAL FOR WOMEN AND CHILDREN.—Surgeon in Charge of X-ray Department. Honorarium, £50 per annum.

PRINCE OF WALES'S GENERAL HOSPITAL, Tottenham, N.—Honorary Dental Surgeon.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone Road, N.W.—Resident Medical Officer for Out-patient Department, Salary at the rate of £60 per annum.

ROYAL WATERLOO HOSPITAL FOR CHILDREN AND WOMEN, S.E.—(1) Junior Resident Medical Officer. Salary at the rate of £50 per annum. (2) Honorary Surgeon to the Throat, Nose, and Ear Department. (3) Honorary Clinical Assistant to the Out-patient Staff.

ST. BARTHOLOMEW'S HOSPITAL, E.C.—Chief Assistants and Clinical Assistants.

ST. PANCRAS AND NORTHERN DISPENSARY, Euston Road, N.W.—Resident Medical Officer. Salary, £105 per annum and midwifery fees.

SALFORD COUNTY BOROUGH.—Assistant to Medical Officer of Health. Salary, £250 per annum, rising to £300.

SALFORD ROYAL HOSPITAL.—Casualty House-Surgeon (male). Salary at the rate of £50 per annum.

SALISBURY INFIRMARY.—Assistant House-Surgeon. Salary, £50 per annum.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Junior House-Surgeon (male). Salary, £80 per annum.

SUNDERLAND: CHILDREN'S HOSPITAL.—Resident Medical Officer (male). Salary at the rate of £80 per annum.

SUNDERLAND: ROYAL INFIRMARY.—Junior House-Surgeon (male) Salary at the rate of £80 per annum.

WEST HAM AND EASTERN GENERAL HOSPITAL, Stratford.—Junior House-Surgeon. Salary at the rate of £75 per annum.

WINCHESTER: ROYAL HAMPSHIRE COUNTY HOSPITAL.—House-Surgeon (male). Salary, £80 per annum.

ZANZIBAR PUBLIC HEALTH DEPARTMENT.—Health and Quarantine Officer. Salary, £620 per annum and a bonus of £400 on completion of service.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacant appointments; Narborough (Leicestershire), Newent (Gloucestershire).

APPOINTMENTS.

BAIN, Edward W., M.B., B.S., F.R.C.S., Aural Surgeon to the Leeds General Infirmary.

DAWSON, Guy de H., M.R.C.S., L.R.C.P., House-Surgeon at the Evelina Hospital for Children, Southwark Bridge Road, S.E.

DUNCAN, F. J. L., M.B., C.M.Glas., Certifying Factory Surgeon for the Stromness District, co. Orkney.

HARSTON, L. de C., F.R.C.S.Edin., Certifying Factory Surgeon for the Kingsbridge District, co. Devon.

HOSFORD, J. Stroud, F.R C.S.Edin., House-Surgeon to the Royal Eye Hospital, London.

JOHNSON, G. W., M.A., M.B., House-Surgeon to University College Hospital.

MAHOMED, H. J. Jan, M.D.Lond., F.R.C.S., Honorary Surgeon Jamshedji Jibibhai Hospital, Bombay.

MENZIES, James Morris, M.D., Medical Referee under the Workmen's Compensation Act for the Sheriffdom of Berwick, Roxburgh, and Selkirk, and to be attached more particularly to the County of Selkirk.

RANKINE, J. L., M.R.C.S., L.R.C.P., Medical Officer of Health for the Longtown District, Cumberland.

STEADMAN, F. St. J , D.P.H., M.R.C.S., L R.C.P., L.D S., Lecturer on Dental Histology, and also Tutor to the National Dental Hospital College.

TAYLOR, E. L., F.P.S.Glas., Certifying Factory Surgeon for the Longtown District, co. Cumberland.

THOMSON , A. M., M.B., B.Ch., R.U.I., Assistant Medical Officer to the County Asylum, Prestwich, Manchester.

VAUGHAN, A. L., M.R.C.S., L.R.C.P., Certifying Factory Surgeon for the Westhoughton District, co. Lancashire.

VEALE, Rawdon, A., B.A , M.D., B.S., M.R.C P., an Assistant Physician to the Leeds General Infirmary.

DERBYSHIRE ROYAL INFIRMARY.—The following appointments have been made:

House-Surgeon No. 1.—H. V. Welch, M.B., B.S.Lond., M.R.C.S. Lond., L.R.C.P.Lond.

House-Surgeon No. 2.—A. Ashton Smalley, M.B., Ch.B.Vict., M.R.C.S.Eng., L.R.C.P.Lond.

House-Physician.—H. L. Hopkins, M.B., B.S.Lond., M.R.C.S. Eng., L.R.C.P.Lond.

Assistant House-Surgeon.—O. E. Williams, M.R.C.S.Eng., L.R C.P.Lond.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

DEATHS.

BISS.—On January 20th, at 2, Melina Place, St. John's Wood, N.W., Cecil Yates Biss, M.D., F.R.C.P., late of 135, Harley Street, W., aged 66. Friends kindly accept this, the only intimation.

DAVIDSON.—On January 21st, at his residence, 15, Priory Row, Coventry, Charles Davidson, M.D., late R.N., in his 63rd year.

PUBLISHERS' ANNOUNCEMENTS.

MESSRS. P. BLAKISTON'S SON AND CO. announce the publication of a fifth edition of *Operative Surgery: a Manual for Practitioners and Students*, by John Fairbairn Binnie, Surgeon to the General Hospital, Kansas City. The work contains 1,365 illustrations, some of which are coloured.

The same firm announces the publication of a sixth edition of a work entitled *Retinoscopy (The Shadow Test) in the Determination of Refraction at One Meter Distance with the Plane Mirror*, by Dr. James Thorington, Professor of Diseases of the Eye in the Philadelphia Polyclinic.

Messrs. P. Blakiston's Son and Co. also announce a second edition of a *Compend of Genito-Urinary and Venereal Diseases and Syphilis*, by Charles S. Hirsch, M.D., formerly Assistant Genito-Urinary Surgery Department, Jefferson Medical College Hospital, Philadelphia. The book has a coloured frontispiece and 74 other illustrations.

Messrs. Longmans and Co. will issue the first volume of a new edition of the textbook of *Surgery* by Sir W. Watson Cheyne and Mr. F. F. Burghard, entirely revised and rewritten, with the assistance of Mr. T. P. Legg, M.S.Lond., and Mr. Arthur Edmunds, M.S.Lond., before the end of the present month. Volume II will appear in April next.

Messrs. Constable are about to publish a large and important work on *Post Mortems and Morbid Anatomy*, by T. Shennan, F.R.C.S.E., of Edinburgh University. The book contains the results of the most recent research, and is fully illustrated with photographs and coloured plates. The same firm has also in the press a new work by Sir Almroth E. Wright, to be entitled *Handbook of the Teat and Capillary Glass Tube and its Application in Medicine and Bacteriology*. This volume is a textbook for laboratory workers, while at the same time it is described as a critical text book. It is fully illustrated, and contains all the latest methods of quantitative blood analysis and the newest laboratory practice.

Messrs. J. and A. Churchill announce the following new publications: *Microbiology for Agricultural and Domestic Science Students*, by various contributors, edited by Charles E. Marshall, Professor of Bacteriology and Hygiene, Michigan Agricultural College. The work contains 128 text-figures. *Diseases of the Stomach*, with special reference to treatment, by Dr. Charles D. Aaron, Professor of Gastroenterology in the Detroit College of Medicine. The book contains 21 plates and 42 illustrations. *Who's Who in Science, 1912*, edited by H. H. Stephenson; an international biographical directory of the world's leading scientists. *The Annual Tables of Constants and Numerical Data*, chemical, physical and technological, under the authority of the International Congress of Applied Chemistry. The tables are intended to contain all the numerical data likely to be of interest in connexion with chemistry, physics, and allied sciences, pure and applied, to be found in the literature published during the previous year.

RECENT PUBLICATIONS.

International Clinics. Edited by Henry W. Cattell, A.M., M.D., with the collaboration of numerous authorities. Twenty-first series. Vol. i. Philadelphia and London: J. B. Lippincott Company. 1911. (Roy. 8vo, pp. 310, 31 plates, 6 figs. 35s. net per annum.)

This quarterly publication devoted to original articles of a clinical character on various subjects of medicine and surgery includes on this occasion a review of the progress during 1910 of treatment and of medicine and surgery by A. A. Stevens, J. Musser, and J. C. Bloodgood respectively. Among the ordinary papers are an account by Zeller of the spread of pellagra throughout the United States, of mosquito work in the canal zone by J. A. le Prince, two papers on poliomyelitis by C. K. Mills and J. S. Neff respectively, and one by Wechselmann on work with salvarsan. With the exception of the latter paper, the contents, which are well illustrated, are all of American origin.

Physiology of the Central Nervous System and the Special Senses. By N. J. Vazifdar, L.M. and S. Bombay: James and Sons. 1911. (Demy 8vo, pp. 107. Tables 10; figs. 1. Price 2s.)

A careful compilation from Halliburton, Schäfer, Howell, and Greenwood, originally drawn up for those of the author's pupils who were preparing for the intermediate M.B. and L.M. and S. examinations at Bombay University.

Reports from the Laboratory of the Royal College of Physicians, Edinburgh. Edited by Sir John Batty Tuke, M.D., and James Ritchie, M.D. Vols. x and xi. Edinburgh: Oliver and Boyd. 1911.

Vol. X brings up the account of the work of this laboratory to April, 1907. At that date Dr. Noël Paton resigned his appointment, and the preface contains an acknowledgement of the indebtedness of the laboratory to him for his services as superintendent during sixteen years. Vol. XI—considerably larger—carries on the record up to the end of last year. In contains forty-two papers, seven dealing with the subject of anatomy, three with pharmacology, two with physiology, and the rest with pathology. With one exception—an elaborate study of Mendelian action on differentiated sex by Dr. Berry Hart—the contents are reprints of papers published in various journals.

Solar Life. By Thomas May. London: Arthur Henry Stockwell. 1911. (Medium 16mo, pp. 47. Price 1s. net.)

A subtitle of this book is "How to Live Happy for Ever," but it is written in such fanciful language that it is not always easy to discern what the method of obtaining the result really is. It may be concluded, however, that the author has a sound knowledge of elementary physiology and of what is sometimes called physical self-culture, and that what he desires to advocate is plenty of open air, moderation in eating, drinking, and smoking, and strict attention to cleanliness, coupled with persistent belief that everything is for the best in this best of all known units of the general solar system.

DIARY FOR THE WEEK.

MONDAY.

KING'S COLLEGE, Strand, W.C., 4.30 p.m.—Dr. Otto Rosenheim: The Bearing on Chemical Physiology of Certain Pathological Questions.

THURSDAY.

HARVEIAN SOCIETY OF LONDON, Stafford Rooms, Titchborne Street, W.—Clinical meeting at the Paddington Green Children's Hospital at 8.15 p.m. Cases will be shown by members of the hospital staff. The chair will be taken at 9 p.m.

NORTH-EAST LONDON CLINICAL SOCIETY, Prince of Wales's Hospital, Tottenham, 4.15 p.m.—Clinical cases.

ROYAL SOCIETY, Burlington House, 4.30 p.m.—The following are among the list of probable papers:—J. H. Mummery: On the Distribution of the Nerves of the Dental Pulp. F. W. Twort and G. L. Y. Ingram: The Mycobacterium Pseudo-Tuberculosis Enteritidis Bovis Jöhne, and on a Diagnostic Vaccine for Pseudo-Tuberculous Enteritis of Bovines. J. Thompson: The Chemical Action of *Bacillus cloacae* (Jordan) on Glucose and Mannitol. Dr. F. W. Edridge-Green: Simultaneous Colour Contrast.

Royal Society of Medicine:

Obstetrical and Gynaecological Section, 11, Chandos Street, 8 p.m.—Specimens: Dr. Inglis Parsons: (1) Fibroid Tumour of the Uterus Undergoing Degeneration. (2) Fibroid Uterus Removed Twenty Years after Apostoli's Treatment. Dr. Dauber: Suppurating Ovarian Cystoma, with Sarcomatous Degeneration of the Wall. Dr. W. S. A. Griffith: (1) Assimilation Rachitic Pelvis. (2) Supravaginal Hysterectomy Performed in Place of Induction of Abortion in a Case of Repeated Melancholia of Pregnancy. Short Communication:—Dr. H. A. Colwell and Dr. Bryden Glendining: The Presence of Blood Pigment in the Faeces of the Newborn. Paper:—Dr. G. T. Western: The Treatment of Puerperal Septicaemia by Bacterial Vaccines.

FRIDAY.

King's College Hospital Medical Society, 8.20 p.m.—National Insurance in Relation to Hospitals.

Royal Society of Medicine:

Laryngological Section, 11, Chandos Street, W., 4.30 p.m.—Cases will be shown by Mr. Herbert Tilley, Dr. W. H. Kelson, and others.

Section of Anaesthetics, 15, Cavendish Square, W., 8.30 p.m.—Dr. F. S. Frew: The Significance of Acetonuria in Children. Mrs. Dickinson Berry: Notes of a Case of Post-anaesthetic Poisoning: and Report on Experiments on Animals by Dr. A. L. Muskens made to Investigate the After-effects of Chloroform. Mr. R. E. Apperley: Microscopical Specimens of Kidney and Liver from Cases of Post-chloroform Poisoning. Discussion on the Advisability of Rendering Official one or more of the Newer Local or Spinal Anaesthetics, introduced by the President.

University College, Gower Street, W.C., 5 p.m.—Second Page May Memorial Lecture by Dr. Henry Head, F.R.S.: The Afferent Nervous System.

West London Medico-Chirurgical Society, West London Hospital, W., 8 p.m.—Pathological Evening.

POST-GRADUATE COURSES AND LECTURES.

London School of Clinical Medicine, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.: Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat at noon and 4.30 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Tuesday, and noon, Friday. Eye, 11 a.m., Wednesday and Saturday. Radiography, Saturday, 10 a.m. Pathological Demonstration, Saturday, 11 a.m. Special Lectures: Monday, 2.15 p.m., Some Common Swellings of the Breast; Tuesday, 4.30 p.m., Functional and Organic Paralysis; Wednesday, 5 p.m., Surgical Demonstration or Lecture: Thursday, 4.30 p.m., Anaesthetics; Friday, 2.15 p.m., Arterio-sclerosis.

London School of Tropical Medicine, Seamen's Hospital, Albert Dock, E.—Lectures daily (Saturday excepted) at 12 and 4 p.m. Practical laboratory work daily (Saturday excepted), 10 to 12 a.m. Practical Protozoology, 2 to 3.30 daily; Advanced Protozoology, 10.30 to 1 p.m. daily. Medical Clinics, Monday and Thursday at 3 p.m. Operations, Friday, at 3 p.m.

Manchester: Ancoats Hospital Post-Graduate Clinic.—Thursday, 4.15 p.m., Gastric Ulcer.

Manchester Royal Infirmary.—Monday, 4.30 p.m., Some Varieties of Atrophic Paralysis. Friday, 4.30 p.m., An Analysis of Five Hundred Consecutive Operations for Acute Appendicitis, with Remarks on Diagnosis and Treatment.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Tuesday, 3.30 p.m.: Optic Atrophy. Friday, 3.30 p.m.: Peripheral Mechanism of Second Perception.

North-East London Post-Graduate College, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics; 10 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear; 3 p.m., Demonstration on Clinical and General Pathology. Tuesday, 2.30 p.m., Operations; Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient. Wednesday, 2 p.m., Throat Operations; 2.30 p.m., Medical Out-patient; Skin and Eye Clinics; X Rays; 3 p.m., Pathological Demonstration; 4.30 p.m., Lecture: Tumours of the Larynx; 5.30 p.m., Eye Operations. Thursday, 2.30 p.m., Gynaecological Operations. Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient; Pathological Demonstration.

West London Post-Graduate College, Hammersmith Road, W.—The following are the arrangements for next week: Daily arrangements, Medical and Surgical Clinics, 2 p.m.; X rays, 2 p.m.; Operations, 2 p.m. Monday: Gynaecology, 10 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday: Gynaecological Operations, 10 a.m.; Demonstration of Minor Operations, 11.30 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday: Gynaecological Demonstration, 10 a.m.; Lecture, Practical Medicine, 12.15 p.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday: Gynaecological Operations, 10 a.m.; Lecture, Practical Medicine, 12.15 p.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m. Lectures, at 5 p.m.: Monday, Clinical Lecture; Tuesday, The Use of Carbon Dioxide Snow; Wednesday, Practical Medicine; Thursday, Symptoms and Treatment of Gall Stones; Friday, Cases of Skin Disease.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
JANUARY.	
28 Sunday ..	
29 MONDAY ..	
30 TUESDAY ..	
31 WEDNESDAY	**London: Central Council, 2 p.m.** Bath and Bristol Branch, Clinical Meeting, Bristol.
FEBRUARY.	
1 THURSDAY ..	Bromley Division, *South-Eastern Branch*, Bell Hotel, Bromley, 8.30 p.m.
2 FRIDAY ..	
3 SATURDAY ..	
4 Sunday ..	
5 MONDAY ..	
6 TUESDAY ..	
7 WEDNESDAY	Brighton Division, *South-Eastern Branch*, Scientific Meeting, Oddfellows' Hall, Queen's Road, Brighton, 4.30 p.m.
8 THURSDAY ..	Birmingham Branch, Medical Institute, Edmund Street, 3.30 p.m.
9 FRIDAY ..	

Date.	Meetings to be Held.
FEBRUARY *(continued)*.	
10 SATURDAY ..	
11 Sunday ..	
12 MONDAY ..	
13 TUESDAY ..	London: Standing Ethical Subcommittee, 2 p.m.
14 WEDNESDAY	Central Division, *Birmingham Branch*, General Meeting, Medical Institute, 4 p.m.
15 THURSDAY ..	London: Metropolitan Counties Branch Council, 4 p.m.
16 FRIDAY ..	Newcastle-on-Tyne Division, *North of England Branch*, Scientific Meeting, 3.15 p.m. to 6 p.m.
17 SATURDAY ..	
18 Sunday ..	
19 MONDAY ..	
20 TUESDAY ..	
21 WEDNESDAY	Special Representative Meeting *(probably)*. Richmond Division, *Metropolitan Counties Branch*, Richmond, 8.30 p.m.
22 THURSDAY ..	
23 FRIDAY ..	Birmingham Branch, Pathological and Clinical Section, Medical Institute, Edmund Street, 8 p.m.
24 SATURDAY ..	

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SUPPLEMENT
TO THE
BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, FEBRUARY 3RD, 1912.

SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs. BY ORDER.

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MATTERS REFERRED TO DIVISIONS.

British Medical Association.

NATIONAL INSURANCE ACT.

NOTE.—In view of the grave importance and the far-reaching effects on medical practice in the future of the decisions now to be made by the profession, it is hoped that every Member of the Association will carefully study this Report before voting at his Division Meeting, at which instructions will be given to the Representative on the various points at issue).

REPORT OF COUNCIL.

INTRODUCTION.

Preparation of Report.

1. The Insurance Bill became law on December 16th, 1911, but copies of the Act were not procurable by the public till the end of the month. Steps were at once taken for the preparation of this Report and for the calling of a Special Representative Meeting on or about February 21st, 1912,* this being the earliest date which would give sufficient time for the preliminaries necessary for such an important Meeting. The Report had to be drafted by the State Sickness Insurance Committee, adopted and, where necessary, amended by the Council, and then published in the British Medical Journal in time to receive proper consideration by every member of the Association residing in the United Kingdom.

2. The Council recognises that many of the medical provisions of the Act are viewed with disapproval by a large proportion of the profession, on account of the widespread feeling of anxiety that the terms and conditions of service under the Act may be such as to imperil the livelihood and efficiency of the profession.

3. At this critical juncture every member must make himself acquainted with the medical clauses of the Act, and with the part played by the Association, through its Council, before those clauses were finally enacted. Members will then be able to appreciate the present position, and at their Divisional Meetings to decide on their future policy. The Representatives must have definite instructions as to which of the decisions of their Division are final, and which of them may be modified after hearing the opinions and arguments of the other Divisional Representatives at the forthcoming Special Representative Meeting. In this way the policy of the Association will be defined.

(I.)—RECORD OF ACTION OF COUNCIL UNDER THE INSTRUCTIONS OF THE REPRESENTATIVE BODY.

Past Approval of Council's Action.

4. The Annual Representative Meeting at Birmingham, July 21st-25th, 1911, approved the report of action taken by the Council up to that time to give effect to the instructions of the Special Representative Meeting of May 31st and June 1st, 1911. The Special Representative Meeting, held in London, November 23rd and 24th, 1911, approved the action taken previous to that Meeting. There is therefore on record continuous approval by the Representative Body of the action of the Council up to the latter date. In view of the misunderstandings which have occurred, it is thought desirable to place succinctly before the Divisions the main steps taken by the Representative Body in instructing the Council as to its line of action.

(*For full details of Minutes mentioned in following Summary see Appendix A, page* 124.)

* The Special Representative Meeting has now been fixed by the Council for February 20th and 21st.

Summary of Instructions of Representative Body.

Special Representative Meeting London, May 31st and June 1st, 1911.

(*a*) Approval of general objects of Bill (with reservations). (Minute 28, p. 124.)

(*b*) Resolutions affirming general desirability of Insurance provision for Medical attendance. (Minutes 29 and 30, p. 124.)

(*c*) Council instructed to consider what points should be secured in Bill, and what points left to be determined by Commissioners. (Minute 78, p. 124.)

(*d*) Main heads of policy of Association summarised: the six cardinal principles. (Minute 82, p. 124.)

Annual Representative Meeting, Birmingham, July, 1911.

(*e*) Approval of previous action of Council. (Minutes 170-1-4, p. 124.)

(*f*) Specific approval of action of Council in not pressing for method and amount of remuneration to be secured by amendment of the Bill. (Minute 172, p. 124.)

(*g*) Instruction as to action to be taken to secure recognition of Income Limit. (Minute 184, p. 124.)

Special Representative Meeting, London, November 23rd and 24th, 1911.

(*h*) Approval of previous action of Council. (Minute 19, p. 124.)

(*i*) Thanks to Council and State Sickness Insurance Committee for their services. (Minute 20, p. 124.)

(*j*) Re-affirmation of Cardinal Principles. (Minute 24, p. 124.)

(*k*) Instruction as to Harmsworth Amendment. (Minute 27, p. 125.)

(*l*) Statement as to amount of remuneration. (Minutes 33 and 34, p. 125.)

(*m*) Instruction as to representation of profession in Insurance Committees. (Minute 35, p. 125.)

(*n*) Instructions as to provisions of Bill as affecting Ireland. (Minutes 44 and 45, p. 125.)

(*o*) Affirmation of determination of Association to use all means to prevent establishment of any form of medical service under the Act except under arrangements consistent with the Six Cardinal Principles. (Minute 47, p. 125.)

(*p*) Instruction as to central action to be taken to prevent sectional defeats, and to obtain for every district terms in conformity with the policy of the Association. (Minute 53, p. 125.)

5. Thus it will be seen that on November 24th, 1911, the previous action of the Council was endorsed by the Representative Body and further instructions were given by that Body. It now remains to give an account of the action taken by the Council pursuant to these instructions.

Action subsequent to Special Representative Meeting of November 23rd and 24th, 1911.

Memorandum to Chancellor of the Exchequer.

6. Immediately after the Special Representative Meeting, November, 1911, a Memorandum, embodying the decisions of the Representative Body with reference to further amendments of the Bill, was forwarded to the Chancellor of the Exchequer, together with covering letter. (For Memorandum and Letter, *see* Appendix B, page 125.)

Deputation to Chancellor of Exchequer.

7. The Chancellor of the Exchequer asked on November 27th, 1911 to see two or three representatives of the Association on the subject, and the Chairman of Council (Dr. J. A. Macdonald), Dr. J. H. Taylor, and the Medical Secretary met him on Tuesday, November 28th, 1911. The Chairman of Representative Meetings was unable to be present. In the course of the interview, certain amendments of the Bill were promised on behalf of the Government, but the Chancellor was informed that these did not satisfy the requirements of the profession. (For account of interview, *see* Appendix C, page 127.)

"Harmsworth" Amendment.

8. The Chancellor of the Exchequer declined to move the deletion of the "Harmsworth" Amendment in the House of Commons, on the ground that, owing to the feeling on both sides of the House, such a motion would be defeated. He undertook to put down an amendment so as to secure the right to free choice of doctor to all persons affected by this Clause. It was also agreed to substitute the word "institution" for the word "organisation" in the early part of the Clause. The Deputation informed the Chancellor that, notwithstanding these amendments, the Association must still press for the deletion of the Clause.

Re-affirmation of Six Cardinal Principles to House of Commons.

9. In accordance with Minute 24* of the Special Representative Meeting, November, 1911, letters were sent direct to every Member of the House of Commons, and to Honorary Secretaries of Divisions asking them to approach their local Members at once to the same effect. Dr. Addison, M.P., was asked to make, in the House of Commons, the statement desired by the Special Representative Meeting, November, 1911, in Minute 24 (Appendix A, page 124). As the medical clauses, owing to the action of the guillotine, were not debated on the Report Stage, Dr. Addison could not, under the rules of the House, find any opportunity of making the statement at that stage. He did so, however, in his speech on the Third Reading, and in addition, informed the House that the medical profession regarded the present financial provisions as entirely inadequate.

Representations to Irish Nationalist Party.

10. On November 25th a communication (*see* Appendix D, page 128) was addressed to the Leader of the Irish Nationalist Party in the House of Commons (Mr. John Redmond, M.P.), concerning the deletion of medical benefit from the Bill as regards Ireland. A copy of the letter was also forwarded on November 27th to the Chancellor of the Exchequer for his information. An acknowledgment only was received from Mr. Redmond. In accordance with the statement contained in the letter, copies of the letter were forwarded to the chief newspapers of England, Scotland, and Wales, and to every newspaper in Ireland.

Medical Benefit in Ireland.

11. Though the Council was not able to obtain the amendment of the Bill, so that medical benefit should apply to Ireland in the same way as in Great Britain, reference to the Act will show that the Council was successful in obtaining the insertion of a provision† to the effect that where medical benefit is given in Ireland as an additional benefit it shall be given upon the same lines as in Great Britain, unless the Irish Insurance Commissioners otherwise direct.

Action in the House of Lords.

12. A letter, stating the amendments in the Bill desired by the profession, was sent to every Member of the House of Lords (see Appendix E, page 128). Lord Ilkeston was approached with a view to his moving the necessary amendments on behalf of the Association, but, owing to illness, he was unable to attend the House. Lord Sandhurst, who had expressed himself as favourable to the claims of the profession, was asked to put down the necessary amendments to secure (*a*) a statutory £2 income limit, (*b*) the deletion of the Harmsworth Amendment (*c*) increased medical representation on Insurance Committees up to one-tenth of the total number of the Committee, (*d*) the restoration of the medical benefits as regards Ireland under the same conditions as in England. Lord Sandhurst replied that as only amendments which were favourably regarded by the Government had any hope of success, he would not put down amendments which were sure to be rejected. He tabled an amendment increasing the medical representation upon the Insurance Committee, though not to the full extent desired by the Association, but it was not carried. Lord Sandhurst, moreover, moved an amendment (to Clause 18) under the terms of which the Regulations of the Commissioners should provide for the payment of a fee to a medical practitioner summoned on the advice of a midwife in the case of persons entitled to maternity benefit, and an amendment to this effect was carried, though not in the exact terms proposed by Lord Sandhurst. The Duke of Northumberland, who was also approached, declined to attempt to amend the Bill after the statement which had been made by his Leader in the House of Lords to the effect that the Conservative Party would not take any responsibility for the Bill.

Comparison between Bill as introduced, and Act.

13. Attention is particularly drawn to the statement in tabular form (*see Appendix F, page* 130), showing the differences between the Bill as introduced and the Act as now constituted, so far as the medical clauses are concerned. A careful study of this will show the extent of the alterations made in the Bill owing to the efforts of the Association.‡

* Appendix A, p. 124.
† Clause 81 (9).
‡ The text of the Act was published in the Supplement to the British Medical Journal of January 6th, 1912.

Appointment of Mr. J. Smith Whitaker as Commissioner.

Report of Discussion in Council.

14. A full report of the debate which took place in the Council on Saturday, December 2nd, 1911, on the occasion of the discussion of the offer made to Mr. Whitaker to become Deputy Chairman of the English Insurance Commission appeared in the Supplement to the British Medical Journal of December 9th, 1911 (pp. 585-590).

Reasons for Council's Action.

15. The Council believes that on consideration of the whole facts the profession will endorse the action the Council took under a full sense of its responsibility. The Council had in mind the fact that the names of the other Commissioners had already been announced and that the Chancellor of the Exchequer, under pressure from the House of Commons, had given an undertaking that the name of the Medical Commissioner would be given on the following Tuesday, *i.e.*, three days from the date of the Special Meeting of the Council summoned to consider the matter. There was thus no time to refer the matter to the Divisions.

16. The Council was guided in its action by the principle in the following requirement of the Special Representative Meeting of June 1st, 1911:—

Minute 82 (6).—"Adequate medical representation among the Insurance Commissioners."

On consideration of this resolution, the Council felt that it was its duty to the profession not to lose the opportunity thus offered of securing representation among the Commissioners in the person of a practitioner who had had considerable experience of general practice, who was known to be thoroughly conversant with the medical aspects of the Bill, who was convinced of the justice of the demands of the profession in regard to it, who was considered to have more knowledge of the conditions of general medical practice throughout the country than any other practitioner who could have been selected, and who was, moreover, believed to be the person most capable of stating the medical case in such a way as to secure sympathetic consideration by the other Commissioners. In these circumstances, and knowing that a resolution prohibiting the acceptance by any member of the Association of office as a Commissioner had been deliberately withdrawn at the last Special Representative Meeting after full debate, the Council felt that as the guardian of the interests of the profession it dare not refuse this opportunity to influence the moulding of the Regulations which are to govern the working of the medical provisions of the Act.

(II.)—THE POSITION THAT NOW CONFRONTS THE MEDICAL PROFESSION.

Object and Method of Insurance Act.

17. The National Insurance Act is "to provide for Insurance against Loss of Health and for the Prevention and Cure of Sickness." It lays on Insurance Committees the duty of administering medical and sanatorium benefits for the insured (Clause 14 (1)). It creates an Insurance Fund by contributions from the insured, the employers and the State. The final control of such fund is left in the hands of Insurance Commissioners. It empowers the Insurance Commissioners to make regulations and to give or withhold approval of arrangements made by the Insurance Committees or approved Societies, which, in effect, makes the Commissioners responsible for the adequacy of the benefits provided. The Act was printed in the Supplement for January 6th, 1912, and should be in the hands of every member of the profession.

Insurance Committees.

Relation of Profession to Act.

18. While the medical profession is concerned in all matters affecting the national health, it is directly concerned in this Act as being that profession on which the authorities set up under the Act are dependent in order to get the medical attendance necessary for the medical and sanatorium benefits which it is their first duty to provide. Thus it is important to consider the provisions of the Act so as to ascertain whether the profession is able to secure satisfactory conditions for giving attendance, these conditions including those already laid down in the six cardinal principles. The Act does not compel the profession or any of its members to undertake any duty, but lays on the Insurance Authorities a task which requires them to invite the profession to undertake medical attendance upon insured persons.

Invitation to the Profession to undertake Treatment.

Profession to be Approached.

19. The invitation to the medical profession to undertake the treatment of insured persons is to be offered by an Insurance Committee (Clause 15). The Insurance Committee is a local body for a county or county borough, and has from 40 to 80 members (Clause 59). A majority, three-fifths, is to be elected by the insured, who have the most direct interest in the efficiency of its work; one-fifth is to be appointed by the county or county borough council, and is to include one, two, or three medical practitioners (according to the size of the Committee); of the remaining fifth, two are to be elected by the medical practitioners in the area, and the rest appointed by the Insurance Commissioners, and of those so appointed at least one must be a medical practitioner. Thus in a Committee consisting of—

40 to 59 members there would be at least 4 medical practitioners.
60 to 79 „ „ „ 5 „
80 „ „ „ 6 „

of whom in each case two will be directly elected by the local profession.

20. Before extending the invitation to the medical profession the Insurance Committee has to decide as to the application of the "Addison amendment," Clause 15 (3). That is to say, to decide as to the insured persons for whom it will attempt to provide medical attendance, and as to those whom it will provide individually with a grant for the purpose. The Act provides (Clause 15 (3)) that it may

> "require any persons whose income exceeds a limit to be fixed by the Committee, in lieu of receiving medical benefit under such arrangements as aforesaid, to make their own arrangements for receiving medical attendance and treatment (including medicines and appliances)"

and may allow others to make their own arrangements. In determining these important matters the Insurance Committee must consult the Local Medical Committee.

Local Medical Committees.

Their Election and Status.

21. On behalf of the medical profession the invitation is to be considered in the first instance by a recognised local Medical Committee which the Act requires the Insurance Committee to consult in this matter where the medical profession have decided to form such a Committee. The Insurance Committee cannot proceed further until it has consulted the local Medical Committee (Clause 62). It will be within the power of the local profession to inform the Insurance Committee at an early stage that in no circumstances will the local profession, either individually or collectively, deal with that Committee except through the local Medical Committee. If the local Medical Committee finds that the conditions of the invitation secure every one of the six cardinal principles, then, details having been arranged, that area is ready to put the medical provisions of the Act into operation, and the fact will be reported to the Council of the Association. If the conditions of the invitation do not secure the cardinal principles, then either further negotiation must take place or a local deadlock has occurred, and this fact will be reported to the Council. Concerning the policy of the Association as to the formation of panels, it is laid down in Minute 53 of the Special Representative Meeting, November, 1911, "that no arrangements for attendance upon insured persons "be completed anywhere until the Association is assured by reports from the local Medical Committees "that terms in conformity with the policy of the Association in detail have been agreed upon "everywhere."

Questions for Settlement.

22. Unless the Regulations laid down by the Commissioners in consultation with the Advisory Committees, definitely settle all the outstanding points included in the six cardinal principles, the questions that will arise for arrangement where the local Medical Committee is being consulted by the local Insurance Committee as to the conditions of the invitation to undertake treatment are:—

(A.) The fixation of the local income limit.

(B.) The method of remuneration, that is, payment by fee, by capitation, or by a combination of these.

(C.) The amount of remuneration, scale of fees, or capitation grant, or both.

(D.) The question of special arrangements for bad lives and invalids.

(E.) The question of special arrangements for hazardous employments.

(F.) The definition of the ordinary services for which arrangement is to be made:—

e.g. (*a*) Surgery attendance at stated hours.
(*b*) Domiciliary attendance, for which the call is sent before a stated hour.
(*c*) District radius to be covered by ordinary fee.

(G.) The definition of extraordinary services and the conditions under which they are to be [illegible]:—

e.g. (*a*) Emergency, late, and night visits.
(*b*) Distant visits.

Even if the questions of the maximum income limit and a minimum amount of remuneration were settled in a manner satisfactory to the profession in the Regulations of the Commissioners, it seems clear that such subjects as the method of remuneration and special arrangements for hazardous employments would still have to be the subject of arrangement between the Insurance Committee and the local Medical Committee.

It has also to be noted that if the services arranged for are not sufficient for the patient's needs, the Insurance Authorities may be expected to provide for—

(*a*) Consultations;
(*b*) Operations;
(*c*) Anæsthesia and other services.

It has to be remembered that payment for treatment of tuberculosis and for other diseases to be defined by the Local Government Board, as well as for maternity cases, is not chargeable to medical benefit but to sanatorium and maternity benefits, respectively, for which there are special funds (Clauses 16 (2) and 18 (1)).

Medical Attendance.

The Panel.

23. The formation of Local Medical Committees for the purpose of making the arrangements foreshadowed in the preceding paragraph does not entail in any way the necessity of setting up a panel, but in the case where arrangements have been settled for putting the medical provisions into operation, each medical practitioner has the right to have his name put on the panel (Clause 15 (2) (b)). The insured persons in the area are divided into two groups, (1) those who take their medical benefit through the panel, (2) those who do not. The Insurance Commissioners are bound to secure the right of the insured person to free choice of doctor (Clause 15 (2) (c), and (4)). Some will choose a doctor from the panel; others will make their own arrangements, either because they are allowed to do so at their own request, or because they are excluded by the income limit, others who so elect may obtain their medical attendance through some system or institution existing at the time of the passing of the Act.

Free Choice.

24. The insured person is to have the right of selecting at prescribed periods that practitioner on the panel by whom he wishes to be treated, subject to the consent of the practitioner so selected (Clause 15 (2) (c)). For those who have failed to select a doctor, and those who have been declined by a doctor, the methods of distribution are to be arranged, as far as practicable, by the doctors on the panel. The number with regard to whom there will be difficulty of distribution, will probably depend primarily on the arrangements agreed upon for cases of invalidity, and only experience will show how many there will be.

Remuneration.

Claim of Medical Benefit on the Insurance Fund.

25. The Act does not specifically limit the amount which the Insurance Fund may pay for the cost of the medical benefit, but all the calculations hitherto published have been based upon data supplied by the Treasury to the Actuaries. The Association on the first mention of the sum suggested, on April 4th, 1911, and repeatedly since, expressed to the Government its opinion that this basis, namely, 6s. per head for medical benefit, is quite inadequate for the purpose. The Treasury is therefore responsible for the under-estimation of the cost of medical benefit. It will be the duty of the Association to point out to the Commissioners that this difficulty might have been avoided had the profession been consulted before the data were furnished to the Actuaries, so that the responsibility for the present difficulty may be fixed on the proper shoulders. In these circumstances the Council is of opinion that the Insurance Commissioners should be informed that the Association will not proceed to negotiate as to a definite rate of remuneration till the Association is assured that the sum stated in the Actuaries' Report is not to be regarded as final.

Estimate as to Reasonable Cost of Medical Attendance.

26. Until the services required are accurately defined, the reasonable cost of them cannot be formally fixed. A provisional forecast may, however, be suggested from a comparison of the conditions of the Postal Medical Service with that which the general medical practitioner may expect to be invited to give to insured persons.

(*a*) The Postal Service deals with persons comparatively young who, on entrance, are subject to medical examination. In the Insurance Service, the medical test will probably be less exclusive and the average age will be higher.

(*b*) In the Postal Service the tubercular and invalid are generally removed from the service. In the Insurance Service, tuberculosis is charged to sanatorium benefit, and the treatment of invalids will probably be the subject of special arrangements.

(*c*) In the Postal Service there is a special fee of 10s. for the examination of each officer on his appointment to the established staff; but other examinations and reports, such as those for telegraph messengers, cycling duties, and fitness for service, must be made whenever requested by the Postmaster-General without any special fee. In the Insurance service, the question of fees for examination and report has to be considered.

(*d*) In the Postal Service the Medical Officer has to make sanitary reports on post offices. In the Insurance service it is possible that the medical attendant may be asked to report on conditions, including sanitary, militating against the recovery of his patient.

If the method of payment per attendance be adopted, it may be worth while pointing out that a fee of 2s. 6d. per visit, with 1s. per mile for mileage, is paid by the Admiralty for attendance upon Coastguards. Thus the two services above compared seem likely to be in some respects analogous; but, owing to the less careful selection and higher age average for many years to come, the Insurance service will make heavier demands on the doctor. Further, the free choice of doctor in the Insurance service will tend to accentuate this, as it is well known that a considerable number of postal servants employ outside doctors.

27. Considering that 8s. 6d. is considered a reasonable capitation payment for medical attendance upon postal servants, who are carefully selected lives, and 2s. 6d. is paid per visit on Coastguards, who are also selected lives, a comparison of the conditions of the Postal Service with the Service to be set up under the Act, should enable the Representative Body to come to some decision as to the limits (whether on a per capita or per attendance system) within which it will give instructions as to representations to be made to the Commissioners regarding remuneration.

Refusal to form local Medical Committees.

28. The mere refusal of the profession to form a local Medical Committee would not relieve the Insurance Committee of the duty of providing medical benefit. The Committee might try to form a panel without the guidance of a local Medical Committee. The Insurance Committee must put on the list any practitioner who is desirous of being included, whether he is resident in the area or not (Clause 15 (2) (b)). It is true that a panel formed in these circumstances would probably be unsatisfactory to the insured persons, but as has sometimes happened in club practice, they might be induced to accept the services of the doctors forming such panels. The policy hitherto followed by the profession through the Association has, on the whole, been recognised by the public as a reasonable one, and if the refusal to form local Medical Committees was decided upon, the reasons for this attitude should be such as would receive public approval. Further, it should be borne in mind that if local Medical Committees are not formed, the local profession would *ipso facto* lose its statutory right to be consulted upon the question of arrangements for the administration of medical benefit. On the other hand the formation and recognition of local Medical Committees in no way commit the profession to the formation of panels.

Effect of Use of "Addison Amendment."

29. In some parts of the country where the Insurance Committees find it impossible to come to terms with the local profession it is possible that they may, under the terms of the Addison Amendment (Clause 15 (3)), "allow" all the insured persons to make their own arrangements for receiving medical attendance and treatment. In this case sums "not exceeding the amounts which the Committee would otherwise have expended in providing medical benefit" would be contributed by the Insurance Committee subject to the Regulations of the Commissioners. The amount of money paid over by the Committee would not be placed in the hands of the patient but would be contributed "for such persons," and the quality of the medical attendance would have to be satisfactory to the Commissioners.

Inadequacy of Panel.

30. The Insurance Commissioners may, after inquiry, be satisfied that the practitioners included in the list are not such as to secure adequate medical attendance in a given area. In that case they may either attempt to establish a service themselves, or they may dispense with the system of free choice of doctor, and authorise the Insurance Committee to make other arrangements (Clause 15 (2)). This means that they might sanction a system of selected salaried whole or part-time medical officers. The profession would then have to face a system of medical attendance under the conditions of a public service. So many practitioners have signed the undertaking of the Association that it is safe to say that the number of practitioners available would make it impossible to apply this system over the whole country, but the problem would be different if special areas were selected.

Application of the Income Limit.

31. The Council deems it advisable to point out to the Divisions that so far from the Insurance Authorities being unwilling to utilise the machinery of the income limit indicated in the "Addison" amendment (Clause 15 (3)), it is possible that they may endeavour to use it as a way of limiting the financial demand upon the fund by fixing a low income limit with a view to inducing the profession to accept a low rate of payment, and, what is even of more importance, they might reduce the number of those for whom they had to provide medical attendance, and by this means bring the medical work within the power of the number of doctors who, in defiance of the opinion of the local Medical Committee, were willing to form a panel or to enter a public medical service.

Suspension of Medical Benefit.

32. By far the most powerful weapon in the hands of the Commissioners, presumably designed as a method of meeting the case where they "are satisfied after enquiry that the practitioners included in any list are not such as to secure an adequate medical service in any area," is the provision for the suspension of medical benefit (Clause 15 (2) proviso) which was inserted in the Bill in the report stage, without consultation with the profession. By this provision a sum in cash would be unconditionally handed to each insured person in lieu of medical benefit. In one sense, the suspension of medical benefit would be a confession of failure on the part of the insurance authorities, but it is only too probable that the great bulk of the insured would be quite content to receive a cash allowance which would enable them to join medical clubs of their own *outside the Act*, while the friendly societies would welcome it as practically restoring to them that full and complete control of their doctors which the Insurance Act had taken away. The result to the profession would be extremely serious. With the suspension of the benefit, all the protection which the Act provides for the profession, incomplete though it may be, would be taken away. The local Medical Committees would no longer be consulted. No income limit need, in that event, be considered by the friendly societies. The Commissioners without consulting the profession might "pay to each such [insured] person a sum equal to the estimated cost of his medical benefit" (Clause 15 (2) proviso). In the case of an improvident person, this sum might be used for purposes inconsistent with payment of his doctor's bills, while, in the case of the provident, part of the sum might be kept, and part given to his club to use in paying a club doctor on terms settled by individual bargaining, without any of the protection which the profession has where terms are settled through a local Medical Committee. In short, suspension of medical benefit renders possible a vast extension of club practice for provident persons, and bad debts in the case of the improvident. The profession would thus be reduced to an endless series of local struggles not only with the friendly societies but with the club doctors themselves.

The dangers to the medical profession described above are already being threatened in the case of the profession in Ireland, in consequence of the deletion of medical benefit from the Bill as far as that country is concerned.

33. The Council views with grave apprehension the possibility that the Association might thus not only be constrained to abandon the position adopted in May last by the Representative Meeting after approval by 127 Divisions to 4:—

> "That the conditions of medical practice generally would be improved by extending the facilities for persons who cannot otherwise meet the cost of medical attendance to insure against such cost,"

but might have to face the difficulties of club practice and hospital abuse aggravated by the extension of their range to a third of the population of the country.

If satisfactory terms and conditions cannot possibly be obtained from the Commissioners, the Council would not hesitate to advise the Association to face this difficulty and to take up the position that no contract practice of any kind should be undertaken at a less fee than that declared by the Representative Body to be the minimum for attendance upon insured persons. The position is, however, so full of danger that the Council feels it necessary to urge the Association carefully to consider the possibilities of the situation before adopting an attitude which might lead to the suspension of medical benefit.

(III.)—CONCLUSIONS AND RECOMMENDATIONS.

34. It now remains for the Council to submit the considerations that justify its past action. The aim of the Association has been to secure such conditions of medical attendance "as will tend to develop higher efficiency" and "be satisfactory to the medical practitioners employed," and these conditions having been defined in the six cardinal principles the method followed has been to secure either in the Act or under the Regulations the policy so declared, and to maintain intact the right to refuse service unless the whole be conceded. The success or failure of this policy can only be clearly determined when the Regulations are settled.

35. The Council submits:—

That it has faithfully carried out the instructions of the Representative Body.

This statement is a matter of record, the correctness of which may be verified, point by point, by reference to Part I. of this Report and to the table contained in Appendix F, page 130.

36. The Council also submits:—

That the results so far obtained have greatly improved the position of the profession with regard to the Act.

Here again, reference to the above-mentioned table will show to what a small extent the six cardinal principles were expressed in the Bill as introduced, as compared with their recognition in the Act.

37. The alternative method which was debated and deliberately rejected by the Representative Meeting was that of breaking off negotiations with the Government. The Council made representations not only to the Government but to the members of every Party. In the past the profession has been practically ignored by public authorities, and its Parliamentary history is written in its failures rather than in its successes. During the consideration of the Insurance Bill by the House of Commons the political reputation of the profession was at its highest, and its policy and methods had secured the support of public opinion, while its unity had made an impression on public authorities which held the promise of future success. The Council believes that the Representative Body will keep in view the importance of retaining the support of public opinion.

The Professional View of the Act as a Whole.

38. The main principle of medical politics is that the true interests of the profession and those of the public are essentially in harmony. In the matter of the Insurance Act the interest of the profession is to secure an efficient medical service under satisfactory conditions and with adequate remuneration. Inefficient medical service endangers the individual life, depletes the sickness and invalidity funds* and defeats the purpose of the nation. These interests are in part expressed in the Act and must be further defined in the Regulations of the Commissioners. It is not unlikely that the persons who will be charged with the carrying out of the Act may not fully comprehend what the essential conditions of efficient medical service are. Without medical advice they would probably fail to draft suitable provisions. It will be the duty of the Divisions to consider whether the Association should make use of the machinery which the Act places at its disposal, or whether it is likely to secure better results by leaving the authorities unrestrained in their endeavours to establish a medical service by using such practitioners as they can get either to form a panel or the nucleus of a whole or part-time salaried service, or by the suspension of medical benefits to extend and entrench the present abuses of club practice and the hospital out-patient room.

39. To make use of the machinery of the Act would not in any way compromise the ultimate right of the profession to refuse to form panels if its requirements are not granted, while the refusal to give the Insurance Authorities the assistance of the profession in drafting the Medical Regulations would alienate that public sympathy which the profession has hitherto obtained.

The Machinery at the Option of the Medical Profession.

(a) Advisory Committees.

40. The Commissioners must, as soon as possible, appoint Advisory Committees containing medical members, for the purpose of advising them in drawing up the Regulations, and the Association, if the Representative Meeting so resolve, may take the opportunity of submitting nominations.

(b) Local Medical Committees.

41. The establishment of Local Medical Committees is a question of the utmost importance to the profession. If they are established the Insurance Committees must by the terms of the Act consult them. In other words, if Local Medical Committees are established, collective bargaining on the part of the profession is made statutory. If they are not established the Insurance Committees are free to bargain with any individual practitioners who will bargain with them. To safeguard the interests of the profession, the Council recommends that whatever other action Divisions or Branches may decide to take with regard to the Act, they should promptly take steps, by calling a meeting of the whole profession in that area, for setting up a provisional Medical Committee for each insurance area, to safeguard the interests of the profession in the area without prejudice to the question of whether the local profession will later accept recognition as a statutory Local Medical Committee.

* An increase of one day in the average duration of sickness involves a charge of 1s. 8d. per head on the Insurance Fund.

(e) INSURANCE COMMITTEES.

42. It is provided that the Insurance Committees, according to size, will contain at least from four to six medical practitioners, of whom two are to be directly elected by the medical practitioners in each area. These medical members would serve a two-fold function so far as the profession is concerned. They would form a means of communication with the profession, which will thus be able to consider beforehand any action which the Insurance Committees may contemplate taking, and would also be the medium of making representations to the Insurance Committee under instruction from the Local Medical Committee.

THE WORKABILITY OF THE ACT.

43. It has been represented in motions adopted at various meetings of medical practitioners that the Act is unworkable. If this be so, the responsibility rests upon Parliament alone. It is the business of the medical profession to see that all reasonable means are employed to secure that satisfactory arrangements are made before it consents to give its services.

CONCLUSION.

44. The Council would remind Members of the Association of the terms of Minute 78 of the Special Representative Meeting, May, 1911:—

> **Minute 78.—Resolved: That the Council be instructed to consider what points in the policy of the Association should be secured, if possible, by specific provisions in the Bill, and what points should be kept open to be determined by the Insurance Commissioners; to take the necessary action; and to report to the Divisions at the earliest opportunity.**

In accordance with the Instructions of the Representative Body, the Council has used its best endeavours to secure in the Act as much of the cardinal principles as possible. The Association deliberately refrained from pressing for the embodiment in the Bill of the amount and method of remuneration. Parliament has refused to insert in the Act some of the other points to the extent demanded by the Association. It now remains for the Association to bring pressure to bear upon the Treasury and the Commissioners to secure the remainder of its requirements in such manner as will be satisfactory to the medical profession. Unless the minimum demands of the profession are placed beyond doubt, the Council is of opinion that the Government should be informed through the Commissioners that further negotiations will be useless.

RECOMMENDATIONS.

45. The Council recommends:—

I. That the Council be instructed to press upon the Government and the Commissioners the further conditions necessary for securing the requirements of the profession.

II. That the Council be instructed to notify the Insurance Commissioners that no negotiations will be entered into with any Insurance Committee until the Representative Body is satisfied that the requirements of the profession are conceded.

III. That the Council be instructed, as soon as possible after the issue of the Regulations by the Insurance Commissioners, to submit a Report thereon to the Divisions and the Representative Body.

IV. That the Council be instructed to make all necessary arrangements for assisting the Divisions and Branches in the appointment of *provisional* Medical Committees in every insurance area to safeguard the interests of the profession, without prejudice to the question of whether these Committees shall later accept recognition as *statutory* local Medical Committees.

V. That the Council be instructed to take steps to organise the profession so as to secure that, failing the provision of adequate remuneration of medical practitioners under the National Insurance Act, no person shall be able to secure medical attendance under a contract practice appointment held at lower rates than those which may be agreed upon as adequate by the Representative Body for attendance upon insured persons.

VI. That a State Sickness Insurance Committee be appointed to consider and report to the Council on all matters connected with the National Insurance Act; that the Committee consist of (*a*) 12 members elected by the Representative Body, (*b*) 12 members elected by the Council, (*c*) two members nominated by the Association of Registered Medical Women; (*d*) the *ex-officio* members; and that the Committee be empowered to add to its numbers for special purposes not more than four additional members.

APPENDIX A.

INSTRUCTIONS OF (I.) SPECIAL REPRESENTATIVE MEETING, MAY 31ST, AND JUNE 1ST, 1911, (II.) ANNUAL REPRESENTATIVE MEETING, JULY, 1911, AND (III.) SPECIAL REPRESENTATIVE MEETING, NOVEMBER 23RD AND 24TH, 1911, TO THE COUNCIL WITH RESPECT TO THE NATIONAL INSURANCE BILL.

Special Representative Meeting, London, May 31st, and June 1st, 1911.

Approval of Main Objects of Bill.

Minute 28.—Resolved: That whilst approving the main objects of the Bill, and being desirous of co-operating for their attainment, nevertheless in view of the fact that the present proposals of the Government are unsatisfactory, it is the opinion of this Meeting that the Government should be asked to delay dealing with the proposed medical benefits until satisfactory terms have been arranged with the medical profession.

General desirability of Insurance Provision.

Minute 29.—Resolved: That it is desirable that there should be facilities for enabling persons who cannot otherwise meet the cost of medical attendance to insure against such cost in such a way as will tend to develope higher efficiency, will afford conditions of service and remuneration satisfactory to the medical practitioners employed, and otherwise shall be in accordance with such fundamental principles as may be approved by the British Medical Association.

Minute 30.—Resolved: That the inclusion of medical benefits among those available under a State Sickness Insurance Scheme is desirable, provided that the conditions of the Scheme tend to develop higher efficiency, afford adequate remuneration to the medical practitioners employed, and are otherwise in accordance with such fundamental principles as may be approved by the British Medical Association in reference thereto.

[illegible] points should be secured in Bill, and what points left to be determined by Commissioners.

Minute 78.—Resolved: That the Council be instructed to consider what points in the policy of the Association should be secured, if possible, by specific provisions in the Bill, and what points should be kept open to be determined by the Insurance Commissioners; to take the necessary action; and to report to the Divisions at the earliest opportunity.

Main Heads of Policy of Association—Six Cardinal Principles.

Minute 82.—Resolved: That the following statement of the main heads of the policy of the Meeting as regards the National Insurance Bill be approved, as follows:—

1. An income limit of £2 a week for those entitled to medical benefits.

2. Free choice of doctor by patient, subject to consent of doctor to act.

3. Medical and maternity benefits to be administered by Local Health Committees and not by Friendly Societies.

4. The method of remuneration of medical practitioners adopted by each local Health Committee to be according to the preference of the majority of the medical profession of the district of that Committee.

5. Medical remuneration to be what the profession considers adequate having due regard to the duties to be performed and other conditions of service.

6. Adequate medical representation among the Insurance Commissioners, in the Central Advisory Committee, and in the local Health Committees; and statutory recognition of a local Medical Committee representative of the profession in the district of each Health Committee.

Annual Representative Meeting, Birmingham, July, 1911.

Approval of Action of Council up to time of Annual Meeting.

Minute 170.—Resolved: That the Representative Body approve the action of the Council in sending the letter of the Council of July 11th, 1911, to the Chancellor of the Exchequer.

Minute 171.—Resolved: That the Representative Body approve the action taken by the Council to secure amendment of the National Insurance Bill in accordance with the policy of the Association as regards:

(i.) The income limit for medical benefits.

(ii.) The free choice of doctor by patient.

(iii.) Administration of medical and maternity benefits by local Health Committees and not by approved societies.

(iv.) Representation of the medical profession in the administration of the service.

Minute 174.—Resolved: That the remainder of the Report R 10 (Special Report of Council in connection with National Insurance Bill) be approved.

Approval of Action re Method and Amount of Remuneration.

Minute 172.—Resolved: That the Representative Body approve the action of the Council in not pressing for amendments to the Bill as the means of securing the demands of the profession with respect to the method and amount of medical remuneration under the Bill.

Action to secure Recognition of Income Limit.

Minute 184.—Resolved: That the Council be instructed to use their best endeavours to have the £2 limit fixed in the Bill, with provision for a lower limit to be fixed locally; but, failing that, to obtain as best they can the fixation of £2 as a maximum limit with such local option.

Special Representative Meeting, London, November 23rd and 24th, 1911.

Approval of Action of Council up to time of Special Representative Meeting.

Minute 19.—Resolved: That the Report of action taken by the Council to give effect to the instructions of the Annual Representative Meeting, 1911, be approved and entered on the Minutes.

Thanks to Council and State Sickness Insurance Committee.

Minute 20.—Resolved: That the Representative Body express its grateful appreciation of the great services rendered by the Council of the Association and by the State Sickness Insurance Committee in connection with the National Insurance Bill, not only to the members of the Association, but also to the rest of the Medical Profession.

Re-affirmation of Six Cardinal Principles.

Minute 21.—Resolved: That the Representative Body declare the determination of the Association to insist upon the arrangements made with medical practitioners for giving attendance and treatment to insured persons being consistent with the six cardinal principles formulated and approved by the Representative Meeting of June 1st, 1911, and confirmed by the Representative Meeting, Birmingham, in July, 1911: and that a copy of this resolution be sent forthwith to the Chancellor of the Exchequer and the Press, and to each Member of Parliament through both the Head Office and the Honorary Secretaries of Divisions: and that the Chancellor of the Exchequer be informed of the declaration in the House of Commons itself.

Action as regards "Harmsworth" Amendment.

Minute 27.—Resolved: That the Committee recommend that the Association press for the deletion of Clause 14, Sub-section (4), but failing to obtain this, the Association press for the amendment of Clause 14, Sub-section (4), to read as follows:—

"14 (4) The regulations shall provide that, in the case "of persons who are entitled to receive medical attendance "and treatment under any system or through any organi- "sation existing at the time of the passing of this Act, "and approved by the local Insurance Committee and the "Insurance Commissioners, such medical attendance and "treatment may be treated as, or as part of, their medical "benefit under this Part of this Act, and may provide for "the Committee contributing towards the expenses thereof "the whole or any part of the sums which would be con- "tributed in the case of persons who have made their own "arrangements as aforesaid, so however, that such regula- "tions shall secure that no person be deprived of his right, "if he so elects, of selecting the duly qualified medical "practitioner by whom he wishes to be attended and "treated in accordance with the foregoing provisions of "this section."

Remuneration of Medical Practitioners.

Minute 33.—Resolved: That the Representative Body state that the amount of 6s. per head per annum upon which the actuarial calculations have been based, is inadequate to meet the cost of provision of medical benefit for the insured.

Minute 34.—Resolved: That the inclusion of married women as beneficiaries will necessitate a considerable increase upon the amount per head that was previously necessary.

Representation of Profession on Insurance Committees.

Minute 35.—Resolved: That the Representative Body approve of the action of the Council in urging that at least one-tenth of the members of each Insurance Committee be elected by the medical profession.

Ireland—Medical Benefits and Free Choice of Doctor.

Minute 44.—Resolved: That the Association press for the restoration of the medical benefits of the National Insurance Bill in the case of Ireland under the same conditions as in England.

Minute 45.—Resolved: That the Association press for such provision as shall ensure that, in the event of medical benefit being provided through Friendly Societies in Ireland as an additional benefit, the insured persons who are to receive medical attendance and treatment under such arrangements shall be entitled to free choice of doctor under provisions similar to those contained in Sub-section (2) of Clause 14 of the Bill.

Re-affirmation of determination of Association as regards Cardinal Principles.

Minute 47.—Resolved: That in the event of the Insurance Bill becoming law, the British Medical Association use every possible means to ensure that no medical practitioner undertake the medical attendance and treatment of insured persons under arrangements that are not absolutely in accordance with the six cardinal principles of the policy of the Association.

Action through Local Medical Committees.

Minute 53.—Resolved: That in order to prevent sectional defeats of the profession through terms having to be arranged locally between local Insurance Committees and the profession, the Council be instructed to take such steps as are necessary with a view to securing:—

(*a*) That the local Medical Committees throughout the country be kept in touch with one another through the central office of the Association; and

(*b*) That no arrangements for attendance on insured persons be completed anywhere until the Association is assured by reports from the local Medical Committees that terms in conformity with the policy of the Association in detail have been agreed upon everywhere.

APPENDIX B.

BRITISH MEDICAL ASSOCIATION.

LETTER AND MEMORANDUM ADDRESSED TO THE CHANCELLOR OF THE EXCHEQUER.

Offices of the British Medical Association,
429, Strand,
London, W.C.,
November 27th, 1911.

Sir,

By direction of the Council of the British Medical Association I have the honour to submit for your consideration the enclosed statement of conclusions arrived at by the Special Representative Meeting of the Association held on Thursday and Friday of last week, November 23rd and 24th, for the consideration of the National Insurance Bill as amended in Committee of the House of Commons. The Council desires me most respectfully to express the earnest hope that the requests for further amendment of the Bill put forward in this statement may receive your assent, not only in the interest of the medical profession, but also in the public interest, as tending greatly to secure the hearty co-operation of the profession in the working of the medical service which is to provide for the requirements of so great a proportion of the population of this country.

I am directed to add that, in arriving at the conclusions stated in the enclosed Memorandum, the Representative Body of the Association had before it a Report by the Council of action taken since the Annual Representative Meeting, which included reference to the representations that have from time to time been made to yourself since the date of that meeting. A summary was given of the questions raised in the Conference, over which you presided, between representatives of the Friendly Societies and of the medical profession on October 9th and 16th. The letters addressed to you on November 10th, 15th, and 20th, 1911, and your kind reply of November 22nd, were also placed before the Meeting. Inasmuch as certain of the points put forward in the enclosed statement were referred to in that correspondence it is specially desired that it should be made clear that it was after full consideration of that correspondence that the Representative Body decided again to place before you certain of the representations which, as put forward by the Council, you had already considered.

With reference to the subject of Ireland, in view of the fact that the difficulty as regards the giving of medical benefits in that country is understood to arise from the opposition of the section of representatives of Ireland led by Mr. Redmond, and in view of the suggestion made by yourself when you received the deputation on November 2nd, I have been directed to address a letter to Mr. Redmond, a copy of which is enclosed for your information.

Should you desire to see any representatives of the Association with reference to any of the matters referred to in the enclosed Memorandum, I am in a position to arrange for their attendance at short notice.

I have the honour to be, Sir,
Your obedient servant,
(Signed) J. SMITH WHITAKER,
Medical Secretary.

The Right Hon. David Lloyd George,
Chancellor of the Exchequer,
The Treasury,
Whitehall, S.W.

MEMORANDUM
of
Matters which the Representative Body of the British Medical Association desires most respectfully to submit for the consideration of the Chancellor of the Exchequer with a view to securing such further Amendments of the National Insurance Bill as are desired by the Medical Profession.

The Representative Body desired that in the first place the Chancellor of the Exchequer should be informed of the continued determination of the Association, supported, as they have every reason to believe, by the general body of the medical profession in the United Kingdom, to secure by every means in their power that the arrangements made with medical practitioners for giving attendance and treatment to insured persons shall be consistent with the six cardinal principles formulated and approved by the Representative Meeting of June 1st, 1911, and confirmed by the Representative Meeting, Birmingham, in July, 1911.

Harmsworth Amendment.

Secondly, the amendment of Sub-section (4) of Clause 16, which was submitted for the consideration of the profession as the result of the Conference with the Friendly Societies, has been carefully considered. In view, however, of the very strong feeling aroused in the profession by the Harmsworth amendment, which is not allayed by the amendment of that amendment now proposed, it was decided again to urge the Government to delete from the Bill the Sub-section in question.

Provision of Medical Attendance to Members of Friendly Societies Debarred from Becoming Insured Persons.

The other proposal which was submitted to the profession as a result of the conference in question—that, namely, of relieving the Friendly Societies of the difficulty in which they are placed as regards the provision of medical attendance and treatment for those of their present members who may be debarred either on the ground of age or on the ground of permanent invalidity from becoming insured persons—was, on the other hand, favourably received, and the Representative Body decided to recommend the profession to accept this principle.

Safeguards as to Medical Attendance being Given at Rates Lower than those Paid by Insurance Committees.

Full consideration was given to the explanation kindly afforded by the letter of the Chancellor of the Exchequer, dated November 22nd, as to the effect of certain provisions of the Bill in precluding those who are allowed under Subsection 3 of Clause 14 to make their own arrangements for the provision of medical attendance from doing so through organizations at rates of remuneration lower than those paid by the local Insurance Committees to medical practitioners who give attendance and treatment under arrangements made by that Committee.

While gratified to learn that the provisions of the Bill would indirectly have the effect stated, the Representative Body feels the matter to be one of such importance as affecting not only the interest of the profession, but also (as it is glad to believe that the Chancellor of the Exchequer recognizes) the public interest, that they urge that some more definite provision should be inserted in order to afford full security against the abuse in question. It is believed that the Chancellor of the Exchequer will recognise that if combinations should make arrangements for the provision of medical attendance which afforded to the practitioners employed lower remuneration than the arrangements made by the Insurance Committee itself, this must, in the ordinary course of events, lead to relative inefficiency of service. Under the provisions to which attention was called by the Chancellor of the Exchequer the check against this would have to be applied by the Insurance Committee, and possibly by the Insurance Commissioners, in an indirect and cumbrous manner. Friction and disputes must inevitably result, and it is desired to urge that it is to the interest of every one to avoid all such difficulties by the simple expedient of stating explicitly what the Association is glad to learn is already the intention of the provisions of the Bill.

Provision for Remuneration.

On the general question of remuneration the Representative Body thinks it right that the Chancellor of the Exchequer should be informed at once of its opinion that the amount of 6s. per head per annum, upon which the actuarial calculations have been based, will prove inadequate to meet the cost of provision of medical benefit for the insured. The Meeting desired also to point out that the admission of unemployed married women to medical benefit will in itself necessitate a considerable increase upon the amount per head that would otherwise have been necessary. The Association had previously recognised that on public grounds, and in the interest of the health of the community, the admission of this section to medical benefit was desirable.

Medical Representation on Insurance Committees.

The Chancellor of the Exchequer's reply on the subject of medical representation on the Insurance Committees was carefully considered and full weight given to the views of the Government stated therein as to the advisability of an increased proportion of members of the medical profession being included by the Insurance Commissioners among those whom they appoint as members of county or county borough Insurance Committees. The reports of medical meetings throughout the country, and the discussion in the Representative Meeting showed, however, the great strength of the feeling which exists in the profession on this subject, and which must have a serious effect in prejudicing the working of the Bill if a definite concession is not made upon the subject. With the possible exception of the question of deletion of Sub-clause 4 of Clause 14, no point has raised more acute feeling in the profession than the great increase in the size of the Insurance Committees without provision for corresponding increase in the medical element of these Committees. The Association, after fully considering the reply already given by the Chancellor of the Exchequer on this subject, would again urge with all respect that at least one-tenth of the members of each Insurance Committee should be medical practitioners.

The Association, through the Representative Body, confirms the previous action of the Council in urging that if the Auxiliary or District Committees are to administer medical benefit there should be medical representation upon them similar to that given on the County or County Borough Insurance Committees.

With reference to the question of recognition of a local Medical Committee corresponding to each District or Auxiliary Committee, it is noted that it would be possible for a District Committee to recognise a Sub-Committee of the local Medical Committee appointed for their district, but it is most respectfully submitted that there may be difficulty in securing such recognition and that friction and disputes might thus arise which would be avoided by a simple addition to Clause 58 of the Bill as amended.

Inclusion of Medical Practitioners among Insurance Commissioners and Advisory Committees.

The Representative Body was glad to learn that provision would be made for the inclusion of at least one member of the medical profession among the Insurance Commissioners, for Scotland, among those for Ireland, and among those for Wales.

It is assumed that there will be corresponding provision for the admission of medical members in the Advisory Committees that may be constituted for these countries, corresponding to the English Advisory Committee.

The Representative Body desired further that it should be definitely provided that the local Insurance Committees for Scotland, Ireland, and Wales should include medical practitioners to the same proportion and appointed in the same manner as in England, and that in so far as this is not already provided in the Bill, it be so provided.

Institutional Treatment.

The Representative Body still feels that the inadequacy of the provision for institutional treatment constitutes one of the gravest defects of the Insurance Bill in its public aspects. It is greatly regretted that apart from such institutional treatment as can be given under the head of sanatorium benefit, the Bill leaves the public provision of this most important part of medical treatment to charity and the Poor Law. In full recognition of the replies that have already been received upon this point, it feels it to be its duty upon this, as upon every other occasion, to lay emphasis upon the defectiveness of the scheme in this respect.

Dispensing.

The Representative Body approved the action of the Council in pressing for, and urged them to insist upon, such amendment of Sub-section 5, Clause 14, as would fully protect the right of medical practitioners to undertake the provision of drugs and medical appliances for those insured persons whom they attend, subject only to the condition that the provision of medical attendance and treatment, and the provision of drugs and appliances should be the subject of separate arrangements, and not made at an inclusive fee.

Ireland.

On the subject of the Bill as applying to Ireland, the Representative Body had before it a report of the negotiations that had already taken place. It was recognised that the difficulty arose entirely from the attitude of the majority of Irish repre-

sentatives in Parliament, and, indeed, of that section of the Irish representatives which is led by Mr. Redmond, the Irish Unionist Party being apparently, as indicated by Sir Edward Carson, in agreement with what is understood to be the Chancellor of the Exchequer's personal view as to the desirability of the medical benefits being extended to Ireland.

The Meeting had before it representations from bodies thoroughly representative both of the Irish medical profession in general and of the dispensary doctors in particular, whose position of course presents certain distinctive features. It was clear that the members of the Irish profession are almost, if not entirely, unanimous in demanding that, if the Bill applied to Ireland, the medical benefits should apply to that country in the same way as in Great Britain.

In the event of the position of the majority of Irish Representatives still making it impracticable to give the medical benefit, the Council of the Association is instructed to support the Irish profession in pressing for such provision as shall ensure that in the event of medical benefit being provided through friendly societies in Ireland as an additional benefit, the insured persons who are to receive medical attendance and treatment under such arrangements shall be entitled to free choice of doctor under provisions similar to those contained in Sub-section (2) of Clause 14 of the Bill.

APPENDIX C.

ACCOUNT OF INTERVIEW OF DEPUTATION FROM THE ASSOCIATION WITH THE CHANCELLOR OF THE EXCHEQUER, NOVEMBER 28TH, 1911, AND TEXT OF AMENDMENTS PROMISED.

The deputation dealt with the points referred to in the Memorandum to the Chancellor of the Exchequer (*see* Appendix B) in the order in which they are mentioned in the Memorandum:

"Harmsworth" Amendment.

(See paragraph 8, page 116, in body of Report.)

Aged and Chronics.

(*b*) The amendment as to the provision of medical attendance and treatment for the aged and chronics was agreed to. An insertion in this amendment was suggested by the representatives of the Association in accordance with Minute 31 of the Special Representative Meeting so as to secure that it should cover the provision of drugs and medicines. This, it was understood, was accepted by Sir Robert Morant on behalf of the Government.

Safeguards as to Medical Attendance being given at rates lower than those paid by Insurance Committee.

(*c*) On the question of the necessity of amendment of of Sub-section (3) of Clause 15 (Dr. Addison's amendment), so as to secure that persons who were allowed to make their own arrangements should not do so through any kind of contract organisation at a lower rate than that paid by the Local Health Committee to the doctors on the panel, after a considerable discussion no form of words could be suggested which would give greater security than the provisions of the Clause as it stands. It was pointed out on behalf of the Government that the contributions to be made to the cost are subject to Regulations, and it would be to the interest of the Commissioners to secure in the general interest of the Fund that insured persons should not be allowed to obtain medical attendance and treatment under conditions which did not afford an efficient service.

Remuneration.

(*d*) The Chancellor of the Exchequer recognised that the profession did not regard the financial provision as adequate, but the point was not discussed at length seeing that no amendment of the Bill was asked for.

Medical Representation on Insurance Committees.

(*e*) It may be well to state with special reference to the subject of representation on local Insurance Committees, that the Government recognised the necessity of increasing the number of medical members on the larger Committees, but would not agree to the increase asked for by the representatives of the Association, nor did they desire that additional medical members should have to be appointed by the Commissioners. The offer finally made was that the County or County Borough Councils should appoint one medical member in a Committee of 40, two in a Committee of 60 and upwards, and three in a Committee of 80. The representatives of the Association stated that they were not satisfied with this.

Medical Representation on Scottish, Irish and Welsh Insurance Commissioners, and local Insurance Committees.

(*f*) On the question of representation among the Insurance Commissioners in Scotland, Ireland and Wales, no amendment was put forward, as the Chancellor of the Exchequer had already promised to give medical representation among the Commissioners for those countries. The Bill as it stood appeared to provide medical representation in the Scottish, Irish and Welsh Insurance Committees.

Institutional Treatment.

(*g*) The subject of institutional treatment was not discussed at length, as the Chancellor was already aware of the objections of the profession to the Bill as it stands and the Association did not ask for any definite amendment.

Dispensing.

(*h*) On the subject of dispensing the Government would not agree to any amendment which would tend to make dispensing by medical practitioners the rule rather than the exception. The Chancellor recognised, however, that the Clause as it stood was objectionable from the standpoint of the profession and might be unworkable in practice. He accepted an amended form which puts the whole matter definitely in the hands of the Insurance Commissioners to define by Regulations. The form of the Clause, as amended, however, is still such as indicates to the Commissioners that the arrangements with doctors for dispensing must be the exception, not the rule. It is possible, however, in the Bill as amended, for the Commissioners to authorise arrangements by which medical practitioners may provide drugs.

Ireland.

(*i*) On the subject of the administration of the medical benefit in Ireland, the Government was unable to propose the extension of the medical benefits to that country for the reasons stated to the deputation from the Irish medical profession and the Association on November 2nd. They agreed, however, to provide (Clause 81, Sub-section (9)) that where medical benefit was given as an additional benefit it should be on the same lines as in England, but added the reservation "unless the Irish Insurance Commissioners otherwise direct," the words added (on Report Stage) to the sub-clause dealing with this question being:—

> "and that such medical benefit when provided shall be administered by the local Health Committee in accordance with the provisions of this Part of this Act unless the Irish Insurance Commissioners otherwise direct."

The words underlined were put in because it was pointed out by Mr Braithwaite that in some cases the amount available for providing the additional benefit might only be a very small sum, and it might be quite impracticable to apply in every detail the provisions of Clause 15.

All the amendments promised have been incorporated in the Act. The Chancellor was, however, definitely informed by the Deputation that these amendments would not satisfy the requirements of the profession.

APPENDIX D.

COPY OF LETTER ADDRESSED TO THE CHAIRMAN OF THE IRISH NATIONALIST PARTY IN THE HOUSE OF COMMONS.

Offices of the British Medical Association,
Medical Department,
429, Strand, London, W.C.
November 25th, 1911.

Sir,

The following statement of the views of the Irish medical profession on the question of the provision of medical benefit under the National Insurance Bill in Ireland is submitted to you on behalf and by authority of a Joint Committee composed of the Irish Committee of the British Medical Association and the Committee of Council of the Irish Medical Association. That committee was appointed by a mass meeting of the medical profession of Ireland held in Dublin on June 30th, 1911, to act on behalf of the Irish medical profession with regard to all questions arising in connection with the National Insurance Bill as affecting Ireland.

The conclusions stated herein have been arrived at by the Joint Committee as a result of its careful consideration of the new position created by the decision of the House of Commons in Committee that the portion of the Bill providing medical benefit should not apply to Ireland, and that such benefits should only be given in that country, if at all, as an additional benefit by and through friendly or other approved societies.

In arriving at its decisions, the Joint Committee had before it the decision of a representative body of the dispensary doctors of Ireland, whose position is, of course, affected in some respects differently from that of other members of the profession. I have authority for stating that the dispensary doctors, as a body, are now entirely in accord with the rest of the Irish medical profession upon the subject.

Lastly, I am instructed by the Council of the British Medical Association, as representing the medical profession both in the United Kingdom and throughout the British Empire, to state that the conclusions of the Irish Joint Committee were placed before a Special Representative Meeting of the British Medical Association, composed of delegates from all parts of the Empire, held on November 23rd and 24th, 1911, when the meeting unanimously decided to support the Irish medical profession in its demands. It is desired that I should make plain that the entire force of the medical profession in Great Britain, both pecuniary and in every other way, will be at the disposal of the Irish medical profession for its support in enforcing those demands.

The views which I am thus authorised on behalf of the Irish medical profession and instructed on behalf of the British Medical Association to place before you are the following:—

1. That if the National Insurance Bill applies to Ireland at all, the medical benefit should be given in that country on the same terms as in Great Britian.

2. That it is recognised that some adjustment may be necessary in view of the present position of the Irish dispensary doctors in respect of whom a certain amount of overlapping might otherwise take place. Time may not permit of such arrangements being arrived at and defined in the Insurance Bill, but it is considered that some provision might be inserted in general terms which would make such adjustment possible after the Bill became law, not merely as affecting the terms of the arrangements to be made with medical practitioners under the Insurance Bill, but also as affecting the present terms of appointment of the dispensary doctors. In the view of the medical profession it is preferable that persons who might thus receive attendance, alternatively, either as insured persons or as dispensary patients, should be attended in the former capacity rather than in the latter, so that the stigma of pauperism may be avoided as far as possible—a stigma which it is inequitable to apply to those who, under the Insurance Bill, will contribute directly to the cost of their medical attendance.

3. Concerning medical remuneration, it is recognised that difficulty has arisen through the demand at one time made that a minimum rate of 8s. 6d. per head per annum should be fixed in the Bill as affecting Ireland. As there has been misunderstanding on this point, I am instructed to make clear that this demand was not suggested by the British Medical Association. On the contrary, the British Medical Association as a body has taken the view that the terms of remuneration could not satisfactorily be fixed, even as regards the definition of a minimum, in the Bill itself. The Irish medical profession, however, took for a time the contrary view of what was desirable in the application of the Bill to that country: and on this, as in all other matters, the British Medical Association thinks it right to be guided by the views of the Irish medical profession on questions which specially affect Ireland. I am now in a position to inform you that the Irish medical profession have come into agreement with the general views of the British Medical Association, and withdraw any demand for a rate to be fixed in the Bill. They recognize that the terms of remuneration must depend entirely on the amount and nature of the work to be done and the other conditions of service: that questions of the greatest importance affecting these could not possibly be defined satisfactorily by Statute; and that, therefore, it is impracticable for the terms of remuneration to be satisfactorily defined.

4. Both from the replies received from the Chancellor of the Exchequer to representations made to him directly, and also from the report of the debate in the House of Commons, it seems clear that he personally is convinced that it would be preferable that the medical benefit should apply to Ireland, but that he felt debarred from forcing it upon that country in opposition to the declared views of the majority of its representatives in the House of Commons. It appears further that the opposition in this matter arises solely from that section of the Irish representatives of whom you are the leader, and that if you and the party whom you lead could fortunately be convinced that it was to the interest of the Irish people that medical benefits should be applied to Ireland, there would be no difficulty in securing the necessary amendments to the Bill.

5. In view of the grave defects of the present Irish dispensary service, which have been condemned by responsible bodies appointed by the Government to enquire into the matter (notably in the Report of the Vice-Regal Commission), it is earnestly hoped that you will be satisfied as to the practicability, in view of the statements in this letter, and as to the desirability of substituting the scheme of medical benefits advocated herein.

6. If, for any reason, it is not found practicable to extend the medical benefit to Ireland, I am instructed to urge that the provision of medical benefits as an additional benefit by the approved societies in that country should be subject to the condition which is to apply throughout the scheme of provision of medical benefits in Great Britain—namely, that each insured person should have individual free choice of doctor in accordance with the general principles underlying Sub-section (2) of Clause 16 of the Bill as amended in Committee. Also, that there should be medical representation in the various administrative bodies constituted under the Bill, as in Great Britain.

Lastly, I have to state that, regard being had to the national importance of the subject of this letter, it is proposed that it should be published in the press generally on Tuesday morning next, in order that the position of the medical profession in the matter may be made clear to Parliament and the public before the Bill, as amended in Committee, is considered by the House of Commons on Report.

If you desire to discuss any point with representatives of the profession before coming to a decision, I have instructions which would enable me to deal with the matter to a certain extent, and I am in a position to arrange for representatives of the Irish Joint Committee to meet you on short notice, if desired.

I am, Sir,
Your obedient Servant,
J. SMITH WHITAKER,
Medical Secretary.

John E. Redmond, Esq. M.P.

APPENDIX E.

LETTER TO THE MEMBERS OF THE HOUSE OF LORDS.

British Medical Association,
Medical Department,
429, Strand, London, W.C.
December 11th, 1911.

MY LORD,

National Insurance Bill.

I am instructed to forward to you on behalf of the British Medical Association a resolution which was unanimously passed by the Representative Body of the Association on Friday, November 24th, 1911. The members

of the Representative Body were acting under instructions given to them at meetings of the profession held in all parts of the kingdom the early part of that week. The resolution is as follows:

> That the Representative Body declare the determination of the Association to insist upon the arrangements made with medical practitioners for giving attendance and treatment to insured persons being consistent with the six cardinal principles formulated and approved by the Representative Meeting of June 1st, 1911, and confirmed by the Representative Meeting, Birmingham, in July, 1911.

The six cardinal principles referred to in the above resolution are:

1. That there shall be an income limit of £2 a week for those entitled to medical benefit.
2. That there shall be free choice of doctor by patient subject to the consent of the doctor to act.
3. That the medical benefits should be administered by local Health Committees, not by individual approved societies.
4. That the method of remuneration (that is, by capitation payment or by payment per attendance) of medical practitioners should be in accordance with the preference of the majority of the medical profession in the district.
5. That the medical remuneration should be adequate, having due regard to the duties to be performed, and other conditions of service.
6. That there shall be adequate medical representation on the various bodies set up to administer the Act.

The Insurance Bill was extensively modified in the House of Commons in the direction indicated by the above statements of principle, but in order that they may be more completely carried out the British Medical Association, on behalf of the medical profession, would most respectfully urge that the following further amendments be made:

Income Limit.

First, that instead of the income limit in respect of medical benefit, which the local Health Committees are empowered to fix by Subsection (3) of Clause 15 of the Bill in its present form, being entirely at the discretion of those Committees, it should be provided that such limit shall in no case exceed £104 per annum.

The experience of the profession shows that while there may be differences as to the income limit that would be suitable for the different districts, there is no district in which the income limit above suggested would be too low. Those whose income exceeds £2 per week can everywhere make provision for such medical attendance as will be given under the Insurance Bill without necessity for any help from public funds or abatement of the charges of practitioners. If such persons are included among those for whom the local Health Committee have to provide free medical attendance at the expense of the Insurance Funds, it must result that either a higher rate of remuneration will be required by medical practitioners, or that the practitioners will not be adequately remunerated in respect of those persons. The Association urges, therefore, that the necessary amendment of the clause should be made.

Provision of Attendance and Treatment through Institutions.

The medical profession greatly regret the introduction into the Bill in Committee of the House of Commons of Subsection 4 of Clause 15, enabling medical attendance and treatment to be given through institutions existing at the time of the passing of the Act. This provision was avowedly inserted with the object of enabling certain friendly society institutes and similar organizations to be utilized for the attendance and treatment of insured persons, thus defeating the principle of free choice of doctor otherwise agreed to by the House of Commons by a vote of 387 to 15. The last four lines of the subsection as finally amended in the House of Commons do, it is true, secure to a great extent the free choice, but in the opinion of the medical profession the whole subsection, even as amended, is undesirable in the public interest not less than that of the profession and should be deleted.

Medical Representation on local Health Committees.

The medical profession have secured the principle of inclusion of medical members in the local Health Committees which are to administer the medical and sanatorium benefit, but consider that the representation accorded is still not completely satisfactory. The profession are of opinion that the medical members of each Committee should not be less than one-tenth of the total membership. Under Subsection (2) of Clause 58 of the Bill as finally amended in the House of Commons, this would apply only when the number of members of the Committee was 40. The number of medical members would remain four only unless the Committee numbered at least 60, when it would be five, and with 80 there would be six. As 80 is the maximum membership of the Committee the number last mentioned would rarely be reached.

Medical Benefits for Ireland.

Lastly, the Irish medical profession are almost unanimously of opinion that if the Insurance Bill is to apply to Ireland, medical benefit should be administered in that country in the same manner as in England. Under the Bill as finally amended in the House of Commons, medical benefit will only be given in Ireland under exceptional and unsatisfactory conditions. The Association urges that Subsection 9 of Clause 81 should be deleted, the effect of which would be that ordinary provisions of the Bill as regards medical benefit applicable in Great Britain would apply also in Ireland.

The Association is taking steps to bring before the House of Lords the appended amendments which embody the above suggested alterations, and hopes that they will have your support. I shall be glad to furnish any further information on the subject on hearing from you.

I am, my Lord,
Yours faithfully,
ALFRED COX,
Deputy Medical Secretary.

To the Members of the House of Lords.

AMENDMENTS DESIRED

BY THE BRITISH MEDICAL ASSOCIATION ON BEHALF OF THE MEDICAL PROFESSION IN THE BILL AS PASSED BY THE HOUSE OF COMMONS.

1. *Income Limits in respect of Medical Benefits.*

Clause 15, page 19, line 7, after the word "Committee" insert the words "which limit shall in no case exceed £104 per annum."

2. *Provision of Medical Attendance through existing Systems or Institutes.*

Clause 15, page 19, lines 18 to 32 inclusive, leave out Subsection (4).

3. *Number of Medical Members on Health Committees.*

Clause 58, page 70, line 14, leave out all words after "or" and insert "if the total number of the Committee is more than forty-nine and less than sixty, two members or if the total number of the Committee is more than fifty-nine and less than seventy, three members, or if the total number of the Committee is more than sixty-nine and less than eighty, four members, or if the total number of the Committee is eighty, five members, shall be duly qualified medical practitioners appointed by the council of the county or county borough."

4. *Application of Medical Benefits to Ireland.*

Clause 81, page 98, lines 7 to 19 inclusive, leave out Subsection (9).

APPENDIX F.

NATIONAL INSURANCE ACT.

Table to show the Instructions to Council in relation to the National Insurance Bill, and how far the Act carries them out.

Representative Meeting, London, June 1st, 1911, Minute 78.

Resolved:—That the Council be instructed to consider what points in the policy of the Association should be secured, if possible, by specific provisions in the Bill, and what points should be kept open to be determined by the Insurance Commissioners; to take the necessary action; and to report to the Divisions at the earliest opportunity.

I.—Income Limit for Medical Benefit.

Original Bill.	Instructions given by Representative Meeting.	Act.
Absent.	*A.R.M., Birmingham, Minute 184.* That the Council be instructed to use their best endeavours to have the £2 limit fixed in the Bill, with provision for a lower limit to be fixed locally, but, failing that, to obtain as best they can the fixation of £2 as a maximum limit with such local option.	15. (3). The regulations made by the Insurance Commissioners shall authorise the Insurance Committee by which medical benefit is administered to require any persons whose income exceeds a limit to be fixed by the Committee, and to allow any other persons, in lieu of receiving medical benefit under such arrangements as aforesaid, to make their own arrangements for receiving medical attendance and treatment (including medicines and appliances), and in such case the Committee shall, subject to the regulations, contribute from the funds out of which medical benefit is payable, towards the cost of medical attendance and treatment (including medicines and appliances) for such persons sums not exceeding in the aggregate the amounts which the Committee would otherwise have expended in providing medical benefit for them.

II.—Free Choice of Doctor.

Original Bill.	Instructions given by Representative Meeting.	Act.
Absent.	*Representative Meeting, London, June 1st, 1911, Minute 49.* That it should be open to each patient who pays any part of the cost of his attendance to choose his own doctor from all who take part in the work of the Service, subject to the consent of such doctor to attend him.	15. (2). The regulations made by the Insurance Commissioners shall provide for the arrangements made (with duly qualified medical practitioners) being subject to the approval of the Insurance Commissioners and being such as to secure that insured persons shall, save as hereinafter provided, receive adequate medical attendance and treatment from the medical practitioners with whom arrangements are so made, and shall require the adoption by every Insurance Committee of such system as will secure— (*a*) the preparation and publication of lists of medical practitioners who have agreed to attend and treat insured persons whose medical benefit is administered by the Committee. (*b*) a right on the part of any duly qualified medical practitioner who is desirous of being included in any such list as aforesaid of being so included, but, where the Insurance Commissioners, after such inquiry as may be prescribed, are satisfied that his continuance in the list would be prejudicial to the efficiency of the medical service of the insured, they may remove his name from the list. (*c*) a right on the part of any insured person of selecting at such periods as may be prescribed, from the appropriate list, the practitioner by whom he wishes to be attended and treated, and, subject to the consent of the practitioner so selected, of being attended and treated by him. (*d*) the distribution amongst, and, so far as practicable under arrangements made by, the several practitioners whose names are on the lists, of the insured persons who after due notice have failed to make any selection, or who have been refused by the practitioner whom they have selected; Provided that, if the Insurance Commissioners are satisfied after inquiry that the practitioners included in any list are not such as to secure an adequate medical service in any area, they may dispense with the necessity

ORIGINAL BILL.	INSTRUCTIONS GIVEN BY REPRESENTATIVE MEETING.	ACT.
		of the adoption of such system as aforesaid as respects that area, and authorise the Committee to make such other arrangements as the Commissioners may approve; or the Commissioners may themselves make such arrangements as they think fit, or may suspend the right to medical benefit in respect of any insured persons in the area for such period as they think fit, and pay to each such person a sum equal to the estimated cost of his medical benefit during that period, and, where the Commissioners take any such action themselves, they shall retain and apply for the purpose such part of the sums payable to the Insurance Committee in respect of medical benefit as may be required. 15. (4) The regulations shall provide that, in the case of persons who are entitled to receive medical attendance and treatment under any system or through any institution existing at the time of the passing of this Act and approved by the Insurance Committee and the Insurance Commissioners, such medical attendance and treatment may be treated as, or as part of, their medical benefit under this Part of this Act, and may provide for the Committee contributing towards the expenses thereof the whole or any part of the sums which would be contributed in the case of persons who have made their own arrangements as aforesaid, so, however, that such regulations shall secure that no person be deprived of his right, if he so elects, of selecting the duly qualified medical practitioner by whom he wishes to be attended and treated in accordance with the foregoing provisions of this section.

(Clause 18 of the Act also provides Free Choice of Doctor in maternity cases).

III.—Administration of Medical Benefit by Insurance Committees, and not by approved Societies.

ORIGINAL BILL.	INSTRUCTIONS GIVEN BY REPRESENTATIVE MEETING.	ACT.
	Representative Meeting, London, June 1st, 1911, Minutes 56 and 57.	
13. (1). . . . Subject to the provisions of the next succeeding section, medical benefit shall be administered in the case of persons who are members of an approved Society, by and through the Society.	That the local Health Committee* should be entrusted with the administration of medical and maternity † benefits for all the insured. That in the event of an extension of the scheme being made as proposed in the Fourth Schedule, Part II., for the provision of medical benefits for the dependants of the insured, the local Health Committee should be entrusted with the administration.	14. (1). . . . . medical and sanatorium benefits shall in all cases be administered by and through the Insurance Committees, additional benefits shall be administered by the society or branch of which the persons entitled thereto are members, except where such benefits are in the nature of medical benefits, in which case they shall be administered by and through the Insurance Committees.

IV.—Remuneration: Method. V.—Remuneration: Adequacy.

Representative Meeting, London, June 1st, 1911, Minute 71.

Resolved: That the method of remuneration of medical practitioners in the district of each local Health Committee should be determined in accordance with the wishes of the majority of medical practitioners in that district.

A.R.M. Birmingham, 1911, Minute 172.

Resolved: That the Representative Body approve of the action of the Council in not pressing for amendments to the Bill as the means of securing the demands of the profession with respect to the method and amount of medical remuneration under the Bill.

NOTE.—Neither method nor amount of remuneration in respect of medical benefit is anywhere mentioned in the Act.

Domiciliary treatment of tubercular diseases and certain other diseases to be prescribed will be part of sanatorium benefit, and the remuneration for all such treatment will be in addition to the remuneration for the ordinary attendance that falls under medical benefit.

Payment for confinements will also be separate.

VI.—Medical Representation on the various Bodies set up to administer the Act.

ORIGINAL BILL.	INSTRUCTIONS GIVEN BY REPRESENTATIVE MEETING.	ACT.
	Representative Meeting, London, June 1st, 1911, Minutes 60 and 61. (COMMISSIONERS.)	
41. No mention.	That provision should be made in the Bill that an adequate number of Insurance Commissioners be general medical practitioners.	57. (1) . . . one at least shall be a duly qualified medical practitioner who has had personal experience of general practice; 80, 81, 82 (Scotland, Ireland, Wales).

* In the Bill as first introduced, the Insurance Committees were termed "local Health Committees."

† The stipulation as to maternity benefit was subsequently withdrawn, the latter having been declared to be a purely financial benefit.—A.R.M., Birmingham, July 25th, 1911, Minute 165.

ORIGINAL BILL.	INSTRUCTIONS GIVEN BY REPRESENTATIVE MEETING.	ACT.
	(ADVISORY COMMITTEE.)	
42. No mention.	That provision should be made in the Bill for adequate representation of the medical profession in the Advisory Committee to be appointed to assist the Insurance Commissioners: such representatives should include general practitioners who have had experience of practice among the classes from which the insured are drawn. *Representative Meeting, London, November 24th, 1911, Minute 35.*	58. . . . of duly qualified medical practitioners who have personal experience of general practice.
	(INSURANCE COMMITTEES.)	
43. (5.) At least two of the members so appointed shall be duly qualified medical practitioners. (In Committee of 11 to 22.)	That the Representative Body approve of the action of the Council in urging that at least one-tenth of the members of each Insurance Committee be elected by the medical profession.	59. (2). (*c*) two members shall be elected in manner provided by regulations made by the Insurance Commissioners either by any association of duly qualified medical practitioners resident in the county or county borough which may have been formed for that purpose under such regulations, or, if no such association has been formed, by such practitioners. (*d*) one member, or, if the total number of the committee is sixty or upwards, two members, or, if the total number of the committee is eighty, three members, shall be duly qualified medical practitioners appointed by the Council of the county or county borough. (ii.) . . . of the members appointed by the Insurance Commissioners one at least shall be a duly qualified medical practitioner.

VI a.—Medical Committees.

ORIGINAL BILL.	INSTRUCTIONS GIVEN BY REPRESENTATIVE MEETING.	ACT.
	Representative Meeting, London, June 1st, 1911, Minute 67.	
Absent.	That provision should be made in the Bill for statutory recognition being given to Medical Committees representative of the local profession in each district, who should be consulted on questions concerning medical administration.	62. Where a local medical committee has been formed for any county or county borough, or for any area for which a district committee has been formed, and the Insurance Commissioners are satisfied that such committee is representative of the duly qualified medical practitioners resident in the county or county borough or such area as aforesaid, they shall recognise such committee, and, where a local medical committee has been so recognised, it shall, subject to regulations made by the Insurance Commissioners, be consulted by the Insurance Committee, or district committee, as the case may be, on all general questions affecting the administration of medical benefit, including the arrangements made with medical practitioners giving attendance and treatment to insured persons, and shall perform such other duties, and shall exercise such powers as may be determined by the Insurance Commissioners.

Fees in Cases under Midwives Act.

Though not secured pursuant to instructions of the Representative Meeting, the following part of Clause 18 of the Act—"Administration of Maternity Benefit"—is of importance to the profession:—

(1) . . . the mother shall decide whether she shall be attended by a duly qualified medical practitioner or by a duly certified midwife, and shall have free choice in the selection of such practitioner or midwife, but if, in the case of a midwife being selected, a duly qualified medical practitioner is subsequently summoned in pursuance of the Rules made under the Midwives Act, 1902, the prescribed fee shall, subject to regulations made by the Insurance Commissioners, be recoverable as part of the maternity benefit. (The Midwives Act does not apply to Scotland.)

Measures for securing Completion of Policy of Association.

Representative Meeting, London, November 24th, 1911, Minute 47.

Resolved: That, in the event of the National Insurance Bill becoming law, the British Medical Association use every possible means to ensure that no medical practitioner undertake the medical attendance and treatment of insured persons under arrangements that are not absolutely in accordance with the six cardinal principles of the policy of the Association.

[**This means that no panel of doctors will be formed until the six cardinal principles have been secured.**]

Minute 48.—Resolved:—That, in order to prevent sectional defeats of the profession through terms having to be arranged locally between local Insurance Committees and the profession, the Council be instructed to take such steps as are necessary with a view to securing:—

(*a*) That the local medical committees throughout the country be kept in touch with one another through the central office of the Association; and (*b*) that no arrangements for attendance on insured persons be completed anywhere until the Association is assured by reports from the local medical committees that terms in conformity with the policy of the Association in detail have been agreed upon everywhere.

THE SCOTTISH COMMITTEE.

We understand that a circular letter will be issued in a few days by the Subcommittee appointed by the Conference held in the Royal College of Surgeons' Hall, Edinburgh, on January 20th, to every medical practitioner in Scotland, regarding the election of representatives by the profession to serve on the Scottish Medical Insurance Council.

A brief report of the Conference was given in the SUPPLEMENT to the JOURNAL of January 27th. The following is a fuller account of the proceedings.

Representatives of the Universities and Royal Colleges of Scotland and of the British Medical Association were present as follows:—*University of Edinburgh:* Sir Thomas Fraser and Professor John Wyllie. *University of Glasgow:* Professor R. Kennedy, Professor Samson Gemmell, and Professor Ralph Stockman. *University of Aberdeen:* Professor Finlay, Professor John Marnoch, and Professor J. Theodore Cash. *Royal College of Physicians of Edinburgh:* The President, Dr. Byrom Bramwell; Drs. W. Allan Jamieson, John Playfair, William Russell, G. H. Melville Dunlop, R. W. Philip, and G. A. Gibson. *Royal College of Surgeons of Edinburgh:* The President, Mr. George A. Berry, Drs. R. McKenzie Johnston, Charles Watson MacGillivray, James W. B. Hodsdon, Russell E. Wood, and George Mackay. *Scottish Committee, British Medical Association:* Drs. Michael Dewar, Edinburgh; John Gordon, Aberdeen; Thomas Fraser, Aberdeen; R. C. Buist, Dundee; Munro Moir, Northern Counties; James Grant Andrew, Glasgow; D. J. MacIntosh, Glasgow; R. Balfour Graham, Fife; George R. Livingston, Dumfries; Martin Smith, Dundee; J. E. Moorhouse, Stirling; J. R. Hamilton, Hawick; Alexander Trotter, Perth; E. Scott Carmichael, Edinburgh.

Mr. Berry was voted to the chair. It was moved that the Secretary and Clerk of the College should act in this capacity for the Conference.

The CHAIRMAN made a general statement, giving the ideas and objects of the Conference.

Dr. DEWAR, Chairman of the Scottish Committee of the British Medical Association, stated that the Scottish Committee was anxious and willing that the bodies should co-operate with it, and that the Committee were fully alive to the necessity of having some Scottish organization with greater powers than that possessed by it. They quite agreed that it was essential that there should be unanimity in the profession, and for that reason the Scottish Committee was willing to co-operate with the other bodies.

In reply to a question from Dr. BUIST, the CHAIRMAN stated that the proposed Scottish Council was intended as a temporary organization to secure unanimity amongst the members of the profession in dealing with the Insurance Act.

Dr. BRAMWELL was of opinion that a central council on the lines suggested appeared to meet the circumstances. He could not see how the Scottish Committee should have any diffidence about joining the proposed organization. It must be distinctly understood, however, that it was the General Council that was to act, and not any of the bodies forming part of it. The main point was to have an *independent* organization which would impress the Commissioners with the views of the medical profession as a whole. The Scottish Council would appoint an Executive Committee to carry out its mandates. The Executive Committee should consist of equal numbers from the Scottish Committee of the British Medical Association and from the colleges and universities, and a preponderating number from the district representatives. For instance, say

Colleges and universities	6
Scottish Committee of British Medical Association	6
District representatives from insurance areas ...	7

These figures were not to be considered binding, but, in the view of the colleges, the proportions indicated were essential.

Sir THOMAS FRASER approved the proposal, but stated that, so far as the universities were concerned, their interests were not so wide and so intimate as the other bodies, and he questioned if they had, in this respect, such a right of representation.

Professor FINLAY considered the proposal an admirable one. He was of opinion that the universities were bound to do something for their graduates.

Dr. DEWAR stated that he desired it to be understood that the Scottish Committee of the British Medical Association would have powers to carry out whatever they might determine upon without reference to London.

Dr. GORDON said that the British Medical Association should be glad to take assistance from the corporations, and gave his views as to suitable representation.

Dr. MOORHOUSE stated briefly the proposals of the Scottish Committee, and thought the organization of the British Medical Association most suitable for the election of direct representatives. Every practitioner in Scotland would be asked to attend the meetings and to vote at such elections. With regard to the formation of an executive, they felt that the Scottish Committee *en bloc* should form the basis. They proposed that the expenses be borne:

Two-thirds by the British Medical Association.
One-third by the colleges and universities.

And, finally, a paid non-medical secretary be appointed.

After some discussion Mr. BERRY pointed out that the constitution of the National Council itself might be settled, and moved the adoption of the proposal by the corporations for its formation, namely:

The councils of the three Scottish corporations (7 from each council)	21
Representatives from universities	8
Scottish Committee, British Medical Association...	15
Direct representatives from insurance areas, about	66
	110

Dr. BUIST suggested that direct representatives should alone have a vote at the meeting, while the representatives of other bodies should only have consultative powers.

After some discussion this proposal was dropped.

Dr. MOORHOUSE and others spoke as to the extent of representation which should be granted to the colleges and universities, when Mr. BERRY moved an adjournment for a quarter of an hour for tea.

As a result of various conversations which had taken place during the interval, Mr. BERRY suggested a compromise in regard to the formation of the General Council, which he believed would be acceptable to all parties. The Executive Committee should be appointed by the General Council in the proportions of the figures proposed by Dr. Bramwell.

A discussion ensued, when it was pointed out that the united Councils of the corporations would number twenty-four.

It was agreed that the total representation of the corporations should be fifteen.

Dr. BUIST thought that the representatives of the three corporations should not exceed fifteen, but suggested that in the event of any of the corporations not joining in the movement the representation of the corporations might be maintained at that number. The meeting agreed to this.

Mr. BERRY then moved that the General Council should consist of:

5 Representatives appointed by the councils of the three corporations (it being understood that should the appointed representatives be prevented from attending at any meeting, substitutes might be sent by the corporation	15
2 Representatives from each of the universities (on the same basis)	8
The Scottish Committee of the British Medical Association	15
Direct representatives from insurance areas, about	66
	104

Dr. DEWAR, on behalf of the Scottish Committee, accepted the proposal.

The proposal as put to the meeting was approved.

Dr. MUNRO MOIR suggested that, in order to suit those from outlying districts, future meetings might be called on any other day but a Saturday.

Dr. RUSSELL suggested the formation of an Executive Committee to arrange for the calling of the meeting as soon as practicable, and moved that the election of representatives from various areas should be obtained by postal vote.

After some discussion it was resolved: That the Executive Committee for carrying out the scheme be appointed by the General Council at its *first* meeting. That an interim Executive be formed consisting of Dr. Russell, Dr. Dewar, Dr. McKenzie Johnston, and Professor Stockman, with powers to arrange for the meeting of the Council, the sending out of a statement, the issue of necessary voting papers for postal vote, and the sending of a notice of this meeting to the press.

The meeting resolved that the name of the organization shall be "The Scottish Medical Insurance Council."

On the motion of Mr. Hodsdon, seconded by Dr. Gibson, it was resolved to communicate to the Royal Faculty of Physicians and Surgeons, Glasgow, and the University of St. Andrews, the result of this meeting, and to ask them to join the movement.

On the motion of Dr. Bramwell, a cordial vote of thanks was accorded to Mr. Berry for presiding.

MEETINGS OF THE PROFESSION.

BIRMINGHAM.

As a sequel to the special meeting of the Central Division of the Birmingham Branch of the British Medical Association held on December 19th, 1911 (see British Medical Journal Supplement, December 30th, 1911), when a resolution opposed to "the *laisser faire* policy" of the Association was carried by a large majority—a strong and influential Emergency Committee was formed by supporters of the resolution, independent of the British Medical Association, with the following objects:

1. To adopt and to advocate the policy of discontinuing negotiations with the Government and Commissioners, and that of refusing to take any part in administrative or medical work under the Act—as under it the demands of the profession were not and could not be conceded.
2. To take all possible steps to ensure that this policy be adopted by the British Medical Association both locally and centrally.
3. To formulate what it considers should be the minimum requirements of the profession, should the Government desire to amend the present Act.

It was not the intention of the Committee to act in any spirit of hostility to either the Association or to office-bearers in the local Branch of the Association who opposed the resolution on December 19th, 1911, but rather in the hope that the slight differences in local opinion, as to the tactics to be pursued, might be adjusted satisfactorily.

Members of the British Medical Association pledged to the policy of the Committee have been co-opted, each representing a district in the Central Division, so that the profession may be kept in touch with the Committee. A special endeavour is being made to induce any non-members to join the Association now that a more vigorous policy is being put forward, which, if the results of the meetings of Divisions are any criterion, will be adopted by the Association after the Representative Meeting to be held on February 21st.

A meeting of the Committee was held on January 24th, and there were present: Mr. Marsh in the chair, Drs. E. C. Hadley and E. Osborne (Honorary Secretaries), and twenty-three members.

After restating the policy of the Committee for the information of the new members, the Chairman announced that the chief members of the minority in the Central Division had expressed their willingness to accept the policy of the majority, and to act with them in giving effect to it.

A letter was read from Mr. A. Lucas, the representative of the Birmingham Branch on the Council of the Association, in which he said that he was entirely in accord with the policy of the Committee. He was therefore co-opted a member of the Committee.

Dr. James Neal, the Representative of the Central Division of the Birmingham Branch on the Representative Body, attended the meeting by invitation, and, having expressed himself entirely in accord with the policy of the Committee, was also co-opted a member of the Committee.

Very satisfactory reports were made by members of the Committee, who stated that the policy of the Committee was almost unanimously supported by the members of the profession in their districts.

A letter was read from the British Medical Reform Committee again asking the Committee to join them *en bloc*; but it was decided to adhere to the resolution passed at a meeting held on January 10th not to amalgamate but to be ready to co-operate with them if such co-operation seemed at any time advisable.

It was decided to nominate and support Drs. James Neal, Douglas Stanley, and E. H. Whaite as Representatives at the election for three Representatives upon the Representative Body at the Special Meeting of the Central Division on February 14th.

The Chairman and Honorary Secretaries, the Representative on the Council of the Association, the three nominated Representatives, together with Mr. Gamgee, Drs. Alldridge, Boeddicker, and Trumper, members of the Executive of the Central Division, were then appointed a subcommittee to draft resolutions embodying the policy of the Committee to be moved at the Special Meeting of the Central Division on February 14th called to instruct the Representative prior to the Special Meeting of the Representative Body, and also to formulate for the consideration of the Committee what they considered should be the minimum requirements of the profession should the Government desire to amend the present Act.

The Committee have every reason to be satisfied with the results already achieved. The slight differences of opinion expressed at the meeting on December 19th are fast disappearing and the policy indicated above is receiving almost unanimous support.

NOTTINGHAM.

A well-attended meeting of Nottingham medical practitioners was held on Tuesday, January 23rd, Dr. A. Fulton in the chair. The following resolutions were carried:

That a capitation rate of not less than 7s. per annum, exclusive of drugs, be accepted for attendance upon healthy men and women, and that this shall apply only to those earning under £2 per week.

That for late visits and other special services extra payment be made.

HOSPITALS.

British Hospitals Association.

The Council of the British Hospitals Association has adopted a resolution expressing the opinion that when the Insurance Act comes into force "insured persons, except for accidents or sudden emergency, should no longer be received in the out-patient or casualty departments unless accompanied by a certificate or introduced personally by the medical practitioner who is in attendance, and in such a case, after consultation, he should be referred back to the same medical attendant, with an expression of the opinion of the hospital physician or surgeon on the case, and that a list of all such insured persons, and the practitioners by whom they are sent, should be forwarded to the Insurance Committees of the district periodically."

Dublin Hospitals.

A meeting of delegates of the Dublin hospitals was held on January 23rd to consider what steps should be taken by the hospitals in regard to the working of the Insurance Act. A very gloomy view was expressed by all those present as to the future financial support of the hospitals, which in Dublin are almost entirely dependent on the voluntary contributions of the general public. A small subcommittee was appointed to prepare a statement to be submitted to the House of Commons, explaining how the finances of the hospitals would be affected by the Act in its present form, and suggesting suitable amendments to enable the hospitals to obtain some remuneration for the extra work that would be thrown upon them, and also, if possible, some compensation from the Insurance Committees to make up for the decrease in voluntary subscriptions. The subcommittee were also asked to prepare a letter to be published in the daily papers explaining the position of affairs to the general public. The subcommittee appointed is representative of those interested in the Dublin hospitals, both the profession and the laymen: Colonel H. Adair-Hall, Mr. Adam Lloyd Blood,

Dr. Louis A. Byrne, Mr. William Fry, J.P., Mr. Marcus Goodbody, J.P., Dr. Henry Jellett, Sir John W. Moore, M.D., Mr. Michael O'Dea, J.P., and Dr. J. M. Day as honorary secretary.

CORRESPONDENCE.

General Policy of the Association.

Dr. W. D. Gimson (Chelmsford) writes: I am glad to see, in the Supplement of January 27th, several correspondents lay stress on the loss of liberty incurred by taking office under the National Insurance Bill.

I have been in general practice twenty-three years, and I can honestly say that I would rather work for a benefit society, with members at 5s. per head, than work under the Act with members at 8s. 6d. per head.

If we refuse to work under *any* bill, and, as some suggest will be the case, 6s. per head is paid to all men earning less than £160 a year, I fail to see that our liberty of action will be curtailed in any way. In self-defence we shall form local medical societies, which will form rules by which club practice in their locality will be rigidly governed.

The local medical societies can make their own wage limit, minimum subscription, rules as to time for sending messages, and any other rules that may seem good to them.

Under these conditions the business of the medical profession will be in the hands of the medical profession, as it should be, and benefit societies will have to accept the rules made. In the opinion of several members of the Association whom I have spoken to, now is the time to send out a referendum, which will give us a chance of independence, and find out the true feelings of the profession as a whole. Practices which have taken years to make would once more appreciate to their proper value, and the profession would not stand to be robbed of their liberty and capital, if the profession as a whole pledges itself not to work under any Insurance Act.

Dr. J. E. O'Sullivan (Liverpool) writes: It is a trite and obvious truism that united we stand, divided we fall. At no time in the history of the profession is it so imperative that the principles embodied in that maxim should be practically exemplified as at the present, and that our demands should emanate from, and be formulated as a result of, a bold, determined, and united action.

When engaged in bargaining with the Government, the features of a common humanity, assumed to characterize any ordinary individual, are alone the humane feelings which the members of the profession should be prepared to admit, are emblematic and characteristic of themselves. With the welfare of the community they should, at such time, in no way be presumed to be more concerned than any other citizen or bodies of citizens.

The wealthiest Government in the world has been at pains to launch an exhaustive measure—they claim—of social amelioration, and the medical profession is in no way bound to assist them more than any other class in the community: to assist like any other member of the community, yes, but not one whit more. It is important that this fact should be borne in mind.

For any Government to recognize and endeavour to exploit the possession of humane attributes, assumed to originate and to be developed by virtue of the practice of the profession of medicine, by its members, with the ostensible purpose of attemping to secure doubtful benefits to other classes of the commonwealth, would be morally unjust, economically unsound, and would, it is hoped, be doomed to failure. The Government has introduced its scheme without consulting the medical profession. Having acted thus, the onus of making it a success falls, not on the profession alone, but mainly on the Government.

This is no time for any exhibition of sentimentality or pseudo-humanity by the profession. Its present and future, from every point of view, is at stake. The time for just, equitable, and hard bargaining has arrived, and if, through lack of unity or weakness, it permits itself to be outwitted and outmanœuvred the epitaph of its existence as an honourable, independent, and noble calling may be composed.

The profession has got to make up its mind mainly as to the income limit and as to method and adequacy of remuneration. I do not propose to labour the first. The limit, £104 per annum, advocated by the Association seems fair and reasonable, but as to method of remuneration there is probably more likelihood to be divergency of opinion. Unhesitatingly I allege that "cheap" contract work has been the debasement and the degradation of the profession: to its inception may be attributed the cheap dispensaries and touting which used to exist, and still exist, throughout the land. It stinks in the nostrils of all true lovers of, and believers in, the honour, uprightness, and integrity of the profession of medicine. It saps, and is antagonistic to, all laudable feeling of independence and sense of respect, and is degrading to a degree, alike in its incidence of effect and its possibilities for exploitation and the consequent warping of a man's sensibilities and power for good. Specious arguments against these allegations may be brought forward, but I assert that cheap contract work (and is not the Government's proposed offer of remuneration and the existing remuneration of clubs within that category?) presents the features I have specified. A rate considerably higher than what the Government proposes would stultify and be repulsive.

A system of payment for work done alone constitutes a method consonant alike with independence, dignity, and equitable remuneration, far outweighing any possible advantage likely to accrue from the adoption of the contract system, or any contract system likely to be considered by the Government.

Freedom from official tutelage is essential to healthy and independent growth and development, and such is more likely to obtain under a system of payment for work done than under any system of contract. The time to ring the knell of cheap contract work has arrived: those who are involved in it should receive adequate, fair compensation. If they continue to adopt it, they should be considered outside the pale and be treated as such. A system of payment for work done can be evolved and rendered perfectly and reasonably workable. The Government may reply, "We have not the money"; that is the concern of the Government, not ours.

Too long have we been exploited, too long have we been the hewers of wood and the drawers of water for clubs, friendly societies, and pseudo-philanthropists, ever lauding our "noble" profession to the skies, while they smugly exhibited their mock humanity at our expense, ground us down, and leered at any endeavour we may have striven to make to better ourselves by seeking for some sufficiency of remuneration for work performed. The hour has arrived when it is incumbent upon us to be bold, alike in council and action. If we be true to ourselves in our struggle for our just and inalienable rights, success will be our guerdon and reward, and thus will we hand on to our successors a heritage worthy of their esteem, gratitude, and regard.

The Forthcoming Representative Meeting.

Mr. Chas. Wray, F.R.C.S.Eng. (Westminster), writes: As Mr. Childe says, we must have a definite policy and then give explicit directions to the Representatives; but have we one? Briefly, matters stand thus: The six cardinal principles of the British Medical Association have not been unequivocally met, and we are to do what we can to get them when details are discussed by the local Insurance Committee. To ask us to fight the matter out with this committee of insured persons, friendly society members, and politicians, in the presence of a sprinkling of reporters keen on copy is the move of a statesman. It is a bold plan and excellent diplomacy. He wisely decides not to wrangle at the bedside, but secures a conflict between local and professional interests and counts on the local press to drive the profession *subjugo*.

What is open to us is to deposit our terms on the table and decline to discuss them. Happily, local Medical Committees are to be co-ordinated from head quarters, and this will compel all the main actors to foot the boards, and thus defeat the clever ruse of leaving us to become odious or accept the terms of the local caucus. Up to this point we are all agreed, but, whatever our plan of campaign, it must take blacklegs seriously, for the unforseeable is what is apt to decide the issue of every contest, and nothing should be left to chance. It is vital to recognize a man's

first duty is not to the profession that has undercut him without mercy and scared him with painful ineradicable scars, but to his wife and children and to himself if the wolf is near the door. Hence the necessity of a plan of campaign that does not postulate an ideal unattainable unanimity. Mr. Childe is on excellent ground when he recognizes the consultants as a very powerful fighting force, and even thinks they could end the present *impasse*. No doubt that is the case, but he has succumbed to the fashion of adapting his plan of campaign to public taste, and not to the necessities of the situation. He thinks if the consultants decided to "come out" they might all the same attend to urgent cases and those not sent by whole-timers. He may be right. If we fight and lose, the profession will lose heart. The Germans, when they were not fighting fearful odds as we are, played the game, and the wives and children, the sick and the infirm, were left to their fate. We were humane, according to the man in the street, in the Boer war, but we paid the penalty of such folly. If the consultants refuse all service in the hospitals because they consider the bill is dangerous to the public, they would cause a panic amongst the insured that naught but the amendment or ending of the Act would stem. The maddest of savage beasts will not flesh his tusks deep in meat that is all pepper. The main article of belief in our public men is that opposition almost always ends in smoke. In this case they must be disillusioned. If the consultant will wage war according to the harsh rules of war the battle, if it is fought, will not last a day. Stage methods are out of place, and in view of the critical position of our brother practitioners indecent.

A Public Medical Service.

Dr. Sidney Gilford (Reading) writes: We are all waiting for a definite lead. As early as possible a referendum should be taken of the whole medical profession. This referendum should be on these lines:

1. Shall we decline to take service under the Act at once? Yes or No.
2. If the majority decide that we shall not decline, shall we—
   (*a*) Negotiate with the Commissioners for an indefinite time; or
   (*b*) With a time limit of six months, and if the six cardinal principles are not then secured, decline to accept service?
   (Cross out the policy (*a*) or (*b*) which you disapprove of.)

Having secured the opinion of the majority of medical practitioners let us all loyally abide by the result.

At the same time the Council should present to every Branch or Division a copy of the scheme for medical service, which I believe they have already drawn up, for revision and adoption, so that if we decline service under the Act we have a better system to present to the Government.

Unless we have some strong line taken up, even before the Representative Meeting, we shall be seeking for other leaders in this time of crisis. This is not the time to sit and watch.

The Independence of the Medical Practitioner.

Mr. R. J. Irving, M.B., F.R.C.S.Edin. (Southport) writes: Being one of those who consider that a national medical service will be a step towards the millennium, I was very interested in Dr. Charles E. S. Flemming's article on the above subject in your issue of January 20th.

While agreeing with Dr. Flemming that it is essential to preserve the independence of the medical profession, it seems to me that he labours too much the necessity for the independence of the individual practitioner. What the profession wants at the present juncture and hereafter is the control of its members.

At present each member of our profession is waging two distinct battles. In the first place his livelihood depends upon the success of his efforts in competition with his confrères, and, secondly, this "stimulus of competition," proving too much for the weaker members, they are taken in flank by some combination of the public and bound to capitulate on any terms which may be offered. Hence we have sixpenny dispensaries, fourpenny clubs, and the 1s. a month generously paid by certain shipping companies. Every new member of our profession has this fate staring him in the face. Under such circumstances need we be surprised at some uncertainty as to the action of the profession in the event of certain whole-time appointments being offered under the Insurance Bill. "If £1,200 a year overcame the scruples of the leader of our vanguard inside twenty-four hours, how long will it take the rank and file to scramble for £500 a year?" is a little problem which doubtless certain 'cute politicians have nicely weighed up.

Dr. Flemming seems to think that a national service must necessarily be bound hand and foot by red tape and officialism. I take it that the officials looming in his mind are those of the friendly societies *plus* a sprinkling of labour agitators.

The nearest approach we have to any kind of national service is that which obtains in our hospitals, the only place where laymen and the profession come into intimate contact without any embarrassing thoughts relative to fees. Here laymen and medical men meet on common ground with identical interests—namely, to relieve suffering and to cure the sick. Our hospitals are not horrible examples of officialism, nor do we often hear of laymen wishing to interfere with medical duties or treatment therein.

The Post Office and certain railway services are other examples of well-conducted State services unhampered by interference of the ignorant.

A national medical service such as I advocate will be managed by the medical profession itself. It will be financed by the Government or ratepayers, and its duties will be to take care of the public and the individual health. It will be a live service, to which members will be admitted by competitive examination. After admission, each member will be guaranteed a career unfettered by the cares of fee hunting, our present curse. No layman grudges his fire insurance premium, nor will he grudge equitable taxation which insures his health; rather he will be proud to maintain such a service in comfort, if not in affluence. So far as the public (especially wage-earners) is concerned, there is to be considered one cardinal outstanding fact—namely, that the time to pay for sickness is when a man is well and able—not when he is ill and unable. To do this the public must insure or they must pay taxes. Probably the proper solution being that some will insure and some be taxed.

I think I could answer Dr. Flemming's objections to a State service seriatim, but space does not admit. I, however, feel certain that his fears of lay interference with our professional work are unfounded, and at first it seems advisable to discuss the principle of a State service before entering upon details.

Dr. Flemming lays much stress upon the necessity for science in our work; but surely present conditions are neither conducive to study nor research. How few have the leisure for either! It is said that one person out of every seven dies from the effects of the *Bacillus tuberculosus*. Now surely there is a subject on which the general practitioner should be an authority. Are many general practitioners actually able to give a practical and authoritative opinion on the use of, say, tuberculin? Dr. Flemming asks, "How much of every-day illness is really preventable by legislation?" Well, one does not expect legislation to prevent headaches, nor sickness and diarrhoea due to green gooseberries. We all know how much chronic disease and suffering are caused by such preventable diseases as tubercle, syphilis, and gonorrhoea.

Modern civilization having eliminated natural selection from our midst, it seems probable that some system of State eugenics will be practised in the not distant future. If such a proposition has to be faced, how important is it to the individual that he should be able to show his own and possibly his family medical history. No such records are at present available, yet how valuable they would be in some cases of illness, and almost invaluable to the future eugenist. It is merely a suggestion that the making and care of each individual's medical history will be another duty of a national medical service.

In conclusion, I think it is fair to argue that the only way to maintain the independence of the medical practitioner is first of all to organize the profession itself into a national service, in which each member has a guaranteed position independent of lay interference. Each member will then be able to turn to the real duties of his calling, and face them with a scientific mind free from monetary cares. Once we get rid of the spirit of bargaining incidental to practice as at present constituted, the medical man and the layman have identical interests, and knowing this they will work together with the utmost harmony for the common welfare.

The layman will not then say to the medical practitioner, "You are working for me for so much salary and you will do as I direct," but the medical profession will be in the position to state that such and such is the proper way to conserve the public and individual health, and our lay brethren will be only too pleased to have the guidance of an independent and unbiassed profession.

Dr. Edward McCulloch (Devonport) writes: Many, I think, will differ from Dr. Flemming in his championship of the purely individualistic form of medical practice. If all his views were true, surely one should find a much more general content with things as they are in the ranks of the profession.

Yet the correspondence columns of the medical journals during the last few months reveal such a plethora of evils that it is evident that the present independence, commercial and professional, of the general practitioner does not tend to produce a happy profession.

The main reason that we are threatened with an attempt to force upon us a system of work for what is generally considered to be inadequate remuneration, is to be found in the fact that internal competition has led us in the past to accept even less than what we are now offered. Everywhere one hears grumbles that so and so, and such and such, accept inadequate fees from people able to pay adequate ones. The fact that they feel that they must get patients somehow, in order to get a footing, or keep one, or to keep a wife and family, is constantly overlooked. Only those men who are wholly or partially independent of their profession as a means of livelihood, are absolutely contented with the present conditions of medical practice. Only those fortunate ones can choose their patients or their species of work. The "independence" of most of us is limited by the risk of driving patients elsewhere, if all their whims and unreasonable demands are not complied with.

Putting contract work on one side for the present, the competition engendered by the independence of the members of the profession from control, internal or external, and the necessity of earning a livelihood result in a vast amount of ill-paid and indifferently performed work.

The average general practitioner is too busy making a living to take much interest in the more scientific aspect of his work. It pays better to study the foibles of his patients and to pander to them than to cultivate skill in modern diagnostic and therapeutic methods. What leisure he has is more likely to be devoted to such relaxation as can be found in sport and social intercourse. The latter, also, is probably more paying than professional study. Besides, medicine as a business takes so much out of a man that he is hardly fitted to undertake mental work after an average day's work. Mistrust rather than cordiality is notoriously the keynote to the relations between individual practitioners, hence the abolition of unfair competition betwixt them, by mutual agreement, seems to fall within the sphere of utopian rather than practical politics.

But supposing it to be achieved and a fair scale of fees devised and adhered to in each locality, what is the most likely sequence of events to follow? Probably a considerable increase in bad debts or else a falling off in the total amount of work done. An increase in medical incomes is hardly a reasonable expectation, as I fancy that the poorer members of the community are paying us as much as they can spare now.

Provident dispensaries might be tried as a remedy, yet, as no form of compulsion could be exercised to make people join them, nor yet to pay their subscriptions, it is doubtful if they would prove ultimately successful.

There is also a widespread view that the medical profession is overcrowded, and that this is the cause of the difficulty its members have in obtaining an income sufficient for maintaining a proper social and intellectual level. So far from the truth does this appear to me to be, that I unhesitatingly state that there are not enough doctors to do the work of the community as it ought to be done. Possibly there are more than can find a decent living under the present system, but that is a totally different proposition.

Many of us welcome the principle of the State Insurance Act because it appears to be a beginning of public recognition of this fact. State help to the people to obtain satisfactory medical attendance, and to the profession to obtain fair pay for that attendance, is a necessity if the case is looked into with a mind free from bias, political or otherwise. That admitted, it follows that we must submit to some degree of State control.

While it is our duty as well as our right to insist on adequate remuneration, provided we use our slowly-developing unity wisely we shall be gainers in the end. Bad pay means bad work, but if a sacrifice of some degree of independence enables us to secure better pay we shall have the time to do better work.

That politicians have failed to grasp the magnitude of the task they have initiated is no excuse for the medical profession washing its hands of all responsibility in the matter. We alone have the necessary knowledge of the necessities of the case, and we ought to neglect no measure whereby we may collaborate with the representatives of the State in evolving a satisfactory system.

The Policy of constituting Local Medical Committees.

Dr. S. Verdon-Roe (Wandsworth) writes: Mr. Marsh states in the Supplement of January 27th that the "setting up of local Medical Committees would most certainly be construed to be a tacit acceptance of the Act." Does Mr. Marsh consider that when a medical man claims a rebate on the petrol duty he has paid, he tacitly approves of the principle of taxing petrol? Does he suggest that medical men should signify their disapproval of the present Government and all its works by declining to accept any rebate? Such action would be just as sensible as declining to form the statutory local Medical Committees.

The setting up of these committees would merely be an indication that we intended to avail ourselves of every opportunity to secure what we want.

Let us suppose for the sake of argument that we gain nothing from the Commissioners, I still suggest that the committees should be formed. These local committees would draw up the terms and conditions that will be accepted by the medical men in the district they represent for attendance on insured persons. These terms and conditions should be submitted to the local Insurance Committee; if they are accepted, well and good; if they are not, it does not matter two straws to the local medical men. We have all undertaken not to attend insured persons except on the terms and conditions agreed upon by the local Medical Committee, and it is a matter of indifference to us whether we are paid by the local Insurance Committee or by the insured persons; many may possibly prefer the latter. The local Insurance Committees being unable to form panels will inform the insured persons that they must make their own arrangements with the doctors. The terms and conditions being a matter of common knowledge, the confusion and haggling that would otherwise ensue would, by a policy of this kind, be entirely obviated.

Of course it may be argued that these terms and conditions could be drawn up just as well by a Medical Committee regardless of the Act. This is perfectly true, but the pronouncements of such a committee would entirely lack the weight and authority that would characterize those of a recognized statutory local Medical Committee, and bearing in mind that there is really no valid objection to the formation of local Medical Committees, it seems absurd not to form them.

Mode and Rate of Remuneration.

Dr. A. Paget Steavenson (Hurworth-on-Tees) writes: I have followed this bill from its introduction, and cannot help feeling that a great many men do not realize one of the greatest objections to it as far as we are concerned—namely, *abuse of service*. I am sure none of us object to going to a patient, be he rich or poor, at night or daytime, if he is *really* ill; but we do object to being imposed upon and being at the beck and call of every one.

This is my great objection to the bill. It can only be got over by allowing us (and the patient) full liberty to refuse attendance at any time and by telling a patient to get another doctor (or the patient to dismiss us). If patients realize that if they impose upon us we are at liberty to refuse to attend, they will soon learn to consider us and our time. Of course, this can only be done by adopting the "pay for work done" system. I admit that we must not expect our usual visiting fees, but is it not better to reduce them and retain our independence? We must

adhere to our income limit of £2, which is even then too high for rural districts, and, of course, have extra for mileage, night work, messages after a fixed hour, operations, etc. This bill is only the beginning; what it will be when women and children are admitted "God alone knows," and admitted they will be in a very short time. If we do not make terms now that will retain for us our independence, we never shall, and we alone shall be to blame.

I do not believe there is a man living who can give of his best under a capitation system of payment. Such a system might work in a town, but it is impossible in the country, where you have long distances to go, to say nothing of most inaccessible places to get to. How much per head would be considered reasonable for attending at a farm which was seventeen gates off the road?—and the farm road too bad for any motor or decent trap to go up. I have several places like this, and would not accept £2 or £3 capitation fee to attend them.

I am convinced that if the profession will only study the state of affairs, they will have a very much happier life if they demand payment for work done and power to decline attendance at any time. Mr. Lloyd George very weakly admitted that the country could not afford to pay for work done. My answer is, then—refuse to work, and we shall have the country behind us.

Dr. T. Carson Fisher (Torquay) writes: Judging from the many letters in your columns, men seem to hold the most diverse views as to adequate remuneration of professional services, one of the famous six points. Some prefer payment by the job—namely, a scale of fees for visits, consultations, night calls, operations, etc. I think most of us would prefer this method were it not for the difficulty and uncertainty of counting the cost.

Others advocate contract practice per capita for all except deposit contributors, with estimates varying from 8s. 6d. to £1 per annum. The lower sum is based, I believe, on the present rate of payment to Post Office officials. No doubt many men accept such appointments as a useful adjunct to private or club practice. But since in many places men will be deprived of the bulk, if not all, of their private practice by this preposterous bill, I do not think this ought to be taken as a fair estimate for sound folk, even with extras. It does not seem to correspond with the half-crown a visit of the other party. Three visits and a fraction yearly a head seems insufficient, putting aside accidents, epidemics, etc. I am sure a carpenter or plumber, much less a cabman, would not accept terms anything like this for yearly service. From 500 people at this rate the income would be a little over £200 a year, with the usual drawbacks of contract practice—the loss of leisure or of recreation, social or otherwise, and with the inevitable annoyances and exactions of people who have not to pay by the job. The result of statistics as to the rate of pay in club practice at present, as has been repeatedly stated in your columns, would probably be to point to the munificent sum of 6d. a visit, or near it. On this basis the advocates of contract practice per head ought to insist on a minimum of five times that sum per visit, and, allowing for five to eight visits yearly, the estimate ought to be from 12s. 6d. to £1 yearly, even with extras. I am quite aware this will be thought an extravagant estimate by those who have been inured to the exigencies of club practice.

But besides methods of payment based on such practice, as in this bill, to get at adequate payment of an educated and onerous profession there are other considerations, repeatedly insisted on. In the last twenty-five years medical education has gradually cost more in time, money, and brain work, the cost of living and outgoings of practice have vastly increased, while the sphere of the general practitioner has been circumscribed in various directions, and it has become harder to earn a decent living wage. Hence the wide spread of the iniquitous club system. Men take to it from necessity. Yet the humble half-crown a visit of twenty years ago is held up as the ideal basis of payment, and we all, or most of us, are to become struggling practitioners in a glorified and universal club.

The battle of the clubs has been going on for twenty years. If united, we can show the public that we deserve better wages than those of a mechanic, and that they ought to approach somewhat more nearly to the 6s. 8d. of the solicitor, though still far behind that standard.

The British Medical Association Reform Committee.

Dr. H. Elliot-Blake (Bognor) writes: Why cannot the Central Council form an Insurance Act Amendment Committee as part of the State Sickness Committee, and so get rid of the foible of Dr. Fred. J. Smith's ill-starred pseudo-Reform Committee? His committee mentions no reform whatever, and his amendment does not go beyond those previously determined upon by the British Medical Association. Neither reform purpose nor newness exist in, nor can they result from, the six overtures of Dr. Smith's manifesto. The one and only petty grievance there mentioned is that they, being outside the Central Council, want the Council in their own hands. That selfish substitution does not constitute any reform whatever. It is a mere shaking of the pepper-box. Besides, it never could be accomplished at all within the time available for the amendments of the Act, or before it comes into force—partly in six and wholly in twelve months. Like the extreme opposite overture in Mr. Booth's letter in the *Times* (January 12th), both get upon an irritating third-level shelf, and therefrom rather harrow than atone their subjects. Mr. Booth—a chief supporter of Mr. Lloyd George—pretends that 1d. a week terms will be a sufficient dole for the doctors under the medical service of the Sickness Insurance Act. Dr. Smith deprecates what the British Medical Association and the Council have done to force terms upon Mr. Lloyd George in his Insurance Act. That shows what a ludicrous upset this wrangling side presents before the public, so vacuously foreboding and so easily seen.

Yet, in solid review, the public lose sight of, or do not know of, the old determination of the British Medical Association—not Dr. Smith—to mould a proper and respectable professional medical service under this Act; and that, even now, the medical profession will not allow, without perturbation, the perpetuation by the State of that former 1d. a week and incompetent and worthless type of club practice. There is no intention here to poach on Sir Clifford Allbutt's academical discussion, but his mention of the "elastic six shillings" should have read, or rather it referred to, four shillings and sixpence firm, and that is all the actuaries could divide.

Obviously the best part and majority of the medical profession agree that the terms of the present Act offered are quite inadequate for a public service. Moreover, as I pointed out in my detail letter in the *Times* of January 5th, even the minimum expenses of the medical service are not guaranteed. There I showed the necessity for an amending Act, both to alter the "may" of Section 15 (7), (8) into "shall" (for this enabling section of the Act should either be positive or expunged), and to make the "Medical Committees" statutory, and their power final as regards the medical regulations. Otherwise, the finance section must be an absurdity, and the "Insurance Committee" will step out of their province, that is, for the insured's interests, and interfere inevitably, and utterly intolerably, with the provenance of the special medical arrangements. Surely if the doctors are willing to give service, they are best able to judge of its practical extent and its sensible regulations. If the medical profession moved for those two simple amendments, it would make the Insurance Act a just and a workable reform base.

Instead of that, for Dr. Smith and his coadjutors to scold, and to desire the expulsion of the Council and all the Representatives (and, by the way, confidence has already been passed in favour of many Representatives), and also to jeopardize the continued work of the State Sickness Committee, and who have all these months laboured hard in the interests of the whole medical profession, and for a competent medical service for the public, displays gross ingratitude and a mind tainted—indeed, unabashed—by venom, and not congruousness; and self-seeking, and not for collectivism, or with anything like an approaching claim to *new* leadership. If this, with other parts of an Amending Bill be determined upon by the Representatives, and where it is judged that the Insurance Commissioners would be unable to act, would it not be advisable to delete the panels, and substitute or reinstate the *Medical Register*? It would save endless management expenses; and, of course, as now, the class doctor would not be bothered, and unwholesome and weakening classi-

fication of the medical profession would be avoided. And, best, the Insurance Commissioners could be superseded by the General Medical Council, where medical conduct under the Act had to be reprimanded.

Meetings of Branches and Divisions.

BORDER COUNTIES BRANCH:

English Division.

National Insurance Act.

The attitude to be adopted by local medical practitioners towards the National Insurance Act was further considered at a mass meeting of the profession in the English Division area of the Border Counties Branch of the British Medical Association, at the Crown and Mitre Hotel, Carlisle, on January 17th. Dr. Edington, Penrith, presided over a good attendance, those present including Dr. Maclaren, Dr. Helm, Dr. Graham, Dr. Aitken, Dr. Bigg, Dr. Donald, Dr. Hall, Dr. Bird, Dr. Norman Maclaren, Dr. Burns, Dr. Hill, Dr. Morison, Dr. Beard, Dr. Sedgwick, Dr. Edwards, Dr. Scott, Dr. Thomson, Dr. Flament, Carlisle; Dr. Gilchrist, Stanwix; Dr. Doughty, Dalston; Dr. McKerrow, Workington; Dr. Coulthard, Aspatria; Dr. Dodgson, Southwaite; Dr. Syme, Glasgow and Carlisle; Dr. Messenger, Kirkbride; Dr. Johnston, Burgh; Dr. Cass, Distington; Dr. Goodchild, Glencathra; Dr. Arnott, Brampton; Dr. Whiteside, Great Strickland; Dr. Farquharson, Garlands; Dr. McTavish, Penrith; Dr. Thorp, Whitehaven; Dr. Muriel, Whitehaven; Dr. Bowser, Penrith; Dr. Crerar, Silloth; Dr. Crerar, Maryport; Dr. T. Arthur Helme, Manchester; and Dr. Anderson, Garlands (Secretary).

Apologies for Non-attendance.—A number of apologies for absence were intimated, these including one from Dr. Barnes (Carlisle), who wrote as follows:

I am very sorry I shall not be able to be at the meeting on Wednesday, and shall feel obliged if you will tender this apology for absence.

I am in entire agreement with the resolution which is to be submitted, and trust that it will be carried with absolute unanimity. We are faced with a grave crisis. We must all stand firm and be loyal to each other. In its present form the National Insurance Act spells ruin to thousands of medical men. It will inflict serious injury on hospitals, and will greatly diminish the facilities which the sick poor at present have for skilled medical help. It has other disadvantages and dangers which do not directly concern us.

I am convinced that the only sound policy for us to adopt is to refuse service until our six cardinal principles are conceded. I think these can best be secured through the British Medical Association. I have had a longer and more intimate knowledge of the inner working of the Association than most of those who will be present at the meeting. I have been a member for more than forty years. I was Branch Secretary for seven years; I held office as President of the Branch on two occasions, first in 1876 and again in 1905. I was President of the Association in 1896, and I held office as a member of the Central Council for more than twenty years.

In spite of the weak and vacillating attitude adopted by the Council in their negotiations with the Chancellor, I still think that the Association is the organization best fitted to obtain what we all wish. The sanction which the Council gave to the acceptance of a Commissionership by the Medical Secretary was a stupendous blunder, but it has had the effect of consolidating the profession in its opposition to the Act. I greatly admire Dr. Helme's enthusiasm in establishing the National Medical Union, and if it continues to work side by side with the Association a complete victory for the profession is assured.

Let me in conclusion quote the final words of the presidential address which I delivered at the Association meeting in Carlisle in 1895—"In unity there is strength. We must not waste time in idle talk; let us agree on general principles and the force and influence which this great Association wields will be irresistible."

At this stage it was decided, on the motion of Dr. Hill, seconded by Dr. Anderson, that the meeting should be public.

The Chairman explained that the object of the meeting was that they should determine the action they proposed to take in reference to the National Insurance Act. He would ask them to focus their attention on the fact that they must put up a united, solid front to the Commissioners in their demands for the six cardinal points that they asked for. Unless they showed unanimity and determination their cause would be looked upon as exceedingly weak, but he was happy to say that indications showed they were going to gain the day, and Dr. Cox, the Deputy Medical Secretary of the British Medical Association, thought they could easily do so. (Applause.)

Dr. T. A. Helme (Manchester) addressed the meeting at length. At the outset he remarked that he appeared before them at some personal disadvantage, because he was afraid he had not the advantage of being personally known to them, and they probably knew him chiefly through the channel of a misleading circular which had been addressed to them, and in which he had been personally attacked and misrepresented and held up to undeserved criticism. He made the claim that, whether mistaken in his advocacy of a certain policy or not, at any rate he had been consistently and openly straightforward in his methods. He pointed out that he had given much of his life to the cause of the British Medical Association and the profession as a member of the Central Council and as one of the band of reformers at a critical time in the history of the Association. Dr. Helme went on to speak of the work of the Association and in regard to the officials. He contended that there could be no doubt that the source of unrest which had been in evidence of late was the consciousness among the rank and file of the profession that the official attitude of the Association did not reflect the attitude, the feeling, and the desires of the mass of the profession, and for this the Council and officials were chiefly held responsible. He repudiated the criticism that he had endeavoured to divide the Association, and he claimed to have helped in preventing its destruction. The policy of the new union was based on the belief that the policy and methods of the officials of the Association were not in harmony with the wishes of the mass of the profession and the rank and file of the Association. What was the basis of the objections of the profession to the provisions of the Act? It was that the independence of private practice was attacked, and not only that, but its foundations were destroyed. The provision of efficient medical service for those who could not individually afford to pay for it themselves had been one of the main desires of the profession. They therefore welcomed insurance because of its benefits and advantages for the poor, but to be compelled by the State to become sweated club doctors under lay control was a thing they could never submit to. Dr. Helme proceeded to give a history of the Insurance Bill, and reviewed the circumstances in connexion with the six cardinal points of the doctors' demands, and also gave a summary of the action taken by the Council of the Association regarding the various sections of the Act. As the result of the Act, the medical profession was compelled to become the sweated servants of working men committees, with their future entirely at the mercy of a body of Commissioners almost entirely composed of the laity and a woman. Turning to the question of free choice, Dr. Helme contended that inaccurate and misleading statements had been sent down by their officials to the members, and it was that sort of thing that had led to the present state of affairs. Had free choice been secured? Nothing of the kind was guaranteed. Free choice of doctors by patients was not secured in the Act, nor yet the power of the doctor to refuse. Free choice by the patient might be secured, but it was no more secured than was the £2 limit. The independence of the profession was gone, and they would be subject to the criticisms and complaints of the working men on their lists for a definite time. As he had remarked before, it was quite evident the official policy of the Association was not the policy of the Divisions. He claimed that there was reason for mistrust. This came about by the fact that the Divisions were scattered, and it was impossible to get organized opposition to the proposals of the Council. Whether preventable or not, very little time had been allowed to the Divisions to consider the reports of the Council, much less to arrange for the organization of opposition. The result was that at the Representative Meeting a Representative had almost as little chance of getting a resolution through as a private M.P. had in the House of Commons. Further, the rules of procedure were so complicated that many men, unless experts, lost their chance, and they received no help from the officials. The methods of procedure were also against them. The policy of the Council had been to procrastinate, and had only succeeded in making it easier for the bill to get through Parliament in a form which did not meet the approval of the profession. The Council had been of opinion that it was more politic to assist the enactment of an Act drawn on wrong lines, in the hope that the

driving force of the profession would eventuate in bringing it on to correct lines, than to use the driving force of the profession before the bill was enacted to ensure that it was laid on correct lines. With that policy they differed. It had been weak and vacillating. The result of the whole thing was that they had a bill of fluidity or vacuity, and, as Sir Clifford Allbutt put it, "in so far as the Act is not an Act, there is hope." Now was the time to do something and to adopt a firm attitude. He had read the resolution that was to be proposed at this meeting in Carlisle. It was good, but they could do more. He believed they intended to be strong, but he also believed that they could be a little stronger. He suggested that they should refrain from undertaking work under the Act until the provisions of the Act were so amended by regulations framed, if possible, by the Commissioners, as to be entirely in accordance with the six points. He also advised them to ask for the appointment of independent local committees not under the Act, to define their local requirements. They were not going to bargain any more. They were the best judges of what they required locally, and they were not going to ask the working men to bargain with them as to what they knew was in the interests of the public and themselves. If they began to bargain locally, the tendency would be for weaker Divisions to give way and so drag down the standard even in the stronger Divisions. As a profession let them stand clear of the Act until their six points had been secured. If their terms were granted there would be no need to refuse to form a panel. If their terms were not granted, then they would refuse to do the work—that was to say, to give attendance, and that meant a strike, with all its possibilities. It was to give one more chance to get their terms, and to prevent the necessity of a strike, that he had suggested the course he had. He thought their Council was to blame in not making provision for a strike. They wanted to know how many cartridges they had and that their powder was good. The weakness of attitude of their Representatives towards the Government and the methods urged upon them by the Council—notably their desire to urge them to form the local committees under the Act and to commence local bargaining—should warn them not to trust them for the future. If they did they would be defeated; they would find that they were worsted in local skirmishes, and when, if ever, the main battle should take place, they would find their weapons obsolete and their ammunition wanting.

Dr. Crerar (Maryport) moved the following resolution:

> That this meeting of practitioners is of opinion that the members of the profession in this Division area should refrain from undertaking any medical work under the Insurance Act until regulations have been framed by the English Insurance Commission which are entirely in accordance with the six fundamental requirements of the profession, and that the English Insurance Commission should forthwith be informed of this.

He said he did not think there was any person in the meeting who would object to the amendment to the wording of the resolution suggested by Dr. Helme. He argued that while in the letter they had got freedom from friendly society control, in spirit they had nothing of the kind. What did adequate medical representation on the local Health Committees mean? Proportional representation must be taken into account when adequate representation was considered. Mr. Lloyd George had immensely increased the size of the local Health Committees, but had left the medical representation where it was—three medical men in a committee of forty or eighty. Steps were taken to have that remedied, however, and now the medical profession was represented to the extent of four in forty at the strongest and six in eighty at the weakest. But there was a more important point than that. They were to be under the control of a committee having a three-fifths majority of working men. What would that mean? It would result in the loss of the independence of the medical men, and once that was done the community would be injuriously affected. It was only by the elevation and not by the degradation of the medical profession that the nation could hope to conquer the "pestilence that walketh in the darkness and the destruction that wasteth at noonday."

Dr. Bird seconded the resolution. He said the public did not understand the distinction between ordinary club practice and the proposed medical benefits under the Insurance Act. A doctor acting for a club could resign office at any moment, but under Government there was to be a large compulsory club, including many who could quite well pay reasonable fees; and if they allowed the proposed management of the medical part of the Insurance Act to go on it would not be long before women and children were included. Nine parts of the population would then be under the system of compulsory contract practice. Under the Government system, to make an income would entail an excessive amount of work. It was difficult enough to know what was the matter with patients and to treat them correctly when there was leisure to observe, to think, and to read; but under the Government system there would be little energy or time for either. General fatigue would be the order of the day. The benefits under the Act should be strictly confined to people who could not pay a reasonable fee, and he would refuse to sell his services for 5s. a year to people who could pay. If he had health and strength to do so he would sooner go to another clime. If a certain number of people enabled Mr. Lloyd George to exploit his Act, they would be selling their birthright for something less than Esau of old, because the conditions would be slavery and the loss of independence. They would also sell the birthright of generations of the medical profession to come, and the public would be the sufferers from a deteriorated profession.

Dr. Bowser moved as an amendment:

> That all the words following Division area in the resolution be deleted, and the following words substituted: "Should refuse to undertake any medical work or other duties that may be assigned to them under the Insurance Act, until the provisions of the Act be so amended either by supplementary Act or by regulation formed by the Commissioners as to secure, without equivocation or reserve, the six cardinal points demanded by the profession; and that all disciplinary powers over medical practitioners under the Act be placed unreservedly in the hands of the medical profession itself."

One of the most extraordinary provisions in the Act, and one that, so far as he knew, the Council had not taken the slightest notice of, was that they were placed absolutely in the hands of the Insurance Commissioners. The livelihood and professional honour of the doctors were placed in the power of the Commissioners, which was a thing open to very grave objection and was not at all right.

Dr. Rigg, in seconding the amendment, said the Council had not acted in an efficient or straightforward way, and it seemed to him that before they could have anything done strict and stern measures ought to be taken with the Council.

Dr. Donald supported the amendment, and remarked that it put matters in a fairer light. So far as disciplinary powers were concerned, they must all agree that if they were vested in the hands of the Commissioners there was little chance of their decisions giving general agreement. It had been said that the doctors had taken a hysterical view of the matter, and he was not surprised if they had. Regarding the matter in a purely business-like way, the Act did not provide for the public receiving a satisfactory medical service.

Dr. Maclaren said it seemed to him that the resolution and amendment had the same object in view. ("Yes.") The difference was not vital. He suggested that the movers and seconders of the motion and amendment should confer for a minute and put before them one resolution on with which they might all agree, so that they would not go before the public as a divided body.

After further discussion, the first of Dr. Bowser's amendments was accepted by Dr. Crerar and carried unanimously; and, on Dr. Bowser agreeing to add the words, "Under Section 15, Subsection B," to the second part, it was also unanimously adopted.

The full resolution adopted was, therefore, as follows:

> That this meeting of practitioners is of opinion that the members of the profession in this Division area should refuse to undertake any medical work or other duties that may be assigned to them under the Insurance Act, until the provisions of the Act be so amended, either by supplementary Act or by regulation framed by the Commissioners, as to secure, without equivocation or reserve, the six cardinal points demanded by the profession; and that all disciplinary powers over medical practitioners, under Section 15, Subsection B, of the Act, be placed unreservedly in the hands of the medical profession itself.

Defence Fund Committee.—A defence fund committee (local) was formed, the members being Drs. Edington,

R. Maclaren, Bowser, Muriel, Sedgwick, Lediard, Donald, and Helm (Carlisle).

Vote of Thanks.—A vote of thanks to the Chairman brought an enthusiastic meeting to a close after lasting over two hours and a half.

EDINBURGH BRANCH:

South-Eastern Counties Division.

A meeting of this Division was held at Duns on January 24th. There were present: Drs. Johnstone, Young, Campbell, McWatt, Macvie, Taylor, McInnes, Howard-Smith, Georgeson, Fleming, McWhan, McLagan, and Oliver. Dr. M. J. Oliver (Chairman) presided.

Apologies for Non-attendance.—Apologies for absence were received from Drs. J. R. Hamilton, G. Henderson, J. S. Muir, McMillan, McWhir, and Dr. J. Jeffrey (Secretary).

National Insurance Act.

On behalf of the Secretary the results of the recent canvass of the Division were communicated, from which it appeared that of the fifty-eight members of the Division fifty-six had signed the Association's undertaking not to act under the National Insurance Act until satisfactory conditions had been obtained. Twenty-four members had contributed to the Central Defence Fund, and forty-six to the Branch Fund.

The Chairman stated that, owing to representations made to him as to the difficulties met with by members resident in Berwickshire in attending meetings of the Division held at places convenient to the majority of the members, and central as regards the area of the Division, he proposed the following scheme, as to which he had consulted the members of the Executive Committee of the Division:

1. That a subcommittee of the Division be appointed for Berwickshire.
2. That the subcommittee so appointed hold meetings for the purpose of organizing the profession in Berwickshire, of arranging for the election of a Medical Committee, or for the election of representatives, in terms of Section 59, National Insurance Act, and of arranging for the election of a Medical Committee in terms of Section 62 of the said Act.
3. That the said subcommittee convene and hold such meetings of the whole profession in Berwickshire at such times and places as they may consider convenient and necessary for the purposes of organization.
4. That the proceedings of the Berwickshire Subcommittee take effect on being reported to and approved by the next general meeting of the Division.
5. That the subcommittee consist of five members, and elect their own chairman and honorary secretary.
6. That the following be elected the subcommittee—namely, Drs. Young, Campbell, McWatt, G. Henderson, and S. Macvie.

A discussion then ensued on the present position of the British Medical Association and the medical profession with regard to the National Insurance Act, in course of which explanations were given by Dr. J. Carlyle Johnstone and the Chairman. Almost all the members present took part in the discussion, and finally Dr. Taylor seconded the resolution, which was carried *nemine contradicente*.

It was then resolved that the Secretary be instructed to take the necessary steps to give effect to the resolution in terms of the articles and by-laws of the Association.

No other resolutions were proposed, but from a general discussion that ensued it was apparent that members appreciated the necessity for supporting the British Medical Association, in order that by combined action suitable terms and conditions of working under the National Insurance Act might be secured to the profession.

GLASGOW AND WEST OF SCOTLAND BRANCH:

Dumbartonshire and Argyllshire Division.

A general meeting of the Division was held in Bishop's Crown Restaurant, Dumbarton, on Friday, January 26th, at 4.30 p.m. The President (Dr. Hunter) occupied the chair, and eight members were present, namely: Drs. Wm. Little, R. Allan, James Wilson, and A. D. McLachlan, Dumbarton; Dr. J. R. F. Cullen, Alexandria: Drs. J. Ewing Hunter, John C. Boyd, and Wm. Semple Young, Helensburgh.

Apologies for Non-attendance.—The Honorary Secretary intimated letters of apology from Dr. Cramb (Radnor Park), Dr. Gilmour (Dalmuir), and Dr. Sutherland (Cardross).

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Draft Ethical Rules.—Draft rules governing procedure in ethical matters of a Division not itself a Branch were considered. The rules were gone over seriatim, and, after discussion, were, on the motion of Dr. Allan, seconded by Dr. Wilson, unanimously approved of.

National Insurance Act.—Afterwards the members all took part in a general discussion on the National Insurance Act and on a State medical service.

LANCASHIRE AND CHESHIRE BRANCH:

Bolton Division.

A general meeting of this Division was held at Bolton Infirmary on January 16th, at 8.30 p.m., Dr. Fliteroft in the chair. Thirty-two members were present.

Policy of the Division, and Instruction of Representative thereon.—Dr. Thornley proposed that they adhere to their former resolution, and restated this resolution:

> That now the Insurance Act has been submitted to us in its completed form, we are of opinion that the medical profession should refuse to have any further negotiation with the representatives of the Government.

Dr. K. Robinson seconded, and it was carried. As regards the instruction of the Representative, Dr. Macfie proposed, and it was seconded and carried:

> That it is inadvisable to instruct our Representative at *this* meeting.

Election of Representative at Representative Meeting.—The Chairman, speaking as the Representative, asked the Division not to consider him personally in their election of Representative. He had hitherto always represented the policy of the Division, and would continue to do so if elected. He pointed out to the meeting that he could not entirely agree with their declared policy, and could not see eye to eye with them in this resolution. He did not think their method was the best one for the attainment of their object, and, while averse from forming panels, he recommended the formation of local Medical Committees. Dr. Macfie proposed and Dr. Dowling seconded:

> That Dr. Fliteroft be re-elected as Representative of this Division.

Dr. Robinson, in supporting the proposition, and having conferred with Dr. Fliteroft and obtained his cordial agreement, suggested that in accordance with By-law 34 of the British Medical Association a substitute be appointed to attend Representative Meetings, and proposed Dr. Thornley to act in that capacity. Dr. Jefferies seconded, and the election of Representative and substitute was carried *nemine contradicente*.

Midwives' Forms of Sending for Medical Help.—Dr. Thornley, speaking on this matter, stated that medical help rendered in response to those forms hitherto in that district had not been paid for by the Sanitary Committee, and proposed that a deputation be sent to wait on this committee to ask them to frank those forms. Dr. Fliteroft seconded and it was carried. A deputation was formed of the Chairman, Dr. Thornley, and the Secretary.

Club Practice in Bolton Mining Districts.—Dr. Gilchrist gave some details and figures relative to club practice in the mining districts of Bolton, and wished to know what was to be done in regard to these clubs. As no other members were present who held similar appointments, the decision of the Division was postponed to a future meeting.

The Insurance Act.—Dr. K. Robinson proposed that the names of those who had not signed the undertaking should be mentioned. Dr. Joseph Thornley seconded, but Dr. Mallett suggested that these men should be communicated with once more before adopting Dr. K. Robinson's proposal, and this was agreed to.

Bury Division.

A meeting of this Division was held on January 26th in the Derby Hotel, Bury. Dr. Jas. Holmes occupied the chair, and twenty members were present.

Draft Ethical Rules.—The Secretary gave a review of the scope of the rules, but as the copies were received

too late for consideration no recommendations were made.

National Insurance Act.—The following resolutions were carried:

1. That the Executive Committee and local secretaries form a General Purposes Committee with power to add to their number, for consideration of the progress of the Act.
2. That the Council be asked to represent to the Commissioners:

   (*a*) That they should formulate general schemes of payment: (1) For work done, namely, per attendance, and (2) by capitation, and that local Medical Committees shall have the option of declaring which method of payment shall obtain in the districts which they represent.

   (*b*) That the duties and powers of local Medical Committees should be defined to include: (1) Full control of ethical matters affecting professional conduct; (2) equal representation of medical men on any body formed to deal with disputes under the Act in which medical men are involved.

   (*c*) That there should be provision for extra payment for treatment of diseases due to misconduct.
3. That the Council be requested to petition the Privy Council to postpone the date of commencement of the Act till January 1st, 1913, and in the meantime to take steps to introduce and pass through Parliament an amending Act definitely embodying the six cardinal points agreed upon by the medical profession.

Associate Members.—Drs. H. H. I. Hitchon, H. F. Jeffery, and G. P. Taylor, of the Rochdale Division, were elected associate members.

Warrington Division.

A special meeting of the Division was held at the Infirmary, Warrington, on Tuesday, January 23rd. Dr. Bowden was in the chair, and there were present: Drs. G. W. Joseph, J.P., Naden, J.P., Hibbert, Hutt, Burrowes, Binns, Robinson, Manson, Fox, and Murray (Secretary).

Research Defence Society.—The Honorary Secretary read a letter from Dr. Bennett, resigning (for health reasons) his position as Corresponding Secretary of the Research Defence Society, and Dr. Manson was unanimously elected in his stead.

Notification of Pulmonary Tuberculosis.—Dr. Hibbert, M.O.H. Warrington, spoke upon this question, and was unanimously thanked for his suggestions and remarks.

Draft Ethical Rules.—The Draft Ethical Rules were produced, and it was decided not to make any suggestions.

Local Guarantee.—It was resolved to make a call of 5s. upon those who had signed the local undertaking and guarantee, the guarantee being for the sum of £1 in 5s. calls to meet the expenses of the Division in connexion with the National Insurance Act; £2 in 5s. calls was paid at the meeting.

Guarantees to the Central Fund.—It was resolved that, in the opinion of the Division, guarantee to this fund should be left to the individual members.

Proposed Special Meeting.—It was decided to hold a special meeting of the Division to discuss the position of the profession in the area under the National Insurance Act.

Metropolitan Counties Branch.

A meeting of the Council of the Branch was held on January 26th.

National Insurance Act.

The following resolution was passed:

That as the Insurance Bill is now law the Council of the Metropolitan Counties Branch should proceed at once to appoint a committee to investigate the provisions of the Act [illegible] the members of the Medical profession [illegible] the panel system [illegible] the Act [illegible] report the result to the Council at as early a date as possible under which the profession under a Local Committee might be possible for the profession to work a medical service under the provisions of the Act that would be beneficial to the public and satisfactory to the medical profession.

The Committee consists of:

The President and Honorary Secretaries *ex officio*.

Chelsea: Dr. Young, Dr. J. R. Gallard.
City: Dr. J. W. Hunt, Dr. A. G. Southcombe.
Ealing: Dr. F. Savery, Dr. C. W. Vining.
Greenwich: Dr. C. G. Gooding.
Hampstead: Dr. H. J. Macevoy.
Kensington: Dr. Chas. Buttar, Mr. Herbert Tauner.
Lambeth: Dr. J. H. Clatworthy, Dr. R. Capes.
Marylebone: Mr. Bishop Harman, Dr. F. J. Smith.
Norwood: Dr. J. A. Howard, Dr. F. G. Swayne.
Richmond: Dr. N. H. Oliver, Dr. R. Langdon-Down.
St. Pancras and Islington: No return.
Stratford: Dr. P. J. S. Nicoll, Dr. W. H. Oxley.
North Middlesex: Dr. J. A. P. Barnes, Dr. Brackenbury.
South-West Essex: Mr. A. Pottinger Eldred, Dr. St. Clair B. Shadwell.
Wandsworth: Dr. S. Verdon Roe, Dr. M. Mackintosh.
Watford and Harrow: Dr. Bonton, Dr. A. H. Williams.
Westminster: Dr. T. L. Archer, Dr. G. E. Haslip.

Together with Representatives on Central Council, namely: Dr. Major Greenwood, Sir Victor Horsley, Dr. A. J. Rice-Oxley, Dr. Lauriston E. Shaw, and Dr. J. H. Keay. The Chairman is Dr. Buttar; the Secretary Dr. R. E. Crosse.

Hampstead Division.

A meeting of members of the medical profession resident in the area of the Hampstead Division was held at 4.30 p.m. on Friday, January 26th, at the Wesleyan Hall, Tavistock Road, Willesden. Fifty-five were present.

The late Sir Henry Butlin.—The Chairman (Dr. Oakley) referred to the loss to the profession in the death of Sir Henry Butlin. A resolution was passed by all standing.

That this meeting learns with deep regret of the death of Sir Henry Butlin, and desires to express its sympathy with Lady Butlin and family in their bereavement.

Letters.—Letters were read from Dr. Sharman and Lieut.-Colonel Roberts, I.M.S., in regard to the resolution on the agenda.

Proposed Willesden Division.—A resolution was proposed by Dr. Crone, seconded by Dr. Macevoy, and carried unanimously:

That this meeting favours the formation of a Willesden Division of the Metropolitan Counties Branch, and pledges itself to take steps to form such a Division.

A provisional committee was formed, each member undertaking to canvass a ward of the Willesden Urban District, Dr. Percy Evans undertaking Willesden Green; Dr. Crone, Kensal Rise; Dr. Soden, Cricklewood; Dr. Macevoy, North Kilburn; Dr. Anderson Smith, South Kilburn; Dr. Rutherford, Mid-Kilburn; Dr. Bindley, Harlesden; Dr. Skene, Brondesbury Park; Dr. Turner, Church End; Dr. Muller, Stonebridge; Dr. Auty, Roundwood. Dr. Macevoy was appointed convener. It was agreed that the expenses of this committee be defrayed by the Hampstead Division.

National Insurance Act.

The Chairman made a few remarks on the second business on the agenda. The Honorary Secretary informed the meeting that the Special Report of the Council on the position created by the passage into law of the National Insurance Bill would be published in the Supplement of the Journal of February 3rd, and that a meeting would be held to discuss it between February 3rd and 17th in time to instruct the Representative. In the meantime Divisions were asked to refrain from passing resolutions in regard to the Act.

The resolution on the agenda was then proposed by Dr. Percy Evans and seconded by Dr. Elam:

That this meeting considers that a Special Representative Meeting should be summoned as soon as possible for the following purposes:

1. To demand the resignation of the Central Council.
2. To announce the intention of the medical profession to refuse to undertake any duties under the National Insurance Act in its present form.
3. To declare that nothing will satisfy the medical profession but an amending Act giving full effect to their demands.

Dr. Evans said that the resolution was strongly worded on purpose to promote discussion and get an indication of local opinion. It was not intended as a decisive step, since another meeting would be necessary in order to instruct the Representative. He alluded to the meeting of November 21st, and the resolution then passed, "To refuse to undertake any duties under the bill in its present form." The Representative Meeting did not act in

accordance with the views of the Division, but continued to negotiate with the Government. The Council sheltered itself behind the Representative Meeting. But the programme for the Representative Meeting was drawn up by the Council; the Council had a large influence upon it, and used it to the utmost. The Chairman of the Representative Meeting told the Representatives to vote as their opinions led them rather than according to their instructions. Dr. Evans thought they had acted contrary to the wishes of the majority of the profession in this country. He alluded to the meetings in Manchester and at Queen's Hall as representing the opinion of the majority of the Divisions all over the country. Those doctors who earned a living from patients with incomes under £160 a year found the bill unworkable. The Council's boasted victories were hollow victories. They had not obtained a wage limit, they had not obtained adequate representation, nor were they likely to obtain adequate remuneration. What action was now to be taken? They must give their Representative definite instructions, and they must have a new Council. Who was responsible for causing disunion in the profession? It was surely the Council, by handing over Mr. Smith Whitaker to the enemy. He was tired of the saying that they should not swop horses in mid-stream. It all depended on which way the horses were pulling. If they insisted on going down stream when one aimed at getting across, it was better to cut the traces. In the resolution of November 21st, already referred to, they stated that the profession should refuse to undertake any duties under the bill. "Any duties" meant any duties whether paid or unpaid, and included the formation of Medical Committees. Dr. Evans quoted from the letter to Honorary Secretaries of Branches published in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of January 20th, showing that the Council was in favour of forming local Medical Committees. The solicitor of the Association was of opinion that cardinal point No. 3 had been safeguarded in the bill, but the Joint Committee Regulations showed that the power over medical and maternity benefit would be chiefly in the hands of the friendly societies, which would now have the support of the Government behind them. Dr. Evans thought it would be much wiser not to appoint local committees. Their function would be to negotiate, while the object of the programme was to resist, not to negotiate. The Council had unwisely put forward the minimum demands in the beginning; therefore the profession had no power of negotiation left. The Insurance Commissioners would be powerless to fix a wage limit or reasonable remuneration. Now was the time to press for an amending Act. Employers were working for that end, so they should not be acting alone.

Dr. MACEVOY referred to the meeting of the Division on December 8th and its refusal to pass a vote of censure on the Council. Dr. Evans had not pointed out a single instance in which the Council had not carried out the instructions of the Representative Body. Certainly two important points had not been made statutory—the income limit and adequate remuneration, but if these two points were obtained under the Regulations the vast majority of practitioners would be willing to work under the Act. Remuneration must be elastic, distinguishing ordinary service from extraordinary service, allowing for mileage, etc. The policy of the profession now should be to press those points on the Insurance Commissioners. If they proved themselves unwilling or unable to grant them, it would then be necessary to press for an amending Act, but the time had not yet come.

Dr. RAWES thought the Council had not acted loyally towards the profession in advising the Representatives as they did to act on their own views. He thought adequate remuneration was impossible under the Act, since it was based on the actuarial estimate of 6s. per head. They should certainly refuse to work the Act.

Dr. SCRASE thought it was a fatal mistake to bring up those resolutions now. A vote of censure could only be passed on two grounds—bad faith or error of judgement. At the meeting of December 8th their Representative had shown that the first was not the case. The second had yet to be proved. The resolution meant a turnover of policy, as well as turning out the Council. They had signed an undertaking not to give treatment under the Act unless they obtained their demands. He took it that that undertaking called upon all engaged in contract practice to give up that practice if they did not obtain their demands. But to obtain their demands it was necessary to appoint committees; otherwise, the local Medical Committees might be formed by blacklegs.

Dr. CHURCHILL (Wembley) agreed with Dr. Evans more than with Dr. Macevoy, but not entirely with either. He thought the Council had committed an error of judgement in appointing Mr. Smith Whitaker when they had not obtained a living wage under the Act. If the Chancellor could put the limit of £160 in the bill, he could as easily have made the limit £104. This was their third attempt to enforce their six cardinal points in the bill.

Dr. SKENE agreed with much that had been said by both Dr. Evans and Dr. Macevoy. He alluded to a resolution passed by the Hampstead Division in June not to accept office unless the modifications demanded by the British Medical Association were accepted by the Government. The Government had not accepted their policy; therefore, they were bound by that pledge.

Dr. MILES MILEY thought the resolution accorded with opinion in the country generally. He called attention to Sir Clifford Allbutt's letter in the *Times*. The Act hit the profession in their education and in their pockets. They wanted to censure the Council for an error of judgement in not seeing that the Act was a bad Act.

Dr. CLAUDE TAYLOR spoke in favour of the Act, and hoped the profession would agree to help it along. He thought the weaknesses of the bill could best be remedied by the regulations under the Act. An adequate capitation fee was essential to the Act. If the fee were 10s. per head they would be satisfied. He moved the previous question.

This was ruled out of order as being a direct negative.

Drs. KIRKWOOD and CARSON SMYTH also spoke.

Mr. ARMIT moved as an amendment the deletion of Clause (1) of the resolution. He thought the point now was to find out how far they were agreed, and to act in that direction by instructing their Representative and the Central Council.

Dr. E. L. PRITCHARD seconded. He was much opposed to the Council, but they must see that they do better next time.

Dr. ANDERSON SMITH supported the amendment, which was carried by 18 votes to 16.

Dr. BUTLER moved as a second amendment the deletion of Clause (2). This was seconded by Dr. WINSLOW HALL, and carried by 18 votes to 15.

Dr. MACEVOY moved an amendment to Clause (3):

> That the question of an amending Act be postponed pending the result of the negotiations with the Commissioners.

This was seconded by Miss DOBBIE, and carried by 19 votes to 9.

LAMBETH DIVISION.

AN ordinary meeting of this Division was held at Camberwell Infirmary, Brunswick Square, on Thursday, January 25th, at 4 p.m. Dr. DENNING was in the chair, and twenty members and one visitor were present.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Vomiting in Anaemia.—Dr. A. P. BEDDARD, Assistant Physician to Guy's Hospital, then read a very interesting paper on vomiting in anaemia. He said this condition was caused by acute dilatation of the heart, causing not only referred pain in the precordial area, but also in the mucous membrane of the stomach, causing acute abdominal pain, which was generally confused with gastric ulcer, perforations and appendicitis, the pathology being similar to that of gastric crises in locomotor ataxia. The diagnosis could generally be made from the patient himself saying that the abdominal pain came on after exertion and not after food. The heart, by means of careful percussion, would be found to be considerably dilated, while haemorrhage never occurred in these cases. The great feature of treatment in these cases was absolute rest in bed, when, under favourable conditions, it would be found that the dilated heart would come in at the rate of ½ in. a week, the last ½ in. taking a fortnight; roughly, the whole time taken was seven weeks. A full diet should be ordered as soon as possible, generally after the first or second day. Of drugs, arsenic, combined with iron in the form of liq. arsenicalis and ferri et am. cit., was found to be the most

satisfactory. An interesting discussion then took place, in which the Chairman and Messrs. Alston, McNickle, Jaynes, and Capes took part.

Votes of Thanks.—A vote of thanks to Dr. Beddard for his most interesting paper was proposed by Dr. Esler, seconded by Dr. Taylor, and carried unanimously. A vote of thanks was also carried unanimously to Dr. Keats for so hospitably entertaining the meeting and to the guardians for granting the use of the infirmary.

Wandsworth Division.

A meeting of this Division was held at Battersea Town Hall on Wednesday, January 24th, at 3.45 p.m. Dr. Biggs was in the chair, and sixty-two members were present.

Confirmation of Minutes.—The minutes of the previous meeting having been published in the Supplement of the Journal of December 23rd, 1911, were taken as read and approved.

National Insurance Act.—Dr. Howell referred to some letters which had appeared in the *Times* with reference to the £2 income limit, and asked whether the Council proposed to furnish any explanation as to why the demand for a £2 income limit had been withdrawn in the House of Commons. The Secretary was instructed to make inquiries and report.

Draft Ethical Rules.—The Draft Ethical Rules were considered and approved, with the following suggestions and amendments:

Rule 7. It was agreed that the Central Ethical Committee be requested to obtain counsel's opinion as to the liability of the Association in the event of an action being instituted by a non-member whose conduct had been impugned under this rule.
Rule 8. In blank space insert "5."
Rule 11, line 3. Before "Committee" insert "Division or."
Rule 15. Add, "It shall be competent for the Committee to refer at its discretion any point involving question of principle to the Central Ethical Committee for its opinion, such action to be reported at the next meeting of the Division by the Chairman at his discretion.

Election of Representatives.—The Election of Representatives was then proceeded with. Drs. Nash and Archer proposed, and it was agreed, that the voting be by ballot. Drs. Nash, Gorham, and Oram were appointed scrutineers. The result of the ballot was as follows: Dr. Smith, 47 votes; Dr. Powell Evans, 31; and Dr. Mackintosh, 26. The Chairman declared Drs. Edwin Smith and Powell Evans elected as Representatives. Dr. McMurtry proposed:

That the Honorary Secretary be requested to inform the Chairman of the Representative Meeting that Dr. Smith has been elected as second Representative of this Division, and to request that a ticket of admission to the Special Representative Meeting in February may be forwarded to him.

The motion was seconded by Dr. Gay, and carried.

NORTH OF ENGLAND BRANCH:

Sunderland Division.

The annual meeting of the Sunderland Division was held in the Board Room, 48, John Street, Sunderland, on Friday, January 12th. Dr. G. B. Morgan, sen. (Chairman of the Division and President of the Branch), was in the chair, and there was a large attendance.

Report of Executive Committee.—The annual report of the Executive Committee was presented and adopted.

Election of Chairman.—Dr. James Adamson, of Hetton, was unanimously elected Chairman for the ensuing year. On the motion of Dr. Middlemass, seconded by Dr. Dillon, a cordial vote of thanks was passed to Dr. Morgan for his valuable services in the chair for the past year.

Election of Officers.—Drs. D. F. Todd and I. G. Modlin were unanimously re-elected Honorary Secretaries, and Dr. Todd was re elected Representative to the Representative Meetings. Drs. Adamson, Dillon, Dix, Hubbersty, Middlemass, and Modlin were appointed Representatives on the Branch Council. The following were appointed members of the committee for the year: Dr. Adamson (the Chairman), Dr. Morgan, sen. (Vice-Chairman), and Drs. Chalmers, Boyd Cunningham, Dillon, Dix, Hay, Hubbersty, Middlemass, A. E. Morison, Robertson, Rowstron, Thompson, and Wallace.

Standing Resolutions.—The standing resolutions of the Division were confirmed.

National Insurance Act.—It was moved by Dr. Morgan, sen., seconded by Dr. Todd, and unanimously resolved:

That the Sunderland Division of the British Medical Association recognizes with satisfaction the evidence of a general desire amongst the members of the medical profession to unite more than ever in support of the British Medical Association.

The late experience which at one time threatened to disrupt the Association, will, it is hoped, make it only the stronger. All minor and personal matters must be subordinated to the maintenance of such a central association capable of safeguarding the interests and regulating the ethics of the profession. Therefore this Division resolves that no effort should be spared to make that Association as powerful as possible, by bringing in every member of the profession, and by every member being loyal to it.

It was moved by Dr. Dix, seconded by Dr. Gordon Bell, and resolved unanimously:

That this Division reaffirms its decision to abide by the policy formulated by the British Medical Association, and its refusal to undertake any duties under the Insurance Act until the six cardinal points are conceded.

Vote of Thanks to Chairman.—A hearty vote of thanks to the Chairman concluded the proceedings.

A meeting of the Division was held at the Royal Infirmary, Sunderland, on Tuesday, January 23rd, Dr. Adamson (the Chairman of the Division) presiding.

Address.—A most interesting and instructive address was delivered by Mr. J. W. Leech, M.S., F.R.C.S., Assistant Surgeon to the Royal Victoria Infirmary, Newcastle-on-Tyne, on "Acute Abdominal Perils."

Vote of Thanks.—A hearty vote of thanks was given to Dr. Leech at the conclusion.

SOUTH MIDLAND BRANCH:

Bedford and Herts Division.

A meeting of the Division was held at Luton on Thursday, January 18th. Dr. Butters was in the chair. There were present: Drs. Harvey Goldsmith, Ross, O'Meara, W. A. Sharpin, Meredith, Doubble, F. S. Clyde, W. G. Nash, W. D. Rose, J. Hobbs, T. McClure, F. W. Cheese, Harford Edwards, H. Sworder, H. D. Ledward, H. W. Cleveland.

Apology for Non-attendance.—A letter of regret at inability to attend was read from Dr. Coomb.

Annual Report.—The Secretary presented his annual report and balance sheet, which was approved.

Change of Boundary of Division.—Letters approving of the suggested change in the boundary of the Division were received from Drs. Macfadyen, Hine, and Sidney Clarke; and one from Dr. Lovell Drage explaining his reasons for resigning membership. Dr. Rose proposed, and Mr. W. G. Nash seconded, the following resolution, of which notice had been sent to all members, and it was supported by Drs. Hobbs, Ledward, and Bone:

That so much of the Division as lies in Hertfordshire be cut off, and the boundary of the Division coincide with the county boundary.

This was carried unanimously, and the Honorary Secretary was directed to report at once to the Organizing Secretary of the Metropolitan Branch and to the Branch Secretary. On the proposition of Dr. O'Meara, seconded by Dr. Doubble, D 24, which was referred to the Executive Committee at the last general meeting, was unanimously approved.

National Insurance Act.

The Division then proceeded to a discussion on the National Insurance Act. Dr. Butters read a letter from Dr. Coombs explaining his personal views. Dr. Bone showed how the Government had persistently traded on the philanthropy of the profession, quoting the salaries paid to surgeon inspectors of factories as an example. He suggested that a strong statement of the views of the Division should be made by its Representative at their meeting. Mr. W. G. Nash thought that they had been sold by their Representatives and the Council, but thought that the latter acted honestly and with good intentions. He thought it absurd that their Representative should live so far away as at Colchester. He personally did not think they had obtained so much as Dr. Coombs thought they had. Drs. Sworder and Ledward also spoke. D

BONE pointed out the necessity for them as a Division to formulate a policy. There were three courses: (1) Do nothing; (2) at once decline to form a panel; (3) adopt the plan of the British Medical Association, which he himself thought was the right course. Dr. Bone was followed by Dr. LEDWARD. Dr. HOBBS regretted the smallness of the meeting and the slackness of the profession as a whole. Drs. SWORDER, DOUBBLE, BONE, EDWARDS, and ROSS spoke. The CHAIRMAN then asked if any one wished to make any proposition, and MR. W. G. NASH proposed:

That this meeting agrees to support the policy of the Association.

Dr. MCCLURE seconded, and the proposition was carried unanimously. Further, on the proposition of Dr. HOBBS, seconded by Dr. ROSS, the meeting resolved:

That it still firmly holds to the six cardinal points, and advises that immediate steps be taken to see to their enforcement.

SOUTH WALES AND MONMOUTHSHIRE BRANCH:

SOUTH-WEST WALES DIVISION.

AN ordinary meeting of the Division was held at the Black Lion Hotel, Lampeter, on Wednesday, January 24th. Dr. EDGAR DAVIES (Llanelly), Chairman of the Division, presided, and twenty-eight members were present. Dr. W. E. Thomas, Senior Secretary of the Branch, was also present at the meeting.

Confirmation of Minutes.—The minutes of the last ordinary and three special meetings were read and confirmed.

National Insurance Act.

The following resolutions were proposed by Dr. EVAN EVANS, Lampeter:

1. That this meeting, duly convened, unanimously agrees to bind itself not to work under the Insurance Act in any shape or form until the Commissioners consent to concede the "so-called" six cardinal points.
2. That we at this meeting individually and collectively bind ourselves to act to the letter and spirit of the resolution.

Dr. E. H. GRIFFITHS (Lampeter) seconded.

The following took part in the discussion: The CHAIRMAN, W. E. THOMAS (Branch Secretary), R. G. PRICE (Carmarthen), D. J. WILLIAMS (Llanelly), JOHN DAVIES (Aberayron), BOWEN-JONES (Carmarthen), EVAN EVANS (Llanelly), ABRAHAM THOMAS (Aberystwyth), T. MORGAN (Llandovery), EVAN JONES (Llanybyther); D. M. DAVIES (Aberayron), and J. G. MORGAN (Aberystwyth).

Both resolutions were passed unanimously.

The CHAIRMAN proposed:

That this meeting expresses its desire that the above resolutions be placed on the agenda of the next Representative Meeting.

Dr. OWEN WILLIAMS (Barry Port) seconded the motion, which was carried unanimously.

Dr. E. H. GRIFFITHS (Lampeter) proposed:

That the resolutions be placed before the Branch meeting to be held at Swansea on Thursday, February 1st.

Dr. EVAN JONES (Llanybyther) seconded. This was carried unanimously.

Draft Ethical Rules.—No criticisms or suggestions were offered.

Tea.—After the meeting all the members sat down to tea. It was the general opinion that this was one of the best meetings the Division had held, and the Cardiganshire members hoped that another meeting would be held at Lampeter in course of time.

BIRMINGHAM BRANCH:

COVENTRY DIVISION.

A GENERAL meeting of this Division was held on January 23rd at the Coventry Hospital, Dr. ORTON in the chair.

Vote of Condolence.—The CHAIRMAN proposed a vote of condolence to Dr. Duncan Davidson and his sister on the death of their father. He said that the Division had lost a true and valued friend. He was seconded by Dr. HARMAN BROWN.

National Insurance Act.

A letter from Dr. Ellis, asking the Chairman to meet him and two of his colleagues on the Coventry Dispensary staff to discuss the National Insurance Bill, as they had signed the "Form of Undertaking" and had given certain monetary guarantees. Dr. Ellis said that they were at present "in the dark" as to what was happening in the district in regard to the bill. Dr. H. BROWN proposed, and Dr. COLLINGTON seconded, that a small committee, consisting of Drs. Orton, Snell, Hawley, and the Honorary Secretary, be appointed to meet them. After much discussion, Dr. PICKUP proposed and Dr. ROLLASON seconded the following resolutions:

1. That this Division, whilst believing that the Council of the British Medical Association is the proper channel for negotiations with the Government, is also of opinion that the Council should inform the Insurance Commission that unless the six cardinal points of the British Medical Association are incorporated in the regulations of the Insurance Commissioners the Council will advise the members of the Association to decline to negotiate further upon the National Insurance Bill.
2. That the Council should satisfy themselves that the Commissioners actually possess the power to grant the cardinal points, especially in having a sufficient sum of money to meet the requirements of the profession, seeing that Mr. Lloyd George has based his actuarial calculations on a capitation fee of 6s., and has declared that there is no more money available.
3. That the Council should urge strongly on every Division that under no circumstances whatever should any Division commence any negotiations or bargaining with any insurance committee until the requirements of the Council have been obtained from the Insurance Commissioners.
4. That, in the event of the negotiations between the Council and the Insurance Commission proving futile, this Division is of the opinion that the medical profession should take no part in working the Act.

These resolutions were carried unanimously.

Specimens.—Dr. WORSLEY showed two testes that he had removed, both with hydroceles attached, although this was unusual in tuberculosis; one tuberculous kidney; two Fallopian tubes and ovaries infiltrated with tubercle from a patient who also had tuberculous peritonitis.

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BOOKS NEEDED TO COMPLETE SERIES.

THE Librarian will be glad to receive any of the following volumes, which are needed to complete series in the Library:

American Association of Genito-Urinary Surgeons. Transactions. 1906.
" " Climatological Transactions. Vols. 1, 4, 5, 6.
" " Dermatological Association Transactions. Vols. 5, 7, 8, 11, and 29.
" " " Journal of the Medical Sciences. New series, vols. 4, 5, 1842-3; vols. 14, 15, 1847-8; vols. 18-30, 1850; vol. 33, 1857; vol. 46, 1864-5; vol. 59; or any parts of these vols.
" " " " Journal of Ophthalmology. Vols. 1-9.
" " " " Laryngological Association. Transactions. Vols. 1-6, 8-9.
" " " " Medical Association. Transactions, 2, 4, 6, 7, 11, 12, 14, 15, 16, 19, 20, 22, 31, after vol. 33, and the *Journal*, up to 1903 inclusive.
" " Medico-Psychological Association. Transactions. Vol. 13, 1906.
" " Otological Society. Transactions. Vol. 3, part 2, 1883.
" " Public Health Association. Transactions. Any vols.
Analyst. Vols. 1-24.
Annals of Surgery. Vols. 13, 14, 26.
Archiv für Dermatologie und Syphilis. Bd. 24 and 25 (1892 and 1893).
Archives générales de médecine. Third new series 7-8 (1839-40); 4th series, 10-17, 20-25, 1852-55, 1858-64, 1872-1897; 1846-55 inclusive; 1857-64 inclusive; 1871.
" " of Ophthalmology. Vols. 1-3, 6, 7, 14, 15, 16 and 20.
" " of Otology. Vols. 1-7, and 20-22.
" " de Parasitologie. Vols. 1-8.
" " de Pediatrics. Vols. 1-16.
Asylum Journal of Mental Science. Vol. 1, 1854.
Biochemical Journal. Vols. 1-4.
British Dental Journal. Vols. 1-29.
Biometrica. Vols. 2-6.
British Journal of Dermatology. Vol. 2, part 3.
British Laryngological and Rhinological Association. Transactions 1896-7-8-9.
Caledonian Medical Journal. Vol. 1 prior to 1894.
Canada Medical Journal. Vols. 1-4-6, and after vol. 8.
Carmichael Essays. Rivington, 1879.
Centralblatt für Augenheilkunde. Hirschberg. All prior to 1891; Index to 1891.

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Young, B. M., Esq., Hassocks Lodge, Hassocks

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Kilpatrick, J. A., Esq., Creaton Sanatorium Northampton
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Jones, F. Samuel, Esq., Briton Ferry
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O'Mahoney, James F., Esq., Glyn Rhondda House, Porth
Pegum, J. S., Esq., Asylum, Carmarthen
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Rowland, L. T. A., Esq., Lampeter
Stoney, G. F., Esq., Greystone House, Queen Square, Tredegar
Strong, G. R., M.B., Magor House, Magor, Mon.
Walsh, Edmond, Esq., Ystralgynlais, Brecon
Watkins, W., Esq., Crickhowell
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Butler, H. N., Esq., 180, Macquarie Street, Hobart
Campbell, R. D., Esq., 134, Macquarie Street, Hobart
Cole, Francis, Esq., Deloraine
Crouch, E. J., Esq., 184, Macquarie Street, Hobart
Davies, G. J. D., Esq., Beaconsfield
Giblin, W. W., Esq., 142, Macquarie Street, Hobart
Hamilton, A. J., Queenstown
Henderson, D. S., Esq., Kempton, Hobart
Henty, W. de W., Esq., Penguin
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Carlyon, T. H., Esq., Johannesburg
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Daly, Ramsay, M.D., 49, Kotze Street, Johannesburg
de Koch, J. G., M.D., Box 2532, Johannesburg
Girdwood, A. T., M.B., 1st Avenue, Johannesburg
Girdwood, R. D., M.B., The Hospital, Johannesburg
Goodman, H., M.B., 9, Berg Street, Jeppe, Johannesburg

Gnetwist, T. B., M.D., Box 161, Fordsburg
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Lightwood, C. E., M.D., Maraisburg
Lund, T., M.D., Box 62, Germiston
Mehlies, Max, M.D., Box 1076, Johannesburg
Meyer, R. C. J., M.D., The Hospital, Johannesburg
Moffatt, G. B., M.B., Box 1198, Johannesburg
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Montgomery, Margaret M., L.R.C.P., The Chimes, Claremont
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Galletly, A., Esq., Royal Infirmary, Halifax
Hitchins, W. M., Esq., City Hospital, Seacroft, Leeds
Hutton, S. K., M.B., Ackworth Moor Top
Hyslop, J. W., M.B., Menston, near Leeds
Jordan, T. J., Esq., Mortomley Hall, High Green, Sheffield
Kendall, F. E., M.B., 6, Byram Street, Huddersfield
Loots, H. A. V., M.B., Royal Infirmary, Sheffield
Lowson, W. W. J., M.B., Whitwell, Marshfield, Sheffield
O'Connell, A. P., Esq., Glenholme, Harehills Avenue, Leeds
Robertson, Alexander, M.B., The Lindens, Wesley Road, Armley, Leeds
Schmidt, P. W., M.B., West Field, Fulford, York
Shepherd, P. W., M.B., Sydenham House, Pontefract Lane, Leeds
Simpson, Marie, M.B., The Dispensary, Worksop
Snell, H. C., Esq., 70, Hanover Street, Sheffield
Spong, Harry, Esq., 107, Beckett Street, Leeds
Stainsby, J. A., Esq., Ecclesfield, Sheffield
Stevenson, John, M.B., 14, Netherhall Road, Doncaster
Thoseby, J. N. L., M.B., Castle Gate House, Knaresborough
Wells, L. T., Esq., 1, Bond Street, Wakefield
White, A., Esq., Lodge Moor Hospital, Sheffield
Williams, E. McK., Major, R.A.M.C. (R.P.), Sheffield
Wilson, R. M., Esq., Royal Infirmary, Halifax
Young, W. A., Esq., Royal Infirmary, Halifax

To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.

Association Notices.

SPECIAL REPRESENTATIVE MEETING.

Notice is hereby given that a Special Representative Meeting of the Association will be held in the Court of Common Council Chamber, the Guildhall, London, on Tuesday, February 20th, at 10 o'clock in the forenoon, and Wednesday, February 21st, 1912, (*a*) on the requisition of the Council, for the purpose of receiving and considering the Report of Council referred to in the following Minute of Council of January 31st, 1912, and for the purpose of passing resolutions arising therefrom or in reference thereto; (*b*) on the requisition to the Council, signed on behalf of the Portsmouth, Winchester, Huddersfield, South-East Essex, North-East Essex, and Stratford Divisions, and the Shropshire and Mid-Wales Branch.

The Minute of Council above referred to is as follows:

> That the Chairman of Representative Meetings be requested to convene a Special Representative Meeting to consider a Report of the Council upon the National Insurance Act; and that the date of such Representative Meeting be so arranged as to allow the Divisions full time to consider the Report of the Council and instruct the Representatives.

The resolution adopted by the above mentioned Divisions accompanying the requisition is as follows:

> That this Meeting demands that a Special Representative Meeting be immediately summoned to consider what action is to be taken by the Profession now the Bill is an Act.

The Report of Council referred to is published in this issue of the Supplement to the "British Medical Journal."

BY ORDER OF THE CHAIRMAN OF REPRESENTATIVE MEETINGS,

GUY ELLISTON,
Financial Secretary and Business Manager.

ALFRED COX,
Acting Medical Secretary.

February 1st, 1912.

NOTICE OF THE FORMATION OF A NEW DIVISION OF THE ASSOCIATION.

THE following change has been made in accordance with the Regulations of the Association, and takes effect from the date of the publication of this notice:

Walsall Division.

That the members of the Association resident in the district containing Walsall, Bloxwich, and Great Barr, which area at present forms part of the area of the Central Birmingham Division of the Birmingham Branch, be constituted a Division of that Branch and be designated the Walsall Division, the boundaries of the Divisional area to be those agreed upon by the Birmingham Branch and Central Birmingham Division, as shown upon the official map.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BIRMINGHAM BRANCH: CENTRAL DIVISION.—A general meeting will be held at the Medical Institute on Wednesday, February 14th, at 4 p.m., to elect three Representatives and to conduct other business.—W. TRACY LYDALL, B. C. R. ALDREN, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: KENSINGTON DIVISION.—A meeting of the Division will be held at the Kensington Town Hall, on Friday, February 9th, at 4 p.m. The chief business will be to instruct the Representative of the Division who will attend the Special Representative Meeting to be held in February. In view of the importance of the occasion it is hoped that there will be a large attendance.—H. BECKETT-OVERY and HERBERT TANNER, Honorary Secretaries.

OXFORD AND READING BRANCH: OXFORD DIVISION.—A special general meeting of the Division will be held on Friday, February 9th, at the Radcliffe Infirmary, Oxford, at 3 p.m.

Agenda: (1) Consideration of Council's report. (2) Instructions to Representative. (3) Resolution of the Medical Reform Committee. (4) The question of joining or supporting the Reform Committee; and other business. — W. DUIGAN, M.B., Honorary Secretary.

SOUTH-EASTERN BRANCH: BRIGHTON DIVISION. — On Wednesday, February 7th, a scientific meeting will take place, at which Sir Victor Horsley has promised to read a paper. Further particulars will be announced in due course.—C. H. BENHAM, Honorary Secretary.

SOUTH-EASTERN BRANCH: BROMLEY DIVISION.—A meeting of the Division will be held at the Town Hall, Market Square, Bromley, on Thursday, February 8th, at 8.30 p.m. (not on February 1st, as previously announced). All members of the profession resident and practising within the area of the Division are requested to attend and to take part in the discussion. Agenda: (1) Report of Representative of Special Representative Meeting. (2) The following motions will be put:

(a) That it be the first business of the Special Representative Meeting (to be held in February, 1912) to ask Dr. Maclean to resign the Chairmanship of the Representative Meetings, and that the Representatives forthwith proceed to elect a chairman.
(b) Representative Meetings—alteration of Standing Orders. That voting on all matters sent down by the Council for the consideration of Divisions be taken by means of card vote.
(c) That the Bromley Division reaffirms its adherence to the six cardinal principles as embodying the minimum demands of the profession.
(d) That the deletion of the Harmsworth Amendment by the Insurance Commissioners be incorporated in the six cardinal principles under (1) free choice of doctor, and (2) abolition of friendly society control.
(e) That the Bromley Division declines to take any part in the formation of a panel of doctors until the six cardinal principles have been accepted by the Insurance Commissioners.
(f) That the Bromley Division declines to have any negotiations with the Insurance Committees until a favourable reply has been received by the Association from the Insurance Commissioners regarding the six cardinal principles.
(g) That the South-Eastern Branch Council be requested to call a meeting of delegates from all Divisions in Kent at a near date with the view of arriving at a common understanding regarding the Insurance Act prior to the Special Representative Meeting.
(h) Preliminary discussion regarding method and rate of remuneration.

(3) To consider Report of Council appearing in SUPPLEMENT of February 3rd. (4) Proposed formation of new Woolwich Division.—A. TENNYSON SMITH, Honorary Secretary.

CENTRAL MIDWIVES BOARD.

A SPECIAL meeting of the Central Midwives Board was held on January 26th at Caxton House, Westminster, with Sir FRANCIS H. CHAMPNEYS in the chair.

Midwives Struck off the Roll.

The Board considered the following charges amongst others against the midwives whose names are given below, and ordered them to be struck off the Roll:

Mary Ann Carr, that while herself in a condition liable to be a source of infection, owing to a discharging whitlow on the thumb, she attended as a midwife at a confinement and delivered the patient of a child, contrary to the provisions of Rule E 5.

Ellen Gaskell, that being in attendance as a midwife at a confinement, the case being one of abortion, she did not explain that it was one in which the attendance of a registered medical practitioner was required, nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that this might be immediately forwarded to the medical practitioner, as required by Rule E 19.

Ellen Gould, that being in attendance as a midwife at a confinement, she failed to adopt the antiseptic precautions required by Rules E 3 and 7, and having been sent for on account of the illness of the patient, and advising that a registered medical practitioner should be sent for, she did not hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that this might be immediately forwarded to the medical practitioner, as required by Rule E 19.

Elizabeth Hodgkinson, that being in attendance as a midwife at a confinement, the child's right eye being inflamed and discharging on August 13th, and the left eye being similarly affected on August 15th, she did not explain that the case was one in which the attendance of a registered medical practitioner was required, nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that this might be immediately forwarded to the medical practitioner, as required by Rule E 20 (5).

Ann Hole, that when attending to her patients she did not wear a clean dress of washable material as required by Rule E 1, did not adopt antiseptic precautions, could not read a clinical thermometer, and that she did not keep a register of cases as required by Rule E 23.

Florence Matilda Magor, that, being in attendance as a midwife at three successive confinements, the child in each case suffering from inflammation of and discharge from the eyes, she did not explain that the case was one in which the attendance of a registered medical practitioner was required, nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that this might be immediately forwarded to the medical practitioner, as required by Rule E 19 (5) of the rules then in force.

Margaret Morgan, that she was not cleanly in her person and house, as required by Rule E 1, and that she did not comply with Rule E 13, being unable to use a clinical thermometer.

Marie Ozun, that on September 11th, 1911, she was convicted at the Lowestoft Petty Sessions of feloniously stealing thirty-one canvas deck-chair seats, and was thereupon sentenced to a fine of four guineas with costs, or in default one month's imprisonment.

Emily Susannah Plumb, that being in attendance as a midwife at a confinement, the patient suffering from excessive bleeding, she did not explain that the case was one in which the attendance of a registered medical practitioner was required, nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that this might be immediately forwarded to the medical practitioner, as required by Rule E 20 (3).

Sarah Reed, that being in attendance as a midwife at a confinement, she did not adopt the antiseptic precautions required by Rules E 3 and 7, and she did not take the patient's temperature at any time.

Midwives Censured.

The following midwives were censured after charges against them had been considered: *Mary Jane Haines* and *Eliza Mercer*.

Midwives Cautioned.

Grace Lingard and *Mary O'Callaghan* were cautioned after charges against them had been considered.

Naval and Military Appointments.

ARMY MEDICAL SERVICE.

ROYAL ARMY MEDICAL CORPS.

SURGEON-GENERAL ARTHUR T. SLOGGETT, C.B., C.M.G., to be Honorary Surgeon to the King, vice Surgeon-General Sir W. F. Trevor, K.C.S.I., C.B., M.B., who has been placed on retired pay; dated January 1st, 1912.

Lieutenant-Colonel FREDERICK S. HEASTON, C.M.G., is placed on retired pay; dated January 22nd, 1912.

The undermentioned Majors to be Lieutenant-Colonels: STEPHEN F. CLARK, M.B., vice T. W. O'H. Hamilton, C.M.G. M.B., retired; dated November 4th, 1911. EDWARD M. HASSARD, vice W. W. Pike, D.S.O., M.B., promoted; dated November 9th, 1911. Brevet Lieutenant-Colonel Sir WILLIAM B. LEISHMAN, Knt., F.R.S., M.B., vice J. M. Irwin, promoted; dated December 11th, 1911. JAMES THOMSON, M.B., vice Sir W. B. Leishman, Knt., F.R.S., M.B., supernumerary; dated December 11th, 1911. GERALD T. RAWNSLEY, vice F. S. Heuston, C.M.G., retired; dated January 22nd, 1912. Brevet Lieutenant-Colonel ALFRED P. BLENKINSOP, vice G. T. Rawnsley, supernumerary; dated January 22nd, 1912.

Captain CARLISLE KELLY is placed temporarily on half-pay list, on account of ill health; dated January 5th, 1912.

Lieutenant THOMAS A. WESTON, from the seconded list, is restored to the Establishment; dated December 1st, 1911.

INDIAN MEDICAL SERVICE.

Captains to be Majors, dated July 27th, 1911: FRANCIS VICTOR OWEN BEIT, M.B.; MATTHEW CORRY, M.D.

Captain J. E. CLEMENTS, I.M.S., to officiate as Superintendent, Central Gaol, Fatehgarh, vice Lieutenant-Colonel E. JENNINGS, I.M.S., granted leave.

Captain W. P. G. WILLIAMS, I.M.S., to officiate as Superintendent, Central Gaol, Bareilly, vice Major C. B. PRALL, I.M.S., granted leave.

Captain R. B. NICHOLSON has been granted furlough for one year.

Captain F. T. THOMPSON has been granted six months' leave on medical certificate.

Lieutenants to be Captains, dated August 1st, 1911: REGINALD BROUGHTON LLOYD, M.B.; HUGH STOTT, M.B.; GERALD LEWIS COLHOUN LITTLE, M.B.

Lieutenant F. J. KOLAPOREWALA to be in charge of brigade laboratory at Rangoon.

TERRITORIAL FORCE.

ROYAL ARMY MEDICAL CORPS.

Highland Mounted Brigade Field Ambulance.—LACHLAN MARTIN VICTOR MITCHELL, M.B., to be Lieutenant; dated January 27th, 1912.

First East Anglian Field Ambulance.—The following to be Captains: Lieutenant ERNEST V. GOSTLING, dated November 6th, 1911; Lieutenant GERALD M. HETHERINGTON, dated December 23rd, 1911.

Second Home Counties Field Ambulance.—Lieutenant BERNARD RICHARDSON BILLINGS, from the list of officers of the Royal Army Medical Corps attached to units other than medical units, to be Lieutenant; dated January 27th, 1912.

Second West Lancashire Field Ambulance.—Lieutenant OWEN H. WILLIAMS, M.B., to be Captain; dated December 23rd, 1911.

Sixth London Field Ambulance.—Lieutenant EDWARD P. MINETT is seconded under the conditions of paragraph 114 of the Territorial Force Regulations; dated January 1st, 1912.

First Lowland Field Ambulance.—Lieutenant-Colonel WILLIAM F. SOMERVILLE, M.D., resigns his commission and is granted permission

to retain the rank and to wear the prescribed uniform, dated January 27th, 1912." Major GEORGE H. EDINGTON, M.D., to be Lieutenant-Colonel, dated January 27th, 1912.

Third Wessex Field Ambulance.—Lieutenant FREDERICK E. STOKES, to be Captain, dated November 19th, 1911.

Fourth London General Hospital.—Captain FRED. W. MOTT, M.D., to be Major, dated January 27th, 1912.

Second Southern General Hospital.—Captain JOHN ALEXANDER NIXON, from the list of officers of the Royal Army Medical Corps attached to units other than medical units, to be Captain, dated January 27th, 1912.

Fourth Southern General Hospital.—Lieutenant-Colonel CHARLES E. R. RENDLE, F.R.C.S.Edin., resigns his commission and is granted permission to retain the rank and to wear the prescribed uniform, dated January 27th, 1912.

Attached to Units other than Medical Units.—Lieutenant-Colonel J. T. BARKER resigns his commission, dated January 27th, 1912.

For Attachment to Units other than Medical Units.—ROBERT LOWIS ROUTLEDGE, M.B., to be Lieutenant, dated November 26th, 1911

Supernumerary for Service with the Officers' Training Corps.—The appointment of Lieutenant HENRY STOKES, M.D. (for service with the Royal College of Surgeons in Ireland Contingent, Senior Division, Officers' Training Corps), which was announced in the *Gazette* of November 24th, 1911, is antedated to April 1st, 1911.

Major HIND, officer commanding North Midland Heavy Battery, R.G.A., has been gazetted Brevet Lieutenant-Colonel.

Two other Lieutenant-Colonels were gazetted Brevet Colonels. This is the first time that a brevet has been awarded in the Territorial Force.

CHANGES OF STATION.

THE following changes of station amongst the officers of the Army Medical Service have been officially reported to have taken place during December:

		FROM		TO
Surg.-General	A. T. Sloggett, C.B., C.M.G.	Poona	...	Army Hd. Qrs. India.
,,	T. M. Corker, M.D.	Cairo	...	India.
Colonel	W. G. A. Bedford, C.M.G., M.B.	Hong Kong	...	London.
,,	W. W. Pike, D.S.O., F.R.C.S.I.	Cairo	...	India.
Lieut.-Col.	F. H. M. Burton, M.D.	Colchester	...	Warley.
,,	T. B. Winter	London	...	Colchester.
,,	N. Manders	Ceylon	...	Curragh.
,,	S. Hickson, M.B.	Wynberg	...	Aldershot.
,,	R. L. R. Macleod, M.B.	Aden	...	Devonport.
,,	J. M. F. Shine, M.D.	Fyzabad	...	Jersey.
,,	L. T. M. Nash	Karachi	...	Hounslow.
,,	H. H. Brown, M.B.	Murree	...	Aden.
,,	J. Fallon	Preston	...	Dalhousie.
,,	A. L. F. Bate	Kuldana	...	Rawal Pindi.
,,	H. C. Thurston, C.M.G.	Aldershot	...	R. Mil. Coll.
Major	W. T. Mould	Dover	...	India.
,,	A. W. Bewley	Landour	...	Meerut.
,,	E. E. Powell	Bordon	...	Aldershot.
,,	F. J. W. Porter, D.S.O.	Reading	...	Cosham.
,,	F. W. Begbie	Colchester	...	Ipswich.
,,	L. A. O. MacCarthy	Woolwich	...	Hounslow.
,,	W. G. Beyts	Rawalpindi	...	Rurki.
,,	S. H. Withers, M.B.	Gharial	...	Ambala.
,,	E. M. Morphew	Ranikhet	...	Preston.
,,	J. G. McNaught, M.D.	Cape Town	...	Aldershot.
,,	F. A. Symons, M.B.	Ceylon	...	S. Command.
,,	J. P. Silver, M.B.	Edinburgh	...	Irish Comd.
,,	A. J. MacDougall, M.B.	Ceylon	...	,,
,,	W. H. S. Nickerson, V.C., M.B.,	Peshawar	...	Rawal Pindi.
,,	P. H. Collingwood	Devonport	...	Plymouth.
,,	H. Herrick	Hyderabad	...	Naini Tal.
,,	G. M. Goldsmith, M.B.	Maymyo	...	Thayetmyo.
,,	H. S. Taylor	Straits Settlements	...	Scottish Comd.
,,	A. Chopping	Cherat	...	Peshawar.
,,	H. B. Fawcus, M.B.	Bloemfontein	...	R. A. M. Coll.
,,	H. S. Roch	Lincoln	...	York.
,,	L. N. Lloyd, D.S.O.	London	...	Preston.
,,	H. H. Norman, M.B.	Kasauli	...	Shwebo.
,,	F. S. Irvine, M.B.	Aldershot	...	R. A. M. Coll.
,,	J. M. Cuthbert, M.B.	Leith	...	Edinburgh.
,,	J. W. West, M.B.	Murree	...	Rawal Pindi.
Captain	R. L. Argles	Ferozepore	...	Aden.
,,	J. H. Robinson	Curragh	...	Calcutta.
,,	E. Bennett	Derby	...	India.
,,	R. F. Ellery	Benares	...	Bareilly.
,,	J. T. Johnson, M.D.	Ranikhet	...	,,
,,	E. W. Powell	Aden	...	Irish Comd.
,,	D. L. Harding, F.R.C.S.I.	Belfast	...	Enniskillen.
,,	E. V. Aylen	Barian	...	Rawal Pindi.
,,	J. A. W. Webster	Cork	...	Kilkenny.
,,	F. C. Lambert	Preston	...	Liverpool.
,,	R. C. Wilmot	Colchester	...	Warley.
,,	C. W. Holden	Shan-Hai-Kuan	...	Tientsin.
,,	R. H. V. Dunbar, M.D.	Enniskillen	...	Belfast.
,,	O. Ievers, M.B.	Wynberg	...	Irish Comd.
,,	R. H. MacNicol, M.B.	Mill Hill	...	Woolwich.
,,	T. J. Wright	Aldershot	...	Bordon.
,,	R. J. B. Buchanan	Cosham	...	Netley.
,,	C. W. O'Brien	Kilbride	...	Dublin.
,,	G. G. Tabuteau	Jutogh	...	Jhansi.
,,	W. G. Maydon, M.B.	Glasgow	...	Aberdeen.
,,	R. P. Lewis	Wynberg	...	Aldershot.
,,	J. H. Graham, M.B.	Kilworth Camp	...	Fermoy.
,,	V. H. Symons	Bloemfontein	...	Irish Comd.
,,	G. W. W. Ware, M.B.	Aden	...	S. Command.
,,	C. J. Wyatt, M.B.	Maidstone	...	Chatham.
,,	H. Stewart, M.B.	Solon	...	Ferozepore.
,,	W. R. Galwey, M.B.	Dalhousie	...	Ambala.
,,	F. A. McCammon, M.B.	Poona	...	Colaba.
,,	W. Egan, M.B.	Rangoon	...	Mandalay.
,,	A. Dawson, M.B.	Wellington	...	Aden.
,,	A. S. Williams	Dinapore	...	Nowshera.
,,	[illegible]	Upper Topa	...	Attock.
,,	J. W. L. Scott	Quetta	...	Aden.
Captain	A. H. Bond	Naini Tal	...	Delhi.
,,	T. T. H. Robinson	Neemuch	...	Nasirabad.
,,	J. U. Spencer, M.B.	Kasauli	...	Ambala.
,,	W. Mitchell, M.B.	Sabathu	...	,,
,,	D. M. Corbett, M.B.	Dalhousie	...	,,
,,	D. T. MacCarthy, M.B.	Cawnpore	...	Lucknow.
,,	H. M. J. Perry	Hong Kong	...	E. Command.
,,	M. P. Leahy, M.B.	Satara	...	Kirkee.
,,	R. D. O'Connor	Cliffden	...	Kasauli.
,,	M. O. Wilson, M.B.	Gharial	...	Ambala.
,,	J. B. Hanafin, F.R.C.S.I.	Khyra Gali	...	Rawal Pindi.
,,	F. T. Dowling, M.B.	Khanspur	...	Nowshera.
,,	R. F. O'T. Dickinson	Jhansi	...	Bareilly.
,,	H. H. Blake, M.B.	Chetwa	...	Peshawar.
,,	A. Shepherd, M.B.	Landour	...	Delhi.
Lieutenant	D. H. C. MacArthur, M.B.	Dagshai	...	Ambala.
,,	C. H. O'Rorke, M.B.	Chakrata	...	Bareilly.
,,	S. W. Kyle, M.B.	Jhansi	...	Jubbulpore.
,,	S. S. Dykes, M.B.	Aberdeen	...	Piershill.
,,	P. S. Tomlinson	Bulford	...	Tidworth.
,,	R. C. Paris	Netley	...	India.
,,	M. White, M.B.	Bordon	...	Lucknow.
,,	K. Comyn	Dover	...	Shorncliffe.
,,	C. M. Nicol, M.B.	Colchester	...	Weedon.
,,	R. C. G. M. Kinkhead, M.B.	Ballincollig	...	Queenstown.
,,	J. Gilmour, M.B., F.R.C.S.Edin.	Cosham	...	Egypt.
,,	E. L. Fyffe, M.B.	Queenstown	...	Cork.
,,	W. A. Frost, M.B.	Devonport	...	Tregantle.
,,	C. D. K. Seaver	Cork	...	Fermoy.
,,	W. T. Graham, M.B.	Tidworth	...	Birmingham.
,,	W. Bisset, M.B.	Hounslow	...	Woolwich.
,,	P. M. J. Brett, M.B.	Netley	...	Cosham.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN ninety-four of the largest English towns 8,745 births and 5,559 deaths were registered during the week ending Saturday, January 27th. The annual rate of mortality in these towns, which had been 15.5, 15.4, and 14.8 per 1,000 in the three preceding weeks, rose to 16.5 per 1,000 in the week under notice. In London last week the death-rate was equal to 15.9 per 1,000, against 15.5, 14.5, and 14.0 in the three preceding weeks. Among the ninety-three other large towns the death-rates last week ranged from 6.2 in Edmonton, 7.8 in Eastbourne, 8.5 in Hornsey, 9.6 in Grimsby, and 10.1 in Southend-on-Sea, to 22.4 in Stoke-on-Trent, 23.2 in Newport (Mon.), 24.3 in West Bromwich, 25.5 in Merthyr Tydfil, 29.8 in Walsall, and 31.5 in Dudley. Measles caused a death-rate of 1.3 in Wallasey and in Swansea, 1.8 in Oldham, and 2.1 in Warrington; and whooping-cough of 1.1 in Leicester and in St. Helens, 1.3 in Gateshead, 1.4 in Coventry, 1.5 in Tottenham and in West Bromwich, 1.7 in Walsall, 1.8 in Swansea, and 2.5 in Merthyr Tydfil. The mortality from scarlet fever, diphtheria, and enteric fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 61, or 1.1 per cent., of the deaths registered in the ninety-four towns last week were not certified either by a registered medical practitioner or by a coroner after inquest, and included 10 in Birmingham, 10 in Liverpool, 5 in Stoke-on-Trent, and 4 each in London, Dudley, and Manchester. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,844, 1,762, and 1,654 at the end of the three preceding weeks, had further declined to 1,562 on Saturday last; 158 new cases were admitted during the week, against 193, 165, and 162 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

IN eighteen of the largest Scottish towns 1,108 births and 740 deaths were registered during the week ending Saturday last, January 27th. The annual rate of mortality in these towns, which had been 18.7 and 17.3 per 1,000 in the two preceding weeks, rose to 17.7 per 1,000 in the week under notice, and was 1.2 per 1,000 above the rate recorded in the nine-four large English towns. Among the several Scottish towns the death-rates ranged from 7.6 in Falkirk, 9.9 in Partick, and 10.0 in Motherwell, to 20.4 in Glasgow, 28.2 in Greenock, and 31.1 in Ayr. The mortality from the principal epidemic diseases averaged 2.1 per 1,000, and was highest in Clydebank and Ayr. The 307 deaths from all causes registered in Glasgow included 3 from enteric fever, 2.2 from measles, 8 from whooping-cough, 6 from diphtheria, and 5 from infantile diarrhoea. Six deaths from measles were recorded in Edinburgh and 3 in Aberdeen; 2 deaths from scarlet fever in Aberdeen; 2 from diphtheria in Edinburgh and 2 in Ayr; and 3 deaths from whooping-cough in Ayr.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Resident Surgical Officer. Salary, £100 per annum.

BRISLINGTON HOUSE PRIVATE ASYLUM, near Bristol.—Junior Resident Medical Officer (male). Salary to commence, £140 per annum.

BRISTOL GUARDIANS OF THE POOR.—Assistant Workhouse Medical Officer. Salary, £125 per annum.

BRISTOL ROYAL INFIRMARY.—Resident Casualty Officer. Salary at the rate of £50 per annum.

BRITISH LYING-IN HOSPITAL, Endell Street, W.C.—Resident Medical Officer. Salary at the rate of £50 per annum.

BUXTON: DEVONSHIRE HOSPITAL.—Assistant House-Physician. Salary at the rate of £100 per annum.

CANCER HOSPITAL, Fulham Road, S.W.—Assistant Pathologist. Salary, £350 per annum.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—House-Surgeon (male). Salary, £80 per annum.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Resident Medical Officer. Salary, £150 per annum.

COLCHESTER: ESSEX COUNTY HOSPITAL.—House-Surgeon (male). Salary, £80 per annum.

CROYDON GENERAL HOSPITAL.—Junior House-Surgeon. Salary, £75 per annum.

EASTBOURNE COUNTY BOROUGH.—Assistant School Medical Officer and Assistant Medical Officer of Health. Salary, £250 per annum.

GLOUCESTER COUNTY ASYLUM.—Male Assistant Medical Officer. Salary, £150 per annum, rising to £180.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Physician.

LEICESTER POOR LAW INFIRMARY.—Resident Second Assistant Medical Officer. Salary, £130 per annum.

LONDON COUNTY COUNCIL.—Deputy Medical Officer of Health and Deputy School Medical Officer. Salary, £1,000 a year.

MACCLESFIELD GENERAL INFIRMARY.—Junior House-Surgeon. Salary, £60 per annum.

MIDDLESEX HOSPITAL, W.—Assistant Medical Officer to the Electrical Department. Honorarium, £50 per annum.

MILDMAY MISSION HOSPITAL, Bethnal Green, E.—House-Surgeon (male). Salary for six months as Junior £70 per annum, and then as Senior £80 per annum.

NEWCASTLE-ON-TYNE: HOSPITAL FOR SICK CHILDREN.—(1) Honorary Ophthalmic Surgeon; (2) Honorary Assistant Surgeon; (3) Honorary Assistant Physician.

NOTTINGHAM: RANSOM SANATORIUM FOR CONSUMPTIVES, Sherwood Forest.—Resident Medical Officer (female). Salary, £100 per annum.

OXFORD COUNTY ASYLUM, Littlemore.—Junior Assistant Medical Officer. Salary, £150 per annum, increasing to £175.

PLAISTOW: ST. MARY'S HOSPITAL FOR WOMEN AND CHILDREN.—(1) Senior Resident Medical Officer. Salary, £100 per annum. (2) Surgeon in Charge of X-ray Department. Honorarium, £50 per annum.

PLYMOUTH PUBLIC DISPENSARY.—Medical Officer of the Provident Department. Remuneration is a moiety of receipts.

PORTSMOUTH: ROYAL PORTSMOUTH HOSPITAL.—House-Physician (male). Salary, £75 per annum.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone Road, N.W.—Resident Medical Officer for Out-patient Department. Salary at the rate of £60 per annum.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney Road, E.—House-Surgeon. Salary at the rate of £80 per annum.

ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN.—Four Resident Medical Officers.

ROYAL NATIONAL ORTHOPAEDIC HOSPITAL, Great Portland Street, W.—(1) Honorary Assistant Surgeon; (3) Surgical Registrar. Salary, £105 per annum.

ST. PANCRAS AND NORTHERN DISPENSARY, Euston Road, N.W.—Resident Medical Officer. Salary, £105 per annum and midwifery fees.

SALFORD COUNTY BOROUGH.—Assistant to Medical Officer of Health. Salary, £250 per annum, rising to £300.

SALFORD ROYAL HOSPITAL.—Casualty House-Surgeon (male). Salary at the rate of £50 per annum.

SHEFFIELD: JESSOP HOSPITAL FOR WOMEN.—Assistant House-Surgeon. Salary, £40 per annum.

SHEFFIELD UNIVERSITY.—Demonstrator in Experimental Physiology and Pharmacology. Salary, £200 per annum.

STIRLING DISTRICT ASYLUM, Larbert.—Junior Assistant Medical Officer. Salary, £130 per annum.

WESTON-SUPER-MARE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

WINCHESTER: ROYAL HAMPSHIRE COUNTY HOSPITAL.—House-Surgeon (male). Salary, £80 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacant appointments: Luddenden (Yorkshire, West Riding), Romford (Essex), South Molton (Devonshire), Swineford (co. Mayo), Virginia (co. Cavan).

APPOINTMENTS.

BALL, Wm. Girling, F.R.C.S.Eng., Surgeon to the Alexandra Hospital for Hip Disease.

BOSTOCK, A. H., M.R.C.S., L.R.C.P., Medical Officer of Health for the City of Chichester.

BURNETT, Frank Marsden, M.D., Medical Referee under the Workmen's Compensation Act, 1906, for County Court Circuit No. 48, and to be attached more particularly to Bromley and Sevenoaks County Council.

BUTTERWORTH, C. E., M.B., Ch.B.Vict., Resident Assistant Medical Officer at the Crumpsall Workhouse, Manchester.

HAMILTON, Richard, M.B., C.M.Glasg., Certifying Factory Surgeon for Coatbridge District, co. Lanark.

HUDSON, E. P., L.D.S.Eng., Dental Surgeon to the Royal Free Hospital, Gray's Inn Road, W.C.

RUSSELL, James William, M.A., M.D., B.C.Cantab., F.R.C.P.Lond., Honorary Physician to the General Hospital, Birmingham.

STEWART, Thomas L. G., M.B., Ch.B.Glasg., Junior House-Surgeon to Birkenhead Borough Hospital.

WRIGHT, Thomas, M.B., Medical Referee under the Workmen's Compensation Act, 1906, for the Sheriffdom of Caithness, Orkney, and Shetland, and to be attached more particularly to the Wick District, vice Dr. Elliot, deceased.

MANCHESTER ROYAL INFIRMARY.—The following appointments have been made:

Assistant Surgical Officer to the Aural Department.—Frederick H. Westmacott, F.R.C.S.

House-Physician.—Newton Matthews, M.B., Ch.B.Vict.

Assistant Medical Officer at Barnes Convalescent Home, Cheadle.—J. Cathcart M.B., Ch.B.Edin.

Resident Medical Officer.—D. E. Core, M.D.Vict., M.R.C.P. (reappointed).

Medical Registrar.—F. E. Tylecote, M.D., M.R.C.P. (reappointed).

Resident Medical Officer at Barnes Convalescent Home.—E. E. Hughes, M.B., Ch.B.Vict. (reappointed).

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTHS.

LEGAT.—On January 24th, at Murray House, Staple Hill, Bristol, the wife of R. Eddowes Legat, M.B., of a son.

MACKENZIE.—On January 29th, at Rose Hill, Dorking, the wife of S. Morton Mackenzie, M.B., of a daughter.

PLANT.—On January 24th, to Dr. and Mrs. Plant, Oak House, Pensnett, a son.

DEATHS.

DUKE.—On January 30th, at Southwick, Sussex, Allen A. Duke, M.D.Edin., etc., suddenly, of cardiac failure.

MORGAN.—On the 12th ult., at his residence, Hafod Fawr, Glamorganshire, Lewis Wayne Morgan, M.D., J.P., in his 69th year.

OSWALD.—On January 24th, at 387, Clapham Road, S.W., J. W. J. Oswald, M.D., F.R.C.S.Edin., in his 81st year.

PUBLISHERS' ANNOUNCEMENTS.

MESSRS. P. BLAKISTON'S SON AND CO. announce the publication of a fourth edition, thoroughly revised and in part re-written, of a *Textbook of Practical Gynaecology*, by Edward E. Montgomery, M.D., Professor of Gynaecology in Jefferson Medical College, Philadelphia.

Messrs. W. B. Saunders Company announce that they have arranged to publish in serial form the surgical clinics of Dr. John B. Murphy at the Mercy Hospital, Chicago. The clinics will be published bi-monthly. The subscription price will be 35s. net per year of six issues, each number containing about 130 octavo pages, illustrated. The first number will be ready early in February.

RECENT PUBLICATIONS.

Notes for Male Nurses. By a Surgeon. London: George Pulman and Sons, Limited. 1911. (Fcap. 8vo, pp. 32; four figures. Price 1s.)

A clearly-worded booklet, illustrated by suitable diagrams, containing instructions in the use of the catheter and an account of the why and wherefore of the precautions which must be exercised in dealing with catheter cases. It was originally written by a surgeon for the use of members of the Male Nurses' Temperance Co operation, but the publishers rightly considered that it might be useful to a wider circle of readers.

How to Become a Naval Officer. Revised Edition. 1911. London: Gieve, Matthews and Seagrove, Ltd. (Cr. 8vo, pp. 99.)

A well-illustrated booklet, to which we drew attention on its first appearance some two or three years ago. It gives a detailed account of the method of selecting naval cadets, of their life at Osborne and Dartmouth, and their prospects thereafter. Since the regulations as to age and other matters are somewhat complicated, it should be a very useful work to those who have it in mind to join the annually increasing number of parents who send their sons to compete for admission to the Royal Navy.

DIARY FOR THE WEEK.

MONDAY.

EUGENICS EDUCATION SOCIETY, The Theatre, Burlington Gardens, W., 8.30 p.m.—Dr. A. F. Tredgold: Family Records.

KING'S COLLEGE, Strand, W.C., 4.30 p.m.—Dr. Otto Rosenheim: The Bearing on Chemical Bacteriology of Certain Pathological Questions.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 9 p.m.—First Lettsomian Lecture on Glycosuria, by Dr. Archibald E. Garrod, F.R.S.

TUESDAY.

ROENTGEN SOCIETY, Institution of Electrical Engineers, Victoria Embankment, W.C.—General Meeting, 8.15 p.m.—Paper: After-glow in Vacuum Discharge Tubes, Hon. R. J. Strutt, F.R.S.

ROYAL SOCIETY OF MEDICINE:

PATHOLOGICAL SECTION, 8.30 p.m.—Laboratory Meeting at the Pathological Department, St. Bartholomew's Hospital, E.C.

THURSDAY.

OPHTHALMOLOGICAL SOCIETY, 11, Chandos Street, Cavendish Square, 8 p.m.—Cases: Mr. Robert Doyne: A Case of Guttate Iritis. Mr. Charles Wray: (1) Two Frontal Sinus Cases; (2) A Severe Case of Ingrowing Lashes treated by the Electro-cautery; (3) A Growth on the Lower Lid; (4) A Case of Acromegaly; (5) A Cyclo-phoro-meter.

FRIDAY.

ROYAL SOCIETY OF MEDICINE:

CLINICAL SECTION, at 15, Cavendish Square, W., 8.30 p.m.—Cases:—Mr. F. J. Steward: Successful Excision of Epithelioma of Lower End of Pharynx. Mr. W. H. Battle: Mikulicz's Disease. Dr. F. Langmead: Anomalous Oedema. Paper: Dr. Wilfred Harris and Mr. W. H. Clayton Greene: A Case of Congenital Absence of the Left Half of the Diaphragm Simulating Pneumothorax.

UNIVERSITY COLLEGE, Gower Street, W.C., 5 p.m.—Third Page May Memorial Lecture by Dr. H. Head, F.R.S.: The Afferent Nervous system.

WIMBLEDON AND DISTRICT MEDICAL SOCIETY, Johnston's Rooms, 6, Broadway, 9 p.m.—Paper:—Mr. J. Swift Joly, F.R.C.S.: Recent Advances in the Diagnosis and Treatment of Syphilis and Gonorrhœa.

POST-GRADUATE COURSES AND LECTURES.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat, at noon and 4.30 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Tuesday, and noon, Friday. Eye, 11 a.m., Wednesday and Saturday. Radiography, Saturday, 10 a.m. Pathological Demonstration, Saturday, 11 a.m. Special Lectures: Tuesday, 3.15 p.m., Blood Pressure and the Method of Estimating it Clinically; Wednesday, 2.15 p.m., Enlargements of Liver. Thursday, 4.30 p.m., Hernia in Children. Wednesday, 5 p.m., Surgical Demonstration or Lecture.

LONDON SCHOOL OF TROPICAL MEDICINE, Seamen's Hospital, Albert Dock, E.—Lectures daily (Saturday excepted), at 12 noon and 4 p.m. Practical Laboratory Work daily (Saturday excepted), 10 a.m. to 12 noon. Practical Protozoology, 2 p.m. to 3.30 p.m. daily; Advanced Protozoology, 10.30 a.m. to 1 p.m. daily. Medical Clinics, Monday and Thursday, at 3 p.m. Operations, Friday, at 3 p.m.

MANCHESTER: ANCOATS HOSPITAL POST-GRADUATE CLINIC, Thursday, 4.15 p.m.—A Demonstration of Medical and Surgical Cases will be given by the Honorary Staff.

MANCHESTER ROYAL INFIRMARY.—Tuesday, 4.30 p.m.: Modern Methods of Cardiac Diagnosis. Friday, 4.30 p.m.: Tumours and Enlargements of the Thyroid Gland.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies, Street, W.C.—The following clinical demonstrations have been arranged for next week, at 5.15 p.m. each day: Monday, Skin. Tuesday, Medical. Wednesday, Surgical. Thursday, Surgical. Friday, Ear, Nose, and Throat. Lectures, at 5.15 p.m. each day, will be given as follows: Monday, Glaucoma (illustrated with lantern slides). Tuesday, The Injuries to the Extensor Apparatus of the Knee-joint. Wednesday, Use of Forceps during the Second Stage of Labour. Thursday, Diet in Enteric Fever. Friday, Pathology of Discharges.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m.: Experimental Poliomyelitis. Friday, 3.30 p.m.: Clinical Cases.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics: 10 a.m., Surgical Out patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear: 3 p.m., Demonstration on Clinical and General Pathology. Tuesday, 2.30 p.m., Operations; Clinics: Surgical, Gynaecological: 3.30 p.m., Medical In-patient; 4.30 p.m., Lecture: Diseases of the Rectum and Anal Canal. Wednesday, 2 p.m., Throat Operations; 2.30 p.m., Medical Out-patient; Skin and Eye Clinics: X Rays; 3 p.m., Pathological Demonstration; 5.30 p.m., Eye Operations. Thursday, 2.30 p.m., Gynaecological Operations. Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient; 4.30 p.m., Lecture: Diseases of the Rectum and Anal Canal. Friday, 2.30 p.m., Operations: Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient; Pathological Demonstration.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—The following are the arrangements for next week: Daily arrangements: Medical and Surgical Clinics, 2 p.m.; X Rays, 2 p.m.; Operations, 2 p.m. Monday: Gynaecology, 10 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday: Gynaecological Operations, 10 a.m.; Demonstration of Minor Operations, 11.30 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday: Gynaecological Demonstration, 10 a.m.; Lecture, Practical Medicine, 12.15 p.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday: Gynaecological Operations, 10 a.m.; Lecture, Practical Medicine, 12.15 p.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m. Lectures, at 5 p.m.:—Monday: Symptoms and Treatment of Gall Stones. Tuesday: Clinical Lecture (Urinary Surgery). Wednesday: Practical Medicine, Lecture III. Thursday: Practical Surgery, Lecture III. Friday: Manic Depressive Insanity.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
FEBRUARY.	
4 Sunday ..	
5 MONDAY ..	
6 TUESDAY ..	
7 WEDNESDAY	BRIGHTON DIVISION, *South-Eastern Branch*, Scientific Meeting, Oddfellows' Hall, Queen's Road, Brighton, 4.30 p.m.
8 THURSDAY ..	BIRMINGHAM BRANCH, Medical Institute, Edmund Street, 5.30 p.m. BROMLEY DIVISION, *South-Eastern Branch*, Town Hall, Market Square, Bromley, 8.30 p.m. (*not* February 1st as previously announced).
9 FRIDAY ..	OXFORD DIVISION, *Oxford and Reading Branch*, Radcliffe Infirmary, Oxford, 3 p.m. KENSINGTON DIVISION, *Metropolitan Counties Branch*, Kensington Town Hall, 4 p.m.
10 SATURDAY ..	
11 Sunday ..	
12 MONDAY ..	
13 TUESDAY ..	LONDON: Standing Ethical Subcommittee, 2 p.m.

Date.	Meetings to be Held.
FEBRUARY *(continued).*	
14 WEDNESDAY	CENTRAL DIVISION, *Birmingham Branch*, General Meeting, Medical Institute, 4 p.m.
15 THURSDAY ..	LONDON: Metropolitan Counties Branch Council, 4 p.m.
16 FRIDAY ..	NEWCASTLE-ON-TYNE DIVISION, *North of England Branch*, Scientific Meeting, 3.15 p.m. to 6 p.m.
17 SATURDAY ..	
18 Sunday ..	
19 MONDAY ..	
20 TUESDAY ..	**Special Representative Meeting**, Court of Common Council Chamber, Guildhall, London, 10 a.m.
21 WEDNESDAY	**Special Representative Meeting**, Court of Common Council Chamber, Guildhall, London. RICHMOND DIVISION, *Metropolitan Counties Branch*, Richmond, 8.30 p.m.
22 THURSDAY ..	
23 FRIDAY ..	BIRMINGHAM BRANCH, Pathological and Clinical Section, Medical Institute, Edmund Street, 8 p.m.

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SUPPLEMENT
TO THE
BRITISH MEDICAL JOURNAL.

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National Insurance.

MEETINGS OF THE PROFESSION.

BIRMINGHAM.

A MEETING of the Emergency Committee was held on February 5th. A report was received from the Sub-committee appointed at the last meeting, and the following resolutions, to be moved at the Central Division meeting on February 14th to instruct the Representative, were agreed to:

1. (*a*) Should the Chairman of the Representative Body tender his resignation at the commencement of the meeting the Representative be instructed to propose, or alternatively to support, that it be accepted, and to speak if possible and vote against any proposition that it be not accepted.
   (*b*) Should a resolution be proposed requesting the resignation of the Chairman of the Representative Body, the Representative be instructed to support such resolution.
   (*c*) Should no such resolution be proposed, the Representative be instructed to propose a resolution expressing the regret of the meeting that the Chairman of the Representative Body had withheld information that he should have communicated to the last meeting, and that he had also misdirected the Representatives.
2. In the event of an assurance being sent to the Representative Body by the Government or Commissioners that the whole of the requirements of the Association, as embodied in the six cardinal points, will be conceded in regulations made by the Commissioners, the Representatives be instructed to move: "That in view of the apparent impossibility of such concessions under the Act, the regulations be first submitted to the Divisions that they may satisfy themselves that they do concede these requirements without reserve or equivocation, and that the Representative Meeting be adjourned until the decision of the Divisions has been ascertained."
3. That the Representative be instructed to demand a "card" vote on the main questions of policy.
4. Recommendations of the Council I to VI—(SUPPLEMENT, p. 123):
   I. That the Representative be instructed to move as an amendment to I: "That the Council be instructed to at once cease negotiations with the Government and the Commissioners."
   II. To move the deletion of II, and to substitute, "That the Council be instructed to take all possible steps to ensure that no member of the profession shall hold office or take part in any administrative or medical work under the Act."
   III. To move the deletion of III.
   IV. To move an amendment substituting "emergency" for "provisional," and inserting the words "composed of members of the Association" after "Committees," line 2, so that the recommendation will read: "That the Council be instructed to make all necessary arrangements for assisting the Divisions and Branches in the appointment of *Emergency* Medical Committees, *composed of members of the Association*, in every insurance area, to safeguard the interests of the profession without prejudice to the question of whether these committees shall later accept recognition as 'statutory' local Medical Committees."
   V. To move an amendment to omit words after "that" on the second line to the word "no" on the third line, and to substitute "Association" for "Representative Body" on the last line, so that the recommendation will read: "That the Council be instructed to take steps to organize the profession so as to secure that no person shall be able to secure medical attendance under a contract practice appointment held at lower rates than those which may be agreed upon as adequate by the Association for attendance upon insured persons."
   VI. To move an amendment substituting "twenty-four members elected by the Branches and grouped Branches in the United Kingdom and" for lines 3 and 4, so that the recommendation will read: "That a State Sickness Insurance Committee be appointed to consider and report to the Council on all matters connected with the National Insurance Act; that the Committee consist of twenty-four members elected by the Branches and grouped Branches in the United Kingdom and the *ex officio* members; and that the Committee be empowered to add to its numbers

for special purposes not more than four additional members."

A report was also received from the subcommittee as to the requirements that should be embodied in any amending Act of Parliament, and the following resolutions were agreed to:

A. That as the six cardinal principles have not been conceded in the Act they should no longer be retained as the minimum requirements of the Association, but that the following should be substituted for them:

1. *Income Limit.*—That a maximum wage limit of £2 per week should be fixed—by substitution of £104 for £160, and deleting all words after "contributor" in Clause 1 (3) (*b*) of the Act.

2. *Freedom of Choice of Doctor.*—That the amended Harmsworth Amendment should be deleted.—Clause 15 (4) of the Act.

3. *Freedom from Control of Friendly Societies.*—(*a*) That the local Insurance Committees should be so constituted that under no circumstances should there be a majority of representatives of insured persons.—Clause 59 (2) (*a*) of the Act.

(*b*) That the basis for their constitution should be a contributory one which would give in each unit of ten four representatives of insured persons, three of employers (non-contributors), two of Government or county council (non-contributors), and one for the medical profession.

4 and 5. *Method and Rate of Remuneration.*—That the method and rate of remuneration should be fixed by a referendum of members, the preference of the majority to be the requirement of the Association, and that it should be an instruction to the Representative to move a resolution: That the Council of the Association be instructed to take in the quickest way possible a referendum of the members as to their preference for payment per attendance or per capita, on the suggested basis of 2s. 6d. per visit, and 1s. 6d. per consultation, exclusive of medicines, with double this rate for visits and consultations needed between the hours of 8 p.m. and 8 a.m., and a mileage fee at the rate of 1s. per mile over one mile in one direction, or on the suggested basis of 10s. per capita for males in approved societies, and 15s. per capita for Post Office contributors and women, exclusive of medicines, and a mileage fee at the rate of 1s. per mile in one direction. In both cases a scale of fees for special consultations, operations, etc., to be drawn up in accordance with the scale usual for this class of patients.

In connexion with this resolution it should be remembered that private practice will cease in many districts, and that a further extension of the Act to include women and children is not improbable.

6. *Adequate Representation on Local Insurance Committees.*—That there should be a representation of not less than 1 in 10 on committees properly constituted under (3).

7. That dispensing should as hitherto be done or arranged for by the medical practitioner, should he so desire, and charged for on the scale agreed upon by the Pharmaceutical Society.

8. That disciplinary power over medical men on the panel should for minor complaints be vested in local Medical Committees, and for more serious ones in one or more specially constituted Central Medical Committees.

9. That compensation should be paid for loss of goodwill due to the Act in cases of death or compulsory sale of practice in the next three years following the passing of the Act.

10. That the Medical Act should be amended on the lines laid down by the Central Medical Council for the suppression of unqualified practice.

THE CARDIFF MEDICAL SOCIETY.

A SPECIAL meeting was held on January 16th, Dr. H. E. SKYRME, the President, in the chair. Considerably over 100 members and medical friends were present. The SECRETARY read letters of apology from Mr. Lynn Thomas and Dr. C. T. Vachell.

The PRESIDENT introduced Dr. HELME of Manchester, who gave the following address.

Dr. Helme's Address.

I feel somewhat at a disadvantage in coming to speak to you, because I am not personally known to you individually. I fear that any knowledge you may have of me has been derived from a misleading circular addressed to you by the officials of the British Medical Association, in which I am personally attacked and misrepresented and held up to undeserved criticism at the cost of the British Medical Association. With this I shall deal at the proper time, but I claim that, whether mistaken in my advocacy of a certain policy or not, at any rate I have been consistent and openly straightforward in my methods. As a member of the Council and as one of the band of reformers at a critical time in the history of the Association some twelve years ago, I took part in the movement for the reorganization of the Association, which it was felt was not performing its duty in the interests of the profession. Such was the extent of the dissatisfaction that it was proposed to form a new rival Association. It seemed to many men impossible, owing to the constitution, to get the machinery on the right lines from within, and a conference was called in Manchester, and as one of the delegates I am proud to recall that I took part in establishing the movement along the right lines, and in supporting the decision arrived at by the conference:

That the size, position, and wealth of the British Medical Association make it the only practicable national medical association, and consequently that the efforts of this conference should be directed to the conversion of the Council of the British Medical Association into an energetic body really representative of the majority of the members of the Association.

As a result it was reorganized. Such was our hope, gentlemen. Alas! what do we see to-day? The Secretary of the Annual Conference laid a plan before the meeting, and I well remember a criticism of that plan which afterwards appeared in print, namely: "The Secretary did not want, it was said, a dictatorial Council. Councils, let him remember, democratic Councils, have often proved the worst of tyrants. New presbyter is frequently old priest writ large." That comment may well be written to-day. Six or seven years later, as Honorary Secretary of the Lancashire and Cheshire Branch, it was my duty, on behalf of my Branch Council, to write the following words:

There is a grave danger that the Association may come to be dominated by a régime even more unsatisfactory than that which led to the reconstitution of the Association.

And in this same relation I think it is worth while to read from a letter by one who did a great work in the reorganization. Mr. Edmund Owen, in reference to the appointment of the new Secretary, in the BRITISH MEDICAL JOURNAL, the part which bears upon my present subject:

Even a Medical Secretary is but human, and he is placed in a position of such great danger that at any time he might become from force of circumstances a dictator to the Association and, therefore, to the profession.

These references, I think, afford a key to the solution of the difficult position in which we find ourselves to-day, for there can be no doubt, gentlemen, that the source of unrest which has been in such vivid evidence of late is the consciousness amongst the rank and file of the profession that the official attitude of the British Medical Association does not reflect the attitude and feeling and desires of the mass of the profession, and for this the Council and the officials are chiefly held responsible. Further, the public and members of Parliament had come to believe that the official attitude *did* represent the feeling and wishes of the profession, and that there was a general feeling of satisfaction on the part of the profession with the provisions of the National Insurance Bill when it was about to become law. After six months of meetings and negotiations, the general impression was that the Council and the members were satisfied. Under these circumstances many members of the profession felt that it was due to the public and to the profession that *before* the bill became law our true position should be made known, so that we should not be blamed afterwards. Hence our first meeting in Manchester, at which I took the opportunity of stating that to my knowledge the bill was going to be passed into law by members of Parliament who honestly believed that the profession was satisfied. For this false position we hold the Council and the officials in whom the whole of the profession had placed their trust to be largely responsible. Scarcely had the position been to some extent made clear when the Council of the Association performed an act (I do not say whether the gentleman appointed was the best or not—that is a question with which I am not at present concerned) which one speaker subsequently said had "rent the profession in twain from top to bottom." As one result, distrust of the Council and resentment rose to such a pitch as to threaten the break-up of the Association and the formation of a permanent rival. Communications came to me personally from all quarters. Threats of resignation even from a Division as a whole, expressions of distrust, and urgent appeals for help and a lead, and I felt that some one must take the risk of odium, and I issued an appeal through the only channel which was open to me, namely, the press. I would not have said what I will now say as to my personal action

had it not been that a colleague of mine has alluded to the facts in a letter to the BRITISH MEDICAL JOURNAL. Up to this point I had used all my influence to hold back the movement, and at last, when I found that again circumstances had arisen that demanded outside help, I consented to go to one of the meetings and take part in the formation of a union, but opposition was raised to putting the name of the British Medical Association in the resolution, and I took up my papers and said that I should retire from the room unless the first plank in the first resolution that was passed was to strengthen the hands of the *members* of the British Medical Association. I think I have said enough to show that, although my action is being misrepresented, my heart and soul is with the British Medical Association, as, I hope, the only permanent national association. Further, I would take this opportunity of repudiating a criticism which has been levelled at me—namely, that I have endeavoured to divide the Association; and, on the other hand, I claim to have helped in preventing its destruction. The policy of the new Union is based on the belief that the policy and methods of the officials of the Association are not in harmony with the wishes of most of the profession and the rank and file of the Association, and it will be necessary to consider how this has come about. But before doing this I should like to ask and answer a question: "What is the basis of the objection of the profession to the provisions of the bill?" Surely it is that the independence of private practice is attacked; that, indeed, its foundations are destroyed, and in its place is offered, not contract practice under proper conditions for those who desire it, but the State establishment of ill-paid, sweated contract practice under lay control. Insurance we welcome. The provision of efficient medical service for those who cannot individually afford to pay for it themselves has been one of the main desires of the profession. We therefore welcome insurance because of its benefit and advantages for the poor; but to be compelled by the State to become the sweated club doctor under lay control we can never submit.

Now, gentlemen, let me turn to the history of the National Insurance Bill. I feel I have to some extent a free hand because the Chairman of the Representative Meeting is present. Therefore I shall not hesitate to speak openly of what I think of the Association. On May 31st last a Representative Meeting of the British Medical Association met to consider the bill introduced by Mr. Lloyd George. This bill was produced after years of conference with the friendly societies, the medical profession being ignored. Mr. Lloyd George received a deputation of the Medical Association on May 30th, and it is well to read the report of that deputation presented at the Representative Meeting. The question was raised whether it might be possible to impose a limit of £200 per annum in respect of voluntary "contributors admitted to medical benefits," and Mr. Lloyd George promised to give it his careful consideration. Later a private member of Parliament moved and carried a resolution in the House of Commons that a limit of £160 be imposed. I think this shows the attitude with which the gentlemen on that deputation began their interviews with the Chancellor. On May 31st a resolution was passed by the Representative Meeting that it would welcome an opportunity of conferring with the Chancellor, and in view of this interview I myself had the honour of proposing the following resolution, which was adopted:

> That the suggestion of the Chancellor relating to the remuneration of the medical profession as set forth in the second reading cannot be accepted.

It will be remembered that the munificent amount of 4s. 6d. a head had been suggested. I do not hesitate to say that, in my opinion, adequate remuneration, together with honourable terms of service, is the basis of the problem. On June 1st the Chancellor attended, and I have read and re-read the speeches which he then made until the SUPPLEMENT in which they are reported is almost worn out. I find myself more and more in sympathy with the Chancellor's sentiments then expressed, and I am amazed that the results of the Chancellor's expressed intentions are what we see to-day in the Insurance Act. The picture drawn by him is almost irresistible. Yet what do we see as the result? A profession compelled by the State to become the servants of working men committees, with their future entirely at the mercy of a body of Commissioners almost entirely composed of the laity. The attitude of the officials in whom we have placed our trust towards the Government is illustrated by what transpired at that interview. The Chairman of the Representative Meeting introduced the various questions in which we were interested. On the question of remuneration, which after all is an important one, on which I think you will agree with me a very firm front should have been shown at the beginning, and on which the Representative Meeting had adopted my resolution in preparation for that interview, the Chairman introduced the matter in the following words:

> I do not wish to introduce any discord into our proceedings, sir, but there is one member, at all events, and I think his views are shared by a large number of the members in this meeting, who suggests that it should be brought to your knowledge that so far as we understand them the conditions of remuneration which have been put forward and dealt with by you, even in your latest speech in the House of Commons, are unsatisfactory.

This, gentlemen, is the account of a special resolution passed by your Representatives in Representative Meeting in view of a special interview. If a resolution of the Representative Meeting should be so treated in the light of day, no wonder our Representatives failed in the conference chamber. This shows the kind of attitude which was adopted by, at any rate, one member of the deputation towards the Government, and is it to be wondered at that our confidence began to fail? But let me draw your attention to one most important expression by the Chancellor, in view of which we conducted our subsequent deliberations, an opinion which we welcome, and which, if carried, would have completely solved our difficulty and brought us hand in hand with the Government, and which if yet carried out by the Commissioners would pave the way to a possible and satisfactory working. I want to emphasize the importance of this matter. In speaking of the free choice of doctor and the formation of a panel the Chancellor said, before any questions had been asked him by us:

> I want to make one very important qualification here. If a panel of that kind is to be a success the doctors themselves must exercise discipline, otherwise it would be a failure. It practically amounts to the doctors in each district having the control of the medical arrangements.

That was what we understood, gentlemen, to be the basis on which we conducted our deliberations for the rest of the day. Were we being deceived by Mr. Lloyd George or is what we have received the result of the weakness of our Representatives? I am inclined, in the light of recent events, to doubt the first and credit the second. We passed the following resolution:

> That in any service established by the Government on insurance principles, the administration of medical benefits should be carried out as far as possible through the medical profession.

Why is this not carried out in the Act? The Chancellor gave it his approval, and if it had been carried out the greatest cause of our opposition would have disappeared, for the impossible position of lay control would have gone; servitude to a committee of working men would not have been in question. Instead we should have an honourable position which any self-respecting medical man could undertake. The dignity of our profession would have been preserved. Is it too late? Is there still hope that we may get this? Later I moved and the Representative Meeting adopted a resolution in which we stated that the proposals of the Government were unsatisfactory. This was seconded by a member of the deputation, and I should like to recall his words:

> They had been patted on the back that day by the Chancellor as amiable weaklings. As a matter of fact that was what they were up to the present, but now they had been driven to the wall. There were four points practically that must be put in the ultimatum—friendly society control, wage limit, etc.

That was the spirit that we understood animated our deputation, and reflected their attitude towards the Government, and hence the confidence we reposed in them. The Representative Meeting ended with the preparation of the tabloid of the six cardinal points as the expression of the policy of the Association, but that resolution in which the Representative Meeting expressed the opinion that the proposals of the Government were not satisfactory was *not* included. This was an important

omission on Dr. Maclean's part, and it again revealed the attitude of the officials towards the Government. There apparently was a desire to prevent any appearance of strength in their dealings. I entered a strong protest, whereupon Dr. Rowland Fothergill proposed the following resolution, which was adopted:

> That the resolution adopted on the motion of Dr. Helme (Minute 28), together with the above statement, be placed before the mass meeting of the profession to be held this evening.

If this had not been done that resolution would have been buried like that of the day before, and so many others. This incident, again, I contend, is evidence of the weak attitude adopted by the officials in relation to the Government. That tabloid has turned out to be a disastrous piece of work; much was left out of it and appears to have been lost sight of in consequence—for example, the power of appeal against removal from the panel, on which power and on the nature of the tribunal to which appeal was to be made, may rest the whole security of the medical man's professional existence. The Representatives passed the following resolution (78):

> That the Council is instructed to consider what points in the policy of the Association should be secured, if possible, by specific provisions in the bill, and what points should be kept open to be determined by the Insurance Commissioners.

What did we mean by "specific provisions in the bill?" I know what I meant when I recorded my vote, and many others. It would take me a little time to go fully into this matter. The Council decided that of the six points the £2 maximum wage limit and others should be included in the first category, whilst the amount and method of remuneration should be left over to be settled with the Commissioners; but it is important to remember that the Representatives had passed a definite resolution saying that the terms of remuneration suggested by Mr. Lloyd George could not be accepted. Then followed the pledge and the circular asking each member of the profession to do all that in him lies towards inducing Parliament to recognize the justice of the demands and the necessity of complying therewith. And here allow me to say that signatures to that pledge were undoubtedly obtained on the understanding that certain of these points were to be fixed by statute, including the £2 limit. I do not want to labour this point or to discuss it on its own intrinsic merits, but by following the history we can illustrate two points. The first is that it will show a cause which has largely contributed to the loss of confidence in the officials of the Council, and it will also show that the methods adopted by the Council towards the Representative Meeting, and the difficulty of both in dealing with the Council and the subject of the Insurance Bill. Now, in reference to the £2 wage limit, the official organ of the Association published the following: "It is necessary to lay emphasis on the position which the profession is now assuming on the fundamental points stated by the Representative Meeting. These fundamental principles must be defined in the bill itself." Note that for the first time the words "points" and "principles" are being used as synonyms. The paragraph I have quoted shows that they were intended to convey identical meanings, and it was widely understood and interpreted to mean that the points were to be in the bill. Our first cardinal point was the £2 maximum limit. That is not in the bill. I do not argue as to the merits of the question; but I do say that this has given rise to the belief that the Association has been quibbling, and members of the profession outside the Association feel that they have been deceived and have lost confidence in the Council of the Association. Well, now, on the first cardinal point, Mr. Lloyd George proved obdurate, and suddenly a new idea sprang into existence—that is, the Addison amendment (that is, not to insist on the first cardinal point being fixed in the bill, but instead to accept the recognition in the bill of the principle of a wage limit to be fixed locally). I am not going to ask whether this is a better or a worse plan, but it was considered by the Council, and pressed by the Council upon the Divisions and the Representative Meeting. In this course of action the Council did not act as an executive body; it acted as a deliberative and advisory body. The Council was instructed to determine (1) what points should be secured by specific provision in the bill (not what points concerning which provision might be made in the bill to allow the possibility of their being secured by subsequent bargaining with the Commissioners or by threat of strike); and (2) what points should be kept open to be determined by the Commissioners. The £2 wage limit was included in the first category, and it was understood that it was to be secured before the bill became law. I see, therefore, that there is cause for the distrust and loss of confidence in the Council apart from the merits of the question.

With regard to the £2 wage limit, at the Birmingham meeting the following resolution was moved by Dr. Maclean, the Chairman of the Insurance Committee, who said he did not support it:

> That the bill should provide a maximum limit of £2 per week with provision for a lower limit to be fixed locally.

If it had never been the intention of the Association to insist on the maximum limit being fixed in the bill, why was this resolution moved by the Chairman of the Insurance Committee? The reason was clear, for an amendment was moved by one of the deputation, and seconded by the Chairman of Council:

> That the Council be instructed to use their best endeavours to have the £2 limit fixed in the bill with provision for a lower limit to be fixed locally, but failing that to obtain as best they can the fixation of £2 as a maximum limit with such local option.

This amendment was carried on a card vote, though a majority of the Divisions voted against it. But what was the sequel? Sir Philip Magnus moved an amendment in the House of Commons which would have given us what we wanted, and included the £2 maximum limit as well, but our Medical Secretary, who was in the House during the debate, sent down a private note asking that it should not be pressed to a division. Dare the Medical Secretary do this without knowing it was in accordance with the wishes and the policy of the Council? On this alone I think we have reason to cease to continue to the present Council as a whole our confidence, though many of its members are in agreement with us. The result is that we have still to fight for our first cardinal point. Is there any cause for wonder that there should be a widespread feeling that the policy of the Council was rather to see the passage of the bill than to uphold the expressed demands of the profession.

Let us now turn to another point—cardinal point 3, "That medical and maternity benefit be administered by local Health Committees and not by friendly societies." What the Council did in reference to maternity benefit is rather interesting. The Representative Meeting declared—

> That provision be made for the exclusion from medical and maternity benefits of those persons whose average income exceeds £2 per week.—Minute 55.

In the supplementary report to the July Representative Meeting the Council advised the Representative Meeting

> that the maternity benefits will be administered in the form of a contribution of a fixed amount towards the expense incurred in connexion with confinement, and will not necessarily involve any arrangement by local Health Committees or other authorities under the bill with medical practitioners as to the terms on which they shall attend such patients. In these circumstances the question whether any given class of the community should receive the benefit would appear to be a matter in no way concerning the medical profession: therefore respecting the maternity benefit the expediency of pressing amendments to the bill applying an income limit thereto has been carefully considered, and the Council has decided to postpone to take action in this matter pending further consideration by the Representative Meeting.

This advice was taken; but can the Council claim to be acting as an executive body only or as an advisory body also? In the JOURNAL of November 18th we find the following:

> It would appear that medical men will have to deal directly with the mother or her husband as far as payment of fees for confinement is concerned, and the provision of Clause 15, which gives the approved society or local Insurance Committee the power to make rules as to the manner and times of paying or distributing and mode of calculating benefits appears to *leave room for difficulties*.

Therefore, maternity benefits will be administered by friendly societies, and this part of cardinal point 3 was abandoned on the advice of the Council.

Now I come to a very serious part of the business—namely, the manner in which the officials dealt with the Harmsworth amendment. After a conference with Mr.

Lloyd George and the friendly societies a sort of compromise was arrived at, and at the last moment the report of Council was sent to the Divisions. At the November Representative Meeting the Council moved:

> That the Association press for the amendment of Clause 14, Subsection 4, as follows:

To this an amendment was moved:

> That the Association press for the deletion.

During the discussion, when it was evident that the amendment would be carried, the Chairman rose, and with emphasis pointed out that if this were carried the other amendments standing in the name of certain Divisions would automatically drop out. There could be only one meaning. Nevertheless, the amendment was carried by 73 to 63, and thereupon the Chairman of the Meeting allowed to be moved as another amendment the reintroduction of the original motion which had just been defeated, and this was carried. The words of this second amendment—that is, the original resolution—embodied the policy of the Council. Deletion was the policy of the Association. What was the result? We have not got deletion. In this way, again, the true feeling of the profession has not been carried out by the Council.

Now as to the second cardinal point—namely, free choice—I would ask your attention to two documents which appear side by side in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of December 16th. The first is a memorandum issued to members on December 11th by Dr. Maclean and Dr. Macdonald, in which they say:

> The principles of the Association have been incorporated in the bill as it has now left the House of Commons, namely, free choice of doctor, etc.

The other document is a letter to the House of Lords dated December 11th, and signed by the Deputy Medical Secretary. Referring to the Harmsworth amendment, this memorandum says it

> defeats the principle of free choice of doctor otherwise agreed to by the House of Commons by a vote of 387 to 15. The last four lines of the subsection as finally amended in the House of Commons do, it is true, secure *to a great extent* the free choice, but in the opinion of the medical profession the whole subsection, even as amended, is undesirable in the public interest not less than that of the profession, and *should be deleted*.

Again I say this is an instance where unfair and misleading documents are issued by the Council and its officials. Both cannot be right. Free choice of doctor is not secured by the Act, nor yet the power of the doctor to refuse. Free choice by patients *may* be secured, but it is no more secured than the £2 limit. It has to be fought for yet. It has to run equally the gauntlet of the three-fifths working men committees and the Commissioners, and unless safeguarded this clause, taken with the other parts of the Act, will rivet on the man who up to now has been an independent practitioner the most irksome of the bonds of club practice—that is, the loss of his independence, for unless you see to it—and your Council is satisfied with it, bear in mind—you will be bound to attend for fixed periods the patients on your list, however irksome that position may become, and similarly the working men will have to hold to the same doctor for his medical benefit under the Act for a specified period, whether he retains his confidence or no, and where is free choice then? Then, with regard to remuneration, that question has been recognized by the profession as a most important one, but the Council seems to have quietly sat still whilst that floating surplus from which the 4s. 6d. might have been to a slight extent augmented was being swallowed up by other claims, and then at the last moment, in November, it proposed a resolution that we shall now intimate to the Chancellor that the remuneration offered is not enough—a resolution we had already adopted in June.

Has our sixth cardinal point been secured? Are we satisfied with our representation? I say that here again we are in such a position that we shall be bound to strike, and yet we have our own resolution, supported by Mr. Lloyd George's own suggestion, that the administration shall be in the hands of the medical profession, and this is the crux of the situation so far as honourable terms of service are concerned. And what about your right of appeal against removal from a panel and about the investigation of complaints?

But I must pass on to the strike resolution, and I shall never forget, gentlemen, the impassioned appeal that was made by the Chairman of the Representative Meeting to defend the honour of himself and his colleagues. Nothing could be done but pass that amendment unanimously, weak as it was, and we have been blamed for it. I should like to recall the exact words:

> One speaker has made a reference to certain rumours which, he said, are current in the smoking rooms of the London clubs and the smoking-rooms of the House of Commons. I suggest that those kind of rumours are best left to vegetate as they may in the smoking-rooms. I wish to say, because I feel it personally very acutely, and I know it has been used as an argument by men who have not the essential interests of the Association at heart, that certain of the officials of this Association had been taking advantage—immoral advantage—of their official position to make things easy for the Government, and to give away those interests which had been sacredly entrusted into their hands by the profession of this country. I say that an allegation of that kind is the measure of the man who makes it. If the meeting will permit me one more personal point, it is this: If the suggestion should come to me to accept any office under this bill, my decision would be irrevocable. I much prefer to stand outside any official position under this bill and fight for the men who have trusted me so long. I suggest, further, that *the men whom I have the honour to work with in this matter* are entirely to be trusted by the Association, etc.

One could retort with equal justice and equal sense of fairplay that that speech was the measure of the man who made it, for at that moment Dr. Maclean knew that one of the rumours was not rumour alone, but true, and that suggestions had been made that Mr. Smith Whitaker should be one of the Commissioners. We accept Dr. Maclean's assurance that he had the impression "that in all probability the matter would not arise again": but we cannot understand how he could deny the truth of the rumour, and in such unmeasured terms pass judgement upon those who circulated it. That is for Dr. Maclean, however, to judge. We, at any rate, say that in pressing the resolution which he did, and in using such powerful arguments to carry the meeting with him, he not only erred in judgement, but he did a great wrong, and we have no longer confidence in his guidance. But worse follows, for a few days later Dr. Maclean, after getting that resolution through the Representative Meeting, himself proposed that the Council should recommend Mr. Smith Whitaker to accept the post, and this was seconded by the President of the Association, although only on October 14th two officials of the Association—namely, the Chairman of the Representative Meeting (Dr. Maclean) and the Chairman of the Council (Dr. Macdonald)—had caused to be printed in our JOURNAL a memorandum in which the following words appear:

> In the meantime members of the Association and the profession generally may rest assured that those acting on behalf of the profession can, and will, take no action to modify in any way the policy which has been laid down, and that even as regards the broader questions of tactics—that is, of the means to be adopted to secure the achievement of the profession's demands—members generally will be given full opportunity of declaring their views before any decisive action is taken.

Of the action of the Chairman in this matter we do not approve. We do not question the wisdom or otherwise of the gentleman taking the post offered to him, but we do question the wisdom and the judgement and the action of the Chairman in proposing that he should be recommended to take the post.

Now the policy of the Council of the British Medical Association has been to procrastinate and to put off, and has succeeded only in making it easier for the bill to get through Parliament in a form unacceptable to the profession and not in accord with its just demands. The Council seem to have been dominated by the opinion that it was more expedient to assist the enactment of the Act drawn on wrong lines, in the hope that the driving force of the profession will eventuate in bringing its working on to correct lines, rather than to use the driving force of the profession, before the bill was enacted, to ensure that it was laid on correct lines. They would appear to have been caught on the Chancellor's subtle bait of what he calls "collective bargaining." The result is that we have a bill of fluidity or vacuity. As Sir Clifford Allbutt puts it, "In so far as the Act is not an Act there is hope." Now is the time to act. The National Insurance Bill must be so amended as to secure the six cardinal points, either by an amending Act or, possibly, by regulations on the part of the Commissioners—regulations which shall secure unreservedly and permanently our cardinal points, and which shall be alterable only by Act of Parliament or

by regulations issued with the expressed consent of the profession. Our present position, then, is that we are dissatisfied with the weakness of the attitude of the officials of the British Medical Association, and we think the time has arrived for firmer and stronger action.

At the conclusion of his address a vote of thanks to Dr. Helme was moved by Professor Hepburn, seconded by Dr. D. R. Paterson, and carried.

The following resolution was then moved by Dr. Mitchell Stevens and seconded by Dr. E. Tenison Collins:

> That in the opinion of this meeting the National Insurance Act does not meet the just demands of the medical profession as formulated in the six cardinal points; that it is detrimental to the public interest; and that the situation thus created can only be adequately met by a refusal on the part of the profession to undertake any duties which the Act proposes to assign to its members.

Dr. Maclean: I really suggest that I am entitled to the sympathy of this meeting. Dr. Helme, in the first place, with his well-known capacity in matters of this kind, has delivered a long, detailed, carefully-written indictment, not only of the attitude and policy of the Council, but a large amount of that indictment has been delivered in respect of myself. I am bound to say that my feeling is that the general opinion of this meeting will be that what we are here for to-night is not a personal combat between Dr. Helme and myself, but rather to consider in its broad aspects the real merit of the case which has brought us together, namely, the resolution on the agenda. In the short time at my disposal I cannot pretend to follow the indictment and insinuations of Dr. Helme. There are one or two things, however, to which I think I ought to allude. Dr. Helme in the first part of his speech practically uttered an apologia for his own position in the matter, and then he referred to various incidents which appeared to him to indicate, on the part of the Council and on the part of myself, a weakness in pressing the cause of the profession upon the Government or upon certain officers of the Government. I suggest that there is a tribunal before which this matter can be more properly tried, and that tribunal will be the Special Representative Meeting which is going to be held, when all these matters will be gone into, and when, I suggest, they can be gone into with more detailed knowledge. I say that with all my extensive and intimate knowledge of the transactions which have occurred between the Association officials and the Government there is not the slightest basis of truth in the suggestion that at any time for political purposes, or, at any rate for the mere purpose of getting the bill through, has a single point or fraction of a point of the policy of the Association been bartered away. The reference which Dr. Helme has made to the weaknesses of the representations of the Association to the Government all pretty well come under that head. Dr. Helme has made one or two references to the £2 wage limit. I can only assure Dr. Helme in this meeting, as I have had occasion to do before, that it is within my knowledge that the advice not to press to a division the insertion of the £2 limit in the bill came from the front Opposition bench, because if it were pressed to a division the number supporting it in the House of Commons would be so small as seriously to prejudice our chance of getting other points in our policy in the subsequent stages of Committee in the House. The relationship of the Medical Secretary to that will stand out. I am quite sure, in its proper light, and in a light which will reflect nothing but credit upon that official of the Association. In regard to the Harmsworth amendment, I would in general remark upon the tenor of Dr. Helme's speech, and in some measure also upon the speeches of my friends Dr. Mitchell Stevens and Dr. Collins. The Council, of course, cannot claim to be free from criticism, but to carry on the criticism in respect of the Council as a body and in respect of certain prominent members of that Council in the sense and in the degree in which it is carried on can only have one effect upon the profession at large—distrust, disunion, and division—which is absolutely fatal to our interests. Now I come in the remaining moments of my time to consider the resolution before me, and I address myself mainly to the last part of it, which says "that the situation thus created can only be adequately met by a refusal on the part of the profession to undertake any duties which the Act proposes to assign to its members." What does that mean? It may mean, of course, the actual service of attendance upon the insured person, but we must put that out of the way at the present moment. The mischievous part of this resolution means that you will not put the men that you trust upon the following bodies in relation to each Commission—the English Commission, the Welsh Commission, the Irish Commission, and the Scottish Commission. In relation to each of these Commissions there is to be an Advisory Committee. These bodies of Commissioners have to formulate, to draw up, and to carry into effect the regulations of this Act. Now is the time to nominate the members of the medical profession on these Advisory Committees, and this resolution means that you do not take part in any nomination of the kind. The result must be that the regulations will be formed irrespective of the policy of the profession. The next point is that you will not take any action to form a local Medical Committee which would have as one of the most important duties the consideration of due and proper remuneration for services under this Act. It would have before it the question of what is going to be regarded as ordinary medical attendance, the question of extras, mileage, night calls. These are the duties which your local Medical Committees must undertake, and upon which they must make representations to the Insurance Commissioners; and then, again, you must not put your Direct Representative upon the Insurance Committees when they are set up, so that you will not have your mouthpiece upon those Insurance Committees. I say that it is an absolutely foolish and ridiculous proposition. It is absolutely running away and leaving the ground open for the great organized societies to take it up. Moreover, I suggest that we would be the laughing-stock of the public if we took up such a position; and to follow this policy is, to my mind, absolutely fatal to our interests. In saying this I am not speaking in favour of the 6s. a head. What we have got to do is to form ourselves together to present our case to the Commissioners, to the Insurance Committees, and to the public, and we have got to come to the point of saying we will not form a panel unless these conditions are fulfilled. I say that that is a businesslike way to do it—carry your men up to a certain point with you, and then is the time to say you will or you will not work. If you say now you will not work, you give at least nine months' notice to our opponents to make other possible arrangements. I strongly advise you to throw out this motion by a substantial majority.

An amendment was proposed by Dr. Crawford Treasure, seconded by Dr. Llewellyn, as follows:

> That the National Insurance Act does not meet the just demands of the medical profession as formulated in the six cardinal points of policy, and that in the opinion of this meeting no member of the profession shall undertake the treatment of insured persons until the six cardinal points have been conceded.

Remarks were made by Drs. W. E. Thomas, T. H. Morris, Greer, Martin, and Paterson.

The amendment was put to the meeting and lost, and the original resolution was then carried. Only members of the Society took part in the vote.

PETERBOROUGH.

A meeting of the members of the medical profession practising in Peterborough and the neighbourhood (at which thirty-one were present) was recently held in Peterborough, to consider the clauses of the Insurance Act which have special reference to medical benefits.

Whilst not expressing any antagonistic feeling to the general principles of the Act, strong exception was taken to the want of consideration which has been shown throughout the whole of the proceedings in Parliament towards the medical profession, and also to the high wage limit of those eligible for insurance.

The feeling of the members was unanimous, that the payment provided under the Act was totally inadequate to recompense them for the time and attention which under the present advances in medical science a conscientious medical man would feel bound to devote to these patients.

It was pointed out that the persons who would come under the provisions of the Act included those who could not be insured under ordinary conditions, and would not

be admitted to any benefit society under their present rules.

It was resolved that unless the requirements of the medical profession were granted, the members present would refuse to accept any office for giving medical attendance and treatment to persons insured under the Act.

A small committee was appointed to further the objects of the meeting.

ODDFELLOWS' CONFERENCE.

THE Manchester Unity of Oddfellows held a special conference in London on January 31st and two following days. We give a summary of such parts of the proceedings as concern the medical profession, formed on the full report given in the *Daily Telegraph*.

Grand Master's Address.

The GRAND MASTER (Brother A. H. Warren), in his address to the delegates, referred to the fact that at Brighton, after the second reading of the National Insurance Bill, the conference had expressed the opinion that:

> Subject to amendments to be approved by the conference, the board of directors, or by the special committee to be hereinafter appointed, the Manchester Unity should immediately, on the passing of the bill, take steps to become an "approved society" within the meaning of the Act; that the directors be instructed to draft the necessary revision of rules to meet the altered circumstances, and that the actuaries prepare such tables of contributions and benefits as may be required.

Upon examination it would be found that in nearly all cases the various points put forward had been granted, as well as other points of importance that arose during the negotiations and the passing of the measure through the House of Commons. The Grand Master went on to express regret that success did not allow their strenuous efforts to obtain payment of benefit from the first day. The question of the medical profession and its attitude to the friendly societies caused them much anxiety and consideration. The preservation of the many friendly societies' medical institutions throughout the country under Mr. Cecil Harmsworth's amendment could not fail to give satisfaction in the quarters interested, and the agreement on the part of the representatives of the medical profession whom they met to make favourable representation to the profession in the direction of their treating their members over 65 years of age, and their chronic invalids on the same terms as insured persons, and the embodiment of the same in Section 15 (*e*) of the Act, led them to the opinion that their conference with the doctors had had some good result. The question of the ultimate attitude of the medical profession to the National Insurance Act, however, was apparently so uncertain that for the moment they must leave it where it was in the earnest hope that a mutually satisfactory solution might soon be arrived at. The National Insurance Act was vastly different from the bill presented to the country in May, 1911. Much had been removed from it that had threatened the best interests of friendly societies, and much had been incorporated into it that they trusted would prove helpful to their future development and extension. The time for criticizing the measure had passed; the Act was now a statute of the realm, calling for observance on the part of every loyal and law-abiding citizen. It was little wonder that so complex, involved, and far-reaching an enactment should have caused many to view it with alarm and suspicion, and endeavour by every means in their power to oppose it. Many and varied had been the expressions used up and down the country, and hostile and uncompromising had been the attitude in not a few cases. The Grand Master said it was not for him to criticize those brethren. He believed that their opposition had in the majority of instances been conscientious and born of an earnest desire to preserve the society for which they now laboured and whose interest they had now sincerely at heart. The time had now arrived for the closing up of their ranks, so that all the forces of their society might be applied in endeavouring to fit their constitution to the altered circumstances under the Act, with a view to their so adapting the Unity to the new conditions that they might, if possible, result in their increasing prosperity. The Grand Master proceeded to say that during the course of that conference matters touching their future administration would call for their careful consideration. Undoubtedly they would have to admit a large number of persons in the first instance for the "approved society" benefit only. It would then be for them to show them how by a voluntary act on their own part, by the payment of an additional contribution, they might come into a larger benefit than that provided by the State and into that which constituted the fraternal element of their order. In the matter of medical examination they would probably see the wisdom of considerably modifying that which they had insisted upon in the past. They would, he hoped, be prepared to agree to the society undertaking the liability of the first three days' sickness and the waiting period of twenty-six weeks in respect of present members, the question of commuting sick pay for future members at the age of 70, and of the option of continuing or commuting with respect to present members, would call for their decision. The question, What would be the future of the Manchester Unity under National Insurance? was being asked by many. It might continue for a short time, said some; it might exist for five or ten years, said others, and in the minds of others of a more stalwart faith it might operate for another twenty years. They did not know. He could not, however, take a gloomy view of their future, and was not prepared to give expression to any gospel of despair. So long as sickness and suffering existed, so long would their order exist to carry out its beneficent work.

Report of Board of Directors.

The report of the Board of Directors was then received. It set forth in parallel columns the actual amendments to the Insurance Bill asked for and the results of the action taken. Nearly the whole of the points asked for by the Annual Movable Conference had been gained. The main exceptions were: (1) Placing the administration of the medical benefit under the local Insurance Committees: (2) the refusal to grant sick pay for the first three days: and (3) the failure to exclude other than existing permanent benefit societies. For the alteration in the administration of the medical benefit the Government was not responsible, as the matter was taken out of their hands by the House of Commons, which almost unanimously decided on the change. At the time the Annual Movable Conference pressed for payment from the first day of sickness the bill would have given all the advantage of the deprivation to the fund controlled by the Insurance Commissioners. The alternative benefit granted would enable payment to be made for the first three days' sickness to present members of the Manchester Unity without entrenching on the amount of reserves estimated by the actuary to be set free. During the course of negotiations many other points of considerable importance had arisen, and representations had been made to the proper quarters, generally with success, not only in regard to obtaining further amendments to the bill, but also in respect of the defeat of amendments that appeared inimical to the society's interests. The committee was of opinion that the requirements of the Brighton Annual Movable Conference had been substantially met, and expressed the view that the question of becoming an approved society should be decided forthwith.

Welcome by the Lord Mayor.

Midway in the morning session on the first day the special business of the conference was temporarily suspended while the Lord Mayor came in state to the hall, accompanied by Alderman and Sheriff Hanson and Mr. Sheriff Briggs, to extend an official welcome to the delegates. The GRAND MASTER expressed, in the name of the deputies, the great satisfaction which was felt at the presence of the Lord Mayor, who was there to welcome the largest friendly society in the world to the greatest city in the world. The Oddfellows had a membership roll of about 1,100,000, a capital of upwards of £15,000,000 had been built up, and during the 100 years of the society's existence they had probably expended more than £60,000,000 in ministering to the needs of members. They had been able to distribute that great sum, not from the doles of Government or the charity of the rich, but from the hard-earned and carefully-saved pence of many thousands of members. They were profoundly hopeful that under national insurance their

society would not suffer, though there were forebodings and apprehensions in the minds of some men. He trusted, however, that they had succeeded in purging the scheme of some of the dross, and they would continue the process until the measure was all, or nearly all, that they could desire.

The LORD MAYOR, after cordially welcoming the deputies, who represented, he said, a great industrial factor in the realm, said there was no nobler work than that of making provision for the relief of those afflicted by sickness, and for the conservation of their homes in time of trouble. He went on to say:

When I assumed the duties of Lord Mayor I buried my politics, and therefore you must excuse me if I do not touch very closely upon the question of national insurance, especially as I am a doctor. I am fully aware of the view the doctors take of the position in which they are about to be placed by this Act of Parliament. I will say nothing on the matter, *pro* or *con.*, but I may observe that when I entered my profession I was apprenticed—that is done away with now—and my master had to deal with friendly societies. I must honestly say that when we balanced our accounts at the end of the year we generally found that we had done a lot of work for next to nothing. I do not think that would suit the 1,100,000 members of this society. The only thing I would ask you is: Do you expect to be medically attended in an efficient way for next to nothing? (Cries of "No, no.") I am glad to hear you say that. If you continue to say it, and to act upon it, this Act of Parliament will go along swimmingly. I know of no worse thing than to interfere with the friendly feeling which exists between the doctor and his patients. But I am content to leave the whole of this question in your hands with perfect confidence, because I feel that you will wish to do justice to all parties concerned in the working of this important measure. I can only express the hope that when it is perfected the measure will tend to the well-being of the community in general, and will help to mitigate their sufferings in time of need.

In conclusion, the Lord Mayor said there was no doubt that by their friendly societies they had helped the longevity of the race through a better knowledge of hygiene, a greater regard to the value of fresh air, and a better recognition of sobriety.

The Chancellor and the Doctors.

Brother THOMAS BARNES, Past Grand Master (Plymouth), in moving the adoption of the first section of the report of the Grand Master and Board of Directors, said that when the bill passed through the House of Commons they were confronted with the fact that they had not obtained all the amendments they desired, and, moreover, there had been introduced into the bill certain conditions not in the original bill. One amendment which they failed to obtain was payment of sick benefit from the first day of sickness. They had urged again and again an alteration in that direction. But they had failed. Some of the amendments which had been made in the bill were altogether repugnant to them. There had been introduced an interference with the right of their society to make its own arrangements for medical treatment. They did not approve, and never had approved, of an enactment under which they were unable to make their own arrangements for the medical attendance of their members. In the early stages of the bill Mr. Lloyd George received the representatives of the medical profession, and he was wise enough—no, unwise enough—to use words which were very similar to words used by the medical gentlemen in condemnation of the treatment which they received from the friendly societies. He did not know what induced Mr. Lloyd George to join hands with the doctors in that matter. He was certainly very maladroit to do so; and probably the right hon. gentleman thought so himself now. The statement made by the doctors that they had been scandalously treated by the societies was a slander on the societies. The engagement between the societies and their medical officers had been on equal terms, and a doctor who was not satisfied could terminate his engagement.

After discussion the first section was adopted.

The Friendly Societies and the Medical Question.

On the second day Brother J. R. BARLEY (Norwich), Deputy Grand Master, proposed the adoption of the second section of the report. In speaking of the concessions obtained by the friendly societies, he said that they had been successful on minor points, moderately successful on points affecting the personal rights and privileges of their members, and unsuccessful on points which they still feared would have an injurious effect on the constitution and permanence of their society. They had to acknowledge failure in regard to the first three days' sickness, in regard to their inability to retain control of the medical benefit, and in regard to the admission of collecting societies. He presumed the idea of excluding the first three days was to prevent claims being made for minor ailments, but as societies they had taken the risk of those ailments, and they did not desire the introduction of something which was contrary to their established custom. The Chancellor of the Exchequer, however, was quite obdurate on this point—not, he took it, wholly for the sake of financial gain, as he had made concessions that were of considerable financial value in the extension of the period of full sick pay from thirteen to twenty-six weeks. On the medical question the Government had failed to maintain the principle which was originally contained in the bill, that its control should be left in the hands of the friendly societies. In the anxiety in the early stages of the controversy to show that the friendly societies had underpaid and sweated the doctors, the cost of medical service had not only been increased, but there had been placed in the hands of the doctors a weapon which was used in Parliament for the purpose of taking away from their societies supervision over the work for which they had to pay, practically abolishing friendly societies for the purpose of medical benefit. On this question the Government had created a monster which would work to their detriment so far as the success of this measure was concerned. The motion was carried.

The Unity an "Approved Society."

The conference voted by an overwhelming majority that it should become an approved society within the meaning of the Act.

Medical Examinations.

Brother SIDDALL, director, moved the adoption of the following section:

As medical examinations may prove to be a difficulty in obtaining new members, owing to the indifference of persons who will join the society merely owing to the compulsory provisions of an Act of Parliament, and as experience shows the doubtful value of many of these examinations, and no provision is made for meeting the cost, it is recommended that they be dispensed with, except in special cases at the option of lodges. As a substitute, a declaration should be signed in each case by the applicant for membership and by his proposer and seconder.

He believed medical examinations would prove an obstacle in many cases in getting new members. He asked whether a carefully drawn-up statement in which the applicant declared himself to be in good health, and the proposer and seconder signed it, would not meet the case. It could be proved that in many instances doctors' certificates were not always what they would like, and if they adopted some such solution of the difficulty as he proposed, he did not think they would run into any great danger.

Brother Dr. CORFIELD (Mitcham) said the statement that medical examinations might prove a difficulty in obtaining new members could only be based on supposition. If under present arrangements many medical examinations were of doubtful value, it was clear that declarations alone would be absolutely valueless.

Brother ALFRED JOHNSON (South London) said that in his district they felt it was of the utmost importance that all candidates should be medically examined.

Brother S. BARNES (Plymouth) observed that in the past the medical examination had give the society a "life" which was above the normal. If the directors desired that the door should now be thrown open they should restore the qualifying period, which was taken away a few years ago by the Annual Movable Conference.

Brother THOMAS BARNES, a director, asked, Had the delegates considered what might be the attitude of the medical profession? It would be quite impossible for doctors—who were not well disposed either towards the Insurance Act or the friendly societies—to make prohibitive charges for medical examination. It would not be possible to expect a man earning 16s. or 18s. a week and supporting a family to pay 5s. for medical examination. It was desirable that they should extend their membership among women, and it was well known that many women objected to medical examinations.

The amendment to refer the paragraph back to the directors was rejected on a show of hands. The section in the report was declared carried.

The First Three Days of Sickness.

Brother HAWKINS, director, moved the adoption of the following section:

Members of the Unity who become "insured persons" will not be entitled to payment from the State for (*a*) benefits for the first three days' sickness; (*b*) medical benefit during the first six months after the commencement of the Act; (*c*) sickness benefit until twenty-six weeks have elapsed from entry into insurance and a corresponding number of weekly contributions have been paid: (*d*) disablement benefit until 104 weeks have elapsed from entry into insurance and a corresponding number of weekly contributions have been paid. The directors are strongly of opinion that present members should not be deprived of these benefits, and therefore submit that the liability be undertaken by the society.

The section was agreed to.

Maternity Benefit.

Brother HAYES, a director, moved the adoption of Section 13 of the report, which was as follows:

The incidence of the liability for this benefit being exceedingly variable, the directors have carefully considered the best method of meeting the claims without an undue strain upon the financial resources of branches, and recommend that in the revised rules provision be made to reinsure through the district to which the branch is attached.

The section was adopted.

Female Insurance.

Brother BOURNE, a director, moved the following section:

The requirements of the Act must lead to a considerable extension of female insurance, and to a consequent development of the society in that direction. Female lodges may be established in connexion with existing districts, or separate district organizations covering the same area may be formed for females. We recommend that a uniform table of contributions for female lodges be prepared, providing sickness benefits equal to those of the State scheme, with a funeral benefit of £7 10s.

He pointed out that if there were mixed lodges in the future the funds must be kept distinct. All contracts entered into by existing female lodges would necessarily have to be carried out.

The section was agreed to.

Delaying the Act.

Brother F. LANHAM (South London) moved, and Brother A. PINHORN (South London) seconded, the following resolution:

That this conference is of opinion that in the best interests of the Unity it is essential that the National Insurance Act should not come into operation before the first day of January, 1913, and hereby instructs the Board of Directors to take such steps as they consider necessary to attain such end.

This was carried without discussion amid cheers.

THE NATIONAL INSURANCE COMMISSIONERS.

EXPLANATIONS OF THE ACT.

THE National Health Insurance Commission (England) issued the following statement on February 2nd:

"The National Health Insurance Commission (England) has been training persons with a view to affording explanations of the main provisions of the Insurance Act to the officials and members of trade unions, friendly societies, collecting societies, women's and other organizations likely to become, or to assist in the formation of, approved societies. These persons are now available for this purpose.

"The meetings must be confined to the officials or members of the organizations concerned, and must be absolutely non-political.

"Applications should be sent to, and full information may be obtained from, the Secretary of the National Health Insurance Commission (England), Buckingham Gate, S.W."

THE NATIONAL LIBERAL FEDERATION.

On the same day the following notice was issued officially from 12, Downing Street, S.W., which is the address of the office of the Government Whip:

To avoid misapprehension it should be stated that the lectures upon the Insurance Act which are taking place under the direction of Mr. A. C. Beck, M.P., at Millbank House, Westminster (at which the Chancellor of the Exchequer was present yesterday and spoke), are organized by the National Insurance Committee, a party organization under the chairmanship of the Chief Government Whip. This committee is supported entirely by Liberals, and has no connexion whatever with the Insurance Commission, which is a Government department.

The Chief Government Whip, the Master of Elibank, has, through his private secretary, addressed the following letter to a correspondent:

"I am directed by the Master of Elibank to acknowledge the receipt of your letter, enclosing a copy of the *Monmouthshire Evening Post* containing a report of a speech at Usk, in which it is stated that the Government were offering to pay speakers out of the public funds to popularize the Insurance Act. I am to state that the Government have no intention of using public money to popularize the Act. The Master of Elibank is informed by the Commissioners that a certain number of official speakers will be available for purposes of exposition and to deal with technical questions on which the officials and members of societies which wish to become approved may desire information. On the other hand, I am to add, to avoid misapprehension, that a National Insurance Committee has been formed which is a party organization with its own funds, under the chairmanship of the Chief Whip in his political capacity; this committee consists entirely of members of Parliament, and has as its secretary Mr. Allard, a member of the Chief Whip's staff, with a separate office at Millbank House, Westminster, and has no connexion whatever with the National Health Insurance Commission, which is a Government department, with head quarters at Wellington House, Buckingham Gate, S.W."

NATIONAL INSURANCE ADVISORY COUNCIL.

The number of organizations which are springing up to explain the Insurance Act, to defend or criticize it, are so numerous that it is difficult to keep account of them all. We were recently informed by a circular that a body calling itself the National Insurance Advisory Council, having offices at 3, Northampton Square, London, E.C., is prepared to advise enquirers, whether employers or employed, male or female, desirous of ascertaining their position under the National Insurance Act. We find on inquiry that this body consists of a number of members of friendly societies who are favourable to the working of the Act and have given some time to the study of the points affecting small societies. No charge will, it is stated, be made for the information supplied.

REMUNERATION.

CORRESPONDENCE WITH THE INSURANCE COMMISSION.

Offices of the British Medical Association,
Medical Department.
429, Strand, W.C.,
January 27th, 1912.

Sir,

On many occasions during the passage of the National Insurance Bill through Parliament the British Medical Association drew the attention of the Chancellor of the Exchequer and of Parliament to the practically unanimous opinion of the profession that the sum of 6s. per insured person per annum, on which the actuarial calculations for the bill as regards medical benefit were based, was quite inadequate. The Chancellor of the Exchequer stated, on at least one occasion, that he recognized that this was the opinion of the profession.

I am now instructed to ask the Commissioners if they are in a position to inform the Association, and through it the medical profession, whether in carrying out the provisions of the Act, so far as medical benefit is concerned, they are restricted to the amount above mentioned.

I am, Sir,
Yours faithfully,
ALFRED COX,
Acting Medical Secretary.

The Secretary,
National (Health) Insurance Commission,
55, Whitehall, S.W.

National Health Insurance Commission (England),
London, S.W.,
January 29th, 1912.

The Secretary begs to acknowledge the receipt of your letter dated January 27th, and to say that the matter will receive attention.

Offices of the British Medical Association,
Medical Department,
429, Strand,
London, W.C.,
3rd February, 1912.

Sir,

The letter which under instructions I wrote to you on January 27th last, relative to the amount of money allowed in the actuarial calculations for medical benefit, was before the Council of the Association on Wednesday last, and I was then instructed to press for an early reply. The Commissioners no doubt realize that information on this subject is being anxiously awaited by the profession, and any definite information which could be given in time for circulation to the Divisions which will, in the course of the next few days, be in process of instructing their Representatives as to their action at the Special Representative Meeting on February 20th will be welcomed.

I am, Sir,
Yours faithfully,
Alfred Cox,
Acting Medical Secretary.

The Secretary,
National (Health) Insurance Commission,
55, Whitehall, S.W.

National Health Insurance Commission,
Whitehall,
London, S.W.,
7th February, 1912.

Sir,

In reference to your letter of January 27th and your further letter of February 3rd, I am directed to inform you that these were considered by the Joint Committee of the Insurance Commissioners at a meeting held to-day.

In reply to your enquiry, I am to point out that no limit is placed by the terms of the Act on the amounts to be paid for remuneration of medical practitioners who undertake the treatment of insured persons. The remuneration will be determined primarily as part of the arrangements made by the local Insurance Committee, which—

(*a*) Must be in accordance with regulations previously framed by the Insurance Commissioners;
(*b*) Must be made after consultation with the local Medical Committee, if such be formed; and
(*c*) Are subject to the approval of the Insurance Commissioners.

The amount which each local Insurance Committee pays for medical attendance and treatment throughout its area will form one of the items on the expenditure side of its annual balance sheet, the revenue side of which will be mainly composed of sums paid to the Committee by the approved societies in consideration of the provision of medical benefits for their respective members and sums derived from the Post Office Fund as regards the provision of medical benefits for the deposit contributors. In accordance with Section 15 (6), the amount to be paid by the approved societies to the local Insurance Committee is a matter for agreement between the societies and the Committee in each case, subject to decision by the Insurance Commissioners in the event of these bodies being unable to agree. The amount to be derived from the Post Office Fund is determined by the Insurance Committee, subject to the approval of the Insurance Commissioners. None of these amounts are limited by the terms of the Act. The approved societies, however, in considering the amounts which they can afford to pay to the local Insurance Committee in each case, in respect of the provision of medical benefits for their members, must be expected to have regard to the other claims upon their funds, for example, provision for meeting their estimated liability in respect of sickness and disablement benefit. If for such reasons the amounts derived by the local Insurance Committee from the sources above named are found to be insufficient to meet the necessary cost of provision of adequate medical attendance, application may be made to the County Council and the Treasury, who have power to make up the deficiency.

I am to call your attention to the fact that questions of this kind will be among the matters which necessarily will be referred for the consideration of the Advisory Committee, to be appointed to assist the Insurance Commissioners in framing regulations under the Act, and that the Advisory Committee will include members of the medical profession experienced in general practice.

I am, Sir,
Your obedient Servant,
R. W. Harris,
Assistant Secretary to the Joint Committee.

Dr. A. Cox,
Acting Medical Secretary,
British Medical Association.

THE PROPOSED CONFERENCE BETWEEN THE INSURANCE COMMISSIONERS AND MEDICAL BODIES.

The Royal College of Physicians of Edinburgh.

A special meeting of the Royal College of Physicians of Edinburgh was called for February 1st, to consider an invitation which had been received from the National Health Insurance Joint Committee to attend a conference to be held in London on February 2nd for the consideration of matters bearing upon the procedure preliminary to bringing the Insurance Act into operation.

Shortly before the hour of meeting a telegram was received from the Secretary of the Joint Committee intimating that the conference had been postponed. Under these circumstances the College passed from the special business for which it had been convened.

Society of Apothecaries.

The Society of Apothecaries of London has sent a letter to the National Health Insurance Joint Committee, saying that its Parliamentary Committee cannot recommend the sending of delegates to a conference "in view of the unsatisfactory nature of the provisions of the National Insurance Act from the medical standpoint." It is added that "the adoption of such a course would be tantamount to an acquiescence by the Society of Apothecaries in the provisions of the present Act, and consequently a grave betrayal of the interests of those holding the Society's diploma."

The London and Counties Medical Protection Society.

Dr. Hugh Woods, General Secretary of the London and Counties Medical Protection Society, forwards a copy of the following reply sent by the Council of that society to an invitation asking the society to appoint representatives to attend a conference with the National Health Insurance Commissioners on February 2nd.

[Copy.]

31st Jan., 1912.

To the Assistant Secretary of
The National Health Insurance Commission.

Sir,

Your letter of invitation to this society to join, by representatives, in the conference with the National Health Insurance Commissioners on February 2nd was considered to-day by the Standing Committee of the Council of the society. The Committee instructed me to express their thanks to the Insurance Commissioners for their courteous invitation, and the regret of the Committee that they cannot avail themselves of it, because, in their opinion, it would be useless for them to confer with the Commissioners about bringing into operation an Act of Parliament which so strangely fails to meet the real sanitary needs of the working classes, and so pointedly ignores the interests of the profession of medicine.

The Committee of my Council also bid me say that, as they are concerned with the interests of about 5,000 practitioners of medicine, the Council of the society would at all times, if asked to do so, willingly place at the disposal of the Commissioners any service or information at the command of the Council which might usefully help in the drafting of a bill to amend the National Insurance Act.

I am, Sir,
Yours faithfully,
G. A. Heron, M.D.,
Chairman of Council.

POSITION OF HOSPITALS.

At a meeting of the chairmen of the London hospitals which have medical schools, held at St. George's Hospital on February 2nd, it was decided to recommend to their committees that no alteration should be made in the present methods of admission of in-patients or out-patients, or in the supplying of drugs and dressings, but that the matter should be further considered after the Insurance Act has been in working for a year.

With the concentrated experience gained in the year it is hoped that a general arrangement may be come to among all hospitals as to what patients shall be treated and what payments, if any, should be expected from insured patients or approved societies or other bodies, and, generally, as to the attitude to be adopted by hospitals towards those obtaining benefits under the Act.

It was also decided that a committee be formed of the secretaries of the following hospitals: St. Bartholomew's, St. Thomas's, Guy's, the London, Middlesex, and Seamen's (Greenwich), to collect information during the year and to report to a further meeting to be then held.

There was a unanimous expression of opinion that great care will have to be taken that hospital relief and relief obtained under the Act will not overlap; and also that every opportunity should be taken to explain to their subscribers and to the public that the Act in no way helps patients needing serious operation or continuous nursing where the surroundings do not permit of either being properly carried out at the patients' home; and that it does not help patients needing the numerous forms of special treatment or advice only obtainable at the voluntary hospitals. Therefore the necessity for the existence of the voluntary hospitals, and of their being properly and efficiently maintained, remains as great as before the Act was passed.

THE BRITISH MEDICAL ASSOCIATION REFORM COMMITTEE.

Dr. Percy Raiment, Honorary Secretary of the British Medical Association Reform Committee, in sending the following copy of the proposed headings of the Bill to Amend the National Insurance Act, which is being prepared by counsel for that Committee, writes: "... It should be understood that the points given only embody the barest outlines of our proposals, and are necessarily incomplete as to details. But it will be seen that the broad principles underlying the now famous 'six point programme' have been loyally adhered to":

Principal Headings of Proposed Bill to Amend the National Insurance Act, 1911.

1. No person with income exceeding £104 per annum to be entitled to medical benefit under the Act.

2. No person with income not exceeding £65 per annum to be excluded from medical benefit under the Act.

3. Local Medical Committees to be constituted in every administrative area with administrative powers.

4. The local Medical Committee instead of the Insurance Committee to be the authority under Section 15 (3) for fixing and varying the income limit within the above mentioned amounts.

5. Statutory minimum capitation fee of 10s. per insured person per annum, or at the option of the local Medical Committee, an equivalent minimum payment per visit and consultation.

6. The representatives of medical practitioners to be elected under Section 59 (2) (*c*) of the Act to be not less than one-sixth of the whole number of members of each Insurance Committee.

7. No person suffering from any injury or disease in respect of which compensation or damages may be payable or recoverable under any statute or at common law or who is deprived of sick benefit for misconduct under Section 14 (4) of the Act to be entitled to medical benefit under the Act.

8. The General Medical Council to be substituted for the Insurance Commissioners for the purpose of removing a medical practitioner from the panel under Section 15 (2) (*b*) of the Act.

CORRESPONDENCE.

[It is particularly requested that communications intended for publication should be written on one side of the paper only, and should be addressed to the Editor British Medical Journal, *429, Strand, London, W.C.]*

The Report of the Council.

Dr. Henry Davy (Exeter) writes: The advice tendered by the Council of the British Medical Association in the second of the recommendations with which its report, published last week, concludes, to the effect that the British Medical Association shall notify the Insurance Commissioners that no negotiations will be entered into with any local Insurance Committee until the Representative Body is satisfied that the requirements of the profession are conceded, is the justification and may reasonably be assumed to be the result of the agitation of the last two months which was set going by the transfer of Mr. Smith Whitaker from the service of the Association to that of the Insurance Commission. The acquiescence of the Central Council in that appointment was interpreted both within and without the profession to mean acquiescence in the scheme for which the National Insurance Act is intended to afford the foundation. The resolutions adopted at meetings all over England, the decision of the profession in Scotland and Wales to form National Medical Councils to put its requirements before the National Insurance Commissioners in these countries, and the tenor of the correspondence published in the medical and lay press, abundantly prove that the profession does not acquiesce in the scheme.

The invitation by the Insurance Commissioners to a private conference to concert steps for setting on foot the administration of the Act came at the psychological moment, and gave the profession an unhoped-for occasion of making its unanimous decision publicly and officially known. It also afforded the Council of the British Medical Association an opportunity of coming into line with other medical bodies.

The failure to understand the wishes of the profession—the blundering, in fact—seems now to have been transferred to the Insurance Commissioners, and one might be inclined to look for some common recent cause, but that Mr. Lloyd George has from first to last been singularly ill advised and ill informed on the medical aspects of his scheme. There can be little doubt that when he produced his bill he thought 4s. 6d. a year for each insured person would produce adequate remuneration for the doctors attending them. As justification he had the British Medical Association's Report on Contract Practice, and may have concluded that as the Association had allowed year after year to go by without taking any definite steps to remedy the abuses therein disclosed, the profession was willing that they should be stereotyped and perpetuated. He seems never to have been made to realize that the evils of club practice were known, and that the object of the report was to afford evidence of the extent of the evil. Nor was it pointed out to him that the attendance on patients belonging to clubs and friendly societies was often an expedient to afford an introduction to private practice, and was given up at the first opportunity by every successful practitioner, or that where the practice was more or less entirely of this order the underpaid, overworked practitioner had neither the time to diagnose a really obscure case nor the opportunity to study the ever-varying knowledge which would enable him to keep up to date in the profession. In 1897 I concluded an address to the South-Western Branch in these words:

> The highest interest of the general public and of the profession are identical in their antagonism to quackery in all its forms and in the maintenance of a properly paid highly trained body of medical advisers who will at all times express the knowledge of their day with independence and honesty.

This statement is as true now as it was then—perhaps even more true. What, then, is to be said for the medical advisers of Mr. Lloyd George, who allowed him to think that he could obtain a "highly trained" body of medical advisers for an enormous number of unselected ordinary

lives at 4s. a head a year? This is the more extraordinary when it is considered that he at the same time recognized that his bill must in a large measure destroy the very private practice the hope of eventually gaining which induced large numbers of well-qualified young medical men to do per capita work of this description for a certain number of years.

He was, in the opinion of many persons, hardly more fortunate in the advice and assistance he received from the British Medical Association. The Association has done splendid work for the medical profession and for the general public. Within the last ten years it has received a new constitution democratic in conception, but so drawn in its details that it has prevented a large proportion of its most successful and busy members from taking any great part in its management. It would be safe to say that its actual management is in the hands of a score or two of clever and energetic members; sometimes during the three years I was actively connected with it I was almost led to the opinion that its policy was in the hands of two or three. In any case I am sure that on the Insurance Bill it was out of touch with the great mass of the medical profession; and the oligarchy who managed it had but a faint idea of the deep feeling and strong dislike of the insurance scheme which actuated all the best elements in the profession. The governing body formulated six cardinal points, two of which were, I think, more desired by the profession than the others—(*a*) freedom from control of friendly societies; (*b*) that no one should receive medical benefits who had an income of over £2 a week. There is no question that the second of these has not been conceded. With regard to the first the profession is told that it has been granted, but the profession does not believe it. The great majority of the profession sees little or no difference between the Insurance Committees, on which a majority of three-fifths is in the hands of insured persons, and the direct control by friendly societies.

Now, had the negotiators appointed by the British Medical Association clearly told Mr. Lloyd George that they knew the profession would not administer the Act unless those two points at least were definitely conceded in the Act, and had they, when the point was refused, withdrawn from all further negotiations, and began at once to organize the profession against the scheme, it is the opinion of a great many persons competent to judge that the bill would have been amended to meet the views of the profession, and the present deadlock would not have taken place. As I have already pointed out in the beginning of this letter, it is now, at least, quite clear that unless the Act is amended all the best practitioners in the profession, the successful men and the rising men, will boycott the Act. It is, I think, a mistake to talk of this as a strike. Nothing in the nature of a strike will or can take place. The members of the medical profession will go on with their practices exactly as if the Act did not exist, and will attend patients as they have always attended them, either for fees or gratuitously. Nor will they suffer pecuniarily by doing so, for in my experience the poor, equally with the rich, will, in times of sickness and danger, make every possible sacrifice to obtain the services of medical men whose opinions they trust and will not be put off with any other sort of medical service. Unless the Act is at once amended, and unless a large proportion of trusted practitioners assist in administering it, it will be as unpopular with the nation generally as with the medical profession. The educated critic will see in it the destruction of the "highly trained medical advisers" who are essential to the well-being of the nation; the poor and uneducated will see themselves deprived of the services of most of the medical men in whom they have been accustomed to trust. I would conclude by asking if it is not time for Mr. Lloyd George to put himself in touch with some body of medical advisers who are also in touch with the great body of the profession. If the British Medical Association is to be that body, I would ask also whether it is not time that its members got rid of the small number of men who up to the present have carried out the actual negotiations with Mr. Lloyd George, and substituted for them a fresh body of men whom they can thoroughly trust, to carry on any future negotiations as to how the Act must be amended to gain the support of the profession generally.

Dr. H. Falconer Oldham (Morecambe) writes: We have before us the report and recommendations of the Council. The report is very full but not very convincing. The recommendations are chiefly noticeable for their timidity, and because they emphasize how completely the Council has got out of touch with the general body of the profession. Our only hope is that from some Division a strong lead may come, for as a guide to the Representatives' Meeting the Council's recommendations are useless.

The vital questions which will have to be decided may be classified under two heads:

(*a*) The present attitude of the Association;

(*b*) The future policy of the Association;

and very definite conclusions must be arrived at in both directions.

As some indication of the lines which these conclusions might take, I venture to offer to the Divisions some recommendations alternative to those of the Council.

Present Attitude.

1. That the Council be instructed to press upon the Insurance Commissioners the postponement of the date on which medical benefits will accrue from January 1st to July 1st, 1913.

2. That the Council be instructed to inform the Insurance Commissioners that, while willing to co-operate with them in the choice of the medical members of the Advisory Committee, they see no good purpose in any such choice until the six cardinal points demanded by the medical profession have been absolutely guaranteed, as the advice of the medical members of the Committee could be of no practical value until such guarantee had been obtained.

3. That as the six cardinal points demanded by the profession have not been guaranteed, the Council be instructed to issue to every member of the profession a circular calling upon every reputable medical practitioner to decline service of any sort—executive or administrative—under the Act until such guarantee be forthcoming, and pledging the British Medical Association to support in every way it can by its influence and its resources any member of the profession, whether a member of the Association or not, who may suffer injury or loss by responding to the call.

Future Policy.

4. That the Council be instructed to obtain as soon as possible from every Division its opinion as to the requirements the profession should demand from an Insurance Act: what it considers adequate representation on controlling committees, what adequate remuneration, and how this should be paid, and to embody the result in a report to be issued to the Divisions before the next Representative Meeting.

5. That National Committees for England and Wales be set up on lines similar to those on which the Scottish and Irish Committees are formed.

6. That these National Committees and the Irish National Committee be instructed to organize conferences with the licensing colleges and universities within their respective areas with a view to the formation of National Medical Insurance Councils similar to that which has been formed in Scotland.

7. That the Council of the Association be instructed to invite the four National Medical Insurance Councils each to appoint four members who, with the *ex officio* members of committees of the Association, would form a conjoint Medical Insurance Board.

From a basis such as that sketched above a strong constructive policy could be built up which might formulate, if necessary, an amending Act, or even substitute a scheme of medical attendance on the working class population in accordance with the requirements of the profession, more helpful to those who would benefit by it and more effective in improving the general national health than the impossible "medical benefits" of the Insurance Act.

It may be objected that by this scheme members may be introduced into the National Medical Insurance Councils who are not necessarily members of the Association; but to my mind this is just what would make these councils strong and effective bodies in dealing with the question of national insurance, and surely the representatives of the universities and of the licensing colleges are more worthy

of consideration than the Association of Registered Medical Women, which the Council suggests should be represented on a committee of the Association.

One word of advice I would add to those Divisions who, under By-law 34, may be changing their Representative. Choose if possible a general practitioner in active practice. The work of the Representatives' Meeting will be constructive rather than critical. In the evolution of a policy an ounce of practical experience is worth tons of sympathetic theory or disinterested sympathy.

Dr. Harry Grey (Fishponds, Bristol) writes: They have a saying in Scotland, "Possession is nine-tenths of the law." It expresses somewhat the same meaning as the French proverb, "*Les absents ont toujours tort.*" The Council is "in possession" of the field, and the Reform party and discontented members of the Association are "*absents.*" Before these latter are well aware of the purport of the Council's report their Divisional Representatives will be "approving" it in a Representative Meeting, and cutting unawares a fresh stick for their own backs.

The report, as our Editor says, is as nearly without bias as can be—so much so, indeed, as to be nearly without backbone also. It says nothing of the real cause of the widespread discontent — dissatisfaction with the prospects of the profession under the Insurance Act; nor do the "recommendations" either suggest a bolder policy than the maintenance of the six-point initial and minimum programme as the final and maximum one, nor afford any loophole for the Representative Meeting to alter that policy. Read in conjunction with the report of Dr. Helme's entirely justifiable indictment of the Council at Carlisle (ibid., p. 139), the report makes one feel that one more Representative Meeting will leave us much as we were before. Three weeks of hopeful expectation, two days of talk, a week of forced cheerfulness and satisfaction, and a long aftermath of disappointment and despondency.

Of what use at all is a Representative Meeting if its business is not so arranged as to make it easy for Representatives to formulate a policy according to the instruction of their Divisions? The business of the next Representative Meeting which the Divisions are now asked to consider consists of six recommendations which do not cover all the ground desirable. There will, therefore, be sent in to the meeting scores or (as last November) hundreds of Divisional resolutions which will so swamp the meeting that none will receive due consideration, and the policy of the British Medical Association will again be formed on the good old British principle of "muddling through."

We have had legal (intramural and extramural) opinion as to whether the six points were in the Act. I have not heard any medical man express a need of this to help him to form an opinion on the point. What would be more useful would be counsel's opinion as to whether these six cardinal points are logical and just, and whether if obtained they safeguard the independence of the profession; and the Council of the Association ought at least to give the members an opportunity of expressing an opinion as to whether they think their independence is safe under the six-point policy, before once more getting the Representatives to endorse it.

Dr. R. Fortescue Fox (London, W.) writes: I have read with much satisfaction the report of the Council on the National Insurance Act. It appears to me to be a masterly and well-reasoned document. Whatever to-day or to-morrow may bring forth, it will, if I mistake not, hereafter be regarded as a wise and courageous utterance and its authors as true medical statesmen. I therefore hope that our profession will pause before rejecting in a moment of exasperation the course which has been marked out for them. We are not the only interest that has been or may be placed in a difficulty by recent legislative changes which have often been accepted as beneficial to the nation at large. Let us ask ourselves, How are we best to discharge our obligations, not only to ourselves but to the country? Two courses are open to us: If we assume an attitude of *non possumus* now after all that has passed, a suspicion of partisanship must inevitably attach to it. Or, on the other hand, we may make the best of a difficult situation and endeavour to find a solution even at the risk of some loss to ourselves. Which of these two courses is more consistent with our true character and more likely to enhance our influence and reputation? I can have no doubt as to the answer.

Ultimatum to Insurance Commissioners.

Dr. J. H. Taylor (Salford) writes: Judging from your correspondence columns, from the reports of Divisions, and the Council's report, it seems practically certain that the profession will refuse to enter into any arrangements with Insurance Committees until the Commissioners have made binding on all committees certain minimum requirements, and I cannot help feeling that the time has now come when these should be defined more precisely and in greater detail than they are given in the six cardinal points, which of course must remain as the foundation. Without attempting here to cover all the ground, I would specially allude to four matters of prime importance, namely, the procedure for removing names from the panel, the powers of the local Medical Committees, the amount of remuneration, and the income limit.

Taking these in order, the Act provides that the Commissioners shall prescribe the form of "inquiry" when any question arises as to striking a doctor off the panel. The Annual Representative Meeting resolved that the "inquiry" ought to be by the local Medical Committee with a right of appeal to a special Medical Court of Appeal to be constituted under the Act. It seems to me of the greatest importance that this should be insisted on before any panels are formed, as it would be intolerable that practitioners should be at the mercy of any lay committees in a matter of such import. The General Medical Council itself can hardly act, as its only power is to erase names from the *Medical Register*, but I might suggest as a suitable court of appeal one or more of the Medical Commissioners, together with the five directly-elected members of the General Medical Council representing England and Scotland.

Again, the Act provides that the local Medical Committee shall have such duties and powers as may be determined by the Commissioners. The mere right to be consulted by Insurance Committees, however valuable, is by no means sufficient, and though, if the profession were united in any district the local Medical Committee could practically enforce its demands, it should have such powers that the Insurance Committees would not be able to play off disloyal members of the profession against the local Medical Committee. That involves giving the local Medical Committee some powers of control over the doctors on the panel. For instance, it should be made the court of first instance for inquiring into all complaints against the doctors on the panel, with the right of appeal already mentioned.

As regards the "distribution" of persons who have been declined by doctors on the panel, the Act says that such persons shall be "distributed amongst, and so far as practicable under arrangements made by" the panel. But cases will arise where this is not practicable, and it is not impossible that Insurance Committees may then seek the power to compel some doctor to accept such a person. This would, of course, be intolerable, and the only body that should have any power in such a matter is the local Medical Committee. Again, the retention of the Harmsworth amendment, in spite of the protests of the British Medical Association, will lead to constant trouble, which may be avoided if the Commissioners provide that no "system" or "institution"—Cl. 15 (4)—shall be approved by the Commissioners which is condemned by the local Medical Committee, or which offers any worse terms or conditions of service than those agreed on by the panel. It by no means follows that the local Medical Committees will condemn every one of the medical institutes. It is further essential that there should be some provision for the expenses of the local Medical Committees, and the powers mentioned, with probably others that may be suggested, should be definitely settled beforehand by the regulations of the Commissioners, and not left to any future bargaining or local disputing with Insurance Committees.

As to the amount of remuneration, the Association has refrained from naming any definite fee because the duties were not defined. But now that the Act is complete we are in a fairly good position to know what will be required in the way of medical attendance. We know, for instance, that cases of tuberculosis and confinement cases will be charged to sanatorium and maternity benefits, apart from

medical benefit. There may be some doubt what other diseases will in the future be defined by the Local Government Board as coming under sanatorium benefit under Clause 8 (1) (*b*), but there can be little doubt that for some time to come the fixed sum set apart for sanatorium benefit will all be required to deal properly with tuberculosis alone. Thus the work under medical benefit required from doctors on the panel cannot differ essentially from the work now required from the postal medical officers, and the postal fee of 8s. 6d. is certainly not too much, confinements and tuberculosis cases being separately arranged for. Probably the authorities will desire as inclusive a fee as possible, but the profession itself has the right to say what services shall be covered by a capitation fee, and what shall be charged for as extras.

But, further, this is all on the assumption that a maximum income limit of £2 is fixed for the whole country, with local option for a lower limit. It has been stated that Clause 15 (3) is so worded that the fixing of the income limit rests entirely with the Insurance Committees, and that the Commissioners cannot interfere; but reading this section together with 15 (2), which makes all medical arrangements subject to the approval of the Commissioners, it would appear to be competent for the Commissioners to give notice to all Insurance Committees throughout the country that no arrangements will be approved that do not guarantee a maximum income limit of £2, with a minimum fee of 8s. 6d. It has been suggested that if a fee of 8s. 6d. is thought adequate when the income limit is £2, a fee of 6s. might be accepted if a low income limit of 25s. is fixed, of course all persons above the income limit being "required" to make their own private arrangements. The profession has evidently made up its mind that it will not enter into local struggles with Insurance Committees on fundamental points like these, and the sooner the Commissioners realize this the better will it be for the medical service of the insured.

To sum up. While fully agreeing with all the recommendations of the Council's report, I would suggest that it would not now be premature for the Representative Meeting to consider something like the following as supplementary to, and in full accord with, the report:

That the Commissioners be notified that no arrangements will be entered into with Insurance Committees until the following terms and conditions are made binding by regulations or otherwise on all Insurance Committees:

(*a*) A maximum income limit of £2 for the whole country, with lower limits where agreed on locally.

(*b*) That where the income limit is £2, the minimum capitation fee be 8s. 6d.

(*c*) That in cases where an income limit lower than £2 is fixed, the Representative Meeting consider what lower capitation fee should be accepted, to be fixed by the Commissioners.

(*d*) That extra fees be fixed by the Commissioners for mileage, night visits, consultations, operations, anaesthetics, and for attendance on cases falling under sanatorium and maternity benefits.

(*e*) That for deposit contributors, who cannot on account of bad health obtain admission to approved societies, a fee of 2s. 6d. per attendance be fixed, no capitation fee being admissible.

(*f*) That under Clause 15 (4) no "system" or "institution" shall be approved by the Commissioners that is condemned by the local Medical Committee.

(*g*) That the local Medical Committee have the following among other duties and powers:

1. To deal, as a court of first instance, with all complaints against doctors of the panel, and especially to conduct any "inquiry" under Clause 15 (2) (*b*), subject to appeal to a special Medical Court of Appeal to be constituted under regulations.

2. The effective power to give or withhold approval of existing "systems" and "institutions" under the Harmsworth Section, Clause 15 (4).

Finally, I would draw special attention to Paragraph 32 of the Council's report, which sets forth the great dangers arising from the suspension of medical benefit. The danger arises from the fact that it would involve us in an endless series of local struggles with the friendly societies and the club doctors. The pledge signed by over 27,000 members of the profession ought to be sufficient to prevent any fresh club doctors being obtained by the societies, but unfortunately the pledge does not prevent the present club doctors continuing their existing contracts, with greatly increased lists of patients. Thus it seems to be of vital importance that we should without delay approach all the club doctors with a view to persuading them either to hand in their resignations of their clubs to the Council, to be used when required, or, at any rate, not to take on their lists any fresh names of insured persons. This will be no easy matter to arrange, and will depend entirely on the loyalty of the club doctors to their fellow practitioners, but if it can be managed we should be in a good position to checkmate the suspension of medical benefit. In a few districts something has been done already, but to be effective it must be carried out universally, and I would suggest that the Council be instructed accordingly as a matter of the greatest urgency.

Suspension of Medical Benefit.

Dr. John Brown (Bacup) writes: In the report issued by the Council of the British Medical Association, Paragraph 32, the Council expresses the opinion that if the medical benefit be suspended, that a sum in cash would be handed to the insured person, and that the "result would be extremely serious." The following are some of the "serious results":

1. More club practice.
2. More control by the clubs and friendly societies.
3. No income limit.
4. No control by the local Medical Committees.
5. The improvident insured person might spend the cash improvidently and inconsistent with payment of the doctor's bill.

The list of dangers to the medical profession at first sight looks *extremely serious*. I have ascertained the views of some doctors in this part of Lancashire, and we are not at all alarmed. We think it would be a good thing. In fact, we are quite prepared to run the serious risks. There will be free choice of doctor. There will be 6s. per year for the insured person towards paying the doctor's bill if there is one. It will practically reduce the insured person's weekly contribution from 4d. per week to 2½d.; in fact, he will get 7½d. for 2½d.—not a bad bargain. In Lancashire the suspension of medical benefits will leave the question of medical practice very much as it is now. Club practice has never been popular. The working classes earn good wages; they are independent; don't believe in something for nothing; and our object at this crisis in our profession should be to do away with all forms of club practice. There are so few club appointments that it should not be difficult to do this in Lancashire.

Dr. B. Hall (West Mersea, Colchester), writes: It seems to be fairly evident that the Association and the various colleges and corporations will all decide to refuse to confer with the Insurance Commissioners, and that this decision is tantamount to a refusal on behalf of the profession to take service under the Act.

The impression prevails in our ranks and in the mind of the public generally that the effect of this refusal will be to force the Government either to (1) attempt to establish a service of all-time medical officers or (2) to modify the Act. An attempt to work the Act by appointment of medical officers would probably fail—indeed, it is not likely to be tried. The amendments demanded by the Council on behalf of the profession are tabulated on p. 129 of the Supplement issued last week. No. 1 is a proposal to limit the wage to £104. Nos. 2 and 4 do not seem of vast importance, and No. 3 is absurd as it implies that six medical members of the local Insurance Committee could represent the feeling of the local Medical Committee better than five could. In any case they are merely delegates from the Medical Committee, and the fewer they are the less likely they are to disagree with each other.

The voice of Parliament was unanimous against us on the question of wage limit, and it is extremely unlikely that our demand will be met, so it comes to this, that the Act will stand—it is the law of the land now, and every effort will be made to put it into operation. Doctors refuse to take service under it. It is believed that in the face of this refusal the Government will be impotent

to carry out the provisions of the Act. Is it so? Most certainly not.

By suspending medical benefits they capture the whole position at one blow. Instead of handing to the doctor 6s. per head of those insured, they will simply hand that amount to the insured person himself and tell him to go and make his own arrangements for medical attendance. The insured person forthwith hies him to the club of his choice and promptly becomes a member. We are then thrown with greater force than ever upon the tender mercies of the clubs. We deliberately elect to work under the old club system at an average premium of 4s. per head rather than take State service, with all its safeguards, at a rate of 6s. per head!

It is idle to suppose that the Association can prevent competition for club appointments. The condition of things will be infinitely worse than it has ever been before. The club appointments will be more "valuable"—that is, will offer a higher salary—they will be more eagerly sought after, and premiums will sink to the sweating level we know is prevalent in many parts of the country.

To refuse to take service under the Act, then, is to say in so many words that we prefer to be sweated by the clubs rather than accept a certain 6s. per head under Government safeguards.

Practical Politics: the Special Representative Meeting.

Dr. Arthur Helme (Manchester) writes under date January 30th, 1912: I can assure Dr. Staveley Dick, for whom I have the highest personal regard, that nothing could afford me greater satisfaction than to see unity and good feeling prevail once more in the profession.

We are united now on the common ground of our just demands—namely, the six cardinal points.

Can nothing be done to bring us one and all into an effective comradeship to carry those demands into realization?

It is in such hope that I venture a suggestion, which may not be good, but which is at any rate based on good intention; if something of this sort could be carried out we could afford to forget the past and work together for the future.

The suggestion is simply this: That the Council of the Association should now *take the initiative* in the formation of a National Committee, whose first object should be to obtain from the Commissioners an absolute guarantee that the six points shall be unreservedly and permanently secured to the satisfaction of the profession, and which should be so constituted as to command the confidence of every section of the profession.

For this the Committee should have a nucleus of members elected by the Representative Meeting to represent the British Medical Association, and other bodies—for example, the Royal Colleges of Physicians and Surgeons of England, Scotland, and Ireland—should be invited to send members to represent the interests of their graduates, whilst the Scottish Committee, National Medical Union, and other similar bodies should also be invited to elect representatives.

Such a body, representative of the profession as a whole, would be competent to approach the Commissioners with authority; and, once the six points were guaranteed, the difficulties of administering the Act would be minimized and risks of disunion removed.

Further, may I express the earnest hope that the Council in its forthcoming report to the Divisions will not propose a policy—which has been foreshadowed in the British Medical Journal—on which there is at least a serious division of opinion amongst the members, and to which it is not yet committed—namely, the policy of entering upon the dangerous pathway of local bargaining with local Insurance Committees through the formation of local Medical Committees under the Act and as part of its administrative machinery?

May I offer the following suggestions:

1. There is no need for, and nothing to be gained by, the formation of these local committees *under the Act*. We can and should at once form local branches of the profession corresponding to the administrative areas of the Act, but quite independently of the Act, and at once formulate our local requirements—for example, local rate and method of pay. We do not require to bargain with the Insurance Committees, but it is necessary that locally the profession should come to some agreement *within itself*.

2. If we begin local bargaining the tendency will be for weak Divisions to give way and drag down the standard of the stronger Divisions.

Where the working man committee is strong it will seek to impose inferior terms on the weaker local Medical Committee formed under the Act, and this will encourage other local Insurance Committees to refuse the terms demanded by the stronger Divisions.

3. Far better is it to form our purely domestic meetings and committees within the profession, but *not under the Act*, and through the Representative Meeting of the British Medical Association to confer and consolidate, the stronger helping the weaker, whilst the possibility of exorbitant demands would be moderated or avoided.

In this way:

1. We can formulate our local requirements, each Division in collaboration with the other through the British Medical Association.

2. We shall be ready to be recognized by the Commissioners under the Act when the time comes—that is, when the six points are guaranteed.

3. We shall, by having ready-formed a local Committee truly representative of the profession of each district, put it out of the powers of the Commissioners to recognize under the Act any other committee which might be locally formed.

I would therefore urge the profession:

1. To stand clear of the Act as a profession until the six points are guaranteed—that is, to form no local Committee under the Act as part of the administrative machinery.

2. Once the six points are guaranteed each local domestic committee can claim to be recognized under the Act and then transmit to the local Insurance Committee its local requirements, backed up by the authority of the whole profession, as the requirements of the profession *without local bargaining*.

3. And when each Division is satisfied, the word can be given to form the local panel wherever it is desired.

In this way we shall safeguard ourselves against local defeat, which would end in defeat of the profession as a whole. We shall retain the national character of our demands and fight as a united profession; but once we enter on the slippery path of local bargaining the solidarity of the profession is gone.

This plan comes before the extreme measure of the "no panel" and the final "strike," and it is in the hope of avoiding this that I would urge the profession to avoid the pitfall of "local bargaining."

Dr. F. C. Mears (North Shields) writes: There are two ways in which the deadlock with regard to the Insurance Act can be overcome:

1. An amending Act.
2. Deletion of medical benefit.

It is to be hoped that every Division will most definitely instruct its Representative to vote for the latter alternative. Even if the Government had the time or the inclination to introduce an amending Act, providing twice as much money for medical attendance and drugs, and agreeing to all our demands (which are now much more than the six cardinal points), it is abundantly plain from the reports of Divisional meetings all over the country that the bulk of the members of our profession would prefer to retain their liberty. Probably the Government, with the exception of Mr. Lloyd George, would be glad of this simple solution of the medical difficulty, and as Mr. Lloyd George has occupied the stage for the greater part of last year, other Cabinet Ministers may think the time has come when they also should have a share of the limelight.

The Representative Meeting should leave the Council in no doubt that they are out of touch with the members of the Association, and that if the situation were not so serious we should be amused at their repeated protestations that "they will never consent" and their action in "consenting" to give up almost every vital point.

Mr. E. H. Willock (Croydon) writes: Many of the present difficulties in which the medical profession is now placed would not have occurred had the Representatives voted according to their instructions at the recent meetings.

The outcry against the Council, and the internal feeling of want of confidence in the management of the affairs of the Association in its dealings with the Insurance Act, would have been avoided if the backs of the Representatives had been stiffened by the knowledge that the direction in which their votes were cast would be published. A proposed addition to the Standing Orders is now in the hands of the Chairman of the Representative Meeting, by means of which it will be possible in a simple and expeditious manner to record the votes of the Representatives upon any matters of importance.

Naturally, Representatives must be given latitude upon many points. Upon issues of vital importance regarding which they have been given unanimous and emphatic instructions, it is most desirable that Divisions should have some idea in which way their own Representative recorded his vote. Also it is an advantage to know the feeling that exists upon vexed questions in various parts of the country. Division lists should be published in the Journal.

Dr. Geo. Wm. Homan (Lichfield) writes: I think the time has come when the profession should adopt a definite, formulated scheme upon which we are willing to work the National Insurance Act, and that such a scheme should be made *statutory* and not left to the option of any committee. I do earnestly hope that we may combine and present a united front for this purpose. I intend to propose, at the next meeting of the Mid-Staffordshire Division of the British Medical Association, the following scheme as a *minimum* basis, trusting that it may, at all events, act as a starting-point for this purpose:

That it is the opinion of this meeting that no satisfactory working of the National Insurance Bill is possible except upon a *statutory minimum* basis, and that the Representative of this Division be instructed to press for the embodiment of the following formulated scheme as the declared policy of the British Medical Association:

1. An income limit of £2 a week.
2. Free choice of doctor, subject to consent of doctor to act.
3. Medical and maternity benefits to be administered by local Health Committees and not by friendly societies.
4. Remuneration at a minimum of 8s. 6d. per annum per head, exclusive of medicines, surgical appliances, administration of anaesthetics, operations, and consultations, which shall be paid for as extras.
5. Mileage at 1s. per mile beyond a radius of 2 miles from the doctor's house.
6. An extra fee of 2s. 6d. if called between 8 p.m. and 8 a.m.
7. Domestic servants not eligible for medical attendance, except under special conditions with the consent of the doctor.
8. Adequate representation among the Insurance Commissioners, in the Central Advisory Committee, on the local Health Committee, and statutory recognition of a local Medical Committee representative of the profession in the district of each Health Committee.

Consequences of Votes of Censure on the Council.

Dr. J. M. Ferguson (Burnley) writes: Before Divisions pass votes of censure on the Council of the Association and ask the forthcoming Representative Meeting to endorse such votes, it will be well for them to consider what may be the consequence of their action. If members will study the by-laws they will find that the Council is elected annually; that the election is to be completed before the close of the Annual Representative Meeting; that they hold office for one year from the close of such meeting; and that casual vacancies only may be filled up. There is no provision in the by-laws for the deposition or resignation of the Council *en bloc*. Suppose, then, the vote of censure on, and demand for the resignation of, the Council is affirmed by the Representative Meeting, what would be the position?

Naturally the Council would resign; no self-respecting body of men could continue in office after such an event. Who, then, would direct the affairs of the Association? Who would or could carry out the instructions of the Representative Meeting? There is no power to elect a new Council, or to delegate the powers of the Council to a committee formed by the Representatives. The result would simply be that the business of the Association would be stopped, and the Association itself become a dead letter until after the next Annual Meeting.

Such a contingency has not, I am sure, entered into the mind of the bitterest critic of the Council, and only requires pointing out to make him see that such a procedure would be disastrous in every way. At the same time it shows how careful one should be in proposing resolutions until one has considered the remote as well as the immediate effect of them. I venture to ask those Divisions that have already passed such resolutions of censure to content themselves with having delivered their opinion of the Council, and under no circumstances should they forward them for consideration at the Representative Meeting. The remedy is not far off, the election begins about May, and then is the time to give one's opinion by the voting paper.

Let each Division give its instructions definitely, and let the Representatives instruct the Council in terms that admit of no misconstruction, and in the meantime nobody's interests will suffer, for the Council is bound to carry out the instructions of the Representative Meeting or submit them to a referendum of the whole Association.

Policy of Constituting Local Medical Committees.

Dr. Ernest C. Hadley (Birmingham) writes: In view of the importance of getting a well-considered and strong policy adopted at the next Representative Meeting on February 20th and 21st, the report of the Council (see Supplement, British Medical Journal, February 3rd) must furnish food for much thoughtful reflection for medical practitioners throughout Great Britain.

The time has now arrived for decisive action; there must now be no wavering or sitting on the fence.

It is the policy of the Council as indicated in Sections 21, 28, and 45 (iv), more particularly, of their report which prompts me to write this letter—namely, the policy of recommending that local Medical Committees should now be formed, whose duty shall be to decide in the first place whether the Commissioners' regulations do or do not secure the six cardinal points, and who, if they decide that the points have not been secured, shall proceed then to try to arrange terms with the Insurance Committees which shall secure them. The adoption of this policy surely would be a most vital mistake. The question as to whether the six cardinal points are satisfactorily secured by the Commissioners' regulations or otherwise is one essentially that must be decided by the British Medical Association through the machinery of its Divisions, for the demands are the demands of the Association. This decision must on no account be delegated to any other body. I do not think that it has been sufficiently realized that the local Medical Committees will not be committees of the British Medical Association, nor need the members of those committees be members of the British Medical Association; moreover, the business and decisions of the committees can neither be controlled nor interfered with by the British Medical Association. These committees will have limited though distinctly statutory powers of their own, which the British Medical Association cannot prevent them from exercising.

To view the matter in another light. Above I have assumed for the sake of argument that the six cardinal points can still be safeguarded, but it is a false assumption, for it is now absolutely impossible for the Commissioners by regulations, and still more impossible for local Insurance Committees, to legally concede the six cardinal points without reservation or equivocation.

Any one by carefully reading and studying the clauses in the Act relating to medical benefits and their administration, together with the actuaries' report, cannot fail to convince himself of the truth of this statement. There are certain clauses in the Act which can nullify almost any point—I do not think that I should be guilty of exaggeration in saying every point—said by some to have been already completely conceded. These clauses are there in the Act, and they cannot be legally negatived by regulations of Commissioners. An amending Act alone can remove them and give the profession complete security for their minimum requirements. Why should the profession expect Government-paid officials to do for them what its legislators have already declined to do? They knew its minimum requirements long before the passing of the Act.

I have no hesitation in saying that the Commissioners will go as far as they possibly can legally, and even farther, in their endeavour to get local Medical Committees constituted, panels formed, and the Act into operation; the profession, in a word, into harness and well bridled.

Let me ask all medical men to look at the signals. Are they not distinctly at danger? Let me warn the profession not to venture beyond the near danger signal, which is against it, and also sincerely urge it to look well ahead at the distant signal—it is also against it. Disregard for these signals will end in calamity.

If the profession pass the near danger signal—that is, if they rely upon the Commissioners' regulations and dare to form local Medical Committees under the Act, then panels, and so get the Act into operation—they will have been guilty of disregarding the first signal. If the profession could pull up here, disaster might still be averted, but I am afraid the danger would not be apparent until too late, as it would creep upon it insidiously. The Commissioners, acting on behalf of the Government, would gradually discover that certain of their regulations were illegal, others perhaps they would alter to suit the Government, or under pressure from strong outside influences brought to bear upon them, for example, friendly societies, until by degrees the six cardinal points would gradually melt away. The collision would then occur. The profession would recover consciousness to find that it was left with no more security for its points than it has at the present time in the Act, and may be less. That the profession will have been exploited and enslaved under a bondage that it will be almost impossible to again extricate itself from with honour, goes without saying.

The ruse will have been successful. The catastrophe will be the fault of the profession for its disregard of the danger signals. It would then recognize that of its own free will it has walked right into the last trap set for it. Wake up, medical men of Great Britain, do not be caught napping, do not trifle or prevaricate any longer, but like brave men send in your ultimatum, and rest assured that the public will not desert you in a just cause! At the next Divisional meetings make it quite clear in your instructions to your Representatives that, the minimum requirements not having been unreservedly conceded, you decline to lend your support to the working of the Act by taking any part in any administrative or medical work under it; also I think it should be agreed that on and after a certain date no person shall be attended under any contract or club arrangement at a lower rate of payment than that which the British Medical Association will, I hope, soon agree is adequate for attendance upon insured persons; also that a nominal fee, also to be fixed, shall be paid for the medical examination of persons applying for entrance to clubs, benefit and approved societies, etc.: and also that consultants should refuse to attend insured persons as out-patients at the hospitals, except in such grave emergencies as cannot be dealt with by the patient's own regular attendant.

Mr. F. Marsh (Birmingham) writes: I hardly like to trespass on your much-sought-after space to reply to the questions put to me by Dr. Verdon-Roe in your last issue of the Supplement. I fail to see any possible ground for comparison between signifying disapproval of a Government by refusing to accept a rebate of taxation, and declining to take a step which even *might* be construed to be a tacit acceptance of an Act which does not, and cannot, by any regulations which the Insurance Commissioners have power to make, comply with the requirements of the profession, and which will, if accepted in its present form, heavily penalize it.

To form local Medical Committees to formulate terms and conditions for submission to the local Insurance Committees is surely to commence the process of "haggling," to which I am glad to see even Dr. Verdon-Roe himself takes exception. I trust on consideration he will see that it is better for the issues at stake to be settled by a Central Executive with the Government, before any steps are taken locally which might be held to stultify a refusal later to carry out the provisions of the Act.

A Public Medical Service.

Dr. Edward Jepson (Durham) writes: Amidst all the trouble of the profession in its relation to the Insurance Act I think I see blue sky. We may be very grateful to the London College of Physicians for the stand it has taken with regard to the invitation to the conference. Other corporations will no doubt follow, and so put some stiffening into the backs of those who hesitate or have no policy.

To join in any conference is to accept the invitation of the spider to the fly—to recognize the Act, and to compromise the position of those who are declared opponents.

Our best policy is to turn our backs on the National Insurance Act and not to touch it any way. If in any way we show submission to it we shall place ourselves under the heel of the friendly societies, and lay ourselves open to endless haggling and disputes in the future as to proper remuneration and as to the incomes of those who wish to be insured.

The next best move is to provide an alternative in our attitude towards the Insurance Act, and that is to establish in every town and borough a public medical service, on the same lines as those adopted in Norwich, to be managed by doctors, and to provide medical attendance for the working classes at a rate of pay to secure a fair remuneration for service rendered. Contributions under the Insurance Act begin next July, but benefits are not bestowed before January, 1913.

Let doctors go one better and have their public medical services ready for operation on July 1st next, at the same time that contributions are taken and members are enrolled. By adopting such a policy we shall have the support and sympathy of the general public, and do much to save our hospitals from starvation and ruin.

Dr. S. Ernest Morton (Matlock Bridge) writes: Under the Act the Commissioners may suspend medical benefit and allow insurers the 6s., or thereabouts, to provide their own attendance. Is it not possible for the Commissioners to hand over the sum allowed to the British Medical Association to found a public medical service on the lines suggested a few years back? The pay would not be large, but doctors would work willingly and contentedly under the conditions. I believe the original scheme for a public medical service was worked out on a penny-a-week basis, and it might be possible to persuade the Government to allow an extra 1s. per member for management expenses. By this scheme five of the six cardinal points could be secured. The income limit might be settled in other ways. I believe that this plan would work well, and would be a permanent one, giving both the insured and the doctors a satisfactory service.

Mode and Rate of Remuneration.

Dr. A. F. Millar (Fulham) writes: The advocates of the system of payment for work done against that of payment by capitation (or salary) seem to take a very low view of the average relations between doctor and patient. They assume that the doctor will do his best for any individual patient (and therefore for the community) only in proportion to the amount of cash he anticipates receiving in respect of that individual. In my opinion this view is very far from the truth. One of your correspondents has already pointed out that a literal payment in proportion to the amount of work done is, in medical practice, impossible—he instances the case of confinements, for which a fixed fee is almost universally charged, though the work in connexion therewith varies widely; and while all doctors have a sliding scale of fees for visiting, etc., most of them would rightly regard it as a gross libel to suggest that they neglected their poorer patients because the latter paid less.

The whole objection to the capitation system arises from the fact that it has been almost invariably connected in the past with the totally inadequate remuneration associated with club and friendly society practice. Thus the prejudice, both natural and just, against an unreasonably low rate of pay has extended, in the minds of medical men, to the capitation system of payment itself. Yet I think it is obvious that what is objected to is not the method of payment, but its amount; for if the general practitioner were offered club work at, say, £5 per annum per member—instead of 4s.—he would not take long to consider his decision.

Every question has, of course, two sides: but to my mind the advantages of the capitation method of payment entirely outweigh its disadvantages, not only to the doctor but also to the health of the community. Take, for example, the matter of malingering, which is expected under the capitation system to give the doctor much extra

work. Now, in the first place, the malingerer is not nearly so common as is usually inferred; and, moreover, it should be remembered that even under present conditions the prospect of having to pay (or owe) for each attendance does not in the least deter the malingerer from worrying us, so long as he is drawing his club money or compensation allowance. Then there are the people with the "finger-ache" and other slight ailments. I suggest that it is not difficult to discourage these if they have really nothing the matter with them; and further, remembering the pretty well-founded maxim that a stitch (or a bottle of medicine) in time saves nine, might we not, if patients came to us at the earliest symptoms, be relieved of many a long attendance later?

There is a good deal of truth in the contention that club patients under present conditions receive rather rough-and-ready treatment as compared with private patients; but this, again, arises from the fact that the doctor who has both club and private patients has a tendency to differentiate in favour of the better-paying class; although, as pointed out above, he does not allow such a tendency to operate within that class to the detriment of its poorer members. The reason of this is obviously that with his private patients he fixes the fee himself, and in accordance with the individual's ability to pay; whereas he knows that among the club patients are many who could well afford to pay more than they do. On the other hand, where a practice consists *only* of club patients, this incentive to favour some more than others disappears, and consequently in many such practices the patients receive as much attention as the most fastidious could desire. I once acted as locumtenent for a couple of months in a large friendly society practice worked by two doctors who did no other work, and received very modest salaries; yet they treated their patients in a way which could not have been improved upon had they (the doctors) been receiving 5s. a visit. And I have a high enough opinion of my profession to believe that these men were not exceptional. The majority of doctors love their work for its own sake, and they value the esteem of their patients even if the latter are poor; it is only the bad type of habitual locumtenent who, because his position is not a permanent one, does his work anyhow.

I feel certain that, provided we can secure under the Insurance Act a reasonable capitation grant, we need have no fear for the results to ourselves or the community.

If, as many eminent men believe, competition in the commercial sense is indispensable to ensure the best medical work being done, I would point out that it is not necessarily eliminated under the capitation system of payment; because doctors might still endeavour to attract potential patients from other doctors' lists to their own. This, let me hasten to say, by strictly constitutional methods—I would fain add "as at present." Dr. C. E. S. Flemming, in his article in the JOURNAL of January 20th, has, I admit, set forth the merits of the existing system of medical practice to the best advantage; but he makes one curious slip. On page 138, he says: "Stress of competition . . . so hinders the scientist that he cannot do his best work"; yet on page 139 he refers to "the stimulus of competition—so powerful an incentive to a man to do his best for his patient." I leave it to Dr. Flemming to reconcile these contradictory statements: for my own part I believe the former to be the true one, and competition between general practitioners for a livelihood to be highly detrimental both to their own character and to the interests of their patients.

An assured income (always supposing it to be adequate to maintain our present standard of living) would free us from the sordid struggle for existence and enable us to devote our whole energies, now largely wasted in that struggle, to combating disease; conscious then that our efforts, though no doubt largely taken up with curing sickness, might, nevertheless, be also directed towards its prevention without material sacrifice on our part.

The ideal of medical science is the extinction of disease, but it is asking almost too much of human nature to expect medical men to co-operate whole-heartedly towards an ideal whose realization carries with it also the extinction of their means of livelihood.

FACTS AND FIGURES AS TO RATES OF PAY.

Dr. T. ARCH. DUKES (Croydon) writes: You ask for facts and figures bearing on the Insurance Act. Unfortunately, few of us can give exact data, and when we try to calculate we are very apt to make serious mistakes. Otherwise there would be fewer 5s. clubs.

In some districts the doctors have counted the population of their neighbourhood; and as 6s. or 7s. a head of that population would give them the same income as at present, they would be willing to accept that rate for the Insurance Act. But their neighbouring hospitals and infirmaries now doctor many of that population free. The million patients of the London hospitals represent a much greater number who, if they fell sick, would go to the hospitals. These people are not helping to support any medical men. Therefore, those patients who do pay their doctors must pay at a much higher rate than the 6s. or 7s. Even if the Insurance Act could make all those hospital out-patients contribute their share to the doctors, the result would be that then those doctors now in full work would go on the panel for the privilege of attending the same patients as before for a much reduced income, while the other doctors would work much harder to get back a share of that lost income. They would be sweated servants under the organized tyranny of approved societies, and be compelled to share out their present incomes.

Since 8s. 6d. a head for attending the police or Post Office employees works out at 2s. 6d. a visit, many are willing to accept 8s. 6d. under the Act, if the Act allows so much. But when a man ceases to be fit for work through age, sickness, or infirmity, he drops out of the police or Post Office, but will remain in the Insurance Act. Many such broken-down employees now become out-relief paupers. For attending those out-relief paupers the Croydon guardians pay us district medical officers at the rate of more than a guinea a head per annum, sick or well, and provide an infirmary for our worst cases. The exact figure is 21s. 10d. (vide Union Accounts, pp. 14 and 77). It is very poor pay. The sickness-rate is so high that the pay works out at 6d. a surgery consultation and 9d. a visit, at which rate a man could hardly earn £300 a year.

The fair rate of pay is something between 8s. 6d. and a guinea, and depends on the sick-rate of the insured folk. The Croydon Provident Dispensary is a fair sample of the insured folk of this town below the £2 limit, except that we exclude the broken-down and pauper class. It includes a lodge of "Foresters" and "Sons of Temperance." But our enthusiastic Secretary thinks he can prove that the dispensary has a lower sick-rate and death-rate than healthy Croydon. To find out that sick-rate I have analysed the books of the dispensary for the year 1910.

The nearly constant number of cards was 845, representing 1,624 persons.

Number of prescriptions dispensed: 4,262 new and 7,378 repeat, equals 11,640 prescriptions. Two samples of 295 prescriptions give just 1,000 days' treatment. On an average, each prescription represents 3.4 days' treatment.

Sick-rate.—Each person gets per year 7⅛ prescriptions; being treatment for 24.4 days' sickness. For this each single member pays entrance fee and 8s. per year, besides contribution to the management fund, 2s. per year. He pays extra for midwifery, surgery, venereal diseases, certificates, cards, etc.

The dispensary is owned by the members and run as cheaply as possible. Yet from the medical point of view it remains a charity. It is difficult to get doctors to take office, and after serving for a time they are very apt to resign.

Clearly, payment for medical treatment must be made a first charge upon all the funds collected under the Act. After paying 2s. 6d. a visit there will be very little left for sick pay.

Adequate representation must mean the right for each doctor on the panel to sit on the Health Committee *ex officio*. As in the dispensary, free choice must mean the right to refuse to treat any case offered. Independence from "approved societies" tyranny must mean that medical and sanatorium benefits are administered by the local Medical Committees. And elementary prudence must have an effective appeal against arbitrary removal from the panel.

What a blessing suspension of medical benefit would be if we could thus simply escape from all the protection which the Act provides for the profession!

THE SEVENTH CARDINAL POINT.

Dr. P. NAPIER JONES (Crowthorne, Berks) writes: Minutes 193 and 194 of the Annual Representative Meeting at Birmingham in July run as follows:

193. That in the opinion of the Representative Meeting it must be clearly set forth in the National Insurance Bill that the question of the inclusion and exclusion of registered medical practitioners [in and] from the panel shall be decided by the local Medical Committees.

194. That such decision shall be subject to appeal by any aggrieved practitioner to a Medical Court of Appeal to be constituted under the Act.

These two resolutions appear to have been lost sight of by the Council in its report as published in the last JOURNAL.

Owing to amendments to the bill since July, the words "inclusion and" and "in and" which I have bracketed above might perhaps be omitted: but I hope that Divisions will not fail to instruct their Representatives to see that this important matter is not forgotten in any attempt that may be made to amend the Act.

A CAMPAIGN OF ASSURANCE.

Dr. S. L. CRAIGIE MONDY (Tottenham) writes: In the JOURNAL of February 3rd, on pp. 262–264, under the heading, "A Campaign of Assurance," you quote from recent speeches of some of Mr. Lloyd George's insurance champions. It is well known that Mr. Lloyd George took the friendly societies into his confidence long before he introduced his bill, but the doctors, without whom he cannot give his "refreshing fruit," were utterly ignored until we in self-defence protested against being robbed of our independence and rights of citizenship. We are told by the tub-thumping stump orators that our services are to be given for the benefit of the nation, and as such we say that we expect to be properly paid by the State for those services. The country was told that members of Parliament giving their services to the country ought to be paid, and they are now getting £400 per annum, and that not as whole-time service men. They do not work all day for the country, nor yet all the year round, but as compared with the wages the insurance doctors will receive for their services, they are handsomely, even extravagantly, paid. It is a most amusing though dangerous practice—dangerous to their own interests, for it is condemning their own methods, and dangerous to their audiences—to find men, members of Parliament and others, of the Socialist and Labour classes talking about the mercenary methods of the doctors and the wickedness of the doctors' "strike methods" in order to obtain their demands for fair "recognition" and a "living wage."

Who is it that has caused the strikes all over the country? The agitators, who have to bring discontent amongst the working classes in order to keep themselves in snug billets as leaders and agitators. Were there no agitators there would be no strikes and these tub-thumpers would be without nice lazy lives and well-fed bodies, and the working classes would live quietly and contentedly, and not have their families half starved during the strikes.

That the doctors will take little notice of the veiled threats of these hireling agitators and will continue to fight for their rights I feel certain. It would be interesting, as you say, to know on what grounds Mr. J. H. Thomas, M.P., states that our opposition to the Act is political. The only political bias I have noticed on the part of the doctors—and I have followed the course of the bill very closely—has come from the Radical and Socialist members of the profession. Quite 99 per cent. in the profession have ignored the political—that is, vote-catching—aspect of the bill as being a matter that does not concern them.

THE "PRACTITIONER'S" REFERENDUM AND PLEDGE.

Dr. JOHN E. H. PARSONS (Shipton-under-Wychwood, Oxford), writing on January 23rd, says: On opening my JOURNAL of January 20th the first thing which catches my attention is the National Insurance Act correspondence. *Inter alia*, I see Dr. Russell Coombe (Exeter) and Dr. Bletchley (Nailsworth) have directed their bankers to withdraw their subscriptions to the *Practitioner*, on account of their (the *Practitioner's*) referendum, considering it to be "a distinct interference."

I am one who signed the pledge and referendum also, and should do so again were it necessary. I think the *Practitioner's* action was certainly no interference, and for one I thank them for stepping into the breach as they did, and certainly shall continue subscribing to that publication. I feel very much more inclined to sever my connexion with the British Medical Association, the Council of which, in my humble opinion, is "giving us away." My reason for not doing so—I admit it is perhaps not unselfish—there is no other union of medical men so strong, provided our leaders remain staunch and true, which can do so much, for our condition is such that "united we stand, divided we fall." In one or two other letters in the current number I see signs of weakening, which I greatly regret. In Dr. A. Randall Davis's letter I see he says, "It makes practically no difference whether the income limit is £104 or £160." I contend that it makes a great difference, for surely it is better to receive 3s. 6d. or 4s. for a visit and medicine from a patient of such substance as £2 10s. a week than a paltry 4s. 6d. per annum. I know very well which I would prefer. Why should a man earning £3 a week expect treatment from a medical man upon charitable lines? It is an insult to both parties.

Meetings of Branches and Divisions.

[The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the JOURNAL.

BORDER COUNTIES BRANCH:

SCOTTISH DIVISION.

THIS Division met in the Dumfries and Galloway Royal Infirmary on January 26th. There were twenty-one members present. Dr. EASTERBROOK was Chairman.

Apologies for Non-attendance.—Apologies for their unavoidable absence were read from several members.

National Insurance Act.

On the SECRETARY reading the minutes of the previous meeting, held at Newton Stewart, Dr. Ross moved that the following be put in the minutes of this meeting:

That while approving of the minutes as a record of what took place at Newton Stewart, the present meeting agrees that members who did not vote for the resolution that we refuse to take service under the Act are not bound by its terms.

Dr. COOK seconded.

Dr. KERR moved a direct negative.

Dr. JOHNSTONE seconded the motion.

The motion was carried by 8 votes to 3.

The business on the agenda was then proceeded with. The first item was to determine what action the Division should take in view of the early formation of the various committees for working the National Insurance Act.

The CHAIRMAN said that organization was wanted. He outlined several possible methods for organizing the Division, and left it for the members to decide which of the methods they would have.

Dr. RODGER warned the meeting to be careful that the method adopted did not favour disunion. He advocated leaving the matter in the hands of the Executive Committee.

Scottish Medical Insurance Council.—Dr. LIVINGSTONE then described the constitution of the Scottish Medical Insurance Council about to be formed. He explained that it would consist of representatives from the Colleges of Physicians and Surgeons, from the Universities, from the Scottish Committee of the British Medical Association, and from general practitioners. The representatives of the general practitioners would outnumber all the others put together. The College of Surgeons—a wealthy body—would subscribe handsomely towards the necessary expenses. The British Medical Asscciation, on the other hand, had its organization complete, and that would be used. This Scottish Medical Insurance Council had not yet formulated a policy, and the present policy of the Council of the British Medical Association was not yet known. It remained to be seen how far the Scottish Medical Insurance Council would command the confidence of the profession, but in the meantime he would like them to pass a resolution approving of its formation. Drs. COOK, IRVING, BRYSON, ROBSON, PARK, and Ross all spoke. Dr. HUSKIE then moved:

That we approve of the formation of the Scottish National Insurance Council and will give it our support.

Dr. ROBSON seconded. The motion was carried.

Ethical Rules.—Ethical Rules were considered, and no amendment was proposed.

The other items on the agenda were deferred till after the meeting of Representatives.

SOUTH-EASTERN BRANCH:

BRIGHTON DIVISION.

WE understand that the following resolution is to be placed before the Brighton Division by the Executive Committee of the Division:

That it be an instruction to the Council to inform the various bodies of Commissioners that if they report that they cannot, by amendment of the Act, by regulations, orders, or otherwise, deal with the following in such a way that they become legally binding on all concerned, then this Association declines to proceed further in any negotiations having reference to the Act:

(*a*) That medical benefits shall be administered by the Commissioners and not by the Insurance Committee or other bodies; and after negotiations between the Commissioners and the local Medical Committees.

(*b*) That no scheme for a medical service under the Act will be approved which allows of an insured person in receipt of an income from all sources exceeding £2 a week being entitled to participate in it.

(*c*) That the possibility of an insured person exercising his right to a free choice of doctor, subject to consent of doctor to act, shall be safeguarded as far as possible from any interference or advocacy on the part of any approved society, institution, or system at the time of the passing of the Act.

(*d*) That the method of remuneration of medical practitioners adopted in an Insurance Committee area shall be in accordance with the preference of the majority of the medical profession resident in that area.

(*e*) That the minimum capitation grant to the Commissioners available for ordinary domiciliary attendance on insured persons and unemployed married women of all conditions of health, regardless of what form of payment is adopted, is 12s. exclusive of medicines, institutional treatment, and also those items given as extras in the public medical service of this Association. (See SUPPLEMENT, JOURNAL, May 7th, 1910.)

(*f*) That the fees for the extras excluded by (*e*) (above) be determined after negotiation between the Association and the Commissioners.

To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.

Association Notices.

SPECIAL REPRESENTATIVE MEETING.

Notice is hereby given that a Special Representative Meeting of the Association will be held in the Court of Common Council Chamber, the Guildhall, London, on Tuesday, February 20th, at 10 o'clock in the forenoon, and Wednesday, February 21st, 1912, (*a*) on the requisition of the Council, for the purpose of receiving and considering the Report of Council referred to in the following Minute of Council of January 31st, 1912, and for the purpose of passing resolutions arising therefrom or in reference thereto; (*b*) on the requisition to the Council, signed on behalf of the Portsmouth, Winchester, Huddersfield, South-East Essex, North-East Essex, and Stratford Divisions, and the Shropshire and Mid-Wales Branch.

The Minute of Council above referred to is as follows:

That the Chairman of Representative Meetings be requested to convene a Special Representative Meeting to consider a Report of the Council upon the National Insurance Act; and that the date of such Representative Meeting be so arranged as to allow the Divisions full time to consider the Report of the Council and instruct the Representatives.

The resolution adopted by the above mentioned Divisions accompanying the requisition is as follows:

That this Meeting demands that a Special Representative Meeting be immediately summoned to consider what action is to be taken by the Profession now the Bill is an Act.

NOTE.—By a clerical error, the above resolution, which was sent in by the North-East Essex Division at an earlier date, has been printed instead of the later resolution which it, together with the other Divisions, passed. The resolution should read as follows:

That this meeting of the ——— Division call upon the Council to convene without delay a Special Representative Meeting, in accordance with By-law 36, to consider the conduct of the negotiations with the Government by the Council of the British Medical Association, and to instruct the Council as to its future action.

The Report of Council referred to was published in the issue of the Supplement to the "British Medical Journal" of February 3rd.

BY ORDER OF THE CHAIRMAN OF REPRESENTATIVE MEETINGS,

GUY ELLISTON,
Financial Secretary and Business Manager.

ALFRED COX,
Acting Medical Secretary.

February 1st, 1912.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BIRMINGHAM BRANCH: CENTRAL DIVISION.—A general meeting will be held at the Medical Institute on Wednesday, February 14th, at 4 p.m., to elect three Representatives and to conduct other business.—W. TRACY LYDALL, B. C. R. ALDREN, Honorary Secretaries.

DORSET AND WEST HANTS BRANCH: BOURNEMOUTH DIVISION.—A meeting of this Division will be held at Trinity Hall, Bournemouth, on Friday, February 16th, at 3.30 p.m., to consider the Report of the Council on the position created by the passage into law of the National Insurance Bill, and to instruct the Representative of the Division for the Special Representative Meeting to be held on February 20th and 21st. Non-members of the Association are invited to attend this meeting. —ELEANOR C. BOND, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: LIVERPOOL DIVISION.—A meeting of the Division will be held at the Medical Institution, Liverpool, on Friday, February 16th, at 3.30 p.m., to consider Report of Council on National Insurance Act. Any amendments and riders should be in the hands of the Secretary at an early date.—FRANCIS W. BAILEY, Honorary Secretary, 51A, Rodney Street, Liverpool.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—A special general meeting will be held at the Hackney Town Hall on Tuesday, February 13th, at 4 p.m., to consider the Report of the Council and instruct the Representative *re* Special Representative Meeting. Members of the profession are invited to attend and join in discussion.—A. G. SOUTHCOMBE, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: LAMBETH DIVISION.—A special meeting will be held at Bethlem Royal Hospital on Wednesday, February 14th, at 4 p.m. Agenda: To consider the Report of the Central Council printed in the BRITISH MEDICAL JOURNAL SUPPLEMENT of February 3rd, and to instruct the Representative how to vote at the Representative Meeting to be held on February 20th and 21st.

An ordinary meeting will be held at Lambeth Infirmary on Thursday, February 22nd, at 4 p.m. Agenda: (*a*) To consider the question of the proposed Dispensary for Tuberculous Patients for the Borough of Camberwell and the advisability of getting a nominee of the Lambeth Division elected on the committee. (*b*) G. Bellingham Smith, F.R.C.S., Obstetric Surgeon to Guy's Hospital, will read a paper on Eclampsia. —J. H. CLATWORTHY, Honorary Secretary, 145, Denmark Hill.

METROPOLITAN COUNTIES BRANCH: MARYLEBONE DIVISION.—A general meeting of the Division will be held at the Rooms of the Medical Society of London, 11, Chandos Street, W., on Monday, February 12th, at 5 p.m. Agenda: (1) Minutes. (2) Questions. (3) Letters. (4) To receive the report of the Treasurer on the recent canvass of the Division. (5) To select a substitute to act for the Representative at the Special Representative Meeting in case of the Representative being unable

or unwilling to attend (By-law 34). (6) (*a*) To consider the Report of the Central Council on the National Insurance Act (BRITISH MEDICAL JOURNAL SUPPLEMENT, February 3rd); (*b*) to approve or adopt resolutions in relation thereto; (*c*) to instruct the Representative of the Division in view of the Special Representative Meeting called for February 20th. —N. BISHOP HARMAN, Honorary Secretary, 108, Harley Street, W.

METROPOLITAN COUNTIES BRANCH: ST. PANCRAS AND ISLINGTON DIVISION.—A special meeting of this Division is to be held on Tuesday, February 13th, at 9 p.m., at the Drawing Room, Midland Grand Hotel, King's Cross, N.W. Business: To elect a Deputy Representative. To consider Report of Council and instruct Representative thereon. Notice of Motion by Dr. Norman Glaister.—A. BROWN, M.B., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION. —A meeting of this Division will be held at Battersea Town Hall on Friday, February 16th, at 3.45 p.m.—S. VERDON-ROE, Honorary Secretary.

MIDLAND BRANCH: LEICESTER AND RUTLAND DIVISION.—A meeting of the Division will be held in the Lecture-room, Temperance Hall, Leicester, on Wednesday, February 14th, at 3.45 p.m. Agenda: Minutes of the last meeting; business arising therefrom. Election of Representatives of the Division to the Board of the Leicester Infirmary. The following resolution will be moved: "That this meeting instruct the Representative of the Division to support, or if necessary move, such resolutions as will instruct the Council of the Association to advise the members of the medical profession to decline to form local Medical Committees, or panels of doctors, or to undertake any duties, administrative or otherwise, under the National Insurance Act, until such time as the demands of the Association shall have been definitely secured in the opinion of a Representative Meeting after further consideration by the Divisions." Consideration of the Report of the Council contained in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL, February 3rd. Should recommendation No. 5 of the Council be adopted the following rider will be moved by Dr. Wallace Henry: "That the Council be instructed to at once direct the Divisions to prepare a scheme for a Public Medical Service administered by the medical profession in each insurance area." Any other business.—R. WALLACE HENRY, Honorary Secretary, Leicester.

NORTH OF ENGLAND BRANCH: NEWCASTLE-ON-TYNE DIVISION. —A scientific meeting will be held at the Royal Victoria Infirmary on Friday, February 16th. Programme:—3.15, Dr. R. A. Bolam: Arsenic in Syphilis. 3.45, Mr. J. W. Leech: Ruptured Stomach and Duodenal Ulcer. 4.15, Tea. 4.30, Drs. J. W. McCracken and J. W. Ruxton: The Dyspepsias of Children. 5.0, Mr. T. Gowans: Eye Injuries and Compensation. 5.30, Mr. J. Collingwood Stewart: Ruptured Cartilage of the Knee-joint.—R. J. WILLAN, Honorary Secretary.

PERTHSHIRE BRANCH.—A special meeting of this Branch will be held in the Royal Infirmary, Perth, on Friday, February 16th, at 3.30 p.m. Council meeting at 3.15 p.m. Business: (1) Consider report of Council to Divisions *re* Insurance Act, and instruct Representatives. (2) Consider position of medical officers to friendly societies. The Act comes into force on July 15th next, but does not provide for medical benefit till January, 1913. (3) Any other business.—WILLIAM A. TAYLOR and A. TROTTER, Honorary Secretaries.

SOUTH EASTERN BRANCH: CHICHESTER AND WORTHING DIVISION.—A most important meeting of the Division will be held at the Norfolk Hotel, Arundel, on February 16th, at 3.45 p.m. Business: To discuss the Report of Council to the Divisions on the position of the profession in relation to the National Insurance Act and instruct their Representative.—A. DENSHAM, A. S. MORTON PALMER, Honorary Secretaries.

SOUTH-EASTERN BRANCH: DARTFORD DIVISION.—On account of the Special Representative Meeting to be held in London, a most important meeting of this Division will be held in the Bull Hotel, Dartford, on Tuesday, February 13th, at 3 p.m. Agenda: Special Report on National Insurance Act (BRITISH MEDICAL JOURNAL SUPPLEMENT, February 3rd). All medical men are cordially invited.—H. CHISHOLM WILL, Honorary Secretary, Sidcup.

SOUTH-EASTERN BRANCH: ISLE OF THANET DIVISION.—A special meeting of this Division will be held at the Victoria Hotel, Hardres Street, Ramsgate, on Tuesday, February 13th, at 3.30 p.m., Dr. T. G. Styan in the chair. Agenda: (1) Consideration of the Report of the Council of the Association on the latest aspect of the National Insurance Act (see BRITISH MEDICAL JOURNAL SUPPLEMENT, February 3rd.) (2) Any other business. Tea will be served during the meeting. All medical practitioners are invited to this meeting.—HUGH M. RAVEN, Honorary Divisional Secretary, Broadstairs.

SOUTH MIDLAND BRANCH: BUCKINGHAMSHIRE DIVISION.—A meeting of the Division will be held on Thursday, February 15th, at the Royal Bucks Hospital, Aylesbury, at 3 p.m., to consider the Report of the Council on the Insurance Act and to instruct its Representative. Those wishing to propose resolutions are requested to notify the Honorary Secretary before Saturday, February 10th. All resident medical men are invited.—ARTHUR E. LARKING, Honorary Secretary, Buckingham.

SOUTH MIDLAND BRANCH: NORTHAMPTONSHIRE DIVISION.—A meeting of the Division will be held in the boardroom of the the Northampton General Hospital at 2.30 on Tuesday, February 13th. The meeting will be preceded by a luncheon at Franklin's Restaurant, Guildhall Road, at 1.30. Those wishing to attend the luncheon should inform the Honorary Secretary at least two days beforehand. Business: Minutes of preceding meeting. To consider the Report of the Council for the Special Representative Meeting on the Insurance Bill, and to instruct its Representative. Any other business.—PEVERELL S. HICHENS, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: SOUTH-WEST WALES DIVISION.—A special meeting of the Division will be held on Tuesday, February 15th, at the Infirmary, Carmarthen, at 3 p.m. Business: (1) Consideration of Central Council's Report and instructions to Representative. (2) To appoint Representatives on the Welsh Committee.—D. R. PRICE, Honorary Secretary, Ammanford.

WEST SOMERSET BRANCH.—A special general meeting will be held on February 13th at the Taunton and Somerset Hospital at 3.15. The President, Mr. W. B. Winckworth, will take the chair. Agenda: The minutes of the last meeting to be confirmed. *Re* National Insurance Bill: To discuss the recommendations put forward by the Council, British Medical Association (see p. 123, SUPPLEMENT, BRITISH MEDICAL JOURNAL, February 3rd), and give instruction to Dr. J. A. Macdonald in view of the meeting of Representatives on February 20th. To consider the advisability of forming local Medical Committees. Other business.—CHARLES FARRANT, Honorary Secretary.

Vital Statistics.

ENGLISH URBAN MORTALITY IN THE FOURTH QUARTER OF 1911.

[SPECIALLY REPORTED FOR THE "BRITISH MEDICAL JOURNAL."]

IN the accompanying table will be found summarized the vital statistics of seventy-seven of the largest English towns, based upon the Registrar-General's weekly returns for the fourth quarter of last year. The 98,451 births registered in these towns were equal to an annual rate of 24.4 per 1,000 of the population, estimated at 16,157,797 persons in the middle of last year; in the corresponding quarters of the three preceding years the rates were 25.0, 24.4, and 23.6 per 1,000 respectively. In London the birth-rate last quarter was equal to 24.0 per 1,000, while among the other large towns it averaged 24.6 per 1,000, and ranged from 14.3 in Bournemouth, 15.0 in Hornsey and in Hastings, 17.6 in Halifax, 18.4 in Bradford, and 18.8 in Huddersfield, to 30.1 in Stoke-upon-Trent, 30.3 in Middlesbrough, 30.7 in Stockton-on-Tees, 31.0 in West Bromwich, 31.1 in Bootle, 31.4 in St. Helens, and 32.9 in Rhondda.

The 59,307 deaths registered in these towns during the quarter under notice were equal to an annual rate of 14.7 per 1,000, against 14.8, 14.3, and 14.6 per 1,000 in the three preceding fourth quarters. In London the death rate last quarter was 14.3 per 1,000, while it averaged 14.9 in the seventy-six other large towns, and ranged from 8.7 in King's Norton, 9.3 in Willesden, 9.4 in Hornsey, 9.7 in Walthamstow, 10.2 in Devonport, and 10.9 in Burton-on-Trent to 18.0 in Bootle, 18.1 in Stoke-on-Trent and in Burnley, 18.3 in Oldham, and 18.9 in Liverpool and in Sunderland.

The 59,307 deaths from all causes included 624 which were referred to measles, 280 to scarlet fever, 735 to diphtheria, 512 to whooping-cough, 358 to enteric fever, and 2,038 (among children under two years of age) to diarrhœa and enteritis. The 624 deaths from measles were equal to an annual rate of 0.15 per 1,000; in London the death-rate from this disease was 0.12 per 1,000, while it averaged 0.17 in the seventy-six other large towns, among which the highest rates were 0.55 in Stockport, 0.59 in West Bromwich, 0.60 in Oldham, 0.71 in Bournemouth, 0.85 in Nottingham, 1.29 in Norwich, 1.35 in Wolverhampton, and 2.03 in Burnley. The 280 fatal cases of scarlet fever were equal to a rate of 0.07 per 1,000; the death-rate in London from scarlet fever was only 0.04 per 1,000, but among the other towns it ranged upwards to 0.20 in Halifax, 0.21 in Aston Manor, 0.23 in Dewsbury and in Rhondda, 0.24 in Newport (Mon.), 0.36 in Norwich, and 0.38 in Stoke-on-Trent. The 735 fatal cases of diphtheria corresponded to an annual death-rate of 0.18 per 1,000; in London the rate was slightly lower, while among the other large towns the highest rates were 0.36 in Leeds, 0.37 in Reading, 0.38 in West Hartlepool, 0.39 in Derby, 0.40 in Portsmouth, 0.43 in Stoke-on-Trent, 0.55 in Preston, 0.56 in Liverpool, and 0.61 in Wallasey. The 512 deaths from whooping-cough were equal to an annual rate of 0.13 per 1,000; in London the death-rate from this disease was 0.08 per 1,000, while among the other towns the rates ranged upwards to 0.37 in Birmingham, 0.38 in Stockton-on-Tees, 0.40 in Cardiff, 0.42 in Derby, 0.50 in Great Yarmouth, 0.64 in Sunderland, 0.99 in St. Helens, and 1.09 in Walsall. The 358 deaths referred to enteric fever were equal to an annual rate of 0.09 per 1,000; in London the rate was 0.05 per 1,000, while the rates in the other towns ranged upwards to 0.24 in Preston and in Newport (Mon.), 0.25 in Merthyr Tydfil, 0.26 in Huddersfield, 0.32 in Rotherham, 0.37 in Grimsby, 0.40 in Wigan, and 0.50 in St. Helens and in Hull. The 2,038 deaths, among children under 2 years of age, from diarrhœa and enteritis were equal to an annual death-rate of 0.51 per 1,000; the mortality in London from this cause was slightly higher, while for the other towns were recorded rates ranging upwards to 0.83 in Rhondda, 0.90 in Stoke-on-Trent, 0.92 in Oldham, 1.09 in Walsall, 1.21 in Wigan, 1.27 in Warrington, and 1.35 in Burnley.

Infant mortality, measured by the proportion of deaths among children under one year of age to registered births, was equal to 125 per 1,000 last quarter, against 146, 128, and 137 in the corresponding quarters of the three preceding years. In London the rate of infant mortality last quarter was 113 per 1,000, while in the other large towns it averaged 130 per 1,000, and ranged from 60 in Hornsey, 68 in Ipswich, 69 in Devonport and in Burton-on-Trent, 73 in Walthamstow, 75 in Hastings, and 78 in Willesden to 160 in Bootle and in Stockton-on-Tees, 161 in Blackburn, 176 in Middlesbrough, 178 in Bury, 183 in Sunderland, 186 in Oldham, 187 in Wigan, 189 in Preston, and 195 in Burnley.

Analysis of the Vital Statistics of Seventy-seven of the Largest English Towns during the Fourth Quarter of 1911.

Towns.	Estimated Population middle of 1911.	Births.	Deaths.	Annual rate per 1,000 Living. Births.	Deaths.	Small pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Enteric Fever.	Diarrhœa and Enteritis (under two years of age).	Deaths of Children under one year of age to 1,000 Births.	Rate per cent. of Uncertified Deaths.
77 Towns	16,157,797	98,451	59,307	24.4	14.7	—	624	280	735	512	358	2,038	130	0.8
76 Provincial Towns	11,635,169	71,433	43,164	24.6	14.9	—	484	235	545	423	301	1,456	125	1.1
London	4,522,628	27,018	16,143	24.0	14.3	—	140	45	190	89	57	582	113	0.1
Croydon	170,451	875	477	20.6	11.2	—	1	—	7	1	1	4	86	—
Willesden	155,253	905	361	23.4	9.3	—	1	3	3	2	2	19	78	0.3
Hornsey	84,916	318	200	15.0	9.4	—	—	1	1	—	1	4	60	—
Tottenham	138,326	893	464	25.9	13.5	—	6	—	6	5	2	11	125	—
West Ham	289,646	2,126	1,078	29.4	14.9	—	—	—	4	—	6	49	134	0.1
East Ham	134,441	824	393	24.6	11.7	—	1	1	3	6	6	18	108	—
Leyton	125,382	691	389	22.1	12.4	—	—	1	5	1	3	15	107	—
Walthamstow	125,334	762	303	24.4	9.7	—	—	2	6	1	2	8	73	—
Hastings	61,036	228	174	15.0	11.4	—	3	—	—	—	—	3	75	—
Brighton	131,444	638	418	19.5	12.8	—	1	3	3	1	—	9	94	—
Portsmouth	232,221	1,438	753	24.8	13.0	—	1	4	23	9	4	9	103	1.1
Bournemouth	79,150	282	231	14.3	11.7	—	14	—	2	—	1	6	85	—
Southampton	119,394	689	426	23.1	14.3	—	—	—	7	4	1	16	113	—
Reading	75,289	359	212	19.1	11.3	—	2	1	7	—	2	4	81	1.4
Northampton	90,152	455	270	20.2	12.0	—	—	—	2	—	4	3	108	0.4
Ipswich	74,122	440	219	23.8	11.9	—	—	—	5	—	—	4	68	—
Great Yarmouth	55,920	318	198	22.8	14.2	—	1	—	—	7	—	10	116	—
Norwich	121,682	588	431	19.4	14.2	—	39	11	6	1	4	8	116	0.5
Plymouth	112,152	611	416	21.9	14.9	—	—	—	9	3	3	11	121	—
Devonport	81,975	547	208	26.8	10.2	—	—	—	7	1	2	4	69	—
Bristol	357,509	1,774	1,216	19.9	13.6	—	9	1	8	1	2	21	88	0.2
Stoke-on-Trent	235,049	1,764	1,063	30.1	18.1	—	18	22	25	8	6	53	154	1.4
Burton-on-Trent	48,222	259	131	21.5	10.9	—	—	—	—	1	—	1	69	4.6
Wolverhampton	95,362	551	390	23.2	16.4	—	32	—	2	—	—	15	140	—
Walsall	92,273	632	391	27.5	17.0	—	8	2	4	25	2	25	157	—
Handsworth	69,010	353	208	20.5	12.1	—	—	1	4	1	1	3	133	1.4
West Bromwich	68,424	528	240	31.0	14.1	—	10	—	3	1	1	11	110	1.7
Birmingham	526,030	3,538	2,067	27.0	15.8	—	9	19	15	49	15	84	148	4.2
King's Norton	81,764	393	177	19.3	8.7	—	—	—	4	4	—	5	87	2.3
Smethwick	71,085	487	225	27.5	12.7	—	6	—	1	4	1	7	125	0.9
Aston Manor	74,985	498	263	26.1	14.1	—	—	4	2	2	—	13	139	0.4
Coventry	107,287	649	297	24.3	11.1	—	—	4	4	3	—	13	86	2.4
Leicester	227,634	1,189	778	21.0	13.7	—	1	3	12	18	5	13	116	0.9
Grimsby	74,951	529	205	28.3	11.0	—	—	1	3	—	7	11	95	2.0
Nottingham	260,447	1,394	1,026	21.5	15.8	—	56	4	10	3	12	47	151	0.4
Derby	123,648	706	432	22.9	14.0	—	—	—	12	13	2	8	102	—
Stockport	109,090	613	427	22.5	15.7	—	15	1	1	2	2	12	158	0.5
Birkenhead	131,330	862	470	26.3	14.4	—	6	2	4	3	1	24	139	0.9
Wallasey	79,137	391	251	19.8	12.7	—	3	1	12	3	1	2	87	—
Liverpool	747,627	5,572	3,522	29.9	18.9	—	37	22	34	18	9	117	137	2.3
Bootle	70,122	544	314	31.9	18.0	—	2	1	3	4	2	12	160	4.8
St. Helens	96,870	759	413	31.4	17.1	—	1	4	1	24	12	18	154	3.4
Wigan	89,340	619	388	27.8	17.4	—	—	1	2	1	9	27	187	—
Warrington	72,376	479	307	26.5	17.0	—	5	3	3	2	3	23	148	4.2
Bolton	181,202	1,032	664	22.8	14.7	—	11	1	11	6	4	25	139	0.2
Bury	58,665	292	251	20.0	17.2	—	5	—	2	5	—	6	178	3.2
Manchester	716,166	4,439	2,920	24.9	16.4	—	30	17	24	19	9	94	158	0.2
Salford	231,641	1,443	995	25.0	17.2	—	30	10	15	5	5	33	147	0.1
Oldham	147,751	806	674	21.9	18.3	—	22	2	4	5	—	34	186	0.3
Rochdale	91,645	464	329	20.3	14.4	—	—	3	—	1	—	11	125	2.7
Burnley	106,569	560	481	21.1	18.1	—	54	2	6	4	4	36	195	0.8
Blackburn	133,160	700	477	21.1	14.4	—	—	2	5	1	4	16	161	1.9
Preston	117,216	613	502	21.0	17.2	—	—	5	16	4	7	17	189	2.6
Barrow-in-Furness	63,930	396	200	24.8	12.5	—	2	—	5	1	1	6	106	2.0
Huddersfield	108,144	507	397	18.8	14.7	—	—	3	8	2	7	6	101	0.8
Halifax	101,471	446	316	17.6	12.5	—	—	5	6	2	4	5	90	0.6
Bradford	288,723	1,323	1,066	18.4	14.8	—	1	3	21	2	16	18	121	—
Leeds	445,983	2,582	1,772	23.2	15.9	—	7	11	40	18	8	45	141	0.1
Dewsbury	53,411	299	205	22.5	15.4	—	1	3	2	2	2	2	87	—
Sheffield	455,793	2,989	1,613	26.3	14.2	—	8	8	14	14	15	53	126	0.7
Rotherham	62,711	443	225	28.3	14.4	—	—	—	—	—	5	11	142	1.8
York	82,407	481	297	23.4	14.5	—	9	1	3	—	4	10	116	0.3
Hull	278,968	1,894	1,133	27.2	16.3	—	—	8	9	9	35	50	134	0.9
Middlesbrough	105,124	794	464	30.3	17.7	—	—	4	6	3	1	15	176	1.9
Stockton-on-Tees	52,175	399	221	30.7	17.0	—	—	1	2	5	3	7	160	1.4
West Hartlepool	63,965	417	253	26.1	15.9	—	—	—	6	2	—	9	137	0.8
Sunderland	151,289	1,045	713	27.7	18.9	—	2	2	7	24	3	20	183	2.4
South Shields	108,844	789	466	29.1	17.2	—	—	1	1	1	1	10	131	4.7
Gateshead	117,104	852	451	29.2	15.4	—	4	3	7	6	2	12	149	6.2
Newcastle-on-Tyne	267,162	1,657	1,034	25.0	15.5	—	2	2	10	9	7	28	134	0.2
Tynemouth	59,008	396	214	26.9	14.5	—	—	—	4	4	3	5	104	2.8
Newport (Mon.)	84,111	582	254	27.8	12.1	—	2	5	1	3	5	9	86	0.8
Cardiff	182,729	1,130	585	24.8	12.8	—	2	—	13	18	3	20	104	—
Rhondda	153,775	1,263	466	32.9	12.2	—	1	9	6	8	1	32	123	0.4
Merthyr Tydfil	81,293	527	249	26.0	12.3	—	—	—	—	4	5	13	106	—
Swansea	115,176	803	455	28.0	15.8	—	3	1	16	5	—	18	121	0.7

NOTE.—The publication of the aggregate deaths from the principal infectious diseases and of the rates of mortality therefrom has been discontinued in the Registrar-General's weekly return; these two columns are therefore omitted from the above table.

The causes of 500, or 0.8 per cent., of the deaths in the seventy-seven towns last quarter were not certified either by a registered medical practitioner or by a coroner. The highest proportions per cent. of uncertified deaths were 3.2 in Bury, 3.4 in St. Helens, 4.2 in Birmingham and in Warrington, 4.6 in Burton-on-Trent, 4.7 in South Shields, 4.8 in Bootle, and 6.2 in Gateshead.

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

BANBURY: HORTON INFIRMARY.—House-Surgeon. Salary, £80 per annum.

BARROW-IN-FURNESS: NORTH LONSDALE HOSPITAL.—House-Surgeon (male). Salary, £100 per annum.

BEDFORD: BEDFORDSHIRE EDUCATION COMMITTEE.—Health Visitor and School Attendance Officer. Salary, £80 per annum, increasing to £100, and £12 allowance for expenses when travelling.

BIRMINGHAM AND MIDLAND EYE HOSPITAL. — Resident Surgical Officer. Salary, £100 per annum.

BIRMINGHAM: GENERAL HOSPITAL.—(1) Assistant Physician; (2) Two Surgical Casualty Officers; (3) Two House-Surgeons to Special Departments; (4) House-Surgeon. Salary for (1), (2), and (3) at the rate of £50 per annum, and for (4) £40 per annum, increasing to £50.

BIRMINGHAM UNIVERSITY.—Lecturer in Physiological Department. Stipend, £150 per annum.

BRISLINGTON HOUSE PRIVATE ASYLUM, near Bristol.—Junior Resident Medical Officer (male). Salary commences at £160 per annum.

BRISTOL GENERAL HOSPITAL.—Senior House-Surgeon. Salary, £120 per annum.

BRISTOL UNIVERSITY.—Lecturer on Surgery.

CAMBRIDGE: ADDENBROOKE'S HOSPITAL.—Second House-Surgeon. Salary, £80 per annum.

CANCER HOSPITAL, Fulham Road, S.W.—Assistant Pathologist. Salary, £350 per annum.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Resident Medical Officer. Salary, £150 per annum.

DERBY COUNTY ASYLUM, Mickleover.—Junior Assistant Medical Officer (male). Salary, £120 per annum, increasing to £150.

DEVON COUNTY ASYLUM, Exminster.—Fourth Assistant Medical Officer (male). Salary, £130 per annum, rising to £140, with honorarium of £50 for pathological work.

DUNDEE DISTRICT ASYLUM.—Junior Resident Medical Officer. Salary, £110 per annum.

EASTBOURNE COUNTY BOROUGH.—Assistant School Medical Officer and Assistant Medical Officer of Health. Salary, £250 per annum.

HAMPSTEAD GENERAL AND NORTH-WEST LONDON HOSPITAL.—(1) House-Physician; (2) House-Surgeon. Salary at the rate of £70 per annum each.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Clinical Pathologist and Bacteriologist. Salary commencing at £200 per annum.

KING EDWARD VII HOSPITAL FOR WINDSOR, ETON, AND DISTRICT.—Senior House-Surgeon. Salary, £80 per annum.

LEICESTER POOR LAW INFIRMARY.—First Resident Assistant Medical Officer. Salary, £140 per annum.

LIVERPOOL: DAVID LEWIS NORTHERN HOSPITAL.—(1) Two House-Physicians; (2) Three House-Surgeons. Salary at the rate of £60 per annum each.

MACCLESFIELD GENERAL INFIRMARY.—Junior House-Surgeon. Salary, £60 per annum.

NEWCASTLE-UPON-TYNE UNION.—Medical Superintendent of Infirmary and Workhouse. Salary at the rate of £450 per annum.

NORTH STAFFORDSHIRE INFIRMARY, Hartshill. — House-Surgeon. Salary, £100 per annum.

NOTTINGHAM GENERAL DISPENSARY (BRANCH).—Assistant Resident Surgeon (male). Salary, £160 per annum.

OXFORD COUNTY ASYLUM, Littlemore.—Junior Assistant Medical Officer. Salary, £150 per annum, increasing to £175.

OXFORD: RADCLIFFE INFIRMARY AND COUNTY HOSPITAL.—(1) House-Surgeon; (2) Casualty House-Surgeon. Salary at the rate of £80 per annum each.

PORTSMOUTH: ROYAL PORTSMOUTH HOSPITAL. — House-Physician (male). Salary, £75 per annum.

ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN.—Four Resident Medical Officers.

SALFORD ROYAL HOSPITAL.—Casualty House-Surgeon (male). Salary at the rate of £50 per annum.

SHEFFIELD UNIVERSITY. — Demonstrator in Experimental Physiology and Pharmacology. Salary, £200 per annum.

SOUTHAMPTON COUNTY BOROUGH.—Assistant Medical Officer of Health. Salary, £250 per annum, increasing to £300.

SOUTHAMPTON UNION.—Resident Assistant Medical Officer for the Workhouse Infirmary. Salary, £100 per annum, increasing to £150.

STAFFORD: COTON HILL LUNATIC ASYLUM.— Assistant Medical Officer. Salary, £150 per annum, increasing to £180.

WEST AFRICAN MEDICAL STAFF.—Vacancies in the Service. Salary, £400 per annum, rising to £600.

WINCHESTER: ROYAL HAMPSHIRE COUNTY HOSPITAL.—House-Surgeon (male). Salary, £80 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacant appointments: Bangor (co. Down), Oxted (Surrey), Tavistock (Devonshire), Yarmouth (Isle of Wight).

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

APPOINTMENTS.

EDDISON, F. R., M.R.C.S., L.R.C.P.Lond., Certifying Factory Surgeon for the Bedale District, co. Yorks.

JAMES, A. H., M.D.Edin., Certifying Factory Surgeon for the Blaenavon District, co. Monmouth.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTHS.

THOMPSON.—On February 2nd, 1912, at "Glendalough," 1, Morland Road, Croydon, the wife of J. Henry Thompson, M.B., B.Ch., of a son.

VERLING-BROWN.—On Friday, February 2nd, at Seymour House, Mulgrave Road, Sutton, Surrey, to Dr. and Mrs. C. R. Verling-Brown—a daughter.

MARRIAGE.

BLOXSOME—BALLARD.—On February 1st, at St. Mary's, Kensington, by the Rev. W. H. Orton, Chaplain to the Royal Sussex County Hospital, Arthur Henley, L.R.C.S.and P.Edin., of Colwyn Bay, second son of the late Rev. W. H. Bloxsome, Rector of Mawgan-in-Meurage, Cornwall, and Mrs. Bloxsome, Hove, to Helen, elder daughter of the late F. A. Ballard, Esq., of Lewes, and Mrs. Ballard, 58, Stanwick Mansions, W. Kensington.

DEATHS.

DUTT.—January 29th, at Everest Lodge, Newington, Hull, Aroon Chunder Dutt, B.A., M.D.Cantab., A.K.C.Lond., the dearly beloved husband of Constance Ethel Dutt.

WATKINS.—On February 3rd, at "Penegraig," Claremont Road, Pendleton, Manchester, Margaret, the beloved wife of W. R. Spencer Watkins, M.B., F.R.C.S.Edin.

DIARY FOR THE WEEK.

MONDAY.

KING'S COLLEGE, Strand, W.C., 4.30 p.m.—Dr. Otto Rosenheim: The Bearing on Chemical Physiology of Certain Pathological Questions.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, W., 8.30 p.m.—Papers:—Dr. StClair Thomson: Intrinsic Cancer of the Larynx Treated by Larynx-Fissure, with 80 per cent. of Lasting Cures. Dr. W. H. Kelson: Aching Throat.

TUESDAY.

ROYAL SOCIETY OF MEDICINE:

SURGICAL SECTION, 15, Cavendish Square, W., 5.30 p.m.—Joint Meeting with Medical Section and Section of Anaesthetics. Debate on a Paper by Mr. T. P. Dunhill of Melbourne: Partial Thyroidectomy under Local Anaesthesia, with Special Reference to Exophthalmic Goitre. The debate will be opened by Sir Victor Horsley, F.R.S. The following will take part in the debate: Mr. Charters Symonds, Mr. Leedham-Green (Birmingham), Mr. Walter Edmunds, Mr. Wilfred Trotter, Mr. Lynn Thomas (Cardiff), Mr. Rupert Farrant, Dr. Hector Mackenzie, Dr. George Murray, Dr. Hale White, Dr. Herbert Scharlieb, Dr. Blumfeld, Dr. G. A. H. Barton, Dr. Albert Kocher (Berne), and Mr. James Berry. The debate will be continued on February 27th.

WEDNESDAY.

UNITED SERVICES MEDICAL SOCIETY, Royal Army Medical College, Grosvenor Road, S.W., 5 p.m.—(1) Lieutenant-Colonel C. H. Melville, R.A.M.C.: Boots. (2) Mr. A. H. Tubby, F.R.C.S.: Foot Deformities Acquired in Adult Life. (3) Lieutenant-Colonel J. F. Donegan, R.A.M.C.: Demonstration of a Field Operating Table and of a Method of Attaching the First Field Dressing.

THURSDAY.

ROYAL SOCIETY, Burlington House, W., 4.30 p.m.—The following are among the list of probable papers:—Dr. T. G. Brown: A Specific Instance of the Transmission of Acquired Characters—Investigation and Criticism. F. H. A. Marshall: On the Effects of Castration and Ovariotomy upon Sheep. Dr. T. L. Llewellyn: The Causes and Prevention of Miners' Nystagmus. W. L. Balls: The Stomatograph. G. A. Buckmaster and J. A. Gardner: Composition of the Blood Gases during the Respiration of Oxygen.

ROYAL SOCIETY OF MEDICINE:

DERMATOLOGICAL SECTION, at 11, Chandos Street, W., 5 p.m.—Demonstration of Cases.

NEUROLOGICAL SECTION, at 15, Cavendish Square, W., 8.30 p.m.—Dr. W. Harris: Two Cases of Haematorhachis. Dr. F. L. Golla: The Vestibule and the Perception of Space.

FRIDAY.

ROYAL SOCIETY OF MEDICINE:

OTOLOGICAL SECTION, at 11, Chandos Street, W., 5 p.m.—Dr. W. A. Milligan: (1) A Case of Severe Vertigo (Menière's disease?) (2) A case of Suppurative Labyrinthitis Complicated with Suppurative Basal Meningitis. Mr. Hugh E. Jones: Three Cases of Operation on the Labyrinth for Vertigo (non-suppurative). Mr. Macleod Yearsley: Jankauer's New

Speculum for the Direct Examination of the Naso-Pharynx and Eustachian Tube. Mr. George N. Biggs: Short Notes of a Very Severe Case of Streptococcal Infection of Both Ears. Dr. P. Watson-Williams: Three Cases of Lateral Sinus Thrombosis.

Electro-Therapeutical Section, at 15, Cavendish Square, W., 8.30 p.m.—Papers:—Dr. F. Hernaman-Johnson: Secondary *X*-radiations; Their Uses and Possibilities in Medicine. Mr. William Hampson: A Method of Reducing Excessive Frequency of the Heart Beat by means of Rhythmical Muscle Contractions, Electrically Stimulated.

University College, Gower Street, W.C., 5 p.m.—Fourth Page May Memorial Lecture by Dr. Henry Head, F.R.S.: The Afferent Nervous System.

POST-GRADUATE COURSES AND LECTURES.

London School of Clinical Medicine, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat, at noon and 4.30 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Tuesday, and noon, Friday. Eye, 11 a.m., Wednesday and Saturday. Radiography, Saturday, 10 a.m. Pathological Demonstration, Saturday, 11 a.m. Special Lectures: Tuesday, 5 p.m., Fractures. Wednesday, 3.30 p.m., Squint (Concomitant and Paralytic). Thursday, 2.15 p.m., Enteric Fever.

London School of Tropical Medicine, Albert Dock, E.—Lectures daily (Saturday excepted) at 12 noon and 4 p.m. Practical Laboratory Work daily (Saturday excepted) 10 to 12 a.m. Practical Protozoology 2 p.m. to 3.30 p.m. daily; Advanced Protozoology, 10.30 a.m. to 1 p.m. daily. Medical Clinics, Monday and Thursday, at 3 p.m. Operations, Friday, at 3 p.m.

Manchester: Ancoats Hospital Post-Graduate Clinic, Thursday, 4.15 p.m.—Gastric Surgery.

Manchester Royal Infirmary.—Tuesday, 4.30 p.m.: Exophthalmic Goitre and Myxoedema. Friday, 4.30 p.m.: The Treatment of Tuberculous Abscesses.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin. Tuesday, Medical. Wednesday, Surgical. Thursday, Medical. Friday, Ear, Nose, and Throat. Lectures at 5.15 p.m. each day will be given as follows: Monday, On the Selection for Operation of Fractures of the Long Bones. Tuesday, Coma and its Differential Diagnosis. Wednesday, Some Common Mistakes in the Diagnosis of the Diseases of Women. Thursday, Some Tuberculous Affections of the Skin.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Tuesday, 3.30 p.m.: Hysterical Paralysis. Friday, 3.30 p.m.: Disseminated Sclerosis.

North-East London Post-Graduate College, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics: 10 a.m., Surgical Out-patient; 2.30 p.m. Medical Out-patient, Nose, Throat, and Ear; 3 p.m., Demonstration on Clinical and General Pathology. Tuesday, 2.30 p.m., Operations: Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient; 4.30 p.m. Lecture: The Diagnosis of Malignant Disease. Wednesday, 2 p.m., Throat Operations; 2.30 p.m., Medical Out-patient; Skin and Eye Clinics: *X* Rays; 3 p.m., Pathological Demonstration; 5.30 p.m., Eye Operations. Thursday, 2.30 p.m., Gynaecological Operations; Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient; 4.30 p.m. Lecture; Eczema and Allied Conditions. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient; Pathological Demonstration.

West London Post-Graduate College, Hammersmith Road, W.—The following are the arrangements for next week:—Daily arrangements: Medical and Surgical Clinics, 2 p.m.; *X* Rays, 2 p.m.: Operations, 2 p.m. Monday: Gynaecology, 10 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday: Gynaecological Operations, 10 a.m.; Demonstration of Minor Operations, 11.30 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday: Gynaecological Demonstration, 10 a.m.; Lecture, Practical Medicine, 12.15 p.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday: Gynaecological Operations, 10 a.m.; Lecture, Practical Medicine, 12.15 p.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m. Lectures at 5 p.m.: Monday: Rectal Surgery. Tuesday: The Principles and Applications of Radio-Therapeutics. Wednesday: Clinical Lecture I. Thursday: Practical Surgery, Lecture IV. Friday: Cases of Skin Disease.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
FEBRUARY.	
11 Sunday ..	
12 MONDAY ..	Marylebone Division, *Metropolitan Counties Branch*, General Meeting, Rooms of the Medical Society of London, 11, Chandos Street, W., 5 p.m.
13 TUESDAY ..	Northamptonshire Division, *South Midland Branch*, Board Room, Northampton General Hospital, 2.30 p.m.; Luncheon, Franklin's Restaurant, Guildhall Road, 1.30 p.m. Dartford Division, *South-Eastern Branch*, Bull Hotel, Dartford, 3 p.m. South-West Wales Division, *South Wales and Monmouthshire Branch*, Special Meeting, Infirmary, Carmarthen, 3 p.m. Isle of Thanet Division, *South-Eastern Branch*, Special Meeting, Victoria Hotel, Hardres Street, Ramsgate, 3.30 p.m. City Division, *Metropolitan Counties Branch*, General Meeting, Hackney Town Hall, 4 p.m. St. Pancras and Islington Division, *Metropolitan Counties Branch*, Special Meeting, Drawing Room, Midland Grand Hotel, King's Cross, N.W., 9 p.m.
14 WEDNESDAY	London: Medico-Political. Medical Inspection and Treatment of School Children Subcommittee, 2.30 p.m. Leicester and Rutland Division, *Midland Branch*, Lecture Room, Temperance Hall, 3.45 p.m. Central Division, *Birmingham Branch*, General Meeting, Medical Institute, 4 p.m. Lambeth Division, *Metropolitan Counties Branch*, Special Meeting, Bethlem Royal Hospital, 4 p.m.
15 THURSDAY ..	Buckinghamshire Division, *South Midland Branch*, Royal Bucks Hospital, Aylesbury, 3 p.m. London: Metropolitan Counties Branch Council, 4 p.m.
16 FRIDAY ..	Newcastle-on-Tyne Division, *North of England Branch*, Scientific Meeting, 3.15 p.m. to 6 p.m. Bournemouth Division, *Dorset and West Hants Branch*, Trinity Hall, Bournemouth, 3.30 p.m. Chichester and Worthing Division, *South-Eastern Branch*, Norfolk Hotel, Arundel, 3.45 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Battersea Town Hall, 3.45 p.m.
17 SATURDAY ..	
18 Sunday ..	
19 MONDAY ..	
20 TUESDAY ..	**Special Representative Meeting**, Court of Common Council Chamber, Guildhall, London, 10 a.m.
21 WEDNESDAY	**Special Representative Meeting**, Court of Common Council Chamber, Guildhall, London. Richmond Division, *Metropolitan Counties Branch*, Richmond, 8.30 p.m.
22 THURSDAY ..	Lambeth Division, *Metropolitan Counties Branch*, Ordinary Meeting, Lambeth Infirmary, 4 p.m.
23 FRIDAY ..	Birmingham Branch, Pathological and Clinical Section, Medical Institute, Edmund Street, 8 p.m.
24 SATURDAY ..	
25 Sunday ..	
26 MONDAY ..	

FEBRUARY *(continued)*.

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SUPPLEMENT
TO THE
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National Insurance.

THE CHANCELLOR OF THE EXCHEQUER ON THE MEDICAL ASPECTS.

A MEETING arranged by the Liberal Insurance Committee—the organization hitherto known as the "National Insurance Committee," formed by the Liberal party in furtherance of the principles of national insurance—and attended by political workers for the Liberal party from all over the country, was held at the London Opera House on February 12th. The CHANCELLOR OF THE EXCHEQUER delivered a speech in support of the Insurance Act; it occupied over an hour and a half in delivery, and it was towards the end that he made a lengthy reference to the medical aspects of the measure.

With regard to medical benefits, said Mr. Lloyd George, an amending Act was talked of. By all means; nothing was perfect, even in a Liberal House of Commons. (Laughter.) But let them get on with the really good things in the Act and all these things would be added unto them. The Tories were doing their best to stir up the doctors to deprive the workman of the only medical aid which many of them could afford in time to save their lives. A more dastardly enterprise — (Applause) — no human being could conceive, and when they stood themselves, as they all had to stand in turn, in need of medical assistance, he was afraid their action would not do much to relieve their anxieties. He wanted to tell the whole truth in this matter, and spare not the false prophets. (Laughter.) What about the doctors? He proposed to give them a perfectly frank statement of the Government's position, and he was confident that so long as the doctors did not mix up business and politics—(Hear, hear, and applause)—it would satisfy them and every reasonable man among the medical profession. What was the position? A great deal was said about contract practice. What was contract practice? It was an undertaking whereby the doctor engaged to provide medical treatment for a man at a flat rate—it might be 4s., 5s., or 6s. per annum, or any other figure. Sometimes it was a flat rate by which the doctor undertook to cure the whole of a man's family. In some districts it was 3d. a week, in others 4½d. per week. It varied. Contract practice might be good or it might be bad; it had not been created by the Insurance Act. More than half the workmen of the country were cured now by contract—more than half when they took all the various methods of contract cure into account. Contract practice had its advantages as well as its disadvantages. What were its advantages? It avoided the necessity a doctor was under when he was dealing with a man earning a small weekly wage of sending him in a big bill after a long illness, and getting paid in driblets, or not getting paid at all, which unfortunately was very often the case. After all, no doctor wanted to be on what he might call "judgement summons terms" with his patients. No professional man he ever met cared to keep account books. They hated it. A doctor did not want to take up his time with keeping an account of being paid 5s. on account of a bill of £10, and of receiving another 6s. in the street perhaps, putting it down, making up the balance, and sending it in at Christmas. He would rather not. So in the working-class districts of this country they had devised this method of contract practice, of saying, "Give me 4s. or 5s. a year, and I will cure you of all the ills that flesh is heir to." (Laughter.) That was one advantage. There was another advantage for a doctor. It was a kind of retaining fee for the family practice. (Hear, hear.) If the doctor cured the head of the family for 4s. he would cure the rest of the family for a good deal more. He could send in bills for the rest of the family. He did not say the doctor would charge more; but even if he did, and he (Mr. Lloyd George) thought possibly he did—(Laughter)—there was this advantage in the bargain, that where the head of the family was ill there was no one to earn, whereas if some one else in the

family was ill the earner of the family was there to pay the bill. It was a double advantage. It was an advantage to the man himself. It was an advantage to the doctor who was building up a practice.

What were the disadvantages? It was underpaid. The doctors had themselves to blame for that. He read a speech by his friend, Mr. Handel Booth, in which he described very vividly the undercutting, the underselling, the underbidding, that went on very often between doctors. They would not be surprised to hear Scotsmen had taken full advantage of it, and that the result was that in Scotland the average rate of pay in every contract district was decidedly lower than in England. He saw a case in an important city like Aberdeen where a doctor undertook contract practice for 2s. 6d. (Shame!) The average in England was 4s. That was thoroughly bad. Underpaid work was shoddy work. It was not to the advantage of the patient or of the doctor. It was far better for the doctor to feel that he was fairly treated and getting a fair wage for the very difficult, delicate, responsible work which he had to accomplish. All he said was if that was bad, he was not responsible for it; the Insurance Act was not responsible for it. (Cheers.) The Insurance Act did not perpetuate it, did not extend it, and certainly did not create it. In so far as the Act was concerned, all they had done was to provide substantial funds which would increase by a very large percentage the pay the doctors were now getting for contract practice. (Applause.) He would put the doctors' grievances. The doctor had three great grievances, and let him say at once he could sympathize with them. The doctor's first grievance was he objected to what he called society control. There were many members of friendly societies present, and he was sure they would bear with him while he dealt with this point. The doctors' complaint was that they were under the domination—or, as they put it, under the heel—of the friendly society; that it imposed upon them harsh terms. He was not going to express any opinion upon that. If it was true it was a real grievance. (Cries of "It is untrue.") He knew that friendly society men would instantly protest; it was useful to remind doctors that there were two sides to the question. The second grievance was this: the doctors said, "We don't mind attending men who are earning low wages on contract terms; but we do object to well-to-do people creeping into the friendly societies and claiming to be treated on the same terms as the labourer earning 15s. a week." (Hear, hear.) He had analysed many of the friendly societies of the country, and he found they were by no means confined to working men; there were tradesmen, farmers, publicans, schoolmasters, and professional men among the membership, and the doctors said it was unfair to expect them to treat these men at 4s. a head. He would tell the audience why the doctors said that. He was sure the profession would not quarrel with him when he made this statement. The doctor's bill was charged at a scale which had reference to the means of the patient. He did not charge a workman the same fee for a visit as he would charge a well-to-do tradesman or a professional man. The doctor said, very truly: "It is because I am able to charge the well-to-do patients more that I am able to treat the workman for less." That was the doctor's case.

What was his third grievance? He said there were districts in England and Scotland and Wales where there was no contract practice at all at the present moment, where the doctors had refused to treat the patients on contract terms, and where the ordinary relations existed between doctor and patient—which meant the doctor sent in his bill for time attendance, medicine, and so on. There were districts in Lancashire—working-class districts—where they had no contract practice at all; there were certainly a very large number of rural districts where there was none, and doctors said: "Why should you force this obnoxious contract practice into districts where it does not exist at present?" He would give his answer to the doctors' grievances.

The first complaint was that they were under friendly society control. Under the Act they were no longer under the control of the friendly societies. (Applause.) There was an exception under what was known as the Harmsworth amendment, and he commended that amendment to certain newspapers which had taken full advantage of it to create trouble between the doctors and the Government. He would remind them that most of the trouble had arisen through the Harmsworth amendment, but that exception simply dealt with existing rights and did not deal with the bulk of the insured persons. It did protect existing institutions, and he stood absolutely by that amendment. Speaking on behalf of the Government, whatever happened they declined to budge from that amendment. Dealing with the new practice that came into existence under the Act, what happened? The Government had set up an independent authority. It was true the insured persons constituted a majority, but that was only the very essence of things. They could not hand over to a committee power to spend money they were not responsible for finding. They must give the majority on a committee to persons who were responsible if any deficit arose. There were on this body representatives of the Government, of the county council, and of the doctors. The committee could not arrange terms for paying the doctors without consulting the local Medical Committee, representing the whole of the doctors in that district, and as if that was not enough, an appeal had been allowed to the Insurance Commissioners upon the whole of the terms. Was not that an improvement on the present system, under which the doctors dealt face to face with the societies, without any appeal to anybody?

The doctors' second grievance had reference to the income limit. What had the Government done there? It had empowered the Insurance Committee to fix an income limit in a district; and as the Insurance Commissioners had full powers with regard to approving contracts, they would have a word to say as to that. He wanted to give one word of warning—the fixing of a national income limit was impossible. Take the mining districts. Suppose an income limit of £2 was fixed, and they said that no miner earning over that should be treated on contract terms. That was a departure from the existing system, and they could not work it. This year a miner might be earning under and next year over £2. On the other hand, they had districts where very few workmen earned anything like £2 a week. What happened if a man was outside the income limit? Was he to be left without any doctoring at all? Special provision was made for him, and that led up to the doctors' third point: that in some districts there was no contract practice—that the doctors vowed they would not submit to it. Under the Act they need have none. What happened? The money which was set aside for doctoring would be paid into a general pool in that area. The doctors would attend to their patients on exactly the same terms as of old, and would send in their bills as against that general pool. If there was a balance the workman would have to pay it. Of course, the local medical men must form some sort of committee to prevent any unfair charge upon the funds by any one of their number. No doctor was forced by the Act to take contract practice; no patient was forced to take a doctor on contract unless he wished to. Every doctor who had a contract practice and wished to carry it on would get 50 per cent. more from his patients than he was paid at the present moment.

That was the position, and what were the doctors doing? He had no word to say against the British Medical Association, which represented the general practitioners of the country. The Association passed a resolution the other day that it did not see its way to meet the Commissioners until it had first of all had a meeting of its governing body. The Association had been criticized a good deal by its own supporters, and it was naturally afraid to commit itself until it had a new meeting of the governing body and heard what the doctors of the country wished it to do. Therefore, the Association excused itself when an invitation was sent to them by Mr. Masterman. He was not complaining at all; he did not think the action of the Association was unreasonable. But he did not think that quite applied to the Royal Colleges of Surgeons and Physicians, who sent a curt, undignified, discourteous refusal to meet a Government department to discuss matters affecting the profession which they officially represented. These colleges were formed under a charter, under an Act of Parliament, and when they refused an invitation of a Government department to discuss matters affecting the body they had been called into existence to represent, it was an example of rude ineptitude—(Applause)

—which was utterly without parallel in the history of the country. There was not a strike committee in the land which would have demeaned itself in that way. (Loud applause.) The Colleges said the Act was unworkable; the finance was inadequate; it was no use discussing it. That was the very reason why they should discuss it. Why did they not come and point out where the measure was inadequate; why did they not come there like men and show where the deficiency arose; why did they not, if they knew, point out where the Act could be amended? The Commissioners were there to listen to all kinds of suggestions, but to refuse to appear there was behaviour of so extraordinary a character that it showed the societies absolutely unfit for the position which they assumed. For the future negotiations would be conducted with societies that really were prepared to discuss solemn and important matters like business men, and were prepared to treat Government departments without regard to their political complexion.

The doctors said: "It is perfectly true you have all these conditions to protect us, all these safeguards; but the finance of the bill is too limited, it is too insufficient, and there is no scope for negotiations." He had two answers for that: Doctors who were already engaged in contract practice could get 50 per cent. more than they were getting now; doctors who were not engaged in contract practice need not take it for the future. The only thing that would happen to them would be they would charge exactly what they were charging now and would send their bills in as now—the only difference was there would be a fund to help their patients pay the bills; surely they did not object to that? He wished there was a body like that to pay lawyers' bills! (Laughter.) If all the doctors of the kingdom contemplated dropping their present methods of private practice, and entering into contract arrangements with their patients, they might say the finance was inadequate. It was open to them to argue that, and the Government would listen to the doctors. All they had to do was to demonstrate to the satisfaction of the Commissioners that the finance provided was insufficient, the Commissioners would give every consideration put before them impartial and careful attention—and if the Commissioners were satisfied that the case was made out, on their recommendation it would unquestionably be the duty of the Government to advise Parliament to find all money necessary to provide a satisfactory medical service for the insured people of the country. But merely to send stiff and discourteous letters declining to discuss with a Government department the best methods of dealing with the question would meet with the reprobation of every business man. The Government was prepared to listen to every fair suggestion—not wild and extravagant demands. One gentleman who represented a certain section sent in a bill for an additional three million. (Laughter.) It was not bringing the demand within proportions that were debatable. Any fair proposal they would consider.

What would happen if the profession followed the advice of its extremists and declined to discuss terms, refused to administer the Act, to recognize committees set up by a statute of the realm, if they defied the law of the land, and said they would have nothing to do with it—what would happen? Nothing! (Laughter and applause.) Except this—(Laughter)—all the safeguards inserted in the Act for the protection of the medical profession would be wiped out at once. It was assumed by those critics of the Act who had been stirring up the doctors to do foolish things, that the moment they refused to what they called "work the Act," it was as dead as Queen Anne. The Act would be as alive as ever, but the safeguards for the protection of the profession would be dead. One of the troubles they suffered from was that there were men trying to work various parts of the Act without ever reading it, and those who advised the profession to take that extravagant course could never have read it. Did they really think the Government was so simple that it had not provided for a contingency of that sort? (Laughter.) Did they look like it? They had just overlooked one little provision of the Act—that the Government had large "suspensory powers." What did that mean? (A Voice: "Hang the doctors!" Great laughter greeted this neat interjection.) It might serve, Mr. Lloyd George retorted, to hang those who gave the doctors bad advice. Did the use of the suspensory powers mean that the benefits of the Act would come to an end? The 10s. a week, the 5s. a week, the consumptive benefit, the maternity and medical benefits would all go on. The insured persons would not be deprived of benefits. What would happen? The money allocated for medical benefit would be handed over to the insured persons through their societies. (Applause.) The doctors who had been compassing sea and land to get away from the friendly societies would suddenly find themselves face to face with them once more—(Laughter)—and through their own action! There would be no local Insurance Committee to arrange terms, no committee upon which the doctors were represented; the societies would not be compelled to consult the local Medical Committee; there would be no appeal to the Commissioners. All that would be suspended. How would a strike avail under those conditions? Would the local doctors send word to the committee on which their own patients were represented that they declined to meet them, that they would not discuss terms with them? It must be remembered it would not be friendly societies merely, but trades unions, industrial insurance companies, which would be dealing with money handed over to them bodily to treat with the doctors. Take the man who had a contract practice—the doctor for the local Oddfellows or Foresters—what would he do? He had worked up a practice laboriously, he had got hold of the heads of the family, and had got the rest of the family through them. Was he going to say to the Oddfellows or Foresters, "I am going to throw up my practice"? Was he going to throw up the work of years and allow other doctors to scramble for his practice, and scramble with them under this disadvantage—that he would have quarrelled with his patients? Take the case of a man who was attending a works staff. Was he going to say, "Where do you get your money from? Is it true that there is a subsidy from the insurance fund?" The reply would be, "Yes, of course there is." "Well, then," the doctor would reply, "no more works staff for me! (Laughter.) I won't touch it; if it savours of national insurance they can take the unclean thing away." (Laughter.) So the doctor would throw up his practice. Could they not see them doing it? (Laughter.) If they did not, all the pledges in the world would be of no use to them.

He would utter two warnings: There were such things as medical institutes and dispensaries; about 70 or 80 were already established, where men were engaged on a whole-time service, and those institutions were spreading. If they wanted to encourage them, get up a doctors' strike; that was the way to help them along. They were being run now at 4s. a head—under the Act it would be 6s., and if the doctors refused to work the Act the working classes could not be without medical attendance, so medical institutes and dispensaries would swarm in the land. His second warning was this: It was with great difficulty that the Government succeeded in getting the safeguards in the Act. Friendly society men present would know that the Government came pretty near a quarrel with the societies in order to protect the doctors. The friendly societies resented the safeguards as showing want of confidence in them. If the doctors threw over those safeguards, and if the old relations ensued, let them not forget the Government found the position difficult when facing societies with 4 or 5 million members. There would be 14 million members in the future. Would any Government face the risk of resuming those safeguards in the teeth of 14 million people after the experience this Government had had with the doctors? (Applause.) If these people who were "egging" the doctors on—he did not say their leaders, they were generally persons outside, busybodies meddling for purely political purposes, who would not have done it unless they thought they could break down the Act by doing it—if these people succeeded, did they really think they would be able to make the Act more unpopular? Quite the reverse. What was unpopular was taking these powers from friendly societies. There was nothing they wanted more than to have their powers restored and to have freedom of action. If as a result of a refusal to work the Act the insurance funds were handed over to the societies to deal with as they

pleased, it would be hailed with joy by all the friendly societies.

He still believed the arrangements of the Act were the best, and he was prepared to work patiently through the temporary unpopularity associated even with the safeguards he had referred to, because he thought they were the best for the medical profession and best for the working classes in the long run; but if impulsive, ill-informed men lured on the medical profession to the other course for political reasons, let its members not send the bill to the Government, but to the men who had enticed them to their destruction.

NATIONAL HEALTH INSURANCE COMMISSION (ENGLAND).

Explanatory Lectures in London.

The National Health Insurance Commission (England) are organizing a series of lectures in London with a view to explaining in detail the provisions of the National Insurance Act to officials of organizations likely to become, or assist in the formation of, approved societies. Each course will consist of a sufficient number of lectures to cover the whole Act, so far as it relates to health insurance. Afternoon and evening courses have been arranged. Societies which desire that their responsible officials should attend these courses are requested to communicate at once with the Secretary to the National Health Insurance Commission (England), Buckingham Gate, London, S.W.

Where sufficient demand is shown to exist the Commissioners hope to arrange similar courses of lectures in provincial centres.

CORRESPONDENCE.

[*It is particularly requested that communications intended for publication should be written on one side of the paper only, and should be addressed to the Editor*, British Medical Journal, *429, Strand, London, W.C.*]

An Appeal for a Strong but Moderate Policy.

The following appeal, signed by sixty-seven medical practitioners in various parts of the country, for the most part engaged in general practice, was issued at the end of last week:

Dear Sir,

We, the undersigned medical practitioners, attached to no particular party and committed by no pledges to support or oppose the present Council of the British Medical Association, are deeply concerned at the strenuous efforts being made by certain small sections of the medical and lay press to entangle the profession in political controversy and to commit them prematurely to an irreconcilable attitude in respect of the Insurance Act. We think that we should determine our position calmly and unitedly as a profession and not be led or influenced by party organs of either side.

Within the next few days the Divisions of the British Medical Association throughout the United Kingdom will have to instruct their Representatives as to the attitude that is to be taken at the Special Representative Meeting on February 20th. From amidst the turmoil of resolutions, correspondence, and programmes, there now emerges a fairly clear cut distinction between contending lines of thought.

On the one hand, there is the so-called "*No service whatsoever*" policy of the *Practitioner*, and of certain other bodies outside the British Medical Association. On the other hand is the policy already approved by a considerable number of Divisions of the Association, including the general body of Scottish and Welsh Divisions, namely, "*No service unless the six points and adequate remuneration are* first *definitely assured by the Commissioners in their regulations.*" We believe that the former policy (while it may serve the thinly disguised political motives of its promoters) would be fatal to the interest of the profession. We believe that the latter policy will lead to certain victory for the profession.

As to the policy of "No service whatsoever," even the *Practitioner* does not attempt to show that it will bring any positive advantage to the profession. The dangers of such a policy are obvious and grave indeed. It is a delusion to suppose that the profession could in this way prevent the Act from coming into operation, or even prevent the medical benefits from being given in one form or another. A careful examination of the last paragraph of Section 15 (2) of the Act shows that every possibility is provided for. It is too readily assumed that if the profession refused to form "panels," a whole-time service would be attempted. The Commissioners may also "suspend the benefit," giving the insured the equivalent in cash. In such a case the approved societies, strengthened in numbers and in prestige, would undoubtedly undertake the organization of separate medical services. They would be free from any of the restrictions which the Act places upon the Insurance Committees. They would be free to appoint doctors and dismiss them at their pleasure. They could make individual bargains with doctors, playing one off against another in the way that has produced all the abuses of cheap contract practice in the past. Does any medical man with experience of practice doubt what the effect would be? Can he trust his fellow practitioners in such a case not to be tempted by the baits that would be offered?

It may be said that such a course of action by the Commissioners might have to be faced in any event; but if the profession had begun by putting their case before the Commissioners and the public in a reasonable way, and their reasonable demands had been refused, they would be in a strong position to resist. In such a contest, public opinion and the consciousness in the profession itself of the moral strength of its case would count for everything in determining the victory. But if the profession began by refusing to negotiate public sympathy would undoubtedly be alienated. The strength of the profession, which comes of union, is not promoted by this "No service whatever" policy. It is already clear that this policy will not command the sympathy of a considerable section who will support the more moderate policy of the adoption of reasonable tactics, and a determined insistence on our six cardinal points, amplified by a definition of adequate remuneration.

When, considering the alternative policy of "No service unless our terms are secured by the Commissioners," some seem to fear that the profession may in some way be compromised by negotiation with the Commissioners, whilst others regard negotiations as useless, because they have mistakenly come to the conclusion that their demands, including adequate remuneration, are unattainable under the Act. The published opinions of counsel employed by the *Practitioner* (when stripped of the glosses put upon them by the *Practitioner's* anonymous critic) show conclusively that the six points can all be obtained under the Act as it stands. Others are not ready to place confidence in those who might negotiate for them. We agree that, in existing conditions, we cannot endow any person or persons with plenipotentiary powers. Whatever negotiations may take place, the complete control must be kept by the rank and file of the profession in their own hands. But this can easily be secured. It is only necessary for the Divisions now to give instructions to their Representatives that any committee whom they may appoint to put the case for the profession before the Commissioners should be appointed for this purpose only, and should have no authority to settle terms. They should be required to report the result of their representations to the Divisions, with whom and with a subsequent Representative Meeting it would rest to decide what the final attitude of the profession would be.

In this way we should be in no way compromised, but should keep the entire control of the matter in our own hands. We should put to a conclusive test whether the six points can or cannot be secured under the Act. We should be able to show the inadequacy of the present provision for remunerating an efficient medical service, and to compel the Government either to make more complete financial provision, or expose to the world the fundamental defectiveness of their scheme. Public sympathy would be retained, for we should have proved that we were not afraid to put our principles to the test of discussion, and the soundness of those principles would be demonstrated to all.

But a refusal to discuss, on the lines of the "No service whatsoever" policy, would be taken as conclusive proof of the weakness of our case; the friendly societies would rejoice in the chance given them to keep the profession under their control, our cohesion would be broken up, and our cause irretrievably ruined.

We would therefore strongly urge every member of the profession to do his best to ensure that at the present crisis the more moderate policy should be adopted, and that while all measures are taken to prepare for a final refusal of our services until the Act is amended, if such refusal becomes necessary, we should carefully avoid forcing this extreme policy until it is clear that our aims cannot otherwise be obtained.

We are,

Dear Sir,

Yours obediently,

T. Ridley Bailey, Bilston, Staffs.
J. A. P. Barnes, London (Tottenham)
G. B. Batten, London
S. E. Baxter, Wellingborough
H. Beckett-Overy, London (Kensington)
H. A. Burridge, London (Clapham)
R. Capes, London (Denmark Hill)
H. Carre-Smith, London
J. Charles, Stanley, Durham
G. P. C. Claridge, Norwich
J. A. Codd, Wolverhampton
J. Ward Cousins, Portsmouth
G. H. Cowen, Southampton
S. Crawshaw, Ashton-under-Lyne
J. Cromie, Blyth, Northumberland
G. H. Grant Davie, Manchester
Miss M. L. Dobbie, London (Hampstead)
E. J. Donbavand, Plymstock, Devon
Clement Dukes, Rugby
R. D. Powell Evans, London (Wimbledon)
G. J. Evers, Faversham
A. C. Farquharson, Durham
M. I. Finucane, London (Westminster)
J. Fletcher, London (Fulham)
T. E. Flitcroft, Bolton
A. Fulton, Nottingham
G. C. H. Fulton, Eston, Yorks.
J. R. Gallard, London (Fulham)
D. Goyder, Bradford
A. H. Gregson, Blackburn
C. F. Harford, Leyton
J. A. Harrison, Haslingden
H. Hartley, Stoke-on-Trent
T. Henderson, Nottingham
Harvey Hilliard, London
C. E. Hogan, London (Hammersmith)
J. Jeffrey, Jedburgh
R. Langdon-Down, Hampton Wick
A. E. Larking, Buckingham
C. Lewis, Cardiff
J. Livingstone Loudon, Hamilton, Lanark
T. MacCarthy, Sherborne, Dorset
H. J. Macevoy, London (Brondesbury)
C. Macfie, Bolton
J. MacGinn, Newport, Mon.
H. Malet, Wolverhampton
A. F. Millar, London
W. Courtney Milward, Cardiff
Munro Moir, Inverness
G. B. Morgan, Sunderland
C. O'Farrell, Great Yarmouth
D. A. O'Sullivan, London (W. Kensington)
C. A. K. Renshaw, Sale
C. J. Renshaw, Sale
C. A. Roper, Exeter
J. Russell, Stoke-on-Trent
R. J. Ryle, Brighton
W. M. Smith, Eastbourne
E. A. Starling, Tunbridge Wells
H. J. Starling, Norwich
Herbert Tanner, London (Bayswater)
W. E. Thomas, Ystrad Rhondda, Glam.
A. Trotter, Perth
J. C. Turnbull, Bury
S. Verdon-Roe, London (Wandsworth)
A. H. Williams, Harrow
A. E. Wilson, Boston

8th February, 1912.

Dr. H. J. Macevoy (Brondesbury) writes: As one of the signatories of the statement, "An appeal for a strong but moderate policy," published in the *Times* of February 12th and sent round to medical men, I should like to reply in *your columns* (why do we not use our own journal for the purposes of criticizing each other?) to what I am afraid I must call a misleading statement by Mr. P. C. Raiment, Honorary Secretary of the British Medical Association Reform Committee, in the *Times* of to-day (February 13th). I would not trouble to notice it had Mr. Raiment written the letter and signed it in his private capacity (for I heard him speak at Queen's Hall on December 19th, and I have just re-read in the British Medical Journal Supplement of December 23rd what he then said . . . "*c'est tout dire*"); but as the *Times* gives him "big" print *plus* "little" print, and his full title, I think that for his own benefit, and for that of others, he ought to be set right. Well, then:

Mr. Raiment (the *Times* says) states "that of the fifty-two signatories to the statement, forty-six are officials of the British Medical Association." Really! What does he mean? If he means that many of us have enjoyed the confidence of our colleagues in our various Divisions, and have, therefore, acted as representatives on the Branch Councils as members of committees, etc., where we have tried to learn—and, I hope, have learnt—something about the wishes of general practitioners, about the conditions of their work, etc., and have, I hope, served their interests—yes, that is so. But men who do this useful work are not *officials*. The word is ill chosen. Next point. We expressly say that we are not pledged to support or oppose the present Council of the British Medical Association. (Personally I am grateful to the Council for doing hard, thankless work; I agree with some of Dr. Helme's criticism of the Council, but I don't think that this is the time for wasting effort on criticism of the Council; we must be "up and doing.") Yet at the beginning of his letter, Mr. Raiment says that we certainly act up to our declaration that we are in opposition to the Council of the British Medical Association, as our "whole policy is that of the Chancellor of the Exchequer." This is perfectly childish. In the final part, *per contra*, he asks whether they "adhere to their attitude expressed in the circular—namely, that they have not pledged themselves to support the Council." This is the offensive part of his letter, in view of our expressed declaration concerning our attitude towards the Council. Loyal members of the Association are pledged to support the policy of the Association, and it is a pity that many of our members did not leave it at that instead of going out of their way to sign other pledges, especially one the signing of which has given colour to the false opinion that we are actuated in our opposition to the National Insurance Act by political motives. I believe that the policy of Mr. Raiment's committee is to try and pack the Representative Meeting with their nominees; and apparently the first step is to throw mud at those who have had "close connexion with the British Medical Association"—that is, at those who have worked for years to organize the profession into a good fighting machine for the common good.

I may be very ignorant, but I know nothing of the secret conferences of the Chancellor of the Exchequer, nor have I noticed especially the Kensington resolution referred to.

One piece of advice I should like to give Mr. Raiment in conclusion. He is brimming over with high spirits and no doubt eager to do useful work; let him do what, if I had had the time, I should have longed to do from the start (I have only been able to urge it on my immediate entourage)—that is, convince the present holders of friendly societies' appointments and cheap clubs all over the land that they are (through misfortune or lack of courage or deficient ethical sense, or what not) the cause of our present tribulations; and that they hold the key of the present situation. Let him persuade them to hand in their resignation of their appointments to the Council to be used if and when required. We could then truly unite with absolute certainty of success. The Government would be quite welcome to their absolute stand by the Harmsworth amendment, and no one would ask them to budge: for it would be dead—rotten. Such a step would spell victory. I venture to think that his time would be more usefully spent in this way than by writing feeble, inexact, and vituperative letters to the *Times*.

Mr. Arthur Dangerfield, F.R.C.S.E. (Little Aston, near Sutton Coldfield), writes: In common, I suppose, with all other medical men in the country, I have received an "Appeal" emanating from some forty or fifty members of the profession. Apart altogether from the question of the merits and demerits of the two policies discussed therein, I take great exception to the tone of this document. Although one must believe that the authors are "attached to no particular party," as stated, I must confess that on reading the words, "while it may serve the thinly disguised political motives of its promoters" as applied to the "No service whatsoever" policy, I turned to the list of signatures and scanned it for the names of one or two well-known men who are in what one might almost say to be a state of extreme sympathy with the Government when one takes into consideration the more than serious position of the profession at present.

Let us keep politics out, and let me point out to the authors of this pamphlet that the "promoters" of this policy are not the *Practitioner* officials, but a large majority (over 21,000) of the profession to whom the *Practitioner* in a very timely manner gave opportunity for the expression of their views.

As we are all agreed that unity is absolutely essential,

one hopes that the minority will be sporting enough and public-spirited enough to bow to the will of the majority. An "Appeal" such as this can only act in the direction of disunion.

Dr. Helme and the Harmsworth Amendment.

Dr. R. C. Buist (Dundee) writes: Only an ignorance of the order of public business, such as it is difficult to understand in a man of Dr. Helme's experience, could excuse the suggestion he makes in his address at Cardiff that the Chairman at the Special Representative Meeting in November procured a decision which was contrary to the wish of the meeting. If the meeting wished to get rid of the recommendation of the Council this should have been negatived, and it would have been out of order for the rest of the meeting. The instruction to press for deletion would then have stood alone. Dr. Helme asserts that deletion was the policy of the Association, and the evidence he advances is a vote of 73 to 63—not a card vote—which gave deletion the first place; and he not only fails to recognize that the words "failing that," which he omits, put the question of amendment again in order as a second line of defence, but he does not mention that on the report stage the removal of this second line of defence was proposed and rejected. Does Dr. Helme suggest that the minority of 63 was not entitled to appeal for the proposal which they supported being made a second line?

Dr. Helme describes the emphasis with which the effect of the motion on subsequent motions was pointed out, but it is surely the duty of the Chairman to point out the effect of any motion in blocking points which the Divisions wish to raise, and I endeavoured to make my statements on all such points with an emphasis that left matters clear.

But if it is difficult to understand ignorance of public procedure in Dr. Helme, it is no more easy to understand his failure to appreciate the futility of the method by which he sought his end. The Harmsworth amendment was, we understand, introduced so that the friendly society members in Luton might realize that their institute could be legal under the bill. As may be seen on looking at the Addison amendment which had preceded, some persons may be "required" and some "allowed" "to make their own arrangements for receiving medical attendance," and no one has yet pointed out any provision which would prevent these arrangements taking any co-operative form of institute or system, whether it exists at the beginning of the Act or may hereafter be devised, or which would safeguard the right of free choice of doctor. Thus it is now possible to realize that the Harmsworth clause as amended actually (1) safeguards free choice of doctor, and (2) prevents the establishment of new systems. To delete the Harmsworth and leave the Addison clause would be like boarding up the kitten's door and leaving the cat's open, and in urging this Dr. Helme is putting his intelligence on the level of that of the Luton elector, whose anxiety gave birth to the Harmsworth amendment.

A Personal Attack on the Chairman of Representative Meetings.

Dr. Lauriston E. Shaw writes: A satisfactory feature of our recent somewhat heated controversies has been the absence of personalities. Having lately attended more than a dozen meetings to discuss our professional difficulties, I have been much impressed by the earnest manner in which speakers have addressed themselves to points of policy, and have avoided attacks on individuals. In the heat of argument now and then a slip in this direction has occurred, but the tact of the chairman and the general good feeling of the meeting have speedily led to a withdrawal or expression of regret. Such restraint in a time of exceptional anxiety augurs well for the ability of the profession to weather the storm which is beating so fiercely upon it. In the circumstances it might be doubted whether it is worth while to comment upon a singular and very marked instance in which this generally satisfactory course has not been followed. The occasion is, however, so striking, so coldly calculated, and you, sir, have given such extended publicity to it, that I for one find myself driven to protest. I refer to an address given by Dr. Helme, of Manchester, before the Cardiff Medical Society, which is fully reported in the Supplement to the Journal of February 10th. Dr. Helme's own lengthy apology for his recent actions and his claim to consistency are his own affairs, and if he feels that so much publicity is desirable to this personal matter no one need complain. It is, however, important that publicity should not be given without contradiction to Dr. Helme's personal attack on Dr. Maclean's honour and truthfulness in connexion with his repudiation at the last Representative Meeting of the so-called "smoking-room rumours." Now, sir, it is clear that in an incident such as this there was opportunity for misapprehensions to arise, especially in the minds of those who were not present at the meeting. Such opportunity arises from the necessary indefiniteness of rumours. The rumours were of various kinds, and as one who was in the thick of the fight at the time, many came to my notice. Some I saw written on anonymous post-cards addressed to members of the Council, others I heard spoken of as utterly ridiculous, but nevertheless persistently circulated. Here are some of them. That Dr. Maclean had offered, if he were promised a knighthood, to make things easy for the Chancellor of the Exchequer: that Mr. Smith Whitaker was taking a similar course on condition that he should receive a well-paid Government post; that several Councillors were known to have applied to Mr. Lloyd George for offices under the Act; that a prominent Liberal member of the profession was promising the Government that medical opposition to the bill should be withdrawn if he received a peerage. Now, sir, it may well seem to most of your readers that such suggestions were so preposterous as to be incredible. Nevertheless, they had come to my eyes and ears, and doubtless also to Dr. Maclean's. If any member will read again Dr. Maclean's stern repudiation of certain smoking-room rumours with a knowledge of the sort of accusations that were being made against him and his colleagues, he will understand the eloquence and fine scorn which he put into his words, and will appreciate the sympathetic response which they evoked in his hearers. That it was such rumours as these which Dr. Maclean repudiated is clear from the following words which he used:

> That certain officials of the Association had been taking advantage—immoral advantage—of their official position to make things easy for the Government and to give away those interests which had been sacredly entrusted into their hands by the profession of this country.

To bring an accusation of untruthfulness against Dr. Maclean because, while denying these rumours of which he specified the character, he knew that some other rumour of a totally different character was based upon fact, is an almost incredible proceeding—nevertheless, this is what Dr. Helme does in the address to which I refer. I am sure that when Dr. Helme reads himself in your report the statement that he has made, he will recognize that he has misrepresented the facts, that he owes Dr. Maclean an apology.

No one who knows Dr. Maclean or has worked with him in the Association can doubt that he has a single-hearted desire to serve his fellow practitioners, and that he is utterly incapable of intentionally misleading the Representative Meeting. Personal attacks upon his honour must be as obnoxious to his enemies, if he has any, as to his friends, and are so little likely to advance any cause that few will be found unwise enough to repeat them. Nevertheless, as I said before, I cannot see such an attack published in our Journal without a protest.

Censure of the Council.

Dr. Harry Grey (Bristol) writes: May I enter my protest against the short-sighted action of the Birmingham Division in proposing to attack the *personnel* of the Council at the forthcoming Representative Meeting? I myself have not been backward in condemning the failure of the Council to satisfy the aspirations of the Association, but I have never for a moment imagined that that failure was due to anything but want of judgement and foresight, and I should be sorry for the Association if at this moment the rather prominent results of that want of judgement should totally obscure the self-denial, arduous labour, and whole-hearted service which have been given to the profession by our Executive, and in particular by our Chairman of Representative Meetings. Dr. Maclean and I differed as far back as October, 1910, as to how the coming Insurance Bill should be met, and our differences have not at any time been quite smoothed out; but I must bear testimony

to his unfailing courtesy and generosity to his opponents[1] and to the fact that never at any moment did there seem to be any labour that we could ask of him that was too great to undertake in the interests of the profession. I say nothing of the gross errors of tactics involved in deposing our captain in the face of the enemy, nor of the technical disabilities entailed;[1] but I feel that we would debase our own self-respect if we followed the Chinese custom of beheading their unsuccessful generals, forgetting, because of a pardonable error of judgement, the enormous services we owe to our Executive, and particularly to Dr. Maclean.

I should like to say here what perhaps even the Council itself does not realize: that the political status of the Association at the present moment owes a great deal to Dr. Maclean's personality in negotiating with the Cabinet. It is a moot-point whether if, blinding himself to the signs of weakness in the army behind him, our general had adopted a domineering attitude to the enemy we should have come out of the fight any better than we have. At any rate, the battle is not yet lost, and it would be wiser as well as more gracious to hearten our leaders by a display of force towards the enemy than to use that force to do despite to our executive, especially as in some measure at least the failure of the campaign so far has been assisted by the evil name for unreliability of the army itself.

The Forthcoming Representative Meeting.

Dr. Geo. Hanna Russell (Manchester) writes: I think your correspondent, Mr. Charles Wray, F.R.C.S., can hardly be serious in advocating that "the consultants should refuse all services in the hospitals" in order to "cause a panic among the insured." It comes to this: A poor fellow is brought in with a compound fracture. He is told that the surgeons disapprove of the National Insurance Act, and he can be off. "In that case I shall die." "That is precisely what we want. It will cause a panic among the insured."

The Six Cardinal Points.

Dr. Bernard O'Connor (London), in a letter dated February 12th, writes: During the past week many letters hostile to the medical profession have appeared in some of the lay newspapers, and their general tenor is to the effect that the medical profession will find that the Act includes their "six points." The following references will show clearly that this is not the case:

1. Under Section 15 (3) the regulations which the Insurance Commissioners are *bound* to make do no more than *authorize* the Insurance Committees to require any persons whose incomes exceed a limit to be *fixed by the committees*, and to *allow* any other persons . . . to make their own arrangements, etc. This *authorizing* and this *allowing* do not involve any *compulsion*, and *pro tanto* (to say nothing of the composition of the Insurance Committees) the "first point" remains unsatisfied.

2. Section 15 (2) (*c*) allows the insured person to select the doctor and the doctor to decline the assured person, but this has to be read (1) along with (*d*), and the very probable cases of each one of the doctors *declining* to attend certain assured persons have still to be provided for; and (2) along with Section 15 (4), which deals with persons—that is, all present and *future* members of societies—entitled to receive medical attendance, etc., under any system . . . *existing* at the time of the passing of the Act; and it says that the regulations shall provide that, in the case of these persons, the "medical attendance, etc., *may* be treated as . . . and *may* provide for the Committee contributing, etc." There is no *compulsion* on the Committee, and, even if there were, the "persons" would be enticed to "select" the "club doctor" to whom this Subsection (4) gives no right to decline to attend the "persons."

3. By Section 14 (1) medical benefits, it is true, are to be administered by and through the Insurance Committees; but, seeing that three-fifths of these Committees stand for the insured persons while only one-fifteenth or one-twelfth or so, according to the size of the committees, are allowed to the doctors, it is idle to say that the medical benefits are not administered by the societies; and the same with respect to the maternity benefit which, in the case of members of a society, is to be administered actually by the society itself.

4 and 5. Section 15 (1) opens the door to "bargaining" (for payment) by doctors with the representatives of the societies, and this is just the indignity to which, I apprehend, the medical profession declines to subject itself. [Fancy solicitors or members of my own profession being called upon to submit to such condition!] Again, the possible medical committees, contemplated by Section 62, which are to be "recognized" (!) and "consulted" by the Insurance Committees, are not likely to be able to prevent or remove difficulties, seeing that there is no suggestion that the Insurance Committees are to act upon any advice or recommendation tendered by the Medical Committees.

6. The fact that self-respecting medical bodies have declined this month to take part in an *in camerâ* "talk" affords no explanation of the "inadequate" representation of the medical profession on the Commission and on the Insurance Committees which is arranged for in the Act.

Suppose the whole medical profession were to stand aside, how would the Act be "worked"?

With reference to remarks in the fifth and sixth paragraphs of the letter of Dr. Hadley in the Supplement to the British Medical Journal of February 10th, p. 168, col. 2, may I point out that Section 78 lays down that, between the present time and January 2nd, 1914:

> If any difficulty arises . . . in bringing into operation the first part of this Act, the Insurance Commissioners . . . may by order . . . do anything which appears to them necessary . . . for bringing this part of this Act into operation, and any such order may modify the provisions of this Act. . . ."

The Insurance Commissioners.

Mr. J. Ward Cousins, F.R.C.S. (Southsea), writes: I much regret that the Insurance Act has been followed by so much political controversy and party feeling. The Association has been an organization with a high and unfettered policy and free from all these distracting influences, and to-day our only hope of escaping from the present turmoil appears to be by consolidating our position by strong and calm and united action.

I am confident that the Council has occupied a very difficult position, and has been called upon to discharge very difficult duties, but the results obtained up to the present do not secure all the interests of the profession.

Now, in the future the Council will have to carry on negotiations with the Government or the Insurance Commissioners, and surely it would be wise to submit all proposed arrangements without delay to the Divisions and then to a meeting of the Representative Body before the adoption of any final settlement.

Clubs and the Act.

Dr. J. Brassey Brierley (Old Trafford) writes: From the first the position of the club doctors has been a grave matter to settle in the attitude of the profession towards this Act. The British Medical Association started pretty well when they asked to be allowed to negotiate with the Government with regard to the medical provisions of the Act, and amongst other things made a bold proposal to compensate these men who loyally supported the Association's action should they decide to call them out. It was soon found, however, and very delicately admitted from time to time, that the finances of the Association even with the added guarantee would not bear the burthen for a single year; I have a practical suggestion to make, which, if adopted, would place the Association in such a sound financial position as to enable it to completely indemnify all bona fide claims. Ten or more years ago, when the reconstitution of the Association was being discussed, a large number of its members strongly advised that steps should be taken to establish a defence fund and a thrift fund. The guarantee for the insurance protest fund has failed. When the National Medical Union was formed 2 or even 3 guineas as subscription was proposed, but it was decided, seeing that the union aimed at securing practically the whole profession, to adopt the smaller sum of half a guinea. The time has come for every member of the profession to make a small money sacrifice, and for once and all settle this club question on a permanent and sound basis in the interest of the public health and also for the welfare of the profession. Have a general meeting of the Association determined to double the subscription—to make it 2 guineas, paid quarterly if preferable, and take 10s. 6d. for the fund to compensate those who showed a definite loss—the Divisions to undertake the work of receiving and settling claims—this is £13,125 a year. The remainder to go—1 guinea to the Association for current expenses, and the half-guinea to a reserve fund to be drawn upon if required for further help for compensation—a probability

[1] Dr. Ferguson, Supplement, February 10th, p. 168.

very remote indeed—but ultimately to a fund to disburse in the interest of necessitous members of the Association. It at once relieves the Association of the necessity of periodic appeals such as the most recent, and divides the responsibility we all ought to share. Is it not, sir, a deplorable position for us to be in, that with an income of £60,000 the first time we have a special call we should lack the means to forward a movement such as that we now have? The very existence of our profession as an honourable calling is attacked; let us act, and that promptly. It is inevitable, in light of recent events, that the constitution of the Association must be altered at once, and that we should be able to take the voice of the members directly, and not through the tardy, unwieldy, and ineffective method of procedure now existing. The question is so grave that I would suggest the early disbanding of the useless Medical Secretarial Department, which is costing the Association so dearly. It could be reopened if thought necessary later. There will be plenty of room for large guarantee from the wealthier men of the profession, which I am quite certain will be willingly offered.

Dr. J. Fletcher (Chelsea Division) writes: What is the position of the men who hold club and society appointments? A considerable number of us would feel relieved if our apprehensions on certain points were proved to be groundless. Things have now arrived at a critical stage, and we have the right to ask to be reassured on certain points, and shall be extremely pleased to find that our views are erroneous. Up to the present our agitation against the Act has been "much cry, little wool." We have passed hundreds of motions, amendments, riders, etc., but as this is talk, and not action, these things have not hitherto been taken seriously by the Chancellor. This is not to be wondered at—blank cartridge is not deadly.

The time has arrived to urge every member who holds club and friendly society appointments to place his resignation in the hands of his Branch secretary, to be handed over to the Council, in order that they may be put into operation simultaneously all over the kingdom. The relinquishers, of course, to be duly protected.

The friendly societies maintain, quite logically, that their appointments are valuable and desirable, otherwise doctors would now give them up. They profess to have not the slighest fear that there will be any dearth of applicants for any future posts. The only way to convince them that the position is radically changed is for every man to send in his resignation. This also is the psychological moment. The Chancellor now threatens to throw the whole working of the Act into the hands of the friendly societies, and we can only convince him of the futility of this move by thus anticipating his future action, and so checkmating it.

Another reason for this action is that the club and society men will not then carry the imputation that they are sitting on the fence. It is a very singular thing that these men are as much in opposition to the Act as those who do not hold such appointments, but as 6s. a head is better than 4s. and under, it is rather hard to define their mental attitude.

The Harmsworth amendment reinstates them at 50 per cent. increase in salary, and they have everything to gain even if the Governmental estimates are not supplemented. In fact, to a simple-minded man unversed in dialectics, it looks like "Heads I win, tails you lose," and I can vouch for it that a good number of non-clubmen hold that view of the case. This action, in addition to convincing the Chancellor that we mean more than mere talk, will also establish the confidence of non-clubbers, and will consolidate our position. We appealed to the members of our Branch to do this a year ago, and we shall again ask them to do it in a few days, this time we hope with satisfactory results.

If the whole Association does not respond to this appeal the key of the position remains in the hands of the Chancellor, and no amount of sophistry will convince any one to the contrary.

A Public Medical Service.

Dr. W. Hickey (Altrincham) writes: Several of your correspondents advocate the formation of a national medical service in relation to the Insurance Act. All that such officials would do could be equally well performed by the general practitioner. Moreover, the majority of doctors would of necessity be left out of such a scheme, probably four in every five. Your correspondents do not say what is to become of their less fortunate brethren who do not secure such an appointment. One correspondent suggests that such a service would be created by competitive examination. Does he mean that we would have to undergo an examination for the simple right of being able to attend our own patients?

Disciplinary Powers under the Insurance Act.

Dr. Wilfrid Thunder (Craven Arms, Shropshire) writes: I have been led to understand from some of the correspondence in the British Medical Journal that we, the general practitioners, are to be absolutely under the control of the Insurance Commissioners—that is, if we form a panel—without, I presume, any appeal to a court of law. I consider that such a situation would be intolerable, and, before all, should be rectified. I see no steps being taken to have this done in the recommendations published in the Supplement of last week's issue.

Mode and Rate of Remuneration.

Dr. A. C. Hartley (Bedford) writes: Now that the Insurance Bill has become an Act of Parliament, it would appear that the best deed the Council of the British Medical Association (in whom the vast majority of us have every confidence) could do would be to at once collect data from all the members of the British Medical Association through the Divisional Secretaries or direct. A circular could be sent to each member asking him the amount of remuneration he would consider adequate, whether per capita or per attendance, and what he considers should be the wage limit in his particular district; also to state the further remuneration that would be just for such extras as mileage, certificates, evening visits, night visits, surgical dressings, operations, bacteriological examinations, anaesthetics, serum injections, etc.

With such data the Central Office of the Association could classify the varying rates for the different conditions of practice—for example, town, country, or industrial practices, and ultimately send down to each district a list of minimum rates and terms that the local Medical Committees must insist on when they come face to face with the local Insurance Committees.

In this matter our only chance of success depends on the whole of the profession working on a definite set of directions (even though different parts of the country have different customs, too much should not be made of these local customs—it is best to have similarity of aim) given us by the Central Office as to how we are to proceed as one body when we come to meet the local Insurance Committees. It would be absurd for us to meet these local Insurance Committees and be asked our terms, and be unable to state them definitely. So whilst there is time, it is to be hoped the Central Office will give us a good lead in the above matter to give us backing, as well as universal plans and rules to work upon when the distasteful bargaining begins with the local Insurance Committees, for whatever happens in the meantime we shall sooner or later have to meet them.

Dr. P. R. Cooper (Bowdon) writes: May I be permitted brief space to reply to Dr. A. F. Miller's letter on this subject in the British Medical Journal Supplement, February 10th? He says:

> The advocates of the system of payment for work done against that of payment by capitation (or salary) seem to take a very low view of the average relations between doctor and patient; they assume that the doctor will do his best for any individual patient (therefore for the community) only in proportion to the amount of cash he anticipates receiving in respect of that individual; in my opinion this view is very far from the truth.

With the last sentence I, and probably every advocate of payment for work done, will heartily agree; but from all the previous part of the quotation I strongly dissent. I do not advocate payment for work done because I think the value of individual medical services can be accurately assessed in £ s. d. in every or even in any instance, or because I demand my pound of flesh, but because I am thoroughly convinced, both by actual experience and by searching inquiry (having given the closest possible consideration to the subject long before the Insurance Bill was mooted) that payment per capita for medical attendance upon the sick poor is unjust and inadequate, and is in the interests of neither patients nor medical men.

As I have repeatedly shown, per capita payment means payment in inverse ratio to work done, which can never under any circumstances be a fair or satisfactory method. but this is not the sole or even the major objection to the contract system, which is that it destroys that independence and initiative which are essential, I consider, to the best development of medicine both as a science and as an art.

Some remarks by Mr. Paton, headmaster of my old school—the Manchester Grammar School—in an address on the profession of teaching are worth quoting here.

> It was of the essence of a profession that it should not be dominated by considerations of £ s. d. and private profit. *There were times when it had to insist on the market value of its services.* But teaching was like the work of the clergyman, of the artist, *of the healer*, it was work worth doing in and for itself apart from any concomitant lucre. Without the lucre they would not be able to carry on the teaching; neither would they be able to fulfil any obligations to their human kindred. But profit was not the aim nor the motive; it was the by-product. They might say of a trade that they did it in order to earn money; but of a profession we said that we earned money in order that we might do it. (The italics are mine).

The medical man who puts pay before any other consideration, however well qualified, is nothing better than a tradesman. On the other hand, if medical men—who have to devote their whole time, to sustain more emotional and intellectual strain, to give more of themselves than in any other profession or occupation—are inadequately paid, they cannot possibly give of their best work, or, at least, cannot continue indefinitely to do so.

Dr. Miller says we should all jump at a capitation fee of £5—we might as well expect it to rain sovereigns—but I sincerely hope and honestly believe that most of us would refuse to barter our professional freedom and become the abject slaves of exacting patients and Government officials for *any* fee.

With regard to the question of salary I think that far preferable to contract practice, and should personally not oppose the method, provided that we were all salaried, that the salaries were adequate, and that satisfactory arrangements were made for limiting the hours of duty, providing suitable sick pay, superannuation, and allowance for holidays, post-graduate work, etc.—in other words, the ideal of a nationalized medical profession, although I fear such a service would tend to stifle individuality, and to do this is, in my opinion, to destroy progress. At the present time, however, I do not think a national medical service has reached the stage of practical politics.

With regard to the working of the Insurance Act by specially appointed salaried medical officers, this is not only opposed to the spirit of the Act, which upholds the free choice of doctor by patient, but will never be countenanced by the mass of the profession. We are, therefore, confronted by the two practical alternatives:

1. Payment per capita, that is, in inverse ratio to work done; and
2. Payment per item, that is, in direct ratio to work done.

How any medical man can hesitate for one moment which of these two to embrace is a mystery to me. I am, further, of opinion that if, from the first, we had taken a firm stand against contract practice, on any terms, we should not be in the critical position we are now in. At least, there would be little danger to us in the Chancellor's latest threat to withdraw medical benefits, and allow the medical profession to stew in its own juice of contract practice. But even now, at this eleventh hour, if we can only make up our minds once and for all to have done with contract practice, the situation may be saved.

In order to work the Insurance Act the loyal co-operation of the medical profession is absolutely necessary, and if we insist upon a reasonable fee per attendance the Government will have to set its actuaries to work on a real insurance basis—namely, to ascertain the incidence of disease in all the classes of insured, to calculate the probable duration of disease and amount of medical attendance to be required per case, to make ample allowance for extras of all kinds, and for provision of medicines, appliances, etc.—they will then be in a position to budget roughly for the year's expenditure on "medical benefits," and to make it possible for medical men to forget this mean and despicable squabbling about fees and devote their best energies and their untrammelled scientific and artistic capabilities to their real work—that is, of healing the sick.

Dr. T. CUMING ASKIN (Alderton, Suffolk) writes: In Mr. Lloyd George's speech on Monday this sentence occurs, "Let me assure you that no doctor is forced to take contract practice under the Act." Very well, then, let us all give it up and demand payment for work done. All we have to do is to convince the working man that he will receive much better attention when his doctor is paid in the same way as his employer's, and the money for it—three or four millions—will soon be found. The working men have the power and can compel the Government to get the necessary money. This they will soon do in their own interests (not, of course, to please us) when they are made to realize the danger of cheap contract practice.

Dr. H. DICKMAN (Sheffield) writes: After the last declaration by the Chancellor of the Exchequer that he will not concede the wage limit nor an increased capitation fee, it seems the only method left to work on is payment for work done per scale. There ought to be very little difficulty in arranging the scale and for providing against over attendance by the medical man. If the Association could recommend this method, doubtless now it would be accepted by the Government as the only feasible method of settling the doctors' question. It would settle for ever the hateful and harmful contract system of to-day, it would restore the goodwill value of our practices, and it will enable medical men to do good work amongst the working classes, and, above all things, it will remove all conditions such as wage limit, control of doctors, etc. Whether adopted now or hereafter, payment for work done is the only system that will be a lasting system, and it will not be an expensive one either.

F. P. JONES, M.R.C.S., L.R.C.P. (Newtown, Mid Wales) writes: I should like to emphasize the point that no part of the insurance scheme is of greater importance to the country practitioner than the question of mileage, and the suggestions of some of your correspondents on this matter are astonishing, to say the least. In districts like this, where we often have to go twelve or fifteen miles, a *maximum* mileage fee of 7s. 6d. for a night call (as was recently suggested) would be ridiculous.

As it is the exception rather than the rule to have more than one patient in the same direction, an ordinary mileage fee of 1s. per mile beyond two miles would not pay the cost of travelling; and if one had to hire a conveyance, 2s. for a four-mile journey would equal about one-third of out-of-pocket expenses. We shall have the status and pay of a country postman without that person's independence. Will not our leaders try to save us from this?

THE VALIDITY OF REGULATIONS.

Dr. B. G. MORISON (Highbury, N.) writes: Among certain members of the profession at the present crisis there is an evident tendency to rely somewhat strongly upon the powers of regulation allowed to the Commissioners under the National Insurance Act. I am reminded of this disposition by "an appeal for a strong but moderate policy" recently issued by an influential committee. I cannot but regard this appeal as calculated rather to promote than to remove any uncertainty existing as to the practical value of the powers already referred to. The difficulty which we realize with regard to acceptance of this Act arises from the fact that the conditions embodied in the six cardinal points, by which the whole profession firmly stands, have either been ignored in it, or admitted with such damaging reserves and qualifications as to make it manifest that only such amendment of the terms of the Act itself as will assure their unqualified inclusion, can result in a satisfactory medical service under its provisions. Such a work as this implies is entirely beyond the sphere of delegated authority, for it is an axiom of constitutional law that Parliament alone can amend statutory legislation. Let me quote an authority, Professor Dicey, in his *Law of the Constitution*, p. 87, says:

> There does not exist in any part of the British Empire any person or body of persons—executive, legislative, or judicial—which can pronounce void any enactment passed by the British Parliament on any ground whatever, except, of course, its being repealed by Parliament.

The clauses in the Act which deal particularly with regulation by the Commissioners are most carefully framed in admission of this principle. Clause 65 states that:

> The Insurance Commissioners may make regulations *for any of the purposes for which regulations may be made* under this Part

of this Act or the schedules therein referred to, and for prescribing anything *which under this Part of this Act or any such schedules is to be prescribed*, and generally for carrying this Part of this Act into effect, and any regulation so made shall be laid before both Houses of Parliament as soon as may be after they are made, and shall have effect as if enacted in this Act. (The italics are mine.)

It is clear from the foregoing that whatever the Commissioners may do by way of regulation must be done in conformity with the expressed terms of "this part of this Act"—that is, this part unamended, which includes those evasions and modifications of our six points to which the whole profession has declared its deliberate and determined hostility. In other words, the Commissioners are not legally entitled to regulate anything but details of method in carrying out its objectionable conditions. These latter they cannot alter, nor will they undertake this impossibility. The same reasoning holds good with regard to Clause 78, which, if somewhat more grandiose in language, can still promise no more than its fellow. According to it—

The Commissioners, with the consent of the Treasury, may by order do anything which appears to them necessary or expedient for bringing this part of this Act into operation, and any such order may modify the provisions of the Act so far as may appear necessary or expedient for carrying the order into effect.

Obviously, sir, it is futile to wait on regulation by a body which, even if willing (which is hardly conceivable when we reflect upon its constituent membership), cannot by any possibility guarantee the removal of those statutory grievances to which the profession has definitely refused to submit. In view of these facts, the moderation of the appeal above mentioned is more apparent than its strength, and it must be equally clear that the only reliable means of securing to the medical practitioners of this country the six cardinal points which all are agreed upon as constituting our irreducible minimum is to be found in a strong and definite demand for amendment of the Act itself as a necessary condition of service. Should this demand be refused, it is quite probable that medical benefit will be excluded from the Act. I fail to realize that this result must penalize the profession. It is assumed by some that the Government may resort to a whole-time service, or, on the other hand, that a great extension of club practice will take place. Neither contingency is possible in the face of a united profession. It is far more probable—indeed, inevitable—that the whole system of contract practice will be revised and amended, or, preferably, ended. Such a change has long been contemplated. It may well be successfully carried out with our greatly improved and still improving organization, and there can be no question that it would be strongly supported by practitioners who are now in the pay of the friendly societies.

German Experience and the English Act.

The following letter from Dr. B. G. M. Baskett (Thundersley, Essex) refers to a review of a pamphlet by Mr. C. S. Loch, published in the British Medical Journal of November 11th, 1911, p. 1292:

In common, I doubt not, with many others, I was surprised to find that you dissented from Mr. Loch's conclusions in regard to the German Insurance Bill. There cannot be many medical men, certainly no insurance officials, who could not point to results from the Workmen's Compensation Act strikingly like those suggested from the German bill by Mr. Loch. Until human nature has changed, such effects are *a priori* to be expected. If your theory that the large increase in the German sickness is attributable to wholesome care and the greater chance of exercising such care, it should be reflected in the German death-rate; can you find any traceable influence there? I doubt it. Mr. Loch's mere *ipse dixit* is entitled to respect. But backed by the whole of the German medical profession, who are surely as little prone to consider their selfish interests as ours; by the recent denunciations of manufacturers, who charge it with crippling their trade by the raised cost of production, and so injuring their workpeople; by the emphatic condemnation by the man who knows most about it in Germany—Herr Friedensburg, late President of the Senate of Imperial Insurance—as a costly failure and the source of a wide, wholesale demoralization, let alone of less exalted officials like Scholermann and Jasper; when an *a priori* conclusion is backed by experience such as this, it becomes irresistible, and we are forced to believe that a heavy burden has been placed on the national standard of living by which only a few benefit.

The connexion between lowered standard of national health and high prices is beyond cavil or dispute. The assumption throughout the English bill is that the main burden of this scheme can be put on the shoulders of the rich. It is an open secret that the insurance companies have lost by the Workmen's Compensation Act; is it credible that they will continue to lose? Coalowners have been driven to insure themselves; it is certain that the rise in the price of coal (which has lessened the wages of every workman in the kingdom) is due in some measure to that Act. That is one instance only; add all together, and it becomes obvious that that Act has played a traceable part in the present epidemic of strikes. A point has been reached at which any increase of taxation must necessarily be speedily transferred to the poor. Mr. George confessed this when he promised to back the claim of the railway companies for increased tariffs in order to pay higher wages. The burden of taxation falls heavily on these companies; by law they have not been allowed to shift it hitherto, but they are a unique example, and the exception strikingly illustrates the rule.

It is not as if the case were hopeless, in the absence of legislation; the fact is that the principle of insurance had, up till 1900, made the most gratifying progress. Imperfect as the system of industrial assurance policies is, the great companies must have been able by that time to show policies for nearly every man, woman, and child in the United Kingdom. A little encouragement and improvement could easily have extended the voluntary method to sickness and accident, already practised very widely (though, as I believe, checked by the progress of paternal legislation), till it included the whole of the community. It is only self-help that can help any class permanently; such self-help here would have both provided the insurance and increased the wages; State help can only provide the insurance at the cost of lowered wages and lowered self-dependence.

Mr. George does not tire of promising the class "9d. for 4d." Not 50,000 Chancellors could do that for a class, unless they paid it out of their own pockets. We know that what will happen will be that a comparatively few will get much more than "9d. for their 4d.," the rest will pay in raised prices very much more than their less fortunate fellows will obtain.

Every one knows that contract practice is mainly a matter of charity; except where a young man finds it convenient to have an assured nucleus at the cost of whatever work; or where it is on so large a scale that a man can keep one or more assistants to do the work—can, in fact, farm the health of the "people." It was a mistake; we now know that it had been better—and not for the profession only—to have stipulated for payment for work done. But to step in and say "the standard you have fixed in charity you shall be forced to accept, on a much larger scale, as the criterion of your rights," is surely a grievous injustice.

To-day there is but one "voice crying in the wilderness," the voice of the profession. It can rarely have happened that so small a body can have had the power to stem a tide so strong. It will be the least of their national service if they prevent the sweating of an honourable profession which has shown more practical sympathy for the poor than any other body ten times as numerous. Holyoake states that a few years after the repeal of the Corn Laws the average weight of the adult Briton rose by 2 st. This bill has precisely the opposite effect. The one crying need for the working classes is higher wages; there is but the one way for Government to secure that, namely, by lowering taxation. This bill commits them to definite taxation, and, more important, to unseen taxation capable of indefinite increase. So far from its being the "National Health Bill," it may rather be called one "to ensure a lowered standard of national health"; and the claim of the profession need be put no lower than to have saved the community from a grievous and insidious injury, the more grievous that it is the work of a man genuinely and earnestly anxious for the welfare of the poor.

Dr. Pendlebury (Ormskirk) telegraphs to suggest adherence to the £2 income limit for contract rate, but insured workers over this up to £160 to have option of pooling system towards defrayment of medical accounts.

Association Intelligence.

PROCEEDINGS OF COUNCIL.

A MEETING of the Council was held at 429, Strand, London, W.C., on Wednesday, January 31st, 1912, at 2 o'clock in the afternoon.

Present.

Dr. J. A. MACDONALD, LL.D., Taunton, Chairman of Council, in the Chair.

Sir JAMES BARR, M.D., LL.D., Liverpool, President-elect.

Dr. EWEN J. MACLEAN, Cardiff, Chairman of Representative Meetings.

Dr. EDWIN RAYNER, Stockport, Treasurer.

Dr. J. GRANT ANDREW, Glasgow
Inspector-General ROBERT BENTHAM, R.N., London (Royal Navy Medical Service)
Dr. R. C. BUIST, Dundee
Dr. W. A. CARLINE, Lincoln
Professor HENRY CORBY, M.D., Cork
Dr. J. S. DARLING, Lurgan
Dr. MICHAEL DEWAR, Edinburgh
Mr. E. J. DOMVILLE, Exeter
Dr. DAVID EWART, Chichester (New Zealand Branch)
Mr. J. HENRY EWART, Eastbourne
Mr. T. W. H. GARSTANG, Altrincham
Dr. E. W. GOODALL, London
Dr. JOHN GORDON, Aberdeen
Dr. W. GOSSE, Sittingbourne
Surgeon-General J. P. GREANY, I.M.S., Ealing (Indian Medical Service)
Dr. T. D. GREENLEES, London (Cape of Good Hope, Eastern, Western, and Border Branches)
Dr. MAJOR GREENWOOD, London
Dr. J. R. HAMILTON, Hawick
Lieutenant-Colonel F. W. H. DAVIE HARRIS, R.A.M.C., Teignmouth (Army Medical Service)
Sir VICTOR HORSLEY, F.R.S., London
Mr. R. J. JOHNSTONE, Belfast
Mr. HERBERT JONES, Hereford
Dr. J. H. KEAY, London
Dr. F. W. KIDD, Dublin
Mr. F. C. LARKIN, Liverpool
Mr. ALBERT LUCAS, Birmingham
Dr. JOHN MACDONALD, South Shields
Dr. D. J. MACKINTOSH, M.V.O., Glasgow
Dr. JAMES METCALFE, Bradford
Dr. C. D. G. MORIER, London (Victoria, South and West Australian Branches)
Dr. B. H. NICHOLSON, Colchester
Dr. FRANK M. POPE, Leicester
Dr. A. J. RICE-OXLEY, London
Dr. H. JONES ROBERTS, Penygroes
Dr. LAURISTON E. SHAW, London
Mr. C. R. STRATON, Salisbury
Dr. J. H. TAYLOR, Salford
Dr. D. F. TODD, Sunderland
Mr. T. JENNER VERRALL, Bath
Professor A. H. WHITE, Dublin
Mr. D. J. WILLIAMS, Llanelly

APOLOGIES.

Letters of apology for non-attendance were read from: The President, Surgeon-General Benson, Mr. Andrew Clark, Dr. Eddison, Mr. Flemming, and Dr. Livingston.

THE LATE SIR HENRY T. BUTLIN, BART.

The CHAIRMAN OF COUNCIL feelingly referred to the death of Sir Henry Butlin, expressions that were endorsed by Dr. POPE, as the "Father" of the Council, and by Dr. MACLEAN, Chairman of the Representative Body, and a copy of the following resolution was ordered to be sent to Lady Butlin:

That the Council of the British Medical Association express their deep sympathy with Lady Butlin in her bereavement and their profound sense of loss the medical profession in general, and the British Medical Association in particular, has sustained by the death of her distinguished husband, Sir Henry Butlin, Bart., D.C.L., LL.D., F.R.C.S. In Sir Henry Butlin the Council feel the Association has lost one whose critical judgement and business acumen, in every office he held, have been of incalculable value, while his intellectual gifts and the nobility of his personal character justly won for him the confidence and esteem of the entire profession.

The Council desire to assure Lady Butlin and her children that in recording their own regret and sympathy, they at the same time voice the feeling of every Member of the British Medical Association.

PERMANENT INTERNATIONAL ASSOCIATION OF ROAD CONGRESSES.

An invitation from the Permanent International Association of Road Congresses asking the Association to nominate a representative on the General Organizing Council was accepted, and the nomination left in the hands of the Chairman of Council.

THE ROYAL INSTITUTE OF PUBLIC HEALTH.

A communication was read from the Royal Institute of Public Health inviting the Association to appoint one or more representatives to attend the Congress to be held in Berlin in July next. The consideration of the invitation was deferred until the next meeting.

METROPOLITAN COUNTIES BRANCH.

A communication from the Metropolitan Counties Branch relating to the form of Census Paper was referred to the Medico-Political Committee for consideration and report.

FINANCE COMMITTEE.

ACCOUNTS.

The accounts for the quarter ending December 31st, 1911, amounting to £18,603 11s. 1d., were approved, and the Treasurer empowered to pay those remaining outstanding, amounting to £4,885 3s. 6d.

MEDICAL SECRETARY: FILLING OF VACANCY.

The Report relating to the filling of the vacancy in the office of Medical Secretary was referred back to the Finance Committee for further consideration and report, with a view to an appointment being made at the next Quarterly Meeting of the Council.

INSURANCE DEFENCE FUND.

An offer having been received from a layman of a donation of £1.000 to the Insurance Defence Fund, with a further guarantee of £4.000 to the Insurance Defence Fund, the Council decided to thank its correspondent for his generous offer, and to inform him that in the meantime the necessity has not arisen for the Association to accept contributions outside the Medical Profession towards the Insurance Defence Fund.

ORGANIZATION COMMITTEE.

The CHAIRMAN (Mr. Larkin) presented the Quarterly Report of the Organization Committee.

GRANTS TO BRANCHES.

A supplementary grant for 1911 of 2s. per member (£14) was made to the Worcestershire and Herefordshire Branch, making the total grants for 1911 to the Branch 6s. per member; a further grant for 1911 of 9d. per head (£5) to the Gloucestershire Branch, making a total grant for 1911 of 1s. 9d. per head; and a grant for 1911 of 2s. per member (£70) to the Glasgow and West of Scotland Branch.

SOUTH AFRICAN COMMITTEE.

The amendments of, and notes on, the Regulations of the South African Committee were approved.

GROUPING OF DIVISIONS IN UNITED KINGDOM FOR ELECTION OF REPRESENTATIVES, 1912–13.

North Lincoln, Bury, Darlington, Maidstone, Maidenhead, and Rochester and Chatham Divisions are accorded separate representation in Representative Meetings for the year 1912–13. Otherwise the Divisions in the United Kingdom are grouped for the election of Representatives for the year 1912–13 in the same manner as for the year 1911–12.

QUESTION OF PAYMENT OF PERSONAL EXPENSES OF REPRESENTATIVES ATTENDING MEETINGS OF REPRESENTATIVE BODY.

A memorandum on the payment of personal expenses of Representatives at Representative Meetings was approved and will be submitted to the Representative Body.

RESIGNATION OF MEMBERSHIP WHEN DISPUTE OR INQUIRY PENDING.

A Report on the question of resignation of membership of the Association when dispute or inquiry is pending was approved for submission to the Representative Body.

LIST OF MEMBERS AND NON-MEMBERS OF ASSOCIATION.

It was decided that the Lists of Members circulated periodically to Secretaries of Divisions and Branches shall be extended to show the non-members resident in the area of each Division and Branch; and that Honorary Secretaries will be asked to correct the lists of non-members

so far as they can, in the same way as lists of members are now dealt with.

JOURNAL COMMITTEE.

The CHAIRMAN (Dr. Buist) presented the Report of the Journal Committee.

SECRET REMEDIES.

It was decided that a second series of the book *Secret Remedies*, which is in course of preparation, shall be published as early as possible.

CENTRAL ETHICAL COMMITTEE.

The CHAIRMAN (Dr. Lauriston Shaw) presented the Quarterly Report of the Central Ethical Committee.

POSITION OF PRACTITIONERS EXAMINING PATIENTS UNDER CARE OF OTHER PRACTITIONERS.

It was decided that the Council recommend to the Representative Body:

(i) That the report on the position of practitioners examining on behalf of interested persons should not be held to affect the work of certifying factory surgeons, inasmuch as

(*a*) They are acting on behalf of the State, which has no monetary interest in the cases.

(*b*) Their duties are to report on the circumstances relating to accidents, and the prevention of similar accidents.

(*c*) Such duties do not involve any detailed examination of the injuries or any reference to their treatment.

PROPRIETY OF MEDICAL PRACTITIONER'S CONDUCT IN CONNEXION WITH CONVICTION OF MIDWIFE UNDER NOTIFICATION OF BIRTHS ACT.

The Council censured a member of the Association for his conduct in aiding and abetting an uncertified midwife.

MEDICO-POLITICAL COMMITTEE.

The CHAIRMAN (Mr. Jenner Verrall) presented the Quarterly Report of the Medico-Political Committee.

DEATH CERTIFICATION.

The Medico-Political Commitee was authorized to prepare and issue to the Divisions a Memorandum based upon Minute 109 of the Annual Representative Meeting, 1911, concerning the filling up of death certificates.

PUBLIC HEALTH COMMITTEE.

The CHAIRMAN (Mr. Domville) presented the Quarterly Report of the Public Health Committee, which was approved.

SCOTTISH COMMITTEE.

The CHAIRMAN (Dr. Michael Dewar) presented the Quarterly Report of the Scottish Committee.

NATIONAL INSURANCE ACT—POSITION OF SCOTTISH COMMITTEE.

The Council approved the action of the Scottish Committee in co-operating with other Scottish Medical Bodies in regard to the National Insurance Act, and of the action of the Executive Organization Committee in giving a grant of £250 from the Central Insurance Defence Fund towards the expenses of the Scottish Committee for this purpose.

IRISH COMMITTEE.

The CHAIRMAN (Mr. R. J. Johnstone) presented the Quarterly Report of the Irish Committee.

JOINT COMMITTEE FOR IRELAND.

The payment of half the travelling expenses of the non-attached members of the Conjoint Committee for Ireland was sanctioned.

STATE SICKNESS INSURANCE COMMITTEE.

The CHAIRMAN (Dr. Ewen J. Maclean) presented the Quarterly Report of the State Sickness Insurance Committee.

SPECIAL REPRESENTATIVE MEETING.

The Chairman of Representative Meetings was requested to convene a Special Representative Meeting for February 20th and following day to consider a Report of the Council upon the National Insurance Act, and to consider the subject of a requisition from seven Divisions of the Association.

REPORT OF COUNCIL TO SPECIAL REPRESENTATIVE MEETING.

The Report of Council to the Special Representative Meeting was considered clause by clause, and was finally adopted in the form published in the SUPPLEMENT of February 3rd.

MEMBERS OF HOSPITAL STAFFS AND INSURANCE ACT.

The Council referred to the Hospitals Committee for consideration and report the question of the position of members of the staffs of voluntary hospitals in connexion with the National Insurance Act; the Committee to have due regard to whether a hospital has or has not made arrangements with "approved societies" for the treatment of insured persons.

LOCAL MEDICAL COMMITTEES.

The question of the machinery for the election of local Medical Committees under the National Insurance Act was referred to the Organization Committee for consideration and report.

RESIGNATIONS AND NEW MEMBERS.

The Council resolved to publish in the JOURNAL a statement comparing the number of resignations of membership of the Association, and the number of new members, during the year 1911 with those for the year 1910.

REAPPOINTMENT OF COMMITTEE.

The Council reappointed the State Sickness Insurance Committee to hold office until the Special Representative Meeting. The reference to the Committee was continued, with authority to take any necessary action in the meantime, and with power to co-opt not more than four additional members.

The President of the Association of Registered Medical Women (Dr. Constance Long) was appointed a member of the Committee, vice Dr. Louisa Garrett Anderson resigned.

INCLUSION OF MEDICAL WOMEN ON ADVISORY COMMITTEES.

The Council approved the suggestion that there should be a medical woman on the Advisory Committee under the Insurance Act, provided there are at least two medical men upon the Committee.

SOUTH INDIAN AND NEW SOUTH WALES BRANCHES AND THE INSURANCE ACT.

The Council resolved to communicate its thanks to the South Indian and New South Wales Branches for their expression of appreciation of the efforts of the Council in connexion with the Insurance Bill, and to call the attention of the former Branch to the Central Insurance Defence Fund, and to inform the Branches that any subscriptions to the Fund by members of a Branch outside the United Kingdom will be greatly appreciated by the Members of the Association at home.

CONFERENCE OF NATIONAL HEALTH INSURANCE COMMISSIONERS AND REPRESENTATIVES OF VARIOUS MEDICAL BODIES.

The Chairman of the State Sickness Insurance Committee was requested to inform the Commissioners that the Council could not see its way to appoint Representatives to attend the proposed conference until the Special Representative Meeting had had an opportunity of considering the matter.

SPECIAL EXECUTIVE ORGANIZATION COMMITTEE.

The CHAIRMAN (Mr. Larkin) presented the Report of the Special Executive Organization Committee, which was approved.

CANDIDATES.

The seven candidates whose names appeared on the notice convening the meeting were elected Members of the British Medical Association.

The Council, having concluded its business, rose at 8.20, after a sitting of close on six and a half hours.

Meetings of Branches and Divisions.

[The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the JOURNAL.*]*

BATH AND BRISTOL BRANCH:
BRISTOL DIVISION.

A MEETING of the Division was held at the Royal Hotel, Bristol, on Tuesday, February 13th, following upon a meeting of the Medical Federation, Limited. A comparatively small number of medical men (54) were able to remain for the Division meeting. Dr. H. J. DEVIS, Chairman of the Division, was in the chair.

Special Representative Meeting.

Dr. NIXON proposed and Dr. BRISTOWE seconded the following amendment to Motion 5 of the Agenda of the Special Representative Meeting:

> That the meeting be adjourned for one hour during which the printed agenda can be considered by the Representatives.

It was pointed out that in these meetings the order of the agenda was most important, and a Representative might be prevented from moving an amendment down in the name of his Division owing to the use of preceding resolutions the scope of which he had not had time to master. This was carried unanimously.

Dr. C. B. HUMPHRYS moved and Mr. R. G. P. LANSDOWN seconded the following amendment to Motion 7:

> If duly proposed and seconded, and supported by ten members of the Representative Body rising in their places, a record of the names of those voting for and against any particular motion shall be taken.

This was carried unanimously.

Dr. BRISTOW proposed and Dr. HERAPATH seconded the following amendment to be substituted for Motions 11, 12, 13, and 14:

> That the Council be instructed to inform the Insurance Commissioners that until the minimum requirements of the medical profession are secured by an amending Act, they discontinue negotiations and decline to form or nominate members on any committees.

In support of this amendment Dr. DICKINSON quoted the words of the report of the Council (SUPPLEMENT, BRITISH MEDICAL JOURNAL, February 3rd, 1912):

> Unless the minimum demands of the profession are placed beyond doubt, the Council is of opinion that the Government should be informed through the Commissioners that further negotiations will be useless.

Dr. WALLACE quoted the speech of the Chancellor of the Exchequer on February 12th:

> Very wild suggestions have been made, and I want to make it perfectly clear now that when we say we are prepared to listen to every fair argument that is submitted to us, we are not contemplating these wild and extravagant demands. One gentleman who represents a certain section sent in a bill for an additional three millions sterling. Who is to pay it? It would mean either a penny on the workman, a penny on the employer, or a penny on the income-tax payer. All I can say is that is not bringing their demands within proportions which are debatable.

If that were so, Dr. Wallace continued, it was no use debating further, and he supported the amendment.

Dr. SCOTT WILLIAMSON said that the three millions would add about 2s. to the already doubtful 4s., and this was now said to be too much to be even debated.

Dr. PARKER (Representative) pointed out that their only gain had been the power of collective bargaining—a power they had before the negotiations. (Carried unanimously.)

Dr. DICKINSON proposed and Mr. LANSDOWN seconded, as an amendment to Motion 15,

> That the Council be instructed to report to the Divisions within one month as to the best means of acquiring the powers necessary for raising funds, and using them for the purpose of indemnifying members against financial loss owing to the action of the Association.

This was carried unanimously.

The Representative was instructed to oppose Motion 17.

Appointment of Representatives.—Dr. H. F. Devis and Dr. J. M. Carter were appointed Representatives, with Dr. George Parker, for the Representative Meeting, when extra Representatives should sit for Bristol.

BIRMINGHAM BRANCH.

AN ordinary meeting was held at the Medical Institute on February 8th, Professor MORRISON, President of the Branch, in the chair. Twenty-eight members were present.

Alterations of Rule.—After the scientific proceedings (see p. 363 of the JOURNAL) the meeting resolved itself into a special meeting, and several alterations in the rules of the Branch, necessary to bring them into accordance with the articles and by-laws of the Association, were approved and passed.

BORDER COUNTIES BRANCH:
SCOTTISH DIVISION.

A MEETING of this Division was held in Dumfries and Galloway Royal Infirmary on Thursday, February 8th. There were eighteen members present. Dr. EASTERBROOK was in the chair.

Nomination of Representative on Scottish Medical Insurance Council.—After the preliminary business was got through, item No. I on the agenda was proceeded with. This was the nomination of a representative to the Scottish Medical Insurance Council. Dr. EASTERBROOK proposed:

> That the members present divide into groups corresponding to the insurance areas in which they live, and proceed to nominate their representative.

This was done.

Instructions to Representative.—Item No. II was instructions to the Representative regarding the course to be followed at the forthcoming meeting of Representatives. Dr. BRYSON said he would like the meeting to discuss what would be the effect on practitioners if they refused to form a panel and medical benefits were suspended. This discussion was taken up by Drs. RODGER, LIVINGSTONE, HUSKIE, BELL, ROBSON, and ROSS. Dr. Ross took occasion to draw the attention of the meeting to the fact that as medical officer of health he was liable under the Act to be called on to advise the local Health Committees, and that he had no intention of refusing that duty. The meeting, by acclamation, intimated that refusal of duty of that nature was never contemplated, Dr. RODGER remarking that the Division would judge of Dr. Ross's good intentions from the advice he gave his committee. Dr. Ross, continuing, said they ought to negotiate with the Commissioners, and if their demands were refused by them, then would be the time to refuse to work. Dr. MURDOCH said they ought to press firmly their demands on the Government.

Adjournment.—At this point Dr. RODGER moved the adjournment of the meeting till February 16th. Dr. BRYSON seconded. The motion was carried. This was all the business.

DORSET AND WEST HANTS BRANCH:
WEST DORSET DIVISION.

A SPECIAL meeting of this Division was held in Dorchester on February 13th, Dr. MACDONALD being in the chair, in the unavoidable absence of Dr. Flower.

British Medical Association Reform Committee.—The following resolution was passed:

> This Representative Meeting directs the Council to inform in plain and unmistakable language the Commissioners appointed under the Insurance Act, 1911, that unless the six cardinal points as originally formulated by the British Medical Association be embodied in a bill amending the Insurance Act, 1911, which shall become law in the next session of Parliament, and unless, in the meantime, these six points be incorporated in the regulations to be issued by the Commissioners in such a manner as shall be effectual and permanent until such amending Act is passed, it is the intention of the British Medical Association to call upon all its members and upon all other medical practitioners to decline to form panels or undertake any other medical duties which may be assigned to them under the Act, in conformity with the undertaking which has already been signed by over 25,000 medical practitioners.

Recommendations of Council.—The six recommendations of the Council were passed unanimously as they stood, with the exception of No. 6. In this the Representative was instructed that the State Sickness Insurance Committee ought to consist of: (*a*) 18 (not 12) elected by Representatives; (*b*) 6 (not 12) elected by Council, the *ex officio* members, and 4 to be co-opted.

The Council and Representatives.—The following resolution was passed *nemine contradicente:*

That, whilst viewing with the utmost disfavour the action of the Council in the past, but feeling that the present juncture is not favourable for a vote of censure, this meeting desires to impress upon the Council the necessity of carrying out absolutely the instructions of the Representatives in the future.

EAST ANGLIAN BRANCH:

Mid-Norfolk Division.

A meeting of this Division took place in the Medical Library, Norwich, on February 3rd. The meeting was largely attended, in spite of the severe weather, several members being actually snowed up. Dr. Horn, Chairman, presided.

Annual Report.—The annual report and balance sheet for 1911 was approved.

Forthcoming Special Representative Meeting.—In view of the importance of the ensuing Special Representative Meeting, Dr. Thomson, the Representative of the Division, resigned, so as to give the Division a free hand in appointing any other member. His resignation, however, was not accepted, and he was unanimously accorded a vote of confidence and of thanks for past services.

Central Council's Report.—Among others the following members engaged in a discussion on the Council's report and recommendations: Drs. Horn, Dent, Colvin-Smith, Rice, Kentish Wright, Linnell, Gillett, Hughes, Shepheard, and Thomson. Finally the following resolutions were moved by Dr. Dent (Cromer) and seconded by Dr. Colvin-Smith (Cromer) and passed unanimously:

That this meeting of the Mid-Norfolk Division is unanimously of opinion that the Special Representative Meeting should declare the refusal of the Association to undertake any duties under the Insurance Act, save and except to act on the Central Advisory Committee, until the provisions of the Act be so amended, either by an amending Act or by Regulations framed by the Insurance Commissioners, as shall secure without reserve the six cardinal points demanded by the Association, and, further, that all disciplinary powers over medical practitioners be placed unreservedly in the hands of the medical profession itself.

Also the following amendment to No. 6 of the Recommendations of the Council, as printed on page 123 of the Supplement to the British Medical Journal of February 3rd, 1912:

Delete the whole of the third line and the first word of the fourth line and substitute the words "Consist of (*a*) 24 members elected by the Representative Body."

Consequently (*c*) would become (*b*) and (*d*) would become (*c*) in the lettering of the clauses.

North-East Essex Division.

A meeting of this Division was held on February 6th.

Report of Council.—After consideration of the Report of Council, the following resolutions were carried:

Clause 4. That this meeting is of opinion that the Report of Council which was placed before the Representative Meeting in November last was not correct (Minute, November, pp. 46 and 47).

Clause 7. That this meeting is of opinion that the deputation which interviewed the Chancellor on November 28th acted in a weak manner with regard to the matter of remuneration.

Clause 12. That this meeting is of opinion that the letter addressed to members of the House of Lords did not sufficiently insist upon freedom of the medical man to refuse service, and upon the administration of medical benefit being kept out of the control of friendly societies.

Clause 15. That this meeting strongly condemns the action of the Council in the matter of Mr. Smith Whitaker's appointment as Insurance Commissioner.

Clause 18. That this meeting considers that it is impossible for the (i) profession to obtain its six cardinal points under the Act. That the Council be instructed to at once call upon all those (ii) who have signed the undertaking to decline service under the Act.

Clause 22. That this meeting is of opinion that the Association should refuse service under the Act unless the income limit is fixed by an amending Act. That this meeting is of opinion that the Association should refuse service under the Act unless the amount of remuneration and scale of fees is fixed by an amending Act.

Clause 23. That this meeting is of opinion that the Association (i) should refuse service under the Act unless the Harmsworth Amendment is nullified by an amending Act; (ii) that this meeting is of opinion that the Association should refuse service under the Act unless freedom of the medical man to refuse service is provided for by an amending Act.

Clause 27. That this meeting is of opinion that a capitation fee of 8s. 6d. is not equivalent to a fee of 2s. 6d. per visit, as is suggested.

Clauses 28 and 38 and 42. That this meeting is of opinion that none of the machinery provided by the Act should be made use of by the medical profession until an amending bill has been introduced.

Clause 35. That this meeting is of opinion that the Council have not shown sufficient energy in guarding the interests of the profession in the action they have taken with reference to the Insurance Bill.

Clause 37. That this meeting is of opinion that the last Representative Meeting did not deliberately reject the method of breaking-off negotiations with the Government. On the contrary, its resolutions were to the effect that negotiations should be broken off and that the profession should decline service if the bill became an Act in anything like the form in which it stood in November last.

Clause 40. That this meeting is of opinion that no nominations for the Advisory Committees should be made by the Association unless an amending Act is introduced.

Clause 44. That this meeting is of opinion that no further negotiations with the Treasury should take place until an amending bill is promised.

Recommendation 6. That the number "12" after (*a*) be changed to "18." That the number "12" after (*b*) be changed to "6." That this meeting is of opinion that unless an amending bill be introduced, which shall secure in full the six cardinal points, the Council be instructed to call upon all members of the Association to decline service under the Act. That this meeting is of opinion that remuneration should be on a per capita system at the visit of 15s. with extras.

EDINBURGH BRANCH:

South-Eastern Counties Division.

A largely attended meeting of the Division was held in the County Council Rooms, St. Boswells, on February 9th, Dr. Oliver presiding.

National Insurance Act.

The following resolutions were adopted:

The Division is of opinion that no useful purpose is to be served by expression of approval or disapproval of past action on the part of either the Council or Representative Body, and deprecates the waste of time on motions of such a character.

That arrangements for the further conduct of negotiations are of prime importance to the profession, and considers that they should be entrusted to a committee appointed by the Representative Body for the purpose, such a committee to be representative of the Association, and to co-operate with other bodies interested, and the Division instructs its Representative to propose resolutions or give support to others, as may best further this policy. Such committee, however, to report the result of negotiations to the Divisions, and not empowered to conclude terms.

The Division is of opinion that its Representative may give support to Recommendations of Council 1, 4, and 5, as modified by preceding resolution.

Subject to the Representative failing to obtain support for the motion (No. 2 above), that a Special Representative Committee be appointed, he may at his discretion support Recommendation of Council No. 6, but always with the proviso that the State Sickness Insurance Committee is not to have powers to conclude final terms.

The Division is of opinion that Recommendations of Council numbered 2 and 3 should be reversed in order, whereby the report to be made by Council on the Regulations of the Insurance Commissioners, when available, should be issued to the Divisions, and their agreement with, and acceptance of, the same ascertained before the Representative Body is called on to intimate that the requirements of the profession are conceded.

Having regard to the fact that this is the ultimate decision of the profession as a single united body on the issues in dispute, and that subsequent to it the profession must conduct negotiations in sections throughout the country, and, having consideration to the fact that the ultimate decision of the profession is a matter of urgent importance to every individual practitioner, the Division instructs its Representative to consider this resolution as vital to the interests of his constituents, and to urge it by every means in his power, if necessary proposing resolutions and in such other ways as may be feasible.

Report of Council.

Section 15 (4) (the Harmsworth Amendment):

The Division notes that the Chancellor was informed that the Association must still press for the deletion of this clause.

(Vide Council Report, par. 8.) The Division therefore instructs its Representative to press for such action as may result in the Regulations of the Commissioners containing a distinct exposition of its scope with exact limitation of its effects, in order that the profession may decide whether to undertake the duties required while it remains in force.

Paragraph 21. Local Medical Committees:

The Division is of opinion that as local Medical Committees are not committees of the Association, its Representative should press for such action as may ensure that they everywhere respect the policy of the Association, and may take no action anywhere except on a general agreement being obtained.

Paragraph 22. Regulations of Commissioners:

The Division considers that the word "remuneration" should mean practitioners' net profits, and that expenses of all kinds, such as those due to the treatment of bad lives, hazardous employments, emergency visits, night visits, mileage, etc., should be included under the term "extra." The Division instructs its Representative to press for action to compel the Commissioners to define in the Regulations the nature and extent of the work demanded from the profession, and considers that either (1) the Commissioners should be invited to state the amount of remuneration (as defined above) offered in respect of the work demanded, or (2) that the Committee should prepare a statement of the terms asked by the profession and submit it to the Commissioners.

Paragraph 25. Remuneration:

The Division notes that "the Council is of opinion that the Insurance Commissioners should be informed that the Association will not proceed to negotiate as to a definite rate of remuneration till the Association is assured that the sum stated in the actuaries' report is not to be regarded as final."

The Division considers that in view of the provisions of Section 15 (7) and Section 22 any person might well give such an assurance, and therefore instructs its Representative to propose that "The committee should inform the Commissioners that they will not continue negotiations unless the Commissioners give proof to the satisfaction of the committee on the report of actuaries engaged for the purpose that they are in possession of such funds or have such powers as are necessary to meet the amount of minimum remuneration as defined above, together with a reasonable margin to meet the estimated cost of extra services.

Paragraphs 28 and 32. Public Opinion. Suspension of Medical Benefit:

As regards the necessity for conciliating the one and the dangers of the other, the Division considers that the profession must depend on itself and not on public support, and that if the profession is united and sufficiently strong to prevent the exploitation of their services under the Act it is in a position to deal effectively with any extension of club practice; and instructs its Representative, in view of the almost unanimous support given to the Association as shown by the number of pledges received, to give his support to proposals that appear to be to the advantage of the profession without paying undue regard to the possible actions or opinions of others. It is clear to the Division that a point must be reached where it has to be settled whether the Commissioners and the Government have to find largely increased funds or whether the profession has to accept work under the conditions of the Act, that is to say, whether the Commissioners or the profession be the stronger, and in view of that fact instructs its Representative not to give way at the first threat or unsubstantiated "bogey" that is raised. The Division is well aware that omelettes cannot be made without smashing eggs, and beg to assure its Representative that it is united, almost to a man, and that he may depend on the undivided approval and support of members in resisting, on their behalf, to the utmost the unwarrantable demands made on the profession under the provisions of the National Insurance Act.

LANCASHIRE AND CHESHIRE BRANCH:

SOUTHPORT DIVISION.

A SPECIAL meeting of the Division, to which all registered practitioners resident in the Division had been invited, was held on February 12th at the Temperance Institute. About forty-four were present, including Drs. Ashworth, Baildon, Bardsley Blakeman, Bradburne, Brunskill, Blumbry, Newburn Brown, Collier, Cox, Corkhill, Colin Campbell, Colin G. Campbell, Lawson Cairns, Russell Cairns, William Davies, Woolmer Davies, Edmiston, Hare, Harker, Harris, Henderson, Irving, Jobson, Lewis, Limont, W. N. Maccall, Martin, Penrose, Pinkerton, Pointon, Pridie, Roberts, Reid, Schofield, Speirs, J. H. Sykes, Sykes (Formby), Tordoff, Walker, and Wallace. Apologies for absence had been received from Drs. Anderson, Hitchen, Joynson, Mackay, Scott, and Swete-Evans. Dr. LITTLER occupied the chair.

Confirmation of Minutes.—The minutes were read and confirmed. Arising out of them, acknowledgements of letters were read from the Chancellor of the Exchequer, Major White, M.P., and Lord Balcarres, M.P.

Report of Council.

The object of the meeting was to consider the Report and Recommendations of the Council of the Association, published in the SUPPLEMENT of February 3rd, on the position created by the passage into law of the National Insurance Bill, and to instruct the Representative of the Division on the course he shall adopt at the Special Representative Meeting to be held in London on February 20th and 21st. The CHAIRMAN introduced the business of the evening, indicating points specially deserving of consideration. At the suggestion of a member the Representative, Dr. BAILDON, was called upon to explain his attitude, and he did so, advising the meeting to consider the recommendations seriatim, and giving his reasons for the acceptance of No. 1. Dr. J. H. SYKES formally proposed and Dr. MACCALL seconded its adoption. Drs. HENDERSON, ASHWORTH, REID, BRADBURNE, SPIERS, WALKER, and PINKERTON opposed; DRS. PENROSE, HARRIS, and the CHAIRMAN supported, and the adoption of the recommendation was carried (members of the Association only voting) by 20 to 13.

Recommendation No. 2, proposed by Dr. CAMPBELL, seconded by Dr. WALKER, was agreed to with one dissentient.

Recommendation No. 3 was agreed to with one dissentient.

Recommendation No. 4, proposed by Dr. MACCALL, seconded by Dr. J. H. SYKES, was agreed to with three dissentients.

Recommendation No. 5, proposed by Dr. CORKHILL, seconded by Dr. SCHOFIELD, was agreed to with one dissentient.

Recommendation No. 6 was carried, subject to an amendment moved by Dr. SCHOFIELD, seconded by Dr. WALKER:

That the Committee should contain eighteen or more members elected by the Representative Body, and only six elected by the Council.

There were two votes against the Recommendation as thus amended.

National Insurance Act.

The CHAIRMAN invited discussion on the amount of the fee per capita which should be required. Many took part in the discussion, and 8s. 6d., 10s., and 12s. 6d. were mentioned as possible sums. The general feeling was that it should be not less than 10s., but it was not thought desirable to come to a definite decision on the point. The opinion was expressed that, whatever the fee, extras should be charged, as for night visits, operations, anaesthetics, etc.

Dr. LAWSON CAIRNS alluded to the misunderstanding of the medical attitude by the public, and suggested that the views of the profession on the Act should be communicated to the non-party press.

Dr. LIMONT moved, and Dr. BRUNSKILL seconded:

That it be a recommendation to the Council that a concise statement of the views of the profession be drawn up and issued to the Press Association for the information of the public.

This was carried with one dissentient.

Another resolution was carried unanimously:

That it be a recommendation to the Council to urge upon the Insurance Commissioners that all practitioners wishing to undertake their own dispensing should be permitted to do so.

METROPOLITAN COUNTIES BRANCH:

HAMPSTEAD DIVISION.

A MEETING of this Division was held on Friday, February 9th, at 8.30 p.m., at the Conservatoire, Eton Avenue.

Vote of Condolence with Dr. Oakley.—Dr. CORAM JAMES, the Vice-Chairman, alluded to the absence of the Chairman, Dr. Oakley, owing to the sudden death of his father. A vote of sympathy with Dr. Oakley was passed by the meeting.

Confirmation of Minutes.—The minutes having appeared in the Journal were taken as read.

Reorganization of Division.—A letter from the Honorary Secretary of the Organization Committee of the Branch in regard to the reorganization of the Division was read, and was referred to the Organization Committee of the Division. A resolution was passed:

That this meeting approves of the detachment from the Hampstead Division of that portion of the Division contained in Hertfordshire.

Representatives of Division.—A letter from Dr. Oppenheimer was read resigning office as Representative "in order to give the members an opportunity of appointing to the forthcoming Representative Meeting a Representative who, in their opinion, is best able to express their wishes and to carry out their instructions." Dr. Macevoy also resigned. The committee's recommendation was endorsed, that the election of Representatives should take place on February 17th, and that nominations be invited by post. The meeting nominated Drs. Oppenheimer and Macevoy.

Financial Statement.—The financial statement for the year 1911 was read by the Honorary Secretary. The expenditure amounted to £44 5s. 3d.

Branch Council.—Dr. Macevoy made a short statement in regard to matters under consideration by the Branch Council.

Paper.—At 9 p.m. Mr. Herbert Tilley read an interesting paper, illustrated by slides, on modern methods of treatment of diseases of the upper air passages, which will be published in the Journal. Questions were asked by various members present. Mr. Tilley replied.

Vote of Thanks.—A vote of thanks was proposed by Dr. Oppenheimer, seconded by Dr. Percy Evans, and carried with acclamation.

Marylebone Division.

A general meeting of the Division was held at the rooms of the Medical Society of London, 11, Chandos Street, on Monday, February 12th. Ninety-three members signed the attendance book. Sir Frederic S. Eve occupied the chair.

Confirmation of Minutes.—The minutes of the previous meeting were confirmed.

Letters.—Letters from other Divisions were read.

The late Sir Henry Butlin.—The Chairman's proposal that a letter of condolence be sent to Lady Butlin was agreed to unanimously.

National Insurance Act.—Dr. Comyns Berkeley gave the figures of the recent canvass of the Division: Number of members, 666; number who have signed the undertaking, 423; contributors to defence fund, 66; number of non-members, 401; number who have signed undertaking, 210; contributors to defence fund, 20. In the event of the Representative of the Division, Mr. N. Bishop Harman, being unable to attend the Special Representative Meeting, Dr. F. J. Smith was elected to serve as substitute.

Report of Council.

The Chairman, in introducing the subject of the report of the Council, said the Executive Committee had prepared certain resolutions which might facilitate the business of instructing the Representative. He called upon Dr. Hawthorne to speak to the first resolution.

Dr. C. O. Hawthorne moved

Resolution No. 1:

That the Representative be instructed to vote in favour of a motion for the reception of the Report of the Council, subject to the qualification that such vote does not imply agreement with all the statements contained in the report.

He said the report was very long; it dealt with events past which were facts, and anticipations of which no vote could test the value. It was a report that it was impossible to discuss in detail with advantage. There was no question that the discussions of the Representative Body should be narrowed down to future action, and that it was wise to leave matters of historical interest on one side.

Dr. Comyns Berkeley seconded the resolution.

Dr. F. J. Smith and Mr. Harrison Cripps said there was no question they must formally receive the report.

Dr. Poynton moved as an amendment:

That the words from "subject" to the end be omitted.

Mr. Betham Robinson seconded. The amendment was carried, and the resolution directing the Representative

To vote in favour of a motion for the reception of the Report of the Council,

was carried as a substantive motion.

Resolution No. 2.

On the motion to discuss the Recommendations of the Council, or alternatively whenever the Chairman shall rule the proposition to be in order, to propose the following:

That the Council be instructed to promote united action with the medical corporations and other representatives of professional interests in order to secure by means of an amending Act or otherwise, conditions satisfactory to the medical profession,

The Chairman said this motion was drawn up with a view to co-ordinating every effective body that was representative of medical opinion to secure their just aims. Something of the sort had already been done in Scotland. The time had arrived when they must cease internecine strife, avoid discords, which weakened them, and stand together as a united profession. He called upon Dr. G. A. Heron to move the resolution.

Dr. Heron said they needed a complete and authoritative statement of their conditions. The colleges alone were not strong enough for this; events had shown that the Association alone could not do this. Together there would be one and an emphatic voice for their demands. If they did that no authority in the land nor "in the street" would be strong enough to say "No."

Dr. Newton Pitt seconded the resolution.

The resolution was criticized by Dr. Goodbody and Dr. Poynton.

Dr. Spurgin agreed with the tenor of the motion.

Dr. Maynard Smith said it was a proposal to hand over the whole business to a new body.

Mr. Harrison Cripps said his colleagues on the Council of the College of Surgeons had formed a committee for this purpose. So far it appeared the profession held the Act unworkable; it could only be made so by a complete new Act. The new sort of government introduced by these all-powerful Commissioners was dangerous. They had the power to alter and amend the Act in all sorts of ways. Theirs would not be a final settlement. They should not negotiate with the Commissioners, but demand a new Act.

Dr. F. J. Smith, after briefly narrating the history of the movement for an amending Act, said the Association was not strong enough by itself; it should join with these other bodies so as to overcome the *non possumus* attitude of the Government.

Dr. Heron asked if any man could suppose that with the published programme of the Government a new Act could be secured. It was a physical impossibility.

Mr. Cripps rejoined that the Government would do it when it was quite made clear to them they could not work the Act otherwise. He moved as an amendment, and

Mr. Douglas Drew seconded, the omission of the words "or otherwise."

Dr. Lauriston Shaw said the amendment made a clear issue. He urged them strongly not to adopt it. It meant an irreconcilable attitude. It was easy for those whose income would be unaffected by the Act to take this attitude. But it meant the removal of medical benefit to the great loss of the general practitioner. It was agreed on all hands that the Act as it now stood was impossible. But it was well not to throw away what they had before they had seen how far it could be amended under its own clauses. He agreed that extraordinary powers had been given to the Commissioners, and that such things ought not to be. But it was unwise to present such an attitude to these powers as would make them powerless to use their powers. We should lose our influence with reasonable men. As the Act stood it was vacuous. Most of its provisions depended upon the regulations which had not yet appeared. We must stand by our reasonable demands; they were the minimum, and extraordinarily reasonable. We had nothing to give way, no bargain to arrange. We should, he felt sure, get much under the regulations, and if we did not get all then we should know what was wanted in an amending Act. To demand an amending Act at this juncture was to get what Ireland had got—an

amendment to strike out medical benefit. This would mean an enormous strengthening and rapid growth of the friendly societies, with all the prestige of the Government behind them. It would mean a whole-time service at a pittance or a miserable per capita payment as now.

A member interjected that attitude implied they were ignorant of what was wanted now.

Sir VICTOR HORSLEY said that was the issue. As a matter of fact, until the Commissioners published their regulations we did not know what we were wanted to do, so we knew not what price to ask. In any case, rate of pay could not be put in an Act, amending or otherwise, without great danger to us; the Germans had done that, and the doctors had suffered gravely thereby, and could not escape its yoke.

Drs. POYNTON, F. J. SMITH, HAWTHORNE, LOCKHART MUMMERY, and SPURGIN joined in the discussion.

Mr. JOHN PARDOE asked if this amendment meant that we were to burn our boats, have nothing to do with the Commissioners, but demand a new Act of Parliament. (Voices: "Yes.")

The amendment was put and lost by 35 to 44.

The original motion was put and carried.

Resolution No. 3.

The CHAIRMAN called upon Dr. F. J. Smith to move the third resolution:

> That the Representative be instructed to support any motion which maintains the necessity of insisting on the six cardinal points, together with a detailed definition of the phrase "adequate remuneration."

Dr. SMITH moved and Dr. SPURGIN seconded the resolution, which was agreed to.

Recommendations of Council.

The six recommendations of the Council were then considered.

Dr. ROXBURGH and Mr. MCADAM ECCLES moved that Nos. 1 to 5 be agreed to. This was carried.

Dr. ROXBURGH moved that Recommendation 6 be amended by substituting for Sections (*a*) and (*b*) a section directing that the whole twenty-four members be elected by the Representative Body.

Mr. MCADAM ECCLES seconded this; Dr. LAURISTON SHAW and Sir VICTOR HORSLEY supported it. The amendment was agreed to.

Dr. C. O. HAWTHORNE moved that Section (*c*) be omitted.

Dr. GORDON HOLMES seconded.

Dr. HAWTHORNE said the separate mention of women practitioners was contrary to the desires of these members that they should be treated on the same plane as the rest of the profession. Also, seeing that they were nearly all members of the Association, a separation of their position was bad.

Sir VICTOR HORSLEY said the clause was misunderstood. This Act, if carried out as it stood, would be a sweating Act of the worst character. Women were selected too often for sweated work, so that their specific representation was of urgent necessity.

Mrs. SCHARLIEB negatived the suggestion that women practitioners would be unaffected by the Act; many were in general practice in poorest districts, where the pinch of the Act would be most felt.

The amendment was carried by 25 to 10.

Sir VICTOR HORSLEY moved an addition to the new clause (*a*) as follows: "And, in addition, two women practitioners." These would be elected by the Representative Body as well as the twenty-four.

Mr. AMAND ROUTH seconded. The amendment was carried.

Recommendation 6 amended thus was carried:

> That a State Sickness Insurance Committee be appointed to consider and report to the Council on all matters connected with the National Insurance Act; that the Committee consist of (*a*) twenty-four members and an additional two women practitioners elected by the Representative Body; (*b*) the *ex officio* members; and that the Committee be empowered to add to its numbers for special purposes not more than four additional members.

The REPRESENTATIVE thereupon asked that he be given instructions concerning motions that were certain to be moved upon the presentation of the general report. He pointed out that as matters stood he was bound by the by-laws to be guided by resolutions passed within the past three months.

The matter was discussed by Dr. LAURISTON SHAW, Dr. F. J. SMITH, Dr. BEDDOES, Mr. DOUGLAS DREW, and others.

Dr. C. O. HAWTHORNE moved that the Representative be instructed as follows:

> That on the presentation of the Report of the Council the Representative move: That the Representative Meeting proceed at once to the consideration of the recommendations of the Council (paragraph 45) without passing judgement on the forty-four paragraphs of the report.

He said that unless the Representatives eschewed matters of recrimination nothing would be done, and they needed work urgently.

Mr. MCADAM ECCLES seconded the resolution, and urged a unanimous agreement thereto. He said he had attended the last three Representative Meetings, and from his observation he believed their Representative would be heard on this point with probably wide acceptation.

The motion was carried *nemine contradicente*.

The meeting then terminated.

WESTMINSTER DIVISION.

A MEETING of this Division was held on February 13th at St. James's Vestry Hall, Mr. HARVEY HILLIARD in the chair.

Report of Council.—The Report of Council was considered and the following amendment to the recommendations of Council was carried, namely:

> That the Council be instructed to notify the Joint Insurance Commissioners that they are instructed by the Special Representative Meeting to decline to meet them to negotiate, as nothing short of an amending Act to the National Insurance Act will satisfy the medical profession.

Deputy Representative.—Dr. Haslip was appointed Deputy Representative to the Special Representative Meeting.

Mr. Lloyd George and the Royal Colleges.—The following resolution was carried unanimously:

> That this meeting of the Westminster Division of the British Medical Association, without expressing any opinion on the merits of the question, have seen with regret the terms in which the Chancellor of the Exchequer has referred to the Councils of the Royal College of Physicians, London, and the Royal College of Surgeons, England, composed as they are of the foremost members of the medical and surgical profession in London, and that a copy of this resolution be sent to the Prime Minister and to the Chancellor of the Exchequer.

MIDLAND BRANCH:

DERBYSHIRE DIVISION.

A MEETING of this Division was held in the Derbyshire Royal Infirmary on February 9th. Mr. E. COLLIER GREEN was in the chair. There were forty members present.

Election of Deputy Representative.—Dr. G. K. Smiley was elected Deputy Representative in place of the Honorary Secretary, who is unable to attend the meeting on February 20th.

Recommendations of Council.—The recommendations of Council were passed unanimously. After a free discussion the following resolution was passed unanimously:

> In view of the fact that the terms "adequate remuneration" are indefinite, this Division urges that the Council be instructed to obtain forthwith from the Insurance Commissioners a statement of the duties required, and a definite statement with regard to a capitation fee before they proceed to negotiate further.

OXFORD AND READING BRANCH:

OXFORD DIVISION.

A SPECIAL general meeting of this Division was held on February 9th at the Radcliffe Infirmary, Oxford, at 3 p.m. Mr. STYLE (Moreton-in-Marsh) presided, and between sixty and seventy members attended. Non-members had also been invited to attend.

Confirmation of Minutes.—The minutes of the last meeting were read and approved.

Apologies for Non-attendance.—The HONORARY SECRETARY (Dr. Duigan) read letters of regret from Sir William Osler and others at their inability to attend.

Statement by Honorary Secretary.—The HONORARY SECRETARY then made a statement explaining why the Division had not been summoned earlier at a time when so many Divisions were holding indignation meetings, and gave a brief report of the meeting held by the Executive Committee of the Division. At the earliest of these a vote of protest was passed against the appointment of the late

Medical Secretary and sent up to the Chairman of Council and of Representative Body; it was published in the British Medical Journal of December 2nd. The Secretary further gave a report of the canvass of the district; the results were briefly: (1) Every member in the Division had signed the undertaking; (2) ten new members had been obtained; (3) of forty non-members who had been canvassed for membership all but three had signed the undertaking; one of these, residing at Newbury, would be in the Newbury Division, and one was an officer of a medical aid association. Thanks were due to those members who had assisted in carrying out the canvass.

Special Representative Meeting.—The Chairman read the notice correcting the resolution of the Divisions who had applied for a Special Representative Meeting.

Report of Council.—The Chairman, after some preliminary remarks, read out the recommendations of Council, and proposed that they be adopted. This was seconded by Dr. Higgs. Dr. Turrell proposed an amendment in the form of the resolution of the "British Medical Association Reform Committee," as published in the Supplement of January 27th, namely:

> That this meeting of the Oxford Division resolves that the Representative Meeting directs the Council to inform, in plain and unmistakable language, the Commissioners appointed under the Insurance Act, 1911, *that unless the six cardinal* points as originally formulated by the British Medical Association be embodied in a bill amending the Insurance Act, 1911, which shall become law in the next session of Parliament, and unless in the meantime the six points be incorporated in the Regulations to be issued by the Commissioners in such a manner as shall be effectual and permanent until such amending Act is passed, it is the intention of the British Medical Association to call upon all its members and upon all other medical practitioners to decline to form panels or undertake any other medical duties which may be assigned to them under the Act, in conformity with the undertaking which has already been signed by over 25,000 medical practitioners.

Dr. Collier, in seconding the resolution, drew attention to the meetings recently held by the Royal Colleges of Medicine and Surgery, the former of which he had attended, and stated that in his opinion, unless the Act was amended it would lower the prestige of the profession and do the country practitioners serious harm. A prolonged discussion took place, in which Drs. Yelf, Duigan, Jones, Cruikshank, Higgs, Brunyate, Penrose, Rivers-Willson, Routh, Boissin, and Mr. Drew took part. As a result of the discussion Dr. Turrell proposed to add a rider to the amendment, extending the time limit for an amending Act beyound the next session. This was seconded by Dr. Collier, and the amendment with the rider was put to the meeting and carried by 29 votes to 23. It was then put as a substantive resolution, and carried by a large majority.

British Medical Association Reform Committee.—The question of joining the British Medical Association Reform Committee was then discussed. There was a generally felt objection to an association within an association, but in view of the work done by the Reform Committee and the expenses it had incurred, it was decided to give it some financial support. Papers were sent round with this purpose, and thirty members subscribed.

Report of the Representative Meeting.—Mr. A. J. Drew, Divisional Representative, gave a report of the last Representative Meeting. He replied to various questions, and, on the motion of Dr. Turrell, a vote of thanks and confidence was accorded him.

Instructions to Representatives.—Finally, the Representative received definite instructions to support the resolution of the Reform Committee, and to endeavour to get the rider, extending the time limit for the amending of the Act beyond "next session," accepted. Failing this, he was to support the resolution without the rider. If the resolution, or a similar one, failed to be carried, the Representative was instructed to support the recommendations of the Council. Beyond these instructions he was to be allowed full discretion.

The proceedings then terminated.

SOUTH-EASTERN BRANCH:

Dartford Division.

A meeting of this Division was held at the Bull Hotel, Dartford, on Tuesday, February 13th, at 3 p.m. Dr. Steen occupied the chair, and the meeting was well attended.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Bradford Rules and Rule Z.—On a report from the Executive Council of the Division it was proposed by the Honorary Secretary, seconded by Dr. Hugh Smith, and carried:

> That these rules be adopted by the Division.

Correspondence.—Letters of regret at inability to attend were received from Drs. Short, Barrow, Walker, and Sutton.

New Woolwich Division.—It was proposed by Dr. Firth, seconded by Dr. Crombie, and carried:

> That this Division agree to the formation of a separate Division for Woolwich, and express regret at losing the members from that area.

Special Report of Council.

Paragraphs 1 to 13 (inclusive) were received and approved unanimously.

Paragraphs 14, 15, 16.—After discussion the following resolutions were carried:

> (*a*) That the Representative of this Division be instructed to deprecate any action being taken in the matter, and (*b*) failing this, that he be instructed to approve of the action of the Council.

Recommendation I.—It was proposed by Dr. Crombie, seconded by Dr. Glover, and carried by a majority:

> That this Division approve of this recommendation.

The remaining recommendations were approved, except Recommendation VI. It was proposed by Dr. Lindow, and seconded by Dr. J. Clarke:

> That the proportions of (*a*) and (*b*) in the recommendation be amended in proportion of 2 to 1.

This was carried unanimously.

Amendments by the Birmingham and Winchester Divisions and other Bodies.—The Representative received instructions as to voting for or against these proposed amendments.

The meeting then adjourned.

Folkestone, Dover, and Ashford Constituency.

At a special meeting of the Folkestone, Dover, and Ashford Divisions, held at Folkestone on Thursday, February 8th, the following resolutions were unanimously passed:

1. That the Folkestone, Dover, and Ashford Divisions of the British Medical Association are of the opinion that the "No-service-whatsoever" policy should at once be adopted as the official policy of the Association, inasmuch as the six cardinal points have not been definitely assured in the National Insurance Act.
2. That our Representative instruct the Council to cease all negotiations with the Government or the Insurance Commissioners, and not to hold any further interview with them until the six cardinal points are conceded.

SOUTHERN BRANCH:

Winchester Division.

A special meeting of this Division was held at the Castle, Winchester, on February 8th.

National Insurance Act.

The following resolutions on the recommendations of the Council were passed:

For Recommendation I:

> Substitute (*a*). "That in the opinion of this Division the administration of the medical benefits cannot be carried out under the Act with due regard to the interests of the public and the welfare of the medical profession, and that no satisfactory arrangement can be arrived at without an amending Act.

For Recommendation II:

> Substitute (*b*). That the Council be instructed to insist on an amending Act embodying the six points of the British Medical Association, and to notify the Insurance Commissioners that the Association will advise its members not to accept or to undertake any duties or service whatsoever under or in connexion with the Act until the Representative Body are satisfied that the requirements of the profession are conceded.

For Recommendation III:

> Substitute (*c*). That it be the declared policy of the Association to decline service under the Insurance Committees as at present constituted on account of the fact that a permanent majority (three-fifths) is given to the representatives of friendly societies, thereby perpetuating indefinitely friendly society control.

And—

> 1. That in an amending Act the constitution of Insurance Committees should be representatives of friendly societies two-fifths; nominated by Commissioners, county councils,

etc., two-fifths; and representatives of medical profession one-fifth.

Recommendation IV: This Division entirely disagrees with Recommendation IV.

Recommendation V:

Substitute (*d*). That in the event of the Commissioners deciding to make money payments instead of medical benefit, the Council be instructed to call upon every member of the British Medical Association to decline to continue to undertake any work under existing club conditions or any form of contract practice not under medical control.

Additional Recommendations suggested by the Division.

VI. That the Association should insist upon the right of medical men who are treating insured persons to provide the necessary medicines, etc., for their patients if they wish to do so.

VII. That in the event of a capitation fee being agreed upon a minimum fee of 10s. 6d. per member should be demanded, excluding medicines and appliances.

VIII. That the Council take immediate steps to take a referendum of the whole of its members on whether payment under an Insurance Bill, such as the one introduced in the present Parliament should be

(1) By capitation, or
(2) By payment per attendance.

The Division unanimously adopted the resolution from the British Medical Association Reform Committee. The resolution read as follows:

This Representative Meeting directs the Council to inform, in plain and unmistakable language, the Commissioners appointed under the Insurance Act, 1911, that unless the six cardinal points as originally formulated by the British Medical Association be embodied in a bill amending the Insurance Act, 1911, which shall become law in the next session of Parliament, and unless in the meantime these six points be incorporated in the Regulations to be issued by the Commissioners in such a manner as shall be effectual and permanent until such amending Act is passed, it is the intention of the British Medical Association to call upon all its members and upon all other medical practitioners to decline to form panels or undertake any other medical duties which may be assigned to them under the Act, in conformity with the undertaking which has already been signed by over 25,000 medical practitioners.

The following resolutions from the National Medical Union were passed. The resolutions read as follows:

1. That this Special Representative Meeting of the British Medical Association expresses its strong disapproval of the action of the Council, first in regard to its methods in conducting negotiations with the Government, and secondly in recommending the acceptance by the paid Secretary of the Association of the post of Commissioner under the National Insurance Act, before the conditions of service had been made acceptable to the majority of those whom they represented, and accordingly records want of confidence in and demands the resignation of the Council forthwith.
2. That it be an instruction to the Council that they notify all those who have signed the pledge of the British Medical Association that they must not go on any panel or undertake any of the duties which the Act proposes to assign to them, and that this instruction remain in force until such time as the six cardinal points are unreservedly conceded in such a manner that they cannot be altered or withdrawn in the future except by Act of Parliament and with the consent of the members of the medical profession.
3. That the Council be instructed not to enter into further negotiations with or hold interviews with the Committee of the Commissioners, and that the Representative of this Division record his vote in favour of this resolution at the Representative Meeting.

The following resolutions of the North-East Essex Division were unanimously adopted on the report and recommendation of the Council:

Clause 4. That this meeting is of opinion that the Report of the Council which was placed before the Representative Meeting in November last was not correct (Minutes, November, pp. 46 and 47).

Clause 7. That this meeting is of opinion that the deputation which interviewed the Chancellor on November 28th acted in a weak manner with regard to the matter of remuneration.

Clause 12. That this meeting is of opinion that the letter addressed to members of the House of Lords did not sufficiently insist upon freedom of the medical men to refuse service, and upon the administration of medical benefit being kept out of the control of friendly societies.

Clause 15. That this meeting strongly condemns the action of the Council in the matter of Mr. Smith Whitaker's appointment as Insurance Commissioner.

Clause 18. That this meeting considers that it is impossible for the profession to obtain its six cardinal points under the Act, and that the Council be instructed to at once call upon all those who have signed the undertaking to decline service under the Act.

Clause 22. That this meeting is of opinion that the Association should refuse service under the Act unless the income limit is fixed by an amending Act, and that the Association should refuse service under the Act unless the amount of remuneration and scale of fees is fixed by an amending Act.

Clause 20. That this meeting is of opinion that the Association should refuse service under the Act, unless the Harmsworth Amendment is nullified by an amending Act, and that the Association should refuse service under the Act unless freedom of the medical men to refuse service is provided for by an amending Act.

Clause 27. That this meeting is of opinion that a capitation fee of 8s. 6d. is not equivalent to a fee of 2s. 6d. per visit as is suggested.

Clauses 28 and 38 and 42. That this meeting is of opinion that none of the machinery provided by the Act should be made use of by the medical profession until an amending bill has been introduced.

Clause 35. That this meeting is of opinion that the Council have not shown sufficient energy in guarding the interests of the profession in the action they have taken with reference to the Insurance Bill.

Clause 37. That this meeting is of opinion that the last Representative Meeting did not deliberately reject the method of breaking off negotiations with the Government. On the contrary, its resolutions were to the effect that negotiations should be broken off and that the profession should decline service if the bill became an Act in anything like the form it stood in November last.

Clause 40. That this meeting is of opinion that no nomination for the Advisory Committees should be made by the Association unless an amending Act is introduced.

Clause 44. That this meeting is of opinion that no further negotiations with the Treasury should take place until an amending bill is promised. That this meeting is of opinion that unless an amending bill is introduced which shall secure in full the six cardinal points, the Council be instructed to call upon all members of the Association to decline service under the Act.

SOUTH-WESTERN BRANCH:

EAST CORNWALL DIVISION.

A SPECIAL meeting of the Division was held at St. Detroo's Hotel on February 6th, the following being present: Drs. Webb, Anderson, Wade, Vigurs, Hardwick, Stephens, Trinder, and N. Salmon.

Apologies for Non-attendance.—Letters and telegrams regretting absence and stating their acquiescence in the opinion of the meeting were received from fourteen members.

Confirmation of Minutes.—The minutes of the last meeting were read and approved after some discussion as to letters received from the Acting Medical Secretary *re* Dr. Webb's status at Representative Meetings. The meeting considered that Dr. Webb should attend meetings of the Representatives as Deputy Representative until the annual meeting of such when he would continue in office as Representative for the Division during the year 1912–13.

Recommendations of Council.—It was then decided to discuss the recommendations as inserted in the report of the Council contained in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL, February 3rd, paragraph 45. Recommendations I–IV were adopted and approved. A rider was added to Recommendation V, proposed by Dr. TRINDER, seconded by Dr. ANDERSON, to the following effect:

That the Council be instructed to give formal notice, on behalf of every practitioner, to determine all club appointments before April 1st, 1912.

This was carried unanimously. An amendment to Recommendation VI was carried to the following effect:

That the number of Representatives elected to the State Sickness Insurance Committee be twenty-four (as against twelve suggested), and that the twelve members elected by the Council should include the *ex officio* members.

National Insurance Act.—The SECRETARY was requested also to forward the following resolution from the Division for discussion at the Representative Meeting on February 20th and 21st:

That the Council of the British Medical Association approach the Insurance Commissioners with the irrevocable decision of this Representative Meeting that unless the regulations of the Act are so framed as to secure the six cardinal points to the satisfaction of the profession, the latter is not prepared to bargain for them with the local Insurance Committees, and will take no further part in the working of the Act.

To which the following rider was added:

That, further, the Council be instructed to take steps to organize the profession so as to secure that, failing to secure

the six cardinal points to the satisfaction of the profession under the National Insurance Act, no person shall be able to secure medical attendance under a contract practice appointment held at lower rates than those which may be agreed upon as adequate by the Representative Body for attendance upon insured persons.

Local Defence Committee.—The question of formation of a Local Defence Committee in conjunction with the West Cornwall Division was then considered. After considerable discussion, Dr. Hardwick proposed, and Dr. Wade seconded:

That such a committee should be formed.

Medical Committee for County.—Some correspondence and suggestions by the Secretary of the West Cornwall Division (Dr. Taylor) were then discussed. It was decided that the Secretary should write Dr. Taylor with the suggestion that the medical officer of each sanitary area, or some practitioner (willing to act) in such area, be asked to convene a meeting of medical men in his area and elect a representative on this committee. If Dr. Taylor did not see his way to take the responsibility of forming a committee in this manner, the Division recommended that a mass meeting should be summoned to elect such a committee as early as possible. The meeting considered that this committee should not be a local Medical Committee under the Act, but one which should deal with all matters concerning the welfare of practitioners in the county.

Local Medical Committee.—With regard to the formation of a local Medical Committee under the Insurance Act the Secretary and Representative were instructed to get a statement from Dr. Cox as to the insurance areas and as to how the Association would recommend such a committee to be formed. As soon as this were obtained it was desired that steps be early taken to form such.

Ethical Rules.—The Secretary reported having received the approval by the authorities of the Association of the ethical rules submitted by the Division.

YORKSHIRE BRANCH:

Halifax Division.

A meeting of the Division was held at the Imperial Cafe, Halifax, on Wednesday, February 7th, at 8.30 p.m. Dr. Macaulay was in the chair, and thirty-two other members were present.

Confirmation of Minutes.—The minutes of the previous meeting were read, confirmed, and signed.

Apologies for Non-attendance were received from Drs. Gill, Hoyle, Hunt, and Wright.

Report of Council.

The report was considered, and the following resolutions were passed unanimously:

For Clause 44. Omit the last sentence, beginning "Unless," and substitute:

That as the minimum demands of the profession cannot be conceded under the Act, the Council is of opinion that the Government should be informed through the Commissioners that further negotiations will be useless.

Recommendation I.—The Division disagrees with Recommendation I.

Recommendation II.—The Division agrees with Recommendation II.

Recommendation III.—The Division agrees with Recommendation III.

Recommendation IV.—The Division disagrees with Recommendation IV.

Recommendation V.—The Division agrees with Recommendation V.

Recommendation VI.—For Recommendation VI substitute:

That a State Sickness Insurance Committee be appointed, if and when the requirements of the profession be conceded, to consider and report to the Council on all matters connected with the National Insurance Act; that the committee consist of (*a*) 20 members, 2 of whom are women, elected by the Representative Body, (*b*) 6 members elected by the Council, (*c*) the *ex officio* members of the Council; and that the committee be empowered to add to its numbers for special purposes not more than four additional members.

The following other resolutions were also passed unanimously:

1. That the Halifax Division of the British Medical Association is opinion that, as the minimum demands of the profession cannot be conceded under the Act, the Council of the British Medical Association should inform the Government through the Commissioners that further negotiations will be useless.
2. That the Halifax Division of the British Medical Association instructs its Representative to draw the attention of the Representative Body of the British Medical Association to the large amount of canvassing (by circular and otherwise) which, since the adoption of the National Insurance Act, is being carried on by friendly societies for new members; that this Division is of opinion that in societies providing medical benefits this canvassing contravenes the regulations of the General Medical Council, and that the time has now arrived for the British Medical Association to call upon its members to resign all friendly society appointments, and that the Council be instructed to report the matter to the General Medical Council.
3. That the votes of the Representatives on the Recommendations shall be recorded and published.
4. That this meeting of practitioners is of opinion that all members of the profession should refuse to undertake any medical work or *other duties* that may be assigned to them under the Insurance Act until the provisions of the Act be so amended, either by a supplementary Act or by regulations framed by the Insurance Commissioners, as to secure without equivocation or reserve the six cardinal points demanded by the profession, and that all disciplinary powers over medical practitioners, under Section 15, Subsection B, of the Act, be placed unreservedly in the hands of the General Medical Council.
5. That the Halifax Division of the British Medical Association is of opinion that as matters now stand the Association should not appoint any representatives to sit upon the Advisory Committee, but in the event of any such representatives being appointed they should be advisory only and have no power to treat for the profession.

Instructions to Representative.—The Divisional Representative was given definite instructions on the various points at issue.

Proposed Municipal Tuberculosis Dispensary.—The action taken by the Divisional Executive Committee was explained and endorsed and the matter left in their hands.

Wakefield, Pontefract, and Castleford Division.

A special meeting of this Division was held in the Clayton Hospital, Wakefield, on Tuesday, February 6th.

National Insurance Act.—The object of the meeting was to consider its attitude towards the Insurance Act and to give instructions to its Representative for the forthcoming Representative Meeting to be held in London. Dr. J. E. Eddison (Leeds), Dr. A. Drury (Halifax) and others addressed the meeting, which was presided over by Dr. John Walker, Chairman of the Division, and largely attended by medical men practising in Wakefield, Pontefract, Castleford, Doncaster, Goole and surrounding districts. The following resolutions were passed:

1. That the administration of medical benefits cannot be carried out under the Act with due regard to the interests of the public and the welfare of the medical profession.
2. That this meeting of medical practitioners is of opinion that the members of the profession in this Division are should refuse to undertake any medical work or other duties that may be assigned to them under the Insurance Act until the provisions of the Act be so amended as to secure without equivocation or reserve the demands of the profession; and that all disciplinary powers over medical practitioners (under Section 15, Subsection B of the Act) be placed unreservedly in the hands of the General Medical Council.

Association Notices.

NOTICE OF THE FORMATION OF NEW DIVISIONS OF THE ASSOCIATION.

Transvaal Branch: Pretoria and Witwatersrand Divisions.

Notice has been received of the formation of two new Divisions—Pretoria and Witwatersrand Divisions—of the Transvaal Branch, with the following areas:

Pretoria Division.

The districts of Rustenburg, Waterberg, Zoutpansberg, Lydenburg, Middleburg, Carolina, Barberton, Swaziland, and that portion of the Pretoria District lying north of latitude 26° S.

Witwatersrand Division.

The remainder of the Transvaal.

SPECIAL REPRESENTATIVE MEETING.

Notice is hereby given that a Special Representative Meeting of the Association will be held in the Court of Common Council Chamber, the Guildhall, London, on Tuesday, February 20th, at 10 o'clock in the forenoon, and Wednesday, February 21st, 1912, (*a*) on the requisition of the Council, for the purpose of receiving and considering the Report of Council referred to in the following Minute of Council of January 31st, 1912, and for the purpose of passing resolutions arising therefrom or in reference thereto; (*b*) on the requisition to the Council, signed on behalf of the Portsmouth, Winchester, Huddersfield, South-East Essex, North-East Essex, and Stratford Divisions, and the Shropshire and Mid-Wales Branch.

The Minute of Council above referred to is as follows:

> That the Chairman of Representative Meetings be requested to convene a Special Representative Meeting to consider a Report of the Council upon the National Insurance Act; and that the date of such Representative Meeting be so arranged as to allow the Divisions full time to consider the Report of the Council and instruct the Representatives.

The resolution adopted by the above mentioned Divisions accompanying the requisition is as follows:

> That this Meeting demands that a Special Representative Meeting be immediately summoned to consider what action is to be taken by the Profession now the Bill is an Act.

[**NOTE.**—By a clerical error, the above resolution, which was sent in by the North-East Essex Division at an earlier date, has been printed instead of the later resolution which it, together with the other Divisions, passed. The resolution should read as follows:

> That this meeting of the ———— Division call upon the Council to convene without delay a Special Representative Meeting, in accordance with By-law 36, to consider the conduct of the negotiations with the Government by the Council of the British Medical Association, and to instruct the Council as to its future action.]

The Report of Council referred to was published in the issue of the Supplement to the "British Medical Journal" of February 3rd.

BY ORDER OF THE CHAIRMAN OF REPRESENTATIVE MEETINGS,

GUY ELLISTON,
Financial Secretary and Business Manager.

ALFRED COX,
Acting Medical Secretary.

February 1st, 1912.

BRANCH AND DIVISION MEETINGS TO BE HELD.

DORSET AND WEST HANTS BRANCH: BOURNEMOUTH DIVISION.—A meeting of this Division will be held at Trinity Hall, Bournemouth, on Friday, February 16th, at 3.30 p.m., to consider the Report of the Council on the position created by the passage into law of the National Insurance Bill, and to instruct the Representative of the Division for the Special Representative Meeting to be held on February 20th and 21st. Non-members of the Association are invited to attend this meeting. —ELEANOR C. BOND, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: LIVERPOOL DIVISION.—A meeting of the Division will be held at the Medical Institution, Liverpool, on Friday, February 16th, at 3.30 p.m., to consider Report of Council on National Insurance Act.—FRANCIS W. BAILEY, Honorary Secretary, 51A, Rodney Street, Liverpool.

METROPOLITAN COUNTIES BRANCH: HAMPSTEAD DIVISION.—A meeting of the Hampstead Division will be held on Saturday, February 17th, at 8.30 p.m., at the Hampstead Conservatoire, Eton Avenue, Swiss Cottage. Agenda: (1) Minutes. (2) Letters. (3) Questions. (4) Election of Representatives to Representative Meetings. (5) Report of Council on National Insurance Act (see SUPPLEMENT of BRITISH MEDICAL JOURNAL, February 3rd) and instruction of Representative. Members are invited to bring friends.—MINA L. DOBBIE, Honorary Secretary, Hampstead.

METROPOLITAN COUNTIES BRANCH: LAMBETH DIVISION.—An ordinary meeting will be held at Lambeth Infirmary on Thursday, February 22nd, at 4 p.m. Agenda: (*a*) To consider the question of the proposed Dispensary for Tuberculous Patients for the Borough of Camberwell and the advisability of getting a nominee of the Lambeth Division elected on the committee. (*b*) G. Bellingham Smith, F.R.C.S., Obstetric Surgeon to Guy's Hospital, will read a paper on Eclampsia. —J. H. CLATWORTHY, Honorary Secretary, 145, Denmark Hill.

METROPOLITAN COUNTIES BRANCH: SOUTH-WEST ESSEX DIVISION.—A meeting of this Division, to which all medical practitioners residing within its area are invited, will be held this day, Friday, February 16th, in the Wesleyan Schoolroom, High Road, Leyton (corner of James Lane, nearest station, Leyton, Midland Railway), at 4 p.m. *Agenda:* 1. Minutes. 2. Correspondence. 3. To consider Report and Recommendations of Council on the National Insurance Act (published in SUPPLEMENT to JOURNAL, February 3rd, 1912). Recommendations—The Council recommends: (1) That the Council be instructed to press upon the Government and the Commissioners the further conditions necessary for securing the requirements of the profession. (2) That the Council be instructed to notify the Insurance Commissioners that no negotiations will be entered into with any Insurance Committee until the Representative Body is satisfied that the requirements of the profession are conceded. (3) That the Council be instructed, as soon as possible after the issue of the Regulations by the Insurance Commissioners, to submit a Report thereon to the Divisions and the Representative Body. (4) That the Council be instructed to make all necessary arrangements for assisting the Divisions and Branches in the appointment of provisional Medical Committees in every insurance area to safeguard the interests of the profession, without prejudice to the question of whether these Committees shall later accept recognition as statutory local Medical Committees. (5) That the Council be instructed to take steps to organize the profession so as to secure that, failing the provision of adequate remuneration of medical practitioners under the National Insurance Act, no person shall be able to secure medical attendance under a contract practice appointment held at lower rates than those which may be agreed upon as adequate by the Representative Body for attendance upon insured persons. (6) That a State Sickness Insurance Committee be appointed to consider and report to the Council on all matters connected with the National Insurance Act; that the Committee consist of (*a*) twelve members elected by the Representative Body, (*b*) twelve members elected by the Council, (*c*) two members nominated by the Association of Registered Medical Women, (*d*) the *ex officio* members; and that the Committee be empowered to add to its numbers for special purposes not more than four additional members. 4. To instruct Representative as to the action the Division requires him to take at the Representative Meeting to be held on February 20th and 21st, 1912. 5. To appoint, if necessary, a deputy to attend the above meeting. 6. Any other business.—A. POTTINGER ELDRED, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION. —A meeting of this Division will be held at Battersea Town Hall on Friday, February 16th, at 3.45 p.m.—S. VERDON-ROE, Honorary Secretary.

NORTH OF ENGLAND BRANCH: NORTH NORTHUMBERLAND DIVISION.—A meeting will be held at the Infirmary, Alnwick, this day, Friday, February 16th, at 3.30 p.m. Business: (1) Confirmation of minutes. (2) Consideration of instructions to be given to Representative at Special Representative Meeting to be held in London on February 20th and 21st. (3) To discuss the formation of a local Medical Committee under the National Insurance Act. (4) Any other business.—C. CLARK BURMAN, Honorary Secretary, Alnwick.

PERTHSHIRE BRANCH.—A special meeting of this Branch will be held in the Royal Infirmary, Perth, on Friday, February 16th at 3.30 p.m. Council meeting at 3.15 p.m. Business: (1) Consider Report of Council to Divisions *re* Insurance Act, and instruct Representatives. (2) Consider position of medical officers to friendly societies. The Act comes into force on July 15th next, but does not provide for medical benefit till January, 1915. (3) Any other business.—WILLIAM A. TAYLOR, and A. TROTTER, Honorary Secretaries.

South-Eastern Branch: Brighton Division.—The next ordinary meeting will take place at the Lecture Hall, Christ Church, New Road, on Wednesday, February 21st, at 4.30. *Agenda:* (*a*) Minutes and correspondence. (*b*) Secretary's announcements. (*c*) Resolutions proposed by Dr. Wood: (1) That whereas the Brighton Education Committee are contemplating the appointment of two whole-time medical officers to undertake the combined duties of inspection and treatment of school children, this meeting considers that such appointments would be contrary to the principles laid down by the British Medical Association. (2) That should these appointments be advertised by the Brighton Education Committee, the Secretary is hereby authorized to refer the matter to the Chairman of the Central Ethical Committee without delay, for the purpose of excluding such advertisements from the British Medical Journal, and placing the appointment in the warning notices list. (3) That notice of Resolution (1) be sent to the Brighton Education Committee. (*d*) Report of Ethical Committee. (*e*) Division Rules—alterations suggested by the Chairman of Organization Committee. (*f*) Report of Medico-Political Committee *re* Brighton Workhouse appointment. (*g*) Resolution by Dr. Rooth, seconded by Dr. H. J. Walker: That the Brighton Division disapproves of the action of the Women's Hospital in charging fees for attending midwifery cases, thereby competing with the local medical men, and calls upon the medical staff of the hospital to withdraw their support from this branch of the hospital work unless the practice of charging fees be discontinued. *Supplementary Agenda:* Division Rules—Amendment to Rule 12, proposed by Dr. Benham: In Rule 12 to omit words "meetings shall be held on the third Wednesday in each month." Dr. Rooth's Resolution—Resolution by Chairman of Executive Committee: That the matter be referred to the Medico-Political Committee for further investigation, with instructions to hold a conference with the medical staff of West Street Hospital, and to report to the next Division meeting.—C. H. Benham, Honorary Secretary.

South-Eastern Branch: Chichester and Worthing Division.—A most important meeting of the Division will be held at the Norfolk Hotel, Arundel, on February 16th, at 3.45 p.m. Business: To discuss the Report of Council to the Divisions on the position of the profession in relation to the National Insurance Act and instruct their Representative.—A. Densham, A. S. Morton Palmer, Honorary Secretaries.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

In ninety-four of the largest English towns 8,300 births and 6,278 deaths were registered during the week ending Saturday, February 3rd. The annual rate of mortality in these towns, which had been 15.4, 14.8, and 16.5 per 1,000 in the three preceding weeks, further rose to 18.6 per 1,000 in the week under notice. In London the death-rate was equal to 17.7 per 1,000, against 14.5, 15.0, and 15.9 in the three preceding weeks. Among the ninety-three other large towns the death-rates ranged from 6.9 in Ilford, 9.0 in Enfield, 9.7 in Bath, 10.1 in Great Yarmouth, 10.4 in Ealing, and 10.9 in Hornsey and in Bournemouth, to 27.3 in West Bromwich, 27.4 in Dudley, 28.1 in Barnsley, 30.9 in Bury, 31.0 in Preston, and 31.4 in Walsall. Measles caused a mortality of 1.4 in Oldham, 1.8 in Reading, 2.1 in Warrington, and 2.5 in York; whooping-cough of 1.6 in Leicester and in Barrow-in-Furness, 1.7 in Rhondda, 1.8 in Swansea, 2.6 in Bury, 2.9 in Gillingham, 3.0 in Barnsley, 3.8 in Merthyr Tydfil, and 7.3 in Walsall; and diphtheria of 1.1 in Bolton, 1.3 in Preston and in York, and 1.6 in Barrow-in-Furness. The mortality from enteric fever and scarlet fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 62, or 1 0 per cent., of the deaths registered in the ninety-four towns in the week under notice were not certified either by a registered medical practitioner or by a coroner after inquest, and included 13 in Birmingham, 7 in Liverpool, 3 in London, and 3 in Warrington. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,762, 1,654, and 1,562 at the end of the three preceding weeks, had further fallen to 1,500 at the end of the week under notice; 169 new cases were admitted during the week, against 165, 162, and 158 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

In eighteen of the largest Scottish towns 1,069 births and 797 deaths were registered during the week ending Saturday, February 3rd. The annual rate of mortality in these towns, which had been 17.3 and 17.7 per 1,000 in the two preceding weeks, further rose to 19.1 in the week under notice, and was 0.5 per 1,000 above the rate in the ninety-four large English towns. Among the several Scottish towns the death-rates ranged from 7.5 in Motherwell, 9.0 in Clydebank, and 11.0 in Leith to 22.7 in Dundee and in Greenock, and 23.3 in Ayr. The mortality from the principal infectious diseases averaged 2.4 per 1,000, and was highest in Glasgow and Greenock. The 340 deaths from all causes in Glasgow included 43 from measles, 2 from scarlet fever, 3 from whooping-cough, 4 from diphtheria, and 8 from infantile diarrhœa. Four deaths from diphtheria and 2 from measles were recorded in Edinburgh: 3 from whooping-cough and 2 from measles in Aberdeen; 2 from whooping-cough and 4 from measles in Greenock, 2 from whooping-cough in Kirkcaldy; and 1 from typhus in Motherwell.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, January 27th, 602 births and 495 deaths were registered in the twenty-two principal districts of Ireland, as against 586 births and 483 deaths in the preceding period. The annual death-rate in these districts, which had been 18.6, 20.3, and 21.8 per 1,000 in the three preceding weeks, rose to 22.3 per 1,000 in the week under notice, this figure being 5.8 per 1,000 higher than the mean average death-rate in the ninety-four English towns for the corresponding period. The figures in Dublin and Belfast were 23.5 and 27.5 respectively, those in other districts ranging from 4.6 in Wexford and 5.3 in Tralee to 17.8 in Portadown and 26.5 in Cork, while Londonderry stood at 15.3, Limerick at 16.3, and Waterford at 13.3. The zymotic death-rate in the twenty-two districts averaged 1.4 per 1,000 as against 1.8 in the preceding period.

During the week ending Saturday, February 3rd, 653 births and 545 deaths were registered in the twenty-two principal districts of Ireland, as against 602 births and 495 deaths in the preceding period. The annual death-rate in these districts, which had been 20.3, 21.8, and 22.3 per 1,000 in the three preceding weeks, rose to 24.6 per 1,000 in the week under notice, this figure being 6.0 per 1,000 higher than the mean average death-rate in the ninety-four English towns for the corresponding period. The figures in Dublin and Belfast were 22.4 and 31.1 respectively, those in other districts ranging from 4.7 in Sligo and 6.6 in Queenstown to 34.9 in Newry and 35.5 in Clonmel, while Cork stood at 19.7, Londonderry at 12.7, Limerick at 25.8, and Waterford at 15.2. The zymotic death-rate in the twenty-two districts averaged 1.4 per 1,000, or the same as in the preceding period.

A Correction.

In the table of vital statistics for the fourth quarter of 1911, published in the Supplement of January 27th, the population of Greenwich was incorrectly printed; it should have been 95,982, and the number of births should have been 534. There is a slight discrepancy in the number of deaths in the total of the medical officer of health and the official total of the Registrar-General, which would appear to be due to a difference in the system of distributing deaths occurring in the Seamen's Hospital. We believe that, as the result of recent correspondence on this point between the medical officer of health of Greenwich and the Registrar-General, a uniform system of distribution will in future be adopted.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

Surgeon-General Christopher Pearson, M.D., M.A., was on February 2nd placed on the retired list at his own request.

Royal Naval Volunteer Reserve.

The following have been appointed Surgeons: Alfred Ernest Wilson Hird, Alfred Edward Turnbull, M.B., Edmund Ralph Sircom, Francis Carminow Doble, Walter Fedde Fedden, M.B., Jas. Bruce Ronaldson, M.B., B.A., Joseph Henry Thompson, M.B., William Innes Gerrard, M.B., Cecil Brian Forsyth Tivy, M.B., Charles O'Beirne Ryan.

ARMY MEDICAL SERVICE.

Surgeon-General T. M. Corker, British Service, to be Principal Medical Officer, Lucknow Division.

Surgeon-General J. G. MacNeece, C.B., assumed the duties of Principal Medical Officer, 6th (Poona) Division, on January 5th, 1912.

Colonel M. W. Kerin has been appointed Principal Medical Officer, 8th (Lucknow) Division.

Colonel H. Hendley, M.D., I.M.S., has been appointed Deputy Principal Medical Officer of His Majesty's Forces in India, vice Colonel D. Ffrench-Mullen, M.D., I.M.S., dated August 8th, 1911.

Colonel C. E. Nichol has been appointed Principal Medical Officer, Presidency Brigade.

Colonel E. Butt has been appointed Principal Medical Officer, 7th (Meerut) Division.

Lieutenant-Colonel J. W. Buller has been appointed Officer Commanding, Station Hospital, Maymyo.

Royal Army Medical Corps.

The undermentioned officers are placed on retired pay:

Lieutenant-Colonel Frederick P. Nichols, M.B., dated February 9th, 1912.

Major Ernest C. Anderson, D.S.O., dated January 30th, 1912.

Captain W. F. B. Loughnan has been granted eight months' leave on private affairs.

Captain J. J. O'Keefe has been granted eight months' general leave

The undermentioned Captains to be Majors, dated January 25th, 1912: William L. Baker, Frederick W. Cotton, Frank M. Parry, M.B., Bertram R. Dennis, M.B., William J. P. Adye-Curran, John Powell, M.B., William Bennett, M.B., Thomas Biggan, M.B., Basil S. Bartlett, Dermot O. Hyde, Albert E. Hamerton, D.S.O., George J. Houghton, John G. Churton, Arthur D. Waring, M.B., Alfred F. Weston, John Dorgan, M.B., Charles H. Furnivall, Fitzgerald G. FitzGerald.

Lieutenant James R. Hill, M.B., is transferred to the Reserve of Officers under the provisions of Article 632, Royal Warrant for Pay and Promotion, 1909, dated January 30th, 1912.

TERRITORIAL FORCE.

Royal Army Medical Corps.

Yorkshire Mounted Brigade Field Ambulance.—Percy Kingsley Steele, M.B., F.R.C.S.Eng., to be Lieutenant, dated October 6th, 1911.

Fourth Northern General Hospital.—Charles John Coleman, M.D., to be Captain, dated December 15th, 1911.

COLONIAL MEDICAL SERVICES.

The following changes have been notified by the Colonial Office:

West African Medical Staff.

New Appointments.—The following gentlemen have been selected for appointment to the Staff:—Northern Nigeria: B. A. Percival, M.A., M.B., B.C.Cantab., M.R.C.S.Eng., L.R.C.P.Lond.; J. W. Thomson, M.B., Ch.B.Glasg.; R. Willan, M.R.C.S.Eng., L.R.C.P.Lond. Southern Nigeria; E. J. J. Quirk, M.R.C.S.Eng., L.R.C.P.Lond. Sierra Leone: E. J. Powell, M.B., B.Ch., B.A.O.Dubl.

Deaths.—J. F. W. Ward, L.R.C.S., L.R.C.P.Edin, L.F.P.S.Glasg., Medical Officer, Sierra Leone; D. W. Purkis, M.R.C.S., L.R.C.P.Edin., L.F.P.S.Glasg., Medical Officer, Gold Coast.

Other Colonies.

D. C. Robertson, M.D., Ch.B.Aberdeen, has been selected for appointment as a Medical Officer (Grade III) in the Federated Malay States.

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

ALL SAINTS' HOSPITAL FOR OUT-PATIENTS, Buxton Street, E.—Vacancy on Honorary Staff.

BANBURY: HORTON INFIRMARY.—House-Surgeon. Salary, £80 per annum.

BARROW-IN-FURNESS: NORTH LONSDALE HOSPITAL.—House-Surgeon (male). Salary, £100 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Resident Surgical Officer. Salary, £100 per annum.

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES.—Clinical Assistant. Honorarium at the rate of 52 guineas per annum.

BIRMINGHAM UNIVERSITY.—Lecturer in Physiological Department. Stipend, £150 per annum.

BRADFORD POOR LAW UNION.—Assistant Resident Medical Officer (lady) for the Hospital and Workhouse. Salary, £130 per annum.

BRISTOL GENERAL HOSPITAL.—Senior House-Surgeon. Salary, £120 per annum.

CAMBRIDGE: ADDENBROOKE'S HOSPITAL.—Second House-Surgeon. Salary, £80 per annum.

CHARING CROSS HOSPITAL MEDICAL SCHOOL.—Lectureship in Hygiene and Public Health.

CHARING CROSS HOSPITAL.—Physician for Mental Diseases.

CHORLEY: RAWCLIFFE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

COVENTRY UNION.—Assistant Workhouse Medical Officer, non-resident. Salary, £220 per annum.

DERBY COUNTY ASYLUM, Mickleover.—Junior Assistant Medical Officer (male). Salary, £120 per annum, increasing to £150.

DEVON COUNTY ASYLUM, Exminster.—Fourth Assistant Medical Officer (male). Salary, £130 per annum, rising to £140, with honorarium of £50 for pathological work.

EDINBURGH HOSPITAL FOR WOMEN AND CHILDREN.—Two Medical Women as Residents, one as Senior and the other as Junior. Honorarium, £25 and £12 per annum respectively.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—House-Physician. Salary at the rate of £75 per annum.

GLASGOW EYE INFIRMARY.—Resident Assistant House-Surgeon. Salary, £75 per annum.

HAMPSTEAD GENERAL AND NORTH-WEST LONDON HOSPITAL.—(1) House-Physician; (2) House-Surgeon. Salary at the rate of £70 per annum each.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Clinical Pathologist and Bacteriologist. Salary commencing at £200 per annum.

KING EDWARD VII HOSPITAL FOR WINDSOR, ETON, AND DISTRICT.—Senior House-Surgeon. Salary, £80 per annum.

LANCASHIRE COUNTY ASYLUM, Winwick, Warrington.—Assistant Medical Officer. Salary, £150 per annum, increasing to £250.

LEEDS UNIVERSITY.—(1) Medical Tutor at General Infirmary. Salary, £125 per annum. (2) Medical Registrar at the General Infirmary. Honorarium, £25 per annum.

LIVERPOOL: DAVID LEWIS NORTHERN HOSPITAL.—(1) Two House-Physicians; (2) Three House-Surgeons. Salary at the rate of £60 per annum each.

LIVERPOOL: ROYAL SOUTHERN HOSPITAL.—(1) Two House-Physicians; (2) Three House-Surgeons. Salary at the rate of £60 per annum.

MACCLESFIELD GENERAL INFIRMARY.—Junior House-Surgeon. Salary, £60 per annum.

MANCHESTER: ST. MARY'S HOSPITAL FOR WOMEN AND CHILDREN.—Two House-Surgeons. Honorarium at the rate of £50 per annum.

NEWCASTLE-UPON-TYNE UNION.—Medical Superintendent of Infirmary and Workhouse. Salary at the rate of £450 per annum.

NEW HOSPITAL FOR WOMEN, Euston Road, N.W.—(1) Senior Assistants to the Out-patient Department; (2) Senior Assistant to Children's Department.

NORTH STAFFORDSHIRE INFIRMARY, Hartshill.—House-Surgeon. Salary, £100 per annum.

NOTTINGHAM GENERAL DISPENSARY (BRANCH).—Assistant Resident Surgeon (male). Salary, £160 per annum.

OXFORD: RADCLIFFE INFIRMARY AND COUNTY HOSPITAL.—(1) House-Surgeon; (2) Casualty House-Surgeon. Salary at the rate of £80 per annum each.

RYDE: ROYAL ISLE OF WIGHT COUNTY HOSPITAL.—Resident House-Surgeon. Salary, £100 per annum.

SALFORD ROYAL HOSPITAL.—Casualty House-Surgeon (male). Salary at the rate of £50 per annum.

SALOP INFIRMARY.—House-Physician. Salary at the rate of £70 per annum.

SHEFFIELD UNIVERSITY.—Demonstrator in Experimental Physiology and Pharmacology. Salary, £200 per annum.

SOUTHAMPTON: ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL.—Junior House-Surgeon. Salary at the rate of £60 per annum.

WEST AFRICAN MEDICAL STAFF.—Vacancies in the Service. Salary, £400 per annum, rising to £600.

WINCHESTER: ROYAL HAMPSHIRE COUNTY HOSPITAL.—House-Surgeon (male). Salary, £80 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacant appointments: Castletown (Caithness), Lutterworth (Leicestershire).

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

APPOINTMENTS.

MARSDEN, J. A., M.R.C.S.Eng., Certifying Factory Surgeon for the Hipperholme District, co. Yorks.

MARTIN, James H., M.D.Glasg., a Dispensary Gynaecologist of the Western Infirmary, Glasgow.

MURPHY, J. F., M.R.C.S., L.R.C.P.Lond., District and Workhouse Medical Officer of the Pickering Union.

PAXTON, J., L.R.C.P.and S.Edin., District Medical Officer of the Berwick-on-Tweed Union.

REES, W. A., M.D.Lond., District Medical Officer of the Wareham and Purbeck Union.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTH.

PEACOCK.—On the 6th inst., at her father's (Dr. Tredinnick's) residence, Penlu House, Craven Arms, Shropshire, the wife of W. H. Peacock, M.B., B.S.Durh., L.R.C.P.Lond., M.R.C.S.Eng., West Africa Medical Staff, Southern Nigeria, of a daughter.

MARRIAGE.

MACARTHUR—HUTCHINSON.—December 9th, 1911, at St. Stephen's Presbyterian Church, Sydney, New South Wales, by the Rev. J. Ferguson, James Macarthur, M.B., Ch.B., B.A.O., L.R.C.S.E., etc., of Abermain, N.S.W., eldest son of P. Macarthur, M.B., Greyabbey, Ireland, to Edith Margaret, elder daughter of the late Wm. Hutchinson, of Mountmorris, co. Armagh, Ireland.

DEATH.

WILLS.—On February 7th, at 1, Kimberley Drive, Great Crosby, Liverpool, Thomas Munns Wills, F.R.C.S.I., V.D., J.P., aged 70 years. Interred at Anfield Cemetery, Liverpool, on Saturday, February 10th.

DIARY FOR THE WEEK.

MONDAY.

KING'S COLLEGE, Strand, W.C., 4.30 p.m.—Dr. Otto Rosenheim: The Bearing on Chemical Physiology of Certain Pathological Questions.

TUESDAY.

CHELSEA CLINICAL SOCIETY, at St. George's Hospital Medical School, 8.30 p.m.—Dr. Hyslop: The Intercranial Mechanism in Health and Disease.

LONDON DERMATOLOGICAL SOCIETY, 49, Leicester Square, 4.30 p.m.—(1) Demonstration of Clinical Cases. (2) Adjourned Discussion on Dr. J. L. Bunch's paper on Prurigo and Itching Diseases of the Skin.

ROYAL SOCIETY OF MEDICINE:

THERAPEUTICAL AND PHARMACOLOGICAL SECTION, 15, Cavendish Square, W., 4.30 p.m.—Discussion on the Tuberculin Treatment of Pulmonary Tuberculosis, opened by Dr. Arthur Latham. The following will take part in the discussion: Dr. Nathan Raw, Dr. W. d'Este Emery, Dr. A. C. Inman, Dr. S. V. Pearson, Dr. J. W. Linnell, Dr. J. J. Perkins, Dr W. H. Wynn, Dr. D. Lawson, Dr. Paul Mathews, Dr. G. A. Crace-Calvert. The discussion will be continued on the following day, Wednesday, at 4.30 p.m.

PATHOLOGICAL SECTION, 15, Cavendish Square, W., 8.30 p.m. Professor Beattie and Dr. A. J. Hall: (1) A New Method of Mounting Museum Specimens; (2) Demonstration of Specimens of Neurofibromatosis and Multiple Embolic Aneurysms of the Pulmonary Artery. Dr. J. A. Arkwright: Variation in Colonies of *B. diphtheriae*. Dr. Hort and Dr. Penfold: Salvarsan Fever and its Relation to other Types of Injection Fever. Dr. Bayon: Animal Experiments in Connexion with *B. leprae*.

THURSDAY.

MEDICAL OFFICERS OF SCHOOLS ASSOCIATION, 11, Chandos Street, Cavendish Square, W., 4.30 p.m., General Meeting.—Agenda:—Minutes. Paper: Dr. J. G. Forbes: Pollution of Swimming Baths.

FRIDAY.

ROYAL SOCIETY OF MEDICINE:

SECTION FOR THE STUDY OF DISEASE IN CHILDREN, 11, Chandos Street, W., 4.30 p.m.—Cases:—Dr. R. Hutchison: (1) Paralysis of the Muscles of the Neck (? Anterior Poliomyelitis); (2) Hysterical Vomiting followed by Achylia and Infantilism; (3) Fibroid Lung with a Large Cavity at the Apex. Dr. H. Thursfield: Eruption of Green Teeth in a Case of Prolonged Jaundice. Dr. F. Langmead: Bile-stained Teeth. Dr. James Taylor: Athetoid Movements. Dr. L. Guthrie: Transposition of the Viscera. Dr. T. R. Whipham: Arthritis of the Shoulder and Hip (? Tuberculous).

EPIDEMIOLOGICAL SECTION, 15, Cavendish Square, W., 8.30 p.m.—Paper:—Dr. Reginald Dudfield: Summer Diarrhoea in 1911.

SOCIETY OF TROPICAL MEDICINE AND HYGIENE, 11, Chandos Street, W., 8.30 p.m.—Papers:—Dr. H. Bayon, the Lister Institute of Preventive Medicine: A Review of previous Results obtained in the Experimental Cultivation of the Leprosy Bacillus, and a Demonstration of a New Method. Dr. Phineas S. Abraham, London: Early Attempts at the Cultivation of the Leprosy Bacillus. Professor Deycke, Hamburg: The Treatment of Leprosy. Dr. Much, Chief of the Section for Experimental Therapy, Hamburg (Eppendorf): The Experimental Production of Leprous Alterations in Animals. Dr. E. Marchoux: Recent Advances in our Knowledge of Leprosy.

UNIVERSITY COLLEGE, Gower Street, W.C., 5 p.m.—Fifth Page May Lecture by Dr. Henry Head, F.R.S.: The Afferent Nervous System.

POST-GRADUATE COURSES AND LECTURES.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat, at noon and 4.30 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Tuesday, and noon, Friday. Eye, 11 a.m., Wednesday and Saturday. Radiography, Saturday, 10 a.m. Pathological Demonstration, Saturday, 11 a.m. Special Lectures: Wednesday, 5 p.m., Fractures. Thursday, 4.30 p.m., Pneumonia in Children. Friday, 2.15 p.m., Ascites.

LONDON SCHOOL OF TROPICAL MEDICINE, Albert Dock, E.—Lectures daily (Saturday excepted) at 12 noon and 4 p.m. Practical Laboratory Work daily (Saturday excepted), 10 to 12 a.m. Practical Entomology, 2 to 3.30 daily; Special Entomology, 10.30 to 1 p.m. daily. Medical Clinics, Monday and Thursday, at 3 p.m. Operations, Friday, at 3 p.m.

MANCHESTER: ANCOATS HOSPITAL POST-GRADUATE CLINIC.—Thursday, 4.15 p.m.—Spasmodic Respiratory Affections.

MANCHESTER ROYAL INFIRMARY.—Tuesday, 4.30 p.m., Some Conditions which may Simulate Disease of the Stomach. Friday, 4.30 p.m., Tumours of the Breast.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin. Tuesday, Medical. Wednesday, Surgical. Thursday, Surgical. Friday, Eye. Lectures at 5.15 p.m. each day will be given as follows: Monday, The Naso-pharynx and its Relation to other Regions. Tuesday, Hysteria in Childhood. Wednesday, Chronic Intestinal Stasis. Thursday, Is it a Case for Operation? A Problem in Diagnosis.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Hemiplegia. Friday, 3.30 p.m., Tabes Dorsalis.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics: 10 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear: 3 p.m., Demonstration on Clinical and General Pathology. Tuesday, 2.30 p.m., Operations; Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient: 4.30 p.m., Treatment of the Various Types of Eczema. Wednesday, 2 p.m., Throat Operations; 2.30 p.m., Medical Out-patient; Skin and Eye Clinics: *X* Rays; 3 p.m., Pathological Demonstration; 5.30 p.m., Eye Operations. Thursday, 2.30 p.m., Gynaecological Operations; Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient; 4.30 p.m., Demonstration of Selected Cases of Children's Disease. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye: 3 p.m., Medical In-patient; Pathological Demonstration.

SALFORD ROYAL HOSPITAL, Lancashire.—Thursday, 4.30 p.m., Swellings in the Neck.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W. The following are the arrangements for next week:—Daily arrangements: Medical and Surgical Clinics, 2 p.m.; *X* Rays, 2 p.m.; Operations, 2 p.m. Monday, Gynaecology, 10 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday: Gynaecological Operations, 10 a.m.; Demonstration of Minor Operations, 11.30 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday: Gynaecological Demonstration, 10 a.m.; Lecture, Practical Medicine, 12.15 p.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m.; Friday: Gynaecological Operations, 10 a.m.; Lecture, Practical Medicine, 12.15 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m. Lectures at 5 p.m.: Monday: The Clinical Uses of Prisms. Tuesday: Intestinal Obstruction. Wednesday: Practical Medicine, Lecture IV; Thursday: Hypochondriasis. Friday: Extrauterine Gestation.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
FEBRUARY.	
16 FRIDAY ..	NEWCASTLE-ON-TYNE DIVISION, *North of England Branch*, Scientific Meeting, 3.15 p.m. to 6 p.m. BOURNEMOUTH DIVISION, *Dorset and West Hants Branch*, Trinity Hall, Bournemouth, 3.30 p.m. NORTH NORTHUMBERLAND DIVISION, *North of England Branch*, Infirmary, Alnwick, 3.30 p.m. CHICHESTER AND WORTHING DIVISION, *South-Eastern Branch*, Norfolk Hotel, Arundel, 3.45 p.m. WANDSWORTH DIVISION, *Metropolitan Counties Branch*, Battersea Town Hall, 3.45 p.m. SOUTH-WEST ESSEX DIVISION, *Metropolitan Counties Branch*, Wesleyan Schoolroom, High Road, Leyton, 4 p.m.
17 SATURDAY ..	HAMPSTEAD DIVISION, *Metropolitan Counties Branch*, Hampstead Conservatoire, Eton Avenue, Swiss Cottage, 8.30 p.m.
18 Sunday ..	
19 MONDAY ..	
20 TUESDAY ..	**Special Representative Meeting**, Court of Common Council Chamber, Guildhall, London, 10 a.m.
21 WEDNESDAY	**Special Representative Meeting**, Court of Common Council Chamber, Guildhall, London. BRIGHTON DIVISION, *South-Eastern Branch*, Lecture Hall, Christ Church, New Road, 4.30 p.m. RICHMOND DIVISION, *Metropolitan Counties Branch*, Richmond, 8.30 p.m.
22 THURSDAY ..	LONDON: Hospitals Insurance Act Subcommittee, 10 a.m. Joint Subcommittee *re* Certificates under Compensation Act, 2 p.m. LAMBETH DIVISION, *Metropolitan Counties Branch*, Ordinary Meeting, Lambeth Infirmary, 4 p.m.

Date.	Meetings to be Held.
FEBRUARY *(continued)*.	
23 FRIDAY ..	BIRMINGHAM BRANCH, Pathological and Clinical Section, Medical Institute, Edmund Street, 8 p.m.
24 SATURDAY ..	
25 Sunday ..	
26 MONDAY ..	
27 TUESDAY ..	
28 WEDNESDAY	BATH AND BRISTOL BRANCH, Bath.
29 THURSDAY ..	
MARCH.	
1 FRIDAY ..	
2 SATURDAY ..	
3 Sunday ..	
4 MONDAY ..	
5 TUESDAY ..	
6 WEDNESDAY	
7 THURSDAY ..	
8 FRIDAY ..	
9 SATURDAY ..	
10 Sunday ..	
11 MONDAY ..	
12 TUESDAY ..	
13 WEDNESDAY	
14 THURSDAY ..	BIRMINGHAM BRANCH, Medical Institute, Edmund Street, 3.30 p.m. WALTHAMSTOW DIVISION, *Metropolitan Counties Branch*, Whipps Cross Infirmary, 4 p.m.
15 FRIDAY ..	
16 SATURDAY ..	

SUPPLEMENT
TO THE
BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, FEBRUARY 24TH, 1912.

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National Insurance.

SPECIAL REPRESENTATIVE MEETING.

GUILDHALL, LONDON, FEBRUARY 20th to 22nd, 1912.

THE Special Representative Meeting convened on the requisition of the Council and on the requisition signed on behalf of the Portsmouth, Winchester, Huddersfield, South-East Essex, North-East Essex, and the Shropshire and Mid-Wales Divisions, commenced at the Court of Common Council Chamber, Guildhall, London, on Tuesday, February 20th.

Dr. MACLEAN (Chairman of Representative Meetings), on taking the chair, was received with loud and enthusiastic cheers.

The notice convening the meeting was read and notice of appointment of substitutes was received.

Apologies for absence were received from Dr. R. C. Buist (Deputy Chairman), Professor Robert Saundby (President), through illness, Dr. F. W. Kidd (member of Council), and Dr. David Ewart (New Zealand).

THE CHAIRMANSHIP.

The CHAIRMAN OF REPRESENTATIVE MEETINGS, dealing with the rider by the Bradford Division:

> That Dr. Maclean be asked to resign the chair and a more vigorous advocate of our rights be elected,

said that before considering any other question at all he thought he would have the good feeling, and fair feeling, of the meeting with him if he suggested that he (the Chairman) should have from the meeting, as a meeting, an expression of opinion as to his status. He felt that unless and until he had by a majority of the meeting a vote of confidence, he was absolutely unhinged for the purposes of that most important Representative Meeting. He would therefore say no more, but ask the Representative of the Bradford Division to move the motion standing in the name of that Division.

Mr. PERCY ROSE (Stratford), on a point of order, suggested to the Chairman and to the meeting that a motion coming from a Division dealing with the Chairman's conduct, as Chairman, would be against the privileges of the Representatives. It was quite competent for any individual Representative to criticize the Chairman's conduct, but he did not think that the meeting ought to discuss such a resolution arising on a motion from a Division, and he considered that to do so would be a breach of privilege.

The CHAIRMAN felt that all questions of order and technicalities should be swept aside, and he thought it was of the utmost importance to the meeting that he should know his relationship to it, and that the meeting should know its relationship to him.

Dr. T. A. HELME (Manchester Central) suggested that, in strict accordance with the Standing Orders, the next motion relating to order of business should be taken at once.

The CHAIRMAN assented.

Dr. T. A. HELME therefore submitted that it was out of order for the Chairman to call for any motion to be taken before the order of procedure had been decided by the meeting.

The CHAIRMAN could not agree; he thought it was necessary to clear up the personal issue first. He suggested to Dr. Helme that his (the Chairman's) personality must enter into the question of the arrangement of business, and he must know where he stood before he did anything at that meeting. (Hear, hear.) He felt sure the meeting would think it right and proper that the Chairman of Council should take the chair during the discussion.

Chairman of Council in the Chair.

The TREASURER moved *pro forma* that the Chairman of Council take the chair.

Dr. TAYLOR (Salford) seconded the motion, and Dr. J. A. Macdonald took the chair accordingly.

Mr. BISHOP HARMAN (Marylebone) rose to a point of order. It was most important that the meeting should preserve its rights and privileges. If the Representative of the Bradford Division proposed the resolution standing in his name, they must hear him; but he thought that the Division ought not to have sent the motion.

The CHAIRMAN OF COUNCIL said the question raised by Mr. Percy Rose and Mr. Bishop Harman was very important, raising as it did a question of the privileges of that meeting, but Dr. Maclean was in the position that he knew that a certain number of Divisions had instructed their Representatives to propose a vote of censure on him for his conduct in the chair. His position must be clearly defined before he could act as chairman. He therefore appealed to the meeting not to raise the question of privilege at that moment.

Mr. PERCY ROSE (Stratford) said the only wish was to have the matter discussed on proper lines. He moved:

That to discuss the conduct of the Chairman of Representative Meetings on a resolution sent up by a Division is a breach of privilege.

Dr. GOODALL (City) seconded the motion. He did not wish to have the question burked.

Dr. T. A. HELME (Manchester Central) supported the motion. This was not the time for precedence to be given to the resolution of a Division.

Dr. ROBERTSON (Glasgow Southern) thought it would be a great mistake not to accept the position taken up by Dr. Maclean. The matter must come up at some time or other, because it was in the order of business.

Lieutenant-Colonel D. HARRIS (Council) understood that the Chairman of Representative Meetings declined to take the chair unless he knew exactly how he stood.

The CHAIRMAN OF COUNCIL said that was so, and added, in reply to a question, that the Standing Orders were not then in existence, so that the meeting was quite at liberty to decide the matter.

Dr. MACLEAN hoped that the meeting would settle the matter absolutely one way or the other.

Dr. GOSSE (Isle of Thanet) asked if he would be in order if he proposed a vote of confidence in the chair.

Dr. DRURY (Halifax) said that his Division anticipated some such resolution, and he had been instructed, in the event of it coming before the meeting, to move that the next business be proceeded with.

Dr. TREDINNICK (Shropshire) thought that Dr. Maclean's wishes should be acceded to.

The CHAIRMAN OF COUNCIL thought there was no doubt that the opinion of the Representative Meeting should be taken as to what should be done, but he wished to impress on them the fact that it was all very well for them to discuss an academic question, but they could not suppose that any man was going to preside effectively over such a meeting if he felt that there was a discussion of this kind hanging over his head. It was not in human nature. The question was whether the motion for the passing of a vote of censure be put then, or whether, as Mr. Percy Rose suggested, it was a breach of privilege.

Mr. PERCY ROSE said it was a breach of privilege as coming from a Division.

Dr. TREDINNICK moved that the resolution of the Bradford Division be taken, and this was carried.

Dr. METCALFE (Bradford) said it was a matter of profound regret to him to have to make a motion of that character. He had personally known the Chairman longer than a good many of those present, and it was a great trial to have to suggest that he was wanting in their confidence. His geniality, his urbanity, and the way he had tried to lessen their labours had appealed to all, but there was a feeling in the country amongst a great number of the rank and file in the profession that they had been out-generalled in this matter with the Government. No one could say that Dr. Maclean had not met them manfully. No one could say that he had not done his best, as he thought, for the benefit of the profession; but for some reason or other all their efforts had been unsuccessful, and this had been because the Chancellor of the Exchequer said that they should not obtain certain of the cardinal points under any circumstances whatever. It was quite impossible to get them from the Commissioners as had been suggested. It had been said that it was a bad thing to change one's general in the face of the enemy. No doubt it was a horrid and a very nauseous thing to do, but if they took the example of the Boer war, they would remember that this had happened with General Buller, who was superseded by Lord Roberts and General Kitchener. Changing the general in the face of the enemy was a very important act, and it was not always successful, but his Division thought it would be successful in the present instance. He moved:

That Dr. Maclean be asked to resign the chair, and a more vigorous advocate of our rights be elected.

The Bradford Division hoped the Representative Body would see the matter in the same light, and would appoint a chairman who would endeavour more strenuously and more successfully to obtain the wishes of the profession.

Dr. NEAL (Central Birmingham) seconded the motion. He said every one present would appreciate how extremely difficult it was for any Representative to be compelled to support a vote of censure on their respected Chairman. No one appreciated more fully than he did the services which Dr. Maclean had rendered to the whole profession, and no one recognized more the personal sacrifices that he must have made in order to carry out that work; but it could not be denied that his conduct of the last Representative Meeting had been the subject of considerable criticism, not only in the Birmingham Division but throughout a great part of the Association. He had only to refer to two specific matters. There was a strong feeling that their Chairman ought not to have held any private conversation with the Chancellor of the Exchequer on a matter so vitally affecting the interests of the profession as the appointment of their late Medical Secretary to a position under the Act; and, further, that having acquired the information that Mr. Smith Whitaker's name had actually been sent to the Prime Minister as a nomination for the office of Commissioner, such information should have been given to the last Representative Meeting. If it was not in Dr. Maclean's power to give that information to the meeting, it was still felt very strongly that an opportunity should have been taken to ascertain the wishes of the meeting in the event of such a proposal being made to the Council. The other matter referred to the unfortunate personal opinion given by the Chairman at the last Representative Meeting in regard to the duties of Representatives in relation to their instructions. It was unfortunate, because it was directly at variance with the constitution of the Association. It was laid down distinctly in By-law 37, paragraph 3, that in the event of any motion having been considered by a Division within three months of a meeting of the Representative Body, and a Representative having received instructions from his Division upon that motion, he was bound to record his vote in accordance with those instructions. It was unfortunate, also, because it had given rise to a widely spread feeling that it had influenced a number of Representatives at the last meeting to vote contrary to their instructions, and that the decision of that meeting did not represent the views of the rank and file of the profession. In view of the circumstances it was not difficult to understand the indignation which had been aroused amongst the great bulk of the profession; and much as he regretted the extremely painful duty which he had to discharge, he did not feel that he could do less than he was instructed to do by the Birmingham Division and ask the meeting to approve of the resolution.

Dr. G. PARKER (Bristol) said that although he was strongly opposed to the policy carried out by the Chairman of the Council, he was, nevertheless, instructed to oppose any censure upon the Chairman of Representative Meetings, because they considered he was simply carrying out the decision of the majority of the meeting ("No, no.") It

was impossible to throw the blame off their own shoulders. That House had voted in a certain direction; there was one very definite division in which he himself had taken part; if that motion had been carried the whole progress of the negotiations would have immediately ceased. They were defeated by a small majority; and therefore the Representative Meeting, unfortunately, had given authority to the Chairman and to the Council to go on with that policy. Some years ago there was a strong movement to abolish what was considered a two-chamber form of government of the Association, and it was finally settled that all responsibility should rest upon the Representative Meeting, and that the Council should be merely its executive.

The CHAIRMAN OF COUNCIL appealed to Dr. Parker to leave the Council out of the question, as it was not the point at issue; the point was Dr. Maclean's conduct in the chair.

Dr. G. PARKER considered that the policy he had referred to was carried out vigorously enough by the Chairman, and certainly far too vigorously for the views of his Division, which was inclined to criticize the method in which it had been carried out. The Chairman rightly had his own opinion upon the objects to be laid before the Association, and, further, the Chairman's acts were in harmony with the views dictated at the Representative Meeting. He therefore declined to be any party to a censure upon the Chairman of Representative Meetings.

Dr. F. G. SWAYNE (Norwood) said the mover and seconder of the motion had introduced it in a very proper manner, but he thought that all had made up their minds as to what course they were going to take and he moved that the question be put.

The CHAIRMAN OF COUNCIL said that he could not take that resolution at present.

Dr. E. TREDINNICK (Shropshire) agreed with previous speakers that it was a painful duty to find fault with the Chairman of Representatives, but when the Representatives were given orders from their Divisions they were bound to carry them out. As far as his Division was concerned, it was felt that Dr. Maclean had done nothing to help the Representatives to get their views placed before the meeting. He would give two instances. He (the speaker) had made a statement objecting to medical benefits being placed in the bill, and before he had time to give his reasons the statement was ruled out, and no discussion was allowed. Then he had brought forward a motion that a minimum fee should be placed in the bill, and again that was ruled out of order, and was not placed on the minutes. He had consulted a very eminent K.C. upon the matter, whose opinion was that whilst the Chairman of Representatives was within his rights, he blamed the Chairman of Representatives for not helping. The feeling in his Division was that they as general practitioners were being forced into a political zone by the Council and by the Chairman, which had been accentuated by the Medical Secretary, who had been stated to be such a good secretary, being handed over to the Chancellor of the Exchequer without consultation with the Representatives. Mr. Smith Whitaker's honour now compelled him to do all he could to help the Chancellor of the Exchequer. ("No, no.")

Dr. E. W. GOODALL submitted that this had nothing to do with the question before the meeting.

Dr. E. TREDINNICK, continuing, stated that his Division regretted that Dr. Maclean should have withheld information which he might have given at the last meeting with reference to his consultations with the Chancellor of the Exchequer. The meeting had a right to know what communications had passed between Dr. Maclean and the Chancellor of the Exchequer concerning the National Insurance Act—an Act which if accepted in its present condition would mean absolute ruin to general practitioners.

Dr. H. OPPENHEIMER (Hampstead) said that he was very glad the resolution had been brought forward as a resolution of a Division, and not as an expression of opinion by an individual member, because it was not their part to give expression to their personal views. The point that he wished to press home was whether Dr. Maclean had forfeited the confidence of the Representative Meeting or not. The profession at large had a strong feeling that his whole conduct had not been in sympathy with, and had not given full expression to, its true feeling. Dr. Maclean was not only Chairman of the Representative Meeting, but was also Chairman of the Insurance Committee. He was sure that the Chairman of Representative Meetings had failed to gauge the true feelings of the Representative Meeting at large, and he hoped that would be taken, not so much as a vote of censure, but as an expression of the views of the profession.

Dr. W. T. BROOK FOX (Blyth, Morpeth) understood that the British Medical Association was the most democratic body in the country. At the last Representative Meeting the Council was recommended to take certain action. Because some people in the country had found fault with that, were they now to be so contemptible as to say, "Oh, throw over the Chairman; we are not responsible for what we did; the Chairman led us like sheep"? ("No.")

Dr. W. L. M. DAY (North-East Essex) said that certain statements had been put before the meeting with regard to the appointment of Mr. Smith Whitaker. He quoted the speech of the Chairman dealing with the matter at the last Representative Meeting: "If the suggestion should come to me to accept any office under this bill, my decision would be irrevocable. I much prefer to stand outside any official position under this bill and fight for the men who have trusted me so long. I suggest, further, that the men with whom I have had the honour to work in this matter are entirely to be trusted by the Association, and that the trust which has been reposed in myself by my colleagues in the past should be the measure of my service to the Association." Dr. Maclean had made a statement to the effect that before that Representative Meeting the question of Mr. Smith Whitaker's appointment had been suggested to him, and that he did not view the proposal favourably. A week after that meeting Dr. Maclean proposed at the Council meeting that Mr. Smith Whitaker should be appointed to that post, and the feeling in his part of the country was that that statement and that action were not consistent.

Dr. M. DEWAR (Council) said it was this very motion which had deprived him of his Representativeship, and relegated him to his present position in the chamber, whereas he certainly would prefer to have taken his usual place in the other part of the house. He was prepared to support all the other resolutions which had been adopted by his Division; but unfortunately, at a very late hour, when a great many men had left the meeting, a certain resolution was sprung upon the meeting and adopted. Subsequently he was asked if he would support all the resolutions which had been adopted. He replied he would support and vote for all the resolutions except the last one, but that one he neither could nor would carry to London. A deputy was then nominated and appointed. He was exceedingly sorry that such an ungracious and unmerited resolution should have been proposed and adopted by the Edinburgh Division or by any other Division. He had worked with Dr. Maclean for two years, and had always found him the soul of honour, single-minded in his actions, and devoted to the best interests of the Association and the profession during that time. Dr. Maclean had spent a great deal of his time and talents and energies on behalf of the profession in London and elsewhere without fee or reward, except in having the consciousness of knowing that he had acted rightly according to his knowledge, information, and judgement. (Hear, hear.) Dr. Maclean had been blamed for one or two things. He had been blamed for withholding information as to what passed at an interview between Mr. Smith Whitaker and himself on the one hand and Mr. Lloyd George on the other. They knew now that Mr. Smith Whitaker on that occasion refused the appointment; and that both came away from that interview on the distinct understanding that the incident was closed so far as they were concerned. It must be remembered that the interview was a private and confidential one. (Cries of "No.") He (Dr. Dewar) was led to believe so. No one had any reason to doubt Dr. Maclean's word or his honour. In that sense, and on that distinct understanding, would anybody say that Dr. Maclean should have divulged the information without Mr. Lloyd George's permission? (Cries of "Yes," "Certainly" and "No.") If anyone had the hardihood to make such a statement, then his idea of the term "confidential" was not that of most men. (Applause.) To charge Dr. Maclean with the deliberate suppression of

information for ulterior purposes was entirely out of the question. As to the charge of playing into the Government's hands, and making it easy for Mr. Lloyd George to pass his bill, he (Dr. Dewar) and a great many others considered that pure maliciousness. Anyone who knew anything about the negotiations which took place between the Government and the Council would be able to bear out that statement. Dr. Maclean had had a most difficult and trying task to perform during the past year—perhaps one of the most difficult tasks to which any man could be subjected. He hoped the meeting would show its sense of fairness and justice, and give Dr. Maclean an overwhelming vote of confidence at this serious juncture. (Hear, hear, and applause.)

Dr. E. B. TURNER (Kensington) craved indulgence as an absolutely new member of the Representative Meeting, who was in a very difficult position. He was sent by a very large Division with an absolutely free hand in the matter of votes of censure, but with a very strong expression of opinion in favour of peace. Was not it possible to avoid a split at the very beginning of the meeting? (Hear, hear.) It was evident that there was a very deep division of opinion—conscientious, he knew, on both sides. Again he called on them to sacrifice that, and let the resolution drop. Could he not ask Dr. Maclean to add one more sacrifice to those that he had made for the profession, and to remain in the chair, with the knowledge that they looked upon him as an old chairman of that meeting, who would conduct the business of that meeting impartially. At a time when they wanted the whole driving power of the profession to be absolutely united, to commence the meeting, which would be the most epoch-making and historic meeting in the whole history of the Association, by a schism between themselves would be most unfortunate. (Cries of "Why schism?") There must be a schism. Some would vote one way, and some would vote the other, and the meeting would be divided. He had not the remotest idea of how the votes were going, but it would be most unfortunate. (Cries of "Not at all.") Could not they drop this and start the last part of the fight united, bold, and confident?

Dr. MILNER MOORE (Coventry) proposed that the question be now put.

The CHAIRMAN pointed out that the motion could not be accepted until Dr. Maclean had had an opportunity of replying.

Dr. J. E. O'SULLIVAN (Liverpool, Bootle) said he would have liked to adopt the sentiments of Dr. Turner, provided Dr. Maclean was prepared to let the motion drop; but if Dr. Maclean was going to ask for a vote of confidence, he claimed they must face the facts. The incident of the appointment of Mr. Smith Whitaker was the point which really stirred the profession. It was said that Dr. Maclean had had a private interview with Mr. Lloyd George, and could not divulge what passed, but Dr. Maclean was not interviewed by Mr. Lloyd George in his personal capacity, but as the Chairman of Representative Meetings. Therefore, the matter could not be regarded as private. Mr. Lloyd George had asked Dr. Maclean what he thought the profession would think of the appointment of Mr. Smith Whitaker, and they understood that Dr. Maclean had told Mr. Lloyd George that such appointment would not be viewed favourably. Mr. Lloyd George had also asked Dr. Maclean what was his personal view of the matter. What caused him to alter his opinion within a week concerning what he considered would be the view of the profession concerning Mr. Smith Whitaker's appointment? When Mr. Lloyd George came along and offered the bribe of the Deputy Chairmanship of the Insurance Commission, that was what influenced Dr. Maclean's opinion. That was the reason they were placed in this difficult position. There was not a sufficient reason for Dr. Maclean's changing his opinion within a week. He had told Mr. Lloyd George distinctly that it would not be favourably received by the profession. What was there in the offer of the Deputy Chairmanship which caused him to alter his opinion? Was that a sufficient reason for running the risk of rending the profession fore and aft? If Dr. Maclean had not followed the course he did, would this tremendous difference in the profession within the last two or three months have occurred? Would Dr. Maclean tell them the offer of the Deputy Chairmanship alone was the thing which caused him to change his opinion? They could not at this important crisis in their profession afford to consider personal feelings. They had nothing to say against Dr. Maclean personally, but they were concerned with Dr. Maclean as their Chairman and as their representative in important negotiations. Therefore, personal feeling, he maintained, must be eliminated entirely from the minds of the Representatives there, and they must simply consider what was best to be done in the face of these transactions.

Dr. MCKENZIE JOHNSTON (North-West Edinburgh) said he had been instructed by his Division to support a motion on the lines of the one which had been moved, and in order to remove any personal feeling in the matter his Division suggested that the Deputy Chairman should be included. It was a painful thing to him to support such a motion, because he had been the associate of Dr. Maclean on the Council for a number of years, and he had a very great admiration for his personal qualities. He thought, however, there was no question that throughout the Association as a whole there was a very strong feeling that some mistakes of a most serious nature had been made by Dr. Maclean. The feeling of his and the adjoining Divisions was that it would serve the best interests of the Association if Dr. Maclean resigned, and that the position of the British Medical Association would be strengthened thereby.

Dr. KEAY (Greenwich) began by observing: "Let him who is perfect throw the first stone." Whilst there were only a few Representatives who regarded themselves as perfect, there were a number of Divisions in this country which certainly regarded themselves in that light; but for his own part he had his doubts. His Division sent him to do what he thought was in the interests of the profession, and he would do so quite openly after having heard all the arguments adduced on both sides. He did not agree with Dr. Maclean in everything—he did not suppose they would have any respect for one another if they always agreed—but he saw nothing in the charges that had been made against him as chairman of the meeting. The first charge was that he had been out-generalled by the Chancellor of the Exchequer. In what way had he been out-generalled? The Chancellor of the Exchequer had committed himself to various things, but was there one single point on which Dr. Maclean or the Council had committed themselves to the Chancellor of the Exchequer? The second objection was that Dr. Maclean did not repeat publicly a private conversation. For his part, if Dr. Maclean had repeated a private conversation, he certainly would have regarded him as worthy of censure. There was a third point on which he did not know that he absolutely agreed with the position that Dr. Maclean took at the last meeting, and that was in saying how Representatives might vote. It might have been more judicious for Dr. Maclean to have said nothing. The position taken up by some of the Divisions was really pitiful in the way they manifested distrust of their Representatives, dogging their steps, and following them as if they were thieves and criminals. (Cries of "Withdraw.") He could not see that Dr. Maclean was at all to blame in what he had done. It was a most pitiful thing that such an important meeting should be opened by a discussion on a vote of censure on an individual who had certainly done his level best for them all.

Dr. T. A. HELME (Manchester Central) said he was the Representative of a Division which held very strong views on the matter, but which, because it held that even a suggestion involving the resignation of the Council might lead to schism and increase the difficulties of the profession, at his suggestion, agreed to delete even that portion of the sentence which called for the resignation of the Council. Therefore, he greatly regretted that the time of the meeting had been occupied at the commencement in the way it had. If this motion had come up at a later stage he should have voted in direct opposition to it, but as it had come up in the way it had he felt himself in a position into which he never wished to have been forced. They were compelled to discuss the matter on its merits. It would be within the recollection of all the older members that at the very first meeting in June, when the Chancellor of the Exchequer was present, a thing happened

which indicated that weakness on the part of the Chairman of Representative Meetings which had been so much resented by many of the rank and file of the profession, who felt that the spirit in which the negotiations with the Chancellor of the Exchequer had been begun was not the right one. The motion dealt not only with the conduct of the Chairman in the chair, but it included his conduct throughout. His conduct in the chair other than as Chairman had already been alluded to, when he gave notice to the meeting that the Representatives could vote in direct opposition to the wishes of their constituents. That was a great error of judgement. He would next refer to the conduct of the Chairman in sending out an utterly misleading memorandum to the members on December 11th, in which he told them that the principle of the Association had now been incorporated in the bill as it left the House of Commons—namely, the choice of doctor. At the same time the Deputy Medical Secretary sent a letter to the House of Lords saying that the bill defeated the principle of the choice of doctor. As to the memorable interview, it was utterly impossible for a chairman to discuss such a matter at a private and confidential interview; but even if it were private Dr. Maclean did not claim that privilege for it at the meeting of the Council a week or so later. The two things must be taken together. The first was that the interview occurred two or three days in advance of the Representative Meeting. Then at the Representative Meeting no allusion was made to what had taken place. It was quite unnecessary for Dr. Maclean to betray any confidence. It was quite within his power in general terms to admit the truth that something had gone on. There was no need to repeat a private communication, but, on the other hand, there was no need to give what practically amounted to a denial. These were the sort of things on which their constituents in the North felt so very strongly that they had no longer confidence in the judgement of Dr. Maclean as Chairman of the Representative Meeting.

Lieutenant-Colonel HARRIS (Council) remarked that much had been said about changing generals in the face of the enemy. It should be remembered that when they changed generals in the Boer war they had new generals to go on with. Who was their new general? Was it supposed that any self-respecting member would take the chair after what had taken place?

Dr. HASLIP (Westminster) said he had been instructed by his Division to support the motion. It was not a personal question. They were judging Dr. Maclean as a public man. He personally had the highest esteem for him, and was very sorry to have to vote against him. The question he asked was, Was he a man who possessed the whole confidence of the Association and the profession? Secondly, was he a man who would most likely lead them to victory? In other words, had he his heart and soul in the opposition to this Act? The answer of his Division was in the negative.

Dr. BROWN (Bacup) said he had a great regard for Dr. Maclean, but he wished to say that in the North they felt that they wanted a very strong Chairman who could grapple with the question at that crisis. They wanted a man who had the confidence of the mass of the profession.

The CHAIRMAN OF COUNCIL then called upon Dr. Maclean to reply.

Dr. MACLEAN (who was received with loud applause) said he supposed it had been very rarely vouchsafed to any man now living, as it had been to him that day, to see himself as others saw him. His friends and those who thought well of him had stated his qualities in a positive sense too highly. On the other hand, he thought that those who had taken the contrary view had really put his shortcomings rather too strongly. He had been led to feel the possibility of one individual possessing the qualities both of Dr. Jekyll and Mr. Hyde. He would say at once that he had no complaint to make of the tone and content of the debate. Having regard to the circumstances, it was worthy of the highest traditions of their Representative Meetings. He also made no sort of complaint as to the points that had arisen. He would further remark that the debate which had occurred emphasized in his mind the wisdom of having the matter out, so far as it concerned himself, at the opening of the proceedings. Having to go on with the undercurrent of distrust which had been revealed by the temperate speeches of all who had taken part in the debate would be to his mind absolutely subversive of their interests. In replying, he would not refer to any personal matters at all. The main points in the indictment against him were, first, the charge of *suppressio veri* with regard to a speech that he made as to certain rumours, and the second point was the alleged misdirection of the Representatives. With regard to the first point, it was suggested that no other interpretation could be put on it than that he wilfully misled the Representative Meeting with regard to that speech, in that he gave the meeting to understand that no question had arisen, that no inquiry of any sort had been made bearing upon the receipt of an offer to any member of the Association to act as one of the Commissioners. When speaking of certain rumours, those that were in his mind, which he had heard from several quarters, were to the effect that for prospective personal gain of various kinds the officials of the Association had immorally used their official position to give away points in the policy of the Association. No words of his could be too strong to repudiate such a charge. (Hear, hear.) Furthermore, every man with whom he had had the honour of being associated in this work was absolutely to be trusted in every sense, and he saw no reason whatever to depart from the association of that sentence with what had gone before. (Hear, hear.) With regard to the suppression of the interview with the Chancellor of the Exchequer, who had inquired as to the Medical Secretary's abilities and capacities, he had given his opinion on that point, and had also referred to the fact that he had mentioned his name to the Prime Minister. He had made a communication to the Medical Secretary after that interview, and, rightly or wrongly, he regarded that conversation with its negative result as confidential. That was the reason he did not mention it to the Representative Meeting. The question had been properly put: If that were so, why did he feel called upon to refer to the fact at the Council meeting? The reason was that an offer had then been definitely made by the Prime Minister to the Medical Secretary in terms stated. The Medical Secretary had declined that offer on his own responsibility, but had said that the Council of the Association must decide. He (the speaker) then thought it was very much better to put the whole facts before the Council in the light of the definite offer, and he thought the Council was entitled to know about it. That was the difference in the position, and that was why he made the statement to the Council which had been published in the JOURNAL. Passing to the alleged misdirection of the Representatives, Dr. Maclean recalled that he first cleared the ground by asking Dr. Metcalfe whether he asked for his (the Chairman's) own personal opinion. He did not intend to get out of the position by a subterfuge. He candidly confessed that, looked at in cold print, the answer he gave was unwise and inaccurate; he confessed that he had not the words of By-law 37 (3) in his mind at the time. A number of Representatives had put to him the question: "What are we to do? We have had certain reports sent down to us from the Council; we have dealt with those reports as best we can; we are in a confused state; we have had no time really to consider them, and we have come up to the Representative Meeting, and here we find a further fresh body of facts and information put before us. What is to be our relation to these new facts?" It was then that he made the statement. He gave what he took to be the general practice in regard to instructions and the margin of discretion left to Representatives: but here again he left himself entirely in the hands of the meeting. But to import into either of the two indictments a deliberate attempt on his part to mislead the Representatives or to deceive any individual was very unjust and unfair. No one knew better than he did his own shortcomings, no one felt more than he did his sense of having fallen short of what he would have liked to have done, but he could say with an absolute free conscience that to the best of his ability and to the best of every intention at his command he had served the Representatives faithfully and well. (Loud applause.) If the meeting had in its mind the fact that an adverse vote might turn him into an enemy instead of a friend that idea was absolutely unfounded. He wanted a clear, straight vote, and whatever the meeting did he would never deflect by one iota from the dominant principle

which had been in his mind from the commencement—of sticking to the cause of the profession and devoting himself in every possible way within the limits of his time and ability to serving the cause of the men whose interests he had really at heart. (Hear, hear.)

The CHAIRMAN OF COUNCIL said that he did not intend speaking on the motion, and would only say that nothing grieved him more than to have to put such a motion to the Representative Meeting. He must put the motion:

> That Dr. Maclean be asked to resign the chair, and a more vigorous advocate of our rights be elected.

Dr. J. METCALFE (Bradford) asked for a card vote to be taken on the question. It was a very serious, momentous, and important decision.

The CHAIRMAN OF COUNCIL asked if twenty members supported the motion of Dr. Metcalfe for a card vote.

A REPRESENTATIVE protested that this was not a matter for the Divisions but for the Representatives.

The CHAIRMAN OF COUNCIL said that as more than twenty members supported Dr. Metcalfe's motion for a card vote, a card vote would be taken.

In reply to Dr. T. A. HELME the CHAIRMAN OF COUNCIL said that the votes would be taken on the official register of last May, which obtained until the new one came into force.

Dr. HELME asked if it was in order to move that the vote be taken on the present membership, and the CHAIRMAN OF COUNCIL replied that it was not, and in reply to a further inquiry said the two answers would be recorded in the minutes of the proceedings.

The CHAIRMAN OF COUNCIL then explained how the card vote was taken.

Dr. R. W. W. HENRY (Leicester) asked for instruction. He was instructed to oppose any vote of censure on the distinct understanding that he was not to support any vote of confidence.

The CHAIRMAN OF COUNCIL replied that this was not a vote of confidence, but a distinct vote of censure. There was no other issue.

Dr. EDWARDS (Swansea) asked if the names of those who voted, and how they voted, would be recorded in the JOURNAL. There was a feeling in his Division that the members would like to know how the voting went.

The CHAIRMAN OF COUNCIL replied that there were several resolutions on the agenda upon which that question would come up. He thought that tellers should be appointed, and he suggested that Dr. Metcalfe and Dr. Helme should act on one side (agreed), and that Dr. Greer and Dr. Keay should act on the other side (agreed).

The names of members not voting were next taken. They were: Dr. Drury (Halifax), Dr. Fletcher (Chelsea), Dr. Craig (Fife), Dr. Prebble (Blackburn), Dr. Hodgson (Salford), Dr. Brodie Cruickshank (Northern Counties of Scotland), Mr. E. H. Willock (Croydon), and Colonel H. J. Waller Barrow (Ealing).

Dr. TAYLOR (Manchester, Salford) asked if Salford had not voted?

Dr. HODGSON (Salford) said he had not voted. Dr. TAYLOR asked if he was at liberty to make a statement as the Secretary of the Salford Division? (Cries of "Order.")

The CHAIRMAN replied that he could not permit it.

Dr. HODGSON (after Dr. Taylor had crossed the chamber to speak to him) asked if it were in order for a Member of Council to attempt to coerce one of the Representatives. (Loud applause.)

Dr. TAYLOR said he was Secretary of the Salford Division, and had spoken as such.

The meeting adjourned for half an hour to allow the votes to be counted. Upon resuming,

The CHAIRMAN OF COUNCIL announced the result of the voting as follows: For the motion—63 constituencies, representing 6,327 votes. Against the motion—78 constituencies, representing 7,597 votes—a majority of 1,270 votes against the motion. Eight constituencies did not vote.

AYES.

Dr. DAVID BLAIR, Lancaster	48
Dr. L. J. BLANDFORD, Darlington, Hartlepools and Stockton	102
Dr. JOHN BROWN, Rochdale and Bury	86
Dr. F. G. BUSHNELL, Brighton	146
Dr. A. G. R. CAMERON, Chichester and Worthing, Horsham	82
Dr. E. A. CLARKE, Ashton-under-Lyne, Glossop	57
Mr. RUSSELL COOMBE, Exeter	144
Lieutenant-Colonel DECIMUS CURME, West Dorset	75
Dr. W. L. M. DAY, North-East Essex	58
Dr. W. DOUGLAS, Maidstone, Rochester and Chatham	84
Mr. J. W. DRAPER, Huddersfield	51
Mr. A. J. DREW, Oxford	141
Mr. D. R. POWELL EVANS, Wandsworth	203
Dr. J. E. GARNER, Preston	54
Dr. J. A. GIBSON, Isle of Wight	58
Dr. BRUCE GOFF, Lanarkshire	83
Dr. R. GORDON, Sheffield	196
Mr. C. W. GRAHAM, English	79
Dr. J. C. W. GRAHAM, Cambridge and Huntingdon	152
Dr. C. B. HILLMAN, Wakefield, Pontefract, and Castleford	66
Dr. R. E. HOWELL, Cleveland	62
Dr. T. LAFFAN, Carlow, Kilkenny, and Waterford	58
Dr. W. F. LAW, British Guiana	43
Dr. E. J. LIDDLE, Chester and Crewe	61
Dr. R. A. LYSTER, Winchester	76
Dr. D. A. MCCURDY, Ballymoney, North Antrim and South Derry, Derry	63
Dr. JAMES METCALFE, Bradford	142
Dr. B. H. MUMBY, Portsmouth	124
Dr. J. NEAL, Central Birmingham	337
Dr. H. OPPENHEIMER, Hampstead	227
Major C. H. L. PALK, Ashford, Dover and Folkestone	89
Dr. SPENCER PALMER, Reigate	55
Mr. ELLIS PEARSON, Barnstaple	52
Dr. W. B. SECRETAN, Maidenhead, Reading	154
Dr. A. TENNYSON SMITH, Bromley and Sevenoaks	88
Dr. W. JOHNSON SMYTH, Bournemouth	139
Dr. E. A. STARLING, Tunbridge Wells	77
Mr. W. P. STOCKS, Manchester (South)	79
Dr. M. R. TAYLOR, West Cornwall	63
Mr. E. TREDINNICK, Shropshire and Mid Wales	138
Dr. J. F. WALKER, Mid Essex, South Essex	90
Dr. A. H. WILLIAMS, Watford and Harrow	72
Dr. T. BARTON, Blackpool and Isle of Man	66
Dr. J. M. BOWIE, South Edinburgh	132
Dr. F. CLAYTON, Warwick and Leamington	58
Dr. F. W. DEARDEN, Manchester (West)	59
Dr. W. BICKERTON EDWARDS, Swansea	86
Dr. MUIR EDWARDS, East Norfolk and North Suffolk	64
Dr. G. E. HASLIP, Westminster	266
Dr. T. A. HELME, Manchester (Central)	84
Dr. R. MCKENZIE JOHNSTON, North-West Edinburgh	117
Dr. C. P. LANKESTER, Guildford	55
Mr. R. H. LUCAS, West Suffolk	54
Dr. G. MAGUIRE, Richmond	135
Dr. C. G. MEADE, Scarborough and York	111
Dr. J. E. O'SULLIVAN, Liverpool (Bootle)	56
Dr. R. ROBERTSON, North-East Edinburgh	68
Dr. T. CAMPBELL, Leigh and Wigan	65
Dr. H. J. ROBINSON, Burnley	58
Dr. J. THORNLEY, Bolton	61
Dr. E. B. TURNER, Kensington	354
Dr. J. E. WEBB, East Cornwall	41
Dr. PRINGLE, Harrogate	72

NOES.

Dr. JOHN ADAMS, Glasgow (Central)	124
Dr. J. ALLAN, Leeds	170
Dr. F. J. BAILDON, Southport	74
Mr. F. P. BASSETT, St. Helens, Warrington	61
Mr. S. E. BAXTER, Northamptonshire	103
Dr. W. BLAIR, South Eastern Counties (Edinburgh)	58
Mr. W. BRADBROOK, Buckinghamshire	62
Dr. W. F. BROWN, Ayrshire	67
Dr. THOMAS BUSHBY, Liverpool (Central)	67
Dr. A. T. CAMPBELL, Glasgow (North-Western)	121
Dr. J. F. CARRUTHERS, Guernsey and Alderney, Jersey	48
Dr. W. CLOW, Renfrewshire	82
Dr. R. H. COOMBS, Bedford and Herts	101
Dr. T. B. COSTELLO, Mid Connaught, North and South Connaught	46
Dr. E. H. CRAMB, Dumbartonshire and Argyllshire	52
Mr. F. E. DANIEL, Furness and Kendal	58
Dr. J. S. DARLING, Portadown and West Down	68
Mr. J. E. H. DAVIES, Denbigh and Flint	64
Dr. J. S. DICK, Manchester (North)	65
Dr. W. J. DURANT, Consett and Gateshead	64
Dr. A. M. EASTERBROOK, Lothians	57
Dr. R. ESLER, Lambeth	168
Mr. J. H. EWART, Eastbourne	53
Dr. A. C. FARQUHARSON, Bishop Auckland and Durham	57
Dr. D. E. FINLAY, Gloucestershire	132

Dr. W. T. BROOK FOX, Blyth, Morpeth, and North Northumberland	65
Dr. J. R. FULLER, North Middlesex	154
Dr. A. FULTON, Nottingham	136
Mr. T. W. H. GARSTANG, Altrincham	71
Dr. E. W. GOODALL, City (Metropolitan)	168
Dr. W. GOSSE, Isle of Thanet, Canterbury and Faversham	90
Mr. W. J. GREER, Monmouthshire	130
Dr. H. R. GRIFFITH, South Carnarvon and Merioneth	51
Dr. W. HAIG, Perth	54
Dr. H. HANNA, Belfast	226
Mr. N. BISHOP HARMAN, Marylebone	637
Dr. H. HARVEY, Liverpool (Southern)	68
Dr. A. C. E. HARRIS, Birkenhead	93
Dr. R. W. W. HENRY, Leicester and Rutland	162
Dr. J. F. HORNE, Barnsley	50
Dr. J. B. HUGHES, Stockport, Macclesfield, and East Cheshire	72
Mr. G. JACKSON, Plymouth	92
Dr. E. KAYE-SMITH, Hastings	57
Dr. J. H. KEAY, Greenwich	100
Dr. J. MACDONALD, South Shields, Tyneside	81
Dr. J. A. MACDONALD, LL.D., West Somerset	74
Dr. B. MCFARLAND, Boston and Spalding, Lincoln	106
Dr. J. MACNIDDER, East York and North Lincoln	179
Dr. H. C. MACTIER, South Staffordshire	52
Dr. MILNER MOORE, Coventry, Nuneaton, and Tamworth	62
Dr. W. L. MUIR, Glasgow (Eastern)	87
Dr. G. PARKER, Bristol	262
Dr. J. PEARSE, Trowbridge	47
Dr. D. R. PRICE, South-West Wales	89
Dr. EMYR OWEN PRICE, North Carnarvon and Anglesey	89
Dr. J. R. STADDON, South Suffolk	76
Dr. W. T. PROUT, Liverpool (Western)	55
Dr. R. J. RICHARDSON, Liverpool (Northern)	53
Dr. C. E. ROBERTSON, Glasgow (Southern)	84
Dr. T. R. RODGER, Scottish	66
Mr. PERCY ROSE, Stratford	135
Dr. J. RUSSELL, North Staffordshire	97
Mr. T. SANSOME, Jun., West Bromwich	40
Dr. J. W. SMITH, Hexham, Newcastle-on-Tyne	185
Dr. H. J. STARLING, Norwich	53
Mr. C. R. STEATON, Salisbury	51
Dr. J. STRACHAN, Stirling	66
Dr. F. G. SWAYNE, Norwood	143
Mr. L. A. TAYLOR, Bromsgrove, Dudley	65
Dr. W. E. THOMAS, North Glamorgan and Brecknock	94
Dr. D. G. THOMSON, Mid Norfolk	45
Dr. D. F. TODD, Sunderland	96
Dr. H. R. TOWNSEND, North, South, West Munster	102
Dr. C. W. VICKERS, Torquay	79
Dr. C. J. WHITBY, Bath	110
Dr. DELAHOYDE, Dublin	137
Dr. H. CHISHOLM WILL, Dartford	64
Dr. J. ARTHUR WOOD, Hereford	58
Dr. JOHN GORDON, Aberdeen, Orkney, and Shetland	169
Dr. W. GRIFFITH, St. Pancras and Islington	177
Colonel W. T. JOHNSTON, East Leinster	94
Mr. E. W. MARTLAND, Oldham	54
Mr. CHAS. REID, Mid-Staffordshire	55
Dr. ST. CLAIR B. SHADWELL, South-West Essex	90
Dr. G. K. SMILEY, Derby	142
Dr. H. F. STEEL, West Norfolk	34
Dr. J. L. STRETTON, Worcester	82
Dr. W. B. C. TREASURE, Cardiff	177
Dr. C. S. YOUNG, Dundee	103

NOT VOTING.

Dr. A. DRURY, Halifax	59
Dr. J. FLETCHER, Chelsea	110
Dr. W. CRAIG, Fife	94
Dr. P. FREBBLE, Blackburn	86
Dr. S. HODGSON, Salford	71
Dr. BRODIE CRUICKSHANK, Northern Counties of Scotland	114
Mr. E. H. WILLOCK, Croydon	152
Colonel H. J. W. BARROW, Ealing	133

Dr. TURNER (Kensington) suggested that now the matter had been decided everybody should forget it.

Dr. MACLEAN, the Chairman of Representative Meetings, resumed the chair amid loud and continued applause, and, in thanking the members, said that now the matter had been decided, so far as he was concerned, and so far as any other members of the meeting were concerned, there would be no hard feelings harboured or given expression to either in word or in deed. In the face of the great critical issue before them there was only one thing to be done—to stand shoulder to shoulder. (Applause.)

THE LATE LORD LISTER AND SIR HENRY BUTLIN.

The CHAIRMAN OF REPRESENTATIVE MEETINGS said that, before they proceeded to transact the more formal business, he felt quite sure it would be in accordance with what was fitting in the minds of all members of the meeting to pass a vote of condolence with the relatives and friends of the late Lord Lister and Sir Henry Butlin, and at the same time to express their sense of the great services they had rendered to the medical profession and to the community.

The vote of condolence was passed in silence, the members rising in their places.

ORDER OF BUSINESS.

The CHAIRMAN OF REPRESENTATIVE MEETINGS said the next motion before the meeting concerned the order of business:

> That the remaining business of the meeting be considered in the order indicated in the printed agenda.

Those responsible for the arrangement of the meeting had been met by an absolutely unparalleled difficulty. There were something like 358 items on the agenda, and although they had worked to very late hours, it was found absolutely impossible properly to correlate them all. An amendment had been placed in his hands which would have the effect of raising the question of the ordering of the business.

Dr. HAMILTON asked if there was to be any report of the meeting in the lay press.

The CHAIRMAN OF REPRESENTATIVE MEETINGS said it was for the meeting to instruct the Chairman as to what should be done in that matter, which was a very important one. He suggested that so far as the members were concerned, and also so far as other members who were admitted to their precincts were concerned, no communication should be made to the press. (Agreed.) As regards the report of their proceedings, the custom had been that the Chairman of the meeting, in consultation with the Medical Secretary and the Editor, should decide as to what should be communicated to the press. He would suggest that all the organs of the press should be treated on the same basis, and that, subject to their instructions, he should carry that out in consultation with the Editor and Dr. Cox (the acting Medical Secretary), with regard to the proceedings each day—that was to say, that such communications as appeared right and proper should be given, and should be given equally to all the representatives of the press. (Agreed.)

Dr. ROBERTSON (North-East Edinburgh) moved that a Special Committee be appointed for communicating to the press, consisting of half a dozen Representatives in addition to the names mentioned by the Chairman.

The CHAIRMAN OF REPRESENTATIVE MEETINGS said the motion had its advantages and disadvantages, and it was for the meeting to decide.

Dr. EDWARDS (Swansea) asked if there would be a full report in the JOURNAL?

The CHAIRMAN OF REPRESENTATIVE MEETINGS replied in the affirmative.

The motion for adding six members to the Committee was put and lost.

Dr. BROWN (Rochdale) moved that three Representatives of the meeting should be appointed.

Dr. DOUGLAS (Maidstone) seconded. This was carried, and Dr. McKenzie Johnston, Dr. Helme, and Mr. Verrall were then appointed to the Press Committee.

The CHAIRMAN ruled that the following amendment by the Bristol Division, as to order of business, took precedence of one by the Manchester Central Division:

> That the meeting be adjourned for one hour, during which the printed agenda can be considered by the Representatives.

Dr. PARKER (Bristol) thought the amendment would commend itself generally. With such an enormous agenda it was clearly impossible for any one to grasp the nature of its contents in the few minutes that he might snatch between the various speeches. He was sure it would conduce to the carrying on of the business of the meeting more expeditiously if there were a definite adjournment for the consideration of the contents of the agenda. Under Standing Order 11 they had the power to determine the order of business, and it would be only fair to the Council

and to themselves that a short interval should be taken for that purpose.

Dr. Helme pointed out the difficulty in which the meeting was placed if members attempted to carry out their duties conscientiously. He understood the mover of the amendment was quite willing to accept a suggestion that the Representative Meeting should appoint a Committee of twelve Representatives of this meeting, with addition if necessary, to go carefully through the agenda, and to try and evolve some order or suggestion which the meeting might accept or otherwise as it thought fit.

Dr. Parker withdrew his amendment in favour of that suggested by Dr. Helme, provided he would incorporate in it that the meeting be adjourned for one hour for the purpose indicated.

Dr. Turner (Kensington) seconded Dr. Helme's amendment.

The Chairman of Council asked the meeting to accept the amendment. He probably had had as much experience of the agenda papers of the Representative Meeting as any one, and the difficulty of getting it into anything like logical order was enormous, and this was the worst agenda the Representative Body had ever had before it.

The amendment was carried.

The following were elected to the Committee: Dr. Helme, Mr. Neal, Dr. Turner, Dr. Parker, Dr. Drury, Dr. Goodall, Dr. R. W. Henry, Dr. O'Sullivan, Dr. Farquharson, Dr. Dearden, Dr. McKenzie Johnston, Dr. Lyster, together with the *ex officio* members, the President of the Association, the Chairman of Representative Meetings, the Chairman of Council, and the Treasurer.

The meeting then at 1 p.m. adjourned until 3 p.m.

THE AFTERNOON SESSION.

Standing Orders.

On the resumption at 3 o'clock,

The Chairman of Representative Meetings stated that the first matter was the adoption of Standing Orders. The first, by the Hampstead Division, gave the Chairman power, if the rejection of one motion implied the rejection of others, to give the meeting a choice of the several motions to be discussed and voted upon. To that there were certain amendments. He asked the movers of amendments not to insist upon their individual rights for merely literal alterations except so far as they were important. It was contemplated that at a certain stage the Representative Meeting would go into Committee for the consideration of the National Insurance Act and matters arising therefrom. The regulations provided that the voting of the Representative Meeting should be either by a show of hands or by a card vote. With regard to amendments in Committee, it was quite competent that the meeting should decide upon the method it thought best for identifying the way in which the Representatives should vote, merely as a matter of ascertaining with accuracy and also for purposes of record. But as applied to the proceedings of the Representative Meeting itself it was out of order, and amendments by the Croydon Division and the Cardiff Division (dealing with a vote by card for purposes of record) were out of order as being in conflict with one of the by-laws; but if the meeting decided to go into Committee they would be valid, and he suggested that the meeting should decide upon a method which should be both effective and speedy for securing an accurate record of the voting. It had been suggested that a roll call, upon being moved for, and seconded, and supported by ten Representatives, should be set up and a record taken in that way. Divisions might find it difficult to trace what had happened to their individual amendments and riders, but having regard to the massive dimensions of the agenda that was inevitable. He suggested, therefore, that a roll call should be taken.

This was agreed to.

Dr. Drury (Halifax) inquired if the votes would be recorded, and whether it would be possible for the Divisions to find out how their Representatives had voted.

The Chairman of Representative Meetings replied that it would be possible.

Dr. Edwards (Swansea) asked whether the record of the voting would be published in the Journal. There seemed to be a desire among the Divisions that they should be able to find out how their Representatives had voted, because in previous meetings suspicion, not often correct, had fallen upon the Representatives.

The Chairman of Representative Meetings replied that there would be no difficulty as to the Representative Meeting giving instructions that the voting should be published in the Journal.

Dr. C. E. Robertson (Glasgow Southern) asked what matters would be subject to the roll call.

The Chairman of Representative Meetings replied that any matter a Representative proposed should be so subject if the proposal were seconded and supported by ten members.

Dr. C. E. Robertson (Glasgow Southern) asked if this new rule was to apply only to this meeting or to all future meetings.

The Chairman of Representative Meetings replied that it would only apply to this meeting; it would apply both to the Committee meeting and the meeting.

Mr. E. J. Domville (Council) suggested that it was practically the motion of the Exeter Division.

Dr. E. Tredinnick (Shropshire) asked if the method proposed would prevent an amendment being brought forward.

The Chairman of Representative Meetings replied in the negative. He went on to say that there were certain documents that had to be received by the meeting; it could either vote for or against the reception of a document. He then inquired whether the meeting would accept the Report of the Council (Supplement, February 3rd).

Dr. Oppenheimer (Hampstead) raised the question of the Hampstead recommendation already alluded to, which read:

> If two or more motions of similar import appear on the agenda of the meeting, so that the rejection of one of them would, in the opinion of the Chairman, imply a rejection of the others, the Chairman shall, before any such motion is discussed, inform the meeting that he shall so rule, and shall give the meeting the choice which of the several motions is to be discussed and voted upon.

He said that in the past votes had been taken on several occasions upon the first motion on the agenda, and others had been passed over.

The Chairman of Council advised the meeting to leave the decision upon a matter of that kind in the hands of the Chairman. There was no use in having a Chairman unless he had power to handle the meeting, and if the meeting were going to vote upon every occasion as to which particular resolution should govern a certain group of motions, nothing would be done.

Dr. Oppenheimer (Hampstead) said if the Chairman would inform the meeting beforehand as to what other resolutions fell to the ground, he would be content.

The Chairman of Representative Meetings stated that in his opinion the meeting was asking him to do what it was really impossible for him to do. During the Committee stage fifty or sixty effective motions would be put before the meeting, and he suggested that Dr. Oppenheimer should withdraw his amendment.

Dr. Oppenheimer having declined, the amendment was put to the meeting and lost.

Votes of Colonial Representatives.

The meeting then considered a motion by Bury and Rochdale as follows:

> That this meeting recommend that the Colonial Representatives do not vote on matters connected with the National Insurance Act.

The Chairman said that the proposal had often been debated before, and decided in the negative sense, and three or four Colonial Representatives had said that if the meeting did not really want them to vote they would not; but strictly speaking, the meeting had no right to ask them not to vote.

Dr. John Brown (Rochdale) said the Rochdale Division did not wish to interfere with any Colonial Representative, if he had instructions to vote on the questions; but if he had not, the Division recommended that those who had nothing whatever to do with the Insurance Act in the Colonies should not vote on this question.

Dr. Dearden (Manchester) said his Division had given notice of questions which would clear up any misunderstanding. It was to ask the Chairman first to make a statement as to the strength of the Colonial vote present

at the meeting; secondly, whether it would be in order for the Colonial Representatives to vote on questions which only affected Great Britain; thirdly, if the answer to question No. 2 was in the affirmative, that the Chairman should request such Representatives to refrain from voting on matters arising out of the National Insurance Act.

Dr. HELME (Manchester) asked whether the Colonial Representatives were elected by their constituents directly.

The CHAIRMAN OF REPRESENTATIVE MEETINGS replied that they were.

Dr. LAW (British Guiana) wished to know whether the meeting thought Colonial Representatives should not vote on this matter. (Cries of "No.") As had been said, it was absolutely nothing to do with the Colonies, but as a Representative of British Guiana, he thought it right to come to this meeting and support the profession and show the sympathy of the Colonial members of the profession with their brethren at home. (Applause.) If it were the wish of the members that he should not vote on any motion on the Insurance Act, he should not do so. (Cries of "No.")

The motion was lost.

Instructions of Representatives.

A motion by North Manchester was next submitted as follows:

> That Representatives at the present crisis shall vote strictly according to their instructions, and only on subjects covered by such instructions.

Dr. J. S. DICK (North Manchester) explained that his Division proposed this not because it had any lack of confidence personally in himself, or in the Representative Body generally, but with a view, if possible, to obviate some of the very wild criticisms of the last few months with regard to the decisions of the meeting.

In reply to Dr. HELME,

The CHAIRMAN OF REPRESENTATIVE MEETINGS said that if the Representative received instructions on a certain point, he must vote in accordance with the instructions, but it did not bar him from voting on other subjects than those on which he had instructions; but this motion did.

The motion was lost.

Amendments Ruled Out of Order.

The CHAIRMAN OF REPRESENTATIVE MEETINGS ruled that the following amendment by the Ashton-under-Lyne Division was out of order:

> That as the Report of the Council does not embody the insistence of the six cardinal principles being guaranteed by statute, such Report be not received.

There was also a rider from Marylebone:

> That the Representative Meeting pass at once to the consideration of the Recommendations of the Council without passing judgement on the forty-four paragraphs of the Report.

He would ask the Representative of Marylebone to withdraw for the time being, until he heard the suggestion made as to the procedure by the Agenda Committee.

Mr. E. A. CLARKE (Ashton-under-Lyne) asked whether the word "received" in the Ashton-under-Lyne amendment ought not to be "approved"?

The CHAIRMAN OF REPRESENTATIVE MEETINGS replied, Not.

CORRESPONDENCE WITH INSURANCE COMMISSIONERS.

Correspondence with the Joint Committee of the Health Insurance Commissioners was formally received.

The correspondence was published in the JOURNAL of January 27th, 1912, p. 211, with the exception of the following reply of the Council, dated February 1st:

> Offices of the British Medical Association,
> Medical Department,
> 429, Strand, London, W.C.,
> February 1st, 1912.
>
> Sir,
>
> I am instructed to thank you on behalf of the Council of the Association for your invitation to the Conference between the Commissioners and various medical bodies proposed to be held on February 2nd. The Council regrets that it cannot see its way to nominate members to attend such a Conference until after the Special Representative Meeting of the Association to be held on February 20th and 21st, as it believes that any conference held before that date would not serve the purposes which the Commissioners have in view.
>
> I am, Sir,
> Yours faithfully,
> (Signed) ALFRED COX,
> Acting Medical Secretary.
>
> The Secretary
> Joint Committee National (Health),
> Insurance Commission,
> 55, Whitehall, S.W.

Publication of Reports.

Dr. A. TENNYSON SMITH (Bromley) asked why the report of the last Representative Meeting had not yet been published in the JOURNAL. It was stated from the chair that as soon as possible after the Representative Meeting a report of the whole proceedings would be published in the JOURNAL. That had been done in the past, and he would like to know why no report had been published in the JOURNAL after the November meeting.

Dr. DOUGLAS (Maidstone) said he had a notice of motion with regard to that on behalf of his Division.

The CHAIRMAN OF REPRESENTATIVE MEETINGS said it was decided by the meeting itself that the full debates in Committee should not be published. That was a deliberate act of the meeting. Personally, he was under the impression that all the substance and a good deal of the context of the debate in full Committee had been published in the JOURNAL at various times, but he thought, owing to the enormous bulk of correspondence that had to be dealt with in the JOURNAL, that probably the report had not been so full as on previous occasions.

Dr. TENNYSON SMITH (Bromley) asked whether a full report of the proceedings of this meeting would be issued in the JOURNAL as soon after the meeting as possible.

The CHAIRMAN OF REPRESENTATIVE MEETINGS replied that that would be put to the meeting and the meeting would give instructions on that point. His own feeling was that on this occasion they should have as full a report as possible, both of the proceedings in Committee and in the Representative Meeting. (Hear, hear.)

Proceeding, he pointed out the advantages to debate of going into Committee.

The meeting decided to go into Committee on the Council's report upon the Insurance Act.

Dr. WALLACE HENRY (Leicester) moved that Mr. Verrall should take the chair of the Committee.

Dr. R. E. HOWELL (Cleveland) seconded, and it was carried.

Mr. VERRALL then took the chair.

REPORT OF COUNCIL ON INSURANCE ACT.

The CHAIRMAN thanked the members for the confidence placed in him. In view of the length of the agenda it was impossible that each item could be discussed. The Committee appointed before the adjournment for the purpose of suggesting the best way of getting at what was really wanted to be done for the next two or three months with regard to the Act advised that the recommendations in the Report of Council should be taken in a little different order to that in which they stood. It thought that it would be well to discuss in the first place what the State Insurance Committee should be, its powers, and so on. It was suggested that the meeting should begin with Recommendation VI of the Report of Council:

> That a State Sickness Insurance Committee be appointed to consider and report to the Council on all matters connected with the National Insurance Act; that the Committee consist of (*a*) twelve members elected by the Representative Body; (*b*) twelve members elected by the Council; (*c*) two members nominated by the Association of Registered Medical Women; (*d*) the *ex officio* members; and that the committee be empowered to add to its numbers for special purposes not more than four additional members.

This recommendation, like all the others, was put before the members, not with any intention or desire to coerce or control their views on the matter, but in order to give them something on which to base their views, and find out what they wanted to do. The Council would be with him in desiring that the meeting should amend Recommendation VI in any way which would produce a State Sickness Insurance Committee in the immediate future in which all would have confidence.

Dr. HASLIP submitted that the amendment by Shropshire and Mid-Wales, that the Council be instructed to decline to negotiate, should be taken in relation with Recommendation I:

> That the Committee be instructed to press upon the Government and the Insurance Commissioners the further conditions necessary for securing the requirements of the profession.

The CHAIRMAN said that, as a matter of fact, the Agenda Committee recommended that after the discussion of Recommendation VI the meeting should go to Recommendation I. If Recommendation II were passed there would be no necessity for a State Sickness Insurance Committee at all.

Dr. TODD (Sunderland) thought it would be better to decide first on the principle whether they were going to have anything to do with the Act at all.

Dr. MACLEAN said that there must be a State Sickness Insurance Committee, whether they declared that they were going to the Commissioners or whether they were going to have nothing to do with the Act. In the latter alternative they must have a committee for defensive purposes.

The meeting agreed to discuss Recommendation VI before Recommendation I.

STATE SICKNESS INSURANCE COMMITTEE.

Dr. MACLEAN then formally moved Recommendation VI.

Mr. GREER (Monmouthshire) proposed that in Clause (*b*) the number of members elected by the Council be six instead of twelve.

On the suggestion of Dr. HELME it was agreed to take a discussion first of all on whether the meeting would have a committee at all and what it should do, and then deal with its constitution.

The CHAIRMAN then moved—

That a State Sickness Insurance Committee be appointed to consider and report to the Council on all matters connected with the National Insurance Act.

This was agreed to.

Dr. HELME said it was most important that the Representative Body, which could not always be meeting in London, should have some responsible body that could take its place when necessary to watch over and protect the interests of the profession. It was not necessary for it to do anything, but if they decided to have a committee they would have to decide what functions it should perform. Therefore he proposed this amendment:

That a State Sickness Insurance Committee be appointed to consider and deal with all matters connected with the National Insurance Act, in accordance with instructions from the Representative Body, and to report to the Divisions, the Representative Body, and Council.

Dr. BUSHNELL (Brighton) seconded the amendment.

Mr. BISHOP HARMAN (Marylebone) raised the question that thus to overrule the executive body of the Association (the Council) was not in order.

Dr. O'SULLIVAN asked if the Representative Body was not the proper body to formulate a motion of that kind.

In reply to Dr. HELME,

The CHAIRMAN said he had not the least doubt that the formation of an executive body by the Representatives would be entirely in order, and referred to By-law 64 as follows: "The Representative Body shall have power to appoint committees with such powers as seem to them necessary or convenient, and to fix the quorum thereof."

Dr. MACDONALD asked what was the meaning of the words "to deal with"—what was the inner meaning of the proposal? He would also like to know, if this was a specially appointed committee that was to be executive, and, as he took it from Dr. Helme, was to take the place of the Council, why it should report to the Council?

Dr. HELME said he had not gone fully into the matter because he did not want to raise any controversial points. Why should this Committee report to the Council? Simply because they looked upon the Council as the chief body of the Association in many matters, and he wanted it to report to the Council as a matter of courtesy, if nothing else. Perhaps it was wiser that he should speak a little fully as to the "inner meaning" of the resolution, as Dr. Macdonald had alluded to it. At the present moment they were face to face with a crisis in the profession. The Association appealed not only to members of the Association, but to those who were not members of it. He felt that anything they could do to gain the confidence of the profession as a whole it was their duty to do, and at this particular moment in the history of the profession a special committee should be appointed to deal with this special and important matter. If that were done they could afford to drop all questions of criticism and of confidence, or want of confidence in the Council, and forget the past. It was in regard to one particular matter which was affecting the whole profession that he asked that the Representative Body should keep in its hands anything arising in connexion with the matter of the Insurance Act. He would use the words "olive branch," since Dr. Macdonald had used the words "inner meaning." The inner meaning of this resolution was an honest attempt to get at the unity of the profession.

The CHAIRMAN OF COUNCIL again asked what was the meaning of "to deal with."

Dr. HELME said it was a comprehensive term. For instance, supposing the Government were to send some communication to the Association, this Committee would consider it, and if the meeting decided that an ultimatum should be sent to the Commissioners the Committee would deal with that. That was what he meant by "deal with." If a better term could be found he would accept it.

Dr. O'SULLIVAN seconded. It was obvious that it was most desirable that the meeting should be absolutely unanimous on this matter. The desire and object of the Representatives was to form a body which would be representative, and this he maintained would be secured under the form of Dr. Helme's resolution. He considered that such a committee would enlist the enthusiasm, the good feeling and support, not only of the members of the British Medical Association, but those members of the profession outside it, and by that means they could gain their object.

In reply to a question, the CHAIRMAN stated that the Committee would not be a standing committee of the Association.

Dr. FARQUHARSON deprecated very much the active part which certain members of the Agenda Committee took in the discussion. He did not wish to debar them from their rights, but he thought the Agenda Committee should be left to fulfil its purpose. In his opinion the matter was discussed in the Committee, and the motion was nothing more nor less than a subtle, complete, and somewhat devious method of getting a vote of censure upon the Council. ("No, no.")

Dr. HELME said he indignantly repudiated the suggestion.

Dr. PEARSE (Trowbridge) thought the motion illustrated the extreme difficulty in which the meeting was placed in constantly being confronted with most important matters without having any previous opportunity of considering them. He could not see at present the true purport of the resolution, and asked the meeting not to vote in favour of it without first fully understanding it. The words "dealt with" covered indefinite action to which he could see no limit. Further, he did not understand whether it was suggested the Committee should have executive power apart from the Council. If that was so it introduced a new principle, which was one of extreme danger and one which the meeting should be very chary of adopting. Further, it was said that the Committee should act under instructions from the Representative Meeting, and should report to it and to the Divisions. Did that mean that the scope of the Committee was limited solely by what had transpired in the Representative Meeting?

Dr. HELME answered in the affirmative.

Dr. PEARSE said that members of the State Sickness Insurance Committee were well aware that matters had turned up at moments when they could not have been considered by the Representative Meeting, and the Committee had to take action on its own initiative. The meeting must appoint a committee in which it had confidence. As regards Dr. Helme's suggestion that it was an olive branch by which any reflection on the Council was avoided, the action of the Council in this matter was practically the action of the present State Sickness Insurance Committee. It might be the voice of the Council, but the words were the words of the present State Sickness Insurance Committee. He would urge the meeting very strongly to vote against the resolution, and, when it came to the constitution of the committee, to appoint a committee in which it was prepared to place complete confidence and not to tie it hand and foot.

Dr. D. F. TODD (Sunderland) wanted to ask two questions: First, Whether Dr. Helme would be prepared to alter his resolution by putting "to carry out" instead of "dealing with," and, if he did accept that, how and when was he going to consult the Representative Meeting on the question of instruction? Supposing, after the Committee had been appointed, a fresh issue arose, was that Com-

mittee, before taking action upon that fresh issue, to call a meeting of Representatives to discuss the question? If the Committee was appointed on the lines laid down by Dr. Helme, it would mean that its hands would be tied, and before taking any steps it must call a Special Meeting of Representatives.

Dr. DOUGLAS (Maidstone) thought Dr. Helme's motion ignored the proper functions of the Council. Very rapid action would most likely have to be taken with regard to issues that arose; it was for the Council to take action and advise or inform the Divisions, and if need be call a meeting of Representatives. He thought it would tend to a division in organization if the proposed course were adopted.

Dr. W. CRAIG (Fife) said that his Division looked upon this Committee as an exceedingly important committee; as being the key to the whole movement of the profession in regard to the Insurance Act. He had been a member of the old State Insurance Committee, and he thought it right that the Representative Meeting should understand the work done by the Committee. The present State Insurance Committee had suffered considerably at the hands of the Council: the Council considered that the work of the State Insurance Committee had been passed on to it in such volume that the Council had had no time to consider it. The same objection would apply to the new State Insurance Committee. Under the State Insurance Committee was appointed a subcommittee, which drafted the reports, and unless any member of the full Committee had some modification to propose which was in entire conformity with the report, he had great difficulty indeed in getting it carried. The question raised by Dr. Todd was, What was the Committee to do if an emergency arose and it had no instructions from the Representative Meeting? He would ask, however, What was the Council to do? If the profession intended to seize the opportunity, it should take great care indeed that the Committee was entirely representative of the profession.

Dr. J. METCALFE (Bradford) said that he had been instructed by his Division to negative any proposition for the formation of a State Sickness Insurance Committee. It was felt that the system of sending up matters for the consideration of the Government had been carried on long enough, and that it would be better to let the matter remain in abeyance until the Government either passed an amending Act or did something distinctly showing that it wished to come into harmony with the views of the medical profession. Consequently, he would vote against any such resolution.

Dr. W. J. DURANT (Consett) stated that Dr. Helme's motion had three points, (1) to consider, (2) to do the work, and (3) after the work was done to report to the Council. ("No, no.") The result of that would be to practically stultify the body that had done most of the work. They might enlarge the Committee and make it more representative, but it should report to the Council before any action was taken.

Dr. BUSHNELL (Brighton) stated that the Brighton Division supported the formation of a State Insurance Committee. The composition of that Committee would be discussed later on, but he was confident that the democratic basis of Dr. Helme's proposition would strengthen such a Committee and increase the confidence in it. It was essential that they should have a Committee to watch the interests of the profession.

Mr. BISHOP HARMAN (Marylebone) thought that the mischief of the proposed motion lay in the fact that it would create in the Association two distinct and independent executive bodies. The province of the Committee should be examination and consultation, and then to advise the Council; the Council was the figurehead of the Association to do the executive work, and to bear the blame, if necessary, for what was done. The old Committee, acting no doubt from the best motives, said that it would send representatives to discuss the matter with the Insurance Commissioners, but the Council very wisely said it would not do that while it was on the verge of meeting the constituents. Had the old Committee been independent there would have been great confusion. If the resolution had been on the agenda, it might have been considered, though he did not think it would have commended itself to the judgement of the meeting. He suggested that the regular working of the Association should go on as heretofore.

Dr. HELME (Manchester Central) replied that it was not his fault the resolution was not on the agenda.

Dr. J. BROWN (Bury, Rochdale) said that his Division had sent him to support the formation of a State Insurance Committee. The old Committee and the Council had done their best, but something better was wanted.

Dr. W. B. TREASURE (Cardiff) said that no doubt a very strong feeling had been expressed upon this matter throughout the country. They wanted, if possible, to appoint a committee at this Representative Meeting which would have the confidence of the profession. It was within their powers to appoint a committee and give it plenary powers in connexion with the Insurance Act. (Cries of "No.") Well, that was the very strong feeling among the rank and file of the profession. The rank and file felt that this should have been done in the past, and wanted a special committee which would deal with these matters. He suggested that Dr. Helme should alter the wording of his amendment so that it would read:

> That a Special State Sickness Insurance Committee be appointed with plenary powers to deal with all matters relating to the National Insurance Act and to take such action as may be necessary.

The CHAIRMAN said the suggestion amounted to another amendment, and he could not accept it.

Dr. R. J. RICHARDSON (Liverpool) had been given clear instructions by his Division to support the first part of this resolution. The resolution as it stood would make for efficiency, but if Dr. Helme's amendment were carried the procedure would be more cumbersome and less efficient in advancing the interests of the profession.

Dr. EMYR OWEN PRICE (North Carnarvon) had been instructed by his Division to support the motion. He was sure that Dr. Helme was quite genuine in his belief that this was an olive branch; but he did feel that, if the proposal was carried, it would be regarded by the country generally as a declaration of want of confidence in the Council. He accepted the disclaimer that it was not so intended; but he thought that was how it would be generally regarded. It had been stated that the constitution of the Committee, as proposed by Dr. Helme, would be representative, and would obtain the confidence of non-members of the Association. He could not see what right gentlemen had to suppose that, seeing there were no representatives of outsiders there. If it were proposed that this Committee should consist, on the plan of the Scottish Committee, of members of the Association, with outside members in equal or reasonable proportions, there would be some justification for that statement; but this was a Committee of the Association only. What they objected to in the constitution of the Committee and the powers that it was suggested should be given it was its power to proceed independently in matters connected with the Insurance Act. How, then, could they support this resolution and not feel, in doing so, that they were passing an insidious vote of censure upon the Council? ("Hear, hear," and cries of "No.")

Dr. E. B. TURNER (Kensington) heartily supported Dr. Helme's amendment, because he felt that by accepting it the Representative Meetings were taking into their own hands the future conduct of what took place with regard to the Insurance Act. The Committee would be appointed fresh from this Representative Meeting, thoroughly imbued with its wishes, and prepared to carry out its behests, until the time came for the finishing of the fight. They were trying by this proposal to keep the business of the Association with regard to the Act in the hands of really the only body which ought to control it—the Representative Meeting.

Dr. W. JOHNSON SMYTH moved:

> That the question be now put.

Mr. F. E. DANIEL (Furness) said that there was great danger if they elected a committee of this kind that its actions might clash with those of the Council. (Hear, hear.)

Dr. MEADE (Scarborough) said his instructions were to support the first part of Recommendation VI; but Dr. Helme's proposition had not then been put forward. It seemed to him it was a sort of half-way house.

The motion "that the question be now put" was carried.

Dr. Helme's amendment was lost.

In reply to Mr. E. J. DOMVILLE (Council), the CHAIRMAN said that the present State Sickness Insurance Committee

consisted of four *ex officio* members of the Council, fourteen members of Council, and thirteen non-members of Council.

After a short adjournment for tea, Dr. WALLACE HENRY (Leicester and Rutland) moved to add the words "or Public Medical Service" after the words "Insurance Act" in the recommendation. He said the object was that the new State Sickness Insurance Committee might retain the powers possessed by the old Committee, which was originally entrusted with the power of drawing up a scheme for a Public Medical Service. That scheme was laid aside when the National Insurance Bill was discussed. It was felt that the best way of dealing with contract practice was by establishing a local medical service, and therefore, that the new Committee should still have the power of dealing with all matters connected therewith. The amendment was agreed to.

It was then put and carried that the first part of Recommendation VI should stand as follows:

> That a State Sickness Insurance Committee be appointed to consider and report to the Council on all matters connected with the National Insurance Act or a Public Medical Service.

THE COMPOSITION OF THE COMMITTEE.

The CHAIRMAN said that of the amendments as to the composition of the Committee some were more drastic than others. He thought it would be convenient to select the most drastic amendment, and asked the meeting to vote on that, to clear the ground, and come down to lesser forms of alteration if they wished. He suggested taking the amendment proposed by Marylebone, which ran:

> That for Subclauses (*a*) to (*d*) inclusive of Recommendation VI there be substituted the two following subclauses: "(*a*) Twenty-four members elected by the Representative Body, with two additional women medical practitioners; (*b*) the *ex officio* members."

Mr. BISHOP HARMAN (Marylebone) said the purpose of the motion was that the Representative Body should be entirely responsible for the personnel of the new Committee. It would receive its instructions from the Representative Body, and would be there as a constant shadow of the Body, examining into all the facts that were brought before it and advising on the action that should be taken. It was thought best that the whole responsibility of the choice of that Committee should rest with the Representative Body. When the matter of the composition of the Committee came before his Division the nomination of two members from the Association of Registered Medical Women was defeated. It was pointed out that it was essential they should have some women on as hostages: women were selected for sweated labour in all branches of industrial work, and they certainly would be in this particular work. The difficulty with regard to school appointments was well known. The Council must have some members, the *ex officio* members, to report and keep in touch with it, but the whole of the Committee should be elected directly by the Representative Meeting.

Sir VICTOR HORSLEY seconded the amendment. As regards the two women practitioners, those who had worked at the question of school appointments knew the difficulty perfectly well. This was where sweating came in, and if sweating occurred under the Insurance Act at all it would be through the employment of women.

Mr. GEORGE JACKSON (Plymouth) supported the amendment as being practically the same as one which stood in his name.

Dr. GRIFFITHS (St. Pancras) also supported the amendment. He would appeal to Mr. Bishop Harman to make one small change, and that was that he should insert words providing that a majority of the twenty-four members should consist of general practitioners.

Dr. HELME (Manchester Central) suggested that the two women members should be co-opted. It was extremely difficult for the meeting to know exactly the two women who should be chosen on the Committee.

Dr. TAYLOR (Manchester) thought it was extremely important that non-members of the Association should be represented. A good deal of the discontent with the work of the late Committee had arisen from the fact that non-members had no representation. He would warn the Committee that it had before it a very hard task, for if it failed in getting any single point it would be condemned. In spite of any good intentions, in spite of any hard work, in spite of any attempts to push with the utmost of its ability all the points it had to push, if it failed in getting anything he was afraid it must look forward to giving dissatisfaction. He would ask the Representative Body to treat the new Committee that it was about to appoint with a little more consideration than it had treated the last. They wanted the whole profession to feel that it was really being represented; that it had a voice in everything. Personally he would be glad if they could co-opt or elect members of the Royal College of Surgeons and the Royal College of Physicians. It ought to be left open so that they could get the widest possible representation, and that nobody in the kingdom could say that the Association had tried to keep the work in its own hands.

The CHAIRMAN OF COUNCIL inquired whether the amendment excluded the idea of four additional members for special purposes.

Mr. BISHOP HARMAN replied in the negative.

Dr. FULLER (North Middlesex) would support the amendment if Mr. Bishop Harman would accept the addition suggested by the Representative for St. Pancras and Islington so as to ensure that the majority of members were general practitioners. An amendment in the name of the North Middlesex Division suggested the inclusion of eight members elected by the licensing bodies. In that he supported Dr. Taylor, but he did not support him in asking that members of the profession who were not members of the Association should be elected on the Committee. It was unity they desired, and it was only by their joining the Association that they could ensure unity.

Dr. JOHNSON SMYTH asked if the meeting was prevented from electing on the Committee members of Council. If it was he would oppose the proposal, because his Division considered that members of Council had in the past acted with marked ability in these matters.

Dr. HELME supported the amendment because it was in accordance with one by the Manchester Division. The Central Manchester amendment provided for six additional members of the profession, not necessarily members of the British Medical Association. He did not know whether Mr. Bishop Harman was prepared to accept that.

Dr. TODD (Sunderland) was surprised at the observations which had fallen from Dr. Taylor, and also from Dr. Helme, with regard to the non-members of the Association. The men who remained outside the Association were doing so with their eyes open to the situation, and they might defeat the Association. It was one of the threats which was held over the Association from time to time, that outside influence would defeat them. Therefore he deprecated asking outside members of the profession to serve on a Committee of the Association.

Dr. NEAL (Birmingham) felt quite sure that in many constituencies the principle of electing the State Sickness Insurance Committee by the Representative Body would not be favourably received. (Hear, hear.) His instructions were very explicit, and his constituents were apprehensive that if this body elected a new State Sickness Committee they would have "the old gang" again. His Division did not object to the presence of women on the Committee, but it felt they should gain admission to it as members of the Association in the ordinary way.

The CHAIRMAN said that the point before the meeting was whether the whole twenty-four members should be elected by the Representatives, with two women additional members.

Dr. O'SULLIVAN contended that everything should be done to induce the men outside to join the Association.

Mr. BISHOP HARMAN (Marylebone) suggested that the Committee was really a domestic committee; to use a Scottish phrase, it was intra-mural, and there was no reason why there should not be something extra-mural; and suggestions for that purpose were to be found in the list of riders. If the Committee was to be a Committee of the Association, it must be composed of members of the Association, and any non-members could be brought in for a special or temporary purpose under the last clause. It would be better, if it could be managed, to have all general practitioners.

The CHAIRMAN OF REPRESENTATIVE MEETINGS stated that he heartily approved of the principle that the Representative Meeting should appoint a large portion—in fact, to the extent indicated in the amendment—of the Insurance Committee. The late Insurance Committee had come to an end, and it was of the utmost importance that the new Committee should be set up. A number of the

members of the Committee would be new to the subject, and the first few sittings of the new Committee would be mainly educative.

In reply to a question,

The CHAIRMAN replied that the words *ex officio* had a special meaning; they meant the four members—the President of the Association, the Chairman of the Council, the Treasurer, and the Chairman of Representative Meetings. He thought it would be best if the Representative Body said whether they would elect the whole of the members and make the variation as to the addition of others afterwards.

Dr. KEAY (Greenwich) recognized the advisability of getting to work rapidly, but at the same time felt that if the Representative Meeting took the matter into its hands there would be considerable dissatisfaction among the Branches and Divisions.

The CHAIRMAN stated that the Council or the Representative Meeting must select the Committees. Those powers could not be delegated to the Divisions.

The CHAIRMAN then put the Marylebone amendment, which was carried.

The amendment now became the substantive motion and with the rider mentioned above was carried as follows:

> That twenty-four members be elected by the Representative Body, with two additional women medical practitioners and the *ex officio* members, and that the Committee be empowered to add to its numbers for special purposes not more than four additional members.

Dr. POPE (Council) said he was opposed to the co-option of any members on any committee; it was not necessary. The Committee if it wanted advice could always get it. In his experience co-opted members had done more harm than good on the committees of the Council.

Dr. TENNYSON SMITH inquired as to the mode of election of the twenty-four members; would it not be better to have some mode of nomination whereby members were nominated from different areas, so that the whole country would be represented on the Committee?

Dr. O'SULLIVAN understood Mr. Harman's proposal to be that the twenty-four should be chosen from the Representative Body, and he presumed he meant by that general practitioners. He suggested that at least twenty-one should be general practitioners.

Dr. MEADE (Scarborough and York) said he had already proposed that there should be eighteen general practitioners. The majority of the profession were general practitioners.

The CHAIRMAN said an amendment had been proposed by Dr. Meade, and seconded by Dr. O'Sullivan, to interpret "majority" to be that eighteen of the twenty-four should be general practitioners.

On being put, the motion was lost. On a count there were 31 in favour of Dr. Meade's proposal and 90 against.

Dr. THOMAS BUSHBY (Liverpool) moved:

> That it be an instruction that the two medical women practitioners should be selected, one by the Northern Association of Medical Women and the other by the Association of Medical Women.

Dr. MACDONALD said they had had a good deal of experience of the Association of Registered Medical Women. That association had always backed them up loyally in all their efforts to work for the good of the profession. He had not heard before of the Northern Association. If it were a body of anything like the influence of the other he would make no opposition to it. Unless, however, it were a body somewhat of the same standing, they ought to get the nomination from a body that had the most influence among medical women.

A REPRESENTATIVE stated that there were about seventy members of the Northern Association and about 200 members of the other. The Northern Association had branches in Liverpool, Manchester, and Leeds. It was not in opposition to the other association. In fact, some of the members belonged to both, but the Northern ladies were not able to attend the meetings in London, so they had formed an association of their own.

Dr. Bushby's proposal was seconded. The motion was agreed to, and the clause now stood as follows:

> Twenty-four members elected by the Representative Body, with two additional women medical practitioners, one to be nominated by each [of the named bodies].

Colonel H. J. WALLER BARROW (Ealing) moved as an amendment:

> That eight additional seats on the Committee be offered to the licensing bodies of the United Kingdom—two for Scotland, two for Wales, two for the Midlands, and two for London.

Dr. J. R. FULLER (North Middlesex) seconded the proposal.

Sir VICTOR HORSLEY said he should like to hear first from the mover and seconder of the motion what they meant by "licensing bodies." Did they mean the licentiates and members who composed those bodies, or did they mean the little handful of men who composed the councils of those bodies, and who had always done all they could to injure the Association? If they meant the licentiates, then he had nothing to say.

Dr. POPE (Council) thought it would be a good thing if the governing bodies were represented, but if they had not already been consulted, it would be foolish to pass the motion.

Sir VICTOR HORSLEY wished to ask further whether "licensing bodies" meant the corporations only or did it include the universities?

Colonel BARROW (Ealing) said it meant both.

Dr. TAYLOR (Manchester) pointed out that there were no fewer than twenty-six licensing bodies—nine corporations and seventeen universities.

Dr. MACDONALD asked if the discussion was in order. The amendment was that eight seats should be offered to these bodies, but the members to fill the seats would require to be elected by the members, and according to the by-laws of the Association no one had a right to elect to that Committee except the Representative Body.

The CHAIRMAN said as it stood it was not in order.

Colonel BARROW then withdrew his amendment.

Dr. CRAIG (Fife) suggested that if the Committee was to do even justice as far as the administration of the Act was concerned, it would be necessary to have members for England, for Wales, and for Scotland.

Dr. DEARDEN (West Manchester) suggested that the word "additional" should be used instead of "four."

Dr. TAYLOR (Manchester) seconded.

The CHAIRMAN said the effect of the amendment would be to empower the Committee to add to its number additional numbers irrespective of membership of the British Medical Association.

Dr. FOX (Blyth) said that of the wild talk that had been indulged in during the last six months against the Representatives and the Council, a great deal had been by members who had recently joined, and who knew nothing of what had been done during the past year or two. Still more had such talk been indulged in by those members who were outside the Association altogether. It appeared to him if they were able to get some of these people on the Committee they would very soon learn the work that was done by the members of the Council and by a Committee such as that.

Dr. DRURY (Halifax) strongly opposed the suggestion that non-members should be put on the Committee. It was a most preposterous suggestion. He had a remedy for non-members, and that was to get them to become members. He had tried that in his Division, and they had now not one non-member.

In reply to Dr. DAY (North-East Essex) the CHAIRMAN said that the amendment sought to give power to add additional members irrespective of their being members of the Association. Dr. DAY strongly opposed; it would be possible for large numbers to be on the Committee who were not members of the Association, and they might be in the majority.

Dr. FOX (Blyth and Morpeth) suggested adding to the amendment the words "who need not necessarily be members of the Association."

The CHAIRMAN said it was obviously the wish of the meeting to vote on that point.

On being put the amendment was lost.

Mr. RUSSELL COOMBE (Exeter) said it had already been pointed out that some regard should be had to local distribution. To secure an adequate geographical representation throughout the country he moved that these twenty-four members be elected by Representatives in groups corresponding to the smaller aggregation of Branches.

The proposal found no seconder, and consequently fell to the ground.

Dr. ROBERTSON proposed that the twenty-four Representatives should comprise eighteen Representatives and six members of the Council. His Division desired, and had endeavoured to show, that the Council had been too well represented on these matters; and they had no right, there being some thirty only of them as compared with 150 Representatives, to have anything like the same representation on the State Sickness Insurance Committee.

Dr. O'SULLIVAN seconded.

Dr. TENNYSON SMITH (Bromley, Sevenoaks) had understood that Dr. Robertson would accept an amendment from him that instead of eighteen and six the number should be twenty-two and two. The only reason why the Council would want to be represented on the State Sickness Insurance Committee would be that when any matter was being discussed at the Council meeting they could voice the desires of this Committee. (Cries of "Vote, vote.")

Mr. LARKIN said he had always pressed upon the Representative Body never to tie itself. It was going to elect these people and to have the whole franchise to itself, and members of the Council were not going to vote at all. Surely the meeting would not tie itself down to-day as to what it was going to do the next day. He hoped the meeting would not commit itself and would retain absolute freedom to do as it thought fit.

The amendment was then put and declared lost.

Dr. ROBERTSON stated that his Division had commanded him to put before the meeting the following amendment:

> That there shall be proportional representation on this Committee of the several countries of England, Scotland, and Wales.

The CHAIRMAN thought the amendment had better be brought forward later.

Dr. CAMPBELL (Glasgow North-Western) moved:

> That the four co-opted members shall not necessarily be limited to members of the British Medical Association.

Only one-third of the doctors in his district were members of the British Medical Association. A body had been formed, called the National Medical Union, which all the members had joined, and therefore the Association ought to give members of the National Medical Union some support. ("No, no.") The National Medical Union was not in opposition to the British Medical Association.

Dr. O'SULLIVAN seconded.

The CHAIRMAN drew attention to the concluding words of Recommendation VI:

> And that the Committee be empowered to add to its members for special purposes not more than four additional members.

It did not specify that those members should be members of the British Medical Association, and therefore it was open.

Dr. CAMPBELL agreed that the matter was left open, and withdrew his amendment, with the consent of the seconder.

Dr. WALLACE HENRY (Leicester) moved:

> That the Committee have no power of co-option.

He would only like to add to what Dr. Pope had said, that the great objection was that when there was a small majority on one side, there was great danger that that majority would add a very great number of co-opted members to vote on the same side, and so give the idea to the outside public that there was a large majority.

Dr. MCKENZIE JOHNSTON (North-West Edinburgh), in seconding the amendment, appealed to the meeting not to waste time. They had already spent four hours settling the composition of the Committee, and there was much very important business yet before the meeting. The amendment was put to the meeting and lost.

Dr. DOMVILLE (Council) then moved the following amendment:

> That in the event of the Committee dealing with the question of the establishment of a Public Medical Service, the Chairmen of the Medical-Political and Public Health Committees be invited to attend the meetings of the Committee.

The CHAIRMAN said that was a rider which he would accept afterwards.

The CHAIRMAN appealed to the meeting to allow the following to be put as a substantive motion:

> That a State Sickness Insurance Committee be appointed to consider and report to the Council on all matters connected with the National Insurance Act or a Public Medical Service, and that it consists of twenty-four members, the majority of whom shall be general practitioners elected by the Representative Body, with two additional women medical practitioners, one of whom shall be nominated by the Northern Association of Medical Women and the other by the Association of Registered Medical Women, and that the Committee be empowered to add to its numbers for special purposes not more than four additional members, with the *ex officio* members.

The CHAIRMAN agreed with a suggestion made by Dr. Pope that the two bodies—the Northern Association of Medical Women and the Association of Registered Medical Women—should have power to nominate, and that the meeting should co-opt the two nominated.

This was accepted by the meeting.

The CHAIRMAN OF REPRESENTATIVE MEETINGS suggested that the selection of the twenty-four members by the Representative Meeting should be on the same lines as the election of the twelve members of the Council by the Representative Meeting, with the difference that each group should elect two instead of one.

Mr. RUSSELL COOMBE (Exeter) proposed that, instead of taking so large a grouping, each representing two, the meeting should take a smaller grouping, each group representing one. It was highly desirable that there should be members of the Committee in touch with all parts of the country, and with a smaller grouping they would be better able to bring before the Committee the conditions of practice in the particular areas, and so give better information to the Committee.

Mr. BISHOP HARMAN (Marylebone) seconded.

In reply to Mr. C. R. STRATON,

The CHAIRMAN said he did not exactly see how Ireland could best be dealt with. The objection to Mr. Coombe's proposal was that there would be very small electing bodies; if twenty-four were elected by the twelve groups —two each—the groups would be better for electing than with twenty-four.

Dr. R. H. COOMBS (Bedford) pointed out that in some of these groups the electors were completely out of touch with the Representative elected on the Council. He lived miles away. He wanted to ensure that the Representatives on this Committee should be more or less in touch with the districts they represented.

The CHAIRMAN pointed out that Mr. Russell Coombe's method would produce some very curious results. The groups came to be so small that it did not strike him as a good plan. If Mr. Coombe would agree to twelve groups it would be very much better.

Dr. MACLEAN deprecated any suggestion that the Irish Representatives should be left out, for the simple reason that, while it was perfectly true at present that the medical benefits did not come into operation, it still was on the list as an additional benefit under the Act; and they had a very urgent problem to deal with now in Ireland.

Dr. PRICE (Carnarvon) considered as the whole of Wales was grouped with other Divisions, the Representative Meeting should give Wales a separate representation. Wales was recognized as a separate community in this matter, and a Welsh Commission had been appointed. The conditions of practice in Wales were sufficiently varied and sufficiently different from those in England to need separate representation.

Dr. DARLING, as an Irish member, considered that four out of twenty-four were too many for Ireland, and he would be perfectly prepared to move that the representation of Ireland be limited to two of the twenty-four. That would leave two members for Wales.

The amendment was then put:

> That twenty-four members be elected by the Representatives of constituencies on the basis of the grouping for election of twenty-four members of Council.

The motion was lost.

[The dinner adjournment of an hour was then taken.]

On the resumption after dinner, at 8.25 p.m.,

The CHAIRMAN said that before the adjournment they had disposed of Mr. Russell Coombe's suggestion that the twenty-four members should be elected by twenty-four small groups. There were two other ways in which the election could be made—by having larger groups, twelve groups electing two each, or by what he called country groups, allotting so many to England, to Scotland, to Wales, and to Ireland, without grouping the Branches.

Dr. MUIR (Glasgow, Eastern) moved:

That there be nominations for each part of the United Kingdom, but that the election be made by the whole Representative Body, and that no candidate shall be eligible for any section unless he is resident in that area.

The arrangement of electing the members by group Branches in the past was a farce. Once a member of the Council a man could always remain so, because he got to know who were the Divisional Representatives probably days or weeks before the ordinary member knew anything about it.

Dr. R. A. LYSTER (Winchester) seconded the motion.

Mr. BISHOP HARMAN preferred election by the twelve groups, as suggested by the Chairman.

The CHAIRMAN said he had been asked whether the particular candidates need be members of the Representative Body. He should say not.

Dr. MUIR said they must be.

The CHAIRMAN said they must be elected by the Representative Body. They must be resident in the area for which they stood.

A REPRESENTATIVE asked how it was to be known whether they would consent to act.

Dr. JOHNSON SMYTH urged that Dr. Muir's proposition was in conflict with democratic government.

Dr. CRAIG (Fife) said it had already been ordered that the Committee could only be elected by the Representative Body. If that was true of the Committee as a whole, surely it was true of each individual member.

Dr. YOUNG moved and Dr. HAIG seconded:

That the twenty-four members be elected by the Representatives grouped in the same way as for the election of twelve members of Council under By-law 43 (*c*), and that each such group elect two members.

This amendment was put and carried

The point being raised, it was then moved by Dr. HELME:

That candidates need not necessarily be resident in the area of the group for which they are nominated.

Dr. ROBERTSON (Glasgow) asked if it was meant that a man who was going to represent Scotland must not be in Scotland.

The CHAIRMAN said he must be.

Dr. DEWAR (Edinburgh) asked if it was understood that they could not nominate members who were not members of the Representative Body.

The CHAIRMAN thought they were able to do so, but they could not possibly be sure that they would be willing to serve.

The amendment was lost.

Dr. DOMVILLE formally moved:

That in the event of the Committee dealing with the question of the establishment of a public medical service the Chairmen of the Medico-Political and Public Health Committees be invited to attend the meetings of the Committee.

Recommendation VI of the Report of Council, as finally amended by the meeting, read as follows:

That the State Sickness Insurance Committee consist of (*a*) twenty-four members (the majority of whom shall be general practitioners), elected by the Representative Body, (*b*) the *ex officio* members, (*c*) two women medical practitioners to be co-opted by the Committee, one of whom shall be nominated by the Northern Association of Medical Women, the other by the Association of Registered Medical Women; and that the Committee be empowered to add to its numbers for special purposes, not more than four additional members.

THE PROFESSION AND THE GOVERNMENT.

The CHAIRMAN OF REPRESENTATIVE MEETINGS moved Recommendation I of the Report of Council:

That the Council be instructed to press upon the Government and the Insurance Commissioners the further conditions necessary for securing the requirements of the profession.

He said that in order to raise succinctly and definitely the question whether they should go on pressing the Government or not, the Agenda Committee appointed that day advised that the strongest amendment to the contrary should be taken. (Hear, hear.) This the Committee thought was the motion of which Shropshire and Mid-Wales had given notice as follows:

That the Council be instructed to at once cease negotiations with the Government and the Commissioners.

Dr. MEADE asked if the words "requirements of the profession" embodied the six cardinal points.

The CHAIRMAN OF REPRESENTATIVE MEETINGS said the answer was definitely in the affirmative.

Dr. E. TREDINNICK (Shropshire and Mid-Wales) was instructed by his constituents to say that they considered the Council should at once cease the negotiations with the Government and the Commissioners, because, as a result of the two past meetings, they had accomplished nothing but change the May points into the November principles, and nothing else had followed. They did not see that they were any nearer having those six cardinal principles put into an Act than they were last November.

Dr. ROBERTSON inquired whether the wording of the resolution involved any further negotiations with the Government.

The CHAIRMAN OF REPRESENTATIVE MEETINGS thought it quite clear it meant that every means in the power of the Council for impressing their views upon both the Government and the Commissioners should be employed.

Dr. J. WALKER (South-East Essex) remarked that at the Opera House the Chancellor had definitely stated that at least two of the cardinal points of the medical profession would not be granted, and, therefore, to be consistent, his Division considered that all negotiations should be broken off. The point with regard to the Harmsworth amendment was even more important now because of the attitude taken up by the friendly societies in regard to doing away with medical examination.

Dr. P. ROSE (Stratford) said it was obvious to everybody that the medical profession had not secured its requirements, but in his opinion it would be madness to cease negotiations. To secure their requirements they could only do one of two things—either get suitable Regulations or a suitable amending Act—and negotiations must be continued.

Dr. HAIG (Perth) said they must look upon the profession as an organism which had undergone an operation at the hands of a rash and inexperienced surgeon, and after such an operation it was only natural that considerable inflammation should arise; but he did not think it would be wise that they should, as a Representative Body, break off negotiations now.

Dr. HODGSON (Manchester, Salford) said that, looking at the question as business men, it did not matter what the public thought of them. The public expected them to sit down and be trodden upon, but the public had been disappointed. The profession had tried to get the six cardinal points and failed, and the next move must come from the Government. They had told the Government their minimum, and they must stand by it. He did not say that they must not deal with any suggestion; a committee had been appointed for that very purpose. Any suggestion that came from the proper quarter would, of course, be considered as it should be, but negotiation implied that there was to be an exchange. The medical profession had nothing more to give; everything must come from the Government now. They must take a firm stand and give nothing further. Therefore, in his opinion, it was futile to attempt any further negotiation.

Dr. MUIR (Glasgow, Eastern) stated that he was instructed by his Division to support absolutely the Council. The Council had done the best it could. Parliament in its unwisdom had passed an unworkable Act, but it was an Act, and they were bound to attempt to come to terms with the Commissioners. It would be a lamentable mistake if the profession did not endeavour to negotiate with the Commissioners. There were certain things that the Commissioners had the power to give under the Act; a Committee had already been formed in Scotland, comprising the Scottish members of the Council, fifty members or thereabouts elected by the Divisions, by the Universities, and members of the population, and that Committee would negotiate for the whole of Scotland with the Commissioners for Scotland. The huge majority of the profession in the West of Scotland took the more reasonable view, and, such being the case, if the resolution to work under no circumstances were carried into effect, it would be a serious position for the Scottish members of the profession to consider how they should act in the future. Personally, no matter how the voting went, he would abide loyally by the decision of the majority of the Association, but he could not pledge himself that there would not be a large number of men—at any rate in Glasgow, with a considerable number of whom he was

personally acquainted — who would not cry off. He suggested that they should present their demands to the Commissioners and try to get what they asked for, particularly in respect of remuneration and the wage limit; but if they did not get what they asked for in a reasonable way, they could then say they would not work.

In reply to questions as to a report of the proceedings which had appeared in an evening newspaper,

The CHAIRMAN said he could only declare what the meeting had declared at the beginning, that no report of the meeting should go out, and that nobody was authorized to give any report.

Dr. METCALFE (Bradford) strongly supported the motion that the medical profession should cease negotiations with the Commissioners. He spoke somewhat strongly on this point at the last Representative Meeting, and during the intervening period the wisdom of his suggestion had been shown. During the last few months things had gone more strongly against the profession than ever, and there seemed to be absolutely no prospect of their obtaining the cardinal points or the chief items in their policy. From the tone of the speech made by the Chancellor of the Exchequer at the London Opera House it was clear that it was impossible for the Commissioners to grant the demands of the profession. The Chancellor had said that the wage limit was an impossibility. But there were other points, such as the point of adequate remuneration. The Chancellor had said that he could not support such unreasonable suggestions as had been adduced on behalf of the medical profession; he had said that it would mean nearly three millions of money, that it would cost a penny on the employer, or a penny on the income tax, or a penny on the insured person. What did he mean them to infer from such a statement—that they were to bear all the burden? Not only were they to bear all the burden of this, but were to lose one-third or one-fourth of their income. It had been shown that although the Chancellor was offering an increase in the amount of payment for club and society work of from 4s. to 6s. a member, he was going to take the bulk of the practice of nine-tenths of the doctors in the large manufacturing centres away from them and put them under his conditions of remuneration—that was to say, to increase by 50 per cent. the club practice at the present day, but at an amount only a little over one-third of what those patients brought in to the doctors under the conditions that obtained now. Those doctors in the large centres were making from 12s. 6d. to 15s. a head on the average number of patients on their books during the year, and the Chancellor for those was offering 6s. a head. Did not that bear out what he had said, that the Chancellor, although he was loth to put a penny on the income tax, or a penny on the employer, or a penny on the workman, was, forsooth, going to demand several hundreds of pounds a year from each poor wretch of a doctor? It was high time the profession ceased negotiations; if the Government had anything further to suggest, it should make the offer, and the profession would consider it; it had always been willing and anxious to consider reasonable offers. In reply to a question, Dr. J. Metcalfe said that if the State Sickness Insurance Committee liked to have these figures he would be very glad to give them; they had been worked out from medical practices in the West Riding of Yorkshire.

Dr. J. H. EWART (Eastbourne) took it that every Representative had come with definite instructions as to which way he was to vote. The meeting had been very charmed with excellent oratory, and had heard excellent reasoning, but it could not alter their vote one way or the other; therefore he suggested the question be now put.

Dr. W. E. THOMAS (North Glamorgan) protested against the name of Wales being associated with a motion which he considered ridiculous. They had now arrived at the stage which they had brought upon themselves. The fixation of the wage limit and the capitation fee at their instigation had been left to be settled with the Insurance Committees, and yet it was proposed that they should dissociate themselves from all negotiations with the Commissioners. He could not conceive anything more impracticable. He did not agree with Dr. Metcalfe. He had read the speech of the Chancellor, and did not understand him to say that 6s. was the limit. He understood that if they could convince the Commissioners that they had a good case the British Exchequer was at their service. (Cries of "No" and laughter.)

The CHAIRMAN had a good deal of sympathy with what Dr. Ewart had said, but, on the other hand, as Chairman he could not assume that every Representative was pledged.

Dr. MCKENZIE JOHNSTON (North-West Edinburgh) said he would vote for the amendment. It was not exactly what his Division desired, but it preferred it to the Council proposition. While he did not consider it was necessarily the best thing for them to do, it depended upon what they understood by the word "negotiation." (Hear, hear.) The feeling of his Division, and, he thought, of many at that meeting, was that they should at the present moment cease negotiations and intimate to the Commissioners one way or the other that they were not prepared to accept anything less than the minimum. That was the case of ceasing negotiations—they gave an ultimatum. It was then for the Commissioners to come to them. The misunderstanding which might be in the minds of some of them was that the term "negotiations" might mean a proceeding somewhat similar to what had been going on for some time, and which had not resulted in the success which some of them had hoped for. He merely voted for the amendment to clear the way for something better to follow.

Dr. W. GOSSE (Isle of Thanet) asked whether in fact they were in negotiation with the Government at the present time?

The CHAIRMAN said they were not.

Dr. W. GOSSE asked how, then, could they break off negotiations? (Laughter.)

Dr. C. J. WHITBY (Bath) agreed that there was a great deal in the amendment that they could approve of, but the form in which it was put was open to considerable improvement. He had sent in a slight alteration of the wording of the amendment. His Division took a rather inconsistent course with regard to this matter. They began by approving the recommendation of the Council to which this was an amendment, and then, at a later stage in the proceedings, they passed a resolution demanding an amending Act. Under those circumstances, he felt himself free to support the amendment in the slightly modified form in which he had submitted it to the chair.

The CHAIRMAN pointed out that it could not now be altered.

Dr. WHITBY agreed with the amendment so far as insisting upon the necessity for striking a decided blow; the time had come for action, and the time for haggling was at an end.

Dr. FULLER (North Middlesex) said his Division had sent him with no instruction on this point. His instruction was to vote for breaking off negotiations unless they got guarantees that the six cardinal points could be obtained. This amendment was not a wise one to pass at the present moment, because they could not then tell the Government or the Commissioners what it was exactly that they wanted and would have. Therefore, he would not vote for this amendment. The Chancellor said, "All they had to do was to demonstrate to the satisfaction of the Commissioners that the finance provided was insufficient; and if the Commissioners were satisfied that a case was made out, on their recommendation it would be unquestionably the duty of the Government to advise Parliament to find the money necessary to provide a satisfactory medical service." But the Chancellor went on to say, "The Government was prepared to listen to every fair suggestion, but not to wild and extravagant demands." But three millions was not a wild and extravagant demand at all. It was less than the minimum demand they would have to make; but if they broke off negotiations, then he wanted to emphasize that they would not be able to press this point.

Dr. TAYLOR was sure there was some misapprehension as to the meaning of the word "negotiation." The Council did not mean negotiation in the ordinary sense of give and take, backwards and forwards. The Council was of opinion that it had given enough and was willing to give no more, and when it used the words "press on the Government," as he understood it, that phrase was distinctly chosen rather than the word "negotiation."

Dr. MACDONALD was sorry to hear the interpretation put on the amendment by Dr. Taylor, and was astonished to hear the definition that was given by Dr. McKenzie

Johnston of the expression "Cease negotiations." Unquestionably, if the amendment were carried as it appeared, they could have nothing more to do with the Government, good, bad, or indifferent; they could neither make nor receive proposals from them. It meant that they would have nothing more to do with the Act. Dr. McKenzie Johnston's definition was that they had to send an ultimatum to the Government, but surely sending an ultimatum was part of negotiations and required an answer. The amendment did not permit of an ultimatum being sent to the Government. The Council had carried out negotiations with the Government to the best of its ability, and perhaps had not succeeded as well as had been expected of it, but that was not its fault.

In reply to a question, the CHAIRMAN said he could hardly permit other amendments to be raised which really aimed at negotiations, because that would simply be a direct negative.

Dr. MEADE said there was a way out of the difficulty if the Council were instructed to notify the Government and the Insurance Commissioners that no negotiations would be entered into until the Representative Body was satisfied of certain things, including the six cardinal points.

The CHAIRMAN said that was a different question. He could not allow any amendments to be taken which would raise the question of further negotiations if the amendment then before the meeting were carried.

Dr. MACDONALD said that, having regard to the interpretation which had now been put before the meeting, he had no hesitation in saying it was not an amendment which could in any way appeal to their common sense. If they carried it, they could have no communication of any kind whatsoever with the Insurance Commissioners or the Government on the Insurance Act, and would have to face a very serious charge of default of duty to their constituents in the country, and would create a bad impression in the country. It was very important that the profession should carry with it the sympathy of the public.

The CHAIRMAN then put the amendment:

> That the Council be instructed to at once cease negotiations with the Government and the Commissioners,

and declared the same lost.

AMENDING ACT.

He then stated that he would next take the amendment by the Birmingham Central Division.

Dr. HELME said he would at once propose that a record (roll call) be made of the Representatives voting.

Dr. NEAL (Birmingham Central) proposed:

> That the Council be instructed to inform the Government and the Insurance Commissioners that until the minimum demands of the profession are to be placed beyond doubt in an amending Act of Parliament, further negotiations will be useless.

He ventured to think that up to the present the result of the negotiations had been very disappointing, and most of their representations had been contemptuously refused. As the Act now stood on the Statute Book their six cardinal points were not included; moreover, they were not even promised. They felt that if these six cardinal points had been safely left in the Regulations, there need have been no fuss about amending the Act. The fatal mistake which the Association had made was in consenting to allow any of the six cardinal points to be framed in the Regulations made by the Commissioners rather than taking the firm stand that they should be embodied in the Act. The present indefinite position of the six principles was a matter of great dissatisfaction and concern to the whole profession, and even if the Regulations did apparently concede them to their satisfaction there was no guarantee that they might not be taken away the next day. They were not content to allow their chances of obtaining the cardinal point of the limit of £2 to rest on the pleasure of the local Insurance Committee, three-fifths of whose members were representatives of insured persons. They contended that it was impossible for any regulations framed by the Commissioners to prevent the profession being placed, as far as disciplinary control was concerned, under lay control, and that was an intolerable position, and one they were not prepared to accept. In these circumstances they felt that nothing but an amendment of the Act would satisfy their requirements, and that unless that was conceded further negotiations were utterly useless.

Dr. HASLIP supported the amendment. The opinion in his Division was that it would be more dignified and practical to tell the Government and the Commissioners they would have nothing further to do with the Act. There had been four Representative Meetings, and on each occasion they decided to stand by the six cardinal points. Those points had been before the Government for nearly a year, and how much of those six points had been obtained was a question of faith. Could the Commissioners do what the Government had failed to do in the House of Commons, and especially with regard to the income limit and the Harmsworth amendment? He was surprised that not one word had been said by the Council with regard to the question of the discipline of the profession. It had been the sacred right of all the professions—the Church, the Law, the Army, and the Navy—to be judged by members of their own body; and it had been their pride also that members had been judged for misconduct by other members of the profession—namely, the General Medical Council. Now the Commissioners were to have the power to take a man off the panel, which would involve social and professional ruin to him. He, for one, deprecated such a course, and for that reason he hoped they would not be content except with an amended Act containing the six cardinal points.

Dr. HOWELL (Cleveland) said that his Division was quite in sympathy with Dr. Neal's amendment, but did not see that it required an amending Act. Would he accept the words "or otherwise" after the words "amending Act"?

Dr. NEAL emphatically refused.

Mr. DANIELL (Furness, Kendal) was in sympathy with the remarks of the previous speaker as to the disciplinary powers; he had already sent up an amendment on the matter. He proposed to add to Dr. Neal's amendment the following words:

> And that disciplinary power for medical practitioners under Section 15, Subsection (*b*), of the Act be placed unreservedly in the hands of the medical profession itself.

The CHAIRMAN suggested that Dr. Neal would be wise to adhere to his resolution, as it raised the question crisply whether they would or would not treat this question by an amending Act. If the meeting decided in favour of an amending Act, it could then illustrate what it thought the amending Act ought to contain.

Dr. GOODALL pointed out that the meeting seemed to have overlooked what might happen if it passed the resolution demanding an amending Act at once. It would take some time, even if the Government would do it, to get an Act through the House of Commons and the House of Lords, and what was to be done in the meantime?

Dr. LEIGH DAY (North-East Essex) said his Division felt strongly that they should not go on unless an amending Act was promised. They had no faith whatever in promises contained in regulations, because regulations might be altered at any moment. (Cries of "Yes" and "No.") His Division felt strongly the time had now come to take a definite course, and say, "We must have an amending Act."

Dr. PARKER (Bristol) was instructed to support the amendment. His Division felt that the Insurance Act was absolutely unworkable. With regard to remuneration, he would not labour the fact, which any doctor engaged in club practice knew, that 4s. 6d. in a club was quite equal to a Government 6s. on a panel, because a club doctor only attended about 80 per cent. of his members. Neither would he labour the point as to the enormous pull on the supposed 6s. for the appliances, for the chemist, for deductions made for Post Office contributors, for splints and small operations, and other etceteras. Personally, he imagined the remuneration under the Act would come to a great deal less than 1s. a head, but whatever it was the Commissioners had not the power of creating money. Mr. Lloyd George had perfectly good intentions, and they were told they were to trust the Government to see them through any difficulties; but what chance was there afterwards of the Government recognizing their pitiable condition under this Act, and coming forward to give them supplemental grants? What chance was there that a Conservative Government, if one should come into office, would consider themselves bound by the *ex parte* statements of their predecessors

which were not embodied in the Act; yet they were told to trust the Government that any real deficiency of funds would be made up. He maintained that that was not the way to do business with reasonable men. The Act was absolutely unworkable in other respects; more, the six cardinal points were insufficient. The question of medical courts and medical procedure was one that it might be difficult to get under the six points. Practically all that had been gained by the negotiations was the power of collective bargaining between the Insurance Committees on the one hand and the Medical Committees on the other. The Insurance Committee was essentially a committee of approved societies. The approved societies had the majority, and they had the power of administering the medical benefits subject to a certain oversight by the Commissioners. The Medical Committee had no right other than that of being consulted; it had no power except that of ordering a strike. He knew that the Insurance Commissioners had certain powers of oversight which he would deal with in a moment, but with regard to the power of collective bargaining between those two unequal Committees, what was it worth? Was that power of collective bargaining any greater than they could get without an Act? If they did not have the Act, could they not form Committees of their own; could not they insist upon reasonable terms, untrammelled by the Commissioners, and fight for those terms, and strike if they did not get them? He regretted that Parliament had practically left them to sectional fights in settling these matters, but as Parliament had done so they preferred their own organization. With all respect to the judicial functions of the Commissioners, there were two things to be remembered; one was that they had not a life tenure like the judges, but had only a short tenure for five years, and the second was that they had only one man among them who actually represented the point of view of the medical profession. The income limit was said to be secured under the Act; the income limit was to be fixed by the local Insurance Committee subject to the approval of the Commissioners. The Insurance Committee were essentially a committee of approved societies, and to fix an income limit was exactly what the clubs never had done and never would do unless they were forced.

Dr. Starling (Norwich) said that he had been instructed by his Division to vote for the original motion of the Council, as that was the only means of securing their six points. They were all agreed that they must have the six cardinal points, but he did not think any ultimatum should be given until they were perfectly certain that they could not get those six cardinal points under the Regulations. The medical profession could not be certain of that until it had asked for them, and as the Regulations had not yet been drawn up it could not be sure that it would not get them. Most of the speakers seemed to doubt that the six cardinal points would be given, and they thought the suggestion of an amending Act would not be considered. The Association was a non-political body, and ought to press for what it wanted.

Dr. Shadwell (Walthamstow) thought that the instructions he had received from his Division justified him in opposing the amendment. A rider by his Division authorized approaching the Commissioners, but under conditions in which they were to be firm and definite in their demands. Before they decided to have an amending Act, and nothing short of an amending Act, he thought they should try and look at the matter in a business way. There had been a great deal of theory introduced; they had been told that they could not get this, that, or the other. They did not know what they could get. They had not been told by the Commissioners what the Commissioners were going to offer them, and it would be absurd for the profession to say they would have nothing to do with the Commissioners. It had been said that they did not believe in Regulations. Had not they in their experience found that in every department and every Act of Parliament dealing with Poor Law, with public health, and with factories; there were innumerable regulations? Everything could not be got into an Act of Parliament, and therefore it was necessary to have Regulations. He thought they would be acting in a businesslike manner by asking the Commissioners what their Regulations were and what they had to offer, and then if the profession was not satisfied it could refuse. At the same time, there was no reason why they should not afterwards press for an amending Act to strengthen their position. With Home Rule, Manhood Suffrage, and Welsh Disestablishment, where was the time coming for an amending Act? The Government would not give it; and while they were waiting for an amending Act was the Government going to stop the Insurance Act from coming into force? No. The Government meant to work it.

Dr. A. H. Williams (Watford) asked if the amendment before the meeting was passed they were absolutely precluded from having any further communications with the Government until an amending Act had been passed and the Government, without any communication from the profession, had satisfied its demands.

The Chairman said that if the amendment was passed it would be followed by a rider instructing the Council to press upon the Government the terms that were required to be embodied in the amending Act.

Dr. O'Sullivan (Liverpool, Bootle) urged that the medical profession should stand steadfast, and not be frightened by the possibility of blacklegs coming on the scene. Was there any use in considering further negotiations with the Government unless the Government was prepared to meet them? The profession had formulated its six demands and it intended to abide by them. Unless the Government was prepared to assure the profession that an amending Act would be passed by which the six points demanded would be met, there was no earthly use in continuing further negotiations.

Dr. Macdonald thought it was probable that what he was going to say would be contrary to the sense of a great majority of the meeting; but he felt it his duty to say it. He did not think he would be regarded as a man who would be inclined to hesitate from saying to the present Government what he thought with regard to it and all its works. But he was, above all, a medical practitioner, and a medical practitioner who had spent, during the last year and a half, much more of his time than he had any right to do in going into this matter very thoroughly. It was very interesting to hear so many men discussing this matter in the enthusiastic manner in which they were doing it. It was the one rosy point with regard to the whole thing that they seemed to have roused the profession at last to look into the whole thing; but there was a great danger in taking up the position to which the meeting seemed to incline. He was very much astonished to hear Dr. Parker, with regard to the question of what they had gained by their negotiations with the Government, make the extraordinary statement that the only thing they had got was the position on the Statutory Committee. They had got another point, which really to his mind was the crucial point between their position in striving to get from the Government what they considered their just demand and what would be their position if they took up the attitude that they would actually do nothing whatever until the amending Act was introduced. An amending Act was a pretty difficult thing to introduce. A regulation, as drafted and issued by a Government Department, had to be submitted to the House of Commons, and as soon as the House of Commons had accepted it, it received the authority of an Act of Parliament. (Hear, hear.) It was much easier to get their demands put in the form of Regulations than in the form of an amending Act. He put it to them with all seriousness as being the form in which it would be easiest for them to get what they wanted, which would be just as powerful as an amending Act, and which would put them in a still stronger position than they were in now, if they required an Act. But, supposing they took up the position which was suggested, and did not take up any work unless an amending bill to the Act was proposed, they lost at once what to his mind was the dominating thing they had succeeded in getting from these people—that was the power of giving free choice of doctor to every person (Cries of "We have not got it"; and interruption). They had got it in the opinion of every counsel who was asked by the *Practitioner*. If they stopped themselves from taking any further action in the matter, they would be up against this great confederation of friendly societies (which would be about three or four times as great as they were now); the profession having no power in their hands, such as the free choice of doctor gave them, of fighting them (Cries of

"No"; and "Hear, hear"). There were, perhaps, 12,000 or 15,000 doctors engaged in attendance on the friendly societies at present. Their remuneration was 4s., to put it at an extreme average, per member per year. Even under the meagre arrangements which were made under this Act, they were going to get 50 per cent. more (interruption). The 4s. included the supply of drugs, and the 6s. proposed by the actuarial calculations included drugs and dressings. Under the Act it was possible for those men to get 50 per cent. increase; and at the same time they would have three times as many men in their clubs. Were they going to ask those men to surrender this position on which they were to a great extent dependent, and say to them, "You should not work under those terms"? (Cries of "Yes"). Would they do it? (Cries of "Yes" and "No"). He did not want to say anything against the union of the profession. He was there to put before them the danger of the course they seemed likely to adopt in absolutely refusing to do anything under the Act unless an amending Act was promised them. The Council had suggested to them a more politic way of getting at the same means instead of proceeding to the extreme method of demanding an amending Act.

Dr. Fuller said they had heard on all sides what would happen to them if they insisted upon having an amending Act. The threats contained in the Chancellor's speech had made him (Dr. Fuller) a firm advocate of an amending Act. The Chancellor had said he would take away all the safeguards, such as they were, and give the 6s. to the individuals, who would form their federations, and would make the club practice ten thousand times worse than it had ever been before. But would the Chancellor do this? Would not breaking up his own Act stultify him? The profession had to take all lives. At the present time the lives were picked. In future they would have to take the spinal cases and all the bedridden cases. They had to go among thousands of patients and make reports upon them for the benefit of the Health Committees. They were to be slaves of the Insurance Committees, on which they had inadequate representation. The union of the profession was a simple matter of courage and a simple matter of making up their minds as to what they were going to do. (Applause.)

Dr. T. A. Helme (Manchester, Central) was not a little surprised to hear the remarks that had fallen from Dr. Macdonald, in which he said it was much easier to get what they wanted in regulations, and that they were just as powerful as an amended Act. It might be much easier to get things by regulations, but it was as easy to lose them. (Hear, hear.) By the same methods as those by which the Commissioners might put what they required into regulations, so by those same means might the Commissioners remove them at their will. (Loud applause and cries of "No.") The Commissioners framed their regulations and laid them on the table of the House of Commons for fourteen days, and if not challenged they took the force of law, but at any moment they might withdraw those regulations and put fresh regulations on the table of the House of Commons. They were in no sense so permanent as an Act was. They knew there was nothing more difficult to get than an amending Act; but this was not an Act which was not in force. It was a comparatively easy matter to make the Government amend it now before they had got the profession into the toils of its working; but when once the profession was in the toils they would never get the amending Act. They had only to turn to that remarkable address of Mr. Lloyd George at the London Opera House to know what was in store for them. He had told them that they would not get certain things. With regard to the remuneration, Mr. Lloyd George had laughed at them on certain occasions when they asked for something like 8s.; and in that very speech he told them that three millions was not debatable. Therefore, in effect, he had again told them that they would not get 8s. 6d. or anything like it, and he had no intention of their getting it. With regard to his other threats of withdrawing medical benefits, what did that mean? These were empty threats, bogeys conjured up to frighten them and break up the union of the profession. Let Mr. Lloyd George withdraw his medical benefits; he was then taking away what he had promised under the Act. Would the employers consent to pay their proportion? Not likely, and they could not be compelled to do it. In his opinion the remuneration could not be increased by the Committee. The proportion which the Government had to pay was set down at two-ninths, and it was not in the power of the Government by a mere Treasury grant to add to their proportion unless they got permission for it by an amending Act. An important point was that the Commissioners had the power to strike off the panel a medical man and so destroy his professional future: and there was no appeal from this. Dr. Macdonald assumed that the medical profession would get 4s. under the Act, but that was a pure assumption. He (Dr. Helme) had just as much right to say that they would not get 2s. as Dr. Macdonald had to say that they would get 4s. There was no guarantee that they would get anything like it. Then Dr. Macdonald asked about the club doctor, with the possible 50 per cent. increase, but in his (Dr. Helme's) district there were whole areas where every man in the place was promising to give up his club.

Dr. W. E. Thomas (North Glamorgan) hoped the meeting would not accept the amendment, as it was altogether premature. No section of the country had a right to dictate to the Government what laws it should enact. No Government had the right to take the services of any section of the community without adequate remuneration. They were not convinced that they would get this remuneration. The Government had instituted a court to settle their remuneration, and he thought it would be impolitic on their part to refuse to meet that court. He had no conscientious scruples against revolt, but let them be certain of their ground. Let them be satisfied that they could not get their just demands. If they could not get them, then by all means let them refuse to have anything to do with Mr. Lloyd George or his Act.

Mr. Greer (Monmouthshire) wished to ask Dr. Helme if he would tell them how many medical men attending the association he referred to had given in their resignations to the Medical Union or the British Medical Association, and also how many were prepared to throw in their lot on the question of throwing up their club.

Dr. Helme said it was not in his power to answer that question.

Sir Victor Horsley said the question was whether the members thought an amending Act would give them what they wanted. He held that it would not, because it did not lie with Mr. Lloyd George or with the Government at all. It lay with the House of Commons, and if they took, for example, the first rider of the Birmingham Division with regard to the wage limit, they knew what the history of the wage limit in the House of Commons was, and that it was perfectly hopeless to expect either side of the House to move their wage limit. The movement in favour of an amending Act from that point of view was nonsense.

Dr. Lankester (Guildford) said he had been instructed by his Division to vote for an ultimatum being sent to the Insurance Commissioners, but he had heard enough to convince him that such an ultimatum would be fruitless, and therefore he felt himself at liberty to vote for the amendment. They heard at their last meeting from the lips of Dr. Macdonald very much the same words as he had just used, but their position was practically unaltered. They had heard of the bogey of being handed over to the friendly societies, but they were now in a position to fight the friendly societies in a way they had never been before. He happened to have succeeded a man who had two or three clubs, and recently the secretary of one of the largest of the clubs actually suggested that they might raise their fee from 4s. to 7s. 6d. He for his part was dumbfounded that that person should have so far realized their increase of strength that he was willing to suggest a rise of 3s. 6d. a head. He did not fear Mr. Lloyd George or any one else handing over the 6s. to the friendly societies and asking them to make their own arrangements.

The Chairman of Representative Meetings agreed very largely with what had fallen from the last speaker. There could be no sort of doubt that the union of the profession to-day was larger in extent and firmer in consistency than ever it had been before; and he was further of opinion that the present conditions of contract practice in this country could not continue on account of that union. Was it wise at this stage to play their last card? That was the question. He did not think there was a single member of the meeting who supposed an amending Act would be

promised by this Government or any Government, by one party or any party, to cover unconditionally the points in their policy. It therefore meant that the meeting had to decide whether it was going to get more by the policy of defiance, or, on the other hand, by representations to the Commissioners in regard to what they must get under the regulations; it was an arguable position. He had never for a moment denied that there was more or less of a prospect of a time when they would have only one duty to perform —to call upon the men throughout the country not to serve under the Act. He suggested that to show that card at the present moment as though they intended to play it was bad tactics and bad policy. That was his opinion, and he was sure in regard to what had fallen from Dr. Macdonald that he had never made a speech which had politically been more against his grain than the one he had made that night. He (Dr. Maclean) suggested that those who knew most of the position from their experience and service upon the Insurance Committee had some idea as to the forces they were coming in contact with, and that they now proposed in a short time to face. He was not dismayed as to the question of their strength, but to demand from the Government or by recommendation from the Insurance Commissioners what they knew could not be granted, and would not be granted, was to take up an impossible position. He felt it his duty, as Dr. Macdonald had felt it to be his, that the meeting in taking this vote should do so with its eyes open to the possible result. (Hear, hear.) Much had been made in regard to the changeability, the fluidity, of regulations, but that must apply even if they got an amending Act. ("No, no.") Dr. Helme had made a point that an amending Act was a much more possible thing, having regard to the fact that the Insurance Act was not in force. He (Dr. Maclean) was told that there was no precedent for an amending Act being passed in respect of an Act which was not already in force. The point was what were they going to do; what were they to get from the Commissioners or the Government? They would say "We have received your message, or representation; come and tell us what your amendments to the Act are." That meant the Insurance Committee would have to go and negotiate. He pitied the new Insurance Committee. They were charging those men to undertake duties which they could not possibly, even up to reasonable percentage, carry out. (Hear, hear.) He warned the Committee that their prospects were not at all bright. He, and others, had gone through very warm times, but if the meeting imposed these utterly impossible duties upon the new Insurance Committee it could not reasonably charge them with default of duty in days to come. ("Hear, hear," and applause.)

The vote was then taken by roll-call with the following result:

PARTICULARS OF VOTING.

For the Amendment 58

Dr. DAVID BLAIR	...	Lancaster
Dr. L. J. BLANDFORD	...	Darlington, Hartlepool, Stockton
Dr. JOHN BROWN	...	Rochdale, Bury
Dr. F. G. BUSHNELL	...	Brighton
Mr. E. A. CLARKE	...	Ashton-under-Lyne, Glossop
Lieut.-Colonel DECIMUS CURME	...	W. Dorset
Mr. F. E. DANIEL	...	Furness, Kendal
Dr. W. L. M. DAY	...	N. E. Essex
Mr. J. W. DRAPER	...	Huddersfield
Mr. A. J. DREW	...	Oxford
Dr. ARTHUR DRURY	...	Halifax
Mr. J. H. EWART	...	Eastbourne
Dr. D. E. FINLAY	...	Gloucestershire
Dr. J. FLETCHER	...	Chelsea
Dr. J. R. FULLER	...	N. Middlesex
Dr. J. E. GARNER	...	Preston
Dr. R. W. W. HENRY	...	Leicester and Rutland
Dr. G. B. HILLMAN	...	Wakefield, Pontefract, and Castleford
Dr. J. F. HORNE	...	Barnsley
Mr. G. JACKSON	...	Plymouth
Dr. T. LAFFAN ...	...	Carlow, Kilkenny, and Waterford
Dr. J. MACDONALD	...	S. Shields, Tyneside
Dr. H. C. MACTIER	...	S. Staffs
Dr. JAMES METCALFE	...	Bradford
Dr. B. H. MUMBY	...	Portsmouth
Dr. J. NEAL	...	Birmingham (Central)
Dr. H. OPPENHEIMER	...	Hampstead
Major C. H. L. PALK	...	Ashford, Dover, and Folkestone
Dr. SPENCER PALMER	...	Reigate
Dr. G. PACKER ...	...	Bristol
Mr. ELLIS PEARSON	...	Barnstaple
Dr. P. PREBBLE	...	Blackburn
Mr. PERCY ROSE	...	Stratford
Dr. W. B. SECRETAN	...	Maidenhead, Reading
Dr. A. TENNYSON SMITH	...	Bromley, Sevenoaks
Dr. E. A. STARLING	...	Tunbridge Wells
Dr. H. R. TOWNSEND	...	N. S. and W. Munster
Mr. E. TREDINNICK	...	Shropshire and Mid-Wales
Dr. J. F. WALKER	...	Mid-Essex, S. Essex
Dr. C. J. WHITBY	...	Bath
Dr. J. A. WOOD	...	Hereford
Dr. T. BARTON ...	...	Blackpool and Isle of Man
Dr. J. M. BOWIE	...	S. Edinburgh
Dr. T. CAMPBELL	...	Leigh and Wigan
Dr. F. W. DEARDEN	...	Manchester (West)
Dr. MUIR EVANS	...	E. Norfolk and N. Suffolk
Dr. W. GRIFFITH	...	St. Pancras and Islington
Dr. G. E. HASLIP	...	Westminster
Dr. T. A. HELME	...	Manchester (Central)
Dr. HODGSON ...	...	Manchester (Salford)
Dr. R. M. JOHNSTON	...	N.-W. Edinburgh
Colonel W. T. JOHNSTON...		E. Leinster
Dr. C. P. LANKESTER	...	Guildford
Mr. R. H. LUCAS	...	W. Suffolk
Dr. MARTLAND...	...	Oldham
Dr. C. G. MEADE	...	Scarborough and York
Dr. R. ROBERTSON	...	N. E. Edinburgh
Dr. E. B. TURNER	...	Kensington

Against the Amendment... ... 81

Dr. J. ADAMS ...	...	Glasgow Central
Dr. J. ALLAN ...	...	Leeds
Dr. F. J. BAILDON	...	Southport
Colonel H. J. W. BARROW		Ealing
Mr. F. P. BASSETT	...	St. Helens and Warrington
Mr. S. E. BAXTER	...	Northamptonshire
Dr. W. BLAIR ...	...	S.E. Counties, Edinburgh
Dr. W. F. BROWN	...	Ayrshire
Dr. T. BUSHBY ...	...	Liverpool (Central)
Dr. A. T. CAMPBELL	...	Glasgow N.W.
Dr. F. CARRUTHERS	...	Guernsey, Alderney, and Jersey
Dr. W. CLOW ...	...	Renfrewshire
Mr. RUSSELL COOMBE	...	Exeter
Dr. T. B. COSTELLO	...	Mid. North and South Connaught
Dr. E. H. CRAMB	...	Dumbartonshire and Ayrshire
Dr. BRODIE CRUICKSHANK		N. Counties of Scotland
Dr. J. S. DARLING	...	Portadown and West Down
Mr. J. E. H. DAVIES	...	Denbigh and Flint
Dr. J. S. DICK	...	Manchester (North)
Dr. W. DOUGLAS	...	Maidstone, Rochester, and Chatham
Dr. W. J. DURANT	...	Consett, Gateshead
Dr. A. M. EASTERBROOK ...		Lothians
Dr. R. ESLER ...	...	Lambeth
Mr. D. R. POWELL EVANS		Wandsworth
Dr. A. C. FARQUHARSON ...		Bishop Auckland and Durham
Dr. A. FULTON...	...	Nottingham
Mr. T. W. H. GARSTANG ...		Altrincham
Dr. J. A. GIBSON	...	Isle of Wight
Dr. BRUCE GOFF	...	Lanarkshire
Dr. E. W. GOODALL	...	City
Dr. R. GORDON	...	Sheffield
Dr. W. GOSSE ...	...	Isle of Thanet, Canterbury, Faversham
Dr. W. J. GREER	...	Monmouthshire
Dr. W. HAIG ...	...	Perth
Mr. N. BISHOP HARMAN	...	Marylebone
Dr. H. HARVEY...	...	Liverpool S.
Dr. A. C. E. HARRIS	...	Birkenhead
Dr. R. E. HOWELL	...	Cleveland
Dr. S. HUGHES...	...	Southampton
Dr. J. H. KEAY...	...	Greenwich
Dr. D. A. McCURDIE	...	Ballymoney, N. Antrim, South Derry, Derry
Dr. J. A. MACDONALD, LL.D.	...	West Somerset
Dr. D. McFARLANE	...	Boston and Spalding and Lincoln
Mr. W. L. MUIR	...	Glasgow, Eastern
Dr. J. E. O'SULLIVAN	...	Liverpool, Bootle
Dr. J. PEARSE ...	...	Trowbridge
Dr. D. R. PRICE	...	S. West Wales
Dr. E. O. PRICE	...	N. Carnarvon and Anglesey
Dr. J. PROUT ...	...	Liverpool, N.
Dr. R. J. RICHARDSON	...	Liverpool, N.
Dr. C. E. ROBERTSON	...	Glasgow S.
Dr. T. R. RODGER	...	Scottish
Dr. J. RUSSELL	...	North Staffs
Mr. T. SANSOME, Jun.	...	West Bromwich
Dr. J. W. SMITH	...	Hexham, Newcastle-on-Tyne
Dr. W. JOHNSON SMYTH ...		Bournemouth
Dr. H. J. STARLING	...	Norwich
Mr. W. P. STOCKS	...	Manchester S.

Mr. C. R. STRATON	...	Salisbury
Mr. L. A. TAYLOR	...	Bromsgrove, Dudley
Dr. M. R. TAYLOR	...	West Cornwall
Dr. W. E. THOMAS	...	N. Glam. and Brecknock
Dr. D. G. THOMSON	...	Mid-Norfolk
Dr. D. F. TODD	...	Sunderland
Mr. C. W. VICKERS	...	Torquay
Mr. H. C. WILL	...	Dartford
Dr. A. H. WILLIAMS	...	Watford and Harrow
Dr. W. B. EDWARDS	...	Swansea
Dr. J. GORDON ...	...	Aberdeen, Orkney and Shetland
Dr. D. PRINGLE	...	Harrogate
Dr. C. REID ...	...	Mid-Staffs
Dr. H. J. ROBINSON	...	Burnley
Dr. ST. C. B. SHADWELL		South-West Essex
Dr. G. K. SMILEY	...	Derby
Dr. J. R. STADDON	...	South Suffolk
Dr. H. F. STEEL	...	West Norfolk
Dr. W. B. C. TREASURE	...	Cardiff
Dr. J. E. WEBB	...	East Cornwall
Mr. E. H. WILLOCK	...	Croydon
Dr. C. S. YOUNG	...	Dundee
Insp.-Gen. R. BENTHAM, R.N.		Royal Navy Medical Service

The meeting then adjourned till Wednesday morning at 10.

WEDNESDAY, FEBRUARY 21ST.

THE Session in Committee was resumed shortly after 10 a.m. on Wednesday, February 21st, Mr. VERRALL in the chair.

The minutes of the previous day's proceedings in Committee were read, corrected, and confirmed.

The CHAIRMAN OF REPRESENTATIVE MEETINGS resumed the chair, and the minutes of the previous day's proceedings of the Representative Meeting were read, corrected, and confirmed.

UNAUTHORIZED REPORTS IN THE PRESS.

Mr. BISHOP HARMAN (Marylebone) drew attention to the fact that unauthorized, misleading, and unfair reports of the previous day's proceedings had appeared in the lay press that morning.

Sir VICTOR HORSLEY considered the matter a very serious one. There was not only one, but two different reports in the *Times*. The first report was grossly misleading. An even worse report appeared in the *Daily Mail*, which stated that there were political parties in the Council of the British Medical Association. He asked whether it was not possible to prevent such misrepresentations of the proceedings.

The CHAIRMAN OF COUNCIL agreed that the reports in question were utterly misleading. He thought it a scandal that members of the Association should abuse the privileges they had of attending the Representative Meeting by divulging what occurred, and if it continued means would have to be taken to exclude members of the Association.

The CHAIRMAN OF REPRESENTATIVE MEETINGS, answering a question as to whether an official report had been sent to the papers, said a communication had been so made. With regard to the *Times* report, the part beginning "Another report says," was, he was informed by the editor, almost word for word the official report issued to the Press. The Committee of the Representative Meeting appointed to deal with any communication to the Press had decided to make no reference to the Committee stage of the meeting. So far as the report issued by that Committee was concerned, what had appeared in the Press other than that to which he had alluded was entirely unauthorized.

After further discussion, it was moved:

That an official disclaimer be sent to the Press.

This was seconded and agreed to. It was further agreed that notices be placed on the doors of the gallery to the effect that members admittted to the gallery were bound on their honour not to divulge anything that passed at the meeting.

[The meeting then went into Committee, Mr. VERRALL taking the chair.]

THE ROLL CALL.

The question of recording the names of those who did not vote in the division of the previous evening arose.

Dr. CRUICKSHANK (Northern Counties of Scotland) had been asked by his Division to remain neutral, and he wished it to be recorded that he did not vote.

DECLARATION TO THE GOVERNMENT AND INSURANCE COMMISSIONERS.

Dr. LYSTER (Winchester) moved the following amendment to Recommendation I of the Report of Council:

That this Representative Meeting direct the Council to inform, in plain and unmistakable language, the Commissioners appointed under the Insurance Act, 1911, that unless the six cardinal points as originally formulated by the British Medical Association be embodied in a bill amending the Insurance Act, 1911, which shall become law in this session of Parliament, and unless in the meantime these six points be incorporated in the regulations to be issued by the Commissioners in such a manner as shall be effectual and permanent until such amending Act is passed, it is the intention of the British Medical Association to call upon all its members and upon all other medical practitioners to decline to form panels or undertake any other medical duties which may be assigned to them under the Act, in conformity with the undertaking which has already been signed by over 26,000 medical practitioners.

The amendment, he claimed, would appeal to the Representatives as clearly defining a moderate policy, which was consistent with the previous resolutions and actions of the Association. The amendment suggested, first of all, that the Commissioners be informed in plain and unmistakable language what the intentions of the medical profession were—it would commend itself to the meeting that there should be no ambiguity about their demands. Secondly, it suggested a moderate policy—that they should be satisfied for the time being that their demands should be inserted fully and satisfactorily in the regulations. And, lastly, in order to secure their position under the regulations and prevent their position being given away, they required an amending Act to be passed during the present session of Parliament.

Dr. E. B. TURNER (Kensington) supported the amendment. The Solicitor-General had said that the Act must be amended, and when it came into action there would be a sheaf of amending bills brought forward all over the place. The present Act was a thing of shreds and patches. It was

> Deform'd, unfinish'd, sent before [its] time
> Into this breathing world, scarce half made up.

These words of Shakespeare exactly described it; it had to be formed and made up. Therefore, he thought they were right in pressing for an amending Act. But as it was anticipated that the Act would come into force in July, it was thought it would facilitate matters if they got what they wanted in the regulations. Everything that he was saying depended on whether the Representative Body meant to stick to the six cardinal points. If they were not going to do so, then they had better hoist the white flag at once and take return tickets to the workhouse. Provided that they were going to stick to their six cardinal points, he considered that the amendment was absolutely logical and pertinent. It was a moot point whether the Commissioners would be able to give them what they wanted by the regulations under the Act, but taking it for granted that they could, they must insure that those regulations should be permanent. They did not want to be the shuttlecock between two political parties. Any regulation brought in by the Commissioners and laid on the table of the House of Commons became an Act, and even then the Commissioners had power to vary those regulations at once. They had to face the point that if the six cardinal points were granted by the Commissioners in Regulations or by the Government they would excite intense dissatisfaction among the friendly societies. When a portion of them had been granted they would see what the effect was; that what had been given with one hand was taken away from them by the other. When they got into harness under the Act and commenced to work it, if ever they did, they did not want to be at the caprice of a politician who to influence an election would have the Regulations altered. The Commissioners were appointed for five years only. When the amendment before the meeting was drafted it was in no way intended to be a vote of censure on the Council, or in opposition to the Council, it was simply drafted so that it might stiffen the backs of the Council, and stir up the Council to show the Commissioners exactly what they wanted. With regard to the latter part of the amendment as to the possibility of the Association calling out the men, he had suggested that

deliberately for a double purpose, the first being to remind those members of the Association, and other gentlemen who to their honour had supported the Association that their pledge was still in existence, and also that they might know that it was not worth the paper it was written on, but that they might be called upon to act up to it in certain emergencies. If possible they should influence the Government, because politically they were quite negligible; they had only about 30,000 votes distributed all over the country and could not affect one single election. If they had seventy members in the House whose votes could be turned about the Act would never have been brought in without consulting the profession, because practically they were the most important part of the machinery of the Act, and if they failed the Act failed. If they had 6,000,000 votes all over the country like the friendly societies they would have been considered; but the only way they could bring pressure on the Government was by a *non possumus*. Did any one really think that they were going to get their six cardinal points either by the regulations or in the Act? The fight would come on the rock bottom of contract practice when their overtures and demands had not been granted. By passing a motion like the present amendment the profession put itself right with the Government and with the public. If it made very moderate demands which were not granted it would have the sympathy of the public. He did not think it was possible to get what they wanted from either political party. Both parties were tarred with the same brush. The medical profession was not important politically, therefore they must be prepared to take their stand and fight for the profession. Unless the medical profession was united it would sink from its present position to that of an ill-paid and sweated service.

Dr. MACDONALD said they would all thoroughly appreciate Dr. Turner's able and statesmanlike speech. If the motion of the Winchester Division were a little modified it would probably commend itself to the whole meeting. He would suggest that the amendment should be put in a form providing that no negotiations should be entered into with the Government unless the six cardinal points were definitely included in the regulations with a view to their ultimate inclusion in an amending Act.

Dr. E. MUIR EVANS (East Norfolk and North Suffolk) said on behalf of his Division he must press for an amending Act. He was very glad to find that Dr. Macdonald had more or less altered his opinion of last night.

Dr. MACDONALD: Not a bit.

Dr. EVANS said Dr. Macdonald had given him to understand that he considered the regulations were as good as an Act.

Dr. MACDONALD said he still did so.

Dr. EVANS said another member of the Council had pointed out that only an Act was binding on the profession, and had referred to the position of the German doctors, who had their price put in an Act which they had never been able to get away from. It was not imagined that the Harmsworth amendment as originally formulated was going to stand. In two of the chief towns in his Division there were large institutes, which if the Harmsworth amendment were accepted would be able to get satisfactory medical men, which they had never been able to do in the past. If in these two towns really satisfactory men held appointments, the profession would be in a worse position than before, in spite of free choice of doctor.

Dr. WEBB (East Cornwall) supported the amendment. His Division also asked him to support the Council, but he was sorry to say that his faith in it had been very rudely shaken by the remarks and speeches that had fallen from members of the Council. He lived in an agricultural district on the sea-coast, and he mentioned without fear of contradiction that they had to work under a capitation fee in no way like the sum named by Dr. Macdonald, which spelt ruination to them as general practitioners. The profession asked the Council to insist that the six cardinal points should be in the Act, and not depart from them. They should be definitely arranged for by the Insurance Commissioners, and the profession should not be divided into small divisions to haggle with the local committees on matters vital to their interests as general practitioners. (Hear, hear, and applause.)

Mr. BISHOP HARMAN (Marylebone) thought there were certain objections to the amendment. It was too long, and contained too many propositions. It referred only to the six cardinal points, and it did not include that serious breach of medical ethics, that a lay body should have control of the disciplinary powers of their profession. He preferred the plain and terse clause of the motion to the wording of the amendment; that they should press for further conditions as necessary. That was much better than specifying the six points only.

Dr. JOHNSON SMYTH (Bournemouth) thought it necessary to keep in mind the wide powers under Clause 78, which would enable the Commissioners practically to do anything which appeared to them necessary and expedient for the establishment of the service. The money necessary would not be £2,000,000 or £3,000,000, but probably nearly £5,000,000.

Dr. J. S. DARLING (Portadown) said that it would be an advantage to have these matters in regulations, as it would make it possible to make further demands, if necessary. The fulcrum on which their lever must always rest was a united profession. He did not agree that the six cardinal points were their final demands, but he admitted that they would not go through the House of Commons at present. That had been proved already about the wage limit. It would be far safer, with their united powers of bargaining, that they should deal with the matter through the regulations.

Dr. MACLEAN said the point on which they were all united was that the six points must be realized. The question was, How were they to get them? It had been put to the meeting that if they said to the Commissioners and to the Government that they would have nothing more to do with them in any way, that the Government and the Commissioners would have to come to their point of view. The meeting defeated that. Secondly, it was suggested that the approach to the Commissioners with reference to enforcing their policy was to be made conditional upon the promise of an amending Act incorporating their points. That the meeting threw out. The point before the meeting was this—that unless the Commissioners or the Government would bring in and pass an amending Act this session, and unless meanwhile they could be assured that all their points were going to be covered by the regulations, then the Association would call upon all those who had signed the undertaking to refuse to have anything to do with the medical service under the Act, including such matters as inspectorships. The actual *ipsissima verba* of the amendment before the meeting was: "Decline to form panels or undertake any other medical duties which may be assigned to them." The position taken up in the amendment was a very serious one. As regarded the first part of it, it was absolutely impossible as the meeting had decided. Unless the Government would pass an amending Act this session, it was proposed that they should call upon all men to render their pledges operative. Was not that impossible? Of course it was. When he said impossible, it was incredible that the Association would decide so to act at this stage. It was premature. (Cries of "No.") It was losing ground. It was dissociating themselves from public sympathy and support. If this amendment had taken the form that they could assure the Commissioners that, if their six points were not covered by the Regulations, they should then call upon the pledges to become operative, that would be another point. As to that, there was no doubt at all that it was contemplated by the amendment that negotiations should occur; otherwise, how were they going to make their representations in regard to covering their six cardinal points by the regulations. It was not practicable simply to send them to the Commissioners saying, "These are our six points, and they must be incorporated in the regulations." That was not business. They had to appoint men whom they trusted, who had the duty of corresponding with the Commissioners or personal conference with the Commissioners, because the Commissioners would say, "How could so and so be dealt with under the regulations?" They must have some kind of non-committal representatives to go to the Commissioners for this purpose. As a precaution, it could be imposed upon the Representatives that they had no power to settle finally with the Commissioners, but they must make their representations to the Commissioners on behalf of the Association

on the various points in those regulations corresponding to the policy of the Association, and it would be possible to have those regulations in a draft form for the consideration of the Representative Meeting before they became final. It would be better if the impracticable part of the amendment before the meeting were dropped, and the practical policy be adopted of sending to the Commissioners and saying that the six cardinal points must be incorporated in the Regulations; that the profession were prepared to send Representatives, if necessary, to make those points clear, and unless the form of the Regulations was such as to cover those six points, it would be the duty of the Association to render the pledges operative in the full sense of the term.

Dr. HELME (Manchester, Central) thought the speech which they had just listened to would not come with any very great surprise to the majority of the members present. He heartily agreed with Dr. Darling, but he wanted to ask him one question. What was his basis for unity? Each side had to give way a little. Some members were so satisfied with the Act that they thought they could get everything through regulations. There were others who felt that while regulations might give them what they wanted, yet the cardinal points must be fixed in an Act. Dr. Maclean said that this was not business. He maintained it was the root of business. The profession knew better than Mr. Lloyd George what was for the benefit of the public in health matters and for the profession. After very careful debate they had formulated their minimum demands, and these had not been granted. Therefore, it was business now to tell the Commissioners that they would not negotiate until the Commissioners said that they would accept those six principles as a basis for negotiation. Once the Commissioners admitted that they would guarantee the profession those six points, the profession would do its best to work the Act. (Hear, hear.) Dr. Maclean said, "It is not business to state to the Commissioners that until that position is given way upon by the Commissioners"——

The CHAIRMAN OF REPRESENTATIVE MEETINGS, intervening, said those were not his words. His words were, "It is not business to say that unless in this session an amending Act of Parliament is introduced."

Dr. HELME said he was not referring to the Act at all. He was referring to the negotiations. It was business for the profession to tell the Commissioners at once that they were not satisfied, and that until the Commissioners guaranteed that the six basic points should be secured they would not negotiate. ("Hear, hear," and cries of "Agreed.") The two positions were (1) that someone should at once approach the Commissioners with an open hand to negotiate from the beginning, and (2) that the profession should not consent to negotiate in any way until they had received from the Commissioners a guarantee that the six points would be secured. That was what he called business. That was the basis of the position; and, if that were granted, then they all stood together, and the amendment now before the meeting would carry out their wishes. The only point on the amendment that he had the slightest hesitation in accepting was that part which specified "the next session of Parliament." They must fix some limit. They all knew to their cost what procrastination meant, and unless they definitely gave the Government some indication of the firmness of their stand, procrastination would be the rule—negotiations would go on, regulations would come in, and the Act would never be amended.

Dr. J. THORNLEY (Bolton) said that his Division did not think the six cardinal points included everything the profession required. In a large and scattered town like Bolton they thought that every practitioner should still retain the right to dispense his own medicine.

Dr. LYSTER (Winchester), replying on the discussion, thought that after the remarks of Dr. Macdonald there was, perhaps, a possibility of getting a unanimous vote, and, if that were possible, he was sure his Division would allow him to modify slightly his amendment. Dr. Macdonald had suggested what seemed to be a compromise, and he would like to alter his amendment upon the lines of that compromise, which would read as follows:

> That this Representative Meeting direct the Council to inform in plain and unmistakable language the Commissioners appointed under the Insurance Act, 1911, that, unless the minimum demands of the British Medical Association be embodied in the Regulations to be issued by the Commissioners in such a manner as shall be effectual and permanent, with a view to having the same embodied in an amending Act, it is the intention of the British Medical Association to call upon all its members and upon all other medical practitioners to decline to form panels or undertake any other medical duties which may be assigned to them under the Act, in conformity with the undertaking which has already been signed by over 26,000 medical practitioners.

Dr. E. B. TURNER (Kensington), as seconder, accepted the modification.

The meeting then agreed to vote on the amendment as modified.

A REPRESENTATIVE asked whether Dr. Lyster expected the word "permanent" to be agreed to. It was a practical impossibility for a Government to make a permanent regulation.

Sir VICTOR HORSLEY asked if Dr. Lyster would agree to accept the work "stable" instead of "permanent." Permanent meant that it was going to last for twenty or thirty years. They knew perfectly well that in that time prices would rise, and they wanted their price to rise at the same time.

Dr. G. E. HASLIP (Westminster) asked if Sir Victor Horsley did not want these things to be permanent why did they trouble the Government to put them in the bill.

Sir VICTOR HORSLEY replied that if Dr. Haslip were to read the minutes of the meeting at Examination Hall last May he would see that they did not do so.

The CHAIRMAN said that he could not accept any further alteration at that time.

Several Representatives rose and demanded a roll call.

The roll call was then taken.

The CHAIRMAN announced that the figures were 159 in favour and 3 against. The announcement was received with applause.

As a substantive motion the proposal was then carried unanimously amid loud applause.

PROFESSIONAL DISCIPLINE IN CONNEXION WITH THE ACT.

Dr. W. DOUGLAS (Maidstone) said he was instructed by his Division to move that the discipline of the profession be left in the hands of the General Medical Council, and not in the hands of the local Insurance Committee. (Cries of "No, no.") Dr. Douglas, accepting the evident feeling of the meeting, withdrew in favour of

Dr. T. B. COSTELLO (Mid Connaught), who said he was instructed to move:

> That the power of removal from the panel should be vested in the General Medical Council, and not the Insurance Commissioners.

Dr. POPE (Council) said the power proposed was not given to the General Medical Council under the Act; an Act of Parliament would have to be passed to do this, and it was quite possible that the General Medical Council might refuse to take such powers.

Dr. COSTELLO (Connaught) withdrew the amendment.

Dr. T. A. HELME (Manchester) said there was a most important rider standing in the name of the North Staffordshire Division which took the principle a stage further. It did not define the body, but it said it should be a special body.

Dr. J. RUSSELL (North Staffordshire) moved:

> That the Council insist that the local Medical Committee have the following among other duties and powers—namely, power to deal with *all* complaints against doctors on the panel, and especially to conduct any inquiry under Section 15, Subsection 2 (*b*), subject to a special medical court of appeal to be constituted under regulations.

Dr. TAYLOR said the question of the distribution amongst doctors of patients the doctors had refused was a serious one. At present probably the local Insurance Committee would try and get them into its hands. Ought not that to be included in this proposition?

Dr. MACDONALD hoped that they would not complicate the disciplinary powers included in this by adding the distribution of patients. It was not quite the same subject. While on his feet he wanted to apologize to Dr. Taylor for having misrepresented him in some words he had said the previous day in which he (Dr. Macdonald) understood that Dr. Taylor had supported certain suggestions which he had not.

Lieut.-Colonel DAVID HARRIS (Council) said they must not lose sight of the question that in some rural districts

or small towns of 10,000 people they were going to put the medical panel to adjudicate on the practitioners in the town. That was giving the local Medical Committee very formidable powers. He felt sure that practitioners in country districts would very much object to being overruled or ruled by their colleagues of the same town or district.

Dr. D. F. TODD (Sunderland) deprecated the amendment, because as a definite instruction it would cause trouble in the future. The details should be very carefully thought out and worked out on a much broader basis than was laid down in the proposal. Independent medical bodies were wanted to deal with matters affecting medical men in an area.

Dr. J. R. FULLER (North Middlesex) did not agree with Dr. Todd, because the proposal was subject to a special court of appeal. The words, "All questions of professional discipline," seemed to infringe the powers of the General Medical Council. He suggested the insertion of the words "under the Act."

Dr. MAJOR GREENWOOD (Council) agreed. So many details had to be considered that it should be left to the Committee to deal with.

Dr. T. A. HELME (Manchester) recalled the attention of the Chair to the fact that the previous Representative Meeting had passed a resolution dealing with this same subject. He did not know whether that resolution would clash with this, because he had not the exact wording before him. The British Medical Association was already committed to a definite principle in this matter. He thought it would be well if that resolution were read to the meeting, because it might be all they wanted.

The CHAIRMAN did not think there was any clashing. The minutes Dr. Helme referred to were 193 and 194 of the Annual Representative Meeting at Birmingham.

> 193. That in the opinion of the Representative Meeting it must be clearly set forth in the National Insurance Bill that the question of the inclusion and exclusion of registered medical practitioners in and from the panel shall be decided by the local Medical Committees.
>
> 194. That such decision shall be subject to appeal by an aggrieved practitioner to a medical court of appeal to be constituted under the Act.

Dr. DAY (North-East Essex) supported the amendment on the ground that the men in the immediate neighbourhood were the best people to judge.

Dr. OPPENHEIMER (Hampstead) said as to the suggestion put forward that the final court of appeal should be the General Medical Council, all his motion asked was that a man should not be judged by any lay tribunal either as a court of first instance or as a court of final instance.

Dr. KEAY (Greenwich) supported Dr. Helme. If the local Medical Committee was not to deal with any man in its immediate neighbourhood, it would have to be put into the hands of outsiders. He therefore suggested that they should let the Government plainly understand that they would accept that responsibility. On the other hand, the final decision might rest with the Insurance Commissioners.

Dr. O'SULLIVAN (Liverpool, Bootle) did not think it advisable for a body of men in the immediate neighbourhood to adjudicate upon the conduct of another man; they should report to some central body, as was the case with solicitors.

The CHAIRMAN OF COUNCIL stated that the suggestions made at the Representative Meeting at Birmingham were on all-fours with the present practice of the Association in ethical cases. Each Division appointed its local Ethical Committee, and if a man offended against the ethics of the profession he was brought up before that local Ethical Committee, and if that local committee preferred not to judge it, it could refer it to the Central Ethical Committee; but if it liked it could judge the case and try to come to some amicable arrangement between the person complaining and the person aggrieved, and either of those two persons had a right to appeal to the Central Ethical Committee. It seemed to him that the way suggested was quite a feasible way of dealing with the matter. Not very much difficulty arose between local medical men judging one another.

The amendment was then put to the meeting and lost.

Dr. W. E. THOMAS (North Glamorgan) complained that Wales was grouped with Shropshire, Staffordshire, and Birmingham.

The CHAIRMAN pointed out that the system of grouping had been accepted, and it must be taken with its merits and demerits.

Dr. MCKENZIE JOHNSTON (North-West Edinburgh) moved:

> That all questions of professional discipline under the Act shall be decided by a body or bodies of medical practitioners with a final appeal to the Insurance Commissioners.

The motion was not pressed.

Dr. W. B. TREASURE (Cardiff) said the objection to the suggestion before the meeting was the appeal to the Insurance Commissioners, which was a lay body. If medical Insurance Commissioners were substituted, they would have a medical court of appeal.

Dr. KEAY (Greenwich) proposed that the matter should be referred to the special consideration of the State Sickness Insurance Committee, because, as it stood at present, it would only be regarded as a pious resolution.

Dr. HELME (Manchester) supported Dr. Keay. They were there for business and to express their opinions and decide upon their policy. They were not there to pass pious opinions. They wanted to tell the Insurance Committee and the Council what to do. This would be one of the most serious things that the Commissioners would have to deal with. The amendment was not intended to deal with matters of conduct which might be thought infamous in a professional respect, which must of necessity come before the General Medical Council, but it was rather to deal with the complaints of the drunken and reprobate insured. They wanted to define what court of appeal should investigate such a case. It was not the bigger crimes that were to be dealt with, but the disciplinary matters which would arise in any form of contract practice under inspectorship.

Mr. E. TREDINNICK (Shropshire) seconded Dr. Keay's amendment.

Dr. DOUGLAS (Maidstone) thought it would be unwise to adopt the suggestion of Dr. Keay, because it was for the meeting to instruct the Committee which it was about to appoint.

Dr. HELME suggested that all complaints against doctors under the Insurance Act should be first considered by the local Medical Committee, subject to an appeal to a special central medical court appointed for the purpose.

After other suggestions had been made, Dr. HELME moved:

> That all complaints against medical men be referred in the first instance to a local Medical Committee.

Dr. CAMPBELL (Leigh and Wigan) seconded, and by consent of the meeting and of the mover and seconder, the amendment was incorporated in that moved by Mr. Russell Coombe.

The luncheon interval then occurred.

AFTERNOON SESSION.

On the resumption of business, the CHAIRMAN put as a substantive motion the amendment carried just before the adjournment, and this was agreed to.

DISPENSING.

Dr. J. NEAL (Central Birmingham) moved the following, which his Division considered should be embodied in any amending Act:

> That dispensing, as hitherto, should be done or arranged for by the medical practitioner, should he so desire, and paid for at the scale of tariff rate agreed upon for pharmacists by the Pharmaceutical Society.

This was a matter upon which general practitioners in a large district like Birmingham felt very acutely. They viewed with dismay the provision made in the Act as it stood to divert from medical practitioners the right of dispensing for insured persons. In any amending Act it was imperative that medical men should still be allowed to retain the option of dispensing their medicines if they so desired.

Dr. J. THORNLEY (Bolton) felt that, apart altogether from any profit there might be—having regard to the low prices that the Government was prepared to pay for medicines and appliances—it would be most inconvenient for medical men not to be able to supply medicines. They would render a much more efficient service to the nation if they could themselves supply the medicines to their patients, than if they had to send them with

a prescription to some chemist and druggist. Appliances included, he supposed, such things as cotton wool and bandages. They were prevented from supplying even things like that, or if they did supply them, they would not be paid for them. (Cries of "Oh.")

Dr. H. Harvey (Liverpool) said they looked upon the right to dispense medicines as one of the most ancient privileges of the medical profession, secured by many charters and ancient documents, and they ought not to be deprived of that privilege now.

Mr. Russell Coombe (Exeter) said the great temptation for men to go to institutions provided under the Harmsworth amendment would be that they would see a medical man and a responsible dispenser, and the man would get the two things done with only one delay. If they had not the power to dispense medicines they would be simply driving people into the organizations in existence before the passing of the Act.

Dr. W. J. Durant (Consett), while agreeing that the medical man should have the option, took it that under the Act no man was bound to supply medicines.

Dr. Williams (Watford) asked if Dr. Neal would agree to the insertion of the words "or his own patients." That would restrict the doctor's dispensing to his own patients, and would not allow him to dispense any prescription that came in.

Dr. Neal assented.

Dr. Major Greenwood (Council) emphasized what Mr. Russell Coombe had said with regard to the Harmsworth amendment. It would be a powerful inducement to the insured that they should not be sent away from a doctor's surgery and have to get their medicine from some other place. Dispensing could not be taken away entirely from the doctor. There must remain a certain number of cases—night visits, urgencies, etc.—where the responsibility upon the medical man would be such that he would have to have the means of supplying necessary medicines. He therefore thought it was fair that an option should be given, and where a practitioner did wish to have the right of dispensing he should be allowed to do so by regulations. There were difficulties in the way of that being done, because there was a distinct direction given by Parliament that such leave should only be given where absolutely necessary.

Mr. F. Larkin (Council) thought that under the Act medical practitioners would be bound to supply certain appliances, splints, and so forth, in urgent cases, and there should be a right to charge for those applications. He would like to have introduced into the amendment the words, "supplying the necessary appliances," or some words that would allow the practitioner to charge for anything he was compelled to supply.

Dr. W. Edwards (Swansea) said that unless medical men were allowed to dispense their own medicines it would mean, in many cases, much loss of work. There was an objection to the scale of tariff rate agreed upon by the Pharmaceutical Society. Medical men could not afford to supply drugs at the same rate as a huge corporation of pharmaceutical chemists who could probably get their material at wholesale prices, and he did not see why the profession should be tied down as regards its prices for drugs by the Pharmaceutical Society.

The Chairman of Representative Meetings reminded the meeting of the actual governing words of the Act of Parliament, section 15, subsection 5, and subsection 2:

> Except as may be provided by Regulations made by the Insurance Commissioners no arrangements shall be made by the Insurance Committee with a medical practitioner under which he is bound or agrees to supply drugs or medicine to any insured person.

They had no reference to persons other than insured persons, but the exact wording must be considered if they were going to give the matter the status of one of their minimum demands. It was well known that the replies from the Divisions to the compendious report which went down to the Divisions before the Insurance Bill was introduced into the House of Commons were very striking. In reply to the question, "Should the arrangement for the supply of such material requirements be kept separate from the provision of professional service," the replies in the affirmative were thirteen and in the negative none. It was obvious that as regards rural areas arrangements must be made with the practitioners for the supply of both drugs and medicine, not necessarily at an inclusive rate. Those responsible for the Government's attitude had stated that the request that it should be made a normal type of service would be resisted, but in response to the representations of the Association the words were altered, so that it now was within the power of the Insurance Commissioners to make those arrangements on a general scale. That point, therefore, had to be borne in mind. While he fully agreed that it was a matter of urgent importance that the strongest recommendation should be made to the Commissioners on the point, the Association should contemplate the possibility, at all events, in the first place, of its not being regarded as the normal type of service covering this matter in the Act.

Dr. Campbell (Glasgow, North-Western) was instructed to bring before the notice of the meeting the injustice that might be brought about if the doctors had not the option of dispensing their own medicines. A working man would go the surgery and be given a prescription to take to the chemist, and if his wife or any of his family had the same sort of trouble, he would take that same prescription to the chemist and make use of it, and the doctor would be out of pocket. That was felt to be a serious drawback.

Dr. Leigh Day (North East Essex) said that at the present time a large number of people went to chemists and got such suitable remedies as they wanted; but if a doctor were precluded altogether from dispensing and the people could get the things they wanted free from the chemists on the doctor's order, they would come to the doctor and ask him for all the simple remedies, which would enormously increase his work.

Dr. H. F. Steel (West Norfolk) said, as representing an agricultural constituency, he wished to support the rider. In a scattered country district it would be impossible for the patients to go to the chemists for their medicines.

Dr. Buist (Council) said for a long time the Association had been trying to deal with the irregularities of chemists who prescribed for people, and also dispensed prescriptions for people other than those for whom they were originally prescribed. If they attempted to go too far, they would deprive the Commissioners of the power of imposing on chemists who were going to take contracts under the Insurance Act such conditions as would prevent them prescribing, and also from dispensing prescriptions for people other than those for whom they had been prescribed.

The rider:

> That dispensing, as hitherto, should be done or arranged for by the medical practitioner for his own patients should he so desire, and paid for at the scale of tariff rate agreed upon for pharmacists by the Pharmaceutical Society.

was then approved.

Remuneration.

The meeting (in Committee) then proceeded to consider the question of minimum remuneration, with respect to which a number of notices of motion had been received from various Divisions.

Organization Against the Act.

The Chairman said that, acting on the recommendation of the Agenda Committee, he would ask the meeting next to consider the recommendation of the Council as to the organization of the profession, whereupon

The Chairman of Representative Meetings moved Recommendation V of the Report of Council:

> That the Council be instructed to take steps to organize the profession so as to secure that, failing the provision of adequate remuneration of medical practitioners under the National Insurance Act, no person shall be able to secure medical attendance under a contract practice appointment held at lower rates than those which may be agreed upon as adequate by the Representative Body for attendance upon insured persons.

The Chairman said that the organization of the profession was summed up in this motion, and there were a great number of amendments to it. If this was agreed, then all the amendments would drop. (Hear, hear.)

Dr. S. Hughes (Southampton) desired to move as an amendment the deletion of the words "failing the provision of adequate remuneration of medical practitioners under the National Insurance Act," and to adopt the remainder. The idea was that they ought to organize in

any case, apart from what might happen to the Insurance Act.

Dr. Bushnell (Brighton) moved:

> That the Council be instructed to take steps forthwith to organize the profession, so as to secure that no person shall be able to obtain medical attendance under terms and conditions other than those which may be agreed upon by the Representative Body as satisfactory for attendance upon insured persons.

The motion meant that the Association should at once begin organizing to prevent any one from obtaining medical attendance under terms and conditions other than those which might be agreed upon by the Representative Body, and at the same time aim a blow at contract practice and obtain the conditions under which they hoped to work under the Insurance Act.

Dr. Helme inquired whether this included sending down to the Divisions at the earliest possible moment a report for their consideration.

The Chairman replied in the affirmative, and explained that if the reference to the Insurance Act were deleted it raised the whole question of club practice, irrespective of the National Insurance Act.

Dr. Durant (Consett) said that under the motion there would be no provision that a doctor should take these contract appointments provided that the rate of pay was equal to that which the Representative Body thought adequate. What became of those men who enabled their fellows to secure the enhanced rate? Not only did they get no work at the enhanced rate, but their work under the Act was compulsorily taken from them and placed in the hands of their successful rivals, which was a situation they must face with the utmost seriousness.

Dr. Farquharson (Bishop Auckland) belonged to that class of much abused persons, the contract practitioners. Financially he was quite content with his lot, and professionally he would not weary the meeting with his ideas. It was a question of finance, and he appealed to them to deal reasonably with the matter if they wished a body of hard-working men to remain within the Association.

Dr. Howell (Cleveland) agreed with the last speaker, and asked those members who had no experience in contract work to be very guarded how they acted in this matter.

Dr. A. Fulton (Notts) also supported the previous speakers. In his opinion it would be very dangerous for the meeting to adopt a minimum rate.

Dr. Wallace Henry (Leicester) appealed very strongly to the meeting not to adopt this amendment. In Leicester they had every form of contract practice of the worst possible kind, and the payment was at the lowest possible rate. If club practice were to be abolished some other form of practice must be substituted.

Dr. R. A. Lyster (Winchester) suggested that the amendment down in the name of Winchester, as affording a middle course:

> That in the event of the Commissioners deciding to make money payments instead of medical benefit, the Council has been instructed to call upon every member of the British Medical Association to decline to continue to undertake any work under existing club conditions, or any form of contract practice not under medical control.

The attack they were threatened with was that the money was going to be distributed promiscuously among insured persons, and that each individual sum would be used for a general spread of contract practice. If that happened, they ought to be organized in readiness for a counter-attack. If, however, their efforts were successful as to the Act, surely they should let sleeping dogs lie, and not make things ten times worse by organizing an attack on the clubs after they had succeeded with the Act. If they did not succeed with the Act and were threatened with distribution of money in lieu of medical benefits, then they were fully justified in attacking the clubs.

Dr. T. A. Helme remarked that organization included the possibility of a public medical service under the British Medical Association, under medical control. So long as it was under medical control they could see that only suitable people would come in; and they could take 2s. 6d., if necessary, for certain grades. They were always prepared to look after the poor, and they had it in their power to do so by this public medical service.

EVENING SESSION.

The Membership of the State Sickness Insurance Committee.

On the resumption of the proceedings the Chairman announced the result of the voting for the election of the twenty-four members of the State Sickness Insurance Committee by the Representatives in Representative Meeting.

In three instances an equal number of votes had been recorded, and to avoid a second vote, in each case one of the candidates consented to retire.

The results of the voting were as follows:

England and Wales.

Branches.	*Representatives.*
North of England ... ... N. Lancashire and S. Westmorland ... ... Yorkshire	Dr. D. F. Todd Dr. R. E. Howell
Lancashire and Cheshire ...	Dr. Hodgson Dr. John Brown
E. York and N. Lincoln ... Midland ... ... Cambridge and Huntingdon East Anglian ... ... South Midland ...	Dr. W. L. M. Day Dr. D. G. Thomson
Birmingham ... ... Staffordshire ... ... N. Wales ... ... Shropshire and Mid-Wales S. Wales and Monmouthshire	Dr. E. O. Price Mr. D. J. Williams, F.R.C.S.
Metropolitan Counties: N. and E. Metropolitan Group: City, Stratford, S.-W. Essex, N. Middlesex, St. Pancras, and Hampstead Divisions Central Metropolitan Group: Marylebone and Westminster Divisions ...	Dr. R. M. Beaton Dr. Lauriston Shaw
W. Metropolitan Group: Richmond, Ealing, Chelsea, Kensington, and Watford Divisions ... S. Metropolitan Group: Lambeth, Norwood, and Wandsworth Divisions	Dr. E. B. Turner Dr. A. H. Williams
Bath and Bristol ... ... Gloucestershire ... ... W. Somerset ... ... Worcestershire and Herefordshire ... ... Dorset and W. Hants ... South-Western	Dr. T. M. Carter Dr. W. Johnson Smyth
Oxford and Reading ... Southern ... ... South-Eastern	Dr. R. A. Lyster Mr. E. H. Willock

Scotland.

Aberdeen, Northern Counties, Dundee and Perth ... Edinburgh and Fife... ...	Dr. J. Munro Moir Dr. R. McKenzie Johnston
Glagow and W. of Scotland (4 City Divisions) ... ... Glasgow and W. of Scotland (4 County Divisions) ... Border Counties and Stirling	Dr. Bruce Goff Dr. J. Adams

Ireland.

Connaught and S.-Eastern of Ireland ... ... Leinster...	Dr. F. W. Kidd Dr. R. B. Mahon
Munster... ... ... Ulster	Mr. R. J. Johnstone Dr. J. S. Darling

Organization against the Act.

Dr. Lauriston Shaw (Council), continuing the debate, felt sure that a great service would be done to the profession if the Brighton amendment were thrown out. The profession had already set itself a very hard task; it had declared its intention of setting out for a magnificent fight, and he trusted unity would enable them to win it. But

if the Brighton amendment were carried the profession would have a fight not only outside the profession but inside.

Dr. BUSHNELL (Brighton) desired, with the permission of the meeting, to omit the words at the end of his amendment, "for attendance upon insured persons."

Permission was given.

Dr. O'SULLIVAN (Liverpool, Bootle) thought that before the amendment was carried the meeting should hear the views of some members with club practices.

Mr. DOMVILLE (Council) moved that the question be now put.

This having been seconded, the Brighton amendment as altered was put to the meeting and lost.

Dr. WILLIAMS (Watford) moved:

That after the words "no person" there be inserted the words "insured under the Act."

This was seconded and agreed to.

Dr. METCALFE (Bradford) desired to add the following:

and that no contract practice be introduced into any district against the wishes of the majority of the members in that district.

In Bradford the profession had a horror of contract practice, and were so highly organized at the present moment that all the men in the town who held club appointments were ready to resign them, and no contract practice would be carried on in Bradford under any conditions whatever. They intended to carry out the system of payment by tariff, and they wanted to make sure that the British Medical Association would not encourage the Government or any other body to introduce contract practice into their midst in any form.

Dr. DEARDEN (Manchester West) seconded. The profession in Manchester intended to work on similar lines to Bradford. Pledges had been received from the various men who had club appointments to give them up, and to undertake not to accept any club appointment that had been given up.

The CHAIRMAN OF REPRESENTATIVE MEETINGS said he could see no objection to the addition of the words to the motion.

Dr. H. C. MACTIER (South Staffordshire) moved:

That there be inserted after the word "practitioners" the words "and the fixing of a definite wage limit."

Dr. MACLEAN accepted the amendment, and it was agreed to.

Dr. TENNYSON SMITH (Bromley and Sevenoaks) moved:

That under the Insurance Act no medical practitioner shall give medical or surgical treatment to insured persons under the Act.

His Division thought it was much better to refer to the medical side than to the lay side.

The CHAIRMAN said it came to the same thing in a different form.

The motion was carried, and the last part of Dr. Maclean's motion now read:

That no medical practitioner shall give medical or surgical attendance to persons insured under the Act under a contract practice appointment held at lower rates than may be agreed upon by the Representative Body as adequate attendance upon insured persons.

Agreed.

Dr. ST. CLAIR B. SHADWELL (South-West Essex) agreed not to press an amendment by his Division, to add the words "specifically instructed by the Divisions" after the words "Representative Body.

Dr. S. HUGHES (Southampton) moved to include the words:

That as soon as concerted action can be taken, all medical officers to societies which are likely to become "approved" should simultaneously give notice to such societies of their inability to undertake the medical treatment of any additional club patients; and that the Council of the Association be asked to take immediate steps to carry this resolution into effect, at the same time endeavouring by every possible means to ensure that no pecuniary loss shall accrue to such medical officers in the adoption of this policy.

The CHAIRMAN said this was rather a large proposal; and Dr. HUGHES consented to withdraw it.

Dr. NEAL moved to obtain a reference to the Divisions before the Representative Body decided that the rates were inadequate.

Dr. TREASURE seconded, and the amendment was agreed to.

Certain amendments having been considered, the resolution was adopted as a substantive motion, as follows:

That the Council be instructed to take steps to organize the profession so as to secure that, failing the provision of adequate remuneration of medical practitioners and the fixing of a definite wage limit under the National Insurance Act, no medical practitioner shall give medical or surgical treatment to persons insured under the Act under a contract practice appointment held at lower rates than those which may be agreed upon as adequate by the Representative Body, after reference to the Divisions, for attendance upon insured persons, and that no contract practice be introduced into any district against the wishes of the majority of the members in that district.

On the motion of Dr. MACDONALD (Chairman of Council) it was resolved that the Standing Orders be suspended in order that speeches should be limited to two minutes.

Dr. DURANT moved to add the rider:

And further, after obtaining the adequate rate, the Representative Body shall insist that before any member of the profession can agree to accept work under a contract appointment, free choice of doctor by patient and of patient by doctor must be granted.

This was seconded and agreed to.

INSTITUTIONAL TREATMENT.

Dr. MACNIDDER moved:

That it be referred to the Council for their consideration whether any such person shall be able to secure such medical attendance gratis in hospitals, dispensaries, or other institutions.

Dr. GOSSE (Isle of Thanet) asked whether the Council had any power over such persons or hospitals, and, if so, what power?

Dr. MACNIDDER replied that they had power over the staff.

Dr. F. G. BUSHNELL (Brighton) wished to move on behalf of his Division that a pledge be sent to members of the staffs of voluntary hospitals, by signing which they would undertake in the event of suspension of medical benefits not to give attendance to insured persons except in urgent cases, and if a hospital received payment from the State they would demand remuneration.

The CHAIRMAN OF COUNCIL asked if it would not be better to refer the rider to the State Insurance Committee as the question of institutional treatment was in abeyance and not likely to come up for some time.

It was agreed that all questions of institutional treatment be referred to the Council for consideration and reference to Divisions, and an undertaking was given that they would be brought before the newly appointed State Sickness Insurance Committee.

PROPOSED TERMINATION OF CONTRACT APPOINTMENTS.

Dr. R. A. LYSTER (Winchester) moved a rider:

That in the event of the Commissioners deciding to make money payments instead of medical benefits, the Council be instructed to call upon every member of the British Medical Association to decline to continue to undertake any work under existing club conditions or any form of contract practice not under medical control.

Sir VICTOR HORSLEY asked Dr. Lyster to withdraw because his proposal put certain members of the profession at a great disadvantage as compared with other members.

The CHAIRMAN also appealed to Dr. Lyster to withdraw.

Dr. R. A. LYSTER said his Division thought the Representative Meeting ought to decide what its policy was to be in the event of the threat of the payment of money in lieu of medical benefit being carried out.

Sir VICTOR HORSLEY pointed out that this amendment would penalize members of the British Medical Association as contrasted with members of the profession outside the Association.

Dr. R. A. LYSTER (Winchester) was quite willing to alter "every member of the British Medical Association" to "members of the profession."

The CHAIRMAN pointed out they had no control over other members of the profession.

Dr. R. A. LYSTER withdrew the proposal.

Dr. G. PARKER (Bristol) moved:

That the Council be instructed to report to the Divisions within one month as to the best means of acquiring the

powers necessary for raising funds, and using them for the purpose of indemnifying members against financial loss owing to the action of the Association.

The rider was agreed to, with the omission of the words "within one month."

Dr. A. Tennyson Smith (Bromley) asked whether, if the Association used any of these moneys which were to be raised for the purpose of indemnifying the members of the profession, the Board of Trade had power to come down on the Association and break it up altogether?

The Chairman replied that that was a legal question which he would ask the Solicitor to deal with later.

Dr. J. R. Fuller (North Middlesex) intimated that he would not press a rider providing a "new form of undertaking" if the State Sickness Insurance Committee would take note of it.

Dr. E. B. Turner (Kensington) moved:

That the Council be asked to ascertain whether those practitioners holding contract appointments will place their resignations in the hands of the Council to be used as and when necessary. The result to be considered confidential for the present. That it be an instruction to the Council to intimate at the same time that the British Medical Association is prepared to support any practitioner resigning appointments under these circumstances to the best of its ability, both pecuniarily and otherwise.

It was, he said, unthinkable that they should ask men who were doing club practice to throw up their appointments for the good of the profession unless they were sure that the Association would support them in every way.

The Chairman of Council asked if Dr. Turner would be content to make it simply an instruction to the Council. It was impossible for the Council to get a list of the doctors attending clubs.

The Chairman of Representative Meetings informed Dr. Turner that the Council could not undertake to promise pecuniary support in such a way as to suggest that they had a large amount of money at their back.

Proposed Public Medical Service.

Dr. Henry (Leicester) moved the following rider:

That the Council be instructed to at once direct the Divisions to prepare a scheme of a public medical service, to be administered by the medical profession, in each insurance area.

His Division considered this method of dealing with the whole question of contract service as the only way of meeting the situation. It had the advantage that it could be administered by medical men; it provided a most efficient weapon against medical institutes, and provided something for those doctors who were already in club practice if they were called upon to resign their appointments.

The Chairman of Council stated that the amendment was unconstitutional. The Council had no power to direct the Divisions to do anything.

Mr. C. Straton (Salisbury) and Dr. Bushnell (Brighton) supported the amendment.

The Chairman of Council asked if Dr. Henry would accept the following alteration:

That the Council be instructed to direct the attention of Divisions to the desirability of preparing a scheme for a public medical service, to be administered by the medical profession, in each insurance area.

Sir Victor Horsley pointed out that it must be "to direct the attention of the Divisions to the scheme of the British Medical Association." The scheme had been prepared for seven or eight years, and was in the office in print. The only thing to be done was to send it down to the Divisions.

The Chairman of Representative Meetings said it meant a good deal more than merely posting the scheme to the Divisions.

Dr. Henry (Leicester) accepted the alteration suggested by the Chairman of Council, and the rider was agreed to.

Dr. Drury (Halifax) moved a rider calling attention to the large amount of canvassing which since the adoption of the National Insurance Act was being carried on by friendly societies for new members, expressing the opinion that this canvassing contravened the regulations of the General Medical Council, and that the time had arrived for the British Medical Association to call upon its members to resign all friendly society appointments.

There were cries of "Withdraw," but Dr. Drury refused. Canvassing, he said, was a very important matter in his district, and it was thought that the Representative Meeting ought to take some notice of it. Circulars were being issued, on some of which the doctor's name was given. The friendly society doctors were asking to be called out.

Dr. Buist hoped Dr. Drury would consent to his rider being referred for consideration.

Dr. Drury said he could not withdraw the rider.

Dr. Haig wished to have the opinion of the meeting on the following point: One of the members of the meeting had stated that, in view of the fact that the National Insurance Act came into force in July, but that the medical benefits did not come in till January of next year, the holders of appointments under the friendly societies would have an advantage over their fellow members in the profession during the six months' interval. This created an unfair position, because they got an introduction to patients by the extra canvassing that was going on on the part of the societies. If they resigned their appointments, they would have to give three months' notice, and they wanted to know whether they should do that next month.

The Chairman then put Dr. Drury's rider and declared it lost.

Dr. Neal then moved the following rider:

That the Council be instructed to take all possible steps to ensure that no member of the profession shall hold office or take any part in any advisory, administrative, or medical work under the Act.

Dr. Helme said he had drafted an amendment which, unfortunately, had not been printed; but he was prepared to accept an almost identical amendment, of which the Salford Division had given notice. He asked Dr. Neal to accept the addition of the words:

Till the six cardinal points are unreservedly conceded in such a manner that they cannot be altered or withdrawn in the future except by Act of Parliament.

Dr. Neal preferred the words, "the minimum demands of the profession."

The Chairman suggested the following form to Dr. Neal:

That it be an instruction to the Council that they notify all those who have signed the pledge of the British Medical Association, that they must not go on any panel or undertake any of the duties which the Act proposes to assign to them, and that this instruction remain in force until such time as the minimum demands of the profession are unreservedly conceded in such a manner that they cannot be altered or withdrawn in the future except by Act of Parliament.

Dr. Durant warned the meeting that the rider would cripple them in the sense that it would stop them from taking part in local Medical Committees. If they once declined the performance of these duties they would never have a further opportunity. He could not understand why they should not always keep their sentinels to guard them. They should take all they could get before they came to the point of cleavage.

Mr. Domville (Council) wished to know if the meeting had power to extend the pledge beyond what men had already given.

The Chairman thought not.

Mr. Helme (Central Manchester) did not think the pledge had been mentioned.

Dr. Douglas (Maidstone) said the Insurance Commissioners were to be advised by the Advisory Committee, and this motion would prevent medical men being on that Committee.

Dr. Leigh Day (North-East Essex) said the feeling in his Division was that if they consented to members going on the Advisory Committee until such time as their demands were granted they were giving their consent to the carrying out of the Act with which they did not agree.

Dr. Lankester (Guildford) agreed; if members went on to the Committee, their action would be misinterpreted by the public.

Dr. Helme said the meeting had elected its own Advisory Committee, in which it had confidence; they were the men capable of advising the Commissioners, and they maintained that the profession should take no part under this Act until their primary principles were granted. With regard to the second point—as to the local Committees—

what was the good of going on them? They had nothing to do yet, and, still more, why should they elect two representatives to sit among eighty working men until their minimum demands were granted? The feeling in the profession on this matter was intense.

Dr. BUIST (Council) thought it would be very dangerous if the meeting accepted the rider. If the policy which Dr. Helme had just advocated was adopted, they would be putting the loyalty of the doctors to the profession against loyalty to a political party, and be mixing up politics and medicine. ("No, no.")

Dr. HELME protested against the introduction of politics from one side or the other.

Dr. BUIST was only telling Dr. Helme that he would do so.

Dr. HELME disclaimed any such intention.

The CHAIRMAN observed that it had been decided—when Dr. Buist was not present—that it would be very much better if no political allusions were made, and he was sure Dr. Buist would permit him to say that he did not intend this political allusion in any sense to be offensive.

Dr. JOHNSON SMYTH (Bournemouth) thought it would be to the interest of the British Medical Association to have its members on the Advisory Committee.

Dr. THOMSON (Mid Norfolk) said the question was whether it was better to be represented by their own men, who were in sympathy with their policy, or by blacklegs, who would assist the Government in framing regulations to their detriment.

The CHAIRMAN OF COUNCIL asked why, if they wanted the regulations drafted so as to contain their six cardinal points, should they not send men from their own Representative Body to serve on the Advisory Committee. (Applause.)

Mr. F. C. LARKIN (Council) said that if this rider was adopted the profession would lose a most valuable opportunity of conducting their campaign with the full knowledge of what was going on. It was only by going on these Advisory Committees that they could know all that was going on. He asked them to look at it as a matter of practical tactics, and appealed to them to vote against the rider.

Dr. JOHN GORDON (Aberdeen) submitted that, until it had been ascertained from the Commissioners whether they were to have their six cardinal points, they should have no dealings with them. If they got the six cardinal points they could go on the Advisory Committee, or any other committee, but they had first to settle whether they had got them or not. If they went on these committees without ascertaining that, they were playing into the hands of the Government.

The CHAIRMAN OF REPRESENTATIVE MEETINGS pointed out that the Advisory Committee was the body which had to consider point by point the regulations. As a matter of fact, regulations concerning the profession were already almost framed. They really had no time to wait. If they took a line of this kind, the line of boycott, they gave up everything they had yet gained under the Act and said they would not take advantage of what had been gained.

Mr. ALBERT LUCAS (Council) believed the whole of the Midlands were unanimous in the opinion which Dr. Gordon had expressed on behalf of the North of Scotland, as to not having anything whatever to do with the Act until their points were conceded. If he went down to his district and told them that this had been defeated, they would say it was just the same as had been happening in the past nine months, and they would be more dissatisfied than ever.

Sir VICTOR HORSLEY (Council) said this was no occasion for heat. It was a question of plain tactics. Were they to bow to passion, or were they to take the opportunity of getting their own men on to this Advisory Committee, and keeping off that Committee people who were not friendly to them?

The CHAIRMAN announced the result of a roll-call on the rider as follows: In favour, 44; against, 70.

MEDICAL REPRESENTATIVES ON ADVISORY COMMITTEES.

Dr. STARLING (Norwich) moved the following rider:

That the Association take steps to secure the most suitable representatives of the medical profession upon the Advisory Committee, and for this purpose nominations shall be made by the Divisions and the final selection of names by the Council; and that the Council be instructed to make the necessary arrangements to carry this resolution into effect.

This was agreed to.

Dr. BUSHNELL (Brighton) moved a rider:

That it be recommended that while the British Medical Association is willing that members of the medical profession shall provisionally join the Advisory Committees, nevertheless it will use its best endeavours to ensure their resignation unless the six cardinal principles have been granted by amendment of the Insurance Act, by Regulation, Order, or otherwise, and that it be an instruction to the Council to provide that all practitioners who are supported by the Association for membership of Advisory Committees shall have pledged themselves previously to vacate their seats, if elected, should the British Medical Association determine to cease negotiations with reference to the National Insurance Act.

This was agreed to.

The meeting decided to recommend that the following motion by the Greenwich Division be referred to the Council for consideration:

That, in the event of the Suspension Clause coming into effect, no new members be accepted by club doctors below a rate to be fixed by the State Sickness Insurance Committee.

LOCAL SAFEGUARDS OF THE INTERESTS OF THE PROFESSION.

The CHAIRMAN OF REPRESENTATIVE MEETINGS moved Recommendation IV of the Report of Council:

That the Council be instructed to make all necessary arrangements for assisting the Divisions and Branches in the appointment of provisional Medical Committees in every insurance area to safeguard the interests of the profession without prejudice to the question of whether these Committees shall later accept recognition as statutory local Medical Committees.

He mentioned that the Organization Committee was already in communication with the Branches as to the delimitation of the areas, and was receiving suggestions as to the best way of carrying out such a preliminary organization in the area of their Branch.

Dr. MILNER MOORE (Coventry) suggested that the words "Emergency Committees" should be substituted for "Provisional Committees." This was not carried.

Dr. GRIFFITH (St. Pancras) wished to omit the last clause, beginning "without prejudice."

Dr. LAURISTON SHAW thought those words might be left in as an olive branch.

The amendment was lost.

Dr. NEAL (Birmingham, Central) proposed to insert the words "Composed of members of the British Medical Association."

Dr. WALLACE HENRY supported the motion.

Dr. TAYLOR said that if this proposition were carried recognition would be quite impossible, because any Medical Committee must be representative of the whole profession.

Sir VICTOR HORSLEY pointed out that the Association had recognized by conjoint constitution such a committee in the treatment of school children. He quite sympathized with the view that they ought to compel all members of the profession to join the Association, but he did not think they were quite ready to do it yet.

Dr. SHADWELL said there was an advantage in having outside men on the Committee.

The motion was finally carried in the following form:

That the Council be instructed to make all necessary arrangements for assisting the Divisions and Branches in the appointment of provisional Medical Committees in every insurance area to safeguard the interests of the profession, without prejudice to the question of whether these Committees shall later accept recognition as statutory local Medical Committees.

POSTPONEMENT OF NEGOTIATIONS WITH COMMITTEES.

The CHAIRMAN OF REPRESENTATIVE MEETINGS moved Recommendation II of the Report of Council:

That the Council be instructed to notify the Insurance Commissioners that no negotiations will be entered into with any Insurance Committee until the Representative Body is satisfied that the requirements of the profession are conceded.

Dr. NEAL (Birmingham) desired to add after the words "Representative Body" the words "after reference to the Divisions."

The CHAIRMAN OF REPRESENTATIVE MEETINGS accepted the suggestion, and the motion as amended was then put and adopted as a substantive resolution.

Report on Draft Regulations.

The Chairman of Representative Meetings moved:

That the Council be instructed as soon as possible after the issue of the draft regulations, or the regulations, by the Insurance Commissioners to submit a report thereon to the Divisions and the Representative Body.

Dr. Craig moved (for Dr. Lyster):

That it be the declared policy of the Association to decline service under the Insurance Committees as at present constituted, on account of the fact that a permanent majority (three-fifths) is given to the representatives of friendly societies, thereby perpetuating indefinitely friendly society control; and that in an amending Act the constitution of Insurance Committees should be—representatives of friendly societies, two-fifths; nominated by Commissioners, county councils, etc., two-fifths; and representatives of medical profession, one-fifth.

Mr. Domville (Council) suggested that the amendment should be referred to the State Sickness Insurance Committee for report.

The Chairman said the rider added something new to their minimum demands—namely, that they would not take service unless these particular local bodies were freshly constituted with regard to a one-fifth representation for the medical profession.

The Chairman of Representative Meetings appealed to the meeting not to add this burden to what they already had to carry.

The rider was lost.

The Committee then (11.15 p.m.) adjourned till 9 o'clock on Thursday morning.

THURSDAY.

The proceedings were resumed at 9 o'clock on Thursday, February 22nd, Mr. Verrall in the chair.

The minutes of the previous day's proceedings were read, amended, and confirmed.

The Chairman of Representative Meetings moved:

That the remainder of the Report of the Council be approved.

Unity of Action.

Dr. Edwards (Swansea) drew attention to the last three lines of paragraph 21 of the Report of Council as follows:

That no arrangements for attendance upon insured persons be completed anywhere until the Association is assured by reports from the local Medical Committees that terms in conformity with the policy of the Association in detail have been agreed upon everywhere,

and suggested that the attention of the English, Scottish, and Welsh Committees be called to that. He was afraid that unless this were done there was a danger of sectional settlements.

The suggestion was accepted by the meeting.

The Motion of Want of Confidence in the Council.

Dr. David Blair (Lancaster) moved an amendment:

That this Special Representative Meeting of the British Medical Association expresses its strong disapproval of the action of the Council, first, in regard to its methods in conducting negotiations with the Government; and, secondly, in recommending the acceptance by the paid Secretary of the Association of the post of Commissioner under the National Insurance Act, before the conditions of service had been made acceptable to the majority of those whom they represented, and accordingly records its want of confidence in the Council.

His constituency felt that there had been a lack of emphasis and strength in dealing with the Government. The members of the profession saw an Act thrust upon them which they did not want, and they felt it to be an outrage. They wanted it to be stopped at any cost, and yet they saw nothing decisive being done to check it. For his part he had done his best to inform his constituents that the Council was doing everything in its power. Idle rumours had been rife in his part of the country about the Council, and it was alleged that the late Secretary had "worked for" the appointment he now held. He had done his best to show the contemptibleness of the suggestions; and, yet, almost immediately after the last Representative Meeting, there was the announcement of the appointment which had been prophesied in his Division. He found himself discredited. The Council had entirely stultified the Representatives, and he himself found he should be obliged to throw up his representativeship because of the feeling that existed in the Division.

Dr. Starling (Norwich) said he had to deal with similar views in his district. He had pointed out to his constituents that if they only read their Journal, used their discriminatory powers in regard to the action of the Council, and had a little more knowledge of the extraordinary amount of time and energy which the Council put into its work, they would be a little more considerate. As a matter of fact his Division had finally come to the conclusion that the action of the Council with regard to the appointment of Mr. Smith Whitaker was the very best possible in the interests of the profession, having regard to the fact that the profession must depend upon the Regulations for obtaining what it wanted.

Lieutenant-Colonel Curme (West Dorset) was instructed on behalf of his Division, in the event of a vote of censure being passed on the Council, to move the following:

Whilst viewing with the utmost disfavour the action of the Council in the past, yet feeling that the present juncture is not favourable for a vote of censure, desires to impress upon the Council the necessity of carrying out the instructions of the Representatives absolutely in the future.

His Division was not at all satisfied with the efforts of the Council, but they thought their want of action arose more from failure to appreciate the strength and the unity of the profession behind it than anything else. They pressed for a stronger attitude on the part of the Council, but at the same time thought it wise to concentrate their efforts on the future, and let the past be forgotten.

Dr. O'Sullivan (Liverpool, Bootle) maintained that in sanctioning the appointment of Mr. Smith Whitaker as Deputy Chairman of the Insurance Commissioners the Council had committed a great blunder—had been influenced by the bribe that Mr. Lloyd George had offered—and had lost the confidence of the profession.

Dr. Leigh Day (North-East Essex) said that his Division did not feel that the action of the Council was strong enough, but however much they disagreed they could not but feel grateful to the Council for the amount of time they had given to the affairs of the profession. There were three points upon which his Division felt that the Council had not acted in a strong manner: (1) The appointment of Mr. Smith Whitaker, (2) the letter of December 9th and the circular of December 11th, and (3) that although at the last meeting, amongst various subjects referred to the Council to report upon, were institutional treatment and disciplinary control, there was not a word in the report of the Council that any action would be taken or was contemplated.

Dr. Brown (Rochdale) wished the Council would resign as a whole. In that case the Government would clearly understand that the profession meant not to be defeated.

Dr. T. Campbell (Leigh) said that his Division strongly disapproved the action of the Council (1) in regard to its negotiation with the Government, and (2) in recommending the acceptance by Mr. Smith Whitaker of the post of Commissioner under the Insurance Act before the conditions of service had been made acceptable to the majority of the profession. Mr. Smith Whitaker could not serve two masters. He could not accept money from the State and at the same time help the profession.

Dr. Steel (West Norfolk) said his Division felt that the Council had committed a great error of judgement with regard to the appointment. Mr. Smith Whitaker had done very good work for the profession, but during the debate on the bill in the House of Commons, on the occasion when Sir Philip Magnus moved the £2 limit, it was chiefly on the advice of Mr. Smith Whitaker that the amendment was withdrawn. His Division was of opinion that on the whole the Council had done its best, and he was not prepared to support a vote of censure. He hoped that the past would be forgotten and that things would be better in the future.

Dr. W. Craig (Fife) thought the one fatal mistake the Council had made was that it sacrificed principle to present utility. At the national meeting in Scotland, Mr. Smith Whitaker told them, as from the day the Insurance Act was introduced into Parliament their various leaders had kept their minds fixed on the time when their profession as a body would be asked to take office under the Act. Mr. Smith Whitaker also said he felt that the general body of the profession would be staunch to the policy of the British Medical Association, should the Association ask the members

not to take office under the Act. Did not that clearly show that Mr. Whitaker knew then that a fight was impending? What was the verdict of history upon men who changed their tactics on the eve of battle? What would be the verdict of posterity with regard to their conduct? He imagined it would be thought they had sacrificed the freedom and honour of their profession to considerations of what was best for them at the moment. With regard to the question of the income limit, they wanted to know what the letter was, but it was missing. It was a marvellous thing that there was no copy of the document.

Dr. W. JOHNSON SMYTH (Bournemouth) thought it would be an unspeakable act of foolishness to condemn the Council for its past actions, seeing that the battle was not yet finished. Though the Council might have done better, it had done pretty well; and he was instructed not to approve a vote of want of confidence in the Council.

The CHAIRMAN said Dr. A. H. Williams wished to put the following question to the Solicitor:

In the event of the resignation of the Council, what, if any, are the provisions in the Articles and By-laws for the election of a fresh Council at the present time of the year, and are there likely to be any legal difficulties in carrying on the work of the Association between now and August?

The SOLICITOR said if the Council resigned at a period which was not less than four months before the next Annual Representative Meeting there would be created within the conception and provisions of their regulations, especially By-law 52, read in conjunction with the provisions of By-law 51, what was termed "Council vacancies." "Council vacancies" was a term recognized in connexion with companies. It was used in contradistinction to vacancies which occurred in the ordinary way by completion of office. They would therefore have the Council depleted to the extent of their resignation. He was assuming that it would be within a period of not less than four months before the Annual Representative Meeting. The first thing which would have to be done would be for their Chairman of Representative Meetings to proceed to elect, in place of those who resigned, representatives of constituencies. They would find that clearly laid down in the first paragraph of By-law 52. If there were a wholesale resignation of the Council, that would, in his opinion, form an incomplete Council within the interpretation of By-law 52; and that incomplete Council would continue to act, under the provisions contained in that by-law, with the *ex officio* members of the Council, until such period as the Council could be made as complete as it was possible to make it, by the election of other members of it in accordance with the provisions laid down in the regulations. By-law 52 went on: "Any other vacancy which may so occur shall be filled by the body which appointed the member of Council whose place shall have so become vacant; and the election to fill such last-mentioned vacancy shall be conducted in the same manner as the annual election." The last provision of that by-law was also important: "Any person so chosen shall retain his office so long only as the member in whose office such casual vacancy shall have occurred would have retained the same if such vacancy had not occurred." They would have a temporary Council to the extent to which it could as a matter of convenience and time at their disposal be filled up by the means prescribed by these by-laws, which were conceived to be for an emergency of a nature such as this; but if the resignation of the Council occurred at a period less than four months before the Annual Representative Meeting, then the vacancies created to which representatives of constituencies had to be elected could not be filled up, because, presuming he was right in characterizing them as casual vacancies—and upon that everything hinged—that was the only method by which they could fill up those vacancies on the Council at all. They would be able to appreciate the disturbance that this would create in the affairs of the Association, and the difficulties which would occur. This Resolution, if adopted, which would cause the resignation of the Council, would have to be presented to the Council from that meeting as one of the resolutions which they had to take into their consideration, which they would have either to adopt or decree a referendum upon. They had a period of time within which to do that; and if they took the full extent of time which was permitted them to consider it, of if they decreed a referendum upon it—he did not suggest they would, but he was merely putting the possibility—and the referendum was such as to decide them to resign, and the passage of time had brought them within the period of less than four months before their next annual Representative Meeting, he wanted them to fully appreciate that those vacancies which arose in regard to members elected by Representative constituencies could not be filled up at all.

Dr. WILLIAMS (Watford and Harrow) asked a further question. A certain section of the Council, he understood, would have to be selected by the Chairman of Representative Meetings; if the Chairman of Representative Meetings was compelled to resign on account of a vote of want of confidence, would it be possible for that body to elect a chairman who would have any other function than that of simply taking the chair?

The SOLICITOR said it came to a question of the exhaustion of possibilities. The Chairman of Representative Meetings presiding at the Council would not necessarily resign his office of Chairman of Representatives. Of course, if he resigned his position as Chairman of Representative Meetings, he would be non-existent for the purpose of filling up vacancies; but if they would refer to By-law 61, it would be found that in the case of the Chairman of Representatives dying during his term of office or resigning his powers, so far as discharging his duties were concerned, fell upon his deputy. One of the duties discharged by him would be to put in force the provisions contained in By-law 52. Therefore, until the resignation of the Deputy Chairman occurred, in addition to that of the Chairman, there would be an official in existence to fill up these vacancies. He thought Dr. Williams was presupposing getting rid of all the officials, and the question was, Could they create a Chairman of Representative Meetings who could discharge these duties? His answer would be in the negative. If they had any Chairman of Representative Meetings within the interpretation of the By-laws and no Deputy Chairman by reason of the death or resignation of both, then they could not elect an official bearing the impress of that character until the next Annual Representative Meeting, because it was at that meeting that he was appointed.

The CHAIRMAN said he thought the position was now perfectly clear. In answer to a question by Dr. FULTON, who wished to know how many practitioners had signed the pledge in July, 1911; November, 1911; and February, 1912, he said the numbers were as follows: July, 1911, 18,000; November, 1911, 23,000; February, 1912, 26,100.

Dr. BUSHBY (Liverpool, Central) said it had been impressed upon him and his fellow members from Liverpool that they had been appointed as delegates to vote as they were instructed. That being so, he wished to explain for a moment his exact position as regards the vote of want of confidence in the Council. His Division held a meeting on February 16th, when they came to a resolution thanking the Council for their services. Later on a vote of want of confidence in the Council was moved and lost. Then it was moved that the Representatives should not vote in favour of a vote of confidence in the Council. His position was that he had to reconcile these conflicting instructions: First, that his Division thanked the Council for their services, and then that they should not vote in favour of the vote of confidence. Up to that time he had abstained altogether from voting on the question, but after hearing the Council he and his colleagues had decided to somewhat strain their instructions and should vote against the motion of want of confidence.

Dr. O'SULLIVAN (Liverpool, Bootle) said he claimed his privilege to vote the other way.

Dr. HELME said he considered the meeting could no longer be regarded as a meeting of representatives of the British Medical Association. (Oh, oh.) He alluded to the empty benches, not to the members present. Time had been wasted through only having the agenda five minutes before they met, without any opportunity to discuss it. The present position in which the profession found itself was due largely to the influence of the Council, whose heavy guns would be brought to bear on the amendment after their opponents had

concluded. They were face to face with the risk of ruin to the profession which, he maintained, was largely due to the influence of the Council. Instead of taking up a strong position last June, when it might have saved the situation, it entered upon these negotiations, which had proved disastrous. If in the end they won, it would be through the strength of the rank and file and not through any action of the executive body. If they lost he did not envy the state of mind of members of the Council.

Dr. Helme having spoken for five minutes,

Dr. Price (Carnarvon) wished to move that he be allowed to continue his speech.

The Chairman said the only thing that could be done was that after some other member had spoken he could resume.

Dr. Helme enquired if a motion for the adjournment of the meeting was out of order.

The Chairman, after referring to standing orders, ruled that a motion for adjournment duly proposed and seconded was perfectly competent, but it would have to be put to the meeting without debate.

Dr. Helme proposed and Dr. O'Sullivan (Liverpool) seconded the adjournment. The motion was lost.

The Chairman of Council said that, as far as he had been able to gather from the discussion, the main point upon which the Council was said to have failed was that it did not take strong enough action. He was not surprised to hear that several Representatives had had difficulty in answering criticisms made by members who attended Divisional meetings. The anxiety of the profession had brought a good many men to those meetings who had never taken any part in them before, and who knew nothing of the action that had been taken, or of the constitution of the British Medical Association. Ten years ago the British Medical Association was a body which was of no practical use as a political machine; but during the past ten years that machine had developed, and it had now got to a point at which it had become a force which had to be reckoned with by the Government. As to the important crisis that arose last year, the Council was sufficiently far-seeing to recognize what was coming practically a year before it did come, and made full preparations to meet it, resulting in the Representatives at the meeting last June being able to come to the decisions that they did. Those decisions having been come to, certain instructions were given to the Council, as the executive body, to act; and he could say without any fear of contradiction that the Council had carried out these instructions exactly. (Hear, hear.) The instructions were that the Council were to go to the Government and to use its judgement as to what should be placed in the Act of Parliament, and what was to be tried to be obtained in the Regulations. He submitted that the Council had done its best to get every part of the policy of the Association that was possible placed in the Act. Certain parts of the policy of the Association they did not succeed in getting placed in the Act, but those parts were still capable of being placed in the Regulations, and the Regulations, once they had been laid before the House of Commons, were as powerful as an Act of Parliament, although they might be more easily altered than an Act. The next point was the Medical Secretary's appointment to the position of Commissioner. An accusation had been brought against the Council that the fact of Mr. Smith Whitaker getting the position of Deputy Chairman was a bribe. Did the gentleman who made that accusation understand what it meant to bribe a body like the Council of the British Medical Association? The political complexion of the Council of the British Medical Association was about five opponents to the Government to one supporter of it.

The Chairman said that the time limit had expired.

Dr. Helme (resuming) said that when he sat down he was trying to point out that the methods adopted by the Council were largely responsible for the position in which they now found themselves. The Council came there, and with all the authority of Councillors, influenced the Representative Meeting which, as Dr. Macdonald had pointed out, was composed of new men—men who were not accustomed to the methods of the meetings, and whatever the Council did, had, he would almost say, undue weight. They had one illustration of that when Mr. Larkin, one of the Representatives of Lancashire and Cheshire, the previous night misrepresented the action of his own Branch, upon which a definite resolution had been taken and carried by hundreds to tens, and no account of it was given in the Journal for at least three weeks, and then it was worded "passed by a majority." That sort of thing ran through the whole course of the business. The methods of the Council were at fault with regard to the appointment of Mr. Smith Whitaker. Could anybody have imagined that negotiations could have been carried on by the Council in such a manner as to allow a letter to be written by the chief representative of the Council in Parliament, the contents of which were such that, in the definite written statement of three members of Parliament, it influenced the action in the House? Sir Henry Craik had said that it was the only thing which influenced his decision, Sir Philip Magnus had said that his action was decided by it, and Mr. Boyton had given his impression of what the contents were; yet the Council had never even asked for the contents of that letter, much less have it placed on record. That was, in his opinion, a serious failure on the part of the Council in its business capacity. It was a want of judgement on the part of the Council in not seeing that they were being made use of for political party purposes. He did not charge them with party politics, but he felt that they had not been competent business men. In his Division every man, he was sure, felt the sentiment that he had endeavoured to express. On his own initiative he had asked his Division to cut out the censure and the part asking the Council to resign, and, while expressing disapproval, to allow him to vote in favour of a vote of confidence. He succeeded in part, but could not get his Division to delete the want of confidence, because, honestly, they had no confidence. He had given a great deal of time to the work of the Association, and wanted to put on record his full appreciation of the very great services that the Council had given on behalf of the profession. Therefore, it must not be taken that there was any attack on the truth or honour of any man on the Council. It was an attack upon their business capacity and judgement, an attack which it was his duty to make. He wished to support the motion.

The Chairman of Council (continuing) said he wanted to finish what he had to say about the Medical Secretary's appointment, because there was a possible misunderstanding. One accusation brought against Mr. Smith Whitaker was that he had been working up for the appointment. The first intimation that occurred with regard to the appointment coming to him at all was on November 20th, and the whole thing was supposed to have dropped altogether until the letter from the Premier. To show how little it could be thought that there was any question of Mr. Smith Whitaker working up for the position, a man holding a Government appointment had had the offer of Mr. Smith Whitaker's appointment made to him, and it was he who made the suggestion that Mr. Smith Whitaker should get it. That man was in a Government office, whether a member of the Association or not he, the speaker, could not say. Would not the profession, in conducting its business with the Commissioners, be better in the hands of a man like Mr. Smith Whitaker than in the hands of an official? In his own mind he had no question whatever about the advisability of the appointment. The Council had very carefully debated the point; they knew it would cause an amount of disturbance in the Association, and in spite of that fact, so strongly were they impressed with the advantage it would be to the Association and to the profession to have a man of Mr. Smith Whitaker's accomplishments in the office, that the Council took its courage in its hands and decided that it would enter no opposition to Mr. Smith Whitaker accepting the appointment. As had been stated by Dr. Craig, the Council must be judged by posterity. He (the speaker) was perfectly willing to leave the question of the wisdom of the Council with reference to the appointment of Mr. Smith Whitaker to the judgement of posterity, feeling sure that the Council would be absolved from any failure of duty.

Sir Victor Horsley (Council) said he had no vote on this resolution, but he would not hear ordinary recorded history put to the meeting in an entirely false light. The

whole history was this. When it was discovered that the House of Lords would probably accept the bill, the Opposition in the House of Commons said to Mr. Lloyd George, "If we let the third reading through, you must give us the names of your Commissioners by Tuesday." It had nothing to do with the Council or the Association. It had nothing to do with Mr. Lloyd George. It was an ordinary bargain across the floor of the House of Commons. The other point was as to this letter written to Sir Philip Magnus. He (Sir Victor Horsley) was represented in Parliament by Mr. Boyton. Mr. Boyton had written to the *Times* a letter saying that Mr. Whitaker was guilty of dishonourable conduct, and that the letter in question was in existence, and that it could be produced. It had never been produced? Who held it? Mr. Whitaker? Sir Philip Magnus? Why was it not produced?

Dr. T. A. Helme (Manchester) said Sir Philip Magnus had stated that he did not possess it.

Sir Victor Horsley said it was not in the possession of Mr. Whitaker. It was either in the possession of Sir Philip Magnus or somebody to whom he had responsibly handed it. He challenged the production of that letter. That did not decide the issue of the matter. The issue was decided at a conference held after the reception of that letter at which Mr. Whitaker was not present, nor even was any hint received from him or any instructions such as had been put forward. It was decided by the members of Parliament, and Sir Henry Craik's statement was not true to recorded fact. The exact history of this matter had been printed in the Journal. Lastly, they were told that the Council authorized negotiations. The Council had never done any such thing. It was the Representative Meeting which had directed the Council to negotiate.

Mr. N. Bishop Harman (Marylebone) made a statement with reference to his instructions from the Division.

Colonel H. J. Waller Barrow (Ealing) considered that Mr. Smith Whitaker had gone off with their state secrets to the enemy.

Dr. R. C. Buist (Council) objected to Dr. Helme's inference that because the Council waited before bringing forward further evidence for the defence until it heard the evidence for the prosecution, it was waiting to demolish his (Dr. Helme's) case.

Dr. C. G. Meade (Scarborough) said he had been instructed to vote for the vote of censure, but was he not absolutely free after hearing expert opinion? If they could not elect a new Council, what was the good of making the present Council resign?

The Chairman said his answer was that the by-laws were at the disposal of Dr. Meade.

Dr. R. C. Buist (Council) said that suggestions had been made that they were bribed. A bribe required two sides—one to offer and one to receive. The mere insinuation that a bribe existed, and that they took action as a result of that, was an accusation against the morals of the Council and the profession. They were accused of not taking strong enough action. Did the Association wish them to adopt a policy of bluff? Until they had in their hands the documents showing that the Association had the effectual support of the profession, they could not take a more forcible line than they did. (Cries of "Vote.")

The motion,

That the Committee proceed to the next business,

was carried by a large majority on a show of hands.

The Contract of Club Doctors.

Dr. Dearden (Manchester, West) asked the Solicitor whether the fact of a friendly society becoming an approved society altered the contract of the present club doctors, and, secondly, if so, did it affect the pledge?

The Solicitor said, in reply to the question he would split it up into two parts. "Approved society" was a general term of application created by the Act to connote those societies, clubs, insurance companies, etc., which obtained recognition by the Commissioners as bodies which could under arrangements with the Commissioners distribute the benefits given under the National Insurance Act. There was an agreement between such a society and the Government that it would provide medical benefit to its members, and it could do so in one of two ways—(*a*) by paying an arranged amount to an Insurance Committee for the benefit of such of its members as resided within such committee's area, (*b*) by making direct arrangements with medical practitioners to give medical attendance to its members under the permissive powers of Section 15 (4) of the Act. It would therefore be possible for such a society to offer to continue its agreement with its medical officer or to make a new one; but coming to the second part of the question with reference to the pledge, under the pledge given the medical man would, it appeared to him, in redemption of that pledge, be obliged to submit the proposed agreement for the approval of the local Medical Committee, if one existed, and could enter into an agreement only on the lines approved by that committee.

Dr. Dick (Manchester, North) said he had been instructed by his Division to put an additional question as to the position of the club doctor regarding the examination of candidates for admission to a society which had decided to become an approved society.

The Chairman said the Solicitor would look into the matter.

Dr. Douglas (Maidstone) asked whether by the present legal position the medical man was free from his engagement.

The Solicitor said that in order to answer that question he should have to have every agreement before him. He could not give a comprehensive answer upon agreements unless he had the documents before him.

Dr. Douglas said the point in his mind was whether in the case of a medical man who had agreed to serve a society for a year he was freed from his obligation by the new position of affairs.

The Solicitor said it appeared to him that a new condition of things would be created not contemplated by the old contract, and, therefore, the parties would have to renew the arrangements upon such agreements as applied to them at the time, and the old one would be abrogated.

Dr. Fox (Blyth) asked if the operation of the statute would not simply terminate, *ipso facto*, all contracts with bodies which were independent, and now became merged under the Statute.

The Solicitor said he could not answer that without knowing what the agreements provided for.

Meetings of Divisions.

Dr. Griffith (St. Pancras) moved:

That the Council be instructed to advise each Division in the United Kingdom to adopt a rule requiring the Division to hold a general meeting immediately after each Representative Meeting for the specific purpose of considering a report thereon by its Representative or Representatives.

This was agreed to.

Right to Medical Benefit.

Dr. Dick (Manchester, North) moved the following rider:

That in any Regulations approved by the Representative Body, the principles contained in the following should be included:

That as in the Act it is assumed that not all insured persons are entitled to medical benefit, the onus of proving that he is entitled to medical benefit should be placed upon the insured person claiming it; that the local Insurance Committee should require a signed statement showing his weekly wage countersigned by his employer and his income from other sources; and that the right of challenging the title of any insured person should be reserved to the local Medical Committee.

After a somewhat desultory discussion,

The Chairman suggested that the words be added:

That the onus of proof shall be thrown on the insured person as to his right.

Dr. O'Sullivan suggested the additional words, "to the satisfaction of the Insurance Committee."

The Chairman said that must be so.

Dr. Bushby (Liverpool, Central) suggested that the motion should read, "a right of challenge" instead of "the right."

Dr. Dick (Manchester, North) accepted the suggestion.

The motion was then put to the meeting and agreed.

A Public Manifesto.

Mr. Russell Coombe (Exeter) felt that they should keep themselves in touch with the public and secure its sympathy. He moved:

That a Manifesto on the lines of that drawn up by a Committee of the South-Western Branch stating the objections of the profession to the Act, but carefully elaborated and verified, be prepared for presentation to the Press, Members of Parliament, Deans of Medical Schools, University Tutors and Headmasters of Public Schools.

This was agreed.

The Chairman in reply to a Representative said this would be referred to the Council.

The Action of the Royal Colleges.

Dr. Helme (Manchester, Central) moved:

That this meeting desires to express its high appreciation of the action of the Royal College of Physicians of London and the Royal College of Surgeons of England and the Royal Colleges of Scotland in the defence of the interests of the public and of their members.

The motion was agreed to.

Mr. Bishop Harman (Marylebone) thought the following instruction should also be referred to the Council:

That the Council be instructed to promote united action with the Medical Corporations and other representatives of professional interests in order to secure by means of an amending Act, or otherwise, conditions satisfactory to the medical profession.

This was agreed to.

Dr. Campbell (Leigh and Wigan) moved:

That the Representative Meeting place on record its strong condemnation of the expressions used by Mr. Lloyd George with respect to the Royal College of Physicians and the Royal College of Surgeons.

This was agreed to.

The following rider by the Gloucestershire Branch was referred to the Council in conjunction with Mr. Bishop Harman's proposal above:

That it is desirable that the British Medical Association fall into line with the Councils of the Royal College of Physicians, Royal College of Surgeons, Society of Apothecaries, and the Universities of England, and to unify the attitude of the entire medical profession with regard to the Insurance Act. In order to effect this purpose it is desirable that the various bodies named should form a Central Committee of Representatives as has been done in Scotland.

The Remainder of the Report.

On the question that the rest of the Report be approved, Dr. Helme (Manchester, Central) moved, and Dr. Evans (East Norfolk and North Suffolk) seconded, that a roll-call be taken. This was supported by ten Representatives and agreed. It was also agreed to record the names of those who did not vote.

The voting resulted as follows:

Ayes	...	...	63
Noes	...	...	20
Abstaining	...	...	15

Dr. J. S. Dick (Manchester) pressed for an answer to the following questions:

That the opinion of the Special Representative Meeting be given as to the following:

(*a*) Does the fact of a friendly society becoming an approved society alter the contract of present club doctors, and, if so, does it affect the pledge?

(*b*) The position under the pledge of club doctors asked to examine candidates for admission to a society that has decided to become an approved society.

The Solicitor said that in his view the bearing of the pledge upon the position was this: If it was part of the duty of the club doctor to examine candidates for admission, as well as subsequently to give medical attendance and medicine to the members of the society, then it would appear to him to fall within the terms of that pledge.

This concluded the Committee stage.

Report Stage.

The Chairman of Representative Meetings, on resuming the conduct of the proceedings, said it was his very pleasant duty to propose a vote of thanks to Mr. Verrall for his presence in the chair. (Loud applause.) His personal sense of indebtedness to Mr. Verrall was very deep indeed; and it had been a great lesson to them all to see how the meeting, which might at times have become very critical in feeling, had been so carefully, tactfully and ably handled.

Dr. T. A. Helme (Manchester) had the very greatest pleasure in seconding it, because he thought the manner in which this most difficult meeting had been handled by their chairman, Mr. Verrall, reflected the highest credit on him. He was sure they all appreciated the absolutely fair and straightforward manner in which he had succeeded in conducting the business of the meeting.

The motion was carried by acclamation.

Mr. T. Jenner Verrall (Council) said he was very much obliged to them for accepting the vote. They would be hardly surprised, perhaps, to hear that circumstances made him still more gratified that the resolution should have been proposed by Dr. Maclean and seconded by Dr. Helme. ("Hear, hear." and applause.)

The meeting proceeded to consider the resolutions agreed upon in Committee.

Remuneration.

The resolution passed the previous day on the subject of remuneration was finally agreed in the following form:

That the policy of the Association be to claim a minimum capitation fee of 8s. 6d., not including extras and medicine, for members of approved societies, and to claim the recognition of payment per attendance, in which case the fees must be on such a basis as shall be deemed an equivalent by the State Sickness Insurance Committee, with recognition of a £2 maximum income limit.

Administration of Medical Benefit.

Dr. Neal moved:

That in view of the fact that the Association has decided as a cardinal principle that the administration of medical benefits should not be under friendly society control, this meeting now decides that, in accordance with this policy, medical benefits shall be administered for insured persons by the Commissioners, and not by the Insurance Committees or other bodies.

He thought if they could agree to this rider it would serve to strengthen a number of members who had not the advantage of attending the meeting, and were wavering in their allegiance to the Association because they considered that the cardinal principles were being watered down.

The Chairman of Representative Meetings observed that the rider was one of great substance, and it would be very difficult to square with one of their cardinal principles—namely, the administration of medical benefits by the local Health Committee.

Dr. Helme seconded the rider. The cardinal point in question was freedom from friendly society control. ("No, no," and "Yes, yes.")

Dr. Neal said the cardinal point referred to was the medical and maternity benefit.

Dr. Helme said the whole intention and spirit of the cardinal points had been defeated by the handing over of this administration of medical benefits to a committee which they looked upon as little better than the friendly societies. It was competent for the Commissioners to make arrangements for an efficient service placed in the hands of medical men only, by which the capitation fee could be paid into a pool and distributed according to the local requirements of the men of the district. They would be doing a great service to the profession by making such a representation to the Commissioners in order to make the Act workable.

Dr. Macdonald (Chairman of Council) thought they were all agreed as to the desirability of such a principle, but it should not be made one they could not do without. He would like to put it that they "urge the Council" to get it if it could, and not make it a binding principle.

Dr. Neal agreed to amend his motion as follows:

That this meeting urges the Council to take every possible step that the medical benefit shall be administered by the Commissioners.

Dr. Helme agreed, on condition that any contemplated resolution would be submitted to the Divisions for approval, and, subject to this, the motion was approved.

Dr. Todd moved:

That it be an instruction to the Council to take all possible steps to ensure that no member shall undertake any office under the National Insurance Act, other than that of the

Advisory Committee, until such times as the minimum demands of the profession are conceded in the Regulations or amending Act.

Dr. Treasure (Cardiff) seconded.

Colonel Johnston (East Leinster) enquired if the motion were passed how Ireland would be affected, for instance in cases where medical inspectors were appointed under the Act.

Dr. Todd replied that if necessary he would amend the motion so that it should not apply to Ireland.

In the course of further discussion the point was made that members of the profession would not be precluded by the resolution from taking part in the administration of the Act in other capacities—for example, as members of public bodies or as medical officers of health.

The motion was carried by a large majority.

Dr. Campbell moved as a rider that the resolution should only apply to medical men acting in their professional capacity.

This was seconded.

Dr. Lauriston Shaw (Council) said this would mean that the posts would be simply for medical officers of health.

The Chairman, in reply to a question, thought it would not be possible under the resolution for a county council or similar body to appoint whole-time medical officers under the guise of medical officers of health.

Dr. Campbell accepted a revised form of his motion as follows:

This shall not preclude a medical officer of health from giving advice to an Insurance Committee in his official capacity.

The motion was carried.

The Agenda Committee.

Dr. Turner proposed, having regard to the assistance the meeting had received from the labours of the Agenda Committee,

That the Agenda Committee be continued in office till the next meeting, and that they meet the night before to consider the Agenda and select the items for discussion.

The Chairman said he ought to have given priority to a motion handed in by Mr. Bishop Harman, which aimed at constituting the Agenda Committee a Standing Committee.

Dr. Macdonald said it was not possible to appoint a Standing Committee under the regulations without an alteration of the by-laws. He would ask Mr. Bishop Harman not to suggest that it should be a Standing Committee.

The Chairman thought that if the meeting instructed the Council to bring into being an Agenda Committee, and leave it at that experimental stage, it would be better. The Council would then know what the desideratum was, and would do all it could to instruct the Committee to facilitate the dispatch of business.

The meeting decided to follow that course.

Reports of Representative Meetings.

Dr. Douglas (Maidstone) moved:

That full and adequate reports of the Representative and Council Meetings be published in the British Medical Journal, unless adequate reasons be given to the contrary.

By those reports the constituencies could have an account of their stewardship.

The motion was seconded by Dr. Helme, and adopted.

Vote of Thanks to City of London.

A vote of thanks to the Lord Mayor and Corporation of the City of London for their courtesy in placing the Guildhall at the disposal of the Association for this meeting was carried by acclamation.

Vote of Thanks to Chairman.

Mr. Bishop Harman (Marylebone) proposed a hearty vote of thanks to the Chairman for his duties at the Representative Meeting.

Dr. Helme (Manchester, Central) said he had pleasure in seconding this.

The Chairman of Representative Meetings thanked the meeting heartily for its vote of thanks, and would express the Association's indebtedness to the Corporation of the City of London for its kindness in letting them have the Guildhall for the meeting. Also he particularly wanted to have recorded the special recognition of the meeting of the unparalleled services of the staff in the proceedings.

The proceedings then terminated.

CORRESPONDENCE.

[It is particularly requested that communications intended for publication should be written on one side of the paper only, and should be addressed to the Editor, British Medical Journal, 429, Strand, London, W.C.]

The Reform of Contract Practice.

Dr. William Russell Cooper (London, N.) writes: Careful perusal of Mr. Lloyd George's speech at the Opera House gives one a very clear impression that he intends to deny justice to the profession, and the probability of our getting the six cardinal points is very remote. As an alternative he evidently intends to cut out medical benefits, hoping by that threat either to frighten us into accepting his terms or to break up the present rally of members around the British Medical Association.

Very well then, what should be our reply? Simply this, Cut out the benefits and see what *we* can do. Putting on one side the obvious fact that by so doing Mr. Lloyd George stultifies his previous high flown promises to the people of England, I maintain that the profession will then be able to give to the poor a medical service of their own, satisfactory both to themselves and their patients, and far exceeding the doubtful benefit under the Act.

How is it to be done? Quite simply if all the medical practitioners will stick together and to the British Medical Association, otherwise it will fail and never again will an opportunity arise for us to throw off the degrading influence of contract practice as run by past methods. Realizing the fact that contract practice, under certain conditions, is inevitable, what is the method we should adopt? I beg to suggest the following as a rough outline:

The British Medical Association (State Sickness Insurance Committee) should draw up a series of general regulations under which medical men would undertake contract work, these to include three of our cardinal points:

1. Income limit of £2 per week.
2. Free choice of doctor.
3. Satisfactory remuneration: this to include a minimum rate, with extras for night calls, operations, anaesthetics, etc.

The local Divisions of the British Medical Association should further decide what special regulations should be considered as affecting their particular district. A panel should be formed in each town or village of medical men who are prepared to undertake contract work.

Any society wishing to come under contract terms must submit their rules to the local Division of the British Medical Association, which will decide whether they will accept them subject to the approval of the State Sickness Insurance Committee of the British Medical Association. If the society is considered satisfactory, any member of same may elect any member of the local panel of doctors to attend him for the next twelve months, and may then change to another doctor if he wishes. Under no other conditions should a medical man undertake contract work.

This is merely a bare outline of a workable scheme by which I think both doctors and patients would be satisfied. The doctors, through the British Medical Association, would control the societies in so far as medical matters are concerned; they would have fair remuneration, as sweating would be abolished, and the societies could not hawk their terms about from doctor to doctor hoping that one would undercut the other. The medical profession could not possibly be accused of making unnecessary visits for the sake of extra fees. Both doctor and patient would have free choice. Malingerers would be spotted and reported to head quarters without fear or favour. I also venture to maintain that patients would get far better treatment under such a scheme than ever they have had under the old system.

The scheme will certainly cost more than the old system, but I honestly believe that the thinking class of working men do not approve of "cheap and nasty" doctoring, and will realize that to get efficient service they must pay for it. It may also be said: But, supposing the societies refuse to submit rules; well, then, who will they get to do the work for them? Only a few outsiders; and will *those* be satisfactory? I trow not.

If all medical men work together and refuse definitely and decidedly to work outside the British Medical Association, our cause is won. We should then be able to give to the poor an efficient service on terms fair and just to ourselves and our patients.

It is now a critical time, and should some faint hearts be frightened by threats and our combination broken, then heaven help the profession and the patients.

A Practicable Policy.

Dr. W. Winslow Hall (London, N.W.) writes: Most medical men have now agreed that we must have the six cardinal points. We differ only as to the best method of attaining them.

I would submit that the Act secures for us three and a half of our six points—namely, free choice of doctor, administration by local Insurance Committees, adequate representation on the administrative bodies, with (by the Addison amendment) recognition of the wage-limit principle. Thus there are two and a half points still to be secured—that is, amount of the wage limit, method of remuneration, and amount of remuneration.

I would further submit that these remaining points may best be gained as follows:

I. By negotiations between our new Sick Insurance Committee and the Insurance Commissioners, so as to enact in the Regulations:

(*a*) A maximum wage limit for the United Kingdom. This the medical profession has already fixed at 40s. a week.

(*b*) A combination of payment by capitation grant and payment by attendance. Thus:

1. For those within the wage limit a minimum capitation fee all over the United Kingdom.

2. Those above the wage limit, and Post Office contributors, to receive their "medical benefit" in cash and pay their doctors for each attendance.

3. Mileage, night visits, operations, etc., to be counted extras and paid for according to schedule.

(*c*) The aforesaid capitation fee to 8s. 6d. a head per annum.

II. By negotiations between the local Medical Committees and the local Insurance Committees, to adjust details in accordance with local needs and customs—for example:

(*a*) To draw up a schedule of charges for ordinary attendance on Post Office contributors and on contributors earning between £104 and £160 a year.

(*b*) To draw up a schedule of extra fees payable by all contributors. But no bargain to be clinched until our Central Council is satisfied that every cardinal point has been obtained in every locality.

III. By preparedness, on the part of the Central Council, should negotiations fail, to start a National Medical Service, which shall put the six cardinal points into practice in every locality, thus offering medical treatment to all (contributors and non-contributors alike) who are within the agreed wage limits.

The Medical Federation.

Dr. R. W. Morgan (Gillingham, Dorset) writes: Every practitioner should read the speech of Dr. Devis, the Secretary of the Medical Federation, Limited, as given in the Journal of February 17th. He clearly recognizes the fact that it is the club doctors who hold the key of the situation as far as the Insurance Act is concerned. As he remarks, what are you going to do to indemnify these men against the possible loss which they will suffer if they give up their club appointments? To repeat his own words:

> What had the Association to rely upon in this tremendous fight? The Association relied upon the enthusiasm, public spirit, and loyalty of each man; but useful and admirable as these were, *they were a poor weapon against ruin.*

I place the concluding part of the last sentence in italics. Speaking as a country practitioner, I can safely say that without appointments most country practices could not be carried on. In a country town it is usual for one or more doctors to hold the club appointments and for the others to hold the appointments of public vaccinator, district medical officer, and medical officer of health. For a man to sacrifice his club appointments means that he not only loses his club patients, but, in addition, much private practice. Moreover, club appointments mean a considerable increase in the capital value of a practice.

When I brought the question of compensation for losses incurred by club doctors before the Executive Committee of this Division I was informed that this would be an impossible task. If this be so, I am confident that the Chancellor will be the master of the situation. I agree with Dr. Devis that 27,000 undertakings, which have been acknowledged to be conditional upon guarantee of indemnity, are hardly worth the paper they are written upon without this guarantee. Bristol has the honour of being the first medical community which has placed the matter of a possible strike or its equivalent on a business basis. It appears to me to be quite clear that there is no real prospect of definite success until an adequate compensation fund is formed. Loyalty *plus* a monetary guarantee will win the fight, but not without the latter. I am a supporter of the policy of the British Medical Association and not the "no service whatsoever" policy, because up to the present all past experience has conclusively proved that in fighting the societies there are always medical men who will undersell their brethren, and this in spite of promises to the contrary. I think there never was such union among medical men as at the present moment; but even this will not stand the test of a fight against a powerful Government unless there is plenty of ammunition in the locker. I wish the Medical Federation, Limited, every success. It is a question whether the local guarantee funds already formed would not be wise to affiliate with the above company.

A Public Medical Service.

Dr. Henry Hill (New Romney) writes: There have been one or two letters lately in the Journal advocating a line of action which I think should have been taken long ago. That is the establishment of a medical service under the Association or other medical body. It is hopeless to expect to get a reasonable service arranged by men who think, as Mr. Lloyd George appears to do, that medical attendance consists of selling a bottle of physic. Suppose we get our six points, what better shall we be? We shall still be under lay control, and from my experience of county and district councils I do not see that we shall be better off than under the friendly societies. A medical service to be of any real use to the patients must provide for consultations, bacteriological work, operations, and various other things which Mr. George has never thought of. The most dire threat that he uses to us is that he will drop medical benefit, and our Council seems to think this serious. I cannot say I do, but even should it be as serious as suggested, it would be best met by having our own service ready. The Medical Federation would be unnecessary, and no man need fear losing his contract practice. Mr. Lloyd George in a letter to me pointed out that there is nothing in the Act preventing the friendly societies paying, as some do now, considerably more than his actuaries calculated. Further, he said if the profession could show that the sum suggested was too small, Government must find the balance. It is no reply to this to say baldly, "We want more money." The Commissioners are justified in asking why. If a service is formed by the Association, as was, I believe, contemplated some time ago, we are in a position to say, this is what we consider the minimum that can be offered as a reasonable service, and the cost is so much. The Government can then take it or leave it. We have clean hands.

The Validity of Regulations.

Dr. Bernard O'Connor (London) writes: Dr. G. B. Morison has attempted to endow his quotation from Dicey with greater force than its composer ever intended. It is quite true that no body of persons can pronounce void an enactment passed by Parliament; and the same is true with respect to regulations formulated by Commissioners. The rendering *void* necessitates a legislative enactment, but, by the Insurance Act, Parliament itself (in anticipation of certain events) has enacted already by Section 78 [practically a repealing section] that if any difficulty arises the Commissioners by order may do anything, etc., and such order may modify the provisions of

the Act. Apparently Dr. Morison has failed to grasp the distinction between these two sets of circumstances.

Dr. ARTHUR M. BARRACLOUGH (Chapeltown, Sheffield) writes: The penalty with which we are threatened if we decline to form panels is the suspension of the medical benefit.

Now, although the Insurance Commissioners have undoubtedly large powers under the Act, there has for some time been a lurking doubt in my mind as to whether this wholesale suspension of the medical benefit would be legal. This doubt has been somewhat strengthened by the reading of Dr. Morison's letter in to-day's JOURNAL, and particularly of his extract from Professor Dicey's *Law of the Constitution*.

Section 15 (2) gives the Commissioners power to suspend the medical benefit in certain cases *after the panels have been formed*, but it does not appear that this section makes any provision for the wholesale suspension of the medical benefit in the event of the doctors declining to form panels.

Section 78 gives the Commissioners power to "modify the provisions" of the Act for the purpose of bringing the Act into operation. There are two questions which occur to me with regard to this:

1. Can the *suspension* of one of the main provisions of the Act be described as a *modification?*

2. Could the Act be said to be brought into operation if the first and greatest of the promised benefits were suspended?

The suspension of the medical benefit would directly prevent a part of the Act being brought into operation, and such action on the part of the Commissioners would appear to me to be illegal.

Unless the two questions above can be answered in the affirmative, it would seem that the total suspension of the medical benefit could be legally effected only by an amending Act of Parliament. As the question is one of great importance, I have ventured to communicate my doubts to you, and I shall be pleased to hear your opinion on the points I have raised. I lay no claim to a "legal understanding," and I write—in the first instance, at any rate—merely for the purpose of obtaining information.

PERSONAL ATTACK ON THE CHAIRMAN OF REPRESENTATIVE MEETINGS.

Dr. BERNARD O'CONNOR (London) writes: From the wording of Dr. Lauriston Shaw's letter in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of February 17th (p. 182), I cannot gather precisely whether or not he attended the Special Representative Meeting last November. I did. The question whether the Division which sent me there as its Deputy Representative was justified in so doing, and whether or not I ought to be a member of the Association at all, I leave others to decide. The main fact is that I was *there*, and, being there, I was the person who made the "smoking-room" speech under circumstances which I trust you in fairness will allow me to explain. Before I do so, however, let me say plainly that, until I read Dr. L. Shaw's letter to-day, I had never heard of or had any one of the "rumours" in respect of a "knighthood" that was "to make things easy;" of "several councillors" having "applied for offices under the Act," and of the bestowal of a "peerage," and that, as far as I know, I had neither ever seen nor ever heard of Dr. Maclean before November 23rd last. Each of the many rumours that had reached my ears was arranged around one central idea, and that idea was present to my mind when I delivered my "smoking-room" speech; and the idea conveyed to me by each of those rumours assumed one of two forms: (*a*) That an official of the British Medical Association had applied for a position under the bill; (*b*) that an official of the British Medical Association had been offered a position under the bill worth £1,500 a year. The idea contained in the above formed the only subject matter of what I had heard *qua* rumour, and I infer now (after reading Dr. Shaw's letter) that it must be identical with that "other rumour of a totally different character" that was based upon fact," which, Dr. Shaw now tells us, Dr. Maclean *was* aware of on the morning of November 24th, 1911.

The circumstances under which my speech was delivered were as follows: [Here, for one moment, let me refer you to the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of November 25th, 1911. Following the conclusion of Dr. Macdonald's speech on p. 527, first column, you will observe that there is a break in the report. Something has been left out. What was left out was the following fact.] On November 24th a proposition by a Cardiff Representative "that, in the opinion of the Representative Body, no member of the British Medical Association should accept office, paid or otherwise, as a Commissioner or as a medical officer, under the Act without the permission of the Association," was seconded by the Chairman of the Insurance Committee—Dr. Maclean himself! To this an amendment was proposed by Dr. W. Henry, of Leicester, to substitute the rather ominous and very pointed word "retain" for the word "accept." After an observation from the platform this amendment was withdrawn, and then it was that I proposed, as an amendment, the insertion, after the word "member" of the words "or official," and the omission of the concluding words, "without the permission of the Association." I said that, "in order to remove a large amount of the distrust and suspicion that had found expression outside, and had been reflected in the many rumours which any of them could hear in the smoking-room of the House of Commons or of any London club, some provision should be made to guard against any member of the Association—of the Council, if you will—applying for or holding any position under the Act." Before there was time for anyone to second my amendment, there came from the platform the instantaneous announcement that the seconder (Dr. Maclean) had withdrawn his support from the proposition. All this will be in the recollection of those who were present on the morning of November 24th, and probably some of them may have noticed that although neither my amendment nor my accompanying speech is even referred to in any report in any issue of the JOURNAL, oddly enough, Dr. Maclean's speech *in reply to mine* not only is referred to, but also is reported *in extenso*, and in the first person. The report in the JOURNAL, mentioned above, after the break, states: "Later in the proceedings Dr. Maclean said," etc. Besides other things he said that acceptance of office on an administrative body to be formed under the bill was a very different thing from what was suggested in the resolution. The arrangements were to be arrived at under the "influence" (*sic*) of the Insurance Commissioners by the striking of a "bargain" between the local Medical Committees and the Insurance Committees, so that if the Representative Meeting were to say that not a single member should accept any sort of office under the Bill, they would really prevent what may be very essential to the interests of the profession. He went on to say that he felt "personally" what had been said as to rumours. Regardless of English, he spoke of them as "*those kind* of rumours" which, he suggested, should be left to vegetate in the smoking rooms. Well do I remember wondering on hearing those words at that moment what could be the secret thoughts of a few others of those who not only were present but also—and more than two days earlier—had been made aware of what actually had taken place! After some very ill-chosen remarks which had no reference to anything that had been said previously, he stated that he himself would refuse any office under the bill that might be offered to him, but he never explained why he had seconded the resolution, and, having once done so, why he had got it withdrawn. It should be observed that, although no one had suggested that any individual had applied for, or had been offered, any appointment, no occupant of the platform, other than Dr. Maclean, uttered any similar renunciation. Here allow me to put a biological query. At what precise stage of its existence does a "vegetating" smoking-room rumour acquire biogenetic functions? I am afraid that Dr. Shaw (influenced, I am sure, by the best of intentions) by the second paragraph of his letter has rendered a disservice to Dr. Maclean.

MODE AND RATE OF REMUNERATION.

Mr. JOHN J. BELL, F.R.C.S.I and Ed. (Bradford) writes: I have been carefully studying the recent issues of the SUPPLEMENT, and must express my surprise at the multitude of suggestions contained therein anent the Insurance Act and how to work the medical benefit under it. I

cannot refrain from saying that the absence of any reasonable attempt on the part of the profession or the Association to evolve a workable and practicable scheme is most astonishing. We see the leaders writing and speaking with determination, and even vehemence, of no surrender until the six cardinal points are conceded without having any definite notion of what these points entail.

First, let me ask, why all this hubbub about £2 per week wage limit? Any one who considers the matter must at once admit that if the Government conceded this point they would require a staff of officers almost as large as that now required for the income tax to investigate every case, or otherwise put the burden of investigation upon the profession, thus making us detectives for the Government and objectionable to our patients. Who of us would desire to turn informer upon our patient, whose confidence we had the honour to possess, and expose him to the official whip?

Granted, then, that a large number of officers would be required, is it not evident that the salary list must come out of the income from the insured? This money could be much better spent upon the profession, in at once offering a reasonable rate of remuneration. How, then, can we hope to meet the Chancellor so that the people and the profession alike may benefit? I unhesitatingly say that the only feasible plan is to drop the wage limit and leave it as fixed in the Act—that is at £160 per year—and ask only for payment for work done at rates which already are being paid willingly by the people about to become insured.

Contract work or payment is unfair to either one side or the other. The profession may ask too much, but the Government certainly offer too little. Neither are satisfied. No tender can ever be made without definite specification, therefore in this case both the profession and the Government are unfair to each other. My opinion of the way the organized body of medical men should act in directing the policy of the Association is to accept no contract terms under any circumstances in the interest alike of the people and the profession, but to demand payment for work done at a scale just to the profession and the people.

I suggest, as I have already done, the basis should be 2s. 6d. per visit or consultation and medicine—2s. without medicine, the latter to be supplied by the doctor or the chemist at the patient's option; but the prescription not to be the property of the patient, and mixtures not to be repeated without the doctor's sanction. One shilling a mile one way for distance after two miles from the doctor's house; 5s. for night calls and mileage from 8 p.m. to 9 a.m.—special fees for fractures, minor operations, anaesthetics, and special fees for specific cases (gonorrhoea and syphilis)—or otherwise let the sufferers pay themselves. I would limit the liability of the Government by fixing a maximum average for all cases attended at 25s., exclusive of the special cases above named. I will show you how my figures have been obtained, and, as I believe, prove that it it is financially sound and possible, and would be the simplest and best method to adopt for all concerned.

First, the average rate of remuneration in the Liverpool district is stated to be 15s. per patient per annum, and from inquiries in this district it is about the same. In addition to this, there is about 25 per cent. of accounts on the books still to collect, which may be called the residuum of the practice, and which would come in after death or retirement from work; thus making an average value of 20s. per patient per annum under the present voluntary system. We know there will be an increase of work under the Act; thus people who do not send, either because they cannot or do not wish to pay, will employ us. Again, many out-patients of hospitals will go to the private doctor, rather than attend and wait for hours in an extern. For this extra I would allow 5s. more, as certainly people will have more and longer attendances than at present, as we all know that many people in straitened circumstances discharge us before they are well.

From the foregoing you will see that there is at once a limit to liability, based upon the number of sick requiring medical attention. This limit bears a definite relationship to our past income and work, which I think no honest man can possibly gainsay is fair to people and profession. It further would prevent any abuse of the liberty thus granted to the profession in the exercise of their call and they must see to it that the people did not, on other hand, abuse their freedom.

My further argument will be presumptive—namely, if, say, fifteen millions become insured, I believe that more than one-third would require medical attention any one time. If I am near the due percentage of sickness, then my calculation of expenditure for the fessional services required would mean the moderate of six millions. To this sum would be added fees medical referees as outlined in my previous letter.

The present actuarial calculations of the Government 6s. per caput, and 4s. per caput for working expen Under the scheme outlined in these letters, I am confi that not more than 2s. per head would be required for working of the scheme, thus making the Chancellor's into 8s., and if this be multiplied by three, we get 24s. patient, coming quite close to my 25s. fixed limit. If basis were taken by the Association and made the abso minimum and bedrock of their requirements, I am sure Chancellor would come to terms with the Commission and by so doing establish the finest national service devised—good for the people, and satisfactory to the fession. Both would be free from irksome and interfe oversight of lay officials, and both would check each oth tendency to abuse of the scheme, and what we all desire—it would produce harmony in working, and emancipate one side (the insured) from any sense of charity, the other (the profession) from the curse of contract.

I think this meets the question of wage limit, adequate remuneration, and free choice of doctor. All the remaining cardinal points go to the wall—freedom from friendly societies' control, adequate representation—and also knocks the panel curse into vapour. As also the Advisory Committee and Medical Court demanded, which in this scheme would never sit, as the patients would be the final adjudicators upon whether a man was fit to attend them or not.

The details of mileage could be worked out by the authorities and a definite amount paid therefor, or a percentage could be arranged upon the gross amount of earnings over the two miles limit—say, 20 per cent.—to cover travelling expenses. By this percentage a man could not charge twice the distance when he might be visiting two or three patients in the same district on the same journey. To cover this and extra fees for medical referees, I would estimate £500,000; the latter, plus £6,000,000=£6,500,000; and then deduct therefrom the saving in the official establishment of £1,500,000, leaving the sum of £5,000,000 for the scheme. There would also require to be special consideration given to special cases for some country practitioners.

This is only a rough draft of the scheme; details could be worked out by the Branches and Divisions. I would suggest a two years' trial of the scheme, and then data would be available for any further modification.

Dr. HARVEY (Liverpool) submits the following propositions for the earnest consideration of his fellow members:

I. A total income limit of £2 weekly.

II. Remuneration to be on a capitation basis, subject to a time limit of two years, and extra payment for special services on a suggested scale.

Dr. Harvey is opposed to any system of payment for work done, because:

1. It is impracticable. No Chancellor of the Exchequer could possibly "budget" beforehand for such an arrangement.

2. It would open the gate to much abuse in the direction of over-attendance—an abuse which it would be most difficult to check, calling for inspectors, committees of inquiry, much unpleasantness, and corresponding loss of dignity and prestige on the part of the medical profession.

3. It would mean complicated accounts, certificates, and countersigned documents.

4. It would lead also to the lowering of the fee charged to non-insured members of the family.

5. A fee of 2s. 6d. could not be demanded from Government because it would be necessary to take into consideration:

(*a*) The great increase of *clientèle*.
(*b*) The security of payment of fee.
(*c*) The non-inclusion of drugs in the fee mentioned.

The System advocated is the *Payment per Caput*.

Advantages:

1. It would avoid all book-keeping.
2. It would produce a steady, *known* income.

3. The degradation of having to submit the number of one's visits, etc., to inspectors would be avoided.
4. Abundant local evidence was brought forward at the meetings of the Insurance Committee of the Liverpool Division that a capitation system actually did in the practices of the gentlemen in question produce at least 2s. 6d. per visit.

Furthermore, the essential objection to a capitation system depends entirely on the hopelessly inadequate amount usually paid for such work, not on the system itself.

Dr. Harvey contends that it is possible to arrive at a fairly proximate idea of a reasonably adequate amount, by the following considerations:

1. In the "Analysis of Replies sent up by the Divisions in the Early Part of 1911," out of 109 Divisions who answered the question—What rate per head per annum would your Division consider remunerative for medical attendance (exclusive of material requirements, institutional treatment, or treatment requiring medical or surgical skill)?—there were actually 76 out of these 109 Divisions who fixed sums varying from 8s. to 10s. 6d. The majority—namely, 51 Divisions—voted for 10s. or 10s. 6d.
2. The next consideration is the oft-quoted fact that the Post Office officials pay to the doctor 8s. 6d. per annum each, to include medicines:

The Post Office officials, however, are:
(*a*) Ascertained "good lives."
(*b*) Men of good moral character, so far as known.
(*c*) Their occupation is quite a healthy one.

If, under these circumstances, the Government considers 8s. 6d. to be adequate remuneration for the medical attendant, it cannot, by any process of reasoning, be considered adequate remuneration for attendance on people who have undergone no medical examination, a considerable number of female lives, cases of heart and lung trouble, alcoholics, syphilitics, etc.

Dr. Harvey proposes to add 2s. 6d. more in consideration of these matters; but at the same time 1s. 6d. must be deducted on account of the obligation to supply drugs being included in the 8s. 6d. terms. That leaves a balance of 9s. 6d. Then again reverting to the 10s. 6d. suggested by the seventy-six Divisions of the British Medical Association, you must for the same reasons add 2s. or 2s. 6d.; that gives, say, 12s. 6d.

Next take the interesting returns of the National Deposit Friendly Society. Their sickness incidence works out at 3½ days' sickness per annum. In correspondence with the secretary of that society Dr. Harvey finds that these figures—namely, 3½ days' sickness—tally fairly well with the actual amounts paid to the doctors by the society for visits or advices. A visit with medicine for two days is paid for at the rate of 2s. 6d.

Next take the returns quite recently published by a Manchester medical man under the title of *The Light of Thirty Years' Provident Dispensary Work on National Insurance*. The membership of the dispensaries referred to varied from 17,000 to 23,000 per annum. During these thirty years each member on the books has seen the doctor on an average 4.7 times per annum.

In the Contract Practice Report of the British Medical Association, which included the returns of a large number of medical clubs all over the country, it was shown that the average number of attendances given to each club member was 4.1 per annum. Dr. Llewellyn Morgan has submitted returns of a large but somewhat select club comprising 1,165 members. He states that for 1910 the attendance worked out at 2.1 daily visits. Equally favourable results are mentioned by Dr. Glyn Morris, of Brookfield Road.

Taking the average as 4.3 visits or advices per member per annum, and allowing 2s. 6d. per visit or advice, you have a sum not far removed from 10s. 6d.

Dr. Harvey takes the figures referred to above, namely, 9s. 6d., 12s. 6d., 10s. 6d., and concludes that the latter figure, or something slightly above it—that is, 10s. 6d. or 11s. per annum—would be a safe average, and might be accepted as adequate remuneration for ordinary medical and surgical attendance, *exclusive* of treatment requiring special medical or surgical skill, night visits, mileage, out-of-hours attendance, consultations, anaesthetics, etc. He suggests that in all cases "night visits" and "out-of-hours attendance" be paid for by a special fee *by the patient* at the time, and that this be an essential part of the contract. He also suggests that whatever arrangements are entered into with the Commissioners, a time limit of two years be fixed, so that revision may, if necessary, then take place.

The scale of payment suggested for special services is, with necessary additions, the scale of the National Deposit Friendly Society.

Dr. A. F. Millar (London, S.W.) writes: Dr. P. R. Cooper attacks the capitation system, and then proceeds (as, for example, in the quotation from his old headmaster's speech) to cite arguments in favour of it!

Dr. Cooper says "he has repeatedly shown that per capita payment means payment in inverse ratio to work done." If so, he has performed a feat comparable to demonstrating that two and two make five. His contention would mean that "the payment varies inversely as the work," whereas the essence of the capitation system is that the payment does not vary at all.

Dr. Cooper has not attempted to shake any of my arguments in favour of the capitation system, but has merely repeated some of the arguments against it which appeared in the recent article by Dr. Flemming—who, by the way, has not taken up my challenge to explain his two contradictory statements. I am content to leave my case where it is.

Dr. Cooper appears to be in favour of payment by salary, yet that method is like per capita payment in being exactly the reverse of payment for work done. I confess I fail to grasp his attitude.

An Appeal for a Strong but Moderate Policy.

Dr. E. W. Adams (Sheffield) writes: I commend most strongly to my fellow practitioners the appeal for a strong but moderate policy just issued. Since the *Practitioner* pledge of no peace at any price falls short, up to date, I believe, by about 2,000 of the number required, and since the necessary number of signatures is now not likely to be obtained, the signatories will most probably be in the position of being automatically released from their pledges, and so free to take up what many of us believe to be a more reasonable attitude. It is all very well in a fine frenzy of courage to "damn the consequences," but we must be careful that the consequences don't damn us! We cannot afford to lose the good opinion of moderate men inside and outside the profession. In my opinion we put ourselves in the wrong by refusing to negotiate with the Commissioners. These negotiations, or rather the placing of our case afresh, bind us to nothing. They do not even imply a recognition of the Act. But if we loudly proclaim from the housetops at this stage that we are unable to obtain our fair and just demands, the obvious retort of the common-sense man, whether lay or medical, must be: "Why you have not tested the matter." The powers of the Commissioners may be as elastic as the sixty-seven signatories of the appeal think, or they may not, but if we are merely able to show a definite *non possumus* from the Commissioners our position will be greatly strengthened, and the uncompromising resistance we may then have to offer justified.

In the event of war we have only one effective weapon—the universal resignation of all contract practice affected directly or indirectly by the Act. Let me commend, therefore, the suggestion of Dr. Macevoy to at once place our resignations of this in the hands of the Council to be used when and if necessary.

Dr. Herbert Carre-Smith (London) writes: I do most strongly resent the inference that those who signed the "appeal for a strong but moderate policy" did so for political motives. Personally it is the very thing I have tried to keep away from, but as a canvasser for the British Medical Association I must admit it has been very difficult. Are Mr. Dangerfield (whose letter in your Supplement of February 17th I am specially referring to) and Dr. Percy Raiment (Honorary Secretary of the Reform Committee) party men themselves that they can only judge the matter through the tinted glasses of political prejudice? Can they not give some the credit of acting purely in the interests of the rank and file of the profession? Have they read Dr. Helme's letter in the Supplement of February 10th? Is not his suggestion much the same as the policy in our appeal? If anybody doubts my attitude in this matter let him refer to my letter in the *Times* of June 14th, 1911, dated June 12th, and let him regard the fact that I vote

against the present Government at the last election. Has the Chancellor treated our profession in such a courteous and fair manner that any of us should suddenly regard him with great favour? Quite the reverse. What is sincerely to be deplored is the intolerance manifested at the Queen's Hall meeting, and also—in a far less degree, it is true—at the inaugural meeting of the Reform Committee of the British Medical Association at the Hammersmith Town Hall. Was this intolerance purely in the interests of our profession? I fancy not. I do sincerely trust, however, that all these differences are at an end, and that henceforth we shall work in harmony. It has always been my wish. This leads me to the consideration of a very important question indeed, and one which I raised at the last meeting of the Kensington Division of the British Medical Association. It was late in the afternoon, much important work had been done, and many had left, so it did not receive the consideration I think it deserved. It is this:

In the possible event of the medical benefits being suspended, does the present "Undertaking" hold good? I have asked the opinions of many who have studied this Insurance Act question carefully. Some say "Yes, certainly," others equally certain say "Decidedly not," and some are in doubt. I shall see that this most important question is raised again, for if there is any doubt about it we should have a freshly-worded undertaking covering the point exactly.

The National Insurance Act and Medical Missions.

We have received the following communication:

We, the undersigned, being medical officers of medical missions in Great Britain and Ireland, beg to declare that we believe that the "National Insurance Bill," when it becomes an Act of Parliament, will affect medical missions adversely in the following ways:

1. Patients will not be allowed to choose Mission doctors unless such doctors are on an approved panel, and there appears to be but little chance that these salaried officers will find a place on such a panel.

2. Subscriptions must necessarily decrease, as the usual subscribers to medical missions will find it difficult or impossible to pay their share of the insurance contribution and subscribe to a charity.

3. The personal relationship between doctor and patient, which is a prominent factor in medical missions and a helpful part in the progress of the case, will to a great extent be lost when the patient is treated under contract practice.

(Signed)

Sidney Boyd, M.S., F.R.C.S.	R. Foster Owen, M.R.C.P.
H. J. Humstead, M.B., B.C.	W. Shrubshall, L.R.C.P. and S.
William Gauld, M.D.	John Stansfeld, M.R.C.S., L.R.C.P.
Percy Lush, M.B., Ch.B.	
John Long, M.D.	
H. A. Moody, M.R.C.S., L.R.C.P.	G. O. Taylor, M.B., M.R.C.S.
W. G. Macdonald, L.R.C.P. and S.	P. d'Erf Wheeler, M.D., F.R.C.S.
S. S. McFarlane, L.R.C.P. and S.	C. Vosper, M.R.C.S., L.R.C.P.

Clubs and the Act.

Dr. Wm. Ralph Dix (Great Yarmouth) writes: I have read few letters that will compare for downright common sense with those of Drs. Brassey Brierley and Fletcher (Chelsea) which appeared in the last issue of the Journal.

Mr. Lloyd George has now threatened to suspend medical benefits, and hand over the equivalent in money to the societies, and allow them to make their own terms with doctors outside the Act.

The extension of club practice at the old rates that would ensue is horrible to think of, inevitably involving the ruin of hundreds of general practitioners, whether they had or had not in the past held clubs; both alike would be badly hit. The only effectual way to meet this is to call on all club doctors to at once give three months' notice determining their appointments. These men must be compensated, and a payment of one or two years' value of each appointment would meet the case, and could easily be gone into locally by the Divisions, and a report forwarded to head quarters. The money can without any difficulty be found by raising the subscription to the Association to two guineas (a mere trifle in our time of trial), and this should have been done long ago. The insured would then find they could not get the best of the "refreshing fruit"—namely, cheap doctoring—and would soon be loudly calling on the Government for a repeal of the Act or the doctors to be properly paid. I hold clubs myself, and am convinced, as I stated at the meeting of my own Division, that this is the only practical way to counter the latest move of the Chancellor. It is high time there was less talk and negotiation and more action.

THE MEDICAL FEDERATION, LIMITED.

A meeting in support of the Medical Federation, Limited, which has been formed by members of the Bristol Division of the British Medical Association, was held on February 19th at Caxton Hall, Westminster. It was explained in the course of the proceedings that the objects of the Federation are to establish an indemnification fund in connexion with the resistance of the profession to the National Insurance Act, the Bristol Division having come to the conclusion that the guarantee fund promoted by the British Medical Association could not be used, under the constitution of the Association, for the benefit of individual members. It should be stated that this view of the fund in question was not unanimously accepted by the meeting.

Dr. George Parker (Bristol) presided, and an audience of about thirty included Sir Victor Horsley, Dr. Devis (Chairman of the Bristol Division), Mr. Larkin, Dr. Helme (Manchester), Dr. Brown (Bacup), Dr. Scott Williamson and Dr. Neal (Bristol), and members of Divisions in Scotland and elsewhere, in London for the Representative Meeting.

The Chairman said that whether the profession worked the Act or not it must acquire the power of protecting and compensating its members. If the profession were under the Act the only way in which the local Medical Committees could enforce their demands was by striking. They might get some help from the Commissioners, but the only hope in the long run was the unity of the profession. If they were not working under the Act the need was all the greater, for unless they had some means of supporting and compensating their members they would be beaten. The idea the Bristol Division had before it, he was sure, would commend itself to the profession; whether the Division had taken the right course to attain the idea remained to be tested by that meeting and by the profession.

Dr. Devis, in explaining at some length the objects and inception of the Federation, said he took especially the point of view of the general practitioner in the coming fight. As a result of exhaustive discussions of the Act in Bristol, the general practitioners there had come to the almost unanimous conclusion that not one of the six points was secured in the Act—he did not say was impossible of realization, except so far as "adequate remuneration" was concerned. The profession was absolutely united. Why should it not win in the coming struggle? There was one weak spot—the blackleg; he would split their ranks if they were not careful. The blackleg was not the man who wanted to work under the Act, because he did not think there were six such men in the kingdom; he was the man who was not sure whether his next-door neighbour was going to work under the Act. The profession had to consider carefully the weapons it had available. Pledges, undertakings, unions, and committees—what was the worth of a piece of paper a man had signed if he came to hear that his next-door neighbour was working under the Act? He would tear it up as of no value unless there was some definite backing behind it. The rank and file did not know much about the guarantee fund of the British Medical Association. The Association wanted £150.000. but the members did not know whether any such sum had been obtained. They had the right to know whether the fund was large enough, and also whether it could be used for the purpose for which it had been collected. Dr. Devis went on to state that the Bristol Division had been advised by eminent counsel that the British Medical Association had no power to expend any funds raised by it for the benefit of individual members; that directly it did so it might be stopped by the Registrar of Joint Stock Companies. The constitution of the Association precluded it from

using any portion of its funds for the purpose of indemnifying members against loss; the Council of the Association had been seeking such powers for years, and it had not been successful in obtaining them. It would take two or three years from now to secure them, but there was one way in which to get them quickly, and that was by amalgamating with an existing organization which had those powers. In order to provide such a body the Bristol Division had incorporated and registered the Medical Federation, Limited. In that Division 98 per cent. of the members signed a resolution pledging themselves to agree to a compulsory levy; the British Medical Association had taken five or six months to get 75 per cent. to sign its undertaking. The Bristol Division understood at head quarters that the Association would not consider it a hostile act if the Federation were incorporated. He had given a short history in order to show that every step had been taken with the cognizance—he would not say open approval, but without the slightest sign of disapproval on the part of the Council. The promoters of the Federation hoped for amalgamation with the British Medical Association, and the Bristol Division would undertake the propaganda work for obtaining members. What was needed from every member was a guarantee of £5, which would not be called up except in case of winding up; also a subscription of 25s. a year. For the first twelve months, however, the subscription would not be asked for, in the hope that amalgamation with the British Medical Association would make it unnecessary ever to ask for it. An entrance fee of two guineas would be charged to cover the cost of the first year's work. They wanted the Association to adopt the scheme, believing it would be better if it were run by that body. Nevertheless, he made the reservation that if the Association did not run it they would be bound to run it for themselves, regarding it, as they did, as the only weapon available. They wanted their case to be considered sympathetically and quickly. Bristol had been fighting for the whole profession and not simply for the Association; there was something greater in the country than the Association, and that was the profession. They had been absolutely loyal to the Association, but when the question was put, Will you be loyal to the Association or to the profession, there was no man who would not say he must prefer the profession to the Association. The fight upon which the profession was engaged would have the effect, if successful, of enhancing the position of medical men all over the world. The Federation offered the profession the only efficient weapon for the fight, and asked them to take it.

An informal discussion followed. The first point raised was the position of the British Medical Association guarantee fund, several speakers commenting on the seriousness of the statement that that fund was not available for the purpose for which it was collected. It was stated, in reply to a question, that there was nothing to prevent the Federation from supporting a member of Parliament. The widest powers had been taken in respect of the uses to which the funds of the Federation could be put. On a speaker expressing regret that the lay press should have been invited to the discussion of domestic matters of this kind, Dr. Devis said he was censoring everything that was going out to the lay press.

Discussion turned to methods of affiliation with the British Medical Association, and Dr. Williamson suggested that this could be dealt with by every member of the one body becoming *ipso facto* a member of the other.

Sir VICTOR HORSLEY observed that in that case the membership must be identical: he did not think that end would be arrived at. He had spent his life in trying to make the British Medical Association a trade union, and there were various ways in which that might be attained. He was not convinced that the method proposed by the Federation was preferable to other ways which were under consideration. He also doubted whether the Federation would find the generality of members ready to pay the proposed entrance fee. He had the greatest admiration for the way in which the scheme had been brought forward.

Mr. LARKIN remarked that the Association had obtained sound legal opinion in regard to its position in the matter of the guarantee fund. The money never became the property of the Association; it was the property of individuals, who promised to allow it to be distributed on their behalf for certain purposes. The Association was advised that it was perfectly capable as a body entrusted with money to administer it for particular purposes. He hoped that it would not go out uncontradicted that the Association was in an illegal position in this matter.

Dr. WILLIAMSON: If the Association can do these things as it stands, why is it seeking powers to become a trade union?

Sir VICTOR HORSLEY: I can answer that. It is because we cannot make a levy. There was nothing for it but a levy, and that would add strength to the Federation's scheme.

Dr. BROWN (Bacup) urged that the objects of the Federation should be brought before medical men in Lancashire, as he believed they would be strongly supported. On the other hand, the next speaker declared that it would take two or three years for the Federation to reach the membership of the Association. In many parts of the country the profession was not ready for a levy.

A vote of thanks to the Chairman of the Federation, proposed by Sir VICTOR HORSLEY, brought the proceedings to a close.

Hospitals and Asylums.

VICTORIA INFIRMARY OF GLASGOW.

THE annual report of the Victoria Infirmary, Glasgow, states that the patients treated during the year numbered 3,560, an increase of 210 over the previous year. The daily number averaged 248. Of the cases treated to a conclusion 302, or a percentage of 9.15, died. Deducting 98 cases which were so serious on admission that death took place within forty-eight hours, the death-rate was 6.37 per cent. In addition to the above total, 729 cases of minor accidents were treated surgically, but did not require retention in hospital. The daily average number of patients in the electrical department was 21, involving a total of 6,552 attendances during the year. The number of patients at the outdoor department was 4,645, with a total of 15,684 consultations. Last year's figures were 4,791 and 16,389. At the Bellahouston outdoor branch the patients numbered 11,188, involving 31,706 attendances, as against 11,507 patients and 31,599 attendances in the previous year. The governors repeat the statement of previous reports, that precaution is taken that only those found unable to pay for medical and surgical advice received it at the outdoor departments. In the Convalescent Home at Largs 668 patients had been accommodated, as compared with 665 in the previous year. A residence of about a fortnight is allowed for each convalescent. The ordinary income fell short of ordinary expenditure by £6,071. The extraordinary income was £8,443 and the expenditure £4,938, but the balance of £3,505 was insufficient to meet the ordinary fund deficit, necessitating £2,566 being taken from capital account.

BELFAST HOSPITAL FOR SICK CHILDREN.

THE report presented to the thirty-ninth annual meeting of the Belfast Hospital for Sick Children on January 25th showed that 672 cases were treated in the wards, an increase of 111 over the number for 1910. The cost per bed per annum was £44. There was a working deficit of £200, which it was hoped would soon be cleared off. Dr. John McCaw, honorary secretary of the medical staff, read the medical and surgical report, which showed that 30 deaths had occurred (22 in the medical and 18 in the surgical ward); 302 operations had been performed; 3,936 new cases had been seen in the out-patient department, with a total attendance of 10,659, and 660 minor operations.

SALFORD ROYAL HOSPITAL.

THE annual meeting of the subscribers to the Salford Royal Hospital was held on October 27th, 1911, and the report stated that the hospital will now accommodate 209 beds, or 74 more than before the extension. Only 39 of the additional beds will be used for the present, as it is estimated that this will increase the annual expenditure to £10,250, and as the income is only about £8,200, it will be seen that unless the bequests average at least £2,050 a year, the capital will be reduced. In response to the appeal for £70,000 made in June, 1907, £58,083 had been received. The treasurer said that unless the remaining £12,000 were subscribed it would be necessary to realize some of the invested funds, as the occupation of the additional 39 beds would increase the working expenses by £2,000 a year. The average cost per patient was 2s. 2d., and the average cost per occupied bed about £51. The total number of patients treated was 29,774, equivalent to about 1 in 8 of the population of Salford. The report, in referring to the Insurance Bill, expressed the fear that the subscriptions of both workpeople and employers would diminish when they contributed to the same object in another way. The report recorded that the King had accepted the position of Patron, and had given permission to name the new east wing the "King Edward VII Memorial Wing."

Meetings of Branches and Divisions.

[The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the Journal.*]*

BATH AND BRISTOL BRANCH:

Bath Division.

A meeting of the Bath Division was held on February 16th.

National Insurance Act.—The following resolution was passed:

That this Division, feeling that the interests of the profession are not sufficiently safeguarded by leaving the six cardinal points to be conceded by the Insurance Commissioners, instructs its Representative to press for the six cardinal points to be included in an amending Act.

BIRMINGHAM BRANCH:

Central Division.

A special and general meeting of this Division was held at the Medical Institute, Edmund Street, Birmingham, on Wednesday, February 14th, at 3.30 p.m. Dr. J. F. Jordan was in the chair, and 172 other members were present.

Apologies for Non-attendance.—Apologies for absence were received from Messrs. Gilbert Barling and George Heaton.

Ordinary Business.

It was decided to take the ordinary business first.

Confirmation of Minutes.—The minutes of the last meeting were read, confirmed, and signed.

National Insurance Act: Report of Council.

The meeting then proceeded to consider the Report of Council on the Insurance Act, and to instruct the Representative on the business of the Special Representative Meeting.

The Chairman then moved, on behalf of the Executive Committee, that the Representative be instructed to move the following resolution:

1. That this meeting regrets that the Chairman of the Representative Meeting withheld information that he should have communicated to the last meeting, and that he also misdirected the Representatives.

This was carried by a large majority.

Dr. Osborne moved and Mr. B. J. Ward seconded:

(*a*) Should the Chairman of the Representative Body tender his resignation at the commencement of the meeting, the Representative be instructed to propose or alternatively to support that it should be accepted, and to oppose any proposition that it should not be accepted.

(*b*) Should a resolution be proposed requesting the resignation of the Chairman of the Representative Body, the Representative be instructed to support such resolution.

These resolutions were carried. Thereupon the Chairman announced that he resigned the chairmanship of the Division, as he did not wish to be associated in an official capacity with these resolutions, although he cordially approved of the other recommendations of the executive. The two Honorary Secretaries also notified their intention of resigning. The Chairman then called upon Mr. A. Lucas, the Deputy Chairman of the Division, to take the chair.

Mr. Lucas then took the chair, and moved the following resolutions on behalf of the Executive Committee.

In the event of an assurance being sent to the Representative Body by the Government or Commissioners that the whole of the requirements of the Association as embodied in the six cardinal points will be conceded in regulations made by the Commissioners, the Representative be instructed to move that in view of the apparent impossibility of such concessions under the Act, the regulations be submitted to the Divisions that they may satisfy themselves that they do concede these requirements without reserve or equivocation, and that the Representative Meeting be adjourned until the decision of the Divisions has been ascertained.

That the Representative be instructed to demand a "card vote" upon the main questions of the policy of the Association.

These were carried.

On the recommendations of Council the Representative was instructed to move as an amendment to I:

That the Council be instructed to inform the Government and the Insurance Commissioners that, until the minimum demands of the profession are placed beyond doubt in an amending Act of Parliament, further negotiations will be useless.

To move as a separate resolution:

That the Council be instructed to take all possible steps to ensure that no members of the profession shall hold office or take part in any advisory, administrative, or medical work under the Act.

Mr. Marsh moved as a rider to I:

That the following requirements should be referred to the Council for consideration, with a view to their adoption by the Association in place of the six cardinal points.

1. *Income Limit.*—That a maximum wage limit of two pounds (£2) a week should be fixed by substitution of £104 for £160 and deleting all words after "contributor" in Clause 1 (3) (*b*) of the Act.

2. *Freedom of Choice of Doctor.*—That the Harmsworth amendment should be deleted (Clause 15 (4) of the Act).

3. *Freedom from the Control of Friendly Societies.*—That the local Insurance Committees should be so constituted that under no circumstances can there be a majority of representatives of insured persons (Clause 59 (2) (*a*) of the Act). A fair basis for their constitution would be a contributory one which would give under the present rate of contribution in each unit of ten:

Contributors	4
Employers (must be non-beneficiaries)	3
Elected by the Government and county councils (must be non-beneficiaries)	2
Medical profession	1
	10

4 and 5. *Method and Rate of Remuneration.*—That the method and rate of remuneration should be fixed by a referendum of members, the preference of the majority to be the requirements of the Association.

6. *Adequate Representation on Local Insurance Committees.*—That there should be a representation of the profession of not less than 1 in 10 on committees properly constituted as recommended under above (3).

7. That disciplinary power over medical men on the panel should for minor complaints be vested in local Medical Committees, and for more serious ones in one or more specially constituted central Medical Committees.

8. That compensation should be paid for loss of goodwill due to the Act in cases of death or compulsory sale of practices in the next three years following the passing of the Act.

That dispensing, as hitherto, should be done or arranged for by the medical practitioner should he so desire, and paid for at the scale or tariff rate agreed upon for chemists by the Pharmaceutical Society.

Mr. Marsh also moved as a rider to I:

That the Council be instructed to take steps to obtain an amendment of the Medical Act upon the lines laid down by the General Medical Council for the suppression of unqualified practice.

Both these were carried.

If amendment to I is carried, the Representative was instructed to move the deletion of Recommendation II; if not, to move as an amendment to insert:

"After reference to the Divisions," after "the Representative Body."

Failing to carry this, to support II.

The Representative was instructed to support Recommendation III.

The Representative was instructed to move as an amendment to Recommendation IV:

That the word "emergency" be substituted for "provisional," and that the words "composed of members of the British Medical Association" be inserted after the words "Emergency Medical Committees;"

if the amendment is defeated to vote against the original recommendation.

The Representative was instructed to move as an amendment to Recommendation V:

That the words after "that" on the second line to the word "no" on the third line be omitted, and that the words "after reference to Divisions" be inserted after "Representative Body" on the last line, so that the recommendation should read: "That the Council be instructed to take steps to organize the profession so as to secure that no person shall be able to secure medical attendance under a contract practice appointment held at lower rates than those which may be agreed upon as adequate by the Representative Body after reference to Divisions for attendance upon insured persons.

And to move as a rider to V:

That in order to ascertain the method and rate of remuneration that should be required by the Association, the Council be instructed to take in the quickest way possible a referendum of the members as to their preference for payment per attendance or per caput, on the suggested basis of 2s. 6d. per visit and 1s. 6d. per consultation, with double this rate for visits and consultations needed between the hours of 8 p.m. and 8 a.m.; or on the suggested basis of 10s. per caput for males in approved societies, and 15s. per caput for

Post Office contributors or women—in both cases exclusive of medicines and appliances, and with an extra mileage fee at the rate of 1s. per mile over 1 mile in one direction.

A scale of fees for special visits and consultations out of usual hours, special consultations, operations, etc., to be fixed in accordance with the scale usual for this class of patients.

The Representative was instructed to move as an amendment to Recommendation VI:

That the words "(*a*) 12 members elected, etc., down to Registered Medical Women" be deleted, and that the words "(*a*) 24 members elected by the Branches and Grouped Branches in the United Kingdom. (*b*) The *ex officio* members of the Association" be substituted.

Special Business.

Election of Representatives.—The meeting was declared special for the election of three Representatives of the Division. The CHAIRMAN announced that the following candidates had withdrawn: Drs. Greenwood and J. F. Jordan, and Messrs. Gamgee, Lucas, and Marsh. Drs. Boeddicker and Osborne were appointed scrutineers.

As the result of the voting, Drs. Neal, Douglas Stanley, and H. H. Whaite were duly elected.

This concluded the business of the meeting.

CAMBRIDGE AND HUNTINGDON BRANCH.

A MEETING of this Branch was held at the University Arms, Cambridge, on Thursday, February 15th, at 3 p.m., Dr. CROSS, the President, in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Proposed Subdivision of Division.—Mr. APTHORPE WEBB proposed:

That the portions of the Cambridge and Huntingdon Branch now contained within the counties of Herts and Essex be relinquished.

After some discussion and remarks by Mr. BALDING of Royston, Herts, it was resolved that the question be referred to the Council for further consideration.

NATIONAL INSURANCE ACT.

Dr. CROSS then vacated the chair, to which Dr. FORDYCE was unanimously voted.

In the course of a few opening remarks, Dr. FORDYCE read parts of a letter from Professor Sims Woodhead advocating cohesion of the profession and discussion of the Act on business lines. With this view the Chairman was in accord. It was then resolved:

That the Representative shall record his votes in accordance with the resolutions of the meeting.

Recommendations of Council.

The CHAIRMAN then proceeded to propose the recommendations of the Council.

To the first Recommendation, Dr. CROMPTON proposed the following amendment:

That the Council be instructed to at once cease negotiations with the Government and the Commissioners.

This was seconded by Dr. HENDLEY, and was lost by the casting vote of the Chairman.

Dr. ELLIS proposed and Dr. EZARD seconded that the recommendation read as follows:

That the Council be instructed to press upon the Government the further conditions necessary for securing the requirements of the profession by means of an amending Act.

This was carried.

Recommendation II.—Dr. EZARD proposed and Dr. SEARLE seconded the inclusion of the words: "Them or" before the words "any Insurance Committee." This was carried.

Recommendations III, IV, and V were agreed to.

Recommendation VI.—It was proposed:

That the Committee consist of 24 members elected by the Representative Body, 2 by the Association of Registered Medical Women, and the *ex officio* members of the Council, with power to co-opt 4 additional members.

This was carried.

Action of Chairman of Representative Meetings.—Dr. HENDLEY proposed and Dr. GRIFFITHS seconded:

That the Birmingham resolution be adopted with reference to the action of the Chairman of Representative Meetings.

Vote of Thanks.—A cordial vote of thanks to Dr. FORDYCE brought the proceedings to a close.

DUNDEE BRANCH.

A MEETING of the Branch was held in University College on Tuesday, February 13th, Dr. C. S. YOUNG, President, in the chair. There were thirty-two present.

National Insurance Act: Report of Council.

The meeting considered the recommendations in the Report of Council, with the following results:

I. Agreed.

II. That the Council be instructed to notify the Insurance Commissioners that no negotiations with any local Insurance Committee will be completed until the Representative Body is satisfied that the requirements of the profession are conceded.

III. Agreed.

IV. Agreed.

V. Agreed.

VI. Omit (*c*) and change (*d*) as follows: "the *ex officio* members; and that the Committee be empowered to add to its numbers for special purposes not more than six additional members, of whom two shall be registered medical women.

Election of Deputy Representative.—Dr. C. S. Young was elected Deputy Representative for Special Representative Meeting.

Report of Branch Council.—A report of the Branch Council regarding the insurance areas for the Branch was approved.

Formation of a Local Medical Committee for Dundee Burgh.—It was resolved:

1. That a local Medical Committee be formed.
2. That the election of members of the Committee be carried out by voting papers.
3. That the Committee consist of fifteen.
4. That the Branch President and one secretary be members *ex officio*.
5. That the voting arrangements be left to the Branch Council.

Division of Branch.—It was resolved:

That the members in the county area and Arbroath be consulted as to the division of the Branch.

EDINBURGH BRANCH:

EDINBURGH AND LEITH DIVISION.

A MEETING of this Division was held on Tuesday, February 13th, at 8.15 p.m., in the Gartshore Hall. Dr. JAMES RITCHIE, Chairman of the Division, presided. Sixty-nine members attended the meeting. The Report of Council was considered.

National Insurance Act: Report of Council.

Recommendations I and II. The following motion was unanimously agreed to:

That it be an instruction to the Council to inform the various bodies of Commissioners that if they report that they cannot, by obtaining amendment of the Act, deal with the six cardinal principles in such a way that they become legally binding on all concerned, that this Association declines to proceed further in any negotiations having reference to the Act.

The following rider to Recommendation I was proposed:

That the Council be instructed to press upon the Government and the Commissioners their belief that the conditions in the Insurance Act will lead to a deterioration of the health and physique of the nation, and also to press upon them the further conditions necessary for securing the requirements of the profession.

Nineteen voted for and 19 against it.

The following motion was carried by 32 votes to 6:

That the local Insurance Committee be so constituted that under no circumstances should there be a majority of insured persons upon it; and that there be constituted a special statutory committee for dealing with matters in dispute between the local Insurance Committee and any member of the panel of doctors.

The following motion was proposed:

That no scheme for a medical service under the Act will be approved which allows of an insured person in receipt of an income from all sources exceeding £2 a week being entitled to participate in it.

An amendment was proposed:

That the amount be 30s. instead of £2 a week.

On being put to the vote, 34 voted for the amendment and 14 for the motion.

The following motion was unanimously agreed to:

That the Harmsworth amendment be deleted.

The following motion was unanimously agreed to:

That the method of remuneration of medical practitioners adopted in an Insurance Committee area shall be in accordance with the preference of the majority of the medical profession resident in that area.

The following resolution was unanimously agreed to:

That the minimum capitation grant to the Commissioners available for ordinary domiciliary attendance on insured persons and unemployed married women, regardless of what form of payment is adopted for approved lives—that is, those approved after examination by a medical man—be 10s.; for those not so approved and those who are apportioned among medical men the payment to be 2s. 6d., exclusive of medicines, institutional treatment, and also those items given as extras in the public medical service of this Association. (See SUPPLEMENT, May 7th, 1910.) That the fees for the extras excluded by the above be determined after negotiation between the Association and the Commissioners.

Recommendation III was unanimously agreed to.

Recommendation IV.—Disapproval was unanimously agreed to.

Recommendation V was unanimously approved of.

Recommendation VI.—The following was unanimously agreed to:

That a State Sickness Insurance Committee be appointed to consider and report to the Council on all matters connected with the Insurance Act; that the Committee consist of: (*a*) Six members of Council; (*b*) twelve members elected by the Representative Body; (*c*) twenty-four members elected by the Branches and grouped Branches; (*d*) two members nominated by the Association of Registered Medical Women; (*e*) the *ex officio* members; and that the Committee be empowered to add to its numbers for special purposes not more than four additional members.

The following motion was carried by a large majority:

That the Representatives be instructed to propose or support a motion that the Chairman and Vice-Chairman of the Representative Body be asked to resign.

The following motion was unanimously agreed to:

That in the event of an assurance being sent to the Representative Body by the Government or Commissioners that the whole of the requirements of the Association as embodied in the six cardinal points will be conceded in regulations made by the Commissioners, the Representatives be instructed to move, "That in view of the apparent impossibility of such concessions under the Act, the regulations be first submitted to the Divisions that they may satisfy themselves that they do concede these requirements without reserve or equivocation, and that the Representative Meeting be adjourned until the decision of the Divisions has been ascertained."

The following motion received no support:

That the Representative be instructed to demand a card vote on the main questions of policy.

The following motion was proposed:

These instructions are final. If any question arises on which the Representatives have not received implicit instructions, there will be a consultation between the three Representatives, and the three will vote as the majority of the three consider right.

An amendment,

That the last sentence be deleted,

was moved. On a vote being taken 34 voted for the motion and 16 for the amendment.

The following motion was proposed:

That the appointment of Medical Secretary be not made for six months.

An amendment,

That the appointment be delayed not more than three months was also moved.

The motion was carried by 33 votes to 15 for the amendment. The motion was then put as a substantive motion, and carried by 29 votes to 21 for the previous question.

The following motion was unanimously agreed to:

That a registered medical practitioner attending an insured person who, in consequence of Section 11 of the Act, is deprived of all additional financial benefit in the way of compensation for injury or disease resulting from an accident, should have a legal claim for remuneration for services rendered on the approved society or insurance committee which obtains the compensation payment.

The following motion was carried by 21 votes to 13:

That, in the view of the terms of Mr. Lloyd George's speech of February 12th, this meeting reaffirms its intention of refusing to work under the Insurance Act.

The motion to communicate this to the press was carried by 22 votes to 8.

Representatives.—The following substitutes were appointed to the Representative Meeting: For the South Edinburgh Division, Dr. J. M. Bowie; for the North-West Division, Dr. McKenzie Johnston; for the North-East Edinburgh Division, Dr. R. Robertson.

GLASGOW AND WEST OF SCOTLAND BRANCH:

DUMBARTONSHIRE AND ARGYLLSHIRE DIVISION.

A GENERAL meeting of this Division was held in Buchan's Restaurant, Clydebank, at 3.30 p.m., on Tuesday, February 13th. Dr. J. EWING HUNTER occupied the chair, and nineteen members were present, which is the largest attendance on record for this Division.

Apologies for Non-attendance.—The HONORARY SECRETARY intimated apologies for absence which he had received from four members.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Report of Council.—The Report of Council on the National Insurance Act and instructions to Representative regarding the Act for the Special Representative Meeting in London were considered. After discussion the following motion, proposed by Dr. W. R. SEWELL (Helensburgh) and seconded by Dr. R. ALLAN (Dumbarton), was carried unanimously:

That we endorse the action of the Council of the British Medical Association, approve of the six recommendations of Council, and instruct our Representative to vote accordingly.

Dr. WM. SEMPLE YOUNG drew attention to the difficulty which had arisen at the last Representative Meeting in connexion with the ruling of the Chairman in directing the Representatives as to how they should vote, and proposed:

That in the event of the six recommendations of the Council being defeated our Representative was to be at liberty to use his own discretion in voting, and was to support in every way he could the various findings of the Division.

This was seconded by Dr. R. ALLAN (Dumbarton) and unanimously agreed to.

Place of Meeting.—A discussion then took place as to where meetings of the Division should be held in future, with a view to securing a larger attendance of members, and it was moved by Dr. R. ALLAN (Dumbarton) and seconded by Dr. W. LITTLE (Dumbarton):

That for the next year the meetings should be held in Clydebank.

An amendment was proposed by Dr. J. WILSON (Dumbarton) and seconded by Dr. W. R. SEWELL (Helensburgh):

That the meetings be held alternately in Clydebank and Dumbarton.

On a vote being taken, 10 voted for the motion and 9 for the amendment, the motion being carried by 1 vote.

Scottish Medical Insurance Council.—The HONORARY SECRETARY reported what he had done in this matter, and intimated that he had secured nominations for each of the four insurance areas included in the Division.

LANCASHIRE AND CHESHIRE BRANCH:

ALTRINCHAM DIVISION.

A GENERAL meeting of the Division was held on Thursday, February 15th, at the Brooklands Hotel, at 4.15 p.m., Dr. ADOLPHE RENSHAW in the chair. The following were also present: Drs. Haward, Ransome, MacLaren, Garstang, Browne, Gough, Williamson, Aspinall Renshaw, Boycott, Turner, Anderson, Riley, T. Llewellyn Fennell, H. Renshaw, H. S. Renshaw, W. A. Renshaw, Terry, Duggan, Owen-Jones, Savatard, Duncan, C. J. Renshaw, Ashe, and H. G. Cooper.

Confirmation of Minutes.—The minutes of the last special meeting were taken as read.

The HONORARY SECRETARY read the minutes of the seventy-fourth committee meeting.

Ashton Nursing Home.—Arising out of the minutes the CHAIRMAN reported on the result of the action taken with regard to the management of the Ashton Nursing Home. Dr. J. A. K. Renshaw, of Ashton, and Dr. Ashe, of Sale, were selected as medical representatives on the Committee of Management.

Apologies for Non-attendance.—Apologies for absence were received from Drs. P. R. Cooper, Tattersall, Young, Rose, Hughes, Fennell, Black, Lyon, Cross, J. W. Smith, Gore, Surridge, Leak, Okell, Woodyatt, G. H. Smith, Luckman, Barker, W. C. Renshaw, Clarke, and Turner. One or two of the letters of apology were read to the meeting.

Spiritual Healing.—The Report on Spiritual Healing was approved by the meeting.

Report of Representatives.—Dr. GARSTANG reported on the last Special Representative Meeting (November, 1911).

The Council and Branch Meetings.—Dr. GOUGH reported on the Branch Council meetings.

National Insurance Act: Recommendations of Council.—The Recommendations of Council were discussed. Recommendation I was altered to include the words after profession:

Including the six cardinal points as a minimum.

II. Altered to read:

The Representative Body and the Divisions are satisfied.

III. Agreed.

IV. Alter the words:

Appointment forthwith of local Medical Defence Committees.

V. Agreed.

VI. Agreed.

Election of Representative for 1912–13.—Two nominations were handed in—Drs. Garstang and Gough—and after a contest Dr. Garstang was elected by 14 votes to 7. Dr. Garstang offered to allow Dr. Gough to take his place at the Special Representative Meeting for February 20th, but Dr. Gough was unable to accept.

Correspondence.—The HONORARY SECRETARY reported on various letters and other correspondence. The Division authorized the Honorary Secretary to send a letter of thanks to the members of the profession in the Northwich area in regard to the combined action taken in reference to a friendly society.

Club Doctors and Friendly Societies.—Dr. TERRY raised the question of taking immediate action with regard to club doctors and friendly societies.

The meeting then adjourned.

Dinner.—A dinner was held afterwards at the hotel.

BIRKENHEAD DIVISION.

A LARGELY attended meeting of this Division was held on February 13th, at 4 p.m. Dr. H. LAIRD PEARSON presided, and fifty members were present.

Apologies for Non-attendance.—Letters of apology from several members were read.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

National Insurance Act: Recommendations of Council.

The Report of the Council was then put before the meeting. It was resolved that the Recommendations of the Council be considered seriatim.

Recommendation No. 1.—Dr. STANSFIELD proposed and Dr. RIDDELL seconded:

That this recommendation be approved with the addition of the following words: "including the six cardinal points." The recommendation to read thus:

"That the Council be instructed to press upon the Government and the Insurance Commissioners the further conditions necessary for securing the requirements of the profession, including the six cardinal points."

Dr. F. HEATHERLEY proposed and Dr. A. CASSELS BROWN seconded the following amendment:

That the Council be instructed not to enter into further negotiations with or hold interviews with the Committee of the Commissioners.

Drs. STANSFIELD, F. JOHNSTON, RATCLIFFE-GAYLARD, and others spoke in favour of the Council's action. Upon a vote being taken, this amendment was lost.

The amended resolution was then put to the meeting and was carried.

Recommendations Nos. 2, 3, 4, and 5 were then put to the meeting and successively carried.

Recommendation No. 6 was carried subject to an amendment proposed by Dr. G. S. STANSFIELD and seconded by Dr. ALICE KER:

That the committee consist of (*a*) fourteen members elected by the Representative Body, two of whom shall be registered medical women, members of the British Medical Association; (*b*) twelve members elected by the Council; (*c*) the *ex officio* members.

Dr. SANDERSON proposed and Dr. RIDDELL seconded:

That the Council be instructed to notify the Insurance Commissioners that they will advise all local Medical Committees not to accept any capitation fee which provides a less remuneration than at the rate of half a crown per visit or advice.

MANCHESTER (SOUTH) DIVISION.

A GENERAL meeting of this Division was held at the Holy Innocents Schools, Fallowfield, on Tuesday, February 13th, at 3.30 p.m. Dr. GRANT DAVIE presided. There were also present: Drs. Barr, Ballantyne, Booth, Boyd, Byers, Brooke, Cotterill, Christie, Cameron, Dickie, Edlin, Gregory, Godson, Goodfellow, Holt, Heathcote, Martin, MacDougall, Mitchell, McLure, Pearson, Russell, Russen Rhodes, Stocks, Stowell, Sawers-Scott, Salter, Thoseby, Tomkys, and Whitworth.

The Death of Lord Lister.—Dr. GRANT DAVIE, previous to the business of the meeting, made suitable reference to the recent death of Lord Lister, alluding to the magnitude of his work on behalf of suffering humanity. Dr. GREGORY suggested that the British Medical Association should discuss the question of an appropriate memorial.

Confirmation of Minutes.—The minutes of the last meeting (January 9th) were read and confirmed.

National Insurance Act.

A communication was read from the Joint Committee of Manchester and Salford to the following effect:

That Representatives should be instructed to ask for an official opinion as to whether the fact of a friendly society becoming an approved society alters the contract of present club doctors; and if so, does it affect the pledge?

The REPRESENTATIVE (Mr. P. Stocks) was instructed to seek the official opinion referred to. The CHAIRMAN also intimated a recommendation given orally by the Joint Committee, namely, that members be asked to hold at their own houses small informal meetings to discuss the National Insurance Act. Dr. RUSSEN RHODES suggested that the initiative in each district of the Division be taken by the member of committee for that district. These were approved of by the meeting.

Election of Members of Council for 1913–14.—The meeting did not offer any suggestions or alterations of the present arrangements and grouping. Resolutions were read passed by the following Divisions and bodies: Westminster, Tyneside, National Medical Union, North Manchester, Winchester, and the British Medical Association Reform Committee.

Instructions to Representatives.—Dr. SAWERS SCOTT proposed and Dr. RUSSEN RHODES seconded:

That the three resolutions adopted by the Birmingham Division on February 5th (see SUPPLEMENT to BRITISH MEDICAL JOURNAL, February 10th) be binding on our Representative at the Representative Meeting, with this addition, that the first resolution be applicable not only to the Chairman but also to the Deputy Chairman of the Representative Body.

Report of Council.

The recommendations of the Council were then discussed.

Recommendation I.—Dr. RHODES proposed, Dr. SARGANT seconded, as a substitute for this recommendation the following:

That the Council be instructed not to enter into further negotiations with or hold interviews with the Committee of the Commissioners.

Drs. RUSSELL, SCOTT, EDLIN, COTTERILL, and GRANT DAVIE spoke.

Dr. MACDOUGALL proposed and Dr. EDLIN seconded that Recommendation No. I be adopted. This was carried, and then Dr. MacDougall's amendment was put as the substan-

tive motion and carried, with five dissentients. This the Representative was instructed to consider in his voting as a final decision by the Division.

Recommendation II.—Dr. Rhodes proposed and Dr. Sargant seconded:

> That the following be substituted for Recommendation II: That it be an instruction to the Council that they notify all those who have signed the pledge of the British Medical Association that they must not go on any panel or undertake any of the duties which the Act proposes to assign to them, and that this instruction remain in force until such time as the six cardinal points are unreservedly conceded in such a manner that they cannot be altered or withdrawn in the future except by Act of Parliament and with the consent of the members of the medical profession.

Dr. MacDougall proposed and Dr. Gregory seconded, as an amendment, the adoption of Recommendation No. II. This was carried by 26 to 2, and also as the substantive motion, with two dissentients.

Recommendation III.—Dr. Rhodes proposed:

> That Recommendation No. III be deleted.

This was not seconded. Dr. Edlin proposed and Dr. MacDougall seconded that No. III be adopted. This was carried *nemine contradicente*.

Recommendation IV.—Dr. MacDougall proposed and Dr. Salter seconded its adoption. This was carried *nemine contradicente*. An amendment by Dr. Rhodes, that Resolution No. 4 of the Birmingham Division (British Medical Journal, February 10th) be substituted, was not seconded.

Recommendation V.—Dr. Cotterill proposed and Dr. Davie seconded:

> That between "rates" and "than" the words "or other terms" be interpolated.

This was carried. Dr. Rhodes proposed and Dr. Holt seconded:

> That the clause "failing the provision . . . National Insurance Act" be deleted.

This was carried. Another amendment by Dr. Rhodes, that the word "Association" be substituted for "Representative Body," was not carried.

Recommendation VI.—Dr. Edlin proposed and Dr. Martin seconded:

> That this be adopted.

An amendment to substitute for all after the word "Act," the following was carried:

> And that our Representative be given discretionary powers as to voting on the composition of that committee, which should, if possible, be fully representative of all medical interests.

The following resolution was proposed by Dr. Russell and seconded by Dr. Martin:

> That this Division is prepared to accept service under the Insurance Act upon the same terms as those already granted to surgeons in the service of the Post Office.

This was not carried.

Dr. Salter proposed and Dr. Cotterill seconded:

> That the Council be instructed to inform the Government through the Commissioners that unless the minimum demands of the profession are placed beyond doubt, further negotiations will be useless.

This was carried.

Instructions to Representative.—The Representative was instructed to vote against any resolution which asked the Council to resign; also to vote for the subsequent discussion by the Divisions on the matter of method of remuneration, and not to vote for the resolutions of the National Medical Union except in support of an amending Act.

Salford Division.

A meeting of this Division was held on February 15th. Dr. R. B. Fletcher occupied the chair, and there were thirty-nine members present.

National Insurance Act: Report of Council.

The object of the meeting was to discuss the Insurance Act.

A letter was read from Dr. Pinder stating that, owing to illness, he would not be able to attend the Special Representative Meeting as the Representative of the Division. A resolution was passed expressing the sympathy of the meeting with Dr. Pinder and regret at his inability to attend, and the meeting then unanimously elected Dr. Hodgson as Deputy Representative.

A letter from the Mayor of Salford was read inviting the Division to send a Representative as a member of the Salford Health Week Committee, and the Chairman of the Division (Dr. Fletcher) was elected.

Dealing with the business of the Special Representative Meeting, Dr. Bell proposed and Dr. Bradley seconded the motion sent out to Divisions by the National Medical Union, expressing want of confidence in the Council, and asking it to resign, but this was lost by 14 votes to 8.

The following two motions suggested by the National Medical Union were carried:

> (*a*) That, as the Report of the Council does not embody the insistence upon the six cardinal points being guaranteed by statute, such report be not approved.
>
> (*b*) That it be an instruction to the Council that they notify all those who have signed the pledge of the British Medical Association that they must not go on any panel or undertake any duties which the Act proposes to assign to them, and that this instruction remain in force until such time as the six cardinal points are unreservedly conceded in such a manner that they cannot be altered or withdrawn in the future except by Act of Parliament and with the consent of the medical profession.

Dealing with the Recommendations of the Council's Report, the following amendment to Recommendation 1 was carried:

> That the Council be instructed to notify the Commissioners that, as the minimum demands of the medical profession have not been granted, it would be futile and inconsistent for them to be represented upon the Advisory Committee.

The following amendment to Recommendation 2 was carried:

> That the Council be instructed to notify the Commissioners that no negotiations will be entered into with the Commissioners or with the Insurance Committees until the six cardinal points have been freely and fully granted as an irreducible minimum and have been embodied in the regulations.

Recommendations 3 and 4 of the Council were agreed to.

On Recommendation 5 of the Council the following amendment was carried:

> That the Council be instructed to take steps to organize the profession so as to secure that, in the event of the British Medical Association deciding to advise the profession not to work the Act, no person shall be able to secure medical attendance under a contributory contract practice appointment held at lower rates than 10s. per head per annum, and that such appointments be vested in a committee of medical men embracing all who are willing to undertake the work, so as to safeguard the free choice of doctors.

In moving this Dr. Hodgson explained that the word "contributory" was inserted so as to exclude Poor Law appointments and similar work.

To Recommendation 6 of the Council the following amendment was carried:

> That the Council be instructed to take such steps as it may consider best calculated to secure the establishment of a Central Insurance Council for England for dealing with the Insurance Act upon similar lines to that already established in Scotland; and that, with the view of obtaining proportional representation of the whole profession throughout England, all the universities and Royal corporations throughout the United Kingdom be asked to co-operate.

The two following motions were also carried:

> (*a*) That the system of payment per attendance is preferable to the capitation system.
>
> (*b*) That the Representative Meeting urge on the Council the necessity of securing the unanimity of the profession by means of a bond, and that it be an instruction to Divisions to urge the acceptance of the bond upon all practitioners in their respective areas.

It was further resolved that the Representative of the Division be instructed to vote in accordance with the foregoing resolutions in the Special Representative Meeting, and that, unless otherwise directed, a report of the Division meetings be regularly sent for publication in the Journal.

Metropolitan Counties Branch:

City Division.

A special general meeting was held at the Town Hall, Hackney, on Tuesday, February 13th, at 4 p.m. Dr. Gerald Johnston, Chairman of the Division, presided, and about seventy members and friends attended.

Confirmation of Minutes.—The minutes of the special general meeting of December 14th, 1911, were taken as read, and those of the conjoint meeting with the Aesculapian Society on January 19th were read, confirmed, and signed as correct.

Finsbury Tuberculosis Dispensary.—Arising out of the minutes, Dr. GARRETT inquired the present position of the Finsbury Tuberculosis Dispensary dispute, and information was given by Dr. FRANCIS ROE, Honorary Secretary, Finsbury Medical Society, and Dr. EVAN JONES.

Letters.—Received from Tyneside, Westminster, Northampton, East Cheshire, Birmingham Central, Leicester, North-East Essex, and Winchester Divisions; Dr. May Thorne, the National Medical Union, the British Medical Reform Association; and telegram from Dr. Cameron (Folkestone and Dover Division).

Annual Report of Division.—The annual report of the Division to the Branch was read by the HONORARY SECRETARY. It was stated that the membership on December 31st, 1910, was 169. In 1911 this number was increased by the admission of new members (55) and by removal into the district (24) to 79, making the total 248. Four had resigned, 32 had removed, and 3 had been suspended through arrears. Therefore the total on December 31st, 1911, was 209, an increase in membership in the year of 40.

Treasurer's Report.—The following was the Treasurer's report:

Expenditure.

Deficit, January 1st, 1911	£4	10	9
Hire of rooms	12	12	0
Printer	21	11	8
Stationery	0	7	3
Postage	3	14	8
Clerical aid	0	10	0
Gratuities to patients shown	1	2	6
Cinematograph demonstration ...	3	9	0
	£47	17	10

Income.

Annual allowance from Branch ...	£23	8	0
Special grant for 1910	6	0	0
„ „ 1911	17	0	0
	£46	8	0
Deficit	£1	9	10

The number of meetings was as follows: Division 15 (scientific 6, medico-political 9); the average attendance was 30. Executive meetings 10; the average attendance was 15.

Work of the Division.—Action was taken during the year regarding (1) formation of School Children's Medical Treatment Centre for Hackney; (2) canvass of profession *re* Insurance Bill; (3) Shoreditch Poor Law medical officer's appointment; (4) proposed Finsbury tuberculosis dispensary.

National Insurance Act: Recommendations of Council.

This was postponed until after discussion upon a resolution of which notice had been by Dr. MAJOR GREENWOOD, who was compelled to leave the meeting early. The resolution was as follows:

> That in the opinion of this Division no member of the British Medical Association should undertake any duties, whether medical or administrative, under the National Insurance Act until the provisions of the Act be so amended, either by a supplementary Act or by regulations framed by the Commissioners, so as to secure without equivocation or reserve the six cardinal points demanded by the profession. That the Council of the Association be instructed to put this resolution before the Commissioners as an ultimatum, and unless satisfaction is given with regard to all these points that further negotiations be discontinued.

Dr. STRONG proposed a resolution of which he had given notice as an amendment to the above. As there was no seconder it fell through.

The resolution was carried after full discussion by a large majority, only 4 voting against it, and was confirmed as an instruction to the Representative in place of Recommendation II.

Dr. DIXON then moved:

> That in the opinion of the members of this Division no satisfactory bargaining can be carried on with Insurance Commissioners or Insurance Committees until all medical contract service has been terminated.

This was seconded by Dr. PERCIVAL ALLEN.

After lengthy discussion and criticism the resolution was by leave withdrawn.

The recommendations of the Council were then considered, and as amended confirmed as instructions to the Representative.

I. No change.

II. Insert instead Dr. Greenwood's resolution.

III. No change.

IV. No change.

V. Insert before the words "adequate remuneration" the words "an income limit and;" to add at end the following:

> That steps be taken to secure that any arrangements that may be agreed upon shall stand good for five years unless altered with the consent of the local Medical Committee.

VI. (*b*) To read—6 members elected by the Council instead of 12.

(*e*) Eight members to be elected by the Licensing Bodies in the United Kingdom.

To add finally—That more than half of the Committee consist of practitioners engaged in contract practice.

HAMPSTEAD DIVISION.

A MEETING of this Division was held on Saturday, February 17th, at 8.30 p.m., at the Hampstead Conservatoire. Dr. OAKLEY was in the chair, and sixty-seven members were present.

Confirmation of Minutes.—That portion of the minutes referring to the election of Representatives was read.

Letters.—Of the many letters received two were read, one being from the Honorary Secretary of the Branch *re* the conference between the School Children Committee of the Branch, Division Secretaries, and other special school representatives. The meeting nominated Dr. Oakley to represent the Division at the conference, Dr. Roche, who had previously acted, having removed into the St. Pancras Division. A letter from Dr. Glover was read, stating that he hoped the Division would instruct its Representative to the Representative Meeting to support any resolutions suggesting that an amending Act was necessary.

Election of Representatives.—The meeting on February 9th had nominated Drs. Oppenheimer and Macevoy. Since then Dr. Percy Evans had been nominated by seven members of the Division. After some discussion, it was decided to ask each candidate to make a short statement of his views on the present situation in regard to the National Insurance Act, and to reply to any questions that might be asked him. This was done, and the election of Representatives took place. Dr. Oppenheimer was elected unopposed as Representative. Dr. Percy Evans was elected Deputy Representative, the ballot showing 43 votes for Dr. Evans and 20 for Dr. Macevoy.

Addition to Standing Order.—An addition to Standing Order 6 for Representative Meetings was brought forward by Dr. OPPENHEIMER and agreed to by the meeting. The addition is as follows:

> If two or more motions of similar import appear on the agenda of the meeting so that the rejection of one of them would, in the opinion of the Chairman, imply a rejection of the others, the Chairman shall, before any such motion is discussed, inform the meeting that he shall so rule, and shall give the meeting the choice which of the several motions is to be discussed and voted upon.

National Insurance Act: Instructions to Representatives.

The Committee's Resolution I was moved by the CHAIRMAN:

> That the Representative be instructed to move a resolution "That this Representative Meeting instructs the Council to approach the Commissioners in order to ascertain whether the powers they possess under the Act enable them to give full effect to the six cardinal points, including such rate of remuneration as this Representative Meeting shall decide. Failing this they should organize the profession for the purpose of refusing the acceptance of any duties, medical or administrative, under the Act, unless and until so amended as to give full effect to the demands of the profession."

The following amendment was moved by Dr. PERCY EVANS, seconded by Dr. TRAYLEN, and carried by a large majority. As a substantive resolution only 6 voted against it.

> That the Representative be instructed to support or to move a resolution, "That this Representative Meeting instructs the Council to inform the Insurance Commissioners that the medical profession declines to undertake any duties, medical or administrative, under the National Insurance Act unless and until its demands, as embodied in the

six cardinal points, shall have been fully and effectively guaranteed."

Dr. MILES MILEY moved a rider to add to the resolution the words:

And unless and until its status as an honourable and learned profession be safeguarded by placing all questions of professional discipline whatsoever under the sole control of the medical profession itself.

Rate of Remuneration.—Resolution II on the agenda was moved from the Chair:

That the rate of remuneration be based upon a capitation fee of 10s. per head for ordinary attendance on members of approved societies; and that attendance on Post Office contributors be paid per attendance.

An amendment was moved by Dr. SKENE, seconded by Dr. ZIEMANN, and carried by 2 votes—23 voting for it and 21 against:

That the attendance upon both members of approved societies and Post Office contributors be paid for per attendance.

Dr. Skene quoted Mr. Lloyd George's speech at the Opera House. The Chancellor had said that underpaid work was shoddy. It was not to the advantage of the patient or the doctor. It was far better for the doctor to feel that he was fairly treated and getting a fair wage for the very difficult, delicate, and responsible work which he had to accomplish. He went on to say that the Insurance Act was not responsible for contract rates, did not perpetuate it, did not extend it, and certainly did not create it. Mr. Lloyd George went on to say that medical men were able to treat the poor at low contract rates because they charged higher fees to those in better circumstances—indicating, perhaps, that that was how he reconciled his conscience against the self-accusation that he was attempting to sweat the doctors under the Insurance Act. He endeavoured to draw them into the net by saying they could charge the wife and family a good deal more, ignoring the fact that in eighteen years at least he intended that not only the wage earner but all dependent upon him should have the medical benefits. The statement was therefore a lie, and the blackest of lies because it was half a lie. Whatever form or degree of remuneration they adopted now would ultimately apply to men, women, and children. They all agreed that the remuneration offered or implied in the Act was wholly inadequate. Why not go a step further and refuse contract work altogether? By undertaking contract work they virtually individually became insurance societies. They accepted an annual premium, and undertook to cure all diseases to which human nature was prone. Now, no insurance society undertook risks unless the premiums more than covered those risks. If they undertook such risks as business men, putting politics aside (he repudiated the suggestion that politics had ever weighed with them; personally, he was a Radical), he said as business men they must see that the premiums—that was to say, the capitation grant—more than covered the risks to which they were open. The risk in their case being the monetary value of the work they undertook, calculated at the ordinary rate of remuneration they obtained in their private practice, was it fair to ask them to undertake the risk at a figure whereby they were bound to lose? The risk as it stood was uncovered—the 4s. 6d. worked out at less than one-fourth of the ordinary charges of medical men. What premium would safely cover the risks was difficult to estimate. They knew it must be more than 8s. 6d., and, indeed, anything up to 21s., for good lives. Dr. Arch. Dukes, in the BRITISH MEDICAL JOURNAL of February 10th, said they were paid 21s. 10d. per head, well or sick, for the medical relief of the extramural paupers of Croydon. He found this worked out at 6d. a consultation and 9d. a visit. The speaker found that the remuneration required from a medical club in Paddington started by Dr. Leach, M.P., open to all the poor supposed to be in good health without medical examination, was 14s. per capita. That was the method by which they must arrive at a proper capitation grant. How the figure of 10s. was arrived at he did not know. But, seeing that medical examinations were to be done away with, to accept that would be to be sweated. But Mr. Lloyd George thought that even this figure was so high a demand that it "does not come within proportions that are debatable."

But he (the speaker) ventured to suggest that that figure was too low, taking into account the extra medical relief which this Act demanded, and the relinquishing of medical examinations. In brief, he declared that it was premature to discuss a contract rate, as it was impossible to suggest a rate that would in fairness cover the doctors' risks and commend itself to the Government department concerned as reasonable. There was no insurance society in existence that would take a 10s. premium, accept the risks, and agree to pay the doctors' bills for attendance upon illness at the rate of 1s. 6d. a consultation and 2s. 6d. a visit. It was not a business proposition. Why should they be invited to go blindfolded into the important work of looking after the nation's health? That any Government department of a nation like theirs should suggest it was astonishing; that men were apparently ready to do so passed understanding. Mr. Lloyd George asked them to consider the thing from a business point of view; the inference was that their charity was not asked. The Commissioners themselves were not putting any charity into their work; why should the profession? Their work, when it was work, had a minimum charge of 1s. 6d. and 2s. 6d., and from a sense of true patriotism he supposed they were willing to treat the *clientèle* of a Government department of a wealthy nation for the same rate that they charged a man who earned 40s. a week neither backed nor financed by a Government department. Their Council had promised to back up a pro rata remuneration. Mr. Lloyd George said he did not desire to impose a contract per capita remuneration. Let them, therefore, insist upon a fair measure of justice, and vote for the pro rata system all round.

When taken as a substantive resolution, an amendment was proposed by Dr. SHARMAN and accepted by Dr. SKENE:

That the Representative be instructed to vote for payment per attendance on members of approved societies who have been approved by a registered medical practitioner as well as on Post Office contributors, but in the event of this not being carried he then votes that any capitation grant shall be at least at the rate of 10s.

An amendment substituting 8s. 6d. for 10s. was voted on and lost by a large majority.

Dr. Skene's amended resolution was carried, with only one dissentient.

Recommendations of Council.—It was agreed *nemine contradicente* that, of the Council's recommendations, III should be considered before II; that Recommendation IV be supported; that Recommendation V be amended by inserting after "secure that" the words:

In the event of medical benefit being withdrawn or suspended, or."

That the Marylebone amendment to VI be supported.

LAMBETH DIVISION.

A SPECIAL meeting was held at Bethlem Royal Hospital on February 14th, at 4 p.m., to instruct the Representative how to vote at the Representative Meeting to be held on February 20th and 21st. Dr. DENNING was in the chair, and eighty-one members and one visitor were present.

National Insurance Act: Report of Council.

The recommendations in the Report of the Council, published in the SUPPLEMENT of February 3rd, 1912, were considered.

Recommendation I: Dr. MACKEITH moved as an amendment:

That the Council be instructed to at once cease negotiations with the Government and the Commissioners.

This was ruled out of order by the CHAIRMAN at this stage of the proceedings, and the mover was given leave to bring it forward at a later stage if the recommendation was not passed. After being proposed and seconded the recommendation was declared carried by 41 votes to 29.

Recommendation II: The following amendment to the recommendation was declared carried by 56 votes to 3:

That the Council be instructed to notify the Insurance Commissioners that no work will be undertaken under the Act until the Representative Body is satisfied that the requirements of the profession are conceded by them.

Recommendations III and IV were carried *nemine contradicente*.

Recommendation V: It was proposed and seconded that the words "failing the provision of" to "National Insurance Act" be deleted.

The recommendation thus amended was carried *nemine contradicente*.

Recommendation VI: It was proposed and seconded that the recommendation should read:

That a State Sickness Insurance Committee be appointed to consider and report to the Council on all matters connected with the National Insurance Act. That the Committee consist of (*a*) twelve members elected by the Representative Body; (*b*) six members elected by the Council; (*c*) two members nominated by the Association of Medical Women; (*d*) the *ex officio* members; and that eight seats on the Committee be offered to the licensing bodies of the United Kingdom—that is, one for Wales, two for Scotland, two for the Midlands, and three for London.

This proposition was carried by 56 votes to 3.

Two additional recommendations were then carried:

1. That until the Representative Body is satisfied that its requirements have been conceded, the State Sickness Insurance Committee shall be the only medical advisory body to the Commissioners.
2. That no insured person shall be entitled to medical benefits until he has satisfied the Insurance Commissioners that his yearly income does not exceed £104.

Vote of Thanks to Chairman.—After some discussion about the method and amount of remuneration, the meeting terminated with a vote of thanks to the Chairman and the authorities at Bethlem Hospital.

North Middlesex Division.

THE fourth ordinary meeting of this Division was held on February 16th at the Hornsey Council Schools, Finsbury Park, Dr. H. B. BRACKENBURY in the chair. Over one hundred members were present.

Confirmation of Minutes.—The minutes of the third meeting (January 12th), taken as read, were signed as correct.

National Insurance Act Committee of the Metropolitan Counties Branch.—It was announced that Drs. Barnes and Brackenbury had been appointed to represent the Division on this Committee.

Deputy Representative.—Dr. Mills Hall (Bush Hill Park) was appointed to act as Deputy Representative at the forthcoming Representative Meeting should Dr. Fuller be unable to be present.

National Insurance Act: Recommendations of Council.

The report with Recommendations of Council, as published in the SUPPLEMENT of February 3rd, was then considered. The Division's Representative was instructed as follows:

On Recommendations I, II, III, and IV to move:

That these be agreed to.

On Recommendation V, to move:

To add to the recommendation the words, "and not in accordance with the six cardinal principles."

As Recommendation V (*a*) to move:

That the Council be instructed to issue the following pledge for signature:

I, the undersigned, hereby undertake that in the event of the National Insurance Bill becoming law, I will not enter into any individual or separate arrangements with any approved society, local Health Committee, or other body appointed under the bill, to give medical attendance and treatment to persons insured under the bill, but will enter into such arrangements only through a local Medical Committee elected by the registered medical practitioners in the district in which I practise to represent them in respect of such arrangements, and that I will enter into such arrangements only as shall be satisfactory to the medical profession, and in accordance with the declared policy of the British Medical Association.

I undertake to resign, if required to do so by the British Medical Association or this Division thereof, any present appointment which I hold with a club, which becomes an approved society under the bill, or whose terms as to fees and conditions of membership are less favourable than those approved by the British Medical Association, and I will not accept any appointment so resigned by another medical practitioner.

I guarantee the sum of money mentioned below against my name for the purpose of indemnifying those medical practitioners who shall have suffered pecuniary loss through having resigned their clubs at the request of the Division; and, if called upon by the Division, will pay the same to the Executive thereof.

As Recommendation V (*b*) to move:

That, failing the provision of adequate remuneration of medical practitioners under the National Insurance Act, the Council be instructed to take steps to secure that all physicians and surgeons to hospitals throughout the country shall be required to refuse gratuitous attendance on any insured person.

On Recommendation VI to move:

That this recommendation be amended, so as to read as follows:

That a State Sickness Insurance Committee be appointed to consider and report to the Council on all matters connected with the National Insurance Act; that the committee consist of (*a*) 18 members elected by the Representative Body, (*b*) 6 members elected by the Council, (*c*) 2 members nominated by the Association of Registered Medical Women, (*d*) the *ex officio* members, and (*e*) 8 members elected by the licensing bodies, so as to ensure a majority of the whole committee shall be general practitioners.

Also to move the following additional recommendations:

That the Council be instructed to inform the Government through the Commissioners that, unless the minimum requirements of the profession are placed upon a permanent basis by an amending Act or by a Government guarantee of funds sufficient to fully secure the six cardinal principles, the Association must decline further negotiations.

Also:

That the question of the removal of a name from a panel of practitioners shall be determined by the local Medical Committee, subject to appeal to the Commissioners.

The proceedings then terminated.

Norwood Division.

A MEETING of this Division was held on Friday, February 16th, at 4 p.m., at the Queen's Hotel, Upper Norwood. Dr. G. B. BATTEN was in the chair, and sixty members were present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Proposed Splitting-up of Division.—The HONORARY SECRETARY read a letter from the Organization Committee of the Metropolitan Counties Branch, in which it was suggested that those portions of the Division contained within the counties of Surrey and Kent should be detached to work with the South-Eastern Branch. It was resolved:

That this meeting approves of the proposed splitting-up of the Norwood Division, if and when it is required to do so, for the working of the Insurance Act.

The Honorary Secretary was instructed to forward this with a covering letter explaining the feeling of the Division upon the matter, the two to be taken together.

National Insurance Act: Recommendations of Council.

The meeting then considered the Recommendations of the Council.

Recommendation I.—Agreed.

Recommendation II.—*Amendment*: After the words, "requirements of the profession," insert

including the six cardinal points.

This was carried.

Recommendation III.—Agreed.

Recommendation IV.—*Amendment*: Substitute the word "Unions" for "Committees," in line 2.

This was carried.

Recommendation V.—*Amendment*: That the words:

due consideration, however, being given to the case of non-insured persons in provident dispensaries with a wage limit.

This was carried.

Recommendation VI.—Agreed.

The following additional recommendation was suggested by the Division:

That the requirements of the profession shall be for members of approved societies a minimum per capita payment of 8s. 6d. per annum, or 2s. 6d. per visit for all ordinary work (exclusive of drugs and appliances), with a wage limit not exceeding £2 per week.

Vote of Thanks.—The meeting concluded with a vote of thanks to the Chairman.

St. Pancras and Islington Division.

A SPECIAL meeting of this Division was held on Tuesday, February 13th, at 9 p.m., at the Midland Grand Hotel. Dr. BASIL G. MORISON, Chairman of the Division, presided, and there were present 121 members of the profession, the invitation to the meeting being extended to non-members.

National Insurance Act: Recommendations of Council.

The Chairman opened the proceedings by pointing out very clearly that there were practically two policies: to accept an amended Act only, and to urge their principles, at any rate in the meantime, for inclusion in the Regulations. He then stated that the Executive Committee had considered the Special Report of Council, and recommended that an amended form of Recommendation I should be passed as a resolution, and that the Deputy Representative (Dr. William Griffith) should be instructed to move it at the forthcoming Representative Meeting. The resolution, which was passed by a large majority, was:

That the Council be instructed to inform the Government and the Insurance Commissioners that an amended Act embodying the six cardinal principles is the only method of satisfactorily securing the requirements of the profession and the safeguarding of the national health, and to decline to negotiate further unless these six points are guaranteed by the Government.

The remaining recommendations were then considered, and to Recommendation V was added a motion by Dr. Norman Glaister, who also moved, with adoption, that Council should instruct Divisions to hold general meetings immediately after Representative Meetings to consider the report of their Representatives.

Stratford Division.

A meeting of this Division was held on Thursday, February 8th, at 8.15 p.m., at the West Ham Hospital, Dr. Sanders in the chair. Thirty members were present.

Confirmation of Minutes.—The minutes of the previous meeting were read and approved.

Correspondence.—Some correspondence was dealt with.

Recent Views on the Neuron.—Dr. Harry Campbell gave an address on Recent views on the Neuron. A free discussion ensued, and, after replying to questions, Dr. Campbell was awarded a hearty vote of thanks for his paper.

It was decided to call a mass meeting for February 15th to discuss the Report of the Council and instruct the Representative.

Mass Meeting of Profession.

A mass meeting of the profession in, and concurrently a special meeting of, the Stratford Division was held on Thursday, February 15th, at 9 p.m., at the Town Hall, Stratford, E., Dr. Sanders presiding. Over 100 medical men were present.

The Death of Lord Lister.—Dr. Sanders proposed and Dr. Nicoll seconded the following resolution:

That this mass meeting, representative of the medical profession of the East End of London and South-West Essex, held at the Town Hall, Stratford, E., this 15th day of February, 1912, desires to record its deep sense of the loss sustained by the profession in the death of Lord Lister, and to express its sincere sympathy with his family in their sad bereavement.

The resolution was carried unanimously, all standing.

National Insurance Act.

It was proposed by Dr. Toland, seconded by Dr. Coleman, and resolved:

That in the opinion of the Stratford Division of the British Medical Association no member of the medical profession should undertake any duties, whether medical or administrative, under the National Insurance Act until the provisions of the Act be so amended as to include definitely the six cardinal requirements demanded by the Association on behalf of the profession.

On being put to the vote of the mass meeting, 92 members voted for the resolution and 7 against.

Special Meeting of Division.—Thereupon a special meeting of the Stratford Division was held for the purpose of instructing its Representative in respect of the Special Representative Meeting to be holden on February 20th. The above-mentioned resolution was put to the meeting, when 81 members voted for the resolution and 7 against.

Recommendations of the Council.

An amendment—

That the Council be instructed to cease negotiations,

was lost.

An amendment proposed by Dr. Toland, seconded by Dr. Steen:

That the Council be instructed to inform the Government that an amending Act is required to secure the six cardinal points of the Association,

was carried.

An amendment proposed by Mr. Couzens, seconded by Dr. Biernacki:

That, whilst the Council may negotiate with the Government or Commissioners, they shall not accept any conditions without referring the matter to a Special Representative Meeting,

was carried; and it was further resolved that this and the foregoing resolution be substituted for Recommendations I, II, and III.

Recommendation No. IV was amended so as to read:

That the Council be instructed to assist the Divisions, etc.

Recommendation No. V was amended by the deletion of the words in the first line "to take steps."

Recommendation No. VI was amended by the addition after "Council" of the words "of whom six shall be engaged in general practice."

It was proposed by Dr. Percy Rose:

That the Council of the British Medical Association be empowered to confer and co-operate with the General Medical Council and with the medical corporations in the United Kingdom in securing the efficiency of any medical service under a National State Insurance Scheme.

This was carried.

It was proposed by Dr. Oxley and carried:

That in the interests of unity the Representative be instructed to vote against any motion proposing a vote of censure on the Council.

Appointment of Substitute Representative.—On the question of the appointment of a substitute to act in the event of the Representative being unable to attend the Special Representative Meeting on February 20th, Dr. Nicoll was proposed, but expressed his inability to attend, and it was thereupon resolved that the Chairman of the Division (Dr. Sanders) be appointed.

Vote of Thanks to Chairman.—A vote of thanks to the Chairman concluded the meeting.

MIDLAND BRANCH:

Boston and Spalding Division.

A special meeting (to which non-members were invited) was held at the White Hart Hotel, Boston, on Friday, February 9th, at 3 p.m. Dr. Mason was in the chair, and there were present: Drs. Braithwaite, Collins, Barritt, Crompton, Husband, Jacobson, Miller, Pilcher, Rendall, W. H. Smith, Spilsbury, Sweeten, Taylor, R. Tuxford, Wilson Smith, Wright, Wrinch, and the Secretary. Drs. Gilpin and Power were present as visitors.

Apologies for Non-attendance.—Regrets at non-attendance were received from numerous members and non-members, who signified their acceptance of the decisions of this meeting so long as the six cardinal points were insisted upon. The Chairman (Dr. South) was prevented from being present by an inquest held at the hour of the meeting, and the Vice-Chairman by illness.

Confirmation of Minutes.—The minutes of the last meeting were read, confirmed, and signed.

Election of Representative to Representative Body.—The Secretary stated that the Division would number fifty members on February 13th, hence the necessity for this election. Dr. Smith proposed and Dr. Sweeten seconded:

That Dr. Mason be elected.

This was carried unanimously. Dr. Mason suitably acknowledged his election.

Ethical Rules of a Division.—Dr. Miller proposed and Dr. Barritt seconded that the Committee's advice be followed, namely:

That the rules adopted by a majority of Divisions be accepted.

This was carried *nemine contradicente*.

National Insurance Act: Report of Council.

It was agreed that no useful purpose would be served by criticizing the Council's policy. It was fully realized what a difficult task had confronted them, and, whilst not agreeing with all that had been done, yet it was recognized they had done their best.

Dr. R. Tuxford's resolution, namely—

That if this Division decides to work under the Act, the conditions it shall demand—

was passed over owing to Dr. Tuxford's absence at this stage of the meeting.

The recommendations of the Council concerning the National Insurance Act were then discussed.

No. 1: Dr. BARRITT proposed and Dr. SWEETEN seconded:

That this be adopted.

This was carried *nemine contradicente*.

No. 2: Dr. JACOBSON proposed and Dr. MILLER seconded:

That this be adopted.

This was carried *nemine contradicente*.

It was decided to impress on the mind of the Representative that the word "requirements" meant the "six cardinal points."

Nos. 3, 4, 5, 6 were also unanimously adopted.

Administration of Boston and Spalding Division under the National Insurance Act.—The Secretary was instructed to write to the Medical Secretary on this head.

"Holland" Provisional Medical Committee.—As the "parts" of Holland Division of the county fall entirely within the Boston and Spalding Division, Dr. COLLINS proposed and Dr. BARRITT seconded:

That a Provisional Medical Committee be appointed consisting of the members of the Executive Committee resident in the Holland Division, with power to add to their number.

This was carried *nemine contradicente*. This committee consists of Dr. South (Chairman), Dr. White (Vice-Chairman), Dr. Wilson (Secretary), and Drs. Barritt, Mason, Pilcher, W. H. Smith, R. Tuxford, Wrinch, and Witham.

Central Defence Fund.—The SECRETARY called attention to this fund and its urgent need of support.

Some members had tea in the hotel afterwards.

LEICESTER AND RUTLAND DIVISION.

A MEETING of this Division was held at the Temperance Hall, Leicester, on Wednesday, February 14th, at 3.45 p.m. Dr. TIBBLES was in the chair, and 112 members were present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed. Arising therefrom the HONORARY SECRETARY reported on the correspondence he had had with other Divisions *re* the requisition of a Special Representative Meeting.

Vote of Thanks to Representative.—A hearty vote of thanks and vote of confidence in the Representative of the Division, Dr. Wallace Henry, was proposed by Dr. HOLMES, seconded by Dr. WAITE, and carried unanimously. Dr. HENRY responded.

Representatives of Division on Leicester Infirmary Board.—Dr. HENRY proposed and Dr. HIGGS seconded:

That Drs. Hicks and Holmes be nominated Representatives of the Division on the Board of the Leicester Infirmary.

This was carried unanimously.

National Insurance Act: Recommendations of Council.—Dr. DIXON proposed and Dr. FAGGE seconded the adoption of the first recommendation of the Council. Drs. POPE, GIBBONS, BURKITT, COLEMAN, FOSTER, HOLMES, PRATT, COSENS, WAITE, PIKE, CROSBY, MARTIN, BENNETT, MARRIOTT, LOGAN, STRACEY, DUKE, HOLYOAK, and PAULSON having spoken, the proposition was lost, 39 voting in favour, 48 against, the remainder neutral.

On Recommendation II being put to the meeting, Drs. FOSTER, ROBINSON, DIXON, POPE, HOLMES, and HOLYOAK took part in the general discussion, after which Dr. CROFTS proposed and Dr. GIBBONS seconded:

That the amendment suggested by the Winchester Division be adopted.

This was carried by 67 votes to 28, and afterwards as a substantive resolution.

Recommendation III was agreed to without discussion.

Recommendation IV: Drs. PIKE, GIBBONS, WAITE, and TUCKETT spoke against its adoption, and the REPRESENTATIVE and Dr. POPE having suggested that the local executives in many areas were the best bodies temporarily to look after the interests of the profession, the matter was left in the hands of the Representative.

Dr. HENRY proposed, and Dr. HAYNES seconded, the adoption of Recommendation V. Drs. POPE, DONNELL, CROFTS, BURKITT, PIKE, and FOSTER having spoken, the recommendation was carried unanimously.

Dr. HENRY then proposed and Dr. PIKE seconded the following rider:

That the Council be instructed to at once direct the Divisions to prepare a scheme for a public medical service, administered by the medical profession in each insurance area.

This was adopted, with one dissentient.

Recommendation VI.—Dr. HENRY proposed and Dr. POPE seconded the following amendments:

The addition of the words "and public medical service" after the words "National Insurance Act," the alteration of 12 members elected by the Council to 6, and the omission of co-opted members.

This was carried, with three dissentients.

Instruction to Representative.—Dr. TIBBLES proposed and Dr. LILLEY seconded:

That the Representative be instructed to vote against votes of censure upon the Council.

Dr. HENRY having spoken, this was agreed to unanimously. Dr. GIBBONS proposed and Dr. BREMNER seconded the following resolution:

That this meeting instruct the Representative of the Division to support, or if necessary to move, such resolutions as will instruct the Council of the Association to advise the medical profession to decline to form local Medical Committees, provisional or otherwise, or panels of doctors, or to undertake any duties, administrative or otherwise, under the National Insurance Act, until such time as the demands of the Association have been definitely secured in the opinion of the Representative Meeting after further consideration by the Divisions.

Whereupon Dr. WAITE moved and Dr. HOLYOAK seconded the omission of all words after "Act." The amendment was lost by 21 votes to 27. The resolution was then adopted.

NORTH OF ENGLAND BRANCH:

BISHOP AUCKLAND DIVISION.

A MEETING of this Division was held at the Wear Valley Hotel, Bishop Auckland, on Wednesday, February 14th. In addition to the President, Dr. KANE, and the Secretary, Dr. Hernaman-Johnson, the following members were present: Drs. Bannerman (Stanhope), Beattie (Butterknowle), Brown (Shildon), Brown (Willington), Caldwell (Crook), Ellis (Bishop Auckland), Farquharson (Spennymoor), Menzies (Wolsingham), Sheedy (Ferryhill), Smeddle (Shildon), and Wardle (Bishop Auckland).

National Insurance Act: Instruction to Representative.—The chief business before the meeting was the instruction of the Representative to the forthcoming Representative Meeting (Dr. A. Farquharson). The policy to be pursued *re* the National Insurance Act was discussed at length. Considerable difference of opinion was manifest, some members urging that a policy of "no service whatever" was the only one likely to be of any benefit to the profession. Eventually, however, the following resolution was carried unanimously:

That it be an instruction to the Representative to vote in favour of a continuance of negotiations.

STOCKTON DIVISION.

A MEETING of this Division was held at the Royal Hotel on Saturday, February 10th, at 8 p.m. Sir RUDOLPH SMITH was in the chair, and there were present: Drs. Densham, L. J. Blandford, Haig (Secretary of Darlington Division), Cameron, Wilson, Collinson, Hunton, Wilkin, A. H. Smith, Beattie, Fawcett, Murray, Tarleton, Talbot, Hogg, Dale, Watson, Fleming, Dixon, Lyle, Mills, Ross, J. W. Blandford, Miller, F. G. Smith, and Brydon.

National Insurance Act.

The business of the meeting was to consider the Insurance Act and the Report of Council. The CHAIRMAN said: Before we begin the discussion to-night I should like to call your attention to certain points. The present position is one of the most critical that has had to be faced since the Insurance Bill was first put forward. This is not the time to rake up questions of whether our previous actions have been good or bad or who is to blame. If mistakes

have been made in the past, let us use them rather to avoid similar mistakes in the future. At present it is our business to decide on a strong consistent line of action, and give our Representative instructions accordingly. The bill has become an Act, and, without going into the disputed question of how much or how little it gives us, it is generally admitted that the points in the Act which we asked for have not been so safeguarded and thoroughly secured as we think we have a right to expect. Three courses are at present suggested by different sections of the profession. First, to decline to have anything further to do with the Act. I do not agree with this; it is a policy of despair, and unworthy of our previous effort. I rather advise the profession to fight hard, and not throw up the sponge. Secondly, to form local Medical Committees and attempt to negotiate with the local Insurance Committees for our terms. This, to my thinking, is a most unfortunate policy; it splits up our forces in a way that invites defeat. Time and again we have stated the six points as our irreducible minimum. Negotiations between opposing parties necessarily implies the possibility of concessions on both sides. We have no concessions to grant on these points. This brings me to the third course, which I personally strongly advocate—namely, that our Council be instructed to ask the Commissioners whether they are prepared to guarantee us the six points. If they will not or cannot, it is perfectly futile to go on discussing details. If they will, then is the time to form local committees to settle details. If they are willing, but have not the power, then we must ask that the Act be suspended until steps have been taken by Act of Parliament to secure the six points, and, above all, adequate remuneration. Threats that medical benefits will be suspended and the friendly societies will have us at their mercy cannot be worse than anything offered us under the Act. We are already at their mercy in the Act for practical purposes; and if we are prepared to oppose the Government because payment is inadequate, surely we are strong enough to oppose the friendly societies for the same reason. It will be a great chance to fight the societies. At least we should fail fighting as freemen and not shackled by the rules and regulations of this Act. We had to instruct our Representative on how to support or otherwise vote against, as we think, these recommendations. I consider No. 2 the most important and the kernel of the whole situation; it means a definite policy. On seriously considering it I come to the conclusion it is not definite enough; I therefore beg to move the following as an amendment, namely—

> That the Council be instructed to inform the Insurance Commissioners that no further negotiations, centrally or locally, shall be entered into for the working of the Act unless and until a guarantee is given that the six points, including adequate remuneration, are first definitely assured by the Commissioners in their regulations or by an amending Act.

This was seconded by Dr. Cameron.

Dr. Densham said if there was any room for any difference of opinion it was very small indeed. If they adopted the first course suggested by the Chairman, namely, not to have anything further to do with the Act, he considered it would not meet with the approval of them all. Under the second heading the local Insurance Committees had four alternative plans for choice *if* the profession refuse to act under the bill, namely:

1. To endeavour to form panels outside any Medical Committee. He was perfectly satisfied they could not do this outside the Association.

2. Whole-time service. Here, again, he was satisfied they could not get sufficient men.

3. The insured persons be allowed to make their own arrangements for medical attendance (these to be satisfactory to the Insurance Commissioners); certain yearly sums to be accumulated for each person and not drawn upon unless some medical attendance has been incurred.

4. They could suspend medical benefits and pay over certain sums due to them each year and allow them to make their own arrangements. The Council warned them and said this was the greatest danger. He considered it was a great danger, as the provident person would spend some on medical attendance and pocket the remainder; the improvident would pocket the lot.

He thought that if they passed this resolution drawn up by the Chairman they would be tying the hands of the Council; so he strongly advocated their support for the Recommendation II of the Council. If they allowed the Council to negotiate further it would bring others into line. They would not lose the public sympathy, and not run the risk of cutting off a large body of the profession who were advocating further negotiations. He therefore moved:

> That Recommendation II remains as it stands,

because he thought "centrally or locally" in the Chairman's resolution handicapped the Council.

Dr. J. W. Blandford seconded, and said his feeling was that the Act would be made to act somehow, and that the six points would not be acceded to. For example, the £2 limit—the basis was the income tax. The creation of a new basis would entail an enormous amount of expense and labour, and the Commissioners would not be able to deal with it. His strong reason for seconding Dr. Densham was that they should not tie them centrally from further negotiations. He thought they should make the best terms they could; if then found to be financially impracticable the House of Commons would amend the Act. If they said they would not work unless they got their six points, the Act would go on and the profession would be left in the lurch and never get a chance of amending. He thought the Council should demand the best terms they could, and they would get good ones, as the Commissioners had the power to deal liberally with them.

Dr. Beattie said it was no use any further negotiating. It was of no use their talking there because they knew exactly how much they were to get. They wanted now a straight "Yes" or "No." They had victory now if only they remained firm.

Dr. Hunton agreed with the resolution of the Chairman, but expressed the hope that they should return a dignified reply, similar to or the same as the corporate bodies had done to the Commissioners, and say the Act did not safeguard the public or profession.

Dr. L. J. Blandford thought Recommendation II gave the Representative Body power to alter the six points, and, personally, he did not think this right.

Dr. Wilson said he hoped all local fights would be avoided, because of their usual result—namely, defeat; it would be better to strengthen the hands of the Council.

Dr. Talbot said he hoped they would not give the Council a free hand. This report he considered rather a confession of mismanagement of the Council in the past, but they would not say so in as many words. He was not satisfied, and he hoped they would give the Council definite instructions, especially with regard to the six points.

Dr. Brydon pointed out that the resolution of the Chairman, which he supported, gave the Council power to approach the Commissioners, and asked them to get a definite "Yes" or "No" from them, so that they could form a definite policy for the future.

Dr. Murray supported the resolution, and thought that not one of the four methods explained by Dr. Densham could be worked, as they held 28,000 or more signatures not to work unless the six points were given them. If these six points were assured by the Commissioners, then they would go on negotiating. He considered the resolution would rather strengthen the hands of the Council.

Dr. Densham, in reply, said he also held that the six points still remained their minimum demand, and the Council could not budge from them.

The Recommendation II put forward as an amendment to the Chairman's resolution was put to the vote. Twenty-four voted against, three for.

Dr. Lyle then proposed:

> That Recommendation II of the Council stand as it is,

and

> "That the six cardinal points be conceded" be added after the word "profession," and "are conceded" deleted.

Dr. Dale seconded. The motion was lost by a large majority.

Dr. L. J. Blandford then proposed as an amendment a resolution the same as appeared in the British Medical Journal of January 20th, p. 65. Dr. J. W. Blandford seconded. This was lost also by a large majority.

Dr. Hunton proposed and Dr. Beattie seconded:

> That we return the same answers as the Colleges of Physicians and Surgeons.

After Dr. Talbot had explained the situation to Dr Hunton and begged him to pass the resolution before the

meeting, he withdrew his motion. The Chairman's resolution was then put and carried unanimously. Recommendations I, III, V, and VI were passed. No. IV was deleted.

NORTHERN COUNTIES OF SCOTLAND BRANCH.

A MEETING of this Branch was held at the Northern Infirmary, Inverness, on Saturday, February 10th, Dr. PENDER SMITH (Dingwall) in the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and approved.

Apologies for Non-attendance.—Apologies were intimated from the President, Dr. Sellar, Drs. Miller, Pirie (Cullen), Duncan, Ingles, etc.

National Insurance Report: Recommendations of Council.

The report on the National Insurance Act was fully discussed, and the members present were unanimous in their adherence to the policy of the Association in regard to the working of the Act—namely, that unless the regulations issued by the Commissioners were in keeping with the six cardinal principles they would refuse to work under the Act.

Recommendation VI was amended, and the following alteration was adopted, instructions being given to the Representative of the Branch to move it in Representative Meeting:

That a State Insurance Committee be appointed to consider and report to the Council on all matters in connexion with the National Insurance Act; that the Committee consist of (*a*) twelve members elected by the Representative Body, none of whom shall be members of Council, (*b*) six members elected by Council, (*c*) two members nominated by the Association of Registered Women, (*d*) the *ex officio* members; and that the Committee be empowered to add to its numbers for special purposes not more than four additional members.

Election of Representative in Representative Meeting.—Dr. Brodie Cruickshank was appointed Representative in Representative Meeting for 1912–13.

Rearrangement of Boundaries.—It was resolved to apply to the Council for a rearrangement of boundaries of the Branch, it being considered that the eastern portion of Banffshire should be included in the Branch, and that Nairn, Moray, and Banff shires should form one Division, Inverness-shire another, Ross and Cromarty being combined to form one Division, and Caithness and Sutherland another Division. The reason for this arrangement was for the convenience of country members, especially in the counties beyond Inverness, many of whom found it impossible to attend a meeting in Inverness, Nairn, or Elgin, as it entailed an absence from home for two, and in some cases three, days.

SHROPSHIRE AND MID-WALES BRANCH.

A SPECIAL meeting of this Branch was held at the Salop Infirmary on February 13th.

National Insurance Act: Recommendations of Council.

The following resolutions were passed on the recommendation of Council:

For Recommendation 1 substitute:

"That the Council be instructed to at once cease negotiations with the Government and the Commissioners."

For Recommendation 2 substitute:

"That the Council be instructed to notify the Insurance Commissioners that no negotiations will be entered into with any Insurance Committee until the Representative Body is satisfied that the requirements of the profession are conceded, and to take all possible steps to ensure that no member of the profession shall hold office or take part in any administrative or medical work under the Act."

Recommendation 3 approved.

For Recommendation 4 substitute:

"That the Council be instructed to make all necessary arrangements for assisting the Divisions and Branches in the appointment of Emergency Medical Committees in every insurance area to safeguard the interests of the profession."

Recommendation 5 approved.

For Recommendation 6 substitute:

"That a State Sickness Insurance Committee be appointed to consider and report to the Council on all matters connected with the National Insurance Act; that the committee consist of twenty-four members elected by the Branches and Grouped Branches in the United Kingdom and their *ex officio* members, and that the committee be empowered to add to its numbers for special purposes not more than four additional members."

A meeting of the Branch was held at the Salop Infirmary on February 13th:

National Insurance Act.—The following resolutions were passed:

1. That this Special Representative Meeting of the British Medical Association expresses its strong disapproval of the action of the Council—first, in regard to its methods in conducting negotiations with the Government; and, secondly, in recommending the acceptance by the paid Secretary of the Association of the post of Commissioner under the National Insurance Act, before the conditions of service had been made acceptable to the majority of those whom they represented, and accordingly records its want of confidence in, and demands the resignation of, the Council forthwith.
2. That, as the Report of the Council does not embody the six cardinal points being guaranteed by statute, such report be not approved.
3. That it be an instruction to the Council that they notify all those who have signed the pledge of the British Medical Association that they must not go on any panel or undertake any of the duties which the Act proposes to assign to them, and that this instruction remain in force until such time as the six cardinal points are unreservedly conceded in such a manner that they cannot be altered or withdrawn in the future except by Act of Parliament and with the consent of the members of the medical profession.

Instructions to Representative.—The following instructions were given to the Representative:

(*a*) Should the Chairman of the Representative Body tender his resignation at the commencement of the meeting, the Representative be instructed to propose, or alternatively to support, that it be accepted, and to speak, if possible, and vote against any proposition that it be not accepted.

(*b*) Should a resolution be proposed, requesting the resignation of the Chairman of the Representative Body, the Representative be instructed to support such resolution.

(*c*) Should no such resolution be proposed, the Representative be instructed to propose a resolution expressing the regret of the meeting that the Chairman of the Representative Body had withheld information that he should have communicated at the last meeting, and that he had also misdirected the Representatives.

SOUTH-EASTERN BRANCH:

BRIGHTON DIVISION.

A SPECIAL meeting of this Division was held at the Lecture Hall, New Road, Brighton, on February 14th, Dr. RYLE in the chair. Seventy-two members and one visitor were present.

Special Representative Meeting.

The object of the meeting was to instruct the Representative. The discussion lasted two hours and a half, and was of an animated character. The following are the official resolutions of the Division which the Representative was instructed to move.

It was proposed by CHAIRMAN OF EXECUTIVE COMMITTEE:

That the Representative of this Division to Representative Meetings be instructed to move the following amendments to the recommendations of the Council of the Association on page 123 of the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of February 3rd:

1. Instead of Recommendation I:

That it be an instruction to the Council to inform the various bodies of Commissioners that if the Commissioners report that they cannot by amendment of the Act, by regulations, orders, or otherwise deal with the following in such a way that they become legally binding on all concerned, then this Association declines to proceed further in any negotiations having reference to the Insurance Act, and the British Medical Association cannot take any share in the working of the Act until the six cardinal points be obtained:

(*a*) That medical benefits shall be administered by the Commissioners and not by the Insurance Committees or other bodies, and after negotiations between the Commissioners and the local Medical Committees.

(*b*) That no scheme for a medical service under the Act will be approved which allows of an insured person in receipt of an income from all sources exceeding £2 a week being entitled to participate in it.

(*c*) That the possibility of an insured person exercising his right to a free choice of doctor, subject to consent of doctor to act, shall be safeguarded from any interference or advocacy on the part of any approved society, institution, or system existing at the time of the passing of the Act.

(*d*) That the method of remuneration of medical practitioners adopted in an Insurance Committee area shall be in accordance with the preference of the majority of the medical profession resident in that area.

(*e*) That the minimum capitation grant to the Commis-

sioners available for ordinary domiciliary attendance on insured persons and unemployed married women of all conditions of health, regardless of what form of payment to medical practitioners is adopted, shall be 12s., exclusive of medicines, institutional treatment, and also those items given as extras in the Public Medical Service of this Association.

(*f*) That the fees for the extras excluded by (*e*) (above) be determined after negotiation between the Association and the Commissioners.

2. Amendment to Recommendation II. At end add the words:

and that, while willing that members of the medical profession shall provisionally join the Advisory Committees, nevertheless it will use its best endeavours to ensure their resignation unless the six cardinal principles have been granted by amendment of the Insurance Act, by regulation, order or otherwise, and that it be an instruction to the Council to provide that all practitioners who are supported by the Association for membership of Advisory Committees shall have pledged themselves previously to vacate their seats if elected should the British Medical Association determine to cease negotiations with reference to the National Insurance Act.

3. That the Representative support and vote for Recommendations III, IV.

The following amendment to Recommendation V was resolved:

That the Council be instructed to take steps forthwith to organize the profession so as to secure that no person shall be able to obtain medical attendance under terms and conditions other than those which may be agreed upon by the Representative Body as satisfactory for attendance upon insured persons.

Instead of Recommendation VI, the following was resolved:

That a State Sickness Insurance Committee be appointed by the Representative Body to consider and report to the Council and Representative Body on all matters connected with the National Insurance Act; that the Committee consist of (*a*) twelve members elected from the Representative Body not being members of the Council, (*b*) six members elected from members of the Council; (*c*) two members nominated by the Association of Registered Medical Women, (*d*) the *ex officio* members; and that the Committee be empowered to add to its numbers for special purposes not more than four additional members, not being members of the Council.

The following resolution was proposed by Dr. BROADBENT and passed:

That it be an instruction to the Council to prepare and issue to the members of the staffs of the voluntary hospitals a form of undertaking, by signing which they would individually pledge themselves to the following:

1. That, in the event of the suspension of medical benefits or of medical service under the Act of any kind being instituted in opposition to the declared wishes of the local Medical Committee, or a majority of the local medical profession, they will send in a notice declining to give medical treatment and attendance, except in cases of emergency, to insured persons as such.

2. That, in the event of a voluntary hospital receiving under the Act payment from the State, local Insurance Committees, approved societies, insured persons, or other bodies, they will decline, after reasonable notice, to give medical treatment and attendance, if they do not receive payment for services rendered.

BROMLEY DIVISION.

A MEETING of this Division was held at the Town Hall, Bromley, on Thursday, February 8th.

National Insurance Act: Recommendations of Council.

The following amendments to the Recommendations of Council (D 22) were unanimously carried:

1. Amendment to Recommendation V to omit: "No person shall be able to secure medical attendance (line 3), and to insert "No medical practitioners shall give medical or surgical attendance."

That under the Insurance Act no medical practitioner shall give medical or surgical attendance under a contract upon insured persons.

2. Amendment to Recommendation VI:

That the Committee consist of: (*a*) Twenty-four members, not members of Council, elected by the Representative Body; (*b*) six members elected by the Council; (*c*) the *ex officio* members; (*d*) two members nominated by the Association of Registered Medical Women; and that the Committee be empowered to add to its number for special purposes not more than four additional members.

The following resolutions were carried unanimously:

1. Representative Meetings. Alteration of Standing Orders (Section 32):

That voting on all matters sent down by the Council for the consideration of Divisions be taken by means of roll call if the "vote by card" (Standing Orders 32 (i)) be not taken. A record of how Representatives vote shall be taken on the minutes and published in the JOURNAL.

2. That the Representative Body reaffirms its adherence to the six cardinal principles of the British Medical Association as embodying the minimum demands of the profession.

3. That the deletion of the Harmsworth amendment (National Insurance Act, A. 15, Subsection 4) be incorporated in the six cardinal principles under (i) free choice of doctor, and (ii) abolition of friendly society control.

4. That the British Medical Association decline to take any part in the formation of panels of doctors until the six cardinal principles, including the deletion of the Harmsworth amendment, have been accepted in full by the Insurance Commissioners.

5. That the British Medical Association decline to have any negotiations with Insurance Committees until a favourable reply has been received by the Association from the Insurance Commissioners regarding the six cardinal principles, including the deletion of the Harmsworth amendment (Clause 15, Subsection 4, National Insurance Act).

The Honorary Secretary of the Division was instructed to forward these amendments and resolutions to the central office, so that they might be included in the agenda paper of the Special Representative Meeting.

EASTBOURNE DIVISION.

A MEETING was held in the Technical Institute, Eastbourne, on Thursday, February 15th, at 4.30 p.m., Dr. K. FRAZER, Chairman, presiding. Twenty-five members and four non-members were present.

Apology for Non-attendance.—Apology for absence was received from Dr. H. S. Gabbett.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

National Insurance Act: Report of Council.

The Report of the Council on the National Insurance Act was discussed. In accordance with the decision of the meeting, the HONORARY SECRETARY read selected portions of the report with the conclusions of the Council, after which the REPRESENTATIVE (Mr. J. H. Ewart) shortly outlined the present position of affairs, and the probable alternatives, arising out of the Recommendations of the Council, which the Special Representative Meeting would have to face. A discussion ensued as to the expediency of requesting the Council to continue negotiations. After several members had expressed their views thereon, in order to test the feeling of the meeting, it was proposed by Dr. M. MILNER MOORE, and seconded by the HONORARY SECRETARY:

To consider the recommendations of the Council.

On being put to the meeting the resolution was lost by 20 votes to 5.

A question having been raised as to the interpretation of this decision, in order to remove any ambiguity of intention, Dr. W. G. WILLOUGHBY proposed and Dr. W. J. C. MERRY seconded:

That in arriving at the foregoing decision this meeting implies no censure on the Council, but in this way indicates the feeling of this Division that negotiations should be ended.

Instruction to Representative.—The Representative was instructed to act according to the terms of this resolution at the Special Representative Meeting.

REIGATE DIVISION.

A SPECIAL meeting of this Division was held at Laper's Hotel, Redhill, on Thursday, February 15th, at 8.45 p.m. Dr. HEWETSON was in the chair, and twenty-four members were present. The object of the meeting was to consider the Report of Council on the National Insurance Act and to give instructions to the Representative of the Division for the Special Representative Meeting on February 20th.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Apologies for Non-attendance.—Letters of apology for non-attendance from Drs. Bromet, Pickett, Fisher, Moorhead, and Lawrence were read.

National Insurance Act: Recommendations of Council.

The Report of Council with the six recommendations was considered and approved, with the following exceptions:

Recommendation IV was not approved (*nemine contradicente*).

Recommendation VI: It was considered that the *ex officio* members, being members of Council, should be included in the twelve members elected by the Council (two dissentients).

The following resolutions were put to the meeting, and were carried unanimously:

(1) That in considering the question of adequate remuneration a distinction should be made between selected lives and ordinary lives.
(2) That on a capitation basis the minimum remuneration for selected lives be 8s. 6d.; for unselected lives 12s. 6d.; and, if no distinction be made, 10s. 6d. per head, with in all cases extra for mileage, night work, etc.
(3) That on the basis of payment for work done the remuneration be 2s. 6d. per visit, with 1s. per mile for mileage beyond two miles from the practitioner's house, and extra for night visits, etc.
(4) That no member accepting work under the Act be removed from the panel without the sanction of the General Medical Council.
(5) That the resolutions agreed to at this meeting be final instructions to our Representative (in accordance with the suggestion of the Council), and that any subjects raised at the Special Representative Meeting which have not been considered by the Division be voted upon by our Representative in the spirit of the resolutions passed at this meeting.

Representative at Representative Meeting.—Dr. PALMER placed his resignation as Representative of the Division in the hands of the Chairman, but was unanimously re-elected and thanked for his services to the Division.

Vote of Thanks to Chairman.—The meeting terminated with a cordial vote of thanks to the Chairman for the able way in which he had conducted the proceedings.

SOUTHERN BRANCH:

PORTSMOUTH DIVISION.

A MEETING of this Division was held in the Grand Jury Room, Town Hall, Portsmouth, on February 14th, Dr. D. A. SHEAHAN, Chairman of the Division, in the chair. Sixty-one members of the Division were present, and Dr. Law, of British Guiana, was welcomed as a visitor.

National Insurance Act: Recommendations of Council.

Mr. C. P. CHILDE proposed and Dr. C. A. SCOTT RIDOUT seconded:

That this meeting declines to accept the Report and Recommendations of the Council of the British Medical Association.

Dr. J. WARD COUSINS proposed and Dr. GEDGE seconded the following amendment:

That this meeting, whilst declining to accept the Report and Recommendations of the Council, is also of opinion that all future arrangements between the Council and the Government, or the Insurance Commissioners, should be without delay reported to the Divisions and then submitted to the Representative Body before they are finally agreed to, for the purpose of making sure that all the requirements of the profession have been conceded.

After a long discussion in which many members took part the amendment was lost, only two voting for it.

The resolution was carried *nemine contradicente*, only four not voting.

Dr. LOCKHART STEPHENS proposed and Dr. VICTOR MAYBURY seconded the following resolution:

That the Portsmouth Division pledges itself not to go on any panel or medical committee under the Insurance Act until the six cardinal points are unreservedly conceded in such a manner that they cannot be altered or withdrawn in future except by Act of Parliament.

The Divisions and the Corporations.—After some discussion this resolution was carried, only three voting against it. Dr. BISWORTH WRIGHT proposed and Dr. BLACKMAN seconded:

That this meeting of the Portsmouth Division of the British Medical Association wishes to place on record the expression of its deep gratitude to the Royal College of Physicians of London and Edinburgh and the Royal College of Surgeons of England and Edinburgh and the Society of Apothecaries of London for their action in refusing to meet the Insurance Commissioners under the present conditions, and to pledge itself to support them in their efforts to maintain the honour and dignity of the medical profession.

SOUTH MIDLAND BRANCH:

NORTHAMPTONSHIRE DIVISION.

A MEETING of this Division was held in the Board Room of the Northampton General Hospital on February 13th, at 2.30 p.m. Dr. HICHENS was in the chair, and thirty-four members were present.

Confirmation of Minutes.—The minutes of the preceding meeting were read and confirmed.

National Insurance Act: Report of Council.

The CHAIRMAN then made a few introductory remarks in bringing the Report of the Council before the meeting. He said that this was without doubt their most important meeting. There were two alternatives open to them: the policy of no service whatever and no further negotiations, or the policy of further negotiations with the Commissioners through the Central Council, on the understanding that, should the six cardinal points not be substantially granted, there should be no local bargaining. He thought it was essential that the medical profession should carry the public with them as far as possible, and advocated a moderate policy of further negotiations. He then read letters from Drs. Clement Dukes, Waller, Pickering, Nourse, Digby White, Jacobs, and Burt, and a number of resolutions from other Divisions.

Dr. TERRY then read a paper condemning the Act root and branch, and proposed the following resolution, which was seconded by Dr. WICKHAM:

That we instruct our Representative to vote at the forthcoming Representative Meeting in accordance with the following resolution:

That the Council be instructed to forward to the Insurance Commissioners the following definite and final statement, requesting an answer within a reasonable time:

Can the Insurance Commissioners guarantee that the six cardinal points demanded by the British Medical Association are so safely guarded by statute, or, failing this, by regulations made or to be made by the Insurance Commissioners, that they cannot be altered in any way or withdrawn at any time without the consent of the members of the medical profession?

If the answer is an unreserved Yes, the Council will then do its utmost to aid the Commissioners in every way it can. If the answer is No, then the Council refuses to further negotiate with the Commissioners, and will instruct its members to refuse to undertake any service whatsoever under the Act.

The motion was afterwards by leave withdrawn without going to a division.

Dr. LINNELL disagreed with Dr. Terry's motion.

Dr. TOLPUTT spoke in favour of opening negotiations centrally with the Commissioners.

Dr. AUDLAND agreed with Dr. Tolputt.

Dr. BAXTER strongly advised adopting the recommendations of the Council, and pointed out that for the first time in an Act the power of collective bargaining had been granted. He thought a suitable capitation fee ought to be settled on.

Dr. LASCELLES thought a legal opinion ought to be taken by the Council on how far the Act could be resisted.

Dr. BUSZARD did not think much progress had been made. He did not think adequate remuneration could be given by the Commissioners, and thought the medical profession was in a better position to bargain with the friendly societies than it had ever been before.

Dr. DARLEY and Dr. PRETTY also spoke to the same effect.

Dr. ROUGHTON advocated further negotiations, and so did Dr. COOKE and Mr. CROPLEY.

Dr. STONE, Dr. GRINDON, and a number of other members also spoke.

The six recommendations from the Council were then severally put to the vote and carried as they stood, with the exception of Recommendation 6, to which Dr. ARTHUR proposed, and Dr. RICHARDSON seconded, the following amendment:

That the twenty-four members be elected by the Representative Body and none by the Council.

This was carried.

Dr. BEATTIE proposed and Dr. STONE seconded:

That the Representative be instructed to support proposals for a public medical service in the event of the profession determining not to take service under the Insurance Act.

This motion was lost.

Dr. DRYLAND thought that it was now necessary to form provisional Medical Committees.

It was decided that the Divisional Council, with Dr. Dryland's name added to it, should be appointed to go into the matter.

The meeting then terminated.

SOUTH WALES AND MONMOUTHSHIRE BRANCH:

CARDIFF DIVISION.

A MEETING of this Division was held on February 13th, about eighty-five being present. Dr. MACLEAN vacated the chair, which was filled by Professor HEPBURN.

National Insurance Act.

Dr. C. T. VACHELL moved:

That it be an instruction to our Representative that he use every possible endeavour to induce the present Council to place their resignations in the hands of the members.

This was lost by 30 to 43.

Recommendations of Council.

The Council's recommendations were then considered.

Recommendation I was carried, after a motion urging the Council at once to cease negotiations had been lost by 34 to 49.

Recommendations II and III were also carried.

Recommendation IV.—"Emergency" was inserted in place of "provisional," and all after the word "profession" was omitted. In this form it was carried.

Recommendation V.—"Failing" down to "Act" was omitted. The words after "adequate" were replaced by "after reference to each Division."

The following rider was carried unanimously:

That the Council should take steps to get the signatures of consulting physicians and surgeons, and all those holding honorary hospital appointments, to a special "undertaking" in terms such as the following:

"That in the event of the British Medical Association requiring that no medical practitioner shall undertake medical service under the National Insurance Act, owing to the failure on the part of the Commissioners to embody in their Regulations the six cardinal principles of the Association, I undertake to notify the committee of management of any voluntary hospital, of the staff of which I may be a member, that on and after the date on which the medical benefits under the Act come into operation I cannot attend any insured person sent up for treatment by any whole-time medical officer or any practitioner serving under the Act contrary to the wishes of the British Medical Association. Also, that should the necessity arise, I pledge myself to resign my appointment on the staff of any hospital supported by voluntary contributions, and will not apply for or accept any post thus rendered vacant."

Recommendation VI was amended to read as follows:

That a State Sickness Insurance Committee be appointed to consider and report to the Council on all matters connected with the Insurance Act; that the Committee consist of twenty-four members elected by the Branches and grouped Branches in the United Kingdom (the election to be by postal voting papers sent to each member of the constituency), and that the Committee be empowered to add to its numbers for special purposes not more than four additional members.

This was carried by 29 to 26.

It was agreed that the Representative be allowed no discretion with regard to modifying the above resolutions.

Drs. Stevens, Martin, and Milward were appointed delegates to a meeting at Shrewsbury on February 15th, to make the preliminary arrangements for the formation of a Medical Committee for Wales.

MONMOUTHSHIRE DIVISION.

A SPECIAL meeting of this Division was held at the Savoy Hotel, Newport, Mon., on Wednesday, February 14th. The CHAIRMAN (Dr. H. C. Bevan) presided, and the following members were also present: Drs. O'Keeffe, Crinks, Lawrence, J. L. Thomas, Basset, Gratte, Greer, Mitchell, A. H. James, T. W. Bevan, Cowie, Marsh, Verity, Kendall, Mills, Strong, Glendinning, Nelis, E. B. Hughes, Barnard, Nolan, Ryan, Frost, Acomb, J. Howard Jones, Williams, R. E. Thomas, J. D. O'Sullivan, Townley, Lloyd, Hurley, Tonks, Burpitt, Owen Morgan, Price, Tatham, W. Hughes, Tresawna, J. O'Sullivan, P. McGinn, Connellan, Wade, T. Morrell Thomas, W. D. Steel, E. Y. Steele, J. McGinn, Neville, Vines, Buckner, and R. J. Coulter and S. Hamilton, Honorary Secretaries.

Apologies for Non-attendance.—Apologies for inability to attend were received from Drs. Elworthy and A. E. Jones.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Ethical.—A recommendation of the Ethical Committee with regard to putting Rule Z, Section (*b*), in force was unanimously approved.

National Insurance Act: Report of Council.—The Report of Council was considered, and, after prolonged discussion, the recommendations of the Council were approved, with the addition of the following rider:

That the profession does not see its way to appoint representatives on Insurance Committees or in any way attempt to work the National Insurance Act until it has sufficient guarantees that the six cardinal points will be granted.

Special Representative Meeting.—It was resolved that the Recommendations of the Council and the above rider should be the basis of the instructions of the Division to its Representative at the Special Representative Meeting, and the Honorary Secretaries were instructed to have the rider placed on the agenda of the meeting as a resolution on behalf of the Division.

Proposed Welsh Committee.—An invitation to the Division to send representatives to a meeting at Shrewsbury to take steps to put into effect a recommendation of the South Wales and Monmouthshire Branch, that a committee be formed to formulate the requirements of the profession in Wales under the National Insurance Act and to make such known to the Welsh Commissioners, was considered. A proposal that no representatives be sent having been defeated, it was decided to ask Drs. Greer, Hamilton, and Coulter to attend the meeting with instructions to take no definite action without first reporting to the Division.

SOUTH-WESTERN BRANCH:

PLYMOUTH DIVISION.

A MEETING of this Division was held in the Medical Society's Rooms, Plymouth, on Monday, February 12th. Mr. R. JAQUES, F.R.C.S. (Chairman), presided over a meeting of thirty-four members.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

The Death of Lord Lister.—The HONORARY SECRETARY announced that he had received a number of communications from other Divisions throughout the country. These were briefly summarized by the CHAIRMAN, who then suggested that before proceeding to the consideration of the report the members might like to take some notice of the lamented decease of the late Lord Lister. It was accordingly proposed and seconded:

That this meeting of the Plymouth Division of the British Medical Association hears with deep regret of the death of Lord Lister, and wishes to place on record its profound sense of the debt of gratitude due alike from the medical profession and the public for Lord Lister's eminent labours as a scientific surgeon and philanthropist.

This was carried, the members standing.

National Insurance Act: Report of Council.

The Report and Recommendations of Council were then discussed.

Dr. R. SIMPSON proposed and Dr. VAN BUREN seconded that Recommendation I be amended thus:

That the Council be instructed to request the Government to bring in an amending bill to the Insurance Act that will contain the six cardinal points demanded by the profession; further, that unless an amending bill be introduced the Council be instructed to have no further negotiations with the Insurance Commissioners.

This was carried by 20 votes to 5.

An amendment to this, proposed by Dr. COOKE, was lost.

Recommendation II was carried with the addition at the end of the words:

"In the manner indicated in the foregoing resolution."

Recommendations III, IV, V were carried; an alteration that the word "provisional" be omitted in No. IV was agreed to.

The following amendment to Recommendation VI was agreed to by a majority:

That a State Sickness Insurance Committee be appointed to consider and report to the Council on all matters connected with the National Insurance Act; that the Committee consist of twenty-four members elected by the Branches

and grouped Branches in the United Kingdom and the *ex officio* members; and that the Committee be empowered to add to its numbers for special purposes not more than four additional members.

Instructions to the Representative.—The foregoing resolutions were ordered to be given in writing as instructions to the Divisional Representative. A further list of resolutions passed at a meeting of the South-Western Branch were then considered, and the Representative instructed to act in respect to them with the other Representatives of the Branch.

Communication to Local Press.—It was resolved that no communication be made to the press as to the proceedings of the meeting. It is to be regretted that some member disregarded this and made a communication to one of the local papers.

STIRLING BRANCH.

A MEETING of this Branch was held in the Station Hotel, Stirling, on February 15th. Thirty-one members were present. Dr. Joss was in the chair.

Confirmation of Minutes.—The minutes of the last meeting were signed after they had been approved.

National Insurance Act: Recommendations of Council.—The meeting was called to consider the report of the Council, in view of the Representative Meeting on February 20th. The Representative was instructed (1) to support the action of the Council and to vote against any resolution censuring the Council or disagreeing with its policy. (2) To inquire as to what was meant by "the requirements of the profession" under Recommendation I, and especially to press for the inclusion in these requirements of an alteration of Clause 15 (2 b) of the National Insurance Act, whereby the Commissioners have power to remove the name of a practitioner from the panel. (3) To inquire as to what was meant by "conceded" under Recommendation II. (4) To move an amendment to Recommendation V for the omission of the words "failing the provision of adequate remuneration of medical practitioners under the National Insurance Act."

Scottish Medical Insurance Council.—The meeting unanimously passed a resolution approving of the formation and the objects of the Scottish Medical Insurance Council.

WEST SOMERSET BRANCH.

A SPECIAL general meeting was held at the Taunton and Somerset Hospital on February 13th, at 3.15 p.m. Mr. W. B. WINCKWORTH, President, was in the chair. Thirty-seven members were present.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

National Insurance Act: Recommendations of Council.

The CHAIRMAN called on Dr. J. A. Macdonald to address the meeting in reference to the recommendations of the Council. After Dr. MACDONALD had expressed the views of the Council and they had been discussed, the following resolutions were passed:

Recommendations I, II, III, IV, V, carried *nemine contradicente.*

Rider to Recommendation V:

This shall necessitate the resignation at the earliest possible date of all club appointments in which the remuneration does not come up to the rate agreed upon.

This was carried.

Amendment to Recommendation VI:

That instead of "four" in line 6 the number be "up to twelve."

This was carried *nemine contradicente.*

Rider:

That among the co-opted members should be representatives of the other medical organizations.

This was carried *nemine contradicente.*

After the meeting the President entertained the members to tea.

YORKSHIRE BRANCH:

SHEFFIELD DIVISION.

A GENERAL meeting of the Division was held in the Medical Library of the University on Friday, February 16th, at 9 p.m. Dr. GORDON (the Chairman) was in the chair, and eighty members were present.

Apologies for Non-attendance.—Apologies for non-attendance were received from Drs. Sinclair White, Riseley, Teasdale, and Tristan (Retford).

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

National Insurance Act: Recommendations of Council.

The meeting then considered the recommendations of the Council which are to be brought up at the Representative Meeting.

Recommendation 1 was approved, and the following rider was added:

That it is advisable that the Council shall co-operate with members representative of the chief medical corporations and associations of the kingdom in pressing these points on the Commissioners and Government.

Recommendations 2, 3, and 4 were agreed to.

Recommendation 5 was agreed to, and the following rider added:

And that in the event of the medical profession declining service under the Act, and the medical benefits being suspended from the Act, all contract work involving attendance upon persons insured under the Act shall be resigned.

Recommendation 6 was amended as follows, and the amended recommendation read:

That a State Sickness Insurance Committee be appointed to consider and report to the Council on all matters connected with the National Insurance Act, and that the Committee consist of:

(*a*) Eighteen members elected by the Representative Body;
(*b*) Six members elected by the Council;
(*c*) Two members nominated by the Association of Registered Medical Women;
(*d*) *Ex officio* members;

and that the Committee be empowered to add to its numbers for special purposes not more than four additional members.

ABERDEEN BRANCH:

ABERDEEN DIVISION.

A MEETING of this Division, to which non-members and medical students of the fifth year were also invited, was held in Aberdeen on February 16th, Dr. JOHN GORDON presiding. There was a large and representative attendance.

The Death of Lord Lister.

The CHAIRMAN at the outset made reference to the death of Lord Lister.

National Insurance Act.

The meeting considered the position of the doctors to the National Insurance Act. Dr. Gordon was unanimously appointed to represent the Aberdeen Division at the Representative Meeting to be held in London on February 20th and 21st.

The CHAIRMAN outlined the position of the National Insurance Act at present, and indicated two lines of policy that were before the profession—the one being to undertake no service whatsoever under the new Act, and the other to continue negotiations with the Insurance Commissioners. The following two alternative motions were then put before the meeting:

1. That this Branch instruct the British Medical Association not to negotiate with the Commissioners until the National Insurance Act has been amended.
2. That at this stage any conference between the medical profession and the Joint Commissioners under the National Insurance Act should have reference solely to the question of the six cardinal points; that until satisfactory assurances have been given that these are and will be secured by the regulations under the Act or by an amended Act the medical profession declines all professional work under the Act, and refuses to act on the Advisory Committee and other committees constituted under the Act; that in case of any difference of opinion on broad points of policy in the Representative Body the minority ought to fall in with the majority so as to secure absolute unanimity; and that this Division instructs its Representative accordingly.

After a free discussion had taken place, the second motion was carried by a large majority. Those who took part in the discussion included Dr. MITCHELL, Dr. ELLIS MILNE, Dr. FRASER, Dr. BEVERIDGE, Dr. RORIE, Dr. SMITH (Peterhead), Dr. OGILVIE WILL, etc.

With regard to the motion that is to be before the Representative Meeting in London, demanding the resignation of Dr. Maclean as Chairman of the Representative

Body, the meeting decided that its Representative should not support the motion. It was similarly decided that the Representative should not support the motion demanding that the whole Council of the Association should resign.

Provisional Contract Practice Committee.—The meeting then proceeded to elect a provisional committee to deal with matters affecting contract practice in the area of the Branch and other matters of a suitable nature, and the following gentlemen were elected:—Kincardineshire: Dr. Cruickshank and Dr. Grey Brown (Stonehaven). Deeside: Dr. Rorie (Cults), Dr. Cran (Banchory), and Dr. Hendry (Ballater). Garioch: Dr. Nicol (Alford), Dr. Cockburn (Old Meldrum), Dr. Forbes (Inverurie), Dr. Wilson (Huntly), Dr. Hendry (Kemnay), and Dr. Crerar (Turriff). Peterhead: Dr. Smith and Dr. Middleton (Peterhead) and Dr. Trail (Strichen). Fraserburgh: Dr. Beddie and Dr. Trail. Banff: Dr. Ferguson. The Representatives for the town were not elected.

FIFE BRANCH.

A meeting of members of this Branch, and non-members within the area of the Branch, was held in the Station Hotel, Kirkcaldy, on February 15th. Dr. Craig, President, was in the chair. There was a large attendance of the profession.

Apologies for Non-attendance.—Several apologies for absence were intimated.

Confirmation of Minute.—The minute of the meeting of January 9th was read and approved.

National Insurance Act.

The Honorary Secretary (Dr. R. Balfour Graham) reported that he had received a letter from the Acting Medical Secretary with reference to an error in the notice in the Supplement calling the Representative Meeting, but this had subsequently been rectified. He also reported that he had forwarded the resolutions of the last general meeting to the Secretary of the Scottish Insurance Commissioners, and he had an acknowledgement to the effect that the whole subject of medical benefit would receive the earnest attention of the Commissioners with the least possible delay, and that a special committee had been appointed to consider it and all relative matters. The Honorary Secretary also reported that he had attended on January 20th, as a member of the Scottish Committee, a conference with the universities and Royal Colleges in Edinburgh. The finding of the meeting was to the effect that a body, to be called the Scottish Medical Insurance Council, was to be set up very shortly, which would include representatives from all the insurance areas and of the universities and Royal Colleges in Scotland. After that an executive would be appointed to look after the interests of the profession in Scotland under the Insurance Act. In accordance with the remit from the last general meeting the Branch Council had considered the question of the appointment of provisional medical committees, and now recommended to this meeting that nothing be done meantime regarding these committees until the Representative Meeting and the Scottish Medical Insurance Council Meeting had taken place. The meeting agreed to the recommendation of the Branch Council.

Report of Council.—The meeting then considered the report of the Central Council on the National Insurance Act, and went over the various paragraphs seriatim, explanations being given and asked by the President and others on various points. Dr. Tuke then moved the first resolution before the meeting, and this was seconded by Dr. Laing, namely:

> That in the opinion of this meeting the National Insurance Act does not and cannot meet the just demands of the medical profession as formulated in the six cardinal principles of the British Medical Association; that it is detrimental to the public interest; and that the situation thus created can only be adequately met by a refusal on the part of the profession to undertake any duties which the Act proposes to assign to it.

Dr. Heron moved as an amendment:

> That in the opinion of this meeting the profession should absolutely refuse to work under the Insurance Act unless and until the six cardinal principles of the British Medical Association are guaranteed under the regulations to be framed by the Commissioners.

This was seconded by Dr. McEwan. The Honorary Secretary pointed out that there was really not much difference between the two motions, but that, if the first were carried, the action of the Branch in regard to the election of the Scottish Medical Insurance Council would be stultified, and that some recognition must be made of that body, while at the same time reaffirming their former position, and he therefore moved the following motion, which was seconded by Dr. Anderson:

> That in the opinion of this meeting the National Insurance Act does not meet the just demands of the medical profession as formulated in the six cardinal principles of the British Medical Association; that it is detrimental alike to the public and medical interest, and that unless the Commissioners are prepared—as the profession in Fife has already affirmed—to meet these demands, or until an amending Act is passed embodying these principles, a situation will be created which could only be adequately met by a refusal on the part of the profession to undertake any duties which the Act proposes to assign to it; and it is agreed, further, that the finding hereby come to be thus expressed by the Representatives for Fife on the Scottish Medical Insurance Council—an organization which this meeting heartily welcomes—as likely to consolidate medical opinion in Scotland.

In the discussion of these motions the President, Drs. Douglas, Crawford, Love, and others took part, and ultimately Drs. Tuke and Heron, with consent of their seconders, withdrew their motions in favour of that of the Honorary Secretary, which thus became the unanimous finding of the meeting. Dr. Anderson then moved:

> That the Fife Branch of the British Medical Association resolves that in future no friendly society or contract practice of any kind be undertaken for (1) a less yearly fee than 8s. 8d. per individual member, (2) a minimum fee of 2s. 6d. for attendance (neither of these sums to include medicine, dressings, surgical appliances, teeth extractions, night visits, operations, confinements, anaesthetics, consultations with other medical men, or mileage, and that for these exceptions a special scale of fees shall be drawn up); and, further, that friendly society or contract practice as above be open to all medical practitioners willing to accept it.

This was seconded by Dr. Bryson, and unanimously agreed to. It was agreed, on the motion of the Honorary Secretary, to instruct the Representative to support the Recommendations of the Central Council, Nos. I to V, as contained in the Council's report. With reference to No. VI. an amendment was moved by the President, seconded by Dr. Murray, and unanimously agreed to:

> To substitute "twenty-four members elected by the Branches and grouped Branches in the United Kingdom and" for lines 3 and 4, so that the recommendation will read: "That a State Sickness Insurance Committee be appointed to consider and report to the Council on all matters connected with the National Insurance Act; that the Committee consist of twenty-four members elected by the Branches and grouped Branches in the United Kingdom and the *ex officio* members; and that the Committee be empowered to add to its numbers for special purposes not more than four additional members."

Dr. Murray moved that the Representative support resolution No. 1 of the Birmingham Branch, with reference to requesting the resignation of Dr. Maclean, etc., upon certain grounds, and this was seconded by Dr. Eggling. The Honorary Secretary moved the previous question on the ground that the motion was of the nature of recrimination, and, further, that it had not been proved that Dr. Maclean has misdirected the Representatives, as would be found in the Supplement. This was seconded by Dr. Easdale Greig, and carried by 10 votes to 8. The meeting agreed that the Recommendations of the Central Council above referred to should in no way interfere with the findings of this Branch as contained in the resolutions above come to, or with the relations of its members or non-members to the Scottish Medical Insurance Council. The Representative was left to use his own discretion on other matters arising at the Representative Meeting, keeping in view the interests of the members he specially represents.

NORTH OF ENGLAND BRANCH:

Gateshead and Consett Divisions.

A combined meeting of the Gateshead and Consett Divisions was held in the Dispensary, Gateshead, on Wednesday, February 14th. Dr. S. V. Robinson was in the chair, and thirty-five members were present.

Confirmation of Minutes.—The minutes of the last two meetings were read and confirmed.

Undertaking and Guarantee Fund.—Arising out of the minutes, the SECRETARY asked Dr. Charles what was being done by the Consett men as regards signing the undertaking and contributing to the guarantee funds. Dr. CHARLES intimated that up to the present nothing had been done, but that he was willing to institute a canvass on receipt of the necessary papers, which have since been forwarded by the Secretary. The SECRETARY informed the meeting that the Gateshead Division was now well organized; every doctor in the Gateshead area, with two exceptions, had signed the undertaking. Sixty per cent. had contributed to the guarantee fund; but, as the canvass was not yet completed, it was confidently expected that almost every man in the Division would guarantee.

National Insurance Act: Recommendations of Council.—The Recommendations of the Council were discussed at great length. The Representative was instructed to support No. I, No. II, No. III, and No. IV; No. V was left to the judgement of the Representative. As to No. VI, it was thought by the meeting that the State Sickness Insurance Committee should be of a much more national character, and instructed the Representative to urge on the Representative Meeting the necessity of this Committee being on the same lines as the Scottish National Committee.

Instructions to Representative.—The REPRESENTATIVE desired from the Division a definite expression of opinion on several points which might arise at the Representative Meeting. These points were all fully discussed, and the Representative instructed thereon. The meeting instructed the Representative to endorse the policy of the Council since the last Representative Meeting.

NORTH NORTHUMBERLAND DIVISION.

AN ordinary meeting of this Division was held at the Infirmary, Alnwick, on February 16th. There were present: Drs. Macaskie, Macdonald, Robson, Purves, Welsh (Felton), Welsh (Amble), Watson, Loughridge, Trevor-Roper, Crowley, and Burman. Dr. MACASKIE took the chair.

Apologies for Non-attendance.—Apologies for absence were received from Drs. Dey, Badcock, Forrest, and Mackay.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Special Representative Meeting.—The consideration of the instructions to be given to the Representative of the Division at the Special Representative Meeting to be held on February 20th and 21st was opened by the CHAIRMAN, who in some introductory remarks urged the members to support the policy of the Association, as being the only organization representing the profession, recommended that the claims of medical men should be urged upon the Insurance Commissioners, and while not committing themselves in any way, they should not ignore the Act entirely. An animated discussion followed, the "no-service" policy receiving support from some members, but ultimately the CHAIRMAN moved, Dr. WATSON seconded, and it was unanimously carried:

> That our Representative be instructed that the members of this Division do not intend to accept service under the National Insurance Act until the claims of the profession, as laid down in the six cardinal points of the British Medical Association, are guaranteed by the Insurance Commissioners.

It was also proposed and carried:

> That the Representative be instructed to support the policy of the Association in meeting the Insurance Commissioners to discuss terms, provided no final decision was arrived at without the Divisions being consulted.

Proposed Local Medical Committee.—The question of nominating a local Medical Committee was next brought before the meeting, and the meeting was in favour of such committee being formed. This action did not commit the members to any policy, and it provided a statutory means of approach to the local Insurance Committee for the profession. It was proposed, seconded, and carried unanimously:

> That the gentlemen nominated at the meeting of medical men practising in the Division held on May 22nd, 1911, constitute the local Medical Committee, their names being Drs. Macaskie, Mackay, Moyes, Jackson, and Burman—

as thoroughly representing the different classes of practice in the Division.

Resignation of Honorary Secretary.—The SECRETARY announced his resignation, to take place at the termination of the business year.

Tea.—Members were entertained to tea by Mrs. Burman after the meeting.

NORTH WALES BRANCH:

DENBIGH AND FLINT DIVISION.

A SPECIAL meeting of the medical practitioners residing within the area of this Division was held at Chester on February 9th.

National Insurance Act: Recommendations of Council.

The main object of the meeting was to consider the Report and Recommendations of the Council of the Association.

Recommendations I, II, III, IV, and VI were agreed to. With regard to Recommendation V, it was proposed by Dr. W. S. SPRENT, seconded by Dr. H. DRINKWATER, and carried unanimously:

> That the words "insured or otherwise" be inserted after the words "no person."

The meeting proceeded to consider the following resolutions submitted by the Representatives of the Branches in Wales on the Central Council of the Association for consideration:

1. That this meeting of medical men practising in Wales resolves itself into a Welsh Medical Committee, and that the general purpose of the proposed committee be an organized union of the medical profession of Wales for the purpose of protecting the interests of the profession and of strengthening the bonds of fellowship.
2. That we reaffirm the six cardinal principles of the British Medical Association.
3. That the Welsh Insurance Commissioners be informed that the profession in Wales will absolutely refuse to work under the Act unless the regulations framed by the Commissioners are consistent with the six cardinal principles above referred to.
4. That in the opinion of the "Welsh Medical Committee" the Divisions be asked to convene meetings to adopt these resolutions and discuss terms on which medical men will accept service under the Act.

The resolutions were adopted, and delegates appointed to attend a meeting summoned to meet at Shrewsbury on February 15th.

SOUTHERN BRANCH:

PORTSMOUTH DIVISION.

A CLINICAL meeting was held at Southsea on January 31st. Dr. SHEAHAN, Chairman, presided, and twelve members were present.

Clinical Cases.—Mr. CHILDE showed a man aged 48, in whom two gall stones had been removed transduodenally from the ampulla of Vater. Dr. LEON showed a female child with splenic anaemia (with blood slide), a case of lupus erythematosus, and a case of acromegaly. Dr. COLE BAKER showed a case of extensive naevus of the left cheek and a case of lymphatic obstruction of unknown cause involving the penis and scrotum in a boy.

Communications.—Mr. RIDOUT read notes of a case of epiglottidectomy for malignant disease of the epiglottis by a transverse incision below the hyoid bone. The patient died some weeks after of septic pneumonia, but during life could swallow liquids without choking, provided he swallowed quickly.

Pathological Specimens.—Dr. COLE BAKER showed three large stones which had been removed from a cul-de-sac of a female urethra. Mr. CHILDE showed specimens of excised ulcers of the stomach (simple and malignant). Dr. L. MAYBURY showed a very thin gall bladder full of stones from a female aged 89; also the uterine appendages of a woman who died of suppurative peritonitis following an attempt to procure abortion by the insertion of a crochet hook into the uterus. *Post mortem* no wound of the uterus could be detected.

To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.

Association Notices.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

A LIST of periodical publications, official reports, and Blue Books in the Library of the British Medical Association available for issue to members on loan has been printed, and copies can be obtained free on application to the Librarian, at the house of the Association, 429, Strand, W.C. The regulations governing the loan of these publications are stated in the introduction to the list.

The Library is open for consultation from 10 a.m. till 5 p.m. (on Saturdays till 2 p.m.).

BRANCH AND DIVISION MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH.—The fourth ordinary meeting of the session will be held at the Museum, Bath, on Wednesday, February 28th, at 8 o'clock, Dr. Geo. Parker, President, in the chair. The evening will be devoted to a discussion on Cerebral Decompression in Ordinary Practice, to be opened by Mr. C. A. Ballance, M.V.O. A Council Meeting will be held at 7.55.—W. M. BEAUMONT, NEWMAN NEILD, Honorary Secretaries, Bath.

STAFFORDSHIRE BRANCH.—The second general meeting of the session will be held at the Swan Hotel, Stafford, on Thursday, February 29th. Mr. W. D. Spanton, F.R.C.S., President, will take the chair at 5.15 p.m. Business: (1) Minutes of the last Ordinary General Meeting. (2) Correspondence. (3) Exhibition of Living Cases. (4) Papers:—(i) A. E. Hodder: The Diagnostic Value of Pain. (ii) C. M. Mitchell: Bedside Manners of London's Chief Consultants. (5) Exhibition of Pathological Specimens, etc. Dinner, 7.15 p.m.; charge, 5s.—HAROLD HARTLEY, Honorary General Secretary, Basford, Stoke-on-Trent.

CENTRAL MIDWIVES BOARD.

A SPECIAL meeting of the Central Midwives Board was held on January 30th at Caxton House, Westminster, with Sir FRANCIS H. CHAMPNEYS in the chair.

Midwives Struck off the Roll.

The Board considered the following charges amongst others against the midwives whose names are given below, and ordered them to be struck off the Roll:

Hannah Cooper, that being in attendance as a midwife at a confinement, the child being premature and dangerously feeble, she did not explain that the case was one in which the attendance of a registered medical practitioner was required, nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that this might be immediately forwarded to the medical practitioner, as required by Rule E 20 (5).

Elizabeth Cox, that she was uncleanly in her person and house, contrary to Rule E 1; that she did not possess the appliances and antiseptics required by Rule E 2; that she did not adopt the antiseptic precautions required by Rules E 3 and 7; that she did not comply with Rule E 13, being unable to use a clinical thermometer: and that she did not keep her register of cases as required by Rule E 23.

Ann Freestone, that being in attendance as a midwife at a confinement, she was under the influence of drink and unable to perform her duties properly; that, the child suffering from inflammation of the eyes, she did not explain that the case was one in which the attendance of a registered medical practitioner was required, nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that this might be immediately forwarded to the medical practitioner, as required by Rule E 19 (5) of the rules then in force.

Bridget Mary Marriott, that on July 3rd, 1911, she was convicted at the Thames Police Court of having been drunk and disorderly in Lower North Street, Poplar; that she habitually failed to wear a dress of washable material when attending to her patients, as required by Rule E 1; and that her bag was unsuitable and too small to carry the complete appliances and antiseptics required by Rule E 2, and that the lining of the bag was dirty.

Rebecca Riding, that being in attendance as a midwife and having been warned on September 4th that she was not to attend any further cases without undergoing adequate disinfection, she nevertheless attended at confinements, and during the lying-in period, without having undergone disinfection to the satisfaction of the local supervising authority as required by Rule E 5.

Ann Wright, that being in attendance as a midwife at a confinement, the child suffering from inflammation of and discharge from one eye the day after birth, she did not explain that the case was one in which the attendance of a registered medical practitioner was required, nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that this might be immediately forwarded to the medical practitioner, as required by Rule E 20 (5).

Mary Ann Wright, that being in attendance as a midwife at a confinement, the patient having been delivered of twins, premature and feeble, she advised that medical help should be sent for, but she did not hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that this might be immediately forwarded to the medical practitioner, as required by Rule E 19 (5) of the rules then in force.

Midwives Censured.

The following midwives were censured after charges against them had been considered: *Maria Salt*, *Emma Smith*, *Susan Barratt*, *Mary Elizabeth Beard*, *Jane Elizabeth Hollinshead*, and *Sarah Rogers*.

Midwife Cautioned.

Eliza Hipkiss was cautioned after charges against her had been considered.

Postponement of Judgement.

In the case of a midwife who had been found guilty of neglecting her patients, and of attempting to evade inspection, judgement was postponed for six months, and the local supervising authority were asked to furnish a report on her conduct and methods of practice during the interval.

Vital Statistics.

EPIDEMIC MORTALITY IN LONDON.

[SPECIALLY REPORTED FOR THE "BRITISH MEDICAL JOURNAL."]

THE accompanying diagram shows the prevalence of the principal epidemic diseases during the fourth quarter of last year; the fluctuations of each disease and its relative fatality compared with the average in the corresponding periods of recent years can thus be readily seen, except that in the case of diarrhoea and enteritis among children under two years of age the average mortality is not available.

Small-pox.—No deaths from small-pox was registered last quarter, and no case of this disease was admitted to the Metropolitan Asylums Hospitals during that period.

Measles.—The fatal cases of measles, which had been 1,581, 690, and 159 in the three preceding quarters, further declined to 140 during the three months under notice, and were 228 fewer than the corrected average number. This disease was proportionally most fatal in Holborn, Southwark, Bermondsey, Camberwell, Deptford, and Greenwich.

Scarlet Fever.—The deaths from scarlet fever, which had been 43 and 41 in the two preceding quarters, rose again to 45 last quarter, but were 86 below the corrected average. Among the several boroughs this disease showed the greatest proportional mortality in St. Marylebone, St. Pancras, Stoke Newington, Finsbury, and Greenwich. The Metropolitan Asylums Hospitals contained 1,879 scarlet fever patients at the end of last quarter, against 1,206 and 1,656 at the end of the two preceding quarters; 3,330 new cases were admitted during the quarter, against 1,956 and 2,638 in the two preceding quarters.

Diphtheria.—The fatal cases of diphtheria, which had been 170, 123, and 129 in the three preceding quarters, further rose last quarter to 190, and were slightly in excess of the corrected average number. The greatest proportional mortality from this disease last quarter was recorded in Hammersmith, Fulham, Hampstead, Islington, Shoreditch, Poplar, Greenwich, and Lewisham. There were 1,294 diphtheria patients under treatment in the Metropolitan Asylums Hospitals at the end of last quarter, against 771 and 882 at the end of the two preceding quarters; 2,142 new cases were admitted during the quarter, against 1,298 and 1,456 in the two preceding quarters.

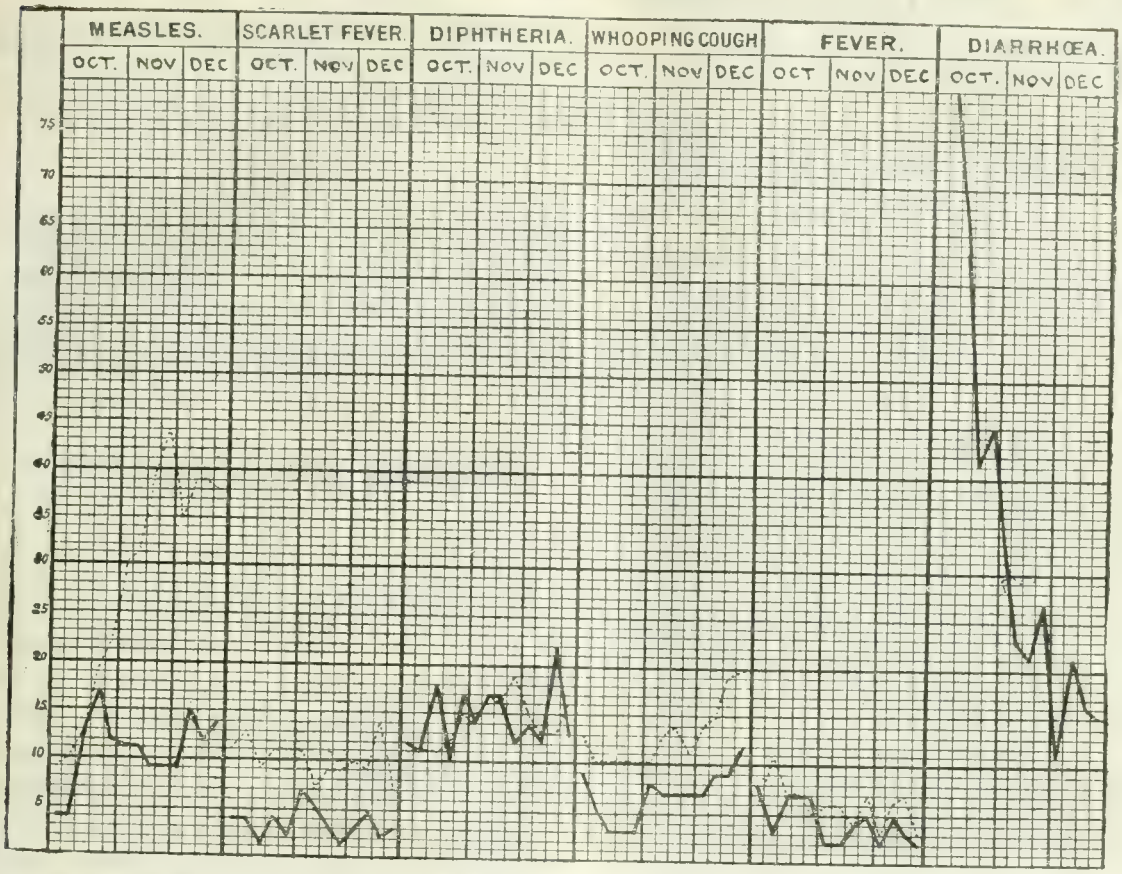
Whooping-cough.—The deaths from whooping-cough, which had been 425, 359, and 165 in the three preceding quarters, further fell to 89 last quarter, and were 80 below the corrected average number. This disease was proportionally most fatal last quarter in Chelsea, Finsbury, the City of London, Poplar, Southwark, Lambeth, and Deptford.

Enteric Fever.—The fatal cases of enteric fever, which had been 1 and 43 in the two preceding quarters, further rose last quarter to 5 but were 21 below the corrected average number. The greatest proportional mortality from this disease was recorded in Kensington, Hammersmith, Holborn, Finsbury, and Poplar. The number of enteric fever patients under treatment in the Metropolitan Asylums Hospitals which had been 33 and 155 at the end of the two preceding quarters had declined again to 76 at the end of last quarter; 171 new cases were admitted during the quarter, against 71, 71, and 237 in the three preceding quarters.

Diarrhoea.—The deaths under this heading are those attributed to diarrhoea and enteritis among children under 2 years of age, and numbered 582 in the quarter under notice, the greatest proportional mortality from this cause being recorded in Shoreditch, Bethnal Green, Stepney, Bermondsey, Battersea, Wandsworth, Deptford, and Greenwich.

In conclusion it may be stated that the lowest death-rates from the epidemic diseases in the aggregate were recorded in the City of We

DEATHS FROM EPIDEMIC DISEASES IN LONDON DURING THE FOURTH QUARTER OF 1911.



NOTE.—The black lines show the *recorded* number of deaths from each disease during each week of the quarter. The dotted lines show the *average* number of deaths in the corresponding weeks of the five preceding years, 1906–10. Under the heading "Diarrhoea" are given the deaths from diarrhoea and enteritis among children under 2 years of age; the corrected average number of these deaths is not available.

minster, Hampstead, Stoke Newington, the City of London and Woolwich; and the highest rates in Shoreditch, Poplar, Southwark, Bermondsey, Deptford, and Greenwich.

HEALTH OF ENGLISH TOWNS.

In ninety-four of the largest English towns 8,799 births and 7,276 deaths were registered during the week ending Saturday, February 10th. The annual rate of mortality in these towns, which had been 14.8, 16.5, and 18.6 per 1,000 in the three preceding weeks, had further risen to 21.6 per 1,000 in the week under notice. In London last week the death-rate was equal to 20.3 per 1,000, against 14.0, 15.9, and 17.7 in the three preceding weeks. Among the ninety-three other large towns the death-rates ranged from 10.0 in Stockton-on-Tees, 10.1 in Walthamstow and in Southend-on-Sea, 10.7 in Ilford, 11.9 in Devonport, 12.1 in Swindon, and 12.5 in Lincoln to 31.0 in Southport, 31.5 in Plymouth, 32.1 in Gloucester, 32.8 in Merthyr Tydfil, 34.2 in Aberdare, and 40.4 in Walsall. Measles caused a death-rate of 1.2 in Manchester, 1.4 in Oldham, 1.8 in Newport (Mon.), and 7.1 in Warrington; whooping-cough of 2.4 in Barrow-in-Furness, 2.7 in Preston, 3.7 in St. Helens, 3.9 in Dewsbury, 4.5 in Walsall, and 5.7 in Merthyr Tydfil; and diphtheria, of 1.1 in Walsall and in Bolton, 1.3 in Norwich and in Preston, and 1.4 in Plymouth. The mortality from enteric fever and scarlet fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 85, or 1.2 per cent. of the deaths registered in the ninety-four towns last week were not certified either by a registered medical practitioner or by a coroner after inquest, and included 18 in Birmingham, 17 in Liverpool, 5 in Sunderland, 4 in Nottingham, and 4 in Manchester. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,654, 1,562, and 1,500 at the end of the three preceding weeks, rose to 1,512 on February 10th; 178 new cases were admitted during the week, against 162, 158, and 169 in the three preceding weeks.

In ninety-four of the largest English towns, 9,096 births and 6,270 deaths were registered during the week ending Saturday, February 17th. The annual rate of mortality in these towns, which had been 16.5, 18.6, and 21.6 per 1,000 in the three preceding weeks, declined to 18.6 per 1,000 in the week under notice. In London the death-rate was equal to 18.0 per 1,000, against 15.9, 17.7, and 20.3 in the three preceding weeks. Among the ninety-three other large towns the death-rates ranged from 6.2 in Southend-on-Sea, 8.5 in Hornsey, 9.2 in Wimbledon, 9.9 in Enfield, 10.0 in Ilford, and 10.1 in Edmonton, to 26.8 in Brighton, 27.5 in Preston, 28.5 in Bath, 29.6 in West Bromwich, 35.1 in Great Yarmouth, and 37.5 in Dudley. Measles caused a death-rate of 1.1 in Ilford, 1.2 in Reading, 1.3 in York, 2.1 in Warrington, and 2.4 in Nottingham; and whooping-cough of 1.8 in Bury, 1.9 in Devonport, 2.2 in Preston, 2.4 in Barrow-in-Furness, 3.2 in Merthyr Tydfil, and 3.9 in Walsall. The mortality from the remaining epidemic diseases showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 54, or 0.9 per cent., of the deaths registered in the ninety-four towns last week were not certified either by a registered medical practitioner or by a coroner after inquest, and included 7 in Liverpool, 6 in Birmingham, and 4 each in West Bromwich, South Shields, and Gateshead. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,562, 1,500 and 1,512 at the end of the three preceding weeks, had further declined to 1,461 on Saturday last; 154 new cases were admitted during the week, against 158, 169, and 178 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

In eighteen of the largest Scottish towns 1,080 births and 953 deaths were registered during the week ended Saturday, February 10th. The annual rate of mortality in these towns, which had been 17.7 and 19.1 per 1,000 in the two preceding weeks, further rose to 22.8 in the week under notice, and was 1.2 per 1,000 above the death-rate recorded in the ninety-four large English towns. Among the several Scottish towns the death-rates ranged from 10.4 in Govan, 11.3 in Motherwell, and 15.3 in Falkirk to 26.6 in Glasgow, 29.5 in Greenock, and 31.8 in Perth. The mortality from the principal infectious diseases averaged 2.4 per 1,000, and was highest in Coatbridge and Greenock. The 400 deaths from all causes registered in Glasgow included 49 from measles, 7 from whooping-cough, 5 from diphtheria, and 3 from infantile diarrhoea. Seven deaths from measles were recorded in Greenock, 2 in Edinburgh, and 2 in Aberdeen: 2 deaths from scarlet fever in Aberdeen; and 3 deaths from whooping-cough in Coatbridge.

In eighteen of the largest Scottish towns 1,108 births and 923 deaths were registered during the week ending Saturday, February 17th. The annual rate of mortality in these towns, which had been 19.1 and 22.8 in the two preceding weeks, declined to 22.1 per 1,000 in the week under notice, but was 3.5 per 1,000 above the rate recorded in the ninety-four large English towns. Among the several Scottish towns the death-rates last week ranged from 12.2 in Leith, 12.9 in Clydebank, and 13.7 in Partick to 25.7 in Glasgow, 26.8 in Greenock, and 33.2 in Perth. The mortality from the principal infectious diseases averaged 2.5 per 1,000, and was highest in Kirkcaldy and Greenock. The 387 deaths from all causes registered in Glasgow included 2 from enteric fever, 3 from whooping-cough, 3 from diphtheria, 4 from infantile diarrhoea, and 42 from measles. Nine deaths from measles were recorded in Greenock, 4 in Edinburgh, and 2 in Paisley; 3 deaths from whooping-cough in Greenock, 2 in Aberdeen, and 2 in Ayr; and 4 deaths from infantile diarrhoea in Edinburgh.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, February 10th, 526 births and 688 deaths were registered in the twenty-two principal urban districts of Ireland, as against 653 births and 545 deaths in the preceding period. The annual death-rate in these districts which had been 21.8, 22.3, and 24.6 per 1,000 in the three preceding weeks, rose to 31.0 per 1,000 in the week under notice, this figure being 9.4 per 1,000 higher than the mean average death-rate in the ninety-four English towns for the corresponding period. The figures in Dublin and Belfast were 26.6 and 41.7 respectively, those in other districts ranging from 6.6 in Queenstown and 13.1 in Newry to 39.7 in Kilkenny and 43.3 in Galway, while Cork stood at 23.8, Londonderry at 20.4, Limerick at 17.7, and Waterford at 20.9. The zymotic death-rate in the twenty-two districts averaged 2.2 per 1,000 as against 1.4 in the preceding week.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

FLEET-SURGEON ALFRED HAROLD LISSANT COX has been placed on the retired list at his own request, dated February 6th, 1912.

ARMY MEDICAL SERVICE.

SURGEON-GENERAL A. T. SLOGGETT, Principal Medical Officer in India, is leaving Calcutta on tour. He will visit Jubbulpore and several other centres before returning to Simla for the season.

ROYAL ARMY MEDICAL CORPS.

Lieutenant-Colonel J. W. BULLEN has been appointed Officer commanding the Station Hospital, Maymyo.

The following Majors to be Lieutenant-Colonels: R. J. COPELAND, M.B., vice R. G. Hauley, M.B., deceased, dated January 30th, 1912; J. GIRVIN, vice F. P. Nichols, M.B., retired February 9th.

Major L. HUMPHRY has been granted leave for six months.

Major A. A. SEEDS, from Hounslow, has been ordered to India.

Captain A. H. BOND has been granted six months' general leave.

Captain A. H. HESLOP has been granted eight months' general leave.

Captain W. M. BROWNE is seconded for service under the Colonial Office, June 1st, 1911.

Captain A. DAWSON to be in charge of the Brigade Laboratory at Aden.

Captain A. W. SAMPEY from Warley has been ordered to India.

The undermentioned Lieutenants are confirmed in their rank: HUGH G. MONTEITH, JOHN S. LEVACK, M.B., TOM C. R. ARCHER, BASIL H. H. SPENCE, M.B., EDWARD S. CALTHORP, M.B., ROBERT DAVIDSON, M.B., HERBERT S. BLACKMORE, JAMES M. ELLIOTT, M.B., DOUGLAS W. BRUCE, M.B., RICHARD T. VIVIAN, EDWARD G. H. COWEN, M.B., LEONARD BUCKLEY, M.B., WILLIAM L. WEBSTER, M.B., STANLEY P. SYKES, M.B., HENRY J. G. WELLS, M.B., ERNEST C. DEANE, FRANK S. TAMPLIN, IVOR R. HUDLESTON, WILLIAM STEWART, M.B., ALEXANDER G. J. MACILWAINE, ARTHUR S. HEALE.

SPECIAL RESERVE OF OFFICERS.

The undermentioned Lieutenants are confirmed in their rank: GILBERT K. AUBREY, CHARLES C. JONES, M.B., HENRY M. BUCHANAN, M.B.

Lieutenant C. W. C. MYLES has been seconded for service with the Dublin University Officers Training Corps.

No. 18 Field Ambulance.—Lieutenant T. CARNWATH resigns his commission, February 10th, 1912.

INDIAN MEDICAL SERVICE.

COLONEL C. F. WILLIS has assumed the duties of Principal Medical Medical Officer, 9th (Secunderabad) Division.

The services of Lieutenant-Colonel B. B. GRAYFOOT, M.D., I.M.S., are permanently placed at the disposal of the Government of India.

Major C. C. MURISON, I.M.S., Superintendent of Matheran in the district of Kolaba, is appointed a magistrate of the first class in that district.

The services of Major S. A. HARRIS, M.B., are replaced at the disposal of the Government of the United Provinces, with effect from December 4th, 1911.

Captain R. F. HEBBERT has been granted leave for nineteen months.

Colonel T. GRAINGER, C.B., to be Principal Medical Officer, 5th (Mhow) Division.

Lieutenant-Colonel A. W. DAWSON to hold civil medical charge of Roorkee, in addition to his military duties.

The services of Lieutenant-Colonel B. B. GRAYFOOT, M.D., are permanently placed at the disposal of the Government of India.

The services of Lieutenant-Colonel A. O. EVANS, Civil Surgeon, Maymyo, are placed at the disposal of the Government of India in the Home Department.

The services of Captain J. E. CLEMENTS are placed at the disposal of the Government of the United Provinces for employment in the Jail Department, with effect from January 17th.

Captain V. B. NEAFIELD, Officiating Deputy Sanitary Commissioner, first circle, on being relieved, to officiate as Civil Surgeon of Bijnor.

Captain H. S. HUTCHISON, M.B., to act as Civil Surgeon, Karachi.

Captain N. W. MACKWORTH is appointed to do general duty at the Medical College Hospital, Calcutta, with effect from January 13th, 1912.

Captain H. R. DUTTON is appointed, until further orders, to do general duty at the Medical College Hospital, Calcutta, with effect from January 4th, 1912.

The Medical Officer of the Native Infantry Regiment stationed at Ahmedabad to be in medical charge of the prison, in addition to his own duties.

The promotion of Captain JAMES WILLIAM BARNETT, M.B., to that rank, notified in the *London Gazette* of August 22nd, 1911, is antedated to February 1st, 1911.

Lieutenant-Colonel ERNEST WICKHAM HORE is permitted to retire from the service subject to His Majesty's approval, with effect from December 7th, 1911.

Lieutenant-Colonel F. C. CLARKSON retires from March 1st, 1912.

Lieutenant-Colonel HENRY THOMSON, M.D., is permitted to retire from the service subject to His Majesty's approval, with effect from February 1st, 1912.

The services of Major L. E. GILBERT are placed at the disposal of the Government of Madras.

The promotion of Captain J. W. BARNETT to that rank notified in the *London Gazette*, August 22nd, 1911, is antedated to February 1st, 1911.

Captain H. C. KEATES, Officiating Civil Surgeon, has been declared to have passed the prescribed test in the compulsory colloquial examination in the Punjabi language for medical officers posted in the Punjab for civil employ, as civil surgeon, held at Lahore on November 11th, 1911.

Captain H. ROSS, Chief Plague Officer, United Provinces, to be on duty in connexion with the Prince of Wales Medical College, Lucknow.

The services of Captain MACONACHIE are placed at the disposal of the Madras Government.

Captain A. WHITMORE, Police Surgeon and Pathologist, General Hospital, Rangoon, has privilege leave combined with furlough for a total period of one year. Captain H. A. DOUGAN officiates.

Captain P. M. RENNIE has been granted furlough for one year.

Lieutenant A. M. DICK has been granted leave for six months.

VOLUNTEER DEPARTMENT.

Major H. R. ELLIOTT, M.D., F.R.C.S., to be Medical Officer of the Madras Artillery Volunteers (The Duke's Own), vice Major T. S. Ross, I.M.S., resigned.

Major T. S. ROSS, I.M.S., resigns his commission in the Madras Artillery Volunteers (The Duke's Own), dated December 4th, 1911.

INDIAN SUBORDINATE MEDICAL DEPARTMENT.

Senior Assistant Surgeons with the Honorary Rank of Lieutenants to be Senior Assistant Surgeons with the Honorary Rank of Captains, dated November 22nd, 1911.—ROBERT JAMES OWEN, FREDERICK FRANCIS BEDELL.

First-class Assistant Surgeons to be Senior Assistant Surgeons with the Honorary Rank of Lieutenants, dated November 22nd, 1911.—WILLIAM JAMES CORRIDON, EDWARD JAMES GRESON.

TERRITORIAL FORCE.

ROYAL ARMY MEDICAL CORPS.

Second East Lancashire Field Ambulance.—Lieutenant THOMAS CARNWATH, M.B., resigns his commission, dated February 14th, 1912.

Second West Riding Field Ambulance.—Lieutenant CHARLES W. EAMES, M.D., to be Captain, dated January 1st, 1912.

Third Welsh Field Ambulance.—The undermentioned officers to be Captains, dated December 25th, 1911: Lieutenant DANIEL E. EVANS, Lieutenant ERNEST BRICE, Lieutenant GEORGE D. E. JONES, dated January 7th, 1912.

Fourth Northern General Hospital.—The undermentioned officers resign their commissions, dated February 14th, 1912: Captain JOHN T. COLLIER, M.B., Captain HAROLD C. HARRISON, Captain PERCY C. PHILLIPS.

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

BANBURY: HORTON INFIRMARY.—House-Surgeon. Salary, £80 per annum.

BEDFORD COUNTY HOSPITAL.—Male Assistant House-Surgeon. Salary, £80 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Resident Surgical Officer. Salary, £100 per annum.

BRADFORD ROYAL INFIRMARY.—Two Male House-Surgeons. Salary, £100 per annum.

BRISTOL EYE HOSPITAL.—House-Surgeon. Salary, £80 per annum.

BRISTOL GENERAL HOSPITAL.—Senior House-Surgeon. Salary, £120 per annum.

BURY ST. EDMUNDS: WEST SUFFOLK GENERAL HOSPITAL.—House-Surgeon. Salary, £100 per annum.

CANCER HOSPITAL, Fulham Road, S.W.—Assistant Pathologist. Salary, £350 per annum.

CARLISLE: CUMBERLAND INFIRMARY.—Resident Medical Officer (male) to act as House-Physician and House-Surgeon for six months each. Salary at the rate of £80 and £100 per annum respectively.

CHARING CROSS HOSPITAL.—Physician for Mental Diseases.

CHORLEY: RAWCLIFFE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

DEWSBURY AND DISTRICT GENERAL INFIRMARY.—House-Surgeon. Salary, £120 per annum.

DONCASTER: ROYAL INFIRMARY AND DISPENSARY.—House-Surgeon. Salary, £150 per annum.

DORSET COUNTY HOSPITAL, Dorchester.—House-Surgeon. Salary, £100 per annum.

EDINBURGH HOSPITAL FOR WOMEN AND CHILDREN.—Two Medical Women as Residents, one as Senior and the other as Junior. Honorarium, £25 and £12 per annum respectively.

GLASGOW MATERNITY AND WOMEN'S HOSPITAL.—(1) In Obstetrical Department: (*a*) Two Indoor House-Surgeons, (*b*) Two Outdoor House-Surgeons, (*c*) Outdoor House-Surgeon at the West End Branch; (2) In Gynaecological Department: (*d*) Indoor House-Surgeon.

HOSPITAL FOR WOMEN, Soho Square, W.—Resident Medical Officer. Salary at the rate of £60 per annum.

INFANTS' HOSPITAL, Vincent Square, Westminster, S.W.—Assistant Physician.

LANCASHIRE EDUCATION COMMITTEE, Preston.—School Medical Inspector (male). Salary, £250 per annum, rising to £400.

LEICESTER POOR LAW INFIRMARY.—Second Resident Assistant Medical Officer. Salary, £130 per annum.

LIVERPOOL INFIRMARY FOR CHILDREN.—(1) Resident House-Surgeon; (2) Resident House-Physician. Salary at the rate of £60 per annum each.

LIVERPOOL: ROYAL SOUTHERN HOSPITAL.—(1) Two House-Physicians; (2) Three House-Surgeons. Salary at the rate of £60 per annum.

LOUGHBOROUGH AND DISTRICT GENERAL HOSPITAL AND DISPENSARY.—Resident House-Surgeon. Salary, £100 per annum.

MACCLESFIELD GENERAL INFIRMARY.—Junior House-Surgeon. Salary, £60 per annum.

MANCHESTER CHILDREN'S HOSPITAL, Pendlebury.—(1) Male Resident Medical Officer; (2) Assistant Medical Officer for the Out-patient Department. Salary at the rate of £40 and £30 per annum respectively.

NOTTINGHAM GENERAL DISPENSARY (BRANCH).—Assistant Resident Surgeon (male). Salary, £160 per annum.

PLYMOUTH: SOUTH DEVON AND EAST CORNWALL HOSPITAL.—House-Physician. Salary, £75 per annum.

PRESCOT UNION.—Resident Medical Officer for Infirmary and Workhouse. Salary, £120 per annum.

PRESTON ROYAL INFIRMARY.—Junior House-Surgeon (male). Salary at the rate of £60 per annum.

RENFREW AND CLYDEBANK JOINT HOSPITAL.—Medical Officer (Visiting) for Blawarthill Hospital, Yoker. Salary, £125 per annum.

ROBBEN ISLAND LEPER SETTLEMENT.—Bacteriologist for Research Work. Salary, £400 per annum.

RYDE: ROYAL ISLE OF WIGHT COUNTY HOSPITAL.—Resident House-Surgeon. Salary, £100 per annum.

SALOP INFIRMARY.—House-Physician. Salary at the rate of £70 per annum.

SHEFFIELD UNION HOSPITAL.—Resident Assistant Medical Officer. Salary, £100 per annum.

SLEAFORD: KESTEVEN COUNTY ASYLUM.—Assistant Medical Officer. Salary, £150, with board, etc.

STIRLING COUNTY.—Medical Officer of Health. Salary, £500 per annum.

STIRLING DISTRICT ASYLUM, Larbert.—Second Assistant Medical Officer (male). Salary, £140 per annum.

TOOTING BEC ASYLUM.—Third Assistant Medical Officer (male). Salary, £150 per annum.

WALSALL AND DISTRICT HOSPITAL.—(1) House-Surgeon; (2) House-Physician and Casualty Officer. Salary, £120 and £90 per annum respectively.

WARRINGTON INFIRMARY AND DISPENSARY.—Junior House-Surgeon. Salary at the rate of £100 per annum.

WESTERN GENERAL DISPENSARY, Marylebone Road, N.W.—Honorary Physician.

WEST LONDON HOSPITAL, Hammersmith Road, W.—(1) Two House-Physicians; (2) Three House-Surgeons. Appointments for six months.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacant appointments: Clitheroe (Lancashire), Frome (Somersetshire), Millbrook (Cornwall), Schull (co. Cork), Staplehurst (Kent).

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

APPOINTMENTS.

ALLNUTT, E. B., M.R.C.S., L.R.C.P., Assistant House-Surgeon to the West London Hospital.

BEADLES, J. N., M.B., B.S.Lond., Certifying Factory Surgeon for the Cinderford District, co. Gloucester.

BRIDE, T. M., M.D., Ophthalmic Surgeon to the Home for Feeble-minded Children at Sandle Bridge, Alderley Edge, Cheshire.

CAMERON, D., L.R.C.P. and S.Edin., L.F.P.S.Glasg., Officer of Health at Leonora, West Australia.

CHAPMAN, H. O., M.B., Ch.M.Syd., District Medical Officer and Public Vaccinator, Wellington Mills, West Australia.

DONALDSON, J. B., L.R.C.P. and S.Edin., Health Officer for the Shire of Grenville, Victoria.

GRAINGER, J. P., L.R.C.P.I., L.M., L.R.C.S.I., Junior House-Surgeon to the Croydon General Hospital, vice C. V. Kebble, M.R.C.S.Eng., L.R.C.P.Lond., resigned.

HUGHES, Percy T., M.B., D.P.H., Lecturer on Mental Diseases at the University, Birmingham.

O'BRIEN, M., L.R.C.P. and S.Edin., L.F.P.S.Glasg., District Medical Officer and Public Vaccinator, Meckering, West Australia.

O'CONNOR, J. P., M.B., B.Ch., N.U.I., Certifying Factory Surgeon for the District of Kingstown, co. Dublin.

PACKMAN, Alfred, M.D., M.R.C.S., Medical Officer to Post Office, Rochester.

PINTO-LEITE, Hubert, B.A.Cantab., M.R.C.S.Eng., L.R.C.P.Lond., Second Anaesthetist to the Evelina Hospital for Sick Children, S.E.

PYE, C. R. A., M.B., Ch.M.Syd., Junior Resident Medical Officer, Newcastle Hospital, New South Wales.

RAMSAY, J. E., M.B.Lond., Officer of Health at Osborne Park, West Australia.

ROBINS, J. N., M.A.Cantab., M.R.C.S., L.R.C.P., Certifying Factory Surgeon for the Chatham District, co. Kent.

SALMOND, R. W. A., Ch.M., M.D.Aberd., D.P.H., Surgeon-in-Charge of the X-Ray Department, St. Mary's Hospital for Women and Children, Plaistow, E.

SPROTT, Gregory, M.D., Honorary Medical Officer, Hobart General Hospital, Tasmania.

SULLIVAN, P. D., F.R.C.S., L.R.C.P.Irel., Second Resident Medical Officer of the Workhouse of the North Dublin Union, vice Dr. Hooper.

TAYLOR, E., L.F.P.S.Glasg., District and Workhouse Medical Officer of the Lingtown Union.

TURNER, A., L.R.C.P. and S.Edin., Certifying Factory Surgeon for the Kelvedon District, co. Essex.

WARD, A., M.B., Certifying Factory Surgeon for the Crondall District, co. Hants.

WINTERBOTHAM, John, B.A.Cantab., M.R.C.S.Eng., L.R.C.P.Lond., House-Physician at the City of London Hospital for Diseases of the Chest Victoria Park, E.

ST. THOMAS'S HOSPITAL.—The following gentlemen have been selected as House Officers:

Casualty Officers and Resident Anaesthetists.—C. V. Anderson, M.R.C.S., L.R.C.P.; H. C. Bazett, B.A., M.B., B.Ch.Oxon., F.R.C.S. Eng.; J. L. Birley, B.A.Oxon., M.R.C.S., L.R.C.P.; A. D. Gardner, M.B., B.Ch.Oxon., M.R.C.S., L.R.C.P.; N. F. Lock, B.A.Cantab., M.R.C.S., L.R.C.P.; W. B. Laird, M.R.C.S., L.R.C.P.

Casualty Assistants.—C. H. L. Rixon, M.R.C.S., L.R.C.P.; V. C. Vesselovsky, M.R.C.S., L.R.C.P.

Resident House-Physicians.—A. R. Chavasse, B.M., B.Ch.Oxon., M.R.C.S., L.R.C.P.; W. D. Ross, B.A.Cantab., M.R.C.S., L.R.C.P.; H. J. B. Fry, B.A., B.Sc., M.B., B.Ch.Oxon., M.R.C.S., L.R.C.P.; A. C. Johnson, B.A., B.C.Cantab., M.R.C.S., L.R.C.P.

Resident House-Surgeons.—W. M. Oakden, B.A.Cantab., M.R.C.S., L.R.C.P.; G. N. Brandon, M.R.C.S., L.R.C.P.; W. G. Marsden, B.A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P.; S. H. Rouquette, B.A. Cantab., M.R.C.S., L.R.C.P.

House-Surgeon to Block 8.—A. K. Hamilton, M.R.C.S., L.R.C.P.

Obstetric House-Physicians.—(Senior) E. M. Lauderdale, B.A. Cantab., M.R.C.S., L.R.C.P.; (Junior) J. F. Taylor, B.A.Cantab., M.R.C.S., L.C.P.

Ophthalmic House-Surgeon.—(Senior) F. R. B. Skrimshire, M.R.C.S., L.R.C.P.

Clinical Assistants.—Throat: P. H. Mitchiner, M.R.C.S., L.R.C.P.; C. G. Whorlow, M.R.C.S., L.R.C.P. Skin: F. J. Humphrys, M.R.C.S., L.R.C.P. Ear: C. G. Whorlow, M.R.C.S., L.R.C.P. Children's Surgical: P. H. Mitchiner, M.R.C.S., L.R.C.P. Children's Medical: C. W. Treherne, M.R.C.S., L.R.C.P.; J. B. A. Wigmore, B.A.Cantab., M.R.C.S., L.R.C.P.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

MARRIAGES.

HALL—BROADBENT.—On February 14th, at St. Peter's Church, Onchan, Isle of Man, by the Rev. R. Wakeford, M.A., J. Robertson Hall, M.B., Ch.B.Edin., Fence Houses, co. Durham, third son of the late Mr. Thompson Hall, of Troughend, Northumberland, to Grace, second daughter of the late George T. Broadbent, Onchan, Isle of Man.

HENDLEY-RACE.—February 15th, at St. Paul's Church, Whitley Bay, by the Rev. E. S. Smith, Philip Arthur Hendley, L.S.A., of Littleport, Cambs., son of Colonel T. Holbein Hendley, C.I.E., I.M.S.(ret.), to Elizabeth Annie, daughter of the late Hugh Race, Esq., and Mrs. Race, of Monkseaton, Northumberland.

SPROTT—BROSTER.—On the 15th February, at St. Margaret's, Westminster, by Canon Hensley Henson, D.D., Ernest W. Sprott, son of the late Walter Sprott, Esq., of Mayfield, Sussex, to Barbara Broster, M.B., B.S., daughter of the late Thomas Mawdsley Broster, Esq., of Liverpool, and Mrs. Broster, of Abergavenny.

DEATHS.

HASTINGS.—On the 17th February, at 415, Mile End Road, John Mundella, the only son of Edwin and Theresa Hastings, aged 1 year and 9 months.

STEVENSON.—At Sleetburn Villa, New Brancepeth, co. Durham, on February 9th, John Stevenson, M.B., Ch.B., aged 32.

DIARY FOR THE WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, W., 8.30 p.m.—Pathological Evening: Specimens will be on view at 8 p.m.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Lecture by Professor Arthur Keith: Important Phases in the Evolution of Man.

ROYAL INSTITUTE OF PUBLIC HEALTH, 37, Russell Square, W.C., 6 p.m.—First Harben Lecture, by Professor Simon Flexner: The Local Specific Treatment of Infections.

ROYAL SOCIETY OF MEDICINE:

ODONTOLOGICAL SECTION, 15, Cavendish Square, W., 8 p.m.—Paper:—Mr. W. W. James: The Dates of the Eruption of Teeth in about 2,000 Children under 12. Casual Communications:—Mr. J. G. Turner: Two Cases of Hypoplasia of Enamel. Mr. E. Sturridge: An Experiment showing Formation and Migration of Ions. Mr. J. F. Colyer: Some Radiographs of a Case of Advanced Periodontal Disease.

TUESDAY.

ROYAL INSTITUTE OF PUBLIC HEALTH, 37, Russell Square, W.C., 6 p.m.—Second Harben Lecture by Professor Simon Flexner: The Local Specific Treatment of Infections.

ROYAL SOCIETY OF MEDICINE:

MEDICAL SECTION, 15, Cavendish Square, W., 5.30 p.m.—Joint Meeting with Surgical Section and Section of Anaesthetics. Debate on a Paper by Mr. T. P. Dunhill of Melbourne: Partial Thyroidectomy under Local Anaesthesia, with Special Reference to Exophthalmic Goitre. The debate will be opened by Dr. Hector Mackenzie. The following will take part in the debate: Dr. Albert Kocher (Berne), Mr. Wilfred Trotter, Mr. Charters Symonds, Dr. Dudley Buxton, Mr. Donald Armour, Mr. Walter Edmunds, Dr. J. Blumfeld, Dr. H. J. Scharlieb, C.M.G., Dr. G. A. H. Barton, Mr. Rupert Farrant, Mr. H. J. Paterson, Mr. James Berry.

WEDNESDAY.

HUNTERIAN SOCIETY, Guy's Hospital, St. Thomas's Street, S.E., 4 p.m.—Clinical Afternoon: Cases of interest will be shown by Dr. G. Newton Pitt, Mr. W. Arbuthnot Lane, and other members of the staff of the hospital.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Lecture by Professor Arthur Keith: Important Phases in the Evolution of Man.

THURSDAY.

HARVEIAN SOCIETY OF LONDON, Stafford Rooms, Titchborne Street, Edgware Road, W., 8.30 p.m.—A Discussion on Acute Poliomyelitis and Allied Conditions, to be opened by Dr. Farquhar Buzzard. The following have promised to take part: Dr. F. E. Batten, Dr. W. d'Este Emery, Dr. T. B. Hyslop, Dr. Leonard Guthrie.

ROYAL INSTITUTE OF PUBLIC HEALTH, 37, Russell Square, W.C., 6 p.m.—Third Harben Lecture by Professor Simon Flexner: The Local Specific Treatment of Infections.

ROYAL SOCIETY, Burlington House, W., 4.30 p.m.—The following are among the probable papers:—H. S. Ryland and B. T. Lang: An Instrument for Measuring the Distance between the Centres of Rotation of the two Eyes. Captain A. D. Fraser, R.A.M.C., and Dr. H. L. Duke: The Relation of Wild Animals to Trypanosomiasis. Dr. H. L. Duke: The Transmission of *Trypanosoma nanum* (Laveran). E. H. Ross: The Development of a Leucocytozoon of Guinea-pigs.

FRIDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—First Milroy Lecture, by Dr. F. A. Bainbridge: Paratyphoid Fever and Meat Poisoning.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Lecture by Professor Arthur Keith: Important Phases in the Evolution of Man.

ROYAL SOCIETY OF MEDICINE:

SECTION OF ANAESTHETICS, 15, Cavendish Square, W., 8.30 p.m.—Paper:—Mr. Felix Rood: Ether Infusion Anaesthesia. Short Communication:—Mr. C. M. Page: Hedona Infusion Anaesthesia.

LARYNGOLOGICAL SECTION, 11, Chandos Street, W., 4.30 p.m.—Cases, etc., will be shown by Dr. H. J. Davis, Dr. Watson-Williams, Dr. W. H. Kelson, Mr. G. Wilkinson, Dr. Jobson Horne, and others.

UNIVERSITY COLLEGE, Gower Street, W.C., 5 p.m.—Sixth Page May Lecture by Dr. Henry Head, F.R.S.: The Afferent Nervous System.

POST-GRADUATE COURSES AND LECTURES.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat, at noon and 4.30 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Tuesday, and noon, Friday. Eye, 11 a.m., Wednesday and Saturday. Radiography, Saturday, 10 a.m. Pathological Demonstration, Saturday, 11 a.m. Special Lectures: Tuesday, 4.30 p.m., Hemiplegia. Wednesday, 3.30 p.m., Retinitis. Thursday, 4.30 p.m., Cardiac Disease in Children.

LONDON SCHOOL OF TROPICAL MEDICINE, Royal Albert Dock, E.—Lectures daily (Saturday excepted) at 12 noon and 4 p.m. Practical Laboratory Work daily (Saturday excepted) 10 a.m. to 12 noon. Practical Entomology, 2 p.m. to 3.30 p.m. daily; Special Entomology, 10.30 a.m. to 1 p.m. daily. Medical Clinics, Monday and Thursday, at 3 p.m. Operations, Friday, at 3 p.m.

MANCHESTER: ANCOATS HOSPITAL POST-GRADUATE CLINIC, Thursday, 4.15 p.m.—Renal Calculus.

MANCHESTER ROYAL INFIRMARY.—Tuesday, 4.30 p.m.: Uterine Fibroids. Friday, 4.30 p.m.: Demonstration of Surgical Cases.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin. Tuesday, Medical. Wednesday, Surgical. Thursday, Medical. Friday, Eye. Lectures at 5.15 p.m. each day will be given as follows: Monday, The Diagnosis and Surgical Treatment of Hepatic Ailments. Tuesday, Treatment of Acute Appendicitis: When and How to Operate. Wednesday, Recent Advances in Heart Disease (illustrated by the Polygraph). Thursday, Recent Advances in Heart Disease (illustrated by the Polygraph).

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m.: Joint Affection in Nervous Diseases. Friday, 3.30 p.m.: Decompressive Operation.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics: 10 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear; 3 p.m., Demonstration on Clinical and General Pathology. Tuesday, 2.30 p.m., Operations; Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient; 4.30 p.m., Lecture: Arterio-Sclerosis and its Treatment. Wednesday, 2 p.m., Throat Operations; 2.30 p.m., Medical Out-patient; Skin and Eye Clinics; *X* Rays; 3 p.m., Pathological Demonstration; 5.30 p.m., Eye Operations. Thursday, 2.30 p.m., Gynaecological Operations: Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye: 3 p.m., Medical In-patient; Pathological Demonstration; 4.30 p.m., Lecture: Derangement of Ocular Muscles.

SALFORD ROYAL HOSPITAL.—Thursday, 4.30 p.m.: Serous Pleural Effusion.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—The following are the arrangements for next week:—Daily arrangements: Medical and Surgical Clinics, 2 p.m.; *X* Rays, 2 p.m.; Operations, 2 p.m. Monday: Gynaecology, 10 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday: Gynaecological Operations, 10 a.m.; Demonstration of Minor Operations, 11 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday: Gynaecological Demonstration, 10 a.m.; Lecture, Practical Medicine, 12.15 p.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday: Gynaecological Operations, 10 a.m.; Lecture, Practical Medicine, 12.15 p.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m. Lectures at 5 p.m.: Monday: Administration of Anaesthetics. Tuesday: Clinical Pathology. Wednesday: Clinical Lecture II. Thursday: Practical Surgery, Lecture V. Friday: Extrauterine Gestation.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
FEBRUARY.	
25 Sunday ..	
26 MONDAY ..	
27 TUESDAY ..	
28 WEDNESDAY	BATH AND BRISTOL BRANCH, Museum, Bath, 8 p.m.; Council Meeting, 7.55 p.m.
29 THURSDAY ..	STAFFORDSHIRE BRANCH, Swan Hotel, Stafford, 5.15 p.m.; Dinner, 7.15 p.m.
MARCH.	
1 FRIDAY ..	
2 SATURDAY ..	
3 Sunday ..	
4 MONDAY ..	
5 TUESDAY ..	
6 WEDNESDAY	
7 THURSDAY ..	
8 FRIDAY ..	
9 SATURDAY ..	

Date.	Meetings to be Held.
MARCH *(continued).*	
10 Sunday ..	
11 MONDAY ..	
12 TUESDAY ..	
13 WEDNESDAY	
14 THURSDAY ..	BIRMINGHAM BRANCH, Medical Institute, Edmund Street, 3.30 p.m. WALTHAMSTOW DIVISION, *Metropolitan Counties Branch*, Whipps Cross Infirmary, 4 p.m.
15 FRIDAY ..	NEWCASTLE-ON-TYNE DIVISION, *North of England Branch*, Scientific Meeting, Royal Victoria Infirmary, 3 p.m. 5.30 p.m.
16 SATURDAY ..	
17 Sunday ..	
18 MONDAY ..	
19 TUESDAY ..	
20 WEDNESDAY	RICHMOND DIVISION, *Metropolitan Counties Branch*, Richmond, 8.30 p.m.
21 THURSDAY ..	LONDON: Metropolitan Counties Branch, 4 p.m.
'22 FRIDAY ..	
23 SATURDAY ..	

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SUPPLEMENT
TO THE
BRITISH MEDICAL JOURNAL.

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National Insurance.

SPECIAL REPRESENTATIVE MEETING.

FEBRUARY 20th to 22nd, 1912.

ADDENDA AND CORRIGENDA.

Remuneration.

In the report of the proceedings of the Special Representative Meeting on Wednesday, February 21st (Supplement, p. 225), it was briefly stated that the meeting considered in Committee the question of minimum remuneration, with respect to which a number of notices of motion had been given by various Divisions. In the report of the proceedings on the Report stage (p. 234), the resolution finally agreed upon was given as follows:

> That the policy of the Association be to claim a minimum capitation fee of 8s. 6d., not including extras and medicine, for members of approved societies, and to claim the recognition of payment per attendance, in which case the fees must be on such a basis as shall be deemed an equivalent by the State Sickness Insurance Committee, with recognition of a £2 maximum income limit.

In the discussion in Committee the matter was raised by a motion, moved by Dr. F. G. Bushnell (Brighton) and seconded by Dr. A. Tennyson Smith (Bromley, Sevenoaks), as follows:

> That the minimum capitation grant to the Commissioners available for ordinary domiciliary attendance on insured persons and unemployed married women of all conditions of health, regardless of what form of payment to medical practitioners is adopted, shall be 12s. exclusive of medicines, institutional treatment, and also those items given as extras in public medical service of this Association.

During the discussion of this motion various members of the meeting expressed their views and stated their experiences, and Dr. Pearse (Trowbridge) informed the meeting that a special Subcommittee, of which he was Chairman, appointed by the State Sickness Insurance Committee, had considered the question of remuneration and had prepared a draft report, but that time had not permitted its consideration by the State Sickness Insurance Committee and the Council. By leave of the meeting Dr. Pearse made quotations from the draft report.

The motion proposed by Dr. Bushnell having been put and rejected, Dr. F. G. Swayne (Norwood) moved:

> That the requirements of the profession shall be for members of approved societies a minimum per capita payment of 8s. 6d. per annum, or 2s. 6d. per visit, for all ordinary work (and exclusive of drugs and appliances), with a wage limit not exceeding £2 per week.

To this an amendment was moved by Dr. Pearse (Trowbridge), seconded by Dr. J. H. Keay (Greenwich), and carried as follows:

> That the policy of the Association be to claim an 8s. 6d. minimum capitation fee with extras and without medicines, for members of approved societies, and to claim the recognition of payment per attendance, in which case the fees must be decided locally with recognition of a £2 limit.

On being put as a substantive motion, the words "maximum limit" were inserted after £2, on the motion of Dr. Pearse, seconded by Dr. C. E. Robertson (Glasgow Southern).

An amendment by Dr. J. M. Bowie (South Edinburgh), seconded by Dr. R. Robertson (North-East Edinburgh) substituting 10s. for 8s. 6d., was carried by 64 votes to 44.

Subsequently, an amendment by Dr. Wallace Henry (Leicester and Rutland) was carried as follows:

> That the words "on such a basis as shall be deemed an equivalent by the State Sickness Insurance Committee" be substituted for the words "decided locally."

The motion as amended was carried as follows:

> That it be recommended that the policy of the Association be to claim 10s. capitation fee, not including extras and medicine, for members of approved societies, and to claim the recognition of payment per attendance, in which case the fees must be on such a basis as shall be deemed an equivalent by the State Sickness Insurance Committee, with recognition of a £2 maximum income limit.

Thereafter the meeting resolved:

> That it be recommended that for the guidance of the State Sickness Insurance Committee the following list of extras be suggested by the Representative Body:
>
> *Extras.*—Miscarriages; vaccinations; fractures; dislocations; consultations, (*a*) ordinary, (*b*) consultant; anaesthetics, (*a*) local, (*b*) general.

Night calls (between 8 p.m. and 8 a.m., in response to calls received during these hours).

Special visits (that is, visits made in response to and on the same day as calls received after 10 a.m. or made on Sundays by subscriber's desire).

Certificates and reports.

Illness the consequence of personal misconduct.

Illness arising from confinement or miscarriage within one month.

Operations requiring local or general anaesthetics.

Operative dentistry.

Special examinations—for example, *x* rays, bacteriology, etc.

Lunacy certificates.

Examinations, court attendances, etc., under common law, Workmen's Compensation and Employers' Liability Statutes.

Mileage.

Drugs, cod-liver oil, linseed meal, leeches, serum, oxygen, etc.

Bottles, jars, dressing or bandages (except for first dressings).

As previously stated, when the minutes were brought up on the Report stage on Thursday, the resolutions were adopted with the substitution of 8s. 6d. for 10s.

Declaration to the Government and Insurance Commissioners.

The following is the result of the roll-call on the amendment proposed on behalf of the Winchester Division (p. 223) to Recommendation I of the report of Council:

That this Representative Meeting direct the Council to inform, in plain and unmistakable language, the Commissioners appointed under the Insurance Act, 1911, that unless the minimum demands of the British Medical Association be embodied in the Regulations to be issued by the Commissioners in such a manner as shall be effectual and permanent, with a view to having the same embodied in an amending Act, it is the intention of the British Medical Association to call upon all its members and upon all other medical practitioners to decline to form panels or undertake any other medical duties which may be assigned to them under the Act, in conformity with the undertaking which has already been signed by over 26,000 medical practitioners.

For the Amendment 160

Dr. J. Allan	Leeds
Colonel H. J. Waller Barrow	Ealing
Mr. F. P. Bassett ...	St. Helens, Warrington
Mr. S. E. Baxter ...	Northamptonshire
Dr. David Blair ...	Lancaster
Dr. W. Blair	South Eastern Counties (Edinburgh)
Dr. L. J. Blandford ...	Darlington, Hartlepools, Stockton
Mr. Wm. Bradbrook ...	Buckinghamshire
Dr. John Brown ...	Rochdale, Bury
Dr. W. F. Brown ...	Ayrshire
Dr. Thomas Bushby ...	Liverpool (Central)
Dr. F. G. Bushnell ...	Brighton
Dr. A. T. Campbell ...	Glasgow North Western
Dr. A. G. R. Cameron ...	Chichester and Worthing, Horsham
Dr. J. F. Carruthers ...	Guernsey and Alderney, Jersey
Mr. E. A. Clarke ...	Ashton-under-Lyne, Glossop
Dr. W. Clow	Renfrewshire
Mr. Russell Coombe ...	Exeter
Dr. R. H. Coombs ...	Bedford and Herts
Dr. T. B. Costello ...	Mid Connaught, North Connaught, South Connaught
Dr. E. H. Cramb ...	Dumbartonshire and Argyllshire
Dr. Brodie Cruickshank	Northern Counties of Scotland
Lt.-Col. Decimus Curme	West Dorset
Mr. F. E. Daniel ...	Furness, Kendal
Dr. J. S. Darling ...	Portadown and West Down
Mr. J. E. H. Davies ...	Denbigh and Flint
Dr. W. L. M. Day ...	North-East Essex
Dr. J. S. Dick	Manchester (North)
Dr. W. Douglas ...	Maidstone, Rochester, and Chatham
Mr. J. W. Draper ...	Huddersfield
Mr. A. J. Drew ...	Oxford
Dr. Arthur Drury ...	Halifax, Yorks
Dr. W. J. Durant ...	Consett and Gateshead
Dr. A. M. Easterbrook	Lothians
Dr. R. Esler... ...	Lambeth
Mr. D. R. Powell Evans	Wandsworth
Mr. J. H. Ewart ...	Eastbourne
Dr. A. C. Farquharson ...	Bishop Auckland, Durham
Dr. D. E. Finlay ...	Gloucestershire
Dr. J. Fletcher ...	Chelsea
Dr. W. T. Brook Fox ...	Blyth, Morpeth, North Northumberland
Dr. J. R. Fuller ...	North Middlesex
Dr. A. Fulton... ...	Nottingham
Dr. J. E. Garner ...	Preston
Mr. T. W. H. Garstang ...	Altrincham
Dr. J. A. Gibson ...	Isle of Wight
Dr. Bruce Goff ...	Lanarkshire
Dr. E. W. Goodall ...	City (Metropolitan)
Dr. R. Gordon... ...	Sheffield
Dr. W. Gosse	Isle of Thanet, Canterbury and Faversham
Mr. C. W. Graham ...	English Division, Border Counties Branch
Dr. J. C. W. Graham ...	Cambridge and Huntingdon
Mr. W. J. Greer ...	Monmouthshire
Dr. H. R. Griffith ...	South Carnarvon and Merioneth
Dr. W. Haig	Perth
Dr. H. Hanna	Belfast
Mr. N. Bishop Harman ...	Marylebone
Dr. H. Harvey ...	Liverpool (Southern)
Dr. A. C. E. Harris ...	Birkenhead
Dr. R. W. W. Henry ...	Leicester and Rutland
Dr. G. B. Hillman ...	Wakefield, Pontefract, and Castleford
Dr. J. F. Horne ...	Barnsley
Dr. R. E. Howell ...	Cleveland
Dr. John B. Hughes ...	Stockport, Macclesfield, and East Cheshire
Dr. Samuel Hughes ...	Southampton
Mr. G. Jackson ...	Plymouth
Mr. E. Kaye-Smith ...	Hastings
Dr. T. Laffan	Carlow, Kilkenny, and Waterford
Dr. W. F. Law ...	British Guiana
Dr. E. J. Liddle ...	Chester and Crewe
Dr. R. A. Lyster ...	Winchester
Dr. J. Macdonald ...	South Shields, Tyneside
Mr. D. A. McCurdy ...	Ballymoney, North Antrim, and South Derry, Derry
Dr. J. A. Macdonald, LL.D.	West Somerset
Dr. B. McFarland ...	Boston and Spalding, Lincoln
Dr. J. MacNidder ...	East York, North Lincoln
Dr. H. C. Mactier ...	South Staffordshire
Dr. James Metcalfe ...	Bradford
Dr. Milner Moore ...	Coventry, Nuneaton, and Tamworth
Mr. W. L. Muir ...	Glasgow Eastern
Dr. B. H. Mumby ...	Portsmouth
Mr. J. Neal	Central Birmingham
Dr. H. Oppenheimer ...	Hampstead
Major C. H. L. Palk, I.M.S. (ret.) ...	Ashford, Dover, Folkestone
Dr. Spencer Palmer ...	Reigate
Dr. G. Parker... ...	Bristol
Dr. J. Pearse	Trowbridge
Mr. Ellis Pearson ...	Barnstaple
Dr. P. Prebble ...	Blackburn
Dr. D. R. Price ...	South-West Wales
Dr. Emyr Owen Price...	North Carnarvon and Anglesey
Dr. W. T. Prout ...	Liverpool (Western)
Dr. R. J. Richardson ...	Liverpool (Northern)
Dr. C. E. Robertson ...	Glasgow Southern
Dr. T. R. Rodger ...	Scottish Division, Border Counties Branch
Dr. J. Russell ...	North Staffordshire
Mr. T. Sansome, jun. ...	West Bromwich
Dr. W. B. Secretan ...	Maidenhead, Reading
Dr. A. Tennyson Smith ...	Bromley, Sevenoaks
Dr. J. W. Smith ...	Hexham, Newcastle-on-Tyne
Dr. W. Johnson Smyth ...	Bournemouth
Dr. E. A. Starling ...	Tunbridge Wells
Dr. H. J. Starling ...	Norwich
Mr. W. P. Stocks ...	Manchester (South)
Mr. C. R. Straton ...	Salisbury
Dr. J. Strachan... ...	Stirling
Dr. F. G. Swayne ...	Norwood
Mr. L. A. Taylor ...	Bromsgrove, Dudley
Dr. M. R. Taylor ...	West Cornwall
Dr. W. E. Thomas ...	North Glamorgan and Brecknock
Dr. D. G. Thomson ...	Mid-Norfolk
Dr. D. F. Todd... ...	Sunderland
Dr. H. R. Townsend ...	North, South, West Munster
Mr. E. Tredinnick ...	Shropshire and Mid-Wales
Mr. C. W. Vickers ...	Torquay
Dr. J. F. Walker ...	Mid-Essex, South Essex
Dr. C. J. Whitby ...	Bath
Mr. H. Chisholm Will ...	Dartford
Dr. A. H. Williams ...	Watford and Harrow
Dr. J. Arthur Wood ...	Hereford
Dr. T. Barton ...	Blackpool and Isle of Man
Dr. J. M. Bowie ...	South Edinburgh
Dr. T. Campbell ...	Leigh and Wigan
Dr. W. Craig	Fife
Dr. F. W. Dearden ...	Manchester (West)
Dr. E. Delahoyde ...	Dublin
Dr. W. Bickerton Edwards	Swansea
Dr. Muir Evans ...	E. Norfolk and N. Suffolk
Dr. John Gordon ...	Aberdeen, Orkney, and Shetland

Dr. W. GRIFFITH ...	St. Pancras and Islington
Dr. G. E. HASLIP ...	Westminster
Dr. T. A. HELME ...	Manchester (Central)
Dr. HODGSON	Manchester (Salford)
Dr. R. MCKENZIE JOHNSTON	North West Edinburgh
Colonel W. T. JOHNSTON	East Leinster
Dr. C. P. LANKESTER ...	Guildford
Mr. R. H. LUCAS ...	West Suffolk
Dr. G. MAGUIRE ...	Richmond
Dr. MARTLAND	Oldham
Dr. C. G. MEADE ...	Scarborough and York
Dr. J. E. O'SULLIVAN ...	Liverpool (Bootle)
Dr. PRINGLE	Harrogate
Dr. CHAS. REID ...	Mid-Staffordshire
Dr. R. ROBERTSON ...	North-East Edinburgh
Dr. H. J. ROBINSON ...	Burnley
Dr. ST. CLAIR B. SHADWELL	South-West Essex
Dr. G. K. SMILEY ...	Derby
Dr. STADDON	South Suffolk
Dr. H. F. STEEL ...	West Norfolk
Dr. J. L. STRETTON ...	Worcester
Dr. J. L. THORNLEY ...	Bolton
Lr. W. B. CRAWFORD TREASURE	Cardiff
Dr. E. B. TURNER ...	Kensington
Dr. J. E. WEBB ...	East Cornwall
Mr. E. H. WILLOCK ...	Croydon
Dr. C. S. YOUNG ...	Dundee
Surgeon-General P. H. BENSON, M.B., I.M.S. ...	Bombay, Burma, South Indian and Madras, Colombo, Ceylon, Assam, Malaya, and Hong Kong and China Branches
Insp.-General ROBERT BENTHAM, R.N. ...	Royal Naval Medical Service
Surg.-Gen. J. P. GREANY, I.M.S.	Indian Medical Service
Lieut.-Col. F. W. H. DAVIE HARRIS ...	Army Medical Service

Against the Amendment 3

Dr. JOHN ADAMS ...	Glasgow Central
Dr. F. J. BAILDON ...	Southport
Mr. PERCY ROSE ...	Stratford

On being put as a substantive motion, the proposal was carried unanimously.

Refusal of all Offices.

The following is the result of the roll-call with regard to Dr. J. NEAL's (Central Birmingham) amended motion (pp. 228–9):

That the Council be instructed to take all possible steps to ensure that no members of the profession shall hold office or take any part in any advisory, administrative, or medical work under the Act until such time as the minimum demands of the profession are unreservedly conceded in such a manner that they cannot be altered or withdrawn in the future except by Act of Parliament.

For the Motion... 45

Colonel H. J. WALLER BARROW	Ealing
Dr. DAVID BLAIR ...	Lancaster
Dr. JOHN BROWN ...	Rochdale, Bury
Lieut.-Colonel DECIMUS CURME	West Dorset
Mr. F. E. DANIEL ...	Furness, Kendal
Dr. W. L. M. DAY ...	North-East Essex
Dr. ARTHUR DRURY ...	Halifax, Yorks
Dr. J. E. GARNER ...	Preston
Dr. E. W. GOODALL ...	City (Metropolitan)
Dr. R. GORDON ...	Sheffield
Dr. R. W. W. HENRY ...	Leicester and Rutland
Dr. G. B. HILLMAN ...	Wakefield, Pontefract, and Castleford
Dr. E. J. LIDDLE ...	Chester and Crewe
Dr. J. MACDONALD ...	South Shields, Tyneside
Dr. JAMES METCALFE ...	Bradford
Mr. J. NEAL	Central Birmingham
Major C. H. L. PALK, I.M.S. (ret.)	Ashford, Dover, Folkestone
Dr. SPENCER PALMER ...	Reigate
Dr. G. PARKER... ...	Bristol
Dr. P. PREBBLE ...	Blackburn
Mr. PERCY ROSE ...	Stratford
Mr. W. P. STOCKS ...	Manchester (South)
Mr. E. TREDINNICK ...	Shropshire and Mid Wales
Dr. J. F. WALKER ...	Mid Essex, South Essex
Dr. J. ARTHUR WOOD ...	Hereford
Dr. T. BARTON... ...	Blackpool and Isle of Man
Dr. J. M. BOWIE ...	South Edinburgh
Dr. F. CLAYTON ...	Warwick and Leamington
Dr. T. CAMPBELL ...	Leigh and Wigan
Dr. W. CRAIG	Fife
Dr. F. W. DEARDEN ...	Manchester (West)
Dr. W. BICKERTON EDWARDS	Swansea
Dr. MUIR EVANS ...	E. Norfolk and N. Suffolk
Dr. JOHN GORDON ...	Aberdeen, Orkney, and Shetland
Dr. W. GRIFFITH ...	St. Pancras and Islington
Dr. T. A. HELME ...	Manchester (Central)
Dr. C. P. LANKESTER ...	Guildford
Dr. C. G. MEADE ...	Scarborough and York
Dr. J. E. O'SULLIVAN ...	Liverpool (Bootle)
Dr. PRINGLE	Harrogate
Dr. R. ROBERTSON ...	North-East Edinburgh
Dr. H. J. ROBINSON ...	Burnley
Dr. ST. CLAIR B. SHADWELL	South-West Essex
Dr. J. E. WEBB ...	East Cornwall
Mr. E. H. WILLOCK ...	Croydon

Against the Motion 70

Dr. JOHN ADAMS ...	Glasgow Central
Dr. F. J. BAILDON ...	Southport
Mr. F. P. BASSETT ...	St. Helens, Warrington
Dr. L. J. BLANDFORD ...	Darlington, Hartlepools, Stockton
Mr. WM. BRADBROOK ...	Buckinghamshire
Dr. W. F. BROWN ...	Ayrshire
Dr. THOMAS BUSHBY ...	Liverpool (Central)
Dr. F. G. BUSHNELL ...	Brighton
Dr. J. F. CARRUTHERS ...	Guernsey and Alderney, Jersey
Dr. W. CLOW	Renfrewshire
Mr. RUSSELL COOMBE ...	Exeter
Dr. J. S. DICK	Manchester (North)
Dr. W. DOUGLAS ...	Maidstone, Rochester, and Chatham
Mr. J. W. DRAPER ...	Huddersfield
Dr. W. J. DURANT ...	Consett and Gateshead
Dr. A. M. EASTERBROOK ...	Lothians
Mr. D. R. POWELL EVANS	Wandsworth
Mr. J. H. EWART ...	Eastbourne
Dr. A. C. FARQUHARSON ...	Bishop Auckland, Durham
Dr. D. E. FINLAY ...	Gloucestershire
Dr. J. FLETCHER ...	Chelsea
Dr. W. T. BROOK FOX ...	Blyth, Morpeth, North Northumberland
Dr. J. R. FULLER ...	North Middlesex
Dr. A. FULTON... ...	Nottingham
Mr. T. W. H. GARSTANG ...	Altrincham
Dr. BRUCE GOFF ...	Lanarkshire
Dr. W. GOSSE	Isle of Thanet, Canterbury, and Faversham
Mr. W. J. GREER ...	Monmouthshire
Dr. H. R. GRIFFITH ...	South Carnarvon and Merioneth
Dr. W. HAIG	Perth
Mr. N. BISHOP HARMAN ...	Marylebone
Dr. H. HARVEY ...	Liverpool (Southern)
Dr. A. C. E. HARRIS ...	Birkenhead
Dr. R. E. HOWELL ...	Cleveland
Dr. JOHN B. HUGHES ...	Stockport, Macclesfield, and East Cheshire
Mr. G. JACKSON ...	Plymouth
Mr. E. KAYE-SMITH ...	Hastings
Dr. J. H. KEAY... ...	Greenwich
Dr. J. A. MACDONALD, LL.D.	West Somerset
Dr. B. MCFARLAND ...	Boston and Spalding, Lincoln
Dr. J. MACNIDDER ...	East York, North Lincoln
Dr. MILNER MOORE ...	Coventry, Nuneaton, and Tamworth
Mr. W. L. MUIR ...	Glasgow Eastern
Dr. D. R. PRICE ...	South-West Wales
Dr. EMYR OWEN PRICE ...	N. Carnarvon and Anglesey
Dr. W. T. PROUT ...	Liverpool (Western)
Dr. R. J. RICHARDSON ...	Liverpool (Northern)
Dr. T. R. RODGER ...	Scottish Division, Border Counties Branch
Dr. J. RUSSELL ...	North Staffordshire
Mr. T. SANSOME, jun. ...	West Bromwich
Dr. J. W. SMITH ...	Hexham, Newcastle-on-Tyne
Dr. W. JOHNSON SMYTH ...	Bournemouth
Dr. H. J. STARLING ...	Norwich
Mr. C. R. STRATON ...	Salisbury
Dr. J. STRACHAN ...	Stirling
Mr. L. A. TAYLOR ...	Bromsgrove, Dudley
Dr. W. E. THOMAS ...	North Glamorgan and Brecknock
Dr. D. G. THOMSON ...	Mid-Norfolk
Dr. D. F. TODD ...	Sunderland
Mr. C. W. VICKERS ...	Torquay
Mr. H. CHISHOLM WILL ...	Dartford
Dr. A. H. WILLIAMS ...	Watford and Harrow
Dr. E. DELAHOYDE ...	Dublin
Dr. G. MAGUIRE ...	Richmond
Dr. CHAS. REID ...	Mid-Staffordshire
Dr. G. K. SMILEY ...	Derby
Dr. STADDON	South Suffolk
Dr. H. F. STEEL ...	West Norfolk
Dr. W. B. CRAWFORD TREASURE	Cardiff
Dr. C. S. YOUNG ...	Dundee

The Remainder of Council's Report.

In the report of the Special Representative Meeting last week (SUPPLEMENT, February 24th, p. 234) it was stated that a roll-call was taken on the motion to approve the remainder of the report of the Council. It was agreed to record the names of those who abstained, as well as those who voted Aye or No, and it was reported that the result was Ayes 63, Noes 20, abstaining 15. The following is the division list, which was not ready at the time the SUPPLEMENT went to press last week:

For the Motion 63

Dr. F. J. BAILDON ...	Southport
Mr. F. P. BASSETT ...	St. Helens and Warrington
Dr. L. J. BLANDFORD ...	Darlington, Hartlepools, Stockton
Mr. WM. BRADBROOK ...	Buckinghamshire
Dr. T. BUSHBY	Liverpool (Central)
Dr. J. F. CARRUTHERS ...	Guernsey, Alderney, and Jersey
Dr. W. CLOW	Renfrewshire
Mr. RUSSELL COOMBE ...	Exeter
Lieut.-Colonel DECIMUS CURME	West Dorset
Mr. J. E. H. DAVIES ...	Denbigh and Flint
Dr. J. S. DICK ...	Manchester (North)
Dr. W. DOUGLAS ...	Maidstone, Rochester, and Chatham
Dr. W. J. DURANT ...	Consett, Gateshead
Dr. A. M. EASTERBROOK ...	Lothians
Mr. D. R. POWELL EVANS	Wandsworth
Mr. J. H. EWART ...	Eastbourne
Dr. A. C. FARQUHARSON ...	Bishop Auckland and Durham
Dr. D. E. FINLAY ...	Gloucestershire
Dr. J. FLETCHER ...	Chelsea
Dr. W. T. BROOK FOX ...	Blyth, Morpeth, North Northumberland
Dr. A. FULTON	Nottingham
Mr. T. W. H. GARSTANG ...	Altrincham
Dr. W. GOSSE	Isle of Thanet, Canterbury, Faversham
Dr. W. J. GREER ...	Monmouthshire
Dr. W. HAIG	Perth
Dr. H. HARVEY	Liverpool Southern
Dr. A. C. E. HARRIS ...	Birkenhead
Dr. G. B. HILLMAN ...	Wakefield, Pontefract, and Castleford
Dr. JOHN B. HUGHES ...	Stockport, Macclesfield, and East Cheshire
Mr. G. JACKSON ...	Plymouth
Dr. J. H. KEAY	Greenwich
Dr. J. A. MACDONALD, LL.D.	West Somerset
Dr. D. MCFARLAND ...	Boston and Spalding and Lincoln
Dr. H. C. MACTIER ...	South Staffordshire
Dr. MILNER MOORE ...	Coventry, Nuneaton and Tamworth
Major C. H. L. PALK, I.M.S. (ret.)	Ashford, Dover, Folkestone
Dr. D. R. PRICE ...	South-West Wales
Dr. EMYR OWEN PRICE ...	N. Carnarvon and Anglesey
Dr. R. J. RICHARDSON ...	Liverpool, Northern
Dr. J. RUSSELL ...	North Staffordshire
Dr. J. W. SMITH ...	Hexham, Newcastle-on-Tyne
Dr. W. JOHNSON SMYTH ...	Bournemouth
Dr. E. A. STARLING ...	Tunbridge Wells
Dr. H. J. STARLING ...	Norwich
Mr. W. P. STOCKS ...	Manchester South
Mr. C. R. STRATON ...	Salisbury
Dr. J. STRACHAN ...	Stirling
Dr. W. E. THOMAS ...	North Glamorgan and Brecknock
Dr. D. G. THOMSON ...	Mid-Norfolk
Dr. D. F. TODD	Sunderland
Mr. E. TREDINNICK ...	Shropshire and Mid-Wales
Mr. C. W. VICKERS ...	Torquay
Mr. H. CHISHOLM WILL ...	Dartford
Dr. A. H. WILLIAMS ...	Watford and Harrow
Dr. J. ARTHUR WOOD ...	Hereford
Dr. JOHN GORDON ...	Aberdeen, Orkney, and Shetland, *vice* Dr. David Lawson
Dr. CHAS. REID ...	Mid-Staffordshire
Dr. H. F. STEEL ...	West Norfolk
Dr. W. B. CRAWFORD TREASURE	Cardiff
Mr. E. H. WILLOCK ...	Croydon
Dr. C. S. YOUNG	Dundee
Surgeon-General P. H. BENSON, M.B., I.M.S. ...	Bombay, Burma, S. India and Madras, Colombo, Ceylon, Assam, Malaya, and Hong Kong and China Branches
Surgeon-General J. P. GREANY, I.M.S.	Indian Medical Service

Against the Motion 20

Dr. JOHN BROWN ...	Rochdale, Bury
Dr. W. L. M. DAY ...	North-East Essex
Mr. J. W. DRAPER ...	Huddersfield
Dr. J. E. GARNER ...	Preston
Dr. BRUCE GOFF ...	Lanarkshire
Dr. R. GORDON ...	Sheffield
Dr. W. F. LAW ...	British Guiana
Dr. E. J. LIDDLE ...	Chester and Crewe
Dr. B. H. MUMBY ...	Portsmouth
Dr. SPENCER PALMER ...	Reigate
Dr. G. PARKER ...	Bristol
Dr. J. E. WALKER ...	Mid Essex and South Essex
Dr. S. BARTON	Blackpool and Isle of Man
Dr. F. CLAYTON ...	Warwick and Leamington
Dr. T. CAMPBELL ...	Leigh, Wigan
Dr. F. W. DEARDEN ...	Manchester (West)
Dr. T. A. HELME ...	Manchester (Central)
Dr. J. E. O'SULLIVAN ...	Liverpool, Bootle
Dr. H. J. ROBINSON ...	Burnley
Dr. J. E. WEBB ...	East Cornwall

Abstained from Voting 15

Colonel H. J. W. BARROW	Ealing
Dr. A. G. R. CAMERON ...	Chichester and Worthing, Horsham
Mr. N. BISHOP HARMAN ...	Marylebone
Dr. R. A. LYSTER ...	Winchester
Mr. J. NEAL	Central Birmingham
Dr. P. PREBBLE ...	Blackburn
Dr. T. R. RODGER ...	Scottish Division, Border Counties Branch
Dr. W. CRAIG	Fife
Dr. W. BICKERTON EDWARDS	Swansea
Dr. MUIR EVANS ...	E. Norfolk and N. Suffolk
Mr. R. H. LUCAS ...	W. Suffolk
Dr. G. MAGUIRE	Richmond
Dr. C. G. MEADE ...	Scarborough and York
Dr. PRINGLE	Harrogate
Inspector-General ROBERT BENTHAM, R.N.	Royal Naval Medical Service

The Chairmanship.

In the report of Dr. Maclean's speech on Tuesday (SUPPLEMENT, February 24th, p. 205, second column) the report of his reference to his conversation with the Chancellor of the Exchequer, in which Mr. Lloyd George mooted the appointment of the Medical Secretary to be an Insurance Commissioner, a slight ambiguity occurred, owing to the use of the pronoun "he" with reference, in the first place, to Dr. Maclean, and, in the second, to Mr. Lloyd George. The sentence as delivered is as follows:

"With regard to the point of the suppression of the interview with the Chancellor of the Exchequer who inquired as to the Medical Secretary's abilities and capacities, I gave my opinion upon that, and also referred to the fact that he [Mr. Lloyd George] had mentioned his [Mr. Whitaker's] name to the Prime Minister."

The Council.

In the report of the answers made by the Solicitor to questions submitted by Dr. A. H. Williams through the Chairman (SUPPLEMENT, p. 231) several errors of transcription unfortunately occur. In two places "Council vacancies" was printed instead of "casual vacancies." The sentence beginning at the fifth line from the bottom of the first column and that which follows should read as follows:

Any resolution which if adopted would call for the resignation of the Council, would have to be presented to the Council from that meeting as one of the resolutions which they had to take into their consideration and which they would have either to adopt or decree a referendum upon. They had a period of time within which to do that; and if they took the full extent of time which was permitted them to consider it, or if they decreed a referendum upon it—he did not suggest they would, but he was merely putting the possibility—and the referendum was such as to decide them to resign, and the passage of time had brought them within the period of less than four months before their next Annual Representative Meeting, he wanted them to fully appreciate that those vacancies which arose in regard to members elected by representatives of constituencies could not be filled up at all.

In the second answer the sentence beginning on the second line should read as follows:

The Chairman of Representative Meetings by resigning from the Council would not necessarily resign his office of Chairman of Representatives.

And the concluding sentence of this answer should read as follows:

If they had no Chairman of Representative Meetings within the interpretation of the By-laws, and no Deputy Chairman by reason of the death or resignation of both, then they could not elect an official bearing the impress of that character until the next Annual Representative Meeting, because it was at such meeting that he had to be appointed.

Dispensing.

On p. 225, in the speech of the Chairman of Representative Meetings, first column, line three from bottom, for "thirteen" read "one hundred and thirteen." The sentence should have read:

In reply to the question, "Should the arrangement for the supply of such material requirements be kept separate from the provision of professional service?" the replies [of the Divisions] in the affirmative were one hundred and thirteen and in the negative none.

Wrong Attributions.

Dr. W. F. DEARDEN (Manchester, North) writes: In your report of the Representative Meeting you state, on p. 235 (par. 6), that Dr. Campbell moved a certain rider, and subsequently that he accepted a revised form. I was the only one to move a rider to the particular resolution referred to, and, so far as my recollection goes, it was to the effect that the resolution should not apply to Medical Officers of Health acting in their official capacity. I subsequently agreed to alter this to the form mentioned in par. II. As I sat next to Dr. Campbell at the meeting, the confusion of personality may be thus accounted for.

Dr. Campbell (Leigh and Wigan) was the mover of the motion published on page 214, suggesting that the four co-opted members of the committee should not necessarily be limited to members of the British Medical Association, and not Dr. Campbell (Glasgow, North-Western). A similar error occurred on page 225, where the remarks of Dr. Campbell (Leigh and Wigan) as to the hardship which might be brought about if the doctors had not the option of dispensing their own medicines were attributed to Dr. Campbell (Glasgow, North-Western).

BRITISH MEDICAL ASSOCIATION.

WELSH NATIONAL COMMITTEE.

A COMMITTEE consisting of delegates from all the Branches and Divisions of the British Medical Association in Wales met at the Raven Hotel, Shrewsbury, on Thursday, February 15th, when forty-one members were present.

Mr. D. J. Williams, F.R.C.S. (Llanelly), was voted to the chair, and Dr. H. Jones Roberts (Penygroes) was appointed Secretary *pro tem.*

The following resolutions were passed:

1. That this meeting of medical men practising in Wales herewith resolves itself into a Provisional Welsh Medical Committee, and that the general purpose of the committee be the organization of the medical profession in Wales for the purpose of protecting the interests of the profession and of strengthening the bonds of fellowship.
2. That application should be made to the Council of the British Medical Association for the statutory recognition of a permanent Welsh Committee, and that the seeking of such statutory powers be left to the Executive Committee.
3. That the British Medical Association be asked to grant the sum of £200 towards the committee's expenses.
4. That this Provisional Committee undertakes to make no terms of service under the National Insurance Act, or any other substituted method of service, other than those approved by the British Medical Association.
5. That this committee reaffirms the six cardinal principles of the British Medical Association, and that the Welsh Insurance Commissioners be informed that the profession in Wales will decline to accept service under the Act unless the regulations framed by the Commissioners are consistent with the six cardinal principles above referred to, but that this information be not conveyed until the permanent committee has been constituted.
6. That in the event of an equivalent of medical benefit being returned to the insured, the method and rate of remuneration and wage limit shall be the same as shall be determined by the British Medical Association, and this committee requests the Divisions to secure pledges from each member not to accept services on any lower terms.
7. That the Divisions be asked to consider the amount of the capitation grant, and give a scale of fees for extra work outside the capitation grant, and to send the same to the Executive Committee.
8. That it be a recommendation to the permanent committee to request the Council of the British Medical Association to call the attention of the Chancellor of the Exchequer to the fact that there is no medical practitioner acquainted with general practice on the Welsh Insurance Commission, and to urge the desirability of such an appointment.
9. That a provisional executive committee be formed with executive powers and to report direct to the Divisions.

Appointment of Committee.

The Executive Committee was appointed, consisting of two members from each Division and one member resident in Wales from the Shropshire and Mid-Wales Branch, together with the chairman and secretary *ex officio*.

Vote of Thanks to Chairman.

The proceedings terminated with a hearty vote of thanks to the chairman.

*** In a brief note on this meeting sent by our correspondent in South Wales, and published on February 24th, p. 455, the sense of resolution 4 was inadvertently misrepresented. It will be seen that the Welsh National Committee is acting in complete unanimity and accord with the British Medical Association.

INSURANCE COMMISSION.

INSTRUCTIONS TO LECTURERS.

THE following is a copy of the instructions given to the lecturers who have been appointed under the Commission to explain the National Health Insurance Act:

NATIONAL HEALTH INSURANCE ACT, 1911.

INSTRUCTIONS TO LECTURERS.

1. Lecturers who are employed by the National Health Insurance Commission (England) must remember that they are officially engaged to explain an Act of Parliament in order to facilitate its administration, and are not the advocates of any particular system of insurance or of provision against sickness. Their duty is to explain the National Insurance Act as it stands on the Statute-book. They are not, therefore, allowed to introduce any arguments either for or against the particular provisions of the Act, but must confine themselves to a clear demonstration of the exact meaning and effect of each section and the bearing of one section upon others.

2. The lecturer must be very careful to state on every occasion that what he says, whether in his lecture or in his answers to questions, does not bind the Commission.

A.

With regard to the lectures the following instructions must be carefully followed:

(*a*) No political statement or allusion is allowed, and no reference to politics must be introduced, even by way of illustration.

(*b*) No comparison must be made between types of society which may seek to become approved.

(*c*) Care should be taken to deal fully with those sections of the Act which are of particular local interest.

B.

(I) In answering questions the lecturer must not be led into arguments dealing with policy or history or with the merits or demerits of the Act. He must state fairly the apparent meaning of the Act on the point raised by the questions.

(II) All suggestions for amendment of the Act must be put aside as beyond the province of the lecturer.

(III) In answering any questions, the answer which is contained in "Questions and Answers for Lecturers" or in the other publications of the Commission should be followed. If the question is one which does not fall into one of the types to which answers are set, the lecturer must refer to and explain the sections of the Act which bear on the point—remembering paragraph 2 above.

(IV) If any question raises a point on which the lecturer is doubtful because he is uncertain of the meaning of the Act, or because the question is not exactly covered by the Act, he must

not attempt to reply. He should have the question clearly set out in writing, and should forward it with the name and address of the person who has asked it to the Commission with his report.

(V) Lecturers are particularly reminded that in dealing with doubtful questions their instructions are to say frankly that the point is a doubtful one, and to avoid giving any answers likely to be misleading.

(VI) The lecturer is required to report to the Commission within two days of the meeting the date, place, and time of meeting, organization under whose auspices it was held, estimated number of persons present, the composition of audience (for example, executives of or members of the organization convening the meeting or otherwise), questions which he found difficulty in answering, and any other points upon which he thinks it advisable that the Commission should be informed. Reports must be short and strictly to the point.

(VII) During the time the lecturer's name remains on the list he must abstain from speaking in public or semi-public meetings without having first applied for and obtained the consent of the Commission.

(Signed) Robert L. Morant.

HEARTS OF OAK BENEFIT SOCIETY.

We are indebted to the courtesy of the Secretary of the Hearts of Oak Benefit Society for a copy of the following communication made by the Executive Council of that Society to the press:

The attention of the Executive Council of the Hearts of Oak Benefit Society has been directed to the report and the decisions arrived at by the Representative Meeting of the British Medical Association of yesterday, in the Guildhall, London, at which the following decisions were arrived at:

1. Calling upon the National Insurance Commissioners in plain and unmistakable language that unless the minimum demands are embodied in the regulations to be issued by the Commissioners, the British Medical Association intends to call upon its members and all other medical practitioners to decline to undertake any medical duties which may be assigned to them under the Act.

2. That the power of considering all complaints against medical men be vested in the local Medical Committee.

3. That dispensing, as hitherto, should be done by the medical practitioner for his own patients, and paid for at the scale of tariff rate for pharmacists.

4. That the 8s. 6d. be claimed as a minimum capitation fee, not including extras and medicines for members of approved societies, and to claim also the recognition of payment per attendance with a recognition of £2 as a maximum of the income limit.

Having regard to the importance of these decisions as affecting members of approved societies, the Executive Council of the Hearts of Oak Benefit Society protests that the above demands are unreasonable and extravagant upon the grounds that members of approved societies to be hereafter admitted under the Act, will still consist of selected lives, and that the amount allowed by the Government Actuary for medical attention has been founded upon a reasonable regard for the service which will be required from the medical profession, at least, so far as concerns members of approved societies. It provides a medical practitioner with 6s. per member as against the hitherto universal stipend of 4s. per member, including drugs.

An emphatic protest is also entered against extending greater powers to the medical profession in regard to the question of complaints, the Executive Council of the Hearts of Oak Benefit Society being of opinion that adequate safeguards are provided in the Act against any improper use by a member of his right to complain in the event of professional neglect on the part of his medical attendant.

The attitude of the medical profession regarding the £2 income limit is also strongly opposed, and the whole demands of the British Medical Association appear to so seriously affect the welfare of the community as to render it necessary that the Commissioners should be strengthened by the views of an important society in resisting these demands. To this end it is suggested that the Commissioners should consider the practicability and wisdom of handing to the approved societies the 6s. allowed under the Act and placing upon the societies the responsibility of making their own arrangements for the medical attendance of their members.

CORRESPONDENCE.

[*It is particularly requested that communications intended for publication should be written on one side of the paper only, and should be addressed to the Editor,* British Medical Journal, *429, Strand, London, W.C.*]

The Representative Meeting of February.

Advisory Committees.

Dr. Leigh Day (N.E. Essex Division) writes: At the Representative Meeting on February 21st I was elected a member of the State Sickness Insurance Committee. Shortly afterwards the question of nominating medical men to serve on the Advisory Committees came before the meeting. Personally, I feel that it is a grave mistake in policy to make use of any of the machinery provided by the Insurance Act until the demands of the profession are secured. The Division which I represent is of the same opinion. I therefore asked leave from the Chairman to make a personal statement to the meeting; and I stated that, if in the opinion of the meeting it was advisable that medical men should be nominated for the Advisory Committees, I must decline to serve on the State Sickness Insurance Committee. I feel that it would be impossible to serve on that Committee as a Representative of the Representative Body, when my own opinion and the opinion of my Division is opposed to the policy of that Body. I have therefore resigned my seat upon that Committee. I do not know whether the account in the Supplement of this week is supposed to be a full account of the meeting. It was resolved at the meeting "that full and adequate reports of the Representative . . . meetings be published in the British Medical Journal, unless adequate reasons be given to the contrary." My explanation to the meeting is not reported, and possibly was not of much importance; but as there is no reference to the important fact that the capitation fee was fixed at 10s. in Committee, and was reduced to 8s. 6d. on the Report stage, where barely a quorum was present, I presume a more full account is to follow. However, in order that my explanation may be put forward as soon as possible, I shall be glad if you will kindly insert this letter in your next issue.

*** The report of the meeting was very full, and we regret that by inadvertence the statement made by Dr. Leigh Day was omitted. The following is a verbatim report of Dr. Day's remarks:

I think this is such an important matter that I wish to make a personal explanation to this meeting with regard to what I have said. I have, I am sorry to say, been appointed upon the State Sickness Insurance Committee. My feeling on this subject is so strong, that if I am to go upon that Committee, holding the views that I do, appointed by the Representatives of this meeting to carry out their wishes, I shall be rendered utterly incapable, knowing them as I do, to represent properly the feelings of my constituents. I shall ask permission, if this resolution is lost, to resign from the Committee, in order that somebody else may be appointed before the meeting dissolves.

Proposed Censure on Chairman of Representative Meetings.

Dr. James Holmes (Chairman, Bury Division) writes: May I point out that the vote given by Dr. Brown was as a result of his own opinion, and not on account of any instruction from the Bury and Rochdale Divisions? It seems to me no motion ought to be considered at a Representative Meeting unless it has been previously submitted to the Divisions, or is an amendment to one that has been so submitted.

I may add I am very surprised that Dr. Brown should support a vote of censure on any one connected with the Representative Body, seeing that he thought fit to issue a circular postcard in October supporting three candidates for the General Medical Council in opposition to those selected by a Representative Meeting without first resigning his appointment as a member of the Representative Body.

Proposed Vote of No Confidence in the Council.

Dr. J. E. O'SULLIVAN (Liverpool, Bootle) writes: On the last day of the Representative Meeting Dr. Macdonald, Chairman of Council, remarked:

An accusation has been brought against the Council that the fact of Mr. Smith Whitaker getting the position of Deputy Chairman was a bribe. Did the gentleman who made that accusation understand what it meant to bribe the Council of the Association?

As I am the gentleman referred to, I beg to assure Dr. Macdonald and those whom it may concern that I perfectly understood the nature of the statement that I made, but I fear that the Chairman of Council himself does not quite appreciate its exact character.

Surely he does not mean to imply that I charged the Council, either individually or collectively, with deriving any pecuniary or other personal advantage from the appointment of the Medical Secretary. His assumption of virtuous indignation at my use of the word "bribe" would almost suggest that he did.

I do unhesitatingly allege that Mr. Lloyd George (having, in the first instance, been informed by Dr. Maclean that the profession would be likely to view unfavourably the appointment of Mr. Smith Whitaker to a Commissionership, and that the offer of such post would not be received favourably, either by himself, Dr. Maclean, or by Mr. Smith Whitaker), in again approaching the Medical Secretary with the offer of the Deputy Chairmanship in conjunction with a jump in salary from £1,000 to £1,500 and pressing upon him its acceptance, subject to the approval of the Council, lays such action open to being interpreted as presenting the features of substantial inducement which a plain man would call a bribe. Can it be contended that on the second occasion, the bait having been gilded with the offer of the Deputy Chairmanship and a greatly increased salary, any ordinary individual would experience any hesitancy in so characterizing it? The Council having been, obviously, influenced by the enhanced position of importance and prestige offered to their paid official in contrast to that first proposed to him, evidently believed that their sanctioning his acceptance of it would redound to their credit and be emblematic of their acumen and prescience, the position of Deputy Chairman acting as the bait.

I am not, in this letter, concerned with the act of the Council in giving their imprimatur to the appointment, or the incidence of its effect—I laboured that point sufficiently at the meeting—but the only objective cause that can reasonably be advanced to account for their action is to be found in the fact that the second offer of a Commissionership was gilded with the bait of the Deputy Chairmanship with its increased authority; and if the Chairman of Council does not choose to interpret such in the light of a bribe, and finds that word bears too significant a meaning, I do not believe that there are many of average intelligence, conversant with the ways of expedient politicians desirous of attaining their ends, who will find any difficulty in applying the word as being expressively characteristic of the transaction in question.

The Tactics of Dr. Helme.

Dr. A. C. FARQUHARSON (Bishop Auckland and Durham) writes: I notice from the report of proceedings of the recent Representative Meeting that Dr. Helme indignantly repudiated my suggestion that his attitude in the matter of the State Sickness Committee aimed at obtaining an oblique (not "complete" as reported) vote of censure upon the Council. I failed at the moment to observe Dr. Helme's repudiation, otherwise I would have said then what I wish to write now.

When Dr. Helme explained his motion at the meeting of the Agenda Committee I then expressed a precisely similar opinion, to which Dr. Helme replied: "It is not an oblique vote of censure; it is a direct vote." Thus the opinion which was affirmed and emphasized in Committee by Dr. Helme was, an hour or two afterwards in open meeting, indignantly repudiated. This is an example of the tactics of Dr. Helme.

PROPOSED PUBLIC MEDICAL SERVICE.

Dr. ROBT. R. RENTOUL (Liverpool) writes: Now that we have censured, or attempted to censure, the Central Council, the Representative Body, and Mr. Whitaker, we should be harsh enough to censure—ourselves. Doctors have been discussing the Insurance Act since June last, and yet little or nothing constructive has been done. As far back as 1886 I made a close study of the German Insurance Acts, and arrived at the conclusion that some similar scheme would be adopted by our country, and, in order to be prepared, I proposed that we doctors should establish a public medical service to be owned and administered only and exclusively by doctors. The skeleton of the service will be found in the BRITISH MEDICAL JOURNAL of June 22nd and September 28th, 1889. The late editor of the JOURNAL, Mr. Ernest Hart, took a practical interest in my proposal. I brought it before the annual meeting of the Association, and it was referred to the Branches for discussion and report. Two Branches voted in favour; others were neutral or against.

My contention always has been that doctors should manage their own affairs, and sell their skill to the sick public as they collectively agree to. Several towns have established a medical service, and with fair and encouraging results. If we agreed upon a scale of fees—either a head grant per annum or per visit, and if the Insurance Commissioners agreed to grant a fixed sum to the service opposite each person joining, I think this would go a long way to unravel the humiliating conditions we doctors have so deliberately created and fostered. For our own good name let us put a stop to the crusade of censuring, and go in for a definite, constructive, and living policy. At present we are the object of scoff and satire, while the organizing power of the wage-earner is held up to us as one worthy of adoption.

CLUBS AND THE ACT.

Dr. E. C. DANIEL (Epsom) writes: In answer to Dr. Fletcher's letter (BRITISH MEDICAL JOURNAL SUPPLEMENT, February 17th, p. 184) it may be of interest to your readers to know what has been done in this district, and, in my opinion, if the doctors in each locality will meet as we have done, what is about to be accomplished here can and should be carried out throughout the country.

On July 3rd, 1911, I attended the court meeting of the local Foresters, to whom members of my firm have been medical officers for twenty-five years or more.

I told the court that the Insurance Bill, if passed, would mean the end of club doctoring so far as I was concerned. I explained that I considered that medical attendance on club members at 5s. a head was to a great extent charity, and that although I, with other doctors, had been willing to do this sort of work for the working man who was trying to help himself, I always looked on it as one of the burdens of medical practice which the profession ought not to have to bear; and, further, that when the State recognized its duty to its poorer members it should not ask the doctors to continue work on a charitable basis; that I, for one, was not going to do it. I said that medical attendance in the future would cost them more than 5s. per head per annum, but that I was not in a position to say how much it would cost, though probably at least double. I explained to them that when the time came I should resign my post as their medical officer, after due notice, and let them know on what terms, in accordance with the British Medical Association pledge, I and the other doctors in the district would be willing to attend insured persons whose incomes were under £2 per week.

In December, 1911, the doctors practising in this district met and formed a local medical society, and at a series of meetings held since we have drawn up a scale of fees on which we are willing to work for the classes under consideration. The scale is on the basis of the National Deposit Friendly Society, but at a slightly higher rate, namely:

2s. 6d. for *every* visit (medicine included).
1s. per mile over two miles.
1s. 6d. surgery.
Double fees between 10 p.m. and 8 a.m.
Increased fees for surgery attendance out of surgery hours.
Also a scale of fees for various operations, anaesthetics, etc.

On February 5th, 1912, I again attended a court meeting of the Foresters. I explained to them in the first place that I had come as their medical officer and not as representing any other medical men in the district. I told them that I was now in a position to tell them on what

basis medical attendance would be given in the future, that the statement I was about to make was not binding on any other doctor, but that probably the terms I was about to state would be acceptable to the other doctors in the district. I then stated the terms noted above, and said that if they wished I could give them an estimate, from the figures of my firm's club work, of about how much per head they would have to collect from their members to form a fund from which to pay these fees. I pointed out that under per capita payment the doctors had to take the risk of much or little illness, which in my opinion was a risk which should be borne by the insured and not the doctor; and therefore my suggestion was that they should form a fund, in conjunction with the other local clubs, to pay the doctors' accounts; that the money thus collected should be paid into a bank in the names of trustees, two of whom should be doctors. That under this scheme subscribers to the fund would have free choice of doctor from among the doctors who worked at the fees agreed upon by the local medical society.

The scheme met with approval, and I was asked to give the figures I had mentioned; I need not go into the details here, but only state that I estimated that it would require about 12s. per head, and that towards that, if they got the approval of the Insurance Commissioners, they would get a grant of 6s. per head for all insured persons. One member said they would get the balance from the county council and the Treasury; I pointed out that the clause in the Act was merely permission, and that Mr. Lloyd George had stated in the House of Commons on November 14th, 1911, that a fee of 8s. 6d. a head was financially quite impossible.

I was then asked what would happen if they were unable to get the money. I said that possibly Mr. Lloyd George would send them a doctor to devote all his time to them, but pointed out that they would then have no choice of doctor; this possibility did not meet with approval.

If I do not misinterpret the feeling of the men here, the money will be found, even out of their own pockets, to form the suggested fund, should the doctors, as seems probable, decline to form a panel under the Act.

So much for this district; whatever happens with regard to "medical benefit" under the Act, we are ready to provide medical attendance for those who need it under the above scheme. It seems to me that what has been done here should be done throughout the country, and then the doctors can keep free from State control, provide a satisfactory service for those whose incomes are under £2 a week (and others if thought desirable), and secure adequate remuneration for services rendered.

What are the steps to be taken?

All club doctors must act as I have done and give up their appointments for the general good (compensation can be considered, but in many cases there will be no loss, but probably a gain—that is, for the same amount of work, better remuneration, or, if the same remuneration, then less work will earn it).

In every town or district the doctors should form a local medical society and draw up its scale of fees as we have done: this way is promoted friendship, and *esprit de corps*.

Incidentally, I may mention that I have asked several working men and others whether 2s. 6d. a visit is an unreasonable fee for a doctor to charge them, and they all agree that it is not.

Further, I should like to point out that the system of payment for work done, or per visit, is quite a practicable method by forming a fund as I have suggested to our societies. That it will simplify the questions of finance that would arise (under a capitation system) if a working man moved from one part of the country to another; and also the question of attendance on domestic servants. The wider the area over which the system is adopted, the simpler the administration of medical benefit. And the keeping of accounts, apparently the bugbear of some medical men, is reduced to the simple form of the National Deposit Friendly Society sheet, or some similar form.

Dr. ERNEST C. HADLEY (Birmingham) writes: With regard to a resolution of the most far-reaching importance which was passed at the Representative Meeting on February 21st, it is one to which the immediate attention of the profession should be directed. It reads:

> That the Council be instructed to take steps to organize the profession so as to secure that, failing the provision of adequate remuneration of medical practitioners and the fixing of a definite wage limit under the National Insurance Act, no medical practitioner shall give medical or surgical treatment to persons insured under the Act under a contract practice appointment held at lower rates than those which may be agreed upon as adequate by the Representative Body, after reference to the Divisions, for attendance upon insured persons, and that no contract practice be introduced into any district against the wishes of the majority of the members in that district. (SUPPLEMENT, BRITISH MEDICAL JOURNAL, p. 227, line 5, etc.)

I am quite convinced that the best method of carrying out this resolution would be for every medical man who does club and contract work to give notice that on and after a certain date, which must be the expiration of his contract, or which must be after reasonable notice, his charge for attendance upon members of clubs and friendly societies—admitted after medical examination only—will be the same as that deemed adequate for attendance upon members of approved societies under the National Insurance Act, namely, 8s. 6d. a year, exclusive of medicine and extras.

However, during the last twelve months I have had numerous conversations with many medical men whose income is largely derived from club and contract work, and they have pointed out how great would be the risk of the loss of their livelihood, even if the loss were only temporary, to which such a policy would expose them. Now, I must confess that argument upon these lines must appeal to the profession, and that the British Medical Association must not take the risk of forcing these medical men into a position in which they might feel themselves unable to fall into line with the rest of the profession.

I feel that some way out of the difficulty must be devised, and therefore appeal to club doctors themselves to offer suggestions for their own deliverance. I venture to suggest the following method, but am open to have this plan improved upon.

As soon as possible in the course of the next few months all club doctors shall by concerted action send a letter to the secretaries of their clubs and friendly societies, etc., saying that on and after a certain date, which shall be the expiration of their contract, or which shall be reasonable notice to terminate their existing contract, that their charge for attendance upon all members of clubs, friendly societies, and approved societies, etc., who are also insured members under the National Insurance Act, will be at the minimum rate of 8s. 6d. per annum per capita, exclusive of medicines and extras (the price fixed by the British Medical Association as the minimum charge for attendance upon insured persons who are members of approved societies), but that they are willing to continue to attend all members of the clubs, friendly societies, and approved societies, etc., who were members at the date of the passing of the Act, or for convenience, say, January 1st, 1912, at the old contract rate, whether those members are insured persons under the Act or not, as long as they remain members of that club, friendly society, etc.

If some such plan of campaign as the above were adopted, I feel sure that the British Medical Association would get the co-operation of all club and contract-holding brethren, and not have to contend against their opposition. It is true that it would take a generation to effect the consummation of the resolution referred to, but, still, the evil would visibly decrease annually, and even if a generation is the period required, it is always better legislation that legislates wisely for the good of posterity than that which legislates precipitously and with risk of failure for the immediate present.

Mr. A. C. E. PARR, B.A.Oxon., M.R.C.S., L.S.A. (Feltham, Middlesex), writes: May I point out that there is a short way by which the medical profession can solve all the difficulties raised for them by the Insurance Act? The solution suggested is so simple that I am bold enough to believe that it needs only to be explained to gain the adherence of all members of the profession in Great Britain.

All, then, that medical men have to do in order to attain all that the most ardent can desire is to agree amongst themselves that all of their members who now hold contract appointments shall send in notice to

terminate their contracts on July 1st next. By this move the whole medical profession throughout Great Britain will come into the Act under the terms set forth by Mr. Lloyd George in his speech at the London Opera House as applying to those districts where contract practice is unknown. Under these circumstances, as Mr. Lloyd George then demonstrated, the capitation fee —at whatever amount it may be fixed—is to be paid into a local general fund. The patients insured under the Act will choose their own medical attendant, who will attend them precisely as if they were ordinary private patients, charging them their ordinary fees for attendance, but sending in the account not to the patient but to the local general fund. Should this fund not prove sufficient to pay the medical men their accounts in full, it will be distributed among them in proportion to the amount of their respective accounts, and for the balance the medical men will have to look to their patients for payment.

Let us see how this scheme will meet the objections raised by medical men to the Insurance Act as at present understood and interpreted.

In the first place, it solves the question of an income limit. Medical men are to charge their ordinary fees. If, then, any of the insured are in receipt of an income of (say) £500 from all sources—as has been stated may be the case in some instances—there is nothing to prevent the medical man from raising his fees accordingly, as he would do in ordinary private practice; and should the local committee demur to paying on this higher scale, the medical man can recover the balance from his patient, who can surely well afford to pay it.

In the next place, by this means the question of the amount of the capitation fee becomes of secondary importance to medical men. The insured, through their representatives in consultation with the other members of the local committee, can fix the amount at whatever sum local experience may lead them to deem adequate to the purpose, and since the insured as patients will be responsible for any balance not paid out of the local general fund, there will be a sufficient incentive among the insured to fix the amount of the capitation fee at a sum that will be adequate. I may here point out that, taking the tables of the National Deposit Friendly Society as a rough guide, the amount will vary considerably from district to district.

Thirdly, as regards the question of dispensing, if medical men are paid their ordinary fees for attendance they can afford to please themselves as to whether they include the supply of medicine or prescribe merely, as they do at present in private practice. Many no doubt will prefer to be relieved of the tedium of this part of their work, and the terms for dispensing prescriptions can be arranged by mutual agreement between the chemists of the district and the local committee.

It may be said, however, that to ask all holders of contract appointments to surrender their offices would be making too large a demand on their faith and strength of self-denial. I believe the difficulty is more apparent than real, and that the danger of their suffering any pecuniary loss by the Act is infinitesimal. Ninety-nine per cent. of their former club or contract patients will come back to them as private patients under the Act, and in addition they will gain many new patients who before belonged to no club or friendly society. In order, however, to allay all fears on this score it would be an easy matter for the medical profession to raise amongst themselves a general fund to indemnify any members who could show that they had suffered any pecuniary loss by taking this step in the interests and for the general welfare of the whole profession.

Dr. J. R. LOGAN (Liverpool) writes: In the important meeting of the Representative Body which has just been held many matters have been discussed with great fullness and force, which many of us think might, with advantage to the profession, be passed over in silence, while points of most urgent and practical importance have received but scanty consideration.

I desire to allude to the motions brought forward by Dr. Bushnell of Brighton and Dr. Lyster of Winchester, which aimed at organizing the profession, so that no one should undertake or continue medical work at rates lower than those approved by the Representative Body in any circumstances which may arise. This, as was made clear, would involve the calling upon all who at present hold clubs to give them up at the critical moment, and Dr. S. Hughes of Southampton—as, I think, very properly—moved that the organization should include "means to ensure that no pecuniary loss shall accrue to such medical officers in the adoption of this policy." The Chairman very truly said this was rather a large proposal, and Dr. Hughes—I think, very unfortunately—agreed to withdraw it. It is, indeed, a "large proposal," but, as many have seen and said, it is in the adequate dealing with this point—the power of being able to "call out" the present holders of clubs when the crisis comes—that the crux of the whole situation lies. I can, indeed, call spirits from the vasty deep, but the cynic may be more than doubtful as to the response. If a man derives a large portion of his income from club practice, with which some members are fairly content, is it fair or reasonable to ask him to surrender it at a given moment, simply for the benefit of the profession? I say it is not, and I maintain that we should, if we really mean business, at once set about organizing a means to secure that if any one gives up an assured income at the call of his fellows we shall render to him an adequate compensation. With such a scheme it is obvious that our position would be enormously strengthened and we could face the coming struggle with comparative equanimity. How this could be accomplished is what I wish to suggest in this letter. This is my proposal:

There shall be immediately started a large British Medical Association Compensation Fund. All members of the Association are to be invited to contribute substantially by way of *loan*. On moneys lent interest shall be paid at the rate of 3 per cent., and the principal repaid as hereinunder provided.

In the event of a club doctor giving up his work at the request of the Association, a chartered accountant shall be employed to compute his loss, any gain under the new order of things being duly considered.

In the event of a panel of practitioners being formed either under the Insurance Act or under such a "British Medical Association State Sickness Insurance Committee" as suggested by Dr. W. R. Cooper (SUPPLEMENT, p. 235), all such practitioners shall pay to the trustees of the aforesaid British Medical Association Compensation Fund 10 per cent. of the revenue they derive from work done as members of such panel. These contributions are to be used, in the first place, if necessary, to augment the fund, and afterwards for the purpose of paying interest and for the return of the loans.

Interest shall begin to be calculated from the period at which compensation becomes due, and contributions from panel practitioners shall be continued until all loans and interest are paid.

Such is the gist of the scheme as it suggests itself to me. If the principle of the matter should meet with acceptance, no doubt abler financiers than I am would mould it into better shape. No doubt, it would call for some sacrifice, but it would and should be a sacrifice by us *all* (and I believe) for the benefit of all. It would not be the sacrifice of a great deal by one small section; that would be unreasonable to expect, and would almost certainly be impracticable. It would further have the advantage of greatly increasing unity, sympathy, and strength among us.

Dr. ROBERT FRENCH (North Finchley, N.) writes on February 20th: So many opinions have been written about the course of action to pursue that I should like to summarize them from my point of view. We want now to arrive at hard facts.

1. Foremost is the fact that we can do nothing unless we are united. In my opinion we are somewhat lacking in organization.

2. The time is now ripe to break off all negotiations with the Chancellor and to act on our own initiative. This would allow him to carry out his threats, which should not in the least alarm us if we are united—namely, to cut out all medical benefits, and hand them over to the insured persons through their friendly societies.

3. As suggested by Dr. J. Fletcher (Chelsea Division) and others, let the Council hold all resignations of friendly society appointments and others in their hands, and let them also prepare a scheme of medical service through

the medium of the Branch secretaries to offer the friendly societies when the time comes, and refuse to accept any appointments except on these terms.

The kind of medical service which I should suggest should be 10s. per capita, and a scale of fees to be hereafter formulated for night visits, mileage, operations (including fractures and dislocations), anaesthetics, vaccinations, etc.

In my opinion it is impossible to get rid of contract practice for the poor, but on no account should it apply to successful tradesmen and men earning more than £2 per week.

DR. HARFORD EDWARDS (Markyate, nr. Dunstable) writes: May I advise that, in the words of the late Mr. Astley, we should now "cut the cackle and come to the 'osses"? In other words, drop all wordy warfare, which will do no good, and set ourselves to raising funds which will do good.

FEES FOR CERTIFICATES AND RETURNS.

DR. HERBERT P. TAYLER (Bradford-on-Avon) writes: As it seems probable that negotiations will be opened between the Association and the Insurance Commissioners, may I point out the necessity for the payment of a small fee for all certificates and returns rendered to the Insurance Committees?

Under the Act certificates will have to be more detailed than those formerly given to the club committees, and in all probability there will be many returns to be made for Government statistical purposes.

All these will take time to prepare, and quite likely have to be made out in triplicate, as so many Government returns have to be, so that it is quite possible that a man with a large practice under the Act may be obliged to employ a clerk either whole time or periodically.

If a small fee be payable for each return, it would tend to check the calling for unnecessary returns.

THE VALIDITY OF REGULATIONS.

DR. BERNARD O'CONNOR (London) writes: Dr. Barraclough (SUPPLEMENT, February 24th, 1912, p. 237, column 1) says: "It does not appear that this Section [15 (2)] makes any provision for the wholesale suspension of the medical benefit in the event of the doctors declining to form panels." It does not, nor does it deal with *wholesale* suspension at all: what it says is, "Suspend the *right* to medical benefit" in a given area; and what it provides for is "the preparation and publication" (presumably *by the Insurance Committee*) "of lists of medical practitioners who have agreed to attend . . ." etc. The Commissioners are not bound to wait upon the formation, by any one whomsoever, of "panels" (to use Dr. Barraclough's phrase), since it is open to them, in their discretion, to refuse to approve of the arrangements which the Insurance Committee may make, and it would be in their power—until January 2nd, 1914—to utilize Section 78 in case of difficulty.

Dr. Barraclough asks: (1) "Can the *suspension* of one of the main provisions of the Act be described as a *modification?*" (2) "Could the Act be said to be brought into operation if the first and greatest of the promised benefits were suspended?"

1. In the abstract, the suspension of any provision in any Act can be described correctly as a modification *of the Act* during the period of such suspension; but the "suspension" contemplated by the Proviso to Section 15 (2) is one of three alternatives which may be resorted to in any area in case a certain event, specified in that Proviso, presents itself, whereas the modification (of the provisions of the Act) referred to in Section 78 has relation to only a difficulty in bringing the first part of the Act into operation, and this last section will be inoperative after January 1st, 1914.

2. In the event of the Privy Council *not* substituting a date between July 15th, 1912, and January 2nd, 1913, the first part of the Act will "commence" ("or come into operation") on the first of these two dates; and although the Act provides expressly that some portions of the Act shall have effect at a time anterior to this particular date—that is, "on the *passing* of the Act"; for example, Sections 24, 30, 66, 72 [see, also, Section 15 (4) and Section 15 (2) (*c*), and note the variation in phraseology—"passing," "commencement"—in this last paragraph; also in Section 8 (8) (*a*), Section 24, *et alia*], it cannot be said rightly that, because some sections—for example, 24 (with an exception) and 78, will cease to have effect subsequent to dates named therein, therefore, the Act then will not be "in operation."

MODE AND RATE OF REMUNERATION.

DR. F. C. MEARS (North Shields) writes:

I was much surprised at the statement of Dr. Macdonald at the Representative Meeting that club doctors would get 50 per cent. more money under the Act than they are getting at present. He seems to have swallowed Mr. Lloyd George's bait whole, without ever looking at it.

If a club doctor is getting 4s. at present, he has to supply treatment and medicine, but he is excused by the rules from attending, except as private patients, any member suffering from the effects of drink or immorality, or fighting or football, or who is successful in an action for damages either under under the Employers' Liability Act or at common law.

Under the Act he has to attend all these cases, which are at present extras.

Not only so, but the 6s. has to be divided between the doctor, the chemist, and the instrument maker, and in practice I should think the bill of the instrument maker for trusses, syringes, pessaries, spectacles, and a hundred and one other medical and surgical appliances will absorb a large part of the 6s. Then the chemist's bill will have to be paid, and the balance, if any, will go to the doctor.

I am sorry the Representative Meeting did not suggest that the provision of drugs and dispensing be included in the capitation fee, because those of us who have hitherto, as regards our contract work, enjoyed freedom from office work, would strongly object to keeping books recording the price of every bottle of medicine, and having them checked by a Government official. Besides, we owe it as a duty to ourselves not tacitly to accept Mr. Lloyd George's insinuation that we give coloured water at present. As this matter has not yet been referred to the Divisions I presume we shall have an opportunity of altering the resolution in this respect, provided the majority of Divisions so desire.

If the medical benefit were taken out of the Act we have nothing to fear from friendly societies. They know now that we are organized, and that our fees must be greatly increased. For the benefit of those who have been led to fear friendly society control, let me explain that if the medical officer does his work there is no such thing. In the case of three lodges I have held for twenty-seven years, I have never been in the lodge room, and do not know where it is, and the only officer I am acquainted with is the treasurer, who pays me visits at stated intervals to hand over the money due.

There will probably be a rush to join friendly societies before the Act comes into operation and the fear has been expressed that if the medical benefits are deleted from the Act club doctors will flourish at the expense of those who do not hold such appointments. This is perfectly true, and to obviate the difficulty it has been suggested that every medical man in every town who is willing to attend insured persons be invited to become a member of a medical committee which will draw up conditions in harmony with the policy of the Association, stating terms, etc., and present them to each friendly society lodge and otherwise approved society. That these conditions shall include the offer of free choice of doctor so that no man need lose a single patient. If the payment were by capitation fee the treasurer would pay each doctor on the Committee according to the number of names on his list.

In towns where the payment for work done was adopted the Medical Committee would have to indicate how it was to be carried out, but for the benefit of those who have no experience of contract work I should like to point out that with a sufficient capitation fee the contract system is most satisfactory, saving any amount of trouble over odious bookkeeping and entirely relieving the practitioner of the suspicion of paying unnecessary visits.

I do not agree with Mr. E. B. Turner that we are politically negligible at the present moment, though we have been so in the past and probably shall be again when this wretched Act is ended or mended. But for the next few

months, at any rate, the working classes will be looking to us for guidance. Every medical man should purchase a guide to the Act and give up all his spare time for a week at least to the study of it, besides making notes. It is stiff reading, but much more amusing than materia medica as soon as you begin to realize the hopeless tangle Mr. Lloyd George has produced. Then if the member for his Division has voted for the Act and tries to justify his action to his constituents, the opportunity will arise to attack the Act and the member in the local press, or, even apart from the member's presence, a carefully worded letter to the newspaper against the Act will be sure to draw some rabid admirer of Mr. Lloyd George, and so long as one is careful about facts no supporter of the measure has a chance, because his case is so bad.

But apart from the newspaper one can tackle individual working men and explain to them that the Chancellor will take 4d. off their wages every week they are in employment, that when they are out of work they will fall into arrears at the rate of 7d. per week, and that when they get work again they will have to pay 11d. per week for as many weeks as they have been unemployed, if they wish to regain full benefits.

They should also be told that their liberty and the right to do what they like with the money they earn has been taken from them without their consent.

Then about the 9d. for 4d. fiction.

This is what a workman will pay, directly and indirectly:

Stopped off wages	4d.
If out of work to pay employer's share also, say nine weeks at 3d. per week, equals about ...	½d.
Employer's 3d. will be put on article he deals in. Working classes chief consumers. Allow for this 2d. out of the 3d.	2d.
Working classes pay half the taxes, hence pay half the State 2d.	1d.
Extra payment for enormous increase of work to approved society officials (at least) ...	1d.
Extra payment insisted on by medical profession	1½d.
Total	10d.

(There are other smaller items.)

Thus, Mr. Lloyd George is giving 9d. for 10d. Very kind of him, especially as an average working man can get all the benefit he requires from a friendly society for 6½d.

The proportion of medical men to voters in most constituencies will be about 1 to 500; and if we all did our best before the next election, sticking to the Act only as our text, I do not think we should have much difficulty in consigning Mr. Lloyd George to the ranks of the unemployed. Even apart from a general election, if Mr. Lloyd George finds we are turning by-elections against him his tone will soon change, and the money without which we cannot and will not work will be forthcoming. But, apart from the medical difficulty, I honestly believe the Act to be unworkable, and further amendments will only make it more complicated. The only place for it is the scrap heap.

Dr. P. R. COOPER (Altrincham) writes: Dr. A. F. Millar appears to be so obsessed by the capitation system that he thinks every argument in favour of "adequate remuneration for professional services" must be an argument for capitation. He has not done me the honour to read some of my former communications on this subject, so perhaps you will allow me briefly to explain to him and others what I mean by saying that "capitation payment means payment in inverse ratio to work done," how this statement is consistent both with ordinary arithmetic and common sense.

It is clear that the total sum received by a medical man for a given number of beneficiaries is a fixed sum per annum. But the work entailed in attending upon those who fall sick is by no means a fixed quantity—it is bound to vary in different districts, at different times of the year, in different classes of practice, and in the practices of different medical men. Now whether a medical man pays twenty or fifty visits a day to his sick beneficiaries, his remuneration remains the same, but what about his net earnings? Does Dr. Millar contend that it costs him no more—that is, in actual out-of-pocket expenses—to attend fifty people than it does to attend twenty? It may not cost him twice as much, but it is bound to cost more in wear and tear, conveyance, and all kinds of small sundries which a medical man is daily using (and which certainly would not be supplied out of the 1s. 6d. or 2s. a head for medicine, etc.); besides, the extra time alone consumed means money to the medical man; he would have so much less time to devote to his other patients. It is unnecessary to elaborate the argument further, as it must be evident to any one who gives the matter a moment's consideration that the expenses of medical practice must bear a certain increasing proportion according to the amount of work done, and as these expenses must be deducted from the total capitation fees received to obtain the true income, it follows that the true income must vary inversely, and to a considerable extent, with the amount of work done. Dr. Millar says, in concluding, that I have performed the feat of making 2 and 2 into 5; I should say rather that under the capitation system medical men will find that 2 and 2 are not even 4, but 3 or even less.

Dr. Millar says payment by salary is "like per capita payment in being exactly the reverse of payment for work done." Surely he can conceive of a salary being apportioned to the amount and quality of work done, whereas capitation cannot possibly be so apportioned. Moreover, under a salaried (universal) service there would have to be limitation of hours, provision for holidays, sick pay, sick substitutes, superannuation, etc., whereas under contract work per capita the hours are unlimited and there are no such reasonable conditions of service; indeed, apart altogether from the question of adequacy of payment, the conditions of service under the capitation system are such as no workers in any other field would agree to; they are exacting and oppressive in the extreme, and we shall be very foolish if we ever agree to them.

With Dr. J. J. Bell's letter advocating payment for work done, but limiting the liability upon the Insurance Fund for medical attendance in any one case, I am in substantial agreement, having already mooted the same idea. I would add, however, that the excess should be borne by the individual patient, or that special grants should be made in exceptional cases. It is hardly fair that the medical men should forfeit all claim for such exceptional attendance.

Dr. Harvey's letter, like Dr. Millar's previous one, is a *réchauffé* of arguments for the capitation system which have been repeatedly answered by myself and others; indeed, I have seen no new argument in favour of capitation adduced during the last twelve months, whereas the reasons for adopting payment for work done have become more and more assured. The returns of the National Deposit Friendly Society, quoted with approval by Dr. Harvey, are striking testimony to the satisfactory practical working of the system of payment for work done, especially when it is also to the patients' interest to keep down unnecessary attendance. It is one of the worst features of the capitation system contemplated by the Insurance Act that it offers every inducement for tired workers to "go sick" on the slightest pretext.

The Representative Meeting has now recommended a minimum capitation fee of 8s. 6d., with equivalent fees per attendance in districts where contract practice is generally objected to. What about districts where part of the men will accept contract work and part will not, although the latter are quite willing to attend the insured on the per attendance plan, say, as at present in vogue in the National Deposit Friendly Society? Will the insured be able to choose a doctor who is not on the panel, or is all insurance practice in these districts to fall into the hands of the contract men unless the others are prepared to forego their independence? This would surely be a grave error and lead to great injustice and dissatisfaction. The only way out at the moment seems to be for those of us who object to capitation to urge our patients to join the National Deposit Friendly Society, which I understand is becoming an "approved society," although it formerly had not the approval of the British Medical Association.

Dr. E. LLOYD OWEN (Criccieth) writes: Perhaps you will allow me to add the following rough notes on the various points (with apologies to the *Practitioner*):

Point 1: A Two-pound Limit.—Not incorporated in the Act, but the Insurance Commissioners and Insurance Committees have the power to fix this or any lower limit.

Point 2: Free Choice of a Doctor.—The Right Hon. Sir Edward Clarke, K.C., allows this point is effectively provided for in the Act itself.

Point 3: Public or Insurance Committee Control.—This point (except as regards maternity benefits) is incorporated in the Act itself.

Point 4: Local Option or Local Choice of Method, and *Point 5: Adequate Pay or Remuneration.*—On these two points the Right Hon. Sir Edward Clarke, K.C., thinks "that the powers of the Insurance Commissioners are sufficiently wide to enable them to yield to the wishes of the medical profession."

Point 6: Adequate Representation.—The principle and a considerable measure of medical representation is incorporated in the Act itself. It will always be a matter of opinion what measure of the same would be adequate. No doubt the Government might have been more liberal to the profession in this matter.

Taking the points *en masse*, let me further remind your readers that Sir Edward Clarke states that "the powers given to the Insurance Commissioners in Section 65 . . . . . *are so large* that, with some important limitations, the Insurance Commissioners could (if willing), give effect to some, at all events, of the conditions desired by the medical profession." Mr. Danckwerts, K.C., states: "Section 62 seems to me to leave room for the Commissioners giving local Medical (*sic*) Committees effective powers in regard to many of the matters raised."

It seems to me, therefore, that it is high time to bring the six points down to at least *three* points (Points 1, 4, and 5.)

Of these, again, it would appear that Points 1 and 5 (which are correlated) are, *par excellence*, the points on which we should concentrate.

Let us, to begin with, fix on three minimum or retaining capitation fees (for *advice* only and to exclude drugs, appliances, mileage, etc.)—that is, a fee that would be commensurate with £1 5s., a £2, and a £3 income limit respectively.

I say "to begin with," for afterwards we should have to decide upon figures for drugs, appliances, and extra duties and services.

Advice in itself (including under this term a visit within a quarter of a mile, with an ordinary examination and verbal advice, together with, where necessary, a prescription or the doing of an ordinary dressing) would seem to be of about equal monetary value whether rendered in the country or in a town, and the profession should be able and without delay to fix upon a definite and *universal* capitation fee for that particular service.

The proposed State Sickness Insurance Committee might invite definite figures from the suggested provisional Medical Committees for each insurance area, and if necessary engage a professional actuary to assist them in sifting the figures thus obtained. The appointment of such a lay actuary would perhaps enlist the confidence of the public as well as the profession.

I would as a working hypothesis suggest that the minimum capitation fee for *advice alone* (as above defined) should be:

Four shillings	for an income limit of	£1 5s.
Six shillings	,, ,,	£2.
Nine shillings	,, ,,	£3

Materials given and extra services would, of course, raise the figures well above those stated. These, however, should perhaps be given at estimated cost value and the charge be identical for each of the three suggested income limits.

It is my strong belief, however, that the Insurance Commissioners and Insurance Committees will find that the revenue so far provided for in the Government scheme will in very few areas justify them in fixing a higher income limit than one of £1 5s. a week. At the same time, let the profession be wary, else, as has been well said: "The thrifty man will enter a club and make a profit by the transaction; the thriftless may spend the whole sum (6 shillings), and when in need of a doctor obtain an order from the relieving officer and get his doctoring for nothing—or else run up a bad debt."

Dr. Bertram J. Collyer (Paignton) writes: After his remarks on the above subject at the last Representative Meeting, I should like to ask Dr. Macdonald if he thinks that the practitioner who has no private means and a young family to educate is more likely to appreciate (1) an increased remuneration of 50 per cent. with an increased income of 50 per cent. and 50 per cent. more money in his pocket, or (2) an increased remuneration of 50 per cent. with, at the same time, a compulsory reduction of the amount of his work which limits the increase of his income to 12½ per cent. and the extra money in his pocket to 12½ per cent.?

Hospitals and Asylums.

NOTTINGHAM CITY ASYLUM, MAPPERLY HILL.

The annual report for the year 1910 of Dr. Evan Powell, the Medical Superintendent of this asylum, shows that on January 1st, 1910, there were 828 patients in the asylum, and on the last day of the year, 840. The total cases under treatment during the year numbered 1,005, and the average number daily resident was 818. During the year 177 were admitted, of whom 169 were direct and 8 indirect admissions. Of the 169 direct admissions in 89 the attacks were first attacks within three and in 26 more within twelve months of admission; in 40 not-first attacks within twelve months; in 8, whether first attacks or not, the attacks were of more than twelve months' duration, and 6 were congenital cases. The direct admissions were classified according to the forms of mental disorder into: Recent mania 36, recent melancholia 38, recurrent 13, senile and secondary dementia 13, delusional insanity 17, general paralysis 21, stupor 6, insanity with epilepsy, insanity with grosser brain lesions, and confusional insanity, 2 each, and congenital defect 6. The tables of causes and associated conditions show that alcohol was assigned in 47, or 27.8 per cent., syphilis in 11, and other toxins in 9, diseases of the nervous system in 6, other bodily affections in 11, critical periods in 28, child-bearing in 8, bodily trauma in 3, and mental stress in 50. An insane heredity was ascertained in 24, or only 13 per cent. During the year 72 were discharged as recovered, giving a recovery-rate on the direct admissions of 42.6 per cent., or of recoveries in and on the direct admissions of 40.24 per cent.; also 9 as relieved, and 6 as not improved. During the year also 78 died, giving a death-rate on the average number resident of 9.54 per cent. The deaths were due in 28 to nervous diseases, including 19 from general paralysis, in 6 to diseases of the heart and blood vessels, in 3 to respiratory diseases, in 2 to appendicitis, in 5 to kidney disease, and in the remainder to general diseases, including 19, or 25.3 per cent. of the total deaths, from tuberculous diseases. Dr. Evan Powell, in commenting upon the high tuberculous mortality, says that the majority of those who died were infected during their residence in the asylum. Inasmuch, however, as there seemed so few cases at one time in the infective stage, he considered they would hardly be warranted in advising the establishment of isolation in a separate building. The general health was good on the whole, though there were 7 cases of dysentery with 2 deaths, and a somewhat severe epidemic of influenza. There were no other cases of infectious disease.

SUNDERLAND BOROUGH ASYLUM.

The annual report for the year 1910 of Dr. Jas. Middlemass, the Medical Superintendent of this asylum, shows that on January 1st, 1910, there were 392 patients in residence, and on the last day of the year 402. The total cases under care during the year numbered 503, and the average number daily resident 400. During the year 111 were admitted, of whom 88 were first and 23 not-first admissions. In 31 the attacks were first attacks within three and in 14 more within twelve months of admission; in 18 not-first attacks within twelve months, and in the remaining 48, including 3 congenital cases, the attacks were of more than twelve months' duration on admission. Of the total admissions, 34 were in average bodily health and condition; 58 were in indifferent health and condition, and 19 were either in weak or exhausted condition. The admissions were classified into: Recent mania 13, chronic and recurrent 6; recent melancholia 12, chronic and recurrent 7; senile and scondary dementia 5, delusional insanity 28, confusional nsanity 14, insanity with epilepsy, and acute delirium, 8 each; general paralysis 5, alternating insanity and stupor 1 each, and congenital defect 3. Concerning probable causation, alcohol was assigned in 17, syphilis in only 2, and other toxins in 3; diseases of the nervous system in 18 (epilepsy 11), other bodily affections in 16, critical periods in 44, bodily trauma in 5, and mental stress in 11. An insane heredity was ascertained in 44, or just under 40 per cent., an alcoholic heredity in 17, and an epileptic heredity in 1. During the year 50 were discharged as recovered, giving a recovery-rate on the admissions of 52.6 per cent.; 7 as relieved, and 8 as not improved. Also during the year 36 died, giving a death-rate on the average numbers resident of 9.0 per cent. The deaths were due in 7 to nervous diseases, in 19 to chest diseases (including 9 from pulmonary consumption), in 5 to abnormal diseases, and in 5 to general diseases.

Meetings of Branches and Divisions.

[The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the Journal.*]*

GLASGOW AND WEST OF SCOTLAND BRANCH:

Glasgow North-Western Division.

A special meeting of the Division was held in the Burgh Hall, Hillhead, on February 14th, at 8.30 p.m., Dr. A. G. Hay presiding. The other members present were: Drs. A. T. Campbell, W. Ritchie, Morton, Todd, Richmond, J. McCartney, Mackintosh, J. Gracie, Graham, Carstairs, Primrose, Ward, G. B. Buchanan, W. F. Macdonald, Lindsay, McGregor Robertson, W. K. Anderson, Whitehouse, Snodgrass, W. Gemmell, McKendrick, Girdwood, N. Macnair, Alex. Thomson, J. Wylie, Baird, McLennan, Templeton, W. A. Stuart, Crichton, R. Reid, and Caskie (Honorary Secretary).

Death of Dr. T. B. Henderson.—Before proceeding with the business the Chairman referred to the sudden death of Dr. T. B. Henderson, and proposed: "That the Secretary be instructed to convey to the relatives the sympathy of the meeting," which was approved.

Apology for Non-attendance.—An apology was intimated from Dr. P. H. Robertson.

Confirmation of Minutes.—The minutes of the last meeting, to which an addition was made, were confirmed.

The Undertaking.—The Secretary intimated that the number of those who had not signed the undertaking, after eliminating absentees, was reduced to eleven.

Grouping of Branches and Divisions.—No alteration was suggested in the present grouping of Branches and Divisions for the election of Council.

Scottish Medical Insurance Council.—In connexion with the election of representatives from the new Insurance areas to serve on the Scottish Medical Insurance Council the Secretary intimated the election of Dr. J. G. Graham for Partick insurance area, the only one nominated for that area.

Insurance Act: Correspondence.

The Secretary intimated the receipts of circulars in connexion with the Insurance Act from the following:

1. A number of practitioners from various parts of England advocating that any committee appointed to negotiate with the Commissioners should have no authority to settle terms, but to report to the Divisions and to a subsequent Representative Meeting.
2. National Medical Union.
3. British Medical Association Reform Committee.
4. Tyneside Division.
5. Winchester Division.

Insurance Act: Report of Council: Recommendations.

The Chairman stated that the next item on the agenda was the Report of the Council on the National Insurance Act, and after a few remarks he proposed that Recommendation I be adopted. This was seconded by Dr. Whitehouse. At the request of Dr. Jas. Todd, the Secretary read part of the minutes of a previous meeting, at which the action of the Council in the past was approved.

Dr. McGregor Robertson, in view of a recent speech of the Chancellor of the Exchequer, suggested that the Division should pass over Nos. I and II.

Dr. Lindsay proposed an amendment:

That the door should be left open for further negotiations, and that the Representative be instructed to vote for a continuance of the negotiations between the Council and the Commissioners.

Dr. Gibson Graham proposed another amendment, which was seconded by Dr. J. Gracie:

That the Representative be instructed to support an amendment introduced in the Council that there be no further negotiations with the Commissioners.

Dr. Mackintosh, seconded by Dr. Todd, moved:

That Council be instructed, if and when approached by the Commissioners, to place before them the further conditions necessary for securing the requirements of the profession.

On a vote being taken 28 supported the amendment of Dr. Mackintosh and 4 that of Dr. G. Graham.

With the consent of his seconder the Chairman withdrew his motion, and the resolution proposed by Dr. Mackintosh was unanimously adopted.

II and III were also unanimously adopted.

IV. With reference to this Dr. McGregor Robertson considered that this clause contained the whole future attitude of the profession, appointing and assisting in the formation of local Medical Committees for recognition by and negotiating with the Commissioners. He asked permission to read what he had committed to paper with regard to the provisions.

Subsequent to the reading of the paper Dr. Wylie expressed sympathy with the remarks in the paper, but considered the local Medical Committees would co-operate with the British Medical Association in its requirements. The recommendation was ultimately agreed to.

V. Adopted.

VI. To this an addendum was proposed by Dr. Mackintosh:

That the Representative be instructed to secure that due representation be given to all parts of the kingdom.

Dr. McGregor Robertson suggested that two of the representatives be Scotsmen. The recommendation, with the addendum, was approved.

A discussion originated by a question put by Dr. Baird, occurred on the different conditions of service in different parts of the kingdom. It was stated that all areas were bound by minimum rate and also by a vote of the majority, and that the joint committees would act with the local Commissioners in the matter.

Vote of Thanks to Chairman.—The Chairman received a vote of thanks.

Lanarkshire Division.

A special meeting of this Division was held at Glasgow on February 16th at 3 o'clock. Dr. Bruce Goff (Bothwell), Chairman of the Division, presided. The following members were present: Drs. Bruce Goff, J. Livingstone Loudon, John Harrison, William Grant, David Jones, Rob. B. Barr, C. Crawford, Douglas, W. G. McPherson, James Boag, W. Duff, R. Paterson, J. Fotheringham, J. A. Wilson, John Goff, A. Brownlie, A. C. Barron, John A. Watt, J. C. McKenzie, T. Steele, Hugh Miller, Allan, Watt, G. M. Crawford, R. Jope, Malloch Robertson, T. P. Grant, G. M. MacFeat.

Instruction of Representative.—The business of the meeting was "for the purpose of instructing our Representative in view of his attending the Special Representative Meeting in London on February 20th and 21st to consider the Report of Council to the Division and Representative Body."

National Insurance Act: Report of Council.

The Chairman recommended that the meeting should take up the Report of Council which had been published in the Supplement to the British Medical Journal of February 3rd. After considerable discussion the following findings were come to in regard to the six Recommendations of the Council:

Recommendation I:

That the Council be instructed to press upon the Government and the Commissioners the further conditions necessary for securing the requirements of the profession.

On the motion of Dr. Grant, seconded by Dr. McPherson, this recommendation was unanimously agreed to.

Recommendation II:

That the Council be instructed to notify the Insurance Commissioners that no negotiations will be entered into with any Insurance Committee until the Representative Body is satisfied that the requirements of the profession are conceded.

This recommendation, on the motion of Dr. Roberston, of Biggar, seconded by Dr. McKenzie, was unanimously agreed to.

Recommendation III:

That the Council be instructed, as soon as possible after the issue of the Regulations by the Insurance Commissioners, to submit a report thereupon to the Divisions and the Representative Body.

On the motion of Dr. Watt (Bothwell), seconded by Dr. Miller, this was unanimously agreed to.

Recommendation IV:

That the Council be instructed to make all necessary arrangements for assisting the Divisions and Branches in the

appointment of provisional Medical Committees in every insurance area to safeguard the interests of the profession, without prejudice to the question of whether these Committees shall later accept recognition as statutory local Medical Committees.

The Division did not agree with this recommendation, and the following amendment, moved by Dr. MCPHERSON and seconded by Dr. DOUGLAS, was carried by 18 votes to 5:

That we did not agree with Recommendation IV, but that in each country a National Medical Committee be appointed to confer with the National Insurance Commissioners.

Recommendation V:

That the Council be instructed to take steps to organize the profession so as to secure that, failing the provision of adequate remuneration of medical practitioners under the National Insurance Act, no person shall be able to secure medical attendance under a contract practice appointment held at lower rates than those which may be agreed upon as adequate by the Representative Body for attendance upon insured persons.

On the motion of Dr. HUGH MILLER, seconded by Dr. MCKENZIE, it was unanimously agreed to omit from this recommendation from the words "failing" to "Act" inclusive in lines 2 and 3, so that the recommendation should read:

That the Council be instructed to take steps to organize the profession so as to secure that no person shall be able to secure medical attendance under a contract practice appointment held at lower rates than those which may be agreed upon as adequate by the Representative Body for attendance upon insured persons.

Recommendation VI:

That a State Sickness Insurance Committee, representative of the three countries, be appointed to consider and report to the Council on all matters connected with the National Insurance Act; that the Committee consist of: (*a*) Twelve members elected by the Representative Body; (*b*) twelve members elected by the Council; (*c*) two members nominated by the Association of Registered Medical Women; (*d*) the *ex officio* members; and that the Committee be empowered to add to its numbers for special purposes not more than four additional members.

Considerable discussion took place regarding this recommendation. Finally the meeting agreed unanimously that the following was their recommendation:

That Medical Insurance Councils be formed in England, Scotland, and Wales, and that the State Sickness Insurance Committee be formed, composed of Representatives elected by these Councils, and that the majority from each country consist of general practitioners.

It was agreed that the above-mentioned recommendations, as passed by the meeting, should be held to embody the instructions of the Division to their Representative, and he was instructed to vote according to these instructions when he attended the meeting in London on February 20th and 21st.

LANCASHIRE AND CHESHIRE BRANCH:

LIVERPOOL DIVISION.

A SPECIAL meeting of this Division was held on Friday, February 16th, Dr. N. P. MARSH in the chair.

Election of Representatives.—This election was carried out by means of voting papers, of which there were 364 sent out and 259 returned; there were eight candidates. Dr. FRANCIS W. BAILEY (the Secretary) reported the result of the election. The following four gentlemen, having received the largest number of votes, were declared by the CHAIRMAN duly elected Representatives on the Representative Body, and to take office at the next Annual Meeting of that Body: Dr. T. Bushby, Dr. J. E. O'Sullivan, Dr. H. Harvey, and Dr. R. I. Richardson.

Insurance Act Subcommittee's Report.—This was received. It was agreed that it should be submitted to a general meeting of the medical profession of Liverpool and district.

National Insurance Act: Report and Recommendations of Council.

Recommendation No. I was agreed to with the following riders:

That the Council inform the Insurance Commissioners that the British Medical Association require as an essential condition preliminary to further negotiations that the requirements of the Association, as embodied in the six cardinal points, will be made obligatory in the Regulations.

That the bargaining be not left to be done with the local Insurance Committee, but that the Council arrange that all bargaining should be done between the Council of the Association on the one hand and the Insurance Commissioners on the other.

Recommendation II was agreed to.

Recommendation III was agreed to.

Recommendation IV was agreed to. It was pointed out that this had already been done in Liverpool.

Recommendation V was agreed to.

In Recommendation VI the following substitution was made:

That the Committee consist of (*a*) eighteen members elected by the Representative Body, (*b*) six members elected by the Council, (*c*) two members, one by the Northern Association of Medical Women and one by the Association of Medical Women.

Resolutions.

The following resolutions were passed with a view of their being placed on the agenda of the Representative Meeting:

That in the exercise of disciplinary powers for the removal of a medical practitioner from the panel, an appeal should be allowed to a medical court of appeal to be constituted *ad hoc*, and direct the Council carefully to watch the directions of the Insurance Commissioners as to the prescription of disciplinary measures, and not proceed with arrangements for working the Act until the medical profession is fully safeguarded against injustice.

That the onus of proving the income of insured persons should in the first instance be placed on the Insurance Committee and not on the medical practitioner.

That this Division resolves that the medical practitioners should be entitled to supply medicine and medical and surgical appliances at the same rate as chemists.

MANCHESTER (WEST) DIVISION.

A MEETING of this Division was held at the Technical Institute, Old Trafford, on February 13th. Dr. PROWSE occupied the chair; there was an attendance of thirty-four.

Report on Club Practice.—The committees which had been appointed to ascertain the views of the club doctors with regard to relinquishing clubs under certain conditions made their report. In Stretford and Old Trafford all the men, with one exception, are willing to give up clubs. In Moss Side, 14 men out of 36 responded to an invitation to a meeting, and all who were present were willing to give up clubs without compensation provided that all the men on the Moss Side district and the adjoining districts did the same. In Flixton and Urmston all are prepared to relinquish clubs, with the exception of the post office and the railway, without compensation, on a guarantee being given that no one else in the district will take them. In Chorlton-cum-Hardy all the practitioners, with the possible exception of two, are willing to relinquish clubs.

Election of Deputy Representative.—A letter was read from Dr. Worswick asking that a Deputy Representative should be elected in his place to attend the approaching Representative Meeting. On the motion of Dr. HART, seconded by Dr. BRIERLEY, it was decided to send a cordial vote of thanks to Dr. Worswick for his letter. On the proposal of Dr. H. B. WOODCOCK, seconded by Dr. BRIERLEY, Dr. Dearden was unanimously elected Deputy Representative.

National Insurance Act: Instructions to Representative.

After studying the Report and Recommendations of Council, the meeting appointed a subcommittee to draft instructions for its Representative, and adjourned till February 16th. At the adjourned meeting the following instructions were adopted:

To attend the preliminary meeting of Representatives, which will take place in London on the night before the Representative Meeting.

No. 7 on Agenda.—To support the amendment of the Croydon Division, and failing this to support that of the North Manchester Division, or any other resolution having the same principle.

Recommendations of Council (Agenda Items 11 to 16).—I (Item 11).—To move as an amendment to this:

That the Council be instructed to inform the Commissioners by letter that they cannot enter into negotiations or hold interviews with them, seeing that the six cardinal points are not guaranteed by statute.

II (Item 12).—To support.

III (Item 13).—To support.

IV (Item 14).—To support.

V (Item 15).—To move as an amendment to this:

That the Council be instructed to take steps to organize the profession so as to secure, wherever possible, that no person shall be able to obtain medical attendance under any contract practice appointment.

VI (Item 16).—To move as an amendment to this:

That a State Sickness Insurance Committee, representative of the whole profession, be appointed to deal with all matters affecting the profession in the National Insurance Act.

If the foregoing amendment fails, he will move the following:

That a State Sickness Insurance Committee be appointed to instruct the Council in all matters connected with the National Insurance Act; that the committee consist of twenty-four members, elected by the Branches and grouped Branches in the United Kingdom, and the *ex officio* members; and that the committee be empowered to add to its number additional members irrespective of membership of the British Medical Association.

Paragraphs 34 to 37 in Report.—To move as an amendment to any resolution approving of the Report of the Council, the addition of the following words: "Save and except such portions as are included in the paragraphs numbered 34, 35, 36 and 37."

To support any resolution censuring the Council which may be brought forward.

To ask for an official opinion as to whether the fact of a friendly society becoming an "approved society" alters the contract of present club doctors, and if so, does it affect the pledge.

To support the Birmingham and Scottish resolutions for the exclusion of Drs. Maclean and Buist from the Chairmanship.

To move the following resolution, or to support any similar resolution:

That all disputes in which medical men are concerned under the National Insurance Act be dealt with by a purely medical body.

To propose or support Dr. Major Greenwood for any and every committee appointed by the Special Representative Meeting.

STOCKPORT, MACCLESFIELD, AND EAST CHESHIRE DIVISION.

A MEETING of this Division was held on Wednesday, February 14th, at 4.15 p.m., at the Macclesfield General Infirmary. Dr. HYDE MARRIOTT was in the chair, and twenty-two members and one visitor were present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

National Insurance Act: Recommendations of Council.

The meeting then considered the Recommendations of the Council.

The following resolution was moved as an amendment to the whole of the recommendations:

That this Special Representative Meeting of the British Medical Association expresses its strong disapproval of the action of the Council: First, in regard to its method in conducting negotiations with the Government; and, secondly, in recommending the acceptance by the paid Secretary of the Association of the post of Commissioner under the National Insurance Act before the conditions of service had been made acceptable to the majority of those whom they represented, and accordingly records its want of confidence in, and demands the resignation of, the Council forthwith.

The resolution was lost by 13 votes to 5.

The Recommendations of the Council were then considered, and the Representative was instructed as follows:

To support Recommendations I, II, III, IV, V, and to move on Recommendation VI the following amendment:

That the Committee consist of (*a*) sixteen members elected by the Representative Body, (*b*) eight members elected by the Council, etc.

To support the following motion of the British Medical Association Reform Committee:

This Representative Meeting directs the Council to inform, in plain and unmistakable language, the Commissioners appointed under the Insurance Act, 1911, that unless the six cardinal points as originally formulated by the British Medical Association be embodied in a bill amending the Insurance Act, 1911, which shall become law in the next session of Parliament, and unless, in the meantime, these six points be incorporated in the regulations to be issued by the Commissioners in such a manner as shall be effectual and permanent until such amending Act is passed, it is the intention of the British Medical Association to call upon all its members and upon all other medical practitioners to decline to form panels or undertake any other medical duties which may be assigned to them under the Act, in conformity with the undertaking which has been already signed by over 25,000 medical practitioners.

Vote of Thanks.—The meeting concluded with a vote of thanks to the Chairman.

METROPOLITAN COUNTIES BRANCH:
CHELSEA DIVISION.

A MEETING was held at the Fulham Town Hall, on February 15th, Dr. YOUNG in the chair. There were present: Drs. Bonney, Keen, O'Sullivan, Spaull, Satchell, Lewis, Griffin, Penny, Hudson, Robinson, Parsons, Hamilton, Webb, Millar, Orr, Ross, Lewitt, Edwards, White, Coltart, Monaghan, Frere, Fletcher, Dewar, Lee, and Gallard.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Apologies for Non-attendance.—Letters of apology for non-attendance were received from Drs. Halley and McColman.

Correspondence.—Numerous communications *re* the Insurance Act were received from the Winchester and other Divisions; also from the National Medical Union and the British Medical Association Reform Committee.

Votes of Condolence.—The CHAIRMAN moved that a letter should be sent to Lady Butlin expressing the sympathy of this Division in the loss she had sustained by the death of Sir Henry Butlin, and also to Mrs. Lubbock by the decease of Dr. Lubbock, a member of this Division. This was carried in silence, the members standing.

Annual Report and Balance Sheet of the Division.—This was received and adopted.

National Insurance Act: Instructions to Representative.

Dr. W. S. LEE moved:

That we instruct our Representative to propose, or if already proposed to support, the following motion:

That this Representative Meeting directs the Council to inform, in plain and unmistakable language, the Commissioners appointed under the Insurance Act, 1911, that unless the six cardinal points originally formulated by the British Medical Association be embodied in a bill amending the Insurance Act, 1911, which shall become law in the next session of Parliament, and unless in the meantime these six points be incorporated in the regulations to be issued by the Commissioners in such a manner as shall be effectual and permanent until such amending Act is passed, it is the intention of the British Medical Association to call upon all its members and upon all other medical practitioners to decline to form panels or undertake any other medical duties which may be assigned to them under the Act, in conformity with the undertaking which has already been signed by over 25,000 medical practitioners.

Dr. Lee said: In proposing this resolution I ask you to bear in mind that we intend that our Representative carries out our directions to the letter. I say this, not that it is in any way my desire to cast any aspersion on our Representative (Dr. Fletcher), but to impress on you the necessity of binding him to carry out our wishes fearlessly and firmly, and not to allow himself or any of the other Representatives to be swayed from their allegiance to us by other influence. In other words, we must not have a recurrence of what happened at the last meeting of the Representatives. I also wish to impress upon you that the views I am about to lay before you are not in any way under the influence of political bias. Gentlemen, in medical matters alone we have no political bias, and I cast back the lie in Mr. Lloyd George's teeth that we are engineered in our hostility to his Insurance Act by the Tory or any other political body. I ask you confidently to pass this resolution unanimously. I say confidently because I feel sure that now there cannot be one of you so blind as not to see that it is now or never that we must strike a blow for justice and freedom. This, gentlemen, is not the time for a strong but moderate policy. On the contrary, it is the time for a strong but resolute policy. The gage has been thrown down to you. You must pick it up. Take off our gloves and fight with bare fists. You know with whom you are dealing, and you know, despite all Mr. Lloyd George's claptrap about his great interest in safeguarding you, that you are fighting for your bread-and-butter. Put on one side all that sentimental bosh about philanthropy. We have had too much philanthropy and too little business up to this. Charity and sentimentality are all very well in their proper places, but, remember, charity begins at home, and our charity must mean the safeguarding of the interests and the care of those depending on us. We are now, as we have always been, ready to give our services ungrudgingly and at all times, but we must see that for our honest labour we get honest remuneration. You see how

those favouring the Insurance Act taunt us with asking for more money. Well, let them taunt; we are not only going to ask, but to demand, an honest and fair price for our work, and we are as much entitled to that as any one of those who are to be insured are to ask for a fair wage. I ask you, gentlemen, Is the price you are offered, and are the conditions attached to this offer, such as you can accept? I say emphatically, No. Mr. Lloyd George wishes to gain fame (I do not envy him that he has already gained), and to have his brow decked with laurels. Let him obtain these things, but see to it, gentlemen, that he does not do so at your expense. He evidently either reckons your services at a low figure, or else he holds the lives and health of the individuals who are to partake of his rare and refreshing fruit as not being worth much when he places it at 6s. a year. A fraction over 1d. a week to pay you for your services in taking care of the health of a human being, and yet one has to pay 7s. 6d. for a dog licence—7s. 6d. to keep a dog, mind you, not for taking care of his health. Now, Mr. Lloyd George threatens that unless we toe the line and humbly submit to his wishes he will drop the medical benefits, and mark you, gentlemen, hand us over to the tender mercies of the friendly societies. Your moderate policy in the past has led him to sneer and ridicule your power and intention, and to threaten to use the suspensory powers of his iniquitous Act to force you to give way to him. At a recent meeting at the London Opera House, in reply to his question as to what the suspensory powers mean, the cry was raised, "Hang the lot of them." Gentlemen, are these threats to be met by a strong but moderate policy? Has your moderation secured for you any one of your six cardinal points? No, gentlemen; on the contrary, it has been looked upon as a sign of weakness, and has caused you to be treated with contempt. Be firm and resolute now, and you will be victorious. Do not let the bogey of dropping the medical benefits alarm you. To my mind, it would be the best thing that could happen for us. If we had but one strong leader in the Council of the Association, we could authorize him to tell Mr. Lloyd George to make good his threat. Drop your medical benefit from out the bill! I have at my back an army of 27,000 medical men, and instead of handing them over to your allies, the friendly societies, I will call on them to fight, to stand by their undertakings, and to throw up their club appointments; and by this means we will free our men not only from your Governmental tyranny, but also from the tyranny and slavery of all club work. I again ask you, gentlemen, to pass this resolution unanimously, and I also ask you not to sell your independence for any capitation fee. Insist on being paid for your work, as those for whose health you are asked to give your services insist on being paid justly and fairly. Finally, do not trust to the security of your six cardinal points being incorporated in the regulations of the Commissioners alone. They can easily alter their regulations at any time. Stand united behind your guns, gentlemen, and let your guns be loaded, not with the cotton-wool bullets of strong but moderate policy, but with those composed of the good amalgam—united action and fearlessness in demanding fair pay and fair play; determination to uphold your independence and resolute refusal to be slaves.

Dr. E. W. Lewis seconded the resolution.

Dr. Dewar was of opinion that the action suggested by the resolution was premature, unnecessary, and wrecking. Why not negotiate with the Commissioners? He moved the following amendment:

> That we instruct our Representative to propose, or if already proposed to support, the following motion: "That this Representative Meeting directs the Council to inform, in plain and unmistakable language, the Commissioners appointed under the Insurance Act, 1911, that unless the six cardinal points as originally formulated by the British Medical Association be incorporated in the regulations to be issued by the Commissioners in such a manner as shall be effectual and permanent, it is the intention of the British Medical Association to call upon all its members and upon all the medical practitioners to decline to form panels or undertake any other medical duties which may be assigned to them under the Act, in conformity with the undertaking which has already been signed by over 25,000 medical practitioners."

Dr. Gallard, in seconding the amendment, said he emphatically agreed with much of the matter in Dr. Lee's speech, and would like to congratulate him on the able manner in which it was delivered, but when he asked them to demand from the Government an Act of Parliament to be passed in the coming session amending a previous Act of unprecedented length which had only just been put on the Statute Book, after many months' discussion, he must confess that even Dr. Lee's native eloquence did not convince him that the demand would receive a moment's consideration. It was not practical politics. Could Dr. Lee quote a precedent for such a procedure? But was there no other way by which the well-known six cardinal points could be secured? It was evident that that august body, the British Medical Association Reform Committee, or its legal advisers, thought there was. Let him call their attention to the second paragraph of its resolution, "And unless in the meantime these six cardinal points be incorporated in the regulations to be issued by the Commissioners in such a manner as shall be effectual and permanent until such amending Act is passed." If the Commissioners had the power to make such regulations for six months, why not for twelve months or even longer? He challenged Dr. Lee to quote any Act containing any analogous section, clause, or paragraph to one that would be required to define cardinal point No. 5, the most vital of all—namely, that of adequate remuneration. Under the Workmen's Compensation Act, the amount of compensation for injuries was treated of in the regulations under the Act. The salaries of the Poor Law medical officers were fixed by the guardians, subject to the regulations of the Local Government Board. They were not specified in an Act of Parliament. "Now," Dr. Gallard went on, "let me direct your attention for a moment to the opinion of eminent counsel as to the powers of the Insurance Commissioners. Summing up, Sir E. Clarke says:

> On points 4 and 5 (those of method and of adequate remuneration respectively) I think the powers of the Insurance Commissioners are sufficiently wide to enable them to yield to the wishes of the medical profession, but I am of opinion that this is not the case with regard to points 3 and 6 (the body to administer medical benefits and adequate medical representation on the three administrative bodies respectively), as the Commissioners are controlled by express provisions of Statute.

Mr. Danckwerts says:

> Section 62 seems to me to leave room for the Commissioners giving local Medical Committees effective powers in regard to many of the matters raised.

At this stage I should like to say that although point 6—namely, that of adequate representation on the committees—is not secured, I do not consider vital, for instance, unless we had secured a preponderance of votes on the local Insurance Committees. I am of opinion that six medical men out of eighty members would be as well able to represent the views of the profession as ten out of eighty. Now, gentlemen, let us carefully consider the most important point of all—namely, No. 5, that of adequate remuneration. I quote from a recent publication on the Act by Carr, Garnett, and Taylor:

> The Act nowhere defines the sum to be paid for medical benefit, nor the parts of such sum which are to be assigned to doctors and druggists. In framing the Act it was, however, assumed that 6s. per annum would suffice, having regard to the fact that 3s. 7¾d. was the average rate for contract work under clubs and societies. The Government actuaries were accordingly instructed to prepare their estimates upon that basis, and accordingly assigned 1.51d. out of the contribution of 7d. for men and 6d. for women for the cost of medical benefit.
>
> It will be observed that this assessment of 1.51d. involves the assumption that on the average forty-eight weekly contributions will be paid in the year. Having estimated the cost of the other benefits, a margin of 0.42d. in the case of men, or 1s. 8d. in the year, and 0.53d. in the case of women, or 2s. 1¾d. in the year, remains unallotted. But the contribution assigned for sickness benefit itself contains a margin of not less than 10 per cent. due to the withholding of benefit for the first three days and to the fact that the tables of expectation of sickness are derived from recent experience of the Manchester Unity of Oddfellows, without allowance for the fact that the Manchester Unity experience includes industrial accidents, which do not rank for benefit under the Act. The whole of the margin expressly assigned in the actuarial tables ought therefore to be available either for additional benefits or for the cost of medical service, and it appears possible

that 7s. for men and 7s. 6d. for women might be assigned for the cost of medical benefit without rendering the scheme insolvent. Furthermore, under Clauses 7 and 8, Section 15, the Treasury and county councils have the power to grant additional sums in order to provide higher fees for medical men. In order to calculate roughly the amount of the said grant required to produce anything like adequate remuneration for us, I have estimated 12,000,000 as the number of contributors concerned, because if we insist on a £2 a week income limit, I think we might deduct 3,000,000 from the 15,000,000 contributors under the Act as representing those earning over £2 a week, and also the voluntary contributors. Therefore the Treasury and county councils would have to find between them the sum of £1,800,000 in order to raise the medical man's fee to 10s. for men and 10s. 6d. for women. I ask you, Is this an extravagant sum for the State to contribute in order to procure an efficient medical service? It is not the cost of a single Dreadnought. After all, I contend that if we can get a reasonable remuneration of, say, 10s. per head, or payment for work done *pro rata*, the remaining cardinal points will not be worth fighting about, for then the most likely bone of contention between us and the local Insurance Committees will have been eliminated. And now, let us hear what the Chancellor has to say on this point. In his last public utterance he says:

> The Commissioners, I will guarantee, will give every consideration which is submitted to them the most careful and impartial attention, and if they convince the Commissioners of their case, and if the Commissioners represent to the Government that their case is made out, it would unquestionably be the duty of the Government to recommend Parliament to find all the money that is necessary to provide the satisfactory medical service for the insured people in the country.

Gentlemen, is it not possible that the Chancellor does not see why he should say to the profession: "Now, gentlemen, tell me how much you want and I will ask Parliament to give it to you, whatever the amount"? I can hear some of my friends saying: "But why go to all this trouble in order to find out if the Commissioners have sufficient powers to grant us the essentials of our six cardinal points? Let this infernal Government and its arch-fiend make them eternally secure in the statutes of the realm. We have been doing very well; we did not ask for the Act; let us go on as we are, for we are quite contented." Gentlemen, I ask you quite seriously, are we contented? I will guarantee that when two or three medical men meet they have all some fresh and glaring instance to relate of the abuse of cheap contract work, or of hospital abuse, or of underselling by a medical neighbour. We are never so unanimous at our meetings as when we are passing some resolution of censure on these practices. Let me remind you that more than half the contributors under this Act are already getting their medical attendance at 4s., and some at less than 4s. per annum. I am not making aspersions on any of you. I admit that my own hands are soiled. But I appeal to you earnestly: Is it not time that these evils ceased? And it is because I honestly hope and believe that under this Act, regulated to meet our requirements, they may become mitigated, that I ask you not to support the resolution, which practically amounts to a no-service-whatsoever policy. At the risk of hearing someone say we do not want anything made in Germany, I would remind you that in that country the profession generally is satisfied with the conditions of service under their Act, their main grievance being the proposal to raise the income limit for the insured to more than £2 a week. And I should like to ask the mover of the resolution we are discussing why the profession in his own country have petitioned for the medical benefit to be reintroduced into that part of the Act referring to Ireland. To sum up: We are granted under the Act free choice of doctor by patient (not granted under the present system of contract practice), some representation on the bodies administering medical benefits (as opposed to the present system of entire lay control, excepting the public medical service), and if in addition we can obtain from the Commissioners a maximum income limit for contributors of £2 a week, and a minimum capitation fee of 10s., or a *pro rata* fee per attendance (instead of the miserable 3s. 6d. under the present system of contract practice), then I maintain that we as a profession shall be better off, and that our patients will receive better attention than they do at present. If the Commissioners are not convinced, but tell us they have not the inclination or the power to get our claims conceded, then, and not till then, shall we be justified in telling the public that Mr. Lloyd George is trying to provide the contributors under his Act with an underpaid and inefficient medical service. Finally, I can assure you that I have no axe to grind in this matter, nor am I out tuft-hunting. I am not the tool of any political party. My principles have generally been described as Conservative, and I still take the *Daily Mail*. But it is because I think it will be easier for you and me to support ourselves and those dependent upon us under the Act if our just demands are conceded that I ask you to support the amendment.

Dr. A. F. Millar, in supporting the amendment, said that he advocated the moderate policy, not because he was more moderate in his demands than the extreme party, but because he felt that the only hope of obtaining those demands lay in unity, and he saw no hope of uniting the profession on a no-service-whatsoever policy. He was very doubtful if they could be united on any policy when he saw the scanty attendance at that very important meeting. He further pointed out that if the profession broke off all negotiations at this stage they would alienate public sympathy, whereas if they tried and failed to obtain reasonable terms from the Insurance Commissioners, they had still the strike to fall back on, and the public would be more likely to back them up.

Dr. Fletcher supported the amendment. Although he did not approve of insisting on the particular method by which their demands were to be permanently secured, he maintained that their cardinal points might be rendered absolutely unalterable under the regulations of the Commissioners, who in the very nature of things would not provoke a fresh war by altering them. It would be to their interest that the Act should work smoothly. If they did alter the regulations when they were actually in possession of the posts under the Act, the consequences then of a strike would be so dreadful that neither they nor the Government itself would dare to provoke it.

Drs. Hamilton and Butler also supported the amendment. A division being taken, resulted as follows: For the amendment, 16; against, 11. The amendment was then put as a substantive motion and carried by 15 to 11.

Report and Recommendations of Council.—The report was received and the recommendations considered seriatim. The first five were approved of. In Recommendation 6 the Representative was instructed to move or support the deletion of paragraph B.

Dr. W. S. Lee moved:

> That this Division calls upon each of its members who hold club or contract appointments which may or are likely to become approved societies under the Insurance Act, 1911, to resign such appointments without delay.

After some discussion it was generally considered somewhat premature to pass this resolution at the present stage, and Dr. Lee withdrew it.

The Representative was instructed to support the demand for a minimum capitation fee of 10s.

Hampstead Division.

Dr. Mina L. Doebie (Honorary Secretary) writes: In reading the report of the meeting of the Hampstead Division in the Supplement of February 24th, on p. 248, I noticed an omission which I failed to notice in the proof sent me. I shall be glad if you will correct it in this week's issue. The rider moved by Dr. Miles Miley was seconded by Dr. Oppenheimer and carried unanimously. It was then moved by Dr. Oppenheimer and carried unanimously:

> That it be added as a seventh cardinal point in the minimum demands of the Association that all questions of professional discipline shall be decided exclusively by a body or bodies of medical practitioners.

Kensington Division.

A general meeting was held on February 9th at the Kensington Town Hall, Dr. Chas. Buttar in the chair. One hundred and forty members were present.

The Insurance Act.

The CHAIRMAN announced that a representative of the *Times* was present, but that, as this meeting was one of the Division, a public report would not be made, and none outside the profession was admitted. It was also agreed that no report should be furnished. It was decided that the meeting terminate at six, and any business then remaining should stand over to an adjourned meeting. It was also agreed that no speaker, except by special permission, should occupy more than five minutes.

The minutes of the previous meeting were read and confirmed.

In response to a question the DEPUTY REPRESENTATIVE explained that the resolution (sent up by the Division in July) was ruled out of order, another somewhat similar one being held to include it. This resolution was passed. On a further question being put as to its fate, the REPRESENTATIVE explained that owing to the medical clauses being guillotined they were passed without discussion, and no opportunity occurred under the rules of the House until the third reading discussion, when Dr. Addison in his speech informed the Chancellor that the terms were considered by the profession to be entirely inadequate. The CHAIRMAN announced that he had received a letter from the Kensington Medical Reading Society approving of the action of the various bodies in refusing to meet the National Insurance Commission in the present condition of the Act.

Election of Deputy Representative.—The CHAIRMAN announced that a Deputy Representative must be appointed in case the Representative was unable to go. In response to a question, the CHAIRMAN pointed out that the Representative could not resign, for he was not appointed until the next annual meeting.

Mr. HERBERT TANNER proposed that Mr. Sturge be elected. This was seconded by Dr. BECKETT-OVERY.

It was proposed that Mr. E. B. Turner be elected Deputy Representative, and this was seconded. On putting the two names to the vote, Mr. E. B. Turner was elected.

The CHAIRMAN then addressed the meeting.

Recommendations of Council.

The HONORARY SECRETARY then read the first Recommendation:

I. That the Council be instructed to press upon the Government and the Commissioners the further conditions necessary for securing the requirements of the profession.

After some discussion this was agreed to.

II. The HONORARY SECRETARY then read the second Recommendation and the amendment of the Executive Committee to insert the words, "No work under the Act will be undertaken" in place of "No negotiations," etc.

The amendment was accepted.

Dr. H. H. MILLS then moved his amendment:

> To delete all words after "Insurance Commissioners," and add, "that the profession will not work the Insurance Act unless the six points laid down by the British Medical Association are secured by the Regulations, nor unless the profession are satisfied by definite assurance by the Government or the Commissioners that adequate remuneration can be obtained."

The CHAIRMAN pointed out that the first part of the resolution had practically been adopted many times. Dr. MILLS confined his attention mainly to the second part, and pointed out that the Post Office and other Government departments paid 8s. 6d. and 10s. It was obviously unfair that anything less should be paid for the general mass of the insured. Mr. HERBERT TANNER seconded the amendment. Dr. CRAWFORD THOMPSON, Dr. BECKETT-OVERY, Dr. KINGDON, and Dr. KISCH also spoke. On the amendment being put to the vote it was lost. Mr. TURNER moved the deletion of the first amendment and the substitution of the following:

> This Representative Meeting directs the Council to inform, in plain and unmistakable language, the Commissioners appointed under the Insurance Act, 1911, that unless the six cardinal points as originally formulated by the British Medical Association be embodied in a bill amending the Insurance Act, 1911, which shall become law in the next session of Parliament; and unless in the meantime these six points be incorporated in the Regulations to be issued by the Commissioners in such a manner as shall be effectual and permanent until such amending Act is passed, it is the intention of the British Medical Association to call upon all its members and upon all other medical practitioners to decline to form panels or undertake any other medical duties which may be assigned to them under the Act, in conformity with the undertaking which has already been signed by over 25,000 medical practitioners.

Dr. CULVER JAMES seconded the resolution, and Dr. KINGDON and others supported it.

The resolution was passed enthusiastically by a huge majority.

Recommendation III. That the Council be instructed, as soon as possible after the issue of the Regulations by the Insurance Commissioners, to submit a report thereon to the Divisions and the Representative Body.

To this the following amendment was moved by Dr. H. H. MILLS:

> And that this report be made before any terms are accepted as satisfactory to the profession.

The resolution was agreed to, the amendment being withdrawn.

Recommendation IV. That the Council be instructed to make all necessary arrangements for assisting the Divisions and Branches in the appointment of *provisional* Medical Committees in every insurance area to safeguard the interests of the profession, without prejudice to the question of whether these committees shall later accept recognition as *statutory* local Medical Committees.

This was passed after some discussion.

Recommendation V. That the Council be instructed to take steps to organize the profession so as to secure that, failing the provision of adequate remuneration of medical practitioners under the National Insurance Act, no person shall be able to secure medical attendance under a contract practice appointment held at lower rates than those which may be agreed upon as adequate by the Representative Body for attendance upon insured persons.

It was moved by Mr. HERBERT TANNER, and seconded by Mr. E. B. TURNER to add:

> And that it be an instruction to the Council to assist the medical profession to carry the above resolution into effect by taking such steps as may be found necessary, including the following, namely, all practitioners at the time holding appointments under which they give medical attendance and treatment to members of any society, club or organization or other system in the district, should be asked to place their resignations at six months' notice in the hands of the Council to be sent in by it to the various organizations concerned when and if found necessary, and that the Council of the British Medical Association shall in any case from the funds at their command compensate and see that no member resigning his appointment under these circumstances should suffer pecuniary loss.

Recommendation VI. That a State Sickness Insurance Committee be appointed to consider and report to the Council on all matters connected with the National Insurance Act; that the Committee consist of (*a*) twelve members elected by the Representative Body (grouped); (*b*) twelve members elected by the Council; (*c*) two members nominated by the Association of Registered Medical Women; (*d*) the *ex-officio* members; and that the Committee be empowered to add to its numbers for special purposes not more than four additional members.

The following amendment by the Executive Committee—

> That the Council elect only six members instead of twelve, and that eight seats on the Committee be offered to the licensing bodies of the United Kingdom, and to delete the last sentence—

was agreed to, and the Recommendation passed as follows:

That a State Insurance Sickness Committee be appointed to consider and report to the Council on all matters connected with the National Insurance Act; that the Committee consist of (*a*) twelve members elected by the Representative Body (grouped); (*b*) six elected by the Council; (*c*) two members nominated by the Association of Registered Medical Women; and that eight seats on the Committee be offered to the licensing bodies of the United Kingdom.

Additional Recommendations by the Executive Committee.

Recommendation VII. That until the Representative Body is satisfied that its requirements have been conceded the State Sickness Insurance Committee shall be the only Medical Advisory Body to the Insurance Commissioners.

This was agreed to.

ADJOURNED MEETING.

The adjourned meeting was held on Friday, February 16th.

Recommendation VIII was considered:

VIII. That no insured person shall be entitled to medical benefit until he has satisfied the local Insurance Committee that his income does not exceed £104 per annum.

Dr. W. V. SINCLAIR moved:

That in the opinion of this meeting it is more important to safeguard for private practice the patient whose income lies between £104 and £160 per annum than to insist on a high capitation rate.

Dr. KISCH seconded. After discussion it was withdrawn.

Dr. MILTON TOWNSEND moved that the recommendation be:

That no insured person shall be entitled to medical treatment under the Act until he has satisfied the local Insurance Committee by annual statutory declaration that his income does not exceed £104 per annum, or such lower limit as is found to be applicable to any particular district.

This was carried, and also as a substantive motion.

Dr. BECKETT-OVERY intimated that he withdrew the resolution standing in his name.

Recommendation IX. Provided that the £2 maximum be agreed to, the remuneration to be 8s. 6d. per head for members of approved societies, and 10s. for Post Office depositors; or 2s. 6d. per visit and 1s. 6d. for surgery.

Extras.—(*a*) Mileage; (*b*) night (1½); (*c*) operations; (*d*) anaesthetics; (*e*) certificates; (*f*) drugs.

Mr. HERBERT TANNER moved as an amendment:

That the minimum capitation grant available for ordinary domiciliary attendance on insured persons shall be 10s. per capita per annum exclusive of the following extras, or as an alternative, 2s. 6d. per visit and 1s. 6d. per consultation exclusive of extras.

Extras.—Confinements; miscarriages; vaccination; fractures; dislocations; consultations (*a*) ordinary, (*b*) consultant; anaesthetics (*a*) local, (*b*) general.

Night calls (between 8 p.m. and 8 a.m. in response to calls received during these hours).

Special visits (that is, visits made in response to and on the same day as calls received after 10 a.m., or made on Sundays by subscriber's desire).

Certificates and reports.

Illness the consequence of personal misconduct.

Illness arising from confinement or miscarriage within one month.

Operations requiring local or general anaesthetics.

Operative dentistry.

Special examinations—for example, *x* rays, bacteriological, etc.

Lunacy certificates.

Examinations, court attendances, etc., under Common Law, Workmen's Compensation, and Employers' Liability statutes.

Mileage.

Drugs, cod-liver oil, linseed meal, leeches, serum, oxygen, etc.

Bottles, jars, dressings or bandages (except for firs dressings).

This was seconded by Dr. CARRÉ SMITH, and carried.

Recommendation X. No practitioner to be removed from the panels except by the General Medical Council or a medical body.

Dr. MILTON TOWNSEND moved the substitution of the following:

The Insurance Commissioners shall not exercise the power conferred upon them by Subsection 2 (*b*) of Section 15 of the principal Act of removing the name of any medical practitioner from any such list as mentioned in such subsection without the concurrence of the General Council of Medical Education and Registration of the United Kingdom.

This was agreed to.

Dr. BECKETT-OVERY moved:

That it be an instruction to the Council to ascertain immediately by means of a referendum whether those practitioners holding contract appointments will place their resignations in the hands of the Council to be used as and when necessary. The result to be considered confidential for the present. That it be an instruction to the Council to intimate at the same time that the British Medical Association is prepared to support any practitioner resigning appointments under these circumstances to the best of its ability, both pecuniarily and otherwise.

This was seconded by Mr. E. B. TURNER and carried unanimously.

Dr. KISCH moved an amendment, which he withdrew to bring forward on a subsequent occasion.

Mr. HERBERT TANNER moved the following instructions to Council, which were passed unanimously and ordered to be placed on the agenda of the Representative Meeting:

Motion 1.—That it be an instruction to the Council to inform the various bodies of Commissioners that if they report that they cannot by amendment of the Act, by regulations, orders, or otherwise deal with the following in such a way that they become legally binding on all concerned, *then this Association declines to proceed further in any negotiations having reference to the Insurance Act.*

(*a*) That medical benefits shall be administered by the Commissioners and not by the Insurance Committee or other bodies, and after negotiations between the Commissioners and the local Medical Committee.

(*b*) That no scheme for a medical service under the Act will be approved which allows of an insured person in receipt of an income from all sources exceeding £2 a week being entitled to participate in it.

(*c*) That the possibility of an insured person exercising his right to a free choice of doctor, subject to consent of doctor to act, shall be safeguarded as far as possible from any interference or advocacy on the part of any approved society, institution, or system at the time of the passing of the Act.

(*d*) That the method of remuneration of medical practitioners adopted in an Insurance Committee area shall be in accordance with the preference of the majority of the medical profession resident in that area.

Motion 2.—That it be an instruction to the Council to consider and report on the best means for providing efficient district paid organization for Scotland and Wales and certain districts of the United Kingdom, with a view to assisting the Branches and Divisions in those respective areas.

Motion 3.—That the fee to be asked for the medical examination on an insured person desirous to become a member of an approved society shall be not less than 2s. 6d. That, if a detailed examination on an insured person is required, the fee shall be not less than 10s. 6d.

Motion 4.—That should an approved society or other body require the services of a medical practitioner as whole-time medical inspector or medical examiner under the Act, the Association cannot approve of a less salary than £750 being offered.

Motion 5.—That it be an instruction to the Council to take steps in order to have *incorporated in the regulations to be issued by the Commissioners for the National Insurance Act* the following:

(*a*) That every medical practitioner, who desires to do so, shall have a right to dispense his own drugs to insured persons, and shall be entitled to receive payment in accordance with the scheme determined on for his district.

(*b*) That the fees payable to a medical practitioner called in on the advice of a midwife, as provided for in Section 18 (1), shall be those approved by the Representative Meeting at the Caxton Hall in 1906.

(*c*) That any definition of (1) "confinement," and (2) "medical treatment or attendance in respect of confinement," shall not necessitate medical attendance on abortion being as a consequence considered as included in the medical attendance to be given under "medical benefits."

(*d*) That every insured person above the locally determined wage limit, as provided for in Section 15 (3) of the Act, shall be absolutely free from inspection in any form desired to be made on behalf of an approved society, Insurance Committee, or the Commissioners, so far as medical benefits are concerned.

(*e*) That medical and sanatorium benefits shall in all cases be administered by the Insurance Commissioners, and not by and through the Insurance Committees.

(*f*) That a registered medical practitioner attending an insured person who, in consequence of Section 11 of the Act, is deprived of all additional financial benefit in the way of compensation for injury or disease resulting from an accident, should have a legal claim for remuneration for services rendered on the approved society or Insurance Committee which obtains the compensation payment.

Dr. E. CHATTERTON moved:

That the Council be instructed to at once cease negotiations with the Government and the Commissioners.

In view, however, of the fact that only a few members remained, he withdrew it on the Chairman's suggestion.

This was all the business.

About one hundred members were present at this adjourned meeting.

LAMBETH DIVISION.

AN ordinary meeting of this Division was held at Lambeth Infirmary on Thursday, February 22nd, at 4 p.m. Mr. J. C. V. DENNING was in the chair, and twenty-one members were present.

Confirmation of Minutes.—The minutes of the two previous meetings were read and confirmed.

Dispensary for the Treatment of Consumption in Camberwell.—The CHAIRMAN drew attention to the fact that a dispensary was being started for the Borough of Camberwell.

and that the Honorary Secretary of the Division had been asked to suggest a member of the Lambeth Division who would be willing to serve on the committee of the dispensary. On the motion of Dr. CAPES, seconded by Dr. MICHAEL, it was resolved to refer the consideration of this matter back until the next ordinary meeting, when the Executive Committee would have had the opportunity of considering a report from the Branch Council on the matter, and would be able to present a report to the Division and advise them as to the best course to pursue.

Treatment of Eclampsia.—Mr. G. BELLINGHAM SMITH, Obstetric Surgeon to Guy's Hospital, read a paper on the treatment of eclampsia. After giving a brief survey of the pathology and symptoms of the condition, he gave an outline of the treatment which might be adopted (*a*) in the hospital or nursing home, (*b*) in the home of the patient. The chief points were to secure free action of the bowels, kidneys, and skin. The chief drugs to be used were bromides, chloral, and chloroform, and he especially dwelt on the value of morphine given hypodermically. When operative interference was required to empty the uterus he advised Caesarean section in preference to *accouchement forcé*. A discussion took place, in which the CHAIRMAN, Drs. TAYLOR, MICHAEL, NORTON, CAPES, and ANNIE MCCALL took part.

Votes of Thanks.—A hearty vote of thanks to Mr. Bellingham Smith for his interesting paper was moved by Dr. SANGSTER, seconded by Dr. TAYLOR, and carried by acclamation. The meeting concluded with a vote of thanks to Dr. Baly for having so hospitably entertained the Division, and to the Guardians for having granted the use of the Board-room for the purposes of the meeting.

WANDSWORTH DIVISION.

A MEETING of this Division was held at Battersea Town Hall on Friday, February 16th, at 3.45 p.m., to instruct the Representative on matters coming before the Special Representative Meeting. Dr. BIGGS was in the chair, and seventy-two members were present.

Deputy Representative.—Dr. BIGGS proposed, and it was agreed, that Dr. E. Smith be appointed Deputy Representative.

Instructions to Representative.

Dr. JONES, seconded by Dr. THYNE, proposed:

That the Representative be instructed to move at the next Representative Meeting a resolution as follows: This Representative Meeting declines to discuss the Recommendations of the Council as published in the BRITISH MEDICAL JOURNAL SUPPLEMENT of February 3rd last.

The resolution was lost.

Dr. JONES, seconded by Dr. THORPE, proposed:

That the Representative be instructed to support at the forthcoming Representative Meeting a motion that Dr. Maclean resign the Chairmanship, should a motion to that effect be proposed at that meeting.

The resolution was carried.

Dr. JONES, seconded by Dr. THORPE, proposed:

That the Representative be instructed to support at the forthcoming Representative Meeting a vote of censure on the Council in respect of their methods of conducting negotiations with the Government, should such a vote be moved at that meeting.

The resolution was carried.

Dr. JONES, seconded by Dr. THORPE, proposed:

That the Representative be instructed to support at the forthcoming Representative Meeting a motion calling on the Council—except the three members who voted against Mr. Smith Whitaker's appointment, Drs. Goodall, Greenwood, and Todd—to resign, should such a motion be proposed at that meeting.

The resolution was lost.

Dr. SCOTT, seconded by Dr. MCMURTRY, proposed, and it was agreed:

(*a*) Should the Chairman of the Representative Body tender his resignation at the commencement of the meeting, the Representative be instructed to propose, or alternatively to support, that it be accepted, and to speak, if possible, and vote against any proposition that it be not accepted.
(*b*) Should a resolution be proposed requesting the resignation of the Chairman of the Representative Body, the Representative be instructed to support such resolution.
(*c*) Should no such resolution be proposed, the Representative be instructed to propose a resolution expressing the regret of the meeting that the Chairman of the Representative Body had withheld information that he should have communicated to the last meeting, and that he had also misdirected the Representatives.

National Insurance Act: Recommendations of Council.

The Recommendations of the Council were then considered.

Recommendation I, amended as follows, was agreed to:

That the Council be instructed to press upon the Government and the Commissioners the further conditions considered necessary by the Representative Body for securing the requirements of the profession.

Recommendations II, III, and IV were agreed to.

Recommendation V was amended by the deletion of the words between "failing" and "Act" inclusive.

Recommendation VI was amended by the substitution of "24" for "12" in (*a*), and the deletion of paragraph (*b*).

Dr. KENNISH, seconded by Dr. DEAS, proposed:

That the Representative be instructed to support the following resolution at the Special Representative Meeting:

This Representative Meeting directs the Council to inform, in plain and unmistakable language, the Commissioners appointed under the Insurance Act, 1911, that unless the six cardinal points as originally formulated by the British Medical Association be embodied in a bill amending the Insurance Act, 1911, which shall become law in the next session of Parliament, and unless in the meantime, these six points be incorporated in the regulations to be issued by the Commissioners in such a manner as shall be effectual and permanent until such amending Act is passed, it is the intention of the British Medical Association to call upon all its members, and all other medical practitioners, to decline to form panels or undertake any other medical duties which may be assigned to them under the Act, in conformity with the undertaking which has already been signed by over 25,000 medical practitioners.

Dr. VERDON-ROE proposed as an amendment the insertion in line 5, after "Association," of the words, "and such other points as may be considered necessary by the Representative Body for securing the requirements of the profession."

The amendment being accepted by the proposer and seconder, Dr. HARRISON moved that the words referring to an amending Act be deleted.

The amendment being carried, the original resolution, amended as follows, was agreed to:

This Representative Meeting directs the Council to inform, in plain and unmistakable language, the Commissioners appointed under the Insurance Act, 1911, that unless the six cardinal points as originally formulated by the British Medical Association, and such other points as may be considered necessary by the Representative Body for securing the requirements of the profession, be incorporated in the regulations to be issued by the Commissioners in such a manner as shall be effectual and permanent until such amending Act is passed, it is the intention of the British Medical Association to call upon all its members, and all other medical practitioners, to decline to form panels or undertake any other medical duties which may be assigned to them under the Act, in conformity with the undertaking which has already been signed by over 25,000 medical practitioners.

Vote of Thanks to Chairman.—The meeting terminated with a vote of thanks to the Chairman.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH:

FURNESS DIVISION.

A MEETING of this Division was held in Barrow on February 16th, Dr. KENDALL in the chair. There were twenty-nine members and two non-members present.

Vote of Confidence in Representative.—A vote of confidence in the Representative (Dr. Daniel) was unanimously carried.

Deputy Representative.—The Secretary was appointed Deputy Representative in case Dr. Daniel could not attend the meeting in London.

National Insurance Act: Recommendations of Council.

The Recommendations of the Council were considered, and the Representative instructed.

Recommendations I and II.—The following resolution was adopted instead:

That the Council be instructed to notify the Insurance Commissioners that they (the Council) will take all possible steps to ensure that no member of the profession shall hold office

or take any part in any administrative or medical work under the Act until the provisions of the Act are so amended, either by a supplementary Act or by regulations formed by the Commissioners, as to ensure, without reserve or equivocation, the six cardinal points demanded by the profession; and that all disciplinary powers over medical practitioners, Section 15, Subsection (*b*) of the Act, be placed unreservedly in the hands of the medical profession itself.

Recommendations III, IV, and V were carried.

As to Recommendation VI it was resolved:

That the Committee appointed should be so constituted that the Representative Body has a considerable majority over the rest of the members.

Guarantee Fund.—The SECRETARY read correspondence which took place between Dr. Cox and himself regarding the Guarantee Fund. From this it was apparent that those Divisions which had adopted the Manchester and Sheffield resolutions would lose the benefit of the Central Fund unless they lined in with the policy of the Association as agreed upon by the Representatives.

OXFORD AND READING BRANCH:

MAIDENHEAD DIVISION.

A MEETING of this Division was held—on the invitation of the Windsor and District Medical Society—at the Guildhall, Windsor, on Thursday, February 15th. On the motion of Dr. MACLEOD MUNRO, seconded by Dr. EDGE, Mr. R. S. CHARSLEY was voted to the chair. There was a large and representative attendance, including the following: Drs. J. D. Dickson and F. N. Wills (Marlow), C. R. Elgood and W. F. Lloyd (Windsor), Norris and Ellison (Eton), Jagger (Bourne End), Viney, Milsome, and Hodgson (Chertsey), Charsley, Fraser, Sadler, and Meggs (Slough), E. Burstal (Staines), W. Handfield Hascett (Sunbury), Mr. J. H. Tomlinson and Dr. Timberly (London), Drs. Muspratt (West Drayton), Edge, Cronyn, Cottu Paterson, and Macleod Munro (Honorary Secretary), Maidenhead.

Apologies for Non-attendance.—The HONORARY SECRETARY read letters of apology for absence from Drs. G. E. Moore (Chairman), Tippett (Staines), and Taylor (Weybridge Common).

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Rules.—The existing rules for a Division—organization and ethical—were approved of.

National Insurance Act.

The CHAIRMAN, referring to the resolutions which the meeting would be asked to vote for, expressed his regret that any member of the Association should resign at so critical a period for all of them, as in spite of certain actions of the Council which might reasonably be criticized, the only hope of a successful issue of the crisis through which the profession was passing was that they should hold together, and this could best be done by remaining in the Association. He counselled the formation of provisional local Medical Committees to watch over the interests of the profession in the various insurance areas.

Dr. EDGE (Maidenhead) then proposed and Dr. NORRIS (Eton) seconded the following resolution:

That unless the minimum demands of the profession, as formulated in the six points laid down by the British Medical Association, are explicitly and unequivocally granted by the Insurance Commissioners to the satisfaction of the Council and Representative Body, the members of this Division will decline to form panels under the Act.

This was carried unanimously.

Dr. DICKSON (Marlow) then proposed and Dr. ELGOOD (Windsor) seconded the following resolution:

That this Division declines to negotiate on the per capita rate of remuneration for medical services on which the Insurance Act is based, and urges the Council and Representative Body to fix a minimum rate, subject to necessary local modifications, suggesting the postal service rate as a minimum basis of negotiation.

Drs. HASCETT, FRASER, MUSPRATT, HODGSON, ELGOOD, and MUNRO took part in the discussion which followed. The resolution was passed *nemine contradicente.*

Recommendations of Council.—The HONORARY SECRETARY read those Recommendations of Council not covered by the above resolutions, and they were approved by the meeting. The Division was opposed to the no-service policy and perfectly willing to assist in the working of the Act if the reasonable demands of the profession as a whole were granted. It was not the fault of the medical profession—who were not consulted—if there had been an under-estimation of the cost of medical benefit. Mr. Lloyd George's tactless and petulant attitude towards the Royal Colleges came in for severe condemnation.

Instructions to Representative.—Instructions were given to the Representative for the Division for their presentation at the special meeting on February 20th.

SOUTH-EASTERN BRANCH:

BRIGHTON DIVISION.

THE second ordinary meeting of the Brighton Division was held at the Lecture Hall, New Road, on February 21st, Dr. RYLE in the chair. There were fifty-one members present.

Brighton Education Committee.—An animated discussion took place on the question of the proposal by the Education Committee to appoint two whole-time medical officers to undertake the combined duties of inspection and treatment. Dr. WOOD proposed the following resolutions, which were carried in their amended form, thus:

1. That whereas the Brighton Education Committee are contemplating the appointment of two whole-time medical officers to undertake the combined duties of inspection and treatment of school children, this meeting considers that such appointments, so far as treatment is concerned, would be contrary to the principles laid down by the British Medical Association.

This was carried by 41 votes to none.

2. That should these appointments be advertised by the Brighton Education Committee, the Secretary is hereby authorized to refer the matter to the Chairman of the Central Ethical Committee without delay, for the purpose of excluding such advertisements from the BRITISH MEDICAL JOURNAL, and placing the appointment on the warning notices list.

This was carried by 29 votes to 11.

3. That notice of Resolutions 1 and 2 be sent to the Brighton Education Committee.

Women's Hospital.—A resolution by Dr. WALKER, seconded by Dr. ROOTH—

That the Brighton Division disapproves of the action of the Women's Hospital in charging fees for attending midwifery cases, thereby competing with the local medical men, and calls upon the medical staff of the hospital to withdraw their support from this branch of the hospital work unless the practice of charging fees be discontinued—

was postponed, and the matter referred to the Medico-Political Committee for further investigation, with instructions to confer with the staff of the hospital and with the proposer and seconder of the motion, and to report to the next Division meeting.

SOUTHERN BRANCH:

SALISBURY DIVISION.

A SPECIAL meeting of this Division was held at the Salisbury Infirmary on Wednesday, February 14th, at 8 p.m. Dr. JOHNSTON was in the chair, and there were present: Drs. C. R. Straton, Saunders, Luckham, Ward, Harris, A. W. K. Straton, Williams-Freeman, March, Monnington, Armitage, Hopkins, Ellis, Thornton, Kempe, Gould, Henderson, W. Gordon, Fison, Spearman, J. E. Gordon (Honorary Secretary), and Ord.

Confirmation of Minutes.—The minutes of the last meeting were read and approved.

Grouping of Branches.—A letter from the Acting Medical Secretary relating to the grouping of branches for the year 1912–13 was read. Mr. LUCKHAM proposed, and Mr. MARCH seconded, the following resolution:

That the present grouping of Branches has proved to be very unsatisfactory, and that this Division suggests that each Branch should have individual representation.

This was carried *nemine contradicente.*

National Insurance Act.

Letters were read from Drs. Rutter (Mere), Ensor (Tisbury), and Dr. Penruddock (Wylye) expressing their inability to be present, and stating their views. Resolutions were also read which had been passed by the National

Medical Union, Manchester; the Tyneside, Westminster, and Winchester Divisions, and the British Medical Association Reform Committee.

Instructions to Representative. — Instructions were given to the Representative for the Special Representative Meeting on February 20th and 21st.

National Insurance Act: Report of Council.

After discussion the following resolutions were passed:

Recommendation I. Shall stand.
Recommendation II. Shall stand.
Recommendation III. Shall stand.
Recommendation IV. Shall stand.
Recommendation V:

That the Council be instructed to take steps to organize the profession so as to secure that, failing the provision of adequate remuneration of medical practitioners under the National Insurance Act, no person shall be able to secure medical attendance under a contract practice appointment held at lower rates than those which may be agreed upon as adequate by the Representative Body for attendance upon insured persons.

Carried with addition as follows:

That, unless the Commissioners accept the six cardinal points, we refuse service under the Act, and proceed to adopt the public medical service scheme already drawn up by the British Medical Association.

Recommendation VI:

That a State Sickness Insurance Committee be appointed to consider and report to the Council on all matters connected with the National Insurance Act; that the Committee consist of (*a*) twelve members elected by the Representative Body, (*b*) twelve members elected by the Council, (*c*) two members nominated by the Association of Registered Medical Women, (*d*) the *ex officio* members; and the Committee be empowered to add to its numbers for special purposes not more than four additional members.

It was also resolved by the meeting that the rate per capita should be not less than 10s., with special services extra as passed by the meeting of the Division held in May, 1911. Also that extra fees should be paid to the profession by the Insurance Committee and not by the insured persons.

SOUTH-WESTERN BRANCH:

West Cornwall Division.

Meetings of the West Cornwall Division, held at Truro and Penzance, attended by about forty members, were held on February 13th and 14th.

National Insurance Act: Report of Council.—The Recommendations sent down by the Council were considered. In place of I and II the following resolution was passed:

That the Council of the British Medical Association approach the Insurance Commissioners with the definite decision of this Representative Meeting that unless the Regulations of the Act are so framed as to secure the six cardinal points to the satisfaction of the profession, the latter is not prepared to bargain for them with the local Insurance Committees, and will take no further part in the working of the Act.

III, IV, and V were agreed to. VI was agreed to, subject to the alteration of (*a*) twenty-members instead of twelve, and (*b*) the twelve to include *ex officio* members. The Representative was instructed to have these resolutions put in the agenda of the Representative Meeting.

Provisional County Defence Committee.—The present Executive Committee of the Division was appointed to act with one formed in the East Cornwall Division as a Provisional County Defence Committee.

Delegate Expenses.—The Honorary Secretary reported that between thirty and forty men had not paid the 2s. levy for delegate expenses. The meetings felt that the delegate ought not to be out of pocket, and £3 4s. 6d. was collected to meet the deficiency.

BOMBAY BRANCH.

A meeting of the members of this Branch was held in the University Library, Bombay, on Thursday, October 26th, 1911, at 5.30 p.m., when Dr. Sorab Nariman, M.D., the Vice-President, occupied the chair. The following members were also present: Lieutenant-Colonel C. H. L. Meyer, I.M.S., Lieutenant-Colonel W. E. Jennings, I.M.S., Surgeon Sutton, of H.M.S. *Highflyer*, Major Majoribanks, I.M.S., Major T. S. Novis, I.M.S., Lieutenant-Colonel Dalal, I.M.S. (retired), Major G. McPherson, I.M.S., Dr. E. R. Mumford of Anand, Drs. J. N. Daggan, A. P. Bacha, D. M. Gagrat, Sorab K. Engineer, Major A. K. Tuke, I.M.S., Drs. H. N. Anklesaria, R. Khambata, H. D. Gimi, A. J. Norohna, L. G. Date, N. J. Vazifdar, B. L. Gonsalves, B. P. Karani, J. M. Meher-Homji, Bomanji Framji, (Miss) Engineer, Miss A. Benson, M.D., Drs. R. T. Nariman, D'Monti, Nayak, E. Moses (visitor), Trivede (visitor), and the Honorary Secretary, Dr. D. R. Bardi.

Confirmation of Minutes.—The minutes of the last meeting were read, confirmed, and signed by the Chairman.

New Members.—The election of the following members by the Branch Council was announced: Drs. F. J. Damkewalla, Ali Mahomed Nasserbhai, and J. A. Norohna.

Government Reports.—The receipt of the following Government Reports was recorded: Report of the Bombay Bactoriological Laboratory for 1910; Annual Report of the Grant Medical College, 1910–11; Forty-seventh Annual Report of the Sanitary Commissioner for the Government of Bombay, with the Appendices; and Dr Bentley's Report on the Causes of Malaria, &c., in Bombay

Injuries of the Eyeball.

Major G. McPherson, I.M.S., read a paper on this subject. He proposed to give only a short history of some cases that had recently come under his own observation, and to make a few remarks thereon. He first referred to those cases in which there was no external wound, and which to the casual observer presented no very obvious signs of injury.

1. A man aged 23 was admitted on October 17th, 1911, complaining that since the end of August, 1910, the vision of the left eye had become somewhat defective, and that the upper parts of objects looked rather indistinct and distorted; externally the eye appeared quite normal. The vision of the right eye was $\frac{6}{6}$, while that of left was $\frac{6}{12}$. The left field of vision was slightly contracted above. Objects in the upper field were not seen so clearly. Neither eye was myopic, and at first no history of injury could be elicited. Afterwards, however, the patient remembered that he had received a blow on the side of the head while playing football, and that a month later he had first noticed that the vision of the left eye was defective. He had not connected the injury with the defective vision. On ophthalmoscopic examination a detachment of the lower and outer part of the retina was discovered.

Although the patient had not connected the defective vision and the injury, Major McPherson felt convinced that the latter had been the cause of the detachment.

The next case was one of a similar nature.

2. A schoolmaster, aged 40, was admitted on September 9th, 1911, with the history that he had received a blow upon the right eye from a tennis ball in February, and that three months later he noticed that the vision of the injured eye began to fail. It steadily got worse, and at the time of admission was reduced to moving bodies. On ophthalmoscopic examination a detachment of retina almost complete was discovered. In this case the patient attributed the loss of vision to the blow with the tennis ball.

A point to be noted regarding these two cases was that the injury occurred some little time before any defect in the vision was noticed. In the first case one month and in the second three months elapsed. Sometimes a much longer period intervened. In one case Major McPherson had recently seen in England, eighteen months had elapsed between the time of the injury and the onset of defective vision. It was probable that in all these cases a low form choroiditis was set up by the blow, and this led to changes in the vitreous and later to detachment of the retina. In some of these cases keratitic precipitales might be found, showing that a chronic cyclitis had been set up. In such cases it was wise to inspect the condition of the teeth, as pyorrhoea alveolaris was an important factor in the causation of such forms of cyclitis and choroiditis. The first case was treated with rest and subconjunctival injections of 1 in 2,000 mercury cyanide, but no improvement resulted. The second case was still under a similar treatment and showed signs of improvement. The treatment of detached retina was always very unsatisfactory, although some wonderful cures had been reported. In many improvement of a temporary nature took place, with subsequent relapse, so that one must be very guarded in drawing conclusions as regards any particular treatment.

The next case was of a different nature:

3. A European sailor was admitted on October 4th, 1911, with the history of having received a blow on the right eye by a piece of iron. Beyond some slight subconjunctival ecchymosis on the inner side, nothing abnormal was found in the eye. The vision, however, was only fingers at 2 ft. The refraction of both eyes was normal, and there was no history of squint. The patient left hospital after a few days with no improvement

in vision. No further observations were therefore possible regarding the course of the case.

It was well known that after a severe blow on the eye with no obvious changes the vision might be greatly reduced owing to a temporary paralysis of the retina. It was possible, however, that the man might have had a squint in childhood, and this was an amblyopic eye. Or, again, he might have been malingering, with a view to obtaining compensation from his employers. In temporary paralysis of the retina, the vision after some weeks as a rule returned to normal, or at least was very much improved. If in this case improvement did not result, and the eye remained normal in appearance, one would have been inclined to the view that the eye had been amblyopic, or that the patient was malingering. Major McPherson admitted that such cases presented great difficulty, especially in England, with the Compensation Act in force.

The next case was one of traumatic cataract:

4. The patient was a man, aged 21, and was admitted on May 4th, 1911, with the history that at the age of 6 he had received a blow on the eye with a piece of wood, and that shortly afterwards he could see very little with that eye, and the pupil of his eye "became white." At the time of admission vision was—finger 1 ft. There was a distinct and complete cataract in the right eye. There way no posterior synechiae, and the tension of the eye was normal. He said that nothing had penetrated his eye, and no corneal tear was visible. Needling was performed several times, and now vision with the correcting lenses=$\frac{6}{12}$.

Traumatic cataract, while it more commonly followed penetrating wounds of the eyeball, might also result from a simple blow upon the eye. The capsule of the lens must have been torn. In many cases of traumatic cataract, where the rent in the capsule was large or placed anteriorly, the cataract might gradually disappear spontaneously, the cortex of the lens being dissolved by the aqueous. In some cases, especially in those following blows, the cataract remained. In such the rent in the capsule was no doubt small or situated equatorially, so that it closed up before the cortex could be dissolved by the aqueous. No doubt that was what had occurred in this case. Major McPherson now passed on to penetrating wounds of the eyeball with or without the entrance of a foreign body. Of course the risk to the eye was infinitely greater where the foreign body was retained. The great danger of all such wounds was the introduction at the time of injury of septic material. If sepsis took place, then either panophthalmitis or plastic irido-cyclitis resulted. Of the two the latter was the more serious, as sympathetic ophthalmia of the other eye might supervene, whereas when panophthalmitis occurred there was no such danger to the other eye.

With regard to sympathetic ophthalmia, the chief points to be borne in mind are:

1. It is plastic irido-cyclitis usually, and does not occur without a previous irido-cyclitis having occurred in the injured eye. Rarely it may be a neuro-retinitis or choroiditis.

2. It usually comes on four to twelve weeks after the injury, but it may be delayed for many years, so that once irido-cyclitis has occurred in an injured eye such an eye is a constant menace to its fellow.

3. It is usually ushered in with injection or the presence of precipitates on the back of the cornea. In some cases one of the earliest signs is hyperaemia of the optic disc.

4. Wounds of the ciliary region were at one time regarded as more prone to be followed by sympathetic ophthalmia, but this idea has now been abandoned. As regards treatment of perforating wounds, the following rules may be found useful:

(*a*) If the eye is very badly injured and there is no vision or perception of light remaining, it should be enucleated at once.

(*b*) If there is any vision remaining an attempt should be made to save the eye. Any foreign body should be removed, the wound gently cleansed with warm boric lotion, any prolapsed iris should be excised, and the edges of the wound should be brought together by stitches passed through the conjunctiva at a little distance from the wound. The patient should be kept in bed, the eye washed out two or three times daily with boric and atropine instilled. Hot fomentations will often be of great service, and will prove grateful to the patient. Signs of irido-cyclitis must be carefully looked for. Often the first, especially in mild cases, is the presence of precipitates on the back of the cornea. In more severe cases the iris becomes discoloured, posterior synechiae form, and there is exudation in the pupillary area. On the appearance of irido-cyclitis, which would usually be three to eight days after the injury, the injured eye should be removed at once. Delay is dangerous. In such cases, therefore, our policy is to watch and wait.

(*c*) In another class of cases sympathetic ophthalmia may have set in before the patient comes under one's observation. What is to be done in such cases? If the injured eye has no vision remaining remove it at once. This seems to have a beneficial influence on the course of the disease in the other eye. If, however, the injured eye has any vision left it must not be removed, as the vision in it may ultimately be better than that which may be left in the sympathizing eye after the inflammation has subsided.

Major McPherson then read notes of a few cases illustrating most of the points referred to. He had purposely discussed perforating wounds as a whole before reading these notes, so that his hearers might appreciate more fully the various points in the cases:

1. Hawker, aged 50, admitted on May 19th, 1910, with large wound in right cornea, with prolapse of iris and vitreous. There was no perception of light remaining. As the injury was very severe, and there was no prospect of restoring vision, the eye was enucleated at once. In this case, therefore, there was no doubt about the treatment to be adopted.

2. Boilermaker, aged 35, was admitted on September 20th, 1911, with a wound about $\frac{1}{2}$ to $\frac{3}{4}$ in. long at the corneo-scleral junction of the right eye, with a piece of iron sticking in the wound. The anterior chamber was full of blood, there was prolapse of iris, and vitreous vision was *nil*, but projection was good. The iron was removed, prolapsed iris excised, and after thorough cleansing with boric lotion, the edges of the wound were drawn together by conjunctival sutures. After a few days irido-cyclitis developed, and the eye was removed about a week after the injury.

This was not a very hopeful case from the beginning, as the injury was a severe one. As, however, projection was good, an attempt was made to save the eye.

3. A boy aged 14, tailor, was admitted on August 13th, 1911, with a wound about half an inch long at the corneo-scleral junction on the outer side of the left eye. The wound was caused by a large needle on August 3rd, and he was treated up country, where a piece of prolapsed iris had been excised and the wound was sutured. He was sent to Bombay, as it was feared cyclitis was setting in, and that the eye might have to be enucleated. At the time of admission vision was—fingers at 12 ft. There was some circumcorneal injection, but no signs of irido-cyclitis; atropine and a bandage were applied, and after one month the boy was discharged with vision $\frac{6}{6}$.

4. A farmer, aged 32, was admitted on August 7th, 1911, with a history that twenty years before he had received a blow on the left eye which had rendered him blind in that eye. For the last year and a half the eye had been red and painful. At the time of admission the left eye was found to be quite soft (−2), and bore marked signs of old irido-cyclitis. There was no perception of light. The patient sought admission because he was suffering from some photophobia in the right eye, and was afraid he might become blind. There were no signs of cyclitis in the right eye. The left eye was removed, and the photophobia in the right eye disappeared.

It was just possible that the photophobia was due to sympathetic irritation. As there was no vision in the injured eye we had no hesitation in removing it.

5. A fitter was admitted on May 19th, 1911, with a small piece of iron lying in the lower angle of the anterior chamber of right eye. The site of entry could not be made out. A keratome was passed into the anterior chamber, and the particle removed with iris forceps. The patient was discharged after ten days with normal vision and the eye quite quiet.

6. A boy, aged 12, was admitted with sympathetic irido-cyclitis in the right eye. Vision at the time of admission was—fingers at 9 ft. There were marked posterior synechiae and photophobia, and the tension was + 2. The history was that the left eye had been injured by a hatpin four months before. Irido-cyclitis had resulted, and the eye had been enucleated one month after injury and three months before admission. Atropine, leeches, and hot fomentations were applied, and tapping was done on several occasions. When the inflammation had subsided, vision was—fingers at 2 ft. About nine months later an iridectomy was performed, and vision improved to $\frac{6}{12}$.

The author said this case was interesting as showing that if enucleation were delayed the onset of sympathetic ophthalmia was not prevented in the other eye. No doubt, if the eye had been removed after the appearance of irido-cyclitis in it, the other eye would not have suffered.

Disseminated Sclerosis.

Dr. A. J. NOROHNA, Clinical Registrar under Lieutenant-Colonel L. F. Childe, I.M.S., Senior Physician Jamsetji Jeejeebhoi Hospital, Bombay, read notes of cases of disseminated sclerosis and showed the cases:

1. A Hindu man, aged 24 years, a farmer from Cutch-Mandvie, came into the hospital for failing strength in the legs. He was a strict vegetarian and had plague seven years previously. No other special history of any past illness. He had a strong attack of fever four months before admission, which lasted two

days, without rigors. He recovered without any treatment in a week, except that he could not walk nor stand unsupported, and that his movements of the hands and of the feet were clumsy. These had now grown worse. The patient was a well-developed man, rather listless, and the skin of the forehead was wrinkled, even when he looked down. The upper incisors showed a slight notching, the teeth were dirty, and the tongue furred. Supratrochlears showed a very slight enlargement. Grip of the right hand less powerful. No other marked muscular weakness. The nutrition of the body not appreciably wasted, though the patient said he was wasted. Co-ordination was markedly affected in the lower extremities; he was ataxic, and unsupported fell to the ground. His gait was slightly spastic. He lifted his legs high and threw them forward in a jerk, his feet often crossing the middle line of his body as he brought them down. Sometimes they went beyond the line of the outer edge of the opposite foot. He could not place the heel of one leg on top of the big toe of the other, particularly failing in this when the eyes were closed. Co-ordination in the upper extremities was very slightly affected. There were no typical intention tremors when he performed actions like buttoning his coat. On stretching out the hands he showed fine tremors. The knee-jerks were increased, and there was no ankle clonus, nor was there any extensor response of the big toe. The superficial reflexes were intact. There was no Argyll Robertson pupil nor any nystagmus. Speech was syllabic or scanning. Organic reflexes were intact, and there was no sphincter trouble. Patient's vision was good, and he had no squint.

The case was one of disseminated sclerosis, though there were certain difficulties in arriving at that diagnosis. There was no Babinski's sign and no ankle clonus.

1. The onset with a smart attack of fever was not common in disseminated sclerosis.

2. All the classical signs were not present; thus, there were no intention tremors, nystagmus, and no lesion of the optic discs. Then, again, signs indicating an organic lesion—for example, Babinski's sign and ankle clonus—were absent.

A general survey of the case, including the following points—namely, the onset, the age, sex, nutrition, and previous perfect health, the patient's speech, the constancy of the symptoms, and the fact that in disseminated sclerosis symptoms varied both in their combination and their time of onset—left no doubt that the case was one of disseminated sclerosis.

2. A middle-aged Hindu clerk was admitted with weakness in his limbs, more especially the upper extremities. No reliable history could be obtained, as the patient is rather disconnected in his replies. Patient lives on a mixed diet, smokes and drinks moderately. Six months ago his vision began to fail, and he has been totally blind these two months. For the last month he has had weakness in his right extremities. History of headache and cerebral vomiting is given, with irregular movements of the extremities. Since admission (now two days) he has had no vomiting, no headache, no fits, no giddiness. He lies quiet in bed without a groan, and when told to walk does so willingly and comfortably in the erect posture, save that he is hampered a bit on account of his blindness. The ophthalmic surgeon detected optic atrophy in both eyes. There is diminished power in the right extremities, more so in the upper. Muscles are not wasted. No ataxia. No tremors when perfectly at rest except in the tongue, where there are fine tremors. Marked tremors are manifested when the patient makes an effort to grasp anything with the right hand. Organic reflexes are normal. Knee-jerks are present, though slightly impaired. Pupils are unequal, and both react to accommodation. Sensation not affected. There is some degree of mental confusion. He had to make an effort to remember his name before he gave it on admission. He remarked he could not think of it.

This, too, seemed to be a case of multiple sclerosis with cerebral manifestations.

Ruptured Urethra.—Major T. S. Novis, I.M.S., read notes of four cases of ruptured urethra. He said he could remember the time when the usual treatment of ruptured urethra was to open the perineum and pass a catheter through the penile urethra into the wound, and, after finding the central end of the divided channel, on into the bladder. The catheter was tied in and the wound led to granulate. The immediate result was usually satisfactory, but after a short time an intractable stricture developed, necessitating further operation, or, at the best, constant passage of instruments for the rest of the patient's life, to keep open the fibrous tract, which had united the ends of the ruptured urethra. The first case illustrated how impossible it was by this method to get healing of a ruptured urethra without considerable formation of fibrous tissue, as there was a separation of 1½ in. between the severed ends. The second was of interest, as in this patient the neck of the bladder was completely severed from the prostate. The third and fourth cases were examples of a rare form of injury—namely, rupture of the urethra above the triangular ligament at the junction of the membranous with the prostatic portion of the urethra. The following were the details:

Case I.—B. F., aged 35 years, admitted into hospital August 15th, 1911. *History:* The evening before admission he had fallen across a tub, striking his perineum against the edge. Blood had been passsd per uretham, but though he had desired to pass urine he had been unable to do so. *State on Admission:* Some blood was oozing from his urethra, and there was a soft tender swelling in the perineum. His bladder was distended up to midway between the pubes and umbilicus. I tried to pass a No. 8 silver catheter, but without success. *Operation:* The patient was put in the lithotomy position, and a Wheelhouse staff having been passed, an incision was made in the middle line of the perineum and the ends of the urethra, which were separated by a gap of an inch and a half, were exposed and brought together with six silk sutures over a soft rubber catheter, which was left in to drain the bladder. The ends of the wound were sutured, and the central part packed with gauze, which was removed the following day. The catheter was taken out on the fifth day after operation, when most of the urine was passed per urethram. The wound granulated up, and the patient was discharged from the hospital on September 11th, 1911, a No. 16 English sound having been passed without difficulty. He was instructed to come up once a fortnight to have a sound passed to prevent contracture.

Case II.—M. N., aged 40 years. *History:* Patient had fallen from a height on a sharp-pointed railing. *State on Admission:* There was a wound, 2 in. long, in the left ischia-rectal fossa by the side and in front of the rectum, from which a small quantity of urine was oozing, and a swelling, dull on percussion, above the pubes, extending into the right iliac fossa and nearly up to the umbilicus. An attempt to pass a catheter failed, but a little blood followed its withdrawal. *Operation:* The perineal wound was enlarged forward and a suprapubic incision made in the middle line. The bladder was found completely separated from the prostate, and the anterior wall of the rectum laid open and the pelvis completely divided to the right of the symphysis pubis. The extra-peritoneal space in front of the bladder and the right iliac fossa were full of blood and urine. The neck of the bladder was stitched to the prostatic urethra and the wound in the rectum sutured; drainage tubes were inserted into both the perineal and suprapubic wounds. The patient's temperature was 103° the evening after operation, and the following morning the wounds were irrigated with 1 in 5,000 mercury biniodide. His temperature remained between 103° and 104° until he died on March 1st, 1911.

Case III.—M. G. G., aged 40, a fisherman, admitted into hospital May 4th, 1911. *History:* The day before admission the patient said he had received a blow in the small of the back, from the prow of a fishing boat. Since then he had passed blood but no urine. *Present Condition:* There was dullness above the pubes extending up half way to the umbilicus and out on either side to the middle of Poupart's ligament. Fullness in the perineum in front of the anus. *Operation:* A suprapubic incision was made, and the urethra was found torn off from the upper surface of the triangular ligament. It was found to be impossible to unite the urethra through the suprapubic wound, even with the aid of cleft palate needles. An incision was then made in the middle of the perineum as far back as the sphincter ani; a quantity of blood and urine was found extravasated in front of the rectum. The triangular ligament was divided in the middle line until the urethra was reached. A soft catheter was passed down the urethra and into the wound, and then through the prostatic urethra into the bladder, and the floor of the urethra approximated with silk sutures. Both wounds were left partly open for drainage, a large drainage tube being inserted into the cave of Retzius. The catheter was removed after ten days, and though for some time urine was passed through both wounds as well as the urethra, they granulated up, and had almost healed by June 2nd, 1911, when the patient was discharged. A large-sized sound could easily be passed into his bladder. He was instructed to return once a fortnight for passage of sounds.

Case IV.—H. K., aged 17, admitted July 26th, 1911. *History:* A bale of cotton had fallen on his back the day before admission. He had had to be carried home, being in great pain and unable to walk. He had not passed urine since the accident. On admission he was suffering severe pain in the hypogastric region and in the right leg. There was dullness extending up to the umbilicus and outwards above Poupart's ligament on either side, but to a greater extent on the left than the right. Great pain was felt on moving the right leg. An attempt to pass a catheter failed; only a few drops of blood-stained fluid were drawn off. *Operation:* A suprapubic incision was made, and some blood and urine escaped from the wound. A comminuted fracture of the rami of the ischium and pubes on the left side was felt with the finger and loose pieces of bone were removed, the largest being about the size of a hazel nut. The urethra was found torn across above the triangular ligament, and the tip of the finger could be introduced into the membranous urethra. An incision was made in the middle line of the perineum in front of the rectum, the triangular ligament slit up as far as the urethra, and the floor of the urethra sutured over a catheter. As in the third case, it was not found possible to suture the roof. The perineal wound was partly closed and two drainage tubes were inserted in the suprapubic wound. As the wound suppurated, it was necessary to irrigate

with a 1 in 5,000 mercury biniodide daily for three weeks, when the temperature, which had ranged between 99° to 101°, came down to normal. The catheter, which was removed on the tenth day, had to be replaced again after twenty-four hours, owing to retention of urine, and was finally taken out on the fifteenth day. Three or four days after removal of the catheter an abscess formed at the junction of the penis and scrotum on the left side, which left a urethral fistula, which gradually closed. Sounds were passed once a week after the catheter was removed. On September 10th, 1911, as the wounds had healed and the patient was able to pass water freely, he was allowed to leave the hospital, with instructions to return from time to time for passage of sounds.

Other Communications.—Dr. L. G. DATE showed a piece of drainage tube which was accidentally introduced by his patient into his bladder, which was located there by the *x* rays, and which fortunately came out on an effort at micturition before a suprapubic opening, which was decided upon, was made.

Votes of Thanks.—After a hearty vote of thanks to Majors McPherson and Novis and to Drs. Date and Norohna, as well as to Lieutenant-Colonel Childe, the meeting terminated.

HONG KONG BRANCH.

THE annual general meeting of this Branch was held on November 9th, 1911.

Election of Office-bearers.—The following were elected officers for the year 1911–12: *President*, Dr. Charles Forsyth; *Vice-President*, Dr. J. H. Sanders; *Honorary Secretary and Treasurer*, Dr. O. Marriott; *Council*, Dr. Belilios, Dr. Francis Clark, Major Fleury, R.A.M.C., Staff Surgeon E. G. E. O'Leary, R.N., and Dr. F. O. Stedman; *Representative* (in England) not yet appointed.

Report of Council.—The report of Council stated that the membership for 1910 was 134 as against 123. Three Council meetings had been held. Drs. Black and Hobson resigned the offices of Honorary Secretary and Honorary Treasurer respectively, and Dr. Oswald Marriott was elected to hold both offices. Resolutions passed at the general and ordinary meetings, respecting the registration in the Colony of foreign medical diplomas, which were not accepted by the General Medical Council in Great Britain, were sent to the head office of the Association, with a request for action by the Colonial Committee. Those resolutions had been acknowledged, and the Branch Council was now awaiting information of any action taken. A remonstrance was also sent against the proposed method of grouping Divisions for representation on the Central Council of the Association, which, in the opinion of the Branch, was quite impracticable on account of distance—the Branch was to be grouped with India—and want of information as to the *personnel* of Indian Branches. The Hong Kong Branch being numerically much weaker than the Indian Branches, there was very little chance of the Branch ever being properly represented. The Branch refused to take part in the election of a Representative under the new conditions. It was understood that the whole question was again under consideration at the central office. Twelve new members had been elected to the Association, and one visiting member to the local branch under Rule 10. Two members—Dr. L. P. Marques and Mr. G. H. D. Morland—had died, and several members had been transferred into the Branch from other parts. Owing to the large area of the Branch, which included the whole of China, it was difficult to be quite accurate as to the number of members of the Association resident in China at one time. Sir Joseph Fayrer, who represented the Royal Army Medical Corps on the Council, had resigned on leaving the Colony, and Major Fleury, R.A.M.C., was elected to the Council in his place. Twenty-eight new volumes had been added to the Branch Library during the year, and a revised catalogue of books was circulated to all members of the Branch in May. Four meetings of the Branch were held during the year, the average attendance of members being thirteen. At the first or general meeting Dr. Sanders, in his inaugural address, sketched the history of the Association in Hong Kong, with its origin from the Hong Kong Medical Association, which first met in 1886. At the second meeting Dr. Harston read a paper on gonorrhoeal ophthalmia, and Dr. Hobson showed a case of leprosy which had previously been shown to the Branch meeting. Dr. Koch read a paper illustrating his experiences from seeing the methods of preparation of patients before operation during a recent visit to other parts of the world. At the third meeting, which was held at the Government Civil Hospital by invitation of Dr. Koch, the Superintendent, a number of interesting specimens and clinical cases was shown. The fourth meeting was held at the Military Hospital by invitation of Colonel Bedford and officers of the Royal Army Medical Corps, when Captain Perry read a paper on the method of treating venereal disease in the service.

BRITISH MEDICAL ASSOCIATION.

SOUTH AFRICAN COMMITTEE.

THE second meeting of the South African Committee of the British Medical Association was held in Capetown on December 29th, 1911. There were present: Drs. Matthew Hewat, J. Petersen, Spencer Wicks, and Moffat.

Subscriptions.—The resolution passed at the last meeting fixing the annual subscription from each member of the Association in South Africa at 2s. 6d. was confirmed, and it was resolved that each Branch shall be responsible for the subscriptions of all its members.

The Committee and Presidents of Branches.—Dr. JASPER ANDERSON'S amendment, to the effect that if an elected member of this Committee become the President of his Branch, such Branch may elect another member during his term of office, was passed, and will come up for confirmation at the next meeting.

Formation of New Branches and Divisions.—In reply to this Committee's request that it be vested with the power of forming new Branches and Divisions in South Africa and delimiting their areas, the Central Council stated that it would frame a resolution to that effect for the consideration of South African Branches.

Uniform Registration.—The resolution forwarded by the Natal Branch advocating a uniform registration fee throughout the Union and the abolition of annual licences was adopted, and the Secretary was instructed to bring the subject before the next Congress.

Next Meeting.—It was resolved to hold the next meeting of the Committee during the Congress at Johannesburg, and so give effect to the resolution forwarded from the Transvaal Branch.

Control of Future Congresses.—With regard to another resolution from that Branch the Committee suggested that the Branch formulate a scheme for the control of future congresses by this Committee, for submission to the next meeting of the Committee.

Two Divisions of Transvaal Branch.—The Committee accepted the proposal of the Transvaal Branch to form two Divisions—Pretoria and Witwatersrand.

Medical Journal.—A medical paper as the official organ of the Association in South Africa was considered desirable, and the matter held over till the next meeting.

Regulations.—The SECRETARY reported that he was awaiting reply from the Central Council to the Committee's resolutions on the notes on the regulations.

THE LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

THE following books were added to the Library between July and September, 1911:

Presented by the Authors.

Bland-Sutton, John: Gall Stones and Diseases of the Bile Ducts. 1910.
Bland-Sutton, John: The Position of Abdominal Hysterectomy in London. 1910.
Bland-Sutton, John: Tumours, Innocent and Malignant, fifth edition. 1911.
Burgess, Mildred: The Care of the Infant. 1910.
Calwell, W.: Textbook of Medical Treatment. 1910.
Crookshank, F. G.: Essays and Clinical Studies. 1911.
Farquharson, Rt. Hon. Robert, P.C.: In and Out of Parliament. 1911.
Gimlette, J. D.: Reprints of Articles contributed to Medical Journals. 1911.
Grant, Graham: Practical Forensic Medicine. 1911.
Hare, Francis: The Food Factor in Disease, 2 volumes. 1905.
Hurry, J. B.: Vicious Circles in Disease. 1911.
Hutchison, Robert: Lectures on the Diseases of Children, second edition. 1910.

Hutchison, Robert: Applied Physiology. 1909.
Kilner, W. J.: The Human Atmosphere. 1911.
Lambkin, Colonel F. J.: Syphilis, its Diagnosis and Treatment. 1910.
Powell, Sir Douglas, and P. Horton Smith Hartley: Diseases of the Lungs and Pleurae, fifth edition. 1911.
Scott, Kenneth: Refraction and Visual Acuity. 1911.
Stevens, William: Medical Diagnosis. 1911.
Williams, P. Watson-: Rhinology. 1911.
Whitla, Sir William: Elements of Pharmacy, Materia Medica, and Therapeutics, ninth edition. 1910.
Worth, C.: Squint, its Causes, Pathology, and Treatment, third edition. 1906.

Presented by the Medical Officer to the Local Government Board.

Reports and Papers on Suspected cases of Human Plague in East Suffolk. 1911.
Report on the Sanitary Circumstances and Administration of Neath Rural District. 1911.

Presented by Dr. Patrick, Glasgow.

Glasgow Medical Journal, 1867-1877 (to complete).
Holden: Human Osteology. 1887.

Presented by Dr. Eustace Smith, London.

Archives of Pediatrics, vols. 1-8, 1884-1891, 1894-1901-02-06. (with omissions).
Battle, W. H., and E. M. Corner: Surgery of Diseases of the Appendix. 1904.
Bill, A. F., and others: Davos as a Health Resort. 1906.
Bottentuit, Dr.: The Waters of Plombières. 1888.
Bouchut, E.: Maladies des nouveau-nés. 1862.
Chomel, A. F.: Clinique médicale, vol. i, 1834; vol. ii, 1837; vol. iii, 1840.
Day, W. H.: Diseases of Children. 1881.
Duchenne, G. B.: L'Electrisation localisée. 1861.
Hermann, D. L.: Human Physiology. 1875.
Keeling, J. H.: Quaero (Some Questions in Matter, Energy, Intelligence and Evolution). 1898.
Lawson, H.: Sciatica, Lumbago, and Brachialgia. 1887.
Meigo, J. F., and W. Pepper: Diseases of Children. 1882.
Morton, T., and W. Cadge: Surgical Anatomy. 1850.
Parker, R. W.: Congenital Club-Foot. 1887.
Peacock, T. B.: Valvular Disease of the Heart. 1877.
Sandwith, F. M.: Egypt as a Winter Resort. 1889.
Syer, J.: Management of Infants. 1812.
Woillez, E. J.: Dictionnaire de diagnostic médical. 1862.
and other volumes, duplicates.

Presented by the Superintendent of Government Printing, Calcutta.

Scientific Memoirs by Officers of the Medical and Sanitary Departments of the Government of India:
No. 45. Greig: Epidemic Dropsy in Calcutta. 1911.
No. 46. Christophers: Malaria in the Punjab. 1911.
No. 47. Greig and Wills: Dysentery and Liver Abscess in Bombay. 1911.

Calendars, Reports, and Transactions have been received from the following bodies:

American Association of Genito-Urinary Surgeons. Transactions, vol. v. 1910.
American Dermatological Association. Transactions, xxxiii. 1909.
American Gynaecological Society. Transactions, xxxv. 1910.
American Laryngological Association. Transactions. 1910.
American Pediatric Society. Transactions, xxii. 1910.
Board of Education. Annual Report of the Chief Medical Officer. 1909.
Bristol University Calendar. 1911-12.
Calcutta University Calendar, 3 volumes. 1911-12.
Chicago, Report of the Department of Health. 1907-10.
Chief Inspector under the Inebriates Acts. Annual Report. 1909.
Commission of Conservation of Canada, Annual Report. 1911.
Edinburgh University Calendar. 1911-12.
France—Ministère de l'Intérieur. Recueil des actes officiels et documents intéressant l'hygiène publique, tome 39. 1909.
Glasgow Obstetrical and Gynaecological Society, Transactions, vol. vii. 1909-10.
Glasgow University Calendar. 1911-12.
Imperial Cancer Research Fund, Ninth Annual Report. 1910-11.
Ireland, Report of the Registrar-General (forty-seventh). 1910.
Japan, Health of the Navy. 1907, 1908.
Leeds University Calendar. 1911-12.
London Hospital Medical College, prospectus. 1911-12.
Metropolitan Asylums Board, Annual Report. 1910.
Middlesex Hospital Medical School, prospectus. 1911-12.
National Association for the Prevention of Consumption, Transactions, Annual Conference. 1911.
New Zealand University Calendar. 1911-12.
Pepper, William: Laboratory Contributions, vol. vii. 1910.
Rockefeller Institute for Medical Research, Reprints, xii. 1910.
St. Luke's Hospital (New York) Medical and Surgical Reports. 1910.
St. Thomas's Hospital Reports, vol. xxxvii. 1908.
Under Secretary of State, Return of Experiments on Animals. 1910.

Added to the Library through the "British Medical Journal."

Aikens, C. A.: Primary Studies for Nurses. 1909.
Allbutt, T. C.: Science and Mediaeval Thought. 1901.
Allen, R. W.: Opsonic Method of Treatment. 1907.
Atthill, L.: Recollections of an Irish Doctor. 1911.
Bachem, C.: Unserer Schlafmittel. 1910.
Bailey, P.: Diseases of the Nervous System Resulting from Accident and Injury. 1906.
Bateson, W.: Methods and Scope of Genetics. 1908.
Beck, J. C.: Photographic Atlas of Radiography. 1911.
Bergmark, G.: Bidrag till de Cerebrala Forlamningarnas Symptomatologi. 1908.
Bolduan, C. F.: Immune Sera. 1911.
Boyce, Sir Rubert: Yellow Fever and its Prevention. 1911.
Brouardel, P.: Les attentats aux moeurs. 1909.
Brugelmann: Das Asthma. 1910.
Brunings, W.: Die directe Laryngoskopie, Bronchoskopie, etc. 1910.
Burnet, James: Handbook of Medical Treatment. 1911.
Cables, H. A.: Diagnosis and Treatment of Diseases. 1911.
Cabot, R. C.: Differential Diagnosis. 1911.
Caspari: Treatise on Pharmacy, third edition. 1906.
Chundra: Treatise on Treatment. 1911.
Clarke, Bruce: Surgery of the Kidneys. 1911.
Clarke, J. H.: Vital Economy. 1908.
Clutterbuck, L. A.: Nerve Diseases. 1907.
Critchley, H. G.: Hygiene in School. 1905.
Davenport, C. B.: Eugenics. 1910.
Diver, E. W.: The Conquest of Consumption. 1911.
Drummond, W. B.: Introduction to Child Study. 1907.
Elder: Ship Surgeon's Handbook, second edition. 1911.
Elliott: Public Health Acts and Other Sanitary Laws and Regulations, second edition. 1907.
Ellis, Havelock: The World of Dreams. 1911.
Eppinger, H.: Allgemeine und spezielle Pathologie des Zwerchfells. 1911.
Feiu, J.: Rhino-laryngologische Winke, 2 Aufl. 1911.
Fischer, B.: Hypophysis, Akromegalie, und Fettsucht. 1910.
Forel, A.: La question sexuelle. 1906.
Fowler, G. J.: Introduction to Bacteriological and Enzyme Chemistry. 1911.
Galton, Sir Francis: Essays in Eugenics. 1909.
Galton, Sir F. and others: Sociological Papers. 1905.
Geirke, E.: Taschenbuch der pathologischen Anatomie, i, ii. 1911.
Giertz, K. H.: Wormfortsatsperitonitis. 1909.
Gorgas, F. J. S.: Dental Medicine. 1910.
Gouley, J. W. H.: Conferences on the Moral Philosophy of Medicine. 1906.
Gouraud, F. X.: What Shall I Eat? 1911.
Gowers, William: Lectures on the Diseases of the Nervous System. 1895.
Gray, Robert: Specific Medication. 1909.
Grouhel, A.: Etude médico-legale des maladies post-traumatiques. 1896.
Grove, Lady: The Human Woman. 1908.
Guttmann, W.: Medicinische Terminologie. 1911.
Haberlin: Die Kinder See Hospize und die Tuberkulose Bekampfung. 1911.
Haeckel: The Last Words on Evolution. 1906.
Von Hansemann: Deszendenz und Pathologie. 1909.
Hare, H. A.: Typhoid Fever. 1909.
Harford, C. F.: Hints on Outfit for Travellers in Tropical Countries. 1911.
Hayes, A. J.: Source of the Blue Nile. 1905.
Heathcote, G.: Talks with Sanatoria Patients. 1911.
Heijl, A.: Über Acardie. 1910.
Herschell, G.: Non-surgical Treatment of Duodenal Ulcer. 1910.
Herschell, G.: Soured Milk in the Treatment of Disease. 1909.
Hertz, A. F.: Goulstonian Lectures on the Sensibility of the Alimentary Canal. 1911.
Hill, C.: Manual of Normal Histology. 1909.
"Home Counties": The Case for the Goat. 1908.
Horton-Smith, P.: Descriptive Catalogue of the Pathological Specimens in the Museum of the Hospital for Consumption. 1904.
Houssay, B. A.: Estudios sobre la accion de los extractos hipofisiarios.
Hoxie, G. H.: Symptomatic and Regional Therapeutics. 1910.
Huchard, H.: Maladies de l'appareil digestif. 1911.
Hueppe: Hygiene der Korperübungen. 1910.
Huggard, W.R.: Davos as a Health Resort. 1906.
Inglis, M. K.: The Children's Charter.
International Clinics, vol. iv, series 20. 1910.
Jackson, J.: On Lepers; Thirty-six Years' Work Amongst Them, new edition. 1910.
James, S. P., and W. G. Liston: A Monograph of the Anopheline Mosquitos of India. 1911.
Jefferys and Maxwell: Diseases of China. 1910.
Kaye, H. W.: The Climate of Strathpeffer. 1909.
Keeble, F.: Plant Animals. 1910.
Kelynack, T. N.: Scandinavian Health Resorts. 1910.
Kerr, J. M. Munro: Operative Midwifery, second edition. 1911.
Kieslinger and Wirth: Die Krankenkost. 1910.
Kirmisson, E.: Précis de chirurgie infantile. 1911.
Kittel, M. J.: Die Heilung de gichtisch-rheumatischen Erkrankungen. 1911.
Knox, E. B.: Military Sanitation and Hygiene. 1911.
Korner: Die Otitischen Erkrankungen des Hirns. 1896.
Kraepelin, E.: Introduction à la psychiatrie clinique. 1907.

Krehl, L.: Pathologische Physiologie, 5 Aufl. 1907.
Lapage, C. P.: Feeble-Mindedness in Children of School Age. 1911.
Lebon, G.: Evolution of Forces. 1908.
Leclercq, A.: I. L'Artério-sclérose. 1911.
Leclercq, A.: II. Clinique du Coeur. 1908.
Leclercq, A.: III. Le Diabète. 1910.
Leftwich, R. W.: Pocketbook of Treatment. 1911.
Lemoine, G.: Les interventions médicales d'urgence. 1911.
Lemoine et Gérard: Formulaire: consultations médicales. 1909.
Liepmann, W.: Die Gynakologische Operationskursus an der Leiche. 1911.
Liertz: Ueber die Lage des Wurmfortsatzes. 1909.
Losch, H.: German-English Medical Thesaurus. 1895.
Macfadyen, A.: The Cell as a Unit of Life. 1908.
Mackay, George: Management and Construction of Poorhouses and Almshouses. 1908.
Mackenzie, W. L.: The Health of the School Child. 1906.
Mangold, G. B.: Child Problems. 1910.
Maxwell and Brown: Encyclopaedia of Municipal and Sanitary Engineering. 1910.
May, C. H.: Diseases of the Eye, fifth edition. 1907.
Meigs, A. V.: Milk Analysis and Infant Feeding. 1885.
Metcalfe, R.: Rise and Progress of Hydropathy in England and Scotland. 1906.
Von Mikulicz-Radetsky: Die Krankheiten des Mundes, 2 Aufl. 1909.
Millard, C. K.: Building and Care of the Body. 1910.
Monod, H.: La santé publique. 1904.
Moor, C. G.: Recognition of Minerals. 1909.
Morrow, A. S.: Diagnostic and Therapeutic Technique. 1911.
Moynihan, B. G. A.: The Pathology of the Living. 1910.
Musser and Kelly: Handbook of Practical Treatment, vol. i. 1911.
Newton, G.: Our National Drink Bill. 1909.
Ormerod, J. A.: Heredity in Relation to Disease (Harveian Oration, 1908). 1908.
Poulton, E. B.: Charles Darwin and the Origin of Species. 1909.
Preus, J.: Biblische Talmudische Medizin. 1911.
Progressive Medicine, vols. ii, iii, iv. 1910.
Prout, W. T.: Lessons on Elementary Hygiene, with Special Reference to the Tropics. 1905.
Rideal, S.: Sewage and Sewage Purification, third edition. 1906.
Rivers, W. H. R.: The Influence of Alcohol and Other Drugs on Fatigue. 1908.
Robin, A.: Thérapeutique usuelle du praticien. 1911.
Ross, E. H.: The Reduction of Domestic Mosquitos. 1911.
Ross, R.: Fables. 1907.
Rowntree and Sherwell: Public Control of the Liquor Traffic. 1903.
Rowntree and Sherwell: The Temperance Problem and Social Reform. 1900.
Rudberg, H.: Thymus Involutionen efter Röntgenbestralning. 1909.
Russell, J. B.: Public Health Administration in Glasgow. 1905.
Russo-Japanese War, Medical and Sanitary Reports. 1908.
Saalfeld, E.: Lectures on Cosmetic Treatment. 1910.
Salge, B.: Einführung in die moderne Kinderheilkunde. 1909.
Sattenlee, G. R.: Human Embryology. 1906.
Scheurer, I.: La greffe ovarienne. 1910.
Schmidt and Lüthje: Klinische Diagnostik und Propädeutik innerer Krankheiten. 1910.
Schwalbe, J.: Lehrbuch der Greisenkrankheiten. 1909.
Seitz, C.: Lehrbuch der Kinderheilkunde, 3 Aufl. 1910.
Sibley, S.: The Voice and its Control.
Sinnhuber: Die Erkrankungen des Herzbeutels. 1911.
Souligoux, C.: Affections chirurgicales de la poitrine. 1911.
Souttar, R.: Alcohol, its Place and Power in Legislation. 1904.
Squier and Bugbee: Manual of Cystoscopy. 1911.
Starr, L.: Diseases of the Digestive Organs. 1891.
Stekel, W.: Nervose Angstzüstande und ihre Behandlung. 1908.
Stérian, E.: Education sexuelle. 1910.
Stoeltzner, W.: Oxypathie. 1911.
Teissier, M. J.: Livre jubilaire. 1910.
Tourette, G. de la: Traité de l'hystérie, 2 volumes. 1895.
Turner, D.: Radium, its Physics and Therapeutics. 1911.
Urbantschitsch, V.: Lehrbuch der Ohrenheilkunde, 5 Aufl. 1910.
Vaquez, H.: Les Arythmies. 1911.
Villiger, E.: Die periphere Innervation. 1908.
Vires, J.: Les maladies de l'estomac. 1911.
Wallace, J. S.: The Prevention of Dental Caries. 1911.
Weiss: Clinical Pathology. 1910.
White, E. G.: Science and Singing. 1909.
Williamson, R. T.: Diseases of the Spinal Cord. 1911.
Wilson, J. C.: Fever Nursing, sixth edition. 1910.
Von Winckel, F.: Allgemeine Gynäkologie. 1909.
Wittmann, R: Der Sanitätsdienst im Zukunftkriege. 1910.
Woodruff, C. E.: Expansion of Races. 1909.
Yearsley, W. A.: Treatment of Stammering.
Yule, G. U.: Introduction to the Study of Statistics. 1911.

BOOKS NEEDED TO COMPLETE SERIES.

The Librarian will be glad to receive any of the following volumes, which are needed to complete series in the Library:

American Association of Genito-Urinary Surgeons. Transactions. 1906.
———— Climatological Transactions. Vols. 1, 4, 5, 6.
———— Dermatological Association Transactions. Vols. 5, 7, 8, 11, and 29.
American Journal of the Medical Sciences. New series, vols. 4, 5, 1842–3; vols. 14, 15, 1847–8; vols. 18–30, 1850; vol. 33, 1857; vol. 46, 1864–5; vol. 59; or any parts of these vols.
———— Journal of Ophthalmology. Vols. 1–9.
———— Laryngological Association. Transactions. Vols. 1–6, 8–9.
———— Medical Association. Transactions, 2, 4, 6, 7, 11, 12, 14; 15, 16, 19, 20, 22, 31, after vol. 33, and the *Journal*, up to 1903 inclusive.
———— Medico-Psychological Association. Transactions. Vol. 13, 1906.
———— Otological Society. Transactions. Vol. 3, part 2, 1883.
———— Public Health Association. Transactions. Any vols.
Analyst. Vols. 1–24.
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Archiv für Dermatologie und Syphilis. Bd. 24 and 25 (1892 and 1893).
Archives générales de médecine. Third new series 7–8 (1839–40); 4th series, 10–17, 20–25, 1852–55, 1858–64, 1872–1897; 1846–55 inclusive; 1857–64 inclusive; 1871.
———— of Ophthalmology. Vols. 1–3, 6, 7, 14, 15, 16 and 20.
———— of Otology. Vols. 1–7, and 20–22.
———— de Parasitologie. Vols. 1–8.
———— de Pediatrics. Vols. 1–16.
Asylum Journal of Mental Science. Vol. 1, 1854.
Biochemical Journal. Vols. 1–4.
British Dental Journal. Vols. 1–29.
Biometrica. Vols. 2–6.
British Journal of Dermatology. Vol. 2, part 3.
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Caledonian Medical Journal. Vol. 1 prior to 1894.
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Centralblatt für Augenheilkunde. Hirschberg. All prior to 1891; Index to 1891.
Centralblatt für Bakteriologie. Bound volumes prior to 1899.
———— für medicinische Wissenschaften. Vols. 1–19.
———— für Nervenheilkunde. 1878, 1879, 1886, 1889, 1890, 1892, and since 1893.
Congrès Français de Chirurgie. Transactions 1, 2, 3, 6, and 10, and all since 11th.
———— Internat. d'Obstétrique et de Gynécologie. 3. Amsterdam, 1899.
Congress für innere Medicin: Verhandlungen. 1–12, and 14, since 18.
Dermatological Congress. Vienna, 1892.
Dermatologischer Jahresbericht. 1906–1908.
Dermatologische Zeitschrift. Vols. 1–16.
Dublin Quarterly Journal of the Medical Sciences. Vols. 1, 10, 17, 20, 28, and 35–40.
Edinburgh Obstetrical Transactions. Vol. 5.
Glasgow Medical Journal. 1833 and 1853–1868.
———— Pathological Society. Transactions 1 and 2.
Guy's Hospital Gazette. Nos. 1 and 5. 1872.
Indian Medical Gazette. 1868–1884.
Intercolonial Medical Journal, Australasia. Vols. 1–13.
International Congress on Alcohol. Proceedings of First to Eleventh.
International Congress of Genetics. Transactions. (1) London 1899, (2) New York 1902, (3) London 1906.
International Congress of School Hygiene. Transactions of First Congress, Nuremberg, and Third, Paris, 1910.
International Congress of Hygiene. Transactions of Congresses 1–6 and 10–12.
International Medical Congress. Budapest, 1909. Section 4, Part 2; Section 7B, Part 1; Section 15, Part 2.
———— Ophthalmological Congress. Transactions of Fifth; New York, 1876.
Jahrbuch für Kinderheilkunde. Bd. 1–9.
Jahresbericht Neurologie und Psychiatrie, 6 and 11–14.
Janus. All vols., 8–15.
Journal of Association of Military Surgeons. Vol. 19. 1906.
Journal of Laryngology. Vols. 1–9.
Journal of Medical Research. Vols. 1–20.
Journal of the Royal Institute of Public Health. 1910.
Lakeside Hospital Clinical and Pathological Papers, Series 2.
Laryngoscope. Vols. 1–20.
Liverpool Medico-Chirurgical Journal. Nos. 15, 16, 28, 29, 35, and 37–54.
London County Council. Report of Medical Officer of Education. March, 1906.
London Hospital Gazette. Vols. 1–6.
Medical Officer. Vols 1 and 2.
Montreal Medical Journal. Vols. 1–17, 19, 20, 26.
New York Pathological Society. Proceedings prior to 1888, 1890, 1892–1898, 1901–1904.
New York State Journal of Medicine, 1906.
Ophthalmic Review. January, 1882.
Ophthalmoscope. Vols. 1–8.
Pediatrics, prior to 1902.
Provincial Medical and Surgical Journal. March to September, 1841.
Ramazzini, Diseases of Tradesmen. Translated by James.
Recueil d'ophtalmologie, prior to 1893.

To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.

Association Notices.

BRANCH AND DIVISION MEETINGS TO BE HELD.

SOUTH-EASTERN BRANCH: BRIGHTON DIVISION.—The next ordinary meeting of the Division will be held on Wednesday, March 20th.—C. H. BENHAM, M.D., Honorary Secretary.

MIDLAND BRANCH: LEICESTER AND RUTLAND DIVISION.—A meeting of the Division will be held at the Leicester Infirmary, on Wednesday, March 13th, at 4 o'clock. Agenda: Minutes of the previous meeting. Report of the Representative on the Special Representative Meeting. Nomination of member of Advisory Committee, for consideration of Council. Nomination of two Representatives of the Division for the Annual Representative Meeting at Liverpool. Should more than two gentlemen be nominated, the Honorary Secretary will move: "That the election shall be by voting papers circulated through the post." Clinical cases will be exhibited.—R. WALLACE HENRY, Honorary Secretary, Leicester.

METROPOLITAN COUNTIES BRANCH: HAMPSTEAD DIVISION.—A meeting of this Division will be held on Friday, March 8th, at 8.30 p.m., at the Conservatoire, Swiss Cottage. Business: Election of Representatives to Representative Meetings and reorganization of Middlesex portion of the Division.—M. L. DOBBIE, Honorary Secretary.

SOUTH-EASTERN BRANCH: ISLE OF THANET DIVISION.—The next meeting of this Division will be held at the Victoria Hotel, Hardres Street, Ramsgate, on Thursday, March 7th, at 3.30 p.m. Agenda: (1) To consider the results of the recent Representative Meeting. (2) To consider certain points in relation to contract practice. (3) Any other business. Tea will be served during the meeting. All medical practitioners are invited.—HUGH M. RAVEN, Honorary Divisional Secretary, Broadstairs.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

FLEET SURGEON J. SHAND has been appointed to the *Shannon* on recommission, March 5th.

Staff Surgeon J. C. BRINGAN has been appointed to the *Victoria*, additional for disposal, undated.

Staff Surgeon A. R. H. SKEY has been appointed to the *Roxburgh*, March 5th.

Surgeon ARTHUR ROBERTSON DAVIDSON, M.B., was promoted to the rank of Staff Surgeon to His Majesty's Fleet on February 23rd, 1912.

Surgeon A. A. SANDERS has been appointed to the *Vivid*, additional for disposal, to be lent to *Gossamer* and for duty with *Crecc*, *Seagull*, and *Speedwell*, February 19th.

The undermentioned Lieutenants are confirmed in their rank: G. K. AUBREY, C. C. JONES, M.B., H. M. BUCHANAN, M.B.

ROYAL NAVAL VOLUNTEER RESERVE.

DONALD JOHN FORBES, M.B., has been appointed Surgeon, dated February 9th, 1912.

ARMY MEDICAL SERVICE.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL F. W. JONES has been appointed Officer Commanding the Station Hospital, Meerut.

Lieutenanant-Colonel W. L. GRAY has been appointed Officer Commanding the Station Hospital, Jullundur.

Lieutenant-Colonel GEORGE F. GUBBIN is placed on retired pay, dated February 19th, 1912.

Lieutenant-Colonel CHARLES H. MELVILLE, M.B., to be Brevet Colonel, dated February 24th, 1912.

Lieutenant-Colonel C. A. LANE from Hounslow has embarked for India.

Major J. COWAN from Woolwich has embarked for India.

Major ANTHONY J. LUTHER to be Lieutenant-Colonel, vice G. F. Gubbin, dated February 19th, 1912.

Major R. W. CLEMENTS has been appointed to the substantive charge of the enteric fever convalescent dépôt, Wellington, on relief of Captain W. R. Galwey.

Captain J. A. BENNETT has been appointed Specialist in Electrical Science, Poona Division, vice Captain Smales, proceeding on leave to England.

Captain W. BENSON, from Rawalpindi, on arrival is posted to the Dublin District.

Captain E. T. POTTS, on return from South Africa about March 4th, is posted to the Dublin District for duty.

Captain C. T. CONYNGHAM has been appointed Specialist in Dermatology in the 4th (Quetta) Division.

Captain J. J. O'KEEFE has been granted eight months' leave from India.

Captain W. C. NIMMO, from Meerut, has been appointed to the Eastern Command for duty.

Captain G. BAILLIE has left the London District for service in Sierra Leone.

Captain T. J. POTTER has vacated his appointment in the London District and proceeded to Egypt.

The undermentioned Lieutenants to be Captains, dated February 1st, 1912: CHARLES RYLES, M.B.; DAVID S. BUIST, M.B.; WILLIAM E. MARSHALL, M.B.; ALEXANDER M. POLLARD; GILBERT G. COLLET, M.B.; COLIN CLARKE, M.B.; EDMUND V. VAUGHAN, M.B.; ARTHUR V. R. MCNEILL, M.B.; ARTHUR R. WRIGHT, M.B.; THOMAS B. NICHOLLS, M.B.; JULIAN B. JONES, M.B.; JAMES A. CLARE, M.B.; STUART MCK. SAUNDERS, THOMAS J. MITCHELL, M.B.; FRANK H. SOMERS-GARDNER, M.B.: DONALD H. C. MACARTHUR, M.D.: GEORGE S. PARKINSON; HERBERT GALL; CHARLES H. O'ROURKE, M.B.; AUSTIN W. BYRNE, M.B.; JOHN STARTIN; CHARLES G. SHERLOCK, M.D.; GEORGE H. STACK, M.B.; HAROLD H. LEESON; SAMUEL W. KYLE, M.B.; JOHN W. LANE, M.D.; WILLIAM G. WRIGHT; ALBERT T. J. MCCREERY, M.B.

The undermentioned to be Lieutenants on probation, dated January 26th, 1912: ALEXANDER GORDON BIGGAM, M.B. Lieutenant DAVID TORQUIL MACLEOD LARGE (from the Royal Army Medical Corps Special Reserve), WILLIAM FRANCIS CHRISTIE, M.B., ROY KYFFIN MALLAM, M.B., WALTER WOODALL PRATT, M.B., WALTER STEVENSON, M.B., MAURICE BURNETT, CUTHBERT JAMES BLAIKIE, JAMES HEBBLETHWAITE MARTIN FROBISHER, M.B., CHRISTOPHER MARTIN INGOLDBY, OWEN WALLER JAMES WYNNE, Lieutenant DAVID TURNBULL RICHARDSON, M.B. (from the Royal Army Medical Corps Special Reserve), EDWARD ALEXANDER STRACHAN, M.B., Lieutenant WILLIAM MCNAUGHTON, M.B. (from the 4th Royal Garrison Artillery, Territorial Force), Lieutenant SYDNEY JAMES HIGGINS (from the Royal Army Medical Corps. Special Reserve), ALEXANDER HOOD, M.B., JOHN LICHTENSTEIN RITCHIE, M.B., GILBERT ALAN BLAKE, M.B., HENRY ROWLAND L'ESTRANGE, CUTHBERT JOSEPH HARWOOD LITTLE, M.B., PERCY ARTHUR WITH, ROBERT WASHINGTON VINT, M.B., STEPHEN JAMES BARRY, HAROLD WORDSWORTH LEACH ALLOTT, EDWARD PERCIVAL ALLMAN SMITH, M.B.

The undermentioned Lieutenants (on probation) are seconded under the provisions of Article 3C0, Royal Warrant for Pay and Promotion, 1909, dated January 26th, 1912: ALEXANDER G. BIGGAM, M.B., WALTER W. PRATT, M.B., MAURICE BURNETT, GILBERT A. BLAKE, M.B., CUTHBERT J. H. LITTLE, M.B., ROBERT W. VINT, M.B., HAROLD W. L. ALLOTT, EDWARD P. A. SMITH, M.B.

The grant of leave to the undermentioned officers has been concurred in: Major N. FAICHNIE, eight months' general leave in India; Major J. D. G. MACPHERSON, eight months' leave ex India, from March 18th; Captain C. G. BROWNE, six months ex India, from March 15th; Captain D. M. CORFETT, general leave ex India, from March 1st to October 31st, 1912; Captain W. E. C. LUNN, six months ex India, from March 12th or date of availing himself of it; Captain E. V. AYLEN, eight months ex India, from March 20th or date of availing himself of it; Captain W. E. C. LUNN, six months' general leave.

The Government of India have sanctioned that executive officers of the Royal Army Medical Corps other than staff officers, when detached from their stations on any duties, such as staff rides, etc., shall be eligible for detention allowance at the rate of Rs.5 per diem.

INDIAN MEDICAL SERVICE.

COLONEL A. O. EVANS is appointed officiating Principal Medical Officer, Kohat Brigade.

The following promotions in the India Medical Service, subject to His Majesty's approval, are announced: *Majors to be Lieutenant-Colonels:* B. G. SETON, V.H.S., R. H. ELLIOTT, M.D., F.R.C.S., R. K. MITTER, M.B. *Captains to be Majors:* G. BROWSE, M.B. H. A. WILLIAMS, D.S.O., M.B., W. C. LONG.

Major H. BENNETT, M.B., C.M., B.Sc.Edin., F.R.C.S., to be Civil Surgeon, Karachi.

Major R. W. ANTHONY, M.B., C.M.Edin., F.R.C.S., to be Civil Surgeon, Dharwar.

Major J. K. BAMFIELD has been appointed Specialist in Midwifery and Diseases of Women in the Second Rawal Pindi Division.

The services of Major C. M. MATHEW have been placed at the disposal of the Government of India, and he has been appointed to officiate as Medical Storekeeper, Madras.

Major E. J. O'MEARA, Civil Surgeon, Naini Tal, on being relieved, is placed on special duty with His Honour the Lieutenant-Governor.

Major R. G. TURNER, Civil Surgeon, on return from leave, to Naini Tal.

The services of Captain T. F. OWENS are placed permanently at the disposal of the Government of Burma with effect from December 18th, 1911, for employment in Chemical Examiner's Department.

Captain A. CAMERON, Plague Medical Officer, Delhi, is transferred to Gurdaspur, from January 4th.

Captain N. S. SODHI, Plague Medical Officer, Gurgeon, is transferred to Ludhiana, from January 15th.

Captain A. F. BABONAU, Plague Medical Officer, Gurgaon, is transferred to Umballa, from December 23rd, 1911.

Captain P. S. MILLS, Plague Medical Officer, Delhi, is transferred to Hoshiarpur, from January 4th.

Captain H. C. BUCKLEY, Plague Medical Officer, Rohtak, is transferred to Sialkot, from January 13th.

Captain W. W. JEUDWINE, Officiating Civil Surgeon, Simla West, is granted two years' leave, from February 25th.

Captain J. L. LUNHAM, M.D., B.Ch., R.U.I., to act as Civil Surgeon, Belgaum.

Captain H. S. HUTCHISON, M.B., to act as Personal Assistant to the Surgeon-General with the Government of Bombay.

Captain J. M. HOLMES has been granted extension of leave on medical certificate for one month.

Captain A. J. H. RUSSELL has been granted extension of leave on medical certificate for five months.

The King has approved of the admission of the undermentioned gentlemen to the Indian Medical Service on probation, dated January 27th, 1912: ROBERT HERBERT CANDY, M.B., PHILIP JOHN VEALE, M.B., HENRY HINGSTON, M.B., JAMASJI CURSETJI BHARUCHA, FREDERICK JASPER ANDERSON, HEERAJEE JEHANGIR MANOCKJEE CURSETJEE, M.B., JOHN SIMSON STUART MARTIN, M.B., PETER FLEMING GOW, M.B., ROBERT VICTOR MORRISON, M.B., JOGESH CHANDRA DEY, M.B., JAMES WALKER JONES, M.B., JAMES HALL HISLOP, M.B.

The King has approved of the confirmation of the commissions of the following Lieutenants on probation of the Indian Medical Service, with effect from July 29th, 1911: JOHN ALEXANDER SINTON, M.B., EDWARD RANDOLPH ARMSTRONG, M.B., DENIS FITZGERALD MURPHY, M.B., CHARLES JAMES STOCKER, M.B., ERIC EDWARD DOYLE, CYRIL MACDONALD PLUMPTRE, ARCHIBALD WALLACE DUNCAN, LEON FRANCIS BRANDENBOURG, M.B., JOHN EDWARD SCUDAMORE, M.B., HENRY LEWIS BARKER, M.B., EDWARD AUSTEN PENNY, M.B., GEORGE BENKHORN HARLAND, M.B.

VOLUNTEER DEPARTMENT.

Major T. S. ROSS, I.M.S., Madras Artillery Volunteers (The Duke's Own), resigns his commission.

TERRITORIAL FORCE.

ROYAL ARMY MEDICAL CORPS.

First South Midland Mounted Brigade Field Ambulance.—Lieutenant THOMAS H. FORREST, M.B., to be Captain, dated January 31st, 1912.

Third London General Hospital.—The undermentioned officers resign their commissions, dated February 21st, 1912: Lieutenant-Colonel Sir THOMAS BARLOW, K.C.V.O., M.D.; Major AUGUSTUS J. PEPPER, M.B., F.R.C.S.; Captain HENRY A. CALEY, M.D.; Captain HORACE S. COLLIER, M.D.; Captain RUPERT T. H. BUCKNALL, M.D., F.R.C.S.

Second London Sanitary Company.—PERCY NORMAN CAVE to be Lieutenant, dated January 9th, 1912.

Attached to other than Medical Units.—Lieutenant JOHN C. S. BURKITT, M.D., to be Captain, dated January 9th, 1912; Lieutenant REGINALD W. IRONSIDE resigns his commission, dated February 21st, 1912; Captain JOHN A. GIBB resigns his commission, dated February 21st, 1912.

For Attachment to Units other than Medical Units.—JAMES HAMILTON (late Captain 5th Battalion the Queen's Own Loyal West Kent Regiment) to be Captain, dated February 3rd, 1912; DOUGLAS LARMER WALL, M.B., to be Lieutenant, dated February 21st, 1912.

Third West Riding Field Ambulance.—Captain (Honorary Captain in Army) F.A. HADLEY, F.R.C.S., to be Major, dated November 15th, 1911.

Third West Lancashire Field Ambulance.—MITCHELL INNES DICK, M.B., to be Lieutenant, dated December 15th, 1911.

CHANGES OF STATION.

THE following changes of station amongst the officers of the Army Medical Service have been officially reported to have taken place during January:

	FROM	TO
Surgeon-General T. M. Corker, M.D.	Cairo	Lucknow.
Colonel H. J. Barratt	Straits Settlements	Allahabad.
,, W. W. Pike, D.S.O., F.R.C.S.I.	Cairo	Bombay.
Lieut.-Colonel M. J. Sexton, M.D. ...	Dublin	Wynberg.
,, J. V. Salvage, M.D. ...	Muttra	Secunderabad.
,, J. Donaldson	Aldershot ...	India.
,, A. L. F. Bate	Rawal Pindi ...	W. Command.
,, E. A. Burnside ...	Golden Hill ...	Bellary.
,, W. L. Gray, M.B. ...	Winchester ...	India.
Major L. Way	Cosham ...	,,
,, G. S. McLoughlin, D.S.O., M.B.	Golden Hill ...	Winchester.
,, F. W. Begbie	Ipswich ...	Colchester.
,, J. Hennessy, M.B.	Poonamallee ...	S. Command.
,, L. P. More, M.B.	Portsmouth ...	Secunderabad.
,, F. A. Symons, M.B.	Ceylon	Cosham.
,, K. B. Barnett, M.B., F.R.C.S.I.	Shorncliffe ...	Brighton.
,, A. C. Fox	Tientsin ...	Ireland.
,, J. P. Silver, M.B.	Edinburgh ...	Dublin Dist.
,, S. W. Sweetnam	Colaba	Kirkee.
,, E. B. Steel, M.B.	Delhi	Muttra.
,, St. J. B. Killery	Jersey	Leeds.
,, M. Swabey	Wellington ...	St. Thomas's Mount.
,, C. F. Wanhill	R.A.M. Coll. ...	India.
,, E. W. P. V. Marriott	Dublin	Mullingar.
,, H. G. F. Stallard	Peshawar ...	Nowshera.
,, P. H. Collingwood	Plymouth ...	Devonport.
,, E. P. Hewitt	Secunderabad	Poonamallee.
,, R. H. Lloyd	Exeter	Ferozepore.
,, J. M. Sloan, D.S.O., M.B. ...	Aberdeen ...	Quetta.
,, A. Chopping	Peshawar ...	E. Command
,, L. Wood	Manchester ...	India.
,, H. S. Roch	York	S. Africa.
,, W. A. Woodside	Ipswich ...	Agra.
,, E. P. Connolly	Cardiff	Lahore.
,, F. G. Richards	Jamaica ...	Irish Comd.
,, P. S. O'Reilly	Wellington ...	Secunderabad.
,, C. S. Smith, M.B.	Mullingar ...	India.
,, P. C. Douglass	Weedon ...	,,
Captain L. L. G. Thorpe	Netley	Golden Hill.
,, C. E. Fleming, M.B.	Colchester ...	Potchefstroom
,, F. A. Stephens	Birmingham ...	Rawal Pindi.
,, R. F. M. Fawcett	Gosport ...	India.
,, E. W. Powell	Aden	Cork District.
,, H. A. Bransbury	Woolwich ...	India.
,, M. W. Falkner, F.R.C.S.I. ...	Curragh ...	Bermuda.
,, J. H. Barbour, M.B.	Jubblepore ...	Nowgong.
,, F. E. Rowan-Robinson, M.B.	Norwich ...	Bermuda.
,, J. S. Bostock, M.B.	Delhi	Agra.
,, F. W. W. Dawson, M.B. ...	Dublin	Ambala.
,, J. A. W. Webster	Kilkenny ...	Cork.
,, R. C. Wilmot	Warley	Colchester.
,, H. T. Stack, M.B.	Belfast	India.
,, O. Ievers, M.B.	Wynberg ...	Dublin.
,, J. D. Richmond, M.B. ...	Inverness ...	Glasgow.
,, H. C. Sidgwick, M.B.	Woolwich ...	Kingston-on-Thames.
,, H. O. M. Beadnell	— ...	W. Command.
,, H. G. Sherren	Colaba	Aldershot.
,, C. E. W. S. Fawcett, M.B. ...	Thayetmyo ...	Dublin Dist.
,, V. H. Symons	Bloemfontein ...	Belfast.
,, M. J. Cromie	Delhi	Dublin Dist.
,, E. T. Potts, M.D.	Pretoria ...	Ireland.
,, M. Keane	Meerut	E. Command.
,, C. F. White, M.B.	Jhansi	S. Command.
,, F. C. Sampson, M.B.	Potchefstroom	Scottish Com.
,, P. J. Marett	Malta	E. Command.
,, A. S. Littlejohns	Pretoria ...	Wynberg.
,, C. T. Edmunds	Dehra Dun ...	Peshawar.
,, R. E. U. Newman, M.B. ...	Murree	Rawal Pindi.
,, E. M. O'Neill, M.B.	Nowgong ...	Jhansi.
,, G. B. Edwards	Mauritius ...	S. Command.
,, W. J. E. Bell, M.B.	Hong Kong ...	,,
,, D. T. MacCarthy, M.B. ...	Lucknow ...	Shwebo.
,, E. C. Phelan, M.B.	Lebong	Calcutta.
,, F. T. Turner	Purandhar ...	Colaba.
,, O. R. McEwen	Multan	Simla.
,, V. T. Carruthers, M.B., F.R.C.S.Edin.	Ceylon	Cork District.
,, H. V. B. Byatt	Poona	Bombay.
,, C. A. T. Conyngham, M.B. ...	Dehra Dun ...	Quetta.
,, W. A. Spong, M.B.	Quetta	Karachi.
,, C. P. O'Brien Butler	Poona	Purandhar.
Captain J. F. Grant, M.B.	Allahabad ...	Bhamo.
,, A. Shepherd, M.B.	Delhi	Agra.
,, W. H. S. Burney	Curragh ...	Dublin.
Lieutenant J. Startin	Kirkee	Poona.
,, J. A. Manifold, M.B. ...	Glasgow ...	Bermuda.
,, S. S. Dykes, M.B.	Piershill ...	India.
,, C. T. V. Benson	Deepcut ...	,,
,, R. C. Priest, M.B.	Colchester ...	Lucknow.
,, P. S. Tomlinson	Tidworth ...	India.
,, F. W. M. Cunningham, M.D.	Curragh ...	,,
,, A. W. Bevis	Chatham ...	South Africa.
,, O. W. McSheehy	Taunton ...	Pietermaritzburg.
,, M. J. Williamson, M.B. ...	Tidworth ...	S. Africa.
,, C. L. Franklin, M.B. ...	Preston ...	,, ,,
,, M. White, M.B.	Lucknow ...	Allahabad.
,, H. F. Joynt, M.B.	Hounslow ...	Bloemfontein.
,, J. R. Yourell, M.B. ...	—	Rangoon.
,, T. H. Dickson, M.B. ...	Dublin	Curragh.
,, R. C. G. M. Kinkead, M.B.	Queenstown ...	Cork.
,, E. C. Stoney, M.B.	Colchester ...	India.
,, T. W. Stallybrass, M.B. ...	Netley	Egypt.
,, E. T. Gaunt, M.B.	Shorncliffe ...	Dover.
,, R. F. Bridges, M.B. ...	Shorncliffe ...	Canterbury.
,, J. K. Gaunt, M.B.	Fermoy ...	Limerick.
,, C. D. K. Seaver	,, ...	Ballincollig.
,, W. T. Graham, M.B. ...	Birmingham ...	Oxford.

Vital Statistics.

THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

[SPECIALLY REPORTED FOR THE "BRITISH MEDICAL JOURNAL."]

THE Registrar-General has just issued his return relating to the births and deaths in the fourth quarter of last year, and to the marriages during the three months ending September last. The marriage-rate during that period was equal to 17.1 per 1,000, which was slightly less than the average rate for the corresponding period of the ten preceding years.

The 209,269 births registered in England and Wales during the quarter under notice were equal to an annual rate of 23.0 per 1,000 of the estimated population; the birth-rate last quarter was 3.0 per 1,000 below the average for the fourth quarters of the ten preceding years, and is the lowest rate recorded in the corresponding period of any year since the establishment of civil registration. Among the several counties the birth-rates last quarter ranged from 17.3 in Sussex, 18.1 in Carnarvonshire, 18.6 in Dorsetshire, and 18.9 in Somersetshire and in Herefordshire; the highest rates were 25.4 in Warwickshire, 25.6 in the North Riding of Yorkshire, 26.2 in Staffordshire, 28.3 in Monmouthshire and in Glamorganshire, and 29.1 in Durham. In seventy-seven of the largest towns, including London, the birth-rate averaged 24.4 per 1,000; in London the rate was 24.0 per 1,000, while among the other large towns the rates ranged from 14.3 in Bournemouth, 15.0 in Hornsey and Hastings, 17.6 in Halifax, 18.4 in Bradford, and 18.8 in Huddersfield, to 30.3 in Middlesbrough, 30.7 in Stockton-on-Tees, 31.0 in West Bromwich, 31.1 in Bootle, 31.4 in St. Helens, and 32.9 in Rhondda.

The excess of births over deaths during the quarter was 85,484, against 90,061, 92,147, and 86,310 in the corresponding quarters of the three preceding years. From a return issued by the Board of Trade it appears that the passenger movement between the United Kingdom and places outside Europe resulted in a net balance outward of 30,046 English passengers, 1,165 Welsh, 7,675 Scottish, 4,766 Irish, and 15 British Colonial passengers; the number of alien arrivals exceeded the departures by 7,901.

During the three months under notice the deaths of 123,785 persons were registered, equal to an annual rate of 13.6 per 1,000, against an average rate of 15.4 per 1,000 in the fourth quarters of the ten preceding years. The lowest county death-rates last quarter were 10.3 in Middlesex, 10.7 in Surrey, 10.9 in Dorsetshire, and 11.1 in Hertfordshire and in Northamptonshire; the highest rates were 14.6 in the West Riding of Yorkshire, 14.7 in the North Riding, 15.0 in Carnarvonshire, 15.2 in Staffordshire and in the East Riding of Yorkshire, 15.7 in Durham, and 16.1 in Lancashire. The death-rate in seventy-seven of the largest towns averaged 14.7 per 1,000; in London the rate was 14.3 per 1,000, while among the other towns the rates ranged from 8.7 in King's Norton, 9.3 in Willesden, 9.4 in Hornsey, 9.7 in Walthamstow, 10.2 in Devonport, and 10.9 in Burton-on-Trent, to 18.0 in Bootle, 18.1 in Stoke-on-Trent and in Burnley, 18.3 in Oldham, and 18.9 in Liverpool and in Sunderland; in 136 of the smaller towns the death-rate averaged 12.6 per 1,000, and was 12.7 per 1,000 in the remainder of the country.

The 123,785 deaths from all causes last quarter included 9,070 which were referred to the principal epidemic diseases; of these 3,743 were attributed to diarrhoea and enteritis among children under 2 years of age, 1,462 to diphtheria, 1,264 to measles, 1,115 to whooping-cough, 933 to enteric fever, and 553 to scarlet fever; the mortality from each of these diseases was below the average, except in the case of diarrhoea and enteritis, for which the comparative figure is not available.

The rate of infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births was equal to 115 per 1,000, or 21 per 1,000 less than the average rate in the corresponding quarters of the ten preceding years. Among the several counties the rates of infant mortality last quarter ranged from 59 in Herefordshire, 62 in Dorsetshire, 65 in Somersetshire, 69 in Berkshire, and 71 in Hertfordshire and in Wiltshire, to 128 in the West Riding of Yorkshire, 130 in the North Riding, 132 in Staffordshire and in Northumberland, 146 in Lancashire, and 149 in Durham. In seventy-seven of the largest towns the rate averaged 125 per 1,000, and ranged from 60 in Hornsey, 68 in Ipswich, 69 in Devonport and in Burton-on-Trent, 73 in Walthamstow, and 75 in Hastings, to 183 in Sunderland, 186 in Oldham, 187 in Wigan, 189 in Preston, and 195 in Burnley.

The death-rate among persons aged 1 to 65 years was 7.4 per 1,000 of the population estimated to be living at this group of ages; in the seventy-seven large towns the death-rate at this age-group averaged 8.4 per 1,000, and ranged from 4.8 in King's Norton, 4.9 in Hastings, 5.3 in Reading, and 5.5 in Willesden, to 10.6 in Stoke-on-Trent and in Sunderland, 10.9 in Burnley, 11.4 in Oldham, and 11.8 in Liverpool.

Among persons aged 65 years and upwards the annual rate of mortality was 87.9 per 1,000; the corresponding rate averaged 101.7 per 1,000 in the seventy-seven large towns, and ranged from 57.8 in Devonport, 61.7 in Coventry, 65.2 in King's Norton, 70.8 in Merthyr Tydfil, and 72.2 in Northampton, to 126.6 in Barrow-in-Furness, 130.9 in

Salford, 134.6 in Dewsbury, 141.0 in South Shields, and 141.8 in West Hartlepool.

The mean temperature of the air last quarter was above the average, the excess being slight in the northern and south-western districts, but larger in and around London. The rainfall during the quarter was everywhere greater than the average, the excess amounting to as much as 57 per cent. in London and to 69 per cent. over the south-eastern district generally. The duration of bright sunshine exceeded the average in London and in the central and western districts, while there was a slight deficiency in the eastern and Channel districts.

HEALTH OF ENGLISH TOWNS.

In ninety-four of the largest English towns 8,458 births and 5,645 deaths were registered during the week ending Saturday, February 24th. The annual rate of mortality in these towns, which had been 18.6, 21.6, and 18.6 per 1,000 in the three preceding weeks, declined to 16.8 per 1,000 in the week under notice. In London last week the death-rate did not exceed 15.4 per 1,000, against 17.7, 20.3, and 18.1 in the three preceding weeks. Among the ninety-three other large towns the death-rates ranged from 6.9 in Ilford, 7.8 in Southend-on-Sea, 8.1 in Enfield, 8.3 in Wimbledon, 8.8 in Ealing, and 9.2 in Northampton, to 24.8 in Rhondda, 24.9 in Salford, 26.5 in West Bromwich, 27.0 in Walsall, 27.4 in Dudley, and 31.4 in Great Yarmouth. Measles caused a death-rate of 1.6 in Nottingham, 1.7 in Rhondda, 1.9 in Oxford, 2.1 in Warrington, 2.2. in Salford, and 3.0 in Wakefield; and whooping-cough of 1.6 in Edmonton and in Birkenhead, 2.3 in West Bromwich, 3.4 in Walsall, 4.6 in Great Yarmouth, and 5.1 in Merthyr Tydfil. The mortality from the remaining epidemic diseases showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 40, or 0.7 per cent., of the deaths recorded in the ninety-four towns last week were not certified either by a registered medical practitioner or by a coroner after inquest, and included 8 in Birmingham and in Liverpool, 3 in Southport and in Rotherham, and 2 in Darlington and in Gateshead. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,500, 1,512, and 1,461 at the end of the three preceding weeks, had further declined to 1,427 on Saturday last; 181 new cases were admitted during the week, against 169, 178, and 154 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

In eighteen of the largest Scottish towns 1,102 births and 775 deaths were registered during the week ended Saturday, February 24th. The annual rate of mortality in these towns, which had been 22.8 and 22.1 in the two preceding weeks, declined again to 18.5 per 1,000 in the week under notice, but was 1.7 per 1,000 above the rate recorded in the ninety-four large English towns. Among the several Scottish towns the death-rate last week ranged from 6.1 in Falkirk, 8.8 in Motherwell, and 10.6 in Partick, to 22.7 in Paisley, 23.3 in Ayr, and 23.4 in Greenock. The mortality from the principal epidemic diseases averaged 2.9 per 1,000, and was highest in Coatbridge and Ayr. The 325 deaths from all causes registered in Glasgow included 41 from measles, 10 from diphtheria, 4 from whooping-cough, 4 from infantile diarrhoea, and 2 from enteric fever. Four deaths from measles, 2 from whooping-cough, and 2 from diphtheria were recorded in Edinburgh; 5 deaths from measles in Greenock, 3 in Kilmarnock, and 3 in Aberdeen; 3 deaths from diphtheria in Leith and 2 in Coatbridge; and 5 deaths from whooping-cough in Ayr.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, February 17th, 679 births and 590 deaths were registered in the twenty-two principal urban districts of Ireland, as against 526 births and 688 deaths in the preceding period. The annual death-rate in these districts, which had been 22.3, 24.6, and 31.0 per 1,000 in the three preceding weeks, fell to 26.6 per 1,000 in the week under notice, this figure being 8.0 per 1,000 higher than the mean average death-rate in the ninety-four English towns for the corresponding period. The figures in Dublin and Belfast were 23.9 and 33.1 respectively, those in other districts ranging from 5.3 in Tralee and 6.6 in Queenstown to 35.7 in Dundalk and 41.2 in Armagh, while Cork stood at 26.5, Londonderry at 16.6, Limerick at 21.7, and Waterford at 30.4. The zymotic death-rate in the twenty-two districts averaged 1.9 per 1,000, as against 2.2 in the preceding period.

During the week ending Saturday, February 24th, 566 births and 545 deaths were registered in the twenty-two principal urban districts of Ireland, as against 679 births and 590 deaths in the preceding period. The annual death-rate in these districts, which had been 24.6, 31.0, and 26.6 per 1,000 in the three preceding weeks, fell to 24.6 per 1,000 in the week under notice, this figure being 7.8 per 1,000 higher than the mean average death-rate in the ninety-four English towns for the corresponding period. The figures in Dublin and Belfast were 23.3 and 26.9 respectively, those in other districts ranging from 6.9 in Armagh and 9.2 in Ballymena to 38.0 in Waterford and 43.3 in Galway, while Cork stood at 24.5, Londonderry at 12.7, and Limerick at 23.1. The zymotic death-rate in the twenty-two districts averaged 1.2 per 1,000, as against 1.9 in the preceding period.

CENTRAL MIDWIVES BOARD.

A meeting of the Central Midwives Board was held on February 22nd at Caxton House, Westminster, Sir Francis H. Champneys in the chair.

Certificates of Attendance.

Letters were considered from the Superintendent of the Rescue and Maternity Homes, Moss Side, Manchester, and from Dr. C. W. Brown, of Manchester, asking that candidates whose certificates of attendance on cases and attendance during the lying-in period are not signed in accordance with the existing rules may nevertheless be admitted to the next examination. The Board decided to inform both inquirers that the candidates cannot be admitted to the examination, their schedules not having been signed in accordance with the rules.

Suspension of Midwives.

Letters were considered from Dr. W. J. Howarth, County Medical Officer for Kent, reporting the suspension of two midwives for a period in excess of twenty-four hours, with the special circumstances in connexion with the cases. The Board directed that Dr. Howarth be thanked for his communications, and that he be informed that the action taken is approved by the Board.

Antiseptics.

A letter was considered from a certified midwife inquiring as to the antiseptics to be used for cleansing the infant's eyelids, as prescribed in Rule E 2 (*b*). The Board decided that the reply be that the Board has designedly refrained from prescribing the use of specific antiseptics.

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Second and Third House-Surgeons. Salary, £80 and £75 per annum respectively.

BIRMINGHAM: ROYAL ORTHOPAEDIC AND SPINAL HOSPITAL.—Clinical Assistant. Honorarium, £25.

BRADFORD ROYAL INFIRMARY.—Two Male House-Surgeons. Salary, £100 per annum.

BRIGHTON AND HOVE HOSPITAL FOR WOMEN.—House-Surgeon. Salary at the rate of £80 per annum.

BRISTOL EYE HOSPITAL.—House-Surgeon. Salary, £80 per annum.

BRISTOL ROYAL HOSPITAL FOR SICK CHILDREN AND WOMEN.—Junior Resident Officer. Salary, £30 per annum.

BURTON-ON-TRENT INFIRMARY.—House-Surgeon. Salary commencing at £120 per annum.

CANCER HOSPITAL, Fulham Road, S.W.—(1) Assistant Pathologist. Salary, £350 per annum. (2) House-Surgeon. Salary at the rate of £70 per annum.

CARLISLE: CUMBERLAND INFIRMARY.—Resident Medical Officer (male) to act as House-Physician and House-Surgeon for six months each. Salary at the rate of £80 and £100 per annum respectively.

CARLISLE NON-PROVIDENT DISPENSARY.—Resident Medical Officer. Salary, £150 per annum.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—Clinical Assistant.

CHORLEY: RAWCLIFFE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Clinical Assistant in the Out-patient Department.

DAVOS: QUEEN ALEXANDRA SANATORIUM.—Junior Medical Officer. Salary, £100 per annum.

DERBY: COUNTY ASYLUM, Mickleover.—Junior Assistant Medical Officer (male). Salary, £120 per annum, rising to £150.

DORSET COUNTY HOSPITAL, Dorchester.—House-Surgeon. Salary, £100 per annum.

DOVER: ROYAL VICTORIA HOSPITAL.—House-Surgeon. Salary, £100 per annum.

DUMBARTON COUNTY COUNCIL.—Medical Officer. Salary, £450 per annum.

EALING: KING EDWARD MEMORIAL HOSPITAL.—Resident Medical Officer. Salary at the rate of £80 per annum.

EDINBURGH HOSPITAL FOR WOMEN AND CHILDREN.—Two Medical Women as Residents, one as Senior and the other as Junior. Honorarium, £25 and £12 per annum respectively.

GLOUCESTERSHIRE ROYAL INFIRMARY AND EYE INSTITUTION.—Senior House-Surgeon. Salary, £100 per annum.

HEMEL HEMPSTEAD: WEST HERTS HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

KENSINGTON DISPENSARY AND CHILDREN'S HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

LANCASHIRE EDUCATION COMMITTEE, Preston.—School Medical Inspector (male). Salary, £250 per annum, rising to £400.

LIVERPOOL INFIRMARY FOR CHILDREN.—(1) Resident House-Surgeon; (2) Resident House-Physician. Salary at the rate of £60 per annum each.

LOUGHBOROUGH AND DISTRICT GENERAL HOSPITAL AND DISPENSARY.—Resident House-Surgeon. Salary, £100 per annum.

MACCLESFIELD GENERAL INFIRMARY.—Junior House-Surgeon. Salary, £60 per annum.

MANCHESTER SCHOOLS FOR MOTHERS.—Medical Officer. Salary, £250 per annum.

MANCHESTER CHILDREN'S HOSPITAL, Pendlebury.—(1) Resident Medical Officer. Salary, £40 for first six months, and £50 for second six months, and not £40 per annum as printed last week. (2) Assistant Medical Officer for the Out-patient Department. Salary, £50 per annum.

OXFORD: RADCLIFFE INFIRMARY AND COUNTY HOSPITAL.—Casualty Officer. Salary at the rate of £100 per annum.

OXFORD: UNITED DISTRICTS OF BANBURY (RURAL), CHIPPING NORTON, WITNEY, AND WOODSTOCK.—Medical Officer of Health. Salary, £400 per annum.

PLYMOUTH: SOUTH DEVON AND EAST CORNWALL HOSPITAL.—House-Physician. Salary, £75 per annum.

PORTSMOUTH: ROYAL PORTSMOUTH HOSPITAL.—House-Physician. Salary at the rate of £75 per annum.

PRESCOT UNION.—Resident Medical Officer for Infirmary and Workhouse. Salary, £120 per annum.

PRESTON ROYAL INFIRMARY.—Junior House-Surgeon (male). Salary at the rate of £60 per annum.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney Road, E.—Surgeon-in-Charge of the Ear, Nose, and Throat Department.

ROBBEN ISLAND LEPER SETTLEMENT.—Bacteriologist for Research Work. Salary, £400 per annum.

ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House-Surgeon (male). Salary, £80 per annum.

ROYAL EAR HOSPITAL, Soho, W.—House-Surgeon (non-resident). Honorarium, £40 per annum.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Clinical Assistant.

ST. BARTHOLOMEW'S HOSPITAL, E.C.—Assistant Physician.

SALFORD ROYAL HOSPITAL.—(1) House-Surgeon; (2) Junior House-Surgeon; (3) Casualty House-Surgeon. Salary at the rate of (1) £75 per annum, and for (2) and (3) £65 per annum.

SALOP INFIRMARY.—House-Physician. Salary at the rate of £70 per annum.

SHEFFIELD UNION HOSPITAL.—Resident Assistant Medical Officer. Salary, £100 per annum.

SLEAFORD: KESTEVEN COUNTY ASYLUM.—Assistant Medical Officer. Salary, £150, with board, etc.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—House-Physician. Salary, £82 per annum, and £5 honararium after six months' approved service.

THROAT HOSPITAL, Golden Square, W.—(1) Resident House-Surgeon. Salary, £75 per annum. (2) Surgical Registrar.

WALSALL AND DISTRICT HOSPITAL.—(1) House-Surgeon: (2) House-Physician and Casualty Officer. Salary, £120 and £90 per annum respectively.

WARRINGTON INFIRMARY AND DISPENSARY.—Junior House-Surgeon. Salary at the rate of £100 per annum.

WEST END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM, Welbeck Street, W.—Resident House-Physician. Salary at the rate of £50 per annum.

WEST LONDON HOSPITAL, Hammersmith Road, W.—(1) Two House-Physicians; (2) Three House-Surgeons. Appointments for six months.

WEST SUSSEX SOUTHERN UNITED (M.O.H.) DISTRICTS.—Medical Officer of Health. Salary, £350 per annum.

WEST SUSSEX AND CHICHESTER JOINT EDUCATION COMMITTEE.—Assistant School Medical Officer. Salary, £150 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacant appointments: Cliffe (Kent), Drum (co. Monaghan), Morley (Yorkshire, West Riding), Penarth (Glamorganshire).

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

APPOINTMENTS.

ADDISON, W. B., M.B., B.C.Cantab., Certifying Factory Surgeon for the St. Mary's (Scilly Isles) District (co. Cornwall).

AGASSIZ, C. D. S., M.B., Ch.B.Aberd., D.P.H., Resident Medical Officer at the City of London Hospital for Diseases of the Chest, Victoria Park, E.

ASHKENNY, A., M.B., Ch.B., B.Sc.(Public Health), School Medical Officer, City of Birmingham, Education Department.

BYRNE, J. A., L.M.S.S.A.Lond., Certifying Factory Surgeon for the Youlgrave District (co. Derby).

DAVIES, J. P. H., B.A., B.C.Cantab., M.R.C.S.Eng., L.R.C.P.Lond., D.P.H., House-Physician at the City of London Hospital for Diseases of the Chest, Victoria Park, E.

DENYER, Stanley E., C.M.G., M.D.Camb., F.R.C.S.Eng., Honorary Aural Surgeon to the Hull, East Yorkshire, and Lincolnshire Institution for the Deaf and Dumb.

DOBRASHIAN, G. Margaret, M.B., B.S.Lond., Resident Medical Officer, Ransom Sanatorium, Sherwood Forest, near Mansfield.

DORRELL, E. A., F.R.C.S.Eng., Ophthalmic Surgeon to the Eastern Dispensary.

EGGLESTONE, Henry, M.B., B.S.Durh., Assistant Medical Officer, Brislington House, near Bristol.

HARE, Mr. J. G., Demonstrator in Bacteriology, King's College, University of London.

HARRIS, H. A., M.R.C.S., L.R.C.P., Resident Medical Officer at the British Lying-In Hospital.

HIGGINS, A. G., M.R.C.S., L.R.C.P., Certifying Factory Surgeon for the Newent District (co. Gloucester).

MCNAUGHTON, Stewart, M.B.Edin., D.P.H.Camb., Honorary Physician to the Monkwearmouth and Southwick Hospital, vice Dr. Robert Stobo, elected Honorary Consulting Physician.

MAYNE, W. J. F., M.B., Ch.B., Medical Attendant to the Royal Irish Constabulary, Medical Officer to the Post Office, and Registrar of Births, Deaths, and Marriages, Pomeroy (co. Tyrone).

SIBLEY, W. Knowsley, M.A., M.D., M.R.C.P.Lond., promoted to the Senior Staff of St. John's Hospital for Diseases of the Skin, Leicester Square, W.C.

SMITH Frederic B., M.R.C.S., L.R.C.P., House-Physician to the Warneford, Leamington, and South Warwickshire General Hospital, Leamington Spa.

SMITH, G. F. R., M.B., Ch.B.Liverpool, M.B., B.S.Lond., Honorary Assistant Surgeon, Royal Alexandra Hospital, Rhyl, North Wales.

THOM, Jessie, M.A., M.B., Resident Medical Officer to the Clapham Maternity Hospital.

WATSON, George W., M.D., M.R.C.P., M.R.C.S., Full Honorary Physician to the Leeds Association for the Prevention and Cure of Tuberculosis.

WEDGWOOD, W. B., M.R.C.S.Eng., L.S.A., Certifying Factory Surgeon for the King's Lynn (No. 2) District (co. Norfolk).

MANCHESTER ROYAL INFIRMARY.—The following appointments have been made:

Medical Officer at the Central Branch.—A. E. Woodhall, M.D., Ch.B., M.Sc.Vict.

House-Physicians.—Kenneth Bean, M.B., Ch.B.Vict.; James Walker, M.B., Ch.B.Vict.

Senior House-Surgeons.—E. Grey, M.B., Ch.B.Vict.; E. Moritz, M.B., Ch.B.Vict.

Junior House-Surgeon.—G. E. Sawdon, M.B., Ch.B.Vict.

Assistant Director of the Clinical Laboratory.—C. E. Lea, M.D. (reappointment).

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTH.

HARRIS-LISTON.—On February 28th, at Middleton Hall, Middleton St. George, co. Durham, to Dr. and Mrs. Harris-Liston—a son.

MARRIAGE.

FAGAN—LONGMAN-BROADLEY.—The marriage arranged between Dr. J. P. Fagan, Principal Medical Officer, Northern Nigeria, and Miss Vera Longman-Broadley will take place quietly on March 6th.

DEATHS.

OGILVY-RAMSAY.—On Thursday, February 15th, at 5, Portland Square, Carlisle, Maxwell Ogilvy-Ramsay, M.A.St. Andrews, M.D., F.R.C.S.Edin., Honorary Surgeon to the Cumberland Infirmary.

OLIVER.—On February 22nd, at 7, Ellison Place, Newcastle-on-Tyne, Emma Octavia, aged 58, wife of Sir Thomas Oliver, M.D.

PUBLISHERS' ANNOUNCEMENTS.

MESSRS. P. BLAKISTON'S SON AND CO. announce the publication of the following works: *Pharmaceutical Bacteriology, with Special Reference to Disinfection and Sterilization*, by Albert Schneider, M.D., Ph.D., Professor of Pharmacognosy, Histology, and Bacteriology, California College of Pharmacy; Pharmacognosist, United States Department of Agriculture; with 86 illustrations; and *A Manual of Practical Physiology*, by John C. Hemmeter, M.D., Ph.D., Professor of Physiology in the University of Maryland, Baltimore, with 55 illustrations.

Messrs. Baillière, Tindall, and Cox announce the following for immediate publication: *Acromegaly: A Personal Experience*, by Dr. Leonard Mark; *A Surgical Treatment of Locomotor Ataxia*, by L. N. Denslow, M.D.; *The Treatment, Prevention, and Cure of Tuberculosis and Lupus with Allyl Sulphide*, by Wm. C. Minchin, M.D. The same firm announces the approaching publication of a small book, which will be of service to those members of the medical profession who keep horses—namely, *The Economics of Horse Feeding*, by Professor W. A. Woodruff, F.R.C.V.S. A new edition of Sir William Whitla's *Dictionary of Treatment*, which has been out of print for some years, is also nearly ready, and will be published next month by Messrs. Baillière, Tindall, and Cox.

RECENT PUBLICATIONS.

Paris Partout (14, Rue Vignon, Paris. 60 c.)

A railway guide, doing for Paris what the alphabetical guides familiar to Londoners and the citizens of many other British towns do for those towns.

Our Baby: For Mothers and Nurses. By Mrs. J. Langton Hewer. Thirteenth edition; illustrated. Bristol: John Wright and Sons. London: Simpkin, Marshall, Hamilton, Kent and Co., Ltd. 1911. (Crown 8vo, pp. 176. Price 1s. 6d. net.)

A good example of books of this order. The preface points out that every child has its own peculiarities, and that if mothers only knew something of the general principles underlying the successful rearing of healthy children they would be able to adapt them to each individual case.

DIARY FOR THE WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 9 p.m.—Dr. A. E. Garrod, F.R.S.: The Third Lettsomian Lecture on Glycosuria.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Lecture by Professor Arthur Keith: Important Phases in the Evolution of Man.

TUESDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Second Milroy Lecture by Dr. F. A. Bainbridge: Paratyphoid Fever and Meat Poisoning.

ROYAL SOCIETY OF MEDICINE:

SECTION OF ANAESTHETICS, 15, Cavendish Square, 5.30 p.m.—Joint Meeting with Surgical Section and Medical Section. Resumption of the Debate on Partial Thyroidectomy under Local Anaesthesia, with special reference to Exophthalmic Goitre. To be opened by Mr. A. E. Barker.

Royal Society of Medicine:
Pathological Section, at Pathological Laboratory, Royal Army Medical College, Grosvenor Road, S.W., 8.30 p.m.—Colonel W. H. Horrocks: Variability of the Typhoid Bacillus. Major W. S. Harrison: Joint Culture in Rheumatic Fever. Lieutenant-Colonel Sir William Leishman: Further Observations on Tick Fever. Major S. L. Cummins: Observations on a Typhoid Carrier. Captain J. C. Kennedy: A Case of Actinomycosis.

WEDNESDAY.

Royal College of Surgeons of England, Lincoln's Inn Fields, W.C., 5 p.m.—Lecture by Professor Arthur Keith: Important Phases in the Evolution of Man.

Royal Society of Medicine:
Balneological and Climatological Section, 15, Cavendish Square, 5.30 p.m.—Paper:—Dr. Armstrong (Buxton): The Spa Treatment of Neuritis.

THURSDAY.

North-East London Clinical Society, Prince of Wales's Hospital, Tottenham, 4.15 p.m.—Clinical Meeting.

Royal College of Physicians of London, Pall Mall East, S.W., 5 p.m.—Third Milroy Lecture by Dr. F. A. Bainbridge: Paratyphoid Fever and Meat Poisoning.

Royal Society of Medicine:
Obstetrical and Gynaecological Section, 15, Cavendish Square, 8 p.m.—(1) Exhibition of Specimens. (2) Short Communications:—Dr. Briggs: Caesarean Section in a Case of Dystocia due to Loops of Cord round Fetus at Term. Dr. Fothergill: The Classification of Disease. Dr. Glendining: Fibro-adenoma of the Ovarian Fimbria and the Question of Accessory Ovary. Dr. Lockyer: Embryotomy after Version for Placenta Praevia.

FRIDAY.

King's College Hospital Medical Society, 8.20 p.m.—Clinical Meeting.

Royal College of Surgeons of England, Lincoln's Inn Fields, W.C., 5 p.m.—Lecture by Professor Arthur Keith: Important Phases in the Evolution of Man.

Royal Society of Medicine, 15, Cavendish Square, 4.45 p.m.—General Meeting of Fellows.
Clinical Section, 15, Cavendish Square, 8.30 p.m.—Demonstration of Cases and Specimens.

University College, Gower Street, W.C., 5 p.m.—Seventh Page May Memorial Lecture by Dr. Henry Head, F.R.S.: The Afferent Nervous System.

POST-GRADUATE COURSES AND LECTURES.

Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Cyclical Vomiting.

London School of Clinical Medicine, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat, at noon and 4.30 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Tuesday, and noon, Friday. Eye, 11 a.m., Wednesday and Saturday. Radiography, Saturday, 10 a.m. Pathological Demonstration, Saturday, 11 a.m. Special Lectures: Tuesday, 2.15 p.m., Operations on the Heart and Vessels. Thursday, 4.30 p.m., Applied Anatomy.

Manchester: Angoats Hospital Post-Graduate Clinic, Thursday, 4.15 p.m.—Treatment of Pneumonia.

Manchester Royal Infirmary, Friday, 4.30 p.m.—Tuberculous Disease of the Spine and Hip, with special reference to Early Diagnosis.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Tuesday, 3.30 p.m.: Muscular Atrophy. Friday, 3.30 p.m.: Paths of Sensory Conduction.

North-East London Post-Graduate College, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics: 10 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear; 3 p.m., Demonstration on Clinical and General Pathology. Tuesday, 2.30 p.m., Operations; Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient; 4.30 p.m., Lecture: The Bacteriology of Catarrh. Wednesday, 2 p.m., Throat Operations; 2.30 p.m., Medical Out-patient; Skin and Eye Clinics; *X* Rays; 3 p.m., Pathological Demonstration; 5.30 p.m., Eye Operations. Thursday, 2.30 p.m., Gynaecological Operations. Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient; Pathological Demonstration.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week, at 4 p.m. each day:—Monday: Skin. Tuesday: Medical. Wednesday: Surgical. Thursday: Surgical. Friday: Ear, Nose, and Throat. Lectures, at 5.15 p.m. each day, will be given as follows:—Monday: Showing Cases to Illustrate Lectures. Tuesday: Some Points in the Hygiene of Pregnancy. Wednesday: Some Medical Aspects of Eugenics. Thursday: The Action of Tuberculin and its Application to the Treatment of Different Forms of Tuberculosis. Friday: Cerebro-Spinal Fluid.

Salford Royal Hospital.—Thursday, 4.30 p.m.: The Operative Treatment of Fractures.

West London Post-Graduate College, Hammersmith Road, W.—Monday: Gynaecology, 10 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday: Gynaecological Operations, 10 a.m.; Demonstration of Minor Operations, 11 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday: Gynaecological Demonstration, 10 a.m.; Lecture: Practical Medicine, 12.15 p.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday: Gynaecological Operations, 10 a.m.; Lecture: Practical Medicine, 12.15 p.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m. Special Lectures at 5 p.m. daily.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
MARCH.	
3 Sunday ..	
4 MONDAY ..	
5 TUESDAY ..	
6 WEDNESDAY	
7 THURSDAY ..	Isle of Thanet Division, *South-Eastern Branch*, Victoria Hotel, Hardres Street, Ramsgate, 3.30 p.m.
8 FRIDAY ..	Hampstead Division, *Metropolitan Counties Branch*, Conservatoire, Swiss Cottage, 8.30 p.m.
9 SATURDAY ..	
10 Sunday ..	
11 MONDAY ..	
12 TUESDAY ..	
13 WEDNESDAY	Leicester and Rutland Division, *Midland Branch*, Leicester Infirmary, 4 p.m.
14 THURSDAY ..	Birmingham Branch, Medical Institute, Edmund Street, 3.30 p.m. Walthamstow Division, *Metropolitan Counties Branch*, Whipps Cross Infirmary, 4 p.m.
15 FRIDAY ..	Newcastle-on-Tyne Division, *North of England Branch*, Scientific Meeting, Royal Victoria Infirmary, 3 p.m.–5.30 p.m.
16 SATURDAY ..	
17 Sunday ..	
18 MONDAY ..	
19 TUESDAY ..	
20 WEDNESDAY	Richmond Division, *Metropolitan Counties Branch*, Richmond, 8.30 p.m. Brighton Division, *South-Eastern Branch*, Ordinary Meeting.
21 THURSDAY ..	London: Metropolitan Counties Branch, 4 p.m.
22 FRIDAY ..	
23 SATURDAY ..	
24 Sunday ..	
25 MONDAY ..	
26 TUESDAY ..	Walthamstow Division, *Metropolitan Counties Branch*, Conjoint Meeting with City Division, Livingstone College, Knott's Green, Leyton, 4 p.m.
27 WEDNESDAY	
28 THURSDAY ..	
29 FRIDAY ..	London: Journal Committee, 2 p.m.

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SUPPLEMENT
TO THE
BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MARCH 9TH, 1912.

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Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

DORSET AND WEST HANTS BRANCH:
BOURNEMOUTH DIVISION.

A MEETING of this Division was held on Friday, February 16th, at 3.30 p.m., at Trinity Hall, Bournemouth. Dr. LE FLEMING was in the chair. Seventy members and twenty non-members were present.

Apologies for Non-attendance.—Apologies were received from six members who were unable to be present.

National Insurance Act: Report of Council.

The CHAIRMAN opened the meeting by pointing out that it was almost certain that resolutions, amounting to votes of censure on the Council and on the Chairman of Representatives, would be proposed at the forthcoming meeting of Representatives. He proposed therefore to ascertain the feeling of the members on these two questions, so that their Representative might vote accordingly. With regard to the Council, if such a vote were carried, the result would probably be the resignation of the Council. In such a case no new Council could be elected till May under the by-laws of the Association, consequently further action would be delayed for some time. With regard to the Chairman of Representatives, it must be borne in mind that his explanation was yet to be heard, and this might alter their view. Without it, it was not possible to form a correct opinion.

The discussion was carried on by Drs. GREVES, PARKINSON, SMYTH, MAHOMED, SPINKS, BATLEY, SIMMONS, and others.

Finally the following resolutions were carried by a large majority:

1. That our Representative do not support a vote of censure on the Council if it be proposed.
2. That our Representative be given a free hand if a vote of censure be proposed on the Chairman of Representatives.

The Recommendations of the Council were then discussed. These were agreed to unanimously, with the exception of No. II, against which one member voted.

The CHAIRMAN called attention to the large number of resolutions that had been received from various Divisions. These could be divided into two classes: (1) Those who advocated the policy of having nothing further to do with the Act. (2) Those who supported the more moderate policy of continuing negotiations with the object of obtaining the six cardinal points. He gave his support to the second class, and referred to the impossibility of the Government introducing an amending Act during the coming session.

This policy was also supported by Drs. MAHOMED, HARTFORD, GREVES, VERNON, SPINKS, HEASMAN, and MARTLAND.

Drs. FISKE, BOTTOMLEY, PARKINSON, and ROBERTS THOMSON were in favour of having nothing to do with the Act.

The following resolution was carried unanimously:

That the Bournemouth Division of the British Medical Association and the Bournemouth and District General Practitioners' Union in joint meeting assembled reaffirm their determination not to act professionally under the National Insurance Act until the six cardinal points demanded by the profession be obtained, and we instruct our Representative to vote in accordance with this resolution.

EDINBURGH BRANCH.

THE winter clinical meeting of this Branch was held in the Royal Infirmary, Edinburgh, on Friday, February 23rd, and was attended by about 200 members.

New Clinical Laboratory.—The new clinical laboratory, under the supervision of Drs. Gibson, Hope Fowler, and Ritchie, was opened for inspection by the members for the first time, a demonstration on the orthodiagraph being given at 2.30 p.m.

Museum.—The museum maintained the standard of previous years, and was much appreciated. Large numbers of specimens and diagrams were exhibited from the University surgical and gynaecological departments, and from the skin and pathological departments of the Royal Infirmary. Specimens were also exhibited by Messrs. Caird, Struthers, Wade, Scott Carmichael, Brewis, Fordyce, Watson, and Wilkie.

Demonstrations.—Surgical clinics were given in the Lock department, and surgical out-patient department. A medical clinic was also given by Dr. Byrom Bramwell, the senior physician to the Infirmary. Demonstrations on the therapeutic uses of radium were given by Dr. Dawson Turner, and on *x*-ray treatment and diagnosis by Drs. Hope Fowler and McKendrick. Dr. Webster showed modern methods of hydro-therapeutics and electro-therapeutics in the medical baths, Minto Street.

Clinical Meeting.—This was held in the large surgical theatre at 4 p.m., Dr. Hamilton, president, in the chair. Professors Caird and Alexis Thomson, Mr. Stiles, Mr. Wallace, Mr. Miles, Mr. Struthers, Mr. Beesly, and Mr. Wilkie showed cases of surgical interest. Drs. Gulland, Chalmers Watson, Edwin Bramwell, Cranston Low, and R. A. Fleming presented some interesting medical cases.

Dinner.—A most successful and enjoyable dinner, presided over by Dr. T. R. Ronaldson, Vice-President, in the unavoidable absence of Dr. J. R. Hamilton, President, was held in the Royal British Hotel, Princes Street, at half-past six. There were upwards of sixty practitioners present, including Dr. Haig (Crieff), President, Perthshire Branch; Professors Caird and Alexis Thomson, Drs. Brewis, Logan Turner, John Thomson, Grace Cadell, Alex. James, McKenzie Johnston, G. M. Robertson, A. A. Matheson, Carlyle Johnston (Melrose), Luke (Peebles), O. Hamilton and Dixon (Hawick), Ronaldson (Colinton), James Carmichael, James Ritchie, W. J. Stuart, E. Price, etc. Apologies for absence were received from the Presidents of the Northern Counties of Scotland, Aberdeen, Dundee, Fife, Stirling, Glasgow and West of Scotland, and Border Counties Branches. The harmony of the function was contributed to by Dr. J. M. Darling, Dr. James, Dr. Brewis, and Dr. John Orr.

GLASGOW AND WEST OF SCOTLAND BRANCH;

Glasgow Eastern Division.

A meeting of this Division was held in Bellgrove Hall on Friday, February 16th, at 4 p.m. Dr. W. J. H. Sinclair, Chairman of the Division, presided, and the following thirty-three members composed the sederunt: Drs. W. L. Muir, James Craig, R. McC. Service, John Patrick, T. C. Barras, P. S. Buchanan, Wm. Campbell, J. Wishart Kerr, Jas. Battersby, T. M. Fletcher, Joseph Green, W. A. Parker, Miller Semple, H. A. McLean, G. M. Macleod, J. W. Turner, James Dunlop, J. W. Mathie, A. P. Granger, Malcolm Black, Neil Keith, J. P. Granger, Wm. McFarlane, George Wilson, J. F. Macgregor, Thomas Russell, George Innes, J. S. Ledgerwood, James Gilchrist, Andrew Maguire, Andrew Meek, A. C. Campbell, and William Bryce (Honorary Secretary).

Confirmation of Minutes.—The minutes of the last meeting were read, approved, and signed by the Chairman.

Lunacy Bill (Scotland).—A communication was read from Dr. Thomas Russell, giving notice of motion as follows:

> That the Division consider the Lunacy Bill (Scotland) and take what action may be deemed best.

The Secretary reported that this motion had been considered by the Executive Committee, who unanimously agreed that, as this subject had been discussed at the last meeting of the Division, it was inadvisable that it should now be considered further. On the motion of Dr. Miller Semple, seconded by Dr. Service, it was unanimously agreed to homologate the action of the Executive.

National Insurance Act.

Resolutions with regard to the National Insurance Act from various Branches and Divisions throughout the kingdom were submitted by the Secretary. Some of these were read and the remainder held as read.

The report of the Council on the National Insurance Act, to be laid before the Special Representative Meeting to be held in London on February 20th and 21st, was next considered. The various recommendations were read seriatim by the Secretary.

Recommendation No. 1.—Dr. James Dunlop moved, seconded by Dr. J. P. Granger, "That we agree to Recommendation No. 1." This became the finding of the meeting.

Recommendations No. 2 and 3 were agreed to unanimously.

Recommendation No. 4.—Dr. J. Wishart Kerr moved a direct negative to this, which was seconded by Dr. James Battersby.

Dr. J. P. Granger, seconded by Dr. H. A. McLean, moved, "That we agree to Recommendation No. 4 as approved by the Executive Committee."

After some discussion, Dr. Battersby withdrew his support to Dr. Kerr's motion, and as he failed to find another seconder, it fell, and Dr. Granger's motion became the finding of the meeting.

Recommendation No. 5 was unanimously agreed to.

Recommendation No. 6.—Dr. J. Wishart Kerr moved the following amendment. At the end of line 2 add:

> Consist of six members of Council, twelve from the Representative Body, twenty-four elected by the British Medical Association Branches and grouped Branches, two from the Association of Registered Medical Women, and the *ex officio* members.

On the suggestion of Dr. W. L. Muir he deleted "twenty-four members elected by the British Medical Association Branches and grouped Branches," whereupon Dr. Muir seconded the amendment.

Dr. Miller Semple, seconded by the Honorary Secretary, moved the recommendation as stated by the Council. On a vote, 5 supported the amendment and 23 the motion.

Recommendation No. 6 was then put from the chair and agreed to.

In accordance with these findings the Representative was instructed as to his action at the Representative Meeting.

The question of remuneration was next considered as a result of various recommendations submitted by Dr. J. Wishart Kerr.

Considerable discussion ensued, in which a large number of members present took part, and there was a very free expression of opinion. Ultimately it was agreed to adjourn the discussion to a subsequent meeting.

The meeting separated after a vote of thanks to the Chairman.

SOUTH-EASTERN BRANCH:

Isle of Thanet Division.

A special (the fiftieth) meeting of this Division, to which all medical practitioners in Thanet had been invited, was held at the Victoria Hotel, Ramsgate, on February 13th. Dr. Styan was in the chair, and there were also present: Drs. Richards, Sworder, Chidell, Newell, Sutcliffe, Storar, Brightman, Bennett-Powell, Hamming, Sawers, Summershill, Aytoun, Street, Brunton, Tamplin, Nichol, Woods, Heaton, Biddle, Webb, Francis, Worthington, Archibald, Halstead, Hunt, Johnson, Berry, Mudie, and Raven—thirty members. The following non-members were also present: Drs. Ducherin, Pike, Dundas, Milton, Smythe.

Confirmation of Minutes.—The minutes of the last meeting were read, confirmed, and signed.

Letters.—A letter was read from the Acting Medical Secretary with regard to the calling of the meeting. A letter was read from Dr. Gosse, the Divisional Representative, on the present position.

National Insurance Act: Report of Council.

The Honorary Secretary had had an interview with a member of Parliament with regard to the bill, and read to the meeting his replies to various questions.

The Chairman first introduced the discussion upon the recent report of the Council upon the National Insurance Act, and made an impartial explanation of various points and recommendations.

Dr. Street, who declared himself a "whole-hogger,"

proposed the following resolution, which was seconded by Dr. SUTCLIFFE:

> That it is the opinion of this meeting that the National Insurance Act does not satisfactorily embody the demands of the profession, as embodied in the six cardinal points formulated by the British Medical Association, and, as they are not embodied in the Act, the British Medical Association should decline to attempt to amend or work the Act.

Dr. ARCHIBALD proposed an amendment, which was seconded by Dr. HALSTEAD:

> That this meeting, having read and considered the recommendations of the Council of the British Medical Association published in the SUPPLEMENT of the JOURNAL of February 3rd, 1912, approves the same, and desires that the general policy therein outlined shall be the policy to be recommended for adoption by the Representative of the Isle of Thanet Division at the meeting of Representatives to be held on February 20th and 21st.

A considerable discussion took place, in which Drs. RICHARDS, BENNETT-POWELL, HEATON, WOODS, DUNDAS, CHIDELL, STORAR, SMYTHE, PIKE, and others joined.

The amendment being put to the meeting, it was carried by 13 votes to 10, non-members not voting, and, as a substantive resolution, was carried by 13 votes to 8.

Vote of Thanks to Chairman.—A hearty vote of thanks was passed to the Chairman.

SOUTH-EASTERN OF IRELAND BRANCH.

A LARGELY attended meeting of the medical profession was held in Waterford on February 21st, at one o'clock. Dr. Jos. POWER, President, was in the chair, and twenty practitioners were present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

National Insurance Act.

The PRESIDENT (Dr. Power) delivered an address on the medical aspect of the Insurance Act. He said:

From what I have heard and read I believe some of us have been led to underestimate the danger of the medical position, and believe the elimination of medical benefit ended the perils of the profession. I always held the contrary opinion, and held that it increased them and acted accordingly. This view has been now sustained by the greatest authorities on the matter. (See SUPPLEMENT, BRITISH MEDICAL JOURNAL, February 3rd, page 21, and D 22, page 8, Report of Council of the British Medical Association.)

Medical treatment as an additional benefit ought not to come into existence till after a valuation of the insurance branch, which should take place in about three years. (Vide Clauses 36 and 37 (3)). This I expect will be put forward as a reason for not giving statutory recognition to local Medical Committees at present, whose chief duty it is to protect professional interests under the Act. Yet we will form them at once, and apply for recognition as soon as *the profession decides to work under the measure*, on the ground that there are other duties (according to Clause 62) and powers to be exercised by such committees.

Anyhow it matters little to us whether such committees are recognized or not, as their duties, so far as we are concerned, are specified by the six cardinal principles of the British Medical Association, and confirmed by the mass meeting of medical men held in Dublin. The necessity for such committees becomes apparent when you ask, How are insured persons who are not within the destitute category to obtain treatment during the next three years? Clause 34 explains that it will be possible for them to form "a society independently of the Act." No doubt the promoters will endeavour to get every man to undersell his neighbour, thus immediately injuring our financial status and fixing a reduced standard of payment, to be afterwards adopted as fair remuneration and provided for in the finance of the measure when it comes to be applied generally. However, our local committees, acting subject to local requirements and direction, shall see that a system is established fair to all concerned, and that no individual undertaking is permitted, but that all arrangements must be made through them. Such a system has been in operation in South Tipperary since 1908 with most satisfactory results.

We would be somewhat indifferent to the working of this Act if its provisions did not infringe on private practice; but since the scope of the measure contemplates such intrusion it becomes necessary to ensure that every medical practitioner shall be entitled to take part in the treatment of such insured persons, while the members shall have the opportunity of obtaining the doctor of their choice.

Therefore, the members of each club having been submitted and considered, the profession, through its committees and organization, shall decide the terms and method of attendance; and thus we shall establish a system which must be fair and reasonable to the public, whilst it safeguards the present financial position of the doctors and maintains the dignity and status of our profession. In this way underselling will be prevented and better terms procured.

Organization of Local Profession.—It was decided to organize all medical practitioners in the area of the South-Eastern of Ireland Branch of the British Medical Association, comprising the counties of Tipperary, Waterford, Carlow, and Kilkenny. After a lengthy discussion on the Insurance Act, a temporary Vigilance Committee, consisting of ten medical practitioners resident therein, was appointed for each of these counties, to use every possible means to ensure that no doctor in the county should make individual arrangements with insured persons or societies or clubs not in accordance with the policy of the profession in their respective counties, and that all should sign the subjoined pledge:

> I hereby undertake that I will not accept any club or other contract medical practice or position except upon such terms as shall be approved by the county Medical Committee representing the entire profession of that county.
>
> Name .....
>
> Address .....

BOMBAY BRANCH.

AN ordinary meeting was held in the University Library, Bombay, on January 4th, at 5.30 p.m., when Lieutenant-Colonel L. F. CHILDE, I.M.S., the Senior Vice-President, occupied the chair. The following were also present: Drs. Framji Bomonji, R. Row, D. H. Nayak, L. G. Date, N. H. Choksey, Sorab Nariman, B. P. Karani, N. Vazifdar, Miss J. Engineer, Wm. Nunan, N. F. Surveyor, and Drs. N. G. Sirdesai, Soparkar, and Sompar (visitors), and the Honorary Secretary, Dr. D. R. Bardi.

Confirmation of Minutes.—The minutes of the last meeting were read, confirmed, and signed by the Chairman.

Reports.—The receipt of the following reports was announced: (*a*) Triennial report on vaccination in the Bombay Presidency, 1911; (*b*) Triennial report of the Civil Hospital and dispensaries in the Bombay Presidency, 1910. It was also announced that the Director-General of the Indian Medical Service had been pleased to add the name of the Branch to the distribution list of the Scientific Memoirs by the Officers of the Medical and Sanitary Departments of the Government of India (new series) for a copy of the future numbers of the series to be supplied free of cost when published. It was resolved to thank the Director-General of the Indian Medical Service and the Surgeon-General, the Hon. H. W. Stevenson, I.M.S., for their interest in the Branch.

Congratulations to Dr. R. Row.—Dr. SORAB NARIMAN proposed and Lieutenant-Colonel L. F. CHILDE, I.M.S., seconded:

> That the Branch received with satisfaction the news that Dr. R. Row, one of its members, was decorated on the occasion of the Durbar with the Kaisar-i-Hind Gold Medal for purely scientific and medical work.

Both Colonel Childe and Dr. Nariman eulogized the work of Dr. Row, and, on the resolution being unanimously carried, Dr. Row accepted the compliment with great diffidence, and offered his grateful thanks to the members for their kindness.

Leishmania Donovani and Leishmania Tropica.—Dr. R. Row read a paper on this subject, which will be published. The paper was illustrated by microscopic slides and plates.

Vote of Thanks.—A hearty vote of thanks was accorded to Dr. Row for his paper, and the meeting separated.

National Insurance.

CORRESPONDENCE.

[It is particularly requested that communications intended for publication should be written on one side of the paper only, and should be addressed to the Editor, BRITISH MEDICAL JOURNAL, 429, Strand, London, W.C.]

THE REPRESENTATIVE MEETING OF FEBRUARY.

DR. E. C. FREEMAN (Colchester) writes: Would you kindly state for the information of the members of the British Medical Association:

1. Whether the capitation grant was fixed at 10s. in Committee.
2. Whether it was reduced to 8s. 6d. on the Report stage.
3. How many members were present at the Report stage meeting.
4. The names of the mover and seconder of the vote at the Report stage meeting by which the capitation grant was reduced.
5. The members voting for and against on that occasion.

*** 1 and 2. As will be seen by reference to the SUPPLEMENT of March 2nd, p. 269, the answers to these questions are in the affirmative.

3. We are informed that 116 members were present at the Report stage, of whom 15 were members of the Council. The quorum of a Representative Meeting is half the number of Representatives appointed to attend such meeting (By-law 40). The number appointed to attend this meeting was 161. In any Representative Meeting only Representatives of constituencies and members of Council representing the Navy, Army, and Indian Medical Services are entitled to vote (By-law 39).

4. The motion at the Report stage by which the capitation grant was reduced was moved by the Chairman of Council, seconded by Dr. Campbell (Leigh and Wigan).

5. No division was taken, but the vote appeared to be practically unanimous.

Dr. HENRY EDWARD GOUGH (Northwich) writes: Although a letter containing any criticism of the British Medical Association stands little chance of being published in the JOURNAL, I am sending this so that if you suppress it I shall feel quite at liberty to get it printed in any paper, medical or otherwise, whose owners will allow a member of the Association a hearing.

My complaint is as follows. At the recent so-called Representative Meeting a resolution was passed which called upon a certain committee to go to the Insurance Commissioners, and "ask" them to grant a capitation fee of 8s. 6d. per annum (with some extras) for unlimited attendance upon all and sundry, whether sound or unsound, whether healthy or chronically invalid.

Now, sir, I have been a member of the British Medical Association for twenty years, and have never yet had a chance of voting as to whether I wish to be bound for ever with the shackles of contract practice, or, if I am fool enough to submit to that, at what fee per capita I am to be so bound.

The question of remuneration was not mentioned in the Report of Council as likely to come before the meeting, and the Representative (so-called) of the Division to which I am attached had no instructions (and never has had) upon the matter. The instructions he did get were given by about 17 or 18 votes at the very outside, and this from a Division containing some 100 or more members; which shows that, had he received definite instructions upon the matter, it could not by any stretch of the imagination be called a representative vote; and it is quite evident that the practitioners of the country have never had and never will have—till we get post-card voting—any opportunity of voting either for or against any action taken by the so-called Representative Meeting.

If the British Medical Association had endeavoured in a businesslike and straightforward way—for example, the *Practitioner* canvass—to ascertain the wishes of the practitioners, and honestly endeavoured to secure their requirements, I would have loyally upheld the Association, however wrong I might have thought their policy; but under existing circumstances, when hundreds of general practitioners have never had a chance of voting upon the most vital part of the whole Act, it can only be assumed that the policy of the Association is animated, not by any desire to obtain the requirements of the majority, but by the wirepulling of those who, for some reason best known to themselves, want to rivet the shackles of "club" work upon the necks of those whom they can enslave.

Is it wise for the Association to flout the wishes of those who certainly form a majority of the general practitioners (who will be affected by the Act) and probably of the whole profession, in order to push the Insurance Act into operation? And is it wise for a general practitioner to remain in an organization whose doings are distinctly detrimental to his welfare and in the administration of which he has absolutely no voice?

Since writing the above I have perused the JOURNAL and SUPPLEMENT of March 2nd and find that "the capitation fee was fixed at 10s. in Committee and was reduced to 8s. 6d. in the Report stage, *when barely a quorum was present*," and the leading article describes it as part of "the conditions prescribed by the *unanimous* vote of the Representative Body." Truly the "mis"-representation to which we are subjected is enough to make any cautious person consider very carefully what is the "inner meaning" of all this slim journalism and what is its object?

*** We may take this opportunity of informing the members of the Association that the allegation contained in the first paragraph of Dr. Gough's letter is incorrect, as indeed members who have read the SUPPLEMENT during the last few months must have concluded for themselves. The vast majority, probably 80 or 90 per cent. of the letters received criticizing the action of the Council and of the Association, have been published. The question of remuneration was the subject of three paragraphs, 25, 26, and 27 of the Report of the Council which was referred to the Divisions and submitted to the Representative Meeting. With regard to the concluding paragraph of Dr. Gough's letter, we will only point out that the first sentence within quotation marks, is from Dr. Leigh Day's letter (SUPPLEMENT, March 2nd, p. 270), and we may refer to the answers given above. As to the second quotation, it was, as may be seen by reference to the SUPPLEMENT of February 24th, p. 233, and the JOURNAL of March 2nd, p. 510, a statement of fact; the letter to the Commissioners was expressed in plain and unmistakable terms in accordance with the unanimous decision of the Representative Meeting. That Dr. Gough would not agree with the decision was a not matter which we could be expected to foresee. We emphatically repudiate the extremely offensive insinuation in the concluding sentence of his letter.

Dr. H. ELLIOT-BLAKE (Bognor) writes: The great lever with the redressment of an amending Act to the National Insurance Act passed by the Representative Meeting can now be held on to if the required regulations fail to be of statutory power. Further and better, the Council or Committee still holds the lever with the deadlock brought about by the impossibility to carry out the Act by the Insurance Commissioners, and who cannot form the Medical Advisory Committee nor the Health Committee's regulations. So considerable pressure ought to be able to be brought to bear, and an understanding arrived at, with the Commissioners *before* amicably arranging to compose their Medical Advisory Committee; otherwise the work of, and expense of, the Representative Meeting will be lost.

As to the *essential* finance of the Act, it centres in Sec. (7), Art. 15; and the making of Mr. Lloyd George's own section read "shall," not "may." Indeed, it would be useless to ask for 8s. firm or 2s. 6d. a visit, etc., if the whole insured's contribution only comes to a very little above that figure. Again, the Medical Committee's control of the medical services under the Commissioners' regula-

tions, *instead of through the Insurance Committee*, must obviously require an amending Act. And if there be any demur to quite fairly guaranteeing the above medical charges in this huge Act, then it can be retorted that: (1) The superlative attraction of the Act comprises the underpaid medical benefit (Dr. Macdonald's 4s. club practitioner is worse than the Government clerk's or puny curate's level!). (2) Both the State and the County Council advantage will benefit most by the improved general health of the insured persons.

One more point. In an amending Act, which seems almost certain, and would occupy but a parliamentary afternoon's sitting, Parliament may insist on rejecting the already evaded (in a part way) £2 limit to be asked for. They may honestly think, as I certainly do, that to alter the £160 basis would trench and narrow the stability of the whole Act—that is, the best payers would actually be left out. It would tell against the doctors. So, instead, a sliding scale for those above any limit agreed upon could more easily and should be represented to the Commissioners as covering the ground. After all, it is not so much that as the mocking club practice and the 4s. a year fee for medical sweating, foisted by the Government, and which sears and brands the practice point of view, and can be so bitterly inveighed against as intruding and wrecking the very sustenance and the doctor's home.

Dr. J. BEDDOW (Thorverton, Devon) writes: I should like to enter my protest against this sum of 8s. 6d. being fixed; it is not a fair one, either to us—unless all the lives were picked ones, as in the case of the Post Office, on which I presume the sum is based—nor is it fair to the public. It is not fair that the man who earns 15s. a week should pay the same as the man who earns £2 or over. If we must have a capitation fee, what objection is there to the graduated scale? Is it not perfectly feasible, and much more equitable? If this were adopted, the great and evidently the most contentious question could then be put on one side—the income limit—for it would then settle itself.

The only limit that need be fixed is the minimum capitation fee of 6s. for all incomes up to £60 per annum, with a rise of 1s. for every further £10 of wage or income. Thus, a man getting £100 a year would pay a capitation fee of 10s., or, if the wage were £4 a week, he would pay £1 a year. This can be carried out indefinitely, as I presume few of us would be averse to receiving £10 a year from a man who was earning £2,000—that is, of course, for a possible attendance on the man alone.

Does not this strike members as being much more reasonable and just, and more likely to carry the public with us, than to fix a definite sum of 8s. 6d.?

Dr. T. CUMING ASKIN (Woodbridge) asks why the rate of 8s. 6d. and not 10s. was asked for, and also why the Divisions have not been asked for a definite pronouncement on this vital point. "Until quite recently," he continues, "I thought we had all virtually decided to demand a higher fee for women and Post Office contributors. Personally I feel very dissatisfied with the present state of affairs."

The Tactics of Dr. Helme.

Dr. J. E. O'SULLIVAN (Liverpool) writes: Dr. Farquharson has deemed it incumbent upon him to entertain your readers with some comments upon what he is pleased to style "the tactics of Dr. Helme" at the recent Representative Meeting. I have no doubt that Dr. Helme is quite able and prepared to defend himself against any attack, from whatever quarter such may emanate. It so happens, however, that I was a member of the Agenda Committee, and I unhesitatingly say that I never heard Dr. Helme, during the meeting of that Committee, say (as Dr. Farquharson alleges he did), referring to his attitude *re* the State Sickness Committee, "It is not an oblique vote of censure; it is a direct vote." I distinctly traverse that statement. The Agenda Committee consisted of sixteen gentlemen. It is obvious that neither Dr. Helme or any other man in his senses would say one thing in their presence in answer to an expression of opinion, and, in an hour or so after, again in their presence, at the Representative Meeting, indignantly repudiate it in answer to a similar expression of opinion. It is preposterous.

I believe Dr. Farquharson is the gentleman who made, during the Representative Meeting, the somewhat *ad misericordiam* appeal on behalf of those (I believe he said like himself) engaged in cheap contract practice, during which appeal he appeared to be quite prepared to invite those not so engaged to descend to his level of payment, but did not seem equally desirous that he or his *confrères* should elevate themselves to what is now being considered an adequate rate.

When Dr. Farquharson has done a tithe of the spade-work on behalf of his profession, to elevate and improve it, to increase its status and financial position, as has Dr. Helme, he might in a manner be justified in criticizing that gentleman with some degree of authority; in the meantime he would be better advised and engaged in endeavouring to induce those involved in cheap contract work to fall into line with those anxious to dignify, improve, and unify their profession.

Election of New State Insurance Committee.

Dr. J. HOUSTON PORTER (Dalston) writes: Much to my surprise and regret I understand that the representatives of a northern group of the Metropolitan Divisions have elected Dr. Lauriston Shaw in preference to Dr. Major Greenwood as one of the metropolitan members of the new State Insurance Committee.

Considering the respective parts played by these two gentlemen in the recent controversy as to certain matters touching the National Insurance Act, and remembering in particular that Dr. Greenwood was one of the three members of Council who alone represented correctly the views of the great majority of general practitioners on the question of the appointment of the late Medical Secretary as one of the Insurance Commissioners, it would appear that the representatives of the above Divisions have deliberately shown their preference for the side taken by Dr. Lauriston Shaw and have condemned Dr. Greenwood.

This is indeed but poor recognition of the splendid services rendered by Dr. Greenwood to us general practitioners during the last nine months in representing our opinions and interests on the Council, more often than not in the face of an overwhelming adverse majority.

If the members of the Representative Body properly represent their constituents in this matter I have nothing to say; but as one of their constituents I should like to express my own individual dissent from their judgement in the strongest possible terms.

MODE AND RATE OF REMUNERATION.

Dr. A. F. MILLAR (Fulham, S.W.) writes: I am ready to admit that Dr. P. R. Cooper, by taking into consideration the extra expenses entailed by extra work, has to a certain extent justified his contention that capitation payment means payment in inverse ratio to work done. Nevertheless, his argument would only hold good if it turned out that, under the capitation system, we really had more work to do; and this I am disposed to doubt for the reason that I mentioned before—namely, that a bottle of medicine in time saves nine. But I agree with Dr. Cooper that a universal salaried service would be better still, though I do not see how the salary could be, as he suggests, apportioned to the quantity of work done. Our work varies widely in amount from season to season and from year to year, and one could hardly expect a salary to vary accordingly.

The question at issue between us seems largely one of personal preference, and although I recognize certain advantages in the system of payment for work done, I oppose it broadly on the ground that it makes the doctor's financial interest coincide with the greatest amount of sickness and suffering in the community.

I hold that the health of the nation is by far the most important consideration, in furtherance of which I am personally willing to submit to certain acknowledged disadvantages, provided that I am assured of an income sufficient to maintain myself and family at a reasonable standard of comfort. And the feeling of security which such a fixed income would afford is also not to be despised as a compensation for other drawbacks.

Dr. P. R. COOPER (Altrincham) writes: As many correspondents have asked me to deal with the danger of over-visitation by medical men under a scheme of payment for work done, perhaps you will grant me space to do so.

First, I consider it rests with those who allege that such a danger exists to make out their case. I ask them to produce proofs. The stock argument that "it is only human nature" is no proof, but a gratuitous assumption, based upon a low estimate of the *morale* of the profession such as, I maintain, there are not sufficient facts to warrant. It assumes that medical men have adopted their profession merely or mainly as a means of making money. To any who hold such a view I would ask, Is it likely that a man who merely wanted to make money, and therefore to make as much as possible and as quickly as possible, would spend from five to ten of the best years of his life in hard study and training, at an inclusive cost of £1,000 to £2,000 or more, when at the end of it all, if lucky, he might perhaps obtain an appointment of £150 to £250 a year, or, if going into general practice and paying another £1,000 or more for a partnership, he might earn £300 a year (and doing the bulk of hard work night and day), or, if starting practice for himself, he would probably have to wait several years before he earned anything like that income? If anything, I have placed the average medical practitioner's income rather high, implying quite a large amount of success in practice. A few will no doubt do better, but the majority will, I am sure, not do so well. Is this the tempting bait which is swallowed wholesale by greedy men who expect to batten on the sufferings of humanity? Looked at from a strictly business standpoint, the return on the invested capital scarcely shows more than 5 per cent.; surely a man who simply wanted to make money could find a better investment than that, and a better reward for his brains and industry in almost any other occupation. In other words, as a commercial speculation medical practice is a failure. But do any men really take up medicine simply as a money-making business? I deny it roundly; at any rate they do not take up general practice merely for that end.

Although medical men do certainly not make money-getting their first or main consideration, I do not pretend that it is not a consideration. It has to be. Few of us have independent means; we have heavy expenses to meet, and, whether we like it or not, we have to see that we get some fair return for our labour, or else we cannot go on working. Does this act as a direct inducement to the paying of unnecessary visits? Again, I challenge any one who replies affirmatively to produce proofs. The busy practitioner will certainly have no time to pay needless visits even if he desired, but, it is said, the man who has not much to do may be tempted in this way. Without dwelling on the probability that if the Insurance Act comes into work we shall all have plenty to do, I deny that there is any valid reason to suppose that medical men will succumb to such a temptation. The proofs are, indeed, all the other way. Do the returns of the National Deposit Friendly Society indicate such a tendency? No, and the experience of ordinary general practice in this country during the last twenty years is strongly opposed to such a view. On the whole, therefore, I maintain that medical men do not abuse their trust, and there are no just grounds for the imputation that they would behave dishonestly towards their patients or towards the nation.

Of course some latitude must be allowed for individuals. Some medical men are naturally more anxious and apprehensive than others, and may conscientiously think it their duty to attend certain cases more frequently than others would, but such men are even more likely to be scrupulous about not attending unnecessarily in slight or imagined illness. It is quite impossible to lay down general rules as to how often patients should be visited in particular illnesses; more will depend, probably, on the patient (and his surroundings) than on the disease.

The upshot of all this is that medical men must and can be trusted to act conscientiously in this matter of frequency of attendance. It is hardly logical to suggest that men of such responsibility, who are daily trusted with the lives, health, happiness, and inmost personal affairs of their fellow-countrymen, are not to be trusted in the matter of a few two-shilling or half-crown visits. The suggestion is indeed preposterous, and I would submit that those who cannot trust us had better not employ us at all, for mutual trust is the foundation of the proper relations between doctor and patient. It is often said that medical men are not good business men, but surely this means that they are not greedy or exacting. It cannot be denied that there may be some black sheep in the medical fold, as in all others, but is the whole profession to be branded because of the misconduct of a few of its members?

Moreover, it is by no means impossible to devise effectual safeguards against any real and flagrant abuse, besides also definitely limiting the liability of the Insurance Fund, so that any serious incursions into the State Exchequer would be impossible. In my opinion, one of the best safeguards to keeping down unnecessary visits on the part of the doctor, and also unnecessary calls on the part of the patient, is to make the patient pay part of the fee, as is now done by the National Deposit Friendly Society. This will make the doctor consider his patient's pocket—as he now has to do amongst his poorer *clientèle*—and also make it to the patient's interest to see that his doctor does not call too often.

The signing and countersigning of vouchers for attendance constitute to a certain extent an automatic check on unnecessary visits. The examination and passing of all vouchers by medical experts prior to payment would only be businesslike, but all complaints as to over-attendance would have to be submitted to the Medical Committee and sanctioned by them before any fees were disallowed or any doctor were suspended from attending upon the insured.

The "limitation of fees by the Insurance Fund" should mean that the patients would be liable for the excess: in other words, it would be a partial insurance; but it might rest with the Insurance Committees (or Commissioners) to make extra grants towards the cost of medical attendance in specially deserving cases.

Dr. A. Murdoch (Bexhill-on-Sea) writes: There is nothing new in the idea of our profession asking to be paid for each item of work done, but I have never seen it stated that the necessity for protesting and refusing to work the Act would vanish if we adopted this system as against payment per capita.

In the Act there is no mention of remuneration at all, and if the signatures received by the British Medical Association and the *Practitioner* mean anything, it means that the profession as a body have protested against the formation of a huge State club where every one is to be treated at so much a head; and every one has assumed that this is the only way of working the Act. But, surely, when every one is protesting against the infliction of such a bondage, this is the time to break away from the bad old times and adopt the methods of every other profession and trade, and secure the boon of payment for work done out of the millions provided under the Act.

I take it that those who have signed the protests are willing to resign all their club appointments, and that no one would think of supplanting them.

But what follows if we refuse to work under the Act and have no alternative scheme to offer the profession and the nation? The work must be done, but we would not receive any remuneration except in rare cases, and we will have cut off our noses to spite our faces. Surely, then, it is absolutely necessary to unite the profession in the only reasonable and honourable way of working the Act—namely, by the Council of the British Medical Association drawing up a scale of charges that will stand the severest criticism both inside and outside the profession. It would be one, of course, that, with modification, could be easily adapted to every district. The advantages that would follow on the profession adopting this method of remuneration are obvious: No bargaining with committees about anything; simply hand them the national insurance scale of fees; the six cardinal points go by the board; all patients are private ones, and they are released from the doctor on the panel; the income limit can be settled between the doctor and his patient at a friendly interview. There would never be the feeling that, no matter what sum per head were paid, that it was not enough. Everything done would be paid for, even if at a moderate rate. It is not for us to argue about whether the amount under this scheme would be more or less than has been provided under the Act, because if our scale of fees has stood the searching criticisms it will be put to, as being fair and moderate, then according to the Chancellor of the Exchequer himself, he will be bound to meet our just demands. If this method did create a large deficit this would only mean the amount that the medical

profession has been giving away gratuitously to the poor year after year. I am certain that every one would understand this attitude to the bill and congratulate us on the adoption of sound business principles at last. If adopted it would leave the profession free and independent, and the club system would be as dead as Queen Anne.

The Policy of the Future.

Dr. H. H. Mills (Kensington, W.) writes: The recent Representative Meeting of the Association has helped to clear the air. It has, at all events, removed from the path of the profession the dangers with which, in the opinion of a section which has not perhaps made itself sufficiently heard, we were threatened by the strenuous advocacy of the extreme opponents of the Insurance Act. The policies of at once refusing to work the Act at all, or of refusing to enter into any discussion except on the basis of the immediate introduction of an amending Act, have alike been defeated by the good sense of the majority of the Association voiced through the Representative Meeting. We have thus secured at all events an interval in which we may deliberately take stock of the position and consider what policy will be in the long run most advantageous to the profession. The columns of the British Medical Journal have been thrown so widely open for the expression of every point of view, that I trust you can find space for some observations from one who belongs to the section which firmly believes that the Insurance Act, with all its imperfections, will prove in the long run to be beneficial to the profession, if the profession itself makes a wise use of the opportunities open to it under the Act for bringing about this result. Before proceeding to state the points which I wish to submit for the consideration of your readers, may I say that I have good reason for believing that the moderate section of the profession is much more numerous than has yet been recognized, and is daily increasing as the Act is more closely studied and the effects of prejudice and ignorance pass away. It would be very unsafe for the profession to base its policy on the supposition that, even within the limits defined by the resolutions of the Representative Meeting, an attitude of uncompromising and obstinate adherence to the letter of certain demands could be successfully sustained. In the long run the success of such a policy must depend upon the number of members of the profession who would show their adhesion, not merely by voting for resolutions in meetings, but by refusing such appointments as might be offered either by the Insurance Committees on the one hand, or by the approved societies, if the organization of medical attendance under the Act were made over to them, on the other. May I say also, in passing, that too much seems to me to have been made of "suspension of medical benefits"? As I read the Act there are other ways in which the Commissioners could put the matter into the hands of the societies. Has it been overlooked that, under the proviso of Subsection 2 of Section 15, in the event of the arrangements by the Committees for the formation of panels breaking down, the Commissioners can make arrangements for giving medical benefit in any way that they think fit?

Bearing these facts in mind, may I ask your readers to consider certain practical questions as regards the immediate duty of the profession? We are asking now for security for the enforcement of the £2 limit, and we are claiming remuneration at a rate of 8s. 6d. per head per annum, exclusive of drugs and extras. It is not my purpose at the moment to criticize either of these demands. What I wish to emphasize is that we must not be content with merely making demands. We must be prepared to make our case good to the satisfaction not only of the profession, but also of public opinion, which, whatever we may say, will be the ultimate judge.

As regards the £2 limit, I have never yet been clear that the profession in every part of the country are satisfied that this could be carried out properly with regard to every section of the working class community. From such knowledge as I have of colliery and similar practice, I believe it to be the fact that no attempts have ever been made to enforce an income limit in relation to such practice. Do the colliery surgeons desire it? Do they think that it is practicable? If not, have we, the rest of the profession, a right to attempt to compel them to enforce it in their respective areas merely because it will be satisfactory from our point of view as regards the kind of practice with which we are most familiar? It seems to me that questions of this kind, and questions as to how the income limit is going to be enforced in practice, will need the very careful consideration of the Committee that has been appointed by the Representative Meeting to place the case of the profession before the Commissioners. When we hear the result of their representations to the Commissioners I am quite sure that there will be many, like myself, who will want to feel that a proper case has been made out before we are called upon to take part in resistance to the Act merely because the Commissioners have not been able to grant all that may have been demanded on our behalf in this respect.

Again, as regards the rate of remuneration, I find that laymen of my acquaintance are by no means satisfied that the doctors have a case for the demand they are now putting forward. It has been alleged that if such a rate of remuneration were applied to the whole population it would be equivalent to guaranteeing the profession generally an average income of over £700 a year. If so, can we make out a case for a £700 income for such duties as would be included in the ordinary work of the insurance service, quite apart from a long list of extras, and quite apart from the provision of drugs? I am sure that many members of the profession will want to feel that they have a good case for such a demand before they finally commit themselves to a refusal to give any kind of attendance to insured persons if it be not granted.

May I, in conclusion, offer very respectfully a criticism on one passage in your leading article of Saturday last? I only do so because I think it most important that we should get a firm grip of the facts of the position and not live in a fool's paradise. You seek to draw the conclusion, from the fact of the Commissioners having given the Association the opportunity of nominating members of the Advisory Committee, that therefore they must be taken to see their way to concede the declared minimum demands of the Association. I have read the letter from the Joint Committee of Commissioners, as published in the British Medical Journal, and cannot see the ground for such an inference. The Commissioners state quite plainly that they are bound to appoint medical members of the Advisory Committee, and that they give the British Medical Association the opportunity of putting forward names for consideration if it thinks fit. They state that this is in fulfilment of the promise given by the Chancellor of the Exchequer to the Association in June last. It appears to me that, whatever the view of the Commissioners may be in regard to our minimum demands, they were bound, in view of that promise, to give the Association the opportunity of putting forward names, and that, according to the terms of their letter, it rests entirely with the Association to accept this offer or not, as it thinks fit. It seems to me, therefore, that no conclusion can be drawn from the fact of the offer having been made.

Dr. Albert Kisch (London) writes: As our representatives have concluded their labours, and instructed the Council how to negotiate for terms with the Insurance Commissioners, why should not our Association, pending such negotiations, take every possible step to prevent the Act from being hurried into operation on July 1st, as is now the evident intention? An army of lecturers is now at work all over the country, and at the public expense, to explain the Act to the masses. What they will *not* explain is, however, more important by far than what they will explain. They will not explain why the medical authorities were not consulted in the framing of a measure professing to be for the sake of the public health, nor why the representations of the profession were disregarded during the progress of the bill, nor why a bill so novel and so complex in its operations was hurried through the Commons without adequate discussion, nor why it tends to perpetuate and extend the worst evils of contract practice, and offers the doctors insecure and very insufficient payment; nor will they explain why people with incomes exceeding £2 per week, and in some cases indefinitely exceeding that amount, are to be allowed the benefit of the Act at the cost of the State, and to the injury of ourselves. All this we could effectively bring home to the country if every Division of the Association would pass unanimously a resolution showing the retrograde and mischievous qualities of the measure, and demanding that it be not put

in operation till our requirements are conceded. But to be of any use this must be done promptly; there is no time to lose.

"A Strong but Moderate Policy."

Dr. A. E. Wilson (Honorary Secretary, Boston and Spalding Division) writes: May I encroach on your valuable space to explain how my name came to be on the appeal issued by the promoters of the "Strong but Moderate Policy"?

I received on February 7th a letter from Mr. Herbert Tanner asking permission for my name to appear as a supporter of the above policy, enclosing a prepaid telegram on which I was to answer "Yes" or "No."

I replied "British Medical Association Policy," and on seeing my name on the appeal issued a few days later was considerably surprised.

I have received a number of letters from some of my medical friends begging me not to support a fresh policy at the present crisis, and my reason for troubling you with this explanation is to emphasize my adherence to the British Medical Association policy, which, I hold, should be supported by every registered medical practitioner in the country.

I can only conclude that the advocates of the above policy have, by the issue of their appeal, endeavoured to strengthen the hands of the Association.

Public Medical Service.

Dr. J. Henry Stormont (Tanworth-in-Arden) writes with reference to a Public Medical Service: The formation of such a service seems to offer a simple and obvious cure for all our troubles. It would lift the matter out of the sphere of politics, solve the problem of clubs and friendly society control, bring the doubting and critical public at once into sympathy with the medical profession, secure to the profession its proper position of dignity and independence, bring together the Association and all the unions and committees which are springing up in various parts of the country, and, not least, show the Chancellor of the Exchequer how the medical benefits should have been arranged.

In planning such a service the good points of the Insurance Act could be utilized, such as division into town and county boroughs, and medical panels of all practitioners in a district. Medical Committees would deal with complaints and abuses and exercise disciplinary powers. The six cardinal points would be secured. All club doctors would resign and join the panel, or insist that their club rates of subscription and other rules should correspond with those of the public service. The 6s. paid under the Act to each insured person could be used by those eligible for public attendance as part of their subscription.

Could not the British Medical Association take for its own the honour of inaugurating such a service and of so solving the difficulties in which the profession is placed by the Insurance Act, either by placing as soon as possible an outlined scheme before the profession or by referring the matter at once to the Divisions for their suggestions and working out a draft scheme from them. Time is passing; the situation gets more critical, and we get no nearer to a solution so far as the plain man can perceive. A solution *must* be found, and it seems impossible to find a method of improving the Act which could render it acceptable to all sections of the profession, even if the Government or Commissioners could be induced to adopt such improvements. If we decline to work the Act at all, the friendly society difficulty remains to be dealt with. Let us adopt the solution which is for the benefit both of ourselves and our poorer patients.

Proposed Termination of Contract Appointments.

Dr. G. Baynton Forge (West Malling) writes: Dr. Lyster's rider as to the termination of contract appointments (SUPPLEMENT, February 24th, p. 227) is to the effect that, if the Commissioners hand over the money payments to the friendly societies in lieu of medical benefits, the society doctors shall be called upon to resign their appointments. This is positively our trump card, because the Commissioners dare not hand the money over if it means a strike of club doctors. It would force the Government's hand and compel it to pay adequate remuneration on the *pro rata* system, taking the police fees as a basis.

The Council, headed by Dr. Maclean and Sir Victor Horsley, is doing its best to force this huge club system upon us—the only system the Government advocates, because the cheapest. Remember, there is no escape from this club for any but the consultant.

As an alternative to the 8s. 6d. capita I would suggest the following: The societies keep to their present system of payment per head to their sick fund, and divide their members into two classes:

A. Those earning £1 a week and under, including the chronics, pay 5s. per annum.

B. Those earning over £1 to the £160 limit at 6s. per annum.

Now the average sickness in Class B—the well-housed, well-fed man—is much lower than Class A. Taking the National Deposit figures, the sick pay for this class would be 3s. 2½d., or put it at the higher police scale, 4s. 2½d.; these could easily pay *pro rata* and leave a big surplus. Class B we have the 5s. per head, *plus* the surplus from Class A; taking them on the National Deposit Friendly Society scale, or 2s. at surgery and 2s. 6d. a visit, there would be a small deficit; let the Government make this up. This would be the first taste of the "refreshing fruit" that has been talked about so much, but never exceeded the talking stage.

Over-attendance: Neither the police, the Admiralty, or the National Deposit Friendly Society have found it necessary to appoint inspectors, such is the general standard of honesty in the profession, even the lawyers have their taxing master. To make sure, let those on the sick list pay 1s. or 2s. in the £1 and the Commissioners forego it when they think it would press unduly upon the assured. The National Deposit Friendly Society members pay 5s. in the £1 without any demur. This percentage would go a long way to wipe out the deficit in Class A; moreover, it would prevent the doctor being called upon to attend every trifling ailment. Complicated booking could be avoided by using duplicated cards, like tram tickets, divided into 2s., 2s. 6d. columns, etc., and the doctor punch in the appropriate column.

The Sick Public and the Insurance Act.

Dr. Robert R. Rentoul (Liverpool) writes: By this time the sick public must see that this grave national question concerns them more than it does the doctors. The very pivot of the Act is and must be efficient medical, surgical, and obstetric treatment, medicines, and dentistry. An Act which fails here is a political fraud and sham. Good medical aid will reduce the sick-rate by 30 per cent. and the death-rate by 2 to 3 per 1,000. A system which will lessen sickness must increase the earning power of the earner. For instance, if 20 million of workers are each off work for one week yearly on an average, here is a loss of £20,000,000, or double that if each earns two pounds per week. But there are other losses. For the one year the friendly societies and the trade unions granted £5,000,000 in sick and funeral benefits. From 1886 to 1905 the Foresters Society paid £10,786,321 in sick pay and £2,403,744 in funeral allowance. Any system which would save £4,000,000 of this would be of great service to the people. Then as regards the saving from unnecessary or premature deaths, as an illustration, suppose that an earner of 40s. per week dies at his thirtieth year instead of at his sixtieth. Here is a loss of thirty years' earning power, or of £720. Other losses are those falling on the taxpayer, in supporting widows and orphans. I have calculated that in the United Kingdom during a year there are some seven and a half million persons either permanently or temporarily sick and unable to work. An analysis of this number will be found in my work, *Race Culture: or Race Suicide*. The loss to the nation due to avoidable illness and to premature deaths must amount to £75,000,000 yearly. During 1884 to 1886 I made a close study of the German insurance law, and contributed articles to the Foresters' *Miscellany* and *Liverpool Daily Post*. In 1889 I laid before the doctors a proposal that each area should establish a public medical service, to be owned, and worked, and controlled, by them. Married persons whose income from all sources did not exceed 45s. per week, with an allowance of 1s. off it to each child under 16 years, and single persons earning under 30s., to be admitted to membership. Payment by a member to be either so much yearly, or, if they

prefer, a fixed fee per visit (see British Medical Journal, June 22nd and September 28th, 1889). This proposal I brought before the Annual Meeting of the Association, by which it was referred to the Branches. Only a few then agreed to it. Had they accepted my proposals for such a public service it would have done away with hospital abuse, chemists prescribing, friction regarding club practice, and elevated the "threepenny" and "sixpenny" doctors to a higher level. It could also have taken on the administration of the medical department of the Insurance Act.

Now what is the proposed rate of pay to doctors for supplying some 14,000,000 of insured persons with efficient medical, surgical, and obstetric treatment, and medicines? The Chancellor proposed that each doctor should receive 4s. per member per annum and the chemist 2s. Let us take the chemist first. If each sick member requires only two prescriptions a year this would give him 1s.: if four, 6d.: if six, 2d. Any sane person knows that an honest bottle of medicine costs from 1s. 4d. to 2s. 6d. "Club medicines" and those sold at the out-patient departments of hospitals are so well known that nothing more may be said of them!

As regards the payment of the doctors, the 4s. proposal is now the subject of scoff and satire, and has reached the "barrel organ" stage of its existence. It is grotesque. Even the lowly but useful town scavenger would reject it with scorn, while no man would attempt to offer it as a yearly "retainer" to the poorest creature on the street. If these refuse, why should doctors accept it? Such a sum would reduce the present low income of doctors. How? Let us take it that 20,000 doctors who may agree to work under this Act, have now a gross annual income averaging £350, or a total of £7,000,000. Under the Act, if these doctors accept 4s., with 14,000,000 benefit members, this would give the doctors £2,800,000. Therefore, by accepting 4s., they would reduce their present income by £4,200,000. Why should they be so idiotic to do so? Who would thank them for doing this? Would anyone provide for their old age, their widows and orphans? Not likely. I have drawn up the following table to show that a yearly grant of 25s. is the only equitable one, that is, if the sick public expect efficient work from doctors. The parasitic portion of the public must really be told they cannot act the parasite any longer upon doctors. At present doctors give the equivalent of £8,000,000 yearly in free work to hospitals and to patients.

Table I.

Fourteen million insured persons at 4s. give £2,800,000 to doctors, or £140 to each doctor

At 6s. give	£4,200,000;	or £210 to each doctor
At 8s. give	£5,600,000;	or £280 .. ..
At 10s. give	£7,000,000;	or £350 .. ..
At 15s. give	£10,500,000;	or £525 .. ..
At 20s. give	£14,000,000;	or £700 .. ..
At 25s. give	£17,000,000;	or £875 .. ..

These figures show that if doctors accept anything under 10s. they will actually *reduce* their present income. If they accept 4s. the loss will be £4,200,000. If they accept 6s. the loss will be £2,800,000. If they accept 8s. the loss will be £1,400,000. If they accept 10s. the loss will appear to be equalized; but in actual practice it will not. Why?

First, the Act provides that the right to dispense and sell medicines to patients shall be taken away from doctors. It may be estimated that the average doctor makes £100 a year of his £350 income by the sale of drugs. Here the Act proposes to rob the doctor again to the extent of another £2,000,000 a year. This must be a joke upon the part of our Members of Parliament, especially when 670 of them have recently voted themselves £260,000 yearly. By so robbing the doctors of £100, this reduces his £350 income to £250. Consequently, to neutralize this proposed theft, he must add 4s. to the 10s. grant, making it 14s. It should be noted that the actuaries estimated that during 1913 and 1914 the cost for doctors' and chemists' services would be £3,795,000.

Secondly, the Act practically endows midwives, and so intends to take a large part of obstetric practice from doctors. If the maternity grant of 30s. were all secured to doctors only, this would give them, with the 897,100 births of last year, £1,345,600; or about 45 confinements to each doctor, at £47 10s. Even if the Act takes away from the doctor half the total confinements (448,550), here is a loss of £677,800, or £33 15s. per doctor. Therefore to neutralize this loss of £100, by being robbed of dispensing, and £33 15s. by loss of confinements, doctors must add 1s. to the 14s. grant, thus increasing it to 15s.; for, if his salary be reduced by £133 15s., this makes it £216 5s. It may be suggested there will be vaccination fees. But almost all persons now employ the free Government vaccinator. It may be further allowed that each doctor will make an extra £100 by his non-insured patients. Here we must recollect that Mr. Lloyd George has stated that all persons employed and paid by salary are eligible for membership under the Act. We must not take the view of the club doctor—that if he accept 3s. or 4s. from the club member he will run a chance of securing the club man's wife and children. The Act will do away with private practice, and especially as more persons now go to voluntary hospitals, to free hospitals, sanatoriums, free vaccinators, free school children clinics, etc.

Thirdly, the Act proposes to more than double the work of the doctors, and especially so as it includes old age pensioners (907,461), the Post Office depositors (882,000), the unemployed (2,500,000), those permanently discharged as unfit from the Army, Navy, and Mercantile Marine—or a total of about 4,000,000. All these infirm, and chronically ill, will require double the amount of treatment given to healthy club members. Some club doctors allege that each member, on an average, requires only about three to four visits per annum. But few people become members of a club to secure medical treatment! I prefer to take the statistics of the Foresters' Society. In one year there were 695,854 members, having 8,146,918 days' sickness, or, on an average, of 12.52 days per member per annum. Their sick-rate is increasing by about two days more; and here it must be noted the friendly societies do not calculate their sick-rate by the number of days of sickness, but by the number of days upon which sick pay is granted. The fact that 13,943 were on full sick pay, 545 on three-fourths sick pay, 3,753 on half-pay, and 6,525 on reduced pay, shows that the duration of sick-pay sickness must extend into months. The average number of days upon which a person aged 65 is ill amounts to 31 days, and at the age of 70 seventy-one days.

Table II.

Taking that the young and old, the healthy and diseased, the acute and the chronic, are included in the Act, we may estimate the average rate of sickness per person per annum at 30 days. With 14,000,000 members to 20,000 doctors—this gives, on an average, 700 to each doctor—each doctor would therefore have to provide for 21,000 days' sickness. Therefore with, say, fifteen visits to each member:

For 700 members at 4s. per member he would receive				3d. per visit
At 6s.	per member he would receive		4½d.	per visit
At 8s.	,,	,,	6¼d.	,,
At 10s.	,,	,,	8d.	,,
At 15s.	,,	,,	1s.	,,
At 20s.	,,	,,	1s. 4d.	,,
At 25s.	,,	,,	1s. 8d.	,,

"Visits" refer to day or night, summer or winter, Sunday or weekday, cost of cab, etc.

We must next inquire into how much a doctor would be required to expend in order to obtain an income of £350 gross. His compulsory expenditure would be: Rent, £45; taxes, £12; coal, £10; gas, £8; telephone, £10; maid, £45, and insurance of, under Workmen's Compensation Act and National Insurance Act, 18s.; train, cabs, trams, £25; stamps and stationery, £5; surgical instruments, £5; clothes, £15; food, £65; holiday and sick locum, £25; life assurance, £15; subscriptions, £5; income tax, £3 10s.; beer and tobacco, 4d.; outward religion, 6d.; theatre, music-hall, and other entertainments, 1d.; total, £274 8s. 11d. This leaves him £76 11s. 1d. to support a wife and children.

Surely no sane person can expect a man to support such a mad-cat Act, especially as a doctor has to expend about £900 on his education, and does not become an income earner until he is about 24 years of age. The Liverpool street cleaner is paid 24s. a week, while the docker earns 5s. per day and 9s. per night work.

These figures show that a grant of 25s. per month is required, even to pay a visit on a winter night and tramp two miles and then be rewarded by an alleged Christian public by a fee of 1s. 8d.! Why, even the girl in domestic

employment is paid 1s. per day, with food and lodgings and full pay on holiday.

A fair scheme of payment must be from three sources. First, the members must agree to pay, say, 2s. a year each, or a small fee per visit. Secondly, the Insurance Commissioners must contribute a capitation grant of fair amount. Thirdly, the working classes must, instead of giving to the Hospital Saturday Fund, hand this over to the insurance doctors. I find that the working classes in Liverpool have given £196,817 to this fund from 1871 to 1911—£8,515 for the latter year alone.

Unfortunately, the Act makes no provision for those under 16 years of age. To make the Act complete, either a yearly head grant should be arranged, or a fee per visit of 3s. 6d. per day and 5s. per night visit.

It is useless to allege that the public *must* continue to sponge upon doctors. The public spend about £140,000,000 on alcohol, £23,000,000 on tobacco, £44,000,000 on sport, and about £175,000,000 on different varieties of concubinage. A tax of £14,000,000 could be raised by taxing bachelors and sterile marriages. Consider the useless extravagance on funerals. There were some 518,003 deaths registered in England and Wales during 1909. Supposing each cost £30, or a total of £15,540,000. Why not tax funerals for the benefit of the living?

RECOGNITION OF SOCIETIES.

THE Joint Committee of Insurance Commissioners has issued provisional regulations setting out the information required from a society, not being a society registered or established under any Act of Parliament, or by Royal Charter, which applies for approval desiring to become an approved society under Section 23 of the Insurance Act. Among the points upon which information is required are the manner of determining disputes between the society or in the branch thereof and any person who is or has ceased to be a member of the society or branch, and the manner of admission and expulsion of members.

The National Insurance Commission for England has issued model rules for societies with male members only, for societies with both male and women members, and for societies with women members only.

The Commission has notified that it is now in a position to consider applications for the approval of societies, and has issued also special regulations with regard to small societies and employers' provident funds.

Hospitals and Asylums.

ANCOATS HOSPITAL.

IN the annual report of the Ancoats Hospital, Manchester, the Committee of Management expressed some concern lest the Insurance Bill may have an adverse effect on the subscription list, "owing to the erroneous impression that the State is proposing to undertake the work which has hitherto been done by hospitals." Whatever the effect of the bill may be on the out-patient department the committee cannot see anything in it which will tend to the relief of the in-patient department, which is the costly part of the hospital's work. The hope that the hospital would find some relief to the pressure on its accident department when the Royal Infirmary was established in its new quarters had not been realized, as the new casualty cases come in at the rate of 65 a day, as compared with 41 in 1908, and the total accident cases last year numbered 23,890. The balance sheet showed an income of £6,879 and expenditure of £8,660, leaving a deficit of £1,780, the debt owing to the bank being now about £9,321. The Committee of Management has now decided not to insist on the production of "recommends" from people applying for medical aid, though the "recommends" will still be issued to all who will use them, as it is felt to be an advantage to have an outsider who is willing to take the trouble of investigating cases and reporting to the hospital.

WOLVERHAMPTON EYE INFIRMARY.

THE annual report shows that the total number of new patients in 1911 was 7,721, and the number of in-patients 572. Accidents to the number of 3,849 had been treated. These were the busiest twelve months the institution had known, for there had been an increase of about 500 new patients over any previous year.

To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.

Association Notices.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

A LIST of periodical publications, official reports, and Blue Books in the Library of the British Medical Association available for issue to members on loan has been printed, and copies can be obtained free on application to the Librarian, at the house of the Association, 429, Strand, W.C. The regulations governing the loan of these publications are stated in the introduction to the list.

The Library is open for consultation from 10 a.m. till 5 p.m. (on Saturdays till 2 p.m.).

BRANCH AND DIVISION MEETINGS TO BE HELD.

LANCASHIRE AND CHESHIRE BRANCH.—A meeting of the Branch Council will be held at Onward Buildings, Deansgate, Manchester, on Wednesday, March 13th, at 4.30 p.m.—F. CHARLES LARKIN, Liverpool, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: HAMPSTEAD DIVISION.—A meeting of this Division will be held on Friday, March 8th, at 8.30 p.m., at the Conservatoire, Swiss Cottage. Business: Election of Representatives to Representative Meetings and reorganization of Middlesex portion of the Division.—M. L. DOBBIE, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: MARYLEBONE DIVISION.—A general meeting of the Division will be held at the rooms of the Medical Society of London, 11, Chandos Street, W., on Tuesday, March 12th, 1912, at 5 p.m. Agenda: (1) Minutes. (2) Questions. (3) Letters. *National Insurance Act:* (4) To receive the report of the Representative on the Special Representative Meetings, February 20th, 21st, 22nd; and to discuss resolutions (if any) relating thereto. (5) Nomination to the Advisory Committee (BRITISH MEDICAL JOURNAL, March 2nd, p. 511). (6) To consider the advisability of forming a local provisional Medical Committee. (7) To consider the advisability of forming a Special Committee to advise on the relation of medical officers of hospitals to the Act. (8) To consider the mode of election of Representatives of the Division on the Representative Body for the ensuing year. (Under the new by-law the Division may elect six.) To proceed to the election or otherwise as shall be determined. (9) Any other business.—N. BISHOP HARMAN, Honorary Secretary, 108, Harley Street, W.

METROPOLITAN COUNTIES BRANCH: SOUTH-WEST ESSEX DIVISION.—A meeting of the Division will be held at Whipps Cross Infirmary, Leytonstone, on Thursday, March 14th, at 4 p.m. Agenda: (1) Minutes. (2) Correspondence. (3) Clinical demonstration by J. C. Muir, M.D., Medical Superintendent, Whipps Cross Infirmary. (4) Any other business.—A. POTTINGER ELDRED, Honorary Secretary.

MIDLAND BRANCH: LEICESTER AND RUTLAND DIVISION.—A meeting of the Division will be held at the Leicester Infirmary, on Wednesday, March 13th, at 4 o'clock. Agenda: Minutes of the previous meeting. Report of the Representative on the Special Representative Meeting. Nomination of member of Advisory Committee, for consideration of Council. Nomination of two Representatives of the Division for the Annual Representative Meeting at Liverpool. Should more than two gentlemen be nominated, the Honorary Secretary will move: "That the election shall be by voting papers circulated through the post." Clinical cases will be exhibited.—R. WALLACE HENRY, Honorary Secretary, Leicester.

SOUTH-EASTERN BRANCH: BRIGHTON DIVISION.—The next ordinary meeting of the Division will be held on Wednesday, March 20th.—C. H. BENHAM, M.D., Honorary Secretary.

YORKSHIRE BRANCH: BRADFORD DIVISION.—A meeting of the Division will be held at the Great Northern Victoria Hotel, Bradford, on Tuesday, March 12th, at 8.30 p.m. Agenda: (1) Minutes. (2) Report of Representative on recent Representative Meeting. (3) Report of provisional local Medical Committee. (4) Discussion on position of hospital staffs under the Act. (5) Any other business.—J. BEATTIE DUNLOP and J. WHERRY WILLSON, Honorary Secretaries.

SEVENTEENTH INTERNATIONAL CONGRESS OF MEDICINE.

(London, August 6th to 12th, 1913.)

MEETING OF ORGANIZATION COMMITTEE.

A MEETING of the Organization Committee was held on Monday, February 19th, at 5 p.m., in the Library of the Royal College of Physicians, the PRESIDENT in the chair. Forty-two other members were present.

Minutes.

The minutes (published in the *Lancet* and the BRITISH MEDICAL JOURNAL of July 22nd, 1911) were confirmed.

Apologies for Non-attendance.

Letters of regret from twenty members were read.

Report of Executive Committee.

In a report by the Executive Committee it was stated:

1. That His Royal Highness Prince Arthur of Connaught had graciously consented to open the Congress.

2. That certain additional Vice-Presidents of Congress and Officers of Sections would be elected as in the list given below.

3. That Dr. Clive Riviere, Secretary of Reception Committee, had been elected to Executive Committee.

4. That the following: Professor Chauffard (Medicine), Professor Harvey Cushing (Surgery), Geheimrat Professor Paul Ehrlich (Pathology) had been invited to deliver general addresses and had accepted.

5. That a Circular Invitation with Lists of Sections and principal Officers of Congress, Rules of Congress, Rules of Sections, and Form of Application (published in *Lancet* and BRITISH MEDICAL JOURNAL of January 6th, 1912) had been issued by post to 6,600 medical men throughout the world, and that abridged notices had appeared in a large number of foreign medical journals.

6. That at a meeting of Officers of Sections, the following programme of discussions had been drawn up, subject to alterations, if necessary.

PROVISIONAL PROGRAMME OF SUBJECTS FOR DISCUSSION.

SECTION I.—ANATOMY.

1. The Excitatory and Connecting Muscular System of the Heart (jointly with III, 2). 2. The Morphology of the Sympathetic System. 3. The Early Stages of the Human Ovum. 4. Cerebral Localization and the Precise Significance of Sulci. 5. The Morphology of the Shoulder Girdle.

SECTION II.—PHYSIOLOGY.

1. Internal Secretions (jointly with VI, 1). 2. Reciprocal Innervation. 3. Endogenous Metabolism of Proteins (jointly with III (A), 5).

SECTION III.—GENERAL PATHOLOGY AND PATHOLOGICAL ANATOMY.

1. The Pathology of Shock. 2. The Excitatory and Connecting Muscular System of the Heart (jointly with I, 1). 3. Grafting of Normal Tissues as Dependent upon Zoological or Individual Affinity; Autoplastic, Isoplastic, Heteroplastic. 4. The Pathology of Fats and Lipoids. 5. The Effect of Radio-active Substances and Radiations upon Normal and Pathological Tissues.

SUBSECTION (A).—CHEMICAL PATHOLOGY.

1. Pathological Conditions due to Defects in Diet. 2. Clinical Applications of Pathological Chemistry. 3. The Chemical Pathology of the Alimentary Tract. 4. Cancer (jointly with IV, 3). 5. Endogenous Metabolism of Proteins (jointly with II, 3).

SECTION IV.—BACTERIOLOGY AND IMMUNITY.

1. Theories of Immunity and Anaphylaxis. 2. Nature of Virulence. 3. Cancer (jointly with III (A), 4). 4. Filter Passers. 5. Leprosy and Allied Bacilli.

SECTION V.—THERAPEUTICS.

1. On the Comparative Value of the Cardiac and Vascular Remedies in Common Use. 2. The Mode of Action and Uses of Remedies for Pain or Sleeplessness. 3. Chemical Toxins and Antitoxins. 4. A Laboratory Meeting. 5. A Discussion upon a Subject Relating to Balneology or Physio-Therapy.

SECTION VI.—MEDICINE.

1. Correlation of Organs of Internal Secretions and their Disturbances (jointly with II, 1). 2. Differentiation of the Chronic Arthrites. 3. The Pathology of Heart Failure. 4. Diabetes. 5. The Clinical Aspects of Haemolysis.

SECTION VII.—SURGERY.

1. The Operative Treatment of Malignant Disease of the Large Intestine (Excluding the Rectum). 2. The Treatment of Tumours of the Brain, and the Indications for Operation (jointly with XI, 5). 3. Intrathoracic Surgery. 4. The Treatment of Early Renal and Vesical Tuberculosis (jointly with XIV, 1). 5. The Surgery of the Arterial System.

SUBSECTION (A).—ORTHOPAEDICS.

1. The Treatment of Spastic Paralyses. 2. The Treatment of Scoliosis. 3. Radiography of Bones and Joints, and its Value in Orthopaedic Surgery (jointly with XXII, 5). 4. The Treatment of Ankylosis. 5. The Treatment of Tuberculous Joints in Childhood (to be on a different day from X, 3).

SUBSECTION (B).—ANAESTHESIA.

1. (*a*) Recent Methods for Producing Analgesia—(1) Intrathecal; (2) Local; (3) Regional. (*b*) Contrast the Immediate and After-Effects, Especially Shock—for example, Intrathecal and Local Analgesia with Inhalational Anaesthesia, with Special Reference to Psychic Shock. 2. Recent Methods of General Anaesthesia: (*a*) Ether—(i) Open Method, (ii) Intravascular, (iii) Intratracheal, (iv) Nasal, (v) Rectal. (*b*) Inhalational Anaesthesia in Association with Alkaloidal Bodies—(i) Nitrous Oxide in Major Surgery, (ii) Ether, (iii) Chloroform. 3. Dosimetric Method of Administering—(1) Chloroform. (*a*) Regulators; (2) Ether, (*b*) Mixtures. 4. Post-operative Effects and Toxaemias Associated with Anaesthetics.

SECTION VIII.—OBSTETRICS AND GYNAECOLOGY.

1. Cancer of the Uterus (Body and Cervix); Operative Technique and Results. 2. Roentgen and Radium Therapy in Gynaecology (jointly with XXII, 1). 3. The Treatment of Haemorrhage from the Placental Site (Placenta Praevia and Accidental Haemorrhage) in the Later Months of Pregnancy. 4. Infant Mortality in the First Four Weeks of Life (jointly with X, 5, and XVIII, 1).

SECTION IX.—OPHTHALMOLOGY.

1. The Pathogenesis of Chronic Uveitis, Excluding the Syphilitic, Tuberculous, and Sympathetic Varieties. 2. Glaucoma Operations, with Special Reference to the Comparative Results Attained by Iridectomy and its Recent Substitutes. 3. Affections of the Eye Produced by Undue Exposure to Light. 4. Anaphylaxis in its Relation to Ophthalmology. 5. "Demonstration" Meeting, or a discussion upon a subject not yet determined.

SECTION X.—DISEASES OF CHILDREN.

1. Infection of the Urinary Tract with Colon Bacilli (on a different day from XIV, 3). 2. Effects of the Ductless Glands on Development (on a different day from II, 1, and VI, 1). 3. Treatment of Tuberculosis in Childhood from the Surgical Point of View, with Special Reference to the Bones, Joints, and Glands (on a different day from VII (*a*), 5). 4. Polioencephalitis and Poliomyelitis. 5. Infant Mortality in the First Four Weeks of Life (jointly with VIII, 4, and XVIII, 1).

SECTION XI.—NEUROPATHOLOGY.

1. The Symptoms of Cerebellar Disease and their Significance. 2. Motor Aphasia, Anarthria, and Apraxia. 3. The Relation of Trauma to Degenerative Diseases of the Nervous System. 4. The Nature of the Condition termed Parasyphilis (on a different day from XII, 5). 5. The Treatment of Tumours of the Brain, and the Indications for Operation (jointly with VII, 2).

SECTION XII.—PSYCHIATRY.

1. The Psychiatric Clinic, its Aims (Educational and Therapeutic) and the Results Obtained in Respect to Promotion of Recovery. 2. The Psychoses of Infection and Autointoxication. 3. Psycho-Analysis. 4. The Psychology of Crime (jointly with XIX, 4). 5. The Syphilitic and the Parasyphilitic Insanities (on a different day from XI, 4).

SECTION XIII.—DERMATOLOGY AND SYPHILOGRAPHY.

1. Epithelioma of the Skin, Benign and Malignant. 2. Syphilis: its Dangers to the Community and the Question of State Control (jointly with XIX, 3). 3. Alopecia Areata and Allied Conditions. 4. The Treatment of Syphilis by Salvarsan and Allied Substances (jointly with XX, 7). 5. The Vaccine Treatment of the Diseases of the Skin.

SECTION XIV.—UROLOGY.

1. The Treatment of Early Renal and Vesical Tuberculosis (jointly with VII, 4). 2. The Early Diagnosis and Treatment of Malignant Disease of the Prostate. 3. The Value of Vaccines in the Treatment of Haemic Infections of the Urinary Tract.

SECTION XV.—RHINOLOGY AND LARYNGOLOGY.

1. The Disorders and Pathological Changes Produced in the Pharynx and Larynx by the Overuse and Misuse of the Voice. 2. The Treatment of Syphilitic Diseases of the Throat, Nose, and Ear, by Salvarsan and other Arsenical Compounds (jointly with XVI, 2). 3. The Question of Treatment of Diseases of the Throat and Nose by Therapeutic Inoculation, Exclusive of Tuberculin and Diphtheritic Antitoxin. 4. The Special Treatment of the Throat, Nose, and Ear during the Active Stages of Certain Infectious Fevers—namely, Scarlet Fever, Measles, German Measles, Mumps, Influenza, Typhoid, Whooping-cough, Small-pox, Cerebro-spinal Meningitis, Erysipelas (Diphtheria Excluded). 5. Malignant Disease of the Post-cricoid Region.

Section XVI.—Otology.

1. Pathology of Deaf-mutism. 2. The Treatment of Syphilitic Diseases of the Throat, Nose, and Ear, by Salvarsan and other Arsenical Compounds (jointly with XV, 2). 3. Treatment of Non-suppurative Diseases of the Labyrinth. 4. The Special Treatment of the Throat, Nose, and Ear during the Active Stages of Certain Infectious Fevers—namely, Scarlet Fever, Measles, German Measles, Mumps, Influenza, Typhoid, Whooping-cough, Small-pox, Cerebro-spinal Meningitis, Erysipelas (Diphtheria Excluded) (jointly with XVI, 4). 5. Climatic and Occupational Influences in Diseases of the Ear.

Section XVII.—Stomatology.

1. The Pathology and Treatment of Periodontal Disease (Pyorrhoea Alveolaris). 2. The Relation of Nasal Obstruction to Dental Disease. 3. A Discussion on Reflex and Functional Disturbances in Connexion with Teeth. 4. Dental Diseases in Relation to Public Health. 5. The Supervision of the Health of Children between Infancy and School Age (jointly with XVIII, 3).

Section XVIII.—Hygiene and Preventive Medicine.

1. Infant Mortality in the First Four Weeks of Life (jointly with VIII, 4, and X, 5). 2. The Causes, Prevention, and Treatment of Visual Defects in School Children. 3. The Supervision of the Health of Children between Infancy and School Age (jointly with XVII, 5). 4. (*a*) The Factors that Determine the Rise, Spread, and Degree of Severity of Epidemic Diseases. (*b*) Protective Inoculation in Acute Infectious Diseases. 5. The Effects of Dust in Producing Diseases of the Lungs.

Section XIX.—Forensic Medicine.

1. The Cause and Prevention of Suicide. 2. The Habitual Inebriate in relation to Civil and Criminal Responsibility. 3. Syphilis: its Dangers to the Community and the Question of State Control (jointly with XIII, 2). 4. The Psychology of Crime (jointly with XII, 4). 5. The Constitution and Equipment of a Medico-legal Institute.

Section XX.—Naval and Military Medicine.

1. Hospital Ships and Transport of Wounded. 2. Caisson Disease. 3. The Physiology of Physical Training and Marching. 4. Water Supplies in the Field. 5. Antityphoid Inoculation. 6. Transport of Wounded in Hill Warfare. 7. The Treatment of Syphilis by Salvarsan and Allied Substances (jointly with XIII, 4). 8. Sanitary Organization in the Tropics (jointly with XXI, 5).

Section XXI.—Tropical Medicine and Hygiene.

1. Relapsing Fevers. 2. Leishmaniasis. 3. Plague. 4. Beriberi. 5. Sanitary Organization in the Tropics (jointly with Section XX, 8).

Section XXII.—Radiology.

1. Roentgen and Radium Therapy in Gynaecology (jointly with VIII, 2). 2. The Radiotherapy of Malignant Disease. 3. The X-Ray Examination of the Chest. 4. The X-Ray Examination of the Abdomen. 5. The X-Ray Examination of Bones and Joints and its Value in Orthopaedic Surgery (jointly with VII (*a*), 3).

Estimate.

The Executive Committee further reported that the following Estimate of Expenses had been drawn up by the Treasurer, reported by the Finance Committee, and adopted:

I.—*General Expenditure.*

(*a*) General Meetings ... ... (If the Albert Hall be used the expense may be somewhat less)	£300
(*b*) Section Meetings	800
(*c*) Badge	180
(*d*) Secretarial work	500
Rent of offices	350
(*e*) Printing, postage, stationery, and various	3,250
(*f*) Pathological Museum	500
	£5,880

II.—*Entertainments.*

1. An opening evening Reception.	
2. An evening Garden Fête or Soirée ...	£1,500

III.—*Transactions.*

Transactions	£5,000

Estimated Total Expenditure.

I. General	£5,880
II. Entertainments	1,500
III. Transactions	5,000
	£12,380

Reception Committee.

On the report of the Reception Committee it was resolved to recommend:

That there be a formal Reception by the President on the evening of Wednesday, August 6th, 1913, being the first day of Congress.

That the arrangements for Sectional Dinners be left in the hands of the Sections.

Letters.

The Executive Committee further reported that letters had been received from

Professor Sudhoff (Berlin) in the name of the Deutsche Gesellschaft für Geschichte der Medizin.
Dr. Comrie, Lecturer on the History of Medicine (Edinburgh).
Dr. T. von György, Lecturer on History of Medicine (Budapest).
Dr. E. Wickersheimer, in the name of the Société Française d'Histoire de la Médecine.

And others, urging the establishment of a Section of the History of Medicine,

and that it had been resolved to recommend

That the Establishment of a Section of the History of Medicine be recommended to the Permanent Commission.

The report of the Executive Committee was adopted.

Historic Exhibits Committee.

It was further resolved that the Historic Exhibits Committee be dissolved.

Proposed Additions to List of Vice-Presidents and Officers of the Congress.

The following are the names it has been decided to submit to the Organization Committee:

Vice-Presidents of Congress.

Sir Wm. S. Church, Bart.; Professor Rickman J. Godlee, P.R.C.S.; Professor James Little, M.D., F.R.C.P.I.; Professor Sir Wm. Macewen, F.R.S.; Sir Henry Morris, Bart.; Sir R. Douglas Powell, Bart.

Section II.—Physiology.

Council.—Professor F. A. Bainbridge, M.D.

Section III. Subsection (A).—Chemical Pathology.

Vice-Presidents.—Professor I. Walker Hall, M.D., Professor B. Moore, D.Sc.

Council.—J. O. Wakelin Barratt, M.D., George Barger, D.Sc., W. Cramer, D.Sc., E. S. Edie, M.A., G. C. Garratt, M.D., A. Harden, D.Sc., F.R.S., Hugh Maclean, M.D., William Mair, M.D., J. A. Menzies, M.D., J. A. Milroy, M.D., W. Ramsden, M.D., S. B. Schryver, D.Sc., Ch. Weizmann, D.Sc.

Section V.—Therapeutics.

Vice-Presidents.—Professor J. B. Bradbury, M.D., Sir James Sawyer, M.D.

Section VI.—Medicine.

Vice-Presidents.—Sir James O. Affleck, M.D.; Sir Clifford Allbutt, K.C.B., F.R.S.; Professor Samson Gemmell, M.D.; Professor J. A. Lindsay, M.D.; Sir Christopher J. Nixon, Bart., M.D.; Professor Sir George Hare Philipson, M.D.; Frederick Taylor, M.D.

Council.—T. Dyke Acland, M.D.; Sir James Barr, M.D.; Professor Alfred G. Barrs, M.D.; Sir John Rose Bradford, K.C.M.G., M.D., F.R.S.; J. Mitchell Bruce, M.D.; Professor D. Burgess, M.B., F.R.C.P.; W. Calwell, M.D.; Professor J. Michell Clarke, M.D.; Wm. Collier, M.D.; P. J. Cremen, M.D.; Norman Dalton, M.D.; Sir Bertrand Dawson, K.C.V.O., M.D.; David Drummond, D.C.L., M.D.; Professor F. H. Edgeworth, M.D.; J. Magee Finny, M.D.; Sir J. K. Fowler, K.C.V.O., M.D.; G. A. Gibson, LL.D., M.D.; Professor T. R. Glynn, M.D.; Professor T. Wardrop Griffith, M.D.; F. de Havilland Hall, M.D.; Herbert P. Hawkins, M.D.; Professor Walter K. Hunter, M.D.; Alex. James, M.D.; Percy Kidd, M.D.; James Mackenzie, M.D.; Professor T. K. Monro, M.D.; Norman Moore, M.D.; Professor G. R. Murray, M.D.; J. F. O'Carroll, M.D.; Sir Thomas Oliver, M.D.; R. W. Philip, M.D.; Sidney Phillips, M.D.; G. Newton Pitt, M.D.; William Russell, M.D.; Professor R. Saundby, M.D.; Seymour J. Sharkey, M.D.; Sir Robert M. Simon, M.D.; Professor A. M. Stalker, M.D.; Professor Graham Steell, M.D.; Seymour Taylor, M.D.; G. P. Tennent, M.D.; Samuel West, M.D.

Section VII.—Surgery.

Vice-Presidents.—Sir William H. Bennett, K.C.V.O.; Professor C. Yelverton Pearson, M.D.

Council.—Sir Alfred D. Fripp, K.C.V.O., C.B.; Professor R. Lawford Knaggs, M.D.; Professor Jordan Lloyd, F.R.C.S.; Professor David MacEwan, M.D.; Professor Charles A. Morton; Professor Rushton Parker; Professor R. J. Pye-Smith; Professor James Swain, M.D., F.R.C.S.; Professor H. Taylor, M.D.

Section VII.—(Subsection (B) Anaesthesia.)

Vice-President.—D. C. A. McAllum, M.B., C.M.

Section XIV.—Urology.

Secretary.—Cyril A. R. Nitch, M.S., F.R.C.S.

Section XVI.—Otology.

Vice-Presidents.—Thomas Barr, M.D.; T. Mark Hovell, F.R.C.S.Edin.; Edward Law, M.D.; James Kerr Love, M.D.; Wm. Milligan, M.D.

Council.—Harold S. Barwell, F.R.C.S.; George N. Biggs, M.B.; J. Mackenzie Booth, M.D.; H. H. B. Cunningham, M.D.;

J. Gay French, F.R.C.S.; Cecil Graham, F.R.C.S.; Thomas Guthrie, F.R.C.S.; Somerville Hastings, F.R.C.S.; F. Marsh, F.R.C.S.; W. M. Mollison, F.R.C.S.; F. H. Westmacott, F.R.C.S.; G. Wilkinson, F.R.C.S.

Secretaries.—J. S. Fraser, F.R.C.S.Edin.; Professor John B. Story, M.Ch., F.R.C.S.I.

SECTION XIV.—STOMATOLOGY.

Vice-Presidents.—A. W. W. Baker, M.D., L.D.S.; F. J. Bennett, M.R.C.S., L.D.S.; E. A. Bevers, M.R.C.S.; J. H. Gibbs, F.R.C.S.Edin., L.D.S.; Frank Harrison, M.R.C.S., L.D.S.; W. A. Hooton, M.R.C.S., L.R.C.P., L.D.S.; Edward Lloyd-Williams, M.R.C.S., L.R.C.P., L.D.S.; W. A. Maggs, M.R.C.S., L.R.C.P., L.D.S.; Sidney Spokes, M.R.C.S., L.D.S.; Charles S. Tomes, F.R.C.S., F.R.S.; Professor Arthur Underwood, M.R.C.S., L.D.S.

Council.—W. R. Ackland, M.R.C.S., L.D.S.; L. Broughton-Head, M.B., L.D.S.; Ernest B. Dowsett, M.R.C.S., L.R.C.P., L.D.S.; Douglas Gabell, M.R.C.S., L.R.C.P., L.D.S.; Kenneth Goadby, M.R.C.S., L.R.C.P., L.D.S.; W. Hern, M.R.C.S., L.D.S.; A. Hopewell-Smith, M.R.C.S., L.R.C.P., L.D.S.; W. E. Margetson, M.R.C.S., L.D.S.; Walter S. Nowell, M.R.C.S., L.R.C.P., L.D.S.; Herbert J. Relph, M.R.C.S., L.R.C.P., L.D.S.; J. G. Turner, F.R.C.S., L.D.S., J. Sim Wallace, D.Sc., M.D., L.D.S.; H. Lloyd Williams, M.R.C.S., L.D.S.

SECTION XVIII.—HYGIENE AND PREVENTIVE MEDICINE.

Vice-Presidents.—Edward C. Seaton, M.D.; Sir Arthur Whitelegge, K.C.B., M.D.

Council.—G. S. Buchanan, M.D., W. H. Hamer, M.D.

SECTION XX.—NAVAL AND MILITARY MEDICINE.

Council.—Lieutenant-Colonel E. Jennings, I.M.S., M.R.C.S.

SECTION XXI.—TROPICAL MEDICINE AND HYGIENE.

Vice-President.—Professor Sir Ronald Ross, K.C.B., F.R.S.

Council.—Sir Patrick Manson, M.D., F.R.S.

SECTION XXII—RADIOLOGY.

Council.—A. E. Hayward Pinch, F.R.C.S.

NOMINATIONS FROM CANADIAN MEDICAL COMMITTEE.

The following nominations have been received from the Canadian National Committee in response to the invitation sent them by the Organization Committee:

Executive Committee.

Dr. Alexander McPhedran, Toronto. Dr. W. H. B. Aikens, Secretary of the Canadian Committee, Toronto.

Organizing Committee.

Dr. George Armstrong, Montreal, President of the Canadian Medical Association; Dr. C. K. Clarke, Dean of the Medical Faculty, University of Toronto; Dr. J. C. Connell, Dean of the Medical Faculty, Queen's University, Kingston; Dr. H. H. Chown, Dean of the Medical Faculty, University of Manitoba, Winnipeg; Dr. E. P. Lachapelle, Dean of the Medical Faculty, Laval University, Montreal; Dr. F. J. Shepherd, Dean of the Medical Faculty, McGill University, Montreal.

SECTION I.—ANATOMY.

Council.—James Playfair McMurrich, M.A., Ph.D., Professor of Anatomy, University of Toronto.

SECTION II.—PHYSIOLOGY.

Vice-President.—Thomas Gregor Brodie, M.D., F.R.S., Professor of Physiology, University of Toronto.

Council.—Archibald Byron Macallum, M.A., M.B., Ph.D., Sc.D., LL.D., F.R.S.Can., F.R.S., Professor of Bio-Chemistry, University of Toronto; Swale Vincent, M.D., D.Sc., F.R.S.Can., Professor of Physiology, Manitoba University.

SECTION III.—GENERAL PATHOLOGY.

Vice-President.—J. G. Adami, M.A., M.D., F.R.S., Professor of Pathology, McGill University.

Council.—John Joseph Mackenzie, M.D., Professor of Pathology and Bacteriology, University of Toronto; Henri Hervieux, M.D., Professor of Pathology, Laval University of Montreal.

SECTION III (A)—CHEMICAL PATHOLOGY.

Council.—John Beresford Leathes, M.B., F.R.C.S., Professor of Chemical Pathology, University of Toronto.

SECTION IV—BACTERIOLOGY AND IMMUNITY.

Council.—Alfred H. Caulfield, M.B., Director of the Pathological Department, National Sanatorium Association, Gravenhurst, Ontario; Gordon Bell, M.D., Bacteriologist for Manitoba, Professor of Bacteriology, Manitoba University.

SECTION V.—THERAPEUTICS.

Vice-President.—A. C. Blackadder, B.A., M.D., Professor of Pharmacology and Therapeutics, McGill University.

Council.—Yelvien Ewart Henderson, M.A., M.B., Associate Professor of Pharmacy and Pharmacology, University of Toronto.

SECTION VI.—MEDICINE.

Vice-President.—A. McPhedran, M.D., Professor of Medicine, University of Toronto.

Council.—Harry Bertram Anderson, M.D., Associate Professor of Clinical Medicine, University of Toronto; F. C. Finley, M.D., Professor of Medicine and Clinical Medicine, McGill University; H. A. McCallum, M.D., Professor of Clinical Medicine, Western University, London, Ontario; James Third, M.D., Professor of Medicine, Queen's University, Kingston, Ontario.

SECTION VII.—SURGERY.

Vice-President.—F. J. Shepherd, M.D., Professor of Anatomy, McGill University.

Council.—Irving Howard Cameron, F.R.C.S., Professor of Surgery and Clinical Surgery, University of Toronto; J. Alex. Hutchinson, M.D., Associate Professor of Surgery and Clinical Surgery, McGill University; O. M. Jones, M.D., Victoria, British Columbia; Eugene St. Jacques, M.D., Director of the Course of Pathological Anatomy, Laval University, Adj. Professor of Clinical Surgery; John Stewart, M.B., C.M., Emeritus Professor of Surgery, Dalhousie University, Halifax, News Brunswick; H. T. Williams, M.D., F.R.C.S., Assistant Professor of Clinical Surgery, Western University, London, Ontario.

SUBSECTION (A).—ORTHOPAEDICS.

Council.—Clarence L. Starr, M.B., Associate Professor of Clinical Surgery, University of Toronto.

SUBSECTION (B)—ANAESTHETICS.

Council.—Robert A. Stevenson, M.D., Toronto; Samuel Johnston, B.A., M.D., C.M., Demonstrator in Anaesthesia, University of Toronto.

SECTION VIII.—OBSTETRICS.

Vice-President.—Adam Henry Wright, B.A., M.D., Professor of Obstetrics, University of Toronto.

Council.—J. C. Cameron, M.D., Professor of Obstetrics and Diseases of Infants, McGill University.

SECTION IX.—OPHTHALMOLOGY.

Vice-President.—Richard Andrew Reeve, B.A., M.D., LL.D., Professor of Ophthalmology and Otology, University of Toronto.

Council.—J. W. Stirling, M.D., Professor of Ophthalmology, McGill University.

SECTION X.—DISEASES OF CHILDREN.

Council.—Allen MacKenzie Baines, M.D., Associate Professor of Pediatrics, University of Toronto.

SECTION XI.—NEUROPATHOLOGY.

Council.—D. A. Shirres, M.D., Lecturer in Clinical Neurology McGill University; Ernest Jones, M.D., Associate Professor of Psychiatry, University of Toronto.

SECTION XII.—PSYCHIATRY.

Vice-President.—C. K. Clarke, M.D., Professor of Psychiatry, University of Toronto.

Council.—T. J. W. Burgess, M.D., Professor of Mental Diseases, McGill University; W. H. Hattie, M.D., Medical Superintendent, Nova Scotia Hospital; Edward Ryan, M.D., Professor of Mental Diseases, Queen's University, Kingston.

SECTION XIII.—DERMATOLOGY.

Council.—Philip Burnett, M.D., Montreal General Hospital; G. G. Campbell, B.Sc., M.D., Lecturer in Medicine and Clinical Medicine and in Dermatology, McGill University; David King Smith, M.B., Toronto General Hospital.

SECTION XIV.—UROLOGY.

Council.—Edmund E. King, M.D., Toronto.

SECTION XV.—RHINOLOGY.

Vice-President.—J. D. Gibb Wishart, M.D., Associate Professor of Laryngology and Rhinology, University of Toronto.

SECTION XVI.—OTOLOGY.

Vice-President.—H. S. Birkett, M.D., Professor of Otology, McGill University.

SECTION XVIII.—HYGIENE.

Vice-President.—Charles A. Hodgetts, M.D., C.M., Medical Adviser, Commission of Conservation, Ottawa.

Council.—R. M. Simpson, M.D., M.O.H. for the Province of Manitoba.

SECTION XIX.—FORENSIC MEDICINE.

Council.—D. B. MacTaggart, M.D., Professor of Medical Jurisprudence, McGill University.

SECTION XX.—NAVAL AND MILITARY MEDICINE.

Vice-President.—Colonel Guy Carleton Jones, M.D., C.M., M.R.C.S., Director-General, Medical Services, Militia of Canada, Ottawa.

Council.—Lieutenant-Colonel J. T. Fotheringham, M.D., Army Medical Corps, Toronto.

SECTION XXI.—TROPICAL MEDICINE.

Council.—J. L. Todd, B.A., M.D., B.Sc., Associate Professor of Parasitology, McGill University.

SECTION XXII.—RADIOLOGY.

Council.—F. C. Harrison, M.B., Assistant in Pharmacology, University of Toronto; Physician, Toronto Hospital for Incurables.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

DEPUTY SURGEON-GENERAL ALEXANDER JOHN JOHNSTON has been promoted to the rank of Surgeon-General, dated February 2nd, 1912.

The following appointments have been made:

Deputy Surgeon-General D. T. HOSKYN to Hong Kong Hospital.

Deputy Surgeon-General W. H. NORMAN to Malta Hospital.

Deputy Surgeon-General P. B. HANDYSIDE to Plymouth Hospital.

Deputy Surgeon-General W. W. PRYM to Chatham Hospital.

Fleet Surgeon EDGAR RALPH DIMSEY, D.S.O., has been promoted to the rank of Deputy Surgeon-General, dated February 2nd, 1912.

Fleet Surgeon M. P. JONES to *President*, additional, for special hospital course, April 1st.

Fleet Surgeon M. L. B. RODD to *President*, additional, for three months' special course in Surgery at the Dreadnought Seamen's Hospital, March 7th.

Fleet Surgeon R. A. ROSS to *Hindustan*, on recommissioning.

Fleet Surgeon W. E. MARSHALL to *Duke of Edinburgh*, on recommissioning.

Staff Surgeon H. C. WHITESIDE to *St. George*, temporary, vice Grazebrook.

Staff Surgeon C. R. SHEWARD to *Pomone*, additional, for Royal Naval Medical College, Dartmouth, dated February 5th.

Staff Surgeon F. BOLSTER to Plymouth Hospital, temporary, dated February 24th.

Staff Surgeon H. P. TURNBULL to *Vernon*, additional, for *Vindictive*, on recommissioning, undated.

Staff Surgeon G. H. S. MILLN to *Duke of Edinburgh* on recommissioning, February 19th.

Surgeon F. G. H. P. BLACK to *Hecla*, March 19th.

ARMY MEDICAL SERVICE.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL WILLIAM A. MORRIS is placed on retired pay, March 1st.

Lieutenant-Colonel E. H. LYNDEN BELL has been granted general leave to November 13th.

Lieutenant-Colonel F. J. MORGAN has been granted eight months' general leave.

Major E. C. FREEMAN, retired, has been granted an extension of one year in his appointment as Staff Officer to the Administrative Officer, East Anglian Territorial Division.

Major WILLIAM HALLARAN, M.B., to be Lieutenant-Colonel, vice W. A. Morris, dated March 1st.

Major P. H. FALKNER, from Bermuda, has joined the London District for temporary duty as Recruiting Medical Officer.

Major F. G. RICHARDS, from Jamaica, has been appointed to the Cork District for duty from March 10th.

Major H. E. WINTER, from Gravesend, has been appointed Deputy Surgeon at the Royal Hospital, Chelsea, vice Major F. Kiddle.

The under mentioned Captains to be Majors, dated February 29th, 1912: FRANCIS P. LAUDER; JOHN TOBIN.

Captain A. C. AMY to hold Civil Medical Charge of Ranikhet in addition to his military duties.

Captain E. V. AYLEN has been granted eight months' general leave.

SPECIAL RESERVE OF OFFICERS.

Lieutenant THOMAS LINDSAY, M.B., is confirmed in his rank.

INDIAN MEDICAL SERVICE.

MAJOR LEONARD ROGERS, C.I.E., has been reappointed a member of the Committee of Management, Zoological Gardens, Calcutta.

Major M. DICE, on return from leave, was posted as Civil Surgeon to Meiktila.

Major R. I. BINNING has received medical charge of Ahmedabad, Central Provinces.

Major C. S. LOWSON has received medical charge of Yeravda, Central Provinces.

The following promotions are made, subject to His Majesty's approval:

Captains to be Majors.—J. D. C. GRAHAM, M.B., C. A. SPRAWSON, M.B., M. MACKELVIE, M.B., F.R.C.S.E., W. H. CAZALY, M.B., W. V. COPPINGER, M.D., F.R.C.S.I., W. M. HOUSTON, M.B., W. D. KEYS, M.D., A. CHALMERS, M.B., F.R.C.S.I., S. R. GODKIN, F.R.C.S.I.

Captain E. T. HARRIS is temporarily posted to Burma.

Captain H. E. STANGER-LEATHES to act as Personal Assistant to the Surgeon-General with the Government of Bombay, in addition to his own duties.

Captain A. W. M. HARVEY to be in charge of the Brigade Laboratory, Dehra Dun.

Captain C. S. MARR has been granted leave for one year.

The services of Captain T. M. MACRAE, M.B., are placed permanently at the disposal of the Government of the United Provinces of Agra and Oudh with effect from December 16th, 1911, for employment in the Gaol Department.

Captain R. D. MACGREGOR has been granted an extension of leave on medical certificate for six months.

Captain W. A. JUSTICE to be Sanitary Commissioner with effect from February 1st, 1912, in succession to Lieutenant-Colonel H. Thomson, retired.

Lieutenant J. PENNY on return from leave was posted as Civil Surgeon to Bassein.

VOLUNTEER DEPARTMENT.

Lieutenant-Colonel CHARLES DUER, I.M.S. Medical Officer, is transferred from the active list of the Burma Railways Volunteer Corps to the Supernumerary list of the Simla Volunteer Rifles with effect from [illegible] 29th, 1911.

TERRITORIAL FORCE.

ROYAL ARMY MEDICAL CORPS.

First South-Western Mounted Brigade Field Ambulance.—Lieutenant THOMAS H. HAYDON, M.B., and Lieutenant JAMES C. BURTON, to be Captains, dated November 16th, 1911.

Second Wessex Field Ambulance.—Lieutenant EDWARD R. CLARKE, M.B., and Lieutenant CHARLES R. CROWTHER, M.B., to be Captains, dated December 25th, 1911.

Attached to other than Medical Units.—Lieutenant ANDREW ROBERTSON, to be Captain, dated December 9th, 1911. Captain WILLIAM B. ARMSTRONG, M.B., to be Major, dated January 11th, 1912. Captain ROBERT J. W. OSWALD resigns his commission, dated February 28th, 1912.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN ninety-four of the largest English towns 8,793 births and 5,194 deaths were registered during the week ending Saturday last, March 2nd. The annual rate of mortality in these towns, which had been 21.6, 18.6, and 16.8 per 1,000 in the three preceding, declined again to 15.4 per 1,000 in the week under notice. In London the death-rate did not exceed 14.2 per 1,000, against 20.3, 18.1, and 15.4 in the three previous weeks. Among the ninety-three other large towns the death-rates last week ranged from 3.5 in Acton, 6.4 in Wallasey and in Darlington, 7.5 in Ilford, 8.0 in Lincoln, and 8.5 in Willesden and in Southend-on-Sea, to 23.0 in Walsall, 23.7 in Ipswich, 23.8 in Huddersfield, 24.6 in Merthyr Tydfil, 24.9 in Gloucester, and 26.8 in Great Yarmouth. Measles caused a death-rate of 1.4 in Oldham, 1.7 in Rhondda, 2.2 in Manchester, 2.5 in York, 2.7 in Salford, and 2.8 in Warrington; whooping-cough of 2.2 in Tottenham, 2.3 in West Bromwich, 2.8 in Walsall, and 3.8 in Merthyr Tydfil; and diphtheria of 1.6 in Walthamstow and in Rotherham. The mortality from enteric fever and from scarlet fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 34, or 0.7 per cent., of the deaths registered in the ninety-four towns were not certified either by a registered medical practitioner or by a coroner after inquest, and included 6 in Birmingham, 4 in London, and 2 each in Stoke-on-Trent, Dudley, St. Helens, Burnley, Blackburn, and Sunderland. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,512, 1,461, and 1,427 at the end of the three preceding weeks, had further declined to 1,392 on Saturday last: 160 new cases were admitted during the week against 178, 154, and 181 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

IN eighteen of the largest Scottish towns 1,175 births and 784 deaths were registered during the week ending Saturday, March 2nd. The annual rate of mortality in these towns, which had been 22.1 and 18.5 per 1,000 in the two preceding weeks, rose to 18.7 in the week under under notice, but was 3.3 per 1,000 above the mean rate recorded in the ninety-four large English towns. Among the several Scottish towns the death-rates last week ranged from 10.3 in Kirkcaldy, 12.9 in Clydebank, and 13.3 in Aberdeen, to 22.5 in Hamilton and in Kilmarnock, and 24.0 in Greenock. The mortality from the principal infectious diseases averaged 2.2 per 1,000, and was highest in Motherwell and Kilmarnock. The 318 deaths from all causes registered in Glasgow included 27 from measles, 4 from whooping-cough, 4 from diphtheria, and 2 from scarlet fever. Seven deaths from measles were recorded in Greenock, 5 in Edinburgh, and 5 in Kilmarnock; 2 deaths from scarlet fever in Aberdeen; and 3 deaths from whooping-cough in Edinburgh.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, March 2nd, 673 births and 490 deaths were registered in the twenty-two principal urban districts of Ireland, as against 566 births and 545 deaths in the preceding period. The annual death-rate in these districts, which had been 31.0, 26.6, and 24.6 per 1,000 in the three preceding weeks, fell to 22.1 per 1,000 in the week under notice, this figure being 6.7 per 1,000 higher than the mean average death-rate in the ninety-four English towns for the corresponding period. The figures in Dublin and Belfast were 24.9 and 21.6 respectively, those in other districts ranging from 4.4 in Portadown and 4.7 in Sligo to 39.6 in Queenstown and 40.1 in Newtownards, while Cork stood at 21.1, Londonderry at 12.7, Limerick at 16.3, and Waterford at 19.0. The zymotic death-rate in the twenty-two districts averaged 1.6 per 1,000, as against 1.2 in the preceding period.

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

BARNSLEY: BECKETT HOSPITAL.—Second House-Surgeon. Salary, £100 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Second and Third House-Surgeons. Salary, £80 and £75 per annum respectively.

BIRMINGHAM CORPORATION.—Assistant Resident Medical Officer at the City Hospital. Salary, £120 per annum.

BIRMINGHAM GENERAL HOSPITAL.—Two House-Surgeons to special departments. Salary at the rate of £50 per annum each.

BLACKPOOL COUNTY BOROUGH.—Assistant School Medical Officer. Salary, £250 per annum.

BRADFORD ROYAL INFIRMARY.—Two Male House-Surgeons. Salary, £100 per annum.

BRENTFORD UNION.—First Assistant to the Medical Superintendent of the Infirmary and Medical Officer of the Workhouse and Schools. Salary, £185 per annum, increasing to £200.

BRIGHTON AND HOVE HOSPITAL FOR WOMEN.—House-Surgeon. Salary, £80 per annum.

BRISTOL CITY AND COUNTY.—(1) Lady Medical Inspector of Midwives and Health Visitors. (2) Two qualified Nurses as Health Visitors. Salary, £100 and £80 per annum respectively.

BRISTOL EYE HOSPITAL.—House-Surgeon. Salary, £80 per annum.

BRISTOL ROYAL HOSPITAL FOR SICK CHILDREN AND WOMEN.—Junior Resident Officer. Salary, £90 per annum.

CAMBRIDGE: ADDENBROOKE'S HOSPITAL.—House-Physician. Salary, £80 per annum.

CANCER HOSPITAL, Fulham Road, S.W.—(1) Assistant Pathologist. Salary, £350 per annum. (2) House-Surgeon. Salary at the rate of £70 per annum.

CARLISLE NON-PROVIDENT DISPENSARY.—Resident Medical Officer. Salary, £150 per annum.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—Clinical Assistant.

CHELTENHAM GENERAL HOSPITAL.—House-Physician. Salary, £80 per annum, rising to £100 on becoming Senior Medical Officer.

CHORLEY: RAWCLIFFE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

DORCHESTER: COUNTY ASYLUM.—Second Assistant Medical Officer. Salary, £200 per annum, with prospect of increase to £250.

DUDLEY: GUEST HOSPITAL.—Senior Resident Medical Officer. Salary, £100 per annum, increasing to £120.

DUMBARTON COUNTY COUNCIL.—Medical Officer. Salary, £450 per annum.

DUNDEE ROYAL INFIRMARY.—Medical Assistants.

FRIMLEY: BROMPTON HOSPITAL SANATORIUM.—Medical Superintendent. Salary, £500 per annum.

GLOUCESTERSHIRE ROYAL INFIRMARY AND EYE INSTITUTION.—Senior House-Surgeon. Salary, £100 per annum.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway Road, N.—(1) House-Surgeon. (2) House-Physician. Salary at the rate of £40 per annum each.

HALIFAX: ROYAL HALIFAX INFIRMARY.—(1) Senior House-Surgeon. (2 Third House-Surgeon. Salary, £120 and £80 per annum respectively.

HEMEL HEMPSTEAD: WEST HERTS HOSPITAL.—Resident Medical Officer. Salary, £100 per annum,

HEREFORDSHIRE GENERAL HOSPITAL.—House-Surgeon. Salary, £120 per annum.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Assistant Physician.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—(1) House-Surgeon. (2) Assistant Casualty Medical Officer (and House-Physician). Salary, £30 for six months and £2 10s. washing allowance in each case.

KENSINGTON AND FULHAM GENERAL HOSPITAL, Earl's Court, S.W.—Assistant Physician.

KENSINGTON DISPENSARY AND CHILDREN'S HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

KING'S COLLEGE HOSPITAL, W.C.—Clinical Assistant to the Throat Department.

LIVERPOOL DISPENSARIES.—Assistant Surgeon. Salary, £100 per annum.

LIVERPOOL HOSPITAL FOR CANCER AND SKIN DISEASES.—Honorary Surgeon.

LIVERPOOL ROYAL INFIRMARY.—Dental Surgeon.

MACCLESFIELD GENERAL INFIRMARY.—Junior House-Surgeon. Salary, £80 per annum.

OXFORD: RADCLIFFE INFIRMARY AND COUNTY HOSPITAL.—Casualty Officer. Salary at the rate of £100 per annum.

OXFORD: UNITED DISTRICTS OF BANBURY (RURAL), CHIPPING NORTON, WITNEY, AND WOODSTOCK.—Medical Officer of Health. Salary, £400 per annum.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney Road, E.—Surgeon-in-Charge of the Ear, Nose, and Throat Department.

ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House-Surgeon (Male). Salary, £80 per annum.

ROYAL EAR HOSPITAL, Soho, W.—(1) House-Surgeon (non-resident). Honorarium, £40 per annum. (2) Honorary Assistant Anaesthetist.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Senior Resident Medical Officer. Salary, £100 per annum.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Clinical Assistant.

ROYAL NAVY.—Dental Surgeon for duty with the Naval Forces in the United Kingdom. Inclusive salary, £1 per diem.

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL.—Demonstrator of Physiology.

SALFORD ROYAL HOSPITAL.—(1) House-Surgeon. (2) Junior House-Surgeon. (3) Casualty House-Surgeon. Salary at the rate of £75 per annum for (1) and £65 per annum for (2) and (3).

SALOP INFIRMARY.—House-Physician. Salary at the rate of £70 per annum.

SHEFFIELD UNION HOSPITAL.—Senior Resident Assistant Medical Officer. Salary, £130 per annum.

SHEFFIELD UNIVERSITY.—Demonstrator in Experimental Physiology. Salary, £200 per annum.

SOUTHAMPTON UNION.—Resident Assistant Male Medical Officer of the Workhouse Infirmary. Salary, £130 per annum, rising to £150.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—House-Physician. Salary, £82 per annum, and £5 honorarium after six months' approved service.

STIRLING DISTRICT ASYLUM, Larbert.—Second Assistant Medical Officer (Male). Salary, £140 per annum.

SUNDERLAND: ROYAL INFIRMARY.—Junior House-Surgeon (male). Salary at the rate of £80 per annum.

UNIVERSITY COLLEGE HOSPITAL, Gower Street, W.C.—Assistant Surgeon to the Ear and Throat Department.

VICTORIA HOSPITAL FOR CHILDREN, Tite Street, S.W.—Radiographer. Salary, £75 per annum.

WEST END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM, Welbeck Street, W.—Resident House-Physician. Salary at the rate of £50 per annum.

WEST HAM HOSPITAL, E.—Junior House-Physician. Salary, £75 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Resident Surgical Officer. Salary, £125 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacant appointments: Blisworth (Northamptonshire), Gatehouse (Kirkcudbrightshire), Medbourne (Leicestershire), Rye (Sussex), Salisbury (Wiltshire).

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

APPOINTMENTS.

ARNOLD, Miles B., M.D.Vict., D.P.H.Camb., Medical Officer of Health for Croydon, vice Meredith Richards.

ATKINSON, Miss E. I. E., M.B., Ch.B.Vict., Resident Assistant Medical Officer to the Homerton Workhouse Infirmary and Children's Homes of the Hackney Union.

BAMFORD, T., M.R.C.S., L.R.C.P., Medical Officer of Health, Uttoxeter Urban District.

BARNETT, B. L. T., M.B.Camb., D.P.H.R.C.P.S.Lond., Medical Officer of Health, County of the Isle of Ely.

BLACK, J., M.B., Certifying Factory Surgeon for the Milnthorpe District, co. Westmorland.

CATES, Joseph, M.D.Lond., D.P.H.Camb., Medical Officer of Health for Lancaster.

CORBETT, W. V., M.R.C.S., L.R.C.P., Second Resident Assistant Medical Officer of the Islington Parish Infirmary.

GROVES, Ernest W. Hey, F.R.C.S., Lecturer on Surgery to Dental Students, University of Bristol.

GYLLENCIENTZ, J. R., M.R.C.S., L.R.C.P., Second Resident Assistant Medical Officer, Brentford Union Workhouse, Infirmary, and Schools.

LACKIE, J. Lamond, M.D., F.R.C.P.E., Examiner in Midwifery to the University of Edinburgh.

LAKIN, C. Ernest, M.D., M.R.C.P., F.R.C.S., Assistant Physician to the Middlesex Hospital.

LITTLEWOOD, Martin W., M.R.C.S., L.R.C.P.Eng., B.S.Lond., House-Surgeon to the Hampstead General and North-West London Hospital.

PRICE, P. Seymour, M.R.C.S.Eng., L.R.C.P.Lond., Assistant Physician to the Margaret Street Hospital for Consumption.

ROBINSON, A. L., M.B., B.S., M.R.C.S., L.R.C.P., House-Physician to University College Hospital.

SMITH, R. W. Innes, M.D.Edin., M.R.C.S., L.R.C.P.Lond., Admiralty Surgeon and Agent for Sheffield.

TANNER, Harold H., M.B., B.S.Lond., House-Physician to the Hampstead General and North-West London Hospital.

THOMSON, C. S., M.B., Ch.B.Glasg., D.P.H.Durh., Medical Officer of Health for the Borough of Workington.

WALTON, Albert J., M.S., F.R.C.S., B.Sc.Lond., Assistant Surgeon to the Evelina Hospital for Children, Southwark.

WEBB, W. T., M.R.C.S., L.R.C.P., Medical Officer of Health, Kingsbridge Urban District.

YOUNG, J. C., M.B., Medical Superintendent of the Southampton Union Infirmary.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTH.

YULE.—On March 2nd, at 9, St. Alban's Villas, Highgate Road, N.W., Marie, the wife of Bransby Yule, M.R.C.S., L.R.C.P., of a daughter.

DEATH.

MCGAVIN.—On February 22nd, on board H.M.S. *Conway*, Cadet John Beauchamp McGavin, aged 13 years, only son of Mr. and Mrs. Lawrie McGavin, of 32, Weymouth Street, W.

DIARY FOR THE WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—(1) Mr. Thomson Walker: The Value of the X Rays in the Diagnosis of Hydronephrosis. (2) Dr. W. Ironside Bruce: The X-Ray Examination of the Urinary Tract.

TUESDAY.

CHELSEA CLINICAL SOCIETY, Medical School, St. George's Hospital, 8.30 p.m.—Annual Clinical Debate to be opened by Sir T. Clifford Allbutt, followed by Sir Lauder Brunton and Drs. Samuel West, Hector Mackenzie, C. C. Gibbes, F. F. Caiger, and others, in a paper entitled, "The Physician and the Pathologist on Heart Failure."

ROYAL SOCIETY OF MEDICINE:
SURGICAL SECTION, 15, Cavendish Square, W., 5.30 p.m.—Papers:—(1) Mr. John Murray: Case of Pancreatic Calculus Stone Removed by Operation. (2) Mr. G. H. Makins, Mr. Cuthbert Wallace, and Mr. Percy Sargent: Multiple Growths of the Great Gut. (3) Mr. W. G. Spencer: Hydrocephalus Internus, Rupture into the Subdural Space: Intracranial Tension and its Temporary Relief. (4) Mr. G. H. Makins: Multiple Fibromata of the Tunica Vaginalis.

WEDNESDAY.

HUNTERIAN SOCIETY, London Institution, Finsbury Circus, E.C., 9 p.m.—Papers:—(1) Mr. F. S. Kidd: A Fresh Aid to Prostatectomy. (2) Mr. W. Girling Ball: Non-operative Treatment of Irreducible Herniae.

UNITED SERVICES MEDICAL SOCIETY, Royal Army Medical College, Grosvenor Road, S.W., 5 p.m.—Paper:—Fleet Surgeon A. Gaskell: Dust Traps and their Dangers on Board Ships.

THURSDAY.

HARVEIAN SOCIETY OF LONDON, Stafford Rooms, Titchborne Street, W., 8.30 p.m.—Papers:—(1) Dr. R. H. Cole: Hypochondriasis, its Significance and Treatment. (2) Mr. V. Z. Cope: Latent Surgical Disease.

OPHTHALMOLOGICAL SOCIETY, 11, Chandos Street, Cavendish Square, London, 8 p.m.—Cases and Card Specimens at 8.30 p.m. Papers:—Mr. Herbert: A Distinctive Conjunctival Papule. Mr. Worth: The Operative Treatment of Conical Cornea. Mr. H. W. Brailey: A New Cell Proliferant. Mr. Zohrab: The Relief of Tension in Chronic Glaucoma.

ROYAL SOCIETY, Burlington House, 4.30 p.m.—The following is a list of probable papers:—Dr. E. K. Martin: The Effects of Ultra Violet Rays Upon the Eye. Dr. W. S. Lazarus-Barlow: On the Presence of Radium in Some Carcinomatous Tumours. C. Russ: An Improved Method for Opsonic Index Estimations Involving the Separation of Red and White Human Blood Corpuscles. Professor W. M. Thornton: The Electrical Conductivity of Bacteria, and the Rate of Inhibition of Bacteria by Electric Currents. E. C. Hort and W. J. Penfold: A Critical Study of Experimental Fever. S. G. Shattock and L. S. Dudgeon: Certain Results of Drying Non-sporing Bacteria in a Charcoal Liquid Air Vacuum.

FRIDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Professor W. Girling Ball: Acute Infective Processes Due to the Streptococcus, with Special Reference to the Value of Vaccines and Serums in Treatment.

ROYAL SOCIETY OF MEDICINE:

ELECTRO-THERAPEUTICAL SECTION, at 15, Cavendish Square, W., 8.30 p.m.—Dr. Bordier (of Lyons): The Radiotherapeutic Treatment of Uterine Fibroma.

OTOLOGICAL SECTION, at 11, Chandos Street, W., 5 p.m.—Discussion on The Value and Significance of Hearing Tests, to be introduced by Dr. Thomas Barr (Glasgow) and Mr. Sydney Scott (London).

SOCIETY OF TROPICAL MEDICINE AND HYGIENE, Royal Army Medical College, Grosvenor Road, S.W., 8 p.m.—Demonstrations of Various Microscopic and Other Specimens of Interest.

UNIVERSITY COLLEGE, Gower Street, W.C., 5 p.m.—Eighth Page May Memorial Lecture by Dr. Henry Head, F.R.S.: The Afferent Nervous System.

POST-GRADUATE COURSES AND LECTURES.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C., Thursday, 4 p.m.—The Radical Cure of Inguinal Hernia.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat, at noon and 4.30 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Tuesday, and noon, Friday. Eye, 11 a.m., Wednesday and Saturday. Radiography, Saturday, 10 a.m. Pathological Demonstration, Saturday, 11 a.m. Special Lectures:—Wednesday: Rheumatoid Arthritis, 2.15 p.m. Thursday: The Application of Pathology to Clinical Medicine.

LONDON SCHOOL OF TROPICAL MEDICINE.—Lectures daily (Saturdays excepted) at 12 and 4 p.m. Practical Laboratory Work daily (Saturday excepted) 10 to 12 a.m. Practical Helminthology, 2 to 3.30 p.m. daily. Advanced Helminthology, 10 30 to 1 p.m. daily. Medical Clinics, Monday and Thursday, at 3 p.m.; Operations, Friday, at 3 p.m.

MANCHESTER: ANCOATS HOSPITAL POST-GRADUATE CLINIC, Thursday, 4.15 p.m.—*X*-Ray Examination of the Stomach with Bismuth.

MANCHESTER ROYAL INFIRMARY, Tuesday, 4.30 p.m.—Demonstration of Cases of External Diseases of the Eye.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin, Tuesday, Medical. Wednesday, Surgical, Thursday, Medical. Friday, Eye. Lectures at 5.15 p.m. each day will be given as follows: Monday, Clinical Diagnosis of Cancer of the Body of the Uterus. Tuesday, The Treatment of Local Tuberculous Infections. Wednesday, Ventral Hernia. Thursday, Chronic Diarrhoea: Its Varieties and Treatment.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., Tuesday, 3.30 p.m.—Headache. Friday, 3.30 p.m.: Ophthalmoplegia.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics: 10 a.m., Surgical Out-Patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear; 3 p.m., Demonstration on Clinical and General Pathology. Tuesday, 2.30 p.m., Operations; Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient; 4.30 p.m., Lecture: Modern Methods of Investigation of Surgical Disorders of Digestion. Wednesday, 2 p.m., Throat Operations; 2.30 p.m., Medical Out-patient; Skin and Eye Clinics: *X* Rays: 3 p.m., Pathological Demonstration; 5.30 p.m., Eye Operations. Thursday, 2.30 p.m., Gynaecological Operations; Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient; 4.30 p.m., Lecture: The Diagnosis and Treatment of Surgical Disorders of Digestion. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient; Pathological Demonstration.

SALFORD ROYAL HOSPITAL, Thursday, 4.30 p.m.—Cholelithiasis.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics, *X* Rays, and Operations, 2 p.m. daily. Monday: Gynaecology, 10 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday: Gynaecological Operations, 10 a.m.; Demonstration of Minor Operations, 11 a.m.: Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.: Gynaecology, 2 p.m. Thursday: Gynaecological Demonstration, 10 a.m.; Lecture: Practical Medicine, 12.15 p.m.: Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday: Gynaecological Operations, 10 a.m.; Lecture: Practical Medicine, 12.15 p.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m. Special Lectures at 5 p.m. daily.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
MARCH.	
10 Sunday ..	
11 MONDAY ..	
12 TUESDAY ..	LONDON: Rules Subcommittee, 2 p.m. MARYLEBONE DIVISION, *Metropolitan Counties Branch*, General Meeting, Rooms of the Medical Society of London, 11, Chandos Street, W., 5 p.m. BRADFORD DIVISION, *Yorkshire Branch*, Great Northern Victoria Hotel, Bradford, 8.30 p.m.
13 WEDNESDAY	LEICESTER AND RUTLAND DIVISION, *Midland Branch*, Leicester Infirmary, 4 p.m. LANCASHIRE AND CHESHIRE BRANCH, Meeting of Branch Council, Onward Buildings, Deansgate, Manchester, 4.30 p.m.
14 THURSDAY ..	BIRMINGHAM BRANCH, Medical Institute, Edmund Street, 3.30 p.m. SOUTH-WEST ESSEX DIVISION, *Metropolitan Counties Branch*, Whipps Cross Infirmary, Leytonstone, 4 p.m. WALTHAMSTOW DIVISION, *Metropolitan Counties Branch*, Whipps Cross Infirmary, 4 p.m.
15 FRIDAY ..	NEWCASTLE-ON-TYNE DIVISION, *North of England Branch*, Scientific Meeting, Royal Victoria Infirmary, 3 p.m.–5.30 p.m.
16 SATURDAY ..	
17 Sunday ..	
18 MONDAY ..	
19 TUESDAY ..	LONDON: Standing Ethical Subcommittee, 2 p.m.
20 WEDNESDAY	RICHMOND DIVISION, *Metropolitan Counties Branch*, Richmond, 8.30 p.m. BRIGHTON DIVISION, *South-Eastern Branch*, Ordinary Meeting.
21 THURSDAY ..	LONDON: Metropolitan Counties Branch, 4 p.m.
22 FRIDAY ..	SUNDERLAND DIVISION, *North of England Branch*, 4.30 p.m.; Annual Dinner, Grand Hotel, 7.15 p.m.
23 SATURDAY ..	
24 Sunday ..	
25 MONDAY ..	
26 TUESDAY ..	WALTHAMSTOW DIVISION, *Metropolitan Counties Branch*, Conjoint Meeting with City Division, Livingstone College, Knott's Green, Leyton, 4 p.m.
27 WEDNESDAY	BATH AND BRISTOL BRANCH, Bristol.
28 THURSDAY ..	LONDON: Hospitals Committee, 2.30 p.m.
29 FRIDAY ..	LONDON: Journal Committee, 2 p.m. BIRMINGHAM BRANCH, Pathological and Clinical Section, Medical Institute, Edmund Street, 8 p.m.

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SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MARCH 16TH, 1912.

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National Insurance.

THE INSURANCE SCHEME.

JOINT COMMITTEE OF INSURANCE COMMISSIONERS.

REGULATIONS.

THE regulations, dated February 21st, 1912, made by the Treasury under Section 83 of the National Insurance Act, 1911, were issued on March 11th (No. 46).

The first two paragraphs deal with the title and with definition of terms.

CONSTITUTION.

Paragraph 3 is as follows:

(1) The Joint Committee shall consist of:

(*a*) The Chairmen for the time being of the several bodies of Commissioners (who shall be *ex officio* members of such committee);

(*b*) such other members (if any) of each such body as the Treasury shall from time to time by warrant appoint;

(*c*) so many and such other persons (not exceeding two in number) as the Treasury shall in like manner appoint, and

(*d*) a chairman to be appointed by the Treasury in like manner.

(2) The Treasury may from time to time by warrant appoint any member of the Joint Committee to be vice-chairman thereof, and such vice-chairman shall preside at any meeting of the Joint Committee which the chairman shall be unable to attend. If both the chairman and vice-chairman are absent, the members present at the meeting shall elect from among themselves a chairman for that meeting.

(3) If the chairman of any of the several bodies of Commissioners shall be unable to attend at any meeting of the Joint Committee, the deputy chairman of that body, or, if he is unable to attend, such other member of that body as the body shall appoint, shall for the purpose of such meeting be a member of the Joint Committee in his place.

(4) At every meeting of the Joint Committee four shall form a quorum and every member present shall have one vote, but in case of an equality of votes the chairman of the Joint Committee, or, in his absence, the vice-chairman (if present), shall have a casting vote.

(5) Subject as aforesaid, the Joint Committee may regulate the procedure of its meetings and the manner in which and the times at which meetings are to be called.

FINANCIAL ADJUSTMENTS.

Paragraph 4 relates to financial adjustments between the several funds which are to be made by the Joint Committee acting alone.

CONTRIBUTIONS AND SUSPENSION FROM BENEFIT.

Paragraph 5 relates to the method of assessing and collecting contributions.

Paragraph 6 empowers the Joint Committee acting alone to make regulations as to financial arrangements in respect of insured persons suspended from benefit, and as to arrears and their calculation.

Medical Benefit.

Paragraph 7 is as follows; we have added the text of the subsections referred to:

For the purposes of section 15 and paragraph (*d*) of section 42 of the Act (which relate to medical benefit) the Joint Committee shall exercise jointly with the several bodies of Commissioners the following powers, namely:

(*a*) under subsection (1) of section 15, the power to make regulations governing arrangements for administering medical benefit.

(*b*) under paragraph (*b*) of subsection (2) of section 15, the power of removing names from the list of medical practitioners and of prescribing the inquiry to be made before such removal is effected.

(*c*) the power of dispensing with the necessity of the adoption of such system as is mentioned in subsection (2) of section 15 and of authorizing Insurance Committees to make other arrangements and of approving such arrangements and the power of making arrangements or of suspending the right to medical benefit in manner mentioned in that subsection.

(*d*) under subsection (5) of section 15, the power to make regulations governing arrangements for the supply of drugs, medicines, and appliances.

(*e*) under paragraph (*b*) of subsection 5 of section 15, the power of determining whether the inclusion or continuance of a person, firm, or body corporate in such list as is mentioned in that subsection would be prejudicial to the efficiency of the service.

Subsections of Act Referred to.

15.—(1) Every Insurance Committee shall, for the purpose of administering medical benefit, make arrangements with duly qualified medical practitioners in accordance with regulations made by the Insurance Commissioners.

(*b*) a right on the part of any duly qualified medical practitioner who is desirous of being included in any such list as aforesaid of being so included, but, where the Insurance Commissioners, after such inquiry as may be prescribed are satisfied that his continuance in the list would be prejudicial to the efficiency of the medical service of the insured, they may remove his name from the list;

Provided that, if the Insurance Commissioners are satisfied after inquiry that the practitioners included in any list are not such as to secure an adequate medical service in any area, they may dispense with the necessity of the adoption of such system as aforesaid as respects that area, and authorize the Committee to make such other arrangements as the Commissioners may approve; or the Commissioners may themselves make such arrangements as they think fit, or may suspend the right to medical benefit in respect of any insured persons in the area for such period as they think fit, and pay to each such person a sum equal to the estimated cost of his medical benefit during that period, and, where the Commissioners take any such action themselves, they shall retain and apply for the purpose such part of the sums payable to the Insurance Committee in respect of medical benefit as may be required.

(5) Every such Committee shall also make provision for the supply of proper and sufficient drugs and medicines and prescribed appliances to insured persons in accordance with regulations made by the Insurance Commissioners, which shall provide for the arrangements made being subject to the approval of the Insurance Commissioners and being such as to enable insured persons to obtain from any persons, firms, or bodies corporate with whom arrangements have been made such drugs, medicines and appliances if ordered by the medical practitioner by whom they are attended.

(*b*) A right on the part of any person, firm, or body corporate desirous of being included in any such list as aforesaid of being so included, for the purpose of supplying such drugs, medicines, and appliances as such person, firm, or body corporate is entitled by law and authorized by the Committee to supply, except in cases where the Insurance Commissioners after inquiry are satisfied that the inclusion or continuance of the person, firm, or body coporate in such list would be prejudicial to the efficiency of the service:

(*f*) under paragraph (i) of the lastly mentioned subsection, the power of dispensing with the necessity of the adoption of such system as in that subsection is mentioned and of authorizing Insurance Committees to make other arrangements and of approving such arrangements.

(i) If the Insurance Commissioners are satisfied that the scale of prices fixed by the Committee is reasonable, but that the persons, firms, or bodies corporate included in any list are not such as to secure an adequate and convenient supply of drugs, medicines, and appliances in any area, they may dispense with the necessity of the adoption of such system as aforesaid as respects that area and authorize the Committee to make such other arrangements as the Commissioners may approve;

(*g*) under paragraph (ii) of the lastly-mentioned subsection, the power to make regulations permitting arrangements to be made by Insurance Committees with medical practitioners for the supply of drugs or medicines to insured persons.

(ii) Except as may be provided by regulations made by the Insurance Commissioners, no arrangement shall be made by the Insurance Committee with a medical practitioner under which he is bound agrees to supply drugs or medicine to any insured person;

(*h*) under subsection (6) of section 15, the power of determining, in default of agreement between an approved society and an Insurance Committee, the sum to be paid in any year to such committee in respect of medical benefit and the cost of administration thereof.

(6) There shall in each year be paid to the Insurance Committee for each county or county borough out of moneys credited to a society which has members resident in the county or county borough such sum in respect of the medical benefit of such members and the cost of administration thereof as may be agreed between the society and committee or, in default of agreement, may be determined by the Insurance Commissioners.

(*i*) under paragraph (*d*) of section 42, the power of consenting to any determination by an Insurance Committee of the sum payable in any year in respect of deposit contributors for the purposes of the cost of medical benefit.

(*d*) Such sum as the Insurance Committee may, with the consent of the Insurance Commissioners, determine shall in each year be payable in respect of each deposit contributor for the purposes of the cost of medical benefit.

Approval of Societies.

Paragraph 8 empowers the Joint Committee acting alone to make regulations with regard to approval of societies and branches.

Valuation.

Paragraph 9 relates to the accounts and valuation of surpluses and deficiencies.

Married Women.

Paragraph 10 is as follows:

For the purposes of section 44 of the Act (which relates to married women) the Joint Committee alone shall exercise the following powers, namely:

(*a*) under subsection (1) of that section, the power of making regulations subject to which a married woman ceasing to be suspended from receiving the ordinary benefits under that subsection is for the purposes of those benefits to be treated as if she had not previously been an insured person.

(*b*) under subsection (10) of that section, the power of prescribing the manner in which transfer values are to be calculated for the purposes of that section.

(*c*) under subsection (12) of that section, the power of prescribing the adjustments to be made under that subsection.

Mercantile Marine and Army and Navy.

Paragraphs 11 and 12 empower the Joint Committee to make rules with regard to the mercantile marine and the army and navy, and also with respect to payments to be made by the societies to the Commissioners and the investment of funds.

FINANCIAL TABLES.

Under paragraph 13 the Joint Committee acting alone is empowered to make tables with regard to voluntary rates, with regard to sickness benefit, and other financial matters.

EXCEPTED EMPLOYMENTS.

Paragraph 14 empowers the Joint Committee acting alone to make regulations among other matters for the inclusion amongst the persons employed within the meaning of Part I of the Act of any persons engaged in any of the excepted employments specified in Part II of the First Schedule of the Act, and jointly with the several bodies of Commissioners to make regulations with reference to Clause 47, which contains the special provision where the employer is liable to pay wages during sickness.

MISCELLANEOUS.

Paragraphs 15 and 16 are as follows:

15. The Joint Committee alone shall exercise the following further powers, namely:—

(*a*) under subsection (1) of section 32 of the Act, the power of approving societies and institutions established in a British possession or foreign country and so that the satisfaction of the Joint Committee alone shall be required with regard to the matters in respect of which the several bodies of Commissioners are required to be satisfied by that subsection.

(*b*) under subsection (2) of section 32 of the Act, the power of making arrangements for transfers of persons to and from societies and institutions established in a British possession or foreign state from and to approved societies or the Post Office Fund and for the determination of the amount to be transferred, and of the rights to which persons transferred are to be entitled.

(*c*) under section 33 of the Act, the power of making regulations subject to which an approved society may transfer from its account under Part I of the Act to its credit independently of the Act any sum which by that section it is entitled so to transfer.

(*d*) under section 42 of the Act, the power of prescribing the time allowed to an insured person to join an approved society or, in the case of any such person who has been expelled or has resigned from an approved society, the time allowed to him to join another approved society.

(*e*) under paragraph (*b*) of subsection (1) of section 45 of the Act, the power of prescribing the account to which transfer values are to be carried and the manner in which the same are to be dealt with under that subsection.

(*f*) under subsection (1) of section 46 of the Act, the power of prescribing the weekly sums to be contributed by the Admiralty and the Army Council respectively in respect of seamen, marines and soldiers who have not joined approved societies.

(*g*) under paragraph (*b*) of subsection (3) of section 46 of the Act, the power of prescribing the manner in which sums to be paid into the Navy or Army Insurance Fund under that paragraph are to be calculated.

(*h*) under paragraph (*b*) of subsection (1) of section 51 of the Act, the power of prescribing the manner in which sums payable under that paragraph by the managers of institutions carried on for charitable or reformatory purposes are to be calculated.

(*i*) under section 52 of the Act, the power of prescribing the manner in which sums payable under that section to the Board of Education, the Scotch Education Department, or the Superintendent of the Teachers' Pension Office (as the case may be), are to be calculated.

(*j*) under paragraph(*c*) of subsection (1) of section 60, the power of prescribing the form in which the books and accounts of Insurance Committees are to be kept.

(*k*) under paragraph (10) of Part II of the Fourth Schedule to the Act, the power of prescribing the conditions subject to which contributions may be made to superannuation funds by way of additional benefit.

16. The Joint Committee shall exercise jointly with the several bodies of Commissioners the following further powers, namely:—

(*a*) Under subsection (2) of section 9 of the Act, the power of consenting to reductions of the rate of sickness benefit or disablement benefit, and to provisions made for the grant of additional benefits under that subsection.

(*b*) under section 13 of the Act, the power of confirming a scheme for substituting additional benefits under that section.

(*c*) under subsection (2) of section 39 of the Act, the power of consenting to the formation by societies of an association under that section and of prescribing the conditions on which a society shall be entitled or allowed to join or to secede from an association.

(*d*) under section 62 of the Act, the power of recognizing local medical committees, of making regulations subject to which such committees shall be consulted by Insurance Committees and district committees, and of determining the powers to be exercised by local medical committees.

(*e*) under section 73 of the Act, the power of granting certificates under that section.

(*f*) under paragraphs (*b*) and (*c*) of Part II of the First Schedule to the Act, the powers conferred on the several bodies of Commissioners by those paragraphs respectively.

Provided, that in exercising the powers mentioned in paragraphs (*a*), (*b*), (*c*), (*e*), and (*f*) hereof the Joint Committee shall, except in the case of the powers conferred by paragraph (*b*) of Part II of the First Schedule to the Act with regard to persons in employment under the Crown, be concerned with actuarial matters alone.

INSURANCE COMMISSIONERS ADVISORY COMMITTEES.

Paragraph 17 is as follows:

The Joint Committee shall exercise and perform, either alone or jointly with the several bodies of Commissioners, as the case may require, such of the powers and duties of such bodies under sections 57, 58, and 78 of the Act and otherwise as may be necessary to enable the Joint Committee to exercise and perform the several powers and duties of the Joint Committee under the Act and these Regulations, but without prejudice to the exercise and performance by the several bodies of Commissioners of all or any of their powers and duties under the Act with regard to matters falling to be dealt with by them under the Act and these Regulations.

DATE.

Paragraph 18 provides that the regulations shall be deemed to have had effect as from December 28th, 1911.

MEMORANDUM ON PRELIMINARY STEPS.

A Memorandum on the Steps taken Preliminary to the Operation of Part I of the Act (Cd. 6095) (price 1½d.) has been presented to Parliament. It contains a list of Commissioners and particulars with regard to the Advisory Committees appointed or to be appointed.

Outworkers Committee.

A committee has been appointed to consider the application of the National Insurance Act to outworkers, and has been engaged in hearing evidence from witnesses drawn from employers and employed persons in the trades affected. This Committee consists of Sir Ernest F. G. Hatch, Bart. (Chairman), Mr. G. N. Barnes, M.P., Lord Henry Bentinck, M.P., Miss M. M. Paterson, and Sir George Toulmin, M.P.

Actuarial Advisory Committee.

This Committee, appointed at the end of January, is constituted as follows: Mr. G. F. Hardy, F.I.A., ex-President Institute of Actuaries (Chairman); Mr. A. W. Watson, F.I.A., the Chief Actuary; Mr. G. Douglas, F.I.A., President of the Faculty of Actuaries in Scotland; Mr. D. C. Fraser, F.I.A.; Mr. G. J. Lidstone, F.I.A., Vice-President of Institute of Actuaries.

Mr. Watson, Chief Actuary to the Joint Committee, is engaged, with the advice and assistance of the Advisory Committee, in preparing tables of reserve values, transfer values, and contributions for voluntary contributors. The Committee is considering questions connected with the periodical valuations of approved societies and investigating various methods of tabulating and analysing statistics.

Formation of an Advisory Committee.

A subcommittee has been appointed to make arrangements for the appointment at the earliest possible date of an Advisory Committee to the Joint Committee, upon which every class of the community specially concerned in or affected by the administration of the health provisions of the Act shall be represented. The intention is not to evolve a scheme of numerically proportional representation of different interests, since the Committee is advisory and not executive, but to secure that no important element shall be lacking. The Committee is considering how best, without making the Advisory Committee unduly large, to so group the main sections of the Advisory Committee that they shall be representative, both of geographical and of specialist experience.

Medical Benefit.

It is stated that the Committee has held several meetings, both formal and informal, for the consideration of this subject, and a preliminary report on the matters to be dealt with by the regulations to be made for medical

and sanatorium benefit has been under consideration. These regulations, which cover the entire arrangements to be made by Insurance Committees for the medical treatment of insured persons, are necessarily a complex matter, and will, it is stated, require careful deliberation.

The Committee has also under consideration the questions of the information to be issued to the public as to the provisions of the Act for medical benefit and its administration and the desirability of issuing leaflets.

MODEL RULES.

The following are extracts from the *Model Rules for an Approved Society with Male Members Only*, issued by the National Insurance Commissioners last week.

Arrears.

No account shall be taken of any arrears accruing in the case of maternity benefit payable in respect of the posthumous child of an insured member, during the period subsequent to the father's death.

Benefits of Insured Members.

Medical and sanatorium benefits, and additional benefits in the nature of medical benefit, are administered by the Insurance Committee for the county (or county borough) in which the insured member entitled to them is for the time being resident.

Medical Benefit.

1. Medical benefit means medical treatment (including attendance, medicines, and appliances), or a payment in lieu thereof.

2. The right to medical benefit will not commence until January 15th, 1913.

3. No insured member will be entitled to medical benefit while resident temporarily or permanently elsewhere than in England, Scotland, or Wales.

4. Notwithstanding anything in these rules, an insured member shall be entitled to medical benefit during a disease or disablement caused by his own misconduct.

5. The right to medical benefit does not cease at the age of 70.

Sanatorium Benefit.

1. Sanatorium benefit means treatment in sanatorium or other institutions, or otherwise, when suffering from tuberculosis or such other diseases as the Local Government Board, with the approval of the Treasury, may appoint.

2. In order to be entitled to this benefit a member must be:

(*a*) recommended for it by the Insurance Committee; and

(*b*) resident in the United Kingdom (unless temporarily resident in the Isle of Man or the Channel Islands).

3. If an insured member is receiving sanatorium benefit as an inmate of an institution and has no dependants, his sickness or disablement benefit, as the case may be, shall be paid to the Insurance Committee administering the benefit.

4. The right to sanatorium benefit does not cease at the age of 70.

Maternity Benefit (Husband's Insurance).

1. Maternity benefit means the right of an insured member of any age on the confinement of his wife, or the right of the widow of such a member confined of a posthumous child, to a payment of 30s. in cash or otherwise.

2. A member will not be entitled to this benefit until twenty-six, or in the case of a voluntary contributor fifty-two, weeks after his entry into insurance, and until the same number in each case of weekly contributions has been paid by or in respect of him.

3. A member will not be entitled to this benefit while he is resident elsewhere than in the United Kingdom, unless he is temporarily resident in the Isle of Man or the Channel Islands, or unless his wife is, at the time of her confinement, resident in the United Kingdom.

4. A member shall not be entitled to this benefit in respect of his wife if she is an inmate of any of the institutions mentioned in the rule relating to hospitals.

Provided that where any persons are dependent upon her, and she is not herself entitled to maternity benefit, the *committee of management** may, if they think fit, pay to the insured member or otherwise the whole or any part of such benefit for the maintenance of those dependants.

5. The wife (or widow) of an insured member in respect of whom this benefit is payable must be attended in her confinement either by a duly qualified medical practitioner or by a duly certified midwife, and shall herself select any person with either qualification for the purpose. But if she selects a midwife, and in pursuance of the Midwives Act, 1902, the midwife advises that a duly qualified medical practitioner be summoned, the fee to the latter prescribed by the Commission shall be paid by the society and deducted from the benefit.

6. The benefit shall be payable in cash or otherwise *at the discretion of the committee of management,** and any part thereof may, in the discretion of the committee of management, be paid direct to the doctor or midwife attending at the confinement. A member shall give notice to the committee of the confinement of his wife within days after it has taken place. He shall also, if required, produce a copy of the marriage certificate of the parties, or such other satisfactory evidence of the marriage as may be required, and a certificate signed by the doctor or midwife by whom the confinement was attended.†*

7. Breach of any of these rules shall not disqualify a member for this benefit unless the wife is herself a party to such breach.

8. In the case of an insured member who is not a British subject the payment of maternity benefit shall be reduced in accordance with Table G in the hands of the secretary.

9. For the purpose of these rules "confinement" means labour resulting in the issue of a living child, or labour after twenty-eight weeks of pregnancy resulting in the issue of a child whether alive or dead.

N.B.—The attention of members is called to Section 19 of the Act, which requires a husband receiving maternity benefit to make adequate provision for his wife to the best of his power subject to a penalty.

EXPENSES.

In the supplementary estimate presented to the House of Commons, and ordered to be printed on February 19th, it is stated that the amount required in the year ending March 31st, 1912, to pay the salaries and expenses of the Insurance Commissioners in England, Scotland, and Ireland, and of the Joint Committee, will be £31,590. Of this sum £18,890 is set down for salaries, wages, and allowances, £8,050 for special inquiries and services, £4,150 for travelling, and £500 for incidental expenses.

MEETINGS OF THE PROFESSION.

A meeting of the Brecknockshire Medical Society was held at Brecon on March 5th. Dr. Francis, President, took the chair, and there was a capital attendance of members. Several apologies for inability to be present were read by the Honorary Secretary. It was proposed by Dr. Black Jones and seconded by the Honorary Treasurer (Dr. W. R. Jones) and unanimously carried:

1. That we, medical practitioners practising in the county of Brecon, hereby form a provisional Medical Committee to safeguard the interests of the profession, without prejudice to the question whether we shall later accept recognition as a statutory local Medical Committee.
2. That a subcommittee be formed to consider under what terms we shall be willing to accept service under the Insurance Act.

A strong subcommittee representing the different areas of the county, with the President, Honorary Treasurer, and Honorary Secretary as *ex officio* members, was then appointed. A vote of thanks to the Chairman terminated the meeting.

* Wherever in the rules anything is expressed to be done by the committee of management or by any officer, a reference to such authority as may be desired should be substituted.

† The Commissioners state that passages in this italic type, not otherwise distinguished, are mere suggestions for the assistance of societies in framing a code of rules to meet their requirements.

CORRESPONDENCE.

[*It is particularly requested that communications intended for publication should be written on one side of the paper only, and should be addressed to the Editor*, British Medical Journal, *429, Strand, London, W.C.*]

The Representative Meeting of February.

Dr. Leigh Day (Colchester) writes: In your remarks at the foot of Major Freeman's letter you say that the vote on the capitation grant was practically unanimous. May I point out that this was not the case? When, on the motion of Dr. Macdonald, it was proposed to reduce the 10s. grant to 8s. 6d., I protested against an attempt to alter the figure fixed in committee, on the ground that a large number of Representatives were absent. I also voted against the motion and several other Representatives did the same. An appeal was then made to those Representatives to allow the motion to be carried unanimously. This they declined to do.

When the minutes were read, the words "*nem. con.*" were inserted at the end of the minute in question. After a further protest these words were erased.

In the committee stage only 44 had voted in favour of 8s. 6d., and I am at a loss to understand how Dr. Macdonald's motion was carried at the report stage. One can only suppose that the composition of the meeting was different on the two occasions, and the result, in my opinion, fully justifies the protest that I made against an attempt to alter the minute of the committee stage. As to the number of members present when this vote was taken, I cannot but think you are misinformed. At the conclusion of the committee stage only 98 Representatives were present (see voting on "Remainder of Report"). Somewhat later Dr. Maclean refused to allow others to leave, on the ground that the whole of the business done would be useless if a quorum was not present at the report stage. Further, the minutes of the Representative Meeting show that 116 was the total number of those who were present at any stage of Thursday's sitting. These were certainly not all present when the vote was taken. You will also find that, of these 116, 25 were members of Council—and not 15, as stated in your note.

*** Dr. Leigh Day is, of course, correct in stating that the number present when the vote to adopt the remainder of the report of the Council was taken was 98, because on that occasion Representatives abstaining were separately enumerated. Minutes indicate that there were 15 members of the Council not competent to vote present on that day; this would make a total of 113. According to the minutes, 116 persons, including the Chairman, were present at the meeting on Thursday. Although 25 members of the Council were present, 8 of these were Representatives or Deputy Representatives, and sat and voted as such; in addition, Inspector-General Bentham, representing the Royal Naval Medical Service, and Surgeon-General Greany, representing the Indian Medical Service, served in a dual capacity, under By-law 39—that is to say, they were not only members of the Council, but entitled to vote as Representatives.

Dr. Henry Edward Gough (Northwich) writes: I am obliged for the insertion of my letter in the Journal of March 9th, and also for your polite comments thereon. As these comments are mostly red herrings across the trail, allow me to disperse them.

Against my contention that the so-called Representative Meeting, even where it only votes after definite instructions from Divisions, does not necessarily represent the true feeling of the Association, you have not adduced one argument.

My statement, "that the question of remuneration was not mentioned in the report of Council as likely to come before the meeting," is, I maintain, quite correct. Surely the "recommendations of Council" were the agenda for the meeting, and were the matters for Divisions to discuss; certainly in this Division they were the sole consideration; and it causes the greatest consternation and astonishment to find that paragraphs 25, 26, and 27 of the report can be claimed as any indication that the following Representative Meeting would be asked to consider, much less vote upon them. This is a most serious matter, and it is just this sort of thing which prompted my former letter, and which causes such disgust and resentment against the methods of procedure.

As regards the other comments, they do not seem clear, and information upon the following points would materially clear up at least one grave mistake somewhere:

(*a*) If as many as a fifth of the letters sent in for insertion were suppressed, on what grounds were the rejections made?

(*b*) Were the 161 appointed Representatives present when the 10s. minimum was adopted, and what was the majority?

(*c*) At the meeting which reduced the 10s. to 8s. 6d. were there 116 voters present—a quorum being forty—and what was the majority?

(*d*) If Dr. Leigh Day's letter described a meeting of 116 as having barely a quorum, when it was constituted of a number nearly three times as great as that for a quorum, would it not have been wiser for an editorial footnote to have stated the actual numbers?

(*e*) What lines of page 233 in the Supplement of February 24th show that the 8s. 6d. minimum was adopted by the unanimous vote of the Representative Meeting?

(*f*) What insinuation do "you" (that is, the mysterious and indefinite "we" of your comments) imagine was contained in my last sentence?

I regret extremely if I have unintentionally given cause of offence and can assure "you" that it was never meant to convey any insinuation which even implied improper conduct. My sole meaning was that as the Journal is run by some persons unknown, probably the Council or a committee, and as the policy of the Council has been notoriously not the policy of the Association, it follows that the natural result is a use of the Journal to give a Council's policy rather than a member's. The "controllers of this Journal" are organized and have influence and arrange to put their case very ably, whereas the general practitioners are scattered, unorganized, and unrepresented. (Please don't get angry—that is the whole complaint, that the general practitioners are unrepresented, and, therefore, "mis"-represented). Therefore it behoves every cautious person to try and read between the lines when he is reading—as much as he can of—his we-a-kly literature. (No offence, Messrs. "We," I only mean that the general practitioner's case is not so strongly represented as the Journal policy.) In my letter I stated that probably this Division had 100 members or more, since then I have been to a committee meeting and find from the secretary that the number is 86.

*** (*a*) There have been several occasions during the last few months when it was physically impossible with the means at disposal to deal with all the letters on the Insurance Act received. Preference on such occasions was given to the shorter letters and those which raised new points. A minority of letters were omitted because they were deemed likely to injure the cause of the profession, although that, doubtless, was not the intention of the writers. Letters not signed with the writers' names have been omitted.

(*b*) We have no means of ascertaining how many Representatives were present when the minimum of 10s. was adopted. The vote, as stated in the Supplement, March 2nd, p. 265, was 64 to 44, but no record of the number who abstained, if any, was made.

(*c*) Leaving the Chairman out of account, the number of persons, Representatives and members of Council present on Thursday morning—the morning when the report stage was taken—was 115. Of these, 25 were members of the Council, but of these members of the Council, 8 were also Representatives, and were shown as Representatives in the list in the Minutes. Two other members of the Council were entitled to vote as representing the Royal Naval and Indian Medical Services. This leaves 15 members of the Council present as Councillors, and not entitled to vote as Representatives. We have, therefore, 115 persons, not counting the Chairman, attending the meeting on Thursday morning, of whom 15 were not competent to vote. This would indicate that 100 persons competent to vote attended the meeting on Thursday. The quorum of a Representative Meeting is half the number of Representatives appointed to attend such meeting; the number appointed to attend.

this meeting was 161, as was stated last week (Supplement, p. 300). The quorum was, we presume, 81. The number actually present when the amendment to reduce from 10s. to 8s. 6d. was carried—there was no roll-call or count—is not known, but the officers of the meeting were satisfied that there was a quorum. We have endeavoured to give Dr. Gough all the information at our disposal in the Minutes or elsewhere.

(*d*) Perhaps it would have been wiser.

(*e*) The sentence quoted by Dr. Gough (Supplement, March 9th) referred, as the context seems sufficiently to show, to the unanimous vote by which, amid a scene of remarkable enthusiasm (Supplement, February 24th, p. 223, unfortunately printed 233 last week), the resolution instructing the Council to transmit the decisions of the meeting to the Insurance Commissioners "in plain and unmistakable language" was adopted.

(*f*) Dr. Gough wrote of "slim journalism," which seemed to be a reflection on the conduct of the Journal, but if it was not so intended the Editor—since the third person is preferred—gladly accepts the assurance. The instruction of the Representative Body was that a full and adequate report should be published, and a painstaking attempt was made to obey the instruction. The report under the head of remuneration was brief in accordance with a specific instruction of the meeting, based on the fact that the inquiries were not concluded.

Dr. Henry Thos. Barton (Blackpool) writes: In answer to Dr. Freeman's letter, I should like to state that the capitation grant was reduced from 10s. to 8s. 6d. on the report stage of the Representative Meeting in a thinning house. A roll-call at an earlier stage of the proceedings indicated the presence of ninety-seven voters, and many members had subsequently left. When a division was taken on the amendment, I was one of five to vote against the reduction. On a unanimous vote being asked for, one gentleman withdrew his opposition. I was unable to do the same, as the instructions of my Division were pretty definite in the matter. As far as I am aware, the other three dissentients did not agree to the change. I dare say one may call this a *practically* unanimous vote, especially if the description is used in the modern parliamentary sense. When the First Lord of the Admiralty announces that the fleet is practically ready for active service we know what that means.

Dr. A. W. George (Brondesbury, N.W.) writes: May I by your courtesy be permitted to put two questions, the one personal, the other of more general interest? (1) Will the Chairman of Council kindly say why he, on report, proposed that the capitation fee to be asked of the Insurance Commissioners be 8s. 6d. instead of 10s.? (2) Will those Representatives who changed their minds on report kindly give reasons for so doing? It is reasonable to suppose that the subject was fully discussed the previous day and voted upon. Why did a few hours produce such a change?

Dr. H. F. Steele (Representative for West Norfolk) writes: I have read much of the correspondence on the Insurance Act, and fully support your contention that you have impartially published correspondence supporting all shades of opinion on the working of the Act.

If, as Dr. H. E. Gough alleges, the general practitioner is not properly represented by the Representative Body, it is the general practitioner's own fault because he will not sacrifice his time to attend the meetings of his Division and instruct his Representative. It is obvious that to represent every degree of opinion on matters of detail is an impossibility, and, if the unity of the profession is to be a reality, the minority must loyally support the decisions of the majority.

The resolutions of the meeting at the Guildhall do not bind the shackles of contract practice upon any one (vide Resolutions 51a and 54). The capitation fee of 8s. 6d. is a minimum fee; a higher fee can be fixed by practitioners residing in any insurance area, and, further, it is open to the majority of practitioners in any insurance area to insist upon payment for work done (vide Resolution 54).

In order that the State Sickness Insurance Committee and the Council might have definite instructions to act upon, it was necessary for the Representatives to pass resolutions dealing with methods of remuneration. The question of remuneration has been before the Divisions long enough for members to have arrived at definite conclusions with regard to this question. The amount of work to be gone through at the meeting of February 20th to 22nd was so great as to occupy two long days and half a third day. Members of the Association who will not sacrifice their own time for the work ought to be grateful to those who will do so instead of indulging in carping criticisms of points of detail. If the work of the meeting had not been completed by February 22nd by the quorum who stuck to their work, the labour of the two previous days would have been entirely wasted. At the same time, I think when men undertake the responsibility of acting as Representatives they ought, if possible, to make arrangements to sit until the end of any meeting they are elected to attend. But I submit that Representatives who attend the meetings and hear the arguments adduced for or against details of policy are in a better position to judge of the advisability of adopting a certain line of action than those who never attend even Division meetings, and ought not to be bound down too strictly by instructions.

The meeting at the Guildhall is the first Representative Meeting I have attended, and whatever may have happened at previous meetings, at this meeting certainly the Representatives were not unduly influenced by members of the Council. I trust that in future we shall have less acrimonious criticism and greater endeavours to act together for the common good of the profession.

A Personal Explanation.

Dr. Brodie Cruickshank (Nairn) writes: On the first day of the recent Representative Meeting I voted in favour of negotiations being entered into with the Insurance Commissioners, as instructed by my Branch. On the following day, when the question of recording the names of those who did not vote in the division of the previous evening arose, I stated that I had been asked to remain neutral, and wished my attitude recorded. I now write to explain that I made this statement under the impression that the discussion related to the "vote of censure," on which I had been instructed to remain "neutral." With this explanation and an apology for my mistake I hope I have made it clear that the opinion of the Northern Counties of Scotland Branch, which I represent, was entirely in favour of entering into negotiations with the Commissioners.

The Tactics of Dr. Helme.

Dr. A. C. Farquharson (Bishop Auckland and Durham) writes: Dr. Helme remains silent and Dr. J. E. O'Sullivan, Deputy Representative for Bootle at the recent meeting, writes in his defence. After quoting the remark which I allege Dr. Helme made at a meeting of the Agenda Committee, he writes: "I distinctly traverse this statement." And what does his "traverse" amount to? Merely an affirmation that he "never heard Dr. Helme" make the remark in question. This is not a "traverse"; it is barely relevant evidence in the matter, and simply raises the question of the degree of sense-perception which Bootle's Deputy Representative brought to bear upon the proceedings of the meeting. I suggest that the evidential value of this "traverse," as a defence of Dr. Helme, tends more in the direction of that defence known to lawyers as "avoid and confess." However, the issue is not what Dr. O'Sullivan did or did not hear, but what Dr. Helme did or did not say.

I will leave Dr. O'Sullivan to ponder over those distinctions. At a time when the great question of "under which leader shall I serve?" is present in the minds of many members of our profession a little sidelight may have a very illuminating and convincing value. I have chosen to impugn the methods of Dr. Helme as a would-be leader, and I invite that gentleman to give, if he can, an explicit denial to the statement which I have attributed to him. I gladly allow Dr. O'Sullivan the solace which he evidently derives from his conception of the abysmal disparity which exists between Dr. Helme and myself, but in regard to his sneers at "cheap contract practice" and a speech which I made at the recent Representative Meeting I will reply in few words. In the counties of Durham and Northumberland there is a large

body of men engaged in contract practice, every one of whom is as full of genuine disinterested effort to "dignify, improve, and unify their profession" as either Dr. Helme or Dr. O'Sullivan, and possessed, moreover, of this additional attribute—loyalty to the British Medical Association and its recognized leaders. I represented the views of these men, and as to the manner of my representation Dr. O'Sullivan can label it as he pleases. I am content to know that before that speech was made 10s. was fixed as the capitation fee by a majority, and, *after*, 8s. 6d. by an almost unanimous vote.

However, this is all very irrelevant, and I can only conclude that Dr. O'Sullivan raises these points in an attempt to obscure the issue. Perhaps we have here another example of "tactics"!

Professional Discipline in Connexion with the Act.

Mr. Russell Coombe (Exeter) writes: Having regard to the amount of work which came before the recent Representative Meeting, I specially desired to avoid unnecessarily occupying the time of the meeting when proposing my resolution on the question of the removal of a medical man from any panel that might be formed under the Insurance Act (which was afterwards extended so as to include all complaints against medical men in connexion with the Act) by saying more than was absolutely necessary at that time.

I had, however, very strongly in my mind the whole aspect of the position assumed by boards of guardians towards their medical officers. It is, I assume, at least possible that Insurance Committees may decide to admit the press to their meetings as boards of guardians at present do. The damage that members of such a body may do to a medical man under such circumstances is a very serious question.

I am aware of a recent case in which a guardian formulated a complaint against a medical man on the ground of his not having gone to see a woman on the receipt of a telegram from that guardian, he being neither an overseer nor a relieving officer, and these two being the only persons competent to issue an order for medical relief. No order for this woman's medical relief had been issued by the authorized authorities. Moreover, the guardian in question, by his own admission, had deliberately inserted in his telegram the name of another person who was not known by him to be ill, and who, in point of fact, did not require medical attendance, for that of the person whom he really wished the medical man to visit. The whole matter of this complaint was discussed by the guardians, and the medical officer was reprimanded by the board of guardians for not obeying the incorrect, misleading, and unauthorized telegram from the guardian in question. A full report of this reprimand appeared in the local press, to the great detriment of the medical man in question. Legal advice was taken on the point, and it was to the effect that the damage done to the medical man was very considerable and would be a proper subject for a legal action with a claim for substantial damages, were it not that the guardians—including, of course, the one who sent the telegram—would be protected by the plea of privilege.

I relate this story to bring home forcibly to the minds of members the absolute necessity for self-respecting medical men refusing under any circumstances to allow their professional conduct to be considered by any body of laymen who would be entitled to plead privilege as a reply to an ordinary action for damages. To accept such a position is simply to court disaster and run the risk of being ruined.

The Policy of the Future.

Dr. S. W. Swindells (Grimsby) writes: Dr. E. R. Reynolds is always interesting, and his address to the Manchester Medical Society is no exception.

One opens one's Journal lately with some weariness, which will be increased if an address on such a subject as "Medicine as a Fine Art" cannot be delivered without a sneer at the Insurance Act, especially when delivered under conditions which, as Dr. Reynolds says, tacitly forbid medical politics. Apart from this, the reference made is so misleading and so full of false suggestion that one reads with amazement that Dr. Reynolds takes an obvious pride in having acquired, under the late Sidney Smelt, some power of extracting truth in difficult situations.

Dr. Reynolds says: "Under a certain scheme of medical service time will be short and money for special examinations non-existent." How time "will" be short is difficult to see. If Dr. Reynolds means that the Insurance Act will actually increase the amount of work to be done by increasing the amount of illness in the country, he joins our President-elect; and if he does not, then he must mean that more of the sick will be able to come to us—people unable to see a doctor now—and as a profession we surely cannot object to that, the real justification of our existence.

For the other point, that money "*will*" be non-existent for payment of special examinations, What funds are available now? Is there any one in practice who has not felt the need of some such funds? Had the speaker explained that such has been the case up to now, but that under the Act funds will be available, it would have been correct, as any one can see if he will only refer to the clauses under Section 16, for £60,000 will be available, earmarked for medical research. Surely even gratitude might be expected by those who, for the first time, have attempted to create and build up a better state of affairs. Is it not time for a fairer spirit, when we shall cease to nag and jibe and to misrepresent those who, at all events, have attempted something? Should we not now concentrate on the conditions to be arranged—conditions which the excellent work of our Council has made it possible for us to mould for the general and our own good, and which can never be built up by mere negations?

Dr. J. W. Pridmore (Ryde, I.W.) writes: At the present juncture everything depends upon our being practical. It is of no use to quibble about who is to collect the funds which are needed to indemnify individual practitioners if they suffer loss through supporting the policy of the British Medical Association by resigning their club appointments. We *must* raise a substantial sum in order to retain our unity; if we neglect to do this we shall be utterly unable to hold our own. What does it matter whether the British Medical Association or the Medical Federation is the proper body to raise the "wherewithal," so long as it is raised? Is there any reason why both should not assist in raising it? There need be no competition between them; I myself have given a guarantee to both bodies.

What *does* matter is that every member of the profession should be pressed to join, and dust should not be thrown in their eyes by arguments as to whether this or that body is the proper one to collect the funds.

The Methods of the Friendly Societies.

Dr. C. H. Benham (Honorary Secretary, Brighton Division) writes: In view of the threats contained in the recent speech of the Chancellor of the Exchequer, it is of the utmost importance that every move on the part of the friendly societies should be closely scrutinized.

The enclosed letter, which I received from a practitioner engaged in contract practice, shows the manner in which the friendly societies are endeavouring to defeat the objects of the British Medical Association by approaching those engaged in club practice with offers of largely increased work at present rates.

It is only necessary to add that if all those practitioners who are approached in this way show the same loyalty to their profession, any such attempt to undermine our position is foredoomed to failure.

The thanks of the whole profession are due to my correspondent for his promptitude in bringing the matter to the notice of the Division. It will be dealt with at the next Division meeting, when a resolution on the lines of Minute 54 of the Special Representative Meeting will be moved.

Brighton, March 8th, 1912.

The Secretary, the British Medical Association, Brighton.

Dear Sir,

A prominent official of a large friendly society was induced through the influence of a mutual friend to call on me and suggest an appointment to me which he stated would be worth at least £400 per annum when the Insurance Act came into force. He could not give me details, but hinted that remuneration would be at rates which they "have found doctors in the past so eager to accept." He has promised to call back later on with a definite proposition, which he is certain, if not accepted by me "*will be snapped up by my neighbour who can never be trusted to resist the offer.*" Will your Association kindly advise

me how I am to deal with this matter, as I desire to be prepared against his next visit and to be in a position to give him a definite reply? I understood that I was the first medical man who had been approached by this individual, but as other members of your Association will no doubt be approached with unexpected propositions of a similar nature, I have no objection to you reading this letter at the next meeting of your Association with your reply, or a definite ruling, so that we may all follow a uniform policy in regard to these offers of appointments, and be confident the offer would meet with the same identical reception in all quarters.

Yours faithfully,

———— ————.

THE SICK PUBLIC AND THE INSURANCE ACT.

Dr. R. C. BUIST (Dundee) writes: It is so important to have the facts of the case which we must present thoroughly established that I crave your permission to ask Dr. Rentoul for further information on two points of his letter.

(1) He says: "Any sane person knows that an honest bottle of medicine costs from 1s. 4d. to 2s. 6d." Assuming, as we must, that an honest bottle of medicine can be prescribed within the limits of the *Pharmacopœia*, will Dr. Rentoul give three typical prescriptions and state what he allows for dispenser's skill and for standing charges? (2) In the next paragraph he advances a demonstration as to the income of members of the profession on the assumption that 20,000 doctors agree to work under the Act—that is, about 700 insured persons to each doctor. Will he tell us whether he assumes that these doctors do no other work than that under the Act? If he does, will he tell us where the rest of the population is to get its medical attendance? If he does not, will he tell us what difference this attendance outside the Act will make to the income of the profession?

PUBLIC MEDICAL SERVICE.

Mr. HOPE GRANT, F.R.C.S.E. (Sheerness), writes: It appears to me that the best part of Dr. S. L. Craigie Mondy's letter (BRITISH MEDICAL JOURNAL, February 24th, p. 463), without undue depreciation of the first, is the last. He very pertinently asks, "Could not the Association draw up a service of its own embodying the six cardinal points, and thus dispense with the Act?" The propriety of our having such a scheme to offer to the public in the very likely event of the Insurance Commissioners refusing, or not being able to accept, the "substantive motion" of February 21st, must surely be manifest to all who have accurately gauged the present situation. Further, the knowledge that we were prepared and willing to bid against the Government for public favour would enormously strengthen our position in future negotiations.

What I am immediately concerned with is the propriety of our having ready for promulgation a scheme of medical insurance for women and children of our own. This should be such an one as all members of the Association who have "signed the pledge" could agree to, and place before the public under the aegis of the Association. The attainment would be difficult, but not impossible.

The payments should be per capita, for ease of collection by doctor from his own group. They should be in proportion (1) to the income of the breadwinner, and (2) the number of his or her family. No other system, to my mind, can be equitable. Obviously a man with £2 a week and no family is in a very different position to a man with £1 a week and a large family. Monthly or quarterly settlements would permit of patient and doctor parting when either desired.

THE PSYCHOLOGY OF PAYMENT FOR ATTENDANCE.

Dr. B. HALL (West Mersea, Colchester) writes: I have always understood that the reason why payment by capitation was adopted by the framers of the Act in preference to payment by fee was that the amount of the funds needed under the latter method would be uncertain and incalculable.

Obviously, under a system of fees it would be impossible to say beforehand how much money would be required to meet the medical bill in any coming year, or even to make an approximate estimate. One might make a forecast as to the number of deaths or the number of births that are likely to occur in the next twelve months, or as to the number of sick days that will fall on any society, but it would pass the wit of man to make an estimate of the number of visits that will be paid by doctors in any period. There are no figures on which can be based any such calculation. The actuaries were forced to work out their scheme on the basis of premium per head of insured. With an inclusive capitation fee the actuaries can calculate to a penny how much would be wanted. Under the "fee per visit" system the funds required would vary enormously in different years, so much so that no Chancellor could finance a scheme worked on that basis.

It is not only that the amount of illness varies from year to year—though the total amount of it is always decreasing year by year—but that the propensity to visit varies so enormously in different medical men. It is not necessary to suggest for one moment that even a small proportion of doctors consciously makes unneeded visits. That charge is sometimes made against individual doctors, but judging from my own experience, it can apply but very rarely. Conscious dishonesty of this kind I certainly believe is almost non-existent in the profession, though it must be admitted that the system of payment by fee does lay us open to the charge, sometimes heard, that some doctors are apt to visit more frequently than the relatives of the patient think necessary. One has heard of the relatives and the neighbours of a private patient casting suspicion on the motives of the diligent and conscientious doctor who is assiduous in his attention to his case, but rumour has never within my knowledge breathed this slander upon the doctor attending his club patient. One does, indeed, sometimes hear that the club doctor does not attend enough, and hints and suggestions in the same direction have not been wanting in this correspondence. A doctor in a mixed practice might conceivably have both charges flung at him—that he visits his private patients too often and his club patients too seldom! Let us imagine for a moment that such an accusation might be true in the instance of a certain particular doctor—what does it connote? how can it be explained?

Leaving out of the question any suggestion that thoughts of profit have any influence upon visits, one is apparently drawn to the conclusion that this particular doctor is pessimistic in his outlook when the case is private and optimistic when it is club. He might possibly, however, be pessimistic as to the diagnosis and hopeful as to his treatment of his private cases, but finds himself generally cheerful as to the prospects and doubtful of his treatment of the club patients; his despondent hopefulness in the private group tending to frequent visits, and his blithesome distrust of himself in the club group making him prone to sparser visits. This supposition seems to explain simply and naturally the apparent inconsistency there is in the practice of this hypothetic doctor when working on the two methods of payment.

Why this doctor should be pessimistic with his private cases and optimistic with his club patients is another, deeper question that crops up at this juncture, and at first blush would seem incapable of rational explanation. Why should two cases of influenza, one private and the other club, affect this doctor's higher sense organs in such diametrically opposed directions? As I have deliberately excluded the consideration of remuneration as a factor in explanation of these questions—one must, however reluctantly, admit that the consideration would to a lay mind offer a very easy and evident solution of the problem—one is driven again on the rocks, so to speak, in search of a satisfactory reply. Why should he in the private case be so doubtful of Nature's efficacy to heal, and so confident when the case is club, or pauper, or a "never payer"? Clearly it is because he is obfuscated; his judgement is confused, and warped by the thoughts that occupy his mind. Going for the first time to a private case, he thinks "he is working on the only system that consorts with the dignity of a noble profession." This idea comforts him and he goes often. On his club patient's doorstep "he feels in the position of one who is giving something for nothing," "that he is being exploited, imposed upon, sweated, and cheated"; that "he need not give more than value for the money"; "that his sense of honour does not compel him to do more than earn his money"; "that the buyer, the patient, cannot exact more from him than *x* shillings' worth of skill, attention, and sympathy"; and, lastly, "that he need not even present to this miserable club patient a cheerful face." These thoughts not unnaturally

give him a distaste for the mission he has started upon, and knowing full well that they will crop up every time he lands on that doorstep he, I think quite pardonably, puts on the brake to his propensity for visiting. One sees in the light of these thoughts—to all of which in inverted commas your correspondents have at one time or another given expression—the artless explanation of frequent visits when the patient pays by fee and seldom visits when he pays by premium. Can one wonder there should be this difference of frequency in visiting the two groups? Is it not the truth that it is the mentality of the doctor and not the case, medically considered, that controls the number of visits?

Having compared this general practitioner with himself, the portion of him that is private practitioner with the part that is club doctor, and having to my own satisfaction explained the apparently hopeless incompatibility of the temperaments of the two halves in respect to their several propensities for visiting, I will now consider this subject of frequency of visits as it affects doctors generally. I assume, again, that all doctors are conscientious and honest, that they make no more visits than they consider the case demands, and that they have the absolute trust of their patient and his relatives. I know one man who sees his confinements every day for fourteen days, and another doctor of my acquaintance calls three times in the conventional ten days. In this instance, which every reader will be able to match, the question of lucre cannot obtrude itself. Confinements are strictly contract work—the fee is not dependent on the number of visits. The man who makes three "subsequent" visits will obtain the same recompense for his conscientious and scrupulous service as the man who calls fourteen times, though the latter gives so much more "service" than the former. From this illustration we see that one man may have 350 per cent. more "propensity to visit" in his composition than another. Between these extremes one can easily find every shade and grade of difference, and one may safely assert that no two doctors possess exactly the same share of this wonderful gift which Nature has bestowed upon us. Manifestly, then, it is not, as has been assumed, "the nature of the case, the patient or his surroundings" that determine the frequency of the visit; it is something outside the case altogether. Resist the conclusion as we will, we are compelled to recognize that the chief factor which determines the number of visits to any one and so to all cases, is the mentality of the visitor, the doctor; and this mentality is a thing of unknown, immeasurable quantity and of infinitely variable intent. Actuaries cannot safely work on figures that vary indefinitely, and thus they could not draw up an insurance scheme under which doctors would be paid for their visits.

Let us suppose that the State undertook payment for all confinements at so much a case. There is no reason to imagine that the doctor who now attends fourteen times, or that the doctor who now only goes thrice, would change his accustomed routine, because his relation to the case would not be changed. But assume that the State paid per visit. I can scarcely believe that the first man would continue to make his usual fourteen visits, nor can I fancy that the second would be content with his quondam three calls. But if they did retain their former propensities in the same intensity, the result would be that one would draw from the State four and a half times the amount the other would be entitled to on each of their confinement cases. Commissioners would have no criticism to pass upon his fourteen visits if they had to pay per case, but it is possible they might have something to say if a bill for fourteen visits per confinement was put before them. And yet this man, conscientious and scrupulous as he has proved himself to be—if perhaps a trifle too apprehensive, as Dr. Cooper puts it—would no doubt be called upon to explain his account, and it is a query whether the plea of his habitual custom would be considered satisfactory explanation in the face of the bills of the doctor with whom I have compared him. The position he would be placed in of having to defend a perfectly honest demand would be, to such a nature as his, humiliating in the extreme. And yet the Commissioners could not habitually pay for confinements four times more to one man than they would be called upon to pay to another. Doctors themselves would enter protest if the Commissioners did not.

I conclude, then, by saying that in accounting for frequency and variation in number of visits made one has no need whatever to assume that greed of gain has necessarily any potency—though one must not "protest" too much. The ground fact is that doctors do differ in their propensities for visiting, and to the actuaries it is a matter of absolutely no concern what the explanation may be—it is impossible for them to work out any scheme on figures that are capricious, unsteady, and altogether incalculable.

Hospitals and Asylums.

CRICHTON ROYAL INSTITUTION, DUMFRIES.

THE annual report for the year 1911 of Dr. C. C. Easterbrook, the Physician-Superintendent of this important Scottish private asylum, shows that on January 1st, 1911, there were 846 patients in the institution, and 874 on the last day of the year. These numbers included voluntary patients, of whom there were 42 at the beginning and 40 at the close of the year. Excluding voluntary patients, the total number of cases under care during the year was 966 and the average number daily resident 824.3. During the year 162 certificated cases were admitted, of whom 125 were receptions and 34 transfers. As to duration of disorder on admission in the 125 receptions, in 79 the attacks were within three, and in 28 more within twelve months of admission, and in the small remainder of more than twelve months' duration. The receptions were classified according to the forms of mental disorders into: Mania, 29; melancholia, 36; secondary dementia, 4, and general paralysis, 4; delusional insanity, 33; confusional insanity, 6; insanity with epilepsy, 2; less common forms, 5; and congenital defect, 6. As to causation, Dr. Easterbrook does not publish any table of etiological factors or associated conditions and contents himself with a few general remarks under this heading. As to prognosis, the prospects of recovery were considered good in half of the receptions and doubtful or bad in the remainder. During the year 65 certificated cases were discharged as recovered, giving a recovery-rate on the admissions of 38.8 per cent. on the total admissions, or, excluding transfers, of 47.2 per cent., 16 as improved and 10 as not improved. Also 43 certificated patients died, giving the death-rate on the average numbers resident of 5.2 per cent. The deaths were due in 13 to nervous diseases, including 4 from general paralysis; in 12 to diseases of the heart and blood vessels; in 1 to ischio-rectal abscess; in 4 to urinary diseases, and in 13 to general diseases, with only 2 from tuberculous diseases. The general health was satisfactory, although zymotic diseases were more common than usual, and serious non-fatal casualties were few. Sanatorium treatment—that is, a combination of rest and fresh air—continued to be a characteristic feature of the treatment at this institution, and seclusion and restraint were very rarely employed. Numerous additions and improvements were carried out during the year and are still in operation, which when completed will make this asylum, it is said, one of the best equipped in Scotland.

WOODILEE MENTAL HOSPITAL.

THE thirty-sixth annual report in connexion with Woodilee Mental Hospital of the Glasgow District Lunacy Board states that the patients admitted during the year numbered 310, and the total under treatment 1,392—732 males and 660 females; 29 per cent. of the admissions were discharged recovered, namely, 51 men and 39 women; 32 men and 34 women were discharged not recovered, and 65 men and 44 women died. Of the patients admitted, 58 were over 60 years of age, and 22 over 70. The youngest patient admitted was 5 and the oldest 86. In the cases of imbecility no cause could be found in 17 cases; in the remaining 24, heredity was noted in 9 cases, tuberculosis in 3, epilepsy in 8, and alcoholic heredity, congenital syphilis, lesion of brain, and sunstroke, in 1 case each. Exclusive of congenital cases, the chief factors causing insanity were alcoholism, 50 cases or 18.5 per cent; senility in 27, epilepsy in 21, mental stress in 18, insane or epileptic heredity in 15, tuberculosis in 11, lesions of the brain in 10, injuries in 9, and operations in 8. In 24 cases no cause could be assigned, and in 24 no histories were obtained. In the associated conditions alcoholism was found in 11 cases, senility in 10, mental stress in 8, heredity in 7, and injuries in 7.

MOSELEY HALL CONVALESCENT HOSPITAL FOR CHILDREN.

DURING the past year 899 children were admitted, and of these 444 were admitted on the recommendation of subscribers, 168 were transferred from the Children's Hospital, and 287 were received from the General, the Queen's, Orthopaedic, and other hospitals, the district nursing societies, and the Birmingham Medical Mission. The daily average of patients was 58.2, and the average detention-rate was 23.6 days. The income was £2,219 and the expenditure £2,429, leaving a deficiency on the year of £210, and an accumulated deficiency of £2,318. The average maintenance cost per head per week of patients and staff was 3s. 7d.

Meetings of Branches and Divisions.

[The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the Journal.*]*

BIRMINGHAM BRANCH:

Central Division.

A general meeting of this Division was held at the Medical Institute on Thursday, March 7th, at 3.30 p.m. Mr. A. Lucas was in the chair, and eighty other members were present.

Executive Committee.—Mr. Lucas moved, on behalf of the Executive Committee, the following resolution:

> The Executive Committee recommends the Central Division to request the Chairman, Mr. J. Furneaux Jordan, and the two Honorary Secretaries, Drs. Lydall and Aldren, to withdraw their resignations and to resume office.

This was carried by 31 votes to 1.

Mr. J. F. Jordan then took the chair.

Apologies for Non-attendance.—Apologies for absence were received from Mr. Gilbert Barling and Dr. Douglas Stanley.

Confirmation of Minutes.—The minutes of the last meeting were read, confirmed, and signed.

Reports in Lay Press.—The Chairman suggested that any reports of meetings of the Division, in the lay press, should only be sent by the officers at the request of the meeting.

Special Representative Meeting.—Dr. J. Neal then presented his report of the Special Representative Meeting. It was agreed to receive the report. The Chairman moved and Dr. Abbot seconded:

> That the report be approved and adopted.

Dr. Osborne and Mr. Lucas having spoken, Dr. Neal replied, and the motion was carried unanimously.

Vote of Thanks to Representatives.—A vote of thanks to Dr. Neal and Mr. Lucas for attending the Representative Meeting was also carried unanimously.

Advisory Committee.—On the proposal of Mr. Marsh, seconded by the Chairman, it was unanimously agreed to nominate Dr. J. Neal as a candidate for the Advisory Committee.

Annual Report of Division.—The annual report of the Division was presented by Dr. Lydall, and it was received and adopted.

Medical Federation, Limited, and the Association.—On the proposal of Mr. Marsh, seconded by Dr. Hadley, the Secretaries were instructed to write to the Acting Medical Secretary and ascertain:

1. Whether it is legally possible for the Medical Federation, Limited (Bristol), to be amalgamated with the British Medical Association in order to secure for the Association its powers.
2. Whether in the event of such amalgamation being possible the British Medical Association intend to make overtures (or intend to consider the question of making overtures) to the Medical Federation, Limited, with the object of securing the amalgamation.
3. Whether in the event of such an amalgamation taking place the British Medical Association Voluntary Guarantee Fund could be joined to the funds of the Medical Federation, Limited, in view of the fact that their purposes are practically identical—namely, that of compensating members for loss of income through their relinquishing practice, especially club and contract practice, through loyalty to the wishes of the Association.
4. And, lastly, whether in the event of such amalgamation taking place the British Medical Association would obtain the power of making a levy upon the whole of its members for their common good.

The Secretaries were instructed to report the result of these inquiries to the Executive Committee at an early date.

This concluded this business of the meeting.

EAST ANGLIAN BRANCH:

North-East Essex Division.

A meeting of this Division was held on March 2nd.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Special Representative Meeting.—The Representative gave an account of the Representative Meeting.

State Sickness Insurance Committee.—With one dissentient the meeting approved of Dr. Day's action in resigning from the State Sickness Insurance Committee for reasons given in the Supplement, March 2nd, p. 270.

Group of Branches for Representation on Council.—A letter from the Acting Medical Secretary was read, relative to the grouping of Branches for representation on the Council. The meeting did not wish to suggest any alteration in the existing scheme.

Medical Men on Advisory Committees.—The question of nominating medical men to serve on the Advisory Committees was discussed, and the meeting decided to make no nominations.

Proposed School Clinic for Colchester.—A letter from Major Freeman was read relative to the establishment of a school clinic for Colchester. The following subcommittee was appointed to consider the matter: Major Freeman, Drs. Corfield, Nicholson, Maybury, P. Laver, Rowland, Clowes, Bassano, and Day.

EDINBURGH BRANCH:

Edinburgh and Leith Division.

A meeting of this Division was held on Saturday, March 9th, at 8.30 p.m., in the Gartshore Hall. Dr. James Ritchie, Chairman of the Division, presided. Thirty-six members attended the meeting.

The late Dr. Proudfoot.—The Chairman, all the members standing, made sympathetic reference to the decease of Dr. Thomas Proudfoot, one of the Executive, whose loss the Division deeply mourned.

Confirmation of Minutes.—The minutes of the meeting of February 13th were read, approved, and signed.

Special Representative Meeting.—The report of the Representatives to the last Representative Meeting was given by Drs. J. M. Bowie and R. Robertson, Dr. McKenzie Johnston being unavoidably absent. Drs. Dewar and Cumming made remarks on it. Dr. Armour moved and Dr. Stuart Ross seconded a very cordial vote of thanks to the Representatives for their report and their work at the meeting.

National Insurance Act.

Advisory Committee.

The meeting proceeded to the nomination of a member of the Advisory Committee. Three names were proposed, seconded, and voted on. Dr. M. Dewar received 15 votes; Dr. J. M. Bowie, 9; and Dr. E. F. Armour, 5. On a second vote Dr. Dewar received 15 votes and Dr. Bowie 13.

Contract Practice.—The Senior Secretary brought forward the subject of contract practice with reference to the resolutions passed at the last Representative Meeting. Dr. R. Robertson moved and Dr. Jas. Carmichael seconded:

> That the whole question of friendly societies in relation to the National Insurance Act be referred to the Executive with powers to obtain information.

This was agreed to.

Votes of Thanks.—A cordial vote of thanks was given to the Chairman and to the Senior Secretary for their extra work connected with the meeting.

FIFE BRANCH.

A meeting of this Branch was held in the Station Hotel, Kirkcaldy, on March 7th, Dr. Craig, President, in the chair.

Apology for Non-attendance.—An apology for absence was intimated from Dr. Orr (Tayport), President-elect.

Confirmation of Minute.—The minute of the meeting of members and non-members of February 15th was read and approved.

Scottish Medical Insurance Council.—The Honorary Secretary (Dr. R. Balfour Graham) reported that as a result of the elections in Fife of representatives on the Scottish Medical Insurance Council, Drs. Laing and Dalgleish had been returned unopposed for the insurance areas of the boroughs of Kirkcaldy and Dunfermline respectively, and that Dr. Douglas (Cupar) had been returned after a poll for the county area outwith these boroughs, the voting being: Dr. Douglas, 60 votes; Dr. Anderson (Denbeath), 20. The Honorary Secretary also reported

that owing to the disorganization of railway traffic, due to the miners' strike, the meeting of the Scottish Council had been postponed.

Advisory Committee.—The meeting then proceeded to nominate one member to serve on the Advisory Committee, under the Insurance Act, in accordance with the findings of the Representative Meeting, and in terms of letters to Honorary Secretaries as published in the JOURNAL of March 2nd. Dr. LAING nominated Dr. Douglas, and Dr. Dow seconded the nomination. Dr. ANDERSON nominated Dr. Craig, and Dr. EGGELING seconded. After a poll, Dr. Douglas was chosen as the nominee of the Branch by 13 votes to 7.

Special Representative Meeting.—Dr. CRAIG, the Deputy Representative, then submitted a report of the business transacted at the Representative Meetings in London lately.

Medical Benefits.—A discussion took place regarding the motion of Dr. Neal, that the administration of medical benefits should be carried out by the Insurance Commissioners, and the HONORARY SECRETARY said that he would acquaint Dr. Cox of the Branch's opinion of the urgency of the matter, and their hope that it had been already duly represented to the Commissioners. Dr. ANDERSON moved, and it was unanimously agreed, that the Fife Representatives on the Scottish Medical Insurance Council be instructed to see that that Council use every endeavour with the Scottish Commissioners in a like direction; and Dr. DOUGLAS, one of the Representatives, said he would have pleasure in carrying out the wishes of the Branch whenever opportunity arose.

Club Appointments.—Dr. TUKE reported regarding the unanimous finding of the Dunfermline medical practitioners, as already notified in the JOURNAL, to give up their friendly society and club appointments at the end of this month on the present terms, and that they intended in future to charge 8s. 6d. as a per capita rate. It appeared that there was a proposal of a section of the members of friendly societies in Dunfermline to import doctors from other parts, and induce them to accept the vacated appointments on the old terms—namely, 4s. per member. The HONORARY SECRETARY informed the meeting that a "warning notice" would appear in the JOURNAL, and that particulars would be furnished to any one who should write him on the subject. The meeting thoroughly approved of the attitude of the Dunfermline practitioners, and agreed that they should have every assistance and backing in the firm stand they were taking to raise the general rate of contract practice.

GLASGOW AND WEST OF SCOTLAND BRANCH:

DUMBARTONSHIRE AND ARGYLLSHIRE DIVISION.

A GENERAL meeting of this Division was held in Buchan's Restaurant, Clydebank, at 3.30 p.m. on Thursday, March 7th. In the unavoidable absence of the President, Dr. Hunter, the VICE-PRESIDENT, Dr. James Wilson (Dumbarton), was called to the chair. The following twelve members were present: Dr. James Wilson, Dr. R. Allan, and Dr. A. D. McLachlan (Dumbarton), Dr. Wm. Stevenson, Dr. James Stevenson, Dr. A. Downie Macfie, Dr. T. M. Strang, and Dr. E. Hamilton Cramb (Clydebank), Dr. John Gilmour (Dalmuir), Dr. A. McInnes (Old Kilpatrick), Colonel John Ritchie and Dr. Wm. Semple Young (Helensburgh).

Apologies for Non-attendance.—Apologies for absence were intimated from the following: Dr. Sewell and Dr. Hunter (Helensburgh), Dr. Cullen (Alexandria), Dr. McRitchie (Garelochhead), and Dr. Sutherland (Cardross). Several members were unable to be present owing to the curtailment of the railway service rendered necessary on account of the coal strike.

Confirmation of Minutes.—The minutes of the last meeting were read, confirmed, and signed by the Chairman.

National Insurance Act: Nomination of Members of Advisory Committee.—A discussion took place as to whether a member of the Division or an outsider should be nominated, and it was unanimously decided to nominate a member of the Division. Dr. WM. STEVENSON (Clydebank) then proposed that Dr. Wm. Semple Young (Helensburgh) be nominated in terms of the circular letter of February 29th received from the Acting Medical Secretary of the Association and of Minutes 60 and 61 quoted in same. Dr. JAMES WILSON (Dumbarton) seconded, and this was agreed to unanimously.

Special Representative Meetings.—Dr. E. HAMILTON CRAMB gave a very full report of what had taken place at these meetings and answered many questions which members put to him. A discussion followed, and unanimous agreement was expressed at the work done by the Representative and also with the various findings come to at the Special Representative Meetings. On the motion of Colonel JOHN RITCHIE (Helensburgh), seconded by Dr. R. ALLAN (Dumbarton), Dr. Cramb was heartily thanked for his services.

Scottish Medical Insurance Council: Representatives of Insurance Areas.—Dr. WILLIAM SEMPLE YOUNG reported that an election had been necessary in only one of the four insurance areas in the Division, namely, Argyllshire. The following medical practitioners had been appointed to represent the insurance areas on the Council: Dumbartonshire (County), Dr. Wm. Semple Young, Helensburgh: Argyllshire (County), Dr. Andrew Currie, Oban: Dumbarton (Burgh), Dr. Richard Allan, Dumbarton; Clydebank (Burgh), Dr. John Gilmour, Dalmuir.

LANCASHIRE AND CHESHIRE BRANCH:

BLACKPOOL DIVISION.

A GENERAL meeting of this Division was held at Jenkinson's Cafe, Blackpool, on February 28th, at 8 p.m. Dr. RHODES was in the chair, and there were present: Drs. Dora Bunting, McCandlish, Stewart, Barton, Carr, Gornall, Nuttall, Godley, Baird, Penman, Dunderdale, McIntosh, and Rees Jones.

Confirmation of Minutes.—The minutes of the meeting of February 13th were read, approved, and signed.

Annual Meeting.—It was resolved that the Honorary Secretary should circularize the members of the Division, asking their opinions as to the holding of a dinner on the occasion of the annual meeting in May.

Special Representative Meeting.—Dr. BARTON submitted a detailed report upon the recent Special Representative Meeting. Questions were asked and discussion entered into by the meeting generally.

Vote of Thanks to Representative.—Dr. PENMAN proposed, and Dr. DUNDERDALE seconded, a cordial vote of thanks to Dr. Barton for the time and energies he had devoted to the Division in his capacity as Deputy Representative. This was passed unanimously and with acclamation.

Club Appointments.—It was proposed by Dr. GORNALL, seconded by Dr. BARTON, and passed unanimously:

> That all medical practitioners within the area of the Blackpool Division of the British Medical Association be requested to refrain from accepting (*a*) any new club, and (*b*) any club resigned by another medical practitioner, during the present unsatisfactory and undetermined relationship of the medical profession to the medical provisions of the National Insurance Act.

It was further resolved:

> That a copy of the above resolution be sent to each medical practitioner within the area of the Division.

WARRINGTON DIVISION.

A SCIENTIFIC meeting was held at the Infirmary, Warrington, on Thursday, February 24th. Dr. BURROWES was in the chair, and there were present: Drs. Naden, J.P., Robinson, Langdale, H. Thorp, L. Thorp, Howard, Manson, Hutt, Jago, Moss, and Murray (Honorary Secretary).

Apologies for Non-attendance.—Letters of apology for non-attendance were read from Dr. Bowden (the Chairman) and Dr. Joseph, J.P. (the Mayor).

Puerperal Fever.—Dr. LEITH MURRAY, of Liverpool, read a paper on puerperal fever. Special attention was given to the pathological and immunilogical aspects of the subject, particularly in so far as these had a direct bearing on treatment. The infecting organisms, the sites of origin, and the paths traversed were discussed. Stress was laid on the inadvisability of sharp curettage, on the reasons for the usual inefficiency of antiserums and methods likely to overcome this, on the scope of vaccine treatment, and on the indications for operative treatment.

Vote of Thanks.—A vote of thanks was unanimously given to Dr. Leith Murray for his paper.

METROPOLITAN COUNTIES BRANCH:

Hampstead Division.

A meeting of this Division was held on Friday, March 8th, at 8.30 p.m., at the Conservatoire, Swiss Cottage. Dr. Oakley was in the chair, and twenty-seven members were present.

Confirmation of Minutes.—The minutes of the last meeting, having appeared in the Journal, were taken as read.

Provisional Committee.—A letter from the National Insurance Committee of the Branch was read, asking if any steps had been taken to form a provisional medical committee. It was decided to take no steps until further information had been received.

Advisory Committee.—A letter from the Acting Medical Secretary, enclosing one from the National Health Insurance Joint Committee, was read, asking for a nomination by the Division of a member to serve on the Advisory Committee. The Division nominated Dr. Major Greenwood.

Special Representative Meeting.—A few questions were asked in regard to the Representative Meeting in February. The Representative (Dr. Oppenheimer) replied.

Election of Representative to Representative Meetings.—The Division being now entitled to three Representatives, six nominations had been made—Drs. Armit, Dorrell, Evans, Macevoy, Oakley, and Ware. Mr. Ware having withdrawn his name, the remaining five were voted on by ballot. Dr. Percy Evans was elected by 21 votes, Mr. Dorrell by 18, and Dr. Macevoy by 17.

Organization of Division.—Mr. Armit asked for an account of the meeting of the Organization Committee of the Branch held that afternoon, in so far as it concerned Hampstead. The Honorary Secretary replied that it had been decided to hold a conference on March 15th between Representatives of the various Divisions contained in Middlesex and the Organization Committee. Hampstead was invited to nominate three Representatives to the conference. Dr. Macevoy was nominated to represent Willesden, Dr. Hicks to represent Finchley, and Dr. Andrew Hendon.

Proposed New Divisions.—Resolution (1) on the agenda was moved by Dr. Macevoy, seconded by Dr. Percy Evans, and carried unanimously:

> That a new Division of the Metropolitan Counties Branch of the British Medical Association be formed, comprising the area of the Willesden Urban District.

A rider was moved by Mr. Armit to add the words:

> And such part of the urban district of Wembley as is at present included in the Hampstead Division.

This was carried *nemine contradicente*. A resolution by the Honorary Secretary which affected one member only was carried unanimously:

> That that portion of the rural district of Hendon at present in the Hampstead Division be detached from the Division.

A resolution was then proposed by Dr. Hicks (Chairman of the Finchley Ward), and seconded by Dr. Andrew (Hendon):

> That a new Division of the Metropolitan Counties Branch of the British Medical Association be formed, comprising the area of the Finchley and Hendon Urban Districts.

The opinion of members and many non-members resident in these districts had been taken. There was no opposition to the suggestion, and there was a strong feeling in favour of such a Division being formed. The resolution was carried by 16 votes to 3. The only opposition was from members not living in the affected area, and their objection was that owing to the Finchley and Hendon meetings having been held since the agenda were printed, it had not been possible to give notice of the resolution. It was therefore agreed that the resolution be confirmed at the next meeting, notice to appear on the agenda. The following rider to the last resolution was carried *nemine contradicente*:

> That the Chairman and Secretary of the Finchley Ward be empowered to call a meeting of the members of the Hendon and Finchley Districts, and transact such business as may be necessary in the formation of the new Division.

Lambeth Division.

A special meeting was held at the Surrey Masonic Hall on Friday, March 8th, at 4 p.m., Dr. Denning in the chair.

National Insurance Act: Advisory Committee.—The Secretary announced that the Division had been invited to nominate a member of the Association to serve on the Advisory Committee, National Insurance Act. Dr. Mackeith proposed, Dr. Cooke seconded, and it was carried unanimously:

> That Dr. T. Jenner Verrall, of Bath, be nominated by this Division.

Dispensary for the Prevention of Consumption in Camberwell.—Dr. Capes proposed and Dr. Mackeith seconded:

> That a meeting of the whole profession resident in the area of the Lambeth Division be called to consider the matter as soon as possible.

Special Representative Meeting.—In compliance with Minute 66 of the recent Representative Meeting, the Chairman called upon the Representative (Dr. Esler) to read his report of his actions at the Representative Meeting. The Representative then informed the meeting that he supported the motion for the appointment of a State Sickness Insurance Committee; that he voted for a capitation fee of 8s. 6d.; that he voted for Motion 46; that he voted against the motion that Dr. Maclean be asked to resign his Chairmanship of the Representative Meeting; that he voted against pressing for an amending Act; that he voted against an amendment to Recommendation 1 of the Council—namely:

> That the Council be instructed to cease all negotiations with the Government and the Commissioners.

Vote of Thanks to the Representative.—It was proposed by Dr. Capes, seconded by Dr. Atkinson, and carried, that the report be received. Whereupon it was proposed by Dr. Capes, and seconded by Dr. Mackeith, that the report be accepted, and at the same time passing a hearty vote of thanks to Dr. Esler for the way he had given expression to the views of the Division and for the great labours he had undertaken. This was carried unanimously. The Chairman, in conveying their thanks to the Representative, said that it was not only for the present year but for his continued representation for the past eight years that the Division was indebted to Dr. Esler.

Marylebone Division.

A general meeting of the Division was held at the rooms of the Medical Society of London, 11, Chandos Street, W., on Tuesday, March 12th, at 5 p.m. Sir Frederic S. Eve took the chair. Sixty-three members and visitors were present.

Confirmation of Minutes.—The published minutes of the last meeting were confirmed.

Nominations for Central Council.—Dr. Gordon Holmes asked what steps the Division intended to take regarding nominations for the Central Council. The Honorary Secretary read the by-law thereon, and it was promised that a meeting of the Division should be called in time to determine the nominations.

The late Sir Henry Butlin.—A letter from Lady Butlin was read.

National Insurance Act.

Special Representative Meeting.—Mr. N. Bishop Harman, the Representative of the Division at the Special Representative Meeting in February, gave a report of the way in which he had carried out his instructions. He said that each resolution committed to his care had been carried at the meeting, and one in particular had, he believed, saved the whole work of those three days from being a fiasco; he referred to his instructions to move the next business in case of a vote of censure being moved. Some members challenged the accuracy of this interpretation of the instructions.

The Honorary Secretary read the minutes of the meeting covering these instructions.

Mr. Harman said the instruction was quite clear. He had himself asked for instructions, and pointed out that a vote of censure passed in December held good. The reply of the meeting was a special resolution to propose the next business, and, failing that, to vote for the motion of censure.

Mr. McAdam Eccles said that he was the seconder of the motion Mr. Harman referred to. It was quite clear

that Mr. Harman had done as he had been directed. He also agreed with him that the vote of their Division had saved the Representative Meeting from being a total waste of time. The vote of censure had to come on at the end of the committee stage on the third day, and if there had been any further delay the report stage would in all probability not have been reached. The Council deserved a vote of censure, but we wanted a more definite pronouncement of our position for both public and profession. We had got it; and the Division was to be congratulated on its part in securing it, and Mr. Harman for the way he had carried out their instructions.

Dr. C. O. HAWTHORNE said he was the proposer of the instruction. He confirmed the statement of the facts concerning it.

Dr. D. STEEL ROXBURGH proposed that a special vote of thanks be given to Mr. Bishop Harman for his work, which he thought they were all agreed was excellent.

Dr. PERCY SPURGIN seconded, and it was carried unanimously.

Colonel T. H. HENDLEY asked a question, and moved a resolution concerning the proposition made at the Representative Meeting to exclude members from the gallery. He said the suggestion that they had given information to the press was disgraceful.

Mr. BISHOP HARMAN said it had been stated by Representatives at the meeting that the reporters probably got their ideas by eavesdropping in the lobby. They had been cautioned to avoid converse in the public lobby. The motion to clear the gallery had been rejected by an overwhelming majority.

A proposal to proceed to the next business was carried unanimously.

Advisory Committee.—The HONORARY SECRETARY read the resolutions of the Representative Meeting relating thereto, and reported that the Executive Committee had nominated Dr. R. M. Beaton. The CHAIRMAN put it to the meeting that the action be confirmed. It was agreed to unanimously.

Provisional Medical Committee.—The HONORARY SECRETARY explained the purport of the committee.

Dr. F. J. SMITH proposed and Mr. MCADAM ECCLES seconded a motion that a special meeting of all the practitioners of the borough be called to elect such a committee.

Mr. JOHN PARDOE asked if the committee would be dissolved if the demands of the Association were refused.

Dr. HAWTHORNE said the committee was purely a watching committee to report to the Association. A local committee was an urgent necessity to examine and report on local conditions.

Mr. WARREN LOW said that if non-members were asked to join in the election or served on the committee, then the Association would not be in complete authority and could not dissolve the committee.

Mr. MCADAM ECCLES pointed out this was to be a provisional committee and not a committee under the Act.

Mr. PARDOE asked if it would have any authority to confer with local bodies.

Dr. F. J. SMITH said the committee would have no power to approach any body but the Association. It was essential that some non-members should be elected, but that the members should be in the majority.

Dr. POYNTON supported the motion. He was totally opposed to the Act, but a watching committee was a necessity.

Dr. ROXBURGH said that in the event of medical benefit being withdrawn the committee would be needed to deal with the situation immediately.

The motion was carried *nemine contradicente*.

Hospitals, Consultants, and the Act.—Mr. BISHOP HARMAN read certain resolutions that appeared on the agenda of the Representative Meeting affecting institutions and hospital officers in their possible relation to the Act. The scope of these resolutions was very wide, and it was important that their Division should be thoroughly prepared to meet them. The Executive Committee proposed that a committee be formed to consider the matter.

Dr. F. J. SMITH moved that the matter be postponed.

Mr. MCADAM ECCLES said the matter was urgent; they must be prepared to give explicit instructions to their Representatives on the matter. The motion to postpone was lost.

The HONORARY SECRETARY read a *pro forma* list for the committee: Sir F. S. Eve, Mr. Atwood Thorne, Drs. F. J. Smith, C. O. Hawthorne, G. A. Heron, Simmonds, Galloway, Sidney Phillips, Poynton, Messrs. Harman, Ballance, McAdam Eccles, Pardoe, Douglas Drew (with power to add to their number), Mr. Drew to be the secretary of the committee.

Mr. PARDOE moved and Mr. LOCKHART MUMMERY seconded that the committee as named be elected. This was agreed to.

Election of Representatives on the Representative Body.—The election of six Representatives for the ensuing year under the new by-laws was discussed.

Dr. F. J. SMITH moved that the meeting proceed to the election forthwith. Dr. GORDON HOLMES seconded.

Dr. HERON said the matter was too important to be rushed in this fashion; they should insist on a postal vote.

Mr. ERNEST CLARKE objected to a postal vote; those who were interested took the trouble to come.

Mr. MUMMERY proposed and Mr. ECCLES seconded an amendment that nominations be taken now and the election in May.

Dr. HAWTHORNE said it would be far better to elect all the Division officers at one time in May.

The CHAIRMAN said there were many members who from unavoidable circumstances could not attend, and yet who were keenly interested. In these special circumstances a postal vote was desirable.

The amendment was lost. The motion to proceed to the election forthwith was carried.

Dr. ERIC PRITCHARD said he proposed the election of six gentlemen *en bloc*—Messrs. Dyke Acland, Newton Pitt, Warren Low, Maynard Smith, Wynn Wirgman, Steel Roxburgh. A MEMBER seconded.

Dr. HAWTHORNE said he wished to propose Mr. Bishop Harman, their present Representative. For them to cast off a tried officer, and one to whom they had that very evening passed unanimously a special vote of thanks, was a reflection on their own selves. These six who had been nominated included some well-known names, but others of whom they knew little or nothing, and of most it could be said their attendance at Divisional meetings was a rare event.

Dr. POYNTON seconded the nomination of Mr. Harman. He by no means agreed with him, but greatly admired his work for their Division.

Dr. SPURGIN nominated Drs. Heron and F. J. Smith. Dr. HERON nominated Mr. McAdam Eccles.

Mr. ECCLES said he regretted he should not be able to attend the Liverpool meeting.

Mr. HARMAN nominated Mr. Pardoe and Dr. Galloway.

Messrs. Ernest Clarke and McAdam Eccles were appointed scrutineers.

A ballot was taken, and the result was as follows:

Dr. Roxburgh	32
Dr. Acland...	27
Mr. Pitt	27
Mr. Maynard Smith	24
Dr. Wirgman	23
Mr. Warren Low	22
Mr. Bishop Harman	18
Mr. John Pardoe	16
Dr. Hawthorne	13
Dr. F. J. Smith	13
Dr. G. A. Heron	7
Dr. Galloway	5

The first six were declared elected.

NORTH OF ENGLAND BRANCH:

GATESHEAD AND CONSETT DIVISIONS.

A COMBINED meeting of these Divisions was held in the Dispensary on Wednesday, March 6th. Dr. S. V. ROBINSON was in the chair, and twenty-five members were present.

Contract Committee of Branch.—On the motion of Dr. ROBINSON, seconded by Dr. GILBERT, Dr. Farquharson (Washington) was unanimously elected to serve on the Contract Committee of the Branch.

National Insurance Act.

Medical Men and Public Meetings.—Dr. PATTON proposed the following resolution:

That in the opinion of this Division it was undesirable that any member of the Division should take part in any meet-

ing or debate in connexion with the National Insurance Bill unless by permission of the Executive Council of the Division.

The resolution was seconded by Dr. Farquharson, and carried unanimously.

Advisory Committee.—Dr. Durant proposed that Dr. J. Macdonald (Taunton) be nominated by the Division to serve on the Advisory Committee. The proposal was seconded by Dr. Stewart, and carried unanimously.

Special Representative Meeting.—Dr. Durant, the Representative to the Bepresentative Meeting, gave a detailed report of the business done at the meeting, dealing very fully with the Division's rider to Recommendation V, as also with the capitation fee. After having answered several questions on different points which arose, the Chairman proposed a vote of thanks to Dr. Durant, which was carried by acclamation.

Local Medical Committee.—Several members discussed the advisability of proceeding at once to form a local Medical Committee. The feeling of the members was that a local committee should be formed. The Secretary was instructed to call a meeting of the Division for the purpose of electing a local Medical Committee at an early date.

Newcastle-on-Tyne Division.

A special emergency meeting of this Division was held at the Royal Infirmary, Newcastle-on-Tyne, on Wednesday, March 6th, at 8.30 p.m. Dr. Don was in the chair, and there were present: Drs. Pirrie, Pybus, Fraser, Spurgin, Hewitson, Beatley, Slade, Bunting, A. Smith, sen., E. D. Smith, Allison, Walker, J. Clay, Emmerson, G. E. Watson, T. C. Innes, Irvine, A. Campbell, Pratt, Duncan, Foggin, W. E. Alderson, Hawthorn, Geo. Hall, Sowden, C. U. Laws, H. Kerr, Ruxton, Brand, T. C. Hunter, J. W. Smith, sen., Grinling, Hay, Livingstone, J. W. Smith, jun., Dagger, Slater, G. B. Picton, A. Livingstone, McCracken, Dunlop, Hudson, Rutter, Parkin, Fellowes, A. Smith, J. J. Campbell, Simpson, and R. J. Willan (Honorary Secretary).

National Insurance Act: Central Advisory Committee.—Dr. J. W. Smith, sen., of Ryton-on-Tyne, was nominated a member for the Central Advisory Committee, *re* National Insurance Act.

Special Representative Meeting.—Dr. J. W. Smith, sen., the Representative of the Division, gave an account of the proceedings at the Representative Meeting, for which he was thanked.

National Insurance Act.

Medical Men and Public Meetings.—A resolution was carried:

> That, in the opinion of the members of this Division, no medical man should, at present, take part in any public meetings held in connexion with the National Insurance Act, unless with the sanction of the Executive Committee.

Tuberculosis Dispensaries.—Dr. James Hudson proposed and Dr. Dagger seconded:

> That the general practitioners of the city, represented by the British Medical Association, should be invited to form part of the Committee of Management of the Tuberculosis Dispensaries.

Dr. Hudson, in bringing forward his resolution, pointed out that a meeting had been recently held to discuss this question, and that the general practitioners of the city, who, he claimed, were more interested than anybody else, had not received an invitation to take part in this conference. Dr. Foggin proposed an amendment to this, which Dr. Sowden seconded:

> That we appoint a deputation of four representatives of the British Medical Association to interview the medical members of the Committee of Management of the Newcastle-on-Tyne Corporation Tuberculosis Dispensary Scheme to discuss the matter with them and report the result to the next meeting.

After an exhaustive discussion the amendment was carried by 16 votes to 6. The amendment was thereupon put as a substantive resolution and carried. The gentlemen nominated were: Dr. James Don, Dr. James Hudson, Dr. Foggin, and Dr. Allison.

Alteration in Time of Meeting.—That the recent alteration in the time of the Division meetings to 8.30 p.m. was a step wisely taken was proved by the good attendance.

Perth Branch.

A special meeting of the Council and Branch was held in the Royal Infirmary, Perth, on February 24th.

Council Meeting.—A Council meeting was held at 3.15. Dr. Haig, President, was in the chair, and there were present: Drs. Paton, Stirling, Lyell, Trotter, and Taylor.

Scottish Medical Insurance Council.—The voting papers for the county and the city of Perth having not been all sent in to the Secretary, it was decided to leave the counting of the votes in the hands of the Secretaries to deal with at a later date, the Secretaries to report the result to the Secretary of the Scottish Medical Insurance Council in Edinburgh, and also have the result inserted in the Journal.

General Meeting.—A general meeting was held at 3.30. Dr. Haig, President, was in the chair, and there were present: Drs. Beattie, Stirling, Smith, Menzies, Gairdner (Crieff), Lyell, Goudie, Walker, Paton, Taylor (Dunkeld), Taylor, Trotter, Mackay, sen., Bissett, C. P. Stewart, M. Hume, Sturrock, and Edwardes.

Apologies for Non-attendance.—Apologies for absence were sent from Dr. Revie (Blairgowrie) and Dr. Urquhart.

Special Representative Meeting.—Dr. Haig, as Representative, asked Dr. Taylor, Vice-President, to take the chair. Dr. Haig gave a very full report in regard to the Representative Meeting in London, and answered various questions.

Doctors of Friendly Societies.—Much discussion took place in regard to doctors of friendly societies, whether they should continue or give up their appointments. On the motion of Dr. Beatty (Pitlochry), it was agreed to postpone action till some concertive action was taken in Scotland.

This was all the business, and the members thereafter were kindly entertained to tea by the Matron and House-Surgeon.

Scottish Insurance Council.—The result of voting for members of the two areas, Perth and Perthshire, for the Scottish Medical Insurance Council was as follows: Perth City, Dr. E. L. Paton (Perth); County, Dr. Haig (Crieff, Perthshire).

South-Eastern Branch:

Chichester, Worthing, and Horsham Divisions.

A general meeting of these Divisions was held on February 16th at the Norfolk Hotel, Arundel. Dr. Simpson took the chair, and thirty-one were present.

National Insurance Act.—The object of the meeting was to discuss the Recommendations of the Council of the Association as to the National Insurance Act.

Recommendations of Horsham Division.—The Recommendations of the Horsham Division were read by Dr. Vernon.

Representative.—The resignation of Dr. Cameron as Representative was tendered, but withdrawn at the request of the meeting.

Recommendations of Council.

The Recommendations of the Council were discussed.

Recommendation I.—It was proposed by Dr. Ewart and seconded by Dr. Vernon:

> That Recommendation I should be adopted.

The following amendment was proposed by Dr. Morris and seconded by Dr. Wiggins:

> That the British Medical Association break off all negotiations with the Insurance Commissioners.

The amendment was lost and the original motion carried.

Recommendation II.—The following amendment was proposed by Dr. Eustace:

> To delete from "the" to "conceded," lines 2 and 3, and to substitute "the requirements of the profession set out in the six cardinal principles of the British Medical Association and embodied, to the satisfaction of the Representative Body, in the Regulations of the Insurance Commissioners."

Recommendations III and IV were adopted.

Recommendation V.—The following amendment was proposed by Dr. Eustace, seconded by Dr. Ewart, and carried:

> To insert after the word "persons" (line 5), "and, failing the provision of adequate remuneration of medical practitioners under the National Insurance Act, to organize a publi

medical service under the control of the medical profession."

Recommendation VI.—The following amendment was proposed:

To substitute "6" for "12," that is to say, chosen by the Council, immediately after (D) line 3.

This was dropped in favour of an amendment by Dr. Ewart:

That instead of 12 from the Representatives, 18 be elected.

The following resolutions were proposed and carried:

1. That if the Chairman of the Representative Meeting should tender his resignation at the commencement of the meeting, it should be accepted.
2. That the basis of the constitution of local Insurance Committees should be a contributory one, which should have in each unit of ten, four representatives of the insured persons, three of employers (non-contributors), two of Government or county council (non-contributors), and one for the medical profession.
3. That our Representative be instructed to demand a card vote on the main questions of policy.
4. That all disciplinary powers over medical practitioners under Section 15, Subsection (*b*) of the Act be placed unreservedly in the hands of the medical profession itself.

Isle of Thanet Division.

The fifty-first meeting of this Division was held at the Victoria Hotel, Ramsgate, on Thursday, March 7th. Dr. T. G. Stvan was in the chair, and there were also present: Drs. Webb, Berry, Bennett Powell, Sawers, Halstead, Street, Nichol, Woods, Storar, Biddle, Archibald, Hunt, and Raven—fourteen members; all the medical practitioners in Thanet having been invited to the meeting.

Special Representative Meeting.—The Chairman gave a summary of the results of the recent meeting of Representatives, reading out the various resolutions passed and their bearing on the future. He forecasted the formation of county and local Medical Committees, and the possible resignation of all contract practice appointments until the demands of the profession had been met. A letter was read from Dr Gosse (Representative) giving an account of the meeting of Representatives and emphasizing certain points.

National Insurance Act.—The Honorary Secretary read a statement of the probable developments of the future, especially as to the necessity of many more members being required to take an active part in the campaign. He stated that a member would probably be required who was willing to act as Representative. Two would be required to act on the County Medical Committee; and about twelve would be required to form a local medical committee, with a special honorary secretary, it being beyond the powers of the Honorary Secretary of the Division to take on the additional work and responsibility.

Proposed County Medical Committee.—A letter was read from the Honorary Secretary of the Maidstone Division, inviting this Division—with all others in Kent—to send two delegates and the chairman to attend a meeting on March 14th, and form a county provisional medical committee to safeguard the interests of the profession, and to keep in touch with the movements of the central office, and other Branches. The meeting decided to send two delegates; and on the motion of Dr. Biddle, seconded by Dr. Woods, Drs. Webb and Archibald were appointed as delegates, having intimated their willingness to act.

Central Advisory Committee.—A letter was read asking for one nomination from the Division of a member of the Central Advisory Committee. On the motion of Dr. Raven, seconded by Dr. Berry, the Division unanimously nominated Dr. Alfred Cox, Acting Medical Secretary of the British Medical Association.

Proposed Local Committee.—The question of forming a provisional local committee to safeguard the medical profession in relation to the National Insurance Act was next considered. On the motion of Dr. Nichol, seconded by Dr. Sawers, it was resolved unanimously to appoint such a committee, with the following composition, non-members to be included:

From Ramsgate	3 practitioners.
From Margate	3 practitioners.
From Broadstairs	2 practitioners.
From Birchington and Westgate ...	2 practitioners.
From Minster and rural district ...	1 practitioner.

It was decided to nominate members at the present meeting and to call a meeting of all medical practitioners, non-members as well as members of the British Medical Association, on the agenda of which meeting should be the business of electing members of such a committee. It was decided to hold the meeting in fourteen days' time, or later if necessary, at Margate, Dr. F. E. Nichol being elected chairman for the meeting.

Vote of Thanks to Chairman.—A very hearty vote of thanks was passed to the Chairman.

Maidstone and Rochester and Chatham Divisions.

A conjoint meeting of the Maidstone Division and the Rochester and Chatham Division was held on February 16th at Maidstone.

Instruction of Representative.—The object of the meeting was to instruct Dr. Douglas, the Representative for the Special Representative Meeting to be held at Guildhall on Tuesday and Wednesday, February 20th and 21st.

National Insurance Act: Recommendations of Council.

The Recommendations were adopted as follows:

Recommendation I.—Adopted, 14 for, 3 against.

Recommendation II.—Insert the words "and Divisions are" on line 3, and to read "until the Representative Body is and Divisions are satisfied that".

Recommendation III.—Adopted unanimously.

Recommendation IV.—Adopted unanimously.

Recommendation V.—(*a*) First line, insert "immediate" after "take," to read "to take immediate steps." (*b*) Third line, after Act, delete

"person shall be able to secure," and insert therefor "medical practitioner shall give."

(*c*) Last line, insert after insured "or other," to read "attendance upon insured or other persons."

Recommendation VI.—The following alterations: In line 3 to read: (*a*) 24 members; (*b*) 6 members, instead of (*a*) 12 members; (*b*) 12 members. In last line add after members,

such persons not being members of the above bodies.

Resolutions.—The following resolutions were also carried:

That Dr. Douglas be instructed to urge that verbatim or full reports of the Council and Representative Meetings be published in the British Medical Journal unless adequate reasons are given to the contrary.

That the Special Representative Meeting strongly press for the deletion of the Harmsworth amendment from the Act.

That should the Chairman of the Representative Meeting be asked to resign, Dr. Douglas shall vote for the motion; and should a vote of confidence in the Chairman of the Representative Meeting be moved, Dr. Douglas shall vote against that motion.

That the discipline of the profession be in the hands of the General Medical Council, and not in the hands of the local Insurance Committee.

SOUTH MIDLAND BRANCH:

Buckinghamshire Division.

A meeting was held at the Royal Bucks Hospital on Thursday, March 7th, at 3.30 p.m., Dr. E. O. Turner in the chair. There were also present: Drs. Baker, Benson, Bradbrook, F. A. Cooke, Drake, Durran, England, Kennish, Larking, Long, Onslow Ford, Magrath, Newcombe, Perrin, H. Rose, Reynolds, Stolterforth, Stedman, West, Vaisey. Dr. Crow and Dr. Hance were present as visitors, making a total number of twenty-three.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Special Representative Meeting.

Dr. Bradbrook gave his report of the Representative Meeting held at the Guildhall. At first it looked as if the meeting was going to be a disastrous one for the union of the profession, but after prolonged discussion agreement was secured, and the position of the profession now was that it was united more than ever. He gave an account of the way the Special Sickness Insurance Committee was elected, and said it was very unsatisfactory and hurried. One of the nominees had resigned, and he had taken steps to nominate Dr. Durran in his stead.

During the discussion that ensued several questions were asked, such as the position of club medical officers when

the Act came into force, which it was agreed to be impossible to answer at the present stage. It also appeared that the County Council was anxious to know the position the profession was taking up, so that they could arrange accordingly. It was agreed that nothing could be done until the Commissioners' Regulations were accepted as satisfactory. It was agreed that it was unwise in present circumstances for medical officers to attend club dinners, and make speeches which were liable to create misunderstandings. It would be far better to stay away, or refuse to discuss the matter until the profession was satisfied that the six cardinal points were embodied in the regulations.

The Representative stated that even if nothing whatever came of the Insurance Act the profession was not going on as at present, and they would bring forward their own scheme at the proper time. The British Medical Association was not going to spend £8,000 to £10,000 merely in opposing the Act. It meant the profession to insist on better terms for the future.

The letter concerning the appointment of the Advisory Committee was read, and it was proposed by Dr. Kennish, seconded by Dr. Baker, and carried unanimously that Dr. Larking be nominated by the Division as a most suitable person to act.

A discussion took place on the terms to be arranged in future, and it was pointed out that the position of town and country practitioners was widely different on account of the extra expense of a country practice. The mileage question was most important, and it was difficult to see how it could be arranged. If doctors gave up dispensing the chemists must give up all kinds of prescribing, and the prescription should be the property of the doctor and be returned to him and not repeated unless ordered. The question of the radius was mentioned. In reference to dispensing, it was stated that if doctors dispensed they would have to keep an accurate record of every ingredient, and that this would be very troublesome when the accounts had to be made up. The younger medical men objected to dispensing, and it would be better to let dispensing by doctors be abolished gradually than by a sudden Act of Parliament. The whole question of administering the Act was most complicated and difficult. They must keep their eyes open and support the Defence Fund, so that those medical men who stood to lose a lot by adopting their policy could be compensated and supported.

The opinion was expressed that the scheme would eventually be worked by the profession, and they should not allow themselves to be bluffed and frightened by any nonsense about "blacklegs." A full statement of their case should be issued in pamphlet form.

SOUTH WALES AND MONMOUTHSHIRE BRANCH:

Monmouthshire Division.

A meeting of this Division was held at the Pontypool and District Hospital on Friday, March 1st. The Chairman (Dr. H. C. Bevan) presided, and the following members were also present: Drs. W. D. Steel, Haslett, Greer, Hayles, Ingram, Crinks, Elworthy, A. K. Armstrong, Watkins, J. W. Mulligan, U. J. G. Mulligan, Lornie, A. H. James, Mitchell, McAllen, A. E. Jones, Cowie, J. O'Sullivan (Uwm), Ryan, Jamison, Essex, and R. J. Coulter and S. Hamilton, Honorary Secretaries.

Vote of Condolence.—On the motion of the Chairman a vote of condolence with the relatives of the late Dr. C. P. Skrimshire, a former member of the Division, was passed, all standing.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Report of Representative on the Special Representative Meeting.—Mr. Greer presented a report on the business transacted at the Special Representative Meeting on February 20th, 21st, and 22nd. This was discussed at length, and a letter from the Chancellor of the Exchequer, dealing with the position of colliery surgeons under the National Insurance Act was read by Dr. Hayles. It was finally decided that (*a*) the colliery and works surgeons in Monmouthshire, and (*b*) the members of the profession in Monmouthshire engaged in country practice, should hold meetings to discuss the terms on which they will be prepared to undertake treatment under the Act, and should report to the Division the decisions at which they arrive.

A vote of thanks to Mr. Greer for his services was passed unanimously.

National Insurance Act Advisory Committee.—It was unanimously decided to nominate Dr. J. W. Mulligan for a seat on this Committee.

Clinical Case.—Mr. R. J. Coulter showed a case in which an epithelioma had been removed from the lower eyelid, and explained the method adopted to prevent a gap at the seat of the tumour.

Tea.—After the meeting the members present were entertained to tea by the staff of the hospital.

North Glamorgan and Brecknock Division.

A meeting of this Division was held at the New Inn, Pontypridd, on Thursday, March 7th, at 3.30 p.m. There were twenty-six members present. Dr. R. D. Morgan took the chair.

Confirmation of Minutes.—The minutes of previous meetings were read, confirmed, and signed.

Special Representative Meeting.—Dr. W. E. Thomas, Direct Representative, gave a full report of the proceedings of the Special Representative Meeting held in London on February 20th–22nd. A vote of thanks to Dr. Thomas was moved by the Chairman and carried unanimously.

Advisory Committee.—The nomination of a member of the Advisory Committee by the Division was then considered. After considerable discussion Dr. Webster moved and it was resolved:

> That Dr. W. E. Thomas (Ystrad) be nominated by the North Glamorgan and Brecknock Division.

It was proposed by Mr. C. J. Weichert and resolved:

> That the members of the North Glamorgan and Brecknock Division respectfully desire to point out to the Central Council the desirability of appointing on the Advisory Committee a medical man engaged in colliery practice, in view of the fact that so large a proportion of the medical men of Wales is engaged in such practice.

YORKSHIRE BRANCH:

Bradford Division.

A meeting of the Division was held at the Great Northern Victoria Hotel, Bradford, on Wednesday, January 24th, at 8.30 p.m. The Chairman (Dr. Oliver) presided, and sixty-four medical men were present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Club Doctors under the Insurance Act.—Mr. W. F. Rawson briefly opened a discussion on the subject. In his opinion, notice to terminate their agreements with clubs should be given in before March 31st. Dr. Bonner said the clubs must be tackled without delay. He likened them unto a vicious cur, biting the hand which fed it. With the Chairman's permission, he begged leave to move the following resolution:

> That this meeting, realizing the want of local data, instructs the Executive of the Bradford Division to circularize at once the whole of the medical men of the district with the view of ascertaining—
>
> 1. If they hold any clubs.
> 2. If so, are they prepared to resign their clubs, and to hand in their resignations to the Secretaries of the Bradford Division?
> 3. Are they prepared to sign an agreement not to accept any such resigned clubs or any freshly-constituted club, the definition of a club being left in the hands of the executive?
>
> P.S.—It must be remembered that the guarantee fund will be available for men suffering definite loss.
>
> And that the executive, having received the above information, calls a meeting within a week of the issue of such circular, for the purpose of acting on the information obtained. Further, in the event of a good majority agreeing to the resignation of club appointments, that the executive be instructed to form an energetic subcommittee for the purpose of interviewing the minority, or those who have not made a return with a view to bringing them into line with the majority.

Dr. Mitchill seconded the resolution, and Dr. Allan, Dr. Rowe, Dr. Bell, and others spoke in support. Dr. Metcalfe informed the meeting that there was a strong feeling in both the Council and the Representative Meeting in favour of all club appointments being thrown up at an early date. Dr. Manknell, in supporting the resolution, said clubs were an imposition on medical philanthropy.

They should be finished with, once and for all. The CHAIRMAN then put the resolution, which was carried unanimously.

Payment for Work Done v. *Capitation.*—Dr. SHACKLETON proposed the following resolution:

That the Executive be instructed to circularize at once the medical men of the district with the view of ascertaining:

1. Are they in favour of payment for work done at the usual rate of fees charged to working people in the district?

2. Are they in favour of contract practice under the Insurance Act? If so, what do they consider to be a reasonable capitation fee?

and that the Executive, within a week of the issuing of the circular, calls a meeting of the Division to act on the information thus obtained.

Dr. BELL, in an eloquent speech, seconded this resolution. Dr. MOSELEY opposed the resolution, and said the Division would be stultifying previous resolutions if it passed this one. Dr. Shackleton's resolution was a suggestion to deal with the so-called Health Committees. Dr. HUGHES (Calverley) also pointed out the passage of such a resolution as this would weaken the firm stand the Bradford Division had taken against the Act. Dr. EMPEY, in opposing the resolution, pointed out any amending of the Chancellor's Act would wreck it financially. They must say, and quite firmly, "No!" to the Chancellor. Why meet him? Had he met them in the slightest degree? Dr. MITCHELL said the resolution would be a tactical error. Dr. WILLSON quite agreed with all Dr. Empey had said. Dr. SHACKLETON said that in view of the expressed opinion of the meeting, he would, with Dr. Bell's permission, withdraw his resolution. The resolution was accordingly withdrawn.

Fortifying the Executive.—With the idea of so doing, Dr. ROWE proposed the following resolution:

That this meeting, with the idea of strengthening the hands of the local Executive of the British Medical Association, elects—(1) An additional number of members of the local Division; (2) five medical men representative of the 100 non-members of the Association in this neighbourhood; the whole to form a local committee specially deputed to fight the battle of the local medical men with the Insurance Act, by sufficient, efficient, and proficient organization.

Dr. SCOTT (Keighley) seconded the resolution *pro formâ*. Dr. BONNER moved the following amendment to Dr. Rowe's resolution:

That the consideration of increasing the Executive Committee be postponed till next meeting, and that notice be given on the agenda that the question of strengthening the Executive be brought up.

This amendment was duly seconded and carried. The meeting then dispersed.

A meeting of the Division, to which all practitioners resident in the Divisional area had been invited, was held at the Great Northern Victoria Hotel, Bradford, on Friday, February 9th, at 8.45 p.m. Sixty-seven medical men were present. The CHAIRMAN OF THE DIVISION (Dr. Oliver) took the chair, explained that he was suffering from laryngitis, and craved the meeting's permission to call upon the ex-Chairman (Dr. Manknell) to preside, as Dr. Carroll, the Vice-Chairman, was not present. Permission was duly accorded, and Dr. MANKNELL thereupon took the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed after a slight alteration suggested by Dr. BONNER.

Election of Second Representative.—Dr. DUNLOP proposed that Dr. Manknell be appointed to this honourable and onerous position. Dr. WHERRY WILSON seconded and Dr. GOYDER cordially supported the election of Dr. Manknell. Dr. BALLANTYNE proposed and Dr. BONNER seconded the election of Dr. J. J. Bell. Dr. MCGEE proposed Dr. Empey's name, as being a right valorous champion of the profession's just rights, but Dr. EMPEY speaking in self-deprecatory terms, refused to be nominated. Thereupon Dr. Manknell and Dr. Bell retired from the room pending the meeting's deliberations. Dr. DUNLOP then took the chair temporarily, and in the end Dr. Manknell was unanimously elected. Dr. MANKNELL was recalled and resumed the chair. Having done so, he thanked the Division for the honour it had conferred on him. Dr. BELL very felicitously congratulated Dr. Manknell on his election.

Resignation of Club Appointments.—The SECRETARY stated that, in reply to the Executive Committee's circular on this subject, 173 replies had been so far received. Of these, 87 held clubs, and 86 did not. Of the 173, 166 were prepared to refuse to take clubs, and only 7 were not so prepared. The CHAIRMAN then proposed:

That the Division having received such a favourable answer to its circular, calls upon the medical men to place their resignations of clubs in the hands of the Divisional Secretaries, for use when necessary.

Dr. BONNER seconded the resolution, and thought a committee should be formed in furtherance of the resolution. Considerable discussion ensued, in which Dr. BELL, Dr. VILLY, Dr. WILLSON, and Dr. LEWER joined. Dr. MANKNELL pointed out that the members who did not resign clubs would unconsciously have to work the Act. Dr. HIGGINS said some clubs might even now be preparing to give us notice. Fifty per cent. of club patients did not have their club doctor. The Act was a damnable piece of socialism. Dr. EMPEY said the profession required a trade union with a central fund. Then the club question would be settled finally. The question of "blacklegs" coming in was nonsense. Where were they to come from? Dr. CAMPBELL said as a consultant he was simply a spectator, but it was obvious that the various societies were arranging to come under the Act, and were trying to gain as many members as possible. Then, when the Act came into force, their medical officers would have to work the Act willy-nilly. It would be much easier to give up clubs before the Act came into force than six months after. There was nothing to lose and everything to gain by giving up clubs. Giving up their clubs had not hurt the Shipley practitioners. After further discussion, the resolution was put and carried *nemine contradicente*.

Committee to help the Executive Committee in all matters arising out of the Insurance Act.—Dr. ALLAN proposed the following resolution:

That a committee be appointed to help the Executive with all matters arising out of the Insurance Act.

That this committee be representative of every district embraced in the Bradford Division.

That the committee be instructed to interview or to appoint delegates to interview, any member of the profession in the Bradford Division who has not decided to resign his clubs, or to refuse to take any clubs (if asked by the Secretary to do so).

Dr. BELL seconded the resolution. He thought the committee should be a large one, so as to strengthen the Executive's hand. The resolution was put and carried unanimously. The meeting then proceeded to elect this committee. Dr. JASON WOOD proposed, and Dr. HEBBLETHWAITE seconded, the following resolution:

That the Committee to help the Executive be composed of the present Executive, together with the following gentlemen, namely: Dr. Wilson (Haworth), Dr. R. Fisher (Skipton), Dr. Moffatt (Keighley), Dr. Liversedge (Skipton), Dr. Paterson (Heckmondwike), Dr. Kershaw (Pudsey), Dr. Griffiths (Cleckheaton), Dr. Naylor (Low Moor), Dr. Bonner (Shipley), Dr. McVie (Baildon), Dr. Bates (Ilkley), Dr. Allan (Bradford), Dr. Bell (Bradford), Dr. Hope (Dudley Hill), Dr. Sharp (Bradford), Dr. Aiken (Bradford), Dr. Rowe (Bradford), Dr. Woodroofe (Undercliffe), Dr. Shackleton (Bradford), Dr. West Watson (Queensbury), and Dr. Wheatley (Bradford).

This was carried unanimously. Dr. WILLSON proposed, and Dr. EMPSEY seconded, a resolution:

That Dr. Allan be appointed Secretary of this Committee.

This was carried unanimously.

Guarantee Fund.—Dr. ALLAN moved:

That from the Executive and this Committee a subcommittee be appointed to deal with the finances of the guarantee fund.

The CHAIRMAN (Dr. Manknell) seconded the resolution, and informed Dr. Empey that four-fifths of the fund would be allocated for local use. The local and central funds would not overlap. The resolution was carried unanimously.

Instruction of Representatives.—Owing to the lateness of the hour, it was decided to adjourn the meeting until 8.30 p.m. on Thursday, February 15th, when the instruction of Representatives and discussion of the Council's recommendations would be proceeded with. The meeting thereupon stood adjourned.

The adjourned meeting was held at the Great Northern Victoria Hotel, Bradford, on Thursday, February 15th, at 8.30 p.m. Dr. MANKNELL presided, and read a letter from

the Chairman of the Division (Dr. Oliver) apologizing for his non-attendance, owing to the continuance of his cold of the previous week. Ninety-two medical practitioners were present.

Instruction of Representatives.—Dr. Manknell introduced the subject by reading the resolutions of the National Medical Union and the Medical Reform Committee on the matter. The Chancellor had had opportunities of dealing with us, but had not taken them. The meeting then proceeded to discuss the recommendations of the Council *singulatim*.

Recommendation I.—The meeting decided unanimously that this recommendation should be ignored altogether.

Recommendation II.—This was agreed to.

Recommendation III.—The elimination of the last sentence was agreed to, with one dissentient.

Recommendation IV.—This being merely a pious resolution was agreed to.

Recommendation V.—In place of this it was decided to substitute the following:

> That the Council be instructed to take steps forthwith to organize the profession so as to secure that no person shall be able to secure medical attendance under a contract practice appointment held at lower rates than those which may be agreed on as adequate by the Representative Body for attendance upon insured persons, and that no contract practice be introduced into any district where it is not at present in existence, or against the wishes of a majority of members in that district.

Recommendation VI.—The meeting decided against such a committee being formed. But should it be decided by the Representative Meeting to form such committee, the following should be proposed by the Representative:

> That the committee consist of twelve members of the Representative Body, six members of Council, two members nominated by the Association of Registered Medical Women, the *ex officio* members, and four co-opted members (not members of Council), at least twelve of the committee to be general practitioners.

Dr. Maclean as Chairman.—Dr. Bell proposed:

> That our Representative be instructed to propose that Dr. Maclean resign the chair, and a more vigorous advocate of our rights be elected.

Dr. Mitchell seconded the resolution. The Chairman pointed out that the Birmingham Representative had been already instructed to move a similar resolution. The Representative (Dr. Metcalfe) dissented, and thought a thankless task was being imposed on him. Dr. Bell said Dr. Maclean would have to be got rid of before any progress was made. Dr. Mitchell said the Representative must drop sentiment. He drew attention to Dr. Maclean's explanation of how Representatives might vote. Dr. Metcalfe again demurred. The resolution was put to the meeting and carried unanimously.

Hospital Staffs and the Act.—A long discussion ensued on this subject, culminating in the meeting deciding that the question should be referred to the Bradford Association of Amalgamated Hospital Staffs, on the suggestion of Dr. Little.

The meeting then dispersed after a hearty vote of thanks had been accorded to Dr. Manknell for his conduct in the chair.

To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.

Association Notices.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

A list of periodical publications, official reports, and Blue Books in the Library of the British Medical Association available for issue to members on loan has been printed, and copies can be obtained free on application to the Librarian, at the house of the Association, 429, Strand, W.C. The regulations governing the loan of these publications are stated in the introduction to the list.

The Library is open for consultation from 10 a.m. till 5 p.m. (on Saturdays till 2 p.m.).

BRANCH AND DIVISION MEETINGS TO BE HELD.

South-Eastern Branch: Brighton Division.—The next ordinary meeting of the Division will be held on Wednesday, March 20th.—C. H. Benham, M.D., Honorary Secretary.

South-Eastern Branch: Isle of Thanet Division.—The next meeting of this Division will be held at the Royal Sea-Bathing Hospital, Margate, on Thursday, March 21st, at 4 p.m., Dr. F. E. Nichol in the chair. Agenda: (1) To elect members of a Provisional Local Medical Committee to safeguard the interests of the profession in relation to the National Insurance Act. (2) To receive a report from two delegates acting on a similar Provisional County Medical Committee. (3) Consideration of the question of the establishment of a local tuberculin dispensary. (4) Any other business. Tea will be served during the meeting. All medical practitioners are invited to this meeting.—Hugh M. Raven, Honorary Divisional Secretary, Broadstairs.

GENERAL MEDICAL COUNCIL.

Executive Committee.

A meeting of the Executive Committee of the General Medical Council was held on Monday, February 26th, Sir Donald MacAlister, President, in the chair.

Financial Statement.

The Senior Treasurer laid before the Committee the financial statement for the year ending December 31st, 1911.

The accounts showed that the election expenses of the English Branch Council amounted to £410 18s. 4d. at the May election and £362 19s. 11d. at the November election—total, £773 18s. 3d. The expenses in Scotland and Ireland respectively, where there were no contests, were £41 11s. 10d. and £56 19s. 2d. The total expenditure of the Council for the year was £6,808 16s. 11d., and the total receipts of the General Council from sales of the *Medical Register* and other publications, for the registration of forty-six Colonial and foreign medical qualifications at £5 each, rent and interest on deposit, was £905 1s. 2d. The balance of expenditure was provided by contributions from the English Branch Council, £3,263 17s. 2d.; Scottish Branch Council, £1,815 9s. 10d.; and the Irish Branch Council, £824 8s. 9d. The last-named Branch, however, received a contribution of £150 from the General Medical Council's funds.

The number of registration fees at £5 each—that is, primary registrations received by the English Branch Council—was 485, yielding £2,425; by the Scottish Branch Council, 339, yielding £1,695; and by the Irish Branch Council, 173, yielding £865.

The total expenditure of the Dental Registration Fund was £1,248 7s. 11d., and the total receipts £1,090 10s. 3d., leaving a deficit of £157 17s. 8d.

Reciprocity with Holland.

Further communications from the Privy Council were received, the substance of which was that the Government of Holland did not see its way to arrange for reciprocity of practice between that country and the United Kingdom.

Diplomas in Public Health.

After receiving a communication from the War Office, it was decided to add the Quetta Division to the list under Rule 3 (f) of the Council's resolutions and rules regarding diplomas in public health.

Degree in Dentistry.

A communication from the Academic Registrar of the University of London was read with regard to the degree of Master of Surgery, Branch II (Dental Surgery), and the Registrar was instructed to enter the degree as "Mast. Surg." in the *Medical Register*, and as an additional or original qualification in the *Dentists Register* as "Mast. Surg. (Dent.)" when the university certified that it fulfilled the requirements of the Dentists Act.

Apothecaries' Hall, Ireland.

A communication received from the Apothecaries' Hall, Ireland, stating that in future a written paper will form a portion of the examination in midwifery, was referred to the Examination Committee for its information.

Insurance Act.

The PRESIDENT reported that an invitation dated January 24th had been received to send representatives to a conference of the National Health Insurance Commissioners, and that, after consulting the members of the National Insurance Bill Committee and the authorities at the Privy Council Office, the President had directed the Registrar to address a letter to the National Insurance Commission stating that as there would be no meeting of the Executive Committee until February 26th it was impracticable to procure the formal appointment by the Council of six representatives to meet the National Health Insurance Commissioners in conference on February 2nd. The letter continued:

The President, however, desires me to state that the Council will give its best consideration to any communication from the Commissioners which may be transmitted to it, and will also be ready to afford the Commissioners such information as they may require on matters lying within its province.

The Committee received the following memorial sent in response to an intimation that the Council would be prepared to receive any petition which might be presented in accordance with the standing orders:

STATEMENT OF THE EFFECT OF THE INSURANCE BILL.

Wives, Families, and Dependents of Doctors.

The wives of medical men throughout the country appeal for your earnest consideration and effort to avoid a great wrong.

The changed circumstances, resultant upon the provisions of the bill, would materially depreciate the invested capital and reduce the average income of every rank of the profession.

A lowering of income would necessitate reduced expenditure, particularly for residence, and a sudden lowering of the social status of ourselves and our children.

Education expenses of children would have to be cut down, and many now preparing for the profession must suddenly change their prospective careers.

The doctor's life is very precarious, the average age at death is low (lower, indeed, than that of coal miners and persons engaged in the building trades), and increased work at reduced pay would add to that disability. Life assurance, one of the chief methods of the doctor's provision for dependants, would be affected by increased premiums through the greater risks of life—reduced insurances through lack of means—and sacrifices by enforced sales at low prices, or lapsing of policies in force.

The doctor's capital is mainly vested in the goodwill of his practice, the realization of which at his death is often the only money available to his family.

In view of the effect of the provisions of the bill upon professional practice, the goodwill values of medical practices in general have already been reduced, and many are even now unsaleable.

These disastrous consequences come, not through fault of the doctor or his family, but as the result of legislation which, to be successful, must depend largely upon the needs and charity of the profession.

There is no provision in the bill for indisposition of the doctor, no compensation for capital destroyed, and no provision for pensions, although in principle and in effect he becomes a servant of the State.

Every member of the House of Commons has been sent a copy of this statement, and Colonel R. W. G. Challoner of the Abercromby Division of Liverpool, who has undertaken the presentation of our protest in the House of Commons, holds the original signatures (together with addresses) of the names hereto attached of over 800 wives of medical men in Manchester, Liverpool, Oldham, Blackburn, and other towns and places in England and Wales, obtained in only three days—proving the general recognition of the undeserved damage which must result from the bill.

Urgency through lack of time in the stage at which the bill now is prevents the organization of a general petition to Parliament, hence this method of appeal.

We trust you will give to the foregoing that weight of consideration which the word of a wife in these circumstances demands, and that you will insist upon such alterations and additions to the bill as in your wisdom it seems to require.

Doctors' Wives's Defence Movement:
MARY K. GREGORY, *Hon. Sec.*,
Holly Mount, Bury Old Road,
Manchester.

Protest.

We the undersigned, wives of duly registered medical men of Manchester, Liverpool, Oldham, Blackburn, and other towns and places in England and Wales, desire to present to the President and Members of the General Council of Medical Education and Registration of the United Kingdom this Protest against the National Insurance Bill as at present framed.

We would urge you to give the following statements your carcful and deliberate consideration as adversely affecting our interests.

The bill will cause decided loss of income, while creating greater demands upon our resources, thus giving rise to—

Reduced Education for our Children,
Reduced Life Insurance,
Loss of Goodwill or Practice Value.

The bill offers no provision or compensation against such losses.

Our grave anxiety is for the welfare of our children, as it would mean in many cases absolute destitution for the wife and children in the event of a husband's incapacity or death.

[Here follow 836 signatures.]

Cases as to the Council's Jurisdiction.

The Solicitors were instructed to prepare a volume setting out the legal cases bearing on the decisions and jurisdiction of the Council, including all the reported decisions of the courts on points expressly arising under the Medical Acts or the Dentists Act.

Bicentenary of Trinity College, Dublin.

An invitation was received from Trinity College, Dublin, to nominate a delegate to attend the forthcoming celebration of the two hundredth anniversary of the foundation of the medical school. The President having stated that he would be unable to attend, it was agreed to ask Dr. Norman Moore to represent the President.

Dental Business.

The Committee received from the Colonial Office a copy of an Act to amend the Dentists Act, 1908, of New Zealand.

The PRESIDENT reported the conclusion of the inspection of the final dental examinations, and it was resolved that the reports should be collected in one volume, circulated among the dental licensing bodies, and placed on sale.

PUBLISHERS' ANNOUNCEMENTS.

MESSRS. HENRY FROWDE AND HODDER AND STOUGHTON have now the following works in the press, and will publish them in the spring: A new revised fifth edition of Cunningham's well-known *Manual of Anatomy*, vol. i, edited by Professor Arthur Robinson. A large *Practitioner's Encyclopaedia*, by many authors, comprising medicine in all its branches, nearly 1,000 pages, in one volume; edited by J. Keogh Murphy, F.R.C.S. A new edition of Thomson and Miles's well-known work on *Surgery*. A third volume of Thomson and Miles's *Operative Surgery*. *Osteology: A Manual for Students*, by A. F. Dixon. *A Textbook of Nursing, Both Surgical and Medical*, by Hey Groves and Fortescue Brickdale, comprising anatomy and physiology, as well as the methods of surgical and physical nursing, and designed to be complete in itself for nurses (companion to Despard's *Textbook of Massage*). *Stomatology, or Diseases of the Teeth and Mouth*, for practitioners and students. *Tuberculin Treatment*, by Riviers and Norland. *Surgery of the Rectum*, for practitioners, by Sir F. C. Wallis. *Gonococcal Infection*, by Major Pollock and Major Harrison. *Surgery of the Skull and Brain*, by L. B. Rawling, F.R.C.S. *Salvarsan in Syphilis and Allied Diseases*, by J. E. R. McDonagh. *Consumption in General Practice*, by Hyslop Thomson (second edition). *X-Ray Diagnosis and Treatment*, by Bythell and Barclay. *Diseases of the Eye*, by S. Mayou (new edition). *Pathology of the Eye*, by Mr. Adams. *Kidney Diseases*, by W. P. Herringham. *Bacteria*, a translation of the well-known German manual by Schottilius. The following two works "for the practitioner's patients" are also announced: *The Care of the Skin*, by Dr. W. Allan Jamieson; and *The Healthy Baby*, by Dr. E. M. Brockbank.

Messrs. P. Blakiston's Son and Co. announce the publication of a *Handbook to Medical Europe*, described as a ready reference book to the universities, hospitals, clinics, laboratories, and general medical work of the principal cities of Europe, by James Henry Honan, M.D., Rush Medical College (University of Chicago); *Outlines of Applied Optics*, by P. G. Nutting, Associate Physicist, Bureau of Standards, Washington, D.C.

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Vital Statistics.

VITAL STATISTICS OF METROPOLITAN BOROUGHS DURING 1911.

[SPECIALLY REPORTED FOR THE "BRITISH MEDICAL JOURNAL."]

IN the accompanying table will be found summarized the vital statistics of the City of London and of each of the metropolitan boroughs based upon the Registrar-General's returns for the year 1911. The mortality figures relate to the deaths of persons actually belonging to the several boroughs, the deaths occurring in public institutions having been distributed among the boroughs in which the deceased persons had previously resided.

The 112,795 births registered in London during 1911 were equal to a rate of 25.0 per 1,000 of the population, estimated at 4,522,628 persons in the middle of the year. The lowest birth-rates last year in the several boroughs were 15.2 in the City of Westminster, 14.0 in Hampstead, 17.7 in Kensington, 18.0 in Chelsea, and 19.8 in Paddington and in Stoke Newington; among the highest rates were 30.1 in Poplar, 30.3 in Bethnal Green, 30.5 in Bermondsey, 30.7 in Shoreditch, 32.6 in Stepney, and 37.3 in Finsbury.

The 67,826 deaths of London residents registered during the year were at the rate of 15.0 per 1,000 of the population, the rates in the three preceding years having been 13.8, 14.0, and 12.7 per 1,000. The lowest death-rates last year were 9.6 in Hampstead, 11.3 in Lewisham, 12.0 in Wandsworth, 12.5 in the City of Westminster, 12.8 in Woolwich, and 13.0 in Stoke Newington; the highest rates were 18.2 in Bethnal Green, 18.4 in Bermondsey and in Southwark, 18.9 in Poplar, 19.8 in Finsbury, and 20.1 in Shoreditch.

During last year 9,858 deaths were referred to the principal infectious diseases; of these, 9 resulted from small-pox, 2,570 from measles, 172 from scarlet fever, 612 from diphtheria, 1,038 from whooping-cough, 144 from enteric fever, and 5,313 from diarrhoea and enteritis among children under 2 years of age. These 9,858 deaths were equal to a rate of 2.2 per 1,000 of the population; the mortality from measles was greatly in excess of the average for the five preceding years, that from scarlet fever and from whooping-cough showed a marked decline, while diphtheria and enteric fever showed a smaller decrease; the average mortality from diarrhoea and enteritis among children under 2 years of age is not available for comparison. Among the several boroughs the death-rates from the principal infectious diseases in the aggregate ranged from 0.7 in Hampstead and in the City of London, 0.8 in the City of Westminster, 1.2 in Holborn and in Woolwich, and 1.3 in Lewisham to 3.1 in Stepney, 3.2 in Finsbury, 3.6 in Bethnal Green, 3.7 in Shoreditch, and 4.0 in Poplar.

The greatest proportional mortality from measles was recorded last year in Finsbury, Shoreditch, Bethnal Green, Stepney, and Poplar. Scarlet fever was proportionately most fatal in St. Marylebone, Islington, Stoke Newington, Holborn, Finsbury, Poplar, and Deptford;

Analysis of the Vital Statistics of the Metropolitan Boroughs and of the City of London after Distribution of Deaths occurring in Public Institutions during 1911.

BOROUGHS.	Estimated Population middle of 1911.†	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Infectious Diseases.	Deaths from Principal Infectious Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Enteric Fever.	Diarrhœa and Enteritis (Under 2 Years).	Phthisis.	Deaths of Children Under 1 Year of Age to 1,000 Registered Births.
COUNTY OF LONDON	4,522,628	112,795	67,826	25.0	15.0	2.2	9,858	9	2,570	172	612	1,038	144	5,313	6,084	128
Paddington	142,541	2,815	1,897	19.8	13.3	1.7	245	—	48	3	11	44	5	134	173	137
Kensington	172,296	3,040	2,349	17.7	13.7	1.9	318	—	94	2	18	54	4	146	159	142
Hammersmith	121,837	2,806	1,891	23.1	15.6	2.4	289	—	76	5	28	35	7	178	153	153
Fulham	153,726	4,012	2,203	26.2	14.4	2.3	347	—	64	7	27	28	8	213	224	129
Chelsea	66,218	1,187	1,020	18.0	15.5	1.5	101	—	30	1	5	10	—	55	96	116
City of Westminster ...	159,709	2,109	1,983	13.2	12.5	0.8	133	—	23	3	14	26	4	63	193	116
*St. Marylebone ...	117,844	4,075	1,772	34.7	15.1	1.6	191	—	66	7	5	28	2	83	172	63
Hampstead	85,599	1,198	823	14.0	9.6	0.7	58	—	14	—	17	3	2	22	52	83
St. Pancras	218,031	5,132	3,371	23.6	15.5	1.9	420	—	108	12	37	55	7	201	342	122
Islington	327,234	7,728	4,853	23.7	14.9	2.0	649	—	130	21	51	70	12	365	405	134
Stoke Newington ...	50,669	998	658	19.8	13.0	1.6	81	—	28	3	3	18	1	28	55	107
*Hackney	222,674	5,378	3,185	24.2	14.3	2.0	440	—	148	11	20	58	8	195	311	115
*Holborn	49,084	1,272	768	26.0	15.7	1.2	61	—	15	3	3	3	3	34	102	86
*Finsbury	87,639	3,253	1,728	37.3	19.8	3.2	276	—	79	6	17	24	—	142	163	128
City of London ...	19,475	410	293	21.1	15.1	0.7	14	—	1	1	1	1	—	10	31	68
Shoreditch	111,284	3,399	2,226	30.7	20.1	3.7	413	—	128	6	24	32	1	222	204	177
Bethnal Green	128,247	3,866	2,320	30.3	18.2	3.6	456	—	130	5	21	49	3	248	208	158
*Stepney	279,560	9,076	4,833	32.6	17.4	3.1	872	7	303	7	32	49	6	468	493	139
Poplar	162,290	4,877	3,054	30.1	18.9	4.0	655	2	225	10	41	44	14	316	213	161
Southwark	191,595	5,408	3,509	28.3	18.4	2.7	523	—	120	6	30	64	5	298	326	151
Bermondsey	125,840	3,827	2,311	30.5	18.4	2.7	341	—	55	6	13	50	5	212	223	159
*Lambeth	298,032	8,404	4,430	28.3	14.9	1.9	578	—	112	8	43	67	12	336	419	107
Battersea	167,765	4,154	2,391	24.8	14.3	2.4	397	—	112	4	20	36	3	222	223	130
Wandsworth	313,389	6,584	3,743	21.1	12.0	2.1	645	—	230	10	33	70	9	293	277	125
Camberwell	261,407	6,246	3,724	24.0	14.3	1.8	470	—	112	7	25	45	5	276	350	111
Deptford	109,475	2,921	1,706	26.8	15.6	2.8	301	—	69	7	15	37	2	171	139	146
Greenwich	95,982	2,381	1,409	24.9	14.7	2.4	229	—	41	3	16	14	3	152	112	128
Lewisham	161,677	3,397	1,821	21.1	11.3	1.3	205	—	21	5	28	18	5	128	104	104
Woolwich	121,509	2,842	1,555	23.5	12.8	1.2	150	—	28	3	11	6	—	102	162	96

* No correction is made for births in lying-in institutions; the boroughs principally affected are marked thus (*).
† Calculated from the unrevised returns of the recent census.

the number of scarlet fever patients admitted into the Metropolitan Asylums Hospitals during the year was 9,631, against 20,862, 16,183, and 9,889 in the three preceding years; 1,878 cases remained under treatment at the end of the year, against 3,498, 2,329, and 1,574 at the end of the three preceding years. The highest death-rates from diphtheria last year were recorded in Hammersmith, Hampstead, Finsbury, Shoreditch, and Poplar; the number of cases of this disease admitted into the Metropolitan Asylums Hospitals was 6,336 last year, against 6,797, 5,795, and 4,882 in the three preceding years; 1,294 cases remained under treatment at the end of the year, against 1,241, 904, and 827 at the end of the three preceding years. Whooping-cough showed the greatest proportional mortality in Paddington, Kensington, Stoke Newington, Bethnal Green, Southwark, Bermondsey, and Deptford. Enteric fever was proportionally most fatal in Hammersmith, Fulham, Holborn, Finsbury, and Poplar; the number of enteric fever cases admitted into the Metropolitan Asylums Hospitals last year was 552, against 708, 539, and 745 in the three preceding years; 76 cases remained under treatment at the end of the year, against 147, 62, and 88 at the end of the three preceding years. Diarrhœa and enteritis among children under 2 years of age showed the greatest proportional mortality in Finsbury, Shoreditch, Bethnal Green, Stepney, Poplar, Southwark, Bermondsey, Deptford, and Greenwich.

The 6,084 deaths from phthisis registered during the year were equal to a rate of 1.35 per 1,000, the rates in the three preceding years having been 1.32, 1.31, and 1.14 per 1,000. The phthisis death-rates last year ranged from 0.61 in Hampstead, 0.65 in Lewisham, 0.89 in Wandsworth, 0.93 in Kensington, and 1.09 in Stoke Newington, to 1.71 in Southwark, 1.77 in Stepney, 1.78 in Bermondsey, 1.84 in Shoreditch, 1.87 in Finsbury, and 2.08 in Holborn. The mortality from phthisis in the central group of boroughs was 1.89 per 1,000, in the eastern 1.65, in the northern 1.31, in the southern 1.27, and in the western 1.23 per 1,000.

Infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to 128 per 1,000 last year, against 102 in the previous year. The rates of infant mortality last year ranged from 68 in the City of London, 83 in Hampstead, 96 in Woolwich, 104 in Lewisham, and 107 in Stoke Newington and in Lambeth, to 151 in Southwark, 153 in Hammersmith, 158 in Bethnal Green, 159 in Bermondsey, 161 in Poplar, and 177 in Shoreditch.

HEALTH OF ENGLISH TOWNS.

In ninety-four of the largest English towns 8,603 births and 4,846 deaths were registered during the week ending Saturday, March 9th. The annual rate of mortality in these towns, which had been 18.6, 16.8, and 15.4 per 1,000 in the three preceding weeks, further declined to 14.4 per 1,000 in the week under notice. In London last week the death-rate did not exceed 13.3 per 1,000, against 18.0, 15.4, and 14.2 in the three previous weeks. Among the ninety-three other large towns the death-rates ranged from 6.0 in Hornsey, 6.3 in Enfield, 6.8 in Gillingham, 7.3 in Walthamstow, 7.5 in Ilford, and 8.1 in Aberdare to 20.1 in Wakefield, 20.3 in Great Yarmouth, 20.7 in Oldham, 21.0 in Stockton-on-Tees, 24.2 in Salford, and 25.8 in Barrow-in-Furness. Measles caused a death-rate of 1.3 in Swansea, 1.4 in Oldham, 1.9 in York, 2.0 in Southport, 3.6 in Warrington, and 4.3 in Salford; and whooping-cough of 1.6 in St. Helens, 1.7 in Southampton and in Walsall, 1.8 in Great Yarmouth, 2.4 in Barrow-in-Furness, and 2.5 in Merthyr Tydfil. The mortality from enteric fever, scarlet fever, and diphtheria showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 39, or 0.8 per cent. of the deaths registered in the ninety-four towns, were not certified either by a registered medical practitioner or by a coroner after inquest, and included 9 in Liverpool, 8 in Birmingham, 3 in Preston, 2 in Salford and 2 in South Shields. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,461, 1,427, and 1,392 at the end of the three preceding weeks, had further declined to 1,358 on Saturday last; 161 new cases were admitted during the week, against 154, 181, and 160 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

In eighteen of the largest Scottish towns 1,138 births and 731 deaths were registered during the week ending Saturday, March 9th. The annual rate of mortality in these towns, which had been 18.5 and 18.7 per 1,000 in the two preceding weeks, declined to 17.5 in the week under notice, but was 3.1 per 1,000 above the rate recorded in the ninety-four large English towns. Among the several Scottish towns the death-rates last week ranged from 4.6 in Partick, 7.6 in Falkirk, and 9.0 in Clydebank to 22.0 in Greenock, 22.5 in Kilmarnock, and 23.1 in Perth. The mortality from the principal infectious diseases averaged 1.8 per 1,000, and was highest in Kilmarnock and Greenock. The 316 deaths from all causes registered in Glasgow included 21 from measles, 5 from scarlet fever, 5 from diphtheria, 3 from enteric fever, 3 from whooping-cough, and 2 from infantile diarrhœa. Six deaths from measles were recorded in Edinburgh, 4 in Greenock, and 3 in Leith; 3 deaths from scarlet fever in Greenock and 2 in Aberdeen; and 2 deaths from whooping-cough in Edinburgh.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, March 9th, 622 births and 512 deaths were registered in the twenty-two principal urban districts of Ireland, as against 673 births and 490 deaths in the preceding period. The annual death-rate in these districts, which had been 26.6, 24.6, and 22.1 per 1,000 in the three preceding weeks, rose to 23.1 per 1,000 in the week under notice, this figure being 8.7 per 1,000 higher than the mean average death-rate in the ninety-four English towns for the corresponding period. The figures in Dublin and Belfast were 26.9 and 20.5 respectively, those in other districts ranging from 7.6 in Waterford and 10.6 in Tralee to 42.0 in Sligo and 51.6 in Dundalk, while Cork stood at 24.5, Londonderry at 30.6, and Limerick at 19.0. The zymotic death-rate in the twenty-two districts averaged 1.8 per 1,000 as against 1.6 in the preceding period.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

Fleet Surgeon H. W. Gordon-Green has been appointed to the *Collingwood* on recommissioning, dated March 26th.

Staff Surgeon W. H. Hopkins has been appointed to the *Commonwealth* on recommission, dated March 28th.

Surgeon H. C. Devas has been appointed to the *Cormorant* additional for Ascension Island, dated April 1st.

Surgeon H. B. German has been appointed to the *Collingwood* on recommissioning.

Surgeon M. H. Langford has been appointed to the *Halcyon* additional for *Spanker*, dated March 26th.

ARMY MEDICAL SERVICE.

ROYAL ARMY MEDICAL CORPS.

MAJOR HERBERT E. WHITE has been appointed Deputy-Surgeon to the Royal Hospital, Chelsea.

Captain W. R. GALWEY has been appointed Divisional Sanitary Officer, 9th (Secunderabad) Division, with effect from February 1st, 1912.

Captain M. KEANE, from Meerut, has been appointed to the Eastern Command for duty, from March 18th.

Major F. KIDDLE, from Royal Hospital, Chelsea, has been appointed to Gravesend.

Lieutenant EDWARD S. CALTHORP, M.B., resigns his commission, dated March 9th, 1912.

SPECIAL RESERVE OF OFFICERS.

Lieutenant GEORGE H. USMER, to be Captain, dated February 24th, 1912.

Lieutenant HARRY D. ROLLINSON, M.B., is confirmed in his rank.

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

AGRA: DUFFERIN HOSPITALS AND FEMALE MEDICAL SCHOOL.—Senior Lady Doctor for the Dufferin Hospitals, Agra. Pay, inclusive of allowances, Rs. 400 (£26 13s. 4d.) per mensem.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Second and Third House-Surgeons. Salary, £80 and £75 per annum respectively.

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES.—Clinical Assistant. Honorarium at the rate of 52 guineas per annum.

BLACKPOOL COUNTY BOROUGH.—Assistant School Medical Officer. Salary, £250 per annum.

BRADFORD CHILDREN'S HOSPITAL.—House-Surgeon. Salary, £100 per annum.

BRISTOL ROYAL HOSPITAL FOR SICK CHILDREN AND WOMEN.—Junior Resident Officer. Salary, £90 per annum.

BURY ST. EDMUNDS: WEST SUFFOLK GENERAL HOSPITAL.—House-Surgeon. Salary, £100 per annum.

BUXTON: DEVONSHIRE HOSPITAL.—Pathologist (non-resident). Salary, £250 per annum.

CAMBRIDGE: ADDENBROOKE'S HOSPITAL.—House-Physician. Salary, £80 per annum.

CANCER HOSPITAL, Fulham Road, S.W.—(1) Assistant Pathologist. Salary, £350 per annum. (2) House-Surgeon. Salary at the rate of £70 per annum.

CARLISLE NON-PROVIDENT DISPENSARY.—Resident Medical Officer. Salary, £150 per annum.

CHORLEY: RAWCLIFFE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

COVENTRY: COVENTRY AND WARWICKSHIRE HOSPITAL.—Junior House-Surgeon. Salary, £90 per annum, rising to £100.

DORCHESTER: COUNTY ASYLUM.—Second Assistant Medical Officer. Salary, £200 per annum, with prospect of increase to £250.

DUDLEY: GUEST HOSPITAL.—Senior Resident Medical Officer. Salary, £100 per annum, increasing to £120.

DUNDEE ROYAL INFIRMARY.—Medical Assistants.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—(1) House-Physician, (2) House-Surgeon (Males), (3) Clinical Assistant. Salary at the rate of £75 per annum each for (1) and (2).

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—Ten qualified Clinical Assistants in Out-patient Department.

FRIMLEY: BROMPTON HOSPITAL SANATORIUM.—Medical Superintendent. Salary, £500 per annum

GREAT NORTHERN HOSPITAL, Holloway Road, N.—Surgeon, with charge of Out-patients.

HALIFAX: ROYAL HALIFAX INFIRMARY.—(1) Senior House-Surgeon. (2) Third House-Surgeon. Salary, £120 and £80 per annum respectively.

HEMEL HEMPSTEAD: WEST HERTS HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

HEREFORDSHIRE GENERAL HOSPITAL.—House-Surgeon. Salary, £120 per annum.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Assistant Physician.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—(1) House-Surgeon, (2) Assistant Casualty Medical Officer (and House-Physician). Salary, £30 for six months and £2 10s. washing allowance in each case.

JERSEY POORHOUSE AND INFIRMARY.—Medical Officer. Salary, £250 per annum, with £50 allowance for rent.

LEEDS PUBLIC DISPENSARY.—Junior Resident Medical Officer. Salary, £100 per annum.

LIVERPOOL HOSPITAL FOR CANCER AND SKIN DISEASES.—Honorary Surgeon.

LIVERPOOL: STANLEY HOSPITAL.—House-Surgeon (male).

LOUGHBOROUGH AND DISTRICT GENERAL HOSPITAL AND DISPENSARY.—Male Resident House-Surgeon. Salary, £120 per annum.

MACCLESFIELD GENERAL INFIRMARY.—Junior House-Surgeon. Salary, £80 per annum.

MANCHESTER CORPORATION.—Assistant to the Medical Officer of Health. Salary, £250 per annum.

MERTHYR TYDFIL UNION.—Assistant Medical Officer for Workhouse. Salary, £150 per annum.

MILLER GENERAL HOSPITAL, Greenwich Road, S.E.—(1) Senior House-Surgeon. (2) Junior House-Surgeon. Salary at the rate of £100 and £85 per annum respectively.

NORTH RIDING LUNATIC ASYLUM, Clifton, York.—Second Assistant Medical Officer (male). Salary, £150 per annum, rising to £200.

PRESTON: ROYAL INFIRMARY.—Senior and Junior House-Surgeons (males). Salary at the rates of £80 and £60 per annum respectively.

READING: ROYAL BERKSHIRE HOSPITAL.—(1) Medical Registrar. (2) Surgical Registrar. (3) Pathologist.

ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House-Surgeon (male). Salary, £80 per annum.

ROYAL EAR HOSPITAL, Soho.—(1) House-Surgeon, non-resident. Honorarium, £40 per annum. (2) Honorary Assistant Anaesthetist.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—House-Physician. Salary at the rate of £60 per annum.

ROYAL NAVY.—Dental Surgeon for duty with the Naval Forces in the United Kingdom. Inclusive salary, £1 per diem.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William Street, W.C.—Radiographer. Honorarium, 25 guineas per annum.

SALOP INFIRMARY.—House-Physician. Salary at the rate of £70 per annum.

SHEFFIELD: ROYAL INFIRMARY.—Junior Resident Medical Officer. Salary, £60 per annum.

SHEFFIELD UNIVERSITY.—Demonstrator in Experimental Physiology. Salary, £200 per annum.

SINGAPORE MUNICIPALITY.—Medical Officer, new Infectious Diseases Hospital. Salary, £400 for first year, rising to £450.

SOUTHAMPTON UNION.—Resident Assistant Male Medical Officer of the Workhouse Infirmary. Salary, £130 per annum, rising to £150.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—House-Physician. Salary, £82 per annum, and £5 honorarium after six months' approved service.

SUNDERLAND: CHILDREN'S HOSPITAL.—Resident Medical Officer. Salary at the rate of £80 per annum.

SUNDERLAND: ROYAL INFIRMARY.—(1) Two Junior House-Surgeons, (2) House-Physician (males). Salary at the rate of £80 per annum.

TUNBRIDGE WELLS BOROUGH.—Medical Officer of Health, etc. Combined salary, £500 per annum.

VICTORIA HOSPITAL FOR CHILDREN, Tite Street, S.W.—Radiographer. Salary, £75 per annum.

WEST HAM HOSPITAL.—Junior House-Physician. Salary, £75 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—(1) Resident Surgical Officer. Salary, £125 per annum. (2) Resident Medical Officer. Salary, £100 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacant appointments: Holywood (co. Down), Tranent (Haddingtonshire).

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

APPOINTMENTS.

BISHOP, E. Stanmore, F.R.C.S., Honorary Consulting Surgeon to the Victoria Memorial Jewish Hospital, Manchester.

DIX, C., M.R.C.S., L.R.C.P.Lond., Certifying Factory Surgeon for the Bruton District, co. Somerset.

GERMAN, F. F., L.R.C.P. and S.Edin., Medical Officer of Health, Waterloo-with-Seaforth Urban District.

MAY, H. E., M.B., B.C.Cantab., Medical Officer of Health for the City of St. Albans.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

MARRIAGES.

FAGAN—BROADLEY.—On March 6th, at St. James's, Piccadilly, by the Rev. R. M. Carrick, Vicar of St. James's, Norlands, Dr. J. P. Fagan, P.M.O., Northern Nigeria, to Vera May Longman, younger daughter of Robert Broadley, of Putney.

MANBY—BRUCE.—On March 12th, 1912, at St. Andrew's, Westminster, very quietly, by the Hon. and Rev. J. S. Northcote, E. P. Manby, M.D., D.P.H., of 121, Victoria Street, S.W., to Mary, widow of C. W. A. Bruce, F.L.S., late Imperial Forest Service, Burma.

DIARY FOR THE WEEK.

MONDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Professor J. W. H. Eyre: The Pathology and Diagnosis of Tuberculosis of the Conjunctiva.

TUESDAY.

LONDON DERMATOLOGICAL SOCIETY, 49, Leicester Square, W.C., 4.30 p.m.—(1) Exhibition of Cases and Specimens. (2) Discussion on Lichen and Lichenification, to be opened by Dr. Morgan Dockrell.

MEDICO-LEGAL SOCIETY, 11, Chandos Street, W., 8.30 p.m.—Paper:—Stanley Melville, M.D., Barrister-at-Law: State Regulation of Vice.

ROYAL SOCIETY OF MEDICINE:

PATHOLOGICAL SECTION, 15, Cavendish Square, 8.30 p.m.—(1) Annual General Meeting. (2) Communications:—Dr. C. Russ: An Improved Method for Opsonic Estimations (with Demonstration). Dr. H. Warren Crowe: The Incidence of Streptococci in Urine. Dr. H. C. Ross: The Mitotic Figures Induced in Lymphocytes by Auxetics (with Demonstration). Dr. W. Nicoll: The Blood Volume of Dogs Infected with the Hookworm (*Agchylostoma caninum*). Dr. A. E. Boycott's

and Dr. C. Price-Jones: Experimental Trypanosome Anaemia. Dr. A. E. Boycott and Dr. J. H. Ryffel: The Action of Diuretics in Experimental Nephritis.

Therapeutical and Pharmacological Section, 15, Cavendish Square, W., 4.30 p.m.—Papers:—Sir Lauder Brunton, Bart., F.R.S.: Ludwig's and other Theories of the Secretion of Urine and the Action of Diuretics. Dr. J. A. Shaw-Mackenzie: Certain Reactions of the Blood in Carcinoma (and other conditions), with Suggestions on Treatment.

WEDNESDAY.

Royal College of Surgeons of England, Lincoln's Inn Fields, W.C., 5 p.m.—Dr. L. G. Parsons: The Mechanism and Treatment of Shock.

Royal Society of Medicine:

Clinical Section, Special Meeting at the Medical School, University College Hospital, Gower Street, W.C., 5 p.m.—Professor Einthoven (Leyden): Observations of the Movements of the Heart by means of Electro-cardiograms. Miss Florence Buchanan: Experimental observations on the same subject. Dr. James Mackenzie, Dr. Thomas Lewis, and others will discuss the clinical use of this method.

THURSDAY.

Royal Society of Medicine:

Dermatological Section, 11, Chandos Street, W., 5 p.m.—Demonstration of Cases and Specimens.

Neurological Section, Clinical Meeting at the National Hospital, Queen Square, W.C., 8 p.m.

FRIDAY

Royal College of Surgeons of England, Lincoln's Inn Fields, W.C., 5 p.m.—Mr. H. Tyrrell Gray: The Mechanism and Treatment of Shock.

Royal Society of Medicine:

Section of Diseases of Children, 11, Chandos Street, W., 4.30 p.m.—(1) Exhibition of Cases. (2) Paper:—Dr. A. F. Hertz: Constipation in Childhood, with Epidiascope Demonstration.

Epidemiological Section, 15, Cavendish Square, W., 8.30 p.m.—Paper:—Dr. Miles B. Arnold: The Relation of Housing to Hospital Isolation and to "Return Cases" of Scarlet Fever.

POST-GRADUATE COURSES AND LECTURES.

Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Appendicitis in Childhood.

London School of Clinical Medicine, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat, at noon and 4.30 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Tuesday, and noon, Friday. Eye, 11 a.m., Wednesday and Saturday. Radiography, Saturday, 10 a.m. Pathological Demonstration, Saturday, 11 a.m.

Special Lectures:—Tuesday: After-treatment of Abdominal Cases, 2.15 p.m. Thursday: Ultra-microscopic Causes of Disease, 4.30 p.m.

London School of Tropical Medicine, Royal Albert Dock, E.—Lectures daily (Saturday excepted) at 12 noon and 4 p.m. Practical laboratory work daily (Saturday excepted) 10 to 12 a.m. Practical Helminthology 2 to 3.30 p.m. daily; Advanced Helminthology 10.30 a.m. to 1 p.m. daily. Medical Clinics, Monday and Thursday at 3 p.m. Operations, Friday, at 3 p.m.

Manchester: Ancoats Hospital Post-Graduate Clinic, Thursday, 4.10 p.m.—Dropsy.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin. Tuesday, Medical. Wednesday, Surgical. Thursday, Surgical. Friday, Ear, Nose, and Throat. Lectures at 5.15 p.m. each day will be given as follows: Monday, Stone in the Bladder: Its Modern Treatment. Tuesday, Tuberculosis of the Genito-Urinary Tract and its Treatment. Wednesday, Chronic Intestinal Stasis. Thursday, Enteroptosis and its Treatment.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C., Tuesday, 3.30 p.m.—Myasthenia Gravis. Friday, 3.30 p.m.: Clinical Cases.

North-East London Post-Graduate College, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics: 10 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear; 3 p.m., Demonstration on Clinical and General Pathology. Tuesday, 2.30 p.m., Operations; Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient; 4.30 p.m., Lecture: The Treatment of Surgical Disorders of Digestion. Wednesday, 2 p.m., Throat Operations; 2.30 p.m., Medical Out-patient; Skin and Eye Clinics: X Rays; 3 p.m., Pathological Demonstration; 5.30 p.m., Eye Operations. Thursday, 2.30 p.m., Gynaecological Operations. Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient; 4.30 p.m., Lecture: The Recognition and Significance of Various Forms of Irregularity of the Pulse. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient; Pathological Demonstration.

Salford Royal Hospital, Thursday, 4.30 p.m.—"606."

West London Post-Graduate College, Hammersmith Road, W. Medical and Surgical Clinics, X Rays, and Operations, 2 p.m. daily. Monday: Gynaecology, 10 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday: Gynaecological Operations, 10 a.m.; Demonstration of Minor Operations, 11 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday: Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday: Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m. Special Lectures at 5 p.m. on Monday and Tuesday.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
MARCH.	
17 Sunday ..	
18 MONDAY ..	
19 TUESDAY ..	London: Standing Ethical Subcommittee, 2 p.m.
20 WEDNESDAY	Richmond Division, *Metropolitan Counties Branch*, Richmond, 8.30 p.m. Brighton Division, *South-Eastern Branch*, Ordinary Meeting.
21 THURSDAY ..	Isle of Thanet Division, *South-Eastern Branch*, Royal Sea-Bathing Hospital, Margate, 4 p.m. London: Metropolitan Counties Branch, 4 p.m.
22 FRIDAY ..	Sunderland Division, *North of England Branch*, 4.30 p.m.; Annual Dinner, Grand Hotel, 7.15 p.m.
23 SATURDAY ..	
24 Sunday ..	
25 MONDAY ..	
26 TUESDAY ..	Walthamstow Division, *Metropolitan Counties Branch*, Conjoint Meeting with City Division, Livingstone College, Knott's Green, Leyton, 4 p.m.
27 WEDNESDAY	Bath and Bristol Branch, Bristol.
28 THURSDAY ..	
29 FRIDAY ..	London: Journal Committee, 2 p.m. Birmingham Branch, Pathological and Clinical Section, Medical Institute, Edmund Street, 8 p.m.
30 SATURDAY ..	London: Fractures Committee, 9.30 a.m.
31 Sunday ..	
APRIL.	
1 MONDAY ..	
2 TUESDAY ..	London: Public Health Committee, 3.30 p.m.
3 WEDNESDAY	London: Medico-Political Committee, 2 p.m.
4 THURSDAY ..	
5 FRIDAY ..	
6 SATURDAY ..	
7 Sunday *(Easter Day)*	
8 MONDAY ..	
9 TUESDAY ..	
10 WEDNESDAY	
11 THURSDAY ..	

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National Insurance.

NATIONAL INSURANCE ACT IRELAND.

REPORT OF THE CONJOINT COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION AND IRISH MEDICAL ASSOCIATION TO THE MEDICAL PRACTITIONERS OF IRELAND.

LADIES AND GENTLEMEN,

The National Insurance Bill having now become law, we desire to report on the matters referred to us for negotiation, and for the furtherance of your interests.

We regret that all our efforts by interviews and correspondence with the Chancellor and the Irish members of Parliament failed to secure the restoration of medical benefits to Ireland within the Act. Under these circumstances we were obliged to deal with the bill as amended by the Irish Parliamentary Party, but being uninstructed by you we were only able, in answer to queries, to give unofficial information, and so avoided any risk of the profession, as a whole, being held responsible for views put forward in this way.

No practitioner in Ireland is now, however, liable for compulsory service, mainly, we believe, owing to our representations.

It is necessary to explain that immediately before the deputation of the Combined Committee to the Chancellor and the Irish members a meeting of the delegates of the dispensary medical officers was held in Dublin, the resolutions of this meeting were embodied in the programme of the Conjoint Committee and the four delegates appointed by the dispensary medical officers joined the deputation in London on the occasion of their interview with the Chancellor and the members of Parliament.

At the meeting of the dispensary delegates referred to above, the members present, in full knowledge of the fact that medical benefits were deleted from the amended bill, passed a resolution to the effect that medical benefits should be retained—this, of course, was the brief to which the deputation spoke, and, as already stated, any discussion on the bill without medical benefits being outside the instructions of the combined committee and the four dispensary delegates who joined them, was, therefore, unofficial and informal, yet full and explicit, as to the remuneration required for the issue of certificates to insured persons.

Additional Medical Benefits.—During the last days of the session further changes were made in the bill to the effect that "an insured person in Ireland shall not be entitled to medical benefit under this part of this Act, and the provisions with respect to medical benefit shall not apply. Provided that medical benefit for an insured person being a member of an approved society shall be deemed to be included amongst the "additional benefits" specified in Part II, Schedule 4, to this Act.

As this permitted medical benefit to be given by the friendly societies, without any safeguards, the following was added on our representation: "And that such medical benefit, when provided, shall be administered by the Insurance Committee in accordance with the provisions of this part of this Act *unless the Irish Insurance Commissioners otherwise direct.*" (81 (9). The words in italics were added subsequently, without an opportunity for protest.

Two Methods of Providing Medical Attendance.—As the Act stands at present there are two methods by which medical attendance may be provided in Ireland, which we shall discuss separately:

1. As an additional benefit under the terms of the Act and the regulations of the Commissioners.
2. By societies outside and independently of the Act.

1. MEDICAL ATTENDANCE UNDER THE CONTROL OF THE ACT AS AN ADDITIONAL BENEFIT.

This method can only be made use of when societies can show a surplus available for additional benefits, and is, therefore, not likely to be taken full advantage of

immediately the Act comes into force; but as the Act is certain to be amended in the near future, the points you wish to press for amendment and the conditions of service you desire must be put on record.

How Additional Benefits Become Possible.—36. Every approved society must have a valuation of its assets and liabilities made by a valuer appointed by Treasury.

This valuation must take place every third year, "or at such other times as the Insurance Commissioners appoint," and the interval may be longer or shorter than three years, and at regular or irregular intervals.

37. If, after such valuation, a surplus is certified the society may use its surplus in any one or more "additional benefits."

Power of Societies to Undertake Business Under Act.—24. (1) It shall be lawful for any body of persons, corporate, or incorporate, established before the passing of this Act, which is desirous of transacting insurance business . . . to do all such things and acts as may be necessary for the purpose . . . as soon as may be after the passing of the Act.

(3) This section shall come into operation on the passing of this Act, and shall not continue in force beyond the expiration of one year from the commencement of this Act except . . .

Application of Additional Benefits to Ireland.—Thus, though medical benefits, as understood in England, are deleted from the Irish Clause of the Act—are not "within" the Act, so to speak—they may be available in Ireland as an "additional benefit" to insured persons, members of a society and their dependents, as soon as they can show a surplus—and as, under Clause 36, the valuation may take place at any time at the discretion of the Insurance Commissioners, it is quite possible in the cases of existing solvent societies now giving medical attendance and other benefits similar to those provided in the Act, that full medical benefits may be dispensed as an "additional benefit" within a year of the Act coming into force.

Maternity and Sanatorium Benefits.—It is to be noted that maternity and sanatorium benefits are not affected by the special regulations as to medical benefit for Ireland.

Administration of Medical Benefits.—The intention of Parliament is that medical benefits shall in all cases be administered by and through the Insurance Committees, and the new Irish Clause 81 (9) provides that the "additional" medical benefits are to be administered by the Insurance Committee "unless the Irish Commissioners direct otherwise"!

Your Committee view the extraordinary power thus conferred on the Irish Commissioners with alarm, and fear it may result in defeating the intention of Parliament as expressed by 387 votes for to 15 against, that in all cases medical benefits should be administered by the Insurance Committees and not by the approved societies.

Proposed Notice to Commissioners.—It will be for you to consider whether it would not be well at once to inform the Irish Commissioners, the Insurance Committees, and all others whom it may concern that if this authority referred to in 81 (9) is ever made use of, Irish medical practitioners will absolutely decline to take any service under the Act.

If additional medical benefit is given in Ireland, it should be given in accordance with the provisions of the Act, which we shall now consider.

Choice of Doctor by Patient.—Subsection 2. c. of Clause 15 establishes the right of any insured person to select the practitioner by whom he wishes to be attended and treated—this right of choice of doctor, subject to the consent of the practitioner so selected, is one of the "cardinal principles" conceded in the Act and has, amongst others, the following advantages:

1. No interference with the present patients of established practitioners.

2. The patient has more confidence in the doctor he chooses for himself than in one chosen for him.

3. It does not break the profession into two classes.

The choice of the insured persons will be limited to those on the panel and would be for a fixed period—say one year—the choice could not be changed until this fixed period had expired.

Qualification of Choice of Doctor.—The choice of doctor is qualified by 15 (2. d.) providing for "the distribution amongst, and so far as practicable, under arrangements made by, the several practitioners whose names are on the lists, of the insured persons who . . . failed to make a selection or have been refused by the practitioners selected."

The interpretation of this is—that if the practitioner first chosen does not consent to take the insured person he may select another practitioner on the panel.

If all the practitioners on the panel refuse the person, the Insurance Committee may assign the person to one of the practitioners on the list, who would not be entitled to refuse him. The regulations would thus determine which practitioner would have to attend the rejected person.

This extreme course might be anticipated by the practitioners themselves under "arrangements made" agreeing to divide the rejected or undesirable cases.

Harmsworth Amendment and Existing Systems.—Doubts have been expressed as to whether this choice of doctor has not been modified by the Harmsworth amendment, 15 (4), providing for the continuance of medical attendance given through any institution existing at the time of the passing of the Act.

The amendment is as follows:

15 (4). The regulations shall provide that, in the case of persons who are entitled to receive medical attendance and treatment under any system or through any institution existing at the time of the passing of this Act and approved by the Insurance Committee and the Insurance Commissioners such medical attendance and treatment may be treated as, or as part of, their medical benefit under this part of this Act, and may provide for the Committee contributing towards the expenses thereof the whole or any part of the sums which would be contributed in the case of persons who have made their own arrangements as aforesaid, so, however, that such regulations shall secure that no person be deprived of his right, if he so elects, of selecting the duly qualified medical practitioner by whom he wishes to be attended and treated in accordance with the foregoing provisions of this section.

The systems and institutions referred to will include medical associations connected with industrial concerns.

You will notice that regulations made under this subsection cannot deprive the insured person of his statutory right to select his own doctor. The insured person may choose whether he will continue to have his medical attendance from the doctor of the institution or works association he belongs to, or whether he will make his private arrangements with some other doctor.

Your Committee anticipates that the choice of a doctor is a matter on which the profession will be completely unanimous and will take the necessary steps to preserve their statutory rights without any infringement.

Safeguards.—There are, however, several safeguards against abuse of this clause.

(1) The existing systems or institutions must be approved (*a*) by the Insurance Committee, (*b*) by the Insurance Commissioners.

(2) The local Medical Committee must be consulted on all arrangements made with duly qualified practitioners (Clause 62).

(3) Neither the insured person nor groups of insured persons can profit by underpaying the doctors, as all money drawn for medical benefits must be expended thereon—15 (3).

Proposed Deletion of 15 (4).—Though there are not many existing systems or institutions in Ireland, you may consider it necessary to join the profession of Great Britain in pressing for the deletion of Clause 15 (4) from the Act.

Statutory Income Limit of Insured Persons.—The next point your Committee directs attention to is the question of income limit of the insured. The medical profession suggests an income limit only for those entitled to medical benefits.

Local Limit.—The statutory limit of £160 for those employed otherwise than by way of manual labour is generally admitted to be too high, but under 15 (3) the Insurance Committee may require anyone whose income exceeds a limit to be fixed by the Committee, and allow anyone else to make their own arrangements for receiving medical attendance—thus a local income limit may be imposed by the Insurance Committee, and we believe the profession is unanimous in demanding that this must be fixed on a much lower limit.

Effect of Statutory Provisions.—The effects of the statutory provisions are:

(1) No income limit to those employed in manual labour.

(2) Those employed in other than manual labour at a rate of remuneration less than £160 are entitled to insurance and

medical attendance (in Ireland as members of societies) notwithstanding any other income they may have from private or other sources, e.g., wife's income.

(3) One who has been an employed (compulsory) contributor for five years has the right to remain as a voluntary contributor for the rest of his life no matter what his income.

(4) The words "mainly dependent" permit the voluntary contributor to have some means other than those derived from his occupation.

It will be seen that in many cases these provisions would be most unjust to the profession.

The Act contains no machinery for ascertaining the income of those below £160. So that any income limit imposed will have to be fixed in relation to the weekly wages or yearly salary on which the insurance premium is paid.

If the Commissioners use their powers in Clause 78 to remove difficulties and modify the provisions of the Act it will be possible for the regulations to provide that societies shall not administer medical and maternity benefits to their members whose total income (following the precedent of the Finance Act), wages, salary, or wife's income exceeds, say, £104 per annum.

When under Clause 15 (3 and 4) people are allowed to make their own arrangements they may avail themselves of the medical service of existing institutions, or select a doctor from the panel, or make their own arrangements in any other way, but they cannot profit by underpaying the doctor. Under 15 (3) the patient is only allowed to draw from, and the Committee will only pay him, wholly or in part, for the special purpose of medical attendance.

The Insurance Committee must see that (1) he has received "adequate medical attendance and treatment" (15 a. 2), (2) that all the money given therefore has been paid for that purpose.

Supply of Drugs not Included.—In fixing the amount of remuneration, the supply of drugs is not to be included; by Clause 15 (5), drugs, medicines, and prescribed appliances are to be provided by chemists under a separate contract.

A medical man will only be allowed to supply drugs and medicines under regulations made by the Insurance Commissioners. (15 (5, b. 2.))

If a medical man does supply drugs, it should be under a separate agreement, and not included in his contract for medical attendance.

Cases where medical men will be allowed to supply drugs will be—

1. Emergencies.
2. In districts where no chemist is available.
3. Under 15 (3 and 4), allowing people to make their own arrangements for medical attendance.

Amount and Method of Remuneration.—Your Committee desires to point out that neither the method nor the amount of remuneration is defined in the Act; both questions are left to be arranged between the Insurance Committees and the local Medical Committees, and both may be settled in accordance with the wish of the majority of the practitioners in any district of an Insurance Committee.

Method of Remuneration.—Your Committee considers that payment by the visit or attendance is desirable, both in the interest of the public and the profession.

The Appendix A[1] deals fully with the relative advantages of payment by capitation and per visit.

The Amount of Remuneration.—The amount of remuneration must bear some relation to the work done, but as the character and conditions of service required cannot be known until the regulations of the Insurance Commissioners are published, it is impossible now to give any considered opinion as to what the amount of remuneration should be—but if the public want to have an honest and efficient medical service the terms granted must be such as to attract good men; further, if the average income of a doctor falls below a reasonable limit recruiting for the profession will fall off.

The amount, like the method of remuneration, has to be settled between the Insurance Committees and the local Medical Committees.

If the payment is to be by capitation, the Chancellor admits that the capitation fee for deposit insurers, on account of their being bad lives, should be higher than for other people.

By united action in the district of each Insurance Committee, the profession should be able to secure remuneration adequate to the service required.

[1] Not reprinted here.

Local Option in Fixing Rate of Remuneration.—You will probably see the wisdom of taking advantage of the local option provided in the Act, so that the terms of remuneration may vary in different localities, in accordance with the habits and occupation of the people, as well as with the geographical and other considerations of the locality.

The Appendix A[1] gives further information on this point. In this connexion the Chancellor said:

"The sum is not limited by any provision of the Bill, but is left for local arrangement. When such arrangements are being made the profession will have the power of collective bargaining it has never before possessed." (Letter to British Medical Association, November 22nd, 1911.)

"In making your arrangements you will be entitled to take into consideration that you will now be treating a class of persons who up to now paid you a fee." (Chancellor, at meeting of Representatives, British Medical Association, May 31st, 1911.)

"Each agreement with the doctors will be taken on its merits, taking into account the character of the district, the distance that he has got to travel for his patient, and whether the place is healthy or unhealthy.

"Healing is the first charge on it—clause 8 provides that the first benefit shall be medical—the doctor has the first charge—the doctor has the first cut." (Second Reading speech in House.)

As the method and amount of remuneration must be similarly dealt with under both systems of providing medical attendance, the question is fully dealt with in Appendix A.[1]

Night Visits.—Your Committee throws out the suggestion that under payment by the visit or attendance the extra fee for night visits might be charged to the patient himself. No other arrangement would be so effectual in keeping down unnecessary night visits.

Certificates in Notice and Proof of Sickness.—The contract under 15 (2) would be for medical attendance and treatment only, and you will have to consider what charge, if any, you will make for certificates of proof of sickness, etc.

Who is to Issue Certificates.—Your Committee considers that all such certificates should be issued by the medical attendant. Clause 68—relating to "Protection against distress," providing that—

"Where the medical practitioner attending on an insured person . . . certificates," etc.—affords a good precedent for your insistence on this demand.

Administrative Bodies.

Insurance Committee.—Under 81 (8). The Committee will consist of twenty-four members appointed as follows:

Twelve representing and appointed by insured persons; members of societies and deposit contributors.

Eight (of whom one must belong to a local sanitary authority) and of whom two must be women—appointed by the county council (all may be insured persons and members of societies).

Four of whom two must be duly qualified medical practitioners (the other two may be insured persons and members of societies) appointed by the Irish Insurance Commissioners.

There is no direct provision for the representation of employers.

Thus it is clear that, notwithstanding the interposition of the Insurance Committees, the administration of additional medical benefits—indeed, of the whole Act—will be, or may be, in the hands of insured persons, members of approved societies for the most part.

The profession in Ireland is deprived of the privilege allowed in England and Scotland of selecting some of the medical members of the Committee. (Vide 59 (2), 80 (6)).

You may think it necessary to seek a remedy for this anomaly.

Functions of Medical Members of Insurance Committee.—What functions or privileges have the medical members of an Insurance Committee?

The Chancellor answers the question as follows:

"Not only that they may voice the interests of the profession, but also that they may be able to give the Committee skilled advice in matters of health." (Letter to British Medical Association, November 22nd, 1911.)

Again: "To see fair play to your profession, but in the main you will be there also as experts, who understand the fundamental principles of health, and to guide and instruct the Committee." (Chancellor at Representative Meeting, May 31st, 1911.)

Your Committee considers that two doctors amongst twenty-two lay members would hardly be sufficient to keep the ring and see fair play.

[1] Not reprinted here.

Medical Officer of Health Attending Meetings of Insurance Committee.—60 (2). Under Subsection 2, Clause 80, it is enacted that

"for the purpose of assisting Insurance Committees in the exercise and performance of their powers and duties . . . . any medical officer of health may, at the request of an Insurance Committee and with the consent of the Council by whom he is employed, attend meetings of the Committee and give such advice and assistance as is in his power."

As the medical officer of health is already paid by the authority in whose service he is, the Insurance Authorities do not consider it necessary to offer him any further remuneration for this extra work he is invited to do in the public interest.

Your Committee considers the giving of expert sanitary advice and guidance to the Insurance Committees and the promotion of "co-operation between such committees and the councils of counties" would have been much more efficiently attained by appointing and paying an independent whole-time medical officer of health to advise and serve both councils—the salary of such officer to be fixed accordingly. Your Committee trusts when the Poor Law Service and the Public Health Acts are revised some such arrangement will meet with public approval and statutory recognition.

Membership of Insurance Committee no Disability to Practitioner.—It is satisfactory to learn from Mr. Mackinnon Wood, in reply to a question by Mr. Crooks, that "membership of the Insurance Committee is purely honorary, and would not debar a doctor either from private practice or attending patients under the bill"!

Advisory Committee.—Under Clause 58, by direction of general duties, the Irish Insurance Commissioners are bound to appoint an Advisory Committee: this Advisory Committee will be temporary. Medical men are entitled to representation on it, but the number is not specified, but they are to have "personal experience of general practice." The function of the Advisory Committee is to advise and assist the Commissioners in drafting their regulations.

It is of vital importance that your profession should be represented on that body. You should get adequate representation on the Advisory Committee. We shall consult you as to the men.

So spoke the Chancellor at the Representative Meeting, May 31st, 1911.

Your Committee agrees that it is most important you should be represented on the Advisory Committee, and urge you to define your demands and requirements as soon as possible, have them confirmed at the mass meeting to be held soon, at this meeting name your members of the Advisory Committee, and instruct them as to what conditions you think should be in the regulations in order fully to protect your interests.

Where the protection afforded by the Act is weak or defective it might be made good under the regulations of the Commissioners.

Local Medical Committees.—

Clause 62. Where a local Medical Committee has been formed for any county or county borough or for any area for which a District Committee has been formed and the Insurance Commissioners are satisfied that such committee is representative of the duly qualified medical practitioners resident in the county or county borough or such area as aforesaid, they shall recognize such committee, and, where a local Medical Committee has been so recognized, it shall, subject to regulations made by the Insurance Commissioners, be consulted by the Insurance Committee or District Committee, as the case may be, on all general questions affecting the administration of medical benefit, including the arrangements made with medical practitioners giving attendance and treatment to insured persons, they shall perform such other duties, and shall exercise such powers, as may be determined by the Insurance Commissioners.

Your Committee strongly urges the medical men in each county to form at once provisional local Medical Committees, and in due course apply to the Insurance Commissioners for recognition if the demands of the profession are met.

Now the Chancellor, in his published letter of December 7th, 1911, remarks:

Ireland stands apart from the other countries because medical benefit is not there provided, and therefore the questions dealt with by local medical committees elsewhere do not there arise.

In the same letter he also says:

The provisions of Clause 58 (now 62) constituting local medical committees extend to other countries as well as England.

The Chancellor cannot have realized to what a vast extent the distribution of additional medical benefits is likely to develop, even without any amendment of the Act, and your Committee considers the formation and recognition by the Commissioners of Medical Committees should be made a condition of your taking any service under the Act.

Though the local Medical Committee has a statutory recognition it has no statutory powers to enforce its advice or recommendations. Its powers and duties are subject to the regulations of the Commissioners.

Nevertheless, local Medical Committees should be formed in order to retain your statutory right of being consulted by the Insurance Committee, to negotiate with Insurance Committee, and decide whether a panel of doctors should be formed.

Disciplinary Clauses.—The disciplinary clauses are 15 (2. b.) and 62, quoted above:

15 (2. b.). A right on the part of any duly qualified medical practitioner who is desirous of being included in any such list as aforesaid of being so included, but where the Insurance Commissioners, after such inquiry as may be prescribed, are satisfied that his continuance in the list would be prejudicial to the efficiency of the medical service of the insured, they may remove his name from the list.

Removal of Practitioner's Name.—There are two methods of removal of practitioner's name from the panel of doctors.

(1) By Commissioners under 15 (2. b.).
(2) By local medical committee under "duties and powers" conferred by Commissioners. 62.

It seems the Commissioners would not use their powers under 15 (2. b.) without first referring the matter in dispute to the local Medical Committee.

Necessity of an Appeal.—Your Committee considers it very unsatisfactory not to have some appeal, with statutory recognition, from the decision of the Commissioners.

The suggestion of an appeal to the High Court or to the General Medical Council, as statutory provisions, have both been rejected by the Government.

You might like to suggest to the Commissioners that an appeal to a representative medical board should be recognized under their regulations.

81. *Insurance Commissioners.*—As provided by 81 (1) there is one medical man described as a "duly qualified medical practitioner" among the four Commissioners appointed for Ireland.

In England the qualifications for the Medical Commissioner are further defined by the addition of the words, "who has had personal experience of general practice," 57 (1). You might like to take steps in any amended Act to have the qualifications of the Irish Medical Commissioners brought into line with those of the English Commissioner.

Non-State Insurance.—34. Non-State insurance work, and benefits outside the State scheme, may go on as before. A man may insure himself in as many societies and for as much as he pleases—but as the State and the employers' contributions will only be paid once the insurer must select in which approved society he will insure for State purposes. Medical attendance may continue to be given by societies which are outside the State scheme. If the terms are not satisfactory the blame must rest solely with the practitioners who voluntarily accepted them.

Impounding of Contributions under the Act.—All funds contributed under the Act—that is, the contributions of both employers and the employed persons, as well as the State contributions—must be used solely for the provision of the statutory benefits in accordance with the terms of the Act and subject to the regulations of the Commissioners.

Minimal Conditions of Service.—The Committee considers your terms should include as minimal conditions:

1. A total income limit for those entitled to medical (additional) benefit.

2. Free choice of doctor on the part of the patient, subject to consent of doctor.

3. That all medical certificates be issued by the medical attendant.

4. Administration of medical benefits by and through the Insurance Committee to the exclusion of the societies.

5. Provision for extra remuneration for special services

such as consultations, operations, anaesthetics, fees for midwifery, night work, mileage.

In addition to the above you have to consider and fix the amount and method of remuneration.

County Committees.—All the foregoing, including whatever amount and method of remuneration you may decide on, can, if not already secured under the Act, be secured under the regulations by loyal and united action in each district of a local Medical Committee, but obviously this will be quite impossible if members of the profession enter into individual agreements to give attendance under the Act. In each county we must act in some regulated and co-ordinated way through such local medical organization as County Committees, for the formation of which we append a scheme.

Act in Force, July, 1912.—We are still absolute masters of the situation provided we remain firm, steady, and united. There is no need for hasty action, as the bill does not come into force until July, 1912, and the medical benefits will not be available until much later.

Proposed Amendment of the Act.—If the Commissioners do not see their way to make their regulations under Clauses 15 and 78 sufficiently wide to include the granting of your conditions your Committee are of opinion that you should refuse to accept service under the Act until it is amended accordingly.

First Step in Negotiations.—The first step in negotiations, therefore, would be to inquire if the Commissioners propose to draft their regulations to meet your views.

2. Medical Attendance through Societies Outside, and Independent of, the Act.

Owing to the deletion of medical benefits from the Act, this is the class of medical attendance that will, for the most part, be administered in Ireland, and therein lies a great danger both to the profession and to the public, as the administration of this medical service will be without the safeguards and protection, imperfect as they are, provided by the Act. You must be, therefore, fully determined that this form of contract practice shall only be introduced to Ireland, where it has been practically unknown heretofore, on fair and equitable terms, and on a sound basis for its efficiency.

Societies are already in keen competition offering medical attendance at one penny, and even as low as one halfpenny, per member per week in order to attract numbers and so strengthen their positions for the other purposes of insurance under the Act.

There is reason to believe that this contemptible rate of remuneration is intended to cover, not only the insured, but also his family!

Inclusive Family Rates.

An inclusive family rate—no matter how liberal it may appear—should be unconditionally refused, because, owing to the possibility of a heavy sickness rate among children, it throws all the risks of insurance on the doctor.

Medical attendance is thus being made use of as a bait in the interests of societies in a way that will result in the profession being sweated in a humiliating manner. The medical service offered at the ridiculous prices quoted could not be an honest and efficient one, and would, therefore, be detrimental to public interests and defeat the object of the Insurance Act as a measure "for the prevention and cure of sickness."

Objections to Societies.—The profession object to be under the control of the societies for several reasons:

(1) Cheap medical practice, under lay control, is not to the advantage of the community, and is unsatisfactory to the profession.

(2) In the past the societies have shown their unfitness to carry on such work, and a want of appreciation of high-class medical attendance.

(3) Societies have hitherto cut down remuneration to the lowest figure they could get accepted. The insurance scheme, under them, would mean a repetition and extension of a system disliked by the profession.

(4) Where the doctors are appointed by the societies there is frequently among the members a distrust of their own doctor and they employ some other doctor; they have more confidence in the doctor they choose themselves.

(5) Want of free choice of doctor and society control interferes with that confidential relationship that should exist between doctor and patient, and which is so often an element in successful treatment.

(6) The Insurance Committee has been entrusted with the management of any institutional treatment provided in the Act; therefore it would save a division of responsibility to have all medical administration in the hands of the same committee.

For these reasons your Committee considers it would not be to the advantage of the public or tend to promote an efficient medical service for the public if the societies be allowed to intervene between practitioners and their patients.

Conditions of Service for Contract Practice.—While admitting the advantages of contract medical practice by small periodical payments to suit the requirements of the wage-earning classes, your Committee considers that consistently with the interest of the public, the only conditions on which the profession should consent to attend members of societies and their dependents under a contract scale are:

1. Absolutely free choice of doctor on the part of the patient, subject to the consent of the doctor to act.
2. A total income limit for those entitled to medical and maternity attendance.
3. Payment per visit or for work done, at a rate adequate to the services rendered.
4. Extra remuneration for special services, such as consultations, operations, anaesthetics, midwifery, mileage, and night work.

Choice of Doctor.—(1) Has already been fully dealt with in the first part of this report.

Income Limit.—(2) A total income limit from all sources must be imposed on those members of societies claiming medical and maternity attendance.

As the question of medical attendance through the societies is not hampered by any legislative restrictions, a limit in relation to the rate of remuneration of weekly wages, yearly salary, or otherwise, can be easily fixed on—and in the case of occupiers of agricultural holdings, in relation to acreage or valuation of the holding.

Local Option in Fixing Income Limit.—Each local Medical Committee should be left free to decide what the local income limit within its district should be, taking into consideration the character of the district, and the habits and occupation of the people.

Method and Amount of Remuneration.—Though the capitation system may be preferred in some localities, we consider the remuneration for this class of contract work should, in the interests of the patient and practitioner alike, be per visit or attendance at a rate adequate to the services rendered.

Position of Present Doctor to Existing Societies.—A very important point for you to consider is the position of practitioners holding office under existing societies.

Where the conditions of service and rate of remuneration are satisfactory those in office should have no difficulty in retaining the confidence and attachment of the members.

But, on the other hand, the present rates of remuneration are, in many cases, so inadequate and the margin of profit so small that relinquishing such posts would not be any loss to the holders.

It will be for your County Committees to consider whether they should call on any individual practitioner in the common interests of the profession to resign such badly paid posts, and also, whether on resigning he should be indemnified against loss either by financial aid or by a pledge to support him loyally in his efforts to obtain the terms and conditions of service approved by his colleagues.

Hospital and Institutional Treatment.—There is no hospital treatment provided for in the Act—and no institutional treatment, except for those suffering from tuberculosis and such other diseases as may be appointed by the Local Government Board in sanatoriums or other institutions, and which will be paid for separately under 16 (i.b.)

General.

Insured Persons Inmates of Hospitals.—12 (1. c,). When an insured person is an inmate of a hospital, asylum, convalescent home, or infirmary "supported by charity or by voluntary contributions" and has no dependents, part of the sickness benefit may, under certain conditions, be paid to the hospital. Here the institutions are qualified by the

words—"supported by charity or voluntary contributions." Query—Do these words include an institution partly supported otherwise, for example, by rates? If this is not the case a great injustice will be done to many Irish (especially Irish provincial hospitals, which include all the county infirmaries) hospitals, many of which are partly supported by charity and partly by the rates. The Local Government Board Act of 1898 recognizes this element of charity in the support of the Irish county infirmaries, and makes provision for representation of the subscribers on Conjoint Committee of Management.

Your Committee, therefore, considers the attention of the Commissioners should be drawn to this matter, and, if necessary, that you should seek to have the Act amended in this particular.

Nurses.—The regulations should, as regards the nurses mentioned in 21, and the "duly certified midwife" in the Irish Clause, 81 (20), provide that both should attain the standard imposed by the Local Government Board Nursing Orders for the time being.

B.P. Standard of Drugs.—The Pharmacy Act (Ireland) 1875, and the Amending Act of 1900, do not secure the *B.P.* standard of the drugs dispensed. These Acts merely control the sale of poisons and the qualifications of pharmacists.

Therefore your Committee considers the regulation of the Commissioners should provide for purity of the drugs dispensed by insisting that they should be of the *B.P.* standard.

Medical Inspector.—As medical inspection will be required for the working of the Act, your Committee considers every such inspector should have had at least five years' experience of general medical practice, and be a whole-time pensionable officer.

Conclusion.

Revolution in Method of Medical Practices.—After a careful consideration of the whole question, your Committee has come to the conclusion that a grave revolution in the system of medical practice will be brought about under this Insurance Act. Members of Parliament are urging their constituents to join existing societies or form new ones for the purpose, *inter alia*, of obtaining medical attendance for themselves and their families.

Reform of Poor Law.—Politicians see that by attracting the masses of the people to societies and providing them with medical attendance the load of the Poor Law service will be very much lightened and its reform rendered comparatively simple and cheap.

Immediately will follow a reduction in the number and salaries of Poor Law medical officers—there will be nobody requiring their services *qua* Poor Law doctors, unless those who prove destitution and are too poor even to become insured persons.

In one direction practitioners will see most of those who have hitherto paid moderate fees, and, on the other hand, many who were dispensary patients swept into the insurance net.

State Fostered Contract Practice.—A vast system of State contract club practice will be spread throughout the country. In order that the new system may not bring ruin and disaster on the profession you must be thoroughly organized, locally and generally; you must be loyal and united, viewing the matter from a professional rather than a political point of view. While admitting that the interests of the public must be considered, and that the public are entitled to the best medical service they can procure, you will remember, and ask the public to remember, there are two parties to every bargain, and that the labourer is worthy of his hire.

The battle must be fought out before you agree to take any contract service. Once you have accepted service complaints will meet with little sympathy.

Those who doubt the advent of this great club system should study Mr. Devlin's speech at the opening of an A.O.H. Hall, at Glasnevin, and reported in the *Freeman* of December 20th, 1911. Mr. Devlin said: "If medical benefits had been included it would have applied only to the person insured, but by paying the extra penny into an approved society full medical benefits may be obtained, not only for the person insured, but also for his wife and family. The Act gives every advantage to Ireland that it gives to Great Britain."

"The nine shillings a week rate will cover the bulk of the women workers in Ireland and a large proportion of the agricultural labourers; these people will have nothing to pay, and they will be entitled to full benefits."

While postulating all this may be a most desirable thing for the country, there is no reason why the country should profit at the special expense of the medical profession.

The Chancellor says: "I can well understand it affects your livelihood, but it affects something more than that—it affects your professional standing, it affects your professional self-respect, it affects your professional honour."

Organization.—Your Committee considers the organization of the profession should be by counties, and send herewith a scheme of organization,[1] and a form of undertaking.[1]

In order that those practitioners who are not familiar with contract practice may be able to judge of the relative merits of the methods of remuneration a statement thereon[1] is forwarded.

Representative Character of Committee.—Your Committee met on December 19th, 1911, to draft its report and transact other business, including the co-option of the four delegates appointed at the meeting of dispensary medical officers. All the universities and medical corporations have been separately invited to nominate members to act on the Committee, which is thoroughly representative of all interests in the profession and of all parts of the country.

Negotiations by Committee.—It is most important that all negotiations with members of Parliament, Insurance Commissioners, or others concerning the National Insurance Act should be done only by and through your Committee; any independent action by individuals will surely weaken your position.

Mass Meeting.—Your Committee has decided to call a meeting of the profession as soon as possible, but considers it desirable first to circulate full information on the matters to be discussed and allow time for full examination of them by the local organizations.

It is also considered that it would be better to arrange that the meeting should be composed of delegates rather than individuals. Each local Medical Committee might send, say, five or seven members to represent the views of the majority of the Committee.

Financial.—The two Associations have already spent considerable sums of money in promoting your interests. Your Committee having still liabilities to meet, trusts every practitioner in Ireland will at once respond to an appeal for funds to carry on its work on behalf of the profession, and send 5s.

Signed on behalf of the Joint Committee.

J. Cotter,
President, I.M.A.

T. Donnelly,
Hon. Sec., I.M.A.

R. J. Johnstone,
Chairman, Irish Committee, B.M.A.

Arthur H. White,
Hon. Sec., Irish Committee, B.M.A., and Conjoint Committee.

L. Kidd,
Direct Representative for Ireland on General Medical Council.

[Any practitioner in Ireland who has not received a copy of this report and the appendices (not here reproduced) is asked to send his name and address to Professor White, Royal College of Surgeons, Stephen's Green, Dublin.

P.S.—While the report was in the press the Irish Commissioners wrote to the Secretary of the Conjoint Committee asking that three names might be submitted to them as members of the Advisory Committee (Ireland). At a special meeting of the Conjoint Committee summoned to consider this invitation the following eight names were submitted:

Ulster	Dr. Darling. Dr. L. Kidd.
Leinster	Dr. T. Donnelly. Dr. O'Donoghue.
Munster	Dr. J. Cotter. Dr. J. Power.
Connaught	Dr. Costelloe. Dr. Mahon.

[1] Not reprinted here.

CORRESPONDENCE.

[It is particularly requested that communications intended for publication should be written on one side of the paper only, and should be addressed to the Editor, BRITISH MEDICAL JOURNAL, 429, Strand, London, W.C.]

INSURANCE DEFENCE FUND OF THE BRITISH MEDICAL ASSOCIATION.

DR. W. G. DICKINSON (Portishead) writes: Many of your readers are unable to subscribe both to this fund, promoted by the Association, and to the Medical Federation, as suggested by a correspondent (page 319). The Federation proposes that the Association should amalgamate with it. What I and others want to know is whether there is the slightest prospect of this happening? If the reply is in the affirmative we should join the Federation; if in the negative support the Association. If, however, the defence fund is to be relied on let it be pushed and widely advertised. Every number of the JOURNAL ought to include a subscription form stating the reasons for support, and every subscription ought to be publicly acknowledged. We are told that the amount so far raised is trifling, but this is because the thing has been done in a hole-and-corner manner. What is the JOURNAL for?

*** We should have supposed that the Defence Fund of the Association might properly be described as having been "widely advertised"; whether it has been pushed or not in any particular locality probably depends upon the activity of the Division. A circular was sent to every member of the profession in July last; and since that time every Division has been urged to institute a local canvass, and many of them have done so. At the present time, a circular is being sent to the Divisions relating to the establishment of provisional medical committees, and one of the main duties which it is suggested that these committees should carry out is to urge every member of the profession in the locality to subscribe as handsomely as he can afford to this fund. As will be seen from the reports of the State Sickness Insurance Committee published in the JOURNAL of March 2nd (p. 511), March 9th (p. 570), and in this issue (p. 696), the subject of the relation of the British Medical Association to the Medical Federation, Limited, is under very serious consideration, and members of the Association are advised to reserve their decision until this inquiry is concluded.

PUBLIC MEDICAL SERVICE.

DR. J. HENRY STORMONT (Tanworth-in-Arden) writes: The number of men who at present hold contract appointments which constitute a large part of their income might be estimated by the issue through the Divisions to all their members, or by the head quarters to the whole profession, of a circular of inquiry similar to that recently issued asking for particulars of appointments, number of contract patients, and fees per head per annum. From the number issued and the number of replies received it should be possible to ascertain approximately the number of men in the country holding appointments to the annual value of £250 or £300. This would give about the number of men to be considered.

I think that the number would be found to be a small percentage of the whole profession, and that of them 30 per cent. to 50 per cent. would be willing to resign their appointments and enter a public medical service which only dealt with the classes of patients earning, say, 40s. or 50s. per week and less.

I believe that they would be willing to do so for the following reasons. The great majority of club doctors give satisfaction to their contract patients and honourably do their duty and exert their best efforts for them; and on the establishment of a public medical service these contract patients would, when exercising their free choice of doctor, elect to be attended by their old doctor, for no one changes his doctor without an adequate reason, so that the doctor would be better off by coming in than by staying out and continuing at the old rate of 4s. per annum or less.

There remain the "blackleg" practitioners, who would decline in the hope that their club and society patients would be largely augumented by those who came into their clubs to get the old and cheaper rates or who would accept the offer of a club or works at the old rates.

These would be dealt with (*a*) by the social and professional ostracism resulting from their action and pressure of local medical opinion, and (*b*) by the common sense of the patients, who would not go to them to save ½d. or 1d. per week, or if they went for a time would find that they were not gaining but losing by so doing.

I think that now the whole question of contract practice and rates of payment has been brought to the door of each of us, and we all find ourselves confronted by the conditions sought to be imposed upon us by the Insurance Act, the plan of a public medical service would meet with a welcome and a degree of support vastly exceeding that accorded to it at any time in the past; and it seems to me to merit the expenditure of our funds to ascertain, by referendum or any other means thought best by the Council or State Sickness Insurance Committee, the feeling of the general practitioners of the country with regard to such a scheme, which could easily be drawn up provisionally. It might be convenient to send out a referendum and a request for information as to appointments at the same time—and the time is now.

DR. J. W. H. JELLETT (Waterford) writes: Dr. Stormont deserves the thanks of our profession for publicly advocating as the best solution for our difficulties what I have long since privately advocated myself, namely, a Public Medical Service.

Very briefly the essentials of such a service are: (1) It should be managed by the profession alone, no layman having any share in its management except as our paid servant; (2) it should include all members of the profession willing to act; (3) those who do not join the ordinary panel should agree to give their services when required for consultations, etc., at a reduced charge. The advantages are (1) to the profession: (*a*) We free ourselves from lay control; (*b*) we fix our own rate of payment and our own wage limit; (*c*) we cease to have our labour exploited by all and sundry. (2) To the public: (*a*) A more efficient service because a voluntary one.

It must, of course, be understood that such a service applies only to those under a certain income, as may be determined by the profession, local circumstances being taken into account.

As Dr. Stormont has pointed out, time is pressing and immediate action is called for. If we allow matters to drift and do not provide a medical service for that portion of the community outside the Poor Law who cannot afford usual fees, we shall be held up to opprobrium as grasping, selfish, ill commonwealths-men when a general refusal to work under the Insurance Act becomes necessary.

THE REPRESENTATIVE MEETING OF FEBRUARY.

DR. WM. GOSSE (Representative of Isle of Thanet, Canterbury, and Faversham) writes: Unanimity is difficult to obtain and consistency is difficult to maintain: hence the difficulty which many of your correspondents find in understanding how the Representatives arrived at their conclusions: how on one day in Committee they carried the 10s. capitation fee and how on the next day in the Report stage they carried 8s. 6d.

To go back to Wednesday, when in Committee and possibly all the Representatives were present, namely, 161, of whom 64 voted for 10s. and 44 against; that makes 108, and therefore 53 did not vote. This does not seem satisfactory or conclusive. Surely it is essential that such a momentous decision should be definite and conclusive.

Again, by special request of the meeting, Dr. Pearse (Chairman of the Remuneration Subcommittee of the Contract Practice Committee) read extracts from reports of various contract practices which he had only just received and, therefore, had not been presented and discussed by his Subcommittee. On these reports Dr. Pearse proposed, and Dr. Keay seconded, that the capitation fee be 8s. 6d. However, this in the Committee stage was negatived. But on Thursday, after sleeping on it, realizing the gravity of the decision, and giving it further consideration, and being influenced by the fact that it would be unwise to alienate the present sympathy of the press and the public by what might be thought unreasonable demands;

and as already we have a precedent in the Post Office Medical Service, where a capitation fee of 8s. 6d. is paid by the State, which is, as far as I can learn, satisfactory to its medical officers.

Under the National Insurance Act I know we are offering to take all lives, but we are not supplying drugs and appliances. Thus it was that one or two of my neighbours at the Representative Meeting were influenced to transfer their vote at the Report stage, and which was "practically unanimously" supported by the meeting. To be quite accurate, I believe there were 5 objectors of the 101 voters, which makes 96 for 8s. 6d., while on the previous day in Committee there were only 64 who voted for the 10s. capitation fee.

Dr. HENRY EDWARD GOUGH (Northwich) writes: I thank you for the replies given to my queries; these, together with the letters of Drs. Leigh Day and Henry Thomas Barton, are sufficiently illuminating, and will, I think, effectively dispose of the "red herrings."

Dr. H. F. Steele has endeavoured to refute my argument that general practitioners are not truly represented in the Association, and he indulges in some manifest fallacies. He contends that if a general practitioner attends his Division meetings, he will be represented, except upon "every minor detail"; and that if he does not attend these meetings it is his own fault.

Even if every member of every Division attended and voted it is quite possible that the "majority" will not rule. Suppose three Divisions are instructing their Representatives how to vote upon a definite principle, say, capitation or payment for work done, that these three Divisions are composed of thirty, forty, and seventy members respectively (and all voting). If the first of the three instruct their Representative to vote for capitation by sixteen votes, the second instruct likewise by twenty-one votes, and the last of them vote unanimously for payment for work done, the net result is that two-thirds of the Representative Meeting are instructed to vote for what two-thirds (or more) of the members don't want. A system which is capable of such a result is self-condemned. Before a man can be properly represented it is needful that somebody in sympathy with his views should be eligible, and to represent a general practitioner dependent upon his practice for his livelihood he should be represented by a man similarly circumstanced. As it is quite impossible for a responsible general practitioner upon whom the public is relying for attendance to devote the time for "representation," the general practitioner is frequently forced to place his interests in the hands of retired general practitioners, consultants, officials, and those who look upon the office as a likely stepping-stone to some remunerative post, and naturally they are not so alive to the interests of general practice as a general practitioner would be. It is not reasonable to expect a general practitioner to attend Division meetings to give his vote. There are some who would need to be away all night to attend a Division meeting, and many of us have to be absent six to ten hours to put in one and a half to two hours at such meetings; and it is quite impossible for a man to leave an urgent message unanswered, or a critical case unattended, while he goes off for half a day or more to vote.

Dr. Steele says that to represent any opinion on matters of detail is impossible; but, surely the method of payment is a principle of the most vital importance, and even the amount of minimum fee is not a matter of "minor importance," and for the Representatives to vote upon such a momentous question without any instruction at all is, I maintain, quite indefensible; nothing but a referendum with the very clearest explanation of what is the "equivalent" payment per attendance to a capitation fee of 8s. 6d. ought to settle the matter.

It would be interesting to know what proportion of votes instructed Dr. Steele to vote for a capitation fee, and what number fixed 8s. 6d. as a minimum. The statement that if the Association accepts a minimum fee of 8s. 6d. it does not bind the shackles of contract practice upon anybody is so absurd that I wonder Dr. Steele ventures to make such a wild statement. For what does the Association exist? What has it asked and received pledges for if its action is to be of no account? No wonder it becomes necessary to publish disclaimers that the membership is decreasing when Representatives without instructions can vote us into "club" work whether we like it or no. If a referendum is taken and *acted* upon there will not be need for disclaimers.

Dr. K. M. GIBBINS (Parkstone) writes: Even if the Commissioners grant us the six cardinal points, it seems to me that we are not going to gain much by the National Insurance Act; in fact, with the possible exception of those at present holding club appointments, we shall probably be much worse off.

Why, until recently, have we all been inveighing against contract work, surely because the conditions of work have been derogatory to our profession—the club doctor's opinion, and often his treatment as well, has not been held in the same esteem as that of the private doctor—and yet now there is a certain section of medical men not only in favour of contract work, but going out of their way to increase it enormously.

It is all very well to say that payment for work done can still be obtained under the Act, but if the large majority of us are in favour of it—and I think that there is no doubt at all on this point—why should not the general scheme of the Act be based on these lines, letting certain districts, if they so wish it, still work per capita? I feel sure that if payment for work done were once an accomplished fact contract work and its accompanying dissatisfaction would soon die a natural death.

Is it too late now to hold out for payment for work done? Is it not a fact that the Divisions of the British Medical Association have already furnished a majority in favour of payment for work done?

There appear to be several points which those in favour of contract work are continually bringing up:

1. That under contract work their income is an assured one, but if there is free choice of doctor this point no longer holds good.

2. As to overvisiting by medical men (vide Dr. P. R. Cooper's letter in the SUPPLEMENT of March 9th), it has never been proved that such would occur. Neither the police nor the Admiralty, or the National Deposit Friendly Society, have found it necessary to appoint inspectors, so why should we assume that medical men are now going to act dishonestly? There is also the other side of the question, namely, the avoidance of the doctor being called upon to attend every trifling ailment, malingering, etc., but both these and the former could be avoided by some scheme whereby the patient pays a small amount, for example, 1s. or 2s. in the £1, out of his own pocket while receiving sick pay.

3. That such a scheme would cost too much. But the National Deposit system, at nearly 2s. 6d. a visit, works out at less than 4s. per member a year.

4. The keeping of accounts. But this need not be anything like as laborious as many seem to think. It would probably be a question of a duplicate sheet for each sick member, as is now done by the National Deposit system. As for certificates, they would have to be supplied in either case.

On the other hand, payment for work done would, I think, do away with many of our present difficulties. It is the usual principle on which other work is done, and the recent publicity that has been given to the working of the contract system would, I think, render it impolitic for us to give way on this point now.

Among the points in its favour are:

(*a*) That the large majority of us are in favour of it.

(*b*) That the patient would feel that his doctor was being adequately paid for the work done, and so would have more confidence in the treatment. Many patients now, although paying for a society's doctor, elect to pay a private doctor to attend them.

(*c*) That such a system carries with it free choice of doctor.

(*d*) That provided that those on the sick-list pay something, as suggested above, towards the cost of their treatment, we should not have the many trivial and unnecessary calls we now have under the ordinary club system.

(*e*) That it would simplify the attendance on domestic servants or on working men moving from one part of the country to another.

(*f*) That it is for the State to underwrite the "medical benefit," not the medical man.

(*g*) That the question of the control of doctors by local

Insurance Committees or by societies and clubs would not arise.

(*h*) That there would be no necessity for an income limit. I do not see how we can expect a £2 limit to be fixed by Act of Parliament, seeing that there is no recognized means of finding out each income.

If a definite payment—for example, 2s. 6d. per visit, etc.—were guaranteed by the State, it would remain for us to charge our own fees to the patient according to our own estimate of his income, whether by the rental of his house or style of living, as at present. If our fee happened to be more than the 2s. 6d., the patient, as he often does now under the National Deposit system, would pay the difference out of his own pocket, or, as he also often now has to do, go to a cheaper doctor.

Dr. DECIMUS CURME (Child Okeford, Blandford) writes: We have claimed 8s. 6d. per head for our services to the insured under the National Insurance Act, and, if granted, the mode of remuneration is settled as being per capita, as far as the Government is concerned, though in the ultimate distribution of the money we claim the right to be paid per attendance, if locally preferred. I was at first an advocate for payment per attendance, that is, work done, but there is an advantage in the per capita payment which I have not seen mentioned in any of the numerous letters on the subject.

Every one will admit that preventive medicine is now important and beneficial to the general health and well-being of the community, and will be far more so in the future, than the attempt to cure by the giving of drugs, etc. (often uncertain in their action)—the old saying holds good, "Prevention is better than cure." But the payment per attendance gives no facilities at all for the practice of preventive medicine, whereas the Act is declared to be for the promotion of the health and well-being of the nation, which can only be done by preventive medicine and the due and prompt use of sanitary measures, and for this there is no scope when payment per attendance is the method adopted, and a doctor can only attend when sent for by his patient for actual illness, whereas if paid for per capita the doctor need not always wait for an outbreak of sickness, but can be called in to advise, or may call of his own accord for the purpose of advising, as to the removal of surroundings which he knows may prove deleterious to health, and thus he may prevent any outbreak of illness—but in payment per attendance he would most probably only find out the cause after the mischief is done. At first probably the doctor will have some extra work thrown on him, but in course of time he will be well repaid for this, in the improved health of his patients and the diminished number of cases of illness, but his pay per capita would remain the same, whereas in payment per attendance—if the doctor by his advice was enabled to improve the health of the insured persons (though not so readily as by the other plan) and lessened the amount of sickness, his pecuniary award would be a diminishing quantity.

I do not share the fear which seems common, that payment per capita would expose the doctor to harassing and unnecessary calls, for I have had forty years' experience of private, union, and club practice, and have not, as a rule, found my club patients unreasonable in this way. Of course some are exacting, and many persons, private as well as club, call for a doctor who have not much the matter with them; but we must remember that if a person feels ill he is not to be blamed if he asks for the services of a doctor to tell him whether his symptoms are serious or not, and with free choice on the part of doctor and patient an unduly troublesome patient can be got rid of. The payment per capita is certainly easier, more constant and reliable as regards income, and entails less bookkeeping.

The Tactics of Dr. Helme.

Dr. HENRY T. BARTON (Blackpool) writes: I have no wish to say anything disrespectful about Dr. Farquharson; I have listened to the speeches of that gentleman with interest, and hope to do so again, but I know Dr. Helme a great deal better than he does, and consider the term "would-be leader," as used by him in last week's JOURNAL, to be quite unjustified. The work done by Dr. Helme in connexion with the Insurance Act has won the warm approbation of thousands of general practitioners who would only be too thankful if he were the leader in this crisis.

ESTIMATE OF MEDICAL PAYMENTS.

Dr. HERBERT H. MILLS (Kensington) writes: For my own convenience, and I hope for that of your readers, I have epitomized those benefits of the Insurance Act which affect the medical profession.

Medical Benefit.

Probably about 20,000 doctors will be liable to attend 14,000,000 insured persons (rather more than one-third of the population). If this number were equally divided each doctor would have on his list 700 insured persons.

If at a capitation fee of	per annum.
4s. 6d. his gross income *(from this part of his practice)* would be	£157 10s.
At 6s. his gross income would be ...	£210 0s.
At 7s. his gross income would be ...	£245 0s.
At 8s. his gross income would be ...	£280 0s.
At 10s. his gross income would be ...	£350 0s.

Assuming that the 700 insured persons constitute one-third of his practice, the doctor's clientèle would be approximately 2,100 persons.

Is this number of potential patients too large for one man? The answer can be found in the fact that a village of moderate size, with surrounding hamlets, numbers about 2,000 persons, and one doctor could easily do the work.

It must not be forgotten that family practice is, as a matter of fact, concerned much more with the married women and children who are not insured under the Act, and for whom payment will be made at the usual rate, as at present. An exception to this is where the married woman follows some regular industrial occupation, in which case she is insurable.

Sanatorium Benefit.

Insured persons suffering from tuberculosis will, as a rule, receive treatment under the head of "sanatorium benefit" and not of "medical benefit." That is to say, the medical attendance which they receive will not form part of the work which the doctors are called upon to do in respect of the remuneration stated in the above table. Practitioners who attend phthisical and other tuberculous patients receiving sanatorium benefit will receive payment for such work out of the special funds assigned to the purpose.

Maternity Benefit.

The wife of every insured man can claim 30s. benefit after the birth of a child. This is a very great boon to the poorer classes.

If the woman herself also is an insured worker under the Act she can also claim an additional 7s. 6d. per week for four weeks after the birth of her child.

In large industrial centres, where so many married women go out to regular employment, this benefit is of the greatest importance.

Each woman is to be free to decide whether she will have a doctor or midwife to attend her, and to choose such doctor or midwife. If a midwife attends, and a doctor has to be called in (under the requirements of the Midwives Act), special provision is made for the payment of his fee.

There is no doubt that a considerable proportion of the money available under the maternity benefit will be paid to the doctors.

The extra payments we can expect under sanatorium and maternity benefits certainly (if put upon a capitation calculation) go some way towards dissolving the difference between the 4s. 6d. estimate in the Act and the 8s. 6d. we ask for.

To understand this very important point is to remove a great deal of the uneasiness of members of the British Medical Association.

MODE AND RATE OF REMUNERATION.

Dr. HENRY H. HAWARD (Northwich) writes: In the SUPPLEMENT of February 24th Dr. Harvey writes that he has been in correspondence with the Secretary of the National Deposit Friendly Society, and that its returns show that the sickness incidence (3½ days per annum) tallies fairly well with the actual amounts paid to the doctors. Dr. P. R. Cooper takes this up on March 2nd, writing that these returns are striking testimony of the satisfactory practical working of the system of payment per attendance. I have been looking at the annual report

for 1910, from which I find that in most cases the exact opposite is shown, as the following tables will show:

Smallest Medical Pay and Largest Sick Pay.

Number and Division.	Number of Members.	Number Who Received Sick Pay	Number Who Received Medical Pay.	Medical Pay: Average per Member.	Days of Sickness: Average per Member.	Sick Pay: Average per Member.
				s. d.		s. d.
8. Cardiff	4,718	842	800	2 3½	3.69	9 8½
9. London	16,110	2,579	3,267	2 11½	3.25	9 0¼
14. Matlock	3,820	737	707	1 10	3.68	7 8½
15. Cumberland and Westmoreland	1,989	445	210	1 3¾	4.57	10 1½
23. North Yorkshire and South Durham ...	2,197	485	209	1 4½	5.56	12 6
30. Swansea	2,151	470	229	1 0¾	4.65	10 6
31. Newcastle	2,290	418	259	1 9¾	3.74	8 2½
Largest Medical Pay and Small Sick Pay.						
4. Derby	12,178	2,051	3,596	4 0¾	3.19	6 7
6. Devon	11,172	1,653	3,262	4 0½	2.93	5 9¼
7. Bucks	4,885	799	1,341	3 7¼	3.19	7 5¼
12. Leeds	6,400	1,103	1,536	3 6¾	3.50	7 9¼
16. East Kent	7,192	1,139	1,988	4 2	3.01	7 8
20. Leicester	6,476	1,057	1,954	4 0½	2.98	6 5¾
28. Bournemouth	3,259	486	869	3 8¾	2.95	7 1¾
Average Medical Pay and Smallest Sick Pay.						
1. Surrey and Sussex ...	10,450	1,220	2,269	3 1	2.36	5 7¾
17. East Sussex	6,041	709	1,373	3 4¼	2.42	5 10½
18. Hull	6,925	1,094	1,651	3 4½	2.83	6 8¾
19. Colchester	3,742	574	920	3 2½	2.91	6 4¼
22. Birmingham	3,161	494	667	2 7¾	2.86	7 1
25. Northampton	2,489	415	621	2 9½	3.00	6 3¾
33. Southampton	3,604	450	916	2 10½	2.50	6 2¼
34. Croydon	5,947	831	1,275	3 0½	2.27	6 8½
35. Liverpool	1,537	243	334	2 8½	2.92	7 0¾
Large Medical Pay and Large Sick Pay.						
5. West Kent	9,599	1,654	2,667	4 4¼	3.62	9 4¾
Totals and average ...	219,381	35,304	52,230	3 2½	3.15	7 5

The West Kent is the only division where large sick pay is shown to be accompanied with large medical pay. The Swansea division is the most marked instance of unsatisfactory practical working, having actually the smallest medical pay with the largest but one in sick pay.

The returns seem to show that it pays the society to pay the doctors well, because it saves more than the doctor's fee in the diminution of the sick pay. In every case where the doctor is paid badly there is a very large amount of sick pay to be provided. The smallness of the sick pay shows better than anything the efficiency of the work done, but the latter, to my mind, cannot be measured by the number of attendances, but can much better be measured on a per capita basis at a comparatively low figure, with extra payments for anything beyond the ordinary by the patient at the time, as Dr. Harvey suggests.

The Sick Public and the Insurance Act.

Dr. Robert R. Rentoul (Liverpool) writes: In the Supplement of March 16th Dr. Buist very rightly emphasizes the fact that we must prove all things related to the Act. As to my statment that an honest bottle of medicine costs from 10d. to 30d., I would say that this includes all the costs, that is, drugs, bottle, rent, taxes, payment of chemist's assistant, errand boy, profit to chemist, etc. Suppose under the Act a doctor prescribes diphtheritic serum this will cost more than 2s. 6d. Secondly, I assume that under the Act there will not be any private practice left for the 20,000 doctors. This I gather from Mr. L. George's book, *The People's Insurance*. In the first bill he proposed to include all those *under* 16. He says (p. 20): "Now I come to the person *under* 16, and . . . that he should get medical attendance." The Act seems to suggest that such are now excluded; but I think that as the friendly societies have "juvenile societies," these will be included. There is an idea that the Act will soon be used to provide medical treatment for sick school children. The Act provides for the treatment of children in sanatoriums, and certainly the babies of insured mothers will obtain treatment under the Act. On page 131 he says: "My plan of insurance against sickness is open to the whole nation." "The scheme is by no means intended to be confined to the classes whose earnings do not amount to £160 a year." "A rich man may join the sickness insurance scheme. . . . The Governor of the Bank of England could join if he liked, and he would receive the State contribution of 2d. a week." "Provided that the insurer is engaged in some occupation, and is wholly or mainly dependent for his livelihood on the earnings derived from that occupation, a professional man of, say, £600 a year can, by contributing 7d. a week receive all the sick benefits, including the weekly allowance, the free doctoring, the free drugs." "A man's wife and his children may join if they are workers. I intend my children to join" (p. 132). "This is not a doctor's endowment bill, and doctors must not be too greedy, otherwise they will lose all." "In regard to doctors the scheme certainly makes medicine a better profession." . . . "Sweated labour" (of doctors) "is the worst labour in the world." "If you want to get the best out of a man you must pay him a wage which satisfies his reasonable demands" (p. 143). It will be well if doctors carefully note the definition of the word "employed," as given in the first schedule in the Act, to those making up to £160 "*and upwards*." Section 2 enacts that the Insurance Commissioners may make a special order admitting "excepted employments." I can find nothing in the Act relating to an income limit to "compulsory" insured persons. It is the same practically with "voluntary" insured persons. There is an income limit of £160 mentioned regarding these, providing that no person whose income is over £160 shall become a "voluntary" contributor, "unless he has been insured under this part of the Act *for a period of five years or upwards*." That is, if at entry his income is under £160, and in five years it reaches, say, £2,000, and remains dependent upon his living by an "occupation," he is still entitled to remain a voluntary contributor. I think the fact that the Act fails to point out how we are to get to know the real income of a person is a reason for my stating that the Act is meant "to include the whole nation." Also that the total insured is estimated to increase from 12,207,000 to 16,990,000 in 1932—according to the actuarial tables brought out.

Lastly, if we recognize the large numbers who now obtain medical treatment from the voluntary hospitals, fever hospitals, Poor Law institutions, free vaccination, free sanatoriums, prisons, asylums, midwives, chemists, bonesetters, medical herbalists, free examination, and treatment of school children, we can see that, with this Act, there will be little or no private practice left.

May I just add that I have discussed all and many others of the above points in my pamphlet, *The Sick Public: The Doctors and the Insurance Act* (Cornish and and Sons, Liverpool. 1s.)? The fact that medical agents have publicly announced that the sales of practices has dropped by some 50 per cent. since the Act was passed; that clauses are inserted in agreements that if the bill became law a less price was to be paid for the practice; and that the old prices have dropped enormously, show to any business mind that doctors take a strong view regarding the pauperizing effects of the Act to themselves, their wives and children. Perhaps the saddest reading of any is that contained in the petition of doctors' wives to the General Medical Council. When, oh when, will doctors cease to hand over their income-earning powers to a grasping parasitic public, who, like the horse leech, cry for more and more sponging upon us? Their action to their widows and orphans is nauseating, disgusting, degrading, unmanly, and cuts the ground away from all efforts at medical reform.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

A list of periodical publications, official reports, and Blue Books in the Library of the British Medical Association available for issue to members on loan has been printed, and copies can be obtained free on application to the Librarian, at the house of the Association, 429, Strand, W.C. The regulations governing the loan of these publications are stated in the introduction to the list.

The Library is open for consultation m 10 a.m. till 5 p.m. (on Saturdays till 2 p.m.).

Meetings of Branches and Divisions.

[The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the JOURNAL.]

EAST ANGLIAN BRANCH.

A MEETING of the Council of the East Anglian Branch was held at the Crown and Anchor Hotel, Ipswich, on Monday, March 11th. Dr. BURTON-FANNING, President, in the chair. There were also present: Dr. George Elliston, Dr. Thomson, Dr. Storrs, Mr. H. A. Ballance, Dr. Gutch, Dr. Potts, and Dr. Nicholson.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

New Members.—The following were elected members:

W. J. Ashby, M.B., B.Ch., Norwich; H. G. Blackman, M.R.C.S., L.R.C.P., Norwich; W. F. Blewitt, M.R.C.S., L.R.C.P., Bacton; E. F. Brodie, M.R.C.S., L.R.C.P., Wickham Market; Muriel C. Bywaters, M.D., Nayland; J. C. Cook, L.S.A., Clacton-on-Sea; S. G. Corner, M.B., Coggeshall; R. F. Corry, M.R.C.S., L.R.C.P., Norwich; G. V. Gostling, M.R.C.S., L.R.C.P., Needham Market; S. W. Hanbury, M.R.C.S., L.R.C.P., Manningtree; J. P. Hill, M.R.C.S., L.R.C.P., Stowmarket; A. R. Kay, M.R.C.S., L.R.C.P., Clev, Norfolk; J. C. Kerr, M.R.C.S., L.R.C.P., Wickham Market; G. C. Jeaffreson, M.R.C.S., L.R.C.P., Framlingham; L. F. Lundy, L.S.A., Manningtree; J. D. McElvie, M.D., Blofield; J. H. Owens, M.R.C.S., L.R.C.P., Long Stratton; W. Overend, M.D., Clacton-on-Sea; A. F. Page, M.R.C.S., L.R.C.P., Norwich; W. Scarisbrick, M.B., B.S., Westcliff; G. T. Stewart, M.B., C.M., Ipswich; A. Turner, M.R.C.S., L.R.C.P., Kelvedon; A. T. Wood, M.R.C.S., L.R.C.P., Ipswich; H. Whitby, L.R.C.S.I., Colchester; C. S. Wink, M.R.C.S., L.R.C.P., Halstead.

Spring Meeting.—It was resolved to hold the spring meeting at East Dereham on Thursday, April 25th.

Reports of Divisions.—The reports of the Divisions were considered, and capitation grants arranged.

Provisional Medical Committees.—A circular from the Deputy Medical Secretary was considered. After discussion, Dr. THOMSON proposed the following resolution:

> The Branch Council suggests as a preliminary measure that provisional Medical Committees should be established in the Branch corresponding to the statutory insurance areas constituted under the Act. The Secretaries of the various Divisions, after consultation with their Divisions, to proceed to the organizing of such provisional Medical Committees. This is tantamount to stating that the machinery of the Association be employed for the preliminary organization of those Committees.

This resolution was unanimously agreed to.

Proposed New Division in Essex.—Letters were read regarding the formation of a new Division in Essex, namely, the North-Western, or Saffron Walden. It was agreed that the Council approve of the scheme, and that the Divisional Secretaries concerned should confer with Dr. Browne, of Newport, Dr. Home, Saffron Walden, and Dr. Nicholson, and act as a subcommittee.

EDINBURGH BRANCH:

SOUTH-EASTERN COUNTIES DIVISION.

A LARGELY attended meeting of this Division was held on March 7th in the County Rooms, St. Boswells, Dr. OLIVER in the chair.

Advisory Committee.—Dr. J. R. Hamilton (Hawick), on the motion of Dr. CARLYLE JOHNSTONE, seconded by Dr. YOUNG, was unanimously nominated as a member of the Advisory Committee.

Special Representative Meeting.—The report of the REPRESENTATIVE (Dr. Blair) was then read, in the course of which he dwelt specially on the question of the minimum capitation fee and on the constitution of the new State Sickness Insurance Committee. The report was fully discussed, and at the close Dr. Blair received a most hearty vote of thanks.

GLASGOW AND WEST OF SCOTLAND BRANCH:

GLASGOW EASTERN DIVISION.

A MEETING of this Division was held in Bellgrove Hall on March 8th. Dr. W. J. H. SINCLAIR, Chairman of the Division, presided. The following members were also present: W. L. Muir, J. Sanderson, Robert Morton, J. Wishart Kerr, A. P. Granger, J. S. Ledgerwood, W. G. Macdonald, Wm. Campbell, Robert Davidson, Miller Semple, David Glen, J. F. MacGregor, James Battersby, Joseph Green, James Dunlop, J. P. Granger, Robert Scott, J. T. Smith, James Gilchrist, J. B. Miller, Alexander Johnston, Neil Keith, Samuel Capie, P. S. Buchanan, Joseph Scanlan, Thomas Russell, J. W. Mathie, Andrew Meek, and William Bryce, Honorary Secretary.

Apology for Non-attendance.—Dr. A. C. Campbell apologized for absence.

Confirmation of Minute.—The minute of the last meeting was read, approved, and signed by the Chairman.

Special Representative Meeting.—Dr. W. L. MUIR submitted his report on the Special Representative Meeting held in London on February 20th, 21st, and 22nd, dwelling on the various points which had been brought under the notice of the Representatives, and indicated what part he had taken in the discussion. On the motion of the CHAIRMAN he was thanked for his report, and accorded a very hearty vote of thanks.

Advisory Committee.—The next business was the nomination of a member to the Advisory Committee. Dr. J. WISHART KERR proposed the name of Dr. J. P. Granger, which was seconded by Dr. J. F. MACGREGOR. Dr. MILLER SEMPLE proposed and Dr. W. L. MUIR seconded the nomination of Dr. JOHN ADAMS. On a vote Dr. John Adams received the support of 16 members and Dr. Granger that of 12. The name of Dr. John Adams therefore fell to be transmitted to London as the nomination from this Division.

National Insurance Act.

A proposal from the Eastern Medical Society to hold a joint meeting for the discussion of the National Insurance Bill was negatived without a division.

Dr. J. P. GRANGER submitted the following motion:

> Regarding Cardinal Principle No. 6, *re* adequate medical representation, the Glasgow Eastern Division of the British Medical Association make declaration that they cannot regard any representation as adequate which is not direct representation. As the representatives on the local Insurance Committees appointed by the medical men themselves are limited to two (Section 59, 2 (*c*)), the remaining medical representatives consisting of two, three, or four, according to the numbers of the committee appointed being nominated severally by (*a*) the council of the county or county borough, and (*b*) the Insurance Commissioners (Section 59, 2 (*d*), and 59, 2), we regard this indirect representation with disfavour and alarm. We believe it to be absolutely useless for the purpose of protecting our interests in the counties or county boroughs, and would therefore press the question of direct representation on the Insurance Committees as being the only form of medical representation that can satisfy our needs.

Dr. J. WISHART KERR seconded, and the motion was passed by the meeting, the Honorary Secretary being instructed to forward copies to Dr. John Adams, and to whoever might be elected to represent the Division on the Advisory Committee.

The adjourned discussion on remuneration was departed from in view of the findings of the Special Representative Meeting.

Vote of Thanks to Chairman.—The Chairman having been thanked for presiding, the meeting separated.

GLASGOW NORTH-WESTERN DIVISION.

A SPECIAL meeting of the above Division was held in the Burgh Hall, Hillhead, on March 7th, at 8.30 p.m., Dr. A. G. HAY presiding. The other members present were: Drs. Cunningham, D. J. Mackintosh, J. G. Graham, J. Morton, Ward, Wylie, W. Ritchie, A. T. Campbell, A. Thomson, Snodgrass, M. Gilchrist, McG. Robertson, G. B. Buchanan, W. F. McDonald, J. G. Gray, Whitehouse, Primrose, Horne, J. H. Campbell, and Caskie, Honorary Secretary.

Confirmation of Minutes.—The minutes of the last meeting were read and approved.

The late Dr. Henderson.—The SECRETARY read a letter he had received from Mrs. T. B. Henderson, thanking the members of the Division for the expression of their sympathy with the relatives of her deceased husband.

Advisory Committee.—The CHAIRMAN intimated the purpose for which the meeting had been called—namely, to nominate a member of the Advisory Committee under the National Insurance Act. Thereupon Dr. MACKINTOSH proposed and Dr. MORTON seconded the nomination of

Dr. A. G. Hay. No other person being proposed, Dr. Hay accepted the nomination, agreed to the terms, and returned thanks.

Special Representative Meeting.—Dr. A. T. Campbell then gave a detailed report of the proceedings of the last Representative Meeting, and his attitude respecting the different subjects which were under deliberation. On the motion of the Chairman a vote of thanks was awarded to Dr. Campbell for his report.

Definition of Area for Election to Scottish Medical Insurance Council.—In connexion with the late election for the Scottish Medical Insurance Council, Dr. Campbell suggested that the area should be defined, and that the Secretary should bring the matter before the Branch Council.

Vote of Thanks to Chairman.—The Chairman was accorded a vote of thanks.

LANCASHIRE AND CHESHIRE BRANCH:

Bolton Division.

A general meeting was held at the Bolton Infirmary on March 8th, Dr. Flitcroft in the chair. Members and non-members were invited to attend. There was an attendance of twenty-six.

Apologies for Non-attendance.—Letters of apology or regret for inability to attend were received from Dr. Moffatt and Dr. Young.

National Insurance Act: Advisory Committee.—It was decided to nominate a member of the Division. Dr. Flitcroft proposed Dr. Charles Macfie; Dr. Mothersole seconded, and it was agreed to.

Special Representative Meeting.—Dr. J. M. Thornley, as Deputy Representative, submitted a detailed report upon the recent Special Representative Meeting. Dr. Flitcroft proposed and Dr. Macfie seconded a vote of thanks to Dr. Thornley for his report and for his attendance at the Representative Meeting. This was passed unanimously.

School Clinics and Tuberculosis Dispensary.—There was discussion on the proposed formation in this district of school clinics and a tuberculosis dispensary. Dr. Thornley proposed and Dr. A. H. Taylor seconded the following resolution, which was carried:

> That in view of the National Insurance Act becoming operative, this Division deems it inadvisable to proceed with the establishment of school clinics or tuberculosis dispensary in this district.

Dr. Jefferies moved and Dr. Bernfeld seconded:

> That in the establishment of any charitable institutions in the area covered by the Division in which honorary medical or surgical work is involved, the management of such institutions must consult with this Division.

This was carried.

School for Mothers.—The proposed establishment of a school for mothers was also discussed. Dr. Jefferies proposed:

> That in case of any further extension of the school for mothers in this area, the executive committee of such should place itself in communication with this Division.

This was seconded and carried.

The Secretary was instructed to send a copy of these resolutions to the Chairman of the Sanitary Committee, the Medical Officer of Health, the Chairman of the Education Committee, and the promoters of the school for mothers.

Midwives and Maternity Homes.—Dr. Thornley raised a question as to the legality of midwives turning their houses into maternity homes. The Secretary was instructed to inquire if there was any regulation in the Midwives Act concerning this point.

Vote of Thanks to Chairman.—A vote of thanks to the Chairman terminated the meeting.

Salford Division.

At a meeting of this Division held on March 8th, and presided over by the Chairman (Dr. Fletcher), there was an attendance of thirty members.

Special Representative Meeting.—Dr. Hodgson, who acted as Deputy Representative at the Special Representative Meeting, gave a report of the proceedings of the Representative Meeting, and a vote of thanks was unanimously carried to him for his services to the Division.

Advisory Committee.—It was also resolved that the Division should nominate Dr. Hodgson to serve on the Advisory Committee of the Insurance Act.

Proposed Amalgamation of Divisions.—A proposal was considered, sent by the Joint Committee of the Manchester and Salford Divisions, for the amalgamation of the five Divisions, but as only few of the members of the Division had had any opportunity of considering the details of the proposed amalgamation, it was resolved to circulate the suggestions and consider them at the next meeting of the Division.

Club Practice.—The consideration of how to deal with club practice in Salford was on the agenda paper, but it was resolved to postpone it pending the receipt of suggestions from the State Sickness Insurance Committee.

METROPOLITAN COUNTIES BRANCH:

Hampstead Division.

We are asked by Dr. Mina L. Dobbie, Honorary Secretary of the Division, to add the following paragraph to the report of the meeting held on March 8th, which was published in the Journal of March 16th, p. 324:

Election of Representative.—A hearty vote of thanks was unanimously passed to Dr. Oppenheimer for his very able services as Representative of the Division during the past arduous year, and regret was expressed that he would not allow himself to be renominated.

St. Pancras and Islington Division.

An ordinary meeting of this Division was held on Thursday, March 14th, at the London Temperance Hospital, at 4.30 p.m., Dr. Basil G. Morison, Chairman of the Division, presiding. The Secretary of the hospital very kindly placed the board room and tea at the disposal of the meeting.

Special Representative Meeting.—Dr. William Griffith, Deputy Representative of the Division, formally presented the report of his voting in the Representative Meeting of February, and was accorded a vote of thanks by acclamation.

National Insurance Committee of Branch.—Drs. Basil Morison and Norman Glaister were then elected to serve on the National Insurance Committee of the Metropolitan Counties Branch.

Representatives at Representative Meeting.—Drs. R. M. Beaton and William Griffith were unanimously elected as Representatives of the Division at Representative Meetings, to take office in July.

Vote of Thanks to Retiring Representative.—The retiring Representative, Dr. Walter Smith, was accorded a hearty vote of thanks for his long services to the Division, and the Chairman intimated that it was the intention of the Division to mark its appreciation of Dr. Smith's services in some special manner.

Vote of Condolence.—The meeting terminated by a motion from the Chair of sincere sympathy with Dr. J. F. J. Sykes on the recent loss of his wife, which was carried by the meeting upstanding in respectful silence.

Watford and Harrow Division.

A meeting of this Division was held on Thursday, March 14th, at the Gayton Rooms, Harrow, Dr. A. H. Williams (Vice-Chairman) in the chair; seventeen members were present.

Confirmation of Minutes.—The minutes of the previous meeting were confirmed.

Insurance Act.

Remuneration.—A letter from the Acting Medical Secretary *re* remuneration of medical practitioners under the National Insurance Act was read, and any members who had kept figures as to the amount of medical attendance needed by club patients were asked to communicate with the Honorary Secretary.

Nomination of Members of Advisory Committee.—The Honorary Secretary stated that it had been found impossible to summon a meeting of the Division to nominate a suitable Representative, and that the Executive Committee had therefore taken the responsibility of nominating Dr. A. H. Williams. He asked the meeting to

approve this action. He explained that sixty nominations had been received by the State Sickness Insurance Committee, and that this Committee had submitted twelve names of these sixty nominations to the Joint Committee of the Insurance Commissioners. He was glad to be able to inform the meeting that Dr. Williams's name was one of the twelve submitted. The meeting expressed its approval.

Special Representative Meeting.—Dr. A. H. WILLIAMS, Representative of the Division, explained shortly the findings of the Special Representative Meeting held on February 20th, 21st, and 22nd, and informed the meeting which of the resolutions, amendments, and riders passed at the special meeting of the Division, held at Watford on February 14th, had been accepted by the Special Representative Meeting.

Clinical Case of Doubtful Diagnosis.—Dr. PENNEFATHER showed a case of much interest: A man aged 54, who was operated on in St. Mary's Hospital in November, 1908, for a large mass in the right iliac region, which proved to be a growth at the ileo-caecal valve, causing a chronic intussusception. The pathologist's report of this growth was that it was a lymphosarcoma. The interest of the case lay in the fact that the patient should be alive nearly three and a half years after operation, and that from time to time the patient developed enormous glandular enlargements, sometimes in the neck, and at other times in the groin or in the intraperitoneal cavity; that these glandular enlargements at times almost completely disappeared, and were markedly influenced by large doses of arsenic. At the present time the patient was suffering from a large mass of glands in the left groin and iliac region, causing much venous obstruction in the left leg; in addition, at least three large masses could be detected in the peritoneal cavity, while the splenic dullness was also much increased in area. A short discussion followed, in which the diagnosis of malignancy was questioned.

Vaccine Treatment of Diseases of Upper Air Passages.—The CHAIRMAN introduced Mr. W. DOUGLAS HARMER, who read a most interesting paper on the uses of vaccine in the treatment of some affections of the upper air passages. After a short account of the method of preparation of vaccines and the doses commonly employed, Mr. Harmer illustrated by notes of numerous cases treated by him the great benefit which he had obtained by using vaccines in cases of microbic infection of the upper air passages. He emphasized the value of this treatment in the cure of the common cold, in particular where this was frequently recurrent, and especially where the germ isolated was found to be the influenza bacillus. After giving notes of many cases of bronchial catarrh, with much secretion, which had been greatly benefited by the employment of vaccines, he emphasized their uses in cases of recurrent laryngitis, in some cases of asthma, and in early cases of sinus and antral disease.

Vote of Thanks.—Mr. HARMER having answered many questions asked by several members present, a vote of thanks to him for his paper terminated the evening.

MIDLAND BRANCH:

LEICESTER AND RUTLAND DIVISION.

A MEETING of this Division was held in the Board Room of the Leicester Infirmary on Wednesday, March 13th, at four o'clock. Dr. TIBBLES was in the chair, and fifty-three members were present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Special Representative Meeting.—The REPRESENTATIVE of the Division (Dr. Wallace Henry) gave a detailed account of the proceedings of the Special Representative Meeting, and answered questions with reference thereto. The Representative was thanked for his statement.

Explanation by Executive Committee.—The HONORARY SECRETARY gave a brief account of the action taken by the Executive Committee of the Division with respect to Sir Victor Horsley's visit to Leicester. Mr. BOND made a statement as to his position as chairman at that meeting, which was received with applause, and Drs. TIBBLES and BURKITT having spoken, the subject dropped.

Election of Representative to the Annual Meeting.—Dr. R. Wallace Henry and Dr. Moffat Holmes were nominated as Representatives to the Annual Meeting to be held at Liverpool, and on the motion of Dr. POPE, seconded by Dr. A. V. CLARKE, there being no other nominations, were declared unanimously elected.

Guarantee Fund.—The HONORARY SECRETARY intimated that several of those who had given promises to the Guarantee Fund had not yet responded to the call from the Central Office, and two members intimated that they had not yet received any application for money.

Clinical Cases.—Dr. POPE exhibited a number of cases of chorea treated with rapidly-increasing doses of arsenic. Mr. BLAKESLEY showed three cases of fracture which had been wired, with *x*-ray photographs of the same, and a case of fracture of the skull, which had been twice trephined with excellent results.

NORTH OF ENGLAND BRANCH.

A MEETING of the Branch Council was held at the Royal Victoria Infirmary, Newcastle-on-Tyne, on Friday, March 8th, Dr. G. B. MORGAN, President, in the chair. Twenty-three members were present.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

New Members.—Forty-seven new members were elected.

Fees for Ambulance Lectures.—The question of fees for ambulance lectures under the St. John Ambulance Association and county councils was considered and referred to the Contract Practice Committee for consideration and report.

National Insurance Act: Provisional Medical Committee.—The HONORARY SECRETARY made a statement as to the present position of the medical profession under the National Insurance Act, and, in accordance with the resolutions of the Special Representative Meeting, it was agreed to form provisional Medical Committees, the county boroughs to make their own arrangements; and in the county areas, where the Divisions are not coterminous with the area as laid down by the Act, the question of making arrangements for the formation of Medical Committees was referred to the Contract Practice Committee.

SOUTH-EASTERN BRANCH:

MAIDSTONE DIVISION.

A MEETING, convened by the Maidstone Division, and to which all the Kent Divisions had been invited to send delegates, was held at the West Kent General Hospital, Maidstone, on Thursday, March 14th. The following were present, representing all the Divisions within the County except two:

Ashford Division: Drs. F. Coke, C. M. Vernon, H. Hick.
Bromley Division: Drs. G. R. Stilwell, A. Tennyson Smith, C. E. M. Lewis.
Canterbury and Faversham Division: Dr. E. C. Fenoulhet.
Chatham and Rochester Division: Drs. C. C. Lord, A. Packman.
Dartford Division: Drs. C. Firth, H. Chisholm-Will.
Dover Division: Drs. F. B. Hulke, Chas. Wood, Ian Howden.
Maidstone Division: Drs. A. T. Falwasser, F. T. Travers, A. W. Parr-Dudley.
Tunbridge Wells Division: Drs. G. T. Watson, L. E. Wood, E. A. Starling.
Mr. G. Potts, Acting-Secretary *pro tempore*.

Provisional Medical Committee for County of Kent.

The following resolutions were adopted:

That a Provisional Medical Committee be formed for the County of Kent.

That the Provisional Medical Committee consist of thirty members, namely: Two, to be elected by each Division within the county, one of whom shall retire annually, but shall be eligible for re-election; and eight co-opted members, four of such co-opted members to represent the general hospitals in the county, and four members who may be representative of the special hospitals in the county, or of such practitioners as are not members of the British Medical Association.

That each Division in the county be requested to forthwith elect two of its members to serve on the Committee, and to communicate the names of those elected by April 13th.

That the first meeting of the Provincial Medical Committee be held at the West Kent General Hospital, Maidstone, on Thursday, April 18th, at 2.15 p.m.

That the work of the Committee shall be carried on in accordance with the defined policy of the British Medical Association.

Mr. G. Potts, Honorary Secretary of the Maidstone Division, consented to act as Secretary *pro tempore*.

STAFFORDSHIRE BRANCH.

The second general meeting of the session was held at the Swan Hotel, Stafford, on Thursday, February 29th. The President (Mr. W. D. Spanton, F.R.C.S.) took the chair at 5.15 p.m. Twenty-three members were present.

Apologies for Non-attendance.—Apologies were received from four members.

Dinner.—After the scientific proceedings, a report of which appears in the Journal (p. 669), twenty-one members dined together.

Epsom College.—A collection for Epsom College realized £1 6s. 6d.

STIRLING BRANCH.

A meeting of this Branch was held in the Station Hotel, Larbert, on March 7th. Lieutenant-Colonel Greig, President, in the chair. Owing to the disorganized railway service only nineteen members were present.

Confirmation of Minutes.—The minutes of the meeting of February 15th were read, approved, and signed.

Examination of Candidates under the Insurance Act.—It was pointed out that in certain districts the British Order of Ancient Free Gardeners Friendly Society was canvassing for candidates to become members of the lodges *for the purposes of the Act*—not as ordinary members. One practitioner had been approached by a lodge and asked to examine these candidates and to name a fee for the examination, and he desired to know what should be done under the circumstances. After full discussion it was resolved that the Secretary should circularize all the practitioners in the area of the Branch recommending that these examinations should be delayed pending the discussion of the subject by the State Sickness Insurance Committee and by the Scottish Medical Insurance Council.

Advisory Committee. — The meeting unanimously decided to nominate Dr. J. E. Moorhouse (Stirling) to serve on the Advisory Committee.

Scottish Medical Insurance Council.—It was reported that the following gentlemen had been elected to represent the four insurance areas within the district of the Branch on the Scottish Medical Insurance Council: Dr. Joss (county of Stirling), Dr. Dyer (counties of Kinross and Clackmannan), Dr. McFarlan (burgh of Stirling), Dr. Watt (burgh of Falkirk).

Vote of Sympathy.—The Secretary was instructed to convey the sincere sympathy of the members of the Branch to Dr. and Mrs. H. S. Cribbes and to Mrs. W. L. Cribbes on the recent death of Dr. W. L. Cribbes.

Association Notices.

BRANCH AND DIVISION MEETINGS TO BE HELD.

Bath and Bristol Branch.—The fifth ordinary meeting of the session will be held in the Small Hall of the University of Bristol on Wednesday, March 27th, at 8.15 p.m., Dr. George Parker, President, in the chair. The following communications are expected:—Dr. J. O. Symes: A case of the Heroin Habit. Mr. Charles Corfield (barrister-at-law): Some Legal Cases of Medical Interest. Dr. Leonard Lees and Dr. Edgeworth: An unusual case of Hodgkin's Disease. Dr. J. A. Nixon: Urticaria Tuberosa: its Relation to Rheumatic Nodes and Nodules.—Newman Neild and W. M. Beaumont, Honorary Secretaries.

East Anglian Branch.—The spring meeting of the Branch will be held at East Dereham on Thursday, April 25th. Members wishing to read papers or show specimens or cases should communicate with Mr. Hamilton A. Ballance, M.S., Honorary Secretary for Norfolk.

Metropolitan Counties Branch: Lambeth Division.—An ordinary meeting of the above Division will be held at St. Thomas's Hospital, Westminster Bridge Road, on Thursday, March 28th, at 4 p.m. Agenda: (1) Dr. Capes will propose: "That it is desirable to establish a voluntary fund to be expended in defraying the cost of a locumtenent and hotel expenses of the member or members attending the Representative Meeting officially." (2) Mr. Lionel E. C. Norbury will read a paper on the Treatment of Pleural Empyema and Pulmonary Abscess.—J. H. Clatworthy, Honorary Secretary, Denmark Hill, S.E.

Metropolitan Counties Branch: South-West Essex Division.—A conjoint meeting of the South-West Essex and City Divisions will be held on Tuesday, March 26th, by the kind invitation of Dr. Harford, at Livingstone College, Knotts Green, Leyton, at 4 p.m. (nearest stations, Hoe Street, G.E.R., and Leyton, M.R.). Agenda: (1) Minutes. (2) Correspondence. (3) An address entitled "Some Martyrs of Medicine" will be given by Sir William J. Collins, M.S., F.R.C.S., Senior Surgeon Temperance Hospital. (4) Any other business. Dr. C. J. Morton has been obliged to cancel his engagement for April 25th, and his place has been filled by Dr. A. Hertz, Assistant Physician, Guy's Hospital, who will give a lecture entitled "Constipation." The lecture will be illustrated with lantern slides.—A. Pottinger Eldred, Honorary Secretary.

Oxford and Reading Branch: Maidenhead Division.—The next meeting of this Division will be held in the Council Chamber of the Guildhall, Maidenhead, on Thursday, March 28th, at 4.30 p.m. Agenda: (1) Minutes of the previous meeting. (2) Any other Divisional business. (3) Paper:—Dr. R. E. Whitting: Diphtheria in Schools. (4) Paper:—Mr. J. O. Skevington, F.R.C.S.: The Technique of some Common Operations. Members of the Windsor and District Medical Society not already members of the Division are cordially invited to be present.—D. G. Macleod Munro, Honorary Secretary, Maidenhead.

South-Eastern Branch: Dartford Division.—A meeting of the Division will be held at the Bull Hotel, Dartford, on Thursday, March 28th, at 3.15 p.m. Dr. Steen will preside. Agenda: (1) Minutes. (2) Report of Representative on recent Representative Meeting. (3) Provisional Medical Committee for Kent; election of two representatives. (4) Future policy of the Division *re* contract work. (5) Other business.—H. Chisholm Will, Honorary Secretary, Sidcup.

West Somerset Branch.—The spring meeting will be held at the Taunton and Somerset Hospital on Friday, March 29th, at 3.30 p.m., Mr. W. B. Winckworth in the chair. Agenda: Confirmation of the minutes of the last meeting. Exhibition of Clinical Cases. The following cases have up to the present been promised:—Dr. L. C. Birkbeck: Two cases. Mr. Farrant: (1) Wiring an intracapsular fracture of the humerus in a boy; (2) Some gall stones removed from the common bile duct. Mr. A. J. H. Iles: Some skiagrams showing the erosion of bone in tuberculous disease of joints. Dr. Clouston Russell: A case of Acromegaly. Mr. Penrose Williams: (1) Carcinoma of Pelvic Colon; (2) Resection: specimen and notes. Mr. W. B. Winckworth: A case of Symblepharon.—Charles Farrant, Honorary Secretary.

CENTRAL MIDWIVES BOARD.

A meeting of the Central Midwives Board was held on March 14th, at Caxton House, Westminster, with Sir Francis H. Champneys in the chair.

Giving of Certificates by Midwives.

A letter was considered from the Medical Officer of Health for Devonport, inquiring: (1) As to the giving of a certificate of stillbirth by a midwife; (2) as to the attendance at a confinement of a pupil midwife not under the immediate supervision of a certified midwife; (3) as to whether in the opinion of the Board a midwife's superficial examination of the dead body of a child entitles her to certify that the child has not breathed.

The Board directed that the Medical Officer of Health for Devonport be informed that the replies to his questions are as follows: (1) That the midwife was wrong in giving a certificate of stillbirth as she was not present at the birth; (2) that the trainer is responsible for each case attended by a pupil; (3) that this question is covered by answer (1).

Obligation to Attend to Comfort of Mother and Child.

A letter was considered from an inspector of midwives as to the extent of the obligation to attend to the comfort of the mother and child entailed on a midwife by Rule E 11.

The Board decided that the reply be that the midwife is responsible if the baby is not properly cared for.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

In ninety-four of the largest English towns 9,071 births and 4,930 deaths were registered during the week ending Saturday, March 16th. The annual rate of mortality in these towns, which had been 16.8, 15.4, and 14.4 per 1,000 in the three preceding weeks, rose to 14.6 per 1,000 in the week under notice. In London last week the death-rate did not exceed 12.8, against 15.4, 14.2, and 13.3 per 1,000 in the three previous weeks. Among the ninety-three other large towns the death-rates ranged from 6.2 in Grimsby, 7.5 in Ilford, 8.5 in Hornsey, 8.7 in Eastbourne, and 8.8 in Gillingham, to 19.2 in Warrington, 19.3 in Liverpool, 20.3 in Manchester, 22.7 in Swansea, 23.4 in St. Helens, and 27.6 in Salford. Measles caused a death-rate of 1.8 in Nottingham, in Manchester, and in Newport (Mon.), 2.5 in York, 5.0 in Warrington, and 5.2 in Salford; and whooping-cough of 1.7 in Walsall and in Rhondda, 1.8 in Darlington, 1.9 in Coventry, in Sheffield, and in Merthyr Tydfil, and 2.3 in Edmonton. The mortality from enteric fever, scarlet fever, and

diphtheria showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 41, or 0.8 per cent., of the deaths registered in the ninety-four towns were not certified either by a registered medical practitioner or by a coroner after inquest, and included 12 in Liverpool, 6 in Birmingham, 4 in Salford, and 2 each in Bootle, in St. Helens, and in Tynemouth. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,427, 1,392, and 1,357 at the end of the three preceding weeks, had slightly risen to 1,384 on Saturday last; 152 new cases were admitted during the week, against 181, 160, and 161 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

In eighteen of the largest Scottish towns 1,222 births and 643 deaths were registered during the week ending Saturday, March 16th. The annual rate of mortality in these towns, which had been 18.7 and 17.5 per 1,000 in the two preceding weeks, declined to 15.4 in the week under notice, but was 0.8 per 1,000 above the rate recorded in the ninety-four large English towns. Among the several Scottish towns the death-rates last week ranged from 8.3 in Coatbridge, 8.6 in Paisley, and 9.1 in Kirkcaldy to 19.3 in Leith, 20.0 in Motherwell, and 27.5 in Greenock. The mortality from the principal infectious diseases averaged 1.9 per 1,000, and was highest in Motherwell and Kilmarnock. The 258 deaths from all causes registered in Glasgow included 24 from measles, 3 from diphtheria, 3 from infantile diarrhoea, 2 from scarlet fever, 1 from enteric fever, and 1 from whooping-cough. Five deaths from measles were recorded in Leith, 4 in Edinburgh, 4 in Kilmarnock, and 3 in Motherwell; 3 deaths from scarlet fever in Greenock and 2 in Aberdeen; and 2 deaths from diphtheria in Edinburgh.

Naval and Military Appointments.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL ROBERT J. COPELAND, M.B., is placed temporarily on the half-pay list on account of ill-health, dated March 10th, 1912.

Major WALTER R. FRY, from the seconded list, is restored to the establishment, dated February 21st, 1912.

In the notice of Major HERBERT E. WINTER'S appointment as Deputy Surgeon to the Royal Hospital, Chelsea, published last week, his name was accidentally printed as "WHITE."

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL J. CHAYTOR WHITE, Sanitary Commissioner United Provinces, has been granted an extension of three months' leave on medical certificate.

Major G. T. BIRDWOOD, Civil Surgeon, is transferred from Mussooree to Agra as a temporary measure, and then to Lucknow.

Major A. HOOTON to act as Civil Surgeon of the First Class, Bombay, vice Lieutenant-Colonel J. B. Smith on leave.

Major HUNT, an Agency Surgeon of the Second Class, on relinquishing his duties in Nepal, is placed on special duty under the orders of the Agent to the Governor-General in Rajputana.

Major C. MILNE, Civil Surgeon, has been transferred from Jhansi to Mussooree.

Captain H. W. ILLINS, civil surgeon, has been granted permission to return to duty, and is transferred to Jhansi.

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

ABERDEEN: KINGSEAT ASYLUM. — Assistant Medical Officer. Salary, £150 per annum.

AGRA: DUFFERIN HOSPITALS AND FEMALE MEDICAL SCHOOL.—Senior Lady Doctor for the Dufferin Hospitals, Agra. Pay, inclusive of allowances, Rs.400 (£26 13s. 4d.) per mensem.

BARROW-IN-FURNESS: NORTH LONSDALE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Second and Third House-Surgeons. Salary, £80 and £75 per annum respectively.

BRADFORD CHILDREN'S HOSPITAL.—House-Surgeon. Salary, £100 per annum.

BRISTOL EYE HOSPITAL.—House-Surgeon. Salary, £80 per annum.

BURNLEY UNION.—Resident Assistant Medical Officer. Salary, £150 per annum.

BURY ST. EDMUNDS: WEST SUFFOLK GENERAL HOSPITAL. House-Surgeon. Salary, £100 per annum.

BUXTON: DEVONSHIRE HOSPITAL.—Pathologist (non-resident). Salary, £250 per annum.

CARLISLE NON-PROVIDENT DISPENSARY.—Resident Medical Officer. Salary, £150 per annum.

COVENTRY: COVENTRY AND WARWICKSHIRE HOSPITAL.—Junior House-Surgeon. Salary, £90 per annum, rising to £100.

DARLINGTON HOSPITAL AND DISPENSARY.—House-Surgeon. Salary, £120 per annum.

DEWSBURY AND DISTRICT GENERAL INFIRMARY.—House-Surgeon. Salary, £120 per annum.

DUDLEY: GUEST HOSPITAL.—Senior Resident Medical Officer. Salary, £100 per annum, increasing to £120.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—House-Physician. Salary at the rate of £75 per annum.

HEMEL HEMPSTEAD: WEST HERTS HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

JERSEY POORHOUSE AND INFIRMARY.—Medical Officer. Salary, £250 per annum, with £50 allowance for rent.

KENSINGTON AND FULHAM GENERAL HOSPITAL, Earl's Court, S.W.—Surgeon.

KESTEVEN COUNTY ASYLUM, Sleaford.—Assistant Medical Officer. Salary, £150 per annum.

LEICESTER INFIRMARY.—Honorary Physician.

LONDON COUNTY ASYLUM, Coulsdon, Surrey.—Junior Assistant Medical Officer. Salary, £170 per annum.

LONDON HOSPITAL, Whitechapel, E.—(1) Registrar and Demonstrator in the Aural Department; (2) Junior Dental House-Surgeon. Salary, £100 and £50 per annum respectively.

LOUGHBOROUGH AND DISTRICT GENERAL HOSPITAL AND DISPENSARY.—Male Resident House-Surgeon. Salary, £120 per annum.

MACCLESFIELD GENERAL INFIRMARY.—Junior House-Surgeon. Salary, £80 per annum.

MANCHESTER ROYAL INFIRMARY.—Junior House-Surgeon.

MERTHYR TYDFIL UNION.—Assistant Medical Officer for Workhouse. Salary, £150 per annum.

NEWRY HOSPITAL.—Medical Officer.

NORTH RIDING ASYLUM, Clifton, York.—Male Second Assistant Medical Officer. Salary, £150 per annum, rising to £200.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—Casualty Officer. Salary, £60 per annum.

POPLAR HOSPITAL FOR ACCIDENTS, E.—Assistant House-Surgeon. Salary at the rate of £80 per annum.

PORTSMOUTH: ROYAL PORTSMOUTH HOSPITAL.—House-Physician. Salary at the rate of £75 per annum.

PRESTON: ROYAL INFIRMARY.—Senior and Junior House-Surgeons (males). Salary at the rates of £80 and £60 per annum respectively.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone Road, N.W.—Physician to Out-patients.

READING: ROYAL BERKSHIRE HOSPITAL.—(1) House-Physician; (2) House-Surgeon: (3) Second House-Surgeon. Ladies ineligible. Salary, £80 per annum each.

ROYAL EAR HOSPITAL, Dean Street, Soho, W.—House-Surgeon, non-resident. Honorarium, £40 per annum.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—House-Physician. Salary at the rate of £60 per annum.

ROYAL NAVY.—Dental Surgeon for duty with the Naval Forces in the United Kingdom. Inclusive salary, £1 per diem.

ST. BARTHOLOMEW'S HOSPITAL, E.C.—Surgeon.

SALOP INFIRMARY.—House-Physician. Salary at the rate of £70 per annum.

SEAMEN'S HOSPITAL SOCIETY.—(1) Medical Registrar; (2) Two House-Physicians; (3) Two House-Surgeons at the Dreadnought Hospital, Greenwich; (4) Senior House-Surgeon; (5) House-Surgeon at the Albert Dock Hospital. Salary for (2), (3), and (5) £50 per annum, and for (4) £100 per annum.

SHEFFIELD: ROYAL INFIRMARY.—Junior Resident Medical Officer. Salary, £60 per annum.

SHEFFIELD UNIVERSITY.—Demonstrator in Experimental Physiology. Salary, £200 per annum.

SINGAPORE MUNICIPALITY.—Medical Officer, new Infectious Diseases Hospital. Salary, £400 for first year, rising to £450.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—House-Physician. Salary, £82 per annum, and £5 honorarium after six months' approved service.

SUNDERLAND: CHILDREN'S HOSPITAL.—Resident Medical Officer. Salary at the rate of £80 per annum.

SUNDERLAND: ROYAL INFIRMARY.—(1) Two Junior House-Surgeons; (2) House Physician (males). Salary at the rate of £80 per annum.

TYNEMOUTH UNION.—Workhouse Medical Officer. Salary, £340 per annum, rising to £400.

WALSALL AND DISTRICT HOSPITAL.—House-Surgeon. Salary, £120 per annum.

WARRINGTON UNION.—Assistant Resident Medical Officer. Salary, £125 per annum.

WEST HAM AND EASTERN GENERAL HOSPITAL, Stratford, E.—(1) House-Surgeon; (2) Junior House-Physician. Salary, £100 and £75 per annum respectively.

WEST LONDON HOSPITAL AND POST-GRADUATE COLLEGE, Hammersmith Road, W.—(1) Clinical Assistant: (2) Three Non-resident Assistant House-Surgeons.

WESTERN GENERAL DISPENSARY, Marylebone Road, N.W.—Honorary Physician.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Resident Surgical Officer. Salary, £125 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacant appointments: Conway (Carnarvonshire), Wolston (Warwickshire).

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

APPOINTMENTS.

ADAMS, F. S., M.R.C.S., L.R.C.P., Second Resident Assistant Medical Officer of the Southwark Union Infirmary.

BALDWIN, George P., L.R.C.P. and S.Edin., Chief Medical Officer for the Cook Islands (other than the Island of Nive), New Zealand.

BURGESS, R., M.B.Camb., Medical Officer of Health, Borough of Tiverton.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTH.

THOMAS.—On March 15th, at 5, Colston Parade, Redcliffe, Bristol, the wife of J. M. M. Thomas, M.R.C.S., L.R.C.P., of a son.

DEATH.

ROBERTS.—On March 19th, at Gwyddfor, Penygroes, N. Wales, Evan Roberts, M.D., in his 83rd year.

DIARY FOR THE WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8 p.m.—Clinical Evening.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Dr. Edward Fawcett: The Development of the Human Chondro-Cranium and Various Cranial Bones.

ROYAL SOCIETY OF MEDICINE:

ODONTOLOGICAL SECTION, 15, Cavendish Square, W., 8 p.m.—(1) Paper:—Mr. Douglas Gabell: The Position of Swivels on Spring Dentures. (2) Casual Communications:—Mr. E. B. Dowsett: Case of General Exostosis of all the Maxillary Teeth. Mr. T. Campbell Dykes: Models showing Variation in Number, Size, and Position of Teeth, Incisors and Canines.

TUESDAY.

ROYAL SOCIETY OF MEDICINE:

MEDICAL SECTION, 15, Cavendish Square, W., 5.30 p.m.—Papers:—(1) Sir Lauder Brunton, Bart., F.R.S.: Abdominal Angina. (2) Dr. Hertz: Functional Hour-glass Stomach.

WEDNESDAY.

HUNTERIAN SOCIETY, London Institution, Finsbury Circus, E.C., 9 p.m.—Annual Discussion on The Therapeutic Value of Alcohol, to be introduced by Sir Victor Horsley, F.R.S., followed by Dr. F. J. Smith, Professor A. R. Cushny, F.R.S., Mr. M. C. Corner, Dr. J. Langton Hewer, and others.

THURSDAY.

HARVEIAN SOCIETY OF LONDON, Stafford Rooms, Titchborne Street, Edgware Road, W., 8.30 p.m.—Dr. Claye Shaw: The Harveian Lecture on The Material Obligations of Spiritualism and Allied Phenomena.

ROYAL SOCIETY, Burlington House, 4.30 p.m.—The following is a list of probable Papers:—Dr. G. J. Burch, F.R.S.: A Confusion Test for Colour Blindness. C. Dobell: On the Systematic Position of the Spirochaetes. E. C. Snow: The Influence of Selection and Assortative Mating on the Ancestral and Fraternal Correlations of a Mendelian Population. T. Lewis and M. D. D. Gilder: The Human Electrocardiogram: A Preliminary Investigation of Young Male Adults, to form a Basis for Pathological Study. C. Revis: The Production of Variation in the Physiological Activity of *B. coli* by the use of Malachite-Green. Muriel Robertson: (1) Flagellate Infections in Certain Hemiptera in Uganda; (2) The Development of *T. gambiense* in *Glossina palpalis*. Dr. H. L. Duke: Antelope and their Relation to Trypanosomiasis.

FRIDAY.

ROYAL SOCIETY OF MEDICINE:

LARYNGOLOGICAL SECTION, 11, Chandos Street, W., 4.30 p.m.—Exhibition of Cases and Specimens.

POST-GRADUATE COURSES AND LECTURES.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Thursday, 4 p.m., Some Points in the Relationship of the Nervous System to the Surgery of the Peritoneum.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat, at noon and 4.30 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Tuesday, and noon, Friday. Eye, 11 a.m., Wednesday and Saturday. Radiography, Saturday, 10 a.m. Pathological Demonstration, Saturday, 11 a.m. Special Lecture: Monday, 3.15 p.m., The Varieties and Significance of Cough.

MANCHESTER: ANCOATS HOSPITAL.—Post-Graduate Clinic: Thursday, 4.15 p.m., a Demonstration of Medical and Surgical Cases will be given by Members of the Honorary Staff.

MANCHESTER ROYAL INFIRMARY POST-GRADUATE CLINIC.—Tuesday, 4.30 p.m., The Clinical Significance of Haemorrhage as an Early Sign of Disease.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin. Tuesday, Medical. Wednesday, Surgical. Thursday, Medical. Friday, Eye. Lectures at 5.15 p.m. each day will be given as follows: Monday, Some Clinical Difficulties in Sanatorium Insurance. Tuesday, Myelitis and its Treatment (with Lantern Demonstration). Wednesday, Pernicious Effects of Uterine Fibroids. Thursday, Some Bacterial Infections of the Urinary Tract. Friday, Some Points in the Pathology of Sputum.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics: 10 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear; 3 p.m., Demonstration on Clinical and General Pathology. Tuesday, 2.30 p.m., Operations; Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient; 4.30 p.m., Lecture: Varicose Veins and Varicose Ulcers. Wednesday, 2 p.m., Throat Operations; 2.30 p.m., Medical Out-patient; Skin and Eye Clinics: *X* Rays; 3 p.m., Pathological Demonstration; 5.30 p.m., Eye Operations. Thursday, 2.30 p.m., Gynaecological Operations; Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient; Pathological Demonstration.

SALFORD ROYAL HOSPITAL.—Thursday, 4.30 p.m., Some Common Deformities and Their Treatment.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics, *X* Rays, and Operations, 2 p.m. daily. Monday: Gynaecology, 10 a.m.; Eye, 2 p.m. Tuesday: Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday: Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday: Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
MARCH.	
25 MONDAY ..	
26 TUESDAY ..	SOUTH-WEST ESSEX DIVISION, *Metropolitan Counties Branch*, Conjoint Meeting with City Division, Livingstone College, Knotts Green, Leyton, 4 p.m. WALTHAMSTOW DIVISION, *Metropolitan Counties Branch*, Conjoint Meeting with City Division, Livingstone College, Knotts Green, Leyton, 4 p.m.
27 WEDNESDAY	BATH AND BRISTOL BRANCH, Small Hall, University of Bristol, 8.15 p.m.
28 THURSDAY ..	DARTFORD DIVISION, *South-Eastern Branch*, Bull Hotel, Dartford, 3.15 p.m. LAMBETH DIVISION, *Metropolitan Counties Branch*, Ordinary Meeting, St. Thomas's Hospital, Westminster Bridge Road, 4 p.m. MAIDENHEAD DIVISION, *Oxford and Reading Branch*, Council Chamber, Guildhall, Maidenhead, 4.30 p.m.
29 FRIDAY ..	LONDON: Journal Committee, 2 p.m. WEST SOMERSET BRANCH, Spring Meeting, Taunton and Somerset Hospital, 3.30 p.m. BIRMINGHAM BRANCH, Pathological and Clinical Section, Medical Institute, Edmund Street, 8 p.m.

Date.	Meetings to be Held.
MARCH *(continued)*.	
30 SATURDAY ..	LONDON: Fractures Committee, 9.30 a.m.
31 Sunday ..	
APRIL.	
1 MONDAY ..	
2 TUESDAY ..	LONDON: Public Health Committee, 3.30 p.m.
3 WEDNESDAY	
4 THURSDAY ..	
5 FRIDAY ..	
6 SATURDAY ..	
7 Sunday ..	*(Easter Day)*
8 MONDAY ..	
9 TUESDAY ..	
10 WEDNESDAY	
11 THURSDAY ..	
12 FRIDAY ..	LONDON: Central Ethical Committee, 2 p.m.
13 SATURDAY ..	LONDON: Standing Therapeutic Sub-committee, 10 a.m. LONDON: Science Committee, noon.

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SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

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National Insurance.

MEETING OF THE SUNDERLAND DIVISION.

Address by the Chairman of Representative Meetings.

DR. E. J. MACLEAN, Chairman of the Representative Meetings of the British Medical Association, attended the meeting of the Sunderland Division on March 22nd, and delivered an address on the Insurance Act and its provisions affecting the profession. Dr. JAMES ADAMSON, Chairman of the Division, presided over a large gathering.

THE INSURANCE ACT.

DR. MACLEAN, in the course of a very able exposition of the Act, said that that day they could not overlook the fact that they were met under extraordinary social conditions. The country and its various commercial enterprises were held up by a section of the community, which would mean for months to come the distress and privation of a much larger section of the people, with an increased incidence of death and disease, and it appeared that the policy adopted by this smaller section of the community was going to be crowned from their point of view with success. He mentioned this apart from the merits of the question at issue, for the simple reason that it had for them a very important lesson. "It demonstrates that by organization," declared Dr. Maclean, "you can gain the day, and I am going to suggest that the all-important consideration for us at the present time is organization in the true, real, and deep sense of the word. It has already been put to us that it was a marvellous thing that within four weeks from the introduction of the Insurance Bill in the House of Commons we had crystallized our now famous six points. 'How could you do that,' the question has been asked, 'in four weeks?' The answer is that we have been preparing for this not for four weeks, not for four years, but for something like ten or eleven years. It was because the British Medical Association was ready to face the crisis that we have made the stand that we have so far, and that we are going to gain the victory which we are going to gain. It is perfectly true the demerits of the bill as introduced into the House of Commons had a great deal to do in stirring the medical profession into a compactness never hitherto witnessed; but the underlying fact, the reason for our strength to-day, the promise the future holds for us, is the ten years' preparing and exercising the new machinery of the Association to meet a contingency of the kind. At the moment of the crisis we could depend upon at least 2,000 members medico-politically educated and experienced as representatives, councillors, members of standing committees, presidents or chairmen and secretaries of Branches and Divisions, as well as the regular attendants at Division meetings.

It is to be hoped that the power we have gathered by our organization will not be dissipated in showy cascade, but will be utilized in such a direction as will turn our mill wheel and work our will. We have to get in the non-members. This work cannot be done by head office or by officials; it must be done by personal canvass of present members. A man nowadays has difficulty in giving a good reason for not being a member of the British Medical Association. One man said to me: 'I will tell you why I joined the British Medical Association as quickly as I could. I was attending a patient, a working man, who said, "I see meetings are being held by the doctors about the Insurance Bill. I suppose you were present at the meeting the other day. I did not see your name in the paper taking part in the discussion." "No," I replied; "I was not there." The patient said to me, "Are not you a member, doctor?" I said, "No; as a matter of fact, I'm not." "Oh," commented the patient, "I did not know, but I—er—thought you were all right, doctor."'" (Laughter.)

"The Representative Body," Dr. Maclean said, "will assuredly maintain and pursue a sound business-like policy in the interests of the public and of the profession which will enlist and maintain general confidence. There is in preparation by the Insurance Committee a document setting forth the *rationale* of our policy from the public point of view. It is of the greatest importance that we should obtain the support of public opinion."

Proceeding, Dr. Maclean asserted that they were not going to fight for the mere sake of fighting. "We cannot afford to lose," he declared; "we dare not lose, not only in regard to the duties contemplated by this great scheme known as the Insurance Act, but in regard to every other matter that interests and concerns the profession and the public through the profession. Look at the status we have now in the country; look at the sense and degree in which the Association is referred to by the various Government departments in matters concerning the profession. According as we are united or divided as regards the Insurance Act, we are united or divided in all else. This Act is sweeping us—naturally an autocratic and individualistic profession—into compactness, and one of the risks and dangers I suggest for the future will be the tendency of reversion to type. We have to be constantly on guard not to accentuate differences amongst ourselves that are not essential, but to keep on common ground to the fullest possible extent, and in that way ensure the continuance of our union.

"Owing to certain events," the speaker continued, "there can be no sort of doubt that the gathering ground of the Defence Fund was very largely dried up for three or four critical months, and the sooner we make up that time the sooner can we command success."

Dr. Maclean referred to a circular that had been issued to every member of the profession by the Medical Federation, and said it was well known that this body had been created and registered by a group of thoroughly well-meaning men in Bristol, and he had nothing whatever to say against them personally. They were all well known to him. At the same time, he could not but think that the issue of the circular suggesting that the Defence Fund which had been promoted by the Council of the British Medical Association was not capable of performing the functions which it was purported to perform, was ill-timed and ill-advised. He wanted members to know who read or heard his words that the implication of that circular was inaccurate; they had that on absolutely reliable legal authority, so that they all could contribute to the Defence Fund with the utmost confidence, and with the assurance that it could be administered for the purposes for which it was intended. Every Division and Branch should proceed forth with to act on the lines of the circular recently issued by the State Sickness Insurance Committee to the Honorary Secretaries in the matter of setting up the provisional local Medical Committees. These committees, as soon as may be, will set to work to investigate fully the local conditions of practice and the manner in which they are likely to be affected by the provisions, normal and contingent, of the Act. With the aid of the Divisional machinery a thorough local canvass should be continued or initiated to secure the cohesion or, better still, the inclusion of non-members and substantial contributions to the Defence Fund.

What was the reason for the introduction of a measure dealing with the treatment of the working classes and the poor? The answer in general terms was the increasing prevalence of disease and its sequelae (social and physical) arising from the inadequacy and overlapping of the arrangements for the treatment of the poor and the wage-earning classes of the community, and in particular the ravages of tuberculosis and preventable disease in connexion with childbirth, etc. Alluding to the question of hospital abuse, he said that notwithstanding all the protests of the profession for the last twenty years so far from hospital abuse being abolished it was on the increase. According to Burdett's figures one in two of the population of London obtain free medical advice. Thirty years ago the figures were 1 in 4. Coming nearer home, the figures in Newcastle were 1 in 1.9. These were some of the reasons why the profession was prepared to investigate the conditions of this class of practice, and accordingly the Annual Representative Meeting of 1909 passed the now famous Minute 118: "The time is now opportune for the British Medical Association to take into consideration the drafting of a scheme for public medical service to embrace philanthropic dispensaries and medical service schools, the purely medical service provident dispensaries, and the medical service of friendly societies and clubs." The issue of the Reports of the Royal Commission on the Poor Law and the rumours of the introduction of a Government Insurance scheme showed undoubtedly that there was a public movement for reform, and the British Medical Association itself recognized that an insurance system was desirable in this connexion. So much for the disease. Let them consider the proposed remedies. It was quite possible that a remedy might be worse than the disease. The Majority Report of the Royal Commission suggested the setting up of Public Assistance authorities, *ad hoc* bodies to be elected pretty much on the same lines as boards of guardians, with the redeeming feature that on these bodies the representation of the Divisions of the British Medical Association was recommended. It proposed to set up a series of provident medical services. That would have the fair and proper result of distributing the work amongst the general practitioners. The Minority Report, on the other hand, suggested, so far as administration was considered, the utilization of existing local health authorities without any representation of the Association thereon—at all events, none was stated; and the setting up of whole-time or part-time officers for the treatment of disease covered by the scheme, practically free to all, with power to recover the cost in certain cases after full and detailed inquiry. The minds at the back of the Minority Report were by no means defunct, and they had to be on their guard against the introduction of the whole-time medical officer service in respect to the treatment of insured persons covered by the Insurance Act. Medical officers of health he regarded as public-spirited and loyal to the profession, but it must be borne in mind that this type of service was that of natural selection to them. These proposals, however, were swept from the stage by the introduction of the Insurance Act. Under the Insurance Bill as introduced there was no sort of income limit for medical benefit. The duke's son was included as well as the cook's son, and there was as wide a margin as possible above and below even these limits. Medical benefit was to be administered by approved societies, or, in other words, what they knew as the ordinary type of friendly society medical service was to be projected into the scheme. There was no direct representation of the doctors on the local Health Committees, as the Insurance Committees were in the first instance termed. There was no mention of anything in the nature of a statutory Medical Committee, and no medical representation mentioned on the Advisory Committee, or among the Commissioners.

The instructions from the Treasury, so far as medical benefit was concerned, was that the actuaries were to take 6s. per head as the figure, their other calculations to be made consequential upon that. In the bill as introduced, then, there was no provision for what to-day, at all events, we must regard as the old-fashioned collective bargaining. So much for the bill as introduced into the House of Commons. Then the British Medical Association intervened. He said that

if it had not been for the Association substantially the subsequent history after the introduction of the Insurance Bill would have been summed up in two words, "Chaos, capitulation." Fortunately the British Medical Association was in existence, and in such a form as the framers of the bill had not perhaps reckoned upon. A Special Representative Meeting was held on May 31st and June 1st, 1911, and at that meeting they had the famous interview with the Chancellor of the Exchequer. It was to his mind the barest justice to say that the specific undertakings given to them by the Chancellor of the Exchequer that day had been carried out. He contended, however, that the Act should be carried out in accordance with what could be demonstrated as fair and reasonable conditions.

After alluding to the six points that were arrived at upon the conclusion of the Special Representative Meeting, he said that at the Annual Representative Meeting in Birmingham in July, 1911, a report was given as to the amendments promised by the Government, and further instructions were issued to present a report to the Representative Meeting after the completion of the Committee stage of the bill, and prior to the Report stage. All legitimate devices and methods to influence the members of the Government and the members of the House of Commons were exhausted in order to secure the appropriate emendations of the bill. A Special Representative Meeting was held in the Connaught Rooms in November, 1911, after the completion of the Committee stage of the bill; and prior to the Report stage various amendments were framed again. After presiding over a total of sixty Committee and Subcommittee meetings from March, 1910, to November, 1911, at which they expended considerably over three hundred hours, not allowing for travelling time, it would be a serious reflection if he were to admit, on behalf of the Association, that no change had taken place in the measure. There was a very substantial difference between the bill as introduced and the Act as it stood. The tale was not yet, however, told. The Act *plus* the Regulations were the important sum total. There was no £2 income limit in the Act, but there was the definite recognition of an income limit in the amendment providing that in each locality it was competent for the Insurance Committee, after reference to and collaboration with the local Medical Committees, to decide as to an income limit for that area. We have to ascertain from the Commissioners the scope and application of this provision. The administration was not to be by approved societies, but by Insurance Committees. They had something to say about the composition of these committees and the medical representation on these committees. They had got in the Act a statutory local Medical Committee, and no arrangement as to administration could be arrived at without full and proper reference to and consultation with the local Medical Committee. In regard to local Medical Committees, when the extent to which they could use those committees was recognized, it was plain that their importance was outstanding.

Proceeding, Dr. Maclean said the position of the club doctors was extremely important, for to a large extent the attitude of the club doctors would determine their measure of success or failure. He held also that they had no right to ask club doctors to bear unsupported the brunt of the battle. A great deal depended, too, upon the attitude of the honorary staffs of their charitable hospitals. It was not a stretch of analogy to say that there was a great deal in common with regard to the reason for holding their appointments between the hospital doctor on the one hand and the club doctor on the other. Why did he as a member of a hospital staff hold his position? He did it for the experience; he did it for legitimate advertisement, and he believed there was a great similarity between that and the holding of a club appointment. A club appointment could demonstrate that its holder was a man of capacity, and he would gain his practice by the efficiency and by the way generally in which he did his work. To his mind, these two classes of practitioners in the country would very largely determine what was going to be the outcome, and the sum total of their opposition, and they expected just as loyal a return from one class as from the other.

The State Sickness Insurance Committee would at the earliest possible moment send down to the Divisions a scheme for setting up a public medical service. The general objective to keep in mind was the *securing of conditions* which would make it worth while to enter upon medical service with the full operation of what they knew as the Addison amendment, and adequate remuneration subject to the stage by stage consent of the Representative Body. The new State Sickness Insurance Committee was to be congratulated upon the fact that Mr. Verrall had accepted the chairmanship. One of the principal functions of the new State Sickness Insurance Committee was to deal with the Insurance Commissioners with regard to and in respect of the Regulations. They had imposed upon the Insurance Committee a very heavy and responsible task. Whilst it was perfectly true that for the time being social conditions had put the doctors' question in the shade, there was a very large and widespread interest as to the doctors' question in the country, and they had to take care that the line of action they took, and the arguments they used in support of that line of action, should have the support of the public.

Alluding to the six cardinal points, Dr. Maclean said the friendly societies had done a magnificent work for the working classes at a time when nobody else thought it worth while to do so. Those features of club practice, exception to which had been so properly taken and so strongly stated, had been rendered possible only by the unorganized condition of the profession. The fact to-day was that club practice, as hitherto understood, was no longer possible, and it was well that the officials of approved societies should realize that nothing but continuous and disabling trouble could result from an endeavour to project that type of administration into the medical benefit under the Insurance Act.

What was their case, he asked, for higher remuneration than 6s.? It was certainly a case that was going to be presented to the Chancellor of the Exchequer and the Commissioners. He would refer them once more to the misconception as to the use of the words "actuarial estimate." One of the reasons why they asked for an advance from 6s. was the fact that the present club system was condemned by all social investigators. Even in its present form it worked out at something like 6s. per head, including medicine. Take, for instance, the illustration of a doctor who had charge of 300 club members. It was estimated that something like a third of these would take medical attention elsewhere, so that he got, on the basis of 4s. a head, including medicine, £60 for potential attendance upon 200 people—6s. a head, including medicine.

Free choice of doctor meant increased rate of attendance per head.

Then there was the betterment of the service which was demanded and had been made so widely public, the evolution of practice and increased cost of apparatus, and the increased cost of living associated with the diminished purchasing power of gold.

This was the opportunity the profession had of presenting its claim to consideration in this respect, as had other sections of the community. The figures that would be presented would bear out the equity of their claim for 8s. 6d. under the proposed conditions of service. It was recognized that the payments under sanatorium and maternity benefits would be apart from those under the medical benefit, and would be, of course, in respect of extra services.

The status of the medical practitioner under the Act would affect the supply of doctors, and it was significant that, whilst from 1890–95 inclusive the average annual increment of the names on the *Medical Register* was 800, the corresponding figure for 1906–11 was 300—a drop of no less than 500, notwithstanding the increase of population and the opening up of new spheres of medical service.

The cost and duration of the medical curriculum were increasing. The average duration of the curriculum was seven years, and the cost something like £1,000 to £1,200. The medical student had to face a mortality of between 4 and 5 per cent. attributable to disease arising from the nature of his studies. After attaining the position of a registered practitioner he had to preserve a receptive mind to the new data which the sister sciences are constantly pouring into the field of medicine and surgery, and these contributions, if he would do his work conscientiously, he

must transmute and fashion into the means and methods of preventing disease and alleviating suffering.

The doctor's service went fathoms deeper than that of any social organization. He was truly at the face workings of the social problems with which the Insurance Act proposed to deal. His condition of service should be such as to preserve the "spark of inspiration" and to enable him to discharge those high and responsible duties as a citizen and as a member of a profession which deserved well at the hands of the State.

Annual Dinner.

The annual dinner of the Division was held in the evening at the Grand Hotel, when Dr. E. J. Maclean was the chief guest Dr. Adamson was in the chair, and Dr. D. F. Todd in the vice-chair. The attendance was large, numbering eighty-three, and would have been larger but for the suspension of many trains.

After the usual loyal toasts had been honoured, Dr. Chalmers proposed the toast of "The Mayor and Corporation," and mentioned some recent municipal improvements, pointing to the low death-rate as evidence of the effectiveness of the sanitary administration. The toast was acknowledged by the Mayor.

Dr. G. B. Morgan, the Chairman of the Division, then proposed the health of Dr. Maclean, who, he said, had great claims upon the members of the British Medical Association. The good nature of the profession was imposed upon and its monetary interests threatened, so that the trade union side of the Association's work had come into action, and had, he thought, amply fulfilled what was required of it. It had protected the profession from a great injustice which would have been inflicted by the Insurance Bill in its original form. While the profession, almost to a man, approved of the objects of the measure, it with equal unanimity disapproved of its methods and machinery. In numbers, in enthusiasm, and in solidarity, the Association was stronger and better equipped than ever before, and this was largely due to Dr. Maclean and to those who had worked with him, notably their own Representative, Dr. Todd. He urged the importance of creating a healthy public opinion.

The toast was heartily honoured, and in his response Dr. Maclean said that the Sunderland Division was one of the most successful in the Association, and was both enterprising and efficient in carrying out its work. He added that, owing to the enormous pressure upon Divisional secretaries and the honorary members of the Executive, the time had come to consider the question of appointing salaried organizing secretaries.

The toast of "The Sunderland Division of the British Medical Association" was given by Dr. E. H. Davis, who said that it was one of the most progressive Divisions in the North of England. If the members stood together he believed the profession would be able to work out its own salvation.

The toast was acknowledged by Dr. Modlin, who referred to the excellent services Dr. J. Adamson and Dr. G. B. Morgan had rendered to the Division, as well as to the services of their able Honorary Secretary, Dr. Todd, who had discharged many other offices in connexion with the Association to the satisfaction of its members. He concluded by some references to local affairs, and said that the desirability of appointing a bacteriologist and public analyst for Sunderland was under consideration.

The proceedings concluded by votes of thanks to the Chairman and Vice-Chairman, which were duly acknowledged.

THE NATIONAL MEDICAL UNION.

We have received the following from Dr. J. W. Stenhouse (Manchester), with a request for publication:

The National Medical Union held a general meeting in Manchester on March 26th. The officers of the Union and a general committee were elected. The general committee subsequently elected an executive, which has to report to the general committee once a month, and the general committee to the Union at least once in three months.

The Union is the outcome of the mass meeting held in Manchester last November and December, and the policy then enunciated was unanimously reaffirmed at the meeting.

A resolution was passed to further support the members of the British Medical Association in their determination to secure the minimum demands of the profession, and approving of the action of the Representative Meeting in so far as it carried out the policy of the Union; but the meeting expressed its regret that an Advisory Committee had been prematurely appointed and allowed to confer with the Commissioners.

An instruction was given to the Organizing Committee to influence as far as possible the elections throughout the country for the Representatives and Council of the British Medical Association by securing men who are in sympathy with the objects of the Union.

A committee of the Union is at present dealing with the subject of club and contract practice, and preparing a scheme to meet this danger which will arise in the near future.

Dr. T. Arthur Helme has retired from active participation in the work of the Union on account of his health. The error that has crept into the medical journals that he is the originator of the Union should now be corrected, to prevent any misunderstanding.

Dr. Lionel J. Picton (Holmes Chapel) read a paper on a suggested scheme of medical benefit under an Insurance Act. The lecturer was cordially thanked for the immense trouble he had taken in propounding the scheme.

At the close of the meeting, Mr. Coates, Vice-Chairman, asked all country members to become apostles of the Union.

LAMBETH.

Provisional Medical Committee.—A meeting of the practitioners resident in the area of the Lambeth Division was held at the Surrey Masonic Hall on Friday, March 22nd, at 4 p.m. Dr. Denning was in the chair, and seventy men were present who signed the book. Nominations having been received by post and at the meeting, the following gentlemen were elected by ballot as members of the provisional Medical Committee for the area of the Lambeth Division: Messrs. Capes, Clatworthy, Brenchley, Esler, Partridge, Robinson, Tilbury, Boon, Clark, Michael, and Heald, for Camberwell. Messrs. Atkinson, Taylor, Fraser, Durno, Sangster, Scott, Hickley, Rusby, Cobbledick, and Duke, for Lambeth. Messrs. Matcham, Williams, Mackeith, Smith, Berkeley, Larkin, Elwin, Peers, Norton, and McManus, for Southwark. Messrs. Jaynes, Johnston, Hollings, Marshall, Richmond, Dugon, O'Reilly, Goldie, Dyson, and Stratton, for Bermondsey.

Antituberculosis Dispensary for Camberwell. — The subject of an antituberculosis dispensary was then discussed, and the following resolution was passed by 15 votes to 10.

> That this meeting of the medical profession resident in the area of the Lambeth Division, British Medical Association, hereby expresses its strongest disapproval of an antituberculosis dispensary being established in Camberwell, and decides to oppose it in every way.

CONFERENCE OF LICENSING BODIES IN ENGLAND AND WALES.

At a full-attended meeting of representatives of the medical faculties of the English Universities, of the Royal College of Physicians of London, of the Royal College of Surgeons of England, and of the Society of Apothecaries of London, held at the Royal College of Physicians on Thursday, March 21st, the following resolution was passed unanimously:

> That this conference, in which are represented the medical faculties of the Universities of England and Wales, the Royal College of Physicians of London, the Royal College of Surgeons of England, and the Society of Apothecaries, recognizes that there is a remarkable unanimity of opinion within the medical profession as to the attitude which its members should adopt towards the working of the National Insurance Act of 1911.
>
> This conference desires to place on record its general approval of the principles which inspire that attitude, and while conscious that there is some difference of opinion with regard to details, expresses its willingness to support the demand that these principles should be recognized by those who are responsible for the administration of the Act before medical practitioners consent to work under it.

CORRESPONDENCE.

[It is particularly requested that communications intended for publication should be written on one side of the paper only, and should be addressed to the Editor, BRITISH MEDICAL JOURNAL, *429, Strand, London, W.C.]*

EXISTING CLUB CONTRACTS.

DR. A. G. BATEMAN (Medical Defence Union) writes: In connexion with the National Insurance Act many medical practitioners have written to me to ask if existing contracts with friendly societies and others, to which societies they are attached as medical officers, will determine automatically on July 15th, the date at which it is presumed that the Act will be in operation. I considered that it would be as well, before answering these questions, to obtain the decision of the Insurance Commission. It may interest your readers to know that the Commissioners decide that "the provisions of the National Insurance Act do not cancel or interfere with any contracts which may have been made between members of the medical profession and friendly societies in regard to the administration of benefits independently of the Act. All such contracts remain in force unless voluntarily terminated."

This settles the matter as to automatic cancellation of existing contracts, which many practitioners assumed would be caused by the operation of the Act when in force; of course, the common law of the land in respect of specific contracts cannot be overridden even by Commissioners with the powers conferred upon them by this extraordinary Act. It would be well, however, for each medical officer to examine into his appointment, and to note on what terms he actually holds it. If any attempt be made by friendly societies to impose additional duties upon each medical officer during the six months which must elapse before medical benefits can accrue to the members, care must be taken to see that such extra work is properly remunerated, and not included in the original contract of service. Some medical officers hold office during the "pleasure of the Court"; others are subject to specific notice; others, again, are elected annually: and all these varying terms of appointment will have to be carefully considered before July 15th.

*** This is one of the matters upon which, in accordance with its instructions, the State Sickness Insurance Committee is taking legal advice. The matter was before the Committee at its meeting on March 21st; it will be further considered at its next meeting, and the information will be published at an early date.

PROPOSED TERMINATION OF CONTRACT APPOINTMENTS.

DR. G. BAYNTON FORGE (West Malling) writes: I am afraid that in my desire for brevity I expressed myself somewhat ambiguously in my letter published on p. 304 of the SUPPLEMENT of March 9th, regarding a scheme of pro rata payment under the Insurance Act. I suggest that we either retain the present system of friendly society payment per capita to their own sick funds, or that these payments be made to a sick fund controlled by the Association. They might be divided into two classes:

A. Those earning £1 a week and under and the Post Office contributors, both classes paying 5s. a head per annum.

B. Those earning over £1 to the £160 limit, paying 6s. a head per annum.

Class B.—Taking the National Deposit Friendly Society rate of remuneration the pro rata medical attendance would cost 3s. 2½d. a head per annum. Many members think the rate of remuneration of the National Deposit Friendly Society too low, so I propose the county police scale for this class—namely, 2s. 6d. at surgery and 3s. 6d. at house, with 1s. mileage; operations and fractures at Poor Law scale. This would probably cost 4s. 2½d. a head per annum.

Class A, paying 5s. per annum, consists of lives good and bad. I propose attending these either at the National Deposit Friendly Society rates, or at some such scale as 2s. surgery, 2s. 6d. visit, etc. This would probably cost 3s. 2½d. for the good lives. The question is to find the money for the bad lives—that is, the Post Office contributors. I suggest the following way out of the difficulty: Class B costs 4s. 2½d. a head, and pays 6s., surplus 1s. 9½d. a head. Class A costs 3s. 2½d. a head for its good lives, and pays 5s., surplus 1s. 9½d. a head. Now out of some millions of people the bad lives would be greatly in the minority. I have no means of getting the exact figures; but taking twelve good lives to one bad, on this estimate we should have 1s. 9½d. from Class B, and also from Class A, good lives, £1 1s. 6d. Adding this to the 5s. paid by the Post Office contributor brings the amount up to £1 6s. 6d. (for the bad life). To augment this amount let all the insured pay 1s., 2s., or 3s. in the £ on their bills (the National Deposit Friendly Society pay 5s.). We shall now have considerably more than £26 per head for the Post Office contributor, which may meet the whole cost of medical attendance. If not, we might reasonably ask the Government to make up any deficiency, especially as a proportion of parish patients will come into the scheme and materially reduce the cost of Poor Law medical attendance. It seems to me most unfair that the doctor should be called upon to take all the risks of a Government measure which positively revolutionizes general practice. It is a Government measure, and the Government should take full responsibility.

INSURANCE DEFENCE FUND.

Dr. T. D. LUKE (Peebles), in the course of a letter on this subject, writes: Having now had time to thoroughly consider the proceedings of the Representative Meeting, one is able "to take sights" as to the position. In passing I would like to say how warmly one approves of the completeness of the report—a completeness sadly lacking in previous meetings in connexion with the bill and Act. I fancy had there been fuller reports previously there would have been fewer misunderstandings. There seems now no doubt about the unanimity of the profession on essentials, however varied the position of individual members and their individual opinions on details and really non-essentials. The point of importance now seems to be—what will happen to the club doctors, and what will they do in certain eventualities?

The fight has begun already in Dunfermline, and the medical men there having thrown up their clubs, perhaps a little prematurely, are now standing aside while two "imported blacklegs" take away their bread-and-butter, or a good few slices of it. Fortunately Fife is well cared for in the way of local guarantees, but it is an interesting test case. However delightful this fortitude on the Dunfermline doctors' part is in adhering to their declared policy, there are many places where we cannot expect it to be followed. To suggest to a man with a wife and family dependent on him, whose livelihood comes to the extent of four-fifths, say (as it often does from "appointments"), that he is to "chuck" these and play the game of the Association—especially with the Dunfermline instance before us—is, I submit, a counsel of perfection, one which we cannot reasonably expect the average man to follow. Unless we can say to that man, "We are going to see you through; we have a guarantee fund of a quarter of a million, or half a million, or even more, and that fund we shall place at your disposal for all reasonable compensation, but come in with the Association and carry out our policy"—if we can say this, then we can have some reasonable hope of getting all those men to whom club work is essential, badly paid though it is, to boldly face the contingency of blacklegs stepping in. It has been said to me that even half a million pounds would be little or no use for this purpose; that the cases for compensation would be so numerous that the money would rapidly run out. With this I disagree. There would be doubtless a considerable number of cases where heavy compensation would be necessary, but, on the other hand, do not let us imagine that every club is going to follow the foolish example of the Dunfermline societies.

In many instances the responsible leaders of these societies value too justly the services of their medical men to accept their resignations, and would infinitely rather put up the figure of the capitation fee to what is

needed than go past their present medical officers and get in "blacklegs," who, they are shrewd enough to know, can only be wastrels and failures.

This loyalty has already evinced itself in several towns, and there will be many more instances; and, taking into account the number of localities in which the profession is absolutely united and blacklegs cannot be had, where the clubs are so small as not to make the importation worth while (as in the town in which I live), the cases where compensation is really called for would be comparatively few.

Personally, I do not think enough has been made of the "strike" fund up to date in the Journal. Many of the consulting physicians and surgeons and those with private means have given generous amounts, and I do not think that any one who has contributed anything at all has guaranteed less than £5. In one town near here the medical men all put up £20 apiece. I would estimate that out of 26.000 odd signatories of pledges something like 5.000 only have put their hand in their pocket as yet. Speaking broadly, the members of our profession are not men of wealth—indeed, to many of us it is a problem of making both ends meet, and no one knows but the man himself where the shoe pinches. If every man of us even gave £5, a fair sum would be raised—not enough, but something to go on with; £10 would raise over a quarter of a million and £20 half a million. I must say the individual who talks about the ruin of his practice and the ruin of medicine, and who in the same breath says he cannot afford a "tenner" to try and stop it, I regard with misgiving. Let him look the situation square in the face. Unless something is done to render this Act inoperative on the basis on which it was launched, unless, in short, we get our own terms if the Government withdraw the medical benefit, there is a certain annual loss facing him, a loss which will greatly exceed £10 or £20, or he is a very lucky man.

A doctor writing me to-day—a country doctor—says he is quite as willing to put up £100 as £10, *if every one will do the same*. That is an important point, and I believe it is the fear that he will be assuming some one else's responsibilities that keeps many a man from giving a guarantee, for naturally the £10 man pays twice as much as the £5 one when a call is made.

I hope some really strong effort will be made on the part of the Association as a part of "the organization of the profession," in certain eventualities, to get this guarantee fund put up to a really big figure. Then we can deal with the clubs seriatim.

Mode and Rate of Remuneration.

Dr. P. R. Cooper (Bowdon) writes: In the Supplement for March 23rd, 1912, p. 345, Dr. Haward quotes from the returns of the National Deposit Friendly Society published in their annual report for 1910. By taking extreme instances in which medical pay varies out of proportion to sick pay he concludes that the method of payment for attendance in vogue has not worked satisfactorily. I submit that this is not a fair conclusion to draw. First, medical fees are on a fixed basis, but sick pay varies with the amount of the insured's contributions, which differ as largely as from 6d. to 10s. a month or upwards. Secondly, many members belong to other societies, or have provided doctors, and only call upon medical pay in special cases, for example, when not satisfied with the club doctor, etc. Again, Dr. Haward appears to argue that where (as at Swansea) the average days of sickness per member (4.65) is large, and the medical pay small (1s. 0½d.), as compared with a place (say East Kent) where these conditions are practically reversed (3.01 and 4s. 2d.), this means that in the former the medical men are being paid less for their work, but this is not the case, for the rate of pay is the same for the work done; evidently, however, in the former the number of visits to or by the doctor is less.

The inference that it pays the society to pay the doctors well is fair enough, and we shall all agree to it, but how from this Dr. Haward deduces that such can be better done on a capitation basis is by no means clear. Presumably he means that on a 4s. or 6s. capitation fee the doctor would get more, but does he mean to say that the work—number of visits, etc.—would still be the same? We have only to compare the returns of the National Deposit Friendly Society with those of other friendly societies, and to take into account the large number of people who, whilst still paying to these societies for sick pay, and although entitled to free medical attendance by the club doctor, prefer to go to the man of their choice, to see the fallacy of this. For example, the Manchester Unity of Oddfellows show an average of 10 days' sickness as compared with 3.15 in the National Deposit Friendly Society, and the amount received by the medical man per visit has been estimated at from 6d. to 10d. Surely Dr. Haward, or any of us, would rather see a less number of patients at 2s. 6d. a visit, to whom we can give more individual time and care, than three or five times that number which it is required to attend to earn the same amount.

But, as I have repeatedly insisted, the mere question of fees is a comparatively small matter compared to the signing away of our liberties. Once we bind ourselves to attend people for any possible sickness or accident which may occur to them for a fixed sum per annum, we give them the right to call upon our services to a practically unlimited extent, we are absolutely at their mercy, and we can no longer refuse to attend them unless we are prepared to pay the penalty of a broken contract. If this is not destroying our independence as practitioners and sacrificing our status as a learned and respected profession, I know not the meaning of words. Let those who care to put their necks into the noose; but most of us will, I hope, prefer retiring from medical practice altogether to accepting such intolerable and degrading conditions of service.

Dr. Curme, in the same number of the Supplement, argues that a great point in favour of capitation is that it favours the prevention of disease, whereas payment per attendance does nothing in this direction. This point has been raised and answered frequently. Those of us who advocate payment for work done have insisted upon the importance of periodical medical examinations of the insured as a means of detecting and so arresting early disease. One suggestion made was that a small retaining fee should be paid for each patient to the doctor of his choice which would meet the cost of a medical examination, say, every six or twelve months, the actual medical attendance during sickness being paid for, of course, pro rata according to an agreed but reasonable scale of fees.

I would like to ask Dr. Curme to consider what capitation has done hitherto in the direction of preventing disease. I am pretty certain the general experience will be that by encouraging hasty, slipshod, ill-paid and ill-appreciated work, it has rather prevented the curing of disease, whilst doing little or nothing in the way of preventing its occurrence.

Dispensing.

Mr. J. F. Tocher (Aberdeen), an ex-President of the British Pharmaceutical Conference, writes: The British Medical Association at its Special Representative Meeting passed the following resolution on dispensing:

> That dispensing, as hitherto, should be done or arranged for by the medical practitioner for his own patients should he so desire, and paid for at the scale of tariff rate agreed upon for pharmacists by the Pharmaceutical Society.

It is interesting to note that this is a claim by the Association on behalf of the general medical practitioner to do, or to arrange for, dispensing for his own patients should *he* (the medical practitioner) so desire, not as *they* (the patients) desire. It is of the utmost importance to the public that such a striking resolution should not be lost sight of, but, on the contrary, that it should be made as widely known as possible.

The Act provides (Clause 15, 5*b*) that no arrangement shall be made with a medical practitioner under which he is bound or under which he agrees to supply drugs or medicines to any insured persons except under certain circumstances. The same clause of the Act further provides that dispensing proper shall be performed by registered pharmacists and dispensers with a specified qualification. The claim on behalf of the medical practitioner is, therefore, to dispense medicines if he so desire and with no other limiting condition; that is, the direction that dispensing, under the Act, should be annulled the moment a medical practitioner desires to do the dispensing or to arrange for this benefit himself. The Representative Meeting of the British Medical Association

has set the general practitioner a difficult problem; because patients are not to be consulted in the matter. The Act provides for free choice of doctor and free choice of pharmacist or of dispenser of medicines. The medical profession is unanimous in its demand for free choice of doctor, but a Representative Meeting of practitioners has now enunciated a new doctrine—namely, the right of a general medical practitioner to take away from the patient (who has selected him from the panel of medical men) his free choice of the person who is to make up his medicines. This is the more extraordinary because of the not uncommon reprehensible practice of permitting dispensing to be performed by incompetent untrained persons which prevails among many medical practitioners who supply medicines to the public at the present time.

It is well that the public should know that a body of over 15,000 trained men, specified by the Act to perform certain work under it—namely, the dispensing of medicines—are prepared to negotiate with the Insurance Commissioners and to arrange for pharmacy service, irrespective of any action medical practitioners in general may take in reasserting an ancient privilege unsuited to modern civilization. These men will certainly oppose any attempt on the part of medical practitioners to interfere with pharmacy service, except where no pharmacists are available, as provided for under the Act.

The Representative Meeting had the benefit of wise speeches by Dr. Maclean, Dr. Buist, and Dr. Major Greenwood, but this did not prevent an unfortunately worded resolution being passed without opposition. The final portion of the resolution especially shows how little care had been bestowed on the wording of it. A tariff rate "agreed upon for pharmacists by the Pharmaceutical Society" is mentioned. The Council of the Pharmaceutical Society, being a body with statutory duties under the Pharmacy Acts, has no more power to impose its will upon pharmacists with respect to tariff rates than the General Medical Council has to impose its will with respect to fees (per visit per head or otherwise) on medical practitioners. If the framers of the resolution had taken the trouble to inquire they would have found that neither the Pharmaceutical Society nor its Council had any intention or desire to frame such a tariff. The tariff is a matter for arrangement between pharmacists on the lists and the Commissioners.

PROPOSED PUBLIC MEDICAL SERVICE.

DR. ROBERT R. RENTOUL (Liverpool) writes: It is sincerely to be hoped, no matter whether the Insurance Commissioners do not appoint doctors to act under the Insurance Act, that doctors will now finally settle the whole question of club and cheap surgery practice by establishing a public medical service. As regards our action with those doctors, I would strongly suggest that those who at present hold clubs should be allowed to go on holding them as long as they wish, so long as they adopt the scale of payment to be agreed upon. It is too socialistic to propose that elderly and other doctors can afford to throw almost their sole means of livelihood into the socialistic boat, and from which each doctor is to take what he can take. If doctors will agree to this method, then we shall remove a great difficulty.

As mention has been made from time to time of the scale of fees paid to doctors treating employees in the Ordnance Survey (Government) Department, including coastguards, I have, after much hunting, obtained the official scale. It is as follows:

1. For advice and medicine at the doctor's office, 2s. 6d. per visit.
2. For visit and medicine at patient's home, 3s. 6d. per visit, not exceeding one mile.
3. When distance exceeds one mile after the first mile 3s. 6d., *plus* 1s. 6d. for each complete mile after the first.
4. For a visit at night (10 p.m. to 7 a.m.), 2s. 6d. for under two miles and 1s. 6d. a mile if the distance is over two miles, *plus* the day visit of 3s. 6d.—that is, 6s.
5. Opening abscess or minor operation, according to extent and seat.
6. Special operations, fees according to circumstances.
7. If more than one patient is visited in the same house, only one mileage is paid for.
8. Medical aid to wives and children of civilian employees is a private matter in which the Department is not concerned.

These are useful rules, except in regard to the definition of a night visit—that is, from 10 p.m. to 7 a.m. I wish to keep the medical scale of hours upon the same limit as we have for scavengers and dockers at Liverpool, and I find that their day finishes at 5.30 p.m. To call it *not* a night visit when a doctor goes out at 9.30 p.m. to see a patient at perhaps a mile distance on a winter night is what Mr. Churchill would rightly term "a terminological inexactitude."

For our own sake let us take off our coats and settle this big question. Last week I was told that doctors had not it in them the power to organize, and that they were meant to be "hewers of wood and drawers of water." No doubt we had persistently fed the public up with this idea, but I still think we might make one effort to prove that we do not intend to remain a disorganized rabble. But let each doctor hold what contract work he has at the arranged price, and we shall remove a stumbling-block which is now keeping two-thirds of them back from a just agreement.

May I further advise doctors to keep clear of the National Provident Friendly Society? I note that with 219,381 members, 52,230 drew "medical pay" to £35,251 in 1910, each having only 3.15 days sickness per annum. Those wishing to obtain a copy of these rules can do so by writing to the head office, 37, Queen Square, London, W.C., enclosing stamps for 2½d.

To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.

Association Notices.

COUNCIL MEETING.

THE Quarterly Meeting of the Council will be held at 2 o'clock in the afternoon of Wednesday, May 1st, in the Council Room at 429, Strand, London, W.C.

By Order,

GUY ELLISTON,
Financial Secretary and Business Manager.

March 28th, 1912.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

A LIST of periodical publications, official reports, and Blue Books in the Library of the British Medical Association available for issue to members on loan has been printed, and copies can be obtained free on application to the Librarian, at the house of the Association, 429, Strand, W.C. The regulations governing the loan of these publications are stated in the introduction to the list.

The Library is open for consultation from 10 a.m. till 5 p.m. (on Saturdays till 2 p.m.).

BRANCH AND DIVISION MEETINGS TO BE HELD.

EAST ANGLIAN BRANCH.—The spring meeting of the Branch will be held at East Dereham on Thursday, April 25th. Members wishing to read papers or show specimens or cases should communicate with Mr. HAMILTON A. BALLANCE, M.S., Honorary Secretary for Norfolk.

SOUTH-EASTERN BRANCH: BRIGHTON DIVISION.—A special meeting of the Division will be held on Friday, April 12th, at the Oddfellows' Hall, Queen's Road, Brighton. The next ordinary meeting will take place on Tuesday, April 16th, at the Lecture Hall, New Road, Brighton, at 4 p.m.—C. H. BENHAM, Honorary Secretary, Brighton.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* Journal.]

METROPOLITAN COUNTIES BRANCH.

The monthly meeting of the Branch Council was held on Thursday, March 21st, at 429, Strand. Mr. H. Betham Robinson was in the chair, and fifty members were present.

Report of Finance Committee.—The Finance Committee presented the annual report and balance sheet for the year 1911. From these it appeared that the membership of the Branch had increased by 595 since December 31st, 1910, and that at the end of the year there was a balance in hand of £240 16s. 7d.

Branch Council Report.—The Branch Council had held eleven meetings with an average attendance of forty-one, and there had been thirty-eight meetings of committees. The chief matters that had occupied the attention of the Council had been the rearrangement of the area of the Divisions of the Branch, negotiations with the London County Council for the formation of school clinics, the establishment of antituberculosis dispensaries in London, and the National Insurance Act. The Council approved the report and balance sheet, and gave instructions that they should be forwarded to the Central Council.

Honorary Treasurer's Statement.—The Honorary Treasurer (Dr. Lauriston Shaw) made his quarterly financial statement. He said that the balance in hand of £240 at the end of December had been reduced since that time to £58, and he appealed to the officers of the Branch and the chairmen of the various committees to exercise the utmost economy in view of the heavy expenses that were likely to be incurred in the future.

Proposed Readjustment of Boundaries.—On the report of the Organization Committee, it was resolved to recommend to the Central Council that the boundary between the Metropolitan Counties and South-Eastern Branches be readjusted so as to correspond with the boundary of the administrative County of London; that the present Stratford Division be divided into two new Divisions; and that the County of Middlesex be divided into six Divisions—North Middlesex, South Middlesex, Ealing, Hendon and Finchley, Willesden, and Harrow.

Report of National Insurance Act Committee.—The National Insurance Act Committee presented a lengthy report, advocating the formation of Provisional Medical Committees in the area of the Branch, and formulating a number of suggestions and regulations for their use. It was resolved that a copy of the report should be circulated to the Divisions of the Branch.

New Members.—Twenty-four new members were proposed and elected.

SOUTH-EASTERN BRANCH:

Brighton Division.

An ordinary meeting of this Division was held at the Lecture Hall, New Road, on Wednesday, March 20th. Dr. Ryle was in the chair, and forty-four members and two visitors were present.

Memorandum from State Sickness Insurance Committee.

The Secretary read the Memorandum from the State Sickness Insurance Committee.

The following resolutions were passed by the meeting:

1. That in the opinion of the Brighton Division no fresh contract practice should be undertaken by any practitioner except on such terms as may be approved by the local provisional Medical Committee, or, pending the election of such committee, by the Executive Committee of the Division.
2. That the Executive Committee be instructed to draft a circular letter, to be sent to every registered medical practitioner in the area, calling his attention to the above resolution, and also to the terms of the undertaking which has been signed by over 26,000 medical practitioners; and that the Secretary be instructed to take steps to place all new friendly society appointments in the area of the Division on the warning notices list in the British Medical Journal.
3. That with a view to safeguarding the interests of the profession a special meeting of the Division, to which all registered medical practitioners residing within the area shall be invited, with power to vote, be called within one month from this date, for the purpose of electing a provisional Medical Committee for the area of the Brighton Division, and of defining the duties and powers of such committee.

Adjournment of Questions.—The report of the Representative and the consideration of the question of the treatment of maternity cases by West Street Hospital were adjourned till Wednesday, March 27th.

Time of Meeting.—The time of Division meetings was fixed at 4 p.m., and the day of meeting changed to the third Tuesday in the month.

Next Meeting.—The special meeting referred to in Resolution 3 will take place on Friday, April 12th, at the Oddfellows' Hall, Queen's Road, Brighton. The next ordinary meeting will be on Tuesday, April 16th, at the Lecture Hall, New Road.

SOUTH WALES AND MONMOUTHSHIRE BRANCH:

South-West Wales Division.

A meeting of this Division was held at the Infirmary, Carmarthen, on Tuesday, March 19th. Dr. Edgar Davies, Chairman of the Division, presided, and there were fifteen members present.

Welsh Advisory Committee.—The Secretary read a letter received from the Secretary of the Welsh National Medical Committee asking the Division to nominate a member to act on the Welsh Advisory Committee. It was unanimously agreed that Dr. Edgar Davies (Llanelly) be nominated by the Division. Should Dr. Davies be appointed on the Advisory Committee, he will sign an undertaking agreeing to resign if requested to do so by the Welsh National Medical Committee.

Special Representative Meeting.—The Representative, Dr. D. R. Price (Ammanford), presented his report of the proceedings of the Special Representative Meeting held in London on February 20th, 21st, and 22nd. Dr. Price explained how he had voted on the different resolutions which were under consideration. Several questions were asked and the report was discussed, after which the Chairman proposed and Dr. Ernest Ward (Llanelly) seconded that the Representative's report be accepted and approved. This was carried *nemine contradicente*. Dr. Evan Evans (Llanelly) proposed a vote of thanks to the Representative, and Dr. C. A. Brigstocke (Haverfordwest) seconded. This was carried.

Provisional Medical Committees.—The Chairman proposed, and Dr. Bowen Jones (Carmarthen) seconded, that provisional Medical Committees be established in the Division. This was agreed to, and it was resolved that the following act as secretaries and conveners of meetings in the different areas: Cardiganshire (Dr. John Davies, Aberayron); Pembrokeshire (Dr. C. A. Brigstocke, Haverfordwest); Carmarthenshire (Dr. Samuel Williams, Llanelly). It was agreed that the number of the committee be ten each for Cardiganshire and Pembrokeshire, and fifteen for Carmarthenshire.

Defence Fund.—A list of those who had given a guarantee to the Insurance Defence Fund was placed before the meeting. Regret was felt that the majority of practitioners in the Division had not subscribed to the Fund, and it was hoped that the provisional Medical Committees would go thoroughly into the matter, and canvass every medical man in the three counties.

BRITISH MEDICAL ASSOCIATION LIBRARY.

BOOKS NEEDED TO COMPLETE SERIES.

The Librarian will be glad to receive any of the following volumes, which are needed to complete series in the Library:

American Association of Genito-Urinary Surgeons. Transactions. 1906.
American Climatological Transactions. Vols. 1, 4, 5, 6,
American Dermatological Association Transactions. Vols. 5, 7, 8, 11, and 29.
American Journal of the Medical Sciences. New series, vols. 4, 5. 1842-3; vols. 14, 15, 1847-8; vols. 18-30, 1850; vol. 33, 1857; vol. 46, 1864-5; vol. 59; or any parts of these vols.
American Journal of Ophthalmology. Vols. 1-9.
American Laryngological Association. Transactions. Vols. 1-6, 8-9.
American Medical Association. Transactions, 2, 4, 6, 7, 11, 12, 14, 15, 16, 19, 20, 22, 31, after vol. 33, and the *Journal*, up to 1903 inclusive.
American Medico-Psychological Association. Transactions. Vol. 13, 1906.
American Otological Society. Transactions. Vol. 3, part 2, 1883.
American Public Health Association. Transactions. Any vols.
Analyst. Vols. 1-24.
Annals of Surgery. Vols. 13, 14, 26.
Archiv für Dermatologie und Syphilis. Bd. 24 and 25 (1892 and 1893).
Archives générales de médecine. Third new series 7-8 (1839-40); 4th series, 10-17, 20-25, 1852-55, 1858-64, 1872-1897; 1846-55 inclusive; 1857-64 inclusive; 1871.
Archives of Ophthalmology. Vols. 1-3, 6, 7, 14, 15, 16 and 20.
Archives of Otology. Vols. 1-7, and 20-22.
Archives de Parasitologie. Vols. 1-8.
Archives de Pediatrics. Vols. 1-16.
Asylum Journal of Mental Science. Vol. 1, 1854.
Biochemical Journal. Vols. 1-4.
British Dental Journal. Vols. 1-29.
Biometrika. Vols. 2-6.
British Journal of Dermatology. Vol. 2, part 3.
British Laryngological and Rhinological Association. Transactions 1896-7-8-9.
Caledonian Medical Journal. Vol. 1 prior to 1894.
Canada Medical Journal. Vols. 1-4-6, and after vol. 8.
Carmichael Essays. Rivington, 1879.
Centralblatt für Augenheilkunde. Hirschberg. All prior to 1891; Index to 1891.
Centralblatt für Bakteriologie. Bound volumes prior to 1899.
Centralblatt für medicinische Wissenschaften. Vols. 1-19.
Centralblatt für Nervenheilkunde. 1878, 1879, 1886, 1889, 1890, 1892, and since 1893.
Congrès Français de Chirurgie. Transactions 1, 2, 3, 6, and 10, and all since 11th.
Congrès Internat. d'Obstétrique et de Gynécologie. 3. Amsterdam, 1899.
Congress für innere Medicin: Verhandlungen. 1-12, and 14, since 18.
Dermatological Congress. Vienna, 1892.
Dermatologischer Jahresbericht, 1906-1908.
Dermatologische Zeitschrift. Vols. 1-16.
Dublin Quarterly Journal of the Medical Sciences. Vols. 1, 10, 17, 20, 28, and 35-40.
Edinburgh Obstetrical Transactions. Vol. 5.
Glasgow Medical Journal. 1833 and 1853-1868.
Glasgow Pathological Society. Transactions 1 and 2.
Guy's Hospital Gazette. Nos. 1 and 5. 1872.
Indian Medical Gazette. 1868-1884.
Intercolonial Medical Journal, Australasia. Vols. 1-13.
International Congress on Alcohol. Proceedings of First to Eleventh.
International Congress of Genetics. Transactions. (1) London 1899, (2) New York 1902, (3) London 1906.
International Congress of School Hygiene. Transactions of First Congress, Nuremberg, and Third, Paris, 1910.
International Congress of Hygiene. Transactions of Congresses 1-6 and 10-12.
International Medical Congress. Budapest, 1909. Section 4, Part 2; Section 7B, Part 1; Section 15, Part 2.
International Ophthalmological Congress. Transactions of Fifth; New York, 1876.
Jahrbuch für Kinderheilkunde. Bd. 1-9.
Jahresbericht Neurologie und Psychiatrie, 6 and 11-14.
Janus. All vols., 8-15.
Journal of Association of Military Surgeons. Vol. 19, 1908.
Journal of Laryngology. Vols. 1-9.
Journal of Medical Research. Vols. 1-20.
Journal of the Royal Institute of Public Health. 1910.
Lakeside Hospital Clinical and Pathological Papers, Series 2.
Laryngoscope. Vols. 1-20.
Liverpool Medico-Chirurgical Journal. Nos. 15, 16, 28, 29, 35, and 37-54.
London County Council. Report of Medical Officer of Education. March, 1906.
London Hospital Gazette. Vols. 1-6.
Medical Officer. Vols 1 and 2.
Montreal Medical Journal. Vols. 1-17, 19, 20, 26.
New York Pathological Society. Proceedings prior to 1888, 1890, 1892-1898, 1901-1904.
New York State Journal of Medicine, 1906.
Ophthalmic Review. January, 1882.
Ophthalmoscope. Vols. 1-8.
Pediatrics, prior to 1902.
Provincial Medical and Surgical Journal. March to September, 1841.
Ramazzini, Diseases of Tradesmen. Translated by James.
Recueil d'ophtalmologie, prior to 1893.
Revue de Gynécologie, 1-16, Pozzi.
Revue générale d'ophtalmologie, prior to 1893.
Revue neurologique, prior to 1893 and since that date.
St. Bartholomew's Hospital Gazette. Vols. 1-6.
St. George's Hospital Gazette. Vols. 1-7.
St. Mary's Hospital Gazette. Vol 4.
Sanitary Commissioner with the Government of India. Reports, 1-24.
Sei-i-kwai Medical Journal. Vols. 1-11.
Semaine Médicale, prior to 1884. Titles for 1884 and 1895.
South African Medical Journal. February and April, 1895. Titles, Vols. 3 and 4.
United States Department of Agriculture, Bureau of Animal Industry. Reports 1-7, 10-14.
United States Hygienic Laboratory Bulletins. Nos. 1, 3, 8, 9, 10, 11, 12, 13, 15, 17, 18, 19, 24, 29, 43.
Virchow's Archiv. Vols. 1-150.
Watt. Bibliographia Britannica, 4 vols. 1824.

Vital Statistics.

ENGLISH URBAN MORTALITY IN 1911.

[SPECIALLY REPORTED FOR THE "BRITISH MEDICAL JOURNAL."]

THE vital statistics of seventy-seven of the largest English towns are summarized for 1911 in the accompanying table. The 412,723 births registered in these towns during the fifty-two weeks ending December 30th last were equal to a rate of 25.6 per 1,000 of the population, estimated at 16,157,797 persons in the middle of the year; in the three preceding years the rates were 26.9, 25.7, and 24.9 per 1,000 respectively. In London the birth-rate last year was 24.8 per 1,000, while it averaged 25.8 in the seventy-six other large towns, and ranged from 15.2 in Bournemouth, 15.7 in Hastings, 17.2 in Hornsey, 18.5 in Halifax, 19.0 in Bradford, and 19.7 in Brighton and in Huddersfield to 30.0 in West Ham, 30.2 in Liverpool and in South Shields, 30.5 in Gateshead, 31.1 in Middlesbrough and in Merthyr Tydfil, 31.5 in Stoke-on-Trent, 33.2 in St. Helens, and 35.6 in Rhondda.

The 249,385 deaths registered in these towns during the period under notice were equal to a rate of 15.5 per 1,000, against 14.9, 14.7, and 13.4 per 1,000 in the three preceding years. In London the death rate last year was 15.0 per 1,000, while it averaged 15.6 in the seventy-six other large towns, and ranged from 9.1 in King's Norton, 9.5 in Hornsey, 10.3 in Handsworth (Staffs), 11.4 in Bournemouth, 11.6 in Walthamstow, and 11.8 in Croydon, in Willesden and in Reading, to 17.6 in Bootle and in Oldham, 17.9 in Sunderland and in Wigan, 18.0 in Burnley, 18.2 in St. Helens, 19.4 in Middlesbrough, 19.9 in Stoke-on-Trent, and 20.0 in Liverpool.

The 249,385 deaths from all causes included 12 which were referred to small-pox, 7,563 to measles, 1,025 to scarlet fever, 2,443 to diphtheria, 3,839 to whooping-cough, 983 to enteric fever, and 21,120 (among children under 2 years of age) to diarrhoea and enteritis. The 7,563 deaths from measles were equal to a rate of 0.47 per 1,000; in London the death-rate from this disease was 0.57 per 1,000, while it averaged 0.43 in the seventy-six other large towns, ranging upwards to 0.71 in St. Helens, 0.75 in Middlesbrough, 0.79 in West Ham, 0.80 in Plymouth, 0.90 in Rotherham, 0.93 in Rhondda, 1.28 in Devonport, and 1.74 in Sheffield. The 1,025 fatal cases of scarlet fever corresponded to a rate of 0.06 per 1,000; in London the rate was 0.04 per 1,000, while the highest rates among the seventy-six other large towns were 0.12 in Birmingham, in Aston Manor, in Bolton and in Rhondda, 0.14 in St. Helens and in Huddersfield, 0.16 in Preston, 0.17 in Liverpool and in Bury, 0.21 in Norwich, 0.26 in Stoke-on-Trent, and 0.29 in Coventry. The 2,443 deaths from diphtheria were equal to a rate of 0.15 per 1,000; in London the diphtheria death-rate was slightly lower, but among the other towns the rates ranged upwards to 0.25 in West Hartlepool and in Gateshead, 0.26 in Middlesbrough, 0.27 in Preston, 0.30 in Barrow-in-Furness, 0.31 in Portsmouth, 0.34 in Leeds, 0.38 in Stoke-on-Trent, and 0.41 in Swansea. The fatal cases of

Analysis of the Vital Statistics of Seventy-seven of the Largest English Towns during 1911.

Towns.	Estimated Population middle of 1911.	Births.	Deaths.	Annual rate per 1,000 Living.		Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Enteric Fever.	Diarrhœa and Enteritis (under two years of age).	Deaths of Children under one year of age to 1,000 Births.	Rate per cent. of Ascertained Deaths.
				Births.	Deaths.									
77 Towns	16,157,797	412,723	249,385	25.6	15.5	12	7,563	1,025	2,443	3,839	983	21,120	140	0.8
76 Provincial Towns	11,635,169	299,928	181,559	25.8	15.6	3	4,993	853	1,831	2,801	839	15,807	145	1.0
London	4,522,628	112,795	67,826	24.8	15.0	9	2,570	172	612	1,038	144	5,313	128	0.1
Croydon	170,451	3,760	2,012	22.1	11.8	—	30	7	36	39	6	126	106	—
Willesden	155,253	3,864	1,821	25.0	11.8	—	50	5	12	86	4	138	128	0.1
Hornsey	84,916	1,453	805	17.2	9.5	—	20	1	5	14	1	36	80	—
Tottenham	138,326	3,781	1,807	27.4	13.1	—	74	1	14	20	3	153	125	0.1
West Ham	289,646	8,658	4,554	30.0	15.8	—	229	7	49	67	26	513	144	0.1
East Ham	134,441	3,448	1,628	25.7	12.1	—	71	2	11	13	8	197	121	0.1
Leyton	125,382	3,061	1,512	24.5	12.1	—	76	7	15	20	6	108	109	0.1
Walthamstow	125,334	3,106	1,451	24.8	11.6	—	32	4	30	18	3	115	110	0.1
Hastings	61,036	953	827	15.7	13.6	—	12	3	1	4	—	38	105	0.4
Brighton	131,444	2,583	1,802	19.7	13.8	—	7	9	10	16	2	89	98	—
Portsmouth	232,221	5,787	3,255	25.0	14.1	—	28	21	72	40	26	276	126	0.6
Bournemouth	79,150	1,202	901	15.2	11.4	—	19	—	6	3	1	47	102	0.5
Southampton	119,394	2,850	1,808	23.9	15.2	—	10	5	22	18	3	154	134	—
Reading	75,289	1,601	889	21.3	11.8	—	9	3	18	20	8	39	99	2.5
Northampton	90,152	1,926	1,185	21.4	13.2	—	—	—	13	7	11	101	128	0.8
Ipswich	74,122	1,769	921	23.9	12.5	—	—	—	11	2	1	68	101	—
Great Yarmouth	55,920	1,357	799	24.3	14.3	—	24	—	2	16	2	61	123	—
Norwich	121,682	2,716	1,717	22.4	14.1	—	43	25	20	53	8	107	135	0.5
Plymouth	112,152	2,607	1,919	23.3	17.2	—	90	—	16	5	7	114	145	—
Devonport	81,975	2,101	1,094	25.7	13.4	—	105	2	18	3	13	73	114	—
Bristol	357,509	7,756	5,389	21.8	15.1	—	164	15	40	143	15	344	141	0.1
Stoke-on-Trent	235,049	7,383	4,663	31.5	19.9	—	93	62	89	72	26	614	202	1.7
Burton-on-Trent	48,222	1,063	636	22.1	13.2	—	1	3	—	8	—	43	107	2.4
Wolverhampton	95,362	2,399	1,504	25.2	15.8	—	66	5	5	9	1	136	135	0.1
Walsall	92,273	2,650	1,494	28.8	16.2	—	21	3	11	40	6	167	160	0.3
Handsworth	69,010	1,442	708	20.9	10.3	—	17	5	9	3	1	32	101	1.1
West Bromwich	68,424	2,038	1,075	29.9	15.8	—	31	1	6	2	3	112	138	1.7
Birmingham	526,030	14,749	8,800	28.1	16.8	1	301	63	64	101	30	881	164	3.5
King's Norton	81,764	1,805	741	22.1	9.1	—	18	4	10	8	—	63	101	2.2
Smethwick	71,085	1,950	1,011	27.5	14.3	—	22	3	6	11	3	87	141	0.7
Aston Manor	74,985	2,026	1,159	27.1	15.5	—	34	9	6	16	3	157	167	0.3
Coventry	107,287	2,886	1,404	27.0	13.1	—	65	31	17	30	1	78	107	2.1
Leicester	227,634	5,160	3,018	22.7	13.3	—	70	9	20	42	10	202	132	0.9
Grimsby	74,951	2,142	1,077	28.7	14.4	—	34	1	9	2	18	151	154	1.6
Nottingham	260,447	6,367	4,171	24.5	16.1	—	96	9	31	40	28	410	162	0.4
Derby	123,648	2,945	1,766	23.9	14.3	—	55	2	24	23	8	84	123	—
Stockport	109,090	2,550	1,712	23.4	15.7	—	35	4	9	16	10	179	170	0.5
Birkenhead	131,330	3,748	2,048	28.6	15.6	—	23	4	25	31	9	215	134	0.7
Wallasey	79,137	1,735	974	22.0	12.3	1	6	2	14	7	2	80	108	0.4
Liverpool	747,627	22,506	14,882	30.2	20.0	—	311	128	123	235	32	1,458	154	2.1
Bootle	70,122	2,093	1,233	29.9	17.6	1	22	4	10	25	3	128	148	3.8
St. Helens	96,870	3,204	1,755	33.2	18.2	—	69	14	7	37	23	207	160	3.6
Wigan	89,340	2,434	1,592	27.3	17.9	—	60	4	11	35	33	208	195	0.1
Warrington	72,376	2,041	1,117	28.3	15.5	—	13	4	10	32	5	127	146	3.3
Bolton	181,202	4,126	2,865	22.8	15.9	—	62	22	42	15	23	338	165	0.5
Bury	58,665	1,204	928	20.6	15.9	—	25	10	4	12	—	56	161	2.2
Manchester	716,166	18,738	12,132	26.2	17.0	—	337	43	84	142	51	1,090	154	0.4
Salford	231,641	6,281	3,847	27.2	16.7	—	98	20	54	37	18	348	149	0.5
Oldham	147,751	3,491	2,596	23.7	17.6	—	66	5	11	13	3	229	160	0.2
Rochdale	91,645	1,896	1,379	20.7	15.1	—	30	10	3	17	3	92	139	2.4
Burnley	106,569	2,479	1,910	23.3	18.0	—	68	4	21	31	9	259	210	1.8
Blackburn	133,160	2,857	2,140	21.5	16.1	—	30	11	28	54	9	195	188	1.4
Preston	117,216	2,726	1,971	23.3	16.9	—	5	19	31	21	20	163	172	2.1
Barrow-in-Furness	63,930	1,698	798	26.6	12.5	—	3	4	19	10	4	40	111	3.3
Huddersfield	108,144	2,126	1,618	19.7	15.0	—	17	15	22	11	8	89	132	0.6
Halifax	101,471	1,874	1,534	18.5	15.2	—	7	8	22	26	11	56	123	0.6
Bradford	288,723	5,477	4,288	19.0	14.9	—	11	9	50	96	44	195	138	0.1
Leeds	445,983	10,597	7,280	23.8	16.4	—	78	45	151	147	22	568	158	0.1
Dewsbury	53,411	1,167	919	21.9	17.3	—	25	6	7	15	7	61	155	—
Sheffield	455,793	12,656	7,328	27.8	16.1	—	791	26	44	62	31	534	140	1.0
Rotherham	62,711	1,818	1,016	29.1	16.3	—	56	3	2	15	13	112	157	1.5
York	82,407	1,953	1,100	23.8	13.4	—	9	4	7	25	6	67	115	0.1
Hull	278,968	7,965	4,639	28.6	16.7	—	101	14	21	100	63	550	155	0.7
Middlesbrough	105,124	3,260	2,036	31.1	19.4	—	79	7	27	78	8	146	169	0.7
Stockton-on-Tees	52,175	1,539	861	29.6	16.5	—	26	4	8	26	6	55	133	0.7
West Hartlepool	63,965	1,849	998	29.0	15.6	—	5	—	16	26	1	86	129	0.7
Sunderland	151,289	4,509	2,708	29.9	17.9	—	49	7	20	93	7	170	151	2.0
South Shields	108,844	3,280	1,854	30.2	17.1	—	40	1	10	23	3	146	147	3.3
Gateshead	117,104	3,562	1,879	30.5	16.1	—	78	4	29	28	2	137	136	4.9
Newcastle-on-Tyne	267,162	7,089	4,291	26.6	16.1	—	125	14	37	127	10	225	136	0.3
Tynemouth	59,008	1,671	908	28.4	15.4	—	11	—	6	18	5	46	122	1.8
Newport (Mon.)	84,111	2,315	1,120	27.6	13.4	—	16	7	7	11	10	91	121	0.4
Cardiff	182,729	4,740	2,555	26.0	14.0	—	7	15	37	53	6	247	135	0.0
Rhondda	153,775	5,463	2,305	35.6	15.0	—	143	19	20	20	18	330	164	0.5
Merthyr Tydfil	81,293	2,519	1,260	31.1	15.5	—	7	4	7	7	8	150	152	0.4
Swansea	115,176	3,348	1,860	29.1	16.2	—	32	2	47	16	1	140	156	0.3

NOTE.—The publication of the aggregate deaths from the principal infectious diseases and of the rates of mortality therefrom has been discontinued in the Registrar-General's weekly return; these two columns are therefore omitted from the above table.

whooping-cough were equal to a rate of 0.24 per 1,000; in London the rate was 0.23 per 1,000, while rates ranging upwards to 0.43 in Walsall, 0.44 in Norwich and in Warrington, 0.48 in Newcastle-on-Tyne, 0.50 in Stockton-on-Tees, 0.56 in Willesden, 0.62 in Sunderland, and 0.74 in Middlesbrough were recorded in the seventy-six other large towns. The 983 deaths from enteric fever corresponded to a rate of 0.06 per 1,000; in London the death-rate from this disease was only 0.03 per 1,000, while among the other towns the highest rates were 0.15 in Bradford, 0.16 in Devonport, 0.17 in Preston, 0.21 in Rotherham, 0.23 in Hull, 0.24 in Grimsby and in St. Helens, and 0.37 in Wigan. The diarrhoeal diseases among children under 2 years of age were proportionally most fatal in Liverpool, Hull and Grimsby, Aston Manor, St. Helens, Rhondda, Wigan, Burnley, and Stoke-on-Trent. Of the 12 deaths from small-pox in the seventy-seven towns last year, 9 belonged to London and 1 each to Birmingham, Wallasey, and Bootle.

Infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to 140 per 1 000 last year, against 129, 118, and 115 per 1,000 in the three preceding years. In London the rate of infant mortality last year was 128, while it averaged 145 in the seventy-six other towns, and ranged from 80 in Hornsey, 98 in Brighton, 99 in Reading, 101 in Ipswich, in Handsworth (Staffs), and in King's Norton, 102 in Bournemouth, and 105 in Hastings, to 169 in Middlesbrough, 170 in Stockport, 172 in Preston, 186 in Blackburn, 195 in Wigan, 202 in Stoke-on-Trent, and 210 in Burnley.

The causes of 1,905, or 0.8 per cent., of the deaths in the seventy-seven towns last year were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Croydon, Hornsey, Brighton, Southampton, Ipswich, Great Yarmouth, Plymouth, Devonport, Derby, and Dewsbury; the highest proportions per cent. of uncertified deaths were 3.5 in Birmingham, 3.6 in St. Helens, 3.8 in Bootle, in Warrington, in Barrow-in-Furness, and in South Shields, and 4.9 in Gateshead.

HEALTH OF ENGLISH TOWNS.

IN ninety-four of the largest English towns 8,593 births and 4,756 deaths were registered during the week ending Saturday, March 23rd. The annual rate of mortality in these towns, which had been 15.4, 14.4, and 14.6 per 1,000 in the three preceding weeks, fell to 14.1 per 1,000 in the week under notice. In London last week the death-rate was equal to 13.5 per 1,000, against 14.2, 13.3, and 12.7 per 1,000 in the three previous weeks. Among the ninety-three other large towns the death-rates ranged from 4.9 in Walthamstow, 5.7 in Croydon, 5.8 in Gillingham, 6.9 in Ilford, 7.2 in Ealing, and 7.4 in Wimbledon to 18.9 in Sheffield 20.3 in Great Yarmouth, 22.6 in Salford, 23.3 in Dewsbury, 24.2 in Warrington, and 24.6 in Wolverhampton. Measles caused a death-rate of 1.5 in Manchester, 1.8 in Oldham, 2.0 in Cardiff, 2.4 in Portsmouth, 3.8 in Salford, and 5.7 in Warrington; whooping-cough of 1.4 in Plymouth and in Coventry, 1.6 in Barrow-in-Furness, 1.8 in Great Yarmouth and in Bury, 2.0 in Salford, 2.5 in Merthyr Tydfil, and 3.3 in Rhondda; and diarrhoea and enteritis (of infants under 2 years of age) of 1.3 in Rhondda. The mortality from enteric fever, scarlet fever, and diphtheria showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 33, or 0.7 per cent., of the deaths registered in the ninety-four towns were not certified either by a registered medical practitioner or by a coroner after inquest, and included 8 in Birmingham, 7 in Liverpool, 5 in Gateshead, and 3 in Sunderland. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,392, 1,357, and 1,384 at the end of the three preceding weeks, had declined to 1,368 on Saturday last; 137 new cases were admitted during the week, against 160, 161, and 152 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

IN eighteen of the largest Scottish towns 1,232 births and 726 deaths were registered during the week ending Saturday, March 23rd. The annual rate of mortality in these towns, which had been 17.5 and 15.4 per 1,000 in the two preceding weeks, rose to 17.4 in the week under notice, and was 3.3 per 1,000 above the rate recorded in the ninety-four large English towns. Among the several Scottish towns the death-rates last week ranged from 5.3 in Partick, 10.3 in Kirkcaldy, and 11.3 in Motherwell to 20.5 in Dundee, 24.0 in Greenock, and 25.5 in Kilmarnock. The mortality from the principal infectious diseases averaged 2.3 per 1,000, and was highest in Motherwell and Greenock. The 283 deaths from all causes registered in Glasgow included 22 from measles, 6 from whooping-cough, 4 from diphtheria, 4 from infantile diarrhoea, and 2 from enteric fever. Nine deaths from measles were recorded in Edinburgh, 4 in Greenock, 3 in Leith, and 3 in Kilmarnock: 3 deaths from scarlet fever in Greenock, and 2 from diphtheria and 3 from whooping-cough in Dundee.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, March 16th, 663 births and 549 deaths were registered in the twenty-two principal urban districts of Ireland, as against 622 births and 512 deaths in the preceding period. The annual death-rate in these districts, which had been 24.6, 22.1, and 23.1 per 1,000 in the three preceding weeks, rose to 24.7 per 1,000 in the week under notice, this figure being 1.9 per 1,000 higher than the mean average death-rate in the ninety-four English towns for the corresponding period. The figures in Dublin and Belfast were 31.8 and 19.6 respectively, those in other districts ranging from 8.6 in Lisburn and 12.6 in Drogheda to 36.7 in Ballymena and 44.6 in Kilkenny, while Cork stood at 27.9, Londonderry at 20.4, Limerick at 14.9, and Waterford at 20.9. The zymotic death-rate in the twenty-two districts averaged 1.8 per 1,000, or the same as in the preceding period.

During the week ending Saturday, March 23rd, 622 births and 460 deaths were registered in the twenty-two principal urban districts of Ireland, as against 633 births and 549 deaths in the preceding period. The annual death-rate in these districts, which had been 22.1, 23.1, and 24.7 per 1,000 in the three preceding weeks, fell to 20.7 per 1,000 in the week under notice, this figure being 6.6 per 1,000 higher than the mean average death-rate in the ninety-four English towns for the corresponding period. The figures in Dublin and Belfast were 24.8 and 18.8 respectively, those in other districts ranging from 7.6 in Waterford and 8.1 in Limerick to 30.5 in Galway and 43.7 in Dundalk, while Cork stood at 22.5 and Londonderry at 14.0. The zymotic death-rate in the twenty-two districts averaged 1.1 per 1,000 as against 1.8 in the preceding period.

Naval and Military Appointments.

ROYAL NAVAL VOLUNTEER RESERVE.

WITH reference to the notice which appeared in the *London Gazettes* of January 16th and 19th, the dates of promotion of Staff Surgeons FRANK WYBOURN SMITH and WALTER KENNETH WILLS, M.B., should be November 7th, 1911, and December 11th respectively, and not as therein stated.

Surgeon ARTHUR ROBERTSON BRAILEY, M.B., F.R.C.S., to be Staff Surgeon, dated November 7th, 1911.

ARMY MEDICAL SERVICE.

SURGEON-GENERAL JOHN C. DORMAN, C.M.G., M.B., is placed on retired pay, dated March 20th, 1912.

Colonel MICHAEL W. KERIN, C.B., to be Surgeon-General, vice J. C. Dorman, C.M.G., M.B., retired, dated March 20th, 1912.

Colonel H. J. BARRATT has been granted seven months' combined leave.

The undermentioned Lieutenant-Colonels from the Royal Army Medical Corps to be Colonels: CHARLES E. NICHOL, D.S.O., M.B., vice F. J. Lambkin, deceased, dated March 9th, 1912; SINCLAIR WESTCOTT, C.M.G., vice M. W. Kerin, C.B., dated March 20th, 1912.

Lieutenant-Colonel T. DALY has been granted general leave outside India for six months.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL SIR DAVID SEMPLE, M.D. (ret.), Director of the Central Research Institute, Kasauli, is granted privilege leave for one month and five days, with furlough out of India for one year in continuation, with effect from March 6th, 1912. Major W. F. HARVEY, M.B., I.M.S., is appointed to officiate.

The undermentioned Majors to be Lieutenant-Colonels: SAMUEL G. MOORES, vice C. E. Nichol, D.S.O., M.B., dated March 9th, 1912: THOMAS B. BEACH, vice R. J. Copeland, M.B., retired on half-pay, dated March 10th, 1912; CORYNDON W. R. HEALEY, vice S. Westcott, C.M.G., dated March 20th, 1912.

Major G. J. BUCHANAN has been granted six months' general leave.

Captain D. B. MACGREGOR has been appointed Specialist in Electrical Science, Meerut Division.

Captain C. G. BROWNE has been granted general leave outside India for six months.

The undermentioned Captains to be Majors, dated March 21st, 1912: JOHN P. J. MURPHY, M.B., ARTHUR R. GREENWOOD, WILLIAM L. BENNETT, M.B.

SPECIAL RESERVE OF OFFICERS.

WILLIAM ARCHIBALD MILLER, M.B., to be Lieutenant (on probation), dated February 19th, 1912.

INDIAN MEDICAL SERVICE.

MAJOR H. A. SMITH, Civil Surgeon of Agra, has been granted privilege leave combined with three months' study leave and furlough for a total period of nine months from March 18th.

The services of Captain J. H. HORNE have been placed at the disposal of the Government of India for special malaria work in the Madras Presidency.

Captain I. M. MACRAE, Officiating Superintendent, Central Prison, Lucknow, whose services have been permanently placed at the disposal of the United Provinces Government by the Government of India, Home Department, to be confirmed in that appointment.

The services of Captain H. WATTS, M.B., Plague Medical Officer, Punjab, are placed at the disposal of the Home Department.

The services of Captain H. M. B. WATTS, Plague Medical Officer, Lahore, are replaced at the disposal of the Government of India Department of Education.

Lieutenant LYNN posted as Residency Surgeon, Hyderabad.

Major J. STEPHENSON, Professor of Biology in the Government College, Lahore, is granted furlough from March 16th to June 22nd, combined with the College vacation from June 23rd to September 15th, 1912.

Captain DEAS is posted as Agency Surgeon in Eastern Rajputana States.

Captain H. R. DUTTON is placed on special duty in connexion with plague in the district of Shahabad, with effect from February 13th, 1912.

Captain C. A. GILL assumed charge of the office of Deputy Sanitary Commissioner, Punjab, on January 2nd, 1912, relieving Major H. M. Mackenzie, transferred.

Captain C. E. SOUTHON is appointed plague medical officer, Rawal Pindi, from February 2nd, 1912, on return from leave.

Captain THORBURN is posted as Civil Surgeon, Dana.

The services of Captain H. WATTS, M.B., are placed temporarily at the disposal of the Chief Commissioner of the Central Provinces.

The King has approved of the retirement of the undermentioned officers. *Indian Medical Service:* Lieutenant-Colonel ERNEST WICKHAM HORE, M.B., dated December 7th, 1911; Lieutenant-Colonel HENRY THOMSON, M.D., dated February 1st, 1912; Lieutenant-Colonel FRANK CECIL CLARKSON, dated March 1st, 1912; Captain ARTHUR FALCONER HAYDON, M.B., F.R.C.S., dated January 23rd, 1912. *Indian Subordinate Medical Department:* Senior Assistant Surgeon and Honorary Captain JAMES JOHNSTONE, dated November 22nd, 1911.

Major H. AINSWORTH, Professor of Ophthalmic Surgery, Medical College, Lahore, is granted furlough for three months, combined with the Medical College vacation from April 1st, 1912.

Major E. A. C. MATHEWS to act as Superintendent to the X-Ray Institute, Dehra Dun, vice Major A. E. Walter, proceeding on leave for twelve months.

Major A. E. WALTER, Superintendent of the X-Ray Institute, Dehra Dun, is granted combined leave out of India, with effect from March 10th, 1912—namely, privilege leave for three months, with study leave for six months and furlough for three months in continuation.

The name of Major MANMATHA NATH CHAUDHURI, M.B., is as now stated, and not as in the *London Gazette* of September 15th, 1911, in which his promotion from the rank of Captain was notified.

Lieutenants to be Captains.—Dated January 30th, 1912. ANDREW MONRO JUKES, M.D., GWILYM GREGORY JAMES, M.B., WILLIAM DAVID KEYWORTH, M.B., JOHN HOWARD HORNE, M.B., ALFRED JOHN LEE, M.B.

Captain A. CHALMERS to be Civil Surgeon, Ootacamund, from or after March 1st, 1912.

Captain J. H. HORNE, M.B., to be Special Officer for the Investigation of Malaria in the Madras Presidency for the period of three years, with effect from February 15th, 1912.

Captain MONRO is placed on general duty in the Medical College, Calcutta.

The services of Captain F. P. MACKIE, officiating Chemical Examiner, Government Analyst and Bacteriologist for the United Provinces and Central Provinces, are replaced at the disposal of the Government of India in the Home Department.

Captain D. D. KANAT has been granted eight months' combined leave.

The promotion of Captain ALEXANDER PATRICK GORDON LORIMER to that rank notified in the *London Gazette* of March 31st, 1911, is antedated from November 7th, 1910, to September 1st, 1909.

VOLUNTEER DEPARTMENT.

Surgeon-Major A. A. H. DEANE resigns his commission in the 1st Battalion, Bombay, Baroda, and Central India Railway Volunteer Rifles, dated January 1st, 1912.

T. S. JACKSON, M.B., Ch.B., to be Surgeon-Lieutenant, 1st Battalion, Bombay, Baroda, and Central India Railway Volunteer Rifles, vice Surgeon-Major A. A. H. Deane, resigned, dated January 1st, 1912.

The name of Major C. C. S. BARRY, Medical Officer of the Burma Railway Volunteer Corps, is placed on the Supernumerary List, with effect from January 30th, 1912.

Captain IAN MACPHERSON MACRAE, I.M.S., to be Lieutenant, to fill an existing vacancy in the Lucknow Volunteer Rifles (Reserve Company), dated February 5th, 1912.

Malabar Volunteer Rifles.—Surgeon-Captain W. STOKES, M.B., C.M., to be Surgeon-Major, dated January 27th, 1912; Lieutenant W. K. MACAULAY LANGLEY to be Captain, vice A. W. G. Stranack, promoted, dated January 27th, 1912.

Naini Tal Volunteer Rifles.—Major EUGENE JOHN O'MEARA, F.R.C.S., I.M.S., resigns his commission.

TERRITORIAL FORCE.

Third East Anglian Field Ambulance.—Lieutenant FREDERICK J. REES is removed from the Territorial Force for absence without leave, dated March 6th, 1912.

First North Midland Field Ambulance.—Lieutenant THOMAS A. BARRON to be Captain, dated January 10th, 1912.

Attached to Units other than Medical Units.—Major THOMAS E. STUART resigns his commission, dated March 6th, 1912. Captain THOMAS BRUSHFIELD, M.B., resigns his commission, and is granted permission to retain his rank and to wear the prescribed uniform, dated March 16th, 1912. Lieutenant HENRY A. C. HARRIS, to be Captain, dated December 8th, 1911. Captain J. K. PATRICK, M.B., resigns his commission, dated March 20th, 1912.

For Attachment to Units other than Medical Units.—GERALD LANTSBERY BUNTING, M.D., to be Lieutenant, dated March 6th, 1912. WILLIAM FROTHINGHAM ROACH to be Lieutenant, dated December 1st, 1911. Lieutenant HALDINSTEIN DAVID DAVIS, from the 2nd London (City of London) Field Ambulance, to be Lieutenant, dated February 12th, 1912. Lieutenant RICHARD CHRISTOPHER CLARKE, M.B., from the Territorial Force Reserve, to be Lieutenant, dated January 28th, 1912.

Second London (City of London) General Hospital.—Lieutenant-Colonel and Honorary Surgeon-Colonel CLEMENT GODSON, M.D., resigns his commission, and is granted permission to retain the rank and to wear the prescribed uniform, dated March 13th, 1912.

First West Riding Field Ambulance.—Lieutenant FRANCIS DARLOW, M.B., to be Captain, dated January 24th, 1912.

Third Lowland Field Ambulance.—Lieutenant DAVID J. GRAHAM, M.B., F.R.C.P., to be Captain, dated January 3rd, 1912.

Fifth Southern General Hospital.—MAURICE DALE WOOD, M.D., to be Captain, dated January 4th, 1912. Lieutenant JAMES A. RAEBURN, M.B., resigns his commission, dated March 16th, 1912. Lieutenant WILLIAM T. STOBBS resigns his commission, dated March 16th, 1912.

Notts and Derby Mounted Field Ambulance.—Lieutenant ARTHUR B. DUNNE, M.B., to be Captain, dated February 17th, 1912.

Second Highland Field Ambulance.—Major ALEXANDER OGSTON, M.B., to be Lieutenant-Colonel, dated February 12th, 1912.

Second Home Counties Field Ambulance.—Lieutenant WILLIAM H. FLINT, to be Captain, dated December 8th, 1911.

First Lowland Field Ambulance.—Lieutenant GEOFFREY BALMANNO FLEMING, M.B., from the list of officers attached to units other than medical units, to be Lieutenant, dated February 21st, 1912.

First London (City of London) General Hospital.—The undermentioned officers resign their commissions, dated March 27th, 1912: Lieutenant-Colonel NORMAN MOORE, M.D., Lieutenant-Colonel W. H. CRIPPS, F.R.C.S.

Schools of Instruction.—Captain BARRY A. CRAIG, R.A.M.C., to be Adjutant of a School of Instruction, dated March 1st, 1912.

Third East Lancashire Field Ambulance.—KINGSMILL WILLIAMS JONES, M.D., to be Lieutenant, dated February 11th, 1912.

Second Home Counties Field Ambulance.—Lieutenant HERBERT S. HOLLIS, M.B., resigns his commission, dated March 20th, 1912.

Fourth London General Hospital.—JAMES PURVES STEWART, M.D., F.R.C.P. (late Surgeon-Lieutenant, East London Tower Hamlets, Royal Engineers Volunteers), to be Captain, dated February 29th, 1912.

CHANGES OF STATION.

THE following changes of station amongst the officers of the Army Medical Service have been officially reported to have taken place during February:

		FROM	TO
Surgeon-General	J. G. MacNeece, C.B.	Lucknow ...	Poona.
Colonel	F. H. Treherne, F.R.C.S.Edin.	Ootacamund ...	Bangalore.
Lieut.-Colonel	C. C. Reilly	R. Mill. Coll....	India.
,,	C. A. Lane, M.B. ...	Hounslow ...	,,
,,	J. B. Wilson, M.D. ...	Woolwich ...	Jamaica.
,,	A. P. Blenkinsop ...	R. A. M. Coll....	India.
Major	W. T. Mould	Dover	Barrackpore.
,,	F. J. W. Porter, D. S. O. ...	Cosham ...	India.
,,	H. J. M. Buist, D.S.O., M.B. ...	Pretoria ...	Bloemfontein.
,,	H. A. Berryman	Chester ...	Bury.
,,	K. B. Barnett, M.B., F.R.C.S.I.	Brighton ...	Shorncliffe.
,,	A. C. Fox	Tientsin ...	Curragh.
,,	J. P. Silver, M.B.	—	Dublin.
,,	F. Kiddle, M.B.	Roy. Hospital, Chelsea	Eastern Command.
,,	A. J. MacDougall, M.B.	Ceylon	Belfast.
,,	P. MacKessack, M.B.	Mauritius ...	London.
,,	J. Cowan, M.B.	Woolwich ...	India.
,,	H. S. Taylor...	Straits Settlements	Fort George.
,,	W. R. Blackwell	Delhi	Lucknow.
,,	A. Chopping	Peshawar ...	Woolwich.
,,	J. J. W. Prescott, D.S.O. ...	Newcastle ...	Southern Command.
,,	A. O. B. Wroughton	Canterbury ...	Dover.
,,	P. H. Falkner, F.R.C.S.I. ...	Bermuda ...	London.
,,	A. A. Seeds, M.D.	Hounslow ...	India.
,,	E. P. Connolly	Lahore	Rawal Pindi.
,,	J. H. R. Bond	Nasirabad ...	Nowgong.
,,	C. H. Straton	London ...	South Africa.
,,	B. B. Burke	— ...	West Africa.
Captain	E. Bennett	Derby	Delhi.
,,	J. P. J. Murphy, M.B.	Dover	South Africa.
,,	G. Baillie, M.B.	London Dist....	West Africa.
,,	J. F. Whelan, M.B.	Nowgong ...	Jhansi.
,,	H. E. J. A. Howley	Cawnpore ...	Dinapore.
,,	E. W. Powell	Aden	Cork.
,,	J. L. Jones	Netley	India.
,,	A. W. Sampey	Warley ...	,,
,,	T. J. Potter	London Dist.	Egypt.
,,	B. A. Craig	Hong Kong ...	Newcastle.
,,	F. A. H. Clarke...	Fort George ...	Glasgow.
,,	J. A. W. Webster	Cork	Tipperary.
,,	J. H. Duguid, M.B.	Tipperary ...	India.
,,	G. W. G. Hughes	York	Scarborough
,,	H. Harding, M.B.	,, ...	Halifax.
,,	H. B. Connell	Dublin	West Africa.
,,	R. G. Meredith, M.B. ...	Sheffield ...	Pontefract.
,,	H. O. M. Beadnell	—	Ashton.
,,	R. E. Humfrey, M.B.	Jhansi	Irish Command.
,,	W. Benson, M.B.	Rawal Pindi ...	,,
,,	C. E. W. S. Fawcett, M.B. ...	Thayetmyo ...	Dublin.
,,	V. H. Symons	Belfast	Enniskillen.
,,	M. J. Cronnie	Delhi	Curragh.
,,	G. W. W. Ware, M.B. ...	Aden	Gosport.
,,	W. C. Nimmo	Meerut	Eastern Command.
,,	M. Keane	,,	Colchester.
,,	V. C. Honeybourne	Mhow	Agra.
,,	T. W. O. Sexton	Pretoria ...	Wynberg.
,,	A. C. Amy, M.B.	Meerut	Ranikhet.
,,	J. A. B. Sinu, M.B.	Bermuda ...	Scottish Command.
,,	B. Johnson	St. Thomas's Mount	Rangoon.
,,	J. R. Foster	Mhow	Neemuch.
,,	A. M. Benett	Jubbulpore ...	Mhow.
,,	D. T. MacCarthy, M.B. ...	Shwebo ...	Mandalay.
,,	A. D. Fraser, M.B.	Londonderry ...	Omagh.
,,	H. M. J. Perry	Hong Kong ...	Woolwich.
,,	F. T. Turner	Colaba	Poona.
,,	V. T. Carruthers, M.B., F.R.C.S.Edin.	Ceylon	Queenstown.
,,	H. W. Farebrother	Bangalore ...	Rangoon.
,,	H. V. B. Byatt	Bombay ...	Poona.
,,	B. A. Odlum	Wyuberg ...	Bloemfontein
,,	A. L. Stevenson, M.B. ...	Nowshera ...	Peshawar.
,,	W. H. S. Burney	Dublin	Curragh.
,,	G. S. Parkinson	Harrismith ...	Pretoria.
,,	G. H. Stack, M.B.	Caterham ...	West Africa.
Lieutenant	W. H. O'Riordon	York	India.
,,	R. C. Priest, M.B. ...	Lucknow ...	Allahabad.
,,	F. W. M. Cunningham, M.D.	Curragh ...	Rawal Pindi.
,,	G. P. Taylor, M.B. ...	Glasgow ...	South Africa.
,,	H. R. Edwards	Woolwich ...	,,
,,	R. M. Davies, M.B. ...	Chatham ...	,,
,,	R. C. G. M. Kinkead, M.B.	Cork	,,
,,	E. C. Stoney, M.B.... ...	Colchester ...	Bangalore.
,,	T. W. Stallybrass, M.B. ...	Netley	Cairo.
,,	C. H. H. Harold, M.D. ...	London ...	Caterham.
,,	R. F. Bridges, M.B. ...	Canterbury ...	Shorncliffe.
,,	T. J. Hallinan, M.B. ...	Limerick ...	Dublin.
,,	J. K. Gaunt, M.B.	,, ...	Fermoy.
,,	W. A. Frost, M.B.	Tregantle ...	Alderney.
,,	D. Reynolds, M.B.... ...	Cork	Limerick.
,,	C. D. K. Seaver	Ballincollig ...	Fethard.
,,	W. T. Graham, M.B. ...	Oxford	Worcester.
,,	W. L. E. Fretz, M.B. ...	Aldershot ...	Deepcut.

Lieutenant H. G. Monteith, appointed on probation, July 29th, 1910, has been stationed at Aldershot, and Lieutenants J. S. Levack, M.B., and T. C. R. Archer, appointed on probation, January 27th, 1911, have been stationed at Lichfield and Woolwich respectively.

The following Lieutenants, appointed on probation, July 28th, 1911, have been stationed as follows: B. H. H. Spence, M.B., R. Davidson, M.B., and S. P. Sykes, M.B., at Woolwich; E. S. Calthrop, M.B., and H. S. Blackmore, at London and District; J. M. Elliott, M.B., and A. S. Heale, at Cosham; D. W. Bruce, M.B., L. Buckley, M.B., I. R. Hudleston, and A. G. J. MacIlwaine, at Aldershot; B. T. Vivian

Dublin District; E. G. H. Cowen, M.B., and W. Stewart, M.B., at Colchester; W. L. Webster, M.B., and H. J. G. Wells, M.B., at Cork; E. C. Deane, Preston; and F. S. Tamplin, at Netley.

COLONIAL MEDICAL SERVICES.

The following changes have been notified by the Colonial Office:

West African Medical Staff.

Transfers.—P. C. Conran, M.R.C.S.Eng., L.R.C.P.Lond., Medical Officer, Northern Nigeria, has been transferred to the Nyasaland Protectorate. E. Langley Hunt, L.R.C.S., L.R.C.P.Ireland, Medical Officer, Gold Coast, has been appointed an Itinerating Inspecting Officer in the Medical Department of Ceylon.

New Appointments.—The following gentlemen have been selected for appointment to the Staff:—C. L. Ievers, L.R.C.S., L.R.C.P.Edin., L.F.P.S.Glas., Gold Coast; R. Semple, M.B., Ch.B.Aberdeen, Sierra Leone.

Other Colonies and Protectorates.

F. R. Sayers, M.D., B.Ch., B.A.O., D.P.H.Dublin, to be House Surgeon, Straits Settlements. D. C. Mackaskill, M.B., Ch.B.Edin., to be Medical Officer (Grade III) Federated Malay States.

Hospitals and Asylums.

ROYAL FREE HOSPITAL, LONDON.

The eighty-fourth annual Court of Governors of the Royal Free Hospital, Gray's Inn Road, took place on March 13th, the chair, in the absence of the Earl of Sandwich, being occupied by Sir Edwin Durning-Lawrence. Mr. Holroyd Chaplin, the Chairman of the Weekly Board, who moved the adoption of the eighty-fourth annual report, called attention to the decrease in the amount of voluntary support received by the hospital during the past year, which nevertheless had proved an exceptionally fortunate one in the matter of legacies. The latter amounted to £51,571 17s. 9d., of which £50,000 was the gift of the late Mr. Henry Silver. The ordinary income of the hospital was £11,035, and the usual expenditure £18,708, whilst the report showed that 2,344 in-patients, 11,326 new out-patients, and 21,582 casualties had been received at the hospital during the past year, and 344 maternity cases had been treated at the patients' own homes. Later in the afternoon it was announced that a piece of land in the rear of the hospital having recently been purchased, it was proposed to build a new out-patient department, containing dispensary, *x*-ray room, etc., the need for which had been urged upon the hospital authorities by the visitors of the King Edward's Hospital Fund. It was understood that possession would be given on June 24th. A new agreement (terminable at seven years' notice) had also been made with the London School of Medicine for Women, by which the latter had undertaken to pay an annual rent of £100 for the accommodation at present provided for the students in the hospital premises.

THE GENERAL HOSPITAL, BIRMINGHAM.

The number of patients treated during 1911 was 78,561, and of these 5,252 were in-patients and 73,309 out-patients. This is a total increase of 5,692 patients on the previous year. Of the in-patients 989 were children under 12 years of age, of whom 222 were under 2 years. There were 3,971 surgical operations, and this is about the usual number during the past five years. The ordinary income was £23,371, and the extraordinary £4,557, making the total income from all sources £27,928. The chief items in the income were: Subscriptions, £7,500; dividends, ground-rents, and rental, £8,183; half of legacies, £5,921; Hospital Sunday Fund, £1,406; and Hospital Saturday Fund, £3,150. The total expenditure for the year was £27,838, so that the deficit, which at the end of 1910 was £12,885, has been reduced to £12,796. Under the arrangements made conjointly with the City Aid Society and the Charity Organization Society an almoner has been at work for the last twelve months. The experience thus gained has been so far encouraging that it has been decided to go further and to appoint a trained almoner to be paid by the hospital only, though continuing to co-operate with the two other institutions. An almoner has accordingly been appointed, and sent to London to be trained under the London Almoners' Council. At the Jaffray Branch Hospital 344 patients, including 53 children under 12 years of age, were treated during 1911. The daily average of patients was 50.41, and the average length of stay 50.57 days. The total income was £2,535, and the expenditure £3,055.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.

The accommodation for the out-patient department has been virtually unaltered since the present building was opened about twenty-eight years ago, and as the average attendance has increased during that time from 120 to over 250 daily, the committee has decided to enlarge the department by absorbing the first floor of adjoining offices. Some structural alterations are involved, but the committee is confident that the improved facilities which will be provided for the surgeons and the increased comfort for the patients, will justify the expenditure, which is estimated at about £1,000. The income of the hospital during the past year has increased, being £7,836, as compared with £7,376 in 1910, but in spite of this there was a deficiency of £820. The total attendance of out-patients was 76,383, as compared with 76,391 in the previous year, and the number of in-patients was 1,239, as against 1,307 in 1910. In the private wards, instituted in November, 1909, 72 patients were treated during the year, and the receipts from this source were £283. The possible effect of the National Insurance Act upon upon the hospital's finances is giving grave concern to the governors, as already a few subscribers have intimated their intention to discontinue their subscriptions, but it is hoped that the subscribers will bear in mind that the Act does not in any way make provision for special treatment such as is provided by this particular institution.

CONVALESCENT HOME, STILLORGAN, CO. DUBLIN.

At the fiftieth annual general meeting of the governors and subscribers of this institution the mover of the report stated that the fact that patients came from no less than twenty-seven different sources showed that the home was open to all qualified cases, utterly irrespective of religion or politics; though about 1,350 patients had been admitted during the year, some 250 desirable cases had had to be refused owing to lack of accommodation, in spite of the fact that a large annexe had been built at a cost of £600, with accommodation for twelve additional patients.

THE WARNEFORD HOSPITAL, LEAMINGTON.

The annual report shows that the number of patients treated in 1911 was 8,142, as against 9,067 in 1910. The total ordinary income was £6,131 and the expenditure £6,353, making a deficit on the year's working of £222. The general opinion was that under the new Insurance Act the work of the hospital would not be less, as although there might be a decrease in the number of out-patients, there was no likelihood of a decrease in the number of in-patients.

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

ABERDEEN: KINGSEAT ASYLUM.—Assistant Medical Officer. Salary, £150 per annum.

AGRA: DUFFERIN HOSPITALS AND FEMALE MEDICAL SCHOOL.—Senior Lady Doctor for the Dufferin Hospitals, Agra. Pay, inclusive of allowances, Rs.400 (£26 13s. 4d.) per mensem.

AYR COUNTY HOSPITAL.—Resident House-Surgeon. Salary, £70 per annum.

AYR DISTRICT ASYLUM.—Junior Assistant Physician (male). Salary, £140 per annum.

BARROW-IN-FURNESS; NORTH LONSDALE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Second and Third House-Surgeons. Salary, £80 and £75 per annum respectively.

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES.—Clinical Assistant. Honorarium at the rate of 52 guineas per annum.

BIRMINGHAM: GENERAL HOSPITAL.—(1) House-Physician; (2) House-Surgeons to Special Departments. Salary in each case at the rate of £50 per annum.

BOLINGBROKE HOSPITAL, Wandsworth Common, S.W.—House-Surgeon (male). Salary, £75 per annum.

BRADFORD CHILDREN'S HOSPITAL.—House-Surgeon. Salary, £100 per annum.

BRIGHTON, HOVE, AND PRESTON DISPENSARY.—Resident Medical Officer. Salary, £160 per annum.

BRISTOL EYE HOSPITAL.—House-Surgeon. Salary, £80 per annum.

BUXTON: DEVONSHIRE HOSPITAL.—Pathologist (non-resident). Salary, £250 per annum.

CARLISLE NON-PROVIDENT DISPENSARY.—Resident Medical Officer. Salary, £150 per annum.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Honorary Assistant Surgeon.

CHELTENHAM GENERAL HOSPITAL.—House-Physician. Salary, £80 per annum.

COVENTRY AND WARWICKSHIRE HOSPITAL.—House-Physician. Salary, £90 per annum, rising to £100.

DARLINGTON HOSPITAL AND DISPENSARY.—House-Surgeon. Salary, £120 per annum.

DUDLEY: GUEST HOSPITAL.—Senior Resident Medical Officer. Salary, £100 per annum, increasing to £120.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Medical Officer (male) to the Casualty Department. Salary at the rate of £100 per annum.

GROCERS' COMPANY.—Two Scholarships of £300 per annum each for original research in Sanitary Science.

HEMEL HEMPSTEAD: WEST HERTS HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

INVERAVON PARISH, Ballindalloch. — Medical Officer. Salary, £30 per annum.

INVERNESS: NORTHERN INFIRMARY.—House-Surgeon. Salary, £100 per annum.

KENSINGTON AND FULHAM GENERAL HOSPITAL, Earl's Court, S.W.—Physician.

KESTEVEN COUNTY ASYLUM, Sleaford.—Assistant Medical Officer. Salary, £150 per annum.

LEEDS INFECTIOUS DISEASES HOSPITALS AND SANATORIUM. — Two Resident Medical Assistants. Salary at the rate of £110 per annum.

LEEDS PUBLIC DISPENSARY.—Junior Resident Medical Officer. Salary, £100 per annum.

LEICESTER INFIRMARY.—Male Assistant House-Physician. Salary at the rate of £80 per annum.

LIVERPOOL DISPENSARIES.—Assistant Surgeon. Salary, £100 per annum.

LIVERPOOL: STANLEY HOSPITAL.—(1) Honorary Physician; (2) Honorary Laryngologist.

LIVERPOOL UNIVERSITY. — Professor of Pathology. Stipend, £500 per annum.

LONDON HOSPITAL, Whitechapel, E.—Clinical Assistant. Salary, £100 per annum.

LOUGHBOROUGH AND DISTRICT GENERAL HOSPITAL AND DISPENSARY.—Male Resident House-Surgeon. Salary, £120 per annum.

MACCLESFIELD GENERAL INFIRMARY.—Junior House-Surgeon. Salary, £80 per annum.

MANCHESTER CHILDREN'S HOSPITAL, Pendlebury.—Honorary Dental Surgeon.

MIDDLESEX HOSPITAL, W.—Medical Registrar.

MILDMAY MISSION HOSPITAL, Bethnal Green, E. — House-Surgeon (male). Salary for first six months at the rate of £70 per annum, rising to £80.

MULLINGAR DISTRICT LUNATIC ASYLUM.—Resident Medical Superintendent. Salary, £400 for year of probation, rising to £450 per annum.

NEWRY HOSPITAL.—Medical Officer.

PRINCE OF WALES'S GENERAL HOSPITAL, Tottenham, N.—(1) Senior House-Physician; (2) Junior House-Surgeon; (3) Junior House-Physician. Salary for (1) £75 per annum, and for (2) and (3) £50 per annum.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone Road, N.W.—Physician to Out-patients.

ROYAL DENTAL HOSPITAL OF LONDON, Leicester Square, W.C. Assistant Dental Surgeon.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—(1) Assistant Anaesthetist. Salary, £50 per annum. (2) Male House-Physician; (3) Male House-Surgeon; (4) Female House-Physician; (5) Female House-Surgeon; (6) Female Senior Obstetric Assistant, salary £50 per annum; (7) Female Junior Obstetric Assistant.

ST. JOHN'S WOOD AND PORTLAND TOWN DISPENSARY, N.W. —Third Medical Officer. Emoluments: Midwifery and vaccination fees and share in honorarium of £150.

SALFORD ROYAL HOSPITAL. — Junior House-Surgeon (Male). Salary at the rate of £65 per annum.

SALOP INFIRMARY.—(1) House-Physician; salary at the rate of £70 per annum. (2) House-Surgeon; salary, £100 per annum.

SEAMEN'S HOSPITAL SOCIETY.—(1) Assistant Physician for Diseases of the Skin; (2) Medical Registrar; (3) Two House-Physicians; (4) Two House-Surgeons at the Dreadnought Hospital, Greenwich; (5) Senior House-Surgeon; (6) House-Surgeon at the Albert Dock Hospital. Salary for (3), (4), and (6) £50 per annum, and for (5) £100 per annum.

SHEFFIELD: ROYAL INFIRMARY. — Junior Resident Medical Officer. Salary, £60 per annum.

SINGAPORE MUNICIPALITY. — Medical Officer, new Infectious Diseases Hospital. Salary, £400 for first year, rising to £450.

SOUTHPORT INFIRMARY.—Resident (Male) Junior House and Visiting Surgeon. Salary commencing at the rate of £70 per annum.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—House-Physician. Salary, £82 per annum, and £5 honorarium after six months' approved service.

STOCKPORT INFIRMARY.—Junior House-Surgeon. Salary, £80 per annum.

SUNDERLAND: CHILDREN'S HOSPITAL. — Resident Medical Officer. Salary at the rate of £80 per annum.

SUNDERLAND: ROYAL INFIRMARY. — (1) Two Junior House-Surgeons; (2) House-Physician (Males). Salary at the rate of £80 per annum.

TAUNTON AND SOMERSET HOSPITAL.—Honorary Medical Officer in charge of the Electrical Department.

WALSALL AND DISTRICT HOSPITAL.—House-Surgeon. Salary, £120 per annum.

CERTIFYING FACTORY SURGEONS. — The Chief Inspector of Factories announces the following vacant appointments: Braemar (Aberdeenshire), Donoghmore (co. Down), Kilbeggan (co. Westmeath).

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

APPOINTMENTS.

BARTON, S. D., M.B.Syd., Public Vaccinator at Coonabaraban, New South Wales.

BERRIDGE, W. R. M., M.R.C.S., L.R.C.P., Certifying Factory Surgeon for the Narborough District, co. Leicester.

BLAXLAND, F. T., M.B.Syd., Junior Assistant Medical Officer, Department of Lunacy, New South Wales.

BRENAN, A. J., M.B.Melb., Pathologist and Clinical Pathologist to St. Vincent's Hospital, Melbourne.

CAMPBELL, D. B., M.B., C.M.Glas., Certifying Factory Surgeon for the Saltcoats District, co. Ayr.

CAMPBELL, G. F., M.B., B.Ch.R.U.I., Certifying Factory Surgeon for the Bangor District, co. Down.

CURTIS, G. S., M.B.Syd., Junior Assistant Medical Officer, Department of Lunacy, New South Wales.

DOTT, A., M.B., C.M.Edin., Certifying Factory Surgeon for the Gatehouse District, co. Kirkcudbright.

FERRAN, F. P., M.B., B.Ch.Belf., Certifying Factory Surgeon for the Foxford District, co. Mayo.

GREAVES, H. G., B.C.Cantab., Certifying Factory Surgeon for the Oxted District, co. Surrey.

GREY, W. C., M.B., Ch.M.Syd., Honorary Assistant Surgeon to the Asylum for the Infirm at Rookwood, New South Wales.

GRIFFIN, W. R., M.B., B.Ch.Dub., Certifying Factory Surgeon for the Tavistock District, co. Devon.

JOLL, C. A., F.R.C.S., Senior Resident Medical Officer to the Royal Free Hospital, Gray's Inn Road, W.C.

KERSHAW, Edward, L.R.C.P. and S.Edin., Medical Officer, No. 7 District Oldham Union, vice Mr. Abraham Leach, resigned.

KING, D. Barty, M.A., M.D., M.R.C.P., Honorary Physician for Diseases of the Chest to the St. Pancras Dispensary.

MACDERMOT, E. C., L.R.C.P. and S.I., Medical Officer for the Leenane (Killory Bay) Dispensary District.

MACFARLANE, Alexander A., M.B., Ch.B., Port Health Officer for the Port of Hokianga, New Zealand.

MCGREGOR, J. G., M.D., Certifying Factory Surgeon for the Castletown District, co. Caithness.

MOORE, W. H., M.R.C.S., L.R.C.P., Medical Officer of Health, Borough of Kidderminster.

MOSS, B. W., M.B.Lond., Certifying Factory Surgeon for the Lutterworth District, co. Leicester.

MUSGROVE, C. D., M.D.Edin., Certifying Factory Surgeon for the Penarth District, co. Glamorgan.

MUSSON, A. W., M.B., B.C.Camb., Certifying Factory Surgeon for the Clitheroe District, co. Lancs.

NOWLAND, H., M.B.Syd., Junior Assistant Medical Officer, Department of Lunacy, New South Wales.

O'FARRELL, T. T., F.R.C.S.I., Bacteriologist to the Dublin County Council.

O'HARA, M. C., L.R.C.P. and S.Irel., Certifying Factory Surgeon for the Clara District, King's County.

PEREIRA, Joseph Anthony Wenceslaus, M.D.Brux., L.R.C.P.Lond., M.R.C.S.Eng., Surgeon to the Exeter Lying-in Charity.

PURSER, Cecil, M.B.Syd., Honorary Physician to the Hospital for Consumptives at Waterfall, New South Wales.

ROONEY, P. J., L.R.C.P. and S.Irel., Certifying Factory Surgeon for the Virginia District, co. Cavan.

SEVESTRE, ROBERT, M.D.Camb., Honorary Physician to the Leicester Infirmary, vice Dr. F. M. Pratt, appointed Consulting Physician.

SHIPSEY, J. J., M.B., B.Ch., R.U.I., Certifying Factory Surgeon for the Schull District, co. Cork.

SPROULL, J., M.B., C.M.Glasg., Certifying Factory Surgeon for the Luddenden District, co. Yorks., West Riding.

STAUNTON, M. D., L.A.H.Dub., Certifying Factory Surgeon for the Swineford District, co. Mayo.

UTTLEY, W. W., M.B., Ch.B.Vict., M.R.C.S.Eng., L.R.C.P.Lond., D.P.H.Manch., Assistant Medical Superintendent to Ladywell Sanatorium, Salford.

VILVANDRÉ, G. E., M.R.C.S., L.R.C.P., Certifying Factory Surgeon for Staplehurst District, co. Kent.

VINTER, S. G., M.R.C.S., L.R.C.P., Certifying Factory Surgeon for the Torpoint District, co. Cornwall.

WHITE, J. A. Henton, M.D., F.R.C.S.E., Corps Surgeon, Birmingham Corps, St. John Ambulance Brigade.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTHS.

BULLMORE.—On March 23rd, at 10, South Brink, Wisbech, the wife of E. A. Bullmore, F.R.C.S.Ed., of a son.

KITCHEN.—On the 20th March, at 112, Cheetham Hill Road, Manchester, the wife of Harold E. Kitchen, M.R.C.S., L.R.C.P., of a son.

NESHAM.—On March 17th, at 12, Ellison Place, Newcastle-on-Tyne, the wife of Robert Anderson Nesham, M.R.C.S., L.R.C.P., of a son.

SOWRY.—On March 23rd, at Newcastle, Staffordshire, to Dr. and Mrs. Geo. H. Sowry—a daughter.

MARRIAGE.

SHANNON—OVERSBY.—At Saint Philemon's Parish Church, Liverpool, on March 21st, by the Rev. T. H. W. Copner, David Shannon, M.B., Glasgow, to Edith Oversby, M.B., Liverpool.

DEATH.

SATCHELL.—On the 20th inst., at 5, Ascott Avenue, Ealing, Walter A. Satchell, J.P., F.R.C.P.Edin., in his 73rd year.

PUBLISHERS' ANNOUNCEMENTS.

MR. HEINEMANN draws attention to the fact that *Microbes and Toxins*, by Dr. Etienne Burnet, of the Pasteur Institute, Paris, originally announced at the price of 6s. net, is now published at 5s. net. The book is a summary of present knowledge on the subject of microbiology, and is written in accordance with the theories of Professor Metchnikoff and his school. Professor Metchnikoff contributes an introduction to the book, which was published on March 14th. Mr. Heinemann also announces the following books: A new edition of Joseph Nash's *Mansions of England in the Olden Time*: it contains, in addition to the plates, a preface by Reginald Blomfield, A.R.A. *War and Its Alleged Benefits*, by J. Novikow, Vice-President of the International Institute of Sociology in St. Petersburg, with a preface by Norman Angell; and a third edition of *India Under Curzon and After*, by Mr. Lovat Fraser; there is also a new introduction.

Among the spring announcements of the Oxford University Press are the following: *John of Gaddesden and the Rosa Medicinae*, by H. P. Cholmeley, M.D., and the *Anatomy of the Human Eye*, illustrated by enlarged stereoscopic photography, by Professor Arthur Thompson.

Messrs. J. and A. Churchill announce the following new editions: A second edition of Mr. J. H. Parsons's *Diseases of the Eye*; a new feature will be the inclusion of a colour test card in wools; in addition there will be 17 coloured plates and 309 figures in the text. A seventh edition of Dr. J. C. Thresh's *Simple Method of Water Analysis*, especially designed for the use of medical officers of health. A second edition of the *National Standard Dispensatory*, containing the natural history, chemistry, pharmacy, actions, and uses of medicines, including those recognized in the pharmacopoeias of the United States (1905), Great Britain, Germany, etc., with 478 engravings; edited by H. A. Hare, B.Sc., M.D., Charles Caspari, and H. R. Rusby, M.D.

Messrs. P. Blakiston's Son and Co. announce the publication of a second edition of *Medical Service in Campaign: A Handbook for Medical Officers in the Field*, by Major Paul Frederick Straub, Medical Corps (General Staff), United States Army. Prepared under the direction of the Surgeon-General, United States Army, and published by authority of the War Department.

The same firm announces the publication of a work entitled *The Evolution of the Vertebrates and Their Kin*, by Dr. William Patten, Professor of Zoology and Head of the Department of Biology in Dartmouth College, Hanover, U.S.A.

RECENT PUBLICATIONS.

Milk Testing. By C. W. Walker-Tisdale, F.C.S., N.D.D. 1911. *The Dairy World*: Fetter Lane. (Crown 8vo, pp. 84. Price 1s. net.)

A revised edition of an excellent booklet written on practical lines for the information of dairy farmers, estate agents, creamery managers, milk distributors, and the like. In reviewing the first edition we had occasion to draw attention to one small defect, and in the present edition this has been eliminated.

Transactions of the Ophthalmological Society of the United Kingdom. Vol. xxxi. London: J. and A. Churchill. (Medium 8vo, pp. 293. Price 12s. 6d. net.)

Covers the work of this society during the session 1910-11. It was a busy session, as many as forty-nine papers being read. Brief notes as to cases shown are also supplied. There is an adequate account of the discussions which followed the reading of the papers, and many of the latter are admirably illustrated by plates and diagrams, some in colour. Reports of the meetings were published from time to time in the JOURNAL.

Everybody's Gardening Book. By the Editor of "Garden Life." For everybody with a garden and all lovers of flowers. London: "Garden Life" Press. 1912. (Demy 8vo, pp. 278; illustrations 300. 1s. net.)

A simple, practical, cheap book, giving the inexperienced gardener just the sort of information he wants, including instructions on many rudimentary matters a knowledge of which is too often assumed in larger treatises.

Honan's Handbook to Medical Europe. Philadelphia: Blakiston, Son and Company. 1912. (Cr. 8vo, pp. 261. Price 6s. net.)

The author of this book, Dr. J. H. Honan, who has lived for many years in Germany, has brought together a valuable amount of information as to the universities, hospitals, laboratories, and general medical work of the principal cities of Europe. Maps of the latter are included, showing the distribution of the principal institutions of a medical character. With reference to England, and speaking of post-graduate work in particular, the author suggests that his American *confrères* do not realize the amount, variety, and excellence of the opportunities open to them. There are possibly slips in the book—such as the statement that there are as many as 40,000 physicians in England—but this will not deprive the book of its utility.

The Ophthalmic Year Book. Vol. vii. Edited by Drs. E. Jackson, Theodore Schneideman, and William Zentmayer. Denver, Colorado: Herrick Book and Stationery Company. 1911. (Medium 8vo, pp. 455.)

The editors of this publication are all three engaged in the practice of ophthalmology, two of them holding chairs devoted to the subject. The year reviewed is 1910, and brief biographic notices of ophthalmic surgeons who died during that year are included. The volume should prove of decided utility to those specially interested in the subjects treated, since, apart from reviews of the progress of ophthalmology and short abstracts of papers, it contains what appears to be a complete bibliography of all books and papers which appeared on ophthalmic subjects in any part of the world during the year 1910.

Transactions of the American Climatological Association for the year 1911. Vol. xxvii. Philadelphia: Printed for the Association. (Medium 8vo, pp. 410.)

Contains a record of the reading and discussion of some twenty papers. The subjects under consideration in nearly all cases were the treatment of tuberculosis, and from several of the papers, especially that by Dr. Brannan on fresh air in schools and hospitals, and Dr. J. H. Pratt's paper on the class method in the home treatment of tuberculosis and what it has accomplished, useful hints from American experience might be derived.

DIARY FOR THE WEEK.

TUESDAY.

ROENTGEN SOCIETY, Institution of Electrical Engineers, Victoria Embankment, W.C., 8.15 p.m.—Paper—Dr. Saubermann: The Physiological Principles of Internal Radium Therapy. Demonstration—Mr. C. A. Clarke: A device for viewing wet negatives.

ROYAL SOCIETY OF MEDICINE:

PATHOLOGICAL SECTION, Cancer Laboratory, Middlesex Hospital, W., 8.30 p.m.—Laboratory meeting.

THURSDAY.

NORTH-EAST LONDON CLINICAL SOCIETY, Prince of Wales's Hospital, Tottenham, 4.15 p.m.—Dr. G. Norman Meachen: The Relationship between some of the Commoner Skin Diseases and Systemic Disorders.

POST-GRADUATE COURSES AND LECTURES.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week at 4 p.m. each day:—Monday: Skin. Tuesday: Medical. Wednesday: Surgical. Thursday: Surgical. Lectures at 5.15 p.m. each day will be given as follows:—Monday: Other Disorders of Impeded Respiration. Tuesday: Adherent Pericardium. Wednesday: Some Common Nervous Diseases (with lantern demonstration). Thursday: The Treatment of Displacement of the Uterus and Vagina.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics: 10 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear; 3 p.m., Demonstration on Clinical and General Pathology. Tuesday, 2.30 p.m., Operations; Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient. Wednesday, 2.30 p.m., Medical Out-patient; Skin and Eye Clinics; *X* Rays; 3 p.m., Pathological Demonstration; 5.30 p.m., Eye Operations. Thursday, 2.30 p.m., Demonstration on Fever at the North-Eastern Fever Hospital; Gynaecological Operations; Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient; Pathological Demonstration.

SALFORD ROYAL HOSPITAL.—Thursday, 4.30 p.m.: Modern Methods of Diagnosis in Urinary Surgery.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics, *X* Rays, and Operations 2 p.m. daily. Monday: Gynaecology, 10 a.m.; Eye, 2 p.m. Tuesday: Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.: Gynaecology, 2 p.m. Thursday: Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday: Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
MARCH.	
30 SATURDAY ..	LONDON: Fractures Committee, 9.30 a.m. LONDON: Hospitals Insurance Act Subcommittee, 10 a.m. LONDON: Hospitals Committee, 11 a.m.
31 Sunday ..	
APRIL.	
1 MONDAY ..	
2 TUESDAY ..	LONDON: Public Health Committee, 3.30 p.m.
3 WEDNESDAY	LONDON: Lunacy Subcommittee, 12 noon. LONDON: Medico-Political Committee, 2 p.m.
4 THURSDAY ..	LONDON: State Sickness Insurance Committee (*probably*).
5 FRIDAY ..	
6 SATURDAY ..	
7 Sunday ..	(*Easter Day*)
8 MONDAY ..	
9 TUESDAY ..	
10 WEDNESDAY	LONDON: Grants Subcommittee, 9.30 a.m. LONDON: Conference of Secretaries Subcommittee, 3 p.m. LONDON: Regulations and Standing Orders Subcommittee, 4.30 p.m.
11 THURSDAY ..	
12 FRIDAY ..	BRIGHTON DIVISION, *South-Eastern Branch*, Special Meeting, Oddfellows' Hall, Queen's Road, Brighton. LONDON: Central Ethical Committee, 2 p.m.
13 SATURDAY ..	LONDON: Standing Therapeutic Subcommittee, 10 a.m. LONDON: Science Committee, noon.
14 Sunday ..	
15 MONDAY ..	
16 TUESDAY ..	LONDON: Organization Committee, 2.30 p.m. BRIGHTON DIVISION, *South-Eastern Branch*, Ordinary Meeting, Lecture Hall, New Road, Brighton, 4 p.m.
17 WEDNESDAY	
18 THURSDAY ..	LONDON: Metropolitan Counties Branch, Council, 4 p.m.
19 FRIDAY ..	
20 SATURDAY ..	
21 Sunday ..	
22 MONDAY ..	
23 TUESDAY ..	

Date.	Meetings to be Held.
APRIL (*continued*).	
24 WEDNESDAY	BATH AND BRISTOL BRANCH, Bath. LONDON: Finance Committee, 2.30 p.m. RICHMOND DIVISION, *Metropolitan Counties Branch*, Richmond, 8.30 p.m.
25 THURSDAY ..	EAST ANGLIAN BRANCH, Spring Meeting, East Dereham. WALTHAMSTOW DIVISION, *Metropolitan Counties Branch*, Walthamstow Hospital, 4 p.m.
26 FRIDAY ..	BIRMINGHAM BRANCH, Pathological and Clinical Section, Medical Institute, Edmund Street, 8 p.m.
27 SATURDAY ..	
28 Sunday ..	
29 MONDAY ..	
30 TUESDAY ..	
MAY.	
1 WEDNESDAY	**London: Central Council, 2 p.m.**
2 THURSDAY ..	
3 FRIDAY ..	
4 SATURDAY ..	
5 Sunday ..	
6 MONDAY ..	
7 TUESDAY ..	
8 WEDNESDAY	
9 THURSDAY ..	
10 FRIDAY ..	
11 SATURDAY ..	
12 Sunday ..	
13 MONDAY ..	
14 TUESDAY ..	
15 WEDNESDAY	
16 THURSDAY ..	LONDON: Metropolitan Counties Branch, Council, 4 p.m.
17 FRIDAY ..	
18 SATURDAY ..	
19 Sunday ..	
20 MONDAY ..	
21 TUESDAY ..	
22 WEDNESDAY	RICHMOND DIVISION, *Metropolitan Counties Branch*, Richmond, 8.30 p.m.
23 THURSDAY ..	WALTHAMSTOW DIVISION, *Metropolitan Counties Branch*, Wesleyan Church School, Leyton, 4 p.m.
24 FRIDAY ..	

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SUPPLEMENT
TO THE
BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, APRIL 6TH, 1912.

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Liverpool from the Mersey.
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EIGHTIETH ANNUAL MEETING
OF THE
British Medical Association.

LIVERPOOL, JULY, 1912.

PROGRAMME OF BUSINESS.

President: Professor ROBERT SAUNDBY, M.D., LL.D., F.R.C.P., Professor of Medicine, University of Birmingham, and Physician, Birmingham General Hospital.

President-elect: Sir JAMES BARR, M.D., LL.D., F.R.C.P., Consulting Physician, Royal Infirmary, Liverpool.

Chairman of Representative Meetings: EWEN JOHN MACLEAN, M.D., Gynaecologist, Cardiff Infirmary.

Chairman of Council: JAMES ALEXANDER MACDONALD, M.D., LL.D., M.Ch., R.U.I., Honorary Physician, Taunton and Somerset Hospital, Taunton.

Treasurer: EDWIN RAYNER, M.D.Lond., F.R.C.S., Consulting Surgeon, Stockport Infirmary, Stockport.

The Eighteth Annual Meeting of the British Medical Association will be held in Liverpool in July, 1912. The President's Address will be delivered on Tuesday, July 23rd, and the Sections will meet on the three following days. The Annual Representative Meeting will begin on Friday, July 19th, 1912.

The Address in Medicine will be delivered by GEORGE ALEXANDER GIBSON, M.D., D.Sc., LL.D., F.R.C.P.Edin., Physician, Edinburgh Royal Infirmary.

The Address in Surgery will be delivered by FRANK THOMAS PAUL, Ch.M., F.R.C.S., Surgeon, Liverpool Royal Infirmary.

THE SECTIONS.

The scientific business of the Meeting will be conducted in twenty Sections, which will meet on Wednesday, July 24th, Thursday, July 25th, and Friday, July 26th.

The President, Vice-President, and Honorary Secretary of each Section constitute a Committee of Reference for that Section, and exercise the power of inviting, accepting, or declining any paper, and of arranging the order in which accepted papers shall be read. Communications with respect to papers should be addressed to one of the Honorary Secretaries.

A paper read in the Section must not exceed fifteen minutes, and no subsequent speech must exceed ten minutes.

Papers read are the property of the British Medical Association, and cannot be published elsewhere than in the BRITISH MEDICAL JOURNAL *without special permission.*

The following twenty Sections have been authorized by the Council:

ANAESTHETICS.

President: DUDLEY WILMOT BUXTON, M.D., London.

Vice-Presidents: FRANCIS WILLIAM BAILEY, M.R.C.S., Liverpool; WILLIAM FINGLAND, L.R.C.P., Liverpool; WILLIAM JOSEPH MCCARDIE, M.B., Birmingham.

Honorary Secretaries: VIVIAN CHASTEL DE BOINVILLE, M.D., South Grange, Aigburth Road, Liverpool; CHARLES CARTER BRAINE, F.R.C.S., 26, Wimpole Street, W.

The following subjects have been selected for discussion:

Wednesday, July 24th, 10 a.m.—(1) Intravenous Infusion Anaesthesia. 11 a.m.—(2) The importance of affording the Anaesthetist an opportunity of making a thorough examination of the Patient some days previous to a contemplated operation, and after the nature of the operation has been disclosed.

Thursday, July 25th, 10 a.m.—Comparison of Methods Employed for Inducing Anaesthesia and Analgesia respectively, with Special Reference to After-Effects.

Friday, July 26th, 10 a.m.—Employment of Alkaloidal Bodies prior to Inhalation Infusion or Subdural Injection with a view to abrogating Deleterious After-Effects. 11 a.m.—Paper: The Effect of Ether and Chloroform on the Liver and Kidneys in Health and in Certain Infective Conditions, by Dr. W. R. E. APPERLEY (London).

ANATOMY.

President: WILLIAM WRIGHT, M.B., D.Sc., F.R.C.S., London Hospital Medical School.

Vice-Presidents: DOUGLAS DOUGLAS-CRAWFORD, M.B., F.R.C.S., Liverpool; Professor AUCKLAND CAMPBELL GEDDES, M.D., Dublin; Professor GRAFTON ELLIOT SMITH, M.A., M.D., F.R.S., Manchester; ALEXANDER MACPHAIL, M.B., C.M., London.

Honorary Secretaries: WM. PERCY GOWLAND, M.D., 379, Edge Lane, Liverpool; SAMUEL ERNEST WHITNALL, M.A., M.B., The Old Rectory Farm, Kidlington, Oxford.

Among the arrangements for this Section is a discussion on Friday, July 26th, jointly with the Section of Electro-Therapeutics and Radiology, on The Normal Stomach. To be opened by Dr. A. F. HERTZ (London).

BACTERIOLOGY.

President: Professor JAMES RITCHIE, M.A., B.Sc., M.D., Royal College of Physicians Laboratory, Edinburgh.

Vice-Presidents: Professor JAMES MARTIN BEATTIE, M.A., M.D., University, Sheffield; JOHN CHARLES GRANT LEDINGHAM, M.A., D.Sc., M.B., Lister Institute, Chelsea Gardens, S.W.; Professor RICHARD TANNER HEWLETT, M.D., F.R.C.P., King's College, London.

Honorary Secretaries: Professor EDWARD EMRYS-ROBERTS, M.D., University College of South Wales and Monmouthshire, Cardiff; ROBERT STENHOUSE WILLIAMS, M.B., Hygienic Laboratories, Ashton Hall, University, Liverpool; THOS. ARNOLD JOHNSTON, M.D., 19, De Montfort Street, Leicester.

DERMATOLOGY.

President: Professor WALTER GEO. SMITH, M.D., F.R.C.P., Dublin.

Vice-Presidents: Professor ROBERT ALFRED BOLAM, M.D., M.R.C.P., Newcastle-on-Tyne; HUGH LESLIE ROBERTS, M.D., Liverpool; G. G. S. STOFFORD-TAYLOR, M.D., Liverpool.

Honorary Secretaries: ROBERT WM. MCKENNA, M.A., M.D., 26, Rodney Street, Liverpool; JAMES EUSTACE RADCLYFFE MCDONAGH, F.R.C.S., 19, Harley Street, London, W.; ELIAS BELL PURDON, M.B., 60, Packenham Place, Belfast.

The following preliminary arrangements have been made:

Wednesday, July 24th.—Discussion on The Nature, Causation and Treatment of Seborrhoea and Acne. To be opened by Dr. ARTHUR WHITFIELD, F.R.C.P., Professor of Dermatology, King's College, London.

It has, further, been decided to make the exhibition and demonstration of cases an important feature of the Section, and arrangements will be made for the demonstration of these cases on the second and third days of the meeting.

The Committee of the Pathological Museum has decided to devote a section to Dermatological exhibits, and is anxious to gather together a thoroughly representative collection. Any plates, photographs, casts, microscopical specimens or cultures illustrating rare or interesting cases, or recent research, will be welcomed, but the Committee would like to have as complete an exhibition as possible of the results of treatment with carbon dioxide snow, and also of syphilitic and tuberculous affections of the skin.

Intending contributors are invited to send the list of the exhibits they desire to make to Dr. Ernest Glynn, Secretary of the Museum Committee, The University, Liverpool.

DISEASES OF CHILDREN, INCLUDING ORTHOPAEDICS.

President: ROBERT JONES, Ch.M., F.R.C.S.E., Liverpool.

Vice-Presidents: EDRED MOSS CORNER, M.A., F.R.C.S., London; PETER DAVIDSON, M.A., M.B., Liverpool; CHARLES JOHN MACALISTER, M.D., F.R.C.P., Liverpool; THOS. HORROCKS OPENSHAW, C.M.G., M.S., F.R.C.S., London.

Honorary Secretaries: ROBT. CRAIG DUN, M.B., B.Sc., F.R.C.S., 73, Rodney Street, Liverpool; NICHOLAS PERCY MARSH, M.B., 7, Abercromby Square, Liverpool; CLIVE RIVIERE, M.D., F.R.C.P., 19, Queen Anne Street, London, W.

The following subjects have been selected for discussion:

Wednesday, July 24th.—Discussion on the After-results of the Major Operations for Tuberculous Disease of Joints, to be opened by HAROLD J. STILES, Esq., F.R.C.S.Edin.

Thursday, July 25th.—Discussion on the Dyspepsias of Childhood after the Age of Infancy, to be opened by Dr. ROBERT HUTCHISON.

Friday, July 26th.—Papers.

ELECTRO-THERAPEUTICS.

President: CHAS. THURSTAN HOLLAND, M.R.C.S., Liverpool.

Vice-Presidents: ALFRED ERNEST BARCLAY, M.A., M.R.C.S., Manchester; DAVID MORGAN, M.B., Liverpool; SAMUEL SLOAN, M.D., F.F.P.S., Glasgow.

Honorary Secretaries: ROBERT KNOX, M.D., 7, Harley Street, London; WALTER CHAS. ORAM, B.A., M.D., Prospect, Allerton Road, Mossley Hill, Liverpool.

The following are the provisional arrangements made:

Wednesday, July 24th.—A short discussion will probably open the proceedings, to be followed by papers on Radium and Radiumtherapy, including, it is hoped, papers on the Physics of Radium.

Thursday, July 25th.—Discussion of Ionic Medication, to be opened by Dr. LEWIS JONES (London). Papers on Electro-therapeutic subjects.

Friday, July 26th.—Joint discussion, in conjunction with the Section of Anatomy, on the Normal Stomach, to be opened by Dr. A. F. HERTZ (London). Paper on Radiographic and Therapeutic subjects.

In connexion with the Pathological Museum there will be an Exhibition of Radiographs (negatives and prints) of subjects of special interest; also photographs of cases treated by Electro-therapeutic Methods, X Rays and Radium, and members desirous of exhibiting are requested to communicate with Dr. Oram.

GYNAECOLOGY AND OBSTETRICS.

President: Professor HENRY BRIGGS, M.B., F.R.C.S., Liverpool.

Vice-Presidents: W. W. CHIPMAN, M.D., Montreal; JOHN EDWARD GEMMELL, M.B., Liverpool; THOS. BABINGTON GRIMSDALE, B.A., M.B., Liverpool; Professor JOHN BENJAMIN HELLIER, M.D., Leeds; MARY HANNAH FRANCES IVENS, M.B., M.S., Liverpool; JOHN FURNEAUX JORDAN, M.B., F.R.C.S., Birmingham.

Honorary Secretaries: ARTHUR JOHN WALLACE, M.D., 1, Gambier Terrace, Liverpool; Assistant Professor DAVID SHANNON, M.B., 270, Bath Street, Glasgow; BETHEL ALBERT HERBERT SOLOMONS, M.B., Rotunda Hospital, Dublin.

LARYNGOLOGY AND RHINOLOGY.

President: JOHN MIDDLEMASS HUNT, M.B., Liverpool.

Vice-Presidents: JOHN BARK, F.R.C.S.E., Liverpool; CHAS. EDWARD BEAN, F.R.C.S.E., Plymouth; JAMES EDLINGTON MCDOUGALL, M.B., Liverpool; WM. PERMEWAN, M.D., F.R.C.S., Liverpool; ROBT. HY. WOODS, B.A., M.B., F.R.C.S.I., Dublin.

Honorary Secretaries: THOMAS GUTHRIE, M.A., M.B., F.R.C.S., 55, Rodney Street, Liverpool; GEOFFREY SECCOMBE HETT, M.B., F.R.C.S., 8, Wimpole Street, London, W.

The following subjects have been selected for special discussion:

Wednesday, July 24th, 10 a.m.—Discussion: The Differential Diagnosis of Oesophageal Stenoses.

Thursday, July 25th, 10 a.m. (together with the Section of Otology).—Discussion: The Education of the Specialist in Laryngology and Otology.

Friday, July 26th, 10 a.m.—Discussion: The Treatment of Chronic Suppurative Disease of the Ethmoidal Sinuses.

Foreign and Colonial visitors are cordially invited to attend the meetings of the Section, and to take part in the discussions.

Members are invited to contribute any preparations, specimens, or drawings, or any instruments or apparatus pertaining to the work of the Section, which have been designed by themselves, in order that the Committee of the Section may make arrangements to form a special exhibit of such objects. The Committee ask particularly for pathological specimens, drawings, and radiograms illustrating diseases of the oesophagus, including foreign bodies, also for instruments for the diagnosis and treatment of such diseases.

MEDICAL SOCIOLOGY.

President: John Christie McVail, M.D., LL.D., Glasgow.

Vice-Presidents: Thomas Bushby, M.B., Liverpool; Michael Dewar, M.D., Edinburgh; Henry Harvey, M.B., Liverpool; Robert Wallace Henry, B.A., M.D., Leicester.

Honorary Secretaries: Archibald Gordon Gullan, M.D., M.R.C.P., 37, Rodney Street, Liverpool; James Henry Taylor, M.B., 299, Eccles New Road, Salford.

The following discussions have been arranged:

Wednesday, July 24th.—(1) A Public Medical Service under Professional Control. (2) *Short discussion, limited to one hour:* Reform of Hospital Out-patient Departments.

Thursday, July 25th.—(1) Administrative Measures Consequent upon the Compulsory Notification of Phthisis. (It is suggested that this meeting be a combined one with that of the Section of State Medicine.) (2) *Short discussion, limited to one hour:* The Control of Venereal Disease.

Friday, July 26th.—(1) Payment of Medical Services by Capitation *versus* Payment per Attendance under the National Insurance Act. (2) *Short discussion, limited to one hour:* Administrative Provisions for the Prevention of Malingering.

MEDICINE.

President: Professor Thomas Robinson Glynn, M.D., F.R.C.P., Liverpool.

Vice-Presidents: Thomas Robert Bradshaw, M.D., F.R.C.P., Liverpool; Professor John Michell Clarke, M.A., M.D., F.R.C.P., Clifton, Bristol; Samuel Herbert Habershon, M.A., M.D., F.R.C.P., London, W.; John Lloyd Roberts, B.A., B.Sc., M.D., Liverpool.

Honorary Secretaries: John Owen, M.D., 13, Rodney Street, Liverpool; Theodore Thompson, M.D., F.R.C.P., 94, Portland Place, London, W.; Walter Henry Maxwell Telling, M.D., 29, Park Square, Leeds.

The following programme has been arranged:

Wednesday, July 24th.—Discussion on The Diagnosis and Treatment of Early Cardiac Complications of Rheumatism. To be opened by Dr. David B. Lees (London).

Thursday, July 25th.—Discussion on The Pathogenesis, Diagnosis, and Medical Treatment of Gastric Ulcer. To be opened by Sir Bertrand Dawson (London).

Friday, July 26th.—Papers.

NAVY, ARMY, AND AMBULANCE.

President: Colonel Damer Harrisson, K.H.S., M.Ch., F.R.C.S.E., Liverpool.

Vice-Presidents: Colonel Guy Carleton Jones, M.D., Director-General of Medical Services Militia of Canada, Ottawa; Surgeon-General William Babtie, V.C., C.M.G., M.B., L.R.C.P., Deputy Director-General, Army Medical Service, War Office, S.W.; Lieutenant-Colonel Nathaniel Edward Roberts, M.B., D.P.H., Liverpool; Fleet Surgeon George Trevor Collingwood, M.V.O., R.N., Royal Naval College, Osborne, Isle of Wight.

Honorary Secretaries: Captain John Henry Porteous Graham, M.R.C.S., L.R.C.P., Warrenside, Wallasey, Cheshire; Lieutenant-Colonel Nathan Raw, M.D., F.R.S.E., 66, Rodney Street, Liverpool.

NEUROLOGY AND PSYCHOLOGICAL MEDICINE.

President: Landel Rose Oswald, M.B., Glasgow Royal Asylum, Gartnavel, Glasgow.

Vice-Presidents: William Alexander, M.D., F.R.C.S., Liverpool; Frederick Eustace Batten, M.D., F.R.C.P., London, W.; David Blair, M.D., County Asylum, Lancaster; Ernest Septimus Reynolds, M.D., F.R.C.P., Manchester.

Honorary Secretaries: William Barnett Warrington, M.D., F.R.C.P., 63, Rodney Street, Liverpool; Henry Devine, M.D., West Riding Asylum, Wakefield; Purves Stewart, M.A., M.D., F.R.C.P., 94, Harley Street, London, W.

The following subjects have been selected for special discussion:

Wednesday, July 24th.—Discussion: The Neuroses and Psychoses of the Climacteric: Their Prognosis and Treatment. To be opened by Dr. R. Percy Smith, Dr. C. J. Macalister, and Dr. T. B. Grimsdale from the standpoint respectively of Psychiatrist, General Physician, and Gynaecologist.

Thursday, July 25th.—Discussion: Diagnosis and Treatment of Compression Paraplegia. To be opened by Dr. Ernest Reynolds and Sir Victor Horsley.

Foreign and Colonial visitors are cordially invited to attend the meetings of the Section, and should they desire to read papers they are requested to send in their names as soon as possible to one of the Honorary Secretaries, giving the titles of their papers for approval by the Committee of Reference.

Members are invited to contribute any preparations, specimens or drawings, or any instruments or apparatus pertaining to the work of the Section, which have been designed by themselves, in order that the Committee of the Section may make arrangements to form a special exhibit of such objects.

OPHTHALMOLOGY.

President: Edgar Athelstane Browne, M.Ch., F.R.C.S. Eng., Liverpool.

Vice-Presidents: Charles George Lee, M.R.C.S., Liverpool; Alexander Ogilvy, F.R.C.S.Ire., Clifton, Bristol; Andrew Maitland Ramsay, M.D., F.F.P.S., Glasgow; Charles Hartley Bedwell Shears, M.R.C.S., Liverpool.

Honorary Secretaries: Arthur Nimmo Walker, B.A., M.D., 45, Rodney Street, Liverpool; Robert Jessop Hamilton, F.R.C.S.Eng., 82, Rodney Street, Liverpool; Claude Alley Worth, F.R.C.S., 138, Harley Street, London, W.

OTOLOGY.

President: Hugh Edward Jones, M.R.C.S., Liverpool.

Vice-Presidents: Arthur Henry Cheatle, F.R.C.S., London, W.; James Kerr Love, M.D., Glasgow; Percival Macleod Yearsley, F.R.C.S., London, W.; Henry Hanna, M.A., M.B., Belfast.

Honorary Secretaries: Ernest Malcolm Stockdale, M.R.C.S., 67, Rodney Street, Liverpool; Wm. Mayhew Mollison, M.A., M.C., F.R.C.S., Warden's House, Guy's Hospital, London, S.E.; David Lindley Sewell, M.B., B.S., 2, Peter's Square, Manchester.

The following subjects have been selected for special discussion:

Wednesday, July 24th, 10 a.m. — Discussion: Acute Middle-ear Suppuration, its neglect and proper treatment.

Thursday, July 25th, 10 a.m.—Discussion: The Education of the Specialist in Laryngology and Otology (joint discussion with Section of Laryngology).

Foreign and Colonial visitors are cordially invited to attend the meetings of the Section, and should they desire to read papers they are requested to send in their names as soon as possible to the Liverpool Honorary Secretary, giving the titles of their papers for approval by the Committee of Reference.

Members are invited to contribute any preparations, specimens of drawings, or any instruments or apparatus pertaining to the work of the Section, which have been designed by themselves, in order that the Committee of the Section may make arrangements to form a special exhibit of such objects.

PATHOLOGY.

President: Professor Walker Hall, M.D., The University, Bristol.

Vice-Presidents: Arthur Edwin Boycott, M.A., B.Sc., M.D., London; Professor George Dean, M.B., The University, Aberdeen; Associate Professor Ernest Edward Glynn, M.A., M.D., Liverpool; Thos. Strangeways Pigg Strangeways, M.A., L.R.C.P., Cambridge.

Honorary Secretaries: David Moore Alexander, M.D., School of Hygiene, The University, Liverpool; Pantland Hick, M.D., 21, Rodney Street, Liverpool; Jas. Sholto Cameron Douglas, M.B., Department of Pathology, University, Birmingham.

The following provisional programme has been arranged:

Wednesday, July 24th.—Discussion on Bright's Disease. Professor J. Lorrain Smith, F.R.S., will open the discussion with a paper on the morbid anatomy and etiology. Sir Clifford Allbutt will deal with the cardio-vascular changes; followed by Professor J. Sims Woodhead, Dr. W. Russell, and Dr. J. F. Gaskell. Dr. F. Craven Moore will read a paper on the Liver and Metabolic Changes.

Thursday, July 25th.—Joint discussion with the Gynaecological and Obstetrical Section on Eclampsia. To be opened by Dr. John W. Ballantyne in a paper on the etiology of the disease; followed by Dr. John H. Teacher, on the morbid anatomy; and by Sir William Smyly, on the clinical application of recent research to treatment.

Friday, July 26th.—The following papers on pathological subjects will be read:

Horder, Dr. T. J. The Investigation of Puncture Fluids as an Aid to Diagnosis and Treatment.
Bolton, Dr. C. The Causation of Gastric Ulcer.
MacClean, Dr. H. Some Fallacies in the Routine Testing of Urines.
Barnes, Dr. A. G. Chemical Examination of Faeces in Actual Practice.
Williams, Dr. O. T. Excretory Functions of the Intestines and their Relations to Disease.
Glynn, Associate Professor E. Blood Cultures in Disease.

PHARMACOLOGY AND THERAPEUTICS.

President: Professor W. E. Dixon, M.A., M.D., Cambridge.

Vice-Presidents: Professor John Hill Abram, M.D., Liverpool; Professor Robert James McLean Buchanan, M.D., Liverpool; Professor Hy. Johnstone Campbell, M.D., Bradford; Hugh Jones Roberts, M.D., Pen-y-groes, N. Wales.

Honorary Secretaries: Owen Thomas Williams, M.D., 51a, Rodney Street, Liverpool; Assistant Professor Francis Jas. Charteris, M.B., 400, Great Western Road, Glasgow; Professor John Dundon, M.D., F.R.C.S., 3, Camden Place, Cork.

PHYSIOLOGY.

President: Professor Jno. Smyth Macdonald, B.A., L.R.C.P., Sheffield.

Vice-Presidents: Professor Archibald B. Macallum, F.R.S., Toronto; Professor Benjamin Moore, D.Sc., M.R.C.S., Birkenhead; Horace Middleton Vernon, M.D., Oxford.

Honorary Secretaries: John Alex. Milroy, M.A., M.D., Queen's College, Belfast; Thomas Graham Brown, B.Sc., M.B., The University, Liverpool; Fredk. Perera Wilson, M.Sc., M.D., 1a, Rodney Street, Liverpool.

STATE MEDICINE AND INDUSTRIAL DISEASES.

President: Archibald Kerr Chalmers, M.D., Glasgow.

Vice-Presidents: Allan Gordon Russell Cameron, M.B., B.S., D.P.H., Worthing; Edward Wm. Hope, D.Sc., M.D., Liverpool; Sydney Marsden, M.B., D.P.H., D.Sc., M.R.I.A., F.R.S.E., Birkenhead; Arthur Augustus Mussen, B.A., M.D., D.P.H., Liverpool; Matthew James Oliver, M.B., D.P.H., Roxburghshire.

Honorary Secretaries: Thos. Wm. Naylor Barlow, M.R.C.S., D.P.H., Public Health Office, Wallasey, Cheshire; John James Buchan, M.D., D.P.H., Holly Mount, Laurel Road, St. Helens; Harry Llewellyn Heath, L.M.S.S.A., D.P.H., 65, Fonnereau Road, Ipswich.

SURGERY.

President: Professor Rushton Parker, M.B., B.S., F.R.C.S., Liverpool.

Vice-Presidents: Hamilton Ashley Ballance, M.S., F.R.C.S., Norwich; Alex. Bickersteth, M.A., M.B., F.R.C.S., Liverpool; Frederic Charles Larkin, F.R.C.S., Liverpool; Albert Lucas, F.R.C.S., Birmingham; Harold Jalland Stiles, M.B., F.R.C.S.E., Edinburgh.

Honorary Secretaries: Robert Wm. Murray, F.R.C.S., 15, Rodney Street, Liverpool; Geo. Palmerston Newbolt, M.B., B.S., F.R.C.S., 5, Gambier Terrace, Liverpool; Alex. Wathen Nuthall, Ch.M., F.R.C.S., 3, Calthorpe Road, Edgbaston, Birmingham.

TROPICAL MEDICINE.

President: Professor John L. Todd, M.D., McGill University, Montreal.

Vice-Presidents: Fleet-Surgeon P. W. Bassett-Smith, C.B., R.N., Royal Naval Hospital, Haslar; Wm. Carnegie Brown, M.D., M.R.C.P., London; William Thomas Prout, M.B., C.M.G., Liverpool; Jno. Wm. Watson Stephens, B.A., M.D., School of Tropical Medicine, Liverpool; Albert John Chalmers, M.D., F.R.C.S., London.

Honorary Secretaries: Breadalbane Blacklock, M.B., Runcorn Research Laboratories, Crofton Lodge, Runcorn; Hugh Basil Greaves Newham, M.R.C.S., Director, London School of Tropical Medicine, Albert Dock, London, E.

Honorary Local Treasurer—
Thomas H. Bickerton, M.R.C.S.,
88, Rodney Street, Liverpool.

Honorary Local Secretaries—
Frank H. Barendt, M.D.,
Karl L. Grossmann, M.D.,
W. Thelwall Thomas, Ch.M., F.R.C.S.,
Liverpool Medical Institution, 114, Mount Pleasant, Liverpool.

PROVISIONAL PROGRAMME.

The following is the provisional time table for the Liverpool Meeting:

Friday, July 19th, 1912.
10 a.m.—Annual Representative Meeting.

Saturday, July 20th.
9.30 a.m.—Representative Meeting.

Monday, July 22nd.
9.30 a.m.—Council Meeting.
10 a.m.—Representative Meeting.
7 p.m.—Secretaries' Conference and Dinner.

Tuesday, July 23rd.
9.30 a.m.—Representative Meeting.
2 p.m.—Annual General Meeting.
8.30 p.m.—Adjourned General Meeting, President's Address.

Wednesday, July 24th.
9 a.m.—Council Meeting.
10 a.m. to 1 p.m.—Sectional Meetings.
12.30 p.m.—Address in Medicine.
3 p.m.—Religious Services.

Thursday, July 25th.
10 a.m. to 1 p.m.—Sectional Meetings.
12.30 p.m.—Address in Surgery.
7.30 p.m.—Annual Dinner.

Friday, July 26th.
9 a.m.—Council Meeting.
10 a.m. to 1 p.m.—Sectional Meetings.

Saturday, July 27th.
Excursions.

PATHOLOGICAL MUSEUM.

Chairman of Committee: F. T. Paul, Ch.M.
Honorary Secretary: Ernest Glynn, M.D.

Ex-Officio Members:
The President-Elect (Sir James Barr, M.D., LL.D.).
The Local Honorary Treasurer (T. H. Bickerton, Esq.).
The Local Honorary Secretaries (F. H. Barendt, M.D., K. A. Grossmann, M.D., W. Thelwall Thomas, Ch.M.).

The Committee appointed to organize the Museum invites material for it under the following heads:

I. Exhibits bearing on discussions and papers in the various sections.
II. Specimens and illustrations relating to any recent research.
III. Instruments relating to clinical diagnosis and pathological investigation.*
IV. Specimens on particular subjects chosen for special illustration in certain of the sections as indicated below.

The Committee has decided to form fourteen sections of the Museum and has chosen certain subjects for special illustration:

Subjects for Special Illustration.

1. Alimentary System.—Congenital deformities; alimentary, biliary, and pancreatic concretions; specimens of oesophagus, including foreign bodies, also instruments* for the diagnosis and treatment of such diseases.
2. Anaesthetics.—Modern anaesthetic apparatus.*
3. Cardio-vascular System.—Neoplasms and granulomata of the heart.
4. Dermatology.—Syphilitic and tuberculous affections of the skin; the results of treatment with carbon dioxide snow.
5. Genito-urinary System.—Specimens illustrating the etiology of hydronephrosis; tumours *in* the adrenal gland.
6. Gynaecology and Obstetrics.—Inflammatory diseases of the uterine appendages; sarcoma of the uterus.
7. Haemopoietic System.—Diseases of the thymus gland.
8. Laryngology, Rhinology, and Otology.
9. Locomotor System and Orthopaedics.
10. Neurology.—Tumours of the pituitary gland; specimens illustrating the pathology of hydrocephalus.
11. Ophthalmology.—Irido-cyclitis and its pathology.
12. Radiography.—Specimens illustrating diseases of the stomach.
13. Respiratory System.—Pulmonary embolism and thrombosis; syphilis of the lung.
14. Tropical Medicine.—Leprosy and Leishmaniasis.

The Committee desires to enlist the hearty co-operation of members, and wishes it to be understood that the above are only suggestions. Specimens illustrative of other conditions will be welcomed.

The Museum will occupy a central position in a fireproof building surrounded by the lecture rooms, in which the Sectional work is carried on, and will be easy of access.

Every care will be taken of the specimens, and the contents of the Museum will be insured.

The Committee is prepared to make arrangements for a limited number of short special demonstrations in the Museum at stated hours.

All communications should be addressed to Dr. Ernest Glynn, Honorary Secretary, at the Thompson Yates Laboratory, University of Liverpool.

* Exhibits in the Pathological Museum of instruments and apparatus can only be accepted from medical men.

NATIONAL INSURANCE: MEETINGS OF THE PROFESSION.

Wandsworth.

A meeting of all medical men in the Wandsworth Division to consider the formation of a Provisional Medical Committee was held at Battersea Town Hall on March 28th. Dr. M. S. Biggs was elected Chairman, and Mr. Kennish Honorary Secretary.

The following were the principal resolutions carried:

That this meeting approves of the formation of a Provisional Medical Committee for the purpose of organization and defence.

That each member of the local profession be asked to subscribe 5s. towards the expenses of the Committee.

That the Committee consist of thirty-five members.

That the duties of the Provisional Committee be:

1. If the profession decide to undertake work under the National Insurance Act, to define the terms and conditions required by the local profession.
2. If the profession decide not to undertake work under the Act, to organize the profession so that no insured person shall obtain medical attendance except on the terms and conditions agreed upon by the local profession.
3. To organize the profession so that no uninsured person shall be able to obtain medical attendance under a contract at a less rate than agreed upon by the local profession.
4. That the committee shall keep the State Sickness Insurance Committee fully informed as to its course of action, and the results obtained.
5. That the co-ordinating body for this Provisional Committee and the other Provisional Committees in the London area shall consist of two members elected by each Provisional Local Committee which shall be formed in that area.

Four members of the committee are to be elected from each of the seven districts, and seven members from the Division generally. Each medical man has thirty-five votes, but cannot give more than one vote to any one candidate.

Each candidate must be nominated by at least four medical men resident in the Division.

Nominations will be received up to April 15th by Mr. J. Kennish, 73, Clapham Park Road, S.W.

Meetings of Branches and Divisions.

OXFORD AND READING BRANCH:

Oxford Division.

A special general meeting of the Division was held on March 28th at the Radcliffe Infirmary, Oxford, at 3.15 p.m. Dr. Turrell, Vice-Chairman, presided, in the absence of Mr. Style, and forty members were present.

Confirmation of Minutes.—The minutes of the last meeting were read and approved.

National Health Week.—The Secretary read a notice of a National Health Week to be held at Oxford at the end of April, and Dr. Ormerod, M.O.H., appealed to members for their support in the way of giving addresses and short lectures on matters of health.

National Insurance Act.—The Chairman then laid before the meeting the proposal to form a Provisional Medical Committee, which should be representative of the whole area of the Division, and explained its objects and duties. He read out a list of nominations which had been made by the Executive Committee. Certain additions were proposed and accepted, and finally the following gentlemen were elected to serve on the Committee: Dr. Ormerod, M.O.H., Dr. Collin, Mr. Dodds-Parker, Dr. Turrell, Dr. Duigan, Mr. Drew, Dr. Hitchens, Dr. Thompson, Dr. Wood (to represent the city of Oxford); Dr. Caudwell (Woodstock District), Dr. Boissier (Banbury District), Dr. Hebb (Islip and Bicester District), Dr. Summerhayes (Thame District), Dr. H. Freeborn (Dorchester and Watlington District), Dr. Hendriks (non-member) (Bicester District), Dr. Cruikshank (Eynsham and Bampton District), Dr. Cheatle (Burford, Lechlade District), Dr. O'Kelly (Chipping Norton District), Mr. Style (Moreton-in-Marsh District), Dr. Kennard (Faringdon District), Dr. Scott (Abingdon District), Dr. Rice (Herwell and Wantage District), Dr. Croly (Charlbury District), Dr. Nelson (Wallingford District), Dr. Patterson (Lambourne District), Dr. Harvey (Witney District). A meeting of the Committee took place at the conclusion of the general meeting. Dr. Long, of Bicester, was co-opted, in the absence of Dr. Hendriks. A list of members and non-members of the Association was gone through, and groups were apportioned off to the various members of the Medical Committee, who undertook to ascertain what contract practice appointments were held, and when necessary to personally canvass practitioners within their area. It was suggested that the Secretary should draft a letter to be sent to every practitioner within the district, asking certain specific questions as to contract practice appointments, their readiness to resign them if called upon to do so, and calling for further support to the Local Guarantee Fund.

SOUTH-EASTERN BRANCH:

Dartford Division.

A meeting of this Division was held at the Bull Hotel, Dartford, on Thursday, March 28th, at 3.15; Dr. Steen presided.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Apologies for Non-attendance.—Letters regretting inability to attend were read from Drs. Shaw Williamsom, Hartley, Griffiths, and Goodridge.

Special Representative Meeting.—Dr. Chisholm Will gave a report of the proceedings of the Special Representative Meeting held in February. He laid special stress on the results of the meeting in the formation of the future policy of the Association, and on the united determination of the Representatives to stand by the minimum demands of the profession. It was resolved, on the motion of Dr. Clarke, seconded by Dr. Lindow:

> That this Division agrees with the results and report of the Special Representative Meeting.

The Secretary was directed to forward the resolution to the Acting Medical Secretary.

On the motion of the Chairman, seconded by Dr. Clarke, it was resolved:

> That the best thanks of this Division be accorded to Dr. Chisholm Will for the manner in which he has carried out his duties as Representative for this Division, and that the same be entered on the minutes.

Future Policy of Division re Contract Work.—After discussion of the Document 46 it was resolved to form a Provisional Medical Committee for the Dartford Division, to consist of twenty-three members elected by the members of the profession residing in the various areas for which provisional District Medical Committees have been already formed.

Provisional Medical Committee for Kent.—It was resolved to support the formation of a Provisional Medical Committee for Kent. The Chairman and Secretary were elected delegates from this Division.

Date of Annual Meeting.—It was resolved to hold the annual meeting at Dartford on May 16th.

The meeting then adjourned.

YORKSHIRE BRANCH:

Halifax Division.

A meeting of the Division was held at the Mikado Cafe, on Wednesday, March 27th, at 8.30 p.m. An invitation had been sent to all the medical practitioners within the area of the Division. Dr. Macaulay was in the chair, and thirty-six other members were present.

Confirmation of Minutes.—The minutes of the previous meeting were read, confirmed, and signed.

Representative Meeting.—A short account of the Special Representative Meeting held in February was given by Dr. Drury.

Formation of Provisional Local Medical Committee.—The letter from the Acting Medical Secretary and the document D 46 were considered and a local Provisional Medical Committee was duly elected.

Local Contract Practice.—At the urgent request of many local medical practitioners holding friendly society appointments the question of contract practice, as it obtains locally, had on several occasions been fully considered by the local Executive Committee. As a result, a circular letter was sent on March 6th to all the medical practitioners in the Division area asking certain specific questions. From the information thus received it was found that there were only eighteen men in the whole Division who held club appointments. All these men were prepared to resign their clubs and to place their resignations in the hands of the Division Secretary. All the men in the Division also gave an undertaking that they were prepared to sign an agreement not to accept any such resigned clubs, or any freshly constituted club. Full information was given to the meeting and the subject discussed. Twelve of the eighteen clubmen were present at the meeting, and held a conference amongst themselves. Finally, they unanimously decided to ask the Division to call upon all medical men in the Division to resign their club appointments at once in order that their agreements might terminate on or before July 1st next. A resolution to that effect, on being submitted to the meeting, was carried unanimously. It was also decided, on the suggestion of the men holding club appointments, that on and after July 1st next the minimum fee for examining candidates for entry to any clubs or approved societies should be 2s.

Central and Local Defence Funds.—The Secretary made an appeal for further guarantors, and gave some details of the support which the funds had obtained locally.

Circular from State Sickness Insurance Committee.—The resignations of the doctors holding club appointments were duly handed in to the Divisional Secretary, but on the receipt of the circular letter, D 48, dated March 28th, from the State Sickness Insurance Committee, an emergency meeting of the Executive Committee was called, and the Secretary ordered to withhold the resignations pending further instructions from the Central Office.

To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.

Association Notices.

COUNCIL MEETING.

The Quarterly Meeting of the Council will be held at 2 o'clock in the afternoon of Wednesday, May 1st, in the Council Room at 429, Strand, London, W.C.

By Order,

Guy Elliston,

Financial Secretary and Business Manager.

March 28th, 1912.

BRANCH AND DIVISION MEETINGS TO BE HELD.

East Anglian Branch.—The spring meeting of the Branch will be held at East Dereham on Thursday, April 25th. Members wishing to read papers or show specimens or cases should communicate with Mr. Hamilton A. Ballance, M.S., Honorary Secretary for Norfolk.

Metropolitan Counties Branch: City Division.—*National Insurance Act*: A meeting of the profession within the area of the Division will be held in the Council Chamber of the Shoreditch Town Hall, Old Street, E.C., on Wednesday, April 17th, at 4 p.m., to appoint a Provisional Medical Committee. Dr. Gerald Johnston, Chairman of the Division, will preside. All practitioners, resident or practising within the area of the Division, are cordially invited. *General Meeting*: The next general meeting of the Division will be held at Brooke House, Upper Clapton (by invitation of the Chairman, Dr. Gerald Johnston), on Thursday, April 25th, at 9 p.m., when Dr. Chas. Bolton, F.R.C.P., will give a lantern demonstration and address upon Gastric Ulcer. Members are invited to bring professional friends. After the address a meeting will be held, to which all practitioners in the Borough of Hackney are invited, to consider the organization of the profession within the area of the Borough in relation to the National Insurance Act.—A. G. Southcombe, Honorary Secretary, Homerton, N.E.

Metropolitan Counties Branch: Hampstead Division.—A Divisional Meeting will be held on Friday, April 12th, at the Central Library, Finchley Road, at 8.30 p.m.; also on Friday, April 19th, at The Hall of the Blind School, Swiss Cottage, N.W., at 8.30 p.m., a meeting of the profession in the Borough of Hampstead, for the purpose of electing a Provisional Local Medical Committee.—E. Arthur Dorrell, Honorary Assistant Secretary, 7, Cannon Hill, West Hampstead, N.W.

Metropolitan Counties Branch: St. Pancras and Islington Division.—A meeting will be held, to which all members of the profession in the two boroughs will be invited, at the Midland Grand Hotel, King's Cross, N.W., on Friday, April 12th, at 9 p.m., for the special purpose of forming a Provisional Medical Committee. Dr. Morison, Chairman of the Division, will preside, and will invite Dr. R. M. Beaton (Member of the National Insurance Committee and of the Central Advisory Committee) to lay the forthcoming programme of the Division before the meeting.—A. Brown, Honorary Secretary.

South-Eastern Branch: Brighton Division.—A special meeting of the Division will be held on Friday, April 12th, at the Oddfellows' Hall, Queen's Road, Brighton. The next ordinary meeting will take place on Tuesday, April 16th, at the Lecture Hall, New Road, Brighton, at 4 p.m.—C. H. Benham, onorary Secretary, Brighton.

British Medical Association.

SCHOLARSHIPS AND GRANTS IN AID OF SCIENTIFIC RESEARCH.

SCHOLARSHIPS.

The Council of the British Medical Association is prepared to receive applications for Research Scholarships, as follows:

1. An Ernest Hart Memorial Scholarship, of the value of £200 per annum, for the study of some subject in the department of State Medicine.

2. Three Research Scholarships, each of the value of £150 per annum, for research into some subject relating to the Causation, Prevention, or Treatment of Disease.

Each Scholarship is tenable for one year, commencing on October 1st, 1912. A Scholar may be reappointed for not more than two additional terms.

The conditions of the award of Scholarships are stated in the Regulations, a copy of which will be supplied on application to the Acting Medical Secretary of the Association, 429, Strand, London, W.C.

GRANTS.

The Council of the British Medical Association is also prepared to receive applications for Grants for the assistance of Research into the Causation, Treatment, or Prevention of Disease. Preference will be given, other things being equal, to members of the medical profession and to applicants who propose as subjects of investigation problems directly related to practical medicine.

The conditions of the award of Grants are stated in the Regulations, a copy of which will be supplied on application to the Acting Medical Secretary of the Association, 429, Strand, London, W.C.

Applications.

Applications for Scholarships and Grants for the year 1912–13 must be made not later than Tuesday, June 11th, 1912, in the prescribed form, a copy of which will be supplied by the Acting Medical Secretary on application.

Each application should be accompanied by testimonials, including a recommendation from the head of the laboratory, if any, in which the applicant proposes to work, setting out the fitness of the candidate to conduct such work, and the probable value of the work to be undertaken. This is not intended, however, to prevent applications for Grants in aid of work which need not be performed in a recognized laboratory.

Alfred Cox, *Acting Medical Secretary.*

429, Strand, London, W.C., *March 30th, 1912.*

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

AGRA: DUFFERIN HOSPITALS AND FEMALE MEDICAL SCHOOL.—Senior Lady Doctor for the Dufferin Hospitals, Agra. Pay, inclusive of allowances, Rs. 400 (£26 13s. 4d.) per mensem.

AYR COUNTY HOSPITAL.—Resident House-Surgeon. Salary, £70 per annum.

BEDFORD COUNTY HOSPITAL.—Male Assistant House-Surgeon. Salary, £80 per annum.

BETHLEM HOSPITAL.—Two Resident House-Physicians. Honorarium at the rate of £25 each per quarter.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Second and Third House-Surgeons. Salary, £80 and £75 per annum respectively.

BIRMINGHAM GENERAL HOSPITAL.—Honorary Surgeon. In the event of the Assistant Surgeon being elected there will be a vacancy for an Assistant Surgeon.

BOLINGBROKE HOSPITAL, Wandsworth Common, S.W.—House-Surgeon (male). Salary, £75 per annum.

BRIGHTON, HOVE, AND PRESTON DISPENSARY.—Resident Medical Officer. Salary, £160 per annum.

BRISTOL EYE HOSPITAL.—House-Surgeon. Salary, £80 per annum.

BRISTOL GENERAL HOSPITAL.—House-Physician. Appointment for six months. Salary, £80.

BUXTON: DEVONSHIRE HOSPITAL.—Pathologist (non-resident). Salary, £250 per annum.

CANCER HOSPITAL, Fulham Road, S.W.—(1) Assistant Anaesthetist: honorarium, 25 guineas per annum. (2) House-Surgeon. Salary at the rate of £70 per annum.

CARLISLE NON-PROVIDENT DISPENSARY.—Resident Medical Officer. Salary, £150 per annum.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Honorary Assistant Surgeon.

CHELTENHAM GENERAL HOSPITAL.—House-Physician. Salary, £80 per annum, rising to £100 on becoming Senior Medical Officer.

COVENTRY AND WARWICKSHIRE HOSPITAL.—House-Physician. Salary, £90 per annum, rising to £100.

DUDLEY: GUEST HOSPITAL.—Assistant House-Surgeon. Salary, £80 per annum.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Medical Officer (male) to the Casualty Department. Salary at the rate of £100 per annum.

EAST SUSSEX COUNTY ASYLUM, Hellingly.—Third Assistant Medical Officer. Salary, £175 per annum, rising to £200.

GROCERS' COMPANY.—Two Scholarships of £300 per annum each for original research in Sanitary Science.

HEMEL HEMPSTEAD: WEST HERTS HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

INVERNESS: NORTHERN INFIRMARY.—House-Surgeon. Salary, £100 per annum.

IPSWICH BOROUGH.—Assistant Medical Officer of Health. Salary, £250 per annum.

LANCASHIRE COUNTY ASYLUM, Winwick.—Locumtenent Medical Officer. Salary, 4 guineas per week.

LEEDS UNION.—Male Assistant Medical Officer. Salary, £130 per annum.

LEICESTER INFIRMARY.—(1) Honorary Assistant Physician. (2) Male Assistant House-Physician. Salary at the rate of £80 per annum.

LINCOLN COUNTY HOSPITAL.—Junior Male House-Surgeon. Salary at the rate of £100 per annum.

LIVERPOOL DISPENSARIES.—Assistant Surgeon. Salary, £100 per annum.

LIVERPOOL: HOSPITAL FOR WOMEN.—House-Surgeon. Honorarium. £50 for six months.

LIVERPOOL UNIVERSITY.—(1) Professor of Pathology. Stipend, £500 per annum. (2) Chair of Bacteriology and City Bacteriologist. Salary, £800 per annum.

LOUGHBOROUGH AND DISTRICT GENERAL HOSPITAL.—Male Resident House-Surgeon. Salary, £120 per annum.

MANCHESTER CHILDREN'S HOSPITAL, Pendlebury.—Honorary Dental Surgeon.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—(1) House-Physician; (2) House-Surgeon; (3) Assistant House-Physician; (4) Assistant House-Surgeon. Salary for (1) and (2) at the rate of £60 per annum, and for (3) and (4) at the rate of £40 per annum.

MIDDLESEX HOSPITAL, W.—Medical Registrar.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—Casualty Officer. Salary at the rate of £60 per annum.

OLDHAM ROYAL INFIRMARY.—(1) Second House-Surgeon. (2) Third House-Surgeon. Salary at the rate of £100 and £80 per annum respectively.

PADDINGTON GREEN CHILDREN'S HOSPITAL, W.—(1) House-Physician; (2) House-Surgeon. Salary at the rate of £52 10s. each per annum.

PRINCE OF WALES'S GENERAL HOSPITAL, Tottenham, N.—(1) Senior House-Physician; (2) Junior House-Surgeon; (3) Junior House-Physician. Salary for (1) £75 per annum, and for (2) and (3) £50 per annum.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney Road, N.E.—(1) House-Surgeon; (2) House-Physician. Salary at the rate of £80 per annum each.

READING: ROYAL BERKSHIRE HOSPITAL.—(1) House-Physician; (2) Second House-Surgeon. Salary at the rate of £80 per annum each.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—(1) Male House-Physician; (2) Male House-Surgeon; (3) Female House-Physician. (4) Female House-Surgeon; (5) Female Senior Obstetric Assistant, salary, £50 per annum; (6) Female Junior Obstetric Assistant.

ST. JOHN'S WOOD AND PORTLAND TOWN DISPENSARY, N.W.—Third Medical Officer. Emoluments: Midwifery and vaccination fees and share in honorarium of £150.

SALFORD ROYAL HOSPITAL.—Junior House-Surgeon (Male). Salary at the rate of £65 per annum.

SALOP INFIRMARY.—House-Surgeon. Salary, £100 per annum.

SEAMEN'S HOSPITAL SOCIETY.—Assistant Physician for Diseases of the Skin at the Dreadnought Hospital, Greenwich.

SHEFFIELD: ROYAL INFIRMAEY.—Junior Resident Medical Officer. Salary, £60 per annum.

SOUTHAMPTON UNION.—Resident Assistant Male Medical Officer of the Workhouse Infirmary. Salary, £130 per annum, increasing to £150.

SOUTHPORT INFIRMARY.—Resident (Male) Junior House and Visiting Surgeon. Salary commencing at the rate of £70 per annum.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—House-Physician. Salary, £82 per annum, and £5 honorarium after six months' approved service.

STOCKPORT INFIRMARY.—Junior House-Surgeon. Salary, £80 per annum.

SUNDERLAND: CHILDREN'S HOSPITAL.—Resident Medical Officer. Salary at the rate of £80 per annum.

SUNDERLAND: ROYAL INFIRMARY.—(1) Two Junior House-Surgeons; (2) House-Physician (Males). Salary at the rate of £80 per annum.

WEST LONDON HOSPITAL, Hammersmith Road, W.—Pathologist. Salary, £150 per annum.

WEST RIDING COUNTY COUNCIL: SCALEBOR PARK ASYLUM.—Assistant Medical Officer. Salary, £180 per annum.

YORK COUNTY HOSPITAL.—House-Physician. Salary at the rate of £100 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacant appointments: Baslow (Derbyshire), Penygroes (Carnarvonshire), Yealmpton (Devonshire).

APPOINTMENTS.

ADAM, Thomas, M.D.Glas., D.P.H.Camb., Medical Officer of Health for Stirlingshire, vice J. C. McVail, M.D.

BEALES, Miss E., M.B., B.S.Lond., Resident Assistant Medical Officer, Bradford Union Workhouse.

BUCHANAN, James, M.B., Outdoor House-Surgeon, Glasgow Maternity and Women's Hospital.

CRABER, F., M.B., C.M.Edin., Medical Officer of Health, Matlock Urban District.

GLANCY, Miss May Edith, L.M. and S., House-Physician, Pestanji Hormasji Cama Hospital for Women and Children, Bombay.

HAMILTON, William, M.B., Indoor House-Surgeon, Glasgow Maternity and Women's Hospital.

HARLAN, George P., M.D., Medical Superintendent of the Workhouse Hospital of the Newcastle Union.

HERBERT, G. H., M.R.C.S., L.R.C.P., Medical Officer of Health, Sudbury Rural District.

MACLAREN, Norman, M.B., B.C.Camb., F.R.C.S., Surgeon to the Cumberland Infirmary, Carlisle, vice Ogilvie-Ramsay, M.D., F.R.C.S.Edin.

MOORE, T., Junr., L.R.C.P. and S.Edin., L.F.P.S.Glas., Medical Officer of Health, Hazell Grove, and Bramhall Urban District.

MOXON, H. W., B.A.Cantab., M.R.C.S., L.R.C.P., Medical Officer of Health, North Darley Urban District.

NICHOLL, E. E., M.R.C.S., L.R.C.P., Medical Officer of Health, Borough of South Molton.

OLIVER, A., M.B., Medical Officer of Health, Borough of Thetford.

PHILLIPS, Hugh R., M.D.Edin., Anaesthetist to the West End Hospital for Diseases of the Nervous System.

SCOTT, W. S., M.B., Ch.B.Edin., Medical Officer of Health to Urban Rural Districts of Ellesmere; Public Vaccinator to Ellesmere, Welshampton and Cockshutt Districts of Ellesmere Union; Medical Officer to Ellesmere Union Workhouse and Ellesmere District.

WOOSTER, F. C., M.B.Syd., Junior Assistant Medical Officer, Department of Lunacy, New South Wales.

WOOD, Frederic C., L.M.S., D.P.H.Lond., Honorary Medical Officer to Passmore Edwards Hospital, Wood Green.

WRIGHT, E. A., M.B., Certifying Factory Surgeon for the Yarmouth (Isle of Wight) District, co. Hants.

SEDDON, A., L.R.C.P. and S.Edin., D.P.H., Medical Officer of Health, Frome Urban District.

STRACHAN, Gilbert I., M.B., B.S.Glas., Indoor House-Surgeon, Glasgow Maternity and Women's Hospital.

WATT, J. Leslie, M.B., C.M.Aberd., Medical Officer of Tavistock Workhouse and District Medical Office and Public Vaccinator of Tavistock District, including Tavistock, Tavistock Hamlets, Lamerton and Sydenham Damarell, co. Devon, vice Dr. J. Snowden Smith, deceased.

UNIVERSITY COLLEGE HOSPITAL, W.C.—The following appointments have been made:

Assistant Surgeon in Ear, Nose, and Throat Department.—G. Seccombe Hett, M.B., F.R.C.S.

House-Physician.—G. G. Johnstone, M.B., B.C.Cam.

House-Surgeon.—W. J. Pearson, M.B., B.Ch.

Obstetric Assistant.—D. O. Twining, M.R.C.S., L.R.C.P.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTH.

ANDERSON.—At Newholme, Pitlochrie, on March 27th, the wife of John Anderson, M.B., C.M.Edin., of a daughter.

DEATHS.

KINGSFORD.—On March 31st, Edward Claude Kingsford, M.R.C.S., L.R.C.P., of Carntyne, Cricklewood, N.W., aged 50, eldest son of the late Charles Dudley Kingsford, M.D., of Upper Clapton, N.E., and of Mrs. Kingsford, of The Mount, Brightling, Sussex. Funeral at Christ Church, Brondesbury, N.W., on Thursday, April 4th, at 1.15 p.m.

MINNS.—On March 31st, Pembroke Robert Joseph Bunch Minns, M.D., Thetford, aged 71.

DIARY FOR THE WEEK.

WEDNESDAY.

UNITED SERVICES MEDICAL SOCIETY, Royal Army Medical College, Grosvenor Road, S.W., 5 p.m. — Major H. E. M. Douglas, V.C., D.S.O., R.A.M.C.: The Special Weaknesses, from a medical aspect, of Volunteer Troops. Lieutenant-Colonel J. F. Donegan: Demonstration of a field operating table.

THURSDAY.

ROYAL SOCIETY OF MEDICINE:

OBSTETRICAL AND GYNAECOLOGICAL SECTION, 11, Chandos Street, W., 8 p.m.—(1) Exhibition of Specimens. (2) Short Communications: — Dr. Glendining: Fibro-adenoma of the Ovarian Fimbria, and the question of an Accessory Ovary. Dr. Lockyer: Embryotomy after Version for Placenta Praevia. Mr. Barris: Retroflexion of Gravid Uterus complicated by Haematuria. Dr. Williamson: Death of the Child caused by Rupture of Placental Veins during Parturition.

FRIDAY.

WIMBLEDON AND DISTRICT MEDICAL SOCIETY, 6, Broadway, Wimbledon, 9 p.m.—Paper by Dr. Leonard G. Guthrie: Epidemic Diarrhoea in Children.

POST-GRADUATE COURSES AND LECTURES.

SALFORD ROYAL HOSPITAL, Thursday, 4.30 p.m. — Vomiting in Infancy.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics, *X* Rays, Operations, 2 p.m. daily. Monday: Gynaecology, 10 a.m.; Eye, 2 p.m. Tuesday; Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday: Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday: Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
APRIL.	
7 Sunday ..	*(Easter Day)*
8 MONDAY ..	
9 TUESDAY ..	
10 WEDNESDAY	LONDON: Grants Subcommittee, 9.30 a.m. LONDON: Conference of Secretaries Subcommittee, 3 p.m. LONDON: Regulations and Standing Orders Subcommittee, 4.30 p.m.
11 THURSDAY ..	
12 FRIDAY ..	BRIGHTON DIVISION, *South-Eastern Branch*, Special Meeting, Oddfellows' Hall, Queen's Road, Brighton. LONDON: Central Ethical Committee, 2 p.m. HAMPSTEAD DIVISION, *Metropolitan Counties Branch*, Divisional Meeting, Central Library, Finchley Road, 8.30 p.m. ST. PANCRAS AND ISLINGTON DIVISION, *Metropolitan Counties Branch*, Meeting of the Profession, Midland Grand Hotel, King's Cross, W.C., 9 p.m.
13 SATURDAY ..	LONDON: Standing Therapeutic Subcommittee, 10 a.m. LONDON: Science Committee, noon.

Date.	Meetings to be Held.
APRIL *(continued).*	
14 Sunday ..	
15 MONDAY ..	
16 TUESDAY ..	LONDON: Organization Committee, 2.30 p.m. BRIGHTON DIVISION, *South-Eastern Branch*, Ordinary Meeting, Lecture Hall, New Road, Brighton, 4 p.m.
17 WEDNESDAY	LONDON: Finance Committee, 2.30 p.m. CITY DIVISION, *Metropolitan Counties Branch*, Meeting of Profession, Council Chamber, Shoreditch Town Hall, Old Street, E.C., 4 p.m.
18 THURSDAY ..	LONDON: Metropolitan Counties Branch, Council, 4 p.m.
19 FRIDAY ..	HAMPSTEAD DIVISION, *Metropolitan Counties Branch*, Meeting of Profession, Hall of Blind School, Swiss Cottage, N.W., 8.30 p.m.
20 SATURDAY ..	
21 Sunday ..	
22 MONDAY ..	
23 TUESDAY ..	
24 WEDNESDAY	BATH AND BRISTOL BRANCH, Bath. RICHMOND DIVISION, *Metropolitan Counties Branch*, Richmond, 8.30 p.m.

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SUPPLEMENT
TO THE
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LONDON: SATURDAY, APRIL 13TH, 1912.

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National Insurance.

NATIONAL HEALTH INSURANCE JOINT COMMITTEE.

THE following is the Advisory Committee appointed (under Section 58 of the National Insurance Act, 1911) by the Joint Committee of the several bodies of Commissioners for the purpose of giving such Joint Committee advice and assistance in connexion with the making and altering of Regulations under Part I of the Act.

I.—REPRESENTATIVES OF EMPLOYERS AND ASSOCIATIONS OF EMPLOYERS 25

William Bagley ..	Association of Glass Bottle Manufacturers of Great Britain and Ireland.
Thomas Biggart ..	Shipbuilding Employers' Federation.
F. L. Blundell ..	Agriculture (England).
W. H. Boase	Master Stevedores' and Master Porters' Association.
Rev. E. F. Campbell	Agriculture (Ireland).
R. Garrett Campbell ..	Flax Spinners' Association.
J. Walker Clark ..	National Chamber of Trade.
Henry Clement ..	Welsh Plate and Sheet Manufacturers' Association.
J. H. C. Crockett ..	Incorporated Federated Association of Boot and Shoe Manufacturers of Great Britain and Ireland.
William Crowther, J.P.	Huddersfield and District Woollen Manufacturers' and Spinners' Association: Huddersfield and District Yarn Spinners' Association; Master Dyers' and Finishers' Association.
James Cunningham ..	Dundee and District Spinners' and Manufacturers' Association.
James Farquharson ..	Scottish Building Trades' Federation.
John Gordon	National Federation of Merchant Tailors.
F. A. Hargreaves ..	North and North-East Lancashire Cotton Spinners' and Manufacturers' Association.
A. W. Last	National Association of Master Bakers and Confectioners.
Cuthbert Laws ..	The Shipping Federation, Ltd.
Joseph Shaw, K.C. ..	The Mining Association of Great Britain.
A. Siemens	Engineering Employers' Federation.
C. L. A. Skinner ..	Festiniog District Slate Quarry Proprietors' Association.
F. Whitley Thomson, J.P.	Association of Chambers of Commerce of the United Kingdom.
Christopher Turnor, J.P.	Central Chamber of Agriculture.
Thomas Tweddell ..	The Co-operative Union, Ltd.
Sir Matthew G. Wallace	Agriculture (Scotland).
W. A. Waterlow ..	Federation of Master Printers and Allied Trades of Great Britain and Ireland.
John W. White ..	National Federation of Building Trades' Employers of Great Britain and Ireland.

II.—REPRESENTATIVES OF INSURED PERSONS.

1. *Friendly Societies* 20

(*a*) National Conference of Friendly Societies (10).
Walter Davies (President).
A. H. Warren, J.P. (Vice-President).
R. Campbell.
G. Cromar.
J. Duncan.
J. N. Lee.
M. Marlow.
R. W. Moffrey, J.P.
Walter Stead.
J. H. Steele, J.P.

(*b*) Small Societies (4).
Chas. Bathurst, M.P. (England).
Henry Haydn Jones, M.P. (Wales).
John Mann, Junior (Scotland).
M. J. O'Lehane (Ireland).

(*c*) Holloway and Deposit Societies (2).
F. W. Daniels.
F. W. Tuckfield.

(*d*) Dividing and Unregistered Societies (2).
H. Kingsley Wood.
P. Rockliff.

(*e*) Provident Funds at Particular Works (2).
F. H. Brown (Great Western Railway Provident Society).
H. T. Manley (South Metropolitan Gas Company).

2. *Industrial Assurance Companies and Collecting Friendly Societies* 8

Nominated by the Association of Industrial Assurance Companies and Collecting Friendly Societies and the Prudential Assurance Company:
F. D. Bowles, J.P.
R. Wm. Green.
A. Henri.
F. T. Jefferson.
J. E. Owens.
F. Schooling.
Ed. Smith, J.P.
A. C. Thompson.

3. *Trade Unions* 26

W. Adamson, M.P. ..	Miners' Federation.
Mrs. O. M. Aldridge ..	Women Confectioners' Society.
W. A. Appleton ..	General Federation of Trade Unions.
J. N. Bell, J.P. ..	National Amalgamated Union of Labour.
C. W. Bowerman, M.P.	London Society of Compositors.
Thomas Chambers ..	National Sailors' and Firemen's Union.
F. Chandler, J.P. ..	Amalgamated Society of Carpenters and Joiners.
W. B. Cheesman ..	United Government Workers' Federation.
J. Collins	Grimsby Steam Fishing Vessels Engineers' and Firemen's Union.
R. Davies	Municipal Employees' Association.
W. J. Davis, J.P. ..	National Society of Amalgamated Brass Workers and Metal Mechanics.
George Edwards ..	Eastern Counties Agricultural Labourers' and Small Holders' Union.
A. H. Gill, M.P. ..	Amalgamated Association of Operative Cotton Spinners.
A. Gossip	National Amalgamated Furnishing Trades Association.
Miss M. A. Henry ..	National Amalgamated Union of Shop Assistants, Warehousemen, and Clerks.
Jenkin Jones	Amalgamated Society of Engineers.
R. T. Jones	North Wales Quarrymen's Union.
Miss M. R. Macarthur	National Federation of Women Workers.
Wm. Mosses	Engineering and Shipbuilding Federation.
Miss Grace Neal ..	Domestic Workers' Union of Great Britain.
George Parker ..	National Federation of Enginemen, Stokers, and Kindred Trade Societies.
E. L. Poulton, J.P. ..	National Union of Boot and Shoe Operatives.
James Sexton, J.P. ..	National Union of Dock Labourers.
D. Sheard	National Union of Life Assurance Agents.
Ben Turner, J.P. ..	General Union of Weavers and Textile Workers.
J. E. Williams	Amalgamated Society of Railway Servants.

4. *Other Representatives of Insured Persons, not included in the above Categories* 13

Her Excellency the Countess of Aberdeen	Women's National Health Association of Ireland.
William Binnie ..	Agriculture in Scotland.
Miss Bondfield ..	Women's Trade Union League.
F. Bradley	Agriculture in Ireland.
Mrs. Allen H. Bright	National Union of Women Workers.
Mrs. Edwin Gray ..	National Union of Women Workers.
Miss E. H. Haldane ..	Social Worker in Scotland.
Miss L. Harris ..	Women's Co-operative Guild.
Miss S. C. Harrison ..	Social Worker in Ireland.
J. J. Mallon	National Anti-Sweating League.
Miss G. Morgan ..	Poor Law Guardian.
Miss Constance Smith	National Union of Women Workers.
Miss Gertrude Tuckwell	Women's Trade Union League.

III.—MEDICAL MEMBERS.

1. *Qualified Medical Practitioners with Personal Experience of General Practice* 16

(*a*) Nominated by the British Medical Association (13).

ENGLAND.

	Group of Divisions.
Dr. R. M. BEATON ..	Metropolitan Counties — North and East Metropolitan Group: City, Stratford, South-West Essex, North Middlesex, St. Pancras and Islington, and Hampstead Divisions.
	Central Metropolitan Group: Marylebone and Westminster Divisions.
Dr. T. M. CARTER ..	Bath and Bristol Branch.
	Gloucestershire Branch.
	West Somerset Branch.
	Worcestershire and Herefordshire Branch.
	Dorset and West Hants Branch.
	South-Western Branch.
Dr. S. HODGSON	Lancashire and Cheshire Branch.
Dr. J. A. MACDONALD ..	Bath and Bristol Branch.
	Gloucestershire Branch.
	West Somerset Branch.
	Worcestershire and Herefordshire Branch.
	Dorset and West Hants Branch.
	South-Western Branch.
Dr. J. NEAL	Birmingham Branch.
	Staffordshire Branch.
	North Wales Branch.
	Shropshire and Mid-Wales Branch.
	South Wales and Monmouthshire Branch.
Dr. D. F. TODD	North of England Branch.
	North Lancashire and South Westmorland Branch.
	Yorkshire Branch.
Mr. E. B. TURNER ..	West Metropolitan Group: Richmond, Ealing, Chelsea, Kensington, and Watford and Harrow Divisions.
	South Metropolitan Group: Lambeth, Norwood, and Wandsworth Divisions.

	Group of Divisions.
Mr. T. JENNER VERRALL	Bath and Bristol Branch. Gloucestershire Branch. West Somerset Branch. Worcestershire and Herefordshire Branch. Dorset and West Hants Branch. South-Western Branch.
Dr. A. H. WILLIAMS	West Metropolitan Group: Richmond, Ealing, Chelsea, Kensington and Watford, and Harrow Divisions. South Metropolitan Group: Lambeth, Norwood, and Wandsworth Divisions.
	SCOTLAND.
Dr. JOHN ADAMS	Glasgow Southern Division. Glasgow Central Division. Glasgow Eastern Division.
Dr. J. MUNRO MOIR	Northern Counties of Scotland Branch. Aberdeen Division.
	WALES.
Dr. E. O. PRICE	Denbigh and Flint Division. North Carnarvonshire and Anglesey Division. South Carnarvonshire and Merioneth Division.
	IRELAND.
Dr. J. S. DARLING	Portadown and West Down Division.

(*b*) Nominated by the Association of Registered Medical Women (3).

Miss M. H. F. Ivens, M.S.
Miss C. E. Long, M.D.Brux.
Miss A. M. Watson.

2. *Medical Men selected by the Commissioners* 17

Christopher Addison, M.D., M.P.	Secretary of Board of Intermediate Medical Studies, University of London.
Sir T. Clifford Allbutt, M.D., K.C.B.	Regius Professor of Physic, University of Cambridge.
C. J. Bond, F.R.C.S.	Senior Honorary Surgeon, Leicester Infirmary.
Sir R. J. Collie, M.D., J.P.	Medical Examiner, London County Council.
Sir Frederic S. Eve, F.R.C.S.	Surgeon, London Hospital.
Adam Fulton, M.B., B.Ch.	Surgeon, South Yorks, Notts and Derbyshire Coalfield.
R. McKenzie Johnston, M.D., C.M.	Consulting Aural Surgeon, Royal Infirmary, Edinburgh.
Herbert Jones	Medical Officer of Health, Herefordshire Sanitary Districts.
E. J. Maclean, M.D.	Senior Gynaecologist, Cardiff Infirmary.
H. H. Mills, M.D.	Physician in General Practice.
G. Reid, M.D.	Medical Officer of Health, Staffordshire.
J. Robertson, M.D.	Medical Officer of Health, Birmingham.
Lauriston E. Shaw, M.D.	Physician, Guy's Hospital.
Professor R. Stockman, M.D.	Professor of Materia Medica and Therapeutics, University of Glasgow.
W. E. Thomas, M.D., C.M.	Surgeon, Pentre and Tynybedw Collieries and Pentre Engineering Works.
Norman Walker, M.D., C.M.	Physician, Diseases of Skin, Royal Infirmary Edinburgh.
Professor G. Sims Woodhead, M.D.	Professor of Pathology, Cambridge University.

IV.—OTHER PERSONS SELECTED BY THE COMMISSIONERS.

1. *Pharmacists* 2

J. P. Gilmour	Pharmaceutical Standing Committee on National Health Insurance.
W. J. U. Woolcock	Pharmaceutical Standing Committee on National Health Insurance.

2. *Midwives* 2

Mrs. Bedingfeld	Incorporated Midwives' Institute.
Miss Alice Gregory	Incorporated Midwives' Institute.

3. *Nurses* 2

Miss M. Hardman	Superintendent, Leicester District Nursing Association.
Miss A. Michie	Superintendent, Worcester City and County Nursing Association.

4. *Hospital Authorities* 2

D. J. Mackintosh, M.B., M.V.O.	British Hospitals Association.
A. William West	Central Hospital Council for London.

5. *Chartered Accountants* 1

Sir William Plender	President of the Institute of Chartered Accountants.

6. *Local Authorities* 10

W. F. Anderson, D.L.	Convention of Royal Burghs.
Horatio Brevitt	Association of Municipal Corporations.
D. J. Cogan	Irish County Councils' General Council.
Michael A. Ennis	Irish County Councils' General Council.
Right Hon. Henry Hobhouse	County Councils Association.
F. L. Jones, LL.B.	Urban Districts in Wales.
Thomas Munro	Association of County Councils in Scotland.
R. Beattie Nicholson	Association of Municipal Corporations.
Alderman Thomas Parry	Boroughs in Wales.
Sir Edward White, J.P.	London County Council.

There will also be included in the Advisory Committee to the Joint Committee five persons (of whom one will be a woman) from the Advisory Committees to the Scottish, Irish, and Welsh Commissions respectively.

The Chancellor of the Exchequer will be Chairman of the above Committee, and Mr. C. F. G. Masterman, M.P. (Chairman of the Joint Committee), will be the Vice-Chairman.

ANALYSIS.

I. REPRESENTATIVES OF EMPLOYERS AND ASSOCIATIONS OF EMPLOYERS		25
II. REPRESENTATIVES OF INSURED PERSONS		67
1. *Friendly Societies:*		
(*a*) National Conference of Friendly Societies	10	
(*b*) Small Societies	4	
(*c*) Holloway and Deposit Societies	2	
(*d*) Dividing and Unregistered Societies	2	
(*e*) Provident Funds at Particular Works	2	
	—	20
2. *Industrial Assurance Companies and Collecting Friendly Societies*		8
3. *Trade Unions*		26
4. *Other Representatives of Insured Persons, not included in the above Categories*		13
III. MEDICAL-MEMBERS		33
1. Qualified Medical Practitioners with personal experience of general practice—		
(*a*) Nominated by the British Medical Association	13	
(*b*) Nominated by the Association of Registered Medical Women	3	
	—	16
2. Medical Men selected by the Commissioners		17
IV. OTHER PERSONS SELECTED BY THE COMMISSIONERS		19
1. Pharmacists		2
2. Midwives		2
3. Nurses		2
4. Hospital Authorities		2
5. Chartered Accountants		1
6. Local Authorities		10
V. FIVE ADDITIONAL MEMBERS FROM THE ADVISORY COMMITTEES TO THE SCOTTISH, IRISH, AND WELSH COMMISSIONS		15
Total		159

HEREFORD DIVISION.

THE INSURANCE SCHEME.

WE have received the following correspondence:

Bodenham Road, Hereford,
April 1st, 1912.

Sir,

I have been instructed by this Division to forward to you the enclosed correspondence, and to request that you will kindly publish it in the JOURNAL.

Yours truly,
ARTHUR WOOD,
Honorary Secretary.

The Editor,
The BRITISH MEDICAL JOURNAL.

Bodenham Road, Hereford,
March 6th, 1912.

Dear Dr. Maclean,

I have had my attention called as Secretary of this Division to the enclosed account of a meeting to explain the Insurance Act, in which the chairman is reported to have said. "He happened to know from Dr. Maclean that the doctors were going to come into line." It has been suggested that this statement means that the doctors are going to give up the six cardinal principles, and I quite agree with the suggestion.

We should be very glad if you would give a denial to this statement either in a letter to the Division which we could publish in the *Hereford Times*, or if you prefer, in a letter direct to the *Hereford Times*. It is obvious to me that a statement of this kind is a misrepresentation of your views, and is one that unless contradicted will lead to a thoroughly false idea of our position.

Yours truly,
ARTHUR WOOD.

12, Park Place, Cardiff,
March 8th, 1912.

Dear Dr. Wood,

I am obliged to you for calling my attention to the report in the *Hereford Times* of the 2nd inst. of a meeting held at Marden to explain the provisions of the Insurance Act.

You very properly refer to a statement in that report attributed to the chairman of the meeting, and which has reference to myself, as being misleading.

I need hardly say that, in my view, the only way to secure that the doctors "will come into line" is by the recognition of their just and reasonable demands.

Please make what use you think proper of this letter.

I am,
Yours truly,
EWEN J. MACLEAN.

Dr. Wood,
Honorary Secretary, Hereford Division,
British Medical Association.

Bodenham Road, Hereford,
March 20th, 1912.

Dear Dr. Maclean,

I placed your letter of March 8th before this Division on Saturday afternoon and, after much discussion, I was instructed to write to you and express the Division's regret that your letter was not sufficiently explicit to publish, and at the same time its desire that you would kindly write to Mr. Parish remonstrating with him for coupling the name of one of the prominent officers of the Association with a statement which would lead the public to think that the profession were giving way on their demands regarding the National Insurance Act, and also suggesting to him that in the future he might be more careful in regard to his statements as to the doctors' actions.

As the Division is anxious that the correspondence on this subject should be published in the JOURNAL, I should be glad if you will kindly give me permission to publish your reply.

Yours truly,
ARTHUR WOOD,
Hon. Sec. of the Hereford Division.

12, Park Place, Cardiff,
March 25th, 1912.

Dear Dr. Wood,

In further reference to your letter of the 20th instant, I have communicated with Mr. Parish and the following is a copy of his reply:

March 23rd, 1912.

Dear Dr. Maclean,

I have yours of March 21st. I am sorry you should have been troubled by my inadvertently mentioning your name at Marden on February 24th ultimo.

The *Hereford Journal* does not report any such sentence in my speech as your friends have gathered from the *Hereford Times*, which I think is not improbably incorrect or incomplete, because I was speaking amidst a great deal of disorder and interruption.

As the meeting took place over a month ago, I find it hard to recall precisely what words I used; at all events, I had no intention of conveying to the audience the sense which the report in the *Hereford Times* implies.

That would have been misleading, having regard to the nature of our original conversation on the evening of February 22nd, when you made it clear that in your view the doctors would come into line only if and when their requirements were conceded.

Believe me,
Yours very truly,
CLEMENT W. PARISH.

I note that your Division expressed regret that my previous reply was not sufficiently explicit for publication. Presumably the content of the present letter will supply that deficiency. You have my permission to publish the correspondence.

I am,
Yours truly,
EWEN J. MACLEAN.

Dr. Arthur Wood,
Hon. Sec., Hereford Division, B.M.A.

MEETINGS OF THE PROFESSION.

THE SHOREDITCH MEDICO-ETHICAL SOCIETY.

THE inaugural meeting of this society took place at 26, Queen's Road, Dalston, on Tuesday, March 26th, by kind permission of Dr. J. H. Porter. Dr. MAJOR GREENWOOD was in the chair, and there were present: Drs. A. G. Southcombe (Honorary Secretary City Division), A. H. Sandiland, T. Chetwood, J. Fettes, H. Bird, H. E. Garrett, H. A. Speed, H. G. Dixon, M. P. Ladell, J. Hobbs Crampton, L. Unwin Young, W. F. Roe, A. Ambrose, G. B. Morison (Chairman of the St. Pancras Division), J. O'Dwyer, A. B. Hammond, and J. H. Porter.

In opening the proceedings, the CHAIRMAN said that although the present meeting was being held under the auspices of the British Medical Association, it was in no sense a meeting of that body, and members and non-members of that Association were precisely on the same terms.

Dr. PORTER said that at the last meeting of the Executive Committee of the City Division it had been resolved that the most urgent matter in the immediate future was to improve the local organization of the profession. With that object the area of the City Division had been mapped out and divided among individual members resident in particular districts to canvass all members of the profession in those districts, and, where possible, to form local associations. The borough of Shoreditch had been allotted to him; he had communicated, either personally or by letter, with every practitioner in that borough, and he was glad to say he had had only two refusals to accept the invitation he had sent to attend the meeting, and in each of these the writer was thoroughly in sympathy with the course that had been taken.

The CHAIRMAN then briefly pointed out the present position of the profession in reference to the National Insurance Act. He enumerated the terms of the ultimatum that had been recently sent to the Insurance Commissioners by the State Sickness Insurance Committee on behalf of the British Medical Association and the profession. In his opinion it was unlikely that they would be accepted, and, failing that, suspension of medical benefits to insured persons was most likely to follow. Then the profession would be face to face with the friendly societies largely augmented in numbers, and victory in the contest that was bound to come could only be secured by good local organization. He read Minute 62 of the Representative Meeting in February last:

> That in event of the suspension clause coming into effect, no new members be accepted by club doctors below a rate to be fixed by the State Insurance Committee.

As most of the practitioners in Shoreditch were club doctors, this resolution, he said, largely affected them, and would require most careful consideration. It would be impossible to take any steps in this direction unless men knew what their professional neighbours were prepared to

do, and only by meeting together and discussing the matter could this be known. Organization of this kind, in which every one could and must help, was the only hope. Resolutions passed at Representative Meetings were not enough, and would be practically valueless unless seconded by local efforts. It was for this reason that it was proposed to inaugurate that evening an association of all medical men practising in Shoreditch, and the first resolution he should put to the meeting was:

That an association of all practitioners in the area of the borough of Shoreditch be immediately organized.

This was seconded and carried unanimously.

The Chairman said it would be necessary to name this association. In the borough of Islington, adjoining, two local associations had been organized under the name of Medico-Ethical Societies. As he thought there was some value in uniformity, he would move that the name be the "Shoreditch Medico-Ethical Society." This was seconded and carried with some dissent. It was stated that the term "ethical" had been objected to in Finsbury. But Dr. Roe explained that the objection had proceeded from only one person.

The meeting then proceeded to appoint officers. Dr. Major Greenwood was elected President, and Dr. Henry Bird Vice-President. Dr. J. H. Porter was elected Honorary Secretary. It was decided that there should be an Executive Committee consisting of the President, Vice-President, Treasurer, and Secretary, and four elected members. Drs. Garrett, Ambrose, Chetwood, and Dixon. It was decided that the office of Treasurer should be held provisionally by the Honorary Secretary. The subscription of members was to be 5s. annually, and Drs. Fettes and O'Dwyer were appointed auditors.

The Executive Committee was instructed to meet as soon as possible, and formulate a set of rules to be submitted to another general meeting.

Dr. Roe gave an interesting account of the origin and progress of the Finsbury Medical Society, and Dr. Morison described what had been done in Islington. Dr. Southcombe briefly pointed out how these local societies might assist the work of the British Medical Association.

The meeting separated with a vote of thanks to Dr. Porter and the Chairman.

LEWISHAM.

A meeting of the Lewisham (Provisional) Medical Committee was held at the Lewisham Infirmary on Thursday, April 4th, at 4 p.m. Dr. T. Comber was elected Chairman and Dr. Edgar Du Cane appointed Honorary Secretary.

The following rules and regulations were adopted:

1. That the Provisional Medical Committee shall not have power to deal with any other matters than those pertaining to the Act.
2. That the Metropolitan Counties Branch Council, or a Committee appointed by it for the purpose, be recognized as the co-ordinating centre, and that the Local Committee shall not enter into any dealings with the authorities under the Act, nor seek recognition from any such authority until it has received the sanction of the Branch Council for so doing.
3. That the Local Provisional Medical Committee shall not apply for the sanction of the Branch Council for the purpose mentioned in Rule 2 until it shall have called a meeting of all the medical practitioners in the borough and obtained the sanction of the meeting for so doing.
4. That the Provisional Medical Committee shall keep the Branch Council fully informed as to its course of action and the results obtained.
5. That the Committee shall call a meeting of the whole of the medical practitioners of the borough within fourteen days of the receipt of a requisition to that effect signed by at least twenty of the medical men in the borough, who must give satisfactory security for the expenses of the meeting.
6. That the Provisional Medical Committee be empowered to call at any time a meeting of all the medical practitioners of the borough.
7. That the Provisional Medical Committee be empowered to fill the vacancies that may occur upon the committee.

It was resolved that each medical practitioner resident within the borough should be asked to subscribe 5s. towards the expenses of the Committee.

The Secretary was instructed to ask for information as to the progress of the negotiations between the Insurance Commissioners and the State Insurance Committee, and as to the probable date of issue of the "Regulations for Medical Benefits."

Subcommittees were formed to organize the profession in (1) Brockley, Forest Hill, and Sydenham, (2) Lee and Blackheath, (3) Catford and Lewisham.

The Subcommittee for Catford and Lewisham held a meeting on April 10th, when a personal canvass was undertaken of those who are not members of the British Medical Association who have not signed the undertaking nor contributed to the Insurance Defence Fund.

The following form of local guarantee was drawn up and extensively signed:

We, the undersigned medical practitioners, resident in the Borough of Lewisham, hereby agree not to accept any medical work under the National Insurance Act, or any other medical contract work, at lower terms than those sanctioned by the British Medical Association.

The following resolution was carried:

That this meeting of Lewisham medical practitioners views with grave apprehension the names of those members of the profession selected by the Insurance Commissioners to act on the Advisory Committee, considering that it was understood that the Act was to be worked solely by general practitioners, and that as a consequence there was an implied condition that the majority of the appointments on the Advisory Committee should be given to members of the profession in general practice. That of the number appointed not more than three can be even supposed to have knowledge of general practice, and that as a consequence any advice from such source will be received by the profession with grave apprehension; that, consequently, we emphatically protest against the names announced in the morning papers.

CORRESPONDENCE.

[It is particularly requested that communications intended for publication should be written on one side of the paper only, and should be addressed to the Editor, British Medical Journal, 429, Strand, London, W.C.]

A Plea for Unity.

Dr. Samuel Agnew (Lurgan), in the course of a letter on this subject, writes: The exclusion of medical benefits from the Act in its application to Ireland does not diminish our interest, but rather intensifies the difficulties of the position as it affects the medical practitioner of this country. Such exclusion is only likely to be very temporary, and if we do not prepare for eventualities, the near future will find us in a condition of absolute helplessness.

Ireland will be overrun with approved societies under the Act, of which this country has had no previous experience, and which will be straining every point to get control of the profession in manner which has hitherto only been manifested in the club practices so common in Great Britain, but which only exist in the larger industrial centres in this country.

Club practice, as hitherto carried on, has had a most debasing influence on the profession of medicine, and any extension of it to Ireland is not only to be deprecated, but must be obstinately resisted. Under the Insurance Act all insured persons must be made to look upon his medical adviser not as a club doctor but as his regular medical attendant who will stand to him or her in exactly the same relationship that the trusted family physician stands to the household in which his position is both secure and recognized. Such a relationship begets confidence and inspires trust, and is duly respected on both sides.

A very good beginning has already been made in the direction of securing unity and homogeneity. A mass meeting, representing all sections of the profession and embracing delegates from all parts of Ireland, was held in Dublin on June 30th last. Prior to this meeting a referendum had been taken to ascertain the opinions of the doctors resident in Ireland on the most vital points that affected their interests in consequence of the introduction of the bill. These opinions were calmly and intelligently discussed, a line of policy decided upon, and an influential committee appointed to take charge of the affairs of the profession as affected by the bill, to safeguard its interests, and to carry out its policy. This committee was to consist of the Irish Committee of the British Medical Association and a committee appointed by the Council of the Irish Medical Association. It was to be called a Conjoint Committee, and was to have power to add to its numbers, so as to strengthen its influence and to make it thoroughly

representative of the profession in Ireland. The Council of the Irish Medical Association appointed unanimously their Committee of Council to act, containing as it did the most trusted members of the Council, and at the first meeting of the Conjoint Committee four other members were co-opted mainly to represent and safeguard the interests of the dispensary doctors, who comprised almost a third of the profession. Subsequently, on its becoming known that medical benefits were to be deleted so far as Ireland was concerned, a meeting of delegates of the dispensary doctors was held in Dublin which was largely attended, and at a second meeting of the same delegates it was resolved to ask the Conjoint Committee to co-opt four additional members, who were duly named, to still further safeguard the interests of the Poor Law members of the profession. This request was at once acceded to, four nominated members being co-opted, and to make the Conjoint Committee absolutely representative of the entire profession and so increase its power and influence both outside and inside the profession, it was further resolved to invite the five universities in addition to the Royal Colleges to nominate each a member for co-option on the Committee. The composition of the Conjoint Committee was thus made thoroughly representative, and as such should command the confidence and support of every member of the profession in Ireland. Furthermore, at the meeting of the Council of the Irish Medical Association on the following resolution was unanimously passed: "That this Council, *through the Conjoint Committee*, beg to offer their assistance to the Insurance Commissioners in the selection of any members of the profession that will represent it on the several Committees, and in matters in which the interests of the profession will be involved."

A similar resolution was passed by the Irish Committee of the British Medical Association, and copies of both sent to the Irish National Insurance Commissioners. The Conjoint Committee accordingly offered their services to the Insurance Commissioners claiming the right to nominate duly qualified members to act on the Advisory Committee. Notwithstanding, the Insurance Commissioners for Ireland sent out an invitation to some eight or ten medical associations and other bodies inviting each to submit a list of three names, as they proposed to make a selection of a number of persons qualified in accordance with the Act to act on the Advisory Committee. They thus endeavour to ignore the united voice of the profession, and to destroy the cohesive qualities which had up to the present been so conspicuous in the organization of the profession. However, I am pleased to be able to state that all the bodies thus invited have responded by drawing attention to the fact that the Conjoint Committee, being so thoroughly representative of the profession, is the proper body to make the nominations. The number of medical representatives on the Advisory Committee being understood to be very limited, about four, the Conjoint Committee agreed to send forward eight names—namely, two for each Province, such a division being considered the one best calculated to give the greatest satisfaction. It is to be hoped that this thinly-veiled attempt to sow dissension among the Irish doctors will be nipped in the bud, and that no excitable or selfish members of the profession will be found to play into their hands. Our whole strength depends upon unity and cohesion. The situation is critical. No note of discord must be sounded, and if we only work and keep together, victory will be our reward.

Knowing that it is the intention to have a mass meeting in Dublin at an early date, consisting of delegates and representatives from every county area and district in Ireland, to consolidate the profession and organize its members, and decide upon a definite line of action, I desire to make the following suggestion as to formulating a scheme of organization which should command the confidence and support of every individual member, and by securing a thoroughly representative executive body make it impossible for any small, self-opinionated sections to run counter to the matured policy of the general body of practitioners. Under the National Insurance Act it is well known that the local area is that of county or county borough. I have, therefore, taken it as the unit, as it will be necessary for all the medical men in each county or county borough to form themselves into a committee to carry on negotiations with the local Insurance Committee.

Such a committee should appoint an executive committee consisting of their chairman and secretary with seven other members.

The executive committee of each area in a province should form a provincial committee, one of whose special duties should be the selection of two (or three) members of the central council, and this central council, following the lines already adopted by the profession, should be made up as follows—namely:

1. The Irish Committee of the British Medical Association.
2. A similar number appointed by the Council of the Irish Medical Association.
3. Eight (or twelve) appointed by the Provincial Committees, each committee appointing two (or three).
4. One representative from the medical faculties of each of the five universities, the Royal College of Physicians, the Royal College of Surgeons, and the Apothecaries' Hall.
5. Four co-opted members for special purposes.

I feel satisfied that the foregoing arrangement would satisfy every reasonable member of the profession, and that the fault would lie entirely on the shoulders of the members themselves if it did not secure an executive body which could be universally trusted to carry out the pronounced opinion of the profession, to give proper guidance in the selection of lines of action, and generally to safeguard the interests of all affected. Unity and united action would thus be secured and success guaranteed.

A Tariff.

Dr. William Thornely (Epsom) writes: In less than three months the National Insurance Act becomes law. As yet there are no guarantees that the minimum demands of the medical profession will be acceded. It is, therefore, of the utmost importance that we should be prepared with a definite and detailed scheme for providing adequate attendance upon persons insured under the Act on terms acceptable to the profession.

On behalf of the Epsom and District Medical Society, I therefore venture to submit the following details of the scheme outlined by Dr. E. C. Daniel in the British Medical Journal Supplement, March 2nd, 1912, and agreed upon by all the medical men practising in this district, and also approved, as I understand, by the neighbouring Leatherhead and District Society.

1. All ordinary day visits, 2s. 6d.
2. Mileage over 2 miles 1s. extra per mile, day or night.
3. Attendance at surgery and medicine for two days, 1s. 6d.; renewal of medicine for two days, 1s.
4. Visits from 6 p.m. to 10 p.m., 1s. extra; night visits, 10 p.m. to 10 a.m., double the day fees. Attendance at surgery after surgery hours, until 10 p.m., 1s. extra; 10 p.m. to 9 a.m., double the day fees.
5. Certificates to enable to draw sick pay, free; other certificates, 1s.
6. Midwifery: Obstetric emergencies according to present Poor Law scale; ordinary confinements according to private agreement.
7. Surgical. Fees for operation not to cover after-attendance.

	£	s.	d.
General anaesthetic	1	1	0
Local ,, ...	0	5	0
Major operations, minimum fee	5	5	0
(In cases of emergency the fee to be decided at a special meeting of the Society.)			
Minor operations—			
Reducing dislocation of lower jaw ...	1	1	0
,, ,, shoulder	1	1	0
,, ,, elbow	1	1	0
,, ,, wrist	1	1	0
,, ,, thumb	1	1	0
,, ,, hip	3	3	0
,, ,, knee	1	1	0
,, ,, ankle	1	1	0
Reducing old dislocations, a double or treble fee, according to circumstances.			
Reducing fracture of lower jaw ...	1	1	0
,, ,, ribs	0	10	6
,, ,, clavicle	1	1	0
,, ,, humerus ...	1	1	0
,, ,, forearm	1	1	0
,, ,, femur	3	3	0
,, ,, leg	2	2	0
Amputation of finger or toe	1	1	0
Tenotomy	1	1	0
Excision of small localized growths ...	1	1	0
Abscission of tonsils and adenoids ...	1	1	0
Operations on lacrymal sac	1	1	0
Operation for removal of naevus	1	1	0
Operation for removal of cicatrices ...	1	1	0
Skin-grafting	1	1	0
Removal of nasal polypi	1	1	0

	£	s.	d.
Removal of foreign bodies from ear, nose, pharynx, œsophagus or eye (when imbedded)	0	10	6
Tracheotomy	3	3	0
Introduction of stomach pump	0	10	6
Trocar suction	0	10	6
Paracentesis thoracis	1	1	0
Paracentesis abdominis	1	1	0
Reduction of hernia by taxis	1	1	0
Examination of rectum or vagina with speculum	0	5	0
Introduction of pessary	0	5	0
Operation for *fistula in ano*	2	2	0
Reduction of prolapsus ani	0	5	0
Operation for phimosis or paraphimosis	1	1	0
Introduction of catheter	0	5	0
Suprapubic puncture of bladder	2	2	0
Injecting bladder	0	10	6
Laying open an abscess or sinus	0	5	0
Dry cupping	0	7	6
Venesection	0	10	6
Syringing the ears	0	5	0
Administering an enema	0	5	0
Curetting the uterus	1	1	0
Saline infusion	0	10	6
Operation for ingrowing toe-nail	1	1	0
,, ,, carbuncle (a minimum of)	0	10	6
Stitching wounds, in addition to attendance fee, per stitch	0	1	0
Removing needle from under skin	0	10	6
,, ,, embedded in flesh	1	1	0

The above are the terms upon which in this district all are agreed to give willing service.

To begin with, it is proposed that the scheme should apply only to members of approved societies insured under the Act, and whose incomes do not exceed £104 per annum. For the present we do not propose to hold the fund liable for fees for operations, bacteriology, or for electrical methods of diagnosis and treatment.

Later, when the scheme has been in operation for a sufficient length of time to show whether, as we have reason to hope, the fund shows a material balance, the question may arise whether other persons may be admitted—for example, women and children, the Post Office class of contributors, etc.—or whether it may stand the payment in whole or part of the fees for operations, bacteriology, etc.

I may add that in Epsom provision exists at present for the treatment of women and children and others through a provident dispensary, while those who are unable to pay the contributions to this can, of course, insure attendance by applying for parish relief.

Mode and Rate of Remuneration.

Dr. Henry H. Haward (Northwich) writes: In reply to my letter, Dr. P. R. Cooper contends that my conclusion from the returns of the National Deposit Friendly Society is not a fair one. I thought that I showed impartially from the statistics of the twenty-four Divisions out of the first thirty-five Divisions formed (excluding five later formed as being too recent to give a satisfactory conclusion) that the sickness incidence does not tally with the amounts paid to the doctors. Indeed, out of the remaining eleven Divisions whose statistics I did not give, only in seven can it be said that there is an agreement, five being average both in sick pay and medical pay, and two having both sick and medical pay small. Thus, including the West Kent, which I gave as the only one where both are large, there are only eight divisions out of thirty-five that can be said to be in any way satisfactorily in agreement. Consequently I think the conclusion is both evident and fair.

Dr. Cooper is also in error in saying that the medical fees are on a fixed basis, while the sick pay varies with the contributions. The fee of 2s. 6d. a visit is only for those members whose contributions are less than 5s. a month and who receive less than 5s. a day when sick. For every 1s. a month extra contribution the visiting fee is 6d. extra. Thus, with contributions of 10s. a month the visiting fee is 5s., with sick pay of 10s. a day.

Dr. Cooper seems to think that the number of visits under capitation would be greater than under payment per attendance; but surely they should be the same, otherwise there must be neglect of duty in the one case or over-visitation in the other. This is proved by a comparison with the returns of the Manchester Unity, because the club doctor only attends about one-third of the sickness, the members preferring to go to the man of their choice, or having provided doctors whom they are compelled to attend.

The question seems to resolve itself into this: Under the free choice of doctor, the patients being the same and the visits the same, which is preferable—attendance at 2s. 6d. a visit on each man for 3.15 days, or a capitation fee of 8s. 6d.?

But I also insist that the question of fees is a comparatively small matter compared to signing away our liberties. A fixed fee per visit gives a right to expect us to come when the fee is contracted for. Not so under capitation; we much more easily refuse to pay a visit, and send a bottle of medicine instead, because the responsibility is on our own shoulders when we refuse to accept slavery, and they can go to another doctor if they are not satisfied. Thus our independence is preserved and we retain and enlarge the status of our professional responsibility. I certainly prefer the freedom of capitation fees to the binding conditions of private practice under contract terms.

Dr. B. J. Collyer (Paignton, S. Devon) sends a letter on the distinction between ordinary visits and visits for which extra payment should be made. He says that visits between 8 a.m. and 8 p.m., or even 10 p.m., or even between 7 a.m. and 10 p.m., are often described as ordinary visits. He does not consider visits paid at the time of breakfast, luncheon, or dinner, or perhaps at 9 p.m., ordinary visits. While ready to help a patient if really necessary, he considers such a visit ought to be recognized to be a special one. In his opinion only visits made in the morning or afternoon round should be recognized as ordinary, and one which through no fault of the doctor must be paid at any other time a special visit. Dr. Collyer invites the State Sickness Insurance Committee to consider the principle involved, and also to include a rule that messages must be sent, except in the case of sudden illness or accident, before the morning round has started.

Psychology of Payment for Attendance.

Dr. P. R. Cooper (Bowdon) writes: Dr. B. Hall's contribution under this head calls for reply. He appeals to psychology to prove that payment per visit is impracticable. Evidently, to a psychologist like Dr. Hall, the mere fact that payment per attendance is not only practicable, but actually and successfully working at the present time—vide the National Deposit Friendly Society, the Scottish Widows' Provident Association—can safely be ignored. I am, however, willing to meet Dr. Hall on the plane he has chosen. His somewhat prolix argument can, I think, be fairly summarized in his own words:

> Resist the conclusion as we will, we are compelled to recognize that the chief factor which determines the number of visits to any one and so to all cases is the mentality of the visitor, the doctor, and this mentality is a thing of unknown, immeasurable quantity and of infinitely variable intent. Actuaries cannot safely work on figures that vary indefinitely, and thus they could not draw up an insurance scheme under which doctors would be paid for their visits.

Whilst challenging the whole of the foregoing statement, I will, for simplicity of discussion, resolve it into three parts, and deal with these in order:

1. The chief factor in determining the number of visits is the mentality of the doctor—unless is here meant "other things equal," this can certainly not be granted, but the context implies Dr. Hall's belief that the mentality of the doctor is a far more important factor than the nature or seriousness of the case, the peculiarities of the patient and friends, the surroundings, etc. Presumably, then, the doctor who is "afflicted with the propensity to visit" will pay as many or more visits per week to a phlegmatic and otherwise healthy patient with a chronic ulcer of the leg as to, say, a highly-strung patient with acute pneumonia and threatened heart failure upon whose life, perhaps, a good deal depends. I should be sorry to think such mentality is as common as Dr. Hall seems to believe. He instances attendance after confinements as showing to his satisfaction that "one doctor may have 350 per cent. more propensity to visit in his composition than another." Presumably, again, all confinements are exactly alike, the need for medical attendance never varies, or only to an infinitesimal degree; and such details as a nervous, exacting patient or husband, injuries during labour, haemorrhage, pyrexia, eclampsia, phlebitis, mastitis, etc., exist only in

the inner consciousness of the doctor in attendance, whose visits are solely controlled thereby—these assumptions are, I venture to think, contrary to the experience of most medical men, and obviously stray far from the facts. But facts do not seem to trouble Dr. Hall's mentality.

2. "This mentality is a thing of unknown, immeasurable, quantity and of infinitely variable intent." Dr. Hall is evidently unaware that this statement is the negation of any science of psychology, for how could any science be based on data which are "unknown," "immeasurable," and "infinitely variable." To psychologists mental data are as definite, ascertainable, and subject to the same laws of scientific reasoning as physical data. No doubt, in any particular instance, it may be difficult or impossible to deduce the exact motive (or percentage of motive—whether 350 or 1 per cent.) which leads to any given act. Dr. Hall's reasoning is that, as in any one instance we cannot exactly state this percentage, therefore in a vast multitude of instances the variability becomes infinitely increased and utterly incalculable. Again, his reasoning is in dissonance with facts. The law of averages applies with equal force to both mental and physical data, and nothing is more certain than that even the most apparently incalculable psychical phenomena are easily capable, in the mass, of being averaged and assessed with a remarkable degree of accuracy. Take, for instance, the psychology of suicide. Nothing could apparently be more incalculable or variable than the psychical factors which lead a man to suicide, and yet the percentage of suicides per annum in this country can be calculated in advance with a very small margin of error. As one of our best-informed (for his day) and clearest writers* said over half a century ago:

> The most comprehensive inferences respecting the actions of men which are admitted by all parties as incontestable truths are derived from . . . statistical evidence, and are capable of being expressed in mathematical language. And whoever is aware of how much has been discovered by this single method must not only recognize the uniformity with which mental phenomena succeed each other, but must, I think, feel sanguine that still more important discoveries will be made. . . . And we shall be forced to the further conclusion that such (psychical) variations are the result of large and general causes, but which, working on the aggregate, must produce certain consequences without regard to the volition of these particular men of whom such society is composed.

The truth of these words has been amply confirmed by subsequent knowledge and stands unassailable. I maintain, therefore, that the "mentality of the doctor" in regard to "propensity for visitation" will be a far simpler matter to ascertain in the mass than the incidence of disease, or rather of calls upon the doctor (by no means the same thing) under the Insurance Act.

3. Actuaries cannot draw up an insurance scheme under which doctors would be paid for their visits.—To this I would reply that actuaries have drawn and can draw up such a scheme, if they are given the requisite data. But even if the Government feared to undertake an unlimited liability (which, however, they assail us for refusing), it is quite within their power to set a limit to their liability by fixing it at a maximum amount per individual per annum. An arrangement can then be made whereby if this maximum be exceeded the patient is liable for the remainder.

*** In spite of the general interest which attaches to this psychological problem it will not be possible to find space for other long letters on it.

DISPENSING.

Dr. R. R. RENTOUL (Liverpool) has written a rather long letter in reply to that from Mr. J. F. Tocher, published in the SUPPLEMENT of March 30th, page 358. Dr. Rentoul maintains that in no part does the Act make it an offence if a doctor under the Act supplies to and charges on an "insured person." Next, S. 15 (3) expressly enacts that the Insurance Commissioners "shall" (not "may") make arrangements whereby insured persons "whose income exceeds a fixed limit 'shall' be supplied with" medicines and appliances *by and from doctors*. Dr. Rentoul then points out that the Apothecaries' Societies in London (1815) and Dublin (1879) grant registrable medical diplomas, and confer the right on their holders to supply and charge for medicines. The five Royal Colleges of Physicians and Surgeons by their ancient charters grant similar rights. All these statutory and other rights are re-enacted by S. 31 of the Medical Act, 1858, where it is expressly enacted that every doctor registered shall be entitled to practise "and to recover cost of any medicines or other medical or surgical appliance rendered or supplied by him to his patients." To make the right to supply and charge for medicines Parliament has re-enacted by S. 6 of the Medical Act, 1886, that the registered doctor is empowered by law to recover fees for advice and "charges in respect of medicaments or other appliances."

I think the rights of doctors to dispense for even "insured persons" under the Act is not forbidden. There is no mention in the Act of any repeal of any charter Medical or Pharmacy Act.

THE NATIONAL MEDICAL UNION.

Dr. R. B. FLETCHER (Manchester) writes to protest against the statement contained in the report by Dr. J. W. Stenhouse of the meeting of the National Medical Union at Manchester on March 26th, to the effect that Dr. T. Arthur Helme was not the originator of the union. Dr. Fletcher writes that if Dr. Arthur Helme "be not the originator of that union no one else has an equal right to claim it. As a matter of fact, had it not been for his speeches and enthusiasm that union would not have been formed at all, or, if formed, would have been a puny weakling incapable of growing to maturity.

"I was present at the mass meetings, and know the feeling of many of the audience. Both I and my colleagues without exception pinned our faith to Dr. Helme, and became members of the union solely on his account.

"No one expresses our views better, and no one is more suited as our leader. In fact, we should miss his influence more than that of the whole committee put together."

SCHOLARSHIPS AND GRANTS IN AID OF SCIENTIFIC RESEARCH.

SCHOLARSHIPS.

THE Council of the British Medical Association is prepared to receive applications for Research Scholarships as follows:

1. An ERNEST HART MEMORIAL SCHOLARSHIP, of the value of £200 per annum, for the study of some subject in the department of State Medicine.
2. THREE RESEARCH SCHOLARSHIPS, each of the value of £150 per annum, for research into some subject relating to the Causation, Prevention, or Treatment of Disease.

Each Scholarship is tenable for one year, commencing on October 1st, 1912. A Scholar may be reappointed for not more than two additional terms.

The conditions of the award of Scholarships are stated in the Regulations, a copy of which will be supplied on application to the Acting Medical Secretary of the Association, 429, Strand, London, W.C.

GRANTS.

The Council of the British Medical Association is also prepared to receive applications for Grants for the assistance of Research into the Causation, Treatment, or Prevention of Disease. Preference will be given, other things being equal, to members of the medical profession and to applicants who propose as subjects of investigation problems directly related to practical medicine.

The conditions of the award of Grants are stated in the Regulations, a copy of which will be supplied on application to the Acting Medical Secretary of the Association, 429, Strand, London, W.C.

Applications.

Applications for Scholarships and Grants for the year 1912–13 must be made not later than Tuesday, June 11th, 1912, in the prescribed form, a copy of which will be supplied by the Acting Medical Secretary on application.

Each application should be accompanied by testimonials, including a recommendation from the head of the laboratory, if any, in which the applicant proposes to work, setting out the fitness of the candidate to conduct such work, and the probable value of the work to be undertaken. This is not intended, however, to prevent applications for Grants in aid of work which need not be performed in a recognized laboratory.

ALFRED COX, *Acting Medical Secretary.*

429, Strand, London, W.C., *March 30th, 1912.*

* Hy. Thos. Buckle, *History of Civilization*, chap. i, which I would commend to Dr. Hall's perusal.

Meetings of Branches and Divisions.

[The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the JOURNAL.*]*

DUNDEE BRANCH.

A MEETING of this Branch was held on March 26th in University College, Dr. C. S. YOUNG, President, in the chair; there were present twenty-six practitioners.

Special Representative Meeting.—Dr. C. S. YOUNG reported as Branch Representative at the Special Representative Meeting in London, and was heartily thanked for his services.

Local Medical Committee.—The SECRETARY reported on the result of the voting for the formation of a local Medical Committee for Dundee Burgh. The following fifteen practitioners had been elected to form the Committee: Drs. R. C. Buist, A. Don, C. Kerr, W. Kinnear, A. P. Low, A. MacGillivray, T. F. MacFarlane, G. W. Miller, C. MacVicar, C. Moon, J. S. Y. Rogers, Martin Smith, G. F. Whyte, Mackie Whyte, C. S. Young. Dr. Foggie was thanked for his services as returning officer.

Proposed Division of Branch into Two Areas.—Dr. BUIST reported that in answer to the circular sent to the practitioners in the county area twenty-one were in favour of the division of the Branch area, and three were against. Dr. BUIST, seconded by Dr. G. MILLER, moved:

> That the Branch Council be empowered to take the necessary steps for the organization of the Branch into two Divisions.

Dr. H. COLMAN moved the previous question. Dr. Buist's motion was carried by 11 to 6.

GIBRALTAR BRANCH.

A GENERAL meeting of this Branch was held at the Colonial Hospital on March 23rd, at which Dr. LYONS presided. There were present: Colonel H. H. Johnston, C.B., Deputy-Inspector General G. Welch, Fleet Surgeons Broach (H.M.S. *Prince of Wales*), Clift (H.M.S. *Venerable*), Whitelegge (H.M.S. *London*), Staff Surgeon Richardson (H.M.S. *London*), and Surgeon G. A. McComen (H.M.S. *Dwarf*), Dr. Oman, and Dr. L. D. Parsons, Honorary Secretary (10 in all).

Report of Branch Council.—The report of the Branch Council was read and adopted.

Election of Officers.—The following office-bearers were unanimously elected for the ensuing year: *President*, Colonel H. H. Johnston, C.B.; *Vice-President*, Deputy Inspector-General G. Welch; *Honorary Secretary and Treasurer*, Dr. L. D. Parsons; *Branch Council*, Dr. Lyons, Dr. Oman, Dr. Gill, Staff Surgeon Rowan-Robinson; *Representative at Representative Meetings*, Dr. L. D. Parsons was unanimously elected Representative at Representative Meetings; *Delegate from Branch*, Dr. A. W. W. Dowding.

Papers.—A paper on a case of cerebro-spinal meningitis was read by Fleet Surgeon WHITELEGGE, and a culture of the coccus isolated from the case was shown under the microscope. Surgeon MCCOMEN read a paper on trypanosomiasis in Principe Island and Loango on the West Coast of Africa.

Cases.—Dr. LYONS showed a case of bad tertiary syphilis in a female treated by two injections of salvarsan. Dr. PARSONS showed a case of lupus of the nose diagnosed and treated by tuberculin.

Votes of Thanks.—The usual votes of thanks brought the meeting to a close.

LANCASHIRE AND CHESHIRE BRANCH:

ROCHDALE DIVISION.

THE annual meeting of this Division was held in the Wellington Hotel, Rochdale, on Thursday, April 4th. Dr. KERR (Chairman) presided. There were present besides: Drs. Brown of Bacup, Chadwick of Milnrow, Geddes and Hitchon of Heywood; Brentnall, Kilroe, Lomas, Lord, Melvin, Richmond, Walker, and Wilson of Rochdale.

Confirmation of Minutes.—The minutes of last annual meeting were read and confirmed.

Report of Executive Committee.—The SECRETARY read the annual report of the Executive Committee as follows: Membership on December 31st, 1910, 49; increase—new members 9, through change of address 2 = 11; losses—through arrears 1, through change of address 6 = 7; net membership on December 31st, 1911, 53.

Financial Statement.

	£	s.	d.
Receipts:			
Balance in hand	1	3	6
Grants—April 12th, 1911	1	4	6
June 27th, 1911	2	10	0
Bank interest	0	2	6
	5	0	6
Expenditure:			
Hire of rooms	0	15	0
Printing	1	8	8
Postage	0	14	0
Balance in hand	2	2	10
	5	0	6

Election of Officers.—The following officers were unanimously elected for the ensuing year: *Chairman*, Dr. Lord (Castleton); *Vice-Chairman*, Dr. Kerr (Rochdale); *Secretary*, James Melvin (Rochdale); *Representative for Representative Meeting*, Dr. Brown; *Deputy Representative*, Dr. Kerr. It was decided that the following, with the officers, form the Executive Committee: Drs. Brentnall, Geddes, Richmond, and Walker.

Dr. LORD now took the chair.

Representative Meeting.—Dr. BROWN, the Representative, then gave his report of the Annual and Special Representative meetings. He drew special attention to the formation of the State Medical Insurance Committee of the British Medical Association and the powers they had received; also of the Advisory Committee under the Act and its twelve medical members. He also spoke of the Defence Fund, the organization of the medical profession, and its plan of campaign.

Vote of Thanks.—After answering questions from several members, a vote of thanks was unanimously passed to Dr. Brown, which he acknowledged.

GLOUCESTERSHIRE BRANCH.

A GENERAL meeting of this Branch was held at the General Hospital, Cheltenham, on March 21st, at 7 p.m.; the PRESIDENT was in the chair, and there were twenty-four members present.

Confirmation of Minutes.—The minutes of the last three meetings were read and confirmed.

Special Representative Meeting.—Dr. FINLAY, the Representative at the Representative Meeting in London in February, 1912, reported on the decision of the meeting regarding the two resolutions sent up by the Branch. The first was covered by other resolutions, and the second referred to the Council for their consideration.

Paper.—Mr. J. HOWELL (Cheltenham) read a paper on "Some Uses of the Peritoneum." A discussion followed, in which the PRESIDENT, Mr. FISHER, Dr. KIRKLAND, Mr. HOLMES, Mr. BUSHELL, Dr. PRUEN, and Dr. LONGRIDGE took part. Mr. HOWELL replied.

Dinner.—The members after the meeting dined together at the Cosy Corner, Promenade.

METROPOLITAN COUNTIES BRANCH:

CHELSEA DIVISION.

A MEETING was held at the Chelsea Town Hall on April 2nd, Dr. JAMES YOUNG in the chair. There were present: Drs. Fletcher, D. O'Sullivan, W. Keen, Dewar, Ross, Butler, Bonney, J. Hamilton, W. S. Lee, A. Benham, Satchell, McCalman, Spaull, Jackson, Hudson, and Gallard.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Correspondence.—Letters were read from Lady Butlin and Mrs. Lubbock acknowledging the votes of condolence which had been passed by this Division; from Dr. Griffiths, thanking the Division for its congratulatory telegram on the occasion of his marriage; and from the Honorary Secretary of the Provisional Medical Committee of the Wandsworth Division.

Re-election of Representative.—A very hearty vote of thanks was passed to Dr. Fletcher for his valuable services as Representative during the past year. Dr. Hamilton moved, it was seconded, and carried unanimously that Dr. Fletcher be re-elected. Dr. Fletcher said that he would be pleased again to place his services at the disposal of the Division.

Expenses of Representative.—It was decided that the expenses of the Representative at future meetings of the Representative Body ought to be paid out of the funds of the Association, but if that plan were not adopted the Division itself should do so.

National Insurance: Provisional Local Committee.

The election of a Provisional Local Medical Committee for Chelsea and Fulham to safeguard the interests of the profession as affected by the National Insurance Act was brought before the meeting. Dr. Satchell moved, Dr. Bonney seconded, and it was carried *nemine contradicente*, that the committee should consist of twenty-one (including two *ex officio* members, namely, the Chairman and Secretary of the Division). The following gentlemen were elected:

To represent Chelsea: Drs. William Keen, John Dewar, W. S. Lee, Jas. Hamilton, T. M. Ross, W. Bonney, E. Hudson, A. Benham, Campbell Boyd, J. Orr.

To represent Fulham: Drs. J. Fletcher, H. Butler, E. P. Satchell, P. Spaull, E. W. Lewis, J. C. Jackson, G. H. Coltart, A. F. Millar, M. J. Williams.

Ex officio Members: James Young and J. R. Gallard.

The Secretary was instructed to call a meeting of the committee in about fourteen days, and also to send a copy of the memorandum of the Metropolitan Counties Branch Council on the duties of this committee to each member thereof. He was also directed to inform the State Sickness Insurance Committee that in the opinion of this Division a copy of the proposed bond (with reference to contract practice appointments) should be sent to every medical practitioner in the United Kingdom.

A discussion on "Dispensing under the Insurance Act," initiated by Dr. Fletcher, was adjourned.

Lambeth Division.

An ordinary meeting was held at St. Thomas's Hospital on Thursday, March 28th, at 4 p.m. Dr. Esler was in the chair and eighteen members were present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Expenses of Representatives.—Dr. Capes proposed and Dr. Clatworthy seconded:

> That it be referred to the Executive Committee of this Division to elaborate a scheme whereby the expenses incurred by the Representatives of this Division, namely, the provision of a locumtenent and hotel charges, be met by a voluntary fund collected among members of this Division.

After Dr. Esler had spoken against the motion, it was carried, no one voting against it.

Treatment of Pleural Empyema and Pulmonary Abscess.—Dr. Lionel E. C. Norbury then showed 4 cases illustrating his paper to follow; they were cases of empyema and pulmonary abscess, in which the wound had refused to heal until various forms of the operation of thoracoplasty had been performed. Mr. Norbury then read his paper on the treatment of pleural empyema and pulmonary abscess. He divided up the cases into acute and chronic forms. In acute cases he emphasized the need of: (1) Early operation to secure free drainage; (2) dry sponging the cavity; (3) breathing exercises; (4) gentle irrigation with sterile saline solution after a few weeks; (5) performing the operation under local analgesia where possible. In chronic cases he described the various forms of thoracoplasty. An interesting discussion took place, in which Messrs. Mackeith, Porter Phillips, Clatworthy, and Cooke took part.

Votes of Thanks.—The Chairman then moved a cordial vote of thanks to Mr. Norbury for his able paper, and congratulated him on the results which modern surgery had enabled him to obtain. This was carried unanimously. The meeting then concluded with a vote of thanks to the hospital authorities for their hospitable entertainment.

South-West Essex Division.

A meeting of the Division, to which all medical practitioners residing within its area were invited, was held at the Wesleyan Schoolroom, Leyton, on Friday, February 16th, at 4 p.m. Thirty-eight practitioners were present. Dr. C. H. Horner presided.

Votes of Condolence.—Before proceeding with the business on the agenda, the Chairman proposed that a vote of condolence and sympathy be sent to the relatives of the late Lord Lister, to Lady Butlin, and Mrs. Alexander. Carried unanimously.

Minutes.—Proposed by Dr. Rowland Jones and seconded by Dr. Harding Tomkins, that the minutes, having been printed and circulated, be taken as read. This was agreed to.

Correspondence.—On the suggestion of Dr. Rowland Jones, the reading of the correspondence was deferred until the Report of the Council on the Insurance Act had been dealt with.

Insurance Act: Report of Council.

Recommendation 1 was proposed from the chair, seconded, and discussed.

An amendment to add the following words:

> And that the Council be instructed to inform the Government and Commissioners that the profession will refuse absolutely to render any medical service under the Act unless and until all the six cardinal points are embodied unequivocally in the regulations in such manner as to absolutely secure their observance by the local Insurance Committees,

was proposed by Dr. Harding Tomkins, seconded by Dr. Aldrich, and carried by 34 to 1.

Recommendation 2 was proposed by Dr. Noble, seconded by Dr. Rowland Jones, and carried.

Recommendation 3.—An amendment was moved by Dr. Harford and seconded by Dr. F. Collins:

> To insert the following words after the word "possible" in line 1: "After the negotiations with the Insurance Commissioners and before the issue of the regulations," and to omit the words "by the Insurance Commissioners" at the beginning of line 2.

Carried by 30 to 3.

Recommendation 4.—Proposed by Dr. Harford, seconded by Dr. Tomkins, and carried unanimously.

Recommendation 5.—Proposed by Dr. Panting and seconded by Dr. B. Price.

An amendment,

> To delete the words commencing with "failing the provision" and ending with "National Insurance Act" on the third line and to insert the words "specifically instructed by the Divisions" after the words "Representative Body" in the last line,

was proposed by Dr. Harding Tomkins and seconded by Dr. W. G. Noble, and carried by 33 to 0.

Dr. Charles Scott proposed an amendment to delete certain words, but found no seconder.

Recommendation 6.—The Representative was instructed to support the resolution proposed by the Marylebone Division instead of Recommendation 6. Carried unanimously.

Proposed by Dr. Panting, seconded by Dr. C. F. Harford:

> That on presentation of the Report of the Council the Representative shall move or support the resolution to the effect that the Representative Meeting proceed at once to the consideration of the Recommendations of the Council (paragraph 45) without passing judgement on the forty paragraphs of the report.

Carried by 36 to 0.

Proposed by Dr. Harford, seconded by Dr. C. Scott:

> That no service be given under the Insurance Act unless the six points of the British Medical Association and adequate remuneration are first definitely assured by the Commissioners in their regulations, or by an amending Act if these points cannot be secured in any other way.

Carried by 37 to 0.

Proposed by Dr. Harford and seconded by Dr. Scott:

> That the British Medical Association only enter into a conference with the Insurance Commissioners in combination with representatives of the Royal College of Physicians and the Royal College of Surgeons, and such other medical corporations as would be willing, and that the State Sickness Insurance Committee, as constituted under Resolution 3, be the representation from the British Medical Association. That these Representatives be not empowered to

decide any matter with the Insurance Commissioners, but to report to the Council, and that the Council refer the report to the Divisions and to a Representative Meeting, if necessary specially convened for the purpose.

Carried by 32 to 0.

Proposed by Dr. HARFORD, seconded by Dr. HARDING TOMKINS:

That the following amongst other points be demanded from the Insurance Commissioners:

(*a*) A maximum income limit of £104 per annum, with liberty to local Insurance Committees to adopt a lower income limit after conference with local Medical Committees.

(*b*) That the amount of remuneration, if payment is by capitation fee, be 10s. exclusive of medicines or of extras.

(*c*) That all matters relating to medical attendance on patients be arranged through the statutory local Medical Committees and that the Insurance Committees should not deal directly with individual medical practitioners but only through these Medical Committees.

Carried by 28 to 0.

Proposed by Dr. C. H. WISE and seconded by Dr. F. COLLINS:

That Dr. Shadwell be appointed Deputy Representative to attend the Representative Meeting on February 20th and 21st, in the place of Dr. Robert Jones who is unable to attend.

Carried by 27 to 0.

Proposed by Dr. R. JONES and seconded by Dr. BROWN:

That failing Dr. Shadwell through any cause Dr. C. H. Panting be appointed Dr. Shadwell's deputy for the meeting on February 20th and 21st.

Carried by 37 to 0.

Letters.—Letters from Dr. C. J. Morton, English Division of the Border Counties Branch, National Medical Union, Acting Medical Secretary, Medico-Political Committee, Organization Committee, Tyneside Division, and Winchester Division were read. It was proposed by Dr. C. H. WISE, seconded by Dr. W. G. NOBLE, and carried unanimously:

That this Division agree to the suggestions of the Medico-Political Committee.

Apology for Non-attendance.—A letter of apology for non-attendance was received from Dr. W. W. Rorke.

By the kind invitation of Dr. J. C. Muir, a clinical demonstration was given to the members of the Division on Thursday, March 14th, at the Whipps Cross Infirmary, Leytonstone, at 4 p.m. Twenty-two practitioners were present. Dr. C. J. HORNER presided.

Minutes.—It was decided that the minutes of the last meeting should not be read but printed and circulated prior to the next Divisional meeting on March 26th.

Letters.—A letter of apology for non-attendance was received from Dr. Robert Jones; and a letter from Dr. A. Hertz, accepting the invitation to take the place of Dr. C. J. Morton, was read and discussed. The meeting expressed a unanimous wish to accept the suggestion of Dr. Hertz that he should read a paper on constipation.

Clinical Demonstration.—Dr. J. C. MUIR then gave a clinical demonstration. Amongst the cases shown were the following: (1) Severe ascites; (2) pyaemia following abortion; (3) ulcerating lipoma of shoulder; (4) anterior poliomyelitis in adult; (5) paraplegia in young adult; (6) mediastinal tumour; (7) hydrocephalus with facial paralysis in infant; (8) gall stone ulcerating through abdominal wall; (9) doubtful rash in infant a few days old—(?) measles or syphilis; (10) tertiary syphilis in which salvarsan had been used.

Vote of Thanks.—A vote of thanks to Dr. J. C. Muir for so kindly entertaining the Division was proposed by the CHAIRMAN, seconded by the SECRETARY, and carried unanimously.

The meeting then ended.

NORTH OF ENGLAND BRANCH:

DURHAM DIVISION.

A MEETING of all practitioners in the Division was held at the County Hotel on Thursday, April 4th, at 3.30 p.m., Dr. SMITH in the chair. Seventeen men were present.

Provisional Medical Committee.

The business before the meeting was the formation of a Provisional Medical Committee for the Division.

It was moved by Dr. GARSON, seconded by Dr. J. DENHOLM:

That a committee be appointed.

This was carried unanimously.

It was moved by Dr. PLUMMER, seconded by Dr. T. WILSON:

That the committee consist of seven members.

After discussion this was carried unanimously.

It was moved by Dr. PLUMMER, seconded by Dr. T. WILSON:

That the composition of the committee be: 3 contract practitioners, 2 private practitioners, 2 non-members.

After discussion this was carried unanimously.

Private Practitioners.—Drs. SMITH and PLUMMER (both on hospital staff, and consultants) were elected unanimously.

Contract Practitioners.—The following names were put up for election and a paper vote taken, which resulted as follows: G. Denholm, 15 (elected); A. Pain, 9 (elected); T. Wilson, 8 (elected). J. Garson, 7; W. Oliver, 7.

Non-members.—The following names were put up for election and a paper vote was taken, which resulted as follows: J. Stenhouse, 12 (elected); C. Murray, 8 (elected). W. Watson, 7.

It was moved by Dr. PLUMMER and seconded by Dr. GARSON:

That the committee have power to fill up vacancies from the same class of practitioners.

This was carried unanimously.

It was moved by Dr. PLUMMER and seconded by Dr. SMITH:

That Dr. G. Denholm be convener of first committee meeting.

This was carried unanimously.

This concluded the business of the meeting.

NEWCASTLE-UPON-TYNE DIVISION.

A MEETING of the whole medical profession in the Newcastle-on-Tyne area was held at the Royal Victoria Infirmary, Newcastle-on-Tyne, on Wednesday, April 3rd, at 9 p.m., Dr. JAMES DON in the chair. There were present: Drs. James Smith (Newcastle), Thomas Lyle, J. G. Hewitson, F. Hawthorn, Sowden, A. Dryden, Leech, Nesham, Walker, A. Smith, sen., J. W. Smith, jun., E. Smith, Farquharson, W. D. Arnison, R. A. Bolam, W. S. Fraser, T. M. Allison, W. C. Beatley, G. B. Picton, R. Raffle, Dagger, Nevin, R. W. Simpson, J. A. Brand, C. U. Laws, Harkness, T. C. Hunter, G. E. Watson, Mathews, George Duncan, H. L. Rutter, Davison, MacRae, H. Morrison, J. A. Eyton-Jones, J. S. McCracken, Slater, J. J. Campbell, Foggin, Dunlop, Williams, Turner, Livingstone, Pybus, Grinling, W. E. Alderson, W. G. Richardson, Wilkins, Ruddock, Russell, W. E. Hume, A. Campbell, J. W. Smith, sen., W. L. Ruxton, Burnell, A. Smith, sen., and R. J. Willan.

Provisional Local Committee.—It was decided without a dissentient that a Provisional Local Medical Committee be formed *re* the National Insurance Act to watch the interests of the profession. The following were nominated members of this committee: Drs. Adam Wilson, George Foggin, Ethel Williams, Frank Russell, James Don, Dagger, Dunlop, T. M. Allison, R. A. Bolam, A. C. Burnell, A. Campbell, J. J. Campbell, A. Dryden, W. S. Fraser, James Hudson, J. S. McCracken, H. L. Rutter, Messrs. J. Rutherford Morison, W. G. Richardson, Drs. W. L. Ruxton, J. W. Smith, sen., A. Smith (Whickham), R. W. Simpson, Mr. R. J. Willan, Drs. Howard Morrison, J. D. Lickley, J. MacRae, S. Basham, Thomas Beattie, T. C. Hunter, A. H. Hobbs.

SOUTHERN BRANCH:

GUERNSEY AND ALDERNEY DIVISION.

A MEETING of the above Division was held on March 29th at the Division's rooms in the Lukis House.

Permanent Executive Committee.—After formal business it was moved and carried unanimously that a permanent Executive Committee be formed for the Division, and Drs. Aikman, Bulteel, and C. Carey were elected to it,

with the President (Dr. C. d'A. Collings) and the Honorary Secretary (Dr. J. F. Carruthers) as *ex officio* members.

Compulsory Notification of Consumption.—The Board of Health of Guernsey having recently secured the sanction of the Royal Court to making notification of all cases of pulmonary tuberculosis compulsory, the Executive Committee was instructed by the meeting to meet the board and endeavour to arrange satisfactory working details with them.

Provisional Medical Committee.—The formation of a Provisional Medical Committee was also left to the Executive Committee to consider.

National Insurance Act.—The Honorary Secretary was directed to apply to the Acting Medical Secretary for guarantee forms in connexion with the English National Insurance Act, but it has to be remembered that the Act does not apply to the Channel Islands.

SOUTH WALES AND MONMOUTHSHIRE BRANCH:

NORTH GLAMORGAN AND BRECKNOCK DIVISION.

A SPECIAL meeting of the North Glamorgan and Brecknock Division was held at the New Inn, Pontypridd, on Tuesday, April 2nd, at 3 p.m. Dr. R. D. MORGAN occupied the chair. There were thirty-three members present. All non-members known to reside within the area of the Division were invited.

Confirmation of Minutes.—The minutes of the previous meeting were read, confirmed, and signed.

Formation of a Provisional Medical Committee.—The SECRETARY read the Memorandum to Divisions, and, after full discussion, on the motion of Dr. J. SHAW LYTTLE, it was resolved:

That the Provisional Medical Committee be formed at this meeting, and that it be given power to add to its number a representative of any interest found to have been overlooked. That it be an instruction to the said committee to add to its number non-members of the Association to the extent of at least 10 per cent. of the number of the committee.

On the motion of Dr. T. J. WEBSTER it was resolved:

That three members of the Association, from each of the following districts of the Division, be elected to form the Provisional Medical Committee.

The following were the several districts: Brecon, Aberdare, Merthyr, Rhondda Valley, Pontypridd. On the motion of Dr. T. R. LLEWELLYN it was resolved:

That the Chairman, Vice-Chairman, Direct Representative, and Secretary of the Division be *ex officio* members of the committee.

The meeting then proceeded to elect the representative of the several districts. On the motion of Dr. T. FINNEY it was resolved:

That the first meeting of the Committee be held at Pontypridd on April 11th, at 3 p.m.

WEST SOMERSET BRANCH.

THE spring meeting was held on Friday, March 29th, at the Taunton and Somerset Hospital, the PRESIDENT, Mr. W. B. Winckworth, being in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Question of Local Medical Committees.—The question of forming local Medical Committees was referred to the Council of the Branch to draw up a scheme thereon.

Advisory Committee.—The announcement by the HONORARY SECRETARY that Dr. J. A. Macdonald had been elected a member of the Advisory Committee was received with applause.

Cases and Specimens.—The following clinical cases were then exhibited: Dr. BIRKBECK: (1) Congenital absence of the external auditory meati in a child of 2 years old. (2) A deaf-mute. Mr. FARRANT: (1) Photograph showing the result of wiring an intracapsular fracture of the humerus in a boy aged 13. (2) Some gall stones removed from the common duct by mobilizing the duodenum. (3) A specimen of the hydronephrotic half of a horseshoe kidney removed for traumatic haemorrhage into it. Mr. A. J. H. ILES: Some skiagrams showing the erosion of bones in tuberculous joints. Dr. CLOUSTON RUSSELL: A case of acromegaly improving under treatment by pituitary extract. Mr. SPETTIGUE: A case of cretinism. Mr. W. B. WINCKWORTH: A case of symblepharon. Mr. PENROSE WILLIAMS: A specimen of an early carcinoma of the pelvic colon removed by resection, the only symptom of which was haemorrhage.

Tea.—At the close of the meeting the members were entertained to tea by the President.

YORKSHIRE BRANCH.

A MEETING of the Branch was held at the Great Northern Hotel, Bradford, on Wednesday, March 27th, Dr. GIBSON, the President-elect, in the chair. Forty-nine members were present.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Election of Members.—Thirty-nine new members were elected.

The late Dr. Martin of Sheffield.—A vote of condolence with the family of the late Dr. Martin of Sheffield was passed.

Resignation from Council.—Dr. EDDISON gave a short statement of his reasons for resigning from the Council. The meeting sympathized with Dr. Eddison, but requested him to withdraw his resignation, as they were sure that he would always have the interests of the profession at heart, and not be biassed by personal or political feelings.

National Insurance Act.

The following resolutions were passed:

1. Proposed by Dr. CAMPBELL:

That the Divisions of the Branch be requested to arrange meetings of the medical staffs of the local hospitals, and the members of the Branch and Divisions, to secure common action in dealing with hospital patients under the Insurance Act, and to report to the Branch.

2. Proposed by Dr. METCALFE:

That the executives of the Branches and Divisions should arrange public discussions in order to draw the attention of the public to the disastrous effects which the medical clauses of the Insurance Act will have on the public, the hospitals, and the medical profession.

Dinner.—Nine members dined together after the meeting.

To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.

Association Notices.

ANNUAL REPRESENTATIVE MEETING, 1912.

DATE OF MEETING.

THE Annual Representative Meeting of the Association, 1912, will be held at Liverpool on Friday, July 19th, 1912, and the following days, as may be required.

NOTICES OF MOTION: LAST DAY OF RECEPTION.

ATTENTION is drawn to the fact that Notices of Motion from Divisions and Branches, for the consideration of the Annual Representative Meeting at Liverpool in July, relating to questions affecting the honour and interests of the medical profession or of the Association (By-law 37) must be published in the BRITISH MEDICAL JOURNAL not later than the issue of April 20th, and for this purpose should be received by me not later than April 16th, 1912. Notices of Motion proposing to make any addition to, or any amendment, alteration, or repeal of any Regulation or By-law, or to make any new Regulation or By-law (Article 31) must be published in the JOURNAL not later than the issue of May 18th, and received by me not later than May 14th, 1912.

By Order,

ALFRED COX,

Acting Medical Secretary.

COUNCIL MEETING.

The Quarterly Meeting of the Council will be held at 2 o'clock in the afternoon of Wednesday, May 1st, in the Council Room at 429, Strand, London, W.C.

By Order,

Guy Elliston,

Financial Secretary and Business Manager.

March 28th, 1912.

NOTICE OF CHANGES OF BOUNDARIES OF BRANCHES; FORMATION OF NEW DIVISIONS.

The following changes have been made in accordance with the Regulations of the Association, and take effect from the date of publication of this notice:

Aberdeen and Northern Counties of Scotland Branches.

Change of Boundaries.

1. That the common boundary of the Aberdeen and Northern Counties of Scotland Branches be modified to correspond with the eastern boundary of the county of Banff.

New Divisions.

2. That the following Divisions, with the areas stated (counties), be recognized within the area of the Northern Counties of Scotland Branch, reconstituted as above:

(*a*) Caithness and Sutherland.
(*b*) Ross and Cromarty.
(*c*) Inverness.
(*d*) Banff, Elgin, and Nairn.

Dundee Branch.

New Divisions.

3. That two Divisions of the Dundee Branch be formed, with the following designations and areas:

(*a*) Dundee: The City of Dundee.
(*b*) Forfarshire: The remainder of the area of the Branch.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

A list of periodical publications, official reports, and Blue Books in the Library of the British Medical Association available for issue to members on loan has been printed, and copies can be obtained free on application to the Librarian, at the house of the Association, 429, Strand, W.C. The regulations governing the loan of these publications are stated in the introduction to the list.

The Library is open for consultation from 10 a.m. till 5 p.m. (on Saturdays till 2 p.m.).

BRANCH AND DIVISION MEETINGS TO BE HELD

Birmingham Branch: Central Division.—The annual meeting of the Division will be held at the Medical Institute on Wednesday, May 15th, at 4 p.m., to elect officers for the ensuing year, and to transact other business. Nominations for the offices of Chairman, Vice-Chairman, and two Honorary Secretaries, in writing, signed by three members of the Division, must be forwarded to the Honorary Secretaries not later than April 24th.—W. Tracy Lydall and B. C. R. Aldren, Honorary Secretaries, Medical Institute, Birmingham.

East Anglian Branch.—The spring meeting of the Branch will be held at East Dereham on Thursday, April 25th. Members wishing to read papers or show specimens or cases should communicate with Mr. Hamilton A. Ballance, M.S., Honorary Secretary for Norfolk.

Gloucestershire Branch.—A meeting of this Branch will be held on April 18th, at 7 p.m., in Stroud Hospital. Dr. J. Michell Clarke, Bristol, will give an address on Haemorrhage from the Stomach. There will be dinner after the meeting at the Imperial Hotel, Stroud.—Douglas E. Finlay, Honorary Secretary, Gloucester.

Metropolitan Counties Branch: City Division.—*National Insurance Act*: A meeting of the profession within the area of the Division will be held in the Council Chamber of the Shoreditch Town Hall, Old Street, E.C., on Wednesday, April 17th, at 4 p.m., to appoint a Provisional Medical Committee. Dr. Gerald Johnston, Chairman of the Division, will preside. All practitioners, resident or practising within the area of the Division, are cordially invited. *General Meeting*: The next general meeting of the Division will be held at Brooke House, Upper Clapton (by invitation of the Chairman, Dr. Gerald Johnston), on Thursday, April 25th, at 9 p.m., when Dr. Chas. Bolton, F.R.C.P., will give a lantern demonstration and address upon Gastric Ulcer. Members are invited to bring professional friends. After the address a meeting will be held, to which all practitioners in the Borough of Hackney are invited, to consider the organization of the profession within the area of the Borough in relation to the National Insurance Act.—A. G. Southcombe, Honorary Secretary, Homerton, N.E.

Metropolitan Counties Branch: Hampstead Division.—A Divisional Meeting will be held on Friday, April 12th, at the Central Library, Finchley Road, at 8.30 p.m.; also on Friday, April 19th, at The Hall of the Blind School, Swiss Cottage, N.W., at 8.30 p.m., a meeting of the profession in the Borough of Hampstead, for the purpose of electing a Provisional Local Medical Committee.—E. Arthur Dorrell, Honorary Assistant Secretary, 7, Cannon Hill, West Hampstead, N.W.

Metropolitan Counties Branch: St. Pancras and Islington Division.—A meeting will be held, to which all members of the profession in the two boroughs will be invited, at the Midland Grand Hotel, King's Cross, N.W., on Friday, April 12th, at 9 p.m., for the special purpose of forming a Provisional Medical Committee. Dr. Morison, Chairman of the Division, will preside, and will invite Dr. R. M. Beaton (Member of the National Insurance Committee and of the Central Advisory Committee) to lay the forthcoming programme of the Division before the meeting.—A. Brown, Honorary Secretary.

Midland Branch: Leicester and Rutland Division.—A meeting of the medical practitioners of Leicestershire and Rutland will be held in the Association Hall, East Street, Leicester, on this day, Friday, April 12th, at 4 o'clock, for the purpose of considering the scheme for a public medical service for Leicestershire and Rutland which has been drawn up by the Executive Committee of the Division. The Honorary Secretary calls attention to the following points in the scheme: (1) Its extreme elasticity, which permits of its application to all the varying conditions to be found in large areas such as that contained in this Division; (2) the service is controlled throughout by the medical profession; (3) the Subdivision Committees may make such arrangements for income limit, methods and rates of remuneration, and free choice of doctor, as are approved by the profession in the local areas, controlled by the respective Subdivision Committees; (4) an opportunity is afforded of establishing a service, which will meet the legitimate needs of the poorer classes of society, and at the same time do so on terms which will enable the work to be satisfactorily performed. Agenda:—Discussion of the public medical service scheme. Notice has been given that the following resolutions will be moved in case the scheme be approved: "That this meeting do now proceed to the election of Chairman, Vice-Chairman, Honorary, and Honorary Treasurer." "That the Central Committee of the service (see Section 5) be the Provisional Medical Committee appointed to watch the interests of the profession in all matters of contract practice."—R. Wallace Henry, Honorary Secretary.

South-Eastern Branch: Brighton Division.—A special meeting of the Division will be held on Friday, April 12th, at the Oddfellows' Hall, Queen's Road, Brighton. The next ordinary meeting will take place on Tuesday, April 16th, at the Lecture Hall, New Road, Brighton, at 4 p.m.—C. H. Benham, Honorary Secretary, Brighton.

Worcestershire and Herefordshire Branch.—The spring meeting of this Branch will be held at Worcester on April 25th. Members wishing to read papers, exhibit specimens, or show cases are requested to kindly communicate with the Honorary Secretary without delay. It has been suggested that members should dine together after the meeting.—C. S. Morrison, Honorary Secretary.

CENTRAL MIDWIVES BOARD.

A SPECIAL meeting of the Central Midwives Board was held on March 27th at Caxton House, Westminster, with Sir FRANCIS H. CHAMPNEYS in the chair.

Midwives Struck Off the Roll.

The Board considered the following charges, amongst others, against the midwives whose names are given below, and ordered them to be struck off the Roll:

Ada Clews, that on January 6th, 1912, she was convicted at the Crewe Police Court of having been found drunk and incapable on a public highway; that she was not scrupulously clean, as required by Rule E. 1; and that she did not possess the appliances or antiseptics required by Rule E. 2.

Frances Elizabeth Cooper, that at the Bristol Police Court, on December 21st, 1911, she was convicted of feloniously stealing seven brooches and a necklace.

Mary Elizabeth Cornwall, that being in attendance as a midwife at a confinement, the child suffering from inflammation of and discharge from the eyes, she did not explain that the case was one in which the attendance of a registered medical practitioner was required, nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that this might be immediately forwarded to the medical practitioner, as required by Rule E. 20 (5).

Sarah Coulson, that being in attendance as a midwife at a confinement, the death of the child having occurred before the attendance of a registered medical practitioner, she failed to notify the Local Supervising Authority thereof, as required by Rule E. 21 (1) (*b*), and that she did not take the patient's pulse and temperature.

Helen Dickinson, that being in attendance as a midwife at a confinement she did not take with her to the confinement the appliances and antiseptics required by Rule E. 2; she left the patient after the commencement of the second stage of labour, and before the birth of the child, contrary to Rule E. 6, and she did not at any time take the patient's temperature, as required by Rule E. 13.

Rachel Hancock, that she habitually neglected to advise medical help in cases of abortion, as required by Rule E. 19; that she did not take and record the pulse and temperature of her patients at each visit, and that she did not keep her Register of Cases as required by Rule E. 23.

Eliza Harrison, that being in attendance as a midwife at a confinement, and having been informed by the doctor in attendance on the patient that the case was one of puerperal fever, and having been warned of the danger of attending any other maternity patient, she nevertheless subsequently on the same day attended as a midwife at a confinement, and delivered the patient of a child, without having disinfected herself, her clothing, and appliances to the satisfaction of the Local Supervising Authority, as required by Rule E. 5.

Emily Langley, that being in attendance as a midwife at a confinement, a registered medical practitioner having been sent for, she failed to notify the fact to the Local Supervising Authority, as required by Rule E. 21 (1) (*a*); the death of the child having occurred before the attendance of a registered medical practitioner, she failed to notify the fact to the Local Supervising Authority, as required by Rule E. 21 (1) (*b*); and that she did not adopt antiseptic precautions.

Mary Rolles, that being in attendance as a midwife at a confinement, the child being stillborn, she did not notify the Local Supervising Authority thereof, as required by Rule E. 21 (1) (*c*); that she did not understand antiseptic treatment, and that she could not make use of a clinical thermometer, and was consequently unable to comply with Rule E. 13.

Mary Ann Shields, that being in attendance as a midwife at a confinement she did not disinfect her hands and forearms on each occasion before touching the patient's generative organs, as required by Rule E. 3; she did not wash the baby at any time, and she did not at any time take the patient's pulse or temperature, as required by Rule E. 13.

Alice Turner, that being in attendance as a midwife at a confinement, the child being dangerously feeble at birth, she did not explain that the case was one in which the attendance of a registered medical practitioner was required, nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her in order that this might be immediately forwarded to the medical practitioner, as required by Rule E. 21 (5).

Alice Vaughan, that when called to a confinement see did not take with her the appliances and antiseptics required by Rule E. 2, and that she was unable to make use of a clinical thermometer, and consequently did not take the temperature of her patients, as required by Rule E. 13.

Midwife Censured.

The following midwife was censured after charges against her had been considered: *Elizabeth Calcroft.*

A special meeting of the Central Midwives Board was held on March 28th at Caxton House, Westminster, with Sir FRANCIS H. CHAMPNEYS in the chair.

The Board considered the following charges, amongst others, against the midwives whose names are given below, and ordered them to be struck off the Roll:

Mary Ann Howell, that being in attendance as a midwife at a confinement, the case being one of delayed labour, she did not explain that the attendance of a registered medical practitioner was required, nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that this might be immediately forwarded to the medical practitioner, as required by Rule E. 19 (4) of the rules then in force.

Sarah Jackson, that she was not scrupulously clean in her person, clothing, appliances, and house, as required by Rule E. 1, and that she was unable to use a clinical thermometer and consequently could not take the temperature of her patients, as required by Rule E. 13.

Sarah Kilbourne, that being in attendance as a midwife at a confinement, the placenta and membranes not having been completely expelled, she did not wait for two hours from the birth of the child and then advise medical aid, as required by Rule E. 20 (3), but inserted her hand into the uterus and removed some of the membranes, and the patient having twice asked that a doctor might be sent for, she stated on each occasion that this was unnecessary.

Hannah Perry, that being in attendance as a midwife at a confinement, the child suffering from inflammation of and discharge from the eyes, she did not explain that the case was one in which the attendance of a registered medical practitioner was required, nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that this might be immediatly forwarded to the medical practitioner, as required by Rule E. 20 (5).

Jane Rigby, that having been duly suspended from practice on the ground that she was herself liable to be a source of infection, she nevertheless, while still under suspension, engaged herself to attend and did attend as a midwife at confinements, and that she did not possess the appliances and antiseptics required by Rule E. 2.

Eliza Smith, that being in attendance as a midwife at a confinement, the patient's perineum being seriously ruptured, she did not explain that the case was one in which the attendance of a registered medical practitioner was required, nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that this might be immediately forwarded to the medical practitioner, as required by Rule E. 20 (3), and medical advice having been sought she failed to notify the Local Supervising Authority thereof, as required by Rule E. 21 (1).

Midwives Censured.

The following midwives were censured after charges against them had been considered: *Catherine Hodykiss* and *Hannah Tilstone.*

Midwife Cautioned.

Anne Pogoste was cautioned after charges against her had been considered.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

THE undermentioned Surgeons have been promoted to the rank of Staff Surgeon in His Majesty's Fleet: WILLIAM RHODES HARRISON, JAMES ARTHUR THOMPSON, M.B., B.A., dated June 9th, 1910; GEORGE DEANE BATEMAN, DONALD PONTZ CHAPMAN, WILLIAM NICHOLS BLATCHFORD, dated November 21st, 1910; FREDERICK COCK, dated November 23rd, 1911.

ROYAL ARMY MEDICAL CORPS.

CAPTAIN WILLIAM R. O'FARRELL is seconded for service with the Egyptian Army, dated February 21st, 1912.

Major FREDERICK KIDDLE, M.B., from the seconded list, is restored to the Establishment, dated March 1st, 1912.

TERRITORIAL FORCE.

Notts and Derby Mounted Brigade Field Ambulance.—Lieutenant OSWALD K. WRIGHT, M.B., to be Captain, dated February 17th, 1912.

Second London (City of London) General Hospital.—Major EUSTACE MAUDE CALLENDER, M.D., from the 1st London (City of London) Field Ambulance, to be Lieutenant-Colonel, dated March 13th, 1912.

Third London General Hospital.—SIDNEY MAYNARD SMITH, M.B., F.R.C.S., to be Captain, dated March 18th, 1912. WILLIAM HENRY WILLCOX, M.D., F.R.C.P., to be Captain, dated March 18th, 1912.

Fourth Northern General Hospital.—GODFREY JOHN RALPH LOWE (late Captain 4th Battalion the Lincolnshire Regiment) to be Captain, dated February 27th, 1912. Sergeant ARTHUR LOWNDES YATES, M.D., from the Inns of Court Officers' Training Corps, to be Captain, dated April 3rd, 1912.

For Attachment to other than Medical Units.—ALFRED IRVING SHEPHEARD-WALWYN, M.D., to be Lieutenant, dated February 1st, 1912. ARCHIBALD CAMPBELL, M.B., to be Lieutenant, dated February 7th, 1912. EDWARD ANDREW GREGG (late Lieutenant Royal Army Medical Corps—Special Reserve) to be Captain, dated February 12th, 1912. WILLIAM ROGERS, M.D. (late Second Lieutenant 7th Cyclist Battalion the Welsh Regiment), to be Lieutenant, dated February 18th, 1912. NORMAN GUY HAWTREY SALMON to be Lieutenant, dated February 19th, 1912. Lieutenant CHARLES LEONARD ISAAC, from the 3rd Welsh Field Ambulance, R.A.M.C., to be Lieutenant, dated April 3rd, 1912.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

In ninety-four of the largest English towns 9,056 births and 4,920 deaths were registered during the week ending Saturday, March 30th. The annual rate of mortality in these towns, which had been 14.4, 14.6, and 14.1 per 1,000 in the three preceding weeks, rose to 14.6 per 1,000 in the week under notice. In London the death-rate did not exceed 13.5 per 1,000, against 13.3, 12.7, and 13.5 per 1,000 in the three preceding weeks. Among the ninety three other large towns the death-rates ranged from 5.5 in Wimbledon, 6.4 in Ealing, 7.8 in Eastbourne and in Southend-on-Sea, 8.1 in Croydon, and 8.5 in Edmonton, to 19.5 in Oxford, 20.4 in Manchester and in Gateshead, 20.7 in Oldham, 21.2 in St. Helens, 21.3 in Bootle, and 21.7 in Burnley. Measles caused a death-rate of 1.9 in Manchester, 2.0 in Salford, 2.1 in Oldham, 2.5 in Cardiff, 2.9 in Oxford, and 3.0 in Wakefield; whooping-cough of 1.1 in Birmingham, in St. Helens, and in Sheffield, 1.3 in Merthyr Tydfil, 1.4 in Smethwick and in Manchester, 1.5 in West Bromwich, and 1.8 in Swansea; and diphtheria of 1.1 in Portsmouth and 1.6 in West Hartlepool. The mortality from enteric fever and scarlet fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 34, or 0.7 per cent., of the deaths registered in the ninety-four towns were not certified either by a registered medical practitioner or by a coroner after inquest, and included 6 in Birmingham, 4 in Liverpool, and 2 each in St. Helens, Manchester, Burnley, Darlington, and Gateshead. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospital and the London Fever Hospital, which had been 1,357, 1,384, and 1,368 at the end of the three preceding weeks, had further declined to 1,321 on Saturday, March 30th; 133 new cases were admitted during the week, against 161, 152, and 137 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

In eighteen of the largest Scottish towns 1,122 births and 709 deaths were registered during the week ending Saturday, March 30th. The annual rate of mortality in these towns, which had been 15.4 and 17.4 per 1,000 in the two preceding weeks, declined to 17.0 in the week under notice, but was 2.4 per 1,000 above the rate recorded in the ninety-four large English towns. Among the several Scottish towns the death-rates in the week under notice ranged from 8.7 in Perth, 10.6 in Partick, and 12.2 in Falkirk to 21.4 in Paisley, 23.3 in Kirkcaldy, and 25.4 in Greenock. The mortality from the principal infectious diseases averaged 2.1 per 1,000, and was highest in Paisley and Leith. The 277 deaths from all causes registered in Glasgow included 27 from measles, 7 from infantile diarrhoea, 4 from whooping-cough, 3 from scarlet fever and 2 from diphtheria. Six deaths from measles were recorded in Leith, 5 in Paisley, and 4 in Edinburgh; 2 deaths from scarlet fever in Aberdeen; and 2 deaths from whooping-cough in Aberdeen and 2 in Edinburgh.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, March 30th, 636 births and 521 deaths were registered in the twenty-two principal urban districts of Ireland, as against 622 births and 460 deaths in the preceding period. The annual death-rate in these districts, which had been 23.1, 24.7, and 20.7 per 1,000 in the three preceding weeks, rose to 23.5 per 1,000 in the week under notice, this figure being 8.9 per 1,000 higher than the mean average death-rate in the ninety-four English towns for the corresponding period. The figures in Dublin and Belfast were 28.6 and 19.3 respectively, those in other districts ranging from 5.7 in Newtownards and 7.9 in Dundalk to 29.4 in Drogheda and 32.7 in Cork, while Londonderry stood at 24.2, Limerick at 21.7, and Waterford at 20.9. The zymotic death-rate in the twenty-two districts averaged 1.7 per 1,000, as against 1.1 in the preceding period.

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

AGRA: DUFFERIN HOSPITALS AND FEMALE MEDICAL SCHOOL.—Senior Lady Doctor for the Dufferin Hospitals, Agra. Pay, inclusive of allowances, Rs. 400 (£26 13s. 4d.) per mensem.

AYR DISTRICT ASYLUM.—Junior Assistant Physician (male). Salary, £140 per annum.

BEDFORD COUNTY HOSPITAL.—Male Assistant House-Surgeon. Salary, £80 per annum.

BIRMINGHAM AND MIDLAND EAR AND THROAT HOSPITAL.—House-Surgeon. Salary at the rate of £70 per annum.

BOLINGBROKE HOSPITAL, Wandsworth Common, S.W.—House-Surgeon (male). Salary, £75 per annum.

BRIGHTON: ROYAL SUSSEX COUNTY HOSPITAL.—(1) House-Surgeon (male); (2) House-Physician (male); (3) Honorary Medical Clinical Assistant; (4) Honorary Surgical Clinical Assistant. Salary for (1) and (2), £120 and £100 per annum respectively.

BRISTOL GENERAL HOSPITAL.—House-Physician. Appointment for six months. Salary, £80.

BRISTOL ROYAL HOSPITAL FOR SICK CHILDREN AND WOMEN.—Senior Resident Officer. Salary, £90 per annum.

BURNLEY COUNTY BOROUGH.—Assistant to the Medical Officer of Health. Salary, £250 per annum, rising to £300.

BUXTON: DEVONSHIRE HOSPITAL.—Pathologist (non-resident). Salary, £250 per annum.

CANCER HOSPITAL, Fulham Road, S.W.—Assistant Anaesthetist. Honorarium, 25 guineas per annum.

CHARING CROSS HOSPITAL MEDICAL SCHOOL.—Demonstrator in Pathology. Salary, £150 per annum.

CHELTENHAM GENERAL HOSPITAL.—House-Physician. Salary, £80 per annum, rising to £100 on becoming Senior Medical Officer.

CHESTER GENERAL INFIRMARY.—House-Physician. Salary, £90 per annum.

CHORLEY: RAWCLIFFE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

DUDLEY: GUEST HOSPITAL.—(1) Senior Resident Medical Officer; salary, 100 guineas per annum, increasing to 120 guineas. (2) Assistant House-Surgeon; salary, £80 per annum.

EAST SUSSEX COUNTY ASYLUM, Hellingly.—Third Assistant Medical Officer. Salary, £175 per annum, rising to £200.

HEREFORDSHIRE GENERAL HOSPITAL.—House-Surgeon. Salary at the rate of £120 per annum.

LEAMINGTON: WARNEFORD, LEAMINGTON, AND SOUTH WARWICKSHIRE GENERAL HOSPITAL.—(1) Honorary Surgeon. (2) House-Surgeon; salary, £100 per annum.

LEEDS TUBERCULOSIS ASSOCIATION.—Resident Medical Officer for the Sanatorium at Gateforth. Salary at the rate of £100 per annum.

LEICESTER INFIRMARY.—(1) House-Surgeon; (2) Assistant House-Surgeon. Salary at the rate of £120 and £80 per annum respectively.

LINCOLN COUNTY HOSPITAL.—Junior Male House-Surgeon. Salary at the rate of £100 per annum.

LIVERPOOL UNIVERSITY.—Chair of Bacteriology and City Bacteriologist. Salary, £800 per annum.

LOUGHBOROUGH AND DISTRICT GENERAL HOSPITAL AND DISPENSARY.—Male Resident House-Surgeon. Salary, £120 per annum.

MACCLESFIELD GENERAL INFIRMARY.—Senior House-Surgeon. Salary, £100 per annum.

MARGATE: ROYAL SEA-BATHING HOSPITAL FOR SURGICAL TUBERCULOSIS.—Resident Surgeon. Salary at the rate of £100 per annum, increasing to £120.

METROPOLITAN EAR, NOSE, AND THROAT HOSPITAL, Grafton Street, W.—(1) Assistant Surgeon; (2) Clinical Assistants.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—(1) Assistant Physician; (2) Medical Registrar and Pathologist; (3) House-Physician; (4) House-Surgeon; (5) Assistant House-Physician; (6) Assistant House-Surgeon. Salary for (2), £120 per annum and £10 on completion of annual report; for (3) and (4), at the rate of £50 per annum; and for (5) and (6), at the rate of £40 per annum.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—(1) House-Surgeon; salary, £80 per annum. (2) Casualty Officer; salary at the rate of £60 per annum.

OLDHAM ROYAL INFIRMARY.—(1) Second House-Surgeon. (2) Third House-Surgeon. Salary at the rate of £100 and £80 per annum respectively.

PADDINGTON GREEN CHILDREN'S HOSPITAL, W.—(1) House-Physician; (2) House-Surgeon. Salary at the rate of £52 10s. each per annum.

PADDINGTON INFIRMARY.—Second Assistant to the Medical Superintendent, and Medical Officer of the Workhouse. Salary at the rate of £100 per annum.

PRINCE OF WALES'S GENERAL HOSPITAL, Tottenham, N.—(1) Senior House-Physician; (2) Junior House-Surgeon; (3) Junior House-Physician. Salary for (1), £75 per annum; and for (2) and (3), £50 per annum.

READING: ROYAL BERKSHIRE HOSPITAL.—(1) House-Physician; (2) Second House-Surgeon. Salary at the rate of £80 per annum each.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—(1) Lecturer in Anatomy and Physiology for the Fellowship; (2) two Examiners in Elementary Biology for first examination; (3) three Examiners in Anatomy and two in Physiology for second examination; (4) four Examiners in Midwifery for the third examination; (5) Examiner for Part I and Examiner for Part II for examination for Diploma in Public Health; (6) Examiner in Bacteriology and Examiner in Diseases and Hygiene of the Tropics. (2) to (6) are under the Conjoint Board.

SALFORD ROYAL HOSPITAL.—Junior House-Surgeon (male). Salary at the rate of £65 per annum.

SALOP INFIRMARY.—House-Surgeon. Salary, £100 per annum.

SEAMEN'S HOSPITAL SOCIETY.—Assistant Physician for Diseases of the Skin at the Dreadnought Hospital, Greenwich.

SHEFFIELD: ROYAL INFIRMARY.—Assistant House-Physician. Salary, £70 per annum.

SOUTHPORT INFIRMARY.—Resident (Male) Junior House and Visiting Surgeon. Salary commencing at the rate of £70 per annum.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—House-Physician. Salary, £82 per annum, and £5 honorarium after six months' approved service.

STOCKPORT INFIRMARY.—Junior House-Surgeon. Salary, £80 per annum.

STORNOWAY PARISH COUNCIL.—Medical Officer. Salary, £67 per annum, together with £2 10s. as Public Vaccinator, and £2 10s. for services under the Lunacy Act.

TORQUAY: TORBAY HOSPITAL.—Resident Medical Officer. Salary, £100 per annum, and £5 for lectures to nurses.

WEST LONDON HOSPITAL, Hammersmith Road, W.—Pathologist. Salary, £150 per annum.

WESTMINSTER HOSPITAL, Broad Sanctuary, S.W.—(1) Physician; (2) Assistant Physician.

WEST RIDING COUNTY COUNCIL: SCALEBOR PARK ASYLUM.—Assistant Medical Officer. Salary, £180 per annum.

WINCHESTER: ROYAL HAMPSHIRE COUNTY HOSPITAL.—(1) House-Physician; (2) House-Surgeon (males). Salary, £80 per annum each.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

YORK COUNTY HOSPITAL.—House-Surgeon. Salary at the rate of £100 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacant appointment: Rockcorry, co. Monaghan.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

APPOINTMENTS.

ATLEE, C. N., M.R.C.S., L.R.C.P., Third Resident Assistant Medical Officer, Southwark Union Infirmary.

BUSHNELL, F. G., M.D.Lond., D.P.H.Camb., Acting Medical Officer of Health and Assistant School Medical Officer of the West Sussex (Northern) Combined Sanitary Districts, in the absence of Dr. S. Child, M.O.H. and A.S.M.O., on leave.

HOPE, Charles W. M., M.D., F.R.C.S., Clinical Assistant to the Throat and Nose Department, King's College Hospital, W.C.

TAYLOR, Gordon, B.S., F.R.C.S., Surgeon with the Charge of Outpatients to Great Northern Central Hospital.

THOMSON, T. Lauder, M.D., D.P.H., County Medical Officer for Dunbartonshire, vice J. C. McVail, appointed Scottish Insurance Commissioner.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTHS.

BINNS.—On April 7th, at Carlisle Villa, Bow Road, E., the wife of John Braybrooke Binns, M.R.C.S., L.R.C.P.Lond., of a daughter.

COWPER.—On April 3rd, at Peatling House, near Leicester, to C. M. L. Cowper, M.R.C.S.Eng., L.R.C.P.Lond., and Mrs. Cowper, a daughter.

TATE.—At Hill House, Stamfordham, Newcastle-on-Tyne, on March 30th, the wife of Edward Tate, M.D., B.S., of a daughter.

WILLAN.—On Easter Sunday, 1912, at 23, Claremont Place, Newcastle-on-Tyne, the wife of R. J. Willan, F.R.C.S.Eng., of a daughter.

MARRIAGES.

ANDERTON—WEBSTER.—On April 2nd, at Bidston Church, by the Rev. T. Mather Standring, Vicar, John Westall Anderton, M.B., Ch.B., eldest son of James Anderton, of St. Annes-on-the-Sea, to Alice, second daughter of Charles Webster, of Bidston, Cheshire.

CLARK—ATKINSON.—On April 8th, at the Parish Church, Wanstead, by Canon J. R. Corbett, Rector, Percy John Clark, M.R.C.S., L.S.A., of 2, Spital Square, Bishopsgate, E., to Eveline Sarah Atkinson, third daughter of the late William Atkinson, of Helmsley, Yorks.

SHEPARD—EVANS.—A marriage has been arranged and will take place during the summer between Arthur Harold Shepard, B.A., M.D., of Chelford, Cheshire, fifth son of the late Henry Shepard, Esq., of "Oatlands," Wicklow, Ireland, and Muriel Sandford, only daughter of William Paterson Evans, "Brentwood," Bidston, Cheshire, Director of Evans Sons Lescher and Webb, Ltd., Liverpool and London.

DEATH.

MOORE.—April 8th, at Pailton Hall, Rugby, B. Ayres Moore, L.R.C.P.I. and L.R.C.S.I., aged 64 years.

DIARY FOR THE WEEK.

TUESDAY.

LONDON DERMATOLOGICAL SOCIETY, 49, Leicester Square, W.C., 4.30 p.m.—(1) Paper:—Dr. W. Knowsley Sibley: Ionization in the Treatment of Diseases of the Skin. (2) Exhibition of cases and specimens.

MEDICO-LEGAL SOCIETY, 11, Chandos Street, W., 8.30 p.m.—Paper:—Dr. F. J. Smith: The Law and Practice of *Post-mortem* Examinations.

ROYAL SOCIETY OF MEDICINE:
THERAPEUTICAL AND PHARMACOLOGICAL SECTION, 15, Cavendish Square, W., 4.30 p.m.—Paper.

WEDNESDAY.

ROYAL SOCIETY OF MEDICINE:
BALNEOLOGICAL AND CLIMATOLOGICAL SECTION, 15, Cavendish Square, W., 5.30 p.m.—Discussion on The Radium Emanations of Mineral Waters, to be opened by Dr. T. Pagan Lowe (Bath).

THURSDAY.

HARVEIAN SOCIETY OF LONDON, Stafford Rooms, Titchborne Street, Edgware Road, W., 8.30 p.m.—Papers:—Dr. Edmund Cautley: Fever in the New-born. Mr. Arthur Edmunds: Acute Intestinal Obstruction in Infants.

ROYAL SOCIETY OF MEDICINE:
DERMATOLOGICAL SECTION, 11, Chandos Street, W., 5 p.m.—Cases and specimens.

FRIDAY.

ROYAL SOCIETY OF MEDICINE:
ELECTRO-THERAPEUTICAL SECTION, 15, Cavendish Square, W., 8.30 p.m.—Papers:—Dr. Reginald Morton: The Treatment of Rodent Ulcer. Dr. S. Russ: The Clinical Use of the Active Deposit of Radium.

POST-GRADUATE COURSES AND LECTURES.

MANCHESTER: ANCOATS HOSPITAL POST-GRADUATE CLINIC.—Thursday, 4.15 p.m., After-treatment of Abdominal Sections.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics, *X* Rays, and Operations, 2 p.m. daily. Monday: Gynaecology, 10 a.m.; Eye, 2 p.m. Tuesday: Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m. Thursday: Gynaecology, 10 a.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday: Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday: Diseases of Children, 10 a.m. Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
APRIL.	
12 FRIDAY ..	LEICESTER AND RUTLAND DIVISION, *Midland Branch*, Association Hall, East Street, Leicester, 4 p.m.
13 SATURDAY ..	LONDON: Standing Therapeutic Sub-committee, 10 a.m. LONDON: Science Committee, noon.
14 Sunday ..	
15 MONDAY ..	
16 TUESDAY ..	LONDON: Organization Committee, 2.30 p.m. BRIGHTON DIVISION, *South-Eastern Branch*, Ordinary Meeting, Lecture Hall, New Road, Brighton, 4 p.m.
17 WEDNESDAY	LONDON: Finance Committee, 3 p.m. CITY DIVISION, *Metropolitan Counties Branch*, Meeting of Profession, Council Chamber, Shoreditch Town Hall, Old Street, E.C., 4 p.m.
18 THURSDAY ..	LONDON: Metropolitan Counties Branch, Council, 4 p.m. GLOUCESTERSHIRE BRANCH, Stroud Hospital, 7 p.m.; Dinner, Imperial Hotel, Stroud, after Meeting.
19 FRIDAY ..	HAMPSTEAD DIVISION, *Metropolitan Counties Branch*, Meeting of Profession, Hall of Blind School, Swiss Cottage, N.W., 8.30 p.m.
20 SATURDAY ..	
21 Sunday ..	
22 MONDAY ..	
23 TUESDAY ..	
24 WEDNESDAY	BATH AND BRISTOL BRANCH, Bath. RICHMOND DIVISION, *Metropolitan Counties Branch*, Richmond, 8.30 p.m.
25 THURSDAY ..	EAST ANGLIAN BRANCH, Spring Meeting, East Dereham. SOUTH-WEST ESSEX DIVISION, *Metropolitan Counties Branch*, Walthamstow Hospital, 4 p.m. CITY DIVISION, *Metropolitan Counties Branch*, General Meeting, Brooke House, Upper Clapton, 9 p.m. WORCESTERSHIRE AND HEREFORDSHIRE BRANCH, Spring Meeting, Worcester.
26 FRIDAY ..	BIRMINGHAM BRANCH, Pathological and Clinical Section, Medical Institute, Edmund Street, 8 p.m.
27 SATURDAY ..	
28 Sunday ..	
29 MONDAY ..	
30 TUESDAY ..	

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SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, APRIL 20TH, 1912.

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SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs. BY ORDER.

MATTERS REFERRED TO DIVISIONS.

ANNUAL REPRESENTATIVE MEETING AT LIVERPOOL.

FRIDAY, JULY 19TH, 1912, AND FOLLOWING DAYS.

NOTICES OF MOTION.

THE following Notices of Motion have been received for discussion by the Annual Representative Meeting of the Association, to be held at Liverpool, on Friday, July 19th, 1912, and following days:

A.—NOTICES AFFECTING THE REGULATIONS OF THE ASSOCIATION.

Resignation of Membership.

By COUNCIL:

That By-law 13 (2) be amended by the substitution of the words "three months'" for the words "one month's," in the fifth line.

[Existing By-law 13 (2):

Cessation of Membership.

(2) No Member shall (except in case of his expulsion, or of his ceasing to be a Member under the provisions of Clause (*c*) of the 10th Article of Association or under the previous provision of this By-law) cease to be a Member without having given one month's previous notice in writing of his intention in that behalf to the Association at the Head Office, and having paid all arrears of subscriptions (if any) due from him.]

Election by Branches.

By VICTORIAN BRANCH:

That the following Subsection (3) be added to present By-law 5 of the Association:

"Where a candidate for election has been recently domiciled within the territory of an oversea Branch, election of such candidate by a Branch in the United Kingdom or another oversea Branch shall be provisional until the Council of the Branch in the previous place of domicile has been communicated with.

[Existing By-law 5:

Election by Branches.

5.—(1) In the case of a Branch in the United Kingdom the mode of election of new members shall be as follows: Every candidate who resides within the area of a Branch shall forward his application to the Secretary of such Branch. Notice of the proposed election shall be sent by the Branch Secretary to the Association at the Head Office, and to every member of the Branch Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a member of the Association by the Branch Council at any meeting thereof held not less than seven days (or such longer period as the Branch may by its Rules prescribe) after the date of the said notice. A Branch may require that each candidate for election shall furnish a certificate signed by two Members

(either of the Association, or of the Branch, or of the Division in which he resides, as the Rules of the Branch may prescribe) stating that from personal knowledge they consider him a suitable person for election.

(2) In the case of a Branch not in the United Kingdom the mode of election shall be such as may, with the consent of the Council, be prescribed by the Rules of the Branch.]

Schedule to By-laws, so far as Relating to Central Ethical Committee.

By Victorian Branch:

That the following words be added at the end of the statement of duties, powers, etc., of the Central Ethical Committee in the Schedule to the present By-laws:

Where an ethical complaint has been dealt with by the Council of a Branch outside of the United Kingdom, an appeal to the Council of the Association shall not be allowed except by permission of the Council of the Branch.

[Extract from Schedule to present By-laws:

Duties, Powers, etc., of Central Ethical Committee.

To advise the Council on questions connected with Rules of Divisions and Branches relating to professional conduct, to investigate and report to the Council upon the cases of Members whose conduct is to be considered by the Council on the representation of Divisions or Branches pursuant to the Regulations, and generally to advise and, where so directed, act for the Council on all questions of professional conduct; also to adjudicate in matters of dispute as to professional conduct arising between Members of the Association or Members of the Profession, or at the discretion of the Committee to refer any question arising in connection with such a dispute to any Division or Branch, or to any Divisions or Branches jointly, for investigation or for adjudication subject to an appeal to the Committee; and so that any person directly concerned in such a dispute shall have a right of appeal to the Council from the decision of the Committee, and that the decision of the Committee subject to such appeal, and the decision of the Council upon any such appeal shall be binding upon the parties and upon all Members of the Association.]

Expenses of Representatives.

By East Norfolk Division:

That in the opinion of this Meeting the time has now come when the Council should take into consideration the payment of the necessary out-of-pocket expenses of Representatives at Representative Meetings.

[Existing By-law 71:

Expenses.

71. The expenses of any person which, in pursuance of the 39th Article of Association, are to be defrayed out of the general funds of the Association, are the first-class travelling expenses within the United Kingdom of that person.]

Local Autonomy for Australian (or Australasian) Branches.

By South Australian Branch:

That the constitution of the British Medical Association be amended:

A. So as to provide:

1. For the creation of an Australian (or Australasian) Council consisting of Members elected by the Branches in Australia (Australasia) and having such powers and duties as will enable it to administer the affairs of the Association in Australia (Australasia) in so far as such affairs are of local concern and do not affect the Association outside Australia (Australasia);

2. For the holding of General Meetings of the Members of the Association residing in Australia (Australasia);

3. For the creation of a Representative Body in Australia (Australasia), analogous to the Representative Body of the Association;

or

B. So as to provide in some other manner than that hereinbefore proposed for the federation of the Australian (Australasian) Branches with autonomy in regard to matters of Australian (Australasian) concern not affecting the Association outside Australia (Australasia).

B.—NOTICES AFFECTING THE ADMINISTRATION OF THE ASSOCIATION.

Grouping of Branches not in United Kingdom for Election of Council.

By Hong Kong and China Branch:

That the new arrangement of grouping of Branches not in the United Kingdom, whereby the Hong Kong and China Branch is grouped with the various Branches in India, Burma, Ceylon and Malaya for the purpose of electing one member of the Council of the Association, does not give that Branch adequate representation, and seriously curtails the rights and privileges of the Members of the Branch; that therefore one Member of Council should be allotted to the Hong Kong Branch, together with the Malaya Branch, and another Member of Council allotted to the Branches in India, Burma, and Ceylon, which Branches have interests more or less in common; and that in the event of this proposal being approved by the Representative Body the Member of Council representing the Hong Kong and China and Malaya Branches should be elected from Members of each of the two Branches alternately.

By direction of the Chairman of Representative Meetings,

Alfred Cox,
Acting Medical Secretary.

April 17th, 1912.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* Journal.]

BORDER COUNTIES BRANCH:

Scottish Division.

A meeting of this Division was held in the Dumfries and Galloway Royal Infirmary, Dumfries, on February 16th, and continued the meeting adjourned from February 8th (see Supplement, February 17th, p. 189). There were thirty-four members present. Dr. Easterbrook was Chairman.

Apologies for Non-attendance.—Apologies for absence were intimated from eight members.

Confirmation of Minutes.—The minutes of the last meeting were read and passed.

Appointment of Deputy Representative.—Dr. Robson was appointed Deputy Representative to the Representative Meeting on February 20th and 21st.

National Insurance Act.

Recommendations of Council.—The meeting then proceeded to the business on the agenda—namely, the further consideration of Report of Council D 22, and decided to take up the recommendations in order.

For Recommendation I, Dr. Bell moved:

That the Council be instructed to at once cease negotiations with the Government and the Commissioners.

Dr. Matthew seconded. Dr. Robson moved as an amendment:

That the Council be instructed, if and when approached by the Commissioners, to again place before them the further conditions absolutely necessary for securing the requirements of the profession, as embodied in the six cardinal points, adequately secured by legislation or otherwise.

Dr. Murdoch seconded. Drs. Kerr, Ross, Cook, Rodger, Bryson, and Livingstone took part in the debate. On a division, 19 voted for the amendment and 7 for the motion. The amendment was therefore carried.

Recommendation II: Approved.
Recommendation III: Approved.

Recommendation IV was approved after some discussion.

Recommendation V: Dr. Robson moved that the following rider be added to V:

> That our Representative be instructed to move or support:
>
> That members of the medical profession holding friendly society or club appointments resign such appointments on June 30th, notice of resignation being given not later than June 1st, and that those members of the medical profession who do not hold such appointments honourably pledge themselves not to take up such appointments.

Dr. Livingstone seconded. Dr. Cook moved as an amendment that the following be added to the rider:

> And that such undertaking be in the form of a legal document, duly signed and witnessed, that shall carry with it a penalty of £100 for each year of further holding such appointment.

Dr. Johnstone seconded. On a division 15 voted for and 13 against the amendment. The amendment was therefore carried.

The amended rider was then carried by 21, none voting against it.

For Recommendation VI, Dr. Bell moved:

> That a State Sickness Insurance Committee be appointed to consider and report to the Council on all matters connected with the National Insurance Act; that the committee consist of twenty-four members elected by the Branches and grouped Branches in the United Kingdom, and the *ex officio* members, and that this committee be empowered to add to its numbers for several purposes not more than four additional members.

Dr. Kerr seconded. Dr. Huskie moved as an amendment:

> That in Recommendation VI sixteen members be elected by the Representative Body and eight by the Council.

Dr. Murdoch seconded. On a division 16 voted for the amendment and 8 for the motion. The amendment was therefore carried.

Instructions to Representative.—Dr. Huskie proposed:

> That the Representative be instructed to vote against a fixed charge for medical attendance; and that this should be arranged for each district separately.

This was carried by acclamation.

EAST ANGLIAN BRANCH:

Mid-Norfolk Division.

A meeting of this Division was held in the Medical Library, Norwich, on April 10th. Twenty members were present; Dr. McKelvie, Vice-Chairman, presided.

Confirmation of Minutes.—The minutes of the previous meeting were signed.

Norfolk Education Authority: Scale of Fees.—The meeting considered a scale of fees offered to the local profession by the Norfolk Education Authority, and sanctioned by the Board of Education. After discussion it was agreed to accept the offer of a fee of £1 11s. 6d. for operation on tonsils and adenoids in school children, including local or general anaesthesia, but not to accept the fee offered for the treatment of certain skin diseases—ringworm, scabies, impetigo—namely, 5s.; the Honorary Secretary being instructed to inform the medical officer of health and the members of the Division of this decision.

Provisional Medical Committee.—The only other important item on the agenda was the immediate formation of a Provisional Medical Committee to organize the local profession in the event of the Insurance Commissioners' regulations not fulfilling the demands of the Association under the Insurance Act. The following gentlemen were appointed as representing the various centres or districts of the Division: Drs. Colvin-Smith (Cromer), Kay (Cley), Vaughan (Diss), Douglas McKelvie (Blofield), Davidson (Thorpe), B. D. Z. Wright (Coltishall), Harrison (North Walsham), Howlett (East Dereham), Sapwell (Aylsham), Lowe (Wymondham), Owens (Long Stratton), Howard (New Buckenham). Three non-members of the Association resident in the Division were also appointed, namely: Dr. Keeling (Attleborough), Dr. Cooper (East Harling), Dr. Rackham (Elmham). Dr. Thomson, Honorary Secretary of the Division, was also appointed to start and organize the work of the Committee.

The proceedings then terminated.

North Suffolk Division.

A meeting of members of the profession residing in the area of this Division was held at the Lowestoft Hospital on Thursday, April 4th, at 4 p.m., Dr. Ransome presiding. There were also present Drs. Bell, Berry, Evans, Helsham, Colborne, Schilling, Chevers, Farrer, Wood-Hill, Baylie, Mitchell, Fox, Ticehurst, Hosegood, Taylor, Mead, Barraclough, Worthington, Hutchinson, Aylen, Morris, Daniells, Boswell, and Tyson (Honorary Secretary).

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Representative at Representative Meeting.—A vote of thanks was accorded to Dr. H. Muir Evans for acting as Representative at the Special Representative Meeting in London, and Dr. Evans was unanimously elected to represent the Division at Representative Meetings during the ensuing year.

Provisional Local Medical Committee.—The question of the composition of the Provisional Local Medical Committee in connexion with the State Insurance Act was next considered, and it was finally agreed that the committee should consist of twelve members, with power to co-opt two additional members. Some discussion as to the method of election of the committee took place, and it was agreed that the members should be elected forthwith by those present at the meeting, and the amendment by Dr. Helsham that the members of the committee for each district be chosen by that district by postal vote was defeated. The following were then elected members of the Provisional Committee: Drs. Bell, Evans, Hutchinson, Tyson, Helsham, Ransome, Wade, Aylen, Schilling, Acton, Baylie, and Taylor. It was agreed that the meetings of this committee should be held at Beccles, and Dr. Helsham was unanimously elected secretary of the committee. On the proposition of Dr. Worthington it was agreed that, if any member elected to serve on the above committee should not wish to stand, the committee be empowered to elect another member in his stead.

Guarantee Fund.—The Chairman called attention to the urgent necessity of hearty support being given to the Guarantee Fund, and substantial guarantees were given by several members present.

Fees for Ambulance Lectures.—The question of payment for ambulance lectures was brought up, and after some discussion it was agreed that at the next meeting a resolution should be brought forward that in future no ambulance lectures should be given by a practitioner in the Division unless he receive a suitable fee for the same. This concluded the business of the meeting.

JAMAICA BRANCH.

A meeting was held at the Public Hospital, Kingston, on Thursday, February 22nd, at 8 p.m., when Dr. Lloyd Tuckey read a paper and opened a discussion on hypnotism, suggestion, and psychotherapy. Dr. Ayton described a case of colitis caused by *Bacillus pyocyaneus*, treated by vaccines—apparent cure. Dr. C. H. Thomson showed (1) a case of abdominal tumour in a child 2 years old; (2) a case of syphilis treated successfully by salvarsan.

LANCASHIRE AND CHESHIRE BRANCH:

Manchester (South) Division.

A general meeting of the Division was held at the Holy Innocents' Schools, Fallowfield, on Wednesday, April 3rd, at 3.30 p.m.; Dr. Grant Davie presided. There were also present: Drs. Cotterill, Chevers, Edlin, Gregory, Godson, Crichton-Hood, Heathcote, Hopkinson, Jones, Martin, Mitchell, McDougall, Scott, Salter, Stocks, Thoseby, Tomkys, Webb, and Williams. Dr. P. Drummond was present by invitation—issued to all non-members.

Apologies for Non-attendance.—Dr. Whitworth and Dr. Russen Rhodes sent apologies for non-attendance.

Medical Who's Who.—A resolution passed by the Committee of the Division on March 26th in relation to a suggested *Medical Who's Who* was read. The resolution and the action taken by the Committee in sending it up to

the Central Office were formally approved by the meeting. It was decided to let further action rest with the Central Office.

Scheme for Amalgamation of Manchester and Salford Divisions.—The rules and principles were discussed. The meeting made several alterations and suggestions.

Provisional Local Medical Committees.—Dr. Grant Davie gave an account of the last two committee meetings at which this subject was discussed, and at which the Committee recommended that an organization subcommittee be appointed to draw up a scheme for the election and plan of campaign of the Provisional Local Medical Committees. This recommendation the meeting decided to adopt. It also decided that the following districts should be represented by the following members, with Dr. Stocks *ex officio* member of the Committee: Heaton Chapel, Dr. Simcock; Didsbury and West Didsbury, Dr. Godson; Gorton, Dr. Martin; Levenshulme, Dr. Edlin; Longsight, Dr. Gregory; Wilmslow, Dr. Byers; Dr. Cotterill was elected Honorary Secretary of the Committee. It was decided that the expenses incurred by this subcommittee be defrayed out of the funds of the Division.

Preston Division.

The annual general meeting of this Division was held in the Preston Scientific Society's Rooms, on Thursday, April 11th. Dr. R. C. Brown, President, in the chair. There were present: Drs. Garner, Petyt, Bywater, Leighton, Healey, Dunn, Hewetson, Sellers, Huntley, Rigg, W. Pimblett, Eccles, Howe, Turnbull Smith, and Sykes.

Confirmation of Minutes.—The minutes of the last annual meeting were read and adopted.

Report of Executive.—The Honorary Secretary read the report of the executive, which stated that the membership on December 31st, 1910, was 53, and December 31st, 76. The statement of accounts was as follows:

Balance Sheet, 1911.

	£	s.	d.		£	s.	d.
In hand, December 31st, 1910	0	10	6½	Rooms	2	1	5
April grant	1	7	0	Printing	2	7	2½
July grant	2	10	0	Stationery	0	7	5
Collected by levy of 1s., November 22nd, 1911	3	16	0	Postage	2	19	2
				Clerical aid	0	4	0
					7	19	2½
				Balance	0	4	4
	£8	3	6½		£8	3	6½

Provisional Medical Committee.—Dr. Sellers proposed that a temporary Provisional Medical Committee be formed, consisting of the executive of the Association and the Committee of the Preston Medico-Ethical Society, with power to add to their number. This was seconded by Dr. Dunn, and carried unanimously.

Election of Officers.—The following were elected officers: *President*, Dr. R. C. Brown; *Vice-Presidents*, Dr. Garner, Dr. A. C. Rayner; *Representative*, Dr. Garner; *Honorary Secretary and Treasurer*, Dr. W. Sykes; *Committee*, Dr. Sellers, Dr. Turnbull Smith, Dr. Mooney, Dr. Leighton, Dr. Dunn, Dr. Petyt, Dr. Lea.

Vote of Thanks.—Dr. Dunn, seconded by Dr. Rigg, proposed a very hearty vote of thanks to the President and Executive for the work they had done in the past year. Dr. Brown suitably responded, and the meeting terminated.

Southport Division.

A special meeting of the Division, to which all registered practitioners resident in the Division had been invited, was held at the Temperance Institute on April 12th to consider the advice of the State Sickness Insurance Committee that a local Provisional Medical Committee should be appointed. There were present: Dr. Littler (in the chair); Drs. G. R. Anderson, Baildon, Bardsley, Mewburn Brown, Colin Campbell, Lawson Cairns, Russell Cairns, de Courcy, Edmiston, Harker, Harris, Henderson, Hunton, Lewis, W. N. Maccall, Mackay, Marshall, Penrose, Pridie, Schofield, Scott, Sykes, Swete-Evans, and Weaver. Apologies were received from Drs. Woolmer Davies and Walker.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Memorandum from State Sickness Insurance Committee.—The letter from the Acting Medical Secretary and the memorandum from the State Sickness Insurance Committee, together with a later explanatory letter of March 28th, were read.

Provisional Medical Committee.—It was decided to form a local Provisional Medical Committee with a membership of twenty. With due consideration to representation of the localities of the Division, the following eighteen were elected, with power to co-opt two others and fill any vacancies that may occur—namely: Drs. Barwise, S. M. Brown, Baildon, Harris, Littler, Russel, Speirs, and Sykes (members of the Executive Committee); Russell Cairns, Croft, Edmiston, Henderson, Lewis, Mulholland, Penrose, Pridie, Scott, and Wilson.

Local and Central Defence Funds.—The position of the Local Defence Fund and the Central Defence Fund was considered, and on the motion of Dr. Lewis, seconded by Dr. Swete-Evans, it was decided unanimously that the balance of the guaranteed subscriptions to the local fund should be called in and the amount sent up to be placed to the credit of the Central Fund.

Branch Council as Local Co-ordinating Authority.—Another resolution was carried unanimously that the Provisional Medical Committee should recognize the Branch Council as the local co-ordinating authority.

Warrington Division.

A special meeting of this Division was held at the Infirmary, Warrington, on April 12th. Dr. Bowden was in the chair, and there were present: Drs. Burrowes, Edwards, Bennett, Langdale, Fox, G. H. Joseph, Breakell, Brebner, McKenzie, J. P. Naden, Lindsay, Robinson, L. Thorp, Hutt, McKee, Liston, Burt, and Murray.

Provisional Medical Committee.—It was decided to form a Provisional Medical Committee for the area of the Division with the Executive Committee as a nucleus. It was decided that the committee should consist of six practitioners from Warrington, three from Widnes, and three from the Cheshire rural area, the Secretary of the Division to be an *ex officio* member. It was decided to elect the remainder of the committee at the meeting, and the voting resulted as follows:—Warrington: Drs. J. P. Joseph (the Mayor), J. P. Naden, and Fox; Widnes: Drs. Brebner and Breakell; Cheshire Rural: Drs. Jago and L. Thorpe. It was decided that the first meeting of the Provisional Medical Committee should be held on Tuesday, April 23rd, at 8.15 p.m.

METROPOLITAN COUNTIES BRANCH:

Hampstead Division.

A meeting of this Division was held on Friday, April 12th, at 8.30 p.m., at the Central Library, Finchley Road, N.W. Dr. Oakley was in the chair, and sixteen members were present.

Confirmation of Minutes.—That portion of the minutes relating to the resolution of March 8th to be confirmed at the present meeting (see Agenda 4) were read, the rest being taken as read; the minutes were confirmed.

Illness of a Member.—A letter from Dr. E. B. Jones, of Chatsworth, North End Road, N.W., with reference to the illness of Dr. Christmas, a member of the Association, recently moved into this Division, was read. A subscription list to aid his family, who are in urgent need of assistance, was started. (Subscriptions may be sent to the Assistant Honorary Secretary, 7, Cannon Hill, West Hampstead, N.W.).

Supplementary Report of Branch Organization Committee.—A letter from the Secretary of the Central Organization Committee, enclosing the supplementary report of the Branch Organization Committee, and requesting the opinion of the Division thereon, was read, together with that portion of the report affecting the Hampstead Division, namely:

Paragraph 2, Subparagraph (*d*):

A new Division to consist of Hendon and Finchley Urban Districts.

Paragraph 2, Subparagraph (*e*):

A new Division to consist of Willesden Urban District and Wembley Urban District, subject to the approval of its members.

Paragraph 2, Subparagraph (*f*):

Harrow to consist of the urban and rural districts of Uxbridge, urban districts of Harrow, Ruislip, and Northwood, Wealdstone, and the rural district of Hendon, together with the urban district of Wembley, if not, by its request attached to the Willesden Division.

It was proposed by Dr. MACEVOY and seconded by Mr. WARE:

That Paragraph 2, Subparagraphs (*d*) and (*e*) of the Supplementary Report of the Branch Organization Committee be approved, and that the Hampstead Division is in favour of Wembley Urban District being attached to Willesden.

This was carried *nemine contradicente*.

Confirmation of Resolution.—It was proposed by the CHAIRMAN and carried *nemine contradicente:*

That the resolution passed by the Division on March 8th, 1912:

That a new Division of the Metropolitan Counties Branch of the British Medical Association be formed, comprising the area of the Finchley and Hendon Urban Districts,

be confirmed.

Treatment of Fractures by Mobilization.—An interesting paper was read by Dr. JAMES B. MENNELL on the treatment of fractures by mobilization and massage, and at the end Dr. Mennell gave illustrations of his methods. During the discussion which followed Mr. E. E. WARE showed skiagraphs of a fractured pelvis, with good union following, and Dr. ERIC PRITCHARD gave instances of the success he had in certain cases in which he had used these methods.

Vote of Thanks.—A vote of thanks was moved by the CHAIRMAN and carried unanimously.

ST. PANCRAS AND ISLINGTON DIVISION.

A MEETING of the profession was convened by the Division and held on Friday, April 12th, at 9 p.m., at the Midland Grand Hotel. Dr. MORISON, Chairman of the Division, presided, and there were present seventy-five members of the profession.

Work of the Insurance Committee.—The CHAIRMAN invited Dr. Beaton to state the work of the Insurance Committee, and to explain the organization in the area of the Division to be sustained and further effected.

Provisional Medical Committee.—A Provisional Medical Committee was then elected consisting of four members from each parliamentary area of the two boroughs added to the Executive Committee, with Dr. Joseph Wilson as honorary secretary. It was resolved that a member of the Medical Committee of each of the five hospitals in the area of the Division should also be asked to join the committee, and it was agreed that its first meeting should be held on April 19th at the Athenaeum, Camden Road, at 9 p.m.

STRATFORD DIVISION.

A MEETING of this Division was held on Thursday, April 11th, at 9.15 p.m., at West Ham Hospital, Dr. SANDERS presiding. Forty members were present.

Paper.—The correspondence having been dealt with, Dr. RUSSELL ANDREWS read a very interesting paper on Pyelonephritis in Pregnancy. Dr. Andrews having replied to the subsequent discussion and having answered several questions, was awarded a hearty vote of thanks.

Visiting Staff of Cottage Hospitals and Fees.—Dr. BOYD ROBSON then raised the question of non-payment of fees to members of the visiting staff of cottage hospitals in cases where death ensues in the hospital and where a *post-mortem* examination is ordered. The matter was referred to the Executive Committee for consideration and report.

Stepney Tuberculosis Dispensaries.—The meeting then considered a motion by Dr. THOMAS, M.O.H. for Stepney, to the following effect, namely:

That the resolution passed by the Executive Committee relating to the Stepney Tuberculosis Dispensaries be rescinded.

He stated that the Stepney Medical Union had by an overwhelming majority approved of the establishment of the Stepney Tuberculosis Dispensaries, and desired at the same time to remain loyal to the British Medical Association. They had agreed to all the conditions laid down by the Metropolitan Branch Council (February 15th, 1912) except the last, in regard to which it was the express wish of the majority of the members in the Stepney area that an all-time medical officer should be appointed. Dr. POLAND moved a direct negative. A free discussion ensued, and, on a vote being taken, Dr. Thomas's motion was carried. Dr. J. HARLEY BROOKES then moved:

That the Medical Secretary of the British Medical Association be informed that the Stepney Division have withdrawn their objection to the insertion of the Stepney Dispensaries advertisement.

This was carried.

NORTH OF ENGLAND BRANCH:

GATESHEAD DIVISION.

A LARGE meeting, representative of all medical practitioners in the Gateshead Division, comprising Gateshead, Chester-le-Street, Low Fell, Birtley, Washington, and Dunston, was held on Saturday, March 30th, in the Bewick Hall, Gateshead, for the purpose of electing a Provisional Local Medical Committee. Dr. S. V. ROBINSON was elected chairman of the meeting.

Provisional Local Medical Committee.

The SECRETARY of the Division gave a short account of the reasons for forming such a committee, and the functions of such a committee when formed. The organization of the profession, the general need in the present crisis of all non-members becoming members of the British Medical Association, and the urgent necessity of adequately supporting the Defence Fund, were points specially put before those present.

Dr. GILBERT moved that a Provisional Local Medical Committee be now formed. This was carried unanimously, it being clearly understood that this step did not signify the intention of the profession to work under the Act, so far as its conditions were at present known; but was for the purpose of completing the organization of the profession in this area, to deal with the conditions which might arise in the event of the profession being unable to work under the regulations which are to be issued by the Insurance Commissioners.

The following gentlemen were elected by ballot, with power to add to their numbers: Drs. Crerar, Dougall, Durant, Davis, Dewar, Farquharson, Gilbert, Green, Johnson, Miller, Patton, Robinson, Stewart, and Taylor.

A meeting of the committee was held at the termination of the ordinary meeting. Dr. Durant was elected Chairman, Dr. Patton Honorary Secretary.

Dr. GILBERT moved, and Dr. FARQUHARSON seconded, that Dr. Smith be co-opted on the committee. This was carried unanimously.

Dr. STEWART moved, and Dr. GREEN seconded, that Dr. Todd be co-opted. This was carried unanimously.

It was decided to hold the meetings at the dispensary at 8 p.m., the first meeting to be held on April 10th, members to have due notice.

NEWCASTLE-UPON-TYNE DIVISION.

Provisional Local Medical Committee.—The inaugural meeting of the Provisional Local Medical Committee was held at the Royal Victoria Infirmary, Newcastle-on-Tyne, on Thursday, April 11th, at 8.30 p.m. There were present: Drs. J. Don, A. Dryden, J. MacRae, Ethel Williams, R. Dagger, J. W. Smith, sen., Bolam, Lickley, Hobbs, Geo. Foggin, Burnell, Russell, Simpson, A. Smith (Whickham), H. Morrison, Hunter, Basham, Hudson, Fraser, Ruxton, Rutter, Wilson, McCracken, and R. J. Willan. Dr. James Don was elected Chairman of the Committee; Dr. H. L. Rutter, Vice-Chairman; and Mr. R. J. Willan, Honorary Secretary. A subcommittee, representing each of the districts, was formed in order to canvass the whole of the medical profession in the area.

Dr. Adam Wilson resigned his membership, and Drs. E. B. Kitching, E. F. Pratt, T. L. Bunting, and Mr. H. Brunton Angus were co-opted members.

SOUTH-EASTERN BRANCH:

Brighton Division.

An ordinary meeting of the Division, to which every practitioner residing in the area was invited, was held at the Lecture Hall, New Road, Brighton, on Tuesday, April 16th. Dr. Ryding Marsh, Vice-Chairman, took the chair, Thirty-three men were present at the meeting.

Brighton Education Committee.—The question of the appointment of two whole-time medical officers to combine the duties of inspection and treatment of school children was discussed, and the following resolution was carried *nemine contradicente*:

> That the members of the profession in this town are of opinion that the proposed additional appointment of full-time medical officers for the treatment of school children is both undesirable and unnecessary, and that they would resent the introduction of such men into the town.

Appointment of Schools Committee.—The report of the special committee appointed in November, 1910, to organize a scheme for the treatment of school children on the lines laid down in Memorandum 25 was received. It was felt very strongly by the meeting that the time had come for the appointment of a special committee of the Division to deal with the matter, so that the members might be kept in touch with the progress of negotiations by frequent reports to the Division. The Organization Committee was therefore dissolved, and a special committee appointed, to be called the Schools Committee, with instructions to deal with all matters concerning the treatment of school children and to report to the Division meeting.

West Street Hospital.—The question of West Street Hospital was postponed pending the report of the Joint Subcommittee of the Hospitals and Medico-Political Committees of the Association on the subject.

Next Meeting.—The next ordinary meeting of the Division is on May 21st, and members are asked to send in on or before that date nominations for Representatives and Deputy Representatives, for two Representatives to the Branch Council, and for the officers of the Division and the members of Executive Committee. Also any proposals for alterations in the rules and standing orders of the Division.

Eastbourne Division.

A meeting of this Division, to which all medical non-members residing within the area had been invited, was held in the Technical Institute, Eastbourne, on Thursday, April 4th, at 4.30 p.m. Twenty-one members and two non-members were present. In the absence of Dr. R. Frazer through indisposition, Dr. H. Habgood was unanimously voted to the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Local Provisional Medical Committees.—After briefly considering the suggestions contained in the Memorandum (D. 46) of the State Sickness Insurance Committee, the following resolutions were unanimously adopted:

1. That a Provisional Medical Committee be formed for the whole area, consisting of twenty-four members of the profession.
2. That the Executive (ten members) be incorporated as the nucleus, and the required complement (fourteen others) be elected by this meeting.

Thereafter the committee was regularly constituted by the election of fourteen general practitioners, unanimously chosen from representatives of every district in the area.

Rochester and Chatham Division.

A meeting was held on Friday, April 12th, at St. Bartholomew's Hospital, Rochester. Dr. Holroyde was in the chair, and twenty-three members were present.

Provisional Local Medical Committee.—Dr. W. A. Dartnell and the Honorary Secretary were elected to serve on the Provisional Local Medical Committee for the County of Kent.

Nomination of Representative.—Separate representation having been granted to the Division, the meeting was called for the purpose of making nominations for a Representative. Dr. Holroyde proposed and Dr. Smith seconded that Dr. C. Courtenay Lord be elected. There being no other nomination Dr. Lord was declared elected Representative for the Division, to take office from the next annual general meeting of the Association. Dr. Lord thanked members present very sincerely for the great honour they had done him in electing him to such an important post.

Public Medical Service.—Dr. Coumbe then read a paper on a public medical service, and several members took part in the discussion which followed.

Central Defence Fund.—An urgent appeal was made for better support of the Central Defence Fund, which resulted in seventeen members raising their guarantee to £10.

Conference with Local Friendly Societies.—The following resolution was then proposed by Dr. Lord and seconded by Dr. Barnes:

> That this meeting be urged to appoint a small committee to confer with officials of the local friendly societies on the present position of contract practice without delay.

The resolution was carried *nemine contradicente*, and a subcommittee was appointed.

Vote of Thanks to Chairman.—The proceedings terminated with a vote of thanks to the Chairman.

British Medical Association.

SCHOLARSHIPS AND GRANTS IN AID OF SCIENTIFIC RESEARCH.

SCHOLARSHIPS.

The Council of the British Medical Association is prepared to receive applications for Research Scholarships, as follows:

1. An Ernest Hart Memorial Scholarship, of the value of £200 per annum, for the study of some subject in the department of State Medicine.
2. Three Research Scholarships, each of the value of £150 per annum, for research into some subject relating to the Causation, Prevention, or Treatment of Disease.

Each Scholarship is tenable for one year, commencing on October 1st, 1912. A Scholar may be reappointed for not more than two additional terms.

The conditions of the award of Scholarships are stated in the Regulations, a copy of which will be supplied on application to the Acting Medical Secretary of the Association, 429, Strand, London, W.C.

GRANTS.

The Council of the British Medical Association is also prepared to receive applications for Grants for the assistance of Research into the Causation, Treatment, or Prevention of Disease. Preference will be given, other things being equal, to members of the medical profession and to applicants who propose as subjects of investigation problems directly related to practical medicine.

The conditions of the award of Grants are stated in the Regulations, a copy of which will be supplied on application to the Acting Medical Secretary of the Association, 429, Strand, London, W.C.

Applications.

Applications for Scholarships and Grants for the year 1912–13 must be made not later than Tuesday, June 11th, 1912, in the prescribed form, a copy of which will be supplied by the Acting Medical Secretary on application.

Each application should be accompanied by testimonials, including a recommendation from the head of the laboratory, if any, in which the applicant proposes to work, setting out the fitness of the candidate to conduct such work, and the probable value of the work to be undertaken. This is not intended, however, to prevent applications for Grants in aid of work which need not be performed in a recognized laboratory.

Alfred Cox, *Acting Medical Secretary.*

429, Strand, London, W.C.,
March 30th, 1912.

To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.

Association Notices.

COUNCIL MEETING.

The Quarterly Meeting of the Council will be held at 2 o'clock in the afternoon of Wednesday, May 1st, in the Council Room at 429, Strand, London, W.C.

By Order,

Guy Elliston,

Financial Secretary and Business Manager.

March 28th, 1912.

NOTICE OF CHANGE OF BOUNDARIES OF DIVISIONS.

Oxford and Reading Branch.

Oxford and Reading Divisions.

The following change has been made in accordance with the Regulations of the Association, and takes effect from the date of publication of this Notice:

That Newbury, Hungerford, Kintbury, Enborne, Speen, and Donnington be transferred from the Oxford to the Reading Division of the Oxford and Reading Branch.

BRANCH AND DIVISION MEETINGS TO BE HELD.

Bath and Bristol Branch.—The sixth ordinary meeting of the session will be held at the Museum, Bath, on Wednesday, April 24th, 1912, at 8 p.m., Dr. George Parker, President, in the chair. The following communications are expected: (1) G. H. H. Almond, M.B.: Multiple Tenosynovitis. (2) W. P. Kennedy, M.D.: Some Controlling Factors in the Circulatory Mechanism. (3) Hugh P. Costobadie: The Ear, Nose, and Throat in General Practice. (4) J. Michell Clarke, M.D.: Case of General Infection by Influenza Bacillus.—W. M. Beaumont, Newman Neild, Honorary Secretaries.

Birmingham Branch: Central Division.—The annual meeting of the Division will be held at the Medical Institute on Wednesday, May 15th, at 4 p.m., to elect officers for the ensuing year, and to transact other business. Nominations for the offices of Chairman, Vice-Chairman, and two Honorary Secretaries, in writing, signed by three members of the Division, must be forwarded to the Honorary Secretaries not later than April 24th.—W. Tracy Lydall and B. C. R. Aldren, Honorary Secretaries, Medical Institute, Birmingham.

East Anglian Branch.—The spring meeting of the Branch will be held at East Dereham on Thursday, April 25th. Members wishing to read papers or show specimens or cases should communicate with Mr. Hamilton A. Ballance, M.S., Honorary Secretary for Norfolk.

Glasgow and West of Scotland Branch.—The annual general business meeting of the Branch will be held in the Pathological Institute of the Royal Infirmary, Glasgow, on Wednesday, May 8th, at 4 p.m. Professor Teacher will give a Pathological Demonstration after the general business has been transacted.—Wm. D. Macfarlane, Honorary Secretary.

Metropolitan Counties Branch: Marylebone Division.—*National Insurance Act.*—A meeting of the medical practitioners of the Borough of Marylebone will be held at No. 11, Chandos Street, W. (Medical Society of London), on Thursday, April 25th, 1912, at 4.30 p.m., to elect a special committee to watch the interests of the medical profession of the borough, and to adopt rules for its guidance. It is proposed that this "Provisional Local Medical Committee" should consist of twenty practitioners, ten in general and ten in consulting practice. Members of the Division are invited to send in nominations for members of this committee. A candidate must be a registered medical practitioner practising in the borough. The nomination must be signed by two other such practitioners, and accompanied by the signed consent of the nominee to serve. Nominations must reach the Honorary Secretary by Wednesday, April 24th.

General Meeting.—A general meeting of the Division will be held at the rooms of the Medical Society of London, 11, Chandos Street, W., on Thursday, April 25th, at 5 o'clock p.m., or as soon after that hour as possible. Agenda: (1) Minutes (British Medical Journal, Supplement, March 16th, p. 325). (2) Questions. (3) Letters. (4) Report of Special Committee appointed to consider the relation of medical officers of hospitals to the Insurance Act. The committee recommends the adoption of the following resolutions: "The Marylebone Division considers that since medical practitioners, including consultants, have signed the declaration of the British Medical Association, and have given their adhesion to the policy of the Association, it is at the present juncture inadvisable to prepare or require any further declaration from any section of medical practitioners." "That it be a recommendation to the staff of voluntary hospitals to approach their governing boards so as to secure that no medical treatment shall be given to insured persons under the Act at the hospitals, either gratuitously or for pay, except on terms satisfactory to the medical profession." Mr. Douglas Drew will move accordingly. (5) Notice concerning the election of officers for the ensuing year. *Divisional Officers:* Nominations for the offices of Chairman, Vice-Chairman, Treasurer, Honorary Secretary, and the Representatives on the Branch Council (number not yet known) must reach the Honorary Secretary by May 1st. *Branch Council:* Proposals to nominate officers by the Division (President, four Vice-Presidents, Treasurer, two Honorary Secretaries) should reach the Honorary Secretary by May 1st. *Central Council:* Proposals to nominate by the Division should reach the Honorary Secretary by May 1st. Nominations must be signed by two members and accompanied by the signed consent of the candidate to act.

Special Meeting.—A special meeting of the Division will be held on Thursday, April 25th, immediately after the conclusion of the general meeting to amend the Divisional rules. The Executive Committee recommends the following alterations: Rule 4. Representatives in the plural; add the phrase "not less than six other members." Rule 5. Add the phrase "The Secretary shall be one of the Representatives at the Representative Meetings." Rule 6. The officers and Representatives shall be elected annually in the annual general meeting of the Division. . . . Candidates for office shall be nominated by the Executive Committee or by any two members of the Division. Nominations must be in writing and accompanied by the consent of the candidate to serve, and must reach the Honorary Secretary not later than May 1st in each year. . . . Voting shall be by ballot, unless a demand for a postal vote signed by twenty members be received by the Honorary Secretary not less than ten days before the date of the meeting, when the vote shall be taken by post card, returnable on the day prior to the meeting. Rule 7. The Representatives of the Division in the Representative Meeting of the Association shall be elected at the annual general meeting of the Division, as provided in Rule 6. (*a*) Representatives shall attend at any meeting of the Division called for their instruction (Rule 12). Any Representative failing to attend such meeting, or who shall be unable or unwilling to attend the Representative Meeting shall be replaced by a deputy nominated and elected by ballot at the meeting in question. (*b*) Any Representative who has failed to attend a Representative Meeting, either personally or by authorized deputy, shall be ineligible for re-election for one year. Any member who shall have served as such Representative for five years consecutively shall be ineligible for re-election for one year (*c*) The Honorary Secretary shall send a special notice of any meeting called under Rule 12 to each Representative, together with a copy of By-law 39 (3) of the Association. Rule 8 (*d*). Quorum, five. To number the rule appertaining to the annual meeting, No. 11, and to correct the number of Rules 11, 12, 13, to 12, 13, 14 respectively. To new No. 12 omit "Annual" and read "Meetings" in plural. Add: (*b*) A meeting of the Division shall be convened as soon as possible after the Representative Meeting to receive the report of the Representatives. The Honorary Secretary will move accordingly. The Honorary Secretary will send a copy of the current rules to any member on receipt of a stamped addressed envelope.—N. Bishop Harman, Honorary Secretary.

Metropolitan Counties Branch: South-West Essex Division.—The next meeting of the South-West Essex Division will be held on Thursday, April 25th, at the Walthamstow Hospital, at 4 p.m.—Agenda: (1) Minutes. (2) Correspondence. (3) Lantern Demonstration on Constipation, by Dr. A. Hertz, Assistant Physician, Guy's Hospital. (4) Any other business.—A. Pottinger Eldred, Honorary Secretary.

Staffordshire Branch.—The third general meeting of the session will be held at the Victoria Hotel, Wolverhampton, on Thursday, April 25th, 1912. The President, W. D. Spanton, F.R.C.S., will take the chair at 5.35 p.m. Business: (1) Minutes of the last general meeting. (2) Correspondence. (3) Exhibition of Living Cases. (4) Papers: H. C. Mactier: The Indiscriminate Use of Atropine in Eye Diseases; C. A. Stidston: The Medical Directory. (5) Exhibition of Pathological Specimens, etc. Dinner at 7 p.m.; charge 5s.—Harold Hartley, Honorary General Secretary, Stoke-on-Trent.

Worcestershire and Herefordshire Branch.—The spring meeting of this Branch will be held at Worcester on April 25th. Members wishing to read papers, exhibit specimens, or show cases are requested to kindly communicate with the Honorary Secretary without delay. It has been suggested that members should dine together after the meeting.—C. S. Morrison, Honorary Secretary.

ANNUAL MEETING, LIVERPOOL, 1912.

PATHOLOGICAL MUSEUM.

Chairman of Committee: F. T. Paul, Ch.M.

Honorary Secretary: Ernest Glynn, M.D.

Ex-Officio Members:

The President-Elect (Sir James Barr, M.D., LL.D.).

The Local Honorary Treasurer (T. H. Bickerton, Esq.).

The Local Honorary Secretaries (F. H. Barendt, M.D., K. A. Grossmann, M.D., W. Thelwall Thomas, Ch.M.).

The Committee appointed to organize the Museum invites material for it under the following heads:

I. Exhibits bearing on discussions and papers in the various sections.

II. Specimens and illustrations relating to any recent research.

III. Instruments relating to clinical diagnosis and pathological investigation.*

IV. Specimens on particular subjects chosen for special illustration in certain of the sections as indicated below.

The Committee has decided to form fourteen sections of the Museum and has chosen certain subjects for special illustration:

Subjects for Special Illustration.

1. Alimentary System.—Congenital deformities: alimentary, biliary, and pancreatic concretions; specimens of oesophagus, including foreign bodies, also instruments* for the diagnosis and treatment of such diseases.

2. Anaesthetics.—Modern anaesthetic apparatus.*

3. Cardio-vascular System.—Neoplasms and granulomata of the heart.

4. Dermatology.—Syphilitic and tuberculous affections of the skin; the results of treatment with carbon dioxide snow.

5. Genito-urinary System.—Specimens illustrating the etiology of hydronephrosis; tumours *in* the adrenal gland.

6. Gynaecology and Obstetrics.—Inflammatory diseases of the uterine appendages; sarcoma of the uterus.

7. Haemopoietic System.—Diseases of the thymus gland.

8. Laryngology, Rhinology, and Otology.

9. Locomotor System and Orthopaedics.

10. Neurology.—Tumours of the pituitary gland; specimens illustrating the pathology of hydrocephalus.

11. Ophthalmology.—Irido-cyclitis and its pathology.

12. Radiography.—Specimens illustrating diseases of the stomach.

13. Respiratory System.—Pulmonary embolism and thrombosis; syphilis of the lung.

14. Tropical Medicine.—Leprosy and Leishmaniasis.

The Committee desires to enlist the hearty co-operation of members, and wishes it to be understood that the above are only suggestions. Specimens illustrative of other conditions will be welcomed.

The Museum will occupy a central position in a fire-proof building surrounded by the lecture rooms, in which the Sectional work is carried on, and will be easy of access.

Every care will be taken of the specimens, and the contents of the Museum will be insured.

The Committee is prepared to make arrangements for a limited number of short special demonstrations in the Museum at stated hours.

All communications should be addressed to Dr. Ernest Glynn, Honorary Secretary, at the Thompson Yates Laboratory, University of Liverpool.

* Exhibits in the Pathological Museum of instruments and apparatus can only be accepted from medical men.

BRITISH MEDICAL ASSOCIATION LIBRARY.

Books Needed to Complete Series.

The Librarian will be glad to receive any of the following volumes, which are needed to complete series in the Library:

American Association of Genito-Urinary Surgeons. Transactions. 1906.
American Climatological Transactions. Vols. 1, 4, 5, 6.
American Dermatological Association Transactions. Vols. 5, 7, 8, 11, and 29.
American Journal of the Medical Sciences. New series. vols. 4, 5, 1842–3; vols. 14, 15, 1847–8; vols. 18–30, 1850: vol. 33, 1857; vol. 46, 1864–5; vol. 59; or any parts of these vols.
American Journal of Ophthalmology. Vols. 1–9.
American Laryngological Association. Transactions. Vols. 1–6, 8–9.
American Medical Association. Transactions, 2, 4, 6, 7, 11, 12, 14, 15, 16, 19, 20, 22, 31, after vol. 33, and the *Journal*, up to 1903 inclusive.
American Medico-Psychological Association. Transactions. Vol. 13, 1906.
American Otological Society. Transactions. Vol. 3, part 2, 1883.
American Public Health Association. Transactions. Any vols.
Analyst. Vols. 1–24.
Annals of Surgery. Vols. 13, 14, 26.
Archiv für Dermatologie und Syphilis. Bd. 24 and 25 (1892 and 1893).
Archives générales de médecine. Third new series 7–8 (1839-40); 4th series, 10–17, 20–25, 1852–55, 1858–64, 1872–1897; 1846–55 inclusive; 1857–64 inclusive; 1871.
Archives of Ophthalmology. Vols. 1–3, 6, 7, 14, 15, 16 and 20.
Archives of Otology. Vols. 1–7, and 20–22.
Archives de Parasitologie. Vols. 1–8.
Archives of Pediatrics. Vols. 1–16.
Asylum Journal of Mental Science. Vol. 1, 1854.
Biochemical Journal. Vols. 1–4.
British Dental Journal. Vols. 1–29.
Biometrika. Vols. 2–6.
British Journal of Dermatology. Vol. 2, part 3.
British Laryngological and Rhinological Association. Transactions 1896–7–8–9.
Caledonian Medical Journal. Vol. 1 prior to 1894.
Canada Medical Journal. Vols. 1–4, 6, and after 8.
Carmichael Essays. Rivington. 1879.
Centralblatt für Augenheilkunde. Hirschberg. All prior to 1891; Index to 1891.
Centralblatt für Bakteriologie. Bound volumes prior to 1899.
Centralblatt für medicinische Wissenschaften. Vols. 1–19.
Centralblatt für Nervenheil kunde. 1878, 1879, 1886, 1889, 1890, 1892, and since 1893.
Congrès Français de Chirurgie. Transactions 1, 2, 3, 6, and 10, and all since 11th.
Congrès Internat. d'Obstétrique et de Gynécologie. 3. Amsterdam, 1899.
Congress für innere Medicin: Verhandlungen. 1–12, and 14, and since 18.
Dermatological Congress. Vienna. 1892.
Dermatologischer Jahresbericht, 1906–1908.
Dermatologische Zeitschrift. Vols. 1–16.
Dublin Quarterly Journal of the Medical Sciences. Vols. 1, 10, 17, 20, 28, and 35–40.
Edinburgh Obstetrical Transactions. Vol. 5.
Glasgow Medical Journal. 1835 and 1853–1868.
Glasgow Pathological Society. Transactions 1 and 2.
Guy's Hospital Gazette. Nos. 1 and 5. 1872.
Indian Medical Gazette. 1868–1884.
Intercolonial Medical Journal, Australasia. Vols. 1–13.
International Congress on Alcohol. Proceedings of First to Eleventh.
International Congress of Genetics. Transactions. (1) London 1899, (2) New York 1902, (3) London 1906.
International Congress of School Hygiene. Transactions of First Congress, Nuremberg.
International Congress of Hygiene. Transactions of Congresses 1–6 and 10–12.
International Medical Congress. Budapest, 1909. Section 4, Part 2; Section 7B. Part 1; Section 15, Part 2.
International Ophthalmological Congress. Transactions of Fifth; New York, 1876.
Jahrbuch für Kinderheilkunde. Bd. 1–9.
Jahresbericht Neurologie und Psychiatrie, 6 and 11–14.
Janus. All vols., 8–15.
Journal of Association of Military Surgeons. Vol. 19, 1903.
Journal of Laryngology. Vols. 1–9.
Journal of Medical Research. Vols. 1–20.
Lakeside Hospital Clinical and Pathological Papers, Series 2.
Laryngoscope. Vols. 1–20.
Liverpool Medico-Chirurgical Journal. Nos. 15, 16, 28, 29, 35, and 37–54.
London Hospital Gazette. Vols. 1–6.
Medical Officer. Vols 1 and 2.
Montreal Medical Journal. Vols. 1–16.
New York Pathological Society. Proceedings prior to 1888, 1890, 1892–1898, 1901–1904.
New York State Journal of Medicine, 1906.
Ophthalmic Review. January, 1882.
Ophthalmoscope. Vols. 1–8.
Pediatrics, prior to 1902.
Provincial Medical and Surgical Journal. March to September, 1841.
Ramazzini, Diseases of Tradesmen. Translated by James.
Recueil d'ophtalmologie, prior to 1893.
Revue de gynécologie. 1–16, Pozzi.
Revue générale d'ophtalmologie, prior to 1893.
Revue neurologique, prior to 1893 and since that date.
St. Bartholomew's Hospital Gazette. Vols. 1–6.

National Insurance.

SCOTTISH MEDICAL INSURANCE COUNCIL.

The first meeting of the Scottish Medical Insurance Council was held in the Hall of the Royal College of Surgeons, Edinburgh, on Friday and Saturday, April 12th and 13th.

This meeting was the outcome of a conference which was held on January 20th last, composed of representatives of the Medical Faculties of the Scottish Universities: of the Councils of the Royal College of Physicians and the Royal College of Surgeons of Edinburgh; and of the members of the Scottish Committee of the British Medical Association, at which it was decided to form a Scottish Medical Insurance Council. The object in forming the Council was to consolidate medical opinion and to act for the profession in the promotion and maintenance of its interests as these will be affected by the National Insurance Act.

To this, the first meeting of the Scottish Medical Insurance Council, there were present 58 direct representatives appointed by the medical practitioners in Scotland in the insurance areas, 2 representatives from the medical faculty of each of the four Scottish Universities, 5 representatives from each of the Scottish Medical Corporations, while the Scottish Committee of the British Medical Association was represented by all its members, numbering 16.

The election of the representatives from the insurance areas was effected through the organization of the British Medical Association. Of the 58 direct representatives 54 were present, including representatives from Caithness to Wigtownshire.

Chairman and Deputy Chairman.

The meeting elected Dr. William Russell, Edinburgh, one of the representatives of the Royal College of Physicians of Edinburgh, Chairman, and Dr. Robert C. Buist, Dundee, one of the members of the Scottish Committee of the British Medical Association, Deputy Chairman of the Council.

Increase of Members.

The meeting decided that there should be increased representation from the larger towns and insurance areas; also that two medical women should be invited to join the Council.

Executive Committee.

An Executive Committee consisting of representatives proportionally appointed from all the bodies interested was elected, and it was given powers to appoint sub-committees, which will deal with contract practice in the colliery and other insurance areas, etc.

Organization of the Profession.

After the technicalities involved in the constitution of the Council had been disposed of, the Council proceeded to deal with the policy that the profession should adopt in connexion with the National Insurance Act.

It was determined that the insurance areas should be regarded as units for the purpose of organization, and that in each area Provisional Medical Committees should be elected by the medical practitioners in the areas. Upon these committees is to fall the responsibility of organizing the profession in the respective areas, and they were instructed to report from time to time to the Executive Committee of the Scottish Medical Insurance Council, and not to enter into any dealings or relations with any of the authorities under the Insurance Act without receiving the sanction of the Executive Committee.

On Friday the Council sat from 3.30 p.m. to 11.30 p.m., with an interval of two hours for dinner.

Resolution of Protest.

The Council resumed its sittings at 9.30 a.m. on Saturday morning, when the following motion by the President of the Royal College of Surgeons, Edinburgh, seconded by the President of the Royal Faculty of Physicians and Surgeons, Glasgow, was unanimously passed:

> That this body, elected by the whole of the medical profession in Scotland, and representing all branches of the profession, desires to place on record, on the occasion of its first meeting, its complete sympathy with the widespread dissatisfaction and regret that the profession should not have been adequately consulted at any stage with regard to the provisions of a measure introduced ostensibly in the interests of the public health.

Disciplinary Powers Under the Act.

The meeting affirmed its adherence to the six cardinal principles originally adopted by the medical profession, and agreed that there be added thereto a seventh, namely:

> Disciplinary powers to be vested in some properly constituted medical body.

Communications with Scottish Commissioners.

The Council resolved to inform the Scottish Commissioners at once of its constitution, and of its representative character, and to inform them of its strong disapproval of the action of the Scottish Commissioners in appointing medical members of the Advisory Committee without reference to the wishes of the profession. As the Council represents the profession in Scotland, it was held that it should have the privilege of nominating six members on the Advisory Committee. It was further resolved that the Commissioners be informed that any application for information as to statistics in regard to medical practice which they may require ought to be addressed to the Scottish Medical Insurance Council, and not to individual members of the profession.

Public Medical Service.

The meeting further approved of the proposal that in the event of the possibility of the seven cardinal principles, approved and adopted, not being incorporated in the Regulations issued by the Commissioners, that the Executive of the Council should at once take steps to prepare a scheme for a Public Medical Service, adapted to the circumstances of the various areas in Scotland, to be organized and carried on by the profession.

The sederunt lasted till 2.30 p.m.

Communications in connexion with the Scottish Medical Insurance Council should be addressed to the Acting Secretary, 54, George Square, Edinburgh.

MEETINGS OF THE PROFESSION.

SHOREDITCH MEDICO-ETHICAL SOCIETY.

The first general meeting of this society was held at the Holborn Restaurant on April 12th, at 10 p.m. Twenty-three members and friends had supper together, Dr. Major Greenwood being in the chair. Among those present were: Drs. F. J. Smith, Southcombe, Porter, Chubb, O'Dwyer, Withers Green, Dourno, Chetwood, Garrett, Fettes, Hammond, Speed, and Dixon.

The Chairman reported that a meeting of the Executive Committee had been held since the formation of the society: a set of rules then drafted had been printed on the notice convening the present meeting. The rules were unanimously adopted.

Dr. Porter (honorary secretary) said that every practitioner residing in the area of the borough of Shoreditch had signified his or her intention of joining the society.

Dr. F. J. Smith proposed the toast of "The Shoreditch Medico-Ethical Society." He congratulated them on their splendid success in enrolling all the local practitioners. If other boroughs would only do likewise there would be little difficulty in dealing with the Insurance Act in the metropolitan area. With regard to the proposed Provisional Medical Committees, he thought there was some obscurity with regard to the exact areas they would represent.

The Chairman, in returning thanks for the society, said that a great deal of the success was due to the admirable manner in which the honorary secretary (Dr. Porter) had canvassed the district. The profession was much indebted to him, and it was certain that very little could be done, unless individual practitioners could be found to give their time and labour for the general interest. The areas represented by the Provisional Medical Committees would only represent the areas of the present metropolitan Divisions of the British Medical Association, but if the Act was accepted by the profession, it would not be difficult to form out of them the various medical committees required by the Act. He did not think the profession would accept the Act, and the organization would be chiefly required to enforce reasonable terms on the friendly societies.

Dr. Southcombe (Honorary Secretary City Division) explained that a committee of the Division had selected Dr. Porter and Dr. Chetwood as candidates to be put before the meeting next week at the Shoreditch Town Hall to represent that borough. This choice would have been left to the society, but it was not in existence at the time the selection was made.

The members present unanimously endorsed the selection of candidates made by the Division.

Dr. Porter proposed the "Guests," and specially emphasized the services to the profession that had been rendered by Dr. F. J. Smith and Dr. Southcombe. Dr. Dourno replied.

Dr. Speed spoke of the advisability of demanding "payment for work done" rather than "capitation payment," and asked the Chairman if that point might be discussed at the present meeting.

The Chairman said that the lateness of the hour precluded it, but that it would be an important point for discussion at future meetings.

Dr. Ross moved a vote of thanks to the Chairman, which was carried with musical honours.

GREENWICH DIVISION.

Formation of Provisional Medical Committees.

A meeting of the practitioners of Deptford, Greenwich, and Lewisham was held on March 27th, Dr. C. J. Parke, President of the Greenwich Division, being in the chair.

At this meeting the Provisional Committees were elected for the boroughs of Deptford, Greenwich, and Lewisham.

Deptford.

The first meeting of the Provisional Committee for Deptford was held at 91, Breakspears Road, by kind invitation of Dr. C. J. Parke, and the officers elected and the number of the committee completed as follows: *Chairman*, C. J. Parke; *Secretary*, W. H. Payne; *Members*, A. M. Dodd, J. P. Walsh, C. G. Gooding, C. G. Wallis, J. Round, W. Scott, W. S. Carpenter, A. E. Crabbe, Rosa Ford, E. O. Cox, J. B. C. Blatchley, and A. Kirby.

Memorandum D 46 was considered, and it was arranged that active canvassing be started at once.

Lewisham.

A meeting of the Lee and Blackheath Subcommittee of the Lewisham (Provisional) Medical Committee was held on April 12th, when a personal canvass was instituted to induce all medical practitioners in the district who are not members of the Association to join the Association, sign the undertaking, and contribute to the Insurance Defence Fund.

A canvass was also undertaken to obtain signatures to the local guarantee adopted by the Lewisham Medical Committee "not to accept any work under the National Insurance Act or any other medical contract work at lower terms than those sanctioned by the British Medical Association."

Dr. Edgar Du Cane (177, Brownhill Road, Catford, S.E.), Honorary Secretary, Lewisham Provisional Medical Committee, sends us the following copy of a reply he has received to an application to the National Insurance Commissioners for England for information as to the date of issue of the regulations for medical benefits, and as to the probable date of the formation of a District Insurance Committee for the Borough of Lewisham:

[*Copy.*]

National Health Insurance Commission (England),
Buckingham Gate, London, S.W.
April 16th, 1912.

Sir,

With reference to your letter received on the 12th inst., I am directed by the National Health Insurance Commission (England) to state that the Regulations for the administration of Medical Benefit are under consideration, and the date of their issue cannot at present be stated. With regard to the formation of the Insurance Committee for the Metropolitan Borough of Lewisham I am to point out that under the proviso Section 59 (4) the formation of District Committees will depend in the first instance on the scheme to be prepared by the Insurance Committee of the County, subject to the approval of the Commissioners, and subject to the Regulations to be made under that Section. These Regulations have not yet been issued, but intimation of them will be given in due course when issued.

I am, Sir, your obedient servant,
L. S. Brock.

Hon. Secretary,
Lewisham Medical Committee,
177, Brownhill Rd., Catford, S.E.

SOUTH-EAST ESSEX.

At a meeting of general practitioners of South-East Essex, held on April 16th, the following resolution was unanimously carried:

That inasmuch as the British Medical Association can only administer a fund for defence purposes, which being voluntary has no fixed capital value, this meeting of the medical men of South-East Essex strongly urges the Association to advise its members to join the Medical Federation, Limited, or else to give adequate reasons why members should not join that body.

BUTESHIRE.

A meeting of the medical practitioners in Buteshire was held in the Victoria Hospital, Rothesay, on Thursday, February 15th. There were present Drs. Marshall, Berwick, A. J. Hall, Lawson, Penney, J. S. Hall, and MacRury (Millport). Intimations of inability to be present were read from Drs. Rutherford and Jamieson, both of Arran.

Provisional Local Medical Committee.—It was agreed to form a Provisional Local Medical Committee. Dr. Lawson proposed, and Dr. Penney seconded:

That Dr. Marshall be made Chairman.

This was unanimously agreed to. Dr. Lawson proposed, and Dr. Berwick seconded:

That Dr. J. S. Hall be appointed Secretary.

This was also agreed to.

Payment for Medical Attendance under the Act.—A discussion took place concerning medical payment under the Insurance Act—capitation as against payment for work done. It was resolved:

That the medical men of the county of Bute consider that the method of payment per attendance is the one most suitable for their district; but that, in their opinion, the provision for medical benefit suggested by Government is quite inadequate.

It was agreed that this committee would not negotiate with any Insurance Committees before communicating with the local co-ordinating authority.

The meeting was arranged by Dr. Marshall, who sent postal notices to all the members of the profession in the county about a week before the date of the meeting. It was deemed advisable that in this area the local Medical Committee should consist of all the medical men in the area, which is a scattered one. The number then is fourteen.

CORRESPONDENCE.

[*It is particularly requested that communications intended for publication should be written on one side of the paper only, and should be addressed to the Editor,* British Medical Journal, *429, Strand, London, W.C.*]

A National Medical Service.

Dr. Milson Russen Rhodes (Didsbury, Manchester), writes: Now that it appears evident that the Commissioners will not grant the reasonable demands of the medical profession, and that medical men are casting about for some organized scheme of national medical aid, it is well to call a halt and to look round whether or not either the Government or the medical profession are taking the right direction.

It hardly needs argument to prove that the medical profession exists for the sake of the national health. Why, then, is the national health left in the hands of the lay public under all existing systems, with the incalculable loss of life to young and old such means at the present time—as any general practitioner and hospital physician or surgeon could abundantly testify if he wished? For under all existing systems—and this late National Insurance Act is no exception—it is left to the public to call in the doctor, and so often too late. Let me give one instance of the call of a medical man to a fine intelligent boy of 6—the old-fashioned Paul Dombey type—delicate of tissue, refined and over-active of mind, and, alas! too intelligent, with a mind and heart too big for the frail little body, and the beautiful and fine spirit shining through the eyes having but a slight hold on this world through the delicate little body; indeed, a child presenting in a word the dreaded tuberculous diathesis so well known to the physician. But the boy has never in all its 6 years, even from birth when attended by a midwife under the pernicious system organized ten years ago, come under observation of a medical man.

How the people love such a little lad and his old-fashioned, thoughtful sayings, far in advance of his years! They draw him out and take from his nerve-energy, already constitutionally deficient. The child contracts measles, and the parents, being poor, see him through it themselves without the aid of a doctor, confine him to a room for the accompanying cold or catarrh, shut up windows and door—and the tubercle at all times with us have just the constitution, debilitated system, frail soil and environment they want for their growth, and as the measles is recovered from the tubercle bacilli have firm hold of the vital parts of the body. Thus the doctor is called in too late to soothe as well as he can the last days of a child suffering from tuberculous meningitis and peritonitis, and to sign the death certificate, "Acute general tuberculosis," which closes the scene.

Why is the cry of the little ones thus dying daily in our midst not heard? Why is this great loss to the nation of life in instances such as these and in hundreds of other ways? Because of the perpetuation of a system intrinsically bad.

From the moment of birth, and even before, until adult life, the growing child should be under medical observation—not merely when it goes to school, but, most important time of all, before that, in the first few years of life, when only a midwife with a three months' training has seen it under present systems.

The nation has now a splendidly equipped medical profession, and it may be news to some of the public that there is now a standard below which no college or university can go, so that in every medical man turned out nowadays the public has a complete assurance of such efficiency as never existed in the old days.

It is indeed time that there should be one State examination carrying with it the title of "Doctor of Medicine," and fitting the medical man for any position in the public service, in practice, or hospital, and doing away with the multitude of different degrees, leaving some men, who are handicapped in their youth, handicapped all their lives. Why is not this efficient medical service placed at the service of the public? The way is easy and simple:

1. Let the medical profession be made a branch of the Civil Service with salaries ranging from £400 to £1,000 per annum.
2. Let every medical man be placed on that service and let the one State examination fit him for that service.
3. Let every householder or lodger already in or coming into a neighbourhood put his name down to the medical man of his choice.
4. Let such medical man's duty be to call on and see such household and note where constitutional tendencies, such as indicated above, exist, and where medical or surgical assistance is needed; and thus his duty will be the prevention of disease and the maintaining the health of his patients.
5. Let such medical man be allowed only a certain number of patients, say 300 to 500, and as soon as the number is made up for one doctor then the neighbourhood must choose one of the others.
6. Let any medical man newly starting be drafted to a place where he is required, in the same way as in Germany—the *Apotcker*—corresponding to our dispensing chemist, is appointed to a certain vacant place; or he may take up his stand where there is a vacant place.
7. Let there be a central dépôt for instruments, books, serums, etc., and even a cottage hospital.

In this necessarily brief sketch or outline of a new system of a National Medical Service the advantages are:

1. Prevention of disease rather than the cure of disease, already well established, as in all existing systems, including the National Insurance Act. The question of medical assistance is not left to the lay mind, but is in the hands of the expert—the medical man. Hence great saving of life and suffering.
2. The interests of the public and the medical profession are identical under this system, for it will be to the interest of the medical man to keep his patients well, and he will therefore not be under the ban of benefiting by his patients' ills.
3. The regular salary, like that of a clergyman, will do away with the keeping of a multitude of petty accounts, with all the loss of time, energy, and opportunity such entails, not to speak of the vexation of spirit and the soul-destroying work the obtaining of such means to a sensitive nature, sapping the vital energies, which should be given rather to fitting himself mentally and physically for his arduous day and night duties, and yet which terrible loss to himself, and thus to the public, is the usual lot of the general practitioner.
4. The advantage to the public will be that the great cost of administration of this medical branch of Civil Service will be practically nothing compared with that under the present Insurance Act.
5. The present gross inequalities of justice to public and profession alike will be remedied and adjusted.
   (*a*) The public: A father of a family has to bear all the expenses of the new generation and to support largely the doctors.
   (*b*) The profession: The general practitioners who do the greatest good in protecting the public by treating and notifying disease among the slums of our great towns are often the worst paid, and yet there can be no doubt that the wealthy and middle-class owe their freedom from diseases such as typhoid, scarlatina, diphtheria, etc., to the notifications of diseases by these poor medical men. Such doctors protect the clothes, the food, milk, water, etc., of the public, and are the real medical officers of health, though overworked and underpaid for their great services.

Indeed, the wealthy and middle class do not realize they owe the medical men anything unless they are actually taken ill. This is the great fallacy—interdependent on one another as we are nowadays—of our present system. The fact is, the neighbourhood owes something to every medical man engaged in finding out, notifying, and combating disease in its borders. There is a subtle realization of this point, with the result—under the present system—such classes do all they can to avoid the doctor, going to chemists, quacks, hospitals, and even calling in midwives, rather than availing themselves of the services of the medical men in the district. When really ill they feel caught, knowing that now they have to pay for the health of the neighbourhood. Thus, the doctor's life under this old out-of-date system is a very unhappy one; he is wanted, but on sufferance only—"sufferance is the badge of all our tribe." The householder wishes the doctor to be always ready for him, but does not wish to pay for it.

By suitable taxation the above inequalities to public and profession could be adjusted rightly, and then, instead of having, perhaps, to pay £50 or £60 one year (for example, for operation), the cost would be spread evenly over all the years.

In every way this Civil Service system of national medical aid I have but been able to barely outline would be the most rational way of meeting the great problem of the national health.

Mode and Rate of Remuneration.

Dr. P. R. Cooper writes with reference to Dr. Haward's letter in the British Medical Journal Supplement, April 13th, p. 383: I am content to let my former reply to Dr. Haward stand, with one slight correction. In regard to the variation in medical fees as compared with the insured's contributions, I had evidently been misinformed by the local secretary of the National Deposit Friendly Society on this point, which I hasten to concede to Dr. Haward. Still, as a matter of personal experience, I have always been paid on the same scale of fees whatever the contributions of the insured, and I imagine few of us ever receive more than the minimum. It is only right to add that I do not advocate the system of the National Deposit Friendly Society as an ideal one, but merely instance it as a proof that payment for work done is practicable, and despite Dr. Haward's criticisms my contention remains unshaken. Dr. Cooper also expresses the opinion that the relationship between doctor and patient should be voluntary on both sides, as in present general practice. Under

the National Insurance Scheme this, he says, could easily be secured by remunerating all doctors who attend upon the insured in accordance with the work actually done by them upon an agreed tariff, the Insurance Fund underwriting the whole or part of the cost of such attendance. This he considers the only equitable mode of remuneration, as it is also the only method of preserving the proper relations between doctor and patient.

THE REPRESENTATIVE MEETING IN FEBRUARY.

DR. C. STENNETT REDMOND (London) writes to express his hearty concurrence with the letters of Dr. W. Gosse and Dr. K. M. Gibbins (SUPPLEMENT, March 23rd). He holds that the Special Representative Meeting was not justified in deciding or even discussing the amount and mode of remuneration, inasmuch as it had no mandate from the Divisions, which had already voted against capitation by a significant majority. As a former Chairman of the Manchester (West) Division he desires to express the pleasure he has derived from reading Dr. Barton's manly defence of Dr. T. A. Helme, and as an old colleague on the combined committee of the Lancashire and Cheshire Divisions cordially endorses his words.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

STAFF SURGEON W. H. DAW has been appointed to the *Doris* (undated).

Surgeon G. B. SCOTT to be Inspector of Sick Berth Staff at the Royal Naval Hospital, Chatham (May 1st).

ARMY MEDICAL SERVICE.

SURGEON-GENERAL T. M. CORKER is appointed Principal Medical Officer, 5th (Poona) Division from February 25rd, vice Surgeon-General J. G. MacNeece.

Surgeon-General M. W. KERIN is appointed Principal Medical Officer, 8th (Lucknow) District, from February 19th, vice Surgeon-General T. M. Corker, transferred.

Colonel C. E. NICOL is appointed Principal Medical Officer, Presidency and Assam Brigades, vice Colonel E. Butt, transferred.

ROYAL ARMY MEDICAL CORPS.

Lieutenant-Colonel W. C. BEEVOR C.M.G., now serving at Fermoy, has been appointed to the charge of the Royal Infirmary, Dublin, from April 16th, in succession to Lieutenant-Colonel C. Birt, who has been appointed to London for duty.

Lieutenant-Colonel A. J. LUTHER, from Cahir, has been appointed to Fermoy from April 15th.

Major J. H. E. AUSTIN, from the London District, has been appointed to the Scottish Command.

Major J. G. CHURTON has been posted on promotion from Peshawar to Bangalore, and has been succeeded at Peshawar by Captain H. H. Blake.

Captain T. C. C. LESLIE, from Maritzburg, has been posted to the Cork District from April 12th.

Captain G. G. TABUTEAU, from Jhansi, has been posted to the Dublin District from April 18th.

Captain L. A. A. ANDREWS, from Mauritius, has been posted to the Belfast District from April 23rd.

Captain F. H. M. CHAPMAN has been granted leave till November 30th.

Captain D. F. MACKENZIE has been granted eight months' general leave.

SPECIAL RESERVE OF OFFICERS.

JOHN ROLLO HAYMAN, late Cadet, University of London Contingent, Officers' Training Corps, to be Lieutenant (on probation), dated March 15th, 1912.

Cadet EDWARD ALFRED WILSON, from the University of London Contingent, Officers' Training Corps, to be Lieutenant (on probation), dated March 15th, 1912.

Cadet ROBERT GREEN, from the Royal College of Surgeons in Ireland Contingent, Officers' Training Corps, to be Lieutenant (on probation), dated March 22nd, 1912.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL H. FOOKS has assumed charge of the appointment of Officiating Principal Medical Officer of the Aden Brigade, vice Colonel H. F. Cleveland, who has proceeded on leave.

The services of Major T. E. WATSON, M.B., are replaced at the disposal of His Excellency the Commander-in-Chief in India.

Major T. STODART, M.B., is appointed Civil Surgeon of the First Class, with effect from January 12th, in place of Lieutenant-Colonel A. O. Evans, reverted to military duty.

The services of Major H. A. SMITH, Civil Surgeon at Agra, are placed at the disposal of the Government of India with effect from the date of the expiration of his leave.

Privilege leave for three months, in combination with furlough for six months and study leave for nine months, is granted to Major P. F. CHAPMAN, M.B., C.M., Civil Surgeon, Jubbulpur, with effect from April 1st, 1912.

The services of Captain S. W. JONES are placed temporarily at the disposal of the Government of Bombay for employment in the Gaol Department.

The services of Captain E. W. C. BRADFIELD, M.B., F.R.C.S.E., are placed temporarily at the disposal of the Government of Madras.

The services of Captain F. P. MACKIE, F.R.C.S., are placed at the disposal of the Sanitary Commissioner with the Government of India.

Captain E. T. HARRIS, whose services have been placed temporarily at the disposal of the local government, is posted to general duty in the Rangoon General Hospital.

The undermentioned officers, having completed their courses at the Royal Army Medical College and at Aldershot, have been finally admitted to the service. Their commissions will bear date July 29th, 1911: J. A. SINTON, E. R. ARMSTRONG, D. F. MURPHY, C. J. STOCKER, E. E. DOYLE, C. M. PLUMPTRE, A. W. DUNCAN, L. F. BRANDENBOURG, J. E. SCUDAMORE, H. L. BARKER, E. A. PENNY, G. B. HARLAND.

The King has approved of the retirement of Lieutenant-Colonel ROBERT SHAW, dated December 25th, 1911.

The promotions of the undermentioned Majors of the Indian Medical Service to that rank—notified in the *London Gazette* on the dates shown—are antedated as follows:

From July 29th, 1905 (as notified in the *London Gazette* of May 15th, 1906), to January 30th, 1905: ERNEST ALAN ROBERT NEWMAN, M.D., REGINALD GEORGE TURNER, F.R.C.S., JAMES DAVIDSON, M.D., BHOLA NUTH.

From July 28th, 1906 (as notified in the *London Gazette* of November 13th, 1906), to January 29th, 1906: CHARLES ROSS PEARCE, M.B.

From January 29th, 1907 (as notified in the *London Gazette* of May 7th, 1907), to July 29th, 1906: SAMUEL EVANS, M.B., JAMES HALDANE MCDONALD, M.B.

From July 29th, 1907 (as notified in the *London Gazette* of October 4th, 1907), to January 29th, 1907: ARTHUR FREDERICK WILLIAM KING, F.R.C.S.E., ANDREW ARMSTRONG GIBBS, THOMAS EDGAR WATSON, M.B.

From January 29th, 1908 (as notified in the *London Gazette* of April 10th, 1908), to July 29th, 1907: CLARENCE BARRYMORE HARRISON, M.B., NICHOLAS PURCELL O'GORMAN LALOR, M.B.

From July 29th, 1908 (as notified in the *London Gazette* of October 20th, 1908), to January 29th, 1908: HERBERT JAMES WALTON, M.D., F.R.C.S., MAXWELL DICK, M.D.

From July 28th, 1909 (as notified in the *London Gazette* of October 5th, 1909), to January 28th, 1909: JOHN GEORGE PATRICK MURRAY, M.D., F.R.C.S.E.

From January 28th, 1910 (as notified in the *London Gazette* of May 3rd, 1910), to July 28th, 1910: ALFRED GEORGE SARGENT.

Lieutenant-Colonel F. P. MAYNARD, Professor of Ophthalmic Surgery, Medical College, and Ophthalmic Surgeon, College Hospital, Calcutta, is granted privilege leave for three months, with furlough for six months in continuation with effect from March 1st, 1912. Major W. V. COPPINGER is appointed to officiate.

Lieutenant-Colonel DEARE is confirmed as Civil Surgeon 1st class, vice Lieutenant-Colonel Clarkson, retired.

Lieutenant-Colonel G. H. BAKER, Civil Surgeon of Fyzabad, has been granted privilege leave, combined with furlough, for a period of two years, with effect from April 2nd.

Lieutenant-Colonel W. VOST, Civil Surgeon, on being relieved, is transferred from Lucknow to Fyzabad.

Lieutenant-Colonel R. J. MARKS, Civil Surgeon, of Gorakhpur, is granted privilege leave, combined with special leave on urgent private affairs, for a total period of six months.

Major W. S. WILLMORE, Civil Surgeon, of Mirzapur, is granted privilege leave, combined with three months' study leave and furlough, for a total period of twenty-one months and two days.

Major STEVENS is appointed Professor of Clinical and Operative Surgery, Calcutta Medical College.

Major E. J. MORGAN, Civil Surgeon, of Sitapur, is granted privilege leave on urgent private affairs for a total period of six months.

Major L. P. STEPHEN on return from leave to do duty as Civil Surgeon, Thana, and Superintendent Narotamdas Madhavdas Lunatic Asylum, Naupada, vice Assistant Surgeon Khan Bahadur F. V. Moos, pending the return from leave of Major K. V. Kukday, or further orders.

Major W. MACM. PEARSON, Civil Surgeon, is transferred from Budaun to Mirzapur.

Major J. N. WALKER, Civil Surgeon, is transferred from Rae Bareli to Gorakhpur.

The services of Major G. BIDIE are replaced at the disposal of the Government of India in the Home Department with effect from May 24th, 1912.

Captain A. D. HAYDON is permitted to retire on half-pay.

Captain R. KNOWLES, Senior Medical Officer, Jhansi, to hold civil medical charge of the district in addition to his military duties.

Captain H. SIMPSON, Medical Officer of the Lawrence Military Asylum, Sanawar, is appointed to officiate as Principal, vice Rev. A. H. Hildesley, in addition to his own duties.

Captain G. C. L. KERANS has been granted furlough leave for one year.

The services of Captain WERNICKE are placed under the Central Provinces Government.

The services of Captain HARKNESS are placed under the Home Department.

The services of Captain BARBER are placed under the United Provinces Government.

The services of Captain J. K. S. FLEMING are replaced at the disposal of His Excellency the Commander-in-Chief in India.

Captain T. C. RUTHERFORD, Civil Surgeon, Bilaspur, is deputed to undergo a course of instruction in malariology at Amritsar.

Captain W. TARR, Civil Surgeon, Nimar, is deputed on special duty at Pachmarhi during the summer season of 1912.

Captain G. FOWLER, Civil Surgeon, Akola, is granted privilege leave for three months, in combination with leave on medical certificate for nine months, with effect from March 1st, 1912.

Captain C. A. GILL, Deputy Sanitary Commissioner, sub *pro tem.*, is granted eighteen months' leave, with effect from March 15th, 1912.

On relief by Captain HUGH WATTS, Captain M. F. REANEY, Civil Surgeon, Wardha, is transferred to Akola.

Captain H. W. ILLIUS, Officiating Civil Surgeon, is transferred from Jhansi to Sitapur.

Honorary Captain G. HYNES, Civil Surgeon, is transferred from Fatehpur to Hardoi.

Honorary Captain J. T. PARKINSON, Civil Surgeon of Hardoi, is granted privilege leave, combined with special leave on urgent private affairs, for total period of six months.

COLONIAL MEDICAL SERVICES.

THE following changes have been notified by the Colonial Office:

WEST AFRICAN MEDICAL STAFF.

New Appointments.—Messrs. M. GROVES, L.M.S.S.A. Lond., and F. G. THOMPSON, M.B. Lond., to be Medical Officers, Gold Coast. Mr. W. BROWNE, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glas., to be Medical Officer, Southern Nigeria. Mr. W. C. E. BOWER, L.M. and S. Madras, M.R.C.S. Eng., L.R.C.P. Lond., to be Medical Officer, Sierra Leone (reappointment).

Transfers.—J. LUNN, M.B., C.M.Glasg., Medical Officer, Gold Coast, has been appointed an Itinerating Inspecting Officer in the Medical Department of Ceylon.

Retirement.—A. J. A. BROWNE, L.R.C.P., L.R.C.S.Irel., Medical Officer, Southern Nigeria, retires with a gratuity.

Resignation.—J. CROSS, M.B., Ch.B.Glasg., Medical Officer, Southern Nigeria.

OTHER COLONIES AND PROTECTORATES.

Messrs. H. G. HOLDBROOK, M.B., B.Ch., B.A.O.Dubl., N. W. STEINBERG, M.B., Ch.B.Liverpl., W. A. TAYLOR, M.B., Ch.B., B.A.O.Dubl., and J. A. MCILROY, M.R.C.S.Eng., L.R.C.P.Lond., to be Medical Officers, Straits Settlements.

Mr. H. W. TILLING, M.R.C.S.Eng., L.R.C.P.Lond., to be Medical Officer, Gilbert and Ellice Islands.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

OWING to the inclusion of the recently extended Borough of Cambridge, the Registrar-General's weekly returns will in future relate to ninety-five towns, each of which contained a population exceeding 50,000 persons at the last census. In these ninety-five towns 8,190 births and 4,744 deaths were registered during the week ending Saturday, April 6th. The deaths were equal to an annual rate of mortality of 14.0 per 1,000, compared with 14.6, 14.1, and 14.6 per 1,000 in the ninety-four towns in the three preceding weeks. In London the death-rate did not exceed 13.1 per 1,000 against 12.7, 13.5, and 13.5 in the three previous weeks. Among the ninety-four other large towns the death-rates ranged from 5.7 in Smethwick, 6.2 in Southend-on-Sea, 6.3 in Devonport, 6.4 in Wimbledon, 7.0 in Edmonton, and 7.2 in Enfield to 20.1 in Wakefield, in Barnsley, and in Aberdare, 20.3 in Burnley, 21.3 in Salford, 21.7 in Oldham, and 23.5 in Warrington. Measles caused a death-rate of 1.7 in Manchester, 1.8 in Nottingham, 2.0 in Wakefield, 2.3 in Cardiff, 2.8 in Warrington, 2.9 in Salford, and 4.3 in Newport (Mon.), and whooping-cough of 1.8 in West Ham, 1.9 in Gillingham, in Stockport, and in Huddersfield, 2.1 in Oldham, and 2.5 in Merthyr Tydfil. The mortality from the remaining epidemic diseases showed no marked excess in any of the large towns and no fatal case of small-pox was registered during the week. The causes of 33, or 0.7 per cent. of the deaths registered in the ninety-five towns, were not certified either by a registered medical practitioner or by a coroner after inquest, and included 4 in Birmingham, 4 in Gateshead, 3 in Portsmouth, and 3 in Liverpool. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,384, 1,368, and 1,322 at the end of the three preceding weeks, had further declined to 1,263 on Saturday, April 6th; 121 new cases were admitted during the week, against 152, 137, and 133 in the three preceding weeks.

In ninety-five of the largest English towns, 8,556 births and 4,744 deaths were registered during the week ending Saturday, April 13th. The annual rate of mortality in the ninety-four or ninety-five towns, which had been 14.1, 14.6, and 14.0 per 1,000 in the three preceding weeks, was again 14.0 per 1,000 in the week under notice. In London last week the death-rate was equal to 13.5 per 1,000, against 13.5, 13.5, and 13.1 in the three previous weeks. Among the ninety-four other large towns the death-rates ranged from 6.4 in Wallasey, 6.9 in Ilford, 7.4 in Cambridge, 8.1 in Enfield, 8.2 in Reading, and 8.3 in Wimbledon to 19.6 in Oldham, 19.9 in Gateshead, 20.3 in Burnley, 21.1 in Salford, 22.0 in Stockton-on-Tees, and 22.3 in St. Helens. Measles caused a death-rate of 1.8 in Newport (Mon.), 2.0 in Wakefield, 2.1 in Warrington, 3.4 in Cardiff, and 3.6 in Salford; and whooping-cough of 1.1 in West Ham and in Manchester, 1.3 in Southampton, in Salford, and in Gateshead, 1.5 in East Ham, 1.7 in Walsall, 1.9 in Merthyr Tydfil, and 2.3 in Edmonton. The mortality from the remaining epidemic diseases showed no marked excess in any of the large towns. A fatal case of small-pox was registered in Bristol, but none in any other of the ninety-five towns. The causes of 43, or 0.9 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest, and included 9 in Birmingham, 5 in St. Helens, 4 in Liverpool, and 3 in Gateshead. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,368, 1,322, and 1,263 at the end of the three preceding weeks, had further declined to 1,242 on Saturday last: 119 new cases were admitted during the week, against 137, 133, and 121 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

IN eighteen of the largest Scottish towns 1,176 births and 674 deaths were registered during the week ending Saturday, April 6th. The annual rate of mortality in these towns, which had been 17.4 and 17.0 per 1,000 in the two previous weeks, again declined to 16.1 per 1,000 in the week under notice, but was 2.1 per 1,000 above the rate recorded in the ninety-five large English towns. Among the several Scottish towns the death-rates ranged from 6.5 in Clydebank, 9.1 in Kirkcaldy, and 9.2 in Govan to 19.2 in Greenock, 19.3 in Dundee, and 19.5 in Kilmarnock. The mortality from the principal infectious diseases averaged 1.7 per 1,000, and was highest in Partick and Kilmarnock. The 255 deaths from all causes recorded in Glasgow included 15 from measles, 3 from whooping-cough, 3 from infantile diarrhoeal diseases, 2 from scarlet fever, and 1 from enteric fever. Six deaths from measles were registered in Leith, 5 in Partick, 4 in Edinburgh, 4 in Paisley, and 3 in Kilmarnock; 2 deaths from scarlet fever in Aberdeen; 2 deaths from diphtheria in Dundee; and 2 deaths from whooping-cough in Aberdeen and 2 in Paisley.

In eighteen of the largest Scottish towns 1,288 births and 693 deaths were registered during the week ending Saturday, April 13th. The annual rate of mortality in these towns, which had been 17.0 and 16.1 per 1,000 in the two previous weeks, rose to 16.6 per 1,000 in the week under notice, and was 2.6 per 1,000 above the rate recorded in the ninety-five large English towns. Among the several Scottish towns, the death-rates last week ranged from 6.1 in Falkirk, 9.8 in Govan, and 10.0 in Motherwell to 23.6 in Coatbridge, 24.9 in Ayr, and 27.0 in Kilmarnock. The mortality from the principal infectious diseases averaged 1.9 per 1,000, and was highest in Kilmarnock and Coatbridge. The 254 deaths from all causes registered in Glasgow included 15 from measles, 3 from whooping-cough, 3 from diphtheria, 3 from infantile diarrhoea, 1 from enteric fever, 1 from typhus, and 1 from scarlet fever. Ten deaths from measles were recorded in Edinburgh, 6 in Paisley, 4 in Coatbridge, 3 in Leith, and 3 in Motherwell; 2 deaths from scarlet fever in Greenock; 2 deaths from diphtheria in Dundee; and 3 from whooping-cough in Coatbridge and 2 in Kilmarnock.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, April 6th, 499 births and 464 deaths were registered in the twenty-two principal urban districts of Ireland, as against 636 births and 521 deaths in the preceding week. The annual death-rate in these districts, which had been 24.7, 20.7, and 23.5 per 1,000 in the three preceding weeks, fell to 20.9 per 1,000 in the week under notice, this figure being 6.9 per 1,000 higher than the mean average death-rate in the ninety-five English towns for the corresponding period. The figures in Dublin and Belfast were 25.0 and 19.3 respectively, those in other districts ranging from 6.6 in Queenstown and 9.2 in Ballymena to 34.4 in Lurgan and 36.4 in Wexford, while Cork stood at 24.5, Londonderry at 14.0, Limerick at 13.6, and Waterford at 24.7. The zymotic death-rate in the twenty-two districts averaged 2.1 per 1,000, as against 1.7 in the preceding period.

During the week ending Saturday, April 13th, 675 births and 466 deaths were registered in the twenty-two principal urban districts of Ireland, as against 499 births and 464 deaths in the preceding week. The annual death-rate in these districts, which had been 20.7, 23.5, and 20.9 per 1,000 in the three preceding weeks, rose to 21.0 per 1,000 in the week under notice, this figure being 7.0 per 1,000 higher than the mean average death-rate in the ninety-five English towns for the corresponding period. The figures in Dublin and Belfast were 25.4 and 19.6 respectively, those in other districts ranging from 9.2 in Ballymena and 9.5 in Waterford to 30.1 in Lurgan and 30.5 in Newry, while Cork stood at 20.4, Londonderry at 12.7, and Limerick at 20.4. The zymotic death-rate in the twenty-two districts averaged 1.8 per 1,000, as against 2.1 in the preceding period.

Hospitals and Asylums.

THE CHILDREN'S HOSPITAL, BIRMINGHAM.

THE total number of children treated during 1911 was 15,612, and of these 1,023 were in-patients, 13,342 out-patients, and 1,247 casualties. The total number in 1910 was 15,261. The average detention-rate of in-patients was 20.43 days. There were 131 deaths among in-patients, giving a death-rate of 12.8 per cent. The operations on in-patients numbered 360, and on out-patients 2,067. The expenditure amounted to £5,867 and the income to £5,579, leaving a deficiency of £288. The committee will shortly be in a position to invite tenders for the new buildings. It has at call for the purpose of building and furnishing the sum of about £35,000, but it is anticipated that a further sum of at least £15,000 is still necessary.

BIRMINGHAM AND DISTRICT HOSPITAL FOR WOMEN.

DURING 1911 the number of new cases attending the out-patient department of the Women's Hospital was 4,037, being an increase of 283 on the previous year. The total number of new and old patients treated during the year was 20,425. In the in-patient department 1,032 patients were admitted, and of these 105 were paying patients. The expenditure exceeded the ordinary income by £2,879. The Maternity Hospital, which is now amalgamated with the Women's Hospital, is managed by a separate committee. In the Maternity Hospital during last year 437 in-patients were received, a considerable increase on 1909, when there were 379 patients. The accounts for the year showed a deficiency of £604. Important economies have already been effected by the union of the two hospitals.

SOUTH WIMBLEDON, MERTON AND DISTRICT COTTAGE HOSPITAL.

THE twelfth annual report, recently issued, states that the number of cases treated in the wards was 260, with 13 deaths. There were 156 casualty cases. The average length of each patient's stay was 17 days, as compared with 14 in 1910. The average weekly cost for each in-patient was 19s. 5d. The income for the year was £685 10s. 11d., and the expenditure £673 0s. 9d. The financial statement showed that both the Hospital Sunday and Hospital Saturday Funds had made grants to the hospital, while King Edward's Hospital Fund had made a second grant of £1,000 towards the building fund of the new hospital at Kingston Road, Merton, which is to take the place of the present edifice in Merton Road. The new institution has now been completed, and will, it is hoped, shortly be opened by H.R.H. Princess Louise, Duchess of Argyll. The new hospital will be known as the Nelson Hospital for Wimbledon, Merton, and District.

WESTMORLAND CONSUMPTION SANATORIUM AND HOME.

IT appears from the annual report for 1911 that the Westmorland Consumption Sanatorium accommodates 68 cases of the milder type. The home was built in 1909 to receive cases of advanced phthisis. Together they form one institution, the two grounds being contiguous, so that patients are readily transferred from one branch to the other according to the progress they make. Cases are admitted from outside Westmorland at £2 2s. a week, and beds may be engaged at £90 for twelve months, or at £80 a year when taken definitely for five years. The average number of beds occupied throughout the year was 94, as against 66 in 1910. The average weekly cost of maintenance was 32s., a higher figure than in any of the previous seven years; this was due partly to paying income tax; still a balance of 9*s* no

£1,500 was placed to the credit of the institutions. According to the medical superintendent's report, 309 patients were admitted during 1911, 127 females and 182 males. Of these, 22 were children of 14 years and under. Of the 309 patients, 110, or 35.6 per cent., were in the first stage of the disease; 70, or 22.7 per cent., were in the second stage; and 120, or 41.7, in the third stage. Tubercle bacilli were found in 60 per cent. of all cases admitted, a larger proportion than in former years. Tuberculin was used extensively both as a diagnostic and curative agent. Von Pirquet's test was employed in 150 cases of all kinds in order to determine whether it is reliable. Although the number of tests is not large enough to afford conclusive evidence, Dr. Wallace considers that it is a diagnostic test of great value. In cases in which tubercle bacilli were present in sputum, the test was positive in 96 per cent. As a curative agent tuberculin has been used extensively, but Dr. Henderson has not yet accumulated sufficient data to speak positively as to its value. No attempt has been made to follow up discharged cases, except those admitted from Westmorland. Of the advanced cases, only 14 out of 90 admitted during the first seven years remain alive. Of the moderately severe cases, about 60 per cent. are in good health, 20 per cent. frail, and 20 per cent. dead. Of the slight cases, about 90 per cent. are in excellent health, and are doing as well as they could wish.

MONKSTOWN HOSPITAL, DUBLIN.

THE report read at the annual meeting of the Monkstown Hospital stated that 232 patients had been admitted, and 1,964 patients treated at the dispensary. The number of attendances at the dispensary and accident ward were 4,798 and 3,519 respectively, an increase of nearly 2,000 over 1910. The subscriptions, unfortunately, had fallen off to the extent of between £500 and £600. The chairman spoke of the serious effect that the National Insurance Act must be expected to have on the funds of such an institution, and said that the people in Ireland must not forget that, so far as that country was concerned, medical benefits were not included, so even when the Act came into force the poor in times of ill-health and trouble would be just as dependent on the hospitals as they were at present.

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

AGRA: DUFFERIN HOSPITALS AND FEMALE MEDICAL SCHOOL.—Senior Lady Doctor for the Dufferin Hospitals, Agra. Pay, inclusive of allowances, Rs. 400 (£26 13s. 4d.) per mensem.

BEDFORD COUNTY HOSPITAL.—Male Assistant House-Surgeon. Salary, £80 per annum.

BIRMINGHAM LYING-IN CHARITY.—Honorary District Surgeon.

BOOTLE BOROUGH HOSPITAL.—Junior House-Surgeon. Salary, £80 per annum.

BRADFORD CHILDREN'S HOSPITAL.—House-Surgeon (male). Salary, £100 per annum.

BRENTFORD UNION.—Second Assistant to the Medical Superintendent of the Infirmary Workhouse and Schools. Salary, £125 per annum.

BURNLEY COUNTY BOROUGH.—Assistant to the Medical Officer of Health. Salary, £250 per annum, rising to £300.

BURNLEY UNION.—Resident Assistant Medical Officer as Assistant to the non-resident Medical Officer of the Workhouse. Salary, £150 per annum.

BURY INFIRMARY.—Junior House-Surgeon. Salary, £80 per annum, increasing to £90 after six months.

BURY ST. EDMUNDS: WEST SUFFOLK GENERAL HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

BUXTON: DEVONSHIRE HOSPITAL.—Pathologist (non-resident). Salary, £250 per annum.

CANCER HOSPITAL, Fulham Road, S.W.—Assistant Anaesthetist. Honorarium, 25 guineas per annum.

CHARING CROSS HOSPITAL MEDICAL SCHOOL.—Demonstrator in Pathology. Salary, £150 per annum.

CHORLEY: RAWCLIFFE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

DENBIGH: DENBIGHSHIRE INFIRMARY.—House-Surgeon. Salary, £100 per annum.

DORCHESTER: DORSET COUNTY HOSPITAL.—House-Surgeon. Salary, £100 per annum.

DUDLEY: GUEST HOSPITAL.—Senior Resident Medical Officer. Salary, 100 guineas per annum, increasing to 120 guineas.

DUNDEE DISTRICT ASYLUM.—(1) Senior Resident Medical Officer. (2) Junior Resident Medical Officer. Salary, £150 and £120 per annum respectively, rising to £200 and £150.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—(1) House-Surgeon; salary at the rate of £75 per annum. (2) Aural Surgeon.

EWELL: EPILEPTIC COLONY.—Junior Assistant Medical Officer. Salary at the rate of £170 per annum.

HOSPITAL OF ST. JOHN AND ST. ELIZABETH, Grove End Road, N.W.—Resident Medical Officer. Salary at the rate of £80 per annum.

HUDDERSFIELD ROYAL INFIRMARY.—Junior House-Surgeon. Salary, £60 per annum.

ISLE OF MAN ASYLUMS BOARD.—Assistant Medical Officer for Isle of Man Lunatic Asylum and Home for Poor. Salary, £150 per annum.

LEAMINGTON: WARNEFORD, LEAMINGTON, AND SOUTH WARWICKSHIRE GENERAL HOSPITAL.—House-Surgeon. Salary, £100 per annum.

LEEDS GENERAL INFIRMARY.—(1) Resident Medical Officer at the Ida and Robert Arthrington Hospitals; salary, £30 for six months. (2) Resident Obstetric Officer. (3) House-Surgeon. (4) House-Physician.

LEEDS TUBERCULOSIS ASSOCIATION.—Resident Medical Officer for the Sanatorium at Gateforth. Salary at the rate of £100 per annum.

LEICESTER INFIRMARY.—(1) House-Surgeon; (2) Assistant House-Surgeon. Salary at the rate of £120 and £80 per annum respectively.

LINCOLN COUNTY HOSPITAL.—Junior Male House-Surgeon. Salary at the rate of £100 per annum.

LIVERPOOL INFECTIOUS DISEASES HOSPITAL, — Assistant Resident Medical Officer. Salary, £120 per annum.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Resident Medical Officer. Honorarium at the rate of 50 guineas per annum.

LOUGHBOROUGH AND DISTRICT GENERAL HOSPITAL AND DISPENSARY.—Male Resident House-Surgeon. Salary, £120 per annum, increasing by £10 if re-elected for second year.

MACCLESFIELD GENERAL INFIRMARY.—Senior House-Surgeon. Salary, £100 per annum.

METROPOLITAN EAR, NOSE, AND THROAT HOSPITAL, Grafton Street, W.—(1) Assistant Surgeon; (2) Clinical Assistants.

NORTHUMBERLAND HOUSE, Finsbury Park, N.—Medical Superintendent. Salary, £300 per annum, rising to £400.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—House-Surgeon. Salary, £80 per annum.

PASSMORE EDWARDS HOSPITAL, Willesden.—Four members of the Honorary Medical Staff.

PLAISTOW: ST. MARY'S HOSPITAL FOR WOMEN AND CHILDREN.—Assistant Resident Medical Officer. Salary at the rate of £80 per annum.

ROCHESTER: ST. BARTHOLOMEW'S HOSPITAL.—(1) Resident House-Surgeon. (2) Resident House-Physician. Salary at the rate of £150 and £110 per annum respectively.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William Street, W.C.—(1) House-Surgeon. (2) Assistant House-Surgeon. Salary at the rate of £25 and £20 for six months respectively.

ST. AUSTELL UNION AND RURAL DISTRICT COUNCIL.—Medical Officer to the Workhouse and three Scattered Homes, and Medical Officer of Health for the Rural District. Combined salary, £390 per annum and fees estimated at £10.

SALFORD ROYAL HOSPITAL.—Junior House-Surgeon (Male). Salary at the rate of £65 per annum.

SOUTHAMPTON UNION.—Resident Assistant Male Medical Officer of the Workhouse Infirmary. Salary, £130 per annum, increasing to £150.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—House-Physician. Salary, £82 per annum, and £5 honorarium after six months' approved service.

STOCKPORT INFIRMARY.—Junior House-Surgeon. Salary, £80 per annum.

STOKE-ON-TRENT AND STOKE RURAL JOINT HOSPITAL BOARD.—Resident (Lady) Assistant Medical Officer for the Infectious Diseases Hospital. Salary, £100 per annum.

STORNOWAY PARISH COUNCIL.—Medical Officer. Salary, £67 per annum, together with £2 10s. as Public Vaccinator, and £2 10s. for services under the Lunacy Act.

SUNDERLAND ROYAL INFIRMARY.—Junior House-Surgeon (Male). Salary at the rate of £80 per annum.

TORQUAY: TORBAY HOSPITAL.—Resident Medical Officer, Salary, £100 per annum, and £5 for lectures to nurses.

UNIVERSITY COLLEGE HOSPITAL, Gower Street, W.C.—Resident Medical Officer.

WAKEFIELD GENERAL HOSPITAL.—(1) Senior House-Surgeon. (2) Junior House-Surgeon. Salary, £120 and £100 per annum respectively.

WESTMINSTER HOSPITAL, Broad Sanctuary, S.W.—Assistant Physician.

WINCHESTER: ROYAL HAMPSHIRE COUNTY HOSPITAL.—(1) House-Physician; (2) House-Surgeon (Males). Salary, £80 per annum each.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—(1) Resident Medical Officer. (2) House-Surgeon. Salary at the rate of £100 and £80 per annum respectively.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacant appointments: Bath (Somersetshire), and Croom (co. Limerick).

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

APPOINTMENTS.

AIKEN, D., M.B., Resident Assistant Medical Officer, Toxteth Park Workhouse.

ANDERSON, J. G., L.R.C.P.Edin., L.F.P.S.Glas., District Surgeon and Health Officer for the District of Portshepstone, Natal.

BRAY, P. Dean, M.R.C.S., Honorary Medical Officer of the Blayney Hospital, New South Wales.

BUCHANAN, James S., F.R.C.S., Honorary Surgeon to the Alfred Hospital, Victoria.

CLARKE, Cyril Lowther, M.B.Melb., Medical Officer to the Board of Health, Petersburg, South Australia.

CORDNER, E. R., M.B.Melb., Registrar of the Melbourne Hospital, Victoria.

DARROCH, Margaret, B.S., M.B., B.S.Glas., Resident Medical Officer to the Children's Hospital of the Royal Infirmary, Sunderland.

DOBSON, Margaret, M.D.Lond., Medical Officer to the West London District Schools, Hanwell, and Dentist to the Ealing School Clinics.

FELDMAN, W. M., M.B., B.S.Lond., M.R.C.S., L.R.C.P.Lond., Non-resident House-Surgeon to West London Hospital.

FORTUNE, J., M.D., Medical Officer of Health, Borough of Newcastle-under-Lyme.

GILL, J. L., M.B., B.S., Junior Resident Medical Officer at the Perth Public Hospital, West Australia.

GILRAY, Thomas, M.B.New Zealand, Medical Superintendent at Napier Hospital, New Zealand.

JEAFFRESON, D., L.R.C.P. and S.Edin., L.F.P.S.Glas., Certifying Factory Surgeon for the Blisworth District, co. Northants.

JUTTNER, F. E., M.B., Ch.B.Melb., Medical Officer of Health for Truro, South Australia.

MARR, A. S., L.R.C.P. and S.Edin., Honorary Medical Officer of the Blayney Hospital, New South Wales.

MOORE, Henry, L.R.C.P. and S.Irel., Surgeon to the Lock Hospital, Dublin, vice Henry Fitzgibbon, M.D.T.C.D.

MORTON, E., M.D.Edin., Medical Officer, North Oxfordshire United Districts.

NICHOLL, E. E., M.R.C.S., L.R.C.P., Medical Officer of Health, Borough of South Molton.

RIDLEY, W. R., M.B., Ch.B.Edin., House Physician to the Royal Infirmary, Sunderland.

ROBERTSON, F. G., M.B.Syd., Medical Officer at Collarenebi Hospital, New South Wales.

ROGERS, A. B., L.S.A., Certifying Factory Surgeon for the Cliffe District, co. Kent.

SELDON, W., M.B.Syd., Medical Officer, Warren Hospital, New South Wales.

SPARGO, Ernest, M.B.Melb., Junior Resident Medical Officer to the Alfred Hospital, Melbourne.

THOMAS, E. B., M.B.Adelaide, Junior Resident Surgeon, Broken Hill Hospital, New South Wales.

THOMSON, C. S., M.B., Ch.B.Glas., Certifying Factory Surgeon for the Workington District, co. Cumberland.

TYMMS, A. S. M., M.B.Melb., Registrar of the Melbourne Hospital, Victoria.

VIEYRA, P., M.B., Ch.B.Edin., Junior House-Surgeon to the Royal Infirmary, Sunderland.

WHITFORD, Raymond, M.B.Melb., Junior Resident Medical Officer to the Alfred Hospital, Melbourne.

WILLIAMS, W. H., M.B., Certifying Factory Surgeon for the Monmouth No. 2 District, co. Monmouth.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTH.

WATT.—On April 14th, at 59, East Dulwich Road, S.E., the wife of Mitchell Watt, M.B., of a daughter.

MARRIAGES.

HOWELL–LITHERLAND.—On April 10th, at All Saints' Church, Southport, by the Rev. S. Howell, B.A., Vicar of Maenclochog, Pembrokeshire, brother of the bridegroom, assisted by the Rev. Dr. Porter, Vicar of All Saints', and the Rev. J. H. Jackson, B.A., Alfred Howell, M.D., of Cardiff, to Florence Louise, eldest daughter of Frederick Litherland, Esq., of Montrose, Higher Crumpsall, Manchester.

YOUNG—KENNEDY.—On April 3rd, at All Souls', Langham Place, Robert Arthur Young, M.D., B.Sc., F.R.C.P., to Fanny Caroline Phoebe, second daughter of the late R. M. Kennedy, Indian Civil Service, and Mrs. Kennedy, 7, Albion Road, Sutton, Surrey.

DEATHS.

ADDISON.—At Hampstead, on April 11th, of meningitis, Paul Fanthorpe, youngest child of Christopher Addison, M.P., and Isobel Addison, aged 2 years and 7 months.

CAMPBELL.—Donald Campbell, M.D., died on April 14th, 1912, at his residence, Lornecliff, Calne, aged 70.

HOLMAN.—On April 13th, at Lydfords, East Hoathly, Sussex, Henry Colgate Holman, M.R.C.S.Eng., L.S.A., in his 80th year.

PUBLISHERS' ANNOUNCEMENTS.

MESSRS. P. BLAKISTON'S SON AND CO. announce the publication of a *Compend of Human Physiology* (13th edition) by Albert P. Brubaker, A.M., M.D., Professor of Physiology and Medical Jurisprudence at Jefferson Medical College, Philadelphia.

During the spring Messrs. J. and A. Churchill will publish the following works: *Hare Lip and Cleft Palate*, by James Berry, F.R.C.S., and T. P. Legg, F.R.C.S., with 250 illustrations; *Pathology, General and Special, for Students of Medicine* (third edition), by R. Tanner Hewlett, M.D., F.R.C.P., illustrated; *Volumetric Analysis for Pharmaceutical Students*, by C. H. Hampshire, illustrated.

Among the forthcoming works announced in Mr. Murray's Quarterly List for April are the following: *The Treatment of Tuberculosis by Means of Carl Spengler's Immune Substances (I.K.) Therapy*, an introduction to Carl Spengler's work on immunity and tuberculosis, by Walter H. Fearis, formerly Demonstrator of Botany, University College, Reading, with a foreword by Dr. Carl Spengler. *Further Researches into induced Cell-reproduction and Cancer* (the McFadden researches), by H. C. Ross, M.R.C.S.Eng., L.R.C.P.Lond., assisted by J. W. Cropper, M.B., M.Sc.Liverpool, M.R.C.S.Eng., L.R.C.P.Lond. Vol. ii, with illustrations.

Messrs. Cassell and Co. announce for publication early in May new editions of Hutchison and Rainy's *Clinical Methods*, and Mitchell Bruce's *Materia Medica*: in the revision of *Materia Medica* Dr. Mitchell Bruce has had the advantage of the collaboration of Dr. Walter J. Dilling, Lecturer on Pharmacology in the University of Aberdeen.

RECENT PUBLICATIONS.

Description, emploi, et valeur en clientèle des traitements nouveaux. Par Dr. Roger Hyvert. Paris: Maloine. 1912. (Crown 8vo, pp. 340. Price Fr.4.50.)

A pharmacological list of the newer remedies by way of supplement to the author's *Vade mecum du jeune praticien*. The remedies mentioned include both drugs whose composition is fully known and those which are in the nature of proprietary medicines. In some cases an attempt is made to assess the value of the treatment described, but in no cases is the information very detailed.

Essentials of Medicine. A Textbook of Medicine for Students beginning a Medical Course, for Nurses and for all others interested in the Care of the Sick. By Charles Phillips Emerson, M.D. Second edition. Philadelphia and London: J. B. Lippincott Company. 1911. (Medium 8vo, pp. 412; 117 illustrations. Price 8s. 6d. net.)

The object appears to be to give students, nurses, and the lay public an insight into the pathology of disease and the principles of treatment, and to those who desire to have an intelligent knowledge of disease it will be useful. It has helpful illustrations, and since details of treatment are not given, those who read it are not likely to begin treating patients on their own responsibility.

DIARY FOR THE WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—(1) Dr. Dudley Buxton: The Vital Phenomena—Nervous, Circulatory, Respiratory, and Metabolic—Occurring under Anaesthesia, and their Relation to the Safety of the Patient. (2) Mr. E. M. Corner: The Occurrence of so-called Delayed Chloroform Poisoning.

ROYAL SOCIETY OF MEDICINE:
ODONTOLOGICAL SECTION, 15, Cavendish Square, W., 8 p.m.—Paper: Mr. W. McAdam Eccles and Mr. G. Hopewell-Smith: Teeth in Ovarian Dermoid Cysts. Casual Communication:—Mr. E. G. Betts: The Complete Eruption into Place of a Devitalized Tooth.

TUESDAY.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN, 6 p.m.—Mr. W. Hampson: Electricity-Cataphoresis.

ROYAL SOCIETY OF MEDICINE:
MEDICAL SECTION, 15, Cavendish Square, W., 5.30 p.m.—Paper:—Dr. Gordon Ward: Nodular Leukaemia.

WEDNESDAY.

HUNTERIAN SOCIETY, London Institution, Finsbury Circus, E.C., 9 p.m.—Adjourned Discussion on the Therapeutic Value of Alcohol. The President (Dr. Hingston Fox), Sir T. Lauder Brunton, Mr. C. Mansell Moullin, Dr. Stoddart, Dr. E. W. Goodall, Dr. Langdon Brown, Dr. Currie. Sir Victor Horsley will reply.

FRIDAY.

ROYAL SOCIETY OF MEDICINE:
SECTION FOR THE STUDY OF DISEASE IN CHILDREN, 11, Chandos Street, W., 4.30 p.m.—(1) Exhibition of Cases. (2) Paper:—Dr. E. Cautley: Mucous Gastritis in Infants.
EPIDEMIOLOGICAL SECTION, 15, Cavendish Square, W., 8.30 p.m.—Paper:—Dr. C. Rundle: The "Bed Isolation" of Cases of Infectious Disease.

POST-GRADUATE COURSES AND LECTURES.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat, at noon and 4.30 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Tuesday, and noon, Friday. Eye, 11 a.m., Wednesday and Saturday. Radiography, Saturday, 10 a.m. Pathological Demonstration, Saturday, 11 a.m.

MANCHESTER: ANCOATS HOSPITAL POST-GRADUATE CLINIC.—Thursday, 4.15 p.m.—Management of Dyspeptic Infants.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics, X Rays, and Operations, 2 p.m. daily. Monday: Gynaecology, 10 a.m.: Eye, 2 p.m. Tuesday: Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday: Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday: Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
APRIL.	
21 Sunday ..	
22 MONDAY ..	
23 TUESDAY ..	
24 WEDNESDAY	BATH AND BRISTOL BRANCH, Ordinary Meeting, Museum, Bath, 8 p.m. RICHMOND DIVISION, *Metropolitan Counties Branch*, Richmond, 8.30 p.m.
25 THURSDAY ..	STATE SICKNESS INSURANCE COMMITTEE (*probably*). EAST ANGLIAN BRANCH, Spring Meeting, East Dereham. SOUTH-WEST ESSEX DIVISION, *Metropolitan Counties Branch*, Walthamstow Hospital, 4 p.m. MARYLEBONE DIVISION, *Metropolitan Counties Branch*, Rooms of the Medical Society of London, 11, Chandos Street, W., Meeting of Medical Practitioners (National Insurance Act), 4.30 p.m.; General Meeting, 5 p.m.; Special Meeting at conclusion of General Meeting. STAFFORDSHIRE BRANCH, General Meeting, Victoria Hotel, Wolverhampton, 5.35 p.m.; Dinner, 7 p.m. CITY DIVISION, *Metropolitan Counties Branch*, General Meeting, Brooke House, Upper Clapton, 9 p.m. WORCESTERSHIRE AND HEREFORDSHIRE BRANCH, Spring Meeting, Worcester.
26 FRIDAY ..	BIRMINGHAM BRANCH, Pathological and Clinical Section, Medical Institute, Edmund Street, 8 p.m.
27 SATURDAY ..	
28 Sunday ..	
29 MONDAY ..	
30 TUESDAY ..	
MAY.	
1 WEDNESDAY	**Central Council, London, 2 p.m.**
2 THURSDAY ..	
3 FRIDAY ..	
4 SATURDAY ..	Nominations for election to Central Council to be forwarded to the Financial Secretary and Business Manager.
5 Sunday ..	
6 MONDAY ..	
7 TUESDAY ..	
8 WEDNESDAY	GLASGOW AND WEST OF SCOTLAND BRANCH, Annual Meeting, Pathological Institute, Royal Infirmary, Glasgow, 4 p.m.
9 THURSDAY ..	

Date.	Meetings to be Held.
MAY *(continued)*.	
10 FRIDAY ..	
11 SATURDAY ..	
12 Sunday ..	
13 MONDAY ..	
14 TUESDAY ..	
15 WEDNESDAY	CENTRAL DIVISION, *Birmingham Branch*, Annual Meeting, Medical Institute, 4 p.m.
16 THURSDAY ..	LONDON: Metropolitan Counties Branch, Council, 4 p.m.
17 FRIDAY ..	
18 SATURDAY ..	Last day for receipt of nominations for Central Council.
19 Sunday ..	
20 MONDAY ..	
21 TUESDAY ..	BRIGHTON DIVISION. *South-Eastern Branch*, Ordinary Meeting.
22 WEDNESDAY	RICHMOND DIVISION. *Metropolitan Counties Branch*, Richmond, 8.30 p.m.
23 THURSDAY ..	WALTHAMSTOW DIVISION. *Metropolitan Counties Branch*, Wesleyan Church School, Leyton, 4 p.m.
24 FRIDAY ..	
25 SATURDAY ..	List of nominations for election on Central Council will be published in the JOURNAL.
26 Sunday ..	
27 MONDAY ..	
28 TUESDAY ..	
29 WEDNESDAY	BATH AND BRISTOL BRANCH, Annual Meeting, Bristol.
30 THURSDAY ..	
31 FRIDAY ..	
JUNE.	
1 SATURDAY ..	
2 Sunday ..	
3 MONDAY ..	
4 TUESDAY ..	
5 WEDNESDAY	

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SUPPLEMENT
TO THE
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National Insurance.

FORMATION OF PROVISIONAL MEDICAL COMMITTEES.

Deptford.

A MEETING of the Provisional Medical Committee for the Borough of Deptford was held on Thursday, April 18th, Dr. C. J. PARKE in the chair. The rules as suggested by the National Insurance Committee of the Metropolitan Counties Branch were adopted, with necessary alteration in Rule 5 making the practitioners calling the meeting they required responsible for the expenses.

The result of the canvassing was found to be very satisfactory, but it was not quite complete.

It was decided to wait the issue of the bond *re* "contract practice," and not to obtain any other local pledge or guarantee.

Further active work in canvassing and organizing the union of the profession in the borough was instituted.

Honorary Secretary, W. H. Payne, 8, Vesta Road, Brockley, S.E.

Greenwich.

At a general meeting of medical men in the Greenwich district held on March 27th the following were appointed a Provisional Medical Committee for the borough of Greenwich, with power to add to their number:—Greenwich: Dr. Annis, Dr. Black, Dr. Hartt, Dr. Hogarth, Dr. Keay, Dr. J. P. Purvis; Blackheath: Dr. Bowden, Dr. F. Beatrice Lovibond, Dr. Matheson; Charlton: Dr. Reed, Dr. Cowie; Non-Members of the British Medical Association: Dr. Cable, Dr. Corfe, Dr. Willes. The Committee has twice met, and it was agreed that a letter be sent to every practitioner explaining the objects of those Provisional Committees that have now been formed in almost every insurance area, and to ascertain the position in which the profession stands towards the Insurance Act.

The HONORARY SECRETARY (Dr. J. Keay), in a letter issued on behalf of the Chairman of Committee, says:

To the Act as it at present stands objection has been taken by practically the whole medical profession. Notwithstanding this fact, at the last meeting of the British Medical Association its Representatives, acting on instructions from their Divisions, all but unanimously resolved that negotiations should be continued with the Commissioners in order to have the six cardinal principles set down in the Regulations or in an amending Act. We need scarcely remind you that the six cardinal principles are an income limit, freedom of choice, adequate remuneration (the demand is 8s. 6d.), freedom from friendly society control, adequate representation on governing bodies, and freedom for each area to adopt capitation or payment by attendance.

In the event of the British Medical Association arriving at an agreement with the Commissioners, there are many things that must be determined locally, for example, formation of a panel, dispensing by chemists or doctors, maternity benefits, etc. In the event of these negotiations breaking down, our position must be seriously considered. If we refuse to work under the Act three courses are open to the Government: (1) To delete medical benefits from the Act, (2) to hand over to the insured the money contributed for medical attendance, (3) to appoint whole-time medical officers for each district. The first course is very improbable as it would be likely to meet with strong opposition from all parts of the House. As to the second, were the money handed over to the insured and not earmarked with definite restrictions for providing medical attendance, the position in some districts would probably not be altered, but in most it would undoubtedly lead to an increase of contract practice in its most objectionable forms. The third course, we may take it, would be strenuously opposed by practically every medical man.

You are aware that not a few medical men are at present advocating the formation of a medical service apart from the Act. The objections to this seem to be that though this proposal has been for a number of years before the profession, it has not succeeded except to a limited extent in a few provincial towns. Further, there would be no compulsion on any one to avail himself of this medical service, and as there would be no

contribution from the employer and the State, we would be deprived of the strongest argument for increased remuneration.

The inquiry which the Council in London has sent down and to which they await our reply is: Are we so united in this area that our Representatives can absolutely rely on us in backing them up so that they can continue to fight for the six cardinal principles? Further, in the event of negotiations breaking down, can they rely on us making a united and determined effort to secure these principles apart from the Act? The question which your Committee has at present under special consideration is: Are those holding contract appointments prepared, if called upon, to give in their resignations in order to secure higher remuneration, and are those not holding appointments prepared to refuse acceptance of any that have been vacated? For the purpose of this inquiry contract practice is to be understood as agreement to attend at a fixed rate insured persons who are members of friendly societies, slate clubs, dispensaries, etc. Your Committee desires it to be understood that the questions enclosed do not apply to appointments where the amount paid is at or above 8s. 6d. per annum.

Whatever decision may be arrived at, it may not affect you personally. None the less do we regard it as the duty of every medical man at this crisis to stand by, it may be, his less fortunate neighbours, and to take an active part in raising the status and emoluments of the profession, thereby improving the health and well-being of the nation at large.

Your reply to the enclosed questions within the next four days to be sent, marked "Private," to Dr. Annis (Chairman of the Committee), Borough Hall, Royal Hill, Greenwich, is urgently requested.

The following are the questions enclosed:

1. Are you engaged in contract practice work?
2. If so, what is approximately the total number of members whom you are liable to be called upon to attend? (Replies will be tabulated under a letter or number and not under the name of any medical man.)
3. Should the necessity arise, are you prepared, if called upon, to hand in your resignation and cease doing contract work in order that the demands of the profession may be secured?
4. Are you prepared to refuse acceptance of any appointments or contract practice thus vacated?
5. If you are not already a member of the British Medical Association, are you agreeable that your name should now be proposed for membership?
6. If you have not already done so, are you willing to guarantee a certain sum (if so, how much) to meet expenses and indemnify any who may incur loss through the operations of the Insurance Act?

REGULATIONS OF THE JOINT COMMITTEE.

Further regulations of the Joint Committee of Insurance Commissioners dealing with a separate section established by a society for the purposes of Part I of the Act and with the constitution of an unregistered society, have been issued. The rules set out the points upon which a section or unregistered society must make regulations; among these is the manner of admission and expulsion of members.

CANVASSING BY FRIENDLY SOCIETIES.

Many correspondents in different parts of the country have informed us, and the fact seems to be commonly admitted, that some at least of the friendly societies are making an active canvass to increase their membership at the present time. A recent instance is afforded by a lodge of the Manchester Unity of Oddfellows, which has its head quarters at a tavern in the south of London. The officials are issuing circulars broadcast, addressed "to the occupier" and marked "State Insurance." One of the circulars states that "no initiation fees are now charged"; the other circular shows that the entrance fee in normal times was 2s. 6d., and "the committee strongly urge eligible persons to at once become members. Although the National Insurance Act becomes operative in July next, it must be noted that no person will be entitled to benefits from the State scheme until the Act has been in operation for six months." A further inducement is disclosed in the words "medical examination free," and the name of the lodge surgeon appears in more than one place. Such publicity is, we have reason to believe, very distasteful to this gentleman, but we cannot suppose him to be the only sufferer, and the extensive canvassing by friendly society lodges which it appears is now going on in many districts raises a question which, from several points of view, seems to call for the attention of the profession. It cannot, of course, object to friendly society lodges endeavouring to increase their membership, but it may well protest against the medical services and the name of the lodge surgeon being used as baits to attract new members by a close house-to-house canvass.

The correspondent who sent us particulars of the case in the South of London writes to suggest "that every medical officer to a club should write to the club secretary pointing out that it is against professional usage for the doctor's name to appear on any circular issued to any non-member of such club and stating that it must not be done."

The profession will also take note of the indiscriminate admission of new members without any medical examination—a relaxation of their former rules which certain friendly societies have sanctioned in view, apparently, of the financial advantages and reliefs they expect to derive from the insurance scheme. The effect must be to favour the admission of persons of unsound constitution and more prone to disease and sickness than the average of former members. This policy must inevitably tend to increase the number of calls made upon the medical profession should they consent to serve under the insurance scheme—an increase which must be met by an increase in the funds out of which medical services would be remunerated.

COMBINATION OF INDUSTRIAL INSURANCE COMPANIES.

The proposal to form a combination among insurance companies and societies doing industrial business, for the purpose of working the National Insurance Act, has been revived, and it is stated that the following offices have definitely promised to support the scheme, and that others will probably join: The Pearl Life Assurance, Hearts of Oak Life and General Assurance, Refuge Assurance, City Life Assurance, British Legal and United Provident, Pioneer Life, Britannic, London and Manchester Industrial Assurance, and the Albion Friendly Society. The offices do not expect to make any profit by working the Insurance Act, whether in combination or separately, but it is thought that combination will favour economy. It is also thought that it would be easier for the amalgamated society to institute a strict system of inspection to prevent malingering.

A SCHEME OF MEDICAL BENEFIT.

SUGGESTED BY

DR. L. J. PICTON.

We have received from Dr. Picton of Holmes Chapel a long article embodying a scheme for medical benefit which he has devised. The following is a summary which Dr. Picton has provided:

Doctors have unanimously stated the lowest terms on which they will accept service.

They do not thereby endorse the medical provisions contemplated by the framers of the Act.

They still think the Act, as interpreted by its framers, unwise, inefficient, and unscientific, because:

1. It substitutes and establishes Contract Practice in the place of Private Practice.
   (This will reduce efficiency and encourage malingering.)
2. The families of the insured are not included.

Private Practice has hitherto afforded the most acceptable, workable, and efficient relation between Doctor and Patient.

The Essential Features of Private Practice.

Are they:

1. Desirable?
2. If, and in so far as, desirable, *attainable* under any system of Insurance?

I. *Free Choice of Doctor from the whole Medical Register, subject to the consent of the Doctor in each case.*

Is this desirable? Clearly.

Attainable? Yes—for example, free choice in this full sense is at present attained under the rules of

the National Deposit Friendly Society, and other Societies.

N.B.—The "free choice" clause in "the six cardinal points" does not attain this, being:

(*a*) Limited to the Panels. "Better class" practices have some humble patients. Doctors holding such practices would mostly decline to go on the Panels.

(*b*) Limited as to changing doctors. If doctors are to be paid by annual capitation fees, clearly patients can only change their doctors at stated intervals.

II. *Payment for Work Done.*

Is this desirable? This has been fully argued in the columns of the medical journals. The only arguments against it appear to be:

1. That it involves book-keeping. A simple system should meet this objection.
2. That it renders estimation of cost difficult, as the amount of attendance required must be uncertain. —The reply to this is that the same argument applies with greater force to the doctor who gives the attendance. A conscientious doctor supplying attendance and medicine on contract might clearly be ruined by an epidemic. Contract terms imply the underwriting of the health of the nation by individuals. Medical attendance on these terms must often be either ruinous or rotten.

Attainable? Yes, *on a standard tariff*. For example, coastguards, Post Office "wiremen," Ordnance Survey officials, National Deposit Friendly Society, etc., are thus attended.

N.B.—This was accepted by the British Medical Association Representative Meeting and referred to their State Sickness Insurance Committee; but only as an alternative to capitation payment. In any event it ought to be demanded that it shall be a real alternative, that is, open to individual practitioners generally, and not limited, as foreshadowed by Mr. Lloyd George, to selected areas.

III. *Patient Himself Responsible for Payment.*

Is this desirable?

1. In so far as it creates a sense of responsibility, makes services valued, and stops malingering.—Yes.
2. In so far as it acts as a deterrent to patients getting early and thorough treatment.—No.

A patient will often say: "I did not want to begin doctoring because I was afraid of a big bill." That is, he does not grudge paying a sum moderate in proportion to his means, but he dreads an uncertain and heavy liability.

If a system were devised which fixed his maximum liability at a sum proportionate to his wages, and well within his power to pay, the valuable portion of this feature of Private Practice would be retained, and the hardship and deterrent effect avoided.

There would not, however, be the remotest chance that club members would surrender their existing right to free medical attendance for such a system.

But if their wives and families were included in medical benefit on the same footing, the proposal would, in all probability be acceptable.

The inclusion of the married women and children in medical benefit is obviously the first and most essential step towards realizing the primary objects of the Act, the Prevention and Cure of Sickness. Early and antenatal influences are in matters of health much more potent than those at work later in life.

OUTLINE OF SCHEME EMBODYING THESE PRINCIPLES.

I. Inclusion of wives and families and other dependants of the Insured in Medical Benefit.

N.B.—The expression "dependents" in relation to any person includes such persons as the Approved Society or Insurance Committee shall ascertain to be wholly, or in part, dependent upon his earnings.

II. Free choice of any Doctor from the *Medical Register*, subject to the consent of the Doctor in each case.

III. Doctors to be paid according to a Standard Tariff.

N.B.—Say 2s. 6d. a visit, medicines extra, mileage extra, and other extras—for example, as per list proposed by the Kensington Division of the British Medical Association and accepted by Representative Meeting.

IV. Doctors to render accounts on "Fortnightly Returns," similar to those now used by Poor Law Medical Officers.

N.B.—"H" = visit to House. "S" = seen at Surgery. Extras also to be indicated. Thus every "H" would represent 2s. 6d. to the doctor's credit, and so on. *No further book-keeping would be needed.*

V. Doctors to be paid quarterly by the Insurance Committees.

VI. Insurance Committees to charge each Insured Person, who, or whose family has received Medical Benefit, the cost of that benefit up to a maximum equivalent to two week's wages, in one year.

N.B.—Proposed Methods of Recovery of cost of Medical Benefit (below the annual two-weeks wage limit) by the Insurance Committee from the Insured person:

(*a*) When the Insured person is a *ratepayer*—either (1) by a Demand Note presented on January 1st, amount to be payable in four quarterly instalments; or (2) at option of Insured, as under (*b*).

(*b*) When the Insured person is *not* a *ratepayer*.—By requiring the Insured person on effecting Insurance to create a reserve or savings bank fund equal in amount to nine-tenths of his maximum liability (two weeks' wages). The Insurance Committee to have the right to draw on this reserve in case of the Insured or his family receiving Medical Benefit.

Methods of Creating the Reserve.—(1) By paying the sum down; (2) by paying it in four quarterly payments; (3) by the employer deducting one-fifty-second part of the sum from each week's wages until the required amount is reached.

If the reserve have been drawn upon, the Insured to be obliged to bring it up to the required amount, if at work, by one of the above methods.

Thus (i) The cost of the shorter and slighter illness would be borne by the Insured, whilst the bulk of the cost of the longer and severer illnesses would fall on the Insurance Funds.

(ii) Before the two-weeks wage limit was reached, there would be no incentive to malinger, and patients would not encourage or accept excessive attendance on the part of the Doctor.

(iii) *Difficulties:*

(*a*) Malingering
(*b*) Excessive attendance
(*c*) Excessive demands for attendance by patients

} after the two-weeks wage limit had been exceeded.

(*d*) Provision for consultations.
(*e*) Provision for special forms of treatment.
(*f*) Inspection, necessary under any Insurance Scheme.

To deal with all these difficulties, the formation of a special body is proposed, namely:

VII. DISTRICT MEDICAL STAFF—

1. To be formed in each Insurance Area.
2. To consist of a body of consultants similar to the staff of a large General Hospital.
3. To be appointed by the Insurance Commissioners.
4. To be paid by the Commissioners a retaining fee and a fee per case.
5. The services of a member of the District Medical Staff to be available only on the request of a general practitioner—

either (*a*) of the latter's own motion—

(i) because the case was difficult and he desired the opinion of a consultant; or

(ii) because he thought the patient was malingering; or

(iii) making excessive and unreasonable claims for attendance.

or (*b*) on the initiative of the patient, because he desired a second opinion.

N.B.—This privilege would obviate many of the occasions on which one doctor is asked to supersede another on unreasonable and trivial grounds.

or (*c*) at the request of the Insurance Committee if excessive attendance were suspected, etc.

N.B.—This should be in practice a rarely-used function of the Staff. The following *Detail of Procedure* would make it seldom necessary to use it:

Every fortnight an official of the Insurance Committee (having received the fortnightly returns) would send a form to each practitioner containing a list of the names of those of his patients whose two-weeks-wage limit had been exceeded.

The doctor would then enter opposite the names the nature of the complaints, and post the form to the Medical Secretary of the District Medical Staff.

Thus professional information would be retained in a professional channel.

The mere statement of the nature of the illnesses to a medical man would at once, in many cases, show whether the length or frequency of attendance were likely to be excessive.

Where there was a grave doubt, the Medical Secretary would convey to the doctor a request for a consultation. The doctor would then select a consultant from the Staff, Physician, Surgeon, Gynaecologist, Aural Surgeon, etc., as the case might require, and, moreover, a man acceptable to him personally. As all the consultants would be State servants, directly paid by the Commissioners, this would not vitiate their impartiality. After the consultation, the consultant would report to the proper authority. In a grave disciplinary matter the proper authority should probably be the medical members of the General Medical Council.

As a rule, the knowledge of the local profession possessed by the Medical Secretary of the District Medical Staff, and by the Staff themselves to whom he could refer, would obviate the necessity of purely disciplinary consultations.

6. Thus the members of the Staff, whilst acting in the valuable capacity of consultants, would, without friction or irritation, or further expense, fulfil the necessary function of inspection.

7. If and where the services of hospitals, etc., are, or in future become, inadequate for patients needing operations and special forms of treatment, the District Medical Staff could undertake to supplement the deficient provision. The assistance of a department of the Staff concerned with laboratory investigations should also be available to general practitioners.

This scheme could be carried out by Regulations of the Commissioners, at any rate as an alternative form of medical benefit, under the terms of the present Act. The following clauses would especially apply—

Clause 78—"Power to Remove Difficulties."

Fourth Schedule, Part II—"Additional Benefits." (Medical treatment and attendance for dependents.)

Clause 17—(Power to extend Sanatorium Benefits to dependents.)

Clause 13—"Administration of Medical Benefit," especially Sections (2) and (3).

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* Journal.]

BIRMINGHAM BRANCH:

Central Division.

A well-attended meeting of all practitioners within the area of the Central Division was held at the Midland Institute, Birmingham, on Wednesday, April 17th.

Provisional Medical Committee.—The following were duly elected to form a Provisional Medical Committee: Drs. Alldridge, Stanley Barnes, Best, Boeddicker, Crabbe, Donovan (South Yardley), Feast, Featherstone, Greenwood, Knott, Hadley (General Dispensary), Hill (Acock's Green), C. J. B. Johnson, G. St. Johnston, Lilley, L. G. Mackey, Middleton, Osborne, Pollard, Revely, Salt, Sawyer, Sproat, Trumper, Harold White, Wilkes, Lydall, Frew, Dain, Burges, C. B. Dale, Lee Strathy, Whichello, Ratcliff, Nash, Sangster, Kirby, Line, Mary Sturge, Thomas Wilson, and Garbutt; Messrs. Gilbert Barling, Frank Barnes, Gamgee, Lucas, Marsh, B. J. Ward, J. Furneaux Jordan, Heaton, and Nuthall, with, as *ex officio* members, the three Representatives for the Central Division—Dr. Neal, Douglas Stanley, and Whaite. The Committee was given the power to fill up vacancies, and to co-opt not more than three additional members. It was also resolved that the Branch Council should be recognized as the co-ordinating body

DORSET AND WEST HANTS BRANCH:

West Dorset Division.

The annual meeting of this Division was held at the County Hospital, Dorchester, on April 17th, Mr. G. C. J. Flower in the chair. There was a good attendance of members and non-members.

Election of Officers.—The following officers were elected for the ensuing year: *Chairman*, Dr. W. C. Spooner; *Vice-Chairman*, Dr. W. E. Good; *Honorary Secretary*, Dr. T. MacCarthy; *Representative*, Dr. D. Curme; *Representatives on Branch Council*, Drs. H. R. Unwin, G. G. Morrice, W. C. Spooner, W. E. Gow, C. Edwards; *Executive Committee*, Drs. Curme, Cosens, Edwards, Good, Kitson, Marsh, Manning, Morgan, MacCarthy, Spooner, Unwin, Whittingdale.

Provisional Medical Committee.—A Provisional Medical Committee was arranged for, to consist of twenty-one members at least, seven of whom are to be members of the Association. With regard to Memoranda D 46 and D 48, relating to the election and duties of the Provisional Medical Committee, the meeting considered that it was absolutely necessary that copies of these should be in the hands of the members of the profession in order to study them, as it was impossible to gather their full import from merely hearing them read at a meeting.

The Association and the Insurance Commissioners.—It was unanimously resolved that the Council be asked to insist on an answer, without delay, to the ultimatum sent to the National Insurance Commissioners last February, that it must be given not later than May 1st, and that in the event of its being unfavourable the profession must be in a position to initiate its own public medical service at once. It was felt that time was going on, and they would be in a tangle, especially in the matter of club appointments.

Friendly Societies and the Profession.—The Honorary Secretary was asked to ascertain, without delay, from head quarters what was the position of friendly society doctors in July, when the Act came into force, with reference to new members joining the clubs after that date.

Public Medical Service.—It was resolved that the Provisional Medical Committee should consider at its first meeting the memorandum for a public medical service drawn up by the Leicester and Rutland Division, and that a meeting of the Division be called at as early a date as possible at which this scheme was to be discussed with a view to adopting it in the Division. The feeling was that they must move more quickly than they had been doing.

GLOUCESTERSHIRE BRANCH.

A general meeting was held at the Stroud Hospital on April 18th at 7 p.m., the President in the chair and thirty-two members present.

Paper.—Mr. G. A. Peake introduced Professor J. Michell Clarke, Pro-Vice-Chancellor of Bristol University and Chairman of the Faculty of Medicine, who gave a paper on Haemorrhage from the Stomach. A discussion followed, in which the President, Dr. Wayland Ancrum, Dr. Carter, Dr. Finlay, Dr. T. Holmes, Dr. Collins, Mr. Firmin Cuthbert, and Dr. Affleck took part.

Vote of Thanks.—Professor Michell Clarke was heartily thanked for his address, and he replied.

Dinner.—Members dined after the meeting at the Imperial Hotel, Stroud.

LANCASHIRE AND CHESHIRE BRANCH:

Liverpool Division.

A mass meeting of the members of the medical profession resident in the Liverpool Divisional area was held at the Medical Institution, Liverpool, on Tuesday, April 16th, 1912. Dr. N. P. Marsh, Chairman of the Division, was in the chair; there was upwards of 135 present.

National Insurance Act.

Formation of Provisional Local Medical Committee.

The Chairman, in his opening remarks, pointed out that the meeting had been summoned to form a representative Provisional Local Medical Committee in the Liverpool area; he appealed for unity, and said that such a committee was necessary whether the Act was worked by the profession or not.

Sir JAMES BARR, in proposing the first resolution on the agenda, pointed out that the British Medical Association was the only organized body of the medical profession, and urged all to join.

Dr. J. C. M. GIVEN, in seconding, detailed the machinery of the Association and drew attention to the fact that the Provisional Local Medical Committee would be representative of the whole profession, and he concluded by asking the question, "Where would the profession have been had not the Association been in existence?"

Dr. BARNES supported.

It was therefore resolved:

That this meeting of the medical profession, in pursuance of a resolution passed at the Special Representative Meeting, February, 1912, considers it advisable to form a Provisional Local Medical Committee in the Liverpool Division area to safeguard the interests of the profession.

The second resolution on the agenda was moved by Dr. BUSHBY, who pointed out that this committee might become the Local Defence Committee; he urged that this committee should be representative.

Dr. O'SULLIVAN, in supporting, regretted there were so many non-members of the Association resident in the Liverpool area; he said the work of this committee would be very wide and should have the confidence of the whole profession.

Dr. RENTOUL expressed pleasure that it was proposed to appoint this committee, and moved an amendment that the number of the executive should be twenty. But it was resolved:

That the Provisional Local Medical Committee shall consist of forty members; twenty-five being members of the Executive Committee of the Liverpool Division, five members of the Liverpool Division not being members of the Executive Committee, and ten non-members of the British Medical Association resident in the area of the Liverpool Division.

The following rider relating to the composition of the Provisional Local Medical Committee was also carried:

That the Provisional Local Medical Committee, elected this day at a general meeting of the medical profession of the Liverpool Divisional area, shall remain in office for a period of one year. At the expiration of this period a fresh committee shall be appointed at a general meeting of the local profession, and the constitution of the committee shall be subject to revision, former members being open to re-election. Vacancies occurring meantime shall be filled as follows:

1. In the case of a vacancy occurring amongst those members elected in virtue of their being members of the Executive Committee of the Liverpool Division of the British Medical Association, the vacancy shall be filled by the member elected to take his place on the Executive Committee.

2. In the case of a vacancy occurring among those members chosen from the general body of medical practitioners, the vacancy shall be filled by election by the existing Local Provisional Committee in accordance with the constitution decided on at this meeting.

That in the event of a member elected at this meeting in virtue of being a non-member of the British Medical Association becoming subsequently a member such membership shall not invalidate his election.

That the members elected in virtue of being members of the present Executive Committee of the Liverpool Division of the British Medical Association shall continue to be members for the period of two years and shall not be disqualified by the fact of their subsequently ceasing to be members of the Executive Committee.

Following upon this, the names of the twenty-five members of the Executive Committee elected to serve on the Provisional Local Medical Committee were as follows: Dr. N. P. Marsh (Chairman of the Division), Dr. H. Harvey (Vice-Chairman), Dr. J. J. Tisdall (ex-Chairman), Dr. Francis W. Bailey (Secretary of the Division), Dr. T. Bushby (Representative on Representative Body), Dr. W. T. Prout (Representative Body), Dr. R. I. Richardson (Representative Body), Dr. H. Waters (Representative Body), Dr. J. E. O'Sullivan (Representative-elect), Dr. F. H. Barendt (Representative on Branch Council), Dr. W. B. Bennett (Representative on Branch Council), Dr. C. G. Lee (Representative on Branch Council), Dr. J. Dunn (Bootle Ward), Dr. J. Walker (Bootle Ward), Dr. T. R. Bradshaw (Central Ward), Dr. J. F. S. Heaney (Central Ward), Dr. O. Bowen (Northern Ward), Dr. E. T. Davies (Northern Ward), Dr. J. C. M. Given (Southern Ward), Dr. A. S. Parkinson (Southern Ward), Dr. Grossmann (Western Ward), Dr. Stookes (Western Ward), Sir James Barr (co-opted member), Mr. F. Charles Larkin (co-opted member), Professor B. Moore (co-opted member).

The names of the five ordinary members of the Association were: Miss Ivens, Dr. Moyles, Dr. Murray Cairns, Dr. Llewellyn Morgan, Dr. R. R. Rentoul.

The names of the ten non-members of the Association were: Dr. C. Hayward, Dr. Sugden, Dr. T. M. Wilson, Dr. Gordon Little, Dr. Pinder, Dr. W. T. Thomson, Dr. W. G. Williams, Dr. Belcher, Dr. Dudgeon, Dr. O. E. Limerick.

The SECRETARY OF THE DIVISION (Dr. Francis W. Bailey), in accordance with Memorandum D 46, pointed out that the work of the committee would be—

(*a*) To forthwith organize the medical profession in the Liverpool Division with regard to contract work under the Insurance Act.
(*b*) To make strong efforts to obtain additional members of the Association to help in bearing the responsibility of the campaign.
(*c*) To complete a local list of contract practice doctors.
(*d*) To arrange for an individual canvass of the local profession in regard to local campaign.
(*e*) To agree to recognize the Council of the Branch as the co-ordinating body.

The first meeting of the Liverpool Provisional Local Medical Committee has been summoned for Friday, April 26th.

METROPOLITAN COUNTIES BRANCH.

HAMPSTEAD DIVISION.

A MEETING of the members of the medical profession resident in the borough of Hampstead was held at the Hall of the Blind School, Swiss Cottage, N.W., on Friday, April 19th, at 8.30 p.m.

Provisional Medical Committee.—The purpose of the meeting was to appoint a Provisional Medical Committee to watch the interests of the profession under the National Insurance Act in the district. Dr. OAKLEY was in the chair. The following had been nominated to serve on the Committee: Drs. C. W. Allen, J. Ford Anderson, S. L. Archer, Peyton Baly, E. Alice Brown, Mina L. Dobbie, E. A. Dorrell, George Elam, C. J. R. MacFadden, A. E. Mason, G. F. McCleary, Evelyn Milestone, Adam Oakley, H. Oppenheimer, A. W. K. Picard, H. A. Sansom, F. E. Scrase, E. Claude Taylor, A. Hugh Thompson, and E. E. Ware. No further nominations had been received, but Drs. M. L. Dobbie, G. Elam, F. E. Scrase, and E. E. Ware had intimated their intention not to serve on the Committee. It was proposed by Dr. OPPENHEIMER and seconded by Dr. PICKARD:

That the Committee shall consist of twenty members, with power to co-opt.

This was carried *nemine contradicente*. The following were then nominated; Dr. E. L. Pritchard by Drs. PICKARD and OPPENHEIMER, Dr. E. Jessop by Drs. OPPENHEIMER and FORD ANDERSON, Dr. L. Barnett by Drs. FORD ANDERSON and PICKARD, and Dr. W. Hills by Mr. ARMIT and Dr. ARCHER. It was proposed by Mr. ARMIT and seconded by Dr. OAKLEY:

That, in the event of those nominated failing to serve, the Committee have power to elect up to the number twenty, independently of co-option.

This was carried *nemine contradicente*. The following were then proposed by the CHAIRMAN to serve on the Committee, and were elected unanimously: Drs. C. W. Allen, J. Ford Anderson, S. L. Archer, Peyton Baly, L. Barnett, E. Alice Brown, E. A. Dorrell, W. Hills, E. Jessop, C. J. R. MacFadden, G. F. McCleary, A. E. Mason, Evelyn Milestone, Adam Oakley, H. Oppenheimer, A. W. K. Picard, E. L. Pritchard, H. A. Sansom, E. Claude Taylor, A. Hugh Thompson. It was proposed by Dr. OPPENHEIMER and seconded by Dr. OAKLEY:

That Mr. Dorrell be the convener of the first meeting of the Committee.

Vote of Thanks.—A vote of thanks to the Chairman terminated the meeting.

HARROW DIVISION.

A SPECIAL meeting, to which every practitioner residing within the area of the Division was invited, was held in the Gayton Rooms, Harrow, on Thursday, April 18th. Dr. A. H. WILLIAMS was in the chair, and the following

practitioners were present: Drs. Barton, Bluett, Burr, Darby, Davies, Dyson, Goddard, Harley, Hatch, Hildige, Hinds Howell, Humphry, Huston, McIntosh, Martin, Matheson, Moxon, and Pennefather.

Confirmation of Minutes.—The minutes of the last meeting held on March 14th, having been printed in the British Medical Journal Supplement of March 23rd, were taken as read and confirmed.

Report of Branch Organization Committee. — The Honorary Secretary (Dr. C. M. Pennefather) read a letter from the Secretary of the Central Organization Committee containing proposals for the reorganization of the area of the Division and requesting the opinion of the Division thereon; he also stated that the Organization Committee reported that the canvass of the medical practitioners resident in Wembley showed a majority in favour of the attachment of the district to the Harrow Division. Dr. Bluett proposed and Dr. Barton seconded, and it was carried *nemine contradicente*:

> That the Harrow Division approves the proposals of the Organization Committee as affecting the area of this Division, and also notes with approval that the canvass of the medical practitioners resident in Wembley has shown a majority in favour of the attachment of the district to the Harrow Division.

Memorandum from State Sickness Insurance Committee. —A condensed summary of the memorandum was read and the duties of a Provincial Medical Committee explained.

Provisional Medical Committee. — Dr. Pennefather stated that the Executive Committee of the Division, acting on advice from the State Sickness Insurance Committee of the British Medical Association, make the following suggestions with regard to the formation of this Committee:

1. That the committee be composed of medical practitioners representing each district within the Division, in numbers proportionate to the practitioners residing in such district.
2. That the Chairman, Honorary Secretary, and Representative of the Division be *ex officio* members.
3. That the representation of the various districts on this committee should be:

Harrow and Wealdstone,	with	41	practitioners,	8	members
Pinner,	,,	15	,,	3	,,
Northwood,	,,	12	,,	2	,,
Hendon Rural District	,,	3	,,	1	,,
Uxbridge Urban and Rural Districts,	,,	10	,,	2	,,
Wembley Urban District,	,,	12	,,	2	,,

The Executive Committee have nominated the following candidates: *Harrow and Wealdstone:* B. H. Barton, R. P. N. Bluett, G. H. Butler, Mrs. Brady, G. M. Edwards, H. R. Harley, H. S. W. Jones, S. H. A. Lambert. *Pinner:* H. L. Hatch, H. J. Hildige, T. S. McIntosh. *Northwood:* O. Hildesheim, R. E. Humphry. *Hendon Rural District:* R. L. Romer. *Wembley Urban District:* W. E. Dyson, R. H. Martin. *Uxbridge Urban and Rural Districts:* Members to be elected by practitioners in this district if and when it is attached to the Harrow Division. The meeting unanimously decided to adopt the recommendation of the Executive Committee, and, as no further nominations had been received, it was proposed from the chair that the above sixteen be elected to form a Provisional Medical Committee, together with two other members to be elected by the practitioners residing within the Uxbridge Urban and Rural Districts. Carried *nemine contradicente.*

Formation of a School Clinic.—A letter from the Honorary Secretary of the Harrow Elementary Schools Clinic Committee was read, asking the local branch of the Division to meet this committee to discuss the possibility of forming a school clinic. Dr. Pennefather proposed, and Dr. Hatch seconded, and it was carried:

> That the Representatives of Harrow, Wealdstone, and Wembley on the Provisional Medical Committee should accept the invitation to meet the members of the Harrow Elementary Schools Clinic Committee.

Paper.—After an interval for coffee, the Chairman introduced Dr. C. M. Hinds Howell, who read a most interesting paper on the "Significance of Motor and Sensory Disturbances in the Diagnosis of Nervous Disease." The paper was illustrated by numerous excellent lantern slides.

Vote of Thanks.—A most hearty vote of thanks to Dr. Hinds Howell for his paper, and also to Mr. S. Gardner, who kindly lent the magic lantern, terminated the evening.

MIDLAND BRANCH:

Leicester and Rutland Division.

A meeting of the medical practitioners of Leicestershire and Rutland was held at the Association Hall, Leicester, on Friday, April 12th, at 4 o'clock. Dr. Tibbles was in the chair, and 120 members and non-members of the British Medical Association were present.

Public Medical Service.—The business of the meeting was the discussion of a scheme for a Public Medical Service for Leicestershire and Rutland which had been prepared and circulated by the Executive Committee of the Division. The subject was introduced by the Chairman, after which the Honorary Secretary (Dr. Wallace Henry) explained the scheme in detail, answering various criticisms which had been sent in beforehand and explaining various difficulties. In the discussion which followed the following took part: Drs. Coleman, Peake, Duke, Ridley, Burkitt, Bedford, Cosens, Martin, Gibbons. Dr. Tibbles proposed, and Dr. Astley Clarke seconded, the adoption of the scheme. This was carried unanimously. Dr. Wallace Henry proposed, and Dr. Ballard seconded:

> That the Central Committee to be elected to carry out the Public Medical Service be the Provisional Medical Committee for the district.

This was carried unanimously.

SOUTH-EASTERN BRANCH:

Guildford Division.

A mass meeting of medical practitioners residing in the area of the Guildford Division was held at the Royal Surrey County Hospital on Friday, April 19th. The chair was taken by Dr. Kingsford, and there were thirty-two present.

The late Dr. Morshead.—Before commencing the business of the meeting the Chairman referred to the recent death of the late Dr. Morshead, and a resoluting expressing the heartfelt sorrow at the loss the profession had sustained was unanimously agreed to.

Formation of a Provisional Medical Committee.—The agenda contained various recommendations of the Executive Committee of the Guildford Division in regard to the formation of a Provisional Medical Committee. These were all placed before the meeting, and carried unanimously as follows:

> Resolution I.—That a Provisional Medical Committee for the area of the Division be appointed in accordance with Minute 63 of the Special Representative Meeting of February, 1912.
>
> Resolution II.—That this Committee consist of fourteen members (including the Secretary of the Guildford Division *ex officio*), and be empowered to co-opt two additional members; That Guildford be represented by three members, Woking and District by three, Godalming and District by two, Leatherhead by two, Farnham by one, Haslemere by one, and Cranleigh by one; and that it shall not be essential for members of this Committee to belong to the Association.
>
> Resolution III.—That the work of the Provisional Medical Committee shall be the organization of the local profession in order to safeguard its interests in whatever contingency may happen, whether in connexion with or independent of the Natural Insurance Act.

The members of the committee were then elected as follows: Drs. Mitchell, Levick, and Wilcockson for Guildford; Drs. B. Thorne-Thorne, Pearse, and Kingsford for Woking and district; Drs. Kendall and Bond for Godalming; Dr. Willis for Cranleigh; Drs. Pain and Gaskell for Leatherhead; Dr. Sloman for Farnham; Dr. Lyndon for Haslemere; The Secretary of the Guildford Division of the British Medical Association, *ex officio.*

Epsom Scheme of Medical Service.—The Epsom Scheme for Medical Service was then discussed, and Dr. Lyndon proposed and Dr. Mitchell seconded:

> That the Secretary write to the British Medical Association asking for the Association's scheme and inquiring whether it compares favourably with the Epsom one.

Vote of Thanks.—The meeting concluded with a vote of thanks to the hospital authorities for their kind hospitality.

Reigate Division.

A special meeting of this Division was held at the White Hart Hotel, Reigate, on April 16th, at 4.30 p.m. Dr. Hewetson, Chairman, and eighteen other members were present.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Provisional Medical Committee.—The following recommendations of the Executive Committee were submitted to the meeting, and were carried unanimously:

That a Provisional Medical Committee be formed.
That the committee consist of fifteen members.
That for the purposes of this election the Division be divided into four districts, namely:
1. Reigate and Redhill.
2. Dorking and District.
3. Horley and District.
4. Bletchingly and District.

That Reigate and Redhill elect six members, and the other districts three members each.

Vote of Thanks.—The meeting terminated with a vote of thanks to the Chairman.

YORKSHIRE BRANCH:

Barnsley and District Division.

A meeting of this Division was held at the Queen's Hotel, Barnsley, April 19th. There were present: Drs. Townsley, Castle, Harvey, Knowles, Gardner, Rowley, Hatherley, Beverley, Barr, Allott, Holroyde, Abbott, White, Howell, Houlton, Wiltshire, Wallis, Sweetnam, H. F. Horne.

Confirmation of Minutes.—The minutes of the last meeting were read and signed.

Provisional Medical Committees.—A letter from Dr. Cox was read regarding the formation of Provisional Medical Committees, and also the circular D 46 on that subject. Arrangements were made for personally canvassing the non-members resident in the Division, which is a very scattered one. The Provisional Medical Committee was elected as follows:—Executive Committee: Drs. Townsley, J. F. Horne, Burman, Sadler, Allott, Harvey, White, Wallis, H. F. Horne. The following were also elected: Drs. Wiltshire (Hemsworth), Gardner (Mexborough), Abbott (Elsecar), Castle (representing colliery medical men), and Eskrigge (non-members). A notice from the Great Central Railway and Joint Lines Friendly Society to Dr. Abbott was read, and also a communication from the Medical Secretary on the matter. Also a communication from the medical officers of that society.

Colliery and Works Medical Men.—Dr. Castle read the following letter *re* colliery and works medical men from the Chancellor of the Exchequer:

Treasury Chambers,
Whitehall, S.W.,
February 24th, 1912.

Dear Sir,

In reply to your letter of the 13th instant, I am desired by the Chancellor of the Exchequer to refer you to subsections (3) and (4) of Section 15 of the National Insurance Act, under which special arrangements to avoid any unnecessary interference with existing conditions may be made with the consent of the interested parties. These provisions were inserted in the Act to meet amongst other difficulties the case of colliery practices and works' practices generally.

I am to add that if the colliery doctors will place a careful statement of their position before the Insurance Commissioners, the Chancellor of the Exchequer does not doubt that arrangements can be made which will meet every reasonable demand.

Yours faithfully,
(Signed) H. P. Hamilton.

Dr. R. I. Castle, M.B.

Dr. Townsley proposed, Dr. Knowles seconded, and the resolution was carried unanimously:

That the letter be sent up to the Acting Medical Secretary for his guidance and comment.

A list of periodical publications, official reports, and Blue Books in the Library of the British Medical Association available for issue to members on loan has been printed, and copies can be obtained free on application to the Librarian, at the house of the Association, 429, Strand, W.C. The regulations governing the loan of these publications are stated in the introduction to the list.

The Library is open for consultation from 10 a.m. till 5 p.m. (on Saturdays till 2 p.m.).

British Medical Association.

EIGHTIETH ANNUAL MEETING, LIVERPOOL, JULY, 1912.

President: Professor Robert Saundby, M.D., LL.D., F.R.C.P., Professor of Medicine, University of Birmingham, and Physician, Birmingham General Hospital.

President-elect: Sir James Barr, M.D., LL.D., F.R.C.P., Consulting Physician, Royal Infirmary, Liverpool.

Chairman of Representative Meetings: Ewen John Maclean, M.D., Gynaecologist, Cardiff Infirmary.

Chairman of Council: James Alexander Macdonald, M.D., LL.D., M.Ch., R.U.I., Honorary Physician, Taunton and Somerset Hospital, Taunton.

Treasurer: Edwin Rayner, M.D.Lond., F.R.C.S., Consulting Surgeon, Stockport Infirmary, Stockport.

THE SECTIONS.

The following additional information has been received:

ANATOMY.

President: William Wright, M.B., D.Sc., F.R.C.S., London Hospital Medical School.

Vice-Presidents: Douglas Douglas-Crawford, M.B., F.R.C.S., Liverpool; Professor Auckland Campbell Geddes, M.D., Dublin; Professor Grafton Elliot Smith, M.A., M.D., F.R.S., Manchester; Alexander Macphail, M.B., C.M., London.

Honorary Secretaries: Wm. Percy Gowland, M.D., 379, Edge Lane, Liverpool; Samuel Ernest Whitnall, M.A., M.B., The Old Rectory Farm, Kidlington, Oxford.

Wednesday, July 24th.—Discussion on Development and Growth of Bone, Normal and Abnormal.

Thursday, July 25th.—Papers.

Friday, July 26th.—Discussion (in conjunction with Electro-Therapeutic Section) on the Normal Stomach, to be opened by Dr. Hertz.

Papers.

GYNAECOLOGY AND OBSTETRICS.

President: Professor Henry Briggs, M.B., F.R.C.S., Liverpool.

Vice-Presidents: W. W. Chipman, M.D., Montreal; John Edward Gemmell, M.B., Liverpool; Thos. Babington Grimsdale, B.A., M.B., Liverpool; Professor John Benjamin Hellier, M.D., Leeds; Mary Hannah Frances Ivens, M.B., M.S., Liverpool; John Furneaux Jordan, M.B., F.R.C.S., Birmingham.

Honorary Secretaries: Arthur John Wallace, M.D., 1, Gambier Terrace, Liverpool; Assistant Professor David Shannon, M.B., 270, Bath Street, Glasgow; Bethel Albert Herbert Solomons, M.B., Rotunda Hospital, Dublin.

The Committee have arranged to hold two discussions:

(*a*) Joint discussion with the Section of Pathology on Eclampsia, to be opened by (1) Dr. J. W. Ballantyne (The Etiology of Eclampsia); (2) Dr. J. H. Teacher (The Morbid Anatomy of Eclampsia); (3) Sir William Smyly (The Applications of Recent Research in the Treatment of Eclampsia).

(*b*) The Results of Treatment of the Inflammatory Diseases of the Uterine Appendages, to be opened by (1) Dr. W. S. A. Griffith (on the Medical Aspects); (2) Mr. Christopher Martin (on the Surgical Aspects).

In the Pathological Museum a space has been allotted for the exhibition of specimens, microscopic slides, photographs, etc., relating to the Inflammatory Diseases of the Uterine Appendages, and also to Sarcoma of the Uterus. The Committee also invite other specimens of interest, notably those relating to Hydrocephalus, etc.

OPHTHALMOLOGY.

President: Edgar Athelstane Browne, M.Ch., F.R.C.S. Eng., Liverpool.

Vice-Presidents: Charles George Lee, M.R.C.S., Liverpool; Alexander Ogilvy, F.R.C.S.Ire., Clifton,

Bristol; ANDREW MAITLAND RAMSAY, M.D., F.F.P.S., Glasgow; CHARLES HARTLEY BEDWELL SHEARS, M.R.C.S., Liverpool.

Honorary Secretaries: ARTHUR NIMMO WALKER, B.A., M.D., 45, Rodney Street, Liverpool: ROBERT JESSOP HAMILTON, F.R.C.S.Eng., 82, Rodney Street, Liverpool; CLAUDE ALLEY WORTH, F.R.C.S., 138, Harley Street, London, W.

The following subjects have been selected for discussion:

Wednesday, July 24th.—Irido-cyclitis (special reference to pathology). Mr. G. COATS; Mr. A. W. ORMOND.

Thursday, July 25th.—Tuberculin and Serum Therapy. Mr. GEORGE MACKAY; Dr. HILL GRIFFITH; Mr. PEEL RITCHIE.

Friday, July 26th.—Salvarsan. Mr. S. STEPHENSON; Dr. MAITLAND RAMSAY, and Mr. S. H. BROWNING.

Foreign and Colonial visitors are cordially invited to attend the meetings of the Section.

Members are invited to contribute any cases, preparations, specimens of drawings, or any instruments or apparatus pertaining to the work of the Section, which have been designed by themselves, in order that the Committee of the Section may make arrangements to form a special exhibit of such objects.

PHARMACOLOGY AND THERAPEUTICS.

President: Professor W. E. DIXON, M.A., M.D., Cambridge.

Vice-Presidents: Professor JOHN HILL ABRAM, M.D., Liverpool: Professor ROBERT JAMES MCLEAN BUCHANAN, M.D., Liverpool; Professor HY. JOHNSTONE CAMPBELL, M.D., Bradford; HUGH JONES ROBERTS, M.D., Pen-y-groes, N. Wales.

Honorary Secretaries: OWEN THOMAS WILLIAMS, M.D., 51a, Rodney Street, Liverpool; Assistant Professor FRANCIS JAS. CHARTERIS, M.B., 400, Great Western Road, Glasgow; Professor JOHN DUNDON, M.D., F.R.C.S., 3, Camden Place, Cork.

The following subjects have been selected for discussion:

1. The Treatment of Heart Muscle Affections (apart from Valvular Disease).
2. The Role of Calcium Salts as Therapeutic Agents.
3. Joint Discussion with the Section of Bacteriology on Vaccine Therapy.

STATE MEDICINE AND INDUSTRIAL DISEASES.

President: ARCHIBALD KERR CHALMERS, M.D., Glasgow.

Vice-Presidents: ALLAN GORDON RUSSELL CAMERON, M.B., B.S., D.P.H., Worthing; EDWARD WM. HOPE, D.Sc., M.D., Liverpool; SYDNEY MARSDEN, M.B., D.P.H., D.Sc., M.R.I.A., F.R.S.E., Birkenhead; ARTHUR AUGUSTUS MUSSEN, B.A., M.D., D.P.H., Liverpool; MATTHEW JAMES OLIVER, M.B., D.P.H., Roxburghshire.

Honorary Secretaries: THOS. WM. NAYLOR BARLOW, M.R.C.S., D.P.H., Public Health Office, Wallasey, Cheshire: JOHN JAMES BUCHAN, M.D., D.P.H., Holly Mount, Laurel Road, St. Helens; HARRY LLEWELLYN HEATH, L.M.S.S.A., D.P.H., 65, Fonnereau Road, Ipswich.

The following subjects have been suggested for discussion:

1. Compulsory Notification of Phthisis: Administrative Measures Consequent Upon.
2. The Need for Popular Education in Public Hygiene.
3. The Effect of Preventive Measures upon Infant Mortality.
4. Recent Legislation Affecting Town Planning and Housing: (*a*) New Areas: (*b*) Reconstruction of Old Areas; (*c*) Standards of Insanitation.
5. Food Inspection (including the Use of Preservatives). Directions in which the Efficiency of Food Inspection may be Improved.
6. School Construction and Medical Inspection of School Children.
7. Industrial Diseases and their Prevention.

SURGERY.

President: Professor RUSHTON PARKER, M.B., B.S., F.R.C.S., Liverpool.

Vice-Presidents: HAMILTON ASHLEY BALLANCE, M.S., F.R.C.S., Norwich; ROBERT A. BICKERSTETH, M.A., M.B., F.R.C.S., Liverpool; FREDERIC CHARLES LARKIN, F.R.C.S., Liverpool; ALBERT LUCAS, F.R.C.S., Birmingham; HAROLD JALLAND STILES, M.B., F.R.C.S.E., Edinburgh.

Honorary Secretaries: ROBERT WM. MURRAY, F.R.C.S., 15, Rodney Street, Liverpool; GEO. PALMERSTON NEWBOLT, M.B., B.S., F.R.C.S., 5, Gambier Terrace, Liverpool; ALEX. WATHEN NUTHALL, Ch.M., F.R.C.S., 3, Calthorpe Road, Edgbaston, Birmingham.

The following subjects have been selected for discussion:

1. The Treatment of Carcinoma of the Rectum, to be opened by Mr. HARRISON CRIPPS, London.
2. The Diagnosis and Treatment of Tuberculous Disease of the Urinary Tract, to be opened by Mr. HURRY FENWICK, London.

TROPICAL MEDICINE.

President: Professor JOHN L. TODD, M.D., McGill University, Montreal.

Vice-Presidents: Fleet-Surgeon P. W. BASSETT-SMITH, C.B., R.N., Royal Naval Hospital, Haslar; WM. CARNEGIE BROWN, M.D., M.R.C.P., London; WILLIAM THOMAS PROUT, M.B., C.M.G., Liverpool; JNO. WM. WATSON STEPHENS, B.A., M.D., School of Tropical Medicine, Liverpool; ALBERT JOHN CHALMERS, M.D., F.R.C.S., London.

Honorary Secretaries: BREADALBANE BLACKLOCK, M.B., Runcorn Research Laboratories, Crofton Lodge, Runcorn: HUGH BASIL GREAVES NEWHAM, M.R.C.S., Director, London School of Tropical Medicine, Albert Dock, London, E.

The following subjects have been selected for discussion

Wednesday, July 24th, 10 a.m.—1. Human Trypanosomiasis; (*a*) The Question of the Specificity of the Trypanosomes affecting Human Beings; (*b*) The Methods of, and Agents Concerned in, the Transmission of the Trypanosomes affecting Man. 2. Verminous Toxins in Man and Animals.

Thursday, July 25th, 10 a.m.—1. Leprosy. 2. Leishmaniasis.

Friday, July 26th, 10 a.m.—Sanitation of Agricultural Estates where Large Labour Forces are Employed in the Tropics.

A special subsection of the Museum is being reserved for exhibits in Tropical Medicine, and the Curator of the Museum, or the Subcurator of the Tropical Section, will be glad to receive photographs, pathological specimens, etc. Preparations, with full descriptive labels, illustrative of the conditions of "Leprosy" and "Leishmaniasis," would be of especial service for demonstration.

Honorary Local Treasurer—

THOMAS H. BICKERTON, M.R.C.S.,
88, Rodney Street, Liverpool,

Honorary Local Secretaries—

FRANK H. BARENDT, M.D., F.R.C.S.Eng.,
KARL L. GROSSMANN, M.D., F.R.C.S.Edin.,
W. THELWALL THOMAS, Ch.M., F.R.C.S.,
Liverpool Medical Institution, 114, Mount Pleasant, Liverpool.

PATHOLOGICAL MUSEUM.

Chairman of Committee: F. T. PAUL, Ch.M.

Honorary Secretary: ERNEST GLYNN, M.D.

Ex-Officio Members:

THE PRESIDENT-ELECT (Sir James Barr, M.D., LL.D.).

THE LOCAL HONORARY TREASURER (T. H. Bickerton, Esq.).

THE LOCAL HONORARY SECRETARIES (F. H. Barendt, M.D., K. A. Grossmann, M.D., W. Thelwall Thomas, Ch.M.).

THE Committee appointed to organize the Museum invites material for it under the following heads:

I. Exhibits bearing on discussions and papers in the various sections.

II. Specimens and illustrations relating to any recent research.

III. Instruments relating to clinical diagnosis and pathological investigation.*

* Exhibits in the Pathological Museum of instruments and apparatus can only be accepted from medical men.

IV. Specimens on particular subjects chosen for special illustration in certain of the sections as indicated below.

The Committee has decided to form fourteen sections of the Museum and has chosen certain subjects for special illustration:

Subjects for Special Illustration.

1. Alimentary System.—Congenital deformities; alimentary, biliary, and pancreatic concretions; specimens of oesophagus, including foreign bodies, also instruments for the diagnosis and treatment of such diseases.
2. Anaesthetics.—Modern anaesthetic apparatus.*
3. Cardio-vascular System.—Neoplasms and granulomata of the heart.
4. Dermatology.—Syphilitic and tuberculous affections of the skin; the results of treatment with carbon dioxide snow.
5. Genito-urinary System.—Specimens illustrating the etiology of hydronephrosis: tumours *in* the adrenal gland.
6. Gynaecology and Obstetrics.—Inflammatory diseases of the uterine appendages; sarcoma of the uterus.
7. Haemopoietic System.—Diseases of the thymus gland.
8. Laryngology, Rhinology, and Otology.
9. Locomotor System and Orthopaedics.
10. Neurology.—Tumours of the pituitary gland; specimens illustrating the pathology of hydrocephalus.
11. Ophthalmology.—Irido-cyclitis and its pathology.
12. Radiography.—Specimens illustrating diseases of the stomach.
13. Respiratory System.—Pulmonary embolism and thrombosis; syphilis of the lung.
14. Tropical Medicine.—Leprosy and Leishmaniasis.

The Committee desires to enlist the hearty co-operation of members, and wishes it to be understood that the above are only suggestions. Specimens illustrative of other conditions will be welcomed.

The Museum will occupy a central position in a fireproof building surrounded by the lecture rooms, in which the Sectional work is carried on, and will be easy of access.

Every care will be taken of the specimens, and the contents of the Museum will be insured.

The Committee is prepared to make arrangements for a limited number of short special demonstrations in the Museum at stated hours.

All communications should be addressed to Dr. Ernest Glynn, Honorary Secretary, at the Thompson Yates Laboratory, University of Liverpool.

Association Notices.

COUNCIL MEETING.

THE Quarterly Meeting of the Council will be held at 2 o'clock in the afternoon of Wednesday, May 1st, in the Council Room at 429, Strand, London, W.C.

By Order,
GUY ELLISTON,
Financial Secretary and Business Manager.

March 28th, 1912.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BIRMINGHAM BRANCH: CENTRAL DIVISION.—The annual meeting of the Division will be held at the Medical Institute on Wednesday, May 15th, at 4 p.m., to elect officers for the ensuing year, and to transact other business.—W. TRACY LYDALL and B. C. R. ALDREN, Honorary Secretaries, Medical Institute, Birmingham.

DORSET AND WEST HANTS BRANCH.—The annual meeting of the Branch will be held at the Hotel Mont Dore, Bournemouth, on Wednesday, May 22nd. Members willing to read papers or show cases are requested to communicate, not later than May 8th, with the Honorary Secretary.—FRANK FOWLER, Honorary Secretary, Bournemouth.

GLASGOW AND WEST OF SCOTLAND BRANCH.—The annual general business meeting of the Branch will be held in the Pathological Institute of the Royal Infirmary, Glasgow, on Wednesday, May 8th, at 4 p.m. Professor Teacher will give a Pathological Demonstration after the general business has been transacted.—WM. D. MACFARLANE, Honorary Secretary.

GLOUCESTERSHIRE BRANCH.—The annual meeting of this Branch will be held at the Cheltenham Hospital on May 16th, at 6 p.m.—J. E. FINLAY, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: KENSINGTON DIVISION.—A meeting of the Kensington Division will be held at the Town Hall, Kensington, on Wednesday, May 1st, at 4 o'clock p.m., to nominate members for the Executive Committee of the Branch Council. Agenda: (1) Minutes of previous meeting. (2) Business arising out of minutes. (3) Nominations for Branch and Central Council. The Executive Committee suggest the following nominations: (1) Member of General Council, Dr. Charles Buttar. (2) President-elect of the Branch, Dr. Langdon Down. (3) Vice-President of the Branch, Mr. H. W. Chambers. 4) Treasurer, Dr. Lauriston Shaw. This meeting will be followed by a special meeting of the whole profession in the area for the purpose of electing a Provisional Medical Committee. Provisional medical committees are required for the purpose of keeping the whole profession united, and to advise members in cases of difficulty. The committees may possibly be required also in the event of its becoming necessary for the profession to organize a medical service of its own. Nominations for service on the committee should be sent to the Honorary Secretary not later than the first post on Monday, April 29th. Non-members are eligible for nomination and to vote at the meeting.—H. BECKETT-OVERY, Honorary Secretary, 24, Alexander Square, South Kensington, S.W.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—Members are reminded that nominations for Division officers and members of the Executive Committee should be sent in writing, before May 1st, to the Honorary Secretary, S. VERDON-ROE, 47, West Hill.

SCHOLARSHIPS AND GRANTS IN AID OF SCIENTIFIC RESEARCH.

SCHOLARSHIPS.

THE Council of the British Medical Association is prepared to receive applications for Research Scholarships, as follows:

1. An ERNEST HART MEMORIAL SCHOLARSHIP, of the value of £200 per annum, for the study of some subject in the department of State Medicine.
2. THREE RESEARCH SCHOLARSHIPS, each of the value of £150 per annum, for research into some subject relating to the Causation, Prevention, or Treatment of Disease.

Each Scholarship is tenable for one year, commencing on October 1st, 1912. A Scholar may be reappointed for not more than two additional terms.

The conditions of the award of Scholarships are stated in the Regulations, a copy of which will be supplied on application to the Acting Medical Secretary of the Association, 429, Strand, London, W.C.

GRANTS.

The Council of the British Medical Association is also prepared to receive applications for Grants for the assistance of Research into the Causation, Treatment, or Prevention of Disease. Preference will be given, other things being equal, to members of the medical profession and to applicants who propose as subjects of investigation problems directly related to practical medicine.

The conditions of the award of Grants are stated in the Regulations, a copy of which will be supplied on application to the Acting Medical Secretary of the Association, 429, Strand, London, W.C.

Applications.

Applications for Scholarships and Grants for the year 1912–13 must be made not later than Tuesday, June 11th, 1912, in the prescribed form, a copy of which will be supplied by the Acting Medical Secretary on application.

Each application should be accompanied by testimonials, including a recommendation from the head of the laboratory, if any, in which the applicant proposes to work, setting out the fitness of the candidate to conduct such work, and the probable value of the work to be undertaken. This is not intended, however, to prevent applications for Grants in aid of work which need not be performed in a recognized laboratory.

ALFRED COX, *Acting Medical Secretary.*

429, Strand, London, W.C.,
March 30th, 1912.

GRANTS FOR MEDICAL TREATMENT OF CHILDREN ATTENDING PUBLIC ELEMENTARY SCHOOLS.

1. THE Board of Education has issued a circular letter calling the attention of the Local Education Authorities to the Regulations under which grants will be made by the Board during the financial year ending March 31st, 1913, in aid of the provision of medical treatment for children attending public elementary schools.*

2. The work in respect of which grants will be made may be described generally as medical treatment and work preparatory to, or associated with, such treatment, including the "following up" of defects, discovered at the school medical inspection, with a view to securing appropriate amelioration by voluntary agencies or otherwise. While grant will not be payable in respect of the routine medical inspection of the groups of children prescribed by the Code, the Board will, in assessing the grant for treatment, take into account the character and completeness of the provision made for medical inspection and the degree of efficiency with which it is carried out.

The Board are indeed precluded under the Regulations from making any grant whatever unless they are satisfied with the Authority's provision for medical inspection. It will be understood that the Board's formal expression of satisfaction with the provision made for medical inspection in any area under Articles 25 (*c*) and 58 (*b*) of the Code, the requirements of which, it may be observed, are not affected by the new Regulations, will not necessarily indicate that the Board are satisfied that the actual practice of the Local Education Authority in this respect is of such a character or degree of thoroughness as would justify the Board in deeming the provision suitable and efficient when considered as preparatory to treatment.

3. In this connexion it may be convenient to state briefly the points which in the Board's view are of fundamental importance in any adequate scheme of medical inspection, and to which, therefore, they will pay special regard, when reviewing the provision made by the Authority, for the purpose of deciding whether grants can properly be paid for medical treatment and for preparatory and associated services undertaken in the area. In the first place it is necessary that the scheme of the Authority should make provision for the inspection of all children coming within the categories prescribed by the Code. In rural areas, where the schools are difficult of access, it is sometimes inevitable that a few children who are absent from school on the days of the Medical Officer's visits should escape inspection, but, as a rule, the fact that any considerable proportion of the total number of children in the area falling within the prescribed groups were not actually inspected, would be sufficient in itself to disqualify a scheme for purposes of grant. From this point of view, and also from that of providing opportunity for the re-examination of children in whom defects requiring treatment are revealed by inspection, it is important that arrangements should be made for the Medical Officer to visit the schools as frequently as practicable. The Board are not prepared to take the view that one visit a year is sufficient. In the second place, the Board desire to emphasize the importance of the routine medical inspection taking place on the school premises and in school hours. In special circumstances the sanction of the Board may be sought for some other arrangement, but such cases should be exceptional. Thirdly, the inspection itself should include all the points mentioned in the Board's schedule which accompanied Circular 582, and a full and accurate record should be made in respect of each child. A separate record should also be kept of all children found to be defective, including particulars of "special" cases referred by the teachers. Experience has shown that, as a general rule, a reasonably careful and complete medical inspection cannot be made if more than eight to ten children are examined in the hour. The parents of the children who will be examined should invariably be notified of the day and hour appointed for the Medical Officer's visit, and should be invited to attend the inspection; and a school nurse or woman teacher should in all cases be present during the inspection of girls. Fourthly, the work of medical inspection should be carried on in intimate conjunction with the Public Health Authority and under the direct supervision of the Medical Officer of Health. In those areas in which the Medical Officer of Health is not himself School Medical Officer it will be necessary for the Local Education Authority to satisfy the Board that effective co-ordination between the two officers is, in fact, secured in practice. The Board are glad to believe that these various conditions already obtain in the schemes adopted by most Local Education Authorities. In this connexion, the Board desire to call the attention of the Authority to the necessity of furnishing the School Medical Officer with suitable office accommodation, and of making adequate provision for the clerical work involved in the proper fulfilment of his duties.

4. For the purpose of assessing grants in respect of the work of the school medical service which is ancillary to, or associated with, medical treatment, the Board will be prepared to take into account ameliorative undertakings falling under any of the following heads, if carried out by the School Medical Officer or his staff, or under his direction or supervision:

(*a*) The re-examination, after a suitable interval, of children found to be defective at the routine inspection, with a view to ascertaining whether appropriate treatment has been obtained, and the results of any treatment;
(*b*) The further examination (including the examination of defective eyesight for errors of refraction) at Inspection Clinics or elsewhere, of children who have been found to be defective at the routine inspection;
(*c*) The examination at Inspection Clinics or elsewhere of "special" cases referred by school attendance officers, care committees, teachers, parents, and others;
(*d*) The "following-up" of cases of defect by school nurses or health visitors by means of visits to the schools or the homes of the children in order to ascertain whether the parents have obtained and are following medical advice, or with a view to advising, instructing, or aiding parents in regard to obtaining treatment of minor ailments, or with a view to arranging for or supervising the cleansing of children who have been found to be in an uncleanly or verminous condition.
(*e*) The following-up and after-care of cases of defect by children's care committees and other agencies working in co-operation with the School Medical Officer.

5. Similarly, for the purpose of assessing grants in respect of medical treatment proper, the Board will take into account treatment falling under any of the following heads, if carried out by the School Medical Officer or his staff, or under his direction or supervision:

(i) The treatment of minor ailments carried out by school nurses.
(ii) The provision of spectacles, surgical or other appliances.
(iii) Arrangements for medical or surgical treatment at hospitals, infirmaries, dispensaries, etc., or by private practitioners.
(iv) Treatment at School Clinics, whether at general clinics for the treatment of various kinds of defects, or at special clinics providing for one type of ailment only—for example, dental caries.

6. In assessing grants under the Regulations the Board will examine closely the Authority's arrangements for co-ordinating the work of the school medical service with voluntary or other agencies, in order that the fullest possible use may be made of all available facilities or agencies for treatment already existing in the area. They will also consider carefully the arrangements made and enforced for the control of infectious, contagious, and other diseases (including the provision for the exclusion and readmission of individual children), and for securing co-ordination between the school medical service and the school attendance department. Such inter-relation will ensure that the School Medical Officer has full knowledge of all children absent from school on medical grounds, and will enable him to satisfy himself that on the one hand the children are receiving the necessary treatment to allow of their return to school at the earliest opportunity, and, on the other hand, are not readmitted too soon or in a condition likely to prove detrimental to themselves or to other scholars.

7. In all cases in which defects are discovered it is essential that clear and full records should be kept of the steps taken to secure effective medical treatment, the nature of the treatment provided, and its results. This is necessary, not only that the Local Education Authority may be in a position to judge of the effectiveness of the

* Copies of the Regulations can be obtained through any bookseller, price ½d.

work, but also for the purpose of preparing an adequate statement of the results accomplished, which will be available for the consideration of the Board when they proceed to assess the grant under the Regulations.

8. The Board desire to direct special attention to Section 163 of the Report for 1910 of the Chief Medical Officer. As indicated in that section, it appears that the disorders and maladies which are most suitable for treatment directly provided by Local Education Authorities under Section 13 of the Education (Administrative Provisions) Act, 1907, are limited in practice to minor ailments, uncleanliness, ringworm, and other common skin diseases of children, defective eyesight or hearing, some external affections of the eyes and ears, and various temporary conditions of the mouth (including teeth), nose, and throat. It is impossible entirely to exclude other conditions of a more general nature, which can be dealt with while the child is in attendance at school, but there are affections and ailments which the Board would regard as being outside the ordinary province of the School Medical Officer, and which they would not deem suitable for inclusion in the Authority's scheme of treatment, unless it were shown that adequate treatment at a reasonable cost could not be otherwise obtained.

9. It is desirable that all new schemes of treatment which it is intended to put into operation during the year commencing on August 1st, 1912, should be submitted for the approval of the Board at the earliest possible date, in order that the Board may be in a position to give due consideration to the schemes and to arrange, if necessary, for a visit of inquiry or inspection by one of their Medical Officers. The scheme should be accompanied by a detailed estimate of the expenditure to be incurred during the year.

Applications for the renewal of the Board's sanction to schemes of treatment which have already been sanctioned for the current Code year should be made by Local Education Authorities as soon as possible after July 31st next, and should be submitted concurrently with the statement of the expenditure incurred during the year ending on that date, which is required by Article 5 of the Regulations. A form will be provided for the purpose of this statement, and copies will be sent to Local Education Authorities in due course. The Board will then consider the questions of making a grant in aid of the expenditure of the Authority during the financial year ending on March 31st, 1913, and of renewing their sanction to the scheme of treatment, subject to any modifications or additions which may be proposed, for the year ending on July 31st, 1913. The applications for renewal of sanction should, in all cases, be accompanied by a detailed estimate of the proposed expenditure. A statement of the provision for medical inspection should be made on Form 9 M.I. as heretofore.

10. The Board desire to take this opportunity of reminding Local Education Authorities that the annual reports of their School Medical Officers should follow the lines laid down in Circular 596 (paragraph 6), although there is, of course, no necessity to repeat formal matter each year. Many of the reports which have been received have contained very valuable information, but in some cases the reports have been inadequate and of little practical value. Full information should be given as to the working of any schemes of treatment sanctioned by the Board, and the reports should also contain a detailed statement of the work done in following up cases in which defects have been discovered, including particulars as to the number of re-examinations carried out by the medical officers, the work of the school nurses, whether at the schools, at the homes of the children or elsewhere, and the work done at any Inspection Clinic or Centre which the Authority may have established. The Board are reluctant to add in any way to the burden already imposed on Local Education Authorities in regard to the preparation of returns, but the Authority will realize that the information now asked for cannot be dispensed with if the Board are to be in a position to decide whether the work done is of sufficient value to justify them in making a grant under the Regulations, and to furnish the requisite information to Parliament as to the administration of these grants.

11. While the Board will for the present be prepared to take into account for purposes of grant any scheme for the provision of treatment which comes within the scope of paragraph 5 of this circular, even though the scheme provides for the treatment of one type of defect only, they trust that Local Education Authorities will eventually take a comprehensive view of the powers conferred on them by Parliament, and will frame adequate schemes for the treatment of those children for whom appropriate treatment cannot be otherwise secured. The Board fully appreciate the action which has been already taken in the matter by certain Authorities, and they trust that the grants which they are now in a position to make will prove an incentive to further effort. In devising schemes, however, due weight should be given to considerations of economy, and the possibility of joint action between neighbouring Authorities should not be overlooked. It is important also that the fullest opportunities should be given for securing treatment by voluntary agencies, including hospitals, which, whatever provision be made by Local Education Authorities, must still remain an essential and complementary factor in the treatment of many of the common diseases of child life, the effective alleviation of which cannot properly be undertaken by the Authority. Further, it is very desirable that no steps should be taken which would lessen the responsibility of the parents or deter them from seeking to secure the physical well-being of their children by improving their home conditions or by obtaining the advice of their own medical attendants with regard to such specific treatment as may be necessary. Experience has shown, however, that voluntary agencies alone do not and cannot cover the whole field, and that among the children attending public elementary schools there is a large amount of disease and defect which will remain unremedied unless the Local Education Authorities take full advantage of the powers conferred on them. By using these powers they will accomplish work which cannot fail to be of great and lasting value, not only in alleviating the sufferings of the children and increasing their capacity to profit by the education provided for them, but also in laying a foundation of health on which must largely depend the success of any national scheme for promoting the physical welfare of the adult population.

12. In conclusion, attention is directed to Part (II) of the Regulations, under which additional grant may be made by the Board in aid of treatment provided in open-air schools, day or residential, for children suffering from various forms of tuberculosis and other ailments. The Board hope to issue a further memorandum on the subject of institutional and other treatment for children affected with tuberculosis, but before doing so they will await the publication of the report of the Committee recently appointed by the Chancellor of the Exchequer to consider the whole problem of the treatment of tuberculosis in the United Kingdom.

The regulations as to open-air schools referred to in paragraph 12 are as follows:

Grants will be made under these Regulations only in respect of the medical treatment and care of children:

(i) In residential (open-air) schools for children suffering from tuberculosis, certified by the Board under the Elementary Education (Defective and Epileptic Children) Act, 1899.

(ii) In day (open-air) schools, similarly certified, for children suffering from pulmonary tuberculosis.

(iii) In day (open-air) schools, similarly certified, for children suffering from other forms of tuberculosis or from other ailments for which open-air treatment is specially suitable.

CENTRAL MIDWIVES BOARD.

A meeting of the Central Midwives Board was held on April 18th at Caxton House, Westminster, with Sir Francis H. Champneys in the chair.

Rules Adopted by Local Supervising Authority.

A letter was considered from the Clerk of the Derbyshire County Council, submitting, for the approval of the Board, two rules drawn up and adopted by the Local Supervising authority with regard to (*a*) the laying-out of the dead, (*b*) the quarantine to be observed by midwives after nursing cases of infectious disease. The Board directed that the Derbyshire County Council be thanked for its communication. It was pointed out that the matter was within its discretion, according to the rules.

Alleged Advertising and Prescribing by a Midwife.

Letters were considered from a registered medical practitioner complaining of the conduct of a certified midwife in advertising and prescribing. The report of the County Medical Officer thereon was also considered. The Board decided to ask the Local Supervising Authority whether it found a prima facie case against the midwife.

Period of Instruction.

Letters were considered from a certified midwife, approved by the Board for the purpose of supervising the practical work of pupils, as to the period of time during which her pupils are resident with her.

The Board directed: (*a*) That the midwife be informed that the Board's intention is that the cases should be taken, so far as possible, and the training proceeded with, throughout the period of not less than the three months specified for instruction in the present rules, and that neither the cases nor the instruction should be crowded into a small portion of that period. (*b*) That all persons approved for signing Forms III and IV be asked how far they comply with the above.

System of Lecturing.

(*a*) Letters were considered from a certified midwife approved by the Board for the purpose of supervising the practical work of pupils, asking the Board's opinion as to certain suggested irregularities in the system of lecturing adopted by a recognized teacher.

(*b*) Letters were also considered from two candidates for the examination of April 29th as to the signing of their schedules by the recognized teacher whose lectures they had been attending, although the course of lectures had not been completed at the time of signing.

(*c*) The Board considered a complaint by a pupil of an approved midwife as to the failure of the latter to provide for her pupils a course of lectures in accordance with the rules.

The Board decided (*a*) that a copy of the letter of the approved midwife be forwarded to the recognized teacher, and that he be asked for an explanation. (*b*) That the nurses concerned be allowed to enter for the examination of the Central Midwives Board of April 29th, on proof being furnished that they had attended a complete course of lectures. (*c*) That a copy of the statement of the pupil be furnished to the midwife, and that she be asked for an explanation.

Training as Midwife.

Letters were considered from the lady superintendent of a convalescent home inquiring as to the possibility of taking her training for the examination of the Central Midwives Board in two periods of two months each in two successive years. The Board directed that the reply be that the Board regrets that it is unable to encourage this application, especially as it appeared that the applicant might be unsuitable for attending confinements (Rule E 5).

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

In accordance with provisions of Order in Council, April 1st, 1881, Fleet Surgeon CHARLES SAMUEL FACEY, M.B., has been placed on the retired list at his own request, dated April 15th, 1912.

Fleet Surgeon J. C. FERGUSON is appointed to the *Russell* and as Acting Interpreter in French, April 15th.

Fleet Surgeon P. H. M. STAR is appointed to the *Jupiter* and for groups of ships of 4th Division Home Fleet, April 15th.

Staff Surgeon W. BASTIAN is appointed to the *President*, additional, for R. N. Hospital, Yarmouth, May 7th.

Staff Surgeon C. T. BAXTER is appointed to the *Vulcan*.

Staff Surgeon A. K. SMITH-SHAND is appointed to Haslar Hospital as Anaesthetist and Radiographer.

Surgeon J. BOURDAS is appointed to the *Adamant* on commission.

ROYAL ARMY MEDICAL CORPS.

MAJOR A. E. SMITHSON on arrival in Ireland from South Africa on May 1st, will be posted to the Dublin District.

Captain W. J. WESTON, on arrival in Ireland from Gibraltar on May 1st, will be posted to the Cork District.

SPECIAL RESERVE OF OFFICERS.

DAVID MURRAY LYON, M.B., late Cadet Colour-Sergeant of Edinburgh Contingent Training Corps, to be Lieutenant (on probation), dated March 4th, 1912.

INDIAN MEDICAL SERVICE.

COLONEL R. N. CAMPBELL, C.I.E., M.B., Inspector-General of Civil Hospitals, Eastern Bengal and Assam, is appointed to be Inspector-General of Civil Hospitals and Prisons, and Sanitary Commissioner, Assam, with effect from April 1st, 1912.

Lieutenant-Colonel A. W. T. BUIST, Civil Surgeon, Umballa, is granted nineteen months' leave from April 1st, 1912.

Lieutenant-Colonel J. R. ADIE, Chief Malaria Medical Officer, Punjab, is granted eight months' leave from March 15th, 1912.

Lieutenant-Colonel D. T. LANE, Civil Surgeon, Sialkot, is granted six months' leave from May 1st, 1912.

Lieutenant-Colonel W. R. CLARK, Civil Surgeon, Professor of Forensic Medicine and Toxicology, Medical College, and Medical Officer of the Government College, Lahore, is granted six months' leave from April 15th, 1912.

Lieutenant-Colonel F. J. DRURY, M.B., Principal, Medical College, Calcutta, is appointed to be Inspector-General of Civil Hospitals, Bihar and Orissa, with effect from April 1st, 1912.

Lieutenant-Colonel J. T. CALVERT, M.B., Professor of Materia Medica, Medical College, Calcutta, and Second Physician to the College Hospital, is appointed Principal and Professor of Medical College, Calcutta, and First Physician to the College Hospital, with effect from April 1st, 1912.

Lieutenant-Colonel B. H. DEARE, Civil Surgeon, Darjeeling, is appointed Professor of Materia Medica, Medical College, Calcutta, and Second Physician to the College Hospital.

The services of Lieutenant-Colonel B. J. SINGH, Lieutenant-Colonel E. C. HARE, Major J. C. H. LEICESTER, Major J. W. D. MEGAW, and Captain L. COOK (temporary, I.M.S.) are placed at the disposal of the Government of Bihar and Orissa, with effect from April 1st, 1912.

Captain J. W. MCCOY, Additional Civil Surgeon, Dacca, is appointed Civil Surgeon of Cachar.

Major GRANT is posted as Residency Surgeon in Western States of Rajputana.

Major F. A. SMITH, I.M.S., Civil Surgeon, Peshawar, has been selected to succeed Lieutenant-Colonel J. R. Roberts, C.I.E., I.M.S., as Residency Surgeon, Indore, and Administrative Medical Officer in Central India.

The services of Captain E. J. C. MCDONALD are replaced at the disposal of the Government of India in the Home Department, with effect from the date of his relief by Captain C. A. Godsen.

Captain F. W. SUMNER, Civil Surgeon of Farrukhabad, has been granted privilege leave, combined with furlough, for a total period of seven months, with effect from April 17th, 1912.

Captain T. C. MCCOMBIE YOUNG is appointed Deputy Sanitary Commissioner, Assam.

Captain S. C. PAL, Senior Medical Officer, Farrukhabad, is appointed to hold civil medical charge of Farrukhabad, in addition to his military duties.

TERRITORIAL FORCE.

ARMY MEDICAL SERVICE.

THE undermentioned officers, on completion of four years' service as Assistant Directors of Medical Services of Territorial Divisions, retire, and are granted permission to retain their rank and to wear the prescribed uniform, dated April 1st, 1912: Colonel ANDREW CLARK, K.H.S., F.R.C.S., Colonel WILLIAM P. WHITCOMBE.

ROYAL ARMY MEDICAL CORPS.

Attached to Units other than Medical Units.—Lieutenant CHARLES H. BULLEN, M.D., to be Captain, dated January 24th. Captain EDWARD T. COLLINS to be Major, dated March 25th, 1912. Lieutenant ARCHIBALD R. PATERSON, M.D., to be Captain, dated December 7th, 1911.

CHANGES OF STATION.

THE following changes of station amongst the officers of the Army Medical Service have been officially reported to have taken place during March:

		FROM	TO
Surgeon-General	H. R. Whitehead, C.B., F.R.C.S.	S. Command ...	E. Command.
,,	J. G. MacNeece, C.B.	Poona	S. Command.
,,	T. M. Corker, M.D.	Lucknow ...	Poona.
,,	M. W. Kerin, C.B.	Meerut	Lucknow.
Colonel	E. Butt, F.R.C.S.I.	Calcutta ...	Meerut.
,,	C. E. Nichol, D.S.O., M.B....	Maymyo ...	Calcutta.
Lieut.-Colonel	B. M. Skinner, M.V.O.	Rawal Pindi ...	R.A.M. Coll.
,,	A. E. Tate	Ambala ...	Rawal Pindi.
,,	H. Carr, M.D.	Jullundur ...	Ambala.
,,	M. T. Yarr, F.R.C.S.I.	Edinburgh ...	London.
,,	T. G. Lavie	Queenstown ...	Malta.
,,	J. Donaldson	Aldershot ...	Campbellpore.
,,	A. L. F. Bate	Rawal Pindi ...	Preston.
,,	W. L. Gray, M.B. ...	Winchester ...	Jullundur.
,,	J. W. Bullen, M.D. ...	Wellington ...	Maymyo.
Major	C. W. Reilly...	Dum Dum ...	Cork District.
,,	J. H. E. Austin	London ...	Edinburgh.
,,	H. E. Winter	Gravesend ...	Royal Hosp., Chelsea.
,,	L. Way	Cosham ...	Bareilly.
,,	J. C. Connor, M.B.	Bangalore ...	Wellington.
,,	I. A. O. MacCarthy	Hounslow ...	London.
,,	H. N. Dunn, M.B.	Dagshai ...	Netley.
,,	S. H. Withers, M.B.	Ambala ...	Dagshai.
,,	E. M. Morphew	Preston ...	Bury.
,,	J. Hennessy, M.B....	Poonamallee...	Cosham.
,,	N. Marder	Portland ...	Netley.
,,	H. A. Berryman	Bury	Chester.
,,	F. Kiddle, M.B.	Royal Hosp., Chelsea	Colchester.
,,	H. W. Grattan	Benares ...	Lucknow.
,,	C. F. Wanhill	R.A.M. Coll. ...	Mhow.
,,	R. H. Lloyd	Ferozepore ...	Multan.
,,	L. Wood	Manchester ...	Hyderabad.
,,	F. Harvey	Bodmin ...	Devonport.
,,	F. G. Richards	Jamaica ...	Cork District.
,,	C. S. Smith, M.B.	Mullingar ...	Dum Dum.
,,	A. D. Jameson	Meerut... ...	Chakrata.
,,	W. B. Fry	... ...	Woolwich.
,,	P. C. Douglass	Weedon ...	Jubbulpore.
,,	B. S. Bartlett	Multan... ...	Lahore.
,,	J. Tobin	Devonport ...	Gibraltar.
Captain	L. L. Thorpe	Golden Hill ...	Cosham.
,,	E. F. Q. L'Estrange	Bellary... ...	Wellington.

		FROM	TO
Captain	R. F. M. Fawcett	Gosport	Jhansi.
,,	E. W. Powell	Cork	Kilworth.
,,	G. F. Sheehan	Barrackpore	Cawnpore.
,,	H. A. Bransbury	Woolwich	Ahmednagar.
,,	R. C. Wilson, M.B.	Netley	Gibraltar.
,,	T. J. Potter	London Dist.	Cairo.
,,	H. Rogers, M.B.	Queenstown	Malta.
,,	J. McKenzie, M.B.	London	Windsor.
,,	H. V. Bagshawe	Lichfield	Sheffield.
,,	H. T. Stack, M.B.	Belfast	Bareilly.
,,	J. D. Richmond, M.B.	Glasgow	Edinburgh.
,,	W. MacD. MacDowall	Ewshott	London.
,,	C. Ryley	Shoeburyness	Chatham.
,,	G. G. Tabuteau	Jhansi	Irish Com'd.
,,	J. H. Graham, M.B.	Fermoy	Ballincollig.
,,	W. Benson, M.B.	Rawal Pindi	Dublin Dist.
,,	T. Scatchard	Ranikhet	N. Command.
,,	R. A. Bryden	Bloemfontein	E. Command.
,,	A. E. S. Hastings	Darjeeling	Calcutta.
,,	M. J. Cromie	Curragh	Kilbride.
,,	E. T. Potts, M.D.	Pretoria	Dublin Dist.
,,	C. F. White, M.B.	Jhansi	Portland.
,,	F. C. Sampson, M.B.	Potchefstroom	Glasgow.
,,	T. S. Blackwell	Bhamo	Irish Commd.
,,	A. D. O'Carroll, M.B.	Aden	S. Command.
,,	W. R. Galwey, M.B.	Ambala	Wellington.
,,	V. C. Honeybourne	Agra	Aden.
,,	F. D. G. Howell	Multan	Lahore.
,,	G. B. Edwards	Mauritius	Bulford.
,,	T. C. C. Leslie	Maritzburg	Irish Commd.
,,	M. J. Lochrin	Bangalore	Bellary.
,,	E. D. Caddell, M.B.	Ambala	Karachi.
,,	B. Johnson	Rangoon	Thayetmyo.
,,	W. J. E. Bell, M.B.	Hong Kong	Golden Hill.
,,	C. W. Bowle	Multan	Jubbulpore.
,,	A. H. Jacob	Rawal Pindi	Attock.
,,	A. D. Fraser, M.B.	Omagh	Londonderry.
,,	M. O. Wilson, M.B.	Ambala	Jullundur.
,,	J. du P. Langrishe, M.B.	Poona	Kirkee.
,,	L. A. A. Andrews	Mauritius	Irish Comm'd.
,,	W. B. Purdon, M.B.	Wellington	Cannanore.
,,	J. B. Hanafin, F.R.C.S.I.	Rawal Pindi	Peshawar.
,,	D. B. McGrigor, M.B.	Karachi	Meerut.
,,	A. E. B. Jones, M.D.	Mandalay	Wellington.
,,	A. E. G. Fraser	Cairo	Khartoum.
,,	T. S. Eves, M.B.	Agra	Lucknow.
Lieutenant	S. S. Dykes, M.B.	Piershill	,,
,,	C. T. V. Benson	Deepcut	Bangalore.
,,	P. S. Tomlinson	Tidworth	Lucknow.
,,	R. C. Paris	Netley	Quetta.
,,	A. G. Jones, M.B.	Tidworth	Oxford.
,,	H. G. Robertson, M.B.	Lichfield	Malta.
,,	H. V. Stanley, M.B.	Dublin	Gibraltar.
,,	P. C. Field	Bordon	Egypt.
,,	C. H. H. Harold, M.D.	Caterham	London.
,,	E. L. Fyffe, M.B.	Cork	Fermoy.
,,	W. Bisset, M.B.	Woolwich	Guildford.
,,	T. C. R. Archer	,,	Hounslow.
,,	E. G. H. Cowen, M.B.	Colchester	Warley.
,,	F. C. Deane	Preston	Chester.
,,	W. Stewart, M.B.	Colchester	Bedford.

Vital Statistics.

VITAL STATISTICS OF LONDON DURING THE FIRST QUARTER OF 1912.

In the accompanying table will be found summarized the vital statistics of the metropolitan boroughs and of the City of London, based upon the Registrar-General's returns for the first quarter of the year. The mortality figures in the table relate to the deaths of persons actually belonging to the several boroughs, and are obtained by distributing the deaths in institutions among the boroughs in which the deceased persons had previously resided. The 29,020 births registered in London were equal to an annual rate of 25.8 per 1,000 of the population, estimated at 4,519,754 persons in the middle of the year; in the corresponding quarters of the three preceding years the rates were 27.0, 26.4, and 26.0 per 1,000. The lowest birth-rates last quarter were 14.1 in Hampstead, 15.3 in the City of Westminster, 19.3 in Chelsea, 19.6 in Kensington, and 20.1 in Paddington; while among the highest rates were 31.3 in Poplar and in Bermondsey, 31.8 in Shoreditch, 33.1 in Stepney, and 37.5 in Finsbury.

During last quarter the deaths of 17,215 London residents were registered, equal to an annual rate of 15.3 per 1,000; in the corresponding quarters of the three preceding years the rates were 20.3, 15.4, and 17.2 per 1,000. The death-rates last quarter ranged from 12.0 in Wandsworth, 12.1 in Hampstead, 12.6 in Lewisham, 13.1 in Hackney, and 13.4 in Battersea to 18.0 in Poplar, 18.1 in Chelsea, 18.2 in Southwark, 18.3 in Holborn, 19.0 in Bermondsey, and 19.8 in Finsbury.

The 17,215 deaths from all causes included 31 from enteric fever, 1 from small-pox, 202 from measles, 23 from scarlet fever, 282 from whooping-cough, 133 from diphtheria, and 217 (among children under 2 years of age), from diarrhœa and enteritis. The mortality from each of these diseases (except diarrhœa) was below the average for the corresponding period of the five preceding years; for diarrhœa among children under 2 the average mortality is not available. The fatal case of small-pox belonged to Woolwich; and of the 23 deaths from scarlet fever 5 belonged to St. Marylebone, 3 to Lambeth, 2 to Finsbury, and 2 to Wandsworth. The greatest proportional mortality from enteric fever was recorded in Fulham, Bermondsey, and Lambeth; from measles in the Cities of London and Westminster and in Southwark, Bermondsey, Deptford, and Greenwich; from whooping-cough in Fulham, Islington, Stepney, Poplar, and Southwark; from diphtheria in Hampstead, St. Pancras, Shoreditch, Poplar, Southwark, Battersea, and Lewisham; and from diarrhœa and enteritis among children under 2 years of age in St. Marylebone, St. Pancras, Finsbury, Shoreditch, Stepney, Poplar, Battersea, and Lewisham.

The deaths from phthisis among London residents numbered 1,711 last quarter, and were equal to an annual rate of 1.52 per 1,000, the rates in the first quarters of the three preceding years being 1.77, 1.38, and 1.52 per 1,000 respectively. The death-rates from this disease last quarter ranged from 0.75 in Hampstead, 0.88 in Lewisham, 1.03 in Stoke Newington, 1.08 in Kensington, and 1.18 in Woolwich to 2.05 in Finsbury, 2.07 in Shoreditch, 2.12 in Bermondsey, 2.36 in the City of London, and 3.09 in Holborn.

Infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to 95 per 1,000 last quarter, against 112, 101, and 108 in the corresponding quarters of the three preceding years. Among the lowest rates recorded last quarter were 55 in the City of London, 84 in Lambeth and in Woolwich, and 86 in Hampstead, Bethnal Green, Greenwich, and Lewisham; the

Analysis of the Vital Statistics of the Metropolitan Boroughs and of the City of London after Distribution of Deaths occurring in Public Institutions during the First Quarter of 1912.

Boroughs.	Estimated Population middle of 1912.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Enteric Fever.	Small-pox.	Measles.	Scarlet Fever.	Whooping cough.	Diphtheria.	Diarrhœa and Enteritis (Under 2 Years).	Phthisis.	Deaths of Children Under 1 Year of Age to 1,000 Registered Births.
COUNTY OF LONDON	4,519,754	29,020	17,215	25.8	15.3	31	1	202	23	282	133	217	1,711	95
Paddington	142,362	715	536	20.1	15.1	—	—	8	—	8	3	3	43	116
Kensington	171,746	838	643	19.6	15.0	1	—	4	—	6	1	5	46	98
Hammersmith	122,750	710	435	23.2	14.2	—	—	2	1	—	5	2	47	93
Fulham	155,402	1,036	588	26.7	15.2	3	—	9	—	13	5	8	52	121
Chelsea	65,397	314	295	19.3	18.1	1	—	1	—	2	—	1	26	92
City of Westminster	157,248	598	576	15.3	14.7	1	—	12	—	4	1	7	49	105
*St. Marylebone	116,155	1,051	474	36.3	16.4	1	—	2	5	5	3	7	37	63
Hampstead	85,986	302	260	14.1	12.1	—	—	2	1	1	9	—	16	86
St. Pancras	216,145	1,322	853	24.5	15.8	—	—	2	1	13	10	14	93	105
Islington	326,398	2,100	1,318	25.8	16.2	—	—	25	1	26	9	12	123	90
Stoke Newington	50,581	281	173	22.3	13.7	—	—	—	—	1	—	1	13	107
*Hackney	222,986	1,372	728	24.7	13.1	—	—	—	1	12	4	11	81	89
*Holborn	48,026	294	219	24.5	18.3	—	—	1	—	1	1	—	37	41
*Finsbury	86,130	806	425	37.5	19.8	—	—	1	2	5	1	8	44	89
City of London	18,695	127	72	27.3	15.5	—	—	2	—	—	—	1	11	55
Shoreditch	110,420	876	491	31.8	17.8	—	—	2	1	5	8	15	57	129
Bethnal Green	127,985	978	530	30.7	16.6	2	—	2	1	6	4	4	60	86
*Stepney	277,315	2,284	1,115	33.1	16.1	3	—	4	—	38	6	21	128	90
Poplar	161,597	1,263	725	31.3	18.0	2	—	2	1	36	7	10	66	106
Southwark	190,017	1,366	861	28.8	18.2	1	—	22	—	18	8	8	96	108
Bermondsey	125,260	975	592	31.3	19.0	3	—	15	—	9	3	7	66	121
*Lambeth	297,550	2,059	1,087	27.8	14.7	7	—	23	3	18	9	15	113	84
Battersea	167,589	1,031	561	24.7	13.4	2	—	2	1	6	8	10	61	89
Wandsworth	321,881	1,716	962	21.4	12.0	1	—	3	2	24	6	16	100	87
Camberwell	261,591	1,682	977	25.8	15.0	1	—	20	1	8	5	9	100	89
Deptford	109,377	720	426	26.4	15.6	—	—	12	—	3	4	5	43	108
Greenwich	95,994	615	354	25.7	14.8	—	—	19	—	5	2	3	31	86
Lewisham	165,249	884	521	21.5	12.6	2	—	—	—	3	7	* 10	36	86
Woolwich	121,932	705	418	23.2	13.8	—	1	5	1	5	4	3	36	84

* No correction is made for births in lying-in institutions; the boroughs principally affected are marked thus (*).

highest rates were 106 in Poplar, 107 in Stoke Newington, 108 in Southwark and in Deptford, 116 in Paddington, 121 in Fulham and in Bermondsey, and 129 in Shoreditch.

HEALTH OF ENGLISH TOWNS.

In ninety-five of the largest English towns 9,363 births and 4,893 deaths were registered during the week ending Saturday, April 20th. The annual rate of mortality in the large towns, which had been 14.0 per 1,000 in each of the two preceding weeks, rose to 14.5 per 1,000 in the week under notice. In London last week the death-rate was equal to 14.3 per 1,000, against 13.1 and 13.5 per 1,000 in the two preceding weeks. Among the ninety-four other large towns the death-rates ranged from 5.5 in Wimbledon, 6.4 in Ealing, 6.8 in East Ham, 7.1 in Bournemouth, 7.5 in Croydon, and 8.1 in Swindon to 19.1 in Blackburn and in Halifax, 19.2 in Rochdale, 20.0 in Reading, 21.1 in Wakefield, and 24.9 in Oldham. Measles caused a death-rate of 1.5 in Manchester, 1.8 in Newport (Mon.), 1.9 in Oxford, 2.1 in Warrington, 2.2 in Nottingham, 2.5 in Rotherham, 3.4 in Salford, and 5.1 in Cardiff; and whooping-cough of 1.4 in Bolton and in South Shields, 1.9 in Ilford, 2.0 in Salford and in Barnsley, and 2.1 in Ipswich. The mortality from the remaining epidemic diseases showed no marked excess in any of the large towns. A fatal case of small-pox was recorded in Manchester. The causes of 43, or 0.9 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest, and included 11 in Birmingham, 4 in Liverpool, 3 in West Bromwich, 3 in Southport, and 3 in Gateshead. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,322, 1,265, and 1,242 at the end of the three preceding weeks, had further declined to 1,235 on Saturday last; 142 new cases were admitted during the week, against 133, 121, and 119 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

In eighteen of the largest Scottish towns 1,259 births and 675 deaths were registered during the week ending Saturday, April 20th. The annual rate of mortality in these towns, which had been 16.1 and 16.6 in the two preceding weeks, declined to 16.1 per 1,000 in the week under notice, but was 1.6 per 1,000 above the rate recorded in the ninety-five large English towns. Among the several Scottish towns the death-rates last week ranged from 9.3 in Hamilton, 9.8 in Govan, and 10.3 in Clydebank to 19.5 in Kilmarnock, 21.7 in Perth, and 23.2 in Leith. The mortality from the principal epidemic diseases averaged 1.8 per 1,000, and was highest in Leith and Coatbridge. The 263 deaths from all causes recorded in Glasgow included 11 from measles, 5 from whooping-cough, 3 from diphtheria, and 2 from scarlet fever. Ten deaths from measles were recorded in Edinburgh, 5 in Dundee, 5 in Leith, and 3 in Paisley; from diphtheria 3 in Dundee, and from whooping-cough 3 in Coatbridge.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, April 20th, 716 births and 518 deaths were registered in the twenty-two principal urban districts of Ireland, as against 675 births and 466 deaths in the preceding week. The annual death-rate in these districts, which had been 23.5, 20.9, and 21.0 per 1,000 in the three preceding weeks, rose to 23.3 per 1,000 in the week under notice, this figure being 8.8 per 1,000 higher than the mean average death-rate in the ninety-five English towns for the corresponding period. The figures in Dublin and Belfast were 26.7 and 22.9 respectively, those in other districts ranging from 5.3 in Tralee and 6.6 in Queenstown to 29.4 in Drogheda and 55.6 in Dundalk, while Cork stood at 23.8, Londonderry at 26.8, Limerick at 14.9, and Waterford at 17.1. The zymotic death-rate in the twenty-two districts averaged 1.9 per 1,000, as against 1.8 in the preceding period.

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

ALNWICK INFIRMARY.—House-Surgeon (Male). Salary, £140 per annum.

BARROW-IN-FURNESS: NORTH LONSDALE HOSPITAL.—House-Surgeon (Male). Salary, £100 per annum.

BEDFORD COUNTY HOSPITAL.—Male Assistant House-Surgeon. Salary, £80 per annum.

BELGRAVE HOSPITAL FOR CHILDREN, Clapham Road, S.W.—Resident Medical Officer (Male). Salary at the rate of £60 per annum.

BRADFORD CHILDREN'S HOSPITAL.—House-Surgeon (male). Salary, £100 per annum.

BRENTFORD UNION.—Medical Officer for the No. 8 (Hounslow) District. Salary, £175 per annum.

BRISTOL ROYAL HOSPITAL FOR SICK CHILDREN AND WOMEN.—Junior Resident Officer. Salary, £80 per annum.

BRITISH RED CRESCENT SOCIETY.—Two Surgeons required for Supplemental Mission for Tripoli.

BURTON-ON-TRENT INFIRMARY.—House-Surgeon. Salary, £120 per annum.

BURY INFIRMARY.—(1) Senior House-Surgeon; salary, £110 per annum; (2) Junior House-Surgeon; salary, £80 per annum, increasing to £90.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—Resident Medical Officer. Salary, £90 per annum.

CAPE COLONY: FRERE HOSPITAL, East London.—Resident Medical Officer. Salary, £300 per annum.

CARDIFF: KING EDWARD VII's HOSPITAL.—House-Surgeon. Honorarium, £30 for six months.

CHELTENHAM GENERAL HOSPITAL.—House-Physician. Salary, £80 per annum, rising to £100 on becoming Senior Medical Officer.

DENBIGH: DENBIGHSHIRE INFIRMARY.—House-Surgeon. Salary, £100 per annum.

DUBLIN: ROYAL VICTORIA EYE AND EAR HOSPITAL.—House-Surgeon. Salary, £40 per annum.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—House-Surgeon. Salary at the rate of £75 per annum.

ESSEX COUNTY ASYLUM, Brentwood.—Assistant Medical Officer. Salary, £150 per annum.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—Aural Surgeon.

GUY'S HOSPITAL, S.E.—Fifth Assistant Surgeon.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—House-Physician.

HUDDERSFIELD ROYAL INFIRMARY.—Senior Assistant and Junior Assistant House-Surgeons (Males). Salary, £80 and £60 per annum respectively.

ISLE OF MAN ASYLUMS BOARD.—Assistant Medical Officer for Isle of Man Lunatic Asylum and Home for Poor. Salary, £150 per annum.

ITALIAN HOSPITAL, Queen Square, W.C.—Officer in Charge of X-Ray Department.

KESTEVEN COUNTY ASYLUM, near Sleaford.—Assistant Medical Officer. Salary commencing £175 per annum.

LEEDS GENERAL INFIRMARY.—(1) Resident Medical Officer at the Ida and Robert Arthrington Hospitals; salary, £30 for six months. (2) Resident Obstetric Officer. (3) House-Surgeon. (4) House-Physician.

LEEDS PUBLIC DISPENSARY.—Junior Resident Medical Officer. Salary, £100 per annum.

LEEDS TUBERCULOSIS ASSOCIATION.—Resident Medical Officer for the Sanatorium at Gateforth. Salary at the rate of £100 per annum.

LIVERPOOL INFECTIOUS DISEASES HOSPITAL.—Assistant Resident Medical Officer. Salary, £120 per annum.

LONDON HOSPITAL, Whitechapel, E.—Obstetric Registrar and Tutor.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Resident Medical Officer. Honorarium at the rate of 50 guineas per annum.

LOUGHBOROUGH AND DISTRICT GENERAL HOSPITAL AND DISPENSARY.—Male Resident House-Surgeon. Salary, £120 per annum.

MACCLESFIELD GENERAL INFIRMARY.—Senior House-Surgeon. Salary, £100 per annum.

MANCHESTER ROYAL EYE HOSPITAL.—Junior House-Surgeon. Salary, £80 per annum.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Hampstead, N.W.—House-Physician. Salary, £75 per annum.

NEWCASTLE-ON-TYNE: HOSPITAL FOR SICK CHILDREN.—Honorary Physician to the X-Ray Department.

NEWPORT AND MONMOUTHSHIRE HOSPITAL.—House-Surgeon. Salary, £60 per annum.

NORTHUMBERLAND HOUSE, Finsbury Park, N.—Medical Superintendent. Salary, £300 per annum, increasing to £400.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—(1) Resident Surgical Officer. (2) Casualty Officer. Salary at the rate of £100 and £60 per annum respectively.

PADDINGTON INFIRMARY.—Second Assistant to the Medical Superintendent and Medical Officer of the Workhouse. Salary at the rate of £100 per annum.

PARK HOSPITAL FOR CHILDREN, Hither Green, S.E.—Assistant Medical Officer. Salary, £150 per annum, rising to £180.

PERTH ROYAL INFIRMARY.—House-Surgeon. Salary, £60 per annum.

PLAISTOW: ST. MARY'S HOSPITAL FOR WOMEN AND CHILDREN.—Assistant Resident Medical Officer. Salary at the rate of £80 per annum.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—(1) Female Junior Obstetric Assistant. (2) Male House-Physician.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William Street, W.C.—(1) House-Surgeon. (2) Assistant House-Surgeon. Salary at the rate of £25 and £20 for six months respectively.

ST. BARTHOLOMEW'S HOSPITAL, E.C.—Assistant Surgeon.

ST. MARY'S HOSPITAL, Paddington, W.—Obstetric Surgeon in Charge of Out-patients.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W.—Medical Registrar.

SHEFFIELD ROYAL INFIRMARY.—Ear and Throat Surgeon. Salary, £70 per annum.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—(1) House-Surgeon; salary, £100 per annum, increasing to £110. (2) House-Physician; salary, £82 per annum, and £5 honorarium after six months' approved service.

STOCKPORT INFIRMARY.—Junior House-Surgeon. Salary, £80 per annum.

SUNDERLAND ROYAL INFIRMARY.—Junior House-Surgeon (Male). Salary at the rate of £80 per annum.

WAKEFIELD GENERAL HOSPITAL.—(1) Senior House-Surgeon. (2) Junior House-Surgeon. Salary, £120 and £100 per annum respectively.

WALSALL AND DISTRICT HOSPITAL.—House-Physician and Casualty Officer. Salary, £90 per annum.

WINCHESTER: ROYAL HAMPSHIRE COUNTY HOSPITAL.—(1) House-Physician; (2) House-Surgeon (Males). Salary, £80 per annum each.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House-Surgeon. Salary, £80 per annum.

YORK COUNTY HOSPITAL.—House-Physician. Salary at the rate of £100 per annum.

YORK DISPENSARY.—Resident Medical Officer (Lady). Salary, £140 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacant appointment: Milnthorpe (Westmorland).

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

APPOINTMENTS.

GOW, W. J., M.D., F.R.C.P., Consulting Physician to the Queen Charlotte's Lying-in Hospital, Marylebone Road, N.W.

HILL, W. H., M.D. Medical Officer of Health, South Oxfordshire United Districts.

HINCKS, T. E., M.E Edin., Medical Officer of Health, Painscastle Rural District.

HURLEY, D. J., L.R.C.P. and S.Irel., Certifying Factory Surgeon for the Newcastle District, co. Limerick.

JOHNSTON, T. Arnold, M.D.Edin., Honorary Assistant Physician to the Leicester Infirmary and Children's Hospital.

LOTHIAN, Norman V. C., B.Sc., M.B., Ch.B.Glasg., Second Assistant Medical Officer to the Stirlingshire District Asylum, Larbert.

LUCAS, Albert, F.R.C.S., Honorary Surgeon to the General Hospital, Birmingham, vice Sir Thomas Chavasse (resigned).

MCMURTRY, William Dickson, L.R.C.S. and P.Edin., L.R.F.P. and S.Glasg., District Medical Officer and Public Vaccinator for the Putney District of the Wandsworth Union.

NICHOLL, E. E., M.R.C.S., L.R.C.P., Certifying Factory Surgeon for the South Molton District, co. Devon.

RATTRAY, J. M., M.D.Aberd., Certifying Factory Surgeon for the Frome District, co. Somerset.

STEELE, S. T., L.R.C.P.Edin., M.R.C.S.Eng., D.P.H.Camb., Certifying Factory Surgeon for the Morley District, co. York.

STEVENS, Thomas G., M.D., M.R.C.P.Lond., Physician to In-patients, Queen Charlotte's Lying-in Hospital, Marylebone Road, N.W.

STOKES, Henry, F.R.C.S.I., Surgeon to the Meath Hospital and County Dublin Infirmary.

TEBBUTT, Hamilton, B.A., M.B., Lecturer on Bacteriology to the Royal Dental Hospital of London School of Dental Surgery, Leicester Square.

THOMSON, G. F., M.B., Certifying Factory Surgeon for the Braemar District, co Aberdeen.

TYLECOTE, Frank Edward, M.D., D.P.H.Vict., M.R.C.P.Lond., Second Visiting Physician to the South Manchester Workhouse Infirmary, Withington.

WALKER, C. F., B.A., M.D., B.S.Lond., M.R.C.S.Eng., L.R.C.P.Lond., D.P.H.Manch., Assistant Medical Officer of Health to the Borough of Leicester.

WHITE, Clifford, M.D., M.R.C.P.Lond., Physician to Out-patients, Queen Charlotte's Lying-in Hospital, Marylebone Road, N.W.

WHITEHOUSE, A. L., L.R.C.P., M.R.C.S., L.D.S., Assistant Dental Surgeon of the Royal Dental Hospital, Leicester Square.

WOODHEAD, H. M., M.B., C.M.Edin., Medical Officer of Health, Sale Urban District.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—The following appointments have been made:

Male House-Surgeon.—M. D. Mackenzie, M.B., B.S.

Female House-Surgeon.—Miss Rawlins, M.B., B.S.

Female House-Physician.—Miss Peake, M.B., B.S.

Assistant Anaesthetist.—Miss Hood-Barrs, M.B., B.S.

Senior Obstetric Assistant.—Miss M. I. Waller, M.B., B.S.

Senior Clinical Assistant to Gynaecological Department.—Miss Mecredy, M.B., B.S.

Junior Clinical Assistant to Gynaecological Department.—Miss Cotton, M.B., B.S.

Clinical Assistant to Mr. Evans.—Miss Watts, M.D.

CORRECTION.—Dr. Margaret Dobson has been appointed Oculist to the Ealing School, and not Dentist, as printed last week.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTH.

RICHMOND.—On April 21st, at 39, Elvaston Place, S.W., the wife of W. Stephenson Richmond, M.R.C.S., of a son.

MARRIAGE.

ROBERTS—MATHEWS.—On April 18th, at Christ Church, Higher Bebington, by the Rev. Horace Stephens, M.A., Rector of St. Paul's, C.-on-M., Manchester, assisted by the Rev. Leslie W. Troughton, M.A., Vicar, Edmund Cleaton Roberts, M.B., of Bedford, to Constance Anne, only child of Alfred H. Mathews, Esq., of Rock Ferry.

DEATH.

WILLIAMS.—On April 18th, at S. Ealdhelm's, Acacia Road, Acton, W., Louisa Blanche, wife of William Henry Williams, M.R.C.S., L.R.C.P.Lond., late of Sherborne, Dorset, and daughter of Wm. Highmore, M.D.

PUBLISHERS' ANNOUNCEMENTS.

MESSRS. BAILLIÈRE, TINDALL AND COX announce the immediate publication of the following works: *Foods: Their Origin, Composition, and Manufacture*, by William Tibbles, LL.D., M.D., Medical Officer of Health, Melton Mowbray; *Prescriber's Formulary and Index of Pharmacy*, by Thomas P. Beddoes, M.B., F.R.C.S., Surgeon, London Skin Hospital, and Westminster General Dispensary; *Systematic Case-Taking*, by H. L. McKisack, M.D., R.N.L., Physician, Royal Victoria Hospital, Belfast. The same firm announces the publication of a third edition of *Anaesthetics*, by Dr. J. Blumfeld; and a second edition of *Syphilology and Venereal Disease*, by Mr. C. F. Marshall.

Messrs. Jack announce that among the second dozen of "The People's Books" which are to be issued on May 15th are the following: *The Foundations of Science*, by W. G. D. Whetham, M.A., F.R.S.; *Inorganic Chemistry*, by Professor E. C. C. Baly, F.R.S.; *Radiation*, by P. Phillips, D.Sc.; *Lord Kelvin*, by A. Russell, M.A., D.Sc., M.I.E.E.; *Huxley*, by Professor G. Leighton, M.D.; *Francis Bacon*, by Professor A. R. Skemp, M.A.; and a *Dictionary of Synonyms*, by Austin K. Gray, B.A.

RECENT PUBLICATIONS.

Sport on the Rivieras. Edited by Eustace Reynolds-Ball, F.R.G.S., and C. A. Payton, M.V.O. London: Reynolds-Ball's Guides. 1911. (Fcap 8vo, pp. 256; 12 illustrations. Price 2s. 6d. net.)

Tells the disciples of golf, tennis, motoring, cycling, angling, and sea fishing what facilities for their favourite pastimes are to be found in the part of the world indicated. They are much more numerous than might be imagined by those who merely spend a week or two in the South of France. Several of the articles are amusingly as well as informingly written, notably that on motoring, by Mr. C. N. Williamson. Among other virtues of the book is that of being sufficiently compact to be slipped into the pocket of every visitor to the Riviera.

DIARY FOR THE WEEK.

MONDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—First Oliver-Sharpey Lecture by Sir Ronald Ross, K.C.B., M.D.: Recent Researches on Malaria—Nosology.

TUESDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Second Oliver-Sharpey Lecture by Sir Roland Ross, K.C.B., M.D.: Recent Researches on Malaria—Epidemiology.

THURSDAY.

NORTH-EAST LONDON CLINICAL SOCIETY, Prince of Wales's Hospital, Tottenham, N., 4.15 p.m.—Clinical Cases.

ROYAL SOCIETY, Burlington House, W.—The following are among the probable papers:—Dr. B. R. G. Russell: The Manifestation of Active Resistance to the Growth of Implanted Cancer. Dr. W. H. Woglam: The Nature of the Immune Reaction to Transplanted Cancer in the Rat. T. G. Brown and Professor C. S. Sherrington, F.R.S.: On the Instability of a Cortical Point. Dr. J. W. W. Stephens and Dr. H. B. Fantham: The Measurement of *Trypanosoma rhodesiense*.

ROYAL SOCIETY OF MEDICINE:

OBSTETRICAL AND GYNAECOLOGICAL SECTION, 11, Chandos Street, W., 8 p.m.—(1) Annual Meeting, and Election of Officers and Members of Council. (2) Demonstration of Specimens. (3) Short Communications: Dr. Macnaughton-Jones: Neuroma of the Mesentery; Dr. Lockyer: Embryotomy after Version for Placenta Praevia; Dr. Willett and Dr. Williamson: Cases of Dystocia due to Premature Retraction Ring; Dr. Russell: Note on Extraperitoneal Caesarean Section. (4) Paper: Dr. Walter Swayne: The Clinical Significance of Acidosis in Pregnancy.

FRIDAY.

ROYAL SOCIETY OF MEDICINE:

LARYNGOLOGICAL SECTION, 11, Chandos Street, W., 4.30 p.m.—Demonstration of Cases and Specimens.

POST-GRADUATE COURSES AND LECTURES.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.: Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat, at noon and 4.30 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Tuesday, and noon, Friday. Eye, 11 a.m., Wednesday and Saturday. Radiography, Saturday, 10 a.m. Pathological Demonstration, Friday, 11 a.m. Special Lectures: Monday, 2.15, Some Difficulties in Abdominal Cases: Tuesday, 4.30, The Etiology of Tuberculosis; Wednesday, 2.15, Severe Anaemias; Thursday, 4.30, Gastric Secretions in Health and Disease.

MANCHESTER ANCOATS HOSPITAL POST-GRADUATE CLINIC.—Thursday, 4.15 p.m., Chronic Intestinal Obstruction, Differential Diagnosis.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week at 4 p.m. each day:—Tuesday, Medical. Wednesday, Surgical. Thursday, Surgical. Friday, Eye. Lectures at 5.15 p.m. each day will be given as follows:—Tuesday, Carcinoma of the Colon. Wednesday, Abdominal Section. Thursday, The *British Pharmacopoeia*, Its Relation to the Public and to the Profession. Friday, Aural Discharges.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics, X Rays, and Operations, 2 p.m. daily. Monday, Gynaecology, 10 a.m.: Eye, 2 p.m. Tuesday, Gynaecological Operations, 10 a.m.; Throat, Nose and Ear, 2 p.m.; Skin, 2 p.m. Wednesday, Diseases of Children, 10 a.m.; Throat, Nose and Ear Operations, 10 a.m.; Eye, 2 p.m.: Gynaecology, 2 p.m. Thursday, Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday, Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday, Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.: Eye, 10 a.m.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
APRIL.	
28 Sunday ..	
29 MONDAY ..	
30 TUESDAY ..	
MAY.	
1 WEDNESDAY	**Central Council, London, 2 p.m.** KENSINGTON DIVISION, *Metropolitan Counties Branch*, Town Hall, Kensington, 4 p.m.; followed by Special Meeting of whole profession.
2 THURSDAY ..	
3 FRIDAY ..	
4 SATURDAY ..	Nominations for election to Central Council to be forwarded to the Financial Secretary and Business Manager.
5 Sunday ..	
6 MONDAY ..	
7 TUESDAY ..	LONDON: Standing Ethical Subcommittee, 2 p.m.
8 WEDNESDAY	GLASGOW AND WEST OF SCOTLAND BRANCH, Annual Meeting, Pathological Institute, Royal Infirmary, Glasgow, 4 p.m.
9 THURSDAY ..	
10 FRIDAY ..	
11 SATURDAY ..	
12 Sunday ..	
13 MONDAY ..	
14 TUESDAY ..	
15 WEDNESDAY	CENTRAL DIVISION, *Birmingham Branch*, Annual Meeting, Medical Institute, 4 p.m.
16 THURSDAY ..	LONDON: Metropolitan Counties Branch, Council, 4 p.m. GLOUCESTERSHIRE BRANCH, Annual Meeting, Cheltenham Hospital, 6 p.m.
17 FRIDAY ..	
18 SATURDAY ..	Last day for receipt of nominations for Central Council.
19 Sunday ..	
20 MONDAY ..	
21 TUESDAY ..	BRIGHTON DIVISION, *South-Eastern Branch*, Ordinary Meeting.

Date.	Meetings to be Held.
MAY *(continued)*.	
22 WEDNESDAY	DORSET AND WEST HANTS BRANCH, Annual Meeting, Hotel Mont Dore, Bournemouth. RICHMOND DIVISION, *Metropolitan Counties Branch*, Richmond, 8.30 p.m.
23 THURSDAY ..	WALTHAMSTOW DIVISION, *Metropolitan Counties Branch*, Wesleyan Church School, Leyton, 4 p.m.
24 FRIDAY ..	
25 SATURDAY ..	List of nominations for election on Central Council will be published in the JOURNAL.
26 Sunday ..	
27 MONDAY ..	
28 TUESDAY ..	
29 WEDNESDAY	BATH AND BRISTOL BRANCH, Annual Meeting, Bristol.
30 THURSDAY ..	
31 FRIDAY ..	
JUNE.	
1 SATURDAY ..	
2 Sunday ..	
3 MONDAY ..	
4 TUESDAY ..	
5 WEDNESDAY	
6 THURSDAY ..	
7 FRIDAY ..	LONDON: Central Ethical Committee, 2 p.m.
8 SATURDAY ..	Issue of Voting Papers for Central Council Election from Head Office.
9 Sunday ..	
10 MONDAY ..	
11 TUESDAY ..	LONDON: Public Health Committee, 3.30 p.m.
12 WEDNESDAY	LONDON: Medico-Political Committee, 2 p.m.
13 THURSDAY ..	
14 FRIDAY ..	
15 SATURDAY ..	LONDON: Science Committee, 11.30 a.m. Last day for receipt of Voting Papers at Head Office *re* Central Council Election.

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SUPPLEMENT
TO THE
BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MAY 4TH, 1912.

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National Insurance.

House of Commons.

NATIONAL INSURANCE ACT.

DISCUSSION ON MEDICAL BENEFIT.

STATEMENT BY MR. LLOYD GEORGE.

ON Wednesday evening, May 1st, Mr. J. A. Grant (Cumberland, Egremont), who had precedence, moved a resolution dealing with the administration of medical benefits under the Insurance Act. The resolution was as follows:

> That this House is of opinion that immediate steps should be taken by the Government to ensure the co-operation of the medical profession in the administration of the National Insurance Act, and that, until such co-operation is ensured, the Act will fail efficiently to provide medical benefit.

Mr. Grant said that neither the House nor the medical profession had adequate information as to the medical benefit to be received by the insured under the Act, yet one of the main foundations of the Act must be the cordial co-operation of the doctors. While the Government blamed the doctors the doctors blamed the Government, and he had come to the conclusion that the fault did not lie with the medical profession. Government speakers had been promising people free doctors, but this gift it was not in their power to make; if the Act came into operation to-morrow the Government had no medical benefits to offer. After touching upon the question of extras, he said the root of the difficulty was the question of adequate remuneration. Could adequate treatment be given for 4s. 6d. a year? For postmen, who might be described as picked lives, the payment was now 8s. 6d., including medicine. He estimated that there would be 15 million patients and 15,000 doctors, and that would allow 1,000 problematic patients to each doctor; so that each doctor, if he were paid 4s. 6d. for each person, would receive £225 a year; with eleven visits to each patient a year that meant 4d. a visit. There were two courses open—either to drop the Act, or to amend it. The medical profession said that it would require 10s. a year, inclusive of medicine, and that would mean an additional £3,000,000 a year, which capitalized meant about £100,000,000 added to the country's responsibilities. In reply to a question by the Chancellor of the Exchequer as to what should be done for the medical profession, Mr. Grant said that it was not for him to supply answers, but to ask questions. It would be better for the Government to ask for the money required, and make sure of the success of the scheme.

Mr. Peel (Taunton), in seconding the resolution, expressed the opinion that the Government had not given much consideration to the medical profession. In an official leaflet medical benefit was described as doctor and medicine, or under special circumstances a money payment, yet the Government had not yet provided that benefit; he thought the leaflet ought to be withdrawn.

The Chancellor of the Exchequer interjected that the Government would carry out its promise: if there were no medical benefit there would be a special money payment instead.

Mr. Peel objected that this was not a satisfactory way of carrying out the medical benefit promised upon so many

platforms. Instead of consulting the medical profession the Chancellor of the Exchequer had insulted it. The work to be thrown upon the profession was heavy; medical benefit was to be given in all cases, though other benefits might be suspended; the area of private practice would be restricted, and the capital value of private practices would disappear. Again, everything should be done to secure the co-operation of the medical men who were working in voluntary hospitals. The voluntary system was at stake under the Act. It would be a dangerous and deadly thing if the doctors in this country were divided, as they were in Germany, into those who did contract work and those who had time to study the latest results of science. Medical benefit had been promised under the Act, and ought to be given. Medical benefit must come into force in nine months' time, and before people began to pay their money they ought to be certain what they were going to get for it. If proper medical benefit were in doubt, there would be a great deal of dissatisfaction in the country when deductions were made. The Government had put the matter off far too long in the hope that something might turn up. The matter ought to have been dealt with at least a year ago when the scheme was launched, but the Government had delayed meeting the doctors fairly. Not only for the benefit of the medical profession but of the millions of people to be insured he hoped the Government would be able to say that they had solved or were in the way of solving the difficulty.

Dr. Addison (Hoxton) thought that the motion, introduced a week before the first meeting of the Advisory Committee, might prejudice its deliberations. Questions to which the mover and seconder of the resolution had asked specific answers were expressly reserved for that Committee. The medical profession had required that service under the Insurance Act should be in accordance with certain conditions, and would only work the Act under those conditions, but the resolution did not touch any one of those conditions. It was quite true that in this matter the benefit of the whole community was wrapped up in the interests of the medical profession. The British Medical Association had appointed twelve representatives to serve on the Advisory Committee, and the interests of the Association would not be served if they went there with their hands tied. The Government had not met the medical profession in regard to the £2 limit, but it was to be remembered that when the suggestion was originally brought forward any man who became insured, even if he were the Chancellor of the Exchequer, or the Governor of the Bank of England, would have been entitled to take advantage of the low terms; later the bill was limited, except in the case of manual workers, to people with an income of £160 a year. The fact that there was no limit in the original bill was the main reason why the £2 limit was proposed. After the amendment by Mr. Joynson Hicks had been incorporated the demand was pressed, and was still pressed, in relation to those insured persons who would have an income between £2 a week and £160 a year. He had always opposed the imposition of a statutory limit of £2, and thought it would be most deleterious to the medical profession. He had heard no suggestion as to the way in which an Act containing such a limit could be worked. It could not be applied in mining or in industrial centres where the rate of wages varied from week to week. Medical men deserved to have proper payment for services rendered under fair and honourable conditions, but did not want to act as private detectives and ferret out what the incomes of their patients were. The Act gave free choice of doctor, which was a great advance on the old contract system. Though all the demands of the profession had not been met, club practice was abolished. The Government had gone a long way to meet the outstanding question of remuneration. Mr. Grant spoke of 1,000 names on a medical man's list and eleven visits during a year, but it was not to be supposed that all the 1,000 would be ill; the average of visits seemed to work out at 4.3. The conditions in different parts of the country were so diverse that it was difficult to generalize on the question of remuneration. A more careful examination of facts was required, and the Advisory Committee would make it its business to ascertain the facts. He had no doubt that the Chancellor of the Exchequer would abide by what he said at the meeting at the Opera House namely, that if the medical profession would bring a reasonable case before the Commissioners, and the Commissioners reported that further provision appeared to be required, the Government would give such report favourable consideration.

Sir Robert Finlay (Edinburgh and St. Andrews Universities) said that there was a vast number of medical practices in which a large part of the receipts were obtained from patients earning £2 a week or over; these persons were satisfied to continue the principle of employing the doctor they preferred and of paying him for his visits in the ordinary way. The Act threw all that class of patients into the vicious contract system, a system bad both for the doctor and for the patient. It might be necessary in the case of the poorest patients, but no case had been made out for disturbing the satisfactory relations which existed between the class of working man who was better off and his doctor. The insurance scheme had got into a very serious tangle owing to the way in which it was carried through the House, but he hoped the Chancellor of the Exchequer would state definitely what he had in contemplation. Where patients had not made arrangements with their doctors medical relief had been well cared for by the friendly societies, though there were relations between the societies and the doctors that required to be put right. Thanks to the Chancellor of the Exchequer, the doctors were now thoroughly united. A new system of medical benefit had been set up, while the true objects ought to have been to provide invalidity pensions to supplement old age pensions. It was stated that the Government was waiting for information, but it ought to have been obtained before the bill was introduced. The House wanted the Act administered in such a way that would give an adequate return to those compelled to make the payment, but that could not be done until the Chancellor of the Exchequer came to terms with the medical profession.

Mr. Lloyd George's Reply.

The Chancellor of the Exchequer said that when he read the motion he felt that on the whole its terms were unobjectionable, and he had hoped that the debate would have assisted the Government in coming to a conclusion on a very complex problem. He regretted that instead the House had been presented with party chaff without a grain of practical suggestion. Mr. Grant had stated that the medical profession demanded 10s. to cover the cost of drugs and medical attendance, and that this cost would involve an additional £3,000,000 to the charges. How did Mr. Grant suggest that this sum should be found? Was it to be another penny on the workman, the employer, or the income tax? The problem faced by the insurance scheme was not created by a Liberal or any other Government. Was it suggested that so large a sum as had been mentioned should be paid? Turning then to Sir Robert Finlay's accusation that the bill had been introduced without adequate consultation with the medical profession, the Chancellor of the Exchequer said: "We saw the British Medical Association, not once, or twice, before the bill was introduced."

Sir Robert Finlay interjected that his point was that the Chancellor of the Exchequer's information was inadequate as to the feeling of the medical profession.

Mr. Lloyd George:* That is a reflection not upon me, but upon the deputations that have been sent to me. I am not casting any reflection upon them. They came to see me; I gave them as much time as they asked. When they asked to see me a second time I saw them, and when they asked to see me privately, afterwards, I saw them. The right hon. and learned gentleman says they did not give me adequate information. I do not agree with him. I think they gave me all the information in their power. The difficulty arises for this reason: there are conflicting interests to take into account, and very powerful conflicting interests. The right hon. and learned gentleman might have been warned by the interruptions of speakers to-day that even now there are two views with regard to contract practice. The friendly societies have totally different views from the medical profession, and my difficulty was, not that I had not adequate information from both, but

* The remainder of the report of Mr. Lloyd George's speech is reprinted from the official report of *Parliamentary Debates*.

I had great difficulty in adjusting both. And if the right hon. and learned gentleman was in my position he would realize what an enormous difficulty it was to do so. Another thing is this. The medical profession never formulated their six points of demand until after the bill was introduced. They never formulated them in a specific demand until after the bill.

Sir Henry Craik: Does the right hon. gentleman mean after the bill was passed?

Mr. Lloyd George: No, it was not a bill then; it was an Act when it was passed. I have followed this very closely. The fact of the matter is this. The medical profession were undoubtedly discontented with the friendly society contract practice. They had been feeling their way for years upon the subject. They had had great discussions amongst themselves. They had a most elaborate inquiry into the whole matter—I think it was in 1904; I do not bind myself by the actual date, but it was not many years ago. They sent out inquiries to all members in the medical profession, and they got hundreds and thousands of replies, which they formulated in the shape of a report which they were considering, and even then these gentlemen could not come to a clear, definite, and final conclusion as to what they proposed as an alternative to contract practice. The right hon. and learned gentleman was good enough to say that I had done great service to the medical profession by making them a formidable trade union.

Sir R. Finlay: I did not say that. I said by making them thoroughly united.

Mr. Lloyd George: It is the same thing. I agree it is a great service to the medical profession. As any one knows who has had to deal with a profession or any other combination when there is a dispute as to terms or conditions of labour, it is infinitely better you should deal with the united body than a number of sporadic interests and conflicting interests. Of course in the medical profession there are conflicting interests. The right hon. and learned gentleman does not remember that. He seems to think, and that is his view, that the whole of the medical profession have denounced contract practice. Let him go to Durham or to South Wales, where it is now rigorously practised, and let him ask them to give it up, and see what reception he will get there. It would probably be as warm as the reception I would get from the Manchester doctors if I went there. The doctors are by no means united upon the subject, and they were not in a condition to formulate any demands. When the bill was introduced they came together for the first time and formulated something in the nature of a united specific demand.

When the bill was introduced and we had discussions the medical profession were undoubtedly very alarmed. They were alarmed because they were under the same delusion as the right hon. and learned gentleman, that when this bill became an Act it was going to enforce contract practice upon the whole country. If you get a distinguished lawyer like the right hon. and learned gentleman opposite who, clearly without ever having read the Act, comes to the conclusion that it is going to enforce contract practice, how can you blame the medical profession for coming to that conclusion? There is not a word from beginning to end about contract practice in the bill. There is not a word in the bill that will enforce contract practice. I now come to the consultations after the bill was introduced. I met the medical profession not once or twice, or even twenty times, but I had endless consultations with them. I met them as a body through the British Medical Association. I met their representatives constantly and incessantly, and I had to negotiate some sort of arrangement between them and the societies. That was the difficulty throughout. On the one hand I had an organization representing 20,000 or 30,000 doctors, and on the other hand I had the representatives of 4,000,000 or 5,000,000 of their patients. I considered both, and I had to try and do my best to adjust the different views of the various parties.

Even to-day I received a letter from the British Medical Association asking the Insurance Commissioners whether, if the Council passed a resolution inviting a conference before the Advisory Committee met, would they be prepared to meet them. The Insurance Commissioners answered instantly that they would be delighted to meet them; of course they would be delighted to meet them, and they have always been ready to meet them. The only quarrel we have had with any body of medical men is that they declined absolutely to meet the Commissioners when invited to do so. That does not apply to the British Medical Association, as my hon. friend reminds me. What did the medical profession do after the bill was introduced? They formulated a series of demands. I think I am right in saying that 75 per cent. of those demands were embodied in the bill in so far as it is possible to embody demands of that character in a bill at all.

You cannot embody in an Act of Parliament—we have taken up that position as a Government not merely in relation to the medical profession but with other bodies who put the same demand before us—a schedule of prices. That was not a position we took up merely with the medical profession. We took up the same position, for better or for worse, with the miners some little time ago. I do not think on that occasion we got much help from the hon. gentlemen opposite, or at least the miners did not get much help, but there was an attempt made to embody their schedule in an Act of Parliament. The Opposition and their friends took the Government view that when you have got demands which must vary according to the conditions of various districts and neighbourhoods it is impossible without careful examination to embody them in an Act of Parliament, and that the best you can do is to set up machinery for the purpose of settling them. We have set up that machinery. Let me invite the attention of the right hon. and learned gentleman to this point, because I am answering criticisms made by him. We set up machinery in exactly the same way when there was a similar demand for the miners. We set up machinery to fix the minimum demand, and we could not fix the maximum. This is a point I want the right hon. and learned gentleman and the medical profession to remember. We put into the bill the very machinery that the British Medical Association themselves asked for. That has never been acknowledged.

What did we do? They asked for an appeal from the Insurance Commissioners upon every contract that was entered into. They asked for representation upon the local Insurance Committees, and they have got it. They asked that we should recognize a local organization of doctors in each district, and that the local Insurance Committee should be compelled to consult that body before the contract was entered into. We agreed to that. There was not, so far I can recollect, a single demand made by the doctors with regard to the character of the machinery which was to fix terms that we did not agree to. Surely that ought to be recognized when you come to criticize the attitude of the Government towards the doctors. As my hon. friend reminds me, they asked that the remuneration rate should not be fixed in the bill, and perfectly right. It would not have worked well from their point of view. If you fixed the schedule of prices in the bill, and the prices went down, you would require an amending Act of Parliament for the purpose. It varies according to the character of the district, and it is a business proposition and far better that it should be fixed from time to time by negotiation between the parties. The doctors recognized that, and we acceded to their demands. We put a clause in the Act of Parliament enabling these committees to fix an income limit. An income limit was proposed, but it went no further. At that time there was no guillotine, and it could easily have been carried to a division. I had not even moved the closure on a single amendment at that date. It is all very well for the right hon. and learned gentleman to talk about rushing the bill through, but up to the point of the doctors' demands being discussed I had not moved the closure on either an amendment or a clause from the beginning to the end of the bill. We discussed it with the most ample opportunity for everybody to put an amendment and his case before the Committee.

Sir P. Magnus: An amendment was moved.

Mr. Lloyd George: I agree, but it was never carried to a division, and a very good reason why. Everybody recognizes that an income limit could not be enforced throughout the kingdom. Supposing you tried to enforce your income limit in the mining districts, where most of the practice is contract practice, not because the miners want it merely, but because the doctors prefer it, what would happen? One of the doctors, in the reply which he made to the British Medical Association, said that unless it were

contract practice he would not get in his bills. That is the way he put it. His time would be taken up in collecting his bills, a great many of which he would never get; whereas now he is assured of his bill by contract methods. Does any one suggest you could enforce an income limit of £2 in those districts? It is utterly impossible. There are steel and iron works where men who are earning as much as £6 a week, and some of them even more, have a contract with their works' doctor, and are given the same terms exactly as the men earning 35s. per week. Is there any one here who would suggest you should put a clause in an Act of Parliament which would make an income limit of £2 and deprive those people of the terms they get now? The very doctors themselves in those districts would have objected to it. The income limit is a matter to be discussed in the localities themselves. And you must have regard to the wages of the district and the conditions under which medical practice has been carried on in the past. I agree with the right hon. and learned gentleman that there has been a good deal of discontent with contract practice—a great deal. I am not going to say it is not justified in many cases. I do say it is justified in many cases. I have no hesitation in saying that the payment in some districts is a perfect scandal. It is not merely a pecuniary objection; it is a professional one, when a doctor feels that he cannot under these conditions do justice to his profession. It is quite impossible he should do so, and he is enabled to do it because he has got other practice which he depends upon for an income. Therefore I would not for a moment attempt to defend certain forms of contract practice, and I would not pretend that the price given to doctors in a great many districts is any return for the most valuable services which one man can render to another. I cannot defend the system of contract practice as a general rule. All I say is this, and I feel I can really challenge contradiction, there is no man in this House who will say you can put an end to contract practice by an Act of Parliament. You cannot. The hon. member agrees. There are large districts in this country where it is rooted in the very habits of the people, and where the doctors prefer it. Another thing I say is that there are other districts where contract practice would be absolutely unsuitable. The people are not accustomed to it, the doctors are not accustomed to it, and they would take to it very reluctantly, and I do not think it would be a good plan. What I want to invite the attention of the House and the doctors to is this—and I do it, I repeat it, because I think it is so important, and because there has been so much misapprehension about it: There is nothing in this Act that enforces contract practice anywhere. This Act does not prescribe contract practice anywhere. It simply says there shall be provision for medical attendance. I will come in a moment to the provision that can be made in those districts where you have not got contract practice now and where it might be useful in future. I have no desire to extend contract practice, and I never introduced this Act of Parliament with the intention of extending contract practice. Hon. gentlemen may ask me what are the courses which are open for the medical profession. First of all, where you have got contract practice at the present moment in conditions under which the medical profession are prepared to go on with it, it should be put on a fair and equitable basis. If the pay is inadequate, see that the pay is sufficient in those cases. That is the first case. In some cases it is obviously insufficient, and in the negotiations which take place between the Insurance Commissioners and the Insurance Committees and the profession they ought to ensure that the medical profession get a fair return for their great services in these districts. That is the first condition. I come to the other case where the medical profession will not agree to contract practice, and where, for reasons I need not enter into now, contract practice is unsuitable. I know there are parts of Lancashire where under no condition would the medical profession agree to contract work, and where, so far as I can see, there is no desire on the part of the working classes to compel contract work; where they prefer to go on as they do now, employing the medical men of their choice and paying them for the services rendered. There are two methods by which the Act meets a case of that kind, and they are both—one at least—at work and in operation now very successfully in various parts of Germany. It is that that all the money which is available under the Insurance Act in that particular district for medical work should be put into a pool, very largely under the control of the medical profession, and that at the end of the year, or at the end of six months, according to the convenience of the profession, all the bills for medical attendance upon insured persons should be sent in to that fund, and the money should be divided between the profession in proportion to the bills which are sent in. If the medical profession form their own committee they will constitute a check upon each other, which is very important in order to work a system of that sort fairly, otherwise one medical man might send in a much larger bill than he would have sent in if he was sending it to the patient himself, merely in order to get his proportion from the pool, and get by that means the whole of his payment from the common fund. If there is a deficiency, that deficiency is made up by the patient himself. The third method is that the sum of money which is set aside for medical attendance should be returned to the individual. Some hon. gentlemen have suggested that unless you make terms by which you provide medical attendance for each insured person and pay the whole of the bill, then these insured persons get nothing. Surely that is not the case. Let us take 6s. as the basis for the moment. How is that 6s. paid? So far as male members are concerned, 2s. 8d. is paid by the insured person and 3s. 4d. will be paid by the State and the employer between them, so that out of every 6s. that is given to the individual to provide medical attendance for himself 3s. 4d. is contributed by somebody else. Surely that is an enormous improvement upon the present situation, where the whole cost of medical attendance falls upon the person himself. With regard to females the proportion is higher, because the contributions of female members are lower; 2s. 3d. will be paid by the contributor and 3s. 9d. by the State and the employer. So that in both cases the major part of the contribution towards paying medical attendance, failing agreement or arrangement, will come from other sources than from the contributor himself or herself.

Mr. Austen Chamberlain: Do I rightly understand that the course which has just been described is that each insured person should have allocated to him 6s. to provide himself with medical attendance during the year?

Mr. Lloyd George: That is only failing agreement with the medical profession. Supposing that we fail to come to an arrangement with regard to contract terms, or with regard to the pool, the third course will be the course I am indicating, of giving this to the individual himself as a contribution towards paying his medical expenses for the year.

Mr. George Roberts: Will it be paid to the individual or the society?

Mr. Lloyd George: I am coming to that. The next course is that we should pay that contribution to the society itself. [An Hon. Member: "It is not in the Act."] Certainly it is. At any rate, that is the advice that is at the disposal of the Government, and I can assure the House it is advice worth paying some little heed to. We then pay the 6s. to the society. The society pools the amount and makes its own arrangements. Some friendly societies make the arrangement with their medical attendants; other societies make arrangements with local dispensaries in the district and pay over the whole of the sum which is at their disposal for medical attendance to these local dispensaries which employ whole-time doctors. That is a system which is working at present. It is a system under which hundreds of thousands of working men are at present being attended to. I agree, from figures which have been put before me by the British Medical Association, that in some of these cases the doctors are very inadequately paid. I have come to that conclusion after hearing both sides. There are others of the doctors fairly well paid. But the Act does this. The average paid by the friendly societies and by these dispensaries at present is 4s. per member, including drugs. This Act enables us to raise that sum by 50 per cent., to improve the quality of the drugs, and even provide more medical aid than is provided at present. There are four courses which are open to the Commissioners and the medical profession.

The hon. member (Mr. Peel) said there was a certain kind of disease which under the Act would have to be

attended to by the medical profession, although the friendly societies do not at present throw the responsibility of attending to that disease upon their medical attendants. But he forgets there is another kind of disease which constitutes a much heavier burden upon both friendly societies and the medical profession which is outside the limit of the 6s. I do not know whether he has read the very remarkable report which has been prepared by the Committee on Tuberculosis. The House and the community owe a deep debt of obligation to the hon. member (Mr. Astor) for the enormous labour which he has spent upon the preparation of this report, and for the great ability, skill, and patience which he has displayed in the preparation of it, and to the very able colleagues who were associated with him on that occasion. The average friendly society now, in respect of its tuberculous patients, pays an average of fifty-eight weeks' sick pay. It is a five-year life, as a rule. The House will see for itself what a burden that imposes upon the medical attendants of that particular society. For fifty-eight weeks a friendly society doctor has to visit that patient, he has to give drugs and medicines, and, as those patients are very numerous, unfortunately—something like 25 per cent. of the whole of the sick pay of these societies is in respect of tuberculous patients—

Mr. Peel: Tuberculosis of the lungs?

Mr. Lloyd George: I am dealing principally with the lungs. The report means that the whole burden and expense of curing tuberculosis is put outside the ordinary contract practice of the ordinary normal arrangements between the society and its doctors.

Mr. Peel: All the cases?

Mr. Lloyd George: Yes, all the cases. That is the recommendation of the Committee. That makes an enormous difference to a doctor. That is an extra, and I think the medical profession will bear that in mind. What I want to put to the House is this. I do not wish to dogmatize as to the best method of settling this question. All I wish to say is that I hope the House will not interpose any obstacles in the way of a practical settlement which will be satisfactory to all parties. It is the sincere desire of the Government to meet the legitimate wishes of the medical profession. We are in negotiation with them. We have set up, as we promised, during the time the bill was under consideration, an Advisory Committee, consisting of employers and employees, representative friendly societies, and representatives of the medical profession. A considerable number of the medical profession have been added on to these. There are thirty-three members of the medical profession on that Advisory Committee out of sixty-one. That is a very considerable proportion, because we have to put on representatives of employers' associations and employees' associations, and we have also had to add others who had a general knowledge of questions of this kind. I think on the whole everybody will consider that a very liberal allowance has been given to the medical profession on that body. But that is not all. This body can appoint subcommittees to deal with these matters, and on these the medical representation would naturally be very considerable. Then these problems are to be considered by a body of experts who will be perfectly impartial. We have not chosen the representatives. We have added on some it is true, but the bulk have been chosen by the associations themselves, and I think all the employers' associations have chosen their own representatives. You have got a body quite impartial to the medical profession, and we must wait their report before we pronounce any opinion on the best methods. I do not think it is an unreasonable demand to make, and I appeal not only to the House of Commons, but to the individual members of the House during the course of the next few weeks to assist in bringing those negotiations to a successful conclusion rather than to put obstacles in the way, and I am perfectly certain there will be a patriotic response to that appeal. After all, it is a matter of very great consequence, not only to this great profession, but to the 15,000,000 insured persons and their families, that the best medical attendance should be given. I would like to say nothing with regard to the demands of the doctors except this: I think every one will agree that an addition of £3,000,000 to the provision of £4,500,000 in addition to £1,000,000 for tuberculosis, and £5,500,000 for medical attendance, and 30s. for each case of maternity benefit, which amounts to about £1,500,000—to ask in addition to that that we should begin by adding £3,000,000, and to put a penny a week on workers, a penny a week on employers, or a penny on the income tax payer is, I think, a demand which even the friends of the medical profession will regard as excessive. I am not complaining that they should put forward their highest demands. It is a subject for negotiations. We shall enter into these negotiations without any prejudice at all. We shall enter into them with a view to seeing that the profession is adequately remunerated for the very great, onerous, and responsible work that is cast upon it. But I want the House and all those engaged in this controversy to remember that we must take into account not merely the interests of the profession, which are great, but also the interests of those millions of people who are insured persons. And I cannot help feeling that if you have got on both sides a negotiating temper this can be done. I have had the pleasure and privilege of meeting representatives of the medical profession when we were discussing the question of machinery, and whatever controversy might have been outside, as far as those negotiations were concerned they were always conducted in the most friendly and practical and business-like spirit, and I am sure that the same thing will happen again. I do not say that it will be possible to get through an arrangement with the medical profession without inviting the House of Commons to make some additional provision for medical attendance. I do not express any opinion on that subject. That is a matter which will be made clearer when we have embarked on these negotiations. There is only one observation to make in reference to those who claim that insurance as a whole is necessarily dependent upon medical attendance. One of the greatest insurance societies in this country is the Hearts of Oak. They conducted their business, for I forget how many years, without any medical attendance at all, and they have got hundreds of thousands of members. The trade unions have benefits, but they have no medical attendance. Both the Hearts of Oak and the trade unions allow medical attendance to be arranged for outside. In Ireland, where I am very pleased to say the proceedings in reference to the Act are progressing satisfactorily according to all the reports which I hear—there by the request of the Irish members as a body there was no provision for medical attendance at all, and still the arrangements for insurance are proceeding. After all, the very considerable provisions in this Act have nothing whatever to do with medical attendance. There is the provision for sick pay during twenty-six weeks of sickness. There is the provision for invalidity of 5s. a week as long as it lasts. The right hon. gentleman in his concluding observations said that the mistake we made was to provide medical attendance at all. He said that the people were satisfied with the friendly society arrangements in that respect. All I can say is that the medical profession were not satisfied.

Sir R. Finlay: I said that the arrangements required modification, but medical relief was much better administered by voluntary aid.

Mr. Lloyd George: Of course, but what the right hon. gentleman forgets is that in this Act we have made provision for improving the pay given by friendly societies for medical attendance. There is provision for an increased pay of 50 per cent. in the arrangements made by friendly societies. They must bear in mind that there is a very considerable pressure brought to bear upon them now by friendly societies representing millions of members to have the money for medical attendance handed over to them, and to leave it to them to deal with the doctors in their own discretion. I confess that here I am not quite in agreement with my hon. friends. I think it is far better that these arrangements should be made, if possible, by the machinery which is provided by the Act, because it is machinery that provides elaborate precautions for the purpose of protecting the doctors against any unfair bargains being imposed by competition amongst themselves. If the terms of the friendly societies are low, if there are any terms paid by the friendly societies that sweat the doctors at the present moment in any district, the doctors themselves are very largely to blame. There are districts where doctors have undertaken to do the work for half a crown a patient. It is not merely the friendly societies; it is the competition among

the doctors themselves. I think hon. members will admit that.

Sir Henry Craik: No; it was done in charity, and there were no other means of helping these people.

Mr. Lloyd George: I would be the last man in the world to depreciate the charity of the doctors. I know the enormous sacrifices they make. They attend patients who they know perfectly well can never pay them. I know of doctors who have gone to patients with large bills on their books, and who have attended them although they knew that they would not get either the old or the new. As I have said before, I would be the very last man in the world to depreciate the charity of the doctors. What I do say is that in many of these cases it has been due entirely to competition. One word in conclusion in regard to this motion, I have no objection to it. All it says is, "That this House is of opinion that immediate steps should be taken by the Government to ensure the co-operation of the medical profession in the administration of the National Insurance Act"—We are taking those steps. We are meeting the Advisory Committee next week. We have this very day offered to meet the British Medical Association, and we have received a letter from them on that subject. Therefore, so far as that part is concerned, there is no objection—"that until such co-operation is ensured, the Act will fail efficiently to provide medical benefit." Personally, therefore, I have absolutely no objection, as far as that portion is concerned, with the terms of the motion. (Hon. Members: "Hear, hear.") I do not know whether that was a cheer of gratification or a cheer of disappointment. If I may express my opinion I will tell hon. members what it is. They thought to have a first class party rag—(Hon. Members: "No")—without the slightest regard to the great issues that were involved. I decline to take any part in that. I know the gravity and responsibility that rests upon those who have got to administer medical benefit, and it is in that spirit I made the observations which I made.

Mr. Grant rose in his place and claimed to move "That the question be now put."

Question put accordingly, and agreed to.

By direction of the Chairman of the State Sickness Insurance Committee of the British Medical Association, the Medical Secretary has addressed a letter to the *Times* with regard to two of the statements made by the Chancellor of the Exchequer in the above speech.

One has reference to the statement (p. 427, first column, last paragraph) to the effect that the British Medical Association had passed a resolution inviting a conference before the Advisory Committee met. The Medical Secretary is authorized to say that no such letter has been sent, nor has there been any suggestion of inviting a conference between the Council of the British Medical Association and the Insurance Commissioners. The only letter recently forwarded to the National Insurance Joint Committee is that published on p. 1039 of the Journal of this week, which, together with the reply, is quoted.

The second point is as to Mr. Lloyd George's statements as to conferences with the British Medical Association before the bill was introduced (p. 426, last paragraph). The Medical Secretary is authorized to state that the facts are as follows:

The bill was introduced on May 4th, 1911. On April 4th, 1911, in response to urgent representations from the Association, the Chancellor of the Exchequer received a deputation. This was the only deputation from the Association received by the Chancellor prior to the introduction of the bill, and no special opportunity was afforded the Association of ascertaining the provisions of the bill. The Association, therefore, can obviously accept no responsibility for what in respect of medical benefit the bill as introduced into the House of Commons did or did not contain.

The Medical Secretary's letter concluded as follows:

These corrections of errors into which the Chancellor has, doubtless by inadvertence, fallen are necessary to remove in advance any misapprehension which might arise in the minds either of the public or of the members of the medical profess

PROVISIONAL MEDICAL COMMITTEES.

Lewisham.

The Lewisham Provisional Medical Committee has issued a circular letter to all medical practitioners resident in the borough of Lewisham for information with regard to contract practice and the action which should be taken in respect to the insurance scheme. When the district insurance committee has been appointed, and regulations have been issued by the National Insurance Commissioners, it is proposed to call a general meeting of all the medical men in the borough. The honorary secretary of the committee is Dr. Edgar Du Cane, 177, Brownhill Road, Catford, S.E.

Northumberland.

[The following reprint from a report published in the *Alnwick Guardian* of April 27th has been sent to us by the Honorary Secretary of the North Northumberland Division.]

A largely attended meeting of the medical men practising in the northern part of Northumberland was held at Alnwick on April 23rd, for the purpose of considering their position under the National Insurance Act, to appoint a provisional committee to safeguard the interests of the profession in this district, to discuss the question of a defence fund, and to arrive at some decision as to how the medical men who hold appointments under friendly societies shall act when the provisions of the National Insurance Scheme come into operation.

The following gentlemen were present: Dr. Mackay (Berwick), Dr. Macaskie (Bamburgh), Drs. Macdonald and Philipson (Belford), Drs. Paxton and Rutherfurd (Norham), Dr. Dey (Wooler), Dr. Watson (Whittingham), Dr. Trevor-Roper (Glanton), Dr. Moyes (Broomhill), Dr. Welsh (Amble), Drs. Jackson, Crowley, Purves, Robson, and Burman (Alnwick).

Dr. Macaskie was chosen as chairman, and apologies for inability to attend were received from Dr. Main (Alnwick), Dr. Badcock (Flodden Lodge), and Dr. T. Cleasby Taylor (Berwick).

The Chairman introduced the subjects for discussion and explained the necessity for unanimity of action if the profession was to receive due recognition at the hands of the Insurance Commissioners, and how it would strengthen the profession if a concerted system of compensation existed for any losses proved to have been incurred by any practitioner loyally adhering to the points insisted upon by the profession, and in order to do so the necessity for a strong defence fund was emphasized. He also called attention to the point that the formation of a provisional committee did not carry with it any obligation to accept service under the Insurance Act, or to form panels of practitioners for the purposes of the Act, but their duties would be to act as the mouthpiece of the local professional men and to lay before the Insurance Committee the special requirements of individual districts having features peculiar to itself in reference to the working of the provisions of the Act, and for this purpose such a committee must be representative of the various classes of practice in the district, and be large enough to insure a satisfactory carrying out of the duties which will devolve upon it.

After discussion it was resolved, on the motion of Dr. Macaskie, seconded by Dr. Macdonald, that the number of the committee be twelve and that they have power to fill up any vacancies caused by the nominations of this meeting not being accepted, and, if occasion arise, to add to its original number of twelve.

The following were then appointed as a Committee: Drs. Forster and Moyes (Broomhill), Dr. Welsh (Amble), Dr. Purves (Alnwick), Dr. Mackay (Berwick), Dr. Dey (Wooler), Dr. Welsh (Felton), Dr. Macdonald (Belford), Dr. Macaskie (Bamburgh), Dr. Fraser (Berwick), Dr. Rutherfurd (Norham), and Dr. Watson (Whittingham).

On the motion of Dr. Jackson, seconded by Dr. Robson, it was resolved:

That the question of a defence fund be referred to the Provisional Committee for consideration, and a report thereon be submitted to a meeting of general practitioners in the district to be called subsequently.

On the motion of Dr. Mackay, seconded by Dr. Rutherfurd, it was resolved:

That it be obligatory on all practitioners in the North Northumberland Division to obtain the sanction of the

State Sickness Insurance Committee before accepting any club appointment or contract work of any kind involving attendance upon insured persons.

It was also resolved:

That a copy of the proceedings at this meeting be forwarded to every practitioner in the district.

SCOTTISH MEDICAL INSURANCE COUNCIL.

A MEETING of the Executive Committee appointed at the first meeting of the Scottish Medical Insurance Council on April 12th and 13th was held on April 26th, when it was resolved to address communications to the honorary secretaries of all the Divisions of the British Medical Association in Scotland and to make inquiries on various subjects with regard to which further information is required. The Executive Committee also appointed a series of subcommittees to deal with various subjects. In the following list of the subcommittees, the title of the subcommittee is followed by the name of the chairman and convener: *Finance*, Dr. William Russell, 3, Walker Street, Edinburgh; *Organization*, Dr. R. C. Buist, 166, Nethergate, Dundee; *Colliery Districts*, Dr. John Joss, Denny, Stirlingshire; *Highlands and Islands*, Dr. A. C. Miller, Fort William, Inverness; *Rural Districts*, Dr. J. R. Hamilton, Hawick.

Request for Recent Information.

Dr. J. R. HAMILTON (Elm House, Hawick) Convener of the Rural Subcommittee, writes as follows:

The members of the Rural Subcommittee of the Scottish Medical Insurance Executive Committee would be glad if Scottish practitioners experienced in the working of country practices would communicate with them at once either by letter or personally stating how the Insurance Act is likely to affect their practices. They are anxious for information which will assist them in arranging a reasonable mileage scheme; in fixing charges and remuneration for night visits; in fixing times for receipt of messages; in dealing with the supply of medicines in rural districts, and in general questions affecting specially the provincial and country practitioner. Any information obtained will be considered as private, and it is essential it should be immediate in view of an early meeting of the Subcommittee. The members of the Subcommittee are: Dr. Douglas (Cupar), Dr. Paton (Perth), Dr. Rorie (Cults), Dr. Robson (Maxwelltown), Dr. Joss (Denny), Dr. Oliver (St. Boswells), any of whom will be pleased to receive information.

NATIONAL MEDICAL UNION.

WE have received the following communication from the Secretary of the National Medical Union (Mr. J. Webster Watts, F.C.A.), 5, John Dalton Street, Manchester:

The time fixed by the Government for the National Insurance Act to come into force is drawing nigh, and yet the medical profession is apparently as far off as ever from getting its just terms. It argues great faith on the part of medical men in hoping that at the eleventh hour, in spite of the Chancellor's utterances, the modest terms of the profession may be granted.

The members of the National Medical Union have watched with interest the proceedings of the State Sickness Insurance Committee, which put forth the minimum demands in a communication to the National Health Insurance Joint Committee. The letter in question was sent on February 29th. Nothing but a formal acknowledgement of the letter was received up to April 12th. After a period of nearly two months, a further letter had to be written on the latter date asking for a detailed reply.

On April 15th a reply comes that all such representations as those of the British Medical Association will be carefully considered in connexion with the preparation of the Regulations for the Administration of Medical Benefit (BRITISH MEDICAL JOURNAL, April 20th, 1912, p. 917). That statement is rounded off with an assertion that the advice and assistance of the Advisory Committee, on which the British Medical Association has representatives, will be available.

This looks like the snub direct to the State Sickness Insurance Committee. It seems ungracious to say, "I told you so," still we are not surprised at this game of bluff and evasion.

The attitude of the National Medical Union, who were not in favour of any medical organization sending representatives to the Advisory Committee till the minimum demands of the profession were fully and unequivocally granted, is thus once more clearly justified. It seems puerile to us to negotiate at all until our ultimatum is accepted.

The need for an organization like ours is thus once more plainly proved.

What is the National Medical Union?

It is a fighting machine which sprang into existence when the medical horizon was darkest, when the whole profession was threatened by the Insurance Bill, now an Act. This Act was made in England out of scraps from a German Act, which is hated by the medical profession there. It is neither good for the insured nor for the medical men who are expected to be club doctors under State control, to fit and unfit alike, at starvation pay, and under conditions most degrading to the profession.

It is a matter of history by now how the mass meetings of November and December were held in consequence of the disappointment caused by the weakness of those who ought to have been their leaders.

The Union has done its utmost

(*a*) To organize the profession in its resistance to the Act as it stands at present.

(*b*) To insist that the British Medical Association Representatives shall voice the opinions of their constituents.

(*c*) To bring about affiliation of kindred organizations, so as to get united action.

(*d*) To elaborate a scheme of medical service, to be submitted to the British Medical Association in the event of medical benefit being suspended.

(*e*) To endeavour to solve the difficulties of getting rid of the present club system.

Our immediate endeavour is to influence the elections to the Council of the British Medical Association, in order to strengthen that body. The names of suitable candidates will shortly be suggested.

RAILWAY MEDICAL OFFICERS AND FRIENDLY SOCIETIES.

IN a paragraph published in the JOURNAL of April 13th, 1912, p. 857, it was suggested that members of the medical profession should not be hurried into giving an answer to any circulars received from friendly societies asking medical men to state the terms upon which they would be prepared to undertake to give attendance upon the wives and children of members, and upon members of friendly societies outside the provisions of the National Insurance Act. A meeting of medical officers of the Great Central Railway and Joint Lincs Friendly Society, Manchester, was held at the Grosvenor Hotel on April 16th, when forty members were present. This friendly society has circularized the medical officers, asking for terms on which they would undertake fresh contracts outside the National Insurance Act.

With a view to unanimous and concerted action, it was decided to circularize the medical officers of the whole system to the effect that, at the present time, there could be no offer made pending the decision of the British Medical Association on the matter of contract practice.

A NATIONAL MEDICAL SERVICE.

DR. MILSON RUSSEN RHODES (Didsbury), from whom a letter on this subject was published in the SUPPLEMENT of April 20th, p. 402, sends the following detailed outline of his scheme:

1. The medical profession to be made a branch of the Civil Service, with salaries ranging from £400 to £1,000 per annum.

(*a*) The *Medical Register* to be the qualification for service.

(*b*) The present location of medical men to be accepted for such service.

(*c*) Their present patients to be their special charge up to a number to be considered as enabling them adequately to prevent illness and to attend to such when it occurs.

(*d*) The calculation of the salaries at first to be on the basis of the actual income—that is, income exclusive of expenses to be publicly borne as under—of the average of the last three years of each medical man.

(*e*) Future salaries to be calculated on an average of all the incomes in each neighbourhood, and the salaries gradually approximated throughout the country; a fresh graduate would not expect as much as a more experienced man, and is to accept a position as under (*f*).

(*f*) Every fresh graduate to be placed at first as assistant or junior partner with an older man in the neighbourhood and finally drafted to a vacancy occurring through

death or retirement, etc., he having the choice of vacancies which occur.

(*g*) The cost of this National Medical Service to be met by a graduated income tax extending to the poorest worker—either deducted from wages or salaries or by the same machinery as at present—collected by a demand note.

(*h*) Consultants and specialists are to be paid on a recognized scale for their hospital services and by a special modified tariff of fees for consultations, operations, etc., outside the hospitals and local cottage hospitals. (See 7 below.)

2. Every medical man to be placed on that Service and the one State examination to fit him for that Service. This applies to:

(*a*) General practitioners, and

(*b*) Consultants and specialists; but these must have special experience of general or hospital practice respectively.

3. Every householder or lodger already in or coming into a neighbourhood is to put his name down to a medical man of his choice.

(*a*) This is subject, for the sake of efficiency, to the limitation under (5), but as patients die or leave the neighbourhood or change their medical man, the next on the list who desired a particular doctor is to be eligible—subject to that particular doctor's consent.

(*b*) It is to be perfectly in order for a patient who desires the opinion of a particular doctor to ask his own medical attendant to meet such in consultation.

(*c*) Similarly a consultant or specialist may be required, and such would be arranged for at a particular and modified tariff—less than now—as under this National Medical Service Scheme such are to receive a fixed amount from Government for their hospital services. At the same time the modified fee to be paid by the patient would prevent undue or unnecessary calling in of a consultant or specialist.

(*d*) If the patient is unable to afford even such moderate tariff he is to be sent to the hospital as now, or provided for at the local cottage hospital by Government at an extra tax, as described under 7 below.

4. The medical man's duty is to call on and see such household—to note where constitutional tendencies exist, and prevent disease: and where actually such exists he is to give or advise medical or surgical assistance.

(*a*) The doctor is to call at regular intervals on his patients—or where necessary—and to watch their health, especially in the case of infants, children, and child-bearing women, and in special trades; for example, workers in lead, glass, weaving sheds, etc.

(*b*) When he finds constitutional weakness he is to advise and to prescribe suitable remedies or removal to a different locality, to a sanatorium, to a seaside home, to the hill country or abroad, freedom from sedentary or school life, or whatever the requirements of the particular constitutional ailment demands, and thus prevent disease.

(*c*) Where medical or surgical aid is required he will note:

(i) Whether he can efficiently give it.

(ii) Whether the case is one for special treatment, medical or surgical.

(iii) Whether a sanatorium or elsewhere as above is required.

(iv) Whether special advice must be sought either if patient is poor at the hospital or if able to afford by consultation with consultant or specialist according to a modified tariff above referred to.

(v) Whether operation or special treatment is required to be provided and paid for as indicated above at hospital, local cottage hospital or home at no extra cost to the patient, at extra Government tax, or at a modified tariff respectively.

(*d*) The doctor's duty will be to give prescriptions only, all medicine being supplied by the chemists under Government contract.

(*e*) As in Germany, the medical man will provide only a cabinet of emergency drugs and applications, etc.

5. The medical man to be allowed only a certain number of patients, say 300 to 500, and as soon as the number is made up for one doctor, then the neighbourhood must choose one of the others.

(*a*) By this National Service, while the medical man is saved the great loss of time in book-keeping and collecting accounts, he is also protected from undue number of calls by not having too many patients on his list who may call on him.

(*b*) Further, his own prevention of disease by looking after his patients will prevent undue amount of illness, and the more efficiently he prevents disease the less will be his duties in curing it.

(*c*) Having a junior, a new graduate, with him, the public and he are also protected if he should be ill, require change, or be at another patient's in an emergency, etc.

6. Every medical man newly starting to be drafted to a vacancy, or he may elect in which vacancy he will take service.

(*a*) Thus, when a graduate has passed his time at practical experience in general practice with an established general practitioner, he will have the choice of vacancies open at the time in various parts of the country.

(*b*) If he elects to become a consultant or specialist instead of a general practitioner, he will spend his time as now under consultants or specialists at one of the hospitals.

7. A central dépôt is to be instituted in every locality and thus save individual expense to medical men.

(*a*) Here instruments are to be provided by Government, a proper attendant being provided to see such are kept in order, sterilized, and ready for use by any medical man in the National Medical Service in the neighbourhood. Thus is a great saving in the cost of instruments effected.

(*b*) Here also are kept serums, testing apparatus, and a laboratory, instead of in each individual house.

(*c*) Apparatus for light and electrical treatment, etc.

(*d*) A library of books and periodicals.

(*e*) A board room for medical meetings.

(*f*) Several wards and an operating room where people of the poor middle class—never yet provided for—can be attended at a moderate tariff or by extra income-tax, surgeons and specialists, as stated above, not requiring the great fees of the present day, as they will receive under this National Medical Service proper remuneration for their hospital work.

This central dépôt will thus be in the nature of

(i) A cottage hospital,
(ii) A centre of scientific work in the locality,
(iii) A nursing home,
(iv) A board room for doctors,
(v) A medical library,

the doctors in the neighbourhood constituting the committee of such.

CORRESPONDENCE.

MEDICAL ATTENDANCE UPON THE INDUSTRIAL CLASSES.

DR. JAS. BRASSEY BRIERLEY (Old Trafford) writes: The profession is overwhelmingly in favour of the complete abandonment of club practice. The advent of the National Insurance Act has brought the matter to an issue. Lay people do not hesitate to condemn it, and yet this Act proposes to make every practitioner a perpetual slave to this distasteful method of carrying on his daily work. Is it not time we should evolve some scheme whereby the industrial classes can obtain efficient medical help at a reasonable charge, secure their independence by selecting their own doctor, and the doctor his independence by attending all weekly wage-earners not receiving more than 40s. a week as private patients? Further, large numbers of men with clubs are anxious to give them up—some unconditionally, and wellnigh all if *adequate* safeguards against money loss were assured.

The difficulty of "calling out" the clubs has been greatly exaggerated; is it conceivable that a man would lose all his patients?—would he lose a large proportion, and if he lost a few, he would certainly get as much by very modest fees, indeed, more than he does now by attending them as private patients. Now the problem can readily be solved, but mutual confidence is the first requirement:

1. (*a*) Ask all club doctors to give due legal notice to his club of his intention to give it up.

(*b*) To make out a list of all club patients he has had under his care during any part of the past year; also of his wife or any member of his family or any of his dependents he has attended as private patients during that time.

(*c*) Furnish an estimate of his net income from his clubs for the past year.

(*d*) Pledge not to take on any club.

The lists of patients of all the club doctors in an area to be fixed shall be placed in the hands of the local Medical Committee of that area for reference, to show all the private doctors the families he may *not* attend.

2. The safeguards. Every practitioner in a given area shall pledge himself not to take on any patient who has been attended by a club doctor, such pledge to hold good for one year.

The last, and probably the most important, matter is the fee. There must be a strict wage limit—40s. a week the maximum and where determined by a local Medical Committee 25s. the minimum. And all persons—father, wife,

or children of such patients will be entitled to the service of any man on a *local panel*, on which panel every practitioner who cares to accept the terms shall be entitled to have his name. I suggest 2s. 6d. for a visit and medicine *within a mile*, 2s. consultation and medicine at surgery, 1s. 6d. a visit under one mile, night visits 3s. 6d. between 8 p.m. and 8 a.m., surgical fees as per Local Government Board, plus fees for operations *not* provided for in the Local Government Board regulations.

The members of the British Medical Association ought to know at once what amount of the guarantee fund has been actually paid. I am particularly anxious for this information because I was quite sure the guarantee was originally asked for in order to compensate the club doctors loyal to the profession, and because my suggestion that if steps were taken to raise the annual subscription to 2 guineas the club question would be settled forthwith. Very generous guarantees have been made to other associations engaged in this compensation question and would be enormously increased if a definite policy were advanced. Who is going to lead and when?

Meetings of Branches and Divisions.

BATH AND BRISTOL BRANCH:

TROWBRIDGE DIVISION.

A MEETING of the Division was held in the Town Hall, Trowbridge, on April 24th, at 3.15 p.m., Dr. WAYLEN (Devizes) in the chair. Sixteen members were present.

Confirmation of Minutes.—The minutes of the last meeting were read, confirmed, and signed.

The late Dr. Campbell, of Calne.—The CHAIRMAN proposed, Dr. TUBB-THOMAS seconded, and it was resolved:

That a letter of condolence be sent to the widow of the late Dr. Campbell, of Calne.

Provisional Local Medical Committees.—The SECRETARY read the memorandum on this subject issued by the State Sickness Insurance Committee. After discussion it was moved by Mr. FLEMMING, seconded by Dr. DUPONT, and carried unanimously:

That a resolution be sent to the Central Committee:
That in the opinion of this Division it is advisable that at the earliest possible moment Provisional Medical Committees be formed for each insurance area.

Further, it was proposed by Dr. TUBB-THOMAS, seconded by Dr. TAYLER, and carried unanimously:

That, a County Committee having already been elected, it is inadvisable to form any committee other than the existing executive for the Division, which shall be the Provisional Committee for the Division.

Contract Practice.—The SECRETARY reported as to the action which it would be necessary to take regarding contract practice. It was decided that the lines of action should be considered by the County Committee.

Guarantee Fund.—The SECRETARY brought to the notice of members the necessity for increase in the amount of the Guarantee Fund.

EAST ANGLIAN BRANCH.

COUNCIL MEETING.

A MEETING of the Council was held at East Dereham on Thursday, April 25th. There were present: Dr. Thomson, Mr. H. A. Ballance, Dr. Caie, Dr. Potts, and Dr. Nicholson.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

New Members.—The following were elected members: H. G. Kilner, M.R.C.S., Bury St. Edmunds; D. C. Evans, M.R.C.S., Colchester; J. S. Hamilton, M.B., B.S., Ingatestone.

Election of Officers.—The following were nominated as officers: *Secretary for Essex*, Dr. B. H. Nicholson; *Secretary for Norfolk*, Mr. H. A. Ballance; *Secretary for Suffolk*, Dr. Gutch; *General Secretary and Treasurer*, Dr. Nicholson.

Provisional Medical Committees.—The circular *re* the formation of Provisional Medical Committees was considered.

Transference of Members in Ongar District.—Letters regarding the transference of men practising in the Ongar district were considered, and it was agreed that they should be taken over by the Mid-Essex Division.

Annual Meeting of Branch.—It was agreed to fix June 19th as the date of the annual meeting at Brentwood.

Luncheon.—Luncheon was partaken of at the King's Arms. There were forty present.

GENERAL MEETING.

The general meeting was held after luncheon, Dr. BURTON-FANNING, President, in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

The late Dr. Pembroke Minns.—It was proposed by Dr. D. S. THOMSON that a vote of condolence should be passed on the death of Dr. Pembroke Minns, Past President of the Branch. This was seconded by Sir ALAN REEVE MANBY and agreed to, all standing.

Fees for Treatment of School Children.—Sir ALAN REEVE MANBY opened a discussion on the fees to be accepted by medical practitioners from the local authorities for the treatment of the minor ailments of school children. The paper was discussed by the PRESIDENT, Dr. NASH, Dr. SILVA JONES, Mr. BALLANCE, Dr. ARTHUR GREENE, Dr. BELDING, Dr. MURIEL, and Dr. ROWELL.

Paper.—Mr. A. J. BLAXLAND read a paper on acute pancreatitis. The paper was discussed by the PRESIDENT, Mr. BALLANCE, and Dr. CLEVELAND.

Exhibition of Surgical Instruments.—Messrs. Down showed surgical instruments.

Tea.—Afternoon tea was kindly provided by Dr. and Mrs. Belding, Dr. and Mrs. Howlett, Dr. and Mrs. Duigan. The following were present: Dr. Burton-Fanning, Sir Alan Reeve Manby, Dr. Wyllys, Mr. Nance, Dr. Silva Jones, Dr. A. C. Mayo, Dr. J. C. Nash, Mr. H. A. Ballance, Drs. Thomson, Lack, Alexander McKelvie, Colvin-Smith, Long, Potts, Archer, Steele, Howlett, Lowe, Duigan, Perry, Wood, Caie, Sevier, Parry, Belding, Kingdon, Thomas, Griffith-Williams, Whitby, Bassano, Rowell, Wright, Gibson, James, Cleveland, Blaxland, and Nicholson.

EDINBURGH BRANCH:

LOTHIANS DIVISION.

A GENERAL meeting of the Lothians Division was held on April 24th, Dr. W. R. MARTINE (Vice-Chairman), of Haddington, presiding (Dr. JOHN KEAY, the Chairman, joined the meeting later).

Provisional Local Medical Committee.—It was resolved to form and elect (as the billet of meeting was sent to every resident medical man, whether member or non-member of the British Medical Association, in the Lothians) one (provisional) local Medical Committee for the three insurance areas (East, West, and Mid Lothians) of twenty members, ten from Mid-Lothian, five from East Lothian, and five from West Lothian, and to act together meantime until it was seen whether the profession was to accept service under the Act, according as to whether the Commissioners granted its minimum demands in the Regulations or not. This one committee can in the case of the local profession accepting the Act branch off at short notice to form the nuclei of three separate local Medical Committees (East, West, and Mid Lothian)—that is to say, the ten from Mid-Lothian, and the five from East and five from West Lothian. It was considered by the meeting that it was best meantime to act all together in one strong committee, and in electing it consideration was given to non-members of the British Medical Association.

LANCASHIRE AND CHESHIRE BRANCH:

BLACKBURN DIVISION.

A MEETING of this Division was held at the Old Bull Hotel, Blackburn, on Tuesday, April 23rd. Dr. RIGBY was in the chair, and there were present: Drs. Prebble, Macklin, Parr, Butterfield, J. T. T. Ramsay, Cunliffe, Bowes, Scott Heyliger, Cumming, Bowen, D. S. C. Reid, Armistead, Taylor, Foley, Kirkness, J. Patchett, Harbinson, Ross, Shaw, Beaton, Keighley, Tough, Henry, J. Craig, Greeves, Buchanan, A. E. Townley, Moffatt, A. W. Musson, J. J. Tough, Watson, L. Patchett, and Dr. Greenwood (Honorary Secretary).

Provisional Medical Committee.

The question of the formation of Provisional Medical Committees in connexion with the National Insurance Act was then considered. It was moved, seconded, and resolved that such a Provisional Medical Committee be formed.

It was further moved, seconded, and resolved that the said committee should consist of 20 members, constituted as follows: 8 for Blackburn, 6 for Accrington, Great Harwood, Rishton, Oswaldwistle, and Church, 4 for Darwen, and 2 for Clitheroe and Whalley.

These 20 members were then elected accordingly.

Blackburn.—Dr. Rigby, Dr. Taylor, Dr. Prebble, Dr. Henry, Dr. Scott Heyliger, Dr. J. T. T. Ramsay, Dr. Keighley, Dr. Greeves.
Darwen.—Dr. Moir, Dr. J. T. Ballantyne, Dr. Heywood, Dr. Lees.
Accrington.—Dr. Barr, Dr. Tough, Dr. J. V. Fox, Dr. J. Craig, Dr. Beaton, Dr. Cumming.
Clitheroe.—Dr. Macklin, Dr. A. W. Musson.

Dr. Keighley, of Lambeth Street, Blackburn, was elected the Honorary Secretary of this Provisional Committee.

It was moved, seconded, and resolved that this Provisional Medical Committee shall agree to recognize the Council of the Lancashire and Cheshire Branch of the British Medical Association as the co-ordinating body for the Blackburn Division, and that the said committee shall from time to time make reports of progress to such Branch Council, and that the said Provisional Medical Committee shall enter into no dealings with any authorities under the Insurance Act until they have received the sanction of the Council of the Lancashire and Cheshire Branch for so doing.

Salford Division.

A meeting of the whole profession of the area of the Salford Division was held on March 17th, called at the instance of the Salford Division to consider the formation of a Provisional Medical Committee. The meeting elected as its Chairman Dr. Fletcher, who is Chairman of the Salford Division.

Provisional Medical Committee.—Dr. Taylor, Honorary Secretary of the Salford Division, then explained the suggestions of the State Sickness Insurance Committee, and proposed the following resolution, which was seconded by Dr. Hodgson, and carried unanimously:

> That a Provisional Medical Committee be formed for the area of the Salford Division to organize the profession in view of the National Insurance Act, but not to enter into any negotiations with any insurance authority or approved society unless and until the British Medical Association as a body decides to do so, and a further meeting of the whole profession of Salford called for the purpose also agrees. Also that the Branch Council be recognized as the local co-ordinating authority.

Dr. Bell proposed and Dr. Waltenberg seconded to add as a rider after the word "agrees" the words "by a two-thirds majority of those present," but this was lost, and the motion agreed to as above. Dr. Taylor also proposed and it was resolved as follows:

> That the committee consist of nineteen members, together with the Chairman and Secretary of the Salford Division as *ex officio* members, and that the several districts and non-members be represented proportionately, eight representing Salford proper, four Broughton, two Eccles, Patricroft, Irlam, and Worsley; one Swinton and Pendlebury, and four the non-members; that nominations of representatives of each of these sections be made in the first place by members of the respective sections, or, failing that, by the present meeting, election to be by ballot of the whole meeting; also that the committee be elected for one year from the present date, casual vacancies being filled up by the section affected.

As no non-members of the British Medical Association were present when the meeting proceeded to nominations, the meeting itself nominated representatives of the non-members, and the result of the election was as follows: Representing Salford proper: Drs. Bradley, Garrard, Hodgson, Massey, Shand, Taylor, A. Williams, and Wolstenholme. Representing Broughton: Drs. Bell, Cantley, Fletcher, and Waltenberg. Representing Eccles District: Drs. Mort and Sturrock. Swinton District: Dr. J. P. Williams. Non-members: Drs. Elias, Calverley, Riley, and Turner.

Metropolitan Counties Branch.

The monthly meeting of the Council of the Branch was held at 429, Strand, W.C., on April 18th. Mr. Betham Robinson was in the chair, and forty-one other members were present.

New Women's Hospital for Children.—A letter from Dr. Flora Murray, transmitted through the Kensington Division, on the subject of the rules relating to the admission of patients to this hospital, was referred to the Medical Charities Committee for report.

New Members.—Nine new members of the Association were elected.

Proposed New Division.—The recommendation of the Organization Committee, that so much of the Wandsworth Division as is contained in the county of Surrey be detached to form a new Division to be called the Wimbledon Division, was adopted.

National Insurance Act.—The following motion was adopted:

> That the recently constituted National Insurance Act Committee of the Branch be the committee of the Branch for keeping the Provisional Medical Committees of the Divisions in touch and in line with one another, as recommended in the report of the National Insurance Act Committee adopted by the Branch Council at its last meeting.

Tuberculosis Dispensaries.—It was resolved to submit to the Central Council a copy of the rules which had been adopted by the Branch Council for the guidance of the Divisions of the Branch in respect of the establishment of tuberculosis dispensaries.

Chelsea Division.

A meeting was held at the Fulham Town Hall on Tuesday, April 23rd. There were present: Jas. Young, J. Fletcher, J. Dewar, H. Butler, Alice Benham, E. P. Satchell, E. Hudson, J. Hamilton, J. C. Jackson, T. M. Ross, J. Orr, Wm. Keen, P. W. Spaull, W. S. Lee, A. F. Millar, Campbell Boyd, W. Bonney, and J. R. Gallard.

Election of Officers.—Dr. Butler moved and Dr. Satchell seconded that Dr. Young be elected Chairman. This was carried unanimously. Dr. Spaull moved and it was seconded that Dr. Gallard be elected Honorary Secretary. Dr. Gallard moved and it was seconded that Dr. Spaull be elected Honorary Secretary. Dr. Spaull explained that he would not be able to find time for the duties of this office, and eventually Dr. Gallard consented to act. Dr. Jackson moved and it was seconded that Dr. Butler be elected Honorary Treasurer. This was carried unanimously.

National Insurance: Regulations.—The following regulations, as suggested by the Metropolitan Branch Council, were adopted unanimously:

1. That this committee shall not have power to deal with any other matters than those pertaining to the Act in the area for which it is appointed.
2. That the Metropolitan Counties Branch Council, or a committee appointed by it for the purpose, be recognized as the co-ordinating centre for the Provisional Committees in the area of this Branch, and that this Provisional Committee shall not enter into any dealings with the authorities under the Act, or seek recognition from any such authority, until it has received the sanction of the aforesaid Branch Council for so doing.
3. That this committee shall not apply for the sanction of the Branch Council for the purpose mentioned in the preceding regulation until it shall have called a meeting of all the medical men in the area and obtained the sanction of the meeting for so doing.
4. That this committee shall keep the Branch Council, or a committee of the Branch appointed for the purpose, fully informed as to its course of action and the results obtained, in order that the various Divisions may be brought as much as possible into line.
5. That this committee shall call a meeting of the whole of the medical practitioners of the area within seven days of the receipt of a requisition to that effect signed by at least fifteen of the medical men of that area.
6. That this committee be empowered to call at any time a meeting of all the medical practitioners of the area.
7. That this committee be empowered to fill the vacancies that may occur upon the committtee.

Dr. Jackson gave notice that at the next meeting of all the practitioners in this area he would move:

> That this committee be empowered to co-opt some members of the staffs of hospitals in the area.

Rules of Procedure, etc. — The following rules of procedure were adopted:

1. That at the meetings of this committee seven shall form a quorum.
2. That any member of this committee who shall be absent from three consecutive meetings thereof, and is unable to give a satisfactory explanation of such absence, either verbally or in writing, to the chairman or secretary, shall cease to be a member of the committee.
3. That the expenses of this committee shall be partially defrayed by a subscription of 2s. 6d. from members of the Division and 5s. from non-members.

Notice of Motion.—Dr. SPAULL gave notice that at the next meeting of the Division he would move:

That the Division contribute the sum of £5 towards the expenses of this committee.

Canvass of Practitioners.—It was moved by Dr. SPAULL, seconded by Dr. FLETCHER, and carried unanimously:

That each member of this committee do undertake to canvass ten practitioners allotted to him.

State Sickness Insurance Committee.—It was moved by Dr. SATCHELL, seconded, and carried unanimously:

That the State Sickness Insurance Committee be requested to send copies of the proposed bond to the secretary of this committee for distribution.

Subcommittee.—The Chairman, Secretary, and Drs. Lee, Orr, and Spaull were elected to draft a card of questions to be presented to all practitioners, and also to prepare the lists for canvassing purposes.

Next Meeting.—It was decided to hold the next meeting at Fulham Town Hall on Tuesday, May 7th.

MARYLEBONE DIVISION.

A MEETING of the medical practitioners of the borough of Marylebone was held at No. 11, Chandos Street, W. (Medical Society of London), on Thursday, April 25th, at 4.30 p.m., to elect a special committee to watch the interests of the medical profession of the borough, and to adopt rules for its guidance. Thirty practitioners were present. Sir FREDERIC S. EVE took the chair.

Provisional Medical Committee.

The names of twenty practitioners nominated to serve on the committee, duly proposed and seconded, were read. In general practice (ten): Drs. Percy Spurgin, Fleming Browne, J. P. D. McLatchie, W. Davis, P. A. Storey, Montgomery Smith, Alexander Ross, Pollock Simpson, Ward Ramsay, David Roxburgh. In consulting practice (ten): Drs. F. J. Poynton, F. J. Smith, Maynard Smith, Warren Low, Atwood Thorne, Cecil Wall, George Rowell, Mrs. Willey, Bishop Harman, Henry B. Shepherd. Dr. ROXBURGH proposed, and Dr. HAWTHORNE seconded, a motion that these be elected *en bloc*. The motion was carried.

The following rules and regulations were adopted:

1. That the Provisional Medical Committee shall not have power to deal with any other matters than those pertaining to the Act and to the organization of a Public Medical Service.
2. That the Metropolitan Counties Branch Council, or a committee appointed by it for the purpose, be recognized as the co-ordinating centre, and that the local committee shall not enter into any dealings with the authorities under the Act, nor seek recognition from any such authority until it has received the sanction of the Branch Council for so doing.
3. That the local Provisional Medical Committee shall not apply for the sanction of the Branch Council for the purpose mentioned in Rule 2 until it shall have called a meeting of all the registered medical practitioners in the borough and obtained the sanction of the meeting for so doing.
4. That the Provisional Medical Committee shall keep the Branch Council fully informed as to its course of action and the results obtained.
5. That the committee shall call a meeting of the whole of the registered medical practitioners of the borough within fourteen days of the receipt of a requisition to that effect signed by at least twenty of the registered medical practitioners in the borough, who must give satisfactory security for the expenses of the meeting.
6. That the Provisional Medical Committee be empowered to call at any time a meeting of all the registered medical practitioners of the borough.
7. That the Provisional Medical Committee be empowered to fill the vacancies that may occur upon the committee.
8. That the Chairman of the Marylebone Division (British Medical Association) shall be *ex officio* chairman of the committee.
9. That the members of the committee shall be elected for one year only.

Considerable discussion took place as to the methods of meeting the costs incurred by the committee.

It was proposed by Sir VICTOR HORSLEY and seconded by Mr. CREASY:

That the committee be instructed to apply in the first instance to the British Medical Association for money to defray their expenses; failing that, it should be empowered to call upon the registered practitioners of the borough to subscribe such sum or sums as might be needed.

Sir VICTOR HORSLEY pointed out that the expenses of this campaign fell very heavily upon the resources of the Association. The money specially subscribed for this purpose was insufficient, and it was regrettable to find that the wealthiest sections of the profession had failed most conspicuously to respond to the urgent call made for the support of the campaign.

The meeting then terminated.

GENERAL MEETING.

A GENERAL meeting of the Division was held at the rooms of the Medical Society of London, 11, Chandos Street, W., on Thursday, April 25th, at 5 o'clock p.m., Sir FREDERIC S. EVE in the chair.

Confirmation of Minutes.—The minutes of the previous meeting (BRITISH MEDICAL JOURNAL SUPPLEMENT, March 16th, p. 325) were confirmed.

Attendance of Representatives at Division Meetings.—Colonel HENDLEY asked for a return of the attendances at Division meetings during the past three years of the members elected as Representatives at Representative Meetings in regard to the six members who were elected Representatives at the last meeting of the Division. It was ruled that this information could only be forthcoming on a motion carried by the Division.

Report of Special Committee Appointed to Consider the Relation of Medical Officers of Hospitals to the Insurance Act.

The terms of the reference were as follows:

To advise on the relation of medical officers of hospitals and consultants to the National Insurance Act, with particular reference to the resolutions appearing in the agenda of the last Representative Meeting, and to prepare instructions for the Representatives of the Division.

Mr. DOUGLAS DREW, in moving that the report of the Special Committee be approved, said that two resolutions were proposed as follows:

The Marylebone Division considers that since medical practitioners, including consultants, have signed the declaration of the British Medical Association, and have given their adhesion to the policy of the Association, it is at the present juncture inadvisable to prepare or require any further declaration from any section of medical practitioners.

That it be a recommendation to the staff of voluntary hospitals to approach their governing boards so as to secure that no medical treatment shall be given to insured persons under the Act at the hospitals, either gratuitously or for pay, except on terms satisfactory to the medical profession

Mr. CREASY seconded the motion.

Mr. BISHOP HARMAN said that the resolutions might be considered inconclusive, but they were the result of an attempt to secure something like unity of attitude and action of this Division, members of which were widely separated in the views of what could and should be done in relation to hospital work.

Dr. C. O. HAWTHORNE moved the following amendment:

That the report be referred back to the committee, and that the Committee be instructed (1) to consider and to report on the notices of motion given by various Divisions and bearing on the relation of the medical and surgical staffs of hospitals to the provisions of the National Insurance Act; (2) to consider to what extent, if any, the signed pledge issued by the British Medical Association affects the relations of (*a*) the visiting staffs, and (*b*) the resident staffs of hospitals to hospital patients who are insured under the Insurance Act; (3) to ascertain, if possible, what action has been taken in this matter by (*a*) the Council of the Association and (*b*) the staffs of the metropolitan hospitals; and (4) to draft a report on the whole subject suitable for presentation by the Division to the Council of the Association.

Dr. Hawthorne said the resolutions provided no clear policy. He asked what was the "present juncture" referred to in the first resolution, and what were the "satisfactory terms" which the second resolution sug-

gested should be laid before the governing bodies of hospitals.

Sir Victor Horsley seconded the amendment. He said the committee was evidently ignorant of the work of the Central Insurance Committee in this matter. The resolutions proposed to establish the same injurious inaction on the part of hospital staffs that had crippled their work in dealing with the question of treatment of school children. He knew the difficulties of the situation were great, and expressed his sympathy with the committee, yet he could not but raise the strongest possible protest to this indefinite attitude.

Sir Frederic S. Eve asked Sir Victor Horsley if he could give a lead in a general manner as to what attitude they should take up. His remarks had been critical, but they were not constructive. The question was most complicated and difficult. There was great diversity of opinion—almost hopeless diversity. He himself thought that the first proposition fairly met one difficulty. But he was not satisfied wholly with the second proposition.

The Honorary Secretary read a letter from Dr. Dyke Acland in which he expressed his strong opposition to the second resolution. It was to the effect that:

Under no circumstances would he pledge himself to refuse to attend an insured person under the Act who might be sent up to hospital suffering from *acute* disease, for example, pneumonia, enteric fever, empyema, perforating gastric or duodenal ulcer, acute appendicitis, etc., etc. He thought if any such resolution were passed it would be greatly to the discredit of the profession.

He added that he should be in favour of guarding the hospitals against having insured cases dumped on them merely because they were troublesome, chronic, or incurable.

Dr. Roxburgh said Marylebone must give a lead to the profession in this matter. So far as the resolutions went they were good, but they were not definite enough.

Dr. Poynton said he thought the resolutions good, and the first was a truly statesmanlike reply to certain unstatesmanlike resolutions that appeared on the agenda of the last Special Representative Meeting.

The amendment referring the report back was carried.

Special Meeting.

A special meeting of the Division was held on Thursday, April 25th, immediately after the conclusion of the general meeting, to amend the Divisional rules, Sir Frederic S. Eve in the chair.

Amendments to Rules.

The following amendments to the existing rules were carried:

Rule 4. Representatives in the plural; and, failing the passing of the new Branch rule No. 11, add the phrase "not less than six other members."

Rule 6. The officers and Representatives shall be elected annually in the annual general meeting of the Division. Candidates for office shall be nominated by the Executive Committee or by any two members of the Division. Nominations must be in writing and accompanied by the consent of the candidate to serve, and must reach the Honorary Secretary not later than May 1st in each year. Voting shall be by ballot, unless a demand for a postal vote, signed by fifty members, be received by the Honorary Secretary not less than ten days before the date of the annual meeting, when the vote shall be taken by postcard, returnable on the day prior to such meeting.

Rule 7. The Representatives of the Division in the Representative Meeting of the Association shall be elected at the annual general meeting of Division, as provided in Rule 6:

(*a*) Representatives shall attend at any meeting of the Division called for their instruction (Rule 12). Any Representative who shall be unable or unwilling to attend the Representative Meeting shall be replaced by a deputy nominated and elected by ballot at the meeting called under Rule 12.

(*b*) Any Representative who has failed to attend a Representative Meeting, either personally or by authorized deputy, shall be ineligible for re-election for one year. Any member who shall have served as such Representative for five years consecutively shall be ineligible for re-election for one year.

(*c*) The Honorary Secretary shall send a special notice of any meeting called under Rule 12 to each Representative, together with a copy of By-law 39 (3) of the Association.

Rule 9 (*d*). Quorum—five.

To number the rule appertaining to the annual meeting No. 11, and to correct the number of Rules 11, 12, 13, to 12, 13, 14 respectively. To new No. 12 omit "annual" and read "meetings" in plural; also add

"A meeting of the Division shall be convened as soon as possible after the Representative Meeting to receive the report of the Representatives."

The proceedings then terminated.

Association Notices.

ELECTION OF CENTRAL COUNCIL, 1912-1913.

Notice is hereby given that nominations of candidates for election as Members of Council by Branches or Groups of Branches in the United Kingdom for the year 1912-13 must be forwarded to reach the Financial Secretary and Business Manager, at the Office of the Association, not later than Saturday, May 18th, 1912. Each nomination must be on the prescribed form, copies of which will be furnished by the Financial Secretary and Business Manager upon application.

Separate forms have been prepared:

(A) For a nomination by a Division, and

(B) For a nomination by any three Members of a Branch respectively.

Those applying are requested to state for which purpose the form is desired.

An announcement of the Nominations received will be made in the Journal of May 25th, 1912.

Election will be by voting papers. These papers will contain the names of all duly nominated candidates, and will be issued from the Central Office on Saturday, June 8th, and will be returnable not later than Saturday, June 15th.

The result of the election of Members to the Central Council will be published in the Journal of June 29th, 1912.

BY ORDER OF THE COUNCIL,

GUY ELLISTON,
Financial Secretary and Business Manager.

May 4th, 1912.

NOTICE OF ALTERATION OF BOUNDARIES OF BRANCHES AND DIVISIONS: FORMATION OF A NEW DIVISION.

The following changes have been made in accordance with the Regulations of the Association, and take effect from the date of publication of this notice:

South-Eastern and Metropolitan Counties Branches.

That the common boundary of the South-Eastern and Metropolitan Counties Branches, from Tooting station north-eastwards to the Thames, be adjusted so as to coincide with the boundary of the Administrative County of London.

New Woolwich Division.

That a new Division of the Association be formed, to be known as the Woolwich Division, of an area coterminous with the Metropolitan Borough of Woolwich, and to form part of the area of the Metropolitan Counties Branch.

Bromley and Dartford Divisions.

That the boundaries of the Bromley and Dartford Divisions be adjusted in accordance with the above.

BRANCH AND DIVISION MEETINGS TO BE HELD.

Birmingham Branch: Central Division.—The annual meeting of the Division will be held at the Medical Institute on Wednesday, May 15th, at 4 p.m., to elect officers for the ensuing year, and to transact other business.—W. Tracy Lydall and B. C. R. Aldren, Honorary Secretaries, Medical Institute, Birmingham.

DORSET AND WEST HANTS BRANCH.—The annual meeting of the Branch will be held at the Hotel Mont Dore, Bournemouth, on Wednesday, May 22nd. Members willing to read papers or show cases are requested to communicate, not later than May 8th, with the Honorary Secretary.—FRANK FOWLER, Honorary Secretary, Bournemouth.

GLASGOW AND WEST OF SCOTLAND BRANCH.—The annual general business meeting of the Branch will be held in the Pathological Institute of the Royal Infirmary, Glasgow, on Wednesday, May 8th, at 4 p.m. Professor Teacher will give a Pathological Demonstration after the general business has been transacted.—WM. D. MACFARLANE, Honorary Secretary.

GLOUCESTERSHIRE BRANCH.—The annual meeting of this Branch will be held at the Cheltenham Hospital on May 16th, at 6 p.m.—J. E. FINLAY, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: WARRINGTON DIVISION.—The annual meeting of this Division will be held at the Infirmary, Warrington, on Tuesday, May 14th, at 4 p.m. Agenda: Election of officers, committee, etc.—J. A. MURRAY, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: HAMPSTEAD DIVISION.—A meeting of this Division will be held on Friday, May 10th, at the Central Library, Finchley Road, when Dr. Price will read a paper on "Recent Advances in Heart Disease."—E. ARTHUR DORRELL, Assistant Honorary Secretary, 7, Cannon Hill, West Hampstead, N.W.

METROPOLITAN COUNTIES BRANCH: MARYLEBONE DIVISION.—The annual general meeting of this Division will be held at No. 11, Chandos Street, on May 15th, at 5 p.m., to receive the annual report of the Executive Committee and for the election of officers. A detailed agenda will be published in the SUPPLEMENT for the week ending May 11th.—N. BISHOP HARMAN, Honorary Secretary.

MIDLAND BRANCH: LEICESTER AND RUTLAND DIVISION.—The annual meeting of this Division will be held on Wednesday, May 15th, at 4 p.m., at the Leicester Infirmary. Agenda: Minutes of the previous meeting. Nomination of President of the Branch. Election of Representatives of the Division on the Branch Council, and of Chairman, officers, and members of the Executive Committee of the Division. Annual report of the Executive Committee. Discussion of matters referred to the Divisions. Nomination of Representative on the Council of the Association. Proposed alteration in By-law 39 (3)—For "according to the Annual List then in force" read "according to the list of members on the first day of the month preceding that on which the vote is taken." Any other business.—R. WALLACE HENRY, Honorary Secretary.

NORTH OF ENGLAND BRANCH: NORTH NORTHUMBERLAND DIVISION.—A special meeting of this Division will be held at the Infirmary, Alnwick, on Tuesday, May 7th, at 3.45 p.m., for the purpose of: (1) Receiving report from the Executive Committee on an ethical case submitted to them. (2) Considering the advisability of supporting a requisition for the separation of the present North of England Branch into two portions: (1) Northumberland and Tyneside Branch, (2) Durham and Teeside Branch.—C. CLARK BURMAN, Honorary Secretary.

Hospitals and Asylums.

DUMFRIES AND GALLOWAY ROYAL INFIRMARY.

THE one-hundred and thirty-fifth annual report of this infirmary states that the outstanding features of the year's work were: (1) The closing of the infectious wards by the withdrawal of all epidemic cases, provision having been made by the local authorities for the treatment of such cases elsewhere; (2) the fact that, notwithstanding the withdrawal of these cases, the number of indoor cases continues to increase; and (3) the institution of a scheme of reconstruction, extension, and reorganization. During the year 926 indoor cases were treated, as against 899 last year. In the out-patiert department there were 1,561 new cases, and 9,220 out-patients' visits were made. The daily average number of beds occupied had fallen from 73.06 to 70.2, and the average period in hospital of each patient from 29.66 to 27.54 days. There were 61 deaths during the year, being 1 in 15.1 cases, as compared with 1 in 13.2 cases last year. Each patient cost the institution, on an average, £4 10s. 1½d., and each bed £59 12s. The average cost of each patient per day has risen from 3s. 2d. last year to 3s. 4d. this year. In common with similar institutions the ordinary expenditure is considerably in excess of income, and the directors apprehend a further falling off of subscriptions when the National Insurance Act comes into force.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN ninety-five of the largest English towns 8,711 births and 4,764 deaths were registered during the week ending Saturday, April 27th. The annual rate of mortality in these towns, which had been 14.0, 14.0, and 14.5 per 1,000 in the three preceding weeks, fell to 14.1 per 1,000 in the week under notice. In London last week the annual rate of mortality did not exceed 13.3 per 1,000, against 13.1, 13.5, and 14.3 in the three previous weeks. Among the ninety-four other large towns the death-rates ranged from 5.6 in Ilford, 5.9 in Reading, 6.1 in Acton, 7.7 in Bournemouth, 7.8 in Oxford, and 8.1 in Enfield to 19.6 in Lincoln, 19.7 in Salford, 19.9 in Warrington, 20.0 in Newport (Mon.), and 20.5 in Bootle. Measles caused a death-rate of 1.6 in Nottingham, 1.8 in Portsmouth, 2.0 in Blackburn, 2.2 in Salford, 2.5 in Rotherham and in Cardiff, 3.2 in Merthyr Tydfil, and 4.3 in Newport (Mon.); and whooping-cough of 1.3 in Salford and in Rhondda, 1.4 in Smethwick and in South Shields, 1.5 in East Ham, 1.6 in Barrow-in-Furness, 1.8 in Darlington, and 2.1 in Gloucester. The mortality from the remaining epidemic diseases showed no marked excess in any of the large towns. A fatal case of small-pox was recorded in Bristol but none in any other of the ninety-five towns. The causes of 29, or 0.6 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest, and included 10 in Birmingham, 5 in Liverpool, 3 in Southend-on-Sea, and 3 in Gateshead. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,263, 1,242, and 1,236 at the end of the three preceding weeks, had further declined to 1,223 on Saturday last; 144 new cases were admitted during the week, against 121, 119, and 142 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

IN eighteen of the largest Scottish towns 1,325 births and 679 deaths were registered during the week ending Saturday, April 27th. The annual rate of mortality in these towns, which had been 16.6 and 16.1 per 1,000 in the two previous weeks, was 16.2 in the week under review and was 2.1 per 1,000 above that recorded in the ninety-five large English towns. Among the several Scottish towns the death-rates last week ranged from 8.1 in Govan, 8.8 in Motherwell, and 9.0 in Clydebank to 20.2 in Perth, 21.8 in Ayr, and 22.5 in Kilmarnock. The mortality from the principal epidemic diseases averaged 1.6 per 1,000 and was highest in Leith and Coatbridge. The 267 deaths from all causes registered in Glasgow included 6 from measles, 6 from infantile diarrhœa, 5 from whooping-cough, 2 from scarlet fever, and 1 from diphtheria. Ten deaths from measles were recorded in Edinburgh, 4 in Dundee, 3 in Leith, and 3 in Coatbridge; 2 deaths from scarlet fever in Greenock; and 3 deaths from whooping-cough in Edinburgh, and 2 in Aberdeen.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, April 27th, 692 births and 450 deaths were registered in the twenty-two principal urban districts of Ireland, as against 716 births and 518 deaths in the preceding week. The annual death-rate in these districts, which had been 20.9, 21.0, and 23.3 per 1,000 in the three preceding weeks, fell to 20.3 per 1,000 in the week under notice, this figure being 6.2 per 1,000 higher than the mean average death-rate in the ninety-five English towns for the corresponding period. The figures in Dublin and Belfast were 23.6 and 18.0 respectively, those in other districts ranging from 6.9 in Armagh and 9.9 in Kilkenny to 27.8 in Dundalk and 30.1 in Lurgan, while Cork stood at 17.7, Londonderry at 25.5, Limerick at 17.7, and Waterford at 15.3. The zymotic death-rate in the twenty-two districts averaged 2.0 per 1,000, as against 1.9 in the preceding period.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

IN accordance with the provisions of Order in Council of April 1st, 1881, Staff Surgeon EDWARD BRYAN KENNY, M.B., has been placed on the retired list, dated April 15th, 1912.

Surgeon-General HOWARD TODD, C.B., has been appointed Honorary Surgeon to His Majesty, in place of Inspector-General of Hospitals and Fleets Sir James Jenkins, K.C.B., deceased.

The undermentioned Acting Surgeons have been confirmed in the rank of Surgeon in His Majesty's Fleet: HENRY EDWIN SCARGILL, THOMAS COCK, dated May 19th, 1911; MALCOLM MILTON MELROSE, CECIL HEARLE SYMONS, ALFRED BERNARD CLARK, M.B., GUY BARTON COCKREM, HERBERT RICHARD BARNES HULL, CHARLES MALCOLM RUSSEL FLETCHER, M.B., ERNEST ST. GEORGE SAGAR GOODWIN, M.B., M.A., GEORGE DOUGLAS GORDON FERGUSSON, RONALD JOHN BARLEE, GEORGE DONALD MACINTOSH, M.B., dated November 24th, 1911.

ROYAL ARMY MEDICAL CORPS.

THE undermentioned Captains to be Majors, dated April 25th, 1912: ROBERT L. ARGLES, JOHN G. FOSTER, M.B., FRANCIS S. WALKER, LYDMAN M. PURSER, M.B., FARQUHAR MCLENNAN, M.B., JAMES H. ROBINSON.

Captain HUGH E. GOTELEE resigns his commission, dated April 24th, 1912.

INDIAN MEDICAL SERVICE.

THE King has approved of the retirement of Colonel FRANCIS CASEMENT REEVES, dated November 21st, 1911.

Colonel DOUGLAS FERENCH MULLEN, M.D., is permitted to retire with effect from March 25th, 1912.

Lieutenant-Colonel PILGRIM, Surgeon-Superintendent, Presidency General Hospital, Calcutta, is granted privilege leave with furlough, for eighteen months.

Lieutenant-Colonel H. GREANY retires from April 27th.

The services of Lieutenant-Colonel F. O'KINEALY are placed at the disposal of the Government of Bengal.

Major W. O'S. MURPHY, M.B. is granted from April 26th, or the subsequent date on which he may avail himself of it, such privilege leave as may be due to him on that date, in combination special leave for such period as may bring the combined period of absence up to six months.

Captain W. E. BRIERLY has been granted leave for seven months and two days on medical certificate.

Captain W. C. Ross is appointed Deputy Sanitary Commissioner, Bihar and Orissa.

Captain H. B. SCOTT, Special Plague Medical Officer, Sagaing and Meiktila Division, has been granted privilege leave with effect from April 1st, 1912.

TERRITORIAL FORCE.

ARMY MEDICAL SERVICE.

THE undermentioned officers to be Colonels, on appointment as Assistant Directors of Medical Services of Territorial Divisions, dated April 1st, 1912: Surgeon Lieutenant-Colonel EDWIN LEE, from the 4th Battalion the King's Own (Yorkshire Light Infantry) vice Colonel de Burgh Birch, C.B., M.D., vacated; Lieutenant-Colonel and Honorary Colonel WILLIAM H. BULL, F.R.C.S.Edin., from the 2nd Midland Mounted Brigade Field Ambulance, R.A.M.C., vice Colonel William P. Whitcombe, vacated; Lieutenant-Colonel THOMAS M. DAWSON, from the 2nd West Lancashire Field Ambulance, R.A.M.C., vice Colonel Damer Harrisson, K.H.S., F.R.C.S., vacated; Lieutenant-Colonel JAMES HARPER, M.D., from the 3rd London (City of London) Field Ambulance, R.A.M.C., vice Colonel Peter B. Giles, C.B., F.R.C.S., vacated; Lieutenant-Colonel J. B. MANN, from No. 18 Field Ambulance, R.A.M.C., Special Reserve, and the 1st East Lancashire Field Ambulance, R.A.M.C., vice Colonel William Coates, C.B., vacated; Lieutenant-Colonel HENRY J. MACKAY, M.D., from the 1st South-Western Mounted Brigade Field Ambulance, R.A.M.C., vice Colonel John R. Thomas, K.H.P., M.D., vacated; Lieutenant-Colonel STANLEY S. HOYLAND, from the 1st East Anglian Field Ambulance, R.A.M.C., vice Colonel George S. Elliston, C.B., vacated; Lieutenant-Colonel WILLIAM KINNEAR, M.D., from the 3rd Highland Field Ambulance, R.A.M.C., vice Colonel John S. Riddell, M.V.O., M.B., vacated; Lieutenant-Colonel DONALD J. MACKINTOSH, M.V.O., M.B., from the 3rd Scottish General Hospital, R.A.M.C., vice Colonel Sir George T. Beatson, K.C.B., M.D., vacated; Lieutenant-Colonel CHARLES P. OLIVER, M.D., from the 1st Home Counties Field Ambulance, R.A.M.C., vice Colonel James Turton, F.R.C.S., vacated; Lieutenant-Colonel JOHN V. W. RUTHERFORD, from the 1st Northern General Hospital, R.A.M.C., vice Colonel Joseph W. Blandford, K.H.P., vacated; Lieutenant-Colonel (Brevet Colonel, Brigade Surgeon, Lieutenant-Colonel, retired pay, late Grenadier Guards) CHARLES E. HARRISON, C.V.O., M.B., F.R.C.S.Eng., from the 1st London (City of London) General Hospital, R.A.M.C., vice Colonel Andrew Clark, K.H.S., F.R.C.S., vacated.

ROYAL ARMY MEDICAL CORPS.

Lowland Mounted Brigade Field Ambulance.—Lieutenant-Colonel ROBERT T. HALLIDAY, M.B., on completion of his period of service in command, retires, and is granted permission to retain his rank, and to wear the prescribed uniform, dated April 27th, 1912. Major HUGH W. THOMSON, M.D., to be Lieutenant-Colonel, dated April 27th, 1912. FRANK HAUXWELL, M.B., to be Lieutenant, dated April, 1912.

First North Midland Field Ambulance.—Lieutenant CHARLES D. LOCHRANE, M.D., F.R.C.S., resigns his commission, dated April 27th, 1912.

Third Northern General Hospital.—GEORGE HENRY POOLEY, F.R.C.S., ALFRED EDWARD BARNES, M.B., HARRY JOHN EGERTON HUTCHINS WILLIAMS, WILLIAM JAMES NATHANIEL VINCENT, M.B., to be Captains, dated February 1st, 1912.

Notts and Derby Mounted Brigade.—Captain OSWALD K. WRIGHT, M.B., resigns his commission, dated April 27th, 1912.

First South-Western Mounted Brigade Field Ambulance—Lieutenant ARTHUR S. GEDGE resigns his commission, dated April 27th, 1912.

Attached to Units other than Medical Units.—Captain WILLIAM T. BLACKLEDGE, M.B., to be Major, dated September 28th, 1911; Lieutenant R. C. DUN, M.B., F.R.C.S., to be Captain, dated January 7th, 1912; EDWARD BAINES KITCHING, to be Lieutenant, dated February 23rd, 1912. Captain ERNEST T. COX, M.D., resigns his commission, dated April 27th, 1912.

For Attachment to other than Medical Units.—JOHN MORRIS, M.B., F.R.C.S., to be Lieutenant, dated March 8th, 1912; PERCY WILLIAM GEORGE SARGENT, M.B., F.R.C.S., to be Lieutenant, dated March 30th, 1912.

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

BEDFORD COUNTY HOSPITAL.—Male Assistant House-Surgeon. Salary, £80 per annum.

BELGRAVE HOSPITAL FOR CHILDREN, Clapham Road, S.W.—Resident Medical Officer (Male). Salary at the rate of £60 per annum.

BIRKENHEAD AND WIRRAL CHILDREN'S HOSPITAL.—Male House-Surgeon. Honorarium, £100 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Third House-Surgeon. Salary, £75 per annum.

BRIGHTON: SUSSEX COUNTY HOSPITAL.—House-Physician (Male). Salary, £100 per annum.

BRISTOL GENERAL HOSPITAL.—House-Physician. Salary, £80 per annum.

BURTON-ON-TRENT INFIRMARY.—House-Surgeon. Salary, £120 per annum.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—Resident Medical Officer. Salary, £90 per annum.

CARDIFF: KING EDWARD VII'S HOSPITAL.—Two House-Surgeons. Honorarium, £30 for six months.

CARMARTHEN: JOINT COUNTIES ASYLUM.—Second Assistant Medical Officer. Salary, £160 per annum, rising to £180.

CHELTENHAM GENERAL HOSPITAL.—House-Physician. Salary, £100 per annum.

CHELSEA PARISH.—Second Assistant Medical Officer (Male) for the Chelsea Infirmary. Salary, £100 per annum, rising to £120.

CHESTER GENERAL INFIRMARY.—House-Physician. Salary, £90 per annum.

COLONIAL OFFICE.—Dental Surgeon in West Africa and also in Falkland Islands. Salary, £500 and £300 per annum respectively.

DUNDEE DISTRICT ASYLUM.—(1) Senior Resident Medical Officer. (2) Junior Resident Medical Officer. Salary, £150 and £120 per annum respectively, rising to £200 and £150.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—House-Surgeon. Salary at the rate of £75 per annum.

EDINBURGH HOSPITAL FOR WOMEN AND CHILDREN.—Medical Woman to act as Junior Resident. Honorarium, £12.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Two House-Physicians.

HOSPITAL FOR WOMEN, Soho Square, W.—Clinical Assistants in the Out-patient Department.

HUDDERSFIELD ROYAL INFIRMARY.—(1) Senior Assistant House-Surgeon. (2) Junior Assistant House-Surgeon. Salary, £80 and £60 per annum respectively.

ITALIAN HOSPITAL, Queen Square, W.C.—Officer in Charge of *X*-ray Department.

KESTEVEN COUNTY ASYLUM, near Sleaford.—Assistant Medical Officer. Salary commencing at £175 per annum.

LEAMINGTON: WARNEFORD, LEAMINGTON, AND SOUTH WARWICKSHIRE GENERAL HOSPITAL.—Junior Resident Medical Officer. Salary, £85 per annum.

LEEDS GENERAL INFIRMARY.—(1) Resident Medical Officer at the Ida and Robert Arthrington Hospitals. (2) Resident Obstetric Officer. (3) House-Physician. Appointments for six months. Salary of £30 attached to (1).

LEEDS UNION.—Male Assistant Medical Officer. Salary, £130 per annum.

LEEDS UNIVERSITY.—Surgical Tutor. Salary, £125 per annum. Surgical Registrarship at the Leeds General Infirmary is vacant, and may be held with the Tutorship. Honorarium, £25 per annum.

LEICESTER INFIRMARY.—Male Assistant House-Physician. Salary at the rate of £80 per annum.

MAIDSTONE: KENT COUNTY OPHTHALMIC HOSPITAL.—House-Surgeon. Salary at the rate of £100 per annum and £2 10s. laundry allowance.

MARGATE: ROYAL SEA-BATHING HOSPITAL.—Resident Surgeon. Salary at the rate of £100 per annum for first six months, £120 per annum for second six months.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—(1) Assistant House-Physician. (2) Assistant House-Surgeon. Salary at the rate of £40 per annum each.

MONTREAL: McGILL UNIVERSITY.—Lectureship in Physiology. Salary, 2,000 dols.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Hampstead, N.W.—House-Physician. Salary, £75 per annum.

NATIONAL HOSPITAL FOR DISEASES OF THE HEART, Soho Square, W.—Honorary Assistant Physician.

NEWPORT AND MONMOUTHSHIRE HOSPITAL.—House-Surgeon. Salary, £60 per annum.

NOTTINGHAM GENERAL HOSPITAL.—Locumtenent. Salary, £3 3s. per week.

PECKHAM HOUSE, Peckham, S.E.—Junior Assistant Medical Officer. Salary, £150 per annum.

PLYMOUTH INCORPORATION OF GUARDIANS.—Resident Medical Officer for Workhouse and Medical Officer for Scattered Homes. Inclusive salary, £150 per annum.

PRESCOT UNION.—Resident Assistant Medical Officer at the Workhouse and Infirmary. Salary, £120 per annum.

READING: ROYAL BERKSHIRE HOSPITAL.—House-Physician. Salary, £80 per annum.

ST. MARY'S HOSPITAL, Paddington, W.—Obstetric Surgeon in Charge of Out-patients.

ST. PETER'S HOSPITAL FOR STONE, ETC., Henrietta Street, W.C.—Junior House-Surgeon. Salary at the rate of £50 per annum.

SALFORD ROYAL HOSPITAL.—(1) Honorary Physician. (2) Honorary Assistant Physician.

SEAMEN'S HOSPITAL SOCIETY.—Medical Registrar at the Dreadnought Hospital, Greenwich. Honorarium, £50 per annum.

SHEFFIELD ROYAL HOSPITAL.—Sixth Resident. Salary, £60 per annum.

SHEFFIELD ROYAL INFIRMARY.—Ear and Throat Surgeon. Salary, £70 per annum.

SOUTH YORKSHIRE ASYLUM, Wadsley.—Assistant Medical Officer for five months. Salary, £3 3s. per week.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—(1) House-Surgeon; salary, £100 per annum, increasing to £110. (2) House-Physician; salary, £82 per annum, and £5 honorarium after six months' approved service.

STOCKPORT INFIRMARY.—Junior House-Surgeon. Salary, £80 per annum.

SUNDERLAND ROYAL INFIRMARY.—Junior House-Surgeon (Male). Salary at the rate of £80 per annum.

WARRINGTON INFIRMARY AND DISPENSARY.—Senior House-Surgeon. Salary, £120 per annum.

WESTMORLAND CONSUMPTION SANATORIUM AND HOME.—Medical Superintendent. Salary, £350 per annum.

WALSALL AND DISTRICT HOSPITAL.—House-Physician and Casualty Officer. Salary, £90 per annum.

WINCHESTER: ROYAL HAMPSHIRE COUNTY HOSPITAL.—(1) House-Physician; (2) House-Surgeon (Males). Salary, £80 per annum each.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House-Surgeon. Salary, £80 per annum.

YORK COUNTY HOSPITAL.—House-Physician. Salary at the rate of £100 per annum.

MEDICAL REFEREE.—The Home Secretary announces a vacancy as Medical Referee under the Workmen's Compensation Act, 1906, for Tavistock and Okehampton County Courts.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

APPOINTMENTS.

ASHTON, George, M.D.Vict., Medical Officer for Home Patients to the Manchester Royal Infirmary (reappointment).

BUTTON, M. B. S., F.R.C.S.Edin., Certifying Factory Surgeon for the Rye District, co. Sussex.

CANNING, William, M.B., B.Ch., R.U.I., Certifying Factory Surgeon for the Rockcorry District, co. Monaghan.

CRAWFORD, John H., M.B.Melb., Resident Medical Officer to the Hospital for Sick Children, Brisbane.

ECCLES, W. McAdam, M.S.Lond., F.R.C.S.Eng., Surgeon to St. Bartholomew's Hospital, vice C. B. Lockwood, F.R.C.S., resigned.

EDLESTON, R. S. C., M.R.C.S., L.R.C.P., Certifying Factory Surgeon for the Baslow District, co. Derby.

FORD, E. G., M.B., B.S.Edin., Certifying Factory Surgeon for the Wolston District, co. Warwick.

FRASER, Angus, M.B.Melb., Resident Medical Officer to the Hospital for Sick Children, Brisbane.

FRENCH, Herbert, M.A., M.D.Oxon., F.R.C.P.Lond., Honorary Consulting Physician to the Surrey Dispensary, Great Dover Street, S.E., vice Sir Samuel Wilks, Bart., M.D., F.R.S., deceased.

GANDHI, N. H. S., B.A.Camb., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Stoke-upon-Trent Union.

GARLAND, Albert J., M.R.C.S., L.R.C.P., Clinical Assistant to the Chelsea Hospital for Women.

GATER, H. J., L.M.S.S.Lond., L.M.R.C.P.Irel., Clinical Assistant to All Saints' Hospital for Genito-Urinary Diseases.

GORDON, W., L.R.C.P. and S.Edin., L.F.P.S.Glasg., Certifying Factory Surgeon for the Salisbury District, co. Wilts.

HIRD, R. Beatson, M.D., Ch.B.Birm., F.R.C.S.Edin., M.R.C.S.Eng., L.R.C.P.Lond., Ophthalmic Surgeon to the City of Birmingham Education Committee.

HOARE, Edward F., M.D., Ch.B.Liver., L.S.A., Medical Officer to the Post Office (Old Swan and West Derby District), Liverpool.

JEFFERSON, J. C., M.R.C.S., L.R.C.P., Junior House-Surgeon to the Manchester Royal Infirmary.

JOHNSTON, T. Arnold, M.D.Edin., Honorary Assistant Physician to the Leicester Infirmary, vice Dr. Sevestre, promoted to the Senior Staff.

MCGIVERN, J. P. J., M.B., B.Ch.Belf., Certifying Factory Surgeon for the Donoughmore District, co. Down.

MARTYN, V. C., L.R.C.S., L.R.C.P., Clinical Assistant to the Chelsea Hospital for Women, S.W.

MILL, W., L.R.C.P.Edin., M.R.C.S.Eng., Medical Officer of the Wigan Union Infirmary.

MOORE, W. W., M.B., B.Ch., R.U.I., Certifying Factory Surgeon for the Drum District, co. Monaghan.

PERDRAU, Jean René, M.B., B.S.Lond., M.R.C.S., L.R.C.P.Lond., Senior Assistant Medical Officer and Pathologist to the County Asylum, Herrison, Dorchester.

RUSSELL, D. H., M.B., Ch.B.Edin., Second Assistant Medical Officer to the County Asylum, Herrison, Dorchester.

SAUNDERS, L. D., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Salisbury Union.

VIVIAN, H. S., M.B., B.S.Lond., District Medical Officer of the Edmonton Union.

DREADNOUGHT HOSPITAL, Greenwich.—The following appointments have been made:

Assistant Physician for Diseases of the Skin.—Henry McCormac, M.B., M.R.C.P.

House-Physicians.—R. S. Lawson, M.B., Ch.B.; B. Phillips, M.B., Ch.B.

House-Surgeons.—C. Ede, M.B., B.C.; A. Gibson, M.B., Ch.B.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTH.

ACKROYD.—On April 29th, at Great Shelford, to Dr. and Mrs. Harold Ackroyd—a son.

MARRIAGES.

COLLINGRIDGE—SHADBOLT.—On April 25th, at St. Marylebone Parish Church, William Rex Collingridge, M.R.C.S., L.R.C.P., of Goudhurst, Kent, to Elsie Marian Shadbolt, late of Ipswich.

MUNRO—WILLIAMS.—On April 30th, at St. Paul's Church, Newport, Mon., by the Rev. H. Rees, Vicar of Abertillery, assisted by the Rev. A. A. Matthews, Vicar, Macdonald S. Munro, M.B., Ch.B., of Manor Park, Essex, to Janet Mary Williams, eldest daughter of J. T. Williams, Esq., of Cwmtillery, Mon.

PAGE—LIGHTING.—On April 24th, at St. James's Church, Nottingham, by the Rev. Reginald Charles Page, M.A., Rector of Trimingham, Norfolk, brother of the bridegroom, assisted by the Rev. Bingley Cass, M.A., Rector of the Parish, Algernon Fountain Page, M.R.C.S., L.R.C.P., second son of Charles Fountain Page, of Heigham Cottage, Norwich, to May, youngest daughter of the late Charles Lighting and Mrs. Lighting, of Hope Drive, The Park, Nottingham.

PUBLISHERS' ANNOUNCEMENTS.

MESSRS. J. AND A. CHURCHILL announce that within the next few days they will publish a treatise, in four volumes, entitled *A System of Treatment*. The editors—Arthur Latham, M.D., Physician to St. George's Hospital, and T. Crisp English, F.R.C.S., Senior Assistant Surgeon to St. George's Hospital—have received the assistance of 200 leading physicians and surgeons, who have written articles on subjects with which they are closely identified. The 500 illustrations are largely original, and there are over 5,000 pages.

DIARY FOR THE WEEK.

TUESDAY.

ROENTGEN SOCIETY, Institution of Electrical Engineers, Victoria Embankment, W.C., 8.15 p.m.—Paper:—Mr. W. Deane Butcher: The Education of the Brain, considered as an Electrical Machine.

WEDNESDAY.

UNITED SERVICES MEDICAL SOCIETY, Royal Army Medical College, Grosvenor Road, S.W., 5 p.m.—Business:—(1) Lieutenant-Colonel J. F. Donegan, R.A.M.C.; Demonstration of a field operating table. (2) Major F. E. Freemantle, R.A.M.C. (T.), and Major Caldwell Smith, R.A.M.C. (T.): The Sanitary Service of the Territorial Force.

THURSDAY.

HARVEIAN SOCIETY OF LONDON, Stafford Rooms, Titchborne Street, Edgware Road, W., 8.15 p.m.—Exhibition of Cases and Specimens.

ROYAL SOCIETY OF MEDICINE:

NEUROLOGICAL SECTION, 15, Cavendish Square, 8.30 p.m.—(1) Annual Meeting and Election of Officers. (2) Papers:—Dr. R. C. Jewesbury and Dr. W. W. C. Topley: Pathological Changes Found in Voluntary Muscle in General Diseases. Mr. Walter Edmunds: The Changes in the Central Nervous System resulting from Thyro-parathyroidectomy.

SATURDAY.

OPHTHALMOLOGICAL SOCIETY, in the theatre of the Royal Dublin Society, 10 a.m.—Papers will be read:—Dr. Lediard: Melanotic Sarcoma of the Choroid, with General Metastasis. Mr. Bishop Harman: A New Operation for Squint—Subconjunctival Reefing and Advancement. Dr. Werner: Cases of Disease of the Pituitary Body without Acromegaly. Mr. H. H. B. Cunningham: Fusion Pictures.

POST-GRADUATE COURSES AND LECTURES.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat, at noon and 4.30 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Tuesday, and noon, Friday. Eye, 11 a.m., Wednesday and Saturday. Radiography, Saturday, 10 a.m. Pathological Demonstration, Friday, 11 a.m. Special Lecture:—Friday, 2.15 p.m.: Sir John Bradford: Sciatica.

MANCHESTER: ANCOATS HOSPITAL POST-GRADUATE CLINIC.—Thursday, 4.15 p.m., Gastro-intestinal Haemorrhage.

MANCHESTER ROYAL INFIRMARY.—Tuesday, 4.30 p.m., Demonstration of a Case of Tumour of the Lung, and of a Case of Paraplegia.

MANCHESTER ROYAL INFIRMARY.—Friday, 4.30 p.m., The Surgery of the Gall Bladder.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week, at 4 p.m. each day: Monday, Skin. Tuesday, Medical. Wednesday, Surgical. Thursday, Medical. Friday, Ear, Nose, and Throat. Lectures, at 5.15 p.m. each day, will be given as follows: Monday, Tuberculin in Out-patient Practice. Tuesday, Measles. Wednesday, The Avoidance of After-effects from Anaesthetics. Thursday, Pruritus Ani.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m.: Combined Degeneration of the Spinal Cord. Friday, 3.30 p.m.: Principles of Topographical Diagnosis.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics: 10 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear; 3 p.m., Demonstration on Clinical and General Pathology. Tuesday, 2.30 p.m., Operations; Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient; 4.30 p.m., Special Demonstration of Selected Skin Cases. Wednesday, 2 p.m., Throat Operations; 2.30 p.m., Medical Out-patient; Skin and Eye Clinics: *X* Rays; 3 p.m., Pathological Demonstration; 5.30 p.m., Eye Operations. Thursday, 2.30 p.m., Gynaecological Operations; Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient; 4.30 p.m., Special Demonstration of Illustrative Medical Cases. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient; Pathological Demonstration.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics, *X* Rays, and Operations, 2 p.m. daily. Monday: Gynaecology, 10 a.m.; Eye, 2 p.m. Tuesday: Gynaecological Operations, 10 a.m.; Demonstration of Minor Operations, 11 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday: Gynaecological Demonstration, 10 a.m.; Lecture, Practical Medicine, 12.15 p.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday: Gynaecological Operations, 10 a.m.; Lecture, Clinical Pathology, 12.15 p.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday, Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.: Eye, 10 a.m. Special Lectures at 5 p.m. daily.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
MAY.	
4 SATURDAY ..	Nominations for election to Central Council to be forwarded to the Financial Secretary and Business Manager from this date until May 18th.
5 Sunday ..	
6 MONDAY ..	
7 TUESDAY ..	LONDON: Standing Ethical Subcommittee, 2 p.m. NORTH NORTHUMBERLAND DIVISION, *North of England Branch*, Special Meeting, Infirmary, Alnwick, 3.45 p.m.
8 WEDNESDAY	LONDON: Conference of Medico-Political and Public Health Committees, Medical Inspection and Treatment of School Children Subcommittee, Metropolitan Branch School Children Committee, and Representatives of Society of Medical Officers of Health, 2 p.m. GLASGOW AND WEST OF SCOTLAND BRANCH, Annual Meeting, Pathological Institute, Royal Infirmary, Glasgow, 4 p.m.
9 THURSDAY ..	LONDON: State Sickness Insurance Committee, 10.30 a.m. LONDON: Conference of Medical Members of Advisory Committee of National Insurance Joint Committee, 8.30 p.m.
10 FRIDAY ..	HAMPSTEAD DIVISION, *Metropolitan Counties Branch*, Central Library, Finchley Road, 8.30 p.m.
11 SATURDAY ..	
12 Sunday ..	
13 MONDAY ..	
14 TUESDAY ..	WARRINGTON DIVISION, *Lancashire and Cheshire Branch*, Annual Meeting, Infirmary, Warrington, 4 p.m.
15 WEDNESDAY	CENTRAL DIVISION, *Birmingham Branch*, Annual Meeting, Medical Institute, 4 p.m. LEICESTER AND RUTLAND DIVISION, *Midland Branch*, Annual Meeting, Leicester Infirmary, 4 p.m. MARYLEBONE DIVISION, *Metropolitan Counties Branch*, Annual Meeting, 11, Chandos Street, W., 5 p.m.
16 THURSDAY ..	LONDON: Metropolitan Counties Branch, Council, 4 p.m. GLOUCESTERSHIRE BRANCH, Annual Meeting, Cheltenham Hospital, 6 p.m.
17 FRIDAY ..	
18 SATURDAY ..	Last day for receipt of nominations for Central Council.
19 Sunday ..	
20 MONDAY ..	
21 TUESDAY ..	BRIGHTON DIVISION, *South-Eastern Branch*, Ordinary Meeting.
22 WEDNESDAY	DORSET AND WEST HANTS BRANCH, Annual Meeting, Hotel Mont Dore, Bournemouth. RICHMOND DIVISION, *Metropolitan Counties Branch*, Richmond, 8.30 p.m.
23 THURSDAY ..	WALTHAMSTOW DIVISION, *Metropolitan Counties Branch*, Wesleyan Church School, Leyton, 4 p.m.
24 FRIDAY ..	
25 SATURDAY ..	List of nominations for election on Central Council will be published in the JOURNAL.
26 Sunday ..	
27 MONDAY ..	
28 TUESDAY ..	
29 WEDNESDAY	BATH AND BRISTOL BRANCH, Annual Meeting, Bristol.
30 THURSDAY ..	
31 FRIDAY ..	
JUNE.	
1 SATURDAY ..	
2 Sunday ..	
3 MONDAY ..	
4 TUESDAY ..	
5 WEDNESDAY	
6 THURSDAY ..	
7 FRIDAY ..	LONDON: Central Ethical Committee, 2 p.m.
8 SATURDAY ..	Issue of Voting Papers for Central Council Election from Head Office.
9 Sunday ..	
10 MONDAY ..	
11 TUESDAY ..	LONDON: Public Health Committee, 3.30 p.m.
12 WEDNESDAY	LONDON: Medico-Political Committee, 2 p.m.

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SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MAY 11TH, 1912.

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SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs. BY ORDER.

MATTERS REFERRED TO DIVISIONS.

ANNUAL REPORT OF COUNCIL, 1911-12.

NOTICE TO MEMBERS.

THE Annual Report contains Memoranda and Recommendations on various subjects which are now presented for the first time to the Divisions, and upon most of which Representatives must be instructed. Special attention is directed to the following:

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(A) Preliminary.

THE LIVERPOOL MEETING.

1. The Council in submitting its Report for 1911-12 is gratified that the Eightieth Annual Meeting is to be held at Liverpool, and that thus for the fourth time the Association will enjoy the hospitality of this great city. On the last occasion, in 1883, Dr. A. T. H. Waters was President, and the Council is pleased to record that he is still a Member of the Association. At that time the membership of the Association was 10,050; in the interval of twenty-nine years this has increased by over one hundred and fifty per cent. Under the Presidency of Sir James Barr the coming Meeting is assured of maintaining the best traditions of the Association.

THE SCIENTIFIC WORK OF THE ANNUAL MEETING.

2. The Address in Medicine will be given by Dr. George Alexander Gibson, of the Edinburgh Royal Infirmary, and the Address in Surgery by Mr. Frank Thomas Paul, of the Liverpool Royal Infirmary. The remainder of the Scientific work has been arranged in twenty Sections.

THE ANNUAL MEETING, 1911.

3. The Council has pleasure in referring again to the success of the Birmingham Meeting under the Presidency of Professor Saundby, and desires to congratulate Mr. Albert Lucas, the principal Secretary, and those associated with him, on the admirable arrangements made for the comfort and enjoyment of those who visited Birmingham.

LORD LISTER.

4. By the death of Lord Lister the medical profession and the civilised world has suffered a great loss. The work Lister accomplished for the alleviation of suffering and as the genius and inspiration of modern Surgery, will remain for all time.

SIR HENRY BUTLIN.

5. In Sir Henry Butlin the Association has lost one whose critical judgment and business acumen in every office he held were of incalculable value, while his intellectual gifts and the nobility of his personal character justly won for him the affection and esteem of the entire profession.

NATIONAL INSURANCE ACT.

6. The introduction and passing into law of the National Insurance Act has overshadowed the whole work of the Association. The provisions of the Act as a whole are experimental, and those dealing with Medical Benefit are such as to constitute a grave menace to the efficiency of the medical profession and to its usefulness to the community.

The Council is of opinion that by united action the profession can secure that the Regulations shall be so framed (and if necessary embodied in an amending Act) that the remuneration and conditions of service shall be such that medical men can cordially co-operate in administering the Act. Without such co-operation the Act must prove a failure.

GROWTH OF THE ASSOCIATION.

7. The redeeming feature of the passing into law of the National Insurance Act has been the welding together of the medical profession. During the year the membership of the Association has increased considerably, and at the present time exceeds 25,000 members. Such an increase encourages the Council in the hope that at no distant date membership of the medical profession and membership of the British Medical Association will be synonymous terms.

ATTENDANCES OF COUNCIL AND COMMITTEES.

8. As a result of the National Insurance Bill, and Act, the work of the Council and Committees has been exceptionally heavy. It is difficult for the ordinary Members of the Association to realise the sacrifice which is required of those who devote their time to the central Committees in endeavouring to promote and safeguard the interests of the profession.

The attendances of Members of Council, Committees, and Sub-Committees, will be published subsequently.

MEDICAL BENEVOLENCE.

9. During the past year a sum of £1,115 has been collected through the central office for medical charities. Of this sum £648 was for the British Medical Benevolent Fund, £435 for the Epsom College Medical Benevolent Fund, and £31 for the Royal Medical Benevolent Fund Society of Ireland. The Council takes this opportunity of thanking those who have subscribed to these Funds and of reminding those who are not subscribers, of the excellent work they continue to do on behalf of the less fortunate members of the profession.

INSTRUCTIONS OF ANNUAL REPRESENTATIVE MEETING, 1911.

10. A list of the resolutions of the Annual Representative Meeting, 1911, containing instructions to the Council, will be be found in Appendix I to this Report. In the list are given also references to the paragraphs of the present Report in which the various subjects are dealt with.

(*Note.*—For Appendix I, see page 465.)

(B) Finance.

FINANCIAL STATEMENT FOR THE YEAR 1911.

11. When submitting the Balance Sheet and Financial Statement of the Association for 1910 the Council reported that that year had proved a record both as regards Expenditure and Revenue. That record is left far behind with the figures now presented.

Including the extraordinary expenditure of some £8,090 due to the introduction and passing into law of the National Insurance Act, the total expenditure of the Association amounted to £67,422.

Towards the extraordinary demands on the Association the National Insurance Defence Fund contributed £6,445; but for this assistance the small surplus must have been converted into a deficit of £6,237.

It is fair to say that the whole of this abnormal Expenditure, except for consequential increased cost of producing the JOURNAL due to the increased membership, may be solely attributed to the work of the Association in connection with the National Insurance Act.

After meeting this serious financial strain, and after providing for depreciation and outstanding liabilities of the Association, the surplus on the year was £207 as compared with £2,094 the previous year.

BALANCE SHEET.

12. The figures in the Balance Sheet are much as usual, the outstanding Assets and Liabilities showing little variation. The matter that does call for comment is the increase of £2,000 in the over-draft from the Bank, which stood at £46,150 on the 31st December last. So long as the over-draft remains at such a figure the Association would be faced with difficulty if it had any sudden and serious call on its cash resources.

The endeavour to reduce this over-draft must occupy serious attention at the earliest possible moment.

British Medical Association.

Balance Sheet 31st December, 1911.

Dr. **Cr.**

LIABILITIES.

	£ s. d.	£ s. d.
To Subscriptions paid in advance	745 6 10	
,, Advertisements ditto	1,319 11 5	
,, Contributions	729 6 5	
		2,794 4 8
,, Reporting	125 16 9	
,, Engraving	59 8 9	
,, Printing Journal	681 15 3	
,, Paper for Journal	533 9 7	
,, Miscellaneous Printing	1,754 2 5	
,, Stationery	221 18 11	
,, Repairs	31 18 3	
,, Legal Charges	243 4 4	
,, Rates and Taxes, Insurance and Electricity	500 12 6	
,, Plant and Type	43 18 7	
,, Sundries	19 10 0	
,, Library Books, &c.	66 7 8	
		4,295 3 0
London County and Westminster Bank—Amount of Loan at December 31st, 1911, on Account of New Building, secured by Deposit of Deeds of Freehold Property		46,150 0 0
,, Subscriptions due to Branches, December 31st, 1911		71 4 0
TOTAL LIABILITIES		53,297 11 8
,, OFFICE STAFF SUPERANNUATION FUND—		
Amount Invested per contra		4,201 7 0
,, **Surplus Account**—		
Balance on January 1st, 1911	103,294 6 5	
Balance of Income over Expenditure for 1911 brought from Revenue Account	297 10 7	
Balance being total of Excess of Assets over Liabilities		103,591 17 0
		£161,093 15 8

ASSETS.

	£ s. d.	£ s. d.
By Subscriptions in arrear		2,417 12 3
,, Advertisements ,, ...		3,356 13 2
,, Sundry Sales		441 7 3
,, Furniture and Fixtures		585 16 8
,, Library		2,068 3 5
,, Plant and Type		2,312 8 0
,, Stock of Paper in hand for printing Journal		940 6 6
,, Accrued Rent		112 10 0
,, Cash at Office		28 19 2
,, Cash at London County and Westminster Bank (being Branch Subscriptions in hand December 31st, 1911)		71 4 0
,, Cash at London County and Westminster Bank on Current Account		4,519 2 0
,, INVESTMENTS—		
,, Freehold Site, 429, Strand, Agar Street, and Harvey's Buildings		85,345 0 0
,, Amount Expended on New Building to December 31st, 1911		10,271 6 9
,, £3,200 Bank of England Stock @ 219½	7,284 0 0	
,, £6,400 Midland Railway 2½% Perpetual Guaranteed Preferential Stock @ [illegible]	4,956 0 0	
		12,240 0 0
,, OFFICE STAFF SUPERANNUATION FUND—		
Investments as per Separate Account	4,191 15 0	
Cash at Bank	12 12 0	
		4,204 7 0

(The above Assets do not include the unexpended balances of Capitation Grants held by the various Branches).

£161,093 15 8

Revenue or Profit and Loss Account for the Year ending 31st December, 1911.

		1910.		1911.	
		£ s. d.	£ s. d.	£ s. d.	£ s. d.
General Association Expenses	*Abstract A* ...	5,023 19 5		3,870 14 9	
Central Meeting Expenses	„ *B* ...	4,981 0 7		11,185 0 11	
Central Premises Expenses	„ *C* ...	1,611 8 4		1,599 9 5	
Printing, Stationery, and Postage Expenses ...	„ *D* ...	1,304 12 4		1,713 18 10	
Central Staff Expenses	„ *E* ...	5,071 13 3		5,998 8 6	
Library Account	„ *F* ...	329 1 10		330 17 8	
Journal Account Expenses	„ *G* ...	35,231 4 5		37,832 4 7	
Capitation Grants to Branches	... ...	1,796 5 4		2,604 11 0	
Supplementary Grants to Divisions and Branches	... ...	35 0 0		—	
Subscriptions Written off for Deaths	... ...	85 10 11		64 16 6	
Arrears	... ...	855 3 0		1,200 0 6	
Reserve for Discounts	... ...	—		150 0 0	
		£56,365 19 5		£66,550 2 8	
Library—Written off towards Depreciation ...	200 0 0		200 0 0		
Plant and Type—Ditto	500 0 0		500 0 0		
Furniture and Fittings—Ditto	200 0 0		200 0 0		
Investments—Ditto	112 0 0		272 0 0		
		1,012 0 0		1,172 0 0	
		£57,377 19 5		£67,722 2 8	
Balance of Income over Expenditure carried to Balance Sheet ...		2,094 18 3		207 10 7	
		£59,472 17 8		£67,929 13 3	

		1910.	1911.
		£ s. d.	£ s. d.
Subscriptions		27,803 4 6	30,239 16 11
Journal Account, Total Receipts	See *Abstract G* ...	28,595 0 7	28,379 6 5
Interest on Investments		439 6 8	438 13 4
Rent received and accrued, and sundry receipts...		2,602 5 0	2,350 0 0
Returned Scientific Grants		33 0 11	76 7 4
Amount transferred from State Insurance Defence Fund		—	6,445 9 3
		£59,472 17 8	£67,929 13 3

Abstract A.

General Association Expenses.

	1910. £ s. d.	1911. £ s. d.
Auditors' Fee	105 0 0	105 0 0
Bank Charges	63 14 6	67 4 11
Interest on Loan	1,665 13 8	1,615 12 9
Legal Expenses	1,097 11 3	552 8 9
Research Scholarships	650 0 0	650 0 0
Scientific Grants	350 0 0	350 0 0
Office—Petty Cash	157 11 0	197 4 10
Sundries	368 16 1	324 13 6
Donation to Charing Cross Hospital	10 10 0	10 10 0
	£5,028 19 5	£4,870 14 9

Abstract B.]

Central Meetings Expenses.

	1910. £ s. d.	£ s. d.	1911. £ s. d.	£ s. d.
Annual Meeting—Cost of *Daily Journal*	460 10 0		213 13 2	
" " Expenses of Sections	99 16 9		100 1 0	
		560 6 9		346 14 2
Representative Meetings—				
Railway Fares	500 13 9		1,063 14 6	
Printing	331 13 9		1,336 16 6	
Sundries	51 19 10		176 8 10	
		887 7 4		2,576 19 10
Council—				
Railway Fares	571 8 8		848 5 5	
Printings	116 10 3		709 3 0	
Reporting	45 13 6		98 4 7	
		733 12 5		1,655 13 0
Railway Fares to Secretaries of Branches and Provisions		774 10 11		32 4 8
		2,255 17 5		4,614 11 8

Committees.

Annual Meeting Committee—				
Railway Fares	1 6 0	1 6 0		
Arrangements Committee—				
Railway Fares	10 16 0		31 13 10	
Miscellaneous Printings	3 2 6		15 2 6	
		13 18 6		47 1 4
Central Ethical Committee—				
Railway Fares, &c.	138 8 6		95 3 10	
Miscellaneous Printings	129 11 7		105 6 0	
Reporting	17 6 6		—	
		285 9 7		200 9 10
Chloroform Committee—				
Railway Fares	9 16 8		—	
Miscellaneous Printings	1 19 0		—	
Report of Committee (1,000 copies)	—		197 0 0	
		11 15 8		197 0 0
Colonial Committee—				
Railway Fares	2 4 2		17 10	
Miscellaneous Printings	7 11 4		1 3 0	
		9 15 6		2 0 10
Election Returns Committee—				
Railway Fares	10 0 3		—	
Miscellaneous Printings	10 19 0		56 3 6	
		20 19 3		56 3 6
Finance Committee—				
Railway Fares	12 14 5		111 7 4	
Miscellaneous Printings	6 13 2		81 3 7	
		19 7 7		192 10 11
Fractures (Treatment) Committee—				
Railway Fares, &c.	—	—	130 16 9	
Miscellaneous Printings	—	—	60 11 6	
				191 8 3
Hospitals Committee—				
Railway Fares	70 2 9		94 17 4	
Miscellaneous Printings	26 1 10		52 4 9	
		96 4 7		147 2 1
Irish Committee—				
Railway Fares	81 2 7		278 9 3	
Grant re Poor-Law Medical Service	156 0 0		—	
Miscellaneous Printings	4 16 6		17 8 0	
		242 19 1		326 17 3
Carried forward		£2,950 13 2		£5,904 10 8

Committees—*continued.*

	1910. £ s. d.	£ s. d.	1911. £ s. d.	£ s. d.
Brought forward		£2,950 13 2		£5,904 10 8
Journal Committee—				
Railway Fares	28 2 0		39 13 9	
Miscellaneous Printings	21 10 6		34 5 2	
		49 12 6		73 18 11
Journal and Finance Committee—				
Railway Fares	54 15 4		—	
Miscellaneous Printings	34 19 0		—	
		89 14 4		—
Medico-Political Committee—				
Railway Fares	340 19 1		285 16 7	
Miscellaneous Printings	370 11 4		292 9 6	
		711 10 5		578 6 1
Naval and Military Committee—				
Railway Fares	8 19 0		5 14 10	
Miscellaneous Printings	4 16 10		9 5 0	
		13 15 10		14 19 10
Ophthalmia Neonatorum Committee—				
Miscellaneous Printings	16 6		—	
		16 6		—
Organisation Committee—				
Railway Fares	152 8 10		103 8 8	
Miscellaneous Printings	227 3 1		174 8 6	
		379 11 11		277 17 2
Poor Law Reform Committee—				
Railway Fares	282 3 5		71 9 0	
Miscellaneous Printings	81 16 1		157 5 9	
		363 19 6		228 14 9
Premises Committee—				
Railway Fares	—		—	
Miscellaneous Printings	—		3 11 6	
				3 11 6
Public Health Committee—				
Railway Fares	57 16 9		31 3 2	
Miscellaneous Printings	27 18 10		35 15 0	
		85 15 7		66 18 2
Science Committee—				
Railway Fares	86 18 3		33 4 6	
Miscellaneous Printings	97 14 4		154 11 3	
		184 12 7		187 15 9
Scottish Committee—				
Railway Fares	28 19 7		74 1 6	
Miscellaneous Printings	4 9 0		4 10 6	
		33 8 7		78 12 0
State Sickness Insurance Committee—				
Friend, Dr., Salary			105 0 0	
Copying and Assistance			678 16 9	
Irish Committee Expenses			35 1 0	
Miscellaneous Printings			1,459 16 2	
Reporting			15 19 10	
Parliamentary Papers			37 3 9	
Postages			700 7 2	
Railway Fares			441 0 0	
Stationery			112 16 0	
Sundries			28 18 10	
				3,614 19 6
Superannuation Committee—				
Miscellaneous Printings	—		1 7 0	
				1 7 0
Territorial Forces Committee—				
Railway Fares	37 4 4		—	
Miscellaneous Printings	8 13 4		—	
		45 17 8		—
Therapeutic Committee—				
Railway Fares	31 1 10		98 0 10	
Miscellaneous Printings	2 11 2		13 18 3	
		33 16 0		111 19 1
Uterine Cancer Committee—				
Railway Fares	—		—	
Miscellaneous Printings	0 19 6		—	
		0 19 6		
Paper for Miscellaneous Printings in connection with Committees	—	39 16 6		41 10 6
		£4,984 0 7		£11,185 0 11

Abstract C.]

Central Premises Expenses.

	1910.	1911.
	£ s. d.	£ s. d.
Cleaning Offices	312 0 0	313 0 0
Coals, Coke and Wood	106 4 3	112 2 0
General Repairs and Upkeep	234 17 4	119 17 10
Rates, Taxes, Insurance and Electricity	991 6 9	1,054 9 7
	£1,644 8 4	£1,599 9 5

Abstract D.]

Central Printing, Stationery and Postage Expenses.

	1910.	1911.
	£ s. d.	£ s. d.
General Printing	211 12 0	249 19 2
Office—General Postage :—		
Financial Secretary and Business Manager's Department	406 15 8	409 8 8
Medical Secretary's Department	164 8 5	342 15 0
Stationery	521 16 3	711 16 0
	£1,304 12 4	£1,713 18 10

Abstract E.]

Central Staff Expenses.

	1910.		1911.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Financial Secretary and Business Manager	900 0 0		900 0 0	
Assistant Secretary	350 0 0		400 0 0	
Clerical Staff, General Office, Journal, Subscription and Advertisement Departments	2,789 7 0		2,833 10 3	
		4,039 7 0		4,133 10 3
Less Proportion of Salaries debited to Journal Account		1,999 2 6		2,049 2 6
		2,040 4 6		2,084 7 9
Medical Secretary	900 0 0		900 0 0	
Deputy Medical Secretary	500 0 0		600 0 0	
Assistant Medical Secretary	300 0 0		300 0 0	
,, ,, ,, ...	—		130 0 0	
Clerical Staff (Medical Secretary's Department) ...	896 8 0		1,329 12 0	
		2,596 8 0		3,259 12 0
TRAVELLING EXPENSES :—				
Financial Secretary and Business Manager's Department		34 10 0		71 0 9
Medical Secretary's Department		100 10 9		283 8 0
Amount Voted to Office Staff Superannuation Fund		300 0 0		300 0 0
		£5,071 13 3		£5,998 3 6

Abstract F.]

Library Account.

1911.		£ s. d.
Jan. 1.	To Balance	1,989 8 5
Dec. 31.	,, Purchase of Books	205 5 9
	,, Binding Books	43 9 3
	,, Librarian's Salary	250 0 0
	,, Librarian's Clerk's Salary	78 0 0
	,, Printing and Postage of Circulars, &c.	2 17 8
		£2,569 1 1

1911.		£ s. d.	£ s. d.
Dec. 31.	By Librarian's Salary	250 0 0	
	,, Librarian's Clerk's Salary	78 0 0	
	,, Printing and Posting of Circulars, &c.	2 17 8	
	Amount written off for Depreciation		330 17 8
	Balance carried to Balance Sheet		200 0 0
			2,038 3 5
			£2,569 1 1

Abstract G.]

JOURNAL ACCOUNT.

Income and Expenditure Account for the year ending 31st December, 1911.

	1910. £ s. d.	1910. £ s. d.	1911. £ s. d.	1911. £ s. d.
EDITORIAL.				
Salaries—Editor	1,000 0 0		1,000 0 0	
,, Assistant Editor	750 0 0		750 0 0	
,, ,, Honorarium	—		108 0 0	
,, Sub-Editor	400 0 0		400 0 0	
,, Clerical Staff	479 18 10		508 6 4	
Contributions and Reporting	3,267 6 4		3,429 4 2	
Engraving	226 11 6		233 14 3	
Legal Expenses	96 13 4		193 11 3	
Postage	72 3 4		76 11 3	
Analyses	194 2 0		186 9 6	
Travelling Expenses, Papers, &c.	111 3 9		154 17 0	
Advance Slips circulated to the Press	18 4 8		16 11 6	
		6,616 3 9		7,159 5 3
MANAGERIAL.				
JOURNAL—Compositors' Wages, Machining, &c.	8,829 3 11		9,158 16 1	
,, Paper	8,973 10 8		10,092 13 1	
SUPPLEMENT—Compositors' Wages, Machining, &c.	1,103 12 0		1,446 5 0	
,, Paper	1,092 0 0		1,456 0 0	
Postage for dispatch of JOURNAL	4,831 9 3		5,133 5 4	
Address Bands for Issuing JOURNAL	513 12 5		547 4 2	
Proportion of Manager's and Clerks' Salaries	1,909 2 6		2,049 2 6	
General Postage	157 17 3		160 10 3	
General Printing	58 5 0		81 5 0	
Reprints	187 8 4		208 6 8	
Secret Remedies	640 13 9		133 2 10	
Stationery (Ledgers, Letter Books, &c.)	135 10 0		145 10 6	
Travelling Expenses	11 18 1		11 12 5	
Compositors' Sick Fund	10 10 0		10 10 0	
Sundries	40 7 6		33 10 6	
		23,585 0 8		30,672 19 4
		£35,231 4 5		£37,832 4 7

	1910. £ s. d.	1910. £ s. d.	1911. £ s. d.	1911. £ s. d.
Advertisements	23,276 4 6		23,695 0 4	
Sundry Sales—Journals	2,906 15 3		2,652 12 6	
,, Reading and Binding Covers, &c.	79 13 6		81 0 4	
,, Reprints	279 1 1		336 17 9	
,, Book Secret Remedies	1,352 18 1		487 14 2	
Sale of Waste, &c.	31 6 9		53 12 8	
Discounts on Machining, Paper, &c.	468 18 5		1,324 8 8	
		28,395 0 7		29,070 6 5
Balance from Subscriptions for the cost of production and issue of the JOURNAL		6,836 3 10		8,762 13 2
		£35,231 4 5		£37,832 4 7

New Premises Account.

1911.		£ s. d.	1911.		£ s. d.
Jan. 1.	To Balance	£15,231 6 9	Dec. 31	By Balance	£15,231 6 9

Stewart Fund.

£579 4 per cent. Caledonian Railway Debenture Stock.

1911.		£ s. d.	1911.		£ s. d.
Jan. 1.	To Balance brought over from 1910	21 8 3	Dec. 31.	By Balance	43 12 9
Dec. 31.	„ Interest	22 4 6			
		£43 12 9			£43 12 9

Middlemore Fund.

£666 13s. 4d. 3 per cent. North British Railway Debenture Stock.

1911.		£. s. d.	1911.		£ s. d.
Jan. 1.	To Balance brought over from 1910	83 9 0	Dec. 31.	By Award to Dr. Charles Walter Gordon Bryan	50 0 0
Dec. 31.	„ Interest	19 12 4		„ Fees to Adjudicators	10 10 0
				„ Engrossing	1 17 6
				„ Cash at Bank	40 13 10
		£103 1 4			£103 1 4

Francis Fowke Bequest.

£700 Midland Railway 2½% Perpetual Guaranteed Preferential Stock.

1911.		£ s. d.	1911.		£ s. d.
Jan. 1.	To Balance brought over from 1910	30 16 5	Dec. 31st.	By amount transferred to Office Staff Superannuation Fund	47 6 1
	„ Interest	16 9 8			
		£47 6 1			£47 6 1

Office Staff Superannuation Fund.

Dr.

1911		£ s. d.	£ s. d.
Jan. 1.	To Balance brought over from 1910	3,668 6 6	
	,, Less amount written off Investments	58 16 9	
			3,609 9 9
	,, Payments by Members of Staff	100 16 10	
	,, Amounts Refunded	8 13 9	
			92 3 1
	,, Vote from General Funds		300 0 0
	,, Interest on Investments		126 1 8
	,, Donation Metropolitan Branch		29 6 5
	,, Transfer from Francis Fowke Bequest Fund		47 6 1
			£4,204 7 0

Cr.

1911.		£ s. d.
Dec. 31.	By Balance carried down—	
	,, Cash at Bank	12 12 0
	INVESTMENTS—	
	,, £600 Cape of Good Hope 3 per cent. Stock @ 86½	519 0 0
	,, £100 Bristol Corporation 3½ per cent. Redeemable Stock, bought 1906	100 0 0
	,, £1,250 Midland Railway 2½ per cent. Consolidated Perpetual Guaranteed Stock @ 65½	821 5 0
	,, £200 New Zealand 4 per cent. 1929 Stock @ 105...	210 0 0
	,, £460 New Zealand 3 per cent. Stock @ 86½	396 0 0
	,, £200 Furness Railway Consolidated 4 per cent. Preferential Stock @ 97	194 0 0
	,, £250 Bank of England Stock @ 249½	623 15 0
	,, £400 India Stock 3 per cent. @ 79½	318 0 0
	,, £450 Stockton-on-Tees Corporation 3 per cent. Redeemable Stock @ 85 ...	382 10 0
	,, £250 North Eastern Railway Company 3 per cent. Debenture Stock @ 80½ ...	201 5 0
	,, £600 Lancashire and Yorkshire Railway 3 per cent. Preferential Stock @ 78 ...	473 0 0
		£4,204 7 0

Having examined the Balance Sheet, dated 31st December, 1911, and Accounts with the books and vouchers of the Association, and having received all the information and explanations we have required, we report that the Balance Sheet is, in our opinion, properly drawn up so as to exhibit a true and correct view of the state of the affairs of the Association according to the best of our information and the explanations given to us and as shown by the books of the Association.

We have verified the Investments of the Association on General Account and on account of the Trust Funds shown and of the Office Staff Superannuation Fund, and we have verified the possession by the Bankers of the Association of the Deeds of the Freehold Property.

EDWIN RAYNER,
Honorary Treasurer.

GUY ELLISTON,
Financial Secretary and Business Manager.

PRICE, WATERHOUSE & CO.,
3, Frederick's Place, Old Jewry, E.C.,
April 16th, 1912.

REVENUE OR PROFIT AND LOSS.

13. The Profit and Loss Account, as already mentioned, shows that the Expenses of the Association have increased by some £10,000. To trace how this Expenditure has been incurred reference must be made to the various Schedules throughout the Financial Statement.

GENERAL ASSOCIATION EXPENSES.

14. The General Association Expenses (Abstract A) are down by £1,250, but in the previous year the Association had to meet considerable outlay as the result of a libel action.

CENTRAL MEETING EXPENSES.

15. The Central Meeting expenses (Abstract B), alone, show an increase of £6,200 over 1910, itself a heavy year. During the year it was necessary to hold three Representative Meetings, as against two, while there have been seven Council Meetings as against five; further it will be noticed that apart from sums charged elsewhere, £3,614 has been debited to the State Sickness Insurance Committee.

CENTRAL PREMISES EXPENSES.

16. In the aggregate the Central Premises Expenses (Abstract C) show a slight decrease.

CENTRAL PRINTINGS, POSTAGE AND STATIONERY.

17. Under this heading (Abstract D) there is an increase of just over £400. The heavy postages in the Medical Secretary's Department and the large amount of additional Stationery required is due to the Insurance Act.

CENTRAL STAFF EXPENSES.

18. The Central Staff Expenses (Abstract E) have expanded over £900. The severe strain put upon the Central Staff by the National Insurance Act campaign necessitated calling in additional assistance.

LIBRARY ACCOUNT.

19. It is satisfactory that the introduction of the lending of certain publications has not thrown additional burden on the Association, the Library Account remaining normal.

BRITISH MEDICAL JOURNAL.

20. In Abstract G particulars are given of the Income and Expenditure in connection with the publication of the JOURNAL.

Under the head of Editorial expenses there is an increase of £500; the major part of this increase is due to the cost of reporting the two Special Representative Meetings held during the year.

The increase under the head of Managerial expenses is mainly due to the increased number of copies of the JOURNAL printed weekly to supply the new members who have recently joined the Association, and is therefore to be regarded as a satisfactory feature. The effect on the expenditure side of the account of this increment in membership is necessarily to increase the amounts paid for machining, paper, addressing and postage, and to some extent also the general establishment expenses not only in the office of the Manager but also in the offices of the Medical Secretary and Editor. The expenditure has also been increased by the rise in the number of pages of advertisements which is of course, when both sides of the account are considered, a satisfactory financial feature.

During the year the Insurance Scheme has been the paramount interest with members of the Association in whatever class of practice they are engaged, and probably most members have on opening the JOURNAL turned first to the Supplement in which the action of the Association with regard to the Scheme taken through its Central Committees, through its Divisions and Branches, and through the meetings of the Representative Body, as well as the proceedings in Parliament have been reported. But the result has been greatly to increase the number of pages published in the Supplement which rose from 992 in 1910 to 1,300 in 1911. This increase has been a response to the great activity displayed by the central and local departments of the Association and to the evident wishes and demands of members, and is in part due to the direct instructions of the Representative Body.

In 1910 the total number of copies of the JOURNAL published was 1,307,600. In 1911 the total reached 1,416,139, an increase of 108,739 copies or 11 per cent. on the total number issued in the previous year. Putting the fact in another way it may be stated that taking the average weekly issue in 1910 to have been 25,000 copies, the increased out-turn in 1911 represents the equivalent of four additional weekly issues. As a rough estimate the cost of the production of a normal JOURNAL represents £670. Thus although the increased cost of production in 1911 seems large, the actual cost per copy has diminished.

"SECRET REMEDIES."

21. It will be noticed that the Expenditure on the book "Secret Remedies" is less by £500. The sale of the book has not been so large as in the previous year. This is reflected in the Revenue.

JOURNAL AND PUBLISHING REVENUE.

22. For comparison, with the exception of Revenue from Advertisements, the figures throughout the Accounts represent 52 weeks for 52 weeks. From Advertisements the Revenue in 1911, which shows an increase of some £200, represents money earned in 52 issues as against 53 in 1910. The explanation is that the 1st January, 1910, fell on a Saturday, and expenses for the production of that issue were borne in 1909, while the payments for Advertisements had to be brought into the 1910 account. Having regard to these facts, the revenue from Advertisements is a matter for congratulation, when it is also remembered that a considerable number of advertisements were rejected. The revenue from sundry sales of the JOURNAL and of reprints both show small increases which are satisfactory when the fact that the comparison of 52 with 53 weeks is taken into account. The revenue from the sale of the book, "Secret Remedies," shows a decrease, but there is still a steady sale going on. With the publication of the Second Series, it is believed that the demand for the first series will be stimulated. The increase of some £250 for discounts on paper and machining is due to the larger amount of paper used, and the printing of more JOURNALS.

On the year, £9,450 as against £6,630 in the previous year, have been taken from the subscriptions towards the cost of producing the JOURNAL.

CAPITATION GRANTS TO BRANCHES.

23. In 1911, approximately a sum of £800 more than in 1910 was distributed. Any surplus in the hands of Branches is now practically exhausted, and the Association will have to find fully £4,500 for distribution during the current year.

ARREARS.

24. The amount written off for arrears of subscriptions is more by some £350. This is a large increase, but experience goes to prove that a large proportion of this sum is ultimately recovered. Up to the time of preparing this Report it is interesting to note that £463 have already been received in payment of arrears as compared with £170 in the corresponding period of 1911.

DEPRECIATION.

25. As regards Depreciation, the same amount has been written off as usual, except in the case of Investments. Here, rather more had to be provided to bring them to their actual realisable value on the 31st December, 1911.

REVENUE.

26. The Revenue from Subscriptions has increased by £2,400, a natural corollary to the large influx of members.

Rents and other Receipts show a decrease of £250. This was forecasted in the last Report of the Council, but has proved £550 less than anticipated.

The Association received through the Insurance Defence Fund a sum of £6,445. But for this assistance the Association would have had to seriously interfere with its reserve.

SUMMARY.

27. The severe financial strain during the past year has demonstrated the stability of the resources of the Association. At the same time the whole position calls for earnest attention, if the demands are to increase in anything like the same ratio. At the present time there is no evidence that these demands are likely to diminish, but rather for the first three months have exceeded even last year. Except for any assistance that may be forthcoming from the Insurance Defence Fund, no considerable additional revenue reasonably can be anticipated. Rather it would be prudent to budget for a reduced income from advertisements and possibly rents. The Council feels the time has arrived when the strictest supervision of every item of expenditure is essential. The Association must curtail its activities and restrict expenditure to actual necessities. Unless this is recognised, financial embarrassment must follow and the influence of the Association be impaired.

APPORTIONMENT OF MEMBERS' SUBSCRIPTION.

28. The following table shows how a Member's subscription of £1 5s. has been apportioned to defray the expenses of the Association during the year ending December 31st, 1911:—

	£	£ s. d.
General Association Expenses ...	3,870	0 3 3
Central Meeting Expenses	11,185	0 9 4
Central Premises Expenses	1,599	0 1 3
Printing, Stationery, and Postage Expenses	1,713	0 1 5
Central Staff Expenses ..	5,938	0 5 0
Library Account	330	0 0 3
Journal and Supplement, Advertisements, &c.	9,452	0 7 10
Subscriptions Written off	1,264	0 1 1
Written off for depreciation of Investments, Plant, and Type... ...	1,172	0 1 0
Carried to surplus	207	0 0 2
Grants to Branches and Divisions ...	2,604	0 2 2
		1 12 9
Deduct amount over-spent per member		0 7 9
		£1 5 0

The details of expenditure under each head are recited in the various Abstracts of the Financial Statement. It will be observed that to have met the expenditure from subscriptions alone, the subscription ought to have been £1 12s. 9d. instead of £1 5s. Thus the subscription during 1911 was insufficient by 7s. 9d. per member to meet the expenditure for the year. It is estimated that the total amount spent on the National Insurance Act alone during the year 1911 represents over 7s. per Member.

ESTIMATE OF EXPENDITURE AND RECEIPTS FOR 1912.

29. Having regard to the uncertainties of the situation, it is difficult to calculate the probable expenditure during the current year, but the following estimate is submitted:—

EXPENDITURE.

	£
General Association Expenses	5,000
Central Meeting Expenses	9,000
Central Premises Expenses	1,900
Printing, Stationery, and Postage	1,700
Central Staff Expenses	6,000
Library	600
JOURNAL Account	40,000
Capitation Grants	4,500
Arrears of Subscription	800
Depreciation	1,000
	70,500

RECEIPTS.

	£
Subscriptions	31,200
Advertisements	23,500
Sundry Sales of JOURNAL, etc.	3,300
Investments	400
Rents	2,300
Discounts on Purchase of Paper	1,300
	62,000
Estimated Deficit	8,500
	70,500

NATIONAL INSURANCE ACT.

30. The approximate expenditure incurred up to 31st December, 1911, attributed directly or indirectly to the action of the Association in reference to the passing into law of the National Insurance Act was £8,065, made up as follows:—

	£
Additional cost of producing JOURNAL (304 extra pages of Supplement)	1,150
Reporting Representative, Council, and Committee Meetings	200
Council Railway Fares	300
State Sickness Committee Railway Fares	440
Irish Committee expenses	...
Extra Representative Meeting	500
Legal Charges	50
Travelling, Medical Secretary	200
Salaries and Wages including Drs. Brend and Fothergill	900
Copying, Addressing, and Hire of Typewriters ..	600
General Printings	2,500
Postages	980
Stationery, Envelopes, &c.	125
Parliamentary Papers	50
Sundries	35
Estimated Total ..	£8,065

To the foregoing figures, must be added the expenditure of Branches and Divisions, which in addition must aggregate a large sum.

The demands on the Association continue to be considerable. During the first quarter of 1912, it was necessary to hold a Special Representative Meeting, and the expenses of the State Sickness Insurance Committee have been heavy. It is not unreasonable to estimate that for the first quarter quite £2,500 may be fairly debited to the expenses of the Act, which means that up to the end of March, 1912, the Association has had to face out of the Central Funds a total extraordinary expenditure of £10,565, due to the National Insurance Act.

(C) Organisation.

MEMBERSHIP OF ASSOCIATION.

31. The total membership of the Association on December 31st, 1911, was 25,301 as compared with 22,448 on the corresponding date of 1910. The increase is thus 2,853, as compared with increases of 1,043 in 1910, and 242 in 1909.

The following table shows the variations in membership during 1910 and 1911:—

1910.		1911.	
New Members	1,909	New Members	3,784
Resignations	411	Resignations	484
Deaths	250	Deaths	232
Arrears	200	Arrears	211
Expulsions	5	Expulsions	4
	866		931
Increase ...	1,043	Increase ...	2,853

OBITUARY.

Name.	Offices held in the Association.
Dr. George Fielding Blandford	President, Psychological Section, 1894.
Dr. Francis T. Bond, F.R.S.E.	A former President of the Gloucestershire Branch; Secretary, Public Medicine Section, 1874; Vice-President, Public Medicine Section, 1878.
Sir Rubert W. Boyce, M.B., F.R.S.	Secretary, Section of Pathology and Bacteriology, 1897; Vice-President, Section of Pathology and Bacteriology, 1901; Vice-President, Section of Tropical Diseases, 1902; President, Section of Tropical Diseases, 1905.
Sir Henry Trentham Butlin, Bart., D.C.L., LL.D., F.R.C.S.	President of Association, 1910; Treasurer of Association, 1890-96; Vice-President, Section of Pathology and Bacteriology, 1882; President, Section of Laryngology, 1889; President, Section of Surgery, 1899; Address in Surgery, 1907.

Name.	Offices held in the Association.
Dr. Claude Clarke Claremont	A former Honorary Secretary of the South-East Hants Division; and Honorary Local Secretary to the Annual Meeting held in Portsmouth in 1899.
Dr. Charles Davidson ...	A former Chairman of the Coventry Division.
Dr. J. Gordon Asher Forsyth	President-Elect of the Northern Counties of Scotland Branch.
Dr. John Hughlings Jackson, F.R.S.	President, Section of Pathology and Bacteriology, 1882; Address in Medicine, 1889.
Mr. George Edwards Jeaffreson	A former President of the East Anglian Branch; Member of Parliamentary Bills Committee, 1883-9.
Mr. Furneaux Jordan ...	Awarded Hastings Gold Medal of Association, 1866; a former President of the Birmingham Branch.
Mr. Samuel Knaggs	A former President of the Yorkshire Branch.
Major George Lamb, M.D., I.M.S.	Awarded Stewart Prize of the Association, 1910.
The Right Hon. Lord Lister, P.C., O.M., F.R.S.	President of Section, Surgery, 1870; Address in Surgery, 1871; President of Section, Surgery, 1875.
Dr. John Wise Martin ...	A former President of the Yorkshire Branch.
Mr. Thomas George Ouston...	A former Honorary Secretary of the Newcastle-on-Tyne Division.
Dr. Frederick William Pavy, F.R.S.	President, Section of Medicine, 1895.
Dr. Richard Arthur Prichard	President, North Wales Branch, 1884.
Dr. Thomas Proudfoot ...	Vice-President, Edinburgh Division.
Dr. James Rorie	A former President of the Dundee Branch.
Mr. James Taylor	President, Lancashire and Cheshire Branch, 1903.
Dr. John Tatham Thompson	President, Cardiff Division.
Dr. Charles Warden	President, Sub-Section of Otology, 1890; Vice-President, Sub-Section of Otology, 1885.
Sir Samuel Wilks, Bart., M.D., F.R.S.	Address in Medicine, 1872; Vice-President, Section of Pathology and Bacteriology, 1880; President, Section of Medicine, 1885; President, Section of Pathology and Bacteriology, 1895.
Dr. Thomas Munns Wills ...	A former President of the Lancashire and Cheshire Branch.
Dr. Eugene Stephen Yonge...	Secretary, Section of Laryngology, 1902.

Dr. James Keith Anderson, Mr. Joseph S. Baly, Dr. John Beddoe, F.R.S., Mr. Joseph Bell. Mr. John Biggam, Sir Henri Jules Blanc, K.C.V.O., Sir Richard Brayn, M.R.C.S., L.R.C.P., Dr. Alexander Bruce, Dr. Herbert Timbrell Bulstrode, Dr. Leonard Cane, Mr. George Henry Case, Mr. David Kirkpatrick Coutts, Dr. John Alfred Coutts, Dr. G. C. Dickson, Dr. John Dixon, Dr. Edward H. Douty, Dr. Aroon Chunder Dutt, Dr. William Lloyd Edwards, Dr. John Henry Farbstein, Dr. Angus Fraser, Dr. Charles Pinell Gallie, Mr. Charles Dudley Garrett, Mr. Alfred Harold Godwin, Dr. John James Goodlatte, Dr. Alexander Gray, Dr. John Duncan Gregorson, Lt.-Col. K. P. Gupta, M.B., I.M.S. (retd.), Dr. Harry Hamer, Dr. Stanley Lewis Haynes, Dr. John Highet, Dr. Alfred Peter Hillier, M.P., Dr. William Richard Huggard, Mr. Thomas H. J. E. Hughes, Dr. Sophia Jex-Blake, Col. F. J. Lambkin, A.M.S., Dr. Charles Alfred Lee, Surg.-Maj. W. H. P. Lewis, Dr. James Murray Lindsay, Dr. Frederick William Dobson McGachen, Brig.-Surg. David Mackie, M.D., A.M.D., Lt.-Col. G. W. McNalty, C.B., Dr. George Hubert Mapleton, Dr. Lourenço Pereira Marques, Dr. John Marshall, Dr. William Young Martin, Surg.-Gen. Robert Wyatt Meadows, M.D., Miss Theresa de G. Miller, M.B., B.S., Dr. William Millington, Mr. B. Ayres Moore, Dr. Louis Wayne Morgan, Dr. David Murray, Mr. E. W. Parry, Mr. George Aston Pedley, Dr. Theodore Leighton Pennell, Dr. H. S. Pullin, Dr. Thomas Rutherford, Dr. William Rutherford, Mr. Walter A. Satchell, Dr. Lillie Saville, Dr. Horace Savory, Dr. John Shives, Mr. Charles Parnham Skrimshire, Mr. Henry Soltau, Dr. William Soper, Dr. E. Stanley-Smith, Dr. John Stevenson, Dr. John Francis Sutherland, F.R.S.E., Dr. Moses Thomas, Dr. Alice Maud Thompson, Dr. Henry Eugence Tracey, Dr. E. F. Trevelyan, Mr. J. F. W. Ward, Mr. Herbert Lorraine Earle Wilks, Dr. Walter Williams, Dr. J. C. Woodside, Mr. Alfred Wolff, Mr. William Bernard Young.

Resignation of Mr. J. Smith Whitaker as Medical Secretary.

32. The Council has already reported fully to the Divisions and Representative Body (*see* Report of Council in connection with the National Insurance Act, Supplement to the BRITISH MEDICAL JOURNAL of February 3rd, 1912), as to the circumstances under which it recommended Mr. Whitaker, who had placed himself in the Council's hands in the matter, to accept the Prime Minister's offer of the Deputy Chairmanship of the Insurance Commission for England. Mr. Whitaker having been appointed Deputy Chairman to the Commission as from January 1st, 1912, and having resigned his appointment as Medical Secretary accordingly, the Council appointed Dr. Alfred Cox, Deputy Medical Secretary, as Acting Medical Secretary, pending the filling of the vacancy thus created.

The Council desires to place on record its great appreciation of the valuable work done by Mr. Whitaker on behalf of the medical profession during the period 1902-11, as Medical Secretary of the Association, and its recognition of his arduous services and devotion to the Association during that time.

Appointment of Medical Secretary.

33. The Council duly advertised the post, and at its Meeting of May 1st, appointed Alfred Cox, M.B., B.S., Deputy Medical Secretary since 1908, as Medical Secretary of the Association.

New Company.

34. At the time of the last Annual Representative Meeting it was hoped that this matter would be speedily carried through.

The position then was that the new Memorandum, Articles and By-laws had been sent to the Board of Trade and various communications had passed between the Association and the Board by letter and by deputation, and the Special Representative Meeting on June 1st had passed the following Minute:—

> Resolved (one dissentient): That the Council be instructed to close the negotiations with the Board of Trade by the surrender of such clauses as in their opinion are unnecessary.

On June 28th, 1911, the Board of Trade forwarded to the Association a report on the Memorandum, etc., by the Counsel to the Board, and various deletions and additions he had made. Some of these seemed to the Council to be so serious that great efforts were made to induce the Board not to insist on them. Matters were progressing to all appearance very favourably when the Comptroller of the Companies Department of the Board (Mr. G. Stapylton Barnes) was promoted to the office of Comptroller of the Labour Department of the Board, and after some time a new Comptroller of the Companies Department was appointed. This resulted in negotiations ceasing for the time being.

In April of this year the Council was informed through the Solicitor to the Association that the New Comptroller of the Companies Department (Mr. Heron Maxwell) would be able to meet a deputation and a deputation was arranged accordingly for May 1st, 1912. The Chairman of Representative Meetings, the Chairman of Council, the Chairman of the Organisation Committee, the Solicitor and the Medical Secretary accordingly met Mr. Heron Maxwell and Mr. Payne on that date, and put their views before him, and his reply is now awaited.

Question of Payment of Personal Expenses of Representatives at Meetings of Representative Body.

35. The Council has considered the following notice of motion for the Annual Representative Meeting, 1912, by the East Norfolk Division:—

"That in the opinion of this Meeting the time has now come when the Central Council should take into consideration the payment of the necessary out of pocket expenses of Representatives at Representative Meetings;"

and submits herewith a special Memorandum on the question. (*See* Appendix II.)

(*Note.*—For Appendix II., see page 465).

RESIGNATION OF MEMBERSHIP WHEN DISPUTE OR INQUIRY PENDING.

36. The Council is now in a position to report on the instruction contained in Minute 98 (quoted below) of the Annual Representative Meeting, 1910, and submits to the Divisions and Representative Body the following Special Report on the subject.

SPECIAL REPORT.

Resignation of Membership when Dispute or Enquiry pending.

37. The Council has had under consideration the following Resolution of the Annual Representative Meeting, 1910:—

> 98. That the Council be instructed to consider the advisability of providing that a Member shall not be able effectively to resign his Membership until such resignation be accepted by his Branch, when any question is raised with regard to the ethical conduct of the Members, or when any discussion is in progress between the Association and any organised body, public or other, affecting the area of his Branch or Division, and, if thought advisable, to prepare the necessary amendments of the Articles and By-laws.

In the opinion of the Council such a provision as is suggested in the reference from the Representative Body could only be attained directly in one of two ways, namely, either by the Association taking a general power under the Articles of Association to refuse to accept the resignation of a Member, even although no complaint should at the time have been lodged against him, or, alternatively, by providing that the Association, before accepting a resignation tendered, should have power to require a Member to give an undertaking that he would not accept any appointment concerning which a dispute at the time was pending, except upon such terms as the Association might approve. It appears to the Council doubtful whether the former of the above alternatives would receive sufficient support in the Association to enable the requisite alterations of the Articles of Association to be carried. As to the second, difficulty would be experienced in framing the requisite alterations of Articles of Association with sufficient precision to meet the object and in a form otherwise satisfactory.

In the opinion of the Council, the object in view would probably better be attained, indirectly, by a simpler method, namely, by requiring a Member who desires to resign, to give three months' notice of such intention instead of one month's notice as at present.

According to the information before the Council, the case against which provision needs chiefly to be made is that of a Member who, contemplating accepting an appointment under conditions which might entail his expulsion from membership if a Member, resigns his membership before taking steps which might afford ground for complaint under the Ethical Rules. Having regard to the usual history of such disputes, a Member in such a position would be compelled within a period of three months definitely to take the course either of openly applying for the appointment in defiance of professional opinion, or of abandoning the idea of becoming a candidate under such conditions. If he took the former course, he would afford ground for a complaint to be made which could be dealt with in the ordinary way from the disciplinary standpoint.

The question has been raised whether a complaint after a Member had given notice of his intention to resign, but before such resignation actually took effect, would operate to make such resignation ineffective. The Solicitor was asked to advise upon this point, and also as to the alteration of Regulations that would be necessary to place it beyond doubt that complaint received within a period of notice of resignation prescribed by the Regulations would operate as a bar to resignation pending enquiry. His opinion was that, in the circumstances stated, the resignation would not take effect until the enquiry into the complaint was complete.

Recommendation.

The Council recommends:

> That By-law 13 (2) be amended by the substitution of the words "three months'" for the words "one month's" in the fifth line.

[*Present By-law* 13 (2).

13. . . . . .

> (2) No Member shall (except in case of his expulsion, or of his ceasing to be a Member under the provisions of Clause (c) of the 10th Article of Association or under the previous provision of this By-law) cease to be a Member without having given one month's previous notice in writing of his intention in that behalf to the Association at the Head Office, and having paid all arrears of subscription (if any) due from him.]

REGULATIONS AS TO CHANGE OF ADDRESS OF MEMBERS.

38. Arising out of an ethical case in which a member of the Association accepted an appointment within the area of another Division in disregard of the Warning Notice, but did not notify the change of address, and thus remained a member of the original Division, the Council considers that it is advisable that the Regulations of the Association be changed to provide that a member removing from one Division to another shall automatically become a member of the Division to which he or she removes, in spite of the omission to give notice of such removal to the Central Office. The Council has accordingly instructed the Organisation Committee, in consultation with the legal advisers of the Association, to draft a new By-law to the following or similar effect, on the understanding that special provision shall be made for the case of Naval and Military Officers, Ship Surgeons, and other exceptional cases:—

> "A register of the names and addresses for the time being of all ordinary members of the Association shall be kept by the Association at the Head Office."
>
> "Every member of the Association shall notify the Head Office of his *bona-fide* place of residence, and of the place or places (if any) at or from which he conducts his practice. He shall select which of these addresses shall be entered in the register. He shall promptly notify the Head Office of any change of address."

QUESTION OF AMENABILITY OF MEMBERS TO RULES OF DIVISIONS IN WHOSE AREAS THEY PRACTISE BUT OF WHICH THEY ARE NOT MEMBERS.

39. Arising out of the case referred to in the foregoing paragraph, it appears to the Council to be desirable that a member of the Association should be amenable to the Rules of the Division in which he or she practises, though not a member of that Division. In this connection the Council would refer to the fact that the Annual Representative Meeting in 1904 approved the principle that a member of a Division accepting an appointment in another Division must be bound by the Rules of the latter Division in respect thereto. The Council has accordingly instructed the Organisation Committee to prepare, with the assistance of the legal advisers of the Association, an amendment of the Regulations to provide that a member practising within the area of a Division other than that of which he or she is a member shall be amenable to the Rules of such Division when made aware of them.

MEDICAL STUDENTS AND THE ANNUAL MEETING.

40. The Council considers it of importance from the point of view of the organisation of the profession that, as in previous years, facilities should if possible be accorded to medical students in connection with the forthcoming Annual Meeting at Liverpool, and has accordingly requested the Executive Committee of the Liverpool Meeting to make such arrangements as may be possible, to enable students studying in Liverpool to attend the meetings of Sections and social functions, and has also asked the Committee whether it would be possible to call during the Annual Meeting a special meeting of the students of the district, to consider some matter of professional interest.

DIVISION AND BRANCH BOUNDARIES.

41. During the year the Council has approved the amalgamation of the three Divisions, North-East Edinburgh, North-West Edinburgh, and South Edinburgh, into one Division, the "Edinburgh and Leith Division"; and the amalgamation of the five Divisions, Liverpool (Bootle), Liverpool (Central), Liverpool (Northern), Liverpool (Southern), and Liverpool (Western), to form one "Liverpool Division."

A new Division, the Walsall Division, has been formed from within the area of the Central Birmingham Division. The Dundee Branch has been divided into two Divisions, namely, Dundee and Forfarshire, and there have been formed within the area of the Northern Counties of Scotland Branch 4 new Divisions, as follows:—(1) Banff, Elgin and Nairn: (2) Inverness-shire: (3) Ross and Cromarty, and (4) Caithness and Sutherland.

Other less important changes have been carried out, including some changes of name.

MAPS OF DIVISION AND BRANCH AREAS.

42. In connection with the following instruction of the Annual Representative Meeting, 1909 (Minute 198):—

> "That the Council be requested to consider the desirability of preparing a complete set of official maps of the boundaries of Divisions and Branches, showing clearly, in the case of town Divisions, the street boundaries";

there has been carried out by direction of the Council a comparison of the definitions of the areas of the Divisions and Branches throughout the United Kingdom, with (*a*) the existing official maps, if any, and (*b*) the membership lists for these areas. A certain number of discrepancies between these have been found, and have as far as possible been adjusted.

Certain conclusions have been arrived at as to the maps which are most suitable for official adoption in order that the full details of the Division and Branch areas, which differ so much in character, shall be shown. In a large number of cases maps have already been supplied to Division and Branch Secretaries, and duplicates are preserved in the central office, but there are still some cases in which no really satisfactory official maps yet exist. These deficiencies are being remedied as opportunity offers.

The matter would have been further advanced had it not been for difficulties which have arisen owing to the introduction of the Insurance Act. It is evident that, with the object of bringing the Division areas more into line with those of the Insurance Act, numerous changes will shortly be made in the former, and it has therefore not been thought desirable to press on with the compilation of a complete set of official maps until matters are in a more settled state, for it is obvious that a complete set of maps prepared at present would not be of sufficient permanent value to justify the labour and expense involved.

Recommendation.

The Council therefore recommends:

> That the present time is inopportune for the preparation of a complete set of official maps, but that this should be done as soon as it can with advantage be undertaken, and that meantime, maps be continued to be supplied, so far as possible, to Division and Branch Secretaries requiring them.

LISTS OF NON-MEMBERS IN THE DIVISIONAL AREAS.

43. The necessity of having correct lists of non-members, as well as of members, in each Division area in the United Kingdom has been impressed on the Council in connection with the Insurance Act campaign, and such lists have accordingly been prepared in the Central Office, sent to the Honorary Secretaries for correction and set up in type. In future, lists of both members and non-members for their respective areas will be circulated periodically to every Division and Branch Secretary. The Council is convinced that the extra trouble entailed on the honorary officials of the Association in correcting these lists will be amply compensated by the possession of approximately correct data for the organisation of the profession.

REFERENDUM AND POSTAL VOTE.

44. The Annual Representative Meeting, 1911, approved the Report on the Referendum and Postal Vote submitted by the Council in pursuance of the instruction conveyed in Minute 330 of the Annual Representative Meeting, 1910, as follows:—

> 330. Resolved: That while recognising the necessity of proceeding without delay with the formation of a new company, the Representative Meeting considers it desirable that a full consideration should be given by the Association to the question of the Referendum by postal vote, and the arrangements generally for securing that the decision of the Representative Meeting shall, as far as possible, represent accurately the opinion of the Association, and that it be an instruction to the Council to prepare a Report on these subjects for the consideration of the Divisions, and, after receiving and considering the replies of the Divisions, to submit a Report with recommendations to the next possible Representative Meeting, whether that takes place under the present Company or under the new Company which it is proposed to form.

The Report (for which *see* A.R.M. Minutes, 1911, page 152; or *B.M.J. Supplement* of April 29th, 1911, page 201) formulated certain principles for the approval of the Representative Body and stated that in the event of the approval of these principles a further report would be made as to the detailed arrangements necessary for carrying them into effect, such arrangements to include alterations in the Regulations of the Association.

Following the approval of the Report first mentioned, Counsel was instructed to frame the necessary alterations in the Articles and By-laws, but, before doing so, he has indicated certain difficulties, which render it desirable, in the opinion of the Council, that the whole subject should be referred back for further consideration. The Statement of Case submitted to Counsel, and his Opinion, are appended. (*See* Appendix III.)

(*Note.*—For Appendix III. *see* page 467.)

Recommendation.

The Council recommends:—

> That in view of Counsel's Opinion on the question of giving effect, in the Regulations of the Association, to the Report on the Referendum and Postal Vote, approved by the Annual Representative Meeting, 1911, Minute 330 of the Annual Representative Meeting, 1910, be referred to the Council for further consideration and report.

ELECTION OF REPRESENTATIVES.

(a) *Grouping of Divisions for 1912-13.*

45. The Divisions have been grouped for 1912-13 in the same manner as for 1911-12, except that independent representation has been given to Banff, Elgin and Nairn, Boston and Spalding, Bury, Canterbury and Faversham, Darlington, Dundee, East York, Forfarshire, Isle of Thanet, Lincoln, Maidenhead, Maidstone, North Lincoln, and Rochester and Chatham, respectively; and that Caithness and Sutherland, Ross and Cromarty, and Inverness-shire have been grouped to form one Constituency.

(b) *Operation of new By-law as to Election of Representatives.*

46. Owing to the operation of the new By-law (31 (2)) as to Election of Representatives, adopted at Birmingham, which takes effect for the first time in respect of the election of Representatives for 1912-13, it is anticipated that the membership of the Representative Body will be increased by about 32. Taking into account in addition the new Constituencies referred to in the foregoing paragraph, the total possible number of Representatives in the United Kingdom for the year 1912-13 will be, approximately, 201, or, inclusive of the Colonial Representatives, 247.

ELECTION OF MEMBERS OF COUNCIL BY BRANCHES.

(a) *Notice in Journal.*

47. The Council has considered the question of the present arrangements in connection with the election of Members of Council by grouped Branches under By-law 43, and has decided that notice of receipt of nominations shall be published in the JOURNAL prior to the issue of voting papers. In this way grouped Branches will have an opportunity of considering the nominations made and taking such action as they may think fit.

(b) *Grouping of Branches in United Kingdom for Year 1913-14.*

48. The Council has made enquiries from Branches and Divisions in the United Kingdom as to any desire for change in the present system of grouping for election of Members of Council. Protests against the present grouping have been received from three Branches, but no definite proposals for alteration have been submitted by any of them.

Recommendation.

The Council recommends:

That the grouping of Branches and Divisions in the United Kingdom for the election of Members of Council for the year 1913-14 be the same as for the years 1911-12 and 1912-13.

(*Note.*—For the existing Scheme of Grouping of the Branches in the United Kingdom *see* Appendix IV., page 468.)

(c) *Grouping of Branches not in United Kingdom for 1913-14.*

49. The Council is in communication with the Branches outside the United Kingdom with regard to their grouping.

Annual Conference of Secretaries.

50. Feeling that such Conferences afford valuable means for interchange of information bearing on questions of professional organisation, the Council has decided that a Conference of Secretaries shall be held in 1912, in connection with the Liverpool Meeting. Considerable attention has been given to various suggestions which have been made in regard to the arrangements, and certain new departures will be made, the result of which it is hoped will be to enhance the usefulness of the Conference and attract a large attendance of Secretaries.

Rules.

51. The Council finds that, notwithstanding repeated reminders on this subject, there are still 70 Divisions in the United Kingdom which have not adopted ordinary Rules of Organisation. With the growing importance of the Association as the representative organisation of the medical profession, and the increasing duties thrown upon the honorary officials, the necessity of formal Rules for regulating the work of the units of the Association becomes more apparent, and the Council would urge upon every Division to lose no time in equipping itself properly for its work. The importance of this subject is emphasised in the Report on the Machinery of the Association in connection with Disputes, to which the attention of the Divisions is specially directed.

(*Note.*—For the Report in question, see Appendix V., page 469.)

South African Committee.

52. The South African Committee having forwarded to the Council a request that the powers contained in the Regulations of the Association concerning the formation of Branches and Divisions in South Africa, and the delimitation of their areas, should be delegated to that Committee, the Council expressed its desire to delegate to the South African Branches, either individually, or collectively through the South African Committee, all powers in matters affecting those Branches which the Regulations of the Association will permit to be so delegated. The Committee was informed that in matters which the Council cannot so delegate, the utmost regard will always be paid to the wishes of the Branches, whether expressed individually or through the South African Committee; and that, so far as the power of altering the area of these Divisions was concerned, if the Branches chose to place this matter in the hands of the Committee there was nothing to hinder them from adopting Rules which would have this effect. As decision as to alterations of boundaries of Branches is vested in the Council, and under the Regulations could only be delegated, if at all, to the individual Branches, and not to the Committee, the Committee was informed that a resolution delegating this authority might be so framed as to make any exercise of it subject to the sanction of the Committee. At a later stage regulations were submitted by the Committee and approved by the Council which it is believed give to the South African Branches, through the South African Committee, such a degree of self-management as will meet their full requirements.

Official Transfer of Members from one Division to another.

53. Before proceeding further in the consideration of Minute 50 of the Annual Representative Meeting, 1911 (*see* below), the Council deemed it advisable to obtain from the Branches outside the United Kingdom, from which the desire for a change in the Regulations governing transfers from one Division to another had originated, a full statement of their views on the subject. The Council hopes to be able to report fully on the matter in its Supplementary Report.

Minute 50 (A.R.M. 1911).—Resolved: That the Council be instructed to report as to the desirability of so amending the Regulations as to provide that no Member of the Association be allowed to transfer from one Division to another unless such transfer is applied for in writing by the Secretary of the Division he is leaving.

Machinery of Association in connection with Disputes.

54. The Annual Representative Meeting, 1911, directed the attention of the Council (Minute 153) to the question of the failure of the machinery of the Association in connection with certain disputes. The Council has considered the matter and submits to the Divisions and Representative Body the appended Report, with Recommendations, on the subject.

(*Note.*—For the Report in question, see Appendix V., page 469.)

Recommendations.

The Council recommends:—

1. That (with rare exceptions) Warning Notices should never be inserted for those Divisions which have not adopted Rule Z. Where the case seems to demand action in spite of this deficiency, as, for example, where some appointment is offered in flagrant opposition to the declared policy of the Association, a Warning Notice should only be inserted on the instruction of the Chairman of the Central Ethical Committee after the Medical Secretary or one of his staff has visited the place and assured himself by means of an interview with the Division Executive, that the dispute will be conducted vigorously and that the Division thoroughly understands its responsibilities.

2. That Divisions should be given clearly to understand that the insertion of a Warning Notice pledges them to take active disciplinary measures against offenders.

3. That it should be a rule that a Division which has not been proved by experience to be able to conduct a dispute satisfactorily, even if in possession of proper Rules, should not be allowed to enter on a case necessitating the use of a Warning Notice until there has been an interview between a representative of the Central Office and the Executive of the Division concerned.

Documents to be Supplied to every Member.

55. The Council has considered the following Resolution of the Annual Representative Meeting, 1910:—

215.—Resolved: That it be an instruction to the Council to consider what documents should be supplied to every Member, indicating his rights and obligations as a Member of the Association,

and has given instructions that in future each new Member of the Association be supplied with (a) the Articles and By-laws, to be sent by the Financial Secretary and Business Manager immediately he is notified of the election, (b) the Rules of his Branch, to be sent by the Branch Secretary to every newly elected Member of the Branch, and (c) the Rules of his Division, to be sent by the Division Secretary immediately he has been notified of the election of a Member in his area.

In order that material changes in the Regulations of the Association shall be brought to the notice of Members of the Association, instructions have been given that, following such changes, the Articles and By-laws shall be printed in the Supplement to the Journal.

Grants to Branches.

56. Grants for the year 1912, varying from 1/- to 4/- per Member, have been made by the Council to those Branches which required grants and had furnished satisfactory Reports for 1911. No grant has been made to Branches which had balances of over 5/- per head as at 31st December, 1911.

Grants of 4/- per Member have been made to the Branches outside the United Kingdom.

The Council desires specially to draw the attention of Executive Committees of Divisions and Councils of Branches to the importance of correct and satisfactory Annual Reports being made by Divisions and Branches under By-law 24 of the Association. Neglect to furnish these Reports at the times laid down in the By-law necessarily causes delay and difficulty in making grants to the Branches concerned.

A general analysis of the Reports of Branches for 1911 is appended. (*See* Appendix VI.)

(*Note.*—For Appendix VI. *see* page 470.)

Special Expenditure of Divisions and Branches During the Year 1911 in Connection with the National Insurance Bill.

57. In connection with the expenditure reported by Divisions and Branches for the year 1911, the Council, in dealing with the Grants to Branches has, so far as is practicable, separated the special expenses reported in connection with the National Insurance campaign from the ordinary Division and Branch expenditure, and has arranged for the former being defrayed from the Insurance Defence Fund (Central or Local).

Circularising other Divisions and Branches.

58. The Reports of Divisions show that needless expense has lately been incurred by some Divisions in circularising other Divisions. Attention is drawn to the fact that the Supplement to the Journal should be used for this purpose.

The Medical Federation, Ltd.

59. The Council at its Meeting on November 1st, 1911, received a communication from the Bristol Division pointing out what that Division considered to be inherent defects in the organisation of the Association, and bringing to the notice of the Council a scheme which the Division had devised for the purpose of meeting these defects. This scheme, which has undergone considerable alteration since that time, has since been registered as a limited liability Company under the title of The Medical Federation, Limited. The Council has given, through the Organisation Committee and its legal advisers, the most careful and detailed attention to the scheme thus brought to its notice, and presents in an Appendix (1) the scheme presented by the Medical Federation, Limited, as a basis of co-operation between that Federation and the Association. (2) case presented by the Solicitor of the Association to Counsel to advise, and (3) the Opinion of Counsel (Mr. T. R. Colquhoun Dill). As the result of the Council's serious consideration of this scheme, but still more of the opinions of its legal advisers, which clearly show that the proposals of the Medical Federation, Limited, even if capable of being given legal effect to, would be of no practical value, and that no scheme of co-operation by the Association with that body on the lines suggested is legally permissible, the Council is of opinion that no advantage will accrue to the Association by pursuing the matter further.

(*Note.*—For the documents referred to, see Appendix VII., page 479.)

Agenda Committee of Representative Body.

60. The following instruction of the Special Representative Meeting of February, 1912, has been considered by the Council:—

> *Minute* 81.—Resolved: That the Council be instructed to appoint an Agenda Committee to consider and report to the next Meeting of the Representative Body, on the method of dealing with the Agenda of that Meeting,

and the Council has appointed as such Agenda Committee the Chairman of Representative Meetings, the Chairman of Council, and the four Members of Council elected by the Representative Body under By-law 43 (d).

Division Meetings to be held after Representative Meetings.

61. The Council draws the attention of the Divisions to the following resolution of the Special Representative Meeting, February, 1912:—

> 66. Resolved: That the Council be instructed to advise each Division in the United Kingdom to adopt a rule requiring the Division to hold a general meeting immediately after each Representative Meeting, for the specific purpose of considering a report thereon by its Representative or Representatives.

Under Consideration.

62. Official transfer of members from one Division to another.

Prospectus setting forth the objects and work of the Association.

Compilation of Pronouncements of the Association on questions of Professional Policy.

Preparation of Secretaries' Handbook.

Organisation of the Association in India.

(D) British Medical Journal.

63. During the past year great difficulties in the production of the Journal have been met and overcome. In the early part of 1910, owing to the Printers' Strike the firm who had printed the Journal for a great number of years became unable to guarantee continuance, and at very short notice other printers had to be found. This was done, and it is believed that the Journal is now being produced in a way that gives general satisfaction.

The Council takes this opportunity of placing on record its appreciation of the work done for the Association by Messrs. Bradbury & Co., Ltd., for so many years and regrets that the exigencies of the Printers' Strike should have been the means of breaking business relations which had extended over so long a period to the complete satisfaction of the Association.

In August the Carters' Strike developed, and at one time it seemed probable that the supply of paper available would be insufficient to enable the Journal to be printed. This difficulty was overcome by bringing the paper to London by passenger train and then transferring it to the printers in private motor cars, as it was not possible to get any other conveyance.

The greatest difficulty, however, has been the sustained effort necessary to get out each week the large Journals and Supplements necessitated by the passing of the National Health Insurance Act. Not only have the Journals been exceptionally large, but owing to the increased circulation some thousands more copies of the Journal have had to be printed. The prompt issue of the Report of the last Special Representative Meeting, equivalent to more than 25 columns of a leading daily paper, merits special note. All this has involved working at the highest pressure, and the Council desires to place on record its appreciation of the way the whole of the Staff have responded to the heavy demands made upon them.

Libel Actions.

64. During the past year the Association has been unfortunate in the frequency with which it has been involved in questions of libel, and at the time of drafting this Report there are three actions pending. The greatest care is being exercised in the preparation of the defences and no effort will be spared to maintain the interests of the Association.

Special Chloroform Committee Report.

65. During the year the Report of the Special Chloroform Committee has been republished in book form and is now on sale. The Council has expressed its thanks to Dr. Dudley Buxton for his valuable assistance in editing the Report.

Advertisements.

66. The advertisements appearing in the Journal, and tendered for insertion in the Journal, have received the careful attention of the Journal Committee. In support of the policy of the Association the publication of many advertisements has been declined or discontinued, the cash value of same representing a sum of over £400.

THE BOOK "SECRET REMEDIES."

67. The publication of the book "Secret Remedies" has continued to show a steady sale, the issue now having exceeded 100,000. This success has influenced the Council to decide on the issue of a second series, containing analyses published in the British Medical Journal since the first issue. This is in course of preparation and will be published at the earliest possible date.

SUPPLEMENT.

68. The Council has under consideration proposals for increasing the usefulness of the Supplement.

(E) Science.

SCIENTIFIC WORK OF ANNUAL MEETING, 1912.

69. The Scientific work of the forthcoming Annual Meeting of the Association at Liverpool is being organised in twenty Sections, as follows :—

Anæsthetics, Anatomy, Bacteriology, Diseases of Children, including Orthopædics, Dermatology, Electro-Therapeutics, Gynæcology and Obstetrics, Laryngology and Rhinology, Medical Sociology, Medicine, Navy Army and Ambulance, Neurology and Psychological Medicine, Ophthalmology, Otology, Pathology, Pharmacology and Therapeutics, Physiology, State Medicine and Industrial Diseases, Surgery, Tropical Medicine.

THE LIBRARY.

(a) *Reference Department.*

70. During the year about 100 new books have been added by purchase to the Reference Department of the Library. In addition, about 700 volumes have been received as gifts from authors, publishers, and others, to whom the Council desires to express its thanks.

(b) *Lending Department.*

71. The Council is glad to report that the Lending Department, which now contains several thousand volumes, is much appreciated by Members of the Association.

(c) *Grants of Duplicate Books.*

72. During the year several hundred duplicate volumes have been given to Division and Branch Libraries. Divisions or Branches which possess libraries, or are proposing to establish them, are recommended to apply for the list of duplicate books.

QUESTION OF EXTENSION OF REFERENCE OF THERAPEUTIC SUB-COMMITTEE.

73. The Council has carefully considered the proposal, raised in Minute 59 of the Annual Representative Meeting at Birmingham, namely, that the reference to the Standing Therapeutic Sub Committee of the Science Committee should be extended.

The present reference to the Sub-Committee, as approved by the Representative Body, is as follows :—

To promote, supervise, or direct research in Pharmacology and Therapeutics, and to carry out such other duties as the Science Committee shall decide ;

and the motion referred for the consideration of the Council was the following :—

That the reference to the Sub-Committee . . . should specifically indicate the desirability of enquiry into, and of periodic reports upon, experimental and clinical methods of inducing active or passive immunity, more especially by means of Bacterial Vaccines, Immune Serums, and regulated Auto-inoculations.

The Council now reports to the Representative Body that, in its opinion, the scope of the work of the Therapeutic Sub-Committee, under the terms of its present reference from the Science Committee, includes the subject of treatment by biological methods, but the Sub-Committee has not the funds which would be required to conduct a systematic enquiry into the experimental and clinical methods of inducing active and passive immunity.

SPECIAL COMMITTEE ON TREATMENT OF SIMPLE FRACTURES.

74. The Special Committee on the Treatment of Simple Fractures, with and without Operation, appointed by the Council at the suggestion of the Section of Surgery at the London Meeting, has undertaken the investigation of the results obtained in about 3,000 cases of fracture, treated at various large hospitals in England, Scotland and Ireland. The investigation is nearing completion and the Council expects to submit the final Report of the Committee to the Representative Body and to the Section of Surgery at Liverpool.

The Council desires to express, on behalf of the Association, its indebtedness to the Medical Boards, individual Members of Staffs of Hospitals, and other practitioners, who have kindly assisted by offering cases for the purposes of the inquiry.

(F) Medical Ethics.

POSITION OF PRACTITIONERS EXAMINING PATIENTS UNDER CARE OF OTHER PRACTITIONERS.

75. The Council has considered the following Resolutions of the Annual Representative Meeting, 1911 :—

Minute 73.—Resolved : That the Memorandum in the Report of Council on the Position of Medical Practitioners called upon to examine (otherwise than by the request of the patient or persons acting upon his behalf) patients who are under the care of other practitioners, be approved.

(*Note.*—For the Report, *see* Appendix VIII., page 481.)

Minute 84.—Resolved : That the Rules as a whole be approved, as follows :—

Rules.

(1) Except as hereinafter mentioned, the medical inspector should give the medical attendant such notice of the date, time, and purpose of his visit as will afford reasonable opportunity for the medical attendant to be present should he or the patient so desire.

The exceptions are—

(*a*) When circumstances justify a surprise visit.

(*b*) When circumstances necessitate a visit within a period which does not afford time for notification.

(*c*) When the medical inspector, after due enquiry made, has no information as to whether the patient is under medical care.

Where the medical inspector has availed himself of any of the above exceptions, it shall be his duty to inform the medical attendant, if any, of the fact of his visit, and the reason for his action.

(2) The medical attendant must not put any unnecessary difficulties in the way of fixing a time convenient to both practitioners.

(3) If the medical attendant fails to appear at the time agreed upon, the medical inspector may proceed with his examination forthwith.

(4) The medical inspector must not, without the consent of the medical attendant, do anything in the course of his examination which involves active interference with the treatment of the case.

(5) Where the medical attendant fails to communicate with the medical inspector, the medical inspector shall, at his discretion, and subject to the consent of the patient, make any examination he may consider necessary.

(6) The medical inspector must not make any comments to the patient which are of the nature of criticisms of, or reflections upon, the treatment, nor must he express, without the concurrence of the medical attendant, any opinion to the patient as to the etiology, diagnosis, or prognosis of the case. His duty is strictly confined to examining into such matters as are necessary for the purposes of his report, and reporting to his employer, and to his employer only, his conclusions from such examination.

The Council has also considered certain objections to the Report and Rules in question which have come to its notice.

Recommendations.

The Council recommends :—

(A) That the Report on the Position of Practitioners examining on behalf of Interested Persons should not be held to affect the work of Certifying Factory Surgeons, inasmuch as :—

(i.) They are acting on behalf of the State, which has no monetary interest in the cases.

(ii.) Their duties are to report on the circumstances relating to accidents, and the prevention of similar accidents.

(iii.) Such duties do not involve any detailed examination of the injuries or any reference to their treatment.

(B) That in Rule (3), as follows:—

(3) If the medical attendant fails to appear at the time agreed upon, the medical inspector may proceed with his examination forthwith,

the word "stated" be substituted for the words "agreed upon."

Co-operation of Divisions in Ethical Cases.

76. The Council has carefully considered, both in its ethical and medico-political aspects, the proposal referred to the Council by the following Minute 126 of the Annual Representative Meeting, 1911:—

126. Resolved: That the following suggestion be referred to the Council for consideration, namely, that when a Resolution under Rule Z has been passed by a Division or Branch, and finally ratified by the Central Council, it shall become automatically operative over the whole Association.

Recommendation.

The Council recommends:

That the Representative Body express the following opinion upon the matter:—

That the time is not opportune for providing that resolutions passed by Divisions or Branches under Rule Z shall be automatically operative throughout the Association, but that the adoption of Rule Z by all Branches would to a great extent have the desired effect.

Model Ethical Rules for Divisions and Branches.

77. The Annual Representative Meeting, London, 1910, resolved as follows:—

Minute 190.—Resolved: That it is desirable that the Home Divisions of the Association should have a uniform code of Ethical Rules, instead of having varying codes for different Divisions; and that the steps necessary for carrying this principle into effect be taken as soon as possible,

Minute 192.—Resolved: That it is desirable that all the Home Branches should have uniform Ethical Rules, including Rule Z.

With reference to these instructions of the Representative Body, the Council has pleasure in reporting that the revision of the Model Rules of Procedure of Divisions and Branches, respectively, in Ethical Matters, which has been a matter of considerable difficulty, is now complete, and has included consideration of all suggestions received from Divisions and Branches, to which, with the exception of those Divisions which are themselves Branches, the Model Rules were duly submitted. Together with the Model Rules themselves—

(A) Of a Division not itself a Branch:
(B) Of a Branch composed of several Divisions;
(C) Of a Branch composed of one Division:

which are submitted herewith for the final consideration of the Divisions and Branches, and approval of the Representative Body, the Council submits the following special Memorandum on the subject.

(*Note.*—For the (Draft) Model Ethical Rules, *see* Appendix IX, page 482.)

MEMORANDUM.

Model Ethical Rules for Divisions and Branches.

As instructed by the Representative Body the Council has prepared sets of Model Rules suitable for adoption by Branches and Divisions respectively, in order to guide procedure when dealing with ethical matters. The Drafts now finally approved have been decided upon after careful consideration of numerous criticisms of a previous Draft, itself based on existing Rules, which was circulated for the purpose of inviting such criticisms to all Branches and Divisions with the exception of the small number of Divisions which are themselves Branches. The criticisms have proved of great service to the Ethical Committee in revising the Drafts, and it is hoped that the Rules, as finally revised, will be found to be in a form generally acceptable. Care has been taken to endeavour to provide Rules of such general applicability that a near approach may now be made to the ideal, long desired, of a uniform code of Rules in force throughout the Association. At present this ideal does not seem possible of attainment, though a careful consideration of the criticisms recently submitted shews that the points of difference between Divisions in various parts of the country are much less striking than when the matter was first considered some few years ago. If it should prove, as is confidently expected, that only a very small minority of Branches and Divisions find themselves unable to adopt the Rules as now modified, a great advance will have been made on existing conditions. It is felt that some Divisions, which have expressed the view that no such restraints upon individual action as is made possible in the Rules are needed for the profession in their districts, may yet be willing to adopt them, inasmuch as the possession of such Rules does not necessitate their being put into use, but, on the contrary, is a powerful means of preventing their use becoming necessary. Other Divisions who feel that the Draft Rules are needlessly elaborate and complicated will perhaps nevertheless be willing to adopt them, on the assurance that many Divisions have found in practice the necessity of meeting in advance difficulties which have frequently arisen when dealing with ethical matters. The Council confidently submits these Rules to the Representative Body as well adapted to assist the Association in maintaining the honour and interests of the profession.

Recommendations.

The Council recommends:—

A. That the Model Ethical Rules of a Division not itself a Branch be approved.

B. That the Model Ethical Rules of a Branch composed of several Divisions be approved.

C. That the Model Ethical Rules of a Branch composed of one Division be approved.

D. That all Divisions and Branches in the United Kingdom be urged to adopt the Model Ethical Rules, as approved by the Representative Body, without modification and in substitution for all such rules now in use by the Divisions and Branches respectively.

Suggested Reference of certain Ethical Cases direct to Branch Councils.

78. The Council has considered the following motion, referred to it by the Annual Representative Meeting at Birmingham (Minute 66):—

That it is desirable that any *pro forma* Ethical Rules formulated for adoption by the Divisions generally should give power to the Ethical Committee of a Division to refer direct to the Branch Council any ethical matter concerning any individual member of the Division which, in their opinion, it would be detrimental to the interests of the Association to allow to be dealt with locally by the Division in question.

The Council is of opinion that it is desirable that the Ethical Committee of a Division should have power to refer an ethical matter direct to the Branch Council in such cases. The Council has therefore made provision accordingly in the draft Model Rules of a Division not itself a Branch, referred to in the foregoing paragraph (*see* Model Rule 12).

(*Note.*—For Model Rule 12 referred to, *see* Appendix IX. (A), page 483.)

Cases before General Medical Council.

79. The question of the conduct of two medical practitioners in associating themselves with the "Sandow Institute" was brought by the Association before the General Medical Council at the November, 1911, Sessions of the Council. One of the practitioners in question having, previous to the Sessions, severed his connection with the institution in question, the General Medical Council decided not to erase his name from the Medical Register. The General Medical Council postponed judgment on the case of the other practitioner for a period of 6 months, to give him a further opportunity of submitting satisfactory evidence regarding his professional conduct.

The Council has given instructions for the presentation of a case, in which a practitioner is alleged to have employed an unqualified assistant, at the forthcoming Sessions of the General Medical Council.

CASES OF EXPULSION.

80. The Council regrets to have to report that it has been found necessary to remove from membership of the Association a member of the East Anglian Branch, and also a member of the North of England Branch, who accepted and continued to hold appointments the holding of which was in opposition to the declared views of the Divisions and Branches respectively concerned.

UNDER CONSIDERATION.

81. Index of Ethical Cases.
Conference between Consultants and General Practitioners.
Question of Medical Practitioners prescribing in Lay Papers.

(G.)—Medico-Political.

QUESTION OF ASSOCIATION UNDERTAKING ARBITRATION IN MATTERS OF PROFESSIONAL CHARGES.

82. On several occasions applications have been received from Members of the Association for advice as to the suitability of fees charged in certain cases. The time has now arrived when, in the opinion of the Council, the Association should be prepared formally to deal with applications of this kind, and arrangements have been made whereby the Medico-Political Committee will advise or arbitrate on all such matters referred to the Association.

AMENDMENT OF LUNACY ACTS AND CARE AND CONTROL OF THE FEEBLE-MINDED.

83. In accordance with the instructions contained in Minutes 123 and 202 of the Annual Representative Meeting, 1911, namely:—

> *Minute* 123.—Resolved: That it be an instruction to the Council to prepare for presentation to the Home Secretary a statement of the whole policy of the Association with regard to the amendment of the Lunacy Laws and the care and control of the Feeble-minded;
>
> *Minute* 202.—Resolved: That in regard to the Report on the subject of the Care and Control of the Feeble-minded (Minute 123) the Council be empowered to take action in respect of the proposals of the Manchester and Salford Sanitary Association;

the Council has prepared a Memorandum showing the prolonged and continued interest of the Association in this matter, together with its suggestions to the Government in connection with the legislation which it is understood to be the intention of the Government to introduce this session. This Memorandum has been forwarded to the Secretary of State for Home Affairs.

(*Note.*—For above-mentioned Memorandum, *see* Appendix X, page 492.)

GOVERNMENT INEBRIATES BILL.

84. The Council has pleasure in reporting that Mr. Ellis Griffith, Parliamentary Secretary to the Home Office, has recently introduced into the House of Commons, on behalf of the Government, a Bill to consolidate and amend the law relating to Inebriates, the provisions of which give effect to almost all of the decisions of the Association upon this subject. The Association has forwarded an expression of its satisfaction to Mr. Griffith, and has expressed the hope that the Bill will be passed into law at an early date.

The Bill deals with inebriety apart from mental defects, and in this respect is not in accordance with the expressed opinion of the Association that there should be one supervising authority for all such cases. It is deemed inadvisable, however, in view of the otherwise admirable nature of the Bill, to raise this question at the present time.

COMMISSIONERS UNDER LUNACY ACT, 1911.

85. The Association was approached by the Medico-Psychological Association asking for the co-operation of the Association in urging upon the Lord Chancellor the advisability of the two Commissioners to be appointed under the Lunacy Act, 1911, being medical practitioners. The appointments were made, however, before the Council had an opportunity of considering the question, one medical practitioner only being appointed. Authority has now been delegated to the Chairman of the Medico-Political Committee, whereby in the event of future vacancies on the Commission he may take action with a view to securing the appointment of medical practitioners.

QUESTION OF DIPLOMA IN PSYCHIATRY.

86. The Council has given careful consideration to the following Minute of the Annual Representative Meeting, 1911:—

> *Minute* 163.—Resolved: That paragraph 111 of the Annual Report of the Council be referred back for further consideration and report:—
>
> "111. The Council has considered the following resolution of the Section of Psychological Medicine and Neurology:—
>
> That this meeting of the Section of Psychological Medicine and Neurology assembled at the Annual Meeting of the British Medical Association in London, 1910, believing that it would tend to advance our knowledge of the pathology and treatment of mental diseases, strongly approves of and recommends the institution of a post-graduate course or curriculum and a diploma in Psychology, and further that this Resolution be brought before the Council of the British Medical Association.
>
> The Council concurs in the opinion of the Section of Psychological Medicine concerning the desirability of the institution of post-graduate courses in Psychology and Neurology, but regards the institution of any special diploma in these subjects as unnecessary and inadvisable."

The whole subject has been carefully reconsidered in the light of the more detailed information appended hereto.

(*Note.*—*See* Appendix XI, page 494.)

Recommendation.

The Council recommends:—

That the Representative Body approve the recommendation of the Section of Psychological Medicine and Neurology, Annual Meeting, 1910, concerning the desirability of the institution of a post-graduate course and diploma in Psychiatry.

MEDICAL INSPECTION AND TREATMENT OF SCHOOL CHILDREN.

(*a*) *Policy of Association.*

87. Considerable difficulty has been experienced during the year in securing the recognition of the policy of the Association laid down in the following Minute of the Annual Representative Meeting, 1911:—

> *Minute* 97.—Resolved: "That the duties of School Medical Officers and their Assistants should be confined to necessary inspection and report, and that the treatment of those children found defective should not be undertaken by them."

It has been thought advisable to summon a Conference between representatives of the Society of Medical Officers of Health and representatives of the Association, to discuss these difficulties. A full report on the matter will be laid before the Divisions and Representative Body in the Supplementary Report of Council.

(*b*) *Medical Inspection and Treatment in London.*

88. The Council has received a report that owing to the attitude taken up by the Board of Education since the Deputation from the Association upon the subject in July, 1911, the question of the treatment of defective school children in London is in a critical state. As London has been the pioneer in the formation of school children treatment centres, staffed by local practitioners, it has been decided that a special effort shall be made to bring pressure to bear on the Board of Education in favour

of the Association's policy. The appended Memorandum has accordingly been forwarded (April, 1912) to the President of the Board, and he has been asked to receive a Deputation upon the subject.

(*Note.*—For the Memorandum referred to *see* Appendix XII, page 494.)

Payment of Coroners' Fees to Naval Surgeons.

89. The question of the payment of Coroner's fees to Naval Surgeons was first brought to the notice of the Association in April, 1908, when attention was drawn to a recent Order of the Admiralty prohibiting Naval Surgeons from accepting fees from Coroners for evidence given at inquests, while leaving such officers under the statutory obligation to give such evidence and make post mortem examinations when so ordered by a Coroner.

In April, 1909, a Memorandum upon the question was forwarded to the Admiralty, and their Lordships were asked to consider the desirability of withdrawing the above-mentioned Order. A reply was received in July, 1909, to the effect that their Lordships, having given this matter very careful consideration, regretted that they were unable to depart from their previous decision.

The question has remained in abeyance since that time, owing to the fact that the Council did not think the time opportune for again raising it. In consequence of further representations as to the injustice of the Order, the appended Memorandum and covering letter were forwarded to the Admiralty on March 30th.

(*Note.*—For Memorandum and covering letter, *see* Appendix XIII, page 496.)

Direct Representation on General Medical Council.

90. The Council has pleasure in reporting that the candidates selected by the Annual Representative Meeting, 1911, to receive the support of the Association at the recent general election of Direct Representatives for England and Wales, namely, Dr. H. W. Langley Brown, Mr. T. Jenner Verrall and Dr. H. A. Latimer, were successful at that election.

Amendment of Indecent Advertisements Act; Sale of Preventives of Conception, Etc.

91. In consequence of an application from the White Cross League, asking for the co-operation of the Association in making representations to the Government on the increasing sale of preventives of conception and drugs to procure abortion, the Council has forwarded a Memorial to the Secretary of State for Home Affairs drawing his attention to previous action by the Association in relation to the subject, and urging legislation to give effect to the following Recommendations of the Select Committee of both Houses of Parliament (1908) on Lotteries and Indecent Advertisements:—

> "That the advertisement and sale of drugs or articles which might reasonably be considered as designed for promoting miscarriage or procuring abortion be made illegal. (Paragraph 44 of Report of Select Committee).
>
> "That it be made illegal to advertise drugs or articles designed for the prevention of conception. (Paragraph 44 of Report).
>
> "That, in framing any such new legislation, provision be made for the protection of medical practitioners and of registered chemists acting *bona fide* in the ordinary course of their profession or business." (Paragraph 45 of Report).

(*Note.*—For the Memorial, *see* Appendix XIV., page 496.)

Parliamentary Inquiry into the subject of Patent Medicines and Unqualified Practice.

92. The Government has appointed a Select Committee to consider and inquire into the question of the sale of patent and proprietary medicines and medical preparations and appliances and advertisements relating thereto; and to report what amendments, if any, in the law are necessary or desirable. Steps are being taken to place evidence on behalf of the Association before the Committee. An analysis has been made of the material already in the possession of the Central Office and other evidence is being collected.

Death Certification.

93. The following Memorandum is now submitted to the Divisions on the subject of the filling up of Death Certificates, based on Minutes, 107-10 of the Annual Representative Meeting, Birmingham:—

> *Minute* 107.—Proposed: That in the opinion of this Meeting it is expedient that uniform action be taken with regard to inserting the duration of disease on death certificates for insurance purposes, and that it be referred to the Council to consider what such action should be.
>
> *Minute* 108.—With the consent of the Meeting, the motion was amended to read as follows:—
>
> That in the opinion of this Meeting it is expedient that uniform action be taken with regard to inserting the duration of disease on statutory death certificates, or death certificates for insurance purposes, and that it be referred to the Council to consider what such action should be.
>
> The motion was carried (70—35).
>
> *Motion* 109.—On being put as a substantive motion, an amendment was proposed:—
>
> That in the opinion of this Meeting it is inexpedient to state the duration of illness on death certificates.
>
> The amendment was carried.
>
> *Minute* 110.—Resolved: That the amendment be referred to the Council to consider what action should be taken.

MEMORANDUM

to Divisions, on the subject of the Filling Up of Death Certificates.

1. The Annual Representative Meeting, 1911, passed the following Resolution:—

> *Minute* 107.—Proposed: That in the opinion of this Meeting, it is expedient that uniform action be taken with regard to inserting the duration of disease on death certificates for insurance purposes, and that it be referred to the Council to consider what such action should be.
>
> *Minute* 108.—With the consent of the Meeting, the motion was amended to read as follows:—
>
> That in the opinion of this Meeting, it is expedient that uniform action be taken with regard to inserting the duration of disease on statutory death certificates, or death certificates for insurance purposes, and that it be referred to the Council to consider what such action should be.
>
> The motion was carried (70-35).
>
> *Minute* 109.—On being put as a substantive motion, an amendment was proposed:—
>
> That in the opinion of this Meeting, it is inexpedient to state the duration of illness on death certificates.
>
> The amendment was carried.
>
> *Minute* 110.—Resolved: That the amendment be referred to the Council to consider what action should be taken.

2. Upon consideration of the above Minutes, the Council was of opinion that Minute 109 should be treated as the dominant resolution of the Representative Body and the following paragraphs have been framed on that assumption.

3. The Council now brings the matter to the notice of the Divisions in order that an attempt may be made to secure uniform action throughout the Kingdom on the lines indicated in the above Minute. It was the opinion of the Representative Body, as shown in the discussion which took place at the Annual Representative Meeting, 1911 (Birmingham), that the attempts which are continually being made by insurance agents and others to exploit the profession by seeking to obtain, in certificates given for another purpose, information which is valuable to them, should be frustrated. If this information is required for the purposes of insurance and other companies, it should, in the opinion of the Council, be paid for, and not obtained through the certificates furnished for the information of the Registrar of Deaths.

4. The law requires that practitioners should give certain particulars in the statutory certificates relating to the death of patients attended by them, but information as to the duration of the illness cannot be demanded of the practitioner and, if stated, is given as an act of grace. Divisions are therefore

urged to pass a resolution calling on their Members, and the members of the profession in the locality, to refrain in future from filling in the duration of disease in all statutory death certificates signed by them. The following is suggested as a model resolution :—

> That the.....Division of the British Medical Association, acting on the decision of the Annual Representative Meeting, 1911 (Birmingham), calls upon all members of the profession practising in its area, to refrain in future from filling in particulars of the duration of disease in any statutory death certificates signed by them.

This decision should be circulated to all members of the profession practising in the area of the Division, and information forwarded to the Central Office as to the action taken.

Employment of Medical Students by Medical Practitioners.

94. Arising out of an application for advice from a member, the Council has considered the whole question of the employment of medical students by medical practitioners as assistants, and, in connection therewith, has had before it the appended Memorandum upon the subject.

(*Note.*—For Memorandum, *see* Appendix XV., page 497.)

Recommendation.

The Council recommends :—

That as there is no advantage to the medical student, so far as his curriculum is concerned, in being employed by a medical practitioner, and as there is undoubted risk to the practitioner of a charge of "Covering," the advice of the Association, when asked for in this connection, should be to discourage the practice of the employment of medical students by medical practitioners.

Ship Surgeons.

(a) General Scope of Work undertaken by Association.

95. The Council reported to the Divisions and Annual Representative Meeting in 1911, as to the work proposed to be undertaken by the Association on behalf of Ship Surgeons. Various preliminary steps have since been taken, including the appointment of suitable practitioners at several of the principal passenger ports to act as Correspondents of the Standing Ship Surgeons Sub-Committee of the Medico-Political Committee. It is hoped soon to have Correspondents at all such ports, for the purpose of getting into touch with the Ship Surgeons, and offers from members in the principal passenger ports who have been Ship Surgeons, or who are specially interested in this subject, will be welcomed. The Council has received gratifying evidence of the widespread interest which is being taken by Ship Surgeons themselves, as well as by members of the profession generally, in this new development of the Association's work. It is already obvious that there are many matters in connection with the conditions of service of Ship Surgeons which require investigation and action with a view to their improvement, and that much can be effected by adequate professional organisation, which up to the present has not existed. The Council appeals to Ship Surgeons who are not already Members of the Association to join it, in order that the Association may be able to speak with authority for the body of sea-going practitioners.

In view of the interest being taken in the work, and seeing that the only way in which Ship Surgeons can be kept in touch with the work of the Association is through the BRITISH MEDICAL JOURNAL, arrangements have been made for publication, in the JOURNAL, after each meeting of the Ship Surgeons Sub-Committee, of a report of its proceedings.

(b) Right of Ship Surgeons to Fees in Certain Cases.

96. Repeated complaints have been made by Ship Surgeons employed in certain companies that they are not allowed to charge fees to first and second class passengers in certain cases of illness not arising in connection with the ship.

The charging of such fees is duly recognised by other steamship companies, and the arrangement appears to work satisfactorily to all concerned. Being of opinion that the charging of such fees is a right and proper procedure, the Council has made arrangements for a communication to be addressed to those passenger steamship companies which have not yet adopted this system, requesting them to consider the desirability of falling into line with the other companies.

(c) Warning Notices and Appointments of Ship Surgeons.

97. The Council has had under consideration the possibility of Warning Notices being asked for in the case of appointments of Ship Surgeons, and finds that difficulties might arise as the present regulations governing the Warning Notices, provide for the publication of such a Notice in the JOURNAL only upon a request by the Honorary Secretary of a Division or Branch. The regulations governing the Warning Notices are therefore being amended in order that such Notices may also be published at the request of the Standing Ship Surgeons Sub-Committee of the Medico-Political Committee.

Conveyance of Insane Persons by Sea.

98. The Burma Branch having raised the question of the desirability of some modification of the Merchant Shipping Act, to provide for the conveyance of insane persons, a communication has been addressed to the Colonial Office drawing attention to the difficulty experienced in connection with the conveyance of insane persons by sea.

Certificates and Reports on Cases under Workmen's Compensation Act, and Members of Hospital Staffs.

99. The Council has considered the following Minutes 219 of the Annual Representative Meeting, 1910, and 102-5 of the Annual Representative Meeting, 1911, concerning the question of certificates and reports on cases under the Workmen's Compensation Act, having first referred the matter to the Medico-Political and Hospitals Committees jointly for consideration and report :—

(a). *Annual Representative Meeting, 1910.*

Minute 219.—Resolved ; That the following Recommendation be referred back to the Council for further consideration and report :—

> That in reference to Minute 148 of the Annual Representative Meeting, 1909, namely :—
>
> > Resolved :—That, in the opinion of the Representative Meeting, any member of an honorary or paid medical or surgical staff of a hospital who signs any certificate, or gives any report on any case under the Workmen's Compensation Act, ought to receive personally the usual fee in full.
>
> the fee for a certificate of the kind mentioned should not be less than one guinea.

(b). *Annual Representative Meeting, 1911.*

Minute 102.—Proposed : That in cases arising under the Workmen's Compensation Act, the minimum fee for the initial examination and report shall be £1 1s.

Minute 103.—Whereupon an amendment :

> That there should be a minimum fee fixed by each Division for examination and report, in cases arising under the Workmen's Compensation Act.

The amendment was lost (47-49).

Minute 104.—Whereupon an amendment :

> That the words "not less than 10s. 6d." be substituted for "£1 1s."

Minute 105.—Whereupon an amendment :

> That the matter be referred to the Council for consideration and report.

The amendment was carried.

Recommendations.

The Council recommends :

That the Representative Body adopt the following principles :

(i.) That the furnishing of certificates in cases of injury to workmen is no part of the duty of members of the honorary or paid medical staffs of voluntary hospitals.

> (*For opinion of the Solicitor of the Association as to liability of employer for cost of certificates as to workmen's fitness or unfitness to work, see Appendix XVI., p.* 497.)

(ii.) That a certificate of attendance of a workman at hospital, containing no information as to the nature of the case, should not be regarded as a medical certificate.

(iii.) That any medical certificate, expressing an opinion as to the fitness or unfitness of a patient to follow his employment, or any report on such cases, under the Workmen's Compensation Act, given by any member of the staff of a voluntary hospital,

whether honorary or paid, should be paid for, and the fee should be received by the medical practitioner who signs the certificate.

(iv.) That in the case of all medical certificates and reports under the Workmen's Compensation Act given by the members of the staffs of voluntary hospitals, whether honorary or paid, the fee should not be less than £1 1s. 0d.

(v.) That in the case of all initial examinations with certificate or report under the Workmen's Compensation Act, given by a practitioner not as a member of the staff of any voluntary hospital, the fee should not be less than 10s. 6d.

CERTIFICATES UNDER EMPLOYERS' LIABILITY ACT, 1880, OR COMMON LAW, IN RESPECT OF ANY INJURY OR DISEASE.

100. The Council is of opinion that the various principles, stated above, concerning medical certificates under the Workmen's Compensation Act, should apply equally to the case of medical certificates given under the Employers' Liability Act, 1880, or at Common Law.

Recommendation.

The Council therefore recommends:

That in the case of certificates and reports by medical practitioners, given under the Employers' Liability Act, 1880, or at Common Law, in respect of any injury or disease, the same principles shall apply as in the case of certificates and reports under the Workmen's Compensation Act.

CENTRAL EMERGENCY FUND.

101. Grants, amounting to a total of £115, have been made to two Divisions from the Central Emergency Fund, to give financial assistance in cases which could not be assisted from the funds of the Association, but which in the opinion of the Medico-Political Committee seemed to demand the support of the profession. Attention is drawn to the claims of this Fund, which runs a risk of being forgotten in face of the greater claims of the Insurance Defence Fund.

SALARIES OF MALE AND FEMALE POST OFFICE WHOLE-TIME MEDICAL OFFICERS.

102. Action has been taken in connection with certain whole-time post office appointments in vindication of the principle laid down by the Association that no distinction must be made on the ground of sex as regards the amount of the emoluments to be paid to women as compared with men practitioners. Joint representations will shortly be made to the Postmaster-General on the subject by the Association and the Association of Registered Medical Women.

CONTRACT PRACTICE CASES IN WHICH ACTION HAS BEEN TAKEN.

103. Action has been taken with regard to the following contract practice appointments:—

Birmingham and District General Dispensary (Resident Medical Officer); Goulbourn, New South Wales (Friendly Society appointments); Esh Winning and Waterhouses (Colliery appointment); Kingston-on-Thames (Hearts of Oak Friendly Society appointments); Winkleigh (Friendly Societies appointment); Bungay, Suffolk (Friendly Society appointments); Lewis-Merthyr Collieries (Colliery appointments); Suffolk (County Medical Club and Provident Society); Rugby Medical Institute (Medical Officer); London Stock Exchange Clerks' Provident Fund (Medical Officer); Douglas, Lanarkshire (private practitioner); Llanbradach (Collieries appointment); Aberystwyth (Foresters' Club appointment); Turvey, Bedfordshire (Oddfellows Club appointment); Kent (Colliery appointments); Abertysswg (Colliery appointment); Blaina (Medical Aid Association); Sudbrook (Great Western Railway Club); Liverpool, North Suburbs (Postal Medical Officers); Rishton, Great Harwood and Clayton-le-Moors (Club appointments); Glasgow School Board (Women Lecturers on Hygiene and Home Nursing); Abersychan and District Workmen's Medical Fund (Principal Medical Officer); Treeton and Orgreave (Colliery Workmen's Club); Astley and Tyldesley (Colliery appointment); Manchester School for Mothers (Medical Officer); Salisbury (Provident Dispensary); Shoreditch and Finsbury (Tuberculosis Dispensary); Penkridge (Contract practice appointment); Plymouth (Medical Aid Institute); Bradford (Tuberculosis Dispensary); Dunfermline (Friendly Society appointments); Brighton (Contract practice appointments); Littleport (Friendly Society appointments); Northwich (Club appointments); Bristol (Lady Medical Inspector of Midwives); Wrexham (Friendly Societies Medical Institute); Battersea (Tuberculosis Dispensary); Stepney (Tuberculosis Dispensary); Stanningly and Pudsey (Medical Aid appointments); Grays, Essex (Sons of Temperance).

UNDER CONSIDERATION.

104. Advertisements of medical agencies in JOURNAL.

Question of salaries of Medical Inspectors of school children rising automatically.

Minute 101 of the Annual Representative Meeting, 1911, concerning the treatment of school children in hospitals.

Minute 121 of Annual Representative Meeting, 1911, as to "Spiritual Healing."

Preparation of Questions suitable for submission to Candidates at County, Borough and District Council Elections.

Salary of Ship Surgeons.

Question of insertion of certain advertisements for Ship Surgeons in JOURNAL.

Government of Madras Order *re* Gratuitous Treatment of Hospital patients.

(H) State Sickness Insurance.

NATIONAL INSURANCE ACT.

105. In February, 1912, a full statement of the action taken up to that time by the Council, as regards the National Insurance Act, was furnished to the Association in a Report published in the Supplement to the BRITISH MEDICAL JOURNAL of February 3rd.

At the Special Representative Meeting, February, 1912, convened, pursuant to a previous resolution of the Representative Body, to consider a Special Report of the Council with reference to the National Insurance Act, the following resolution was adopted:

36. Resolved: That a State Sickness Insurance Committee be appointed to consider and report to the Council on all matters connected with the National Insurance Act or a Public Medical Service;

and a special State Sickness Insurance Committee was appointed by the Representative Body in February accordingly.

Pursuant to the instructions of the Representative Body, the Committee has submitted to the Council a report of its proceedings at meetings of the Committee held from February 28th to April 25th, 1912, inclusive, and has received the instructions of the Council on the matters in question. Reports of the proceedings of the Committee have appeared from time to time in the JOURNAL.

As a complete Report by the Council regarding the action taken in connection with the Insurance Act since the Special Representative Meeting of February must necessarily be submitted to the Divisions and Representative Body in the beginning of July, preparatory to the Annual Representative Meeting at Liverpool, the Council does not propose at the present juncture to make a detailed report on the subject.

(I.)—Public Health and Poor Law.

QUESTION OF DEFINITION OF "OFFICIAL DUTIES" OF MEDICAL OFFICERS OF HEALTH.

106. With reference to the following resolution of the Annual Representative Meeting at Birmingham:—

Minute 141-3.—Resolved: That the following amended form of Minute 234 of the Annual Representative Meeting, 1909, be adopted:—

That, in the general interests of Public Health and the Medical Profession, it is desirable (i.) that Medical Officers of Health should, as a rule (and with-

out prejudice to those at present holding part-time appointments), be required to devote their whole time to official duties (ii.) that all Medical Officers of Health should be adequately paid, districts being grouped where necessary to make this practicable; (iii.) that all Medical Officers of Health should be admitted to participation in a Government Superannuation Scheme; and (iv.) that all Medical Officers of Health should be protected, in the proper discharge of their duties, against capricious dismissal or reduction of salaries;

and the instruction (Minute 142) that in view of the last memorandum of the Local Government Board, the Council should frame a definition of the term "official duties" as used in paragraph (i.) of Minute 141 (see above), the question of such definition has been considered. The Council has consulted the Association of Medical Officers of Health and the Society of Medical Officers of Health in connection with the matter, and has received and considered a reply from the former.

Recommendation.

The Council recommends:—

That the term "official duties" occurring in Minutes 141-3 of the Representative Meeting, 1911, be understood to include such duties as are comprehended under the terms of any definite official appointment which does not offer any opportunity for competition with any private medical practitioner.

Membership of Public Health Committee.

107. Under the existing By-law the membership of the Public Health Committee, in addition to the members *ex officio*, is only 6, namely, 3 appointed by the Representative Body and 3 by the Council. The Council is of opinion that this number is too small, in view of the increasing importance of the subjects referred to the Committee, and the desirability that it should be thoroughly representative not only of Medical Officers of Health but of general practitioners. The Council is of opinion, therefore, that provision should be made for an increase in the elected membership of the Committee.

Recommendation.

The Council recommends:—

That the Representative Body instruct the Council to take the necessary steps to amend the Schedule to the By-laws so as to provide that the number of elected members of the Public Health Committee be 8 instead of 6, namely, 4 appointed by the Representative Body and 4 by the Council.

Government's Milk Bill.

108. It is understood that the Government will shortly introduce a Milk Bill into Parliament. The Council applied to the Local Government Board for an early copy of the proposed Bill with a view to considering its provisions and, if necessary, making representations to the Government thereon, but was informed that the Board could not undertake to supply the Association with a copy of the Bill prior to its introduction into Parliament. The matter will, however, be closely watched.

Co-operation of Association with Certain Medical Periodicals as Regards Refusal of Certain Advertisements.

109. Communications have taken place with the Editors of the "Journal of the Royal Sanitary Institute," "Public Health," and the "Journal of the Royal Institute of Public Health," respectively, with a view to obtaining their co-operation in refusing advertisements of medical appointments the conditions of which are not in accordance with the declared policy of the Association, and are considered prejudicial to the best interests of the profession and public. The Editor of "Public Health" has promised to bring the matter officially to the notice of the Society of Medical Officers of Health. It has been found that the other Journals named rarely, if ever have advertisements of the kind in question offered to them for publication.

Defence of Vaccination.

110. It has been suggested that the valuable work of the late Dr. F. T. Bond, Honorary Secretary of the Jenner Society, in defence of Vaccination, should in the interests of the public health be taken over and continued by the Association, and the Council approves the proposal. Enquiries are accordingly being made of the relatives of the late Dr. Bond as to their willingness to hand over to the Association the documentary evidence in defence of Vaccination collected by him. If Dr. Bond's relatives concur in the proposal, the Council will appoint a Standing Sub-Committee of the Public Health Committee to deal with the matter.

Royal Sanitary Institute Congress.

111. The Council has appointed the Chairman of the Public Health Committee, Mr. E. J. Domville, and Mr. Herbert Jones, member of that Committee, as delegates to represent the Association at the Congress of the Royal Sanitary Institute, to be held at York, July 29th to August 3rd, 1912.

Advertisement of Appointments which are the subject of Warning Notices, through the Labour Exchanges.

112. In connection with an appointment which was the subject of a Warning Notice in the JOURNAL, it was found that notice had been given of the vacancy to the Labour Exchanges throughout the country. As it is understood to be contrary to custom to circulate the names of vacancies which are objected to by any organisation, without warning enquirers, the attention of the Director of Labour Exchanges has been drawn to the matter, and he has been asked for further information.

Medical Officers of Health Superannuation Bill of Association.

113. The Medical Officers of Health Superannuation Bill of the Association was introduced into Parliament in 1911 by the late Dr. A. Hillier, M.P., supported by Sir C. Hill, M.P., Colonel T. Hickman, M.P., and Messrs. G. Barnes, M.P., H. W. Forster, M.P., and J. M. Robertson, M.P. It did not, however, obtain a second reading.

Representations as to the Bill have lately been made by the Council to the President of the Local Government Board through Dr. Addison, M.P., with whom Mr. Burns has promised to confer, if possible, on the subject this Session. It has not, however, up to the present been possible to secure Mr. Burns' support for the Bill. The Council has, therefore, asked Dr. Addison, M.P., to have the Bill introduced into Parliament as soon as possible, and Dr. Addison has promised to do so. The co-operation of the County Councils Association has been invited in securing the passage of the Bill.

Action Taken as to Public Health and Poor Law Appointments.

114. Action has been taken by the Council with regard to the following Public Health and Poor Law appointments:—

Penzance (Poor Law Medical Officer), Croydon (Poor Law Medical Officer), Shoreditch (Parish of St. Leonard Poor Law Medical Officer), Worcester (County School Medical Officer), Flintshire (County Medical Officer of Health and School Medical Officer), Isle of Ely (County Medical Officer of Health and School Medical Officer), South Shields (Medical Officer of Health), Parish of St. Mary, Islington (District Medical Officer), Wokingham (Poor Law Medical Officer), Isle of Wight (County Medical Officer of Health and School Medical Officer), Radnor (County Medical Officer of Health and School Medical Officer), Claypole (Medical Officer of Health), Brighton (Workhouse Infirmary Consulting and Operating Surgeon), Annfield Plain (Medical Officer of Health), Edmonton (Medical Officer of Health).

The Council is glad to state that an increasing amount of success is attending the efforts of the Association in dealing with disputes in regard to appointments. This is no doubt largely due to the greater activity of the Divisions, brought about by the introduction of the Insurance Bill, but it is also due to the growing recognition by the Divisions of the necessity for organisation and vigilance. Failures, which may generally be ascribed to inefficient organisation, are so detrimental to the influence of the Association, both local and general, that the Council would direct special attention to the Report on the Machinery of the Association in connection with Disputes.

(*Note.*—For the Report in question, *see* Appendix V, page 469.)

(J) Hospitals.

Payment of Hospital Staffs.

115. The instruction of the Annual Representative Meeting, 1910, to consider and report to the Divisions and Representative Body as to the advisability of all members of the staffs of Voluntary Hospitals being paid for their services is receiving attention, but the subject, which is one of great importance requiring serious attention, is not yet ready for report.

Voluntary Hospitals and the Members of their Staffs and the National Insurance Act.

116. The time of the Hospitals Committee previous to the passing of the Insurance Bill into law was occupied in framing provisions which should bring before the Government the opinion of the profession that the Insurance Authorities should have power to acquire, build, equip or maintain institutions for the treatment of insured persons. As to this, reports were made to the November, 1911, and February, 1912, Special Representative Meetings. As the Act does not give the powers above specified to the Insurance Authorities, the Council is of opinion that the question must be kept in mind in view of the introduction of any amending Bill.

Action taken concerning Hospitals and Hospital Appointments.

117. Action has been taken and advice given in cases concerning Hospitals and Hospital appointments as follows:—St. John's Hospital for Skin Diseases, London; the Jewish Hospital, Cheetham, Manchester; and Hospital appointments in Western Australia.

Other Work in Connection with Hospitals.

118. Reports of other work in connection with hospital questions will be found under the head of "State Sickness Insurance," and under "Medico-Political," where the subject of Certificates in connection with the Workmen's Compensation Act, etc., is dealt with.

Under Consideration.

119. Minute 101 of Annual Representative Meeting, 1911, as to Treatment of School Children at Hospitals.

Voluntary Hospitals charging fees for midwifery cases.

(K) Naval and Military.

Question of Fees Payable by Natives to Officers of Indian Medical Service.

120. The Council reported to the Annual Representative Meeting, 1911, on the subject of Rules issued by the Government of India in February, 1911, in substitution for the Order dated July, 1907, with reference to the fees payable by Natives to Officers of the Indian Medical Service. The substance of the Rules in question has already been reported to the Representative Body. While constituting a great improvement on the Order of 1907, they contained certain ambiguities in respect of the fees payable to medical officers for attending, at a distance from their stations, Native Chiefs and others, in the case of operations and confinements. Representations were accordingly made by the Council to the Secretary of State for India on the subject. The Council has now pleasure in reporting that, as a result of these representations, the Rules as issued in February, 1911, have been cancelled by the Indian Government,, and revised Rules have been issued (December, 1911) in which the fees payable for operations and confinements are explicitly provided for.

Under Consideration.

121. Question concerning non-application to Officers of the Indian Medical Service and of the Royal Army Medical Corps of the concessions granted by India Army Order No. 162, 1911, to regimental captains and subalterns, in the matter of reduced railway travelling rates.

Questions concerning the office of Sanitary Commissioner to the Government of India.

(L) Scotland.

National Insurance Act.

122. The work of the Scottish Committee this session has been almost entirely confined to the all-important subject of the National Insurance Act and its bearings upon the medical profession in Scotland.

As a result of a conference between the Scottish Committee and representatives of the Scottish Medical Corporations and Universities, held on January 20th, 1912, the Scottish Committee, with the approval of the Council, has taken an active part in forming a Scottish Medical Insurance Council. The Council in question consists of 58 direct representatives appointed by the medical practitioners in the insurance areas throughout Scotland, eight representatives from the Medical Faculties of the Universities, and fifteen representatives from the Medical Corporations, together with the (sixteen) members of the Scottish Committee of the Association. The election of the direct representatives of the Scottish medical profession was carried out through the Divisional machinery of the Association. The object aimed at in forming the Scottish Medical Insurance Council was the consolidation of medical opinion in Scotland, and the taking of action on behalf of the profession for the promotion and maintenance of its interests in connection with the National Insurance Act.

A grant of £250 has been made from the Central Insurance Defence Fund towards the expenses of the Scottish Committee in thus co-operating with other Medical Bodies in Scotland in regard to the Insurance Act.

The first meeting of the Scottish Insurance Council was held on April 12th, 1912. It was decided to set up Provisional Medical Committees in each insurance area, which should take the responsibility of the local organisation of the profession for Insurance Act purposes. A resolution was passed informing the Scottish Insurance Commissioners of the constitution of the of the Council and of its strong disapproval of the action of the Commissioners in appointing Medical Members of the Scottish Advisory Committee without reference to the wishes of the profession. The Commissioners were requested to deal with the Council and not with individual members of the profession.

The position taken up by the Scottish Medical Insurance Council was, as might be expected from its constitution and method of election, one of general adhesion to the policy already formulated by the British Medical Association and adopted by the profession throughout the Kingdom.

(M) Ireland.

National Insurance Act.

123. The Council has already reported to the Divisions and Representative Body regarding the endeavours made, before the National Insurance Bill became law, to secure amendment of the Bill to provide that medical benefit should apply to Ireland in the same way as in Great Britain. Although unsuccessful in this attempt, the Council succeeded in having a provision inserted to the effect that where medical benefit is given in Ireland as an additional benefit it shall be given upon the same lines as in Great Britain, unless the Irish Insurance Commissioners otherwise direct.

The Irish Committee, acting in co-operation with the Irish Medical Association, has drawn the attention of the medical profession throughout Ireland to the danger of the introduction of contract practice, outside the Act, under the control of Friendly Societies with greatly augmented membership, and to the imperative need for union and effective organisation of the profession in regard to the Act. Arrangements have been made for the formation, if possible, of a local Medical Committee in each insurance area.

The Committee has requested the Irish Insurance Commissioners to give an opportunity for the nomination of the medical members of the Insurance Committees by the medical profession in each area.

J. A. MACDONALD,

Chairman of Council.

May 7th, 1912.

(N) APPENDICES

TO ANNUAL REPORT OF COUNCIL.

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APPENDIX I.

LIST OF MATTERS REFERRED TO COUNCIL BY ANNUAL REPRESENTATIVE MEETING, BIRMINGHAM, 1911.

Minute of A.R.M., 1911.	*Subject.*	*Para. of present Report.*
50	Official transfer of Members from one Division to another	5
56	Secret "Remedies"	67
59	Suggested extension of Reference to Therapeutic Sub-Committee	73
66	Suggested Reference of certain Ethical Cases direct to Branch Councils	78
70	Medical Prescribing in Lay Press	81
101	Question of Treatment of School Children at Hospitals	119
102-5	Certificates under Workmen's Compensation Act	100
107-10	Death Certification	93
121	"Spiritual Healing"	104
123, 202	Care and Control of the Feeble-Minded	83
126	Co-operation of Divisions in Ethical cases	76
141-3	Definition of "Official Duties" of Medical Officers of Health	106
153	Machinery of Association in connection with Disputes	54
163	Institution of Post-Graduate Courses and Diploma in Psychology	86
	Also the following Instructions with reference to the National Insurance Bill, as to which the Council has already reported to the Divisions and Representative Body:—	
177	Powers of Local Insurance Committees	—
178	Supplementary Grants for Medical Benefit	—
179	Women's Benefits, Post Office Contributors, Aged Persons Benefits, Exclusion of Unemployed Married Women from Medical Benefits	—
181	Interpretation of "Contribution"	—
184	Action to secure Recognition of Income Limit	—
191	Compensation for Loss of Practice	—
192	Clause 57 of Bill ("Power to remove Difficulties")	—
199	Representations to Government	—
200	Consideration of Bill as amended in Committee	—
201	Motions referred to Council	—

APPENDIX II.

MEMORANDUM ON THE QUESTION OF PAYMENT OF PERSONAL EXPENSES OF REPRESENTATIVES AT MEETINGS OF REPRESENTATIVE BODY.

The following notice of motion, of which the East Norfolk Division has given notice for the Annual Representative Meeting, 1912, has been carefully considered by the Council:—

> That in the opinion of this Meeting the time has now come when the Central Council should take into consideration the payment of the necessary out of pocket expenses of Representatives at Representative Meetings.

This motion raises specifically the question of payment to Representatives of other expenses in addition to railway fares.

The question may be considered under the following heads:—

(1) The nature of the other expenses necessarily incurred by Representatives in attending Representative Meetings;

(2) The estimated cost of these expenses for a year.

(3) The case of other elected honorary workers of the Association.

(1.) NATURE OF EXPENSES OF REPRESENTATIVES OTHER THAN RAILWAY FARES.

The necessary expenses incurred, other than railway fares may be stated as follows:—(*a*) cabs, (*b*) meals, (*c*) bed and attendance, (*d*) gratuities, and (*e*) payment of *locum tenens*.

(2.) ESTIMATED COST PER ANNUM OF DEFRAYING THESE EXPENSES.

The numbers of Representative Meetings held in recent years have been as follows:—

Year.	No.
1907	2
1908	1
1909	1
1910	2
1911	3

Two meetings may therefore fairly be taken as the average. The Annual Representative Meeting lasts for 5 days (including Sunday), and at least one day, on an average, must be allowed for going and returning. The duration of the Special Representative Meetings may be averaged at 2 days each, with one day for going and returning. Thus in the course of a year it may be taken that 9 days are occupied by Representatives in attending Representative Meetings. The average attendance of members of the Representative Body (in which are

included Members of Council), taken over a period of 3 years, is 164. A fair allowance for each day's expenses (exclusive of payment of *locum tenens*) would probably be £1. This amount, multiplied by the number of Members and by the number of days occupied in the year would equal £1,476, or if 15s. a day were allowed for expenses, the sum would be £1,107. If, in addition, payment for *locum tenens* were allowed, at the rate of 12s. per day, the amount under this head would be £5 8s. per Member, equivalent to an additional outlay of £885 12s. per annum.

(3.) The Case of other Elected Honorary Workers of the Association.

It must not be overlooked that the expenditure of time and energy, and the pecuniary loss entailed through absence from their practices, bear quite as heavily on other workers, who are frequently also Members of the Representative Body, as upon Representatives. The present offers a favourable opportunity for reviewing the whole situation and giving Members of the Association some idea of the pecuniary sacrifices voluntarily undergone by those who are engaged in the central work of the Association.

In an appended table will be found a statement covering the last 3 years, showing :—

(*a*) The number of days actually spent in Representative Meetings by a Member who has attended each session of that body held during his year of office ;

(*b*) The number of days required to be spent in attending Council Meetings by a Member who has attended every meeting held during his year of office ;

(*c*) The number of days spent in attendance by a member of :—

(1) The Medico-Political Committee and two of its Sub-Committees ;

(2) The Organisation Committee ;

(3) The Central Ethical Committee and the Standing Ethical Sub-Committee ;

in each case exclusive of any allowance for time spent in travelling other than on the day of Meeting.

Note.—Many Members of Council are Members of two Committees. Most Members of the Medico-Political Committee are Members of at least two Sub-committees.

(*d*) The number of recorded attendances at Committee Meetings, of the Chairman of Representative Meetings, the Chairman of Council, and the Treasurer. Each of these Officers is *ex officio* a member of all Committees, but in addition to their recorded attendances at Committees there are many occasions on which it is found necessary for them to travel to London in order that they may be consulted on the business of the Association.

Estimated Cost of Payment of Expenses (other than Railway Fares) for Attendance at Council and Committee Meetings.

(a) *Council.*—The average annual number of Council Meetings taken over a period of five years is $7\frac{1}{5}$. For the purpose of estimating cost the meetings held during the Annual Meeting will be ignored, and only the Quarterly Meetings dealt with. Meetings of Council are usually held at 2 p.m. Those members who live in Scotland and Ireland must leave home the day before. If they wish to spend as little time as possible away from home they must travel the whole of two nights. The average number of Irish Members of Council attending each meeting of Council, based on the last three years, is $2\frac{1}{2}$. If we allow only two days' expenses for each Irish Member of Council present, the amount per annum at £1 per day would be £20 ; at 15s. a day it would be £15.

The average number of Scottish Members of Council present at a meeting of Council is $5\frac{1}{2}$. Allowing two days' expenses for each, the annual expenditure at £1 per day would be £44 ; at 15s. per day, £33. The average attendance of the English and Welsh Members of Council is 45. Not less than one day's expenses could be allowed, and in some cases more would be required. However if we allow for only one day the annual expense at £1 per day would be £180 ; at 15s. a day £135.

The *total estimated annual additional expenses* for the meetings of Council would, at £1 per day, be £244 ; at 15s. per day, £183.

(b) *Committees.*—Committees usually meet at 2 or 2.30 p.m. and sit till between 5 and 7 p.m. At the time of the quarterly meetings, it is not uncommon to hold one or two Sub-Committees in the morning, partly for the convenience of those members who are also on the main Committees, but also to save railway fares. It may be taken that an ordinary afternoon meeting entails on all members who do not live in London the necessity of taking lunch away from home, and those who have to come up the previous night would be obliged to breakfast in town. Most of those who do not live in London would be obliged to dine in town or on the train. If the Committee completes its work by 6 o'clock all members can get home the same night, except those who live (*a*) in Scotland and Ireland, (*b*) in England north of Yorkshire and Lancashire, (*c*) in the more extreme parts of East Anglia, (*d*) West of England, and (*e*) those who live nearer London, but have a bad train service. A Sub-Committee held at 12 will entail coming up overnight on those who live beyond a line passing through Ipswich, Cambridge, Peterborough, Derby, Rugby, Birmingham, Gloucester, Bristol, Salisbury, Bournemouth.

It cannot therefore be considered an over-estimate if the expenses in connection with each attendance at a Committee or Sub-Committee be estimated at 10s. The average yearly number of Committee and Sub-Committee meetings over a period of three years is 123. The average total yearly attendance is 998. Even allowing for attendances at two or more meetings by the same person in the same day, the annual cost could not be estimated at less than 10s. per attendance, a total of £499 per annum.

Total Additional Expenses: (A) For Representative Meetings.

It thus appears that the total estimated annual cost to the Association of the payment of expenses other than railway fares to members of the Representative Body only, would be as follows :

£1,476 (£2,361 if *locum tenens* fees are allowed) if calculated on the £1 per day basis.

£1,107 (£1,992 if *locum tenens* fees are allowed) if calculated on the 15s. per day basis.

(B) For Council, Committees, and Sub-Commitees.

It would appear, however, that no difference in principle could be made between those honorary workers who perform the duties involved in attending Representative Meetings, and those who carry on the even more onerous central work of Council, Committees and Sub-Committees. To meet these expenses would entail the following charges :—

Council (at £1 per day) ...	£244	or (at 15s. per day)	£183
Committees and Sub-Committees (at 10s. per attendance) ...	£499	...	£499
	£743		£683

Conclusion.

It remains for the Representative Body to decide (1) whether it is desirable to extend the principle (already adopted as regards railway fares) of refunding the honorary workers of the Association their out-of-pocket expenses, so as to include the items mentioned in this Report, and (2) if so, whether the Association can afford an annual expenditure of at least £2,000.

SUB-APPENDIX.

Number of Days spent in Attending every Session of the Body mentioned by each of the following Classes of Honorary Workers for the Association, during the last Three Years, *in each case Exclusive of any Allowance for Time spent in Travelling beyond the actual Day of Meeting.*

	1909.	1910.	1911.
Members of Representative Body ...	5	7	9
Members of Council	6	7	7
Members of Medico-Political Committee and two of its Sub-Committees ...	16	15	9
Members of Organisation Committee ...	7	7	4
Members of Central Ethical Committee and of the Standing Ethical Sub-Committee	15	13	9
Number of recorded attendances at Committee Meetings of—			
(i.) Chairman of Representative Meetings	35	48	71
(ii.) Chairman of Council... ...	39	37	63
(iii.) Treasurer	50	34	49

APPENDIX III.

REFERENDUM AND POSTAL VOTE.

PROPOSED ALTERATIONS OF ARTICLES AND BY-LAWS.

(A) INSTRUCTIONS IN THE FORM OF STATEMENT OF CASE SUBMITTED BY MR. HEMPSON TO MR. T. R. COLQUHOUN DILL.

The question of the provisions contained in the Regulations concerning the Referendum and Postal Vote, has from time to time received the consideration of the Representative Body and the Council, and a Report thereupon by the Council to the Annual Representative Meeting at Birmingham in 1911 was made in which various phases of the matter which had arisen and been discussed were embodied, and the Council's conclusions in regard thereto, were put forward for the consideration of the Meeting.

I am now instructed that the Representative Body on this occasion approved the Report, and that it is desired that the necessary alterations in the Articles and By-laws should be drafted to give effect thereto.

A print of the Report of the Council upon the subject accompanies, and to which Counsel is referred; I also send a print of the Memorandum of Association, Articles and By-laws.

The present provisions in regard to Referendum are contained in paragraph VI. of the Articles. (*See* pp. 20-22.)

On receipt of my instructions from the Acting Medical Secretary of the Association, I wrote him in reply in terms of the following letter which, omitting formal parts, reads as follows:—

"I beg to acknowledge the receipt of your letter of "yesterday's date with the Report upon the proposed "alterations in the Articles and By-laws of the Associa-"tion in regard to the initiation and taking of a Refer-"endum and the method of voting thereupon.

"I have been carefully through this Report, but it "involves matters of very great complexity needing the "closest consideration and will necessitate a complete "remodelling, certainly of the entirety of paragraph VI. "of the Articles which embraces the present provisions "concerning a Referendum upon Resolutions of 'General "Meetings' and Resolutions of the 'Representative Body.

"It will also necessitate, it appears to me, subsidiary "provisions being introduced either unto the Articles or "unto the By-laws.

"I think you had better let me have, if you kindly will, "three further prints of the Report as submitted to me "with your letter.

"It will then be necessary for me to have a conference "with Mr. Dill upon the matter, by whom the present "Articles and By-laws were, in the first instance, settled "and approved, and who has on each occasion passed and "approved such alterations as have from time to time been "made therein.

"It is upon him that the Association rely—and the "responsibility rests—for the legal validity of the Regu-"lations as a whole, and consequently it is essential "that the suggested further alterations should be sub-"mitted to him in order that he may advise as to the "manner in which they should be prepared and give "effect to that which is intended, and also to decide as to "whether such alterations should be provided for by "means of Articles or By-laws.

"I therefore propose to at once submit to him a print of "the Report to afford him an opportunity of mentally "digesting it and forming his views in regard to those "points on which I have touched. It will then, I think, "be desirable for you and me to meet him in conference "so that we may discuss the whole matter with him and "clear up such points as arise in his mind concerning the "working details of the scheme which is now proposed."

Counsel is requested to consider the matter of the proposed alterations and to draft the necessary revisions in order to give effect to that which is now in contemplation.

Counsel will doubtless desire to have a conference upon the matter when he has had an opportunity of considering the papers sent. This is shadowed in the letter set out above, and the Acting Medical Secretary will hold himself in readiness to attend with me as and when such conference is arranged and may be desired.

(B) OPINION OF MR. T. R. COLQUHOUN DILL.

1. The proposals contained in the Report of the Council on these matters involve alterations of and additions to the existing regulations of such magnitude that I suggest that the following observations be considered before I settle any drafts of the provisions required to carry the proposals into effect:—

2. The existing Article 32 deals with the referendum on resolutions both of a General Meeting of the Association and of the Representative Body. The Report appears to deal only with resolutions of the Representative Body. Is it proposed to leave Article 32 to apply to resolutions of a General Meeting and to have new and separate regulations as to those of the Representative Body? This would, of course, involve a considerable lengthening of the Articles, but I presume that this is intended.

3. As to the initiation of a referendum by one-fifth of the constituencies, after the passing of a resolution several months must elapse before official intimation of the terms of that resolution reaches all the constituencies. Sufficient time must then be allowed for calling and holding meetings of constituencies, and several more months must elapse before it is known at the head office whether a referendum is demanded by the required number or not. I assume that Colonial constituencies are included.

The result would be that no resolution will be effective for at least six months, and probably for a longer time, after it has been passed. And if a referendum is required by the requisite number of constituencies this delay would be doubled, and the resolution would not have become operative before the next Annual Meeting of the Representative Body.

4. Similar considerations apply to the power proposed to be given to a tenth of the constituencies to refer resolutions of the Representative Body to the consideration of the Divisions (Head II. of the Council's report).

5. To suspend the operation of all resolutions of the Representative Body for so long a period seems to me to be impractical and inconsistent with the weight which ought to attach to the decision of a Body elected by and representative of all members of the Association. It suggests a complete want of confidence in that Body and to a great extent abrogates its utility.

The check imposed by Article 32 and exerciseable by the Council ought, I think, to be amply sufficient, and it would cover the cases dealt with by Head II. of the Council's report: for the only real ground of a reference under that head would be that the resolution "does not properly represent the wishes of the Association." (*See* Article 32 (*b*)).

6. Of course, the above observations are merely for the consideration of the Council. If it is still desired to see in print regulations for carrying out the proposals of the Report they can of course be drafted.

In this case it should be considered:—

(i.) whether any specified majority in favour of a referendum or reference is to be required in each constituency (as in the case of the Council under Article 32 (*b*))?

(ii.) how and by whom the question on which each constituency is to vote is to be framed, and

(iii.) who is to have the right or duty of calling a meeting of each constituency to determine whether a referendum is desirable? (bearing in mind that official intimation of the terms of the resolutions would only reach one or two officers in each constituency and not all the members thereof).

7. The proposals as to the postal vote could of course be embodied in the existing Article 32. Some details as to the mode of taking it will require careful consideration, but I do not think it necessary to advert to these details now.

T. R. COLQUHOUN DILL,
Lincoln's Inn,
21st March, 1912.

APPENDIX IV.

EXISTING GROUPING OF BRANCHES IN UNITED KINGDOM FOR REPRESENTATION ON COUNCIL (1911-12 and 1912-13).

Column 1.	Groups shown by Brackets.					
	Column 2.			Column 3.		
Branches in the Groups, with Membership, 1911.	24 Members of Council elected by Grouped Branches by voting paper.			12 Members of Council elected by grouped Representatives.		Members in the Group.
England and Wales.						
North of England Branch, 712	828	...	1	...	1	1,745
North Lancashire and South Westmorland Branch, 116						
Yorkshire Branch	917	...	1			
Lancashire and Cheshire Branch	1,697	...	2	...	1	1,697
East York and North Lincoln Branch, 179	725	...	1	...	1	1,597
Midland Branch, 546						
Cambridge and Huntingdon Branch, 152	872	...	1			
East Anglian Branch, 454						
South Midland Branch, 266						
Birmingham Branch, 562	766	...	1	...	1	1,681
Staffordshire Branch, 204						
North Wales Branch, 201	915	...	1			
Shropshire and Mid-Wales Branch, 138						
South Wales and Monmouthshire Branch, 576						
Metropolitan Counties Branch, 3,272:						
North and East Metropolitan Group:						
City, Stratford, South West Essex, North Middlesex, St. Pancras and Hampstead Divisions	951			...	1	1,854
Central Metropolitan Group:						
Marylebone and Westminster Divisions	903					
West Metropolitan Group:		...	4			
Richmond, Ealing, Chelsea, Kensington and Watford Divisions	804			...	1	1,318
South Metropolitan Group:						
Lambeth, Norwood and Wandsworth Divisions...	514					
Bath and Bristol Branch, 419	765	...	1	...	1	1,450
Gloucestershire Branch, 132...						
West Somerset Branch, 74						
Worcestershire and Herefordshire Branch, 140						
Dorset and West Hants Branch, 214	685	...	1			
South-Western Branch, 471						
Oxford and Reading Branch, 295	735	...	1	...	1	1,847
Southern Branch, 440						
South-Eastern Branch...	1,112	...	1			
Scotland.						
Aberdeen, Northern Counties, Dundee, and Perth Branches	440	...	1	...	1	966
Edinburgh and Fife Branches	526	...	1			
Glasgow and West of Scotland Branch (4 City Divisions)	416	...	1	...	1	911
Glasgow and West of Scotland Branch (4 County Divisions)						
Border Counties and Stirling Branches	495	...	1			
Ireland.						
Connaught and South-Eastern of Ireland Branches ...	104	...	1	...	1	385
Leinster Branch	281	...	1			
Munster Branch	102	...	1	...	1	500
Ulster Branch	398	...	1			

APPENDIX V.

MACHINERY OF ASSOCIATION IN CONNECTION WITH DISPUTES.

REPORT.

At the Annual Representative Meeting, Birmingham, 1911, at the close of a discussion in which attention had been drawn to the disappointing results obtained in certain local disputes in connection with appointments in which the Association had been involved, the following resolution was carried:—

> *Minute* 153.—Resolved: That the attention of the Council be drawn to the manner in which the machinery of the Association in connection with disputes often fails.

This subject may perhaps best be approached by an examination of the machinery at the disposal of the Association in dispute cases. This may be divided into (A) Local (B) Central.

(A.) *Local.*

The local means for carrying a dispute to a successful issue are:—(1) Vigilance on the part of officials of the Division, so that difficulties may be grappled with at their inception. (2) Promptness in use of Division organisation in ascertaining local medical opinion. (3) Possession of proper ethical Rules, and the passing of a formal resolution under these Rules bearing on the case in question. (4) Tactful use of local persuasion on the offending person, lay or medical, or body, public or private. (5) Use of disciplinary measures as regards offending Members of the Association. (6) Authorised procedure as regards non-members of the Association.

(B.) *Central.*

The Central Machinery may be divided into:—(1) Refusal to accept advertisements objected to. (2) Attempts to secure co-operation of other medical journals in refusing advertisements. (3) Co-operation with Division in making representations to persons offering the appointments. (4) Insertion of Warning Notice in BRITISH MEDICAL JOURNAL. (5) Comments on case in BRITISH MEDICAL JOURNAL and possibly in other medical journals. (6) Personal assistance given to Division by the Medical Secretary or his Deputy.

Weak Spots in Local Machinery.

Experience has shown that the Divisions which meet regularly and know and discuss local and general Association business, and have an active Honorary Secretary and Executive, rarely experience difficulty in making a good and generally a successful fight. A Division which only meets spasmodically cannot be expected to have developed that *esprit de corps* and keenness about the maintenance of the honour and interests of the profession and of the Association, which form the only sure basis of steady effective work. Many prolonged disputes might be saved by vigilance on the part of a Division. For example, an attempt to secure an Assistant School Medical Officer or Assistant Medical Officer of Health at a salary less than the Association minimum can rarely reach the advertising stage without some discussion in the Local Council or Education Committee which is either reported in the press or which should promptly be known through some friend on the public body concerned. Yet there are many cases in which the first intimation the Central Office has of the difficulty is the proffer to the JOURNAL of an advertisement, the terms of which at once necessitate a rejection of the advertisement and an appeal to the Division. An active Division should make its protest to the local authority as soon as it hears of the proposal, pointing out that perseverance in the contemplated course is sure to lead to friction. Many cases are known to have been settled satisfactorily in this way. The use of the local press has also proved a very powerful weapon in the hands of active Divisions. It is of the utmost importance that prompt intimation should be sent to the Central Office as to the facts of every such case. Special care should also be taken that the Central Office is kept supplied with information as to the further developments of each case as these occur, including the final result.

Ascertainment of Local Medical Opinion.

No time should be lost in submitting any doubtful case to the judgment of the Division Meeting. If the case is one which offends against the declared policy of the Association, difficulty should only arise in the case of a Division which had not followed and discussed that item of policy in its earlier stages, that is to say, when submitted to the Divisions before being laid before the Representative Body for final adoption. Once a principle is laid down by that Body there should of course be no hesitation on the part of any Division of the Association in carrying it out in that area. If the point is at all a doubtful one, it should be discussed at a specially summoned meeting of the Executive (followed as soon as seems necessary by a meeting of the Division) and a decision arrived at. The Division should never enter on a fight unless its officers feel sure they have the majority of the local profession at their back. Some of the worst defeats the Association has had, have been the result of a hasty decision to ask for a Warning Notice, followed by a period of inaction, and by final acquiescence on the part of the Division in some practitioner accepting the appointment.

The necessity of adoption of proper Rules.

In spite of persistent representations to Divisions and Branches, only 56 Divisions out of 190, and five Branches out of 39 in the United Kingdom, can even now be said to be fully equipped for cases of dispute. It cannot be too strongly emphasised that in dealing with an offending member of the Association, much delay and disappointment may be caused by the absence of proper Ethical Rules, and the fact that Rule Z has not been adopted will preclude a Division or Branch from using the only weapon available against an offending non-member—namely, professional ostracism. Rule Z was carefully drawn up under legal advice to render such ostracism of a non-member as effective as possible with the minimum legal risk, and yet many Divisions and Branches have refrained from adopting it or have even refused to adopt it.

A Division intending to enter into a dispute should at once pass a Resolution declaring that no member of the Profession should in its opinion accept the appointment in question either in any circumstances or except on specified conditions.

Representations to the "Lancet."

The Editor of the *Lancet* has always shown himself anxious to assist the Association in opposing any appointment which is known to be objectionable to the profession. It is only fair, however, to the proprietors of an independent Journal that they should receive prompt representations direct from the persons most concerned. Representations are always made from the Central Office, but their success is always more certain if the Editor of the *Lancet* has had sent to him direct unmistakable evidence that the local profession is in earnest.

Representations to the offending Advertiser.

Experience shows that tactful representations made by the ocal doctors to the party offering the appointment often have very good results. There is a natural diffidence on the part of the honorary local officials of the Association to put themselves forward in a dispute which may bring them into unpleasant contact with local authorities or employers, and the Central Office is always glad to relieve them of as much of this as possible. It is, however, undeniable that advertisers, and local authorities especially, often resent outside interference while they are generally prepared to listen to representations from the local profession. An interview with the Chairman and Clerk of the Education Committee for instance, especially if brought about by some friend on the Committee, will often be found efficacious in cases affecting that body, and it must be remembered that this is much more useful in the earlier stages, because thereafter the prestige of the Body concerned may be involved in the continuance of the dispute.

Use of Disciplinary Powers.

If the Division has proper Rules there should be no hesitation in dealing firmly with practitioners who, in despite of local opinion and after direct warning, persist in taking objectionable appointments. Great harm has been done by

Divisions and Branches failing to use their disciplinary powers in cases where appointments have been barred and Warning Notices issued. Such an attitude is not only a sign of local weakness but greatly discourages loyal members who have withdrawn their applications, or have refrained from applying for the appointments in question. It must be remembered also that, unpleasant as the exercise of these disciplinary powers may be, the work to a certain extent must be done locally. It is not possible under the Regulations of the Association, nor would it be in the best interests of the Association, that a Division should be able simply to start proceedings, and leave the rest of the difficulties and unpleasantness to others.

The Central Machinery.

The foregoing account has already indicated that the Central machinery must in most cases be set in motion by the Division, and that any help from it depends largely upon the extent to which the Division is prepared to help itself. The Central Office may be depended upon (*a*) to place experience gained in similar cases at the disposal of the Division, (*b*) to refuse to insert the objectionable advertisement in the JOURNAL, (*c*) to urge the *Lancet* and other medical Journals to do the same, (*d*) to insert a Warning Notice under certain conditions, (*e*) to ask the Editor of the BRITISH MEDICAL JOURNAL to insert a paragraph in the columns of the JOURNAL in suitable cases, (*f*) to assist in drafting letters from the Division to advertisers and to those practitioners who apply for information as to the appointment, (*g*) to obtain any necessary legal advice, and (*h*) to send the Medical Secretary or one of his staff to assist the Division in its deliberations as to the best course of action, and, if thought advisable, to attend with a deputation from the Division to the advertisers.

The above account, it is believed, gives a fair idea of the weapons at the disposal of the Divisions in dispute cases, as well as of the ways in which the machinery of the Association at present often fails.

Recommendations.

1. That (with rare exceptions) Warning Notices should never be inserted for those Divisions which have not adopted Rule Z. Where the case seems to demand action in spite of this deficiency, as, for example, where some appointment is offered in flagrant opposition to the declared policy of the Association, a Warning Notice should only be inserted on the instruction of the Chairman of the Central Ethical Committee after the Medical Secretary or one of his staff has visited the place and assured himself by means of an interview with the Division Executive, that the dispute will be conducted vigorously and that the Division thoroughly understands its responsibilities.

2. That Divisions should be given clearly to understand that the insertion of a Warning Notice pledges them to take active disciplinary measures against offenders.

3. That it should be a rule that a Division which has not been proved by experience to be able to conduct a dispute satisfactorily, even if in possession of proper Rules, should not be allowed to enter on a case necessitating the use of a Warning Notice until there has been an interview between a representative of the Central Office and the Executive of the Division concerned.

APPENDIX VI.

ANALYSIS OF BRANCH REPORTS FOR 1911.

(*For Tabular Analysis see Page 474.*)

NOTES, CONTAINED IN THE REPORTS OF THE BRANCHES, AS TO (I.) MATTERS OF BRANCH ORGANISATION, (II.) OTHER QUESTIONS CHIEFLY OF LOCAL INTEREST DEALT WITH.*

(A)—BRANCHES IN THE UNITED KINGDOM.

(1) *Aberdeen.*

Defence Fund.
Insurance Act.
Canvass for New Members.
Condition of Contract Practice in Aberdeen.
As Orkney and Shetland Divisions owing to distance never join in our Meeting, Branch and Division Reports are practically identical.

(2) *Bath and Bristol.*

(3) *Birmingham.*

—

(4) *Border Counties.*

(5) *Cambridge and Huntingdon.*

The first meeting of the year was scientific. Dr. F. Gowland Hopkins, F.R.S., reading a paper on "Bruce-Jones' Proteinung," and Dr. W. E. Dixon a paper on "Tolerance to Nicotine."

The Annual Meeting was held at St. Neots, when a record number of members for a meeting out of Cambridge enjoyed the kind hospitality of the President of the Branch and Mrs. E. J. Cross at luncheon and a garden party. The subject of Dr. Cross's presidential address was "Some notes on the Territorial Medical Service."

All the other meetings of the year (six special meetings) were devoted to discussion on the National Insurance Bill.

A special Committee was formed to consider and formulate the views of the members of the Branch as regards the working of a medical service under the National Insurance Bill.

(6) *Connaught.*

(7) *Dorset and West Hants.*

—

(8) *Dundee.*

—

(9) *East Anglian.*

—

(10) *East York and North Lincoln.*

—

* In the case of those Branches under which a "—" is inserted, the Branch has not thought it necessary to make any statement under these heads.

(11) *Edinburgh.*

During the past year the interest of the meetings has been centred in the National Insurance Bill to the exclusion of local matters. Steps were taken in April to amalgamate the three Divisions of Edinburgh and Leith into one Division, and negotiations were completed in November. The necessary funds for the institution of the paying Nursing Home have now been subscribed, and good progress has been made in making the initial arrangements for starting the home. The Annual Meeting was held at Peebles, where there was a large attendance of country members. The usual clinical meeting was held in the Royal Infirmary, followed by a dinner. Two mass meetings of the Branch, together with representatives from all parts of Scotland addressed by Dr. Cox and Mr. Smith Whitaker respectively, were held in Edinburgh. A guarantee fund for local purposes was opened in July and met with fair support.

(12) *Fife.*

The National Insurance Bill engaged the attention of the Branch and its Council at numerous meetings during the past year, to the exclusion of all other topics, and reports of these proceedings have appeared in the Supplement from time to time.

(13) *Glasgow and West of Scotland.*

(14) *Gloucester.*

Committee formed to discuss a scheme for Treatment of School Children met twice. Committee formed to discuss the payment for medical certificates of children unable to attend elementary schools, met twice.

(15) *Lancashire and Cheshire.*

(16) *Leinster.*

(17) *Metropolitan Counties.*

The Organisation Committee has under consideration the re arrangement of the boundaries of certain Divisions in order that they should correspond with the areas of the Metropolitan Boroughs of the Administrative County of London.

The School Children Committee conferred with the Special School Representatives of the Divisions in order to arrange uniformity of action in regard to their negotiations with the London County Council.

The Committee agreed upon a suitable draft model agreement between Committees of local medical practitioners and the London County Council.

The Medical Charities Committee has reported upon the establishment of anti-tuberculosis dispensaries in London. The Committee is conferring with the Central Hospitals Committee on the question of the giving of certificates under the Workmen's Compensation Act by members of hospital staffs.

The National Insurance Committee are investigating the provisions of the Act so far as they concern the members of the Branch, so as to advise as to the best plan of maintaining the six cardinal points which embody the policy of the Association.

(18) *Midland.*

(19) *Munster.*

Cases of medico-ethical local interest dealt with.

The Branch co-operated with I.M.A. in matters relating to the Insurance Act.

The Branch at Annual Meeting passed resolutions regarding Insurance Act.

Council Meeting 21.12.11. discussed action of Council B.M.A. and appointment of Mr. Smith Whitaker.

Ordered a general meeting of the Branch to be summoned for Saturday, 17th February, inviting the general profession of Munster and the South of Ireland Branch I.M.A. to attend.

(20) *North of England.*

(21) *Northern Counties of Scotland.*

The chief subject of discussion at the meetings of this Branch during the year was the State Sickness Insurance Bill. With the help of the organisation of the Association in the North of Scotland, local medical committees have been formed to deal specially with the different aspects of the State Insurance Act as it applies to the conditions of practice in the Northern Counties of Scotland. These Committees include non-members as well as members of the Association. These Committees, it is hoped, will look after the interests of the profession in the North.

Fifteen new members have been added to the Branch during the year, and there is a prospect of many more joining, as the profession in the area of the Branch are now seeing the advantage of belonging to an Association which has proved, in the struggle over the Insurance Bill, that it has had the interests of the whole profession at heart, non-members as well as members.

(22) *North Lancashire and South Westmorland.*

(23) *North Wales.*

The meetings of the Branch and the Divisions have throughout the year been devoted chiefly to the consideration of the Insurance Bill.

(24) *Oxford and Reading.*

The chief points of interest are:—

(1) The increased number of new members.

(2) The organisation of the Maidenhead Division.

Owing to distance between the Divisions, only one (annual) meeting of the whole Branch is usually held.

(25) *Perth.*

(26) *Shropshire and Mid-Wales.*

At three Council Meetings Ethical questions concerning practitioners in the district were discussed.

The other meetings were devoted to general business of the Branch and the National Insurance Bill.

(27) *South-Eastern.*

There is an increase of 241 members, distributed amongst most of the Divisions. The West Sussex Organisation Committee for Treatment of School Children reports an agreement with the Education Sub-Committee of the County Council for treatment by private practitioners according to a tariff.

The Eastbourne arranged a similar scheme with the Local Education Committee, but the Board of Education disallowed it.

Reigate has a private scheme in operation, and Godalming in the Guildford Division is also working a scheme.

Brighton and Hastings are still contending with difficulties from their Education Committees.

The Kent Organisation Committee interviewed the Education Sub-Committee of the County Council without success so far. The Brighton Division is also successfully opposing the appointment by the Guardians of an operating surgeon at an inadequate salary.

(28) *South-Eastern of Ireland.*

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(29) *Southern.*

(30) *South Midland.*

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(31) *South Wales and Monmouthshire.*

(32) *South-Western.*

An Exeter Section of the Exeter Division has been formed for dealing with purely local business and is found very useful, as it saves unnecessarily summoning county men from long distances.

New Branch Rules for the election of President have been adopted.

A new Branch rule providing for the signature of an application for membership paper being signed by two members of the Association who personally know the Candidate.

Ethical matters have been dealt with at Torquay and Winkleigh. The latter is still the subject of a Warning Notice.

(33) *Staffordshire.*

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(34) *Stirling.*

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(35) *Ulster.*

A meeting to which all practitioners in the Ulster area were invited was held under the joint auspices of the Branch and the Ulster Medical Society on May 25th, 1911, to consider the National Insurance Bill, when a number of resolutions were carried criticising the medical provisions of the Bill, while approving its principle.

(36) *West Somerset.*

---

(37) *Worcestershire and Herefordshire.*

---

(38) *Yorkshire.*

Three meetings were held at Huddersfield, Leeds, York. One special meeting was held at Leeds on June 28th, to which all medical practitioners residing within the area of the Branch were invited.

Numerous resolutions with reference to the Insurance Bill were passed. Over three hundred medical men were present.

(B)—Branches not in United Kingdom.

(39) *Assam.*

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(40) *Baluchistan.*

(41) *Barbados.*

(42) *Bermuda.*

(43) *Bombay.*

The Council note with great satisfaction that the efforts of the Branch in the direction of a Registration Act for the Bombay Presidency are likely to be crowned with success, as the Registration Bill introduced into the Bombay Legislative Council by the Government is on almost the same lines as are laid out in the Draft Act passed by the Branch. The Bill has passed the first reading, and the Select Committee to whom it is referred has passed it with a few verbal alterations after considering in detail the objections, etc., raised in several memorials. The Branch did not take part in any of these later controversies as there was no need for it in face of the strong Government support and the definite opinion expressed by the first meeting of the Profession held under the auspices of the Branch in August, 1909.

(44) *Border Branch, South Africa.*

(45) *Brisbane and Queensland.*

(46) *British Guiana.*

Discussion on local practitioners advertising.

(47) *Burma.*

The meetings have not been particularly well attended, and the amount of interest shown in the work of the Branch has not been encouraging.

(48) *Cape of Good Hope, Eastern Province.*

(49) *Cape of Good Hope, Western Province.*

(50) *Colombo, Ceylon.*

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(51) *Egyptian.*

(52) *Gibraltar.*

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(53) *Griqualand West.*

(54) *Halifax, Nova Scotia.*

(55) *Hong Kong and China.*

(1) Limiting Registration of Diplomas in Colony and Dependencies to those registerable by General Medical Council in Great Britain and Ireland and Licentiate of Hong Kong College of Medicine.

(2) Representation of Branch on Central Council of Association.

(56) *Jamaica.*

(57) *Leeward Isles.*

(58) *Malaya.*

(59) *Malta and Mediterranean.*

(60) *Montreal.*

(61) *Natal.*

(62) *New South Wales.*

The Annual General Meeting will be held March 29th, 1912. The Annual Report, not yet prepared, to be presented thereat, will refer to any special questions of local interest dealt with and will be forwarded.

(63) *New Zealand.*

Your Council have pleasure in reporting a continued steady increase in membership, 36 new members having been added to our roll during the past year. The membership of the Branch is now 496.

Two old members of the Branch, viz., Dr. Thos. Bennet (Marton) and Dr. W. M. Stenhouse (Dunedin), who are retiring from practice, have been added to the Honorary List.

The death of one of our younger members, Dr. D. Agatha Adams-Monfries is recorded with deep regret.

At the quarterly meetings held during the year the majority of the Divisions were well represented, and a considerable amount of business was dealt with. It is hoped that the one or two Divisions that have generally failed to nominate delegates, will during the coming year, exhibit a more vigorous interest in the work of the Branch.

NEW DIVISIONS.

Applications received from members resident on the West Coast of the South Island, and from Southland Members, to be constituted separate Divisions of the Branch have been duly approved by the Council. The new Divisions will be known as the Westland and Southland Divisions respectively.

MEDICAL PRACTITIONERS BILL.

Your Council regret again to report that this important measure promoted by the Branch in the interests alike of the profession and of the public as a whole, has not yet become law. Unfortunately the 1911 Session of Parliament was of so limited duration that this and other important measures have to be held over for another year. Every effort, however, will be made to get the Bill placed on the Statute Book next session.

AFFILIATION OF UNDESIRABLE MEMBERS.

At the Representative Meeting held in Birmingham in July last, Mr. Savage, on behalf of the Branch, moved, "That the regulations be so amended as to provide that no member of the Association be allowed to transfer from one Division to another unless such transfer is applied for in writing by the Secretary of the Division he is leaving." After discussion it was resolved to refer the matter to the Central Council for report. There is every reason to hope the Central Council will favourably consider the representations made by the Branch.

POST MORTEM EXAMINATIONS.

A Committee has been set up to review and report on the regulations governing Post Mortem Examinations, also the mileage fees for medical men travelling to attend Coroners' Courts, with a view to approaching the Government on the subject.

NEW ZEALAND MEDICAL JOURNAL.

The Editor has pleasure in stating that the JOURNAL has had a successful year, and contributes largely to the financial soundness of the Branch. He wishes to thank contributors, and hopes that their numbers may increase, so that there may be a wide selection of material. Judging from the number of extracts from our JOURNAL in exchanges, it is pleasing to find that its influence extends beyond our own borders.

FINANCE.

The statement of accounts shows that the satisfactory financial position reported last year is being well maintained.

The attention of members is directed to the report of the New Zealand Defence Union and Medical Benevolent Funds which are presented with this report.

(64) *Punjab.*

When the resolution of the Council, January 25th, 1911, was received, a meeting was held on 18th March and draft rules were discussed; these were elaborated and circulated to members for opinion. Owing to many reasons, the dispersal of members during the summer, preparations for the Durbar, etc., it is regretted that no further meeting could be held during the year. A good deal, however, has been done in ascertaining the actual number of members resident in the large area of the Punjab, and a general meeting is to be held on February 16th, 1912, to elect a Council and officers and to discuss and pass the rules for the Branch. A list of known members, amounting to twenty-eight, has been sent to the head office, London.

(65) *St. John, New Brunswick.*

(66) *Saskatchewan.*

(67) *South Australian.*

(68) *South Indian and Madras.*

(69) *Tasmania.*

(70) *Toronto.*

(71) *Transvaal.*

(72) *Trinidad and Tobago.*

(73) *Victorian.*

(74) *Western Australia.*

ANALYSIS OF BRANCH REPORTS FOR 1911.*

(Paragraph 56 of Annual Report of Council, page 455.)

Branch.	Membership.		Financial Statement.						Meetings.					
	On December 31st, 1910.	On December 31st, 1911.	Balance from 1910.	Deficit (if any) from 1910.	Receipts for 1911.	Expenditure, 1911.	Balance to 1912.	Deficit (if any) to 1912.	Branch.	Scientific.	Medico-Political, Ethical, &c.	Social Functions.	Average Attendance.	Branch Council.
(A) BRANCHES IN UNITED KINGDOM.			£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.						
(1) Aberdeen	170	194	92 10 1½	—	18 7	86 7 5	7 1 3½		4	1	3	2	25	12
(2) Bath and Bristol	418	457	—	—										
(3) Birmingham	551	684	46 17 1	—	112 8 0	90 10 8	68 14 5		8	6	2	1	78	11
(4) Border Counties	139	148	—	10 10										
(5) Cambridge and Huntingdon	156	198	18 1 1	—	22 16 6	37 9 8½	3 7 4½		8	2	6	1	74	4
(6) Connaught	47	52	—	—										
(7) Dorset and West Hants	215	227	69 0 4	—		39 7 10	29 12 6		3	3			27	3
(8) Dundee	110	120	32 9 10	—		18 6 2	14 3 8		6		6		30	8
(9) East Anglian	453	512	42 14 6	—	45 8 0	129 7 11		41 5 5	3	3	3	3	46	5
(10) East York and North Lincoln	176	199	15 17 2	—		5 13 0	10 4 2		2	1	1		66	3
(11) Edinburgh	423	509	58 12 3	—	86 8 0	78 14 7	66 5 8		5	1	4	2	140	10
(12) Fife	94	106	8 5 10	—	18 18 0	24 9 11	2 13 11							
(13) Glasgow and West of Scotland	706	812	220 17 7½	—										
(14) Gloucester	132	156	23 0 10	—	12 18 0	26 0 0	10 18 10		15	7	10	8	34	13
(15) Lancashire and Cheshire	1,701	2,056	586 1 10	—	10 5 9	260 6 5	336 1 2		3	2	2	1	385	7
(16) Leinster	286	281	6 12 6											

* For Notes contained in the Reports of the Branches, of :—
(i.) Matters of Branch Organisation.
(ii.) Other Questions chiefly of local interest dealt with—see page 470.

Branch.	Membership.		Financial Statement.						Meetings.					
	On December 31st, 1910.	On December 31st, 1911.	Balance from 1910.	Deficit (if any) from 1910.	Receipts for 1911.	Expenditure, 1911.	Balance to 1912.	Deficit (if any) to 1912.	Branch	Scientific.	Medico-Political, Ethical, &c.	Social Functions.	Average Attendance.	Branch Council.
			£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.						
(17) Metropolitan Counties	3,255	3,850	—	231 5 7	1,106 6 3	634 4 2	240 16 7		1				55	11
(18) Midland	552	732	125 17 9	—	28 11 7	78 19 3	75 10 1		1					3
(19) Munster	101	116	58 2 3	—		29 10 1	30 6 4		1				15	4
(20) North of England	730	767	—	—										
(21) Northern Counties of Scotland	117	124	17 2 11	—	8 11 6	30 11 11		4 18 0	8	2	8		25	6
(22) N. Lancashire and S. Westmorland ...	122	129	—	—										
(23) North Wales	201	233	37 4 0	—	10 9 5	35 15 3	11 18 2		2	1	1	2	46	3
(24) Oxford and Reading	286	343	55 4 10	—		36 14 6	18 10 4		1		1	1	90	1
(25) Perth	54	56	24 7 10	—	9 9	18 14 10	6 2 9		10	2	8		14	6
(26) Shropshire and Mid-Wales	137	154	16 12 11	—	27 12 0	38 5 9	5 19 2		7	1	6	1	51	7
(27) South-Eastern	1,090	1,331	537 19 5½	—	9 15 10	231 19 5	315 15 10½		1		1	1	66	5
(28) South-Eastern of Ireland	61	63	6 3 11	—	5 16 0	8 1 9	3 18 2		7	1	6	6	9	2
(29) Southern	436	482	16 18 6	—										
(30) South Midland	260	314	46 18 5	—	27 18 0	48 2 10	26 13 7		2	2	2	2	46	4
(31) South Wales and Monmouthshire ...	579	610	41 18 7	—										
(32) South-Western	465	558	44 2 8	—	94 4 0	87 4 1	51 2 7		4	2	2	1	46	10
(33) Staffordshire	202	245	111 6 0	—		30 18 5	80 7 7		4	4		4	29	6

Branch.	Membership.		Financial Statement.						Meetings.					
	On December 31st, 1910.	On December 31st, 1911.	Balance from 1910.	Deficit (if any) from 1910.	Receipts for 1911.	Expenditure, 1911.	Balance to 1912.	Deficit (if any) to 1912.	Branch.	Scientific.	Medico-Political, Ethical, &c.	Social Functions.	Average Attendance.	Branch Council.
			£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.						
(34) Stirling	68	91	35 14 8	—	1 7 1	26 0 3	11 1 6		7		7	2	28	4
(35) Ulster	411	428	62 16 11	—	41 7 3	54 5 3	49 18 11		5	4	3	1	45	6
(36) West Somerset	73	91	42 14 4	—	1 6	10 0 3½	32 15 6½		5	1	4		31	7
(37) Worcestershire and Herefordshire ...	127	170	—	11 0	42 0 0	46 8 10		4 19 10	2	3	1	1	31	3
(38) Yorkshire	922	1,081												
Totals (*Branches in United Kingdom reporting*)			2,215 19 9	231 16 7	1,715 10 6	2,241 10 6	1,550 0 2	51 3 3	125	49	87	40		164
(B) BRANCHES NOT IN UNITED KINGDOM.*														
(39) Assam	20	22	5 10 3½	—	5 3 5½	17 3	9 16 6		1	1			10	
(40) Baluchistan	14	15												
(41) Barbados	36	31	—	—										
(42) Bermuda	11	8	—	—										
			R. a. p.		R. a. p.	R. a. p.	R. a. p.							
(43) Bombay	183	216	559 5 8	—	546 5 7	504 8 0	601 3 3		6	5		5	20	4
			£ s. d.		£ s. d.	£ s. d.	£ s. d.							
(44) Border Branch, South Africa	90	104	11 12 7	—										
(45) Brisbane and Queensland	187	211	—	—										
(46) British Guiana	42	45	18 8 0½	—	8 14 0	7 2 9	19 19 3½		3	1	1		19·2	2
(47) Burma	71	63	65 13 7½	—	87 6 3	84 7 11	68 11 11½		8	4	4	1	11	1
(48) Cape of Good Hope, Eastern Province ...	55	53	—	6 6										

* For Notes by these Branches of Special Questions of local interest dealt with—see page 472

Branch.	Membership.		Financial Statement.						Meetings.					
	On December 31st, 1910.	On December 31st, 1911.	Balance from 1910.	Deficit (if any) from 1910.	Receipts for 1911.	Expenditure, 1911.	Balance to 1912.	Deficit (if any) to 1912.	Branch.	Scientific.	Medico-Political, Ethical, &c.	Social Functions.	Average Attendance.	Branch Council.
			£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.						
(49) Cape of Good Hope, Western Province ...	134	133												
(50) Colombo, Ceylon	151	160	27 5 6	—	227 13 4	215 9 6	39 9 4		7			1	13	1
(51) Egyptian	39	37												
(52) Gibraltar	19	20	13 17 1	—	3 10 5½	5 4 6	12 3 0½		4	3	1	3	16	4
(53) Griqualand West	48	57												
(54) Halifax, Nova Scotia	78	60												
			$ c.		$ c.	$ c.	$ c.	$ c.						
(55) Hong Kong and China	121	136	679 3	—	560·34	466·03	773·34		5	5			16	3
(56) Jamaica	47	45		—										
(57) Leeward Isles	17	20												
			$ c.		$ c.		$ c.	$ c.						
(58) Malaya	99	109	796 79	—										
(59) Malta and Mediterranean	24	25												
(60) Montreal	53	54												
			£ s. d.		£ s. d.		£ s. d.	£ s. d.						
(61) Natal	119	118	124 19 5	—										
(62) New South Wales	767	835	249 5 2	—	2,149 10 0	1,941 12 5	457 2 9	—	17	16	1	2	41	19
(63) New Zealand	468	455	360 2 4	—										
(64) Punjab		38			3 8 0									

Branch.	Membership.		Financial Statement.						Meetings.					
	On December 31st, 1910.	On December 31st, 1911.	Balance from 1910.	Deficit (if any) from 1910.	Receipts for 1911.	Expenditure, 1911.	Balance to 1912.	Deficit (if any) to 1912.	Branch.	Scientific.	Medico-Political, Ethical, &c.	Social Functions.	Average Attendance.	Branch Council.
			£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.						
(65) St. John, New Brunswick	32	27												
(66) Saskatchewan	31	35												
(67) South Australian	169	187												
(68) South Indian and Madras	170	145	R. a. p. 1,042 9 6	—	R. a. p.		R. a. p.	R. a. p.						
(69) Tasmania...		60				(Formed	1911.)							
(70) Toronto	300	287												
(71) Transvaal	106	131	£ s. d. 62 7 4		£ s. d.		£ s. d.	£ s. d.						
(72) Trinidad and Tobago	24	22												
(73) Victorian	557	553												
(74) Western Australian	102	101												
Totals (*Branches not in United Kingdom reporting*)			476 13 8¼		2,567 6 7½	2,329 2 6½	714 17 9¼		51	35	7	12		34
Grand Totals (*Branches reporting*) ...			2,692 13 5¼	231 16 7	4,282 17 1½	4,570 13 0½	2,224 17 11¼	51 3 3	176	84	94	52		198

APPENDIX VII.

MEDICAL FEDERATION, LIMITED.

(1) SCHEME OF CO-OPERATION, SUBMITTED TO THE ASSOCIATION BY THE FEDERATION.

The Scheme of co-operation suggested by the Medical Federation Limited is simple and short.

It is: That the Members of the British Medical Association shall join the Federation in numbers sufficient to capture the Federation.

To gain this end the British Medical Association must *recommend* its Members to join the Federation.

The following will be the result:—

1. The Members of the British Medical Association who have joined the Federation will be able to elect their Representatives, Council, and Permanent Staff to similar posts in the Federation. (The present officials are temporary.)

2. The British Medical Association will gain complete control of the Federation; will be able to direct its policy; and by running it as a subsidiary Company will acquire those powers which it has long been seeking, and which are necessary for the adequate protection of its members.

3. The powers to be exercised, and the duties to be fulfilled by each Company can be defined by those Members of the British Medical Association who have joined the Federation.

We make the following suggestions:—

1. That the details of such a scheme of co-operation be settled at a joint meeting of representatives of the two Companies.

2. That only one subscription be paid in respect of membership of both Companies, and that the amount of such subscription be apportioned between the two Companies, in such proportions as may be requisite in order to enable each Company to fulfil the duties assigned to it.

3. That any member of the British Medical Association who does not desire to join the Federation shall pay as his annual subscription only such portion of the joint subscription as shall be agreed to be allocated to the British Medical Association in respect of the duties to be undertaken by it, and shall be represented upon the representative body for the purpose of those duties by a representative elected by such members.

We wish to emphasise one point:

It has been on many occasions suggested that the Medical Federation, Limited, wishes to strike a bargain with the British Medical Association.

The promoters and the members do not for one moment desire to adopt this attitude.

The promoters of the Federation are themselves members of the Association—responsible members—and their sole desire is to give to the Association certain powers and safeguards which it appears cannot otherwise be obtained, and at the same time to ensure the continuance of the Association in its present form.

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(2) CASE TO COUNSEL TO ADVISE.

Counsel will herewith receive copies of the following documents:—

1. Print Memorandum, Articles and By-laws of the British Medical Association.
2. Print new Memorandum, Articles and By-laws as revised by the Board of Trade Counsel.
3. Memorandum of Conference by Mr. Hempson with Mr. Barnes, the late Controller of the Board of Trade.
4. Heads of Scheme with Memorandum annexed put forward by the Bristol Division.
5. Opinion of Mr. W. E. Hempson on Scheme as submitted.
6. Notes by Dr. Cox of interview with Dr. Scott Williamson and Dr. Devis on 16th February, 1912.
7. Print Memorandum and Articles of Association of the Medical Federation Limited.
8. Application Form issued by the Medical Federation Limited.
9. Circular issued by the British Medical Association in reference to the "Insurance Defence Fund."
10. Circular issued by the Medical Federation Limited, referring to the Association's Insurance Defence Fund.
11. Opinions of Sir F. Beaufort Palmer, dated 13th February, 1912, and 12th March, 1912.
12. Cuttings from the BRITISH MEDICAL JOURNAL relative to the Medical Federation Scheme.
13. Circular letter issued to Members of the State Sickness Insurance Committee of the Association by Drs. Scott Williamson and Devis.
14. Proposed scheme of co-operation with the Association prepared by the Medical Federation Limited, with Mr. Hempson's observations thereupon in parallel columns.
15. Transcript of Shorthand Writer's note of Meeting of State Sickness Insurance Committee on the 14th March, 1912.
16. Correspondence.

Counsel is familiar with the present Memorandum, Articles of Association and By-laws of the British Medical Association and a print thereof accompanies for his reference.

Counsel is also aware that a proposed new Memorandum, Articles of Association and By-laws have been under the consideration of the Board of Trade for a considerable length of time and a print thereof accompanies showing therein revisions made by the Counsel to the Board of Trade.

Mr. Hempson subsequently had a conference with the late Controller of the Board of Trade (Mr. Barnes) on certain of the alterations made in this last mentioned document, and the substance of what passed is contained in a Memorandum which accompanies and to which Counsel is referred as having a bearing upon the matters now submitted to him for his opinion.

Counsel will therefore be fully informed as to the disabilities which the Association have for a long time past felt to be under in obtaining those powers which they need to effectually carry on their work as pioneers of the profession and the efforts which have been made to secure that end.

The matter has naturally and necessarily received deep thought and the most anxious consideration and various schemes for reconstituting the Association have at different times been promulgated.

The Bristol Division of the Association is an active body, and they recently put forward Heads of a Scheme which they had formulated, a copy of which accompanies and to which Counsel is referred. A memorandum is attached to this document which indicates the circumstances under which the preparation of it arose.

This scheme was submitted in the form of these Heads to the Organisation Committee of the Association, who in turn referred it to Mr. Hempson as their legal adviser, for his opinion thereupon. A copy of Mr. Hempson's opinion dated January 15th, 1912, accompanies, and to which Counsel is referred.

The Scheme was, by certain active Members of the Bristol Division, notably Dr. Scott Williamson and Dr. Devis, put into practical form by a Company being registered under the Companies Acts under the title of "The Medical Federation

Limited." A print of the Memorandum and Articles of Association of this Company is sent and to which Counsel is referred. Counsel has also with the papers sent a Circular issued by the Medical Federation stating its objects and to which is annexed an Application Form for membership.

Due to the National Insurance Bill—which has since become an Act—being before Parliament the Association organised an Insurance Defence Fund under the Circular of July 17th, 1911, a copy of which accompanies and which has before been under Counsel's consideration.

Shortly after the Medical Federation Limited, was registered, suggestions were put forward to the British Medical Association as to either an amalgamation of the Federation with the Association or some system of co-operation with it being arranged and organised so that they work as two separate Companies side by side.

The Federation obtained Opinions from Sir F. Beaufort Palmer on the subject, copies of which accompany.

The matter was brought under the consideration of the Organisation Committee of the Association when the Heads of the Scheme were first formulated and before the Company was actually registered, and it was for the assistance of this Committee in their consideration of the matter that Mr. Hempson was asked to write the opinion of January 12th, 1912, a copy of which accompanies.

The Federation then issued the Circular containing the paragraph on the top of the second page upon which Counsel's opinion was recently obtained, and the State Sickness Insurance Committee of the Association (which was formed to deal with matters connected with the Association's Insurance Defence Fund and other matters relating to the National Insurance Act of 1911) had the subject of this Circular under their consideration.

Cuttings from the British Medical Journal accompany, and to which Counsel is referred, and from which he will see the attitude of the Federation towards the Association and the various suggestions which have been put forward.

A deputation from the Federation, consisting of Dr. Scott Williamson, Dr. Devis and their Solicitor (Mr. Wansbrough), was received by the State Sickness Insurance Committee at their Meeting held on the 14th March, 1912, and a general discussion upon the matter ensued. Counsel will find with the papers sent a transcript of the Shorthand Writer's Notes of these proceedings.

As will be seen, at this Meeting, the Federation desired that they should be taken over by the Association or should work in co-operation with it, but the general trend of the suggestions was that the Federation should be absorbed by the Association or be carried on by it as a subsidiary company.

The Members of the Deputation of the Federation were asked to formulate a scheme by which this could be done. A copy of the Scheme as thus received accompanies, bearing date the 25th March, 1912, and it is this document, read in conjunction with the Memorandum and Articles of Association of the Federation, which it is desired should receive Counsel's particular consideration.

The Federation claim to have evolved a Scheme which will, if adopted by the Association for the future, remove all those difficulties and disabilities which it is felt to be under in carrying out its work.

The question is whether this will prove capable of being accomplished by the means which are suggested.

In the first instance, it was proposed that the Association should practically wind up and that all its Members should become Members of the Federation.

A conference to discuss the matter was held by Dr. Cox (the Acting Medical Secretary of the Association) and Mr. Hempson with Representatives of the Federation on the 16th February, 1912, and notes regarding this interview accompany and to which Counsel is referred.

Counsel will see that the Constitution of the Federation is entirely different to that of the Association, and it would appear that difficulties must be created if the Scheme of co-operation now put forward is attempted to be adopted.

The Association is governed at the present time by the Memorandum, Articles and By-laws, print of which accompanies, and one scarcely sees how it can continue to be carried on as a separate Company with the Federation, worked in the manner suggested, under the ægis of the Association.

The Organisation Committee desire to be furnished with an exhaustive opinion from Counsel on these heads—that is to say—whether in his opinion the Scheme would prove to be workable as proposed, whether it would give to the Association those powers which it requires in order to meet all the needs of the Profession, and whether it is a scheme which the Association could be advised to recommend to its Members for adoption.

It has been felt that in presenting this Case to Counsel, it is desirable that he should have access to all the documents which accompany and which show how the matter originated, the manner in which it has developed, and the present position which is thus brought about.

Counsel is requested to advise accordingly.

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(3) Opinion of Mr. T. Colquhoun Dill.

I have considered the Scheme of Co-operation submitted on the 25th March, 1912, by The Medical Federation, Limited, to the British Medical Association, and also the general relations of these two Bodies towards each other.

As to the Scheme.

The whole foundation of the Scheme is that members of the Association shall join the Federation in numbers sufficient to capture the Federation, the Association actively assisting this operation by recommending its members to join the Federation.

In the case of two companies each having a share capital such an operation is comparatively simple: one of the companies can acquire such an amount of the capital of the other as to ensure an absolute control over the counsels and policy of the latter body. In the present case the position is entirely different: it must rest with the individual members of the Association to decide whether they will join the Federation or not. No recommendation by the Association would ensure that any large number of its members would join. And there are various considerations which would be calculated to deter them from doing so.

Every member joining the Federation would bind himself to pay an entrance fee and annual subscription of uncertain amounts and also to guarantee £5 upon a winding-up.

It appears to me unlikely that members of the Association would be willing to increase their liabilities in this way. They would clearly be ill-advised to do so unless the advantages of adopting such a course were assured. The advantages offered by the Federation are highly problematical.

The Federation is a new and untried body, formed apparently in and around Bristol: it can hardly as yet have an efficient organisation for the United Kingdom: it may be doubted whether its governing bodies have a wide experience of matters of this magnitude. It is therefore at a disadvantage in its efforts to form a Defence Fund.

On the other hand, the Council of the Association is able to appeal through an old-established organisation to the very large proportion of the profession which the Association represents, and the legal capacity of the Council to administer a Defence Fund is no longer in doubt since the opinion of Sir F. B. Palmer of 12th March, 1912, for whose views on matters of law I need hardly say I have a profound respect.

It may be that payment of subscriptions to the Federation (so long as it is not a Trade Union) is enforceable by law, while the guarantees given to the Council are not. But I suggest that the man who would not make good his voluntary guarantee would in all probability fail to pay an enforceable subscription; and that the advantage claimed for Federation on the ground of the enforceability of these payments is nominal rather than real. The obtaining of money for such a purpose as the Defence Fund must depend on the goodwill and ability of the subscribers and not on the fact that their subscriptions are enforceable by legal process.

The entrance fees and annual subscriptions appear to be the only source from which the Defence Fund of the Federation can be derived; there is no power to make a compulsory levy in addition.

The suggestion that the Federation could, in the near future, borrow a large sum for purposes of medical defence on the security of future subscriptions only would need strong confirmation from financial experts before it could be accepted. I should also point out that under the wide language of clause 3 (5) and (6) of the Federation's Memorandum of Association persons outside the medical profession might be recipients of benefits from the Defence Fund.

For the above reasons it appears that the advantages offered by the Federation are not such as to induce the profession to divert their subscriptions or guarantees from the natural channel in which they are now flowing, and to entrust them to untried administrators.

The result is, that the foundation of the scheme of Co-operation is in the last degree unlikely to be realized, either with or without the suggested recommendation of the Association to its members. The Association cannot be advised to make such a recommendation—it would, in my opinion, amount to a confession of failure and incapacity which do not exist, and would be disastrous both to the formation of the Defence Fund and to the future of the Association generally.

The foundation of the scheme being utterly unstable, I need hardly add that the three results which it is suggested would follow from its adoption are most unlikely to occur. The far more probable effect of any attempt to induce members of the Association to join the Federation would be to weaken the position of the Association as the recognised representative of the profession, without at the same time putting any powerful body in its place; and, as regards the Defence Fund, to duplicate administration expenses and to endanger the success of the objects which both bodies are endeavouring to promote.

As to the three suggestions at the end of the Scheme:—

1. I see no advantage in any further discussion of details.

2 and 3. In my opinion it is not legally possible for the two companies to pool their subscriptions in the manner suggested. The subscriptions to the Association produce the amounts required for carrying out the existing objects of the Association: these objects it is not intended to curtail. The Association could not hand over any part of its subscriptions to another company having different objects. These suggestions appear to involve the division of the members of the Association into those who are, and those who are not members of the Federation, the latter to be separately represented on the Representative Body. This would necessitate an entire reconstruction of the existing organisation of the Association which has been so laboriously built up. I cannot see that the Association would gain any advantage from this, and it appears to me to be wholly inadmissable.

The suggestions of the Federation seem to me to ignore the fact that the Association is a world-wide organisation, and to overlook the number and importance of its various activities as they appear in the enumeration (Scheduled to the Articles) of the powers and duties of its committees.

As to the Legal Position of the Federation.

The Memorandum and Articles of the Federation do not appear to me to make it a Trade Union. I find in them no provision actually imposing restrictive conditions on the conduct of the profession of a medical practitioner. (*See* Trades Union Act, 1876, s. 16.)

But the main objects of the Federation include the payment of money by way of indemnity to members or other persons in respect of anything done or omitted in pursuance of any direction of the company (objects (5) and (6)); their Directors and Central Council have a wide power of making rules as to the obligations of its members (Art. 39), and there is a power of expulsion (Art. 20), which could probably be exercised on the ground of a breach of such rules.

It is not only the Memorandum and Articles which have to be looked at in order to see what is the real scope and object of a body of this nature. If rules were made restricting practitioners as to the practice of their profession or as to the acceptance of certain employments, the Federation might be held to be a Trade Union—(Chamberlain's Wharf v. Smith (1900) 2 ch. 605). I am not aware that any such rules have been made, but the regulations to which I have referred and the statement of Dr. Williamson suggest that the conversion of the Federation into a Trade Union is not an improbable contingency.

If the Federation should become a Trade Union the effect upon its Defence Fund would be serious; the suggestion that subscriptions would be recoverable by legal process would fall to the ground (Trade Union Act, 1871 s. 4 (2): no member could recover at law any benefit out of the funds of the Federation Act of 1871 s. 4 (3): Russell v. Amalgamated Society 1910 1 K.B. 506): the registration under the Companies Act would be void (Act of 1871 s. 5: Edinburgh, &c., Association v. Jenkinson 40 Sc. L.R. 825.)

I think that the possibility of the Federation becoming a Trade Union ought to be considered by proposing subscribers to its funds.

Alternative Suggestions.

Amalgamation of the Association (with its present objects) and the Federation appears to me impossible for the reasons given in Sir F. B. Palmer's Opinion of 13th February, 1912.

It seems to me preferable and more conducive to success that the collection and administration of the Defence Fund should be in the same hands; and, for the reasons given above, these hands should be those of the Council of the Association.

Probably the best course towards this end would be for the Federation first to hand over the moneys already collected by it to the Council (to be held on the same trusts as those affecting the Council's Defence Fund), and then to go into voluntary liquidation. It appears that the Federation would have power so to deal with these moneys under Clause 3 (13) of its Memorandum.

This suggestion may not commend itself to the Promoters of the Federation; they may desire to continue to have a hand in the collection of the Defence Fund. If this be so, the following occurs to me as a method by which the Promoters might give practical proof of their repeated assurances of their loyalty to the Association and might realise their desire to place an efficient weapon in its hands.

Let the Federation act as collectors for the Defence Fund on behalf of the Council of the Association, that Council remaining in charge of the administration of the Fund, and the Federation handing over (under Clause 3 (13) of its Memorandum) to the Council the subscriptions now in hand—or hereafter to be received.

I think that the Council might accept an offer of this kind as a possible *modus vivendi* if the Federation must continue to exist.

T. R. COLQUHOUN DILL.

Lincoln's Inn,
10th April, 1910.

APPENDIX VIII.

REPORT OF COUNCIL ON POSITION OF MEDICAL PRACTITIONERS CALLED UPON TO EXAMINE (OTHERWISE THAN BY THE REQUEST OF THE PATIENT OR PERSONS ACTING UPON HIS BEHALF) PATIENTS WHO ARE UNDER THE CARE OF OTHER PRACTITIONERS.

(Approved by Annual Representative Meeting, 1911.)

The Annual Representative Meeting, 1909, passed the following Resolution, which has been referred by the Council to the Central Ethical Committee, and by the Central Ethical Committee to the Standing Sub-Committee, for consideration and report:—

> *Minute* 40*a*.—That the Council be instructed to prepare and submit to the Divisions a Report on the position of medical practitioners who are called upon to examine, on behalf of employers, insurance companies, and persons similarly interested, patients who are under the care of other practitioners.

MEMORANDUM.

I. *Question of* locus standi.—Any right of one person to employ a medical practitioner to make an examination and report on the health of another will usually arise under (*a*) a contract of employment, including those which fall within the purview of the Workmen's Compensation Act, or (*b*) a contract of insurance. It may suffice for the present to confine the consideration of the subject to these groups of cases.

II. The fundamental difference between the relations to one another of the medical practitioners concerned in a case of the kind under consideration and that of the practitioners in an ordinary consultation, such as was dealt with in the Report on the Ethics of Consultation, arises from the fact that in an ordinary consultation the practitioners taking part are all engaged in the interest of the patient, whereas in the cases to be dealt with in the present Memorandum they act for persons whose interests are divergent. Each medical practitioner is concerned in the interests of the person who employs him. There rights and duties in respect of one another, apart from ordinary courtesy and the consideration which members of the profession are in every case bound to show to one another, depend upon the rights, and the obligations to one another, of those for whom they act

III. It is necessary, therefore, to consider briefly what are the rights and duties of the persons in whose interests the medical practitioners are respectively acting.

IV. Of the cases in which the examination in question is made in connection with a contract of employment a large number arise under the Workmen's Compensation Act. In these cases the rights of the employer and of the workman, as regards the medical examination of the latter by doctors employed by the former, are to a great extent defined by statute. The workman will forfeit his claim to compensation if he throws any unreasonable difficulty in the way of his examination by the employer's doctor in the manner prescribed. On the other hand, the employer cannot demand as part of his statutory rights that any examination should be carried out in a manner which may injure the workman's health, of which the workman's doctor is the recognised guardian.

V. Other cases in which an employer may claim to satisfy himself by an examination made by a doctor acting in his interest, as to the state of health of a workman, are those in which the question is to be determined of the workman's fitness for employment, apart from any question of compensation. In these cases, again, a workman has to consider whether it is more to his interest to submit himself to examination by the employer's doctor or to risk losing his employment. If he decide that it is to his interest, on the whole, to be examined, it is clear that his doctor can claim no right to interpose any difficulties in the way of examination other than those which are necessary for the protection of the workman's health.

VI. In insurance cases the person or company who have incurred a liability to pay compensation in respect of disease or injury are entitled to satisfy themselves by medical examination, by a doctor employed by them, as to the extent of such disease or injury, and the patient by refusing unreasonably to submit himself to examination, risks forfeiting his right to compensation. It is reasonable that he should be protected against injury in connexion with the examination, and he may demand, if he think proper, that his own doctor should be present at the examination to watch his interest in this and any other respect.

VII. In view of the considerations above stated it may be assumed for the purpose of the present Report that in every case which requires consideration in the Report the patient is satisfied, before any question of relations of the two doctors arises, that it is to his interest to submit himself to examination, and the medical practitioner who acts on his behalf can claim no rights upon grounds of medical ethics or medical etiquette, the exercise of which would conflict with the interest of the patient.

VIII. On the other hand, any rules of which the Association may express approval should be so framed as to tend by their operation to secure that the interests of the patient shall be properly safeguarded through the agency of the doctor employed by him.

IX. For convenience, the two practitioners concerned are spoken of in the following paragraphs and Rules as the "Medical Inspector" and the "Medical Attendant" respectively.

X. It may be the duty of the Medical Inspector to make such examination and enquiries as will enable him to report upon any of the following matters:

(*a*) Present state.
(*b*) The etiology of any existing disorder.
(*c*) Prognosis.
(*d*) Treatment.

XI. It will be the duty of the Medical Attendant:

(i.) To give any information which his patient may authorise him to give.
(ii.) To facilitate the examination in every way consistent with the patient's welfare.

APPENDIX IX.

(A) (DRAFT) RULES GOVERNING PROCEDURE IN ETHICAL MATTERS OF A DIVISION NOT ITSELF A BRANCH.

[*As approved by the Council and submitted to the Representative Body.*]

RULE 1.

For the better attainment, within the area of the Division, of the objects of the Association in regard to the maintenance of the honour and interests of the medical profession, it shall be deemed to be part of the business of the Division to consider questions of professional conduct, and to pass in accordance with its Rules, Resolutions upon such questions, which shall be binding upon the Members.

RESOLUTIONS AS TO GENERAL PROFESSIONAL CONDUCT.

RULE 2.

The following shall be the procedure for the adoption of a Resolution of the Division regulating the general professional conduct of its Members:—

(A) *In the case of a Resolution to apply throughout the area of the Division.*

(i) Fourteen days' notice of the terms of the proposed Resolution shall be given to every Member of the Division prior to the Meeting of the Division at which such Resolution is to be considered.

(ii) At the Meeting the Resolution shall be deemed to be carried if approved without amendment by a three-fourths majority of those present and voting, and not otherwise.

(iii) If fewer than one-third of the Members of the Division are present when the Resolution is put to the vote, and if within seven days from the circulation of a notice of the adoption of such a resolution by a Meeting of the Division as hereinafter provided, not less than five per cent. of the Members of the Division shall request by notice in writing to the Honorary Secretary that a poll of the Members of the Division be taken by post, a poll shall be so taken forthwith, and in such cases the Resolution shall be deemed to be carried if approved by two-thirds of those voting at such poll, and not otherwise.

(iv) Notice of the adoption of such a Resolution by the Division shall forthwith be sent to all Members with a statement of the number of the Members present and voting for and against the Resolution.

(B) *In the case of a Resolution to apply within part only of the area of the Division.*

(i) Upon receipt of a requisition signed by not less than five-sixths of the Members of the Division residing and practising within any part, defined in such requisition, of the area of the Division, expressing the desire of the signatories for the adoption by the Division of a Resolution to be binding upon all Members practising within the said area, the Honorary Secretary shall give seven days' notice to the Members of the Division, prior to a Meeting of the Division, of the consideration of such proposed Resolution at such Meeting.

(ii) It shall be competent for the Division in such Meeting to adopt the proposed Resolution by a simple majority of those present and voting thereon, and the Resolution, if so adopted without amendment, shall thereupon become binding upon all Members of the Division practising within the area specified.

RULE 3.

(*a*) It shall be the duty of the Executive Committee to notify every Member of the Division of all resolutions affecting professional conduct duly adopted by the Division in accord-

ance with its Rules; and, subject to such instructions as may be received from the Division in general meeting, it shall rest in the discretion of the Executive Committee to bring any such resolution or resolutions to the notice of any member of the profession practising within the area of the Division who is not a member of the Association.

(*b*) It shall be the duty of the Honorary Secretary of the Division to notify every Member coming to reside within the area of the Division of every resolution regulating the professional conduct of Members of the Division which has been duly adopted, and further it shall rest in the discretion of the Division to bring any such resolution or resolutions to the notice of any Member of the profession who comes to reside within the area of the Division who is not a Member of the Association.

RULE 4.

Subject to instructions of a Meeting of the Division, the Executive Committee may: (i) bring to the notice of any other Division or of any Branch of the Association a resolution of the Division affecting general professional conduct, and may request support from such Division or Branch with a view to making the operation of such resolution more effective; (ii) bring to the notice of every Member of the Division, or of every Member of the profession within the area of the Division, any resolution affecting general professional conduct, adopted by any other Division or Branch, of which the Division shall have received official notice. This Rule shall not apply to resolutions affecting the professional conduct of individuals as such.

RULE 5.

If a resolution of the Division affecting general professional conduct shall have reference to the terms upon which Members may hold appointments of any kind, it shall be the duty of the Honorary Secretary, when notifying Members of the adoption of such Resolution, to request those Members who already hold appointments of the kind in question, upon terms inconsistent with the resolution, to take the necessary steps to terminate such appointments, or to secure such modifications of the terms of such appointments as shall be necessary for compliance with the resolution, and no further action shall be taken upon the resolution under the Rules of the Division with respect to such Members for a period of one month, or such longer period, not exceeding three months, as the Division may think fit, from the date of such notification.

If any Member shall within such period satisfy the Honorary Secretary that he has given such notice as is required under the terms of his appointment to terminate the appointment, either absolutely, or unless the terms thereof are so modified as to bring them into accordance with the resolution of the Division, no further action shall be taken under the Rules with respect to such Member, until the expiration of such notice.

PROCEDURE OF ENQUIRY INTO PROFESSIONAL CONDUCT AFFECTING INDIVIDUALS.

RULE 6.

For the assistance of the Division in investigating questions affecting the professional conduct of individual members of the profession, a Committee called the Ethical Committee may be appointed annually by the Division in General Meeting, consisting of the Chairman and Honorary Secretary for the time being, *ex officio*, with not less than five other Members. If such Committee be not appointed, the Executive Committee shall be deemed to be and shall act as the Ethical Committee of the Division. In either event such Committee shall appoint its own Chairman and Honorary Secretary, who may be the Chairman and Honorary Secretary of the Division.

RULE 7.

Questions referred to the Division affecting the professional conduct of individual Members of the profession within the area of the Division to which they belong shall be addressed to the Honorary Secretary of the Division, and shall, in the first instance, be investigated by the Ethical Committee of the Division. Where a person against whom complaint is made is not a member of the Division where the complaint is lodged it shall be the duty of the Honorary Secretary to refer the complaint for investigation by the Division to which the person complained of belongs. Cases affecting non-members shall be dealt with by the Division in the area of which the non-member complained of resides.

RULE 8.

In any case in which the complainant or the practitioner against whom complaint is made is not a member of the Association, the matter shall forthwith be referred to the Central Ethical Committee for advice and instruction, and it shall be the duty of the Ethical Committee of the Division to conduct any subsequent investigation in all respects in accordance with such advice and instruction as may thus be obtained, any provision contained in these Rules notwithstanding.

RULE 9.

In a case submitted by a Member of the Association, who considers that he has been affected as an individual by what he alleges to be the unprofessional conduct of another Member, it shall be the duty of the Chairman and Secretary of the Ethical Committee to ascertain forthwith whether the applicant has either personally, or by letter, or through some suitable intermediary, afforded the Member against whom he makes complaint a reasonable opportunity of explanation, and if this has not been done to call upon him to do so. If the applicant fails to take this step within a week, the propriety of his action in having made the complaint may itself be made a matter for consideration by the Committee.

RULE 10.

A meeting of the Ethical Committee may be convened at any time by the Chairman or Honorary Secretary of the Committee, and a meeting shall be convened by the Honorary Secretary for the consideration of any question affecting the conduct of a practitioner residing within the area of the Division, submitted by any member of the Association, or referred by any Division or Branch of the Association, or by the Central Ethical Committee, upon the expiration of three weeks from the receipt of such reference by the Honorary Secretary of the Division, or upon the completion of the preliminary enquiries required by these Rules, whichever shall first occur.

RULE 11.

In any case in which the applicant is not affected as an individual by the conduct of which complaint is made, or in which the matter is brought to the notice of the Division by a Division or Branch of the Association, or by the Central Ethical Committee, the Chairman of the Ethical Committee shall forthwith instruct the Honorary Secretary to forward to the person of whose conduct complaint is made, *provided that he be a Member of the Association*, a statement of the subject matter of the complaint, and afford him a reasonable opportunity to put forward such explanation as he may desire to put before the Committee.

RULE 12.

In any case in which the Ethical Committee is of opinion that it would be undesirable, in the interests of the profession, that the complaint should be investigated locally, the Committee shall be empowered to refer the investigation to the Branch Council and all documents bearing on the case shall be sent to the Honorary Secretary of the Branch.

RULE 13.

If any Member of the Ethical Committee be personally involved in a case as complainant or otherwise, or be partner or assistant or principal of any person so involved, or have otherwise such personal interest in the case as, in the opinion of the Committee, renders it undesirable that he should take part in any investigation of that case, he shall retire from the Committee for the purpose of the investigation of the case, and the Committee may appoint some other Member of the Division, who is not so interested, to act in his stead. If the Member of the Committee affected by this Rule be the Chairman or Secretary, the Committee shall appoint a Chairman or Secretary to act in his stead for the purpose of the case.

RULE 14.

The Committee shall investigate the facts of the case, and shall take such evidence, whether written or oral, as shall be deemed necessary for this purpose. Copies of documents furnished by any party to a case for the consideration of the Committee shall be furnished by the Secretary to the other parties concerned *provided they be Members of the Association*.

It shall be the duty of the Committee, whenever practicable, to bring the parties into personal conference in its presence. It shall be competent for the Committee to apply to the Medical Secretary for advice as to procedure and for information as to precedents which may bear upon the case.

RULE 15.

If the case appears to be one affecting the parties as individuals only, the Ethical Committee of the Division shall have power, with the written consent of all parties to accept such decision as final, to decide such case.

In all other cases the Committee shall, after due investigation, present to a special Meeting of the Division, or to the next ordinary Meeting, at its discretion :—

(1) A Report of the facts as established in the opinion of the Committee by the evidence placed before it.

(2) A Recommendation to the Division in one of the following forms :—

(i) That the Division express the opinion that no offence has been committed against the rules (or Resolutions) of the Division or the generally accepted principles of professional conduct, and that no action be taken.

(ii) That the Division express the opinion that the complaint is frivolous, and that the case be dismissed.

(iii) That the Division express no opinion upon the case, and refer the whole of the facts for the consideration of the Branch Council.

(iv) That the Division express the opinion that.....
.....has violated

(*a*) the Rules (or Resolutions) of the Division, *and*

(*b*) the ordinarily accepted principles of professional conduct,

but that in consideration of faults on the part of others concerned, the case be dismissed.

(v) That the Division express the opinion that .....
.....has violated

(*a*) the Rules (or Resolutions) of the Division *and*

(*b*) the ordinarily accepted Rules of professional conduct

and resolves that he be, and hereby is, censured.

(vi) That the Division express the opinion that the conduct of.....has been

(*a*) in contravention of the Rules of the Division, *and*

(*b*) detrimental to the honour and interests of the Association, *and*

(*c*) detrimental to the honour and interests of the profession, *and* (*if a Member*)

(*d*) resolve that he be informed of this finding of the Division and allowed until..... to reconsider his position ; that the Committee be instructed to report in due course to the Division upon his reply, and that if upon such further report the Division shall consider his reply unsatisfactory the matter shall forthwith be reported to (*a*) the Branch Council, *or* (*b*) the Council of the Association, in order that the propriety of his remaining a member may be considered.

(vii) That the Division express the opinion that the conduct of.....has been

(*a*) in contravention of the Rules (or Resolutions) of the Division *and*

(*b*) detrimental to the honour and interests of the Association *and*

(*c*) detrimental to the honour and interests of the profession, *and* (*if a Member*)

(*d*) resolve that the Report of the Committee and the findings of the Division be reported forthwith to (*a*) the Branch Council, *or* (*b*) the Council of the Association, in order that the propriety of his remaining a member may be considered.

RULE 16

The Report and the Recommendation of the Ethical Committee of the Division shall be circulated to all Members of the Division, and to each party concerned, not less than seven days before a general meeting at which it is to be considered, and shall be issued in sealed envelopes marked "Private and Confidential, for the use of the Members of the Division exclusively."

RULE 17.

Members who have taken part as members of the Ethical Committee of the Division in the investigation of a case shall be entitled to take part in the consideration by the General Meeting of the Division of the Report of the Committee on such case, and to speak and vote thereon as individual members of the Division.

RULE 18.

On the reception of the Report and Recommendation of the Committee by the Meeting of the Division there shall be no discussion on the Report of the facts as established in the opinion of the Committee by the evidence placed before it, and no other than the following motions shall be in order on the Report or the Recommendation :—

(*a*) That the Report of the Committee be approved and the Recommendation adopted.

(*b*) That the Report of the Committee be approved, but that the Recommendation be amended as follows :—
That the Division express the opinion that
(One of the alternative forms of recommendation which it would have been permissible for the Committee to make may be inserted and no other.)

(*c*) That the Report and the Recommendation be referred back to the Committee of the Division for further consideration.

RULE 19.

A copy of the resolution of the Division shall be sent by the Honorary Secretary of the Division to each of the parties concerned, *provided they be Members of the Association.*

RULE 20.

If a practitioner shall make amends or express regret to the satisfaction of the Division, it shall be competent for the Division, after due notice, to rescind the resolution of censure passed under Rule 15 (v).

RULE 21.

The finding of the Meeting of the Division upon a case shall be final so far as the Division is concerned, unless new facts shall subsequently be brought forward which, in the opinion of the Ethical Committee of the Division, justify re-opening the case.

RULE 22.

Any medical practitioner feeling himself aggrieved by a decision of the Division shall have a right of appeal to the Branch Council, and from the Branch Council to the Central Ethical Committee, and from the Central Ethical Committee to the Council of the Association, which shall be exercised within fourteen days of receipt of intimation of the finding of the Division, the Branch Council, or the Central Ethical Committee, as the case may be. Notice of such appeal shall be sent to the Honorary Secretary of the Body against whose decision the appeal is lodged in the case of the Division or Branch, and, in the case of an appeal to the Central Ethical Committee or to the Council of the Association, also to the Medical Secretary. In the event of an appeal being lodged, no action shall be taken to give effect to the finding appealed against, pending the decision of such appeal.

RULE 23.

After a case has been referred to the Ethical Committee of the Division for investigation, no person concerned shall appeal to any other professional authority until such case has been disposed of by the Division, or in a case of appeal in accordance with the Rules of the Division or Branch, or By-laws of the Association, until it has been disposed of by the Branch Council Central Ethical Committee, or the Council of the Association, as the case may be.

RULE 24.

It shall be the duty of every member of the Division to afford all reasonable assistance to the Committee of any Division of the Association, to the Council of any Branch, to the Central Ethical Committee, and to the Council of the

Association, in the investigation of questions affecting the professional conduct of individual members of the profession, and any party to a case shall be required to furnish for such purposes such number of copies (not exceeding ten) as may reasonably be required of any documents submitted by him for the consideration of any such Committee or Council.

RULE 25.

Any member of the Division who is a member also of the Ethical Committee or of the Council of the Branch, or of any other body whose duty it might be to consider on behalf of the Association a case in respect of which an appeal is made from the finding of the Division, shall be debarred from taking part in the consideration of such case upon appeal, if he has already taken part in the consideration thereof by the Committee or Meeting of the Division, but he shall not be debarred from giving evidence as to facts, if called upon.

A member of the Ethical Committee of the Division holding such other office, may give notice to the Secretary of the Division that, in order to retain his freedom to consider a case in the event of an appeal, he will not take part in the consideration of the case by the Committee of the Division, and the Committee, upon receipt of such notice, shall have power to appoint another member to act in his stead.

RULE 26.

Subject to the provisions herein contained, no Member of the Division shall meet in consultation or accord any professional recognition to a Medical Practitioner who shall have been declared by Resolution of the Division to have acted in contravention of any Rule or Resolution of the Division affecting general professional conduct of which such practitioner shall be proved to have had notice in accordance with the Rules, or who shall have been declared by Resolution to be deemed guilty of conduct detrimental to the honour and interests of the profession,

Provided that,

(*a*) this Rule shall not apply to any communication of a Public Medical Officer with a medical practitioner in discharge of the official duty of such officer;

(*b*) in circumstances of great urgency, affecting the life of a patient, a Member may accord such professional recognition to a practitioner, whom he otherwise could not meet, as the necessities of the case may require, but it shall be his duty forthwith to report the facts to the Honorary Secretary of the Division, who shall transmit them to the Ethical Committee, and it shall rest with the Ethical Committee to consider and report to the Division if in its opinion the circumstances were not such as to justify such action;

(*c*) any member of the profession concerning whom a Resolution shall have been carried as stated in the first part of this Rule shall have a right of appeal to the Branch Council, and from the Branch Council to the Central Ethical Committee, and from the Central Ethical Committee to the Council, which shall be exercised within fourteen days of receipt of intimation of the finding of the Division, Branch Council or Central Ethical Committee, as the case may be, and pending the decision of such appeal (if any), the operation of this Rule in the case shall be suspended;

(*d*) If the Division shall at any time after the adoption of a resolution of the kind defined in the first part of this Rule declare, by a resolution adopted by the majority required by the Rules for the passing of the original resolution, that in the opinion of the Division the conduct of the practitioner referred to in such resolution is no longer deserving of censure, or that professional recognition should no longer be withheld from him, this Rule shall cease to apply to such practitioner, and the decision of the Division shall be reported forthwith to any other authority of the Association which has already considered the case, and shall be circulated in the same manner as the original resolution of censure

RULE 27 (RULE "Z.")

(*a*) In every case in which the Division shall, after due inquiry in accordance with the Rules thereof, have passed a resolution declaring that in the opinion of the Division the conduct of any medical practitioner or practitioners, whether by contravention of the Rules or Resolutions of the Division or otherwise, is detrimental to the honour and interests of the medical profession, it shall be the duty of the Executive Committee of the Division to submit a report of the whole facts of each particular case to the Central Ethical Committee, and, subject to the approval of the said Committee, to cause such resolution to be brought directly to the knowledge of every Member of the Division, by means of a Notice in the form appended hereto, which Notice it shall be the duty of the Honorary Secretary of the Division to authenticate by his signature.

(*b*) In any case in which the Division shall, at the time of, or subsequently to, the adoption of a resolution of the nature contemplated by Paragraph (*a*) of this Rule, have also resolved that, in the opinion of the Division, it is desirable that such resolution shall be brought officially to the notice of any specified Division or Branch of the Association, it shall be the duty of the Executive Committee of the Division to submit to the Central Ethical Committee a statement of this fact and of the reasons for which such notification is desired, and, subject to the approval of the said Central Ethical Committee, to cause a copy of the said resolution to be transmitted by the Honorary Secretary of the Division to the Honorary Secretary of the Division or Branch so specified.

(FORM OF NOTICE REFERRED TO IN PARAGRAPH (*a*)):—

BRITISH MEDICAL ASSOCIATION.

_____ *Division.*

(PRIVATE AND CONFIDENTIAL.)

NOTICE.

In pursuance of Rule ..... of the Division, Notice is hereby given by the Executive Committee of the said Division that at a general meeting of the Division, held at on the day of a Resolution in the following terms was duly passed:—

"*That in the opinion of this Division the conduct of of is detrimental to the honour and interests of the Medical Profession.*"

Signed by order of the Executive Committee of the Division of the British Medical Association.

.....

Honorary Secretary.

NOTE.—The Central Ethical Committee desires to draw the attention of Divisions to the necessity of Notices such as the above being circulated *in sealed envelopes* and marked "Private and Confidential" for the use of Members of the Division exclusively.

INTERPRETATION.

In these Rules (where not repugnant to the context) the word "Meeting" means any Meeting of the Division, whether Special, General, or Annual, to which every Member of the Division is summoned in accordance with the Rules. Notice shall be deemed to have been sent to every Member of a Division if reasonable care has been used in posting such Notices to all the names and addresses appearing in the list of Members in ordinary use at the time.

(B) (DRAFT) RULES GOVERNING PROCEDURE IN ETHICAL MATTERS OF A BRANCH COMPOSED OF SEVERAL DIVISIONS.

[*As approved by the Council and submitted to the Representative Body.*]

RULE 1.

For the better attainment, within the area of the Branch, of the objects of the Association in regard to the maintenance of the honour and interests of the medical profession, it shall be the duty of the Branch to consider questions of professional conduct, and to pass in accordance with its Rules, Resolutions upon such questions, which shall be binding upon the Members.

RULE 2.

The term "Branch" in these Rules shall be deemed to mean "Branch Council" unless the context shall indicate otherwise. Every question of professional conduct referred to the Branch shall be deemed to be referred to the Branch

Council, and shall, in the first instance, be addressed to the Honorary Secretary of the Branch.

No question of general professional conduct shall be considered in a general meeting of the Branch except upon reference from the Branch Council, and no question of the conduct of an individual member of the profession shall in any circumstances be considered by such meeting of the Branch.

RESOLUTIONS AS TO GENERAL PROFESSIONAL CONDUCT.

Rule 3.

The following shall be the procedure for the adoption of a Resolution of the Branch regulating the general professional conduct of its Members :

(*a*) On the recommendation of any Division of the Branch the Branch Council shall consider the advisability of the adoption of a Resolution regulating the conduct of Members of the Branch in respect of the matters referred to in such Recommendation, and shall, if it think advisable, draft a Resolution or Resolutions in suitable form.

(*b*) Such Resolution shall be submitted for the consideration of all the Divisions of the Branch in general meetings, and shall not further be proceeded with unless approved by a majority of the Divisions and also by a majority of the total number of Members voting at such Division meetings.

(*c*) If the replies of the Divisions be favourable the Branch Council shall take the opinion of the Members of the Branch by voting papers circulated to every Member and, subject to appeal to the Council of the Association, the Resolution shall be confirmed as a Resolution of the Branch if approved by two-thirds of the Members voting thereon.

(*d*) It shall be competent for any Division of the Branch to appeal to the Council of the Association within one month in respect of the adoption by the Branch of a Resolution, notice of such appeal being given simultaneously to the Medical Secretary and to the Honorary Secretary of the Branch. In the event of such appeal, the Resolution shall not be confirmed as binding on the Members of the Division appealing unless it be approved by the Council of the Association.

Rule 4.

(*a*) It shall be the duty of the Branch Council to notify every Member of the Branch, and the Honorary Secretary of every Division of the Branch, of every Resolution regulating the general professional conduct of Members of the Branch which has been duly adopted in accordance with the Rules, and it shall rest in the discretion of the Branch Council to bring any such Resolution or Resolutions to the notice of any member of the profession practising within the area of the Branch who is not a Member of the Association.

(*b*) It shall be the duty of the Honorary Secretary of the Branch to notify every Member coming to reside within the area of the Branch of every Resolution regulating the professional conduct of Members of the Branch which has been duly adopted, and further, it shall rest in the discretion of the Branch Council to bring any such Resolution or Resolutions to the notice of any Member of the profession who comes to reside within the area of the Branch who is not a Member of the Association.

Rule 5.

The Branch Council may—

(i) bring to the notice of any Division or Branch of the Association any Resolution of the Branch regulating the general professional conduct of its members, and may request support from such Division or Branch, with a view to making the operation of such Resolution more effective ;

(ii) bring to the notice of every Member of the Branch and every member of the profession within the area of the Branch any Resolution affecting general professional conduct adopted by any other Branch, or any Division, of which the Branch shall have received official notice. This Rule shall not apply to Resolutions affecting the professional conduct of individuals, as such.

Rule 6.

If a resolution of the Branch affecting general professional conduct shall have reference to the terms upon which Members may hold appointments of any kind, it shall be the duty of the Honorary Secretary of the Branch, when notifying Members of the adoption of such Resolution, to request those Members who already hold appointments of the kind in question, upon terms inconsistent with the resolution, to take the necessary steps to terminate such appointments, or to secure such modifications of the terms of such appointments as shall be necessary for compliance with the resolution, and no further action shall be taken upon the resolution under the Rules of the Branch with respect to such Members for a period of one month, or such longer period, not exceeding three months, as the Branch Council may think fit, from the date of such notification.

If any Member shall within such period satisfy the Honorary Secretary that he has given such notice as is required under the terms of his appointment to terminate the appointment, either absolutely, or unless the terms thereof are so modified as to bring them into accordance with the resolution of the Branch, no further action shall be taken under the Rules with respect to such Member until the expiration of such notice.

PROCEDURE OF ENQUIRY INTO INDIVIDUAL PROFESSIONAL CONDUCT.

Rule 7.

For the assistance of the Branch in investigating questions of the professional conduct of individual members of the profession, a Committee called the Ethical Committee shall be appointed by the Branch Council at its first meeting after the Annual General Meeting of the Branch, consisting of the President and Honorary Secretary for the time being, *ex officio*, with not less than five other Members. The Ethical Committee of the Branch of each year shall remain in office until the new Committee is appointed. The Ethical Committee shall appoint a Chairman and Honorary Secretary of the Committee, who may be the President and Honorary Secretary of the Branch.

Rule 8.

Questions referred to the Branch affecting the professional conduct of individual members of the profession within the area of the Branch shall, in the first instance, be investigated by the Ethical Committee of the Branch. Such questions shall be considered by the Ethical Committee or the Branch Council in the following circumstances only, namely :—

(*a*) Upon a reference from a Division of the Branch or the Ethical Committee of any such Division ;

(*b*) Upon an appeal by a member of the profession from a decision of such a Division ;

(*c*) Upon a complaint by a member of the Association that a matter brought by him to the notice of the Division has, through the inactivity of the Division or other cause, received no consideration ;

(*d*) Upon a reference from the Central Ethical Committee or Council of the Association.

Rule 9.

A Meeting of the Ethical Committee may be convened at any time by the Chairman or Honorary Secretary of the Committee, and a meeting shall be convened by the Honorary Secretary for the consideration of any question affecting the conduct of a practitioner residing within the area of the Branch, referred by the Ethical Committee of any Division of the Branch, or by the Central Ethical Committee or Council of the Association, upon the expiration of three weeks from the receipt of such reference by the Honorary Secretary of the Branch, or Honorary Secretary of the Committee, or upon the completion of the preliminary enquiries required by these Rules, whichever shall first occur.

Rule 10.

In any case in which the complainant or the practitioner against whom complaint is made is not a member of the Association, the matter shall forthwith be referred to the Central Ethical Committee for advice and instruction, and it shall be the duty of the Ethical Committee of the Branch to conduct any subsequent investigation in all respects in accordance with such advice and instruction

as may thus be obtained, any provision contained in these Rules notwithstanding.

RULE 11.

If any Member of the Ethical Committee of the Branch be personally involved in a case as complainant or otherwise, or be partner or assistant or principal of any person so involved, or have otherwise such personal interest in the case as, in the opinion of the Committee, renders it undesirable that he should take part in any investigation of that case, he shall retire from the Committee for the purpose of the investigation of the case, and the Committee may appoint some other Member of the Branch Council, who is not so interested, to act in his stead. If the retiring Member of the Committee be the Chairman or Secretary, the Committee shall appoint a Chairman or Secretary to act in his stead for the purpose of the case.

RULE 12.

The Committee shall investigate the facts of the case, and shall take such evidence, whether written or oral, as shall be deemed necessary for this purpose. Copies of such documents, furnished by any party to a case for the consideration of the Committee, shall be furnished by the Secretary to the other parties concerned, *provided they be Members of the Association.* It shall be the duty of the Committee, whenever practicable, to bring the parties into personal conference in their presence. It shall be competent for the Committee to apply to the Medical Secretary for advice as to procedure and for information as to precedents which may bear upon the case.

RULE 13.

If the case appears to be one affecting the parties as individuals only, the Ethical Committee of the Branch shall have power, with the written consent of all parties, to accept such decision as final, to decide such case.

In all other cases the Committee shall, after due investigation, present to a Special Meeting of the Branch Council, or to the next Ordinary Meeting, at its discretion :—

(1) A Report of the facts as established in the opinion of the Committee by the evidence placed before it.

(2) A Recommendation to the Branch Council in one of the following forms :—

(i) That the Branch Council express the opinion that no offence has been committed against the Rules (or Resolutions) of the Branch or Division or the generally accepted principles of professional conduct and that no action be taken.

(ii) That the Branch Council express the opinion that the complaint is frivolous, and that the case be dismissed.

iii) That the Branch Council express no opinion upon the case and refer the whole of the facts for the consideration of the Central Ethical Committee.

(iv) That the Branch Council express the opinion that .....has violated
(*a*) the Rules (or Resolutions) of the Branch or Division, *and*
(*b*) the ordinarily accepted principles of professional conduct,
but that in consideration of faults on the part of others concerned the case be dismissed.

(v) That the Branch Council express the opinion that .....has violated
(*a*) the Rules (or Resolutions) of the Branch or Division, *and*
(*b*) the ordinarily accepted Rules of professional conduct ;
and resolves that he be, and hereby is, censured.

(vi) That the Branch Council express the opinion that the conduct of.....has been
(*a*) in contravention of the Rules (or Resolutions) of the Branch or Division, *and*
(*b*) detrimental to the honour and interests of the Association, *and*
(*c*) detrimental to the honour and interests of the profession, *and* (*if a Member*),
(*d*) resolve that he be informed of this finding of the Branch Council and allowed until..... .....to reconsider his position, that the Ethical Committee of the Branch be instructed to report in due course to the Branch Council upon his reply, and that if upon such further report the Branch Council shall consider his reply unsatisfactory the matter shall forthwith be reported to the Council of the Association in order that the propriety of his remaining a Member may be considered.

(vii) That the Branch Council express the opinion that the conduct of.....has been
(*a*) in contravention of the Rules (or Resolutions) of the Branch or Division, *and*
(*b*) detrimental to the honour and interests of the Association, *and*
(*c*) detrimental to the honour and interests of the profession, *and* (*if a Member*),
(*d*) resolve that the Report of the Ethical Committee and the findings of the Branch Council be reported forthwith to the Council of the Association in order that the propriety of his remaining a Member may be considered.

RULE 14.

The Report and the Recommendation of the Ethical Committee of the Branch shall be circulated to all Members of the Branch Council, and to each party concerned, not less than seven days before a general meeting at which it is to be considered, and shall be issued in sealed envelopes marked "Private and Confidential, for the use of the Members of the Branch Council exclusively."

RULE 15.

Members who have taken part as members of the Ethical Committee of the Branch in the investigation of a case shall be entitled to take part in the consideration by the Meeting of the Branch Council of the Report of the Committee on such case, and to speak and vote thereon as individual members of the Branch Council.

RULE 16.

On the reception of the Report and Recommendation of the Committee by the Branch Council there shall be no discussion on the Report of the facts as established in the opinion of the Committee by the evidence placed before it, and no other than the following motions shall be in order on the Report or the Recommendation :—

(*a*) That the Report of the Committee be approved and the Recommendation adopted.

(*b*) That the Report of the Committee be approved, but that the Recommendation be amended as follows :—
That the Branch Council express the opinion that
(One of the alternative forms of recommendation which it would have been permissible for the Committee to make may be inserted and no other.)

(*c*) That the Report and the Recommendation be referred back to the Ethical Committee for further consideration.

RULE 17.

A copy of the Resolution of the Branch Council shall be sent by the Honorary Secretary of the Branch to each of the parties concerned, *provided they be Members of the Association.*

RULE 18.

If a practitioner shall make amends or express regret to the satisfaction of the Branch Council it shall be competent for the Branch Council, after due notice, to rescind the Resolution of censure passed under Rule 13 (v).

RULE 19.

The finding of the Branch Council upon a case shall be final so far as the Branch is concerned, unless new facts shall subsequently be brought forward which, in the opinion of the Ethical Committee of the Branch, justify re-opening the case.

Rule 20.

Any medical practitioner feeling himself aggrieved by a decision of the Branch Council shall have a right of appeal to the Central Ethical Committee, and from the Central Ethical Committee to the Council of the Association, which shall be exercised within fourteen days of receipt of intimation of the finding of the Branch Council or of the Central Ethical Committee, as the case may be. Notice of such appeal shall be sent to the Honorary Secretary of the Branch and to the Medical Secretary. In the event of an appeal being lodged no action shall be taken to give effect to the finding appealed against, pending the decision of such appeal.

Rule 21.

After a case has been referred to the Ethical Committee of the Branch for investigation, no party concerned shall appeal to any other professional authority until such case has been disposed of by the Branch Council, or in a case of appeal in accordance with the Rules of the Branch, or By-laws of the Association, until it has been disposed of by the Central Ethical Committee, or by the Council of the Association, as the case may be.

Rule 22.

It shall be the duty of every Member of the Branch to afford all reasonable assistance in his power to the Committee of any Division of the Association, to the Council of any Branch, to the Central Ethical Committee, and to the Council of the Association, in the investigation of questions affecting the professional conduct of individual members of the profession, and any party to a case shall be required to furnish for such purposes such number of copies (not exceeding ten) as may reasonably be required of any documents submitted by him for the consideration of any such Committee or Council.

Rule 23.

Any Member of the Ethical Committee or Council of the Branch who shall have taken part as a Member of a Division in the previous consideration of any case referred to the Branch, shall be debarred from taking part in the consideration of such case in the Ethical Committee of the Branch or in the Branch Council, and if any Member of the Ethical Committee or Council of the Branch be a Member of any higher authority of the Association whose duty it may be to consider the case upon appeal, he shall be debarred from taking part in the hearing of such appeal if he shall have considered the case as a Member of the Ethical Committee or Branch Council, but he shall not be debarred from giving evidence as to facts, if called upon. A Member of the Ethical Committee of the Branch may give notice to the Honorary Secretary of the Committee that in order to retain his freedom to consider the case, if necessary, upon appeal, he does not intend to take part in the consideration of the case by the Committee of the Branch, and the Committee, upon receipt of such notice, shall have power to appoint some other Member to act in his stead.

Rule 24.

Subject to the provisions herein contained, no Member of the Branch shall meet in consultation, or accord any professional recognition to, a medical practitioner who shall have been declared by Resolution of the Branch Council to have acted in contravention of any Rule or Resolution of the Branch, or of the Division in the area of which he resides, affecting general professional conduct, of which Rule or Resolution such practitioner shall be proved to have had notice in accordance with the Rules of that Branch or Division, or who shall have been declared by Resolution of the Branch Council to be deemed guilty of conduct detrimental to the honour or interests of the profession.

Provided that,

(*a*) this rule shall not apply to any communication of a Public Medical Officer with a medical practitioner in discharge of the official duty of such officer;

(*b*) in circumstances of great urgency, affecting the life of a patient, a Member may accord such professional recognition to a practitioner, whom he otherwise could not meet, as the necessities of the case may require, but it shall be his duty forthwith to report the facts to the Honorary Secretary of the Division of which he is a Member, and it shall rest with the Division to consider and report to the Branch Council if in its opinion the circumstances were not such as to justify such action;

(*c*) any Member of the profession concerning whom a Resolution shall have been carried as stated in the first part of this Rule shall have a right of appeal to the Central Ethical Committee, and from the Central Ethical Committee to the Council, which shall be exercised within fourteen days of receipt of intimation of the finding of the Branch Council or the Central Ethical Committee, as the case may be, and pending the decision of such appeal (if any), the operation of this Rule in the case shall be suspended;

(*d*) If the Branch Council shall at any time after the adoption of a Resolution of the kind defined in the first part of this Rule declare, that in the opinion of the Branch Council the conduct of the practitioner referred to in such Resolution is no longer deserving of censure, or that professional recognition should no longer be withheld from him, this Rule shall cease to apply to such practitioner, and the decision of the Branch Council shall be reported forthwith to any other authority of the Association which has already considered the case, and shall be circulated in the same manner as the original resolution of censure.

Rule 25 (Rule "Z").

(*a*) In every case in which the Branch Council shall, after due inquiry in accordance with the rules thereof, have passed a Resolution declaring that in the opinion of the Branch Council the conduct of any medical practitioner, or practitioners, whether by contravention of the Rules or Resolutions of the Branch or otherwise, is detrimental to the honour and interests of the medical profession, it shall be the duty of the Ethical Committee of the Branch to submit a report of the whole facts of each particular case to the Central Ethical Committee, and, subject to the approval of the said Committee, to cause such Resolution to be brought directly to the knowledge of every Member of the Branch by means of a Notice in the form appended hereto, which Notice it shall be the duty of the Honorary Secretary of the Branch to authenticate by his signature.

(*b*) In any case in which the Branch Council shall, at the time of, or subsequently to, the adoption of a Resolution of the nature contemplated by Paragraph (*a*) of this Rule, have also resolved that, in the opinion of the Branch Council it is desirable that such Resolution shall be brought officially to the notice of any specified Division or Branch of the Association, it shall be the duty of the Ethical Committee of the Branch to submit to the Central Ethical Committee a statement of this fact and of the reasons for which such notification is desired, and, subject to the approval of the said Central Ethical Committee, to cause a copy of the said Resolution to be transmitted by the Honorary Secretary of the Branch to the Honorary Secretary of the Division or Branch so specified.

(Form of Notice Referred to in Paragraph (*a*)):—

BRITISH MEDICAL ASSOCIATION.

_____ *Branch.*

(Private and Confidential.)

NOTICE.

In pursuance of Rule of the Branch, Notice is hereby given by the Ethical Committee of the said Branch, that at a meeting of the Branch Council held at on the day of , a resolution in the following terms was duly passed:—

"*That in the opinion of this Branch Council the conduct of of is detrimental to the honour and interests of the Medical Profession.*"

Signed by order of the Ethical Committee of the Branch of the British Medical Association,

Honorary Secretary.

(Note.—The Central Ethical Committee desires to draw the attention of Branches to the necessity of Notices such as the above being circulated *in sealed envelopes*, and marked "Private and Confidential," for the use of Members of the Branch Council exclusively.)

(C) (DRAFT) RULES GOVERNING PROCEDURE IN ETHICAL MATTERS OF A BRANCH COMPOSED OF ONE DIVISION.

[As approved by the Council and submitted to the Representative Body.]

RULE 1.

For the better attainment, within the area of the Branch, of the objects of the Association in regard to the maintenance of the honour and interests of the medical profession, it shall be deemed to be part of the business of the Branch to consider questions of professional conduct and to pass in accordance with its Rules, Resolutions upon such questions, which shall be binding upon the Members.

RESOLUTIONS AS TO GENERAL PROFESSIONAL CONDUCT.

RULE 2.

The following shall be the procedure for the adoption of a Resolution of the Branch regulating the general professional conduct of its Members :—

(A) *In the case of a Resolution to apply throughout the area of the Branch.*

(i) Fourteen days' notice of the terms of the proposed Resolution shall be given to every Member of the Branch prior to the Meeting of the Branch at which such Resolution is to be considered.

(ii) At the Meeting the Resolution shall be deemed to be carried if approved without amendment by a three-fourths majority of those present and voting, and not otherwise.

(iii) If fewer than one-third of the Members of the Branch are present when the Resolution is put to the vote, and if within seven days from the circulation of a notice of the adoption of such a resolution by a Meeting of the Branch as hereinafter provided, not less than five per cent. of the members of the Branch shall request by notice in writing to the Honorary Secretary that a poll of the Members of the Branch be taken by post, a poll shall be so taken forthwith, and in such cases the Resolution shall be deemed to be carried if approved by two-thirds of those voting at such poll, and not otherwise.

(iv) Notice of the adoption of such a Resolution by the Branch shall forthwith be sent to all Members with a statement of the number of the Members present and voting for and against the Resolution.

(B) *In the case of a Resolution to apply within part only of the area of the Branch.*

(i) Upon receipt of a requisition signed by not less than five-sixths of the Members of the Branch residing and practising within any part, defined in such requisition, of the area of the Branch, expressing the desire of the signatories for the adoption by the Branch of a Resolution to be binding upon all Members practising within the said area, the Honorary Secretary shall give seven days' notice to the Members of the Branch prior to a Meeting of the Branch, of the consideration of such proposed Resolution at such Meeting.

(ii) It shall be competent for the Branch in such Meeting to adopt the proposed Resolution by a simple majority of those present and voting thereon, and the Resolution, if so adopted without amendment, shall thereupon become binding upon all Members of the Branch practising within the area specified.

RULE 3.

(*a*) It shall be the duty of the Branch Council to notify every Member of the Branch of all resolutions affecting professional conduct duly adopted by the Branch in accordance with its Rules ; and, subject to such instructions as may be received from the Branch in general meeting, it shall rest in the discretion of the Branch Council, to bring any such resolution or resolutions to the notice of any member of the profession practising within the area of the Branch who is not a member of the Association.

(*b*) It shall be the duty of the Honorary Secretary of the Branch to notify every Member coming to reside within the area of the Branch of every resolution regulating the professional conduct of Members of the Branch which has been duly adopted, and further it shall rest in the discretion of the Branch to bring any such resolution or resolutions to the notice of any Member of the profession who comes to reside within the area of the Branch who is not a Member of the Association.

RULE 4.

The Branch Council may : (i) bring to the notice of any other Division or of any Branch of the Association a resolution of the Branch affecting general professional conduct, and may request support from such Division or Branch with a view to making the operation of such resolution more effective ; (ii) bring to the notice of every Member of the Branch, or of every Member of the profession within the area of the Branch, any resolution affecting general professional conduct, adopted by any other Division or Branch, of which the Branch shall have received official notice. This Rule shall not apply to resolutions affecting the professional conduct of individuals as such.

RULE 5.

If a resolution of the Branch affecting general professional conduct shall have reference to the terms upon which Members may hold appointments of any kind, it shall be the duty of the Honorary Secretary, when notifying Members of the adoption of such Resolution, to request those Members who already hold appointments of the kind in question, upon terms inconsistent with the resolution, to take the necessary steps to terminate such appointment, or to secure such modifications of the terms of such appointments as shall be necessary for compliance with the resolution, and no further action shall be taken upon the resolution under the Rules of the Branch with respect to such Members for a period of one month, or such longer period, not exceeding three months, as the Branch may think fit, from the date of such notification.

If any Member shall within such period satisfy the Honorary Secretary that he has given such notice as is required under the terms of his appointment to terminate the appointment, either absolutely, or unless the terms thereof are so modified as to bring them into accordance with the resolution of the Branch, no further action shall be taken under the Rules with respect to such Member until the expiration of such notice.

PROCEDURE OF ENQUIRY INTO PROFESSIONAL CONDUCT AFFECTING INDIVIDUALS.

RULE 6.

For the assistance of the Branch in investigating questions of the professional conduct of individual members of the profession, a Committee called the Ethical Committee shall be appointed by the Branch Council at the first meeting after the Annual General Meeting of the Branch, consisting of the President and Honorary Secretary for the time being, *ex-officio*, with not less than five other Members. The Ethical Committee of the Branch of each year shall remain in office until the new Committee is appointed. The Ethical Committee shall appoint a Chairman and Honorary Secretary of the Committee.

RULE 7.

Questions referred to the Branch affecting the professional conduct of individual Members of the profession within the area of the Branch shall, be addressed to the Honorary Secretary of the Branch, and shall, in the first instance, be investigated by the Ethical Committee of the Branch. Where a person against whom complaint is made is not a Member of the Branch where the complaint is lodged it shall be the duty of the Honorary Secretary of the Branch to refer the complaint for investigation by the Division to which the person complained of belongs. Cases affecting non-members shall be dealt with by the Branch in the area of which the non-member complained of resides.

Rule 8.

In any case in which the complainant or the practitioner against whom complaint is made is not a member of the Association, the matter shall forthwith be referred to the Central Ethical Committee for advice and instruction, and it shall be the duty of the Ethical Committee of the Branch to conduct any subsequent investigation in all respects in accordance with such advice and instruction as may thus be obtained, any provision contained in these Rules notwithstanding.

Rule 9.

In a case submitted by a Member of the Association, who considers that he has been affected as an individual by what he alleges to be the unprofessional conduct of another Member, it shall be the duty of the Chairman and Secretary of the Ethical Committee to ascertain forthwith whether the applicant has either personally, or by letter, or through some suitable intermediary, afforded the Member against whom he makes complaint a reasonable opportunity of explanation, and if this has not been done to call upon him to do so. If the applicant fails to take this step within a week, the propriety of his action in having made the complaint may itself be made a matter for consideration by the Committee.

Rule 10.

A meeting of the Ethical Committee may be convened at any time by the Chairman or Honorary Secretary of the Committee, and a meeting shall be convened by the Honorary Secretary for the consideration of any question affecting the conduct of a practitioner residing within the area of the Branch, submitted by any Member of the Association, or referred by any Division or Branch of the Association, or by the Central Ethical Committee, upon the expiration of three weeks from the receipt of such reference by the Honorary Secretary of the Branch, or upon the completion of the preliminary enquiries required by these Rules, whichever shall first occur.

Rule 11.

In any case in which the applicant is not affected as an individual by the conduct of which complaint is made, or in which the matter is brought to the notice of the Branch by a Division or Branch of the Association, or by the Central Ethical Committee, the Chairman of the Ethical Committee shall forthwith instruct the Honorary Secretary to forward to the person of whose conduct complaint is made, *provided that he be a Member of the Association*, a statement of the subject matter of the complaint, and afford him a reasonable opportunity to put forward such explanation as he may desire to put before the Committee.

Rule 12.

In any case in which the Ethical Committee is of opinion that it would be undesirable, in the interests of the profession, that the complaint should be investigated locally, the Committee shall be empowered to refer the investigation to the Central Ethical Committee, and all documents bearing on the case shall be sent to the Medical Secretary.

Rule 13.

If any Member of the Ethical Committee be personally involved in a case as complainant or otherwise, or be partner or assistant or principal of any person so involved, or have otherwise such personal interest in the case as, in the opinion of the Committee, renders it undesirable that he should take part in any investigation of that case, he shall retire from the Committee for the purpose of the investigation of the case, and the Committee may appoint some other Member of the Branch Council, who is not so interested, to act in his stead. If the Member of the Committee affected by this Rule be the Chairman or Secretary, the Committee shall appoint a Chairman or Secretary to act in his stead for the purpose of the case.

Rule 14.

The Committee shall investigate the facts of the case, and shall take such evidence, whether written or oral, as shall be deemed necessary for this purpose. Copies of documents furnished by any party to a case for the consideration of the Committee shall be furnished by the Secretary to the other parties concerned *provided they be Members of the Association.* It shall be the duty of the Committee, whenever practicable, to bring the parties into personal conference in its presence. It shall be competent for the Committee to apply to the Medical Secretary for advice as to procedure and for information as to precedents which may bear upon the case.

Rule 15.

If the case appears to be one affecting the parties as individuals only, the Ethical Committee of the Branch shall have power, with the written consent of all parties to accept such decision as final, to decide such case.

In all other cases the Committee shall, after due investigation, present to a special Meeting of the Branch Council, or to the next ordinary Meeting, at its discretion:—

(1) A Report of the facts as established in the opinion of the Committee by the evidence placed before it.

(2) A Recommendation to the Branch Council in one of the following forms:—

(i) That the Branch Council express the opinion that no offence has been committed against the rules (or Resolutions) of the Branch, or the generally accepted principles of professional conduct, and that no action be taken.

(ii) That the Branch Council express the opinion that the complaint is frivolous, and that the case be dismissed.

(iii) That the Branch Council express no opinion upon the case, and refer the whole of the facts for the consideration of the Central Ethical Committee.

(iv) That the Branch Council express the opinion that ..... has violated

(*a*) the Rules (or Resolutions) of the Branch, *and*

(*b*) the ordinarily accepted principles of professional conduct.

but that in consideration of faults on the part of others concerned, the case be dismissed.

(v) That the Branch Council express the opinion that ..... has violated

(*a*) the Rules (or Resolutions) of the Branch, *and*

(*b*) the ordinarily accepted Rules of professional conduct,

and resolves that he be, and hereby is, censured.

(vi) That the Branch Council express the opinion that the conduct of..... has been

(*a*) in contravention of the Rules of the Branch, *and*

(*b*) detrimental to the honour and interests of the Association, *and*

(*c*) detrimental to the honour and interests of the profession; *and* (*if a Member*)

(*d*) resolved that he be informed of this finding of the Branch Council and allowed until..... to reconsider his position; that the Committee be instructed to report in due course to the Branch Council upon his reply, and that if upon such further report the Branch Council shall consider his reply unsatisfactory the matter shall forthwith be reported to the Council of the Association, in order that the propriety of his remaining a member may be considered.

(vii) That the Branch Council express the opinion that the conduct of..... has been

(*a*) in contravention of the Rules (or Resolutions) of the Branch, *and*

(*b*) detrimental to the honour and interests of the Association, *and*

(*c*) detrimental to the honour and interests of the profession; *and* (*if a Member*)

(*d*) resolve that the Report of the Committee and the findings of the Branch be reported forthwith to the Council of the Association, in order that the propriety of his remaining a member may be considered.

RULE 16.

The Report and the Recommendation of the Ethical Committee of the Branch shall be circulated to all Members of the Branch Council, and to each party concerned, not less than seven days before a general meeting at which it is to be considered, and shall be issued in sealed envelopes marked "Private and Confidential, for the use of the Members of the Branch Council exclusively."

RULE 17.

Members who have taken part as members of the Ethical Committee of the Branch in the investigation of a case shall be entitled to take part in the consideration by the meeting of the Branch Council of the Report of the Committee on such case, and to speak and vote thereon as individual members of the Branch Council.

RULE 18.

On the reception of the Report and Recommendation of the Committee by the Meeting of the Branch Council there shall be no discussion on the Report of the facts as established in the opinion of the Committee by the evidence placed before it, and no other than the following motions shall be in order on the Report or the Recommendation :—

(*a*) That the Report of the Committee be approved and the Recommendation adopted.

(*b*) That the Report of the Committee be approved, but that the Recommendation be amended as follows :—

That the Branch Council express the opinion that

(One of the alternative forms of recommendation which it would have been permissible for the Committee to make may be inserted and no other.)

(*c*) That the Report and the Recommendation be referred back to the Ethical Committee of the Branch for further consideration.

RULE 19.

A copy of the resolution of the Branch Council shall be sent by the Honorary Secretary of the Branch to each of the parties concerned, *provided they be Members of the Association.*

RULE 20.

If a practitioner shall make amends or express regret to the satisfaction of the Branch Council, it shall be competent for the Branch Council, after due notice, to rescind the resolution of censure passed under Rule 15 (v).

RULE 21.

The finding of the Meeting of the Branch Council upon a case shall be final so far as the Branch is concerned, unless new facts shall subsequently be brought forward which, in the opinion of the Ethical Committee of the Branch, justify re-opening the case.

RULE 22.

Any medical practitioner feeling himself aggrieved by a decision of the Branch Council shall have a right of appeal to the Central Ethical Committee, and from the Central Ethical Committee to the Council of the Association, which shall be exercised within fourteen days of receipt of intimation of the finding of the Branch Council or of the Central Ethical Committee, as the case may be. Notice of such appeal shall be sent to the Honorary Secretary of the Branch and to the Medical Secretary. In the event of an appeal being lodged no action shall be taken to give effect to the finding appealed against, pending the decision of such appeal.

RULE 23.

After a case has been referred to the Ethical Committee of the Branch for investigation, no person concerned shall appeal to any other professional authority until such case has been disposed of by the Branch Council, or in case of appeal in accordance with the Rules of the Branch, or By-laws of the Association, until it has been disposed of by the Central Ethical Committee, or the Council of the Association, as the case may be.

RULE 24.

It shall be the duty of every member of the Branch to afford all reasonable assistance to the Committee of any Division of the Association, to the Council of any Branch, to the Central Ethical Committee, and to the Council of the Association, in the investigation of questions affecting the professional conduct of individual members of the profession, and any party to a case shall be required to furnish for such purposes such number of copies (not exceeding ten) as may reasonably be required of any documents submitted by him for the consideration of any such Committee or Council.

RULE 25.

Any member of the Branch Council who is a member also of the Ethical Committee of the Branch, or of any other body whose duty it might be to consider on behalf of the Association a case in respect of which an appeal is made from the finding of the Branch Council, shall be debarred from taking part in the consideration of such case upon appeal if he has already taken part in the consideration thereof by the Ethical Committee of the Branch or Meeting of the Branch Council, but he shall not be debarred from giving evidence as to facts, if called upon.

A member of the Ethical Committee of the Branch holding such other office may give notice to the Secretary of the Branch that, in order to retain his freedom to consider a case in the event of an appeal, he will not take part in the consideration of the case by the Ethical Committee of the Branch, and the Committee, upon receipt of such notice, shall have power to appoint another member to act in his stead.

RULE 26.

Subject to the provisions herein contained, no member of the Branch shall meet in consultation or accord any professional recognition to a Medical Practitioner, who shall have been declared by Resolution of the Branch Council to have acted in contravention of any Rule or Resolution of the Branch affecting general professional conduct of which such practitioner shall be proved to have had notice in accordance with the Rules, or who shall have been declared by Resolution to be deemed guilty of conduct detrimental to the honour and interests of the profession,

Provided that,

(*a*) this Rule shall not apply to any communication of a Public Medical Officer with a Medical Practitioner in discharge of the official duty of such officer ;

(*b*) in circumstances of great urgency, affecting the life of a patient, a Member may accord such professional recognition to a practitioner, whom he otherwise could not meet, as the necessities of the case may require, but it shall be his duty forthwith to report the facts to the Honorary Secretary of the Branch, who shall transmit them to the Ethical Committee of the Branch, and it shall rest with the Ethical Committee to consider and report to the Branch if in its opinion the circumstances were not such as to justify such action ;

(*c*) any member of the profession concerning whom a Resolution shall have been carried as stated in the first part of this Rule shall have a right of appeal to the Central Ethical Committee, and from the Central Ethical Committee to the Council, which shall be exercised within fourteen days of receipt of intimation of the finding of the Branch Council or the Central Ethical Committee, as the case may be, and pending the decision of such appeal (if any), the operation of this Rule in the case shall be suspended ;

(*d*) if the Branch Council shall at any time after the adoption of a resolution of the kind defined in the first

part of this Rule declare, by a resolution adopted by the majority required by the Rules for the passing of the original resolution, that in the opinion of the Branch Council the conduct of the practitioner referred to in such resolution is no longer deserving of censure, or that professional recognition should no longer be withheld from him, this Rule shall cease to apply to such practitioner, and the decision of the Branch Council shall be reported forthwith to any other authority of the Association which has already considered the case, and shall be circulated in the same manner as the original resolution of censure.

Rule 27 (Rule "Z"),

(*a*) In every case in which the Branch Council shall, after due inquiry in accordance with the Rules thereof, have passed a resolution declaring that in the opinion of the Branch Council the conduct of any medical practitioner, or practitioners, whether by contravention of the Rules or Resolutions of the Branch or otherwise, is detrimental to the honour and interests of the medical profession, it shall be the duty of the Ethical Committee of the Branch to submit a report of the whole facts of each particular case to the Central Ethical Committee, and, subject to the approval of the said Committee, to cause such Resolution to be brought directly to the knowledge of every Member of the Branch by means of a Notice in the form appended hereto, which Notice it shall be the duty of the Honorary Secretary of the Branch to authenticate by his signature.

(*b*) In any case in which the Branch Council shall, at the time of, or subsequently to, the adoption of a Resolution of the nature contemplated by Paragraph (*a*) of this Rule, have also resolved that, in the opinion of the Branch Council it is desirable that such Resolution shall be brought officially to the notice of any specified Division or Branch of the Association, it shall be the duty of the Ethical Committee of the Branch to submit to the Central Ethical Committee a statement of this fact and of the reasons for which such notification is desired, and, subject to the approval of the said Central Ethical Committee, to cause a copy of the said resolution to be transmitted by the Honorary Secretary of the Branch to the Honorary Secretary of the Division or Branch so specified.

(Form of Notice referred to in Paragraph (*a*)):—

BRITISH MEDICAL ASSOCIATION.

_____ *Branch.*

(Private and Confidential.)

NOTICE.

In pursuance of Rule of the Branch, Notice is hereby given by the Ethical Committee of the said Branch that at a meeting of the Branch Council held at on the day of , a resolution in the following terms was duly passed:—

"*That in the opinion of this Branch Council the conduct of of is detrimental to the honour and interests of the Medical Profession.*"

Signed by order of the Ethical Committee of the Branch of the British Medical Association,

Honorary Secretary.

(Note.—The Central Ethical Committee desires to draw the attention of Branches to the necessity of Notices such as the above being circulated *in sealed envelopes*, and marked "Private and Confidential," for the use of members of the Branch Council exclusively.)

APPENDIX X.

MEMORANDUM ON THE POLICY OF THE BRITISH MEDICAL ASSOCIATION WITH REGARD TO AMENDMENT OF THE LUNACY LAWS AND THE CARE AND CONTROL OF THE FEEBLE-MINDED.

(*Forwarded to Home Secretary, April* 1912.)

Introductory.

In view of the statements which have been made in Parliament as to the early introduction into Parliament of legislation dealing with the Care and Control of the Feeble-Minded, the British Medical Association desires to bring before the notice of the Secretary of State for Home Affairs, a summary of its views on this most important and, in its opinion, most pressing subject.

Previous Action of Association.

2. For many years Committees of the Association, composed of medical practitioners of great experience in these matters, have made special studies of various branches of the subject, and have, as occasion offered, either urged the need of legislation or have made representations to the Government in respect of Bills which have been introduced. As a result, the Association has had the satisfaction of seeing many of its proposals embodied in the law of the country. For example, several amendments were introduced into the Lunacy Amendment Act of 1890, as the direct outcome of representations made by the Association in response to the request of the Government.

3. The Association gave special attention to the question of Feeble-minded and Defective and Epileptic Children in 1888, when a Committee was appointed to conduct observations in schools as to the average condition, development and brain power of children. A statistical report on over 5,000 children was prepared, and evidence was presented to the Royal Commission on the Blind, Deaf and Dumb. As a result of the evidence, a Recommendation was made by the Commission that special instruction should be provided for feeble-minded and exceptional children, and this provision was later embodied in the Defective and Epileptic Children Act of 1899.

4. Evidence was presented on behalf of the Association to the late Royal Commission on the Care and Control of the Feeble-minded, and in August, 1909, the Association took part in a deputation to the Home Secretary to urge the necessity of early legislation to give effect to the Report of the Royal Commission.

5. In 1897, the Association conjointly with the Medico-Psychological Association laid before the Lord Chancellor (Lord Halsbury) certain proposals for dealing with cases of unconfirmed Mental Disease. In 1905 the Association reconsidered the subject and confirmed its previous decision.

6. It will be seen therefore that the interest of the Association in this matter has been long and continued.

7. The substance of the following Recommendations was placed before the Royal Commission on the Care and Control of the Feeble-minded, and with slight exceptions, namely, those concerned with (*a*) Habitual Vagrancy, and (*b*) Habitual Inebriety and Drug Habits, these Recommendations were embodied in the Commission's Report. With regard to (*a*), the Commission did not deal with the subject except by implication. With regard to (*b*), the Association is glad to observe that the Government have introduced a Bill (Inebriates Bill) which gives effect to the views long held by the Association.

Recommendations of the Association.

8. The views of the Association may be grouped under the following headings:—

(*a*) New Classes to be brought under the supervision of the Lunacy Commissioners.
(*b*) Composition of the Lunacy Commission.
(*c*) Statutory Provision for increase in the Commission.
(*d*) Need for one Central Authority.
(*e*) Treatment of Unconfirmed Mental Disease.
(*f*) Other amendments of the Lunacy Laws.

(a) *New Classes to be brought under the Supervision of the Lunacy Commissioners.*

9. The Association is of opinion that the reference to the Board of Commissioners in Lunacy should be so extended as to bring within the official duties of that Board the central supervision of every variety of unsoundness of mind, whether designated "feeble-mindedness," "insanity," or by any other description: and that, pursuant to this principle, the following conditions of infirmity should be specifically placed under the supervision of the Commissioners:—

(i.) Habitual vagrancy.

(ii.) Habitual inebriety and drug habits.

(iii.) Unconfirmed mental disease.

(iv.) Feeble-mindedness and imbecility, including the special educational provisions for feeble-minded children.

10. The following classes of lunatics at present excluded should also be brought under the supervision of the Commissioners in Lunacy, namely (i.) outdoor pauper lunatics, (ii.) criminal lunatics, and (iii.) Chancery lunatics.

(b) *Composition of the Lunacy Commission.*

11. Corresponding to the above change in the range of duties of the Lunacy Commission, it would follow that the post of Chancery Visitor would be abolished.

12. Assistant or Deputy Commissioners should also be appointed who could, under the orders of the Board, discharge some, but not all, of the functions of Commissioners.

(c) *Statutory Provision for Increase in Commission.*

13. The statutory provision for increase of the Commission should not specify the number of Commissioners, but should confer power upon the Lord Chancellor to increase the number of Commissioners as and when, on the recommendation of the Commissioners, he may deem this desirable.

14. In pursuance of the foregoing Recommendations the British Medical Association would submit the following considerations:—

(d) *Need for one Central Authority.*

15. In the opinion of the Association the Commission should constitute one central department charged with the supervision of matters which, from the medical standpoint, whatever differences there may be in degree, are in nature homogeneous. The Association would submit that no considerations of traditional arrangements should be allowed to stand in the way of the operation of the general reform which is advisable, namely, that the public provision for the care of persons suffering from unsoundness of mind, whatever its degrees or varieties, should be controlled by one central authority.

16. Considering the application of this principle in detail to the classes enumerated in the general recommendations (*see* paragraphs 9 and 10), the Association considers that unnecessary complexity is introduced into the care of persons found to be insane by the present distinction, as regards supervision, between two classes of persons whose care and treatment is carried on in establishments of the same kind, namely, lunatics so found by inquisition on the one hand, and lunatics certified under the Lunacy Acts on the other hand.

(e) *Treatment of Unconfirmed Mental Disease.*

17. As the whole subject of the Care and Treatment of Mental Affections is now under consideration, the Association desires again to press on the attention of the Government the urgent need of making provision for cases of Unconfirmed Mental Disease.

18. The general principle underlying the recommendations of the Association on this subject is that it is desirable that persons suspected to be suffering from mental disease should not, so long as the disease is unconfirmed, be placed under the same conditions of close supervision as those who can be definitely certified as of unsound mind, but, nevertheless, that it is necessary that provision should now be made for a modified form of surveillance. Leaving aside the details of care and treatment, this would bring within the cognisance and general control of the Lunacy Commission persons who were not definitely certified as being of unsound mind, and in whose interests it would not be desirable that the ordinary inspection requisite for certified lunatics should be carried out.

19. Under this head, the Association, while in the main approving the principles underlying the clauses on this subject which were contained in the Attorney-General's (Sir Robert Finlay's) Lunacy Acts Amendment Bill of 1905, considers that in order to bring them into harmony with the views of the medical profession and with the needs of the public, modifications in certain particulars are urgently needed.

20. In order to indicate exactly what duties it is proposed to assign to the Commissioners in respect of such patients, the Association begs to submit a clause which it is suggested should be inserted in any Bill for the amendment of the Lunacy Act. (*See* Sub-Appendix.)

(f) *Other Amendments of the Lunacy Laws.*

21. Under this head the Association recommends that in any Bill amending the Lunacy Acts, clauses dealing with the following matters should be included:—

(i.) Removing the disqualification imposed by Sections 158 and 165 of the Lunacy Act (1890) on certain medical practitioners from time to time.

(ii.) Permitting the reception of voluntary boarders in public asylums.

(iii.) Deleting from the forms of medical certificate required by the Lunacy Acts the words "separately from any other medical practitioner."

(iv.) Removing the restrictions whereby the validity of a licence is limited to the locality for which it was originally granted.

LUNACY (SCOTLAND) ACTS.

22. In the opinion of the Association the Scottish Lunacy Acts also require re-adjustment in various particulars:—

(*a*) The protection which the English law at present affords to medical practitioners who certify in cases of lunacy should be extended to Scotland, and steps should be taken to secure the inclusion in the Scottish law of Section 330 of the Lunacy Acts (1890).

(*b*) The provisions of the Lunacy Act (1890), Sections xiii. to xv., charging the constable with the duty of arresting an alleged lunatic not under proper care should be introduced into the Scottish law, and the duties of the Procurator Fiscal (Lunacy Act (Scotland) 1862, Clause 15) should be defined to show that he only takes action when the Inspector of Poor neglects to do so.

CONCLUSION.

23. The Association would most respectfully urge that the time is ripe for the hastening of the amendment and consolition of the law dealing with the matters contained in this Memorandum. The opinion of those who have studied this question for many years has been fully confirmed by the Report of the Royal Commission on the Care and Control of the Feeble-Minded, and though the numerous and important claims upon the time of the Government are fully realised, the Association urges that this matter of vital importance to the community should no longer be delayed.

SUB-APPENDIX.

Suggested Clause dealing with Temporary Care of Cases of Unconfirmed Mental Disease.

(1) If a medical practitioner certifies that a person is suffering from mental disease, but that the disease is not confirmed, and that it is expedient, with a view to his recovery, that he be placed under the care of a person whose name and address are stated in the certificate for a period therein stated, not exceeding *six months*, then during that period the provisions of Section 315 of the Lunacy Act, 1890, shall not apply.

(2) The certificate must not be signed by the person under whose care the patient is to be placed.

(3) Where a medical practitioner signs any such certificate he shall, within one clear day after signing it, send a copy of it to the Commissioners.

(4) The person who receives a patient under any such certificate shall, within one clear day after receiving the patient, give notice to the Commissioners of his reception, and of the name and address of a medical practitioner who undertakes the treatment of the patient, who may be the person under whose care the patient is placed. If the patient dies, or the residence of the person receiving him is changed, within the period mentioned in the certificate, the person receiving the patient shall within two clear days give notice of the death or change of residence to the Commissioners.

(5) He shall also, within two clear days after the expiration of the period mentioned in the certificate, or if he ceases to have the care of the patient at an earlier date, then within two clear days after that earlier date, send a report to the Commissioners stating whether the patient recovered, and, if not, in what manner he was dealt with when the person making the report ceased to have the care of him under the certificate.

(6) If default is made in sending any notice or report required by this section, the person in default shall be guilty of a misdemeanour and be liable to a penalty not exceeding *twenty pounds*.

(7) If before the expiration of the period mentioned in the said certificate it shall appear to the person in whose charge the patient is, if a medical practitioner or the ordinary medical attendant of the patient, that an extension of the said period as hereinafter provided is desirable in the interests of the patient, then such medical practitioner shall, not less than one week before the end of the period, send to the Commissioners in Lunacy a report on the mental and physical condition of the patient.

(8) Subject to the transmission to the Commissioners of such report as aforesaid, another certificate may before the expiration of the period mentioned in the original certificate, be given for a further period not exceeding three months, provided that no patient shall in respect of the same attack of illness be detained under this form of certificate for more than nine months in all, and provided that after the expiry of these certificates no further certificates under this section shall be given in respect of the same patient within six months from the date of the expiration.

APPENDIX XI.

REPORT ON POST-GRADUATE TEACHING AND TRAINING IN PSYCHIATRY, TOGETHER WITH THE INSTITUTION OF A DIPLOMA IN PSYCHIATRY.

The question of the desirability of the institution of post-graduate teaching and training in Psychiatry and the institution of a Diploma in that subject was first brought before the Medico-Psychological Association in a paper read before that Body on 19th May, 1908, when the discussion thereon was adjourned to the Annual Meeting in July, 1908.

At the Annual Meeting resolutions approving the scheme were adopted and the matter was referred to the Education Committee of the Association. As a result of discussions at many meetings of that Committee a scheme of post-graduate teaching in, and the institution of a Diploma in Psychiatry, was drawn up and approved at the Annual Meeting of the Medico-Psychological Association held at Leeds in July, 1909, under the Presidency of Dr. Charles Mercier.

At that Annual Meeting it was decided to approach the Universities and other centres of medical schools on the subject and the following letter, signed by the President, was issued to those Bodies:—

11, Chandos Street,
London, W.,
August, 1909.

Sir,

I am instructed by the Council of the Medico-Psychological Association of Great Britain and Ireland, to approach the Universities and other Examining Bodies on the subject of post-graduate instruction in Psychiatry.

It has long been felt by those most intimate with the subject that there is in this country no adequate systematic instruction in Psychiatry. The evils of this neglect become year by year more and more manifest. This Association is impressed with the urgent necessity for post-graduate teaching in Psychiatry in Medical Schools and for the granting of a special diploma to candidates after examination, as has already been done with such conspicuous success in Public Health and Tropical Medicine. The position of Psychiatry as a branch of Medicine is unsatisfactory; it is not properly affiliated to other departments of medicine, to their mutual detriment; and under present conditions cannot make full use of those modern methods of research which have resulted in such advances in general medicine.

Young medical men on their appointment as medical officers to Asylums, find themselves face to face with work and problems of which they have had no previous knowledge, and in preparation for which they can obtain no systematic and scientific training or teaching. As is well known, lectures on Psychological Medicine, and pathological laboratories have been established here and there, and, in one or two Universities, Chairs of Experimental Psychology have been founded; but there is no systematic course of instruction and no recognised diploma at the end of such course. It is submitted that the time has now arrived when such a course and diploma should be established in the principal medical schools of this country, and a diploma in the subject should be instituted by the examining bodies. My Association is of opinion that the institution of a diploma would impose a high standard of acquirement in the officers of asylums, would stimulate the scientific study of insanity, and would have an effect in widening and deepening our knowledge of the subject, comparable with the effect produced in Public Health and Tropical Diseases by the institution of diplomas in these subjects.

In this letter it is unnecessary to enter into details as to the time required for this post-graduate work, and the subjects to be studied; probably each University and examining body will form its own views on these points.

The Council of my Association respectfully asks that its proposals may receive earnest consideration, so that in the near future it may be possible to place the teaching of Psychiatry on a sound scientific basis, and so bring it into line with other special departments of Medicine in this country.

I am, Sir,
Your obedient servant,
Chas. Mercier,
President Medico-Psychological Association (1908-9).

So far as can be ascertained at the present time the response to this letter has been that at least three Universities have, after the usual investigations as to the desirability and need of post-graduate teaching and of the granting of a Diploma in Psychiatry, decided to establish such, viz., the Universities of Durham, Manchester and Edinburgh, and the Royal College of Physicians of London has arranged that the examinations and Diploma of M.R.C.P. may be taken in Psychiatry. It is understood that the University of Cambridge is favourably disposed to the scheme and has it under consideration at present.

With the view of obtaining the approval of the British Medical Association to the scheme, the matter was brought before the Section of Psychological Medicine and Neurology at the Annual Meeting of that Association, 1910, when an approving resolution was passed unanimously. This was in due course considered by the Council, who, while approving of post-graduate teaching in Psychiatry, disapproved of the institution of a Diploma in the subject.

This resolution of the Council, on being submitted to the Annual Representative Meeting at Birmingham, 1911, was referred back for further consideration.

APPENDIX XII.

MEMORANDUM FORWARDED APRIL 18TH, 1912, TO THE PRESIDENT OF THE BOARD OF EDUCATION ON MEDICAL INSPECTION AND TREATMENT OF SCHOOL CHILDREN IN LONDON.

Introduction.

1. The British Medical Association desires to again lay before the President of the Board of Education the views held for

several years by the Association concerning the Medical Inspection and Medical Treatment of School Children within the County of London. Considering the urgent and national character of the questions at issue, the Association most respectfully requests the President to afford it an early opportunity of placing its views before him by means of a Deputation, and in the meantime submits the following Memorandum on the subject.

2. The Association desires, as in 1909, 1910, and 1911, to bring prominently under the notice of the President of the Board of Education, the grave public evils which have been occasioned by the methods employed by the London County Council, both as regards the Medical Inspection and also the Medical Treatment of School Children, and asks that the sanction of the Board to the arrangements made by the County Council for medical treatment should be withdrawn in favour of the Scheme of Medical Treatment by School Treatment Centres advocated by the British Medical Association.

3. The members of the Association are concerned in this national question as citizens and as ratepayers, but particularly as members of a profession which has always taken a deep interest in the furtherance of the public health and the prevention of national deterioration, and as persons who, in virtue of their professional knowledge, are specially qualified to judge of the defects of the system at present adopted by the County Council of London, and of the evils which are resulting from persistence in such defective methods.

Medical Inspection

4. As regards Medical Inspection, the Association by Memorandum, and particularly by Deputation to Mr. Runciman on June 27th, 1911, has exposed the evasion of the Education (Administrative Provisions) Act, 1907, by the London County Council, and the fictitious "march-past" method of medical inspection employed by the Council and described in the recently published Report of the Education Officer of the County Council for 1910, page 41.

5. The Association notes with satisfaction that in consequence of the strong representations made by it to the Board of Education on this matter, this "march-past" system has been recently given up, and further, that every entrant is now medically inspected according to the Schedule approved by the Board of Education in its Circular 582. Though a scandal has been removed by this tardy reform, the records of medical inspection of the past four years have been invalidated by the action of the County Council, and as the Association showed last year a large mass of disease and defective conditions has been passed over undetected. Inasmuch as efficient Medical Inspection of every child entering elementary schools is compulsory under the Act of 1907, the Association earnestly hopes that the Board of Education will take steps to secure the continuance of medical inspection now begun by the County Council under the terms of the Act of 1907 and in accordance with the Board's Circular 582.

Medical and Dental Treatment of School Children found Defective on Medical Inspection.

Medical Treatment.

6. The Medical and Dental Treatment of School Children not being compulsory by law is in a different position in respect of control by the Board of Education of action by an Education Authority such as the London County Council. At the same time no scheme of treatment put forward by the Council is valid unless it receives the sanction of the Board. The British Medical Association recognised this constitutional position from the first, and, therefore, when the County Council rejected the conclusions of the Education Special Sub-Committee which reported in favour of the adoption of a Scheme of School Clinics, and began to negotiate with Voluntary Hospitals, the Association at once (August 4th, 1909) sought the intervention of the Board of Education. The Association showed that the Hospital arrangements of the London County Council, being wholly inadequate for school purposes, must involve hardships to the children and their parents, and it requested the President to withhold his sanction.

7. Unfortunately the President of the Board of Education sanctioned the County Council contracts with certain hospitals as an experiment for the year ending December 31st, 1910, but only under the condition that a Report on the working of these contracts was then to be furnished to the Board by the County Council.

8. No such Report, however, has been furnished by the County Council.

9. Nevertheless the Board of Education, both in 1911 and in 1912, again renewed its sanction of this ineffective scheme, although the British Medical Association explained the whole position in deputations to Sir George Newman and the Principal Assistant Secretary, Mr. Selby Bigge (acting for the Board) on March 23rd, 1910, and to Mr. Runciman, the President of the Board, on June 27th, 1911, and showed how for medical reasons a School Clinic Scheme could alone meet the metropolitan requirements.

10. Further, the Association stated last year to Mr. Runciman (then President of the Board of Education) that it has, through its organisation in Divisions, made all provision for a complete Scheme for the whole Metropolis, and already several Clinics, or, as they are now termed, School Medical Treatment Centres, have been established and are in successful operation. The President (in reply) expressed the hope that this acceptance of the principle "would lead to the establishment of Clinics in other parts of London."

11. Immediately after this interview the County Council negotiated with the Association to establish eleven new treatment centres.

12. These negotiations were approaching completion when they were suspended in consequence of action taken by the Board of Education in a letter to the County Council, dated 23rd October, 1911, in which the Board stated (1) that they were not satisfied that the establishment of these Clinics was desirable, and (2) that the constitution of such Clinics must be modified, though in what manner was not specifically stated. While thus condemning and refusing to sanction the Association's system of Treatment Centres, the Board have nevertheless continued to give their sanction to the arrangements made by the Council in its hospitals plan, although no real reform of that plan is possible, and although, as stated above, no report upon it by the Council (ordered by the Board) has yet appeared, nor was the Report of the School Medical Officer (Dr. Kerr) for 1910 published until March 28th, 1912.

13. The Association is unable to understand the position thus taken by the Board in this vitally important matter, for the Association stated two years ago to the Board of Education the reasoned objections which are fatal to any scheme by which attempts are made to provide through voluntary hospitals for the special requirements of the medical treatment of school children, and it is glad to observe that these objections have been adopted by the Chief Medical Officer in his Annual Report for 1910, page 137. The Association therefore now expresses the earnest hope that the Board will withdraw their sanction to the hospitals scheme of the County Council, and on the other hand will accept and promote the School Medical Treatment Centres (Clinics) Scheme of the British Medical Association.

Dental Treatment.

14. The Association desires respectfully also to urge upon the Board of Education the necessity of adopting the School Treatment Centre Scheme of the Association not only to provide successful and economical medical treatment, but also to make convenient and economical provision for the dental treatment of school children.

15. The need for dental inspection and treatment of the metropolitan school children is very urgent as probably 700,000 children require expert inspection and at least 400,000 require carefully considered treatment.

16. The provision of such dental treatment by qualified dentists the Association has from the first regarded as of primary importance to the National Health, and included it in its Clinic System, of which it forms an essential part.

17. Dental treatment of school children is spoken of by the Board of Education and the County Council as though it were in an experimental stage. This is not the case, for it has been demonstrated both at home and abroad that the only requirements are (*a*) accommodation furnished by Clinics convenient to the Schools and (*b*) defrayal of the expenses of working. In a very few districts of the Metropolis a commencement has been made to provide dental treatment, but the Association submits that it is time that the present haphazard arrangements were given up and economy, convenience, and efficiency secured by adopting the complete scheme of the British Medical Association thereby establishing Treatment Centres in each district of the Metropolis at which both medical and dental treatment would be provided. It may be mentioned that at the

Treatment Centres in operation at Wandsworth and Norwood, dental treatment is carried on in a manner which has been found entirely satisfactory.

Summary.

18. The British Medical Association respectfully presses upon the Board of Education the necessity of immediate action being taken by the Board to secure the following fundamental reforms in the provision of medical and dental inspection and treatment of school children within the area of the County Council of London:—

A. Withdrawal of the sanction given by the Board to the hospitals arrangements of the County Council.

B. Approval of the complete scheme of School Medical Treatment Centres for the Metropolis on the lines laid down by the British Medical Association and already in successful operation in a few districts.

C. Provision by School Treatment Centres of both Medical and Dental Treatment.

APPENDIX XIII.

CORONERS' FEES TO NAVAL SURGEONS.

Pursuant to the instruction of the Council of January 31st, 1912 (Minute 54), the following letter and Memorandum has been addressed to the Admiralty:—

March 30th, 1912.

Sir,

I am instructed to lay before the Lords of the Admiralty the appended Memorandum on the subject of the payment of Coroners' fees to Naval Surgeons, and, further, to ask that the British Medical Association may be afforded an opportunity of placing the matter before you by means of a deputation of not more than three persons.

I am also to point out that the existence of the Order referred to in the Memorandum has for the past five years been the subject of constant unfavourable comment in the ranks of the medical profession both inside and outside the Navy Medical Service, and that the opportunity of an interview would probably secure a settlement of the matter.

I am, Sir, Your obedient Servant,

(Signed) Alfred Cox,
Acting Medical Secretary.

The Permanent Secretary,
The Admiralty,
Whitehall, S.W.

Memorandum to Secretary of the Admiralty concerning Admiralty Order *re* Payment of Coroners' Fees to Naval Surgeons.

1. In April, 1909, the British Medical Association brought before the Lords of the Admiralty a request that their Lordships would take into their consideration the desirability in the interests of His Majesty's Navy of withdrawing the Order dated June 4th, 1907, whereby Surgeons in his Majesty's Navy are prohibited from accepting fees from Coroners in respect of post-mortem examinations made by them under the orders of such Coroners or in respect of evidence given by them at inquests.

2. The reply at that time was unfavourable, but in view of the fact that the Association has evidence that the existence of this Order creates a feeling of irritation among Medical Officers of the Navy and a sense of unfairness which cannot fail to be prejudicial to the best interests of that Service, the Association feels compelled again to approach their Lordships on the subject.

3. The Association would submit that such an Order creates a contradiction between the Regulations of His Majesty's Service and the Statute Law of the country.

4. By the Coroners Act, 1887 (Section 21) it is definitely provided that a Coroner may direct any medical practitioner in actual practice in or near the place where the death happened to make a post-mortem examination or and give evidence at an inquest. It is further provided (Section 22) that a Coroner shall pay to such medical practitioner fees in respect of such post-mortem examination and evidence at inquests, subject to certain exceptions which do not apply to the case now under consideration.

5. Thus the effect of the Admiralty Order, taken in conjunction with the Coroners Act, is to place Medical Officers of His Majesty's Navy in the anomalous position that the Coroner is required by law to pay to such officers, if ordered by him to make a post-mortem examination and give evidence by inquests, the fees statutorily prescribed for that purpose, but the officers are prohibited by the Orders of the Admiralty from accepting such fees. The officer is entitled by law to sue a Coroner for the fee, but is liable to dismissal from His Majesty's Service for the exercise of such legal right.

6. The British Medical Association is unaware of any analogous position affecting Medical Officers in other branches of His Majesty's Service, and would especially point out that Officers of the Royal Army Medical Service are definitely permitted to accept fees from Coroners.

7. As between Medical Officers of the Navy and other medical practitioners, the question created is that, while it rests in the absolute discretion of any Coroner to direct either a Naval Officer, or any other medical practitioner in actual practice in or near the place where the death happened, to make a post mortem examination of the body of any deceased person, and to give evidence at an inquest, the Coroner is, in the case of the Naval Officer, practically relieved by the Order of the Admiralty from his statutory obligation to pay any fee for such assistance, but in the case of any other medical practitioner would be obliged to pay his fee.

8. The Association would, with all respect, represent the difficulty which is experienced in understanding upon what grounds of public policy it can be considered necessary thus to place the services of Officers of His Majesty's Navy gratuitously at the disposal of Coroners, and to interfere with the statutory rights of the medical profession generally.

9. The Association desires to press for the favourable consideration of this subject by their Lordships. Such consideration would be received with gratitude by Medical Officers of the Navy, and would remove what is undoubtedly looked upon by these Officers and by intending candidates for the Service as a distinct grievance.

APPENDIX XIV.

MEMORIAL TO THE SECRETARY OF STATE FOR HOME AFFAIRS ON THE AMENDMENT OF THE INDECENT ADVERTISEMENTS ACT.

(Forwarded 1913).

1. The British Medical Association desires to place before the Secretary of State for Home Affairs its views on a matter affecting the decencies of life and also public morality, namely, the increasing sale of checks to conception and drugs to procure abortion, due to their advertisement in newspapers and periodicals.

2. In November, 1905, the Association forwarded a Memorial to the then Home Secretary, stating its views on this subject, and urging certain amendments of the Indecent Advertisements Act of 1889, which should bring within its scope advertisements of an indecent nature that appear in the public press. The London Council for the Promotion of Public Morality made similar representations about the same time, but the Home Secretary did not see his way to take action.

3. In 1908 the Select Committee of both Houses of Parliament on Lotteries and Indecent Advertisements made certain recommendations, of which the British Medical Association would specially endorse the following:—

> That the advertisement and sale of drugs or articles which might reasonably be considered as designed for promoting miscarriage or for procuring abortion be made illegal. (Paragraph 44 of Report of Select Committee.)
>
> That it be made illegal to advertise drugs or articles designed for prevention of conception. (Paragraph 44 of Report.)

4. The Association notes with regret that no action has been taken by the Government to give effect to the recommendations of the Select Committee, and is of opinion that the evils indicated in the above-mentioned recommendations show no signs of abatement.

5. It is submitted with great respect that the claims of public health, as well as those of public decency, demand that

early steps should be taken, either by amendment of the Indecent Advertisement Act or in some other way, to give effect to these recommendations, care being taken to protect the undoubted legal rights of medical practitioners and pharmacists acting *bona fide* in the ordinary course of their profession or business, as recommended in paragraph 45 of the Report of the Select Committee on Lotteries and Indecent Advertisements (1908).

APPENDIX XV.

MEMORANDUM ON THE QUESTION OF THE EMPLOYMENT OF MEDICAL STUDENTS BY MEDICAL PRACTITIONERS.

1. In October, 1911, the Medico-Political Committee considered a communication from a Member stating that he had made enquiries of the General Medical Council as to the conditions under which he could employ a *bona-fide* medical student. He stated that he was informed that such students could only be employed under the immediate personal supervision of a registered medical practitioner, and also that he had been advised to apply to the British Medical Association for further details. The Member gave particulars of the student who desired to become his pupil, and enquired generally for advice upon the matter. The Medico-Political Committee decided to refer the whole question of the employment of medical students by medical practitioners to the Parliamentary Sub-Committee for consideration and report.

2. The pronouncements of the General Medical Council on this matter, as published in the Minutes of that body, are as here set forth :—

(i.) November 29th, 1890 : It was moved by Dr. Atthill, and seconded by Sir Dyce Duckworth, and agreed :

"That the fifth year should be devoted to clinical work at one or more public hospitals or dispensaries, British or foreign, recognised by the medical authorities metioned in Schedule A of the Medical Act of 1858, provided that of this year six months may be passed as a pupil to a registered practitioner possessing such opportunities of imparting practical knowledge as shall be satisfactory to the medical authorities (1890 P. 195)."

(ii.) November 23rd, 1897.—Resolved : That the notice to be inserted as an advertisement in the Medical Journals be that set forth in the Appendix to the Executive Committee's Report :—

NOTICE.

EMPLOYMENT OF UNQUALIFIED PERSONS AS ASSISTANTS OR OTHERWISE.

Whereas it has from time to time been made to appear to the General Medical Council, that some registered medical practitioners have been in the habit of employing as Assistants in connection with the professional practice persons who are not duly qualified or registered under the Medical Acts, and have knowingly allowed such unqualified persons to attend or treat patients in respect of matters requiring professional discretion or skill ; and whereas, in the opinion of the Council, such a substitution of the services of an unqualified person for those of a registered medical practitioner is in its nature fraudulent and dangerous to the public health, the Council hereby gives notice that any registered medical practitioner, who is proved to have so employed an unqualified assistant, is liable to be judged as guilty of "infamous conduct in a professional respect," and to have his name erased from the Medical Register, under the 29th section of the Medical Act, 1858.

Further, in regard to the practice commonly known as "covering," the Council gives notice that any registered medical practitioner who, by his presence, countenance, advice, assistance, or co-operation, knowingly enables an unqualified or unregistered person (whether described as an assistant or otherwise) to attend or treat any patient, to procure or issue any medical certificate or certificate of death, or otherwise to engage in medical practice as if the said person were duly qualified and registered, is liable to be judged as guilty of "infamous conduct in a professional respect," and to have his name erased from the Medical Register under the said enactment.

But the foregoing notices do not apply so as to restrict the proper training and instruction of *bona fide* medical students as pupils, or the legitimate employment of dressers, midwives, dispensers, and surgery attendants under the immediate personal supervision of Registered Medical Practitioners.

(iii.) In 1904, the following question was put to the President of the General Medical Council :—

"To ask the President whether the Council has indicated what meaning is to be attached to the phrase 'the proper training and instruction of *bona fide* medical students as pupils,' occurring in the Notice regarding the employment of unqualified persons as assistants or otherwise, issued on November 24th, 1897."

The answer was as follows :—

"Should the question of the interpretation of the phrase '*bona fide* medical students as pupils' arise in a case of alleged covering, it would rest with the person accused to prove that the Assistant employed was in fact a '*bona-fide*' medical student undergoing training and instruction."

(iv.) On November 28th, 1906 : It was moved by Dr. Mackay, seconded by Dr. Norman Moore, and agreed :—

"That the reference to a period of pupilage should be erased from Section V."

This resolution was passed upon the Recommendation of the Education Committee of the General Medical Council, because enquiry showed that little or no advantage had been taken of the permission accorded to students to serve six months in the fifth year of their curriculum with a Registered Practitioner. Only two of the Licensing Authorities, the Royal Colleges of Edinburgh and Glasgow, embodied that permission in their regulations, and enquiries addressed to those bodies elicited the information that few or none of their students had availed themselves of such opportunity (1906, p. 144).

3. Enquiry has been made from the Registrar of the General Medical Council, who said he believed that the practice of a student serving six months with a registered practitioner was now practically unknown. He stated that any Licensing Body which accepted the certificate of a registered practitioner as part of the general curriculum would do so at its own risk.

4. The following points seem to require consideration :—

(a) *With regard to the student*, it seems quite clear that so far as the curriculum is concerned, any time spent as a pupil is lost. He may however think that the time spent might be profitable from the view of experience, and there would be no objection on the part of the General Medical Council to his acting as a pupil if he were under proper supervision.

(b) *With regard to the practitioner*, some practitioners might think it worth while either to undertake the training and instruction of a medical student for a consideration, or to employ him as a dresser, midwife, dispenser, or surgery attendant. In either case the responsibility for personal supervision would rest on the practitioner, and little assistance apparently need be expected from the General Medical Council in the way of defining the nature and scope of this personal supervision.

5. It is submitted that so far as his curriculum is concerned there is no value to the student in such employment, and that as there is undoubted risk to the practitioner of a charge of "covering," the advice of the Association when asked for in this connection should be to discourage the practice.

APPENDIX XVI.

EXTRACT FROM LETTER, FORWARDED TO A DIVISION SECRETARY, CONVEYING THE OPINION OF THE SOLICITOR OF THE ASSOCIATION (MR. HEMPSON) AS TO LIABILITY FOR COST OF MEDICAL CERTIFICATES AS TO WORKMEN'S FITNESS OR UNFITNESS TO WORK.

. . . . . .

It is noted that the question raised by your Division relates to cases in which local members of the profession are asked by

patients who have sustained injury for certificates under the Workmen's Compensation Act.

The procedure in these connections under that Act is laid down in Paragraphs 4 and 14 of the First Schedule to the Act.

Paragraph 4 provides that any workman who has given notice of an accident as founding a claim for compensation must, if so required by the Employer, submit himself for examination by a duly-qualified medical practitioner provided and paid by the Employer.

Paragraph 14 makes a similar provision as regards evidence required by the employer, of a workman's continued unfitness to work when such workman is in receipt of weekly payments by way of compensation under the Act.

It is, of course, possible that an employer instead of making arrangements direct with the doctor whom he (the employer) desires, in the words of the section of the Act, to "provide" and "pay," may, for reasons of convenience, utilise the workman as his agent for the purpose, and may even go so far as to leave it to the workman to go to any doctor of his, the workman's, selection. If the workman, in these circumstances, obtains a medical certificate, and if it can be clearly established that the workman is acting on behalf of the employer, under Section 4 or 14 of the First Schedule of the Workmen's Compensation Act, the employer would be liable to pay the fee of the doctor by whom such certificate was given. For the doctor, however, to be in a position to establish his claim upon the employer, he must be able to prove that the workman was in fact the authorised agent of the employer in applying for and obtaining the Certificate in question. In case of dispute this might possibly be established by the verbal statement of the workman, but it is much more satisfactory from the doctor's point of view that he should have documentary evidence. It is conceivable that a workman might go to the doctor and either through an honest mistake or with sinister intentions, represent that he had been authorised by his employer to consult him, when in fact such was not the case. To avoid such an issue arising, the best procedure would obviously be for some simple form of request from an employer to a doctor to be drawn up which the employer would sign and which the workman would bring to the doctor. Where a workman applied to a doctor for examination without such a form the doctor might point out to him that in the absence of written evidence of the employer's authority he must hold the workman liable to him for the payment of his fee.

Association Notices.

NOTICE OF FORMATION OF A NEW DIVISION.

New Wimbledon Division.

The following change has been made in accordance with the Regulations of the Association, and takes effect from the date of publication of this notice:

> That a new Division of the Association be formed, consisting of so much of the area of the existing Wandsworth Division as lies in the County of Surrey, the new Division to form part of the area of the Metropolitan Counties Branch, and that the area of the existing Wandsworth Division be modified accordingly.

BRANCH AND DIVISION MEETINGS TO BE HELD.

Birmingham Branch: Central Division.—The annual meeting of the Division will be held at the Medical Institute on Wednesday, May 15th, at 4 p.m., to elect officers for the ensuing year, and to transact other business.—W. Tracy Lydall and B. C. R. Aldren, Honorary Secretaries, Medical Institute, Birmingham.

Dorset and West Hants Branch.—The annual meeting of the Branch will be held at the Hotel Mont Dore, Bournemouth, on Wednesday, May 22nd.—Frank Fowler, Honorary Secretary, Bournemouth.

Dorset and West Hants Branch: Bournemouth Division. The annual meeting will be held on Wednesday, May 15th, at 4 p.m., at the Bournemouth Medical Society's Library, Old Christchurch Road. Business: (1) To approve the annual report and financial statement for 1911. (2) Election of officers for the coming year. (3) Any other business.—Eleanor C. Bond, Honorary Secretary, 106, Christchurch Road, Bournemouth.

Gloucestershire Branch.—The annual meeting of this Branch will be held at the Cheltenham Hospital on May 16th, at 6 p.m.—J. E. Finlay, Honorary Secretary.

Lancashire and Cheshire Branch.—A meeting of the Branch Council will be held at 4.30 p.m. on Wednesday, May 15th, at the Liverpool Medical Institution.—F. C. Larkin, Branch Secretary.

Lancashire and Cheshire Branch: Altrincham Division.—On Wednesday, May 22nd, a special meeting of the Altrincham Division will be held at the Lion and Railway Hotel, Northwich, at 4.45 p.m. Business: Alteration of rule. The general meeting will be held afterwards, at 5 p.m. A dinner will be held afterwards (if sufficient members give notice) at 7 p.m. Further particulars in future notice.—H. G. Cooper, Honorary Secretary, Foye, Altrincham.

Lancashire and Cheshire Branch: Warrington Division.—The annual meeting of this Division will be held at the Infirmary, Warrington, on Tuesday, May 14th, at 4 p.m. Agenda: Election of officers, committee, etc.—J. A. Murray, Honorary Secretary.

Metropolitan Counties Branch: Hampstead Division.—A meeting of this Division will be held on Friday, May 10th, at the Central Library, Finchley Road, when Dr. Price will read a paper on "Recent Advances in Heart Disease."—E. Arthur Dorrell, Assistant Honorary Secretary, 7, Cannon Hill, West Hampstead, N.W.

Metropolitan Counties Branch: Marylebone Division.—The annual meeting of this Division will be held at the rooms of the Medical Society of London, 11, Chandos Street, W., on Wednesday, May 15th, 1912, at 5 o'clock p.m. Agenda: (1) Minutes (British Medical Journal Supplement, May 4th). (2) Questions. (3) Letters. (4) To receive the annual report of the Executive Committee, which is to the following effect:

The year 1911-12 has witnessed exceptional activity in the Division; the number of meetings of the Executive Committee, Divisional meetings, and the attendance at these meetings has far exceeded those of any previous year. The Executive Committee has met twelve times. Of Divisional meetings there have been seven general, one special, and one annual. One meeting of the practitioners of the borough has been held. A great part of this activity has been due to work in connexion with the campaign in support of the policy of the Association in regard to the National Insurance Act. Previous to the introduction of the bill opportunity was afforded for the discussion of the general principles of sick insurance by two debates opened by members of Parliament. Each of these was well attended. In furtherance of the campaign of the Association a postal canvass was made in the Division of those practitioners who had not signed the declaration or not subscribed to the defence fund. This task was undertaken by the treasurer, Dr. Comyns Berkeley. Much labour fell to the Executive Committee in the revision of the Draft Ethical Rules. Majority and minority reports were presented to the Division, but they were not accepted, and no further action has been taken. A special committee has been appointed to advise on the relation of hospital medical officers to the Insurance Act; the committee presented a report and recommendations, but these were referred back for further consideration. In consonance with the policy of the Association a meeting of the registered medical practitioners of the borough has been called for the formation of a local Provisional Medical Committee, a committee has been elected, and rules for their guidance passed. Amendments of the Divisional Rules have been made in consequence of the alterations of the by-laws of the Association. Under the new by-law the Division will have a largely increased representation, both on the Representative Body and the Branch Council; and it is hoped that this addition to the working officers of the Division will be fully realized, so that the weight of the Division may be felt in the counsels of the Association. The membership of the Division is now 666, as against 637 this time last year. There are 384 non-members in the Division. The exceptional work of the Division has entailed a correspondingly heavy expenditure. For the financial year ending December, 1911, the expenditure amounted to £45 19s. 5d., as against £25 10s. 1d. in 1910. This sum does not include the cost of the postal canvass, which was met by the Central Office.—(Signed) F. Eve, Chairman, April 29th, 1912.

(5) To elect officers of the Division for the ensuing year. (Nominated by officers or members bracketed after the name.) Chairman: Mr. Atwood Thorne (Executive Committee). Vice-Chairman: Mr. Bishop Harman (Executive Committee). Treasurer: Dr. Comyns Berkeley (Executive Committee). Honorary Secretary: Dr. F. W. Goodbody (Leslie Paton, F. J. Smith). Representatives on Branch Council: Chairman and Vice-Chairman (Executive Committee.) Dr. Percy Spurgin (Executive Committee). Sir Frederic S. Eve (F. W. Goodbody, Gordon Holmes). Dr. F. J. Smith (G. C. Cathcart, Eric Pritchard). Dr. Gordon Holmes (F. J. McCann, Purves Stewart). Dr. Eric Pritchard (G. C. Cathcart, C. W. Wirgman). Dr. F. W. Goodbody (T. B. Hyslop, R. W. Doyne). Mr. Douglas Drew (Gordon Holmes, F. W. Goodbody). (6) Proposed nominations for Branch Council. Vice-Presidents: Dr. G. A. Heron (Executive Committee). Dr. C. O. Hawthorne (Executive Committee). Treasurer: Dr. Lauriston Shaw (Executive Committee). (7) Proposed nominations for the Central Council: Dr. F. J. Smith (John Tweedy,

Frederic S. Eve). Dr. M. G. Biggs of Wandsworth (John Tweedy, Gordon Holmes). Dr. M. Greenwood of Hackney (W. Warren Low, John Matthews). Dr. P. J. S. Nicholl of Stratford (Jas. Galloway, J. Mitchell Bruce). Dr. E. W. Lowry of Kew (C. W. Wirgman, Maynard Smith). (8) It is anticipated that a new pledge for the profession may be sent down from the Central Office in time for discussion at this meeting.—N. BISHOP HARMAN, Honorary Secretary, 108, Harley Street, W.

MIDLAND BRANCH: LEICESTER AND RUTLAND DIVISION.—The annual meeting of this Division will be held on Wednesday, May 15th, at 4 p.m., at the Leicester Infirmary. Agenda: Minutes of the previous meeting. Nomination of President of the Branch. Election of Representatives of the Division on the Branch Council, and of Chairman, officers, and members of the Executive Committee of the Division. Annual report of the Executive Committee. Discussion of matters referred to the Divisions. Nomination of Representative on the Council of the Association. Proposed alteration in By-law 39 (3)—For "according to the Annual List then in force" read "according to the list of members on the first day of the month preceding that on which the vote is taken." Any other business.—R. WALLACE HENRY, Honorary Secretary.

MIDLAND BRANCH: LINCOLN DIVISION.—The annual meeting will be held in the Guildhall, Lincoln, on Thursday, May 23rd, at 3 p.m. Agenda: (*a*) Election of a Vice-President of the Midland Branch and Divisional officers. (*b*) Presentation of the annual report of the Executive Committee. (*c*) Any other business.—J. S. CHATER, Honorary Secretary.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH: FURNESS DIVISION.—The annual meeting of the Division will be held on Friday, May 31st, at 3.15 p.m., in the Masonic Hall, Barrow. Business: Annual Report. Election of office-bearers. Insurance Act to date. Any other business.—JOHN LIVINGSTON, Honorary Secretary.

NORTH WALES BRANCH.—A meeting of the Branch will be held at the Imperial Hotel, Wrexham, on Wednesday, May 15th, at 2.15 p.m. Luncheon 1.15 p.m.—H. JONES ROBERTS, Honorary Secretary.

SOUTH-EASTERN BRANCH: DARTFORD DIVISION.—The annual meeting of this Division will be held on Wednesday, May 15th, at 3 p.m., at the Bull Hotel, Dartford. All medical men are cordially invited to attend. Agenda: (1) Minutes of last meeting. (2) Matters arising therefrom. (3) Correspondence. (4) Annual report of Executive. (5) Election of officers and Executive. (6) Alteration of rules. (7) Discussion on present position of affairs and future policy, to be opened by Dr. Lauriston Shaw, Chairman of the Central Ethical Committee. (8) Any other business.—H. CHISHOLM WILL, Honorary Secretary, Oak Tree Lodge, Sidcup.

STAFFORDSHIRE BRANCH: SOUTH STAFFORDSHIRE DIVISION.—A special meeting of the Division will be held at the Star and Garter Hotel, Wolverhampton, on May 20th. Supper, 2s. 6d. each, at 7.45. Meeting at 8.30. Business: To consider the following alterations in the rules of the Division: (1) That Rule 4 be amended to read as follows: "The management of the affairs of the Division shall be vested in an Executive Committee, which shall consist of the officers named in Rule 5, together with the members of the Branch Council elected by the Division, the Representative of the Division in Representative Meetings of the Association and six other members elected in the manner prescribed in Rule 9, with the President-elect, President, or immediate Past-President of the Branch, whichever is a member of the Division, *ex officio*. (2) That in Rule 9 the word "six" be inserted for "three." (3) Rule 10. That the quorum of the Executive shall be four. (4) Rule 11. That seven days be substituted for ten days in line 2. That after the words "A meeting called the annual meeting of the Division shall be held in the month of May in each year, not less than" "seven days" be substituted for "four weeks."

The annual meeting of the Division will be held on the same date immediately after the special meeting. Business: (1) Election of officers, except Representative in Representative Meetings. (Members are requested to bring the list of nominations to the meeting with them.) (2) Provisional Local Medical Committee for Staffordshire and for Wolverhampton. Those who intend to be present at the supper are requested to be good enough to send an information to that effect on or before Thursday, May 16th, to Mr. H. C. MACTIER, Honorary Secretary, 33, Tettenhall Road, Wolverhampton.

[*Owing to the great pressure on the space of the* SUPPLEMENT *caused by the publication of the Annual Report of Council, reports of Branch and Division meetings and some correspondence have unavoidably been held over.*]

NATIONAL INSURANCE.

PROVISIONAL MEDICAL COMMITTEES.

Hampstead.

THE initial meeting of the Hampstead Provisional Medical Committee was held on Friday, May 3rd, at 8.30 p.m., at the Hampstead Conservatoire, fourteen members being present. Dr. OPPENHEIMER proposed, and Dr. PICARD seconded:

That Dr. Oakley take the chair *pro tem.*

This was carried.

Confirmation of Minutes.—The minutes of the meeting of the profession on April 19th, appointing the Committee, were read and confirmed.

Election of Officers.—Dr. OPPENHEIMER proposed, and Dr. ARCHER seconded:

That Dr. Ford Anderson be elected Chairman of the Committee, subject to his consent to act.

A letter from Dr. Ford Anderson was read, suggesting that the Chairman of the Division be the Chairman. After discussion the resolution was put and carried *nemine contradicente.*

Dr. OPPENHEIMER then proposed, and it was seconded by Dr. ARCHER:

That Dr. Oakley be elected Vice-Chairman.

This was carried unanimously.

Dr. OAKLEY proposed, and Dr. PRITCHARD seconded:

That Mr. Dorrell be Honorary Secretary to the Committee.

After discussion this was carried *nemine contradicente.* It was suggested by Dr. OPPENHEIMER and agreed to that when correspondence passed between the Hampstead Division and the Provisional Medical Committee, all communications be addressed to the Chairman in each case.

Letter from Wandsworth Division.—A letter from the Wandsworth Division, forwarding a copy of two resolutions relating to the co-ordination of the Provisional Committees in the London area. It was reserved for discussion later when dealing with Memorandum D46.

References from Central Office.—The references from the Central Office of the British Medical Association, D46, D47, D48, D49, were read and discussed.

Arising out of D49, it was suggested that a circular letter be printed, worded carefully to explain clearly the objects of the pledge therein contained, and its manner of use, and that the letter be signed with the names of all the members of the Committee.

Arising out of Para. 11 (3) D46, the indiscriminate use of the Central Defence Fund for campaign purposes was discussed, and the usefulness of a local fund. Certain members pointed out their willingness to subscribe to a local defence fund and their hesitation to support a central defence fund. There being a doubt as to the existence of a local fund, certain members having intimated their desire in the first instance that their subscription should be used locally, the Honorary Secretary was instructed to write to the Honorary Secretary of the Hampstead Division and inquire whether such a fund exists.

Dr. OPPENHEIMER proposed and was seconded by Dr. JESSOP:

That this Committee intimate to the Central Council of the Association the advisability of dividing the Central Defence Fund into an indemnity fund and a campaign fund.

This was agreed to *nemine contradicente.*

Arising out of Para. 10, D46, the Committee decided to accept the canvass that has been carried out by the Division.

Arising out of D46, Para. 13, Dr. HILLS moved:

That the Committee accept offers from its members to hold its meetings at their houses, as far as convenient, in order as far as possible to minimize expenses.

This was seconded by Dr. OPPENHEIMER and carried *nemine contradicente.*

The CHAIRMAN moved:

That the Honorary Secretary be empowered to obtain paid secretarial assistance.

This was carried *nemine contradicente.*

Arising out of D46, Para. 14, Dr. OPPENHEIMER proposed:

That the resolutions of the Wandsworth Division *re* co-ordination be approved, namely:

1. That the co-ordinating body for this Provisional Committee and the other Provisional Committees in the London area shall consist of two members elected by each provisional local committee which shall be formed in that area.
2. That the Committee shall keep the State Sickness Insurance Committee fully informed as to its course of action and the results obtained.

This was seconded by Dr. CLAUDE TAYLOR and carried *nemine contradicente*. And also:

That the Chairman and Honorary Secretary be the two representatives on this co-ordinating committee for Hampstead.

Carried *nemine contradicente*.

It was proposed by Dr. OPPENHEIMER and seconded by Dr. JESSOP:

That a subcommittee be appointed to formulate technical rules for the guidance of the Committee, and report thereon at the next meeting, the subcommittee to be composed of the Chairman, Vice-Chairman, and Honorary Secretary.

This was carried *nemine contradicente;* and it was proposed by Mr. DORRELL and seconded by Dr. OAKLEY:

That the subcommittee draft the circular letter the Committee propose to issue with the form of pledge, and present it for confirmation of the Committee at the next meeting.

Carried *nemine contradicente*.

It was resolved that the minutes of the meetings shall be sent for publication in the BRITISH MEDICAL JOURNAL.

Next Meeting.—It was resolved that the next meeting shall be held on Wednesday, May 22nd, at 8.30 p.m. at 19, Hollycroft Avenue.

Dr. F. W. Rix was co-opted to serve on the Committee.

Lewisham.

A meeting was held on Thursday, May 2nd, at the Co-operative Hall, Catford, when it was decided to adopt the Form of Pledge and Form of Resignation issued by the British Medical Association, and a personal canvass for signatures of those actually practising in the borough was undertaken.

Wandsworth.

The following were elected (postal vote) as members of the Provisional Medical Committee for the Wandsworth area:—Balham: W. E. S. Cobb, Reginald Thorpe, Edwin Smith, Richard Twigg. Battersea: L. C. Bean, M. G. Biggs, A. P. Hills, C. J. Martin. Clapham: J. J. McWhirter Dunbar, J. Kennish, H. McD. Parrott, G. D. Wilson. Putney: T. A. I. Howell, H. D. Lauchlan, A. Nobbs, Alex. Wilson. Wandsworth: R. Carswell, R. F. Chance, W. D. McMurtry, George Scott. Tooting: J. A. Featherstone, H. C. Ferguson, W. P. H. Hardwicke, J. Knox. Wimbledon: Frank Deas, D. R. Powell Evans, E. A. Purcell, J. Crossle Scott. From the area generally: R. A. Barkwell, R. J. Duthie, H. B. B. Greene, H. H. Ruffman, C. Thomas, S. Verdon-Roe, Herbert Wilkins.

Coventry Area.

The first meeting of the Provisional Medical Committee was held at the hospital on May 2nd. There were present: Drs. J. Orton, Hawley, Lowman, Hadley, Snell, Annand, Pickup, Worsley, Phillips, and Ballantyne.

A letter from Dr. Growse, of Kenilworth, was read, accepting nomination as a member of the Committee.

It was proposed by Dr. SNELL and seconded by Mr. BALLANTYNE that Dr. J. Orton be Chairman of the Committee. This was carried.

It was proposed by Dr. PHILLIPS and seconded by Dr. ORTON that Mr. Ballantyne be Secretary. This was carried.

A resolution was proposed by the CHAIRMAN, seconded by Dr. LOWMAN, and carried that the Secretary be instructed to circularize all the medical men in the area (with the exception of the staff of the Provident Dispensary), and to ask for a reply to the following queries within seven days, namely:

1. Names of all clubs or friendly society appointments held by you?
2. Will you state the terms as to notice upon which such appointments are held?
3. Are you willing to sign the enclosed pledge and to hand in forms of resignation of such clubs or societies to the Provisional Medical Committe to be used by them as the State Sickness Insurance Committee may direct, and on the condition that all the other members of the local Division of the British Medical Association give a similar undertaking?

It was proposed by Dr. HAWLEY and seconded by the CHAIRMAN:

That this committee recognize the Birmingham Branch as the co-ordinating body for this district, and that the Branch Secretary be notified to that effect.

It was arranged to hold the next meeting at Dr. Lowman's house on Tuesday, May 14th, at 4.15.

MEETINGS TO BE HELD.

BOROUGH OF HAMPSTEAD.—The next meeting of the Provisional Medical Committee will be held on Wednesday, May 22nd, at 8.30 p.m., at 19, Hollycroft Avenue, Hampstead.—E. ARTHUR DORRELL, Honorary Secretary, 7, Cannon Hill, West Hampstead, N.W.

NATIONAL HEALTH INSURANCE.

REGULATIONS AS TO BEHAVIOUR DURING DISEASE OR DISABLEMENT.

THE Insurance Commissioners (England) have issued the following draft Regulations, dated May 3rd, as to behaviour during disease or disablement:

The Insurance Commissioners (England) constituted under Part I of the National Insurance Act, 1911 (hereinafter called the Act), hereby, in pursuance of the powers conferred on them by the Act, and of all other powers enabling them in that behalf, make the following Regulations:

1. These Regulations may be cited as the National Health Insurance (Behaviour during Disease) Regulations (England), 1912.

2. The Interpretation Act, 1889, applies to the interpretation of these Regulations in like manner as it applies to the interpretation of an Act of Parliament.

3. Every rule of an approved society with regard to the behaviour during disease or disablement of a member entitled to benefit under the Act shall be in the form set out in the Schedule to these Regulations.

THE SCHEDULE.

A member in receipt of sickness or disablement benefit:

(*a*) Shall obey the instructions of the doctor attending him;

(*b*) Shall not be absent from home between the hours of [1] and shall not be absent at any time without leaving word where he may be found, provided that the [2] may, if they think fit, exempt the member from the operation of this rule upon such conditions as they may impose;

(*c*) Shall not leave the [3] where he resides without the consent of [4];

(*d*) Shall not be guilty of conduct which is likely to retard his recovery;

([5])

[1] Insert such hours of the evening and morning as may be desired. Different hours may be inserted for summer and winter.
[2] Insert the desired authority—for example, Committee of Management.
[3] Insert the place, town, or other desired area.
[4] Insert the desired authority.
[5] Add any further instructions desired by the Society.

SCOTTISH COMMISSIONERS.

CIRCULAR LETTER TO COUNTY COUNCILS.

THE Scottish Insurance Commissioners have addressed a circular letter to county councils in Scotland directing attention to the provisions of the National Insurance Act, pointing out that, except in so far as otherwise expressly provided, the Act comes into operation on July 15th next.

An outline of the main provisions of Part I of the Act in its relation to county councils in Scotland is given.

Insurance Committees.—It is pointed out that there will shortly be constituted an Insurance Committee for (*a*) each county in Scotland and (*b*) each burgh containing a population of 20,000 or upwards, and that the county council will appoint a quota of the members of the Insurance Committee for the county. It is further pointed out that in preparing a scheme for district Insurance Committees the Insurance Committee of the county must consult with the county council and consider any representation made. Attention is called to the provisions which require an appointment of a district Insurance Committee for each burgh with less than 20,000

inhabitants and give power to group any adjoining areas for this purpose with any such burgh.

County Societies. — The county council has power within a year from the commencement of the Act—that is, before July 15th, 1913—to submit a scheme to the Scottish Commissioners for the establishment under the council of an approved society for the county, and reference is made to the conditions (Section 80 (10) (*b*)) which any such society must fulfil.

Sanatoriums.—With regard to Section 64 of the Act, which confers upon county councils powers, in addition to those they already possess, as regards the provision of sanatoriums for the treatment of tuberculosis, it is pointed out that the expenses, so far as not defrayed by the grant in aid, are to be met out of the general purposes rate or out of a rate for special county purposes charged on such part of the county as may be prescribed.

Excess Expenditure of Insurance Committees. — The manner in which excess expenditure of insurance committees on medical or on sanatorium benefit is to be met is set out by references to various sections of the Act, and it is further pointed out that under Section 61 (3) any local authority, including a county council, may lawfully subscribe such sums as it may think fit towards the general purposes of the Insurance Committee.

Excessive Sickness.—The procedure to be followed when it is alleged by the Insurance Commissioners or any approved society or Insurance Committee that there is excessive sickness in the locality are enumerated (Section 63).

Reports.—The Insurance Commissioners undertake to furnish the county council with copies of such reports on the health of insured persons in its area statistically or other returns and suggestions as may be submitted to the Commissioners by the Insurance Committee, including such reports and returns as will enable an analysis and classification to be made of the persons who are deposit contributors (Sec. 60 (1) (*a*)).

LEICESTERSHIRE AND RUTLAND PUBLIC MEDICAL SERVICE.

As a result of the nominations received the committee has appointed the following office-bearers, subject to the approval of the next general meeting: President, Dr. R. Wallace Henry; Vice-President, Dr. J. B. Pike; Treasurer, Dr. Frank M. Pope; Secretary, Dr. T. Arnold Johnston.

CORRESPONDENCE.

[*It is particularly requested that communications intended for publication should be written on one side of the paper only, and should be addressed to the Editor*, BRITISH MEDICAL JOURNAL, *429, Strand, London, W.C.*]

A PLEA FOR UNITY.

DR. JAMES RATCLIFF-GAYLARD (Birkenhead) writes: It is of paramount importance that at this critical period in our fight for professional liberty and independence we should all—whether members of the British Medical Association or not—clearly and unmistakably recognize two plain facts:

(1) That the policy of, and machinery already set in motion by, the British Medical Association must inevitably result in victory for the profession, *if the profession is solidly and wholly united.*

(2) That even if negotiations fail to secure from the Insurance Commissioners and Committees the formulated demands of the profession, victory is still assured—by means of the simultaneous resignation of all club work held at a less fee than that declared by the Representative Body to be the minimum for attendance upon insured persons—*if the profession is solidly and wholly united.*

Our future welfare rests entirely upon our unity. Disaster can only result from internal dissension and imperfect union. If we have courage and sense enough to sink our own individual predilections and ideas of how things ought to be done, in order to fall in with the carefully thought-out policy of the Association—which after all is our own policy as directed by the majority votes of our own representatives—we shall prevent defeat in detail, and present an unbroken and impenetrable front.

If, however, because some of us do not quite agree with the tactics of our leaders—tactics which must, if we are united, ensure victory for us; or because, from not having taken the trouble thoroughly to master the points of the matters at issue, we are not in a position properly to understand them in all their bearings; if from either of these or like causes we refuse whole-hearted allegiance to the British Medical Association, and break up into detachments, we are most certainly doomed to defeat; and we shall deserve it.

There are thousands of us who regard the provisions of the National Insurance Act which affect the medical profession, with bitter dislike. We cannot, however, annul the Act. It will come into operation whether we like or dislike it. It will either provide medical benefits directly and under the regulations of the Commissioners, or indirectly and not under the regulations of the Commissioners, by giving to the insured persons, or the approved societies, a sum of money equal to the medical benefits; and leaving them to make their own arrangements for medical attendance. The Act will therefore, in any case, provide medical benefits directly or indirectly. In the latter case the profession will be infinitely worse off than in the former, inasmuch as it will be without the benefit of the safeguards of the Act, and without any help from the Commissioners in its fight with the united friendly societies with their vastly increased number of members.

Recognizing the Act, or refusing to do so, we have got to fight. There is no getting away from this fact, and victory in either case can only result from the absolute unity of the profession. Recognition or non-recognition, if we are united we shall win; but with this difference: Recognizing the Act, and negotiating with dignity, firmness, and moderation as a united profession, we are assured of the existing sympathy of the press and country at large, and success however achieved, whether by negotiation or simultaneous resignation, will bring with it no bitterness. Non-recognition and refusal to negotiate, the throwing down of the gauntlet and the taking up of a more or less impossible position, will alienate public sympathy, and leave us either the legacy of a bitter and interminable struggle with our enemies, or a victory tinged with hatred, malice, and all uncharitableness.

As a matter of policy, there ought to be at this juncture no question of difference of opinion amongst us, and there must be no question of disunion now or henceforward. We must go on closing up our ranks and keeping them steady and impenetrable; and, above all, there must be no formation of detachments, or even of another army. This latter danger is one with which we have, unfortunately, still to reckon. The National Medical Union has done useful work in stimulating the profession to a recognition of its dangers, and in stiffening the backbone of the profession. Its real work and usefulness as an organization is accomplished, and its members should now and at once fall into their places in the ranks of the much greater and more powerful army of the British Medical Association. We cannot afford from the point of view of policy and unity to have two armies, each with different tactics and acknowledging different councils of war. The future fight can only be won by cohesion and united action, and the National Medical Union can do no greater service to the profession as a whole than by doing that which the Samurai of Japan once did in order to secure national unity and victory—namely, effacing themselves as a separate body, and taking their places beneath the British Medical Association banner for the general good of the profession and for the security of victory.

A MEDICAL BENEFIT SCHEME.

DR. EDWARD A. CLARKE, Representative, Ashton-under-Lyne and Glossop Divisions, British Medical Association (Dukinfield), writes: The Chancellor's latest statement in the House of Commons gives to the medical profession in Lancashire a somewhat brighter "outlook" than before. Contract practice with us is the exception and not the rule, and we who have been working amongst the working classes for twenty years and upwards, and have done so without the aid of any "club," begin to feel more comfortable. But the third and fourth suggestions made by the Chancellor in his speech strike horror in our hearts. To be ground under the heel of an "approved society" making

its own arrangements does not appeal to the independent spirit of a Lancashire man. What we want and what we ask for is to be left alone, but I suppose that the "great ideals" which form part of the scheme of the "progress of civilization" must of necessity clash with individualism, and, like Canute, we are unable to tell "the tide of progress" to stand back at our bidding.

Under these circumstances I would suggest to the notice of the British Medical Association, the Chancellor, and others that the present system of payments amongst the working classes of Lancashire should be utilized as a basis for the formation of a *National Medical Service.*

To-day every working man and woman in Lancashire and Cheshire has a choice of any doctor living in their neighbourhood, and can obtain his services on the payment of weekly instalments varying from 6d. upwards. Every doctor employs one or more collectors (part-time men) to go round on Fridays and Saturdays to collect the instalments, and pays the collector from 10 to 12½ per cent. on his takings. The workpeople are used to the system, and the doctor finds it profitable to himself. This system, now worked by every general practitioner in Lancashire and Cheshire, could easily be worked by the State and the money collected put into a general fund earmarked "Medical Attendance," and the doctors paid from this fund for work done.

Take as example a working-class town of 20,000 inhabitants, living on an average of 4.5 to the house, giving about 4,500 houses.

If a tax of 6d. a week, or 26s. a year, were levied upon every house, the gross amount collected would be

4,500 × £1 6s., or £5,900 per year.

Say five doctors lived in that town, this would enable each doctor to draw £1,000 per year from the scheme for work done.

How could the Scheme be Worked?—The simplicity of the working is to my mind its beauty.

In every area of the British Medical Association Division a central office would be started, under the control of the Medical Insurance Committee and the district Insurance Committee; this, of course, under the county, the county being again under the Central Insurance Commissioners, as under the Insurance Act, 1911.

This area office would be under the management of a head clerk, at a fixed salary, whose duty it would be to appoint and supervise collectors (part-time men), to go out weekly and collect from every house the sum fixed upon that house as premium; these collectors would receive 10 per cent. commission on their drawings. The money thus collected after payment of officers' expenses would be utilized for the payment of the doctors' bills.

Every man, woman, or child residing in a house on which the premium was paid would be entitled to free choice of doctor and medical attendance with medicine.

Every doctor in the area who chooses to avail himself of the scheme would be allowed to do so.

A *tariff of fees* would be fixed by the Medical Committee of the area.

The control of the financial part of the scheme could be under the Insurance Commissioners, the control of the medical part of the scheme under a special board appointed by the British Medical Association.

Every doctor willing to work under the scheme would be supplied with a weekly sheet similar to that used by the Poor Law doctors, on which he would enter the name, address, diagnosis, complications (if any), number of visits made, and medicine supplied during the week. He would deliver this sheet to the central office every Monday morning, leaving it there for a week to be checked, and on the following Monday receive the amount of fees due to him.

Every medical man in the British Medical Association Division would be expected to work on rota for one month as a committee to check the weekly sheets, to see that malingerers were not wandering from doctor to doctor, to note diagnosis, etc., to make statistics as to the type of sickness prevalent in areas, towns, streets, houses, etc., and generally to use the knowledge available for public health benefit. A fixed fee might be settled for this work.

Three men to form committee. Each man to serve one month, one to retire each week, so that the same three men would only work together for one week.

Consultations with specialists, operations, etc., would have, as they are at the present time, to be paid for in cash by the person who receives the benefit.

Any medical man desirous of having higher fees than those fixed by the Medical Committee would be quite at liberty to demand them, not however from the scheme but from the patients themselves, either in cash or on any terms he cared to make between himself and his patient.

The scheme need not in any way interfere with the Insurance Act, 1911. The insured person could be refunded his 6s. a year, and if he was living in a house on which a premium was paid he would be entitled to free choice of doctor and medical attendance, and would avail himself of this or otherwise as he pleased.

The trouble of the income limit would be done away with. Dr. Addison in his speech tells us this is an impossibility. Under my scheme the rental of the house would fix the amount of premium, and as a man's rental is a practical judge of his income, the higher the rental the higher the premium, and if thought advisable the medical attendant's fee.

No bad debts would any longer trouble the medical man. He would be paid weekly for work done, and the Medical Committee in his area would be enabled to judge when that work was done scientifically and skilfully. Every man would be asked for a diagnosis.

The malingerer would not be able to change his doctor so as to get his certificate signed when the conscientious medico refused, as his name would appear every time before the Medical Committee and every week until he was cured and back again at work.

I trust that I have made the principles upon which my scheme is based clear.

A Public Medical Service.

Mr. Hubert Phillips, M.A., M.B., B.Ch.Oxon., writes: As partner in a large mixed works and private practice in a district where contract practice is *de rigueur*, and in its most appalling phases, I would humbly offer a few suggestions in the hope of being of service to my profession at the present crisis:

1. That there should be frequent meetings of the doctors in every part of a district.

2. An objection which many doctors raise to the Public Medical Service is that the money would not be obtained easily from those who now pay in the works by deduction from wages. The money could still be kept back and handed over monthly to the collectors of the service.

3. In order to bring recalcitrant doctors into line it would be possible to bring in a rule into cottage hospitals that no one who was not either an honorary or an acting member of the service could become a member of the staff thereof.

4. We want leaders—strong leaders, all great movements do—and I feel confident that with a leader in each district the scheme would be universally adopted. A doctor who has the arguments *pro* and *con* the service at his finger-tips should not hesitate to influence his harassed brethren who have not the time to be conversant with them. But there seems to be a curious hesitancy to take a lead in medicine.

5. Another difficulty is that of making known in a short time our proposals.

I suggest that when we have decided to adopt the Public Medical Service we should avail ourselves of two methods:

(*a*) A full explanation in the lay local press.

(*b*) Permission should be given to chosen practitioners in each district to address a public meeting of workmen's leaders and prominent officials and employers—tactfully, kindly, and sympathetically expounding its principles and inviting co-operation. I feel certain that in this district we should be enthusiastically met and the venture would prove entirely successful. I, for one, would willingly offer my services and would gladly address such a meeting or meetings.

This is a time above all others which calls for immediate, decided, and united action; we stand to lose all we hold sacred in the traditions of the past, or we stand, like Latimer, to light such a candle as shall never be blown out.

The vista opened out by the Public Medical Service has united the medical men of this district, whereas a few months ago every doctor looked upon every other one as a heathen man and a publican.

Club Practice and the Younger Generation.

Dr. R. J. Farman (Kennington, S.E.) writes: The fear having been expressed by some medical officers to clubs that in the event of their resignations being sent in to their societies other men, not so scrupulous, would be able, by engaging a number of assistants, to "run" the Act, I desire to suggest a means by which all of us can assist in defeating such a move. Most of us will be taking our holidays in the next few months, and I propose that before engaging any locumtenents each practitioner should obtain an assurance that the locumtenent has signed the British Medical Association's pledge. By this means we should capture the younger men and the "loose ends."

Agents should be asked to obtain signatures to the pledge, wherever possible, in the same way that the

reputable ones now see that assistants, etc., are members of a defence union.

Hospital Abuse and the Insurance Scheme.

Dr. Dudley W. Boswell (Lowestoft) writes: Is this not the time to once and for all abolish hospital abuse and the sweating of the honorary staffs? Medical men have always gladly spent a large portion of their lives in hospital work, alleviating human suffering, and at the same time making a hard-earned living by private practice.

Mr. Lloyd George now threatens to destroy entirely, in many cases, the private work of practitioners. Endless meetings and discussions *re* the Insurance Bill have been held. Innumerable resolutions have been passed. The outcome of it all is that the Government merely acknowledges the Council's letter and remains silent whilst the day of the Act's coming into force rapidly approaches. Probably there will be plenty of unskilled men willing to accept the terms offered, and they will safely bluff through the private practice, but never could the hospital honorary staffs be replaced by other sound men, which are absolutely necessary for the successful working of any hospital. Therefore if the men on the staffs refuse to take in patients who come under the Insurance Act, unless they are adequately paid, the Act must fail.

It is time medical men became business-like. Why should medicine be the only philanthropic profession? Who ever heard of a lawyer taking up a cruelty case without a fee or a parson taking a curacy without a salary? Nor does a baker give bread to the starving poor without being paid. The result is these people prosper whilst the medical profession is sweated and then kicked for its philanthropic and unbusiness-like methods.

The greater portion of the British public will certainly never pay for anything it can get for nothing; hence they go to the hospital for their physic and save their money to go in swarms to Cinemas and other places of amusement at night.

Let us hope we shall soon see the full surgeon to any big hospital receiving £1,000 a year for his work, which he must certainly get if the honorary staffs unite and demand it.

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon for two or three months. Salary, £4 4s. per week.

BIRMINGHAM GENERAL HOSPITAL.—(1) House-Physician; (2) House-Surgeon to Special Departments; (3) Resident Pathologist; (4) two House-Surgeons. Salary for (1), (2), and (3) at the rate of £50 per annum, and for (4) £40 per annum for first three months, rising to £50 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Third House-Surgeon. Salary, £75 per annum.

BIRMINGHAM UNION INFIRMARY.—Resident Medical Officer. Salary, £104 per annum.

BRIGHTON, HOVE, AND PRESTON DISPENSARY.—Resident Medical Officer. Salary, £160 per annum.

BRISTOL ROYAL HOSPITAL FOR SICK CHILDREN AND WOMEN.—Junior Resident Officer to act as House-Surgeon. Salary, £80 per annum.

BRITISH LYING-IN HOSPITAL, Endell Street, W.C.—Resident Medical Officer. Salary at the rate of £50 per annum.

BROMPTON HOSPITAL SANATORIUM, Frimley.—Assistant Resident Medical Officer. Salary, £150 per annum, rising to £200.

BUCKS COUNTY LUNATIC ASYLUM, Stone.—Assistant Medical Officer. Salary, £185 per annum.

BURY INFIRMARY.—(1) Senior House-Surgeon; salary, £100 per annum. (2) Junior House-Surgeon; salary, £80 per annum, rising to £90 after the first six months.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—Resident Medical Officer. Salary, £90 per annum.

DORCHESTER: COUNTY ASYLUM.—Junior Assistant Medical Officer. Salary, £160 per annum.

DUNDEE DISTRICT ASYLUM.—(1) Senior Resident Medical Officer. (2) Junior Resident Medical Officer. Salary, £150 and £120 per annum respectively, rising to £200 and £150.

EDINBURGH HOSPITAL FOR WOMEN AND CHILDREN.—Medical Woman to act as Junior Resident. Honorarium, £12.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway Road, N.—(1) Physician to Out-patients. (2) House-Surgeon, with salary at the rate of £40 per annum.

HEREFORDSHIRE COUNTY COUNCIL.—Assistant to Medical Officer of Health. Salary, £250 per annum.

HUDDERSFIELD ROYAL INFIRMARY.—Assistant House-Surgeon. Salary, £80 per annum.

LEAMINGTON: WARNEFORD, LEAMINGTON, AND SOUTH WARWICKSHIRE GENERAL HOSPITAL.—Junior Resident Medical Officer. Salary, £85 per annum.

LEEDS GENERAL INFIRMARY.—(1) Resident Medical Officer at the Ida and Robert Arthington Hospital; salary, £30 for six months. (2) Resident Obstetric Officer. (3) House-Physician.

LEEDS HOSPITAL FOR WOMEN AND CHILDREN.—House-Surgeon. Salary at the rate of £50 per annum.

LEEDS PUBLIC DISPENSARY.—Junior Resident Medical Officer. Salary, £100 per annum.

LINTON UNION.—Medical Officer for the Balsham District. Salary, £75 per annum.

LUDLOW BOROUGH.—Medical Officer of Health. Salary, £40 per annum.

MAIDSTONE: KENT COUNTY OPHTHALMIC HOSPITAL.—House-Surgeon. Salary at the rate of £100 per annum and £2 10s. laundry allowance.

MANCHESTER: ST. MARY'S HOSPITAL FOR WOMEN AND CHILDREN.—House-Surgeon. Honorarium at the rate of £50 per annum.

MILLER GENERAL HOSPITAL, Greenwich Road, S.E.—Gynaecologist.

MONTREAL: McGILL UNIVERSITY.—Lectureship in Physiology. Salary, 2,000 dols.

NATIONAL HOSPITAL FOR DISEASES OF THE HEART, Soho Square, W.—Honorary Assistant Physician.

NORTHAMPTON GENERAL HOSPITAL.—House-Surgeon. Salary, £90 per annum, rising to £100.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—Casualty Officer. Salary at the rate of £60 per annum.

NOTTINGHAM GENERAL HOSPITAL.—Locumtenent. Salary, £3 3s. per week.

PLYMOUTH INCORPORATION OF GUARDIANS.—Resident Medical Officer for Workhouse and Medical Officer for Scattered Homes. Inclusive salary, £150 per annum.

PORTSMOUTH PARISH.—Second Assistant Resident Medical Officer for the Workhouse Infirmary, Workhouse and Children's Home. Salary, £120 per annum, rising to £130.

PRESCOT UNION.—Resident Assistant Medical Officer at the Workhouse and Infirmary. Salary, £120 per annum.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William Street, W.C.—Clinical Assistants.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Senior House-Surgeon. Salary, £100 per annum.

SEAMEN'S HOSPITAL SOCIETY.—Medical Registrar at the Dreadnought Hospital, Greenwich. Honorarium, £50 per annum.

SHEFFIELD ROYAL HOSPITAL.—Sixth Resident. Salary, £60 per annum.

SHEFFIELD ROYAL INFIRMARY.—Ear and Throat Surgeon. Salary, £70 per annum.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—House-Physician. Salary, £82 per annum and £5 honorarium after six months' approved service.

STOKE-ON-TRENT: NORTH STAFFORDSHIRE INFIRMARY, Hartshill.—House-Surgeon. Salary, £100 per annum.

WAKEFIELD GENERAL HOSPITAL.—Assistant House-Surgeon. Salary, £100 per annum.

WALSALL AND DISTRICT HOSPITAL.—House-Physician and Casualty Officer. Salary, £90 per annum.

WANDSWORTH TECHNICAL INSTITUTE.—Medical Officer. Salary, £50 per annum

WARRINGTON INFIRMARY AND DISPENSARY.—Senior House-Surgeon. Salary, £120 per annum.

WESTMORLAND CONSUMPTION SANATORIUM AND HOME.—Medical Superintendent. Salary, £350 per annum.

WINCHESTER: ROYAL HAMPSHIRE COUNTY HOSPITAL.—(1) House-Physician; (2) House-Surgeon (Males). Salary, £80 per annum each.

WORCESTER: COUNTY AND CITY ASYLUM, Powick.—Junior Assistant Medical Officer. Salary, £150 per annum, rising to £170.

APPOINTMENTS.

DAVIS, Haldin, M.B.Oxon., F.R.C.S., M.R.C.P., Assistant Physician to the Blackfriars Hospital for Diseases of the Skin.

GREENE, Nolan James Noël, M.B., B.Ch., B.A.O., A.B.Dub. Univ., L.M.Rotunda, Assistant Medical Officer to the East Sussex County Asylum, Hellingly.

MACKWOOD, J. C., M.R.C.S., L.R.C.P., Medical Officer of the Workhouse of the Leeds Union

MITCHELL, H. M., M.B., C.M., Honorary Surgeon to the Liverpool Hospital for Cancer and Skin Diseases.

SCOTT, S. R., L.R.C.P. and S.Edin., Assistant Medical Officer Leeds Union Infirmary.

TRESTON, Maurice J., L.R.C.P., L.R.C.S.Irel., District Medical Office of the Southampton Union.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTHS.

ADAMSON.—At The Pines, Kearsney, Dover, on April 27th, the wife of C. H. Adamson, F.R.C.S.Edin., a son.

MARTIN.—On May 5th, at Millfield House, Waterhead, Oldham, to Dr. and Mrs. Ernest Martin, a daughter.

DEATHS.

MACKERN.—On the 2nd inst., at 9, South Cliff, Eastbourne, George Mackern, M.D.Lond., M.R.C.S., formerly of Guy's Hospital, and late Visiting Physician to the British Hospital, Buenos Aires, Argentine Republic.

WESTBROOK.—On April 1st, at Clapham, Ernest Westbrook, M.R.C.S., L.R.C.P., passed away after a very short illness.

DIARY FOR THE WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, W.—(1) 8 p.m., General Meeting. Election of Officers. (2) 8.30 p.m., Ordinary Meeting. Discussion on the Sphygmomanometer in General Practice, to be introduced by Dr. F. de Havilland Hall, followed by Sir Lauder Brunton, F.R.S., and Drs. Leonard Hill, F.R.S., A. M. Gossage, G. Oliver, Bezly Thorne, Leslie Thorne Thorne, F. W. Price, Halls Daly, O. K. Williamson, Herbert French, and others.

TUESDAY.

ROYAL SOCIETY OF MEDICINE:

SURGICAL SECTION, 11, Chandos Street, W., 5.30 p.m.—(1) Annual Meeting and Election of Officers. (2) Debate on the Surgical Treatment of Aneurysm, to be opened by Mr. H. G. Barling (Birmingham). (A large exhibition of Aneurysms will be on view on Monday afternoon and on Tuesday.)

THURSDAY.

ROYAL SOCIETY OF MEDICINE:

DERMATOLOGICAL SECTION, 11, Chandos Street, W., 5 p.m.—Demonstration of Cases and Specimens.

ROYAL SOCIETY, Burlington House, W., 4.30 p.m.—The following are amongst the list of probable papers:—Alexander Forbes, M.D.: Reflex Rhythm Induced by Concurrent Excitation and Inhibition. T. Graham Brown: The Factors in Rhythmic Activity of the Nervous System.

FRIDAY.

ROYAL SOCIETY OF MEDICINE:

OTOLOGICAL SECTION, 11, Chandos Street, W., 4.30 p.m.—(1) Annual Meeting and Election of Officers. (2) Discussion on the Value and Significance of Hearing Tests, introduced at last meeting by Dr. Thomas Barr and Mr. Sydney Scott (see *Proceedings*, No. 6). (3) Paper:—Dr. Dan McKenzie: The Semicircular Canals and the Sense of Position and Orientation. (4) Mr. Alexander Sharp: Notes of a Case of Deafness caused by Excessive Tea-drinking.

ELECTRO-THERAPEUTICAL SECTION, 86, Jermyn Street, S.W.—7.15 p.m., Annual Meeting and Election of Officers. 7.30 p.m., Annual Dinner.

POST-GRADUATE COURSES AND LECTURES.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.: Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively: Operations, 2 p.m. Special Clinics: Ear and Throat, at noon and 4.30 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Tuesday, and noon, Friday. Eye, 11 a.m., Wednesday and Saturday. Radiography, Saturday, 10 a.m. Pathological Demonstration, Friday, 11 a.m. Special Lectures: Tuesday, 4.30 p.m., Treatment in Certain Nervous Diseases; Thursday, 4.30 p.m., Some Cases of Urinary Surgery.

LONDON SCHOOL OF TROPICAL MEDICINE.—Lectures daily (Saturday excepted) at 12 and 4 p.m. Practical Laboratory Work daily (Saturday excepted), 10 to 12 a.m. Practical Protozoology, 2 to 3.30 daily; Advanced Protozoology, 10.30 to 1 p.m. daily. Medical Clinics, Monday and Thursday at 3 p.m. Operations, Friday at 3 p.m.

MANCHESTER: ANCOATS HOSPITAL POST-GRADUATE CLINIC, Thursday, 4.15 p.m.—Examination of the Intestines by means of Bismuth and the *X* Rays.

MANCHESTER ROYAL INFIRMARY.—Tuesday, 4.30 p.m., Vaccine Treatment of Pneumonia. Friday, 4.30 p.m., Enteroptosis.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin. Tuesday, Medical. Wednesday, Surgical. Thursday, Surgical. Friday, Ear, Nose, and Throat. Lectures at 5.15 p.m. each day will be given as follow: Monday, Psycho-Therapy. Tuesday, Stone in the Kidney. Wednesday, Nasal Obstruction and other Conditions when Submucous Resection of the Septum is Indicated. Thursday, Some Points in the Neurology of the Visual System.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Paralysis of Cranial Nerves. Friday, 3.30 p.m., Principles of Topographical Diagnosis.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics: 10 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear; 3 p.m., Demonstration on Clinical and General Pathology. Tuesday, 2.30 p.m., Operations; Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient; 4.30 p.m., Special Demonstration: Cases Illustrating the Differential Diagnosis of Swellings of the Neck. Wednesday, 2 p.m., Throat Operations; 2.30 p.m., Medical Out-patient: Skin and Eye Clinics: *X* Rays; 3 p.m., Pathological Demonstration; 5.30 p.m., Eye Operations. Thursday, 2.30 p.m., Gynaecological Operations. Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient; Pathological Demonstration; 4.30 p.m., Special Demonstration: Types of Keratitis.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics, *X* Rays, and Operations, 2 p.m. daily. Monday: Gynaecology, 10 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday: Gynaecological Operations, 10 a.m.; Demonstration of Minor Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday: Gynaecological Demonstration, 10 a.m.; Lecture on Practical Medicine, 12.15 p.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday: Gynaecological Operations, 10 a.m.; Lecture on Clinical Pathology, 12.15 p.m.: Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m. Special Lectures at 5 p.m. daily.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
MAY.	
11 SATURDAY ..	Nominations for election to Central Council to be forwarded to the Financial Secretary and Business Manager from this date until May 18.
12 Sunday ..	
13 MONDAY ..	
14 TUESDAY ..	WARRINGTON DIVISION, *Lancashire and Cheshire Branch*, Annual Meeting, Infirmary, Warrington, 4 p.m.
	NORTH WALES BRANCH, Imperial Hotel, Wrexham, 2.15 p.m.
	DARTFORD DIVISION, *South-Eastern Branch*, Annual Meeting, Bull Hotel, Dartford, 3 p.m.
	BOURNEMOUTH DIVISION, *Dorset and West Hants Branch*, Annual Meeting, Bournemouth Medical Society's Library, Old Christchurch Rd., 4 p.m.
15 WEDNESDAY	CENTRAL DIVISION, *Birmingham Branch*, Annual Meeting, Medical Institute, 4 p.m.
	LEICESTER AND RUTLAND DIVISION, *Midland Branch*, Annual Meeting, Leicester Infirmary, 4 p.m.
	LANCASHIRE AND CHESHIRE BRANCH, Meeting of Branch Council, Liverpool Medical Institution, 4.30 p.m.
	MARYLEBONE DIVISION, *Metropolitan Counties Branch*, Annual Meeting, 11, Chandos Street, W., 5 p.m.

Date.	Meetings to be Held.
MAY *(continued)*.	
16 THURSDAY ..	LONDON: Metropolitan Counties Branch, Council, 4 p.m.
	GLOUCESTERSHIRE BRANCH, Annual Meeting, Cheltenham Hospital, 6 p.m.
17 FRIDAY ..	
18 SATURDAY ..	Last day for receipt of nominations for Central Council.
19 Sunday ..	
20 MONDAY ..	SOUTH STAFFORDSHIRE DIVISION, *Staffordshire Branch*, Special Meeting, Star and Garter Hotel, Wolverhampton, 8.30 p.m. Annual Meeting immediately after Special Meeting; Supper, 7.45 p.m.
21 TUESDAY ..	BRIGHTON DIVISION, *South-Eastern Branch*, Ordinary Meeting.
22 WEDNESDAY	DORSET AND WEST HANTS BRANCH, Annual Meeting, Hotel Mont Dore, Bournemouth.
	ALTRINCHAM DIVISION, *Lancashire and Cheshire Branch*, Special Meeting, Lion and Railway Hotel, Northwich, 4.45 p.m.
	RICHMOND DIVISION, *Metropolitan Counties Branch*, Richmond, 8.30 p.m.

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SUPPLEMENT
TO THE
BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MAY 18TH, 1912.

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SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs. BY ORDER.

MATTERS REFERRED TO DIVISIONS.

British Medical Association.

Annual Representative Meeting, Liverpool, 1912.

THE Annual Representative Meeting of the British Medical Association will be held in Liverpool on Friday, July 19th, 1912, and following days as may be necessary.

PROVISIONAL AGENDA.

I.—RECEPTION OF RETURN OF REPRESENTATIVES.

1. **Motion:** That the Return of election of Representatives of Divisions for the year 1912–13 be received and entered on the Minutes.

2. **Motion:** That the Notices (if any) of appointment of substitutes for Representatives under By-law 34 be received and entered on the Minutes.

II.—STANDING ORDERS.

3. **Motion:** That the Standing Orders submitted by the Chairman be adopted as Standing Orders of the Meeting.

The Chairman will submit the Standing Orders adopted at London, February, 1912 (see page 509 of this SUPPLEMENT*), subject to such additions and alterations as may hereafter be notified to the Representatives.*

III.—ANNUAL REPORT OF COUNCIL.

(For Annual Report of Council, 1911–12, see B.M.J. SUPPLEMENT of May 11th, 1912, page 441.)

4. **Motion:** That the Annual Report of the Council for the year 1911–12, and Estimate of Income and Expenditure for the year 1912, be received.

5. **Motion** (by the CHAIRMAN): That all Motions by Divisions and Branches which relate to matters dealt with in the Annual Report of Council be considered as amendments or riders to the Recommendations, if any, to which they are relevant, or to the motion: "That the remainder of the Report under the heading . . . . be approved."

(A) Preliminary.

6. **Motion:** That paragraphs 1 to 10 of the Annual Report of Council ("Preliminary") be approved (see page 442 of B.M.J. SUPPLEMENT of May 11th, 1912).

(B) Finance.

7. **Motion:** That the Financial Statement and Balance Sheet for the year 1911 (paragraphs 11–27) be approved (see pages 443–51).

8. **Motion:** That paragraph 28 (Apportionment of Member's Subscription) be approved (page 451).

9. **Motion:** That paragraph 29 (Estimate of Expenditure and Receipts for 1912) be approved (page 451).

10. **Motion:** That paragraph 30 (National Insurance Act) be approved (page 451).

(C) Organization.

Resignation of Membership when Dispute or Inquiry Pending.

11. **Motion:** That the following Recommendation of Council be adopted (paragraph 37, *see* page 453):

That By-law 13 (2) be amended by the substitution of the words "three months'" for the words "one month's" in the fifth line.

[*Present By-law 13 (2).*

13 .....

(2) No member shall (except in case of his expulsion, or of his ceasing to be a member under the provisions of Clause (c) of the 10th Article of Association or under the previous provision of this By-law) cease to be a Member without having given one month's previous notice in writing of his intention in that behalf to the Association at the Head Office, and having paid all arrears of subscription (if any) due from him.]

Maps of Division and Branch Areas.

12. **Motion:** That the following Recommendation of Council be adopted (paragraph 42, *see* page 454):

That the present time is inopportune for the preparation of a complete set of official maps, but that this should be done as soon as it can with advantage be undertaken, and that meantime maps be continued to be supplied, so far as possible, to Division and Branch Secretaries requiring them.

Referendum and Postal Vote.

13. **Motion.** That the following Recommendation of Council be adopted (paragraph 44, *see* page 454):

That in view of counsel's opinion on the question of giving effect, in the Regulations of the Association, to the report on the Referendum and Postal Vote, approved by the Annual Representative Meeting, 1911, Minute 330 of the Annual Representative Meeting, 1910, be referred to the Council for further consideration and report.

[*Minute 330 of Annual Representative Meeting, 1910.*

330. Resolved: That while recognizing the necessity of proceeding without delay with the formation of a new company, the Representative Meeting considers it desirable that a full consideration should be given by the Association to the question of the Referendum by postal vote, and the arrangements generally for securing that the decision of the Representative Meeting shall, as far as possible, represent accurately the opinion of the Association, and that it be an instruction to the Council to prepare a report on these subjects for the consideration of the Divisions, and, after receiving and considering the replies of the Divisions, to submit a report with recommendations to the next possible Representative Meeting, whether that takes place under the present company or under the new company which it is proposed to form.]

Grouping of Branches in United Kingdom for Year 1913–14.

14. **Motion:** That the following Recommendation of Council be adopted (paragraph 48, *see* page 455):

That the grouping of Branches and Divisions in the United Kingdom for the election of members of Council for the year 1913–14 be the same as for the years 1911–12 and 1912–13.

Machinery of Association in connexion with Disputes.

15. **Motion:** That the following Recommendation of Council be adopted (paragraph 54, *see* page 455):

1. That (with rare exceptions) Warning Notices should never be inserted for those Divisions which have not adopted Rule Z. Where the case seems to demand action in spite of this deficiency—as, for example, where some appointment is offered in flagrant opposition to the declared policy of the Association—a Warning Notice should only be issued on the instruction of the Chairman of the Central Ethical Committee after the Medical Secretary or one of his staff has visited the place and assured himself, after an interview with the Division Executive, that the dispute will be conducted vigorously, and that the Division thoroughly understands its responsibilities.

16. **Motion:** That the following Recommendation of Council be adopted (paragraph 54, *see* page 455):

2. That Divisions should be given clearly to understand that the insertion of a Warning Notice pledges them to take active disciplinary measures against offenders.

17. **Motion:** That the following Recommendation of Council be adopted (paragraph 54, *see* page 455):

3. That it should be a rule that a Division which has not been proved by experience to be able to conduct a dispute satisfactorily, even if in possession of proper Rules, should not be allowed to enter on a case necessitating the use of a Warning Notice until there has been an interview between a representative of the Central Office and the Executive of the Division concerned.

Remainder of Report.

18. **Motion:** That the remainder of the Annual Report of Council under heading "Organization" (paragraphs 31–62, *see* pages 451–6) be approved.

19. **Rider** (arising out of paragraph 34, "New Company") by NORTH MIDDLESEX:

That it be an instruction to the Council of the Association to seek to obtain the opinion of the Divisions as to the desirability of the Association becoming a registered trade union.

(D) "British Medical Journal."

20. **Motion:** That the Annual Report of Council under heading "BRITISH MEDICAL JOURNAL" (paragraphs 63–8, *see* pages 456–7) be approved.

(E) Science.

21. **Motion:** That the Annual Report of Council under heading "Science" (paragraphs 69–74, *see* page 457) be approved.

(F) Medical Ethics.

Position of Practitioners Examining Patients under Care of other Practitioners.

22. **Motion:** That the following Recommendation of Council be adopted (paragraph 75, *see* page 457):

(A) That the Report on the Position of Practitioners Examining on behalf of Interested Persons should not be held to affect the work of Certifying Factory Surgeons, inasmuch as:

(i) They are acting on behalf of the State, which has no monetary interest in the cases.

(ii) Their duties are to report on the circumstances relating to accidents, and the prevention of similar accidents.

(iii) Such duties do not involve any detailed examination of the injuries or any reference to their treatment.

23. **Motion:** That the following Recommendation of Council be adopted (paragraph 75, *see* page 458):

(B) That in Rule (3), as follows:

(3) If the medical attendant fails to appear at the time agreed upon, the medical inspector may proceed with his examination forthwith:

the word "stated" be substituted for the words "agreed upon."

Co-operation of Divisions in Ethical Cases.

24. **Motion:** That the following Recommendation of Council be adopted (paragraph 76, *see* page 458):

That the Representative Body is of opinion that the time is not opportune for providing that Resolutions passed by Divisions and Branches under Rule Z shall be automatically operative throughout the Association, but that the adoption of Rule Z

by all Branches would to a great extent have the desired effect.

Model Ethical Rules for Divisions and Branches.

25. **Motion:** That the following Recommendation of Council be adopted (paragraph 77, *see* page 458):

(*a*) That the Model Ethical Rules of a Division not itself a Branch be approved.

26. **Motion:** That the following Recommendation of Council be approved (paragraph 77, *see* page 458):

(*b*) That the Model Ethical Rules of a Branch composed of several Divisions be approved.

27. **Motion:** That the following Recommendation of Council be approved (paragraph 77, *see* page 458):

(*c*) That the Model Ethical Rules of a Branch composed of one Division be adopted.

28. **Motion:** That the following Recommendation of Council be adopted (paragraph 77, *see* page 458):

(*d*) That all Divisions and Branches in the United Kingdom be urged to adopt the Model Ethical Rules, as approved by the Representative Body, without modification and in substitution for all such Rules now in use by the Divisions and Branches respectively.

Remainder of Report.

29. **Motion:** That the remainder of the Annual Report of Council under heading "Medical Ethics" (paragraphs 75–81, *see* pages 457–9) be approved.

(G) Medico-Political.

Question of Diploma in Psychiatry.

30. **Motion:** That the following Recommendation of Council be adopted (paragraph 86, *see* page 459):

That the Representative Body approve the Recommendation of the Section of Psychological Medicine and Neurology, Annual Meeting, 1910, concerning the desirability of the institution of a post-graduate course and diploma in Psychiatry.

Employment of Medical Students by Medical Practitioners.

31. **Motion:** That the following Recommendation of Council be adopted (paragraph 94, *see* page 461):

That, as there is no advantage to the medical student, so far as his curriculum is concerned, in being employed by a Medical Practitioner, and as there is undoubted risk to the practitioner of a charge of "covering," the advice of the Association, when asked for in this connexion, should be to discourage the practice of the employment of medical students by medical practitioners.

Certificates and Reports on Cases under Workmen's Compensation Act, and Members of Hospital Staffs.

32. **Motion:** That the following Recommendation of Council be adopted (paragraph 99, *see* pages 461–2):

That the Representative Body adopt the following principles:

(i) That the furnishing of certificates in cases of injury to workmen is no part of the duty of members of the honorary or paid medical staffs of voluntary hospitals.

(*For opinion of the Solicitor of the Association as to liability of employer for cost of certificates as to workmen's fitness or unfitness to work see* Appendix XVI to Report of Council, p. 497 of SUPPLEMENT of May 11th.)

(ii) That a certificate of attendance of a workman at hospital, containing no information as to the nature of the case, should not be regarded as a medical certificate.

(iii) That any medical certificate expressing an opinion as to the fitness or unfitness of a patient to follow his employment, or any report on such cases, under the Workmen's Compensation Act, given by any member of the staff of a voluntary hospital, whether honorary or paid, should be paid for, and the fee should be received by the medical practitioner who signs the certificate.

(iv) That in the case of all medical certificates and reports under the Workmen's Compensation Act, given by the members of the staffs of voluntary hospitals, whether honorary or paid, the fee should be not less that £1 1s.

(v) That in the case of all initial examinations with certificate or report under the Workmen's Compensation Act given by a practitioner not as a member of the staff of any voluntary hospital, the fee should be not less than 10s. 6d.

Certificates under Employers' Liability Act, 1880, or Common Law, in respect of any Injury or Disease.

33. **Motion:** That the following Recommendation of Council be adopted (paragraph 100, *see* page 462):

That in the case of certificates and reports by medical practitioners, given under the Employers' Liability Act, 1880, or at common law, in respect of any injury or disease, the same principles shall apply as in the case of certificates and reports under the Workmen's Compensation Act.

Remainder of Report.

34. **Motion:** That the remainder of the Annual Report of Council under heading "Medico-Political" (paragraphs 82–104, *see* pages 459–62) be approved.

(H) State Sickness Insurance.

35. **Motion:** That the Annual Report of Council under heading "State Sickness Insurance" (paragraph 105, *see* page 462) be approved.

36. **Rider** by CHELSEA:

That the State Sickness Insurance Committee be instructed to approach the General Medical Council, to ascertain if that body will be prepared to accept a charge of infamous conduct (such charge to be formulated by the British Medical Association) against any medical practitioner who may be guilty of accepting any appointment which another practitioner has resigned when called upon by the British Medical Association to do so, or any further contract work which includes insured persons on terms which are not acceptable to the Local Provisional Medical Committee for his area.

(I) Public Health and Poor Law.

Question of Definition of "Official Duties" of Medical Officers of Health.

37. **Motion:** That the following Recommendation of Council be adopted (paragraph 106, *see* page 462):

That the term "official duties" occurring in Minutes 141–3 of the Annual Representative Meeting, 1911, be understood to include such duties as are comprehended under the terms of any definite official appointment which does not offer any opportunity for competition with any private medical practitioner.

[*Minutes 141–3 of A. R. M., 1911, referred to:*

Minutes 141–3.—Resolved: That the following amended form of Minute 234 of the Annual Representative Meeting, 1909, be adopted:

That, in the general interests of Public Health and the Medical Profession, it is desirable (i) that Medical Officers of Health should, as a rule (and without prejudice to those at present holding part-time appointments), be required to devote their whole time to official duties; (ii) that all Medical Officers of Health should be adequately paid, districts being grouped where necessary to make this practicable; (iii) that all Medical Officers of Health should be admitted to participation in a Government Superannuation Scheme; and (iv) that all Medical Officers of Health should be protected, in the proper discharge of their duties, against capricious dismissal or reduction of salaries.]

Membership of Public Health Committee.

38. **Motion:** That the following Recommendation of Council be adopted (paragraph 107, *see* page 463):

That the Representative Body instruct the Council to take the necessary steps to amend the Schedule

to the By-laws so as to provide that the number of elected members of the Public Health Committee be 8 instead of 6, namely, 4 appointed by the Representative Body, and 4 by the Council.

Remainder of Report.

39. **Motion:** That the remainder of the Annual Report of Council under heading "Public Health and Poor Law" (paragraphs 106–14, *see* pages 462–3) be approved.

(J) Hospitals.

40. **Motion:** That the Annual Report of Council under heading "Hospitals" (paragraphs 115-9, *see* page 464) be approved.

(K) Naval and Military.

41. **Motion:** That the Annual Report of Council under heading "Naval and Military" (paragraphs 120–1, *see* page 464) be approved.

(L) Scotland.

42. **Motion:** That the Annual Report of Council, under heading "Scotland" (paragraph 122, *see* page 464) be approved.

(M) Ireland.

43. **Motion:** That the Annual Report of Council, under heading "Ireland" (paragraph 123, *see* page 464) be approved.

GENERAL APPROVAL OF ANNUAL REPORT OF COUNCIL.

44. **Motion:** That, subject to the amendments and other resolutions adopted by the Meeting with reference thereto, the Annual Report of Council be approved as a whole.

IV.—SPECIAL REPORTS OF COUNCIL (IF ANY).

V.—REPORTS OF COMMITTEES (IF ANY).

VI.—ALTERATIONS OF BY-LAWS OF ASSOCIATION.

(See also Item 11 Above.)

Election of Members by Branches.

45. **Motion** by Victorian Branch:

That the following Subsection (3) be added to present By-law 5 of the Association:

(3) Where a candidate for election has been recently domiciled within the territory of an oversea Branch, election of such candidate by a Branch in the United Kingdom or another oversea Branch shall be provisional until the Council of the Branch in the previous place of domicile has been communicated with.

[Existing By-law 5:

Election by Branches.

5.—(1) In the case of a Branch in the United Kingdom the mode of election of new members shall be as follows: Every candidate who resides within the area of a Branch shall forward his application to the Secretary of such Branch. Notice of the proposed election shall be sent by the Branch Secretary to the Association at the Head Office, and to every member of the Branch Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a member of the Association by the Branch Council at any meeting thereof held not less than seven days (or such longer period as the Branch may by its Rules prescribe) after the date of the said notice. A Branch may require that each candidate for election shall furnish a certificate signed by two Members (either of the Association, or of the Branch, or of the Division in which he resides, as the Rules of the Branch may prescribe) stating that from personal knowledge they consider him a suitable person for election.

(2) In the case of a Branch not in the United Kingdom the mode of election shall be such as may, with the consent of the Council, be prescribed by the Rules of the Branch.]

(B.M.J. Supplement, April 20th, 1912.)

Voting in Representative Meetings.

46. **Motion** by Leicester and Rutland:

That By-law 39 (3) be amended by the substitution of the words "according to the List of Members last issued to the Secretaries of Divisions" for the words "according to the Annual List then in force."

[Existing By-law 39 (3):

39 .....

3. Where a vote is taken by card the Representative of each Constituency shall be entitled (or, in the case of a Constituency electing two or more Representatives, such of those Representatives as are present shall together be entitled) to record a total number of votes equal to the number of Members in that Constituency according to the Annual List then in force; and where two or more Representatives of a Constituency are present the total number of votes of that Constituency shall be divided equally between those Representatives, fractions of votes being ignored. Members of Council representing the Navy, Army, and Indian Medical Services shall not take part in a vote taken by card.]

Schedule to By-laws, so far as Relating to Central Ethical Committee.

47. **Motion** by Victorian Branch:

That the following words be added at the end of the statement of duties, powers, etc., of the Central Ethical Committee in the Schedule to the present By-laws:

"Where an ethical complaint has been dealt with by the Council of a Branch outside of the United Kingdom, an appeal to the Council of the Association shall not be allowed except by permission of the Council of the Branch."

[Extract from present Schedule to By-laws:

Duties, Powers, etc., of Central Ethical Committee.

To advise the Council on questions connected with Rules of Divisions and Branches relating to professional conduct, to investigate and report to the Council upon the cases of Members whose conduct is to be considered by the Council on the representation of Divisions or Branches pursuant to the Regulations, and generally to advise and, where so directed, act for the Council on all questions of professional conduct; also to adjudicate in matters of dispute as to professional conduct arising between Members of the Association or Members of the Profession, or at the discretion of the Committee to refer any question arising in connection with such a dispute to any Division or Branch, or to any Divisions or Branches jointly, for investigation or for adjudication subject to an appeal to the Committee; and so that any person directly concerned in such a dispute shall have a right of appeal to the Council from the decision of the Committee, and that the decision of the Committee subject to such appeal, and the decision of the Council upon any such appeal shall be binding upon the parties and upon all Members of the Association.]

(B.M.J. Supplement, April 20th, 1912.)

VII.—OTHER MOTIONS BY DIVISIONS AND BRANCHES.

Expenses of Representatives.

(In connexion with the following Motion, *see* paragraph 35 of Annual Report of Council, page 452 of British Medical Journal Supplement of May 11th; and Appendix II thereto, page 465 of that Supplement.)

48. **Motion** by East Norfolk:

That in the opinion of this Meeting the time has now come when the Council should take into consideration the payment of the necessary out-of-pocket expenses of Representatives at Representative Meetings.

[Existing By-law 71:

Expenses.

71. The expenses of any person which, in pursuance of the 39th Article of Association, are to be defrayed out of the general funds of the Association, are the first-class travelling expenses within the United Kingdom of that person.]

(B.M.J. Supplement, April 20th, 1912.)

Time of Holding of Representative Meetings.

49. **Motion** by Chelsea:

That the Annual Representative Meeting shall commence on the third Tuesday in July.

Representatives and Deputy-Representatives.

50. **Motion** by WESTMINSTER:

That the Council be instructed to frame alterations in the Regulations of the Association carrying out the principles contained in the following Motion, and submit them to the next Representative Meeting, Special or Annual:

That it should be possible for a Representative to resign his position and for the post to be filled up at any time; that it should be possible for a Division to dismiss a Representative by a majority of those present at a Special Meeting of the Division called for the purpose; that in the event of a Representative being able only to attend part of a Representative Meeting it should be possible for a Division to appoint a Deputy to act during such time as the Representative is unable to attend.

Local Autonomy for Australian (or Australasian) Branches.

51. **Motion** by SOUTH AUSTRALIAN BRANCH:

That the constitution of the British Medical Association be amended:

A. So as to provide:

1. For the creation of an Australian (or Australasian) Council consisting of Members elected by the Branches in Australia (Australasia) and having such powers and duties as will enable it to administer the affairs of the Association in Australia (Australasia) in so far as such affairs are of local concern and do not affect the Association outside Australia (Australasia);

2. For the holding of General Meetings of the Members of the Association residing in Australia (Australasia);

3. For the creation of a Representative Body in Australia (Australasia), analogous to the Representative Body of the Association;

or

B. So as to provide in some other manner than that hereinbefore proposed for the federation of the Australian (Australasian) Branches with autonomy in regard to matters of Australian (Australasian) concern not affecting the Association outside Australia (Australasia).

(B.M.J. SUPPLEMENT, April 20th, 1912.)

Grouping of Branches not in United Kingdom for 1913–14.

52. **Motion** by HONG KONG AND CHINA BRANCH:

That the new arrangement of grouping of Branches not in the United Kingdom, whereby the Hong Kong and China Branch is grouped with the various Branches in India, Burma, Ceylon and Malaya for the purpose of electing one member of the Council of the Association, does not give that Branch adequate representation, and seriously curtails the rights and privileges of the Members of the Branch; that therefore one Member of Council should be allotted to the Hong Kong and China Branch, together with the Malaya Branch, and another Member of Council allotted to the Branches in India, Burma, and Ceylon, which Branches have interests more or less in common; and that in the event of this proposal being approved by the Representative Body the Member of Council representing the Hong Kong and China and Malaya Branches should be elected from Members of each of the two Branches alternately.

(B.M.J. SUPPLEMENT, April 20th, 1912.)

VIII.—ELECTION OF OFFICERS.

(*a*) Elect a President of the Association under By-laws 37 and 57.

(*b*) Elect a Chairman of Representative Meetings under By-laws 37 and 58.

(*c*) Elect a Deputy-Chairman of Representative Meetings under By-law 37.

IX.—ELECTION OF VICE-PRESIDENTS AND HONORARY MEMBERS (IF ANY) UNDER BY-LAWS 62, AND 8 AND 37 RESPECTIVELY.

X.—ELECTION OF MEMBERS OF COUNCIL.

(*a*) Election of 12 members of Council by grouped Representatives under By-law 43 (*c*).

(*b*) Elect 4 members of Council under By-law 43 (*d*).

XI.—ELECTION OF MEMBERS OF COMMITTEES.

Elect Members of Finance, Organization, Journal, Central Ethical, Medico-Political, Public Health, Hospitals, Naval and Military, and Colonial Committees; and other Committees, if any (*see* Standing Orders 37–47, page 512 of this SUPPLEMENT).

XII.—STANDING ORDERS.

Consider proposed Amendments of Standing Orders other than those relating to the order of business.

XIII.—ANY OTHER BUSINESS.

XIV.—CONFIRM MINUTES.

By Order,

ALFRED COX,

Medical Secretary.

May 16th, 1912.

STANDING ORDERS

RELATIVE TO

BUSINESS AT REPRESENTATIVE MEETINGS,

As adopted at London, February, 1912.

I.—ORDER OF BUSINESS.

(A)—*Annual Representative Meeting.*

1. Except as may be otherwise determined in the manner prescribed by the Standing Orders, the order of business shall be as follows:

i. **Election Returns.**—Receive the return of the Election of Representatives of Divisions for the year, and receive notices, if any, of the appointment of substitutes for Representatives under By-law 32.

ii. **Standing Orders.**—Adopt Standing Orders.

iii. **Annual Report of Council.**—Receive the Annual Report of the Council with the Balance Sheet and Financial Statement for the past year, and the Estimate of income and expenditure for the current year presented under Article 40, and consider motions relating to the adoption thereof in whole or in part.

iv. **Special Reports of Council.**—Receive Special Reports of the Council, if any, in the order in which the Council shall submit them for consideration, and consider motions for the adoption thereof in whole or in part.

v. **Reports of Committees (if any).**—Receive Reports of Committees, if any, and consider motions for the adoption of the same in whole or in part.

vi. **Consider By-laws.**—Consider, in such order as the Meeting shall determine, any motions placed upon the Agenda of the Meeting, by which it is proposed to make By-laws or to alter or repeal existing By-laws.

vii. **Consider other Motions by Divisions or Branches.**—Consider, in such order as the Meeting shall determine, any other motions placed upon the Agenda of the Meeting by Divisions or Branches.

viii. **Election of Officers.**—Elect at such time as the Meeting shall determine:—

(*a*) President of the Association under By-law 57.

(*b*) Chairman of Representative Meetings, under By-law 58.
(*c*) Deputy-Chairman of Representative Meetings, under By-law 37.
(*d*) Treasurer (if the office be vacant), under By-law 61.

ix. **Election of Vice-Presidents and Honorary Members.**—Consider, at such time as the Meeting shall determine, nominations, if any, by the Council of:—
(*a*) Vice-Presidents, under By-law 62.
(*b*) Honorary Members, under By-law 8.

x. **Election of Members of Council.**—Elect at such time as the Meeting shall determine:—
(*a*) Twelve Members of Council, under By-law 43 (*c*);
(*b*) Four Members of Council, under By-law 43 (*d*);
(*c*) Three Members of Council, under By-law 43 (*e*).

xi. **Election of Members of Committees.**—Elect Members of Standing Committees in accordance with the By-laws, and such Members of other Committees and Conferences, if any, as it falls to the Representative Meeting to elect.

xii. **Amendment of Standing Orders.**—Consider proposed amendments of Standing Orders, other than those relating to the order of business.

2. General Order of Daily Sessions; Confirmation of Minutes.—The matters described in Clause 1 shall be considered in the order therein prescribed, or as otherwise duly determined, from day to day until the completion thereof or until the expiration of four days from the first day of the Meeting, whichever shall first occur; provided that at each daily session after the first, the Meeting shall, before proceeding to the consideration of the matters aforesaid, (A) confirm the Minutes of the Proceedings of the previous daily session; (B) consider motions, if any, relating to the order of business of the day. At the conclusion of the business of the last daily session the Meeting shall confirm the Minutes thereof for presentation to the Council.

4. Hours of Daily Sessions.—All Representative Meetings not concluded by 6.30 p.m. shall stand adjourned either to 8 p.m. of the same day, or to the next day, as may be decided by a show of hands. All such Meetings shall stand adjourned at 10 p.m.

4. Varying Order of Business.—The order of business may be varied at any time by the vote of two-thirds of those present and voting.

5. Precedence of Motions of which Notice Given.—Motions and amendments of which notice shall have been given to the Secretary of the Meeting in time for them to be circulated with the Minutes of the previous day's proceedings, shall have precedence, in the order in which such notice shall have been given, over those relating to the same subject, or otherwise having a like claim to precedence in the order of business, of which such notice has not been given.

6. Motions on the Same Subject.—If two or more of the motions placed on the Agenda of the Meeting by the Council and by Divisions and Branches shall appear to the Chairman to relate to the same subject, he shall ascertain the will of the Meeting in respect of the consideration of one of such motions as an original motion, and of the others as amendments thereto, in such order as the Meeting may determine.

7. Motions on Subjects dealt with in Reports.—If any Motion placed upon the Agenda shall in the opinion of the Chairman relate to the same subject as a Recommendation or other portion of a Report submitted by the Council or by a Committee, the Chairman shall ascertain the will of the Meeting as to whether the said Motion shall be considered as an Amendment or Rider to the adoption or approval of the said Recommendation or other portion of a Report.

8. Resolutions Involving Special Expenditure.—The Meeting shall not proceed on any motion involving special expenditure which has not previously been considered by the Finance Committee.

(B). *Special Representative Meetings.*

9. Read Authority for Convening Meeting.—Read the Resolution of Council, or the requisition from Divisions, in pursuance of which the Meeting is convened.

10. Notice of Substitutes.—Receive notices, if any, of the appointment of substitutes for Representatives.

11. Order of Business.—If the Meeting is convened to consider more than one matter, determine the order in which such matters shall be considered.

12. Special Business.—Consider the matters which the Meeting is specifically convened to consider, in order determined by the Meeting.

13. Minutes.—Confirm the minutes of the Meeting for presentation to the Council.

II.—COMPOSITION AND ARRANGEMENT OF THE MEETING.

14. Composition.—The Persons constituting the Meeting, hereinafter called members of the Meeting, shall be those duly elected Representatives of Divisions, or substitutes duly appointed under By-law 32, of whose election or appointment the Secretary of the Meeting shall have received due notice, together with Members of Council for the time being in office, or elected to take office at the conclusion of the Meeting.

15. Arrangement.—Distinctive seats shall be provided for the following groups of persons respectively, namely:
(A) Representatives of Divisions.
(B) Members of Council who are not Representatives of Divisions or Officers of the Association.
(C) Officers of the Association, present in virtue of their office, or at the request of the Meeting, for the assistance thereof.
(D) Members of the Association who are not Representatives of Divisions or Members of Council.
(E) Reporters representing such journals as may be authorised by the Chairman, subject to the approval of the Meeting.

16. Withdrawal of Strangers.—It shall be competent at any time for a member of the Meeting to move that persons who are not members of the Meeting be requested to withdraw, or that persons who are not Members of the Association be requested to withdraw, but it shall rest in the discretion of the Chairman to submit or not to submit such motion to the Meeting.

III.—PROCEDURE.

17. Temporary Chairman.—In the absence of the Chairman of Representative Meetings, the Deputy-Chairman shall preside; or, if he be also absent, the Chairman of Council or the Treasurer, if present, shall take the chair, and call upon the Meeting to appoint a temporary Chairman.

18. Minutes.—Minutes shall be taken of the proceedings of the Meeting, and the same shall be duly entered in a book provided for the purpose. The Minutes of each daily session of the Annual Representative Meeting shall be printed and circulated to the Members of the Meeting. Minutes (if) (when) printed in the Daily Journal of the Annual Meeting shall be deemed thereby to have been circulated as required by this order.

19. Attendance.—No Representative shall leave the Meeting without permission obtained personally from the Chairman at the time of leaving. If during any daily session of a Representative Meeting it shall at any time appear to the Chairman that a quorum is not present, the roll shall be called of Representatives appointed to attend the Meeting, and those Representatives who are found to be then absent, not having previously obtained leave from the Chairman, shall be deemed to have been absent from the said session. A list of Members reported as absent from any daily session or sessions of a Representative Meeting shall be supplied at the close of such Meeting to the Chairman and shall by him be transmitted to the Council, together with such explanations of the cause of absence as any Members so reported may have furnished to him in writing.

20. Reports: Notice.—Subject as herein provided, no Report by the Council, or by a Committee, to the Representative Meeting shall be considered by the Meeting unless it shall have been sent to the Divisions and published in the JOURNAL at least one month before such Meeting. The exceptions to this rule shall be—
(A) That the Council shall submit, in addition to their Annual Report, a Supplementary Report dealing with those matters of importance, arising subsequent to the issue of the Annual Report in which action has been taken, or action by the Representative Meetings is recommended.
(B) That any Special Committee appointed by the Representative Meeting shall report in accordance with the terms of the instructions given to such Committee by the Meeting.

21. Form of Reports. Reports of Council and Reports, if any, of Standing Committees, to the Representative Meeting, shall comprise the following:—
(i.) A list of matters referred by the Representative Meeting to the Council or Committee.
(ii.) Reports with specific recommendations upon all matters in which the Council or Committee considers that action should be taken involving a new declaration of policy or expenditure not already authorised.
(iii.) A short report of all action taken by the Council or Committee in accordance with instructions of the Meeting.
(iv.) A list of matters under consideration but not completed.

22. **Presentation of Reports.**—The report of the Council or of a Committee shall be presented by the Chairman, or, in his absence, by a Member, of the body submitting such Report, who shall move—

(i.) That the Report be received.

(ii.) That the Recommendations, if any, be adopted.

(iii.) That the rest of the Report be approved.

The adoption of each recommendation shall be the subject of a separate motion. The approval of the rest of the Report shall be moved as a whole, unless the Chairman rule or the Meeting resolve that the approval of each paragraph, or of any specified paragraph, be the subject of a separate motion.

23. **Amendments and Riders**—

(i.) To a motion that the Report be received, no amendment shall be moved.

(ii.) To a Motion that a Recommendation be adopted amendments may be moved.

(iii.) To a motion that a Report, or a specified paragraph of a Report, be approved, an amendment may be moved to the effect that the Meeting do disagree with, or do refer back to the Council or Committee, any specified portion thereof, or that with reference thereto the meeting do express an opinion in terms stated.

24. **Procedure as to Other Motions.**—Motions placed on the Agenda of the Meeting by a Branch shall be introduced by a Member of Council elected by the Branch, and Motions so placed by a Division shall be introduced by the Representative thereof.

25. **Absence of Authorised Mover of Adoption of Report or Other Motion.**—In the absence of any Member authorised to make any motion referred to in Standing Order III., 22 and 24, any other Member deputed by such Member may make such motion on his behalf, and if no Member shall have been so deputed, such motion shall be made formally by the Chairman.

26. **Seconding Motions.**—No seconder shall be required for any of the motions referred to in Standing Order III., 22 and 24. All other motions and all amendments shall be required to be moved and seconded.

27. **References to Central Executive.**—Each motion or amendment which is of the nature of an instruction or reference to any central executive body, other than a Committee, specially appointed by the Representative Meeting, shall be moved in the form of an instruction or a reference to the Council.

28. **Rescission of Resolutions.**—No motion to rescind any Resolution of a Representative Meeting, arrived at after due consideration of the Divisions, shall be in order at any subsequent Representative Meeting, unless at least two months' notice of such proposed motion shall have been given to the Divisions through the Supplement to the JOURNAL.

29. **Time Limits of Speeches.**—(A) A member of the Meeting shall be allowed to speak for fifteen minutes in moving a resolution which does not require seconding, and for ten minutes in moving any other resolution, or any amendment. Except as aforesaid, no speech shall exceed five minutes.

30. **Reducing Time Limit.**—(B) The Meeting may at any period of any session reduce the time to be allowed to speakers, whether in moving resolutions or otherwise, during the remainder of such session.

31. **Voting.**—Only Representatives of Divisions shall vote on any question before the Meeting.

32. **Mode of Voting.**—Voting shall be by show of hands, except in the cases following, namely:—

(i.) **Vote by Card.**—(A) If, upon the Chairman proceeding to take the vote of the Meeting upon any motion or amendment, any Representative of a Constituency shall move that the said vote be taken by card, and twenty Representatives rise in their places in support of such motion, the vote shall be taken by card, and the names of those voting for and against such motion or amendment, of those not voting, and of the Constituencies which they severally represent, shall be entered on the minutes.

(ii.) **Division.**—(B) If the Chairman, after taking a vote by show of hands upon any motion or amendment, shall be of opinion that the numbers of members voting for and against such motion or amendment are not thereby ascertained with sufficient accuracy, he shall have power to direct that the Meeting shall divide upon the said motion or amendment.

(iii.) **Vote by Roll Call.**—(C) If, upon the Chairman proceeding to take the vote of the Meeting upon any motion or amendment, it shall be moved and seconded that the said vote be taken by roll call, and ten Representatives rise in their places in support of such motion, the vote shall be taken by roll call, and the names of those voting for and against such motion or amendment, of those not voting, and of the Constituencies which they severally represent, shall be entered on the minutes and published in the Supplement.

33. **Election of Officers of the Association:**

NOMINATION.

(i.) Nominations for the offices of President of the Association, Chairman of Representative Meetings, Deputy Chairman of Representative Meetings, and Treasurer, shall be handed in writing to the Secretary of the Meeting not later than one hour after the commencement of the second day's proceedings. Each nomination shall be signed by the nominator, and shall contain a declaration that the candidate nominated has agreed to serve.

(ii.) If only one candidate be nominated for any office, such candidate shall at once be declared by the Chairman to be elected.

VOTING.

(iii.) If more than one candidate be duly nominated, the names of all such candidates shall be duly placed in a voting paper, which shall be issued and collected at such times as the Meeting shall direct. Each voter shall number the names of the candidates for each office in the order of his preference.

The Scrutineers shall proceed as follows:

(a) On the first count each candidate shall be credited with the number of votes given by those voters who have numbered him (1), and if any candidate be found to have received an absolute majority of votes cast he shall be declared to be elected.

(b) If no candidate be thus elected, that candidate who has received fewest votes shall be excluded, and his votes shall be transferred to the candidates respectively numbered as next preference on his voting papers, and any candidate now found to have an absolute majority shall be declared to be elected.

(c) If after the first transfer, no candidate be declared to be elected, the procedure of exclusion and transfer shall be repeated, and so on until one candidate is declared to be elected.

(d) If on a count between three candidates no candidate be found to be elected, and the candidates who have fewer have an equal number of votes, the preferences on the voting papers of the highest candidate shall, for the time being, be credited to the other two candidates, and that candidate who has fewer votes shall be excluded.

(e) If on a count between two candidates, after the others have been excluded, the votes are equal, that candidate who has the larger number of first preference votes shall be declared to be elected.

(f) In any case of equality subsisting after this procedure, one of the candidates shall be excluded by lot.

(g) Any voting paper shall become invalid if its preferences be exhausted before a candidate is declared elected.

ENTRANCE INTO OFFICE.

(iv.) Except with regard to *ex-officio* membership of Council and Committees, the Chairman and Deputy Chairman so elected shall not assume their functions until the close of the Annual Meeting.

34. **Election of Vice-Presidents and Honorary Members.**—The name of any person nominated by the Council for election as a Vice-President or an Honorary Member shall be submitted to the Meeting from the Chair.

35. **Election of Twelve Members of Council by Grouped Representatives under By-law 43 (c)**—

(i.) The election shall take place at the time of the Annual Representative Meeting.

(ii.) Nominations for a Member of Council to be elected by any group of Representatives shall be required to be made by a Division (through its Representative) or by a Representative of a Division included in the group.

(iii.) Nominations shall be required to be on the prescribed form.

(iv.) Nominations shall be received up to the end of the first hour of the third days' session of the Annual Representative Meeting.

(v.) There shall be issued to each Representative or Deputy Representative of a Constituency in the United Kingdom in attendance at the Meeting a voting paper containing the names of all candidates

duly nominated for election as Members of Council by the group to which such Representative belongs.

(vi.) The voting paper shall be in the prescribed form.

(vii.) Each Representative shall number the candidates on the list in the order of his preference. The voting papers shall be collected at such time as the Meeting shall direct.

(viii.) The votes shall be counted in accordance with the method of the Single Transferable Vote In the event of two candidates being found at any stage in the counting to have the same number of votes in their favour, each voter shall be credited with the number of votes which he would be entitled to give on a vote by card, and the candidate who shall then be found to have received the greatest number of votes shall have the preference.

(ix.) The details of the voting shall be placed before, and verified by, the Chairman before being declared.

36. Election of 4 Members of Council under By-law 43 (d)—

(i.) Nominations of candidates for election as Member of Council by the Representative Meeting under By-law 43, Sub-paragraph (d), shall be handed to the Secretary of the Meeting not later than the end of the first hour of the morning session, on the fourth day of the Annual Representative Meeting.

(ii.) Any Member of the Association may be nominated for election.

(iii.) A nomination may be made by any person entitled to take part in the meeting. Each nomination shall be on the prescribed form, which shall contain a statement of the candidate's experience in the Central Executive work of the Association, and shall contain, or be accompanied by, a statement by the candidate that he is willing to serve if elected.

(iv.) Voting papers containing the names of all candidates duly nominated, with such particulars as to their previous official experience as are stated in the nomination papers, shall be distributed to all Representatives or Deputy-Representatives in attendance at the Meeting, at the commencement of the afternoon session on the fourth day of the Annual Representative Meeting.

(v.) Each voter shall number the names of candidates in the order of his preference—one, two, three, etc., and sign the Voting Paper.

(vi.) The votes shall be counted and the result of the Election ascertained by the method of the single transferable vote.

(vii.) The details of the voting shall be submitted to, and verified by, the Chairman before the result is declared.

Election of Members of Standing Committees.

37. There shall be an Election Returns Committee of the Representative Meeting, which shall consist of the Chairman of Representative Meetings, the Chairman of Council, the Deputy-Chairman of Representative Meetings, the Chairmen of those Standing Committees of which under the By-laws Members are appointed by the Representative Meeting and the Chairman of the Scottish and Irish Committees.

38. The Committee shall prepare a Return showing for each Committee, Members of which are elected by the Meeting: (1) the Members of such Committee for the past year (those not appointed by the Representative Meeting being specially indicated); (2) the years of service on the Committee; (3) their possible and actual attendances at (i.) Meetings of the full Committee, and (ii.) Meetings of its Sub Committees, held up to three weeks before the commencement of the Annual Meeting. The Return shall be issued to each Representative with the Agenda of the Meeting.

39. With regard to the Finance, Journal, and Organisation Committees, only Representatives of Divisions shall be eligible for appointment.

40. After the commencement of the Annual Representative Meeting, the Committee shall prepare a list of nominations for the various Committees. In this list it shall indicate which of those nominated are Representatives, and which, if any, are Members of Council for the ensuing year.

41. In preparing the list the Committee shall have regard to (A) geographical representation on Committees where this is important; (B) the previous attendance of Members on Committees; (C) the declarations of Members as to the Committees on which they are prepared to serve.

42. With the Agenda of the Representative Meeting nomination papers for Committees shall be issued to all Members of the Meeting.

43. Each Member of the Meeting shall be entitled to nominate not more than one Member for each Committee.

44. Nomination papers by Members of the Meeting shall be handed to the Secretary of the Meeting.

45. No Representative shall be eligible for election by the Representative Meeting as a Member of more than two Committees, and no person not a Representative shall be eligible for election by the Representative Meeting as a Member of more than one Committee. If any Representative be nominated as a Member of more than two Committees, the Committee shall ascertain from him on which he prefers to serve, or, if this be impracticable, shall decide which nomination shall stand; and if any person, not a representative, be nominated for more than one Committee, the Committee shall decide which of such nominations shall stand.

46. Voting papers, containing the names of all candidates duly nominated, shall be circulated to all Representatives at the commencement of the fourth day's proceedings, and shall be collected before 1 p.m. that day.

47. The word "Representative" in these Standing Orders shall be taken as meaning the duly appointed Representative of a Constituency, or, in his absence, the Deputy duly appointed in his stead, in attendance at the Meeting.

48. Election of Service Members of Council.—The election of Members to represent the Royal Naval Medical Service, the Army Medical Service, and the Indian Medical Service on the Council shall be conducted as follows:—

(i.) In addition to Members nominated by the Council, it shall be open to any Member of the Representative Body to nominate a candidate for election as a Service Member of Council.

(ii.) Voting papers containing the names of all candidates duly nominated shall be circulated to the Representatives and be collected at the same time as the voting papers for the election of the Chairman and Deputy-Chairman of Representative Meetings.

(iii.) The votes shall be counted and the result of the election ascertained by the method of the single transferable vote.

(iv.) The details of the voting shall be submitted to the Chairman of Representative Meetings and verified by him before the result is declared.

Committee of the whole Representative Body.

49. Upon it being resolved that any item or items of the Agenda of a Representative Meeting be considered in Committee of the whole Representative Body, the following shall be the procedure:—

(i.) The consideration of the business in Committee shall take place at such time as the Representative Meeting shall determine.

(ii.) In Committee of the Representative Body, Representatives of Divisions and Members of Council respectively shall have the same rights of voting and speaking as in a Representative Meeting, and the rules of debate shall be the same as for a Representative Meeting, except that a Member may, subject to the consent of the Chairman, speak more than once on the same motion or amendment.

(iii.) On the conclusion of the consideration of the business referred to the Committee, the Committee shall confirm its Minutes as the Report of the Committee to the Representative Body, and the Representative Meeting shall thereupon resume.

(iv.) The proceedings of the Committee may be temporarily suspended at any time by a resolution that the Committee be adjourned, whereupon the Representative Meeting shall resume. The business of the Committee shall be resumed at such time as shall be fixed by the Committee, unless otherwise determined by a vote of the Representative Meeting.

IV. RULES OF DEBATE.

50. Every Member shall be seated except the one who may be addressing the Meeting, and when the Chairman rises, no one shall continue to stand, nor shall any one rise until the Chair is resumed.

51. A member of the Meeting shall stand when speaking and shall address the Chair.

52. A member who speaks shall direct his speech strictly to the motion under discussion, or to a motion or amendment to be proposed by himself, or to a question of order.

53. A Member shall not address the Meeting more than once on any motion or amendment, but the mover of a resolution or amendment may reply, and in his reply shall strictly confine himself to answering previous speakers, and shall not introduce any new matter into the debate; provided always that a member may speak to a point of order, or, by consent of the Meeting, in explanation of some material part of a speech made by him, which he believes to have been misunderstood.

54. A motion or amendment once made and seconded shall not be altered or withdrawn without the consent of the Meeting.

55. An amendment shall be either—

To leave out words;

To leave out words and insert or add others;

To insert or add words;

or in such form as shall be approved of by the Chairman, provided always that the amendment be relevant to the motion on which it is moved, and be not equivalent to the direct negative thereof.

56. No notice of motion, or amendment to any motion before the Meeting, not already published, shall be considered by the Meeting until a copy of the same with the name of the proposer has been handed in in writing to the Chairman.

57. Whenever an amendment upon an original motion has been moved and seconded no second or subsequent amendment shall be moved until the first amendment shall have been disposed of, but notice of any number of amendments may be given.

58. If any amendment be rejected, other amendments may be moved on the original motion. If an amendment be carried, the amendment or motion as amended shall take the place of the original motion, and shall become the question upon which any further amendment may be moved.

59. If it be proposed and seconded that the Meeting do now adjourn, or that the debate be adjourned, or that the Meeting do proceed to the next business, or that the question be now put, such motion shall immediately be put to the the without discussion, except as to the time of adjournment, provided always that the Chairman shall have power to decline to put to the Meeting the motions that the Meeting do proceed to the next business, or that the question be now put.

60. A motion that the Meeting do now adjourn, or that the Meeting do now proceed to the next business, or that the debate be now adjourned, or that the question be now put, shall not be made within a period of one hour after a previous motion to the like effect, unless, in the opinion of the Chairman, the circumstances are materially altered.

61. Smoking shall not be allowed during such time as the Chairman is in the Chair.

V.—SUSPENSION OF STANDING ORDERS.

62. Any one or more of the Standing Orders, in any case of urgency, or upon motion made on notice given through the Daily Journal, may be suspended at any Meeting, so far as regards any business of such Meeting, provided that three-fourths of those present and voting shall so decide.

PROCEEDINGS OF COUNCIL.

A MEETING of the Council was held at 429, Strand, London, W.C., on Wednesday, May 1st, 1912, at 2 o'clock in the afternoon.

Present.

Dr. J. A. MACDONALD, LL.D., Taunton, Chairman of Council, in the Chair.

Sir JAMES BARR, M.D., LL.D., Liverpool, President-elect.

Dr. EWEN J. MACLEAN, Cardiff, Chairman of Representative Meetings.

Dr. EDWIN RAYNER, Stockport, Treasurer.

Dr. J. GRANT ANDREW, Glasgow
Dr. W. A. CARLINE, Lincoln
Mr. ANDREW CLARK, Uxbridge
Dr. J. S. DARLING, Lurgan
Dr. MICHAEL DEWAR, Edinburgh
Mr. E. J. DOMVILLE, Exeter
Dr. J. E. EDDISON, Leeds
Dr. DAVID EWART, Chichester (New Zealand Branch)
Mr. J. HENRY EWART, Eastbourne
Mr. C. E. S. FLEMMING, Bradford-on-Avon
Dr. E. W. GOODALL, London
Dr. JOHN GORDON, Aberdeen
Dr. W. GOSSE, Sittingbourne
Surgeon-General J. P. GREANY, I.M.S., Ealing (Indian Medical Service)
Dr. T. D. GREENLEES, London (Cape of Good Hope, Eastern, Western, and Border Branches)
Dr. MAJOR GREENWOOD, London
Dr. J. R. HAMILTON, Hawick
Lieutenant-Colonel F. W. H. DAVIE HARRIS, R.A.M.C., Teignmouth (Army Medical Service)
Sir VICTOR HORSLEY, F.R.S., London
Mr. R. J. JOHNSTONE, Belfast
Mr. HERBERT JONES, Hereford
Dr. J. H. KEAY, London
Dr. F. W. KIDD, Dublin
Mr. F. C. LARKIN, Liverpool
Dr. G. R. LIVINGSTON, Dumfries
Mr. ALBERT LUCAS, Birmingham
Dr. JOHN MACDONALD, South Shields
Dr. D. J. MACKINTOSH, M.V.O., Glasgow
Dr. JAMES METCALFE, Bradford
Dr. FRANK M. POPE, Leicester
Dr. A. J. RICE-OXLEY, London
Dr. H. JONES ROBERTS, Penygroes
Dr. LAURISTON E. SHAW, London
Mr. C. R. STRATON, Salisbury
Dr. J. H. TAYLOR, Salford
Dr. D. F. TODD, Sunderland
Mr. T. JENNER VERRALL, Bath
Professor A. H. WHITE, Dublin
Mr. D. J. WILLIAMS, Llanelly

APOLOGIES.

Letters of apology for non-attendance were read from the President, Surgeon-General Benson, Dr. R. C. Buist, Mr. T. W. H. Garstang, Dr. R. B. Mahon, and Dr. C. G. D. Morier.

THE LATE LORD LISTER, P.C., O.M., M.D., F.R.C.S.

On the motion of the CHAIRMAN, the Council expressed its sympathy with the members of Lord Lister's family in their bereavement in the following resolution:

> That the Council of the British Medical Association has learnt with profound regret of the death of Lord Lister, and desires to sympathize with the members of his family in their bereavement. By his work for the alleviation of suffering, and as the genius and inspiration of modern surgery, the memory of Lister will be revered by the civilized world as immortal.

It was reported that expressions of sympathy had been received by the Association signed by the President and Secretary of the Medical Association of Lemberg, and the Bessarabian Medical Society.

THE ROYAL INSTITUTE OF PUBLIC HEALTH.

The Council decided not to appoint representatives to the forthcoming Congress of the Royal Institute of Public Health in Berlin, as the meeting clashes with the Annual Meeting of the Association at Liverpool.

NATIONAL TEMPERANCE LEAGUE.

Permission was given to the National Temperance League to hold on Thursday, July 25th, the Breakfast usually given during the Annual Meeting of the British Medical Association.

BICENTENARY FESTIVAL, MEDICAL SCHOOL, DUBLIN UNIVERSITY.

The Chairman of Council was appointed the Representative of the Association at the forthcoming Bicentenary Festival of the Medical School of Dublin University.

CHILD STUDY SOCIETY.

Sir Victor Horsley and Dr. Greenlees were appointed representatives of the Association at the Conference on the subject of "The Health of the Child in Relation to its Physical and Mental Development."

APPOINTMENT OF SOLICITOR TO THE ASSOCIATION.

Mr. W. E. Hempson was reappointed Solicitor to the Association for the ensuing twelve months.

ANNUAL MEETING, 1913—INVITATION FROM BRIGHTON DIVISION.

The CHAIRMAN OF COUNCIL reported that the Brighton Division had invited the Association to hold its Annual Meeting at Brighton in 1913, and had nominated William Ainslie Hollis, M.A., M.D., F.R.C.P., as President-elect.

The remainder of the very prolonged sitting of the Council was almost entirely devoted to the consideration of the quarterly reports of committees and of the annual report of the Council. Most of the matters upon which the committees were able to make definite resolutions were embodied in their proper places in the annual report of the Council published last week, and need not therefore be reproduced here. The following notes refer to other matters not so dealt with.

FINANCE COMMITTEE.

The TREASURER presented the Financial Statement for the year ending December 31st, 1911, as certified by the Auditors; it was received and approved, and, in accordance with By-law 37, ordered to be presented to the Annual General Meeting and the Annual Representative Meeting (see SUPPLEMENT, May 11th, p. 442 et seq.).

MEDICAL SECRETARY AND DEPUTY MEDICAL SECRETARY.

Dr. Alfred Cox was appointed Medical Secretary of the British Medical Association, and it was resolved to appoint a Deputy Medical Secretary upon conditions and terms of service stated in the advertisement. The Finance Committee was instructed to submit to the Council the names of three candidates for the post.

The Supplement.

On the recommendation of the Finance Committee, the Journal Committee was instructed to consider the desirability of restricting the size of the Supplement to sixteen pages weekly.

Accounts.

The accounts for the quarter ending March 31st, 1912, amounting to £16,171 16s. 10d., were approved, and the Treasurer empowered to pay those remaining unpaid.

The Treasurer reported that the Finance Committee had considered the recommendations of the various committees involving expenditure, and raised no objection in any case.

ORGANIZATION COMMITTEE.

The Chairman (Mr. Larkin) presented the Quarterly Report of the Organization Committee.

Proposed Formation of a Welsh Committee.

The Council considered an application from the Welsh members of the Council proposing the formation of a Welsh Committee and the allocation to it of a sum of £200 for expenses. The Council, while recognizing the necessity for the formation of a Welsh Committee, postponed its final decision pending the receipt of further information as to the proposed constitution of the Committee in relation to the Council of the Association, the scope of its work, and as to its co-operation with other bodies for the purpose of dealing with the Welsh Insurance Commissioners.

Grants to Branches in United Kingdom.

Grants were approved to Branches in the United Kingdom for the year 1912, as follows, subject to the receipt in each case of a Report for the year 1911 satisfactory to the Grants Subcommittee:

(A) *Branches of more than one Division:*

Branch.	Grant recommended at the rate of per Member on the Annual List.
Aberdeen	2s.
Birmingham	4s.
Dorset and West Hants	4s.
East Anglian	4s.
East York and North Lincoln	4s.
Edinburgh	4s.
Lancashire and Cheshire	4s.
Metropolitan Counties	4s.
Midland	4s.
North Wales	4s.
Oxford and Reading	4s.
South-Eastern of Ireland	3s.
South-Midland	1s.
South-Western	4s.
Ulster	2s.
Worcestershire and Herefordshire	3s.
Yorkshire	1s.

(B) *Branches of one Division:*

Cambridge and Huntingdon	4s.
Dundee	4s.
Fife	4s.
Gloucestershire	4s.
Northern Counties of Scotland	4s.
Perth	4s.
Shropshire and Mid-Wales	4s.
Stirling	3s.

No grant has been made for the year 1912 to any of the following Branches which had in their possession on December 31st, 1911, a balance equal to over 5s. per head of their membership:

(A) *Branches of more than one Division:*
South-Eastern.
Staffordshire.

(B) *Branch of one Division:*
West Somerset.

It was resolved that, pending the final settlement of the amount of the grant for the year by the Council, the Treasurer be empowered to make a preliminary grant to certain Branches provided that a report satisfactory to the Chairman of the Grants Subcommittee were furnished. The Branches concerned were the Bath and Bristol, Border Counties, Connaught, Glasgow and West of Scotland, Leinster, Munster, North of England, North Lancashire and South Westmorland, Southern, and South Wales and Monmouthshire. It was further resolved after discussion that the amount of this preliminary grant should be 1s. per member, and that the Treasurer should be satisfied that the Branch was in urgent need of money.

Payment of grants to Branches for 1912 will be made as follows:

50 per cent. as soon as possible;
25 per cent. on or about September 16th, 1912;
25 per cent. on or about November 15th, 1912.

The grants for 1912 to Branches outside the United Kingdom, as in previous years, were fixed at the rate of 4s. per member who had paid the full subscription for the year, and 2s. per member, elected after July 1st, who had paid half the ordinary subscription.

Deputations in connexion with National Insurance Bill.

It was decided to inform Branches and Divisions that expenses of deputations to London, and similar expenditure, cannot be defrayed out of the funds of the Association, unless such expenditure has been previously authorized by the Chairman of Council.

Regulations as to Change of Address of Members.

The Council instructed the Organization Committee, with the assistance of the legal advisers of the Association, to draft a new By-law, to be incorporated in the By-laws of the Association, to regulate the record at the Central Office of the changes of addresses of Members. The question of the recurring changes of address of Service Members was referred to the Chairman of the Committee for consideration.

Question of Amenability of Members to Rules of Divisions in which they Practise, but of which they are not Members.

The Council instructed the Organization Committee, with the assistance of the legal advisers of the Association, to prepare an amendment of the Regulations of the Association, to provide that a Member of the Association practising within the area of a Division other than that of which he is a Member shall be amenable to the Rules of such Division, when brought to his knowledge.

Conference of Secretaries.

The Committee reported that it had arranged that the conference of Honorary Secretaries of Divisions and Branches to be held this year in connexion with the Annual Meeting in Liverpool should take place on Monday, July 22nd.

Divisional Meetings to be held after Representative Meetings.

The Council resolved to communicate to Divisions the minute of the Special Representative Meeting held in February last advising each Division in the United Kingdom to adopt a rule providing for the holding of a General Meeting immediately after each Representative Meeting, for the specific purpose of considering a report thereon by its Representative or Representatives.

JOURNAL COMMITTEE.

Dr. Lauriston Shaw, in the absence of the Chairman (Dr. Buist), presented the Report of the Journal Committee. The Committee reported that it had investigated the complaint lodged by Sir Victor Horsley against the Editor, and that having regard to the difficulty of the situation it saw no ground for adverse comment. After discussion a motion to proceed to the next business was adopted and the report of the Committee approved.

SCIENCE COMMITTEE.

The Chairman (Dr. Pope) presented the Quarterly Report of the Science Committee, and on the recommendation of the Committee sanctioned certain expenditure for the purchase of books for the Library. It was reported that a catalogue of books suitable for lending was in preparation.

The Council further resolved to ask Dr. Robert Hutchison to serve on behalf of the Association on a special committee of the National Food Reform Association on diet in public and private schools.

The Committee reported that it had considered reports submitted by the Therapeutic Subcommittee, which would

shortly be published in the BRITISH MEDICAL JOURNAL, that other investigations by members of the Therapeutic Subcommittee were proceeding and that the Subcommittee had advised that the subject of intestinal antiseptics required investigation. The Science Committee had decided to keep this suggestion in mind in awarding scholarships and grants for 1912–13.

CENTRAL ETHICAL COMMITTEE.

The CHAIRMAN (Dr. Lauriston Shaw) presented the Quarterly Report of the Central Ethical Committee and the Council considered and dealt with a case of expulsion.

MEDICO-POLITICAL COMMITTEE.

The CHAIRMAN (Mr. T. Jenner Verrall) presented the Quarterly Report of the Medico-Political Committee. All its recommendations were embodied, in some cases after the discussion, in the Annual Report of the Council with the exception of the suggestion referred to the Council by the Annual Representative Meeting of 1911 to the effect that when a resolution under Rule Z has been passed by a Division or Branch and eventually ratified by the Central Council, it shall become automatically operative over the whole Association. The Council resolved, on the recommendation of the Committee, to advise the Representative Body that the time was not opportune for carrying out this suggestion, and that the adoption of Rule Z by all Branches would to a great extent have the desired effect.

PUBLIC HEALTH COMMITTEE.

The CHAIRMAN (Mr. Domville) presented the Quarterly Report of the Public Health Committee, the matters dealt with being all embodied in the report of the Council, but to what is there contained it may be added that the Council resolved that in the event of the relatives of the late Dr. Bond of Gloucester being willing to allow the British Medical Association to take over the documentary evidence in defence of vaccination collected by Dr. Bond, the following should serve as a standing subcommittee to take any necessary action: Dr. A. G. R. Cameron (Worthing), Mr. E. J. Domville (Exeter), Mr. Herbert Jones (Hereford), Dr. J. H. Keay (London), Dr. R. A. Lyster (Winchester), Dr. A. M. N. Pringle (Ipswich), and Dr. A. Drury (Halifax).

The Representative Body will be asked to take steps to secure that the members of the Public Health Committee appointed by the Representative Body and by the Council respectively be increased from three to four in each case.

HOSPITALS COMMITTEE.

The CHAIRMAN (Mr. R. J. Johnstone) presented the Quarterly Report of the Hospitals Committee.

The recommendations of the Committee with regard to certificates under the Workmen's Compensation Act had already been considered in connexion with the quarterly report of the Medico-Political Committee, and in that way embodied in the annual report of the Council.

Recommendations affecting the Insurance Act having regard to the reception of insured persons as hospital patients, and as to the relation of hospitals and their staffs to the insurance scheme, were referred to the State Sickness Insurance Committee.

SCOTTISH COMMITTEE.

The CHAIRMAN (Dr. Michael Dewar) presented the Quarterly Report of the Scottish Committee, which was approved.

SPECIAL EXECUTIVE ORGANIZATION COMMITTEE.

The CHAIRMAN (Mr. Larkin) presented the quarterly Report of the Special Executive Organisation Committee.

The CHAIRMAN (Mr. Larkin) presented a report, which was approved, on the working of the special subdepartment of the Medical Secretary's department dealing with the National Insurance Act. The report had reference to the organization of a special canvass of the Association as regards new members, to obtaining signatures to the undertaking, and the Central Insurance Fund. The Committee also reported that it had reappointed Dr. E. R. Fothergill, who was in charge of the subdepartment, for a further period of three months from March 28th, 1912.

STATE SICKNESS INSURANCE COMMITTEE.

The CHAIRMAN (Mr. Jenner Verrall) presented the Quarterly Report of the State Sickness Insurance Committee, which was received. On the motion that it be approved, some members of the Council criticized the action of the Committee in issuing a supplementary pledge without submitting it to the Council, and the manner in which members had been selected to act upon the Advisory Committee. The Chairman explained that the Committee deemed it essential in existing circumstances that it should take any necessary action itself without delay and report thereon to the Council. The Quarterly Report of the Committee was thereupon approved.

The matter of the report itself has been anticipated by the regular publication of reports of the meetings of the Committee published in the BRITISH MEDICAL JOURNAL shortly after each meeting. It included the text of the memorandum and circulars issued by the Committee as to the supplementary pledge and explanatory documents thereto attached. The Council referred to the Committee a motion made by Mr. Flemming, seconded by Dr. Keay, and adopted, recommending the Committee to consider the advisability of at once forming Provisional Medical Committees coincident with each insurance area.

FRACTURES COMMITTEE.

Mr. GRANT ANDREW presented the Report of the Fractures Committee, and the Committee was instructed, in the event of the Final Report of the Committee not being ready for presentation to the Council on July 3rd, to transmit the Report for the consideration of the Section of Surgery at the Annual Meeting, Liverpool, and to request the President of the Section to allot a time for the reception and discussion of the Report by that Section. The Committee reported that it estimated that this Final Report would be based upon investigations of over 3,000 cases of simple fractures.

IRISH COMMITTEE.

The CHAIRMAN OF COUNCIL presented the Report of the Irish Committee. The resolution of the Committee asking the Council to take into consideration the appointment of a resident paid secretary for Ireland was referred to the Organisation Committee for report.

CANDIDATES FOR ELECTION TO THE ASSOCIATION.

The ten candidates whose names appeared on the notice convening the meeting were duly elected Members of the British Medical Association.

THE LIVERPOOL MEETING.

The CHAIRMAN OF THE SCIENCE COMMITTEE reported that he had authorized invitations, to take part in the work of the Sections, to be issued to certain distinguished foreigners, and to Professor Rutherford, F.R.S., of Manchester, not a member of the medical profession, who would give an address on radium. The action of the Chairman was approved.

ANNUAL REPORT OF COUNCIL, 1911–12.

The Council then passed in review the draft Annual Report, and authorized the Chairman of Council to make alterations and additions to bring it into accord with the decisions of the meeting of that day. The report was then approved. It was published in the SUPPLEMENT of May 11th.

"TITANIC" DISASTER.

A vote of condolence with the families of Drs. O'Loughlin and Simpson, who were drowned in the sinking of the *Titanic*, was passed unanimously, all the members present standing in their places.

The Council having concluded its business rose at eight o'clock.

ATTENDANCES

OF

COUNCIL,

COMMITTEES, SUB-COMMITTEES,

AND

CONFERENCES,

From Annual Meeting, Birmingham (July, 1911), to April 30th, 1912.

COUNCIL.

Members of Council.	Annual Meeting.			Representative Meeting.		Ordinary Meetings.										Total.
	Birmingham, July 21-25, 1911.	London, Nov. 23-24, 1911.	London, Feb. 29-Mar. 2, 1912.	July 24-26, 1911.	London, Feb. 29-Mar. 2, 1912.	November 1, 1911.	November 15, 1911.	November 29, 1911.	December 2, 1911.	January 17, 1912.	January 31, 1912.	February 22, 1912.	March 7, 1912.	March 21, 1912.	April 25, 1912.	
Macdonald, Dr. J. A., LL.D., Taunton (Chairman)	1	2	3			1	1	1	1	1	1	1				10
Saundby, Professor Robert, LL.D., Birmingham (President)	2	—	3			1	1	—	1	—	—	—				8
Barr, Sir James, LL.D., Liverpool (President-Elect)	—	1	—			1	1	—	—	1	1	—				5
Butlin, Sir Henry T., Bart., D.C.L. (Past-President)	1	—	—			—	—	—	—	—	—	dead				1
Maclean, Dr. Ewen J., Cardiff (Chairman of Representative Meetings)	4	3	3			1	1	1	1	1	1	1				19
Rayner, Dr. Edwin, Stockport (Treasurer)	4	3	3			1	1	1	1	1	1	1				19
Andrew, Dr. J. Grant, Glasgow	2	2	2			1	1	—	1	1	—	—				10
Benson, Surgeon-General P. H., I.M.S., Wolmer	4	2	2			1	1	—	1	1	—	—				12
Bentham, Inspector-General R., R.N., London	—	2	2			1	1	1	1	1	1	1				10
Buist, Dr. R. C., Dundee	4	2	2			1	1	1	1	1	1	1				15
Carline, Dr. W. A., Lincoln	2	2	2			1	1	—	1	1	1	1				12
Clark, Mr. Andrew, London	1	2	2			1	1	1	1	—	—	—				9
Corby, Professor Henry, Cork	—	—	—			1	—	—	—	—	1	—				2
Darling, Dr. J. S., Largan	4	2	2			1	—	1	1	—	1	—				12
Dewar, Dr. Michael, Edinburgh	4	2	2			1	1	1	1	1	1	1				15
Domville, Mr. E. J., Exeter	4	2	2			1	—	1	1	1	1	1				14
Eddison, Dr. J. E., Leeds	3	1	2			—	—	—	—	—	—	—				6
Ewart, Dr. David, Chichester	—	—	—			1	1	—	—	—	1	—				3
Ewart, Mr. J. Henry, Eastbourne	4	2	2			1	1	1	1	1	1	1				15
Flemming, Mr. C. E. S., Bradford-on-Avon	4	2	2			1	1	1	1	1	—	—				13
Garstang, Mr. T. W. H., Altrincham	4	2	2			1	1	—	1	1	1	1				14
Goodall, Dr. E. W., London	4	2	2			1	1	1	1	1	1	1				15
Gordon, Dr. John, Aberdeen	—	—	—			1	1	1	—	1	1	1				7
Gosse, Dr. W., Sittingbourne	4	2	2			1	1	1	—	1	1	—				13
Greany, Surgeon-General J. P., I.M.S., London	—	2	2			1	1	1	1	1	1	—				10
Greenlees, Dr. T. D., London	—	—	—			1	—	1	1	1	1	1				7
Greenwood, Dr. Major, London	—	—	—			1	1	1	1	1	1	—				7
Hamilton, Dr. J. R., Hawick	2	2	2			1	—	1	1	1	1	—				11
Harris, Lieutenant-Colonel F. W. H. Davie, R.A.M.C., Teignmouth	—	—	—			1	1	1	1	1	1	—				6
Horsley, Sir Victor, F.R.S., London	4	2	2			1	1	1	1	1	1	—				14
Johnstone, Mr. R. J., Belfast	—	—	—			1	—	—	—	1	—	—				2
Jones, Mr. Herbert, Hereford	4	2	2			1	1	1	1	—	1	1				14
Keay, Dr. J. H., London	4	2	2			1	1	1	1	1	1	1				15
Kidd, Dr. F. W., Dublin	—	—	—			1	—	—	—	—	—	—				1
Larkin, Mr. F. C., Liverpool	4	2	2			1	1	1	1	1	1	1				15
Livingston, Dr. G. R., Dumfries	—	—	—			1	1	1	1	—	—	1				6
Lucas, Mr. Albert, Birmingham	4	2	2			1	1	—	1	1	1	—				13
Macdonald, Dr. John, South Shields	4	2	2			1	1	1	1	1	1	—				14
Mackintosh, Dr. D. J., M.V.O., Glasgow	—	—	—			1	1	—	—	1	1	1				5
Mahon, Dr. R. B., Ballinrobe	—	—	—			1	—	—	—	—	—	—				1
Metcalfe, Dr. James, Bradford	3	2	2			1	1	1	1	1	—	—				12
Morier, Dr. C. G. D., London	—	—	—			1	—	—	1	—	1	—				3
Nicholson, Dr. B. H., Colchester	—	—	—			1	1	—	1	—	1	—				4
Pope, Dr. F. M., Leicester	4	2	2			1	1	1	—	1	1	—				13
Rice-Oxley, Dr. A. J., London	—	—	—			1	1	—	1	1	1	—				5
Roberts, Dr. H. Jones, Penygroes	—	—	—			1	—	—	—	—	1	—				2
Shaw, Dr. Lauriston E., London	1	2	2			1	1	1	1	1	1	1				12
Straton, Mr. C. R., Wilton	—	—	—			1	1	1	1	1	1	1				7
Taylor, Dr. J. H., Salford	4	2	2			1	1	1	1	1	1	1				15
Todd, Dr. D. F., Sunderland	4	2	2			1	1	1	1	1	1	1				15
Verrall, Mr. T. Jenner, Bath	4	2	2			1	1	1	1	1	1	1				15
White, Professor A. H., Dublin	4	2	2			1	1	—	1	1	1	1				14
Williams, Mr. D. J., Llanelly	1	2	2			1	1	1	1	1	1	—				11

ARRANGEMENTS COMMITTEE.

Members of Committee.	Oct. 30, 1911.	Oct. 31, 1911.	Total.
Chairman of Council (Chairman) (*ex officio*)	1	1	2
President (*ex officio*)	—	—	—
Chairman of Representative Meetings (*ex officio*)	1	1	2
Treasurer (*ex officio*)	1	1	2
Hamilton, Dr. John R., Hawick, N.B.	—	1	1
Larkin, Mr. F. C., Liverpool	1	1	2
Lucas, Mr. Albert, Birmingham	1	1	2
Pope, Dr. F. M., Leicester	1	1	2
Shaw, Dr. Lauriston E., London	1	1	2
White, Prof. A. H., Dublin	—	—	—
Local Representatives:			
Barr, Sir James, LL.D., Liverpool	—	1	1
Bickerton, Mr. J. H., Liverpool	—	1	1
Jones, Mr. Robert, Liverpool	—	1	1
Monsarrat, Mr. Keith W., Liverpool	—	1	1
Paterson, Prof. A. M., Liverpool	—	1	1
Thomas, Prof. W. Thelwall, Liverpool	—	1	1

CENTRAL ETHICAL COMMITTEE.

Members of Committee.	Oct. 6, 1911.	Jan. 12, 1912.	April 12, 1912.	Total.
Shaw, Dr. Lauriston E., London (Chairman)	1	1	1	3
President (*ex officio*)	—	—	—	—
Chairman of Representative Meetings (*ex officio*)	—	—	—	—
Chairman of Council (*ex officio*)	—	—	—	—
Treasurer (*ex officio*)	—	—	—	—
Bateman, Dr. A. G., London	1	1	1	3
Ewart, Mr. J. Henry, Eastbourne	1	1	1	3
†Garstang, Mr. T. W. H., Altrincham	—	1	1	2
*Goff, Dr. Bruce, Bothwell	1	1	1	3
Gosse, Dr. W., Sittingbourne	1	1	1	3
Keay, Dr. J. H., London	1	—	1	2
*Langdon-Down, Dr. R., Hampton Wick	1	1	1	3
Lee, Dr. P. G., Cork	1	1	1	3
Neal, Mr. James, Birmingham	1	1	1	3
Straton, Mr. C. R., Wilton	1	—	1	2
Williams, Mr. D. J., Llanelly	1	—	1	2

† Appointed in the place of Dr. Fothergill, resigned.

RULES SUB-COMMITTEE.

Members of Committee.	March 12, 1912.	March 26, 1912.	Total.
Chairman of Central Ethical Committee (Chairman)	1	1	2
Maclean, Dr. Ewen J., Cardiff	—	—	—
Langdon-Down, Dr. R., Hampton Wick	1	1	2

STANDING ETHICAL SUB-COMMITTEE.

Members of Committee.	Nov. 14, 1911.	Mar. 19, 1912.	Total.
Chairman of Central Ethical Committee (Chairman)	1	1	2
Bateman, Dr. A. G., London	1	1	2
Ewart, Mr. J. Henry, Eastbourne	1	1	2
Keay, Dr. J. H., London	1	1	2
Langdon-Down, Dr. R., Hampton Wick	1	1	2
Neal, Mr. James, Birmingham	1	—	1

*NOT a Member of Council

SPECIAL EXECUTIVE ORGANISATION COMMITTEE.

Members of Committee.	Sept. 27, 1911.	Oct. 30, 1911.	Dec. 8, 1911.	Dec. 20, 1911.	Jan. 6, 1912.	Feb. 8, 1912.	March 14, 1912.	Total.
CHAIRMAN OF ORGANISATION COMMITTEE (Chairman)	1	1	1	1		1	1	6
Chairman of Representative Meetings	1	1	1	1	—	1	1	6
Chairman of Council	1	1	1	1	1	1	1	7
Treasurer	1	—	1	1	1	—	1	5

FINANCE COMMITTEE.

Members of Committee.	Oct. 23, 1911.	Dec. 4, 1911.	Jan. 29, 1912.	April 17, 1912.	Total.
TREASURER (Chairman)	1	1	1	1	5
President (*ex officio*)	—	1	—	—	1
Chairman of Representative Meetings (*ex officio*)	1	1	1	1	5
Chairman of Council (*ex officio*)	1	1	1	1	5
Carline, Dr. W. A., Lincoln	1	1	1	1	5
Clark, Mr. Andrew, London	1	1	1	—	4
Donville, Mr. E. J., Exeter	1	1	1	—	4
Ewart, Mr. J. Henry, Eastbourne		1	1	1	4
Horsley, Sir Victor, F.R.S., London	1	1	1	—	4
*Langdon-Down, Dr. R., Hampton Wick	1	—	1	1	4
Lawson, Dr. David, Nordrach	—	1	1	—	3
*Moore, Dr. Milner, Eastbourne	1	1	1	1	5
Chairman of Organisation Committee	1	1	1	1	5
Chairman of Journal Committee	1	1	1	—	4
Chairman of Science Committee	1	—	1	1	4
Chairman of Medico-Political Committee	1	1	1	1	5
Chairman of Central Ethical Committee	1	1	1	1	5
Representatives of Journal Committee: –					
Lucas, Mr. Albert, Birmingham	1	1	—	1	4
Verrall, Mr. T. Jenner, Bath (Chairman Med.-Pol. Committee)	—	—	—	—	—

SALARIES SUB-COMMITTEE.

Members of Committee.	Jan. 24, 1912.	Total.
TREASURER (Chairman)	1	1
Chairman of Council	1	1
Chairman of Representative Meetings	1	1

FRACTURES (TREATMENT OF) COMMITTEE.

Members of Committee.	Oct. 14, 1911.	March 30, 1912.	Total.
†GREER, Mr. W. J., Newport, Mon. (Chairman)	1	1	2
President (*ex officio*)	–	–	–
Chairman of Representative Meetings (*ex officio*)	–	–	–
Chairman of Council (*ex officio*)	–	–	–
Treasurer (*ex officio*)	–	–	–
Andrew, Mr. J. Grant, Glasgow	1	—	1
*Cathcart, Mr. C. W., Edinburgh	1	1	2
†Clogg, Mr. H. S., London	1	—	1
†Deansley, Mr. Edward, Wolverhampton	1	—	1
*Fagge, Mr. C. H., London	1	1	2
Horsley, Sir Victor, F.R.S., London	–	–	–
*Morison, Mr. J. Rutherford, Newcastle-on-Tyne	1	1	2
Paterson, Mr. H. J., London	1	1	2
†Sargent, Mr. P. W. G., London	1	1	2
†Taylor, Mr. W., Dublin	1	—	1
†Trotter, Mr. Wilfred, London	1	—	1
†Warren, Mr. Richard, London	—	1	1

* NOT a Member of Council

FRACTURES DRAFTING SUB-COMMITTEE.

Members of Committee.	Nov. 1, 1911.	Jan. 11, 1912.	Jan. 31, 1912.	Feb. 28, 1912.	March 8, 1912.	March 30, 1912.	Total.
†CHAIRMAN OF FRACTURES COMMITTEE (Chairman)	1	1	—	1	—	1	4
*Fagge, Mr. C. H., London	1	1	1	1	1	1	6
*Paterson, Mr. H. J., London	1	1	1	1	1	1	6
*Trotter, Mr. Wilfred, London	—	1	1	1	—	1	4

HOSPITALS COMMITTEE.

Members of Committee.	Oct. 6, 1911.	Oct. 24, 1911.	Nov. 15, 1911.	March 30, 1912.	Total.
JOHNSTONE, Mr. R. J., Belfast (Chairman)	—	—	1	1	2
President (*ex officio*)	—	—	—	—	—
Chairman of Representative Meetings (*ex officio*)	—	—	—	—	—
Chairman of Council (*ex officio*)	—	—	—	—	—
Treasurer (*ex officio*)	—	—	—	—	—
*Blair, Dr. David, Lancaster	1	1	—	—	2
*Bushby, Dr. T., Liverpool	1	1	1	1	4
Ewart, Dr. David, Chichester	1	1	—	—	2
*Joubert de la Ferté, Col. C. H., I.M.S., Weybridge	1	1	—	—	2
Keay, Dr. J. H., London	1	1	—	1	3
Mackintosh, Dr. A. J., M.V.O., Glasgow	1	1	1	1	4
*Maetier, Dr. H. C., Wolverhampton	1	1	1	1	4
*Parker, Dr. George, Bristol	1	1	—	1	3
Rice-Oxley, Dr. A. J., London	1	1	1	—	3
Shaw, Dr. Lauriston E., London	1	1	—	1	3
Swayne, Dr. F. G., London	1	1	1	1	4

On November 15, 1911, Committee conferred with the State Sickness Insurance Committee.

HOSPITAL INSURANCE ACT SUB-COMMITTEE.

Members of Committee.	March 1, 1912.	March 30, 1912.	Total.
CHAIRMAN OF HOSPITALS COMMITTEE (Chairman)	1	1	2
*Bashby, Dr. T., Liverpool	—	1	1
Keay, Dr. J. H., London	1	1	2
Mackintosh, Dr. D. J., M.V.O., Glasgow	1	1	2
*Parker, Dr. George, Bristol	1	—	1
Shaw, Dr. Lauriston E., London	1	1	2

IRISH COMMITTEE.

Members of Committee.	Oct. 31, 1911.	Jan. 6, 1912.	April 27, 1912.	Total.
JOHNSTONE, Mr. R. J., Belfast (Chairman)	1	1	1	3
President (*ex officio*)	–	–	–	–
Chairman of Representative Meetings (*ex officio*)	–	–	–	–
Chairman of Council (*ex officio*)	–	–	–	–
Treasurer (*ex officio*)	–	–	–	–
*Carey, Dr. R. B., Borris	–	–	1	1
*Cooke, Dr. J. G., Londonderry	1	—	1	1
Corby, Professor H., Cork	1	—	—	1
*Craig, Dr. James, Dublin	–	1	1	2
Darling, Dr. J. S., Lurgan	1	1	1	3
*Glusani, Dr. J. J., Cork	1	—	1	2
Kenny, Dr. J. M., Granard	1	1	—	2
Kidd, Dr. F. W., Dublin	1	1	1	3
*Lee, Dr. Philip G., Cork	–	–	1	1
Mahon, Dr. R. B., Ballinrobe	–	–	–	–
*Mills, Dr. John, Ballinasloe	1	—	—	1
*† Power, Dr. J., Cahir	–	–	1	1
*Quirke, Dr. James, Piltown	–	–	–	–
*Robb, Dr. A. Gardner, Belfast	1	—	1	2
*† Walshe, Dr. Denis, Kilkenny	1	—	—	1
White, Professor A. H., Dublin	–	1	1	2
*† Warnock, Dr. H. T., Donegal	–	–	–	–
†Shaw, Dr. Cecil E., Belfast	1	—	—	1

* NOT a Member of Council. † Co-opted January 6, 1912.

IRISH CONJOINT COMMITTEE.

Members of Committee.	Oct. 25, 1911.	Nov. 11, 1911.	Nov. 21, 1911.	Dec. 19, 1911.	Jan. 10, 1912.	Jan. 24, 1912.	Total.
*Cotter, Dr. J., Cork (Chairman)	1	1	1	1	1	—	5
President (*ex officio*)							—
Chairman of Representative Meetings (*ex officio*)							—
Chairman of Council (*ex officio*)							—
Treasurer (*ex officio*)							—
*Agnew, Dr. S., Lurgan	1	—	1	1	1	1	5
*Carey, Dr. R. B., Borris				1			1
*Cooke, Dr. J. C., Londonderry	1	—	—	—	—	—	1
Corby, Professor Henry, M.D., Cork	1	—	—	1	—	—	2
*Costello, Dr. T. B., Tuam	—	1	—	—	—	—	1
*Craig, Dr. Jas., Dublin							—
Darling, Dr. J. S., Lurgan	1	1	1	—	1	1	5
*Day, Dr. J. M., Dublin	—	1	—	—	—	—	1
*Delahoyde, Dr. O'C. J., Dublin		1	1	1	1	1	5
*Denham, Dr. J. Knox, Dublin	—	1	1	1	—	—	3
*Donnelly, Dr. T., Dublin	1	1	1	1	1	1	6
*Guisani, Dr. J. J., Cork	1	—	—	1	—	—	2
*Hennessy, Dr. T., Clogheen	1	—	—	—	1	—	2
*Horne, Dr. Andrew, Dublin	1	—	1	1	—	—	3
Johnstone, Mr. R. J., Belfast	1	1	1	1	—	—	4
*Keating, Dr. J., Ballinhassig	—	—	—	—	1	—	1
*Kenny, Dr. J. M. S., Granard	1	1	1	1	1	—	5
Kidd, Dr. F. W., Dublin	1	1	1	1	1	1	6
*Kidd, Dr. L., Enniskillen	1	1	1	1	—	1	5
*King, Dr. J. C., Castlepollard	1	—	—	—	—	—	1
*Lee, Dr. P. G., Cork	—	—	—	—	—	—	—
*Leeper, Dr. R. R., Dublin	—	—	—	1	—	—	1
*McDonnell, Dr. R. P., Dublin	1	—	—	1	1	1	4
*Macnamara, Dr. P. J., Kilmallock	—	1	—	—	—	—	1
Mahon, Dr. R. B., Ballinrobe	—	—	1	—	—	—	1
*Mills, Dr. J., Ballinasloe	1	1	—	1	1	1	5
*O'Donoghue, Dr. J., Dublin	1	1	—	—	—	1	3
*Power, Dr. J., Cahir	1	—	1	1	—	—	3
*Quirke, Dr. Jas., Piltown	—	—	—	—	—	—	—
*Robb, Dr. A. Gardner, Belfast	1	—	—	—	—	—	1
*Ryan, Dr. J. D., Rathdrum	—	—	—	—	1	—	1
*Shaw, Dr. Cecil E., Belfast	1	—	—	—	—	—	1
*Walshe, Dr. Denis, Graigue	1	—	1	1	1	—	4
White, Professor A. H., Dublin	1	1	1	1	1	1	6

JOURNAL COMMITTEE.

Members of Committee.	Oct. 4, 1911.	Jan. 5, 1912.	March 29, 1912.	Total.
Buist, Dr. R. C., Dundee (Chairman)	1	1	1	3
President (*ex officio*)				—
Chairman of Representative Meetings (*ex officio*)	1	—	1	2
Chairman of Council (*ex officio*)	1	1	—	2
Treasurer (*ex officio*)	—	—	1	1
Butlin, Sir Henry T., Bart., London (dead)				—
Lucas, Mr. Albert, Birmingham	1	1	1	3
Verrall, Mr. T. Jenner, Bath	1	1	1	3
*Whitby, Dr. C. J., Bath	1	1	1	3
*Wynne, Dr. F. E., Leigh	1	—	—	1
Chairman of Central Ethical Committee	1	1	1	3

JOURNAL SUB-COMMITTEE *RE* LIBEL ACTIONS.

Members of Committee.	Nov. 21, 1911.	Total.
Chairman of Journal Committee (Chairman)	1	1
Chairman of Representative Meetings		—
Chairman of Council		—
Treasurer	1	1
Chairman of Central Ethical Committee	1	1

* NOT a Member of Council.

MEDICO-POLITICAL COMMITTEE.

Members of Committee.	Oct. 11, 1911.	Jan. 10, 1912.	April 3, 1912.	Total.
Verrall, Mr. T. Jenner, Bath (Chairman)	1	1	1	3
President (*ex officio*)				—
Chairman of Representative Meetings (*ex officio*)				—
Chairman of Council (*ex officio*)				—
Treasurer (*ex officio*)	1	—	—	1
Dewar, Dr. Michael, Edinburgh	—	1	1	2
Flemming, Mr. C. E. S., Bradford-on-Avon	1	1	1	3
Garstang, Mr. T. W. H., Altrincham	1	—	—	1
Greenwood, Dr. Major, London	1	1	1	3
*Greer, Mr. W. J., Newport, Mon.	1	—	—	1
*Henry, Dr. R. Wallace, Leicester	1	1	1	3
Johnstone, Mr. R. J., Belfast	—	—	—	—
Straten, Mr. C. R., Wilton	1	1	1	3
Taylor, Dr. J. H., Salford	1	—	1	2
†Thomson, Dr. D. G., Norwich	—	—	1	1
Todd, Dr. D. F., Sunderland	1	1	—	2
Chairman of Public Health Committee	—	1	1	2

† Appointed in the place of Dr. Fothergill, resigned.

GENERAL MEDICAL COUNCIL ELECTION SUB-COMMITTEE.

Members of Committee.	Oct. 17, 1911.	Nov. 1, 1911.	Total.
Flemming, Mr. C. E. S., Bradford-on-Avon (Chairman)	1	1	2
*Greer, Mr. W. J., Newport, Mon.	1	1	2
*Thomson, Dr. D. G., Norwich	1	—	1
With			
Larkin, Mr. F. Charles, Liverpool	1	1	2
Shaw, Dr. Lauriston E., London	1	1	2
*Starling, Dr. E. A., Tunbridge Wells			
*Fulton, Dr. A., Nottingham	1	1	2

LUNACY SUB-COMMITTEE.

Members of Committee.	Feb. 29, 1912.	April 3, 1912.	Total.
*Thomson, Dr. D. G. Norwich (Chairman)	1	1	2
Chairman of Medico-Political Committee	1	—	1
Flemming, Mr. C. E. S., Bradford-on-Avon	—	1	1
Taylor, Dr. J. H., Salford	1	1	2
With			
*Langdon-Down, Dr. R., Hampton Wick	1	1	2
Buist, Dr. R. C., Dundee	1	1	2
Horsley, Sir Victor, F.R.S., London	1	1	2
*Middlemass, Dr. J., Ryhope	1	—	1
Shaw, Dr. Lauriston E., London			

* NOT a Member of Council.

MEDICAL INSPECTION AND TREATMENT OF SCHOOL CHILDREN SUB-COMMITTEE.

Members of Committee.	Feby. 21, 1912.	Total.
HORSLEY, Sir VICTOR, F.R.S., London (Chairman)	1	2
Chairman of Medico-Political Committee	1	2
Flemming, Mr. C. E. S., Bradford-on-Avon		
Rayner, Dr. Edwin, Stockport		
Greenwood, Dr. Major, London		
Henry, Dr. R. Wallace, Leicester		
With		
*Langdon-Down, Dr. R., Hampton Wick	1	2
*Beckett-Overy, Dr. H., London	1	2
*Williams, Dr. A. H., Harrow		
Representatives of the Metropolitan Counties Branch:		
*Robinson, Mr. H. Betham, M.S., London (President, M.C.B.)	1	1
Anderson, Dr. J. Ford, London	1	1
Goodall, Dr. E. W., London) Hon. Secretaries, M.C.B.	1	1
Griffith, Dr. W., London)	1	1

PARLIAMENTARY SUB-COMMITTEE.

Members of Committee.	March 29, 1912.	Total.
HORSLEY, Sir VICTOR, F.R.S., London (Chairman)	1	1
Chairman of Medico-Political Committee	1	1
Bonville, Mr. E. J., Exeter	1	1
Flemming, Mr. C. E. S., Bradford-on-Avon		
Garstang, Mr. T. W. H., Altrincham	1	1
Todd, Dr. D. F., Sunderland	1	1
*Henry, Dr. R. Wallace, Leicester		
Maclean, Dr. E. J., Cardiff		
Straton, Mr. C. R., Wilton	1	1
With		
Buist, Dr. R. C., Dundee	1	1
Larkin, Mr. F. C., Liverpool		

SHIP SURGEONS SUB-COMMITTEE.

Members of Committee.	March 29, 1912.	Total.
TAYLOR, Dr. J. H., Salford (Chairman)		
Chairman of Medico-Political Committee		
Todd, Dr. D. F., Sunderland	1	1
With		
*Sharpe, Dr. G. M.		
*Macarthy, Dr. F.	1	1
*Elliott, Dr. J. F.		

JOINT (WITH HOSPITALS COMMITTEE) SUB-COMMITTEE *re* CERTIFICATES UNDER WORKMEN'S COMPENSATION ACT.

Members of Committee.	March 1, 1912.	Total.
Representatives of Hospitals Committee:		
CHAIRMAN OF HOSPITALS COMMITTEE (Chairman)	1	1
Ewart, Dr. David, Chichester	1	1
*Maetier, Dr. H. C., Wolverhampton	1	1
*Swayne, Dr. F. G., London	1	1
Representatives of Medico-Political Committee:		
Chairman of Medical-Political Committee	1	1
*Greer, Mr. W. J., Newport, Mon.		
Todd, Dr. D. F., Sunderland		
Representatives of Medical-Charities Committee of the Metropolitan Counties Branch:		
*Robinson, Mr. H. Betham, M.S., London (President, M.C.B.)	1	1
*Grant, Dr. L., London	1	1
Harman, Mr. N. Bishop, London	1	1
*Savory, Mr. F., London	1	1

* NOT a Member of Council.

NAVAL AND MILITARY COMMITTEE.

Members of Committee.	Oct. 26, 1911.	Total.
*JOUBERT DE LA FÉRTÉ, Colonel C. H., I.M.S. (Retired)	1	1
President (*ex officio*)		
Chairman of Representative Meetings		
Chairman of Council (*ex officio*)		
Treasurer (*ex officio*)		
Benson, Surgeon-General P. H., I.M.S., Walmer		
*Coombs, Lieutenant-Colonel R. H., Bedford		
Mayo, Mr. A. C., Great Yarmouth		
Representatives of the Services:		
Bentham, Inspector-General R., R.N., London		
Greany, Surgeon-General J. P., I.M.S., London		
Harris, Lieutenant-Colonel F. W. H. Davie, R.A.M.C., Teignmouth		

ORGANISATION COMMITTEE.

Members of Committee.	Oct. 26, 1911.	Dec. 8, 1911.	Jan. 16, 1912.	April 16, 1912.	Total.
LARKIN, Mr. F. CHARLES, Liverpool (Chairman)	1	1	1	1	4
President (*ex officio*)					
Chairman of Representative Meetings (*ex officio*)					
Chairman of Council (*ex officio*)					
Treasurer (*ex officio*)	1	1		1	3
Clark, Mr. Andrew, London	1	1	—	1	3
Coombe, Mr. Russell, Exeter	1	—	1	1	3
Garstang, Mr. T. W. H., Altrincham	1	1	1	1	4
Goodall, Dr. E. W., London	1	1	1	1	4
Metcalfe, Dr. James, Bradford	1	—	1	1	3
Co-opted Members:					
Chairman of the Colonial Committee					
Hon. Sec. of the Scottish Committee					
Hon. Sec. of the Irish Committee					
Horsley, Sir Victor, F.R.S., London		—	1	—	1

CONFERENCE OF SECRETARIES SUB-COMMITTEE.

Members of Committee.	April 16, 1912.	Total.
CHAIRMAN OF ORGANISATION COMMITTEE (Chairman)	1	1
*Barnes, Dr. J. A. Percival, London	1	1
*Coombe, Mr. Russell, Exeter	1	1
*Dunlop, Dr. J. B., Bradford		
Goodall, Dr. E. W., London	1	1

GRANTS SUB-COMMITTEE.

Members of Committee.	April 16, 1912.	Total.
CHAIRMAN OF ORGANISATION COMMITTEE (Chairman)	1	1
Treasurer		
Clark, Mr. Andrew, London		
Coombe, Mr. Russell, Exeter		
Goodall, Dr. E. W., London	1	1

* NOT a Member of Council.

REGULATIONS AND STANDING ORDERS SUB-COMMITTEE.

Members of Committee.	Oct. 20, 1911.	Feb. 8, 1912.	April 10, 1912.	Total.
CHAIRMAN OF ORGANISATION COMMITTEE (Chairman)	1	1	1	3
Chairman of Representative Meetings	1	1	—	2
Chairman of Council	1	1	—	2
Treasurer				
Clark, Mr. Andrew, London	1	—	—	1
*Coombe, Mr. Russell, Exeter	—	—	1	1

PUBLIC HEALTH COMMITTEE.

Members of Committee.	Sept. 26, 1911.	Jan. 9, 1912.	April 2, 1912.	Total.
DOMVILLE, Mr. E. J., Exeter (Chairman)	1	1	1	3
President (*ex officio*)				
Chairman of Representative Meetings (*ex officio*)				
Chairman of Council (*ex officio*)				
Treasurer (*ex officio*)				
*Cameron, Dr. A. G. R., Worthing	1	1	1	3
Jones, Mr. Herbert, Hereford	1	—	1	2
Keay, Dr. J. H., London	1	1	1	3
*Lyster, Dr. R. A., Winchester	1	—	1	2
*Pringle, Dr. A. M. N., Ipswich	1	1		2

SCIENCE COMMITTEE.

Members of Committee.	Oct. 7, 1911.	April 13, 1912.	Total.
POPE, Dr. F. M., Leicester (Chairman)	1	1	2
President (*ex officio*)			
Chairman of Representative Meetings (*ex officio*)			
Chairman of Council (*ex officio*)			
Treasurer (*ex officio*)			
*Dixon, Professor W. E., F.R.S., Cambridge	1	1	2
Goodall, Dr. E. W., London	1	1	2
*Haldane, Dr. J. S., F.R.S., Oxford			
Larkin, Mr. F. Charles, Liverpool	1	—	1
*Martin, Dr. C. J., F.R.S., London	1	1	2
*Stockman, Professor Ralph, Glasgow			
White, Professor A. H., Dublin			

STANDING LIBRARY SUB-COMMITTEE.

Members of Committee.	April 13, 1912.	Total.
CHAIRMAN OF SCIENCE COMMITTEE (Chairman)	1	1
Treasurer		
*Dixon, Professor W. E., F.R.S., Cambridge	—	—
*Martin, Dr. C. J., F.R.S., London	1	1
*Editor, BRITISH MEDICAL JOURNAL	1	1

*NOT a Member of Council.

STANDING THERAPEUTIC SUB-COMMITTEE.

Members of Committee.	April 13, 1912.	Total.
CHAIRMAN OF SCIENCE COMMITTEE (Chairman)	1	1
*Cushny, Professor. A. R., F.R.S., London	—	—
Goodall, Dr. E. W., London	1	1
*Dixon, Professor W.E., F.R.S., Cambridge	1	1
*Greenish, Professor H. G., London	1	1
*Martin, Dr. C. J., F.R.S., London	1	1
*Marshall, Professor C. R., Dundee	1	1
*Stockman, Professor Ralph, Glasgow	—	—
*Wild, Professor R. B., Manchester	1	1

SCOTTISH COMMITTEE.

Members of Committee.	Oct. 7, 1911.	Oct. 28, 1911.	Dec. 16, 1911.	Jan. 6, 1912.	Jan. 29, 1912.	Feb. 27, 1912.	April 12, 1912.	Total.
DEWAR, Dr. MICHAEL, Edinburgh (Chairman)	1	1	1	1	1	1	1	7
President (*ex officio*)								
Chairman of Representative Meetings (*ex officio*)								
Chairman of Council (*ex officio*)								
Treasurer (*ex officio*)								
Andrew, Dr. J. Grant, Glasgow	1	1	1	1	1	1	1	7
Buist, Dr. R. C., Dundee	1	1	1	1	1	1	1	7
*Carmichael, Dr. E. W., Edinburgh	—	1	—	1	1	—	1	4
*Fraser, Dr. T., Aberdeen	—	1	—	—	1	1	1	3
Gordon, Dr. John, Aberdeen	—	—	1	1	1	—	1	4
*Graham, Dr. R. Balfour, Leven	1	1	1	1	1	1	1	6
Hamilton, Dr. J. R., Hawick	1	1	1	1	1	1	1	7
Livingston, Dr. G. R., Dumfries	1	1	1	1	1	1	1	7
*Low, Dr. A. P., Dundee								
*Macfarlane, Dr. W. D. (junior), Glasgow	—	—	1	1	1	1	1	5
Mackintosh, Dr. D. J., M.V.O., Glasgow	1	1	1	1	1	1	1	7
*Moir, Dr. J. Munro, Inverness	1	—	1	—	1	1	1	5
*Moorhouse, Dr. J. E., Stirling	1	1	1	1	1	—	1	6
*Smith, Dr. F. K., Aberdeen	—	1	1	1	—	—	—	3
Smith, Dr. Martin, Dundee	1	1	—	1	1	—	1	5
*Stewart, Dr. G. Clark, Falkirk								
*Taylor, Dr. W. A., Perth	1	—	1	—	—	1	1	4
*Trotter, Dr. A., Perth	—	1	1	—	1	—	1	4

(OLD) STATE SICKNESS INSURANCE COMMITTEE.

Members of Committee.	Sept. 27, 1911.	Oct. 25, 1911.	Nov. 8, 1911.	Nov. 15, 1911.	Jan. 3, 1912.	Jan. 24, 1912.	Total.
CHAIRMAN OF REPRESENTATIVE MEETINGS (*ex officio*) (Chairman)	1	1	1	1	1	1	6
President (*ex officio*)							
Chairman of Council (*ex officio*)	1		1	1	1	1	5
Treasurer (*ex officio*)	1	1	1	1	1	1	6
*Anderson, Dr. J. Ford, London	1	1	1	1	1	—	5
*Anderson, Miss L. Garrett, M.D., London	—	1	—	—	—	—	1
*Bateman, Dr. A. G., London							
Buist, Dr. R. C., Dundee	1	1	—	—	1	—	3
*Craig, Dr. Wm., Cowdenbeath	1	1	1	1	1	1	6
Darling, Dr. J. S., Lurgan	1		—	—	1	—	2
Domville, Mr. E. J., Exeter	—	1	1	—	1	—	3
Flemming, Mr. C. E. S., Bradford-on-Avon	1	1	1	1	1	1	6
*Fothergill, Dr. E. R., Brighton	1	Resigned					1
*Greer, Mr. W. J., Newport, Mon.	—	—	1	1	1		3
Greenwood, Dr. Major, London	1	1	1	1	1	1	6
*Howell, Dr. R. E., Middlesboro'	1	1	1	—	1	—	4
Jones, Mr. Herbert, Hereford	1	1	1	1	1	—	5
Keay, Dr. J. H., London	1	1	1	1	1	1	6
*Ker, Mr. Hugh R., London	—	1	—	1	1	1	4
*Lyster, Dr. R. A., Winchester	1	1	1	1	1	1	6
Mahon, Dr. R. B., Ballinrobe							
*Moir, Dr. J. Munro, Inverness					—	1	1
*Pearse, Dr. James, Trowbridge	1	1	1	1	1	1	6
*Rose, Mr. Percy, London	1	1	1	1	1	1	6
Shaw, Dr. Lauriston E., London	1	1	1	1	1	1	6
Straton, Mr. C. R., Wilton	1	1	1	—	1	—	4
Taylor, Dr. J. H., Salford	1	1	1	1	1	1	6
*Thorne, Miss May, M.D., London	—	—	1	1	—	1	3
Todd, Dr. D. F., Sunderland	1	1	1	—	1	1	5
Verrall, Mr. T. Jenner, Bath	1	1	1	1	1	1	6
*Williams, Dr. A. H., Harrow	1	1	1	1	1	1	6

N.B.—After the Representative Meeting, February, 1912, a new Committee was constituted.

*NOT a Member of Council.

(OLD) EXECUTIVE SUB-COMMITTEE.

Members of Committee.	Aug. 1, 1911.	Aug. 4, 1911.	Oct. 20, 1911.	Nov. 2, 1911.	Nov. 13, 1911.	Dec. 13, 1911.	Dec. 20, 1911.	Jan. 17, 1912.	Feb. 14, 1912.	Total.
CHAIRMAN OF REPRESENTATIVE MEETINGS (Chairman)	1	1	1	1	1		1	1	1	10
Chairman of Council	1	1	1	1	1	1	1	1	1	11
Buist, Dr. R. C., Dundee	—	—	1	—		1	1	1		5
Flemming, Mr. C. E. S., Bradford-on-Avon ..	1	1	1	1	1	1	1	1	—	10
*Fothergill, Dr. F. R., Brighton (resigned) ..	1	1								2
Keay, Dr. J. H., London	—	—	1	1	1	1	1	1	1	9
*Lyster, Dr. R. A., Winchester	1	1	1	1	1	—	1	1	1	10
Shaw, Dr. Lauriston E., London	—	1								1
Taylor, Dr. J. H., Salford	1	1	1	1	1	1	—	1	1	10
Todd, Dr. D. F., Sunderland	—	—	1	1		1	1	1	1	7
Verrall, Mr. T. Jenner, Bath	1	1	1	1	1	1	1	1	1	11

(OLD) REMUNERATION SUB-COMMITTEE.

Members of Committee.	Dec. 20, 1911.	Jan. 3, 1912.	Feb. 14, 1912.	Total.
*PEARSE, Dr. JAMES, Trowbridge (Chairman)	1	1	1	3
Chairman of the State Sickness Insurance Committee	1	1		2
Treasurer	1	1		2
*Anderson, Dr. J. Ford, London	1	1	1	3
Flemming, Mr. C. E. S., Bradford-on-Avon	1	1	—	2
*Rose, Dr. Percy, London	1	1	1	3
With				
Buist, Dr. R. C., Dundee	1	1	1	3
Todd, Dr. D. F., Sunderland	1	1		2

STATE SICKNESS INSURANCE COMMITTEE.

(APPOINTED BY THE SPECIAL REPRESENTATIVE MEETINGS, FEBRUARY, 1912.)

Members of Committee.	Feb. 28, 1912.	Mar. 7, 1912.	Mar. 14, 1912.	Mar. 21, 1912.	April 11, 1912.	April 18, 1912.	April 25, 1912.	Total.
VERRALL, Mr. T. JENNER, Bath (Chairman)	—	1	1	1	1	1	1	6
President (*ex officio*)	..	..	..	..	1	—	—	1
Chairman of Representative Meetings (*ex officio*)	1	1	1	1	—	1	1	6
Chairman of Council (*ex officio*)	1	1	1	1	1	—	1	6
Treasurer (*ex officio*)	1	—	1	—	..	1	—	3
†Adams, Dr. J., Glasgow	1	1	1	1	1	1	1	7
*Beaton, Dr. R. M., London	1	1	1	1	1	1	1	7
†Brown, Dr. John, Bacup	1	1	1	1	1	1	1	7
Cahill, Dr. M. F., Belfast	..	..	..	..	..	..	..	..
*Carter, Dr. T. M., Bristol	1	1	1	1	1	1	—	6
Darling, Dr. J. S., Lurgan	1	—	1	—	—	1	—	3
*Goff, Dr. Bruce, Bothwell	1	1	1	1	1	1	1	7
*Hodgson, Dr. S., Salford	1	1	1	1	1	1	1	7
*Howell, Dr. R. E., Middlesboro'	—	1	—	1	—	1	—	3
*Ivens, Miss Mary H. F., M.S., Liverpool	—	1	1	1	1	1	1	6
*Johnston, Dr. R. McKenzie, Edinburgh	1	1	—	—	1	1	—	4
Johnstone, Mr. R. J., Belfast (Resigned)	—	—	1	—	—	—	—	1
Kidd, Dr. F. W., Dublin	—	1	—	—	1	—	—	2
Long, Dr. Constance, London	1	1	1	1	1	1	1	7
*Lyster, Dr. R. A., Winchester	1	1	1	1	—	1	—	5
Mahon, Dr. R. E., Ballinrobe	1	—	—	—	—	—	—	1
*Moir, Dr. J. Munro, Inverness	1	—	1	1	1	—	1	5
*Neal, Mr. James, Birmingham	—	—	—	—	1	1	1	3
*Oldham, Dr. H. F., Morecambe	—	—	—	—	—	—	1	1
*Pearse, Dr. James, Trowbridge	—	1	1	1	1	1	1	6
Pope, Dr. F. M., Leicester	—	—	—	1	1	1	—	4
*Price, Dr. E. O., Bangor	1	1	1	—	1	1	1	6
Shaw, Dr. Lauriston E., London	1	1	1	1	1	—	1	6
*Smyth, Dr. W. Johnston, Bournemouth West	1	1	1	1	1	1	—	6
*Thomson, Dr. D. G., Norwich	1	—	1	1	1	1	—	5
Todd, Dr. D. F., Sunderland	1	1	1	1	1	1	1	7
*Turner, Mr. E. B., London	1	1	1	1	1	1	1	7
*Williams, Dr. A. H., Harrow	1	1	1	1	1	1	1	7
Williams, Mr. D. J., Llanelly	1	1	1	1	1	—	—	5
*Willock, Mr. E. H., Croydon	1	1	1	1	1	1	1	7
Chairman of Public Health Committee	—	—	—	—	1	—	—	1

Cahill, Dr. M. F., elected in place of Mr. R. J. Johnstone (resigned) on April 25th, 1912.
Ivens, Miss Mary, co-opted by the Committee, March 7th, 1912.
Long, Dr. Constance, co-opted a Member by the Committee, Feb. 28th, 1912.
Neal, Mr. James, co-opted by the Committee, March 21st, 1912.
Oldham, Dr. H. F., co-opted by the Committee, April 18th, 1912.
Pearse, Dr. James, co-opted by the Committee, February 28th, 1912.
Pope, Dr. F. M., elected in place of Dr. Leigh Day (resigned) on Mar. 14th, 1912.
Verrall, Mr. T. Jenner, co-opted by the Committee, February 28th, 1912.

* NOT a Member of Council.

MANIFESTO SUB-COMMITTEE.

Members of Committee.	Mar. 18, 1912.	Mar. 22, 1912.	Total.
SHAW, Dr. LAURISTON E., London (Chairman)	1	1	2
*Beaton, Dr. R. M., London	1	1	2
*Turner, Mr. E. B., London	1	1	2

ORGANISATION SUB-COMMITTEE.

Members of Committee.	Mar. 28, 1912.	Total.
POPE, Dr. F. M., Leicester (Chairman)	1	1
*Brown, Dr. John, Bacup	1	1
Howell, Dr. R. E., Middlesbro'	1	1
*Long, Dr. Constance, London	1	1
Lyster, Dr. R. A., Winchester	1	1
Price, Dr. E. O., Bangor	1	1

REGULATIONS SUB-COMMITTEE.

Members of Committee.	Mar. 28, 1912.	April 2, 1912.	April 18, 1912.	Total.
CHAIRMAN OF THE STATE SICKNESS INSURANCE COMMITTEE (Chairman)	1	1	1	3
*Beaton, Dr. R. M., London	1	1	1	3
Macdonald, Dr. J. A., Taunton	..	1	—	1
*Turner, Mr. E. B., London	1	1	1	3
Shaw, Dr. Lauriston E., London	1	1	1	3
†Neal, Mr. James, Birmingham	—	1	1	2
†Willock, Mr. E. H., Croydon	—	—	1	1

† Not a Member until April 2nd, 1912, Meeting.

REMUNERATION SUB-COMMITTEE.

Members of Committee.	March 28, 1912.	April 8, 1912.	Total.
*PEARSE, Dr. JAS., Trowbridge (Chairman)	1	1	2
Chairman of the State Sickness Insurance Committee	1	1	2
*Adams, Dr. John, Glasgow	1	1	2
*Beaton, Dr. R. M., London	1	1	2
*Hodgson, Dr. S., Salford	1	—	1
Todd, Dr. D. F., Sunderland	1	—	1

* NOT a Member of Council.

JOINT MEETING OF ORGANISATION AND REMUNERATION SUB-COMMITTEES.

Members of Committee.	April 25, 1912. Total.
CHAIRMAN OF STATE SICKNESS INSURANCE COMMITTEE (Chairman)	1 1
*Adams, Dr. John, Glasgow	1 1
*Beaton, Dr. R. M., London	1 1
*Brown, Dr. John, Bacup	1 1
Hodgson, Dr. S., Salford	1 1
Howell, Dr. R. E., Middlesbro'	
*Long, Dr. Constance, London	1 1
*Lyster, Dr. R. A., Winchester	
*Pearse, Dr. James, Trowbridge	1 1
Pope, Dr. F. M., Leicester	
*Price, Dr. E. O., Bangor	1 1
Todd, Dr. D. F., Sunderland	1 1
Chairman of Public Health Committee	1 1

JOINT SUB-COMMITTEE OF BRITISH MEDICAL ASSOCIATION AND BRITISH HOSPITALS ASSOCIATION.

Members of Committee.	Oct. 4, 1911. Total.
MACLEAN, Dr. E. J., Cardiff (Chairman)	1 1
Shaw, Dr. Lauriston E., London	1 1
Verrall, Mr. T. Jenner, Bath	1 1
*Whitaker, Mr. J. Smith, London	1 1
Representatives of British Hospitals Association:	
Colbett, Sir Wm. (Manchester Royal Infirmary)	1 1
Lupton, Mr. Chas. (Leeds Infirmary)	1 1
Collins, Mr. Howard (Birmingham General Hospital)	1 1
Mackintosh, Dr. D. J., M.V.O. (Glasgow Western Infirmary)	1 1

* NOT a Member of Council.

BRITISH MEDICAL ASSOCIATION LIBRARY.

BOOKS NEEDED TO COMPLETE SERIES.

THE Librarian will be glad to receive any of the following volumes, which are needed to complete series in the Library:

American Association of Genito-Urinary Surgeons. Transactions. 1906.
American Climatological Transactions. Vols. 1, 4, 5, 6.
American Dermatological Association Transactions. Vols. 5, 7, 8, 11, and 29.
American Journal of the Medical Sciences. New series, vols. 4, 5, 1842-3; vols. 14, 15, 1847-8; vols. 18-30, 1850; vol. 33, 1857; vol. 46, 1864-5; vol. 59; or any parts of these vols.
American Journal of Ophthalmology. Vols. 1-9.
American Laryngological Association. Transactions. Vols. 1-6, 8-9.
American Medical Association. Transactions, 2, 4, 6, 7, 11, 12, 14, 15, 16, 19, 20, 22, 31, after vol. 33, and the *Journal*, up to 1903 inclusive.
American Medico-Psychological Association. Transactions. Vol. 13, 1906.
American Otological Society. Transactions. Vol. 3, part 2, 1883.
American Public Health Association. Transactions. Any vols.
Analyst. Vols. 1-24.
Annals of Surgery. Vols. 13, 14, 26.
Archiv für Dermatologie und Syphilis. Bd. 24 and 25 (1892 and 1893).
Semaine Médicale, prior to 1884. Titles for 1884 and 1895.
South African Medical Journal. February and April, 1895. Titles, Vols. 3 and 4.
United States Department of Agriculture, Bureau of Animal Industry. Reports 1-7, 10-14.
United States Hygienic Laboratory Bulletins. Nos. 3, 8, 9, 10, 11, 12, 13, 15, 17, 18, 19, 24, 29, 43.
Virchow's Archiv. Vols. 1-150.
Watt. Bibliographia Britannica, 4 vols. 1824.

An Address
ON
THE PROFESSION, THE PUBLIC, AND THE ACT.

DELIVERED BEFORE THE DARTFORD DIVISION OF THE BRITISH MEDICAL ASSOCIATION, MAY 15TH, 1912,

BY
LAURISTON E. SHAW, M.D., F.R.C.P.,
PHYSICIAN TO GUY'S HOSPITAL.

MR. CHAIRMAN AND GENTLEMEN,—I am grateful to the Dartford Division of the British Medical Association for giving me this opportunity of attending a meeting of the practitioners of the district to open a discussion on the present position of the medical profession in respect of the Insurance Act.

No one can deny that the present position is a very critical one, fraught with considerable danger, both to the public and the profession. A hasty false step may easily precipitate a disaster, from which calm judgement and considered action may save us. In these circumstances it is clearly the duty of every member of the profession carefully to consider what should be his personal attitude in this crisis and in what direction he should throw the weight of his influence and power, which, however small it may be individually, will, if properly combined with that of his colleagues, finally decide this important issue. I propose to consider the duty of the individual practitioner in our present struggle—first, in his relationship to his professional colleagues, and, secondly, as regards his attitude to the public.

The two features of any community upon which its effective power primarily depends are the unity of its aim and the completeness of its organization. A great deal has been said and written in the last few months about the unity of the profession either by way of urging its necessity or by way of congratulation at the prospects of success which its attainment had made certain. Its importance in either regard cannot be over-estimated. It is clearly a first duty of each of us to attain and maintain professional unity to the utmost of his power. It is well, however, that we should recognize the meaning and limitations of unity of aim in a body of educated and intelligent individuals. It is something different from the unity of aim of a flock of scared sheep which, without one discordant note, endeavours to escape from the field which contains its common enemy by a single gap in the hedge. Here is no sacrifice of individual opinions and beliefs: here the unity of aim is unconscious, automatic, short-lived, and often futile. Unity of aim amongst intelligent men, especially if it be in respect to some matter more complex than a mere scramble from danger, is far more difficult of attainment, but when attained it should be permanent and effective. The higher the standard of intelligence, the greater the divergence of individual views and the more need of personal sacrifice if anything approaching what has been called the general will, or the will of all, is to be defined and acted upon. To discover the general will of a community or of a group of human beings of any sort is always a difficult task, and becomes more difficult the less developed are the common life and social intercourse of the group. To enable any sort of general will to be formulated it is indeed first essential that there should exist amongst the individuals comprising the group such a recognition of a common interest as shall cause the minority to will that the voice of the majority shall prevail.

Any one who has taken a part during the last few months in the endeavour to discover the common will of the profession with regard to the present crisis must have been impressed with the difficulty of co-ordinating and compromising the extraordinary variety of ideals and interests actuating different classes of the profession. Such differences could probably never have been compromised unless the profession had possessed a strong corporate feeling based on high traditions handed down through long years of self-sacrificing work on behalf of others. Thanks to the corporate feeling thus developed

and the willingness of the minorities to subordinate their will to the will of the majority, a clear and united professional aim has been formulated and adopted. The central body of men with moderate views owe a great debt of gratitude to the men of strong ideals in either wing who have been willing, at considerable sacrifice of cherished hopes and aims, to throw the weight of their influence and enthusiasm into a policy which must necessarily appear to some of them to show signs of weakness and to others to be unnecessarily aggressive. The maintenance and success of our unity of aim will be the more certain and the longer sustained the more clearly this sacrifice is recognized, and the more carefully each member of the profession treats with respect the ideals and opinions of his colleagues. While it is impossible for us all to think alike, it is both possible, and in present circumstances imperative, that we should all support the policy which has been evolved by a compromise between the extremists on either side, and represents the common-sense practical view of the main stream of moderate opinion. The discordant cries of "We won't have this Act at any price," and "We must have this Act at all costs," have been combined into a calm, confident statement, "We can only co-operate in carrying out the provisions of this Act upon fair and reasonable terms." To secure that the profession's extraordinary unity of aim in this crisis shall have its due effect, it is the duty of each practitioner to see to it that his loyalty to his profession overrides any personal views that might have led him to prefer the adoption of some alternative policy.

As I have already said, however, our success depends not only on the unity of our aim, but also on the completeness of our organization. It is not enough for each individual to assert his agreement with the common will; he must also work, and work hard, towards the perfection of the organization by which we intend to secure the fulfilment of our aim. Here, speaking to a meeting of the profession which contains a certain number of practitioners who for one reason or another are not members of the British Medical Association, I feel sure, nevertheless, that there will be general agreement with the statement that at the present moment there is no possibility of maintaining any adequate professional organization except through the initiative of the British Medical Association. An enormous accession to the strength of the profession's organization would be secured if every medical practitioner could see his way to throw in his lot with the Association and join its membership. Meanwhile, as this and similar meetings all over the kingdom testify, the Association recognizes the responsibility which its unique representative position gives it and desires to admit to its counsels in the present crisis every member of the profession whether actually enrolled in the membership of the Association or not. In a similar spirit the various Divisions of the Association are undertaking the duty of initiating the formation of Provisional Medical Committees representative of the whole profession in the area of their work. It is greatly to be hoped that non-members will vie with members of the Association in their efforts to form strong local committees to whom they can entrust with confidence the duty of watching and safeguarding the special interests of the profession of the district in connexion with the Act. Upon such local committees the profession must rely to provide the co-ordination between the various local areas and with the central authorities which is essential to a successful campaign. The chief duty of these committees, however, will be to arouse and maintain the enthusiasm of the local practitioner by keeping him informed of the progress of affairs and of the particular services that may be from time to time required of him. At the moment there are two primary services which the Provisional Medical Committee must strain every effort to obtain from every practitioner within its sphere of influence—first, his signature of the supplementary pledge, and, secondly, his contribution towards the Defence Fund. The supplementary pledge has become necessary because it has been suggested that if the Commissioners or the Government find themselves unable to make terms with the profession they may endeavour to escape from their difficulties by handing any sum they may agree to provide for medical benefit to the insured persons or the approved societies and putting upon one or other of them the responsibility of making arrangements with individual members of the profession. The actual wording of the undertaking originally signed by nearly the whole profession did not specifically provide for either of these contingencies, and it is therefore necessary to make clear to the authorities that they will not evade their difficulties by either of these manœuvres. If this pledge is as widely signed as the last, and especially if it be accompanied by a large proportion of provisional resignations of existing contributory contract appointments, the profession can afford to watch with equanimity this attempt to overcome their opposition by removing the safeguard of statutory collective bargaining provided in the Act. I am glad to tell you that there is already indication that the response to our appeal for signatures to the new pledge and to the provisional resignations is likely to be even more successful than was the case with the original undertaking. I was told yesterday by the chairman of a local committee in one of the poor districts of London that out of a total of 61 doctors practising in the area 61 pledges were signed in a week, and that every one of the 33 doctors who had club appointments had already placed their resignation of these appointments in the hands of the committee. As the Medical Secretary has clearly stated in the public press, the signing of this pledge and these resignations are in no way a first step towards a general strike in the syndicalist sense. It is simply an act of ordinary precaution, lest if medical benefits be suspended practitioners should find themselves still bound to attend insured persons at the old rates, despite the fact that their altered financial position no longer entitled them to such special consideration at the hands of the profession as was justified by their previous circumstances.

Of almost equal importance to the signature of the supplementary pledge is the contribution to the Defence Guarantee Fund. Very little in this world can be done without money. The profession perhaps hardly realises how much it has already cost to defend its interests in the present issue. If there are any who have not yet contributed towards this fund, they should ask themselves whether it is fair that they should allow the burden of defending their interests to be borne entirely by those of their colleagues who have contributed. In this connexion it is worth remembering that we are not merely struggling against sentimental grievances. We have to defend the vital pecuniary interests of the profession. Our failure or success in this connexion will mean a difference of millions a year to the medical profession. This may not mean much to each of us, neither would a guarantee mean much to each guarantor if it were based on the payment of 1 per cent. of his income each year for the next five years. Yet such a contribution, if promised by all, would enable the profession to feel sure that at least there was no danger of its struggle in this great crisis failing from a mere want of appreciation by its members of the financial needs of organization. I am sure it is not necessary for me to say more here than that this danger has not been entirely removed, and to appeal to every individual practitioner to consider the immediate promise of a minimum guarantee based on the percentage of his income indicated above. This Guarantee Fund, as you know, is administered as a trust by the Council of the Association on behalf of the profession, and there is not the least foundation for the fears at one time expressed in certain quarters that there might be legal difficulties in employing it for the purposes for which it has been raised.

And now I will turn from the question of the duty of the individual practitioner to his professional colleagues, to consider the attitude that he should assume in the present crisis to the community at large. No unity of aim and no completeness of organization will enable the common will of a group of individuals ultimately and permanently to prevail unless that common will is based not only on the common interest of the members of the group, but also on the common interest of the general community. While, therefore, it is necessary for us to make known to the public that we have a common aim, and that we are so organized as to be able to protect our interests, we are bound also to make abundantly clear that the policy we have adopted is entirely reasonable, and that it has been framed quite as much for the advantage of the public as of the profession. During the political turmoil that arose at the time of

and just after the passing of the Act, the attitude of the profession was perhaps inevitably often misrepresented in one direction or another by the organs of the party press, and in the heat of controversy medical men themselves made claims and statements which may have misled the public as to the profession's real attitude towards the Insurance Act. It has therefore become necessary that we should each of us take every available opportunity to explain fully to all interested members of the public the exact nature of our demands, to make clear their moderation, and to demonstrate that they are based on no mere selfish desire to benefit the profession, but with the object of providing for the beneficiaries under the Act an efficient medical service.

We must be prepared to explain and defend from this point of view each of the cardinal points without the inclusion of which in any scheme of national insurance we have warned the authorities that they cannot secure the co-operation of the profession.

I will not weary you by going over each of the points seriatim, but will deal with those which arouse most public interest, and with regard to which our position has been misunderstood or misrepresented. The time has come when every practitioner, and not only the officials and chosen representatives of the profession, must be prepared to justify our position if the ultimate attainment of our aims is to be crowned by the approval and sympathy of the public.

I will take first the most controversial subject, and the one in regard to which it might at first sight be thought that the interests of the public and the profession would be at variance. I mean, of course, our claim for adequate remuneration. What is our claim? It is that where it is agreed that the remuneration for medical services shall be arranged on a capitation basis, the minimum capitation payment shall be 8s. 6d. for each insured person per annum, exclusive of drugs, and that where the payment is arranged on the basis of a fee for each attendance, the fees shall be fixed on a proportionate scale. Is this an extravagant demand? Is it not, on the contrary, an exceedingly moderate one, so moderate, indeed, that it is clearly necessary to safeguard it by excluding from its operation a certain number of services which in ordinary contract practice are regarded as extras? The sum, indeed, has been arrived at by a consideration of the remuneration at present paid by certain public bodies for medical services to firemen and postmen throughout the country. Eight shillings and sixpence a year is the actual sum paid on behalf of these public servants, and no one has ever attempted to show why it should be thought reasonable to expect to be able to obtain efficient medical service for the great body of workmen who will be insured under this Act at a cheaper rate. It is true that for this sum in the case of these two services the doctor undertakes to provide drugs without extra charge. As a set-off against this, it must be pointed out that these men are the pick of the industrial population of this country, and that on their becoming permanently invalided the contract ceases, while in the insurance service the lives will not be nearly so carefully selected, and the contract will remain in force even when the insured person becomes incapacitated by chronic illness.

The fact that any other analogy than that afforded by these public services should have been used in calculating the probable cost of medical attendance under the Insurance Act is due to an extraordinary misconception of the relations of the profession to its poorer patients and of the completeness with which these relations are altered by the Act. The whole of medical practice is dominated by a peculiar consideration which does not obtain in the work of any other profession or occupation. A prominent feature of its work is the relief of pain and the saving of life. Services with these two objects in view cannot be refused, and they are therefore given without payment—must indeed be so given to those who cannot pay or get anybody else to pay for them, just as in many other cases they are given on unremunerative terms to those who cannot pay or get anybody else to pay remunerative fees on their behalf. The necessary calculations in respect to this Act might have been made on the analogy of the out-patient departments of the hospitals, where millions of poor people are annually seen without any payment to their medical attendants at all. Such calculations would have been supremely simple, but they would have been found to be useless for the purpose. Equally useless, as it turns out, were the calculations based on the analogy of contributory contract arrangements in doctors' private clubs and friendly societies' organizations. In these institutions other millions of working-class patients are attended on semi-philanthropic terms in recognition of the fact that unaided many such patients cannot afford to pay more, and that if they were not encouraged to accept such partial charity at the hands of the profession, vast numbers of them would have to be treated without any remuneration at all. The profession's claim now is that when the public recognizes its responsibility to help such patients to meet the cost of medical attendance, medical practitioners are justified in expecting to receive remunerative payment, or at least payment which is more nearly remunerative than that they have been willing to accept under existing conditions. Let us look at these payments in detail. Roughly, but with sufficient accuracy for practical purposes, the profession has hitherto been willing, in order to help the working man to make thrifty provision for himself, to accept a contribution of one penny a week to secure professional services for all ordinary medical emergencies. Is it too much to expect that when the workman has no longer to be persuaded, but is to be compelled, to make this provision, and when the employer and the taxpayer of the country are to be compelled to assist him, the united efforts of these three parties to the transaction should be able to produce the very modest sum of twopence a week? I am indeed amazed at the profession's moderation. It is one of the difficulties of our position that we have throughout our negotiations in these matters put forward our claims with such strict moderation, that those who have been in the habit of dealing with ordinary commercial bargainers have failed to recognize that there is no margin of excessive demand which can be abated during the process of negotiation. Certainly there is no such margin in this twopence a week, and the suggestion that the profession may be prepared to compromise on the question of payment will be found to be entirely unjustified. Any hint on the part of our negotiators that a less sum than this minimum demand might be accepted by the profession would instantly be repudiated throughout the country. Rather than give way, the profession would confidently face the difficult position created by the suspension of medical benefits. Personally, I believe that in the interests of public health and of the industrial classes who are to be insured under this Act, the suspension of medical benefits or the placing of its administration in the hands of the friendly societies would be little short of a disaster. But I am confident that the actual cost per insured person of medical attendance would be thereby unaffected. The profession is determined that, so far as the subsidized insured person is concerned, the curse of underpaid contract practice—for which there will no longer be any excuse—shall cease.

The question, therefore, for the Government to face is whether the necessary funds to effect this change shall be found by them in some way within the four corners of this Act or shall be an additional charge to be raised by his own effort by the insured person or by the approved society on his behalf. If the Government should be so unwise as to hand any sum short of 8s. 6d. a year to the insured person or to the approved society in order to secure medical attendance, they will find that they have only transferred the burden of providing the balance from their own shoulders to others less broad, and have at one stroke succeeded in alienating the sympathy of great numbers of their working-class supporters, and in defeating, to a very large extent, the beneficent objects of the Act. Stated thus in detail, our modest claim for 2d. per week seems reasonable, and our chances of obtaining it in one way or another undeniable. We are told that in the gross it means £3,000,000 per annum, and it has been suggested that no section of the public is prepared to face so large an addition to the central cost of national insurance. But when once it is grasped what advantages are to be gained by its provision and what dangers must be met if it is to be withheld, it is difficult to see in what quarters the Government would be censured if, by expending it, they tried to avoid the mistake of spoiling the ship in the proverbial way. By this expenditure it may hope to

secure a contented medical profession, endeavouring to provide for the millions of the working classes the best resources of preventive and remedial medical treatment, a contented working population gratified at finding that in respect of ill health it is no longer placed at a disadvantage by inability to secure trustworthy professional services, and a contented nation, feeling that, as the wealthiest community in the world, it may no longer be accused of neglecting the health of its workers, on whose efficiency it is primarily dependent for its wealth. Need Mr. Lloyd George fear the adverse votes of the Labour Party if he makes this additional contribution to the cause of social welfare, or of the Unionist Party, who have so generously voiced the claims of the doctors throughout this controversy, or of his own loyal supporters, who have recognized from the first that the introduction of national insurance must be a costly undertaking, only to be ultimately repaid by the increasing health and happiness of the nation? By such arguments as these I feel sure that every medical man may convince his lay friends that the profession's claim for adequate remuneration is one which they may confidently support in the public interest.

The next of our points on which there has been considerable misapprehension amongst laymen is the insistence on an income limit in connexion with medical benefit. At the outset it is, of course, necessary to explain that the profession has frankly accepted the amendment introduced into the bill, whereby it is arranged that medical benefit may be of two kinds: (1) Free medical attendance provided under an arrangement between the doctor and the local Insurance Committee; (2) a cash contribution from the Insurance Committee to the doctor towards the cost of the insured person's medical attendance. Our contention is that provision must be made to compel all persons whose income exceeds an average of £2 per week to take his benefit in the form of a cash contribution. We must explain the intolerable condition that has arisen in the past in certain friendly society's clubs whereby a man who has raised himself by his own efforts to a position of considerable wealth has been able still to call upon his doctor for unlimited medical attendance for a mere nominal annual payment fixed to meet the straitened circumstances of his youth. We must point out how such conditions have made contract arrangements exceedingly unpopular with medical men, and if not prevented in this national service will cause a large number of practitioners to remain aloof who would otherwise have participated in it. It is easy to point to existing provident institutions in which an income limit has been successfully worked with satisfaction to the doctors, and without injustice to the public. With the proviso arranged in the Act there should be no objection raised to this safeguard, either by the insured person or by others on his behalf. In fact, the greater freedom with regard to medical arrangements under the cash contribution system might make this the more popular plan with many insured persons whose incomes allow them to make independent provision for possible contingencies.

A recent discussion in the House of Commons makes it necessary that we should point out that the statutory income limit now provided in the Act in no way meets our case. In the first place it is too high, and, secondly, it deals only with the income of the insured person at the moment of entry, and makes no restriction of benefits to those already admitted, however large their incomes may subsequently become. It is absolutely essential that some means be found of preventing those whose incomes exceed a certain agreed amount from continuing to receive free medical attendance on the terms arranged for the ordinary insured person.

Free choice of doctor has always found favour with the majority of those who have taken any interest in the matter. Our strongest opponents on this question have been the aristocratic socialists and the supporters of the Minority Report of the Poor Law Commission, whose whirlwind tactics are for the moment abated. These people believe in a whole-time medical service giving universal free and compulsory medical attendance to the industrial classes. If at the present moment we feel it is hardly possible or necessary to attempt to convert them to our principle of free choice of doctor, we must never lose sight of their enthusiasm and the rapid growth of their ideas that has recently taken place in the country generally and amongst important persons in all political parties. The suspension of medical benefit or its administration for a few years by the approved societies would give a great impetus to these views, which if carried out would be as disastrous to the public as to the future of private practice in medicine. Our main safeguard against this calamity is man's natural tendency, whether rich or poor, to trust his own judgement before other people's, not least in the choice of his doctor. Free choice of doctor is the palladium of liberty for the medical practitioner no less than for his patient. It frees us from the slavery of those who would take advantage of the poverty of some of us to stimulate a down-grade competition in professional remuneration. It leaves us free to compete, it is true, not, however, by the disastrous method of underselling each other, but by striving to render more sympathetic and efficient service to our individual patients.

Nothing is more helpful to a man in impressing his point of view upon another than an ability to appreciate the other person's point of view. The profession's task would be greatly helped at the present moment if we were able to see ourselves as others see us. We must try to avoid recognizing ourselves in the caricatures that are drawn of us by party politicians. We are neither angels endeavouring to rescue the public from the appalling disaster of Mr. Lloyd George's socialism, nor a body of reckless syndicalists ready to destroy society by a specially cruel form of national strike. We are simply medical men who in an ordinary spirit of self-preservation are taking the necessary steps to maintain our independence and to safeguard our opportunities of rendering efficient service to our patients. While strenuously avoiding the allurements of the politician, we should not neglect lessons that may be learnt from the study of the contemporary history of labour unrest. We may not be able to see any resemblance to our own pale faces and black coats in the begrimed faces of the miners or the corduroy suits of the railway workers, but assuredly the public do and will draw comparisons between the methods severally employed for protecting the interests of brains and muscles. We must learn from the two recent strikes the value of loyalty amongst colleagues and the need of subordinating sectional to national interests. No one who is really prepared to study carefully the exact nature of the profession's demands should be allowed to have the least excuse for the belief that we are making use of our great "trade-union" power to put the interests of our profession before either our patriotism or our humanity.

Standing thus together, confident of the justice of our cause, and supported by the goodwill and sympathy of the public, we may boldly put forward our demands and calmly await their fulfilment.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

BATH AND BRISTOL BRANCH.

THE sixth ordinary meeting of the session was held at Bath on April 24th, Dr. G. PARKER, President, in the chair. There were eighteen members present.

Communications.—Dr. G. H. H. ALMOND read a paper on multiple tenosynovitis, and in the discussion which ensued the PRESIDENT, Dr. ALEXANDER, and Dr. NEWMAN NEILD joined. Dr. W. P. KENNEDY described some controlling factors in the circulatory mechanism. Dr. MARSH and Dr. NEILD commented upon the communication. Mr. HUGH P. COSTOBADIE read a paper on the ear, nose, and throat in general practice, and the PRESIDENT, Dr. ALEXANDER, Dr. NEILD, and Mr. FLEMMING contributed to the discussion.

BORDER COUNTIES BRANCH:

SCOTTISH DIVISION.

A MEETING of the medical practitioners of Dumfries and Maxwelltown and of Dumfries County was held in Dumfries and Galloway Royal Infirmary on Tuesday, May 7th.

Provisional Medical Committee.—The meeting was held for the purpose of electing their respective subcommittees to the Provisional Medical Committee for the Division. There was a large attendance. For Dumfries and Maxwelltown Drs. Ferguson, Kerr, and Robson were elected. Chairman and Secretary, Dr. Ferguson. For Dumfries County, Drs. Bell, Huskie, Murdoch, and Reid were elected from Annandale. Drs. Rodger and Scott from Nithsdall. The name of the practitioner from Eskdall has not yet been forwarded to us. Chairman, Dr. Huskie; Secretary, Dr. Rodger.

DR. SANDERS moved and DR. BELL seconded:

That with the object of co-ordinating the work of the various subcommittees with each other the Chairman and Secretary of the Scottish Division, Border Counties Branch, of the British Medical Association be, *ex officio*, members of the Provisional Medical Committee for the Division, and that they act as Chairman and Secretary respectively of that Committee.

This was carried.

DR. REID moved and DR. ROBSON seconded:

That each member of the profession in the Division who has not already done so be asked to guarantee not less than £5 towards the defence fund, and that £1 of that guarantee be paid now.

This was carried.

Cases and Specimens.—Dr. LIVINGSTON then showed a patient whose hip-joint he excised in August last, and explained the principles upon which the operation is based, and emphasized the importance of tenotomy of the adductor muscles and abduction of the limb during the after-treatment. Also a number of interesting pathological specimens and *x*-ray photographs connected with his recent cases.

GLASGOW AND WEST OF SCOTLAND BRANCH:

GLASGOW EASTERN DIVISION.

A MEETING of members of the profession practising within the area of this Division was held in Bellgrove Hall on April 19th at 4 p.m., when twenty-eight gentlemen were present. DR. W. J. H. SINCLAIR, Chairman of the Division, presided.

Provisional Medical Committee.

The CHAIRMAN explained that the meeting had been called to consider the question of the formation of a Provisional Medical Committee to safeguard the interests of the profession in the Division as affected by the National Insurance Act.

The HONORARY SECRETARY read the memorandum from the State Sickness Insurance Committee, after which DR. J. P. GRANGER moved and DR. JOSEPH SCANLAN seconded:

That a committee be appointed.

This was unanimously agreed to.

The number of the committee having been decided upon, the question of the method of election was next raised. DR. MATTHEW MARTIN moved:

That we proceed to the election at this meeting,

which was seconded by DR. ALEXANDER JOHNSTON.

DR. THOMAS RUSSELL moved and DR. J. P. GRANGER seconded:

That nominations only be made at this meeting, and that thereafter the election be decided by postal vote.

On a division twenty voted that the election should be proceeded with now, while the proposition for a postal vote was supported by six.

The election was accordingly proceeded with, and the following form the committee: Drs. Alexander Johnston, Belvidere Fever Hospital; J. Maxtone Thom, Royal Infirmary; Wm. A. Parker, Gartloch Mental Hospital; J. McC. Johnston, Eastern District Hospital; Robert Davidson, Shettleston; Dugald McKinlay, Tollcross; J. B. Miller, Bishopbriggs; J. B. Stewart and S. C. Cowan, Kirkintilloch; P. S. Buchanan and Miller Semple, Townhead; Robert Scott and R. D. Hodge, Springburn; John P. Granger and J. Wishart Kerr, Bridgeton; Matthew Martin and David Young, Parkhead; W. L. Muir, T. C. Barras, Joseph Scanlan, and William Bryce, Dennistoun.

On the motion of Dr. W. L. MUIR, seconded by Dr. DAVID YOUNG, it was resolved:

That in the event of any of those gentlemen elected declining to act the committee be given powers to co-opt members in their stead.

The Provisional Medical Committee met on Friday, May 3rd, when nineteen members were present. Dr. Alexander Johnston was elected chairman, and Dr. William Bryce secretary of the committee.

Medical Defence Fund.—A subcommittee of seven members, together with the chairman and secretary, was appointed to take action regarding the Medical Defence Fund.

LANCASHIRE AND CHESHIRE BRANCH:

ASHTON-UNDER-LYNE DIVISION.

A MEETING of this Division was held on Friday, April 19th, at which Dr. RODOCANACHI, Chairman of the Division, took the chair. The following members were also present: Drs. Linton, Robertson, White, Hughes, Howe, Corns, Fox, Price, Morris, Ross, McLellan, Williams, Harvey, Clarke, Kerr, Mamourian, and Bishop.

Provisional Medical Committee.—The SECRETARY read the memorandum *re* formation of Provisional Medical Committees, and on the motion of Dr. CLARKE, seconded by Dr. HUGHES, it was unanimously decided to appoint a Provisional Executive as suggested. The motion from the Chair, seconded by Dr. BISHOP,

That the present executive be appointed with power to co-opt four non-members,

was lost in favour of an amendment:

That the suggested Committee be appointed in proportion to the medical population of the various districts of the Division, with power to co-opt four non-members.

The following gentlemen were nominated and duly elected: *Ashton-under-Lyne:* Drs. Ross, Mamourian, Cheetham, Lawson, and G. Hamilton. *Stalybridge:* Drs. Rodocanachi, Fox, and Williams. *Hyde:* Drs. Kerr, Morris, and T. Watts. *Dukinfield:* Dr. Clarke. *Mossley:* Drs. White and Cameron. *Mottram and Hollingworth:* Dr. Awburn. *Denton and Hooley Hill:* Drs. McGill and Howe. *Fairfield and Droylsden:* Dr. Harvey. Dr. Mamourian being appointed Secretary.

BOLTON DIVISION.

A GENERAL meeting of this Division was held at the Bolton Infirmary at 8.30 p.m. on Thursday, April 25th. Non-members were invited to attend. Dr. FLITCROFT was in the chair, and thirty-six members were present.

School for Mothers.—The Secretary was instructed to send to all practitioners in the Division the following resolution passed at the last general meeting:

That in the establishment of any charitable institutions in the area covered by this Division in which honorary medical or surgical work is involved the management of such institutions should consult with this Division.

It was further recommended that any practitioner who might be asked to give such honorary service should also consult with this Division.

Treatment of Patients by Local Health Authorities.—A discussion arose out of the minutes of the last general meeting on the question of treatment of patients by the local health authorities. A letter bearing on this subject from Dr. Gould, the medical officer of health, was read. It was decided to reopen the question at the next general meeting.

Provisional Local Medical Committee.—Dr. THORNLEY moved:

That the Local Medical Committee consist of twenty members.

Dr. K. ROBINSON seconded. Dr. JEFFERIES proposed:

That the Committee be elected by a postal vote.

This was lost when put to the meeting. The Committee was elected by ballot, and was composed of fifteen members of the British Medical Association and five non-members, as follows: Drs. J. Affleck, T. E. Flitcroft, J. L. Falconer, H. Jefferies, R. B. Kilpatrick, T. G. Laslett, R. D. Mothersole, F. R. Mallett, J. Robinson, K. Robinson, W. Rolland, J. S. Sewell, J. Thornley, sen., A. G. Park,

T. O'Neill, *S. F. Mawson, *E. C. Racker, *R. S. Martin, *G. F. Waterson, and *S. Rees. (Those gentlemen marked * are appointed to represent the non-members of the British Medical Association.) The following resolution, proposed by Dr. FALCONER and seconded by Dr. THORNLEY, was passed:

That in the event of those elected failing to serve, the Committee have power to elect up to the number of twenty.

Annual Meeting of Branch.—Dr. JEFFERIES gave an outline of the programme of the annual meeting of the Branch to be held in Bolton on June 19th, and a committee was elected to carry out details.

LIVERPOOL DIVISION.

A MEETING of this Division was held on Tuesday, May 7th, at the Medical Institution, Liverpool. Dr. H. HARVEY, Vice-Chairman of the Division, took the chair.

Nominations for Central Council.—The meeting had been called to receive nominations for the Central Council, and on a vote being taken it was resolved:

That Mr. F. Charles Larkin and Dr. F. J. S. Heaney be nominated as candidates for election as members of the Central Council of the Association.

MANCHESTER (SOUTH) DIVISION.

A GENERAL meeting of this division was held at the Holy Innocents Schools, Fallowfield, on Thursday, April 25th, at 3.30 p.m. Dr. GRANT DAVIE presided. There were also present: Drs. Ashcroft, Brown, Cotterill, Edlin, Gregory, Goodfellow, Godson, Crichton Hood, Heathcote, Holt, Hopkinson, Hulme, Jones, McDougall, Mitchell, Martin, Russen Rhodes, Riddall, Stocks, Salter, Stowell, and Sarjant.

Confirmation of Minutes.—The minutes of the last meeting (April 3rd) were read and confirmed.

Apologies for Non-attendance. — Apologies for non-attendance were received from Drs. Christie, Sawers Scott, and Webb.

Defence Fund.—A letter from Dr. Cox in reference to the Defence Fund, dated April 1st, was read. This contained an urgent appeal to every member of the Association to support this fund by guaranteeing to the best of his ability.

Report of Organization Subcommittee.—Dr. COTTERILL, Honorary Secretary of the Organization Subcommittee, reported as follows:

Report.

The Organization Subcommittee having considered the dividing up of the Division area into convenient subdistricts for the purpose of efficient organization, defined eight subdistricts, namely, Didsbury, Gorton, Heaton Chapel, Levenshulme, Longsight, Rusholme, Withington, and Wilmslow. Each member of the subcommittee took charge of a subdistrict, and reported to a subsequent meeting the steps that had been taken in each district to place before practitioners resident in that district the policy and programme of the Association with reference to the Insurance Act; and this subcommittee having considered reports on the meetings held and other steps taken in the several districts, feels confident that it will be possible for the Provisional Local Medical Committees to secure the adherence of all practitioners in the Division to a pledge (1) to refuse to accept any contract appointments rendered vacant through the action of the Association: and (2) of all present holders of contract appointments to place their resignations of such appointments in the hands of the Provisional Local Medical Committee with a view to uniform national action being taken if necessary.

The Subcommittee recommends to this meeting:

1. The election of a Provisional Local Medical Committee, representation being given to each subdistrict as follows: One each to Heaton Chapel, Levenshulme, and Wilmslow, and two to each of the remaining five districts.

2. That the Chairman, Representative, and Honorary Secretary of the Division for the time being be *ex officio* members of the committee.

3. That the Provisional Local Medical Committee be granted power to co-opt additional members as it thinks fit so that representation of non-members of the Association and of any other medical interests not represented by the Committee as first appointed may if necessary be secured.

Provisional Local Medical Committee.—A vote by ballot was taken on the names of those nominated in the several districts for election on the Provisional Local Medical Committee. The scrutineers selected by the meeting were Dr. P. McDougall and Dr. Hulme. The CHAIRMAN announced that the following members, representing the various districts, were duly elected. Dr. Cotterill was elected Honorary Secretary to the Committee, with the Chairman, Honorary Secretary, and Representative of the Division as *ex officio* members. Wilmslow (1): Dr. Byers. Withington (2): Dr. Sarjant, Dr. Scott. Gorton (2): Dr. Martin, Dr. Webb. Longsight (2): Dr. Gregory, Dr. Salter. Heaton Chapel (1): Dr. Holt. Levenshulme (1): Dr. Edlin. Rusholme (2): Dr. Cotterill, Dr. Davie. Didsbury (2): Dr. Godson, Dr. Goodfellow. Dr. HOLT asked whether, in a case where a member of the Committee could not be present, it would be permissible to appoint a deputy. Dr. DAVIE stated that, although constitutionally a deputy could not be appointed, yet it was so very important that each district should always be represented that he ruled that a deputy might under the circumstances be appointed who would be acceptable to the members in that district. Whereupon Dr. HOLT proposed, and Dr. RHODES seconded:

That any member of the Provisional Local Medical Committee, finding himself unable to attend a meeting of that Committee, shall be entitled to appoint a deputy to represent him at that meeting.

This was carried *nemine contradicente*.

A GENERAL meeting of this Division was held at Dr Hopkinson's, Parsonage Nook, Withington, on Friday, May 3rd, at 3.30 p.m. Dr. GRANT DAVIE presided. There were also present: Drs. Brown, Cotterill, Gregory, Godson, Heathcote, Holt, Hopkinson, MacGregor, Mitchell, Martin, Russen Rhodes, Stowell, Simcock, Sawers Scott, Stocks, Salter, Webb, and Whitworth. Dr. McGrath was present by invitation.

The Canvassing List.—Dr. HOLT asked whether a member of the profession who was reported to be a "sixpenny" man should be asked to join the Association. The feeling of the meeting was that every member of the profession should be canvassed and brought into line professionally with his colleagues. He was therefore asked to place him on his canvass list.

Confirmation of Minutes.—The minutes of the last meeting (April 25th) were read and confirmed.

Apologies for Non-attendance.—Apologies for non-attendance were received from Dr. Sargant and Dr. Chevers.

Medical Federation, Limited.—A letter from the general practitioners of South-East Essex Division was read. This requested the British Medical Association to advise its members to join the Medical Federation, Limited, or show reason why they should not. The meeting decided to let the letter lie on the table.

Proprietary Medicines.—A letter from the Medico-Political Committee of the British Medical Association was read, announcing the inquiry by the Government into patent and proprietary medicines, and asking members to send any facts to head office bearing on the advertisement, sale, and effects of patent medicines. The CHAIRMAN requested members to keep this appeal in mind.

Club Appointments.—The forms of pledge and resignation in relation to club appointments were read and generally approved of by the meeting.

Nominations for Election on Central Council. — As representatives of the Lancashire and Cheshire Branch on the Central Council, Dr. RHODES proposed and Dr. STOCKS seconded Dr. T. A. Helme, 8, St. Peter's Square, Manchester. Dr. GREGORY proposed and Dr. BROWN seconded Dr. S. Hodgson, The Crescent, Salford. One other name was proposed, but a vote of the meeting decided in favour of Dr. Helme and Dr. Hodgson.

A National Medical Service.—Dr. RUSSEN RHODES, in a paper, explained more fully his letter which appeared in the SUPPLEMENT of the BRITISH MEDICAL JOURNAL of April 20th, on the subject of a National Medical Service, a detailed account of which will be found in the SUPPLEMENT of the BRITISH MEDICAL JOURNAL of May 4th. An interesting discussion followed, after which it appeared that the meeting on the whole was favourable to some such service; several members refrained from voting.

Postponement of Paper.—On account of the late hour it was decided to postpone the reading of Dr. Hopkinson's paper, as it was the general desire that there should be a full discussion on the subject, namely, the dosage of some of our commoner drugs.

School Clinics.—Dr. McGRATH, from the Manchester (North) Division, advocated the establishment of a school clinic in Gorton, in view of the fact that the National Health Board intended to give grants to further the treatment of school children after medical inspection. The CHAIRMAN informed the meeting that the principle of school clinics had been rejected three years ago by the joint committee of Manchester and Salford, on account of the probable abuse by paying patients.

METROPOLITAN COUNTIES BRANCH:

CHELSEA DIVISION.

A MEETING of the Local Provisional Medical Committee of Chelsea and Fulham was held at the Fulham Town Hall on Tuesday, May 7th, Dr. YOUNG in the chair. There were present: Drs. P. Spaull, G. Coltart, J. Orr, T. M. Ross, A. F. Millar, A. Benham, J. C. Jackson, E. Hudson, H. Butler, W. S. Lee, E. W. Lewis, J. Hamilton, Campbell Boyd, J. Dewar, M. J. Williams, W. Bonney, E. P. Satchell, and J. R. Gallard.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Borough Council and Attendance on the Sick.—The HONORARY SECRETARY informed the meeting that the Town Clerk of Fulham had mentioned to him (unofficially) that the Borough Council contemplated availing themselves of that clause of the National Insurance Act which gives public authorities the power to make their own arrangements for providing sickness and other benefits for their employees; and he would be glad to know if the local profession considered that a contribution of 2d. per week for each employee would cover the cost of medical benefit (including drugs). After considerable discussion, during which there was a consensus of opinion that 2½d. and not 2d. would cover the cost of medical benefit, the Secretary was instructed to ask for an official application as to the terms on which medical men would be recommended to accept appointments for the purpose mentioned. The Honorary Secretary also informed the meeting that he had been asked to enter into a contract to attend persons who were almspeople, and therefore could not be insured under the Act. He had considered the offer only on condition that he should be paid at the rate of 10s. per annum for each almsperson. The general feeling of the meeting was that under those circumstances he would be justified in completing the contract.

Subcommittee's Report.—Two meetings were held, and a list of medical men for each member of the General Committee to canvass had been prepared and sent to them. A draft of the proposed Information Form had also been submitted for their approval. The Committee instructed the Subcommittee to draft an explanatory letter, enclosing (*a*) the Information Form with one or two slight modifications; (*b*) a copy of the supplementary pledge *re* contract practice; (*c*) a copy of the resignation form *re* contract practice; (*d*) an appeal for subscriptions to the expenses of this Committee, with preliminary list of subscribers for circulation amongst all the medical men in the area of the Division.

A MEETING of the Chelsea Division was held at the Fulham Town Hall on Tuesday, May 7th, Dr. YOUNG in the chair. There were present, in addition to the members of the Local Provisional Committee, Drs. J. R. Wells, D. Whiteley, A. G. Wells, J. Edwards, T. J. Tonkin, W. E. Robinson, W. Bonney, F. W. Griffen, F. E. Cox, J. H. Reynolds, R. Merrick, F. Preston, Wm. Keen, and J. Fletcher.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Correspondence.—(1) Letters were read from the South Essex Division advocating support of the National Federation, Limited. (2) From the Central Office, with reference to proprietary medicines. (3) From the Kensington Division, requesting support of its nominees for the Central Council and the Branch Council.

Vote of Condolence.—Dr. T. M. Ross moved and it was seconded that a letter of sympathy should be sent to the widow of Dr. Morton, of 44, Whiteheads Grove, Chelsea. This was carried in silence, the members standing.

Nomination of Members to Central Council.—Dr. E. W. LEWIS moved and Dr. GALLARD seconded:

> That this Division do nominate Dr. Chas. Buttar, Chairman of the Kensington Division, as a member of the Central Council.

This was carried unanimously.

Nomination of Officers of Branch.—The Division decided to nominate as follows: *President-elect of the Branch*, Dr. Langdon-Down: *Vice-Presidents of the Branch*, Mr. H. W. Chambers, Dr. Jas. Young.

Local Provisional Medical Committee.—The report of the Local Provisional Medical Committee was received and adopted. Dr. J. C. JACKSON moved:

> That the Local Provisional Medical Committee be empowered to co-opt members.

He remarked that the Committee as at present constituted did not include a single member of a hospital staff. The resolution was seconded by Dr. SPAULL and carried unanimously.

Expenses of the Committee.—It was moved by Dr. SPAULL and seconded by Dr. BUTLER:

> That the Division do contribute the sum of £5 towards the expenses of the Committee.

This was carried unanimously.

Instructions to Representative.—The following instructions to Dr. Fletcher for the Annual Representative Meeting at Liverpool were moved by Dr. W. S. LEE:

> That the Council and general body of the British Medical Association extend and give official recognition and assistance to the National Federation, Limited, or take steps towards early affiliation with that body.

Dr. LEE said: I propose this resolution, gentlemen, because, in my opinion, I am sure it is time that the governing body of the British Medical Association should take advantage of every possible means they can to strengthen their own power and position and to protect the interests of the profession. You are all aware that the Association cannot use its own actual funds to compensate any medical practitioner for any loss he may sustain in fighting against the evils of the Insurance Act. The only money it can spend in this manner is that specially collected for that purpose. We know that so far the amount so collected has not been equal to the demand likely to be called for. Most medical men, myself included, have refrained from contributing owing to the Smith Whitaker episode. That is past history, but it, in conjunction with the exposure of the weak-kneed policy and actions of the officials of the Association, has shaken the confidence of many in the power and ability of the Association. Now, however, the rank and file of the Association have asserted themselves in a clear and definite manner, and their action is bearing fruit, and so we may look forward to brighter things. Still, we must not rest on our oars. We must see that the Association does not throw away any chance of improving our position. There is one chance of so doing, and it is by no means a small one. The Association, through its Council, can strongly advise its members to join the National Federation, Limited, and it can also take steps to become affiliated to that body. I believe it can come to such an arrangement with the National Federation, Limited, that a single annual subscription will pay for the two, that is to say, the British Medical Association and the National Federation. The only further contribution likely to be asked from you is a guarantee of £5. This £5 guarantee will establish a strike fund, and would only be called on and used when necessary. What we want is a trade union. Well, here is one already formed, one which, if you only join it, will enable you to fight not only the National Insurance Act, but the extending and encroaching power of that terrible octopus, the London and other County Councils. It will also enable you to fight against hospital and contract abuse by seeing that its members support each other all over the kingdom, and that you need have no fear of another man accepting a post you have resigned because of injustice. I ask you, Why is it that the Council of the Association offers a cold shoulder to the National Federation, Limited? Is it jealousy because those men in Bristol have accomplished quietly and without any blowing of trumpets what the Association has so often talked about

but never accomplished? Or is it that the Council, in its superior wisdom, cannot realize the great power it has in its hands, if it will only make use of it by affiliating with the National Federation? No better means of strengthening our position can be found than by adopting the plan I have outlined, and I urge you to pass this resolution and to point out to the governing body of the Association that it is its duty to take advantage of every possible means to protect and advance our interests, and that a most important step in that direction would be affiliation with the National Federation, Limited. Dr. BUTLER seconded. Dr. FLETCHER, although in favour of the resolution, thought it ought to be emphasized that the Central and other Defence Funds of the British Medical Association could be used for compensation purposes. Dr. HAMILTON moved the following amendment:

> That whilst we welcome the formation of the new Insurance Company—the National Federation, Limited—and hope that many of our members will join it for their own protection, we desire to impress most emphatically on all members of the Division and of the profession in general that the only really effective way of securing our ends is to generously support the Guarantee Fund of the British Medical Association.

This was seconded by Dr. WILLIAM KEEN. On a show of hands this was defeated by a small majority. Dr. J. C. JACKSON thought such an important matter required further consideration, and moved that it be adjourned till the next meeting. This was seconded by Dr. SPAULL, and carried by 23 votes to 4. Dr. GALLARD moved:

> That the Division give its support to the following motion of the East Norfolk Division:
>
> That the time has now come when the Council should take into consideration the payment of the necessary out-of-pocket expenses of Representatives at Representative Meeting.

This was seconded by Dr. DEWAR and carried unanimously. Dr. FLETCHER moved that the Division recommend:

> That the Annual Representative Meeting shall commence on the third Tuesday in July.

This was seconded by Dr. BUTLER and carried unanimously. Dr. SPAULL spoke as follows: "On reading Circular D 49 and the copy of the complementary pledge, it appears to me that if any medical man refuses to sign the latter and persists in taking further contract work, that there is no penalty attached to such a course. The only punishment that threatens him is 'to be sent to Coventry by his professional brethren.' What will such a man care for that?" He therefore moved:

> That the Representative Body instruct the Council or the State Sickness Insurance Committee to approach the General Medical Council in order to ascertain if that body will be prepared to accept a charge of infamous conduct (such charge to be formulated by the British Medical Association) against any medical man who is guilty of accepting (*a*) any appointment which another practitioner has resigned when called upon by the British Medical Association to do so; (*b*) any further contract work which includes insured persons on terms which are not acceptable to the Local Provisional Medical Committee of his area.

Dr. WHITELEY, in seconding, said that there was at present no effective method of preventing blacklegs from stepping into the posts which many of them filled at present. The resolution was carried unanimously, and the Secretary was instructed to send a copy thereof to the State Sickness Insurance Committee and to the Secretaries of all Divisions in the United Kingdom.

Expenses of Representatives at Annual Representative Meeting.—Dr. GALLARD moved and Dr. BUTLER seconded:

> That every member of the Division be requested to subscribe the sum of 1s. in order to defray the expenses of our Representative at the forthcoming meeting at Liverpool.

This was carried unanimously.

Fulham Board of Guardians and Midwifery Fees.—Dr. YOUNG called the attention of the meeting to a recent instance in which he had been unable to obtain a fee from the Fulham guardians for attending a maternity case when so requested by a registered midwife. One or two other medical men present stated that they had also met with a refusal. Dr. SPAULL moved and Dr. MILLAR seconded:

> That as two or three cases have been reported to the Division in which members have been unable to obtain their fees for attending maternity cases when requested to do so by a registered midwife, the Fulham Board of Guardians be informed:
>
> That unless the fees of medical men attending maternity cases on the request of a registered midwife be paid in all cases (subject to no reservation excepting notice of such attendance within fourteen days thereof) the Division will be compelled to advise its members not to attend such cases under any circumstances whatever, and that should a fatality unfortunately occur through such want of skilled attendance, the officers of the Division will be instructed to see that the coroner is informed of the reason thereof.

This was carried.

CITY DIVISION.

A MEETING, to which all members of the profession practising in the area of the Division were invited, was held at the Shoreditch Town Hall on April 17th. About one hundred doctors were present.

Provisional Medical Committee.—The meeting was called for the purpose of electing a Provisional Committee to safeguard the interests of the profession in connexion with the National Insurance Act. The following are the names of the gentlemen elected to represent the various boroughs in the area of the Division:—*City:* Drs. A. Withers Green, J. Adams, Sequeira, and Galt. *Bethnal Green:* Drs. Nicholson and Hora. *Finsbury:* Drs. Evan Jones, J. Dorran, and W. F. Roe. *Shoreditch:* Drs. J. H. Porter and T. Chetwood. *Stoke Newington:* Drs. V. Price, Durno, Williams, and Jaffé. *Hackney:* Drs. Elizabeth Wilks, Ross, Whitelaw, C. Dixon, Swan, Reilly, and Elmslie. It was decided that the following officers of the Division should be *ex officio* members of the Committee: Drs. Gerald Johnston (Chairman of Division), E. W. Goodall (Representative), J. W. Hunt (Member of Branch Council), C. F. Hadfield (Member of Branch Council), Major Greenwood (Member of Central Council), A. G. Southcombe (Honorary Secretary of Division).

EALING DIVISION.

A MEETING convened by the Ealing Division in conjunction with the West Middlesex Insurance Defence Committee, to which all doctors had been invited, took place on Wednesday, May 1st. Dr. LOWRY, Chairman of the Insurance Committee, took the chair, thirty-four medical men being present.

Provisional Medical Committee.—The HONORARY SECRETARY (Dr. Vining) stated that the meeting had been called to obtain the leave of the Division to call the West Middlesex Insurance Defence Committee the "Provisional Medical Committee of the Ealing Division." He pointed out that the West Middlesex Committee had been in existence since November of last year, and he believed it was the first Committee of the kind to be formed. Its constitution was practically identical with the definition of a Provisional Medical Committee that the British Medical Association now asked them to form. He therefore proposed that simply the change in name should take place, with the addition of two or three more representatives. Leave was given, and the Committee now stands as follows: *Acton:* Drs. Dixson, Neil, Thornton, and Timmins. *Bedford Park:* Dr. Jamieson. *Brentford:* Drs. Bott and Lowry. *Chiswick:* Drs. Diplock, Fountain, and French. *Ealing:* Drs. George Arthur, Cockle, James, Savery, and Vining. *Hanwell:* Drs. Hewison, Hope, and Wolfe. *Hayes:* Dr. Parrott. *Hounslow:* Dr. Christian. *Southall:* Drs. Shanks and Sinigar. It was pointed out that Uxbridge would now become part of the Harrow Division, and therefore its representative on the West Middlesex Committee (Dr. Davidson) was not now a representative at Ealing.

The Pledge.—The necessity and importance of every doctor's signature to this bond was explained and the steps the Provisional Medical Committee was about to take stated. At the close of the meeting the doctors present handed in their pledges signed.

Vote of Thanks.—The meeting concluded with the usual vote of thanks.

HAMPSTEAD DIVISION.

A MEETING of this Division was held on Friday, May 10th, at 8.30 p.m., at the Central Library, Finchley Road. Dr. ADAM OAKLEY was in the chair and twenty-eight members were present.

Confirmation of Minutes.—The minutes as printed in the JOURNAL were taken as read and confirmed.

Local Defence Fund.—A letter replying to the Hampstead Provisional Committee on the question of the existence of a local defence fund was read, intimating that at a meeting of the profession on July 19th it was decided not to form one.

Nominations for Council.—A letter from the Secretary of the Branch with reference to nominations for office on the Branch Council was read; also a letter from the Secretary of the Kensington Division enclosing the names of nominees for the above offices by that Division, and asking for support. It was moved by Dr. OPPENHEIMER, seconded by Dr. OAKLEY, and carried:

That no recommendation on the subject be made.

Closure of Meeting.—Arising out of a question it was decided that meetings held at the Central Library should terminate as soon as possible after 10.15 p.m.

The Undertaking.—Arising out of a question, the HONORARY SECRETARY gave the following information. For the Hampstead Division—

Number of practitioners members of the Association	276
Number of practitioners non-members	220
Number of members who have signed undertaking	395
Number of members who have not signed undertaking	101
Number of guarantors	101
Amount guaranteed	£551 8s. 6d.
Number of practitioners holding friendly society appointments	42

Grouping of Representatives for New Divisions.—Arising out of the question upon the agenda paper with reference to the grouping of Representatives for the new Divisions, Dr. OPPENHEIMER moved and Dr. OAKLEY seconded:

That the representation of the Hampstead Division at the Annual Representative Meeting remain unchanged.

The resolution was carried *nemine contradicente*.

Matter of Urgency.—On the matter of urgency on the agenda paper, Dr. MACEVOY moved and Dr. OPPENHEIMER seconded:

That the action of the Committee of the Division be confirmed.

This was carried *nemine contradicente*.

Report from Representatives.—A report from the Representatives to the Branch Council was received and discussed.

Nominations for Central Council.—Dr. OPPENHEIMER proposed and Dr. PRITCHARD seconded:

That Dr. Major Greenwood be nominated by the Division.

An amendment was proposed by Dr. FORD ANDERSON and accepted and seconded by Dr. OPPENHEIMER:

That in addition to Dr. Greenwood, Dr. Basil Morison, Dr. F. J. Smith, and Dr. M. G. Biggs be nominated by the Division.

This was carried with two dissentients, and the substantive motion—

That Drs. Major Greenwood, Basil Morison, F. J. Smith, and M. G. Biggs be nominated for office on the Central Council,

was carried. It was then proposed by Dr. OPPENHEIMER and seconded by Dr. OAKLEY:

That the names of the Division nominees be sent to the members of the Division with the next agenda paper.

Paper.—Dr. F. W. PRICE read a paper on recent advances on the diagnosis and treatment of heart disease, illustrated by the polygraph. His lecture was of great interest, and was further illustrated by diagrams and black-board drawings. Drs. FORD ANDERSON, OPPENHEIMER, SHARMAN, and SODEN joined in the discussion.

Vote of Thanks.—A vote of thanks to Dr. Price terminated the meeting.

HARROW DIVISION.

Provisional Medical Committee.

THIS Committee held its first meeting on May 7th. Present: Drs. Brady, Barton, Bluett, Charpentier, Davidson, Dyson, Edwards, Hatch, Harley, Humphry, Jones, McIntosh, Martin, Pennefather, Romer, and Williams. Dr. A. H. WILLIAMS, Chairman of the Division, occupied the chair *pro tem.*, and welcomed the two representatives from Uxbridge, who for the first time were now associated with this Division.

Election of Officers on the Committee.—Dr. EDWARDS proposed, and Dr. HATCH seconded, and it was carried unanimously:

That Dr. A. H. Williams be elected as Chairman.

Dr. WILLIAMS proposed and Dr. JONES seconded:

That Dr. C. M. Pennefather be elected as Honorary Secretary.

This was carried unanimously.

Date of Meetings.—It was decided:

That meetings should be held when necessary on Tuesdays at 8.30 p.m. in the Gayton Rooms, Harrow.

That at meetings of this Committee seven shall form a quorum.

That the expenses of the Committee shall be defrayed out of the Central Defence Fund, as authorized by Reference from the Central Office, D 46, paragraph 13.

Central Defence Fund.—Out of this a discussion arose as to obtaining further support to the Central Defence Fund, and it was suggested that canvassers should attempt to secure additional guarantors.

Reference D 49 from the State Sickness Insurance Committee.—This was read by the HONORARY SECRETARY, and discussed seriatim. The CHAIRMAN proposed, Dr. MCINTOSH seconded, and it was carried unanimously:

That the Harrow Provisional Medical Committee asserts its intention to institute the procedure outlined in paragraph 9, and instructs the Honorary Secretary to notify the Head Office to that effect.

The Pledge.

Arising out of D 49, a question was asked as to whether the latter part of the pledge would necessitate voluntary medical officers of such institutions as, for instance, cottage hospitals, resigning their appointments to these institutions if it became necessary, and decided in the affirmative.

A similar question as to the treatment of insured persons in fever hospitals was decided in the negative.

Dr. WILLIAMS proposed from the chair that, as an example to their brother practitioners, all the members of the Committee now present should sign the pledge. The pledge was then signed by all the sixteen members present.

All members of the Committee who were willing to canvass the profession in the Division were invited to do so, and the Honorary Secretary allotted to each member who so signified his willingness, a list of medical practitioners in his immediate neighbourhood. In this way a complete canvass was arranged, and canvassers were asked to forward returns to the Honorary Secretary, if possible, in time to be communicated to the Divisional meeting fixed to be held on May 16th.

The canvassers were asked to use the following suggested rules in making their canvass:

1. To explain fully the nature of the pledge.
2. To obtain signatures to the pledge.
3. To ascertain the number and names of *all* contract practice appointments, including private clubs, which may contain persons to be insured under the Act.
4. To ascertain the amount of notice required for each appointment if known.
5. To procure the names and addresses of the secretaries of these clubs and societies.
6. To forward a list with the results of the canvass to the Honorary Secretary.
7. To press for guarantees to the Central Fund.
8. To urge any non-members of the Association to join.

It was suggested that if any diffidence was shown by a medical practitioner in giving information as to his contract practice appointments to the canvasser, he should be asked to forward this information direct to the Honorary Secretary.

KENSINGTON DIVISION.

A GENERAL meeting of the members of the Kensington Division (to which resident non-members were also invited) was held on Wednesday, May 1st, at the Kensington Town Hall, at 4 p.m., and was attended by about one hundred practitioners.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Nomination for Offices.

The CHAIRMAN (Dr. Charles Buttar) announced that the Executive Committee had made the following nominations for offices in the Division: *Chairman*, Mr. E. B. Turner; *Vice-Chairman*, Mr. T. G. Alderton; *Honorary Secretary*, Mr. Herbert Tanner; and as *Assistant Honorary Secretary*, Drs. Raiment and Fry were nominated by the meeting.

The Executive Committee also nominated the following four for election as *Representatives*—Mr. E. B. Turner, Dr. H. Beckett-Overy, Mr. H. H. Sturge, Dr. H. H. Mills. Mr. P. C. Raiment and Dr. Crawford Thomson were also nominated. It was then decided that the four representatives should be elected by ballot, and also at the same time the office of Assistant Honorary Secretary. Sir John Collie and Dr. E. Chittenden Bridges were appointed scrutineers. The following four members were elected as *Representatives*—Mr. E. B. Turner, Dr. H. Beckett-Overy, Mr. P. C. Raiment, Mr. H. H. Sturge.

The Executive Committee had nominated the following for election to offices on the Branch Council—*President-elect*, Dr. Langdon Down; *Vice-President*, Mr. H. W. Chambers; *Treasurer*, Dr. Lauriston Shaw. These nominations were then confirmed by the meeting.

Nominations to Central Council.—The nomination of Dr. Charles Buttar for a seat on the Central Council was also confirmed by the meeting with acclamation.

Provisional Medical Committee.

It was then agreed to elect by ballot members for the Provisional Medical Committee under the State Insurance Act, and ballot papers with the names of nominees were distributed to the whole of the practitioners present at the meeting. The results were as follows:

Kensington Representation (17).—Members of the British Medical Association (12): Drs. H. Beckett-Overy, H. B. Mills, G. L. Turnbull, D. F. Maunsell, Cathcart Bruce, W. Culver James, H. L. Carre-Smith, H. T. N. Merrick, H. M. Stratford, J. L. Salmond, A. J. Rice-Oxley, S. H. Greene. Non-Members (5): Drs. Ronald Carter, R. H. Dreaper, D. J. M. Conacher, E. T. Gregory, F. Warner.

Hammersmith Representation (12).—Members of the British Medical Association (9): Drs. T. G. Alderton, W. H. Burnhill, H. W. Chambers, A. J. Carter, W. E. Fry, Wilfrid Kingdon, P. C. Raiment, G. J. Crawford Thomson, M. Milton Townsend. Non-Members (3): Drs. R. Bevan, Alexander Reid, George Barnes.

Paddington Representation (14).—Members of the British Medical Association (10): Drs. E. Chatterton, W. M. Whittaker, W. H. Gimblett, R. G. Murray, A. Benson, E. B. Turner, C. Buttar, G. A. H. Barton, H. H. Sturge, Herbert Tanner. Non-Members (4): Drs. C. D. Adam, W. Salisbury Sharpe, J. C. Williams, A. H. Spicer.

The CHAIRMAN then moved the following resolutions:

1. That the Committee consist of 43 members together with the chairman and honorary secretaries of the Division.
2. That the respective numbers from each borough be according to the population, namely, one member for each 10,000 inhabitants.
3. That not less than twelve shall be non-members of the British Medical Association.
4. That the Provisional Medical Committee shall be empowered to co-opt additional members, not exceeding four in number and they shall fill vacancies caused by resignation in the same way.
5. That the Branch Council be the co-ordinating body of the Metropolitan Counties area.
6. That the Chairman and Honorary Secretaries of the Kensington Division shall be the Officers of the Provisional Medical Committee.

All these resolutions were agreed to by the meeting.

Action of State Sickness Insurance Committee.—Mr. E. B. TURNER addressed the meeting at some length, lucidly explaining the steps taken by the State Insurance Committee in the matter of the profession's interests under the State Insurance Act. He appealed to all to join the Association and to show a united front, and, in concluding, he alluded to the very unsatisfactory state of the guarantee fund of the Division, and strongly appealed to all to help in this matter, and in the organization of the profession in the Division's area.

NORTH MIDDLESEX DIVISION.

A SPECIAL meeting, to which every practitioner residing in this district was invited, was held in the Hornsey Council Schools, Finsbury Park, on Thursday, May 9th. Over seventy medical practitioners were present. Dr. BRACKENBURY was unanimously elected to the chair.

Provisional Medical Committee.—It was resolved:

That the committee should consist of 21 members, the representation of the various districts being as follows: Tottenham 4, Edmonton 2, Wood Green 2, Southgate 3, Enfield 2, Hornsey 6, Friern Barnet 1, and South Mimms 1.

The following medical men were then elected to the committee: For Tottenham, Drs. Barnes, Hutt, Marjoribanks, and O'Meara; for Edmonton, Drs. Burton and Shaw; for Wood Green, Drs. Winston and F. C. Wood; for Southgate, Drs. Grant, Stewart Smith, and R. T. Vivian; for Enfield, Drs. Distin and Foote: for Hornsey, Drs. Brackenbury, French, Fuller, Howie, Lee, and Rogers; for Friern Barnet, Dr. Spreat; for South Mimms, Dr. Douglass. Dr. R. T. Vivian was elected Chairman and Dr. Barnes Honorary Secretary of the committee. Rules were adopted, and it was resolved to recognize the Council of the Metropolitan Counties Branch of the British Medical Association as the co-ordinating centre for the districts of the metropolitan area.

THE fifth ordinary meeting of this Division was held at the Hornsey Council Schools, Finsbury Park, on May 9th, Dr. H. B. BRACKENBURY in the chair. Seventy members were present.

Confirmation of Minutes.—The minutes of the fourth ordinary meeting (February 16th) were taken as read and signed as correct.

Government Inquiry into Patent and Proprietary Medicines.—This inquiry was announced and medical men were invited to bring evidence for its consideration.

Nomination to Central Council.—It was unanimously agreed to nominate Dr. J. R. Fuller for election to the Council.

Alteration of Eastern Boundary of Division.—The following resolution was passed:

That the eastern boundary of the Division be changed so as to coincide with the county boundary.

The Association as a Trade Union.—Moved by Dr. FULLER, seconded by Dr. REDMOND, and carried:

That it be an instruction to the Central Council to seek to obtain the opinion of Divisions as to the desirability of the Association becoming a registered "trade union."

The proceedings then terminated.

RICHMOND DIVISION.

Special Meeting.

A SPECIAL meeting of the Division, to which all members of the profession resident in the area of the Division were invited, was held at the Twickenham Free Library on Wednesday, April 3rd.

Provisional Local Medical Committee.—It was resolved:

1. That a Provisional Local Medical Committee for the area covered by the Division be formed.
2. That the number of the committee be twenty-two, with power to add to their number.
3. That of the twenty-two members of the committee seventeen be members and five not members of the British Medical Association.
4. That the election of the committee be by postal vote.
5. That the Branch Council be recognized as the co-ordinating body.

General Meeting.

A general meeting of the Division was held at the Royal Hospital, Richmond, on Wednesday, April 24th.

Provisional Local Medical Committee.—The result of the postal vote having been made known, Dr. G. CARDNO STILL, the Chairman, declared the following to be duly elected members of the Provisional Local Medical Committee: Drs. G. Maguire, J. R. Johnson, J. H. Crocker, H. W. Henshaw, L. Clark Newton, H. B. Boulter, S. S. Burn, A. E. Evans, M. O. Coleman, H. N. Holberton, R. N. Goodman, H. Cooper (Surbiton), A. Senior, H. R. Sedgwick, W. M. Paul, G. Cardno Still, R. L. Langdon-Down, C. C. Scott, H. Cooper (Hampton), F. E. Marshall, G. S. Ewen, J. H. R. Robinson.

Special Representative Meeting.—Dr. G. MAGUIRE gave a report of the proceedings of the Special Representative Meeting.

Paper.—Dr. L. N. DENSLOW read a most interesting paper on the surgical treatment of locomotor ataxia.

SOUTH-WEST ESSEX DIVISION.

A MEETING of this Division was held, conjointly with the City Division, on Tuesday, March 26th, at Livingstone College, Knott's Green, Leyton, at 4 p.m., by the kind invitation of Dr. C. F. Harford. Five City and eighteen South-West Essex members and friends were present. Dr. C. J. HORNER presided.

Martyrs of Medicine.—An address entitled "Some Martyrs of Medicine" was given by Sir WILLIAM COLLINS,

Senior Surgeon, London Temperance Hospital. In his address the lecturer dealt chiefly with the lives of Semmelweis and Servetus. No discussion followed, but the wish was expressed that those present should have an opportunity of seeing the lecture in print.

Vote of Thanks.—A vote of thanks to the lecturer was proposed by Dr. Robert Jones and seconded by Dr. E. W. Goodall and carried with acclamation. Sir William Collins thanked the meeting and then left.

Confirmation of Minutes.—The minutes of the meeting of February 14th, 1912, having been printed and circulated, were taken as read and confirmed. The minutes of the meeting on Thursday, March 14th, 1912, were read and confirmed.

Apology for Non-attendance.—A letter of apology for non-attendance was received from Dr. F. J. Oxley.

Transfer of Member.—A letter from the North Middlesex Division was read referring to the suggested transfer of a member of that Division residing at Waltham Abbey to this Division, and it was decided that the Secretary should inform the North Middlesex Division that the South-West Essex Divis on was agreeable to the change.

Provisional Medical Committees.—A letter from the State Sickness Insurance Committee was read referring to the suggested formation of Provisional Medical Committees for Branches and Divisions. The matter was referred to the Executive Committee.

Walthamstow Education Committee.—Dr. W. G. Noble asked what the present position was with regard to the Walthamstow Education Committee, and whether any action was to be taken in the coming Council elections. The Secretary replied that it had been decided not to take any active part in the elections, but that a letter would be sent to each candidate reminding them that the misunderstanding still existed, and inviting their sympathy and support for the local doctors. The meeting then ended.

A meeting of the Division was held on Thursday, April 25th, at the Walthamstow Hospital at 4 p.m. Twenty-three members and visitors were present. Dr. C. J. Horner presided.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Lantern Demonstration.—A lantern demonstration entitled "Constipation" was given by Dr. A. Hertz, Assistant Physician, Guy's Hospital, in the unavoidable absence through illness of Dr. C. J. Morton, who had arranged to give a demonstration of x-ray apparatus. A discussion followed, in which Drs. Horner, Wigram, Frank Collins, A. Berrill, Harding Tomkins, Wise, Margaret Rorke, and W. W. Rorke took part. Dr. Hertz answered the numerous questions.

Vote of Thanks.—A vote of thanks was proposed by Dr. Hickman, seconded by Dr. F. Coutts, and carried with acclamation. Dr. Hertz thanked the meeting, which then ended.

MIDLAND BRANCH:

Boston and Spalding Division.

A special meeting was held at the White Hart Hotel on Friday, May 3rd, at 3.30 p.m. Dr. South was in the chair, and there were present: Drs. Allan, Barritt, Benson, Biggs, Bone, Collins, Crompton, Gallatly, Gillespie-Smith, Jacobson, Mason, Moxham, Munro, McNabb, Pilcher, Rendall, Spilsbury, Tate, Taylor, R. Tuxford, White, Fred Walker, Walls, Wilson-Smith, Wrinch, and the Secretary.

Apologies for Non-attendance.—Expressions of regret for inability to attend were received from Drs. Black, Blair, Bernard, Burgess, Morris, Steil, A. J. Stiles, and Sweeten.

Confirmation of Minutes.—The minutes were first read, confirmed, and signed.

Provisional Medical Committee.—The Secretary having read the instructions of the State Sickness Insurance Committee relative to the formation of a Provisional Medical Committee for the whole Division, Dr. Spilsbury proposed, and Dr. Allan seconded, that the names suggested by the Executive Committee be accepted with the addition of Dr. Collins. This gives a committee of sixteen members and five non-members as follows: Members—Dr. South (Chairman), Dr. White (Vice-Chairman), Dr. Wilson (Secretary), Drs. Miller, Barritt, Collins, Husband, Mann, Mason, Pilcher, R. Tuxford, Witham, Benson, Fred Walker, Jacobsen, and Sweeten. Non-members—Drs. Frank Walker, Gilpin, Evans, S. H. Perry, and Sandall. This course of action has been necessary in order to carry out the instructions of the State Sickness Insurance Committee, so that the Divisional area might be properly represented on the Provisional Medical Committee, and thus supplants the Holland P. M. C. elected at the last general meeting.

Representative at Representative Meetings.—The Secretary reported that he had received from Dr. Cox, the Medical Secretary, the following letter, namely:

> I beg to inform you that the Council, at its meeting yesterday, on the recommendation of the Organization Committee, accorded independent representation in Representative Meeting for the year 1912–1913 (commencing with the annual meeting at Liverpool) to the Boston and Spalding Division.

Dr. Mason, who was elected Representative in February at a general meeting subject to the Central Council's consent, therefore fills this important office.

Central Defence Fund.—The Secretary stated that 48 medical men in the Division had subscribed to this fund, and that one of the duties of the Provisional Medical Committee was to persuade the remainder to follow their example. The Secretary reported that the scheme for a public medical service had not yet been sent out, it was therefore resolved to postpone the discussion of it until the next meeting.

National Insurance Act.—The pamphlet entitled *Supplementary Pledge for Signature by Members of the Profession*, which is published by the State Sickness Insurance, was read by the Secretary. In addition to the pledge there is a form for resignation of contract appointments to be filled in by June 30th, 1912.

Tea.—Thirteen members had tea in the hotel afterwards.

NORTH OF ENGLAND BRANCH:

North Northumberland Division.

A special meeting of this Division was held at the Infirmary, Alnwick, on Tuesday, May 7th, for the purpose of (1) receiving report from the Executive Committee on an ethical case submitted to them; (2) considering the advisability of supporting a requisition for the separation of the present North of England Branch into two portions: (*a*) Northumberland and Tyneside Branch; (*b*) Durham and Deeside Branch. There were present: Drs. Macaskie, Moyes, Paxton, Watson, Welsh (Amble), Forrest, Philipson, Robson, and Burman. Dr. Macaskie occupied the chair.

Apologies for Non-attendance.—Apologies for absence were received from Drs. Mackay, Dey, and Badcock.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Provisional Medical Committee.—The Secretary announced that, in accordance with the expressions of opinion at the last meeting, a public meeting of the practitioners in the Division had been held, at which a Provisional Committee had been appointed to safeguard the interests of the profession in the Division, and that a copy of the proceedings had been forwarded to every medical man in the Division.

Report of Executive Committee.—The Chairman presented the report of the Executive Committee upon an ethical case submitted to them for decision, and, on the motion of Dr. Watson, seconded by Dr. Welsh (Amble), it was agreed that the report be approved, and that the case calls for no further expression of opinion from the meeting.

Proposed Division of Branch.—It was the opinion of the members present that the Division of the Branch into a North and South Division would be an advantage in carrying on the work of the Association, and that such a requisition, if sufficiently supported, was to be recommended.

NORTHERN COUNTIES OF SCOTLAND BRANCH:

Banff, Elgin, and Nairn Division.

The first meeting of this newly-formed Division was held in Gray's Hospital, Elgin, on Saturday, May 4th. There were present: Drs. Sellar, Alexander, Beaton, Duguid, Brander, Miss S. Adam (Forres), Mackie, Campbell, Lee, Cruickshank, Johns, Hendry, Stephen, Inglis, Iron-

side, Watson, Ogg, Taylor (Elgin), Taylor (Keith), Sinclair, and Dr. Munro Moir, Honorary Secretary of the Branch.

Apologies for Non-attendance.—Apologies were intimated from Drs. Whitton (Aberchirder), Rennie (Forres), Cameron (Nairn), and Turner (Keith).

Election of Chairman and Officers.—Dr. TAYLOR (Keith), in moving that Dr. Duguid (Buckie) be elected the first Chairman of the new Division, mentioned that Dr. Duguid had been practising for over fifty years and was an original member of the Branch. This nomination was unanimously agreed to. Dr. SELLAR (President of the Branch), who had occupied the chair up to this point, welcomed Dr. Duguid as first Chairman of the Banff, Elgin, and Nairn Division, and vacated the chair in his favour. Dr. Mackie (Elgin) was unanimously elected Vice-Chairman and Dr. J. A. Stephen (Elgin) Secretary and Treasurer. Drs. Hutchison and Ironside were elected the two members of the Division on the Branch Council, and Drs. Adam (Forres), Alexander (Elgin), Campbell (Elgin), Ferguson (Banff), Taylor (Keith), and Wilson (Nairn) were elected the other members of the Executive Committee.

Ethical Subcommittee.—Drs. Alexander, Campbell, and Stephen were appointed an Ethical Subcommittee with powers to co-opt two outside members.

Rules.—Rules for the management of the affairs of the Division were then adopted.

Candidate for Membership.—Dr. STEPHEN intimated that Dr. Munro-Hopeman, who was present as a non-member, had consented to be proposed as a member of the Association, and his election was remitted to the Branch Council.

National Insurance.

A meeting of the medical men in the insurance area of Nairn and Elgin was subsequently held, when Dr. TAYLOR (Elgin) presided. The letters of April 27th and 30th from the Chairman of the Scottish Medical Insurance Council to the direct representatives were considered, and the HONORARY SECRETARY intimated that satisfactory replies to the queries of the executive had been received from almost all the men in the area, and had already been sent to the Acting Secretary to the Council.

The question of remuneration was then considered, when it was agreed, on the motion of Dr. ALEXANDER, to suggest as a capitation fee for this area 8s. 6d. for town and rural practice up to a distance of two miles, and for every mile or part of a mile a further capitation fee of 2s. 6d. per annum, with an income limit of £2. As an alternative to capitation fee, the meeting resolved to suggest a fee of 2s. 6d. per visit or consultation, with 1s. a mile allowance for mileage; that, also, with an income limit of £2.

SOUTHERN BRANCH:

PORTSMOUTH DIVISION.

A CLINICAL meeting was held on April 17th, Dr. SHEAHAN, Chairman, presiding. Fifteen members were present.

Nomination for Central Council.—On the proposition of the CHAIRMAN, seconded by Dr. HACKMAN, Dr. Mumby was unanimously nominated for the Council of the British Medical Association, in place of Mr. C. E. Stratton, resigned.

Clinical Cases.—Dr. COLE-BAKER showed a patient with a very perfect abdominal scar after laparotomy. Dr. CROWLEY showed a case of microcephaly with multiple digital deformity; also a case of tumour in the neck in which the diagnosis lay between chronic abscess, lipoma, and cystic hygroma. Mr. CHILDE showed a patient without recurrence two years after very extensive removal of breast and contents of the supraclavicular triangle combined with Beatson's operation. Dr. WOOD showed a case of bilateral muscular atrophy of the scapulo-humeral type.

Communication.—Dr. FARNCOMBE read notes of a case of tuberculosis of the lungs with secondary streptococcic infection which yielded to a stock antistreptococcic vaccine.

Pathological Specimens.—Dr. COLE-BAKER showed specimens of acute haemorrhagic pancreatitis and a tumour of the bladder wall. Mr. CHILDE showed two uteri which had been removed after Caesarean section, one for malignant disease and one for prolapse; also a retroperitoneal tumour of connective tissue type which had been removed, weighing 34¾ lb.

SOUTH-EASTERN BRANCH:

BRIGHTON DIVISION.

Provisional Medical Committee.—The canvass of the Division is actively proceeding, and is being inaugurated by a series of sectional meetings to be held in various centres throughout the Division. Meetings are being held in Brighton, Hove, Southwick, Burgess Hill, and Lewes. The first meeting was held in Brighton, and thirty-four Brighton practitioners were present. Dr. TURTON, Chairman of the Provisional Committee, in his opening speech called attention to the fact that the Government pays a capitation fee of at least 8s. 6d. in the Post Office and Army Medical Services where the patients are picked lives. If they pay this capitation fee in all other departments, what justification have they for offering less under the Insurance Act? Mr. E. B. TURNER, member of the State Sickness Insurance Committee, then gave a very carefully reasoned statement of the policy of the Association. He pointed out that the profession is not struggling for the improvement of this or that club appointment, but for its very existence. He pointed out that the British Medical Association represents the whole profession, and that the State Sickness Insurance Committee was elected by the Representative Meeting, and consists almost entirely of general practitioners, only two members of the Council being included. It is this Committee which has done all the work with regard to the Insurance Act. The present position of the Association is that twelve members, representing the Association, have been appointed to the Advisory Committee, with instructions to retire if the six points of the Association are not obtained. Should the Commissioners be unable to grant the six points the profession will refuse to work the Act, in which event one of three things must happen: (1) The Government may try to work the Act as it stands. This is obviously impossible; a sufficient number of men could not be found, nor would the working classes submit to be treated by "blackleg doctors." (2) Whole-time medical officers at salaries. Here again the Association is strong enough to successfully oppose any attempt of this nature. (3) The return to the insured persons of the medical benefit in the form of a cash payment, allowing them to make their own medical arrangements. If this is done we are face to face with the danger of ten millions of our private patients becoming club patients at 4s. a year. It is to combat this danger that the State Sickness Insurance Committee has issued the new pledge, which is in the hands of the Provisional Medical Committees. This pledge asks every contract man to send in his resignation, to be held by the Provisional Medical Committee until such time as the Association decides to take action. A simultaneous resignation of all club appointments would come with dramatic force, and would place the medical profession in the position of master of the situation. No one need fear that the patients will be unable to obtain medical advice, for they can simply be treated as private patients until terms satisfactory to the profession are arranged. The pledge also ensures that no practitioner who thus resigns shall be superseded in the appointment which he has resigned, and also binds all men holding hospital appointments to refuse treatment, except in cases of emergency, to any persons insured under the Act. In reply to questions, Mr. Turner stated that Post Office appointments not being *contributory* would not be covered by the pledge. With regard to the question of the right of hospitals to refuse treatment to persons insured under the Act, he pointed out that such persons being in receipt of medical benefit under the Act would no longer be suitable persons to receive the benefits of a charity. The SECRETARY OF THE DIVISION also pointed out that a Statute excluding insured persons from treatment has already been passed by the Dispensary and the Eye Hospital, and is under consideration by the committees of other hospitals. Dr. TURTON proposed and Dr. RYLE seconded a vote of thanks to Mr. Turner for his kindness in coming from London and for his very clear and eloquent explanation of the subject. This was carried by acclamation.

SOUTH-WESTERN BRANCH:

EXETER DIVISION.

A GENERAL meeting of all medical men resident within the area of the Exeter Division was held at the Royal

Devon and Exeter Hospital on April 23rd. Mr. E. J. DOMVILLE was in the chair, and the following gentlemen were present: Drs. Russell Coombe, J. W. Sandoe, L. P. Black, W. W. Evans, M. Cutcliffe, G. T. Clapp, O. Clayton Jones, J. S. Steele-Perkins, J. Beddow, G. P. Hawker, C. Fenwick, J. Raglan Thomas, H. F. Semple, J. C. S. Rashleigh, G. R. McDonald, G. V. Burd, H. H. Serpell, C. E. Stokes, L. Powne, W. Gordon, G. F. Welsford, A. M. Braund, R. Hedden, F. J. H. Cann, E. A. Brash, H. Child, H. Davy, J. A. W. Pereira, T. W. W. Bovey, R. Burgess, G. G. Gidley, J. Kingdon Frost, J. Mortimer, Charles E. Bell, William Langran, D. F. Shearer, Henry Ashford, A. C. Roper, R. Worthington, J. Cock, and A. W. Fortescue Sayres (Honorary Secretary).

Address by Chairman.—Mr. DOMVILLE first addressed the meeting. He pointed out that a general meeting of medical men within the area of the Exeter Division had been called for the purpose of forming a Provisional Local Medical Committee. The State Sickness Insurance Committee proposed that in each Division throughout the country a committee of this character should be set up, so that the profession might be prepared to deal with the administration of the medical benefits of the Insurance Act when issued by the Commissioners, or, if these proved unsatisfactory, to be prepared for other eventualities.

Provisional Local Medical Committee.—Mr. DOMVILLE moved:

> That a Provisional Local Medical Committee be formed for the area of the Exeter Division of the British Medical Association.

Dr. GORDON seconded, and the resolution was carried unanimously. The CHAIRMAN then called upon Mr. Russell Coombe to explain to the meeting a suggested form of constitution for such a committee. Mr. RUSSELL COOMBE said that he had worked out the population of the Exeter Division, and if a representative were allowed to 5,000 or 6,000 of the population, it would give a committee of about twenty-four members. He suggested that the Division should be broken up into sections of this size, with a representative elected by the medical men resident within the area of each section, and that consultants and non-members of the British Medical Association should be included. A discussion then arose as to whether the committee should be elected forthwith in the room, or whether each section should elect its representative. Dr. CLAYTON JONES proposed, and Dr. J. RAGLAN THOMAS seconded:

> That the representatives upon the Provisional Local Medical Committee be elected locally by the medical men within the area of each section, and by postal vote if so desired.

This was carried unanimously. The following sections were proposed and approved, and the gentlemen whose names appear opposite were asked to act as first conveners:

Section.	Number of Representatives.	First Convener.
Axminster and Seaton	1	W. H. Evans, Colyton.
Bude	1	A. M. Braund, Bude.
Cullompton ...	1	G. G. Gidley, Cullompton.
Dawlish	1	M. Cutcliffe, Dawlish.
Exeter	10	A. W. F. Sayres, Exeter.
Exmouth	2	H. Semple, Budleigh.
Honiton and Sidmouth	2	R. Hedden, Honiton.
Launceston ...	1	H. H. Serpell, Launceston.
Okehampton and Crediton	1	L. Powne, Crediton.
Teignmouth ...	1	F. W. Morton Palmer, Teignmouth.
Tiverton	2	G. F. Welsford, Tiverton.

PLYMOUTH DIVISION.

A MEETING of this Division, to which all non-members residing in the area were invited to attend, was held in the Athenæum, George Street, Plymouth, on Tuesday, April 30th. Over fifty members and non-members were present.

Provisional Medical Committee.—After the CHAIRMAN (Mr. R. Jaques) had made a few remarks as to the object of the meeting—namely, the formation of a Local Provisional Committee—Dr. B. SOLTAU proposed, Dr. NOY SCOTT seconded, and it was unanimously resolved:

> That this meeting of the medical profession in the Plymouth Divisional area, in pursuance of a resolution passed at the Special Representative Meeting, February, 1912, considers it advisable to form a Local Provisional Medical Committee to safeguard the interests of the profession.

Owing to the area included in the Division being partly urban and partly rural, Dr. MCCULLOCH proposed:

> That it would facilitate the work of a Provisional Committee to split the Division into five sections—Plymouth, Devonport, Tavistock, Kingsbridge, and Plympton.

This was seconded by Dr. MOIR and carried. Dr. WOOLLCOMBE then proposed:

> That the Provisional Committee should report from time to time to the Council of the South-Western Branch.

This was seconded by Dr. FOX and carried. There was some little discussion as to the *personnel* of the Provisional Committee. Ultimately, on the proposition of Dr. C. MUSGRAVE, seconded by Dr. WHITMORE, it was decided that the Committee should consist of twenty members and non-members of the British Medical Association, without fixed proportion, and with power to add to the number if necessary. A proposal to make the representatives on the Branch Council *ex officio* members of the Local Provisional Committee was not approved. On a ballot being taken, the following gentlemen were elected to form the Committee: Messrs. R. Jaques, R. Simpson, Geo. Wilson, C. J. Cooke, and H. Corbett, Dr. Wilkinson, Dr. Parsloe, Dr. Wagner, Dr. Saunders, Dr. Lauder, Dr. McCulloch, Dr. Fleming, Dr. Noy Leah, Dr. Musgrave, Dr. Cree, Dr. Stamp, jun., Dr. Donbavand, Dr. Style, and Dr. Harston: Drs. Geo. Wilson, Corbett, Saunders, Leah, and Stamp, jun., being non-members of the Association.

Local Provisional Committee.

THE first meeting of the Local Provisional Committee appointed for this Division was held in the Medical Society's Rooms, Plymouth, on Thursday, May 9th. There was a full attendance of members. R. Jaques, F.R.C.S., Chairman of the Division, was elected to the Chairmanship of the Committee, and the Honorary Secretary of the Division, as Secretary, with the proviso that if he found the work of the dual secretaryships too much he should be relieved after June 30th prox.

Rules.—The following rules—to be altered if necessary—were adopted:

1. That the Provisional Committee shall not have power to deal with any other matters than those pertaining to the Act and to the organization of a Public Medical Service.
2. That the South-Western Branch Council, or a committee appointed by it for the purpose, be recognized as the co-ordinating centre, and that the Local Committee shall not enter into any dealings with the authorities under the Act, nor seek recognition from any such authority until it has received the sanction of the Branch Council for so doing.
3. That the Local Provisional Committee shall not apply for the sanction of the Branch Council for the purpose mentioned in Rule 2 until it shall have called a meeting of all registered medical practitioners in the Divisional area and obtained the sanction of the meeting for so doing.
4. That the Provisional Committee shall keep the Branch Council fully informed as to its course of action and the results obtained.
5. That the Committee shall call a meeting of the whole of the registered medical practitioners in the Divisional area within fourteen days of the receipt of a requisition to that effect signed by at least twenty of the registered practitioners in the area, who must also give satisfactory security for the expenses of the meeting.
6. That the Provisional Committee be empowered to call at any time a meeting of all registered practitioners in the district, and to fill vacancies that may occur in the committee.
7. That members are to hold office for one year only.

The Honorary Secretary was instructed to inquire at the central offices as to how the expenses of this committee are to be defrayed.

The representatives of the five sections were then supplied with copies of D 49, pledges, and lists of medical men resident in their respective sections. Some signed pledges were handed in at the meeting.

Defence Fund.—Dr. MCCULLOCH, on behalf of the Devonport section, mentioned that there was a little difficulty as to assuring the holders of club appointments in that section as to financial support in case of loss sustained by loyal action, some of these gentlemen wanting to have written

guarantees. It was pointed out that there would be a general claim against the Defence Fund, but those who failed to become guarantors could hardly expect much support. The Honorary Secretary was requested to seek further information on this point.

A long meeting then terminated.

WEST CORNWALL DIVISION.

A SPECIAL meeting of the Division was held in two parts—one at the West Cornwall Infirmary, Penzance, on April 22nd, and one at the Royal Cornwall Infirmary, Truro, on April 23rd. At Penzance Dr. HAUGHTON was in the chair, and there were present fifteen members and one non-member and the Honorary Secretary. At Truro Dr. A. E. PERMEWAN was in the chair, and there were present sixteen members, one visitor, and the Honorary Secretary—total 36.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Provisional Medical Committee.—The report of the Provisional Medical Committee was read and confirmed. The committee reported that Dr. A. E. Permewan had been elected Chairman and Mr. Taylor Honorary Secretary. The following resolutions were agreed to unanimously:

1. That this meeting is prepared to consider the formation of a Public Medical Service, and instructs the Provisional Medical Committee to consider the same and report as soon as possible.
2. That the Division accepts the Branch Council as the co-ordinating body within the Branch area, and that reports be made to it as occasion arises, and that no action be taken without its sanction.
3. That the Provisional Medical Committee has power to add to its numbers if thought necessary for the better representation of all districts.
4. That non-members be asked to nominate one of their number on the Provisional Medical Committee.
5. That the utmost endeavours be made to get the non-members in the Divisional area to join, they being eight in number.

Special Representative Meeting.—The REPRESENTATIVE gave an account of the Representative Meeting at the Guildhall, and stated how and why he had voted, and his action was confirmed.

The Representative and his Practice.—The REPRESENTATIVE also complained that he had lost patients in consequence of his absence from home while attending the Representative Meeting, and expressed his opinion that while acting for his professional brethren those brethren should protect and not damage his practice. The meeting agreed on this, and the CHAIRMAN at each place spoke strongly on the subject.

Fees for Police.—The HONORARY SECRETARY mentioned the question of fees for the police proposed by the Chief Constable, and was instructed to write that gentleman on the subject.

CAPE OF GOOD HOPE—EASTERN PROVINCE BRANCH.

AN ordinary meeting of this Branch was held at Grahamstown, at 8 p.m., on April 3rd, in the Branch Library. Dr. A. COWPER was in the chair, and there were present Drs. E. G. Dru Drury, G. E. FitzGerald, E. H. Stale, W. G. Reid, and R. T. Harrison (Honorary Secretary).

Confirmation of Minutes.—The minutes of the meeting held on October 27th, 1911, and of the annual meeting were read and confirmed.

Delegates to South African Medical Congress.—Drs. E. G. Dru Drury, and G. E. FitzGerald were elected delegates to the Medical Congress to be held at Johannesburg. They were further empowered to move that the congress should hold its next meeting at Grahamstown. A letter was read from the Transvaal Medical Society embodying resolutions governing the organization of the congress; these were unanimously accepted. The Secretary was instructed to write to the Secretary of the Transvaal Society informing him of this Branch's acceptance.

Rule.—Rule No. 22 of the South African Committee was discussed at some length, and the meeting finally decided that they could not undertake the responsibility of accepting this rule without first taking the feeling of the remaining members by means of a referendum. Dr. Drury and the Secretary were instructed to draw up a statement embodying the rule and to circularize the members asking their acceptance or refusal thereof. The members present were willing to accept.

Reports of Secretary and Treasurer.—The Secretary's and Treasurer's reports were read and adopted. It was further unanimously decided that the surplus from the local subscription account shall be devoted to covering the Branch's deficit of £3 9s. 6d.

Draft Hospital Ordinances.—The draft hospital ordinances were unanimously adopted with addition of amendment No. 1.

Association Notices.

NOTICE OF ALTERATION OF BOUNDARIES OF BRANCHES AND DIVISIONS: FORMATION OF NEW DIVISIONS.

THE following changes have been made in accordance with the Regulations of the Association and take effect from the date of publication of this notice:

1. *Cambridge and Huntingdon, Metropolitan Counties, and South Midland Branches; and Bedford and Herts Division.*

That the portions of Hertfordshire at present contained in the areas of the Cambridge and Huntingdon and South Midland Branches, respectively, be transferred to the area of the Metropolitan Counties Branch, and that the areas of these Branches and of the Bedford and Herts (now to be Bedford) Division be modified accordingly.

2. *New East and West Hertfordshire Divisions.*

That there be formed within the area of the county of Hertford, in substitution for the existing Divisions, two new Divisions—the East and West Hertfordshire Divisions—to consist of the portions of the county respectively east and west of a line drawn direct from South Mimms to Luton, the new Divisions to form part of the area of the Metropolitan Counties Branch.

3. *Metropolitan Counties, and Oxford and Reading Branches; and Maidenhead Division.*

That the portion of the county of Middlesex at present contained within the area of the Oxford and Reading Branch be transferred to the area of the Metropolitan Counties Branch, and that the areas of these Branches and of the Maidenhead Division be modified accordingly.

4. *Modification of Areas of Existing Divisions in Middlesex: Formation of New Divisions.*

That the county of Middlesex be divided into six Divisions, as follows:

(i) *Ealing:* To consist of the Borough of Ealing, and the urban districts of Hayes, Greenford, Southall Norwood, Hanwell, Acton, Chiswick, and Brentford.

(ii) *Harrow:* To consist of the urban districts of Harrow, Ruislip-Northwood, Uxbridge, Yiewsley, Wealdstone, Wembley and Kingsbury, and the rural districts of Hendon and Uxbridge;

(iii) *Hendon and Finchley:* To consist of the Hendon and Finchley urban districts.

(iv) *North Middlesex:* To consist of the present North Middlesex Division, comprising the borough of Hornsey, the urban districts of Tottenham, Edmonton, Wood Green, Southgate, Friern Barnet and Enfield, and the rural district of South Mimms.

(v) *South Middlesex:* To consist of the urban districts of Feltham, Hampton, Hampton Wick, Heston and Isleworth, Staines, Sunbury on Thames, Teddington, and Twickenham, and the rural district of Staines.

(vi) *Willesden:* To consist of the Willesden urban district:

these Divisions to form part of the area of the Metropolitan Counties Branch, and that the existing Divisional areas be modified accordingly.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BORDER COUNTIES BRANCH: ENGLISH DIVISION.—The annual meeting of this Division will be held in the County Hotel, Carlisle, on Thursday, May 30th, at 4.30 p.m. Further particulars in circular.—JAS. R. S. ANDERSON, Honorary Secretary, Garlands, Carlisle.

DORSET AND WEST HANTS BRANCH.—The annual meeting of the Branch will be held at the Hotel Mont Dore, Bournemouth, on Wednesday, May 22nd.—FRANK FOWLER, Honorary Secretary, Bournemouth.

DUNDEE BRANCH: DUNDEE DIVISION.—The annual meeting of this Division will be held on Friday, June 7th.—MARTIN SMITH, Honorary Secretary.

DUNDEE BRANCH: FORFARSHIRE DIVISION.—The annual meeting of this Division will be held on Tuesday, June 11th.—MARTIN SMITH, Honorary Secretary.

EAST ANGLIAN BRANCH.—The annual meeting of this Branch will be held at Brentwood on Wednesday, June 19th. Members wishing to read papers or to show cases or specimens should communicate at once with the Secretary for Essex, Dr. B. H. NICHOLSON, East Lodge, Colchester.

EAST YORKSHIRE AND NORTH LINCOLNSHIRE BRANCH.—The annual meeting of this Branch will be held at Grimsby on Thursday, June 13th. Business: Annual Report and balance sheet. Election of officers. Presidential address.—EDWARD TURTON, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION.—A special meeting of this Division will be held at the Lion and Railway Hotel, Northwich, on Wednesday, May 22nd, at 4.45 p.m. Business: The addition to the rules of the Altrincham Division—namely, a postal vote of the members may be taken on any important question. The ordinary meeting of the Division will be held at 5 p.m. Agenda: (1) Minutes of last meeting. (2) Apologies for absence. (3) Minutes of last two committee meetings. (4) Questions arising out of minutes. (5) Question of formation of Provisional Medical Committees. (6) Nomination of Dr. Garstang by the Division for election to the Council. (7) Motion by Dr. P. R. Cooper on the fixing of a Minimum Capitation Fee for all contract work. (8) D 49. Supplementary Pledge for signature by members of the profession. (9) Government Inquiry into Patent and Proprietary Medicines. (10) Provisional Agenda for the Annual Representative Meeting. Members are requested to bring SUPPLEMENTS of May 11th and 18th to the meeting. Dinner will be held at 7 p.m. if sufficient members will attend; members intending to dine are asked to communicate with the Honorary Secretary at once.—H. G. COOPER, Honorary Secretary, Foye, Altrincham.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—The annual general meeting of this Division will be held at the Town Hall, Mare Street, Hackney, on Thursday, May 30th, at 4 p.m.—A. G. SOUTHCOMBE, Honorary Secretary.

MIDLAND BRANCH: LINCOLN DIVISION.—The annual meeting will be held in the Guildhall, Lincoln, on Thursday, May 23rd, at 3 p.m. Agenda: (*a*) Election of a Vice-President of the Midland Branch and Divisional officers. (*b*) Presentation of the annual report of the Executive Committee. (*c*) Any other business.—J. S. CHATER, Honorary Secretary.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH: FURNESS DIVISION.—The annual meeting of the Division will be held on Friday, May 31st, at 3.15 p.m., in the Masonic Hall, Barrow. Business: Annual Report. Election of office-bearers. Insurance Act to date. Any other business.—JOHN LIVINGSTON, Honorary Secretary.

SOUTH-EASTERN BRANCH.—The sixty-eighth annual meeting of this Branch will be held on Wednesday, June 19th, at 2.15 p.m., at the Town Hall, Market Square, Bromley. The Council will meet before luncheon at the Town Hall; notice of the time and agenda for this meeting will be sent to members of the Council in due course. Dr. John Scott (President-elect) kindly invites members to luncheon at the Royal Bell Hotel, from 1 to 2 p.m. Agenda (in addition to the business of an ordinary meeting): (1) To receive the report of the Election of Officers for 1912-13, who shall thereupon take office. (2) To receive the annual report of the Council on the affairs of the Branch, and the annual financial statement. (3) To receive the Revised Rules presented by the Council for adoption by the Branch. (A copy of these rules has been sent to members of the Branch; it should be brought to the meeting and preserved for future reference.) (4) To consider the adoption of the Bradford Rules and of Rule Z recommended by the Council as an addition to the Branch Ethical Rules. (5) Any other business decided on by the Council or any other competent business. Rule 10 (*b*) referring to the annual meeting is as follows: "To consider any matter relative to the honour and interests of the medical profession which may be brought before the meeting by the Branch Council or by a Division. No business shall be discussed under this head without notice thereof having been given to the Secretary, at least fourteen days before the meeting, with the terms of any resolution which is intended to be proposed." Tea will be provided during the meeting. No excursion is arranged; the Council considered that urgent business was likely to arise, and that this meeting should be purely for business. The Bromley and County Club courteously offers to make all members of the Branch attending the meeting honorary members for June 19th. There will be an exhibition of instruments, drugs, and electrical appliances at the Royal Bell Hotel, from 12 noon to 6 p.m. The annual dinner will be held at the Royal Bell Hotel at 6.30 p.m.; charge 6s. each. Wine will be provided by the local members. Members intending to be present at the luncheon or dinner are requested to signify their intention to Dr. A. Tennyson Smith, Shanklin, Orpington, Kent, not later than Saturday, June 15th: members wishing hospitality for the night should also communicate with Dr. A. Tennyson Smith.—E. A. STARLING, Honorary Secretary.

SOUTHERN BRANCH: SALISBURY DIVISION.—The annual meeting of this Division will be held at the Infirmary, Salisbury, on Wednesday, May 29th, at 8.15 p.m. Members who wish to read papers or to introduce any business before the Division are requested to communicate with the Acting Secretary as soon as possible.—J. E. GORDON, Honorary Secretary, Salisbury.

SOUTH MIDLAND BRANCH.—This Branch will hold its annual meeting at Aylesbury on June 6th, under the presidency of Dr. J. C. Baker, at the Board Room, Royal Bucks Hospital, at 2.30. Agenda: (1) Minutes. (2) Letters, etc. (3) New members elected by Branch Council. (4) President's address. (5) Mr. James Berry, F.R.C.S.: Address on Tumours of Bone, with Special Reference to Diagnosis (illustrated by museum specimens and skiagrams). Before the meeting a short meeting of Branch Council will be held. Agenda: (1) Minutes. (2) Letters. (3) Election of new member. (4) Place and time of autumnal meeting. The President invites all members to luncheon at the George Hotel at 1.15 p.m.; any member intending to accept this invitation is requested to let the President know not later than Monday, June 3rd.—E. HARRIES-JONES, Honorary Secretary.

SOUTH MIDLAND BRANCH: BUCKINGHAMSHIRE DIVISION.—The annual meeting of this Division will be held at the Royal Bucks Hospital on Wednesday, May 22nd, at 3 p.m. The Committee has decided to invite every medical man resident in the area of the Division to this meeting in order that, after the ordinary business is concluded, a Provisional Local Medical Committee may be elected to safeguard the interests of the profession in connexion with the Insurance Act. It is suggested that the Executive Committee of the Division should form the nucleus of this Committee: that the Division be mapped out into six districts; and that the medical men resident in each district be invited to select 20 per cent. of their number to serve. (A list of the districts and the medical men resident in each has been forwarded to members of the Division.) It would be a good plan for a meeting to be called locally to carry this out, but if this is not done those present at the meeting on the 22nd must be prepared to nominate suitable men. As this Provisional Local Medical Committee will have most important functions, and will, if the medical benefits are administered as the Act intends, be the medium of negotiations with the Local Health Committee, it is hoped that those elected will have the full confidence of their brother practitioners. No distinction will be made as to whether the medical man is a member of the Association or not. This is a matter in which the whole profession is concerned. But it is hoped that every one will contribute towards the Defence Fund.—ARTHUR E. LARKING, Honorary Secretary.

SOUTH MIDLAND BRANCH: NORTHAMPTONSHIRE DIVISION.—The annual meeting of this Division will be held in the Board-room of the Northampton General Hospital at 2.30 p.m. on Thursday, May 30th. The meeting will be preceded by a luncheon at Franklin's Restaurant, Guildhall Road, Northampton, at 1.30; all members wishing to attend the luncheon should kindly inform the Honorary Secretary at least two days beforehand. Business: Minutes of preceding meeting. Annual report of Division. Election of officers. Consideration of Provisional Agenda for the Annual Representative Meeting (members should bring the SUPPLEMENTS of May 11th and 18th with them). Report from the Provisional Medical Advisory Committee. If time permits some clinical cases will be shown.—PEVERELL S. HICHENS, Honorary Secretary.

STAFFORDSHIRE BRANCH: SOUTH STAFFORDSHIRE DIVISION.—A special meeting of the Division will be held at the Star and Garter Hotel, Wolverhampton, on May 20th. Supper, 2s. 6d. each, at 7.45. Meeting at 8.30. Business: To consider the following alterations in the rules of the Division: (1) That Rule 4 be amended to read as follows: "The management of the affairs of the Division shall be vested in an Executive Committee, which shall consist of the officers named in Rule 5, together with the members of the Branch Council elected by the Division, the Representative of the Division in Representative Meetings of the Association and six other members elected in the manner prescribed in Rule 9, with the President-elect, President, or immediate Past-President of the Branch, whichever is a member of the Division *ex officio*. (2) That in Rule 9 the word "six" be inserted for "three." (3) Rule 10. That the quorum of the Executive shall be four. (4) Rule 11. That seven days be substituted for ten days in line 2. That after the words "A meeting called the annual meeting of the Division shall be held in the month of May in each year, not less than" "seven days" be substituted for "four weeks."

The annual meeting of the Division will be held on the same date immediately after the special meeting. Business: (1) Election of officers, except Representative in Representative Meetings. (Members are requested to bring the list of nominations to the meeting with them.) (2) Provisional Local Medical Committee for Staffordshire and for Wolverhampton.—H. C. MACTIER, Honorary Secretary, 53, Tettenhall Road, Wolverhampton.

National Insurance.

MEETING OF THE JOINT ADVISORY COMMITTEE.

THE first meeting of the Advisory Committee to the Joint Committee of Insurance Commissioners was held at the Foreign Office on Friday, May 10th, at 11 a.m. There was a large attendance of members; during the session of the whole Committee reporters were present.

The Chancellor of the Exchequer, who presided, was accompanied by Mr. Masterman, M.P., Chairman of the Joint Committee of Insurance Commissioners, Sir Robert Morant, Chairman of the Board of Insurance Commissioners for England, and by other Insurance Commissioners.

FUNCTION OF THE ADVISORY COMMITTEES.

The Advisory Committees are appointed to advise and assist the several bodies of Insurance Commissioners in making and altering Regulations under the Act, Part I, "National Health Insurance." The number of subjects with regard to which the Insurance Commissioners must make Regulations is very large, and, though many draft sets have been issued, they deal chiefly with the working of the Insurance Boards themselves, and with the conditions to be fulfilled by societies desiring to become approved. The majority of these have been issued by the Joint Committee of Insurance Commissioners, and a good many other subjects remain to be dealt with in this manner.

On certain other matters Regulations are to be made by the Joint Committee acting jointly with the several bodies of National Commissioners. Included in this category are the Regulations to be made under the first five subsections of Section 15, which deals with Medical Benefit, including medical attendance and treatment, the supply of drugs, and certain other related matters, and the Regulations to be made under Section 62, which provides for the recognition of local Medical Committees.

Regulations as to certain other matters will be made by the several National Boards of Insurance Commissioners acting alone. Among matters to be so dealt with are all those regulating the supply of medical and surgical instruments, expenditure for purposes of research, in relation at present only to tuberculosis (Section 16 (2)), and the recovery, as part of maternity benefit under Section 18 (1) of the Insurance Act, of the fee of a medical practitioner summoned in pursuance of the rules made under the Midwives Act, 1902. The section gives the woman the right to decide whether she shall be attended by a duly qualified medical practitioner or a duly certified midwife, and provides that, should she choose the second alternative,

> if . . . a duly qualified medical practitioner is subsequently summoned in pursuance of the rules made under the Midwives Act, 1902, the prescribed fee shall, subject to regulations made by the Insurance Commissioners, be recoverable as part of the maternity benefit.

The National Boards of Insurance Commissioners will make regulations also with regard to subscriptions or donations granted by an approved society or Insurance Committee to hospitals, dispensaries, and other charitable institutions, or for the support of district nurses, and as to their power to appoint nurses to visit and nurse insured persons. The same National Boards will make regulations under Section 47 to apply to cases in which the employer pays full wages during periods of disease or disablement, under Section 59 as to the manner of appointment of Insurance Committees and District Insurance Committees and as to combinations of Insurance Committees, under Section 60 as to the reports on the health of insured persons to be made by the Insurance Committees to the Insurance Commissioners, and under Section 63 as to inquiries into causes of the alleged prevalence of excessive sickness and as to the recoupment of expenditure by an Insurance Committee in consequence of such excessive sickness.

SPEECH BY THE CHANCELLOR OF THE EXCHEQUER.

MR. LLOYD GEORGE opened the proceedings with a speech in which, after reading the sections of the Insurance Act providing for the appointment of the Committee, he said that its functions were not administrative or executive, but had an important advisory character. The provisions of the Act, he said, were now the law of the land, and that meant that until the Act was altered or repealed it was the duty of every loyal citizen to obey it and to assist in its administration as he would in that of any other statute. That was the only basis on which a civilized community could be held together, and the only conceivable exception was some great question vitally affecting human liberty and conscience.

The Act was a new experiment, and, like other new experiments, had been subjected to a good deal of criticism; only experience could prove how much of that criticism was well founded. Like all human machinery, the Act must have its defects, but so far they had not been revealed during the large amount of preliminary administrative work which had been done: when discovered, he doubted not that they would be of a very different character from anything anticipated, and the remedy different from anything that had been proposed. Amendment or alteration might be made in the future, but two features would, he felt confident, remain unaltered—one was the compulsory contribution by employers and employed subsidized by the State, a principle accepted by all the great parties in the land: the other was the general character of the benefits proposed. Both these matters vitally affected the functions of the Committee. The aggregate membership of benefit societies engaged in the work of sickness for the working population of this country was something over 7,000,000. The membership of societies engaged in providing benefits for unemployment numbered over 1,000,000, and coming to those which were providing death benefits, he thought the total number of policies of an industrial character that had been issued reached over 36,000,000. These figures gave an idea of how all-pervading these great organizations were, and that was why, in framing the Act, it was decided that it would be best to utilize these organizations for carrying out the work. Up to the present societies engaged in sickness insurance whose members aggregated a little over 6,000,000, and societies whose aggregate death policies numbered 36,000,000, had intimated their intention to utilize their machinery for the purpose of working the Act. They had already applied for approval as societies under the Act, they were engaged in canvassing and organizing amongst those who would be the subjects of the Act, and they were busy adapting their rules and formulating schemes for reserves and for alternative benefits. In all parts of the country a course of lectures had been arranged by the Commissioners, primarily for the purpose of instructing and assisting the officials of these organizations in putting the Act in operation, and 13,000 of these officials had attended these lectures. It was the general desire that most of those compulsory insured should become members of approved societies rather than Post Office contributors. It was a mistake to assume, as had been done, that every insured person must be a member of an approved society on July 15th next, when the Act came into operation, or otherwise become a Post Office contributor. There would be at least three months after July 15th, during which any insured person could join an approved society, but it was in the interests of the employers, of the workmen, and generally of the smooth working of the Act, that as many as possible should join approved societies before July 15th. The society that was first in the field would naturally have an advantage over other societies; and with regard to the employers, it was an undoubted advantage that they should have as many of their workmen as possible members of some society or other, because those societies would look after their members and supply them with cards, and the members would come on the first pay-day to the employer with the cards in their possession and present them at the pay office. The employer would also

be enabled to sift his workmen, and to leave out those who were exempt under the provisions of the Act, because an approved society would assist him in that process before the first day of deduction came.

He divided the business before the Committee into those matters which required attention before July 15th and those not so pressing because they do not come into operation before January 1st, 1913. The questions requiring attention before July 15th were those affecting, directly or indirectly, the payment of contributions and involving the drafting of regulations, in reference to the payment and collection of contributions, the account books of societies, and administration expenses; also draft regulations with regard to employers and workpeople, more especially in regard to trades where it was the custom for work to be carried on through intermediate employers as subcontractors, and cases where there was more than one employer. He therefore proposed that the Committee should divide into two sections, one consisting of those directly interested in the question of contributions and the other of those chiefly concerned with medical benefits.

Division of the Committee into Two Sections.

In reply to one of the representatives of the midwives, Mr. Lloyd George said that he did not see how the question of medical benefit could be discussed without some reference to maternity.

Mr. A. H. Warren, Vice-President of the National Conference of Friendly Societies, asked whether the deliberations of each section of the Committee would be submitted to the whole.

Mr. Lloyd George said that Mr. Warren was evidently thinking of medical benefit, and desired to know whether what was done as to that would be submitted to the whole body. He agreed that when that section did arrive at some sort of recommendation it would be desirable to submit the consideration of the subject to the whole Committee.

Mr. Walter Davies, President of the National Conference of Friendly Societies, said that they were in the difficulty that some were anxious to take part in both discussions.

In reply Mr. Lloyd George indicated that the section chiefly concerned with medical benefit could not that day go beyond the discussion of the method of procedure.

The Committee then separated into two sections, some of the representatives of friendly societies remaining with the other section, which may for convenience be called the medical section. At this stage reporters were requested to withdraw.

Medical Benefit.

As has been reported in the public press, Mr. Lloyd George remained with the medical members and those representatives of the friendly societies who preferred to remain to discuss the important question of medical benefits.

In some opening remarks the Chancellor of the Exchequer spoke of the great importance of this subject. He pointed out that the Committee was not a negotiating but an advisory committee, and any negotiations with the medical profession would have to be undertaken after the Advisory Committee had come to conclusions. The two questions that would have to be discussed were the definition of the duties of the doctors and the remuneration to be given for the performance of these duties. All that he hoped the Committee could accomplish that day was to decide upon the question of procedure. He said, further, that for the present no draft regulations were to be submitted, though he would be glad to know what views the Committee had on the subject. He was convinced that the insured person ought to get the best possible medical attendance, and that the medical profession should be honourably treated.

Sir Robert Morant intimated that a subcommittee of Commissioners had been appointed to collect facts on the subject of the remuneration of doctors.

Dr. Smith Whitaker went over Section 15 of the Act in some detail, and it was announced that the paper from which he spoke would be circulated among the members. Dr. Whitaker also stated that points for discussion at the next meeting would be in the hands of the Committee prior to that meeting.

There was some general discussion on questions of procedure, during the course of which it appeared that the Insurance Commissioners were themselves making inquiries with regard to remuneration received in the past by the profession for medical services rendered to patients of the class likely to be insured. Soon after one o'clock this portion of the Advisory Committee adjourned until Friday, May 17th.

A meeting of the English Advisory Committee was summoned for the following day, Saturday, May 11th, but the contributory section of the Joint Advisory Committee found it impossible to finish its work on Friday. The business left over was of a nature which the English Advisory Committee would have to consider, and it was therefore agreed that the two bodies should sit together on Saturday morning. The medical members of the English Advisory Committee were advised that the business to be taken on this day would not include matters of medical interest, and the majority, therefore, did not attend the meeting on Saturday.

Notice by the Commissioners.

"At the opening meeting on Friday, the 10th instant, of the Advisory Committee appointed under the National Insurance Act, 1911, the Chancellor of the Exchequer announced that a Subcommittee had been appointed by the Commissioners whose duty it would be to investigate and collect information as to the conditions of remuneration prevailing in general medical practice throughout the United Kingdom.

"The Commissioners desire it to be known generally that they will welcome information or representations from medical or other associations or persons who are prepared to submit statements of fact or to tender evidence on this question which may assist the Subcommittee in their investigations.

"Concurrently with the consideration of the special question of remuneration by the above-mentioned Subcommittee the Commissioners will consider, in conjunction with the Advisory Committee, the Regulations required to be framed for the general administration of medical benefit under the Act; and they will be glad to receive information from any persons who may be in a position to supply it as to local conditions of practice which may be of service to the Commissioners in framing the Regulations.

"All communications should be addressed to the Secretary, Subcommittee on Medical Benefits, Wellington House, Buckingham Gate, S.W."

PROVISIONAL MEDICAL COMMITTEES.

Deptford.

The Provisional Committee met on Thursday, May 9th, at 91, Breakspears Road, Dr. C. J. Parke being in the chair. Since the last meeting a personal canvass had been carried out by the members of the Committee in a very thorough and enthusiastic manner, and the report arrived at was as follows:

Practitioners in the borough	61
Members of the Association	53
Signed the first undertaking	60
Contributed to the Guarantee Fund ...	45
Signed the pledge *re* "contract practice" ...	59
Number in contract practice	33
Signed the resignation forms	33
In hospital practice	6

Several of those who have not yet contributed to the Guarantee Fund have promised and will probably do so.

Of the 6 in hospital practice, 5 have signed the pledge, the sixth wishes to consult his colleagues on the staff of the hospital to which he is attached, but this hospital is not in the borough. The remaining practitioner who has not yet signed the pledge is away from home and the form will be sent to him, which he has promised to sign. Of the 33 in contract practice it is satisfactory to note all have signed the resignation forms, some resigning as many as 13 appointments. It was decided to print a report of the work of the Committee and to send a copy to all practitioners in Deptford, and to all Secretaries of Divisions in London. The Honorary Secretary of the Committee is W. H. Payne, M.D., 8, Vesta Road, Brockley, S.E.

Lewisham.

A general meeting of the medical profession resident in the metropolitan borough of Lewisham was held on Thursday, May 9th, at the Co-operative Hall, Catford, Dr. WILSON (Forest Hill) in the chair.

The policy of the British Medical Association with reference to the National Pledge was unanimously endorsed. Eighty signatures to the pledge were obtained, and arrangements made to secure the remaining twenty-four of those actually practising in the borough.

The meeting decided to issue a list of medical practitioners resident and practising in the borough, indicating those who are members of the British Medical Association who have signed the undertaking and pledge, with further particulars as to the Central Insurance Defence Fund, etc.

Consideration of the scheme for a Public Medical Service was deferred until the draft scheme is issued from the British Medical Association.

Shoreditch.

A meeting of the Shoreditch Medico-Ethical Society was held on Thursday, May 9th, at 9.30 p.m., at Balfour Hall, Kingsland Road. The PRESIDENT, Dr. Major Greenwood, was in the chair, and, with the exception of two or three, every practitioner in the Borough of Shoreditch was present.

Drs. CHETWOOD and PORTER, the borough representatives on the Provisional Committee, briefly reported what had taken place at the first meeting of that committee, and pointed out that the chief matter under consideration was the placing resignations of all friendly society appointments in the hands of the State Sickness Insurance Committee and the formation of a suitable Guarantee Fund, and that they had been appointed to canvass all practitioners in their area with that object.

The CHAIRMAN said that the former proposal presented great difficulties in districts like their own, and would require grave consideration. If the proposal were adopted by the great majority of the practitioners, it would be practically safe, and no use would be made of the resignations unless an overwhelming number were obtained. He hoped all would be prepared to make sacrifices for the common good. With regard to the Guarantee Fund, all could do something, and it was desirable that a great effort should be made. It must be understood that the object of the Fund was not to compensate all losses caused by this mischievous Act—that would be impossible—but only such as were brought about entirely by loyalty to the wishes of the profession as decided by the Central Committee.

Among those who took part in the discussion were Drs. GARRETT, ROE, BURROUGHS, SPEED, CHETWOOD, PORTER, and SOUTHCOMBE.

Woolwich.

At a meeting of medical men practising in the Borough of Woolwich, held at the old Town Hall, Woolwich, on Tuesday, April 30th, the following Provisional Medical Committee was formed:

Members of British Medical Association.—Woolwich: Drs. Brews, Cowie, Hirsch, and Williamson. Plumstead: Drs. J. L. Clarke, Gray Duncanson, Holmes, Lurgow, Mair, Wise. Eltham: Drs. Sandford Smith, St. John, and Thompson.

Non-member of British Medical Association.—Dr. Lynn.

East Yorkshire.

A meeting of the medical profession in the area of the East Yorkshire Division was held in the Etherington Ward at the Royal Hull Infirmary, on Friday, May 10th, at 3.30 p.m. The attendance was ninety. Dr. J. MACNIDDER, the Chairman of the East Yorkshire Division, was voted to the chair, and Dr. Turton undertook the duties of honorary secretary. The following recommendations of the Executive Committee were discussed and carried:

1. That a Local Provisional Medical Committee be formed for the area of the East Yorkshire Division of the British Medical Association on the lines of the Memorandum D46 of the State Sickness Insurance Committee.
2. That the Committee consist of four *ex officio* members, the Chairman, Vice-Chairman, Representative of the Division at Representative Meetings, and the Honorary Secretary of the East Yorkshire Division of the British Medical Association: ten members to be elected by the practitioners in the county borough of Hull and Hessle, Cottingham and Sutton, of whom one shall be a qualified medical woman and one non-member of the British Medical Association: eight members to be elected by the practitioners in the rest of East Yorkshire in the Division area. In addition the Committee shall have power to co-opt not more than four additional members.
3. That Subcommittees be formed for the following sub-areas:
   (*a*) Hull, including Hessle, Cottingham, and Sutton.
   (*b*) Beverley.
   (*c*) Driffield and Bridlington.
   (*d*) Holderness, including Hornsea, Withernsea, and Patrington.
   (*e*) Howden, including Market Weighton, Brough, and North and South Caves.
   The Subcommittees will consist of every medical practitioner in the sub-area.
4. That the members of each subcommittee shall elect representatives from amongst their own members to represent them on the Local Provisional Medical Committee; that the representation shall be as follows:
   For the sub-area (*a*) Hull, etc., ten members, of whom one shall be a qualified medical woman and one a non-member of the British Medical Association.
   For the sub-area (*b*) Beverley, one member.
   For the sub-area (*c*) Driffield and Bridlington, two members for Bridlington and one for Driffield.
   For the sub-area (*d*) Holderness, two members.
   For the sub area (*e*) Howden, etc., two members.
5. That the Local Provisional Medical Committee shall elect its own officers, to consist of a chairman, deputy chairman, secretary, and treasurer, etc.
6. That the Branch Council of the East Yorkshire and North Lincolnshire Branch of the British Medical Association, as being the body directly responsible to and in close touch with the Central Council of the British Medical Association, be recognized as the co-ordinating body for that area, to which reports of progress shall from time to time be made.
7. That the Local Provisional Medical Committee shall not enter into dealings with any authorities under the Insurance Act until it shall have received the sanction of the above Branch Council for so doing.
8. That the duties of the Local Provisional Committee shall be those outlined in the Memoranda D45, D48, and D49 of the State Sickness Insurance Committee.
9. It was resolved that the members of the Committee be elected by specially summoned meetings of the members of each sub-area.

At a meeting of the Hull sub-area held subsequently the following eight members were chosen to represent that sub-area on the Local Provisional Insurance Committee: Messrs. E. H. Howlett, F. Nicholson, D. H. Davy, G. W. Lilley, O. L. Appleton, C. H. Milburn, J. Divine, T. Cameron, F. F. Walton, and Miss Townend.

The Holderness sub-area elected Messrs. H. D. Johns and R. C. Field.

The Howden sub-area elected Messrs. J. E. Gains and H. W. Crawford, and the Beverley sub-area Dr. George Savege.

The first meeting of the Local Provisional Medical Committee is to be held in the Board Room of the Hull Royal Infirmary on Tuesday, May 21st, at 4 p.m.

Edinburgh.

A meeting of the medical profession in Edinburgh was held on Thursday, May 9th, in Gartshore Hall. Billets had been issued to all members in the Edinburgh insurance area. Ninety-nine members attended. Dr. JAMES RITCHIE was called to the chair.

Apologies for non-attendance were intimated from Sir Thomas R. Fraser, Drs. Byrom Bramwell, McKenzie Johnston, Norman Walker, A. Walker, Watson Wemyss, P. B. Cousland, and Knight.

The CHAIRMAN stated that the meeting had been called by the instructions of the British Medical Association and the Scottish Medical Insurance Council, that it was intended to form a provisional, not a statutory, local committee, and indicated the necessity for its formation.

Before proceeding to the election of a committee the question was raised whether medical members of the Advisory Committee would be eligible for nomination as members. This was voted upon by the meeting, when 26 voted for and 46 against the motion.

A list of suggested names had been prepared by the executives of the Edinburgh and Leith Medical Practitioners' Association and the Edinburgh and Leith Division of the British Medical Association. These had

been printed and distributed to those attending the meeting, and, with two alterations, received a very large majority of the votes in the meeting.

Five Consulting Physicians.—Drs. J. W. Ballantyne, G. A. Gibson, G. L. Gulland, R. W. Philip, D. Chalmers Watson.

Five Consulting Surgeons.—Messrs. L. Beeseley, E. Scott Carmichael, C. W. Cathcart, J. W. Dowden, A. Logan Turner.

Seventeen Practitioners.—Drs. E. F. Armour, J. M. Bowie, Jas. Carmichael, John Cumming, Michael Dewar, R. A. Lundie, A. M. M'Intosh, John M'Laren, John Orr, G. Keppie Paterson, Jas. Ritchie, R. Robertson, A. T. Sloan, Jas. Smith, J. Stevens, R. Thin, H. Torrance Thomson.

Two Practitioners from Portobello.—Drs. J. H. Balfour, L. F. Bianchi.

Two Women Practitioners.—Drs. Elsie M. Inglis, Isabel Venters.

Six Non-members of the British Medical Association.—Consulting Physician, Dr. J. S. Fowler; Surgeon, Sir Joseph Fayrer; Practitioners, Drs. W. B. Alexander, W. S. M. Brown, R. R. Richardson, J. W. L. Spence.

Total ... ... 37.

The Committee was given power to co-opt three members for any special purpose. Powers were also given to the Committee to substitute other members for any not accepting office.

The CHAIRMAN made an appeal for all to join the British Medical Association who were not already members of it, and also for the guarantee and defence funds.

The quorum of the Committee was fixed at 18.

A cordial vote of thanks was given to the Chairman.

South Glasgow.

At a meeting of practitioners resident in South Glasgow, held on April 19th, it was decided to form a Provisional Medical Committee for that area. As a result of the poll arranged for at the meeting and conducted by post, the following have been elected: Drs. Drever, Eben. Duncan, Gardner, Lawson, Leitch, Leask, A. M'Crorie, Reden, A. Rankin, Robertson, Stewart, and Wauchope.

At a meeting of the committee on May 8th Dr. Duncan was appointed Chairman, Dr. Robertson Vice-Chairman, and Dr. Drever Secretary.

It was decided to proceed at once in the matter of obtaining signatures to the Pledge.

Roxburghshire.

The first meeting of the Provisional Medical Insurance Committee for Roxburghshire was held at Newton St. Boswells on May 8th. The meeting was summoned by circular issued to all medical practitioners within the county by Dr. M. J. Oliver, representative for the county on the Scottish Medical Insurance Council. Fourteen, or 50 per cent. of the practitioners in the county, were present. It was unanimously resolved that all practitioners resident within the county be members of the Committee.

Executive Committee.—Dr. W. L. Cullen, St. Boswells, was elected Chairman, and Dr. M. J. Oliver, St. Boswells, Secretary. In addition to the Chairman and Secretary the following were elected to form an executive committee: Dr. Blair (Jedburgh), Dr. Fleming (Kelso), Dr. Bannerman (Hawick), Dr. Evans (Newcastleton).

Club Appointments.—The SECRETARY stated that every medical man within the county had signed the undertaking of the British Medical Association. Every man in practice, with one exception, had contributed to the defence funds. Every medical man holding club appointments had undertaken to resign them on the termination of his contract when such collective action is decided on by the Medical Insurance Committee. Every medical practitioner had undertaken not to accept club appointments except with the consent of the same committee.

Defence Funds.— Twenty-seven medical men had guaranteed sums to the defence funds, the total sum guaranteed to date being £334 10s. On the motion of Dr. DAVIDSON, of Hawick, seconded by Dr. BANNERMAN, it was unanimously resolved that another appeal be made by circular, with the object of increasing the amount guaranteed to the Branch fund.

County Medical Service.—It was decided that the Chairman and Secretary should prepare such a scheme for a county medical service as they considered suitable to the conditions of practice within the county, and that it should be submitted to others for criticism, with a view to discussion of details at a future meeting.

Letter from Scottish Medical Insurance Council.—A letter from the Scottish Medical Insurance Council was read regarding the medical examination of applicants for admission to societies for benefits under the Insurance Act, and it was resolved that in cases where a practitioner is not bound to make the examination under terms of his contract with existing societies, every member of the professionin Roxburghshire should decline to make any such examination for a fee less than 2s. 6d.

SCOTTISH MEDICAL INSURANCE COUNCIL.

THE Scottish Medical Insurance Council has issued to every member of the medical profession in Scotland a narrative of the first meeting of the Scottish Medical Insurance Council, a report of which was published in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of April 20th, p. 401.

In doing this the Council makes an appeal to every medical man in Scotland to be loyal to the Provisional Medical Committee of his insurance area, and to enter into no negotiations or arrangements with regard to contract practice of any kind without the approval of his local medical committee.

The Council has also issued a leaflet dealing with free choice of doctor, freedom from friendly society control, and suitable remuneration, pointing out the logical sequences of these cardinal principles, and in particular stating that every doctor must steadfastly decline to listen to personal and individual proposals.

HOSPITALS AND THE INSURANCE ACT.

ON May 8th Mr. NEVILLE CHAMBERLAIN presided over a conference of representatives of Midland voluntary hospitals at the General Hospital, Birmingham. Fifty-nine representatives of the following hospitals were present:

Birmingham General Hospital, Queen's Hospital, Children's Hospital, Eye Hospital, Ear and Throat Hospital, Orthopaedic Hospital, Skin and Urinary Hospital, Homoeopathic Hospital, Women's Hospital, Dental Hospital and General Dispensary; Wolverhampton General Hospital, Women's Hospital and Eye Hospital; Coventry and Warwickshire Hospital, Warneford and Leamington Hospital, Rugby Hospital of St. Cross, Guest Hospital (Dudley), West Bromwich District Hospital, Walsall and District Hospital, Corbett Hospital (Stourbridge), Stratford-on-Avon Hospital, Salop Infirmary (Shrewsbury), North Staffordshire Infirmary, Kidderminster Infirmary, Nottingham Children's Hospital and Samaritan Hospital for Women, Smallwood Hospital (Redditch), Derbyshire Royal Infirmary, Cheltenham General Hospital, Worcester General Infirmary and Ophthalmic Hospital.

The following resolutions were unanimously adopted:

That in the opinion of this conference it is desirable that as soon as the benefits of the Insurance Act come into operation, and provided that arrangements are made with the medical profession for adequate medical attendance outside the hospitals—

(*a*) Insured persons applying for treatment in the out-patient departments of voluntary hospitals—

1. Should receive "first aid" only when they meet with accidents or are in such acute medical or surgical conditions as require immediate help and are unable to obtain access to their own doctors, or, in the case of a ticket hospital, when they come to the hospital with an out-patient note.
2. Should receive treatment only when the treatment be of such a special nature that it cannot be carried out elsewhere than at the hospital.
3. Should obtain a second opinion only on the recommendation of a medical officer on the panel.

(*b*) In the case of insured persons admitted as in-patients a claim for subscriptions or donations should be made on behalf of the hospital to the approved society of the local Insurance Committee, except where, in the case of a ticket hospital (should the management so decide), an in-patient ticket, such as may be required by the regulations of the hospital, has been produced.

A vote of thanks to the Chairman concluded the business.

CORRESPONDENCE.

THE CENTRAL COUNCIL ELECTION.

DR. J. STAVELEY DICK (Manchester) writes: I have just received the election addresses of two candidates for the Council. They say they are the nominees of the National Medical Union. I had almost forgotten the existence of this organization. I admitted in a previous communication some months ago that Dr. Helme's strong lead and personal influence did good last year. I seriously question the wisdom, however, of maintaining an organization of this sort. My feeling is that it can only succeed in perpetuating a certain undercurrent of bickering and dissension in our ranks at a crisis when it is of vital importance that we should not merely present a united front but also be, in fact, loyally and whole-heartedly united amongst ourselves.

However, these two gentlemen are also members of the Association, and as such are entitled to have their claims to represent Lancashire in the Council fairly considered.

One candidate "justifies his candidature" by saying that "this Act would never have become law had it not been for the feeble and almost suicidal action of the present Council." The other candidate justifies his candidature on the ground that he will, if elected, "place the profession on a sound financial basis, consonant alike with what is its due and with its honour, integrity, and power for good." I think if we were at all assured in our own minds that this gentleman's power for good were on all-fours with his good intentions, there would be no question as to the propriety of returning him at the head of the poll.

I do not for a moment question Dr. Reynolds's good intentions, and I certainly do not question Dr. O'Sullivan's. Indeed, I thought the latter put up a very spirited and sportsmanlike fight at the last Representative Meeting.

But, while this is true, I cannot help asking myself what these gentlemen have done in the past which establishes a presumption that their deeds would correspond with their present somewhat extravagant words.

I confess, from personal observations, I do not think it likely that these two gentlemen would succeed where Mr. Verrall, Dr. Macdonald, and Sir Victor Horsley have failed, and I do not feel reassured by their protestations.

In conclusion, I should, in this connexion, like to direct attention to Appendix II of the Annual Report of Council (SUPPLEMENT, May 11th, p. 468). I think the time has come when private members of the Association should understand what an enormous amount of work has been done by the Council and other honorary officials during the last three years. They should understand that the work has not only been done without payment, but that it has involved out-of-pocket expenses on the part of these officials to the tune of at least £2,000 per annum.

And now we are told by the National Medical Union that these officials approved of the medical provisions of the Act! A really tragic instance of the length to which prejudice and wilful blindness may lead otherwise sane and competent men. A comic element is, however, introduced in the suggestion that the "strong action" of the British Medical Association is really due to this Union.

Unless we have in future a better appreciation of the difficulties and sacrifices of men who have been doing their best in the interests of their profession at every stage of this very responsible and serious business, I fear the work of the Association, and consequently the interests of the profession, must suffer.

THE CHEMISTS AND THE DOCTORS.

DR. HENRY WAITE (Armley, Leeds) writes: I see that the chemists are objecting to the doctors dispensing. I sincerely hope this will be left to the discretion of the general practitioner, for though we all would be glad to do away with all surgery drudgery, it has its advantages, and we have to do it for our private patients so long as any are left to us. If the chemists are going to do the dispensing and we are not, it means the patients will have prescriptions given to them. Now to give a prescription is to part with a valuable asset in many cases. A particular prescription may represent years of experience, much thorough therapeutic and chemical knowledge, and much adaptation. I know there are many such which have built up the reputation of certain men for certain complaints. Once the prescription has been given to the patient without any safeguard he may copy it, or have it repeated for a friend who, please remember, may not be on your list. We should have some protection such as they have abroad, where it is illegal to repeat a prescription unless it is endorsed by the giver. Again, will the chemist engage to keep in stock the hundred-and-one specialities of the leading druggists—specialities which many of us have got used to, and which we have found by years of experience to be the best and the most acceptable preparation, from a pharmaceutical point of view? These are some of the many points which occur to one, and which must be watched before general practice is butchered to make a politician's holiday.

A PLEA FOR UNITY.

MR. FRANCIS HEATHERLEY, M.B., B.S.Lond., F.R.C.S.Eng. (Rock Ferry), writes: Dr. James Ratcliff-Gaylard is right in saying in your issue of May 11th that the National Medical Union has done good work in stimulating the profession to a recognition of its dangers. But he misses the point when, in continuation, he says that its work has been to stiffen the backbone of the profession. The backbone of the profession requires no stiffening. As a member of the National Medical Union I consider that the good we have done lies in having opened the eyes of the executive of the British Medical Association to the errors of their policy in the past. This has been done by fearless criticism, regardless of unity, regardless of personal friendship—in fact, regardless of everything except the interest of the profession as a whole.

Far from agreeing with Dr. Ratcliff-Gaylard that the National Medical Union has outlived its usefulness, I believe that it is doing its duty now by urging members to replace in the coming election to the Council those members of that august body who have shown weakness or too great suppleness of backbone. Although the work of elimination is an unpleasant task, it should be done regardless of personal friendships; and, as regards the powerful Lancashire and Cheshire Branch, I appeal to my fellow general practitioners to see to it that neither Mr. Larkin nor Dr. J. H. Taylor are returned. Had we possessed more representatives of the type of Dr. Major Greenwood on the Council we should have been saved much humiliation and anxiety. The present crisis is full of interest.

I am wondering what process of reasoning could have induced a large number of Liverpool consultants, headed by Dr. Bradshaw, to applaud Mr. Larkin when at a recent Divisional meeting he not only admitted voting for the Smith Whitaker resolution, but said he would act similarly in the future should occasion arise.

I am wondering how Dr. Ratcliff-Gaylard reconciles his lofty patriotism with the fact that at the mass meeting of doctors in Liverpool on May 2nd he voted against a resolution affirming our adhesion to the seven cardinal points and pledging ourselves to support the British Medical Association and the National Medical Union.

I am wondering how it comes about that no mention of this meeting, which was attended by 200 medical men, is to be found in our JOURNAL, although it was fully reported by all the leading papers in the country, and yet that a meeting held at Hampstead on May 3rd, and attended by fourteen members, gets a column devoted to its proceedings.

I wonder how it is that as a Radical I can get no letter criticizing the Insurance Act published in any Liberal newspaper; and, lastly, I am wondering whether this letter will be crowded out of your columns until such time as will make it of no use in influencing any votes in the coming election to the Council of the British Medical Association.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

INSPECTOR-GENERAL OF HOSPITALS AND FLEETS J. FISHER has been awarded the good service pension of £100 a year in the vacancy created by the death of Sir James Jenkins.

ROYAL NAVAL VOLUNTEER RESERVE.

The undermentioned gentleman has been appointed Surgeon: THOMAS TURNER, M.B., dated April 24th, 1912.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL C. B. BURT, from Dublin, has joined the London District for duty on the Army Medical Advisory Board.

Major C. B. MARTIN, from the Southern Command, has been transferred to Cahir for duty.

The date of promotion of Major HAROLD H. NORMAN, M.B., is July 21st, 1911, and not as stated in the *Gazette* of August 4th, 1911.

Captain G. F. RUGG has been appointed as a Specialist in Advanced Operative Surgery, First (Peshawur) Division.

Captain E. G. ANTHONISZ, from Cannanore, has been appointed to Belfast for duty from May 16th.

Captain J. B. HANAFIN (Peshawur) has been granted six months' general leave.

Captain T. F. RITCHIE, from West Africa, has joined the London District for duty.

Captain C. R. MILLAR, from West Africa, has joined the London District for duty.

Lieutenant THOMAS E. OSMOND, from the seconded list, is restored to the Establishment, dated April 1st, 1912.

SPECIAL RESERVE OF OFFICERS.

TREFFRY OWEN THOMPSON, late Cadet, Oxford University Contingent, to be Lieutenant on probation, dated March 13th, 1912.

ARTHUR JAMES BROWN to be Lieutenant on probation, dated March 29th, 1912.

INDIAN MEDICAL SERVICE.

MAJOR H. F. K. BAMFIELD has been granted furlough for one year.

Major J. H. HUGO, D.S.O., an Agency Surgeon of the 2nd class, is granted privilege leave for two months and eighteen days, combined with furlough for one year.

Major R. H. MADDOX, M.B., has been appointed Civil Surgeon of Goya, with effect from the date of his taking over charge.

Major H. BENNETT, M.B., C.M., F.R.C.S.E., to act as Deputy Sanitary Commissioner for the Sind Registration District, in addition to his own duties, during the absence on leave of Major W. O'S. Murphy, M.B., B.Ch., D.P.H.

Major HUNT becomes Agency Surgeon, Bundelkhand, vice Major Hugo, on leave.

The services of Captain A. KNOWLES have been placed at the disposal of the Government of India, Education Department, for employment in the Bacteriological Department.

Captain J. MASSON, M.B., has been appointed Civil Surgeon of Darbhanga.

Captain G. F. I. HARKNESS has been appointed to act as Civil Surgeon, Sukkur, with effect from March 1st, 1912, vice Major C. R. Bakhle, who has been deputed to attend the class in clinical bacteriology at Kussauli.

Captain S. W. JONES to do duty at Yeravda Central Prison temporarily under the order of the Superintendent of the Prison.

The services of Captain F. C. FRASER are replaced at the disposal of the Government of India in the Home Department, with effect from March 25th, 1912.

Captain C. H. FLEMING joins the Gaol Department in Burma.

Lieutenant JOHN GLENDINNING BRYDEN SHAND, M.B., to be Captain, dated January 30th, 1912.

TERRITORIAL FORCE.

ARMY MEDICAL SERVICE.

COLONEL DE BURGH BIRCH, C.B., M.D., on vacating the appointment of Assistant Director of Medical Services of the West Riding Territorial Division, resigns his commission, and is granted permission to retain his rank and wear the prescribed uniform, dated April 1st, 1912.

ROYAL ARMY MEDICAL CORPS.

First West Lancashire Field Ambulance.—Lieutenant-Colonel FREDERIC J. KNOWLES, on completion of his period in command, is retired, and is granted permission to retain his rank and to wear the prescribed uniform, dated May 1st, 1912.

Second West Lancashire Field Ambulance.—Major THOMAS STEVENSON, M.B., to be Lieutenant-Colonel, dated April 1st, 1912.

Attached to Units Other than Medical Units.—Lieutenant-Colonel WALTER S. CHEYNE, M.D., resigns his commission, and is granted permission to retain his rank and to wear the prescribed uniform, dated May 1st, 1912.

For Attachment to Units Other than Medical Units.—CHARLES CONWAY FITZGERALD to be Lieutenant, dated March 28th, 1912; ALEXANDER PIRIE WATSON, M.B., F.R.C.S., late Lieutenant, 6th Battalion, the Royal Scots (Lothian Regiment), to be Lieutenant, dated May 4th, 1912; JOHN HERBERT OWENS to be Lieutenant, dated May 4th, 1912.

TERRITORIAL FORCE RESERVE.

Surgeon-Captain SIDNEY HILLIER, M.D., resigns his commission, dated April 27th, 1912.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

In ninety-five of the largest English towns 8,546 births and 4,715 deaths were registered during the week ending Saturday, May 4th. The annual rate of mortality in these towns, which had been 14.0, 14.5, and 14.1 per 1,000 in the three preceding weeks, further fell to 13.9 per 1,000 in the week under notice. In London the death-rate was equal to 13.7 per 1,000 against 13.5, 14.3, and 13.3 per 1,000 in the three previous weeks. Among the ninety-four other large towns the death-rates ranged from 6.2 in Edmonton and in Southend-on-Sea, 6.4 in Wimbledon, 6.8 in Gillingham and in Eastbourne, and 7.2 Enfield to 20.4 in Salford, 21.0 in Sunderland, 21.3 in Dudley, 22.0 in West Bromwich, 22.6 in Wigan, and 25.2 in Oldham. Measles caused a death-rate of 1.6 in Salford, 1.9 in Merthyr Tydfil, 2.0 in Wakefield, 2.1 in Warrington, 3.0 in Blackburn, 3.4 in Cardiff, and 4.9 in Rotherham; whooping-cough of 1.8 in Oldham, 2.1 in Smethwick, 2.3 in West Bromwich, and 2.8 in Stockport; diphtheria of 2.4 in West Hartlepool; and diarrhœa and enteritis of children under 2 years of age of 2.2 in Bootle. The mortality from scarlet fever and from enteric fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 35, or 0.7 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest, and included 7 in Birmingham, 4 in Grimsby, and 3 in Liverpool. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,242, 1,236, and 1,223 at the end of the three preceding weeks, had further declined to 1,214 on Saturday, May 4th; 158 new cases were admitted during the week, against 119, 142, and 144 in the three preceding weeks.

In ninety-five of the largest English towns, 8,522 births and 4,795 deaths were registered during the week ending Saturday, May 11th. The annual rate of mortality in these towns, which had been 14.5, 14.1, and 13.9 per 1,000 in the three preceding weeks, rose to 14.2 per 1,000 in the week under notice. In London last week the death-rate was equal to 14.1 per 1,000, against 14.3, 13.3, and 13.7 in the three previous weeks. Among the ninety-four other large towns the death-rates ranged from 3.9 in in Edmonton and in Southend-on-Sea, 5.4 in Enfield, 6.9 in Ilford, 7.1 in Swindon, and 7.9 in East Ham to 21.3 in Bootle, 22.2 in Salford, 22.3 in Ipswich, 22.5 in Middlesbrough, 24.1 in Barnsley, and 25.3 in Tewsbury. Measles caused a death-rate of 1.2 in Bristol, 1.4 in Warrington, 1.9 in Merthyr Tydfil, 2.4 in Newport (Mon.), 2.7 in Salford and in Darlington, 3.7 in Cardiff, and 5.6 in Ipswich: whooping-cough of 1.6 in Walthamstow and in Rotherham, 1.9 in Stockport, and 2.0 in Wakefield and in Aberdare; and diarrhœa and enteritis (under 2 years) of 1.7 in Rochdale. The mortality from enteric fever, scarlet fever, and diphtheria showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 34, or 0.7 per cent. of the total deaths, were not certified either by a registered medical practitioner or by a coroner after inquest, and included 6 in Birmingham, 4 in Liverpool, 4 in South Shields, and 3 in Bootle. The number of scarlet-fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,236, 1,223, and 1,214 at the end of the three preceding weeks, had risen to 1,242 on Saturday last; 168 new cases were admitted during the week, against 142, 144, and 158 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

In eighteen of the largest Scottish towns 1,266 births and 652 deaths were registered during the week ending Saturday, May 4th. The annual rate of mortality in these towns, which had been 16.1 and 16.2 per 1,000 in the two preceding weeks, fell to 15.6 in the week under notice, but was 1.7 per 1,000 above the rate recorded in the ninety-five large English towns. Among the several Scottish towns the death-rates ranged from 9.2 in Falkirk, 9.9 in Partick, and 10.3 in Clydebank to 17.4 in Dundee, 18.1 in Kirkcaldy, and 19.9 in Greenock. The mortality from the principal epidemic diseases averaged 1.8 per 1,000 and was highest in Paisley and Coatbridge. The 257 deaths from all causes registered in Glasgow included 14 from measles, 3 from whooping-cough, 3 from infantile diarrhœa, and 1 from scarlet fever. Nine deaths from measles were recorded in Edinburgh, 8 in Dundee, 6 in Paisley, and 5 in Coatbridge; 2 deaths from scarlet fever in Greenock; and 3 from whooping-cough in Edinburgh.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, May 4th, 665 births and 449 deaths were registered in the twenty-two principal urban districts of Ireland, as against 692 births and 450 deaths in the preceding week. The annual death-rate in these districts, which had been 21.0, 23.3, and 20.3 per 1,000 in the three preceding weeks, fell to 20.2 per 1,000 in the week under notice, this figure being 6.3 per 1,000 higher than the mean average death-rate in the ninety-five English towns for the corresponding period. The figures in Dublin and Belfast were 25.9 and 17.9 respectively, those in other districts ranging from 3.9 in Galway and 4.4 in Newry to 27.3 in Wexford and 34.3 in Newtownards, while Cork stood at 21.1, Londonderry at 12.7, Limerick at 20.4, and Waterford at 15.2. The zymotic death-rate in the twenty-two districts averaged 2.2 per 1,000 as against 2.0 in the preceding period.

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

ALNWICK INFIRMARY.—House-Surgeon. Salary, £140 per annum.

BANGOR: CARNARVON AND ANGLESEY INFIRMARY.—House-Surgeon. Salary, £100 per annum.

BELFAST: ROYAL VICTORIA HOSPITAL.—Four Resident Medical Officers (Males).

BIRKENHEAD AND WIRRAL CHILDREN'S HOSPITAL.—Male House-Surgeon. Honorarium, £100 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Third House-Surgeon. Salary, £75 per annum.

BIRMINGHAM UNION.—Resident Assistant Medical Officer at the Infirmary. Salary, £104 per annum.

BRADFORD: ROYAL EYE AND EAR HOSPITAL.—House-Surgeon.

BRENTWOOD: ESSEX AND COLCHESTER COUNTY ASYLUM.—Two Assistant Medical Officers. Salary, £160 per annum, rising to £200, and £150 per annum respectively.

BRIGHTON, HOVE, AND PRESTON DISPENSARY.—Resident Medical Officer. Salary, £160 per annum.

BRISTOL GENERAL HOSPITAL.—House-Physician. Salary, £80. Appointment for six months.

BRITISH LYING-IN HOSPITAL, Endell Street, W.C.—Resident Medical Officer. Salary at the rate of £50 per annum.

BRITISH MEDICAL ASSOCIATION.—Deputy Medical Secretary. Salary at the rate of £600 per annum.

BRIXTON DISPENSARY, Water Lane, S.W.—Resident Medical Officer. Salary, £150 per annum.

BROMPTON HOSPITAL SANATORIUM, Frimley.—Assistant Resident Medical Officer. Salary, £150 per annum, rising to £200.

BURTON-ON-TRENT COUNTY BOROUGH.—Assistant Medical Officer of Health and Assistant School Medical Officer. Salary, £250 per annum.

BURY INFIRMARY.—(1) Senior House-Surgeon; salary, £100 per annum. (2) Junior House-Surgeon; salary, £80 per annum, rising to £90 after the first six months.

CHELSEA PARISH INFIRMARY. Second Assistant Medical Officer. Salary, £100 per annum, rising to £120.

DORCHESTER: COUNTY ASYLUM.—Junior Assistant Medical Officer. Salary, £160 per annum.

DUNDEE DISTRICT ASYLUM.—(1) Senior Resident Medical Officer. (2) Junior Resident Medical Officer. Salary, £150 and £120 per annum respectively, rising to £200 and £150.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Medical Officer (Male) and Second Medical Officer to the Casualty Department. Salary at the rate of £100 and £40 per annum respectively.

EDINBURGH: THE HOSPICE.—Qualified Medical Woman as Resident. Honorarium, £25 per annum.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—House-Surgeon. Salary at the rate of £75 per annum.

HUDDERSFIELD ROYAL INFIRMARY.—Assistant House-Surgeon (Male). Salary, £30 per annum.

ISLE OF MAN LUNATIC ASYLUM.—Assistant Medical Officer. Salary, £175 per annum, rising to £200.

ITALIAN HOSPITAL, Queen Square, W.C.—House-Surgeon. Salary at the rate of £60 per annum.

KILMUIR PARISH COUNCIL.—Medical Officer. Salary, £75 per annum.

LEEDS GENERAL INFIRMARY.—(1) Resident Medical Officer at the Ida and Robert Arthington Hospitals; salary, £30 for six months. (2) Resident Obstetric Officer.

LEEDS PUBLIC DISPENSARY.—Junior Resident Medical Officer. Salary, £100 per annum.

LEICESTER INFIRMARY.—Male Assistant House-Physician. Salary at the rate of £80 per annum.

MANCHESTER: TOWNSHIP OF SOUTH MANCHESTER.—Third Assistant Resident Medical Officer at the Workhouse Hospitals. Salary, £120 per annum.

MANCHESTER: VICTORIA UNIVERSITY.—Professor of Forensic Medicine.

NEWCASTLE-ON-TYNE DISPENSARY.—Visiting Medical Assistant. Salary, £160 for first year and £180 afterwards.

NEWPORT AND MONMOUTHSHIRE HOSPITAL.—(1) House-Physician. (2) House-Surgeon. Salary, £80 and £60 per annum respectively.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—Casualty Officer. Salary at the rate of £60 per annum.

NOTTINGHAM GENERAL HOSPITAL.—Locumtenent. Salary, £3 3s. per week.

ORKNEY: ISLAND OF SHAPANSEY.—Medical Officer and Public Vaccinator. Salary at the rate of £80 per annum.

PLYMPTON ST. MARY UNION.—District Medical Officer and Public Vaccinator. Salary, £90 per annum and vaccination fees.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney Road, N.E.—Casualty Officer. Salary at the rate of £80 per annum.

SALISBURY INFIRMARY.—Honorary Radiographer.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Senior House-Surgeon. Salary, £100 per annum.

SHEFFIELD ROYAL HOSPITAL.—Sixth Resident. Salary, £60 per annum.

SHEFFIELD ROYAL INFIRMARY.—Ear and Throat Surgeon. Salary, £70 per annum.

SHEFFIELD UNIVERSITY.—Demonstrator in Anatomy. Salary, £150 per annum.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—(1) House-Physician; salary, £82 per annum and £5 honorarium after six months' approved service. (2) House-Surgeon; salary, £100 per annum, increasing to £110.

STAMFORD, RUTLAND, AND GENERAL INFIRMARY AND FEVER HOSPITAL.—House-Surgeon (Male). Salary, £150 per annum.

WALSALL AND DISTRICT HOSPITAL.—House-Physician and Casualty Officer. Salary, £90 per annum.

WINCHESTER: ROYAL HAMPSHIRE COUNTY HOSPITAL.—House-Physician (Male). Salary, £80 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House-Surgeon. Salary, £80 per annum.

WORCESTER: COUNTY AND CITY ASYLUM, Powick.—Junior Assistant Medical Officer. Salary, £150 per annum, rising to £170.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

APPOINTMENTS.

CAHILL, A., M.B.Syd., Assistant Police Surgeon, Sydney, New South Wales.

CURTIS, M., M.B.Syd., Resident Medical Officer to the Warwick Hospital, Queensland.

DONNAN, W. D., M.D., R.U.I., Certifying Factory Surgeon for the Holywood District, co. Down.

MCEWAN, W. C., M.D.Edin., Certifying Factory Surgeon for the Tranent District, co. Haddington.

MCLAREN, W. W., M.B.Melb., Resident Medical Officer at the Melbourne Hospital.

MOONEY, W., M.B., B.Ch., N.U.I., Certifying Factory Surgeon for the Kilbeggan District, co. Westmeath.

O'REILLY, L., M.B.Syd., Assistant Medical Officer to the Railway Department, New South Wales.

ROBERTS, H. J., M.D.Durh., F.R.C.S.Edin., Certifying Factory Surgeon for the Penygroes District, co. Carnarvon.

TRAVIS, G. L., L.R.C.P.Edin., M.R.C.S., Certifying Factory Surgeon for the Llandudno District, co. Carnarvon.

WILLIAMS, J. R., M.B., C.M.Edin., Certifying Factory Surgeon for the Conway District, co. Carnarvon.

WOODMAN, E. Musgrave, M.S.Lond., F.R.C.S.Eng., Assistant Surgeon to the General Hospital, Birmingham.

MANCHESTER ROYAL INFIRMARY.—The following changes in the Honorary Medical Staff have been made:

Honorary Consulting Physician.—Judson S. Bury, M.D., F.R.C.P.

Honorary Physician.—F. M. Brockbank, M.D., F.R.C.P.

Honorary Assistant Physician.—Albert Ramsbottom, M.D., Ch.B., D.P.H.Vict., M.R.C.P.Lond.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTHS.

DOUGLAS WILSON.—At 3, Ripon Road, Harrogate, on May 12th, the wife of H. Douglas Wilson, M.D.—a son.

GREENE.—On May 9th, at 85, Shepherd's Bush Road, London, W., to Dr. and Mrs. Arthur Greene—a son.

MILLER.—On May 10th, at 25, Neville Court, N.W., the wife of Dr. Reginald Miller (53, Queen Anne Street), of a son.

MCKIE.—At 14, Arthur Street, Newton Stewart, on May 10th, to Dr. and Mrs. McKie—a son.

PEARSON.—On May 9th, at Durban, S. Africa, the wife of C. H. Pearson, *née* Beatrice Knowles, M.D., B.S., of a daughter. (By cable.) India papers, please copy.

DEATH.

BEST.—On May 7th, 1912, suddenly, Palemon B[illegible], M.D.[illegible], of Louth, Lincolnshire, aged 72 years.

DIARY FOR THE WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, W., 9 p.m.—Annual Oration by Mr. J. Bland-Sutton: Fertilization in Relation to Pathology.

TUESDAY.

LONDON DERMATOLOGICAL SOCIETY, St. John's Hospital, 49, Leicester Square, W.C.—4.30 p.m.: Demonstration of Cases and Specimens. 5.15 p.m.: Discussion on Recent Advances in the Study of Syphilis, to be opened by Dr. W. Griffith.

THURSDAY.

ROYAL SOCIETY, Burlington House, 4.30 p.m.—The following are among the probable papers: Professor R. A. Sampson, F.R.S.: A New Treatment of Optical Aberrations. Sir W. de W. Abney, K.C.B., F.R.S.: On the Extinction of Light by an Illuminated Retina.

POST-GRADUATE COURSES AND LECTURES.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Wednesday, 1 p.m.: Demonstration of Cases.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich. Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat at noon and 4.30 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Tuesday, and noon, Friday. Eye, 11 a.m., Wednesday and Saturday. Radiography, Saturday, 10 a.m. Pathological Demonstration, Friday, 11 a.m. Special Lectures: Tuesday, 3.15 p.m., Electro-cardiograms. Wednesday, 3.30 p.m., Corneal Ulcers and their Treatment; 5 p.m., Surgical Demonstration. Thursday, 2.15 p.m., Colic.

LONDON SCHOOL OF TROPICAL MEDICINE.—Lectures daily (Saturday excepted) at 12 noon and 4 p.m. Practical Laboratory Work daily (Saturday excepted), 10 to 12 a.m. Practical Protozoology, 2 p.m. to 3.30 p.m. daily: Advanced Protozoology, 10.30 a.m. to 1 p.m. daily. Medical Clinics, Monday and Thursday at 3 p.m. Operations, Friday, at 3 p.m.

MANCHESTER: ANCOATS HOSPITAL POST-GRADUATE CLINIC, Thursday, 4.15 p.m.—Insomnia.

MANCHESTER ROYAL INFIRMARY, Tuesday, 4.30 p.m.—Demonstration of a Case of Tumour of the Lung and of a Case of Paraplegia. Friday, 4.30 p.m., Prostatic Hypertrophy.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day. Monday, Skin. Tuesday, Medical. Wednesday, Surgical. Thursday, Medical. Friday, Eye. Lectures at 5.15 p.m. each day will be given as follow: Monday, Appendicitis in Children. Tuesday, Ventral Hernia (second part). Wednesday, Some Points on the Diagnosis and Treatment of Infective Thrombosis of the Lateral Sinus, based on the Personal Experience of 75 Cases. Thursday, The Operative Treatment of Fractures.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday and Friday, 3.30 p.m.: Spinal Tumours.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics: 10.30 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear; 3 p.m., Pathological Demonstration. Tuesday, Clinic: 2.30 p.m., Operations. Clinics: Medical Out-patient, Surgical, Gynaecological; 3.30 p.m., Medical In-patient; 4.30 p.m., Special Demonstration: Heart Cases with Polygraphic Demonstration. Wednesday, Clinics: 2 p.m., Throat Operations; 2.30 p.m., Children's Out-patient; Skin, Eye; 3 p.m., X Rays; Pathological Demonstration;

5.30 p.m., Eye Operations. Thursday, 2.30 p.m., Gynaecological Operations. Clinics: Medical Out-patient; Surgical; 3 p.m., Medical In-patient; 4.30 p.m., Special Demonstration: Selected Surgical Cases. Friday, 2.30 p.m., Operations. Clinics: Medical Out-patient; Surgical; Eye; 3 p.m., Medical In-patient; Pathological Demonstration.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics, X Rays, and Operations, 2 p.m. daily. Monday: Gynaecology, 10 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday: Gynaecological Operations, 10 a.m.; Demonstration of Minor Operations, 11 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday: Gynaecological Demonstration, 10 a.m.; Lecture: Practical Medicine, 12.15 p.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday: Gynaecological Operations, 10 a.m.; Lecture: Clinical Pathology, 12.15 p.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m. Special Lectures at 5 p.m.

PUBLISHERS' ANNOUNCEMENTS.

MESSRS. J. AND A. CHURCHILL have just ready for publication volume vi of the new edition of Allen's *Commercial Organic Analysis*. This volume has been rewritten under the editorship of Mr. W. A. Davis, B.Sc., and Mr. S. S. Sadtler, S.B. The subjects and authors are as follows: *Amines and Ammonium Bases*, by W. A. Davis; *Aniline and its Allies*, by S. S. Sadtler: *Naphthylamines, Pyridine, Quinoline, and Acridine Bases*, by W. H. Glover; *Vegetable Alkaloids*, by T. A. Henry; *Volatile Bases of Vegetable Origin, Opium Alkaloids*, by F. O. Taylor; *Nicotine and Tobacco*, by R. W. Tonkin; *Aconite Alkaloids, Atropine, and its Allies*, by F. H. Carr; *Cocaine*, by S. P. Sadtler; *Strychnos Alkaloids*, by C. E. Vanderkleed: *Cinchona Alkaloids*, by O. Chick; *Berberine and its Associates*, by E. Horton; *Caffeine, Tea, and Coffee*, by J. J. Fox and P. J. Sageman; *Cocoa and Chocolate*, by R. Whymper.

RECENT PUBLICATIONS.

Consumption: Treatment at Home and Rules for Living. By H. Warren Crowe, M.D.Oxon. Third edition. Bristol: John Wright and Sons, Ltd. London: Simpkin, Marshall, Hamilton, Kent, and Co., Ltd. 1912. (Fcap. 8vo, pp. 36. 1s. net.)

Contains some twenty-five rules relating largely to rest and exercise as controlled by temperature observation, an explanation of the why and wherefore being in most cases appended. A very useful book to place in the hands of a phthisical patient, some blank pages being included for the addition by the patient's medical attendant of any further information or advice he may wish the patient to bear constantly in mind. One or two minor weaknesses which we pointed out in an earlier edition appear to have been remedied.

DIARY OF THE ASSOCIATION.

Date.		Meetings to be Held.
		MAY.
18	Sat.	Latest date for receipt of Nominations to Central Council.
20	Mon.	South Staffordshire Division, Wolverhampton, Special Meeting, 8.30 p.m., followed by Annual Meeting.
21	Tues.	Brighton Division, Ordinary Meeting.
22	Wed.	Buckinghamshire Division, Aylesbury, Annual Meeting, 3 p.m.
		Altrincham Division, Northwich, Special Meeting, 4.45 p.m.
		Richmond Division, Richmond, 8.30 p.m.
		Dorset and West Hants Branch, Bournemouth, Annual Meeting.
23	Thur.	Lincoln Division, Guildhall, Lincoln, 3 p.m.
		Walthamstow Division, Wesleyan Church School, Leyton, 4 p.m.
25	Sat.	Nominations for Central Council published in the JOURNAL.
29	Wed.	Bath and Bristol Branch, Bristol, Annual Meeting.
		Salisbury Division, Salisbury, Annual Meeting, 8.15 p.m.
30	Thur.	Northampton Division, Northampton, Annual Meeting, 2.30 p.m.; Luncheon, 1.30 p.m.
		City Division, Town Hall, Hackney, Annual Meeting, 4 p.m.
		English Division, County Hall, Carlisle, Annual Meeting, 4.30 p.m.
31	Fri.	Furness Division, Masonic Hall, Barrow, Annual Meeting, 3.45 p.m.
		JUNE.
6	Thur.	South Midland Branch, Aylesbury, Annual Meeting, 2.30 p.m.; Luncheon, 1.15 p.m.
7	Fri.	Central Ethical Committee, London, 2 p.m.
		Dundee Division, Annual Meeting.
		Journal Committee, London, 11 a.m.
8	Sat.	Issue of Voting Papers for Central Council Election from Head Office.
11	Tues.	Public Health Committee, London, 3.30 p.m.
		Forfarshire Division, Annual Meeting.
		JUNE (*continued*).
12	Wed.	Medico-Political Committee, London, 2 p.m.
13	Thur.	East York and North Lincolnshire Branch, Grimsby, Annual Meeting.
15	Sat.	Fractures Committee, London, 9.30 a.m.
		Science Committee, London, 11.30 a.m.
		Last day for receipt of Voting Papers at Head Office re Central Council Election.
17	Mon.	Naval and Military Committee, London (if necessary).
18	Tues.	Organization Committee, London, 2.30 p.m.
19	Wed.	East Anglian Branch, Brentwood, Annual Meeting.
		South-Eastern Branch, Town Hall, Bromley, Annual Meeting, 2.15 p.m.; Lunch, 1 p.m.; Dinner, 6.30 p.m.
20	Thur.	Metropolitan Counties Branch Council, 4 p.m.
26	Wed.	Finance Committee, London, 2.30 p.m.
		JULY.
3	Wed.	Central Council, London, 2 p.m.
		Annual Meeting, Liverpool.
19	Fri.	Annual Representative Meeting.
20	Sat.	Annual Representative Meeting.
22	Mon.	Council Meeting, 9.30 a.m.
		Annual Representative Meeting, 10 a.m.
		Secretaries' Conference and Dinner, 7 p.m.
23	Tues.	Annual Representative Meeting, 9.30 a.m.
		Annual General Meeting, 2 p.m., President's Address, 8.30 p.m.
24	Wed.	Council Meeting, 9 a.m.
		Sectional Meetings, 10 a.m. to 1 p.m.
		Address in Medicine, 12.30 p.m.
		Religious Services, 3 p.m.
25	Thur.	Sectional Meetings, 10 a.m. to 1 p.m.
		Address in Surgery, 12.30 p.m.
		Annual Dinner, 7.30 p.m.
26	Fri.	Council Meeting, 9 a.m.
		Sectional Meetings, 10 a.m. to 1 p.m.
27	Sat.	Excursions.

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TO THE
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MEDICAL INSPECTION AND TREATMENT OF SCHOOL CHILDREN UNDER THE LONDON COUNTY COUNCIL.

DEPUTATION FROM THE BRITISH MEDICAL ASSOCIATION TO THE PRESIDENT OF THE BOARD OF EDUCATION.

On Thursday, May 16th, the President of the Board of Education, the Right Hon. J. A. Pease, M.P., received a deputation from the British Medical Association on the subject of the medical inspection of school children in London.

Mr. J. A. Pease, M.P., was accompanied by Sir George Newman, M.D. (Chief Medical Officer), Mr. Charles Trevelyan, M.P. (Parliamentary Secretary), and Mr. L. A. Selby Bigge, C.B. (Permanent Secretary, Board of Education).

The British Medical Association was represented by Sir Victor Horsley, Dr. W. Griffith, Dr. Ford Anderson, Mr. Straton, Mr. E. J. Domville, Dr. M. Dewar, Dr. M. I. Finucane, Dr. Robinson, Mr. T. Jenner Verrall, Dr. D. F. Todd, Dr. Beckett-Overy, and Dr. Alfred Cox (the Medical Secretary).

Sir VICTOR HORSLEY, introducing the deputation, said that the British Medical Association came before Mr. Runciman (the then President of the Board of Education) a year ago with an appeal for the alteration of the system of medical inspection and medical treatment of school children by the County Council of London. Since that deputation the system of medical inspection had been altered. Without going into details on that point, he must refer to the fact that the British Medical Association had pointed out to the Board of Education that the medical inspection adopted by the County Council was so extremely faulty as to amount to a public scandal, and that it consisted of a "march past" of the entrants of the school rather than a medical inspection in the sense that the Association understood it. Whilst the last report of the County Council still referred to the "march past" system as though it were the system still in being, he (Sir Victor) was glad to say that it no longer obtained, and that the scheme originally approved by the British Medical Association and sanctioned by the Board of Education was now in use in the schools of the London County Council. The British Medical Association felt that that was the outcome of the deputation to Mr. Runciman, and hoped that a similarly favourable result would follow from the present deputation. The object of the present deputation was to deal with medical treatment. The Association had foreseen the difficulties rampant in the treatment of school children in the elementary schools of London. In 1909 it had entered protests against the County Council hospital system. The British Medical Association had considered the matter on grounds of principle, and in Representative Meeting had formulated the only principle on which in its opinion the medical treatment of elementary school children could be satisfactorily carried out. That principle was the establishment of school clinics, or, as they were now called by the London County Council, treatment centres. The British Medical Association's scheme was that all schools in the metropolis should be grouped, and that for each group of schools there should be a school clinic staffed by practitioners of the neighbourhood. The hospital scheme of the County Council had been persisted in, in spite of the fact that the Board of Education recognized that it involved, to use its own words, "leakage, waste, confusion, and administrative chaos." To those words the British Medical Association added the words "medical inefficiency." When the hospital scheme of the County Council was established, the Board of Education assented to the continuance of the scheme on condition that a report was furnished to the Board of Education on the efficiency and working of the scheme. The report, to the Association's knowledge, had never been furnished, for the very good reason that the hospital scheme was notoriously a failure. Hospitals were not institutions fitted to carry out the special treatment required by

elementary school children. The hospitals themselves were aware of that. A subcommittee of the London County Council employed to investigate the question of the prevalence of disease and defects amongst school children of the metropolis had circularized the hospitals and found that they were not prepared to undertake the work. That fact had not been properly called attention to in the reports of the Board. When the County Council's scheme was started, it was said that the services of fifteen hospitals had been secured, but those hospitals had been gradually given up until at the present moment there were only eight hospitals at work in London, all contained within a small area, and of those hospitals one was simply furnishing treatment for ringworm. Therefore the hospitals themselves had seen that the scheme of the County Council was inefficient medically. Further, the system inflicted hardship in treatment, and was, of course, a waste of money to the ratepayers. The British Medical Association had shown the Board of Education two years previously that there were difficulties inseparable from the hospital system, and those difficulties were contained in the report of the Board's medical officer. They were: *The geographical difficulty, the inappropriateness of hospital treatment for many of the common ailments of school life*, and *the difficulty of adaptation of hospital methods to the needs of school children.* The deputation would submit that those difficulties constituted in themselves a complete condemnation of the County Council's hospital scheme. On the other hand, the British Medical Association's clinic scheme would provide continuous treatment associated with a system of inspection, because the clinics, being situated close to the schools and among a group of schools, would be naturally visited by the school inspecting officer, who would see the staff of the clinic, and inspection and treatment would go together. It was unnecessary to dwell upon the point of convenience to the children and the avoidance of hardship which they notoriously suffered from at the present moment. In addition, the clinic system of the Association aided education, because a child would not be taken away from its education more than was absolutely essential. In the clinics two important sides of treatment of defects would be carried out, not only the medical, but the dental part, the latter being of enormous importance. The deputation suggested that the school clinic system was the only one to provide for absolute essentials. Dealing further with the relative merits of clinics and hospitals, Sir Victor Horsley pointed out that Mr. Runciman, in his answer to the previous deputation, said it was to be hoped that the success of the Norwood and Wandsworth clinics would lead to the establishment of clinics in other parts of London. The County Council immediately approached the Association with a proposition to start further clinics, but the negotiations were broken off and the whole matter was suspended. The Board of Education had written to the County Council, saying, "The Board are not satisfied that the establishment of a large number of treatment centres conducted under conditions similar to those existing at the Norwood and Wandsworth centres is in all respects desirable." Whilst the Association recognized the qualification "is in all respects desirable," yet the statement in general was contradictory of what Mr. Runciman had said. All the criticism the Board had to make of school clinics the British Medical Association had assented to, and they could not see what reason the Board had to oppose the scheme of the British Medical Association. The Board of Education had asked the County Council for a comprehensive scheme, but the County Council scheme was merely a hotch-potch of hospital treatment and medical centres treatment already established at Wandsworth and Norwood. That could not be recognized as a comprehensive scheme. The Association suggested that the only comprehensive scheme worthy of the name was the British Medical Association scheme of school clinics dotted all over the metropolis and co-ordinated by the medical officer of health of the County Council. In conclusion, he asked the Board's approval of the Association's scheme of clinics, for the withdrawal of the Board's sanction of the hospital arrangement of the County Council, and finally that the Board of Education should insist on educational provision being made both for medical and dental treatment.

Mr. T. JENNER VERRALL (Chairman of the Medico-Political Committee of the British Medical Association) said that it had been an acute disappointment to the Association, and to his Committee in particular, that although the immediate results of previous interviews with the late President of the Board of Education had been apparently likely to be favourable, yet they had dropped back into the position of not having gained what they hoped to gain. Whilst a considerable alteration in medical inspection had been obtained, yet it was felt that the present arrangements for the treatment and inspection of school children were not sound. There had never been any valid criticism of the school clinic system, and it was unsatisfactory that the proposal to create further centres should be hung up. The Association was convinced that if a thorough and proper trial was given to effective school treatment centres throughout the metropolis, all such difficulties as geographical difficulties and difficulties of treatment of ailments and so on would disappear.

Dr. FINUCANE, speaking from the standpoint of the general medical practitioner engaged in a busy working-class district, and also as a medical officer dealing intimately and constantly with a large class of children attending public elementary schools, said that from the parents' point of view the hospital system of treatment was producing great dissatisfaction, in addition to the further objection of inefficiency and lack of continuity of treatment required by the children. Large numbers of children were taken out of the hands of the general practitioner and sent to a hospital for special treatment when they might very well be treated in the area and district of their public elementary school. There was want of co-ordination and co-operation in medical inspection and treatment with reference to children attending public elementary schools. During the last two or three years he had had several very glaring cases of perfunctory medical inspection of cases, and absolute opposition on the part of officials of the education authority to any effective co-operation for treatment between the education authority and the Poor Law medical officer. The Board of Education had laid down, as a very important principle on the subject of medical inspection, the necessity of co-operation with the public health authorities; but in London there was no co-operation except in a very perfunctory way. Still less was there that intimate co-operation which, he submitted, ought to exist between every general medical practitioner and the education authorities. An ideal place for the experimental establishment of a school clinic would be in the City of Westminster, where the whole of the school area would be comprised within a mile radius. The school clinic in the middle of that area would serve all the provided and non-provided schools of Westminster, and there would be a co-ordinating and co-operating body at which all the children could be dealt with by the inspecting officer and the doctors engaged in the treatment at the school clinic. He submitted that the report of the medical officer condemned the inefficient hospital system, and he urged that some scheme should be adopted allowing local treatment centres to be established.

Dr. DEWAR deprecated the hospital treatment aspect, and feared that if the London County Council were allowed to adopt it Scotland would follow suit. He hoped the Board of Education would sanction school clinics.

The PRESIDENT OF THE BOARD OF EDUCATION, in replying to the deputation, thanked them for their attendance, and said that the Board had been doing what it could to encourage local authorities to take up the subject of the treatment, because it had realized that, whilst inspection was one thing, if any real good were to be secured to the community, to the children themselves, and to the State, as a result of inspection, it must be supplemented by adequate treatment. It must be borne in mind, however, that the treatment of children was entirely a matter for the local education authorities. There was no power on the part of the Board of Education to compel local authorities to undertake the duty, and almost everything that had been said to him that day, as it seemed to him, ought to have been addressed to the local education authority in London rather than the Board of Education. The Board's position was that if it rejected a scheme a local education authority might submit another scheme; but, on the other hand, that might discourage an effort in a more progressive

direction. The views of the Board, he thought, had been fairly clearly stated in the circulars which had been issued. The Board believed that the ideal was the establishment of clinics very much on the lines which some of the speakers had indicated, but it could not be disregarded that it was the local education authority who were responsible. The local education authority in London had not been backward as compared with many other local education authorities in the country. The Board wished to encourage them, and, as far as it could, not to check them going forward. Any arrangements which had been made with the hospitals so far had not been approved by the Board as a permanent arrangement, but as a merely tentative and provisional arrangement. It was hoped that gradually the education authority would proceed upon the lines which the Board approved, and which he believed the Association approved; but at the same time he was not prepared to say at the present moment that the Board were going to discountenance some of the arrangements which had been provisionally made with the hospitals. A good work was being done, and a large number of children were being treated. He himself had visited some of the establishments where children were examined, and had seen the children with their parents waiting to be examined. He had watched the examination of the children, and had seen them taken to the hospitals, and had been in the operating room watching the whole process, and seen the representative of the London County Council watching in the interests of that body, and the London County Council medical officer looking after the interests of the children. Whilst he believed that separate clinics established for London children would be better than hospitals, at the same time he felt that a great work was being already done for the children of London, and he was anxious that the London County Council should go forward with that great work and make it more perfect than it was. The Board fully admitted that the system was not perfect and that there were many possible defects; but, as he had previously remarked, it was a voluntary system undertaken by the local education authority, and the Board could not compel them to do that which they were disinclined to do in connexion wth the work. Therefore most of the views expressed.i it seemed to him, ought to have been addressed directly to the London County Council rather than to the Board of Education. The Board had always been ready to consider favourably any proposal in connexion with clinics made by the local education authorities. At the present moment the Board was discussing with the London County Council the position and the numbers of the clinics which they were about to establish, but it was probably advisable that the thing should not be rushed too much. The whole question of the treatment of children and the best method of treatment was really in its infancy. Local authorities during the last two or three years had been feeling their own way without any support in finance from the State, but he was glad to say that he had been recently able to secure what was, at any rate, a start, by a grant of £60,000, which would help the local authorities to go forward with this good work. He sympathized with what Dr. Finucane said, and agreed that it must be a matter of some moment to practitioners when they felt that their own patients were being taken away to a hospital to be treated instead of being treated in the ordinary way. Personally he felt some of the words used were a little strong, such as that the present system was "notoriously a failure" and that the present system was "an inefficient system." To sum the matter up, whilst the present system was probabably not an ideal system and there were defects in it, yet he believed it was progressive and doing a great deal of good. The London County Council had now, he believed, 104 medical practitioners engaged in connexion with the medical inspection and treatment of school children in London. Whilst they were not going forward perhaps so rapidly as every one would like, at the same time he felt that progress was being made, and he could only say that he was anxious that the hospital system should not be a permanent system, but that it should be gradually directed on to lines which would meet with more general approval, and the Board was doing its very utmost to establish by its influence, and he hoped by tact, those clinics in the various areas in London which the British Medical Association looked forward to see established.

In thanking Mr. Pease for having received the deputation, SIR VICTOR HORSLEY said they took it that the President had answered in the affirmative their point, namely, that the Board of Education approved of the British Medical Association's Scheme of School Clinics or Treatment Centres.

EDUCATION OF SCHOOL TEACHERS IN HYGIENE.

DEPUTATION OF THE PHYSIOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND TO THE PRESIDENT OF THE BOARD OF EDUCATION.

ON May 16th the President of the Board of Education, the Right Hon. J. A. Pease, M.P., received a deputation from the Physiological Society of Great Britain and Ireland on the subject of Circular No. 776 issued by the Board of Education relative to examinations in science, and in particular those of physiology and hygiene.

The President of the Board of Education was accompanied by Sir George Newman, M.D. (Chief Medical Officer), Mr. Charles Trevelyan, M.P. (Parliamentary Secretary), Mr. L. A. Selby Bigge, C.B. (Permanent Secretary), Dr. Heath, and Mr. Chambers.

The Physiological Society of Great Britain and Ireland was represented by Sir Victor Horsley, Professor Sherrington, Professor Edkins, Professor Starling, Professor Waller, Dr. Myers, and Professor Bayliss.

The Society had presented the following Memorandum:

MEMORANDUM.

1. Introduction.

In the following Memorandum the Physiological Society desires to lay before the Board of Education its views on the present state of national education in physiology and hygiene, and particularly on the effects which the issue of Circular 776 is producing upon the teaching of those subjects.

The questions involved are important from a national point of view, including as they do the correct training of teachers and the instruction of every child in the knowledge how to lead a healthy and normal life.

2. The Position of Scientific Subjects in National Education Resulting from the Issue of Circular 776.

The Society regards the abolition* by the Board of the State examinations in the biological sciences as a step gravely affecting the national education in these subjects. Two reasons only are assigned in Circular 776 for this change of policy, namely (1) the lack of candidates entering for the examinations, and (2) the possibility that some other and equivalent provision may be made by local education authorities or institutions.

In respect of these two considerations the Society desires to point out that in the first place there is no lack of candidates presenting themselves for the examinations in physiology and hygiene, the numbers for the year 1910 being for physiology 1,890, and for hygiene 2,373 (in each case over 1,000 candidates presenting themselves for Stage 1 Examination), while in the second place no alternative scheme is contained either in Circular 776 or in any other document issued subsequently by the Board of Education. In fact, for no reasons which appear valid to the Society, the Board appear to have swept away the whole machinery on which the teachers of the country have hitherto relied for (1) a State standard of education in physiology and hygiene, and (2) a State recognition of attainment of knowledge and status of qualification.

While fully recognizing that the method of examinational test in these subjects needs reform, the Society believes that the step taken by the Board will react

* It must here be pointed out that the Board of Education nowhere definitely state in any document that they have abolished the State examinations in the following scientific subjects, which, though obviously alluded to in Circular 776, are not mentioned by name: Sound, light, mineralogy, human physiology, hygiene, general biology, zoology, botany, navigation, spherical and nautical astronomy, physiography, agriculture, science of common life, but from the context and general expression of the departmental documents it must be inferred that such abolition has been decided upon.

unfavourably upon national education in the sciences concerned.

The situation is rendered additionally serious by the fact that since the Board have apparently destroyed the existing system and have made no provision for an alternative scheme, it is within the knowledge of the Society that, as might have been expected, confusion has been caused in the minds of teachers and authorities as to the steps to be taken by them and by their pupils.

The Society suggests that, before altering the position of physiological hygiene as an essential part of national education, the Board should take the opinion of physiologists experienced in the teaching and examination of the subject.

3. The Effect of the Policy of Circular 776 upon Physiology and Hygiene as Parts of the National Education.

In the opinion of the Society, Circular 776 not only removes from teachers and pupils that incentive to study which a State recognition by certificate of attainment affords, but also by withdrawing central guidance and inspiration renders it probable that unprofitable, inaccurate, and trivial courses of lessons will be given.

Further, if the Board intend to leave to the individual discretion of local authorities the establishment of their own standards of knowledge in the teaching of physiology and hygiene, no uniform scale of attainment will exist whereby appointments can be made with justice and efficiency.

Not only is this the case in respect of teachers in general, but also of teachers and others wishing to qualify in domestic science, physical culture, as health visitors, etc., who are now deprived by the action of the Board of an official status to which their work and study entitle them.

The Society has reason to believe that the withdrawal by the Board of State encouragement of these subjects will lead to their abandonment in small centres of education and in rural schools.

It is also apprehensive that since these subjects will no longer be accorded direct grants they may not receive adequate support in the local subdivision of block grants. In view of the fact that they are branches of experimental science and require apparatus for their demonstration, it is probable that their preservation as an important means of popular education will be endangered.

4. The Necessity of Reorganization of National Education in Elementary Science.

In considering how the defects of the present system of national biological and physiological education and examination may be removed, the Society desires to press upon the Board of Education the fact that reform and development of the national teaching of science subjects, whether biological or otherwise, must coincide with a fundamental reorganization of national education in elementary science—that is, physics and chemistry. Such reorganization and the recognition of the proper position of science in the national curriculum of England and Wales are overdue. This pressing need has been fully appreciated by the Scottish Education Department (Cd. 4024, p. 22), who, through their provision for the teaching in the higher classes of the elementary schools of the rudiments of physics and chemistry, have founded on a secure basis the later training of teachers in physiology and hygiene.

It is the opinion of the Society that in dealing with the training of teachers in England and Wales the scheme of science subjects, as laid down in the Regulations of the Board (Cd. 5781), urgently requires revision and reform, not only as the source of special and technical knowledge, but as an essential part of education. Especially is this the case as regards hygiene (the only scientific subject in which the student of the training college is directly tested), for the large majority of teachers have no certain or defined training in elementary physics and chemistry, and yet without such training it is impossible for a teacher to gain an adequate or intelligent knowledge of physiological hygiene. Every teacher, without exception, ought to receive a grounding in both physics and chemistry, from which the transition to physiology and hygiene is natural and systematic. In the present existing scheme and syllabuses of the Board of Education no adequate provision is made for such fundamental and logical mental training. The Society expresses the earnest hope that the Board of Education will institute an inquiry into this matter as one of national importance, and place science in its proper position in the code of education.

5. Reform of the Present Teaching of Hygiene and Psychology.

A notable advance has unquestionably been made in recent years in the general appreciation by the public of the relation of public health to national efficiency, and of the need of a wider conception of the principles of healthy living in order to oppose successfully the well-recognized and ever-present causes of racial physical deterioration.

It is generally understood that in consequence of the introduction by Dr. Addison into the House of Commons of a bill dealing with this question, the teaching of the principles of hygiene will shortly take its proper place in the compulsory code of elementary education. To meet this requirement a reorganization and development of the intellectual equipment of teachers must be provided by the Board of Education; for without special training, not only in essential facts, but also in observation and reasoning which physics and chemistry afford, instruction in any practical subject will lack full value and interest; especially will this be the case in the teaching of nature study and physiological hygiene.

(a) The Education of Teachers in Hygiene and Psychology.

(1) Hygiene.

Regarding the subject which is styled Hygiene in the Regulations (Cd. 5781, p. 69), and in which every teacher must satisfy the Board to obtain a training college certificate, the syllabus of direct instruction on which the Board's examination is based, is a confused medley of anatomical, physiological, sanitary, psychological, pathological, and medical facts. Teaching of this kind only imparts a smattering of knowledge, and does not confer upon teachers a sufficient idea of physiology to enable them (*a*) to interest and educate children in what has been termed Physiological Hygiene, by which is understood the common-sense application of the laws of health to the living body, based upon a knowledge of its mechanism and not upon empirical precepts, or (*b*) to gain an adequate comprehension of the principles of hygiene and psychology to guide them in maintaining proper physical and mental conditions in the school life of the children.

In the opinion of the Society, every teacher entering a training college should have acquired beforehand the rudiments of physics and chemistry. The college training should include a course of practical physics and chemistry and elementary biological nature study, concluding with a course of elementary physiology, and finally the principles of domestic hygiene and psychology.

Only a teacher thus trained is able to impart to children a completely rational and reasoned knowledge of healthy living.

No teacher requires to be an administrative expert in hygiene, although he should be able to recognize what is abnormal.

(2) Psychology.

A prominent instance of the need of reform in the present science training of teachers is the present unsatisfactory treatment of the important subject of psychology, both in regard to the principles of teaching and the mental efficiency of the children taught. No teacher can possess a correct appreciation of psychology, or its application to national health and education, unless the study of psychology has been founded on a basis of physiology.

This elementary consideration does not appear to be generally appreciated, nor the great additions to our knowledge in recent years from cerebral physiology and experimental psychology. It is evident that the training of teachers in this special but essential subject needs revision and reorganization.

(b) The Education of Children in Hygiene.

Just as the training and examination of the teacher in hygiene is in the opinion of the Society faulty, so also is the education of the children in many elementary schools

under the present system. For instance, it is useless for children to be taught the bones of the skeleton when what is really requisite is that they should learn the elementary principles of personal health from a teacher whose qualification is a sound education in the essentials of human physiology, based on a groundwork of practical physics and chemistry.

In order that every child may be able to form an intelligent conception of the fundamental principles which underlie the living of a healthy life, the first step must be the provision of an adequate education and training of the teacher.

6. Conclusions.

The Physiological Society respectfully suggests to the Board of Education the desirability of suspending the operation of Circular 776, in order that reconsideration of its effects may be made by the Board.

The Society also desires to press upon the attention of the Board the following national requirements in education:

1. Reform of the scientific education of teachers.
2. The continuation of a (reformed) State examination in biological subjects (especially physiology and hygiene) until a better system of ensuring adequate training is established.

DEPUTATION.

Dr. ADDISON, M.P., who introduced the deputation, said the point the Physiological Society desired to put before the Board of Education was with reference to the teaching of hygiene in public elementary schools and the necessary training of teachers in that subject. It would be remembered that a bill which he (the speaker) had introduced into the House of Commons, making it statutory that children in elementary schools should have simple teaching in hygiene and kindred matters, was agreed to in the House but finally blocked by the Government Whips on the instructions of the Board of Education. As a sequel to that he had been assured that teachers in training colleges were instructed in hygiene, that the instruction was being pressed forward, and that the teachers, as soon as they had been taught and went into the schools, would give instruction in hygiene. It was unnecessary to anticipate what would be said by the members of the deputation as to the reasons for the great public necessity that existed for the training of children in the subject. The deputation was present to urge certain additions to the curriculum of the training of teachers in the training colleges in a proper knowledge of a practical and useful character in matters relating to hygiene.

Sir VICTOR HORSLEY said the memorandum of the deputation was framed in consequence of the issue of the Circular 776, which practically abolished from the Government tests examinations in biological subjects, including physiology and hygiene. In the opinion of the Physiological Society the training of teachers at the present moment in science was extremely defective, and a very considerable percentage of teachers had no training in science, properly so-called. It was evident that there was not a conception in the educational schemes of England and Wales that physics and chemistry were fundamental to other sciences, and should be taught as a preliminary to physiology, and that physiology should be taught as a preliminary to hygiene; that was to say, a kind of apostolic succession carried on from elementary school to college. It was clear, if there were a large number of teachers who had not received the necessary training, that a revision of the training of teachers was urgently called for. It was found that the training colleges were not teaching science in the way that the Physiological Society considered necessary; the training did not begin with a fundamental training in physics and chemistry, but plunged at once into advanced forms of biological nature study. In other words, persons who had been trained as teachers were, as it were, being taught to run before they could walk. Such being the position, the first thing the deputation suggested was that there should be an inquiry into the science training of teachers as carried on at the present time in England and Wales. In answer to the objection which would be taken that the curriculum would be overloaded, the deputation would urge that a certain amount of time should be taken from the study of literary subjects and devoted to science. Summarizing the memorandum presented to the Board it was: That the teaching of elementary science should be more thoroughly established in the elementary schools; that there should be a training of every teacher in science; and lastly, there should be a development in training colleges of proper and scientific teaching of hygiene.

Professor SHERRINGTON, speaking with regard to the training course of teachers, including the learning of hygiene, said that the pivot round which the whole of school hygiene turned was the bodily life of the child, the dealing with which was a dealing with a piece of mechanism which, unless it were properly understood, rendered the application or practice of hygiene really impossible. Teachers in their professional duties had one half of the waking life of the children to oversee. One half of the waking day was entrusted to teachers at a period of the young citizen's life when life as regarded physique meant most, because it was the period of greatest growth. How was the problem to be placed before the teachers? The first point that arose was that at every turn of their professional duties in this respect they would be met by problems which it must be agreed were simply problems of the chemistry and physics of living. In his own experience he had found that students were most enthusiastic in their desire to learn how to deal with the problem, but there was only one language in which to communicate the knowledge to them, and that was the language of chemistry and physics. A simple instance was the importance of the proper observation of the healthy temperature of a child, which was the kernel, as it were, round which were wrapped all the regulations of the temperature of the school-room and the clothing of the child. In order to place that problem before the teacher it was impossible to deal with physiology except on the basis of chemistry and physics. Another instance was fatigue, which again involved chemistry, fatigue being very largely a chemical poisoning of the body by its own activity. A further instance was eye strain, which could only be intelligently dealt with by those who knew what its causes were, and that they lay in the physics of the eyeball and the physiology of the nervous system. In all such points, therefore, the instructor and the learner were at a disadvantage unless there were that preliminary, foregoing, and essential basis of chemistry and physics to proceed upon. That foundation at the present moment was lacking, and was one of the real difficulties of the present situation. The syllabus in question, if it were to mean anything, must presuppose a great deal of knowledge which was not justified by the present state of knowledge of the students. If that were true of teachers learning hygiene in order to apply it in their schoolrooms, *a fortiori* the disadvantage applied still more if they had to impart instruction in the subject to their classes, because they could not do it unless they had some real acquaintance with the subject. It was impossible to learn hygiene and apply it intelligently so as to co-operate with the medical man appointed to protect the health of a class of children unless the subject were properly taught. For that necessary, intelligent co-operation the teacher must know hygiene in a real manner, and to know school hygiene in a real manner was to know that it was a hygiene absolutely and strictly based on physiology. It was an application of the principles of physiology demanding common-sense application, and that involved a preliminary training of some real character in chemistry and physics.

Professor EDKINS said that whilst hygiene in its widest sense included many administrative details, its backbone, so far as a teacher in a school was concerned, was the study of the laws which govern the health of the body. The teacher required a training in the subject for two reasons—first, that he might exercise an intelligent control over the health of his pupils; and, secondly, that he might train his pupils in the principles of healthy living. He condemned the present practice of teaching school hygiene apart from the common-sense application of the principles of physiology, which were the functions of the body in health. It was altogether barren for a teacher or pupil to be equipped merely with a number of health maxims. The teacher should be so trained as to be able to impart to the child an intelligent conception of the fundamental principles which underlay the living of a healthy life; he should be able to teach the child why a certain course of

life is beneficial, and why some departure from the normal was perilous. By such rational instruction and the inculcation of healthy habits in early years a tremendous amount of disease in later life would be avoided. Supplementing what Professor Sherrington had said as to the training of the teacher, he said that it was essential for the intelligent application of educational methods that the teacher should understand something of the material upon which he was working; otherwise he was only comparable to an engine-driver working by rule of thumb. That understanding applied both to body and mind. In the exercise of his profession a teacher must be able to recognize a departure from the normal phenomena of health in mind or body. As an instance of that, at a well-known college, the question was put, "If a child comes to school with a sore throat, headache, and high temperature, what would you do?" He had ventured to add, "What would you do, not only with the child, but with the children you had still under your control?" Not a single teacher was able to reply. He had said, "You would gather that scarlet fever was going on. What would you do with regard to the infection?" Not a single teacher had been able to answer that part of the question at all. In Section 9 of the syllabus matters were included which it would be inadvisable for a teacher to study, as he would be seldom, if ever, able to apply his knowledge. In conclusion, he submitted to the Board the following requirements: One, that owing to the greater prominence that will be accorded to the subject of hygiene in the teaching of children much greater importance must be accorded to it in the training of teachers; and, secondly, that both in the training of teachers and the teaching of children hygiene should be limited to what might be called physiological hygiene, and with children this should be taken as part of a rational system with a logical sequence of appropriate studies from the earliest years.

Dr. MYERS laid emphasis on two points concerning the teaching of psychology in training colleges, the first of which concerned the relation between the teaching of the structure and functions of the central nervous system and sense organs on the one hand and of the data of consciousness on the other. At present the physiology of the nervous system and sense organs was generally taught by a person who knew no psychology, while the teacher of psychology had no adequate knowledge of physiology. He was sure that physiologists and psychologists were agreed on the need of some correlation between the two subjects, which had hitherto been completely lacking. The second point was the position of psychology in the training college curriculum. He would urge that greater time be devoted to the scientific education of school children. Now that psychology had made such enormous strides of late, only those who had kept pace with this progress could adequately realize how independent was the present position of the subject. It was no longer possible to hold the view that the data of psychology were vague and speculative because, as used to be said, they were of a metaphysical nature, or, as some people said, some of the data lacked a precise physiological basis. There were facts of the mind as certain as any facts of the body and as fully independent of metaphysical considerations. Medical scientific psychology must bear the same relation to the principles of teaching as physiology bore to the principles of medicine. For the ordinary student the principles of medicine were based on previous training in physiology, and the methods of physiology constituted the foundation of methods of medical research. The student of education should be taught more fully about the mental development of the child at different ages, the difference between the child's and the adult's mind, the wide individual mental differences among children, the abnormal mental conditions of memory, imagination, speech, spelling, etc., likely to be met with, and the mental processes of the child which must be employed in the principal school subjects, such as reading, writing, and arithmetic. Above all, the teacher should be taught and shown something of the methods and efforts now being made to investigate such problems as the value of the notion of formal training, as to how far education in one special line (say of reasoning) and the practice gained therein is transferred to other forms of reasoning, the correlation between different abilities in children, the hours of highest mental efficiency, and the relative advantages of rival methods of teaching a given subject. He gave those instances as illustrative of the close connexion at the present day between psychology and education. Psychology no longer merely supplied general principles, but was able to demonstrate scientific methods of pedagogical research to educationists. At the present moment psychology only occurred in one of the alternative syllabuses as an optional subject. He suggested that education required that less time should be given to literary subjects and more time and opportunity given for the study of psychology, so that educational psychology might become an essential and an important subject in the curriculum of every training college. He asked whether it was not possible for the Board to encourage the provision of special after-courses in training for the benefit of teachers, and that they might be given leave to return to the training colleges for special courses in the history of education, or in the organization of schools, or in pedagogical research. In conclusion, the main suggestions he ventured to lay before the Board were: first, the closer co-ordination of the teaching of psychology and of the physiology of the nervous system and sense organs; and, secondly, the inclusion of psychology in every scheme of training college study approved by the Board, special prominence being given to current psychology and pedagogical investigation.

The PRESIDENT OF THE BOARD OF EDUCATION, thanking the deputation for presenting its case in such an able and lucid way, said its members had ideals which they urged should be put forward as far as possible for the practical advantage of the country. The Board was absolutely at one with them in that great object. Even in his brief tenure of office he had had many deputations urging that various subjects should be taught in the training colleges of the country. His answer to such deputations had been that, whilst the subjects were allowed to be taught, the managers of schools or the local education authority, as the case might be, were obliged to teach a certain number of subjects, and it was for them to decide what other subjects should be supplemental to those. With regard to the question of hygiene, it was obviously desirable that every one should know what had been described by one of the speakers as the study of laws which concerned the health of the body. It was not to be thought that the subject was untaught. In his own small experience he had visited schools in two of which he unexpectedly visited a class and found that hygiene was being taught. Taking boys at random from the class and asking them to draw pictures of the skin magnified, or of hairs, and asking such ordinary questions as the effect of soap upon the body, he found that the boys knew the subject fairly thoroughly, and, to his amazement, understood the subject much more than he would have thought possible for any teacher to have taught boys of that particular age. With regard to the appreciation of the presence of infectious disease, his experience of local bodies had been that the local authorities had established isolation hospitals all over the country, and that whenever infection broke out in a school the teachers realized the importance of isolation, and for himself he believed isolation was the rule and not the exception when any symptoms of infectious disease occurred in the schools of the country. Dealing with the number of subjects included in the curriculum of any training college, the President of the Board pointed out that the ordinary subjects taught were: English language, literature and composition, history and geography, elementary mathematics, elementary science, hygiene, the theory of music, the principles of teaching, reading and repetition, drawing, needlework for women, singing and physical training. To acquire, not only a knowledge of those subjects, but a knowledge of how to teach them, obviously occupied the greater part of the students' life in training colleges, and it would be very difficult to force other subjects upon the training colleges without sacrificing some of those subjects which the Board believed were more essential than even the higher scientific subjects which the deputation desired to have taught. Whilst the Board were anxious that every child should be taught health maxims and the principles of and the study of laws concerning the health of the body, yet it was felt that a thorough and scientific study of hygiene as a compulsory subject could not be forced at the present time on all training colleges. It was quite another thing

however, to ask that all elementary teachers should have some knowledge of the subject. He did not know whether the deputation was aware that the Board imposed the necessity of the subjects under discussion being taught in secondary schools, and he might say that before students entered the training colleges they did in nearly every case acquire a certain knowledge in chemistry and in physics. Hygiene was taught as a science subject in perhaps a very small number of schools, but girls were taught in nearly all schools what might be called practical hygiene for purely practical things connected with domestic economy and subjects of that kind. The main point he desired to press upon the deputation was that a great deal of work was now being done in connexion with the teaching of science subjects and hygiene. Whilst all that might be desirable had perhaps not been attained, yet he thought it must be admitted that the secondary schools in the country were doing a great deal. The students in the technical colleges nearly all came from secondary schools where chemistry and physics were taught. Taking 42 out of 95 training colleges under the Board, the numbers of students who took up courses of physics were 315: those who took up chemistry only, 429; those who took up chemistry and physics, 1,528; and those who took up botany, 1,095. There were 2,906 students, and out of that number 2 271 had been through some course in physics, chemistry, or both, before they entered their training college. In conclusion, the President of the Board informed the deputation that it was not prepared to take any step in withdrawing the circular such as had been urged. The Board thought it ought to allow the effect of the circular to be further realized before any further step was taken in connexion with it.

Professor EDKINS, answering the President's inquiry as to whether the deputation had any further remarks to make, said that if the Board were going to bring the subject of hygiene into greater prominence in elementary schools the teacher must be very differently equipped from what he was when he was simply concerned with exercising general control over his students.

The PRESIDENT OF THE BOARD OF EDUCATION said the deputation might be quite sure that he would use any influence he had to further the interests of the study of hygiene, but the difficulty was that there were so many subjects already taught that it was difficult to find room for another, especially having regard to the fact that there was a certain amount of complaint already raised in regard to students in training colleges being overworked.

Dr. ADDISON, having thanked the President of the Board of Education for receiving the deputation, the latter expressed his obligation to its members for presenting their views, and the proceedings terminated.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

BIRMINGHAM BRANCH:

CENTRAL DIVISION.

THE tenth annual meeting of this Division was held at the Medical Institute on May 15th, at 4 p.m. In the unavoidable absence of Mr. J. F. Jordan, Mr. A. LUCAS took the chair. Fifty other members were present.

Apologies for Non-attendance.—Apologies were received from Drs. W. R. Jordan, Purslow, and Vokes, and Messrs. J. F. Jordan and Gilbert Barling.

Confirmation of Minutes.—The minutes of the last annual meeting were read, confirmed, and signed.

Report on Ambulance Instruction.—The report that had been circulated to members was objected to by Dr. NELSON and was discussed by Drs. HENTON WHITE BRANSON, SAWYER, and DONOVAN. Mr. J. F. T. MORRISON then moved and Dr. DOUGLAS STANLEY seconded:

That it be an instruction to the Executive Committee to consider the question of remuneration for ambulance instruction in relation to officers of the R.A.M.C.(T.) and officers of the St. John Ambulance Brigade.

This was carried.

Election of Officers.—Drs. Harold White and Wilkes were appointed scrutineers. The CHAIRMAN declared the following officers elected, as there were no other candidates for the posts: *Chairman*, Mr. Albert Lucas; *Vice-Chairman*, Dr. Purslow; *Honorary Secretaries*, Dr. Ernest C. Hadley and Dr. Hoyle Whaite.

Representatives on Branch Council.—There were nine nominations, and Drs. Alldridge and Neal and Messrs. Gamgee and Marsh were declared elected.

Executive Committee.—There were eleven nominations, and the following were declared elected: Drs. Boeddicker, Lilley, Lydall, Knott, Osborn, Salt, and Trumper.

Representative on Central Council.—It was agreed to nominate Mr. A. Lucas as Representative of the Birmingham and Staffordshire Branch on the Central Council.

Patent and Proprietary Medicines.—A letter from the Medical Secretary *re* the Government inquiry into patent and proprietary medicines was read.

Report of Executive Committee.—The report of Executive Committee was adopted on the proposal of Mr. A. LUCAS, seconded by Mr. F. MARSH.

Votes of Thanks.—A vote of thanks to the retiring Chairman was proposed by Dr. WHITTOME, seconded by Dr. TRUMPER, and carried. A vote of thanks to the retiring officers and Executive Committee was proposed by Dr. HENTON WHITE, seconded by Dr. WILKES, and carried.

Central Guarantee Fund.—Mr. MARSH read a letter from the Medical Secretary, explaining certain points in connexion with the Central Guarantee Fund.

This concluded the business of the meeting.

GLASGOW AND WEST OF SCOTLAND BRANCH:

GLASGOW NORTH-WESTERN DIVISION.

Provisional Local Medical Committee.—The following gentlemen have been elected as a Provisional Local Medical Committee in connexion with the Insurance Act by the practitioners in the Glasgow North-Western Division of the British Medical Association—namely: Drs. R. O. Adamson, J. Baird, E. Baly, A. T. Campbell, J. H. Campbell, W. A. Caskie, A. K. Chalmers, J. G. Graham, J. G. Gray, A. G. Hay, R. G. Inglis, D. C. Laird (Milngavie), J. Lindsay, D. J. Mackintosh, M.V.O., A. L. Macmillan, A. Macphee, J. Morton, E. J. Primrose, J. Ritchie, W. Ritchie, J. McGregor Robertson, A. B. Sloan, Jas. Todd, D. Westwood, J. Wylie (Scotstounhill).

Executive Committee.—The Executive Committee consists of the Chairman (Dr. A. T. Campbell), Vice-Chairman (Dr. Jas. Todd), Secretary (Dr. W. A. Caskie), and Drs. Mackintosh, Morton, Hay, and Inglis.

LANCASHIRE AND CHESHIRE BRANCH:

BLACKPOOL DIVISION.

THE annual meeting of this Division was held at the Carlton Hotel, Blackpool, on May 15th, at 8 p.m. Dr. RHODES was in the chair, and there were present: Drs. Gornall, Sprawson, Hodgson, Couper, Nuttall, Baird, Godley, Penman, Booth, T. Taylor, McIntosh, Carr, Preston, Buckley, Stewart, McGregor, McCandlish, Forbes, Barton, Dunderdale, Falconer, Porter, Eason, and Rees Jones. The following were present as guests: Drs. Thomson, Jeffrey, Reid, and Holt.

Dinner.—The members dined together before proceeding to business.

Confirmation of Minutes.—The minutes of the general meeting held on March 6th were read, approved, and signed.

Apologies for Non-attendance.—Apologies for non-attendance were received from fifteen members.

Election of Officers.—It was resolved that the following be appointed officers for the ensuing year: *Chairman*, Dr. Stewart; *Vice-Chairman*, Dr. Penman; *Honorary Secretary*, Dr. Rees Jones; *Representative on Branch Council*, Dr. Rees Jones; *Executive Committee*, Drs. Dunderdale, Rhodes, Carr, Forbes, McIntosh, Gornall, and Falconer.

Dr. STEWART then took the chair.

Vote of Thanks to Retiring Chairman.—It was resolved that the hearty thanks of the meeting be accorded to Dr. Rhodes for his services as Chairman during the past year.

Report of Executive Committee.

It was resolved that the following report of the Executive Committee should be received:

Membership.—The membership during the past year has increased from 51 to 67; 7 members removed into the Division, 6 members moved out; there were 16 new members, and 1 member died. There still remain not far from 50 medical practitioners in the area who are not, but ought to be, members of the Association.

Meetings.—Since and including the last annual meeting there have been held seven general and six Executive Committee meetings. At three of the general meetings non-members were invited to attend.

Business.—General matters referred by the Association to Divisions were duly considered. The business of the meetings was almost entirely confined to discussions on the National Insurance Bill. An active canvass of the profession in the area was undertaken by a special subcommittee, but the results of such canvass were not markedly satisfactory. Three Special Representative Meetings were attended during the year, one by the Honorary Secretary, and two by Dr. Barton. Reports on these meetings were submitted to the Division and duly considered. Drs. Dunderdale, McIntosh, and the Honorary Secretary interviewed the Member of Parliament for the Division (Mr. Ashley) at the House of Commons on the matter of the National Insurance Bill.

Finance.—At the last annual meeting there was in hand 15s. 10d. Since then grants amounting to £9 4s. have been received, and there is at present in hand 12s. 4d. The number of meetings and the expenses incidental thereto has necessitated heavy expenditure during the year, but the Executive Committee trust that any invitation to members to make a small special subscription towards expenses will meet with a hearty response.

Patent and Proprietary Medicines.—A letter from the Acting Medical Secretary of the Association, dated April 29th, 1912, *re* "Government Inquiry into Patent and Proprietary Medicines," was read.

Provisional Agenda for Annual Representative Meeting.—A letter from the Medical Secretary, dated May 10th, 1912, *re* provisional agenda for Annual Representative Meeting, Liverpool, was read, and it was resolved that a special meeting of the Division be called during June to consider such agenda and instruct the Representative thereon.

Dr. Lowry's Book.—A letter from Dr. Lowry *re* book entitled *Can the Doctors Work the Insurance Act?* was read.

Nominations for Central Council.—It was resolved that Drs. Helme and Reynolds be nominated for membership of the Central Council.

National Federation, Limited.—A letter, undated, from Drs. Maxwell and Walker, *re* National Federation, Limited, was read.

Provisional Medical Committee.—Circulars D 46, 47, and 48 were read, and it was resolved that Dr. H. T. Barton be requested to call a meeting of all practitioners within the area of the Division, with a view to forming a Provisional Medical Committee.

Guarantee Fund.—Letters from the Medical Secretary, dated April 4th and May 14th, *re* the Guarantee Fund, were read, and it was resolved that the same be referred to the Provisional Medical Committee.

Supplementary Pledge.—Circular D 49, on the "supplementary pledge," was read, and it was resolved that it should be referred to the Provisional Medical Committee.

Reception of Members Visiting Blackpool during Annual Meeting.—It was resolved that the question of the reception of any members visiting Blackpool during the forthcoming Annual Meeting in Liverpool be referred to the Executive Committee with power to act.

Blackpool and Isle of Man Divisions.

A joint meeting of these Divisions was held at the Carlton Hotel, Blackpool, on May 15th, at 8 p.m. The list of those present is the same as that of those who attended the annual general meeting of the Blackpool Division given above.

Confirmation of Minutes.—The minutes of the last joint meeting, held on May 29th, 1911, were read and approved.

Representative at Annual Representative Meeting.—It was resolved that Dr. H. T. Barton be appointed the Representative for meetings of the Representative Body.

Manchester (North) Division.

The annual meeting of this Division was held on Thursday, May 16th, at the Grosvenor Hotel. Dr. Fraser was in the chair, and the following members were present: Drs. Ashworth, Barrow, Becker, Bennett, Broadbent, Buck, Carruthers, Clayton, Coutts, Craig, Dick, Donald, Graff, Gregory, Hargreaves, Jackson, Jamieson, Johnstone, Kerr, Kitchen, Larkam, Lee, Macbain, McGlade, McGrath, Macmillan, MacPherson, Marshall, Morrow, Muir, O'Doherty, Pell-Ilderton, Rust, Skinner, Wardman, Whitfield, Wignall, Williams, McGowan, and three others.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Transference of Members.—A letter from the South Manchester Division relating to transference of members was read, and the Secretaries instructed to obtain further information.

Patent and Proprietary Medicines.—A letter from the Central Office relating to the Government inquiry into patent medicines was read, and information requested.

Annual Report.—The annual report was received and adopted. The membership of the Division increased during the year from 67 to 86. Fifty-eight members had attended meetings.

Division Fund for Representative's Expenses.—It was decided to establish a fund out of which such expenses could be met.

Nominations for Central Council.—Four names were proposed and a vote by ballot was taken, with the result that Drs. Helme and O'Sullivan were nominated.

Election of Division Officers.—The following were elected: *Chairman*, Dr. Fraser; *Vice-Chairman*, Dr. Marshall; *Representative to Annual Representative Meeting*, Dr. Dick; *Secretaries*, Drs. Kitchen and McGowan; *Representatives to Branch Council*, Drs. Dick and McGowan; *Executive Committee*, Drs. Broadbent, Johnstone, Larkam, Lee, Morrow; *Representatives on Joint Committee*, Drs. Fraser, Dick, Skinner, Kitchen, McGowan.

Pledge, Resignation, and Guarantees.—Dr. Kitchen, Secretary of the Local Medical Committee, presented a report showing that over £500 had been guaranteed in two days, and that a guarantee of £20 from each member was desired.

Amalgamation of Local Divisions.—A scheme for the amalgamation of local Divisions was adjourned for consideration at the next meeting.

Rochdale Division.

A meeting of all the medical men in the area of the Rochdale Division was held at the Wellington Hotel, Rochdale, on Monday, May 13th, at 8.30 p.m. Dr. Lord, of Castleton, was in the chair. There were twenty-two practitioners present.

Provisional Medical Committee.—The Secretary read Minute 63, and moved that a Provisional Medical Committee be formed, which was seconded by Dr. Kerr and supported by Drs. Bateman, Chadwick, and others. Dr. Malim moved a direct negative, which was seconded by Dr. Ashcroft and supported by Dr. Mills. On being put to the meeting eight supported the amendment and eleven the motion. The motion was then carried. It was then carried:

That all the men in the district willing to serve be formed into a Provisional Medical Committee.

Dr. Chadwick moved, Dr. Bateman seconded, and it was carried:

That an Executive Committee of eighteen members (9 for Rochdale, 2 for Heywood, 2 for Bacup and Whitworth, 2 for Todmorden and Cornholme, 2 for Littleborough and Smallbridge, and 1 for Milnrow and New Hey) be appointed.

This was moved, seconded, and carried:

That Dr. Lord be the Chairman and J. Melvin the Secretary of the Provisional Medical Committee.

WARRINGTON DIVISION.

THE annual meeting of this Division was held at the Infirmary, Warrington, on Tuesday, May 14th. Dr. BOWDEN was in the chair, and there were present: Drs. Burrowes, Bennett, Binns, Hutchinson (J.), Hibbert, Robinson, Law, Mackenzie, Brackell, Edwards, Liston, Hutt, Manson, Thorpe, and Murray.

Confirmation of Minutes.—The minutes of the last annual meeting were read and confirmed.

The late Mr. Charles White.—A resolution of condolence was passed to the family of the late Mr. Charles White.

Election of Officers.—The following officers were elected for the ensuing year: *Chairman*, Dr. Burrowes; *Vice-Chairman*, Dr. Langdale; *Honorary Secretary and Treasurer*, T. A. Murray; *Representative on Branch Council*, Dr. Burrowes; *Executive Committee*, Drs. Burrowes, Langdale, Bowden, Edwards, Bennett, Binns, and Murray.

Recommendations of Central Council.—The recommendations of the Central Council (SUPPLEMENT, May 11th) were discussed and agreed to.

Death Certificates.—The resolution *re* death certificates was adopted, and it was decided to send a copy to all practitioners in the area.

Nominations to Central Council.—The Secretary was instructed to nominate for the Central Council election Drs. Larkin, Taylor, and Garstang.

Question referred from Brighton Division.—A question *re* school medical officer, referred from the Brighton Division, was discussed, and a resolution thereon passed.

METROPOLITAN COUNTIES BRANCH.

HARROW DIVISION.

A MEETING to which every practitioner residing within the area of the Division was invited, was held in the Gayton Rooms, Harrow, on Thursday, May 16th. Dr. A. H. WILLIAMS was in the chair, and there were also present: Drs. Apthorp, Barton, Bluett, Brady, Charpentier, Harley, Hatch, Hildesheim, Hildige, Jones, Martin, Moxon, Muspratt, Pennefather, and Tate.

Confirmation of Minutes.—The minutes of the last meeting, held on April 18th, having been printed in the BRITISH MEDICAL JOURNAL SUPPLEMENT of April 26th were taken as read and confirmed.

Apologies for Non-attendance.—The HONORARY SECRETARY stated that he had received apologies for non-attendance from Drs. Bindloss, Darby, Davidson, Edwards, Goddard, and Lambert.

Alteration of Time of Meeting.—Dr. HILDESHEIM proposed, Dr. HATCH seconded, and it was carried, that the hour of meeting should be altered from 8.30 to 8.15 p.m.

Reorganization of Area of Division.—The HONORARY SECRETARY (Dr. C. M. Pennefather) read a letter from the Secretary of the Organization Committee, *re* the reorganization of the area of the Division, and stated that the changes in question would probably come into force as from May 18th.

Patent and Proprietary Medicines.—A letter was also read from the Medico-Political Committee *re* the Government inquiry into patent and proprietary medicines. Arising out of this, any member having notes of cases which might be of service, and who would be prepared, if necessary, to give evidence before a Select Committee, was asked to put himself into communication with the Medical Secretary.

Nominations of Kensington Division for Central Council.—A letter was read from the Kensington Division asking the support of the Harrow Division to the nominations of the former Division for members of Central Council, President-elect, Vice-President, and Treasurer of the Branch. Arising out of this, Dr. PENNEFATHER proposed:

> That this meeting of the Harrow Division nominates its chairman, Dr. A. H. Williams, as member of the Central Council.

This was seconded by Dr. BLUETT and carried unanimously.

Report of Provisional Medical Committee.—Dr. PENNEFATHER stated that the members of the Provisional Medical Committee had now been completed by the addition of Drs. Charpentier and Davidson, as representing the Uxbridge urban and rural districts; that the committee had held its first meeting on May 7th, and had decided to institute the procedure outlined in the memorandum from the State Sickness Insurance Committee, D49, and that a canvass of all practitioners within the area of the Division was now in progress. The objects of this canvass were: (1) To obtain signatures to the pledge; (2) to obtain the resignations of doctors holding contract practice appointments which may contain persons to be insured under the Act; (3) to obtain additional guarantees to the Central Fund; (4) to urge non-members to join the Association.

Supplementary Pledge.—The following is the analysis of results of the canvass to date:

Members of the British Medical Association, 74; non-members, 30; total, 104. In general practice, 53; retired, special work, consulting practice, Board of Education, etc., 51; signed pledge, 73; guarantees, given or promised, 51, amounting to £434 18s.

Dr. PENNEFATHER expressed the opinion that as the canvass had only been in progress for nine days this result was highly satisfactory, and also stated that he anticipated getting additional signatures to the pledge and further promises of guarantee as the result of a continuance of the canvass.

Treatment of School Children.—The HONORARY SECRETARY reported that the Representatives of Harrow, Wealdstone, and Wembley on the Provisional Medical Committee had met the members of the Harrow Elementary Schools Clinic Committee since the Division last met in April; that after hearing the details of the scheme for the formation of a central clinic, as proposed by the committee, the Representatives of the Division felt that the scheme proposed would prove impracticable in a district such as is contained within the area of the Harrow grouped schools. In view of the circular letter from the Board of Education to the local education authority, appearing in the SUPPLEMENT of the BRITISH MEDICAL JOURNAL on May 4th, it seemed expedient that the Division should be prepared with a scheme for providing efficient treatment which would be approved by the medical practitioners of the district. After discussion Dr. PENNEFATHER therefore proposed, Dr. BLUETT seconded, and it was carried *nemine contradicente*:

> That the members of the Provisional Medical Committee be elected a subcommittee, to elaborate a scheme for the treatment of school children found on examination to be defective, and to get into communication with the local education authority. That this subcommittee be given power to negotiate on the lines of the scheme already approved in 1910 by the Division.

New Rules.—Dr. WILLIAMS explained that it would be necessary, now that the Division had been reorganized and separated from the Watford part of the old Watford and Harrow Division, to amend the rules. It was therefore proposed, seconded, and carried:

> That the members of the Provisional Medical Committee be appointed a subcommittee to frame new rules for discussion at the annual meeting of the Division to be held in June.

MARYLEBONE DIVISION.

THE annual general meeting of the Division was held at the Rooms of the Medical Society of London, 11, Chandos Street, W., on Wednesday, May 15th, at 5 p.m., Sir FREDERIC S. EVE in the chair. Twenty-nine members were present.

Confirmation of Minutes.—The published minutes of the last meeting were confirmed.

Patent and Proprietary Medicines.—A letter was received from the Medico-Political Committee *re* Government inquiry into patent and proprietary medicines. Dr. GOODBODY proposed and Dr. WIRGMAN seconded:

> That the letter of the Medico-Political Committee be not sent round to members, but that the announcement in it be placed in a prominent position in the JOURNAL.

This was carried.

Apologies for Non-attendance.—Dr. J. S. Smith and Mr. Newton Pitt wrote expressing their regret for their inability to be present.

Report of Executive Committee.—The annual report of the Executive Committee (SUPPLEMENT, May 11th) was read and adopted.

Election of Officers.—The following were elected officers for the ensuing year: *Chairman*, Mr. Atwood Thorne; *Vice-Chairman*, Mr. Bishop Harman; *Honorary Treasurer*, Dr. Comyns Berkeley; *Honorary Secretary*, Dr. F. W. Goodbody; *Representatives on Branch Council*, Sir

Frederic S. Eve, Mr. Douglas Drew, Drs. Gordon Holmes, Eric Pritchard, F. J. Smith, Percy Spurgin.

Nominations for Branch Council.—The following were nominated: Vice-Presidents, Drs. G. H. Heron and C. O. Hawthorne; Honorary Treasurer, Dr. Lauriston Shaw.

Nominations for Central Council.—Dr. HAWTHORNE proposed and Mr. BERRY seconded:

That the Division make no nominations for the Central Council.

Sir FREDERIC EVE opposed, and the motion was lost. The following were then nominated: Drs. M. G. Biggs of Wandsworth, M. Greenwood of Hackney, E. W. Lowry of Kew, and F. J. Smith of Marylebone.

Resignation of a Representative.—Mr. Warren Low wrote resigning his position as Representative in order that the Honorary Secretary might be one of the Representative Body. Dr. ACLAND proposed and Dr. TURNER seconded:

That the resignation be accepted with regret, and that Mr. Low be thanked for his action.

On the motion of Mr. BISHOP HARMAN, seconded by Mr. THORNE, Dr. Goodbody was elected a Representative.

Sir Frederic Eve vacated the chair in favour of Mr. ATWOOD THORNE.

Vote of Thanks to Retiring Officers.—Dr. SPURGIN moved a very hearty vote of thanks to the retiring officers for the very efficient way in which they had carried on the business of the Division. This was seconded by Mr. DREW and carried unanimously. Sir FREDERIC EVE and Mr. BISHOP HARMAN replied.

The New Pledge.—The SECRETARY read the new pledge forwarded by the State Sickness Insurance Committee. The CHAIRMAN said that the question was whether to advise the Division as to what should be done. Mr. BISHOP HARMAN pointed out that over 700 in the Division had signed the previous pledge and that only 11 of these were concerned in contract work. He said that the important part of the pledge for the Division was the last paragraph, dealing with the treatment of insured persons through medical charities and concerning co-operation with professional members who are under contract to treat insured persons on terms not acceptable to the profession. He pointed out that it was very important that any action should be general, and recommended the signature of the pledge. Owing to the impossibility of a personal canvass being carried out amongst the 1,100 members of the profession in the Division, he proposed that a committee composed of the members of the Executive, Hospitals, and Provisional Medical Committees of the Division be appointed to consider the pledge so far as it concerns hospital work and to draw up a letter commending this pledge to the acceptance of every practitioner in the borough.

Dr. WIRGMAN seconded, and suggested that it might be possible to draw up a form of pledge which the lay committees of hospitals would agree to sign.

Sir FREDERIC EVE regretted that it had been thought necessary to ask another pledge from members of hospital staffs, as it placed them in a very difficult position with their lay committee. In accepting an appointment on the staff of a voluntary hospital they had undertaken to treat any case they were asked to see, and he thought that they were bound to do so until they had given proper notice of their intention to resign. It appeared to him that the difficulties of coming to an arrangement between the lay committees and the staffs of the various hospitals would be much facilitated if the following considerations were placed before the committees. In the first place the insured persons who might come to the hospitals for treatment as out-patients after the coming into force of the Act should, under that Act, obtain treatment from their own doctors; therefore, the onus of obtaining that treatment rested with the Government, not with the hospitals. Further, their cases were usually not serious or pressing, and therefore no hardship would be done. The position as regards in-patients was the reverse. There was practically no provision for them under the Act. In the vast majority of cases they could not be treated at their own homes owing to the nature of the disease; therefore, their cases could be very largely considered as urgent. Even a radical cure of hernia or of varicocele should be considered as urgent if the affections prevented the man from following his employment or getting into the public services, and these operations could not be performed safely in the patient's own home. For these reasons he did not personally see any difficulty in signing the pledge, but in so doing he would make a proviso that the word "urgent" be interpreted in a very liberal sense. He saw a difficulty in making the British Medical Association the arbiter as to when the pledge should become operative, as many members of hospital staffs were not members of the Association, and he considered that the difficulty might be surmounted by arranging that staffs of hospitals, etc., should not be called upon to redeem their pledges until after consultation between representatives of the British Medical Association and the conference of the various examining boards of medicine which he understood the Royal College of Surgeons proposed to summon.

Mr. WARREN LOW said that the proposed committee should draw up a special letter explaining the position as regards out-patients, and that there would then be no difficulty. He considered that the question of co-operation with practitioners who accepted posts under the Act against the wishes of the profession would present more difficulty from the point of view of the public, and he thought that the words "urgent cases" should be inserted in the last part of the final paragraph of the proposed pledge, and that the committee should consider this part of the pledge carefully, with a view to making interpellations.

Dr. ACLAND strongly objected to being asked to sign the pledge, as he considered that a member of a hospital staff had no call or right to ask whether a patient was an insured person or not. He thought that it would make an extremely bad impression on the public if the idea got about that any question except the condition of the patient was considered by a hospital staff, and that, therefore, very careful consideration was required.

Mr. DREW considered that there was no necessity for another committee.

Mr. MAYNARD SMITH said he saw no objection to the first part of the pledge, and also that there was no difficulty in any member of a hospital staff signing it, as there was no provision under the Act for acute illnesses, such as perforations, etc., and that, therefore, they would come under the heading of "urgent cases."

Dr. ROXBURGH supported Mr. Bishop Harman's motion.

Dr. HAWTHORNE opposed the appointment of a committee to consider the question, and considered that the Hospitals Committee should deal with it. He inquired whether the Committee was to report to the Division or to send out the covering letter on its own responsibility. He did not agree with Sir Frederic Eve, as he thought that no distinction should be made between in-patients and out-patients, and he would sign the pledge, taking care that no sick person was harmed by his doing so. The motion was lost.

Mr. GORDON HOLMES proposed and Dr. CREASY seconded:

That the matter be left to the Executive Committee.

Mr. WARREN LOW proposed that steps be taken to see whether it would be possible (*a*) to place the figure (1), in the last paragraph, after the words "urgent necessity"; (*b*) delete the second "I will not"; (*c*) insert the words "except under urgent necessity" after the word "co-operate."

Dr. ROXBURGH seconded.

The motion was carried.

SOUTH-WEST ESSEX DIVISION.

A GENERAL meeting of the profession was held on Tuesday, May 7th, at 4 p.m., in the Wesleyan Church Schoolroom, High Road, Leyton, for the purpose of considering the Recommendations of the State Insurance Committee and Metropolitan Counties Branch Council with regard to the formation of a Provisional Medical Committee. Dr. C. J. HORNER presided, and forty practitioners were present.

Correspondence.—Letters from State Sickness Insurance Committee, Metropolitan Counties Branch, Kensington Division, Hampstead Division, Wandsworth Division, the practitioners of South-East Essex, Medico-Political Committee, the Medical Secretary, Drs. Robert Jones, F. J. Coutts, F. J. Oxley, and C. Scott were read.

Communications.—Communications were received from Drs. Hardenberg, Harford, Brock, Dykes, Butler Harris, J. L. Simpson, and S. M. Dowling.

Club Appointments.—The SECRETARY reported that he had been approached and asked to take the post of surgeon to a new lodge of Oddfellows on the old terms and conditions until such time as the National Insurance Act came into force. Another doctor in the district also had been approached with a similar offer. As the question had not been previously considered the Secretary, after giving the view of the Executive Committee and the advice of the State Sickness Insurance Committee, the matter having been referred to them, requested the meeting to express its views upon the subject. After discussion it was proposed by Dr. G. COLLINS and seconded by Dr. C. SCOTT:

> That no practitioner accept the post of medical officer to a newly-formed society, or a new lodge of existing society within the area of this Division.

An amendment was proposed by Dr. ROWLAND JONES and seconded by Dr. J. BROWN:

> That the post of medical officer to a lodge of existing society may be accepted at a capitation rate of not less than 8s. 6d. per annum.

The amendment was lost by 28 to 7 and the resolution carried.

Provisional Medical Committee.—The recommendations of the Executive Committee with regard to the formation of a Provisional Medical Committee having been circulated with the agenda papers, Dr. C. S. HARFORD at once moved:

> That a provisional committee be formed which shall be composed of eight members from each ward, of whom at least two be non-members of the Association.

This was seconded by Dr. C. PANTING. After discussion. Dr. C. PANTING proposed and Dr. C. H. WISE seconded that the following rider be added:

> And the Chairman, Vice-Chairman, and Secretary for the time being of the Division be *ex officio* members, vacancies being filled up by the Committee on the nomination of the members of the ward in which the vacancy occurs.

The rider was accepted by Dr. Harford, and the resolution, with the rider added, carried *nemine contradicente*. It was proposed by Dr. PANTING, seconded by Dr. BORLAND, and carried *nemine contradicente*:

> That each ward elect its own members to the Committee.

It was proposed by Dr. C. H. WISE and seconded by Dr. ROWLAND JONES:

> That the Committee be elected annually, and that the method of election be by postal vote.

This was carried unanimously.

Nominations.—The following nominations were then received by the Secretary:—By the Leyton Ward: Drs. Aldrich, Harford, Noble, Panting, Scott, Tomkins, and Simpson. By members in Leyton Ward: Drs. Linden, Bonnefin, and J. O. Goldie. By the County Ward: Drs. Ward, Denning, Hardenberg, Butler-Harris, Dykes, Crawford, Argles, Wilson, Berrill, McCosh, and Erskine. By the Walthamstow Ward: Drs. Borland, Shadwell, Wise, Brown, Rogers, James Clarke, Steele, Owen Bintcliffe, Challis, Brunton, Barber, Rowland Jones, Murphy, Moore, and Horner.

The meeting then ended.

MIDLAND BRANCH:

LEICESTER AND RUTLAND DIVISION.

THE annual business meeting of the Division was held at the Leicester Infirmary on Wednesday, May 15th, at 4 o'clock. Dr. TIBBLES was in the chair, and thirty-four members were present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Election of Officers.—It was unanimously agreed, on the proposition of Dr. WALLACE HENRY, seconded by Dr. HICKS, to nominate Dr. Astley V. Clarke as President-elect of the Midland Branch. Dr. ASTLEY CLARKE thanked the meeting. The following were elected members of the Branch Council on the proposition of Dr. HOLYOAK, seconded by Dr. WAITE: Drs. Burkitt, Cosens, Fagge, Gibbons, Holmes, and Stamford. Dr. TIBBLES proposed, and Dr. WAITE seconded, the election of Dr. W. E. Gibbons as Chairman of the Division for the year 1912-13. This was carried unanimously. Dr. GIBBONS took the chair, and having thanked the meeting, proposed a hearty vote of thanks to the retiring Chairman for the able way in which he had conducted the business of the Division during the year. This was carried by acclamation. Dr. Sessions Barrett, of Hinckley, was elected Vice-Chairman, on the proposition of Dr. GIBBONS, seconded by Dr. MARTIN. Dr. Wallace Henry was re-elected Secretary on the nomination of the CHAIRMAN. In returning thanks he expressed his great appreciation of the valuable help which he had received at all times during the year from Dr. Moffat Holmes. The following were elected members of the Executive Committee, on the proposition of Dr. HOLMES, seconded by Dr. BURKITT: Drs. C. H. Clarke, MacAllister-Hewlings, Ballard, Holyoak, Johnston, Pike, and Waite.

Report of Executive Committee.—The Executive Committee presented its annual report, of which the following is the text:

"The number of members is now 218, an increase of 52 during the year. Nine meetings of the Division have been held, the annual one dealing with the business of the Division and the National Insurance Act, a meeting addressed by H. Langley Browne, Esq., one of the candidates for election to the General Medical Council, two scientific meetings, and five for the purpose of discussing various aspects of the National Insurance Act. The average attendance was 83. The executive committee has met on seventeen occasions, and subcommittees dealing with school clinic and public medical service matters have met on six occasions. During the year the following matters have been dealt with: The National Insurance Act, preparation of a scheme for school clinics in the borough of Leicester, a scheme for a public medical service for Leicestershire and Rutland, the administration of anaesthetics to unqualified and unregistered dentists, and the action of the police force with regard to inquests and accidents. The accounts of the Division for the year ending December 31st, 1911, have been duly audited, and show a balance in hand of £9 1s. 2d."

The report was adopted on the proposition of Dr. BLAKESLEY, seconded by Dr. STRACEY.

Payment of Personal Expenses of Representatives.—Dr. WAITE proposed, Dr. A. V. CLARKE seconded, and it was unanimously agreed:

> That the Representatives be instructed to oppose the motion of the East Norfolk Division.

Model Ethical Rules for Divisions and Branches.—It was unanimously agreed, on the proposition of Dr. HOLMES, seconded by Dr. HOLYOAK:

> That the Representatives support the recommendations of the Council.

Memorandum re *Filling in of Death Certificates.*—Dr. HOLMES proposed, and Dr. WAITE seconded, the adoption of the suggested resolution of the Council. This was carried unanimously.

Alteration of By-law.—Dr. HENRY proposed, and Dr. GIBBONS seconded, the following alteration in By-law 39 (3) for "according to the annual list then in force" read "according to the list last circulated to Secretaries of Divisions." This was carried unanimously.

Representative of Grouped Branches on Council of Association.—Dr. GIBBONS proposed, and Dr. BLAKESLEY seconded, the nomination of Dr. POPE. This was carried unanimously.

School Clinic.—The SECRETARY reported on the action of the Executive Committee *re* a school clinic for necessitous children in Leicester, and explained the negotiations which had been held with the Education Committee of the borough of Leicester. The action of the committee was endorsed, and it was authorized to proceed further in the matter.

NORTHERN COUNTIES OF SCOTLAND BRANCH:

ROSS AND CROMARTY DIVISION.

A MEETING of members of this Division was held in Dingwall on May 14th. Dr. DUNCAN presided, and there were present: Drs. Bruce, J. Adam (Dingwall), McLean, Ross, Brodie, Middleton, Macrae, Kaye, Knox, Connell, and Duncan.

New Division.—The new Division (Ross and Cromarty) was then constituted.

Election of Officers.—The following office-bearers were appointed: *Chairman*, Dr. McLean (Seaforth Sanatorium); *Vice-Chairman*, Dr. Kaye (Strathpeffer); *Secretary and Treasurer*, Dr. Duncan (Strathpeffer); *Repre-*

sentatives on Branch Council, Dr. Ross (Tain) and Dr. Knox (Gairloch); six other members, Drs. Macrae, Smith, Mackay, Middleton, Brodie, and Somerville.

Provisional Medical Committee.—The following were elected to the Provisional Local Medical Committee: Drs. Bruce, Adam, Smith, Galbraith, McLean, McRae, and Duncan (Secretary).

SOUTH-EASTERN BRANCH:

DARTFORD DIVISION.

THE annual meeting of this Division took place at the Bull Hotel, Dartford, on Wednesday, May 15th, at 3 p.m. Dr. STEEN presided, and there was a fair attendance of members and non-members.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Apologies for Non-attendance.—Letters regretting inability to attend were read from Dr. Hamilton of Dartford and Dr. Griffiths of Meopham.

Annual Report.—The CHAIRMAN moved the adoption of the report, the text of which is as follows: Your Executive have to report there have been six general meetings of the Division, with an average attendance of thirty-six, compared with two meetings and an average attendance of twelve during the previous year. The members residing in the area of the borough of Woolwich have been formed into a Division of the Metropolitan Counties Branch. While regretting the loss of our Woolwich friends, your executive believe that the formation of the new Division will make for the strengthening of the Association. Under these circumstances the membership of the Division is now sixty-four, and we are pleased to report that many who have stood outside the ranks of the Association are joining us. The principal subject which has filled our minds and been the subject of our discussions has been that of the National Insurance Act. Provisional District Committees have been formed for the urban districts of Erith, Northfleet, and Gravesend; for the combined districts of Bexley Heath and Sidcup, and the rural and urban districts of Dartford. A Provisional Medical Committee for Kent has been formed, and your Chairman and Secretary appointed as delegates. A Provisional Medical Committee for the Division has been formed, and, as most important work lies in the immediate future, your executive earnestly hope that all members will endeavour to facilitate the work of that Committee by prompt attention to its requests. The financial report shows a balance in hand of £6 11s. 2d. with which to carry out the work of the Division during the remainder of the year. Your executive desire especially to thank the honorary secretary for his unwearied attention to the interests of the Association and for his arduous labours in organizing the Division during the past year. They also record their gratitude to all those who have helped in the work of the Division, and to emphasize the fact that most important work will take place in the next few weeks vitally affecting the interests of the profession. They would, therefore, earnestly appeal to all medical men to enrol themselves as members: and impress on all the absolute need of unity in the fight before us.

General Rules.—Several alterations in the rules were adopted on account of the new formation of the Division.

Election of Officers.—The following officers and executive were elected: *Chairman*, Charles Firth, M.D.; *Vice-Chairman*, R. H. Steen, M.D.; *Honorary Secretary and Treasurer*, H. Chisholm Will; *Representative on the Branch Council*, the Honorary Secretary; *Representative to the Representative Meeting*, the Honorary Secretary.

Executive Council.—Drs. Hartley, E. Knight, and Skipworth, representing Gravesend; Drs. Crombie, Pounds, and Walker, representing Bexley Heath and Sidcup; Drs. Glover, Renton, and H. Smith, representing Dartford; Drs. Greenway and Murison, representing Erith; Dr. G. S. Shute, representing Northfleet.

Central Council.—On the motion of the HONORARY SECRETARY it was agreed to nominate H. J. Ewart, of Eastbourne, for election by the group.

Provisional Medical Committee.—It was agreed to appoint the Executive Officers and Council as a Provisional Medical Committee for Dartford, together with the following to represent the non-members: Dr. Drennan, Gravesend; Dr. Duffett, Sidcup; Dr. Farthing, Dartford; Dr. Hardie, Erith; Dr. Sells, Northfleet.

Agenda of Representative Meeting.—It was decided to hold another meeting to consider the agenda and to instruct the Representative.

Present Position of Affairs.—Dr. LAURISTON SHAW gave an address on the present position of affairs, which was published in the SUPPLEMENT of the JOURNAL of May 18th (page 522). The discussion was continued by several members.

Votes of Thanks.—On the motion of Dr. FIRTH, seconded by Dr. WALKER, a hearty vote of thanks was accorded to Dr. Lauriston Shaw for his splendid address. On the motion of the HONORARY SECRETARY, seconded by Dr. GREENWAY, the best thanks of the Division were accorded to Dr. R. H. Steen for his splendid services as Chairman during the year. Dr. STEEN having replied, the meeting adjourned.

EASTBOURNE DIVISION.

THE ninth annual meeting of this Division was held at the Grand Hotel, Eastbourne, on Monday, May 13th, at 7 p.m. Dr. K. FRAZER, Chairman, presided, and fifteen members were present.

Apologies for Non-attendance.—Apologies were received for absence from four members.

Confirmation of Minutes.—The minutes of the previous annual meeting were read and confirmed.

Report of Executive Committee.

The annual report of the Executive Committee for the past year ending December 31st, 1911, was received, adopted, and ordered to be entered *in extenso* on the minutes. The following is a short summary of the salient features:

1. A year of record activity in the work.

2. (*a*) Adoption, with the approval of the whole of the profession in the area, of a scheme for the medical treatment of school children found defective on medical inspection: with appointment of separate committees for the borough of Eastbourne and the country districts. (*b*) Acceptance by the Borough Council of a modified scheme jointly agreed upon between the Eastbourne Committee and the Borough Education Committee. (*c*) Refusal by the Chief Medical Officer to the Board of Education to give it his department's approval.

3. Results from giving practical effect to the militant policy formulated by the Association on the advent of the National Insurance Bill: (*a*) With two exceptions every practitioner in active practice subscribed his and her honourable bond to the undertaking; (*b*) a fair proportion of members guaranteed subscriptions to the Central Defence Fund; and (*c*) an accession of ten new members.

4. Copies of two resolutions suggesting minimum rates of remuneration for (*a*) examination for life assurance and (*b*) instruction in first aid, hygiene, etc., of 10s. 6d. and £5 5s. respectively were sent out to every practitioner.

5. Membership.—On January 1st there were fifty-three names on the list. On December 31st there were sixty-seven, showing a net gain of fourteen on the year's working.

6. Meetings.—Eleven general meetings (average attendance twenty-one) and three executive meetings (average attendance six) were held. Eight of these general meetings were jointly with medical non-members, average attendance of the latter four.

7. Finance.—Total expenditure £19 16s. 8d., made up:

	£	s.	d.
To Hire of rooms	4	7	0
„ Printing and stationery	6	12	3
„ Railway fares	4	17	5
„ Postage	4	0	0
Defrayed—			
By Balance December 31st, 1910 ...	3	13	11
„ Branch grant	8	0	0
„ Honorary Treasurer	8	2	9

Election of Officers.—The following were elected officers for the ensuing year: *Chairman*, A. C. Roberts, M.R.C.S.; *Vice-Chairman*, A. Harper, M.D.; *Honorary Secretary and Treasurer*, Wm. Muir Smith, M.B.; *Representative on Branch Council*, W. J. C. Merry, M.D.; *Representative at Representative Meeting*, J. H. Ewart, M.R.C.S.; *Executive Committee*, H. D. Farnell, F.R.C.S., F. C. Goodwin, M.D.,

H. S. Gabbett, M.D., C. O'Brien Harding, M.R.C.S., M. Milner-Moore, M.D.

Installation of New Chairman.—On vacating the chair, Dr. K. FRAZER wished his successor, Mr. A. C. Roberts, a pleasant term of office.

Votes of Thanks.—Cordial votes of thanks were passed to Mr. J. H. Ewart and Dr. Muir Smith for their onerous services during the past year.

Nominations for Central Council.—Election of members of Council by grouped Branches. Nominations by Divisions. It was unanimously resolved:

That Mr. J. H. Ewart be again nominated by this Division as a candidate for election by the South-Eastern Branch.

Dinner.—The business of the meeting being concluded, the company adjourned for dinner, when sixteen members and one guest sat down, under the chairmanship of Mr. ASTLEY C. ROBERTS. At the conclusion of the repast the CHAIRMAN submitted the toast of "The King," and Dr. A. P. SHERWOOD gave the "Health of the Chairman," to which Mr. A. C. ROBERTS suitably replied.

HORSHAM DIVISION.

THE annual meeting of this Division was held at Pulborough on May 15th. There were present: Drs. Stevens, Eustace, Wilson, Messrs. Boxall, Fairlie-Clarke, Foot, Kerr, Kenyon, Vernon.

Election of Officers.—The following were elected officers for the ensuing year: *Chairman*, Mr. Vernon; *Vice-Chairman*, Mr. Kinneir; *Secretary*, Mr. Jamison; *Representative on Branch Council*, Mr. Fairlie-Clarke.

Proposed Joint Meeting with Worthing and Chichester Division.—The Secretary was instructed to make arrangements with the Secretary of the Worthing and Chichester Division for summoning a joint meeting to appoint a Representative at meetings of Representatives.

Provisional Medical Committee.—The Executive Committee of the Division was empowered to act as a Provisional Committee to deal with all questions in connexion with the Insurance Act, and to add to their number any members of the profession practising in the district who are not members of the British Medical Association.

Supplementary Pledge.—The forms of pledge and resignation were distributed and explained, and were signed by all present.

Paper.—A paper on Optical Pitfalls was read by Mr. W. H. JESSOP, F.R.C.S., and was followed by a discussion.

SOUTHERN BRANCH:

CHANNEL ISLANDS DIVISIONS.

A CONJOINT meeting of the Jersey and Guernsey with Alderney Divisions was held at the Royal Hotel, Jersey, on May 1st. There were present: Drs. Symons, Voisin, Major, Leask, Hind, and Walker, representing Jersey; and Drs. Carruthers, Corbin, Ross-Taylor, and Wilson, representing Guernsey.

Vote of Thanks to Dr. Carruthers.—Dr. Corbin having been elected Chairman, Dr. MAJOR proposed and Dr. VOISIN seconded that a vote of thanks be accorded to Dr. Carruthers for the manner in which he had performed the responsible and difficult duties of Representative of the Channel Islands at the Representative Meetings. This was carried unanimously.

SOUTH WALES AND MONMOUTHSHIRE BRANCH:

CARDIFF DIVISION.

THE annual meeting of this Division was held on May 15th. Over eighty members were present.

The late Dr. William Taylor.—A vote of condolence with the relatives of the late Dr. William Taylor was passed in silence.

Election of Officers.—The following officers were elected for the ensuing year: *Chairman*, Dr. Mitchell Stevens; *Vice-Chairman*, Dr. R. J. Smith; *Secretaries*, Dr. W. Courtenay Milward and Mr. A. L. Thornley; *Branch Council*, Drs. R. T. E. Davies, D. A. Fitzgerald, W. W. Leigh, Cyril Lewis, P. J. O'Donnell, W. M. Stevens, R. J. Smith, and Bell Thomas; *Executive Committee*, Drs. Tenison Collins, K. C. Mackenzie, D. E. Richards, and Russell Thomas; *Contract Practice Committee*, Drs. Mackenzie, Leigh, and Milward.

Representatives at Representative Meetings.—The voting for Representatives was as follows: Mr. William Martin, 56; Dr. E. J. Maclean, 36; Dr. Fitzgerald, 32; Dr. Tenison Collins, 27; Dr. Treasure, 21. The first two were elected. Dr. Tenison Collins was elected deputy for Dr. Maclean. Dr. Eric Evans was reappointed Assessor on the Maternity Department of the Queen's Nurses' Institute.

Annual Report of Executive Committee.—The annual report of the Executive Committee was received and approved.

As the original Local Medical Committee was appointed until the Annual Meeting only, the election of a new committee had to be considered. It was resolved not to proceed with the election until July, when the work of getting in pledges will have been completed.

STAFFORDSHIRE BRANCH.

THE third general meeting of the session was held at the Victoria Hotel, Wolverhampton, on Thursday, April 25th. In the unavoidable absence of Mr. Spanton (President) the chair was taken by Dr. J. A. CODD (Vice-President). Twenty-one members were present.

Apology for Non-attendance.—An apology was received from Dr. Blumer.

Confirmation of Minutes.—The minutes of the last general meeting were read, approved, and signed.

The "Medical Directory."—Dr. STIDSTON read a paper on the *Medical Directory*. In a well-written and interesting paper showing "an infinite capacity for taking pains" with the somewhat dry and formidable details given in this ponderous tome, Dr. Stidston had compiled statistics dealing with the entire medical profession in every aspect referred to—degrees, medals, honours, societies, places of study, contributions to literature, art, and science, and so on. The labour expended must have been enormous, and went far to support one of Dr. Stidston's conclusions—that the medical profession was very distinguished in everything except medicine. Dr. Stidston's paper was discussed by Drs. PRIESTLEY, CODD, and GALBRAITH.

Dinner.—The meeting was followed by a dinner at which eleven members were present.

Epsom College.—A collection in aid of Epsom College realized 11s.

SOUTH STAFFORDSHIRE DIVISION.

Special Meeting.

A SPECIAL meeting of the Division was held in the Star and Garter Hotel, Wolverhampton, on Monday, May 20th, at 8.30 p.m. Dr. SOMERSET was in the chair, and twenty-two other members were present.

Amendment of Rules.—It was proposed by Dr. MACTIER, seconded by Dr. SOMERSET, and unanimously resolved:

That Rule 4 be amended to read as follows: "The management of the affairs of the Division shall be vested in an Executive Committee, which shall consist of the officers named in Rule 5, together with the members of the Branch Council elected by the Division, the Representative of the Division in Representative Meetings of the Association, and six other members elected in the manner prescribed in Rule 9, with the President-elect, President, or immediate Past President of the Branch, whichever is a member of the Division, *ex officio*."

That in Rule 9 the word "six" be inserted for "three."

Rule 10. That the quorum of the Executive shall be four.

Rule 11. That "seven days" be substituted for "ten days" in line 2. That after the words "a meeting, called the annual meeting of the Division, shall be held in the month of May in each year, not less than," "seven days" be substituted for "four weeks."

Dr. MACTIER informed the meeting that the alterations in the rules had been sanctioned by the Organization Committee, and that they could therefore be acted upon.

Annual Meeting.

The special meeting having ended, the annual meeting of the Division was then held, Dr. SOMERSET being in the chair, and twenty-two other members being present.

Election of Officers.—The following were elected officers for 1912–13: *Chairman*, Drs. Deanesly and Clendinnen having withdrawn their nominations for the Chairmanship, Dr. T. Connell Craig was unanimously elected; *Vice-Chairman*, Dr. W. R. Somerset; *Secretary*, Dr. H. C. Mactier; *Three Representatives on Branch Council*, Drs. Ridley Bailey, Hartill, and Malet; *Six Members of*

Executive of Division, Dr Bankier, Dr. Clendinnen, Dr. Codd, Dr. F. A. Cooke, Dr. Deanesly, and Dr. Galbraith. Mr. W. F. Cholmeley, as President-elect of the Branch, becomes a member of the Executive of the Division *ex officio*.

Provisional Medical Committee.—Dr. Ridley Bailey made a statement as to the regulations adopted by the Branch Council *re* the Provisional Medical Committee for Staffordshire and proposed and Dr. Mactier seconded:

> That the South Staffordshire Division form a Provisional Medical Committee of 21, 14 being the members of the executive of the Division, and 7 to be elected at the meeting of the whole profession to be held on May 22nd, 1 at least of the 7 to be a non-member of the Association.

This was carried unanimously. Dr. Bailey then proposed, Dr. Mactier seconded, and it was carried unanimously:

> That the 6 representatives of the South Staffordshire Division on the Branch Provisional Committee be elected on May 22nd, the 6 to include the chairman of the Division and 1 non-member of the Association.

It was proposed by Dr. Bailey, seconded by Dr. Mactier, and carried unanimously:

> That the Branch Council be recognized as the co-ordinating body for the South Staffordshire Division; that reports of progress be made from time to time to the Branch Council; and it be agreed that the Provisional Medical Committee shall enter into no dealings with any authorities under the Insurance Act until they have received the sanction of the Branch Council for so doing.

Patent and Proprietary Remedies.—Dr. Mactier then read a letter from the Medical Secretary *re* Government inquiry into patent and proprietary medicines, and asked the members to give any information they could on the subject.

Vote of Thanks to Retiring Chairman.—Dr. Malet, seconded by Dr. Hartill, proposed a vote of thanks to the retiring Chairman (Dr. Somerset) for his conduct of meetings during his year of office. This was carried with acclamation. Dr. Somerset briefly replied.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH:

Hereford Division.

The annual meeting of this Division was held in Hereford on Saturday, May 18th, at 3 p.m. In the absence of the Chairman the Vice-Chairman took the chair.

Confirmation of Minutes.—The Chairman called on the Secretary to read the minutes of the meetings held on February 17th, March 16th, and April 16th, 1912. These were confirmed by the meeting.

Election of Officers.—The following officers were elected for the ensuing year: *Chairman*, Dr. Herbert Jones (Hereford); *Vice-Chairman*, Dr. Gerard Steel (Leominster); *Honorary Secretary and Treasurer*, Dr. Arthur Wood (Hereford); *Representatives on Branch Council*, Drs. Herbert Jones, Gerard Steel, Arthur Wood, A. R. Green, Scott Shepherd, and J. Steed; *Members of Executive Committee* (elected under Rule 9), Drs. Gold, Gornall, Morrison, Miller, McMichael, Darling, and Hamilton Williams; *Representative at Representative Meetings*, Dr. Arthur Wood (Hereford), for 1912–13.

Accounts.—The Secretary then read his report and presented the accounts for 1911. These were approved by the meeting.

Application to Council for Additional Grant.—On the proposition of Dr. C. S. Morrison, seconded by Dr. A. R. Green, it was resolved:

> That this Division make a representation to the Central Council that the Hereford Division be granted an additional 2s. 6d. per member on account of the greater activity of the Division in consequence of the organization of the Division in reference to the National Insurance Act.

Patent and Proprietary Medicines.—The meeting appointed a committee to collect evidence for the Government inquiry on patent medicines.

Name of Division.—The Division decided, after hearing the letter from the Medical Secretary, that it would not make application to the Central Council to have the name of the Division changed to the Herefordshire Division.

Vote of Thanks to Dr. Darling.—On the proposition of the Chairman it was unanimously resolved that a hearty vote of thanks be accorded to Dr. Darling for his services during the past year as Chairman of the Division.

YORKSHIRE BRANCH:

Halifax Division.

The annual meeting of the Division was held at the Mikado Cafe on Wednesday, May 15th, at 8.30 p.m. Dr. Macaulay was in the chair and twenty-eight other members were present.

Apologies for Non-attendance.—Apologies for non-attendance were received from Dr. West-Symes, J.P., and Dr. John Oakley, J.P.

Confirmation of Minutes.—The minutes of the previous meeting were read, confirmed, and signed.

Club Appointments.—The question of the resignations of the doctors holding club appointments arose out of the minutes. At the last meeting it was decided to ask these men to resign their appointments, and their resignations were actually in the hands of the Honorary Secretary of the Division when the circular letter, D 48, dated March 28th, was received from the State Sickness Insurance Committee. That letter was considered at an emergency meeting of the Executive Committee, with the result that the Honorary Secretary was ordered to withhold the resignations. A letter was read from Dr. Alfred Cox on the matter. On the proposition of Dr. Hunt, seconded by Dr. Gardiner Oakley, it was unanimously resolved to confirm the action of the Executive Committee.

Annual Report.—The annual report of the Division for the year 1911 was then read. Much important work was recorded, and the most gratifying feature was the increase in membership from fifty-four to eighty-eight at the end of the year. On the proposition of Dr. Macaulay, seconded by Dr. Marshall, the report was adopted.

Election of Officers.—On the proposition of Dr. Macaulay, seconded by Dr. McWilliams Henry, Dr. J. Crossley Wright was unanimously elected Chairman for the next year. The new Chairman briefly returned thanks for the honour conferred on him. On the proposition of Dr. Priestley Leech, seconded by Dr. Hughes, and supported by Dr. Macaulay and others, Dr. Arthur Drury was unanimously elected Vice-Chairman. It was generally felt that it was a long deferred honour, much overdue, through the knowledge that Dr. Drury was fully occupied with the affairs of the Association. On the proposition of Dr. Macaulay, seconded by Dr. Edward Ellis, Dr. Drury was reappointed Representative for the Representative Meeting and Representative on the Branch Council. Dr. J. F. Gill was elected Honorary Secretary and Treasurer, on the proposition of Dr. Macaulay, seconded by Dr. Priestley Leech.

Executive Committee.—The following were elected members of the Executive Committee: Drs. Arnison, Branson, Brown, R. N. Denning, J.P., Hodgson, Priestley Leech, Macaulay, Mann, Marsden, and Sproull.

Supplementary Pledge.—The purport and importance of this was explained by Dr. Hodgson, and the pledge was signed by all the members present. On behalf of the Honorary Medical Staff of the Royal Halifax Infirmary, it was stated that they were quite willing to sign if the staffs of hospitals in the neighbouring Divisions did the same. It was pointed out that there was hardly any doubt but that such hospital staffs would sign the undertaking, and as a matter of fact most of the local staff had already signed.

Matters Referred to Divisions.—Dr. Drury explained these, and was given instructions by the meeting. On considering the East Norfolk Division's motion regarding the expenses of Representatives, the opinion was unanimously in favour of a fixed sum per diem instead of out-of-pocket expenses.

Patent and Proprietary Medicines.—The letter from the Medical Secretary as to the Government inquiry into patent and proprietary medicines was read, and the members were asked to help the Association in collecting evidence.

Proposed Amalgamation of the Division and the Halifax and District Medical Society.—The object of this was explained by Dr. Aspinall Marsden, the President of the Society; but as the matter had been vetoed at the annual meeting of the society held on May 14th, mainly because the time was thought to be inopportune, the subject was not further discussed.

Letters from other Divisions.—A letter containing a resolution passed at a meeting of general practitioners of

South-East Essex was read, and on the proposition of Dr. DRURY, seconded by Dr. MARSHALL, it was ordered to lie on the table.

Payment for Examination of Candidates for Admission to Clubs or Approved Societies.—A resolution on the subject passed at the last meeting on March 27th was rescinded. It was pointed out that in one district of the Division all the medical men had agreed to accept no less fee than 2s. 6d. for such an examination, and that an agreement to that effect had been come to with the clubs and friendly societies in that district. On the proposition of Dr. PRIESTLEY LEECH, seconded by Dr. SKEELS, it was unanimously resolved:

> That, from this date, no member of the Halifax Division of the British Medical Association shall examine any candidate for admission to a club or approved society for a less fee than 2s. 6d.

Those members who were precluded, by their contracts, from putting the resolution into force at once were advised to give due notice to their club authorities of their intention to do so at the earliest possible date. The Honorary Secretary was ordered to send a copy of the resolution to every medical practitioner in the Division and to the secretaries of the clubs held by the local practitioners.

Halifax Health Week.—The action taken by the Executive Committee in a matter affecting the medical profession in connexion with the Halifax Health Week was endorsed.

Local Provisional Medical Committee.—The meeting recommended that in the case of any vacancy occurring on the Committee, from resignation, removal from the Division, or death, the Committee shall be required to elect a successor from the same district.

Votes of Thanks.—Votes of thanks were passed to Dr. Macaulay (retiring Chairman) and Dr. Hodgson (Honorary Secretary).

BOMBAY BRANCH.

AN ordinary meeting of this Branch was held in the University Library on Thursday, February 29th, Dr. SORAB K. NARIMAN in the chair. The following members were also present: Lieutenant-Colonel Ashton Street, I.M.S.; Drs. D. P. Sethna, Nunan, Y. Nadgir, B. Gonsalves, G. Andeen, R. Khambatta, Sorab Engineer, Fyzee, M. D. Gilder, F. Damkewalla, Habib Jan-Mahomed, J. Appoo, S. P. Mistri, Rajabali Patel, Major Novis, I.M.S., (Miss) Engineer, Ali Mahomed, M. B. Patel, L. G. Date, (Miss) A. M. Benson, Mirajkar (visitor), Shroff (visitor), and Lieutenant-Colonel Dalal, I.M.S. (ret.), and the Honorary Secretary, Dr. D. R. Bardi.

Confirmation of Minutes.—The minutes of the last meeting were read, confirmed, and signed by the Chairman.

New Members.—It was announced that the following were elected by the Branch Council—namely, Dr. G. De Sousa Filinto of Sirsi, Dr. Shridhar G. Sant of Poona, Dr. R. M. Parekh of Mangrol, Dr. P. B. Motiwalla of Bhavnagar, and Dr. B. D. Khote of Bombay.

Branch Council.—The following vacancies were filled in the Branch Council: Lieutenant-Colonel C. H. L. Meyer, I.M.S., vice Major S. C. Evans, I.M.S., and Assistant Surgeon Eunuch S. Barucha, vice Dr. H. J. Dadysett (deceased).

Scientific Memoirs.—Nos. 48 and 49 of the *Scientific Memoirs* by the Officers of the Medical and Sanitary Department of the Government of India were received.

Specimens and Cases.—Lieutenant-Colonel ASHTON STREET, I.M.S., showed specimens of two cases of omental cysts, and a patient operated on for hernia of the omentum. Major T. S. NOVIS, I.M.S., showed a patient whose left femoral aneurysm was successfully operated on by Matas's obliteration method; he also read notes of four cases of severe abdominal accidents. The HONORARY SECRETARY read notes of an unusual case of gonorrhoeal ophthalmia, with photographs, etc., from Dr. Kershaw Khambatta of Poona.

Vote of Thanks.—After some discussion on all these cases, a hearty vote of thanks was passed to Colonel Street, I.M.S., and Major Novis, I.M.S., as well as to Dr. Khambatta for their cases and communication, and the meeting was dissolved.

LANCASHIRE AND CHESHIRE BRANCH:

BLACKBURN DIVISION.

THE annual meeting of the Blackburn Division was held at the Old Bull Hotel, Blackburn, on Thursday, May 16th. Dr. RIGBY was in the chair, and there were present Drs. Heywood, Stahlnecht, Jas. Craig, Fenton, J. T. Ballantyne, Alcock, Brooks, Shearer, Aitken, Barr, Beaton, Macrae, Johnson, R. W. Townley, A. E. Townley, Buchanan, J. T. T. Ramsay, Scott-Heyliger, Stephenson, Leigh, Lees, Core, Owen, Shaw, Greeves, Ross, Orme, Prebble, Jeffrey Ramsay, Bowen, Loynd, Jamieson, Keighley, Butterfield, and Dr. Greenwood (Honorary Secretary).

Confirmation of Minutes.—The minutes of the last annual meeting (held on May 17th, 1911) were read and confirmed and signed by the Chairman.

Election of Officers.—The officers for the ensuing year were then elected as follows: *Chairman*, Dr. Alec Cran; *Vice-Chairman*, Dr. Prebble; *Honorary Secretary and Treasurer*, Dr. Shearer; *Assistant Honorary Secretary*, Dr. Greenwood; *Representatives on Branch Council*, Dr. Prebble, Dr. Greeves; *Representative at Representative Meetings*, Dr. James Craig; *Executive Committee*, Dr. Rigby, Dr. Beaton, Dr. Barr, Dr. J. T. Ballantyne.

Medical Provisional Committee.—It was moved, seconded, and resolved:

> That Drs. Shearer and Greenwood be added to the Medical Provisional Committee.

Central Council.—It was moved, seconded, and resolved:

> That this Division support Drs. Reyolds and O'Sullivan as members of the Central Council.

Vote of Thanks to Officers.—It was moved, seconded, and resolved:

> That the best thanks of the Division be accorded to the officers for their services during the past year.

MANCHESTER (CENTRAL) DIVISION.

THE annual meeting of this Division was held at the Onward Buildings, Deansgate, on May 16th, at 4.15 p.m. Dr. MURRAY was in the chair, and there were present Drs. Bentley Mann, Chisholm, Cryer, Dyson, Fothergill, Helme, Henshaw, Loveday, Shaw, Tylecote, and Messrs. Douglas, Hey, Ollerenshaw, Rayner, and Wrigley.

Annual Statement.—The annual statement was received and adopted.

Election of Officers.—The officers were elected as follows: *Chairman*, Dr. Judson S. Bury; *Vice-Chairman*, Dr. G. R. Murray; *Honorary Secretary and Treasurer*, Dr. F. E. Tylecote; *Representatives on Branch Council*, Drs. Helme and Walls; *Other Members of Executive*, Dr. W. F. Shaw, Dr. J. Ferguson, Dr. Annacker, Mr. Douglas, Mr. Ollerenshaw. *Representative to Representative Meeting*, Dr. Booth; *Deputy Representative*, Dr. Helme. *Representatives on Branch Council*, Drs. Booth, Helme, Melland, Rayner, and Tylecote.

Provisional Local Medical Committee.—At the termination of the annual meeting, a meeting was held to which all local members of the profession had been invited for the election of the Provisional Local Medical Committee, in accordance with the suggestions of the State Sickness Insurance Committee. Those present were the same as attended the annual meeting, Dr. MURRAY was in the chair. It was resolved unanimously:

> That the Provisional Local Medical Committee include the whole of the officers and executive of the Division, with the addition of Miss Chisholm, Dr. Cryer, Mr. Hey, and five other members to be elected by the committee from among the non-members of the Association resident in the Division. Dr. Judson S. Bury to be chairman, Dr. Murray vice-chairman, and Mr. Rayner to be honorary secretary.

SOUTH-EASTERN BRANCH:

BRIGHTON DIVISION.

THE sixth ordinary meeting was held at the New Road Lecture Hall on May 21st, Dr. RYLE in the chair. Forty-four members and one visitor were present.

School Medical Officer to Brighton Education Committee.—The Schools Committee reported on the question of the appointment of a school medical officer to the Brighton Education Committee, whose duties include both inspection and treatment of school children. This appointment has been placed upon the "Warning Notices" list in the BRITISH MEDICAL JOURNAL, but in spite of this Dr. C. W. Hutt, assistant school medical officer

to Warrington, has been appointed to the post. Correspondence on the matter was read, and a lively discussion took place. Dr. Cox, Medical Secretary to the Association, gave an outline of the policy of the Association on this matter, and urged the meeting to pass the resolution on the agenda. Dr. Cox explained to the meeting the full consequences which might arise if the motion were carried by a three-fourths majority. The following resolution was carried by a majority of 32 votes to 8 as follows, fourteen days' notice of the motion having been given:

> In accordance with Rule A (page 8 of Division Rules), the Brighton Division having considered the terms of the appointment of senior school doctor offered by the Brighton Education Committee, is of opinion that such terms are contrary to the principles of the British Medical Association as laid down in Minute 97 of the Annual Representative Meeting, July 1, 1911, and for this reason the appointment should not be accepted by any medical practitioner on the terms at present offered.

Resolutions approving the appointment of a deputation to wait upon the President of the Board of Education, and referring the correspondence with the successful candidate and with Dr. Forbes to the Division Ethical Committee, were carried.

Provisional Medical Committee.—The report of the Provisional Medical Committee showed that a successful series of propaganda meetings have been held in all parts of the Division, that the circular asking for information as to contract appointments has been signed by all but twenty-four of the practitioners residing in the Division (340 in number). The pledges and provisional resignations are also being signed with alacrity, but the returns are not yet complete.

Annual Meeting, 1913.—The meeting passed a resolution confirming its resolutions of July 14th, 1911, in which a cordial invitation was extended to the British Medical Association to hold its annual meeting in Brighton in 1913, and nominating Dr. W. Ainslie Hollis as President-elect.

Vote of Thanks to Dr. Cox.—The meeting concluded with a hearty vote of thanks to Dr. Cox.

SOUTH-WESTERN BRANCH:

TORQUAY DIVISION.

THE annual meeting of this Division was held at the Newton Abbot Hospital on May 16th. There were present Drs. Palmer, Eales, Collyer, Tivy, Goodwyn, Wiggin, Morris, Culross, Wightwick, Gough, Fenton, Paul, Sealy, Hatfield, Haydon, Fitzpatrick, King, and Vickers.

Confirmation of Minutes.—The minutes of the annual meeting of 1911 were then read and signed by the CHAIRMAN.

Honorary Secretary's Report.—The HONORARY SECRETARY then read his report of the Division for the year ending May, 1912. He informed the meeting that there had been an increase of 14 in the membership of the Division, making a total of 92 members out of 107 men in active practice. The non-members had been asked to join the Association.

Election of Officers.—The following gentlemen were then elected: *Chairman*, Dr. H. Goodwyn; *Vice-Chairman*, Dr. Eales; *Honorary Secretary*, Dr. King; *Representative*, Dr. Vickers; *Representatives on Branch Council*, Drs. King, Paul, Haydon; *Executive Committee*, Drs. Culross, Gibson, Harris, Philpotts, Paul, Sankey, and Tivy; *Provisional Local Medical Committee:* To remain as elected and to consist of twenty members.

The Supplementary Pledge.—The members of the Local Medical Committee which had been deputed to canvass the profession in their immediate area and to obtain signatures to pledges and resignations gave their reports. Dr. EALES (for Torquay) reported that only five out of the profession in Torquay had refused to sign the pledges; of these all may be considered as perfectly sound on the question. All the men holding club appointments had signed their resignation forms. Dr. GOODWYN reported that all pledges and resignation forms sent out had been returned signed. Dr. CULROSS, of Newton Abbot, reported a unanimous result to his canvass. Dr. KING, for Paignton, Dartmouth, and Totnes, reported an equally satisfactory result. Questions arising out of the resignation forms and pledges were discussed, and eventually it was decided to refer them to the second meeting of the Provisional Local Medical Committee.

Association Notices.

NOMINATIONS FOR CENTRAL COUNCIL, 1912-13.

ENGLAND AND WALES.

North of England, and North Lancashire and South Westmorland Branches:
David Fee Todd, M.D., Beech House, Sunderland.

Yorkshire Branch:
James Metcalfe, M.D., Lynthorne Hey, Frizinghall, Bradford.

Lancashire and Cheshire Branch:
John Brown, M.D., Burwood House, Bacup.
Francis James Strong Heaney, M.D., 23, Russell Street, Liverpool.
Thomas Arthur Helme, M.D., 8, St. Peter's Square, Manchester.
Stanley Hodgson, M.R.C.S., The Crescent, Salford.
Frederic Charles Larkin, F.R.C.S., 54, Rodney Street, Liverpool.
Jerome Eugene O'Sullivan, L.R.C.P.Ed., 37, Shaw Street, Liverpool.
Ernest Septimus Reynolds, M.D., Platt Cottage, Rusholme, Manchester.
James Hy. Taylor, M.B., 299, Eccles New Road, Salford.

East York, North Lincoln, and Midland Branches:
Frank Montague Pope, M.D., 4, Prebend Street, Leicester.

Cambridge and Huntingdon, East Anglian, and South Midland Branches:
John George Durran, M.B., Leighton Buzzard.
Benjamin Hugh Nicholson, M.B., East Lodge, Colchester.

Birmingham and Staffordshire Branches:
Albert Lucas, F.R.C.S., 9, Easy Row, Birmingham.

North Wales, Shropshire and Mid-Wales, and South Wales and Monmouthshire Branches:
Hugh Jones Roberts, M.D., Llywenarth, Penygroes.
David James Williams, F.R.C.S., Greenfield House, Llanelly.

Metropolitan Counties Branch:
Thomas Launcelot Archer, M.R.C.S., 83, Vincent Square, S.W.
Moses George Biggs, M.D., 101, Northcote Road, Battersea, S.W.
Charles Buttar, M.D., 10, Kensington Gardens Square, W.
John Reginald Fuller, M.D., "Heimath," Crouch End, N.
Major Greenwood, M.D., 243, Hackney Road, N.E.
Ernest Ward Lowry, M.R.C.S., 53, Kew Bridge Road, Brentford.
Basil Gordon Morison, M.D., 115, Green Lanes, N.
Frederick John Smith, M.D., 138, Harley Street, W.
Alfred Henry Williams, M.D., The Moat, Harrow.

Bath and Bristol, Gloucestershire, West Somerset, and Worcestershire and Herefordshire Branches:
Herbert Jones, L.R.C.S.I., Southbank Road, Hereford.
George Parker, M.D., 14, Pembroke Road, Bristol.

Dorset and West Hants and South-Western Branches:
Edward James Domville, M.R.C.S., Northernhay House, Exeter.
Charles Henry Watts Parkinson, M.R.C.S., Wimborne Minster, Dorset.

Oxford and Reading and Southern Branches:
Bonner Harris Mumby, M.D., Boro' Asylum, Portsmouth.
Walter John Turrell, M.D., Cherwell Lodge, Oxford.

South-Eastern Branch:
John Henry Ewart, M.R.C.S., Eastney, Devonshire Place, Eastbourne.
Ernest Rowland Fothergill, M.B., 38, Dyke Road, Brighton.
William Joseph Tyson, M.D., 10, Langhorne Gardens, Folkestone.

SCOTLAND.

Aberdeen, Northern Counties of Scotland, Dundee, and Perth Branches:
John Gordon, M.D., 1, Rubislaw Terrace, Aberdeen.

Edinburgh and Fife Branches:
John Rogerson Hamilton, M.D., Elm House, Hawick, N.B.

Glasgow and West of Scotland Branch [illegible] City Divisions:
John Adams, M.B., 1, Queen's Crescent, Glasgow.
Ebenezer Duncan, M.D., Queen's Park House, Langside.
Wm. Limont Muir, L.R.C.P.Edin., 1, Seton Terrace, Dennistoun, Glasgow.

Glasgow and West of Scotland (Four County [illegible], Border Counties, and Stirling Branches:
Robert Durward Clarkson, M.D., The Park, Larbert.
James Livingstone Loudon, M.D., Linnwood, Hamilton, N.B.

IRELAND.

Connaught and South-Eastern of Ireland Branches:
No nominations.

Leinster Branch:
No nomination.

Munster Branch:
Professor Henry Corby, M.D., 19, St. Patrick's Place, Cork.

Ulster Branch:
No nomination.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH: BRISTOL DIVISION.—The annual meeting of this Division will be held at 4.30 p.m. on Wednesday, May 29th, in the Small Hall of the University of Bristol, Dr. H. J. Devis in the chair. Business: Annual Business. Instruction of Representative.—NEWMAN NEILD, Honorary Secretary, 9, Richmond Hill, Clifton.

BORDER COUNTIES BRANCH: ENGLISH DIVISION.—The annual meeting of this Division will be held in the County Hotel, Carlisle, on Thursday, May 30th, at 4.30 p.m. Further particulars in circular.—JAS. R. S. ANDERSON, Honorary Secretary, Garlands, Carlisle.

DUNDEE BRANCH: DUNDEE DIVISION.—The annual meeting of this Division will be held on Friday, June 7th.—MARTIN SMITH, Honorary Secretary.

DUNDEE BRANCH: FORFARSHIRE DIVISION.—The annual meeting of this Division will be held on Tuesday, June 11th.—MARTIN SMITH, Honorary Secretary.

EAST ANGLIAN BRANCH.—The annual meeting of this Branch will be held at Brentwood on Wednesday, June 19th. Members wishing to read papers or to show cases or specimens should communicate at once with the Secretary for Essex, Dr. B. H. NICHOLSON, East Lodge, Colchester.

EAST YORKSHIRE AND NORTH LINCOLNSHIRE BRANCH.—The annual meeting of this Branch will be held at Grimsby on Thursday, June 13th. Business: Annual Report and balance sheet. Election of officers. Presidential address.—EDWARD TURNER, Honorary Secretary.

EDINBURGH BRANCH.—The annual meeting of this Branch will be held in the Hall of the Royal College of Physicians, 9, Queen Street, Edinburgh, on Thursday, June 27th, at 4 p.m. Business: (1) Minutes of last meeting. (2) Apologies for absence. (3) Annual Report and Financial Statement. (4) Treasurer's Report *re* Guarantee Fund. (5) Election of Office-Bearers for 1912-13. (6) Discussion on the Aftermath of the Insurance Act, initiated by Dr. Martins, Haddington. (7) Any other competent business.—MICHAEL DEWAR and E. SCOTT CARMICHAEL, Honorary Secretaries.

FIFE BRANCH.—The annual meeting of this Branch will be held within the Station Hotel, Kirkcaldy, on June 12th, at 3 p.m.—R. BALFOUR GRAHAM, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH.—The annual meeting of the Branch will be held on Friday, June 28th, at 4.30 p.m., in the Council Chamber of the Head Office of the Association, 429, Strand, W.C.—E. W. GOODALL and W. GRIFFITH, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—The annual general meeting of this Division will be held at the Town Hall, Mare Street, Hackney, on Thursday, May 30th, at 4 p.m.—A. G. SOUTHCOMBE, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: LAMBETH DIVISION.—The annual meeting will be held at Bethlem Hospital on Thursday, June 6th, at 4 p.m. Agenda: (1) Minutes of the last meeting. (2) Election of Executive Officers for the ensuing year. The following names have been nominated by the Executive Committee: Chairman, Dr. R. Esler; Representatives upon the Branch Council, J. Mackeith, Esq., M.B., H. Taylor, Esq., M.B.; Representatives at Representative Meetings, Dr. J. G. Porter Phillips, T. H. Parkes Peers, Esq.; Executive Committee, Dr. W. A. Atkinson, R. Capes, Esq., Dr. Couper Cripps, W. Cooper Keates, Esq., A. J. McNickle, Esq., H. Shapter Robinson, Esq.; *Ex officio* Members, W. Partridge, Esq. (Camberwell), F. Michael, Esq., M.B. (Camberwell), A. Matcham, Esq. (Southwark), J. Mackeith, Esq., M.B. (Southwark), A. M. Hickley, Esq. (Lambeth), Dr. Hamand Fraser (Lambeth), V. A. Jaynes, Esq. (Bermondsey), Dr. B. A. Richmond (Bermondsey); Honorary Secretary and Treasurer, Dr. J. H. Clatworthy. Further nominations will be received by the Honorary Secretary before or at the meeting, and the election will be conducted by show of hands or by ballot as the meeting decides. (3) To receive the Annual Report of the Honorary Secretary. (4) To read a letter from the Medical Secretary *re* Government Inquiry into Patent and Proprietary Medicines, with a view to obtaining evidence as to harm done by these medicines. (5) To instruct the Representatives how to vote at the Annual Meeting at Liverpool. The Annual Report of Council will be found printed in the BRITISH MEDICAL JOURNAL SUPPLEMENT of May 11th. There are included in this report many important memoranda now presented for the first time; a list of those special items is given at the foot of the front page of the Supplement. In the SUPPLEMENT of May 18th will be found printed the "Provincial Agenda for the Annual Representative Meeting." (6) Dr. J. G. Porter Phillips will give a demonstration of cases in the wards of the hospital.—J. H. CLATWORTHY, Honorary Secretary, 145, Denmark Hill, S.E.

METROPOLITAN COUNTIES BRANCH: NORWOOD DIVISION.—The annual meeting and dinner of this Division will be held at the Queen's Hotel, Upper Norwood, on Thursday, May 30th, at 5 p.m.—J. A. HOWARD, Honorary Secretary, Upper Norwood.

METROPOLITAN COUNTIES BRANCH: ST. PANCRAS AND ISLINGTON DIVISION.—The annual meeting of this Division will be held at 9 p.m. on Friday, May 24th, at the Midland Grand Hotel, N.W.—A. BROWN, M.B., Honorary Secretary, 1, Bartholomew Road, N.W.

MIDLAND BRANCH: BOSTON AND SPALDING DIVISION.—The annual meeting of this Division will be held at the White Hart Hotel, Boston, on Friday, May 31st, at 5.30 p.m. Agenda: (1) Minutes. (2) (*a*) Election of Officers; (*b*) Annual Report. (3) Report from the Provisional Medical Committee. (4) Instructions to Representative on matters referred to Divisions (SUPPLEMENTS, May 11th and 18th, 1912). (5) Any other business. Dinner will be served at seven o'clock, tickets 5s. each (exclusive of wine). Morning dress. Those intending to be present at the dinner are requested to send an intimation to that effect by May 28th.—A. E. WILSON, Honorary Secretary.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH: FURNESS DIVISION.—The annual meeting of the Division will be held on Friday, May 31st, at 3.15 p.m., in the Masonic Hall, Barrow. Business: Annual Report. Election of office-bearers. Insurance Act to date. Any other business.—JOHN LIVINGSTON, Honorary Secretary.

NORTH WALES BRANCH: SOUTH CARNARVON AND MERIONETH DIVISION.—The annual meeting of this Division will be held at Dolgelley on Thursday, May 30th, at 1.30 p.m.—HY. GLADSTONE JONES, Plas Gwilym, Criccieth.

OXFORD AND READING BRANCH: MAIDENHEAD DIVISION.—The annual meeting of this Division will be held at Skindle's Hotel, Maidenhead, on Thursday, May 30th, at 5 p.m. Business: (1) Election of a Representative for the Division. (2) Any other Divisional business. (3) Chairman's Address: Various Aspects of Coli-uria. A meeting of the newly-formed Provisional Medical Committee will be held after the meeting. The Chairman, Dr. G. E. Moore, invites the members to dine with him after the meeting.—D. G. MACLEOD MUNRO, M.D., Honorary Secretary, Maidenhead.

South-Eastern Branch.—The sixty-eighth annual meeting of this Branch will be held on Wednesday, June 19th, at 2.15 p.m., at the Town Hall, Market Square, Bromley. The Council will meet before luncheon at the Town Hall; notice of the time and agenda for this meeting will be sent to members of the Council in due course. Dr. John Scott (President-elect) kindly invites members to luncheon at the Royal Bell Hotel, from 1 to 2 p.m. Agenda (in addition to the business of an ordinary meeting): (1) To receive the report of the Election of Officers for 1912-13, who shall thereupon take office. (2) To receive the annual report of the Council on the affairs of the Branch, and the annual financial statement. (3) To receive the Revised Rules presented by the Council for adoption by the Branch. (A copy of these rules has been sent to members of the Branch; it should be brought to the meeting and preserved for future reference.) (4) To consider the adoption of the Bradford Rules and of Rule Z recommended by the Council as an addition to the Branch Ethical Rules. (5) Any other business decided on by the Council or any other competent business. Rule 10 (*b*) referring to the annual meeting is as follows: "To consider any matter relative to the honour and interests of the medical profession which may be brought before the meeting by the Branch Council or by a Division. No business shall be discussed under this head without notice thereof having been given to the Secretary, at least fourteen days before the meeting, with the terms of any resolution which is intended to be proposed." Tea will be provided during the meeting. No excursion is arranged; the Council considered that urgent business was likely to arise, and that this meeting should be purely for business. The Bromley and County Club courteously offers to make all members of the Branch attending the meeting honorary members for June 19th. There will be an exhibition of instruments, drugs, and electrical appliances at the Royal Bell Hotel, from 12 noon to 6 p.m. The annual dinner will be held at the Royal Bell Hotel at 6.30 p.m.; charge 6s. each. Wine will be provided by the local members. Members intending to be present at the luncheon or dinner are requested to signify their intention to Dr. A. Tennyson Smith, Shanklin, Orpington, Kent, not later than Saturday, June 15th; members wishing hospitality for the night should also communicate with Dr. A. Tennyson Smith.—E. A. Starling, Honorary Secretary.

South-Eastern Branch: Croydon Division.—The annual meeting of this Division will be held at the Croydon General Hospital on Tuesday, May 28th, at 4 p.m. Tea by kind invitation of Dr. Addey. Chairman, Dr. W. Gripper. Agenda: (1) Minutes. (2) Report of Representative at the last Representative Meeting. To receive and adopt the Report of the Committee for the year 1911-12. (4) Election of Officers. (5) Communication from Medical Secretary *re* Pledge. (6) To consider Report of Council (British Medical Journal Supplement, May 11th). (7) To consider Provisional Agenda for the Annual Representative Meeting (British Medical Journal Supplement, May 18th). Members are requested to bring these Supplements with them. (8) To consider the proposals for a Public Medical Service. (9) Other business.—E. H. Willock and C. G. C. Scudamore, Honorary Secretaries, Croydon.

Southern Branch: Salisbury Division.—The annual meeting of this Division will be held at the Infirmary, Salisbury, on Wednesday, May 29th, at 8.15 p.m. Members who wish to read papers or to introduce any business before the Division are requested to communicate with the Acting Secretary as soon as possible.—J. E. Gordon, Honorary Secretary, Salisbury.

South Midland Branch.—This Branch will hold its annual meeting at Aylesbury on June 6th, under the presidency of Dr. J. C. Baker, at the Board Room, Royal Bucks Hospital, at 2.30. Agenda: (1) Minutes. (2) Letters, etc. (3) New members elected by Branch Council. (4) President's address. (5) Mr. James Berry, F.R.C.S.: Address on Tumours of Bone, with Special Reference to Diagnosis (illustrated by museum specimens and skiagrams). Before the meeting a short meeting of Branch Council will be held. Agenda: (1) Minutes. (2) Letters. (3) Election of new member. (4) Place and time of autumnal meeting. The President invites all members to luncheon at the George Hotel at 1.15 p.m.; any member intending to accept this invitation is requested to let the President know not later than Monday, June 3rd.—E. Harries-Jones, Honorary Secretary.

South Midland Branch: Northamptonshire Division.—The annual meeting of this Division will be held in the Board-room of the Northampton General Hospital at 2.30 p.m. on Thursday, May 30th. The meeting will be preceded by a luncheon at Franklin's Restaurant, Guildhall Road, Northampton, at 1.30; all members wishing to attend the luncheon should kindly inform the Honorary Secretary at least two days beforehand. Business: Minutes of preceding meeting. Annual report of Division. Election of officers. Consideration of Provisional Agenda for the Annual Representative Meeting (members should bring the Supplements of May 11th and 18th with them). Report from the Provisional Medical Advisory Committee. If time permits some clinical cases will be shown. —Peverell S. Hichens, Honorary Secretary.

South Wales and Monmouthshire Branch: Monmouthshire Division.—The annual meeting of this Division will be held in the Savoy Hotel, Newport, on Friday, May 31st, at 3.30 p.m.—R. J. Coulter, Honorary Secretary.

British Medical Association.

STANDING SHIP SURGEONS SUBCOMMITTEE.

As the ordinary way of dealing with the work of the Association—namely, through Division meetings—is not open to the sea-going members of the Association, the Council has decided to publish reports of the proceedings of the Standing Ship Surgeons Subcommittee after each meeting of that subcommittee. As reported in the Annual Report of Council last year, the work of the subcommittee will consist of the consideration of all questions specially affecting ship surgeons brought to its notice, the organization of ship surgeons, with a view to securing satisfactory conditions of service where these are unsatisfactory, and, generally, the defence of their interests where these are threatened. The subcommittee will be appointed annually, and be composed partly of members of the Medico-Political Committee and partly of members of the Association having special experience of the problems to be considered. Ship surgeons or other members of the profession desiring to bring matters affecting its work before the subcommittee are requested to communicate with the Medical Secretary of the Association.

The following is a report of the proceedings of a meeting of the Ship Surgeons Subcommittee, held at 429, Strand, London, W.C., on March 26th, 1912:

Indication in Medical Directory of Office of Correspondent to the Ship Surgeons Subcommittee.

In connexion with the arrangement, already reported, for the appointment of suitable practitioners at the principal passenger ports of the United Kingdom, to act as correspondents of the subcommittee, it was decided that the practitioners so appointed be asked to indicate in the *Medical Directory* their connexion with the work of the subcommittee. It is hoped to have a correspondent at each of the principal passenger ports, who shall act as a medium of communication between the subcommittee and ship surgeons visiting the port.

Minimum Salary for Ship Surgeons.

The subcommittee considered a communication from a ship surgeon on the question of a minimum salary being fixed for appointments of ship surgeons, below which regular appointments should not be accepted. Information was also before the subcommittee as to the smallness of the amounts exceptionally offered for such appointments by certain companies, and the subcommittee had also before it a communication received by the Editor of the British Medical Journal from the medical superintendent of one of the leading steamship companies concerning the status and prospects of ship surgeons. A minimum salary for ship surgeons, engaged regularly as such, was recommended to the Council, but that body has referred the matter back for further consideration.

Title of Ship Surgeons.

The subcommittee considered the question raised by a ship surgeon of the desirability of the general adoption of the title "Medical Officer of the Ship," used in the Merchant Shipping Act, instead of the title "ship surgeon," and decided to take no action in the matter.

Ship's Bill of Health.

The port medical officer is supposed to receive the ship's bill of health and other papers from the ship surgeon, but in the case of at least one shipping company to which the attention of the subcommittee has been drawn this duty is performed by the ship's purser. It was decided to draw the attention of the shipping company in question to the fact that difficulties might arise if professional papers of such a kind were handled by laymen.

Illness of Passengers.

The question of the right of ships' captains to inquire as to the nature of the illness of passengers attended on board ship by the surgeon, and its bearing upon the duty of professional secrecy, were discussed, and afterwards postponed pending further information.

Appointments of Ship Surgeons and Warning Notices in the "British Medical Journal."

The subcommittee came to the conclusion that it might be necessary in the early future to use Warning Notices in the JOURNAL in respect of appointments of ship surgeons proposed to be made on unsatisfactory terms. A recommendation was accordingly made that the Council should amend the regulations with regard to Warning Notices so as to provide that notices as to appointments of ship surgeons could be published on the initiative of the subcommittee. This recommendation was adopted by the Council on May 1st.

Inferior Conditions of Employment by Certain Companies.

A communication from a ship surgeon drawing attention to the very inferior pay and accommodation of ship surgeons under certain companies, and to the lack of hospital accommodation on the ships of these companies, was referred for primary investigation to a member of the subcommittee resident in a large seaport town.

Right of Ship Surgeons to Fees in Certain Cases.

The subcommittee had before it a scale of fees authorized to be made by a certain shipping company in the case of first-class and second-class passengers, free treatment being given in infectious diseases and in illness or accidents due to the ship—that is, where the surgeon might be said to be acting in the interests of the owners rather than of the patient. It was decided that a communication should be addressed to all shipping companies who have not adopted the scale of fees in question, drawing their attention to the obvious advantages of such a scale as tending to make the service more attractive to practitioners of standing and experience.

Question of Shore Pay for Ship Surgeons.

It was decided to make inquiries as to the custom of different companies as regards the payment of shore pay to their surgeons.

Conveyance of Insane Persons by Sea.

The following resolution of the Council, passed on the initiative of the Burma Branch of the Association, was considered:

> That such modification of the Merchant Shipping Act, 1894, is eminently desirable as will enable insane persons to be sent under proper care to their homes by passenger or other ships, in which suitable accommodation can be provided, at such times as may be considered necessary by a properly constituted medical authority; and that the Medico-Political Committee be instructed to make suitable representations to the Board of Trade with a view to effect being given to this resolution;

and the Medico-Political Committee was recommended to address a communication to the Colonial Office drawing attention to the difficulty experienced in connexion with the conveyance of insane persons by sea, asking whether the matter had been considered by the Colonial Office, and whether it was intended to take any action.

Hospital Accommodation on Board Ship.

The subcommittee received a communication from the Merchant Service Guild expressing the hope that the influence of the Association would be exerted in respect of the necessity of all merchant ships being provided with suitable hospital accommodation for sick members of the crew. Consideration of the matter was postponed pending further inquiry.

SOUTH AFRICAN COMMITTEE.

A MEETING of this Committee of the British Medical Association was held at Johannesburg on April 12th. There were present Sir Kendal Franks (Transvaal Branch), Drs. M. Hewat. Turner, Moffat, and Simpson Wells (Western Province Branch, C.G.H.), Dr. Dru Drury (Eastern Province Branch, C.G.H.), Drs. J. Hyslop, D.S.O., and Watt (Natal Branch).

Election of Substitute for Member elected President.—The motion passed at last meeting regarding the election of a substitute for a member of committee if he should be elected President of his Branch, was confirmed.

Organization Committee and South African Committee.—The comments of the Organization Committee of the Association on the resolution of the South African Committee re the regulations were, with a trifling suggested alteration favourable to the same. The suggested alteration was adopted and the regulations as amended were passed as the regulations of the committee.

Canvassing Circular.—The Secretary was instructed to draw up a circular to be sent to all practitioners in South Africa who were not members of the Association, pointing out the desirability of their joining; and a second circular to the members, urging them to induce non-members to join.

Communication from Delegates of Branches.—A communication was received from the meeting of delegates from all the British Medical Association Branches and the societies in South Africa held at the congress called to consider the question of the desirability of the British Medical Association taking some control of future congresses. It was agreed at that meeting that congresses should be under the auspices of the Association in South Africa, and that this committee draft a scheme thereof. Pending the approval of the second business meeting of congress then in session, it was resolved that the Natal members of the South African Committee be asked to draft the scheme of control and circulate same among the members of committee, in anticipation of the draft being discussed at the next meeting.

Proposed Official Organ of Association in Africa.—Further consideration of the question of having an official organ of the Association in South Africa was deferred to a future meeting.

Benevolent and Defence Funds.—In anticipation of the establishment of Benevolent and Defence Funds in South Africa, the Secretary was instructed to obtain copies of the regulations of such funds in England.

SCHOLARSHIPS AND GRANTS IN AID OF SCIENTIFIC RESEARCH.

SCHOLARSHIPS.

THE Council of the British Medical Association is prepared to receive applications for Research Scholarships, as follows:

1. AN ERNEST HART MEMORIAL SCHOLARSHIP, of the value of £200 per annum, for the study of some subject in the department of State Medicine.
2. THREE RESEARCH SCHOLARSHIPS, each of the value of £150 per annum, for research into some subject relating to the Causation, Prevention, or Treatment of Disease.

Each Scholarship is tenable for one year, commencing on October 1st, 1912. A Scholar may be reappointed for not more than two additional terms.

The conditions of the award of Scholarships are stated in the Regulations, a copy of which will be supplied on application to the Medical Secretary of the Association, 429, Strand, London, W.C.

GRANTS.

The Council of the British Medical Association is also prepared to receive applications for Grants for the assistance of Research into the Causation, Treatment, or Prevention of Disease. Preference will be given, other things being equal, to members of the medical profession and to applicants who propose as subjects of investigation problems directly related to practical medicine.

The conditions of the award of Grants are stated in the Regulations, a copy of which will be supplied on application to the Medical Secretary of the Association, 429, Strand, London, W.C.

Applications.

Applications for Scholarships and Grants for the year 1912–13 must be made not later than Tuesday, June 11th, 1912, in the prescribed form, a copy of which will be supplied by the Acting Medical Secretary on application.

Each application should be accompanied by testimonials, including a recommendation from the head of the laboratory, if any, in which the applicant proposes to work, setting out the fitness of the candidate to conduct such work, and the probable value of the work to be undertaken. This is not intended, however, to prevent applications for Grants in aid of work which need not be performed in a recognized laboratory.

ALFRED COX, *Medical Secretary.*

429, Strand, London, W.C.

National Insurance.

MEETING OF THE JOINT ADVISORY COMMITTEE.

A meeting of the Joint Advisory Committee attended by representatives on the Committee of the medical profession, friendly societies, employers, and others, was held in the theatre of the Civil Service Commission, Burlington Gardens, on Friday, May 17th, at 11 a.m. Reporters were not admitted, and the unofficial report issued by the Press Association does not, we have reason to believe, give a correct impression of the trend of the discussions which took place. The chair was taken by Sir Robert Morant, who was accompanied to the platform by other Commissioners. The Chairman, in indicating the procedure for the future, suggested that it would be best to divide the Committee into sections; when one section had considered a question it would be sent to another section for consideration, after which the result of the deliberations of the various sections would be considered by the whole Committee.

A brief agenda paper had been issued on the previous day, but had not been received by some members before leaving home. The subjects set down for consideration were: (1) The arrangements which should be made for the future discussion of the subject of medical benefit; (2) methods of remuneration; (3) formation of lists of doctors (panels). Draft regulations with regard to medical benefit were not submitted. Certain documents were circulated with the agenda paper, including a synopsis of methods to be considered in connexion with the framing of regulations as to medical benefit and other medical questions, a memorandum on the method of remuneration employed under the German sickness insurance system, a memorandum on points arising in connexion with the formation of lists of doctors, and a copy of the scheme of medical attendance agreed upon at Dunfermline for 1912 (see British Medical Journal, April 27th, p. 980).

All the morning sitting and part of the afternoon session was taken up with the discussion by the whole Committee of various methods of medical remuneration. The Chairman stated that consideration of the amount of remuneration would be deemed premature. The discussion, in which representatives of the insured took the major part, turned on the relative advantages of various systems. Arguments were advanced in favour of payment by attendance, payment by capitation, a mixture of both these methods, payment by poundage as is now practised in some of the colliery districts, and the employment of whole-time officers. Each of these systems had its adherents, but the bulk of those who spoke were in favour either of payment by attendance or by capitation. The majority of the speakers were representatives of the friendly societies, who based their preference for the capitation system mainly on the grounds that a uniform system was desirable and that the capitation system would be a relief from the large amount of bookkeeping the system of payment by attendance would involve. Employers of labour who already had experience of whole-time medical officers seemed to be generally in favour of the continuance of this system, partly, at least, on the ground that payment by attendance would involve a great deal of bookkeeping. The principle that under any general system certain medical services must be reckoned extras, to which an additional fee would attach, appeared to be recognized by the representatives both of the friendly societies and the trade unions. So far as the representatives of the medical profession were concerned, they confined themselves, we understand, for the most part to insisting that the question of the method of payment should be left to the decision of the profession in the local areas. Towards the end of the meeting the question of the method of formation of lists of doctors (panels) engaged the attention of the Committee. The memorandum prepared by the Commissioners was considered paragraph by paragraph and some suggestions made as to matters of detail.

It will thus be seen that, though the Committee sat until 5 p.m., very little real business was done, the discussion being of a general academic character, and it seemed to be generally recognized that not much progress could be made in the discussion of details at full sittings of the whole Committee. It was arranged that the Commissioners should meet the medical section of the Committee on May 31st for the discussion of the two important questions of the method of remuneration and of the mode of formation of panels of medical men; the result of these deliberations will be sent on to other sections of the Committee for their consideration. After that the views of all the various sections of the Committee on these subjects are to be submitted to a meeting of the full Joint Advisory Committee. Such a meeting, it would seem, cannot be held before the middle of next month.

MATERNITY BENEFIT.

Joint Discussion by the Edinburgh and Glasgow Obstetrical Societies.

A conjoint meeting of the Edinburgh Obstetrical Society and the Glasgow Obstetrical and Gynaecological Society was held on Wednesday, May 15th, to consider the probable effects of the maternity benefit provisions of the National Insurance Act upon obstetrical teaching and practice in Scotland. Dr. Haig Ferguson, President, Edinburgh Obstetrical Society, occupied the chair. Representatives from Aberdeen and Dundee and from the General Medical Council were present.

The Chairman, in his opening statement, quoted from the Act the pertinent paragraphs regarding the payment of 30s. to cover medical benefits during confinement (8, 1 (*c*)); the expectant mother's right to decide whether she should be attended by a duly qualified medical practitioner or a duly certified midwife, and her free choice in the selection of such practitioner or midwife (18, 1); the loss of maternity benefit in the event of her becoming an inmate of a hospital, to which, however, the maternity benefit might be paid (12, 2 (*c*) ii).

With regard to the number of women who would be entitled to maternity benefit, the lower income limit was not clearly defined. There was an impression that from many women of the lower class plenty of teaching opportunities would still be available. A letter received from the Scottish Commissioners, in reply to a request for information, seemed to show that this was not the case, but that the hospitals would be dependent for patients on the vagrant class and a certain proportion of unmarried women. The terms of the letter were as follows:

National Health Insurance Commission (Scotland),
42, Frederick Street, Edinburgh,
30th April, 1912.

Sir,

I am directed by the Scottish Insurance Commissioners to inform you with reference to your letter of the 25th instant, that, generally speaking, all persons engaged in manual labour whatever their earnings, and all engaged in non-manual labour whose remuneration does not exceed £160 a year, will be compulsorily insured, while it is anticipated that a large number of persons will insure voluntarily under the Act. Maternity benefit consists of a payment of 30s. (in cash or otherwise at the discretion of the authority administering it) and all insured persons will, subject to the provisions of the Act, be entitled to it, as follows:

(1) Every insured man will be entitled to maternity benefits in respect of each confinement of his wife;

(2) Where the widow of an insured man has a posthumous child, she will be entitled to receive the benefit in respect of her late husband's insurance;

(3) Maternity benefit will be payable to every insured woman unless she is the wife, or in the case of a posthumous child, the widow of an insured man, in which circumstances the benefit will be given in respect of the husband's insurance only.

For the chief general provisions of the Act relating to Maternity Benefit, reference may be made to Sections 8 (1) (*d*), 8 (1) (*e*), 14 and 18.

I am, Sir,
Your obedient Servant,
H. L. D. Fraser,
Asst. Secretary.

It seemed to the Chairman, therefore, that the probable result of the Act would be in the future to introduce certified midwives into Scotland, where none at present existed. Meantime, as a qualified medical practitioner was called in for every confinement, dispensary practice would cease. If a woman entered a maternity hospital she stood to lose more money than if she engaged a doctor, say, at a guinea, or a midwife at less. Hence the hospitals would suffer. The effective practical teaching of students and nurses would be impossible, and that would react on the other branches of a medical school, as its qualification rested on three foundations—medicine, surgery, and midwifery. The meeting had been convened for the purpose of discussing the way in which the difficulties could best be met.

Professor Sir HALLIDAY CROOM said the subject under discussion could be looked at from the point of view of the patient, of the practitioner, and of the student. The three aspects were inseparable, but he would specially draw attention to the teaching of obstetrics. In Edinburgh the clinical teaching was dependent on the dispensaries and on the intern and extern practice of the maternity hospital. Last year 590 women were confined in the hospital, and 1,400 outside cases were attended. The dispensaries and other hospitals in the city furnished 1,100 patients each year, of whom 800 were available for clinical teaching. In all the number was 2,700, which provided only 11 cases for each of the 155 students and 72 nurses in training, instead of 20 as prescribed by the General Medical Council. Hence at present many Edinburgh students went elsewhere for clinical teaching in midwifery. Under the Act this difficulty would be increased, as the dispensary work would be stopped and all the midwifery practice would go to the doctors. Fewer patients would go into maternity hospitals, against which a prejudice still existed, unless a bribe were offered, and such was out of the question. From the eugenics point of view, the maternity benefit under the Act put a premium on childbirth, and encouraged the propagation of the species. There was the danger that in the next generation the women would be attended by incompetent medical practitioners.

Dr. MUNRO KERR said he was unable to make up his mind how the Act was to affect obstetrical teaching. It might help practitioners, but, on the other hand, patients might go into hospital and get their attendance by payment of a small sum agreed on by the hospital authorities.

Dr. BUIST said they had to settle what suggestions they could make to the Commissioners. They had to deal separately with the intern and the extern practice of the hospitals. For the latter they might arrange that the attendance be by a qualified medical practitioner. As in Dundee, a system might be developed by which students and qualified doctors should work together. In the case of intern patients the maternity and sickness benefits were suspended. The money thus set aside would go to the funds of the approved society, and a scheme might be developed by which such money would be allocated to the hospitals. Hitherto the service given from hospitals had been rendered because the women could not pay for skilled attendance. It was a question how far the hospitals were justified in competing with practitioners for that service.

Professor KYNOCH said that in Dundee there were few students, and the system prevalent there might not be possible in the larger schools. Either they must come to an arrangement with the practitioners who would be called to most of the cases attended under the present conditions by students, or students might be recognized as qualified to give attendance under the Act.

Dr. F. W. N. HAULTAIN asked if a practitioner on the panel was allowed to ask more than 30s. from a patient, and was answered in the affirmative. He was of opinion, he continued, that the class of patients in maternity hospitals could not give more than 15s. or 20s. Under the Act they would receive 30s., and then could afford to give 20s. or 30s. He believed there were not half a dozen doctors in Edinburgh who would attend at 20s. If so, a large number of women would be dependent on the hospitals. Hence an arrangement must be come to with the doctors. There was no reason why hospitals should enter into direct competition with the practitioners. If the hospitals were going to undertake the care of extern patients, a sufficient number of doctors should be appointed to allow of one attending each case in company with students and nurses. With regard to the intern patients, he thought their exclusion from the maternity benefit should not be maintained. Let them have the maternity benefit, and let the hospital charge the same fee as the doctors. Then full advantage would be taken of the hospitals, and the intern students would have the advantage of seeing many cases.

Dr. NORMAN WALKER said it was exceedingly easy to take any Act of Parliament and pick holes in it from beginning to end. The points brought forward by Dr. Haultain were the important ones. He had long been a convert to Dr. Haultain's views on the teaching of midwifery. If the hospitals continued out-patient work, how could women who were entitled to 30s. be expected to sacrifice that money for the privilege of being "clinical material"? If any organization wanted to teach, it must appoint extra extern doctors. He pointed out that, as applied to Scotland, "certified midwife" meant any midwife possessing such qualifications as might be prescribed (80 (20)). In England the obstetrical bodies had wisely met the Commissioners. He thought representatives should be appointed from the meeting to lay the points of difficulty before the Scottish Commissioners.

Dr. J. W. BALLANTYNE said the ordinance of Edinburgh University regarding practical midwifery was: "Each student must *conduct* 20 cases of labour under such conditions as the Senatus with the approval of the University Court may prescribe." That would be a great difficulty under the Act. Why should they not ask the Commissioners to recognize the medical student as a qualified practitioner in the special subject, and the nurse in training as the certified midwife? If this was not granted, then they might find out whether it would be feasible for practitioners attending confinements to have students along with them. He recognized that the women had the right to refuse such an arrangement.

Dr. W. FORDYCE said he should like to hear from some of the practitioners present whether there were only six doctors in Edinburgh prepared to attend midwifery cases at a guinea. He thought there would be more in the future.

Dr. R. ROBERTSON said he thought that under the Act there was a great danger of general practitioners losing a large and lucrative part of their practice, because midwives would be introduced into Edinburgh. He believed a fair number of doctors would attend cases for a guinea. He did not think the pupilage system possible. There would be no difficulty with the maternity hospitals, as the Commissioners must see them kept up for the treatment of severe cases. They would probably be able to make arrangement for this with the moneys administered by them.

Dr. J. M. BOWIE said he thought the patients of the class which supplied the maternity hospitals would soon fall into arrears with their payments and be again dependent on the hospitals. He could not speak definitely of the effect of the maternity benefit clauses on general practice.

Dr. KEPPIE PATERSON said the maternity benefit would tend to increase the midwifery practice of the younger practitioners. The dispensaries would probably suffer at first, but soon many casual vagrants and wives of Post Office contributors would be in arrears.

Dr. MICHAEL DEWAR admitted that a great number of insured persons would fall into arrears, but showed that they must be very considerably in arrears before the maternity benefit was suspended—twenty-six weeks a year on the average since insurance began. In Edinburgh the system of pupilage would be resented by a woman who was going to pay the doctor. He believed that more than six doctors in Edinburgh attended midwifery cases for less than a guinea. With regard to Dr. Norman Walker's suggestion that the Commissioners should be approached, he reminded the meeting that the British Medical Association recommended that they should not be approached by any save through the State Sickness Insurance Committee.

Dr. JOHN MCLAREN said that a large proportion of working men's wives were attended at 25s. to 30s., and one-third at 21s. to 25s. He did not know of any one who attended for less than a guinea.

Dr. RUSSELL (Glasgow) said he was satisfied that although great changes might take place, the maternity

hospitals and the teaching would not suffer. He suggested that a committee be appointed to lay the representations before the proper authorities.

After further discussion, it was decided by 24 votes to 16 that the committee should confer with the Hospital Subcommittee of the Scottish Medical Insurance Council and not with the Insurance Commissioners. The motion, proposed by Dr. R. Robertson and seconded by Dr. J. W. Ballantyne, read:

> That a committee be appointed from this meeting to meet and consult with the Hospital Subcommittee of the Scottish Medical Insurance Council regarding the maternity benefit of the Insurance Act.

The motion to appoint a committee to confer with the Scottish Commissioners was proposed by Sir Halliday Croom and seconded by Dr. Russell (Glasgow).

It was left to the Council of the Edinburgh Obstetrical Society to appoint a committee of six.

PROVISIONAL MEDICAL COMMITTEES.

Bermondsey and Rotherhithe.

A meeting of medical practitioners of Bermondsey and Rotherhithe was held at Bermondsey Town Hall on Wednesday, May 15th, at 3.30 p.m., Dr. V. A. Jaques in the chair. Thirty-two were present. Letters of apology from Drs. Clatworthy, Bell, Davies, and Goldie were read. After some opening remarks by the Chairman it was announced that forty men had signed the undertaking. An address was delivered by Dr. E. Rowland Fothergill, and a discussion followed. The following resolution was proposed by Dr. Beech Johnston and seconded by Dr. O'Reilly:

> That this meeting of the Bermondsey and Rotherhithe medical practitioners pledges itself to support the policy of the British Medical Association—namely, that of securing "*Honourable Service with Adequate Remuneration*"; they hereby declare that they are prepared to stand by the decision of the State Sickness Insurance Committee, believing that by so doing they will be able to obtain terms which will satisfy the whole of the profession and which will raise not only the status of the profession, but immeasurably improve the nature and conditions of contract practice under the Insurance Act.

Thirty-one voted for the motion and one against. After the passing of a vote of thanks the meeting terminated.

Lewisham.

The following is the result of the canvass in the borough of Lewisham:

Number of practitioners resident in the borough		147
Number of practitioners in actual practice ...		104
Number of practitioners not practising, retired, or holding resident hospital or public appointments		43
Number of practitioners engaged in contract practice		49
Number of practitioners who have signed resignations		47
Number of practitioners who have signed pledge		117
Made up by (1) those in actual practice ...		100
(2) those in hospital practice...		7
(3) those not practising ...		10

The two gentlemen who have not handed in their resignations to the Committee have signed the British Medical Association undertaking and one the local pledge in addition.

Of the four gentlemen in actual practice who have not signed the British Medical Association pledge, two have signed the British Medical Association undertaking, leaving only two who have refused to sign anything. One of these latter, though resident in the borough, practises chiefly outside.

The Medical Secretary of the British Medical Association, in a letter to the honorary secretary, Dr. Edgar Du Cane, dated May 14th, says:

> Judging from the work you are doing in your neighbourhood, I imagine the final result of your canvass will be as good as any part of the metropolis, if not better.

Reigate.

The first meeting of the Provisional Medical Committee for the Reigate Division was held at Tower House at 8.45 p.m. on Tuesday, May 14th. All the members were present—namely, Drs. Palmer, Ogle, Walters, Thornton, Hewetson, and Gayner, for Reigate and Redhill; Drs. Mackenzie, Rodgers, and G. A. Robertson, for Dorking; Drs. Clarke, Matthews, and Williamson, for Horley; Drs. Pratt, F. W. Robertson, and Weir, for Bletchingley.

Dr. Hewetson was unanimously elected to the chair, but pleaded his inability to devote sufficient time to the duties and reluctantly declined the office. Dr. Palmer was then elected Chairman; Dr. Walters, Vice-Chairman; and Dr. Ogle, Honorary Secretary.

The frequency and place of meetings were discussed, and it was decided to hold the meetings at members' houses in Reigate and Redhill, and at intervals of about three weeks; but if anything important occurred in the interval, the Chairman and Secretary should call a special meeting. It was agreed that the next meeting be held at 8.45 p.m. on May 30th at Holmfield (by kind invitation of Dr. Hewetson). It was further agreed that seven should form a quorum.

The work of the committee was discussed in detail, and the members from each district undertook to ascertain the club appointments held by practitioners in their districts; to get the men to sign the new pledge and the form of resignation; to enrol new members; to induce all members to guarantee to the Defence Fund, and those who have guaranteed to increase the amount of their guarantee.

Amongst other matters discussed were the attitude of medical officers to their clubs between July 15th and January, 1913; the question of the adoption of the Epsom scheme—the opinion of the committee was opposed to the adoption of any particular scheme of Public Medical Service at present; the question of the fate of those areas of the Reigate Division (for example, Crawley) which under the Act will belong to insurance districts outside the boundaries of the Division.

HOSPITAL STAFFS AND THE INSURANCE ACT.

The medical staff of the Perth Infirmary have, in response to a request by the directors, presented a report on the effect that the Insurance Act is likely to produce upon that infirmary.

The report opens with a statement that some are of the opinion that, as the regulations have not yet been issued by the Insurance Commissioners, the hospital question is not ripe for discussion, but the staff express the opinion that it will be advantageous to the directors to have before them current views of the present situation, so that they may be prepared for all eventualities. The subject is discussed under three heads as follows:

1. *In what way will subscriptions be affected from working men and from employers of labour?*

With regard to the influence which the Insurance Act is likely to have upon hospital finance, two opinions have been widely expressed. There are many, in the first place, who believe that, after people have become accustomed to the Act, they will not withdraw their subscriptions, because they will find themselves to be better off in respect of having no doctor's bills to pay, and will realize that they must still be very largely dependent upon hospitals for surgical operations and for treatment of serious diseases. It must be said, however, that the great majority of hospital managers do not share this optimistic view. The working man, having to suffer a compulsory deduction of 3d. to 4d. per week from his wages, can hardly be expected to make a voluntary payment towards the upkeep of hospitals with the same readiness as formerly. The employer of labour also, having to pay out large sums for the insurance of his workers, may well consider that he has done his part, and that no more can reasonably be expected from him. It has been estimated by Sir Henry Burdett that the reduction in income of hospitals in Scotland would amount to 44 per cent. On these accounts a general feeling of alarm has spread in hospital circles, and at many meetings of directors and managers expression has been given to the fear that annual receipts will quickly show a marked decrease unless an amending Act is brought in, which will secure payments to hospitals on some *pro rata* basis. It must be remembered, however, that any such scheme strikes at the root of the voluntary principle of British hospital manage-

ment, and would inevitably involve the very undesirable element of Government inspection. It may be added that another deduction which may have to be made from the income of hospitals is the contributions to be paid for insurance of hospital employees for which no corresponding return can be reckoned on.

2. *In what way will hospitals have to deal with patients who are beneficiaries under the Act?*

The relation of the hospital to the beneficiaries of the Act has been very bluntly stated by Mr. Lloyd George. "The hospital," he says, "should ask the patient, 'Are you insured?'—if they were, then they had no right to come to the voluntary hospital." This, of course, represents a very short-sighted view of the situation. There is, in fact, no prospect that there will be any less demand for hospital treatment by the public than before the Act was passed. The amount set aside by the actuaries is absurdly small to meet the so-called adequate medical attendance promised in the Act. The medical profession would, in fact, have more inducement than ever to send all serious cases requiring special nursing or surgical interference into hospital. This applies specially to in-patients. It is true that there will probably be a smaller attendance at the out-patient departments of many infirmaries in our large cities, but in Perth this is not likely to be the case. Here the dispensary is chiefly attended by the wives and children of the very poor, who will not be insured at all, or at best will be Post Office depositors whose medical benefit is somewhat meagrely provided for under the Act. There will also be the same tendency to send in all accidents for first treatment, owing to the certainty of securing immediate attention and indoor treatment if afterwards found necessary.

There are two provisions in the Act which at first sight appear to offer some prospect of hospitals receiving remuneration for the treatment of insured persons, but the briefest examination proves any such hope to be illusory. The Act provides that the insurance benefit of any person who is an inmate for the time being of an "approved" hospital or infirmary may be handed over to that institution as a contribution to the expense of his treatment. This is all very well, but two very important conditions are attached: First, if the man has dependents the money must first go to them; secondly, the man must be a member of an approved society with which an agreement has been made under which that society subscribes to the hospital. Now it is almost an unknown thing for a workman to be without dependents, and, as Sir Henry Burdett says, "If the approved societies have money to spare, that money must in justice be devoted, not to the voluntary hospitals, but to the wives and children of the insured members." Besides all this, any income which hospitals might expect to derive from these sources would be so small as to be quite negligible in comparison with the annual expenditure in the treatment of such patients.

3. *In what way will the position of the medical staff be affected?*

The relation of the medical staff of a hospital to these beneficiaries of the Act who come in for treatment is a difficult question to deal with at present. Although practitioners had signed a pledge not to treat insured persons, yet, as members of the staff of a voluntary institution, they could not technically be considered as working under the Act, unless contributions were made to the hospitals by approved societies or Health Committees. On the other hand, if the capitation system of medical remuneration came into force, the hospital doctor would be in the position of treating the patient of another doctor free, while that doctor was receiving remuneration for that patient from the State, and doing nothing for his money. Owing to the uncertainty of the medical provisions in the Act, this whole matter might meanwhile be left over.

Conclusion.

The report concludes as follows:

There are various solutions of these difficulties which might be suggested. The directors, for example, might make a charge for the treatment of all insured persons, the charge being made directly to the insured person, and not to his society or to the State. The great majority, being well-to-do working men and in the receipt of 10s. per week while ill, could not complain of having to pay for hospital treatment if the charge were reasonable. Or the directors might come to an arrangement with the Insurance Committee for payment of treatment of insured persons in the same way as at present they arrange with the county council or town council for treatment of persons suffering from infectious disease. Neither of these methods would likely react unfavourably upon subscriptions from disinterested donors, as the principle of paying beds is well recognized in many voluntary hospitals at the present time.

These suggestions, of course, are subject to the question of adequate remuneration being granted to the medical and surgical staff of the hospital for treating State-insured persons.

SCOTTISH MEDICAL INSURANCE COUNCIL.

COLLIERY AND PUBLIC WORKS PRACTICES.

DR. A. M. EASTERBROOK, Gorebridge, Midlothian, convener of the subcommittee appointed to consider the interests of colliery and public works practices in Scotland, asks that information regarding the varied conditions of practice and remuneration, and suggestions for future policy and other matters affecting the subject, may be forwarded to him at an early date. He has also issued the following circular letter to every medical practitioner in the insurance area of the county of Midlothian:

Arnprior, Gorebridge, Midlothian,
18th May, 1912.

Scottish Medical Insurance Council.

Dear Doctor,

The Executive of above are now anxious to have the information as to the wishes of the various Insurance Areas regarding the method (and amount) of remuneration desired by each Insurance Area. I therefore attach printed form of queries, which I shall be much obliged if you will return within two days filled up according to your opinion.

It must be borne in mind that all persons of income up to £160 will be swept into the Insurance scheme (this means practically the entire adult population in country districts) and in considering the question of a Capitation Fee compensation for the loss of previous private patients must be borne in mind.

Please add any suggestions you may have to make to your replies, as we want the fullest information and expression of desires and difficulties from each Practitioner, so that we may have every help from you in formulating a completely satisfactory policy in our area.

This letter is sent to every Practitioner in Midlothian.

Yours faithfully,

ALEX. M. EASTERBROOK,
Representative for Midlothian to the Scottish Medical Insurance Council.

Remuneration under Insurance Act.

1. Are you in favour of payment by Capitation Fee? or

2. Are you in favour of payment for work done according to scale of fees?

3. If by Capitation Fee, what sum?

Note.—B.M.A.'s *minimum* demand for profession is 8s. 6d. per head, exclusive of Medicines and Extras, as Mileage, Night Calls, Operations, Confinements, Consultations, etc., with a *maximum* income limit of £2 per week or £104 per annum.

4. If by payment for work done, would you suggest a Scale of Fees?

(c.f. 2s. 6d. per visit within radius of two miles, and 1s. or 1s. 6d. per mile mileage thereafter, etc.)

5. What income limit (below £160) would you consider suitable for insured persons as a whole in the area of Midlothian?

(1) For Rural practice?
(2) For Colliery and Public Works practice?

Note.—Colliery and Public Works practice is being specially considered by a Special Committee with a view to taking corporate action later thoughout the country, and it is realized there may be difficulty in fixing an income limit.

Please do not delay in sending replies as Executive is meeting again shortly.

CORRESPONDENCE.

THE ORGANIZATION OF A DIVISION WITH REFERENCE TO THE INSURANCE ACT.

DR. J. R. FULLER (Chairman, Hornsey Ward, North Middlesex Division, British Medical Association) writes: Organization is the key to success. That is a platitude; at the same time it is so true that it bears repetition.

How this organization is to be carried out is a matter of opinion. It seems to me that it would be very useful if the Council could see its way to issuing a form such as I enclose, for a canvass of the country should be as uniform as possible.

This Division (North Middlesex) is divided into wards corresponding to the insurance areas, of which the Hornsey Borough is one. I will take this as an example, not because it is necessarily the best, but because I happen to reside in it and happen to be Chairman of it.

This ward is subdivided into six sections. Each section is in charge of two canvassers, who are supplied with this form and with a pledge paper:

NATIONAL INSURANCE ACT.

I hereby promise that I will undertake no work under the Act unless it is approved of by the British Medical Association.

That I will resign my present Club appointments should I be called upon to do so by the North Middlesex Division of the Association.

I guarantee the sum of money mentioned below against my name, for the purpose of indemnifying those medical practitioners who shall have suffered pecuniary loss through having resigned their Clubs at the request of the Division; and, if called upon by the Division, will pay the same to the Executive thereof.

I will refuse to accept any appointment resigned by others at the request of the Division.

[*NOTE.—The sum of money guaranteed should not be less than Ten Pounds.*]

This guarantee cancels all others.

Canvasser's Card.]

NORTH MIDDLESEX DIVISION, B.M.A.: HORNSEY WARD.

I.

Name.	Address.	No. of Section.	Whether Member B.M.A.	Guarantee and Amount.	Subscription.	What Pledge.	† Number of Friendly Societies held.	* Whether prepared to resign them if the Division calls for Resignation, and to refuse to accept those Resigned by others.

† By Friendly Society is meant any Society which offers the following Benefits, in return for periodical payments by the member: (1) Pay during sickness of any kind; (2) Provision of Medical Attendance by the Society.

* To be used only if the Act fails to provide Medical Benefits, and money is handed to individuals to make their own arrangements.

NOTE.—The Guarantee, which is separate from the Subscription, is to be used if necessary for compensating those who have given up Clubs at the bidding of the Division, and have failed to be reappointed in the event of the "Medical Benefits" part of the Act falling through. It is, therefore, merely an insurance against loss, to the extent of available funds, and will probably not be called upon at all; if all agree to give up their Clubs, and refuse to accept those given up by others, it is easy to see that the profession must win.

II.

Number of Doctors in Section.	Number of Members B.M.A.	Number of times Non-members † Canvassed, and dates thereof.	Remarks and Reasons for Refusal.

Signed.....

The questions, therefore, are uniform throughout the ward. Each canvasser has only about six men to look after, and can therefore pay the more attention to the doubtful ones.

Each form is handed in at each ward meeting, and the results forwarded to the Division Secretary, who has thus full information about each individual. The chief advantage I claim for it is that it ensures uniformity, that only questions of importance are answered, and that each man knows what his neighbour is signing.

This, together with the form of resignation of clubs issued by the British Medical Association and a guarantee of £10, is as complete as I can imagine. Finally, I would like to say that there is no man in the North Middlesex Division in active practice who has not signed a pledge.

You will note that the canvasser's card is of thin cardboard canvas-backed, in order to fit in the breast pocket and to ensure strength.

A Plea for Unity.

Dr. James Ratcliff-Gaylard (Chairman, Birkenhead and District Provisional Medical Committee) writes: I am loth again to occupy space in your columns after so recently doing so. There are, however, two points in the communication of Dr. Francis Heatherley which require comment. The first is a simple matter and is quickly disposed of. It is that, according to the public press, the number of medical men present at the mass meeting held in Liverpool on May 2nd was 100—not 200. The second is of somewhat more importance, at any rate, to myself, because it indirectly impugns my good faith and suggests that my words in the columns of the Supplement are not in accord with my action at the mass meeting in question. Dr. Heatherley says:

> I am wondering how Dr. Ratcliff-Gaylard reconciles his lofty patriotism with the fact that at the mass meeting of doctors in Liverpool on May 2nd he voted against a resolution affirming our adhesion to the seven cardinal points and pledging ourselves to support the British Medical Association and the National Medical Union.

The resolution voted against was as follows:

> That this meeting of the medical profession affirms its absolute adhesion to the six cardinal principles, and in addition to a seventh, namely, "That disciplinary powers be vested in some properly constituted and representative medical body." These principles form the basis of the policy of the British Medical Association and of the National Medical Union, and this meeting pledges itself actively to support the Union.

It will be seen that this resolution was very astutely arranged. Whilst stating that certain principles form the basis of the policy of the Association and of the Union, it does not pledge those who voted for it to support the British Medical Association, but does pledge them to support, and to support actively, the National Medical Union, the policy of which is certainly not in absolute accord with that of the British Medical Association.

As the meeting was a mass meeting all amendments directed to securing a declaration of loyalty to the policy of the British Medical Association were refused by the Chair. Those, therefore, who, like myself, voted against the resolution as it stood, did so because, whilst loyal to the policy of the Association, they could not consistently vote for a resolution which pledged them to actively support the Union.

The main object of this mass meeting held under the auspices of the National Medical Union was undoubtedly to strengthen the position and to further the policy of the Union. Apart from this object there was no immediate necessity for such a meeting; and the interests of the profession as a whole did not demand it.

Division of the power of the profession as a striking force, however brought about, is bad policy, is fatal to success, and should no longer exist. It is because of the possibility of the increase of such division of force by the continued existence and action of the National Medical Union that the appeal is made to its members to generously and patriotically give up any prestige they may possess as a separate body and whole-heartedly to unite with their brethren in the strengthening of the British Medical Association army—the army of the profession—one and indivisible.

Examination of Applicants for Friendly Societies.

Dr. J. Ellis Milne and James M. McQueen, M.A., B.Sc., M.B., D.P.H.(Oxon.), of Aberdeen, desire to draw attention to the following paragraph of the letter the Scottish Medical Insurance Council has sent to every member of the medical profession in Scotland, along with a narrative minute of its first meeting:

> *Examination of Applicants.*—Doctors are being asked to examine persons with a view to their admission to societies for benefits under the Insurance Act. Where these persons are not to be ordinary members of a society already held by the doctor, such examinations are not covered by any appointment which may at present exist, and the committee think it advisable that "*the profession in each area should decline to make any such examinations for a fee less than 2s. 6d., and should take corporate action to this end.*"

With reference to this our correspondents make the following observations: A little consideration of the present position of matters in regard to the Insurance Act and of the immediate future will show that this question of the examination of the prospective insured

community is not a mere detail, but an urgent, vital, and determining factor of tactics in the skirmish for position in the coming fight.

What is the position at present? In Great Britain there are some 6,000,000 friendly society members. On July 15th, 1912, some 8,000,000 other persons will become compulsorily insured under the Act, and those 8,000,000 persons must be, with as little delay as possible, separated into two classes, either as members of approved societies or as Post Office contributors. If we examine those 8,000,000 during the next three months we shall make a present of some 6,000,000 or more selected lives to the friendly societies; we shall have helped to start the Insurance Act on a sound financial basis, with an additional security in its millions of new healthy, selected lives, and shall have given the approved societies several months in which to strengthen their position, to organize their greatly augmented forces, and to set their machinery going smoothly. In January, 1913, if our demands are not conceded, and the Government hand over the 6s. to the friendly societies, we shall have to fight the latter with double their present numbers after months of organization of their increased strength. If, on the other hand, we decline to examine prospective insured members, the Act may technically come into operation on July 15th, but the problem confronting the approved societies will be of a totally different nature. Either the approved societies will be compelled to accept all candidates and risk an excessive sickness rate from unhealthy lives, rendering the Act from its inception a huge, risky national speculation, or, if the societies will not take that risk, the whole of the prospective compulsory insured community must become Post Office contributors entitled to benefits hardly worth the taking.

The profession in Aberdeen, seeing this, have unanimously resolved to decline such examinations, and are now calling upon every practitioner in the city area to pledge himself to that effect. In this city at present there are some 14,000 friendly society members, while it is estimated that 50,000 to 60,000 of the population will become compulsorily insured persons. The local societies have been advertising and catering for the 46,000 of prospective State insurance members, and have approached the local friendly society doctors with a request that they should state their fee for an examination. The societies have lists of those applicants for examination ready, and the double sets of books prepared for the inception of the Act. By our resolution we believe that we shall be locally in an infinitely stronger position to fight for terms next January if, as seems likely, our terms are not granted. What applies to Aberdeen applies equally to other centres throughout the country, and we would strongly urge the profession to decline to examine, and by doing so to decline to set the machinery of the Act satisfactorily running—to decline to strengthen the forces that will in all probability be opposed to us in strenuous conflict next January.

This resolution has been carried unanimously in Aberdeen. Those of us who hold friendly society appointments recognize that though by this resolution we shall, during the next few months, lose a considerable sum of money in the form of examination fees, we shall probably more than make up our loss next January by securing better terms for the ensuing years of work under the Insurance Act; while those practitioners who do not hold such appointments no doubt feel that by this resolution they conserve their patients, who would, if examined during the next few months, be introduced to present society doctors, and later possibly drift on to their lists under the panel. Behind both those classes of practitioners we hold the local hospital staffs pledged not to recognize or work with whole-time State service doctors, contract practitioners, or blacklegs who may be substituted by Government or the societies for the present holders of friendly society appointments.

Medical Remuneration.

Dr. EBEN SHAW (Wigtown) writes: I notice that the Insurance Commissioners are asking for evidence as to the fees which doctors get at present from the class of people who will come under the Insurance Act, with the intention, presumably, of deciding that the remuneration under the Act shall not, at any rate, exceed the present amount paid by those of the employed class who are not members of clubs. I therefore put the following questions:

1. Is it not the case that although medicine is the profession which requires of its students the most difficult and expensive education, and its practice is at least as important to the country as that of any other profession, yet medical fees are the lowest?
2. Is it not the case that a fair living cannot be made by most doctors if they work only for the eight hours per day that is usual in other professions?
3. If this is anything like the truth, are not medical men entitled to a substantial increase of remuneration?
4. And, since the State and the employers will contribute a large part of the money spent on medical benefits for the employed, are doctors not entitled to get a portion of their increased remuneration from this contribution?
5. Finally, since the Insurance Act throws a risk upon the doctors which cannot be calculated at present, is it not absolutely just and necessary that whatever sum the doctors may agree upon just now to cover that risk, that sum shall be held as temporary only, and subject to revisal when experience proves what the risk actually is?

Explanations to Club Members.

Dr. REGINALD LARKIN (Southwark, S.E.) writes: Now that the resignation forms are being handed in to the local Secretary of each Provisional Local Medical Committee I would strongly urge every practitioner attached to a club to write to the secretary of such club asking for an hour to be appointed which is most convenient to the majority of its members in order that the medical officer (frequently one of many years' standing, and therefore with many members an old friend) may explain questions asked and thoroughly acquaint the members with the reasons of such drastic action as our Association may have necessarily to resort to. If this is done throughout the British Isles we shall have the truth of the situation grasped by the working man, and not the misrepresentation of the Radical press allowed to be swallowed by them wholesale. We should gain the sympathy of the working man, and, what is more, prevent him from believing that we doctors (a large percentage of whom are progressive in politics and thought) are only actuated by greed and an insane desire to back up the Tory press.

P.S.—If thought necessary, two or three medical friends might combine to lecture to clubs at each and every opportunity.

The Case of the Profession.

Dr. ALEX. FRASER, Chairman of the North Manchester Division, writes: One of the earliest recollections of my medical student days was an *obiter dictum* enunciated by the late Professor Sir John Struthers, of Aberdeen, in one of his usually discursive lectures: "If you have a good case, gentlemen, bring it before the public." As a profession, we are in thorough agreement that we have a good case against the medical provisions of the Insurance Act as at present outlined. Our case, as elaborated in our fighting programme, the six cardinal points, has been discussed at myriads of medical meetings, in our medical press *ad libitum*, and to a limited extent in our public prints, but I am not aware that any systematic efforts have been made to inform the public of the exact meaning of the position we as a profession have taken up. I am not far wrong when I say that only a very small fringe of the public have informed themselves of the nature of our demands, and fewer still, with the information available, can see the justice of our demands. It must be remembered that the local Insurance Committees will be composed of a very influential portion of the public, and are empowered by the Act "to make arrangements with duly qualified practitioners for the purpose of administering medical benefit." If the members of these Committees should be men who are thoroughly cognizant of our demands, and have been convinced of the reasonableness of them, I do not doubt that the Medical Committees of the areas would be able to secure all that they want.

That the public sadly needs educating in this matter was forcibly borne in upon me the other evening when I found myself addressing, in response to the invitation of a secretary of a local friendly society, the representatives

of fifty or sixty lodges of a certain Order. I addressed them on the views held by the profession regarding the medical provisions of the Act, and discussed the six cardinal points. I felt some qualms that in appearing before them I was placing my head in the lion's mouth. I soon gathered the impression that many of them believed that the profession was "out for all it could get," and that all our agitation was centred on extorting as big a fee as we could for our services. Before the evening terminated I was pleased to note that the whole meeting became convinced of the fact that the antagonism of the profession was mainly directed against the Act because its provisions would lower the usefulness of the profession and impair its efficiency. It became a simple matter to explode that insidious fallacy of the Chancellor before these representatives of the friendly societies that 6s. offered as the doctor's remuneration was 50 per cent. better than the average club payment. As one spokesman remarked, amidst general approval, there was no analogy between the pay, the conditions, and work of the present club doctor and what it will be under the Insurance Act. It was gratifying to observe that all were in agreement on the sweet reasonableness of five out of the six of our cardinal points, but on the question of the £2 income limit I was not able to convince many of the justice of our demand. It may have been lack of ability and of persuasive powers on my part but still there was much point in the remark made by one of the audience. He stated he was in receipt of £2 a week, had a family of eight or nine, and bore the expenditure on rent, housekeeping, and other matters which such a family entailed. Was it reasonable or just that he should be excluded from medical treatment under the Act, whilst the single man in receipt of 39s. was proposed to be included?

This question of the income limit is one to be fixed by the Insurance Committee in each area under the authority of the Insurance Commissioners, and it would be well if we could convince the public of the reasonableness of this demand for an income limit. In a subsequent conversation with a few medical friends the general feeling appeared to be that the first cardinal point should be more fully defined, and that in the fixation of an income limit in any area regard should be had to the number of the dependents of the insured. Judging from my experience of that meeting, I contend that it would prove of incalculable benefit to the profession in our present stand to have the public behind us; that this can only be accomplished by the understanding of our demands by the public, and with understanding would come sympathy with these demands. I would suggest that the Council of the British Medical Association should urge upon all Provisional Medical Committees the desirability of organizing in their areas public meetings at which the claims and demands of the profession would be advocated.

THE ATTENTION AT PRESENT DEMANDED BY CONTRACT PATIENTS.

By JAMES F. SOWERBY, A.C.A.

THE details here given relate to the same practice as that upon which an article was published in the SUPPLEMENT TO THE BRITISH MEDICAL JOURNAL of May 27th, 1911, under the title "Some Facts and Figures relating to Contract Practice." In that article a comparison was made between the contract and private sections of the practice during the year 1910. On this occasion attention has been confined to the contract section of the practice during the year 1911.

It is not suggested that the figures are large enough to justify the drawing of any conclusion as to the attention required by contract patients in general, but it is claimed:

1. That the figures given are accurate and can be so proved.
2. That there are very large differences in the amount of attention per member required by the various clubs.
3. That where the attention required by a club is below the average it can be shown that its members do not fairly represent insured persons under the National Insurance Act in the matter of medical attendance.

The details are as under:

1. *A Lodge of a great Friendly Society—Men only.*

No. of Members.	No. of Attendances.	Attendances per Head.
40	62	1.55

Of the members of this lodge, 11 live outside the visiting radius; very many live on its borders three miles away, and resignation was offered by the medical officer some time ago on account of the many long-distance visits, but was withdrawn on a promise of greater consideration before demanding a visit in the future. The lesson appears to have been taken to heart. The lodge is a small one, and not in a position to dictate terms.

It is worth noting, in passing, that, generally speaking, the smaller the club the greater its respect for the doctor's time.

2. *A Provident Society of Men Only.*

No. of Members.	No. of Attendances.	Attendances per Head.
245	471	1.92

A large majority of the members is composed of young warehousemen employed by city firms; of the 245 members the addresses of 240 are known.

In 158 cases the address given is that of a firm, and it is safe to say that these, with hardly an exception, either "live in" with the firm or reside in the suburbs beyond the visiting radius. On visiting a member at a warehouse a representative of the firm usually points out that it is impossible to give the patient proper attention there, and suggests his immediate removal either home or to a hospital if there is any prospect of an illness of more than two or three days' duration, and an attendance of more than five days at a warehouse is very unusual. Where a member living in the suburbs is sent home to bed he necessarily employs a local practitioner, so that among these 158 members some other practitioner is employed for all the more serious and prolonged illnesses.

The same remarks apply to 12 members whose addresses are well outside the visiting radius.

The remaining 70 reside within reach of permanent attendance. Even these are better than the average contract patient; very many of them are young men living in lodgings while learning a warehouseman's business, and as these rarely remain on the list more than a year or two and are necessarily healthy on admission to it there is not much illness among them; and of the older men some are travellers who may be away from home when taken ill. Three of the members of this club are also included among the members of club No. 4.

In a word, at least two-thirds of the members of this club employ medical men other than the medical officers of the club—a system of double payment which will not exist under an *efficient* State Medical Service.

3. *A Lodge of a Large Friendly Society—Total Abstainers.*

No. of Members.	No. of Attendances.	Attendances per Head.	
		For 6 Months.	For Year.
32	40	1.25	2.5

Not much can be said about this club, as it has only been in the practice for six months: but it may be noted that its members are all men and total abstainers, that the lodge is small, and that six members live beyond the visiting radius.

4. *The Employees of a Firm which Pays for their Attendance.*

No. of Members.	No. of Attendances.	Attendances per Head.
42	141	3.36

Of these 20 are young warehousemen and apprentices living in; as in the case of Club No. 2, a member likely to

be laid up for some time is always, if possible, sent home With one exception they go home for all week-ends, and if feeling unwell may remain at home and not be seen by a doctor in town throughout the illness. Three of them are also on the list of Club No. 2. Eleven are porters, all or nearly all living out. For some reason—either through living at a distance or through being unaware that they are entitled to attendance—they give so little trouble that, the two practitioners concerned cannot remember attending one of them.

The remaining eleven are servants, all, or nearly all living in. They require a moderate amount of attention.

5. *A Benefit Society.*

No. of Members.	No. of Attendances.	Attendances per Head.
13	44	3.38

A small club containing a large proportion of police constables, who are entitled to attendance by the police surgeon.

6. *A Section of a very scattered Friendly Society.*

No. of Members.	No. of Attendances.	Attendances per Head.
4	14	3.5

A very small club, one of whose four members is known to have attended hospital almost continuously during the year.

7. *A Club consisting of the Employees of a Large Carrier.*

No. of Members.	No. of Attendances.	Attendances per Head.
202	847	4.19

The members are all men, very strictly examined before entry.

8. *A Very Scattered Club.*

No. of Members.	No. of Attendances.	Attendances per Head.
14	59	4.21

The members of this club are nearly all male clerks.

9. *A Friendly Society.*

No. of Members.	No. of Attendances.	Attendances per Head.
151	756	5.00

This club consists of men and single women in employment; few of its members live beyond visiting radius, and it enjoys to a limited extent free choice of doctor; it therefore approximates more closely than the other clubs dealt with to the conditions of medical attendance under the National Insurance Act. The point in which it differs from such attendance is that the great majority of its members are young.

10. *A Friendly Society.*

No. of Members.	No. of Attendances.	Attendances per Head.	
		For 9 Months.	For Year.
45	195	4.33	5.42

Includes men and women. It has only been in the practice nine months, and not much can be said about it.

11. *Four Lodges of Oddfellows Grouped Together.*

No. of Members.	No. of Attendances.	Attendances per Head.
251	1,409	5.61

These four lodges are not distinguished in the books of the practice, and so have necessarily been grouped together. A certain number of their members live beyond the visiting radius, but how many is not known.

12. *A Friendly Society.*

No. of Members.	No. of Attendances.	Attendances per Head.
135	1,743	9.42

This is a dividing friendly society, including men and single women or widows in employment; the age limit is 40, and all members are examined before admission. The attention required is above the average, owing to the facts that some of the members are getting on in years, and that new members are not coming in, but the fact remains that the attendance is required, and that the members will be eligible for transfer to medical attendance under the Act.

Summary.

If all these clubs are taken together as representing the mass of people for whose medical attendance the National Insurance Act promises to provide, we get the total:

No. of Members.	No. of Attendances.	Attendances per Head.
1,199	5,783	4.82

This gives 4.82 as the average annual attendance upon an insured person; but if we deduct from the total the figures for the clubs numbered 1, 2, 4, and 6, which have been shown not to represent the conditions under which insured persons will be attended, we get:

No. of Members.	No. of Attendances.	Attendances per Head.
868	5,095	5.87

This gives 5.8 as the average annual attendance. These figures as they stand are of no great value; but there is no reason to suppose that the medical attendance here investigated is different from that in other practices, and it is reasonable to suppose that if the existing records of other contract practices were analysed they would give similar results.

In conclusion, I wish to acknowledge my indebtedness to the two medical men who have placed their books at my disposal, and who have given very necessary assistance in writing the notes descriptive of the clubs.

Corresponding Figures for 1910.

A table giving the corresponding figures for the year 1910 is appended for comparison.

Club Number.	Number of Members.	Number of Attendances.	Attendances per Head.
1	41	44	1.07
2	260	472	1.81
3	Not in practice	—	—
4	42	117	2.78
5	15	55	3.63
6	Not given	—	—
7	195	746	3.82
8	15	48	3.20
9	Not in practice	—	—
10	Not in practice	—	—
11	267	1,216	4.55
12	214	1,290	6.02
	1,049	3,988	3.80
Deduct— Nos. 1, 2, 4, 6	343	633	—
	706	3,355	4.75

CENTRAL MIDWIVES BOARD.

A MEETING of the Central Midwives Board was held on May 16th at Caxton House, Westminster, with Sir FRANCIS H. CHAMPNEYS in the chair.

Training of Midwives.

A letter was considered from the medical superintendent of the Croydon Union Infirmary as to the system hitherto adopted with regard to the practical training of sister midwives in the infirmary. A letter was also considered from a certified midwife approved by the Board for the purpose of supervising the practical work of pupils asking whether, in the case of trained nurses who are unable to leave their existing employment for longer than four weeks, their training may be compressed into that period.

The Board decided that the request to reduce the period of practical training below three months be refused in each case.

Payment of Medical Fees.

A letter was considered from the Honorary Secretary of the Basingstoke and District Medical Society, asking the Board to guarantee the payment of a fee of two guineas in cases where a medical practitioner, being a member of the society, is summoned in an emergency on the advice of a midwife. The Board directed that the reply be that the Board has no power to guarantee fees.

A letter was considered from a certified midwife asking the Board's advice as to the payment of a fee claimed by a medical practitioner who was summoned in an emergency on her advice. The Board decided that the reply be that a midwife having advised that medical aid be summoned has discharged her duty under the Rules, and that it is no part of the Board's duty to give legal advice as to the recovery of fees by a medical practitioner.

Uncertified Practice.

A letter was considered from the Clerk of the County Council of Durham calling the Board's attention to the difficulty of securing the conviction of an uncertified woman for practising as a midwife owing to the presence of the word "habitually," and the proviso as to emergency in Section 1 (2) of the Midwives Act. The Board directed that the correspondence be sent to the Privy Council.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

IN accordance with the provisions of Order in Council of April 1st, 1881, Fleet Surgeon EDGAR FAIRBANK MORTIMER has been placed on the retired list at his own request, dated May 7th.

Fleet Surgeon O. W. ANDREWS to *President* additional for Deptford Victualling Yard, temporary, May 4th.

Staff Surgeons A. T. GAILLETON to *Victory*, vice Willan; O. MILLS to *Halcyon*, vice Gailleton, June 21st; R. F. CLARK to *Euryalus*, May 10th; R. W. STANISTREET to *Vivid* additional for *Magnificent*, May 13th; R. M. RICHARDS to *Assistance*, vice Shewell, May 24th; W. P. DYER to *Bellerophon*, vice Kellond-Knight; R. H. ST. B. E. HUGHES to *St. Vincent*, vice Martin, April 30th.

Surgeons H. A. KELLOND-KNIGHT to Portsmouth Dockyard, vice Dyer; J. B. H. MARTIN to *Exmouth*, vice Featherstone, April 30th; R. WILLAN to *Vivid*, for the Plymouth Hospital, May 21st, and as Instructor to Sick-berth Staff, vice Mills, June 21st.

Fleet Surgeon ERNEST ALBERT SHAW, M.B., B.A., has been placed on the Retired List at his own request, dated May 9th, 1912.

Fleet Surgeon WILLIAM GEORGE KYNASTON BARNES, M.D., has been placed on the Retired List, at his own request, with permission to assume the rank of Retired Deputy Surgeon-General, dated May 9th, 1912.

The undermentioned Staff Surgeons have been advanced to the rank of Fleet Surgeon in His Majesty's Fleet, dated May 13th, 1912: WILLIAM RUDOLF CENTER, M.B., WALTER SCOTT HARCOURT SEQUEIRA, M.B., JOHN CHARLES GROSCORT REED, ELYSTAN GLODRYDD EVELYN O'LEARY, F.R.C.S.Edin., WILLIAM ELMES MATHEW, MATTHEW LIVINGSTON MITCHELL VAUDIN, M.B., JOHN WILLIAM CRAIG, M.B., WILLIAM LUDGATE MARTIN, F.R.C.S.I., SYDNEY CRONEEN.

ARMY MEDICAL SERVICE.

COLONEL SIR DAVID BRUCE, Kt., C.B., F.R.S., M.B., F.R.C.P., to be Surgeon-General, dated April 1st, 1912.

ROYAL ARMY MEDICAL CORPS.

Major HOWARD ENSOR, D.S.O., M.B., from the seconded list, is restored to the Establishment, dated May 2nd, 1912.

Lieutenant-Colonel JOHN V. SALVAGE, M.B., retires on retired pay, dated May 15th, 1912.

The undermentioned Captains to be Majors: CHARLES E. FLEMING, M.B., PERCY O. S. LELEAN, JOHN T. JOHNSON, M.D.

Captain DUDLEY S. SKELTON is seconded for service under the Foreign Office, dated April 25th, 1912.

Lieutenant BENJAMIN BIGGAR is confirmed in his rank.

TERRITORIAL FORCE.

ARMY MEDICAL SERVICE.

COLONEL JOHN S. RIDDELL, M.V.O., M.B., on vacating the appointment of Assistant Director of Medical Services of the Highland Territorial Division, resigns his commission, and is granted permission to retain his rank, and to wear the prescribed uniform, dated April 1st, 1912.

ROYAL ARMY MEDICAL CORPS.

Third Welsh Field Ambulance.—Major GEORGE A. STEPHENS, M.D., resigns his commission, dated May 15th, 1912. HAMILTON ERNEST QUICK, M.D., F.R.C.S., to be Lieutenant, dated May 15th, 1912.

Fifth London Field Ambulance.—Lieutenant-Colonel and Honorary Colonel CHARLES H. HARTT resigns his commission, and is granted permission to retain his rank and to wear the prescribed uniform, dated May 18th, 1912. Major ERNEST B. DOWSETT to be Lieutenant-Colonel, dated May 18th.

Third London General Hospital.—Major WILLIAM PASTEUR, M.D., to be Lieutenant-Colonel, dated February 21st, 1912.

The Undermentioned Officers to be Majors.—Captain BILTON POLLARD, M.B., F.R.C.S., dated February 21st, 1912; Captain WALTER E. WYNTER, M.D., F.R.C.S., dated February 21st, 1912.

HERBERT THOMSON, M.D., F.R.C.P., to be Captain, dated March 25th, 1912.

For Attachment to Units other than Medical Units.—THOMAS WILLIAM HARDWICKE DOWNES to be Lieutenant, dated April 13th, 1912, HENRY MEGGITT (late Captain Royal Army Medical Corps, Territorial Force), to be Captain, dated March 25th, 1912. THOMAS CARNWATH (late Lieutenant Royal Army Medical Corps, Special Reserve), to be Lieutenant, dated April 10th, 1912.

Highland Mounted Brigade Field Ambulance.—ALEXANDER FRASER LEE, M.D., to be Lieutenant, dated March 8th, 1912.

Notts and Derby Mounted Brigade Field Ambulance.—The following officers to be Captains, dated April 1st, 1912: Lieutenant WILLIAM H. ROWELL, M.D.; Lieutenant WALTER H. FISHER, M.D.

First North Midland Field Ambulance.—Lieutenant FREDERICK R. BREMNER, M.B., to be Captain, dated April 2nd, 1912. Lieutenant JAMES D. ALLEN, M.B., to be Captain, dated April 4th, 1912.

Attached to Units other than Medical Units.—Major (Honorary Captain in the Army) GEORGE G. OAKLEY resigns his commission and is granted permission to retain his rank and to wear the prescribed uniform, dated May 11th, 1912. Captain WILFRED E. ALDERSON, M.D., resigns his commission, dated May 11th, 1912.

Vital Statistics.

ENGLISH URBAN MORTALITY IN THE FIRST QUARTER OF 1912.

[SPECIALLY REPORTED FOR THE "BRITISH MEDICAL JOURNAL."]

IN the accompanying table will be found summarized the vital statistics of ninety-four of the largest English towns, based upon the Registrar-General's weekly returns for the first quarter of the year. The 112,565 births registered in these towns during the quarter were equal to an annual rate of 25.7 per 1,000 of the population, estimated at 17,559,219 in the middle of the year. In London the birth-rate last quarter was 25.8 per 1,000, while among the ninety-three other towns it ranged from 15.4 in Hastings, 15.7 in Bournemouth, 15.9 in Southport, 16.2 in Blackpool, 16.6 in Hornsey, 16.7 in Ilford, 17.1 in Bath, and 17.3 in Eastbourne to 32.4 in Aberdare, 32.5 in Sunderland, 32.7 in Barnsley, 33.2 in Middlesbrough, 34.2 in Stockton-on-Tees, 34.4 in St. Helens, and 35.0 in Rhondda.

The 70,975 deaths registered in these towns during the quarter under notice corresponded to an annual rate of 16.2 per 1,000. In London the rate was 15.3 per 1,000, while among the other towns it ranged from 9.3 in Southend, 9.4 in Ilford, 10.8 in Hornsey, in Walthamstow, and in Eastbourne, and 11.2 in Wimbledon and in Enfield, to 20.3 in Great Yarmouth, 20.5 in Manchester, 20.6 in Preston, 20.7 in Merthyr Tydfil, 20.8 in Salford, 21.9 in Dudley, and 24.2 in Walsall.

The 70,975 deaths from all causes included 1 from small-pox, 217 from enteric fever, 1,213 from measles, 267 from scarlet fever, 1,731 from whooping-cough, 698 from diphtheria, and 723 (among children under 2 years of age) from diarrhoea and enteritis. The fatal case of small-pox belonged to London. The 217 deaths from enteric fever were equal to an annual rate of 0.05 per 1,000; in London the rate from this disease was only 0.03 per 1,000, while in the other towns it ranged upwards to 0.16 in Sheffield and in Hull, 0.20 in St. Helens, 0.24 in Gloucester, 0.27 in Warrington, 0.29 in Devonport, and 0.32 in Rotherham. The 1,213 deaths from measles were equal to an annual rate of 0.28 per 1,000; in London this disease caused a death-rate of 0.18 per 1,000, but in the other towns were as high as 0.78 in Portsmouth, 1.04 in Nottingham, 1.11 in York, 1.18 in Manchester, 1.24 in Oldham, 2.05 in Salford, and 3.12 in Warrington. The deaths from scarlet fever numbered 267 last quarter, and were equal to an annual rate of 0.06 per 1,000; the rate in London from this disease was only 0.02 per 1,000, while it ranged upwards in the other towns to 0.20 in Acton and in St. Helens, 0.23 in Norwich, 0.24 in Preston, 0.30 in Eastbourne and in Dewsbury, 0.31 in Barnsley and in Aberdare, and 0.32 in Coventry. The 1,731 deaths from whooping-cough corresponded to an annual rate of 0.40 per 1,000; in London this disease caused a death-rate of 0.25 per 1,000, while in the other towns the rates ranged upwards to 1.00 in Sheffield, 1.04 in Rhondda, 1.05 in West Bromwich, 1.21 in Great Yarmouth, 1.24 in Barrow-in-Furness, 1.43 in St. Helens, 2.77 in Merthyr Tydfil, and 3.07 in Walsall. The 698 deaths from diphtheria were equal to an annual rate of 0.16 per 1,000; in London the rate was 0.12 per 1,000, while it ranged upwards in the ninety-three other towns to 0.37 in Portsmouth and in Barrow-in-Furness, 0.38 in Southport, 0.43 in Plymouth, 0.44 in Preston and in Swansea, 0.47 in Grimsby, and 0.75 in Gillingham. The 723 deaths from diarrhoea and enteritis among children under 2 years of age were equal to an annual rate 0.16 per 1,000 of the population at all ages; in London the death-rate from this cause was 0.19 per 1,000, while among the other towns the highest rates were 0.30 in Liverpool and in Burnley, 0.33 in Warrington, 0.34 in Tynemouth, 0.36 in Rhondda, and 0.57 in Stoke-on-Trent.

Infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births was equal to 113 per 1,000 last quarter. In London the rate of infant mortality was 95 per 1,000, while among the other towns the rates ranged from 54 in Blackpool, 56 in Southend-on-Sea, 67 in Oxford, 69 in Enfield, 73 in Hastings, 76 in Northampton, 78 in Barnsley, and 79 in Walthamstow, to 154 in Preston and in York, 158 in Burnley, 160 in Cardiff, 165 in Newport (Mon.), 167 in West Bromwich, 172 in Great Yarmouth and in Dudley, 183 in Rhondda, 202 in Merthyr Tydfil, and 215 in Walsall.

The causes of 630, or 0.9 per cent., of the deaths registered in the

Analysis of the Vital Statistics of Ninety-four of the Largest English Towns during the First Quarter of 1912.

Towns.	Estimated Population middle of 1912.	Births.	Deaths.	Annual rate per 1,000 Living.		Enteric Fever.	Small-pox.	Measles.	Scarlet Fever.	Whooping-cough.	Diphtheria.	Diarrhœa and Enteritis (under two years of age).	Deaths of Children under one year of age to 1,000 Births.	Rate per cent. of Uncertified Deaths.
				Births.	Deaths.									
94 Towns	17,559,219	112,565	70,975	25.7	16.2	217	1	1,213	267	1,731	638	723	113	0.9
London	4,519,754	29,020	17,215	25.8	15.3	31	1	202	23	282	133	217	95	0.1
Croydon	174,257	1,008	564	23.2	13.0	3	—	4	—	1	11	6	93	—
Wimbledon	56,729	296	158	20.9	11.2	—	—	—	—	5	1	1	81	—
Ealing	64,956	295	189	18.2	11.7	—	—	—	1	1	3	2	85	1.1
Acton	60,113	410	181	27.4	12.1	—	—	—	3	2	4	2	93	—
Willesden	159,432	1,020	465	25.7	11.7	—	—	—	1	5	4	4	104	0.4
Hornsey	86,252	357	233	16.6	10.8	—	—	—	2	1	—	2	81	—
Tottenham	142,016	880	492	24.9	13.9	3	—	1	—	26	6	2	131	—
Edmonton	67,167	461	206	27.5	12.3	1	—	—	—	13	5	1	93	—
Enfield	58,139	361	163	24.9	11.2	—	—	—	1	—	3	1	69	—
West Ham	291,900	2,222	1,117	30.5	15.4	4	—	3	2	39	14	13	104	0.1
East Ham	138,507	876	425	25.4	12.3	1	—	—	2	9	5	4	92	—
Leyton	128,155	768	378	24.0	11.8	—	—	—	2	7	10	5	86	—
Walthamstow	128,480	877	345	27.4	10.8	—	—	—	1	2	8	3	79	—
Ilford	83,081	345	194	16.7	9.4	—	—	—	1	6	2	2	96	0.5
Gillingham	53,511	320	179	24.0	13.4	—	—	—	—	10	10	—	122	2.8
Hastings	60,565	233	184	15.4	12.2	—	—	—	—	—	—	1	73	—
Eastbourne	53,697	231	144	17.3	10.8	—	—	—	4	—	—	1	87	1.4
Brighton	132,265	643	512	19.5	15.5	2	—	4	—	1	—	2	86	—
Portsmouth	236,732	1,443	943	24.4	16.0	1	—	46	3	26	22	10	93	0.4
Bournemouth	81,179	317	264	15.7	13.0	1	—	3	1	—	2	2	114	—
Southampton	120,891	710	435	23.6	14.4	2	—	1	—	19	6	7	97	0.2
Reading	88,603	458	308	20.7	13.9	1	—	12	1	1	2	2	114	2.6
Oxford	53,540	270	189	20.2	14.2	—	—	9	—	—	—	2	67	—
Northampton	90,467	485	293	21.5	13.0	—	—	—	—	5	4	1	76	0.3
Southend-on-Sea	67,197	301	155	18.0	9.3	—	—	—	—	—	2	—	56	5.8
Ipswich	74,899	477	328	25.5	17.6	—	—	2	—	4	1	—	138	—
Great Yarmouth	56,513	308	286	21.9	20.3	2	—	—	1	17	—	2	172	0.3
Norwich	122,479	681	538	22.3	17.6	1	—	15	7	—	8	3	139	0.2
Swindon	51,512	311	161	24.2	12.5	—	—	—	—	—	—	1	100	—
Plymouth	112,610	638	530	22.7	18.9	3	—	—	—	10	12	4	138	—
Devonport	85,172	467	298	22.5	14.4	6	—	—	—	[illegible]	3	2	109	—
Bath	63,598	297	267	17.1	15.4	1	—	1	—	2	—	2	111	—
Bristol	359,400	2,004	1,558	22.4	17.4	2	—	51	3	13	15	13	143	—
Gloucester	50,301	281	208	22.4	16.6	3	—	—	2	3	1	—	135	1.0
Stoke-on-Trent	237,153	1,897	1,122	32.1	19.0	9	—	23	10	13	15	34	147	2.0
Wolverhampton	95,478	623	391	26.2	16.4	—	—	4	1	3	—	3	117	—
Walsall	92,868	693	560	29.9	24.2	—	—	12	—	71	3	3	215	—
West Bromwich	68,749	526	339	30.7	19.8	2	—	5	—	18	1	3	167	1.8
Dudley	51,390	378	281	29.5	21.9	1	—	5	—	1	—	—	172	6.4
Birmingham	850,948	5,628	3,474	26.5	16.4	5	—	[illegible]	22	183	23	32	126	3.4
Smethwick	72,805	444	267	24.5	14.7	—	—	1	—	11	2	3	135	0.4
Coventry	111,166	755	410	27.2	14.8	—	—	—	9	23	8	3	114	1.7
Leicester	229,291	1,232	945	21.6	16.5	—	—	7	7	36	11	6	136	0.4
Lincoln	58,409	369	183	25.3	12.6	—	—	—	2	—	2	2	103	—
Grimsby	76,183	483	222	25.7	11.7	1	—	—	—	—	9	2	93	0.9
Nottingham	262,563	1,520	1,104	23.2	16.9	2	—	68	6	12	8	10	119	0.6
Derby	124,545	732	528	23.6	17.0	2	—	—	—	13	4	6	117	—
Stockport	110,781	692	486	25.1	17.6	2	—	15	2	[illegible]	5	1	94	—
Birkenhead	133,435	936	543	28.1	16.3	—	—	1	2	20	7	7	104	0.4
Wallasey	81,805	435	255	21.3	12.5	1	—	8	—	7	4	1	101	0.8
Liverpool	752,055	5,534	3,603	29.5	19.2	4	—	47	24	51	37	57	120	2.9
Bootle	71,151	529	279	29.8	15.7	—	—	—	—	7	2	2	106	4.7
St. Helens	98,163	842	484	34.4	19.8	5	—	—	5	35	4	3	148	3.3
Southport	52,114	206	227	15.9	17.5	1	—	4	—	—	5	1	131	4.0
Wigan	90,048	721	385	32.1	17.1	—	—	3	—	2	4	4	110	—
Warrington	73,205	539	329	29.5	18.0	5	—	57	3	1	5	6	117	3.3
Bolton	182,534	1,071	815	23.5	17.9	2	—	17	—	16	13	7	109	0.2
Bury	59,106	323	243	21.9	16.5	—	—	2	2	12	—	1	136	2.5
Manchester	723,550	4,776	3,706	26.5	20.5	16	—	214	12	123	23	43	135	0.6
Salford	232,726	1,602	1,206	27.6	20.8	8	—	119	5	28	12	13	134	0.8
Oldham	148,840	879	735	23.7	19.8	—	—	46	2	27	7	8	144	0.1
Rochdale	92,530	504	421	21.8	18.2	1	—	—	—	12	1	3	131	1.9
Burnley	108,015	644	467	23.9	17.3	1	—	16	2	4	—	8	158	2.1
Blackburn	133,560	726	515	21.8	15.5	1	—	11	1	3	4	1	95	2.3
Preston	117,630	732	604	25.0	20.6	3	—	3	7	24	13	3	154	2.5
Blackpool	59,834	242	206	16.2	13.8	1	—	—	—	—	1	1	54	2.4
Barrow-in-Furness	64,588	428	275	26.6	17.1	1	—	—	—	20	6	1	119	3.3
Huddersfield	109,512	499	434	18.3	15.9	1	—	—	4	9	3	2	108	0.7
Halifax	101,104	471	455	18.7	18.1	1	—	2	2	2	2	4	106	0.2
Bradford	289,618	1,371	1,228	19.0	17.0	5	—	27	3	3	21	3	101	—
Leeds	447,725	2,706	1,794	24.2	16.1	4	—	6	15	28	39	8	101	—
Dewsbury	53,630	297	259	22.2	19.4	1	—	—	4	10	—	—	121	—
Wakefield	51,944	314	217	24.2	16.8	—	—	10	—	1	2	—	83	—
Barnsley	51,876	423	205	32.7	15.8	2	—	—	4	12	[illegible]	—	78	—
Sheffield	460,649	3,357	1,969	29.2	17.1	18	—	7	8	115	14	25	113	0.4
Rotherham	63,557	497	239	31.4	15.1	5	—	2	3	2	3	3	105	3.8
York	82,863	475	378	23.0	18.3	2	—	23	2	—	3	1	154	0.5
Hull	282,987	2,042	1,093	28.9	15.5	11	—	1	—	4	6	7	110	0.7
Middlesbrough	106,554	881	439	33.2	16.5	3	—	—	5	3	1	8	101	1.1
Darlington	57,104	364	187	25.6	13.1	1	—	—	2	3	1	1	96	9.1
Stockton-on-Tees	52,244	445	204	34.2	15.7	1	—	—	—	1	2	2	117	2.0
West Hartlepool	64,096	474	274	29.7	17.1	1	—	—	—	10	3	1	133	0.4
Sunderland	151,824	1,232	633	32.5	16.7	1	—	4	—	17	7	2	103	3.0
South Shields	109,676	823	448	30.1	16.4	2	—	1	2	5	2	6	85	3.1
Gateshead	117,837	798	499	27.2	17.0	1	—	1	1	24	9	1	118	4.6
Newcastle-on-Tyne	269,193	1,870	1,037	27.8	15.5	4	—	2	12	9	10	9	101	0.4
Tynemouth	59,809	433	246	29.0	16.5	2	—	—	—	—	2	5	90	1.6
Newport (Mon.)	85,863	612	377	28.6	17.6	—	—	12	3	9	1	2	165	1.3
Cardiff	184,636	1,176	784	25.5	17.0	7	—	21	4	37	7	11	160	—
Rhondda	157,951	1,378	738	35.0	18.7	—	—	26	4	41	6	14	183	0.1
Merthyr Tydfil	82,555	634	426	30.8	20.7	2	—	3	—	57	3	5	202	0.2
Aberdare	51,811	419	213	32.4	16.5	—	—	—	4	4	—	[illegible]	138	0.9
Swansea	117,314	857	484	29.3	16.5	—	—	15	—	25	13	3	123	0.2

ninety-four towns last quarter were not certified, either by a registered medical practitioner or by a coroner. In thirty-two of the towns the causes of all the deaths were duly certified; among the other towns the highest proportions per cent. of uncertified deaths were 3.4 in Birmingham, 3.8 in Rotherham, 4.0 in Southport, 4.6 in Gateshead, 4.7 in Bootle, 5.8 in Southend-on-Sea, 6.4 in Dudley, and 9.1 in Darlington.

HEALTH OF ENGLISH TOWNS.

In ninety-five of the largest English towns 8,440 births and 4,292 deaths were registered during the week ending Saturday, May 18th. The annual rate of mortality in these towns, which had been 14.1, 13.9, and 14.2 per 1,000 in the three preceding weeks, fell to 12.7 per 1,000 in the week under notice. In London last week the death-rate did not exceed 11.8 per 1,000 against 13.3, 13.7, and 14.1 in the three previous weeks. Among the ninety-four other large towns the death-rates ranged from 3.2 in Ealing, 3.7 in Wimbledon, 4.0 in Barnsley, 4.7 in Reading, and 6.3 in Enfield to 17.7 in Preston, 17.9 in Sunderland, 18.2 in Oldham, 18.3 in Blackburn, 18.4 in Cardiff, and 23.0 in Rotherham. Measles caused a death-rate of 1.9 in Dewsbury, 2.5 in Salford, 2.8 in Ipswich, 3.8 in Merthyr Tydfil, 5.6 in Cardiff, and 5.7 in Rotherham; and whooping-cough 1.9 in Merthyr Tydfil, 2.0 in Dudley and in Aberdare, 2.1 in Ipswich and in Oldham, and 2.4 in South Shields. The mortality from the remaining infectious diseases showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 27, or 0.6 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest, and included 5 in Birmingham, 5 in Liverpool, and 2 each in Stoke-on-Trent, Bootle, St. Helens, and Sunderland. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospitals, which had been 1,223, 1,214, and 1,242 at the end of the three preceding weeks, declined to 1,213 on Saturday last; 146 new cases were admitted during the week, against 144, 158, and 168 in the three previous weeks.

HEALTH OF SCOTTISH TOWNS.

In eighteen of the largest Scottish towns 1,199 births and 665 deaths were registered during the week ending Saturday, May 11th. The annual rate of mortality in these towns, which had been 16.2 and 15.6 per 1,000 in the two preceding weeks, rose to 15.9 in the week under notice, and was 1.7 per 1,000 above that recorded in the ninety-five large English towns. Among the several Scottish towns the death-rates last week ranged from 8.4 in Partick, 9.3 in Hamilton, and 10.6 in Coatbridge to 19.6 in Dundee, 21.0 in Kilmarnock, and 23.3 in Ayr. The mortality from the principal epidemic diseases averaged 1.3 per 1,000, and was highest in Motherwell and Paisley. The 252 deaths from all causes recorded in Glasgow included 4 from measles, 3 from scarlet fever, 2 from diphtheria, 3 from whooping-cough, and 5 from infantile diarrhoea. Six deaths from measles were registered in Edinburgh, 4 in Dundee, 3 in Paisley, and 3 in Motherwell; and 3 deaths from whooping-cough in Edinburgh, 3 in Dundee, and 2 in Coatbridge.

In eighteen of the largest Scottish towns 1,150 births and 661 deaths were registered during the week ending Saturday, May 18th. The annual rate of mortality in these towns, which had been 16.2, 15.6, and 15.9 per 1,000 in the three preceding weeks, was 15.8 last week, and was 3.1 per 1,000 above the rate recorded in the ninety-five large English towns. Among the several Scottish towns the death-rates ranged from 6.1 in Falkirk, 9.2 in Paisley and Govan, and 10.0 in Motherwell, to 20.2 in Ayr, 21.3 in Coatbridge, and 22.5 in Leith. The mortality from the principal epidemic diseases averaged 1.7 per 1,000, and was highest in Leith and Coatbridge. The 264 deaths from all causes registered in Glasgow included 7 from measles, 6 from whooping-cough, 5 from infantile diarrhoea, 2 from enteric fever, and 2 from diphtheria. Seven deaths from measles were recorded in Edinburgh, 5 in Dundee, 4 in Leith, and 4 in Coatbridge; 3 deaths from whooping-cough in Edinburgh, and 2 in Leith; and 5 deaths from infantile diarrhoea in Dundee and 5 in Aberdeen.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, May 11th, 605 births and 442 deaths were registered in the twenty-two principal urban districts of Ireland, as against 663 births and 449 deaths in the preceding week. The annual death-rate in these districts, which had been 23.3, 20.3, and 20.2 per 1,000 in the three preceding weeks, fell to 19.9 per 1,000 in the week under notice, this figure being 5.7 per 1,000 higher than the mean average death-rate in the ninety-five English towns for the corresponding period. The figures in Dublin and Belfast were 25.1 and 15.3 respectively, those in other districts ranging from 4.0 in Dundalk and 4.6 in Ballymena to 39.4 in Galway and 42.0 in Drogheda, while Cork stood at 21.1, Londonderry at 21.7, Limerick at 16.3, and Waterford at 17.1. The zymotic death-rate in the twenty-two districts averaged 1.9 per 1,000, as against 2.2 in the preceding period.

During the week ending Saturday, May 18th, 729 births and 412 deaths were registered in the twenty-two principal urban districts of Ireland, as against 605 births and 442 deaths in the preceding period. The annual death-rate in these districts, which had been 20.3, 20.2, and 19.9 per 1,000 in the three preceding weeks, fell to 18.6 per 1,000 in the week under notice, this figure being 5.9 per 1,000 higher than the mean average death-rate in the ninety-five English towns for the corresponding period. The figures in Dublin and Belfast were 18.2 and 18.4 respectively, those in other districts ranging from 4.0 in Dundalk and 5.0 in Kilkenny to 31.1 in Portadown and 37.0 in Tralee, while Cork stood at 22.5, Londonderry at 14.0, Limerick at 17.7, and Waterford at 26.6. The zymotic death-rate in the twenty-two districts averaged 1.3 per 1,000 as against 1.9 in the preceding period.

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

BANGOR: CARNARVON AND ANGLESEY INFIRMARY.—House-Surgeon. Salary, £100 per annum.

BEDFORD: BEDFORDSHIRE COUNTY COUNCIL.—Assistant School Medical Officer and Deputy County Medical Officer of Health. Salary, £300 per annum.

BIRKENHEAD AND WIRRAL CHILDREN'S HOSPITAL.—Male House-Surgeon. Honorarium, £100 per annum.

BIRMINGHAM GENERAL HOSPITAL.—(1) House-Physician, (2) Two House-Surgeons, (3) House-Surgeon to Special Departments, (4) Resident Pathologist. Salary at the rate of £50 per annum attached to (1), (3), and (4), and at the rate of £40 per annum for first three months, rising to £50 per annum, for (2).

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Third House-Surgeon. Salary, £75 per annum.

BRADFORD: ROYAL EYE AND EAR HOSPITAL.—House-Surgeon.

BRIGHTON: ROYAL SUSSEX HOSPITAL.—Assistant House-Surgeon (Male). Salary, £80 per annum.

BRISTOL GENERAL HOSPITAL.—House-Physician. Salary, £80. Appointment for six months.

BRITISH MEDICAL ASSOCIATION.—Deputy Medical Secretary. Salary at the rate of £600 per annum.

BRIXTON DISPENSARY, Water Lane, S.W.—Resident Medical Officer. Salary, £150 per annum.

BURY INFIRMARY.—(1) Senior House-Surgeon; salary, £100 per annum. (2) Junior House-Surgeon; salary, £80 per annum, rising to £90 after the first six months.

CAMBERWELL: PARISH OF ST. GILES.—Locumtenents for the Medical Officer at the Constance Road Workhouse. Remuneration at the rate of six guineas weekly.

CARMARTHEN: JOINT COUNTIES ASYLUM.—Second Assistant Medical Officer. Salary, £160 per annum, increasing to £180.

CHARING CROSS HOSPITAL, W.C.—(1) Assistant Surgeon; (2) Assistant Obstetric Physician.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL.—House-Physician. Salary, £80 per annum.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Physician to Out-patients. Honorarium, 40 guineas per annum.

CITY OF LONDON LYING-IN HOSPITAL, City Road, E.C.—Resident Medical Officer. Salary at the rate of £50 per annum.

COVENTRY: COVENTRY AND WARWICKSHIRE HOSPITAL.—Senior House-Surgeon. Salary, £120 per annum.

CROYDON COUNTY BOROUGH.—Assistant Resident Medical Officer at the Infectious Diseases Hospital. Salary, £120 per annum.

DORCHESTER: COUNTY ASYLUM.—Junior Assistant Medical Officer. Salary, £160 per annum, rising to £200.

DUBLIN: ROYAL HOSPITAL FOR INCURABLES, Donnybrook.—Resident Medical Officer (Male). Salary, £120 per annum.

DUNDEE DISTRICT ASYLUM.—(1) Senior Resident Medical Officer. (2) Junior Resident Medical Officer. Salary, £175 and £120 per annum, increasing to £250 and £150 respectively.

DUNFERMLINE: CARNEGIE DUNFERMLINE TRUSTS.—Lady Medical Officer to act as Third Assistant. Salary, £250 per annum.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Medical Officer (Male) and Second Medical Officer to the Casualty Department. Salary at the rate of £100 and £40 per annum respectively.

EDINBURGH: THE HOSPICE.—Medical Woman as Resident. Honorarium, £25 per annum.

FOLKESTONE: ROYAL VICTORIA HOSPITAL.—House-Surgeon. Salary, £100 per annum.

GLASGOW MATERNITY AND WOMEN'S HOSPITAL.—(1) Two Outdoor House-Surgeons at the Hospital. (2) One Outdoor House-Surgeon at the West End Branch.

GLOUCESTER: GLOUCESTERSHIRE ROYAL INFIRMARY AND EYE INSTITUTION.—Assistant House-Surgeon. Remuneration at the rate of £80 per annum.

HUDDERSFIELD ROYAL INFIRMARY.—Assistant House-Surgeon. Salary, £80 per annum,

ISLE OF MAN LUNATIC ASYLUM.—Assistant Medical Officer. Salary, £175 per annum, rising to £200.

ITALIAN HOSPITAL, Queen Square, W.C.—House-Surgeon. Salary at the rate of £60 per annum.

KILMUIR PARISH COUNCIL.—Medical Officer. Salary, £75 per annum.

LEAMINGTON SPA BOROUGH.—Medical Officer of Health. Salary, £450 per annum, rising to £500.

LEAMINGTON SPA: WARNEFORD HOSPITAL.—House-Physician. Salary, £85 per annum.

LEEDS GENERAL INFIRMARY.—(1) Resident Surgical Officer; salary, £150 per annum. (2) Resident Obstetric Officer. (3) House-Physician. (4) Resident Medical Officer at the Ida and Robert Arthington Hospitals; salary, £30.

LEICESTER INFIRMARY.—Male Assistant House-Physician. Salary at the rate of £80 per annum.

LIVERPOOL DISPENSARIES.—Assistant Surgeon. Salary, £100 per annum.

LONDON LOCK HOSPITAL.—(1) House-Surgeon for Female Hospital. (2) Assistant House-Surgeon for Female Hospital. (3) House-Surgeon to Male Hospital. Salary for (1) and (3) £100 per annum, and for (2) £80 per annum.

MACCLESFIELD GENERAL INFIRMARY.—Senior House-Surgeon. Salary, £100 per annum.

MANCHESTER ROYAL INFIRMARY.—(1) Assistant Director in the Clinical Laboratory. (2) Three Assistant Medical Officers. (3) Assistant Medical Officer to the Convalescent Hospital, Cheadle. Salary at the rate of £75, £35, and £80 per annum respectively.

MANCHESTER TOWNSHIP.—Assistant Medical Officer at the Workhouse at Crumpsall. Salary, £110 per annum.

MELBOURNE UNIVERSITY.—Chair of Veterinary Pathology and Directorship of the Veterinary Institute. Salary, £900 per annum, together with life insurance premium of £100.

MIDDLESEX HOSPITAL, W.—Second Assistant to the Director of the Clinical and Bacteriological Laboratories. Salary, £100 per annum.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Hampstead.—House-Physician. Salary, £75 per annum.

NEWCASTLE-ON-TYNE DISPENSARY.—Visiting Medical Assistant. Salary, £160 for first year and £180 afterwards.

NEWPORT AND MONMOUTHSHIRE HOSPITAL.—(1) House-Physician. (2) House-Surgeon. Salary, £50 and £60 per annum respectively.

NORTHAMPTON GENERAL HOSPITAL.—House-Surgeon (Male). Salary, £90 per annum, increasing to £100.

NORWICH INCORPORATION.—Resident Medical Officer at Workhouse Infirmary (Male). Salary, £180 per annum, increasing to £220.

NOTTINGHAM GENERAL DISPENSARY (Branch).—Assistant Resident Surgeon (Male). Salary, £160 per annum.

ORKNEY: ISLAND OF SHAPANSEY.—Medical Officer and Public Vaccinator. Salary at the rate of £80 per annum.

PLAISTOW: MEDICAL MISSION HOSPITAL.—Junior Resident Medical Officer (Female) for the Dispensary.

POPLAR HOSPITAL FOR ACCIDENTS, E.—Senior House-Surgeon. Salary at the rate of £135 per annum.

PRINCE OF WALES'S GENERAL HOSPITAL, Tottenham, N.—Junior House-Physician. Salary, £50 per annum.

PUBLIC DISPENSARY, Drury Lane, W.C.—Resident Medical Officer. Salary, £105 per annum.

QUEEN CHARLOTTE LYING-IN HOSPITAL, Marylebone Road, N.W.—Resident Medical Officer for Out-patient Department. Salary at the rate of £60 per annum.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Senior House-Surgeon. Salary, £100 per annum.

SHEFFIELD: JESSOP HOSPITAL FOR WOMEN.—Assistant House-Surgeon. Salary, £40 per annum.

SHEFFIELD ROYAL HOSPITAL.—Sixth Resident. Salary, £60 per annum.

SHEFFIELD ROYAL INFIRMARY.—Ear and Throat Surgeon. Salary, £70 per annum.

SHEFFIELD UNIVERSITY.—Demonstrator in Anatomy. Salary, £150 per annum.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—(1) House-Physician. (2) House-Surgeon. Salary, £100 and £120 per annum respectively.

SUNDERLAND: DURHAM COUNTY AND SUNDERLAND EYE INFIRMARY.—Locumtenents for House-Surgeon. Remuneration, 5 guineas a week.

TUNBRIDGE WELLS GENERAL HOSPITAL.—House-Physician (Male). Salary, £100 per annum.

WADSLEY: SOUTH YORKSHIRE ASYLUM.—Locumtenents to act as Assistant Medical Officer for five months. Salary, £4 4s. per week.

WAKEFIELD GENERAL HOSPITAL.—Assistant House-Surgeon (Male). Salary, £100 per annum.

WARRINGTON INFIRMARY AND DISPENSARY.—Junior House-Surgeon. Salary at the rate of £100 per annum.

WEST LONDON HOSPITAL, Hammersmith Road, W.—(1) Physician. (2) Assistant Physician. (3) Non-Resident Casualty Officer, salary at the rate of £100 per annum.

WINCHESTER: ROYAL HAMPSHIRE COUNTY HOSPITAL.—House-Physician (Male). Salary, £80 per annum.

WOMEN'S HOSPITAL FOR CHILDREN, Harrow Road, W.—Two Clinical Assistants (Women).

WORCESTER: COUNTY AND CITY ASYLUM, Powick.—Junior Assistant Medical Officer. Salary, £150 per annum, rising to £170.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacant appointments: Calne (Wilts.), Lasswade (Edinburgh), Kingston-on-Thames (Surrey).

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

APPOINTMENTS.

ASHBY, Hugh T., B.A., M.B., B.C.Cantab., M.R.C.P.Lond., Honorary Assistant Physician to the Salford Royal Hospital.

ASSINDER, E., M.B., B.Ch.Birm., Pathologist to the Birmingham Parish Infirmary.

BOBART, A., M.R.C.S.Eng., Government Medical Officer and Vaccinator at Nowra, New South Wales.

BROWN, J. E. K., M.B.New Zealand, House-Surgeon to the Gisborne Hospital, New Zealand, vice Dr. Singer, resigned.

FAIRFAX, E. W., M.B., Ch.M.Syd., Honorary Physician to the Royal Prince Alfred Hospital, Sydney.

FINDLAY, Sinclair, F.R.C.S.I., Honorary Surgeon, Balmain District Hospital, New South Wales.

GODSALL, Robert S., M.B., Ch.M.Syd., F.R.C.S.Edin., Honorary Assistant Surgeon for Diseases of the Ear, Nose, and Throat at the Royal Prince Alfred Hospital, Sydney.

GOW, W. J., M.D., F.R.C.P Lond., Obstetric Surgeon to St. Mary's Hospital, Paddington.

HARLAN, G. P., M.D.Glasg., Medical Officer of the Workhouse of the Newcastle-upon-Tyne Union.

HURLEY, T. E. V., M.D.Melb., Medical Superintendent, Melbourne Hospital.

KISCH, Harold A., M.B., B.S.Lond., F.R.C.S.Eng., Assistant Surgeon to the Central London Throat, Nose, and Ear Hospital.

MACPHERSON, John, M.B., Ch.M.Syd., Honorary Assistant Physician to the Royal Prince Alfred Hospital, Sydney.

MARTYN, V. C., L.R.C.P.Lond., M.R.C.S.Eng., Medical Registrar to the London Temperance Hospital, Hampstead Road, N.W.

MOLESWORTH, E. H., M.B., Ch.M.Syd., Honorary Physician for Diseases of the Skin at the Royal Prince Alfred Hospital, Sydney.

MOORE, J. I., L.R.C.S., L.K.Q.C.P.Irel., Medical Officer of the Lazaret, Peel Island, Queensland.

O'MALLEY, John F., F.R.C.S., Aural Surgeon to the Evelina Hospital for Sick Children, Southwark Bridge Road, S.E.

ORCHARD, J. Russell, M.B., Ch.B.Edin., House-Surgeon to the Torbay Hospital.

RIDDELL, David, M.D.Glasg., Honorary Surgeon to the Westmorland County Hospital, Kendal, vice Dr. Brumwell (retired).

STEVENS, T. G., M.D., M.R.C.P.Lond., Obstetric Surgeon in charge of Out-patients at St. Mary's Hospital, Paddington.

TELLING, W. H. Maxwell, M.D., B.S., M.R.C.P., M.R.C.S., Honorary Physician to the Leeds General Infirmary.

THYNE, W., M.A., M.D.Edin., Medical Officer and Public Vaccinator of the Hallaton District of the Uppingham Union and the Sixth District of the Market Harborough Union.

TREWBY, Miss L., L.R.C.P. and S.Edin., L.F.P.S.Glasg., First Physician, Pestanji Hormasji Cama Hospital for Women and Children, Bombay.

TYLECOTE, Frank Edward, M.D., D.P.H.Vict., M.R.C.P.Lond., Honorary Physician to the Salford Royal Hospital, vice Professor J. Dixon Mann, M.D., F.R.C.P., deceased.

MANCHESTER ROYAL INFIRMARY.—The following appointments have been made:

House-Physicians.—F. S. Bedale, M.A.Cantab., M.R.C.S., L.R.C.P., Roger Stewart, M.R.C.S., L.R.C.P., James M. Scott, M.B., Ch.B.Edin.

Senior House-Surgeons.—S. B. Radley, M.B., Ch.B.Vict., W. H. Kauntze, M.B., Ch.B.Vict.

Junior House-Surgeons.—N. Duggan, M.B., Ch.B.Vict., M.R.C.S., L.R.C.P., N. Matthews, M.B., Ch.B.Vict.

House-Surgeon to Special Department.—G. K. Thompson, M.B., Ch.B.Vict.

Medical Registrar.—C. E. Lea, M.D.Vict.

UNIVERSITY COLLEGE HOSPITAL.—The following appointments have been made:

House-Surgeon.—M. Vlasto, M.B., B.S., M.R.C.S., L.R.C.P.

House-Physician.—J. L. Davies, M.R.C.S., L.R.C.P.

Assistant in Ear and Throat Department.—A. G. Wells, M.B., B.S., D.P.H., M.R.C.S., L.R.C.P.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTH.

LYLE.—On May 20th, at Eversley, Elmfield Road, Bromley, Kent, the wife of H. Willoughby Lyle, M.D.Lond., F.R.C.S., of a daughter.

DEATH.

JONES.—On May 18th, after a very short illness, John T. Jones, L.R.C.P., Tynllan, Llansilin, Oswestry.

DIARY FOR THE WEEK.

FRIDAY.

ROYAL SOCIETY OF MEDICINE:

CLINICAL SECTION, 1, Wimpole Street, W., 8.30 p.m.—(1) Annual Meeting and Election of Officers. (2) Demonstration of Cases and Specimens. (3) Paper: Dr. Johnston-Lavis: A Case of Gonococcal Empyema.

EPIDEMIOLOGICAL SECTION, 11, Chandos Street, W., 8.30 p.m.—(1) Annual General Meeting and Election of Officers. (2) Discussion on Dr. Rundle's paper on Bed Isolation (adjourned from previous meeting). (3) Discussion on Hypersensitiveness, to be opened by Dr. E. W. Goodall.

SECTION OF DISEASES OF CHILDREN, 1, Wimpole Street, W., 5 p.m.—Annual General Meeting: Election of Officers and Council for the ensuing Session.

SATURDAY.

ROYAL SOCIETY OF MEDICINE:

BALNEOLOGICAL AND CLIMATOLOGICAL SECTION.—Annual Provincial Meeting at Woodhall Spa.

POST-GRADUATE COURSES AND LECTURES.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Wednesday, 4 p.m., Experience of the Dioradin Treatment.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat, at noon and 4.30 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Tuesday, and noon, Friday. Eye, 11 a.m., Wednesday and Saturday. Radiography, Saturday, 10 a.m. Pathological Demonstration, Friday, 11 a.m.

LONDON SCHOOL OF TROPICAL MEDICINE.—Lectures daily (Saturday excepted) at 12 and 4 p.m. Practical laboratory work daily (Saturday excepted), 10 to 12 a.m. Practical Entomology, 2 to 3.30 daily; Special Entomology, 10.30 to 1 p.m. daily. Medical Clinics, Monday and Thursday at 3 p.m. Operations, Friday at 3 p.m.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week at 4 p.m. each day: Tuesday, Medical. Wednesday, Surgical. Thursday, Surgical. Friday, Ear, Nose, and Throat. Lectures at 5.15 p.m. each day will be given as follows:—Tuesday, On Some of the Less Common Tumours of the Neck. Wednesday, Relationship of Fits to Mental Disorder. Thursday, Sprains.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Surgery of the Nervous System. Friday, 3.30 p.m., Cerebellar Abscess secondary to Otitis.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics: 10 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear; 3 p.m., Demonstration on Clinical and General Pathology. Tuesday, 2.30 p.m., Operations. Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient; Wednesday, 2 p.m., Throat Operations; 2.30 p.m., Medical Out-patient; Skin and Eye Clinics; *X* Rays; 3 p.m., Pathological Demonstration; 4.30 p.m., Special Demonstration of cases illustrating (*a*) the Treatment of Ringworm by *X* Rays, (*b*) the Diagnosis of Pulmonary Tuberculosis by the Screen and Skiagram; 5.30 p.m., Eye Operations. Thursday, 2.30 p.m., Gynaecological Operations. Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient; 4.30 p.m., Special Demonstration of cases of Children's Disease. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient; Pathological Demonstration.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—The following are the arrangements for next week: Medical and Surgical Clinics, *X* Rays, and Operations, 2 p.m. daily except Monday. Tuesday: Gynaecological Operations, 10 a.m.; Demonstration of Minor Operations, 11 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday: Gynaecological Demonstration, 10 a.m.; Lecture: Practical Medicine, 12.15 p.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday: Gynaecological Operations, 10 a.m.; Lecture: Clinical Pathology, 12.15 p.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m. Special Lectures at 5 p.m. daily except Monday and Saturday.

PUBLISHERS' ANNOUNCEMENTS.

MESSRS. J. AND A. CHURCHILL announce the publication of the following new works and new editions: *Psychological Medicine* (second edition), by Maurice Craig, M.D., F.R.C.P., with about 30 plates; *The Analysts' Laboratory Companion* (fourth edition), by Alfred E. Johnson, B.Sc.Lond., F.I.C.; *A Lecture on Pruritus Vulvae*, by R. A. Gibbons, M.D., F.R.C.S.E.

Professor R. Duncan Taylor has sent his new work, *The Composition of Matter and the Evolution of Mind*, to England for publication by the Walter Scott Publishing Co., Ltd. Its aim is to make plain the cause of evolutionary transformations that culminated in the mind of man, which was, and is, capable of aspiration for renewal, "dominion," and, individually, of progress and immortality.

DIARY OF THE ASSOCIATION.

Date.	Meetings to be Held.
	MAY.
24 Fri.	St. Pancras and Islington Division, Midland Grand Hotel, Annual Meeting, 9 p.m.
25 Sat.	Nominations for Central Council published (p. 560).
28 Tues.	Croydon Division, Croydon, Annual Meeting, 4 p.m.
29 Wed.	Bristol Division, Bristol, Annual Meeting, 4.30 p.m.
	Salisbury Division, Salisbury, Annual Meeting, 8.15 p.m.
	Bath and Bristol Branch, Bristol, Annual Meeting.
30 Thur.	South Carnarvon and Merioneth Division, Dolgelley, Annual Meeting, 1.30 p.m.
	Northampton Division, Northampton, Annual Meeting, 2.30 p.m.; Luncheon, 1.30 p.m.
	City Division, Town Hall, Hackney, Annual Meeting, 4 p.m.
	English Division, County Hall, Carlisle, Annual Meeting, 4.30 p.m.
	Maidenhead Division, Maidenhead, Annual Meeting, 5 p.m.
	Norwood Division, Upper Norwood, Annual Meeting, 5 p.m.
31 Fri.	Monmouthshire Division, Newport, Annual Meeting, 3.30 p.m.
	Furness Division, Masonic Hall, Barrow, Annual Meeting, 3.45 p.m.
	Boston and Spalding Division, Boston, Annual Meeting, 5.30 p.m.; Dinner, 7 p.m.
	JUNE.
6 Thur.	South Midland Branch, Aylesbury, Annual Meeting, 2.30 p.m.; Luncheon, 1.15 p.m.
	Lambeth Division, Bethlem Hospital, Annual Meeting, 4 p.m.
7 Fri.	Central Ethical Committee, London, 2 p.m.
	Dundee Division, Annual Meeting.
	Journal Committee, London, 11 a.m.
8 Sat.	Issue of Voting Papers for Central Council Election from Head Office.
11 Tues.	Public Health Committee, London, 3.30 p.m.
	Forfarshire Division, Annual Meeting.
12 Wed.	Medico-Political Committee, London, 2 p.m.
	Fife Branch, Kirkcaldy, Annual Meeting, 3 p.m.

Date.	Meetings to be Held.
	JUNE (*continued*).
13 Thur.	East York and North Lincolnshire Branch, Grimsby, Annual Meeting.
15 Sat.	Practices Committee, London, 9.30 a.m.
	Last day for receipt of Voting Papers at Head Office *re* Central Council Election.
17 Mon.	Naval and Military Committee, London (if necessary).
18 Tues.	Organization Committee, London, 2.30 p.m.
19 Wed.	South-Eastern Branch, Town Hall, Bromley, Annual Meeting, 2.15 p.m.; Lunch, 1 p.m.; Dinner, 6.30 p.m.
	Bath and Bristol Branch, Annual Meeting.
	East Anglian Branch, Brentwood, Annual Meeting.
20 Thur.	Metropolitan Counties Branch Council, 4 p.m.
26 Wed.	Finance Committee, London, 2.30 p.m.
27 Thur.	Edinburgh Branch, Edinburgh, Annual Meeting, 4 p.m.
28 Fri.	Metropolitan Counties Branch, 429, Strand, W.C., Annual Meeting, 4.30 p.m.
	JULY.
3 Wed.	Central Council, London, 2 p.m.
	Annual Meeting, Liverpool.
19 Fri.	Annual Representative Meeting.
20 Sat.	Annual Representative Meeting.
22 Mon.	Council Meeting, 9.30 a.m.
	Annual Representative Meeting, 10 a.m.
	Secretaries' Conference and Dinner, 7 p.m.
23 Tues.	Annual Representative Meeting, 9.30 a.m.
	Annual General Meeting, 2 p.m., President's Address, 8.30 p.m.
24 Wed.	Council Meeting, 9 a.m.
	Sectional Meetings, 10 a.m. to 1 p.m.
	Address in Medicine, 12.30 p.m.
	Religious Services, 3 p.m.
25 Thur.	Sectional Meetings, 10 a.m. to 1 p.m.
	Address in Surgery, 12.30 p.m.
	Annual Dinner, 7.30 p.m.
26 Fri.	Council Meeting, 9 a.m.
	Sectional Meetings, 10 a.m. to 1 p.m.
27 Sat.	Excursions.

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SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JUNE 1st, 1912.

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Meetings of Branches and Divisions.

[The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the JOURNAL.*]*

METROPOLITAN COUNTIES BRANCH:

ST. PANCRAS AND ISLINGTON DIVISION.

ANNUAL MEETING.

THE annual meeting of the St. Pancras and Islington Division of the British Medical Association was held at the Midland Hotel, St. Pancras, on May 24th, Dr. BASIL G. MORISON presiding.

Annual Report.

The HONORARY SECRETARY (Dr. Alex. Brown) presented the annual report, which stated the features of the year to have been an increase of 30 per cent. in the membership and an unusually large attendance both at meetings of the Division and at general meetings of the profession convened by the Division. The report was adopted.

Election of Officers.

The following officers were elected: *Chairman*, Dr. R. M. Beaton; *Vice-Chairman*, Dr. Alex. Brown; *Honorary Secretary*, Dr. Joseph Wilson; *Executive Committee*, Drs. Roche, Adam Alexander, Norman Glaister, Rattray, Thurston, Glinn, Walter Smith, Matheson, Bulger; *Representatives on the Branch Council*, Dr. Alexander Brown and Dr. Basil G. Morison; *Nomination for the Vice-presidency of the Branch Council*, Dr. Walter Smith; *Secretary*, Dr. Griffith; *Treasurer*, Dr. Lauriston Shaw.

THE NATIONAL INSURANCE ACT.

The business proceedings were followed by a meeting of the profession in the district called to consider the present position with regard to the National Insurance Act. Dr. MORISON again presided, and a large assembly listened to an address by Dr. R. M. BEATON.

Address by Dr. Beaton.

Dr. BEATON said he intended, as far as he could, without divulging proceedings *in camera*, to describe what had been done in reference to the National Insurance Act by the State Sickness Insurance Committee of the British Medical Association and the Advisory Committee to the Insurance Commissioners. The problem before the State Sickness Insurance Committee was in reference to the six cardinal points. If the Commissioners refused any of them, the Committee had no power to negotiate—at any rate, with a view to taking something less than the Representative Meeting decided; all it could do was to take the matter back to the Representative Meeting and let it decide. If a deadlock arose with the medical men, the protagonists of the Act suggested either (1) payment of the medical benefits to the insured, who would make their own arrangements as private patients; (2) payment to friendly societies, which would make arrangements with the doctors; or (3) a whole-time medical service. Whether any of these alternatives was adopted depended entirely on the medical profession; if it remained united, there was no doubt it would be able to get fair and reasonable terms. The State Sickness Insurance Committee had addressed itself to the question of regulations in order to be in a position to make suggestions if the Commissioners drew up regulations and invited criticism. The relative values of payment by capitation and by attendance had been worked out. A report of the Committee with reference to a public medical service would be issued shortly. If the medical benefits were suspended, this would represent the constructive side of the Committee's work.

Dealing with the work of the Advisory Committee, Dr. Beaton said that Mr. Lloyd George had stated that this was not an executive committee, or one with power to negotiate. Mr. Masterman, on the other hand, said the doctors were negotiating in a most amicable spirit with the Commissioners, and that things were going so well that he would not lift a little finger to disturb them. As a matter of fact there had been no negotiations by the Advisory Committee with the Commissioners, because the Committee by Act of Parliament had no power whatever

to negotiate. The State Sickness Insurance Committee had asserted with strong emphasis that the members who had gone from it to the Advisory Committee were in a secondary position, that the State Sickness Insurance Committee was the primary committee representing the British Medical Association, and that if negotiations were to take place it was not the Advisory Committee, composed of friendly societies, employers, trades union representatives, and members of the medical profession, which must undertake them, but the State Sickness Insurance Committee, as the only body representing the British Medical Association on this question. (Applause.) The Advisory Committee had met twice—the first time without an agenda, and the second time with an agenda received so late that it could not be studied beforehand. The first meeting divided itself into two sections, and some interesting speeches were made, but as regards any result achieved by the section with which the doctors were concerned he was afraid he must use the comment sometimes applied by *Punch* to parliamentary proceedings and say: "Business done: *Nil.*" At the second meeting discussion took place as to the method of remuneration, and the method of forming panels of medical men. He did not like to say they did nothing, but they had a very interesting debate, and then they went home. It had been decided in future to hold the meetings in smaller sections. The medical men would meet and discuss questions of remuneration and formation of panels; the week after their conclusions would be discussed by the friendly society section, and the conclusions of both would be sent to the whole committee, which would discuss them, and after that something might happen. He asked them seriously to consider the position. By the middle of June the Advisory Committee would have come to some decision on the two matters he had mentioned, and in July the Representative Meeting of the British Medical Association would be held. Imagine the treatment members of the Advisory Committee would receive when they came to the Representative Meeting and related what had been accomplished. Some of them felt this so strongly that they had taken action, and the result, he hoped would be a speeding up of the machine. The State Sickness Insurance Committee had done splendid work, and had a great deal of information compiled—the product of many hours of arduous labour. The Insurance Commissioners were getting all the information they could as to what doctors had been paid in the past and what they were being paid now, and medical men in certain localities might expect to receive calls from accountants, to whom he hoped they would give any assistance they could, so that figures might be obtained which would be of value, although the relation of the information obtained to the doctors' minimum demand was not obvious.

What was to be the policy of the profession in the immediate future? They had all made up their minds on one thing, and that was not to recede from the six cardinal points, or to return to the old position of being under the control of the committee of a club. They were determined to be free men, and masters in their own house, able to control their own business in their own way. To his mind this was more important than the question of money. He admitted that in these hard times money was a very important point; but, from the standpoint of doing good work, of advancing medical education, and public health, it was imperative that medical men should be able to act freely and independently of friendly societies or clubs. In urging those present to sign the supplementary pledge sent down from head quarters, Dr. Beaton admitted that the pledge was an exceedingly serious thing. To some men it meant practically promising to relinquish their whole living, and they had the fear that if they gave notice some one else would step in and accept the appointment at the old terms. The men at the hospitals felt they had difficulties; that their engagements with the directors of the institutions were binding upon them. Men in all classes of the profession were realizing that they were being called upon for great sacrifices. He thought they would all have to make sacrifices, although they might not prove ultimately to be sacrifices. The only thing to do was to raise a fund so that a man who could prove loss would not be without compensation. It must be remembered that the club patients would still require treatment, and would have to pay the doctors, so that no one knew exactly what compensation would be required. He hoped that in Islington and St. Pancras the profession would raise a standard that would be followed throughout London and the country.

Discussion.

The CHAIRMAN mentioned that he had received this message—"The staff of the University College Hospital has signed the pledge to a man." (Applause.)

Dr. MATHESON said he held clubs worth about £130 a year, but he thought it his duty to other members of the profession to sign the new pledge as he had signed the first one. He did not think trades union members of clubs would care to be attended by blacklegs.

Dr. GLAISTER regretted that so many members of the profession did not attend the meetings, and rather looked upon it as a favour when they contributed to defence funds, after receiving several calls.

Dr. TURNER urged that the profession must stand together as its only hope of avoiding bankruptcy.

Dr. BULGER mentioned that he had canvassed thirty members of the profession, all of whom contributed, those with clubs signing the undertaking with the others.

Dr. HAYNES expressed some doubt as to whether a levy of £10 a member of the profession would produce sufficient funds, either in St. Pancras or in the country generally.

Dr. SMYTHE thought it was rather unfair to ask a man who had constantly refused to take contract practice to subscribe for the benefit of those who had.

Dr. BEATON, replying to points raised, explained that the defence fund would be used in any given area, irrespective of the amount contributed to it. He presumed that the method by which the loss to the individual member would be estimated would be left to the Council of the British Medical Association.

Dr. JOSEPH WILSON, in proposing a vote of thanks to Dr. Beaton, said there was no Utopia in the profession of medicine, but the profession had made up its mind that it would not live in bondage, but be free to carry on its work with credit and honour to itself and with advantage to suffering humanity. Freedom would be secured by unity and loyalty and by burying malice and distrust.

The vote of thanks was carried and the proceedings terminated.

WOOLWICH DIVISION.

A SPECIAL meeting of all the medical practitioners residing in the Borough of Woolwich and practising there, called together by the Woolwich Medico-Chirurgical Society, was held on April 30th. It was decided to elect office-bearers for the new Woolwich Division just sanctioned by the Head Office of the British Medical Association. There were thirty-two members of the profession present, and Dr. Cowie took the chair. Dr. Goodall, Honorary Secretary of the Metropolitan Counties Branch, was present to give guidance to the formation of the new Division.

Election of Officers.—The election of officers was then proceeded with. The following were the results:—*Chairman of New Division*, Dr. Cowie; *Vice-Chairman*, Dr. Holmes; *Honorary Secretary*, Dr. J. Shaw Williamson; *Representative to Branch*, Dr. Lindon; *Representative at Representative Meeting*, Dr. Clarke; *Executive Committee*:—Woolwich: Drs. Cowie, Hirsch, Gray Duncanson, and Williamson. Plumstead: Drs. J. L. Clarke, Holmes, Lindon, Mair, and Wise. Eltham: Drs. St. John, Sandford Smith, and Thomson.

Adoption of Rules.—It was moved and seconded that the rules be adopted.

New Members.—Two new members were nominated and accepted: Major Fuhr, R.A.M.C., D.S.O., Captain Coates, R.A.M.C.

Provisional Medical Committee.—A Provisional Medical Committee was then formed, a meeting of which is to be held at an early date.

Vote of Thanks.—A very hearty vote of thanks was unanimously accorded to Dr. Goodall for attending the meeting and giving his advice.

NORTH WALES BRANCH.

A MEETING of the Branch was held at the Imperial Hotel, Wrexham, on Wednesday, May 15th, 1912, at 2 p.m. Mr. EVAN WILLIAMS, of Bala, the President, was in the chair, and forty-six members were present.

Confirmation of Minutes.—The minutes of the last meeting were confirmed and signed.

Letters of Apology.—Letters and telegrams regretting their inability to attend were received from a large number of members.

Report of the Branch Council.—The HONORARY SECRETARY read the report of the Branch Council which had met prior to the meeting for the election of five members of the Association—namely: Drs. D. W. Morris (Dinas Mawddwy), J. H. Williams (Flint), J. H. Douglas Webster (Colwyn Bay), L. W. Roberts (Holyhead), and W. Stanley Hughes (Denbigh). The report was approved and adopted.

Financial Statement for 1911.—The HONORARY SECRETARY submitted the financial statement for 1911, which had been printed and circulated, and showed a balance to the credit of the Branch of £11 18s. 2d. in the General Fund and of £6 15s. in the Private Fund. On the proposal of Dr. H. V. PALIN, seconded by Dr. E. Moss, the balance sheet was approved and adopted.

Welsh National Memorial to King Edward VII.—Drs. E. Moss (Wrexham) and H. Jones-Roberts (Honorary Secretary) were appointed the representatives of the Branch on the Medical Subcommittee of the Welsh National Memorial to King Edward VII.

Date of Annual Meeting.—Owing to the unavoidable postponement of this spring meeting, it was decided to hold the annual meeting at Barmouth in the second week of September, instead of in July as usual.

Adverse Criticism in Lay Press.—Mr. S. EDWARDS JONES (Wrexham) called the attention of the meeting to an article which had appeared in the *Daily News* for the previous day, headed "Killed by a Boycott—Tragic Story of a Devon Doctor—Medical Association's Brutal Tactics," and proposed the following resolution, which was seconded by Mr. J. D. LLOYD (Chirk) and carried:

> That in the opinion of this Branch the attack made upon the members of the Barnstaple Division in the *Daily News* of May 14th was perfectly unjustifiable, unwarranted, and misleading to the public generally, and we entirely uphold the attitude they have taken in the interests of the profession as a whole.

Visit of the Medical Secretary: Insurance Act.—Dr. Alfred Cox, the newly-appointed Medical Secretary of the Association, was present to address the meeting on the National Insurance Act, and was heartily welcomed to North Wales and congratulated on his appointment by the PRESIDENT and the HONORARY SECRETARY. Dr. Cox having thanked the members of the Branch proceeded to deal at length with the present position of the profession with regard to the Act and the conditions upon which an honourable profession can accept service under it. He referred to the supplementary form of pledge issued by the Association and the importance of signing it. Also to the guarantee fund, which every member of the Association should seriously consider his responsibility towards, as the absence of an adequate and substantial guarantee fund would cripple the efforts of the Association in its fight for the profession. Dr. Cox invited the members to ask any questions they might wish, and the following took part in the subsequent discussion: Drs. J. T. JONES (Llansilin), E. D. EVANS (Wrexham), W. B. WARRINGTON (Liverpool), F. YATES (Coedpoeth), S. EDWARDS JONES (Wrexham), J. C. DAVIES (Rhos), W. MICHAEL WILLIAMS (Penmachno), RICHARD JONES (Blaenau Festiniog), J. M. HUGHES (Ruthin), HUGH JONES (Dolgelly), R. T. EDWARDS (Dolgelly), J. D. LLOYD (Chirk), and RICHARD EVANS (Wrexham). Letters were also read from Drs. E. Lloyd Owen (Criccieth) and Emyr O. Price (Bangor). Dr. Cox having replied, was accorded a hearty vote of thanks for his address, and the lucid and highly satisfactory way in which he had dealt with the questions asked.

Luncheon.—Prior to the meeting the members lunched together at the Imperial Hotel.

DORSET AND WEST HANTS BRANCH.

THE annual meeting of this Branch was held in the Hotel Mont Dore, Bournemouth, on Wednesday, May 22nd, at 3.30 p.m., the PRESIDENT (Dr. Whittingdale) in the chair. The following members were present: Mr. F. Winson Ramsay (President-elect), Mr. T. McCarthy (Vice-President), Dr. W. Johnson Smyth, Dr. T. H. Sanderson Wells, Mr. C. J. Marsh, Mr. H. R. Unwin, Mr. J. H. Warburton, Mr. W. S. Wright, Dr. P. W. Macdonald, Mr. C. H. Carrington, Mr. G. Mahomed, Dr. A. Purkiss, Dr. C. Grey Edwards, Dr. Wm. Alexander, Dr. T. W. Blake, Mr. C. H. Watts Parkinson, Dr. Eleanor C. Bond, Mr. R. Mercer, Lieutenant-Colonel Decimus Curme, Dr. G. S. Small, Mr. J. H. Yearsley, Dr. J. E. Esselmont, Mr. W. E. Good, Dr. T. Hopkins, Mr. W. L. Bradshaw, Dr. G. H. Rutter, Dr. T. H. Fiske, Dr. A. Tuthill, Dr. G. F. S. Genge, Mr. F. C. A. Bushman, Mr. A. G. Mossop, Dr. H. Simmons, Dr. Vincent Milner, Dr. A. Humphry Davy, Mr. Jeffry Gott, Dr. A. R. Paterson, Mr. T. H. E. Watts Silvester, Dr. T. G. Bell, Dr. W. T. Gardner, Mr. P. A. Ross, Dr. H. Stanley Jones, Mr. F. Belben, Dr. J. Roberts Thomson, Mr. F. C. Forster, Dr. F. C. Bottomley, Dr. C. R. Willans, Mr. A. H. Vernon, Dr. R. P. Simpson, Dr. C. Saberton, Dr. J. S. Dickie, Dr. G. A. Reid, Mr. A. Kinsey-Morgan, jun., Dr. J. R. Morton, Mr. C. M. Adams, Dr. E. Hyla Greves, Mr. Bernard Scott, Dr. W. H. L. Marriner, Mr. W. H. Best, Dr. H. G. Lys, and the Honorary Secretary.

Confirmation of Minutes.—The minutes of the autumn meeting, held at Blandford on October 18th, 1911, were read and confirmed.

Apologies for Non-Attendance.—Apologies for non-attendance were received from Dr. H. Dobell, Dr. W. D. Johns, Mr. R. B. Dawson, Dr. E. K. Le Fleming, Mr. W. Burrough Cosens, Mr. W. H. Cundell, Dr. J. E. Robinson, Dr. G. R. Rickett, Dr. J. Empson, Mr. P. A. Colmer, Mr. T. F. Ensor, Mr. C. B. Mooring Aldridge, Mr. A. B. Batley, Dr. N. Flower, and Mr. G. F. W. Flower.

Treasurer's Statement.—The TREASURER read the statement of accounts for 1911, which was adopted.

Divisional Reports.—Dr. ELEANOR BOND read the report of the Bournemouth Division and Mr. MCCARTHY the report of the West Dorset Division.

Report of Branch Council.—The HONORARY SECRETARY read the report of the Branch Council.

Increase in Numbers of Branch Council.—The Council having given notice of the proposed alteration to the by-law, Dr. MACDONALD proposed, and Mr. MAHOMED seconded:

> That the number of members of the Branch Council elected by the Bournemouth Division be increased to nine.

This was carried unanimously.

Installation of New President.—The PRESIDENT (Dr. Whittingdale) then thanked the members for the kindness and forbearance they had shown him during his year of office, and introduced his successor (Mr. F. Winson Ramsay), who, he said, was well known as an active member of the Branch, having contributed many excellent papers, and whose criticisms of matters in which he was personally interested had always been listened to with respect and attention. Mr. RAMSAY then took the chair, and thanked Dr. Whittingdale for the terms in which he had introduced him, and the Branch for the honour of his election to the office of President. He mentioned that he had been a member of the Branch for twenty-five years, and had seen many changes in its membership. He then proposed a vote of thanks to the retiring President (Dr. Whittingdale), who suitably responded.

Summer Meeting.—It was decided to hold the summer meeting at the Asylum, Harrison, Dorchester.

President's Address.—The PRESIDENT delivered an address on prolapse of the uterus. Mr. MARSH proposed, and Dr. SANDERSON WELLS seconded, a vote of thanks to the President for his instructive and interesting address, which was carried by acclamation.

New Member.—The PRESIDENT announced that Mr C. W. Branson had been elected a member of the Association.

Luncheon.—Previously to the meeting the members were entertained to luncheon by Mr. Ramsay.

Dinner.—After the meeting a dinner was held, at which eighteen members were present.

LANCASHIRE AND CHESHIRE BRANCH:

BURY DIVISION.

THE annual meeting of this Division was held in the Derby Hotel, Bury, on May 25th; Dr. JAS. HOLMES occupied the chair, and about thirty members were present.

Confirmation of Minutes.—The minutes of the last annual and the last ordinary meeting were read and approved.

Annual Report and Balance Sheet.—The SECRETARY presented the annual report and balance sheet. The report stated that during the year 1911–12 the membership had increased from 37 to 62. There still remained 17 non-members in the area, but most of these had a good reason for not joining, and were in agreement with the policy of the Association. Eight general meetings were held during the year, to one of which the Bolton and Rochdale Divisions were invited, the attendance numbering 150. The average attendance at other meetings was over 30. Seven committee meetings were also held, the average attendance being 9. The balance sheet for 1911 showed a deficit on the ordinary account of £4 11s. 5d., and a balance on the extraordinary account of £10 6s. 10d. The levy of 5s. was fully subscribed. [At this stage Mr. F. C. LARKIN addressed the meeting in support of his candidature for the Central Council, and answered questions.]

Election of Officers.—The following were duly elected officers for the ensuing year: *Chairman*, Dr. W. J. Baird; *Vice-Chairman*, Dr. G. Scarr; *Representative*, Dr. J. W. Johnson, Highfield House, Bury; *Extra Representative to Branch Council*, Dr. J. B. Kerr; *Honorary Secretary and Treasurer*, Dr. J. C. Turnbull; *Local Secretaries*, Dr. J. W. Smith (Radcliffe), Dr. Lawrie (Ramsbottom), Dr. W. M. MacIlraith (Rawtenstall), Dr. Harrison (Haslingden); *Executive Committee*, Drs. Cruickshank, Lucas, Vine, and Nuttall.

Payment of Representative.—On the recommendation of the Committee it was decided to pay the Representative 1½ guineas per day during Representative Meetings, and to forward an honorarium of 5 guineas with the thanks of the Division to the late Representative, Dr. Brown (Rochdale Division).

Provisional Medical Committee.

An ordinary meeting open to non-members was then held. It was pointed out that the General Purposes Committee formed by the Division some months ago, and consisting of the Executive Committee with the local secretaries and two extra members, fulfilled the main conditions of the Provisional Medical Committee, so it was decided that this committee should be elected as such, with the addition of three non-members. Vacancies were filled as follows: Members, Drs. Cook and Holmes; Non-members, Drs. Birch, C. Crawshaw, and Compston.

Complementary Pledge.—This was discussed, and before the end of the meeting forty-three had been signed. Dr. KERR moved and Dr. MACILRAITH seconded:

> That the Bury Division in all negotiations with the local Insurance Committees shall strictly adhere to the principle of payment per attendance as opposed to payment per capita.

An amendment proposed by Dr. JOHNSON and seconded by Dr. CRUICKSHANK—

> That the present time is not opportune for considering the method of remuneration,

was carried, and subsequently as a substantive motion.

Nominations for Central Council.—Dr. Helme and Dr. O'Sullivan were nominated.

Votes of Thanks.—Votes of thanks to the retiring Chairman and Committee were carried in the usual way.

PRESTON DIVISION.

A GENERAL meeting of this Division was held on May 23rd. Dr. J. E. GARNER was in the chair, and fifty-two members were present.

Central Council Election.—After a few introductory remarks, the CHAIRMAN called upon Dr. REYNOLDS to address the meeting on his candidature for the Central Council at the forthcoming election. Dr. Reynolds put his views in a clear and forcible way, and he was followed by Dr. O'SULLIVAN, who, in a most excellent speech, appealed to the Division for its support. After a considerable number of questions had been asked and replied to by the candidates, Dr. SELLERS moved, and Dr. PIMLEY seconded:

> That this Division, having heard the addresses of Drs. Reynolds and O'Sullivan, will support their candidature.

This was carried with enthusiasm, there being only three dissentients.

Provisional Medical Committee.—The following resolution was moved by the HONORARY SECRETARY, seconded by Dr. HUTLEY, and carried unanimously:

> That this meeting of the Preston Division approves of the formation of a Provisional Medical Committee, and elects the Executives of the British Medical Association and the Preston Medico-Ethical Society, with power to add to their number.

The following were elected members: Drs. R. C. Brown, J. E. Garner, A. C. Rayner, W. H. I. Sellers, J. E. Dunn, A. P. Mooney, W. J. Leighton, J. Lea, T. Smith, A. J. Petyt, T. Pimley, T. Sharples, W. Pimblett, J. Anderson, J. Pearson, M. W. Talbot, A. E. Rayner, E. Healey, and W. Sykes (Honorary Secretary).

Complementary Pledge.—The pledge was placed on the table and signed by the majority of the members present.

Attendance on Unethical Members.—A long discussion took place on the ethics of attendance on members of the profession who do not work ethically by other practitioners, which practice was condemned. Dr. O'Sullivan was asked if returned would he endeavour to ventilate this subject and try to get some general understanding as to the line that ethical members should take when called in for personal or family attendance.

Resolution of Chelsea Division.—The resolution sent by the Chelsea Division was read and unanimously agreed with.

Annual Meeting of Branch.—A letter was read from the Branch Council announcing the acceptance of the invitation of the Preston Division for the annual meeting of the Branch in 1913.

MIDLAND BRANCH:

LINCOLN DIVISION.

THE annual meeting was held in the Guildhall, Lincoln, on May 23rd.

Confirmation of Minutes.—The minutes of the last meeting were read and approved.

Report of Executive Committee.—The cash account for the year and the report of the Executive Committee were first presented and approved of.

Election of Officers.—The elections were proceeded with, and resulted as follows: *Vice-President, Midland Branch*, Dr. Purves; *Chairman*, Dr. G. J. R. Lowe; *Vice-Chairman*, Dr. Drury; *Representatives on Branch Council*, Drs. Purves and Frier; *Ordinary Members of Executive Committee*, Dr. Macdonald, Dr. Genney, and Dr. Clements; *Honorary Secretary and Treasurer*, Dr. Chater.

Instructions to Representative.—Certain subjects as tabulated on the front page of BRITISH MEDICAL JOURNAL SUPPLEMENT for May 11th, which will come up for decision by the Annual Representative Meeting at Liverpool were next discussed, and the Representative instructed thereon.

Patent and Proprietary Medicines.—The CHAIRMAN then read a letter from the Acting Medical Secretary as to obtaining evidence to be presented before the Government Select Committee appointed to inquire into the question of Patent and Proprietary Medicines. The Chairman suggested that any member who could should act in response to it.

Resolution of Chelsea Division.—The Representative was instructed to oppose the resolution of the Chelsea Division mentioned on p. 507, BRITISH MEDICAL JOURNAL SUPPLEMENT of May 18th.

Provisional Medical Committee.—A discussion took place with regard to the formation of Provisional Medical Committees in certain areas of the county, and preliminary arrangements were completed for one for the Lindsey area.

Vote of Thanks to Chairman.—The meeting terminated with a vote of thanks to the Chairman.

SOUTH WALES AND MONMOUTHSHIRE BRANCH:

MONMOUTHSHIRE DIVISION.

A SPECIAL meeting of this Division was held in the Savoy Hotel, Newport, on Friday, May 17th. The CHAIRMAN (Dr. H. C. Bevan) presided, and the following members were also present: Drs. Marsh, Shoolbred, Gregg, Cowie, Logie, Verity, Hayles, O'Keefe, Mitchel, Gratte, D. E. Thomas, Tonks, Ryan, Neville, Hackett, E. Y. Steele,

Buckner, Basset, W. D. Steel, Hurley, de Gruchy, Kendall, Ingram, Morrell Thomas, H. T. Evans, D. M. Hughes, Elworthy, Cook, Burpitt, J. O'Sullivan (Aberbeeg), Connellan, and S. Hamilton and R. J. Coulter (Honorary Secretaries).

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Provisional Medical Committee.—It was decided to appoint a Provisional Medical Committee for the Division, and the following were elected to serve on it: Drs. Marsh, J. W. Mulligan, W. D. Steel, Hackett, Shoolbred, O'Sullivan (Aberbeeg), Haslett, Ryan, Cowie, Morrell Thomas, Hamilton, Mitchell, Cook, Greer, Gratte, Horace Brown, E. M. Griffiths, Lloyd Smith, de Gruchy, and Coulter.

Supplementary Pledge.—Several members expressed the opinion that the terms of the supplementary pledge referring to the treatment of patients in voluntary medical charities ought to be strengthened; but after discussion it was decided by a majority that the meeting was of opinion that the pledge as drafted by the State Sickness Insurance Committee should be signed.

SOUTH-WEST WALES DIVISION.

A MEETING of the South-West Wales Division was held at the Infirmary, Carmarthen, on Wednesday, May 22nd. In the absence of the Chairman of the Division the chair was taken by Dr. LL. M. BOWEN-JONES, Carmarthen. There were twenty-two members present.

Confirmation of Minutes.—The minutes of one ordinary meeting and three special meetings were read and approved.

Provisional Local Committees.

The Secretaries of the Local Provisional Committees presented their reports of the meetings.

Dr. SAMUEL WILLIAMS (Llanelly), reporting for the County of Carmarthen, said that the guarantee fund had increased most satisfactorily since the formation of the Committee.

Dr. C. A. BRIGSTOCKE (Haverfordwest), in presenting his report for Pembrokeshire, said that the practitioners in his county were almost unanimous in supporting the policy of the Association, and the Committee had done excellent work. There were a few practitioners still in the area who would have to be canvassed. It was most interesting to listen to Dr. Brigstocke, who has been a member of the British Medical Association fo 147 years.

Dr. JOHN DAVIES, Aberayron, presented the report for Cardiganshire. A committee had been formed for the county, and the first meeting had been summoned for June 4th.

Annual Report of the Council of the Association.—A discussion took place, but, as the time was short, further consideration was postponed until the next meeting of the Division.

Medical Federation, Limited.—A letter was read from the Secretary of the South-East Essex General Practitioners, advising its members to join the Medical Federation, Limited. Dr. EDGAR DAVIES (Llanelly) proposed, and Dr. MORGAN LLOYD (Llanarthney) seconded:

> That this meeting is of opinion that far greater service would be done to the profession if all the members subscribed to the Guarantee Fund of the Association, and expressed its disapproval of any other fund for defence purposes being formed.

Other Business.—A resolution from the Chelsea Division *re* infamous conduct was read and approved. A letter from the Medical Secretary *re* Government Inquiry into Patent and Proprietary Medicines was also read and discussed.

EAST ANGLIAN BRANCH:

NORTH SUFFOLK DIVISION.

THE annual meeting of this Division was held at the Lowestoft Hospital on Thursday, May 23rd, at 4 p.m., Dr. RANSOME in the chair. The following were also present: Drs. Evans, Boswell, Schilling, Baylie, Morris, Helsham, Lay, Mead, Berry, Fox, Bell, Robinson, Owles, James, Mitchell, and Tyson (Honorary Secretary).

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Election of Officers.—The following were elected officers for the ensuing year: *Chairman*, Dr. Evans; *Vice-Chairman*, Dr. Ransome; *Representative at Representative Meetings*, Dr. Evans; *Representative on Branch Council*, Dr. Wood-Hill; *Honorary Secretary and Treasurer*, Dr. Tyson; *Executive Committee*, Drs. Wood-Hill, Bell, Hutchinson, and Schilling, with Drs. Evans, Ransome, Helsham, and Tyson *ex officio* members.

Votes of Thanks to Retiring Officers.—Votes of thanks were then passed to the officers of the past year.

Proposed Subdivision of Branch.—A memorandum was then considered on the proposed subdivision of the East Anglian Branch, and by 20 votes to 2 the following resolution was carried:

> That the East Anglian Branch be divided into a Norfolk and North Suffolk Branch, and an Essex and South Suffolk Branch.

Provisional Local Medical Committtee.—Dr. HELSHAM, Secretary of the Provisional Local Medical Committee, gave a summary of the two meetings of that Committee, and gave a most encouraging report concerning the number of Pledges and Resignation Forms signed by members in connexion with the Insurance Act, and of guarantees to the Defence Fund.

Fees for Ambulance Lectures.—The following resolution was carried unanimously:

> That in future no member shall give a course of ambulance lectures for a less fee than a guinea per lecture, without first obtaining the sanction of the Executive Committee of the Division, except in the case of those holding official appointments in connexion with military organizations.

GLASGOW AND WEST OF SCOTLAND BRANCH:

GLASGOW CENTRAL DIVISION.

THE annual meeting of the Division was held on May 21st, Dr. R. JARDINE in the chair. There were also present Drs. W. D. Macfarlane, junr., G. H. Edington, R. Stockman, John Adams, J. Grant Andrew, P. N. Grant, P. Maguire, R. K. Currie, John Paterson, J. S. McConville, and W. S. Syme, Honorary Secretary *pro tem.*

Resignation of Honorary Secretary.—Dr. GRANT intimated his desire to relinquish the office of Secretary. The CHAIRMAN expressed the regret of the members that, in consequence of his recent severe accident, Dr. Grant found it necessary to do so, and conveyed to him the thanks of the Division for the great amount of trouble and time he had given to the work during his several years of office.

Vote of Thanks to Representative.—A similar compliment was paid to the Representative, Dr. John Adams. The Division felt honoured that he had been chosen to take such a prominent part in the negotiations relating to the National Insurance Act.

Election of Officers.—The following office-bearers were elected: *Chairman*, R. Jardine, M.D.; *Vice-Chairman*, J. Grant Andrew, M.B., *Honorary Secretary and Treasurer*, W. S. Syme, M.D.; *Representative for Representative Meeting*, John Adams, M.B.; *Representatives on the Branch Council*, Drs. R. Jardine and W. S. Syme; *Executive Committee*, R. K. Currie, M.B., R. Stockman, M.D., P. Maguire, M.B., P. N. Grant, M.B., G. H. Edington, M.D., J. Wright, M.B.; *Subcommittee for the Defence Fund*, Drs. R. Jardine, J. Grant Andrew, W. S. Syme; *Provisional Medical Committee*, Drs. R. Jardine, John Adams, John Wright, George McIntyre, J. Paterson, James Montgomery, W. S. Syme.

Membership of Division.—The membership has increased during the year from 126 to 138, but the proportion of non-members is still large.

Address by Representative.—The REPRESENTATIVE (Dr. Adams) gave a most interesting survey of the present position of the profession in relation to the National Insurance Act.

LANARKSHIRE DIVISION.

Provisional Medical Committee.

THE following is a list of the members of the Provisional Local Medical Committee:

1. *Hamilton (Burgh).*—Dr. Crawford, Katherine Bank, Hamilton; Dr. Livingstone Loudon, Linnwood, Hamilton; Dr. Robertson, Sen., Linnholm, Hamilton; Dr. Murray Young, The Glebe, Hamilton.
2. *Airdrie (Burgh).*—Dr. Kirkland, the Lindens, Airdrie; Dr. Thomson, Drunclair, Airdrie.

3. *Coatbridge (Burgh), Glenboig and Baillieston.*—Dr. Macphail, Calder Avenue, Coatbridge; Dr. Rennie, Coatbridge; Dr. Gibson, Baillieston.
4. *Motherwell (Burgh).*—Dr. Robertson, Stronbrui, Motherwell; Dr. Jack, Birkenshaw, Motherwell; Dr. Fotheringham, Rosshill, Motherwell.
5. *Wishaw (Burgh), Overton, Nemains, and Carluke.*—Dr. Duff, Orchard Villa, Wishaw; Dr. Paterson, Curatehill, Law, Carluke; Dr. Little, Nemains.
6. *Lanarkshire County:*—
Strathaven, Larkhall, and Stonehouse.—Dr. M'Nay, Larkhall; Dr. Watt, Strathaven.
Bothwell, Uddingston, and Bellshill.—Dr. Bruce Goff, The Lindens, Bothwell; Dr. John Goff, The Lindens, Bothwell; Dr. J. T. Wilson, Hay Lodge, Bothwell; Dr. Macpherson, Barrogill, Bothwell; Dr. Muir, Bellshill; Dr. Thomson, Hawthornlea, Uddingston.
Shotts, Holytown, Harthill, Cleland, Salsburgh.—Dr. Macmillan, Zebra Cottage, Shotts; Dr. Lithgow, Cleland.
Cambuslang, Blantyre, East Kilbride, and Newton.—Dr. H. B. MacPherson, Ardchattan, Cambuslang; Dr. Grant, Croft Park, Blantyre; Dr. Laird, Ingleside, Cambuslang.
Upper Ward District, including Lanark, Douglas, Lesmahagow, Abington, Carstairs, Carnwath, Leadhills, Wanlockhead, Tarbrax, Forth, and Biggar.—Dr. MacKenzie, Ringside, Douglas; Dr. D. Adams, Lanark; Dr. M'Kinnon, Biggar; Dr. Lindsay, Kirkmuirhill; Dr. Harrison, Lesmahagow.
Bishopbriggs.—Dr. J. B. Miller, Bishopbriggs.
Shettleston.—Dr. Rob. Davidson, Shettleston.
Tolcross.—Dr. M'Kinlay, Tolcross.
Stepps.—Dr. M'Guire, Stepps.

The following are the Chairmen and Secretaries of the Local Provisional Committees:

1. *Hamilton Burgh.*—Chairman: Dr. Crawford, Katherine Bank, Hamilton. Secretary: Dr. Hugh Miller, Old Auchingramont, Hamilton.
2. *Airdrie Burgh.*—Chairman: Dr. Kirkland, The Lindens, Airdrie. Secretary: Dr. James Monie, Westfield, Airdrie.
3. *Coatbridge Burgh.*—Chairman: Dr. D. Macphail, Calder Avenue, Coatbridge. Secretary: Dr. J. Andrew, Altona, Coatbridge.
4. *Motherwell (Burgh).*—Chairman: Dr. John Fotheringham, Sen., Rosshill, Motherwell. Secretary: Thomas Ormiston, Esq., Writer, 18, Brandon Street, Motherwell.
5. *Wishaw (Burgh).*—Chairman: Dr. W. Duff, Orchard Villa, Wishaw. Secretary: Dr. Brodie, 21, Belhaven Terrace, Wishaw.
6. *Lanarkshire (County).*—Chairman: Dr. W. G. Macpherson, Barrogill, Bothwell. Secretary: Dr. Robert Thomson, Hawthornlea, Uddingston.

To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.

Association Notices.

NOMINATIONS FOR CENTRAL COUNCIL, 1912-13.

OWING to an oversight the nomination of Robert James Johnstone, M.B., F.R.C.S., for the Ulster Branch was omitted from the list published last week. Since that publication Dr. J. H. Taylor has intimated that his nomination for the Lancashire and Cheshire Branch was made without his consent, and has declined to stand. Dr. Jones Roberts has also withdrawn his candidature for the North Wales, Shropshire and Mid-Wales, and South Wales and Monmouthshire Branches; there will therefore be no contest in this constituency.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

A LIST of periodical publications, official reports, and Blue Books in the Library of the British Medical Association available for issue to members on loan has been printed, and copies can be obtained free on application to the Librarian, at the house of the Association, 429, Strand, W.C. The regulations governing the loan of these publications are stated in the introduction to the list.

The Library is open for consultation from 10 a.m. till 5 p.m. (on Saturdays till 2 p.m.).

BRANCH AND DIVISION MEETINGS TO BE HELD.

DUNDEE BRANCH: DUNDEE DIVISION.—Alteration of dates. The annual meeting will be held in University College, Dundee, on Thursday, June 6th, at 4 p.m.—MARTIN SMITH, Honorary Secretary.

DUNDEE BRANCH: FORFARSHIRE DIVISION.—The annual meeting will be held on Wednesday, June 12th. The place and date of meeting have not yet been fixed.—MARTIN SMITH, Honorary Secretary.

EAST ANGLIAN BRANCH.—The annual meeting of this Branch will be held at Brentwood on Wednesday, June 19th. Members wishing to read papers or to show cases or specimens should communicate at once with the Secretary for Essex, Dr. B. H. NICHOLSON, East Lodge, Colchester.

EAST YORKSHIRE AND NORTH LINCOLNSHIRE BRANCH.—The annual meeting of this Branch will be held at Grimsby on Thursday, June 13th. Business: Annual Report and balance sheet. Election of officers. Presidential address.—EDWARD TURTON, Honorary Secretary.

EDINBURGH BRANCH.—The annual meeting of this Branch will be held in the Hall of the Royal College of Physicians, 9, Queen Street, Edinburgh, on Thursday, June 27th, at 4 p.m. Business: (1) Minutes of last meeting. (2) Apologies for absence. (3) Annual Report and Financial Statement. (4) Treasurer's Report *re* Guarantee Fund. (5) Election of Office-bearers for 1912-13. (6) Discussion on the Aftermath of the Insurance Act, initiated by Dr. Martins, Haddington. (7) Any other competent business.—MICHAEL DEWAR and E. SCOTT CARMICHAEL, Honorary Secretaries.

EDINBURGH BRANCH: SOUTH-EASTERN COUNTIES DIVISION.—The annual meeting of the Branch will be held in the County Rooms, St. Boswells, on Tuesday, June 11th, at 3.15 p.m., Dr. Oliver (St. Boswells) presiding. Business: (1) Annual report. (2) Election of office-bearers. (3) Motion by Dr. Georgeson (Lauder). (4) Motion by Dr. Davidson (Kelso). (5) Consideration of reports and instructions to Representative. (6) Any other business. The Secretary begs to intimate that he does not seek re-election.—JOHN JEFFREY, Honorary Secretary.

FIFE BRANCH.—The annual meeting of this Branch will be held within the Station Hotel, Kirkcaldy, on June 12th, at 3 p.m.—R. BALFOUR GRAHAM, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH.—The annual general meeting of the Branch will be held at 429, Strand, W.C., on Friday, June 28th, at 4.30 p.m. Agenda: (1) Minutes of last meeting. (2) Report as to the election of new officers. (3) Annual report of Council. (4) Annual report of Representatives of the Branch on the Central Council. (5) Alteration of rules. On behalf of the Council it will be proposed:—That the Branch Rules 11 and 12 be altered to form one Rule—Rule 11—to read as follows: "11. The management of the affairs of the Branch shall be vested in the Branch Council, which shall consist of the officers of the Branch, together with the representatives of the Branch on the Central Council of the Association, and representatives of Divisions, as follows: (*a*) *Ex officio*—All the Representatives of the Divisions on the Representative Body. (*b*) *Ex officio*—The Honorary Secretaries of the Divisions. (*c*) One member appointed by each Division, and such other members as the Division may be entitled to appoint on the basis of one representative for every 100 members after the first 50." Branch Rules 11 and 12 are at present as follows: "11. The management of the affairs of the Branch shall be vested in the Branch Council, which shall consist of the officers of the Branch, together with the representatives on the Central Council of the Association elected by the Branch, and representatives of the Divisions. 12. The representatives of the Divisions on the Branch Council shall be not less than three for each Division, of whom one shall be the Honorary Secretary of the Division, and a second the representative of the Division at the Representative Meeting; for every additional 100 members of a Division beyond 50 there shall be an additional representative" [see By-law 16 of the Association]. (6) President's Address: The State, the Poor, and our Profession.—E. W. GOODALL and W. GRIFFITH, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: GREENWICH DIVISION.—The annual meeting of this Division will be held at the Co-operative Buildings, Brownhill Road, Catford, on Thursday, June 6th, at 3.30 p.m. Agenda: (1) Minutes of the last meeting. (2) Election of executive officers for the ensuing year. (3) To receive the annual report of the Division. (4) To read a letter from the Medical Secretary *re* the Government inquiry into patent and proprietary medicines, with a view to obtaining evidence as to harm done by these medicines. (5) Motion: That the Council be asked to create a Division to be named the Lewisham Division, the area of which to be coterminous with the boundaries of the Metropolitan Borough of Lewisham. (6) Any other competent business. Non-members of the Division are invited to be present, but they will be unable to

vote on Divisional matters. The Co-operative Buildings are close to the Lewisham Hippodrome.—LAWRENCE F. HEMMANS, Honorary Secretary, Lewisham Park.

METROPOLITAN COUNTIES BRANCH: HAMPSTEAD DIVISION.—The tenth annual meeting of the Hampstead Division will be held on Thursday, June 13th, at 8.15 p.m., at the Central Library, Finchley Road, N.W. Agenda: Election of officers and committee of the Division for 1912–13. Annual Report of the Council. Provisional agenda of the Annual Representative Meeting (SUPPLEMENTS of May 11th and 18th). Members are requested to note the alteration in the date of the meeting.—E. ARTHUR DORRELL, Assistant Honorary Secretary, 7, Cannon Hill, West Hampstead, N.W.

METROPOLITAN COUNTIES BRANCH: LAMBETH DIVISION.—The annual meeting will be held at Bethlem Hospital on Thursday, June 6th, at 4 p.m. Agenda: (1) Minutes of the last meeting. (2) Election of Executive Officers for the ensuing year. The following names have been nominated by the Executive Committee: Chairman, Dr. R. Esler; Representatives upon the Branch Council, J. Mackeith, Esq., M.B., H. Taylor, Esq., M.B.; Representatives at Representative Meetings, Dr. J. G. Porter Phillips, T. H. Parkes Peers, Esq.; Executive Committee, Dr. W. A. Atkinson, R. Capes, Esq., Dr. Couper Cripps, W. Cooper Keates, Esq., A. J. McNickle, Esq., H. Shapter Robinson, Esq.; *Ex officio* Members, W. Partridge, Esq. (Camberwell), F. Michael, Esq., M.B. (Camberwell), A. Matcham, Esq. (Southwark), J. Mackeith, Esq., M.B. (Southwark), A. M. Hickley, Esq. (Lambeth), Dr. Hamand Fraser Lambeth), V. A. Jaynes, Esq. (Bermondsey), Dr. B. A. Richmond (Bermondsey); Honorary Secretary and Treasurer, Dr. J. H. Clatworthy. Further nominations will be received by the Honorary Secretary before or at the meeting, and the election will be conducted by show of hands or by ballot as the meeting decides. (3) To receive the Annual Report of the Honorary Secretary. (4) To read a letter from the Medical Secretary *re* Government Inquiry into Patent and Proprietary Medicines, with a view to obtaining evidence as to harm done by these medicines. (5) To instruct the Representatives how to vote at the Annual Meeting at Liverpool. The Annual Report of Council will be found printed in the BRITISH MEDICAL JOURNAL SUPPLEMENT of May 11th. There are included in this report many important memoranda now presented for the first time: a list of those special items is given at the foot of the front page of the SUPPLEMENT. In the SUPPLEMENT of May 18th will be found printed the "Provincial Agenda for the Annual Representative Meeting." (6) Dr. J. G. Porter Phillips will give a demonstration of cases in the wards of the hospital.—J. H. CLATWORTHY, Honorary Secretary, 145, Denmark Hill, S.E.

SOUTH-EASTERN BRANCH.—The sixty-eighth annual meeting of this Branch will be held on Wednesday, June 19th, at 2.15 p.m., at the Town Hall, Market Square, Bromley. The Council will meet before luncheon at the Town Hall; notice of the time and agenda for this meeting will be sent to members of the Council in due course. Dr. John Scott (President-elect) kindly invites members to luncheon at the Royal Bell Hotel, from 1 to 2 p.m. Agenda (in addition to the business of an ordinary meeting): (1) To receive the report of the Election of Officers for 1912-13, who shall thereupon take office. (2) To receive the annual report of the Council on the affairs of the Branch, and the annual financial statement. (3) To receive the Revised Rules presented by the Council for adoption by the Branch. (A copy of these rules has been sent to members of the Branch; it should be brought to the meeting and preserved for future reference.) (4) To consider the adoption of the Bradford Rules and of Rule Z recommended by the Council as an addition to the Branch Ethical Rules. (5) Any other business decided on by the Council or any other competent business. Rule 10 (*b*) referring to the annual meeting is as follows: "To consider any matter relative to the honour and interests of the medical profession which may be brought before the meeting by the Branch Council or by a Division. No business shall be discussed under this head without notice thereof having been given to the Secretary, at least fourteen days before the meeting, with the terms of any resolution which is intended to be proposed." Tea will be provided during the meeting. No excursion is arranged; the Council considered that urgent business was likely to arise, and that this meeting should be purely for business. The Bromley and County Club courteously offers to make all members of the Branch attending the meeting honorary members for June 19th. There will be an exhibition of instruments, drugs, and electrical appliances at the Royal Bell Hotel, from 12 noon to 6 p.m. The annual dinner will be held at the Royal Bell Hotel at 6.30 p.m.; charge 6s. each. Wine will be provided by the local members. Members intending to be present at the luncheon or dinner are requested to signify their intention to Dr. A. Tennyson Smith, Shanklin, Orpington, Kent, not later than Saturday, June 15th; members wishing hospitality for the night should also communicate with Dr. A. Tennyson Smith.—E. A. STARLING, Honorary Secretary.

SOUTH MIDLAND BRANCH.—This Branch will hold its annual meeting at Aylesbury on June 6th, under the presidency of Dr. J. C. Baker, at the Board Room, Royal Bucks Hospital, at 2.30. Agenda: (1) Minutes. (2) Letters, etc. (3) New members elected by Branch Council. (4) President's address. (5) Mr. James Berry, F.R.C.S.: Address on Tumours of Bone, with Special Reference to Diagnosis (illustrated by museum specimens and skiagrams). Before the meeting a short meeting of Branch Council will be held. Agenda: (1) Minutes. (2) Letters. (3) Election of new member. (4) Place and time of autumnal meeting. The President invites all members to luncheon at the George Hotel at 1.15 p.m.; any member intending to accept this invitation is requested to let the President know not later than Monday, June 3rd.—E. HARRIES-JONES, Honorary Secretary.

SOUTH-WESTERN BRANCH.—The annual meeting will be held in the Hotel Victoria, Newquay, on Wednesday, June 26th, at 3 p.m.—RUSSELL COOMBE, Branch Secretary.

STAFFORDSHIRE BRANCH: MID STAFFORDSHIRE DIVISION.—The tenth annual general meeting of this Division will be held at the North-Western Hotel, Stafford, on June 14th, at 2.45 for 3 p.m. Agenda: (1) Notice convening the meeting. (2) Minutes of the last annual general meeting. (3) Correspondence, if any. (4) To receive report of Representative at the Special Representative Meeting held in February. (5) To receive report, if any, of Representative on the Branch Council. (6) To receive annual report of Honorary Secretary. (7) To receive reports from Secretaries of the Provisional Medical Committees for the Division area and for Burton-on-Trent. (8) To elect officers for year 1912–13: Chairman, Vice-Chairman, Honorary Secretary, Executive Committee, Ethical Committee, Representative for Annual Representative Meeting, 1912. (9) To instruct the Representative in regard to matters referred to the Divisions for consideration—for example, (*a*) Model Ethical Rules, pars. 76–81 and Appendix ix (SUPPLEMENT of May 11th); (*b*) Public Health and Poor Law, par. 37, p. 507 (SUPPLEMENT, May 18th); (*c*) Certificates and reports on cases, pars. 32 and 33, p. 507; (*d*) State Sickness Insurance, pars. 35 and 36, p. 507. (10) Any other business. (Members are requested to bring with them the SUPPLEMENTS to the BRITISH MEDICAL JOURNAL of May 11th and 18th.)—A. E. HODDER, Honorary Secretary, Stafford.

SCHOLARSHIPS AND GRANTS IN AID OF SCIENTIFIC RESEARCH.

SCHOLARSHIPS.

THE Council of the British Medical Association is prepared to receive applications for Research Scholarships, as follows:

1. An ERNEST HART MEMORIAL SCHOLARSHIP, of the value of £200 per annum, for the study of some subject in the department of State Medicine.
2. THREE RESEARCH SCHOLARSHIPS, each of the value of £150 per annum, for research into some subject relating to the Causation, Prevention, or Treatment of Disease.

Each Scholarship is tenable for one year, commencing on October 1st, 1912. A Scholar may be reappointed for not more than two additional terms.

The conditions of the award of Scholarships are stated in the Regulations, a copy of which will be supplied on application to the Medical Secretary of the Association, 429, Strand, London, W.C.

GRANTS.

The Council of the British Medical Association is also prepared to receive applications for Grants for the assistance of Research into the Causation, Treatment, or Prevention of Disease. Preference will be given, other things being equal, to members of the medical profession and to applicants who propose as subjects of investigation problems directly related to practical medicine.

The conditions of the award of Grants are stated in the Regulations, a copy of which will be supplied on application to the Medical Secretary of the Association, 429, Strand, London, W.C.

Applications.

Applications for Scholarships and Grants for the year 1912–13 must be made not later than Tuesday, June 11th, 1912, in the prescribed form, a copy of which will be supplied by the Medical Secretary on application.

Each application should be accompanied by testimonials, including a recommendation from the head of the laboratory, if any, in which the applicant proposes to work, setting out the fitness of the candidate to conduct such work, and the probable value of the work to be undertaken. This is not intended, however, to prevent applications for Grants in aid of work which need not be performed in a recognized laboratory.

ALFRED COX, *Medical Secretary.*

429, Strand, London, W.C.

National Insurance.

SCOTLAND.

The National Health Insurance Commissioners (Scotland) have issued several circulars in connexion with the formation of Insurance Committees in the various counties and burghs of Scotland.

Counties.

The County Council will appoint a quota of the members of the Insurance Committee for the county. The size of such committees may vary in point of numbers from 25 to 80 as the Commissioners may determine, but the proportionate representation of the County Council thereon will ordinarily be one-fifth of the whole. This representation may, however, be increased by the Insurance Commissioners when any part of the cost of medical or sanatorium benefit is defrayed by the County Council out of the county fund. The Council will also appoint one, two, or three duly qualified medical practitioners, according as the committee consists of less than 60, 60 and upwards, or 80 members respectively. The Insurance Committee will be responsible, among other matters, for the arrangements connected with the administration of (1) medical and sanatorium benefits in respect of the whole of the insured persons resident in its area; (2) sickness, disablement, and maternity benefits in respect of "deposit contributors"—that is, insured persons who are not members of an approved society.

District Insurance Committees.

Under regulations to be made by the Commissioners, the Insurance Committee of every county (except in cases where, owing to special circumstances, the Commissioners consider it unnecessary) will be required to prepare and submit for the approval of the Commissioners a scheme providing for the appointment of district Insurance Committees and prescribing their areas. [Section 59 (4).]

In particular the scheme must provide for the appointment of a district Insurance Committee for each burgh with less than 20,000 inhabitants; and power is given to the Insurance Committee (or, on appeal, to the Insurance Commissioners) to group "any adjoining areas" within any such burgh for the purpose of the appointment of a district Insurance Committee. Before preparing their scheme, however, the Insurance Committee must consult with the County Council, or a committee thereof appointed for the purpose, and consider any representation which they may make regarding it. [Section 59 (4) Proviso.]

County Society.

A County Council has power, within a year from the commencement of the Act (that is, before July 15th, 1913), to submit a scheme to the Commissioners for the establishment, under the council, of an approved society for the county, should such appear desirable, having regard to the number of employed contributors in the county who are not members of any society otherwise approved under the Act. It has to be noted that while there may be difficulty in obtaining, prior to July 15th, 1912, any trustworthy information as to the probable number of deposit contributors in the county, the council are expressly authorized at any time after the passing of the Act (that is, after December 16th, 1911) to take such steps as appear necessary with a view to ascertaining what insured persons resident in the county are eligible and willing to become members of the proposed county society, and generally for the formation of the society.

Sanatoriums.

The Commissioners draw special attention to Section 64 of the Act, which confers upon County Councils important powers in addition to those which they already possess as regards the provision of sanatoriums for the treatment of tuberculosis. In the event of a Parliamentary grant being allocated to them for the purpose, and if so authorized by the Local Government Board, County Councils may build, manage, and maintain sanatoriums and other institutions for the treatment of tuberculosis and such other diseases as may be appointed by the Board with the consent of the Treasury. The expenses of such sanatoriums and other institutions, so far as not defrayed by the grants in aid, are to be met out of the General Purpose Rate [Section 80 (12)]; or, if so directed under an Order by the Local Government Board, out of a rate for special county purposes charged on such part of the county as may be prescribed in the Order [Section 64 (2)].

With a view to providing treatment for insured persons suffering from tuberculosis, or other appointed disease, Insurance Committees must make arrangements, to the satisfaction of the Insurance Commissioners, as follows [Section 16 (i)]:

(i) As regards the treatment of persons in sanatoriums and other institutions, the arrangement must be made with "persons or local authorities (other than Poor Law authorities) having the management of sanatoriums or other institutions approved by the Local Government Board for Scotland." And for this purpose a local authority is empowered to provide treatment for insured persons outside as well as for persons resident inside the area of such authority. [Section 16 (1) (*a*).]

(ii) As regards the treatment of persons otherwise than in sanatoriums or other institutions, the arrangements may be made with "persons and local authorities (other than Poor Law authorities) undertaking such treatment in a manner approved by the Local Government Board for Scotland." And for this purpose a local authority is empowered to provide treatment (including the appointment of officers) if authorized by the Local Government Board for Scotland to do so [Section 16 (i) (*b*)].

The Insurance Committee for any county or burgh may, if it thinks fit, extend sanatorium benefit to the dependants of insured persons resident in the county, or any part of the county, or in the burgh, or to any class of such dependants, and in such case the arrangements to be made by the committee will include arrangements for the treatment of such dependants, and the sums available for sanatorium benefit will be applicable to the purpose [Section 17 (1)].

To facilitate co-operation among county councils, town councils, and other local authorities (not being Poor Law authorities) for the provision of sanatoriums and other institutions, the Local Government Board may, by order, provide for the constitution of joint committees, joint boards, or otherwise for the joint exercise of the powers relating to such institutions [Section 64 (3)].

Excess Expenditure of Insurance Committees.

To meet expenditure on medical benefit there will be paid each year to the Insurance Committee for the county or burgh—

1. In respect of the members of approved societies, such sum as may be agreed between the societies and the Committee, or, in default of an agreement, as may be determined by the Insurance Commissioners [Section 15 (*b*)]; and
2. In respect of deposit contributors, such sum as the Insurance Committee may, with the consent of the Commissioners, determine [Section 42 (*d*)].

If this amount is insufficient the Treasury and the Council, if they think fit, and if satisfied that the amounts to be received and the proposed expenditure are reasonable and proper in the circumstances, may thereupon sanction the expenditure, in which case they shall each be liable to make good one-half of the deficit, in the case of the Treasury out of the moneys provided by Parliament, and, in the case of the County Council out of the General Purpose Rate (or, in the case of a Town Council, out of the Public Health General Assessment) [Sections 15 (8) and 80 (12) and (13)].

On Sanatorium Benefit.

The sums available for defraying the expenses of sanatorium benefit in respect of insured persons [and their dependants if the Insurance Committee decides to extend the benefit to them] in each year will be:

(*a*) One shilling and threepence in respect of each insured person resident in the county or burgh, payable out of the funds from which benefits are payable under Part I of the Act;
(*b*) One penny in respect of each such person, payable out of moneys provided by Parliament.

The regulations with regard to excess expenditure are similar to that of medical benefit.

Excessive Sickness.

When it is alleged by the Insurance Commissioners or any approved society or Insurance Committee interested that there is excessive sickness amongst the persons for the administration of whose sickness or disablement benefit the society or committee is responsible, and that the excess is due to:

1. The conditions or nature of employment of such persons.
2. Bad housing or insanitary conditions in the locality.
3. An insufficient or contaminated water supply.
4. Neglect on the part of any person or authority—

(*a*) To observe or enforce the provisions of any Act relating to the health of workers in factories, workshops, mines, quarries, or other industries, or relating to public health, or the housing of the working classes, or any regulations made under any such Act. Or
(*b*) To observe or enforce any public health precautions.

The Commissioners, society, or committee may claim from the person or authority alleged to be in default payment of the excess expenditure incurred.

Failing agreement on the subject, the Secretary of State for the Home Department or the Local Government Board, as the case may be, may, on the application of the Commissioners, society, or committee, appoint a "competent person" to hold an inquiry. The person holding the inquiry is to report to the authority by whom he was appointed, who will consider the report and decide whether any, and if so, what, action is to be taken.

The "average expectation of sickness" is to be calculated in accordance with tables to be prepared by the Insurance Commissioners, who will make regulations for the procedure at inquiries.

Insurance Committees for Burghs.

The regulations regarding the formation of Insurance Committees in burghs are on the same lines as those issued to county councils.

Regarding burghs having a population of less than 20,000 these are, for the purposes of Part I of the Act, to be held to be within their respective counties, and unless already represented on the county council, will for the purposes of administering the Act be represented thereon as may be determined by the Secretary for Scotland.

The regulations relating to County Insurance Committees will also apply to these burghs.

Behaviour of Insured Person during Disease or Disablement.

A circular has been issued by the Scottish Insurance Commissioners with regard to the rule of an approved society in connexion with the behaviour during disease or disablement of a member entitled to benefit under the Act, and the circular states that it must be in the form prescribed by the Commissioners. The following is a copy of the rule which the Commissioners propose to prescribe:

A member in receipt of sickness or disablement benefit—

(*a*) Shall obey the instructions of the doctor attending him.
(*b*) Shall not be absent from home between the hours of [1] , and shall not be absent at any time without leaving word where he may be found, provided that the [2] may, if they think fit, exempt the member from the operation of this rule upon such conditions as they may impose.
(*c*) Shall not leave the [3] where he resides without the consent of [4]
(*d*) Shall not be guilty of conduct which is likely to retard his recovery.[5]

[1] Insert such hours in the evening and morning as may be desired. Different hours should be inserted for summer and winter.
[2] Insert the desired authority, *e.g.*, committee of management.
[3] Insert the place, town, or other desired area.
[4] Insert the desired authority.
[5] Add any further instructions desired by the society.

IRELAND.

SANATORIUM BENEFIT.

LAST week a large meeting of ladies and gentlemen, delegates from local bodies in Ireland, was held in Dublin for the purpose of considering proposals submitted by the Women's National Health Association, with the object of rendering assistance in making the treatment of tuberculosis under the Insurance Act effective. The Countess of Aberdeen said that the association had at present about 150 branches and about 20,000 members scattered all over Ireland. The Irish Local Government Board was now communicating with the county councils, pointing out the powers they possessed under the Tuberculosis Prevention Act of Ireland, and asking them to draw up schemes; also pressing upon them the immediate importance of founding a dispensary for tuberculosis in each county or county borough, and undertaking that large financial help should be given to all county councils providing such dispensaries. Regarding the further treatment of tuberculosis which would be recommended by the medical officers in charge of dispensaries about to be established, there appeared to be little hope that suitable provision could be made unless some voluntary body was ready to undertake to make this provision voluntarily, until local health authorities had had time to mature a scheme. The Women's National Health Association were ready to undertake this work, and had applied for a grant to be spent in making the necessary provision for the treatment of insured persons suffering from tuberculosis during the first year after the Insurance Act came into operation, all such work to be first approved by the Local Government Board, and to be of such character that it could be taken over by local health authorities later on. The association was, therefore, prepared to carry out the following work immediately:

1. The extension of the Allan A. Ryan Home Hospital for patients in the second or more advanced stages of the disease. There is unoccupied land lying adjacent, suitable for the purpose, belonging to the Corporation.
2. The construction of a large number of movable shelters ready to be sent in sections to any part of the country.
3. The hiring of houses in different parts of the country with a certain amount of land around them, which would serve for purposes of administration, with rooms for nurses, etc., and round which shelters could be placed.

These institutions could be located in places convenient for the use of, perhaps, more than one county, and in districts where an active branch of the Women's National Health Association would undertake supervision, and be used for training patients as to how to treat themselves at home under supervision of nurses by short periods of residence—say, a month.

4. The equipment of the above houses and shelters.
5. Training of fully-qualified general nurses for special tuberculosis work by short attendance at Charles Street Dispensary and Allan Ryan Hospital.
6. Provision of sanatoriums and preventoriums for children.
7. Arrangements with suitable persons, who could let lodging in their own houses in districts suitable for patients and convalescents, and where doctors and nurses could supervise them.
8. The completion and equipment of Clifden Health Home for incipient cases.
9. Arrangements for enabling patients to be treated at home; loan of small shelters, putting up lean-tos, providing nurses, etc.
10. Farms for confirming the cure of cases arrested, and for the training of such cured persons in domestic and agricultural work.

It was understood, said Lady Aberdeen, that the association would be put in a position to carry out the work specified, and that the Treasury and the National Health Insurance Commissioners for Ireland had given their approval to the scheme. The Women's National Health Association wished it to be clearly understood that they only ventured to offer their services in this way in order to meet a national emergency, and that they only desired to carry on such work until the proper local authorities were in a position to take it over and put it on a permanent basis.

Dr. Kidd, of Fermanagh, suggested that the tuberculosis dispensaries should be in connexion with the county infirmaries, but that the existing staffs of these infirmaries should not be asked to do any more work without being paid for it. He thought that sanatoriums should not be in connexion with county infirmaries, which for the most part were situated in towns.

The following resolution was passed:

That this conference of delegates of local authorities in Ireland recommend the county councils to accept the offer of the Women's National Health Association, to give provisional assistance in the care of tuberculosis patients coming under the Insurance Act.

In the evening Professor McWeeney gave a lecture on the part which the dispensary will play in the battle against tuberculosis under the Insurance Act. He pointed out that about 1,000 beds would be provided under the new system, accommodating 4,000 patients yearly. All or nearly all of these would be in the early or curable stage, and slightly, or not at all, infectious. The bulk of the infectious cases, some 50,000, would not obtain admission, and would be no better off than they were at present. The only way of dealing with this enormous source of danger was to attack the cases individually in their own homes by means of a very perfect system of visitation in connexion with the dispensary.

Irish Advisory Committee.

The first meeting of the Irish Advisory Committee was held in Dublin on Friday, May 24th. Mr. J. A. Glynn, Chairman of the Irish Insurance Commission, who presided, stated that he was authorized to say on behalf of all the Commissioners and the Government that there was no idea whatever of postponing the Act for a single day. He gave as one of the reasons for the delay in appointing the Committee that there were no approved societies yet in existence, but said he hoped to have the first batch approved in the first week in June. He asked the Advisory Committee to appoint a subcommittee, consisting of the doctors and representatives of the friendly societies and trade unions, to confer on the question of the certificates to be produced by the insured persons before sick pay would be given, with a view to making some suggestions which the Commissioners would lay before the approved societies for adoption.

Meeting of the Medical Profession in Dublin.

At a largely attended meeting of the medical profession in Dublin on May 21st, Mr. J. P. Garland, Dr. Henry Jellett, Mr. R. P. McDonnell, and Dr. R. J. Rowlette were selected as the four representatives to be suggested to the Conjoint Committee, which is to submit four names for each county and county borough, from which the Commissioners will select two. A Provisional Local Medical Committee of thirty-eight members was also chosen. Medical men throughout the country are urged not to make arrangements with any of the friendly societies except through the Provisional Local Medical Committee in each district, as the societies, in canvassing for members, promise medical attendance as an additional benefit.

CONFERENCES OF FRIENDLY SOCIETIES.

During the Whitsuntide conferences of friendly societies numerous references were made to the Insurance Act, and the attitude of the medical profession came in for some criticism.

At the meeting of the annual movable conference of the Manchester Unity Independent Order of Oddfellows the Grand Master (Mr. A. H. Warren), in his inaugural address, said that the Unity had decided to become an approved society, and the paramount business of the conference was to adapt the organization to the altered conditions. Under the Act the Unity had power to accept, reject, or expel, members upon any ground excepting that of age. He criticized the action of certain trade unions in attacking the friendly societies and poaching upon their preserves. There was, he said, uncertainty as to when medical benefit under the Act would be satisfactorily arranged. He quoted a statement by Sir James Barr to the effect that the more defiant the friendly societies become, the heavier would be their defeat, and continued as follows:

I was under the impression that for some time the friendly societies of this country (although vitally interested in this question) had carefully refrained from expressing any opinion, desiring in no way to aggravate the present position. We had not created the difficulty, and therefore it was not for us to find the solution. Judging by the speeches and actions of those who are controlling the destinies of the medical profession, there appears to be a deliberate intention to affront the great friendly societies. The 6s. estimate as the cost of medical treatment and medicine to insured persons under the National Insurance Act is reasonable and fair, and every one who has had any experience in connexion with the matter knows full well that under these conditions the doctors' position will be greatly improved. Doctors have a perfect right to practise trade unionism. They have a perfect right to strike if they think it wise to do so, but, before exercising these rights to the detriment of the whole community, they should consider that they are a protected class—protected by charter confirmed by Parliament—but that which Parliament gives Parliament can take away, and the friendly societies and all other working class organizations should stand shoulder to shoulder and demand the abolition of the privilege possessed by the doctors, if the doctors are determined to abuse that privilege. Let the Chancellor avail himself of the alternative offered by the Act, and hand back to the approved societies the medical contribution. There would be no difficulty in securing proper medical attendance and treatment for every insured person, for what the societies have done in the past they will be able to do in the future. The Chancellor of the Exchequer will be well advised to resist the inordinate demands of the medical profession, and in that resistance may be assured that behind him he has the support of the millions of friendly society members of this country.

At the annual conference of the Loyal Order of Ancient Shepherds at Dundee Mr. McCowatt of Belfast, who presided, said that the Insurance Act could not be accepted as a complete measure, and doubted the wisdom of pressing for July as the date for it to come into operation. Crude, ill-considered methods of collection and administration would cause irritation and annoyance; plans and methods ought to be formulated and placed before the local Insurance Committees and in the hands of friendly society officials before the Act came into force. The measure had suffered too much through slipshod work in Parliament, and similar negligence should not attend its introduction into everyday life.

The centenary of the Nottingham Imperial Order of Oddfellows, which has nearly 40,000 members, met in conference at Nottingham, where the organization originated. The Grand Master said that the mistrust which still existed among members was unfounded, as the sick benefits would not be less secure than at present, though he admitted that the promised release of the reserve would not be accomplished. In his opinion the proposed allowance of 6s. for medical attendance was generous when compared with what medical men had hitherto been willing to accept.

At the special high court of the Order of Rechabites held at Leicester, Mr. Platt, who presided, said that if a satisfactory arrangement could not be made of the medical question, the 6s. per member should be handed to friendly societies, who would deal with the doctors. A resolution was unanimously passed expressing the strongest objection to the minimum payment of 8s. 6d. demanded by the British Medical Association for medical services, and urging the Treasury and Commissioners to remain firm against any increase.

At the annual conference of the Grand United Order of Oddfellows at Cardiff, the Grand Master said that unless carefully watched the administration of the Act would mean at the end of three years increased contributions or reduced benefits, or those societies which contained the healthiest and wealthiest persons would vote their members triennially larger and more varied benefits. A report made by the board of directors recommended the lodges to abolish entrance fees, and that for the purpose of the Insurance Act medical examination should be dispensed with.

At the annual conference of the delegates of the Hearts of Oak Benefit Society held in London, Mr. Thomas Mills, the newly elected President, stated that the society now had 305,000 members, a sickness reserve fund of over 4 million pounds, and had paid out since it was started in 1842 over 11 million pounds in benefits to members. He criticized the Insurance Act, and contended that State control should have been confined to supplementing existing benefits, providing adequate insurance for those unable to provide for themselves, and lightening the burden of the widow and orphan. Further, he contended that the good work of this and kindred societies should have received fuller acknowledgement.

PROVISIONAL MEDICAL COMMITTEES.

Chelsea.

A MEETING was held at the Fulham Town Hall on May 21st. Present: Drs. YOUNG (in the chair), P. Spaull, G. Coltart, J. Fletcher, H. Butler, J. C. Jackson, E. P. Satchell, E. W. Lewis, A. Millar, W. S. Lee, Campbell Boyd, W. Bonney, A. Benham, T. M. Ross, E. Hudson, J. J. Orr, J. Dewar, J. Hamilton, W. Keen, and J. R. Gallard.

The minutes of the last meeting were read and confirmed.

A letter was read from the Medical Secretary *re* the proposed Public Medical Service.

The subcommittee submitted a report of the preliminary canvass of the profession *re* contract practice, etc., and the lists of each member of the committee were amended accordingly. The Honorary Secretary was instructed to forward a report thereof to the Central Office.

The CHAIRMAN drew the attention of the meeting to the excellent result of the canvass at Deptford, and moved:

That the congratulations of this committee be sent to the medical men of Deptford on the noble stand they have made in the fight for the freedom of our profession and the good example they have shown to the medical men throughout the kingdom.

This was carried unanimously.

The HONORARY SECRETARY moved:

That Dr. D. Whiteley be co-opted a member of this committee.

This was seconded by Dr. HAMILTON and supported by Dr. SATCHELL. After some discussion, in which the CHAIRMAN, Drs. LEE, BUTLER, and others took part, Dr. SPAULL moved:

That the resolution be adjourned to the next meeting;

Also one standing in his name:

That Dr. A. G. Wells be co-opted a member of this committee.

This was agreed to.

It was decided to hold the next meeting on Wednesday, May 29th, at the Fulham Town Hall.

City of London.

A meeting of the Provisional Committee for the area of the City Division took place on May 21st at the Liverpool Street Hotel. It was largely attended, nearly all the delegates being present; Dr. EVAN JONES was in the chair.

The HONORARY SECRETARY (Dr. Roe) read letters regretting absence from Dr. Southcombe and Dr. Dourno, and a letter from Dr. Cox, the Medical Secretary of the British Medical Association, requesting local secretaries to retain for the present the signed resignations of clubs, and not to spend any of the money received from guarantors on local expenditure. An account of the latter was to be sent to the Central Office, by which it would be paid. The Honorary Secretary said that the result of the canvass had surpassed expectations, and that he had to report that Bethnal Green had taken the prize. That, with one exception, every practitioner in that area had signed the pledge, and agreed to send in resignations of all his clubs.

The CHAIRMAN reported that Mr. R. C. Elmslie, who had been selected by the profession to represent the Metropolitan Hospital on their Committee, was unable to act, but had ascertained that Mr. P. Maynard Heath, one of his colleagues, was willing to take his place. He proposed to ask the Committee to accept this substitution. This was unanimously agreed to. The Chairman then said he should call upon the Representatives of the various Divisions of their area to report as to the success of their canvass. He was happy to say that the total success attained up to the present had been phenomenal, and the guarantee fund already exceeded £700, and would certainly exceed £1,000 when the returns for the whole area were in hand.

Dr. WHITELAW (N. Hackney) said that he had nothing to complain of the way in which he had been received when canvassing. He had succeeded in most cases. One practitioner had refused on the ground that he had always declined to countenance trades unionism. Another because a personal matter he had brought before the profession had not been redressed.

Dr. WITHERS GREEN (City) said that his district was a peculiarly difficult one to canvass, and that much work remained to be done. But he had met with great success. Some of those whom he had called upon were much exercised as to whether hospital men were going to sign the pledge. The Chairman pointed out that the terms of the pledge cast the same duty on hospital men as on general practitioners.

Dr. NICHOLSON (Bethnal Green) said that the only practitioner in his district who refused to sign the pledge at the same time stated it was not his intention to oppose the profession in any way.

Dr. PORTER (Shoreditch) said that he and Dr. Chetwood had been very successful, and only one practitioner had refused to join with them.

Dr. CUTHBERT DIXON (Central Hackney) said he had had no difficulty in getting resignations of the clubs, but his success had not been quite so great in getting the pledge signed.

Dr. RILEY (South Hackney) said his success had been most encouraging.

The subject of the admission of members to friendly societies without medical examination came up for consideration, and it was stated that many members were now being received by the same at the present time without the customary examination.

At the suggestion of the CHAIRMAN it was decided to bring this matter before the State Sickness Insurance Committee and ask for instructions.

Hampstead.

A meeting of the Committee was held at 19, Hollycroft Avenue, on May 22nd at 8.30 p.m. Dr. OAKLEY was in the chair and nine members were present.

The minutes of the last meeting were read and confirmed.

A letter from Dr. Ford Anderson accepting the chairmanship was read, and the Committee received a verbal message from him regretting his inability to attend owing to indisposition.

A letter from the Honorary Secretary of the Hampstead Division with reference to the existence of a local defence fund, replying in the negative to the question of the Committee, was read.

A letter from Dr. Hugh Thompson resigning his membership of the Committee and declining to sign the British Medical Association pledge was read.

Letters of regret for inability to attend were received from Mr. Peyton Baly and Dr. Oppenheimer. Dr. Oppenheimer in his letter suggested an alteration in the wording of a paragraph of the draft circular letter in the subcommittee's report.

Communications from the Medical Secretary of the British Medical Association were also read.

The report of the subcommittee was discussed, and Dr. PRITCHARD proposed and Mr. ALLEN seconded:

That the rules drafted in the report of the subcommittee be adopted.

Carried *nemine contradicente.*

Dr. PICARD moved and Dr. PRITCHARD seconded:

That a paragraph be added to the circular letter to the effect that all members of the Committee had signed the enclosed pledge.

Carried *nemine contradicente.*

All the members present then signed the pledge, and the Honorary Secretary was instructed to obtain the signatures of all the absent members as soon as possible.

Dr. PRITCHARD moved and it was seconded by Mr. HILLS:

That stamped and addressed envelopes for reply be sent with the circular letter.

This was carried *nemine contradicente.*

The CHAIRMAN then moved that the remainder of the report be adopted, and this was carried *nemine contradicente.*

The CHAIRMAN suggested that the staff of the Hampstead Hospital should be approached on the matter of the pledge, and it was agreed that the Honorary Secretary should communicate with Dr. Sutherland.

It was resolved that the next meeting of the Committee be held at 70, Fairhazel Gardens, on Wednesday, June 5th, at 8.30 p.m.

Bristol.

A preliminary meeting of the local Provisional Committee for the area of the Bristol Division took place at the Bristol University on May 22nd at 4.30 p.m.

This Committee, which is representative of all branches of the profession, not only in Bristol itself, but also throughout a large area in the counties of Gloucestershire and Somersetshire, consists of the following members: Drs. Michell Clarke (Clifton), T. M. Carter (Westbury-on-Trym), H. F. Devis (Knowle), C. W. J. Brasher (Cotham), George Parker (Clifton), J. O. Symes (Clifton), Harry Grey (Fishponds), Every-Clayton (Clevedon), Logan (Bedminster), James Young (Kingswood), A. Ogilvie (Clifton), J. Wallace (Weston-super-Mare), Brew (Chew Magna), Newman Neild (Clifton), G. Scott Williamson (Keynsham), C. Hinks (Wells), Willett (Keynsham), E. G. Hall (Redland), A. Norman Heron (Bishopston), M. G. Dobbyn (Redland), Samuel Smith (Cotham), C. K. C. Herepath (Cotham), Hubert Bristowe (Wrington), J. W. White (Nailsea), Ormerod (Westbury-on-Trym), F. E. Peake (Bedminster), J. Blackley (Fishponds), J. W. Wallace (Bedminster), Bruce G. Kelly (Burnham), H. Newsome (Pill), Maddison (Central), Brown (Fishponds), Clowes (Thornbury), L. H. Williams (Thornbury), Leonard Moore (Central), T. A. Collinson (Central), G. Shepley Page (Central), Crouch (Weston-super-Mare), Kemm (Weston-super-Mare), Vickery (Weston-super-Mare), Temple (Weston-super-Mare), Leche (Axbridge), Perrott (Kingswood), Barber (Staple Hill), Marion Linton (Clifton), Lily Baker (Clifton), G. T. Myles (Clifton), B. M. Rogers (Clifton), St. John Bullen (Clifton), J. Ellington Jones (Clifton), E. H. E. Stack (Clifton), J. A. Nixon (Clifton), Paul Push, C.M.G. (Clifton), Whicher (Clifton), Martin (Clifton).

All the above with the exception of thirteen were present. Dr. H. F. Devis was elected Chairman, Dr. G. T. Myles was elected Deputy Chairman, Dr. E. G. Hall was elected Secretary, and Dr. J. A. Nixon was elected Treasurer and Assistant Secretary.

The Chairman explained the main objects for which the Committee had been formed and the lines on which it would work, and it was decided that meetings should take place fortnightly.

The Chairman proposed, and Dr. Rogers seconded, a resolution that the Committee should report from time to time to the Branch Council. This was carried unanimously.

The next meeting will take place on June 5th at 4.30 p.m.

Kent County.

A meeting of the Kent County (Provisional) Medical Committee was held at the West Kent General Hospital, Maidstone, on May 22nd, at 2.15 p.m., Dr. W. J. Tyson, Chairman. There were present: Drs. and Messrs. Fenoulhet, Young, Fisher, Watson, Wood, Maude, Walker, Hulke, Barrett, Brunton, Archibald, Coke, Parr-Dudley, Lord, Dartnell, Fairweather, Stillwell, Bailey, Potts (Honorary Secretary). Mr. Travers regretted inability to be present.

The minutes of last meeting were read and confirmed.

Dr. Lord read a letter from Dr. Cox referring to the amount of the Central Guarantee Fund, and the manner in which it was being administered.

It was unanimously resolved:

> That the Representative of the South-Eastern Branch on the Council be instructed to urge at the Representative Meeting in July that the temporary increase in the administrative expenditure of the Association, due to the National Insurance Act, be met by a temporary augmentation of the annual subscription, and not by further calls on the Central Defence Funds.

Memorandum D 49 was taken as read, and discussed at length. After a lengthy discussion of the wording of the resignation forms, it was unanimously resolved:

> That the Kent County (Provisional) Medical Committee strongly recommends all the medical practitioners of Kent to sign the pledge complementary to the undertaking, and also the resignation forms for contract appointments asked for by the Memorandum D 49 of the British Medical Association.

Dr. Randall (Beckenham) was unanimously elected a co-opted member of the Committee to represent non-members of the Association.

It was unanimously resolved that all the Divisions of Kent be requested to vote for the Chairman of the Kent County (Provisional) Medical Committee (Dr. W. J. Tyson, F.R.C.S. and P.), in the election for a Representative of the South-Eastern Branch on the Council, in order that the opinion of the medical men of Kent shall be directly represented upon that Council.

MEETINGS OF THE PROFESSION.

BETHNAL GREEN MEDICAL UNION.

The first meeting of the Bethnal Green Medical Union was held at the Queen Adelaide Dispensary, Bethnal Green, on May 17th, at 4 p.m. There were present fifteen local medical practitioners and eight visitors.

The following officers were appointed: *Chairman*, Dr. Styles; *Vice-Chairman*, Dr. Nicholson; *Honorary Secretary and Honorary Treasurer*, Dr. Hora; *Committee*, Drs. Swyer, Berdoe, Moore, Allen, Rogers, Benoly, Sasun, and Henderson.

The following visitors gave instructive and interesting addresses to the meeting, and were afterwards accorded hearty votes of thanks: Drs. Evan Jones (Finsbury), Toland (Poplar), Major (Shoreditch), Oxley (Poplar), and Rowe (Finsbury), and Dr. Southcombe (Honorary Secretary, City Division, British Medical Association).

The Honorary Secretary informed the meeting that every practitioner in Bethnal Green except two had joined the Union, and all but one had signed the British Medical Association pledge.

A hearty vote of thanks was accorded the members of the House Committee of the Queen Adelaide Dispensary for their courtesy in lending the use of their committee room.

A very successful meeting concluded with a hearty vote of thanks to the Chairman for presiding.

CORRESPONDENCE.

[*It is particularly requested that communications intended for publication should be written on one side of the paper only, and should be addressed to the Editor*, British Medical Journal, *429, Strand, London, W.C.*]

A Plea for Unity.

Dr. William B. Bennett (Aigburth, Liverpool) writes: As one of those who, at the meeting held in Liverpool on May 2nd under the auspices of the National Medical Union, voted against the resolution affirming our adherence to the seven cardinal points, I wish to state that my reason for doing so is exactly expressed in Dr. Ratcliff-Gaylard's letter in the Supplement of May 25th, p. 568. Had the resolution included a pledge to support the British Medical Association, instead of the Union, I am sure it would have been carried unanimously, and we should have been spared the headline in the *Liverpool Daily Post* next morning, "When doctors differ." Another instance of the disunion promoted by the Union.

Dr. Francis Heatherley in the British Medical Journal of May 18th, besides asserting that the above resolution contained what it did not—a pledge to support the British Medical Association—makes another equally unfounded statement:

"I am wondering what process of reasoning could have induced a large number of Liverpool consultants to applaud Mr. Larkin when, at a recent Divisional meeting, he not only admitted voting for the Smith Whitaker resolution, but said he would act similarly in the future should occasion arise."

Dr. Heatherley, who, of course, could not be present, has omitted to state that the meeting was mainly composed of general practitioners, who, after applauding Mr. Larkin's statement, a few minutes later nominated him to represent them on the Council, giving him almost double the votes obtained by Dr. O'Sullivan.

Why find fault with the consultants? One of the two nominees of the National Medical Union is a consultant, and Dr. O'Sullivan's seconder at the meeting, where he failed to secure nomination, was a consultant. Has Dr. Heatherley ever wondered what would have happened if the Council had not permitted Mr. Smith Whitaker to accept the post of Commissioner? Of course, exactly what a few days later took place in Scotland and Wales, where in each country a medical officer of health was appointed, and the policy of the medical officers of health is well known to be always antagonistic to that of the general practitioner.

The only reason for Dr. Heatherley's suspicious inaccuracies and omissions is to be found in the last lines of his letter, where he frankly states it is written with the object of influencing votes in the coming election.

EXAMINATION OF APPLICANTS FOR FRIENDLY SOCIETIES.

Dr. H. G. DIXON (London) writes: Referring to the very important letter of Drs. Ellis Milne and James McQueen in your last week's SUPPLEMENT, wherein they point out the great assistance we shall be giving to start the Insurance Act if we examine candidates for approved societies, I wish to make this practical suggestion, namely, that the Insurance Commissioners be given to understand that if our terms are not definitely accepted on or before July 15th we will, as far as legally lies in our power, refuse to make such examinations; this will bring matters to a crisis.

I have always held the opinion that the Chancellor's proposals and our demands are utterly irreconcilable by negotiation, and must be fought out. When he told us that we were like children crying for the moon our reply should have been three months' notice to terminate all club practice; if that had been given in March the present difficulty need not have arisen.

Mr. J. WEBSTER WATTS, F.C.A., Secretary of the National Medical Union, writes: In reference to remarks contained in a letter from Dr. Ratcliff-Gaylard as to the precise number of men who attended the mass meeting in Liverpool on May 2nd (organized by the National Medical Union), I would point out that 157 actually signed; but, according to the testimony of those at the entrance to the hall, many passed out without signing at all.

With regard to Dr. Gaylard's statement that the policy of the National Medical Union is not in absolute accord with that of the British Medical Association, I would refer him to the statement by the Chairman and Honorary Secretaries of the Union published in your issue of May 25th, whereby he will see that the whole object of the National Medical Union from its inception has been to strengthen the British Medical Association.

I may add that any apparent opposition has been to certain members of the Council, and not to the Association, which has always received the loyal support of the Union.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

STAFF SURGEON P. D. RAMSAY to the *Ringdove* on recommissioning May 25th.

In accordance with the provisions of Order in Council of April 1st, 1881, Surgeon FRANK REGINALD FEATHERSTONE was on May 21st, 1912, allowed to withdraw from His Majesty's Naval Service with a gratuity.

Surgeon FREDERICK GEORGE WILSON, M.B., was on May 21st promoted to the rank of Staff Surgeon.

The undermentioned Surgeons were on May 23rd promoted to the rank of Staff Surgeon: HENRY WOODS, M.B., HARRY ARTHUR KELLOND-KNIGHT, ALFRED BERRIDGE COX, M.B., DOUGLAS DUKE TURNER, BRITON SMALLMAN ROBSON, M.B., BRYAN PICK, NORMAN BREMER VICKERS JACOB, ALEX. BEDINGFIELD MARSH, B.A., JOHN MILLER GORDON, M.B., JOHN DUNCAN KEIR, LESLIE CHARLES ROWAN ROBINSON, M.B., GERALD NUNN, WILLIAM CHRISTIAN BAUMGARTEN SMITH, THOMAS EDWARD BLUNT, JAMES MCCUTCHEON M.B., B.A., GEORGE ERIC HAMILTON, M.B., WILLIAM TURNER HAYDON, WILLIAM LAWRENCE HAWKINS, WILLIAM NICHOLS HORSFALL, M.B.

Staff Surgeon F. LOBB to *Adventure*, vice Gittings.

Staff Surgeon G. DAVIDGE to *Collingwood*, vice German.

Surgeon H. DRENNAN to *St. George*, vice Staff Surgeon Davidge.

Staff Surgeon W. WALKER to *Delorus* on completing.

Fleet Surgeon H. TOMLINSON to *Imperieuse* and for Portland Dépôt, vice Barnes.

Fleet Surgeon J. MOWAT to *Antrim*, vice Shaw.

Staff Surgeon W. HARRISON to R.M. Dépôt, Deal, vice Keir.

Staff Surgeon J. O'HEA to *Sapphire*, vice Pope.

Surgeon J. AUSTIN lent to P.T. School and to *Victory* for P.T. School, vice Hearn.

Fleet Surgeon F. LUMLEY to *Bellerophon*, vice Mortimer.

Staff Surgeon F. MCKENNA to *Devonshire*, vice Lumley.

Staff Surgeon L. LINDOP to *Ganges* for Shotley Training Establishment, vice Staff Surgeon Lobb.

ARMY MEDICAL SERVICE.

COLONEL STAPHYLTON C. B. ROBINSON is placed on retired pay, dated May 21st, 1912.

ROYAL ARMY MEDICAL CORPS.

Lieutenant-Colonel J. W. BULLEN has been transferred from the Burma Division to the 7th (Meerut) Division.

Lieutenant-Colonel C. H. HALL has been transferred from the 5th (Mhow) Division for command of the Station Hospital, Maymyo.

Lieutenant-Colonel C. A. LANE has been appointed to command the Station Hospital, Madras.

Lieutenant-Colonel W. B. THOMSON, retired pay, has been appointed to the medical charge of the troops at Northampton.

Lieutenant-Colonel ROBERT R. H. MOORE, M.D., retires on retired pay, dated May 8th, 1912.

Lieutenant-Colonel A. E. TATE has been appointed Honorary Surgeon to His Excellency the Viceroy and Governor-General of India, vice Lieutenant-Colonel B. Skinner, M.V.O., retired dated February 14th, 1912.

Lieutenant-Colonel E. G. BROWNE has been appointed Honorary Surgeon to His Excellency the Viceroy and Governor-General of India, vice Surgeon-General A. T. Sloggett, C.B., C.M.G., appointed Honorary Surgeon to His Majesty the King, dated March 1st, 1912.

Major H. G. MARTIN, from Lebong, has been posted to the Dublin District from May 11th.

Major F. J. PALMER has been granted general leave ex-India for four months.

Major C. B. LAWSON from Netley has been appointed to Shorncliffe as Specialist in Operative Surgery.

Major C. B. MARTIN, now in charge of the medical division at Netley, has been ordered to Ireland, and is to take up duty at Cahir on June 1st instead of May 15th as at first ordered.

Captain G. H. REES has been posted to the Belfast District.

Captain E. G. FFRENCH has been transferred from the 6th (Poona) Division to the 9th (Secunderabad) Division.

Captain J. A. ANDERSON, from Bloemfontein, has taken up duty in the Scottish Command.

SPECIAL RESERVE OF OFFICERS.

ROYAL ARMY MEDICAL CORPS.

CAPTAIN JOHN H. P. GRAHAM to be Major, dated April 11th, 1912.

Lieutenant ROBERT H. NOLAN, M.D., is seconded for service under the Colonial Office, dated January 15th, 1902.

The undermentioned Lieutenants are confirmed in their rank: WILLIAM M. BIDEN, M.B., GILBERT M. GRAHAM, M.B., JOHN W. GRAY, M.B.

Cadet Lance-Corporal LUDWIG SEIBERG BENJAMIN TASKER, M.B., from the University of London Contingent, Officers' Training Corps, to be Lieutenant (on probation), dated April 30th, 1912.

INDIAN MEDICAL SERVICE.

THE services of Major E. L. PERRY are replaced at the disposal of the Government of the Punjab.

Captain J. R. J. TYRRELL is granted privilege leave for three months' combined with furlough for three months, and study leave for six months, with effect from April 5th, 1912.

Captain G. F. I. HARKNESS, on relief in Sind, to be on general duty in Poona.

Lieutenant-Colonel ARTHUR OWEN EVANS, to be Colonel, dated November 21st, 1911.

Lieutenant-Colonel J. R. ROBERTS, C.I.E., has been appointed Surgeon to His Excellency the Viceroy and the Governor-General, vice Lieutenant-Colonel F. O'Kinealy, resigned.

Major C. H. WATSON has been granted ninety days' leave.

The services of Major E. L. Ward are placed at the disposal of the Government of India, Public Works Department.

Major W. SELBY, D.S.O., F.R.C.S., has been appointed to be Principal and Professor of Surgery at King George's Medical College, Lucknow, with effect from August 15th, 1911.

Major C. A. SPRAWSON, M.D., has been appointed to be Professor of Physiology at King George's Medical College, Lucknow, with effect from July 22nd, 1911.

Major J. C. ROBERTSON, Officiating Sanitary Commissioner, United Provinces, is appointed to be Sanitary Commissioner with the Government of India.

Major S. R. CHRISTOPHERS, Assistant Director, Central Research Institute, is granted privilege leave for three months with furlough out of India for one year in continuation, with effect from May 1st, 1912.

Major L. P. STEPHEN, on relief to do duty as Civil Surgeon, Nasik, vice Captain A. J. V. Betts.

Captain T. C. RUTHERFORD, Civil Surgeon, Bilaspur, is deputed to undergo a course of instruction in clinical bacteriology and technique at the Kasauli Institute, on the termination of the course of instruction in malariology at Amritsar.

Captain A. J. V. BETTS has been granted, from May 3rd or subsequent date of relief, such privilege absence as may be due to him on that date, in combination with furlough for such period as may bring the combined period of absence up to eighteen months.

Captain W. H. RIDDELL has been granted six months' leave on medical certificate.

Captain F. C. D. FAWCETT has been granted three months' leave.

Captain F. H. STEWART has been granted furlough for one year.

The services of Captain J. H. BURGESS are placed at the disposal of the Government of Bengal for employment as Surgeon to His Excellency the Governor of Bengal, with effect from April 1st.

The promotion of the undermentioned Majors to their present rank notified in the *London Gazette* of March 22nd, 1912, has effect from December 28th, 1911, and not from January 28th, 1912, as therein stated: JAMES DRUMMOND GRAHAM, M.B., CUTHBERT ALLAN SPRAWSON, M.D., MAXWELL MACKELVIE, M.B., F.R.C.S.E., WILLIAM HENRY CAZALY, M.B., WALTER VALENTINE COPPINGER, M.D., F.R.C.S.I., WILLIAM MITCHELL HOUSTON, M.B., WILLIAM DAVID ACHESON KEYS, M.D., ALEXANDER CHALMERS, M.B., F.R.C.S.I., SAMUEL ROBERT GODKIN, F.R.C.S.I.

INDIAN SUBORDINATE MEDICAL DEPARTMENT.

Senior Assistant Surgeons with the honorary rank of Lieutenant to be Senior Assistant Surgeons with the honorary rank of Captain, dated March 12th, 1912: DANIEL O'CONNELL MURPHY, VALENTINE VINCENT CHIODETTI.

To be Senior Assistant Surgeons with the honorary rank of Lieutenant, dated March 10th, 1912: First Class Assistant Surgeons REGINALD ALEXANDER BERMEL and HENRY LOVELL WILLIAM CLARK.

The King has approved of the retirement of Senior Assistant Surgeon and Honorary Captain CAJETAN MARIE DE SOUZA, dated April 19th.

TERRITORIAL FORCE.

ROYAL ARMY MEDICAL CORPS.

South Wales Mounted Brigade Field Ambulance.—Captain JAMES MCK. HARRISON, M.B., to be Major, dated March 25th, 1912.

First Wessex Field Ambulance.—Captain ALEXANDER W. F. SAYRES to be Major, dated March 22nd, 1912.

Attached to Units other than Medical Units.—Lieutenant-Colonel and Honorary Surgeon-Colonel THOMAS FORT resigns his commission, and is granted permission to retain his rank and to wear the prescribed uniform, dated May 22nd, 1912. Captain GEORGE GORDON, M.B., resigns his commission, dated May 22nd, 1912.

Vital Statistics.

EPIDEMIC MORTALITY IN LONDON.

[SPECIALLY REPORTED FOR THE "BRITISH MEDICAL JOURNAL."]

THE accompanying diagram shows the prevalence of the principal epidemic diseases during the first quarter of the year; the fluctuations of each disease and its relative fatality compared with the average in the corresponding periods of recent years can thus be readily seen.

Enteric Fever.—The deaths from enteric fever, which had been 16, 43, and 57 in the three preceding quarters, declined again last quarter to 31, and were 13 below the corrected average number; the greatest proportional mortality from this disease occurred in Fulham, Bermondsey, and Lambeth. The Metropolitan Asylums Hospitals contained 52 enteric fever patients at the end of last quarter, against 33, 155, and 76 at the end of the three preceding quarters; 110 new cases were admitted during the quarter, against 71, 237, and 171 in the three preceding quarters.

Small-pox.—One death from small-pox was registered last quarter; four cases were admitted to the Metropolitan Asylums Hospitals, and one remained under treatment at the end of the quarter.

Measles.—The fatal cases of measles, which had been 690, 159, and 140 in the three preceding quarters, rose again last quarter to 202, but were 544 below the corrected average for the corresponding period of the five preceding years. This disease was proportionally most fatal last quarter in the City of Westminster, the City of London, Southwark, Bermondsey, Deptford, and Greenwich.

Scarlet Fever.—The deaths from scarlet fever, which had been 43, 41, and 45 in the three preceding quarters, declined again to 23 last quarter, and were 80 fewer than the corrected average number. Among the several boroughs the disease showed the greatest proportional mortality in St. Marylebone, Finsbury, Lambeth, and Wandsworth. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals, which had been 1,206, 1,656, and 1,879 at the end of the three preceding quarters, had declined again to 1,296 at the end of last quarter; 2,051 new cases were admitted during the quarter, against 1,956, 2,638, and 3,330 in the three preceding quarters.

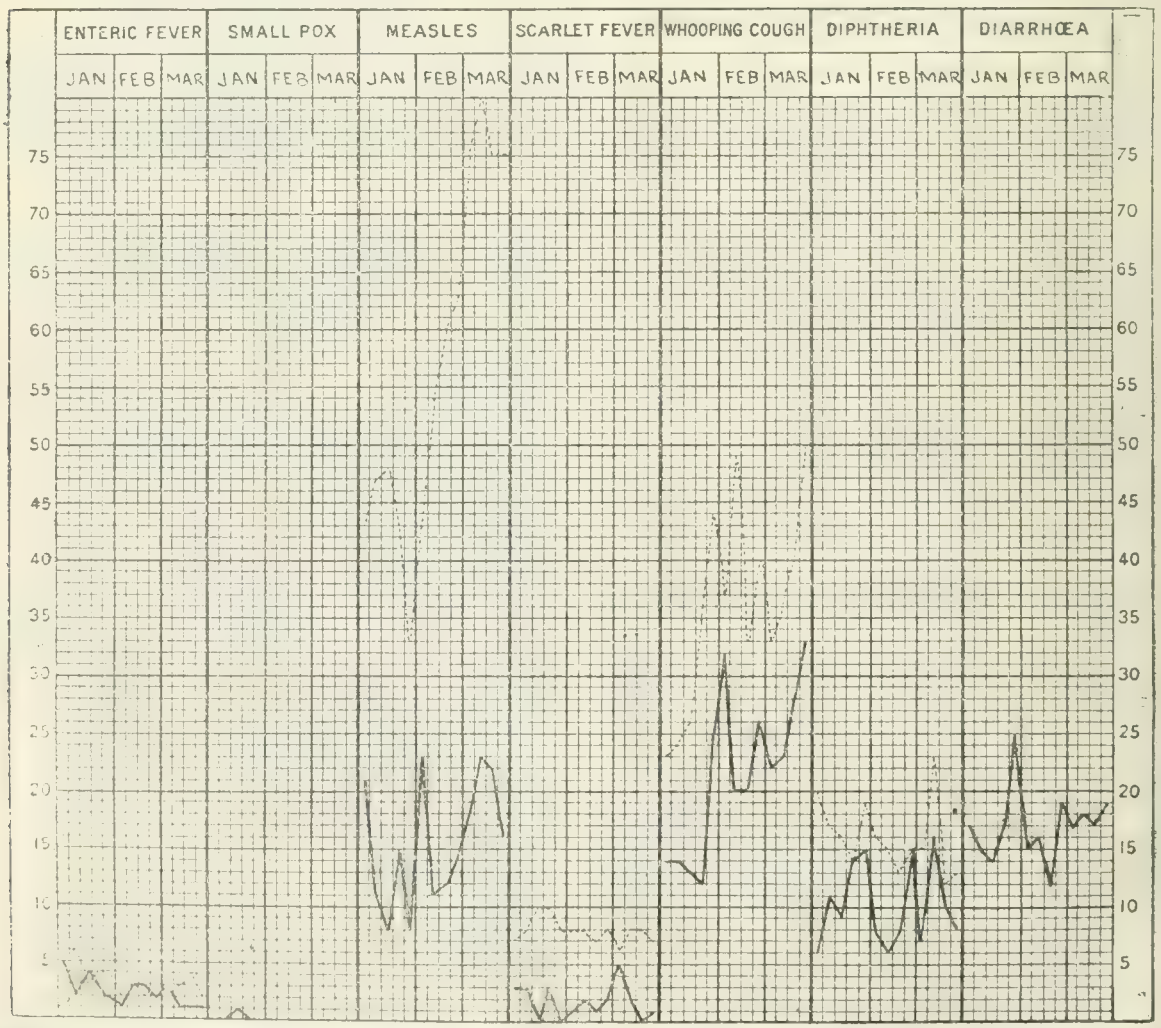
Whooping-cough.—The fatal cases of whooping-cough, which had been 359, 165, and 89 in the three preceding quarters, rose again to 283 last quarter, but were 187 below the corrected average number in the corresponding period of the five preceding years. This disease was proportionally most fatal last quarter in Fulham, Islington, Stepney, Poplar, and Southwark.

Diphtheria.—The deaths from diphtheria, which had been 123, 129, and 190 in the three preceding quarters, declined again last quarter to 133, and were 75 below the corrected average number; the greatest proportional mortality from this disease was recorded in Hampstead, St. Pancras, Shoreditch, Poplar, Southwark, Battersea, and Lewisham. There were 1,045 diphtheria patients under treatment in the Metropolitan Asylums Hospitals at the end of last quarter, against 771, 892, and 1,294 at the end of the three preceding quarters; 1,706 new cases were admitted during the quarter, against 1,298, 1,456, and 2,142 in the three preceding quarters.

Diarrhoea.—The deaths under this heading are those attributed to diarrhoea and enteritis among children under 2 years of age; they numbered 217 in the quarter under notice, and caused the highest death-rates in St. Marylebone, St. Pancras, Finsbury, Shoreditch, Stepney, Poplar, Battersea, and Lewisham.

In conclusion, it may be stated that the mortality in London last quarter from these epidemic diseases in the aggregate was nearly 52 per cent. below the average.

DEATHS FROM EPIDEMIC DISEASES IN LONDON DURING THE FIRST QUARTER OF 1912.



NOTE.—The black lines show the *recorded* number of deaths from each disease during each week of the quarter. The dotted lines show the *average* number of deaths in the corresponding weeks of the five preceding years, 1907-11. Under the heading "Diarrhoea" are given the deaths from diarrhoea and enteritis among children under 2 years of age; the corrected average number of these deaths is not available.

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

BEDFORD: BEDFORDSHIRE COUNTY COUNCIL.—Assistant School Medical Officer and Deputy County Medical Officer of Health. Salary, £300 per annum.

BIRMINGHAM: QUEEN'S HOSPITAL.—Pathologist. Honorarium, £100 per annum.

BIRMINGHAM UNIVERSITY.—Assistant Lecturer in Pathology and Bacteriology. Stipend, £50 per annum.

BRIXTON DISPENSARY, Water Lane, S.W.—Resident Medical Officer. Salary, £150 per annum.

CANCER HOSPITAL, Fulham Road, S.W.—House-Surgeon. Salary, £70 per annum.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—(1) Resident House-Surgeon; salary, £50 per annum. (2) Registrar. (3) Clinical Assistants.

CHARING CROSS HOSPITAL, W.C.—(1) Assistant Surgeon; (2) Assistant Obstetric Physician.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL.—House-Physician. Salary, £80 per annum.

CITY OF LONDON LYING-IN HOSPITAL, City Road, E.C.—Resident Medical Officer. Salary at the rate of £50 per annum.

COVENTRY: COVENTRY AND WARWICKSHIRE HOSPITAL.—Senior House-Surgeon. Salary, £120 per annum.

DUNDEE DISTRICT ASYLUM.—(1) Senior Resident Medical Officer. (2) Junior Resident Medical Officer. Salary, £175 and £120 per annum, increasing to £250 and £150 respectively.

DUNFERMLINE: CARNEGIE DUNFERMLINE TRUSTS.—Lady Medical Officer to act as Third Assistant. Salary, £250 per annum.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Second Medical Officer (Male) to the Casualty Department. Salary at the rate of £40 per annum.

EDINBURGH: THE HOSPICE.—Medical Woman as Resident. Honorarium, £25 per annum.

EDINBURGH HOSPITAL FOR WOMEN AND CHILDREN.—Medical Woman as Junior Resident. Honorarium, £12 per annum.

FARRINGDON GENERAL DISPENSARY AND LYING-IN CHARITY, Bartlett's Buildings, E.C.—Resident Medical Officer. Salary, £100 per annum.

FOLKESTONE: ROYAL VICTORIA HOSPITAL.—House-Surgeon. Salary, £100 per annum.

GLOUCESTER: GLOUCESTERSHIRE ROYAL INFIRMARY AND EYE INSTITUTION.—Assistant House-Surgeon. Remuneration at the rate of £80 per annum.

HESTON AND ISLEWORTH URBAN DISTRICT COUNCIL.—Medical Officer of Health and School Medical Officer. Salary, £500 per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Surgeon. Salary, £30 for six months and £2 10s. washing allowance.

HUDDERSFIELD ROYAL INFIRMARY.—Assistant House-Surgeon. Salary, £80 per annum.

KILMUIR PARISH COUNCIL.—Medical Officer. Salary, £75 per annum.

LEAMINGTON SPA BOROUGH.—Medical Officer of Health. Salary, £450 per annum, rising to £500.

LONDON (ROYAL FREE HOSPITAL) SCHOOL OF MEDICINE FOR WOMEN.—Lecturer and Head of the Department of Anatomy.

LIVERPOOL DISPENSARIES.—Assistant Surgeon. Salary, £100 per annum.

MACCLESFIELD GENERAL INFIRMARY.—Senior House-Surgeon. Salary, £100 per annum.

MANCHESTER CHILDREN'S HOSPITAL.—Male Medical Officer for Out-patient Department. Salary, £180 per annum.

MELBOURNE UNIVERSITY.—Chair of Veterinary Pathology and Directorship of the Veterinary Institute. Salary, £900 per annum, together with life insurance premium of £100.

MIDDLESEX HOSPITAL, W.—Assistant to Out-patient Physicians.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—(1) House-Physician at Hampstead. (2) House-Physician at Northwood. Salary, £75 per annum each.

NATIONAL INSTITUTIONS FOR PERSONS REQUIRING CARE AND CONTROL.—Two Superintendents. Salary, £300 per annum, rising to £400.

NEWPORT AND MONMOUTHSHIRE HOSPITAL.—(1) House-Physician. (2) House-Surgeon. Salary, £80 and £60 per annum respectively.

NORTHAMPTON GENERAL HOSPITAL.—House-Surgeon (Male). Salary, £90 per annum, increasing to £100.

NOTTINGHAM GENERAL DISPENSARY (Branch).—Assistant Resident Surgeon (Male). Salary, £160 per annum.

PLAISTOW: MEDICAL MISSION HOSPITAL.—Junior Resident Medical Officer (Female) for the Dispensary.

PRINCE OF WALES'S GENERAL HOSPITAL, Tottenham, N.—Junior House-Physician. Salary, £50 per annum.

QUEEN ADELAIDE'S DISPENSARY, Pollard Road, E.—Resident Medical Officer. Salary, £100 per annum.

ROYAL EYE HOSPITAL, St. George's Circus, S.E.—Junior House-Surgeon. Salary at the rate of £50 per annum.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Senior House-Surgeon. Salary, £100 per annum.

SHEFFIELD EDUCATION COMMITTEE.—Assistant School Medical Officer for Elementary School. Salary, £250 per annum, increasing to £300.

SHEFFIELD ROYAL HOSPITAL.—Sixth Resident. Salary, £60 per annum.

SHEFFIELD UNIVERSITY.—Demonstrator in Anatomy. Salary, £150 per annum.

SINGAPORE MUNICIPALITY.—Resident Medical Officer for the Infectious Diseases Hospital. Salary, £400 per annum, increasing to £450.

SOUTHAMPTON FREE EYE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—House-Physician. Salary, £120 per annum, increasing to £140.

SUNDERLAND: DURHAM COUNTY AND SUNDERLAND EYE INFIRMARY.—Locumtenent for House-Surgeon. Remuneration, 5 guineas a week.

TUNBRIDGE WELLS GENERAL HOSPITAL.—House-Physician (Male). Salary, £100 per annum.

WAKEFIELD GENERAL HOSPITAL.—Assistant House-Surgeon (Male). Salary, £100 per annum.

WARRINGTON INFIRMARY AND DISPENSARY.—Junior House-Surgeon. Salary at the rate of £100 per annum.

WESTMINSTER HOSPITAL, S.W.—(1) Medical Registrar; honorarium, £50 per annum. (2) Fourth Assistant Physician.

WEST LONDON HOSPITAL, Hammersmith Road, W.—(1) Physician. (2) House-Physician. (3) Non-resident Casualty Officer, salary at the rate of £100 per annum.

WINCHESTER: ROYAL HAMPSHIRE COUNTY HOSPITAL.—House-Physician (Male). Salary, £80 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House-Surgeon. Salary at the rate of £80 per annum.

WOMEN'S HOSPITAL FOR CHILDREN, Harrow Road, W.—Two Clinical Assistants (Women).

ZANZIBAR PUBLIC HEALTH AND MEDICAL DEPARTMENTS.—(1) Assistant Health Officer at Zanzibar. (2) Medical Officer at Pemba. Salary, £350 per annum and bonus of £300 on completion of term of service.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacant appointments: Bermondsey (London), Leyburn (Yorks, North Riding).

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

APPOINTMENTS.

CHAFF, T. W., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Salford Union.

FRASER, Kenneth, M.B., Ch.B.Edin., D.P.H.Camb., Assistant Medical Officer to the Cumberland County Council.

STRATTON, W., L.R.C.P. and S.I., District Medical Officer of the Mansfield Union.

WILSON, J. B. F., M.B., Assistant Medical Officer of the Workhouse, Infirmary, etc., of the Hackney Union.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTHS.

ANDERSON.—May 22nd, 1912, at Aldersbrook House, Wanstead Park, London, E., to Dr. and Mrs. J. G. Anderson—a son.

RUSHER.—On May 14th, at The Paddock, Pershore, the wife of John Golby Rusher, of a son.

DIARY FOR THE WEEK.

MONDAY.

LONDON HOSPITAL MEDICAL COLLEGE, E., 4.15 p.m.—Dr. Henry Head, F.R.S.: Diagnostic Value of Sensory Changes in Diseases of the Nervous System.

TUESDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Second Lumleian Lecture by Dr. Percy Kidd: Some Moot Points in the Pathology and Clinical History of Pneumonia.

ROYAL SOCIETY OF MEDICINE:

THERAPEUTICAL AND PHARMACOLOGICAL SECTION, 4.30 p.m.—(1) Annual Meeting and Election of Officers. (2) Papers: Dr. Clarke (Cambridge): Action of Digitalis. Professor Cushny, F.R.S.: Action of the Digitalis Series.

THURSDAY.

NORTH-EAST LONDON CLINICAL SOCIETY, Prince of Wales's Hospital, Tottenham, 4.15 p.m.—(1) Annual Meeting and Election of Officers. (2) Clinical Meeting.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Third Lumleian Lecture by Dr. Percy Kidd: Some Moot Points in the Pathology and Clinical History of Pneumonia.

ROYAL SOCIETY OF MEDICINE:

OBSTETRICAL AND GYNAECOLOGICAL SECTION, 8 p.m.—Dr. Purslow: (*a*) Polypoid Endometritis and Cysts in Cervix; (*b*) Gravid Uterus with Multiple Fibroids. Dr. Clifford White: Malformed Fetus. Dr. Barris: Tubercle of Fallopian Tube. Dr. Willett and Dr. Williamson: Cases of Dystocia Due to Premature Retraction Ring. Miss A. L. McIlroy: The Physiological Influence of Ovarian Secretion.

FRIDAY.

ROYAL SOCIETY OF MEDICINE:

LARYNGOLOGICAL SECTION.—Cases of Specimens Relating to Diseases of the Sphenoidal Sinuses.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY, West London Hospital, 8.30 p.m.—Papers: (1) Mr. J. D. Mortimer: Prevention of Abdominal Rigidity under Anaesthesia. (2) Mr. H. M. Page: Nitrous Oxide and Oxygen in Major Operations and Conservative Dentistry.

POST-GRADUATE COURSES AND LECTURES.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Wednesday, 4 p.m., Natural Immunity.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat, at noon and 4.30 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Tuesday, and noon, Friday. Eye, 11 a.m., Wednesday and Saturday. Radiography, Thursday, 4.30 p.m. Pathological Demonstration, Friday, 11 a.m. Special Lectures: Tuesday, 2.15 p.m., Ulcers. Wednesday, 5 p.m., Surgical Demonstration. Thursday, 4.30 p.m., Sydenham's Chorea.

LONDON SCHOOL OF TROPICAL MEDICINE.—Lectures daily (Saturday excepted) at 12 noon and 4 p.m. Practical Laboratory work daily (Saturday excepted), 10 a.m. to 12 noon. Practical Entomology, 2 to 3.30 p.m. daily; Special Entomology, 10.30 a.m. to 1 p.m. daily. Medical Clinics, Monday and Thursday, at 3 p.m. Operations, Friday, at 3 p.m.

MANCHESTER ROYAL INFIRMARY.—Tuesday, 4.30 p.m.: Demonstration of Medical Cases. Friday, 4.30 p.m.: Malignant Stricture of the Intestine.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin. Tuesday, Medical. Wednesday, Surgical. Thursday, Medical. Friday, Ear, Nose, and Throat. Lectures at 5.15 p.m. each day will be given as follows: Monday, The Treatment of Dyspepsia. Tuesday, The Late Results of Suprapubic Prostatectomy for Simple Enlargement of the Prostate. Wednesday, The Causes of Insanity. Thursday, Some Obscure Affections of the Foot. Friday, The Diagnosis of Tissues.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday and Friday, 3.30 p.m., Surgery of the Nervous System.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics: 10 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient. Nose, Throat, and Ear; 3 p.m., Demonstration on Clinical and General Pathology. Tuesday, 2.30 p.m., Operations; Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient. Wednesday, 2 p.m., Throat Operations; 2.30 p.m., Medical Out-patient; Skin and Eye Clinics: *X* Rays; 3 p.m., Pathological Demonstration; 5.30 p.m., Eye Operations. Thursday, 2.30 p.m., Gynaecological Operations. Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient; Pathological Demonstration.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics, *X* Rays, and Operations, 2 p.m. daily. Monday: Gynaecology, 10 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday: Gynaecological Operations, 10 a.m.; Demonstration of Minor Operations, 11 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday: Gynaecological Demonstration, 10 a.m.; Lecture: Practical Medicine, 12.15 p.m.; Eye, 2 p.m.: Orthopaedics, 2 p.m. Friday: Gynaecological Operations, 10 a.m.; Lecture: Clinical Pathology, 12.15 p.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m. Special Lectures at 5 p.m. daily.

DIARY OF THE ASSOCIATION.

Date.		Meetings to be Held.
		JUNE.
5	Wed.	Hampstead Provisional Medical Committee, 8.30 p.m.
6	Thur.	South Midland Branch, Aylesbury, Annual Meeting, 2.30 p.m.; Luncheon, 1.15 p.m. Greenwich Division, Catford, Annual Meeting, 3.30 p.m. Dundee Division, Dundee, Annual Meeting, 4 p.m. Lambeth Division, Bethlem Hospital, Annual Meeting, 4 p.m.
7	Fri.	Central Ethical Committee, London, 2 p.m. Journal Committee, London, 11 a.m.
8	Sat.	Issue of Voting Papers for Central Council Election from Head Office.
11	Tues.	Public Health Committee, London, 3.30 p.m. South-Eastern Counties Division, St. Boswells, Annual Meeting, 3.15 p.m.
12	Wed.	Medico-Political Committee, London, 2 p.m. Fife Branch, Kirkcaldy, Annual Meeting, 3 p.m. Forfarshire Division, Annual Meeting.
13	Thur.	Hampstead Division, Central Library, Finchley Road, Annual Meeting, 8.15 p.m. East York and North Lincolnshire Branch, Grimsby, Annual Meeting.
14	Fri.	Mid Staffordshire Division, Stafford, Annual Meeting, 2.45 p.m. for 3 p.m.
15	Sat.	Last day for receipt of Voting Papers at Head Office *re* Central Council Election.
17	Mon.	Naval and Military Committee, London (if necessary).
18	Tues.	Organization Committee, London, 2.30 p.m.
19	Wed.	South-Eastern Branch, Town Hall, Bromley, Annual Meeting, 2.15 p.m.; Lunch, 1 p.m.; Dinner, 6.30 p.m. Bath and Bristol Branch, Annual Meeting. East Anglian Branch, Brentwood, Annual Meeting.
20	Thur.	Metropolitan Counties Branch Council, 4 p.m.
26	Wed.	Finance Committee, London, 2.30 p.m. South-Western Branch, Newquay, Annual Meeting, 3 p.m.
27	Thur.	Edinburgh Branch, Edinburgh, Annual Meeting, 4 p.m.
28	Fri.	Metropolitan Counties Branch, 429, Strand, W.C., Annual Meeting, 4.30 p.m.
		JULY.
3	Wed.	Central Council, London, 2 p.m.
		Annual Meeting, Liverpool.
19	Fri.	Annual Representative Meeting.
20	Sat.	Annual Representative Meeting.
22	Mon.	Council Meeting, 9.30 a.m. Annual Representative Meeting, 10 a.m. Secretaries' Conference and Dinner, 7 p.m.
23	Tues.	Annual Representative Meeting, 9.30 a.m. Annual General Meeting, 2 p.m., President's Address, 8.30 p.m.
24	Wed.	Council Meeting, 9 a.m. Sectional Meetings, 10 a.m. to 1 p.m. Address in Medicine, 12.30 p.m. Religious Services, 3 p.m.
25	Thur.	Sectional Meetings, 10 a.m. to 1 p.m. Address in Surgery, 12.30 p.m. Annual Dinner, 7.30 p.m.
26	Fri.	Council Meeting, 9 a.m. Sectional Meetings, 10 a.m. to 1 p.m.
27	Sat.	Excursions.

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SUPPLEMENT
TO THE
BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JUNE 8TH, 1912.

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SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs. BY ORDER.

MATTERS REFERRED TO DIVISIONS.

British Medical Association.

STATE SICKNESS INSURANCE COMMITTEE.

NOTE.—These Schemes are not in final form. They are issued for the consideration of the Divisions, and the State Sickness Insurance Committee will consider any expressions of opinion forwarded by Divisions not later than June 26th, 1912, preparatory to presenting a Report on the subject to the Annual Representative Meeting.

A.

PUBLIC MEDICAL SERVICE SCHEME

(BASED UPON A CAPITATION SYSTEM OF PAYMENT)

FOR THE PROVISION OF MEDICAL ATTENDANCE

FOR

(I) PERSONS INSURED UNDER THE NATIONAL INSURANCE ACT, AND

(II) PERSONS NOT SO INSURED.

(I.) PERSONS INSURED UNDER THE NATIONAL INSURANCE ACT.

Object and Constitution.

1. *Object.*—The Public Medical Service of . . . . . (hereinafter called the Service) is an Association of Medical Practitioners, constituted to organise the provision of medical attendance and medicine for persons unable to pay the ordinary medical charges.

2. *Area.*—The area of the Service is* . . . . . .

3. *Members.*—Any duly registered medical practitioner practising within the area may become a member of the Service upon signing an undertaking to conform to these rules. Members may be either Acting or Honorary. An "Acting" member is one who undertakes medical attendance on the subscribers to the Service upon the terms laid down in these rules. An "Honorary" member is a member who has signed the undertaking to abide by these rules, but who does not undertake ordinary medical attendance in connection with the Service.

4. *Officers and Committee.*—The officers of the Service shall be a Chairman, Honorary Treasurer, and an Honorary Secretary, all of whom must be members of the Service. The Committee shall consist of the above officers, together with..... members, of whom.....members shall be elected by the local Division or Branch of the British Medical Association.

* As far as possible the area of a Public Medical Service should correspond with one or more of the areas defined under the provisions of the National Insurance Act, but in this case no set rule would meet all cases. Divisions must therefore draft a rule to suit their local conditions. In the case of a large area, such as a County, Sub-Divisions might be formed, each with its own Committee, income limit, officers and officials.

Meetings and Government.

5. *Annual General Meeting.*—An ordinary general meeting of the members, called "The Annual Meeting" shall be held before March 1st of each year.* At this meeting the officers and members of the Committee shall be elected, with the exception of those to be elected by the local Division or Branch of the British Medical Association, and the Annual Report of the Committee, and Statement of Accounts of the Service for the preceding year shall be presented.

6. *Special Meeting.*—A special general meeting of the members may be convened at any time by the Committee, and shall be convened by the Secretary at the earliest practicable day and in any event within twenty-one days of receiving the requisition of.....members.

7. *Quorum.*—At a general meeting (ordinary or special).....members shall be a quorum.

8. *Notice.*—Subject to the provision hereinafter contained for fourteen days' notice in the case of a proposed alteration of Rules, at least seven days' notice of every general meeting and of the business thereof shall be given by the Secretary to all members, but the accidental omission to give notice to any member shall not invalidate the proceedings of a meeting. The notice of a general meeting (and also a Members' requisition for a general meeting) shall state the agenda thereat, and no matters not arising out of the agenda shall be dealt with at that meeting.

9. *Election of Officers.*—At each annual general meeting all the officers and members of committee shall retire, but shall be eligible for re-election.

10. *Powers of Committee.*—The Committee may make rules for its meetings, and fix a quorum. Subject to such regulations not inconsistent with these Rules as may from time to time be prescribed by the members in general meeting, the Committee shall deal with all such matters as the appointment of dispensers, clerks, collectors and auditors, the making of arrangements with chemists, and the leasing of premises (if any) and shall manage all the other affairs of the Service not required to be dealt with at a general meeting.

11. *Members not to accept Lower Rates.*—No member shall take, or continue to treat, any contributory contract patient at a lower rate than the subscriptions prescribed in these Rules.

12. *Canvassing and Advertising.*—No canvassing or advertising shall be permitted by, or on behalf of, any member of the Service.

No member shall himself receive, or employ a Collector to collect, subscriptions from contributory contract patients.

13. *Members not to hold Club appointments.*—No member shall hold any appointment as Medical Officer to a club, or conduct any club of his own.

14. *Expulsion of Members.*—(a) *By action of a Division of the British Medical Association.*—If, at a meeting of any Division of the British Medical Association within the area of the Service, a member of the Service shall by a two-thirds majority of those present and voting be found guilty of violation of a rule or resolution of the Division with reference to professional conduct, or of other conduct detrimental to the honour and interests of the profession or calculated to bring the profession into disrepute, he shall *ipso facto* cease to be a member of the Service.

(b) *By Vote of Members.*—If any member shall wilfully commit any breach of the Rules of the Service (after having had his attention called to such breach by the Committee) he may be expelled from membership by the vote of three-fourths of the members present and voting at a general meeting.

15. *Alteration of Rules.*—These Rules shall not be altered except with the consent of two-thirds of the members present and voting at a general meeting, provided also that 14 days' notice of the terms of any proposed alteration of the Rules shall have been given in the agenda.

Subscribers.

16. *Admission.*—Subscribers shall be admitted by any acting member after medical examination. The Committee shall determine the Income Limit for admission as a Subscriber to the Service, but in no case shall the income exceed £2 per week. Should cases arise in which there may be doubt as to the eligibility of the applicants, they shall be referred to the Committee for its consideration, and the decision of the Committee on the question of eligibility shall be final. If any subscriber shall, in the opinion of the Committee, cease to be eligible, his name shall be removed from the list of subscribers.

17. *Subscriptions.*—The subscription to the Service for a person insured under the National (Health) Insurance Act, 1911, shall not be less than 3d. per week inclusive of drugs and cost of administration, provided that in the case of persons who may appear on the medical examination to be below the ordinary standard of health of subscribers, the Committee may prescribe special rates of subscription.

18. *Arrears.*—A Subscriber whose subscriptions are . . . weeks or more in arrear, at least one week's notice in writing having been given him, shall be struck off the list of subscribers, and shall not be re-admitted except on payment of all arrears or such part thereof as may be approved by the Committee.

19. *Choice of Medical Attendant.*—(a) A Subscriber shall, on admission, and at such other times as are provided by these Rules, choose his medical attendant from the Members of the Service who are willing to attend him, and shall for the time being be entitled to the services of such Member only.

(b) The contract of the Subscriber shall be with his medical attendant only, and not with the Service or the other Members of the Service.

(c) Except by the consent of both Members concerned, the Subscriber shall not change his medical

* The date March 1st is mentioned because, if these Services are set up generally throughout the country, and especially if they become co-ordinated in a centralised scheme, as will probably be desired, it will be necessary that reports as to their progress should be made to the Council of the Association, by the end of March, in order that a general report should be presented to the Annual Representative Meeting.

attendant more than once in six calendar months, giving at least a month's notice terminating on the 30th June or the 31st December.

(d) The member in charge of a case may, on the ground of wilful disobedience or misconduct on the part of the Subscriber, refuse further attendance, and shall in any such case forthwith report to the Committee.

20. *Subscribers' Cards.*—Every subscriber shall on admission be supplied with a card, which shall refer to these Rules and on which shall be printed such of these Rules as the Committee may think necessary, and on which also shall be set forth such information, including the name and hours of the Subscriber's medical attendant, as may be approved by the Committee. Failing production of the card, attendance may be refused.

21. *Privileges of Subscribers.*—A subscriber, in accordance with these Rules, shall be entitled to receive from his medical attendant so long as his subscriptions are not in arrear:—

(i.) Ordinary medical and surgical treatment at the (surgery of his medical attendant) *or* (dispensary of the Service) within the hours mentioned on his card.

(ii.) When his condition requires it, ordinary medical and surgical treatment at his place of dwelling (when that is within two miles of his medical attendant's house), other than night calls and special visits as hereinafter defined.

(iii.) All needful medicines and first dressings for wounds and other injuries.*

22. *Limitation of Benefits.*—Subscribers shall not be entitled, in consideration of their ordinary subscriptions:—

(i.) To medical service in respect of any of the following matters, except upon payment of the fees specified in the following Table:—

	£	s.	d.
(a) Confinements			
(b) Miscarriages			
(c) Vaccinations			
(d) Fractures			
(e) Dislocations			
(f) Consultations: Ordinary attendant			
Consultant			
(g) Administration of a general anæsthetic ...			
(h) Night visits, *i.e.*, visits made between 8 p.m. and 8 a.m., in response to calls received between those hours			
(i) Special visits, *i.e.*, visits made in response to, and on the same day as, calls received after 10.0 a.m., or made on Sundays, at the desire of the Subscriber ...			
(j) Certificates and reports			

* In any Service not providing medicines this provision will, of course, be deleted.

(ii.) To medical service in respect of illness the consequence of personal misconduct.

(iii.) To medical attendance in respect of—

(a) Illness arising from confinement or miscarriage within one month.

(b) Operations requiring local or general anæsthetics.

(c) Operative dentistry—

the fees for which shall be specially arranged.

*(iv.) To cod liver oil, linseed meal, leeches, serum, oxygen.

(v.) To bottles,* jars,* dressings or bandages (except for first dressings).

(vi.) To special examinations, *e.g.*, X-ray, bacteriological, &c.

(vii.) To examinations, court attendances, &c., under Common Law, and Workmen's Compensation, Employers' Liability and other Statutes.

(viii.) Attendance beyond a two mile radius from the house of the medical attendant.†

(ix.) To medical attendance in respect of tubercular disease when actually in receipt of sanatorium benefit under the National Insurance Act.

FINANCE.

Miscellaneous.

23. *Payments.*—All payments made by a Subscriber shall be the exclusive property of the Member who is his Medical Attendant at the time when such payment becomes due, subject only to a rateable deduction for the expenses of collection and the general expenses of the Service.

24. *Money Collected.*—All moneys collected shall be paid into a bank, to the credit of the Treasurer of the Service.

25. *Distribution of Subscriptions.*—The Treasurer shall, with the sanction of the Committee, on the usual quarter days, after provision for all current expenses, distribute the balance of the moneys collected among the Members of the Service entitled thereto.

26. *Sale of Member's Interest.*—A Member may sell to any person qualified for Membership his interest in the Service. The purchaser of a Member's interest shall become entitled thereto upon becoming a Member of the Service.

27. *Former Members.*—The subscriptions collected for any former Member of the Service, and not already paid to him before the date of termination of his membership, shall be paid to him as soon as conveniently may be, after the deduction of his share of the common expenses, and the Subscribers whose medical attendant he was shall have the right to choose as medical attendant any other member who is willing to attend.

* In Services not providing medicines these items would be deleted.

† It is suggested that mileage may be dealt with in one or other of the following ways:—

(a) by charging a definite fee in proportion to the distance.

(b) by an increase of the minimum capitation fee which would be applicable throughout the district, and which would obviate the necessity for any extra fee being charged for mileage.

28. *Collectors.*—Collectors shall be paid by salary and not by commission.

29. *Members List of Subscribers.*—The Committee shall supply each Member of the Service on becoming a Member with a List of Subscribers contracting with him and entitled to his services, and monthly with a list of additions and corrections.

30. *Interpretation.*—In these Rules, where the context does not forbid, words importing the masculine gender shall include the feminine, and words in the singular shall include the plural, and *vice versa*.

(II.)—Persons not Insured under the National Insurance Act.

31. *Subscriptions.*—In the case of persons not insured under the National Insurance Act, arrangements may be made for their inclusion in any Public Medical Service, provided that the terms and conditions agreed upon are not in contravention of the following regulations and such others as may from time to time be made by the British Medical Association:—

(a) For the wife of an insured person, not herself an insured person, the payment should not be less than 2d. per week.

(b) For children the same rate should prevail but it is recognised that in some districts such payments may not be possible until a subsidy is received in respect of the children from the Insurance Fund, and the local profession may, in the meantime, decide to give their services at a lower rate.

(c) Provision may be made for families by payment of a weekly sum per family, irrespective of the size of the family, as is done in colliery districts, but the payment should be in some proportion to the individual subscriptions above mentioned.

B.

PUBLIC MEDICAL SERVICE SCHEME

(BASED UPON A PAYMENT PER ATTENDANCE SYSTEM)

FOR THE PROVISION OF MEDICAL ATTENDANCE AND TREATMENT FOR PERSONS UNABLE TO PAY ORDINARY MEDICAL CHARGES.

Object and Constitution.

1. *Object.*—The Public Medical Service of . . . . . (hereinafter called the Service) is an Association of Medical Practitioners, constituted to organise the provision of medical attendance and medicine for persons unable to pay the ordinary medical charges.

2. *Area.*—The area of the Service is . . . .*

3. *Members.*—Any duly registered medical practitioner practising within the area may become a member of the Service upon signing an undertaking to conform to these rules. Members may be either Honorary or Acting. An Honorary Member is a member who has signed the undertaking to abide by these rules but who does not engage to give medical attendance in connection with the Service. An Acting Member may be either Schedule or Non-Schedule. A "Schedule Member" is one who agrees to attend subscribers at the rate per visit or consultation hereinafter laid down. A "Non-Schedule" member, while binding himself by all other rules of the Service, adopts a higher minimum than that hereinafter laid down, and attends patients on the understanding that the difference between his fee and the fee allowed by the Service is paid by the subscriber.

4. *Officers and Committee.*—The Officers of the Service shall be a Chairman, Honorary Treasurer, and an Honorary Secretary, all of whom must be members of the Service. The Committee shall consist of the above Officers, together with..... members, of whom.....members shall be elected by the local Division or Branch of the British Medical Association.

Meetings and Government.

5. *Annual General Meeting.*—An ordinary general meeting of the members, called "The Annual Meeting," shall be held before March 1st of each year.† At this meeting the Officers and members of the Committee shall be elected, with the exception of those to be elected by the local Division or Branch of the British Medical Association, and the Annual Report of the Committee and Statement of Accounts of the Service for the preceding year shall be presented.

6. *Special Meeting.*—A special general meeting of the members may be convened at any time by the Committee, and shall be convened by the Secretary at the earliest practicable day, and in any event within twenty-one days of receiving the requisition of ..... members.

7. *Quorum.*—At a general meeting (ordinary or special).....members shall be a quorum.

8. *Notice.*—Subject to the provision hereinafter contained for fourteen days' notice in the case of a proposed alteration of Rules, at least seven days' notice of every general meeting and of the business thereof shall be given by the Secretary to all members, but the accidental omission to give notice to any member shall not invalidate the proceedings of a Meeting. The notice of a general meeting (and also a member's requisition for a general meeting) shall state the agenda thereat, and no matters not arising out of the agenda shall be dealt with at that meeting.

9. *Election of Officers.*—At each annual general meeting all the Officers and members of Committee shall retire, but shall be eligible for re-election.

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*As far as possible the area of a Public Medical Service should correspond with one or more of the areas defined under the provisions of the National Insurance Act, but no set rule would meet all cases. Divisions must therefore draft a Rule to suit their local conditions. In the case of a large area, such as a County, Sub-Divisions might be formed, each with its own Committee, income limit, officers and officials.

† The date March 1st is mentioned because if these Services are set up generally throughout the country and especially if they become co-ordinated in a centralised scheme, as will probably be desired, it will be necessary that reports as to their progress should be made to the Council of the Association by the end of March, in order that a general report should be presented to the Annual Representative Meeting.

10. *Powers of Committee.*—The Committee may make rules for its meetings, and fix a quorum. Subject to such regulations not inconsistent with these Rules as may from time to time be prescribed by the members in general meeting, the Committee shall deal with all such matters as the appointment of dispensers, clerks, collectors and auditors, the making of arrangements with chemists, and the leasing of premises (if any) and shall manage all the other affairs of the Service not required to be dealt with at a general meeting.

11. *Members not to hold Contributory Contract Appointments.*—No member shall hold any contributory contract practice appointment whatsoever, except with the consent of the Committee of the Service.

12. *Members not to Accept Lower Fees.*—No member shall take, or continue to treat, any patients at lower fees than those prescribed in these Rules.

13. *Canvassing and Advertising.*—No canvassing or advertising shall be permitted by, or on behalf of, any member of the Service.

No member shall himself receive, or employ a collector to collect subscriptions from contributory contract patients.

14. *Expulsion of Members:* (a) *By action of a Division of the British Medical Association.*—If, at a meeting of any Division of the British Medical Association within the area of the Service, a member of the Service shall by a two-thirds majority of those present and voting be found guilty of violation of a Rule or Resolution of the Division with reference to professional conduct, or of other conduct detrimental to the honour and interests of the profession or calculated to bring the profession into disrepute, he shall, *ipso facto*, cease to be a member of the Service.

(b) *By Vote of Members.*—If any member shall either wilfully commit any breach of the Rules of the Service, or shall be guilty of conduct tending to increase unduly his claim to a share in the distribution of the moneys collected, he may (after having had his attention called by the Committee to such breach or conduct as the case may be) be expelled from membership by the vote of three-fourths of the members present and voting at a general meeting.

15. *Alteration of Rules.*—These Rules shall not be altered except with the consent of two-thirds of the members present and voting at a general meeting, provided also that fourteen days' notice of the terms of any proposed alteration of the Rules shall have been given in the agenda.

Subscribers.

16. *Admission.*—Subscribers shall be admitted by any acting member after medical examination. The Committee shall determine the Income Limit for admission as a subscriber to the Service, but in no case shall the income exceed £2 per week. Should cases arise in which there may be doubt as to the eligibility of the applicants, they shall be referred to the Committee for its consideration, and the decision of the Committee on the question of eligibility shall be final. If any subscriber shall in the opinion of the Committee cease to be eligible, his name shall be removed from the list of subscribers.

17. *Subscriptions.*—The subscription to the Service for a person insured under the National (Health) Insurance Act, 1911, shall not be less than 3d. per week inclusive of drugs and cost of administration, provided that in the case of persons who may appear on the medical examination to be below the ordinary standard of health of subscribers, the Committee may prescribe special rates of subscription.

18. *Arrears.*—A subscriber whose subscriptions are..... .....weeks or more in arrear, at least one week's notice in writing having been given him, shall be struck off the list of subscribers, and shall not be readmitted except on payment of all arrears or such part thereof as may be approved by the Committee.

19. *Choice of Medical Attendant.*—(a) A subscriber shall, on admission, and at such other times as are provided by these Rules, choose his medical attendant from the members of the Service who are willing to attend him, and shall for the time being be entitled to the services of such member only.

(b) The contract of the subscriber shall be with his medical attendant only, and not with the Service or other members of the service.

(c) Except by the consent of both members concerned, the subscriber shall not change his medical attendant more than once in six calendar months, giving at least a month's notice terminating on the 30th June or the 31st December.

(d) The member in charge of a case may, on the ground of wilful disobedience or misconduct on the part of the subscriber, refuse further attendance, and shall in any such case forthwith report to the Committee.

20. *Subscribers' Cards.*—Every subscriber shall on admission be supplied with a card which shall refer to these rules and on which shall be printed such of these rules as the Committee may think necessary, and on which also shall be set forth such information, including the name and hours of the subscriber's medical attendant, as may be approved by the Committee. Failing production of the card, attendance may be refused.

21. *Privileges of Subscribers.*—A subscriber in accordance with these rules, shall be entitled to receive from his medical attendant, so long as his subscriptions are not in arrear:—

(i.) Ordinary medical and surgical treatment at the (surgery of his medical attendant) *or* (dispensary of the Service) within the hours mentioned on his card.

(ii.) When his condition requires it, ordinary medical and surgical treatment at his place of dwelling (when that is within two miles of his medical attendant's house), other than night calls and special visits as hereinafter defined.

(iii.) All needful medicines and first dressings for wounds and other injuries.*

* In any Service not providing medicines this provision will, of course, be deleted.

22. *Limitation of Benefits.*—Subscribers shall not be entitled in consideration of their ordinary subscriptions:—

(i.) To medical service in respect of any of the following matters, except upon payment of the fees specified in the following Table:—

(a) Confinements ... ...
(b) Miscarriages ... ...
(c) Vaccinations ... ...
(d) Fractures ... ...
(e) Dislocations ... ...
(f) Consultations: Ordinary attendant ... ...
Consultant ... ...
(g) Administration of a general anæsthetic ...
(h) Night visits, *i.e.*, visits made between 8.0 p.m. to 8.0 a.m. in response to calls received between those hours ... ...
(i) Special visits., *i.e.*, visits made in response to, and on the same day as, calls received after 10.0 a.m. or made on Sundays, at the desire of the subscriber
(j) Certificates and Reports

(ii.) To medical service in respect of illness the consequence of personal misconduct.

(iii.) To medical attendance in respect of

(a) Illness arising from confinement or miscarriage within one month.

(b) Operations requiring local or general anæsthetics.

(c) Operative dentistry;

the fees for which shall be specially arranged.

(iv.) To cod liver oil, linseed meal, leeches, serum, oxygen.*

(v.) To bottles,* jars,* dressings or bandages (except for first dressings).

(vi.) To special examinations, *e.g.*, X-ray, bacteriological, &c.

(vii.) To examinations, court attendances, &c., under Common Law and Workmen's Compensation, Employers' Liability, and other Statutes.

(viii.) Attendance beyond a two mile radius from the house of the medical attendant.†

(ix.) To medical attendance in respect of tubercular disease, when actually in receipt of sanatorium benefit under the National Insurance Act.

* In Services not providing medicines these items would be deleted.

† It is suggested that mileage may be dealt with in one or other of the following ways:—

(a) by charging a definite fee in proportion to the distance;

(b) by an increase of the minimum subscription which would be applicable throughout the district, and which would take the place of an extra fee being charged for mileage.

Finance.

23. *Fees.*—The following fees shall be those paid to Schedule members:—

Visit	... ...	2s.
Visit and medicine	...	2s. 6d.
Consultation in surgery	...	1s. 6d.
Do., with medicine	...	2s.

24. *Money collected.*—All moneys collected shall be paid into a bank, and placed to the credit of the Treasurer of the Service.

25. *Distribution of Subscriptions.*—(a) Every member shall be provided with a slip, whether in the form of a card or otherwise, relating to each subscriber whose medical attendant he is, in the general form set out in the Appendix hereto, on which shall be printed the name of the Service and on which shall be provision for the registration of

(1) Name of member.

(2) Name and address of subscriber.

(3) Each visit, consultation, etc., made by member.

(4) Diagnosis.

(5) Additional notes of treatment.

(b) Each member shall duly enter on such slip the particulars of each visit paid or consultation made, and shall return monthly to the office of the Service any slip on which entries have been made. Should the illness for which he is attending a subscriber continue over the date on which the slip should be returned, the slip should nevertheless be sent in and further entries made on a second (or third) slip which should be clearly marked as a continuation slip.

(c) It shall be the duty of the Secretary of the Service to classify such slips, and as soon as possible after each quarter day lay before the Committee a statement of the amount due for professional services to each member of the Service, and on the direction of the Committee such sum shall, as far as possible, be paid to the member forthwith out of the moneys collected, always providing that it shall be competent for the Committee to suspend payment of any member's account pending an enquiry into any account when the Committee considers such enquiry is desirable.

26. *Sale of Member's Interest.*—A member may sell to any person qualified for membership his interest in the Service. The purchaser of a member's interest shall become entitled thereto upon becoming a member of the Service.

27. *Former Members.*—Any sums payable to any former member of the Service, and not already paid to him before the date of termination of his membership, shall be paid to him as soon as conveniently may be, after the deduction of his share of the common expenses, and the subscribers whose medical attendant he was, shall have the right to choose as medical attendant any other member who is willing to attend.

28. *Collectors.*—Collectors shall be paid by salary and not by commission.

29. *List of Members.*—The Committee shall draw up, and from time to time revise, a list of all acting

members, and shall classify them under the headings Schedule and Non-schedule members, and shall cause a copy of the said list to be handed to each subscriber on admission. The said list shall also contain a clear intimation that Schedule members agree to attend subscribers at the rates set forth herein, and that Non-schedule members attend only at higher rates than these, to be agreed in every case privately between the subscriber and the member, and that in the case of Non-schedule members the subscription covers only so much of the fee as is equal to a fee at the rates charged by Schedule members set forth above, and that the balance of the fee is payable by the subscriber as an addition to his subscription.

30. *Member's List of Subscribers.*—The Committee will supply each member of the Service on becoming a member with a list of subscribers contracting with him and entitled to his services, and monthly with a list of additions and corrections.

31. *Investigation of Claims.*—It shall be the duty of the Committee, or a sub-committee appointed by the Committee for this purpose, to examine not less often than every three months the slips sent in by members with a view to the detection of any conduct tending to increase unduly the claims of members to share in the distribution of the moneys collected, and it shall be competent for the Committee, either originally, or on the report of any such sub-committee, to summon before it any member whom the Committee may consider to have been guilty of any such conduct and to caution or admonish him or, in the case of a repetition of such conduct after such caution or admonition, to refer the question of his expulsion to the members under the provisions of the rule relating to expulsion.

32. *Interpretation.*— In these rules, where the context does not forbid, words importing the masculine gender shall include the feminine, and words in the singular shall include the plural, and *vice versa*.

APPENDIX.

FORM OF MEDICAL PRACTITIONER'S SLIP OR CARD.

.....MEDICAL SERVICE.

Name and address of Medical Practitioner.....

Name and address of Subscriber.....

NOTE.—The following symbols should be used:—

H. = visit. S. = consultation in Surgery.
H.M. = visit and medicine. S.M. = ditto, with medicine.

Date.	Nature of Attendance.	Diagnosis and Note of Progress.			
April					
1	S.M.	? Influenza			
2	H.				
3	H.M.	Pneumonia			
,,	,,	,,			
,,	,,	,,			
,,	,,	,,			
,,	,,	,,			
10	H.	Empyema			

NATIONAL INSURANCE ACT.

SUGGESTED NOMINATION BY ASSOCIATION OF MEDICAL PRACTITIONERS TO SERVE UPON PROPOSED PROVISIONAL INSURANCE COMMITTEES.

THE following letter has been addressed to the Honorary Secretaries of Divisions and Provisional Medical Committees in England, Scotland, and Wales:—

STATE SICKNESS INSURANCE COMMITTEE.

British Medical Association,
Medical Department,
429, Strand, London, W.C.

Dear Sir,

National Insurance Act.
Nomination by Association of Medical Practitioners to Serve upon Proposed Provisional Insurance Committees.

The State Sickness Insurance Committee at its meeting on Thursday, May 30th last, considered the following communication received from the National Health Insurance Commission (England) with reference to the question of the nomination by the Association of practitioners to serve upon Provisional Insurance Committees, which it is proposed to set up in connexion with the Act:

National Health Insurance Commission (England),
Buckingham Gate, London, S.W.,
May 24th, 1912.

Sir,

I am directed by the National Health Insurance Commission (England) to state that they have had under consideration the question of constituting Insurance Committees for counties and county boroughs in England, and they would be glad to have the assistance of the British Medical Association in regard to the appointment of medical members of these Committees.

Section 59 of the Act provides that an Insurance Committee shall be constituted for every county or county borough to be composed as follows:

(*a*) Three-fifths to represent insured persons resident in the county or county borough who are members of approved societies and who are deposit contributors, in proportion to their respective members.

(*b*) One-fifth to be appointed by the council of the county or county borough.

(*c*) Two members to be elected in manner provided by regulations made by the Insurance Commissioners, either by any association of duly qualified medical practitioners resident in the county or county borough which may have been formed for that purpose under such regulations, or, if no such association has been formed, by such practitioners.

(*d*) One, two, or three (according to the size of the Committee) medical practitioners to be appointed by the council of the county or county borough.

(*e*) The remaining members to be appointed by the Insurance Commissioners.

The final constitution of Insurance Committees cannot be determined until the number of insured persons resident in the county or county borough and the respective number of members of approved societies and deposit contributors has been ascertained. Inasmuch as no person can enter into insurance before July 15th it is evident that special arrangements must be made if the Insurance Committees are to be established by that date.

The Commissioners accordingly propose to exercise the powers conferred on them by Section 78 of the Act, which enable them to do anything which appears to them necessary or expedient for the establishment of Insurance Committees, and in pursuance of these powers to make arrangements for the setting up of Provisional Committees which will hold office until Committees can be regularly constituted in accordance with the provisions of the Act.

The Commissioners feel assured that the British Medical Association will share their view that for many reasons it is important that the medical members of each Provisional Insurance Committee should be included in its membership from the outset, when many matters of great importance from the medical point of view and that of the public health will necessarily arise for consideration—for example, the making of arrangements for sanatorium benefit.

As the short amount of time available between now and July 15th will not permit of the selection of medical members of the committees in precisely the manner prescribed by Section 59 (2) (c), the Commissioners have come to the conclusion that the most convenient arrangement in the circumstances would be for the British Medical Association, if they are willing to do so, to assist the Commissioners by obtaining from the various District or Provisional Committees of the Association the names of two representatives for each Insurance Committee.

The Commissioners would be glad to receive the complete list of the names and addresses of the gentlemen thus selected not later than June 14th, and the Commissioners would thereupon appoint them upon the Committee.

A list of the administrative counties and county boroughs for which Insurance Committees are to be set up is enclosed for your information.

I am to add that the Commission are adopting this arrangement, of obtaining from a central representative body suitable names for inclusion on each Insurance Committee throughout England, in regard to the other main elements of each Insurance Committee—for example, the large friendly societies, the trade unions, and the industrial assurance companies that are likely to be approved societies under the Act, and it is hoped in this manner to secure a list of thoroughly suitable names for the composition of these first and strictly provisional Insurance Committees, so that the meetings of the Committees may commence at the beginning of July.

I am, Sir, your obedient Servant,
(Signed) Robert L. Morant.

The Secretary,
British Medical Association,
429, Strand, W.C.

In considering this communication the Committee took into consideration the terms of the following Minutes 42, 61, and 78 of the Special Representative Meeting, February, 1912, namely:

Minute 42.—Resolved: That this Representative Meeting direct the Council to inform, in plain and unmistakable language, the Commissioners appointed under the Insurance Act, 1911, that unless the minimum demands of the Association be embodied in the Regulations to be issued by the Commissioners, in such a manner as shall be effectual and permanent, with a view to having the same embodied in an amending Act, it is the intention of the British Medical Association to call upon all its members and upon all other medical practitioners to decline to form panels or undertake any other medical duties which may be assigned to them under the Act, in conformity with the undertaking which has already been signed by over 26,000 medical practitioners.

Minute 61.—Resolved: That while the British Medical Association is willing that members of the medical profession shall provisionally join the Advisory Committees, nevertheless it will use its best endeavours to ensure their resignation unless the six cardinal principles have been granted by amendment of the Insurance Act, by Regulation, Order, or otherwise, and that it be an instruction to the Council to provide that all practitioners who are supported by the Association for membership of the Advisory Committees shall have pledged themselves previously to vacate their seats if elected, should the British Medical Association determine to cease negotiations with reference to the National Insurance Act.

Minute 78.—Resolved: That it be an instruction to the Council to take all possible steps to ensure that no member shall take any office or work under the National Insurance Act other than that of the Advisory Committee until such time as the minimum demands of the profession are conceded in the Regulations or an amending Act.

The following reply has been forwarded to the Commissioners:

Offices of the British Medical Association,
Medical Department,
429, Strand, London, W.C.,
May 31st, 1912.

Sir,

I am directed by the State Sickness Insurance Committee of the British Medical Association to inform you that they had before them yesterday your letter of the 24th inst., asking for the assistance of the British Medical Association in regard to the appointment of medical members of the proposed Provisional Insurance Committees.

The Committee instructs me to say that, acting under decisions of the Special Representative Meeting, February, 1912, it is impossible for the Association to assist the Commissioners in the manner indicated—namely, by obtaining from various Provisional Medical Committees of the Association the names of representatives for the suggested Provisional Insurance Committees—until such time as the Association is satisfied that the minimum demands of the medical profession in regard to the Act are, or will be, conceded.

I am, Sir,
Your obedient servant,
(Signed) Alfred Cox,
Medical Secretary.

Sir Robert L. Morant, Chairman,
National Health Insurance Commission (England),
Buckingham Gate, S.W.

I am instructed by the Committee to forward the above correspondence to all Honorary Secretaries of Divisions and of Provisional Medical Committees, with a request that they will bring the matter before an early meeting of their Division or Committee, as the case may be, for their information.

Public Medical Service Schemes.

The schemes for Public Medical Services—(*a*) on a capitation system, (*b*) on a payment per attendance system—will appear in the Supplement to the Journal of June 8th, 1912.

These schemes are not in final form, but are issued for the consideration and comment of the Divisions. As the State Sickness Insurance Committee is anxious to submit a report upon this subject to the forthcoming Annual Representative Meeting, any expressions of opinion which Divisions may desire to submit to the Committee should reach me not later than first post on Wednesday, June 26th next. The Committee quite realizes that this notice is short, but it has been unavoidable owing to unforeseen delays, chiefly of a legal nature. It is hoped, however, that Divisions will make a special effort to consider the schemes and forward their comments within the time stated.

Any comments should be forwarded through the Divisions, and not through the Provisional Medical Committees.

A note will be prefixed to the schemes asking members to preserve the Supplement until the schemes have been considered locally; but as this is the only form in which these schemes will be available, you are requested to urge on the practitioners of your neighbourhood, in any notice or agenda you are sending out, the necessity of keeping this Supplement.

I am,
Yours faithfully,
Alfred Cox,
Medical Secretary.

To Honorary Secretaries of Divisions and Provisional Medical Committees in England, Scotland, and Wales.

Hospitals and Asylums.

NATIONAL CHILDREN'S HOSPITAL, DUBLIN.

The report presented to the annual meeting of the supporters of the National Children's Hospital, Dublin, stated that the work of the hospital had increased during the year; there were over 7,000 attendances at the dispensary and 256 in-patients. During the year an annexe was built in connexion with the operating theatre, and thoroughly equipped in every detail with all modern requisites. The report contained the following reference to infantile mortality: "Notwithstanding the great improvement that has taken place since the appointments of female sanitary inspectors by the Public Health Department of the Dublin Corporation and the dissemination of useful knowledge on infantile hygiene, the mortality still remains very high. It is a melancholy fact to record that, out of every 1,000 children born, 165 died on an average during their first year, and 250 died before attaining their fifth year; and in some towns the mortality in the first year reached 250 per 1,000." The Recorder of Dublin, in proposing the adoption of the report, paid a high tribute to the work carried on by the hospital during the ninety years of existence, laying special stress on the help that it afforded to the poor in their struggle for existence by relieving and correcting deformities during childhood.

British Medical Association.

EIGHTIETH ANNUAL MEETING, LIVERPOOL, JULY, 1912.

PROGRAMME OF BUSINESS.

President: Professor ROBERT SAUNDBY, M.D., LL.D., F.R.C.P., Professor of Medicine, University of Birmingham.

President-elect: Sir JAMES BARR, M.D., LL.D., F.R.C.P., Consulting Physician, Royal Infirmary, Liverpool.

Chairman of Representative Meetings: EWEN JOHN MACLEAN, M.D., Gynaecologist, Cardiff Infirmary.

Chairman of Council: JAMES ALEXANDER MACDONALD, M.D., LL.D., M.Ch., R.U.I., Honorary Physician, Taunton and Somerset Hospital, Taunton.

Treasurer: EDWIN RAYNER, M.D.Lond., F.R.C.S., Consulting Surgeon, Stockport Infirmary, Stockport.

The Eightieth Annual Meeting of the British Medical Association will be held in Liverpool in July, 1912. The President's Address will be delivered on Tuesday, July 23rd, and the Sections will meet on the three following days. The Annual Representative Meeting will begin on Friday, July 19th, 1912.

The Address in Medicine will be delivered by GEORGE ALEXANDER GIBSON, M.D., D.Sc., LL.D., F.R.C.P.Edin., Physician, Edinburgh Royal Infirmary.

The Address in Surgery will be delivered by FRANK THOMAS PAUL, Ch.M., F.R.C.S., Surgeon, Liverpool Royal Infirmary.

THE SECTIONS.

The scientific business of the Meeting will be conducted in twenty Sections, which will meet on Wednesday, July 24th, Thursday, July 25th, and Friday, July 26th.

The President, Vice-President, and Honorary Secretary of each Section constitute a Committee of Reference for that Section, and exercise the power of inviting, accepting, or declining any paper, and of arranging the order in which accepted papers shall be read. Communications with respect to papers should be addressed to one of the Honorary Secretaries.

A paper read in the Section must not exceed fifteen minutes, and no subsequent speech must exceed ten minutes.

Papers read are the property of the British Medical Association, and cannot be published elsewhere than in the BRITISH MEDICAL JOURNAL *without special permission.*

The following twenty Sections have been authorized by the Council:

ANAESTHETICS.

President: DUDLEY WILMOT BUXTON, M.D., B.S., London.

Vice-Presidents: FRANCIS WILLIAM BAILEY, M.R.C.S., Liverpool; WILLIAM FINGLAND, L.R.C.P., Liverpool; WILLIAM JOSEPH MCCARDIE, M.B., Birmingham.

Honorary Secretaries: VIVIAN CHASTEL DE BOINVILLE, M.D., South Grange, Aigburth Road, Liverpool; CHARLES CARTER BRAINE, F.R.C.S., 26, Wimpole Street, W.

Wednesday, July 24th, 10 a.m.—Discussion on Intravenous Infusion Anaesthesia. To be opened by Mr. FELIX ROOD; followed by Messrs. G. A. H. Barton and V. G. L. Fielden.

11 a.m.—Discussion on the Importance of Affording the Anaesthetist an Opportunity of making a Thorough Examination of the Patient some days previous to a Contemplated Operation, and after the Nature of the Operation has been Disclosed. To be opened by Mr ALEXANDER WILSON; followed by Messrs. L. Kirby Thomas, J. W. King, and Sydney Haynes.

The following is a *précis* of the paper introductory of the first discussion:

The origin and history of the intravenous infusion method of administration. Earlier types of apparatus and improved forms lately devised. Technique of method now generally employed. Summary of a number of cases. The position this form of anaesthesia occupies and is likely to occupy in the clinical practice of anaesthesia.

The following is a *précis* of the paper introductory of the second discussion:

The advantages claimed are: More accuracy in selecting the anaesthetic or analgesic, and the methods which will best fulfil the purposes of (1) safeguarding the patient by minimizing operative shock, preventing or lessening post-operative effects—that is, acetonaemia, glycosuria, pulmonary complications; (2) produce the best results for the surgeon and so enable him to do the utmost for the patient in the shortest possible time. The methods suitable for special regions and special types of operation may be grouped as: (*a*) Intratracheal insufflation of ether; (*b*) intravenous infusion; (*c*) rectal injection, or irrigation with ether in saline; (*d*) inhalation after alkaloids; (*e*) intrathecal injection; (*f*) various methods of local analgesia. The paper also invites members to state what factors, as a result of their examination, would influence them in selecting one of the above methods.

Thursday, July 25th, 10 a.m.—Discussion on the Comparison of Methods Employed for Inducing Anaesthesia and Analgesia respectively, with Special Reference to After-Effects. To be opened by Mr. C. A. LEEDHAM-GREEN; followed by Messrs. H. M. Page, G. A. H. Barton, and Sydney Haynes.

The following is a *précis* of the opening paper:

(A) Methods: Anaesthesia by (1) ether, (2) chloroform; analgesia by (1) intradural injection, (2) local infiltration, (3) regional.

(B) After-effects—incidence of fatality—respiratory—circulatory. Metabolism—for example, toxaemia. Renal.

Papers:

EHRENFRIED, Dr. (Boston, U.S.A.): The Intratracheal Administration of Ether. Accompanied by a demonstration of an apparatus for the purpose.

KELLY, Mr. R. E.: The Intratracheal Administration of Ether by a Modified Elsberg's Apparatus; with Records of Cases.

Friday, July 26th, 10 a.m.—Discussion on Employment of Alkaloidal Bodies prior to Inhalation, Infusion or Subdural Injection with a view to abrogating Deleterious After-Effects. To be opened by Mr. F. W. BAILEY; followed by Messrs. G. S. Hett, L. Kirkby Thomas, G. A. H. Barton, V. G. L. Fielden, and J. W. King.

The following is a *précis* of the opening paper: Alkaloidal bodies administered before anaesthesia, and their choice. Advisability or otherwise of adopting them in all cases. Periods of administration. After-effects prior, during, and subsequently to complete anaesthesia.

11 a.m.—Paper:

APPERLEY, Dr. W. R. E.: The Effect of Ether and Chloroform on the Liver and Kidneys in Health and in Certain Infective Conditions.

Museum.

The Committee of the Pathological Museum will devote a section to an exhibition of modern anaesthetic apparatus. The Committee is anxious to gather together a thoroughly representative collection, and invites members to send as soon as possible a list of the exhibits they may desire to make to Dr. Ernest Glynn, Honorary Secretary of the Museum Committee, The University, Liverpool.

ANATOMY.

President: WILLIAM WRIGHT, M.B., D.Sc., F.R.C.S., London Hospital Medical School.

Vice-Presidents: DOUGLAS DOUGLAS-CRAWFORD, M.B., F.R.C.S., Liverpool; Professor AUCKLAND CAMPBELL GEDDES, M.D., Dublin; Professor GRAFTON ELLIOT SMITH, M.A., M.D., F.R.S., Manchester; ALEXANDER MACPHAIL, M.B., C.M., London.

Honorary Secretaries: WM. PERCY GOWLAND, M.D., 379, Edge Lane, Liverpool; SAMUEL ERNEST WHITNALL, M.A., M.B., The Old Rectory Farm, Kidlington, Oxford.

Wednesday, July 24th.—Discussion on Development and Growth of Bone, Normal and Abnormal. To be opened by Sir WILLIAM MACEWEN, F.R.S., F.R.C.S.

Thursday, July 25th.—Papers.

Friday, July 26th.—Discussion (in conjunction with Electro-Therapeutic Section) on the Normal Stomach. To be opened by Dr. HERTZ.

Papers.

BACTERIOLOGY.

President: Professor JAMES RITCHIE, M.A., B.Sc., M.D., Royal College of Physicians Laboratory, Edinburgh.

Vice-Presidents: Professor JAMES MARTIN BEATTIE, M.A., M.D., University, Sheffield; JOHN CHARLES GRANT LEDINGHAM, M.A., D.Sc., M.B., Lister Institute, Chelsea Gardens, S.W.; Professor RICHARD TANNER HEWLETT, M.D., F.R.C.P., King's College, London.

Honorary Secretaries: Professor EDWARD EMRYS-ROBERTS, M.D., University College of South Wales and Monmouthshire, Cardiff; ROBERT STENHOUSE WILLIAMS, M.B., Hygienic Laboratories, Ashton Hall, University, Liverpool; THOS. ARNOLD JOHNSTON, M.D., 19, De Montfort Street, Leicester.

The following is the provisional programme:

Wednesday, July 24th.—Joint Discussion with the Section of State Medicine on *B. Coli*, its Varieties and the Significance of their Occurrence in Water Supplies. To be introduced by Drs. A. C. HOUSTON, W. G. SAVAGE, R. M. BUCHANAN, and W. WRIGHT.

Thursday, July 25th.—Papers on bacteriological subjects.

Friday, July 26th.—Joint Discussion with the Section of Pharmacology on the Standardization and Control of Vaccines. It will be introduced by the following papers: The Preparation and Standardization of Bacterial Vaccines; a Plea for Uniformity of Method, by J. EYRE, M.D. The Therapeutic Use of Vaccines, with Special Reference to the Value of Laboratory Tests, by J. FREEMAN, M.A., B.M. Drs. L. C. Peel Ritchie, Carmalt Jones, Otto Grünbaum, and Ralph Stockman will take part in the discussion.

DERMATOLOGY.

President: Professor WALTER G. SMITH, M.D., F.R.C.P., Dublin.

Vice-Presidents: Professor ROBERT ALFRED BOLAM, M.D., M.R.C.P., Newcastle-on-Tyne; HUGH LESLIE ROBERTS, M.D., Liverpool; G. G. S. STOPFORD-TAYLOR, M.D., Liverpool.

Honorary Secretaries: ROBERT WM. MCKENNA, M.A., M.D., 26, Rodney Street, Liverpool; JAMES EUSTACE RADCLYFFE MCDONAGH, F.R.C.S., 19, Harley Street, London, W.; ELIAS BELL PURDON, M.B., 60, Packenham Place, Belfast.

The following preliminary arrangements have been made:

Wednesday, July 24th.—Discussion on The Nature, Causation and Treatment of Seborrhoea and Acne. To be opened by Dr. ARTHUR WHITFIELD (London); followed by Drs. Phineas Abraham, A. Fleming, A. J. Hall, R. Sabouraud (Paris), Stopford-Taylor, and J. Goodwin Tomkinson.

On Thursday, July 25th, and Friday, July 26th, arrangements will be made for the demonstration of cases before the papers are read.

The following papers have been accepted:

DE BEURMANN, Dr. Lucien (Paris). Sporotrichosis.
BUNCH, Dr. J. L. Naevi and their Treatment; based on 2,000 Cases.
MCDONAGH, Mr. A Rational Method of Treating Syphilis.
MEACHEN, Dr. G. Norman. Morbid Conditions of the Nails: A Plea for their more Systematic Study.
SAVATARD, Dr. Louis. (1) Sebaceous Carcinoma and its Relation to Rodent Ulcer. (2) Sarcoma on Lupus Scar Tissue.
TOMKINSON, Dr. J. Goodwin. The Vacuum Electrode in Neurodermatitis.
MADDEN, Professor (Cairo). A Case of Papilliform Lesions (Lymphangiomata?) of the Scrotum, with Multiple Petechial Spots on the Trunk and Limbs.
WALSH, Dr. David. Cardiac and Vascular Conditions in Skin Diseases.
STOPFORD-TAYLOR, Dr. Types of Dermatitis Seborrhoeica.

The Committee of the Pathological Museum has decided to devote a section to Dermatological exhibits, and is anxious to gather together a thoroughly representative collection. Any plates, photographs, casts, microscopical specimens or cultures illustrating rare or interesting cases, or recent research, will be welcomed, but the Committee would like to have as complete an exhibition as possible of the results of treatment with carbon dioxide snow, and also of syphilitic and tuberculous affections of the skin.

Intending contributors are invited to send the list of the exhibits they desire to make to Dr. Ernest Glynn, Secretary of the Museum Committee, The University, Liverpool.

DISEASES OF CHILDREN, INCLUDING ORTHOPAEDICS.

President: ROBERT JONES, Ch.M., F.R.C.S.E., Liverpool.

Vice-Presidents: EDRED MOSS CORNER, M.A., F.R.C.S., London; PETER DAVIDSON, M.A., M.B., Liverpool; CHARLES JOHN MACALISTER, M.D., F.R.C.P., Liverpool; THOS. HORROCKS OPENSHAW, C.M.G., M.S., F.R.C.S., London.

Honorary Secretaries: ROBT. CRAIG DUN, M.B., B.Sc., F.R.C.S., 73, Rodney Street, Liverpool; NICHOLAS PERCY MARSH, M.B., 7, Abercromby Square, Liverpool; CLIVE RIVIERE, M.D., F.R.C.P., 19, Queen Anne Street, London, W.

The following subjects have been selected for discussion:

Wednesday, July 24th.—Discussion on the After-results of the Major Operations for Tuberculous Disease of Joints. To be opened by Mr. HAROLD J. STILES, F.R.C.S.Edin.; followed by Messrs. A. H. Tubby, H. M. Gray (Aberdeen), R. C. Elmslie, H. S. Clogg, Douglas Drew, E. Grey Turner (Newcastle), H. C. Morton (Clifton).

Thursday, July 25th.—Discussion on the Dyspepsias of Childhood after the Age of Infancy. To be opened by Dr. ROBERT HUTCHISON; followed by Dr. Edmund Cautley, Dr. Dingwall Fordyce (Edinburgh), and Dr. Frank Eve (Hull).

The following is a syllabus of the opening remarks by Dr. ROBERT HUTCHISON:

Dyspepsia after the period of infancy may be due to disorder of function (1) in the stomach, (2) in the intestine, (3) in the liver. Clinically such disorders often exist in combination. *Gastric Dyspepsia:* It is admitted that dyspepsia from organic disease of the stomach is rare in childhood. It is open to discussion whether gastritis is a possible exception to this rule. Functional gastric disorders may affect (*a*) secretion, (*b*) motility, (*c*) sensibility. The absence of test-meal evidence makes it difficult to dogmatize as to the frequency of disorders of secretion, and more evidence of this sort is much needed, but it is probable that both hyperchlorhydria and achylia occur. It is suggested, however, that the commonest functional affection of the stomach at this period is a defect of motility (atonic dyspepsia). Disorder of sensibility in the direction of a hyperaesthesia (gastralgia) may occur, but in the writer's opinion is not common, and its existence is impossible to prove. *Intestinal Dyspepsia:* This is, perhaps, the commonest form of digestive disorder in childhood, and results in such symptoms as flatulence, colic, constipation and diarrhoea, and "food fever." The pathology of intestinal dyspepsia is obscure. Discussion may be directed to the following hypotheses: (1) That it is due to defect of certain ferments; (2) that it results from the presence of an abnormal intestinal flora; (3) that it is the consequence of a relative excess of one nutritive constituent (carbohydrates) in the food. The writer favours the last of these views. *Hepatic Dyspepsia:* Disorder of the liver may reasonably be inferred when symptoms of dyspepsia occur along with a comparative absence of colouring matter in the stools. It will be generally admitted that this is not an uncommon occurrence in childhood, and its relation to such definite clinical conditions as "acholia," "periodic vomiting," "migraine," and "bilious attacks" is worth discussing. The exact nature of the disorder of liver function in these cases is obscure. Is it the result (1) of a primary functional arrest of bile secretion, or (2) of a temporary overloading of the liver cells with glycogen or fat? The *pros* and *cons* of these views. Mode in which these different basal types of disordered function are combined to make up the well-recognized clinical forms of dyspepsia—for example, "mucous disease." As regards the *etiology* of dyspepsia in childhood, stress must be laid upon the importance of predisposition (congenital neurasthenia, "morbus asthenias") as a factor. It will be suggested that the importance of dental caries is overestimated, and that amongst dietetic causes the chief is an excessive use of carbohydrate foods and slops. The part played by physical and mental overstrain must also be emphasized. In discussing

treatment the relative importance of general and local treatment must be considered, and it is contended that the former is by far the more important, and involves regulation of the whole life of the child. The writer is convinced of the immense value of "change of air" in treatment, but its *modus operandi* is a subject for discussion. Finally, the two propositions will be laid down that, of medicinal means *aperients*, and of dietetic measures *reduction of carbohydrates*, are a long way the most useful.

Friday, July 26th.—Papers.

ELECTRO-THERAPEUTICS.

President: CHAS. THURSTAN HOLLAND, M.R.C.S., Liverpool.

Vice-Presidents: ALFRED ERNEST BARCLAY, M.A., M.R.C.S., Manchester; DAVID MORGAN, M.B., Liverpool; SAMUEL SLOAN, M.D., F.F.P.S., Glasgow.

Honorary Secretaries: ROBERT KNOX, M.D., 7, Harley Street, London; WALTER CHAS. ORAM, B.A., M.D., Prospect, Allerton Road, Mossley Hill, Liverpool.

The following are the provisional arrangements made:

Wednesday, July 24th.—Address by Professor RUTHERFORD on the Chemical Actions of Radiations. Papers on allied subjects.

Thursday, July 25th.—Discussion of Ionic Medication, to be opened by Dr. LEWIS JONES (London). Papers on Electro-therapeutic subjects.

Friday, July 26th.—Joint discussion, in conjunction with the Section of Anatomy, on the Normal Stomach, to be opened by Dr. A. F. HERTZ (London). Papers on Radiographic and Therapeutic subjects.

In connexion with the Pathological Museum there will be an Exhibition of Radiographs (negatives and prints) of subjects of special interest; also photographs of cases treated by Electro-therapeutic Methods, X Rays and Radium, and members desirous of exhibiting are requested to communicate with Dr. Oram.

GYNAECOLOGY AND OBSTETRICS.

President: Professor HENRY BRIGGS, M.B., F.R.C.S., Liverpool.

Vice-Presidents: W. W. CHIPMAN, M.D., Montreal; JOHN EDWARD GEMMELL, M.B., Liverpool; THOS. BABINGTON GRIMSDALE, B.A., M.B., Liverpool; Professor JOHN BENJAMIN HELLIER, M.D., Leeds; MARY HANNAH FRANCES IVENS, M.B., M.S., Liverpool; JOHN FURNEAUX JORDAN, M.B., F.R.C.S., Birmingham.

Honorary Secretaries: ARTHUR JOHN WALLACE, M.D., 1, Gambier Terrace, Liverpool; Assistant Professor DAVID SHANNON, M.B., 270, Bath Street, Glasgow; BETHEL ALBERT HERBERT SOLOMONS, M.B., Rotunda Hospital, Dublin.

The Committee have arranged to hold two discussions: (*a*) Joint discussion with the Section of Pathology on Eclampsia. To be opened by (1) Dr. J. W. BALLANTYNE (Etiology); (2) Dr. J. H. TEACHER (Morbid Anatomy); (3) Sir WILLIAM SMYLY (Therapeutic Applications of recent research on the subject). Dr. F. W. N. Haultain will take part in the discussion.

The following are abstracts of the opening papers:

1. Dr. J. W. BALLANTYNE: Etiology of eclampsia; the cause and mode of action of the cause; etiology and pathogenesis; pregnancy is the great cause; the breakdown in the intricate symbiosis of gestation; the strain and the stress of it: the labyrinth of pathogenetic theories; "the reason of the cause and the wherefore of the why"; intrauterine causes and extrauterine causes: placental, decidual, fetal, microbic; renal, hepatic, intestinal, thyroidal, parathyroidal, mammary, reflex; the eclamptic type; the etiological significance of albuminuria gravidarum; albuminuria, the "C.D.Q." of symptomatology in eclampsia; other danger signals; the success-in-treatment arguments in etiology, their value and possible fallacies; conclusions.

2. Professor TEACHER: (1) Changes in the liver; a focal necrosis; thrombosis of capillaries; haemorrhages. (2) Changes in the kidneys; cloudy swelling and areas of necrosis and haemorrhage. (3) Changes in other organs. (4) Certain rare cases of eclampsia with suppression of urine due to symmetrical necrosis of the renal cortex.

(*b*) The Results of Treatment of the Inflammatory Diseases of the Uterine Appendages. To be opened by (1) Dr. W. S. A. GRIFFITH (on the Medical Aspects); (2) Mr. CHRISTOPHER MARTIN (on the Surgical Aspects). Professor J. Munro Kerr will take part in the discussion.

In the Pathological Museum a space has been allotted for the exhibition of specimens, microscopic slides, photographs, etc., relating to the Inflammatory Diseases of the Uterine Appendages, and also to Sarcoma of the Uterus. The Committee also invite other specimens of interest, notably those relating to Hydrocephalus, etc.

LARYNGOLOGY AND RHINOLOGY.

President: JOHN MIDDLEMASS HUNT, M.B., Liverpool.

Vice-Presidents: JOHN BARK, F.R.C.S.E., Liverpool; CHAS. EDWARD BEAN, F.R.C.S.E., Plymouth; JAMES EDLINGTON MCDOUGALL, M.B., Liverpool; WM. PERMEWAN, M.D., F.R.C.S., Liverpool; ROBT. HY. WOODS, B.A., M.B., F.R.C.S.I., Dublin.

Honorary Secretaries: THOMAS GUTHRIE, M.A., M.B., F.R.C.S., 55, Rodney Street, Liverpool; GEOFFREY SECCOMBE HETT, M.B., F.R.C.S., 8, Wimpole Street, London, W.

The following subjects have been selected for specia discussion:

Wednesday, July 24th, 10 a.m.—Discussion: The Differential Diagnosis of Oesophageal Stenoses.

Thursday, July 25th, 10 a.m. (together with the Section of Otology).—Discussion: The Education of the Specialist in Laryngology and Otology.

Friday, July 26th, 10 a.m.—Discussion: The Treatment of Chronic Suppurative Disease of the Ethmoidal Sinuses.

Foreign and Colonial visitors are cordially invited to attend the meetings of the Section, and to take part in the discussions. Members are invited to contribute any preparations, specimens, or drawings, or any instruments or apparatus pertaining to the work of the Section, which have been designed by themselves, in order that the Committee of the Section may make arrangements to form a special exhibit of such objects. The Committee ask particularly for pathological specimens, drawings, and radiograms illustrating diseases of the oesophagus, including foreign bodies, also for instruments for the diagnosis and treatment of such diseases.

MEDICAL SOCIOLOGY.

President: JOHN CHRISTIE MCVAIL, M.D., LL.D., Glasgow.

Vice-Presidents: THOMAS BUSHBY, M.B., Liverpool; MICHAEL DEWAR, M.D., Edinburgh; HENRY HARVEY, M.B., Liverpool; ROBERT WALLACE HENRY, B.A., M.D., Leicester.

Honorary Secretaries: ARCHIBALD GORDON GULLAN, M.D., M.R.C.P., 37, Rodney Street, Liverpool; JAMES HENRY TAYLOR, M.B., 299, Eccles New Road, Salford.

The following discussions have been arranged:

Wednesday, July 24th.—(1) A Public Medical Service under Professional Control. (2) *Short discussion, limited to one hour:* Reform of Hospital Out-patient Departments.

Thursday, July 25th.—(1) Administrative Measures Consequent upon the Compulsory Notification of Phthisis. (It is suggested that this meeting be a combined one with that of the Section of State Medicine.) (2) *Short discussion, limited to one hour:* The Control of Venereal Disease.

Friday, July 26th.—(1) Payment of Medical Services by Capitation *versus* Payment per Attendance under the National Insurance Act. (2) *Short discussion, limited to one hour:* Administrative Provisions for the Prevention of Malingering.

MEDICINE.

President: Professor THOMAS ROBINSON GLYNN, M.D., F.R.C.P., Liverpool.

Vice-Presidents: THOMAS ROBERT BRADSHAW, M.D., F.R.C.P., Liverpool; Professor JOHN MICHELL CLARKE, M.A., M.D., F.R.C.P., Clifton, Bristol; SAMUEL HERBERT HABERSHON, M.A., M.D., F.R.C.P., London, W.; JOHN LLOYD ROBERTS, B.A., B.Sc., M.D., Liverpool.

Honorary Secretaries: JOHN OWEN, M.D., 13, Rodney Street, Liverpool; THEODORE THOMPSON, M.D., F.R.C.P., 94, Portland Place, London, W.; WALTER HENRY MAXWELL TELLING, M.D., 29, Park Square, Leeds.

The following programme has been arranged:

Wednesday, July 24th.—Discussion on The Diagnosis and Treatment of Early Cardiac Complications of Rheumatism. To be opened by Dr. DAVID B. LEES (London). The following is an abstract of the opening paper:

(1) "Acute and subacute rheumatism" is a microbic infection, most common and most virulent in childhood, less frequent and usually less virulent in adolescents and young adults. (2) There is but one symptom which is present in every case of the disease. Arthritis, nodules, endocarditis, pericarditis, pleurisy, tonsillitis, erythema, chorea, and all other rheumatic symptoms may be present or absent, but *dilatation of the left ventricle is invariably present.* This dilatation is caused by toxaemia or myocarditis or both combined, and it is a very early symptom. (3) The dilatation can be easily detected by careful percussion rightly performed. It is quite easy to determine accurately the sloping line of dullness of the edge of the left ventricle in the fourth and fifth left interspaces, and that of the right auricle in the fourth right interspace. (4) The first essential for the successful treatment of the cardiac implication of rheumatism is prolonged rest. (5) The second essential is an adequate antirheumatic medication, the most useful form of this being a combination of sodium salicylate and sodium bicarbonate in the proportion of one part of the former to two of the latter, given in adequate and increasing doses. (6) During the treatment by salicylate it is necessary (*a*) to prevent constipation, (*b*) to keep the urine slightly alkaline, (*c*) to stop the medicine when vomiting or other symptom due to salicylate occurs, but to *resume it after a few hours in a dose one-half the size of the dose last given*, and soon to increase the amount as far as possible. (7) When the dilatation (with or without endocarditis) is great, and especially when pericarditis is present, the medicine should be freely given, and an ice-bag should be kept permanently over the precordial region, with due precautions against general chill. Careful nursing is essential. The application of leeches is sometimes beneficial.

Thursday, July 25th.—Discussion on The Pathogenesis, Diagnosis, and Medical Treatment of Gastric Ulcer. To be opened by Sir BERTRAND DAWSON (London).

Friday, July 26th.—Papers.

NAVY, ARMY, AND AMBULANCE.

President: Colonel DAMER HARRISSON, K.H.S., M.Ch., F.R.C.S.E., Liverpool.

Vice-Presidents: Colonel GUY CARLETON JONES, M.D., Director-General of Medical Services Militia of Canada, Department of Militia and Defence, Militia Head Quarters, Ottawa; Surgeon-General WILLIAM BABTIE, V.C., C.M.G., M.B., L.R.C.P., Deputy Director-General, Army Medical Service, War Office, S.W.; Lieutenant-Colonel NATHANIEL EDWARD ROBERTS, M.B., D.P.H., Liverpool; Fleet Surgeon GEORGE TREVOR COLLINGWOOD, M.V.O., R.N., Royal Naval College, Osborne, Isle of Wight.

Honorary Secretaries: Captain JOHN HENRY PORTEOUS GRAHAM, M.R.C.S., L.R.C.P., 20, Fenwick Street, Liverpool; Lieutenant-Colonel NATHAN RAW, M.D., F.R.S.E., 66, Rodney Street, Liverpool.

The following preliminary programme has been arranged:

Wednesday, July 24th.—Factors affecting the Marching Powers of Troops. To be opened by Captain DUNBAR-WALKER, R.A.M.C.

Thursday, July 25th.—Eyestrain: its Relation to Gunnery. To be opened by Fleet Surgeon WHITELEGGE, R.N.

Papers:

WILDEY, Fleet Surgeon A. G., R.N.: A Suggestion for the More General Use of Iodine in First Aid Treatment of Accidental Wounds.

JONES, Colonel Guy Carleton: The Importance of Medical Tactics.

NEUROLOGY AND PSYCHOLOGICAL MEDICINE.

President: LANDEL ROSE OSWALD, M.B., Glasgow Royal Asylum, Gartnavel, Glasgow.

Vice-Presidents: WILLIAM ALEXANDER, M.D., F.R.C.S., Liverpool; FREDERICK EUSTACE BATTEN, M.D., F.R.C.P., London, W.; DAVID BLAIR, M.D., County Asylum, Lancaster; ERNEST SEPTIMUS REYNOLDS, M.D., F.R.C.P., Manchester.

Honorary Secretaries: WILLIAM BARNETT WARRINGTON, M.D., F.R.C.P., 63, Rodney Street, Liverpool; HENRY DEVINE, M.D., West Riding Asylum, Wakefield; PURVES STEWART, M.A., M.D., F.R.C.P., 94, Harley Street, London, W.

The following subjects have been selected for special discussion:

Wednesday, July 24th.—The Neuroses and Psychoses of the Climacteric: their Prognosis and Treatment. To be opened by Dr. R. PERCY SMITH, Dr. C. J. MACALISTER, and Dr. T. B. GRIMSDALE, from the standpoint respectively of Psychiatrist, General Physician, and Gynaecologist.

Thursday, July 25th.—Diagnosis and Treatment of Compression Paraplegia. To be opened by Dr. ERNEST REYNOLDS and Sir VICTOR HORSLEY.

Foreign and Colonial visitors are cordially invited to attend the meetings of the Section, and should they desire to read papers they are requested to send in their names as soon as possible to one of the Honorary Secretaries, giving the titles of their papers for approval by the Committee of Reference.

Members are invited to contribute any preparations, specimens or drawings, or any instruments or apparatus pertaining to the work of the Section, which have been designed by themselves, in order that the Committee of the Section may make arrangements to form a special exhibit of such objects.

OPHTHALMOLOGY.

President: EDGAR ATHELSTANE BROWNE, M.Ch., F.R.C.S. Eng., Liverpool.

Vice-Presidents: CHARLES GEORGE LEE, M.R.C.S., Liverpool; ALEXANDER OGILVY, F.R.C.S.Ire., Clifton, Bristol; ANDREW MAITLAND RAMSAY, M.D., F.F.P.S., Glasgow; CHARLES HARTLEY BEDWELL SHEARS, M.R.C.S., Liverpool.

Honorary Secretaries: ARTHUR NIMMO WALKER, B.A., M.D., 45, Rodney Street, Liverpool; ROBERT JESSOP HAMILTON, F.R.C.S.Eng., 82, Rodney Street, Liverpool; CLAUDE ALLEY WORTH, F.R.C.S., 138, Harley Street, London, W.

The following subjects have been selected for discussion:

Wednesday, July 24th.—Irido-cyclitis (special reference to pathology). Mr. G. COATS; Mr. A. W. ORMOND.

The following is a synopsis of Mr. COATS's paper:

The part played by the intestinal canal in the causation of chronic irido-cyclitis will be discussed. A fallacy to be guarded against lies in the great prevalence of constipation and intestinal putrefaction, which would make their association with irido-cyclitis in a certain number of cases not surprising, even though in fact no connexion between the two existed. Cases in which no evidence of any intestinal abnormality or other probable source of infection is discoverable undoubtedly occur. The views of Elschnig, de Schweinitz, and v. Hippel on auto-intoxication will be summarized, and the value of the indican reaction as a test of intestinal putrefaction will be reviewed. The very chronic form of irido-cyclitis which is associated with heterochromia and cataract will be mentioned. Fuchs believes that in these cases some unknown cause first hinders the normal acquisition of pigment in the eye, and then, in later life, gives rise to the irido-cyclitis. The opinion of members will be sought as to whether it is not more probable that the cyclitis is the primary disease, the heterochromia being a secondary phenomenon due to a gradual bleaching of the iris in consequence of the inflammation. It is probably agreed that the cataract is secondary. Some points in connexion with the pathology of sympathetic ophthalmitis will be raised. Price Jones and Browning have stated that the large mononuclear cells of the blood are increased in this disease, and that this may point to its being due to a protozoal infection. The incubation period also is not unlike that of the protozoal disease,

syphilis, and the occasional faculty which the noxa of sympathetic irido-cyclitis possesses of remaining latent over a prolonged period and then breaking out into activity, suggests an analogy with the similar latency and recrudescence of the *Spirochaeta pallida* in the tertiary stages of syphilis. On these grounds the administration of salvarsan has been suggested. The experience of members on this method of treatment will be asked, and three cases in which it was carried out will be referred to. The views of Elschnig on the relation of anaphylaxis to sympathetic irido-cyclitis will be submitted to a brief examination. Discussion will be invited on the question how far the histological changes which are usually regarded as characteristic of sympathetic irido-cyclitis are, in fact, diagnostic of that affection, whether they occur only in this disease and in all cases of it. Two examples of a very mild type of sympathetic irido-cyclitis will be quoted, not cases in which, after a threatening onset, the final result was good, but in which from first to last the symptoms in the second eye were trifling. Reports of similar cases would be welcomed.

Thursday, July 25th.—Tuberculin and Serum Therapy. Mr. GEORGE MACKAY; Dr. HILL GRIFFITH; Mr. PEEL RITCHIE.

Friday, July 26th.—Salvarsan. Mr. S. STEPHENSON; Dr. MAITLAND RAMSAY, and Mr. S. H. BROWNING.

Foreign and Colonial visitors are cordially invited to attend the meetings of the Section.

Members are invited to contribute any cases, preparations, specimens of drawings, or any instruments or apparatus pertaining to the work of the Section, which have been designed by themselves, in order that the Committee of the Section may make arrangements to form a special exhibit of such objects.

OTOLOGY.

President: HUGH EDWARD JONES, M.R.C.S., Liverpool.

Vice-Presidents: ARTHUR HENRY CHEATLE, F.R.C.S., London, W.; JAMES KERR LOVE, M.D., Glasgow; PERCIVAL MACLEOD YEARSLEY, F.R.C.S., London, W.; HENRY HANNA, M.A., M.B., Belfast.

Honorary Secretaries: ERNEST MALCOLM STOCKDALE, M.R.C.S., 67, Rodney Street, Liverpool; W. MAYHEW MOLLISON, M.A., M.C., F.R.C.S., Warden's House, Guy's Hospital, London, S.E.; DAVID LINDLEY SEWELL, M.B., B.S., 2, Peter's Square, Manchester.

The following subjects have been selected for special discussion:

Wednesday, July 24th, 10 a.m. — Discussion: Acute Middle-ear Suppuration, its Neglect and Proper Treatment. To be opened by Mr. R. H. WOODS (Dublin); followed by Professor Gustav Alexander (Vienna) and Dr. Claude Rundle (Medical Superintendent, City Hospital, Fazerkelly).

It is hoped that medical officers of fever hospitals and schools will attend this discussion, which is of special interest to them. The following are abstracts of the opening papers:

Mr. R. H. WOODS: Otitis media. Definition. Not an abscess, but inflammation of a mucous tract. Predisposing causes. Pathological conditions in throat and nose. Determining causes. Mechanical ones, particularly nasal douche. Degrees of severity due to microbe and patient. Clinical course in all essentially the same. Physical conditions during progress. Accompanying symptoms. Character of fluid at first and subsequently. Acute and chronic cases. Fundamental difference between them a bacterial one. Keynote of treatment of acute cases is cleanliness. Neglect of acute otitis still great, even in the case of specific fevers. Summary of results obtained by investigating over 300 cases of measles and scarlatina in the Hardwicke Hospital in 1896. Method of treatment of ears in fevers. Treatment of acute otitis. Myringotomy. Course to be followed when symptoms are unrelieved by that procedure. Cerebral irritation in children. Need for better education of clinical physicians and medical students.

Dr. CLAUDE RUNDLE: Percentage incidence in cases of scarlet fever, measles, and diphtheria. Frequency of spontaneous cure. Can otitis be prevented by the removal of post-nasal obstruction during the acute stage of the exanthemata? Intratympanic medication by either route of little value. Removal of tonsils or adenoids an unsafe procedure during the course of acute suppurative otitis media complicating the fevers. Paracentesis not often necessary. Mastoid abscess not a common complication of this condition. Antrotomy occasionally required. Radical mastoid operation probably never justifiable in uncomplicated cases of acute suppurative otitis media. Serum and vaccine therapy.

Thursday, July 25th, 10 a.m.—Joint Discussion with the Section of Laryngology on the Education of the Specialist in Laryngology and Otology. To be opened by Dr. P. WATSON-WILLIAMS.

Foreign and Colonial visitors are cordially invited to attend the meetings of the Section, and should they desire to read papers they are requested to send in their names as soon as possible to the Liverpool Honorary Secretary, giving the titles of their papers for approval by the Committee of Reference.

Members are invited to contribute any preparations, specimens of drawings, or any instruments or apparatus pertaining to the work of the Section, which have been designed by themselves, in order that the Committee of the Section may make arrangements to form a special exhibit of such objects.

PATHOLOGY.

President: Professor WALKER HALL, M.D., The University, Bristol.

Vice-Presidents: ARTHUR EDWIN BOYCOTT, M.A., B.Sc., M.D., London; Professor GEORGE DEAN, M.B., The University, Aberdeen; Associate Professor ERNEST EDWARD GLYNN, M.A., M.D., Liverpool; THOS. STRANGEWAYS PIGG STRANGEWAYS, M.A., L.R.C.P., Cambridge.

Honorary Secretaries: DAVID MOORE ALEXANDER, M.D., School of Hygiene, The University, Liverpool; PANTLAND HICK, M.D., 21, Rodney Street, Liverpool; JAS. SHOLTO CAMERON DOUGLAS, M.B., Department of Pathology, University, Birmingham.

The following provisional programme has been arranged:

Wednesday, July 24th.—Discussion on Bright's Disease. Professor J. LORRAIN SMITH, F.R.S., will open the discussion with a paper on the morbid anatomy and etiology. Sir CLIFFORD ALLBUTT will deal with the cardio-vascular changes; followed by Professor J. SIMS WOODHEAD, Dr. W. RUSSELL, and Dr. J. F. GASKELL. Dr. F. CRAVEN MOORE will read a paper on the Liver and Metabolic Changes.

Thursday, July 25th.—Joint discussion with the Gynaecological and Obstetrical Section on Eclampsia. To be opened by Dr. JOHN W. BALLANTYNE in a paper on the etiology of the disease; followed by Dr. JOHN H. TEACHER, on the morbid anatomy; and by Sir WILLIAM SMYLY, on the clinical application of recent research to treatment.

Friday, July 26th.—The following papers on pathological subjects will be read:

HORDER, Dr. T. J. The Investigation of Puncture Fluids as an Aid to Diagnosis and Treatment.
BOLTON, Dr. C. The Causation of Gastric Ulcer.
MACCLEAN, Dr. H. Some Fallacies in the Routine Testing of Urines.
BARNES, Dr. A. G. Chemical Examination of Faeces in Actual Practice.
WILLIAMS, Dr. O. T. Excretory Functions of the Intestines and their Relations to Disease.
GLYNN, Associate Professor E. Blood Cultures in Disease.

PHARMACOLOGY AND THERAPEUTICS.

President: Professor W. E. DIXON, M.A., M.D., Cambridge.

Vice-Presidents: Professor JOHN HILL ABRAM, M.D., Liverpool: Professor ROBERT JAMES MCLEAN BUCHANAN, M.D., Liverpool; Professor HY. JOHNSTONE CAMPBELL, M.D., Bradford; HUGH JONES ROBERTS, M.D., Pen-y-groes, N. Wales.

Honorary Secretaries: OWEN THOMAS WILLIAMS, M.D., 51a, Rodney Street, Liverpool; Assistant Professor FRANCIS JAS. CHARTERIS, M.B., 400, Great Western Road, Glasgow; Professor JOHN DUNDON, M.D., F.R.C.S., 3, Camden Place, Cork.

The following subjects have been selected for discussion:

1. The Treatment of Heart Muscle Affections (apart from Valvular Disease).
2. The Rôle of Calcium Salts as Therapeutic Agents.

3. Joint Discussion with the Section of Bacteriology on Vaccine Therapy.

PHYSIOLOGY.

President: Professor JNO. SMYTH MACDONALD, B.A., L.R.C.P., Sheffield.

Vice-Presidents: Professor ARCHIBALD B. MACALLUM, F.R.S., Toronto; Professor BENJAMIN MOORE, D.Sc., M.R.C.S., Birkenhead; HORACE MIDDLETON VERNON, M.D., Oxford.

Honorary Secretaries: JOHN ALEX. MILROY, M.A., M.D., Queen's College, Belfast; THOMAS GRAHAM BROWN, B.Sc., M.B., The University, Liverpool; FREDK. PERERA WILSON, M.Sc., M.D., 1A, Rodney Street, Liverpool.

STATE MEDICINE AND INDUSTRIAL DISEASES.

President: ARCHIBALD KERR CHALMERS, M.D., Glasgow.

Vice-Presidents: ALLAN GORDON RUSSELL CAMERON, M.B., B.S., D.P.H., Worthing; EDWARD WM. HOPE, D.Sc., M.D., Liverpool; SYDNEY MARSDEN, M.B., D.P.H., D.Sc., M.R.I.A., F.R.S.E., Birkenhead; ARTHUR AUGUSTUS MUSSEN, B.A., M.D., D.P.H., Liverpool; MATTHEW JAMES OLIVER, M.B., D.P.H., Roxburghshire.

Honorary Secretaries: THOS. WM. NAYLOR BARLOW, M.R.C.S., D.P.H., Public Health Office, Wallasey, Cheshire; JOHN JAMES BUCHAN, M.D., D.P.H., Holly Mount, Laurel Road, St. Helens; HARRY LLEWELLYN HEATH, L.M.S.S.A., D.P.H., 65, Fonnereau Road, Ipswich.

The following subjects have been suggested for discussion:

1. Compulsory Notification of Phthisis: Administrative Measures Consequent Upon.
2. The Need for Popular Education in Public Hygiene.
3. The Effect of Preventive Measures upon Infant Mortality.
4. Recent Legislation Affecting Town Planning and Housing: (*a*) New Areas; (*b*) Reconstruction of Old Areas; (*c*) Standards of Insanitation.
5. Food Inspection (including the Use of Preservatives). Directions in which the Efficiency of Food Inspection may be Improved.
6. School Construction and Medical Inspection of School Children.
7. Industrial Diseases and their Prevention.

SURGERY.

President: Professor RUSHTON PARKER, M.B., B.S., F.R.C.S., Liverpool.

Vice-Presidents: HAMILTON ASHLEY BALLANCE, M.S., F.R.C.S., Norwich; ROBERT A. BICKERSTETH, M.A., M.B., F.R.C.S., Liverpool; FREDERIC CHARLES LARKIN, F.R.C.S., Liverpool; ALBERT LUCAS, F.R.C.S., Birmingham; HAROLD JALLAND STILES, M.B., F.R.C.S.E., Edinburgh.

Honorary Secretaries: ROBERT WM. MURRAY, F.R.C.S. 15, Rodney Street, Liverpool; GEO. PALMERSTON NEWBOLT, M.B., B.S., F.R.C.S., 5, Gambier Terrace, Liverpool; ALEX. WATHEN NUTHALL, Ch.M., F.R.C.S., 3, Calthorpe Road, Edgbaston, Birmingham.

The following subjects have been selected for discussion:

1. The Treatment of Carcinoma of the Rectum, to be opened by Mr. HARRISON CRIPPS, London.
2. The Diagnosis and Treatment of Tuberculous Disease of the Urinary Tract, to be opened by Mr. HURRY FENWICK, London.

TROPICAL MEDICINE.

President: Professor JOHN L. TODD, M.D., McGill University, Montreal.

Vice-Presidents: Fleet Surgeon P. W. BASSETT-SMITH, C.B., R.N., Royal Naval Hospital, Haslar; WM. CARNEGIE BROWN, M.D., M.R.C.P., London; WILLIAM THOMAS PROUT, M.B., C.M.G., Liverpool; JNO. WM. WATSON STEPHENS, B.A., M.D., School of Tropical Medicine, Liverpool; ALBERT JOHN CHALMERS, M.D., F.R.C.S., London.

Honorary Secretaries: BREADALBANE BLACKLOCK, M.B., Runcorn Research Laboratories, Crofton Lodge, Runcorn; HUGH BASIL GREAVES NEWHAM, M.R.C.S., Director, London School of Tropical Medicine, Albert Dock, London, E.

The following subjects have been selected for discussion:

Wednesday, July 24th, 10 a.m.—1. Human Trypanosomiasis; (*a*) The Question of the Specificity of the Trypanosomes affecting Human Beings; (*b*) The Methods of, and Agents Concerned in, the Transmission of the Trypanosomes affecting Man. 2. Verminous Toxins in Man and Animals.

Thursday, July 25th, 10 a.m.—1. Leprosy. 2. Leishmaniasis.

Friday, July 26th, 10 a.m.—Sanitation of Agricultural Estates where Large Labour Forces are Employed in the Tropics.

A special subsection of the Museum is being reserved for exhibits in Tropical Medicine, and the Curator of the Museum, or the Subcurator of the Tropical Section, will be glad to receive photographs, pathological specimens, etc. Preparations, with full descriptive labels, illustrative of the conditions of "Leprosy" and "Leishmaniasis," would be of especial service for demonstration.

Honorary Local Treasurer—
THOMAS H. BICKERTON, M.R.C.S.,
88, Rodney Street, Liverpool.

Honorary Local Secretaries—
FRANK H. BARENDT, M.D., F.R.C.S.Eng.,
KARL A. GROSSMANN, M.D., F.R.C.S.Edin.,
W. THELWALL THOMAS, Ch.M., F.R.C.S.,
Liverpool Medical Institution, 114, Mount Pleasant, Liverpool.

PROVISIONAL PROGRAMME.

The following is the provisional time table for the Liverpool Meeting:

FRIDAY, JULY 19TH, 1912.
10 a.m.—Annual Representative Meeting.

SATURDAY, JULY 20TH.
9.30 a.m.—Representative Meeting.

MONDAY, JULY 22ND.
9.30 a.m.—Council Meeting.
10 a.m.—Representative Meeting.
7 p.m.—Secretaries' Conference and Dinner.

TUESDAY, JULY 23RD.
9.30 a.m.—Representative Meeting.
2 p.m.—Annual General Meeting.
8.30 p.m.—Adjourned General Meeting, President's Address.

WEDNESDAY, JULY 24TH.
9 a.m.—Council Meeting.
10 a.m. to 1 p.m.—Sectional Meetings.
12.30 p.m.—Address in Medicine.
Religious Services—
9.0 a.m.—Roman Catholic service at the Pro-Cathedral, Copperas Hill.
3.0 p.m.—Protestant Service at St. Luke's Church.

THURSDAY, JULY 25TH.
10 a.m. to 1 p.m.—Sectional Meetings.
12.30 p.m.—Address in Surgery.
7.30 p.m.—Annual Dinner.

FRIDAY, JULY 26TH.
9 a.m.—Council Meeting.
10 a.m. to 1 p.m.—Sectional Meetings.

SATURDAY, JULY 27TH.
Excursions.

Members are invited to wear academic costume at the following functions: The President's Address on Tuesday evening, July 23rd; the Roman Catholic Service at the Pro-Cathedral on Wednesday morning, July 24th; the Church Service at St. Luke's in the afternoon; and the Lord Mayor's reception at the Town Hall in the evening of the same day, and also at the *soirée* at the Walker Art Gallery on Friday evening, July 26th.

LIVERPOOL MEETING, 1912.

JULY 23rd, 24th, 25th, and 26th.

NOTIFICATION OF ATTENDANCE.

All Members of the Association, including residents in **LIVERPOOL** and **DISTRICT,** who intend to take part in the **Annual Meeting,** are earnestly requested to fill up and post this form as soon as possible.

Early intimation will greatly facilitate the arrangements for official entertainments as well as for private hospitality.

On receipt of this form a voucher will be sent enabling the member and those accompanying him to obtain Railway Tickets at reduced fares.

Notices on matters of interest to those attending the Meeting will appear from time to time in the *Supplement to the Journal.* Particulars of Hotels and Lodgings are given overleaf.

It is my intention to be present at the ANNUAL MEETING in LIVERPOOL and

Please write distinctly.

*I expect to be accompanied by** _____

Name _____

Address _____

*Here indicate whether accompanied by a lady, as separate Railway vouchers are required for each person. The Ladies' Entertainmen Committee will be glad to have early intimation of the *names* of ladies accompanying members to the Meeting.

THE ANNUAL DINNER.

The Annual Dinner of the Association will take place on THURSDAY EVENING, July 25th, at the PHILHARMONIC HALL, LIVERPOOL, at 7.30 o'clock. The cost of each Dinner Ticket (exclusive of Wine) is 10s. 6d.

Early application for Tickets is requested.

Please reserve a seat for me at the Dinner for which I enclose a remittance of 10s. 6d.

Signature _____

Cheques should be made payable to Dr. CHARLES HILL, and this form when filled up, posted to Dr. BLAIR-BELL, 7, Rodney Street, Liverpool.

[See next page.

LIVERPOOL MEETING, 1912.

July 18th to 26th.

Members intending to attend at the Annual Meeting are earnestly invited to secure their required accommodation at once. The Wesleyan Conference is being held in Liverpool at the same time as the Annual Meeting, also there is a large influx of American visitors, and a race meeting at Aintree. Hence, in order that no one should be disappointed it is hoped that Members will secure their accommodation now.

Any further information about Hotels or Lodgings will be gladly given on application to

A. STANLEY PARKINSON, M.D.,
24, High Street, Wavertree, Liverpool.

Penny Stamp.

Dr. BLAIR BELL,
7, Rodney Street,
Liverpool.

LIVERPOOL MEETING, July, 1912.—List of Hotels.

HOTELS.	Number of available Beds.	Tariff.
ADELPHI HOTEL, Lime Street	400 beds	Bed and breakfast 8/- per day Inclusive 14/6 per person per day
NORTH-WESTERN HOTEL, Lime Street Station	300 beds	Inclusive 12/6 per person per day
EXCHANGE STATION HOTEL, Liverpool	150 beds	Single beds 5/-, double bed 9/6 for two persons Single bed and breakfast 7/6 Double bed and breakfast 14/6 Table d'Hote luncheon 3/- Table d'Hote dinner 5/- Inclusive terms per day, bed, breakfast, luncheon, dinner 12/6
COMPTON HOTEL, Church Street	30 single bedrooms 20 double bedrooms	Bed and breakfast 6/6 each person Table d'Hote lunch 2/6 each person. Table d'Hote dinner 3/6 Inclusive 12/6 per day. 10/- per day without lunch
SHAFTESBURY HOTEL, Mount Pleasant (Temperance)	15 single bedrooms 10 double bedrooms	Bed and breakfast single room 5/- Bed and breakfast double room 9/6 Hot luncheon 2/- Dinner (Table d'Hote) 2/6 Inclusive 8/6 per day
LAURENCE'S HOTEL, Clayton Square (Temperance)		Single beds 3/3. Double bed 5/6 Breakfasts 1/6, 2/6. Luncheon 1/6, 2/6 Teas 1/6, 2/6 Inclusive 8/6 per day.
HUNT'S HOTEL, 52, Mount Pleasant, Liverpool (Temperance)	42 beds	Bed and breakfast 4/6 single Bed and breakfast 9/- double Luncheon 1/6, 2/- Dinner 2/6 Inclusive 8/- per day.
HOTEL ST. GEORGE, Lime Street, Liverpool	100 beds	Bed and breakfast, single, 6/6 Bed and breakfast, double, 12/6 Luncheons 1/6, 2/6 Dinner 2/6 10/- per day for not less than one week
CLIFTON COMMERCIAL HOTEL, 41, Islington, Liverpool	30 beds	Bed and breakfast, single, 4/6 Double 8/-. Luncheon 1/6 Inclusive terms per day 8/- each Double 7/6 each
UNION HOTEL, Clayton Square, Liverpool	15 beds	Bed and breakfast, single, 6/- Double 10/- Luncheon 2/6. Dinner 3/6 Inclusive terms per day 10/6
HOTELS AWAY FROM CENTRE OF LIVERPOOL.		
HOTEL ROYAL, Waterloo, Liverpool		Bed and breakfast 5/6 per day Inclusive 8/- per day
WOOLTON HALL HYDRO, near Liverpool	10 single bedrooms 40 double bedrooms	Bed and breakfast for single room 5/- Bed and breakfast for double room 10/- Luncheon 1/6. Dinner (table d'Hote), 2/6. Inclusive per day 7/6

HOTELS.	Number of available Beds.	Tariff.
HOTELS AWAY FROM CENTRE OF LIVERPOOL.		
CHILDWALL ABBEY HOTEL, Childwall	5 single bedrooms 3 double bedrooms	Bed and breakfast 6/6 per day Bed (double) and breakfast for two 12/6 per day Table d'Hote dinner, 3/6 each
THE GROVE HOTEL, Wallasey, (Cheshire) Temperance	12 beds	Bed and breakfast 4/- Board and lodgings 6/6 per day
VICTORIA HOTEL, New Brighton	50 beds	Bedroom and attendance 4/- each. Breakfast 2/6 Dinner 4/-. Lunch 2/6 Inclusive terms 12/- per day
ROYAL FERRY HOTEL, New Brighton	14 beds	Bed and breakfast 5/- Inclusive terms per day 7/6
THE MARINE HOTEL, Promenade, New Brighton	6 beds	Bed and breakfast, single, 5/- double 8/6 Luncheon 2/-. Dinner 2/6 Inclusive terms per day 7/6 Inclusive terms per week 50/-
PRINCE OF WALES HOTEL, Southport	40 single bedrooms 40 double bedrooms	Single bed and breakfast 6/- Double bed and breakfast 11/- Table d'Hote luncheon 2/6 Table d'Hote dinner 4/- Inclusive terms per day 10/-
THE PALACE HOTEL, Southport	40 bedrooms	Single bed 4/- Bed and breakfast 6/6 single Bed and breakfast, double 11/- Luncheon 2/6 Table d'Hote dinner 5/- Inclusive terms 10/6 per day
VICTORIA HOTEL, Southport	30 single bedrooms 15 double bedrooms	Bed and breakfast 5/6 single room Bed and breakfast 5/- double room (each) 2/- luncheon 3/- Table d'Hote dinner 8/- inclusive terms per day
GROSVENOR HOTEL, Chester	Accommodation 100 visitors	Single beds from 5/- Double beds from 8/- Table d'Hote breakfast 3/- Table d'Hote luncheon 3/6 Table d'Hote dinner 5/-
QUEEN'S HOTEL, Chester	40 single rooms 20 double rooms	Bed and breakfast, single, 7/6 Bed and breakfast, double, 14/- Luncheon, 2/6. Dinner, 5/- Inclusive, 13/6 per day
ROYAL HOTEL, Hoylake, Cheshire	80 single rooms 5 double rooms	Bed and breakfast, single, 5/6 Bed and breakfast, double, 9/- Luncheon, 2/- Dinner (table d'Hôte), 4/- Inclusive, 10/6 per day
THE HYDRO HOTEL, West Kirby, Cheshire	25 single beds 26 double beds	Bed and breakfast, singe, 5/6 Bed and breakfast, double, 10/6 Luncheon, 2/6 Table d'Hôte dinner, 3/- Inclusive, 8/- & 9/- per day each

Those addresses marked * are on a direct tram route within 10 to 20 minutes from the centre of the City.

WATERLOO AND SOUTHPORT are reached in 15 and 35 minutes respectively by frequent electric trains by the L. and Y. Railway from Exchange Station.

CHESTER is reached in 40 minutes by the Mersey Railway from the Central Station.

WALLASEY AND NEW BRIGHTON have frequent Ferry boat services, and also the Mersey Railway, journey about 15 and 30 minutes respectively.

WEST KIRBY AND HOYLAKE are served by the Mersey and Wirral Railways, journey about 30 minutes.

LIVERPOOL MEETING, July, 1912.—List of Apartments.

Name and Address.	Accommodation.	Tariff.
LIVERPOOL:		
*Miss Chuck, 32, Falkner Square, Liverpool	7 beds	Bed and breakfast 6/-; board and residence 7/- per day
*Mrs Dey, Deysbrook House, 2, Canning Street, Liverpool	—	Bed and breakfast 4/6; board and residence 6/6 to 7/6 per day and from 31/6 per week
Mrs. Scott, Simpson, Atholston House, 11-12, Gambier Terrace, Liverpool	Private Hotel	Bed and breakfast 4/- to 4/6 per day; full board and residence 6/6 to 8/6 per day, 30/- to 42/- per week
Miss Geach, Cathedral View, 5, Canning Street, Liverpool	Boarding Establishment 15 beds	Bed and breakfast 4/6; board and residence 6/6 per day; 31/6 and 42/ per week
*Mrs. Woodworth, 61, Canning Street, Liverpool	4 beds	Bed and breakfast 3/6 per day; board and lodgings 35/- per week
*Mrs. Dimmock, 50, Princes Road, Liverpool	4 beds	Bed and breakfast 4/-; luncheons 1/6; dinner 2/6 to 3/-; full board 30/- per week
*M. Fountaine, 76, Princes Road, Liverpool	Large house	Bed and breakfast 3/6 per day; full board 5/- per day
*Mrs. H. Walker, 57, Croxteth Road, Liverpool	5 beds—3 double, 2 single 3 sitting rooms.	Bed and breakfast 4/6; full board 8/- per day
*Mrs. Pusey, 2, Princes Avenue, Liverpool	6 bedrooms	Bed and breakfast 27/- per week
*Mrs. Haythorne, 27, Princes Avenue, Liverpool	—	Bed and breakfast 5/- to 7/6 per day; full board and residence 35/- to 2½ guineas per week
*Mrs. Nickels, 3, Princes Avenue, Liverpool	—	Bed and breakfast 4/6 per day; board and residence 38/- to 2½ guineas per week
*Mrs. Lobby, 22, St. Domingo Vale, Everton, Liverpool	1 bedroom 1 sittingroom	Bed and breakfast 3/6; board and residence 8/6 per day
*Mrs. M. E. William, 39, Mulgrave Street, Princes Avenue, Liverpool	2 double beds 3 single beds 1 sitting room	Bed and breakfast, 3/-; full board and lodging 25/-
*Mrs. A. H. Palmer, 36, Mulgrave Street, Princes Road, Liverpool	3 beds 1 sitting room	Bed and breakfast, 17/- per week
*Mrs. Toner, 72, Mulgrave Street, Princes Park, Liverpool	3 double beds 1 single bed	Bed and breakfast, 3/-; bed and breakfast and late dinner, 4/-; apartments with full board, 5/-
*Mrs. Isabella Carran, Glossina House, 44, Upp. Parliament Street, Liverpool	8 beds 2 sitting rooms	Bed and breakfast, 3/6 per day; full board and residence from 5/6
*Mrs. N. Williams, 56, Upp. Parliament Street, Liverpool	8 bedrooms	Bed and breakfast, 3/6 per day; board and lodging, 5/- per day; 30/- per week
*Mrs. Ames, 185, Upp. Parliament Street, Liverpool	1 double bed 1 single bed 1 sitting room	Bed and breakfast, 3/6; full board per week, 42/-
*Mrs. Norris, 55, Upp. Parliament Street, Liverpool	4 beds	Bed and breakfast (double), 3/- each per day; bed and breakfast (single), 3/6 per day; board and lodgings, partial, 5/-; full, 6/- per day.
*Miss Hutchinson, 17, Verulam Street, Upp. Parliament Street, Liverpool	2 bedrooms 2 sitting rooms	Bed and breakfast, 3/-; bed and full board, 23/- to 25/-
*Mrs. Cowap, 117, Cumberland Terrace, Upper Parliament Street, Liverpool	2 bedrooms 1 sitting room	Bed, breakfast and meat tea 6/- per day; bed and breakfast 4/-
Miss A. Tasker, 144, Bedford Street, S., Liverpool	Private boarding house, 5 beds	Bed and breakfast 4/- per day; (full board 5/-, 8/- per day, and lodging 28/- to 50/- per week)
Mrs. B. Clarkson, 154, Bedford Street, S., Liverpool	3 beds	Bed and breakfast 5/- per day; board and rooms 10/- per day
LIVERPOOL:		
J. Collishaw, 160, Bedford Street, Liverpool	2 bedrooms 1 sitting room	Bed and breakfast 3/- per day; full board and lodging 25/- each
*Miss E. Ray, 25, Huskisson Street, Liverpool	3 beds	Bed and breakfast 3/6 per day; full board and lodging 27/- per week
Mrs. Furlong, 50, Huskisson Street, Grove Street, Liverpool	6 beds	Bed and breakfast 3/-; luncheon 1/-; dinner 1/3
Mrs. E. Nicholas, 67, Grove Street, Liverpool	3 beds Dining room Sitting room	Bed and breakfast 5/-; board residence for a week 4/- per day
*Mrs. Broach, Claremont House, 179, Grove Street, Falkner Square, Liverpool	4 beds	Bed and breakfast 3/- per day; bed and full board 26/6 per week
*Mrs. T. Bound, Cintra, 145, Granby Street, Princes Park, Liverpool	4 bedrooms	Bed and breakfast 3/6 to 4/6; full board and lodging 22/- to 25/-
Mrs. M. Beaumont, 14, Welfield Place, Princes Park, Liverpool	3 double beds 3 single beds	Bed and breakfast 3/- per day; bed and breakfast and late dinner 4/-; bed and breakfast and full board 5/-
Mrs. M. Smith, 40, Jermyn Street, Princes Park, Liverpool	2 bedrooms 1 sitting room	Bed and breakfast 4/6 per day; board and lodgings £2 2s. 0d. per week
*Mrs. S. A. Stewart, 39, Shaw Street, Liverpool	4 beds 2 sitting rooms	Bed and breakfast 3/6 per day; board and residence 25/- per week
*Mrs. A. Caspari, 23, Sefton Park Road, Liverpool	1 bed	Bed and breakfast 20/- per week; bed and breakfast and dinner 30/- per week; lunch 1/- per day extra
Mrs. Lewis, 48, Thackeray Street, Princes Road, Liverpool	3 beds 2 sitting rooms	Bed and breakfast 2/6 per day; board and lodging 26/- per week
*Mrs. Jones, 24, Kelvin Grove, Liverpool	3 beds 2 sitting rooms	Bed and breakfast 3/6 per day; board and lodgings 30/- per week
*Miss A. Creighton, 21, Kelvin Grove, Princes Gate West, Liverpool	2 beds	Bed and breakfast 4/-; board and lodging, breakfast, high tea and light supper 24/- per week
Mrs. J. Anderson, 21, Oxford Street, Mount Pleasant, Liverpool	3 beds 1 sitting room	Bed and breakfast 3/- single; bed and breakfast 4/6 for two; board and lodging for 9 days £1 6/-
Mrs. Whitelaw, 75, Oxford Street, Liverpool	5 beds	Bed, breakfast 2/6, 3/-; £1 1/- per week; full board and residence
*Mrs. W. Sutton, 8, Edge Lane, Liverpool	2 bedrooms 1 sitting room	Bed and breakfast 3/- per day; board and lodgings 30/- for 9 days
*Mr. M. Thomas, 26, Hartington Road, Sefton Park, Liverpool	3 beds	Bed and breakfast 3/6 per day
*Mrs. M. E. Askinstall, 94, Russell Road, Sefton Park, Liverpool	1 bed	Bed and breakfast 3/6 per day; bed and breakfast and late dinner 28/- per week; bed and breakfast, luncheon and dinner 32/- per week
*Mrs. Cartner, 6, Rutherford Road, Heathfield Road, Wavertree, Liverpool	1 single bed 1 double bed	Bed, breakfast 4/-; board, lodging 25/- per week (breakfast, tea and late dinner)
*Mrs. L. Warke, 42, Heathfield Road, Wavertree, Liverpool	2 bedrooms	Bed, breakfast 35/- (18-27 July); bed, breakfast and dinner 2½ guineas
*Miss Sharpe, Sandown Grange, Sandown Park, Wavertree, Liverpool	2 beds 1 sitting room	Bed, breakfast 3/6 per day; board and residence 25/- to 30/- per week

LIVERPOOL MEETING, July, 1912.—List of Apartments.

Name and Address.	Accommodation.	Tariff.
LIVERPOOL:		
*Mrs. Nevatt, Croft House, 45, Sandown Lane, Wavertree, Liverpool	2 beds 2 sitting-rooms	Bed and breakfast 4/-; board and lodgings 35/- per week
*Mrs. Mary Lancaster, 12, Sandringham Road, Tuebrook, Liverpool	1 double bedroom Motor garage 1 sitting-room	Full board 20/- per week and residence
*Mrs. Musson, Trevarth, Kremlin Drive, Stoneycroft, Liverpool	3 beds	Bed, breakfast 5/- per day; bed, breakfast, and dinner 10/- per day, for not less than one week
Mrs. Mary O'Donovan, 79, Newsham Drive, Newsham Park, Liverpool	4 beds 1 sitting-room	Bed and breakfast 3/6; board and lodgings 30/- per week
*Mr. John Hunter, 58, Pemberton Road, Stoneycroft, Liverpool	1 bedroom 1 sitting-room	Bed and breakfast 5/- for two persons per day; board and lodgings £1 per week each
*Mrs. C. Archer, 48, Charles Berrington Road, Wavertree, Liverpool	1 bedroom 1 sitting-room	Bed and breakfast 6/6 per day; full board 10/- per day
*Mrs. S. M. Graham, 11, Brereton Avenue, Church Road, Wavertree, Liverpool	2 bedrooms 2 sitting-rooms	Bed and breakfast 3/- each; board and lodgings 25/- each
WATERLOO:		
Mrs. Yates, 10, Marine Terrace, Waterloo	3 beds	Bed and breakfast 4/-
Mrs. Binks, 1, Marine Terrace, Waterloo	2 beds	Bed and breakfast 4/6
Mrs. MacGregor, 4, Alexandra Road, Waterloo	2 beds	Bed and breakfast 3/6
Mrs. Smith, 7, Kinross Road, Waterloo	2 beds	Bed and breakfast 3/6
Rev. Mather, Park House, Waterloo	4 beds	Full board 7/- per day; 42/- per week. Ladies only
Mrs. Barker, 15, Marine Crescent, Waterloo	2 beds	Bed and breakfast 4/6
Mrs. Jopson, 10, Adelaide Terrace, Waterloo	6 beds	Bed and breakfast 5/-; per week 30/- to 35/-
Miss Haydock, 3, Wellington Street, Waterloo	2 beds	Bed and breakfast 4/-
WATERLOO:		
Miss Barclay, 1, College Road, Waterloo	1 bed	Bed and breakfast 4/-
K. Davey, Welbeck, Waterloo Park, Waterloo, Liverpool	2 single beds 2 double beds 2 sitting rooms	Bed and breakfast 3/6; board and lodgings 8/-
NEW BRIGHTON:		
Mrs. M. Eskrigge, Wave Crest, Victoria Road, New Brighton	6 beds	Bed and breakfast 4/6 (single); bed and breakfast 8/- (double); luncheon 2/-; dinner 2/6; inclusive per day 9/-
Montebello Private Hotel, St. George's Mount, New Brighton	14 beds	Bed and breakfast, single, 5/; bed and breakfast, double, 8/-; luncheon 2/-; dinner 3/6; inclusive terms per day 8/-
Mrs. E. Gough, Beach House, Rowson Street, New Brighton	Boarding Establishment, 20 to 30 people	Bed and breakfast 4/- per day; full board and residence 5/- per day
Mrs. E. Caldwell, Ellerslie, Albion Street, New Brighton	6 beds, 2 sitting rooms	Bed and breakfast 3/6 per day, board 5/6 per day
Mrs. S. Badham, Sandrock, Rowson Street, New Brighton	20 beds, private hotel	Bed and breakfast 3/- to 4/-; boarding house 4/- to 6/-
Mrs. Morgan, Sandholme, Victoria Road, New Brighton	6 beds (double) 2 beds (single) 2 sitting rooms	Bed and breakfast 4/-; bed, breakfast, dinner and tea £2 2s. 0d. each
Mrs. Fare, Rock Point, 62, Marine Promenade, New Brighton, Cheshire	Private hotel, 20 beds	Terms 6/6 per day
Mrs. Braide, "Riverside," Rowson Street, New Brighton	10 bedrooms	Bed and breakfast 4/-; inclusive terms per day 6/-
Mrs. Gorton, 59, The Promenade, New Brighton	6 bedrooms 2 sitting rooms	Bed and breakfast 3/-; inclusive terms per day 6/-, 7/-
Mrs. Oxford, 60, The Promenade, New Brighton	6 bedrooms 2 sitting rooms	Bed and breakfast 3/-; inclusive terms 6/- and 7/- per day
BIRKENHEAD:		
Mrs. Edith Mulliner, Broadlands, Park Road North, Birkenhead	Board-residence 4 beds	Bed and breakfast 4/-; board and residence 27/6 for one week
Mrs. Jessie Yardley, Stratford, 14, Park Road South, Birkenhead	3 bedrooms 1 sitting room	Bed and breakfast 3/-; board and lodging 35/- per week

ACADEMIC DRESS.

It is hoped Members will wear Academic Dress on the following occasions during the Liverpool Meeting:—8.30 a.m., Tuesday, President's Address; 9 a.m., Wednesday, Roman Catholic Service; 3 p.m., Church Service; 8 p.m., Lord Mayor's Reception; 8 p.m., Friday, Soiree, Walker Art Gallery.

GOWNS, HOODS and CAPS may be had on Sale or Hire on application to—
Messrs. EDE, SON & RAVENSCROFT, 93 & 94, Chancery Lane, London, W.C.
Messrs. L. T. & J. NATHAN, 4, Hardman Street, Liverpool.
Mr. WILLIAM NORTHAM, 9, Henrietta Street, Strand, London.

PATHOLOGICAL MUSEUM.

Chairman of Committee: F. T. PAUL, Ch.M.
Honorary Secretary: ERNEST GLYNN, M.D.

Ex-Officio Members:

THE PRESIDENT-ELECT (Sir James Barr, M.D., LL.D.).

The LOCAL HONORARY TREASURER (T. H. Bickerton, Esq.).

The LOCAL HONORARY SECRETARIES (F. H. Barendt, M.D., Karl A. Grossmann, M.D., W. Thelwall Thomas, Ch.M.).

THE Committee appointed to organize the Museum invites material for it under the following heads:

I. Exhibits bearing on discussions and papers in the various sections.
II. Specimens and illustrations relating to any recent research.
III. Instruments relating to clinical diagnosis and pathological investigation.*
IV. Specimens on particular subjects chosen for special illustration in certain of the sections as indicated below.

The Committee has decided to form fourteen sections of the Museum and has chosen certain subjects for special illustration:

Subjects for Special Illustration.

1. Alimentary System.—Congenital deformities; alimentary, biliary, and pancreatic concretions; specimens of oesophagus, including foreign bodies, also instruments* for the diagnosis and treatment of such diseases.
2. Anaesthetics.—Modern anaesthetic apparatus.*
3. Cardio-vascular System.—Neoplasms and granulomata of the heart.
4. Dermatology.—Syphilitic and tuberculous affections of the skin; the results of treatment with carbon dioxide snow.
5. Genito-urinary System.—Specimens illustrating the etiology of hydronephrosis; tumours *in* the adrenal gland.
6. Gynaecology and Obstetrics.—Inflammatory diseases of the uterine appendages; sarcoma of the uterus.
7. Haemopoietic System.—Diseases of the thymus gland.
8. Laryngology, Rhinology, and Otology.
9. Locomotor System and Orthopaedics.
10. Neurology.—Tumours of the pituitary gland; specimens illustrating the pathology of hydrocephalus.
11. Ophthalmology.—Irido-cyclitis and its pathology.
12. Radiography.—Specimens illustrating diseases of the stomach.
13. Respiratory System.—Pulmonary embolism and thrombosis; syphilis of the lung.
14. Tropical Medicine.—Leprosy and Leishmaniasis.

The Committee desires to enlist the hearty co-operation of members, and wishes it to be understood that the above are only suggestions. Specimens illustrative of other conditions will be welcomed.

The Museum will occupy a central position in a fire-proof building surrounded by the lecture rooms, in which the Sectional work is carried on, and will be easy of access.

Every care will be taken of the specimens, and the contents of the Museum will be insured.

The Committee is prepared to make arrangements for a limited number of short special demonstrations in the Museum at stated hours.

All communications should be addressed to Dr. Ernest Glynn, Honorary Secretary, at the Thompson Yates Laboratory, University of Liverpool.

* Exhibits in the Pathological Museum of instruments and apparatus can only be accepted from medical men.

A LIST of periodical publications, official reports, and Blue Books in the Library of the British Medical Association available for issue to members on loan has been printed, and copies can be obtained free on application to the Librarian, at the house of the Association, 429, Strand, W.C. The regulations governing the loan of these publications are stated in the introduction to the list.

The Library is open for consultation from 10 a.m. till 5 p.m. (on Saturdays till 2 p.m.).

To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.

Association Notices.

CENTRAL COUNCIL ELECTION, 1912-13.

IN the case of the Cambridge and Huntingdon, East Anglian, and South Midland grouped Branches, Dr. B. H. Nicholson has withdrawn his candidature, and as a result there will be no contest in this constituency.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BIRMINGHAM BRANCH.—The annual meeting will be held in the Medical Institute on Friday, June 28th, at 3.30 p.m. Business: To receive the report of the Council; election of officers; inaugural address by the in-coming President, Dr. Nason.—J. FURNEAUX JORDAN, J. G. EMANUEL, Honorary Secretaries.

DUNDEE BRANCH: FORFARSHIRE DIVISION.—The annual meeting will be held on Wednesday, June 12th. The place and date of meeting have not yet been fixed.—MARTIN SMITH, Honorary Secretary.

EAST ANGLIAN BRANCH.—The annual meeting of this Branch will be held at Brentwood on Wednesday, June 19th. Members wishing to read papers or to show cases or specimens should communicate at once with the Secretary for Essex, Dr. B. H. NICHOLSON, East Lodge, Colchester.

EAST YORKSHIRE AND NORTH LINCOLNSHIRE BRANCH.—The annual meeting of this Branch will be held at Grimsby on Thursday, June 13th. Business: Annual Report and balance sheet. Election of officers. Presidential address.—EDWARD TURTON, Honorary Secretary.

EDINBURGH BRANCH.—The annual meeting of this Branch will be held in the Hall of the Royal College of Physicians, 9, Queen Street, Edinburgh, on Thursday, June 27th, at 4 p.m. Business: (1) Minutes of last meeting. (2) Apologies for absence. (3) Annual Report and Financial Statement. (4) Treasurer's Report *re* Guarantee Fund. (5) Election of Office-bearers for 1912-13. (6) Discussion on the Aftermath of the Insurance Act, initiated by Dr. Martins, Haddington. (7) Any other competent business.—MICHAEL DEWAR and E. SCOTT CARMICHAEL, Honorary Secretaries.

EDINBURGH BRANCH: SOUTH-EASTERN COUNTIES DIVISION.—The annual meeting of the Branch will be held in the County Rooms, St. Boswells, on Tuesday, June 11th, at 3.15 p.m., Dr. Oliver (St. Boswells) presiding. Business: (1) Annual report. (2) Election of office-bearers. (3) Motion by Dr. Georgeson (Lauder). (4) Motion by Dr. Davidson (Kelso). (5) Consideration of reports and instructions to Representative. (6) Any other business. The Secretary begs to intimate that he does not seek re-election.—JOHN JEFFREY, Honorary Secretary.

FIFE BRANCH.—The annual meeting of this Branch will be held within the Station Hotel, Kirkcaldy, on June 12th, at 3 p.m.—R. BALFOUR GRAHAM, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH.—The annual meeting of this Branch will take place at Bolton on Wednesday, June 19th, 1912.—F. CHARLES LARKIN, Branch Secretary.

METROPOLITAN COUNTIES BRANCH.—The annual general meeting of the Branch will be held at 429, Strand, W.C., on Friday, June 28th, at 4.30 p.m. Agenda: (1) Minutes of last meeting. (2) Report as to the election of new officers. (3) Annual report of Council. (4) Annual report of Representatives of the Branch on the Central Council. (5) Alteration of rules. On behalf of the Council it will be proposed:—That the Branch Rules 11 and 12 be altered to form one Rule—Rule 11—to read as follows: "11. The management of the affairs of the Branch shall be vested in the Branch Council, which shall consist of the officers of the Branch, together with the representatives of the Branch on the Central Council of the Associa-

tion, and representatives of Divisions, as follows: (*a*) *Ex officio*—All the Representatives of the Divisions on the Representative Body. (*b*) *Ex officio*—The Honorary Secretaries of the Divisions. (*c*) One member appointed by each Division, and such other members as the Division may be entitled to appoint on the basis of one representative for every 100 members after the first 50." Branch Rules 11 and 12 are at present as follows: "11. The management of the affairs of the Branch shall be vested in the Branch Council, which shall consist of the officers of the Branch, together with the representatives on the Central Council of the Association elected by the Branch, and representatives of the Divisions. 12. The representatives of the Divisions on the Branch Council shall be not less than three for each Division, of whom one shall be the Honorary Secretary of the Division, and a second the representative of the Division at the Representative Meeting; for every additional 100 members of a Division beyond 50 there shall be an additional representative" [see By-law 16 of the Association]. (6) President's Address: The State, the Poor, and our Profession.—E. W. GOODALL and W. GRIFFITH, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—The general meeting for consideration of the Report of Council, the Agenda of the Annual Representative Meeting, and the instruction of Representatives will be held at the Hackney Town Hall on Thursday, June 13th, at 4 p.m. Members are requested to bring the SUPPLEMENT of the BRITISH MEDICAL JOURNAL of May 11th and 18th.—A. G. SOUTHCOMBE, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: HAMPSTEAD DIVISION.—The tenth annual meeting of the Hampstead Division will be held on Thursday, June 13th, at 8.15 p.m., at the Central Library, Finchley Road, N.W. Agenda: Election of officers and committee of the Division for 1912–13. Annual Report of the Council. Provisional agenda of the Annual Representative Meeting (SUPPLEMENTS of May 11th and 18th). Members are requested to note the alteration in the date of the meeting.—E. ARTHUR DORRELL, Assistant Honorary Secretary, 7, Cannon Hill, West Hampstead, N.W.

METROPOLITAN COUNTIES BRANCH: KENSINGTON DIVISION.—The annual meeting of the Division will be held at the Town Hall, Kensington, on Friday, June 14th, at 4 p.m. Agenda: (1) Minutes of the last annual meeting. (1) Election of officers, Representatives, and committee. (3) Annual report of the Executive Committee. (4) Consideration of the Agenda of the Representative Meeting. (5) Any other competent business. N.B.—Members are particularly requested to record their votes for the following candidates nominated by the Division when the ballot papers reach them. No more than one vote can be given to each candidate, but members are not obliged to use all their votes:—Central Council: Dr. Charles Buttar. Branch Council: President, Dr. Langdon-Down; Vice-President, Mr. H. W. Chambers; Treasurer, Dr. Lauriston Shaw. The Executive Committee has decided to recommend the following members for the various offices and committee: Chairman, *E. B. Turner; Vice-Chairman, T. Gunton Alderton; Honorary Secretaries, *Percy C. Raiment, W. E. Fry; Representatives at Representative Meetings, *E. B. Turner, *H. Beckett-Overy, *Percy C. Raiment, *H. H. Sturge; Representatives on Branch Council, the Honorary Secretaries, the Representatives at Representative Meetings, and Charles Buttar, Herbert Tanner, M. F. Squire, M. Milton Townsend, R. Cathcart Bruce; Executive Committee, G. A. H. Barton, A. J. Carter, C. E. A. Huddart, H. T. N. Merrick, A. J. Rice-Oxley, G. J. Crawford Thomson, E. F. Travers. Other nominations may be made at the meeting, except in the case of those gentlemen nominated by ballot at the last meeting, and indicated in the above list by an asterisk. H. BECKETT-OVERY, HERBERT TANNER, Honorary Secretaries.

NORTH OF ENGLAND BRANCH: NEWCASTLE-ON-TYNE DIVISION.—A meeting of this Division will be held in the Library of the Royal Victoria Infirmary, Newcastle-on-Tyne, on Thursday, June 20th, 1912, at 8.30 p.m. Agenda: (1) Presentation of Annual Report of the Division. (2) Presentation of annual accounts. (3) Election of Officers, namely, Chairman, Vice-Chairman, and Honorary Secretary. (4) Election of Representatives for the Branch Council. (5) Election of two Representatives of the Division in Representative Meetings of the Association. (6) Election of ordinary members of the Executive Committee. (7) To consider the business of the Annual Representative Meeting (see BRITISH MEDICAL JOURNAL of May 11th and 18th. (8) Revision of rules of this Division. (9) Resolution *re* adoption of Rule Z.—R. J. WILLAN, Honorary Secretary.

NORTHERN COUNTIES OF SCOTLAND BRANCH.—The annual meeting of the Branch will be held at Craigellachie on Saturday, June 15th, 1912. Further particulars will be sent each member by circular.—J. MUNRO MOIR, Honorary Secretary.

NORTHERN COUNTIES OF SCOTLAND BRANCH: INVERNESS-SHIRE, ROSS AND CROMARTY, AND CAITHNESS AND SUTHERLAND DIVISIONS.—A meeting of these Divisions will be held at the Northern Infirmary, Inverness, on Wednesday, June 12th, 1912, at 3 p.m., for the purpose of electing a Representative in Representative Meetings.—J. MUNRO MOIR, Honorary Secretary.

SOUTH-EASTERN BRANCH.—The sixty-eighth annual meeting of this Branch will be held on Wednesday, June 19th, at 2.15 p.m., at the Town Hall, Market Square, Bromley. The Council will meet before luncheon at the Town Hall; notice of the time and agenda for this meeting will be sent to members of the Council in due course. Dr. John Scott (President-elect) kindly invites members to luncheon at the Royal Bell Hotel, from 1 to 2 p.m. Agenda (in addition to the business of an ordinary meeting): (1) To receive the report of the Election of Officers for 1912-13, who shall thereupon take office. (2) To receive the annual report of the Council on the affairs of the Branch, and the annual financial statement. (3) To receive the Revised Rules presented by the Council for adoption by the Branch. (A copy of these rules has been sent to members of the Branch; it should be brought to the meeting and preserved for future reference.) (4) To consider the adoption of the Bradford Rules and of Rule Z recommended by the Council as an addition to the Branch Ethical Rules. (5) Any other business decided on by the Council or any other competent business. Rule 10 (*b*) referring to the annual meeting is as follows: "To consider any matter relative to the honour and interests of the medical profession which may be brought before the meeting by the Branch Council or by a Division. No business shall be discussed under this head without notice thereof having been given to the Secretary, at least fourteen days before the meeting, with the terms of any resolution which is intended to be proposed." Tea will be provided during the meeting. No excursion is arranged; the Council considered that urgent business was likely to arise, and that this meeting should be purely for business. The Bromley and County Club courteously offers to make all members of the Branch attending the meeting honorary members for June 19th. There will be an exhibition of instruments, drugs, and electrical appliances at the Royal Bell Hotel, from 12 noon to 6 p.m. The annual dinner will be held at the Royal Bell Hotel at 6.30 p.m.; charge 6s. each. Wine will be provided by the local members. Members intending to be present at the luncheon or dinner are requested to signify their intention to Dr. A. Tennyson Smith, Shanklin, Orpington, Kent, not later than Saturday, June 15th; members wishing hospitality for the night should also communicate with Dr. A. Tennyson Smith.—E. A. STARLING, Honorary Secretary.

SOUTH-WESTERN BRANCH.—The seventy-third annual meeting will be held on Wednesday, June 26th, at the Victoria Hotel, Newquay, at 3 p.m., when Mr. Roper will resign the chair to Dr. Hardwick. The report of the Branch Council for the year 1911–12, and the annual financial statement for the year 1911 will be presented to the meeting, and the officers of the Branch will be elected for the year 1912–13. Luncheon, by kind invitation of the President-elect, will take place from 1 p.m. to 2.30 p.m., at the Victoria Hotel. The annual dinner of the Branch will be held at the Headland Hotel, at 7 o'clock. Tickets, 7s. each (exclusive of wine), can be had from Dr. Vigurs, Newquay. Early applications for dinner tickets will greatly facilitate arrangements, and in any case they should be made not later than the first post on Monday, June 24th. By the courtesy of the Newquay Golf Club, members of the Branch and their wives will be made honorary members for Wednesday and Thursday, and those wishing games arranged for them should communicate with Dr. W. J. Stephens, Hayne, Newquay. On Thursday a drive to Bedruthan Steps will be arranged provided a sufficient number of names are sent to Dr. W. J. Stephens before June 26th. Members wishing to stay the night in Newquay will find accommodation at the Headland Hotel.—RUSSELL COOMBE, Honorary Secretary.

STAFFORDSHIRE BRANCH: MID STAFFORDSHIRE DIVISION.—The tenth annual general meeting of this Division will be held at the North-Western Hotel, Stafford, on June 14th, at 2.45 for 3 p.m. Agenda: (1) Notice convening the meeting. (2) Minutes of the last annual general meeting. (3) Correspondence, if any. (4) To receive report of Representative at the Special Representative Meeting held in February. (5) To receive report, if any, of Representative on the Branch Council. (6) To receive annual report of Honorary Secretary. (7) To receive reports from Secretaries of the Provisional Medical Committees for the Division area and for Burton-on-Trent. (8) To elect officers for year 1912–13: Chairman, Vice-Chairman, Honorary Secretary, Executive Committee, Ethical Committee, Representative for Annual Representative Meeting, 1912. (9) To instruct the Representative in regard to matters referred to the Divisions for consideration—for example, (*a*) Model Ethical Rules, pars. 76–81 and Appendix ix (SUPPLEMENT of May 11th); (*b*) Public Health and Poor Law, par. 37, p. 507 (SUPPLEMENT, May 18th); (*c*) Certificates and reports on cases, pars. 32 and 33, p. 507; (*d*) State Sickness Insurance, pars. 35 and 36, p. 507. (10) Any other business. (Members are requested to bring with them the SUPPLEMENTS to the BRITISH MEDICAL JOURNAL of May 11th and 18th.)—A. E. HODDER, Honorary Secretary, Stafford.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* Journal.]

BATH AND BRISTOL BRANCH:
Trowbridge Division.

The annual meeting of this Division was held in the Town Hall, Trowbridge, on May 31st. Fifteen members were present.

Annual Report and Financial Statement.—The Secretary presented the annual report and financial statement, which was adopted.

Election of Officers.—The following office-bearers were elected: *Chairman*, Dr. E. T. Shorland (Westbury); *Vice-Chairman*, Dr. Ferguson (Calne); *Representatives on Branch Council*, Drs. Tubb-Thomas, Adye, F. E. Tayler; *Executive Committee:* Drs. Rumboll, G. C. Tayler, Bond; *Secretary and Treasurer*, Dr. Pearse; *Representative*, Dr. Pearse.

Supplementary Pledges.—The Secretary presented a report showing that these had been signed by all acting practitioners in the district, with the exception of four.

Guarantee Fund.—The Secretary reported that the amount guaranteed by the Division to date was £321 by thirty-six members. He was instructed to communicate with outstanding members again, and to ask those who had already subscribed to increase their amount if possible. Several members present undertook to do this.

Personal Expenses of Representatives.—The Representative was instructed to support the payment of such, but with the recommendation that third class railway fare only should be paid.

Ethical Rules.—It was resolved that consideration of these be postponed.

GLOUCESTERSHIRE BRANCH.

The annual meeting of this Branch was held at the General Hospital, Cheltenham, on May 16th, at 6 p.m. The President was in the chair, and forty-eight members were present.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Election of Officers.—Mr. T. S. Ellis announced the following election of officers for session 1912–13: *President*, Dr. R. Macartney (Cinderford); *Council*, Drs. Wayland Ancrum, Braine-Hartnell, Carter, Cox, Goss, Johns, Mellish, Buckell, Collins, Davies, Grosvenor, and Knight, with Drs. Macartney and Buchanan, *ex officio* members, representing Forest of Dean Section, and Mr. G. A. Peake, ex-President; *Scrutineers*, Dr. Ancrum and Mr. T. S. Ellis; *Auditors*, Dr. Dent and Mr. G. A. Peake; *Ethical Committee*, Messrs. T. S. Ellis, Fowler, and Buckell, and Drs. E. T. Wilson and Soutar; *Secretary*, Dr. D. E. Finlay; *Assistant Secretary*, Dr. N. Longridge.

Nomination to Central Council.—Dr. Herbert Jones (Hereford) was nominated for member of Branch on Central Council.

Annual Report.—It was proposed by Dr. Macartney, seconded by Dr. Meyrick-Jones, and carried, that the annual report be taken as read and accepted. The following is a summary:

			Compared with 1910.	
Membership on December 31st, 1910 ...	...	132	...	137
Increases—				
(*a*) New members	... 22		... 8	
(*b*) Through change of address...	... 16		... 7	
(*c*) Through change of boundaries	... —		... —	
	—		... —	
Total additions...	... 38		... 15	
Aggregate ...	...	170	... 152	
Losses—				
(*a*) Deaths	... 2		... —	
(*b*) Resignations ...	... 1		... 3	
(*c*) Through change of address...	... 9		... 16	
(*d*) Arrears	... 2		... 1	
			... —	
Total deductions	... 14		... 20	
Net membership on December 31st, 1911...		156	... 132	

		Compared with 1910.
A.—Meetings—		
Meetings held during the year	15	... 9
Meetings at which scientific or clinical matters were discussed	7	... 8
Meetings at which medico-political, ethical, or kindred matters were discussed	10	... 4
Social functions	8	... 8
Average attendance at meetings ...	34	... 28
Number of members who attended at least one meeting	—	—
Executive Committee or Branch Council meetings	13	... 10
Average attendance	11	... 6.9

B.—Notes of any special questions of local interest dealt with (for example, local medical appointments, matters of public health, contract practice, etc.).

The following non-scientific matters were amongst those discussed:

Committee, Treatment of School Children, met twice.
Committee, Payment for Medical Certificate, met twice

Financial Statement.—The following financial statement for the year ending December 31st, 1911, was presented:

Receipts.

1911		£ s. d.
	Balance Dec. 31, 1910	23 0 10
July 14	Capitation Grant	6 12 0
Dec. 30	Money received for Insurance Defence Fund and Subscriptions ...	7 6 0
		£36 18 10

Expenditure.

1911		£ s. d.
Feb. 11	J. Bellows	1 16 0
March 3	Dr. Collins, Cheltenham Medical Library	3 3 0
,, 28	J. Bellows	3 9 2
April 12	Cheque Book	0 1 0
May 23	E. Dykes Bower, Esq., Piano, Annual Meeting	0 10 6
Jan. 21	Dr. Buchanan, Grant to Forest of Dean Section	5 0 0
July 1	To Secretary, Stamps	1 0 0
,, 4	J. Bellows	6 19 9
Oct. 14	J. Bellows	3 0 7
Dec. 15	To Secretary, Stamps	1 0 0
		26 0 0
	Balance	10 18 10
		£36 18 10

The following is a summary of expenses for the year ending December 31st, 1911:

	£ s. d.
Printing and Stationery	15 5 6
Cheltenhan Medical Library	3 3 0
Cheque Book	0 1 0
Annual Meeting	0 10 6
Grant to Forest of Dean Section	5 0 0
Stamps	2 0 0
	£26 0 0

Audited and found correct, C. A. Peake.
March 13, 1912. Ernest A. Dent.

Mr. J. G. Turner, F.R.C.S., L.D.S.Eng., Lecturer on Dental Surgery, Royal Dental Hospital, London, gave an address on the prevention of dental caries. A vote of thanks to Mr. J. G. Turner was proposed by Mr. G. A. Peake, seconded by Dr. Soutar, and carried. A discussion on the address followed, and Mr. J. G. Turner replied.

After the meeting fifty-six sat down to dinner at the Town Hall, Cheltenham, and were entertained by the President, a most enjoyable evening being spent.

LANCASHIRE AND CHESHIRE BRANCH:
Burnley Division.

The annual meeting of this Division was held in the Bull Hotel on May 22nd. Dr. Robinson occupied the chair. There were also present: Drs. G. S. Pullon, J. W. Ferguson, A. P. Agnew, J. S. Wilson, T. G. Crump, J. Haworth, F. E. Crossley, A. Macgregor Sinclair, W. Purves, H. J. Slave, Thos. Snowball, J. Mackenzie, J. P. Stuart, Chas. Anderson, A. Findlay, R. Stewart, J. Gardner, W. D. Bromley, A. Callam, F. W. Marsden, A. E. Bird.

Confirmation of Minutes.—The minutes of previous meetings were read and confirmed.

Votes of Thanks.—Very hearty votes of thanks were given to the officers of the previous year, and suitably acknowledged.

Election of Officers.—The following were elected to office for the ensuing year: *President*, Dr. T. G. Crump; *Vice-President*, Dr. H. J. Robinson; *Honorary Secretary and Honorary Treasurer*, Dr. A. Edward Bird; *Representative at Representative Meetings*, Dr. H. J. Robinson; *Branch Representative*, J. M. Ferguson; *Executive Committee*, Drs W. J. D. Bromley, A. Callam, F. W. Marsden, G. S. Pullon, F. E. Crossley, T. M. Scott, Thos. Snowball, J. Gardner, Chas. Anderson, A. Heys, R. Stewart, J. S. Wilson.

Nominations for Council.—As the full list of nominations was not published no recommendations could be now made, but the Honorary Secretary was instructed to call a meeting of the Committee to consider the nominations when published, and inform the members of the Division which they recommend for support by the Division.

Annual Report.—The HONORARY SECRETARY presented the annual report, which was read and adopted, as follows:

Interest in the Division during the past year has been greater than ever before, chiefly on account of the Government passing a State Sickness Insurance Act the medical *benefits* of which were so ill-considered that even at the present time the medical profession as a whole cannot possibly undertake the duties which the Act proposes to assign to it. It is gratifying to know that this Act has drawn the members of the profession closer together and enormously increased the membership of the British Medical Association. Our own Division, which includes Burnley, Brierfield, Barrowford, Barnoldswick, Colne, Hapton, Nelson, and Padiham, has grown from seventy-three members last year to ninety-three members now.

There only remain about four medical men in the whole Division who are not members, and it is safe to say that there will not be even that small number in a few weeks' time, for they will be asked to join at once.

There have been nine meetings of the Division, with an attendance of 315, giving an average attendance of thirty-five members per meeting. There have been twenty-three committee meetings, with an average attendance of 10.6.

These figures show that the officers have not been idle during the year. Besides the above meetings, there have been subcommittee meetings and deputations to different bodies. In connexion with the Sickness Insurance Act during its passage through the Houses of Parliament, your Committee has met the local members of Parliament and discussed the medical portions of the bill with them, and written and circularized the Prime Minister, the Chancellor of the Exchequer, Lord Morley, Lord Lansdowne, Mr. Bonar Law, Sir Henry Craik, Sir Philip Magnus, Sir Robert Finlay, as well as the local M.P.s. All the medical men in the Division area signed the declaration and undertaking sent out by the Association.

Your Committee have circularized all the Honorary Secretaries of Divisions and Branches, the Representatives, and Council of the British Medical Association, and lately a Provisional Local Medical Committee has been appointed to safeguard the interests of the profession in the Division area in respect of the National Insurance Act. Some work is being done in connexion with the local guardians and the stipends of their district medical officers, but as the matter is still *sub judice*, mention only is made of it. One medico-ethical case has been amicably dealt with.

The clinical programme has again been wisely left to the Local Medico-Ethical Society, as was also the annual dinner. The committee of the above society is about to meet the committee of the Division together to draw up and circulate a revised tariff of minimum fees to be charged in the district. The Health Committee of the Burnley Corporation has decided to inaugurate a Tuberculin Dispensary in Burnley, and the medical members of that committee, together with the M.O.H., are anxious to meet and explain the suggested *modus operandi* with your Committee. The Division has decided to support (Central) Insurance Defence Fund of the British Medical Association, the objects of which are—first, to assist in defraying the heavy administrative expenses the Insurance Bill and Act have made and will make; and, secondly, to provide, when necessary, compensation or assistance to practitioners who incur loss or require support in respect of action taken through loyalty to the profession. Each practitioner who has not already guaranteed a sum will be approached shortly by members of the Provisional Committee with the necessary forms of guarantee, on which are printed the general objects of the fund and conditions under which it will be used. Another undertaking regarding "Clubs" will be sent round for members to sign. This does not greatly affect this district directly.

The Executive Committee is gratified at the loyalty, unity, and solidity of the profession in this district, and strongly recommends continued united action in maintaining the honour and interest of the medical profession throughout the kingdom.

SALFORD DIVISION.

A MEETING of this Division was held on May 16th, at which Dr. FLETCHER presided, and there were thirty-four members present.

Central Council Election.—The meeting considered the question of nominations of two candidates to represent the Lancashire and Cheshire Branch on the Central Council, and resolved to nominate Dr. T. A. Helme and Dr. O'Sullivan.

Proposed Amalgamation of Divisions.—A proposal was made that the Manchester and Salford Divisions should be amalgamated, but on being put to the vote it was lost by seven votes for and eighteen against.

Work of Advisory Committee.—It was also resolved to request Dr. Hodgson to give some account of the work of the Advisory Committee under the National Insurance Act and the work of the State Sickness Insurance Committee at the annual meeting of the Division, which was to be arranged for a date convenient for him to attend.

MANCHESTER (SOUTH) DIVISION.

THE ninth annual general meeting of this Division was held at the Holy Innocents' Schoolroom, Fallowfield, on Friday, May 24th, at 3.30 p.m. Dr. GRANT DAVIE presided. There were also present: Drs. Barr, Booth, Cotterill, Conway, Chevers, Edlin, Gregory, Goodfellow, Godson, Heathcote, Holt, Crichton Hood, Mitchell, Macgregor, Stowell, Salter, Sawers Scott, Sarjant, Thoseby, and Whitworth.

Confirmation of Minutes.—The minutes of the last meeting (May 3rd) were read and confirmed.

Apologies for Non-attendance.—Apologies for non-attendance were received from Drs. Hopkinson, Russen Rhodes, Stocks, and Webb.

Central Council Election.—Letters were read from Dr. T. A. Helme and Dr. S. Hodgson, thanking the Division and accepting nomination for election on the Central Council.

Circular from Medical Officer of Health.—A letter was read from the Secretary of the Manchester (North) Provisional Local Medical Committee in reference to a circular letter issued by the Medical Officer of Health for Manchester, in which detailed information was sought in relation to the occurrence of tuberculosis. Relative to this Dr. COTTERILL proposed and Dr. STOWELL seconded the following resolution, which, after some discussion, was carried with one dissentient:

> That, in view of the ever-increasing calls made upon the medical profession for gratuitous services for local and national purposes, and having regard to the harsh and discourteous treatment accorded to the profession by those responsible for the passing into law of the National Insurance Act, this meeting of the Manchester (South) Division of the British Medical Association is of opinion that all further demands for gratuitous services by practitioners such as that contained in the letter issued by the Medical Officer of Health for Manchester, May 21st, 1912, on behalf of the Sanitary Committee of the Corporation, be uniformly disregarded and, if necessary, strenuously resisted.

It was also resolved that this resolution be sent to the Medical Officer of Health for Manchester, the press, and the BRITISH MEDICAL JOURNAL.

Annual Report.

The SECRETARY then read the annual report of the Committee, which was as follows:

A. *Division.*—Your Executive Committee has to report that during the year twelve meetings of the Division were held, and that the average attendance at these was 25.2, the numbers varying between 17 and 35. Eight non-

members attended at various meetings. During the year 24 new members have been added to the list; 10 members have removed out of, and 6 into, the Division; one member has resigned. The following list shows how many meetings each member has attended: Drs. Ashcroft (4), Byers (3), Boyd (6), Brockbank (1), Ballantyne (5), Brown (7), Booth (6), Barr (2), Brooke (3), Cameron (2), Chevers (5), Christie (2), Cotterill (9), Crowe (1), Conway (2), Dickey (2), Grant Davie (12), Edlin (11), Gregory (11), Goodfellow (6), Godson (11), Crichton-Hood (10), Heathcote (11), Holt (10), Helme (1), Holmes (2), Hopkinson (9), Howe (6), Hacking (1), Hulme (1), Jones (5), McDougall (9), Macgregor (7), Mitchell (12), Morton (7), Martin (8), Moran (2), McLure (3), Parkinson (1), Pearson (3), Riddall (2), Russen Rhodes (9), Russell (2), Robinson (2), Sawers Scott (7), Simcock (4), Stocks (11), Salter (10), Stowell (9), Sarjant (6), Senior (3), Steinthal (4), Tomkys (6), Thoseby (3), Whitworth (5), Webb (6), Williams (5). Dr. Drummond and Dr. Featherstone (non-members) attended two and one respectively. It will be seen from these figures that the average attendance has increased greatly during the year, and 59 members, as compared with 36 last year, have attended at least one meeting, leaving few practitioners who have not put in one attendance, when we exclude consultants and non-practising members. Scientific meetings have been in abeyance this year owing to the urgency of the business undertaken.

B. *Committee.*—The Executive Committee has met nine times, and the following list shows the attendance of each member: Drs. Cotterill (7), Dickey (3), Grant Davie (8), Edlin (8), Gregory (8), Godson (4), Heathcote (4), Hopkinson (7), Mitchell (8), Morton (5), Scott (7), Stocks (8), Simcock (5). Drs. Goodfellow, Webb, and Byers were co-opted for canvassing purposes, and attended on two occasions. Dr. Martin was elected to represent Gorton in place of Dr. Morton, who, your Committee regrets to say, has left the neighbourhood. Dr. Martin, therefore, attended three meetings.

Division Meetings.—On account of the increased attendance the previous custom of holding meetings in the private houses of members has this year been discontinued. It has therefore been necessary to find a public room, and the Holy Innocents' Schoolroom, Fallowfield, has been the most suitable. As a result of this, it has not been possible to provide meetings in the various districts as hitherto.

Among the subjects discussed during the year were: The National Insurance Bill and Act, appointment of a medical officer to the Manchester School for Mothers, the Manchester Coroner in relation to the general practitioner, amalgamation of the Divisions of Manchester and Salford into one Division, ambulance lectures to members of the Red Cross Society, etc.

Scientific Meetings.—Dr. Donald kindly addressed the Division on the subject "Gynaecological Symptoms."

Manchester School for Mothers.—The Manchester School for Mothers decided to advertise for a whole-time medical officer in December, 1911, in the British Medical Journal and the *Lancet*. The Medical Secretary advised the Honorary Secretary of this Division of this fact (the Secretary of the Manchester School for Mothers being resident within its area) and asked whether the appointment was approved of locally. As it was a matter of urgency, the Chairman and Secretary decided to ask the British Medical Journal to withhold the advertisement pending further inquiry as to the work of the medical officer. Further information was secured, and it showed that among the duties of the medical officer was "domiciliary visiting." For this and other reasons, the Division, having sought and secured the approval of the Joint Committee of Manchester and Salford, requested the Council's sanction to the insertion of a warning notice in the British Medical Journal. This was granted. After some correspondence the Committee of the Manchester School for Mothers asked for a deputation of the Joint Committee of Manchester and Salford to meet them. The meeting was held, and certain limitations to the work of the medical officer were jointly approved of: (1) That the medical officer will visit only in special cases, on the authority of the Honorary Medical Officers or the Medical Subcommittee after the Medical Subcommittee has considered the case. (2) That the medical officer will not undertake treatment. (3) That a whole-time medical officer is required mainly to collate statistics and experiences of different centres of the school. Your Committee advised the request for a warning notice chiefly as a protest against the gradually increasing absorption of the work of the general practitioner by whole-time medical officers, and it feels that a considerable degree of protection has been effected by the above restrictions. The Joint Committee considered a satisfactory solution had been arrived at, and in reply to their request for a delegate from the British Medical Association on their committee, appointed your Secretary as its representative.

New By-laws.—According to the new by-laws of the Association the Representative on the Representative Body must be one of the two Representatives of the Division on the Branch Council.

The Manchester Coroner and the General Practitioner.—Your Committee has again considered the relation of the Manchester coroner to general practitioners, and after discussing several cases occurring in this Division, decided to refer the subject to the Joint Committee. The Joint Committee approved of re-opening the case, and a correspondence ensued with the coroner. Your Committee regrets that the conclusions are not of a satisfactory nature to the general practitioner. It has been recommended by the Joint Committee that in future all practitioners in the Manchester area should strictly confine their practice in relation to the coroner within their legal obligations, which means that no report need be given to the coroner or his officers, but only in the case where the practitioner is subpoenaed as a witness to attend the inquest.

Ethical Position of Medical Men called in to Examine Patients under the Care of Another Medical Practitioner.—The recommendation sent up by this Division was adopted by the Representative Body—namely, that where the medical inspector avails himself of the exception to this rule, it shall be his duty to send a letter to the medical attendant stating the fact of his visit and the reasons for his action.

Fund to Defray the Expenses of your Representative at Representative Meeting.—Your Committee wishes again to remind you that a subscription of 2s. 6d. per capita is requested in order to help your Representative to meet the expenses incurred during his attendance at Representative Meetings. Last year less than half the members in the Division contributed to this fund. Your Committee hopes that all those who have not yet subscribed will do so without delay. It should be unnecessary to remind members of the financial outlay incurred by our Representative in the interest of the Division.

Lectures to Members of the British Red Cross Society.—In March, 1912, a member of the Division was asked to give ambulance lectures to the members of a branch of the British Red Cross Society, and requested the Division to advise him on the subject. Your Committee, after consultation with the Acting Medical Secretary, advised that no lectures be given without payment. The member in question adhered to the Association's ruling, and refused to give lectures without remuneration. Your Committee thanked him for loyally adhering to the rules of the Association.

Ophthalmia Neonatorum.—In answer to a request from this Division, Dr. Niven, Medical Officer of Health, Manchester, recommended and procured the assistance of a nurse to attend in all cases of ophthalmia neonatorum in their homes.

Addition to the Rules of the Division.—The following rule was added this year to the Rules of the Division: "That the Representatives of the Division on the Joint Committee be *ex officio* members of the Committee."

Amalgamation of the Divisions of Manchester and Salford.—In August, 1911, the Joint Committee of Manchester and Salford asked the Division whether it was willing that the five Divisions of Manchester and Salford be amalgamated into one Division. Liverpool, Birmingham, Edinburgh, and Glasgow had all supported the principle of a single Division. The main objections to the present system are that the Joint Committee has no legal status in the Association, and that great delay is thereby caused in referring back matter to the Divisions for approval before joint action can be taken. In October the Division approved of the principle of amalgamation. Subsequent to this the Joint Committee formulated a scheme for the amalgamation with certain principles and rules. These were considered by the Division in April,

and most of the alterations suggested by the Division were embodied in the modified scheme which has been issued to every member of the Division.

The National Insurance Bill and Act.—A vast amount of time and work has been devoted throughout the year to the Insurance Bill and Act. Much correspondence has been received from the Central Office and carefully considered at many well-attended meetings of the local profession; and though at first much difference of opinion was rife amongst the members, your Committee is glad to state that at the present time the Division is working harmoniously to fulfil the policy of the Association. In April, 1911, the Division had under consideration the "Report (issued by the Central Council) on the Organization of Medical Attendance on the Provident or Insurance Principle." The Division devoted three meetings to its consideration, and it now appears how thoroughly the Council had anticipated every question which was discussed in connexion with the medical section of the Insurance Bill introduced into Parliament in May, 1911. The care and thought devoted by the Division to the above report has proved of much value throughout the year, when those matters had to be discussed in a form that had every chance of becoming legally enacted. Following the introduction, an active campaign was commenced and a definite policy, now known as the six cardinal points—being the minimum demand of the profession—was agreed on at a Special Representative Meeting held in London on May 31st and June 1st. This policy was issued to every member of the profession, and an active canvass was at once started in each Division in order to secure the support of every practitioner to the Association's policy and to a memorial to members of Parliament. This resulted in nearly 20,000 medical practitioners signifying their support. Your Committee actively got to work and sought (1) to obtain the signature of each medical practitioner to the pledge in favour of the foregoing policy, (2) to get each one to subscribe to the Defence Fund, (3) to get all non-members to join the Association. The local members of Parliament were addressed by letter and the then member for South Manchester was seen by deputation. This interview and the answers to the letters showed that the local members of Parliament had little grasp of the medical provisions of the bill, but that they were willing to support anything "reasonable." A considerable number of new members was at this time added to the list of the Division. At the end of June a deputation from the Association waited upon Mr. Lloyd George, and in that interview he agreed to: (1) Free choice of doctor; (2) representation (*a*) on the Board of Insurance Commissioners. (*b*) on the Advisory Committee, (*c*) on the Health Committee; (3) recognition of a local medical committee. He would promise little in relation to the freedom from control by the friendly societies, and absolutely nothing as to the income limit. In July the Joint Committee offered to organize a defence fund, and this suggestion was adopted by the Division. Later it decided that the fund should be worked from the Central Office, leaving each member to earmark so much for local purposes, which proportion the Division recommended should be one-fifth. In the middle of July the Division had under consideration the Special Report of the Council on the position it had acquired in relation to the medical provisions of the bill. The Division showed considerable dissatisfaction with what had been achieved, feeling that though the Council had made attempts by negotiations, nothing in substance had been obtained. The Division therefore instructed its representative to urge postponement of the discussion of the medical section of the bill till a satisfactory arrangement had been arrived at with the profession, and if this could not be effected to cease negotiations. After the Annual and Special Representative Meetings in July there was an interval in which no action was taken. The campaign was again started in September. At this time the Central Office was seeking all the information it could get about friendly society institutes in view of the Harmsworth amendment, and the possibility of institutes existing at the time of the passing of the bill into law continuing their *status quo* as to their medical arrangements. Towards the end of September, in view of the approaching conference between the Association and the friendly societies to be held in London on October 9th, the Manchester Unity Friendly Society issued a circular to all their medical officers asking them their views with regard to their present existing contracts. The Association, through the organization of the Divisions, suggested a form of answer to be given by all practitioners addressed by the Manchester Unity. This was to the effect that they desired freedom from control by friendly societies and free choice of doctor and patient. As a result of the conference it was understood that most of the medical officers had replied in accordance with the advice and policy of the British Medical Association. In November, 1911, the Council issued a special report on the bill after it had passed through the Committee stage of the House of Commons. This the Division considered at a meeting on November 21st, and a resolution was passed recommending the Council to cease negotiations on account of the unsatisfactory progress made to that date. The Division also recommended the consideration of compensation to medical men who might suffer as a result of the National Insurance Act. At the beginning of December the members of Parliament in the Division were addressed by letter, which stated again the determined policy of the Association in regard to the medical benefits of the bill. To this letter only one member (Sir A. A. Haworth) replied. December probably was the most critical month to the Association in relation to the bill. During this month another energetic campaign to canvass all the practitioners in the Division was undertaken, and when the work had been entered upon, the announcement of the Prime Minister's offer to Mr. Smith Whitaker, Medical Secretary to the Association, to become the Deputy Chairman of the Insurance Commissioners was made. This created a feeling of distrust of the Government amongst the members of the profession, and to this was added indignation when it was understood that the Medical Secretary had accepted the post on the recommendation of the Central Council. All action and feeling appeared to be centred on this political move, and the canvass efforts were rendered more or less futile. The appointment undoubtedly had the effect of splitting the profession; one section in which our Division is included disapproved of the appointment, but adhered loyally to the policy of the Association, another section proceeded to the formation of outside organizations with varied policies. These bodies and several Divisions of the Association spread broadcast a mass of resolutions, nearly all of a strike nature. The indignation that had been stirred up in December continued during January and into February until the Special Representative Meeting held in this month, after a most exhaustive debate, again restored to a great extent unanimity within the profession. In January the attempt to collect reliable details as to the remuneration of medical officers of clubs was not a success, because only one or two of these officers had kept details of their work done in that connexion. To the Special Representative Meeting in February the Division sent a resolution asking the Chairman and Deputy Chairman of the Representative Body to resign. The six recommendations contained in the Report of the Council were approved, with modifications to Nos. 5 and 6. The recommendations were: (1) That negotiations proceed; (2) that no negotiations be entered into with any Insurance Committee till the six cardinal points were granted; (3) that Provisional Medical Committees be formed to organize the profession so as to prevent contract medical practice continuing at rates lower than those approved by the Association, and that a State Sickness Insurance Committee be formed. Another resolution was also sent to the effect that, unless the six cardinal points were placed beyond doubt, further negotiations would be useless.

By-election.—In March of this year there was a by-election in the South Manchester Parliamentary Division. The three local Association Divisions concerned (South, Central, and West) met to consider the proposal to send a deputation to the candidates. This proposal was rejected, and it was decided to issue a manifesto to inform the public regarding the objections of the profession to the medical provisions of the Act. This manifesto was issued to all the Manchester daily papers and the *Times*, and copies were sent to the candidates. The Liberal candidate, who held Government office, was defeated.

Provisional Local Medical Committees.—In accordance with Minute 63 (Special Representative Meeting, February 1912) the Council urged this Division to proceed to the election of a Provisional Local Medical Committee (P.L.M.C.). Your Committee suggested the appointment

of an organization subcommittee to draw up a scheme for the election and plan of campaign of the P.L.M.C., this subcommittee to be drawn from the various districts of the Division, with Dr. A. E. Cotterill as the Honorary Secretary. The Division approved, and this subcommittee proceeded to hold meetings in the eight subdistricts so that the object of the P.L.M.C. might be explained and that each subdistrict might nominate its representatives on the P.L.M.C. These subdistrict meetings were held, and the Division subsequently elected their nominees to form the P.L.M.C. The canvass was at once started to get all practitioners (1) to join the Association, (2) to guarantee to the Defence Fund, (3) to sign the complementary pledge, (4) to send in their resignations of contract appointments to the Honorary Secretary to be used if necessary, (5) and get those who had no clubs to promise their loyalty in refusing to take any appointment so resigned. This Committee is now busily engaged in its work, and so far the results have been most satisfactory. For election on the Advisory Committee the Division nominated Dr. T. A. Helme, and for the Central Council Dr. T. A. Helme and Dr. S. Hodgson; and for election on the General Medical Council, Dr. Langley Browne, Dr. Latimer, and Dr. Ferguson.

The report on being put to the meeting was unanimously adopted.

Treasurer's Report.—The financial statement was made by the TREASURER and unanimously adopted. The Treasurer explained that all the money available for this year's expenses had been spent, and there was a deficit of 19s. 9d. To meet the expenses to the end of this year the CHAIRMAN proposed that a levy of 2s. 6d. per capita be made. This proposal was carried unanimously.

Election of Officer-bearers for 1912-13.—Dr. STOWELL proposed and Dr. HOLT seconded:

> That the present office-bearers remain in office during the coming year.

Dr. Stowell felt that the special knowledge which the officers had acquired during the past year was essential to complete successfully the programme in relation to the Insurance Act. Whereupon, the CHAIRMAN, while thanking the proposer and seconder for their expression of confidence, pointed out that, apart from personal reasons, the rules of the Division prevented him from accepting office within the next three years. Dr. HOLT proposed that this rule be abrogated for the time being, but the CHAIRMAN stated that no Division rule could be repealed without giving a printed notice of fourteen days. He therefore ruled that the election of new office-bearers be proceeded with. The following office-bearers were then unanimously appointed for the year 1912–13: *Chairman*, H. E. Edlin, M.R.C.S.; *Vice-Chairman*, T. A. Goodfellow, M.D.; *Honorary Secretary and Treasurer*, A. M. Mitchell, M.B.; *Representative on Branch Council*, W. P. Stocks, F.R.C.S., S. C. Salter, M.R.C.S.; *Representative for Representative Meeting*, W. P. Stocks, F.R.C.S.; *Committee*, G. E. Helme, M.B. (Rusholme), G. Stowell, M.B. (Heaton Mersey), R. G. Heathcote, M.R.C.S. (West Didsbury), A.W. Martin, L.R.C.P.and S. (Gorton), D. Booth, M.D. (Heaton Chapel); *Representative on Joint Committee*, Chairman, Honorary Secretary and Representative (*ex officio*, A. E. Cotterill, M.R.C.S., G. H. Grant Davie, M.B.

Installation of Chairman.—Dr. EDLIN then took the chair.

Vote of Thanks to Past Officials.—The CHAIRMAN then proposed a hearty vote of thanks to the past Chairman, Secretary, and other officers for the good work they had accomplished on behalf of the Division during their year of office. This was carried with acclamation. The PAST CHAIRMAN and SECRETARY suitably replied.

Provisional Local Medical Committee. — Dr. A. E. COTTERILL, Honorary Secretary of the Provisional Local Medical Committee, then gave a short account of the work of canvassing the medical practitioners in this Division, which showed that satisfactory progress was being made. Dr. SARJANT expressed very strongly his fears in regard to the lack of information as to the proceedings between the Association and the Commissioners at the present time. He felt that negotiations might be going on whilst members of the Association were being kept in complete ignorance. He desired to know if something could be done to strongly urge the State Sickness Insurance Committee to find out immediately whether or not the seven cardinal points were to be conceded by the Commissioners, so that no distrust might be felt in regard to the proceedings of the delegates of the Association on the Advisory Committee. The CHAIRMAN pointed out that the duties of the Advisory Committee did not consist in negotiations between the Government and interested parties, but that their whole function was advisory in relation to the drawing up of rules and regulations. Dr. COTTERILL showed that their strength lay in organizing the Division in every detail on the lines advocated by the State Sickness Insurance Committee, and thus being ready for any emergency.

MANCHESTER (WEST) DIVISION.

A MEETING of this Division was held in the Technical Institute, Old Trafford, on Thursday, May 16th, at 9 p.m. Dr. PROWSE occupied the chair. There were also present: Drs. Boyd, Brown, Brierley, Coates, Daly, Dearden, Eales, Edge, Farrow, Floyd, Garrett, Hart, Harthan, Helm, Knight, Lawton, Mockler, Morrison, Paterson, Redmond, Scanlon, Strange, and O. H. Woodcock.

Expenditure by Divisions.—A letter was read from the Honorary Secretary of the Branch with regard to expenditure by Divisions. It was resolved that the Secretary of the Division should apply for a grant of 2s. 6d. per member.

The Insurance Commissioners and the Association.—A letter was read from the Joint Committee of the Manchester and Salford Divisions with regard to the position of the Advisory Committee in view of the dilatoriness of the Insurance Commissioners in giving a reply to the demands of the Association. On the motion of Dr. HART, seconded by Dr. BRIERLEY, the action of the Joint Committee in the matter was approved.

Central Defence Fund.—A letter was read from head quarters with regard to the Central Defence Fund. The following resolution was carried, on the motion of Dr. HART, seconded by Dr. O. H. WOODCOCK:

> That this Division of the British Medical Association undertake a canvass of all those who have not already subscribed to the Central Defence Fund with a view to persuading them to subscribe, and that the former committee for that purpose be reconstituted.

Nominations for Central Council.—It was resolved by a majority of 17 to 2 to nominate Dr. E. S. Reynolds and Dr. J. E. O'Sullivan for the Central Council of the Association.

Proposed Amalgamation with Manchester and Salford Divisions.—The following resolution was moved by Dr. WESTWOOD (in the absence of Dr. Stenhouse) and was seconded by Dr. HART, and carried by 13 to 9:

> That we rescind the resolution of October 10th, 1911, to amalgamate the Manchester and Salford Divisions to form one Division of the British Medical Association, and that we decide to remain as at present constituted.

Provisional Local Medical Committee.—On the motion of Dr. WESTWOOD, seconded by Dr. HART, it was unanimously resolved:

> That a Provisional Local Medical Committee be formed with a view to getting the Association pledge signed, and that each of the five districts of the Division shall appoint two members to this Committee, and that the Chairman and Secretary of the Division shall be *ex officio* members.

Invitation to Members Nominated for Central Council.—It was resolved to invite Drs. Reynolds and O'Sullivan to give addresses on their policy at the annual meeting of the Division.

ANNUAL MEETING.

The annual meeting of this Division was held in the Technical Institute, Old Trafford, on Thursday, May 23rd. Dr. PROWSE occupied the chair, and the following members of the Division were present: Drs. Barnes, Brierley, Brayton, Brown, Beaumont, Boyd, Cousins, Cairnie, Coates, Daly, Dearden, D'Ewart, Eales, Edge, Farrow, Floyd, Garrett, Hart, Williams Jones, Knight, Lawton, Mockler, Paterson, Padmore, Stenhouse, Strange, Steele Smith, Scanlon, Walker, Webster, Worswick, O. H. Woodcock, and H. B. Woodcock.

Addresses of Members Nominated for Central Council.—Dr. J. E. O'SULLIVAN and Dr. E. S. REYNOLDS delivered addresses setting forth their views of policy with regard to

the National Insurance Act. The following resolution was then moved by Dr. BRIERLEY, seconded by Dr. STENHOUSE, and carried with two dissentients:

> Having heard the addresses of Dr. E. S. Reynolds and Dr. J. E. O'Sullivan, this meeting considers them suitable representatives of the Lancashire and Cheshire Branch in the Council of the Association, and pledges itself to use all legitimate means to secure their return at the head of the poll in the approaching election.

Gentlemen who were not members of the Division then retired.

Circular from Medical Officer of Health.—A letter was read from the Manchester (North) Division with regard to a circular which had been sent out to the profession by the Medical Officer of Health for Manchester, requesting statistics as to the prevalence of tuberculosis in private practices. It was resolved to decline to furnish the required particulars unless an assurance be received from the medical officer of health that 10s. 6d. will be paid for each report.

Resolution of Chelsea Division.—A letter was read from the Chelsea Division, but it was decided to take no action thereon.

Election of Officers.—The meeting then proceeded to the election of officers for the ensuing year. The following were elected: *Chairman*, Dr. Edge; *Vice-Chairman*, Dr. Westwood; *Honorary Secretaries*, Drs. Knight and W. A. Helm: *Representative to Annual Representative Meeting*, Dr. Dearden; *Representatives on Branch Council*, Drs. Hart and Prowse; *Representatives on Joint Committee*, Drs. Brown, Edge, Hart, Knight and Prowse; *Executive Committee*, Drs. Boyd, Brown, Dearden, Edge, Floyd, Hart, Helm, Knight, Mockler, Prowse, O. H. Woodcock and H. B. Woodcock.

ST. HELENS DIVISION.

THE annual meeting was held on May 29th, in the Fleece Hotel, St. Helens. Dr. REID, Chairman, presided, and there were also present: Drs. Cooke, Challonor, Masson, Wilson, Thompson, Graham, Latham, Merrick, Bassett, Holden, Fox, Youatt, Wild, Donnellan, Dowling, Dow, Reid, and Buchan. Drs. Rentoul and O'Sullivan attended as visitors.

Election of Officers.—The following office-bearers were elected for 1912-13: *Chairman*, Dr. Reid: *Vice-Chairman*, Dr. Dowling; *Representative on Branch Council*, Dr. Bassett; *Honorary Secretary and Treasurer*, Dr. Buchan; *Members of Executive Committee*, the office-bearers and Drs. Masson, Wilson, Cooke, Youatt, Watkins, Fox, Merrick, Kerr, and Jackson.

Central Council Election.—Dr. O'SULLIVAN then addressed the meeting regarding the Central Council election and replied to the queries of the members, and after Dr. RENTOUL had spoken he was heartily thanked for his address.

SOUTHPORT DIVISION.

THE annual meeting of this Division was held at the Temperance Institute, Southport, at 8.15 p.m. on May 31st. Dr. LITTLER was in the chair, and there were present: Drs. Ashworth, Baildon, Barwise, Bentall, Cairns, Campbell, Collier, Corkhill, Dall, Woolmer Davies, Edmiston, Harris, Lewis, Penrose, Pridie, Maccall, Reid, Schofield, and Speirs.

Apologies for Non-attendance.—Apologies were received from Drs. Brown, Scott, Swete-Evans, and Walker.

Confirmation of Minutes.—The minutes of the last annual meeting were read and confirmed.

Election of Officers.—Dr. Mewburn Brown was elected Chairman for the year, but in his absence Dr. LITTLER remained in the chair for the rest of the meeting; Dr. Mackay was elected Vice-Chairman; Dr. Baildon Representative at Representative Meetings and Dr. Schofield, Deputy; Drs. Baildon and Harris, Representatives on Branch Council; Dr. Harris, Secretary and Treasurer; and Drs. Littler, Lewis, Pridie, and Speirs, Members of the Executive Committee.

Report of Executive Committee.—The annual report of the Executive Committee was read.

National Insurance Act.—The SECRETARY reported that so far he had received about 100 returns as the result of the canvass of the profession in connexion with the National Insurance Act, and held the resignations of about twenty medical officers of clubs.

Local Defence Fund.—The SECRETARY further reported that he had in hand £52 19s., the balance of subscriptions received to the Local Defence Fund, and was instructed to send £50 to the Central Defence Fund.

Central Council Election.—It was resolved unanimously:

> That instruction of our Representative as to the candidate he should support for election at the Representative Meeting be postponed for consideration at another meeting of the Division, to be held before the Representative Meeting.

It was moved:

> That Drs. O'Sullivan and Reynolds be recommended to members of the Division for their support.

But an amendment was carried:

> That the election be left to the judgement of the individual members of the Division.

Payment of Personal Expenses of Representatives.—It was resolved unanimously:

> That, while appreciating the suggestion that Representatives' expenses in addition to railway fares should be paid, this Division considers it inexpedient to vote the payment at the present time.

Resignation of Membership of the Association.—The recommendation to alter the by-law as suggested by Council was approved.

Maps of Divisions and Branch Areas.—The recommendation of Council was approved.

Referendum and Postal Vote.—The recommendation of Council was approved.

Machinery of Association in connexion with Disputes.—This matter was left to the discretion of the Representative.

Medical Federation, Limited.—This question was also left to the discretion of the Representative.

Division Meetings to be held after Representative Meetings.—The recommendation of the Special Representative Meeting on this subject was approved.

Position of Practitioners examining Patients under Care of other Practitioners.—The alteration proposed in the report in regard to this was left to the discretion of the Representative.

Co-operation of Divisions in Ethical Cases.—This was left to the discretion of the Representative.

Model Ethical Rules.—It was resolved *nemine contradicente*:

> That this Division recognizes the desirability of the adoption of uniform ethical rules throughout the Association, but leaves the details of the recommendations to the judgement of their Representative, requesting him especially to satisfy himself on the legal safety of the adoption of Rule Z.

Question of Diploma in Psychiatry.—This matter was left to the discretion of the Representative.

Death Certification.—The recommendation to refrain in future from filling in particulars of the duration of disease in any statutory death certificate was approved.

Employment of Medical Students by Practitioners.—The recommendation of Council was approved.

Certificates and Reports of Cases under Workmen's Compensation Act, under Employers' Liability Act, and at Common Law.—The recommendation of Council was left to the discretion of the Representative.

Question of Definition of "Official Duties" of Medical Officers of Health.—The recommendation of Council was approved.

Enlargement of Public Health Committee of Association.—The recommendation of Council was left to the discretion of the Representative.

METROPOLITAN COUNTIES BRANCH:

NORTH MIDDLESEX DIVISION.

THE tenth annual meeting of this Division was held on May 30th, at the Prince of Wales's Hospital, Tottenham. Dr. H. B. BRACKENBURY was in the chair, and over fifty members were present.

Confirmation of Minutes.—The minutes of the meeting of North Middlesex practitioners and of the fifth ordinary meeting of the Division of May 9th were signed as correct.

The late Dr. Butler Hogan.—A vote of condolence with the family of the late Dr. Butler Hogan, Medical Officer of Health for Tottenham and a member of the Division, was passed unanimously.

Powers of the General Medical Council.—The Division's Representative was instructed to support the resolution on the subject passed by the Chelsea Division on May 7th last.

Nomination of Officers of the Branch.—Dr. Langdon-Down was nominated as President-elect of the Branch.

Election of Officers.—The following gentlemen were then elected officers: *Representatives at Representative Meetings*, J. R. Fuller and J. P. Lowson; *Representatives on Branch Council*, H. B. Brackenbury and L. Grant; *Chairman*, J. R. Bryce; *Vice-Chairman*, H. B. Brackenbury; *Members of Executive Committee*, C. G. Burton, H. Distin, W. J. O'Meara, F. A. Spreat, R. T. Vivian, F. C. Wood; *Honorary Secretary and Treasurer*, J. A. Percival Barnes.

Annual Report of Executive Committee.—The annual report of the Executive Committee had been circulated and was adopted.

Fee for Examination of Entrants to an Approved Society.—Dr. C. G. Burton opened a discussion on this subject, and the following resolution was finally carried:

> That all members of this Division pledge themselves not to examine any person for an approved society for a less fee than half a crown unless under a contract at present to do otherwise.

This terminated the proceedings.

South-West Essex Division.

Provisional Medical Committee.

The following have been elected by postal vote to form the Local Provisional Medical Committee for this Division.

Walthamstow.—Drs. H. McD. Borland, J. Brown, C. J. Horner, Rowland Jones, St. C. B. Shadwell, and C. H. Wise (members); Drs. C. E. Brunton and H. Thornton Challis (non-members).

Leyton and Leytonstone.—Drs. A. Aldrich, F. H. Bonnefin, J. O. Goldie, C. F. Harford, C. H. Panting, and H. Harding Tomkins (members); Drs. W. G. Noble and J. L. Simpson (non-members).

County.—Drs. A. Berrill, J. C. Crawford, C. E. Denning, C. R. Dykes, E. J. F. Hardenberg, and A. Butler Harris (members); Drs. F. Argles and J. D. Cruickshank (non-members). *Ex officio* members are the Chairman, Vice-Chairman, and the Honorary Secretary of the Division.

The first meeting will be held on Tuesday, June 11th, at 4 p.m.

St. Pancras and Islington Division.

Election of Representatives.—Dr. William Griffith and Dr. R. M. Beaton have been elected Representatives for Representative Meetings for 1912–13.

Willesden Division.

The first meeting of the new Willesden Division was held at St. Gabriel's Hall, Anson Road, Cricklewood, on May 30th, at 3.30 p.m. There were present: Drs. Archibald, Anley, Beedham, Bindley, Bridger, Cardinall, Cohen, Whitehall Cooke, Cruden, Percy Evans, Goldfoot, Coram James, Kirkwood, Lock, Macauley, Macevoy, Parr, Rawes, Rutherford, Skene, Anderson Smith, Smurthwaite, Carson Smyth, Soden, Snowman, Traylen, Tudge, Ziemann, and others. Dr. Macevoy proposed, and Dr. Traylen seconded:

> That Dr. Coram James take the chair.

This was carried *nemine contradicente*.

Executive Committee.—Dr. Macevoy proposed and Dr. Whitehall Cooke seconded:

> That the Executive Committee shall consist of twelve members, together with the officers of the Division.

This was carried *nemine contradicente*.

Election of Officers.—The following officers were unanimously elected: *Chairman*, Dr. Coram James; *Vice-Chairman*, Dr. Macevoy; *Honorary Secretary*, Dr. Soden; *Representative on Branch Council*, Dr. Traylen. The election of a Representative to the Representative Meeting was postponed, as the Division has been formed too late to be separately represented, it being represented, however, by the representatives elected by the Hampstead Division, from which it recently has been divided off. *Committee*: The following were elected by ballot as members of the committee:—Drs. Armitage, Bindley, Cardinall, Whitehall Cooke, Crone, Macauley, Anderson Smith, Smurthwaite, Carson Smyth, Rawes, Rutherford, and Skene.

Model Rules for a Division.—The model rules for a Division, as suggested by the Organization Committee, were then adopted with such additions and variations as were considered suitable to the size and numbers of the Division. The adoption of the Ethical Rules was postponed. The Honorary Secretary was instructed to send to the Secretary of the British Medical Association a report of the meeting and a copy of the model rules as adopted, and to see that each member of the committee received a copy.

MIDLAND BRANCH.

Derbyshire Division.

The annual meeting of this Division was held at the Derbyshire Royal Infirmary on May 24th. Mr. E. Collier Green was in the chair. There were twenty members present.

Election of Officers.—The following officers were elected for the ensuing year: *Chairman*, E. Collier Green; *Vice-Chairman*, W. St. A. St. John; *Branch Council*, Drs. Chawner, Cassidi, Sims, and W. B. A. Smith; *Executive Committee*, Drs. Boswell, Barber, Heyworth, and Wraith; *Treasurer*, Dr. Barber; *Honorary Secretary and Representative*, Dr. G. K. Smiley, 112, Kedleston Road, Derby.

Proposed New Division.—The following resolution was passed unanimously:

> That this Division approves of the formation of a Division in and around Chesterfield within the boundaries of the area of the Hundred of Scarsdale.

Nottingham Division.

The annual meeting of this Division was held at 64, St. James's Street, on May 22nd, Dr. Fulton in the chair. There were sixty-three members present.

Confirmation of Minutes.—The minutes of the previous annual meeting were read and approved.

Work of the Division.—The Chairman reviewed the work of the Division for the past year. This had been rendered very arduous by the organization of the profession locally with regard to the negotiations under the National Insurance Act. There had also been an increase in the number of scientific meetings. The membership had increased from 133 to 200.

Annual Report and Financial Statement.—The annual report and statement of accounts were submitted and approved.

Election of Officers.—The following officers were elected: *Chairman*, Dr. F. H. Jacob; *Vice-Chairman*, Dr. A. Fulton; *Honorary Secretaries and Treasurers*, Dr. J. H. Mackie, Dr. J. Wilkie Scott; *Representatives*, Dr. A. Fulton and Dr. E. Houfton, and Dr. T. Davies Pryce to act in the possible inability of either of the above mentioned to attend; *Representatives on Branch Council*, Dr. J. H. Cox, C. H. Allen, E. H. Houfton, H. Francis, E. Ringrose. An Executive Committee of sixteen was elected.

Vote of Thanks to Retiring Chairman.—The thanks of the meeting were voted to the retiring Chairman, who had also acted as Representative.

NORTH OF ENGLAND BRANCH:

Bishop Auckland Division.

The annual meeting of this Division was held in the Wear Valley Hotel on May 18th, Dr. Kane, the President, in the chair.

Election of Office-bearers.—The first business was the election of office-bearers for the forthcoming year. Dr. Kane was unanimously re-elected Chairman. The Secretary (Dr. Hernaman-Johnson), having intimated that stress of work compelled him to seek relief from his duties, was elected Vice-President, and was accorded a very hearty vote of thanks for his conduct of the secretarial office. Dr. A. C. Farquharson was then appointed to the vacant secretaryship. Dr. Kane, Dr. Smeddle, and Dr. A. C. Farquharson were appointed Representatives to the Branch Council.

Provisional Local Medical Committee.—The meeting then proceeded to deal with the question of the formation of Provisional Medical Committees, National Insurance Act. The following resolution was carried unanimously:

That this Division is of opinion that steps should be taken immediately to form a Provisional Medical Committee for the administrative county of Durham.

Supplementary Pledge.—The following resolution was carried unanimously:

That this meeting is of opinion that all members of the Division should sign the above pledge, agreeing to place their resignation of friendly society appointments in the hands of the local Secretary, and that steps should at once be taken for its circulation.

NORTHERN COUNTIES OF SCOTLAND BRANCH:

INVERNESS-SHIRE DIVISION.

A MEETING of this Division was held in Inverness on May 4th, Dr. JOHN MACDONALD (Inverness) presiding.

Election of Officers.—The following were elected office-bearers: *Chairman*, Dr. Duncan MacFadyen, sen.; *Vice-Chairman*, Dr. Miller (Fort William); *Honorary Secretary*, Dr. J. W. Mackenzie (5, Castle Street, Inverness); *Representatives on Branch Council*, Dr. John MacDonald (Inverness), Dr. Thomas MacDonald (Beanby); *Executive Committee*, Dr. Balfour (Aviemore), Dr. Gillies (Inverness), Dr. Johnston (Fort Augustus), Dr. Lindsay (Andersier), Dr. F. M. Mackenzie (Inverness), Dr. T. C. Mackenzie (Inverness).

OXFORD AND READING BRANCH:

MAIDENHEAD DIVISION.

THE annual meeting of this Division was held at Skindle's Hotel, Maidenhead, on Thursday, May 30th. Dr. G. E. MOORE was in the chair. There was a large and representative attendance of members, among those present being the following: Drs. Elgood and Scott (Windsor), Drs. Norris and Amsler (Eton), Dr. Glegg (Datchet), Drs. Charsley, Sadler, and Meggs (Slough); Dr. Jagger (Bourne End), Dr. Floyer (Egham), Drs. Dickson and Wills (Marlow); Drs. Moore, Edge, Whitting, Howard, and Munro, Honorary Secretary (Maidenhead).

Apologies for Non-attendance.—Apologies for absence were received from Dr. Hawkins (Reading), Dr. Hodgson (Chertsey), and Mr. Skevington (Windsor).

Election of Representative.—On the motion of the CHAIRMAN, seconded by Mr. CHARSLEY, Dr. Macleod Munro (Honorary Secretary) was unanimously elected Representative for the Division.

Chairman's Address.—The CHAIRMAN then gave his address, taking for his subject the Various Aspects of Coliuria. An interesting discussion, in which Drs. EDGE, CHARSLEY, WHITTING, and MUNRO took part, followed.

Vote of Thanks.—On the motion of Dr. ELGOOD, seconded by Dr. NORRIS, the Chairman was accorded a hearty vote of thanks.

Dinner.—At the invitation of Dr. MOORE, the members of the Division and the members of the Windsor Medical Society dined together after the meeting.

OXFORD DIVISION.

A SPECIAL general meeting of this Division was held on May 31st at the Radcliffe Infirmary, Oxford, at 3.30 p.m. Mr. STYLE was in the chair, and forty-five members attended.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Provisional Medical Committee.—The report of the Provisional Medical Committee was read and accepted.

Supplementary Pledge.—The preliminary canvass of the district had been very satisfactory, and it was now proposed to issue pledges and notices of resignation for signature. A discussion took place on clause (i) of the third paragraph of the pledge, which raised the question of hospital treatment of insured persons. Eventually it was proposed by Dr. NELSON and seconded by Mr. DODDS-PARKER:

That a subcommittee be formed to advise on this matter, this committee to consist of three representatives of the Radcliffe Infirmary staff, together with Dr. Cheatle, Dr. Nelson, and Dr. Scott to represent cottage hospitals, Dr. Boissier to represent Banbury district, Dr. Turrell as representing Oxford practitioners, and Mr. Style, Chairman of the Division.

This was carried *nemine contradicente*. Dr. Wood, of Bampton, was co-opted a member of the Provisional Medical Committee. At the conclusion of the meeting thirty-one members signed the pledge.

SOUTHERN BRANCH:

GUERNSEY AND ALDERNEY DIVISION.

THE annual meeting of this Division was held on May 30th at Gardner's Royal Hotel.

Annual Report and Financial Statement.—The HONORARY SECRETARY read his annual report and financial statement, which were approved by the meeting.

Election of Officers.—The office-bearers for 1912–13 were elected unanimously as follows: *President-elect*, H. D. Bishop, M.D., M.R.C.S., M.O.H. of Guernsey; *Honorary Secretary and Treasurer*, J. F. Carruthers, M.D.; *Librarian*, M. H. Bulteel, M.R.C.S.; *Representative on Branch Council*, Major Myles, R.A.M.C.(ret.).

Executive Committee.—The appointment of a permanent Executive Committee was confirmed.

Annual Dinner.—The annual dinner followed, His Excellency the Lieutenant-Governor and the Procureur du Roi being present as official guests of the Association. The Bailiff of Guernsey, being unfortunately absent in England, was unable to attend. Twenty-seven in all sat down, and a very enjoyable evening followed.

Representative of Jersey and Guernsey and Alderney Divisions.—Dr. J. F. Carruthers was re-elected Representative to Representative Meetings at the Conjoint Meeting of the Jersey and Guernsey with Alderney Divisions, held at Jersey on May 1st.

PORTSMOUTH DIVISION.

Provisional Medical Committee.

THE first meeting of the Provisional Medical Committee which was elected in accordance with a resolution passed at a meeting of members of the medical profession residing within the area of the Portsmouth Division was held on May 21st. All the members elected were present, with one exception. Mr. C. P. CHILDE, F.R.C.S., was called to the chair.

Mr. JAS. GREEN read the report of the scrutineers of the recent voting; this was unanimously adopted.

Dr. SHEAHAN proposed, and Mr. A. BOSWORTH WRIGHT seconded:

That Mr. C. P. Childe be elected Chairman of the Committee.

This was carried unanimously.

Mr. SALMOND proposed, and Dr. BLACKMAN seconded:

That Mr. L. K. H. Hackman be elected Honorary Secretary of the Committee.

This was carried unanimously.

Dr. SHEAHAN proposed, and Mr. H. D. BROOK seconded:

That the Secretary be instructed to take a second vote to determine the representation of Havant and Hayling Island, as there was a tie.

This was carried unanimously.

D 46. The memorandum was read by the CHAIRMAN, and a general discussion followed, during which the Chairman read by request the Memorandum D 49. Dr. COLE-BAKER urged that the pledge be first signed by all who do not hold clubs. Dr. A. V. MAYBURY thought that the Committee should sign first. Mr. SALMOND spoke, as a holder of large clubs, of the difficulty of deciding without knowing exactly the scope of the pledge.

Dr. MUMBY proposed and Mr. SCOTT RIDOUT seconded:

That the Secretary obtain a sufficient number of copies of Memorandum D 49 for the use of the Committee.

This was carried unanimously.

Paragraph 12, Section (*a*). Mr. BLACKWOOD proposed and Mr. LOCKHART STEPHENS seconded:

That a subcommittee be appointed for dealing with Section (*a*).

This was carried unanimously.

Section (*b*). Mr. A. BOSWORTH WRIGHT proposed and Dr. MCELDOWNY seconded:

That the consideration of Section (*b*) be deferred to the next meeting.

This was carried unanimously.

Finance.—Dr. McELDOWNY proposed and Dr. COLE-BAKER seconded:

That a finance subcommittee be appointed to deal with all financial business of the Committee.

This was carried unanimously.

Paragraph 14. Mr. L. K. H. HACKMAN proposed and Dr. MUMBY seconded:

That this Committee agrees to recognize the Council of the Southern Branch of the British Medical Association as the local co-ordinating authority as mentioned in Paragraph 14 of the Memorandum.

This was carried unanimously.

The other business consisted of appointing the above subcommittees, the fixing of meetings, and attention to correspondence.

SOUTH MIDLAND BRANCH:

BUCKINGHAMSHIRE DIVISION.

THE annual meeting of this Division was held on Wednesday, May 22nd, at the Royal Bucks Hospital. All the medical men resident in the Division had been invited. Dr. E. O. TURNER was in the chair, and later Dr. BENSON. There were also present: Drs. J. C. Baker, Bradbrook, G. D. K. Bannerman, F. A. Cooke, D. E. Darbyshire, T. G. Drake, J. G. Durran, England, Graham, Hardwicke, E. H. Helby, Dundas Irvine, Henderson, Square, Smith Wynne, Gardner, Kerr, Larking, Lang, Freeman Long, Moberley, Magrath, McFarland, Rose, L. W. Reynolds, Perrin, Bruce Pearson, T. E. Pemberton, P. Stedman, Shaw, Watson, Wheeler, Vaisey, making a total of thirty-five.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Annual Report and Balance Sheet.—The annual report and balance sheet were read and adopted. The following is the text of the report: The present number of members is 78, an increase of 16 during the year. Six meetings have been held, with an average attendance of 27. The largest meeting was one when 36 attended; the smallest, 20. A list of non-members is now issued from the Central Office, and it appears that there are 33. Of these 9 have retired from practice, 2 have left the district, 3 do not practise in the district, leaving 19 who ought to belong to the Association. The number of members who attended at least one meeting was 54, an increase of 15 on last year. Three committee meetings have been held, and nearly every member attended each time. The financial statement shows that, after paying a deficit of £2 5s. 6d. from last year, expenses amounting to £9 6s. 3½d., or about 2s. 4d. per member, have been incurred. Nearly all this is due to the Insurance Act, which has led to more meetings and much expense in postage and stationery. The scientific work of the Association has been put in the background, the only opportunities for this being a very instructive address by Mr. Mower White on "Injuries of the Stomach and Intestines" and a clinical meeting, at which interesting cases were shown by the staff of the Royal Bucks Hospital. In connexion with the Insurance Act deputations waited upon the local members of Parliament, and a defence fund to which £250 has been guaranteed from this Division has been formed, and the undertaking has also been signed by nearly every practitioner. The Division decided to nominate Dr. Durran, of Leighton Buzzard, for the Central Council at the forthcoming election. It is to be hoped that with the formation of a Provisional Local Medical Committee the work connected with the Insurance Act will be handed over to these and the work of the Division will resume its ordinary routine. Members are reminded that an annual sum of 2s. 6d. each is due to the Entertainment Fund. There is a deficit in connexion with this, and the Committee ask those who have not contributed to do so at once.

Financial Statement.—The following is the financial statement:

Receipts.

		£	s.	d.
July, 1911.	Received from Treasurer ...	7	15	0
March, 1912.	Extra grant	3	17	0
		11	12	0

Expenditure.

	£	s.	d.
Deficit from last year	2	5	6
Printing and stationery	4	1	0
Postage	3	5	3½
Clerical aid	0	10	0
Clinical meeting	0	15	0
Hire of room	0	15	0
Cash in hand	0	0	2½
	11	12	0

Examined and found correct,

JAMES SHAW.
J. C. BAKER.

Election of Officers.—The officers were elected as follows: *Chairman*, Dr. P. L. Benson; *Vice-Chairman*, Dr. J. Shaw; *Secretary and Treasurer*, Dr. Larking; *Representative*, Dr. Bradbrook; *Deputy Representative*, Dr. Durran or another nominated by Dr. Bradbrook; *Branch Council Representatives*, Dr. Baker and Dr. Durran; *Committee*, Drs. Reynolds, E. O. Turner, H. Wheeler, H. Rose, Perrin, and Henderson.

Report of Central Council.—The report of the Central Council was discussed.

Instruction to Representative.—The Representative was instructed to vote against the proposal by the East Norfolk Division and to suggest that a special fund should be raised in each Division to defray these and other expenses, such as is now the custom in the Buckinghamshire Division.

Fees for Workmen's Compensation Certificates.—The question of payment of fees for certificates, etc., *re* Workmen's Compensation Act was discussed, and it was thought that the suggested fees of £1 1s. and 10s. 6d. were too high for certificates.

Provisional Local Medical Committee.—The memoranda D46 and D49 from the Medical Secretary were read and the election of the Provisional Local Medical Committee was proceeded with. Dr. WHEELER proposed and Dr. MOBERLEY seconded:

That the committee consist of twenty members with the Division Committee as a nucleus.

An amendment was proposed by Dr. MAGRATH and seconded by Dr. REYNOLDS:

That the Committee consist of thirty-two members.

An amendment was proposed by Dr. PEMBERTON and seconded by Dr. BRUCE PEARSON:

That a committee of twenty be elected from the different districts according to the lists, and that the Committee of the Division do not form the nucleus, but that the Chairman and Secretary of the Division be *ex officio* members.

The first amendment was defeated by 13 against 7, the second by 15 against 6. The original resolution was carried by 16 for 0 against. The Provisional Local Medical Committee was then elected—No. 1 District: Drs. Bradbrook, Durran, and Square. No. 2 District: Drs. Churchill, Henderson, E. O. Turner, and Woollerton. No. 3 District: Drs. Baker, Perrin, H. Rose, J. Shaw. No. 4 District: Drs. Benson, Larking, and Kennish. No. 5 District: Drs. Watson, Wheeler, and L. W. Reynolds. No. 6 District was not selected, as only one member was present. It was proposed and carried unanimously:

That the Provisional Local Medical Committee be given power to co-opt members from districts which they consider are inadequately represented.

Supplementary Pledge.—The supplementary pledge was signed by nearly all those present.

Entertainment Fund.—The sum of £2 2s. 6d. was collected towards the special fund (entertainment fund).

NORTHAMPTONSHIRE DIVISION.

THE annual meeting of this Division was held on May 30th, in the Board Room of the Northampton General Hospital, after a luncheon at Franklin's Restaurant, Dr. HICHENS in the chair, and then Dr. BAXTER occupied the chair; twenty members and two visitors were present.

Confirmation of Minutes.—The minutes of the preceding meeting were read and confirmed.

Election of Officers.—The following officers were elected for the ensuing year: *Chairman*, Dr. Baxter; *Vice-Chairman*, Dr. Cooke; *Representative*, Dr. Dryland; *Deputy Representative*, Dr. Roughton; *Representatives on South Northants Nursing Committee*: Drs. Darley and Harrisson; *Honorary Secretary and Treasurer*, Dr. Hichens. Dr. Darley retired from the Executive Committee by lot, and Dr. Relton was elected to fill his place.

Votes of Thanks.—Before leaving the chair Dr. HICHENS proposed a hearty vote of thanks to Dr. Baxter for his valuable and onerous services as Representative of the Division for the last six years. This was seconded by Dr. DRYLAND, and carried with acclamation, and Dr. BAXTER replied. Dr. BAXTER proposed a vote of thanks to Dr. HICHENS for his services in the chair. This was seconded by Dr. DARLEY and carried, and Dr. HICHENS replied.

Annual Report.—The annual report of the Division was as follows:

Membership, December 31st, 1910		100
Increase—		
New members	24	
Through change of address	2	
Resignations withdrawn	1	
Total additions	27	
Losses—		
Through death	0	
Resignations	2	
Through change of address	4	
Total deductions	6	
Net membership on December 31st, 1911		121
Number of practitioners in the Division, December 31st, 1911		170

Financial Statement.—The financial statement was as follows:

	£	s.	d.
Receipts—			
Balance in hand December 31st, 1910	19	6	10
Grant received from Branch Council	12	10	0
Total	31	16	10
Expenditure—			
Hire of Room	—	—	—
Secretarial expenses	9	18	6
Balance in hand, December 31st, 1911	21	18	4

Report of Proceedings.—The following is a report of the proceedings of the Division during the year:

Divisional meetings held during the year	6
Meetings at which scientific and clinical matters were discussed	0
Meetings at which medico-political, ethical, and kindred matters were discussed	6
Social functions (luncheons)	6
Average attendance at meetings	40.3
Numbers of members who attended at least one meeting	79
Divisional executive committee meetings	8
Average attendance	7

The meetings were entirely taken up in the consideration of the Government Invalidity Insurance Bill. The Division had the advantage of being addressed by Mr. Smith Whitaker and Dr. Cox, the Medical Secretaries of the Association.

The arrangements in the Division were carefully organized, and of those practising it is believed that only five have not signed the undertaking. A guarantee fund of £1,581 has been promised. A new medical institute has been started at Rugby. It was blacklisted, but a medical man has been found to take the post.

The Provisional Agenda for the Annual Representative Meetings was then considered and special attention was given to the undermentioned motions:

Motions 15, 16, and 17 were approved.
Motion 19 was opposed.
Motion 31 was opposed.
Motion 32, Section IV, the words "and certificates" were deleted.
Section V, words altered to medical reports and 10s. 6d. altered to one guinea.
Motion 33 agreed to with the above modifications.
Motion 36 opposed.
Motion 37 approved.
Motion 48 opposed as not feasible.
Motion 50 opposed.

Model Ethical Rules.—The model ethical rules, including Rule Z, were approved and adopted, on the proposition of Dr. BAXTER, seconded by Dr. LINNELL.

Provisional Medical Committees.—Reports on the Provisional Medical Committees throughout the area of the Divisions were then given by the chairmen and secretaries present, and the meeting terminated.

SOUTH WALES AND MONMOUTHSHIRE BRANCH:

MONMOUTHSHIRE DIVISION.

THE annual meeting of this Division was held in the Savoy Hotel, Newport, Mon., on Friday, May 31st. The CHAIRMAN (Dr. H. C. Bevan) presided, and the following members were also present: Drs. A. Garrod Thomas, Marsh, Glendinning, W. D. Steel, E. Y. Steele, J. L. Thomas, Greer, Basset, Cowie, Elworthy, Lawrence, Crinks, Haslett, Gratte, Griffiths, Acomb, Barnard, Horace Brown, Buckner, Burpitt, Connellan, Cook, E. T. H. Davies, J. Lloyd Davies, Gregg, Hurley, Ingram, A. E. Jones, Rocyn Jones, J. McGinn, Mackay, Mills, O. W. Morgan, Nelis, Neville, Nolan, O'Keefe, Price, Shoolbred, Tonks, Verity, Watkins, I. Crawford, Ryan, and R. J. Coulter and S. Hamilton (Honorary Secretaries).

Apologies for Non-Attendance.—An apology for inability to attend was received from Dr. McInerney.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

The late Dr. D. J. Jones.—On the motion of the CHAIRMAN, a vote of condolence with the relatives of the late Dr. D. J. Jones, a former member of the Division, was passed, all standing.

Election of Officers.—On the motion of the retiring CHAIRMAN, seconded by Dr. O. E. B. MARSH, Dr. A. Garrod Thomas was unanimously elected Chairman for the ensuing year. Dr. BEVAN then vacated the chair, which was taken by Dr. THOMAS, who thanked the Division for the honour conferred on him, and proposed a hearty vote of thanks to Dr. Bevan for his services during his year of office. This was seconded by Dr. W. D. STEEL, and carried by acclamation, and Dr. BEVAN suitably replied. For the office of Vice-Chairman Dr. E. M. Griffiths was proposed by Dr. GRATTE and seconded by Dr. W. D. STEEL, and duly elected. Drs. R. J. Coulter and S. Hamilton were re-elected Honorary Secretaries. Dr. Crinks, Cowie, Haslett, Marsh, and J. L. Thomas were elected as representatives on the Branch Council, and Drs. Lloyd Davies, Elworthy, Gratte, and J. W. Mulligan as members of the Executive Committee. Drs. Elworthy, Griffiths, and W. D. Steel were elected as representatives of the Branch Contract Practice Committee.

Vote of Thanks to Honorary Secretaries.—A vote of thanks to the Honorary Secretaries for their services during the previous year was proposed by Dr. H. C. BEVAN, seconded by Dr. W. D. STEEL, supported by the CHAIRMAN, and passed unanimously. Drs. COULTER and HAMILTON replied.

Report of Executive Committee.

The following report was read and adopted:

The Executive Committee of the Division begs to report that the expenses of the Division for the year ending December 31st, 1911, were £24 3s. 3d., as compared with £13 for the previous year. The increased expenditure was due to extra work in connexion with the National Insurance Act, the opposition to the Newport School Clinic, and the enforcement of Rule Z. At the end of the year there was a deficit of 19s. 7d., as compared with a balance in hand of £9 15s. 8d. on December 31st, 1910. This deficit is explained by the increased expenditure already referred to and by a decrease in the grants received from the Branch Council, which were £4 5s. less than in the previous year.

During the year eight meetings of the Division were held, the average attendance being 30.12, as compared with 17 during the previous year. Twelve meetings of the Executive Committee were held.

The membership of the Division at the end of April, 1912, was 142, as compared with 130 in 1911, being an increase of 12.

Your Committee regrets that it has to record the decease of Drs. C. P. Skrimshire and D. J. Jones, who were old and valued members of the Division.

The dispute at Ebbw Vale remains unsettled.

A member of the Division consulted your Committee with regard to an attempt to alter the terms of a club appointment to his disadvantage. A Warning Notice was inserted in the BRITISH MEDICAL JOURNAL, and the appointment was confirmed on the same terms as it had been previously held.

Information was received by your Committee that the practitioners in the Blaina district had receive notice to terminate their appointments as surgeons to the Nantyglo and Blaina Collieries, with a view to the introduction of a salaried scheme. A Warning Notice was inserted in the JOURNAL. The original scheme has been abandoned, but the terms under which medical attendance will in the future be provided for colliers in this district are still unsettled.

An advertisement was sent to the medical and lay press for a whole-time salaried medical officer for the Abersychan Collieries, without any notice to terminate their appointments having been given to the medical practitioners who at present attend the workmen in this district. Attention was called to this by the Medical Secretary of the Association and action was taken, in consequence of which the advertisement was refused by the British Medical Journal and the *Lancet*, and a Warning Notice inserted in the Journal and the local lay press. Up to the present this attempt to start a scheme has proved abortive.

During the year attention has been largely directed to the steps to be taken to safeguard the interests of the profession under the National Insurance Act, and the members of the profession in the district have been canvassed with a view to obtaining their moral and financial support to the policy of the Association. With one or two exceptions every practitioner in the neighbourhood who was approached signed the undertaking, and a canvass for signatures to the supplementary pledge is at present taking place.

Your Committee has received information that medical practitioners have been approached individually by corporate bodies of people who will become insured persons under the Act with a view to arranging terms for medical benefits. The Committee feels that it is highly undesirable that any sectional or individual arrangements should be suggested to these bodies until the time arrives when the whole question of terms under the Act will be settled by the British Medical Association through the Provisional Medical Committees. Steps have been taken to ascertain the opinion of the members engaged in the various classes of practice as to what their remuneration should be, and it is hoped that a report on this subject will shortly be available for the consideration of the Division. A strong Provisional Medical Committee has been appointed which will have charge of all negotiations under the Act.

Your Committee is of opinion that it is of the utmost importance that every member of the profession should sign the supplementary pledge, and failure to do so must be regarded by the profession as an act of dislayalty to its interests. In the present crisis personal matters ought to be subordinated to the common good.

The Annual Representative Meeting will be held in Liverpool, and your Committee recommends that your Representative be given full power to act as he thinks best on the matters which come up for discussion.

Business of Annual Representative Meeting.—It was decided to approve of the recommendations of the Council as set out in the Agenda of the Annual Representative Meeting.

Meetings for Ensuing Year.—It was decided that meetings of the Division should be held at Abergavenny, Newport, Pontypool, and Newport (annual) on the last Fridays of September, November, February, and May respectively.

Patent and Proprietary Medicines.—A letter from the Medical Secretary on the Government inquiry into patent and proprietary medicines was read.

Provisional Local Committees.—The Honorary Secretary of the Provisional Medical Committee (Dr. Cowie) reported that a canvass of the members of the profession in the district for signatures to the supplementary pledge had been organized and that the results to date were very satisfactory. Drs. Neville, Lewis, Lloyd Davies, W. M. James, J. McGinn, and Rocyn Jones were added to the committee. Attention having been called to the attitude of the staff of the Newport and Monmouthshire Hospital, it was officially reported that all its members had signed the pledge. It was reported that at a meeting of medical practitioners holding friendly society appointments in Newport it had been decided to sign the pledge with the addition of the following proviso:

> I sign the above pledge on condition that when called upon by the British Medical Association to resign my appointments that body will also call upon all its members to resign their appointments, whether honorary or otherwise.

Report re *Dispute.*—The Honorary Secretary reported that information had been received that steps were being taken to form a scheme for a salaried medical service for the Ynysddu and Cwmfelinfach districts, and that the Executive Committee had given instructions for the insertion of a Warning Notice in the Journal if it should be found necessary on further inquiries. This action was approved.

Tea.—The Chairman very kindly entertained the members present to tea.

WEST SOMERSET BRANCH.

A special general meeting was held at the Taunton and Somerset Hospital on Tuesday, May 28th, at 3.30 p.m. The chair was taken by the President, Mr. W. B. Winckworth. Twenty-nine members and three visitors were present.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Insurance Act.—Dr. J. A. Macdonald, the Representative of the Branch, made a few remarks about the present position with regard to the National Insurance Act.

Recommendations of Council.—Dr. Macdonald then proceeded to explain the various Recommendations in the Report of the Council, asking for instructions as to how he should vote thereon at the meeting of Representatives. The Recommendations were approved of except in the following:

> Recommendation 86: No diploma be granted in Psychiatry.
> Recommendation 99: (i) Approved. (ii) Approved. (iii) Approved. (iv) Approved. (v) To be thus altered: "or report" to be deleted. For "10s. 6d." to read "2s. 6d."

The amendment to read thus:

> That in the case of all initial examinations with certificate under the Workmen's Compensation Act given by a practitioner, not as a member of the staff of any voluntary hospital, the fee should not be less than 2s. 6d.

It was proposed by Dr. P. Joscelyne and seconded by Dr. H. S. Pope:

> (vi) That in the case of all examinations with certificate and report under the Workmen's Compensation Act, given by a practitioner, not as a member of the staff of any voluntary hospital, the fee should be not less than £1 1s.

Provisional Local Medical Committee.—The Secretary then read out the scheme as drawn up by the Branch Council for the formation of a Provisional Local Medical Committee, which was adopted with a few minor alterations.

YORKSHIRE BRANCH:

Wakefield, Pontefract, and Castleford Division.

Provisional Medical Committee.

A meeting of the profession in this large and scattered Division was held at the Clayton Hospital, Wakefield, on Thursday, May 2nd, for the purpose of "appointing forthwith for the area of the Division a Provisional Medical Committee to safeguard the interests of the profession." The matter having been brought forward by the Chairman (Dr. J. W. Walker, of Wakefield) in the form of a recommendation from the Executive, a Provisional Medical Committee for the Division was formed, having the present Executive as its nucleus and recognizing the Yorkshire Branch Council as its co-ordinating authority (as suggested in paragragh 14 of the Memorandum D 46), with three local subcommittees for the districts of (1) Wakefield, (2) Doncaster, and (3) Pontefract, Castleford, Goole, the subcommittees to include every member of the profession resident in each district. The districts were defined for the purpose, and it was left for the members of the Executive resident in the various districts to call together the subcommittees to elect their own chairmen and secretaries and to report to the Executive at the earliest possible date. Since then the first meeting of each of the subcommittees has been held. The reports so far are as follows:

Wakefield District Subcommittee.—The first meeting was held on May 16th. Dr. J. W. Walker was elected Chairman; Dr. May, Honorary Secretary. The following resolution was passed unanimously:

> That the form of pledge and the form of resignation contained in Document D 49 be signed by all members of the profession in the Wakefield district, but that the resignations do not take effect till all the members have signed these forms; further, that the forms be not sent into head quarters until after further meeting.

Another meeting was arranged for Thursday, May 30th.

Doncaster District Subcommittee.—The first meeting was held on Friday, May 24th. Dr. A. Christy Wilson was elected chairman and Dr. H. J. Clarke, jun., was elected secretary. About twenty-six out of fifty were present, and it was agreed that all members of the profession in the district shall belong to the subcommittee. All those present signed the pledge, the pledges being held over till after the next meeting. Members present were appointed to canvass all those who were not present.

Pontefract-Castleford-Goole District Subcommittee.—The first meeting was held at Pontefract on Tuesday, May 21st. Dr. John Orford of Pontefract was elected chairman and Dr. Hillman of Castleford secretary. There were about fifty practitioners resident in the district. Over thirty pledges have been signed. Various members present at this meeting were appointed to see those who had not signed with a view to getting their signatures.

HARROGATE DIVISION.

THE annual meeting of this Division was held at the Hotel Majestic on Wednesday, May 29th, at 8.30 p.m. Dr. GRANGE, Chairman, presided, and there were present Drs. Black, Solly, Johns, Johnstone, David Brown, Pringle, Crawford Watson, Boyd, Edgecombe, Kelsey, Malim, Thompson, Mantle, Mouillot, Greenwood, Steven, Dimmock, Ryan, and Gibson.

Election of Officers.—The following officers were elected: *Chairman*, Dr. F. N. Ozanne; *Vice-Chairman*, Dr. F. W. Garrad; *Honorary Secretary*, Dr. E. S. Steward; *Representative for Representative Meetings*, Dr. F. Bennett; *Representative at Branch Meetings*, Dr. E. Solly; *Executive Committee*, Drs. Chamberlain, Collier, Daggett, Lever, Mackay, Solly, Bertram Watson, and Crawford Watson.

Vote of Thanks to Retiring Officers.—A vote of thanks was passed to the retiring officers.

Provisional Medical Report.—Dr. PRINGLE read the Provisional Medical report, which was discussed.

Patent and Proprietary Medicines.—Dr. GIBSON reported a letter with regard to the Government inquiry as to patent medicines, etc.

Motion re *Payment of Representatives.*—A motion that Representatives be not paid was carried by 18 to 2.

Motion re *Printed Matter forwarded to Divisions.*—A motion that the printed matter forwarded to the Divisions is excessive in quantity and unduly complicated in form, was carried unanimously.

New Maps.—A motion that new maps were unnecessary was also carried unanimously.

Referendum by Postal Vote.—A motion that the Referendum by Postal Vote was necessary, or a large majority of the members of the Association would be practicelly disfranchised, was carried unanimously, and it was thought that the meetings of Representatives, when practicable, should be held in the provinces.

Death Certificates.—The views of the Council as to certificates of death and under the Employers' Liability Act were upheld.

Ship Surgeons.—A motion:

> That this meeting of the Division is in entire sympathy with the efforts of the Council to ameliorate the conditions of service of ship surgeons, but, in the absence of any concrete proposal to that end, does not feel called upon to suggest any,

was carried, and it was suggested that a capitation fee for each passenger landed would be satisfactory.

DORSET AND WEST HANTS BRANCH.

DR. FRANK FOWLER, Honorary Secretary of the Branch, informs us that at a meeting of the Council of the Dorset and West Hants Branch held in Bournemouth on June 5th, it was resolved:

> That the Council of the Dorset and West Hants Branch repudiates any knowledge of the nomination of Mr. C. H. Watts Parkinson and disapproves of his candidature for the representation of the South-Western and Dorset and West Hants grouped Branches on the Central Council. That a copy of this resolution be sent to the Honorary Secretary of the South-Western Branch, to the BRITISH MEDICAL JOURNAL, and to every member of the Dorset and West Hants Branch.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH:

FURNESS DIVISION.

THE annual meeting of this Division was held on May 31st at Barrow.

Annual Report.—The annual report was read and adopted.

Representative's Expenses.—It was decided to subscribe 5s. each towards defraying them.

Guarantee Fund.—It was decided to leave this question to Provisional Medical Committees, as it was felt that it was not a fair arrangement for non-members to leave to members of the Association both the paying and the fighting.

Office-bearers for the Year.—The following were elected officers for the ensuing year: *Chairman*, Dr. Sansom (Barrow); *Vice-Chairman*, Dr. Pooley, (Dalton); *Honorary Secretary*, Dr. J. Livington (Barrow); *Representative to Representative Meeting*, Dr. Daniel (Barrow); *Representatives to Branch Council*, Dr. Callaghan (Barrow), Dr. Johnston (Ravenglass); *Committee*, Dr. J. A. Reed (Barrow), Dr. Wilson (Barrow).

SOUTH-EASTERN BRANCH:

CHICHESTER AND WORTHING AND THE HORSHAM DIVISION.

A COMBINED meeting was held on June 1st at the Infirmary, Chichester, Dr. SIMPSON in the chair.

Confirmation of Minutes.—The minutes were read and confirmed.

Election of Officers.—The following were elected officers of the Chichester and Worthing Division: *Chairman*, Dr. Simpson; *Vice-Chairman*, Dr. Ewart; *Representative on Branch Council*, Dr. Gostling; *Joint Honorary Secretaries*, Drs. A. Densham and A. S. Morton Palmer; *Executive Committee*, Chairman and Honorary Secretaries (*ex officio*), Drs. Eustace, Hinds, Ewart, Haydon, Garratt, Morris, Cameron, Chaplin.

Election of Representative to Representative Meeting.—(*a*) It was proposed by Dr. VERNON, seconded by Dr. RENTOUL:

> It is desirable that these combined Divisions be represented by a general practitioner.

This was carried *nemine contradicente*. (*b*) It was proposed by the CHAIRMAN, seconded by Dr. CAMERON:

> That Dr. Eustace be elected Representative to the Representative Meeting.

This was carried *nemine contradicente*.

Recommendations of Council.—The Representative was instructed: To support recommendations in paragraphs 37, 54, 59, 61, 75, 76, and 93; to use his discretion as to paragragh 77 and to give special attention to the consideration of paragraph 99; as regards paragraph 35, that he oppose the payment of extra expense to the Representatives, owing to the present financial strain on the Association.

Executive Committee.—It was proposed and carried that the "Medico-Political Committee" should henceforth be known as the "Executive Committee."

Provisional Medical Committee.—It was resolved that the Executive Committee should be constituted the "Provisional Medical Committee for the Division," with power to add to its number for special purposes.

The Supplementary Pledge.—It was resolved that the Honorary Secretaries should at once obtain an adequate supply of the new pledge and contract resignation forms from the Central Office of the Association.

SCHOLARSHIPS AND GRANTS IN AID OF SCIENTIFIC RESEARCH.

SCHOLARSHIPS.

THE Council of the British Medical Association is prepared to receive applications for Research Scholarships, as follows:

1. An ERNEST HART MEMORIAL SCHOLARSHIP, of the value of £200 per annum, for the study of some subject in the department of State Medicine.

2. THREE RESEARCH SCHOLARSHIPS, each of the value of £150 per annum, for research into some subject relating to the Causation, Prevention, or Treatment of Disease.

Each Scholarship is tenable for one year, commencing on October 1st, 1912. A Scholar may be reappointed for not more than two additional terms.

The conditions of the award of Scholarships are stated in the Regulations, a copy of which will be supplied on application to the Medical Secretary of the Association, 429, Strand, London, W.C.

GRANTS.

The Council of the British Medical Association is also prepared to receive applications for Grants for the assistance of Research into the Causation, Treatment, or Prevention of Disease. Preference will be given, other things being equal, to members of the medical profession and to applicants who propose as subjects of investigation problems directly related to practical medicine.

The conditions of the award of Grants are stated in the Regulations, a copy of which will be supplied on application to the Medical Secretary of the Association, 429, Strand, London, W.C.

Applications.

Applications for Scholarships and Grants for the year 1912–13 must be made not later than Tuesday, June 11th, 1912, in the prescribed form, a copy of which will be supplied by the Medical Secretary on application.

Each application should be accompanied by testimonials, including a recommendation from the head of the laboratory, if any, in which the applicant proposes to work, setting out the fitness of the candidate to conduct such work, and the probable value of the work to be undertaken. This is not intended, however, to prevent applications for Grants in aid of work which need not be performed in a recognized laboratory.

Alfred Cox, *Medical Secretary.*

429, Strand, London, W.C.

THE LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

The following books were added to the Library between October and December, 1911:

Presented by the Authors.

Berkeley and Bonney: Gynaecological Surgery. 1911
Binnie: Manual of Operative Surgery, fifth edition. 1911
Jennings: The Morphia Habit and its Voluntary Renunciation. 1909
Milligan and Wingrave: Practical Handbook on Diseases of the Ear. 1911
McKisack: Dictionary of Medical Diagnosis, second edition. 1912
Williams, A. W.: Index of Dermatological Literature. 1910
Witthaus: Manual of Toxicology, second edition. 1911

Presented by Dr. F. W. Mott.

Archives of Neurology and Psychiatry, vol. v. 1911
Collected Papers from the Pathological Laboratories of the London County Council. 1911

Presented by Sir William Osler, Bart., F.R.C.P.

Vallery-Radot: Life of Pasteur, 2 vols., translated by Mrs. Devonshire. 1911

Presented by the late James Taylor, Esq., F.R.C.S., Chester.

Annals of Surgery, 1893 and 1891, to complete.
Archives Internationales de Chirurgie. 1903–1910
Gowers, Sir W.R.: Problems in Practical Diagnosis (Shorthand). 1909
Gruner: Microscopical Diagnosis of Diseases of the Blood (Shorthand). 1910
Journal of Physiology, vol. i, incomplete. 1878
North of England Obstetrical and Gynaecological Society, Transactions, etc. 1892–1898
Phonographic Outlines of Medical Terms. 1898
Phonographic Record of Clinical Teaching. 1895–1910

Presented by Dr. Dawson Williams.

Hunter, W.: Severest Anaemias, vol. i. 1909

Added to the Library through the "British Medical Journal."

Bandler, S. W.: Vaginal Celiotomy. 1911
Corner, E. M.: Life History, Function, and Inflammation of the Appendix. 1911
Crossen, H. S.: Diseases of Women, second edition. 1910
Deutschen Hospitals, Festschrift zur Vierzig-jahrigen Stiftungsfeier des. 1909
Giles, A.: Gynaecological Diagnosis. 1906
Holleman, A. F.: Textbook of Organic Chemistry, third edition. 1910
Jago, W., and W. C.: The Technology of Breadmaking. 1911
Landau, Leopold: Festschrift seines 25—Jahrigen Docenten Jubilaums. 1901
Maudsley, H.: Heredity, Variation, and Genius. 1908
Newman, Geo: Infant Mortality. 1906
Progressive Medicine, vol ii. 1911
Ross, H. C.: Further Researches into Induced Cell-reproduction and Cancer. 1911
Steven, E. M.: Medical Supervision of Schools. 1910
Stewart, D.: Essentials of Food. 1911
Tauffer, W.: Abhandlungen aus dem Gebiete des Geburtshilfe und Gynäkologie, Band 1, Heft 1. 1909
Universitäts Frauenklinik in Leipzig; Festschrift zur Jahrhundertfeier. 1911
Nazifdar, N. J.: Physiology of the Central Nervous System and the Special Senses. 1911
Walker-Tisdale, C. W.: Milk Testing. 1911

Calendars, Reports, and Transactions have been received from the following bodies:

Aberdeen University Calendar. 1912
Advisory Committee for the Tropical Diseases Research Fund. Report. 1910
American Association of Genito-Urinary Surgeons, Transactions, vol. vi. 1911
American Otological Society, Transactions, vol. xii, II.
Bengal, Annual Returns as to Charitable Dispensaries. 1909
Bengal, Annual Returns, Lunatic Asylums. 1909
Bengal, Eastern, Dispensary Returns. 1909
Bengal, Eastern, Annual Report on Lunatic Asylums 1909
Bengal, Eastern, Annual Sanitary Report. 1909
Bengal, Eastern, Annual Report on Vaccination. 1909–10
Birmingham University Calendar. 1911–12
Board of Education, Annual Report of Chief Medical Officer. 1910
Bombay, Administration Report. 1909–10
Bombay, Annual Report on Civil Hospitals. 1909
Bombay, Annual Report on Lunatic Asylums. 1909
Bombay, Annual Report of the Sanitary Commissioner. 1909
Bombay University Calendar, i and ii. 1912
British Guiana, Report on the Nastin Treatment of Leprosy. 1908–10
Burma, Report on Hospitals and Dispensaries. 1909
Burma, Report on Lunatic Asylums. 1909
Burma, Report on Sanitary Administration. 1909
Calcutta, Report of the Health Officer. 1909
Cape Town Corporation, Annual Report of the Medical Officer of Health. 1910–11
Central India Agency, Report on Dispensaries, Jails, and Hospitals. 1908
Central Provinces, Notes on Vaccination. 1908–9
Central Provinces, Reports on Lunatic Asylums. 1906–8
Central Provinces and Bera, Notes on Hospitals and Dispensaries. 1908
Central Provinces and Bera, Sanitary Commissioner's Report. 1908
Ceylon, Administrative Report (Medical). 1909
Ceylon, Hospital Returns. 1909
Colombo, Report of the Medical Officer. 1909
Commissioners in Lunacy, 65th Report. 1911
Dublin University Calendar, part i. 1911–12
Dundee University Calendar. 1910
Durham University College of Medicine Calendar. 1911–12
Edinburgh Obstetrical Society, Transactions, vol. xxxvi. 1910–11
Edinburgh Royal College of Physicians, Laboratory Reports, vol. xi. 1911
Glasgow Medico-Chirurgical Society, Transactions, vol. x. 1911
Grant Medical College, Calcutta, Annual Report. 1909–10
Imperial Cancer Research Fund, Fourth Scientific Report. 1911
King's College Calendar. 1911–12
Lahore Municipality, First Annual Report. 1910
Lahore Municipality, Report on Measures Taken against Malaria. 1909
Lister Institute of Preventive Medicine, Collected Papers, vol. vii. 1910–11
London County Council, Annual Report of the Asylums Committee. 1911
Madras Presidency, Report on Lunatic Asylums. 1909
Madras Presidency, Report of the Sanitary Commissioner. 1909
Metropolitan Water Board, Reports on Water Supply. 1911
Michigan Medical Society, Transactions, vol. i. 1910
National University of Ireland Calendar. 1911
Navy, Statistical Report on the Health of the. 1910
New Jersey State Board of Health, Report, vol. xxxiv. 1910
North-West Frontier Provinces, Annual Report on Dispensaries. 1909
North-West Frontier Provinces, Annual Report on Vaccination. 1909–10
North-West Frontier Provinces, Annual Report on Sanitary Administration. 1909
Ontario, Canada, 29th Annual Report of the Provincial Board of Health. 1910
Ophthalmological Society of the United Kingdom, Transactions, vol. xxxi. 1911
Pasteur Institute of India, Ninth Annual Report. 1909
Philadelphia Academy of Surgery, Transactions, vol. xiii. 1911
Punjab, Annual Report on Dispensaries. 1909
Punjab, Statistics of Lunatic Asylums. 1909
Punjab, Annual Report on Sanitary Administration. 1909
Punjab, Annual Report on Vaccination. 1909–10
Rangoon, Report of the Government Medical School. 1909
Reading Pathological Society, Reports. 1910–11
Royal College of Surgeons Calendar. 1911–12

Southern Surgical and Gynaecological Society, Transactions, vol. xxiii. 1910
South African Medical Congress, Twelfth Transactions. 1910
Sydney University Calendar. 1911
United States Hygienic Laboratory Bulletins, Nos. 76–77. 1911
United States Army, Reports of the Surgeon-General. 1902–11
University College London Calendar, 1911–12
Victoria University of Manchester Calendar. 1911–11
War Office, Report on the Health of the Army. 1910
Winnipeg City, Health of. 1910

BOOKS NEEDED TO COMPLETE SERIES.

THE Librarian will be glad to receive any of the following volumes, which are needed to complete series in the Library:

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CENTRAL MIDWIVES BOARD.

A SPECIAL meeting of the Central Midwives Board was held on May 30th at Caxton House, Westminster, with Sir FRANCIS H. CHAMPNEYS in the chair.

Midwives Struck off the Roll.

The Board considered the following charges amongst others against the midwives whose names are given below, and ordered them to be struck off the Roll.

Margaret Broadbery, that being in attendance as a midwife at a confinement, the child suffering from inflammation of the eyes, she did not explain that the case was one in which the attendance of a registered medical practitioner was required, nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that this might be immediately forwarded to the medical practitioner, as required by Rule E 20 (5).

Martha Downes, that she did not keep her appliances and equipment in a cleanly condition, as required by Rule E 1; that she neglected and refused to record the pulse and temperature of her patients, as required by Rule E 13; and that she systematically evaded supervision and inspection by the local supervising authority.

Mary Ann Grix, that being in attendance as a midwife at a confinement she did not adopt the antiseptic precautions required by Rules E 3 and 7, she did not wash the patient at any time, and she did not take the patient's pulse or temperature at any time.

Caroline Halls, that being in attendance as a midwife at a confinement, the child being dangerously feeble at birth, she did not explain that the case was one in which the attendance of a registered medical practitioner was required, nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that this might be immediately forwarded to the medical practitioner, as required by Rule E 20 (5). The death of the child having occurred before the attendance of a registered medical practitioner, she did not notify the local supervising authority thereof, as required by Rule E 21.

Elizabeth Kimberley, that being in attendance as a midwife at a confinement she did not adopt the antiseptic precautions required by Rules E 3 and 7, that she was uncleanly in her person, clothing, house, and appliances, and that she did not keep her register of cases as required by Rule E 23.

Emma Pitman, that being in attendance as a midwife at a confinement, she did not take or record the patient's pulse and temperature as required by Rule E 13, and the patient being ill, with high temperature and abdominal pain, she did not explain that the case was one in which the attendance of a registered medical practitioner was required, nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that this might be immediately forwarded to the medical practitioner, as required by Rule E 20 (4).

Lydia Scott, that being in attendance as a midwife at a confinement, she did not take the patient's temperature at any time, and the patient suffering from rigor, with raised temperature, and from abdominal pain and swelling, she did not explain that the case was one in which the attendance of a registered medical practitioner was required, nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that this might be immediately forwarded to the medical practitioner, as required by Rule E 20 (4).

Mary Ann Wilson, that being in attendance as a midwife at a confinement, she left the patient after the second stage of labour had commenced, in contravention of Rule E 6. The child having been born in her absence, she did not visit the patient until about six hours later, when she handed her over to the charge of an uncertified woman and ceased further attendance on the case. That when attending her patients she did not wear a clean dress of washable material, as required by Rule E 1, and that she habitually neglected to attend to the comfort and cleanliness of the mother and child during the lying-in period, as required by Rule E 11.

Midwives Censured.

The following midwives were censured after charges against them had been considered: *Jane Brook*, *Mary Ann Preece*, and *Mary Ann Southern*.

Midwife Cautioned.

Jane Sillito was cautioned after charges against her had been considered.

National Insurance.

THE ADVISORY COMMITTEES AND THE COMMISSIONERS.

CONFERENCE OF COMMISSIONERS WITH MEDICAL MEMBERS.

The conference between the medical members of the Advisory Committees and the Joint Committee of Insurance Commissioners assembled at 11.30 a.m. on Friday, May 31st, and after sitting until 4.30 p.m. adjourned until Tuesday, June 11th. Sir Robert Morant, Chairman of the Board of Insurance Commissioners for England, was in the chair.

The proceedings, we understand, were of a somewhat informal character, the medical members being invited to express individual opinions upon various points; these opinions were noted by the Commissioners, who, however, did not announce the views which they had formed upon these points.

In a printed document the Commissioners invited opinions upon the question whether a uniform method of remuneration should be prescribed for adoption by Insurance Committees throughout the country, or whether local option should be permitted. There was a general agreement that local option should be permitted, and that the Commissioners should frame model rules. The three varieties of schemes which the Commissioners considered possible were (1) on a capitation basis, (2) on a pooling and payment per attendance basis, and (3) on a mixed basis, allowing special arrangements to be made in sparsely populated and extensive areas such as occur in the Highlands of Scotland.

During the discussion on this point it was stated on behalf of the British Medical Association that it desired that the medical profession in the locality should have the right to determine the basis which it desired put in operation in the particular district. The Commissioners invited members of the Advisory Committees to submit schemes, under the various heads for consideration. Questions arising as to the preparation and publication of lists of doctors in each locality were also discussed, and it was generally agreed that the insurance areas should be conveniently small, and that local medical committees should be asked to assist in their delimitation. In connexion with this matter, the question of border districts arose, and it seemed to have been generally felt that any difficulty on this head could easily be overcome by authorizing a medical practitioner residing in such a district to cause his name to be inscribed on the panel for each district. In this connexion there arose also the question of mileage, and this led on to the consideration of another paper drawn up by the Commissioners dealing in quite general terms, among other matters, with the definition of what constituted ordinary medical attendance. Attention was directed to the question of hours of ordinary attendance to be given in the surgery, to night visits, and to visits made in response to a request received by the medical man after his usual hour for starting on his daily round.

The question of certificates also was raised, and it was pointed out that medical men should not be required to give any other certificate than that for the use of the approved society to which the insured person belonged, and that the provision of certificates for other societies or any other purpose should be a matter for special arrangement. The nature of the records which medical men serving on the panel could be expected to keep was also discussed. It was pointed out that the keeping of such records as it appeared had been suggested to the Commissioners might be necessary would involve a great deal of work which medical men could not be expected spontaneously to undertake, and generally the opinion was expressed that any clerical work required in excess of that now habitually done should be paid for by extra fees. The question of assistants and as to whether the assistant's name should go on the panel was also discussed in a somewhat desultory manner.

The principle that special visits and night calls and treatment in difficult and urgent cases must be remunerated by extra fees was discussed, but the Commissioners gave no indication of the source from which it was proposed that such remuneration should be provided.

SCOTLAND.

PARLIAMENTARY GRANT FOR SANATORIUM PURPOSES.

The Local Government Board for Scotland has had under consideration those sections of the National Insurance Act that deal with the prevention and treatment of tuberculosis. It has now issued a circular to county councils, town councils, and district committees dealing with the powers and duties of local authorities.

Sanatorium Benefit and Treatment.

As was pointed out in the circular recently issued by the Scottish Insurance Commissioners (Supplement, June 1st, p. 584), the Insurance Committees, when appointed, will be under obligation to make arrangements with local authorities and others for the treatment in sanatoriums and otherwise of all cases of tuberculosis occurring among insured persons. (Section 16 of the Act.)

It is important to note that the term "sanatorium benefit," as used in the National Insurance Act, covers every form of treatment, institutional and non-institutional, that can be applied to persons suffering from tuberculosis. An equally comprehensive meaning is given to the term "sanatorium treatment"; vide the interim report issued by the Departmental Committee on Tuberculosis (Journal, pp. 1022–23, May 4th, 1912).

Special Powers and Duties of the Board.

Under the National Insurance Act it is the duty of the Board:

(*a*) To approve sanatoriums and other institutions for the treatment of tuberculosis under the management of persons or local authorities (other than Poor Law authorities) (Section 16).

(*b*) To approve the manner of treatment when such treatment is provided by persons or local authorities (other than Poor Law authorities) otherwise than in sanatoriums or other institutions, and to authorize local authorities to provide such treatment, including the appointment of officers for the purpose (Section 16).

(*c*) To distribute to county councils, town councils, and other local authorities and persons, with the consent of the Treasury, sums made available for the provision of, or making grants in aid to, sanatoriums and other institutions for the treatment of tuberculosis (Section 64 (1)).

(*d*) If a grant is made to a county council, the Board has power to authorize the County Council to provide sanatoriums and other institutions.

The Board recommends that county councils, town councils, and other local authorities should combine for the provision of sanatoriums and other institutions. The advantages of combination being economy, the administration would be more easily organized, and the cost of maintenance would be more easily diffused. Similar combinations exist under the Public Health Act. In framing orders for such combinations, the Local Government Board would have regard to the following:

(*a*) The specific requirements of the Insurance Committees, which are under obligation to make an arrangement for the administration of sanatorium benefit.

(*b*) The needs of the uninsured as well as the insured tuberculous persons in the given localities.

(*c*) The financial resources and populations of the combining areas.

(*d*) The extent to which these resources are already used for the prevention of tuberculosis.

(*e*) Any geographical conditions that have a bearing on administration, such as distance from populous centres.

(*f*) Any exceptional prevalence of tuberculosis.

(*g*) The conditions of industries and all other such circumstances as normally determine the amount of institutional provision required.

Special Powers and Duties of Local Authorities.

Under the National Insurance Act local authorities (including county councils if authorized) have power:

(*a*) To provide treatment in sanatoriums and other institutions for insured persons resident within and without their area (Section 16).

(*b*) To provide treatment for the dependants of insured persons resident within their area.
(*c*) To undertake, if so authorized by the Board, treatment, including the appointment of officers for the purpose, of insured persons and their dependants otherwise than in sanatoriums or other institutions (Sections 16 and 17).
(*d*) To combine for the purpose of providing sanatoriums and other institutions (Section 64 (3)).

The circular states that it should be unnecessary to remind local authorities concerned that the success of any scheme for the treatment of tuberculosis depends on the unremitting exercise of their powers under the Public Health Act. Any scheme for direct treatment must be based on the systematic improvement of the environment, the removal of nuisances, the prevention of overcrowding, enforcement of good ventilation, improvement of the milk supply, etc.

Treatment and prevention are so intimately associated that any comprehensive scheme must provide for both.

The attention of local authorities is specially directed to their powers under Section 66 of the Public Health (Scotland) Act, 1897, and, in particular, to the power of providing, furnishing, and maintaining convalescent homes and reception houses, and of supplementary hospital provision by a system of nursing and domiciliary treatment.

Scheme for the Organization of Treatment.

Under this head the circular draws attention to the Interim Report of the Departmental Committee on Tuberculosis, with special reference to establishment of dispensaries, hospitals, day and night camps, etc., and the appointment of a tuberculosis officer. It is pointed out that the duties of a skilled tuberculosis officer would be, first, to organize the methods of detecting and treating disease; secondly, to undertake or direct such treatment as may be arranged between the local authorities and the Insurance Committees; thirdly, to keep in constant touch with all such institutions and persons, including general practitioners, as are concerned in the treatment of tuberculous persons in the area of the local authority.

Finance.

The circular states that the Board entirely agrees with the recommendation of the Departmental Committee on Tuberculosis that, in erecting or adapting institutions, local authorities should avoid pretentious or extravagant buildings.

Before making a grant, the Board must be satisfied:

(*a*) As to the requirements of the area;
(*b*) As to the character of the provision proposed;
(*c*) As to the relation of such provision to any general scheme;
(*d*) As to whether the question of combination with other authorities has been adequately considered.

Preparation of Schemes.

With a view to the early preparation of adequate schemes for the prevention, detection, and treatment of tuberculosis, the Board suggests that in counties (including burghs of under 20,000 inhabitants) the county councils, and in burghs of more than 20,000 inhabitants the town councils, should forthwith instruct their medical officers of health to prepare a report on the requirements of the area of the county or town as the case may be. This report should include statements as to the means existing within the county or town for the treatment of tuberculosis, number of beds available in existing institutions, sanatorium beds being distinguished from other hospital beds, number of beds provided in shelters, at patients' homes, dispensary or other out-patient departments.

The recommendations referred to in the circular are based largely on the report of the Departmental Committee on Tuberculosis.

SCOTTISH MEDICAL INSURANCE COUNCIL.

A meeting of the executive of this Council took place in the Station Hotel, Perth, on May 29th. The meeting was largely attended, and Dr. WILLIAM RUSSELL presided.

The Advisory Committee.

With reference to the remit from the Council as to an undertaking being obtained from the medical members appointed directly by the Commissioners on the Scottish Advisory Committee that they should resign unless effect was given to the seven cardinal principles in the Regulations issued by the Commissioners, it was agreed that replies satisfactory to this Council had been received from all the members of the Advisory Committee with the exception of that from Dr. Norman Walker.

An offer of pecuniary assistance by a layman was considered. It was deemed inadvisable to accept pecuniary aid outside the profession.

Salaried Appointments under Insurance Commissioners.

The CHAIRMAN referred to the advertisement by the Scottish Commissioners of appointments for whole-time medical officers and of the warning notice issued by him on behalf of this Council, which action was cordially approved.

Commissioners' Invitation to Conference.

An invitation from the Scottish Commissioners desiring a conference on the question of appointment of medical members on Provisional Insurance Committees was submitted, and it was resolved that the Council decline to discuss this matter with the Commissioners until the seven cardinal principles have been accorded recognition by them. It was resolved to send the correspondence to the medical press.

National Health Insurance Commission (Scotland),
42, Frederick Street, Edinburgh,
27th May, 1912.

Sir,

The Scottish Insurance Commissioners are making arrangements for the setting up, at an early date, of Provisional Insurance Committees for the Counties of Scotland and for each Burgh in Scotland having over 20,000 inhabitants. Such Provisional Committees will hold office for a period not exceeding one year, after which they will be displaced by permanent Committees constituted under Section 59 of the National Insurance Act. The Commissioners propose that the Provisional Committees shall contain medical representation similar in character and amount to that provided for under the above Section, and they would be glad to have the benefit of a Conference with your Council or its Executive Committee on the question of appointments corresponding with those provided for by Subsection (2) (*c*). The following dates are suggested as suitable—namely, Monday, 3rd June, at any hour, or Wednesday, 5th June, at 4.30 p.m. I may inform you that on the latter date there will be a meeting of the Scottish Advisory Committee, when perhaps some of the members of the Scottish Medical Insurance Council may be present in Edinburgh.

I am to express the regret of the Commissioners at the short notice given, but to explain that the Insurance Committees must be set up at an early date, and that the Commissioners have found it impossible to give longer notice.

I am to add that the Commissioners would be obliged if you would kindly furnish them with a reply at your early convenience.

I am, Sir,
Your obedient servant,
(Signed) HENRY L. F. FRASER,
Assistant Secretary.

The Secretary,
Scottish Medical Insurance Council,
54, George Square,
Edinburgh.

Scottish Medical Insurance Council.

54, George Square, Edinburgh,
31st May, 1912.

Sir,

Your letter of 27th instant has been considered by a meeting of the Executive of this Council, and I am instructed to inform you that this Council has already organized a Medical Committee, selected by the medical practitioners in the respective areas, in nearly every insurance area in Scotland.

The demands of the profession are well known to the Commissioners, and as soon as these are frankly conceded in the Regulations, to be issued by the Commissioners, this Council will be prepared to advise or to take such steps as may be required for the election of medical representatives to the Provisional Local Insurance Committees.

Meanwhile, the Executive fails to see that there could be any practical outcome of a conference with the Commissioners on the point indicated.

I have to add that a copy of the letter from the Commission and of this reply is being sent to the medical press.

I am, Sir,
Your obedient servant,
(Signed) D. L. EADIE,
Secretary.

The Secretary,
National Health Insurance Commission (Scotland),
42, Frederick Street,
Edinburgh.

The Supplementary Pledge.

The meeting had under consideration questions arising in regard to friendly society practice.

It was resolved that this Executive should recommend every practitioner in Scotland to sign the new pledge of the British Medical Association and urge friendly society officers to sign the notice to resign when called upon by the Local Medical Committee, and that the Organization Committee be instructed to see that this is brought under their notice.

Organization Committee.

Dr. BUIST, Convener of the Organization Committee, reported that a large number of complete returns had been received from the different insurance areas, with particulars of (1) appointment of Provisional Medical Committees, (2) members who had signed undertaking, (3) views on wage limit, (4) remuneration, (5) members engaged in friendly society practice, and (6) members willing to resign clubs.

This Committee had resolved to meet on June 6th, to determine *inter alia* further representation of populous areas on the Council, provision for deputies, and to report upon returns.

Colliery and Works Committee.

Dr. EASTERBROOK, Convener of the Colliery and Public Works Committee, reported that the Executive Committee of the Scottish Colliery and Public Works Surgeons had now been dissolved in respect of this committee having been formed to look after their interests.

Powers were asked from the Executive to co-opt a sufficient number of members to represent so far as possible the colliery and public works interests of every county in Scotland where such interests exist.

It was resolved that this Committee strongly recommends every colliery and public works surgeon to sign the supplementary pledge issued by the State Insurance Committee of the British Medical Association, which pledge will apply to all colliery and public works practices the moment these practices come under the control of approved societies.

It was resolved to organize and hold at an early date a mass meeting of colliery and public works surgeons in Glasgow.

The Executive empowered the Committee to co-opt additional members.

Rural Practice Committee.

Dr. HAMILTON, Convener, presented the report of the Rural Practice Committee, which contained recommendations in regard to: (1) Mileage, (*a*) system of calculating, (*b*) remuneration; (2) maternity benefit—arrangement for attendance regarding mileage; (3) remuneration for night visits and arrangement for medicines.

Highlands and Islands Committee.

Dr. CURRIE, on behalf of Dr. Miller (Convener), presented the report of the Highlands and Islands Committee, which contained most interesting, useful, and helpful information bearing on the special peculiarities, complexities and difficulties, amounting in many cases to hardship and duress, which attend the carrying out of professional work amongst the sparse and isolated population of the north.

The reports of the Rural and Highlands and Islands Committees were remitted to the Organization Committee.

Officers.

Dr. Dewar and Dr. MacKenzie Johnston were appointed Honorary Treasurers, and Mr. D. L. Eadie, 54, George Square, Edinburgh, Secretary.

Next Meeting.

The next meeting of the Executive was fixed to be held in Glasgow on June 15th.

IRELAND.

THE INSURANCE ACT AND THE MATERNITY HOSPITALS.

THE following resolution of the Faculty of Medicine of the Queen's University, Belfast, was unanimously adopted at a meeting held on May 28th:

That the Medical Faculty of the Queen's University of Belfast beg to draw the attention of the General Council of Medical Education and Registration of the United Kingdom to the fact that unless alterations are made in the National Insurance Act in reference to maternity hospitals, it will be impossible in the future to carry out the suggestions passed in 1907 by the General Medical Council in regard to practical midwifery, and which were adopted in full by the Queen's University of Belfast in their medical curriculum.

Under the Act a woman is deprived of "maternity benefit" if she is confined in a lying-in hospital, and payment of this benefit depends upon her being attended, either by a duly qualified medical practitioner or by a duly certified midwife. Consequently, whether an intern or an extern patient of a lying-in hospital, she will lose her "maternity benefit"; hence women (whether they are insured themselves or are the wives of insured persons) will naturally avoid maternities, with the indirect result that neither the midwife nor the medical man of the future will be able to acquire proper practical skill and experience.

The Medical Faculty of the Queen's University of Belfast would therefore respectfully urge the General Medical Council, in the interests of medical education, to take immediate action so as to safeguard the interests of such important educational institutions as maternities.

When the New Queen's University of Belfast was established, three years ago, the following suggestions, passed by the General Medical Council in 1907, in regard to practical midwifery, were adopted, and were made compulsory on students:

Every student shall be required either—

(*a*) To have regularly attended the indoor practice of a lying-in hospital or the lying-in wards of a general hospital for a period of three months; and after having received therein practical instruction in the conduct of labour, under the personal supervision of a medical officer, to have conducted twenty cases of labour under official medical supervision; or

(*b*) To have conducted not less than twenty cases of labour, subject to the following conditions:

That he has during one month given regular daily attendance upon the indoor practice of a lying-in hospital, or the lying-in wards of a general hospital or Poor Law infirmary, having a resident medical officer recognized for that purpose by the university; and that he has therein conducted cases of labour under the personal supervision of a medical officer of the hospital, who shall, when satisfied of the student's competence, authorize him to conduct outdoor cases under official medical supervision.

No certificate that the student has conducted the above-mentioned twenty cases of labour shall be accepted unless it is given by a member of the staff of a lying-in hospital, or of the maternity charity of a general hospital, or of a dispensary having an obstetric staff recognized for that purpose by the university, or of a Poor Law infirmary having a resident medical officer so recognized.

Every student before commencing the study of practical midwifery shall be required to have held the offices of clinical medical clerk and surgical dresser, and to have attended a course of lectures on surgery and midwifery.

Further, at the final M.B. degree examination of the Belfast University there is a clinical examination in obstetric medicine. Unless, however, the clauses in the present Insurance Act bearing upon "maternity" benefits be altered, it will be impossible to fulfil the regulations laid down by the General Medical Council; and hence the Medical Faculty of the Queen's University of Belfast has requested that body to urge that such clauses be changed. The first difficulty—that is, in relation to the intern maternity—might be met by making it clear to the poor that the "maternity" benefit will in all cases be paid to the woman's or her husband's dependants under Section 12 (2) (*a*) of the Act; while the second objection—in reference to the extern department of a lying-in hospital—might be obviated by arranging that women attended by medical students or pupil-midwives of a recognized maternity, under the direct supervision of the resident medical officer of the hospital, who, in turn, can command, if necessary, the services of the visiting medical staff, shall be regarded for the purposes of the Act as having been attended by a registered medical practitioner.

COUNTY INSURANCE COMMITTEES.

Early last April the medical men of North Tipperary met at Roscrea and formed themselves into a Provisional

Medical Committee. As similar committees have been formed elsewhere throughout Ireland under the auspices of the Conjoint Committee of the British Medical and Irish Medical Associations, and as the Irish Commissioners have come to the conclusion that they are thoroughly representative of the medical opinion in Ireland, the Commissioners have requested these committees to obtain lists of four names of doctors for each county who are willing to serve on the new County Insurance Committees, with a view to two of them being nominated by the Commissioners for each county. The North Tipperary Committee has now submitted four names to the Insurance Commissioners of doctors who are willing to go on the County Insurance Committee and help in any way they can. It is understood amongst the doctors that those expressing willingness to serve on this Insurance Committee will only act in the event of satisfactory terms being arranged with the profession as a whole for medical services under the Act. At the recent meeting of this Medical Committee it was announced that every medical man practising in North Tipperary, without exception, had joined, and had signed an undertaking only to take service on conditions approved by the Committee.

ENGLAND.

PROPOSED PROVISIONAL INSURANCE COMMITTEES.

Memorandum of Insurance Commissioners.

THE Insurance Commissioners for England have issued a memorandum on their proposal to institute provisional insurance committees for counties and county boroughs in England. The following is an abstract of the memorandum, supplied by the Commissioners:

Insurance committees are charged with many important duties, in particular the administration of sanatorium benefit, which must be undertaken as soon as the National Insurance Act comes into operation.

The final constitution of insurance committees, as prescribed by Section 59 of the National Insurance Act, cannot, however, be determined until the number of insured persons resident in each county or county borough and the respective numbers of members of approved societies and of deposit contributors have been ascertained. Inasmuch as no person can enter into insurance before July 15th, special arrangements have consequently to be made in order that insurance committees may be established by that date.

The Commissioners accordingly propose to exercise the powers conferred on them by Section 78 of the Act, and to make arrangements for the setting up of provisional insurance committees which will hold office until committees can be regularly constituted in accordance with the provisions of the Act.

So far as possible the number of members and the composition of the provisional committees will be based on the provisions of the Act, and the committees will be so constituted that there shall not be lacking any important element of the various kinds of experience which it is desirable should be comprised in the first committees.

The representation of insured persons will be secured mainly by utilizing the machinery at the disposal of the central organizations of friendly societies, trade unions, and industrial insurance offices for selecting suitable persons to be members of the committee. The other representatives of insured persons—for example, members of small societies and deposit contributors—will be selected by the committee itself.

The council of each administrative county and county borough has been invited to select representatives to the number of one-fifth of each committee, and steps are being taken with a view to obtaining the names of medical practitioners for inclusion on the committee.

The remaining members of each committee will be appointed by the Commissioners.

CIRCULARS BY INSURANCE COMMISSIONERS.

WOMEN CONTRIBUTORS.

THE Joint Committee of the National Health Insurance Commission has issued tables of reserve values for women (employed contributors and voluntary contributors who join within the first six months after July 15th under the age of 45). These tables show the amount which will be placed to the credit of the approved societies for each woman member. The table, as in the case of that previously issued for men, is so prepared as to make it equally advantageous to a society to take members at any age, although the rate of contribution is the same for all ages. The reserves credited to a society for married women joining as employed contributors are larger than those credited for spinsters or widows of the same age, since the society will have immediately to meet the additional cost of the sickness benefit which, in the case of insured married women, is paid concurrently with maternity benefit.

The Joint Committee has also issued draft regulations as to the accounts of approved societies, and two leaflets—one, entitled "How to Become Insured," applicable to women in the form of question and answer, and the other for domestic servants who are unmarried and under 21 years of age.

MEETINGS OF THE PROFESSION.

GREENWICH.

A MEETING of the medical men resident in the district of Greenwich was held on May 22nd. The chair was taken by Dr. ANNIS, and there were twenty-five present.

It was agreed that the local expenses should be met by a subscription of half a crown from each practitioner resident in the district, and Dr. Lovibond was appointed Honorary Treasurer.

The HONORARY SECRETARY explained that a local pledge had been issued and signed by nearly all those in actual practice in the district, but that since that date a pledge had been sent out by the Insurance Committee which, in the interests of the profession, it was necessary to sign.

The meeting was then addressed by Dr. A. H. WILLIAMS (Harrow), member of the Insurance and Advisory Committees. After some introductory remarks, he said: As you all know, we as a profession have for the last year or so been passing through a time of the greatest anxiety and danger. The extent of our danger was realized when the Insurance Bill was first published to the world a little more than a year ago.

Our difficulties in meeting the attack which this bill, as originally drafted, made upon us arose from several sources.

(*a*) There was the traditional want of unity and cohesion amongst the members of the profession. Our organization as a fighting force was far from complete.

(*b*) There was a want of mutual trust amongst us which was fostered by the excessive competition due to an overstocked profession.

(*c*) There existed in different parts of the country such extraordinarily diverse conditions in such matters as wages, standard of living, methods and rates of remuneration, etc., that it was difficult for a medical man in one part of the country to appreciate the conditions under which his medical brother might be working in another. For example, the medical man from one of the prosperous Lancashire towns where wages run to 7s., 8s., or 10s. a day, and where there are often several wage earners in a family, where house rent is cheap, where contract capitation practice is unknown, finds it very hard to understand the conditions so often found in the south of England, where large numbers of men earn 25s., 20s., or less a week, and out of this have to pay 6s. or 7s. rent for their cottages, and to keep their families on what is left. The well-to-do Lancashire workman may be able to pay good fees as per attendance, or he might be able to afford a capitation fee of 10s. for himself and every member of his family; but it is difficult to see how such a demand could be met by the poorer workmen of the south. Again, our united claim is for an income limit of £2 per week; but many tell us that this is far too high; whilst the colliery surgeons—a very large body of medical men—tell us with extraordinary unanimity that an income limit of any kind is quite an impossibility.

(*d*) Then again, as against our own internal troubles we had always in the past been faced with the wonderful organization and unity of the large and powerful friendly societies into which the workmen had banded themselves.

But the British Medical Association had been gradually learning lessons from the friendly societies. Our organization had been growing, and the introduction of the Insurance Bill was the last stimulus that was needed to convert us into a cohesive and potent fighting force.

At the end of May, last year, we were able to give out to the world, and to those responsible for this bill, a series of principles which the profession had agreed, with splendid unanimity, must be satisfied before we would undertake any work under the insurance scheme.

This unanimity had, however, not been achieved without certain compromises amongst ourselves. Extreme men in various directions had to give way; they had to come in to a point where the greater moderation of the demands enabled them to meet on common ground.

As an example, the colliery surgeons had to give up many ideas that they had come to consider essential to practice. One of their great difficulties was the income limit. They said quite definitely that with them the fixation of an income limit was an impossibility. But, though they form a very large section of the profession, they were prepared to sink their own views so as to make common cause with the rest.

But such concessions as these do not by any means dispose of the dangers of division for all time. For many men, though they may waive their own views, and for the time accept the views of the majority, have a way of returning to the charge again and again later on. This may be very creditable to their pertinacity and determination; but it is certainly a menace to unity of action and the solidarity of the profession as a whole.

The demands embodied in these cardinal principles are admitted to be moderate and reasonable by all disinterested persons. But there were certain points in them which had to be left somewhat vague. For example, the rate of remuneration could not be definitely stated till it was known what were the exact duties expected for this remuneration. Then the method of remuneration, whether by capitation fee or by payment per attendance, had to be left for local determination, as on this point the profession appeared to be almost evenly divided.

Before the Insurance Bill became an Act of Parliament the promoters of it had freely promised that it should provide for all insured persons such conditions of medical attendance as can only be secured by the hearty co-operation of the medical profession. And these promises had been rashly made and repeated again and again before this co-operation had been obtained. When our united demands were laid before the public it was found that, in spite of their moderation, some of them at least did not meet with the approval of those responsible for the bill. To provide against any danger from this source, therefore, there were inserted into the bill, at the last moment, certain loopholes through which those upon whom would devolve the working of the Act might either escape from their difficulties or might attack us. Vague and elastic powers were given to the Commissioners so that they might, under certain circumstances, either appoint whole-time medical officers to attend the insured, or they might even suspend the medical benefit. And though neither of these arrangements would provide a medical service such as had been promised again and again to the insured, nor one that would be satisfactory to them, it is certain that either would be very disadvantageous and distasteful to the medical profession as a whole.

The threat has been openly made by responsible persons that if we do not reduce our demands still more, and if we do not agree to accept whatever the Commissioners may think reasonable, the medical benefits will be suspended and the sum of 6s. per annum will be handed over to each insured person, so that he may make his own arrangements for medical attendance through the friendly societies. And it was pointed out that if our fight with the friendly societies had been troublesome in the past, it would be a much more difficult one in the future, when these friendly societies would have their membership more than doubled; when they would be receiving financial aid from the State and the employers; and when their prestige would be enhanced by the fact that they would be acting under the aegis of the State. This is the special danger that at the present time assails us. This has brought us to what is, perhaps, the most critical period of our trial. For now the time has come when the rank and file of the profession throughout the country must put into action in detail the principles of the pledge that was universally signed throughout the country little less than a year ago.

The loyalty of individual members will be tested by the threat of the loss of what may be a considerable part of their incomes; by the suggestion that others will take up their contract appointments; and by the bribe that they may get a little more than the miserable pittance hitherto paid for contract work.

If the rank and file of the profession throughout the country now fail to sign the pledge and to support the guarantee fund, and if owing to this we fail to obtain our just demands, it will be no use to raise the cry that we have been betrayed by our leaders, the Council or the Insurance Committee. The blame for the failure will then lie with the individual members of the profession.

It does not help the situation to say that we can stop the working of the Act till it has been amended to our liking. The Commissioners are compelled by what is now the law of the land to administer this Act. If they cannot provide the quality of medical attendance that was rashly promised to the insured they must provide the best that they can get. Now that that enormously powerful engine, a department of the State, has been set in motion, it will take more than a small stone to stop its working.

It is with a view to meeting the situation thus created that the State Sickness Insurance Committee of the British Medical Association has issued the new supplementary pledge and has asked for increased liberality in the support of the guarantee fund. These two schemes must go hand in hand. They work, as it were, in a cycle of interlocking circles. The more liberally that money is guaranteed, the more readily will the pledges be signed; for with a large fund to draw upon men will feel secure of an indemnity for any losses that they might suffer from giving up their present appointments. On the other hand, the more universally the pledges are signed, the more certain we are of victory—the less will be the loss to practitioners, and the less therefore the call on the guarantee fund. Thus with pledges well signed there will be confidence that very little of the amount guaranteed will ever be called up; and would-be guarantors will be encouraged to guarantee liberally and with a light heart.

The Pledge.

What the pledge aims at is to make it impossible for insured persons to obtain their medical attendance either through existing forms of underpaid contract practice or by a misuse of the out-patient departments of voluntary charities.

To achieve this the first clause provides that present holders of contract appointments shall resign these appointments *in so far as they apply to insured persons.* The second clause provides that any appointments so given up should not be taken by other medical men: and that no new similar appointments should be made without the sanction of our central authority. The third clause aims at preventing insured persons from obtaining ordinary medical attendance through the out-patient departments of voluntary hospitals.

Our Insurance Committee has been severely criticized for this pledge from curiously opposite standpoints. Some tell us that the pledge is not nearly stringent enough. To these we say that it would be no use our sending out a pledge which would be so unfair or so irksome to a large section of the profession as to make it certain that they would not sign it.

Others tell us that the pledge is far too drastic—that it is syndicalism in its worst form, and that it is degrading to an honourable profession. To these I would say that it is not syndicalism. We are not calling for a general strike. We are leaving the uninsured to obtain their treatment exactly as before. But that we do demand—and we have a right to do so—that the insured, who are being assisted by the State and by their employers, shall not in future obtain their medical attendance under the degrading conditions existing in the past. This demand is no disgrace to the honour of the profession, but quite the reverse.

Those who say that this pledge, from its drastic nature, would have unpleasant results, I would remind that the pledge is only to be brought into action if and when open war is declared. That it will be to the war and not to the pledge that the unpleasantness will be attributable. War cannot unfortunately be waged without unpleasantness. If this pledge is to be of any use it must be sufficiently strong to inflict injury on those opposed to us. It is no use to go into battle with beautifully burnished and embossed weapons which are incapable of harming the enemy.

I may here remark that the mere publication of this pledge has already done good. It may be noticed that there has been a change in the tone adopted by the Chancellor towards us. And one hears that the leaders of the friendly societies are in a state of alarm at the steps we have taken.

Difficulties in Signing.

To the holder of contract appointments who may depend on them for a large part of a not too generous income it may well be a serious matter to sign the form of resignation. However miserable the pay he cannot lightly contemplate its loss.

But what does he really stand to lose? He has the promise of the Insurance Committee that his resignations will only be used if and when there is a fairly certain chance that they can be used with success, and when the chance of others taking his appointments has been reduced to a minimum.

If the signing of these pledges has been at all unanimous, we must get the greater part, if not all, of our demands. This means that the fees received from this class of practice will be considerably higher than in the past.

If the holder has treated his patients at all well in the past, he, being the man now in possession, will retain the greater number of them still as his individual patients; and the higher rate of pay will more than compensate him for the loss of a few malcontents. Then, again, there are a large number of more or less healthy individuals who in the past have not thought it worth while to belong to any club, and who have probably been in the habit of obtaining what little medical attendance they have required gratuitously from some hospital. These men will now be forced by the Act to pay for their medical attendance. Their contributions will have to go to some medical man, and the holder of present appointments will have as good a chance of obtaining his share of them as any one else.

No! If the pledge is well signed, the chances are greatly in favour of the signatories making a gain rather than a loss. And in the unlikely event of there being a loss, there is still the guarantee fund from which compensation may be obtained if need be.

Some men may demur at the idea of giving up what has been a monopoly to them in the past. To these I would say that a year ago the profession unanimously decided that these monopolies must go, as that was the only way in which the tyranny of the friendly societies could be broken. We cannot now go back on that—which was one of the famous six points.

To put the whole matter shortly, it comes to this: We must either trust our friends—that is, our medical brethren and our State Sickness Insurance Committee, and sign the pledge; or, if we do not sign the pledge, we must put ourselves confidingly into the hands of those whom, so long as this fight continues, we must consider the enemy—namely, Mr. Lloyd George, Mr. Masterman, and the Commissioners.

In the first case we have every chance of gaining our demands, but in the second we are defeated in detail and will have to take whatever the Commissioners choose to give us. Can any one hesitate as to which is the wiser course to take?

Some holders of provident dispensary appointments hesitate to resign them on account of the hardship to the women and children. My reply to that is that after this Act comes into force there will no longer be any necessity for the insured to belong to a provident dispensary, as they will be provided for under the Act. And if it is then made a rule of the dispensary that insured persons are ineligible there will be no necessity for the appointment to the dispensary to be resigned.

The Guarantee Fund.

What is hoped for is that every medical practitioner will guarantee at least £10. Of this £1 is asked for at once; the rest will only be called for if and when it is required, and then not more than 20 per cent. at a time.

The fund is to be used (*a*) to defray the expenses of organizing the campaign in our defence, and (*b*) to provide, if necessary, compensation for those who have suffered pecuniary loss from their loyalty to their medical brethren.

For the first object only a comparatively small proportion will be required. Probably £1 per man will more than cover it.

With regard to the second object, the assertion has been widely made that the fund could not be used for the purpose proposed. But this is certainly untrue. We have the opinion of very eminent counsel that there is no doubt at all that it can be so used. The fund is no part of the ordinary funds of the Association, but is a voluntary fund, subscribed for a special purpose, and merely placed in the hands of the Council as trustees.

But in any case, if the pledges are well signed—and everything now points to that being done—I look upon this part of the fund as merely a big flag to wave in the face of the enemy. With universal loyalty amongst ourselves there will be little or nothing to be paid in the way of compensation. But at £10 a man, the £300,000 on paper would be a very fine flag to carry into battle. It would make even a bold enemy hesitate. It is not much, then, to ask every medical man, in defence of the interest, honour, and livelihood of himself and his fellow practitioners, to subscribe £1 and to guarantee a further £9 on which there is little chance of any call being made.

In conclusion, I ask every medical man to sign the pledge and to subscribe liberally to the guarantee. If that is done the victory is ours. We shall gain our just demands with our honour saved and with little cost to our pockets.

[A hearty vote of thanks was proposed to Dr. Williams, and a number of those present signed the pledge and handed in resignations of clubs.]

PROVISIONAL MEDICAL COMMITTEES.

Chelsea.

A MEETING was held at the Fulham Town Hall on May 29th. Dr. YOUNG was in the chair, and the following were present: Drs. Spaull, Coltart, Fletcher, Satchell, E. W. Lewis, A. Millar, Lee, Bonney, Benham, Ross, Hudson, Orr, W. Keen, Williams, and Gallard.

Dr. Hamilton wrote apologizing for his inability to be present.

The minutes of the last meeting were read and confirmed.

A letter was read from the Deptford Provisional Medical Committee thanking this committee for its congratulations on the results of the canvass there.

Dr. LEE moved and Dr. FLETCHER seconded the following resolution:

> That no person be eligible to act as a member of the Chelsea Provisional Medical Committee who has not signed and handed in his or her supplementary pledge and also his or her resignations of any club appointments which he or she may hold, as advised by the Council of the British Medical Association, and that the names of any of the present existing members of this committee who have not on or before our next meeting of the 29th inst. so signed and handed in the supplementary pledge and resignations be forthwith removed from the list of members, and such person forfeit his membership.

This was carried.

The canvassing lists were then amended, after a scrutiny of the recent returns by the subcommittee, and small deputations were appointed to approach those who had failed to sign the supplementary pledge, etc. The Secretary was directed to write a member of the committee who was absent and remind him that he had not yet signed the pledge nor had he forwarded any report of his canvass.

Dr. SPAULL moved, it was seconded and carried unanimously:

> That Dr. A. G. Wells be co-opted a member of this committee.

Dr. SPAULL moved and Dr. FLETCHER seconded the following resolution:

> That should the negotiations at present taking place between the Insurance Commissioners and the Association break down, this committee will place a scheme for a Public Medical Service before a general meeting of the whole profession of the district at the earliest possible date.

Dr. BONNEY was of opinion that it would be more appropriate to submit this resolution to a meeting of the Chelsea Division. Several members continued the discussion, and eventually the resolution was passed by a large majority.

The CHAIRMAN expressed the opinion that the names of all the medical men who had signed the supplementary

pledge should be read at the next meeting of the Division. Another member thought it would be better to read out the names of those who had not signed it.

Hammersmith.

Dr. P. C. Raiment, Honorary Secretary, has sent the following report of a canvass of the Hammersmith district of the Kensington Division for publication:

Practitioners resident in borough	80
Signed pledge	75
Not yet canvassed	1
Refused to sign pledge	4
Number of men holding contract appointments ...	29
Number of resignations of contract appointments ...	29

Of the four who have definitely refused to sign the pledge only one is in active practice, the balance being made up of men holding official positions who would not operate the Act in any case.

Willesden.

A meeting of all the medical men residing in the urban district of Willesden was called for Thursday, May 30th, and was held at St. Gabriel's Hall, Cricklewood. Between forty and fifty attended.

It was proposed and carried unanimously that Dr. Coram James should take the chair.

Dr. Macevoy appealed to the members of the medical profession to unite with those in other parts of the country to sign the complementary undertaking and subscribe to the guarantee fund, so as to insure that the working of the National Insurance Act shall be in accord with the wishes of the whole profession.

It was proposed, seconded, and carried unanimously:

That a Provisional Medical Committee for Willesden should be formed to ascertain the opinions of medical practitioners and to determine what attitude shall be adopted towards the National Insurance Act in this district.

It was decided that the committee shall consist of 23 members, including chairman, vice-chairman, and honorary secretary.

Dr. Macevoy proposed and Dr. Stocker seconded:

That the Executive of the Willesden Division of the British Medical Association should be elected *en bloc* as the nucleus of the committee.

This was carried *nemine contradicente*.

It was proposed:

That the remaining 7 should be elected from among non-members of the British Medical Association.

After some discussion this proposal was by permission withdrawn. The ballot resulted in the election of all 7 non-members.

The committee elected are as follows: Dr. Coram James (Chairman), Dr. Macevoy (Vice-Chairman), Dr. Soden (Honorary Secretary), Drs. Armitage, Bindley, Cardinall, Whitehall Cooke, Crone, Macauley, Anderson Smith, Smurthwaite, Carson Smyth, Rawes, Rutherford, Skene, Traylen, F. C. Evans, Felce, A. Jones, Mechan, Muller, Turner, and Walker, the last 7 not being members of the Association.

It was decided:

That membership of the committee shall not continue for longer than one year without re-election, and that a general meeting of the local profession shall be called whenever the committee think necessary or on a requisition signed by any 7 members of the profession in the district.

Nottingham.

A meeting of the profession of the city and county of Nottingham was held on May 22nd. A Provisional Committee was appointed for the city and county respectively.

Oxford.

The Oxford Provisional Medical Committee met before the General Meeting of the Oxford Division held on May 31st (see p. 521), and drew up their report. They then adjourned until after the meeting, when they met to discuss arrangements for obtaining signatures to pledges and resignation.

South Staffordshire.

A meeting of this Committee was held on May 31st in the Bell Library General Hospital. Dr. Mactier as convener took the chair. On the proposal of Dr. Craig, seconded by Dr. Ridley Bailey, Dr. Malet was unanimously elected Chairman. Dr. Mactier thereupon vacated the chair, which was taken by Dr. Malet. Dr. Ridley Bailey proposed, and it was seconded by Dr. Somerset and unanimously resolved, that Dr. Mactier be elected Honorary Secretary.

The minutes of the meeting of May 22nd were then read and confirmed.

Apologies for non-attendance were received from Drs. Deanesly and Cholmeley.

It was proposed by Dr. Mactier and seconded by Dr. Craig:

That this meeting desires to express its deepest sympathy with Mr. Cholmeley in his recent bereavement.

This was carried unanimously.

The Committee then considered the list of the members of the profession showing those who had signed the supplementary pledge and those who had subscribed to the guarantee fund, and since Dr. Mactier pointed out that only a certain number had yet been given the pledge for signature, it was decided, on the proposition of Dr. Craig, seconded by Dr. Cridland:

That a circular be sent to those members of the profession who have not signed, by post, and also the circular letter drafted by the Central Office to those who have not guaranteed, and a copy of the pledge and a guarantee form be enclosed, and that a reply be requested within seven days.

The members present were: Dr. Malet (Chairman), Drs. Somerset, Hartill, Carter, Magrane, Galbraith, Cooke, McMillan, Stockwell, Codd, Ridley Bailey, Craig, Mactier, Edge, Clendinnen, and Cridland.

MEETINGS TO BE HELD.

Wandsworth.—A meeting of the medical profession will be held at the Drill Hall, 27, St. John's Hill, Clapham Junction—telephone Putney 89—(by kind permission of Lieutenant-Colonel Lord Herbert Scott, D.S.O., Officer Commanding), on this day (Friday), June 7th, at 3.30 p.m. All medical men in the district are invited to attend. Agenda: (1) Formation of a Public Medical Service. Dr. E. B. Turner (member of State Sickness Insurance Committee and of Advisory Committee), and Dr. T. A. I. Howell have been invited to speak on the advantages of a Public Medical Service—(*a*) In the event of our accepting service under the Insurance Act; (*b*) In the event of our *not* accepting service under the Insurance Act. Dr. H. B. B. Greene will propose, and Dr. R. Carswell will second, the following resolution: "That this meeting of the medical profession do approve of the establishment of a Public Medical Service, organized and managed solely by the medical profession, and urge the Provisional Medical Committee to at once proceed to its realization." (2) Report of Provisional Medical Committee. The Honorary Secretary will make a brief statement of the work done by the committee. Dr. E. B. Turner will explain the situation in regard to the Insurance Act. (3) Treasurer's report. (4) Other business.—J. Kennish, Honorary Secretary.

CORRESPONDENCE.

Can the Doctors Work the Insurance Act?

We have received for publication the following communication:

Sir,—The Halifax Provisional Medical Committee has ordered, at its own expense, fifty copies of Dr. Lowry's book, *Can the Doctors Work the Insurance Act?* for distribution amongst the lay members of the local Insurance Committee.

In our opinion this book so lucidly presents the views of a large majority of the profession that its distribution should do much to convince laymen of the justice of our case, and so lighten the work of the local Medical Committees in their negotiations with the local Insurance Committees in the event of our consenting to work the Act.

We would strongly recommend other local Provisional Medical Committees to make a similar distribution of the book.—We are, etc.,

Priestley Leech, M.D., B.S.Lond., F.R.C.S.Eng.,
Chairman, Halifax Provisional Medical Committee.

J. Crossley Wright, M.A., M.B.,
Chairman, Halifax Division, British Medical Association.

J. F. Gill, M.B., Ch.B.,
Honorary Secretary, Halifax Division, British Medical Association.

J. F. Hodgson, M.D., D.P.H.,
Honorary Secretary, Halifax Provisional Medical Committee.

Halifax, June 3rd.

THE SUPPLEMENTARY PLEDGE.

University College Hospital: A Correction.

Mr. RAYMOND JOHNSON (Chairman of the Medical Committee, University College Hospital) writes: I shall esteem it a favour if you will allow me this opportunity of correcting an erroneous statement which appears in the SUPPLEMENT of June 1st, p. 578.

In the report of a discussion on the National Insurance Act which took place at a meeting of the practitioners of St. Pancras and Islington on May 24th it is stated that "the staff of the University College Hospital has signed the pledge to a man." This is not the case.

The matter has been fully discussed at a meeting of the Medical Committee, at which a resolution was passed to the effect that the committee was in entire sympathy with the policy of the British Medical Association, as expressed in the complementary pledge. The question is now under consideration by a subcommittee of representatives of the General and Medical Committees.

Dr. B. G. MORISON (late Chairman, St. Pancras and Islington Division) writes: Will you permit me to rectify an inaccurate statement, for which I am responsible and which occurs in the report of a meeting of the St. Pancras and Islington Division, given in the SUPPLEMENT of June 1st? It is to the effect that "the staff of University College Hospital has signed the pledge to a man." This statement, which was founded on my misunderstanding of a communication made to me at the meeting in question, is incorrect. I have since learnt that the staff of this hospital has not signed the pledge, and that the question of signature is still under consideration. I should like to add that I would be most unwilling to push decision in this matter, and the more so that I entertain no doubt that the staffs of hospitals, whether by expressed adhesion or not, are fully in accord with the profession as a whole in its present controversy with the Government.

Vital Statistics.

THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

[SPECIALLY REPORTED FOR THE "BRITISH MEDICAL JOURNAL."]

THE quarterly return of the Registrar-General relating to the births and deaths in the first quarter of the year, and to the marriages during the three months ending December last, has just been published. In the present issue the tables of births and deaths in the several registration districts and subdistricts, hitherto included in the return, have been discontinued in view of the alteration in the system of tabulation adopted as the basis of the arrangement in the Registrar-General's Annual Report; in future this report will show the births and deaths according to the administrative area in which the deceased person or the parents of the newly born child were resident.

The 222,589 births registered in England and Wales during the period under notice were equal to an annual rate of 24.4 per 1,000 of the population, estimated at 36,539,636 persons in the middle of the year; this birth-rate is 2.9 per 1,000 below the average for the corresponding quarters of the ten preceding years, and is the lowest rate recorded in the first three months of any year since civil registration was established. The birth-rates in the several counties ranged from 17.9 in Sussex, 18.2 in Carnarvonshire, 19.2 in Dorsetshire and in Somersetshire, and 19.7 in Devonshire to 27.3 in Northumberland, 27.6 in Carmarthenshire, 28.9 in Staffordshire, 30.6 in Glamorganshire, 31.1 in Durham, and 31.2 in Monmouthshire. In ninety-four of the largest towns the birth-rate averaged 25.7 per 1,000, in London the rate was 25.8, while among the other towns the lowest rates were 15.4 in Hastings, 15.7 in Bournemouth, 15.9 in Southport, 16.2 in Blackpool, 16.6 in Hornsey, and 16.7 in Ilford; and the highest rates were 32.5 in Sunderland, 32.7 in Barnsley, 33.2 in Middlesbrough, 34.2 in Stockton-on-Tees, 34.4 in St. Helens, and 35.0 in Rhondda.

The excess of births over deaths during the quarter was 77,957, against 68,281, 85,286, and 80,455 in the corresponding quarter of the three preceding years. From a return issued by the Board of Trade it appears that the passenger movement between the United Kingdom and places outside Europe resulted in a net balance outwards of 47,819 English passengers, 1,003 Welsh, 10,318 Scottish, 3,141 Irish, and 11,599 of foreign nationality, while among British Colonial passengers the arrivals exceeded the departures by 951; the balance of the aggregate passenger movement to and from all countries was 58,172 outwards.

The deaths registered last quarter in England and Wales numbered 144,632, and were equal to an annual rate of 15.9 per 1,000, or 1.6 per 1,000 below the average for the ten preceding first quarters. The lowest county death-rates last quarter were 11.6 in Middlesex, 12.4 in Essex, 13.1 in Surrey, and 13.3 in Sussex; the highest rates were 17.5 in Norfolk, 18.1 in Carnarvonshire, 18.2 in Cumberland, 18.3 in Lancashire, and 1.8 in Staffordshire. In ninety-four of the largest towns the rate was 16.2 per 1,000: in London it was 15.3 per 1,000, while among the other towns the rates ranged from 9.3 in Southend, 9.4 in Ilford, 10.8 in Hornsey, in Walthamstow, and in Eastbourne, and 11.2 in Wimbledon to 20.5 in Manchester, 20.6 in Preston, 20.7 in Merthyr Tydfil, 20.8 in Salford, 21.9 in Dudley, and 24.2 in Walsall.

The 144,632 deaths from all causes last quarter included 2,926 that were attributed to whooping-cough, 1,986 to measles, 1,368 to diphtheria, 1,268 to diarrhœa and enteritis (among children under 2 years of age), 549 to scarlet fever, 425 to enteric fever, and one to small-pox; the average mortality from diarrhœa and enteritis among children under two is not available for comparison, but the mortality from each of the other diseases specified was below the deennial average.

The rate of infant mortality measured by the proportion of deaths among children under 1 year of age to registered births was equal to 114 per 1,000, or 14 per 1,000 less than the average rate for the ten preceding first quarters, and was lower than that recorded in the corresponding period of any year since 1870, the first year for which the information is available. Among the several counties the rates of infant mortality last quarter ranged from 70 in Herefordshire, 79 in Sussex, 83 in Wiltshire, 88 in Somersetshire, and 90 in Essex to 147 in Denbighshire, 149 in Cumberland, 154 in Staffordshire, 156 in Glamorganshire, and 184 in Carnarvonshire. In ninety-four of the largest towns the rate averaged 113 per 1,000, and ranged from 54 in Blackpool, 56 in Southend, 67 in Oxford, 69 in Enfield, and 73 in Hastings to 167 in West Bromwich, 172 in Dudley and in Great Yarmouth, 183 in Rhondda, 202 in Merthyr Tydfil, and 215 in Walsall.

The deaths among persons aged 1 to 65 years were at the rate of 8.3 per 1,000 of the population estimated to be living at this group of ages; in the ninety-four large towns the rate averaged 9.2 per 1,000, and ranged from 4.2 in Ilford, 4.9 in Lincoln, 5.0 in Hornsey, 5.2 in Southend, and 5.3 in Hastings to 13.0 in Manchester and in Oldham, 13.3 in Salford, and 13.5 in Walsall.

Among persons aged 65 years and upwards the death-rate was 114.6 per 1,000; in the ninety-four large towns the death-rate in this age-group averaged 126.2 per 1,000, and ranged from 72.9 in Edmonton, 80.7 in Southend, 81.1 in Eastbourne, 81.9 in Grimsby, and 84.1 in Aberdare to 177.0 in Bolton, 186.1 in West Hartlepool, 188.0 in Preston, 193.2 in Barrow-in-Furness, and 200.0 in Dudley.

The mean temperature of the air last quarter was above the average in all parts of the country; the rainfall for the quarter was largely in excess of the average; while the duration of bright sunshine was generally very deficient.

HEALTH OF ENGLISH TOWNS.

IN ninety-five of the largest English towns 8,666 births and 4,386 deaths were registered during the week ending Saturday, May 25th. The annual rate of mortality in these towns, which had been 13.9, 14.2, and 12.7 per 1,000 in the three preceding weeks, increased to 13.0 per 1,000 in the week under notice. In London the death-rate was equal to 12.3 per 1,000, against 13.7, 14.1, and 11.7 per 1,000 in the three previous weeks. Among the ninety-four other large towns the death-rates ranged from 4.6 in Cambridge, 5.8 in Oxford, 5.9 in Tottenham, 6.1 in Swindon, 6.4 in Darlington, and 6.7 in Bath to 18.5 in Stoke-on-Trent and in Manchester, 19.1 in Barnsley, 19.5 in Cardiff, 19.7 in Wigan, and 23.0 in Rotherham. Measles caused a death-rate of 1.5 in Bristol, 1.6 in Salford, 1.7 in Manchester, 1.8 in Gateshead, 1.9 in Dewsbury and in Merthyr Tydfil, 2.2 in Liverpool, 4.9 in Rotherham, 6.2 in Cardiff, and 7.7 in Ipswich; whooping-cough of 1.4 in Plymouth, in Smethwick, and in Stockport, 1.7 in Wigan, 2.1 in Gloucester, and 3.0 in Barnsley; and diphtheria of 1.3 in Swansea and 2.0 in Portsmouth. The mortality from scarlet fever and enteric fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 32, or 0.7 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest, and included 4 in Liverpool, 3 in Birmingham, and 2 each in Portsmouth, Bury, Manchester, South Shields, and Gateshead. The number of scarlet fever patients under treatment in the Metropolitan Asylum Hospitals and the London Fever Hospital, which had been 1,214, 1,242, and 1,213 at the end of the three preceding weeks, had risen to 1,231 on Saturday, May 25th; 182 new cases were admitted during the week, against 158, 168, and 146 in the three preceding weeks.

In ninety-five of the largest English towns 7,315 births and 4,270 deaths were registered during the week ending Saturday, June 1st. The annual rate of mortality in these towns, which had been 14.2, 12.7, and 13.0 per 1,000 in the three preceding weeks, fell to 12.6 per 1,000 in the week under notice. In London the death-rate was equal to 11.6 per 1,000, against 14.1, 11.7, and 12.3 per 1,000 in the three preceding weeks. Among the ninety-four other large towns the death-rates ranged from 4.4 in Ilford, 5.0 in Wakefield, 5.3 in West Bromwich, 6.2 in Southend-on-Sea and in Lincoln, 6.5 in Cambridge, and 7.2 in Croydon and in East Ham, to 16.7 in Stoke-on-Trent and in Manchester, 17.1 in Huddersfield, 17.5 in Nottingham, 17.6 in Birkenhead, 18.9 in Liverpool, and 23.8 in Rotherhithe. Measles caused a death-rate of 2.1 in Liverpool, 3.2 in Merthyr Tydfil, 5.1 in Cardiff, and 7.4 in Rotherham; whooping-cough of 1.3 in Salford, 1.6 in Birkenhead, 1.7 in Wigan, and 2.1 in Ipswich; and enteric fever of 1.1 in Bradford. The mortality from scarlet fever and diphtheria showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 35, or 0.8 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest, and included 9 in Birmingham, 4 in Liverpool, and 3 in Stoke-on-Trent. The number of scarlet fever patients under treatment in the Metropolitan Asylum Hospitals and the London Fever Hospital, which had been 1,242, 1,213, and 1,231 at the end of the three preceding weeks, had further risen to 1,245 on Saturday last; 155 new cases were admitted during the week, against 168, 146, and 182 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

IN eighteen of the largest Scottish towns 1,136 births and 644 deaths were registered during the week ending Saturday, May 25th. The annual rate of mortality in these towns, which had been 15.9 and 15.8 per 1,000 in the two preceding weeks, further fell to 15.4 in the week under notice, but was 2.4 per 1,000 above the rate recorded in the ninety-five large English towns. Among the several Scottish towns the death-rates ranged from 6.5 in Clydebank, 7.6 in Falkirk, and 7.9 in Hamilton to 18.9 in Coatbridge, 19.6 in Paisley, and 21.8 in Ayr. The mortality from the principal infectious diseases averaged 1.5 per 1,000, and was highest in Coatbridge and Partick. The 257 deaths from all causes registered in Glasgow included 2 from enteric fever, 5 from measles, 1 from scarlet fever, 5 from whooping-cough, 3 from diphtheria, and 3 from infantile diarrhœal diseases. Eight deaths from measles were recorded in Partick, 5 in Coatbridge, and 4 in Paisley; 2 from scarlet fever in Greenock; and 4 from whooping-cough in Dundee, and 3 in Edinburgh.

In eighteen of the largest Scottish towns 1,146 births and 629 deaths were registered during the week ending Saturday, June 1st. The annual rate of mortality in these towns, which had been 15.9, 15.8, and 15.4 per 1,000 in the three preceding weeks, further fell to 15.0 per 1,000 in the week under notice, but was 2.4 per 1,000 above the rate recorded in the ninety-five large English towns. Among the several Scottish towns the death-rates ranged from 6.5 in Clydebank, 8.0 in Paisley, and 10.0 in Motherwell to 19.6 in Dundee, 20.1 in Coatbridge, and 22.5 in Kilmarnock. The mortality from the principal epidemic diseases averaged 1.4 per 1,000, and was highest in Dundee and Coatbridge. The 254 deaths from all causes registered in Glasgow included 7 from diphtheria, 6 from measles, 5 from whooping-cough, 3 from

scarlet fever, and 2 from enteric fever. Five deaths from measles were recorded in Dundee, 4 in Edinburgh, and 4 in Coatbridge; and 2 deaths from whooping-cough and 3 from infantile diarrhoea in Dundee.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, May 25th, 646 births and 375 deaths were registered in the twenty-two principal urban districts of Ireland, as against 729 births and 412 deaths in the preceding week. The annual death-rate in these districts, which had been 20.2, 19.9, and 18.6 per 1,000 in the three preceding weeks, fell to 16.9 per 1,000 in the week under notice, this figure being 3.9 per 1,000 higher than the mean average death-rate in the ninety-five English towns for the corresponding period. The figures in Dublin and Belfast were 17.8 and 17.1 respectively, those in other districts ranging from 3.9 in Galway and 5.7 in Newtownards to 25.2 in Drogheda and 26.2 in Newry, while Cork stood at 17.7, Londonderry at 15.3, Limerick at 16.3, and Waterford at 19.0. The zymotic death-rate in the twenty-two districts averaged 1.5 per 1,000, as against 1.3 in the preceding period.

During the week ending Saturday, June 1st, 612 births and 399 deaths were registered in the twenty-two principal urban districts of Ireland, as against 646 births and 375 deaths in the preceding week. The annual death-rate in these districts, which had been 19.9, 18.6, and 16.9 per 1,000 in the three preceding weeks, rose to 17.9 per 1,000 in the week under notice, this figure being 5.3 per 1,000 higher than the mean average death-rate in the ninety-five English towns for the corresponding period. The figures in Dublin and Belfast were 19.1 and 14.9 respectively, those in other districts ranging from 4.3 in Lurgan and 5.1 in Clonmel to 45.8 in Newtownards and 46.1 in Queenstown, while Cork stood at 21.1, Londonderry at 12.7, Limerick at 20.4, and Waterford at 28.5. The zymotic death-rate in the twenty-two districts averaged 1.4 per 1,000 as against 1.5 in the preceding period.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

SURGEON HUGH BERNARD GERMAN was on May 23rd permitted to withdraw from the service with a gratuity under the provisions of the Order in Council of April 1st, 1881.

ARMY MEDICAL SERVICE.

COLONEL LOUIS E. ANDERSON, to be Surgeon-General, dated May 4th, 1912.

Lieutenant-Colonel BRUCE M. SKINNER, M.V.O., from the Royal Army Medical Corps, to be Colonel, dated May 4th, 1912.

Lieutenant-Colonel ROGER KIRKPATRICK, C.M.G., M.D., from the Royal Army Medical Corps, to be Colonel, dated May 21st, 1912.

ROYAL ARMY MEDICAL CORPS.

THE undermentioned Captains to be Majors, dated May 29th, 1912: WILLIAM R. P. GOODWIN, WILLIAM L. STEELE, WILLIAM RIACH, M.D., JAMES C. KENNEDY, M.D., ARTHUR R. C. PARSONS, and EYRE W. POWELL.

Major H. SWABEY has been appointed to command the Section Hospital, St. Thomas's Mount.

Major I. A. O. MACCARTHY has been transferred from the London District to Hounslow.

Captain G. P. A. BRACHEN has been appointed to command the Station Hospital, Malappuram.

Captain W. B. PURDON has been appointed to command the Station Hospital, Cannanore.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL J. LLOYD JONES has been granted privilege leave for two months and eighteen days, and, in continuation, furlough for four months and fourteen days, with effect from April 13th, 1912.

Lieutenant-Colonel E. H. WRIGHT has been granted privilege leave for two months from date of relief.

Major J. C. H. LEICESTER has been appointed Civil Surgeon of the Second Class, with effect from April 1st, 1912.

Major J. D. MEGAW has been appointed Civil Surgeon of the Second Class, with effect from April 1st, 1912.

Captain ANDERSON is posted as Residency Surgeon at Gwalior.

Captain F. A. BAKER, M.B., is granted privilege leave for two months and nineteen days, with effect from June 4th, 1912.

Captain BRIERLEY is posted as Civil Surgeon at Peshawar.

The services of Captain A. CAMERON, M.B., and Captain H. C. BUCKLEY, M.D., Plague Medical Officers in the Punjab, are replaced at the disposal of the Government of India, Department of Education.

Captain F. P. CONNOR on temporary plague duty at Gaya is granted combined leave for eighteen months.

Captain DRAKE has been appointed to officiate as Assay Master, Bombay, vice Lieutenant-Colonel Lloyd Jones on six months' leave.

Captain C. L. DUNN, officiating Deputy Sanitary Commissioner, 2nd Circle, is deputed to Amritsar to attend the malaria class.

The services of Captain F. C. FRASER, M.D., are replaced at the disposal of His Excellency the Commander-in-Chief in India.

Captain A. W. GREIG temporarily joins the Jail Department in the Punjab.

The services of Captain GRISEWOOD, Plague Medical Officer, Delhi, are placed at the disposal of the Chief Commissioner, Central Provinces.

Captain H. HALLIDAY, Civil Surgeon, Lyallpur, is transferred to Murree, from April 7th.

Captain E. J. C. MCDONALD, on being relieved of his duties as Officiating Civil Surgeon at Sibsagar, is appointed to be Supernumerary Medical Officer in Assam, and posted to Dibrugarh, and is appointed temporarily to hold charge of the Lakimpur Military Outpost at Rotung.

Captain J. M. A. MACMILLAN, M.B., Civil Surgeon, Hoshangabad, has been granted privilege leave for three months, with effect from May 17th, 1912.

Captain PIERPOINT has been appointed Agency Surgeon at Khyber.

The notifications dated March 27th, 1912, transferring Captain W. D. RITCHIE from Dhubri to Sibsagar, and Captain C. A. GODSON from Sibsagar to Gauhati, and appointing Captain J. F. JAMES to officiate as Civil Surgeon, Goalpara, are cancelled.

The services of Major E. L. WARD are placed at the disposal of the Director of Temporary Works, Delhi.

Captain R. T. WELLS, Plague Medical Officer, Jullunder, has been granted leave for six months from May 1st.

VOLUNTEER DEPARTMENT.

Surgeon-Lieutenant A. R. J. DOUGLAS, M.D., Burma Railway Volunteer Corps, has been granted leave for five months and fifteen days, with effect from April 25th, 1912.

TERRITORIAL FORCE.

ROYAL ARMY MEDICAL CORPS.

For Attachment to Units other than Medical Units.—VINCENT HOWARD (late Lieutenant Buckinghamshire Battalion, the Oxfordshire and Buckinghamshire Light Infantry), to be Lieutenant, dated May 29th, 1912.

CHANGES OF STATION.

THE following changes of station amongst the officers of the Army Medical Service have been officially reported to have taken place during April:

		FROM		TO
Lieut.-Colonel	W. C. Beevor, C.M.G., M.B.	Fermoy	...	Dublin.
,,	C. Birt	Dublin ...	...	London.
,,	C. C. Reilly	R. Mil. Coll.	...	Colaba.
,,	F. W. C. Jones, M.B.	Quetta ...	...	Meerut.
,,	C. A. Lane, M.B. ...	Hounslow ...	...	Madras.
,,	E. A. Burnside	Bellary ...	...	Bangalore.
,,	A. P. Blenkinsop ...	R.A.M. Coll.	...	Simla.
,,	A. J. Luther	Cahir ...	...	Fermoy.
Major	A. W. Bewley	Meerut ...	...	Ranikhet.
,,	A. E. Smithson, M.B. ...	Pietermaritzburg	...	Ireland.
,,	F. J. W. Porter, D.S.O. ...	Cosham	...	Bellary.
,,	A. G. Thompson, M.B. ...	Ferozepore	...	Pachmarhi.
,,	F. A. Symons, M.B. ...	Cosham	...	Gosport.
,,	H. W. Grattan	Lucknow	...	Naini Tal.
,,	A. H. O. Young	Halifax	...	Strensall.
,,	P. H. Collingwood ...	Devonport	...	Crownhill.
,,	G. M. Goldsmith, M.B. ...	Thayetmyo	...	Lebong.
,,	G. J. A. Ormsby, M.D. ...	Dinapore	...	Landour.
,,	J. J. W. Prescott, D.S.O.	Newcastle	...	Cosham.
,,	H. S. Roch	York ...	...	Pretoria.
,,	F. Harvey	Devonport	...	Okehampton.
,,	O. W. A. Elsner	Pretoria	...	Pietermaritzburg.
,,	F. G. Richards	—		Queenstown.
,,	C. H. Straton	London	...	Pretoria.
,,	B. F. Wingate	Secunderabad	...	Wellington.
,,	J. G. Churton	Peshawar	...	Bangalore.
,,	J. P. J. Murphy, M.B. ...	Dover ...	...	Cape Town.
Captain	W. S. Crosthwait	Fermoy	...	Clonmel.
,,	J. T. Johnson, M.D. ...	Bareilly	...	Chakrata.
,,	J. L. Jones	Netley ...	...	Secunderabad.
,,	J. S. Bostock, M.B. ...	Agra ...	...	Ranikhet.
,,	D. L. Harding, F.R.C.S.I.	Enniskillen	...	Belfast.
,,	T. F. Ritchie, M.B. ...	—		West Africa.
,,	A. W. Sampey	Warley ...	...	Naini Tal.
,,	N. E. J. Harding, M.B.	—		West Africa.
,,	J. H. Duguid, M.B. ...	Tipperary	...	Calcutta.
,,	H. T. Stack, M.B. ...	Bareilly	...	Ranikhet.
,,	G. W. G. Hughes ...	Scarborough	...	Bradford.
,,	G. F. Rugg	Quetta ...	...	Peshawar.
,,	C. Ryley	Chatham	...	Shoeburyness.
,,	H. C. Sidgwick, M.B. ...	Kingston-on-Thames	...	Woolwich.
,,	C. R. Millar	—	...	London Dist.
,,	R. G. Meredith, M.B. ...	Pontefract	...	Lichfield.
,,	H. O. M. Beadnell ...	Ashton ...	...	Chester.
,,	G. G. Tabuteau	Jhansi ...	...	Dublin Dist.
,,	R. E. Humfrey, M.B. ...	,,	...	Curragh.
,,	J. A. Anderson, M.B. ...	Bloemfontein		Scotland.
,,	G. H. Rees, M.B. ...	Alexandria	...	Ireland.
,,	E. G. Anthonisz ...	Cannanore	...	,,
,,	R. A. Bryden	Bloemfontein		Hounslow.
,,	W. J. Weston	Gibraltar	...	Ireland.
,,	A. E. F. Hastings ...	Calcutta	...	E. Command.
,,	M. J. Cromie	Kilbride	...	Dublin.
,,	E. T. Potts, M.D. ...	—		,,
,,	G. W. W. Ware, M.B.	Gosport	...	Dorchester.
,,	W. C. Nimmo	Meerut ...	...	Chatham.
,,	T. S. Blackwell	Bhamo ...	...	Belfast.
,,	H. E. Priestley	Gibraltar	...	S. Command.
,,	P. J. Marett	—		Gravesend.
,,	J. S. Dunne, F.R.C.S.I.	Agra ...	...	E. Command.
,,	T. C. C. Leslie	Maritzburg	...	Cork.
,,	D. De C. O'Grady ...	Peshawar	...	Rawal Pindi.
,,	J. A. B. Sim, M.B. ...	Bermuda	...	Edinburgh.
,,	R. W. D. Leslie	Malta ...	...	S. Command.
,,	D. Coutts, M.B.	Allahabad	...	Ranikhet.
,,	G. P. A. Bracken ...	Secunderabad		Malappuram.
,,	W. J. E. Bell, M.B. ...	Golden Hill	...	Cosham.
,,	A. H. Jacob	Attock ...	...	Rawal Pindi.
,,	D. F. Mackenzie, M.B.	Dinapore	...	Darjeeling.
,,	J. du P. Langrishe, M.B.	Kirkee ...	...	Colaba.
,,	A. C. Elliott, M.B. ...	Campbellpore		Sialkot.
,,	R. F. O'T. Dickinson	Bareilly	...	Landour.
,,	T. S. Eves, M.B. ...	Lucknow	...	Benares.
Lieutenant	S. S. Dykes, M.B.	,,	...	Dinapore.
,,	W. H. O'Riordan ...	York ...	...	Rawal Pindi.
,,	R. C. Priest, M.B. ...	Allahabad	...	Lebong.
,,	P. S. Tomlinson ...	Lucknow	...	Allahabad.
,,	G. P. Taylor, M.B.	Glasgow	...	Pretoria.
,,	A. W. Bevis	Chatham	...	Bloemfontein
,,	M. J. Williamson, M.B.	Tidworth	...	,,
,,	C. L. Franklin, M.B.	Preston	...	Harrismith.
,,	H. R. Edwards ...	Woolwich	...	Pretoria.
,,	A. G. Jones, M.B. ...	Oxford ...	...	Tidworth.
,,	T. H. Dickson, M.B.	Curragh	...	Gibraltar.
,,	R. M. Davies, M.B.	Chatham	...	Pretoria.
,,	R. C. G. M. Kinkead, M.B.	Cork ...	...	Bloemfontein.
,,	E. C. Stoney, M.B.	Bangalore	...	Secunderabad.
,,	E. L. Fyffe, M.B. ...	Fermoy	...	Cork.
,,	G. O. Chambers ...	Bradford	...	Lichfield.
,,	W. S. R. Steven, M.B.	Woolwich	...	Hounslow.
,,	C. D. K. Seaver ...	Fethard	...	Kinsale.
,,	J. S. Levack, M.B.	Lichfield	...	York.
,,	W. T. Graham, M.B.	Worcester	...	Tidworth.
,,	L. Buckley, M.B. ...	Aldershot	...	Bordon.
,,	A. S. Heale	Cosham	...	Hilsea.

GENERAL COUNCIL
OF
MEDICAL EDUCATION AND REGISTRATION.

SUMMER SESSION, 1912.

Tuesday, June 4th, 1912.

Sir DONALD MACALISTER, K.C.B., President, in the Chair.

THE ninety-fifth session of the General Council of Medical Education and Registration began at the offices of the Council, 299, Oxford Street, on Tuesday, June 4th, 1912.

NEW MEMBERS.

The following new members were introduced:

Dr. Theodore Cash, as Representative of the University of Aberdeen, for five years from December 13th, 1911, introduced by Sir Thomas Fraser.

Dr. James Lorrain Smith, as Representative of the Victoria University of Manchester, for two years from May 8th, 1912, introduced by Dr. Caton.

Dr. George Alexander Gibson, as Representative of the Royal College of Physicians of Edinburgh, introduced by Mr. Hodsdon.

Dr. David Hepburn, as Representative of the University of Wales, for three years from May 18th, 1912, introduced by Dr. Latimer; and

Mr. T. Jenner Verrall, as Direct Representative for England, for five years from January 1st, 1912, introduced by Dr. Macdonald.

PRESIDENT'S ADDRESS.

Changes in the Council.

GENTLEMEN,—As on previous occasions, I have at the opening of this ninety-fifth session to begin my address with *Ave atque vale*. Our senior member, Sir John Batty Tuke, has retired after a quarter of a century of distinguished service; and another member, who joined us but three years ago, has suddenly passed away in the midst of his varied and important activities. Only those who, like myself, are among the seniors can fully appraise the value of Sir John's contributions to the educational and professional advances we have made during the last twenty-five years; but all alike have recognized his devotion to the public purposes for which the Council exists, and have been helped by his mature and independent judgement on questions of policy or practice. The qualities that marked him for eminence in professional life he freely applied to the business of the Council, and more than one department of its work was developed under his direction. The cordial good wishes of his colleagues will follow him in his well-earned retirement.

By the death of Dr. Dixon Mann, the Victoria University of Manchester loses an able and energetic teacher, the profession an acknowledged authority on medico-legal problems, and the Council a member of wide experience and forceful intellect. We remain his debtors for the part he took in remodelling the regulations for qualifications in public health, and share with many in unavailing regret for the untimely interruption of his services to medicine and the State.

In his place we welcome Dr. Lorrain Smith, F.R.S. The field of his professional experience, which includes England, Scotland, and Ireland, fits him in a special degree for effective membership of this Council of the United Kingdom. From Edinburgh, in the room of Sir John Tuke, we receive Dr. G. A. Gibson, formerly an Inspector of Examinations on the Council's behalf, a graduate of numerous universities on both sides of the Atlantic, and a leader in medical science and practice on both sides of the Border. He will find that his name is already familiar to the Council. The University of Wales, in virtue of a recent Act of Parliament, has appointed Professor Hepburn, Dean of the Medical Faculty at Cardiff, to be its first representative. The Council has already noted with satisfaction that the University of Wales proposes to require from its medical graduates a high standard of educational and technical attainment. Professor Hepburn's work in connexion with the upbuilding of the medical school in Cardiff has gone far to realize the university's ideals. The Council will follow with interest the progress of the movement towards higher professional education to which, with a laudable ambition to excel, the Welsh nation has thus committed itself.

Last November I intimated that Professor Cash, of the University of Aberdeen, and Mr. Verrall, the fourth member elected by the practitioners of England and Wales, were about to enter the Council. To-day they take their places among us. I may in your name assure them, and the other new members, that we are glad to share our responsibilities with them, and that we count with confidence on their effective co-operation.

The late Lord Lister.

Since we last assembled, Lord Lister, the most illustrious of our former members, has passed from life, full of years and of honours. At his funeral the nations of the world were united in offering their tributes of gratitude and veneration to his memory. The Council was represented in Westminster Abbey by the President and other members, and on its behalf the Executive Committee conveyed to Lord Lister's family a suitable expression of its sympathy. The Council will ever proudly cherish the recollection that the founder of antiseptic surgery was at one time enrolled in its membership.

The National Insurance Act.

The National Insurance Bill, which occupied much of our attention last session, has passed into law. A number of the Council's amendments, proposed in the interest of professional efficiency, which is also the interest of the public, were adopted in principle by the Government. But important questions of a like nature arise directly or indirectly from the provisions of the Act as it now stands, and it remains to be seen whether the powers conferred on the Insurance Commissioners suffice to ensure that these questions shall be solved in a satisfactory manner. At an early stage in their proceedings the Commissioners under the Act invited the Council to appoint representatives for the purpose of taking part, with many other bodies and persons, in an informal conference on the medical aspects of the scheme. It seemed to myself, and to the members I was able to consult, that the invitation indicated some misapprehension of the functions and procedure of the Council. The Committee on the bill had discharged the duties remitted to it when the bill became an Act. Further instructions could be given only by the Executive Committee or the Council itself, and neither was in session. It was therefore impracticable, in response to the invitation received, to procure the appointment of duly authorized representatives, and I informed the Commissioners accordingly. The proposed conference was afterwards postponed, and I am not aware that it has since been convened. Meanwhile, with the assistance of large and influential Advisory Committees, the Commissioners are preparing regulations for the administration of medical, maternity, and sanatorium benefits. These regulations must of necessity have a bearing on various matters which directly concern this Council, such as clinical and obstetrical instruction, the guarantees for efficient practice, and the exercise of professional discipline. It is therefore important that the Council should have an opportunity of considering the regulations from the point of view imposed upon it by its statutory responsibilities, and there is reason to expect that such an opportunity will be offered. The Council will probably think fit to arrange for the appointment of a special committee to study the operation of the Act, and of any regulations proposed to be made thereunder, with the object of safeguarding the educational and other interests which I have indicated.

Select Committee on Proprietary Medicines.

A Select Committee of the House of Commons has been appointed "to consider and inquire into the question of patent and proprietary medicines and medical preparations and appliances, and advertisements relating thereto; and to report what amendments, if any, in the law are necessary or desirable." The question has obvious relations to the work of the Pharmacopœia Committee and of the Unqualified Practice Committee of the Council. In reply to an official invitation I have therefore suggested that Dr. Tirard, as an editor of the *Pharmacopœia*, and Dr. Langley Browne, as Chairman of the Unqualified Practice Committee, should offer themselves as witnesses on the subject. Dr. Tirard has already appeared once before the Select Committee, but his evidence is not yet completed.

Canada Medical Act.

Information has reached me that the Dominion Medical Act of last year, due in great measure to the unwearying efforts of Dr. Roddick of Montreal, has now been adopted severally by each of the Provinces of Canada. Should this information prove correct, the way is at length open for the establishment of a Medical Register for the Dominion as a whole, and for the introduction of inter-provincial reciprocity in respect of medical qualifications and privileges.

These results have long been desired in this country as well as in Canada. In due time they will doubtless be followed by the application of Part II of the Medical Act (1866) to the Dominion, as it has now been applied to all the other possessions of the Crown in which medical qualifications are conferred. Already much has been done, at the instance of the Council, to promote uniformity of educational standard and equality of professional rights throughout the Empire. By the entrance of Canada into the federal relation, a necessary condition for the ultimate establishment of British (in the sense of Imperial) registration will have been fulfilled.

Registration in Ireland under Home Rule.

The programme of business contains a notice of motion that is of special interest in this connexion. It calls attention to the importance of maintaining the system of registration first established in 1858, a system which has made it possible to ensure uniformity of professional standards and privileges within the United Kingdom itself. It is accordingly suggested that in the Government of Ireland Bill, now under consideration by the Legislature, the power of altering the Medical and Dentists Acts should be reserved to the Imperial Parliament.

The Revision of the "Pharmacopoeia."

The Editors of the *British Pharmacopoeia* have been diligently occupied during the recess in preparing the draft text of the new issue. Two important sections of the work are now ready for detailed examination and revision by the Pharmacopoeia Committee. Committees of reference in chemistry and in botany have been appointed for purposes of consultation on points of scientific nomenclature, identification, and the like. During the summer special meetings of the Pharmacopoeia Committee will be held in order to accelerate the preparation of the text for press. By the incorporation of such portions of the *Indian and Colonial Addendum* as are proved to be serviceable, the new *Pharmacopoeia* will be adapted more fully than its predecessors to the varied requirements of the Empire at large.

Medical Education and Examination in India.

By courtesy of the Indian Government the Council has received much valuable information regarding the courses of study and examination required of candidates for the subordinate grades of the medical service in India. The Committees of the Council, and certain of the licensing bodies in this country, have hitherto found some difficulty in ascertaining necessary particulars concerning such candidates, when they apply for admission to examination in this country. As a result some differences of practice have arisen which it is desirable to obviate. The Joint Committee to which the question was referred in November will now report upon it for your information. In the meantime the officials at the India Office are considering methods by which the actual curricula and examinations taken by Indian candidates for British diplomas may be conveniently certified to the medical authorities here.

Legal Decisions on Medical and Dentists Acts.

Under instructions from the Executive Committee, Mr. Harper, as Solicitor to the Council, has prepared a volume containing reports of all the cases tried before the Superior Courts in which questions affecting the interpretation of the Medical and Dentists Acts were involved. Inasmuch as the powers and the gradually elaborated practice of the Council, as a tribunal, rest in large measure on judicial decisions given in connexion with these cases, Mr. Harper's careful and comprehensive digest will be of value not only to our members and officers, but to the public and the profession in general.

Registration of Students.

The Education Committee have considered what changes should be made in the regulations respecting the registration of students, and in those relating to the medical curriculum, in order to bring them into harmony with recent decisions of the Council. A report on the matter, and a revised statement of the Council's resolutions, will be laid before you.

The Curriculum.

In accordance with an understanding arrived at last November, a proposal will be submitted to you for defining the portion of the five years' curriculum which may be reckoned as already spent in medical study, in the case of registered students who have received instruction in the preliminary sciences at institutions other than recognized schools of medicine.

Finance.

I regret that the Finance Committee have to report a deficit on the accounts for 1911. This is in a large measure due to an exceptional cause, namely, the expense of repeated elections. As I have already pointed out, much of this expense might be avoided in future were certain slight changes made in the statutory regulations. There is ground for the belief that the Privy Council may be willing to assist us in procuring the necessary modifications. Meanwhile, it is satisfactory to observe that the business before the Council at the present session is not likely to call for any serious expenditure; and that, thanks to the careful preparation made by your officers and committees, the work in hand can be accomplished within the present week.

Vote of Thanks.

On the motion of Dr. Little, seconded by Dr. Norman Moore, a hearty vote of thanks was accorded the President for his valuable and lucid address, and it was ordered to appear on the minutes.

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

BANGOR: CARNARVONSHIRE AND ANGLESEY INFIRMARY.—House-Surgeon. Salary, £100 per annum.

BIRKENHEAD: BOROUGH HOSPITAL.—Junior House-Surgeon. Salary, £80 per annum.

BIRMINGHAM INFIRMARY.—Three Assistant Medical Officers. Salaries from £104 to £120 per annum.

BRENTWOOD: ESSEX AND COLCHESTER ASYLUM.—Assistant Medical Officer. Salary, £150 per annum.

BRIGHTON, HOVE, AND PRESTON DISPENSARY.—Resident Medical Officer. Salary, £160 per annum.

BRISTOL GENERAL HOSPITAL.—House-Physician. Salary, £80 per annum.

BRISTOL ROYAL INFIRMARY.—Honorary Dental Anaesthetist.

CANCER HOSPITAL, Fulham Road, S.W.—House-Surgeon. Salary, £70 per annum.

CARMARTHEN: JOINT COUNTIES ASYLUM.—Second Assistant Medical Officer. Salary, £160 per annum, rising to £180.

CENTRAL LONDON EAR AND THROAT HOSPITAL, Gray's Inn Road, W.C.—(1) Resident House-Surgeon; salary, £50 per annum. (2) Registrar. (3) Clinical Assistants.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL.—House-Physician. Salary, £80 per annum.

COVENTRY AND WARWICKSHIRE HOSPITAL.—Senior House-Surgeon. Salary, £120 per annum.

DUBLIN: RICHMOND DISTRICT ASYLUM.—Junior Medical Officer. Salary, £120 per annum, rising to £200.

EDINBURGH HOSPITAL FOR WOMEN AND CHILDREN.—Medical Woman as Junior Resident. Honorarium, £12 per annum.

EDINBURGH: THE HOSPICE.—Medical Woman as Resident. Honorarium at the rate of £25 per annum.

FARRINGDON GENERAL DISPENSARY AND LYING-IN CHARITY, Bartlett's Buildings, E.C.—Resident Medical Officer. Salary, £100 per annum.

HARTLEPOOLS HOSPITAL.—House-Surgeon. Salary, £100 per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Surgeon. Salary, £30 for six months and £2 10s. washing allowance.

HUDDERSFIELD ROYAL INFIRMARY.—Assistant House-Surgeon. Salary, £80 per annum.

HULME DISPENSARY.—House-Surgeon. Salary, £160 per annum.

INVERNESS DISTRICT ASYLUM.—Junior Assistant Physician (Male). Salary, £150 per annum.

KING EDWARD VII HOSPITAL FOR WINDSOR, ETON, AND DISTRICT.—Resident Second House-Surgeon.

LEAMINGTON SPA: WARNEFORD GENERAL HOSPITAL.—House-Physician. Salary, £85 per annum.

LEEDS PUBLIC DISPENSARY.—Junior Resident Medical Officer. Salary, £100 per annum.

LIVERPOOL HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Honorary Assistant Physician.

LONDON HOSPITAL MEDICAL COLLEGE.—Demonstrator in Physiology. Salary, £150 per annum.

MANCHESTER: ST. MARY'S HOSPITALS FOR WOMEN AND CHILDREN.—Resident Obstetric Officer. Salary, £100 per annum.

MARGARET STREET HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, W.—Honorary Physician.

MELBOURNE UNIVERSITY.—Chair of Veterinary Pathology and Directorship of the Veterinary Institute. Salary, £900 per annum, together with life insurance premium of £100.

MERTSHAM: NETHERNE ASYLUM.—Locumtenent for three-and-half months. Salary, 4 guineas a week.

NEW HOSPITAL FOR WOMEN, Euston Road, N.W.—Obstetric Assistant, Assistant Pathologist, and Clinical Assistant for Out-patient Department.

NEWPORT AND MONMOUTHSHIRE HOSPITAL.—Two Resident Medical Officers. Salary at the rate of £80 per annum, rising to £120 each.

NOTTINGHAM CHILDREN'S HOSPITAL.—Lady House-Surgeon. Salary at the rate of £100 per annum.

NOTTINGHAM GENERAL DISPENSARY (Branch).—Assistant Resident Surgeon (Male). Salary, £160 per annum.

OUGHTERARD UNION.—Medical Officer for the Cloonbar No. 2 Dispensary District. Salary, £100 per annum, increasing to £160. Successful candidate will also be appointed Medical Officer of Bundorrogha Dispensary District at salary of £39 per annum, and Medical Officer of Health for Cloonbar No. 2 District at salary of £12 per annum.

PRESCOT UNION.—Resident Assistant Medical Officer. Salary, £140 per annum.

PRINCE OF WALES'S GENERAL HOSPITAL, Tottenham, N.—(1) Junior House-Physician; salary, £60 per annum. (2) Honorary Surgical Registrar. (3) Honorary Anaesthetist. Honorarium of £20 per annum attached to (2) and (3).

QUEEN'S HOSPITAL FOR CHILDREN, Hackney Road, N.E.—Casualty Officer. Salary at the rate of £80 per annum.

ROYAL EYE HOSPITAL, St. George's Circus, S.E.—Junior House-Surgeon. Salary at the rate of £50 per annum.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, S.E.—Clinical Assistants in the Out-patient Department.

ROYAL WATERLOO HOSPITAL FOR CHILDREN AND WOMEN, S.E.—Senior Resident Medical Officer. Salary, £80 per annum.

ST. GEORGE'S UNION.—Second Assistant Medical Officer at the Infirmary. Remuneration, £130 per annum.

SHEFFIELD ROYAL HOSPITAL.—Sixth Resident. Salary, £60 per annum.

SHEFFIELD UNIVERSITY.—Demonstrator in Anatomy. Salary, £150 per annum.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—House-Physician. Salary, £120 per annum, increasing to £140.

WEST LONDON HOSPITAL, Hammersmith Road, W.—(1) Physician. (2) House-Physician. (3) Non-resident Casualty Officer, salary at the rate of £100 per annum.

WINCHESTER: ROYAL HAMPSHIRE COUNTY HOSPITAL.—House-Physician (Male). Salary, £80 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House-Surgeon. Salary at the rate of £80 per annum.

ZANZIBAR PUBLIC HEALTH AND MEDICAL DEPARTMENTS.—(1) Assistant Health Officer at Zanzibar. (2) Medical Officer at Pemba. Salary, £350 per annum and bonus of £300 on completion of term of service.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

APPOINTMENTS.

BAILEY, E. C., M.B., District Medical Officer of the Nantwich Union.

BRAMWELL, H., M.D., F.R.C.S.Edin., District Medical Officer of the Frome Union.

BURKE, T. A., L.R.C.P.and S.Irel., Medical Officer for the Donnybrook No. 2 (Irishtown) Dispensary District of the North Dublin Union.

CATFORD, H. R., M.D., Physician to In-patients, Bendigo Hospital, Victoria.

CONNOR, C. J., M.B.Melb., Junior Resident Surgeon at the Geelong Hospital, Victoria.

EGLINGTON, Miss C., M.B., B.S.Lond., Resident Medical Officer of the Eastby Sanatorium of the Bradford Union.

FINCH, A. E., M.B.Syd., Honorary Bacteriologist to the Women's Hospital, Crown Street, Sydney.

GORDON, V. H., M.B., Ch.B.Edin., Surgeon for Venereal Diseases, Perth Public Hospital, Western Australia.

GIBBS, Charles, F.R.C.S., Surgeon-in-Charge of In-patients at Charing Cross Hospital.

MCKEAN, B., M.B., B.S.Glas., Assistant Medical Officer of the Sheffield Union Hospital.

MACLEOD, M., M.B., Certifying Factory Surgeon for the Milnthorpe District, co. Westmorland.

MILLER, E. S., M.B., Ch.B.Liverp., Assistant Medical Officer to the Walton Workhouse of the West Derby Union.

MOSS, Miss H. I., M.B., B.S.Lond., Resident Assistant Medical Officer of the Eastville Workhouse, etc., of the Bristol Parish.

SHEPERD, R. J., L.R.C.S., L.K.Q.C.P.Irel., District Medical Officer of the Hay Union.

SWEET, E. M., M.B.Syd., Resident Medical Officer, Lady Leamington Hospital, Brisbane, Queensland.

TEICHMANN, O., M.R.C.S., L.R.C.P., District Medical Officer of the Kingsclere Union.

WELSH, R. A., M.B., B.S.Durh., District Medical Officer of the Morpeth Union.

EDINBURGH ROYAL INFIRMARY.—The following appointments have been made:

Resident Surgeon.—R. Campbell Beg, M.A., M.R.C.S.Eng., L.R.C.P.Lond., to Surgical Out-patient Department.

Clinical Assistants.—Francis G. Power, L.R.C.P. and S.Edin., to Dr. R. W. Philip; John L. Annan, M.B., Ch.B., to Dr. F. D. Boyd (Medical Waiting-room).

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTHS.

COOPER.—On May 29th, at Pendeen, Cornwall, the wife of W. Herbert Cooper, M.R.C.S.Eng., L.R.C.P.Lond., of a daughter.

FELL.—On June 4th, at 11, Lexden Road, Colchester, the wife of Dr. A. N. Fell, of a son.

HALL.—May 29th, at Eaton Road, West Derby, Liverpool, the wife of Joseph Percy Hall, M.B., B.S., of a son.

MARRIAGE.

WHEELER—SANDERS.—On May 31st, 1912, at St. Bartholomew the Great, West Smithfield, by Rev. C. W. R. Higham, M.A., uncle of the bride, assisted by Rev. W. F. G. Sandwith, M.A., Rector, Edwin Paul Wheeler, A.R.I.B.A., third son of the late T. R. Wheeler, of Ealing, to Madeline Mary Sanders, eldest daughter of C. Sanders, M.O.H. of West Ham.

DEATHS.

ADAMSON.—On the voyage between Borneo and Singapore, Kilgour Adamson, M.B., C.M.Glas., the beloved husband of Nellie Adamson, and late of Springs, Transvaal. (By cable.)

SCOTT-SMITH.—On May 22nd, at Torr House, Chagford, Devon, Andrew Scott-Smith, M.A., M.B., C.M.Edin., some time of Edinburgh Medical Mission, Damascus, aged 46 years.

PUBLISHERS' ANNOUNCEMENTS.

MESSRS. P. BLAKISTON'S SON AND CO. announce the publication of a work, entitled *Methods for Sugar Analysis and Allied Determinations*, by A. Given, formerly Assistant Chemist, Sugar Laboratory, Bureau of Chemistry, United States Department of Agriculture. The same firm announces the publication of a seventh edition of *Massage and the Original Swedish Movements: Their Application to Various Diseases of the Body, a Manual for Students, Nurses, and Physicians*, by Kurre W. Ostrom, from the Royal University of Upsala, Sweden, with 115 illustrations; a second edition of *Diagnostic Methods, Chemical, Bacteriological, and Microscopical*, by Ralph W. Webster, M.D., Assistant Professor of Pharmacologic Therapeutics, and Instructor in Medicine (Medical Department, University of Chicago). They also announce the publication of a second edition of Hansell and Reber's *The Ocular Muscles*, with three plates and eighty-two other illustrations, octavo.

DIARY FOR THE WEEK.

MONDAY.

ROYAL SOCIETY OF MEDICINE. 4.30 p.m.—Special Meeting of the Fellows of the Society for a Discussion on Syphilis, with special reference to: (*a*) Its Prevalence and Intensity in the Past and at the Present Day; opened by Dr. Norman Moore. (*b*) Its Relation to Public Health, including Congenital Syphilis; opened by Dr. F. W. Mott, F.R.S. (*c*) The Treatment of the Disease: opened by Mr. D'Arcy Power. The discussion will be continued on June 17th and June 24th at 5 p.m.

TUESDAY.

ROYAL SOCIETY OF MEDICINE:
SURGICAL SECTION, 5.30 p.m.—Papers.

WEDNESDAY.

UNITED SERVICES MEDICAL SOCIETY, Royal Army Medical College, Grosvenor Road, S.W., 5 p.m.—Annual General Meeting.

THURSDAY.

OPHTHALMOLOGICAL SOCIETY, 11, Chandos Street, Cavendish Square, London, 8 p.m.—(1) Card Specimens. (2) Papers:—Mr. E. Nettleship: (i) Pedigrees of Colour Blindness showing Unusual Characters; (ii) A Pedigree of Progressive Juvenile Cataract. Mr. C. H. Usher: Pedigree of Colour Blindness. Mr. M. L. Hepburn: Inflammatory and Vascular Diseases of the Choroid.

FRIDAY.

ROYAL SOCIETY OF MEDICINE:
SECTION OF ANAESTHETICS, 5.30 p.m.—Annual General Meeting and Election of Officers.

POST-GRADUATE COURSES AND LECTURES.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Wednesday, 4 p.m., Demonstration of Cases.

LONDON HOSPITAL MEDICAL COLLEGE, E.—Monday, 4.15 p.m., Diagnostic Value of Sensory Changes in Diseases of the Nervous System.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat, at noon and 4.30 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Tuesday, and noon, Friday. Eye, 11 a.m., Wednesday and Saturday. Radiography, Thursday, 4.30 p.m. Pathological Demonstration, Friday, 11 a.m. Special Lectures: Tuesday, 4.30 p.m., Nervous Basis of Abdominal Pain. Wednesday, 5 p.m., Surgical Demonstration. Thursday, 4.30 p.m., Surface Anatomy. Friday, 2.15 p.m., Abdominal Tumours.

LONDON SCHOOL OF TROPICAL MEDICINE.—Lectures daily (Saturday excepted), at 12 noon and 4 p.m. Practical Laboratory Work daily (Saturday excepted), 10 to 12 a.m. Practical Entomology, 2 to 3.30 p.m. daily; Special Entomology, 10.30 a.m. to 1 p.m. daily. Medical Clinics, Monday and Thursday, at 3 p.m. Operations, Friday, at 3 p.m.

MANCHESTER: ANCOATS HOSPITAL POST-GRADUATE CLINIC.—Thursday, 4.15 p.m., Clinical Demonstration of Medical and Surgical Cases by the Members of the Honorary Staff.

MANCHESTER ROYAL INFIRMARY.—Tuesday, 4 30 p.m., Demonstration of Medical Cases. Friday, 4.30 p.m., Cervical Adenitis in Children.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week at 4 p.m. each day:—Monday: Skin. Tuesday: Medical. Wednesday: Surgical. Thursday: Surgical. Friday: Eye. Lectures, at 5.15 p.m. each day, will be given as follows:—Monday: Styes. Tuesday: On the Operations for Cancer of the Tongue. Wednesday: Ionic Medication. Thursday: Itching and Itching Diseases of the Skin.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Clinical Cases; Friday, 3.30 p.m., Optic Neuritis.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics: 10 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear; 3 p.m., Demonstration on Clinical and General Pathology. Tuesday, 2.30 p.m., Operations; Clinics: Surgical, Gynaecological: 3.30 p.m., Medical In-patient; 4.30 p.m., Demonstration of Specimens of Gynaecological Interest. Wednesday, 2 p.m., Throat Operations; 2.30 p.m., Medical Out-patient; Skin and Eye Clinics: X Rays; 3 p.m., Pathological Demonstration; 5.30 p.m., Eye Operations. Thursday, 2.30 p.m., Gynaecological Operations; Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient; 4.30 p.m., Demonstration: The Wassermann Reaction. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient: Pathological Demonstration.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—The following are the arrangements for next week: Medical and Surgical Clinics, X Rays, and Operations, 2 p.m. daily. Monday: Gynaecology, 10 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday: Gynaecological Operations, 10 a.m.; Demonstration of Minor Operations, 11 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday: Gynaecological Demonstration, 10 a.m.; Lecture, Practical Medicine, 12.15 p.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday: Gynaecological Operations, 10 a.m.; Lecture, Clinical Pathology, 12.15 p.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m. Special Lectures at 5 p.m. daily.

DIARY OF THE ASSOCIATION.

Date.		Meetings to be Held.
		JUNE.
8	Sat.	Issue of Voting Papers for Central Council Election from Head Office.
10	Mon.	Central Ethical Committee, 2 p.m.
11	Tues.	Public Health Committee, London, 3.30 p.m.
		South-Eastern Counties Division, St. Boswells, Annual Meeting, 3.15 p.m.
12	Wed.	Medico-Political Committee, London, 2 p.m.
		Fife Branch, Kirkcaldy, Annual Meeting, 3 p.m.
		Inverness-shire, Ross and Cromarty, and Caithness and Sutherland Divisions, Inverness, 3 p.m.
		Forfarshire Division, Annual Meeting.
13	Thur.	City Division, Hackney Town Hall, 4 p.m.
		Hampstead Division, Central Library, Finchley Road, Annual Meeting, 8.15 p.m.
		East York and North Lincolnshire Branch, Grimsby, Annual Meeting.
14	Fri.	Joint Medico-Political and Hospitals Subcommittee, London, 12 noon.
		Hospitals Committee, London, 2 p.m.
		Mid Staffordshire Division, Stafford, Annual Meeting, 2.45 p.m. for 3 p.m.
		Kensington Division, Town Hall, Annual Meeting, 4 p.m.
15	Sat.	Last day for receipt of Voting Papers at Head Office *re* Central Council Election.
		Northern Counties of Scotland Branch, Craigellachie.
17	Mon.	Naval and Military Committee, London (if necessary).
18	Tues.	Organization Committee, London, 2.30 p.m.
19	Wed.	South-Eastern Branch, Town Hall, Bromley, Annual Meeting, 2.15 p.m.; Lunch, 1 p.m.; Dinner, 6.30 p.m.
		Bath and Bristol Branch, Annual Meeting.
		East Anglian Branch, Brentwood, Annual Meeting.
		Lancashire and Cheshire Branch, Bolton, Annual Meeting.

Date.		Meetings to be Held.
		JUNE (*continued*).
20	Thur.	Metropolitan Counties Branch Council, 4 p.m.
		Newcastle-on-Tyne Division, Newcastle-on-Tyne, 8.30 p.m.
26	Wed.	Finance Committee, London, 2.30 p.m.
		South-Western Branch, Newquay, Annual Meeting, 3 p.m.; Luncheon, 1 p.m.; Dinner, 7 p.m.
27	Thur.	Edinburgh Branch, Edinburgh, Annual Meeting, 4 p.m.
28	Fri.	Birmingham Branch, Medical Institute, Annual Meeting, 3.30 p.m.
		Metropolitan Counties Branch, 429, Strand, W.C., Annual Meeting, 4.30 p.m.
		JULY.
3	Wed.	Central Council, London, 2 p.m.
		Annual Meeting, Liverpool.
19	Fri.	Annual Representative Meeting.
20	Sat.	Annual Representative Meeting.
22	Mon.	Council Meeting, 9.30 a.m.
		Annual Representative Meeting, 10 a.m.
		Secretaries' Conference and Dinner, 7 p.m.
23	Tues.	Annual Representative Meeting, 9.30 a.m.
		Annual General Meeting, 2 p.m., President's Address, 8.30 p.m.
24	Wed.	Council Meeting, 9 a.m.
		Sectional Meetings, 10 a.m. to 1 p.m.
		Address in Medicine, 12.30 p.m.
		Religious Services, 3 p.m.
25	Thur.	Sectional Meetings, 10 a.m. to 1 p.m.
		Address in Surgery, 12.30 p.m.
		Annual Dinner, 7.30 p.m.
26	Fri.	Council Meeting, 9 a.m.
		Sectional Meetings, 10 a.m. to 1 p.m.
27	Sat.	Excursions.

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SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JUNE 15TH, 1912.

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DORSET AND WEST HANTS BRANCH:

BOURNEMOUTH DIVISION.

THE annual meeting was held on May 15th, at 4 p.m., at 74, Old Christchurch Road, Bournemouth. The chair was taken by Dr. E. K. LE FLEMING. Eighteen members were present.

Annual Report and Financial Statement.—The annual report and financial statement were read and adopted.

Election of Officers.—The following were elected for the ensuing year: *Chairman*, E. Kaye Le Fleming, M.B. (re-election); *Vice-Chairman*, W. H. L. Marriner, M.B. (re-election); *Representative*, W. Johnson Smyth, M.D.; *Honorary Secretary*, Eleanor C. Bond, M.D.; *Representatives on Branch Council*, Drs. Le Fleming, Marriner, Johnson Smyth, Parkinson, Simmons, Spinks, Willans, and Bond; *Executive Committee*, the Representatives on the Branch Council and Drs. Ramsay, Montgomery, and Alexander.

Report of Council.—It was agreed to defer the discussion of the report of the Council to a subsequent meeting.

DUNDEE BRANCH.

THE annual meeting of this Branch was held on Wednesday, June 5th, in University College, at 4 p.m. Dr. C. S. YOUNG, President, was in the chair, and twenty-one members were present.

Confirmation of Minutes.—The minutes of the last meeting were read, approved, and signed.

Treasurer's Statement.—The Treasurer's statement was read and adopted.

Rules for Branch.—It was proposed by Dr. G. W. MILLER and resolved:

That the rules for the Branch be adopted.

Proposed by Dr. R. C. BUIST and resolved:

That the rules relating to ethical procedure for the Branch be adopted.

Election of Officers.—The following office-bearers were elected: *President*, Dr. Charles Aymer (Bervie); *President-elect*, Dr. W. Kinnear (Dundee); *Past-President*, Dr. C. S. Young (Dundee); *Vice-Presidents*, Drs. W. E. Foggie (Dundee) and J. D. Gilruth (Arbroath); *Treasurer*, Mr. D. M. Greig (Dundee); *Secretaries*, Drs. R. C. Buist (Dundee) and Martin Smith (Dundee).

Retiring President.—Dr. C. S. YOUNG, on retiring as President, thanked the members for appointing him President for the past year.

DUNDEE DIVISION.

THE annual meeting of the Division was held on Wednesday, June 5th, in University College, at the close of the Branch meeting. Twenty-five were present. Dr. R. C BUIST was appointed provisional chairman.

Rules for Division.—Proposed by Dr. A. LEITCH and resolved:

That the rules for the Division be adopted:

Proposed by Dr. ROGERS and resolved:

That the rules relating to ethical procedure for the Division be adopted:

Election of Officers.—The following office-bearers were elected for the ensuing year: *Chairman*, Dr. C. S. Young (Dundee); *Vice-Chairman*, Dr. R. C. Buist (Dundee); *Secretary and Treasurer*, Dr. Martin Smith (Dundee); *Council*, Dr. G. A. Pirie (Dundee), Dr. C. Kerr (Dundee), Dr. A. P. Low (Dundee); *Representative for Representative Meetings*, Dr. C. S. Young; *Deputy Representative*, Dr. W. Kinnear.

Warning Notices.—It was proposed by Dr. R. C. BUIST and resolved:

That the following rider be added to the Council's recommendation on paragraph 54 of the Report of Council:

That unless in cases which concern only a Division no warning notice shall be inserted except in accordance with a decision of the Association under Article 31.

Death Certificates.—It was proposed by Dr. C. Kerr and resolved:

That the Representative in Representative Meetings support Minute 109 of the Annual Representative Meeting:

That in the opinion of this meeting it is inexpedient to state the duration of illness on death certificates.

Dispensing under Insurance Act.—Resolution C59 of the Special Representative Meeting, which related to dispensing under the National Insurance Act, was discussed, and Dr. C. S. Young proposed and it was resolved:

That this resolution do not apply to Scotland.

LANCASHIRE AND CHESHIRE BRANCH:

Manchester (Salford) Division.

The annual meeting was held on May 29th, at the Onward Buildings, Manchester. Dr. Fletcher was in the chair, and twenty-six members were present.

Election of Officers.—The following officers for the year 1912–13 were elected: *Chairman*, Dr. Pinder; *Vice-Chairman*, Dr. Bradley; *Honorary Secretary and Treasurer*, Dr. Stanley Hodgson; *Assistant Secretary and Treasurer*, Dr. Andrew Clarke; *Representative at Representative Meetings*, Dr. Waltenberg; *Deputy Representative*, Dr. Cantley; *Representatives on Branch Council*, Drs. Andrew Clarke and Stewart; *Executive Committee*, Drs. Fletcher, Snape, Carr, Taylor, Monteagle, with the officers *ex officio*: *Representatives on Joint Committee of Divisions*, Drs. Pinder, Price-Williams, Fletcher, Taylor, and the Honorary Secretary.

Vote of Thanks to Dr. Taylor.—A vote of thanks was accorded Dr. Taylor for his services to the Division as Honorary Secretary, and also the usual vote of thanks to the retiring officers for their services.

METROPOLITAN COUNTIES BRANCH.

The monthly meeting of the Council of this Branch was held on May 16th at 429, Strand. At first Dr. F. J. Allan, Vice-President, and afterwards Mr. H. Betham Robinson, President, occupied the chair.

New Members.—Twelve new members were elected.

New Divisions.—Letters from the Medical Secretary were read stating that the Central Council had approved the formation of the new Woolwich and Wimbledon Divisions. Representatives of the Woolwich Division were present, and were welcomed by the Chairman on behalf of the Council.

Proposed New Women's Hospital for Diseases of Children.—A report on this subject from the Medical Charities Committee of the Branch was considered. The Honorary Secretary was instructed to forward certain resolutions to the secretary of the hospital.

Annual Meeting of Branch.—The Council decided to hold the annual meeting of the Branch on Friday, June 28th, at 4.30 p.m., at 429, Strand.

City Division.

The tenth annual general meeting of the Division was held at the Town Hall, Hackney, on Thursday, May 30th. Over fifty members were present. In the absence of the Chairman and Vice-Chairman, Dr. Hobbs Crampton was voted to the chair.

Confirmation of Minutes.—The minutes of the general meetings of February 13th, February 22nd, March 26th, and April 25th were taken as read.

Apologies for Non-attendance.—Letters of regret at absence were announced from the Chairman, Vice-Chairman, and Drs. Major Greenwood, Theo. Hoskin, J.P., Withers Green, and letters of acknowledgment from Drs. Ross and Fredk. Wallace.

Metropolitan Hospital.—A letter from the Secretary and House Governor of the Metropolitan Hospital was read, in which information was asked for as to the medical organization for the service of the poor in the districts adjoining the hospital. The matter was left to be dealt with by the executive.

Club Attendance.—A letter from the Medical Secretary was read in reply to the inquiry of the executive as to the terms approved by the Association for attendance upon club members from July to January next, stating that there seemed to be no objection to attendance being given under the same terms as at present to all members, as no contribution in respect of medical aid would be payable before next January. After discussion it was resolved:

That members of Group A (existing members receiving medical attendance) be attended as heretofore, but that members of Group B (existing members not now taking medical benefit) and Group C (new members) be attended only under the society's scale of payment by attendance.

The Honorary Secretary was directed to report this resolution to the Medical Secretary and the Medical Officers of the New Tabernacle Sick and Benefit Society.

Patent and Proprietary Medicines.—The inquiry being held was mentioned. Some members present announced cases where injury had resulted. Members were desired to write direct to the Medical Secretary.

Business Adjourned from General Meeting of November 22nd, 1911.—Hackney Union District Medical Officerships: The course adopted by the guardians in recent years of appointing to a vacancy in a district the holder of another district, at a reduced salary and without advertisement of the vacancy, is felt to be unjust to the younger practitioners willing to accept such appointments, and to holders as tending to lessen the transfer value of the practice. Dr. Keenan moved a resolution, which was seconded by Dr. Swan:

That the holders of the appointments made under these conditions should be asked to resign.

The discussion was continued by Drs. Hunt, Dixon, Porter, Roe, Ganett, Johnson, Roland Smith, and others. Eventually the following amendment by Dr. Hunt, seconded by Dr. Roe, was carried:

That in future, in the event of any appointment being advertised or offered to any member at a smaller salary than at any time before, no member shall accept it unless he first obtains the permission of the Executive Committee.

The amendment was also passed as a substantive resolution

Annual Report.

The annual report was received and approved.

The work of the past twelve months has been exceptionally strenuous and important, mainly owing to the energetic campaign against the Insurance Act, and is reflected in the increased membership of the Division, the increased number of meetings held, the greatly increased attendance at the general meetings, and in the higher expenditure and the extra work entailed upon your executive. Eleven meetings of the Division have been held, five of which were clinical and scientific, with an average attendance of fifteen, and six were medico-political, with an average registered attendance of fifty-seven, but a large number attended who did not sign the roll. A conjoint meeting with the Aesculapian Society was held at the Metropolitan Hospital on January 19th, and one with the Walthamstow Division on March 26th. The Division is indebted to Dr. Harry Sequeira (London Hospital), Dr. Morley Fletcher (St. Bartholomew's), Dr. Chas. Bolton (University College), and Sir William Collins for demonstrations and addresses; and to the Staff Committees of the London, St. Bartholomew's, and Metropolitan Hospitals, and Livingstone College, Leytonstone, for hospitality at meetings held at these institutions. Also to the Chairman, and Drs. Hadfield, Ross, Hunt, Greenwood, and Carey Barlow, for invitations to hold meetings at their houses and for hospitality.

The expenditure of the twelve months has been as follows:

	£	s.	d.
Printing and postage	27	3	0
Hire of rooms	11	11	0
Secretarial expenses...	0	16	6
Gratuities and demonstration ...	3	9	6
Stationery	1	10	7½
Advertisements	1	11	0
Deficit as at January 1st, 1912 ...	1	9	10
	£47	11	5½

The expenditure this year, January 1st to May 20th, has been £19 15s. 5d. A special grant of £17 was made to the Division by the Branch Council on December 21st, 1911 Numerical position: By annual return, dated May 11th

the Division now musters 212 members and 2 associate members, an increase during the year of 44 members and 1 associate.

The Executive Committee has met ten times; average attendance 15.3. This year there are no members of the Executive Committee retired through non-attendance, but Drs. Fryer and F. Wallace have resigned. In view of the increased membership of the Division, the Executive Committee recommends that the number of elected members of the Committee be increased to one-tenth of the total membership of the Division; this will allow of representation from districts at present quite unrepresented, notably the City and Bethnal Green. It is also recommended that for the ensuing year two members from each borough be co-opted on the Executive Committee from those elected to the Provisional Medical Committee.

List of Attendances of Members of Executive Committee.

	1911.						1912.		
	June 7	June 27	Sept. 27	Oct. 3	Oct. 18	Nov. 15	Dec. 5	Mar. 7	Apr. 16	May 9	Total.
Dr. Johnston (Chairman)	1	1	1	1	1	1	1	1	—	1	9
Dr. Ross (Vice-Chairman)	1	1	1	—	1	1	1	1	1	—	8
Dr. Hunt (Member Branch Council)	1	1	1	1	1	1	1	1	—	1	9
Dr. Hadfield (Member Branch Council)	1	1	1	1	1	1	1	—	—	1	8
Dr. Goodall (Representative in Rep. Mtgs.)	1	1	1	1	1	1	1	1	1	1	10
Dr. Southcombe (Honorary Secretary)	1	1	1	1	1	1	1	1	1	1	10
Dr. Carey Barlow	1	1	1	1	1	—	1	1	1	1	9
Dr. Dick	—	—	—	—	—	1	—	—	—	—	2
Dr. Dixon	—	—	1	—	—	—	—	1	1	1	4
Dr. Durno	1	—	—	1	1	1	1	—	—	—	5
Dr. Evans	1	1	1	1	1	1	1	1	1	1	10
Dr. Fryer	—	1	1	—	1	—	1	—	—	—	5
Dr. Major Greenwood	1	1	1	1	1	1	1	1	1	1	10
Dr. Jaffé	1	—	1	—	—	1	1	1	1	1	7
Dr. Keenan	1	—	1	1	1	1	1	1	1	1	9
Dr. Kendall	—	—	1	—	—	1	1	—	—	1	4
Dr. Marshall	1	1	—	—	—	1	1	—	—	—	4
Dr. Porter	1	1	1	1	1	—	1	1	1	1	9
Dr. Roe	—	—	1	1	1	1	1	1	1	1	8
Dr. Swan	1	—	1	1	1	1	1	1	1	1	9
Dr. Wallace	—	1	1	—	—	—	1	—	—	—	3

Alteration of Rules.—Notice of the following alteration is hereby given:

Rule 4. Delete "15 other members" (line 6) and substitute "such a number of other members as shall equal one-tenth of the yearly membership."

The amended rule will read thus:

(4) The management of the affairs of the Division shall be vested in an Executive Committee, which shall consist of the officers named in Rule 5, together with the members of the Branch Council elected by the Division, the Representatives of the Division in Representative Meetings, and such a number of other members as shall equal one-tenth of the yearly membership elected in the manner prescribed in Rule 9.

(4*a*) That for the ensuing year the Executive Committee be increased by two members from each borough being co-opted from the Provisional Medical Committee.

(7) For "Representative" read "Representatives" and elsewhere where in future the plural will be required.

(9) Omit "15 in number" and alter to correspond with No. 4.

The discussions during the past year have centred chiefly round the Insurance Act: amongst other subjects which engaged the attention of the Division were:

(*a*) Shoreditch district medical officerships.
(*b*) Hackney school children's medical treatment centre.
(*c*) Finsbury tuberculosis centre.
(*d*) Hackney Union district medical officerships.

The Ethical Committee met once and approved the new ethical rules, which have since been adopted by the Division at a special general meeting held on November 9th, and sanctioned by the Central Council, and are now in force.

Other committees have met as follows:

School Children	Four times.
Parliamentary Deputations	Several.
Shoreditch	Once.
Provisional Subcommittee	Twice.

The attendance of Representatives of the Division on the Branch Council and its committee will be reported later.

Hospital Almoners.—The ethical question as to the position of a practitioner replying to the inquiries of a hospital almoner has been decided as follows:

That it is right for a practitioner to reply to a hospital almoner's inquiry respecting a patient's means and position. And that all such communications be regarded as strictly confidential.

Election of Officers for 1912-13.—The following nominations were approved: *Chairman*, David Ross, M.D.; *Vice-Chairman*, Dr. Hobbs Crampton; *Representatives on Branch Council*, Drs. Hadfield and Porter: *Representatives at Representative Meetings*, Dr. Major Greenwood, Dr. Evan Jones; *Deputies*, Drs. Leslie Durno and David Ross; *Honorary Secretary and Treasurer*, A. G. Southcombe. The following ordinary members were re-elected: Drs. Carey Barlow, J. N. Dick, H. G. Dixon, Leslie Durno, C. E. Evans, J. I. Jaffé, T. F. Keenan, G. W. Kendall, A. L. Marshall, W. F. Roe, A. T. Swan.

Re-election of Retiring Officers.—The following retiring officers were re-elected as ordinary members: Drs. Gerald Johnston, E. W. Goodall, and J. W. Hunt. The six vacancies were left to be filled by the executive when the rule increasing the number of elected members has been approved.

Nominations to Branch Council.—The following were approved: *President-elect*, Dr. Langdon-Down; *Vice-President*, Dr. E. W. Goodall; *Treasurer*, Dr. Lauriston Shaw; *Honorary Secretary*, Dr. Griffith; *Central Council*, Dr. Major Greenwood. It is to be hoped that all members of the Division will support and vote for the candidates nominated by the Division.

Auditors (Honorary).—Drs. Hunt and Keenan consented to act.

Ethical Committee.—Drs. A. T. Davies, F.R.C.P.; Major Greenwood, M.D.; E. W. Goodall, M.D.; J. W. Hunt, M.D.; and Dr. Gilbert Nicholson were appointed for the ensuing year.

Agenda of Annual Representative Meeting and Report of Council.—It was decided to defer consideration of these and the instruction of Representatives to a subsequent meeting.

Alteration of Rules.—The proposed alterations of the rules were approved and adopted (see report of executive).

Duties of Secretary.—Dr. SWAN moved the following resolution:

That in view of the great increase of the duties of the Secretary of the Division by reason of the state of affairs in the profession, the office in future be accompanied by an honorarium.

In the discussion which followed, the question of the expenses of the Representatives in Representative Meetings was also raised. Consideration was deferred of this latter question, and the resolution as proposed was approved.

Vote of Thanks to Retiring Chairman.—A vote of thanks was carried by acclamation to Dr. Gerald Johnston for his conduct as chairman during the past year, and to Dr. Crampton for his able discharge of the duties he had been so unexpectedly called upon to undertake that afternoon. Dr. CRAMPTON suitably responded.

Provisional Committee.

A meeting of this committee took place at the Great Eastern Hotel on Friday, June 7th. Dr. EVAN JONES was in the chair, and, with one or two exceptions, all the members were present.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Canvass of Members.—Various letters were read. One from Dr. Cox, the Medical Secretary, asking to be supplied with information every week with regard to the canvass of members in their area. The HONORARY SECRETARY (Dr. Roe) pointed out the difficulties in the way of this, but said he would do his best.

Admission to Friendly Societies without Examination.—Another letter was read from the Medical Secretary in answer to an inquiry directed at the last meeting with respect to the admission of members to friendly societies without examination, which was largely taking place, and as to whether such club doctors were bound to accept new members in the meanwhile. Also as to whether members who had signed the last pledge could agree to attend insured members who had applied to them, at the rate of 6s. a member. Dr. Cox wrote that the opinion of the Solicitor to the Association had been taken on some of the points, and was as follows:

1. That unless doctors terminate their contracts with friendly societies they must continue to examine candidates, if such a duty is part of their contract with the club.

2. That the same answer applied to the question whether doctors now holding clubs must attend new members admitted between July 15th and January 15th next.

3. With regard to the pledge permitting doctors who have signed it to enter into arrangements with individuals to give them medical attendance for 6s. per capita per annum, he should say that the spirit of the pledge was absolutely against such an arrangement.

Co-options.—Four vacancies, due to unavoidable resignation, were filled up by temporary co-options, Drs. Crampton, A. Gibbon, A. W. Miller, and H. G. Dixon being elected.

Club Attendance.—It was reported that the secretary of a large local club had written to the doctors, asking that medical attendance should be given to its ordinary members up to January 15th next on the present terms, and desiring to know whether the same terms could be given to their other members, who had not hitherto availed themselves of medical benefit, as well as to new members taken on in the meanwhile. Dr. SOUTHCOMBE said that he had written to Dr. Cox on the subject, and had been informed that it must be permitted in the first case, but in the two latter it was open to the Division to please itself in the matter up to January 15th next. He said that in his opinion it would be very inadvisable to allow the same terms to the two latter classes of members. There was some discussion on this, and finally the matter was adjourned for further consideration.

Supplementary Pledge.—With regard to the canvass, the HONORARY SECRETARY reported that 130 practitioners had signed the pledge up to the present and he had received a few more that morning. This was about 90 per cent. Sixty-two members of the Association had sent in resignations of their clubs, and seventeen non-members. The Guarantee Fund now amounted to £1,114. It was resolved that a small committee should go over the list of practitioners in the area for the purpose of noting defaulters. A communication was received from the Poplar Division, proposing that a list of all consultants who refused to sign the pledge should be published in the BRITISH MEDICAL JOURNAL. It was considered that such action would be very premature. On the motion of Dr. ADAMS, it was resolved to send a delegation, consisting of the Chairman, Honorary Secretary, Drs. Withers Green, Adams, Price, Southcombe, and Major Greenwood to meet the staff of St. Bartholomew's Hospital with regard to the signature of the pledge.

WIMBLEDON DIVISION.

A SPECIAL meeting of all the medical practitioners residing in Wimbledon, Merton, and Mitcham was held at Johnston's Rooms, Wimbledon, on May 30th, in connexion with the formation of a new Wimbledon Division of the British Medical Association. It was well attended, and Dr. LOWDER HILL took the chair and explained the business before the meeting.

Election of Officers.—It was decided to elect office-bearers for the new Division. The following were elected: *Chairman*, Dr. D. R. Powell Evans; *Vice-Chairman*, Dr. Bentley; *Honorary Secretary and Treasurer*, Dr. George Cowie; *Representative to Branch*, Dr. Purcell; *Representative at Representative Meetings*, Dr. Powell Evans; *Executive Committee*, Drs. Barton, Belilios, Brabyn, Farie, Nash, Purcell, and Randall; *Provisional Medical Committee*—A Provisional Medical Committee was then formed, and the following were elected: Drs. Bates, Bentley, Belilios, Bickford, Brabyn, Collier, Cowie, Deas, Evans, Hemingway, Hill, Love, Purcell, Randall, and Scott. This committee arranged to hold a meeting at an early date.

GREENWICH DIVISION.

THE annual general meeting of this Division was held at the Co-operative Building, Catford, on June 6th. Dr. C. J. PARKE was in the chair; twenty-four members and two visitors were present.

Annual Report.

The annual report stated that during the year five meetings of the Division and two general meetings of the medical practitioners of the district had been held. The average attendance had been forty-eight. The following subjects had been discussed: National Insurance Act; establishment of school clinics; hospital abuse. Two combined meetings of the Greenwich, Lambeth, and Norwood Divisions were held at Camberwell.

Membership.

Membership on May 31st, 1911			104
Increases—			
New members	42		
Through change of address	15		
Total additions... ...	—	57	
Aggregate			161
Losses—			
Through change of address	26		
Resignations	5		
Deaths	2		
Total deductions ...	—	33	
Net membership, May 31st, 1912 ...			128

	Deptford.	Greenwich.	Lewisham.	Sydenham and Forest Hill (Norwood Div.).
Number of practitioners ...	61	71	92	56
Number in actual practice ...	52	36	63	41
Number retired, or holding public or resident hospital appointments	9	35	29	15
Number of members of the British Medical Association	53	29	52	32
Number engaged in contract practice	33	27	29	20
Number signed resignation of club appointments	33	10	27	20
Number signed pledge	60	36	67	39

Meetings of the Executive Committee.

Representatives of	1911. July 5	Sept. 14	Nov. 10	Dec. 4	Dec. 29	1912. Feb. 6	Mar. 7	May 24
Blackheath—								
Dr. F. J. Harvey Bateman ...	1	—	—	—	1	1	1	1
Dr. H. C. Burton	—	—	—	—	—	—	—	—
Brockley—								
Dr. A. E. Crabbe	1	1	1	1	Absent ill			
Dr. C. J. Parke (Chairman) ...	1	1	1	1	1	1	1	1
Catford—								
Dr. E. Du Cane	1	1	1	1	1	1	1	1
Dr. F. S. Hogg...	—	—	—	1	1	—	—	—
Deptford and Greenwich—								
Dr. C. G. Gooding	1	1	1	1	1	1	1	1
Dr. J. H. Keay (Vice-Chairman)...	—	1	1	1	1	1	1	1
Lewisham—								
Dr. L. F. Hemmans (Hon. Sec.)	1	1	1	1	1	1	1	1
Dr. F. S. Toogood	—	—	—	—	—	—	—	—
New Cross—								
Dr. E. Owen Cox	—	—	1	1	1	—	1	—
Dr. C. G. Wallis	1	—	1	1	1	—	1	1

Financial Statement.—The financial statement was as follows:

Receipts—

	£	s.	d.
Balance in hand, May 31st, 1911	2	11	1
Grants from Branch Council—			
August 16th, 1911	6	19	5
November 1st, 1911	3	0	7
April 4th, 1912	10	0	0
	£22	11	1

Expenses—

Hire of rooms	2	2	0
Secretarial—			
Printing	4	19	7
Stationery	1	17	6
Postage	9	17	10
Clerical aid	2	1	9
Balance in hand	1	12	5
	£22	11	1

The report and the statement were adopted.

Election of Officers.—Officers and Committee for the ensuing year were elected as follows: *Chairman*, T. P. Purvis, M.R.C.S., L.S.A.; *Vice-Chairman*, R. W. Muir, M.D., M.R.C.S., L.R.C.P.; *Honorary Secretary*, W. H. Payne, M.D., M.R.C.S., L.R.C.P.; *Executive Committee*, F. J. H. Bateman, B.A., M.D., E. Du Cane, B.A., M.D., E. G. Annis, M.R.C.S., L.R.C.P., D.P.H., A. E. Crabbe, L.R.C.P.and S.E., C. J. Parke, M.R.C.S., L.R.C.P., Thornton Comber, M.D., M.R.C.S., L.R.C.P., J. H. Keay,

M.A., M.D., J. F. Hemmans, M.B., B.S., C. G. Gooding, M.B., B.S., C. G. Wallis, M.R.C.S., L.R.C.P.; *Representative at Representative Meetings*, Dr. H. Keay; *Representative at Branch Council*, Dr. G. Gooding. The letter from the Medico-Political Committee was read, and Dr. E. Du Cane was elected to appear before the Committee.

Proposed Lewisham Division.—It was resolved to ask the Council to create a new Division, to be called the Lewisham Division.

Public Medical Services.—It was resolved to call a meeting of the Division at as early a date as possible to consider the scheme for Public Medical Services.

LAMBETH DIVISION.

THE annual meeting was held at Bethlem Royal Hospital on Thursday, June 6th, at 4 p.m. Dr. J. C. V. DENNING was in the chair, and fifty-three members were present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Election of Officers.—The following gentlemen were elected as members of the Executive Committee for the session, 1912–13: *Chairman*, Mr. R. Capes; *Vice-Chairman*, Dr. R. Esler: *Representatives upon the Branch Council*, J. Mackeith, M.B., and H. Taylor, M.B.; *Representatives at Representative Meetings*, Dr. J. G. Porter Phillips and Mr. T. H. Parkes Peers: *Executive Committee*, Dr. W. A. Atkinson, Mr. W. Cooper Keates, Mr. E. T. Hollings, Mr. A. J. McNickle, Dr. Couper Cripps, and Mr. H. Shapter Robinson; *Ex officio Members*, Mr. W. Partridge (Camberwell), F. Michael, M.B. (Camberwell), Mr. A. Matcham (Southwark), J. Mackeith, M.B. (Southwark), Mr. A. M. Hickley (Lambeth), Dr. Hamand Fraser (Lambeth), Mr. V. A. Jaynes (Bermondsey), and Dr. B. A. Richmond (Bermondsey); *Honorary Secretary and Treasurer*, Dr. J. H. Clatworthy.

Installation of New Chairman.—Dr. CAPES then took the chair, and, in thanking the meeting for having done him the honour, proposed a hearty vote of thanks to Dr. Denning for his arduous and difficult duties during the past session, which was carried with acclamation.

Annual Report.

The CHAIRMAN then called upon the HONORARY SECRETARY for his annual report, which was to the following effect:

During the past session meetings have been held at Bethlem Hospital, Guy's Hospital, Evelina Hospital, Camberwell Infirmary, Lambeth Infirmary, and St. Thomas's Hospital, at which scientific papers have been read and the ordinary business of the Division transacted. The principal work of the Division has been in connexion with the National Insurance Act. A mass meeting of the whole profession resident in the area of the Division was held in June, 1911, at the Camberwell Town Hall, and there the famous six cardinal principles formulated by the Representative Meeting of May, 1911, were approved as the policy of the local profession. There seven subcommittees were formed for the purpose of safeguarding the interests of the profession, and as far as possible enforcing the six cardinal principles, each subcommittee being for the various parliamentary divisions in the area of the Division. By these means a vigorous canvass of the whole profession resident in the area of the Division was carried out, and over 90 per cent. of the local profession were induced to sign the form of undertaking issued from the head office in June, 1911. The subcommittees also formed deputations to wait upon the local members of Parliament in order to personally put their views before them, which they did on two occasions—shortly after the bill was introduced, and immediately after it became an Act. By means of these subcommittees a further canvass of the profession was then instituted, in order to raise money for the defence fund. Early in November a combined meeting of the Lambeth, Greenwich, and Norwood Divisions was held at Camberwell Town Hall, when the Deputy Medical Secretary addressed the meeting on the position of the profession towards the National Insurance Act. A special meeting of the Division to instruct the Representative was held at Bethlem Hospital preceding the Representative Meeting held in the Connaught Rooms in November.

A combined meeting of the Lambeth, Greenwich, and Norwood Divisions was held at the Camberwell Town Hall, and Dr. Keay and Dr. Lauriston Shaw addressed the meeting on the action of the Council in their negotiations with the Government.

A special meeting of the Division was held at Bethlem Hospital to instruct the Representative how to vote at the meeting held at the Guildhall in February. A special meeting was held at the Surrey Masonic Hall on March 8th to nominate a member on the Central Advisory Committee. Dr. T. Jenner Verrall was nominated, and he has subsequently been placed on the Advisory Committee. At the same time Dr. Esler as Representative read his report of his actions at the Representative Meeting at the Guildhall; at which the meeting thanked him for his services both in the present and the past. Feeling that the interests of the profession would be best served if Provisional Medical Committees were formed which would accurately correspond with the areas of the lay committees under the National Insurance Act, a meeting of the whole profession resident in the area of the Lambeth Division was called, and a Provisional Medical Committee was formed for that area, which includes Lambeth, South wark, Bermondsey, and part of Camberwell. Forty-one members were elected, with power to add to their numbers—ten each for the areas of Lambeth, Southwark, and Bermondsey, and eleven for Camberwell, forming four subcommittees for the four boroughs. The Committee held a meeting, the Chairman and Secretary of the Division being respectively Chairman and Secretary of the Committee. Chairmen and Secretaries were elected for each subcommittee, and eleven members whose advice and help the Committee desired were co-opted on to the Committee. The question of the proposed establishment of a dispensary for the prevention of consumption in Camberwell was considered at a mass meeting of the profession in the area of the Lambeth Division, and it was decided by 14 votes to 10 that the local profession could not support such a dispensary unless it was carried on in conformity with the requirement formulated by the Branch Council. The rules of the Division have been revised and the Bradford Rules and Rule Z have been adopted, and the revised and augmented rules have been printed and circulated among the members of the Division. The School Clinics Committee of the Division has sat once during the past session. A letter was received from the Education Officer of the London County Council stating that they proposed to institute two clinics in the area of the Lambeth Division, and asking the Lambeth Division to manage these clinics. The terms under which the Committee would establish and run these two clinics were agreed upon. Subsequently the London County Council decided to hold the matter over.

In March, 1912, the Honorary Secretary received a request from Dr. Hamer, of the Public Health Department, London County Council, asking him if the School Clinics Committee of the Lambeth Division would be responsible for one clinic in the neighbourhood of Peckham. A deputation consisting of Dr. Capes, Dr. Jaynes, and the Honorary Secretary waited on Dr. Hamer at his offices, and the original terms formulated last year were agreed upon as the terms under which the School Clinics Committee of the Lambeth Division would be responsible for such a clinic, and the matter was then left open pending the sanction of the Board of Education.

The balance sheet started with a deficiency of £3 5s. 4d., but, in spite of the large amount of work done, by careful management it ended with a balance in hand of £2 10s. 0½d.

The number of members has increased from 168 to 229.

The CHAIRMAN thanked the Secretary for his report, and Dr. MACKEITH proposed and Dr. DENNING seconded:

That it be received.

The report was subsequently unanimously adopted.

Reorganization of Division.—The reorganization of the Division was then considered, and it was unanimously decided that the area of the Division should accurately correspond with local government areas. As this would make the Division too large, it was proposed to divide the augmented Lambeth Division into two Divisions. (1) The (new) Lambeth Division consisting of the whole of the Metropolitan Boroughs of Lambeth and Southwark. (2) The Camberwell Division consisting of the whole of the Metropolitan Boroughs of Camberwell and Bermondsey.

It was decided to send up this resolution to the Organization Committee of the Metropolitan Counties Branch.

Instructions to Representatives.—The Representatives were then instructed how to vote at the annual meeting at Liverpool. They were asked to support Motions 25, 26, 27, 28, 36, 48, 50, as published in the Supplement, May 18th, 1912. As regards the other motions the Representatives were instructed to vote as they thought best in the interests of the Division.

Patent and Proprietary Medicines.—A letter was read from the Medical Secretary asking as to evidence as to harm done by patent and proprietary medicines.

Central Council Election.—A letter was also read from the Harrow and West Herts Divisions asking them to support the candidature of Dr. A. H. Williams for the Central Council.

Public Medical Service.—It was decided to call a special meeting to consider the scheme of a Public Medical Service sent down by the State Sickness Insurance Committee.

Votes of Thanks.—The meeting concluded with a hearty vote of thanks to Dr. Phillips and to the authorities at Bethlem for their hospitable entertainment.

South-West Essex Division.

The annual and business meeting of this Division was held at the Wesleyan Schoolroom, High Road, Leyton, on Thursday, May 23rd, at 4 p.m. Dr. C. J. Horner presided, and eighteen members were present.

Confirmation of Minutes.—The minutes of the last annual meeting were read and confirmed.

Letters.—Letters from Dr. Home and the Medical Secretary were read. A letter from the Chelsea Division was read, and it was decided to deal with it under Item 6 on the agenda.

New Tabernacle Sick and Provident Society.

A letter addressed by the New Tabernacle Sick and Provident Society to its medical officers concerning members of approved societies and medical treatment was submitted to the meeting, and its advice asked as to what reply should be sent.

Class A.: The Executive Committee recommended that the medical officers reply: "That having consulted the Local Provisional Medical Committee they have been advised to state that they are willing to continue to attend on present terms members of friendly societies who are now on their list, until such time as the Local Provisional Medical Committee, acting on the advice of the State Sickness Insurance Committee, requests them to terminate their appointments."

Class B.: The Executive Committee recommends the medical officers to reply in similar terms to Resolution A., but substituting the words "members not at present subscribing to the medical fund" for the words "members of friendly societies now on their list."

Class C.: The Executive Committee recommends the medical officers to reply: "That they have consulted the Local Provisional Medical Committee, and have been advised to state that they can only undertake the treatment of this class of insured persons upon terms and conditions approved by the local profession, and arranged by and through the Local Provisional Medical Committee."

These recommendations were unanimously adopted.

Attention was drawn to the following paragraph in the letter:

> I intend to make it known that this concession is given by the society to its subscribing members in the belief that they will select the same medical officer (assuming him to be on the medical panel) as their medical attendant under the Act.

It was proposed by Dr. C. Scott, seconded by Dr. H. H. Tomkins, and unanimously agreed, that the Secretary should draft a reply calling the attention of the Secretary of the New Tabernacle Society to the undesirability of this suggestion, as it interfered with the free choice of doctor, and would tend to cause friction in the future. It was agreed that every practitioner in the area of the Division should have his attention drawn to these resolutions.

It was proposed by the Secretary, seconded by Dr. Horner, and carried unanimously:

> That this be done in each Ward by the Ward Secretary.

Boundaries of Divisions.—With regard to Dr. Home's letter *re* the boundary between this Division and the contemplated new North-West Essex Division, the meeting gave power to the Secretary to arrange the matter with other Divisions concerned.

Annual Report of Executive Committee.—The reception of the report was moved by the Secretary and seconded by Dr. Wise and agreed to. The Secretary then read the report and moved its adoption; this was seconded by Dr. Rorke and agreed to without discussion.

Election of Officers.—The Chairman informed the meeting that Dr. F. J. Coutts, last year's Vice-Chairman, could not see his way to accept the chairmanship, and therefore the Committee nominated Dr. C. H. Panting. Dr. Panting was proposed by Dr. Hickman, seconded by Dr. Harford, and unanimously elected. Dr. P. Macgregor was elected Vice-Chairman. Dr. St. C. B. Shadwell was elected Representative at Representative Meetings. Dr. C. J. Horner was elected Representative on Branch Council. Mr. A. P. Eldred was elected Secretary and Treasurer. The following were nominated by the Executive Committee: Drs. F. J. Coutts, C. F. Harford, J. Brown, Robert Jones, and C. H. Wise. Dr. Harford intimated his desire not to stand, and nominated Dr. H. H. Tomkins. Dr. C. Scott was nominated by the meeting. A ballot was taken, and the following were elected: Drs. F. J. Coutts, H. H. Tomkins, J. Brown, C. Scott, and C. H. Wise. The following were elected to the Branch Contract Practice Committee: Drs. B. Price and C. Panting. The following nomination was made for the Medical Charities Committee of the Branch: Dr. C. H. Wise.

Instructions to Representative at Representative Meetings.—The Executive Committee recommended that the Representative be instructed to support the Chelsea resolution. An amendment to alter the word "man" into "practitioner" was proposed by Dr. Rowland Jones and seconded by Dr. Denning. This was withdrawn in favour of an amendment moved by Dr. C. Scott and seconded by Dr. W. W. Rorke:

> That the General Medical Council be asked to formulate an order making it infamous conduct to accept contract work to attend insured persons at a lower rate than that approved by the local Provisional Medical Committees.

The voting was equal, and the Chairman gave his casting vote against the amendment, which was lost. Dr. Harford moved an amendment:

> That the General Medical Council be asked to take into consideration the danger to the public interest likely to arise if medical practitioners accept posts which have been refused by others under their declaration in connexion with the Insurance Act.

This was ultimately withdrawn, and the original recommendation of the executive agreed to. On all other matters referred to Divisions the meeting instructed the Secretary and Representative to consider them together, and if any doubt as the best course of procedure the matter should be referred to the Executive Committee, and its decisions should be the instruction to the Repretentative at Representative Meetings.

Local Provisional Medical Committee.—The following resolution was passed unanimously to strengthen the hands of the local Provisional Medical Committee. It was proposed by the Secretary and seconded by Dr. Panting:

> The Executive Committee of the South-West Essex Division calls upon all practitioners practising or residing within its area who have signed the local undertaking, to carry out that portion relating to contract practice by filling up the forms of resignation to be submitted to them by the local Provisional Medical Committee, and by placing these forms, duly filled up, in the hands of the local Provisional Medical Committee on the understanding that they will be put into force only upon the advice of the State Sickness Insurance Committee.

The meeting then ended.

MIDLAND BRANCH:

Boston and Spalding Division.

The tenth annual meeting of this Division was held at the White Hart Hotel, Boston, on Friday, May 31st, at 5.30 p.m. Dr. White was in the chair, and there were also present: Dr. South (Vice-Chairman), Drs. Barritt, Benson, Briggs, E. H. Black, Jacobsen, Mason, Miller, Morris, Moxham, Rendall, Witham, Fred. Walker, Wright, and the Secretary. Dr. Sandall was present as a visitor.

Apologies for Non-attendance.—Apologies for non-attendance were received from many members and non-

members. Drs. Munro, Spilsbury, and Sweeten sent telegrams at their unavoidable absence.

Confirmation of Minutes.—The minutes were first read, confirmed, and signed.

Election of Officers.—The following gentlemen were unanimously elected: *Chairman*, Dr. H. G. White; *Vice-Chairman*, Dr. R. E. South; *Honorary Secretary and Treasurer*, Dr. A. E. Wilson; *Representative on Branch Council*, Dr. F. W. Mason; *Representative in Representative Meetings*, Dr. F. W. Mason; *Executive Committee*, Drs. Allan, Barritt, Husband, Mann, Mason, Miller, Moxham, Pilcher, Smith, R. Tuxford, Witham, Wrinch—Dr. Moxham superseding Dr. Taylor.

Vote of Thanks to Dr. South.—A cordial vote of thanks was unanimously passed to Dr. South for the excellent way in which he had discharged his duties during the past year.

Annual Report.—The SECRETARY read the annual report, showing an increase in membership in 1911 from 42 to 47. There was a balance in hand of 6s. 11d. at the end of 1911, this being due to a special grant of £7 10s. from the Branch Council. The expenses were heavy, due to the number of meetings and the issuing of invitations to every medical man living in the Divisional area to each meeting. The average attendance of members at each meeting was 21.

Supplementary Pledge.—The SECRETARY of the Provisional Medical Committee reported having received at the end of the first week's work 33 pledges and 125 resignations. At the meeting held previous to this the Committee decided to wait another week and then to approach those who had not signed.

Defence Fund.—Those gentlemen who had not already subscribed to the Defence Fund were to be canvassed by individual members of the Provisional Medical Committee.

Payment of Personal Expenses of Representative.—It was felt strongly that the Representative should not be out of pocket for all legitimate expenses, and instruction was given to the Representative accordingly.

Resignation of Membership.—The Representative was directed to support the Council's resolution.

Division Meeting after Representative Meeting.—The Representative was directed to support this. The consideration of the other matters referred to Divisions was postponed to a future meeting.

Fees for Examination for Admission to Approved Societies.—Dr. MOXHAM raised the question of charging a 2s. 6d. fee for examination for admission into any approved society from that day's date. He pointed out that the number of candidates applying would be greatly increased, especially as soon as the Insurance Act came into force, and so indirectly they should be facilitating the work of the Act. The opposition contested that under the terms of their existing contracts they could not legally claim a fee. Finally, it was resolved to ask the Secretary to place the matter before the Medical Secretary of the Association.

Resolution of Chelsea Division.—Any medical man accepting work under the National Insurance Act which has been refused by another practitioner at (1) the request of the British Medical Association, (2) request of the local Provisional Medical Committee, should be considered guilty of infamous conduct. The Representative was unanimously asked to support this.

Dinner.—Eight members dined together after the meeting.

SOUTH-EASTERN BRANCH:

REIGATE DIVISION.

Provisional Medical Committee.

A MEETING was held at 8.45 p.m. on Thursday, May 30th, at Holmfield, Reigate. Present: Drs. PALMER (in the chair), Ogle, Walters, Hewetson, Gayner, G. A. Robertson, Rodgers, Mackenzie, F. W. Robertson, Weir, Pratt, Clarke, Matthews and Williamson.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Supplementary Pledge.—A letter was read from the Medical Secretary in reply to an inquiry whether the resignation applied to slate and other clubs not approved, but with some members who would be insured under the Act. The Medical Secretary wrote that the pledge applied to all contributory contract practice appointments in which insured persons were involved; that in the case of clubs, such as provident dispensaries, which consisted largely of persons who would not become insured, practitioners should make it perfectly clear in their resignations that they were prepared to go on attending uninsured members, but the resignations would apply to all insured persons, the ground for such action being that the insured would become subsidized persons and able to pay the full rate instead of the present semi-charitable rate. Reports on the present state of the canvass in this Division showed that, of 100 medical men, of whom 53 are in general practice, 56 had signed the pledge, 6 had applied for membership of the Association, 14 had guaranteed or increased the amount of their guarantee, 66 resignations of clubs and dispensaries had been received, and 4 resignations from the staff of hospitals.

Next Meeting.—The next meeting of the committee was fixed for Tuesday, June 18th, at Dr. A. R. Walters's house, at 8.45 p.m.

YORKSHIRE BRANCH:

LEEDS DIVISION.

Provisional Committee.—The first meeting of this Committee was held at the General Infirmary, Leeds, on June 4th. Twenty-seven members out of a possible thirty-six attended. A chairman, vice-chairman, and two secretaries were appointed. The chief business was the discussion of the pledge on form D49. The representatives of the hospital honorary staffs severely criticized the last paragraph, but the matter was left over until they had had a meeting amongst themselves to decide what they should do in the matter. In the meantime it was decided that all not affected by this clause should be induced to sign at once. It was recommended that no practitioner should engage a locumtenent or assistant until he had signed the pledge.

GLASGOW AND WEST OF SCOTLAND BRANCH:

GLASGOW NORTH-WESTERN DIVISION.

THE annual meeting of this Division was held in the Burgh Hall, Hillhead, on May 29th, at 8.45, Dr. A. G. HAY presiding. The other members present were: Drs. A. T. Campbell, D. J. Mackintosh, J. G. Graham, A. T. Thomson, G. B. Buchanan, J. Lindsay, Whitehouse, Baird, Morton, Middleton, P. H. Robertson, and W. A. Stuart.

Apologies for Non-attendance.—Apologies for absence were intimated from Drs. J. Todd, J. Wylie, and W. Gemmell.

Confirmation of Minutes.—The minutes of the last meeting (on March 7th) were read and approved.

Patent and Proprietary Medicines.—The SECRETARY read a circular he had received regarding patent medicines and the advertisements thereof.

Report of Executive Committee.—The report of the Executive Committee was read by the SECRETARY. It showed that nine meetings had been held since December, the business being mainly connected with the future operations of the Insurance Act and the relation of the profession thereto.

Election of Officers.—The following office-bearers were appointed: *Chairman*, Dr. A. T. Campbell; *Vice-Chairman*, Dr. J. Lindsay; *Secretary and Treasurer*, Dr. W. A. Caskie; *Representative to Representative Meetings*, Dr. A. T. Campbell; *Representatives on Branch Council*, Dr. J. Morton and Dr. W. A. Caskie; *Ordinary Members of Committee*, Drs. G. B. Buchanan, D. J. Mackintosh, J. G. Graham, James Todd, A. G. Hay, Bruce, Baird, and Whitehouse.

Vote of Thanks.—Dr. CAMPBELL proposed a vote of thanks to the retiring President (Dr. A. G. Hay), who suitably responded.

A LIST of periodical publications, official reports, and Blue Books in the Library of the British Medical Association available for issue to members on loan has been printed, and copies can be obtained free on application to the Librarian, at the house of the Association, 429, Strand, W.C. The regulations governing the loan of these publications are stated in the introduction to the list.

The Library is open for consultation from 10 a.m. till 5 p.m. (on Saturdays till 2 p.m.).

To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.

Association Notices.

NOTICE OF ALTERATION OF BOUNDARIES OF DIVISIONS.

THE following changes have been made in accordance with the Regulations of the Association, and take effect from the date of publication of this notice:

Mid Staffordshire and South Staffordshire Divisions.

(1) That Brewood be transferred from the area of the Mid Staffordshire Division to the area of the South Staffordshire Division.

(2) That Brownhills be transferred from the area of the South Staffordshire Division to the area of the Mid Staffordshire Division.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BIRMINGHAM BRANCH.—The annual meeting will be held in the Medical Institute on Friday, June 28th, at 3.30 p.m. Business: To receive the report of the Council; election of officers; inaugural address by the in-coming President, Dr. Nason.—J. FURNEAUX JORDAN, J. G. EMANUEL, Honorary Secretaries.

DORSET AND WEST HANTS BRANCH.—The summer meeting will be held at the County Asylum, Charminster, Dorchester, on July 3rd. The Right Hon. Lord Digby very kindly invites members and friends to luncheon at 2 p.m. A number of interesting microscopical specimens and cultures will be on view in the bacteriological laboratory. Dr. Gowring, Vice-President, will open a discussion on Chronic Disorders of Digestion. Dr. Perdrau will give Notes on an Interesting Case of Exophthalmic Goitre. Tea will be provided after the meeting. Dr. Macdonald has kindly consented to allow members to see over the institution.—FRANK FOWLER, Honorary Secretary, Bournemouth.

EAST ANGLIAN BRANCH.—The annual meeting of this Branch will be held at Brentwood on Wednesday, June 19th. Members wishing to read papers or to show cases or specimens should communicate at once with the Secretary for Essex, Dr. B. H. NICHOLSON, East Lodge, Colchester.

EDINBURGH BRANCH.—The annual meeting of this Branch will be held in the Hall of the Royal College of Physicians, 9, Queen Street, Edinburgh, on Thursday, June 27th, at 4 p.m. Business: (1) Minutes of last meeting. (2) Apologies for absence. (3) Annual Report and Financial Statement. (4) Treasurer's Report *re* Guarantee Fund. (5) Election of Office-bearers for 1912-13. (6) Discussion on the Aftermath of the Insurance Act, initiated by Dr. Martins, Haddington. (7) Any other competent business.—MICHAEL DEWAR and E. SCOTT CARMICHAEL, Honorary Secretaries.

LANCASHIRE AND CHESHIRE BRANCH.—The annual meeting of this Branch will take place at Bolton on Wednesday, June 19th, 1912.—F. CHARLES LARKIN, Branch Secretary.

LANCASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION.—The annual meeting of this Division will be held in the Board Room of the Altrincham Hospital at 4.30 p.m. on Wednesday, June 26th. Tea will be provided. Agenda: (1) Minutes of last meeting; questions arising from the minutes. (2) Apologies for absence. (3) Minutes, Committee meeting. (4) Election of officers; (*a*) Chairman for 1912-13 and his induction by the retiring Chairman; (*b*) other officers—Vice-Chairman, Honorary Secretary, Honorary Assistant Secretary, six members of Committee, Associate Members, Representatives on the Branch Council. N.B.—Nominations may be sent in at any time to the Honorary Secretary. (5) Annual report of the Executive Committee. (6) Alteration of rules (to include the postal vote). (7) Provisional Committee's report. (8) Report of Representatives. (9) Matters referred to the Divisions (agenda for the Annual Representative Meeting, new Medico-Ethical Rules, etc.). (10) Any other urgent business. A dinner will be held afterwards at the Brooklands Hotel, at 7.30 p.m. Will members intending to be present kindly send in their names on or before Monday, June 24th.—H. G. COOPER, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH.—The annual general meeting of the Branch will be held at 429, Strand, W.C., on Friday, June 28th, at 4.30 p.m. Agenda: (1) Minutes of last meeting. (2) Report as to the election of new officers. (3) Annual report of Council. (4) Annual report of Representatives of the Branch on the Central Council. (5) Alteration of rules. On behalf of the Council it will be proposed:—That the Branch Rules 11 and 12 be altered to form one Rule—Rule 11—to read as follows: "11. The management of the affairs of the Branch shall be vested in the Branch Council, which shall consist of the officers of the Branch, together with the representatives of the Branch on the Central Council of the Association, and representatives of Divisions, as follows: (*a*) *Ex officio*—All the Representatives of the Divisions on the Representative Body. (*b*) *Ex officio*—The Honorary Secretaries of the Divisions. (*c*) One member appointed by each Division, and such other members as the Division may be entitled to appoint on the basis of one representative for every 100 members after the first 50." Branch Rules 11 and 12 are at present as follows: "11. The management of the affairs of the Branch shall be vested in the Branch Council, which shall consist of the officers of the Branch, together with the representatives on the Central Council of the Association elected by the Branch, and representatives of the Divisions. 12. The representatives of the Divisions on the Branch Council shall be not less than three for each Division, of whom one shall be the Honorary Secretary of the Division, and a second the Representative of the Division at the Representative Meeting; for every additional 100 members of a Division beyond 50 there shall be an additional representative" [see By-law 16 of the Association]. (6) President's Address: The State, the Poor, and our Profession.—E. W. GOODALL and W. GRIFFITH, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: KENSINGTON DIVISION.—The annual meeting of the Division will be held at the Town Hall, Kensington, on Friday, June 14th, at 4 p.m. Agenda: (1) Minutes of the last annual meeting. (1) Election of officers, Representatives, and committee. (3) Annual report of the Executive Committee. (4) Consideration of the Agenda of the Representative Meeting. (5) Any other competent business. N.B.—Members are particularly requested to record their votes for the following candidates nominated by the Division when the ballot papers reach them. No more than one vote can be given to each candidate, but members are not obliged to use all their votes:—Central Council: Dr. Charles Buttar. Branch Council: President, Dr. Langdon-Down; Vice-President, Mr. H. W. Chambers; Treasurer, Dr. Lauriston Shaw. The Executive Committee has decided to recommend the following members for the various offices and committee: Chairman, *E. B. Turner; Vice-Chairman, T. Gunton Alderton; Honorary Secretaries, *Percy C. Raiment, W. E. Fry; Representatives at Representative Meetings, *E. B. Turner, *H. Beckett-Overy, *Percy C. Raiment, *H. H. Sturge; Representatives on Branch Council, the Honorary Secretaries, the Representatives at Representative Meetings, and Charles Buttar, Herbert Tanner, M. F. Squire, M. Milton Townsend, R. Cathcart Bruce; Executive Committee, G. A. H. Barton, A. J. Carter, C. E. A. Huddart, H. T. N. Merrick, A. J. Rice-Oxley, G. J. Crawford Thomson, E. F. Travers. Other nominations may be made at the meeting, except in the case of those gentlemen nominated by ballot at the last meeting, and indicated in the above list by an asterisk. H. BECKETT-OVERY, HERBERT TANNER, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: LAMBETH DIVISION.—A special meeting will be held at the Surrey Masonic Hall, Camberwell New Road (near Camberwell Green), on Friday, June 21st, at 4 p.m., to consider the schemes of a Public Medical Service, as printed in the BRITISH MEDICAL JOURNAL SUPPLEMENT of June 8th. Non-members are cordially invited to the meeting, and members are reminded to bring the copy of the SUPPLEMENT with them.—J. H. CLATWORTHY, Honorary Secretary, 145, Denmark Hill.

METROPOLITAN COUNTIES BRANCH: SOUTH MIDDLESEX DIVISION.—The first meeting of this Division will be held at the Free Library, Twickenham, on Friday, June 21st, at 8.30 p.m. Agenda: (1) To elect officers, the Representative for Representative Meetings of the Association, the Representative on Branch Council, and the ordinary members of the Executive Committee. (2) To adopt the Model Rules for the Division, as drafted by the Organization Committee, and the Ethical Rules (*vide* SUPPLEMENT, May 11th, 1912, Appendix IX, A). (3) Provisional Medical Committee. (4) Public Medical Service (*vide* SUPPLEMENT, June 8th, 1912). NOTE.—The South Middlesex Division consists of the urban districts of Feltham, Hampton, Hampton Wick, Heston and Isleworth, Staines, Sunbury-on-Thames, Teddington and Twickenham, and the rural district of Staines.—G. CARDNO STILL, Honorary Secretary *pro tem.*

METROPOLITAN COUNTIES BRANCH: WESTMINSTER DIVISION.—An emergency meeting of this Division will be held in the Council Chamber at the offices of the Association, 429, Strand, on Tuesday, June 18th, at 5 p.m. Agenda: (1) Minutes of last meeting. (2) Correspondence. (3) Questions. (4) Special Business: To consider the Association's scheme for a Public Medical

Service, as an alternative to the medical provisions of the National Insurance Act. (The details of this scheme are published in the SUPPLEMENT of the BRITISH MEDICAL JOURNAL of June 8th.) N.B.—The replies of the Divisions in regard to this scheme must be forwarded to the State Sickness Insurance Committee not later than June 26th, to be in time to be laid before the Government. (5) To consider the report of the Executive Committee. (6) To elect to the Executive Committee for the ensuing year those members recommended by the Executive Committee: Thos. L. Archer, J. M. Barlet, J. H. Dauber, M.B., J. Howell Evans, F.R.C.S., G. E. Haslip, M.D., F. H. Humphris, M.D., A. D. E. Kennard. W. A. Milligan, M.D., W. T. Mullings, M.D., Drury Pennington, B.A., M.B., R. Roche. G. A. Simmons, M.D., Daisy A. Stepney, L.S.A.—HARVEY HILLIARD, M.R.C.S., Chairman. 30, Wilton Place, S.W. J. HOWELL EVANS, F.R.C.S., 25, Berkeley Square, W., W. A. MILLIGAN, M.D., 11, Upper Brook Street, W., Honorary Secretaries.

MIDLAND BRANCH: LEICESTER AND RUTLAND DIVISION.—A meeting of this Division will be held in the Council Chamber, Coalville, on Wednesday, June 26th, at 4 p.m. Agenda: Minutes of the last meeting. Election of Representative to Branch Council. The following new rule will be proposed: "That the ex-Chairman of the Division be an *ex officio* member of the Executive Committee." A discussion will take place on "The State and General Medical Practice," to be opened by Dr. Tibbles, followed by Drs. O'Connor, Warner, and McAllister-Hewlings. Other business.—R. WALLACE HENRY, Honorary Secretary, Leicester.

NORTH OF ENGLAND BRANCH: NEWCASTLE-ON-TYNE DIVISION.—A meeting of this Division will be held in the Library of the Royal Victoria Infirmary, Newcastle-on-Tyne, on Thursday, June 20th, 1912, at 8.30 p.m. Agenda: (1) Presentation of Annual Report of the Division. (2) Presentation of annual accounts. (3) Election of Officers, namely, Chairman, Vice-Chairman, and Honorary Secretary. (4) Election of Representatives for the Branch Council. (5) Election of two Representatives of the Division in Representative Meetings of the Association. (6) Election of ordinary members of the Executive Committee. (7) To consider the business of the Annual Representative Meeting (see BRITISH MEDICAL JOURNAL of May 11th and 18th. (8) Revision of rules of this Division. (9) Resolution *re* adoption of Rule Z.—R. J. WILLAN, Honorary Secretary.

SOUTH-EASTERN BRANCH.—The sixty-eighth annual meeting of this Branch will be held on Wednesday, June 19th, at 2.15 p.m., at the Town Hall, Market Square, Bromley. The Council will meet before luncheon at the Town Hall; notice of the time and agenda for this meeting will be sent to members of the Council in due course. Dr. John Scott (President-elect) kindly invites members to luncheon at the Royal Bell Hotel, from 1 to 2 p.m. Agenda (in addition to the business of an ordinary meeting): (1) To receive the report of the Election of Officers for 1912-13, who shall thereupon take office. (2) To receive the annual report of the Council on the affairs of the Branch, and the annual financial statement. (3) To receive the Revised Rules presented by the Council for adoption by the Branch. (A copy of these rules has been sent to members of the Branch; it should be brought to the meeting and preserved for future reference.) (4) To consider the adoption of the Bradford Rules and of Rule Z recommended by the Council as an addition to the Branch Ethical Rules. (5) Any other business decided on by the Council or any other competent business. Rule 10 (*b*) referring to the annual meeting is as follows: "To consider any matter relative to the honour and interests of the medical profession which may be brought before the meeting by the Branch Council or by a Division. No business shall be discussed under this head without notice thereof having been given to the Secretary, at least fourteen days before the meeting, with the terms of any resolution which is intended to be proposed." Tea will be provided during the meeting. No excursion is arranged; the Council considered that urgent business was likely to arise, and that this meeting should be purely for business. The Bromley and County Club courteously offers to make all members of the Branch attending the meeting honorary members for June 19th. There will be an exhibition of instruments, drugs and electrical appliances at the Royal Bell Hotel, from 12 noon to 6 p.m. The annual dinner will be held at the Royal Bell Hotel at 6.30 p.m.; charge 6s. each. Wine will be provided by the local members. Members intending to be present at the luncheon or dinner are requested to signify their intention to Dr. A. Tennyson Smith, Shanklin, Orpington, Kent, not later than Saturday, June 15th; members wishing hospitality for the night should also communicate with Dr. A. Tennyson Smith.—E. A. STARLING, Honorary Secretary.

SOUTH-EASTERN BRANCH: DARTFORD DIVISION.—A meeting of this Division will be held at the Bull Hotel, Dartford, on Thursday, June 20th, at 3 p.m. As matters of great importance will be considered all medical men residing in the Division are cordially invited to attend. Members are asked to bring the BRITISH MEDICAL JOURNAL SUPPLEMENTS of May 11th and 18th and June 8th with them to the meeting.—H. CHISHOLM WILL, Honorary Secretary, Sidcup.

SOUTH-EASTERN BRANCH: REIGATE DIVISION.—The annual meeting of this Division will be held at Laker's Hotel, Redhill, on Thursday, June 27th, 1912, at 4.30 p.m. Tea will be provided. Agenda: (1) The minutes of the last meeting. (2) Election of officers. (3) The Insurance Act—interim report of the Provisional Medical Committee for the Reigate Division. (4) To consider the annual report of Council (BRITISH MEDICAL JOURNAL SUPPLEMENT, May 11th) and the agenda of the Annual Representative Meeting (BRITISH MEDICAL JOURNAL SUPPLEMENT, May 18th), to be held at Liverpool on July 19th, and to instruct our Representative thereon. (5) Any other business.—JOHN G. OGLE, Honorary Secretary, Tower House, Reigate.

SOUTH MIDLAND BRANCH: NORTHAMPTONSHIRE DIVISION.—A meeting of this Division will be held in the Board Room of the Northampton General Hospital on Friday, June 21st, at 2.30 p.m. The meeting will be preceded by a luncheon at Franklin's Restaurant at 1.30 p.m. Those wishing to attend the luncheon should inform the Honorary Secretary two days beforehand. Business: Minutes of the preceding meeting. Consideration of the Public Medical Service scheme. (Members should bring the SUPPLEMENT of June 8th with them.) Any other business.—PEVERELL S. HICHENS, Northampton.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: SOUTH-WEST WALES DIVISION.—The annual meeting of this Division will be held on Wednesday, June 19th, at the Infirmary, Carmarthen, at 3.30 p.m.—D. R. PRICE, Honorary Secretary, Ammanford, Carmarthenshire.

SOUTH-WESTERN BRANCH.—The seventy-third annual meeting will be held on Wednesday, June 26th, at the Victoria Hotel, Newquay, at 3 p.m., when Mr. Roper will resign the chair to Dr. Hardwick. The report of the Branch Council for the year 1911-12, and the annual financial statement for the year 1911 will be presented to the meeting, and the officers of the Branch will be elected for the year 1912-13. Luncheon, by kind invitation of the President-elect, will take place from 1 p.m. to 2.30 p.m., at the Victoria Hotel. The annual dinner of the Branch will be held at the Headland Hotel, at 7 o'clock. Tickets, 7s. each (exclusive of wine), can be had from Dr. Vigurs, Newquay. Early applications for dinner tickets will greatly facilitate arrangements, and in any case they should be made not later than the first post on Monday, June 24th. By the courtesy of the Newquay Golf Club, members of the Branch and their wives will be made honorary members for Wednesday and Thursday, and those wishing games arranged for them should communicate with Dr. W. J. Stephens, Hayne, Newquay. On Thursday a drive to Bedruthan Steps will be arranged provided a sufficient number of names are sent to Dr. W. J. Stephens before June 26th. Members wishing to stay the night in Newquay will find accommodation at the Headland Hotel.—RUSSELL COOMBE, Honorary Secretary.

STAFFORDSHIRE BRANCH.—The thirty-ninth annual meeting of the Branch will be held at the White Hart Hotel, Burton-on-Trent, on Thursday, June 27th, 1912, at 4 p.m., when an address will be delivered by the President-elect, Mr. E. C. Stack, F.R.C.S.I. Agenda: (1) Introduction of the new President. (2) Minutes of the last annual meeting. (3) Address by the President. (4) Correspondence. (5) Report of the Council. (6) The financial statement. (7) Election of officers for the ensuing year—President-elect, Secretary, and Treasurer. (8) To decide the place of holding the next annual meeting. (9) To consider proposed alterations of Rules VII and XVII. Members have the privilege of inviting guests. Dinner at 6 p.m.; charge, 5s. The first general meeting of the session will be held at Stoke-on-Trent, on Thursday, November 28th, 1912. Members willing to read papers are requested to communicate the titles to the General Secretary as soon as possible.—HAROLD HARTLEY, Honorary General Secretary.

STAFFORDSHIRE BRANCH: SOUTH STAFFORDSHIRE DIVISION.—A meeting of the Division will be held at the Star and Garter Hotel, Wolverhampton, on Thursday, June 20th, 1912. Supper (2s. 6d. each) at 7.45 p.m.; meeting at 8.30 p.m. Business: (1) Confirm minutes of last meeting. (2) Annual report of Council. (3) Public Medical Service. (4) Report of Provisional Medical Committee. Members are requested to bring the SUPPLEMENTS of May 11th and 18th and of June 8th to the meeting with them. Will those who intend being present at the supper kindly inform the Honorary Secretary by June 16th.—H. C. MACTIER, Honorary Secretary, 33, Tettenhall Road, Wolverhampton.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH. — The annual meeting of this Branch will be held at Burghill, Hereford, by the invitation of the President-elect, on June 29th, 1912. Business: (1) To confirm minutes. (2) To elect new officers. (3) To receive the report of the Council on the affairs of the Branch and the annual financial statement. (4) Any other business. The President of the Herefordshire Medical Society kindly invites members of the Branch to a garden party at Firbank, Burghill, Hereford, at the close of the formal business of the annual meeting.—C. S. MORRISON, Honorary Secretary.

National Insurance.

THE ADVISORY COMMITTEES AND THE COMMISSIONERS.

CONFERENCE OF COMMISSIONERS WITH MEDICAL MEMBERS.

The conference between the medical members of the Advisory Committee and the Joint Committee of Insurance Commissioners was resumed on June 11th. One of the main topics discussed was the general nature of the regulations to be made to meet the requirements of Section 15 (3), commonly known as the Addison Subsection, as follows:

15 (3). The regulations made by the Insurance Commissioners shall authorize the Insurance Committee by which medical benefit is administered to require any persons whose income exceeds a limit to be fixed by the Committee, and to allow any other persons, in lieu of receiving medical benefit under such arrangements as aforesaid, to make their own arrangements for receiving medical attendance and treatment (including medicines and appliances), and in such case the Committee shall, subject to the regulations, contribute from the funds out of which medical benefit is payable towards the cost of medical attendance and treatment (including medicines and appliances) for such persons sums not exceeding in the aggregate the amounts which the Committee would otherwise have expended in providing medical benefit for them.

The assumption that the earned income was to be interpreted to mean the total income from all sources was taken as a basis, and the questions raised were how the income was to be determined, and how the limit when fixed was to be made operative.

Another subject discussed was that of the regulations to be made to meet the requirements of Section 15 (4), commonly called the Harmsworth Subsection, as follows:

15 (4) That the regulations shall provide that, in the case of persons who are entitled to receive medical attendance and treatment under any system or through any institution existing at the time of the passing of this Act and approved by the Insurance Committee and the Insurance Commissioners, such medical attendance and treatment may be treated as, or as part of, their medical benefit under this part of this Act, and may provide for the Committee contributing towards the expenses thereof the whole or any part of the sums which would be contributed in the case of persons who have made their own arrangements as aforesaid, so, however, that such regulations shall secure that no person be deprived of his right, if he so elects, of selecting the duly qualified medical practitioner by whom he wished to be attended and treated, in accordance with the foregoing provisions of this section.

The points raised were the definition of the term "system or institution," the conditions of approval by Insurance Committees and Commissioners, and as to the nature of regulations which must be made with regard to the free choice of practitioner; the conditions as to contributions by the Insurance Committee were also mentioned.

The subject of the duties and powers to be assigned to Medical Committees beyond that acting in a purely advisory capacity was also a subject set down for discussion, as was also the arrangements to be made for the supply of drugs, medicines, and medical appliances.

As on previous occasions, no definite indication was given of the views of the Commissioners, but the members of the Committee were given to understand that the Commissioners intend to submit draft regulations to a meeting of the Joint Advisory Committee to be held in about a fortnight. In the interval a meeting of the Insurance Commissioners with members of the Advisory Committee representative of insured persons will be held, but it was stated that no medical business would be taken at this meeting.

DOCUMENTS ISSUED BY THE INSURANCE COMMISSION.

Administration of the Insurance Act.

In connexion with the National Insurance Act a number of White Papers have been presented to Parliament during the last two weeks. They include (1) a list of names and addresses of bodies already granted the status of approved societies, either by the Joint Committee or one or other of the separate Commissions. (2) A number of extracts from the reports of medical inspectors of the Local Government Board as to the sanitary condition of various areas. These are published to illustrate the conditions which Mr. Lloyd George had in his mind when justifying the clauses of the bill as to excessive sickness. (3) Recommendations of the Departmental Committee as to the auditing staff required, and of a corresponding committee as to the outdoor staff necessary. The other papers set forth the rates of contribution payable by women who become voluntary insurers before January 15th, 1913; the amounts which approved societies may grant to members who enter their societies at the beginning of the Act and when aged 65 and upwards; and the conditions of membership and rates of benefit which a society may accord, if it pleases, to an alien.

SCOTTISH MEDICAL INSURANCE COUNCIL.

Colliery and Public Works Surgeons Committee.

This committee of the Scottish Medical Insurance Council has addressed the following letter to every colliery and public works surgeon in Scotland whose name is known to it:

54, George Square, Edinburgh,
June 10th, 1912.

Dear Doctor,

At a meeting of above committee, held in Edinburgh on June 6th, 1912, it was unanimously resolved to send this circular letter to all colliery and public works doctors in Scotland in order that the issues arising out of the passing of the National Insurance Act may be clearly placed before them at this critical time.

As a whole colliery and public works practice in the past has not been adequately paid, and when the Act comes into operation these practices as we have known them in the past will be profoundly disturbed, and unless absolutely united action is taken at this time this disturbance will prove very harmful to colliery and public works doctors.

By taking united and simultaneous action now not only will our present interests be safeguarded, but a long overdue improvement in the conditions of service and remuneration will be brought about.

This committee is representative of every county of Scotland where colliery and public works interests exist, and speaks and acts with the authority of the Scottish Medical Insurance Council, which is the profession's mouthpiece to the Scottish Commissioners under the National Insurance Act.

After much careful and searching investigation into the whole matter over a lengthened period the following resolutions have been passed for future action.

The Policy Resolved Upon.

Briefly put, our policy is as follows:

Resolved—1. To have lodged in the office of the Scottish Medical Insurance Council a complete list of colliery and public works surgeons in Scotland.

This has been done and is obviously for purposes of organization.

Resolved—2. That the Executive Committee of this Council should communicate with the Secretary of the Scottish Coalowners Association, asking if they would be good enough to continue medical offtakes as at present from July 15th, 1912, till January 15th, 1913, in view of the fact that the workmen and their families will not otherwise be insured for medical attendance against sickness and accident.

This has already been done, and we believe that there is every prospect of this being arranged through the Conciliation Board.

Resolved—3. That in the event of the *status quo* being not maintained from July 15th, 1912, to January 15th, 1913, that an alternative policy of private practice be undertaken, and that the fees should be those adopted by the State Sickness Insurance Committee of the British Medical Association.

Resolved—4. That every colliery and public works surgeon be urged to sign forthwith the supplementary pledge issued by the State Sickness Insurance Committee of the British Medical Association, and to sign

the resignation forms of all contract practice appointments, including colliery and public works appointments.

This resolution seems very drastic, and requires explanation.

Among the more important reasons are:

1. That it brings all doctors in every form of contract practice into line; in some colliery districts already, these pledges and resignations have been unanimously signed.

2. That whenever the Act comes into operation, whether it is accepted by the profession or not, colliery practices and appointments in their present form will automatically cease to exist; since in the former event, a new form of contract under the Act will supersede the present form; while if medical benefits be suspended, arrangements must be made with the various approved societies, miners' unions, and the like, for fresh contracts, because the capitation grant will then be handed to these bodies by the Insurance Committees. If our resignations are then in the hands of the Provisional Local Medical Committees, this ensures that such contracts will be arranged on the best possible terms, and on a national basis, instead of the inevitable and disastrous local bargaining which would otherwise occur.

This resolution, therefore, *need cause no alarm*, as the actual resignation forms will be held by the secretaries of each Provisional Local Medical Committee in every insurance area, and *may never actually be used;* and *in no area* will they be put into operation by the Local Medical Committee until it is considered absolutely safe to do so in such area, and then *only after a fresh contract for immediate reacceptance* has been drawn up.

Therefore no colliery or public works surgeon need hesitate in signing these documents, which we urge should be completed and lodged without delay.

Resolved—5. That in the event of the Act being accepted by the profession, those engaged in colliery and public works practice pledge themselves not to contract out of the Act, but to accept the capitation grant of 8s. 6d. from each worker, and not to attend the wives and families of the workers at less than 4d. per week for each family, exclusive of medicines and extras as agreed upon by the British Medical Association.

The reasons for this are self-evident, but it may be pointed out that the fourpenny rate for the women and children is partially come to on a charitable basis, and will not form a precedent for future negotiations with the Government when the women and children become insured persons.

Resolved—6. That in view of the fact that maternity benefit of 30s. per case is to be paid under the Act, that, from the date of its coming into force, no midwifery case be attended in colliery and public works practice at a less fee than £1 1s., with extra fee for abnormal cases.

Resolved—7. That a mass meeting of colliery and public works surgeons be held on Saturday afternoon, 22nd June, 1912, in Glasgow, of which due intimation will be made to you, and at which full exposition and explanations of policy laid down will be given.

If you cannot be present at the meeting, it would help this committee if you would indicate beforehand to the Secretary, Mr. D. L. Eadie, 54, George Square, Edinburgh, whether you agree with any or all of the above resolutions.

It is very desirable that every pledge and resignation be lodged by June 22nd, 1912.

On behalf of Colliery and Public Works Surgeons Committee of the Scottish Medical Insurance Council.

We are,

Yours faithfully,

ALEX. M. EASTERBROOK, *Chairman.*
D. ELLIOT DICKSON, *Member of Committee.*
D. L. EADIE, *Secretary.*

MEETINGS OF THE PROFESSION.

STOKE NEWINGTON.

THE inaugural meeting of the Stoke Newington Medico-Ethical Society was held at the Holborn Restaurant on June 4th, and was preceded by a supper. Dr. LESLIE DURNO, President of the society, occupied the chair, and was supported, amongst others, by Dr. Basil G. Morison (Islington), Dr. T. Hobbs Crampton (Finsbury), Drs. Evan Jones and Roe (Finsbury), Drs. Major Greenwood and T. H. Porter (Shoreditch), and Dr. Hadfield (Hackney). After supper the rules of the society were read by the HONORARY SECRETARY (Dr. Jaffé), and on the motion of the CHAIRMAN were unanimously approved. In proposing the toast of "The Society," Dr. B. MORISON dwelt on the importance of local societies and their value as fighting units, and also gave a brief but lucid exposition of the Act as it now stood, referred to the ultimatum of the State Sickness Insurance Committee, and to the necessity of the profession being prepared with an alternative scheme in the case of the suspension by the Insurance Commissioners of medical benefits under the Act.

The PRESIDENT, who replied, said he looked upon the local societies as the molecules or atoms that went to form the whole organization, and the cohesion of these societies would strengthen the main organization. He looked upon the profession as the proverbial worm that had been trod on too long, but had at last turned, and in turning had become a giant. But, while it was an advantage to have the strength of a giant, it was wicked to use it; and the profession would not use their strength to the injury of the poor, but would demand elementary justice and fair treatment to be meted out to them.

Dr. VAUGHAN-PRYCE, Vice-President, proposed "The Guests," coupled with the names of Drs. Major Greenwood, Evan Jones, and T. F. Roe.

Dr. GREENWOOD, in replying, said the profession were indebted to the Chancellor of the Exchequer for having—though unintentionally—so completely united the profession, an achievement for which he (the speaker) had yearned for the past thirty years. He referred to the misrepresentations and slanderous attacks made upon the profession in certain sections of the press, and even in the House of Commons, by men of the type of Mr. Handel Booth, and explained fully the incident which formed the subject of Mr. Booth's attack. Finally, he quoted from a letter in the *Times* by Mr. Howard Marsh, in which the writer outlined the advance made in the science of medicine and surgery in the last half-century and the lines on which such advance had been made, and dwelt on the check that would be caused thereto by such a measure as had been introduced by Mr. Lloyd George.

Dr. EVAN JONES said the time had come when they must take the public into their confidence, and to explain to them their position and the reasonableness of their demands. In Finsbury they were to have a public meeting to explain the Act from the doctor's point of view. Friendly society members wondered at the ridiculously low terms doctors had been willing to accept; but hitherto they could not ask for more, because they were afraid of their neighbours. The profession would have to consider seriously the question of forming a Public Medical Service for the treatment of the poor. Such a service would be a boon to the poor public, and would have the further advantage that the doctors would remain their own masters. In working for the Government or friendly societies they sacrificed their independence and liberty.

Dr. ROE, Honorary Secretary of the Finsbury Medico-Ethical Society—the first society of the kind that had been formed—referred to the importance and amount of good such societies could do in welding the profession and in uniting its members, not only against aggressive measures that might be levelled against them, but in friendly and social intercourse, and on its effect in the removal of rivalry, jealousy, and misunderstanding.

Dr. T. HOBBS CRAMPTON proposed the toast of "The Honorary Officers," to which Dr. JAFFÉ, the Secretary, responded.

A vote of thanks to the Chairman, which was received with musical honours, brought the proceedings to a close.

EDINBURGH.

A MEETING of the medical profession in Edinburgh has been held under the auspices of the Provisional Local Medical Committee. It was well attended by representatives of consultants and general practitioners. The attention of those present was called to the fact that invitations were being privately sent to individual medical men, asking them to serve on a so-called "Advisory Committee" of the Provisional Local Insurance Committee. It was pointed out that there was really no such body as an "Advisory Committee" of this sort, and that medical men must not be beguiled into joining a Provisional Local Insurance Committee masquerading under this specious title; while the public should be informed that this was a more or less clever attempt to obtain medical men to serve on the

Provisional Local Insurance Committees and so to circumvent the embargo, under which medical men have voluntarily placed themselves, against joining these Local Insurance Committees until the six minimum demands of the profession have been granted.

The meeting decided that for the Edinburgh area the system of payment of medical men under the Insurance Act must be a system of payment per attendance, and wholly independent of the amount of money the Government might see fit to allocate to the Edinburgh area, and, of course, this means that in Edinburgh, at all events, a capitation fee will not be accepted by the profession.

The organization of the Edinburgh area is now perfect, and it may be stated that all but three practitioners, of whom one is at present engaged in academic work, are under willing pledge to support the Provisional Local Medical Committee.

CLONMEL.

THE medical practitioners of the South Riding of Tipperary held a meeting in the Town Hall, Clonmel, last week, to consider their position under the Insurance Act. The following attended: Drs. C. E. Ryan, P. Morressy, Tipperary; R. R. O'Brien, P. J. O'Brien, P. J. Byrne, and J. D. Wynne, Clonmel; P. Stephenson, M. J. Moran, and P. J. Murphy, Carrick-on-Suir; J. Power, Ardfinnan; T. Hennessy, Clogheen; T. O'Connell and E. Cummins, Fethard; W. Russell, Bansha; and M. J. Madden, Golden.

The Irish Insurance Commissioners having requested the meeting to nominate four gentlemen, two of whom would be selected by them to represent the district on the Insurance Committee, Drs. O'Brien, Ryan, Stephenson, and Power were named.

It was decided to instruct Dr. Power, the local representative on the Central Advisory Committee, to urge on the Insurance Commissioners the importance of granting a suitable capitation fee to medical men for giving certificates to persons insured under the Act, and the determination of the profession not to accept an inadequate fee for such services.

The following pledge was signed by all the doctors present, and it is understood that this pledge has been, or is immediately about to be, signed by every medical man in Tipperary South Riding:

> I hereby undertake that I will not accept any club or other contract medical practice or position except upon such terms as shall be approved by the County Medical Committee representing the entire profession of that county.
>
> Name .....
>
> Address .....

The meeting then selected the County Medical Committee for Tipperary South Riding as follows: Drs. C. E. Ryan, P. Morressy, and W. Russell, representing Tipperary; R. R. O'Brien and J. D. Wynne, representing Clonmel; P. Stephenson and M. J. Moran, representing Carrick-on-Suir; G. H. Russell and T. O'Connell, representing Cashel; and J. Power and T. Hennessy, representing Clogheen.

Dr. P. Stephenson (Carrick-on-Suir) was elected honorary secretary to the committee, and it was decided that all negotiations between friendly societies or other similar bodies and medical men for the provision of additional medical benefits under the National Insurance Act should be carried on solely by means of, and with, the sanction of the County Medical Committee.

FINSBURY.

A LARGE number of the inhabitants of Finsbury assembled at the Town Hall on June 6th, at the invitation of the Finsbury Medical Society, in order to hear the views of medical men with reference to the working of medical benefits under the National Insurance Act. Mr. T. HOBBS CRAMPTON, President of the Finsbury Medical Society, was in the chair, and members of the profession present included, in addition to Dr. Cox, Medical Secretary of the British Medical Association, and Dr. W. Francis Roe, Honorary Secretary of the Finsbury Medical Society, Mr. W. McAdam Eccles, and Drs. F. J. Smith, Major Greenwood, MacGregor, Hockbridge, Lauzun Brown, G. F. Palmer, Sharples, D. W. F. Latham, Grant, Garrett, Basil G. Morison, Chetwood, Chambers, Young, H. G. Dixon, Dorran, Jocelyn Swan, Southcombe, Westerman, Sandilands, Evan Jones, Hawkes, Arthur Davies, Udale, John Adams, T. J. Latham, Bulger, Gabe, and Mr. Maynard Heath.

The CHAIRMAN explained at the outset that the meeting was not a political one; the speakers would not enter into the merits or demerits of the Insurance Act as a whole, but only deal with the medical provisions of the Act.

Mr. MCADAM ECCLES said that no one viewed with greater favour than the medical profession the proposals of the Act in so far as they aimed at providing efficient and speedy treatment for the sick, and stimulating the prevention of sickness and its results, disablement and unemployment. For the benefit of those unfamiliar with the organization of the medical profession, Mr. McAdam Eccles explained its division into general practitioners, consultants, and medical officers of health, and mentioned that it cost at least £1,000, and occupied on the average over six years, for a man to become qualified as a general practitioner. Consultants were frequently attached to hospitals, and it was because in this connexion they came into contact with a large number of people of the insured class that the hospital staffs had taken a very keen interest in the National Insurance Act. The question of the effect of the Act upon the great voluntary hospitals of London was a matter of concern to many. The hospitals existed for the treatment of the sick, for the investigation of means for the prevention of disease, and for the carrying on of medical schools, which were the only places where medical men and women could be trained and get their experience. In this respect the hospitals were doing work for the whole nation and the empire. This system resulted in the general practitioner of this country being better taught and better qualified than in any other land. Unlike the German students, who never saw a patient until they were qualified, the British student came into contact with his patients from the very day he entered the hospital. The medical profession intended that the nation should have in the future as in the past the very best medical treatment it could possibly have; medical men would not let considerations of their own financial advantage stand in the way of that. Nevertheless there were certain things medical men had to consider from their own point of view. They had actually—although some people did not seem to think that could be the case—to consider their own health. Were those present aware that medical men worked exceedingly hard, so hard that if an eight hours' day were enforced for the medical profession the bulk of the nation would be likely to die? Medical men had also their wives and families to consider; some of them hardly ever saw their wives and children. Lastly, and more important than all, they had their professional reputation to maintain, and they did not intend that anything should lower that. As to the work of the hospitals, a large number of the out-patients should never have come at all. Some had only trivial ailments, and others could very well afford to pay for treatment. As soon as the medical benefits came into force the insured persons would no longer be entitled to treatment at hospitals as necessitous persons. In-patients—persons suffering from a serious illness—would continue to be treated at the hospitals as before. If the medical profession did not receive what it believed to be its just and fair demands, the stand taken by the hospitals would be to refuse to treat patients sent by non-medical persons and only to treat those sent by the practitioners of the neighbourhood. There would be a closer union between the medical staffs of hospitals and the general practitioners, and those who were sick would not suffer. If the medical profession was standing out against certain points in connexion with the Act, it was doing so in order that the profession might be maintained at that high standard of knowledge and work which was necessary for the preservation of the health of the nation.

Dr. COX, Medical Secretary to the British Medical Association, remarked that according to Conservative papers doctors were the finest fellows in the kingdom and according to Liberal papers they were actuated by the lowest of motives, the chief of which was pure greed. Of course, neither statement was correct. Put quite bluntly, the claim of medical men was that they might be permitted to make an honest living and do their work to the satisfaction of themselves and their

employers. Like everyone else, medical men welcomed the bill with open arms when it was first introduced, but they soon found that it was framed on conditions about which the profession had been grumbling for years. They had a complaint against Mr. Lloyd George that the main lines of the bill were laid down without any consultation with the medical profession; they would have much preferred to negotiate before the bill was introduced, and thus have avoided being dragged into the political arena. Dr. Cox then briefly summarized the six cardinal points, and on the question of remuneration pointed out that as a result of the Act the area of contract practice would be extended from four and a half millions of patients to fourteen millions. Doctors in the past had estimated that by getting the wives and children of contract patients at ordinary rates the remuneration would average up to some extent, but if contract patients were increased in number to this degree it would be impossible to make ends meet. The terms the profession demanded were, instead of 4s. 6d. without medicine, 8s. 6d., as was paid by the Government in respect of various services all of whose members were carefully selected lives as compared with the unselected lives included in the national insurance scheme. Medical men also urged that persons earning over £2 a week should be given their 6s. or 8s. 6d., and should make their own arrangements for medical attendance. Although the Government said an income limit was impossible, it had instructed the Local Insurance Committees to fix local income limits where thought desirable. A good deal had been said lately about a "medical strike." The profession was preparing to say to the Government and all concerned that if its reasonable demands were not met it would decline to work under the Act at all. This did not mean that the insured would not get medical attendance, but they would not get it under the terms proposed by the Government.

Dr. EVAN JONES pointed out that the 4s. a week for contract practice was fixed nearly fifty years ago, since which time expenses of living had greatly increased, as had the cost and duration of medical education. If the profession refused to accept the Government's terms it would not accept similar terms from the friendly societies, and from January 16th next there would be no more contract practice in London or the United Kingdom. Having refused to work at sweated rates, and having refused to go on with club work—with one or two exceptions the resignations of every club in Finsbury were in certain hands already—the profession would offer the insured as an alternative treatment on the same terms as those asked from the Government—no more and no less. If blacklegs were introduced the insured would be told they must all be treated by the blacklegs or none. Under those conditions there would no longer be cut-throat competition, but competition in good work, which would be to the advantage of the insured and of the profession.

Dr. F. J. SMITH declared that consultants intended to support the general practitioners in this fight. They would resist any attempt to use the hospitals for the treatment of the insured, if the profession did not get the terms it desired from the Government.

Dr. HAWKES commented on the recent decrease in the number of entries of medical students from an average of 1,483 to 1,232, the lowest number since the Seventies.

Dr. LAUZUN BROWN remarked that the Act had produced unity in the profession, and also made some observations on the sums expended annually on quack remedies, as contrasted with the sums allotted by the Act to medical benefit.

Dr. MAJOR GREENWOOD took the opportunity of correcting statements in the lay press with regard to a recent matter of professional discipline in Devonshire.

Dr. BASIL G. MORISON said that in the administration of the Insurance Act was bound up the whole future of medicine, and on the maintenance of the standard of the profession depended the future of the country.

Dr. ADAMS remarked that the sum claimed by the profession was the least it could possibly accept with honour.

Dr. ROE said the meeting was the first of the kind ever held, and he hoped conferences between medical men and the insured would be more frequent, in order to secure the best medical treatment at the fairest terms.

A number of questions on points of detail, sent up by members of the audience, were answered by Dr. EVAN JONES, who also proposed a vote of thanks to the Chairman, and this was heartily approved.

PROVISIONAL MEDICAL COMMITTEES.

Edinburgh.

THIS Committee has been duly constituted, and has already done much work. It has divided its members into six subcommittees, having the functions indicated in the subjoined circular, which was issued to all the medical men in Edinburgh and Portobello. All these subcommittees have met and have presented reports and interim reports to the general Committee. The Remuneration Subcommittee, for instance, has submitted that they reject the capitation system for Edinburgh, and have drawn up a schedule of fees *for work done* under the Insurance Act. The Subcommittee on Contract Practice has secured from all the present holders of club appointments, save one, an assurance that they will place their resignations in the hands of the Committee, to be used if and when required; while all the practitioners not holding club appointments, with two exceptions, agree not to accept club appointments in the event of a general resignation being called for. The organization of Edinburgh is now very complete, and satisfactory unanimity of opinion prevails. The Honorary Secretaries are Dr. John Orr and Dr. Keppie Paterson.

The following is a copy of the circular referred to:

6, Strathearn Road,
Edinburgh, May 16th, 1912.

Dear Sir,

In accordance with the request of the British Medical Association and the Scottish Medical Insurance Council, a meeting of the medical profession in Edinburgh was held on May 9th, when the gentlemen whose names appear on page 2 of this circular were elected to serve on the Provisional Local Medical Committee.

The purpose of this Committee is to organize the profession locally, and to this end they have already met (on May 13th), elected their office-bearers, and formed themselves into six subcommittees, which will deal with the following subjects, namely:

1. Remuneration and payment for special services.
2. The action to be taken by the profession locally in relation to friendly society work, and the possible institution of a public medical service.
3. Tuberculosis under the Act, and the relation of the practitioner to sanatorium benefit.
4. The position of all hospitals and dispensaries under the Act, and the possible effects on medical, surgical, and obstetric training.
5. The relation of consultants to the Act.
6. The consolidation of the profession locally by pledges and otherwise.

Yours truly,
G. KEPPIE PATERSON,
JOHN ORR,
Joint Secretaries.

The following are the members of the Committee:

Consulting Physicians (5).—Drs. J. W. Ballantyne, G. A. Gibson, G. L. Gulland, R. W. Philip, D. Chalmers Watson.

Consulting Surgeons (5).—Messrs. L. Beesly, E. Scott Carmichael, C. W. Cathcart, J. W. Dowden, A. Logan Turner.

Practitioners (17).—Drs. E. F. Armour, J. M. Bowie, Jas. Carmichael, John Cumming, Michael Dewar, R. A. Lundie, A. M. M'Intosh, John M'Laren, John Orr, G. Keppie Paterson, Jas. Ritchie, R. Robertson, A. T. Sloan, Jas. Smith, J. Stevens, R. Thin, H. Torrance Thomson.

Practitioners from Portobello (2).—Drs. J. H. Balfour, L. F. Bianchi.

Women Practitioners (2).—Drs. Elsie M. Inglis, Isabel Venters.

Non-members of the British Medical Association (6).—Consulting Physician: Dr. J. S. Fowler. Hospital Representative: Sir Joseph Fayrer. Practitioners: Drs. W. B. Alexander, W. S. M. Brown, Robt. Maclaren, J. W. L. Spence.

Chairman.—Dr. John M. Bowie.

Vice-Chairman.—Dr. A. Logan Turner.

Secretary.—Dr. John Orr.

Joint Secretary and Treasurer.—Dr. G. Keppie Paterson.

Conveners and Members of the Subcommittees.

1. "*Remuneration*" *Subcommittee.*—Dr. M. Dewar, convener; Drs. John Orr, Torrance Thomson, John Cumming, Armour, and Mr. Scott Carmichael.

2. "*Friendly Societies*" *Subcommittee.*—Dr. R. Robertson, convener; Drs. John Orr, Sloan, James Smith, Bianchi, John Maclaren, Spence, and Isabel Venters.

3. "*Tuberculosis*" *Subcommittee.*—Dr. Philip, convener; Drs. Gulland, J. S. Fowler, James Smith, Thin, and Mr. Beesly.

4. "*Institutional*" *Subcommittee.*—Dr. Logan Turner, convener; Drs. Ballantyne, Chalmers Watson, Keppie Paterson, Lundie, Elsie M. Inglis, Sir Joseph Fayrer, and Mr. Dowden.

5. "*Consultants*" *Subcommittee.*—Mr. Cathcart, convener; Mr. Beesly, Mr. Dowden, Mr. Scott Carmichael, Drs. Ballantyne, G. A. Gibson, Gulland, Philip, Fowler, Chalmers Watson, James Carmichael, and Logan Turner.

6. "*Pledge*" *Subcommittee.*—Dr. James Ritchie, convener; Drs. Keppie Paterson, Mor. Mackintosh, W. S. Murdoch Brown, Robert Maclaren, John Balfour, and John Stevens.

7. *Chairman's Committee.*—The office-bearers and the conveners of the subcommittees.

Dublin.

At a meeting of the Local Medical Committee, recently appointed, held at Dublin on June 6th, the following two resolutions were passed:

1. That a minimum fee of 2s. 6d. per head be charged for the medical examination of all candidates for entrance to societies without prejudice to existing contracts.
2. That pending the introduction of medical benefits to Ireland, an endeavour be made to organize the profession in Dublin on the basis of an 8s. 6d. fee for single persons and a 12s. fee for families.

Colchester and District.

The Provisional Medical Committee for Colchester and district views with grave apprehension the official report, contained in the *Times* of June 8th, of the interview between the State Sickness Insurance Committee and the Chancellor. This report implies that the only matter of moment awaiting settlement is that of the capitation fee. The Committee for Colchester trusts that all the demands of the profession will be urgently pressed, and that the State Sickness Insurance Committee will not be put off by any assurances concerning the Act or any promises concerning the regulations under the Act.

WM. F. CLOWES, Chairman.
STANLEY E. WORTS, Honorary Secretary.

Boston and Spalding Division.

A meeting was held, at which there were present: Dr. SOUTH (in the chair); Drs. White, Miller, Barritt, Mason, R. Tuxford, Witham, Benson, Fred. Walker, Jacobsen, Frank Walker, Gilpin, Sandall, and the Secretary. This being the first meeting, there were no minutes.

Pledges and Resignations.—The SECRETARY reported that at the end of the first week he had received thirty-three pledges and 125 resignations. After some discussion, it was decided to wait another week, and then the Secretary was requested to let each member of the Committee know the names of those who had not signed in their respective areas.

Medical Men Residing within the Divisional Area.—The Secretary's list was carefully gone through and several corrections made. The number of medical men was found to be seventy-eight.

Central Defence Fund.—The SECRETARY reported that forty-nine gentlemen had subscribed to this fund. The remaining twenty-nine names were discussed and allotted.

Furness.

A meeting of the Provisional Medical Committee was held in the Masonic Hall on Friday, May 31st, at 3.45 p.m. Dr. KENDAL was in the chair, and there were present: Drs. Parsons, Daniel, Harper, Johnston, Wilson, Callaghan, Rutherford, Cross, Alexander, Settle, J. A. Reed, Orr, Carmichael, Dearden, Robinson, Magill, Sansom, Allan, Livingston, and Thompson.

The CHAIRMAN introduced the subject of the guarantee fund; he trusted the recommendation that every member should bring up his guarantee to £10 would be acted upon.

It was considered by the meeting that non-members ought to help. It was hardly fair that the whole burden should fall upon the members.

Dr. CROSS proposed and Dr. DANIEL seconded:

That non-members be requested to guarantee towards the expenses of the campaign.

This was carried.

Several members at the meeting raised their guarantee to £10.

The Pledge.—In regard to the supernumerary pledge, it was reported to the meeting that Ulverston, Dalton, and Millom were solid. Barrow was not in such a good position; five men had not signed. It was suggested that a small subcommittee be formed to deal with defaulters; Drs. Carmichael and Daniel were appointed for Barrow, Drs. Barling and Bowman for outside districts.

The Committee then considered the question of the resignation of female and juvenile clubs. The discussion was long and interesting, and whilst some members were of the opinion that these clubs ought to be resigned immediately, the general feeling of the meeting was that it would be a tactical mistake to do so at present.

It was felt that the Committee should confine itself more strictly to the benefits of the Act. Eventually the following resolution was put to the meeting and carried:

That all holders of juvenile clubs place themselves in the hands of this Committee in six months' time.

The meeting then terminated.

Hampstead.

A meeting of the Committee was held at 70, Fairhazel Gardens on June 9th, at 8.30 p.m. Dr. J. FORD ANDERSON was in the chair, and thirteen members were present.

The minutes of the last meeting, as printed in the JOURNAL, were read and confirmed.

A letter from the State Sickness Insurance Committee—that the suggestions forwarded from this Committee concerning the Central Defence Fund had been referred to a subcommittee for consideration—was read. (See Minutes, May 3rd, page 3 of Minute Book.)

A letter from Dr. Sutherland—that the question of the pledge had been referred to a subcommittee of the medical staff of the Hampstead and North-West London Hospital—was read.

A letter was read from the Wandsworth Provisional Medical Committee, enclosing the following resolutions passed at the last meeting:

1. That the medical practitioners in this area refuse to engage any "locum" who has not signed the pledge.
2. That the State Sickness Insurance Committee be asked to bring the above resolution under the notice of the other Provisional Medical Committees.
3. That the State Sickness Insurance Committee ask the medical agents to try and insure that all "locums" for whom they act as agents sign the pledge.

It was resolved that resolutions 1 and 2 be approved, and that resolution 3 read as follows:

That the State Sickness Insurance Committee inform the medical agents that all "locums" for whom they act as agents be requested to sign or show evidence of having signed the pledge.

It was resolved that the Honorary Secretary write to the Wandsworth Provisional Medical Committee to that effect.

The report of the Deptford Provisional Medical Committee was read and received with acclamation.

The HONORARY SECRETARY then reported progress, and the Committee considered the advisability of canvassing those practitioners who had not yet signed, particular attention being paid to those holding contract appointments, in order to complete that section of the work before the end of the month.

The report to date was as follows:

Number of practitioners resident in the borough		237
Number not in general practice in the borough	...	74
Number holding hospital appointments	...	38
Number of these who have signed the pledge	...	11
Number holding contract appointments	...	42
Number of these who have signed the pledge	...	16
Number who have signed resignation forms	...	13
Number of practitioners holding no hospital or contract appointments who have signed the pledge		42
Total number of practitioners who have signed the pledge	... ...	—69

It was resolved that the next meeting be held at 41, Belsize Park, on Friday, June 21st, at 8.30 p.m.

MEETINGS TO BE HELD.

HAMPSTEAD.—A meeting of the Hampstead Provisional Medical Committee will be held at 41, Belsize Park, on Friday, June 21st, at 8.30 p.m.—E. ARTHUR DORRELL, 7, Cannon Hill, West Hampstead, N.W.

LEICESTERSHIRE AND RUTLAND.—A general meeting of the service will be held at the Temperance Hall, Leicester, on Wednesday, June 19th, at 4 p.m., when a resolution will be proposed authorizing the Central Committee to take the necessary steps to apply for the registration of the Public Medical Service as a trades union. The Honorary Secretary is Dr. T. ARNOLD JOHNSTON.

CORRESPONDENCE.

The Epsom Scheme.

DR. E. C. DANIEL (Epsom, Surrey) writes: In a letter to the BRITISH MEDICAL JOURNAL, on March 2nd, I outlined a scheme for providing medical attendance on insured persons on a "payment for work" done basis. This scheme has met with a considerable amount of support in this county, and I have had some correspondence with practitioners in other counties on the subject.

I should be glad, therefore, in view of the publication of the British Medical Association scheme, if you could find space for this letter, in which I desire to draw particular attention to some important points of difference between the Epsom scheme and the British Medical Association scheme.

I.

Under the British Medical Association scheme it is proposed that the profession shall employ collectors, and the moneys collected will be the property of the medical officers of the service, and consequently it is necessary to safeguard the fund against actions for damages by making the subscriber "contract with his medical attendant only, and not with the service or other members of the service."

Under the Epsom scheme I propose that the societies shall be the collecting agency, and the moneys collected are to be paid into a fund in the names of trustees, which fund shall be drawn on only for the purpose of paying the doctors' accounts. The trustees of the fund shall be representatives of the profession and the subscribers.

May I point out why I think the Epsom scheme has some advantages? In the first place, the societies have all the machinery for collecting, and they will be able to do it more efficiently, with less expense, and, I venture to think, with less irritation to the subscribers, than would collectors employed by the profession. There would be fewer arrears, and those in arrears could be more easily dealt with by their fellow subscribers than by agents of the doctors.

I feel that the work of collecting should not be on the shoulders of the doctors, but on those of the people who are to receive the benefits.

Under the Epsom scheme the people form a fund from which they will pay their doctors.

Under the British Medical Association scheme the doctors form a fund for themselves, and the subsequent distribution of it is of no interest to the subscribers.

Why should it be?

Because if the trust fund is depleted by excessive calls on the doctors, the people will know it, and will have to take steps to correct it.

If the doctors fund is depleted, nobody will care but the doctors.

II.

(Clause 19. Choice of medical attendant.)

Under the British Medical Association scheme there is only the limited periodical choice of doctor, such as you get in a capitation system. (This, I take it, is necessary in order to protect the fund collected by the doctors.)

Under the Epsom scheme the choice of doctor is as free as it is for a private patient. The fund being the people's fund for the payment of their doctors' accounts, does not require the protection of individual contracts. And being a trust fund the people cannot use it for other purposes.

While on Clause 19 I would like to comment on Subsection (*d*). This is a very important question, and would be more effectively dealt with by report to the offender's society (as would be done under the Epsom scheme) than by the committee of doctors.

The society could suspend benefits; the doctors could only refuse further attendance.

To control excessive attendance on the part of individual doctors, the trustees of the fund would have power to refer large accounts to the local Medical Committee before payment: and under these circumstances Clause 31 of the British Medical Association scheme would apply, if necessary.

III.

The membership card proposed for the Epsom scheme combines membership card (or ticket) and attendance slip, and, I think, explains itself.

Front.

Epsom Medical Fund.	Epsom Medical Fund.
This Ticket Entitles Name..... Address..... ..... To medical attendance at the cost of the above Fund until Date Initials of Secretary.	Scale of Fees for Ordinary Attendance. Visit Visit and Medicine Surgery Surgery and Medicine Etc.

N.B. This Ticket is a receipt for contributions, and must be kept by the subscriber. If used for medical attendance a new one will be supplied by the Secretary.

Back.

Epsom Medical Fund.			Epsom Medical Fund.			
COUNTERFOIL. To be sent in by Patient at End of Attendance, or in case of Long Illness at least Once a Quarter.			ATTENDANCE SHEET. To be sent in by Doctor at the End of Attendance, or in case of Long Illness at least Once a Quarter.			
Dr.....	Subscriber.....		Dr.....	Subscriber.....		
Date.	Fee.	Initials.	Date.	Fee.	Complaint.	Initials.

This membership card (or ticket) would enable the subscriber to obtain medical attendance anywhere in the county provided the doctor chosen belonged to his local medical society, and worked on the same terms and under similar rules as the Epsom Medical Society; whereas under the British Medical Association scheme the subscriber is limited to one doctor for six months.

I have in this letter mentioned only the important difference in principles; the details of management and of fees are practically the same.

*** Dr. W. Thornely, Honorary Secretary of the Epsom and District Medical Society, informs us that at a meeting of the society held on June 11th the above letter was read and unanimously approved, and that the opinions expressed therein were endorsed by the members of the society.

Dr. PERCY K. MUSPRATT (West Drayton) writes: It will perhaps be more convenient to examine the payment per attendance, or B scheme, first, as this raises questions of principle rather than of detail. In order to appreciate this, let us examine the main objections of those who object to the capitation system. These are:

1. That the patient who pays a fixed sum per annum and no more is apt to be much more exacting in his

demands upon the doctor's time than if he had to pay for either the whole or some part of the attendance himself; this is well illustrated by the fact that the National Deposit Society, whose system of payment per attendance is well known, actually pay less per annum per member for medical attendance than the Oddfellows, etc., who pay a capitation fee; nevertheless it is generally recognized that under the former system the amount paid for work done is more; that is to say, that a member of the National Deposit, knowing that some portion of his doctor's bill comes out of his own money, does not come to the doctor for small ailments, while the Oddfellow, knowing it costs him nothing, does come.

Now under scheme B the subscriber still pays a capitation fee and therefore there is no check on the patient, and consequently no protection for the profession generally; it merely means that, instead of a simple and convenient method of division of the patients' subscriptions as under scheme A, the doctors of the district have to scramble amongst themselves for the proceeds.

2. The second main objection to the capitation system is that the doctor is bound to attend and be at the beck and call of any patient who chooses to send for him unnecessarily (that is, he is still under contract). Inasmuch as the patient still pays his fee by capitation this objection is still valid under scheme B.

It will be seen that the B scheme has no advantages over scheme A in these two vital points.

Now as to the omissions of the B scheme.

No mention is made as to what is to happen to surpluses or deficits. As the scheme stands it seems to infer that the doctors are not to get any advantage from a surplus, but are to bear the whole brunt of a deficit. If this be so, it follows that whereas under scheme A the members (that is, the doctors) will all have the full 13s. per head, under scheme B they may only get a much smaller sum, and cannot in any case get more than 13s., having collectively and as a profession done exactly the same amount of work.

It is apparent therefore that unless a payment-per-attendance scheme can be worked on some such system as the National Deposit, but with, say, a better and fuller scale of fees, we shall be much better off under scheme A.

There seems to be no valid reason why the aforementioned system could not be worked into a scheme; it would merely mean that a slightly higher fee would have to be collected initially, the surplus of which might be returned to the subscriber annually or, if preferred, held over to cancel future subscriptions at the subscriber's option. This would constitute an automatic check on excessive attendance by making the patient feel he was paying something every time he came to the doctor.

Now as to scheme A; a few minor details might perhaps be altered, mostly of a somewhat technical nature.

2. Area of service. It is not quite clear whether the subscriber must live in the area. Thus a member living on the borderland of two or more areas would suffer great inconvenience owing to some of his patients moving short distances, which would bring them sometimes within one area, sometimes within another. Some latitude should be allowed and no too rigid rate framed.

14. Expulsion of members. The rule should provide for opportunities for the offending member to appear and explain or excuse his action.

16. Admission of subscribers. The Committee might be empowered to allow individual cases to be varied within certain limits, say 30s. to £2.

17. Nothing is laid down as to age of admission nor yet as to the right of a subscriber to continue when old and infirm.

18. Committee might be empowered to grant grace in question of poverty, temporary or otherwise.

21. Medical attendant. No provision is made for locum or assistant.

22. Certificates and reports should not necessarily involve the same fee; a simple certificate should be less than a lengthy report.

Determination of refraction, etc., should be specifically omitted.

No extra is charged for night work at surgery or attendance at surgery at other than the usual hours. This, however, is not a very serious matter.

Vaccine treatment, however, is not specifically omitted or other special treatment. This is a more serious omission.

Re viii, a mileage fee per visit would seem more satisfactory than a higher capitation fee, as it would tend to limit the number of visits required by the patient. It should here be noted that, speaking generally, it is not wholly a disadvantage that a patient should be somewhat remote, as it certainly makes him think twice before either sending for the doctor or coming himself.

In conclusion, it must be noted that a bad life from an insurance point of view is not necessarily the worst patient from the club doctor's point of view.

Other points of almost more importance are whether the patient is accustomed to run to the doctor for himself or herself and family for trivial matters and the age of the patient. There are no more troublesome patients than those suffering from the effects of old age without any really serious illness.

Dr. J. H. KEAY (Greenwich) writes: It is much to be regretted that the Public Medical Service scheme has been sent down to Divisions without any explanatory memorandum. For my own part, I am completely puzzled, and cannot see that it is of much use to discuss the details of a scheme in Divisional meetings if no assurance can be given that it is ever likely to meet with success. A scheme on somewhat similar lines was discussed at the annual meeting two years ago, differing but little from that which has been in existence in provident dispensaries for twenty years past. The scheme elaborately discussed and formulated two years ago has proved a failure in as far as it has not been adopted in the largest cities, and only to a very limited extent in the provincial towns and rural districts. A few years ago some of the ablest laymen in the kingdom, together with a few medical men, made a determined effort to push a scheme on the same familiar lines in London, and the result has been that not much over 1 per cent. of the population has been induced to adopt it in any form.

In these circumstances it seems but reasonable to ask:

1. As similar schemes have practically failed in the past, is there any particular reason for believing that the one now propounded will meet with success? It is true that in one respect it is original. It differs from that adopted at the Representative Meeting two years ago in as far as the entire control is to be in the hands of medical men. Any supposed claim or rights on the part of the insured are entirely ignored. In this respect stronger ground is taken than even by extremists in labour disputes. At a large meeting of the profession which I attended some time ago a highly respected member of the Association told us that, as we were the only people who could practise medicine and surgery, we could dictate our own terms. The statement was uproariously applauded. Since that time probably many have arrived at a different conclusion. Were such a statement made at any meeting of trades unionists who have a monopoly, but have learnt by bitter experience from what has happened in labour disputes, it would now receive but little support. We may propound schemes favourable to ourselves, but the question is, Are the insured bound to accept them? They are not compelled.

2. Is there any solid reason for charging the insured and the uninsured different fees? Is it not rather too readily taken for granted that, even though the Association put forward schemes not acceptable to the insured nor to Parliament, a grant will be made by the employers and the State? There has been much loose talk about a so-called amending Act. The Act, it is true, can be amended, but in a manner that will deprive us of that revenue that furnishes the sole reason for differentiating between the insured and the uninsured.

3. What effect can this scheme have, dealing as it does only with contract practice, in preventing sixpenny practice or in limiting out-patient departments? If the money is handed over to friendly societies or the insured, it is probable that it will not only be those earning a few shillings a week, to whom 3d. or 4d. is a large sum, but others well able to pay, who will contrive to get their attendance at a much lower rate than any that could be fixed under a medical service. That this would be the case so far as my own neighbourhood is concerned there can be no manner of doubt.

In what I have said I may be entirely wrong, but it is not only myself but others with whom I have spoken who feel that we are awkwardly placed when compelled to discuss the details of this scheme in our Divisions.

Dr. WILLIAM GOSSE (Sittingbourne) writes: In the very short time given to the Divisions to consider and report on the Public Medical Service schemes submitted by the State Sickness Insurance Committee, I would draw the attention of those interested in Scheme B, based on the payment for attendance system, to the fact that only five paragraphs particularly apply to this scheme—namely, 23, 25. 29. 31. and 32 (vide SUPPLEMENT, June 8th, pages 598 and 599).

On me it had the effect of a scarecrow; it is so elementary, and lacks the essential principle of having some safeguard against imposition by either the patient or medical attendant; this would speedily make the scheme insolvent—that is, unable to pay the fees fixed by tariff, and would lead to friction between the members of the medical service.

It is just the Government scheme; the subscriptions are pooled for the members of the medical service to squabble and scramble for periodically. What is wanted is simply payment for services rendered according to an agreed scale, without risk of loss or gain. The check should be such that, while it does not deter the patient from getting timely advice, it will prevent unnecessary calls. The only way, I think, in which this can be done is by making the patient liable for a small proportion of his account—say, one-fifth or one-sixth, the remainder being paid out of the funds collected; this incidentally would also check each account. In cases of poverty or prolonged illness, provision could be made for meeting the patient's liability by grants out of the central funds.

If this truly contributory system was adopted there would be no need for limitation of benefits (paragraph 22), except in respect of illness the consequence of personal misconduct: for why should fees be paid for one thing and not for another? The subscribers' payment of a portion of the fees, and this check on expenditure—for it has been found that under this system medical attendance is reduced by half of that required by the simple capitation system—would cover the extra benefits.

The extra clerical work entailed by this system, I am informed, would not add more than 5 per cent. to the working expenses. Of course the scheme of payments might require adjusting after a time, for there should be no surplus after an adequate reserve fund was formed, any excess being distributed as the subscribers from time to time decide.

Dr. W. COODE ADAMS (Hampstead) writes: There were many in the profession who were looking forward to the Public Medical Service scheme in the hopeful anticipation of a great piece of statesmanship. It was, therefore, with disappointment that I carefully perused the two schemes as set forth in your recent issue.

It appears to me that the authors have failed to recognize "the spirit that is moving upon the waters." For the excellence of most of the provisions and the minuteness of detail I have nothing but admiration, but that the schemes should return to one of the worst features of the old friendly societies' system I did not expect. I refer to the entrance examination and the enhanced premium.

The grand difference of a national as opposed to a society insurance lies in this, that the brotherhood of the nation is insisted on; that the principle of "bearing one another's burdens," and that the "strong should suffer for the sake of the weak" should be the primordial basis of any insurance structure. With all its defects, the National Insurance Act is pre-eminently statesmanlike in this, that it raises the whole question of sick insurance into a higher and a nobler atmosphere. The Act does not impose a greater burden upon the weak than upon the strong. All pay alike. There is no entrance examination, and no possibility of an enhanced premium. This is truly right and truly great.

Let us look at this point from another aspect. Why should those who, because of ill health are able to earn only a lower wage be required to pay a higher premium? Where does the principle of the mutual bearing of burdens come in here? Is not this a return to the law of the survival of the fittest—a law which, however true in the realm of savage nature, is a law which it is the glory of civilization to oppose and modify?

No, sir; I affirm again that the Public Medical Service scheme has missed its mark. It will die at its birth, to the eternal disappointment of many like myself.

Dr. S. L. CRAIGIE MONDY (London, N.) writes: It must be patent to any fair-minded member of either the medical profession or the general public who has carefully, section by section, studied the National Insurance Act, that it is, from the point of view of justice to the insured parties and the doctors, absolutely an unworkable piece of legislation couched in the vaguest of legal phraseology. To nearly every section there is a "notwithstanding" or nullifying section.

It is, however, most gratifying in the interests of the public health and the medical profession to find that our Association, taking advantage of the present satisfactory united condition of the profession, is enabled to offer for the consideration of the Divisions of the Association alternative schemes, A and B, of a Public Medical Service. Personally, one feels confident that no service on a capitation basis can be fair or of lasting advantage to either the public health or the profession; but scheme B, formulated apparently on the basis of the National Deposit Friendly Society, is undoubtedly the best and most just to all concerned.

As one who has from time to time had experience of all classes of practice, and who has been associated with all kinds of clubs, from the ordinary Oddfellows to the non-dispensing (that is, Italian Society, Grand Hotel, etc.), I have, from the commencement, taken a keen interest in the National Insurance Act, both from the profession's point of view and that of the patients. One can only hope that the Divisions will decide to ignore the Act and unanimously adopt scheme B. If the profession is going to work a medical service, it is only right that the drawing up of terms, regulations, etc., should be done by the profession. No Government has a right to lay down the law to us or to put a value on our services.

HOSPITAL ABUSE AND THE INSURANCE SCHEME.

Mr. FREDERICK PYBUS, M.S., F.R.C.S. (Newcastle-on-Tyne), writes: The letter of Dr. Boswell in the SUPPLEMENT to the JOURNAL of May 11th must have raised in many minds the subject of medical charity as given through the numerous institutions at present in existence. The amount of charitable medical attendance given by the general practitioner is well known to all members of the profession, but is little known and still less appreciated by the public. The enormous amount of time spent by those who give their services to charitable institutions and voluntary hospitals is, I feel, hardly realized, even by the profession, while the laity is entirely ignorant of it. Some time ago, while considering this question, I made a list of such institutions in my own town, and was indeed surprised that I had hardly realized its extent. The recent appearances of the hospital reports for the preceding year again called attention to the subject, and it has interested me sufficiently that I consider it necessary to bring some of the facts before the profession.

The work indicated in the following lines would, no doubt, equally well represent that done in any other large town. The Public Medical Services of the city of Newcastle-on-Tyne, with a population of 266,000, number in all twenty-two.

Of these, the following are staffed by salaried officers:

1. Public Health Service.
2. Poor Law Service.
3. Lunacy Service.
4. Educational Service (inspection only).

The medical officer for the (5) Home for Incurables receives a small honorarium.

The remainder are officered as follows:

6. Cripples' Home (charitable).
7. Deaf and Dumb Hospital (charitable).
8. Dental Hospital (charitable).
9. Women's Hospital (charitable).
10. Lying-in Hospital (charitable).
11. Skin Hospital (charitable).
12. Chest Hospital (charitable).
13. Throat Hospital (charitable).
14. Eye Hospital (charitable).
15. Hospital for Blind (charitable).
16. Hospital for Orphans (charitable).
17. Convalescent Home (charitable).
18 and 19. Sanatoriums (2), charitable, 1 resident, salary; 2 medical officers, honorarium.
20. Children's Hospital (charitable), 2 medical officers, salary.
21. Royal Infirmary (charitable), 12 residents, honorarium; 7 others, salary.
22. Dispensary (charitable), 8 officers, salary.

It will be seen that 12 of these are staffed entirely for charity, while of the remainder in some cases a small

honorarium is given, or the residents receive a nominal salary, whilst an honorary staff exists in each instance. A knowledge of the total number of patients treated at these institutions would no doubt be available, but for the sake of brevity I have taken those treated at 5 hospitals. They are as follows:

1. Royal Victoria Infirmary	95,898
2. Dispensary	38,918
3. Children's Hospital	14,761
4. Eye Hospital	8,756
5. Throat Hospital	2,710
Total	161,043

This total represents considerably over one-half the population of the town, but, of course, it must be remembered that patients also come from the surrounding districts.

The number of operations performed during last year at four of these hospitals reached the total of 11,207.

1. Royal Victoria Infirmary	8,499
2. Children's Hospital	1,293
3. Eye Hospital	291
4. Throat Hospital	1,124
Total	11,207

It must be admitted that the burden of this work is becoming intolerable. The nature of many of these institutions has entirely changed; and, instead of being as formerly, and as originally intended—for the very poor—they are now really benefit institutions for the working classes, including the well-to-do artisans. As such they are exposed to considerable abuse, while this of necessity entails much loss not only to the practitioner but also to the consultant. Many of these appointments are extremely exacting, and the best part of a lifetime may have to be given to their service. To quote some figures from the surgical report of the Royal Victoria Infirmary, the number of radical cures of hernia performed during 1911 numbered 542, most of these being on otherwise healthy workmen; 507 cases of appendicitis were operated on; while since 1906 677 knee-joints have been opened for the removal of ruptured semilunar cartilages.

What the total value of this work to the community amounts to it is very difficult to say, but the total value of the charitable medical service in this country must almost pass comprehension.

While the affairs of the profession are in the present state of change, it is a pity that no attempt should be made to correlate these services under some central control. For while there is considerable overlapping in their activities, it is questionable if some entirely justify their existence. The public, so generally misinformed about thing medical, are mostly under the impression that the staffs of hospitals receive a handsome remuneration for their constant work. This belief is not limited to the poorer class, but exists amongst those whose general education and knowledge, one would believe, entitled them to know otherwise. Since hearing a prominent layman assert that the staff of a certain hospital received payment I have made numerous inquiries, and found this to be the general belief; while a similar question put to the inmates of two wards confirmed the view that they were under the impression that their attendants were paid and that they were under no obligations to them.

Such figures as above quoted, and others, might with advantage be brought to the notice of those politicians who have been loud in the abuse of the doctors. And, although it could hardly be expected that any such facts would effect political expediency, yet they certainly refute those charges which have been so unjustly brought against the profession.

Many other points of importance and interest might be drawn attention to, but this letter has considerably exceeded its intended limit. The manner in which the supplementary pledges have been signed by the staffs of hospitals show a desire to improve the conditions of this charity-ridden profession. It is to be hoped that the special committee appointed to draw up the scheme for medical attention will realize that no public medical service is complete which does not provide for attention at the voluntary and other hospitals.

If Terms are not Arranged.

Dr. J. Kennish (London, S.W.) writes: It has occurred to me that there is one point in connexion with the Act which has been overlooked.

If the approved societies contract to supply medical attendance to their members and the whole of the profession resign their club and friendly society appointments, the societies will surely be bound legally to supply medical attendance to their members; if they do not do so, it appears to me that each member could compel his society to pay his doctor's bill. If this should be so, the societies would all doubtless appeal to the Government to at once make terms with the profession, as otherwise their financial position would suffer materially.

*** In this connexion we may call attention to certain remarks in the current issue of *Unity*, the organ of the Foresters, Oddfellows, and kindred societies. It is suggested that unless by July 15th Mr. Lloyd George is able to announce that he has made satisfactory arrangements with the medical profession he will be in the position of a man who has issued a prospectus the promises of which have not been fulfilled. He must not be allowed to shuffle on to the societies the burden of making arrangements with the medical profession. It is argued that though in some districts there may be sufficient blacklegs to do the work, where the medical profession is strong the societies will be rendered insolvent by having to pay the doctors what the State refuses. Even if by bargaining with sections of the medical profession the friendly societies could break up the medical combination and force the doctors to accept 6s. instead of 8s. 6d., it would be the friendly societies' members who would be the first to suffer, for scamped pay means scamped service. There is no proof that the demand for 8s. 6d. is excessive. The suggested plan of pooling the assigned sum in each district would simply mean that the insured would have to make up the deficit, and the suggestion that the assigned sum should be returned to each member, and he be left to make his own arrangements, is condemned. Mr. Lloyd George was warned in advance he was rushing on a rock, and he must now make the best terms he can with the medical profession. The Act cannot be worked without medical benefits any more than it can be worked without sick pay benefits, and unless they are provided the people should refuse to pay. The doctors are out after more money, and who can blame them? They are also standing up for the dignity of the profession, and quite right too. This is a very brief abstract of what *Unity* has to say on the subject. The paper (price 1d.) is published at 231, Pentonville Road, King's Cross, London, N.

The Profession in Scotland.

Dr. W. R. Martine, M.B. (Weston, Haddington), writes: Perhaps you, or one of your readers, could inform me who Dr. Norman Walker represents on the General Medical Council. If he is supposed to represent the general practitioners of Scotland, then I must emphatically enter my protest against such an assumption. If he occupies and accepts his position as our representative, I hold we are misrepresented, and consider it imperative that we call for his resignation forthwith.

Instead of giving the general practitioners a strong lead in this grave and serious conflict over the National Insurance Act (in which the whole future welfare of the science of medicine is seriously imperilled) by signing the undertaking and other pledges demanded of him by the profession, he has hitherto refused to do so.

Surely a man in such a position of trust and acting in this manner is only worthy of our strongest condemnation.

I ask my fellow practitioners, How much longer are we to stand such treatment, and has the time not come when we must take action in this matter?

Insurance Experts and the Insurance Act.

Dr. A. W. Cooke (Northampton) writes that he has received from a man high in the insurance world a letter which contains the following sentences: "You will probably agree that when the new Insurance Act comes into operation it will tend to lessen your income. What steps are you taking to protect your income against such a contingency?" "I have," Dr. Cooke adds, "seen no graver indictment of the Act than this statement, coming as it does from such a source. I have informed my correspondent that, owing to the fact that in this neighbourhood we are insisting on the six cardinal points, including the £2 income limit, I do not think my income will be lessened."

GENERAL COUNCIL
OF
MEDICAL EDUCATION AND REGISTRATION.

SUMMER SESSION, 1912.

Sir DONALD MACALISTER, K.C.B., President, in the Chair.

(*Continued from page 638.*)

BUSINESS COMMITTEE.

THE Business Committee was constituted for the year by the appointment of Dr. Norman Moore (Chairman), the President, Sir Henry Morris, and Sir Christopher Nixon.

STATISTICS OF EXAMINATIONS.

The yearly tables showing the results of the examinations in each subject of the curriculum held by the different licensing bodies during 1911 (including candidates for admission to the *Dental Register* and for diplomas in public health) were received and referred to the Examination Committee for consideration. Similarly treated were the returns relating to preliminary examinations, the exemptions accorded by licensing bodies from any part of their examinations, and to the results of two competitions for admission to the Army Medical Service, and of one each for the Naval Medical Service and Indian Medical Service respectively. With one exception all these four competitions took place in the early months of the current year.

Votes of thanks were accorded to the Director-General of the Medical Department of the Royal Navy, the Director-General of the Medical Department of the Army, and to the Under Secretary of State for India for the returns furnished.

NATIONAL INSURANCE ACT.

Mr. HODSDON said that at the previous session of the Council, on the motion of the President, seconded by Dr. Macdonald, the Insurance Bill Committee was asked to continue to watch the progress of the bill. That Committee had now ceased to exist. When the Insurance Act came into force changed conditions of medical practice would arise, and it was important that a Committee of the Council should be appointed to watch the effects of the operation of the Act, and he moved:

That a Committee be appointed to consider the possible effects of the National Insurance Act on medical education and examination in relation to the efficient practice of medicine, surgery, and midwifery, to make representations thereon to the authorities concerned, and to report from time to time to the Council.

Sir FRANCIS CHAMPNEYS seconded.

Sir WILLIAM WHITLA, in supporting the proposal, said that in Ireland it was felt that the Act, as it stood, would mean that medical education in midwifery would cease to exist unless some action was taken by the Council.

Dr. LANGLEY BROWNE cordially supported the motion.

Sir JOHN MOORE observed that the Act as it was passed put a premium on a lying-in woman staying out of a maternity hospital and would sacrifice the teaching of midwifery in hospitals for which Dublin had long been celebrated.

Dr. MACDONALD also supported the motion, as the effect of the Act must be very much to reduce the opportunity for instruction in midwifery.

The motion was agreed to unanimously.

The following were appointed the Committee: The President (Chairman), Dr. Norman Moore, Dr. Langley Browne, Sir David McVail, Sir Charles Ball, Dr. Saundby, Dr. Latimer, Mr. Hodsdon, Dr. Norman Walker, Dr. Kidd, Sir Francis Champneys, Sir Arthur Chance, and Dr. Mackay.

The PRESIDENT observed that the Committee would take care to keep members of the Council informed on all important actions it was proposed to take.

THE HOME RULE BILL.

Sir CHARLES BALL moved:

That in the opinion of the Council it is important in the public interest that a uniform standard of Medical and Dental Education and Registration should be maintained in Great Britain and Ireland, and that accordingly steps should be taken to procure the insertion in the Government of Ireland Bill of provisions, reserving to the Imperial Parliament the control of legislation relating to the Medical and Dentists Acts; and that the President be requested to communicate this Resolution to the Lord President of the Privy Council.

He conceived the duty was thrown on the Council to see that, in the event of the bill becoming law, no injury would be done to medical education and registration. A number of matters were by Clause 10 specifically withheld from the jurisdiction of the proposed Legislature, and if to those were added medical education and registration, the whole difficulty would be got over. By the bill, as it was at present framed, if the Irish Legislature, when it was constituted, chose to repeal the Medical Acts as they applied to Ireland, it would be perfectly competent to do so and to set up a Medical Register of its own, and to fix a standard of examination and education; there might be a certain amount of agitation which might be successful in causing a lowering of the standard to such a degree that a man registered in Ireland would not be accepted on the *Register* of Great Britain. It was extremely undesirable that any severance of the laws affecting registration and education should take place. Probably the reason the matter was not dealt with in the bill was that it was not thought of, and if that surmise were correct, when its omission was pointed out to the Lord President of the Privy Council no difficulty would be experienced in adding the words "Medical Education and Registration" to Clause 10.

Dr. NORMAN MOORE, in seconding, said that anything which tended to break the uniformity of control of medical education in Great Britain and Ireland would be very injurious to the public interest, which was to have a single standard and a single Register. Further, it was merely carrying out what had been the object of the Council, so far as the British Empire was concerned, of securing a uniform, he would not say standard, but qualification, so that the single Register might properly express the position of any medical practitioner in any part of the empire.

Sir WILLIAM WHITLA invited the President to state the position with regard to the *British Pharmacopoeia*, as to whether it was not to be regarded in the same position as the *Register*.

Dr. ADYE-CURRAN thought for the Council at the present moment to take any such action as was suggested would be unwise, as it would not meet the views of the majority of the practitioners in Ireland.

Sir CHRISTOPHER NIXON took a distinctly opposite view, and deprecated opposition to the motion. It was the duty of the Council to secure for members of the profession, not merely local advantages in connexion with dispensary or hospital appointments, but to secure for the Irish practitioners throughout the world exactly the same privileges as English and Scottish practitioners had.

Sir ARTHUR CHANCE hoped that any action by the Irish Legislature would be confined to remedying existing defects, and he had no fear that it would in any way try to lower the standard of medical education. On the other hand, if a separate Register meant absence of reciprocity, that men qualified in Ireland should be confined to Ireland in their practice, which he thought it did mean, then he supported the motion in the interests of his fellow-countrymen.

The PRESIDENT, in reply to Sir WM. WHITLA, said the *British Pharmacopoeia* by statute superseded the Irish or Dublin Pharmacopoeia, but if the *Pharmacopoeia* was not excepted in the bill, it would be open to the Irish Parliament to re-establish the Dublin Pharmacopoeia, and to make the *British Pharmacopoeia* no longer applicable to Ireland.

Sir ARTHUR CHANCE inquired whether, assuming there was a new Medical Act for Ireland, there would be a new Register?

The PRESIDENT replied that it would be possible for the Irish Legislature to exclude practitioners admitted in other parts of the empire if it thought fit. If anything of that kind was done, it would be matter for negotiation as to whether reciprocity should or should not be established, and all the process would have to be gone through which was prescribed in Part II of the Act of 1886 for a colony or a foreign country.

The motion was put and carried *nemine contradicente.*

Committees.

At the meeting on June 4th the following Committees were appointed:

Executive Committee.—Dr. Norman Moore, Sir Henry Morris, Mr. Tomes, Dr. Langley Browne, Sir John Moore, Sir Charles Ball, Sir David McVail, and Mr. Hodsdon.

Penal Cases Committee.—Dr. Saundby, Mr. Tomes, Dr. Norman Walker, and Sir Christopher Nixon.

Pharmacopœia Committee.—The President (Chairman), Dr. Norman Moore, Sir George Philipson, Dr. Caton, Dr. Barrs, Sir Thomas Fraser, Sir David McVail, Sir John Moore, and Sir William Whitla.

Finance Committee.—Mr. Tomes (Chairman), the President, Sir Henry Morris, Dr. Little, and Mr. Hodsdon.

Dental Committee.—The President (Chairman), Sir Henry Morris, Mr. Tomes, Mr. Hodsdon, and Sir Arthur Chance.

Dental Education and Examination Committee.—Mr. Tomes (Chairman), the President, Sir Henry Morris, Dr. Knox, Sir Arthur Chance, Sir Charles Ball, and Mr. Hodsdon.

Students' Registration Committee.—Dr. Norman Moore (Chairman), the President, Dr. Mackay, Dr. Norman Walker, Dr. Adye-Curran, Sir C. Nixon, and Dr. Langley Browne.

Dr. Langley Browne, as he understood that it was not necessary to re-elect the Unqualified Practice Committee, moved that Mr. Verrall be added to that Committee.

Dr. Latimer seconded, and this was agreed to.

Forms of Certificates.

Two reports from the Executive Committee were received and approved. One provided a form of registration certificate, and recommended that duplicate certificates should not be issued in future, but that certified copies of entries in the *Medical Register* in a prescribed form should be issued on payment. The other report dealt with the certificates and statutory declaration to be made by a person applying for the reinsertion of his name on the *Medical Register* removed under Section XXIX of the Medical Act, 1858.

Students' Register.

Dr. Adye-Curran moved:

> That inasmuch as the expenditure of certain sums out of the funds of this Council in the compilation and publication of the *Students' Annual Register* is not sanctioned by law, that same be henceforth discontinued.

Under the Medical Act it was, he said, distinctly laid down that all funds which might accumulate to the Council from registration fees, etc., should be expended directly under the Act. Everyone knew that the expenditure on compiling and the printing the *Students' Register* was not under the Act, and he could not see, therefore, how the Council could expend money contrary to law on this work.

The President said that the legality of the action of the Council had been considered by its legal adviser more than once, by the legal adviser of other bodies, and by the Privy Council. All had stated that the action of the Council was legal.

The motion was not seconded.

Public Health Committee.

Sir John Moore (Chairman) explained the purport of the report of the Public Health Committee as follows: The answers sent in by the medical authorities as to the exemptions granted by them in any part of their examinations during 1911 were, he said, very satisfactory. Twenty-one bodies altogether granted diplomas in Public Health, and of those sixteen granted no exemptions whatever, five granted exemptions in nine cases, and the explanations offered to the Committee had been quite satisfactory. In the case of the Universities of London and Aberdeen the exemptions did not seem to come within the purview of the Council; they related purely to domestic arrangements in excess of the Council's requirements, and therefore need not have been mentioned at all. The Committee found that regulations of the University of Wales were in strict accordance with the regulations of the Council as laid down on December 1st, 1911. The Committee accordingly recommended the Council to recognize the diploma in Public Health of the University of Wales, in accordance with Section 21 of the Medical Act (1886). The recommendation was approved.

Finance Committee.

Income and Expenditure for the Year 1911.

Mr. Tomes, in presenting the report of the Finance Committee, said there was a deficit of £1,370. This was largely due to the election of the direct representatives; some £400 was expended owing to the necessity of holding an intervening election. This was a matter that entailed very heavy expense on the Council, but there was some hope, as the President intimated in his address, of obtaining an amendment of the Act by which it could be obviated in future. The Committee desired to express their appreciation of the efforts of the Registrar to reduce expenses in various directions and to thank him for material economies already effected. This was no mere formal expression of thanks. He had effected economies in every possible direction, and there were others in which there was good prospect of its being done, and this expression of thanks was an acknowledgement by the Treasurers of real good work done. There was only one recommendation: "That, if it be necessary, a grant of £150 be made to the Irish Branch Council from the funds of the General Medical Council." He moved:

> That the report of the Finance Committee on the income and expenditure for the year 1911 be received, entered in the minutes, and the recommendations therein adopted.

Sir Henry Morris seconded the motion, which was carried.

Election of Committees.

On the motion of Dr. Norman Moore, seconded by Sir Henry Morris, the following nominations by the Branch Councils were adopted:

Examination Committee.—Dr. Taylor, Dr. Saundby, Dr. Caton (from English Branch Council), Sir Thomas Fraser, Dr. Gibson, Sir David McVail (from Scottish Branch Council), Sir John Moore, Sir Charles Ball, Dr. Kidd (from Irish Branch Council).

Education Committee.—Dr. Norman Moore, Sir G. Philipson, Sir Francis Champneys (from English Branch Council), Dr. Mackay, Mr. Hodsdon, Dr. Knox (from Scottish Branch Council), Sir Arthur Chance, Sir Christopher Nixon, Dr. Little (from Irish Branch Council).

Public Health Committee.—Dr. Lorrain Smith, Dr. Newsholme, Dr. Latimer (from English Branch Council), Dr. Norman Walker, Dr. Cash, Sir David McVail (from Scottish Branch Council), Sir John Moore, Dr. Adye-Curran, Dr. Kidd (from Irish Branch Council).

Education Committee.

The Education Committee presented a report on the revision of the resolutions of the Council in regard to professional education and the regulations for the registration of medical and dental students.

Dr. Mackay (Chairman of the Committee) reminded the Council that various resolutions had been adopted by it which necessitated an alteration in the regulations for preliminary examinations and for professional study. The Education Committee had scrupulously endeavoured to make such alterations as would take away from the context all appearance of compulsion on the part of the Council on either the student or on the licensing body, to here and there simplify the wording, and to make such small alterations in the arrangements of the regulations as would tend to simplify the whole set.

On Recommendation A the Committee made recommendations with regard to registration of medical students (Form A) and in regard to professional education (Form B).

A. *Registration of Medical Students.*

The recommendations on this subject were as follows:

I. Subject to such exceptions as the Council may from time to time allow, every medical student, at the commencement of his studies, should be registered in the manner and under the conditions hereinafter set forth.

II. No person should be registered as a medical student until he has attained the age of 16 years, has passed a preliminary examination recognized by the General Medical Council, and has produced evidence that he has commenced medical study at a university or school of medicine, or at a teaching institution recognized by one of the licensing bodies and approved by the Council.

III. The commencement of the course of professional study recognized by any of the licensing bodies should not be reckoned as dating earlier than fifteen days before the date of registration.

Forms for the purpose were set out, and it was directed that each of the Branch Registrars should keep a register of medical students, and transmit to the Registrar of the General Medical Council annually a copy of the *Medical Students' Register*. The registration of dental students

would be carried out at the General Medical Council office in London.

B. *Professional Education.*

Every medical student at the commencement of his studies should be registered in the *Medical Students' Register*, in the manner and under the conditions prescribed by the Council.

With regard to the course of study and examinations which persons desirous of qualifying for the medical profession shall go through in order that they may become possessed of the knowledge and skill requisite for the efficient practice of medicine, surgery, and midwifery, the Council recommends as follows, namely:

I. With the exception provided for under Section III (*b*), the period of professional study, between the date of registration as a medical student and the date of the final examination for any diploma which entitles its holder to be registered under the Medical Acts, should be a period of bona fide study during not less than five years.

*** *For the purposes of Resolution I the close of the fifth year may be reckoned as occurring at the expiration of fifty-seven months from the date of registration.*

II. In every course of professional study and examinations the following subjects should be contained:

(i) *Physics, including the elementary mechanics of solids and fluids, and the rudiments of heat, light, and electricity;
(ii) *Chemistry, including the principles of the science, and the details which bear on the study of Medicine;
(iii) *Elementary biology;
(iv) Anatomy;
(v) Physiology;
(vi) Materia medica and pharmacy;
(vii) Pathology;
(viii) Therapeutics;
(ix) Medicine, including medical anatomy and clinical medicine;
(x) Surgery, including surgical anatomy and clinical surgery;
(xi) Midwifery, including diseases peculiar to women and to new-born children;
(xii) Theory and practice of vaccination;
(xiii) Forensic medicine;
(xiv) Hygiene;
(xv) Mental disease.

*** *The regulations of the examining bodies should be so framed as to ensure that the study of the final group of subjects (vii to xv above) shall extend over a period of not less than twenty-four months after the passing of the examination in anatomy and physiology.*

III. The first four of the five years should be passed at a school or schools of medicine recognized by any of the licensing bodies enumerated in Schedule (A) of the Medical Act (1858) and subsequent Acts, provided:

(*a*) That the first year may be passed at a university, or at a teaching institution recognized by one of the licensing bodies and approved by the Council, where the subjects of physics, chemistry, and biology are taught.

(*b*) That graduates in arts or science of any university recognized by the Medical Council who have spent a year in the study of physics, chemistry, and biology, and have passed an examination in these subjects for the degrees in question, shall be held to have completed the first of the five years of medical study.

IV. The fifth year should be devoted to clinical work at one or more public hospitals or dispensaries, British or foreign, recognized by any of the medical authorities mentioned in Schedule (A) of the Medical Act (1858) and subsequent Acts.

V. With regard to the midwifery practice to be required of candidates for a licence to practise:

(1) Every student before commencing the study of practical midwifery should have held the offices of clinical medical clerk and surgical dresser, and should have attended a course of lectures on surgery and midwifery.

(2) Every student should be required to present a certificate bearing that he has conducted twenty cases of labour under official medical supervision subject to the following conditions, namely, *either*—

(*a*) That he has previously given regular attendance for a period of three months upon the indoor practice of a lying-in hospital, or the lying-in wards of a general hospital, and has received practical instruction therein under the supervision of a medical officer; *or*

(*b*) That he has previously given regular daily attendance for a period of one month upon the indoor practice of a lying-in hospital, or the lying-in wards of a general hospital, or Poor Law infirmary having a resident medical officer, recognized by one of the licensing bodies, and that he has conducted cases of labour therein, and has been certified by his instructor as competent to conduct outdoor cases under official medical supervision.

(3) The certificate that the student has conducted the above-mentioned twenty cases of labour should be given by a member of the staff of a lying-in hospital, or the maternity charity of a general hospital, recognized by one of the licensing bodies, or of a dispensary having an obstetric staff, or a Poor Law Infirmary having a resident medical officer, similarly recognized, and should be drawn up in the form annexed:

FORM OF CERTIFICATE.

I hereby certify that _____ *(name of student)* has personally attended _____ *(number)* cases of Labour under my supervision, of which _____ *(number)* were conducted by him in my presence; also that, under my supervision, he attended in the cases enumerated during the puerperal period.

_____ *(Name and official designation of Medical Officer certifying)*

VI. The regulations requiring attendance on systematic courses of lectures need not require attendance on more than three lectures weekly in any one course: and due time should be set aside for practical work in the various subjects. By a practical course is understood one in which work is done by the student himself, under the direction of a duly qualified teacher.

VII. The regulations of the examining bodies and of the schools should be so framed that attendance on systematic courses may be concluded at the end of the fourth year of study, so as to permit of the student devoting the fifth year to clinical work.

VIII. In order to promote a practical system of clinical teaching, the regulations of the examining bodies should specify as one of their requirements, "hospital practice with clinical instruction." Ample time should be set aside for hospital work, and means should be taken to ascertain regularity of attendance in the wards and out-patient departments. Every candidate for the final professional examination at the end of the fifth year should be required to give evidence that he has had sufficient opportunities of practical study, and in particular that he has received instruction in the administration of anaesthetics, and has given attendance at *post-mortem* examinations.

*** *This resolution relates to such offices as the following: Clinical medical clerkship and surgical dressership, either for in-patients or out-patients; obstetrical clerkship; post-mortem clerkship.*

IX. No qualification in medicine ought to be granted without evidence of clinical instruction in infectious diseases.

Sir WILLIAM WHITLA observed that the new regulations would involve a fundamental alteration, as the old ones would be wiped out. Every body hitherto had had the permission of the Council to allow a student to pass an examination in two parts. Would a student be required under the new regulations to pass it as a whole?

The PRESIDENT said that no change had been made in that respect. The regulations stated whether the

* 1. An examination in chemistry, in order to be sufficient, should comprise a written paper, a practical examination, and an oral examination.

2. In respect of chemistry, a synopsis or syllabus of subjects should be issued by each licensing body; and the scope of examination in chemistry should not fall below that which has been indicated in the Report of the Council's Visitors (Minutes, 1903, Appendix XXII, p. 953), and has been generally approved by the licensing bodies.

3. The examination in practical chemistry should not be limited to simple qualitative analysis, but should include easy preparations, simple volumetric analysis, and simple experiments illustrating important principles.

4. An examination in physics, in order to be sufficient, should comprise a written paper and an oral examination, the latter to include practical questions on the use of physical instruments and apparatus.

5. In respect of physics, a synopsis or syllabus of subjects should be issued by each licensing body; and should include the elementary mechanics of solids and fluids, and the rudiments of heat, light, and electricity.

6. An examination in elementary biology, in order to be sufficient, should comprise a written paper and an oral examination, the latter to include practical questions on specimens and dissections and on methods of microscopical investigation.

7. In respect of elementary biology, a synopsis or syllabus of subjects should be issued by each licensing body; and should include, as necessary subjects of study—the fundamental facts of vegetable and animal structure, life-history, and function, as exemplified by specified types of cryptogamous plants (including bacteria), of protozoa, and of at least four of the higher animal groups; and the outlines of embryology.

examination must be taken at one sitting or might be taken in two.

Sir John Moore asked whether the change applied to evening classes.

Dr. Mackay said the effect of the change would be to prevent the Council recognizing evening classes.

Dr. Norman Moore thought the question of evening classes was not so simple as at first appeared. Many students who were really working at what was part of their course in which ultimately they were to be examined took some of their classes in the evening. It might be just at some time to recognize such study, but it would be as a particular case reported to the Council for approval or rejection. Otherwise the report made no alteration in the resolutions which had been passed by the Council.

Dr. Langley Browne took it that if a school afforded sufficient evidence as to the education given in evening classes it would be accepted.

The President said that special application would have to be made, and every case would be considered on its merits.

Recommendation A was agreed to.

On Recommendation B, Dr. Saundby observed that if it were passed it would appear as if the Council approved Regulation VII. This he could not accept, and intended to move its rejection.

The President said that notice could be given for the November session of Council.

Sir Christopher Nixon was in strong agreement with Dr. Saundby. To require the fifth year to be entirely devoted to clinical work would only give the student an opportunity of idling. Instead of postponing the matter till November, it would be better to refer it back to the Committee.

The President thought the Council would be wise to take time in consideration of the alterations of substance in the regulations.

The discussion of the recommendations, which had not been concluded when the Council adjourned, was resumed on the following day (Thursday, June 6th).

The President reminded the Council that the resolutions were remitted to the Committee for general revision to bring them into harmony with the decisions already arrived at. He ventured to suggest that the proper course was to pass the resolutions in the form in which they were recast; that would not prevent the Council making such changes in them that it thought proper.

Dr. Mackay proposed to consult the members of the Committee, and thought it possible that they might be able to agree to any suggested alterations which might then be embodied in the recommendations proposed to be issued.

The motion to adopt Recommendation B was then put and carried.

Standard of Preliminary Education.

The report of the Education Committee on the standard to be required for preliminary examinations after 1913 was presented by the Chairman, Dr. Mackay, who said that he would not ask the Council to adopt the report in all its details. The proposals were not intended to be brought into action for two years. They had been approved by the Committee, and it was desirable that they should be placed on the minutes of the Council so that all bodies interested might make representations to the Committee. In due course the substance of such representations would be reported to the Council before the changes which were suggested were actually made. The report proposed that the general scope of the examination should remain as before, but in one or two matters alterations were proposed in respect of the junior examinations, which the Council had decided should be removed from the list of examinations after the close of 1913. But it was probable that many of the bodies which held those examinations would substitute a higher form of examination for them if they were aware of the Council's wishes. He reminded the Council that it was pledged to the hilt to raise the standard of preliminary examinations. Ten or fifteen years ago it actually passed a resolution that from 1900 nothing but the senior examination should be accepted for entrance to the medical profession. They were a long way from that yet; it would be many years yet before the pass to the medical profession would be the senior certificate examination. The report took a small step in that direction, and abundant notice was being given to the bodies concerned, which would be very glad to offer their opinions upon the proposals put forward.

The further consideration of the report was adjourned in order that the penal business could be proceeded with. When the discussion was resumed on Friday, June 7th,

Dr. Saundby said that he desired to ascertain how far his views were shared by the Council, and whether it approved of the report being circulated in its present form. He supposed all would agree to the necessity for improving medical education. Speaking for himself, he thought it deplorable to find the large amount of illiteracy which existed among medical students. Now and then men had to be passed into the profession whose standard of general education, so far as could be judged, was really discreditable, as many of them were not able to write a letter which a professional man ought to be able to write. What was wanted was a standard by which they could see that a man had a proper knowledge of English spelling and composition. It was not a question of 40 or 50 per cent., as every one knew what a hollow thing a percentage was. It could be made whatever the examiner chose. It was not desired to alter the standard of marks, but to alter the style of examination so as to take care that men did not get through who had not a sound knowledge of the subjects in which they were passed. These men went to coaches who crammed them with sufficient knowledge to enable them to pass, and they managed somehow to get the necessary marks without having any proper education in the subject. He did not think the report involved any real change in the examination, and he moved that it be remitted back to the Committee for reconsideration.

Sir Clifford Allbutt thought the observations of the mover amounted to an indictment of secondary education, but he had referred to matters which were outside the function of the General Medical Council. It was not the function of the Council to undertake, however indirectly, to improve the chaotic state of secondary education. If the Council were to undertake that, it would undertake a task it was not fit to discharge, because it was not an expert in education. He thought it might be wise for the Council to pass rules or issue such counsel as might tend to point out the defects in secondary education, and he would welcome or accept any proposals of that kind, but he thought they should be only of a provisional kind. The Council must look forward to a better organization of secondary education with some guarantee that when young men had passed through a course of secondary education, such as the experts of the country thought the best, the Council need not be concerned to look behind it.

Dr. Norman Moore hoped Dr. Mackay would withdraw the report. The report of the Committee appointed under the Board of Education to investigate the subject of examinations in secondary schools, of which he was a member, contained the following paragraphs:

> We have recommended the establishment of a widely representative Examinations Council which should supervise all external examinations in recognized secondary schools throughout the country, and we have further suggested that as a first step towards the formation of such a council the Board of Education should invite representatives of the various authorities to a conference and discussion of administrative questions which are involved in any such change in the present system.
>
> We desire to make it plain that in the event of this appearing impracticable we do not consider that the Board would be relieved from the obligation to proceed in the matter of reform.

So that the Committee was strongly of opinion, supposing it be impossible to form such a council, that the Board of Education should still undertake the subject and produce some reform in the chaotic system which at present existed. These examinations were really ruining secondary education, but it was very undesirable, in view of the present state of things, that this Council should undertake minute discussions about points in preliminary education which it thought important. There could be no doubt that the points would be thoroughly considered, not only in relation to the medical profession, but in relation to entrance into the universities and all other professions. Then would be the time for such details as questions of marking and so on to be discussed. The General Medical Council as a body was not competent to do that.

Dr. Knox hoped the Council would adopt the report, so that it could be circulated among the various bodies

concerned. The present examinations came to an end at the end of next year, and in the meantime the bodies were anxious to prepare an examination which would fulfil the requirements of the Council, and in order to do so it was of the greatest importance that the views of the Council as expressed in such a report as this should go forth so that the bodies might see what they had to prepare and arrange for.

Sir CHRISTOPHER NIXON thought that, considering the important changes which had been made in their relations with regard to the preliminary education, it was quite useless at the present stage to discuss the report of the Committee, which simply brought resolutions of the Council into harmony with others, and removed what might be considered anomalies.

Mr. HODSDON said the report arose out of the recommendation adopted by the Council in 1910, that the Preliminary Examinations held by certain bodies should cease to be recognized after 1913. Those bodies having received no formal intimation of what was required as regards standard, naturally wanted to know how they could set their house in order. The object of putting these recommendations on the minutes was that those bodies and other bodies might know what was required of them.

Dr. MACDONALD considered the Council was in rather a peculiar position. It was instructing educationalists as to what it thought was the best way to bring about a result in order to arrive at a certain standard of education. He had no objection to the Education Committee intimating to the various bodies what it thought would be a suitable standard for entering the profession, but to put forward a definite line as to how that instruction should be carried out did not seem to him possible.

Sir ARTHUR CHANCE considered the discussion admirably illustrated the incompetence of the Council to decide such matters as these. It was merely suggested that this report should go on the minutes, but the actions of the Committee had not received the approval of the Council, and the curious thing was that the report was on the minutes of the Council already.

The PRESIDENT said that was so, but only as part of the minutes of the Education Committee. He wished to explain the position. They were all agreed that the position of secondary education in England was chaotic at the present time; they were all agreed that the Government or somebody else should step in and co-ordinate secondary education, and, if possible, establish something like a leaving certificate for all the secondary schools of the country. That leaving certificate might be of two grades, one higher and the other intermediate. The higher certificate might lead to the university, and the intermediate to the professions; and probably the intermediate certificate would be adequate for the medical profession. They thought that the Government should ensure that the leaving certificate was not only the result of a paper examination, but the result of an accredited system of instruction preceding the paper examination; and they were all agreed that the moment that intermediate or leaving certificate was established in England the General Medical Council's work in this direction during fifty years would be done, and the Council would of course accept it. In Scotland there were two intermediate leaving certificates. These two certificates had their recognized value as methods of admission to certain university courses or professions. What the Education Committee proposed to do was to suggest to those bodies which had not yet the advantage of that co-ordinated system that the intermediate certificate standard in Scotland was appropriate for a corresponding standard in England, and until that came about it suggested that the examination standard in England should be equivalent to the examination standard in Scotland. All this report suggested was in the case of the examinations which claimed to be recognized as equivalent to the intermediate leaving certificate in Scotland should, in fact, be equivalent, and not merely in name only. In some of these examinations the standard had not been satisfactory, and it was suggested that after 1913 those examinations which were below the standard should be brought up to date and no more. If the body said it could not do this or that, or there were reasons for doing the other, the Committee would consider it and work it out, and come to the Council. But something must be laid before these bodies in order that they might have something to answer; and it was proposed to put this report on the minutes for that purpose.

Sir THOMAS FRASER's experience was not the same as Dr. Saundby's, and he declined to take so gloomy and despondent a view of the attainments of the students who submitted themselves for examination.

Sir DAVID MCVAIL asked what would happen if the motion to enter the report on the minutes was lost. Certain bodies had received information that after a certain date the Council would not consider a certain standard sufficient; would their examination cease to be operative, or if the amendment were carried would that mean they were entitled to go on with their present standard?

The PRESIDENT replied that it would mean the Education Committee would have till November to consider what it would tell the bodies concerned.

Sir DAVID MCVAIL thought to refuse to enter the report on the minutes would be only making an addition to the existing chaos.

Dr. MACKAY said that if the report was put on the minutes it would facilitate the work of the bodies. He assured the Council the Committee only wished to elicit all possible information on the subject without regard to how the change would affect any particular body.

The amendment was then put and declared lost, and the motion was agreed to.

SCIENCE TEACHING IN SECONDARY SCHOOLS.

On Friday, June 7th, Sir HENRY MORRIS moved that a recommendation to the following effect be added to the Council's resolutions relating to professional education:

> That six months' instruction or more in preliminary sciences at a teaching institution (other than a medical school) recognized by one of the licensing bodies and approved by the Council may count as six months, and no more, of the curriculum of professional study, provided such instruction is subsequent to the date of passing the required preliminary examination in general education.

If this were adopted the Council would secure that the amount of time which was passed by medical students at a school of medicine proper should be not less than four years and six months, whereas under the existing regulations it need not be more than four years. His own view was that there should be a five years' curriculum for the pure work of the medical student as such, and that they should get over the examination in general education and science before the medical studies began. But that was beyond the practical politics of to-day, and the Council must be content to secure four years and six months. He desired to express his gratitude to the Chairman of the Education Committee and the members of it for the loyal way in which they had brought the recommendations and regulations of the Council into strict conformity with the rights and powers of the Council. He had had an opportunity of going through the correspondence between the representatives of the science masters of the secondary schools of the country and the Registrar, in which the former expressed their utmost willingness and desire to bring the examination of their students into strict conformity with the requirements of the Council.

Dr. MACKAY seconded, and the motion was agreed to.

Sir THOMAS FRASER raised the question as to the advisability of changing the term "Therapeutics," as used under Resolution II (viii) of Resolutions of the General Medical Council respecting professional education, and the following resolution was adopted:

> That the words "Pharmacology and Therapeutics" be substituted for the word "Therapeutics" in Resolution II (viii), and that "Anaesthetics" be added as (xvii) to the list of subjects which should be contained in every course of professional study and examination.

CLINICAL INSTRUCTION IN THE FIFTH YEAR.

Dr. SAUNDBY moved:

> That Resolution VII in the pamphlet in regard to professional education be deleted.

He did not think any body had found it possible to carry out this regulation, and a very large amount of time was given now to clinical work in the earlier years. In the fifth year the student had a great deal of time to devote to the work of the classes, which were crowded into the afternoon, and it was quite impossible to do without that year for certain classes.

Dr. Gibson seconded. Owing to the multiplication and extension of subjects, it had been found impossible in many schools to carry out such a recommendation as this, and it had, in fact, become a dead letter. Although he did not wish to add to the burden of the students with regard to lectures, it seemed almost necessary that a number of subjects must be carried into the fifth year.

Sir Christopher Nixon strongly supported the motion.

Sir John Moore strenuously opposed it, as it would press very heavily on the students in Dublin, who had only the fifth year in which to become acquainted with medicine and surgery at the bedside.

Dr. Taylor supported the motion. He did not at all agree with a watertight compartment method of dealing with medical education.

Dr. Mackay observed that the matter was reported upon in 1909, and it was then the general opinion that the regulation did not go the length of laying down the law that the final year should be excluded, but at the same time it served no useful purpose. In cutting it out the Council should make it clear it was not interfering with clinical instruction in any way.

Sir William Whitla thought all students should be made to take medicine and surgery in their fifth year, as it was the time when most good was to be got. He supported Dr. Saundby's view that the proposed regulation would put a premium on cramming.

Dr. Latimer pointed out that it was permissive; the word used was "may," and not "must."

The President said it merely meant that the recommendation, inserted at a time when the curriculum was extended to five years in the hope that five years would be enough for the early subjects and clinical work, should now be regarded as having served its purpose.

The motion was put and carried.

Apothecaries' Hall, Dublin.

The Education Committee presented a report on the following resolution adopted by the Council last November:

> That an application from the Apothecaries' Hall of Ireland for the temporary or permanent rescheduling of their Preliminary Examination be referred to the Education Committee for consideration and report to the Council.

Dr. Mackay said that the matter had been before the Council again and again, and was decided as far back as November, 1903. The idea was that all examinations in preliminary education should in the end be conducted by responsible bodies, such as the universities and education departments in England, Scotland, and Ireland. At present the Council recognized the Preliminary Examination of the College of Physicians and Surgeons of Ireland, because it was satisfied that it would be an injustice now to remove that examination from the list, although it looked forward to the time when it might be removed. In the opinion of the Council it would be a very serious retrograde step to go back to the old conditions and recognize other examinations. The Committee therefore recommend:

> The Council adheres to the resolutions of May 25th, 1894 (Minutes, vol. xxxi, p. 80, and Appendix 7, p. 9), November 30th, 1903 (vol. xl, p. 157), November 28th, 1908 (vol. xlv, p. 142), and November 27th, 1909 (vol. xlvi, p. 137), and directs that the Apothecaries' Hall of Ireland be informed accordingly.

Dr. Adye-Curran complained that the Irish bodies, and the Irish bodies alone, were selected to be shot at by the Council. Time after time the Apothecaries' Hall had been harassed by reports when it had asked the Council as a temporary measure to recognize its preliminary examination. It was an injustice that the examination of the Apothecaries' Hall, which was conducted on precisely the same lines as that of the College of Physicians and Surgeons, should not be recognized. At one time it was acknowledged and scheduled, but now it was refused, and students were in that way handed over to other bodies, which were thereby favoured, and the Apothecaries' Hall was at a loss. If the Council did not accede to this request as a temporary measure it would be doing the Apothecaries' Hall a studied injustice. The examination was drawn up by a special by-law under the Hall's Charter in exact conformity with the requirements of the Council, which therefore could not take exception to it on that account.

The President said the examination was one which the Council could not ask other licensing bodies to accept: but with regard to the question of the fairness of the Council, he thought the patience with which, session after session, it had heard the same speech from the representative of the Apothecaries' Hall was evidence that it was at least anxious to have any light which could be shed on this subject; having himself listened carefully, he had failed to discover any.

The recommendation was then put and agreed to.

Dr. Adye-Curran moved:

> That with reference to the opinion expressed by counsel, the preliminary examination of the Apothecaries' Hall of Ireland be approved of and scheduled by this Council as a temporary measure until such time as the question of preliminary examination is more definitely settled.

Dr. Langley Browne seconded.

On the motion being put, it was declared lost.

Dr. Adye-Curran asked for the names and numbers.

Sir Henry Morris desired to know what the words "temporary measure" in the resolution meant. It seemed to imply a transition state, and that sooner or later there was going to be some definite settlement of the question of preliminary examinations. If this was a temporary measure, until that settlement came about it would make very little difference one way or the other; but if there was not going to be any definite settlement, it was introducing a very important factor.

Dr. Norman Moore was of opinion that the Apothecaries' Hall was within its powers when it declared to the Council that it would establish a preliminary examination, but that did not deprive the Council of the right of judgement as to whether that was a wise thing and useful to the public at large; the Council could not accede to that without reversing its policy of years.

Dr Saundby thought it would place the Council in a very strong position if it declined to put the examination of the Colleges of Physicians and Surgeons (Ireland) upon the schedule. He should be more satisfied in voting for the motion if no exception was made with regard to those two colleges. It was a departure from the recognized policy of the Council not to recognize professional licensing bodies as institutions which should hold preliminary examinations in arts.

Dr. Adye-Curran observed that the Hall was obliged to hold the examinations as it had an Act of Parliament which distinctly said it should.

Sir Henry Morris thought the discussion had thrown some light upon the matter. He believed it would be a retrograde step to go back and recognize again an examination of an examining body which had ceased to exercise its rights to hold it and now wanted to resume it. Under these circumstances he would vote against the resolution.

Dr. Adye-Curran, after the observations which his motion had elicited, with the consent of the Council, withdrew his request for the names and numbers to be taken.

Examination Committee.

Sir David McVail presented, on behalf of the Examination Committee, two reports—one embodying a table, showing the number of passes and rejections at the licensing bodies in the subjects of medicine, surgery, and midwifery; and the percentage of rejections in each subject; the other indicating the bodies from which the candidates for the Services had obtained their qualifications, and gave particulars of rejections and passes.

The reports were received and entered on the minutes.

Dental Education and Examination Committee.

A report from this Committee was presented by Mr. Tomes and entered on the minutes. The report referred to the application for registration of a foreign dentist who held a license to practise dentistry from the University of Lima, Peru. The Committee were, however, unable to recommend the registration of the applicant.

Pharmacopoeia Committee.

A report of the Pharmacopoeia Committee was presented by the President, and ordered to be entered on the minutes. The report stated that the number of copies of the *British Pharmacopoeia* sold up to the present time was 44,015; of this number, 1,002 had been sold in the

year ending May, 1912, leaving 998 copies in hand, which would probably suffice to meet the demand during the next twelve months. It was also reported that 4,516 copies of the *Indian and Colonial Addendum* had been sold. Dr. Tirard and Professor Greenish, as editors, had prepared for the Committee a first draft of the monographs on tinctures, etc., and on materia medica for the new issue. The manuscript would be considered at special meetings during the summer. A committee of reference in botany, consisting of Lieutenant-Colonel Prain, C.B., and Mr. E. M. Holmes, and a committee of reference in chemistry, consisting of Sir T. E. Thorpe, C.B., and Professor J. J. Dobbie, had been appointed for purposes of consultation with regard to botanical and chemical questions respectively.

India.

Sir DAVID MCVAIL moved and Dr. SAUNDBY seconded:

That the report of the Examination Committee on the question of the admission of members of the Assistant Surgeon Branch of the Indian Subordinate Medical Department to examinations for British qualifications be received and entered on the minutes.

The report, which was signed by the Chairmen of the Examination, Education, and Students' Registration Committees, concluded with the following recommendations:

1. That the Council advise the licensing bodies to refuse recognition to the first, second, and third examinations of Indian diplomates, in regard to which this Council has not been able to obtain satisfactory evidence of the standard required.
2. That all candidates belonging to the "Indian Subordinate Medical Department," who apply for registration, be required to produce evidence of having passed one of the preliminary examinations in arts recognised by the General Medical Council.
3. That no certificates of attendance, but those drafted by the India Office, of which copies are printed as an appendix to this report, be received.
4. That all the licensing bodies be enjoined to require the production of such certificates.
5. That under no circumstances should the medical course in India of such candidates be accepted as equivalent to more than three years of the medical curriculum of the Council's regulations.
6. That all such candidates be required to take at least two years of study in the United Kingdom, and that the subjects of study in these two years shall include the subjects numbered VII-XV in the Council's regulations—namely, Pathology, Therapeutics, Medicine, Surgery, Midwifery, Vaccination, Forensic Medicine, Hygiene, and Mental Disease.

Dr. ADYE-CURRAN asked the Chairman of the Committee the reason why the Apothecaries' Hall, Dublin, was specifically mentioned in the report to the exclusion of all other examining bodies, and also why a portion of the correspondence which had passed between the Hall and the Council had been deleted.

Sir DAVID MCVAIL said the Apothecaries' Hall, Dublin, continued to admit Indian candidates for examination, whilst other bodies had ceased to do so. The Hall was specifically mentioned because the Committee had to put the facts before the Council, which was the reason certain correspondence was not included in the report, because it was not incidental to the matters contained in it.

The motion was then put and agreed to.

Sir DAVID MCVAIL said the report was practically the result of the combined deliberations of the Education, Examination, and Registration Committees. The question was what this country could do in the way of assisting India in instituting an adequate medical service, both civil and military. In England medical education was the result of nearly one hundred years' effort and experience. In 1815 the Government first gave the Apothecaries' Society of London power to grant qualification for the practice of medicine, and it was then that the supervision of medical education began. The General Medical Council was established in 1858, and after long experience and great expense it had arrived at what must be regarded as a very satisfactory condition of medical education and registration, although there was still room for improvement in certain directions. This highly organized system was being affected by the condition of affairs in India. It had become necessary that the Council should assist as far as it could in the creation of a sufficiently trained medical service for India. The report to a certain extent proposed conditions for men from Indian schools different from the conditions that applied to the schools of Great Britain and Ireland. In India there were admirable universities granting degrees in medicine, in which the teaching and examination were unexceptional in every way; but in addition to degrees, there were licences in surgery and medicine. For most of them the course was four years, but in some it was five years. The curriculum contrasted favourably with any in this country, although physics and biology were not included in it, but this deficiency could be supplemented in the United Kingdom. The course for the Indian Subordinate Medical Department was of four years' duration, and the course of study was practically the same as for the licence, but a lower form of preliminary examination was passed and the subjects were taught at the expense of the Government. The members of that service had some kind of diploma, but no precise information could be obtained with regard to the service as it was divided into two or three divisions and it was difficult to get at the facts. There was also a lower grade of military sub-assistant surgeon, but there was no information that any came to this country for diplomas. The question was what was the Council to recommend to the licensing bodies in the meantime. Any recommendation could only be provisional, because India was advancing by leaps and bounds. The Committee came to the conclusion that the Council could not advise any licensing body in this country to recognize the diplomas granted. The standard of the examinations was not known, and the Committee suggested that the bodies should require individual class certificates of the students that applied to them. This was a matter that the Government now recognized was of great importance. The extent to which the Committee recommended the Council to yield to the Indian students was shown in the recommendations. The Committee thought that the Council should be content with two years of medical study in the United Kingdom in addition to the years of study vouched for in the certificate. He moved the first recommendation.

Dr. LANGLEY BROWNE seconded.

The PRESIDENT thought the Council must be very careful with regard to the regulations, as there were at present Indian subjects on the *Register* about whose qualification there was no question.

Sir ARTHUR CHANCE observed that the Council had the opinion of the Chairman of the Education Committee that there were admirable universities in India suited for the purpose, and surely these were the bodies to whom those students should apply. Why should these men be given facilities denied to our own countrymen?

Dr. SAUNDBY pointed out that the recommendation as printed did not accord with that which was agreed to in the Committee. He preferred the original form to that which had been moved.

Several other members of Council having taken exception to the wording of the recommendation, Dr. MCVAIL modified it in the following manner:

1. That in the absence of evidence satisfactory to the Council of the standard, the Council advise the licensing bodies to refuse recognition to the first, second, and third examinations of Indian diplomates, in regard to which this Council has not been able to obtain satisfactory evidence of the standard required. This restriction does not apply to holders of Indian diplomas that are registrable.

The recommendation as amended was then put and agreed to.

On the motion of Sir DAVID MCVAIL the recommendations 2 to 6 were then taken seriatim and adopted, and it was resolved to send a copy of the report as amended to all the licensing bodies throughout the United Kingdom, with a covering letter informing the licensing bodies concerned that in drafting the recommendations the Council had had regard only to the higher grade examinations.

Exemptions at Examinations.

Mr. TOMES moved, Sir JOHN MOORE seconded, and it was resolved:

That the attention of the Examination Committee be drawn to the fact that it appears from the returns submitted to the Council that for the purposes of exemptions granted by British licensing bodies portions of examinations conducted by bodies whose degrees and diplomas are not recognized for registration have been accepted, and that the Committee be asked to report to the Council whether this is desirable.

Examinations of Apothecaries' Hall, Dublin.

On the motion of Sir DAVID MCVAIL, the report by the Examination Committee on the final examinations of the Apothecaries' Hall, Dublin, held in January and April, 1912, was received and entered on the minutes. The

report stated that the assistant examiners expressed their entire satisfaction with the manner in which the examinations were conducted.

Preliminary Science and Secondary Schools.

The report of the Students' Registration Committee on exceptional cases and on the approval of certain recognized teaching institutions was, on the motion of Dr. Norman Moore, seconded by Sir Henry Morris, received and ordered to be entered on the minutes.

Dr. Caton called the attention of the Council to the memorials from the Universities of Edinburgh, Sheffield, and Liverpool, presented in 1911, with reference to the Council's recognition of preliminary scientific education in secondary schools. The instruction given in such schools was of quite an elementary type. It was a training which was intended for the scientific chemist and the engineer, but it was not the training needed by a medical student. The intention of the Council had seemed to be that the elementary instruction given in secondary schools should be the only elementary instruction to be required of a medical student. But the education acquired in secondary schools omitted much that a medical student required. It was essential that the medical student should be trained in organic and biological chemistry. If the training in public schools was to be regarded as only preliminary training it was admirable; but if it was to be the only training, as it would be in many instances, it was absolutely ineffective. The Council should endeavour to assist in every way in the advance which was so important to the profession in the thorough education of medical men in the future. He therefore moved:

> That no further additions be made to the list of secondary schools approved by the Council as recognized teaching institutions until the Council has had the experience of some years regarding the effect of the recognitions already granted.

Dr. Lorrain Smith seconded the amendment.

Dr. Langley Browne hoped the amendment would not be carried. It was unfair now to cut down the number of schools to be recognized by the Council. The Council, if it intended any action in the way suggested, ought to give notice that on and after a certain date it would not recognize any more schools.

Sir Clifford Allbutt considered that to arrest the process of accepting one school after another at the present time would be unfair to the schools themselves, and also to medical schools.

Dr. Taylor said it was not fair to suggest that the secondary schools could not meet the requirements of elementary medical education.

Mr. Pye-Smith thought the effect of the report was far-reaching and uncertain, if not disastrous, and it was only reasonable to ask for a longer time to consider it. The schools should be allowed to work under the existing regulations for a few years in order to see what the effect would be.

Sir Henry Morris maintained that the examinations and requirements were dependent upon the various licensing bodies. The examination controlled to a large extent the teaching in these schools, and, as in medical schools, the teaching would be made to adapt itself to what was required of the student. The resolution embodying recognition of science teaching in public schools was adopted last session by 30 to 1. Was it reasonable or fair to be met by a resolution of this kind blocking further recognition, after the Council had decided that, if properly inspected and approved, they should be put upon the list? He thought nothing could be more unjust than for the Council to accept the amendment.

Dr. Norman Moore (Chairman of the Students' Registration Committee) said that the list of schools in the report came to the Committee in accordance with the resolution of the Council. The Committee considered it, and in framing the following rules:—

> That a secondary school applying for recognition as a place of study in chemistry, physics, or biology be required to state:
>
> 1. That it is a public foundation.
> 2. The subjects in which it desires *approval*.
> 3. The name of the licensing body by which it has been *recognized* as a place of study, and the subjects in which it has been *recognized*.
> 4. The date of the last inspection for that purpose.

—the Committee considered that it was carrying out the wishes of the Council. As the representative of the Royal College of Physicians he wished to say that that College had already notified its intention of recognizing such secondary schools. As a member of the Council he felt that its reputation as a deliberative body would not be enhanced if, after having discussed the subject for ten years and at last arrived at a decision, it suddenly changed its front and took an opposite course.

Dr. Caton having replied,

The amendment was put and lost.

On a demand for names and numbers, it was found that 19 voted against, 2 for, and 3 did not vote.

The motion was then agreed to.

Unqualified Practice Prevention Committee.

Dr. Langley Browne, in moving the reception of the report of the Unqualified Practice Prevention Committee, said that it had made a communication to the Government as to the desirability of further legislation for the better protection of the public. The Government had appointed a Select Committee to inquire into patent and proprietary remedies, and had requested the Council to give evidence before that Committee. The President referred the communication to the Unqualified Practice Prevention Committee, and the Committee had asked him (the speaker) to attend and give evidence. This he was quite willing to do if the Council thought fit. He moved the adoption of the report of the Unqualified Practice Prevention Committee.

This was agreed to.

Disciplinary Cases.

The Sandow Curative Institute.

The Council proceeded, on June 5th, to the consideration, adjourned from May 26th and November 28th, 1911, of the case of James Robertson Wallace, registered as of 63, Jermyn Street, London, S.W., M.B., M.S., 1885, Univ. Edin.

Mr. Bodkin appeared as Legal Assessor.

Mr. Harper, of Messrs. Winterbotham, appeared as Solicitor to the Council.

Dr. Alfred Cox, Medical Secretary, assisted by Mr. Hempson, solicitor, represented the complainants, the British Medical Association.

Mr. Neilson, instructed by Mr. Gilbert Lewis, appeared for Mr. J. R. Wallace.

At the request of the President, the members of the Council who were also members of the British Medical Association withdrew from the Council during the proceedings.

At the request of the President, the Solicitor read the charge on which Mr. J. R. Wallace had been summoned to appear before the Council:

"That you have associated yourself in your professional capacity with an institution, termed the Sandow Curative Institute, which systematically advertises for the purpose of procuring patients who are to receive, either by correspondence or by attendance at the said institute, treatment for disease under the personal direction of Eugen Sandow, who is not a registered medical practitioner, and that you have approved of and acquiesced in such advertising.

"And that in relation thereto you have been guilty of infamous conduct in a professional respect."

The complainants were the British Medical Association.

At the conclusion of the proceedings on May 26th, 1911, the following decison of the Council was announced by the President:

"Mr. James Robertson Wallace,—I have to inform you that the facts alleged against you in the notice of inquiry have been proved to the satisfaction of the Council, but that the Council, in order to give you an opportunity to reconsider your position, has postponed judgement in your case till the next session, when you will be required to be present and to produce evidence as to your conduct in the interval."

And at the conclusion of the proceedings on November 28th, 1911, the following decision of the Council was announced by the President:

"Mr. Wallace,—The Council are not satisfied with the evidence as to your conduct which you have produced to-day. They have accordingly decided to give a further opportunity of producing more satisfactory evidence regarding your professional conduct; such evidence ought to be testified to by medical practitioners or other persons of position, who may be acquainted with your practice and conduct in the interval. With this object they have again postponed judgement on your case until the next session of the Council."

Mr. NEILSON reminded the Council that the evidence adduced by the British Medical Association on the previous occasions was that Dr. Wallace had remained in the employment of the Sandow Institute while advertisements were being inserted in the daily press, which, it was said, was an offence in terms comprised in the complaint laid before the Council. For the respondent, evidence was produced to show that the Sandow Institute did no more than many other institutions throughout the country which published the names of medical men employed by them. The Council, on the evidence, came to the conclusion that Dr. Wallace and others had been guilty of infamous conduct in a professional respect, and he did not seek to go behind that finding. Immediately thereafter Dr. Wallace's solicitor wrote to the Registrar of the Council for advice as to what his client should do in the circumstances, and was told in reply that the Council was not competent to add anything to what it had said at the close of the inquiry. He submitted that the request was not an unreasonable one, as any practitioner had the right to look for guidance and assistance to the Council in determining what was the proper ethical code for him to follow. In that position of things Dr. Wallace had to find out for himself what the gravamen of the charge made against him was, and, having done that, he set himself with the assistance of Mr. Sandow to remove the causes of offence, and they were removed. Advertising ceased completely. Dr. Wallace had complete control of the Sandow Institute from that date until November. At the November sessions of the Council it appeared that a deposition by a discharged servant of the Sandow Institute had been circulated among members of the Council before the meeting at which the case was to be considered. On that occasion it was contended by Lord Robert Cecil that its reception was contrary to the Council's Standing Orders. It was decided by the Council that the document did not comply with the Standing Order, and would be entirely ignored by it in considering the evidence against Dr. Wallace. He (Mr. Neilson) contended that it was utterly impossible for members of the Council who had read the document to completely eliminate the contents of it from their minds. On that occasion the Council said that it was not satisfied, and again adjourned the case until that day, without giving Dr. Wallace any assistance as to what it was in the course which he pursued that was unsatisfactory to the Council; he was left, as before, in the dark. It might be Dr. Wallace was guilty of a breach of etiquette, that he had broken the rule, but that such conduct could be said to be infamous in any respect he wished respectfully to deny. Having been found guilty and having done his best, with the help of Mr. Sandow, to get rid of his offence, Dr. Robertson Wallace considered his position. The result of his consideration was embodied in a letter to the Registrar of the General Medical Council on November 28th. Therein Dr. Wallace stated that it was perfectly useless to avail himself of the second period of probation, as he was unable to discover anything dishonourable, professionally or otherwise, in his association with the Sandow Institute, and he intended to continue his work. In conclusion, Mr. Neilson, on his instructions, could only ask the Council to take what course it thought fit, as he did not propose to produce any further evidence.

Dr. COX, on behalf of the complainants, the British Medical Association, drew the Council's attention to the fact that Mr. Neilson had produced no further evidence as to Dr. Wallace's conduct in the interval. The British Medical Association had sent in what it considered to be strong evidence that the conduct of Dr. Robertson Wallace was really a defiance of the Council. He took it that the members of the Council had that evidence before them. Mr. Neilson had said that Dr. Robertson Wallace had been unable to obtain any help or guidance from the General Medical Council or the British Medical Association. Dr. Robertson Wallace did not approach the British Medical Association for an opinion until after the case had been laid before the Council, when it would have been improper for the British Medical Association to have expressed an opinion. If the Association had been asked for advice earlier, it could only have said: "Sever your connexion with the Institute as soon as possible." As to Dr. Wallace obtaining no advice from the General Medical Council, surely the warning that he should produce more satisfactory evidence as to his conduct was help. Putting the case quite shortly, in May, 1911, the General Medical Council told Dr. Robertson Wallace that the facts were proved against him; in November Dr. Wallace put in a statement which he was told was not satisfactory evidence that he had changed his conduct. What could the Council think of a man who was charged twice with being connected with the Sandow Institute, and with advertising, who wrote after he had been told that the facts were proved to the satisfaction of the Council and said he intends to go on attaching himself to that institution? The Sandow Institute had been advertising even more viciously since the adjourned hearing than before. It was not said that Dr. Wallace was no longer with the Sandow Institute, and therefore he was still committing the offence of which he had been found guilty. If it were once admitted that it were not infamous conduct for a practitioner to assist an unqualified person in advertising the most ridiculous claims to cure disease, how would it be possible to prevent medical practitioners from advertising on their own account, so that the gains should go into their own packets, instead of into the pockets of lay employers? In conclusion, Dr. Cox submitted that Dr. Robertson Wallace's position was the same as it had been at the previous hearing—he was still guilty, but the offence was still further aggravated by his public announcement of the fact that he intended to continue his conduct.

Strangers and parties were directed to withdraw. On readmission, the PRESIDENT announced the decision of the Council as follows:

That Mr. James Robertson Wallace, having been proved to have associated himself in his professional capacity with an institution, termed the Sandow Curative Institute, which systematically advertises for the purpose of procuring patients, who are to receive, either by correspondence or by attendance at the said institute, treatment for disease under the personal direction of Eugen Sandow, who is not a registered medical practitioner, and having been proved to have approved of and acquiesced in such advertising, the Council do now judge James Robertson Wallace to have been guilty of infamous conduct in a professional respect, and do direct the Registrar to erase from the *Medical Register* the name of James Robertson Wallace.

Distribution of Cards.

The Council, on June 5th, considered the case of Elizabeth Bielby, registered as of Magdala House, Beverley, Yorks, L., L.M. 1885, K.Q.C.P.Irel., M.D.Berne 1885, who had been summoned to appear before the Council on the following charge:

That you have, with a view to your own gain and to the detriment of other practitioners, employed or sanctioned the employment of an agent or canvasser for the systematic distribution of cards containing your name, address, medical title, and hours of consultation, for the purpose of procuring persons to become your patients, and that in particular you caused to be so distributed in the month of March, 1912, systematically from door to door in Beverley, in the East Riding of the county of York, some 2,300 of such cards.

And that in relation thereto you have been guilty of infamous conduct in a professional respect.

Mr. Bodkin appeared as Legal Assessor.

Mr. Harper, of Messrs. Winterbotham, appeared as Solicitor to the Council.

Dr. Bateman represented the complainants, the Medical Defence Union. Mr. C. W. Hobson, solicitor, appeared for Miss Bielby.

The SOLICITOR to the Council read the charge.

Dr. BATEMAN said that the complaint made was that Dr. Bielby had been advertising herself, such advertising being done by means of bills, notices in newspapers, and cards distributed from door to door by her agents. The offence was fully admitted by Miss Bielby.

Mr. HOBSON said the facts were admitted without the slightest reservation. The lady had spent practically the whole of her life in Lahore, India, and there had been no complaint against her there. She had distributed over 2,000 cards, and the mere fact of her distributing them so openly showed her absolute ignorance of what she was doing. It seemed hard, especially to a layman, that such a mistake as this should be construed into being infamous and disgraceful conduct. He put in a memorial signed by many medical men in Beverley, in which they stated their belief that the action of Miss Bielby was quite unintentional. In issuing the cards, he, Mr. Hobson, frankly admitted that she had been indiscreet. He hoped the

Council would not punish her, but come to such a decision as would allow her to go free.

On the suggestion of the President, the following extract from her declaration was read to and reiterated by Miss Bielby: "I unreservedly express my extreme regret and tender an unreserved apology for all things, and any action on my part which has contravened in any way the etiquette or ethics of the profession, and I am prepared to do any reasonable thing by way of reparation (if any injury has been done) as a test of the sincerity of my regret."

Dr. BATEMAN had no questions to ask, and left the case in the hands of the Council.

Strangers and the parties were directed to withdraw. On readmission, the PRESIDENT announced the decision of the Council as follows:

Miss Bielby—I have to inform you that the Council have found that the facts alleged against you in the notice of inquiry have been proved to their satisfaction, but they have taken note of your unreserved apology in your letter of explanation for the action complained of, and of the fact that you had taken steps to remedy that action before the complaint against you had been made to the Council. The Council, therefore, do not see fit to direct the Registrar to erase your name from the *Medical Register*.

The Case of D. F. Sanjana.

On June 6th the Council considered the case of Darabshaw Fardoonji Sanjana, registered as L.R.C.P.Edin., L.R.C.S.Edin., L.F.P.S.Glas., 1901, of the Hampden Residential Club, Phœnix Street, London, N.W., but practising at Kelty, Fife.

Mr. Bodkin appeared as Legal Assessor. Mr. Harper, of Messrs. Winterbotham, appeared as solicitor for the Council. Dr. Alfred Cox, Medical Secretary, assisted by Mr. Hempson, solicitor, appeared for the complainants, the British Medical Association. Mr. James Currie Macbeth, solicitor, appeared for Dr. Sanjana.

Mr. HARPER read the charge on which Dr. Sanjana had been summoned to appear before the Council as follows:

That you have employed as your assistant in connexion with your professional practice a person, namely, D. Drysdale, not duly qualified or registered under the Medical Acts, and have knowingly allowed him on your behalf to attend and treat patients in respect of matters requiring professional discretion or skill and to sign and issue on your behalf medical certificates in respect of such patients.

In particular that you have—

1. Knowingly authorized or allowed the said D. Drysdale at various times while in your employment at Kelty, Fife, as your assistant to attend and prescribe for patients and take fees for so doing in your surgery and at their own houses, and on a number of Saturday afternoons to finish your rounds, attend the surgery, and take any fresh cases during your absence on such afternoons in Edinburgh.

2. Knowingly authorized or allowed the said D. Drysdale to attend and examine patients for you and to sign for you medical certificates of various kinds—namely, (*a*) for sick allowance from the British Order of Ancient Free Gardeners, "Kelty Blossom" Lodge, for John Redmond (four), William Nicoll (four), Robert Williams (two), John Rankine, Robert Bunyan, George Turner, Andrew Fotheringham, James Beveridge, Arthur Morrow, Henry Hutchison, John King, and Archie McKay; and (*b*), in respect of Workmen's Compensation, for Alexander Ramage and John Coonie.

And that in relation thereto you have been guilty of infamous conduct in a professional respect.

Dr. ALFRED COX said it seemed to the British Medical Association that this case illustrated the kind of case which, according to the regulations, was everybody's business and therefore nobody's business. It was a most invidious thing to have to make a charge against another practitioner, especially if that practitioner happened to be a competitor in the same neighbourhood, and he hoped the time was not far distant when the regulations would be so framed as to allow of a case being taken up in a more impersonal way. He hoped the evidence he would produce would be conclusive on each of the three heads mentioned in the charge.

ALFRED JOHN ROBINSON was then called, and confirmed his declaration. He had seen Mr. Drysdale attend at the surgery patients who were private patients attached to the practice. He saw the patients and attended to them as they came in, and took the fee; he never told them that he could not attend to them till Dr. Sanjana came back if he happened to be out, or sent for another doctor to attend them.

Cross-examined by Mr. MACBETH: He did not know that there was considerable opposition to Dr. Sanjana, and that other doctors had refused to meet him in consultation. Mr. Drysdale was not a qualified man. The witness specified various patients whom Mr. Drysdale had attended. The witness had never been in a house where Mr. Drysdale was attending a patient. He had seen him in the surgery strip and examine patients and prescribe for them.

Re-examined by Dr. ALFRED COX: He was not in the habit of going with Mr. Drysdale when he went to visit patients. No records were kept of the fees that he charged. He used to charge patients 2s. 6d., but if they ran an account he charged them a lump sum at the end.

WILLIAM ARNETT, examined by Dr. ALFRED COX, confirmed his declaration, and identified seventeen medical certificates, signed "D. Drysdale, *pro* Dr. Sanjana." He also identified a book of rules of the Kelty Blossom Lodge, of which he was secretary. It contained a rule that certificates were to be signed only by duly qualified medical practitioners, and it was his duty to see that they were. If he had known the certificates were signed by an unqualified man, the sick pay would not have been paid to the patients. He took the certificates believing that Mr. Drysdale was a medical man.

Cross-examined by Mr. MACBETH: The "D. Drysdale," in his opinion, was a decoy for "Dr.," because it was usually made with a little turn after the "D" which might be taken for an "r" meaning "Dr." The witness was unable to point to this peculiarity in any of the certificates produced. They came to him in the ordinary course, and there was no attempt at concealment.

Re-examined by Dr. ALFRED COX: He always understood that Mr. Drysdale was a qualified doctor, or he would not have taken the certificates.

Mr. SETTINIO CORRIERI, examined by Dr. ALFRED COX, confirmed his declaration, and said he was a cab driver, and used to drive Dr. Sanjana to the station when he went away for week ends. On such occasions he was always given by Dr. Sanjana a list of calls to give to Mr. Drysdale of patients to attend. Mr. Drysdale visited the patients exactly the same as Dr. Sanjana.

Cross-examined by Mr. MACBETH: He was now an ice-cream vendor. He was dismissed from his employment because Dr. Sanjana alleged he had assaulted him. When he drove Mr. Drysdale to see patients he had no idea what he was doing inside.

By the LEGAL ASSESSOR: He always waited some five or ten minutes for him.

By the PRESIDENT: He never saw Mr. Drysdale examine a patient.

Dr. ALFRED COX said that was the evidence in support of the case.

Mr. MACBETH submitted to the Council that there was no case for him to answer.

The PRESIDENT could not say that.

Mr. MACBETH said in that case he would call Dr. Sanjana and reserve his remarks until the close of the evidence.

Dr. Sanjana was then called.

The PRESIDENT suggested that the witness's letter of explanation to the Registrar should be read.

Mr. MACBETH read the letter, which was as follows:

Gowbarrow, Kelty, Fife.
April 19th, 1912.

To the Registrar, General Council of Medical Education and Registration.

Dear Sir,

I have received your letter No. 30494 of 13th inst. about the unqualified assistant, Mr. D. Drysdale. Mr. D. Drysdale was employed by me as a dispenser and surgery attendant, and not as an assistant. He was kept to dispense medicine and to be present whole day in the surgery, owing to a special request made by the local committee of miners to avoid people waiting long time as it was the case when the dispensing was done only in the mornings and evenings. I could not have used him as an assistant even if I had wished to do so, as he had no knowledge of medicine, except dispensing and dressing. It is true that on rare occasions I sent him to some convalescent patients, under pressure of work, but it was only to take their temperature or dress wounds, etc. To my knowledge he has never attempted any new cases or treated them. He signed some school children's certificates to keep them at home from school, and some of the club certificates for men, but never in his own name, but "For Dr. Sanjana, D. Drysdale." Practically in every case in which a certificate was granted I had myself seen the patient, and Mr. Drysdale merely acted as my clerk in writing out the certificates upon my directions, and to save my time. I am sorry that I was not aware that this was contrary

to any statute or amounted to professional misconduct. I assure you that I have every desire to do my work within the letter and spirit of the statute and of the rules of the profession. Mr. Drysdale left me nearly two months ago, and was altogether with me about three months. If I have done anything wrong against the rules of the Council in my ignorance I sincerely apologize and undertake that it will not occur again, as I will not keep any one in the surgery but a fully qualified man. I shall be glad if you will inform me whether what I have done as described above is contrary to any statute or rule of the General Medical Council or any rule of etiquette of the profession.

I remain
Yours faithfully,
D. F. SANJANA.

The WITNESS, in reply to the PRESIDENT, adhered to the undertaking contained in the latter part of the letter not to infringe the rules again, or to employ anybody but a fully qualified man.

Mr. MACBETH then read the witness's declaration, which he confirmed, which was a general traverse of the allegations made by the witnesses for the complainants.

Cross-examined by Dr. ALFRED COX: Mr. Drysdale was ill and unable to attend as a witness. He was employed as a dispenser and to dress and take temperatures. He had no authority to attend patients professionally, and if he did it was contrary to instructions. In filling up and signing the certificates he merely acted as the clerk of the witness, who gave the particulars for the purpose. On occasions when witness was going away for a week end, he would leave a list of patients almost convalescent for Drysdale to visit to see if they were progressing properly; if the patient was worse he had instructions to call in another medical man.

By the PRESIDENT: He never allowed a nurse to sign a certificate for him. He denied having received the warning notice from the Council with regard to the employment of unqualified assistants; but being shown his receipt for the same on two occasions said he had forgotten all about it.

Mr. MACBETH proposed to read Mr. Drysdale's declaration, when

Dr. ALFRED COX objected, but hoped if the Council decided to admit it, it would bear in mind the fact that he had had no opportunity to cross-examine the declarant.

The PRESIDENT observed that the Council would take note of the fact and the objection.

Mr. MACBETH read the declaration in which Mr. Drysdale denied that he was engaged as assistant, either qualified or unqualified. He was engaged to do the dispensing work, and on certain occasions, at the request of Dr. Sanjana, went to see patients, but not to prescribe for them; he merely reported upon their condition. He did nothing more than take their temperature, and by looking at them ascertain whether it was necessary for Dr. Sanjana to go and see them. He denied having attended patients at the surgery and received the fees for so doing, as stated by the witness Robertson.

The LEGAL ASSESSOR put it to Dr. Alfred Cox that, having regard to the fact that Dr. Sanjana had ceased to employ Mr. Drysdale and had engaged a properly qualified assistant, and to the undertaking contained in the last paragraph but one of the letter of explanation, if the case were insisted on and continued, it might be of some assistance to the Council to hear his views upon it.

Dr. ALFRED COX inquired whether if he left the case entirely in the hands of the Council that would mean that the case would end.

The LEGAL ASSESSOR said he would have the right of reply, but if that were the attitude he wished to adopt, it was one the Council would appreciate, and also his reasons for saying why he adopted it.

Dr. ALFRED COX conferred with his advisers, when strangers and the parties were directed to withdraw.

The Council adjourned at this stage. When the case was resumed on June 7th,

Mr. Hempson, solicitor, in the unavoidable absence of Dr. Alfred Cox, with the consent of the Council, represented the British Medical Association.

Mr. MACBETH, explained the circumstances under which Dr. Sanjana took up his appointment at Kelty, and, dealing with the facts, submitted that the first was irrelevant and incompetent for want of specification. He complained of the general character of the evidence which had been called in support of the charge, and submitted that witnesses should have been called to speak to specific facts whose evidence would not be so third and general as that of the three witnesses who had been produced before the Council. With regard to Robertson he had nothing to say, except that there was obviously animus between him and Dr. Sanjana, and the Council should be careful in accepting general evidence from him. With regard to Drysdale's visiting patients the evidence in support of the charge was only consistent with the evidence of Dr. Sanjana on that point, and, therefore, on the merits that charge must fail. As to the certificates the foundation of the charge must be that Drysdale attended and examined patients, which he never did; the certificates were legally granted if, previously to their being filled up, Dr. Sanjana had seen the patients. On the whole case he submitted that there had been no proof laid before the Council which would justify it in removing Dr. Sanjana's name from the *Register*. He reiterated the undertaking given in the letter of explanation. He regretted exceedingly the necessity for the proceedings, but tendered on behalf of Dr. Sanjana a distinct assurance that he would take every care that no possible cause of complaint against his professional conduct could in future be preferred against him.

Mr. HEMPSON, in reply, contended that it was almost impossible for the British Medical Association to bring forward specific evidence, as the patients would not come forward and there was no power to summon them by way of subpoena. The Association was therefore compelled to get the best evidence it could for the purpose of a case of this nature, and that was what it had placed before the Council. The evidence of Robertson was absolutely direct that he had seen Drysdale attend patients at the surgery where he was in charge with full authority. The evidence was inconsistent with Drysdale's having been engaged as dispenser and surgery attendant. Further, the fact, which was practically admitted, that Drysdale went round in Dr. Sanjana's carriage for the purpose of seeing patients emphasized that. The British Medical Association before preferring the charge obtained the best evidence that it could to support it. That evidence justified the Association in bringing the case forward. It was within the competence of the Council to say whether in its view the conduct which had been disclosed before it was such as to merit the most severe penalty which it was in its power to inflict. But on the other hand it had the power to say the case was proved to its satisfaction, that the offence was not such an outrageous one as to merit the full penalty, and in that way to exercise its clemency. He put the case before the Council on the footing that it was a case that the British Medical Association felt it was necessary to bring before the Council, and he left it entirely in its hands.

Strangers and the parties were directed to withdraw. On readmission the PRESIDENT announced the decision of the Council as follows:

Mr. Sanjana, I have to inform you that the Council have deliberated on your case and have found that certain of the facts alleged against you in the notice of inquiry have been proved to their satisfaction, and in particular that you have: (1) Knowingly authorized or allowed D. Drysdale at various times while in your employment at Kelty, Fife, as your assistant to attend patients, and on a number of Saturday afternoons to finish your rounds, and attend your surgery during your absence on such afternoons in Edinburgh; and that you have (2) knowingly authorized or allowed the said D. Drysdale to attend and examine certain patients for you, and to sign your medical certificates of various kinds. The Council take a serious view of the facts thus found to be proved against you; but in order to give you an opportunity of showing that your professional conduct is henceforth to be without reproach, they have postponed judgement on the facts as found until the November session of the Council. At that session you will be required to attend, and you should then produce evidence regarding your professional conduct testified to by medical practitioners and other persons of position who may be acquainted with your practice and conduct in the interval.

The Case of Mr. J. Jeeves.

The Council on June 7th considered the case of John Jeeves, registered as M.R.C.S., L.R.C.P., of 163, Cemetery Road, Sheffield, who had been summoned to appear before the Council on the following charge:

That you have on numerous occasions knowingly and wilfully assisted a certain person not registered as a dentist—namely, Leo Patrick Barry, of 402, London Road, Sheffield—in performing operations in dental surgery by administering anaesthetics

on his behalf to persons coming to him for treatment, and particularly to one George Johnstone in February, 1912.

And that in relation thereto you have been guilty of infamous conduct in a professional respect.

Mr. Turner appeared for the complainants, the British Dental Association.

Mr. Jeeves appeared in person.

Mr. TURNER said the facts in this case were undisputed. A man named Johnstone died under an anaesthetic while being operated on by a Mr. Leo Patrick Barry, who carried on business as a dentist at 402, London Road, Sheffield. At the subsequent inquest it transpired that he was unregistered, and that the anaesthetic was administered by Mr. Jeeves, a registered practitioner. It was admitted before the coroner by Barry that Mr. Jeeves had done this for him some thirty to fifty times during the previous three or four months. Those were the whole of the facts. He put in a copy of the depositions taken before the coroner, and also a declaration by Mr. W. J. Law, L.D.S., of Sheffield, as to premises where Barry carried on business, to the effect that it was apparent the business was carried on in such a way as to make it obvious to any one that the person carrying it on was unregistered. No notice had been given requiring the declarant to attend for cross-examination, therefore he did not call him. It was clear that a registered medical practitioner had administered an anaesthetic at a place which was advertised in such a way as would lead a prudent man to believe that the person carrying it on was not a duly qualified dentist, and that the usual consequence must follow.

Mr. JEEVES admitted that Mr. Turner's statement was practically a fair summary of what had happened. He always understood Mr. Barry was a properly qualified dentist until the inquest on the man Johnstone. If he had known Barry was not he would not have attended the place. He expressed his extreme regret to the Council for having done so and threw himself upon its clemency. He tendered himself as a witness and answered questions put to him from and through the Chair, and was cross-examined by Mr. Turner.

Strangers and the parties were directed to withdraw. On readmission

The PRESIDENT announced the judgement of the Council as follows:

Mr. Jeeves. I have to inform you that the Council has found that the facts alleged against you have been proved to its satisfaction. The Council is of opinion that it is the duty of a registered medical practitioner to ascertain that an operator is a duly registered dentist before administering anaesthetics for him. The Council takes a very grave view of the action of practitioners who administer anaesthetics for unregistered persons. It has, however, adjourned the further consideration of your case till the November session, when you will be required to produce evidence, satisfactory to the Council, as to your professional conduct in the interval.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

In accordance with the provisions of an Order in Council of March 7th, 1904, Staff Surgeon WALTER PERCEVAL YETTS has been allowed to withdraw from His Majesty's Naval Service, with a gratuity, dated June 5th, 1912.

ROYAL NAVAL VOLUNTEER RESERVE.

Mr. THOMAS BENJAMIN DIXON and Mr. HUBERT CHITTY, F.R.C.S., have been appointed Surgeons.

ARMY MEDICAL SERVICE.

COLONEL HAROLD G. HATHAWAY, on completion of four years' service in his rank, is placed on the half-pay list, dated June 8th, 1912.

ROYAL ARMY MEDICAL CORPS.

THE following Majors to be Lieutenant-Colonels: JOHN H. E. AUSTIN, vice B. M. Skinner, M.V.O., dated May 4th, 1912. WILLIAM T. MOULD, vice R. R. H. Moore, M.D., retired, dated May 8th, 1912. ALFRED W. BEWLEY, vice J. V. Salvage, M.D., retired, dated May 15th, 1912. CHARLES A. STONE, M.D., vice R. Kirkpatrick, C.M.G., M.D., promoted, dated May 21st, 1912.

The following Captains to be Majors, dated May 30th, 1912: CHARLES H. CARR, M.D., EDMUND BENNETT, ARTHUR C. ADDERLEY, EDWARD S. WORTHINGTON, M.V.O.

Lieutenant MAURICE DRUMMOND has resigned his commission, dated June 5th, 1912.

INDIAN MEDICAL SERVICE.

LIEUTENANT R. E. FLOWERDEW, M.B., has been promoted to Captain, subject to His Majesty's approval.

Lieutenant M. L. C. IRVINE is directed to proceed to Jubbulpore for duty.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN ninety-five of the largest English towns 8,452 births and 4,183 deaths were registered during the week ending Saturday, June 8th. The annual rate of mortality in these towns, which had been 12.7, 13.0, and 12.6 per 1,000 in the three preceding weeks, further declined to 12.4 per 1,000 in the week under notice. In London last week the death-rate did not exceed 11.1 per 1,000 against 11.7, 12.3, and 11.6 in the three previous weeks. Among the ninety-four other large towns the death-rates last week ranged from 4.4 in Ilford, 5.4 in Edmonton, 5.6 in Willesden, 5.8 in Eastbourne, 6.0 in Aberdare, and 6.5 in Cambridge to 17.4 in Wigan and in Burnley, 18.5 in Dewsbury, 19.2 in Liverpool, and in Blackpool, 19.3 in Salford, 19.8 in Stockport, and 23.0 in Rotherham. Measles caused a death-rate of 2.1 in Ipswich, 2.5 in Cardiff, 2.7 in Gateshead, 3.8 in Merthyr Tydfil, and 4.9 in Rotherham; and whooping-cough of 1.1 in St. Helens, in Manchester, and in Salford, 1.4 in Plymouth, and 1.6 in Leyton. The mortality from the remaining infectious diseases showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 35, or 0.8 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest, and included 4 in Liverpool, 3 in Birmingham, and 3 in South Shields. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,213, 1,231, and 1,245 at the end of the three preceding weeks, had further risen to 1,291 on Saturday last; 185 new cases were admitted during the week, against 146, 182, and 155 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

IN eighteen of the largest Scottish towns, 1,111 births and 648 deaths were registered during the week ending Saturday, June 8th. The annual rate of mortality in these towns, which had been 15.4 and 15.0 in the two preceding weeks, rose to 15.5 per 1,000 in the week under notice, and was 3.1 per 1,000 above the rate recorded in the ninety-five large English towns. Among the several Scottish towns the death-rates ranged from 5.2 in Clydebank, 7.5 in Motherwell, and 8.6 in Govan, to 18.1 in Glasgow, 18.7 in Ayr, and 24.7 in Greenock. The mortality from the principal epidemic diseases averaged 1.6 per 1,000, and was highest in Coatbridge and Hamilton. The 273 deaths from all causes recorded in Glasgow included 8 from measles, 7 from infantile diarrhoea, 3 from diphtheria, 2 from enteric fever, 2 from whooping-cough, and 1 from scarlet fever. Nine deaths from measles were recorded in Dundee, 4 in Edinburgh, 4 in Coatbridge, 3 in Partick, and 3 in Hamilton; 2 deaths from scarlet fever in Greenock, and 2 from whooping-cough in Edinburgh, in Dundee, and in Aberdeen.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, June 8th, 703 births and 417 deaths were registered in the twenty-two principal urban districts of Ireland, as against 612 births and 399 deaths in the preceding week. The annual death-rate in these districts, which had been 18.6, 16.9, and 17.9 per 1,000 in the three preceding weeks, rose to 18.8 per 1,000 in the week under notice, this figure being 6.4 per 1,000 higher than the mean average death-rate in the ninety-five English towns for the corresponding period. The figures in Dublin and Belfast were 20.5 and 16.1 respectively, those in other districts ranging from 5.3 in Tralee and 8.6 in Lurgan, to 31.9 in Wexford and 34.3 in Lisburn, while Cork stood at 22.5, Londonderry at 19.1, Limerick at 28.5, and Waterford at 20.9. The zymotic death-rate in the twenty-two districts averaged 1.4 per 1,000, or the same as in the preceding period.

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

BANGOR: CARNARVONSHIRE AND ANGLESEY INFIRMARY.—House-Surgeon. Salary, £100 per annum.

BIRKENHEAD: BOROUGH HOSPITAL.—Junior House-Surgeon. Salary, £80 per annum.

BIRMINGHAM UNIVERSITY.—Lecturer in Physiology. Stipend, £200 per annum.

BOOTLE BOROUGH GENERAL HOSPITAL.—House-Surgeon. Salary, £100 per annum.

BRIGHTON, HOVE, AND PRESTON DISPENSARY.—Resident Medical Officer. Salary, £160 per annum.

BRIGHTON: ROYAL SUSSEX COUNTY ASYLUM.—Assistant House-Surgeon (Male). Salary, £80 per annum.

BRIXTON DISPENSARY, Water Lane, S.W.—Resident Medical Officer. Salary, £150 per annum.

CANCER HOSPITAL, Fulham Road, S.W.—House-Surgeon. Salary, £70 per annum.

CARDIFF: KING EDWARD VII HOSPITAL.—House-Surgeon (Male). Honorarium, £30 for six months.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—(1) Registrar. (2) Clinical Assistants.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL.—House-Physician. Salary, £80 per annum.

COVENTRY AND WARWICKSHIRE HOSPITAL.—Senior House-Surgeon. Salary, £120 per annum.

COVENTRY UNION.—Assistant Workhouse Medical Officer, Non-resident. Salary, £220 per annum and fees.

EASTERN DISPENSARY, Leman Street, E.—Resident Medical Officer. Salary, £120 per annum.

EDINBURGH PARISH COUNCIL.—Medical Officer for the Craiglockhart Poorhouse and Hospital. Salary, £110 per annum.

EDINBURGH: ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN.—Four Resident Medical Officers.

EXETER: ROYAL DEVON AND EXETER HOSPITAL.—Assistant House-Surgeon. Salary at the rate of £80 per annum.

HARTLEPOOLS HOSPITAL.—House-Surgeon. Salary, £100 per annum.

HUDDERSFIELD ROYAL INFIRMARY.—Assistant House-Surgeon (Male). Salary, £80 per annum.

LEAMINGTON SPA: WARNEFORD GENERAL HOSPITAL.—House-Physician. Salary, £85 per annum.

LEEDS GENERAL INFIRMARY.—(1) Resident Obstetric Officer; salary, £25 for six months. (2) House-Physician. (3) Resident Medical Officer at the Ida and Robert Arthington Hospitals; salary, £30 for six months.

LEICESTER CORPORATION.—Resident Medical Officer at the Isolation Hospital. Salary, £150 per annum.

LINCOLN: LINCOLN MENTAL HOSPITAL.—Assistant Medical Officer. Salary, £150 per annum.

LIVERPOOL HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Honorary Assistant Physician.

LONDON HOSPITAL MEDICAL COLLEGE.—Demonstrator in Physiology. Salary, £150 per annum.

LONDON HOSPITAL, E.—Registrar and Demonstrator in the Ear, Throat, and Nose Departments.

MANCHESTER: ST. MARY'S HOSPITALS FOR WOMEN AND CHILDREN.—Resident Surgical Officer. Salary, £80 per annum.

MELBOURNE UNIVERSITY.—Chair of Veterinary Pathology and Directorship of the Veterinary Institute. Salary, £900 per annum, together with life insurance premium of £100.

MOUNT VERNON HOSPITAL FOR CONSUMPTION.—House-Physician at Hampstead and at Northwood. Salary, £75 per annum each.

NEWCASTLE-ON-TYNE DISPENSARY.—Visiting Medical Assistant. Salary, £160 for first year, rising to £180.

NEWPORT AND MONMOUTHSHIRE HOSPITAL.—Two Resident Medical Officers. Salary, first four months, £80 per annum, increasing to £120.

NORTHAMPTON GENERAL HOSPITAL.—House-Surgeon (Male). Salary, £90 per annum.

NOTTINGHAM CHILDREN'S HOSPITAL.—Lady House-Surgeon. Salary at the rate of £100 per annum.

NOTTINGHAM CITY ASYLUM.—Locumtenent for July. Salary, 4 guineas per week.

NOTTINGHAM GENERAL DISPENSARY (Branch).—Assistant Resident Surgeon (Male). Salary, £160 per annum.

NOTTINGHAM PARISH.—Resident Assistant Medical Officer at the Workhouse Infirmary. Salary, £150 per annum, increasing to £170 per annum.

PLAISTOW: MEDICAL MISSION HOSPITAL.—Junior Resident Medical Officer for Dispensary.

PRINCE OF WALES'S GENERAL HOSPITAL, Tottenham, N.—(1) Junior House-Physician; salary, £60 per annum. (2) Honorary Surgical Registrar. (3) Honorary Anaesthetist. Honorarium of £20 per annum attached to (2) and (3).

ROYAL WATERLOO HOSPITAL FOR CHILDREN AND WOMEN, S.E.—(1) Senior Resident Medical Officer; salary, £80 per annum. (2) Visiting Anaesthetist; honorarium at the rate of £25 per annum.

ST. GEORGE'S UNION.—Second Assistant Medical Officer at the Infirmary. Remuneration, £130 per annum.

ST. LEONARD'S-ON-SEA: BUCHANAN HOSPITAL.—Non-Resident House-Surgeon.

SALISBURY INFIRMARY.—Assistant House-Surgeon. Salary, £50 per annum.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Senior House-Surgeon (Male). Salary, £100 per annum.

SHEFFIELD: JESSOP HOSPITAL FOR WOMEN.—Assistant House-Surgeon. Salary, £40 per annum.

SHEFFIELD ROYAL HOSPITAL.—Sixth Resident. Salary, £60 per annum.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—House-Physician. Salary, £120 per annum, increasing to £140.

TUNBRIDGE WELLS GENERAL HOSPITAL.—House-Physician (Male). Salary, £100 per annum.

WAKEFIELD.—Second House-Surgeon (Male). Salary, £120 per annum.

WARRINGTON INFIRMARY AND DISPENSARY.—Junior House-Surgeon. Salary at the rate of £100 per annum.

WESTERN OPHTHALMIC HOSPITAL, Marylebone Road, W.—Non-Resident House-Surgeon. Salary, £50 per annum.

WEST LONDON HOSPITAL, Hammersmith Road, W.—(1) Physician. (2) Non-resident Casualty Officer; salary at the rate of £100 per annum.

WINCHESTER: ROYAL HAMPSHIRE COUNTY HOSPITAL.—House-Physician (Male). Salary, £80 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House-Surgeon. Salary, £80 per annum.

WOMEN'S HOSPITAL FOR CHILDREN, Harrow Road.—Assistant Surgeon (Woman).

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacant appointment: Frodingham (Lincs.).

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

APPOINTMENTS.

BATTERSBY, James, F.R.C.S.Eng., Dispensing Surgeon to the Glasgow Royal Infirmary.

BENTON, S. L., M.R.C.S., L.R.C.P., District Medical Officer and Medical Officer to the Children's Homes of the Lewes Union.

COWAN, F., M.R.C.S., L.R.C.P., District and Workhouse Medical Officer of the Strood Union.

CROWLEY, C. G., M.D.Melb., Honorary Surgeon for Diseases of the Skin, Alfred Hospital, Melbourne, vice Dr. Finch Noyes, resigned.

DEWAR, Allan, M.R.C.S., L.R.C.P.Lond., House-Surgeon to the St. Bartholomew's Hospital, Rochester.

EVANS, D. B., M.R.C.S., L.R.C.P., House-Physician to the Royal Hospital for Diseases of the Chest, City Road, E.C.

HARPER, J. M., M.R.C.S.Eng., Certifying Factory Surgeon for the Bath District, co. Somerset.

HILEY, R. Melville, M.R.C.S., L.R.C.P., re-elected Resident Medical Officer to the Royal Hospital for Diseases of the Chest, City Road, E.C.

HULL, Walter, M.D.Lond., Honorary Physician to the Government Asylum for the Infirm, Rookwood, New South Wales.

JEFFERISS, Frederick B., F.R.C.S.Edin., M.R.C.S., L.R.C.P., Medical Officer to the Chatham Post Office, including Luton.

LINNELL, J. E., B.A., M.B., B.C.Cantab., D.P.H.Lond., Medical Officer of Health to the Erpingham Rural District Council.

MILES, William Ernest, F.R.C.S., Honorary Consulting Surgeon to the Royal Hospital, Richmond, Surrey.

RENTON, J. Mill, M.B., Ch.B.Glasg., F.R.C.S.Edin., Surgeon to the Out-patient Department, Western Infirmary, Glasgow.

SMITH, Eric Bellingham, M.D., M.R.C.P., Physician to Out-patients to the Great Northern Central Hospital, Holloway Road, N.

SMITH, Raymond B. Etherington, M.A., M.B., B.C., F.R.C.S., Honorary Consulting Surgeon to the Royal Hospital, Richmond, Surrey.

WALKER, C. F., M.D.Lond.(State Medicine), B.S.Lond., D.P.H.Manch., M.R.C.S.Eng., L.R.C.P.Lond., B.A., R.U.I., Medical Superintendent of the Westmorland Consumption Sanatorium.

WILLIAMS, Jos. R., M.D.Edin., Medical Officer and Public Vaccinator for the No. 1 District, Conway Union, the Conway Union Workhouse, and Cottage Homes; also Certifying Factory Surgeon for the Conway District, County of Carnarvon; also Police Surgeon for the Conway Division.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

MARRIAGES.

COLT—DICK.—On June 12th, at Chalfont St. Giles Parish Church, by the Rev. James McIvor M. Stephens, George Herbert Colt, M.A., M.B., F.R.C.S., of 12, Bon Accord Square, Aberdeen, son of the late Frederick Hoare Colt, Barrister and Bencher of the Inner Temple, London, to Henrietta Dodgshun, daughter of the late Thomas Dick and of Mrs. Dick, 12, Springbank Terrace, Aberdeen.

MOORE—DAVIES.—On June 5th, 1912, at the Parish Church, Westbury-on-Trym, Bristol, by the Rev. S. W. L. Richards, D.C.L., Minor Canon of Bristol Cathedral, Clifford Arthur Moore, M.S., F.R.C.S., 56, St. Paul's Road, Clifton, Bristol, to Mary Elizabeth Davies, late of the Bristol General Hospital.

DEATH.

WATERS.—On June 8th, at 69, Bedford Street, Liverpool, Alderman Thomas Houghton Waters, M.D., F.R.C.P., aged 86 years.

DIARY FOR THE WEEK.

MONDAY.

ROYAL SOCIETY OF MEDICINE, 5 p.m.—Re-opening by Mr. Ernest Lane of the Special Discussion on Syphilis.

TUESDAY.

MEDICO-LEGAL SOCIETY, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Dr. Eric Pritchard: State Regulation of the Manufacture and Sale of Patent and Proprietary Medicines, Foods, and Appliances.

THURSDAY.

ROYAL SOCIETY, Burlington House, 4.30 p.m.—The following are among the list of probable papers:—Leonard Hill, F.R.S., and M. Flack: The Relation of Secretory and Capillary Pressure: (1) The Salivary Secretion. G. W. Ellis and J. A. Gardner: The Origin and Destiny of Cholesterol in the Animal Organism. Part IX. On the Cholesterol Content of the Tissues other than Liver of Rabbits under Various Diets and during Inanition. C. H. Martin: A Note on the Protozoa from Sick Soils, with Some Account of the Life Cycle of a Flagellate Monad. E. W. A. Walker, D.M.: Further Observations on the Variability of Streptococci in Relation to Certain Fermentation Tests, together with Some Considerations bearing on its Possible Meaning. A. Harden, F.R.S., and W. J. Penfold: The Chemical Action on Glucose of a Variety of *B. Coli Communis* (Escherich) obtained by Cultivation in Presence of a Chloro-acetate. (Preliminary notice.)

ROYAL SOCIETY OF MEDICINE:

DERMATOLOGICAL SECTION. 5 p.m.—(1) Annual Meeting: Election of Officers and Council for the Ensuing Session. (2) Cases and Specimens:—Dr. Norman Meachen and Mr. F. L. Provis: Alopecia Areata et Totalis Cured by Pregnancy, and Relapsing with the Establishment of the Menses. Dr. Arthur Whitfield: A Baby Showing the Early Stages of Development of the "Systematized Naevus." Dr. J. H. Sequeira: Cases of Pityriasis Rubra Pilaris. And other Cases. 8.30 p.m., Special Meeting: Discussion on Prurigo, Lichenification, and Allied Conditions (To be opened by the President, Sir Malcolm Morris).

FRIDAY.

SOCIETY OF TROPICAL MEDICINE AND HYGIENE, 11, Chandos Street, Cavendish Square, 8.30 p.m.—(1) Annual General Meeting. (2) Paper: Dr. Meredith Sanderson: The Human Trypanosomiasis of Nyasaland.

POST-GRADUATE COURSES AND LECTURES.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton Road, S.W.—Wednesday, 4 p.m.: Some Unusual Cases of Pleural Effusion.

LONDON HOSPITAL MEDICAL COLLEGE.—Monday, 4.15 p.m., Diagnostic Value of Sensory Changes in Diseases of the Nervous System.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.: Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat, at noon and 4.30 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Tuesday, and noon, Friday. Eye, 11 a.m., Wednesday and Saturday. Radiography, Thursday, 4.30 p.m. Pathological Demonstration, Friday, 11 a.m. Special Lectures: Wednesday, 3.30 p.m., Some Morbid Conditions of the Fundus Oculi. Thursday, 4.30 p.m., Aseptic Technique.

LONDON SCHOOL OF TROPICAL MEDICINE, Royal Albert Dock, E.—Lectures daily (Saturday excepted) at 12 and 4 p.m. Practical laboratory work daily (Saturday excepted), 10 to 12 a.m. Practical Helminthology, 2 to 3.30 daily; Advanced Helminthology, 10.30 to 1 p.m. daily. Medical Clinics, Monday and Thursday at 3 p.m. Operations, Friday at 3 p.m.

MANCHESTER: ANCOATS HOSPITAL.—Thursday, Some Recent Cases of Severe Anaemia.

MANCHESTER ROYAL INFIRMARY.—Tuesday, 4.30 p.m., The Medical Treatment of Gastro-Duodenal Ulcers. Friday, 4.30 p.m., Some Forms of Spastic Paralysis in Childhood.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.—The following Clinical Demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin. Tuesday, Medical. Wednesday, Surgical. Thursday, Medical. Friday, Ear, Nose, and Throat. Lectures at 5.15 p.m. each day will be given as follows: Monday, The Opium Convention: Drugs and Legislation. Tuesday, The Nature and Treatment of Certain Skin Affections in Childhood. Wednesday, Moral Imbecility. Thursday, Early Diagnosis of Phthisis.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Optic Neuritis. Friday, 3.30 p.m., Hysteria.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics: 10 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear; 3 p.m., Demonstration on Clinical and General Pathology. Tuesday, 2.30 p.m., Operations. Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-Patient; 4.30 p.m., Special Demonstration of Selected Medical Cases. Wednesday, 2 p.m., Throat Operations; 2.30 p.m., Medical Out-patient. Skin and Eye Clinics: X Rays; 3. p.m., Pathological Demonstration; 5.30 p.m., Eye Operations. Thursday, 2.30 p.m., Gynaecological Operations. Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient; 4.30 p.m., Special Demonstration of Selected Surgical Cases. Friday, 2.30 p.m., Operations. Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient; Pathological Demonstration.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics, X Rays, and Operations, 2 p.m. daily. Monday: Gynaecology, 10 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday: Gynaecological Operations, 10 a.m.; Demonstration of Minor Operations, 11 a.m.; Throat, Nose and Ear, 2 p.m.; Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday: Gynaecological Demonstration, 10 a.m.; Lecture, Practical Medicine, 12.15 p.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday: Gynaecological Operations, 10 a.m.; Lecture, Clinical Pathology, 12.15 p.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m. Special Lectures at 5 p.m. daily.

DIARY OF THE ASSOCIATION.

Date.		Meetings to be Held.
		JUNE.
15	Sat.	Last day for receipt of Voting Papers at Head Office *re* Central Council Election.
		Northern Counties of Scotland Branch, Craigellachie.
18	Tues.	Organization Committee, London, 2.30 p.m.
		Westminster Division, 429, Strand, W.C., 5 p.m.
19	Wed.	South-Eastern Branch, Town Hall, Bromley, Annual Meeting, 2.15 p.m.; Lunch, 1 p.m.; Dinner, 6.30 p.m.
		South-West Wales Division, Carmarthen, Annual Meeting, 3.30 p.m.
		Bath and Bristol Branch, Annual Meeting.
		East Anglian Branch, Brentwood, Annual Meeting.
		Lancashire and Cheshire Branch, Bolton, Annual Meeting.
20	Thur.	Dartford Division, Dartford, 3 p.m.
		Metropolitan Counties Branch Council, 4 p.m.
		Newcastle-on-Tyne Division, Newcastle-on-Tyne, 8.30 p.m.
		South Staffordshire Division, Wolverhampton, 8.30 p.m.; Supper, 7.45 p.m.
21	Fri.	Northamptonshire Division, Northampton, 2.30 p.m.; Luncheon, 1.30 p.m.
		Lambeth Division, Surrey Masonic Hall, 4 p.m.
		South Middlesex Division, Twickenham, 8.30 p.m.
26	Wed.	Finance Committee, London, 2.30 p.m.
		South-Western Branch, Newquay, Annual Meeting, 3 p.m.; Luncheon, 1 p.m.; Dinner, 7 p.m.
		Leicester and Rutland Division, Coalville, 4 p.m.
		Altrincham Division, Altrincham, Annual Meeting, 4.30 p.m.

Date.		Meetings to be Held.
		JUNE (*continued*).
27	Thur.	Edinburgh Branch, Edinburgh, Annual Meeting, 4 p.m.
		Staffordshire Branch, Burton-on-Trent, Annual Meeting, 4 p.m.; Dinner, 6 p.m.
		Reigate Division, Redhill, Annual Meeting, 4.30 p.m.
28	Fri.	Birmingham Branch, Medical Institute, Annual Meeting, 3.30 p.m.
		Metropolitan Counties Branch, 429, Strand, W.C., Annual Meeting, 4.30 p.m.
29	Sat.	Worcestershire and Herefordshire Branch, Hereford, Annual Meeting.
		JULY.
3	Wed.	Central Council, London, 2 p.m.
		Dorset and West Hants Branch, Dorchester, Luncheon, 2 p.m.
		Annual Meeting, Liverpool.
19	Fri.	Annual Representative Meeting
20	Sat.	Annual Representative Meeting.
22	Mon.	Council Meeting, 9.30 a.m.
		Annual Representative Meeting, 10 a.m.
		Secretaries' Conference and Dinner, 7 p.m.
23	Tues.	Annual Representative Meeting, 9.30 a.m.
		Annual General Meeting, 2 p.m., President's Address, 8.30 p.m.
24	Wed.	Council Meeting, 9 a.m.
		Sectional Meetings, 10 a.m. to 1 p.m.
		Address in Medicine, 12.30 p.m.
		Religious Services, 3 p.m.
25	Thur.	Sectional Meetings, 10 a.m. to 1 p.m.
		Address in Surgery, 12.30 p.m.
		Section of Surgery, 2.30 p.m.
		Annual Dinner, 7.30 p.m.
26	Fri.	Council Meeting, 9 a.m.
		Sectional Meetings, 10 a.m. to 1 p.m.
27	Sat.	Excursions.

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SUPPLEMENT
TO THE
BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JUNE 22ND, 1912.

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APPOINTMENTS UNDER THE INSURANCE ACT.

PROVISIONAL INSURANCE COMMITTEES: SANATORIUM BENEFIT.

The State Sickness Insurance Committee desires to draw the attention of Members to its decision that acceptance of medical appointments on Provisional Insurance Committees or for the administration of Sanatorium Benefit under the National Insurance Act would be a contravention of Minute 78 of the last Representative Meeting.

Meetings of Branches and Divisions.

BORDER COUNTIES BRANCH:
SCOTTISH DIVISION.

THE annual general meeting of this Division was held in Dumfries and Galloway Royal Infirmary on Thursday, June 13th. Dr. EASTERBROOK was in the chair, and there was a good attendance.

Confirmation of Minutes.—The minutes of the previous meeting were passed.

Apologies for Non-attendance.—Apologies for absence were read.

Annual Report and Financial Statement.

The SECRETARY presented the annual report and financial statement of the Executive Committee for the year 1911–12; they were to the following effect:

Since their appointment a year ago the Executive Committee have held eight meetings. With the two exceptions of a member's resignation from the Association and the administration of anaesthetics by unqualified persons, these meetings have been occupied entirely in considering questions connected with the National Insurance Bill. At the two latest meetings the formation of Provisional Medical Committees for the organization and defence of the profession within the area was arranged.

The result is a committee, consisting of four subcommittees, from the four insurance areas within the Division, with the President and Secretary of the Division, *ex officio* members, and President and Secretary of the whole Committee.

These subcommittees are:

1. For Dumfries and Maxwelltown:—Drs. Ferguson, Kerr, and Robson. Convener and Secretary, Dr. Ferguson.

2. For Dumfries County:—(*a*) Annandale: Drs. Bell, Huskie, Murdoch, Reid. (*b*) Nithsdale: Drs. Scott and Rodger. (*c*) Eskdale: Dr. R. H. Watt. Convener of County Subcommittee, Dr. Huskie; Secretary of County Subcommittee, Dr. Rodger.

3. For the Stewartry of Kirkcudbright:—Drs. Murray Stewart, Gair Johnston, Anderson, Gillies, and Cowan. Convener, Dr. Murray Stewart; Secretary, Dr. Gair Johnston.

4. For the County of Wigtown: Drs. Munro, Matthew, Harper, McKie, and Selby. Convener, Dr. Munro; Secretary, Dr. McKie.

At the meeting to elect the Dumfries and Maxwelltown and Dumfries County Subcommittees it was resolved:

That for the purpose of co-ordinating the work of the various subcommittees with each other, the Chairman and Secretary of the Scottish Division be *ex officio* members of the Provisional Medical Committee for the Division, and that they act as Chairman and Secretary respectively of that committee.

This was confirmed at the other meetings.

It was also resolved:

That each member of the profession in this Division who has not already done so be asked to guarantee not less than £5 towards the Defence Fund, and that £1 of that guarantee be paid now.

The financial statement was as follows:

	£	s.	d.
Expenses to end of 1911	11	12	6
Expenses incurred from January 1st, 1912, to date of meeting	13	15	11
Total for year 1911-12 ...	30	8	5

The report and financial statement were adopted and the Secretary was directed to embody it in the minutes of the meeting.

Election of Officers.—The next item on the agenda was the election of office-bearers for the ensuing year, and resulted as follows: *Chairman*, Dr. Rodger (Sanquhar); *Vice-Chairman*, Dr. Shaw (Wigtown); *Secretary and Treasurer*, Dr. Robson (Maxwelltown). At this point, on the motion of Dr. EASTERBROOK, the thanks of the Division were conveyed to Dr. Raeburn for the work he had done during the two years he had acted as their secretary.

Representative on Branch Council, Dr. Huskie (Moffat), Dr. Maxwell Ross (Dumfries), and Dr. Scott (Ruthwell); *Ordinary Members of Committee*, Dr. Sanders (Lochmabar), Dr. Livingstone (Dumfries), Dr. Easterbrook (Crichton Royal Institution), Sir Geo. Watt (Lockerbie); *Representative at Annual Meeting*, Dr. Robson (Maxwelltown). Several of the items coming next on the agenda were left over for consideration at next meeting.

Provisional Insurance Committees.—The consideration of the question whether members who had been approached by the Insurance Commissioners to become members of Provisional Insurance Committees should accept office was then taken up. Several members present intimated that they had received such invitations, and wished the instructions of the meeting regarding the course to be adopted. An animated discussion on the wisdom or unwisdom of acceptance followed, in which most of the members present took part. Dr. Livingstone then moved the following resolution, which was seconded by Dr. Scott:

> That under the exceptional circumstances, members of the Scottish Division who have been approached by the Scottish National Insurance Commissioners to act on Provisional Insurance Committees be allowed to accept and retain office till such time as the Division considers that they should resign.

Dr. Thompson then drew attention to the seriousness and inadvisability of deciding this question without due notice having been given to the members, and moved:

> That the discussion be now adjourned until the Executive Committee see fit to call another meeting for further consideration of the question.

Dr. Bell seconded. On a division, 7 voted for Dr. Livingstone's motion, and 7 voted for Dr. Thompson's amendment. The Chairman gave his casting vote for Dr. Thompson's amendment. The amendment was carried, and the meeting adjourned.

EDINBURGH BRANCH:

South-Eastern Counties Division.

The annual meeting of this Division was held at Newton St. Boswells on June 11th. Thirteen members were present.

Annual Report and Financial Statement.—The Secretary presented the annual report and financial statement, which was adopted.

Election of Officers.—The following were elected office-bearers: *Chairman*, Dr. J. S. Muir (Selkirk); *Chairman-elect*, Dr. William Blair (Jedburgh); *Representative on Branch Council*, Dr. J. Carlyle Johnstone (Melrose); *Executive Committee*, Drs. Luke, Cullen, S. G. Davidson, Somerville, Campbell, McRobert; *Representative*, Dr. J. S. Muir; *Deputy Representative*, Dr. Luke; *Honorary Secretary and Treasurer*, Dr. M. J. Oliver.

Vote of Thanks to Retiring Officers.—Votes of thanks to retiring officers for services rendered were passed.

Pledges.—Forms for the pledge, guarantee fund, and resignation of clubs were laid on the table and signed by all present. The Secretary was instructed to post forms to those not present.

Guarantee Fund.—Additional guarantees and subscriptions were received by the Secretary.

Rules and By-laws.—A subcommittee, consisting of Drs. Georgeson, Tyrrell, and Luke, was appointed to consider the rules and standing orders of the Division, and to suggest necessary amendments with a view to their being printed and copies supplied to members.

Inspection of School Children.—A letter from Dr. S. Davidson (Kelso) as to eye cases being sent to the Royal Infirmary, Edinburgh, for treatment, was read and discussed.

Circulars, Reports, and Instructions to Representative.—The Secretary communicated the chief contents of a number of circulars and reports, and the Chairman raised the question of a Public Medical Service, and a discussion ensued on the draft schemes published in the Journal. Instructions were given to the Representative as to area, mileage, etc.

GLASGOW AND WEST OF SCOTLAND BRANCH:

Dumbartonshire and Argyllshire Division.

The annual business meeting of this Division was held on June 7th, at 3.30 p.m., in Buchan's Restaurant, Clydebank. The Vice-Chairman (Dr. J. Wilson) presided, in the unavoidable absence of the Chairman (Dr. Hunter). Fifteen members were present, and Argyllshire was represented for the first time, as two members attended from that county. Those present were: Drs. James Wilson, R. Allan, W. Little, and A. D. McLachlan (Dumbarton), J. R. F. Cullen, J. H. Cook (Alexandria), J. S. Robertson, T. M. Strang, E. H. Cramb (Clydebank), A. W. Sutherland (Cardross), Colonel J. Ritchie, W. S. Young, W. R. Sewell (Helensburgh), A. Macintyre (Innellan), J. Banks (Dunoon). Apologies were intimated from Drs. Hunter (Helensburgh) and Grant (Ballachulish).

Confirmation of Minutes.—The minutes of the last meeting were read, confirmed, and signed by the Chairman.

Secretary and Treasurer's Report.—Dr. Young reported on the work done during the past year, and stated that the membership was now the highest on record—namely, 63; five general meetings and one meeting of Executive Committee had been held. The expenditure during the year amounted to £6 1s. 4d., being 6s. 4d. in excess of grants from the Branch. The Insurance Act caused extra expenditure for printing and postages.

Election of Officers.—The following were unanimously elected officers for the ensuing year: *Chairman*, Dr. James Wilson, Ashville, Dumbarton; *Vice-Chairman*, Dr. W. Little, 21, High Street, Dumbarton; *Honorary Secretary*, Dr. A. W. Sutherland, Cardross; *Representative at Representative Meetings*, Dr. E. H. Cramb, Radnor Park; *Representatives on Branch Council*, Drs. A. W. Sutherland and A. D. Maclachlan; *Executive*, the foregoing with Drs. J. R. F. Cullen and T. M. Strang.

Provisional Medical Insurance Committees.—After discussion the Secretary was instructed to report the formation of committees in Clydebank and Dumbarton burghs. Dr. Young, as a member of the Scottish Medical Insurance Council, agreed to call a meeting of the Dumbartonshire practitioners, and explained his reasons for delaying action hitherto. He also reported that Dr. Currie (Oban) had undertaken this work for Argyllshire, he being also a member of the Scottish Medical Insurance Council. Communications had been received by several members from the Insurance Commissioners asking them to act on provisional advisory committees under the Act. It was unanimously decided that no position of this kind should be accepted until the approval of the British Medical Association had been obtained.

Division Area. — Geographical conditions made it practically impossible for Argyllshire members to attend Division meetings, and Dr. Young read a letter from the Secretary of the Association intimating that if the Branch Council consented to the separation of the two counties into separate Division areas, and the Argyllshire members guaranteed the formation of a successful Division, then the matter could be carried through. The Branch Council consented on May 8th. After discussion, Dr. Banks (Dunoon) and Dr. Macintyre (Innellan) were appointed as a committee, with powers to add to their number, to ascertain the opinion of the Argyllshire members and report.

Instructions to Representative.—The Representative to the Representative Meeting was instructed as to the views of the members.

Votes of Thanks.—Votes of thanks were passed to Dr. Hunter for his services as Chairman, and to Dr. Young, who had been Secretary for four years.

Vote of Sympathy with Dr. Young.—A vote of sympathy was passed with Dr. Young in his recent bereavement.

Congratulations to Dr. Gilmour. — Dr. Gilmour was congratulated on the occasion of his marriage.

Lanarkshire Division.

The annual meeting of the Lanarkshire Division was held in St. Enoch's Hotel, Glasgow, on Tuesday, June 11th, at 3.30 p.m. Dr. Bruce Goff, Chairman of the Division, presided, and there were present: Drs. Bruce Goff,

W. Duff, J. A. Watt, R. Paterson, W. R. Willis, John T. Wilson, J. Murray Young, A. Brownlie, C. J. B. Buchheim, W. G. Macpherson, A. J. Livingstone Loudon, C. Barron, John McMillan, A. C. Morrison, Thos. McNay, G. M. Crawford, T. D. Laird, Jas. Kirkland, Robert Robertson, John Goff, J. Fotheringham, Jas. Rennie, G. McFeat.

Apologies for Non-attendance.—Apologies for absence were intimated from Drs. Macphail, W. Grant, T. P. Grant, and H. Miller.

Confirmation of Minutes.—The minutes of the last meeting having been read, were approved and signed by the Chairman.

Annual Report.—The SECRETARY submitted his annual report, showing that the membership, which was 76 at December, 1910, was now at the date of meeting 106. The funds showed a debit balance of £9 0s. 9d. at December 31st, 1911. Five meetings of the Division were held during the year, the average attendance being 20.

Election of Officers.—The Chairman having vacated the chair, the following election of office-bearers took place: *Chairman*, Dr. Bruce Goff (Bothwell); *Vice-Chairman*, Dr. Robert Robertson (Motherwell); *Representative at Representative Meetings*, Dr. Bruce Goff (Bothwell); *Representatives on Branch Council*, Dr. John Goff (Bothwell) and Dr. Livingstone Loudon (Hamilton); *Executive Committee*, Dr. J. T. Wilson (County Buildings, Hamilton), Dr. Macphail (Coatbridge), Dr. McNay (Larkhall), Dr. Paterson (Law, Carluke), Dr. J. C. Mackenzie-Douglas, together with the Chairman, Vice-Chairman, Representatives on Branch Council, and Secretary, *ex officio*; *Secretary and Treasurer*, Dr. Livingstone Loudon (Linnwood, Hamilton).

Instructions to Representative.—Thereafter the Division briefly discussed the various matters of interest referred to Divisions, and the Representative was instructed in terms of the findings arrived at. Naturally the most important matters discussed were those bearing on the State Insurance Act.

Vote of Thanks to Chairman.—A vote of thanks to the Chairman for presiding concluded the meeting.

LANCASHIRE AND CHESHIRE BRANCH:

ALTRINCHAM DIVISION.

Special Meeting.

A SPECIAL meeting of this Division was held at the Lion Railway Hotel, Northwich, on Wednesday, May 22nd, at 4.45 p.m. Dr. GOUGH was in the chair, and there were present: Drs. Browne, P. R. Cooper, Hislop, Hines, Savatard, Luckman, Lyon, Cross, Terry, Hassell, Woodyatt, Okell, H. G. Cooper, Ransome, Doonan, Mainwaring-White, G. H. Smith, Haward, and Leak.

Proposed Alteration of Rules.—Dr. P. R. COOPER moved that the rules of the Division should be altered so as to admit of the submission of certain questions to a postal vote of the whole Division—for example, in cases where a meeting had to decide some important step of policy, etc., but felt it was not sufficiently representative of the opinions of the members of the Division. Dr. GOUGH seconded, and suggested that new rules should be formulated by the Executive Committee and brought forward at the annual meeting. The meeting agreed *nemine contradicente*.

Ordinary Meeting.

The CHAIRMAN then declared the special meeting over, and the ordinary meeting of the Division commenced.

Confirmation of Minutes.—The minutes of the previous meeting and of the last two committee meetings were taken as read.

Apologies for Non-attendance.—Apologies for absence were received from Drs. Garstang, A. Renshaw, C. Renshaw, Lees, Boycott, Barker, J. W. Smith, Withers, Papple, Crawford, Turner, Williamson, Black, Fennell, Hughes, Munro, Owen-Jones, and Surridge.

Formation of Provisional Committees.—The CHAIRMAN moved:

1. That the Division form a Provisional Medical Committee.

This was seconded by the HONORARY SECRETARY and carried *nemine contradicente*.

2. That this Committee consist of the General Executive Committee of the Division, with additional members from the various districts in proportion to their numbers; thus, Sale to have 4 members, Altrincham 8, Northwich 4, Knutsford 2.

This was seconded by Dr. CROSS and carried *nemine contradicente*. Dr. TERRY moved:

3. That the Division be divided into four areas—Altrincham, Sale, Northwich, Knutsford—each having its own local subcommittee, and that every medical man in the area be a member of the subcommittee. Each subcommittee to elect the additional members on the (Divisional) Provisional Committee. In case of illness or inability of members of the Divisional Committee to attend substitutes to be elected.

This was seconded by Dr. CROSS and carried *nemine contradicente*. Dr. G. H. Smith was proposed by Dr. GOUGH and seconded by Dr. CROSS as Honorary Secretary of the Knutsford Subcommittee. Dr. Terry was proposed by Dr. GOUGH and seconded by Dr. MAINWARING-WHITE as Honorary Secretary of the Northwich Subcommittee. Dr. Adolphe Renshaw was proposed by Dr. LUCKMAN and seconded by Dr. H. G. COOPER as Honorary Secretary of the Sale Subcommittee. Dr. H. G. Cooper was proposed by Dr. GOUGH and seconded by Dr. LUCKMAN as Honorary Secretary of the Altrincham Subcommittee. These nominations were all agreed to *nemine contradicente*, and the local Secretaries were instructed to call their committees together at an early date.

Nomination for Central Council Election.—On the motion of Dr. H. G. COOPER, seconded by Dr. G. H. SMITH, Dr. T. W. H. Garstang was unanimously nominated by the Division.

Remuneration under Insurance Act.—Dr. P. R. COOPER proposed the following resolution:

> Whilst agreeing not to accept any contract work at less than 8s. 6d. per head per annum (not including medicines and extras), we reserve to ourselves the right to charge for medical attendance upon insured persons (under the National Insurance Act) upon the per attendance basis, should we so elect, such charges not to be at a less average rate per attendance than would be yielded by a general 8s. 6d. capitation fee in our insurance area.

The mover pointed out that there seemed to be considerable danger that the profession would be coerced wholesale into contract practice under the Insurance Act, and that those medical men who refused to sell their independence for a capitation pittance (although quite willing and even anxious to go on attending their working-class patients as heretofore—that is, as private patients—and taking the risk of being paid or not) stood to lose the bulk of these patients, which in many cases meant being deprived of the backbone of their practices. This resolution, if adopted, although it still left doctors who refused contract terms at a disadvantage as compared with contract doctors in obtaining patients, preserved the independence of the private practitioner and retained to him at least his most faithful and attached patients. It was only by such a safeguard that any real free choice of doctor could be secured, and that the best relations between doctor and patient could be fostered. Dr. SMITH seconded. Dr. HAWARD opposed. The resolution was carried with one dissentient.

Supplementary Pledge.—The question of the supplementary pledge was referred to the Provisional Committee.

METROPOLITAN COUNTIES BRANCH:

CHELSEA DIVISION.

THE annual meeting of the Division was held at the Fulham Town Hall on June 11th. Dr. YOUNG was in the chair, and there were present: Drs. H. Butler, W. Keen, Campbell-Boyd, G. P. White, T. Tonkin, J. C. Jackson, T. M. Ross, J. Orr, W. Bonney, A. Frere, W. L. Lee, James Hamilton, D. Whiteley, E. W. Lewis, A. G. Wells, W. Halley, G. Coltart, J. Dewar, D. A. Simon, J. Fletcher, A. F. Millar, P. Spaull, and J. R. Gallard.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Correspondence.—Letters were read (1) from MRS. Morton, thanking the Division for its expression of sympathy on the death of Dr. Morton; (2) from the Harrow Division, urging the claims of Dr. A. H. Williams to a seat on the Central Council; (3) from the Manchester (South) Division, *re* Motion No. 36 on the Agenda for the Representative Meeting.

Fulham Guardians and Midwifery Fees.

A letter from the Fulham Board of Guardians was read, referring to the question of midwifery fees, and a resolution thereon passed by this Division at its meeting on May 7th last. A copy of the report of the Joint Relief Committee was enclosed, together with a statement of the number of fees paid and refused, from 1907 to Lady Day, 1912. The report concluded with a recommendation that the Chelsea Division of the British Medical Association be informed that the guardians regretted that a resolution in such terms should have been passed by the medical practitioners at the meeting, but that the guardians as a public authority could not, if they saw fit to continue the payment of such fees, undertake to modify the very reasonable conditions embodied in the above letter (referring to a letter which was sent to each medical practitioner in Fulham in the year 1907). This recommendation was adopted by the board.

Dr. BUTLER called the attention of the meeting to the fact that the number of cases in which fees had been refused had increased from six in the year ending Lady Day, 1911, to ten in the year ending Lady Day, 1912. There were no fresh reasons given in this report which should, in his opinion, induce them to alter their resolution.

Dr. JACKSON said, although he was of opinion the guardians ought to pay the fees in these cases, he deprecated hasty action on their part. It would be deplorable if a fatality occurred, as it would sooner or later, through medical men refusing to attend some severe case of haemorrhage. They might be censured, and not the guardians, as the public was not careful to discriminate. He felt that if a scale of fees were drawn up, so that the guardians did not have to pay as much for a visit paid to a weakly infant as they did for obstetric operations, there would be fewer refusals than heretofore. He had recently had a conversation with the clerk of the guardians on the subject, and he felt that the board was at a disadvantage in not having expert advice (from the medical point of view). He had long ago expressed the opinion that under the Public Health Act the borough and county councils were liable to pay the fees in these cases. When he had stated this to Dr. Hamer, the Medical Officer to the London County Council, that gentleman replied that although the Fulham Borough Council might be willing to do so, he doubted if many public health authorities would acquiesce.

The CHAIRMAN drew attention to the large increase in the number of cases attended, and attributed it to the increasing poverty in the borough. In his opinion, any scale of fees was inadvisable. He thought the fees in all these cases ought to be guaranteed, and suggested that a further letter should be sent to the guardians explaining their position.

Dr. PERCIVAL WHITE moved, and the HONORARY SECRETARY seconded, the following resolution:

> That the Fulham Board of Guardians be requested to receive a deputation to discuss this matter.

This was carried *nemine contradicente*.

The following gentlemen were appointed members of the deputation: The Chairman and Drs. Bonney and Butler.

Provisional Medical Committee.

A report of the Chelsea Provisional Medical Committee on the steps that had been taken to organize the local profession (*re* National Insurance Act), and on the results of its canvass, was presented. This committee was elected at a meeting held on April 2nd last, to which all the medical men in Chelsea and Fulham were invited, and was constituted as follows (the number of the committee being fixed as twenty-one):

To Represent Chelsea: Drs. W. Keen, J. Hamilton, E. Hudson, J. J. Orr, J. Dewar, T. M. Ross, A. Benham, W. T. Lee, W. Bonney, Campbell Boyd.
To Represent Fulham: Drs. J. Fletcher, P. Spaull, G. Coltart, H. Butler, E. W. Lewis, A. F. Millar, E. P. Satchell, J. C. Jackson, M. J. Williams, and *ex officio* the Chairman and Honorary Secretary of the Division.

The Committee had held five meetings. At its first meeting it adopted certain rules of procedure, etc., appointed officers, and decided to call upon all medical men in the area to subscribe to the expenses of the Committee. It also appointed a subcommittee, with instructions to circularize the local profession, especially with the object of inducing every member thereof to sign the supplementary pledge and resignation of contract practice appointments; also to prepare lists for canvassing purposes. The subcommittee had held five meetings—tabulated the returns each time—and amended the canvassing lists accordingly. The Committee also passed two important resolutions:

1. That it should have power to co-opt members.

Dr. A. G. Wells had accordingly been co-opted.

2. That no person be eligible to act as a member of the Chelsea Provisional Medical Committee who has not signed and handed in his or her supplementary pledge, and also his or her resignations of any club appointments which he or she may hold, as advised by the Council of the British Medical Association, and that the names of any of the present existing members of the Committee who have not on or before our next meeting of the 29th inst. so signed and handed in the supplementary pledge and resignation be forthwith removed from the list of members, and such person forfeit his or her membership.

RESULTS OF CANVASS TO DATE.

Chelsea.

Number of medical men in actual practice	100
Holding hospital and other institutional appointments	34
Members of British Medical Association	68
Number signed the pledge	68
Number holding contract appointments	14(?)
Number of those who have sent in resignation of all contract appointments	14

Fulham.

Number of medical men in actual practice	76
Holding hospital and other institutional appointments	8
Members of the British Medical Association	51
Number signed the pledge	72
Number holding contract appointments	28
Number of those who have sent in resignation of all contract appointments	24
Promised to do so	3

It was moved, seconded, and carried *nemine contradicente*, that the report be received and adopted.

Election of Officers.—The election of officers was then proceeded with. The results were as follows:—*Chairman:* Dr. BONNEY moved, and Dr. PERCIVAL WHITE seconded, the re-election of Dr. James Young. This was carried unanimously. *Vice-Chairman:* Dr. LEE moved, and Dr. COLTART seconded, the re-election of Dr. Fletcher. This was also carried unanimously. *Honorary Secretaries:* Dr. P. W. Spaull and Dr. J. R. Gallard were re-elected. *Representatives on Branch Council:* Drs. Young, Fletcher, and Gallard. *Executive Committee:* The following were appointed: Drs. Bonney, Campbell Boyd, Butler, Coltart, Fletcher, J. Hamilton, Jackson, Lee, E. W. Lewis, Millar, Orr, Simm, A. G. Wells, and White.

Instructions to Representative.—The instructions to be given to the Representative at the Annual Representative Meeting were then considered. On the report of Council it was decided to support the motion arising out of Paragraph 35; to support the recommendations to Paragraphs 37, 42, 44, 54, and 61. *Re* Paragraph 66, Dr. HAMILTON moved:

> That whilst thanking the Journal Committee for declining or discontinuing so many advertisements, this Division is of opinion it has not gone far enough, as it considers all advertisements appearing in the lay press as specific cures for diseases ought to be excluded from the BRITISH MEDICAL JOURNAL.

This was seconded, and carried *nemine contradicente*. *Re* Paragraph 75, it was decided to support Recommendation A and to oppose B; Paragraph 76, to support recommendation, and also those to Paragraph 77. Recommendation to Paragraph 86 to be opposed; that to Paragraph 94 to be supported. On Recommendation V, arising out of Paragraph 99, the Representative was instructed to move that the fee be not less than 21s. The recommendations arising out of Paragraphs 106 and 107 were approved of.

Medical Federation, Limited.—Dr. W. L. LEE moved:

> That at the Annual Representative Meeting our Representative be directed to move:
>
> That the Council of the British Medical Association be instructed to reopen negotiations with the Medical Federation, Limited, with a view to devising means of adapting the powers contained in the memorandum of that company to the urgent needs of the profession.

He said their hitherto methods of professional gentility—looking down with scorn on the effective and convincing methods of federation—had received a crushing blow from the Chancellor of the Exchequer. If they were a federation, and had federation powers, he would not have dared to threaten the charter of their colleges as he had done, nor would the friendly societies renew that threat as Mr. Warren had done of behalf of the Oddfellows. Had they the power of the Medical Federation, they would compel the consultants to fight in the ranks with the general practitioners. Nor would they have had occasion to go round to each one asking them to sign pledges and hand in resignations. They could then dispense with their precious six cardinal points. As a federation they could have told Mr. Lloyd George and his Insurance Commissioners that the State and not the medical profession must bear the insurance risk. They would work under the Act only on the condition that the insured were, as hitherto, their private patients, and the State must pay their bills. The Government was merely temporizing with them. The Chancellor looked upon the six-point policy as a maximum, not a minimum, demand, and used it for bargaining purposes. He knew that if he distinctly refused to grant their demands, and they refused service, he would risk the wrecking of his Act. He therefore laid a trap for the doctors, and the State Sickness Insurance Committee seemed to him (Dr. Lee) to have fallen into it. Instead of pointing out to the Chancellor that he and the Commissioners had had their minimum demands before them since last February, and that now they insisted upon a clear, definite, and binding answer of "Yes" or "No," the State Sickness Insurance Committee had promised to give the Chancellor reasons for their demand of the princely capitation fee of 2d. a week! The Medical Federation originated in the Bristol Division of the British Medical Association, and all the initial work was done with the full knowledge of the Council. A skeleton scheme was submitted to the Council on November 1st, 1911, and referred to the Organization Committee for report. On January 17th, 1912, the Chairman of the Organization Committee informed the secretary of the Federation that the report must be on the completed scheme—that is, on the complete memorandum and articles of association, and also that the Council of the British Medical Association would welcome the registration of the Federation. Accordingly, the company was registered on January 27th, 1912. These facts showed that the Council of the British Medical Association bore a large share of the responsibility for the formation of the company. Why, then, their present attitude of acute hostility? Was it that they had leanings towards the Chancellor of the Exchequer and his Insurance Act, or was it jealousy and annoyance with the Federation for having pointed out to the profession that the British Medical Association was legally unable to administer a voluntary fund? This statement, made on no less authority than that of Sir Francis Palmer and borne out by his considered opinion, had been justified by the action since taken by the Council of the British Medical Association, for it had now been made clear that the fund would be administered by the Council as trustees—a very different thing from being administered by the Association. The Council as trustees could administer this voluntary fund, but they could not touch nor utilize, to aid a strike, the accumulated funds of the Association itself. At a conference between the State Sickness Insurance Committee and representatives of the Federation a compromise, suggested by Dr. Lauriston Shaw and accepted by the Federation, was rejected by the spokesmen of the Council, and from that moment it was clear that these same men were resolved to crush the Federation, if it were possible, and that the suggestions for co-operation would not get an impartial hearing. The Council got a statement from Mr. Dill, which Dr. Lee described as a piece of special pleading against the Federation, and made that an excuse for not only condemning the scheme of federation, but also shutting the door against the Federation in the future. With regard to the amalgamation of the British Medical Association and the Federation, Mr. Dill's opinion might be correct, but amalgamation was not the only way of attaining the object of union. Union could be obtained by the capture of the Federation by the Association. In this manner the Federation could be run by the Executive of the Association, who would then have control of powers they had for years been fruitlessly trying to acquire. It might be said that the new company the Council had tried to establish was still possible. But was it possible that the Council of the British Medical Association could think that the Board of Trade would at the present juncture put in the hands of the Association a big, thick stick wherewith to beat the backs of the Chancellor and the Insurance Commissioners, by granting them registration for a new company? Such a thing was unlikely and unnecessary, for the Council of the Association had already that big, thick stick lying at their feet, and if they would only put aside petty jealousies they would pick it up and use it. Mr. Dill took up the position that the scheme of co-operation was futile, because members of the British Medical Association would not join the Federation in sufficient numbers to capture it, and that they would not join because of certain disadvantages which he described. These supposed disadvantages would disappear with the capture of the Federation, since they were a part of the Articles of the Association, and could be altered at any time. The one answer to his main argument was that the Federation would guarantee its own capture by the Association. As they were now fighting for their existence as a profession, it behoved the governing body of the Association to take advantage of every means it could to strengthen their position, and by uniting forces with, or absorbing, the Federation they would have in their hands an effective weapon wherewith to fight, not only the Chancellor of the Exchequer and the Insurance Commissioners, but also every undercutting and monopolizing body, such as the London County Council and Poor Law guardians. He asked them, therefore, to pass this resolution unanimously, for this would doubtless cause the Council to treat with the Medical Federation in a friendly spirit. In view of representations from various quarters that an active campaign on the part of the Federation would damage the Defence Fund of the Association, the Federation had decided to wait a while and give the fund a fair chance. The men in Bristol were working as hard as in any other place for that fund, and to get the pledges and resignations in. Pledges had to be in by the 30th, and the Defence Fund was still ridiculously small. They were working loyally for the policy of the Council, but the Federation was greatly handicapped by the fact that the JOURNAL of the Association was closed to them. They dared not wait much longer, for what remained if the pledges and fund failed? They would then have to take the terms offered by the Commissioners, unless they accepted the offer of the Federation that the Association should capture it and combine powers. He asked them to pass this resolution, and so impress on the Council that they demanded of them to reopen negotiations with the Federation, and by united co-operation avoid every risk of defeat and ensure complete victory.

This was seconded by Dr. ORR and supported by Dr. BUTLER.

Dr. GALLARD remarked that as to whether it was feasible or not to carry out the proposal outlined in Dr. Lee's speech he must leave to the lawyers. His main objection to it was that it might seriously militate against the success of the Association's Defence Fund.

Dr. FLETCHER doubted if it were an opportune moment to press this proposal.

The resolution was carried.

HAMPSTEAD DIVISION.

THE annual meeting of this Division was held on Thursday, June 13th, at the Central Library. Dr. ADAM OAKLEY was in the chair.

Confirmation of Minutes.—The minutes as printed in the JOURNAL were confirmed.

Apology for Non-attendance.—A letter of regret for inability to attend was read from Dr. Picard.

Treatment of School Children.—A letter from the Harrow Division on treatment of school children found on inspection to be defective, enclosing a memorandum on the subject, was read. It was decided that the correspondence be sent to the Honorary Secretary of the Hampstead Public Medical Service, and also that the Honorary Secretary reply that the Hampstead Division

is in accord with the expressions in the letter of the Honorary Secretary, School Children Subcommittee.

Central Council Election.—A letter from the Watford and Harrow Division *re* Dr. A. H. Williams as a candidate for the Central Council was read.

Representation of Division on Branch.—Correspondence was read between the Assistant Honorary Secretary and the Honorary Secretary of the Metropolitan Counties Branch with reference to the representation of the Division on the Branch, in view of the alteration of Rules 11 and 12 of the Branch and the combination of the offices of the two *ex officio* representatives in one individual. It was decided, in order to avoid any difficulty arising in the future, to appoint an honorary co-secretary *pro forma* who would be the second *ex officio* representative, the Honorary Secretary, as the Representative to Representative Meetings, being the first.

Correspondence between the Secretary of the Organization Committee and the Honorary Secretary of the Division was read, wherein it was shown that the Chairman of the Council had decided to recommend the Council to allow the Willesden and Finchley Divisions to elect their own Representatives, the Hampstead Division being now only entitled to one Representative. The Division accepted the arrangement, Mr. Dorrell remaining as the Representative for Hampstead. Dr. Macevoy's generous offer to stand aside in favour of a deputy elected by the Finchley Division was therefore not considered.

Rules in Division.—In order to meet the change of boundary and also bring the rules of the Division into conformity with the regulations of the Association, Mr. DORRELL moved and Dr. OPPENHEIMER seconded the following five resolutions, which were carried unanimously:

1. That Rule 1 be amended to read as follows:
   The area of the Hampstead Division shall be such portion of the county of London as is included within the boundary indicated in the official map for the time being, which boundary is the boundary of the borough of Hampstead.
2. That the wording of the rules of the Division be amended to conform to the wording of the model rules for a Division not itself a Branch, issued by the Organization Committee and dated November, 1911, provided that such alteration shall not in any way alter or disturb the meaning or intention of the existing rules.
3. That the rule passed by the Division June 22nd, 1909, be numbered 9A.
4. That Rule 13 be amended by the addition of the words: "And a notice of such addition, alteration, or repeal shall be sent by the Honorary Secretary to each member of the Division at least fourteen clear days before the meeting."
5. That the rules be printed and sent to each member of the Division, and to any member of the Association becoming a member of the Hampstead Division.

Election of Officers and Executive Committee.—The following were elected for the year 1912–13: *Chairman*, Mr. E. E. Ware; *Vice-Chairman*, Dr. A. W. K. Picard; *Honorary Secretary and Treasurer*, Mr. E. Arthur Dorrell; *Honorary co-Secretary*, Dr. H. A. Sansom; *Representative on Branch Council*, Mr. Adam Oakley. For the election of eleven members of committee a ballot was taken, and the following were elected: Dr. J. Ford Anderson, Dr. H. Oppenheimer, Dr. E. L. Pritchard, Dr. L. G. Glover, Mr. C. W. Allen, Dr. G. P. Coldstream, Mr. W. E. Hills, Dr. Evelyn Milestone, Dr. E. Claude Taylor, Dr. E. Alice Brown, Mr. R. H. Haward.

Votes of Thanks to Retiring Officers.—Dr. OPPENHEIMER moved and Dr. SANSOM seconded a hearty vote of thanks to the retiring Chairman, Mr. Adam Oakley. This was carried with acclamation, with the request that it be recorded in the minutes. Dr. OPPENHEIMER moved and Mr. OAKLEY seconded a hearty vote of thanks to Dr. Mina L. Dobbie for her services as Honorary Secretary, especially in view of the immense amount of additional work that had been done in the past two years. This was carried by acclamation, with the request that it be recorded in the minutes.

Annual Report of Council.—Paragraph 61. It was decided to leave the Chairman and Honorary Secretary to call such meeting of the Division as they shall consider necessary.

Paragraph 76. Approved.

Paragraph 77. It was decided to discuss this in conjunction with the Provisional Agenda of the Annual Representative Meeting.

Paragraph 78. Approved.

Paragraph 93. Approved.

Instructions to Representative.—With regard to the Provisional Agenda of the Annual Representative Meeting, the instructions to the Representative were as follows:

To support Motions 32, 37, 46, 47, 48.

To oppose Motion 36.

To amend Motion 50 by the addition of the words "of two-thirds" after the word "majority," and to support the motion.

With regard to Motions 25, 26, 27, 28, Dr. OPPENHEIMER moved, Dr. PRITCHARD seconded, and it was carried:

That the Hampstead Division recommends the adoption of the ethical rules so far as they relate to members of the Association, but repudiates all attempts of the Association to usurp jurisdiction in ethical matters over non-members.

Recommendation to Council.—The following resolution was moved by the CHAIRMAN and carried unanimously:

That it be a recommendation to the Council to suggest to the Journal Committee the expediency of placing a cross or square of bright red in the right-hand upper corner of the SUPPLEMENT when matters for reference to Divisions appear therein.

Public Medical Service.—The State Sickness Insurance Committee's schemes for a Public Medical Service were referred to the Hampstead Provisional Committee for consideration and comment thereon, to report to the Honorary Secretary of the Division not later than June 25th.

KENSINGTON DIVISION.

THE annual general meeting of this Division was held on June 14th at the Kensington Town Hall, Dr. CHAS. BUTTAR in the chair, and more than 120 members were present.

Election of Officers.—The following, having been nominated by the Executive Committee, were all elected to the various offices, as below: *Chairman*, E. B. Turner, F.R.C.S.; *Vice-Chairman*, Dr. T. Gunton Alderton; *Honorary Secretary*, Dr. W. E. Fry; *Representatives on Branch Council*, the two Honorary Secretaries, the Representatives at Representative Meetings, and Dr. C. Buttar, Dr. M. F. Squire, Dr. Cathcart Bruce, Dr. M. Milton Townsend, Mr. Herbert Tanner; in the event of Dr. C. Buttar not being elected to office in the Central Council, Dr. Townsend undertook to retire in his favour as a member of the Branch Council; *Executive Committee*, Drs. G. A. H. Barton, A. J. Carter, C. E. A. Huddart, H. T. N. Merrick, A. J. Rice-Oxley, E. F. Travers, and G. J. Crawford Thomson; as the Assistant Honorary Secretary (Dr. P. C. Raiment) and the Representatives for Representative Meetings were elected on May 1st, this completed the election of the Executive.

Vote of Thanks to Retiring Chairman.—A hearty vote of thanks was passed to Dr. C. Buttar for his three years' able chairmanship, and also to the two retiring Honorary Secretaries, Dr. Beckett-Overy and Mr. Herbert Tanner.

Annual Report.—The following annual report of the Executive Committee was received and adopted: "The Committee is glad to report a continued increase in the membership of the Division, and also in the attendance at meetings. Seven meetings have been held during the past year, and the attendance has averaged about one hundred. No scientific or clinical meetings have been held, because your Committee felt that, in the first place, members had ample opportunities of attending such meetings under other auspices, and, in the second, the grave menace of the Insurance Act necessitated the officers devoting their time to the organization of the Division. Dr. Beckett-Overy attended the annual meeting at Birmingham, Mr. Herbert Tanner the Special Representative Meeting in November, and Mr. E. B. Turner the Special Meeting in February. It still remains a fact, as pointed out last year, that there are a large number of members of the profession in the area outside the Association, and efforts are being made to induce them to join. The Committee hopes that every member of the Association—the only body capable of speaking for the profession—will attempt to obtain new members, for it is of supreme importance that the British Medical Association should have at its back the whole of the profession, and the financial and moral support which that would mean. The School Children Subcommittee has failed to come to an agreement with the London County Council for the provision of a school treatment centre in the Division. The Committee feels that the thanks of the Division are due to the members of the subcommittee,

especially to Dr. Carter and Dr. Travers for their efforts in this matter."

Insurance Act.—Mr. E. B. TURNER (a member of the State Sickness Insurance Committee) addressed the meeting on the subject of the Insurance Act, explaining the proceedings that had taken place in meetings with the Insurance Commissioners and the Chancellor of the Exchequer. A discussion ensued, and the following resolution was carried unanimously:

> That the Kensington Division is of opinion that the State Sickness Insurance Committee should inform the Commissioners that the British Medical Association is holding its Representative Meeting at Liverpool on July 19th next, and that the members of the State Insurance Committee will withdraw from the Advisory Committee unless the profession is definitely informed of the Government's decision on the seven cardinal points by July 1st next.

This concluded the business of the meeting.

NORWOOD DIVISION.

THE annual meeting of this Division was held on Thursday, May 30th, at the Queen's Hotel, Upper Norwood, Dr. G. B. BATTEN, Chairman of the Division, presided. There were thirty-seven members and one visitor present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Partition of the Norwood Division.—The HONORARY SECRETARY made a statement as to the impending dissolution of the Norwood Division. Owing to the necessity of making the boundaries of Divisions coincide as nearly as possible with those of the administrative areas of the Insurance Committees, it has been considered necessary in the first place to cut off that portion of the Norwood Division which lies outside the County of London. Hence those members who live in the Croydon Borough, the Penge and Anerley districts, or in Beckenham are transferred from the Metropolitan Counties Branch to the South-Eastern Branch. This change took place on May 4th. In the second place it was found that the portion of the Division left within the County of London would overlap four insurance areas—namely, Wandsworth, Lambeth, Camberwell, and Lewisham—and it has been recommended to the Central Organization Committee that the members residing within those areas shall be allocated to their corresponding Divisions. The Norwood Division will thus cease to exist.

Election of Representative at Annual Representative Meeting.—As the final distribution of the members of the Division will not take place immediately, and, moreover, as the constitution of a Division is officially fixed for the current year by the list published by the Association on April 30th, it was considered necessary to appoint a Representative. Therefore, on the motion of Dr. HOWARD, seconded by Dr. BURGESS, it was resolved:

> That Dr. F. G. Swayne be asked to again act as Representative.

Dr. SWAYNE having accepted, he was elected with acclamation.

Paper.—Mr. GEORGE C. CATHCART read a short paper on "The Application of Bier's Bandage in Diseases of the Ear and Throat." The paper, which was illustrated by a practical demonstration upon the Chairman and Representative of the Division at Annual Representative Meeting was greatly appreciated, and was followed by an animated discussion, in which nearly all the members present took part.

Votes of Thanks.—Votes of thanks were accorded to the Chairman and to Mr. G. C. Cathcart.

Annual Dinner.—Thirty-six members and one visitor dined together after the meeting at the Queen's Hotel. The speeches were of the affecting nature customary to funeral and valedictory occasions.

SOUTH-WEST ESSEX DIVISION.

Local Provisional Medical Committee.

THE first meeting of the Local Provisional Medical Committee was held at the Walthamstow Hospital on Tuesday, June 11th, at 4 p.m. Sixteen members were present. Dr. C. H. PANTING presided. The names of the elected members were read, and the CHAIRMAN announced that a vacancy occurred in the Leyton ward on account of his having an *ex officio* seat as Chairman of the Division, and he proposed Dr. W. W. Rorke for this vacancy. This was seconded by Dr. BONNEFIN, and unanimously agreed to. Apologies for non-attendance were received from Drs. F. Argles, C. F. Harford, J. D. Cruickshank, and C. J. Horner. The question whether a medical practitioner might accept a seat upon a Provisional Insurance Committee in another capacity than a medical representative was considered. After discussion it was proposed by Dr. W. G. NOBLE, and seconded by Dr. A. BERRILL:

> That no medical practitioner shall take any office or work under the National Insurance Act, being precluded by the terms of Minute 78 of the Representative Meeting, February, 1912.

An amendment,

> That the question be referred to the State Sickness Insurance Committee for guidance,

was proposed by Dr. A. P. ELDRED, and seconded by Dr. CHALLIS. The amendment was lost, and the resolution carried. It was proposed by Dr. A. P. ELDRED, and seconded by Dr. BUTLER HARRIS:

> That a copy of this resolution be sent to every practitioner in the area of the Division and to each secretary of Divisions in the county.

This was carried unanimously. A letter—the report of the Deptford Provisional Medical Committee—was read.

Regulations of Committee.—The seven suggestions of the Branch Council were adopted, and No. 5 was completed by fixing "three week days" as the time within which a meeting must be called after receipt of a requisition signed by "ten" medical practitioners of that area. It was resolved, upon the motion of Dr. C. H. WISE, seconded by Dr. ALDRICH:

> That nine members shall form a quorum of the Committee.

It was decided that the General Committee meet once a month, on Tuesdays at 4 p.m., in the Wesleyan Church Schoolroom, High Road, Leyton. It was decided that the Committee should form itself into three subcommittees corresponding to the wards and insurance areas, each with its own chairman and secretary. The following were appointed honorary secretaries: County Ward, Dr. Hardenberg; Leyton Ward, Dr. C. H. Panting; Walthamstow Ward, Dr. Rowland Jones. It was agreed that the subcommittees should meet as often as thought desirable, that a personal canvass should be made by members of the Committee, and the supplementary undertakings and resignation forms in each ward collected by the secretaries of the subcommittees.

New Members of Friendly Societies.—The following resolution was proposed by the CHAIRMAN, seconded, and carried unanimously:

> Practitioners are advised that new members of existing friendly societies who do not pass a medical examination, and all members of newly formed lodges, etc., or societies who join as compulsory insurers when the National Insurance Act comes into operation, must be attended during the six months before the medical benefits come into force only upon some system of payment for work done such as the National Deposit Friendly Society's scale of fees or some similar scale approved by the Local Provisional Medical Committee, and which secures absolute freedom of choice of doctor.

The meeting then ended.

STRATFORD DIVISION.

THE annual meeting of this Division was held in the Council Chamber, Town Hall, Stratford, E., on Thursday, May 30th, Dr. SANDERS in the chair. Over fifty members attended.

Election of Officers.—The following members were elected as office-bearers for the ensuing year: *Chairman*, Dr. C. Sanders; *Vice-Chairman*, Dr. F. Dayus; *Honorary Secretary*, Dr. P. J. S. Nicoll; *Representatives at Annual Representative Meeting*, Drs. F. Challans and W. H. F. Oxley; *Representatives on Branch Council*, A. J. Couzens, F.R.C.S., and Dr. E. Hay; *Executive Committee*, Drs. Beadles, Black, Collins, E. Grogono, Hume, Randall, Rose, J. R. Steen, Taylor, and Toland.

Provisional Local Medical Committee.—The resolution of the Executive *re* the formation of a Provisional Local Medical Committee was carried. At a mass meeting immediately following, comprising 120 of the medical men in the area, the election of the Provisional Committee was carried *nemine contradicente*.

Address by Dr. Cox.—Dr. Cox subsequently gave a very lucid address on the situation, which was well received.

NORTH OF ENGLAND BRANCH:

DARLINGTON DIVISION.

A MEETING of this Division was held at Darlington on June 4th, when the following business was transacted.

Election of Representative.—Dr. D. V. Haig was unanimously appointed Representative for 1912–13.

Provisional Medical Committee.—The following were elected: Dr. J. Lwrence (Darlington), Dr. H. C. Pearson (Darlington), Dr. D. Craigie Gray (Darlington), Dr. A. Paget Steavenson (Hurworth-on-Tees), Dr. W. Baigent (Northallerton), the Chairman and the Honorary Secretary, *ex officio*.

Supplementary Pledge.—The supplementary pledge in connexion with contract appointments was fully discussed, and by a large majority the meeting instructed the Provisional Committee to take steps forthwith to bring the pledge before every practitioner in the area of this Division with a request for his careful consideration.

DURHAM DIVISION.

THE annual meeting of the Division was held at the County Hotel on Tuesday, June 11th, at 3.30 p.m. There were present: Drs. Smith, J. Denholm, G. Denholm, French, Oliver, Pain, Plummer, Jepson, A. Brown, Jack, and Murray (by invitation).

Annual Report.—The SECRETARY pointed out in his report the increase of members. There were now twenty-five members instead of seventeen, as in August, 1911. Also there were now only five practitioners who had not signed the undertaking. It was moved by Dr. SMITH and seconded by Dr. PLUMMER:

> That the report be adopted.

This was carried unanimously.

Election of Representative.—It was moved by Dr. PLUMMER and seconded by Dr. OLIVER:

> That Dr. Farquharson be elected our Representative, and that he be asked to attend a meeting at a date mutually convenient to him and our Secretary.

This was carried unanimously.

Election of Officers.—It was moved by Dr. PLUMMER and seconded by Dr. J. DENHOLM:

> That the officers be re-elected, with the addition of Dr. Jepson to the committee.

This was carried unanimously.

Waterhouses Dispute.—After discussion, it was moved by Dr. SMITH and seconded by Dr. OLIVER:

> That the matter be referred to the Central Ethical Committee.

This was carried unanimously.

Supplementary Pledge.—After discussion, it was moved by Dr. J. DENHOLM and seconded by Dr. OLIVER:

> That, in view of Dr. Cox's letter of the 8th inst., the meeting have reconsidered their motion of June 4th *re* supplementary pledge and resignation forms, and are prepared to sign them.

This was carried unanimously. The members present then signed the forms.

Chelsea Division's Resolution.—The members were in favour of supporting this resolution.

Patent Medicines and Proprietary Medicines.—No members present had any information to give.

Newcastle-on-Tyne Division's Recommendation.—The members were in favour of the proposed division of the Branch.

This concluded the business of the meeting.

PERTH BRANCH.

THE summer meeting of this Branch was held in the Royal Infirmary, Perth, on Friday, June 7th, at 4.15 p.m.; Dr. HAIG (President) was in the chair, and there were present: Drs. Menzies, Liddell, Beatty, Mackay, Burnett, Davidson, Revie, Shaw (Blairgowrie), Robertson (Scone), Lyell, Lowe (Coupar Angus), Bissett, Paton, J. Hume, M. Hume, Buist (Dunblane), Harvey (Callander), Taylor (Dunkeld), W. A. Taylor and Trotter.

Apology for Non-attendance.—An apology for inability to attend was read from Dr. Dewar (Dunblane).

Confirmation of Minutes.—The minutes of previous meetings were read, approved, and signed by the PRESIDENT. It was proposed by Dr. REVIE (Blairgowrie) and seconded by Dr. TROTTER, that a summary of the previous meeting be printed and sent out with notices of the next meeting. This was agreed to.

Election of Officers.—Considering the present state in regard to the Insurance Act, Dr. TROTTER proposed that the present Branch Council be reappointed for another year, and Dr. ROBERTSON (Scone) seconded. This was carried unanimously. Dr. Trotter was appointed Branch Representative to the annual meeting, and Dr. W. A. Taylor Deputy.

Model Rules.—Dr. TROTTER moved the adoption of model rules for a Branch of one Division in place of the present rules. It was decided to have the Branch rules filled up and submitted to the next meeting.

Votes of Thanks.—Dr. TAYLOR moved a vote of thanks to Dr. Haig for his conduct in the chair, and to the Matron and House-Surgeon for providing tea for the members.

SOUTH-EASTERN OF IRELAND BRANCH.

THE annual meeting of this Branch was held at the Victoria Hotel, Kilkenny, on May 1st, at 5.30 p.m. In the absence of Dr. Joseph Power (President), Dr. JOSEPH M. MORRISSEY (President-elect) took the chair, and other members were present to the number of twelve.

Apologies for Non-attendance.—Apologies for non-attendance were received from three members.

Confirmation of Minutes.—The minutes of the last meeting were read, approved, and signed.

Installation of President.—It was proposed by Dr. MACKESY and seconded by Dr. BUGGY:

> That Dr. Joseph M. Morrissey take the chair as President for the year 1912.

Insurance Commissioners and Irish Advisory Committee.—Dr. Joseph Power, late President, has been appointed by the Irish Insurance Committee to the Irish Advisory Committee.

Election of Officers.—Dr. JELLETT proposed and Dr. O'BRIEN seconded, that Dr. O'Gorman and Dr. Carey should be elected President-elect and Treasurer respectively. Dr. JAMES proposed and Dr. JELLETT seconded, that Dr. Pierce Grace should be elected Honorary Secretary.

Vote of Thanks to Honorary Secretary.—Dr. CHARLES JAMES proposed and Dr. JELLETT seconded, that a vote of thanks be passed to Dr. Quirke for the zealous and efficient manner in which he discharged the duties of Honorary Secretary of the Branch for the past seven years.

National Insurance.

Dr. J. W. H. JELLETT read a paper on the existing condition of affairs under the Insurance Act, and a suggested remedy. He said: I do not intend in this paper to review the merits or demerits of the Insurance Act, but wish rather to discuss the position created thereby, and to point out what appears to me the true solution of the difficulty with which we as a profession are faced. It is enough for my purpose that:

(*a*) An Act of Parliament has been passed and will come into operation in the near future purporting to provide medical attendance for, broadly speaking, all manual workers in this kingdom, totally regardless in its scale of payment of the wage earned by or the other possessions of the recipient.
(*b*) Many others, not manual workers, who have in the past paid private fees are to be included within its scope.
(*c*) This system is to be extended so as ultimately to embrace a very large part of the population.
(*d*) The medical profession is dissatisfied with the proposals, and so far declines to be a party to them.

To thoroughly appreciate the position we must recall what occurred when, many years ago, the friendly society system was introduced. Previously, those unable to pay for medical attendance in the ordinary way were compelled to resort to the Poor Law, or received it gratuitously from the profession. With the coming of the friendly societies, however, a great change took place. Medical men were appealed to to assist in the good work of encouraging thrift and independence among the working classes, and with our usual lack of prescience, we consented to do so without first securing our own position. From that small beginning has arisen the vast system of friendly societies, medical aid associations, provident dispensaries, and other organizations for exploiting the profession, very often in the interests of those quite well able to pay reasonable private fees, with which we are familiar. So far from

sweeping away these abuses, the Insurance Act appears to me to consolidate them, for an agreement voluntarily entered into in the ordinary way, no matter how unfair it may be, differs essentially from a similar class of agreement hedged round by an Act of Parliament.

The position, therefore, with which we are confronted appears to be as follows: Rightly or wrongly, a public demand exists for the provision of a medical service for certain classes of the community at a scale of payment below ordinary fees, and for this purpose, *inter alia*, an Act of Parliament has been passed affecting our interests, and with which the bulk of the profession is dissatisfied. We must therefore answer for ourselves two questions: (1) Shall we accept and work the Act either as it stands at present or as it may be when amended? (2) Shall we ourselves provide medical service for those of the community to whom we are, as we have been, ready to extend our philanthropy?

To the first of these questions the answer must unhesitatingly be in the negative, to the second equally so in the affirmative.

Before, however, we discuss the merits of this latter proposition, I wish to say a few words on the subject of the former one. We cannot afford to be blind to the danger of a negative policy on our part. Construction, not destruction or passive resistance, should be our aim. If we decline to accept the Act, amended or not, we shall run a grave risk of being held up to odium as opposed to the public welfare and as merely seeking our own sordid ends. If, on the other hand, we agree to work the Act, we tacitly allow the Legislature to deprive us of a large part of our private practice. Mr. Lloyd George has laid his plans for our discomfiture very cleverly. "I would not," he says in effect, "think of doing the profession any injustice. If there is anything you don't like in the Act, go to the local Health Committees or the Insurance Commissioners; they will make it all right for you." So, by omitting the necessary safeguards from the text of the Act, he hopes to split us up into groups, trusting that, through our lack of cohesion, he will gain the day. But at another time he apparently thinks threats the best policy. "If the profession," he then says, "as a whole will not work my Act, I will gather together all the medical men of any sort I can get hold of, and, by starting provident dispensaries or similar institutions, compel acceptance. My political reputation must not be allowed to suffer nor my promised millennium be delayed."

We now come to what appears to me the true solution of the difficulty—namely, a public medical service—and in passing wish to say I claim no originality for the proposal. It must, of course, be understood that such a service applies only to those under a certain income as may be determined by the profession, local circumstances being taken into account.

Very briefly the essentials of the proposed service are:

(1) It must be managed by the profession alone, no layman having any share in its management except as our paid servant.
(2) It must include on its panels all members of the profession willing to act.
(3) Those not joining the ordinary panel must agree to give their services when required for consultation, etc., at a reduced charge.

The advantages are: I—To the profession (*a*) we free ourselves from lay control; (*b*) we fix our own rate of payment and wage limit; (*c*) we cease to have our labour exploited by all and sundry. II—To the public (*a*) a more efficient service because a voluntary one.

To such a service I can see no radical objections, either from our point of view or from that of the deserving members of the community whom we desire to help. Doubtless some will say this is merely a counsel of perfection and unworkable. The difficulties may be great but are not insuperable. True it is that cohesion, honourable dealing, and perhaps some self-sacrifice would be required. But need we look for these in vain? The working classes, so-called, have shown us what can be done by combination for honourable purposes. Are we, educated men, incapable of working out our own salvation in like manner?

To come, however, to the details of the scheme, it is not, of course, possible to enter into them very minutely at present, but, broadly speaking, a central council and local committees, each with their necessary officers, both honorary and paid, will be required for its administration. The central council might be elected by ballot from the names on the panels. Its main functions would be advisory, but it would also adjudicate on matters in dispute, and would possess a limited veto at least over the actions of the local committees.

These latter would consist of all members on each of the local panels, and might, if deemed advisable, depute their powers to an executive subcommittee. Their functions would be to decide who are eligible under the scheme, fix rate and mode of payment, employ the required lay officers, and generally to carry out its working.

The necessary machinery for the inauguration of such a scheme as I have attempted to describe appears to me to exist in one or other of our associations. Modifications might be required in their constitution, but that fact should prove no insurmountable barrier. Regard would have to be paid to vested interests, but I see no greater difficulty in dealing with these under a public medical service than exists in dealing with them under the Insurance Act. It should be noted that this scheme clashes in no way with the Act, at least so far as this country is concerned, as the amount levied therein for medical benefits can be earmarked as part payment for attendance, as already proposed under the "additional benefits" heading. In Great Britain a like system can easily be adopted. The Insurance Act would then remain strictly an Act for insuring certain classes against illness, and the medical attendance would be provided by the profession, who have every right to decide how and at what price they will sell their labour for themselves and not at the dictation of politicians made for party purposes.

The policy, therefore, which I believe our associations should conjointly adopt is to abandon further negotiations either with the Government or the Insurance Commissioners, and to throw all their energy into establishing such a medical service as will save our profession from financial ruin, and will, at the same time, be just to that deserving class of the community unable to afford private fees.

The paper was unanimously ordered to be printed and circulated amongst members of the Branch.

Delegates.—Drs. Foley, Power, Walsh, and O'Brien were appointed as delegates to the meeting of medical men in Dublin on June 11th.

Meeting at Clonmel.

An ordinary meeting of the Branch was held at the Town Hall, Clonmel, on May 29th, Dr. JOSEPH MORRISSEY in the chair. Fifteen other members were present.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

The Pledge.—It was proposed by Dr. O'BRIEN and seconded by Dr. O'CONNELL:

That we agree to the pledge regarding work under the Insurance Act, and in addition agree that no less than 3s. capitation fee be accepted for certification.

Whereupon an amendment was proposed by Dr. WALSHE and seconded by Dr. WYNNE:

That the question of capitation be not accepted.

The amendment was defeated, and the original resolution carried.

Dinners.—On both occasions the members dined together.

SOUTH-WESTERN BRANCH:

EAST CORNWALL DIVISION.

A MEETING of this Division was held at Webb's Hotel, Liskeard, on June 3rd, Dr. WEBB in the chair. The following were present: Drs. Hingston, Trinder, Nettle, Carter, Wade, Donald, Bowhay, Davis, senr., Vinter, Seccombe, Gill (Rilla Mill), Harman, O. R. Smale, and N. Salmon.

Apologies for Non-attendance.—Telegrams regretting absence were received from Drs. Cole and Bawden.

Confirmation of Minutes.—After the minutes of the last meeting had been discussed and approved, by general desire the minutes of the meeting of the whole profession resident in the area of the East Cornwall Division, held at Bodmin on April 18th, were read.

Position and Future Action of Profession.—Dr. WEBB then read a paper on the position and the future action of

the profession, pointing out the reasonable attitude adopted by the profession, and emphasizing the importance of every individual member doing his utmost to obtain the best result for his patients and a reasonable and proper remuneration for himself. Dr. TRINDER proposed and Dr. GILL seconded:

> That a leaflet containing Dr. Webb's address be sent to all medical men resident in the area of the East Cornwall Division.

This was unanimously carried.

Instructions to Representative.—The second item in the business was the discussion on the matters referred to the Divisions and instructions to the Representative at the Annual Representative Meeting at Liverpool. Some discussion ensued as to whether it was necessary to send a Representative so far as Liverpool, considering the business affecting the Division was so little. It was pointed out that the Representative Meeting would most probably have to consider the report of the Advisory Committee; and on the proposition of Dr. TRINDER, seconded by Dr. DONALD, Dr. Webb was asked to represent the Division, his expenses to be defrayed by the Division. This was carried unanimously.

The Question of Remuneration.—Some members asked questions *re* the probability of payment per capita or otherwise. The CHAIRMAN was of opinion that it would be optional, according as the area should decide. He also thought, on questions being asked, that the question of dispensing would be left to the option of the locality. Dr. BOWHAY thought that a fee of 8s. 6d., including the dispensing fee, would probably meet with the acquiescence of the Government, and was in doubt whether it would be worth while the profession not meeting those terms considering the cost to the profession it would mean to fight it; but on the motion of Dr. DAVIS, seconded by Dr. DONALD, it was unanimously agreed that the Representative was not to vote for any terms less than 8s. 6d. per head and 1s. 6d. dispensing fee per head, which should be optional for the district. It was unanimously agreed that the Representative should support the Chelsea resolution. It was thought inadvisable to discuss the question of remuneration for mileage until the Government had definitely agreed to the seven cardinal points.

Tea.—The Liskeard members kindly gave tea at the conclusion of the meeting.

Provisional Local Committee.

A meeting of this Committee was held following the meeting of the Division. The following were present: Drs. Webb, Vinter, Wade, Trinder, Bowhay, Seccombe, Hingston, and N. Salmon. The executive were elected as follows: *Chairman*, Dr. Webb; *Vice-Chairman*, Dr. Vinter; *Honorary Secretary*, Dr. N. Salmon. The SECRETARY then gave a report of pledges and resignations received. Dr. VINTER proposed, and Dr. WADE seconded, that each member of the Committee should canvass his corresponding area for pledges, resignations, and guarantees, and attempt to induce non-members to become members of the British Medical Association. The Secretary was instructed to write to the central office and inquire as to what was wanted in the way of guarantees from an area such as the East Cornwall Division. Dr. BOWHAY moved and Dr. HINGSTON seconded:

> That a list of practitioners in each area be sent to the member representing that area.

This was carried unanimously.

PLYMOUTH DIVISION.

THE annual meeting of this Division was held in the Medical Society's Rooms, Plymouth, on Friday, May 31st, at 4.30 p.m., twenty-six members being present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Election of Officers.—The following were elected to serve in their respective offices for the year 1912–13: *Chairman*, R. Jaques, F.R.C.S.; *Honorary Secretary*, Edgar J. Donbavand; *Representatives on Branch Council*, R. Jaques, B. Soltau, C. Musgrave, E. McCulloch, and the Honorary Secretary; *Executive Committee*, the foregoing, *ex officio*, and Drs. Pethybridge, Cooke, Glinn, and Lander.

Instructions to Representative.—The meeting then proceeded to consider "Matters referred to Divisions" contained in the SUPPLEMENTS to the JOURNAL of May 11th and 18th, and the Representative (Mr. George Jackson) was instructed as to which recommendations the Division desired to support, and to give notice of amendments to those of which it disapproved. An interim report from the Local Provisional Committee was given by the HONORARY SECRETARY, and a lengthy meeting then terminated.

WEST CORNWALL DIVISION.

THE annual meeting of the Division was held at the Royal Cornwall Infirmary, Truro, on Tuesday, June 11th. Dr. HAUGHTON was in the chair and twenty-five members, together with the Honorary Secretary, were present.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Election of Officers.—The following gentlemen were elected for the ensuing year: *Chairman*, Dr. Chown; *Vice-Chairman*, Dr. Permewan; *Representative for Representative Meetings*, Mr. Taylor (deputy Mr. Russell Coombe); *Representatives on Branch Council*, Chairman, Vice-Chairman, and Honorary Secretary; *Honorary Secretary and Treasurer*, Mr. M. R. Taylor. The Provisional Medical Committee was re-elected *en bloc*.

Provisional Medical Committee.—The report of the Provisional Medical Committee was read and adopted; the report explained the method of dividing up the Division among the members of the committee for canvassing for pledges. The HONORARY SECRETARY reported that he had received 95 pledges out of a possible total of 97, and that there was a fair chance of obtaining the other two.

Guarantee Fund.—The report of the Committee *re* Guarantee Fund was to the effect:

> That, in addition to the £3 per head previously guaranteed to the Central Fund, the local guarantee fund be raised to a sum of £2 a year for five years, to be called up in sums of not more than £1 per call.

Instructions to Representatives.—The various matters referred to Divisions in the SUPPLEMENT of May 11th and 18th were considered, and instructions given to the Representative on each one.

Juvenile Clubs.—A letter from Dr. Cox *re* juvenile clubs was read. Several members spoke of the lax way in which the age limit in juvenile clubs was enforced, and the feeling of the meeting was that resignation of juvenile appointments should follow resignation of adult ones, if the latter became necessary. Meanwhile the Provisional Medical Committee is instructed to inquire into rates of pay, etc., of these juvenile clubs. The question of mine clubs was raised, and it was decided to hold another meeting of medical officers of mine clubs as soon as the Mine Club Subcommittee had interviewed the mine managers, and ascertained the action they proposed taking under the Act.

Provisional County Committee.—A telegram from Dr. Cox was read, giving the view of the State Sickness Insurance Committee on the question of the nomination of medical men on the Provisional Council Committee:

> That no nomination be accepted.

The meeting strongly endorsed this view.

Annual Report.—The HONORARY SECRETARY reported that during the last year five general meetings of the Division had been held, four of these in duplicate. The meetings were attended by 206 men, giving an average attendance of 41. Six local meetings were also held. The "Mines Club" Committee met once, and the recently appointed Provisional Medical Committee twice. The membership of the Division increased from 63 in May, 1911, to 91 in May, 1912, while two gentlemen are up for election, leaving only four non-members in practice in the Division.

SOUTHERN BRANCH:

PORTSMOUTH DIVISION.

THE annual meeting of this Division was held at the Medical Library, Portsmouth, on June 14th, at 4 p.m. Dr. D. A. SHEAHAN was in the chair, and twenty-three other members were present.

Confirmation of Minutes.—The minutes of the last annual meeting were read and confirmed.

Letters from Medical Secretary.—From the Medical

Secretary of the Association letters were read dated May 10th, 18th, and 31st, and June 3rd and 11th, and also that part of D 54 relating to Public Medical Service schemes.

Local Nursing Association.—A letter was read from Dr. Green, Secretary of Southern Branch, requesting the influence of the Division in obtaining the adoption of the model rules of the British Medical Association by the local nursing associations. It was stated that the rules at present in force at Portsmouth and Petersfield were satisfactory to the medical profession.

Annual Report.—The annual report of the Division was read as follows:

Membership, December 31st, 1910 ...	123
Membership, December 31st, 1911 ...	155
An increase of 32.	

Receipts—	£	s.	d.
Balance in hand, December 31st, 1910 ...	13	2	6
From Branch Secretary	12	12	0
Deficit, December 31st, 1911	3	19	2
	£29	13	8
Expenses—			
Hire of rooms	6	15	0
Printing	13	3	11
Stationery	0	3	0
Postage	7	7	9
Expense of patients, clinical meeting ...	1	15	6
Dr. Fothergill's expenses	0	8	6
	£29	13	8

Divisional meetings	17
Clinical	4
Medico-Political	13
Average attendance	46.6
Executive Committee meetings	15
Average attendance	13

Matters of Special Interest Dealt With.—The establishment of a school clinic, the establishment of a corporation, tuberculin dispensary and its medical staff, the National Insurance Bill.

Election of Officers.—The following officers were then elected for the ensuing year: *Chairman*, Mr. A. Bosworth Wright; *Vice-Chairman*, Mr. C. P. Childe; *Representatives on Branch Council*, Drs. Cobb, Carling, and McEldowny; *Executive Committee*, Drs. Blackman, Blackwood, Burrows, Cole-Baker, Colt, James Green, Jeans, L. Maybury, Milne-Thomson, Ridout, Sheahan, and Davis Taylor, together with Dr. Hackman, *ex officio*, as Secretary of the Provisional Local Medical Committee; *Clinical Secretary*, Mr. C. P. Childe; *Medico-Political Secretary and Treasurer*, Dr. B. H. Mundy; *Auditors*, Drs. Carling and James Green.

Vote of Thanks to Retiring Chairman.—Mr. A. Bosworth Wright took the chair, and proposed a hearty vote of thanks to Dr. D. A. Sheahan for his conspicuous services as Chairman during the past year. This was carried with acclamation, and Dr. D. A. Sheahan suitably replied.

Provisional Local Medical Committee.—An application for funds having been received from the Provisional Local Medical Committee, it was decided to call up 10s. from each guarantor. This would raise £37. The local guarantee fund now stands at almost £1,600.

Invitation to Association.—It was resolved:

That the British Medical Association be invited to hold the annual meeting in Portsmouth in the year 1915, or as soon after as may be possible.

SOUTH WALES AND MONMOUTHSHIRE BRANCH:

North Glamorgan and Brecknock Division.

The annual meeting of this Division was held at the New Inn, Pontypridd, on Thursday, May 30th, at 3 p.m. There were twenty-five members present. In the absence of the Chairman (Dr. R. D. Morgan), Dr. J. Shaw Lyttle was voted to the chair.

Election of Officers.—The following officers and committee for the ensuing year were then elected: *Chairman*, Dr. T. Finney (Aberaman); *Vice-Chairman*, Dr. T. R. Llewellyn (Penygraig); *Secretary and Treasurer*, Mr. C. J. Weichert (Penygraig); *Direct Representative*, Dr. W. E. Thomas (Ystrad); *Representatives on Branch Council*, Dr. D. Naunton Morgan, Dr. G. P. Francis, Dr. T. R. Llewellyn, Dr. Howard Davies, Dr. Martin Jones; *Representatives on Contract Practice Committee*, Dr. W. E. Thomas, Dr. J. Shaw Lyttle, Dr. T. R. Llewellyn; *Executive Committee*, Drs. E. J. Trevor Cory, B. M. Lewis, Howard Davies, T. R. Llewellyn, W. Llewellyn Jones, J. Shaw Lyttle, D. Naunton Morgan, J. Morgan Rees, T. J. Webster, A. G. Tribe, A. T. Jones, R. Gabe Jones, J. Shingleton Smith, H. Davies-Jones, and W. Miles; *Ethical Committee*, Drs. Idris N. Morgan, J. L. W. Ward, W. Llewellyn Jones, T. J. Webster, and E. J. Trevor Cory.

Supplementary Pledge.—It was resolved that all members of the Division be asked to sign the supplementary pledge. On the motion of Dr. W. E. Thomas, seconded by Dr. A. T. Jones, it was resolved:

That this Division begs to draw the attention of the State Sickness Insurance Committee to the great sacrifice involved in resigning colliery appointments, as such appointments comprise the whole of the holders' income. That the members of this Division sign the pledge out of loyalty to the profession and in order to strengthen the hands of the Association.

Dinner.—After the meeting a number of the members dined together.

ULSTER BRANCH:

Belfast Division.

The annual meeting of this Division was held in the Medical Institute, Belfast, on Tuesday, June 4th, at 4.30 p.m. Dr. Kevin was moved to the chair in the absence of Dr. W. M. Killen, who sent an apology regretting his inability to be present. In addition to the Honorary Secretary and Treasurer (Mr. H. Hanna) there were thirty-seven members present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Agenda of Representative Meeting.—The next business on the agenda—the provisional agenda of the Representative Meeting to be held in Liverpool in July—was considered.

Ethical Rules.—It was agreed to accept the Council's recommendation regarding the acceptance of a set of model ethical rules for the Division.

National Insurance.—Pending the full report of the Council regarding the State Sickness Insurance, it was resolved to postpone further discussion until further particulars were forthcoming.

Election of Office-bearers.—The election of office-bearers for the year 1912–13 was then proceeded with. Dr. Gardner Robb was elected Chairman; Dr. Geo. Elliott, Ormean Road, was unanimously elected Honorary Secretary and Treasurer, and also Representative in place of Mr. Henry Hanna, who had resigned. The following were elected to act on the Executive Committee of the Division, with seats on the Branch Council: Drs. J. R. Davison, A. P. B. Moore, Jos. Martin, M. F. Cahill, and W. Monypeny for town, and Drs. Donnan-Boyd, Gaussen for the country. On the motion of Dr. Elliott, seconded by Mr. R. J. Johnstone, it was decided to further add sixteen members of the Division to act on the Executive Committee, the first twelve to act for town and the last four for country. The names elected were as follows: Drs. Mackintosh, H. J. Ritchie, Watson, Ewing, Geo. Hogg, T. A. Davidson, Wm. Burnside, J. W. Ritchie, W. Burns, W. L. Story, F. Smyth, R. Watt, Reid (White Abbey), Rentoul (Lisburn), Gorman (Bangor), W. R. Davison (Ballymena). Sympathetic references were made in regard to the deaths of Dr. John Simpson, of the ill-fated *Titanic*, and Dr. Henry Whitaker, late Alderman and Medical Officer of Health of Belfast. All present standing, it was proposed and passed that letters of sympathy should be sent to the relatives.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

A list of periodical publications, official reports, and Blue Books in the Library of the British Medical Association available for issue to members on loan has been printed, and copies can be obtained free on application to the Librarian, at the house of the Association, 429, Strand, W.C. The regulations governing the loan of these publications are stated in the introduction to the list.

The Library is open for consultation from 10 a.m. till 5 p.m. (on Saturdays till 2 p.m.).

Association Notices.

NOTICE OF FORMATION OF A NEW DIVISION OF THE ASSOCIATION.

THE following change has been made in accordance with the Regulations of the Association, and takes effect from the date of publication of this notice:

Chesterfield Division.

That the members of the Association resident in the Hundred of Scarsdale district of Derbyshire (exclusive of Woodseats), which district at present forms part of the area of the Derby Division, be constituted a separate Division, to be known as the Chesterfield Division, the new Division to form part of the Midland Branch, and that the area of the Derby Division be modified accordingly.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BIRMINGHAM BRANCH.—The annual meeting will be held in the Medical Institute on Friday, June 28th, at 3.30 p.m. Business: To receive the report of the Council; election of officers; inaugural address by the in-coming President, Dr. Nason.—J. FURNEAUX JORDAN, J. G. EMANUEL, Honorary Secretaries.

DORSET AND WEST HANTS BRANCH.—The summer meeting will be held at the County Asylum, Charminster, Dorchester, on July 3rd. The Right Hon. Lord Digby very kindly invites members and friends to luncheon at 2 p.m. A number of interesting microscopical specimens and cultures will be on view in the bacteriological laboratory. Dr. Gowring, Vice-President, will open a discussion on Chronic Disorders of Digestion. Dr. Perdrau will give Notes on an Interesting Case of Exophthalmic Goitre. Tea will be provided after the meeting. Dr. Macdonald has kindly consented to allow members to see over the institution.—FRANK FOWLER, Honorary Secretary, Bournemouth.

EDINBURGH BRANCH.—The annual meeting of this Branch will be held in the Hall of the Royal College of Physicians, 9, Queen Street, Edinburgh, on Thursday, June 27th, at 4 p.m. Business: (1) Minutes of last meeting. (2) Apologies for absence. (3) Annual Report and Financial Statement. (4) Treasurer's Report *re* Guarantee Fund. (5) Election of Office-bearers for 1912-13. (6) Discussion on the Aftermath of the Insurance Act, initiated by Dr. Martins, Haddington. (7) Any other competent business.—MICHAEL DEWAR and E. SCOTT CARMICHAEL, Honorary Secretaries.

LANCASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION.—The annual meeting of this Division will be held in the Board Room of the Altrincham Hospital at 4.30 p.m. on Wednesday, June 26th. Tea will be provided. Agenda: (1) Minutes of last meeting; questions arising from the minutes. (2) Apologies for absence. (3) Minutes, Committee meeting. (4) Election of officers: (*a*) Chairman for 1912-13 and his induction by the retiring Chairman; (*b*) other officers—Vice-Chairman, Honorary Secretary, Honorary Assistant Secretary, six members of Committee, Associate Members, Representatives on the Branch Council. N.B.—Nominations may be sent in at any time to the Honorary Secretary. (5) Annual report of the Executive Committee. (6) Alteration of rules (to include the postal vote). (7) Provisional Committee's report. (8) Report of Representatives. (9) Matters referred to the Divisions (Agenda for the Annual Representative Meeting, new Medico-Ethical Rules, etc.). (10) Any other urgent business. A dinner will be held afterwards at the Brooklands Hotel, at 7.30 p.m. Will members intending to be present kindly send in their names on or before Monday, June 24th?—H. G. COOPER, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH.—The annual general meeting of the Branch will be held at 429, Strand, W.C., on Friday, June 28th, at 4.30 p.m. Agenda: (1) Minutes of last meeting. (2) Report as to the election of new officers. (3) Annual report of Council. (4) Annual report of Representatives of the Branch on the Central Council. (5) Alteration of rules. On behalf of the Council it will be proposed:—That the Branch Rules 11 and 12 be altered to form one Rule—Rule 11—to read as follows: "11. The management of the affairs of the Branch shall be vested in the Branch Council, which shall consist of the officers of the Branch, together with the representatives of the Branch on the Central Council of the Association, and representatives of Divisions, as follows: (*a*) *Ex officio*—All the Representatives of the Divisions on the Representative Body. (*b*) *Ex officio*—The Honorary Secretaries of the Divisions. (*c*) One member appointed by each Division, and such other members as the Division may be entitled to appoint on the basis of one representative for every 100 members after the first 50." Branch Rules 11 and 12 are at present as follows: "11. The management of the affairs of the Branch shall be vested in the Branch Council, which shall consist of the officers of the Branch, together with the representatives on the Central Council of the Association elected by the Branch, and representatives of the Divisions. 12. The representatives of the Divisions on the Branch Council shall be not less than three for each Division, of whom one shall be the Honorary Secretary of the Division, and a second the Representative of the Division at the Representative Meeting; for every additional 100 members of a Division beyond 50 there shall be an additional representative" [see By-law 16 of the Association]. (6) President's Address: The State, the Poor, and our Profession.—E. W. GOODALL and W. GRIFFITH, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: GREENWICH DIVISION.—The next meeting of this Division will take place this day (Friday), June 21st, at 4 p.m., at the Trades Hall, 390, New Cross Road, opposite S.E. and C.R. station. Business: (1) To consider the schemes for Public Medical Services as stated in the SUPPLEMENT to the JOURNAL of June 8th. (2) Any other competent business. It has been decided to ask each member of the Division to give a subscription of 2s. towards paying the expenses of the Representative of the Division at the Representative Meetings. Members are requested to send the subscription to Dr. C. G. Wallis, 12, Pepys Road, New Cross, S.E.—W. H. PAYNE, Honorary Secretary, Brockley.

METROPOLITAN COUNTIES BRANCH: LAMBETH DIVISION.—A special meeting will be held at the Surrey Masonic Hall, Camberwell New Road (near Camberwell Green), on Friday, June 21st, at 4 p.m., to consider the schemes of a Public Medical Service, as printed in the BRITISH MEDICAL JOURNAL SUPPLEMENT of June 8th. Non-members are cordially invited to the meeting, and members are reminded to bring the copy of the SUPPLEMENT with them.—J. H. CLATWORTHY, Honorary Secretary, 145, Denmark Hill.

METROPOLITAN COUNTIES BRANCH: MARYLEBONE DIVISION.—A general meeting of the Division will be held at the Rooms of the Medical Society of London, 11, Chandos Street, W., on Tuesday, June 25th, at 5 o'clock p.m. Agenda: (1) Minutes (BRITISH MEDICAL JOURNAL SUPPLEMENT, May 25th). (2) Questions. (3) Letters. (4) Matters referred to the Divisions: (*a*) Resignation of membership (SUPPLEMENT, May 11th, p. 453); (*b*) Referendum and postal voting (SUPPLEMENT, May 11th, p. 454); (*c*) rules relating to practitioners examining cases under the care of other practitioners (SUPPLEMENT, May 11th, p. 457); (*d*) proposed rule relating to death certification (SUPPLEMENT, May 11th, p. 460-1); (*e*) Workmen's Compensation Acts—payments for certificates (SUPPLEMENT, May 11th, p. 461). (5) National Insurance Act—instructions to Representatives on points that may arise. (6) Notice of motion by Westminster Division *re* Representatives (SUPPLEMENT, May 18th, p. 509). (7) Proposed Public Medical Service (SUPPLEMENT, June 8th). (8) Sir Victor Horsley will move: "Inasmuch as it is absolutely necessary that every member of the profession should sign the supplementary pledge of the British Medical Association, the voluntary co-operation of members of the Division be invited by the Executive Committee, in order that a canvass of the borough area to secure signatures may be made." (9) Any other business.—FRANCIS W. GOODBODY, Honorary Secretary, 6, Chandos Street, W.

METROPOLITAN COUNTIES BRANCH: SOUTH-WEST ESSEX DIVISION.—A special meeting of the Division, to which all practitioners residing within its area are invited, will be held this day (Friday), June 21st, at 4 p.m., in the Wesleyan Church Schoolroom, High Road, Leyton (nearest station, Leyton, M.R.), for the purpose of considering the scheme of Public Medical Service published in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL, June 8th. Agenda: (1) Minutes. (2) Correspondence. (3) Public Medical Service scheme. (4) Any other business.—A. POTTINGER ELDRED, Honorary Secretary.

MIDLAND BRANCH: LEICESTER AND RUTLAND DIVISION.—A meeting of this Division will be held in the Council Chamber, Coalville, on Wednesday, June 26th, at 4 p.m. Agenda: Minutes of the last meeting. Election of Representative to Branch Council. The following new rule will be proposed: "That the ex-Chairman of the Division be an *ex officio* member of the Executive Committee." A discussion will take place on "The State and General Medical Practice," to be opened by Dr. Tibbles, followed by Drs. O'Connor, Warner, and McAllister-Hewlings. Other business.—R. WALLACE HENRY, Honorary Secretary, Leicester.

NORTH OF ENGLAND BRANCH: NORTH NORTHUMBERLAND DIVISION.—The annual meeting will be held at the Infirmary, Alnwick, on Wednesday, June 26th, at 3.30 p.m. Business: (1) Election of officers for ensuing year. (2) Election of Representatives on Branch Council. (3) Election of Executive Committee. (4) To consider provisional agenda for the Annual Representative Meeting. (5) To consider the scheme of Public Medical Service as suggested by State Sickness Insurance Committee. (6) Any other business. Members are requested to bring the BRITISH MEDICAL JOURNAL SUPPLEMENTS for May 11th and 18th and June 8th.—C. CLARK BURMAN, Honorary Secretary.

OXFORD AND READING BRANCH: OXFORD DIVISION.—The annual meeting of the Division will be held on Saturday, June 29th, at the Randolph Hotel, Oxford, at 2.30 p.m. Luncheon at 1.30 p.m. Agenda: (1) Installation of Sir Wm. Osler, Bart., as Chairman. (2) Minutes. (3) Chairman's address. (4) Report of Executive Committee. (5) Report of Provisional Medical Committee. (6) Balance sheet. (7) Election of officers. (8) Consideration of the Public Medical Service scheme as outlined in BRITISH MEDICAL JOURNAL SUPPLEMENT, June 8th.—W. DUIGAN, Honorary Secretary.

SOUTH-EASTERN BRANCH: REIGATE DIVISION.—The annual meeting of this Division will be held at Laker's Hotel, Redhill, on Thursday, June 27th, at 4.30 p.m. Tea will be provided. Agenda: (1) The minutes of the last meeting. (2) Election of officers. (3) The Insurance Act—interim report of the Provisional Medical Committee for the Reigate Division. (4) To consider the Annual Report of Council (BRITISH MEDICAL JOURNAL SUPPLEMENT, May 11th) and the agenda of the Annual Representative Meeting (BRITISH MEDICAL JOURNAL SUPPLEMENT, May 18th) to be held at Liverpool on July 19th, and to instruct our Representative thereon. (5) Any other business.—JOHN G. OGLE, Honorary Secretary, Tower House, Reigate.

SOUTH MIDLAND BRANCH: BUCKINGHAMSHIRE DIVISION.—A meeting of the Division, to which every medical man in the area is invited, will be held on Tuesday, June 25th, at 3 p.m., at the Royal Buckinghamshire Hospital. The main object is to consider the scheme for a Public Medical Service, and every member is urged to study carefully the SUPPLEMENT for June 8th, and bring it with him. The Provisional Local Medical Committee considers it very desirable that the medical men in the various districts should meet together beforehand and discuss the matter before the Division meeting. This committee will also present a report on the number of pledges signed. The response has been up to the present most satisfactory, and it is hoped that by this date the signatures will be the same as in North Bucks, where every medical man has signed. It must be thoroughly understood that no use will be made of these resignations unless the Central State Insurance Committee considers that the response all over the country is such as to ensure the success of our tactics. Those who have not already done so are requested to forward to Dr. Perrin the names, etc., of their clubs, in order that forms of resignation may be sent them.—A. E. LARKING, Honorary Secretary.

SOUTHERN BRANCH.—The thirty-ninth annual meeting of the Branch will be held at the Abbey House, Winchester, on Thursday, July 4th, at 12.30 p.m., Mr. C. P. Childe, President, in the chair. Agenda: (1) Minutes of last general meeting. (2) Report as to the election of officers for 1912–13. (3) Annual report of Council. (4) Balance sheet. (5) General business. At the conclusion of the ordinary business the President for the ensuing year, Dr. F. W. Jollye, will deliver an address, "Reflections after Twenty-one Years of General Practice." Dr. Jollye kindly invites the members to luncheon in the Banqueting Hall, Guildhall, at 1.45 p.m., and to afternoon tea at the Abbey House at 4.30 p.m. Arrangements will be made for members to visit (after luncheon) the College (Eton *v.* Winchester cricket match); the Cathedral, under the guidance of Canon Vaughan; and St. Cross, under the guidance of the Master, Canon Causton. At 3 o'clock a golf match will be played between a team of members of the Branch and the Winchester Golf Club. Members desiring to play are requested to send their names and lowest handicaps to Mr. H. J. Godwin, The Friary, Winchester, not later than June 27th; and those members who intend to accept the President's hospitality will oblige by communicating with Mr. Godwin, as above, as early as possible, but not later than July 1st.—JAMES GREEN, Honorary Secretary.

SOUTH-WESTERN BRANCH.—The seventy-third annual meeting will be held on Wednesday, June 26th, at the Victoria Hotel, Newquay, at 3 p.m., when Mr. Roper will resign the chair to Dr. Hardwick. The report of the Branch Council for the year 1911–12 and the annual financial statement for the year 1911 will be presented to the meeting, and the officers of the Branch will be elected for the year 1912–13. Luncheon, by kind invitation of the President-elect, will take place from 1 p.m. to 2.30 p.m., at the Victoria Hotel. The annual dinner of the Branch will be held at the Headland Hotel, at 7 o'clock. Tickets, 7s. each (exclusive of wine), can be had from Dr. Vigurs, Newquay. Early applications for dinner tickets will greatly facilitate arrangements, and in any case they should be made not later than the first post on Monday, June 24th. By the courtesy of the Newquay Golf Club, members of the Branch and their wives will be made honorary members for Wednesday and Thursday, and those wishing games arranged for them should communicate with Dr. W. J. Stephens, Hayne, Newquay. On Thursday a drive to Bedruthan Steps will be arranged provided a sufficient number of names are sent to Dr. W. J. Stephens before June 26th. Members wishing to stay the night in Newquay will find accommodation at the Headland Hotel.—RUSSELL COOMBE, Honorary Secretary.

STAFFORDSHIRE BRANCH.—The thirty-ninth annual meeting of the Branch will be held at the White Hart Hotel, Burton-on-Trent, on Thursday, June 27th, at 4 p.m., when an address will be delivered by the President-elect, Mr. E. C. Stack, F.R.C.S.I. Agenda: (1) Introduction of the new President. (2) Minutes of the last annual meeting. (3) Address by the President. (4) Correspondence. (5) Report of the Council. (6) The financial statement. (7) Election of officers for the ensuing year—President-elect, Secretary, and Treasurer. (8) To decide the place of holding the next annual meeting. (9) To consider proposed alterations of Rules VII and XVII. Members have the privilege of inviting guests. Dinner at 6 p.m.; charge, 5s. The first general meeting of the session will be held at Stoke-on-Trent, on Thursday, November 28th, 1912. Members willing to read papers are requested to communicate the titles to the General Secretary as soon as possible.—HAROLD HARTLEY, Honorary General Secretary.

WEST SOMERSET BRANCH.—The seventieth annual meeting of this Branch will be held at the Railway Hotel, Highbridge, on Tuesday, June 25th, at 12.15 p.m., when the new President, Dr. C. Balfour Stewart, will take the chair. Agenda: (1) Minutes of last meeting. (2) Annual report. (3) Balance sheet for 1911. (4) Election of President-elect. (5) Election of Honorary Secretary and Treasurer. (6) Election of other officers. (7) Election of Representative. (8) Election of Deputy Representative. (9) That the Council be appointed the Ethical Committee of the Branch. (10) To discuss the Public Medical Service scheme, as per SUPPLEMENT to BRITISH MEDICAL JOURNAL, June 8th. The President will give an address on Mendelism. Luncheon will be provided at 1.30 p.m., for which the charge will be 3s., exclusive of wine. After luncheon the President will entertain the members to tea, tennis, and a treasure hunt at Greenwood, Huntspill.—CHARLES FARRANT, Honorary Secretary.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH. — The annual meeting of this Branch will be held at Burghill, Hereford, by the invitation of the President-elect, on June 29th. Business: (1) To confirm minutes. (2) To elect new officers. (3) To receive the report of the Council on the affairs of the Branch, and the annual financial statement. (4) Any other business. The President of the Herefordshire Medical Society kindly invites members of the Branch to a garden party at Firbank, Burghill, Hereford, at the close of the formal business of the annual meeting.—C. S. MORRISON, Honorary Secretary.

CENTRAL COUNCIL ELECTION, 1912-13.

ANALYSIS OF VOTING.

IN accordance with a resolution adopted by the Representative Body of the British Medical Association last July, the election of twenty-four members of the Central Council by the Branches of the United Kingdom has been carried out by means of the single transferable vote. Most of the Branches were entitled to one representative only, and where only two candidates were nominated the new system involved no radical change from previous practice. The candidate highest on the poll in each Branch was elected. In the Glasgow and West of Scotland Branch (4 City Divisions), and the South-Eastern Branch, however, three candidates were nominated. In the former Dr. Adams, the candidate at the top of the poll, obtained in first preferences a majority of the votes polled, and he was accordingly elected. In the South-Eastern Branch, however, the new system had an important effect on the result. The first preferences expressed were as follows:

Dr. Tyson	198
Dr. Fothergill	156
Dr. Ewart	112

Dr. Tyson, although at the head of the poll, had not received an absolute majority of all the votes cast, and it was necessary, in order to ascertain the result, to transfer the votes recorded on Dr. Ewart's papers to the second preferences of his supporters. It was found that 54 of Dr. Ewart's supporters had expressed their next preference for Dr. Fothergill, and 34 for Dr. Tyson, whilst 24 papers showed no preference other than the first. The poll then stood as follows:

	First Preferences.		Votes Transferred from Dr. Ewart.		Total.
Dr. Tyson ...	198	+	34	=	232 *(elected)*
Dr. Fothergill...	156	+	54	=	210

The former was accordingly declared elected.

The contests in the Lancashire and Cheshire Branch and in the Metropolitan Counties Branch were even more interesting. In the former Branch two candidates were

to be elected, and the first preferences were given as follows:

Dr. Helme	432
Mr. Larkin	336
Dr. Reynolds	308
Dr. O'Sullivan	121
Dr. Brown	24
Dr. Hodgson	20
Dr. Heaney	16
	1,257

In order to secure election it was necessary that a candidate should obtain a quota of votes. In the Branches returning one member only, this quota is a bare majority of the whole, or one more than half. In a Branch returning two members it is one more than a third of the whole, because only two candidates can poll so many. The quota in this case was 420, and Dr. Helme, who had received more than this number, was thus at once elected. The votes in excess, twelve in number, were transferred to the candidates indicated by his supporters as their next preferences.

The relative position of candidates was not affected by the transfer. None of the other candidates had obtained a quota, and it became necessary to transfer the votes of Drs. Brown, Heaney, Hodgson, and O'Sullivan to the next preferences recorded upon their papers. Dr. Reynolds was in most cases the next preference, he being marked as such on 133 papers, as against 38 on which Mr. Larkin was preferred.

The final result was as follows:

Dr. Helme	420	(*elected*)
Dr. Reynolds	444	(*elected*)
Mr. Larkin	376	

Dr. Reynolds was accordingly elected to fill the second vacancy.

A most interesting election was that of the four members to which the Metropolitan Counties Branch was entitled. The first preferences were as follows:

Dr. F. J. Smith	349
Dr. Major Greenwood	264
Dr. Buttar	136
Dr. Williams	107
Dr. Biggs	99
Dr. Fuller	67
Mr. Lowry	49
Dr. Morison	49
Mr. Archer	39
	1,159

The quota was found by dividing the total number of papers by five (one more than the number of vacancies), and adding one to the result. The number thus obtained was 232. Both Dr. Smith and Dr. Greenwood had obtained more than this number of votes, and they were, accordingly, elected. Their excess votes were distributed in strict proportions to the second preferences shown on their papers. In the distribution of these excess votes Drs. Morison and Biggs obtained the largest shares, the former receiving 52 and the latter 40. After the completion of the transfer of these excess votes the poll stood as follows:

Dr. Smith	232	(*elected*)
Dr. Greenwood	232	(*elected*)
Dr. Buttar	152	
Dr. Biggs	139	
Dr. Williams	119	
Dr. Morison	101	
Dr. Fuller	75	
Mr. Lowry	65	
Mr. Archer	44	

It will be seen that no candidate other than those already elected had obtained the quota, and it became necessary to transfer the votes of the lowest candidate on the poll (who had no chance of election) to the next preferences as indicated by his supporters. The votes of Drs. Archer, Lowry, and Fuller were transferred in succession. In these distributions Dr. Morison received a further considerable accession of votes, but notwithstanding this his total was not brought above that of Dr. Biggs or that of Dr. Williams. He did not escape elimination. His were the last votes to be transferred, and it was found that a very large number of them, sixty-nine, fell to Dr. Biggs, he being the next preference on that number of papers. The final result was as follows:

Dr. Smith	232	(*elected*)
Dr. Greenwood	232	(*elected*)
Dr. Biggs	238	(*elected*)
Dr. Buttar	193	(*elected*)
Dr. Williams	184	

Dr. Biggs's total is shown with six more than the quota, but no further distribution was necessary, for if all these had fallen to Mr. Williams his total would still have been less than that obtained by Dr. Buttar. Dr. Buttar was accordingly elected to fill the fourth vacancy. The full details of this election are shown in the following result sheet.

METROPOLITAN COUNTIES BRANCH.

RESULT SHEET.

Number of Votes, 1,159. Quota $= \frac{1159}{5} + 1 = 231 + 1 = 232.$

Names of Candidates.	First Count.	Distribution of Smith's Surplus.	Result.	Distribution of Greenwood's Surplus.	Result.	Distribution of Archer's Votes.	Result.	Distribution of Lowry's Votes.	Result.	Distribution of Fuller's Votes.	Result.	Distribution of Morison's Votes.	Final Result.	
Archer, T. L.	39	+ 4	43	+ 1	44	−44								
Biggs, M. G.	99	+ 31	130	+ 9	139	+11	150	+10	160	+ 9	169	+ 69	238	Elected.
Buttar, Charles	136	+ 15	151	+ 1	152	+ 9	161	+12	173	+ 7	180	+ 13	193	Elected.
Fuller, J. R.	67	+ 7	74	+ 1	75	+ 1	76	+ 8	84	−84				
Greenwood, Major	264		264	−32	232		232		232		232		232	Elected.
Lowry, E. W.	49	+ 12	61	+ 4	65	+ 7	72	−72						
Morison, B. G.	49	+ 39	88	+13	101	+ 4	105	+12	117	+35	152	−152		
Smith, F. J.	349	+117	232		232		232						232	Elected
Williams, A. H.	[illegible]	[illegible]	116	+ 3	119	+ 9	128	+14	144	+19	161	+ 23	184	
Preferences exhausted						+ 3	3	+16	19	+14	33	+ 47	80	
Total			1,159		1,159		1,159		1,159		1,159		1,159	

ELECTION OF COUNCIL, SESSION 1912—13

BRANCHES IN THE UNITED KINGDOM.

BRANCHES INCLUDED IN GROUP.	NAME.	UNOPPOSED OR CONTEST.
North of England, and North Lancashire and South Westmorland Branches	Mr. D. F. TODD	Unopposed.
Yorkshire Branch	Dr. JAMES METCALFE	Unopposed.
Lancashire and Cheshire Branch	Dr. T. A. HELME	Elected.
	Dr. E. S. REYNOLDS	Elected.
	Mr. F. C. Larkin	
	Mr. J. E. O'Sullivan	
	Dr. John Brown	—
	Mr. S. Hodgson	
	Dr. F. J. S. Heaney	—
East York and North Lincoln, and Midland Branches	Dr. F. M. POPE	Unopposed.
Cambridge and Huntingdon, East Anglian, and South Midland Branches	Dr. J. G. DURRAN	Unopposed.
Birmingham and Staffordshire Branches	Mr. ALBERT LUCAS	Unopposed.
North Wales, Shropshire and Mid-Wales, and South Wales and Monmouthshire Branches	Mr. D. J. WILLIAMS	Unopposed
Metropolitan Counties Branch	Dr. F. J. SMITH	Elected.
	Dr. MAJOR GREENWOOD	Elected.
	Dr. M. G. BIGGS	Elected.
	Dr. CHARLES BUTTAR	Elected.
	Dr. A. H. Williams	
	Dr. B. G. Morison	—
	Dr. J. R. Fuller	—
	Mr. E. W. Lowry	—
	Mr. T. L. Archer	—
Bath and Bristol, Gloucestershire, West Somerset, and Worcestershire and Herefordshire Branches	Dr. GEORGE PARKER	Elected.
	Mr. Herbert Jones	—
Dorset and West Hants, and South-Western Branches	Mr. E. J. DOMVILLE	Unopposed.
Oxford and Reading, and Southern Branches	Dr. W. J. TURRELL	Elected.
	Dr. B. H. Mumby	—
South-Eastern Branch	Dr. W. J. TYSON	Elected.
	Dr. E. Rowland Fothergill	—
	Mr. J. Henry Ewart	—
SCOTLAND.		
Aberdeen, Northern Counties, Dundee, and Perth Branches	Dr. JOHN GORDON	Unopposed.
Edinburgh and Fife Branches	Dr. J. R. HAMILTON	Unopposed.
Glasgow and West of Scotland Branch (4 City Divisions)	Dr. JOHN ADAMS	Elected.
	Dr. Ebenezer Duncan	—
	Mr. W. L. Muir	—
Glasgow and West of Scotland (4 County Divisions), Border Counties, and Stirling Branches	Dr. J. LIVINGSTONE LOUDON	Elected.
	Dr. R. D. Clarkson	—
IRELAND.		
Connaught and South-Eastern of Ireland Branches	(Nomination received after prescribed date.)	
Leinster Branch	(Nomination received after prescribed date.)	
Munster Branch	Professor H. CORBY, M.D.	Unopposed.
Ulster Branch	Mr. R. J. JOHNSTONE	Unopposed.

National Insurance.

REGULATIONS ISSUED UNDER THE INSURANCE ACT.

ANOTHER batch of provisional regulations and draft regulations has been issued.

The provisional regulations made under Section 66 of the Insurance Act deal with the determination of questions by Insurance Commissioners (England). They lay down the procedure to be followed in questions relating to the class of employment and to those not relating to the class of employment, and the circumstances in which the Commissioners, before giving their decision, may direct a hearing before a person specially appointed.

Regulations have also been made by the Joint Committee of Insurance Commissioners as to the constitution of a separate section established by a society for the purposes of Part I of the Act. Among other points which such a section must regulate by approved rules is the manner of admission and expulsion of members.

The Joint Committee and the Insurance Commissioners acting jointly have made provisional regulations as to the payment and collection of contributions payable by an employer under Section 4 (4); the regulations contain details as to exemptions.

The Joint Committee has also issued draft regulations as to the administration account of an approved society.

HOSPITAL STAFFS AND THE SUPPLEMENTARY PLEDGE.

London.

AT a largely attended meeting of the acting medical and surgical staffs of London hospitals, held on Friday, June 14th, at the Royal Society of Medicine, No. 1, Wimpole Street, the "pledge complementary to the undertaking of the British Medical Association" was fully considered, and it was decided by an overwhelming majority to support the pledge as drawn by the Association.

Dundee.

At a special meeting of the medical staff of the Dundee Royal Infirmary held on June 8th to consider the supplementary pledge of the British Medical Association in its relation to hospital staffs, the third paragraph was modified and the pledge was adopted in the form shown below. The meeting recommended it for the acceptance of the members of the staff. The pledges, when signed, will be transmitted to the Secretary of the Dundee Provisional Medical Committee. The third paragraph, as originally drafted and as modified, are as follows:

As Drawn.	*As Modified.*
* After that portion of the National Insurance Act, referring to medical benefit, comes into operation, and until the terms and conditions of administering medical benefit under the National Insurance Act have been approved by the profession, (1) I will not, except in cases of urgent necessity, render professional service to an insured person through the service of any voluntary medical charity; (2) I will not co-operate with any member of the profession who is under contract to render service to insured persons upon terms which are not approved by the profession.	* After that portion of the National Insurance Act, referring to medical benefit, comes into operation, and until the terms and conditions of administering medical benefit under the National Insurance Act have been approved by the profession, I will not, either in private practice or as an officer of a voluntary medical charity, co-operate with any member of the profession who is under contract to render service to insured persons upon terms which are not approved by the profession, except in cases of urgent danger to the individual, and will not as officer of a voluntary medical charity render professional service to an insured person as such.

* This paragraph does not refer to the administration of sanatorium benefit.

PROVISIONAL MEDICAL COMMITTEES.

County Borough of Dublin.

A MEETING of the Local Medical Committee for the county borough of Dublin was held in the Royal College of Physicians, Kildare Street, on June 6th, when the following resolutions were passed and ordered to be published:

1. That a minimum fee of 2s. 6d. per head be charged for the medical examination of all candidates for entrance to societies without prejudice to existing contracts.
2. That pending the introduction of medical benefits to Ireland an endeavour be made to organize the profession in Dublin on the basis of 8s. 6d. capitation fee for single persons and 12s. for families.

Belfast.

A public meeting of the medical practitioners of Belfast was held in the Ulster Medical Institute on April 26th. The meeting was held under the auspices of the British Medical Association, the Ulster Medical Society, and the Belfast Medical Guild, and was called for the purpose of electing a local Medical Committee, representative of the profession in Belfast, under Clause 62 of the National Insurance Act; to consider the report of the Conjoint Committee; to consider the agenda issued with the report; to nominate seven representatives to attend the meeting of delegates to be held in Dublin on June 11th; and to receive the report of the Committee appointed to consider the midwives clause of the Belfast Corporation Bill (1911). The gathering was large and representative. Mr. R. J. JOHNSTONE (Honorary Secretary, Ulster Branch, British Medical Asssociation) presided. The Chairman made an eloquent appeal to the profession in Belfast for unity and combination, and for support of the British Medical Association. He pointed out the necessity that every man should sign the "undertaking" *re* contract practice. A resolution was passed unanimously that every member elected on the local Medical Committee should be called on to sign this document. The following members were selected as delegates to the meeting in Dublin: Drs. R. J. Johnstone, A. P. B. Moore, MacIntosh, Cahill, Rusk, J. R. Davison, and T. A. Davidson.

Dr. RUSK read the report of the committee *re* midwives clause of the Belfast Corporation Bill (1911). A long discussion ensued, in which Sir JOHN BYERS and Drs. TRIMBLE and O'NEILL took part. The corporation was severely censured for not consulting the medical opinion of the city before presenting their bill to Parliament.

It was resolved that a committee of 60 members representing all branches of the profession should be nominated. The following members were then elected: Drs. Marion Andrews, Elizabeth Bell, Robert Boyd, J. S. Bryars, W. Burnside, Sir John Byers, Cathcart, John Campbell, Robert Campbell, S. B. Coates, Cunningham, T. A. Davidson, J. R. Davison, Sir A. Dempsey, George Elliott, J. Ewing, A. A. Ferguson, Andrew Fullerton, W. Gibson, M. Henry, T. S. Hogg, George Hogg, H. Hanna, Robert Hall, H. Irvine, R. J. Johnstone, C. Kevin, W. Killen, R. W. Leslie, A. P. B. Moore, J. Martin, W. Magill, W. Monypeny, A. B. Mitchell, McAuley, R. C. McCullagh, T. McDonald, J. McIlroy, John McIntosh, D. J. McKinney, H. L. McKisack, J. McSporran, John O'Doherty, Sir Peter O'Connell, Henry O'Neill, Patton, H. J. Ritchie, James Ritchie, John Rusk, Gardner Robb, J. Rankin, John Stewart, Robert Thompson, Andrew Trimble, James Taylor, Robert Watt, R. Watson, R. Wilson, William Wadsworth.

Meeting of Committee.—The first meeting of this Committee was held in the Ulster Medical Institute on June 13th, at 4.30 p.m. The agenda contained the following items. To elect a chairman from among the members; to elect a convener; to provide means of meeting the expenses of this committee; to obtain signatures to the "undertaking" of those members who have not already signed. Sir John Byers was unanimously elected chairman; Dr. T. Cathcart, vice-chairman; Dr. T. A. Davidson, convener. The CHAIRMAN said that although medical benefits under the National Insurance Act had not yet been granted to Ireland, the medical profession in Ireland

was in as bad a plight as their English and Scottish brethren, in that, while they had any benefits that the Act might be able to give them, the Irish profession was deprived of them, and left with all the disabilities and the evils of contract practice accentuated to a greater extent than ever before. It therefore behoved them to combine, and be strong in their combination, to fight the enemy not as individuals to be defeated and thrust aside one by one, but as one powerful and combined body, determined to ask only for their rights, and see that they got them. Dr. ELLIOTT said he would supply the divisional secretaries of the Belfast Medical Guild with lists of those members who had not yet signed the "undertaking." It was decided that each district should be canvassed and every member asked to sign. Dr. GARDNER ROBB suggested that a list of those men in the district who refused to sign the "undertaking" be hung up in the hall of the institute. The CHAIRMAN asked the delegates to the Dublin meeting to give a short account of that important gathering. Mr. R. J. JOHNSTONE gave a very interesting but necessarily short synopsis of the proceedings. Dr. A. P. B. MOORE also spoke. A resolution was unanimously passed to support the 8s. 6d. fee as the minimum for contract work. Dr. MONYPENY introduced the subject of the Guarantee Fund, which resulted in a large number of members joining this Fund. With regard to financial support for this committee a long discussion took place. A subcommittee to consider the best form of "resignation of society appointment" circular, to be sent by each society surgeon to his secretary, was then elected. The following members were chosen: Drs. Cathcart, H. J. Ritchie, J. MacIntosh, A. P. B. Moore, R. J. Johnstone, Sir John Byers, and Dr. T. A. Davidson. It having been decided to leave the date of the next meeting to the discretion of the Chairman, Vice-Chairman, and Convener, the meeting terminated.

Manchester (West) Division.

The first meeting of this committee was held in the Technical Institute, Old Trafford, on Friday, June 14th, at 9 p.m. There were present Drs. Brown, Eales, Edge, Farrow, Hart, Knight, Mockler, Redmond, and Scanlon. It was resolved that the posts of chairman and secretary of this committee be filled by the chairman and secretary of the Division (Drs. Edge and Knight). Dr. EDGE then took the chair. A letter of apology for non-attendance was read from Dr. Quayle. Reports of the progress of the canvassing for the supplementary pledge and club resignations were then given by the representatives of the various districts. The list of practitioners in the district was then gone over in detail. Numerous inquiries having been made as to whether railway clubs were to be resigned, the secretary was instructed to obtain an authoritative ruling on this point from headquarters. It was resolved to hold the next meeting on Thursday, June 20th, at 9 p.m.

Manchester (South) District.

A meeting of this Committee was held at the house of Dr. W. E. Sawers Scott, 57, Wilmslow Road, Withington on Wednesday, June 12th, at 3.10 p.m. Dr. EDLIN was in the chair, and twelve members were present; the remaining four having sent apologies for absence.

The minutes of the previous meeting were read and confirmed.

Arising out of the minutes (1) the HONORARY SECRETARY reported that, as instructed, he made out a list of general practitioners in the district who were not members of the British Medical Association and forwarded the list to each of them, twelve in number, requesting nominations for membership of the Committee. No nominations had been received. One non-member of the Association was found to have left the district, and his address had been forwarded to the head office. His successor, a newcomer in the district, together with six other non-members had intimated their intention of joining the Association, leaving only five non-members in general practice in the district of whom it is hoped at least two will join. (2) The Honorary Secretary also announced that he had obtained as requested a few copies of the original undertaking and ascertained that any one who had not signed it previously would be entitled to claim participation in the benefits of the Defence Fund by doing so now.

The following gentlemen, having been duly proposed and seconded, were unanimously co-opted as members of the committee: Dr. W. K. Jones, 2, Syndall Street, Ardwick, and Dr. J. Kindon, 38, Hyde Road, Ardwick.

Circular D 54 was read and considered, and the following resolution passed:

> This committee strongly approves the action of the State Sickness Insurance Committee in refusing to nominate medical practitioners to serve on the proposed Provisional Insurance Committees, and also its decision not to accept at present the suggestion to reorganize Provisional Medical Committees to coincide with insurance areas, but regrets that the State Sickness Insurance Committee met the Insurance Commissioners in conference instead of demanding a definite written acceptance or rejection of the expressed minimum demands of the profession.

The progress of the canvass of the district was then considered. There are 129 names on the committee's list, of whom only 108 are actually in practice in the area, the remaining twenty-one being retired, resident abroad, engaged as whole-time medical officers, etc., and few, if any, of them can in any case be available for attendance on persons insured under the Act.

Of the 108 actually in practice in the district, of 19 members of honorary staffs of hospitals 16, and of 49 general practitioners 47 have signed the pledge; of 40 general practitioners holding contract appointments 37 have signed the pledge, and 34 have signed resignations.

Plymouth.

A meeting of this committee was held in the Medical Society's rooms recently. Nineteen members were present. Letters of apology for absence were received from Dr. Cue (Tavistock) and Dr. Haiston (Kingsbridge).

Report.—The minutes of the previous meeting having been read and confirmed, the report on the canvass for pledges, etc., up to date was considered. After making the necessary corrections, by additions, removals, and deaths, in the list supplied for the purpose of a canvass it appears there are one hundred and seventy medical men resident in the Divisional area. Thirty of these have retired from active practice and hold whole-time appointments under various public authorities. Some of these, owing to their position, were not approached, though doubtless they would have joined the majority. Twenty-two hold hospital appointments, twenty of whom have signed the pledge. Forty hold club appointments; thirty-six have signed the pledge, and twenty-four have sent in their resignations to the honorary secretary. Seventy-four hold no appointments, of whom sixty-five have signed the pledge. Total number of pledges received, one hundred and thirty-six. Only three have definitely refused to sign the pledge, the residuum being undecided between their desire to wound yet afraid to strike, but expressed their intention to cheerfully accept the result of successful labours in which they have taken no part. It was resolved to try the effect of a little more pressure on these gentlemen. The guarantee fund is still in an unsatisfactory condition, and it is hoped this is due rather to slackness than to impecuniosity.

Several questions were raised by various members of the committee as to what attitude should be taken as to Provisional Health Committees, etc. It was finally resolved, on the motion of Dr. R. SIMPSON:

> That it is desirable that the State Insurance Committee issue precise instructions as to the proper attitude to be adopted by part-time medical officers of health, Poor Law medical officers, and other medical men who are asked to supply information or other details that may be used towards promoting sanatorium or other medical benefit under the Insurance Act. Further, to define the position of those medical members of such public bodies as county boroughs and district councils if appointed to act as members of the Provisional Health Committees.

The Honorary Secretary was requested to forward this resolution to the Medical Secretary. It was decided that the whole of the profession in the area should be invited to attend the discussion on the two schemes of a Public Medical Service at a Divisional meeting to be held on June 18th.

Cardiff.

Dr. W. Courtenay Milward, Honorary Secretary of the Local Medical Committee, sends us the following results of the canvass to date:

Retired ...	... 10	of whom	1 has signed pledge.
Whole-timers	... 16	,,	7 have signed pledge.
"Home" addresses	3	,,	0 ,, ,, ,,
Not in practice	... 4	,,	1 has signed pledge.
Residents...	... 8	of whom	3 have signed pledge.
Honorary staff	... 26	,,	26 ,, ,, ,,
Club holders	... 158	,,	131 ,, ,, ,,
Others ...	... 43	,,	31 ,, ,, ,,
Total practitioners affected by Act...	235	of whom	194 have signed pledge.

Lambeth.

The following resolutions were passed unanimously at the last meeting of the Committee:

1. The members of the Provisional Medical Committee of the area of the Borough of Lambeth, being of opinion that the solidarity of the profession in the present crisis is of vital importance, and is an object to be attained by all legitimate means, and feeling that the policy of the British Medical Association is not receiving the support it deserves from the consultant class of the profession, hereby pledge themselves to employ only the services of such consultants as shall have signed the supplementary pledge.
2. That the Executive Committee of the Lambeth Division be asked to submit a resolution on the above lines at the forthcoming meeting of the Division, and to request other Divisions to adopt the same.
3. That the secretary be requested to send copies of the above resolutions to the honorary secretary of the Marylebone Division, and to the editor of the BRITISH MEDICAL JOURNAL.

The Honorary Secretary of the Committee, Dr. Donald J. Munro, to whom we are indebted for this report, adds: The Lambeth Provisional Medical Committee are very strongly and unanimously of opinion that the difficulty which consultants find, in reconciling the terms of the pledge with those of their appointments to their respective hospitals, is a matter of no importance whatever in comparison with the pecuniary sacrifices made and vested interests relinquished by general practitioners throughout the kingdom, who outnumber the consultants by 29 to 1.

Willesden.

A meeting of the committee was held on June 13th at 35, Mapesbury Road, Brondesbury. There were present: Drs. Coram James, Bindley, Cardinall, Macauley, Rawes, Rutherford, Skene, Soden, Carson-Smyth, Traylen, F. C. Evans, Felce, Muller, Turner, and Walker.

Apologies for non-attendance were received from Drs. Armitage, Anderson-Smith, and Smurthwaite.

Dr. CARSON-SMYTH proposed:

> That this committee recommend that the practitioners of Willesden refuse to work the Act.

This was seconded by Dr. MULLER *pro forma*. It was pointed out that it was too late and impracticable to adopt this attitude, as the Act was now law, and that it was better to follow the lines recommended by the British Medical Association. The motion was defeated by 13 votes to 1.

Dr. TRAYLEN proposed:

> That the members of this committee personally canvass the district for the purpose of obtaining signatures to the supplementary pledge and guarantees and subscriptions to the Central Defence Fund.

Dr. FELCE seconded. Dr. SODEN proposed as an amendment:

> That the pledges be signed provisionally and be not sent in to the head office until decided later at a general meeting of the whole of the practitioners in the district.

Dr. SKENE seconded, and the motion was carried *nemine contradicente*.

The original motion with the amendment was then put to the meeting and carried *nemine contradicente*.

The canvass cards were then distributed among the members of the committee.

It was arranged that the next meeting should be held at Dr. Coram James's, 114, Walm Lane, on Thursday June 27th, at 4 p.m.

MEETINGS TO BE HELD.

BUCKINGHAMSHIRE DIVISION.—The Provisional Local Medical Committee will meet on Tuesday, June 25th, at 2.30 p.m., at the Royal Buckinghamshire Hospital. Every member of the Buckinghamshire Division is urged to obtain the signature of all in his district to the pledge before that date.—THOS. PERRIN, Honorary Secretary, Aylesbury.

CORRESPONDENCE.

[*It is particularly requested that communications intended for publication should be written on one side of the paper only, and should be addressed to the Editor,* BRITISH MEDICAL JOURNAL, *429, Strand, London, W.C.*]

HOSPITAL STAFFS AND THE SUPPLEMENTARY PLEDGE.

MR. CHARTERS J. SYMONDS (London) writes: I beg you will allow me space to explain an attitude towards the pledge which, compelling me to support it, may be of service to others.

I have had, as a member of a committee of the Council of the Royal College of Surgeons to go fully into the medical clauses of the Act, and have besides obtained information from friends working under contract, and from others in practices where the greater number of patients now paying fees amounting to three or four times the insurance rate per annum, will come under the Act.

The one thing all members of the profession understand is the wording of the pledge. Any attempt to vary the wording, in order to remove in part at least the objection that many of those on the staffs of hospitals feel to the second part, seems to lead to misunderstandings. It seems impossible to find agreement, where so many have propositions to make. Moreover, those supporting the pledge will see in any alteration a sign of weakness, and conclude that the support is only half-hearted, however untrue such a conclusion may be.

But, more important still, any alteration is sure to be twisted by opponents into a difference of opinion, and into a split between "consultants" and "general practitioners." It becomes, therefore, essential to support the pledge as it stands.

The acceptance of the first clause as applying to those on the staffs of the voluntary charities in London has been made easy by the generous support of the lay committees as we learnt at the meeting on Friday the 14th. Both bodies are equally interested in preventing the abuse of the out-patient practice.

The difficulty arises with regard to the second part—namely:

> I will not co-operate with any member of the profession who is under contract to render service to insured persons upon terms which are not approved by the profession.

Here freedom of the individual is interfered with, and he is, if he acts up to the wording of the clause, debarred from rendering assistance to a dissentient practitioner even in the event of the patient being that man's own child. There is nothing in this clause as to "urgent necessity," and therefore those who sign the pledge as it stands are bound by the wording.

I find I must, in order to support my brethren, support the pledge as a whole, for this way alone lies unanimity.

The risk of dissentients ever existing must be taken; but from what I know of some districts, and from what I read in the journals, there is every reason to believe that the dissentients will be few.

OUR BOOKS AND THE ACT.

Dr. HARRY GREY (Bristol) writes: With a view to arriving at a just capitation rate, Mr. Lloyd George proposes to find out what income a doctor now receives from the class of patients from which the insured will be drawn, and our Association approves the proposal as a business-like one. Was there not one man on the State Sickness Insurance Committee with sufficient understanding of the situation to know that what the general practitioner wants in the stereotyping of a State service is—not as good an income as he is now getting from these people (or, rather, not as bad a one), but remuneration sufficient to do justice to his work? This move may not have been made with the deliberate intention of causing still further delay in arriving at a settlement, but it will have unavoidably this effect, and we general practitioners are so sick of the

business and of the bungling that we would sacrifice a point or two to get back to the even tenor of our way. The proposed investigation is simply futile, and should have been condemned as such by the State Sickness Insurance Committee. The "Instructions" require a further paragraph,

> 9. Particulars of the medical attendance required, but not received by the population,

faintly indicated by the number of inquests and uncertified deaths, but not ascertainable accurately. That Mr. Lloyd George should be ignorant of this and other points of medical practice is hardly surprising, but that our own representatives should need coaching fills one with despair. As I indicated when dealing with this subject in the JOURNAL last year, from insufficient data no conclusion can be drawn; the data in this case are both illusory and incomplete, and the only feasible method of calculating a capitation rate is the one I indicated of determining what you are going to allow as a fair income for a medical man in full work, multiplying that figure by the number of doctors in practice, and dividing it by the population.

Dr. F. C. MEARS (North Shields) writes: "Will you walk into my parlour said the spider to the fly," and the British Medical fly seems so fascinated in the presence of the Arachnes of the Exchequer that it seems inclined to accept the invitation. The wiliness of his latest proposal is too transparent. One can imagine the amusement that would be created in legal circles if he proposed that every solicitor in six appointed towns should open his books to the inspection of the Treasury.

There must be some members of the State Sickness Insurance Committee sufficiently acquainted with contract practice to be aware that practically no record is kept of work done under this system. Indeed, it is one of its chief recommendations that the medical man can devote the whole of his time and energy to professional work and not be bothered with tiresome book-keeping, and here I may remark that if the Commissioners in their regulations are expecting general practitioners working on a capitation system to keep books and make out returns there will be a definite refusal to work the Act either for 8s. 6d. or double that sum.

The Chancellor knows quite well from friendly society sources that the average annual sickness per member is eleven days for selected lives, and this alone is sufficient to justify our claim. But in addition to this there are scores of club members who consult the doctor and get medicine, but who do not put themselves on the society, and with regard to this class of work there is no record of any kind.

The State Sickness Insurance Committee has made a most generous offer in suggesting 8s. 6d. for selected lives, but this figure must be very much augmented in the case of such approved societies as enrol members without medical examination and in the case of Post Office contributors.

The Chancellor is treating us as if we were clamouring for the privilege of working under his Act. So far from this being the case, the majority of us would be only too pleased if the medical benefit were dropped. If he really wants our assistance, he must put into practice the doctrine he has so often preached—that cheap doctoring is bad, and that therefore the remuneration he should offer ought to be sufficient to enable a general practitioner to make a living without being overworked.

Dr. T. ARCH. DUKES (Croydon) writes: You report (p. 1385) that ten days ago the Chancellor found himself able to state that on several of our cardinal points the Act and the regulations to be made under it would secure the objects which the profession had in view, but that on the important point of the amount of remuneration for medical services under the Act the Chancellor indicated that an investigation was necessary into the most intimate details of private practice.

We have found the Chancellor able to make so many promises which remain unfulfilled that before we assist or allow such an inquisition we should insist on seeing those regulations which are to give us some of our cardinal points, and inquire how we are to be given the rest of our minimum demands. So long as the suggested service remains undesirable let us oppose it with united passive resistance.

As we are asked to undertake all the risks of this health insurance, and to supply the knowledge, capital, and services to work the Act we might fairly expect to have the whole management. The Act at present offers us tyranny from a committee of ignorant working men, who value our services at 4s. a head per annum and boast that they can manage the doctors.

We know how they have treated us under a voluntary system. This compulsory Act, to assist that "management," makes us liable to slights, insults, bullying, and black ruin with no redress. If we cannot even be allowed a right of appeal, with trial by our peers, we had better close our books to the inquisitorial investigator who comes to spy out how much we have been sweated in the past, and how much the State can hope to squeeze out of us in the future.

Unless honourable conditions of service can be offered us the necessary cost of such a service is a matter of indifference.

Dr. G. H. LOCK (London, W.) writes: I hope that no practitioner will be so simple as to allow any actuarial examination of his books to be made for the purposes of this Act.

Mr. Lloyd George's actuaries can examine the returns made under Schedule D, where they will find estimates of incomes which they may be sure are not wilfully exaggerated.

Estimates of work done under present conditions cannot be sound guides as to what may be required of us under the Act.

We may be quite sure that no advance will be made upon any actuarial estimates whatever. In other words, while every section of the community is to benefit by the results of our labours, we are to consider ourselves lucky if we can prove that we are not to suffer financially.

It is now, I think, for the State to act like any other prospective employer of labour. We have rejected certain terms offered and have stated what we are prepared to take; let Mr. Lloyd George, without any further haggling or abuse, definitely reject or accept our terms.

ATTENDANCE ON FRIENDLY SOCIETY MEMBERS BEFORE MEDICAL BENEFIT COMES INTO FORCE.

Dr. ERNEST D. PINEO (Langford, Somerset) writes: In the memorandum for the assistance of Divisions in the matter of the formation of Provisional Medical Committees recently issued by the State Sickness Insurance Committee a suggestion is made which, if adopted by the profession, would be in direct variance with one point at least of our "seven-point policy."

It is proposed that if the Commissioners grant terms for medical attendance acceptable to the Association that the members should pledge themselves not to accept on their list of insurers for the first six months patients who belong, or have recently joined, friendly societies to whom other medical men are attendants if the previous holder wishes to retain them.

As a club medical officer of a good many years' standing I am convinced this will perpetuate that very undignified association of doctors' names to certain friendly societies which many of us hoped the resistance of the profession to the Insurance Act was about to terminate for ever. How often it is that this or that medical man's name is used as a bait to get new members of a friendly society, and the relative advantages of this or that man used by energetic but tactless friendly society secretaries!

At the present moment we have the entire sympathy of the public in our fight with the Government, and it would appear (by the debate on Mr. Grant's motion) also that of the House of Commons; if there is one thing more than another which has won us that sympathy it is because we have shown the courage of our opinions and plumped for freedom of choice on both sides—doctor and patient. How can we possibly hope to maintain that freedom of choice of patients (a claim the friendly societies so strongly resist) if, on the other hand, we are *now* unwilling to grant the same to our patients during the crucial first six months?

All of us who have anything to do with friendly societies know that they have been vastly increasing their memberships during the last year; are all these new members, after all, not to have their choice of medical attendant? This suggestion if acted on would be grossly unfair to those

men on the panel who do not now hold friendly societies—are they to lose all their private patients who become insured persons and join clubs? This suggestion put forward by the State Sickness Insurance Committee is entirely without instructions from the Association through their constituted Representative Body; and if the Committee are to be at liberty to alter our "seven cardinal points" at their discretion it will be quite hopeless to expect the profession to keep together and protect their attacked interests.

No variation can be made in these "seven cardinal points," except by the Association instructing the Representative Body through the Divisions.

A Plea for the "Pooling" System.

Dr. C. COURTENAY LORD (Honorary Secretary, Rochester and Chatham Division), in a letter on this subject, after some introductory observations, writes: Few thinking men in the friendly societies recognize that, as the liability of the insured is limited to 4d. a week, it does not concern him whether the medical man gets 8s. a year or 80s. Also, they are genuinely anxious to obtain a good medical service, which can only be obtained from a satisfied medical profession. I will go so far as to say that in my experience there is no keen or general desire to replace by whole-time outsiders the men who have served so long and well in the past.

Now, recognizing this, the Division of which I am the Honorary Secretary took a step which I shall always maintain was a wise and prudent one, and which might do great good and could do no possible harm. Our Provisional Committee met the leaders of the friendly societies and had a talk. Both sides learnt something from the conference, and the meeting terminated with a hope expressed by the friendly society leaders that further meetings might take place. As a direct outcome of this meeting an effort is being made to amalgamate all the societies in the district with a view to pooling all the contributions for medical attendance. Charges made will be according to an agreed tariff. The insured will consult any doctor they wish, and all accounts will be paid out of the pool.

Now, I submit that if this scheme can be set up after the details have been settled in joint conference all the difficulties which confront us at present will vanish.

What shall we get?

1. Real free choice of doctor because there will be no panel. Under no "panel scheme" can there or will there ever be free choice of doctor.
2. Real freedom from friendly society control.
3. Medical and maternity benefit will be administered by the local Health Committee. As we shall no longer be at loggerheads with the friendly societies, the local Health Committee will be able to do as much as it pleases.
4. Representation on the various committees.
5. Method of payment in accordance with the wish of the majority. In spite of all that has been said to the contrary, Kent has recognized that payment for work done is possible and means to have it. Payment also is to be adequate. This looks not unlike our six-point programme.

As regards the income limit, if we are paid adequately for work done (as we shall be or we shall not accept the scheme), a cast-iron £2 limit need not be enforced, provided we retain a right to challenge and charge extra where it seems desirable.

The one and only objection to the scheme is the possible failure of the bank. If the bank breaks it proves that our demands have not been unreasonable, and there is authority for saying that the Act provides for the possibility of making up a deficit. In the last issue of the JOURNAL a Dr. Taylor advocates a pooling system, and quotes Clause 15 (3) in support of my contention *re* deficit. If this is the Dr. Taylor who while a member of our Council was loudly extolled by a certain section of the lay press for having written a book on the Act with a preface by Mr. Lloyd George, he must be considered an authority. I may, of course, be mistaken.

Here, then, is the scheme. It is simple, effective, and easy of attainment. It is possible, we know, for something of the kind is being done in Dunfermline. Under no other system shall we get anything half as good. It will wipe out contract practice where it exists; it will prevent it being started where it does not. If it can be made universal all our difficulties vanish, our practice values, now gone, will be restored, sales will once more become a possibility, and the present strain and anxiety, which is already wellnigh unbearable, will vanish.

I commend this scheme to the serious consideration of the profession.

If Terms are not Arranged.

Dr. MAJOR GREENWOOD (London, E.C.) writes: The point raised by Dr. Kennish in his letter last week is well worthy of attention. The approved societies need not take upon themselves the responsibility of finding medical attendance for their members, but if they accept from the Commissioners the contributions of their members towards medical benefit, they will be bound to find doctors for them.

On the other hand, if they decline, and the contributions are given to the individual members, it becomes much more difficult for the friendly societies to carry on anything like their present system of medical clubs. It is this dilemma, I think, that has drawn forth the remarks quoted by Dr. Kennish from *Unity*. There is one other point that must not be forgotten. The approved societies may, or may not, accept this liability, but all the present friendly societies, with few exceptions, are, and will continue, bound to supply medical attendance for their present members. When it is considered how large a proportion of them are beyond middle life, and have for many years paid for this benefit, the responsibility of these societies in this respect cannot be overrated. The medical profession has never had so good an opportunity of enforcing its just claims on the friendly societies of the country, and would really be in a better position if the Commissioners refused to grant the seven conditions demanded, and were left to deal single-handed with the approved societies. This being so, a tremendous responsibility rests on the Executive of the Association not to depart one hair's breadth from the demands that have been formulated. No one is out "to smash the Act," but I hope we are all agreed that we will have nothing to do with working the medical arrangements, unless the work is left in our hands to be regulated in accordance with what we think as a profession is best calculated to promote the interests of the public with due regard to what is just to ourselves.

Sanatorium Benefit and the General Practitioner.

Dr. W. CAMAC WILKINSON (London) writes: Under the Insurance Act the medical profession is destined to play a great part in maintaining the health of the community. Two main objects are in view, more or less distinct, and demanding different methods—(1) Prevention: and (2) the treatment of disease. Within recent years the organization of public health under medical officers of health has been productive of such a vast amount of good, that there may be some risk lest this splendid service encroach upon the legitimate functions of the general practitioner of medicine. It is not easy always to demarcate the province of the medical officer of health, and when he is at the same time a general practitioner the situation becomes even more complicated. It must be understood from the outset that the medical officer of health can rarely carry out these dual functions with efficiency. For efficiency the law of the division of labour must be respected. Already there are clear signs in the air that the medical officers of health may attempt to control, in some measure at any rate, the treatment of disease. I do not think that this would be in the interest either of the patient or of the general practitioners, who constitute the bulk of the medical profession, nor would it be an advantage to the health of the community. There is serious danger that in carrying out the clauses of the Insurance Act dealing with sanatorium benefit medical officers of health may dip their fingers too deeply into the pie. Unless this be resisted or prevented, the general practitioner is bound to suffer. The medical officers of health are officials, and constitute a very powerful and well-organized machine which may crush the individual practitioner of medicine. I see the dangers chiefly with regard to the measures for dealing with tuberculosis under the Insurance Act. The public health officers will use the plausible argument that it is better to prevent tuberculosis than to cure it, and there is the risk that in carrying out measures for the prevention of the disease they may

consider themselves the best agencies also for organizing measures for treatment. Tuberculosis is such a widespread disease, and every case of tuberculosis properly treated needs so much constant and prolonged care, that a very large part of the time and work of the general practitioner should be devoted to the treatment of this disease.

The treatment of tuberculosis according to modern ideas and by modern methods is likely to become a special province of medicine, and in self-defence the general practitioner should lose no time in making himself master of those methods which promise to revolutionize the treatment of tuberculosis, not only of the lungs, but of every other part of the body.

There is no doubt, too, that the so-called tuberculosis dispensary intensifies the danger to the general practitioner. Medical officers of health may argue, and rightly so, that it is the best machinery for preventing the spread of tuberculosis in the community. If, then, the treatment of tuberculosis by specific methods is made another function of a tuberculosis dispensary, the general practitioner will lose a large part of his practice. Long ago I foresaw this might be the issue of the movement in favour of tuberculosis dispensaries, and, as can be verified by those who were intimate with my views on this matter both before and since I came to England, I recognized the danger to the general practitioner, and set to work to establish tuberculin dispensaries, where the primary object should be treatment, so that this branch of practical medicine should not fall into the hands of medical officers of health. I established tuberculin dispensaries with two objects: First, that the best method of treatment should be placed within reach of the poorest in the community; and, secondly, that the general practitioners of medicine should themselves learn this special method of treatment, so that they might apply it with benefit in their ordinary practice. The medical officers of health as a body rapidly appreciated the value of this method of treating tuberculosis, while the general practitioner, unfortunately, has been tardy in recognizing its value. There is still time, I trust, for the general practitioner to recognize his mistake and to rectify it. Once the medical officers of health lay their hands upon this important branch of practical medicine, it may be very difficult to wrest it from them, and the general practitioner will thus be deprived of an important branch of medical work which should be for the mutual advantage of his patient and himself.

Under the Insurance Act, apart altogether from the cost of buildings, £1,000,000 a year is provided for the treatment of consumption, or tuberculosis in all its forms. Beyond any doubt, the only system that can do the greatest good to the greatest number is the system of tuberculin dispensaries. It is not a question whether tuberculin dispensaries or sanatoriums are to be utilized. The test and touchstone of success for either method is finance, and on financial grounds alone sanatoriums cannot be discussed as reasonable means of dealing with consumption among the poor at the public expense. I have demonstrated beyond all doubt that sanatoriums could not deal with 10 per cent. of the victims suffering from consumption, and there is evidence enough to show that tuberculin dispensaries alone can do much more than sanatoriums alone can do in the treatment of this disease. Further, tuberculin dispensaries properly organized and distributed throughout the country could eventually deal successfully with at least 75 per cent. of all the cases at no greater cost—indeed, at a less cost—than that necessary to treat 10 per cent. of the cases at sanatoriums. It can be shown on irrefutable evidence that the cost of treating each case of tuberculosis at tuberculin dispensaries should not exceed £2 or, at most, £3. Let us suppose that there are 250,000 cases requiring treatment (Mr. Lloyd George's figures), for which Mr. Lloyd George provides £1,000,000 a year. If proper tuberculin dispensaries were established, literally almost 200,000 cases could be successfully treated at a total cost of, at most, £600,000—that is to say, tuberculin dispensaries could deal successfully with 80 per cent. of the cases at a cost no greater than 60 per cent. of the money provided for the purpose. Therefore, from a financial point of view, tuberculin dispensaries would be an eminent success. By no other system can such a result be obtained. One would therefore expect the Chancellor of the Exchequer to look favourably upon this method of dealing with the problem, which is based upon the most scientific work of the last generation. There would still be £400,000 left, which could be applied to any other system which could possibly succeed where tuberculin dispensaries fail. I doubt if such a system exists, but at least there still remains a sum of money which could be devoted to experiments by other systems.

Let me furnish some details with regard to London. It is likely that there are 25,000 persons suffering from consumption who need treatment. At each dispensary dealing with 300 cases there would be two medical men at, say, a minimum of £300 a year each. The cost of two nurses would be another £160. There would still be a margin of £140 a year for tuberculin, drugs, etc., even food occasionally, before the cost of treatment would exceed £3 for every case treated. The system, then, applied to London would require about sixty-six dispensaries, roughly speaking, for 20,000 cases, and 130 doctors at £300 a year each would be employed. Thus the share of the doctors who do the work would be about £40,000 a year. London's share of the £1,000,000 to be spent upon treatment according to population would be about £120,000, so that by means of tuberculin dispensaries one could deal with 80 per cent. of the cases (20,000 people) in London for about £60,000 a year—that is, for 50 per cent. of the sum provided under the Insurance Act, and of this the doctors' share would be £40,000 a year. Thus the poor of London would be provided with the best and most up-to-date method of treatment, and the medical men who do the splendid work that secures such results would receive two-thirds of the money spent at the dispensary.

Now the meaning of all this is, that 80 per cent. of suffering men, women and children would be treated at a rate far lower than that possible under any other system, and the doctor, well worthy of his hire, upon whom alone the success of treatment must depend, receives two-thirds of the money spent upon treatment. In this way not only is the public well served, because the treatment is the very best, but those who do the work are adequately remunerated.

It is for the medical profession, and especially for the general practitioners of medicine, to consider whether it is not merely in the interest of the public, but in their own personal interest, that solid and energetic support of the system of tuberculin dispensaries should be forthcoming. I would seriously appeal to the medical profession to lose no time in considering the matter and coming to a decision. If the medical profession can lightly throw away the opportunity of obtaining no less than £40,000 every year for devoting part of their time to this system of scientific treatment, many may live to regret it. The work must be done, and if the general practitioners of medicine do not come forward and undertake to do the work, this work will certainly be carried out before their very eyes under the auspices of public health departments. It is not a matter that concerns me in the very least, but it would be ungenerous of me not to clearly indicate a very serious danger that looms in the distance for the general practitioner. I cannot believe that the public officers of health will be anxious to supersede the general practitioner in this important work, unless the general practitioner is either unwilling or incompetent to undertake it.

The specific treatment of tuberculosis must be carefully studied and practised under supervision for several months before it can be adopted and practised by physicians, but at the various tuberculin dispensaries already established in London by myself one of the chief functions of the dispensary is to provide instruction upon the methods of administering tuberculin both for diagnostic and curative purposes.

It may be that the medical profession does not share my view and is ready to acquiesce in any arrangement by which the control of tuberculosis, even in relation to its treatment, should pass into the hands of the department of public health. If, however, the medical profession thinks as I do, they should wake up to the fact that unless they are competent to apply specific treatment at already established dispensaries, they may be giving health authorities a fine excuse for undertaking the treatment of tuberculosis on a large scale under their own special officers.

No doubt under the Insurance Act the Commissioners have to provide on a very large scale for the treatment of diseases among the poor, and the whole body of general practitioners would deserve to lose this kind of work unless they had rendered themselves competent to treat the disease in some really satisfactory way. To be forewarned is to be forearmed.

The Public Medical Service Scheme.

Dr. F. L. Nicholls (Fulbourn) writes: I have before me the "A" and "B" schemes just issued, and I am sorry to see they fail in the same way as the National Insurance Act in being unfair to the countryman. The agricultural labourer is to pay the same as the town man, while he is usually robust and requires but little medical attendance, and it is surely unjust to ask him to pay the same as the man earning twice or three times his wages and with an inferior physique. Moreover, I see the 8s. 6d. decided upon at the Representative Meeting has now risen to 3d. a week, which is 13s. a year, an impossible sum for an agricultural labourer with a family, and more than the average man earns in some weeks. If this is persisted in it will defeat its own ends and lose the sympathy of the public, for the Government will hand over the money to the friendly societies, and these societies will distribute it amongst their members. Medical men will then have to attend (for they cannot refuse a man when he is ill), and they will have any amount of bookkeeping and sending out of small accounts, not 50 per cent. of which will be paid.

Let me now explain a scheme which for the country should meet with general approval, and, if not quite suitable for towns, could be modified accordingly. Each club to pool its medical contributions to the amount of, say, 8s. 6d. for each member a year. Each member to have a book of tickets with his name on each ticket. Upon attending at the house of the doctor, or being attended at his own house by the doctor, he will give up one ticket. The doctor will put the date and fee on the ticket and retain it in his own possession. At the end of the quarter the fees on the tickets will be added up and the total, together with the tickets, will be given to the club official, who will pay. If the fees come to more than the contributions the balance to be carried to the next quarter, and if the contributions amount to more than the fees the balance in like manner to be carried to the next quarter, and so on from quarter to quarter. After a year or two it will be possible to judge the rate of contribution necessary to meet the cost of attendance, and this, I think, will be between 6s. and 10s. for a healthy country labourer, taking the fees at 2s. 6d. and 3s. 6d. It would, moreover, give a society with healthy country members a juster position than is now suggested, it would make the choice of doctor a reality, it would do away with a wage limit and with the irritating control of local insurance committees. There would be little or no bookkeeping, while every patient would be in the position of a private patient, and there would be no signing of agreement of any kind. Each member at the beginning of a quarter would say what doctor he intended to call upon, and the number only and no names would be given to the doctor as a guide to the contributions falling to his share and upon which he could call at the end of the quarter in settlement of his account.

Dr. J. Batteson (West Ealing) sends the following notes on the scheme for a Public Medical Service published in the Supplement to the Journal of June 8th:

Rule 12. As there is to be no advertising by the British Medical Association, or any other body, on behalf of the members, how long will it take for the service to be established? And how much are members likely to get out of it for the first year or two?

Rule 13. Members having clubs have to make an immediate sacrifice. Will the scheme make up the loss?

Rule 16. How many intending subscribers will submit to an investigation of their income by the Committee?

Rule 17. How many subscribers would submit to special rates when they might be attended for small fees by their own doctor?

Rule 18. Areas of payment would cause plenty of trouble.

Rule 19c. This would not work. Many patients would change their medical attendant without waiting to the end of the half year to do so, and if they dropped out of benefit they would go to a doctor not in the service. This would gradually damage the scheme.

Rule 19d. *Re* misconduct. This would lead to trouble, perhaps to litigation.

Rule 20. Patients would often forget or lose their cards —more trouble if the doctor refused to attend.

Rule 22. The long list of limitations is likely to scare many subscribers, especially as to certificates, ordinary dentistry, and evening visits.

Rule 21 (ii). A radius of 2 miles is 1 mile too much for visits.

Finally, the members are bound from the crown of their head to the soles of their feet by rules and regulations, like the man in the advertisements by the motor tyres. This makes the new scheme like the old club writ large.

The treasury day, like the glass of wine after dinner, may be looked forward to with interest. I hope members will not be disappointed.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

In ninety-five of the largest English towns 8,817 births and 4,022 deaths were registered during the week ending Saturday, June 15th. The annual rate of mortality in these towns, which had been 13.0, 12.6, and 12.4 per 1,000 in the three preceding weeks, further declined to 11.9 per 1,000 in the week under notice. In London last week the death-rate was equal to 11.7 per 1,000, against 12.3, 11.6, and 11.1 in the three previous weeks. Among the ninety-four other large towns the death-rates last week ranged from 2.8 in Wimbledon, 4.5 in Enfield, 4.9 in Eastbourne, 5.1 in Bournemouth, 5.7 in Leyton, and 5.8 in Gillingham and in Northampton to 17.2 in Hastings and in Rotherham, 17.3 in Salford, 17.7 in Liverpool, 19.1 in Middlesbrough, 19.4 in Barrow-in-Furness, and 21.5 in Merthyr Tydfil. Measles caused a death-rate of 1.4 in Nottingham, in Manchester, and in Leeds, 2.5 in Liverpool and in Cardiff, 3.1 in Gateshead, 3.5 in Ipswich, 4.9 in Rotherham, and 8.8 in Merthyr Tydfil; whooping-cough of 1.3 in Salford, 1.5 in Bootle, 1.7 in Acton, and 1.9 in Burnley; and diarrhœa and enteritis of children under 2 years of age of 1.8 in Hornsey. The mortality from the remaining infectious diseases showed no marked excess in any of the large towns and no fatal case of small-pox was registered during the week. The causes of 30, or 0.7 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest, and included 6 in Birmingham, 4 in Liverpool, and 2 each in West Bromwich, Darlington, and Gateshead. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,231, 1,245, and 1,291 at the end of the three preceding weeks, had further risen to 1,328 on Saturday last; 178 new cases were admitted during the week, against 182, 155, and 185 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

In eighteen of the largest Scottish towns, 1,125 births and 620 deaths were registered during the week ending Saturday, June 15th. The annual rate of mortality in these towns, which had been 15.0 and 15.5 per 1,000 in the two preceding weeks, fell to 14.8 per 1,000 in the week under notice, but was 2.9 per 1,000 in excess of the death-rate in the ninety-five large English towns. Among the several Scottish towns the death-rates last week ranged from 5.2 in Kirkcaldy, 7.6 in Falkirk, and 9.0 in Clydebank to 19.0 in Partick, 20.8 in Dundee, and 21.2 in Hamilton. The mortality from the principal infectious diseases averaged 1.4 per 1,000, and was highest in Dundee and Hamilton. The 226 deaths from all causes registered in Glasgow included 6 from infantile diarrhœa, 4 from whooping-cough, 2 from measles, and 2 from diphtheria. Eight deaths from measles were recorded in Dundee, 5 in Hamilton, 4 in Partick, and 3 in Coatbridge; 2 deaths from diphtheria in Dundee; 3 deaths from whooping-cough in Paisley and 2 in Edinburgh; and 5 deaths from infantile diarrhœa in Dundee.

Naval and Military Appointments.

ROYAL ARMY MEDICAL CORPS.

Lieutenant-Colonel E. G. Browne has been granted leave for four months on private affairs.

INDIAN MEDICAL SERVICE.

Lieutenant-Colonel C. Duer, M.B., F.R.C.S., Civil Surgeon, Simla West, is granted leave on urgent private affairs for six months, with effect from May 2nd, 1912. Lieutenant-Colonel C. H. James, F.R.C.S., Medical Adviser, Patiala State, is appointed to officiate.

Major S. A. Harris, Deputy Sanitary Commissioner First Circle, to officiate as Sanitary Commissioner, United Provinces, vice Major J. C. Robertson.

Lieutenant-Colonel P. Hehir, M.D., F.R.C.S.E., has been promoted to Colonel, vice Colonel D. ffrench-Mullen, M.D., Bengal, retired with effect from March 25th, 1912.

The services of Lieutenant Colonel C. H. James, Medical Adviser, Patiala State, are placed temporarily at the disposal of the Government of India, with effect from the date on which he relinquishes charge of his present duties.

Major E. D. W. Greig, M.D., Assistant Director, Central Research Institute, Kasauli, is placed on special duty, under the orders of the Sanitary Commissioner, with the Government of India.

Major Standage, Agency Surgeon, is granted eighteen months' leave.

Captain W. D. Wright, whose services have been temporarily placed at the disposal of the United Provinces Government by the Government of India, to be employed on plague duty in the Ghazipur districts vice Captain A. N. Dickson, reverted to military duty.

Captain A. Cameron has assumed charge as Officiating Civil Surgeon of Bareilli.

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

BANGOR: CARNARVONSHIRE AND ANGLESEY INFIRMARY.—House-Surgeon. Salary, £100 per annum.

BIRKENHEAD: BOROUGH HOSPITAL.—Junior House-Surgeon. Salary, £80 per annum.

BIRMINGHAM: CITY FEVER HOSPITAL.—Assistant Medical Officer. Salary, £120 per annum.

BIRMINGHAM UNIVERSITY.—Lecturer in Physiology. Stipend, £200 per annum.

BRISTOL GENERAL HOSPITAL.—House-Physician. Salary at the rate of £80 per annum.

CANCER HOSPITAL, Fulham Road, S.W.—House-Surgeon. Salary, £70 per annum.

CARDIFF: KING EDWARD VII HOSPITAL.—House-Surgeon (Male). Honorarium, £30 for six months.

CARNARVONSHIRE AND ANGLESEY INFIRMARY, Bangor.—House-Surgeon. Salary, £100 per annum.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL.—House-Physician. Salary, £80 per annum.

COVENTRY: COVENTRY AND WARWICKSHIRE HOSPITAL.—Senior House-Surgeon. Salary, £120 per annum.

DERBYSHIRE ROYAL INFIRMARY.—Assistant House-Surgeon. Salary at the rate of £60 per annum.

DORCHESTER: COUNTY ASYLUM.—Junior Assistant Medical Officer. Salary, £160 per annum.

DUMFRIES: COUNTY OF DUMFRIES AND BURGHS.—Medical Assistant to Medical Officer of Health and School Medical Officer. Salary, £250 per annum.

DURHAM COUNTY HOSPITAL.—House-Surgeon. Salary, £120 per annum.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Second Medical Officer (Male) to the Casualty Department. Salary at the rate of £40 per annum.

EDINBURGH HOSPITAL FOR WOMEN AND CHILDREN.—Medical Woman as Junior Resident. Honorarium, £12 per annum.

EDINBURGH PARISH COUNCIL.—Medical Officer for the Craiglockhart Poorhouse and Hospital. Salary, £110 per annum.

EDINBURGH: ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN.—Four Resident Medical Officers.

ENNISKILLEN: FERMANAGH COUNTY HOSPITAL.—House-Surgeon (Male). Salary, £72 per annum.

EXETER: ROYAL DEVON AND EXETER HOSPITAL.—Assistant House-Surgeon. Salary at the rate of £80 per annum.

FARRINGDON GENERAL DISPENSARY AND LYING-IN CHARITY, Bartlett's Buildings, E.C.—Resident Medical Officer. Salary, £100 per annum.

GREAT YARMOUTH HOSPITAL.—House-Surgeon (Male). Salary, £100 per annum.

HAMPSHIRE COUNTY COUNCIL.—Assistant County Medical Officers of Health. Salary, £250 per annum and allowances.

HARTLEPOOLS HOSPITAL.—House-Surgeon. Salary, £100 per annum.

HUDDERSFIELD ROYAL INFIRMARY.—Assistant House-Surgeon (Male). Salary, £80 per annum.

INFANTS HOSPITAL, Vincent Square, S.W.—Assistant Physician. *(Owing to inadvertence on the part of the hospital authorities, the date for the receipt of applications was previously announced as June 19th instead of June 29th.)*

LANCASHIRE COUNTY ASYLUM, Winwick.—Pathologist. Salary, £200 per annum, rising to £250.

LANCASHIRE EDUCATION COMMITTEE.—Two School Medical Inspectors. Salary in each case, £250 per annum, increasing to £400.

LEAMINGTON SPA: WARNEFORD GENERAL HOSPITAL.—House-Physician. Salary, £85 per annum.

LINCOLN: LINCOLN MENTAL HOSPITAL.—Assistant Medical Officer. Salary, £150 per annum.

LONDON HOSPITAL MEDICAL COLLEGE.—Demonstrator in Physiology. Salary, £150 per annum.

LONDON HOSPITAL, E.—Registrar and Demonstrator in the Ear, Throat, and Nose Departments.

MACCLESFIELD GENERAL INFIRMARY.—Senior House-Surgeon. Salary, £100 per annum.

MANCHESTER: ANCOATS HOSPITAL.—Assistant House-Surgeon. Salary, £70 per annum.

MANCHESTER CHILDREN'S HOSPITAL, Gartside Street.—Assistant Medical Officer (non-resident). Salary, £100 per annum.

MANCHESTER ROYAL INFIRMARY.—Assistant Medical Officer to the Convalescent Hospital. Salary at the rate of £80 per annum.

MANCHESTER: ST. MARY'S HOSPITALS FOR WOMEN AND CHILDREN.—Resident Surgical Officer. Salary, £80 per annum.

MANCHESTER VICTORIA MEMORIAL JEWISH HOSPITAL, Cheetham.—Lady Resident Medical Officer. Salary at the rate of £80 per annum.

MELBOURNE UNIVERSITY.—Chair of Veterinary Pathology and Directorship of the Veterinary Institute. Salary, £900 per annum, together with life insurance premium of £100.

MIDDLESEX HOSPITAL, W.—Second Assistant to the Director of the Clinical and Bacteriological Laboratories. Salary commencing at £100 per annum.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Northwood.—House-Physician. Salary, £75 per annum.

NEWCASTLE-ON-TYNE DISPENSARY.—Visiting Medical Assistant. Salary, £160 for first year, rising to £180.

NEWPORT AND MONMOUTHSHIRE HOSPITAL.—Resident Medical Officer. Salary at the rate of £80 per annum for first months, rising to £120.

NORTHAMPTON GENERAL HOSPITAL.—House-Surgeon (Male). Salary, £90 per annum, rising to £100 after one year.

NOTTINGHAM CHILDREN'S HOSPITAL.—Lady House-Surgeon. Salary at the rate of £100 per annum.

NOTTINGHAM GENERAL DISPENSARY (Branch).—Assistant Resident Surgeon (Male). Salary, £160 per annum.

PORTSMOUTH BOROUGH.—Assistant Medical Officer for Inspection of School Children. Salary, £250 per annum, increasing to £300.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney Road, N.E.—House-Surgeon. Salary at the rate of £80 per annum.

ROYAL EAR HOSPITAL, Soho.—House-Surgeon (non-resident). Honorarium, £40 per annum.

ROYAL WATERLOO HOSPITAL FOR CHILDREN AND WOMEN, S.E.—Visiting Anaesthetist; honorarium at the rate of £25 per annum.

ST. GEORGE'S UNION INFIRMARY, Fulham Road, S.W.—Second Assistant Medical Officer. Salary, £130 per annum.

SALISBURY INFIRMARY.—Assistant House-Surgeon. Salary, £50 per annum.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W.—Resident House-Surgeon. Salary, £80 per annum.

SHEFFIELD: JESSOP HOSPITAL FOR WOMEN.—Assistant House-Surgeon. Salary, £40 per annum.

SHEFFIELD ROYAL HOSPITAL.—Sixth Resident. Salary, £60 per annum.

SOUTHAMPTON FREE EYE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

SOUTHPORT INFIRMARY.—Resident Junior House and Visiting Surgeon (Male). Salary commencing at the rate of £70 per annum.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—(1) House-Physician. (2) House-Surgeon. Salary, £100 and £120 per annum, the latter increasing £10 yearly for two years.

STROUD URBAN AND RURAL DISTRICTS AND NAILSWORTH URBAN DISTRICT.—Medical Officer of Health and School Medical Inspector. Joint salaries, £515 per annum.

TUNBRIDGE WELLS GENERAL HOSPITAL.—House-Physician (Male). Salary, £100 per annum.

VICTORIA HOSPITAL FOR CHILDREN, Tite Street, S.W.—House-Physician. Appointment for six months. Salary, £40.

WAKEFIELD.—Second House-Surgeon (Male). Salary, £120 per annum.

WARRINGTON INFIRMARY AND DISPENSARY.—Junior House-Surgeon. Salary at the rate of £100 per annum.

WEST LONDON HOSPITAL, Hammersmith Road, W.—(1) Clinical Assistants to Out-patients in special departments. (2) Three non-resident Assistant House-Surgeons.

WESTMINSTER HOSPITAL, S.W.—Assistant Physician for Diseases of the Skin.

WINCHESTER: ROYAL HAMPSHIRE COUNTY HOSPITAL.—House-Physician (Male). Salary, £80 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House-Surgeon. Salary, £80 per annum.

WOMEN'S HOSPITAL FOR CHILDREN, Harrow Road.—Assistant Surgeon (Woman).

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacant appointments: Holsworthy (Devon), Maidstone (Kent), Scalloway (Zetland), Tenby (Pembroke).

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

APPOINTMENTS.

LYLE, H. Willoughby, M.D., B.S.Lond., F.R.C.S., re-elected Examiner in Physiology for the Fellowship of the Royal College of Surgeons of England.

MACKENZIE, Hector W. G., M.D.Camb., F.R.C.P.Lond., Honorary Physician to the Samaritan Free Hospital for Women, London.

O'CARROLL, Joseph, M.D., Inspector in Ireland under the Cruelty to Animals Act, 1876, vice Sir Wm. Thornley Stoker, Bart., deceased.

TOBIN, Francis, F.R.C.S.I., Inspector of Schools of Anatomy in Ireland, vice Sir Wm. Thornley Stoker, Bart., deceased.

TYLECOTE, F. E., M.D.Vict., Second Visiting Physician of the Withington Workhouse of the South Manchester Township.

WHARTON, J., M.D., B.C.Camb., Ophthalmic Surgeon of the Workhouse and Schools of the Manchester Township.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTH.

DICKSON.—On June 13th, at Nelson Place, Newcastle, Staffordshire, the wife of Robert H. Dickson, F.R.C.S., a son.

DEATH.

BALSILLIE.—At St. Andrews, N.B., on June 17th, suddenly, Andrew Balsillie, the beloved father of Jessie Balsillie, M.B., Ch.B., Burton-on-Trent.

DIARY FOR THE WEEK.

MONDAY.

ROYAL SOCIETY OF MEDICINE:

5 p.m.—Continuation of the Special Discussion on Syphilis. To be reopened by Major H. C. French, Dr. Douglas White, Dr. F. E. Fremantle, Dr. H. R. Dean, Mr. J. H. Dauber, and wound up by Sir Henry Morris.

ODONTOLOGICAL SECTION, 8 p.m.—Papers:—Mr. J. Howard Mummery: The Nerves of the Dentine. Mr. H. P. Pickerill: Some Pathological Conditions of the Teeth and Jaws of Maori Skulls.

THURSDAY.

NATIONAL BUREAU FOR PROMOTING THE GENERAL WELFARE OF THE DEAF, Royal Sanitary Institute, Buckingham Palace Road, S.W.—5.30 p.m., Lecture by Dr. James Kerr Love. The Classification of Deafness and the Prevention of Acquired Deafness.

POST-GRADUATE COURSES AND LECTURES.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Wednesday. 4 p.m., The Electro-cardiographic Comparison of Cases of Aortic and of Pulmonary Regurgitation, with Demonstration of Cases and Cardiograms.

LONDON HOSPITAL MEDICAL COLLEGE, E.—Monday, 4.15 p.m., Diagnostic Value of Sensory Changes in Diseases of the Nervous System.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat, at noon and 4.30 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Tuesday, and noon, Friday. Eye, 11 a.m., Wednesday and Saturday. Radiography, Thursday, 4.30 p.m. Pathological Demonstration, Friday, 11 a.m. Special Lectures: Tuesday, 4.30 p.m., The Operative Treatment of Fractures. Wednesday, 2.15 p.m., A Case of Hypernephroma; 5.0 p.m., Surgical Demonstration. Thursday, 4.30 p.m., Clinical Aspects of Graves's Disease.

LONDON SCHOOL OF TROPICAL MEDICINE, Royal Albert Dock, E.—Lectures daily (Saturday excepted) at 12 noon and 4 p.m. Practical laboratory work daily (Saturday excepted) 10 to 12 a.m. Practical Helminthology 2 to 3.30 p.m. daily; Advanced Helminthology 10.30 a.m. to 1 p.m. daily. Medical Clinics, Monday and Thursday at 3 p.m. Operations, Friday, at 3 p.m.

MANCHESTER: ANCOATS HOSPITAL POST-GRADUATE CLINIC.—Thursday, 4.15 p.m., Tuberculous Peritonitis.

MANCHESTER ROYAL INFIRMARY.—Tuesday, 4.30 p.m., Abdominal Tuberculosis. Friday, 4.30 p.m., Demonstration of Surgical Cases.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin. Tuesday, Medical. Wednesday, Surgical. Thursday, Surgical. Friday, Ear, Nose, and Throat. Lectures at 5.15 p.m. each day will be given as follows: Monday, Treatment of Haemorrhage in the Third Stage of Labour. Tuesday, Syphilis of the Nervous System in Young Subjects. Wednesday, The Cause of Acute Rheumatism (Lantern Demonstration). Thursday, Meningitis.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday and Friday, 3.30 p.m., Aphasia.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics: 10 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear; 3 p.m., Demonstration on Clinical and General Pathology. Tuesday, 2.30 p.m., Operations; Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient; 4.30 p.m., Lar. Demonstration: Cases of Visceroptosis. Wednesday, 2 p.m., Throat Operations; 2.30 p.m., Medical Out-patient; Skin and Eye Clinics; *X* Rays; 3 p.m., Pathological Demonstration; 5.30 p.m., Eye Operations. Thursday, 2.30 p.m., Gynaecological Operations. Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient; Pathological Demonstration.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics, *X* Rays, and Operations, 2 p.m. daily. Monday: Gynaecology, 10 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday: Gynaecological Operations, 10 a.m.; Demonstration of Minor Operations, 11 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.: Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday: Gynaecological Demonstration, 10 a.m.; Lecture, Practical Medicine, 12.15 p.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday: Gynaecological Operations, 10 a.m.; Lecture, Clinical Pathology, 12.15 p.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, Eye, 10 a.m. Special Lectures at 5 p.m. daily.

DIARY OF THE ASSOCIATION.

Date.	Meetings to be Held.
	JUNE.
21 Fri.	Northamptonshire Division, Northampton, 2.30 p.m.; Luncheon, 1.30 p.m.
	Greenwich Division, 390, New Cross Road, 4 p.m.
	Lambeth Division, Surrey Masonic Hall, 4 p.m.
	South-West Essex Division, Leyton, 4 p.m.
	South Middlesex Division, Twickenham, 8.30 p.m.
25 Tues.	West Somerset Branch, Highbridge, Annual Meeting, 12.15 p.m.; Luncheon, 1.30 p.m.
	Buckinghamshire Division, Aylesbury, 3 p.m.
	Marylebone Division, 11, Chandos Street, W., 5 p.m.
26 Wed.	Finance Committee, London, 2.30 p.m.
	North Northumberland Division, Alnwick, Annual Meeting, 3.30 p.m.
	South-Western Branch, Newquay, Annual Meeting, 3 p.m.; Luncheon, 1 p.m.; Dinner, 7 p.m.
	Leicester and Rutland Division, Coalville, 4 p.m.
	Altrincham Division, Altrincham, Annual Meeting, 4.30 p.m.
27 Thur.	Edinburgh Branch, Edinburgh, Annual Meeting, 4 p.m.
	Staffordshire Branch, Burton-on-Trent, Annual Meeting, 4 p.m.; Dinner, 6 p.m.
	Reigate Division, Redhill, Annual Meeting, 4.30 p.m.
28 Fri.	Birmingham Branch, Medical Institute, Annual Meeting, 3.30 p.m.
	Metropolitan Counties Branch, 429, Strand, W.C., Annual Meeting, 4.30 p.m.

Date.	Meetings to be Held.
	JUNE (*continued*).
29 Sat.	Oxford Division, Oxford, Annual Meeting, 2.30 p.m.; Luncheon, 1.30 p.m.
	Worcestershire and Herefordshire Branch, Hereford, Annual Meeting.
	JULY.
3 Wed.	Central Council, London, 2 p.m.
	Dorset and West Hants Branch, Dorchester, Luncheon, 2 p.m.
4 Thur.	Southern Branch, Winchester, Annual Meeting, 12.30 p.m.; Luncheon, 1.45 p.m.
	Annual Meeting, Liverpool.
19 Fri.	Annual Representative Meeting, 10 a.m.
20 Sat.	Annual Representative Meeting, 9.30 a.m.
22 Mon.	Council Meeting, 9.30 a.m.
	Annual Representative Meeting, 10 a.m.
	Secretaries' Conference and Dinner, 7 p.m.
23 Tues.	Annual Representative Meeting, 9.30 a.m.
	Annual General Meeting, 2 p.m., President's Address, 8.30 p.m.
24 Wed.	Council Meeting, 9 a.m.
	Sectional Meetings, 10 a.m. to 1 p.m.
	Address in Medicine, 12.30 p.m.
	Religious Services, 9 a.m. and 3 p.m.
25 Thur.	Sectional Meetings, 10 a.m. to 1 p.m.
	Address in Surgery, 12.30 p.m.
	Section of Surgery, 2.30 p.m.
	Annual Dinner, 7.30 p.m.
26 Fri.	Council Meeting, 9 a.m.
	Sectional Meetings, 10 a.m. to 1 p.m.
27 Sat.	Excursions.

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SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JUNE 29TH, 1912.

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PROVISIONAL INSURANCE COMMITTEES: SANATORIUM BENEFIT.

The State Sickness Insurance Committee desires to draw the attention of Members to its decision that acceptance of medical appointments on Provisional Insurance Committees or for the administration of Sanatorium Benefit under the National Insurance Act would be a contravention of Minute 78 of the last Representative Meeting.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

FIFE BRANCH.

THE tenth annual meeting of this Branch was held in the Station Hotel, Kirkcaldy, on Wednesday, June 12th, at 3 p.m. Dr. CRAIG, President of the Branch, occupied the chair, and there was a large attendance. Non-members also were invited and present.

Confirmation of Minute.—The minute of the annual meeting of June 15th last, which has already appeared in the SUPPLEMENT, was held as read and approved, and the minutes of ordinary meetings of March 7th and May 7th were read and approved.

Statement by President.—Dr. CRAIG then gave a short account of his stewardship as President of the Branch, and thanked the members for the courtesy extended to him.

Election of Office-bearers.—The meeting then proceeded to elect office-bearers, and, on the call of the CHAIRMAN, Dr. ORR (President-elect) took the chair and office as President of the Branch, and on his motion a hearty vote of thanks was passed to Dr. Craig for his untiring efforts on behalf of the Branch and Association generally. Dr. Craig now becomes a past president and member of Branch Council in accordance with the rules. On the motion of Dr. LAING, seconded by Dr. AITKIN, Dr. C. E. Douglas (Cupar) was chosen as President-elect of the Branch and accepted office. Dr. Laing, Past-President, now retires from that office, and received a hearty vote of thanks for his services. Dr. R. Balfour Graham was re-elected Honorary Secretary and Treasurer of the Branch. Drs. Caskie and Macintosh, who retire from the Council by rotation in accordance with the rules, were thanked for their services. Drs. Crawford, Eggeling, and Heron were elected ordinary members of Branch Council in room of those retiring and promoted, and Drs. Selkirk, Anderson, D. E. Dickson, and Tuke, were re-elected ordinary members of Branch Council.

Report of the Branch Council.

The Honorary Secretary submitted the report of the Branch Council for the past year, which showed that numerous meetings had been held both of Council and of the Branch, together with non-members, chiefly on the subject of the Insurance Bill now an Act of Parliament, and the position of the profession thereanent being well known need not be further dilated upon. The outstanding feature, however, of the past year was the constitution of a new medical body, the Scottish Medical Insurance Council, which had been formed and elected with a view to carry out the policy of the British Medical Association in Scotland in the interests of the profession under the Insurance Act. The new body had been cordially welcomed in Fife, and it was hoped that it would be the means of carrying out to realization the hopes and aspirations of the medical profession in Scotland. The

funds at the end of the financial year stood at £2 13s. 11d. credit on the ordinary account and 6s. 7d. on the special account, but since that time, notwithstanding the receipt of £10, a part of the annual grant, a further expenditure had been incurred, and now a sum of only about £2 was in hand. Application had been made to head quarters for a further grant, and the Medical Secretary suggested that any deficiency might be met out of the local defence fund as the expenses incurred had been presumably chiefly in connexion with the Insurance Act. The roll of members at present stood at 108, and every non-member of the Branch had been circularized on two or three occasions with a view to joining the Association, and only a very few active practitioners were now outside the Association. Almost every active practitioner had signed the undertaking, and so far as the organization and loyalty of the profession in Fife was concerned, the Branch Council had every reason to be satisfied therewith, and also had every reason to anticipate that continuity would be displayed. The Honorary Secretary had signed, along with two others, the nomination of Dr. Hamilton as the Representative of this Branch and the Edinburgh Branch on the Central Council, and the Branch Council desired to place on record their thanks to Dr. Hamilton for his services and for his coming so far on several occasions to attend meetings of the Branch Council. The report of the Branch Council was approved, as also the action of the Honorary Secretary in appealing to head quarters for further funds, and it was suggested that this appeal should be repeated, as there were more funds there than in Fife, and the Central Fund had considerably benefited by local support.

Defence Committee and Fund.—The meeting then considered the position of the Defence Fund and the Defence Committee, as arising out of the minute of last annual meeting. It was agreed, on the recommendation of the Branch Council, that this Defence Committee should now be thanked for its services and discharged, as its functions were now to be performed by the Provisional Medical Committee, and that the Defence Fund remain in the hands of the same committee as before, and to this course it was reported the latter committee was agreeable.

Ethical Rules.—The meeting considered the proposal for the adoption of ethical rules, a notice of which had been duly given to all members, and the Honorary Secretary reported that the Branch Council recommended that rules similar to those published in the Supplement of May 11th be now adopted by the Branch, the Branch Council to be the Ethical Committee. Dr. W. B. Dow moved, and Dr. Eggeling seconded, that the recommendation of the Branch Council be agreed to, and this became the unanimous finding of the meeting.

Scottish Medical Insurance Council: Provisional Medical Committees.—The Honorary Secretary, as Representative of the Branch on the Scottish Medical Insurance Council, remarked that proceedings of that body had been fully reported on by Dr. Douglas at the last meeting, and need not be further referred to. He reported, regarding the appointment of Provisional Medical Committees, that with a view to promote and maintain the unanimity of the profession it had been agreed that the whole profession be the Provisional Medical Committee in each area, and that it had been further agreed to appoint an executive committee in each area of one-fifth of the practising practitioners, the President of the Branch, and the Representatives of the three areas on the Scottish Medical Insurance Council to be *ex officio* members of the Provisional Medical Committee and of the Executive Committee in their respective areas, along with the Honorary Secretary of the Branch, who is an *ex officio* member of all committees. He thought that some arrangement might be come to now with regard to these committees to meet future contingencies, and he begged to submit the following proposal for the consideration of the meeting:

> That this meeting agrees to the procedure that has been adopted with regard to the appointment of Provisional Medical Committees; that the executive committees of the Provisional Medical Committees in each insurance area be conjointly the Provisional Committee for the whole county, the Branch Council to be the co-ordinating authority in connexion therewith, and to meet along with said Committee. Further, that in the event of the profession accepting service under the Insurance Act, that each executive committee be considered the statutory local Medical Committee in its area; but that no separate action be taken by any Provisional Medical Committee or local Medical Committee without the sanction of the whole body.

The proposal as submitted by the Honorary Secretary was agreed to, it being understood that no negotiations would take place between these committees and any authority acting under the Insurance Act. The Honorary Secretary reported that these executive committees had now been appointed in all the areas, and that he had summoned them to meet that day for the purpose of being formally constituted. The meeting approved of the procedure, and the Chairman then declared that the Provisional Medical Committee had been formally constituted. The following are the names of those elected on the different executive committees:

1. *County Area divided into five sub-areas:*
   - (*a*) Cupar Sub-area: Dr. J. Macdonald (Cupar), Dr. Shearer (Auchtermuchty), Dr. A. Mills (Kingskettle); Dr. Douglas (Cupar) (*ex officio*).
   - (*b*) St. Andrews Sub-area: Dr. McTier and Dr. Richardson (St. Andrews), Dr. Orr (Tayport) (*ex officio*), Dr. Wilson (Anstruther), Dr. Orr (Crail), Dr. Eggeling (Largo).
   - (*c*) Leven Sub-area: Dr. McNicol (Leven), Dr. Anderson (Dunbeath), Dr. Aitken (Buckhaven), Dr. Heron (Markinch).
   - (*d*) Kirkcaldy Sub-area: Dr. King (Burntisland), Dr. Wight (Burntisland).
   - (*e*) Dunfermline Sub-area: Dr. Craig (Cowdenbeath), Dr. Gordon (Inverkeithing), Dr. Keay (Kelty), Dr. Love (Kincardine-on-Forth), Dr. Nasmyth (Crossgates).

2. *Kirkcaldy Burgh Area.*—Dr. Laing (*ex officio*), Dr. Galloway, Dr. Curror, Dr. John Smith, Dr. Brown.

3. *Dunfermline Burgh Area.*—Dr. J. Dalgleish (*ex officio*), Dr. P. S. Sturrock, Dr. J. Cairneross. Honorary Secretary, Dr. R. Balfour Graham.

Supplementary Pledges.—The meeting then considered the circular letter from head quarters regarding supplementary pledges, resignations, and the Defence Fund, and it was agreed, as suggested in the said letter, that these matters be left to the Provisional Medical Committee in each area to act in accordance with its terms.

Colliery Surgeons Subcommittee.—The Honorary Secretary then submitted, in accordance with resolution of general meeting of October 13th, 1903, report from Dr. Dickson, as convener, of the proceedings of the Colliery Surgeons Subcommittee of the Branch, and also a letter of resignation from Dr. Dickson of his convenership of the said committee, owing to his having accepted a seat on the Advisory Committee. It was agreed to accept the resignation and to agree to the report submitted and to the suggestion that the committee should in future appoint its own convener, and also to agree to the appointment of Dr. Anderson as temporary convener in room of Dr. Dickson. Dr. Anderson submitted a letter regarding medical offtakes, and it was remitted to the subcommittee to further consider the matter.

Patent and Proprietary Medicines.—The Honorary Secretary then read a letter from head quarters regarding the sale of proprietary medicines.

Provisional Insurance Committees.—The Honorary Secretary called attention to the replies of the State Sickness Insurance Committee and of the Scottish Medical Insurance Council to the authorities, acting under the Insurance Act, that had approached them with reference to the appointment of medical men upon the Provisional Insurance Committees, and in view of these replies it was agreed that no member should accept any office on these Committees in the meantime. It was reported that several members in Fifeshire had been approached to act on these Committees but had declined. In this connexion the Honorary Secretary reported receipt of a letter that day from the clerk to the County Council, asking that this meeting might advise him with the names of two medical practitioners whom the Branch might suggest for membership of a Provisional Insurance Committee for the county. Dr. Currie, medical officer of health for the county, addressed the meeting in support of the county clerk's request, but said that in the face of the resolutions referred to it would apparently be difficult for the Branch to agree to it. It was unanimously agreed that the meeting could not accede to the request, in view of the finding of the

Representative Meeting in February last. Minute 78; but that the county council be thanked for their courtesy in approaching the Branch, which in turn expresses the hope that it might be possible in the future to co-operate with the county council in the manner they desire.

Sanatorium Benefits.—Dr. CURRIE further addressed the meeting regarding the question of sanatorium benefits, and desired that a small committee be appointed to confer with him on this matter; and it was agreed that the Branch Council should meet with Dr. Currie on June 20th for this purpose.

Public Medical Service.—The meeting then considered the scheme for a public medical service as outlined in the SUPPLEMENT of June 8th, and, after some discussion, a motion was unanimously passed to the following effect:

> That this meeting of the Fife Branch, including other practitioners in the area, while not committing itself to all the details, approves of the scheme for the formation of a public medical service, as outlined in the SUPPLEMENT of June 8th, being adopted in the event of the demands of the profession under the Insurance Act not being conceded.

Election of Representative.—The meeting then proceeded to elect a Representative of the Branch in the Representative Meetings of the Association, to be held at Liverpool in July, and Dr. Craig (Cowdenbeath) was nominated, and accepted office. Dr. Laing was elected Deputy Representative, and also accepted.

Votes of Thanks.—It was agreed to record in the minutes a hearty vote of thanks to Dr. T. G. Nasmyth and Dr. Craig for their services as Representative and Deputy Representative respectively at past Representative Meetings.

Instructions to Representative.—The meeting then took up the subject of the business of the Representative Meeting, and, as that chiefly dealt with the Insurance Act, it was left with the Representative to use his own discretion as to voting on any subject in connexion therewith. He was, however, specially instructed to support the proposal for the payment of the expenses of Representatives at Representative Meetings, and also to support a further proposal, if such be made, that the expenses of the members of all the committees of the Association be also paid. The HONORARY SECRETARY, who suggested the instructions, remarked that this would run to a sum calculated to be about £2,000, and he did not consider this excessive, as there were plenty of funds at the disposal of the Association, and more especially as the expenditure would be directed to very worthy objects, *inter alia*, of relieving doctors of the fees to locumtenents, and other expenses incidental to absence from home.

GLASGOW AND WEST OF SCOTLAND BRANCH:

GLASGOW EASTERN DIVISION.

THE annual meeting of this Division was held in Bellgrove Hall, on June 14th. Dr. W. J. H. SINCLAIR, Chairman of the Division, presided, and twenty-eight members were present.

Confirmation of Minutes.—The minutes of the meetings held on March 8th and April 19th were read, approved, and signed by the Chairman.

Apologies for Non-attendance.—Apologies for absence were intimated from Drs. J. Maxtone Thom, Robert Scott, and Matthew Martin.

Election of Officers.—Office-bearers for the year 1912–13 were elected as follows: *Chairman*, Hugh A. McLean, M.B.: *Vice-Chairman*, Robert Davidson, M.B.; *Secretary and Treasurer*, William Bryce, M.D.; *Representative at Representative Meetings*, John P. Granger, F.R.C.S.Edin.; *Deputy Representative*, T. C. Barras, M.B.; *Representatives on Branch Council*, John P. Granger, F.R.C.S.Edin.; William Bryce, M.D.; *Executive Committee*, T. C. Barras, M.B., P. S. Buchanan, M.B., A. P. Granger, M.B., J. Wishart Kerr, M.B., Alex. Johnston, M.D., David Longwill, M.B., J. B. Miller, M.D., John Porter, M.B., and Robert Scott, M.B.

Annual Report.—The SECRETARY submitted the annual report for the year 1911. Beginning the year with a membership of ninety, thirty-three members were added during the year, thirty-one being new members and two through removal into the Division; while ten had been removed, one by death, eight by change of address, and one had lapsed, leaving the membership at 113, a net increase of twenty-three for the year.

Instructions to Representatives.—The agenda for the Annual Representative Meeting was considered, and the various motions discussed seriatim, the Representative being instructed as to his action thereanent at the Annual Meeting.

Patent and Proprietary Medicines.—A communication on the Government inquiry into patent and proprietary medicines was read, and members having information on the subject were directed to send it to the Medical Secretary.

Examination of Entrants to Approved Societies.—The SECRETARY read a letter from Dr. Cox on the question of the examination of entrants to approved societies, which evoked considerable discussion.

Vote of Thanks to Retiring Chairman.—On the motion of Dr. J. WISHART KERR it was unanimously agreed that a very cordial vote of thanks be accorded to Dr. W. J. H. Sinclair for his conduct in the chair during the past year, and for the very able manner in which he had conducted the deliberations of the Division during what was no doubt a very critical period for the medical profession. As Dr. Sinclair had left the meeting, the Secretary was instructed to transmit to him a copy of this resolution.

Public Medical Service.—The schemes for a public medical service were deferred to a further meeting.

LANCASHIRE AND CHESHIRE BRANCH:

MANCHESTER (SOUTH) DIVISION.

A GENERAL meeting of the Division was held at Holy Innocents' Schools, Fallowfield, on Thursday, June 20th, at 3.30 p.m. Dr. EDLIN presided. There were also present: Drs. Barr, Booth, Brown, Cotterill, Chevers, Grant Davie, Gregory, Goodfellow, Godson, Howe, Holt, Crichton-Hood, Heathcote, MacGregor, Mitchell, Martin, Sarjant, Sawers-Scott, Simcock, Stocks, Senior, Stawell, Thoseby, Webb, and Whitworth.

Confirmation of Minutes.—The minutes of the last meeting (May 24th) were read and confirmed.

Apologies for Non-attendance.—Apologies for non-attendance were received from Drs. Hopkinson and Russen Rhodes.

Correspondence.—The following letters were read: (1) Dr. Niven's acceptance of the invitation of the Manchester (South) Division to introduce a discussion on the relation of the general practitioner to sanatorium benefit; (2) a letter from the Branch Secretary in relation to finance; (3) a letter (D 56), from the State Sickness Insurance Committee in relation to the acceptance of positions in connexion with the National Insurance Act.

Government Inquiry into Medical Remuneration.—A letter (D 55) was read from the State Sickness Insurance Committee in relation to the Government inquiry into medical remuneration. In relation to this inquiry Dr. SCOTT proposed and Dr. COTTERILL seconded:

> That as this meeting of the Manchester (South) Division of the British Medical Association considers that the Chancellor's belated request for information as to professional income is merely a means of postponing a definite reply to the minimum demands of the profession, it sees no reason to come to his assistance.

This was carried by 19 votes to 5. Dr. WHITWORTH proposed and Dr. HOLT seconded:

> That this resolution be sent to the State Sickness Insurance Committee and the Joint Committee of Manchester and Salford.

State Sickness Insurance Committee.—A letter was read from the representatives of the Lancashire and Cheshire Branch on the State Sickness Insurance Committee. In this letter they recommended that the Council, through the State Sickness Insurance Committee, should be instructed to terminate the pourparlers and request the British Medical Association nominees on the Advisory Committee to resign. Dr. COTTERILL proposed and Dr. GOODFELLOW seconded:

> That this meeting of the Manchester and Salford Division of the British Medical Association thanks Dr. Brown and Dr. Hodgson for their statement as to the proceedings of the State Sickness Insurance Committee and is prepared to instruct its Representatives to the Annual Representative Meeting as they recommend.

An amendment to this, proposed by Dr. GREGORY and seconded by Dr. MARTIN, to leave out all after the words

"Insurance Committee," was lost. The resolution was carried with four dissentients.

Chairman's Remarks.—Dr. EDLIN then gave a very clear summary of the present position of affairs in relation to the National Insurance Act, referring especially to those points which would be discussed at the Annual Representative Meeting, and which were contained in the annual report of the Central Council.

Instructions to Representative.—The provisional agenda of the Annual Representative Meeting, contained in the SUPPLEMENT of the BRITISH MEDICAL JOURNAL of May 18th, was then discussed, and instruction was given to the Representative of the Division (Dr. Stocks) on the following particulars. In relation to the filling up of certificates of death the following resolution was carried:

> That the Manchester (South) Division of the British Medical Association, acting on the decision of the Annual Representative Meeting, 1911, Birmingham, calls upon all members of the profession practising in its area to refrain in future from filling in particulars of the duration of disease in any statutory death certificates signed by them.

Motion 11. To be supported by the Representative.

Motion 17. To be supported, with this alteration—namely, the clause "that a Division, etc.," should read: "That a Division which has been proved to be unable."

Motion 19. The Representative to use his own discretion at the Annual Representative Meeting after hearing the arguments on both sides.

Motion 31. To be supported.

Motion 32. Dr. BROWN proposed and Dr. GREGORY seconded:

> That £1 1s. be the minimum in both cases.

This was carried *nemine contradicente*.

Motion 36. Rider by Chelsea Division. It was decided not to support this rider.

Motion 46. It was decided to support the use of the most recent list.

Motion 48. Motion by East Norfolk. To be supported.

Motion 50. Motion by Westminster. To be supported, with the following alterations:

> (*a*) That the majority at a special meeting of the Division to dismiss a Representative must be a two-thirds one.
> (*b*) That in the appointment of a Deputy Representative that the words "the Chairman and Secretary" be substituted for "a Division."

If the question again arose as to the re-election of the Chairman and Deputy Chairman of the Representative Body, the Representative was instructed to vote against their re-election. In all other matters the Representative was instructed to use his own discretion in giving his vote.

Provisional Local Medical Committee.—Dr. COTTERILL, Honorary Secretary, Provisional Local Medical Committee, gave a short account of the canvass of the practitioners resident in the Division; this showed the following satisfactory state of affairs:

General Practitioners.

Without clubs ...	... 50.	Signatures to pledge ...	50
With clubs ...	... 40.	Signatures to pledge ...	37
Resignations ...	...	... ...	35
Consultants ...	... 19.	Signatures	16

On account of the late hour it was decided to postpone the other business to the next meeting of the Division.

METROPOLITAN COUNTIES BRANCH:

GREENWICH DIVISION.

A MEETING of this Division was held on June 21st, Dr. J. P. PURVIS in the chair.

Public Medical Service.—The schemes for the Public Medical Services were considered as follows: It was decided that the scheme to be adopted, A or B, should be left to the option of the district. A was considered in detail, and decisions arrived at which will be reported to the State Sickness Insurance Committee.

HARROW DIVISION.

THE annual meeting of this Division was held on Thursday, June 13th, at the Gayton Rooms, Harrow. Dr. A. H. WILLIAMS occupied the chair, and the following members were also present: Drs. Armit, Barton, Beatty, Bluett, Brady, Davidson, Dyson, Dreaper, Edwards, Hatch, Hildesheim, Hildige, Jones, McIntosh, Martin, Moxon, Muspratt, Pennefather, Phibbs, and Spilsbury.

Confirmation of Minutes.—The minutes of the previous meeting, held on May 16th, having been printed in the BRITISH MEDICAL JOURNAL SUPPLEMENT of May 25th, were taken as read and confirmed.

Adoption of New Rules.—The rules drafted by the committee appointed for that purpose were considered seriatim and adopted with a few alterations.

Correspondence.—Dr. C. M. PENNEFATHER read (1) a letter from the Central Organization Committee *re* election of Representative for the Representative Meeting in Liverpool, and also (2) a Memorandum from the State Sickness Insurance Committee—D 54.

Election of Officers.—The following office-bearers were then elected: *Chairman*, Dr. A. H. Williams; *Vice-Chairman*, Dr. J. Davidson; *Honorary Secretary and Treasurer*, Dr. C. M. Pennefather; *Representative in Representative Meetings*, Dr. A. H. Williams; *Representative on the Branch Council*, Dr. G. M. Edwards; *Executive Committee*, Drs. Armit (Wembley), Barton (Harrow), Bluett (Wealdstone), Hildesheim (Northwood), Hildige (Pinner), Jones (Harrow), Muspratt (Uxbridge), and Romer (Hendon).

Instructions to Representative.—The provisional agenda for the Annual Representative Meeting was considered, together with a letter from the Chelsea Division, and instructions given to the Representative.

Annual Report of Honorary Secretary and Chairman was read and adopted. The report was as follows: The past year has been an important one in the history of the Harrow Division as seeing the severance of the two sections of the Watford and Harrow Division. With these as nuclei two new Divisions, the West Herts Division and the Harrow Division, have been formed. These two new Divisions were officially recognized as such on May 18th, 1912, although, on advice received from head office, the two Divisions had been working separately and holding their meetings independently since March, 1912. The old Division commenced the year with a membership of 75: this number increased until, at the date of severance of the two sections, the membership was 100, of which the Watford section numbered 40 and the Harrow section numbered 60. The Harrow Division as now reorganized embraces a large area of country at the north-west corner of Middlesex, comprising the urban districts of Harrow, Kingsbury, Ruislip, Northwood, Uxbridge, Wealdstone, Wembley and Yiewsley, and the rural districts of Hendon and Uxbridge. The membership is 73, and the total number of medical practitioners residing within the Division is 104. The past year has been one of exceptional activity; numerous meetings have been held, and the attention of members has been seriously occupied over the medical provisions of the National Insurance Act. Between July, 1911, and February, 1912, six meetings of the old Watford and Harrow Division were held, at one of which we welcomed Mr. Arnold Ward, M.P. for West Herts. Between October, 1911, and February, 1912, four meetings of the old Harrow section were held, two of which were devoted to business connected with the National Insurance Act, and at the other meetings Mr. Alexander Fleming and Mr. John Murray read scientific papers. During March, April, and May three meetings of the new Harrow Division have been held, and, in addition to transacting routine business, we welcomed Mr. W. D. Harmer and Dr. C. M. Hinds-Howell, who read interesting medical papers. The attendance at the meetings has been much above the average. At meetings of the old Division the average attendance was 23.8, and at meetings of the Harrow section and the new Harrow Division the average attendance was 19.28. The deputation appointed at the July meeting to interview the Hon. C. T. Mills and Mr. Mallaby-Deeley was received by these members of Parliament in the House of Commons, and the attitude of the profession explained. A Provisional Medical Committee, consisting of twenty members, has been appointed; two meetings have been held, with an average attendance of sixteen members. A canvass of the profession is being undertaken by the members of this Committee, and the results of the canvass to date are most satisfactory. The Chairman of the Division, Dr. A. H. Williams, who also has acted as Representative of the Watford and Harrow Division for five years, was elected a member of the State Sickness Insurance Committee when that Committee was instituted.

and was also elected as one of the medical members of the Advisory Committee under the National Insurance Act.

Further Report of the Provisional Medical Committee.—The HONORARY SECRETARY stated that the results of the canvass to date were as follows:

Total number of practitioners residing within the district is 104.

Total number of practitioners who had signed the "pledge" is 86.

Total number of practitioners engaged in general practice is 53. Of these 50 had signed the pledge, and 1 who had not signed had sent in resignation of clubs.

Total number of practitioners holding club appointments is 40, of whom 39 had signed the "pledge."

Total number of guarantors is 57, and the sum guaranteed is £523 18s.

The Honorary Secretary stated that the canvass was not yet quite complete, and that he hoped to get further signatures to the pledge and additional guarantors.

Vote of Thanks.—A hearty vote of thanks to Dr. A. H. Williams (Chairman), and Dr. C. M. Pennefather (Honorary Secretary) for their services during the past year was proposed by Dr. ARMIT, seconded by Dr. HATCH, and carried unanimously.

EAST HERTFORDSHIRE DIVISION.

THE first meeting of this newly constituted Division was held at the Shire Hall, Hertford, on June 19th. Dr. J. BURNETT SMITH took the chair at 3.15 p.m. There were also present: Drs. E. D. Agnew, R. D. Attwood, F. H. de G. Best, A. Binning, P. M. Brittain, A. J. Boyd, W. F. Clark, E. V. Crabtree, A. de Vine, J. S. Dockray, G. Eager, J. H. Gilbertson, H. S. W. Hall, W. W. Halsted, H. C. Hodges, A. H. H. Howard, H. D. Ledward, L. R. Lempriere, W. Love, N. Macfadyen, C. E. Shelly, C. Lawson Smith, W. G. Stewart, W. H. Sturge, G. A. Upcott Gill, J. H. Walker, J. E. B. Wells, L. West, and C. W. Windsor.

Election of Officers.—The notice of the formation of the Division having been read, the following officers were elected: *Chairman*, Dr. Boyd (Ware); *Vice-Chairman*, Dr. J. H. Gilbertson (Hitchin); *Honorary Secretary and Treasurer and Representative in Representative Meetings*, Dr. H. D. Ledward (Letchworth); *Representatives on Branch Council*, Dr. Lempriere (Haileybury College) and Dr. Sturge (Hoddesdon); *Executive Committee*, Drs. Dockray (Bishop's Stortford), Clark (Cheshunt), Stewart (Ware), Brittain (Hatfield), Charles (Hitchin), Upcott Gill (Hatfield), and Windsor (Royston).

Rules.—The Model Organization Rules were adopted, after consideration, with only slight modification. Ethical rules were left for discussion at a later date, as were also matters referred to Divisions.

Formation of Wards.—For the better organization of the Division it was agreed to form the following wards: Hertford (to include the municipal borough of Hertford, Hertford R.D., Ware U.D., Hoddesdon U.D., and Cheshunt U.D.), Hitchin (to include Royston U.D., Ashwell R.D., Hitchen U.D., Baldock U.D., Hitchin R.D., Hatfield R.D., and the part of the St. Albans R.D. contained in the Division), and Bishop's Stortford (to include Hadham R.D., Bishop's Stortford U.D., and Sawbridgeworth U.D.). As no member from Buntingford was present it was left to the Honorary Secretary to discover to which ward that district would prefer to belong. Honorary Secretaries were also appointed to each ward: Hertford, Dr. C. Lawson Smith; Hitchin, Dr. J. L. Tuckett, and Bishop's Stortford, Dr. J. S. Dockray. It was also agreed that each ward should summon a meeting of the whole profession (whether members of the British Medical Association or not) resident within its area at as early a date as possible in order to appoint Provisional Medical Committees representative of each ward.

The meeting then adjourned, to be resumed at Hitchin at a date to be decided upon by the Chairman and Honorary Secretary.

WEST HERTFORDSHIRE DIVISION.

THE first annual meeting of this Division was held at the Town Hall, St. Albans, on Tuesday, June 18th, Dr. LESLIE BATES in the chair. A large number of members attended.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Election of Officers.—The following appointments were confirmed: *Chairman*, Dr. Leslie Bates; *Vice-Chairman*, Dr. C. Herbert Hall; *Honorary Secretary*, Dr. Sidney Bontor; *Representative at Representative Meetings*, Dr. Sidney Bontor (*Deputy*, Dr. Wells). *Representatives on Branch Council*, Dr. F. Claude Evill and Dr. Sidney Clarke.

Rules.—The proposed organization rules were adopted, and it was resolved that the ethical rules suggested by the Council should be adopted as the ethical rules of the Division.

Canvass.—The HONORARY SECRETARY presented the following report respecting the recent canvass of the Division:

Total number of registered practitioners in the area of the Division	136
Not in general practice	37
Number who have signed the "pledge" ...	113
Number with hospital appointments, 29; signed	28
Number with contract appointments, 65; signed	64
Amount guaranteed to Guarantee Fund ...	£820

The two club holders who have not at present signed the "pledge" will probably do so as they have subscribed to the Guarantee Fund. All who have signed the "pledge" have sent in their resignations.

Instructions to Representative.—The report of Council and the agenda of the annual meeting were then considered, and the following instructions given to the Representative: That he propose or support resolutions to the following effect:

1. That it is desirable that the expenses of its honorary workers be defrayed by the Association.
2. That, in view of the serious financial loss each year from the publication of the BRITISH MEDICAL JOURNAL, the opinion of the Divisions be taken as to the desirability of curtailing the expenditure upon it.
3. That the recommendation of the Council respecting the increase of the Public Health Committee be approved.
4. That before the question of the desirability of the Association becoming a trade union is referred to the Divisions, the matter be referred to the legal advisers of the Association.

Death Certificates.—The following resolution was unanimously adopted:

That the West Herts Division of the British Medical Association, acting on the decision of the Annual Representative Meeting, 1911 (Birmingham), calls upon all members of the profession practising in its area to refrain from, in future, filling in the particulars of the duration of disease in any statutory death certificate signed by them.

Public Medical Service.—The scheme for a public medical service was then considered, and it was resolved that the following suggestions be submitted to the State Sickness Insurance Committee:

Section 8. That the question of the desirability of permitting business not on the agenda to be considered at ordinary general meetings, be fully considered.

Section 14. That (*a*) be deleted.

Section 16. There shall be no examination on admission of subscribers, but they shall not be entitled to attendance for illnesses existing at the time of admission. Six weeks should elapse after admission before attendance can be claimed. If it be decided at the Representative Meeting that examinations shall be made before admission of subscribers, then that the word "average" be introduced before the words, "income exceed £2."

Section 19 (*b*). That the words, "or his representative" be added.

(*c*) That the following be substituted: The subscriber shall not change his medical attendant more than once in six calendar months, and then only on June 30th or December 31st.

The meeting having lasted over three hours, the further consideration was adjourned.

LAMBETH DIVISION.

A MEETING of this Division was held at the Surrey Masonic Hall on June 21st, at 4 p.m., to consider the scheme of a public medical service. Dr. CAPES was in the chair, and forty-two members and several visitors were present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Public Medical Service.—The Scheme A of a public medical service was then considered and suggestions made which will be reported to the State Sickness Insurance Committee.

North Middlesex Division.

The sixth ordinary meeting of this Division was held on June 21st at the Hornsey Council Schools, Finsbury Park. Dr. Bryce occupied the chair, and forty-two members were present.

Confirmation of Minutes.—The minutes of the tenth annual meeting of the Division on May 30th, having been read, were signed as correct.

Re-election of Chairman.—The Chairman briefly thanked the members for the honour they had done him in electing him for the second time Chairman of the Division, and congratulated the Division on the growth of its work and membership.

Resignation of Honorary Secretary and Appointment of a Successor.—Dr. J. A. Percival Barnes's resignation of his office, as tendered in a letter circulated to all members of the Division, was then discussed and his resignation accepted with expressions of regret. It was carried unanimously:

That a hearty vote of thanks be accorded to Dr. Barnes and recorded in the minutes in recognition of his splendid work for the Division during his tenure of office, and the position of excellence the Division has now attained in consequence of that work.

Dr. R. B. Marjoriebanks (Harringay) was then elected Honorary Secretary, and Dr. J. P. Lowson (Hornsey) Honorary Assistant Secretary of the Division.

Representative on Branch Council.—Dr. L. Grant, having pointed out that by Dr. Barnes's resignation the Division would be deprived of his invaluable representation of the Division on the Branch Council, announced his intention of resigning his position as a Representative of the Division on the Branch Council, so that Dr. Barnes's representation of the Division might be secured instead of his. The Division's sense of its obligation to Dr. Grant having been cordially expressed, it was agreed to accede to his request. Dr. Barnes was thereupon appointed Representative of the Division on the Branch Council in place of Dr. Grant.

Schemes of Public Medical Service.—Owing to the lateness of the hour it was agreed to postpone the consideration of these schemes, as published in the Supplement of June 8th, until more time would allow of their adequate discussion.

The proceedings then terminated.

South Middlesex Division.

The first meeting of this Division was held at Twickenham on Friday, June 21st. Dr. C. C. Scott, of Twickenham, presided, and Dr. G. Cardno Still acted as secretary of the meeting. Twenty-five per cent. of the members of the Division attended.

Model Rules.—These were discussed at length, and, on the motion of Dr. H. M. Cooper, seconded by Dr. L. de B. Christian, unanimously adopted.

Ethical Rules.—It was proposed by Dr. R. L. Langdon-Down, and seconded by Dr. A. B. S. Todd, that these rules be also adopted, and this was carried unanimously.

Election of Officers.—The following names were proposed, seconded, and unanimously agreed to: *Chairman*, Dr. C. C. Scott; *Vice-Chairman*, Dr. R. L. Langdon-Down; *Honorary Secretary and Treasurer*, Dr. H. M. Cooper, Lansdowne, Hampton; *Representative at Representative Meetings*, Dr. R. L. Langdon-Down; *Deputy Representative*, Dr. W. H. Haslett; *Representatives on Branch Council*, Dr. W. H. Haslett; *Executive Committee*, Drs. J. Valerie, H. A. Günther, L. de B. Christian, F. Dendle, F. C. Tothill, M. F. Cock, W. H. Haslett, P. W. L. Camps, P. L. Langdon-Down, F. E. Marshall, H. H. Murphy, and G. Cardno Still.

Provisional Medical Committee.—Correspondence with the Medical Secretary of the Association and the Honorary Secretary of the Richmond Division with regard to this matter was read, including the following resolution from the Provisional Medical Committee of the Richmond Division:

That this committee recommends the newly-constituted South Middlesex Division to elect this committee as their Provisional Committee for the purposes of the Insurance Act, with the addition of representatives for Staines.

After discussion it was proposed by Dr. R. L. Langdon-Down, seconded by Dr. W. H. Haslett, and carried *nemine contradicente*:

That this Division proceed to elect its Provisional Medical Committee, to consist of the members of the Provisional Medical Committee for the late Richmond Division district within the South Middlesex Division, together with four other practitioners, of whom two shall be representative of the Staines neighbourhood; that at present no steps be taken to take over the work undertaken by the Richmond Joint Provisional Committee as regards pledges, clubs, and guarantees.

The following now constitute the South Middlesex Provisional Committee:—*Members:* G. Cardno Still, C. C. Scott, F. E. Marshall, A. B. S. Todd, R. L. Langdon-Down, H. M. Cooper, L. de B. Christian, Frank Dendle, P. W. L. Camps, E. Bustall. *Non-Members:* G. S. Ewen, J. H. R. Robinson, C. D. Morris, G. A. S. Gordon, and A. E. Valerie.

Other Matters were referred to the Executive Committee.

Oxford and Reading Branch:

Reading Division.

The annual meeting of the Reading Division was held on Thursday, June 20th, at 3.30 p.m., in the Library of the Royal Berkshire Hospital, Reading. There were present: Drs. G. S. Abram, P. Bateman, T. B. Bokenham, M. W. Coleman, R. H. Cotton, E. L. Cropp, W. J. Foster, S. Gilford, G. Halpin, W. Hartnett, B. B. Hosford, G. H. R. Holden, W. B. Hope, P. W. Howse, J. L. Joyce, P. Napier Jones, G. Lambert, W. N. May, G. F. Murrell, W. Ord Mackenzie, C. A. Purnell, R. Ritson, E. W. Rowland, W. J. Susmann, E. W. Squire, A. Thompson, and G. C. Taylor, of the Reading Division, and Dr. J. F. Dowser, of the Bromley Division. In the absence of Dr. J. A. P. Price, Dr. Holden took the chair.

Confirmation of Minutes.—The minutes of the last meeting of the Division were read and confirmed.

Election of Officers.—The meeting then proceeded to elect officers for the ensuing year. Dr. Secretan had intimated his regret that he would be unable to be Representative for another year, and a vote of thanks was passed by the meeting for his valuable services in that capacity. Dr. P. Napier Jones, of Crowthorne, was then unanimously elected to represent the Division on the Representative Body for the year 1912–13. Dr. G. H. R. Holden, Vice-Chairman for the past year, was elected Chairman, and Dr. G. R. Abram Vice-Chairman. It was then proposed by the Secretary that the Provisional Medical Committee should become the Executive Committee of the Division. This was seconded by Dr. Joyce, and passed unanimously, it being agreed that Dr. Holden should belong *ex officio* to the executive.

Provisional Medical Committee.

The Provisional Medical Committee for this Division was elected on April 4th. Including four members co-opted at a later date, it now consists of Drs. G. Stewart Abram, J. A. P. Price, P. W. Howse, L. M. Guilding, W. B. Hope, E. W. Rowland, W. Hartnett, W. B. Secretan, S. Gilford (representing Reading), and Drs. W. J. Susmann, J. B. Bokenham, P. Napier Jones, N. H. Joy, J. McCrea, A. G. Paterson, C. S. Pattersen, A. Thompson, W. Dickson (for the rural areas), and E. W. Squire, Secretary of the Division.

The report of the work of the Provisional Medical Committee elected in April was then read by the Secretary. It was as follows: The Provisional Medical Committee elected by the Division on April 4th with the object of organizing the profession with regard to the Insurance Act has since held six meetings—namely, on April 12th and 25th, May 10th and 24th, June 7th and 14th. The attendance has averaged thirteen. At the first meeting Dr. G. S. Abram was elected chairman and Dr. E. W. Squire secretary. The Committee first set to work to increase the Guarantee Fund, which then amounted to £570, contributed by sixty-two men. Dr. W. B. Secretan was elected secretary expressly for the fund. The Committee has endeavoured to obtain from each member of the profession a guarantee of at least £10, with the immediate payment, where not already made, of the first call of £1 towards administrative expenses. At subsequent meetings of the Committee the list of guarantors was checked, and the fund has now reached £1,000. The Committee on April 25th instructed the Secretary to circularize the Division with a view of obtaining complete information about club contract work, and constructed a schedule for this purpose. With each schedule was sent a

copy of a pamphlet on the question of the method of remuneration. On May 10th a subcommittee was formed of country practitioners, consisting of Drs. Napier Jones, C. S. Patterson, H. G. Paterson, N. H. Joy, and W. J. Susmann, to discuss matters relating particularly to rural areas. On the same date four fresh members of Committee were co-opted—namely, Drs. Hope and S. Gilford for Reading, Dr. A. Thompson for Newbury, and Dr. Dickson for Hungerford.

At their meeting on May 24th the Committee was informed that the County Provisional Insurance Committee was being made up, whereupon the Secretary was instructed to ask the Secretary of the Association to put a notice in the JOURNAL to the effect that no medical man should accept a seat on an Insurance Committee without previously consulting the Provisional Medical Committee for his area. The Secretary of the Oxford Division was informed that Dr. Lockwood, of Faringdon, had been nominated to sit on the Berkshire County Insurance Committee, and he at once communicated with Dr. Lockwood on the matter. (Dr. Lockwood has since resigned his seat on this Committee.) Certain questions arising at this time as to the positions of the hospital and dispensary with respect to insured persons, a subcommittee of five representing these institutions was elected, consisting of Drs. Abram, Guilding, S. Gilford, A. Thompson, and Squire. On June 7th, Dr. G. C. Taylor, County Medical Officer of Health, was present at the Committee by invitation. He explained the steps he was taking to prepare for the administration of sanatorium benefit under the Act, and indicated some of the duties of the tuberculosis officer who will be appointed. At the last meeting of the Committee held on June 14th, it was announced by the Chairman that the borough council had met to select their Provisional Insurance Committee, and as the Act provided they must nominate one medical man, they had nominated Dr. Holden a member of the council. He further reported that the council elected six other members of their body by ballot to act on the Committee, and that he (Dr. Abram) was amongst the number. In accordance with the policy of the State Sickness Insurance Committee of the British Medical Association, the Secretary advised Dr. Holden to refuse to serve. Dr. Holden wrote to the town clerk to this effect. The question of Dr. Abram serving on the committee as an ordinary member of the town council, in which capacity he was elected, was discussed, and it was the opinion of the Provisional Medical Committee that he should also refuse service. Dr. Abram undertook to write to the town clerk to that effect.

It was decided that these decisions should be made known to the public through the local press. The Committee also expressed the opinion that no medical man should employ a locumtenent who had not signed the pledge, and that this be an instruction to the Representative at the Annual Meeting. The Committee then passed the following resolution:

> To recommend the termination of all contract appointments, including private clubs, except those under the Poor Law and those which conform to the cardinal points insisted upon by the profession, as being the only method of putting contract practice upon a satisfactory basis; and it is further of the opinion that this can only be obtained by the resignation of all voluntary hospital appointments in addition.

During the last four weeks the Provisional Medical Committee has busied itself in obtaining, in many cases by personal canvass:

1. From every doctor a signed pledge to resign all club contract work when called upon to do so by the Association, and to decline to accept any such work so resigned.
2. From every doctor holding club contract appointments a signed form of resignation for each several appointment held.

The following are the results of the canvass:

(*a*) Of 114 active men, 108 signed pledge.
(*b*) Of 73 club holders, 71 have resigned.
(*c*) Of 147 medical men of all kinds, 128 signed pledge.

Dr. ABRAM, in proposing that the report be received, observed that the Committee had worked with great energy, and complimented especially the country members on the regularity with which they had attended its meetings. Dr. MURRELL seconded, and the report was duly received.

Position of the Hospitals.—There arose out of this report a discussion upon the position of the hospitals with regard to insured persons. Dr. ABRAM mentioned that the staffs of the large London hospitals were in favour of signing the supplementary pledge, and that Dr. Alfred Cox had telephoned that morning his opinion that it was premature to ask hospital staffs to resign. Dr. GILFORD, in urging the resignation of hospital staffs, expressed the opinion that, failing the formation of a panel of doctors, insured persons would be able to obtain treatment at the out-patient department of the hospital. He therefore proposed the resolution to the effect which appears in the report, adding the words:

> Provision being made for attendance upon in-patient and urgent cases.

Dr. BOKENHAM seconded the motion, which was passed by 15 votes to 3. Some discussion followed upon the abuse of the voluntary hospital. Dr. BOKENHAM thought the out-patient departments should not be used for treatment, but only for purposes of consultation with other doctors. Dr. GUILDING thought there should be a revision of the arrangements for admitting patients, that the present system whereby subscribers and workpeople's associations were allowed the free distribution of letters of admittance was a bad system, and often led to the free treatment of people well able to pay a general practitioner. Mr. W. J. FOSTER, Drs. HOLDEN, ABRAM, SUSMANN, and MAY also took part in the discussion. Dr. SQUIRE suggested that the remodelling of the out-patient system might form the subject for discussion at a separate meeting. Dr. TAYLOR, M.O.H. for the County, then stated for the information of the meeting that £3,600 had been allotted by the Insurance Commissioners for providing all sanatorium benefits for the whole county of Berkshire, and that the Commissioners at present were expecting the home treatment of cases of tuberculosis to be carried out by the general practitioner.

The meeting then came to an end.

SHROPSHIRE AND MID-WALES BRANCH.

THE thirty sixth spring meeting of this Branch was held at the Salop Infirmary on Tuesday, June 18th, at 3 p.m. The PRESIDENT (Dr. Exham) was in the chair, and thirty-eight members were present.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Report of Council and Balance Sheet.—The report of the Council and balance sheet for the past year were presented and accepted.

Election of Officers.—The following were elected officers for the ensuing year: *President*, Dr. H. W. Gardner; *Vice-President*, Dr. Exham; *Chairman of the Clinical and Pathological Section*, Dr. H. W. Gardner; *Representative at Representative Meetings*, Dr. E. Tredinnick; *Council*, Dr. E. Cureton, Dr. Elliott, Dr. C. H. Gwynn, Mr. A. Jackson, Dr. G. H. Keyworth, Dr. J. Lloyd, Dr. J. MacCarthy, Mr. H. B. MacLeod, Dr. W. H. Packer, Dr. F. K. Pigott, Dr. E. Tredinnick, Mr. C. G. Russ Wood; *Honorary Secretary and Treasurer*, Dr. R. H. Urwick; *Assistant Honorary Secretary*, Dr. C. V. Bulstrode.

Vote of Condolence.—A vote of condolence was passed with Mrs. Rigdon on the death of her husband, a Past-President and member of the Council of the Branch.

Provisional Medical Committee.—The report of the Provisional Medical Committee was read and accepted.

State Sickness Insurance Committee.—The following resolutions were passed *nemine contradicente*:

1. That this Branch is not prepared at the present time to approve of the schemes A and B, drawn up by the State Sickness Insurance Committee of the British Medical Association.
2. That the present Provisional Medical Committee act as the Finance Committee to deal with the question of the local guarantee fund.
3. That Radnorshire be recognized as a separate unit for the purposes of the Provisional Medical Committee.
4. That Montgomeryshire be also so recognized, if the local profession wish it.

SOUTH-EASTERN BRANCH:

DARTFORD DIVISION.

A MEETING of this Division was held at the Bull Hotel, Dartford, on Thursday, June 20th, at 3 p.m. Dr. CHARLES FIRTH presided, and expressed his thanks for honour done to him by his election as Chairman of the Division.

Confirmation of Minutes.—The minutes of the meeting held on May 15th were read and confirmed.

Correspondence.—Letters regretting inability to attend were read from Drs. Baddeley, Crombie, Griffiths (Mcopham), Jerman, Steen, and Walker.

Deputy Representative.—It was resolved:

That J. L. Clarke, M.D., of Plumstead, be elected Deputy Representative for the combined Divisions of Dartford and Woolwich.

Agenda of Representative Meeting.—The provisional agenda was fully considered, and the Representative instructed how to act on the several recommendations and motions.

Death Certification.—On the motion of Dr. SHUTE, seconded by Dr. MURISON, it was resolved:

That the Dartford Division of the British Medical Association acting on the advice of the Annual Representative Meeting, 1911, calls upon all members of the profession practising in its area to refrain in future from filling in particulars of the duration of disease in any statutory death certificates signed by them.

The Honorary Secretary was requested to circulate the resolution to all members of the profession in the Division, and to inform the central office.

Complementary Pledge and Resignations.—The SECRETARY announced the result of the signing of the pledge and resignation forms up to that time as follows:

Number of medical men residing in Division ...	102
Number in general practice	63
Number in general practice who have signed pledge	63
Number holding whole-time appointments ...	8
Number holding whole-time appointments who have signed pledge	8
Number of men holding resident hospital appointments	18
Number holding resident hospital appointments who have signed pledge	17
Number of men retired from practice	8
Number of men retired from practice who have signed pledge	7
Number of men residing but not practising in area	5
Number of men holding contract appointments	53
Number holding contract appointments who have signed pledge	53
Number holding contract appointments who have signed resignation	53
Number of resignations received	284

The Representative was instructed to support a strong policy as regards the future action of the Association to the National Insurance Act.

Date of Next Meeting.—It was resolved to hold a meeting directly after the Annual Representative Meeting if necessary.

Vote of Thanks.—A vote of thanks was accorded to Dr. Firth for his work as Chairman of the meeting.

HASTINGS DIVISION.

THE annual meeting of this Division was held on Thursday, June 13th, at the Eversfield Hotel, at 5.20 p.m. The chair was taken by Dr. GEO. A. BALLINGALL. Twenty-two members attended.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Election of Officers.—The following officers were elected for the ensuing year: *Chairman*, Dr. Wills, Bexhill-on-Sea; *Vice-Chairman*, Mr. Farrant Fry; *Representative at Representative Meetings*, Dr. Locke; *Representative on Branch Council*, Dr. Batterham; *Honorary Secretary*, Dr. G. Vickerman Hewland; *Executive Committee*, Dr. Ballingall, Dr. Allford, Dr. A. Brodribb, Dr. Hill Joseph, Dr. Baker, Dr. Stanley, Mr. Field, and Mr. Huckle.

Installation of New Chairman.—Dr. WILLS then took the chair.

Apology for Non-attendance.—The SECRETARY read a letter from Dr. Bagshawe apologizing for non-attendance.

The late Dr. Allfrey.—The CHAIRMAN proposed and Mr. KAYE-SMITH seconded:

That an expression of deep regret be entered on the minutes at the death of the late Dr. Allfrey, who had always taken such a keen interest in the British Medical Association.

This was passed unanimously.

Vote of Thanks to Retiring Chairman.—Mr. OTHO TRAVERS proposed and Mr. KAYE-SMITH seconded:

That a vote of thanks be passed for the able services of Dr. Ballingall, who had occupied the chair during the past year.

This was carried with great enthusiasm.

REIGATE DIVISION.

Provisional Medical Committee.

A MEETING of this Committee was held at 3, Church Street, on Tuesday, June 18th, at 8.45 p.m. Dr. A. R. WALTERS was in the chair, and there were present: Drs. Ogle, Thornton, Pratt, Rodgers, Mackenzie, and Matthews.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Next Meeting.—The next meeting was fixed for July 16th at 8.45 p.m., at Dr. Thornton's house.

Results of Canvass.—The HONORARY SECRETARY presented a report on the results of the canvass, which showed that, of 100 medical men in the Division (of whom 53 are in general practice, 26 are retired, 13 work elsewhere, and 8 hold whole-time appointments), 70 are members of the Association or have applied for election, 84 have signed the undertaking, 80 the pledge, 72 have guaranteed £411, 29 have signed resignations of clubs, 54 hold no club appointments, and none have refused to sign.

Provisional Insurance Committees.—The HONORARY SECRETARY reported that he had been consulted by two medical men—neither of them members of the Association—as to whether their signature to the undertaking and pledge barred them from accepting nomination as medical members of these committees. He advised them that they were pledged only in respect of professional treatment, and that Minute 78 of the last Representative Meeting was only binding on members of the Association. Further correspondence with these gentlemen was read, as also letters and a telegram from the Medical Secretary, in which he said that no medical man should accept a position on an Insurance Committee unless the post was one that could be equally filled by a layman. Both these gentlemen refused to act. Dr. MATTHEWS reported that Dr. Vernon, of Horsham, had been nominated by the West Sussex County Council, but had refused acceptance.

Public Medical Service.—The two schemes sent out by the State Sickness Insurance Committee were considered, and the Committee decided in favour of Scheme A (capitation basis) because under Scheme B it might happen that the funds available would not suffice for the payment of all the work done. As three weeks would elapse between the meeting of this Division and the Representative Meeting, it was agreed that the Division should be asked to authorize this Committee at its meeting on July 16th to instruct the Division's Representative how to vote on these schemes.

Proposed Conference with Local Friendly Societies.—Correspondence with the Vicar of Reigate regarding an informal conference with the local friendly societies was read. The Vicar was informed that until the Commissioners had granted the demands of the profession such a conference would be useless.

Present Position.—A letter from the Medical Secretary was read giving a short statement of the present position, as follows:

We have placed before the Chancellor the reasons which have convinced us that our claim for 8s. 6d. is a just one; he has stated that if he has to go to Parliament for more money he must have some more facts, and we, feeling absolutely certain of the justice of our case, have told him that we will assist him in obtaining such facts, though our demands will remain the same whatever the result of the inquiry which is being set afoot.

Interim Report.—The Honorary Secretary was instructed to prepare an interim report of the proceedings of the Committee for presentation to the annual meeting of the Division on June 27th.

SOUTH WALES AND MONMOUTHSHIRE BRANCH:

MONMOUTHSHIRE DIVISION.

A SPECIAL meeting of this Division was held in the Savoy Hotel, Newport, on Friday, June 21st, to consider the public medical service schemes of the State Sickness Insurance Committee as set out in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL for June 18th, and to pass any

resolutions with regard to them which might be deemed necessary. The VICE-CHAIRMAN (Dr. E. M. Griffiths) presided, and the following members were also present: Drs. W. D. Steel, J. W. Mulligan, J. Glendinning, P. C. Ingram, T. Morrell Thomas, O. W. Morgan, Vines, Hayles, Ryan, J. D. O'Sullivan (Aberbeeg), Crinks, H. C. Bevan, Shoolbred, Basset, Price, Barnard, Strong, Hurley, Buckner, Neville, Gratte, Nelis, Macaulay, Mackay, J. L. Thomas, Cowie, J. McGinn, Richards, Mason, Northcroft, O'Donnell, and R. J. Coulter and S. Hamilton (Honorary Secretaries).

Apologies for Non-attendance.—Apologies for inability to attend the meeting were received from the Chairman (Sir A. Garrod Thomas) and Drs. Horace Brown, Elworthy, and Greer.

Vote of Congratulation.—On the proposal of Dr. J. W. MULLIGAN, seconded by Dr. GLENDINNING, a very hearty vote of congratulation was passed by acclamation to the Chairman of the Division (Sir A. Garrod Thomas) on the occasion of his having the honour of a knighthood conferred on him, and on his recovery from a recent severe accident.

Public Medical Service Schemes.—The public medical service schemes of the State Insurance Committee were then submitted to the meeting by the CHAIRMAN, but before considering them the following resolution was proposed by Dr. RYAN, seconded by Dr. J. D. O'SULLIVAN (Aberbeeg), and carried *nemine contradicente*:

> That in the event of our not working the National Insurance Act there shall be nothing in our approval of the British Medical Association schemes for Public Medical Services to prevent colliery and works doctors from continuing the present poundage system.

A vote was taken as to which of the two schemes the meeting considered preferable, when thirteen members supported Scheme A (capitation) and eight Scheme B (payment for work done). Scheme A was then considered clause by clause and approved, with the exception of Clause 16, with regard to which it was resolved that, in the opinion of the meeting, there should be local option with regard to the income limit.

SOUTH-WESTERN BRANCH:

EXETER DIVISION.

THE annual meeting of this Division was held at Exeter on June 17th. Mr. E. J. DOMVILLE was in the chair, and the following members were present: Mr. Russell Coombe, Drs. Davy, Cock, Raglan Thomas, Child, C. E. Stokes, G. T. Clapp, W. H. Evans, J. S. Steele-Perkins, Duncan, Pereira, Bradford, J. Mortimer, Messrs. C. Bell and A. C. Roper, Drs. Hawker, Desprez, J. H. Iles, Beddow, Morton Palmer, E. Corbett, R. V. Solly, Messrs. R. Worthington, D. F. Shearer, Lovely, Tonge, Wolfe, H. Andrew, A. Hudson, G. V. Burd, T. W. Shepherd, Colonel C. A. Webb, and Dr. Fortescue Sayres (Honorary Secretary).

Confirmation of Minutes.—The minutes of special meetings on February 27th and April 23rd were read and confirmed.

Provisional Local Committee.—A letter from Dr. Vlieland, Mayor of Exeter, who had been nominated by the City Council as their medical member of the Exeter Provisional Local Insurance Committee, was read stating that he had written to the Exeter City Council to inform them that in deference to recent decisions of the British Medical Association he was unable to accept nomination by them as a medical member of that Committee.

Annual Report.

The annual report was then read by the HONORARY SECRETARY and adopted. The following is a summary:

Membership, December 31st, 1910			142
Increases during the year 1911—			
New members	20		
Through change of address	22		
	—	42	
			184
Losses—			
Deaths	6		
Resignations	3		
Through change of address	18		
Arrears	1		
	—	28	
Net membership, December 31st, 1911 ...			156

Since December 31st the membership has increased to 160.

There are 211 medical men resident within the boundaries of the Division. Of these—

> 168 are engaged in private practice.
> 12 are engaged in whole-time public appointments.
> 31 are not in practice.

The percentage of members to all medical men resident in the Division is 75 per cent. The percentage of members to those engaged in private practice or public appointments is 90 per cent.

Financial Statement.

	£	s.	d.
Receipts—			
Received grant from Branch Council ...	18	8	2
Expenditure—			
Hire of rooms	3	4	5
Printing and postage	12	13	1
Divisional and Branch Secretary's travelling expenses	2	10	8
	£18	8	2

This works out at 2s. 4d. per member.

There have been seven meetings of the Division during 1911, with an attendance of 320 members, giving an average attendance of 31 members per meeting. The largest attendance at any one meeting was 62.

The Divisional meetings have been particularly well attended during the year, owing to the interest members have taken in the fight of the Association for the seven cardinal points in the Insurance Bill.

The business of the meetings has been devoted entirely to medico-political, ethical, and kindred matters, the discussion of scientific and clinical subjects being left to the Devon and Exeter Medico-Chirurgical Society, which arrangement works satisfactorily.

A Provisional Local Medical Committee has been formed to safeguard the interests of practitioners in the Division with regard to the administration of the Insurance Act. For the purpose of organizing the work of this Committee the Division has been divided into sections, and a representative elected for each section. The Representatives at the present time are carrying out a canvass of each section, and explaining to medical men the necessity of every one signing the complementary pledge and the club resignation forms.

The defence fund is being administered locally, the first response has been answerable for a sum of £824; the replies to the further whip have been most favourable, and it is anticipated that within a month the fund will be well over £1,000.

The number of members being now over 150, the Division is entitled to two Representatives.

Election of Officers.—The following were elected officers for the ensuing year: *Chairman*, Mr. E. J. Domville; *Vice-Chairman*, Mr. A. C. Roper; *Representatives*, Mr. Russell Coombe and Dr. Fortescue Sayres; *Honorary Secretary and Treasurer*, Dr. Fortescue Sayres; *Representatives on Branch Council*, Drs. R. V. Solly, Fortescue Sayres, W. H. Evans, G. G. Gidley, M. Cutcliffe, H. H. Serpell, J. Cock, and A. M. Braund; *Executive Committee*, Drs. W. H. Evans, A. M. Braund, G. G. Gidley, M. Cutcliffe, H. Andrew, E. J. Domville, H. Davy, W. Gordon, Russell Coombe, Fortescue Sayres, H. Child, S. Steele Perkins, T. Duncan, C. E. Stokes, H. Semple, J. Cock, A. E. Ash, B. G. Pullen, T. W. Shepherd, H. H. Serpell, L. Powne, F. W. Morton Palmer, G. F. Welsford, T. W. Widger Bovey, R. Burgess, and R. V. Solly. It was decided that for the ensuing year the Executive Committee should also act as the Ethical Committee of the Division.

Instructions to Representatives.—The Division then considered matters referred to them by the Council. New Company work (A.R.M. Agenda, item 19), Rider by North Middlesex:

> That it be an instruction to the Council of the Association to seek to obtain the opinion of the Divisions as to the desirability of the Association becoming a registered trade union.

The Representatives were instructed to support this rider unless it was shown by legal advice to be undesirable. The meeting considered separately the following items in the Annual Report of Council, and, having expressed its approval of the various reports under these headings, instructed their Representatives to support the adoption of these reports:

35. Payment of personal expenses of Representatives.
37. Resignation of membership when disputes or inquiry is pending.
42. Maps of Divisions and Branch areas.
44. Referendum and postal vote.
52. Official transfer of members from one Division to another.
54. Machinery of Association in connexion with disputes.
57. Special expenditure of Divisions and Branches during the year 1911 in connexion with the National Insurance Bill.
58. Report on Medical Federation, Limited.
61. Divisional meetings to be held after Representative Meetings.
75. Report on position of practitioners examining patients under care of other practitioners.
76. Co-operation of Divisions in ethical cases.
77. Model ethical rules.
93. Death certification.
99. Certificates and report under Workmen's Compensation Act, Employers' Liability Act, and at Common Law, and members of hospital staffs.

Public Medical Service Schemes.—The *pro formâ* schemes put forward for a public medical service were then considered. In Rule 4 it was considered advisable that every acting member should either be on the Committee or have a right of attending. In Rule 14 (A and B) it was considered that there should be the same rights of appeal from the Division to the Branch Ethical Committee and Central Council as was provided in the model ethical rules. In Rule 21 (ii) it was suggested that the radius should be left open to be considered locally. In Rule 22 (i), that some of these items, such as consultations and anæsthetics, should be met by cash payments.

ULSTER BRANCH.

The spring meeting of the Branch was held on May 4th, in the Harbour Office, Londonderry, Dr. J. G. Cooke President of the Branch, being in the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and signed.

Report of Council.—The report of Council showed that two meetings had been held since the last meeting of the Branch. At the first of these the Council had considered the question of organization, and had sanctioned a scheme by which local meetings in each Poor Law Union were arranged, to be followed by county meetings for the consideration of the report and agenda circulated by the Conjoint Committee, and for the appointment of delegates to attend the delegates' meeting in Dublin on June 11th. At the second meeting seven candidates for membership were elected.

Cases.—Dr. Crosbie showed a patient with a keratoid condition of the hands, due to sulphuric acid burns, and a patient who suffered from tachycardia. Dr. J. N. MacLaughlin showed a patient with multiple chondromata.

Papers.—The President read a short note on alien serum as a haemostatic. Dr. Calwell read notes on 3 cases of infective endocarditis, in which the microbe was isolated from the blood during life. He also read notes on the administration of salvarsan in syphilis and in pernicious anaemia, and showed photographs of a case of exceptionally large molluscum contagiosum. Dr. J. N. M'Laughlin read notes on 2 cases of erythema induratum. Dr. J. W. Killen read notes on 2 cases of Bezold's mastoiditis. Dr. R. J. Johnstone read a short paper on the treatment of menorrhagia.

Luncheon.—After the close of the scientific proceedings the members present were entertained by the President to lunch, and a vote of thanks to the President for his hospitality closed a very enjoyable day.

YORKSHIRE BRANCH:

Wakefield, Pontefract, and Castleford Division.

The annual meeting of this Division was held at the Clayton Hospital, Wakefield, on Tuesday, June 18th. Dr. W. Steven took the chair.

Confirmation of Minutes.—The minutes of the last meeting at Wakefield, on May 2nd, were read and signed by the Chairman.

Apologies for Non-attendance.—Letters of apology for absence were read from Dr. Walker (the Divisional Chairman) and Dr. W. Kemp, the latter resigning his position of Honorary Secretary.

Election of Officers.—The following officers were appointed for the ensuing year: *Chairman*, Dr. J. W. Walker (Wakefield); *Vice-Chairman*, Dr. A. Christy Wilson (Doncaster); *Honorary Secretary*, Dr. Eardley (Goole) (Dr. Kemp's resignation was accepted with regret); *Representative to Branch Council*, Dr. W. Steven (Featherstone); *Representative to Representative Meetings*, Dr. G. B. Hillman (Castleford); *Executive*:—(1) *Ex officio* members: The Chairman and Secretary of the Division, together with the Chairmen and Secretaries of the Provisional Medical Committee (and Subcommittees); (2) the following elected members: Dr. H. J. Clarke (Doncaster), Dr. Hillman (Castleford), Dr. L. A. Johnson (Normanton), Dr. W. Kemp (Castleford), Dr. R. May (Wakefield), Dr. John Orford (Pontefract), Dr. Osmond (Pontefract), Dr. Selby (Doncaster), Dr. Stanger (Wakefield), Dr. Steven (Featherstone), and Dr. J. O. Ward (Brotherton).

Vote of Thanks to Retiring Officers.—A hearty vote of thanks to the retiring officers was passed, especially to Dr. Kemp.

Instruction to Representative.—The following motion was carried unanimously:

> That it be an instruction to the Divisional Representative that at the forthcoming Representative Meeting in Liverpool he shall on no consideration whatever support any proposal, whether advanced in the form of a compromise or in any other way, which would interfere with the insistence upon the six cardinal points of the Association's policy, or which would in any way agree to the reduction of the capitation payment below the figure of 8s. 6d. per annum, exclusive of medicines and the agreed extra items of professional attendance.

Honorary Secretary's Report.—The Secretary presented a brief report with special reference to the work done by the Provisional Medical Committee of the Division through its three subcommittees of the districts of Wakefield, Doncaster, and Pontefract.

Congratulations to Sir Berkeley Moynihan.—In accordance with a suggestion contained in a letter from Dr. Kemp, the following resolution was proposed by Dr. Eardley, seconded by Dr. Orford, and carried unanimously:

> That we offer to Sir Berkeley Moynihan our congratulations as a Division on the honour which has recently been conferred on him by H.M. the King.

Other Business.—Communications D54, D55, and D56 from the Medical Secretary (already noticed in the British Medical Journal), the circular from the Chelsea Division, and the proposed British Medical Association scheme for a Public Medical Service (described in the British Medical Journal Supplement of June 8th) were laid before the meeting.

Vote of Thanks.—A vote of thanks to Dr. Steven for presiding brought the meeting to a close.

THE COUNCIL ELECTION.

Metropolitan Counties Branch.

Dr. G. Crichton (London, W.) writes: There is one point in the notes of the Central Council election to which reference might be made. It has to do with the distribution of Dr. Fuller's votes. Of these, 14 were not given to any further candidate. There were then four candidates running very close for two seats, and the 14 given to any one of them could have turned the scale. It should be observed that there were three nominations from northern suburban boroughs—Tottenham, St. Pancras, and Harrow. Neither is strong enough to carry its nominee. It was therefore advisable that they should combine forces, either to settle upon a common candidate or to give second and third votes to their immediate neighbour. In the present case, out of 84 votes for Fuller only 50 were given to Morrison and Williams; the other 30 could have, and probably would have, elected both the northern candidates had their forces been combined. Small Divisions can never hope to elect except by union, and unless Secretaries and Chairmen of Divisions will really make some mental effort to take advantage of the means of representation, there must be comparative failure. Observe, I allude not to the qualifications of any candidate, as I must confess I know nothing at all about them but their names.

To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.

Association Notices.

ANNUAL GENERAL MEETING.

Notice is hereby given that the 1912 Annual General Meeting of the British Medical Association will be held in the Small Concert Hall, St. George's Hall, Liverpool, on Tuesday, July 23rd, 1912, at Two o'clock in the Afternoon.

BY ORDER OF THE COUNCIL,

GUY ELLISTON,
Financial Secretary and Business Manager.

June 26th, 1912.

ELECTION OF MEMBERS OF COUNCIL BY GROUPED REPRESENTATIVES.

NOTICE is hereby given that Nominations for candidates for election of Members of Council by grouped Representatives for the year 1912–13 will be received by the Medical Secretary up to the end of the first hour of the proceedings of the Annual Representative Meeting, on Monday, July 22nd, 1912. Each Nomination must be on the prescribed form, copies of which will be forwarded by the Medical Secretary on application.

Separate forms have been prepared: (I) for Nomination by a Division (through its Representative), and (II) for Nomination by a Representative of a Constituency included in the Group, and those applying are requested to state for which purpose the form is desired.

The voting papers will be issued at the Representative Meeting to each Representative or Deputy Representative of a Constituency in the United Kingdom in attendance at the Meeting.

By order of the Council.

ALFRED COX,
Medical Secretary.

June 24th, 1912.

NOTICE OF FORMATION OF A NEW DIVISION OF THE ASSOCIATION.

THE following change has been made in accordance with the Regulations of the Association, and takes effect from the date of publication of this notice:

Isle of Ely Division.

That the Members of the Association resident in the Isle of Ely, which district forms part of the area of the Cambridge and Huntingdon Branch, be constituted a separate Division, to be known as the Isle of Ely Division, the new Division to form part of the Cambridge and Huntingdon Branch. That Branch will thus in future be made up of two Divisions—namely, the Cambridge and Huntingdon, and Isle of Ely Divisions.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

A LIST of periodical publications, official reports, and Blue Books in the Library of the British Medical Association available for issue to members on loan has been printed, and copies can be obtained free on application to the Librarian, at the house of the Association, 429, Strand, W.C. The regulations governing the loan of these publications are stated in the introduction to the list.

The Library is open for consultation from 10 a.m. till 5 p.m. (on Saturdays till 2 p.m.).

BRANCH AND DIVISION MEETINGS TO BE HELD.

DORSET AND WEST HANTS BRANCH.—The summer meeting will be held at the County Asylum, Charminster, Dorchester, on July 3rd. The Right Hon. Lord Digby very kindly invites members and friends to luncheon at 2 p.m. A number of interesting microscopical specimens and cultures will be on view in the bacteriological laboratory. Dr. Gowring, Vice-President, will open a discussion on Chronic Disorders of Digestion. Dr. Perdrau will give Notes on an Interesting Case of Exophthalmic Goitre. Tea will be provided after the meeting. Dr. Macdonald has kindly consented to allow members to see over the institution.—FRANK FOWLER, Honorary Secretary, Bournemouth.

EAST ANGLIAN BRANCH: WEST NORFOLK DIVISION.—The annual meeting will be held on Thursday, July 4th, at 3.30 p.m., at the residence of the Chairman, Dr. Kingdon, King's Lynn.—J. R. FORREST, Honorary Secretary.

OXFORD AND READING BRANCH: OXFORD DIVISION.—The annual meeting of the Division will be held on Saturday, June 29th, at the Randolph Hotel, Oxford, at 2.30 p.m. Luncheon at 1.30 p.m. Agenda: (1) Installation of Sir Wm. Osler, Bart., as Chairman. (2) Minutes. (3) Chairman's address. (4) Report of Executive Committee. (5) Report of Provisional Medical Committee. (6) Balance sheet. (7) Election of officers. (8) Consideration of the Public Medical Service scheme as outlined in BRITISH MEDICAL JOURNAL SUPPLEMENT, June 8th.—W. DUIGAN, Honorary Secretary.

OXFORD AND READING AND MAIDENHEAD BRANCH.—The annual meeting of the Branch will be held on Saturday, July 13th, in the Library of the Berks County Hospital, Reading, at 4.15 p.m. Agenda: (1) Minutes of last meeting. (2) Installation of President for 1912–13. (3) Election of President-elect and other officers. (4) Financial statement by the Honorary Treasurer. (5) Report of Branch Council. (6) Reports of Local Provisional Medical Committees. Clinical: (1) Sir William Osler, Bart., will open a discussion on the Causation of the Increase of Appendix Disease. (2) Dr. Freeman will show a case of Cerebral Diplegia. (3) Dr. Armstrong will give a demonstration of the Subjective Method of Estimating Blood Pressure. (4) Dr. Turrell will give notes of a case of Loss of Memory. If time permits other cases will be shown. After the meeting dinner will be held at the Caversham Bridge Hotel at 6.30 p.m.—W. DUIGAN, Honorary Secretary.

SOUTHERN BRANCH.—The thirty-ninth annual meeting of the Branch will be held at the Abbey House, Winchester, on Thursday, July 4th, at 12.30 p.m., Mr. C. P. Childe, President, in the chair. Agenda: (1) Minutes of last general meeting. (2) Report as to the election of officers for 1912–13. (3) Annual report of Council. (4) Balance sheet. (5) General business. At the conclusion of the ordinary business the President for the ensuing year, Dr. F. W. Jollye, will deliver an address, "Reflections after Twenty-one Years of General Practice." Dr. Jollye kindly invites the members to luncheon in the Banqueting Hall, Guildhall, at 1.45 p.m., and to afternoon tea at the Abbey House at 4.30 p.m. Arrangements will be made for members to visit (after luncheon) the College (Eton *v.* Winchester cricket match); the Cathedral, under the guidance of Canon Vaughan; and St. Cross, under the guidance of the Master, Canon Causton. At 3 o'clock a golf match will be played between a team of members of the Branch and the Winchester Golf Club. Those members who intend to accept the President's hospitality will oblige by communicating with Mr. Godwin, as above, as early as possible, but not later than July 1st.—JAMES GREEN, Honorary Secretary.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH.—The annual meeting of this Branch will be held at Burghill, Hereford, by the invitation of the President-elect, on June 29th. Business: (1) To confirm minutes. (2) To elect new officers. (3) To receive the report of the Council on the affairs of the Branch, and the annual financial statement. (4) Any other business. The President of the Herefordshire Medical Society kindly invites members of the Branch to a garden party at Firbank, Burghill, Hereford, at the close of the formal business of the annual meeting.—C. S. MORRISON, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: ST. PANCRAS AND ISLINGTON DIVISION.—Some time ago the Division resolved to make some special recognition of the services rendered to it by Dr. Walter Smith, who has now retired to Bognor; the Executive Committee has decided to make a presentation to him at a dinner to be held in the Venetian Room of the Midland Grand Hotel, at 7.30 for 8 p.m., this day, Friday, June 28th: the price of the dinner is 7s. 6d. (payable at the doors), exclusive of wine.

National Insurance.

SCOTTISH MEDICAL INSURANCE COUNCIL.

Meeting of Colliery and Public Works Doctors.

A mass meeting of colliery and public works doctors was held in the Christian Institute, Glasgow, on June 22nd, at 3.30 p.m.

The meeting was organized by the Colliery and Public Works Committee of the Scottish Medical Insurance Council, and was most successful and satisfactory in every respect, and resulted in one uniform policy being laid down, which with great unanimity was adopted for the whole of Scotland for future action to be taken by these important interests in view of the disturbing situation created by the passing of the National Insurance Act.

Doctors to the number of about 150 assembled from all parts of Scotland where these interests exist, including the counties of Lanark, Ayr, Dumfries, Fife, the Lothians, Stirling, Clackmannan, Dumbarton, Renfrew, etc., and a number of the Executive of the Scottish Medical Insurance Council were present, including the Chairman of the Council, Dr. William Russell, Edinburgh.

On the motion of Dr. D. E. Dickson, (Lochgelly, Fife) Dr. A. M. Easterbrook (Gorebridge, Midlothian) took the chair.

Address by the Chairman.

Dr. Easterbrook said: To-day marks a notable epoch in the history of the colliery and public works surgeons of Scotland. We are here assembled together in large numbers for the first time in our history. The large size of this assembly is a testimony of the profound concern that has arisen among a particular body of medical men whose interests are peculiarly and distinctly menaced by the passing of the National Insurance Act. We are a body of men of no small account, either in regard to the relative magnitude of our numbers or in the importance of our service to the community. I need not remind you that the present state of affairs might easily have been avoided had the Government as a matter of business, before launching their scheme, consulted a responsible body which could have given them much and valuable information. They would thereby have shown a statesmanlike desire to jealously safeguard one of the great intellectual interests of the country, and at the same time have acted for the great benefit of the country; for, after all, it is the intellectual interests collectively that are responsible for the good government, order, progress, and wellbeing of any country. As it is we find ourselves, together with the whole profession, unnecessarily and unfairly thrown upon our own defence. We are driven for the first time to organize ourselves into one strong combination—or shall I say "Union"?—a dream, I am certain, our forefathers never contemplated. Perhaps it is good for us to have our mental activities for a time diverted from the more fascinating and beneficent paths of medical science to the sterner spheres of business. For in the past our great neglect of the business aspect of our lives has caused us to find ourselves in the position wherein we are now placed—namely, totally ignored beforehand as business factors in a great Government project. The State admits we are of the greatest possible value, and indeed indispensable to the full fruition of their scheme, but our value was just to be exploited as of old at their will. The time has come to change all that. The Government see they have at last awakened a giant of great potentialities, who has lain peacefully slumbering for generations amid the world of business. We see the Chancellor and his henchmen rubbing their eyes with surprise that we are at last actually resolved to claim, like other people, a living wage, and to cease from being exploited any longer. In accomplishing this end we must be just to ourselves and just to the public. In all we do our aim must be to carry with us the good opinion of the people. I believe at this moment we have public opinion with us, and shall have it more so as the time goes on. The policy we have recommended, I feel sure, will meet with great acceptance both to our patients and to ourselves. It is moderate, it is just. It should allow us to pursue our work with the least conceivable dislocation of present interests and with increasing good heart and goodwill all round. These important factors our patients will be the first to appreciate and the very last to deny us. The profession, with great unanimity, has now decided that it has definitely reached a point at which it must take its stand, and a firm stand it must be, against going a step further towards assisting the machinery of working the medical aspect of the Act until the Government, through the Commissioners, have given it a completely satisfactory settlement of its just demands. In accordance with Minute 78 of the Special Representative Meeting held in London last February, the State Sickness Insurance Committee of the British Medical Association have resolved, and the Scottish Medical Insurance Council have endorsed their decision, not to sanction medical men accepting any post upon local insurance committees until such time as the minimum demands of the profession are conceded in the regulations to be issued or in an amending Act. Our position therefore is perfectly clear and simple, and every one of us must stand firm, and be steadfast in the observation of this duty. We never as a profession had a more serious duty to each other placed upon us. It is incumbent upon us at this time to discharge that duty of absolute loyalty to each other to the last iota. With these considerations before us we shall now turn to the resolutions of your committee as they affect colliery and public works surgeons.

Resolutions Adopted.

The Chairman then briefly surveyed the resolutions as a whole before putting them formally to the meeting, and amongst some salient points in the policy put forward emphasized the fact that in the claim of the profession for 8s. 6d. capitation fee the insured workman only paid about 3 farthings (¾) a week towards that sum out of his total of 4d. a week for all benefits as against the employer's and State's 5d. a week contribution for all purposes, so that he could well afford the modest sum per week asked for the wives and young families. The Chairman intimated that about twenty letters had been received from doctors from almost every county expressing great regret at their inability to be present at the meeting, and intimating their cordial agreement with the policy outlined in the circular and stated in the resolutions to be submitted to the meeting.

The resolutions on the agenda were then submitted to the meeting.

Dr. William Craig (Cowdenbeath, Fifeshire) proposed and Dr. John Joss (Denny, Stirlingshire) seconded the following motion:

> That in the event of the *status quo* being not maintained from July 15th, 1912, to January 15th, 1913, an alternative policy of private practice be undertaken, and that the fees should be those adopted by the State Sickness Insurance Committee of the British Medical Association.

Dr. Craig, in speaking to the motion, explained that, in the event of the *status quo* not being maintained, the Committee had exhaustively considered every possible alternative, and that this was the only satisfactory alternative policy. Further, he impressed upon the meeting the importance of the whole of Scotland in such contingency adopting one uniform scale of fees, and that to be the scale as laid down for the profession as a whole by the State Sickness Insurance Committee of the British Medical Association.

An amendment by Dr. Corbett, seconded by Dr. Gallatly:

> That the "fees usually paid in the district" should be substituted for "fees adopted by the State Sickness Insurance Committee of the British Medical Association,"

was lost, only three voting therefor.

Whereupon the motion was put and carried.

Dr. W. G. McPherson (Bothwell, Lanarkshire) then proposed the following motion:

> That every colliery and public works surgeon be urged to sign forthwith the supplementary pledge issued by the

State Sickness Insurance Committee of the British Medical Association, and to sign the resignation forms of all contract practice appointments, including colliery and public works appointments.

Dr. McPHERSON, in a speech which evoked much enthusiasm among the audience, appealed for complete unity of action, and pointed out what the profession had done in Wales and England. Among many salient points he stated that the time had now arrived when the different local arrangements as existed at present must definitely come to an end. Why, Dr. McPherson asked, should Wales have better conditions than England, why should the north of England be better paid than Scotland, and why should certain parts of Scotland be so poorly paid? By adopting the resolution the colliery and public works surgeons would be brought into one strong line.

Dr. CRAWFORD (Hamilton, Lanarkshire), in seconding, endorsed every word that had been said; and the CHAIRMAN, in putting the motion to the meeting, requested those in favour to stand, when the audience rose in a body and acclaimed the resolution.

Dr. D. E. DICKSON (Lochgelly, Fifeshire) proposed, and Dr. RITCHIE RODGER (Sanquhar, Dumfriesshire) seconded, the fifth resolution on the agenda, referring to remuneration, and after considerable discussion, in which a large number of the audience took part, the motion as originally drafted was, upon the suggestions by Drs. FOTHERINGHAM, RITCHIE RODGER, and others, adjusted to read as follows:

That in the event of the Act being accepted by the profession, those engaged in colliery and public works practice pledge themselves not to contract out of the Act, but to accept the capitation grant of 8s. 6d. from each worker, and not to attend the wives and families of the workers at less than 4d. per week for each family or 2d. per week from each worker, exclusive of medicines and extras, as agreed upon by the British Medical Association, while it be admissible to adopt any alternative arrangement of deductions which are at least equivalent to 4d. per week for each family, exclusive of medicines, etc.

It being distinctly understood that the 4d. rate for the women and children is partially come to on a charitable basis, and will not form a precedent for future negotiations with the Government when the women and children become insured persons.

Dr. DICKSON, in moving the resolution, pointed out how inadequately as a whole colliery practice in Scotland had been paid in the past. He indicated the chief reasons for not contracting out of the Act: the most important being the possibility of securing a permanent settlement, on a national basis, and preventing for ever the old and past disastrous local bargaining.

Dr. RITCHIE RODGER said that upon considering the terms of this motion he was one of those who thought the Committee had been too moderate in assessing its claims for remuneration in respect of the totally new conditions of practice, with its free choice of doctor, and other disturbing elements of present interests, introduced by the passing of the Act. However, upon consideration of the whole matter, and with a view to determining upon a policy which would be acceptable to the public and the profession as a whole, he had, along with others, willingly come into line and given his support to the motion. The elasticity of the motion was safeguarded by its being distinctly understood that the fourpenny rate for the uninsured women and children was partially come to on a charitable basis. This would come to an end when the women and children became insured persons, which would then necessitate an arrangement on business lines. The motion as amended was put to the meeting, and the CHAIRMAN again asked those in favour to stand, and the meeting rose in a body.

Dr. W. C. McEWAN (Prestonpans, East Lothian) then moved, and Dr. DUGALD MCKINLAY (Tollcross, Glasgow) seconded, the last resolution:

That in view of the fact that maternity benefit of 30s. per case is to be paid under the Act, that, from the date of its coming into force, no midwifery case be attended in colliery and public works practice at a less fee than £1 1s., with extra fee for abnormal cases.

Dr. McEWAN said this resolution required few words to commend it. Agricultural servants had always paid not less than £1 1s. for confinements. The confinement question in colliery practice was one of the strange anomalies that existed. The important matter for the profession was to see that the money paid for maternity benefit was used for the purposes for which it was intended, and that safeguards should be taken by the Government to ensure that it was not, for example, to be dissipated by the people in alcohol, but applied for medical attendance, etc.

The motion upon being put to the meeting was at once carried without discussion.

Dr. JAMES ROBERTSON (Clackmannan) moved a vote of thanks to the Chairman, which the meeting heartily accorded, and Dr. EASTERBROOK suitably responded.

MATERNITY BENEFIT.

WE have received the following correspondence for publication:

General Medical Council Office,
London, W.,
June 18th, 1912.

To the Chairman of the
National Health Insurance Joint Committee.

Sir,—On behalf of the General Council of Medical Education and Registration of the United Kingdom I have the honour to transmit to you the accompanying memorandum prepared by its National Insurance Act Committee. The Council is by statute entrusted with the duty of maintaining the standard of proficiency in respect of midwifery required of candidates for medical qualifications; and it has, with this end in view, made rules regarding the amount and nature of obstetrical training in connexion with recognized lying-in hospitals and other maternity institutions which such candidates should receive.

The Council is advised that the regulations for the administration of maternity benefit, which the National Commissioners are empowered to approve, may possibly have the effect of interfering seriously with the important functions of such hospitals and institutions in relation to the promotion of obstetrical knowledge and skill. After careful consideration of the terms of the National Insurance Act, the Council's Committee has, however, formed the opinion that this danger may in great measure be obviated if the regulations in question are suitably framed; and it now offers certain suggestions having this object in view.

The Council desires to commend these suggestions to the Joint Committee and to the several National Commissioners, in the belief that their effect would be of great value to the women for whose advantage maternity benefit is instituted, and to the community at large whose interest it is that practitioners of midwifery should be efficiently trained.

I shall be grateful if you will bring this communication to the notice of the several bodies of Commissioners, and will let me know for the information of the Council what action they propose to take in the matter.

I have the honour to be, Sir,
Very faithfully yours,
DONALD MACALISTER,
President of the General Medical Council.

Memorandum.

There is widespread apprehension that the administration of maternity benefit under the National Insurance Act may interfere with the efficient teaching of obstetrics, and that in two directions.

I.—*In Regard to Women Admitted to Maternity Hospitals.*

Some authorities have assumed that women who enter such hospitals for the purpose of their confinement will forfeit all right to maternity benefit; that they will therefore cease to seek admission to such institutions; and that the latter will accordingly be no longer able to fulfil their function of training pupils.

After a careful study of the Act (and the model rules proposed to be made thereunder), the Committee of the Medical Council think that this assumption is not well founded in law; and they would be glad to have the opinion of the Commissioners on the question whether the following is a correct interpretation of the effect of the Act.

There are four classes of women in respect of whom maternity benefit is payable:

(i) Wives (or widows) of insured persons who are not themselves insured.
(ii) Wives (or widows) of insured persons who are themselves insured.
(iii) Wives (or widows) of non-insured persons who are themselves insured.
(iv) Women not wives (or widows) who are themselves insured.

If a member of class (i)—presumably the largest class—enters a maternity hospital for the purpose of her confinement, the maternity benefit is not to be paid to her

husband during the period when she is in the hospital. It may, however, be paid in whole or in part for the maintenance of his dependants, if the Insurance Committee or the Approved Society think fit. It appears reasonable to suppose, then, since the benefit is intended to cover a period of four weeks after delivery, and since seven days to a fortnight is the usual period of stay in hospital, that part at least of the benefit will be available for the maintenance of the woman and be payable after she leaves the hospital, even if there are no dependants of the husband other than the wife (or widow) and her infant.

Members of class (ii) receive two benefits—maternity and disablement. As dependants are already provided for by the latter benefit, the privilege in respect of dependants allowed to members of class (i) (if the Insurance Committee or the Approved Society think fit) is withheld; but the maternity benefit may be paid to the hospital. It appears reasonable to suppose that, during such portion of the four weeks as a woman is not an inmate of the hospital, part of the maternity benefit may also be applicable for her own maintenance after she leaves the hospital.

In the case of classes (iii) and (iv), the maternity benefit may be administered in whole or in part for the maintenance of dependants, or (if there are no dependants) in whole or in part towards maintenance in hospital, provided an agreement has been made with the Insurance Committee or the Approved Society. It is suggested that such an agreement with approved societies and Insurance Committees might be of a general nature, and be applicable to all cases belonging to classes (iii) and (iv) admitted to the hospital.

It thus appears to the Committee of the Medical Council that under the Act there is no insuperable obstacle to the admission of women to a maternity hospital without loss of benefit, provided that suitable regulations are framed or approved by the Commissioners.

II.—*In Regard to Women Attended through Outdoor Departments.*

The second point of difficulty arises in connexion with the outdoor departments of maternity institutions, which enable candidates for admission to the *Medical Register* to complete their obstetrical training by attending some or all of the twenty cases which the regulations of the General Medical Council require; it also arises in connexion with the arrangements for the training of midwives.

The Act (Section 18) says that women shall have free choice of practitioner or midwife; but it does not specifically lay it down that attendance by one or other of these is a necessary condition for payment of maternity benefit, though this condition is apparently imposed by the model rules, in which reference is made to a certificate from one or other of these.

The Committee of the Medical Council desire to direct the attention of the Commissioners to the great advantages offered to women who in their confinement are attended under the supervision of efficient teaching institutions of the kind in question. Such women are, through the attendance at their homes of a senior student who has already received an important part of his or her obstetrical training, and who visits them under the direction of the medical officer in charge, brought into direct relation with the highest available obstetric skill, and difficulties and dangers can thus be discovered and dealt with as soon as they arise. In many cases, also, arrangements are made for the provision of efficient nursing, where it is reported to be necessary.

It is therefore submitted to the Commissioners that in the public interest their regulations should be so framed as to allow the certificate of the responsible official of an outdoor maternity institution, concerned with the training of medical students or of pupil midwives, to be recognized as fulfilling the requirements of the Act, in respect of the payment of maternity benefit.

DONALD MACALISTER,
Chairman.

June 8th, 1912.

National Health Insurance Commission (England),
Buckingham Gate, London, S.W.,
June 24th, 1912.

SIR,

I am directed by Sir Robert Morant to acknowledge the letter (No. 30,944) from the General Medical Council enclosing a memorandum on the subject of the administration of maternity benefit. Sir Robert fully recognises the importance of the recommendations sent forward by the General Medical Council, and, when the time comes for framing regulations, will take into account all that they have said. For the moment, however, it is premature to make any definite statements as regards the regulations, since the benefit does not become payable until six months after the commencement of the Act.

I am, Sir, your obedient Servant,
(Signed) J. R. BROOKES.
Private Secretary.

The Registrar,
General Council of Medical Education and
Registration of the United Kingdom,
299, Oxford Street, W.

NOTIFICATIONS BY THE COMMISSIONERS.

THE National Insurance Commissioners for England have appointed Dr. G. F. McCleary, Medical Officer of Health for Hampstead, to be their Principal Medical Officer. The Scottish Insurance Commissioners have appointed Dr. John R. Currie and Dr. G. M. Cullen of Edinburgh as Medical Officers under the National Insurance Act. Dr. Currie is Medical Officer of Health and Principal School Medical Officer of the counties of Fife and Kinross.

The Commissioners and the Postmaster-General, in order to avoid confusion with depositors in the Post Office Savings Bank, desire that in referring to deposit contributors under the insurance scheme, the prefix "Post Office" should not be used.

The Commissioners call attention to the fact that a general leaflet explanatory of the health provisions of the National Insurance Act, 1911, and a memorandum for the information of employers can be obtained at any post office. Inquiries about points arising under the Act may in the first instance be made personally at the offices of Customs and Excise, where various explanatory publications (including those above mentioned) are also supplied. The addresses of Customs and Excise officers may be ascertained at post offices.

PROVISIONAL MEDICAL COMMITTEES.

City of London.

A MEETING of this Committee was held at the Liverpool Street Hotel on Thursday, June 13th, at 9.30 p.m., and was largely attended, Dr. EVAN JONES being in the chair.

The HONORARY SECRETARY (Dr. Roe) reported the result of the labours of the special subcommittee appointed to go over the returns of those who had signed the pledge and sent in resignations of clubs, etc. He said a list had been prepared, showing all the defaulters in the different areas.

Dr. SWAN said that in his district two prominent members of the local profession had refused to sign, although repeatedly asked. Dr. C. DIXON thought they would come into line shortly.

The CHAIRMAN thought that in visiting their brethren for the purpose of canvassing they should "hunt in pairs." That where difficulty was found in getting the pledge, it might be advisable for the canvasser to be accompanied by a member belonging to another district.

Dr. VAUGHAN PRICE said that some did not understand the pledge, and difficulty arose in making it clear to them.

Dr. GARRETT gave some reasons why he had not signed the pledge up to the present, but said that after reasons had been given he would waive his objection and sign.

The HONORARY SECRETARY then read letters from members who had been co-opted. All had agreed to serve, and were present.

A letter was read from Dr. Cross, who had written on behalf of the Special Insurance Committee of the Branch, asking for information as to the present state of things with regard to the Insurance Act in the area of the City Division.

The HONORARY SECRETARY said that he wanted to know a great many details which were not easy to give. But he would do his best to satisfy him. At the present time he was greatly pressed, and had more work than he could properly do.

Dr. SOUTHCOMBE reported the result of the meeting between the deputation of the Provisional Committee and the staff of St. Bartholomew's Hospital. He said that he and Dr. Evan Jones had put the matter before the staff and had had a very patient hearing. He thought the senior members were quite with them, but objections were made by some of the juniors, who were connected more with the out-patient department. It was there that

most of the difficulty would arise. As there was to be a meeting of all the London consultants on the next day to discuss this matter, the staff decided to wait till after this meeting had taken place before making up their minds. They certainly had no intention of helping the Government against the general practitioners.

Dr. GALT said there was a considerable number of ship surgeons in connexion with the port of London. The Peninsular and Oriental Steamship Company had a staff of some sixty surgeons under an agreement of service for not less than two years. They were in some fear as to the pledge interfering with their contract with the company, especially as sailors came under the Insurance Act. After some discussion it was unanimously thought that it would be sufficient to accept pledges from ship surgeons with a proviso that it should not apply to anything they were required to do on board ship in connexion with their official duties.

The question was next considered of examining candidates for admission to the friendly societies with a view to admission to approved societies. Dr. GALT said that the Oddfellows were offering 1s. for each examination. As the usual fee had always been 1s. for this certificate he thought it might be accepted. After some discussion it was thought that this might appear to be assisting in the working of the Act, and it was finally resolved:

That no candidate should be examined by a club or friendly society surgeon whom the latter was not compelled to examine under his contract with the society.

The meeting then commenced the consideration of the proposed Public Medical Service. There was some doubt as to the intended scope of this. Dr. MAJOR GREENWOOD contended that it was meant to be an example of a suitable system of contract practice to be supported by the profession, but that it did not necessarily exclude the existence of medical clubs outside this service, provided they adopted the essential conditions. It would be anything but politic to let it be understood that they were out to smash all clubs. The latter might be invited to get their members attended through their service, but ought not to be compelled to. It might be reasonable to insist that men who held other clubs should not be members of the service; but they should be allowed to please themselves, provided that in the outside clubs they insisted that certain fundamental principles laid down by the British Medical Association should not be violated.

Dr. HADFIELD thought that (II) implied that there would be outside clubs. The CHAIRMAN thought that this service would be a good way of getting rid of all clubs outside their service, and that friendly societies should be only allowed to get their members attended by entering them as subscribers. A considerable number of those present were of the same opinion. An opinion was also expressed that there should be a modification of the income limit in the case of subscribers having large families, and many dependent on them, as their case was very different from others receiving £2 a week with no incumbrances.

Owing to the lateness of the hour the further consideration of the subject was adjourned to another meeting to be held the next week. The meeting broke up at midnight.

Hampstead.

A meeting of the committee was held at 41, Belsize Park, on Friday, June 21st, at 8.30 p.m. Dr. FORD ANDERSON was in the chair, and fifteen members were present.

An error in reporting the minutes of the last meeting was pointed out by Dr. PICARD. The resolution to follow the Wandsworth resolutions with regard to "locums" and the pledge should read:

That resolutions 1 and 2 be approved, and that the State Sickness Insurance Committee be asked to bring these two resolutions to the notice of the medical agents.

On the alteration being made, the minutes were confirmed.

Letters of regret for non-attendance were received from Dr. Alice Brown and Mr. Adam Oakley.

Letter D 55 from the State Sickness Insurance Committee was read and discussed, and the Honorary Secretary instructed to reply that no practitioners in this area employ an assistant, but no accurate statement on this matter can be made

Letter D 56 was read and discussed, and Dr. PRITCHARD moved and Mr. ARCHER seconded:

That no medical man, whether a member of county or county borough councils or otherwise, shall allow himself to be included in any Provisional Insurance Committee until the demands of the profession in regard to the Act have been conceded; and that this Committee cordially approves of the uncompromising notice appearing on page 673 of the SUPPLEMENT of June 22nd.

This was carried by a majority of 13 to 1.

The CHAIRMAN moved and it was carried unanimously:

That this Committee expressed its sincere gratification at the agreement of the members of the hospital staffs to sign the pledge.

The HONORARY SECRETARY reported that the results to date were as follows:

Retired	13	of whom	3	had signed pledge	
Whole-timers ...	19	,,	4	,,	,,
"Home" addresses	24	,,	7	,,	,,
Not in practice ...	19	,,	4	,,	,,
Total unaffected	75	,,	18	,,	,,
Resident Hospital Appointments ...	4	of whom	0	had signed pledge	
Honorary staffs ...	19	,,	8	,,	,,
Contract practice	35	,,	25	,,	,,
Remainder ...	108	,,	62	,,	,,
Total affected ...	166	,,	95	,,	,,
Total practitioners	241	,,	113	,,	,,

* Twenty signed resignations.

The Public Medical Service schemes of the State Sickness Insurance Committee referred to the Committee by the Hampstead Division were considered.

It was moved by Mr. ARCHER, and seconded by Dr. SAMSON, and carried:

That Scheme B be rejected.

Scheme A was then considered.

It was moved by Dr. OPPENHEIMER, seconded by Dr. PRITCHARD, and carried:

That paragraph 8 be amended by the insertion of the words "unless of special urgency" after the word "agenda" in line 11.

It was moved by Mr. DORRELL, seconded by Dr. OPPENHEIMER, and carried:

That paragraph 14 be amended by the deletion of subparagraph (*a*), subparagraph (*b*) becoming paragraph 14.

It was moved by Mr. DORRELL, seconded by Dr. BARNETT, and carried:

That paragraph 16 be amended by the insertion of the words "an average of" after the word "exceed" in line 5.

It was moved by Mr. ARCHER, seconded by Dr. BARNETT, and carried:

That paragraph 17 be amended by deleting the word "inclusive" and adding in its place the words "to include" in line 4.

It was moved by Dr. PICARD, seconded by Dr. TAYLOR, and lost by 3 to 8:

That reference to the National Insurance Act be omitted.

Paragraph 17 as amended was then agreed to.

It was moved by Mr. DORRELL, seconded by Dr. PRITCHARD, and carried:

That paragraph 19 be amended by the addition of a subparagraph, to be numbered (*d*), and to read as follows: "That a member may terminate his contract with any subscriber on giving him at least a month's notice, terminating on June 30th or December 31st," and that subparagraph (*d*) become subparagraph (*e*).

It was moved by Dr. PICARD, seconded by Dr. BARNETT, and carried:

That subparagraph (*b*) of paragraph 19 be amended by the insertion of the words "for medical attendance" after the word "subscriber" in line 1.

Paragraph 19 as amended was then agreed to.

It was moved by the CHAIRMAN and agreed to:

That the footnotes to paragraphs 21 and 22 referring to medicines be deleted.

It was moved by Dr. PRITCHARD, seconded by Dr. OPPENHEIMER, and carried:

That paragraph 22 be amended by the insertion of the word "refractions" before "etc." in Clause (vi);

and also by the deletion of all words after "attendances" in line 1, Clause (vii) and the insertion instead of the words "and other services rendered in connexion with legal proceedings."

It was moved by Dr. TAYLOR, seconded by Dr. PICARD, and carried:

That the preamble be amended by deletion of the numbers (I) and (II), that the words forming the heading to Part (I) be deleted, and that the whole of Part (II) be deleted.

By reason of this amendment the words in paragraph 17 following the word "service" in the first line "for a person under the National (Health) Insurance Act, 1911," become automatically excluded.

Southampton.

The following report of the campaign from the area of the Southampton Division has been sent to us for publication by the Honorary Secretary of the Committee, Dr. Henry J. May:

Number of doctors in area 162
Number of doctors who have signed pledge 158

		Signed Pledge.
Holders of contributory contract appointments	78	77
Others in active practice:		
(*a*) General practice	34	34
(*b*) Consulting practice	6	5
Whole-time appointments	7	7
Ship Surgeons	6	6
Retired	30	28
"Home" addresses	1	1
	162	158

Of 78 holding contract appointments 78 have returned resignations. Neither of the two non-signatories in active practice need be considered other than in agreement, one of whom has written that though unable to sign the pledge he will act as his neighbours. The 2 retired members may also be considered in agreement though unable to sign the pledge.

Hastings.

A special meeting of all registered medical practitioners was held at the Eversfield Hotel, on Thursday, June 13th. Dr. WILLS was unanimously elected to the chair, and Mr. H. G. L. Allford elected as Honorary Secretary.

It was proposed by Dr. MURDOCK, and seconded by Dr. BATTERHAM:

That the Public Medical Service scheme of the British Medical Association be referred back.

The following amendment was proposed by Dr. H. R. MANSELL and seconded by Dr. BAKER:

That the principles of the Public Medical Service scheme of the British Medical Association be accepted.

The amendment was carried.

It was proposed by Dr. FARRANT FRY and seconded by Dr. TRAVERS, sen.:

That we proceed to appoint a Provisional Committee to consider the Public Medical Service scheme put forward by the British Medical Association.

This was carried.

It was proposed by Dr. HEWLAND, and seconded by Dr. TAYLOR (Bexhill):

That the whole meeting be formed into a Provisional Committee.

The following amendment was proposed by Dr. FARRANT FRY, and seconded by Dr. TRAVERS, jun.:

That the following be elected as members of the Provisional Committee, with power to add to their numbers—namely, Drs. Johnstone, Travers, sen., Culhane, Locke, Hewland, Taylor (Bexhill), Baker, H. R. Mansell, Lucile Leslie, Skinner, Batterham, Barker, Farnfield, Daunt, Hill, Joseph, Howe, the Chairman, and Honorary Secretary.

The amendment was carried.

The first meeting of the Provisional Medical Committee was held on June 13th to consider the Public Medical Service scheme put forward by the British Medical Association. There were present Dr. WILLS (Bexhill), Chairman, Messrs. Batterham, Lucile Leslie, Travers, Taylor, Daunt, Farnfield, Skinner, Johnstone, Barker, Mansell, Baker, Hewland, and the Honorary Secretary.

The Public Medical Service Scheme A was considered and it was resolved that the following expression of opinion be forwarded to the head office:

Rule 3, page 593 (*a*): That the Honorary Treasurer be not necessarily a member of the profession.
(*b*) That the Secretary may be a paid official and may be a layman.
Page 594, Rule 8, line 4: Add after general "or special."
Page 594, Rule 14 (*b*): At end omit "general meeting" and substitute "at special meeting called for the purpose."
Page 594, Rule 16: "That there should be no medical examination, but in view of sick persons being admitted, the minimum fee shall be as under Rule 17.

The meeting was adjourned to Tuesday, June 18th.

Fife.

A meeting of medical practitioners under the auspices of the Fife Branch of the British Medical Association and of the Scottish Medical Insurance Council was held on May 7th at the Kirkcaldy Station Hotel to appoint a Provisional Medical Committee for the Fife area. Dr. CRAIG, President of the Fife Branch, took the chair.

Dr. DOUGLAS, the Representative of the area, then gave a short report of the proceedings at the recent meetings of the Council and Executive Committee, and read some correspondence. It was moved by the CHAIRMAN, and seconded by Dr. DOUGLAS, that payment for work done should be the basis of remuneration; and an amendment was moved by Dr. ANDERSON, and seconded by Dr. LOVE, that a capitation fee be the method. On being put to the meeting the amendment was carried by 22 votes to 7. The British Medical Association figure of 8s. 6d. was then put to the meeting for acceptance and carried unanimously.

The HONORARY SECRETARY of the Branch reported that the organization in Fife was very good, practically all the effective practitioners having signed the undertaking, and the Representative was instructed to report the same to the next meeting of the Scottish Medical Insurance Council. With regard to the size of the Provisional Medical Committee, the CHAIRMAN suggested that it should be one in five, as was adopted in various other Branches, but Dr. ANDERSON moved, and Dr. HERON seconded, that the whole of the profession within each area should be elected as a Provisional Medical Committee, with an executive of one-fifth of its number in each of five areas—namely, St. Andrews, Cupar, Leven, Kirkcaldy, and Dunfermline, and this was agreed to. The President of the Branch and the Representative in the Scottish Medical Insurance Council to be *ex officio* members of the Provisional Medical Committees in their respective areas, together with the Honorary Secretary of the Branch, who is an *ex officio* member of all committees.

Dr. Douglas was instructed to write the senior practitioner in each area asking him to call a meeting of all the practitioners with a view to electing a committee in that area, these subcommittees to form an executive for the area. It was also agreed to adopt the Branch Council's recommendation that the executive committees for each of the three areas should form the provisional medical committee for the whole county, and that the Branch Council be the co-ordinating body in connexion therewith, and should meet along with that committee. It was understood that the Local Provisional Committees should meet separately, and as often as need be; but they would be expected not to come to any separate finding with regard to any matter but should act in consonance with the findings of the general body.

Liverpool.

We have received the following letter for publication:

Dear Sir,

The Liverpool Provisional Medical Committee at their meeting on June 14th, 1912, unanimously passed the following resolution:

Seeing that medical men who are members of city and borough councils are being invited to become members of Provisional Insurance Committees, and that it is being suggested that whilst they cannot as loyal members of the profession sit on such committees in their capacity as doctors, yet as citizens they may so sit, the Liverpool Provisional Medical Committee is strongly of opinion that in order to make the position of the profession quite plain and unmistakable they must *recommend* all medical men in their area to decline to sit on the Provisional Insurance Committees in any capacity whatever until such time as the just claims of the profession have been conceded.

This resolution has been circulated amongst those medical men who are members of city and borough councils in the Liverpool area, and as it seems to some of these gentlemen to contravene a resolution passed by the State Sickness Insurance Committee, we think it advisable to state our reasons for the course of action we have adopted. In the first place the resolution is only a *recommendation*, though a strong recommendation.

We have no power to enforce our views upon any medical men who may choose to take the broader reading of the State Sickness Insurance Committee as his guide. Nevertheless, we feel strongly that when the general public see an announcement in the press giving the names of medical men as members of Provisional Insurance Committees, they will not know that these medical men are only sitting in a lay capacity, but will come to the conclusion that Provisional Insurance Committees have no difficulty in finding medical men to join them. They will therefore consider that the medical profession is weakening in its attitude towards the Insurance Act.

We also feel that the position of any medical man who may have joined the Provisional Insurance Committee, when matters of medical interest arise, must be anomalous.

For these reasons we consider the policy laid down in our resolution is the safest and soundest one for all medical men to adopt.

Yours faithfully,
J. C. M. GIVEN,
Chairman,
LLEWELLYN MORGAN,
Honorary Secretary,
Liverpool Provisional Medical Committee.

CORRESPONDENCE.

[*It is particularly requested that communications intended for publication should be written on one side of the paper only, and should be addressed to the Editor*, BRITISH MEDICAL JOURNAL, *429, Strand, London, W.C.*]

OUR BOOKS AND THE ACT.

DR. G. H. MOUNSEY (Lancaster) writes: I must congratulate the Committee on its guarded reply to Sir Robert Morant's letter asking for its assistance in persuading the doctors in the six selected towns to allow their books to be investigated, but should have more heartily done so if it had point blank replied that it felt sure no doctor would allow his books to be investigated by any auditor on behalf of the Government. I truly hope no man will allow such an intrusion into the privacy of our practices. Does Mr. Lloyd George not know that our books contain secrets that cannot be divulged? He can obtain the necessary information through the Income Tax Commissioners, Schedule D. Moreover, cannot the profession see between the lines? Such an investigation means the thin edge of the wedge—namely, that at some later date we shall be asked or compelled to have our books audited, etc. I wonder if lawyers and barristers will also allow their books to be looked into. Medical men's books contain confidences between our patients and ourselves and must never be investigated, as Mr. Lloyd George is so anxious to.

Mr. George must be thoroughly ignorant on the subject of medical work generally—for instance, I understand he imagined that most of us employ assistants, and that nearly all of them are unqualified. Hence the inquiry sent down to each Division on the subject.

When a man presumes to bring in such an Act of Parliament, and displays such ignorance on its most important part, no wonder the whole Act is a failure. Our demands of 8s. 6d., etc., are, in my opinion, too little, and we shall find it so. We ought to have demanded 15s., with medicines, etc., extra.

Cannot Mr. George see why we want more without putting off time by asking for investigation of books? He is depriving us of millions of private patients who could pay £2 and upwards, and who are the mainstay of most of our practices; and in saddling us with millions who would not pass into a society by examination, consequently we may be kept busy with a lot of chronic patients, necessitating greater expense in administering to their wants, and, on the other hand, we shall be losers of our private patients' fees.

We must keep thoroughly united, and our Committee must not be allowed to give in on one single point.

DR. H. W. HAYDON (Bristol) writes: The investigation now proceeding of the books of certain practitioners to ascertain the remuneration at present received from the class of patients who will become insured under the Act is not a just basis for calculating a proper capitation fee. Those persons who have been private patients hitherto, and will have to be insured, have only made use of the doctor's services when absolutely obliged, and have dispensed with those services as soon as possible because they feared a larger bill than they would be able conveniently to pay. This motive to dispense with the doctor's services as much as possible will no longer exist, and it is certain that the demands on the doctors who attend insured persons will be of an onerous character. As the work is to be increased, surely the remuneration should be greater to correspond.

Another serious matter for the profession is the loss of independence they will experience under the working of the Act. The doctors who serve on the panels will be living in constant fear of complaints from insured persons, which may lead to their names being struck off the panel, and, in some cases, this would mean financial ruin.

When we remember that it is almost unheard of for a young man or woman to earn £160 a year at the age of 16 years, we must look forward in the near future to a time when almost the whole population will be insured persons. Also the approved societies will assuredly bring in the children as soon as they have accumulated the necessary funds. What chance then will there be for a medical practitioner to earn a livelihood if he is unfortunate enough to be struck off the panel and publicly advertised as an incompetent doctor? The fear of this calamity will make the doctors on the panels the obsequious slaves of the insured persons, and how can we expect them to be active agents in detecting the malingerer under such circumstances? Why should not insured persons be as free to choose their doctor, as private patients are now, without the existence of any panels? It seems to me the idea of a panel was introduced to keep the doctor's nose to the grindstone and obtain a large amount of work from him without adequate remuneration.

DR. C. M. STEVENSON (Cambridge) writes: I should like to endorse Dr. Mears's remarks about the British Medical fly. This latest proposal of the Government is suspiciously like an invitation to play at the ancient game of "Heads I win, tails you lose." Do the flies think that if the books should show an average of 12s. per head per annum the Commissioners would offer that sum to them with alacrity, or even grudgingly? No; the wrangle would begin all over again, with their opponents explaining the figures away plausibly or not and falling back as a last resort on a *non possumus* which would have some justification. If, as is possible, an average of 5s. was shown, does anybody suggest that the profession would accept that sum and admit that their campaign has been all bluff? If there has not been any butter on the bread in the past, must there not be some in the future? So if neither side would be willing to abide by the result, why waste time and trouble over this proposal? Let us steer clear of the net and keep our books for a more useful purpose.

THE PUBLIC MEDICAL SERVICE SCHEME.

DR. J. BATTESON (West Ealing) writes: My criticisms of the scheme advocated in the JOURNAL appear in a former letter. A state of things has come about through the Insurance Act that makes it necessary for those in general medical practice to defend their interests. The methods so far suggested appear to me to be too complicated and too expensive in management.

Up to now the only method adopted by the profession to meet the exigencies of the working class has been the club system—a bad one at the best—though it met to some extent the needs of the men, it usually left the women and children out of consideration, and some of the difficulties of medical men in dealing with their poorer patients.

It appears to me that the great fault of the profession has been the non-recognition of the fact that a working man, with or without a family, cannot pay the usual medical fees, especially at a time when illness increases the calls upon his pocket, and that, if trusted, he is either

unable or unwilling to liquidate his indebtedness. The way in which his circumstances have been met is half-hearted and savours of a desire to shunt the matter so as to save bother and take anything that can be got. The result has been that the profession has been exploited by clubs worked in some instances by unsympathetic and grasping committees.

The position taken up by many medical men is illustrated by the remark made by a medical friend of mine. He said, in reply to my suggestion that we ought to charge smaller fees to the working classes, "I consider that my opinion and services are worth so much, and I am not going to take less for them." That does not appear to me to be the point. It is not what our services are worth, but, to a man who has to get his living by them, what they will fetch in the open market. A system devised to meet the difficulties referred to should be as simple as possible and as free as may be of irritating rules and regulations.

I think a system of charging, during illness only, a moderate inclusive fee to each patient for one week's advice and medicine when given at the surgery—the patient, whether man, woman, or child, being entitled to attendance as often as necessary, usually every other day—would be appreciated and accepted by the working classes and prove remunerative to the general practitioner. In cases where patients could not attend at the surgery a visiting fee of 1s. 6d. might be charged for each visit of which notice had been given before 11 a.m., the fee to include the medicine. Special visits made later in the day and up to 10 p.m. to be charged 2s. 6d.; night visits, from 10 p.m. to 8 a.m., 5s.; midwifery, 10s. 6d.; surgical operations by arrangement. By this system, as all fees should be paid in advance, there ought to be no bad debts, no expenses of management, no prying into a person's income, no committee to interfere, undesirable patients could be got rid of, many who now go the hospitals' out-patient department through inability to pay the ordinary fees would go to the general practitioner, and I think there would be a much larger financial return than can be obtained from the club system.

Dr. W. M. Storar (Ramsgate) writes: I am heartily in sympathy with the idea of a National Medical Service managed by the Government, not by the British Medical Association.

The best plan, in my opinion, would be to link up all the salaried Government, county, and borough medical officers with a central department of the Local Government Board and a new order of medical officers who will give their whole time to attendance on insured persons. In the course of a few years, by the addition of more officers, the families, too, of the insured persons might be included. This scheme has the advantage of logical and practical simplicity. In the first instance 5,000 or 6,000 extra officers would be required, and they would be speedily forthcoming if the Treasury offered reasonable terms. The private practitioners not in the public service would be compensated by the private practices of the new service men falling into their laps.

The Epsom Scheme.

Dr. E. C. Daniel (Epsom) writes: My letter of June 15th *re* Epsom scheme has brought several inquiries for more information.

In setting to work to formulate a scheme I put before myself the following proposition or principles.

1. The sickness risk should be borne by the people and not by the doctors.
2. There should be *no contract*—at any rate, no individual contract.
3. Any scheme formulated should be available, if approved, for national as well as local use.

I think it is obvious that the people (of the classes under consideration) can only provide for medical attendance on the per capita system; but if the doctors accept payment on this system they run the risk of much or little sickness, which should be borne by the people. Therefore I suggest that the per capita contributions should be paid into a local medical fund, from which the payment of the doctor's accounts on an agreed scale can be guaranteed. This scale must be settled in each locality, but I would suggest that the fee per visit or per surgery attendance be the same everywhere, and that the difficulty of country practices be overcome by adequate mileage fee.

Now the sickness incidence varies so much in different localities, that each district must work out what the per capita contribution must be to form a sufficient fund. (For Epsom and neighbourhood we have estimated 12s.) If the people like to adopt a graduated scale, which I think is the fairer method, and collect, say, 10s. per annum from the man with £1 a week and 20s. from the man with £2 a week, it is no concern of the doctors provided the total of the fund is sufficient.

How can this scheme be carried out?

First, I assume that in the present crisis medical men are going to be loyal to themselves and to one another. In every district let them form a "local medical society," agree on their scale of fees, and estimate as nearly as possible the amount of the per capita payments necessary to form the "local medical fund." A district should be, say, a town like Epsom, and the area round, which is usually worked from that centre; a man practising on the outskirts whose practice is partly in another district should be a member of one society and an honorary member of the adjoining one.

Next, the friendly societies and clubs must be told that in future such will be the doctors' charges, and that they, the societies, must form a fund from which these charges can be paid, and that towards this they will be getting the 6s. (or 8s. 6d.) a head from the State.

Will the societies do this?

I think they will, because most of their members want to stick to the doctors they know, others are attracted by "free choice," and the residue will be insufficient to maintain an outsider.[1] If the friendly societies agree—as I think they will—then the matter is in the hands of the profession, for the bulk of the insured persons will join one or other of the societies in preference to becoming deposit contributors.

Incidentally, what should be the attitude of the profession to this last class? Obviously they cannot be accepted on the proposed fund, and I think the only course is to refer them to the parish, unless they are prepared to pay ready money.

All monies received or collected for medical benefit must be paid into a local bank in the names of trustees representative of the subscribers and the profession: I suggest that two, at least, should be doctors appointed by the local medical society.

The finance of the scheme is necessarily tentative, because no doctor has a sufficiently accurate record of his club work to be able to estimate exactly; it is, therefore, proposed to charge, at first, only ordinary medical attendance to the fund, that is, the extras under the British Medical Association scheme will be extras under the Epsom scheme. If, as we anticipate in Epsom, there is a balance to the credit of the fund at the end of twelve months, then the subscribers and local medical society can meet and discuss whether they will, after creating a reserve fund:

1. Reduce contributions, or
2. Admit women and children (not insured persons), and on what terms, or
3. Charge operations in whole or in part to the fund,
4. Or otherwise.

It should be pointed out to the societies that the 12s., or whatever the sum may be, does not necessarily go to the doctors, but that there may be a balance, which, it is true, does not revert to the society, but may be used as indicated above. If, on the other hand, there is a deficit, again the doctors and subscribers must meet and discuss the situation; but every endeavour should be made to fix the capitation fee in the beginning at a figure which will not provide a deficit.

This, I think, answers part of Dr. Muspratt's letter of June 15th.

I have in the earlier part of this letter dealt with the formation of the local medical society and the preparation of the scale of fees, etc. I have now to deal with the payment of accounts from the local medical fund. Much weight has been attached to the argument—against payment for work done—that doctors would give unnecessary attendance, and so make excessive charges. Under the scheme here suggested only those men who belonged to

[1] For my first letter see British Medical Journal Supplement, March 2nd.

the local medical society would have the right to draw on the fund for their accounts. If one man seemed to be charging an excessive number of visits his colleagues would be able to remonstrate with him, and the rules of the society might, if thought necessary, provide a more drastic remedy, such as that suggested in Clause 31 of the British Medical Association scheme. I am, however, sanguine enough to think that the formation of the local medical society, through the friendly intercourse and exchange of opinions thereby provided, will engender a spirit of mutual respect and helpfulness among the members, and that drastic rules, even if made, will hardly ever have to be put into operation.

All qualified men practising in any district would have the right to belong to the society, and to be paid from the fund provided they agreed to the minimum scale of fees, and the rules of the society. (This would not prevent a man charging higher fees, but he would, of course, only get the "scale" fees from the fund; the balance he would have to get from his patient.)

Any new man coming into a district would be admitted on the same terms—that is, the new man settling in a district would be put on the same footing with regard to insured persons as he would be with regard to private patients, and I do not think any of us can object to that.

Now! I have set down no rules or regulations because I think for the sake of local harmonious working each medical society should draw up its own rules to suit the locality, and local conditions, though perhaps the British Medical Association could draw up some model rules on which the local rules could be framed.

The rules for the administration of the fund should be easy to form; I think the most important would be one for referring large accounts to the local medical society before payment.

The rules for the collection of the contributions, I submit, is not the concern of the medical men; that responsibility should be borne by the subscribers.

Summary.—The scheme, then, in brief is:

1. The people, desirous of paying their doctors fairly, form through their societies.

2. The local medical fund, from which the members

3. Of the local medical society who have agreed to work on certain terms can be paid.

Finally, I suggest that this apparently local scheme can be made national by a system of affiliation of local societies. I believe that by starting locally and affiliating we can gradually evolve a national service: but at the moment, with available data, it is impossible to form a national service which will suit all localities.

If you can spare me any further space I should like to make some notes on Dr. Courtenay Lord's letter of June 22nd. First, I would like to draw his attention to my letter of March 2nd, in which I advocate the course he has lately taken. Secondly, I would suggest that his society should guard, as far as possible, against the "breaking of the bank" by estimating beforehand, as we have done in Epsom, the amount of capitation fee necessary to form the fund.

As to Dr. Muspratt's letter of June 15th, I agree that N.D.F.S. system, whereby a subscriber pays part of his bill, tends to limit calls on the doctor; but it has these disadvantages—sometimes the patient delays sending, and it then takes longer to get him well, and when his deposit is exhausted he has to pay for himself. It seems to me much better for the friendly society by a higher charge to take the whole risk. I think Dr. Muspratt will find the Epsom scheme endeavours to carry this out, and also that it meets his objections to the British Medical Association Scheme B.

The Epsom scheme has met with so little criticism since it was first proposed that it may have many faults, but it is put forward as an honest endeavour to see a way through some of our difficulties.

Dr. H. G. LEDWARD (Letchworth, Hertfordshire) writes: From the point of view of the State it is no doubt desirable that every insured person should be able to demand the services of a doctor whenever he thinks he requires them without any check whatever. This is a luxury, and must of necessity be expensive to the State unless the work is to be done at the expense of the doctor, as the Chancellor originally proposed.

Now, if the State is unable to meet our most reasonable demands for remuneration for such a service it is obvious some check must be adopted to limit the amount of attendance required, and to prevent the more trivial ailments occupying the doctor's time whilst ensuring speedy and satisfactory attendance upon cases of more serious illness or accident.

As pointed out by Dr. P. K. Muspratt and by Dr. W. Gosse in the SUPPLEMENT of June 15th, the only efficient check is to give the insured a direct interest in the fund which pays the doctors on a system of payment for work done. If we are asked to accept the insurance risk we must be guaranteed adequate remuneration by the Government; failing this a system of payment for work done, in which we are under no sort of contract, is the only one we can honourably accept.

These principles underlie the most excellent scheme proposed by Dr. Daniel of Epsom (SUPPLEMENT, March 2nd), and I see no reason why such a scheme should not be of universal application, and indeed be accepted by the State Sickness Insurance Committee as the official Public Medical Service scheme of the Association. The fundamental objections to the schemes as at present submitted to the Divisions have been ably dealt with by Dr. Daniel himself, Dr. Muspratt, Dr. Keay, and Dr. Gosse in the SUPPLEMENT of June 15th, and by Dr. Nicholls and Dr. Batteson in that of June 22nd.

Put briefly, these objections are that both schemes necessitate a contribution too high for general acceptance on a voluntary basis, whilst Scheme B has the added objection, from our point of view, that it combines the annoyance of working under a contract with the necessity for elaborate booking.

In Dr. Daniel's original scheme the pooled funds were to be held and administered by local trustees, representative of the profession and the subscribers: but why should the system not be worked on a much larger scale, and the pooled fund administered by the County Insurance Committees? The Act provides, Section 15 (2), that if a panel is not formed or appears unsatisfactory the Commissioners may authorize the Insurance Committee to make such other arrangements as they themselves approve. As Dr. Kennish (SUPPLEMENT, June 15th) and Major Greenwood (June 22nd) point out, the friendly societies will wish, if possible, to provide medical attendance for their members, and indeed are under contract to do so for their old members, and if all our resignations are now sent in they will probably be willing to accept any scheme that promises reasonable economy.

Let us point out to the societies the economy of such a system.

Sickness rates vary in different parts of the country, and it would, therefore, be necessary to supplement the Government 6s. by different sums for different districts. In this county (Hertfordshire) a pool of 10s. a head would be financially sound and able to pay a higher rate than the National Deposit Friendly Society with a more satisfactory list of extras. This I can prove by the figures of a small local club working on these lines. So that if the County Insurance Committee asked any friendly society wishing to come into the scheme for providing medical benefit, to supply in addition 1d. a week a member, the society would probably receive back at the end of the year some 2s. or 3s. a member, which would be sufficient to ensure that the societies would prevent abuse of the fund on the part of their members.

In a scheme over a larger area, to give the societies themselves a direct interest in the pooled fund would, I believe, prove a better check than to return the surplus to each individual member. Different societies have different sickness rates, and if their accounts were kept separate they would come to vie with each other for economy of working, and so ensure a better bonus to their general funds. The doctor would receive less per member than under a capitation fee of 8s. 6d. without drugs and *plus* extras: but, as Dr. Daniel has pointed out, he would do less work per member, which would mean that he would be better off in the end.

Is it likely that if the Government fail to grant our minimum capitation fee that the societies will themselves agree to do so? In less healthy districts, such as South Lancashire, where the workman is accustomed to pay his doctor more, the societies could no doubt be induced to

augment the Government 6s. by a larger sum per member, and so make the scheme applicable everywhere.

The Supplementary Pledge.

Dr. Hector M. Robertson (Roundhay, Leeds) writes: The letter from Dr. Ryle in the Journal of June 22nd, p. 1459, will cause many of us to wonder in what direction we are drifting, or, rather, being driven. The Association can ill spare a man of his high character, his high ideals of professional and national responsibility.

We have been hearing much of the tyranny of trade unions, their intimidation of others, and the lack of consideration of both men and leaders to the welfare of the nation. Are not we as a union going as far, if not further, and in the passion of controversy forgetting the larger and bigger issues of life?

I begin to wonder how long I, among others, will be able consistently and ethically to remain in the Association. For example, in the "complementary pledge," how can we explain to ourselves and the public the consistency of resigning all appointments relating to insured persons, and retaining juvenile and other clubs at often ½d. per week?

We are pledged to deny social recognition and professional assistance to any one who is willing to attend "national patients" (wrongly, I think) at 6s. per head, and receive as comrades others who, though refusing "Government" patients, run private and other clubs for women and children at 2s. 6d. a head. Considering the ratio of sickness is much greater before 16 years than after, I fail to see upon what code of ethics or morals the "pledge" is framed if it does not apply to all contract work.

Examination of Candidates for Approved Societies.

Dr. J. Ellis Milne (Aberdeen) writes: What is an "approved society," by whom is it "approved," and for what is it "approved"? The term was coined by the framers of the National Insurance Bill, to designate organizations which were to become part of the machinery of that measure, if "approved by the Insurance Commissioners . . . for the purposes of the National Insurance Act" (vide National Insurance Act, Part I. Clause 18 (1)).

Last year we signed an "undertaking" not to work under this Act unless, amongst other points, we obtained free choice of doctor, and cessation of individual bargaining between doctor and society; while the ink is scarcely dry of our signatures of the supplementary pledge issued by the State Sickness Insurance Committee not to work the Act unless our demands are granted. We now find (British Medical Journal, June 22nd, 1912, p. 1448) this very Committee ruling that it is not a violation of the pledge for a practitioner (*a*) to allow his services to be *retained* by an approved society in order to examine, for a fee, candidates for admission to the society; or (*b*) to examine, for a fee, any applicant for admission to an approved society.

It seems to me that this ruling is opposed to the spirit of the original undertaking and the supplementary pledge. The Committee may hold that the undertaking and pledge refer only to "attendance upon" and "treatment of" insured persons, and do not cover examination of candidates for admission to approved societies: but surely that is a mere quibble. An approved society is part and parcel of the machinery of the Act—is an *ad hoc* body organized for working under the Act—and to do *any* medical work in connexion with, or on behalf of, such a society is working under the Act. Moreover, it would seem that rulings (*a*) and (*b*) are directly contrary to the "cardinal points," for they permit bargaining between an individual medical practitioner and a society, and ruling (*a*) would seem to affect free choice of doctor. If a practitioner is by this ruling (*a*) allowed to have his services retained by a society for examination of candidates, it is an individual bargain; and it secures for that practitioner an introduction to candidates who have hitherto been the patients of other medical men, but who may, after their examination and admission to the society, tend to select the examining practitioner from the panel as their attendant under the Act.

In face of such inconsistency, how can we rank and file practitioners—who are sacrificing most and will suffer most in this struggle—go into the fight with hope or confidence, when we see our leaders thus stultifying themselves? It would really seem that the British Medical Association head quarters is a Sleepy Hollow where the lotos eaters become so myopic that they cannot see beyond their own nose!

It is to be hoped that the profession will have none of these rulings of our Committee. Let us have an end absolutely of all individual bargaining, and of all clubs, and let no exception be allowed, for such will surely cause weakening, heart-burning, and dissension in our ranks. Let us refuse to have anything to do with the examination of probationary State members for approved societies, as the City of Aberdeen Division has done, for such examinations assuredly amount to medical work in connexion with the Insurance Act.

The Position of Assistants.

Mr. Stephen Nockolds, M.B. (Earls Colne, Essex), writes: In all the correspondence which has taken place concerning the Insurance Act there has not been, so far as I am aware, any mention of the effect that interesting piece of legislation will have upon the position of assistants, nor has there been any reference to the tenure of assistantships as affected by the pledge of the British Medical Association.

With regard to the first item—the position of assistants under the Insurance Act—I referred the question to the Medical Defence Union; counsel's opinion was taken, and, by the courtesy of the Union, I am enabled to give the gist of that opinion:

(i) That the duties under the Act being statutory, no principal can delegate them to an assistant.

(ii) In the event of an assistant, with his principal's consent, going upon the "panel," and patients, in the exercise of their free choice of medical attendant, choosing the assistant in preference to the principal, the assistant is recognized by the Insurance Commissioners, and not the principal, and the assistant is the one to whom the remuneration will be paid.

To my mind, opinion (i) gives a death-blow to the employment of assistants, and even if not, opinion (ii) appears to be a violation of the letter, if not of the spirit, of the bond between principal and assistant, which provides that an assistant shall not exercise his profession except for and on behalf of his principal.

As regards the second item—the tenure of assistantships as affected by the pledge of the British Medical Association—as I understand it, the pledge is an undertaking not to engage in contract work of any description, except upon terms approved by the British Medical Association, such terms, presumably, to be submitted in order to be approved or disapproved.

Now, an assistantship is essentially contract work, in which a man undertakes to do an unlimited amount of work for a definite and often limited salary. In fact, he violates, more or less, three of the cardinal points, in that although engaged in contract work he attends persons irrespective of their income, he does not receive an adequate capitation fee, nor, alternatively, is he paid for work done, nor does he receive any extras, such as mileage, anaesthetic fees, midwifery fees, etc.

Does the British Medical Association propose to put a ban upon assistantships? If not, why not? since it has placed a ban upon exactly similar conditions of service when that service is termed a "works dispensary" or a "colliery appointment," even though in the matter of salary the balance is in favour of the dispensary or colliery appointment.

I do not think that I am unduly lacking in intelligence, but I must confess that I fail to see why the British Medical Association should disapprove of an appointment as medical officer to a dispensary managed by a committee, and yet approve of exactly the same kind of service provided the employer is a medical man, as in the case of an assistantship.

I wrote to the Medical Secretary on June 10th, asking him, amongst other matters, to be good enough to explain the vital difference which makes a post as medical officer to a dispensary an affair to be shunned, whilst an assistantship is quite *comme il faut*. Up to the present, though twelve days have elapsed, he has not yet had the courtesy to reply.

In conclusion, may I hope that you will be good enough to furnish some explanation of the above points I have raised in the shape of a footnote to this letter?

*** The Medical Secretary regrets that he has not been able to reply to all the letters of inquiry recently

received from individual members. The frequent meetings of the State Sickness Insurance Committee and its subcommittees alone occupy much time, and the correspondence recently has been overwhelming. The questions of interpretation arising under the Insurance Act and the policy of the Association in relation to it are very numerous; the Committee, as may be seen from the reports published, has dealt with many of them, but has not made any definite pronouncement on the question raised by our correspondent, though the question of the employment of assistants by medical men, who, if the minimum terms of the profession are conceded, may consent to their names being placed on the panel, has not been overlooked. It has been discussed also at the meetings of the Advisory Committee which is appointed "for the purpose of giving the Insurance Commissioners advice and assistance in connexion with the making and altering of regulations." It seems therefore safe to assume that it will be dealt with in the Regulations which the Commissioners, it will be remembered, have undertaken to submit, in draft, to the criticism of the profession. Meanwhile, has not our correspondent, to some extent at least, himself answered the dilemma he presents? Taking the version of counsel's opinion given above as adequately representing the text, the essential qualification is contained in the words "with his principal's consent." The Insurance Act does not touch the common law right of the principal to make a bargain with his assistant. The right to the free choice of doctor would give the insured person ample protection against any undue employment of assistants.

THE FLAT RATE.

DR. J. R. HAMILTON (Hawick) sends us the following letter, which he has received from a member of the Roxburghshire Provisional Insurance Committee:

Kilmeny, Hawick, June 19th, 1912.

My dear Dr. Hamilton,

In all this argument that is going forward as to what is adequate remuneration for the doctor under the National Insurance Act, why is it always assumed that the question must be solved on the flat rate principle? The expectation of sickness at various ages varies enormously, as is shown by the tables prepared for the guidance of Parliament in this matter of the Insurance Act by the Government actuaries, Messrs. Hardy and Wyatt. According to these tables, the normal sickness experience of a boy of 16 is six and a half days per annum, while that of a man of 69 is thirteen weeks. I can see many reasons why the Government should adopt a flat rate premium in a scheme of National Insurance, but none why the medical profession should accept a flat rate as a basis of payment of their services. Why not adopt the Government tables, and make a charge for each day of sickness expectation of the patient attended? Young lives would be accepted at a low rate, and old ones at a high rate, and the doctor would have a fair chance of getting a suitable return for the work expected of him.

Yours truly,

GEO. H. WILSON.

Member of Roxburghshire Insurance Committee.

SANATORIUM BENEFITS.

DR. FRED. E. WYNNE (M.O.H., Wigan) writes: The fact that the administration of sanatorium benefit was definitely excluded from the Association's pledge justified members in believing that these clauses in the Act were officially regarded as uncontroversial. Under these circumstances many loyal members of the Association have done much work in preparing schemes for the provision of sanatorium and other forms of treatment and means of prevention of tuberculosis. Many of us are already to a considerable extent committed to the administration of such schemes. That the Association should recognize a distinction between these clauses of the Act and those dealing with the provision of medical benefit was natural and reasonable enough. For these clauses, unlike the others, involve no interference with existing forms of practice or with any professional vested interest. On the other hand, they do represent a sincere attempt to provide the machinery for the prevention of tuberculosis which the profession itself has long been urging as a national necessity.

The recent decision of the State Sickness Insurance Committee, which makes Minute 78 of the February Meeting applicable to the provision of sanatorium benefit, comes therefore as a painful surprise. It is a change of policy so grave that I am convinced it should not be adopted without a definite vote of the Representative Body on this issue alone. The fact that if adopted it may result in driving a number of medical officials out of the Association is perhaps a detail. What matters is that for the first time in our opposition to this Act we are ceasing to safeguard the public interest, as well as our own, and we may be very sure that our eventual success will depend upon our demonstrating that the public interests are identical with our own. Can we do this if we deliberately enlist the tubercle bacillus as an ally in our campaign? The present proposal appears to me to be nothing less than this, and will inevitably alienate the large amount of public sympathy which we have hitherto gained.

*** We would call our correspondent's attention to that part of the report of the meeting of the State Sickness Insurance Committee of this week, page 1504, dealing with sanatorium benefit. As our correspondent recognizes, the appeal is to the Representative Body, and the Committee feels that it was bound by Minute 78 of the Special Representative Meeting, which defines the policy of the Association. That policy can only be altered by the Representative Body.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN ninety-five of the largest English towns 8,436 births and 3,908 deaths were registered during the week ending Saturday, June 22nd. The annual rate of mortality in these towns, which had been 12.6, 12.4, and 11.9 per 1,000 in the three preceding weeks, further fell to 11.6 per 1,000 in the week under notice. In London last week the death-rate was equal to 10.6 per 1,000, against 11.6, 11.1, and 11.7 in the three previous weeks. Among the ninety-four other large towns the death-rates last week ranged from 4.7 in Edmonton, 5.0 in Ilford, 5.1 in Bournemouth, 5.6 in Devonport, 5.7 in Walthamstow, and 6.2 in Southend-on-Sea to 15.1 in Barnsley, 15.7 in Great Yarmouth, 16.4 in Salford and in Merthyr Tydfil, 17.3 in Gateshead, 19.1 in Wakefield, and 19.2 in Liverpool. Measles caused a death-rate of 1.9 in Liverpool, 2.0 in Aberdare, 2.8 in Ipswich, 3.1 in Cardiff, 3.2 in Merthyr Tydfil, 4.0 in Gateshead, and 9.8 in Rotherham; and whooping-cough of 1.4 in Plymouth and in Grimsby, 1.5 in West Bromwich, 2.1 in Ipswich, and 2.7 in Darlington. The mortality from the remaining infectious diseases showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 37, or 0.9 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest, and included 9 in Birmingham, 3 each in Liverpool, South Shields, and Gateshead, 2 in Sheffield, and 2 in Middlesbrough. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,245, 1,291, and 1,329 at the end of the three preceding weeks, had further increased to 1,358 on Saturday last; 188 new cases were admitted during the week, against 155, 185, and 179 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

IN eighteen of the largest Scottish towns 1,059 births and 605 deaths were registered during the week ending Saturday, June 22nd. The annual rate of mortality in these towns, which had been 15.5 and 14.8 per 1,000 in the two preceding weeks, further fell to 14.5 in the week under notice, but was 2.9 per 1,000 above the rate recorded in the ninety-five large English towns. Among the several Scottish towns the death-rates last week ranged from 5.2 in Govan, 6.5 in Clydebank, and 7.5 in Motherwell to 18.0 in Kilmarnock, 18.7 in Ayr, and 26.5 in Dundee. The mortality from the principal infectious diseases averaged 1.8 per 1,000, and was highest in Dundee and Coatbridge. The 214 deaths from all causes recorded in Glasgow included 3 from measles, 2 from whooping-cough, and 8 from infantile diarrhœa and enteritis. Fifteen deaths from measles were recorded in Dundee, 4 in Coatbridge, and 3 in Paisley; 2 deaths from scarlet fever in Edinburgh and 2 in Greenock; 2 deaths from diphtheria in Dundee; and 4 deaths from whooping-cough in Aberdeen, 3 in Edinburgh, 3 in Paisley, and 3 in Kilmarnock.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, June 15th, 545 births and 382 deaths were registered in the twenty-two principal urban districts of Ireland, as against 703 births and 417 deaths in the preceding period. The annual death-rate in these districts, which had been 16.9, 17.9, and 13.8 per 1,000 in the three preceding weeks, fell to 17.2 per 1,000 in the week under notice, this figure being 5.3 per 1,000 higher than the mean average death-rate in the ninety-five English towns for the corresponding period. The figures in Dublin and Belfast were 22.7 and 14.4 respectively, those in other districts ranging from 4.2 in Drogheda and 5.3 in Tralee to 27.5 in Galway and 28.0 in Sligo, while Cork stood at 13.6, Londonderry at 14.0, Limerick at 12.2, and Waterford at 19.0. The zymotic death-rate in the twenty-two districts averaged 1.7 per 1,000, as against 1.4 in the preceding period.

During the week ending Saturday, June 22nd, 572 births and 348 deaths were registered in the twenty-two principal urban districts of Ireland, as against 545 births and 382 deaths in the preceding week. The annual death-rate in these districts, which had been 17.9, 18.8, and 17.2 per 1,000 in the three preceding weeks, fell to 15.7 per 1,000 in the week under notice, this figure being 4.1 per 1,000 higher than the mean average death-rate in the ninety-five English towns for the corresponding period. The figures in Dublin and Belfast were 15.3 and 16.7 respectively, those in other districts ranging from 5.4 in Limerick and 8.9 in Londonderry to 34.3 in Newtownards and 34.9 in Newry, while Cork stood at 16.3 and Waterford at 15.2. The zymotic death-rate in the twenty-two districts averaged 1.5 per 1,000, as against 1.7 in the preceding period.

Naval and Military Appointments.

ROYAL NAVAL MEDICAL SERVICE.

In accordance with the provisions of Order in Council of April 1st, 1881, Fleet Surgeon EDWARD BUTLER PICKTHORN was on June 17th, 1912, placed on the retired list at his own request.

ARMY MEDICAL SERVICE.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT ROBERT W. VINT, M.B., from the seconded list, is restored to the Establishment, dated June 1st, 1912.

The following Captains to be Majors, dated June 21st, 1912: CHARLES R. L. RONOYNE, M.B., GEORGE BAILLIE, M.B., LLEWELLYN L. G. THORPE, WILLIAM S. CROSTHWAIT, RICHARD T. ELLERY, and ROBERT L. POPHAM.

SPECIAL RESERVE OF OFFICERS.

ROYAL ARMY MEDICAL CORPS.

CAPTAIN HERBERT DALBY to be Major, dated April 11th, 1912.

ROBERT CECIL DICKSON, M.B., late Cadet, University of Edinburgh Contingent, Officers' Training Corps, to be Lieutenant (on probation), dated May 6th, 1912.

No. 18 Field Ambulance.—Major FRED. D. WOOLLEY to be Lieutenant-Colonel, dated April 1st, 1912.

The date of seconding of Lieutenant MORTON W. RUTHVEN is January 6th, 1912, and not as notified in the *Gazette* of April 2nd, 1912.

Cadet DAVID GILMOUR, from the Edinburgh University Contingent, Officers' Training Corps, to be Lieutenant (on probation), dated May 15th, 1912.

The following to be Lieutenants (on probation): Cadet ROBERT PAIRMAN CORMACK, from the Edinburgh University Contingent, Officers' Training Corps, dated May 15th, 1912; Cadet HAROLD WILLIAM HILLS, from the University of London Contingent, Officers' Training Corps, dated May 16th, 1912.

TERRITORIAL FORCE.

ARMY MEDICAL SERVICE.

COLONEL JOHN RAGLAN THOMAS, M.D., K.H.P., Assistant Director of Medical Services, Wessex Division, on completion of his tenure of appointment, resigns his commission, and is granted permission to retain his rank and to wear the prescribed uniform, dated June 12th, 1912.

ROYAL ARMY MEDICAL CORPS.

First South Midland Mounted Brigade Field Ambulance.—Lieutenant DONALD BUCHANAN is seconded for service under the Colonial Office, dated May 25th, 1912.

Second South Midland Mounted Brigade Field Ambulance.—Major CHARLES J. DEYNS, to be Lieutenant-Colonel, dated April 1st, 1912.

First South-Western Mounted Brigade Field Ambulance.—Captain SAMUEL MACLEAN, M.B., to be Major, dated April 1st, 1912; ARTHUR HAROLD SAVAGE, M.B., to be Lieutenant, dated April 20th, 1912.

First Home Counties Field Ambulance.—Major JOHN M. ROGERS-TILLSTONE to be Lieutenant-Colonel, dated April 1st, 1912.

Third London (City of London) Field Ambulance.—JOHN R. WHAIT, M.B., to be Lieutenant-Colonel, dated April 1st, 1912.

Second South Midland Field Ambulance.—JOHN DALE, M.B., to be Lieutenant, dated May 1st, 1912.

Third Wessex Field Ambulance.—AURELIUS VICTOR MAYBURY, M.B., to be Lieutenant, dated March 1st, 1912.

For Attachment to Units other than Medical Units.—GEORGE FREDERIC MORLEY (late Surgeon-Captain, 3rd Duke of Connaught's Own Volunteer Battalion the Hampshire Regiment), to be Captain, dated April 12th, 1912. GEORGE HENRY HITCHCOCK WAYLEN (late Second Lieutenant, 2nd Volunteer Battalion the Duke of Edinburgh's Wiltshire Regiment), to be Lieutenant, dated April 24th, 1912. HENRY MELLOR FORT, M.B. (late Captain, 10th Battalion, the Manchester Regiment), to be Captain, dated June 12th, 1912.

Attached to Units other than Medical Units.—Lieutenant CHARLES B. BAXTER, M.B., to be Captain, dated December 7th, 1911. Captain ROBERT J. R. C. SIMONS to be Major, dated May 11th, 1912. Lieutenant-Colonel CHARLES BOYCE, M.D., resigns his commission, and is granted permission to retain his rank and to wear the prescribed uniform, dated June 12th, 1912.

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

BANBURY: HORTON INFIRMARY.—House-Surgeon. Salary, £80 per annum.

BANGOR: CARNARVONSHIRE AND ANGLESEY INFIRMARY.—House-Surgeon. Salary, £100 per annum.

BIRKENHEAD: BOROUGH HOSPITAL.—Junior House-Surgeon. Salary, £80 per annum.

BIRMINGHAM: CITY FEVER HOSPITAL.—Assistant Medical Officer. Salary, £120 per annum.

BIRMINGHAM INFIRMARY.—Two Assistant Medical Officers. Salary from £104 to £120 per annum.

BIRMINGHAM UNIVERSITY.—Lecturer in Physiology. Stipend, £200 per annum.

CARDIFF: KING EDWARD VII HOSPITAL.—House-Surgeon (Male). Honorarium, £30 for six months.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL.—House-Physician. Salary, £80 per annum.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Physician to Out-patients. Honorarium 40 guineas per annum.

CROYDON GENERAL HOSPITAL.—Anaesthetist and Casualty Surgeon. Salary, £75 per annum.

DERBY: CHILDREN'S HOSPITAL.—Resident Medical Officer (Female). Salary, £60 per annum.

DERBYSHIRE ROYAL INFIRMARY.—Assistant House-Surgeon. Salary at the rate of £60 per annum.

DORCHESTER: COUNTY ASYLUM.—Junior Assistant Medical Officer. Salary, £160 per annum.

DURHAM COUNTY HOSPITAL.—House Surgeon. Salary, £120 per annum.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Second Medical Officer (Male) to the Casualty Department. Salary at the rate of £40 per annum.

EDINBURGH PARISH COUNCIL.—Medical Officer for the Craiglockhart Poorhouse and Hospital. Salary, £110 per annum.

EDINBURGH: ROYAL ASYLUM, Morningside.—Assistant Physician. Salary, £150 per annum.

EDINBURGH: ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN.—Four Resident Medical Officers.

ELDWICK SANATORIUM, Bingley, Yorks.—Resident Medical Officer (Woman). Salary, £100 per annum.

ENNISKILLEN: FERMANAGH COUNTY HOSPITAL.—House-Surgeon (Male). Salary, £72 per annum.

ESSEX AND COLCHESTER ASYLUM, Brentwood.—Assistant Medical Officer. Salary, £160 per annum, increasing to £200.

EXETER: ROYAL DEVON AND EXETER HOSPITAL.—Assistant House-Surgeon. Salary at the rate of £80 per annum.

FARRINGDON GENERAL DISPENSARY AND LYING-IN CHARITY, Bartlett's Buildings, E.C.—Resident Medical Officer. Salary, £100 per annum.

GREAT YARMOUTH HOSPITAL.—House-Surgeon (Male). Salary, £100 per annum.

GRIMSBY AND DISTRICT HOSPITAL.—Junior House-Surgeon. Salary, £80 per annum.

HARTLEPOOLS HOSPITAL.—House-Surgeon. Salary, £100 per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—(1) House-Surgeon. (2) House-Physician. Salary in each case, £50 for six months, and £2 10s. washing allowance.

HUDDERSFIELD ROYAL INFIRMARY.—Assistant House-Surgeon (Male). Salary, £80 per annum.

HULL: ROYAL INFIRMARY.—Assistant House-Surgeon. Salary at the rate of £60 per annum for six months' appointment, or £80 per annum for twelve months.

HULL: VICTORIA HOSPITAL FOR CHILDREN.—House-Surgeon. Salary, £50 per annum.

ISLE OF MAN LUNATIC ASYLUM.—Assistant Medical Officer. Salary, £175 per annum, rising to £200.

LANCASHIRE EDUCATION COMMITTEE.—Two School Medical Inspectors. Salary in each case, £250 per annum, increasing to £100.

LEAMINGTON SPA: WARNEFORD GENERAL HOSPITAL.—House-Physician. Salary, £85 per annum.

LEEDS GENERAL INFIRMARY.—Resident Casualty Officer. Salary, £125 per annum.

LEEDS UNION.—Male Assistant Medical Officer. Salary, £140 per annum.

LEYTON, WALTHAMSTOW, AND WANSTEAD CHILDREN'S AND GENERAL HOSPITAL.—Resident House-Surgeon. Salary, £100 per annum.

LINCOLN: LINCOLN MENTAL HOSPITAL.—Assistant Medical Officer. Salary, £150 per annum.

LONDON SKIN HOSPITAL, Fitzroy Square, W.—Honorary Assistant Physician (or Assistant Surgeon).

MACCLESFIELD GENERAL INFIRMARY.—(1) Senior House-Surgeon. (2) Junior House-Surgeon. Salary, £100 and £80 per annum respectively.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT AND CHEST.—Assistant Medical Officer and Pathologist. Salary, £60 per annum.

MANCHESTER: ST. MARY'S HOSPITALS FOR WOMEN AND CHILDREN.—Resident Surgical Officer. Salary, £80 per annum.

MELBOURNE UNIVERSITY.—Chair of Veterinary Pathology and Directorship of the Veterinary Institute. Salary, £900 per annum, together with life insurance premium of £100.

MIDDLESEX HOSPITAL, W.—Second Assistant to the Director of the Clinical and Bacteriological Laboratories. Salary commencing at £100 per annum.

NOTTINGHAM GENERAL DISPENSARY (Branch).—Assistant Resident Surgeon (Male). Salary, £160 per annum.

OXFORD: RADCLIFFE INFIRMARY.—Casualty House-Surgeon. Salary at the rate of £80 per annum.

ROYAL DENTAL HOSPITAL OF LONDON, Leicester Square, W.C.—Anaesthetist. Honorarium £100 per annum.

ROYAL EAR HOSPITAL, Soho.—House-Surgeon (non-resident). Honorarium, £40 per annum.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Junior Obstetric Assistant (female).

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W.—Resident House-Surgeon. Salary, £80 per annum.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Senior House-Surgeon. Salary, £100 per annum.

SEAMEN'S HOSPITAL SOCIETY.—Assistant Surgeon at the Dreadnought Hospital, Greenwich.

SHEFFIELD: JESSOP HOSPITAL FOR WOMEN.—Assistant House-Surgeon. Salary, £40 per annum.

SHEFFIELD ROYAL HOSPITAL.—Sixth Resident. Salary, £60 per annum.

SOUTHAMPTON FREE EYE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

SOUTHPORT INFIRMARY.—Resident Junior House and Visiting Surgeon (Male). Salary commencing at the rate of £70 per annum.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—House-Physician. Salary, £100 per annum.

VICTORIA HOSPITAL FOR CHILDREN, Tite Street, S.W.—House-Physician; appointment for six months. Salary, £40.

WANDSWORTH UNION INFIRMARY, St. John's Hill, S.W.—Junior Assistant Medical Officer (Male). Salary, £120 per annum.

WEST HAM COUNTY BOROUGH.—School Medical Inspector. Salary, £250 per annum, rising to £400.

WHITEHAVEN AND WEST CUMBERLAND INFIRMARY.—Resident House-Surgeon. Salary, £120 per annum.

WINCHESTER: ROYAL HAMPSHIRE COUNTY HOSPITAL.—House-Physician (Male). Salary, £80 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacant appointments: Adare (co. Limerick), Snodland (Kent).

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

APPOINTMENTS.

BERRIDGE, W. R. M., M.R.C.S., L.R.C.P., District Medical Officer of the Blaby Union.

BUCHAN, George F., M.D., D.P.H., Medical Officer of Health and School Medical Officer, Willesden.

COWAN, G., M.D.Camb., District Medical Officer of the Thetford Union.

DRAWBRIDGE, W. R. L., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Ellesmere Union.

FERGUSON, R. S., M.B., C.M.Edin., Certifying Factory Surgeon for the Calne District, co. Wilts.

GRAHAM, T., M.B., Ch.B.Edin., District Medical Officer of the Blaby Union.

HAVER, M., M.B., B.S.Durh., District Medical Officer of the Grantham Out-Relief Union.

HUTH, S., M.R.C.S., L.R.C.P., Assistant Medical Officer of the Fulham Parish Infirmary.

JOHNSTON, R. S., L.R.C.P. and S.I., District Medical Officer of the Orsett Union.

JONES, E. W., M.D.Lond., District Medical Officer of the Walsall Union.

WILSON, G. P., M.R.C.S., L.R.C.P., District Medical Officer of the Penrith Union.

YOUNG, J., M.D., Certifying Factory Surgeon for the Lasswade District, co. Edinburgh.

BIRTHS, MARRIAGES, AND DEATHS

The charge for inserting announcements of Births, Marriages, and Deaths is 2s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

DEATHS.

MARSHALL.—On June 18th, at Hereford House, Kent Road, Southsea, very suddenly, Mildred, the dearly loved wife of Fleet Surgeon W. E. Marshall, R.N., H.M.S. *Duke of Edinburgh*, aged 35.

PARAMORE.—On Saturday, June 22nd, at his residence, 2, Gordon Square, W.C., suddenly, Richard Paramore, M.D., in his 64th year.

DIARY FOR THE WEEK.

MONDAY.

ROYAL SOCIETY OF MEDICINE.—Annual Meeting of Fellows, 5 p.m.: (1) To receive the Report of the Council. (2) Election of Officers and Council for the Session 1912-13.

THURSDAY.

ROYAL SOCIETY OF MEDICINE:

OBSTETRICAL AND GYNAECOLOGICAL SECTION, 8 p.m.—Short Communications:—Dr. Blair Bell: (1) The Pathology of Uterine Casts passed during Menstruation. (2) Sequel of Case of Bilateral Carcinomatous Sarcoma of the Ovary. Dr. Tenison Collins: (1) Double Ruptured Ectopic Gestation. (2) Cavernous Angioma of Uterus. 9 p.m.: Review of the Work of the Session by the President, and Vote of Thanks to the Retiring Officers.

POST-GRADUATE COURSES AND LECTURES.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Wednesday, 4 p.m.: Demonstration of Cases.

LONDON HOSPITAL MEDICAL COLLEGE, E.—Monday, 4.15 p.m.: Diagnostic Value of Sensory Changes in Diseases of the Nervous System.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstrations, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat, at noon and 4.30 p.m., Monday, and noon, Thursday; Skin at noon and 4 p.m., Tuesday, and noon, Friday. Eye, 11 a.m., Wednesday and Saturday. Radiography, Thursday, 4.30 p.m. Pathological Demonstration, Friday, 11 a.m.

LONDON SCHOOL OF TROPICAL MEDICINE, Royal Albert Dock, E.—Lectures daily (Saturday excepted), at 12 noon and 4 p.m. Practical Laboratory Work daily (Saturday excepted), 10 a.m. to 12 noon. Practical Helminthology, 2 p.m. to 3.30 p.m. daily; Advanced Helminthology, 10.30 a.m. to 1 p.m. daily. Medical Clinics, Monday and Thursday, at 3 p.m. Operations, Friday, at 3 p.m.

MANCHESTER: ANCOATS HOSPITAL POST-GRADUATE CLINIC.—Thursday, 4.15 p.m.: Some Forms of Cerebral Haemorrhage.

MANCHESTER ROYAL INFIRMARY.—Tuesday, 4.30 p.m.: Cases of Gynaecological Interest. Friday, 4.30 p.m.: Surgical Cases.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week, at 4 p.m. each day: Monday, Skin. Tuesday, Medical. Wednesday, Surgical. Thursday, Medical. Friday, Eye. Lectures at 5.15 p.m. each day will be given as follows: Monday, Labyrinthine Nystagmus: A Simplified Statement of the Main Facts. Tuesday, The Use of Pessaries. Wednesday, Treatment of Pleural Effusion. Thursday, Abscess of Brain.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m.: Cerebellar Disease. Friday, 3.30 p.m.: Clinical Cases.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics, X Rays, and Operations, 2 p.m. daily. Monday: Gynaecology, 10 a.m.; Pathology, 12 noon; Eye, 2 p.m. Tuesday: Gynaecological Operations, 10 a.m.; Demonstration of Minor Operations, 11 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday: Gynaecological Demonstration, 10 a.m.; Lecture, Practical Medicine, 12.15 p.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday: Gynaecological Operations, 10 a.m.; Clinical Pathology, 12.15 p.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m. Special Lectures at 5 p.m. daily.

DIARY OF THE ASSOCIATION.

Date.	Meetings to be Held.
	JUNE.
29 Sat.	Oxford Division, Oxford, Annual Meeting, 2.30 p.m.; Luncheon, 1.30 p.m.
	Worcestershire and Herefordshire Branch, Hereford, Annual Meeting.
	JULY.
3 Wed.	Central Council, London, 2 p.m.
	Dorset and West Hants Branch, Dorchester, Luncheon, 2 p.m.
4 Thur.	Southern Branch, Winchester, Annual Meeting, 12.30 p.m.; Luncheon, 1.45 p.m.
	West Norfolk Dvision, King's Lynn, Annual Meeting, 3.30 p.m.
11 Thur.	Metropolitan Counties Branch, 4 p.m.
13 Sat.	Oxford and Reading and Maidenhead Branch, Reading, Annual Meeting, 4.15 p.m.; Dinner, 6.30 p.m.

Date.	Meetings to be Held.
	JULY (*continued*).
	Annual Meeting, Liverpool.
19 Fri.	Annual Representative Meeting, 10 a.m.
20 Sat.	Annual Representative Meeting, 9.30 a.m.
22 Mon.	Council Meeting, 9.30 a.m.
	Annual Representative Meeting, 10 a.m.
	Secretaries' Conference and Dinner, 7 p.m.
23 Tues.	Annual Representative Meeting, 9.30 a.m.
	Annual General Meeting, 2 p.m., President's Address, 8.30 p.m.
24 Wed.	Council Meeting, 9 a.m.
	Sectional Meetings, 10 a.m. to 1 p.m.
	Address in Medicine, 12.30 p.m.
	Religious Services, 9 a.m. and 3 p.m.
25 Thur.	Sectional Meetings, 10 a.m. to 1 p.m.
	Address in Surgery, 12.30 p.m.
	Section of Surgery, 2.30 p.m.
	Annual Dinner, 7.30 p.m.
26 Fri.	Council Meeting, 9 a.m.
	Sectional Meetings, 10 a.m. to 1 p.m.
27 Sat.	Excursions.

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